



Full wwPDB EM Validation Report ⓘ

Mar 5, 2026 – 10:52 PM UTC

PDB ID : 6VU3 / pdb_00006vu3
EMDB ID : EMD-21386
Title : Cryo-EM structure of Escherichia coli transcription-translation complex A (TTC-A) containing mRNA with a 12 nt long spacer
Authors : Molodtsov, V.; Wang, C.; Su, M.; Ebright, R.
Deposited on : 2020-02-14
Resolution : 3.70 Å(reported)

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

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

A user guide is available at

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

The types of validation reports are described at

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

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

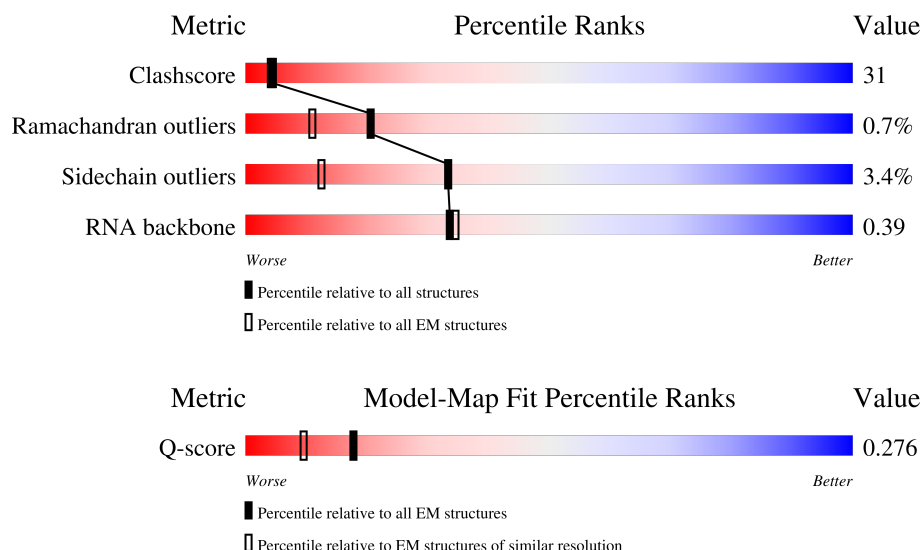
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.70 Å.

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



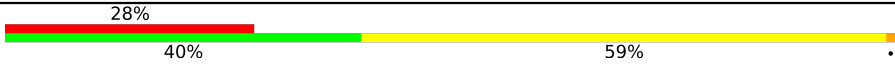
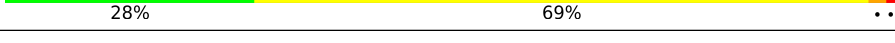
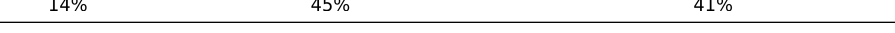
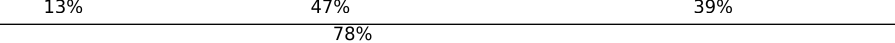
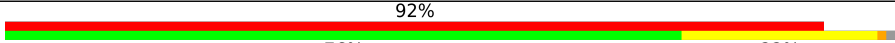
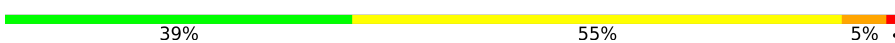
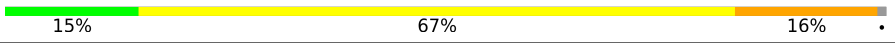
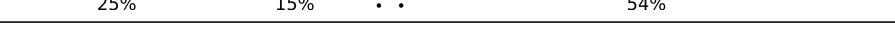
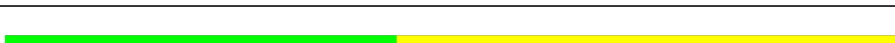
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	11569 (3.20 - 4.20)

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

Mol	Chain	Length	Quality of chain
1	0	103	
2	1	110	
3	2	94	

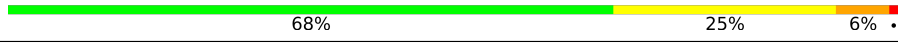
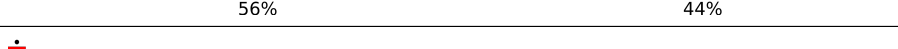
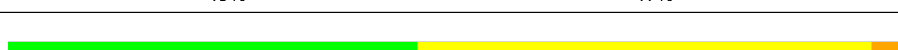
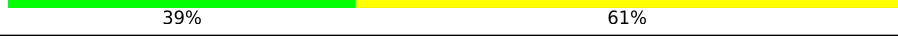
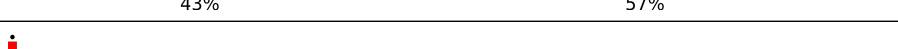
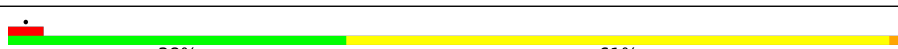
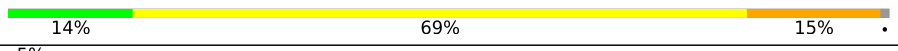
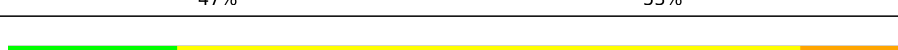
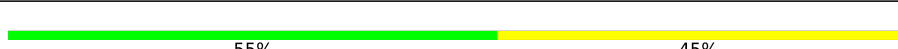
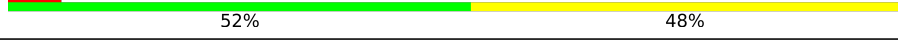
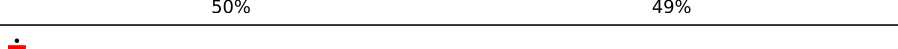
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
4	3	103	
5	4	94	
6	5	36	
7	6	27	
8	7	29	
9	9	148	
10	A	76	
10	B	76	
11	AA	1342	
12	AB	181	
13	AC	230	
13	AD	230	
14	AE	1407	
15	C	66	
16	D	1542	
17	E	86	
18	F	70	
19	G	225	
20	H	557	
21	I	208	
22	J	205	
23	K	156	
24	L	104	
25	M	151	
26	N	129	

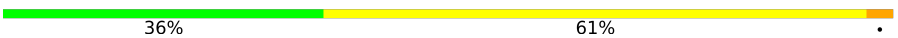
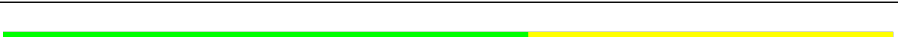
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
27	O	127	
28	P	99	
29	Q	117	
30	R	124	
31	S	100	
32	T	88	
33	U	82	
34	V	80	
35	W	83	
36	X	116	
37	Y	141	
38	Z	30	
39	a	2904	
40	b	76	
41	c	77	
42	d	120	
43	e	62	
44	f	58	
45	g	66	
46	h	271	
47	i	56	
48	j	209	
49	k	52	
50	l	201	
51	m	46	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
52	n	177	 54% 45% ..
53	o	64	 36% 61% .
54	p	175	 50% 49% .
55	q	38	 45% 55%
56	r	149	 55% 45%
57	s	142	 53% 47%
58	t	123	 50% 50%
59	u	144	 62% 38%
60	v	136	 55% 45%
61	w	119	 31% 69%
62	x	116	 59% 41%
63	y	114	 49% 51%
64	z	117	 52% 47% .

2 Entry composition

There are 66 unique types of molecules in this entry. The entry contains 300609 atoms, of which 124724 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms						AltConf	Trace
1	0	103	Total	C	H	N	O	S	0	0
			1655	516	839	153	145	2		

- Molecule 2 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms						AltConf	Trace
2	1	110	Total	C	H	N	O	S	0	0
			1779	532	922	166	156	3		

- Molecule 3 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms						AltConf	Trace
3	2	94	Total	C	H	N	O	S	0	0
			1557	470	811	140	134	2		

- Molecule 4 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	3	103	Total	C	H	N	O	0	0
			1632	498	844	148	142		

- Molecule 5 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms						AltConf	Trace
5	4	94	Total	C	H	N	O	S	0	0
			1533	479	780	137	134	3		

- Molecule 6 is a DNA chain called NT DNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
6	5	23	Total	C	H	N	O	P	0	0
			732	225	260	87	137	23		

- Molecule 7 is a DNA chain called T DNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
7	6	27	Total	C	H	N	O	P	0	0
			848	259	306	89	167	27		

- Molecule 8 is a RNA chain called mRNA with 12 nt long spacer.

Mol	Chain	Residues	Atoms						AltConf	Trace
8	7	29	Total	C	H	N	O	P	0	0
			709	273	97	94	216	29		

- Molecule 9 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	9	148	Total	C	N	O	S	0	0
			1117	705	196	209	7		

- Molecule 10 is a RNA chain called E-site and A-site tRNA (fMet).

Mol	Chain	Residues	Atoms						AltConf	Trace
10	A	76	Total	C	H	N	O	P	0	0
			2446	723	826	295	527	75		
10	B	76	Total	C	H	N	O	P	0	0
			2433	723	813	295	527	75		

- Molecule 11 is a protein called DNA-directed RNA polymerase subunit beta.

Mol	Chain	Residues	Atoms						AltConf	Trace
11	AA	1322	Total	C	H	N	O	S	0	0
			20851	6539	10426	1817	2026	43		

- Molecule 12 is a protein called Transcription termination/antitermination protein NusG.

Mol	Chain	Residues	Atoms						AltConf	Trace
12	AB	98	Total	C	H	N	O	S	0	0
			1573	505	783	139	140	6		

- Molecule 13 is a protein called DNA-directed RNA polymerase subunit alpha.

Mol	Chain	Residues	Atoms						AltConf	Trace
13	AC	230	Total	C	H	N	O	S	0	0
			3599	1112	1813	317	351	6		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms						AltConf	Trace
13	AD	228	Total	C	H	N	O	S	0	0
			3556	1100	1789	312	349	6		

- Molecule 14 is a protein called DNA-directed RNA polymerase subunit beta'.

Mol	Chain	Residues	Atoms						AltConf	Trace
14	AE	1335	Total	C	H	N	O	S	0	0
			21000	6526	10612	1854	1958	50		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AE	1384	VAL	MET	conflict	UNP A0A4S1NBU2

- Molecule 15 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms						AltConf	Trace
15	C	66	Total	C	H	N	O	S	0	0
			1103	344	559	102	97	1		

- Molecule 16 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
16	D	1524	Total	C	H	N	O	P	0	0
			49126	14585	16423	6003	10591	1524		

- Molecule 17 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms						AltConf	Trace
17	E	86	Total	C	H	N	O	S	0	0
			1388	414	719	138	114	3		

- Molecule 18 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms						AltConf	Trace
18	F	70	Total	C	H	N	O	S	0	0
			1218	366	629	125	97	1		

- Molecule 19 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms						AltConf	Trace
19	G	225	Total	C	H	N	O	S	0	0
			3545	1113	1785	316	323	8		

- Molecule 20 is a protein called 30S ribosomal protein S1.

Mol	Chain	Residues	Atoms						AltConf	Trace
20	H	259	Total	C	H	N	O	S	0	0
			3184	1073	1454	305	349	3		

- Molecule 21 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms						AltConf	Trace
21	I	208	Total	C	H	N	O	S	0	0
			3346	1036	1710	307	290	3		

- Molecule 22 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms						AltConf	Trace
22	J	205	Total	C	H	N	O	S	0	0
			3350	1026	1707	315	298	4		

- Molecule 23 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms						AltConf	Trace
23	K	156	Total	C	H	N	O	S	0	0
			2348	717	1196	217	212	6		

- Molecule 24 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms						AltConf	Trace
24	L	104	Total	C	H	N	O	S	0	0
			1694	536	846	153	152	7		

- Molecule 25 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms						AltConf	Trace
25	M	151	Total	C	H	N	O	S	0	0
			2416	735	1235	227	215	4		

- Molecule 26 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms						AltConf	Trace
26	N	129	Total	C	H	N	O	S	0	0
			2010	616	1031	173	184	6		

- Molecule 27 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms						AltConf	Trace
27	O	127	Total	C	H	N	O	S	0	0
			2092	634	1070	206	179	3		

- Molecule 28 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms						AltConf	Trace
28	P	99	Total	C	H	N	O	S	0	0
			1621	495	831	151	143	1		

- Molecule 29 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms						AltConf	Trace
29	Q	117	Total	C	H	N	O	S	0	0
			1764	540	887	174	160	3		

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

Mol	Chain	Residues	Atoms						AltConf	Trace
30	R	121	Total	C	H	N	O	S	0	0
			1940	580	1001	194	161	4		

- Molecule 31 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms						AltConf	Trace
31	S	100	Total	C	H	N	O	S	0	0
			1649	499	844	164	139	3		

- Molecule 32 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms						AltConf	Trace
32	T	88	Total	C	H	N	O	S	0	0
			1448	439	734	144	130	1		

- Molecule 33 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms						AltConf	Trace
33	U	82	Total	C	H	N	O	S	0	0
			1315	406	666	128	114	1		

- Molecule 34 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms						AltConf	Trace
34	V	80	Total	C	H	N	O	S	0	0
			1339	411	691	121	113	3		

- Molecule 35 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms						AltConf	Trace
35	W	83	Total	C	H	N	O	S	0	0
			1351	424	688	126	111	2		

- Molecule 36 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms						AltConf	Trace
36	X	116	Total	C	H	N	O	S	0	0
			1864	558	964	181	158	3		

- Molecule 37 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	Y	141	Total	C	N	O	S	0	0
			1032	651	179	196	6		

- Molecule 38 is a protein called 50S ribosomal protein L7/L12.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Z	30	Total	C	N	O	S	0	0
			227	144	33	47	3		

- Molecule 39 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
39	a	2880	Total	C	H	N	O	P	0	0
			92918	27587	31077	11398	19976	2880		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
a	887	A	U	conflict	GB 937521852

- Molecule 40 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms						AltConf	Trace
40	b	76	Total	C	H	N	O	S	0	0
			1181	360	599	117	104	1		

- Molecule 41 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms						AltConf	Trace
41	c	77	Total	C	H	N	O	S	0	0
			1277	388	652	129	106	2		

- Molecule 42 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
42	d	120	Total	C	H	N	O	P	0	0
			3870	1144	1301	468	837	120		

- Molecule 43 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms						AltConf	Trace
43	e	62	Total	C	H	N	O	S	0	0
			1032	308	531	98	94	1		

- Molecule 44 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms						AltConf	Trace
44	f	58	Total	C	H	N	O	S	0	0
			936	281	488	87	78	2		

- Molecule 45 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms						AltConf	Trace
45	g	66	Total	C	H	N	O	S	0	0
			1042	323	520	99	94	6		

- Molecule 46 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms						AltConf	Trace
46	h	271	Total	C	H	N	O	S	0	0
			4236	1288	2154	423	364	7		

- Molecule 47 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms						AltConf	Trace
47	i	56	Total	C	H	N	O	S	0	0
			903	269	459	94	80	1		

- Molecule 48 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms						AltConf	Trace
48	j	209	Total	C	H	N	O	S	0	0
			3182	979	1617	288	294	4		

- Molecule 49 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms						AltConf	Trace
49	k	52	Total	C	H	N	O		0	0
			890	275	464	78	73			

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

Mol	Chain	Residues	Atoms						AltConf	Trace
50	l	201	Total	C	H	N	O	S	0	0
			3171	974	1619	283	290	5		

- Molecule 51 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms						AltConf	Trace
51	m	46	Total	C	H	N	O	S	0	0
			795	228	418	90	57	2		

- Molecule 52 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms						AltConf	Trace
52	n	177	Total	C	H	N	O	S	0	0
			2853	899	1443	249	256	6		

- Molecule 53 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms						AltConf	Trace
53	o	64	Total	C	H	N	O	S	0	0
			1076	323	572	105	74	2		

- Molecule 54 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms						AltConf	Trace
54	p	175	Total	C	H	N	O	S	0	0
			2671	826	1358	241	244	2		

- Molecule 55 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms						AltConf	Trace
55	q	38	Total	C	H	N	O	S	0	0
			645	185	343	65	48	4		

- Molecule 56 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms						AltConf	Trace
56	r	149	Total	C	H	N	O	S	0	0
			2259	699	1148	197	214	1		

- Molecule 57 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms						AltConf	Trace
57	s	142	Total	C	H	N	O	S	0	0
			2291	714	1162	212	199	4		

- Molecule 58 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms						AltConf	Trace
58	t	123	Total	C	H	N	O	S	0	0
			1969	593	1023	181	166	6		

- Molecule 59 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms						AltConf	Trace
59	u	144	Total	C	H	N	O	S	0	0
			2182	654	1129	207	190	2		

- Molecule 60 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms						AltConf	Trace
60	v	136	Total	C	H	N	O	S	0	0
			2231	686	1157	205	177	6		

- Molecule 61 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms						AltConf	Trace
61	w	119	Total	C	H	N	O	S	0	0
			1945	588	994	195	163	5		

- Molecule 62 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms						AltConf	Trace
62	x	116	Total	C	H	N	O		0	0
			1815	552	923	178	162			

- Molecule 63 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms						AltConf	Trace
63	y	114	Total	C	H	N	O	S	0	0
			1879	574	962	179	163	1		

- Molecule 64 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms						AltConf	Trace
64	z	117	Total	C	H	N	O		0	0
			1967	604	1020	192	151			

- Molecule 65 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
65	7	1	Total	Mg	0
			1	1	

- Molecule 66 is ZINC ION (CCD ID: ZN) (formula: Zn).

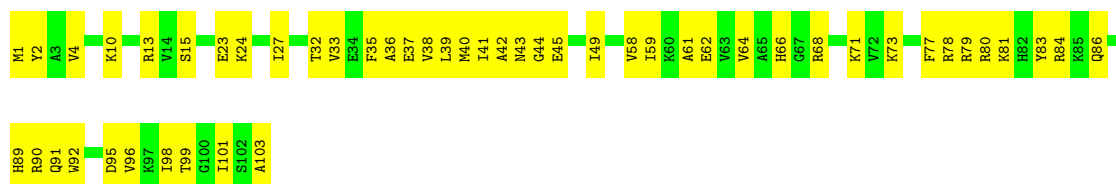
Mol	Chain	Residues	Atoms		AltConf
66	AA	2	Total	Zn	0
			2	2	

3 Residue-property plots

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

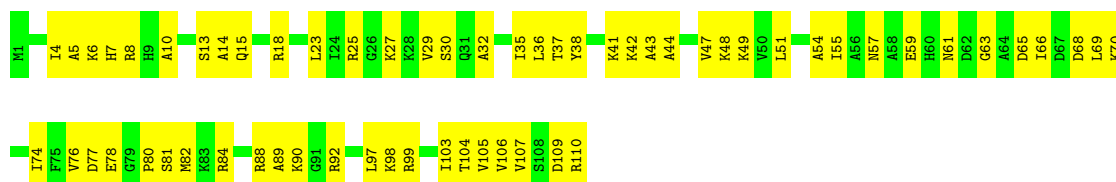
• Molecule 1: 50S ribosomal protein L21

Chain 0: 



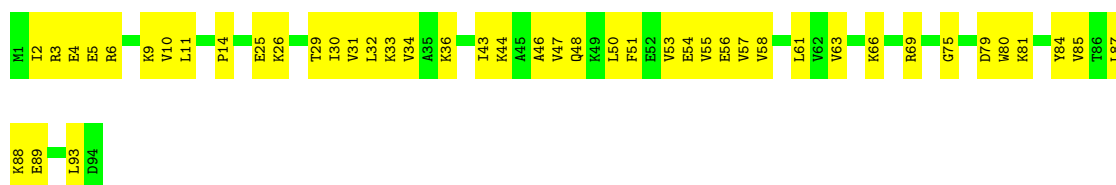
• Molecule 2: 50S ribosomal protein L22

Chain 1: 



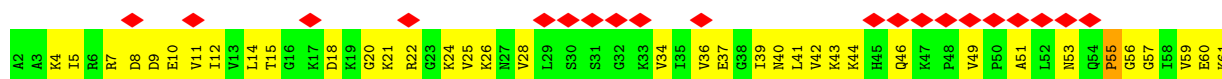
• Molecule 3: 50S ribosomal protein L23

Chain 2: 



• Molecule 4: 50S ribosomal protein L24

Chain 3: 

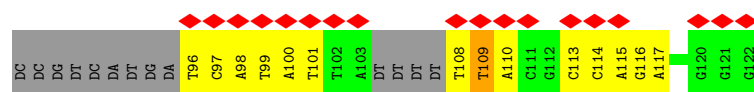
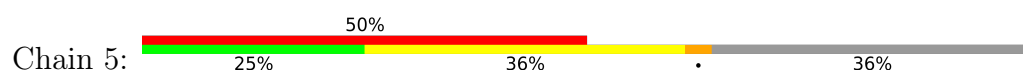




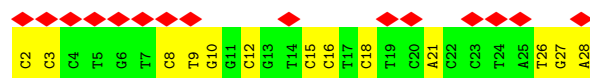
• Molecule 5: 50S ribosomal protein L25



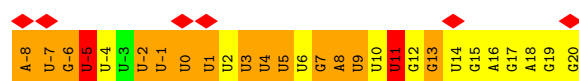
• Molecule 6: NT DNA



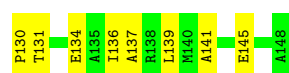
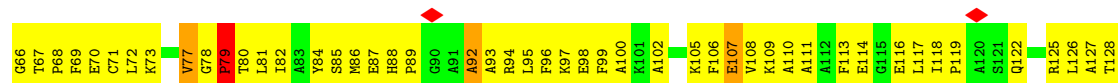
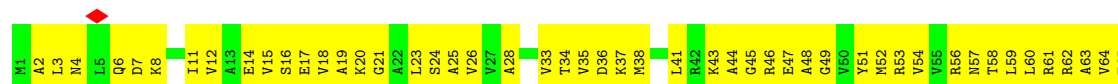
• Molecule 7: T DNA



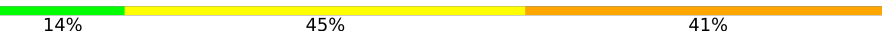
• Molecule 8: mRNA with 12 nt long spacer



• Molecule 9: 50S ribosomal protein L10

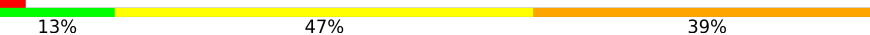


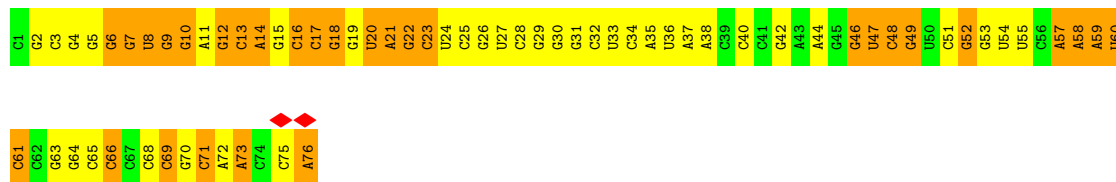
- Molecule 10: E-site and A-site tRNA (fMet)

Chain A: 



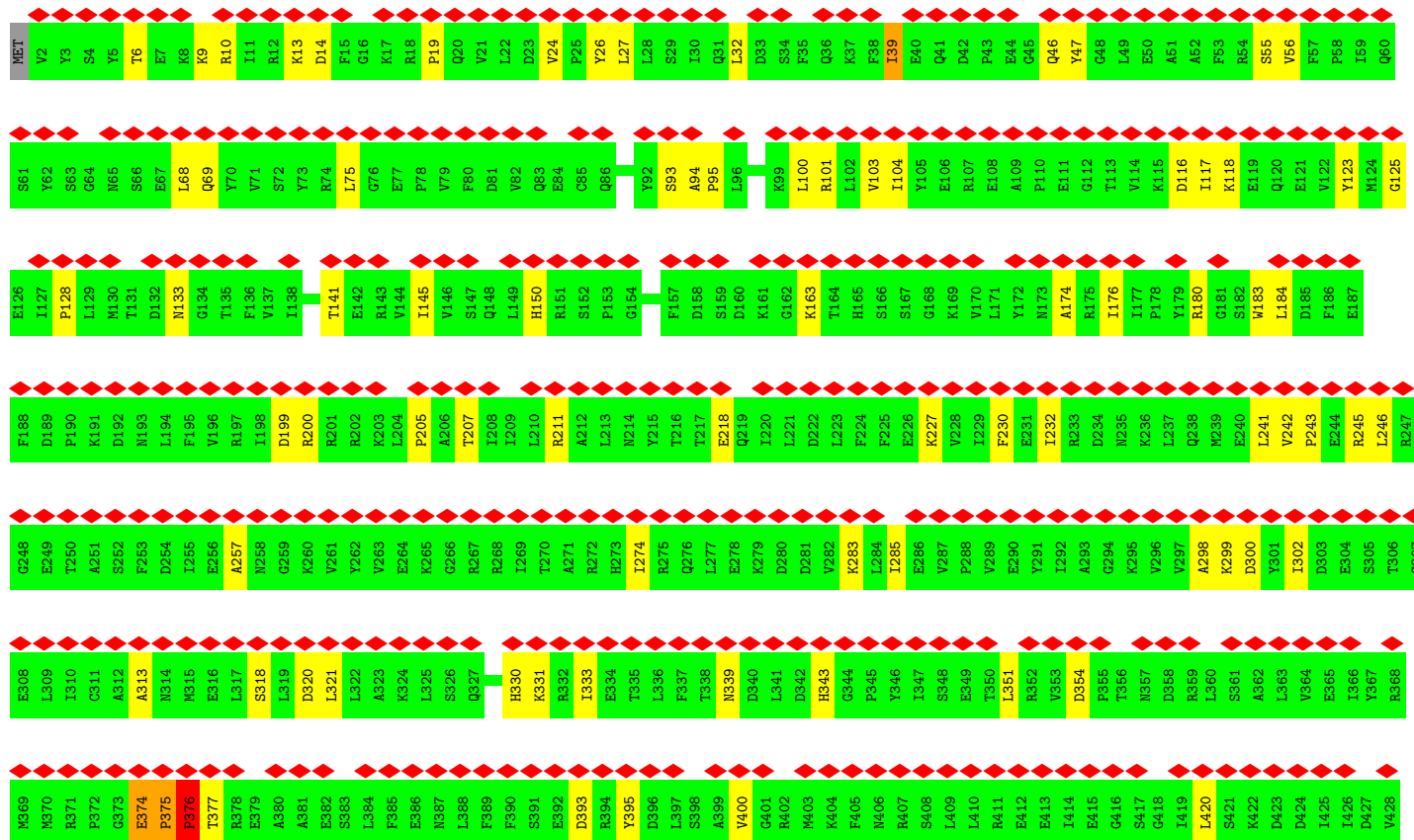
- Molecule 10: E-site and A-site tRNA (fMet)

Chain B: 

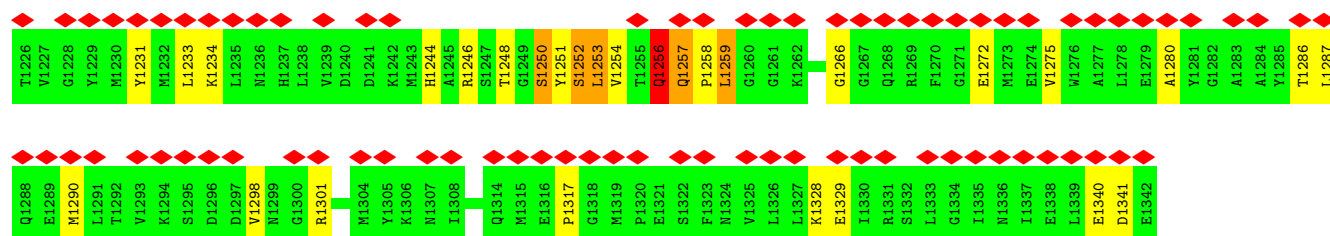


- Molecule 11: DNA-directed RNA polymerase subunit beta

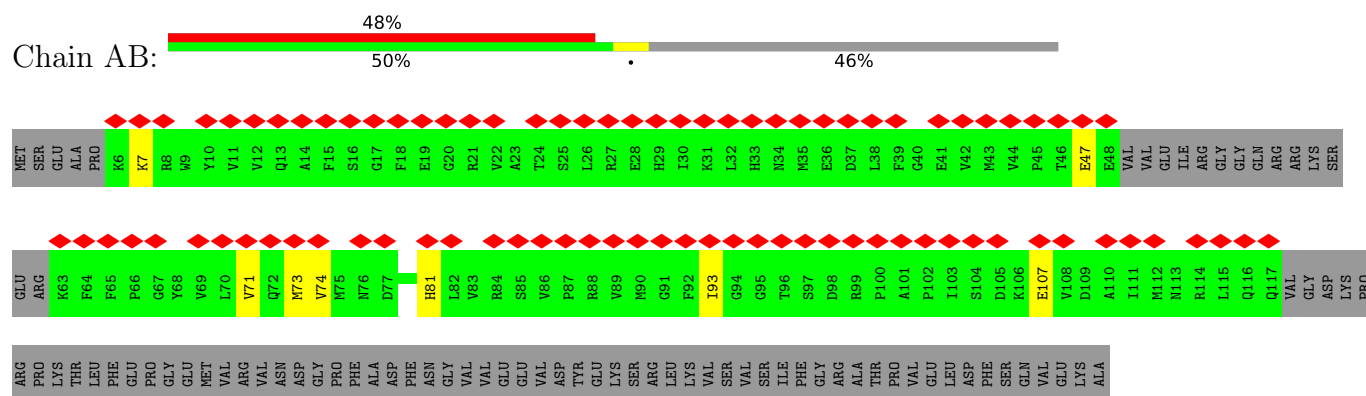
Chain AA: 



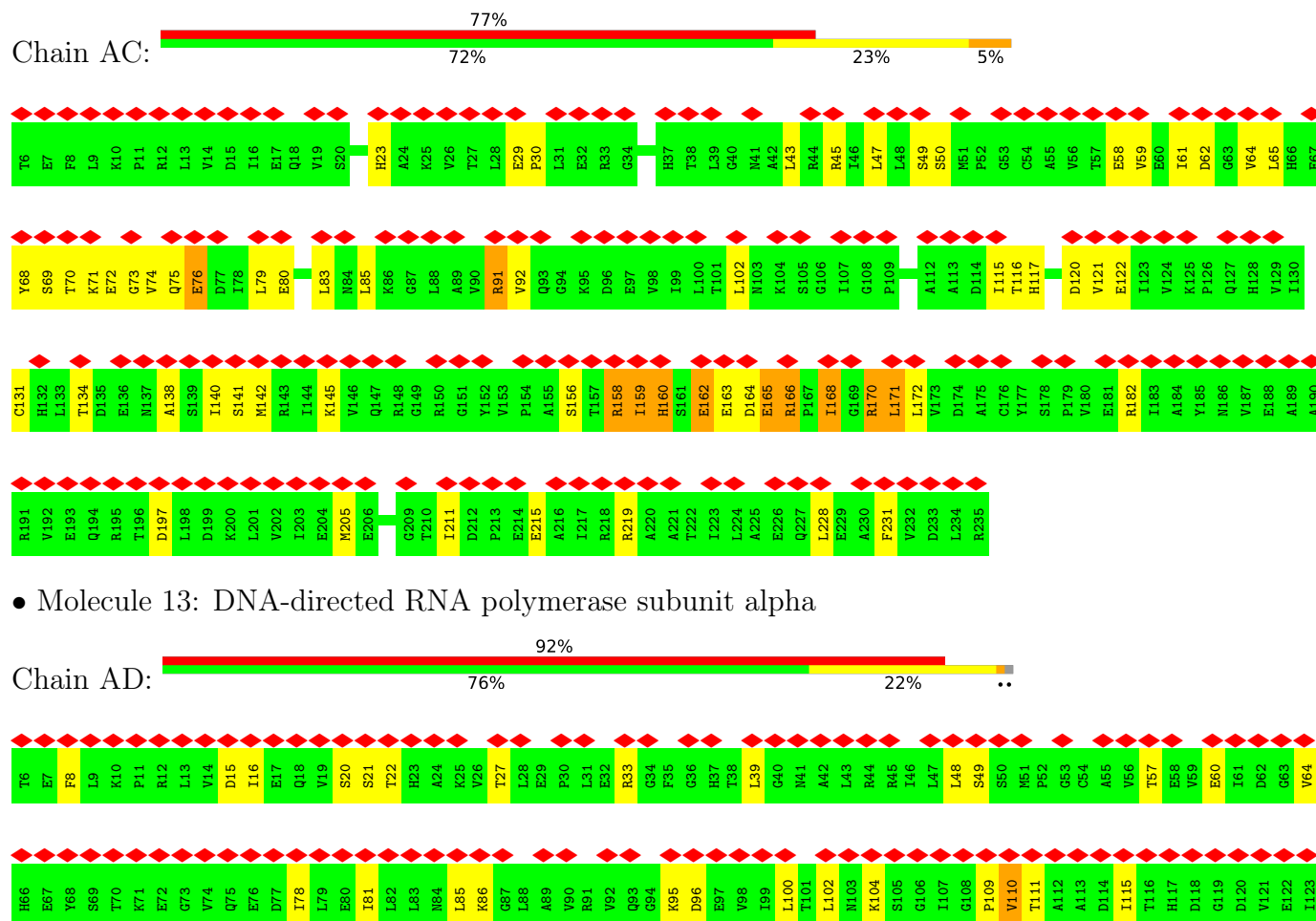
F1164	S1165	D1166	E1167	E1168	V1169	M1170	R1171	L1172	A1173	E1174	N1175	L1176	R1177	K1178	G1179	M1180	P1181	I1182	A1183	T1184	V1185	F1186	F1187	D1188	G1189	A1190	K1191	E1192	A1193	E1194	I1195	K1196	E1197	L1198	L1199	K1200	D1203	L1204	P1205	T1206	S1207	G1208	Q1209	I1210	R1211	L1212	Y1213	D1214	G1215	R1216	T1217	Q1220	F1221	E1222	R1223	P1224	V1225		
P1104	S1105	R1106	M1107	N1108	I1109	G1110	T1111	I1112	L1113	E1114	T1115	H1116	L1117	G1118	M1119	A1120	K1121	G1122	G1123	I1124	G1125	D1126	K1127	I1128	L1129	A1130	M1131	L1132	K1133	Q1134	Q1135	E1136	E1137	V1138	A1139	K1140	L1141	R1142	E1143	F1144	T1145	Q1146	R1147	A1148	Y1149	D1150	L1151	G1152	A1153	D1154	V1155	R1156	Q1157	K1158	V1159	D1160	L1161	S1162	T1163
D1041	L1042	A1043	P1044	G1045	V1046	L1047	K1048	I1049	V1050	K1051	V1052	Y1053	R1058	R1059	T1060	Q1061	P1062	G1063	D1064	K1065	M1066	A1067	G1068	R1069	H1070	G1071	N1072	K1073	G1074	V1075	I1076	S1077	K1078	I1079	M1080	P1081	I1082	E1083	D1084	M1085	P1086	Y1087	D1088	E1089	M1090	G1091	T1092	P1093	V1094	D1095	I1096	V1097	L1098	M1099	P1100	L1101	G1102	V1103	
A981	G982	G983	V984	E985	A986	E987	K988	L989	D990	K991	L992	P993	R994	D995	R996	W997	L998	E999	L1000	G1001	L1002	T1003	D1004	E1005	E1006	K1007	Q1008	N1009	Q1010	L1011	E1012	Q1013	L1014	A1015	E1016	Q1017	Y1018	D1019	E1020	L1021	K1022	H1023	E1024	F1025	E1026	K1027	K1028	L1029	E1030	A1031	K1032	R1033	K1034	K1035	L1036	T1037	Q1038	G1039	D1040
S917	L918	R919	V920	S925	G926	T927	V928	D930	V933	F934	T935	R936	D937	G938	V939	E940	K941	D942	R943	R944	A945	L946	E947	I948	E949	E950	R951	Q952	L953	K954	Q955	A956	K957	K958	D959	L960	S961	E962	E963	L964	Q965	L967	E968	A969	G970	L971	F972	S973	R974	L975	R976	A977	V978	L979	V980				
N856	V857	G858	E859	A860	A861	S863	K864	L865	D866	E867	S868	G869	L870	V871	Y872	L873	G874	A875	E876	V877	T878	G879	C880	D881	L882	L883	V884	C885	K886	V887	T888	P889	K890	G891	GLU	THR	GLN	LEU	THR	PRO	GLU	LYS	LEU	LEU	ARG	ALA	ILE	PHE	GLY	LYS	ALA	S911	D912	V913	K914				
L791	G792	E793	L794	A795	L796	N799	M800	R801	V802	A803	F804	M805	N808	G809	Y810	N811	F812	E813	D814	S815	T816	L817	V818	S819	D820	R821	V822	E825	D826	R827	F828	T829	T830	L831	E835	L836	A837	C838	V839	S840	R841	D842	T843	K844	L845	G846	P847	E848	E849	T850	T851	A852	D853	L854	P855				
F670	L671	E672	H673	D674	A675	N676	R677	R678	A679	L680	M681	G682	A683	N684	M685	Q686	R687	Q688	A689	V690	P691	T692	L693	R694	A695	D696	K697	P698	L699	V700	G701	T702	G703	M704	E705	R706	A707	V708	A709	V710	D711	S712	G713	V714	T715	A716	V717	A718	K719	G721	G722	V723	Q725	Y726	T727	D728	A729		
E610	E611	G612	N613	Y614	I615	I616	Q618	A619	N620	S621	M622	L623	D624	E625	E626	G627	H628	F629	V630	E631	D632	L633	V634	T635	C636	R637	S638	K639	G640	E641	S642	S643	L644	F645	S646	R647	D648	Q649	V650	D651	V652	M653	D654	V655	S656	T657	Q658	Q659	V660	V661	S662	V663	G664	A665	S666	L667	I668	P669	
P489	Q490	D491	M492	I493	M494	A495	R496	P497	V498	S499	A500	A501	V502	K503	E504	F505	F506	G507	S508	S509	Q510	L511	S512	Q513	F514	M515	D516	Q517	N518	N519	F520	L521	S522	E523	I524	T525	H526	K527	R528	R529	I530	S531	A532	L533	G536	G537	L538	T539	R540	E541	R542	A543	G544	F545	E546	V547	D549		
M429	K430	L431	L432	I433	D434	I435	R436	M437	G438	K439	G440	E441	V442	D443	D444	I445	D446	H447	L448	G449	R450	R451	R452	I453	R454	S455	V456	G457	E458	M459	A460	E461	N462	Q463	F464	R465	V466	L468	V469	R470	V471	E472	R473	A474	V475	K476	E477	L478	L479	S480	L481	G482	D483	L484	D485	T486	R487	M488	



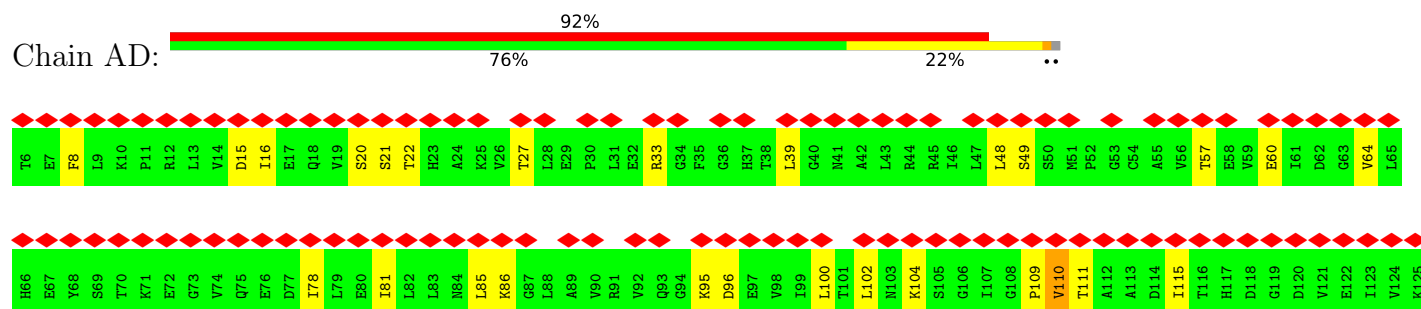
• Molecule 12: Transcription termination/antitermination protein NusG

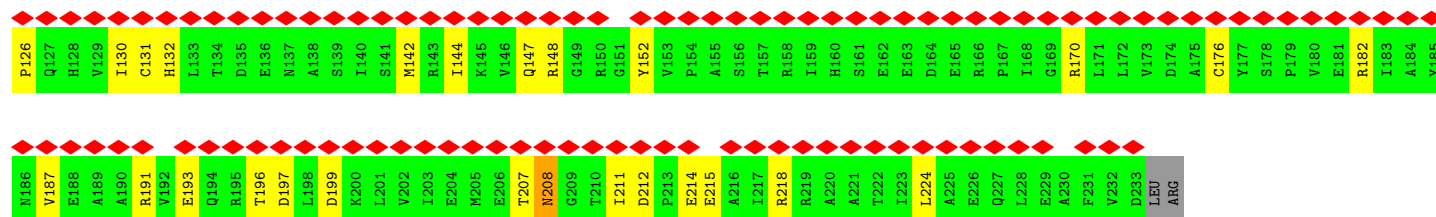


• Molecule 13: DNA-directed RNA polymerase subunit alpha

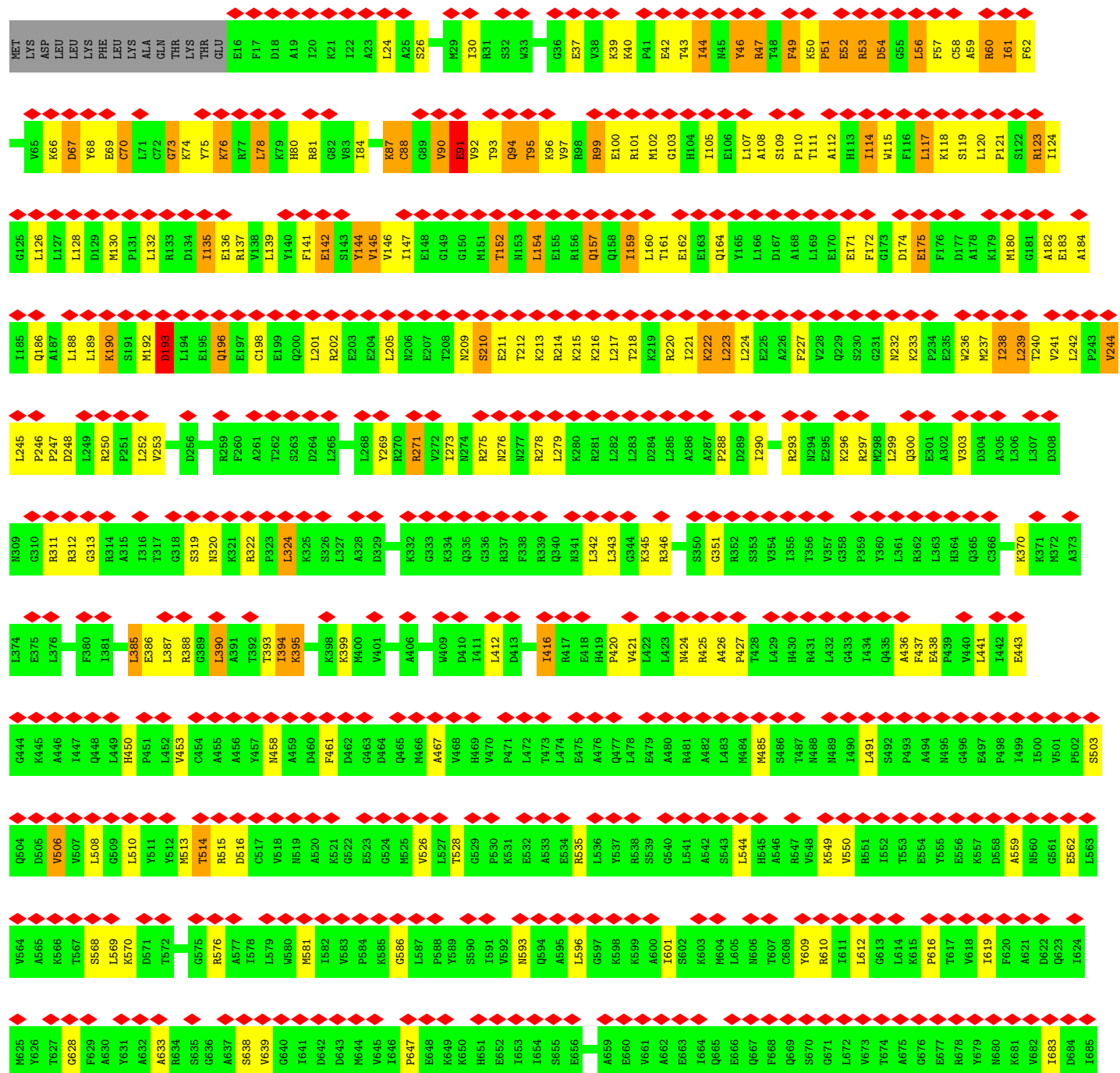
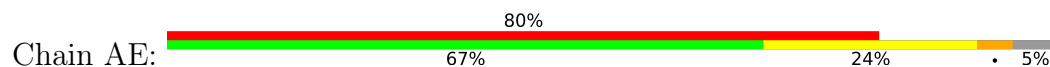


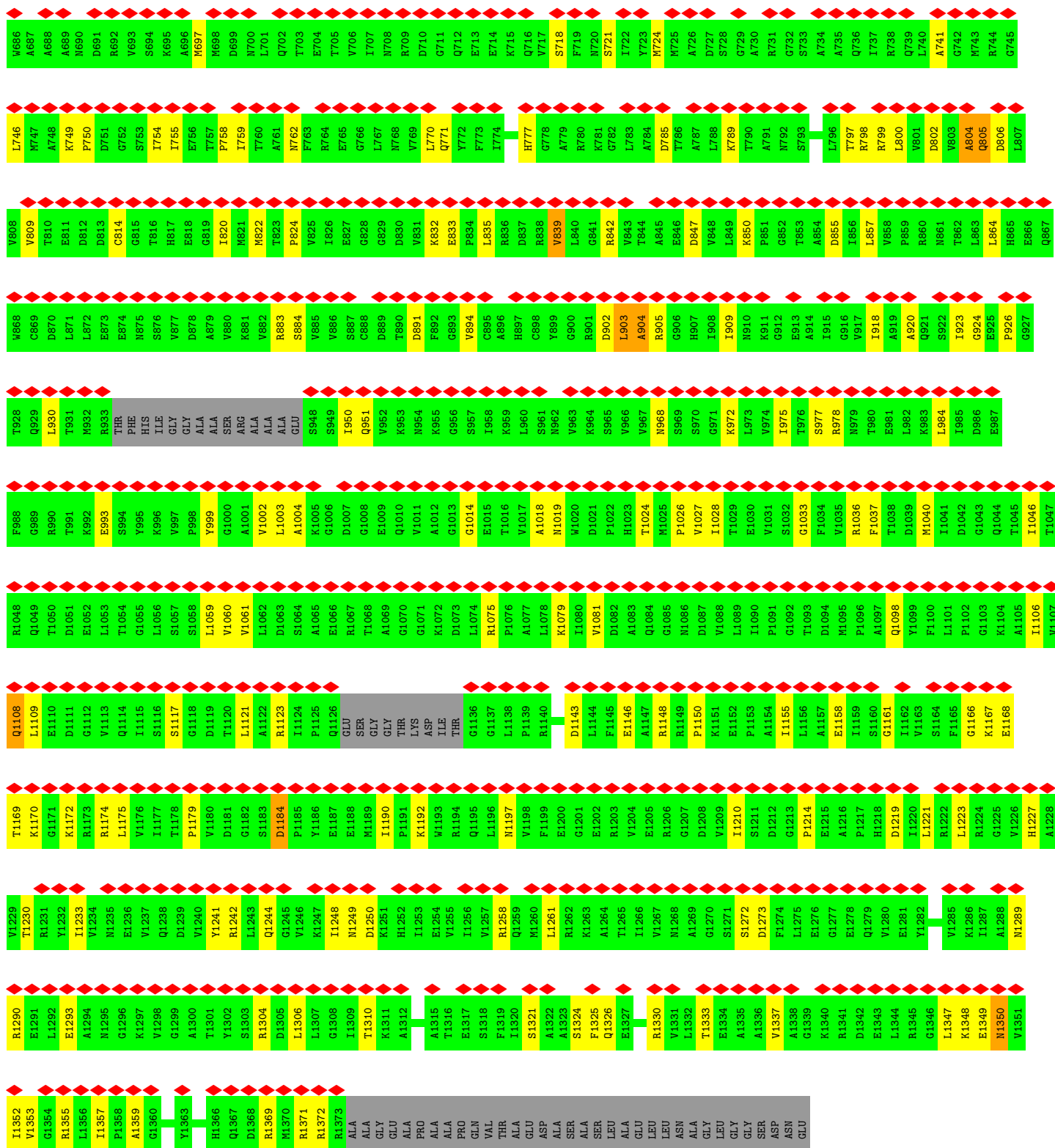
• Molecule 13: DNA-directed RNA polymerase subunit alpha





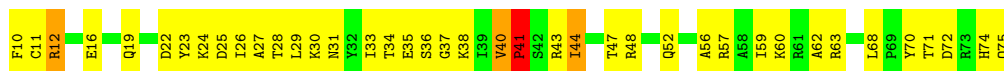
• Molecule 14: DNA-directed RNA polymerase subunit beta'





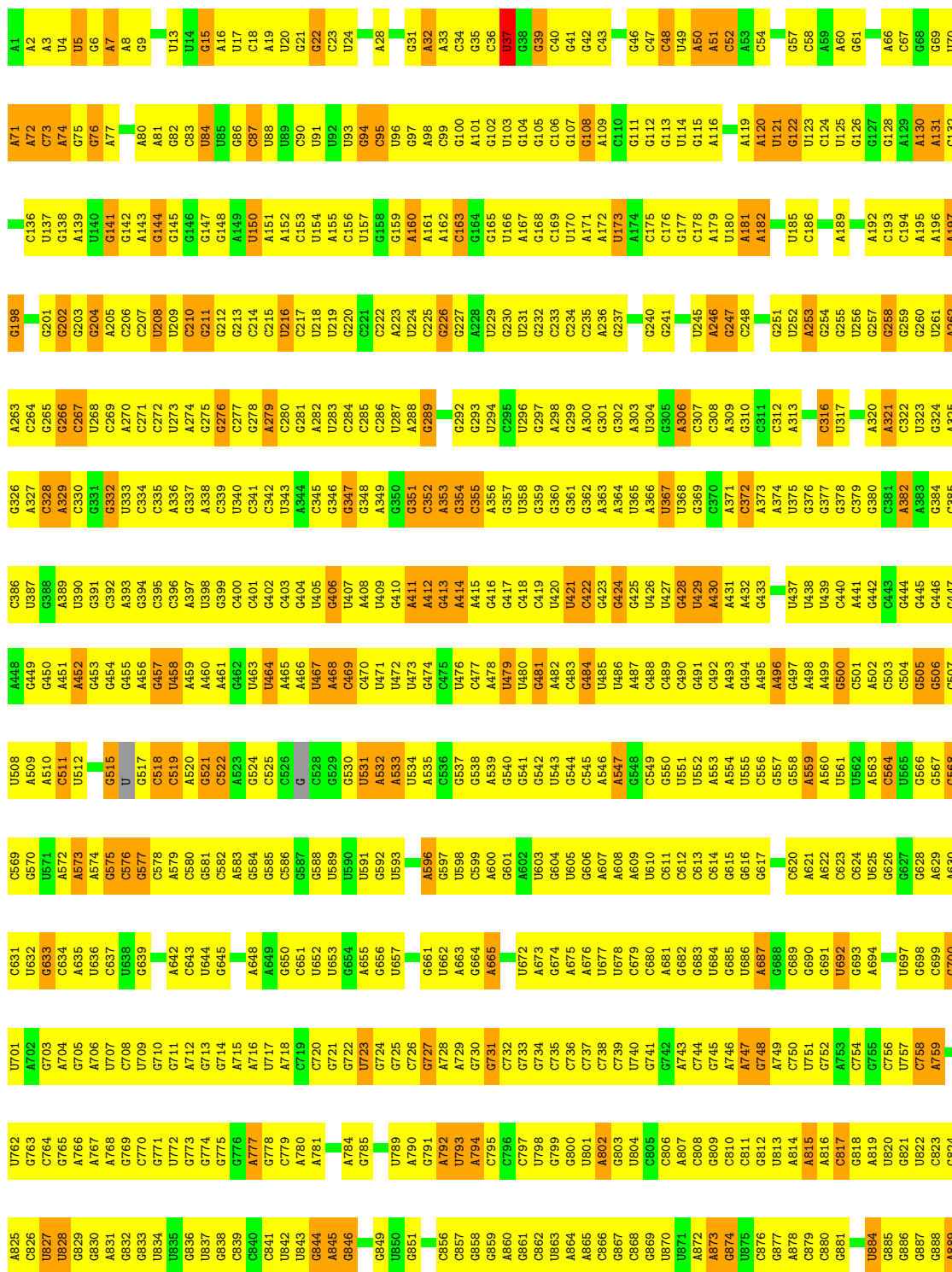
• Molecule 15: 30S ribosomal protein S18

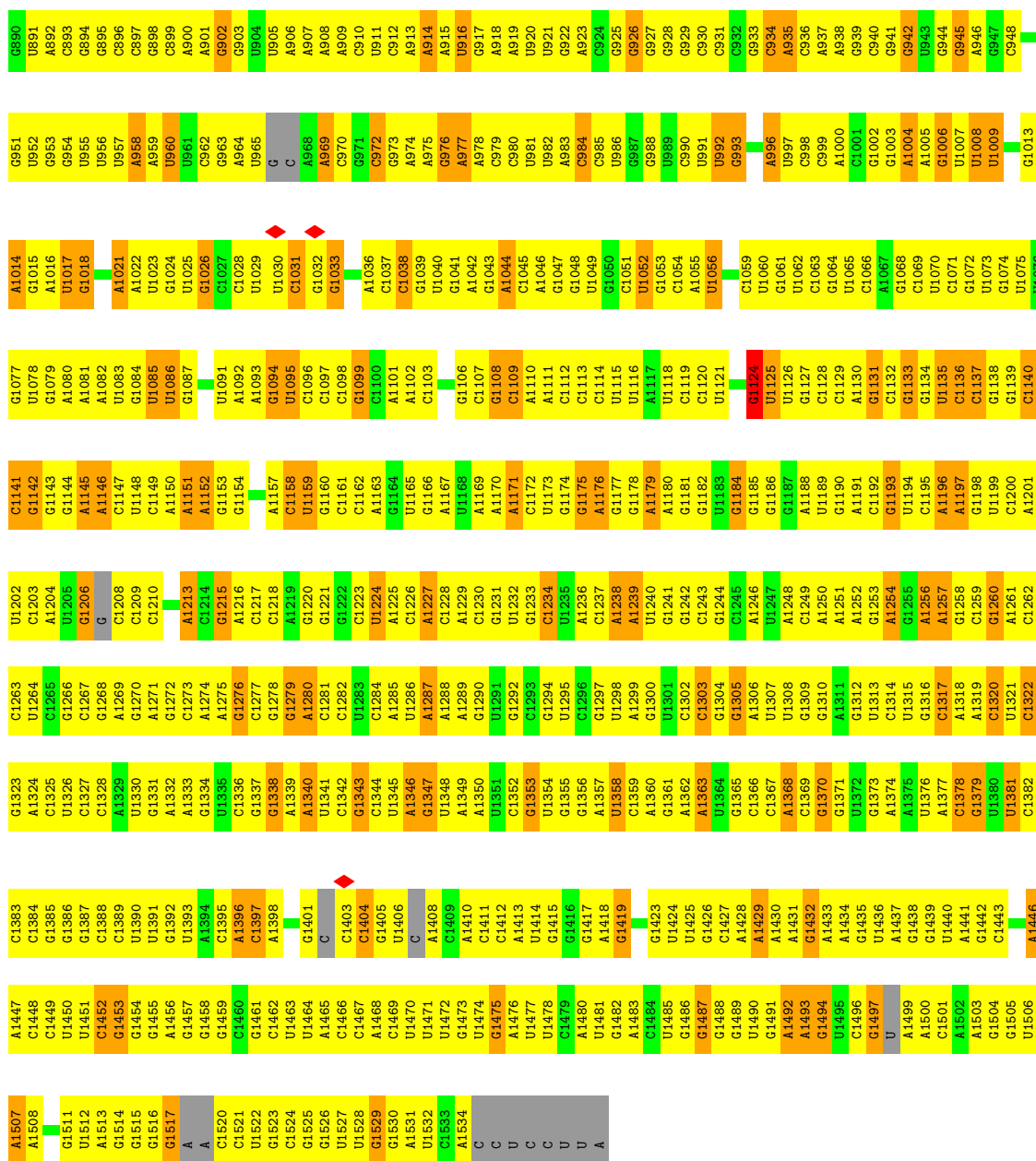
Chain C: 39% 55% 5% •



Molecule 16: 16S rRNA

Chain D: 15% 67% 16%





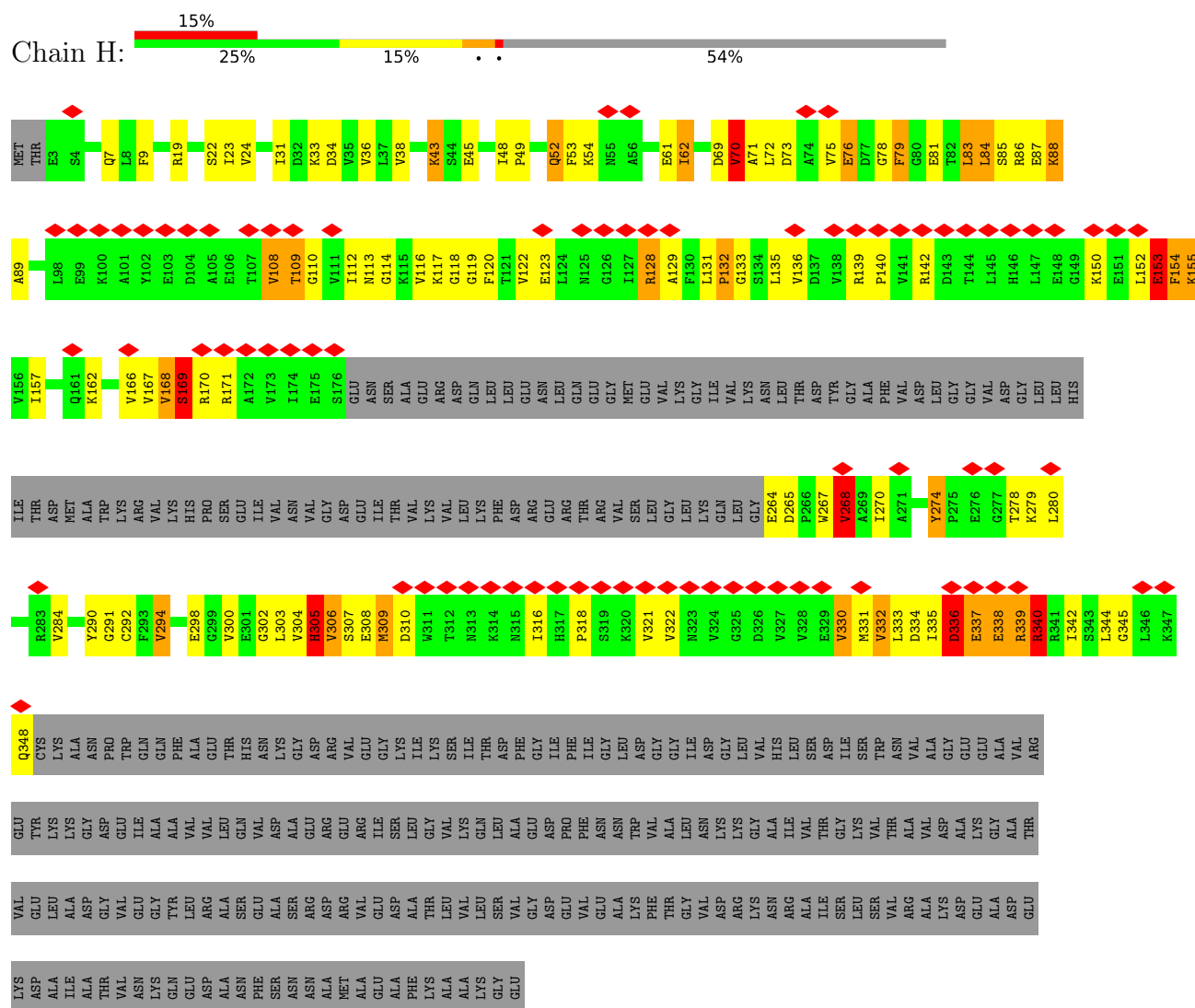
• Molecule 17: 30S ribosomal protein S20

• Molecule 18: 30S ribosomal protein S21

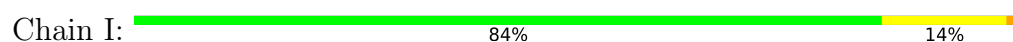
• Molecule 19: 30S ribosomal protein S2

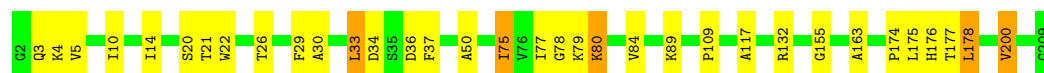


• Molecule 20: 30S ribosomal protein S1

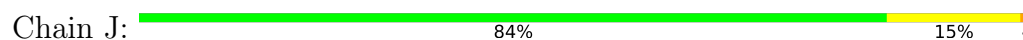


• Molecule 21: 30S ribosomal protein S3

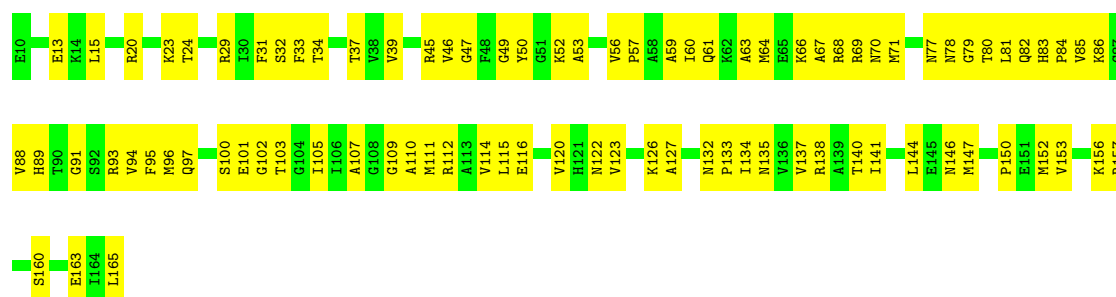




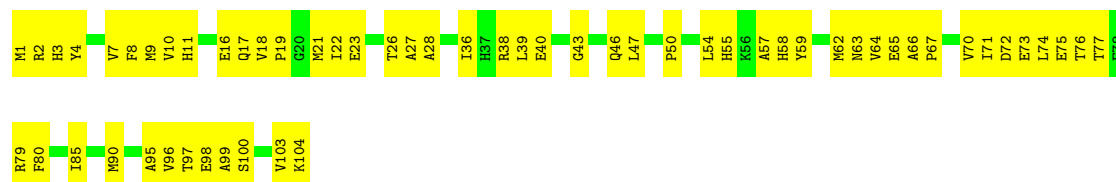
- Molecule 22: 30S ribosomal protein S4



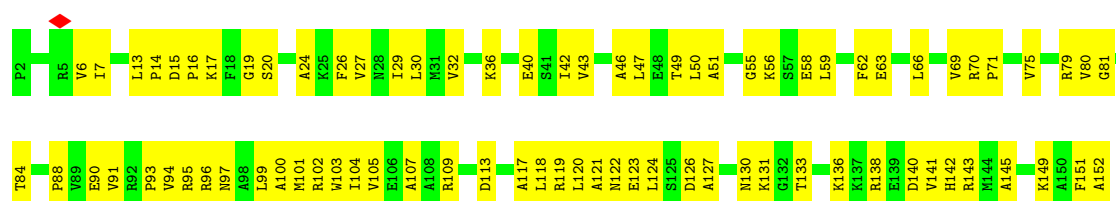
- Molecule 23: 30S ribosomal protein S5



- Molecule 24: 30S ribosomal protein S6

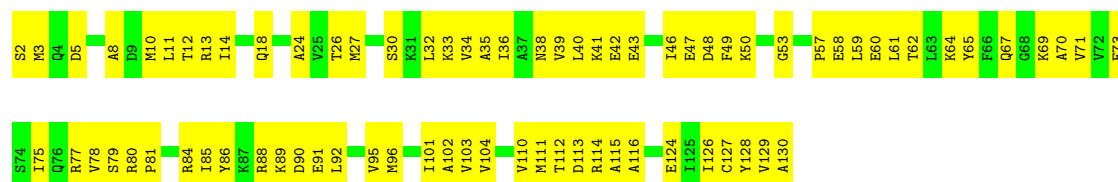


- Molecule 25: 30S ribosomal protein S7

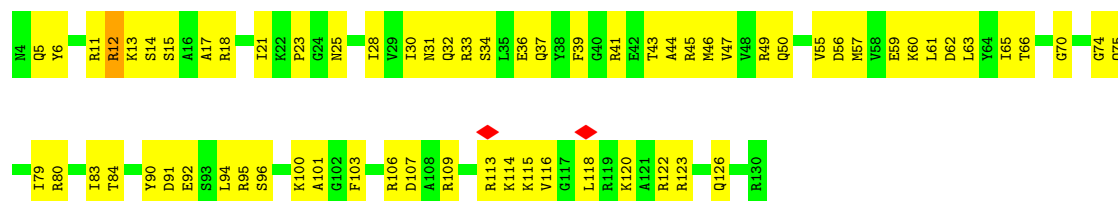


- Molecule 26: 30S ribosomal protein S8

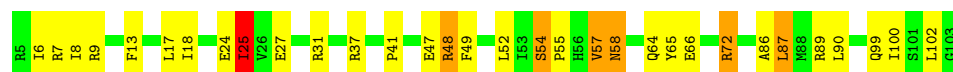




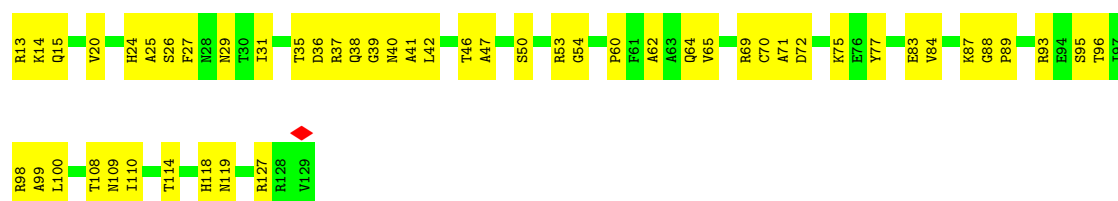
- Molecule 27: 30S ribosomal protein S9



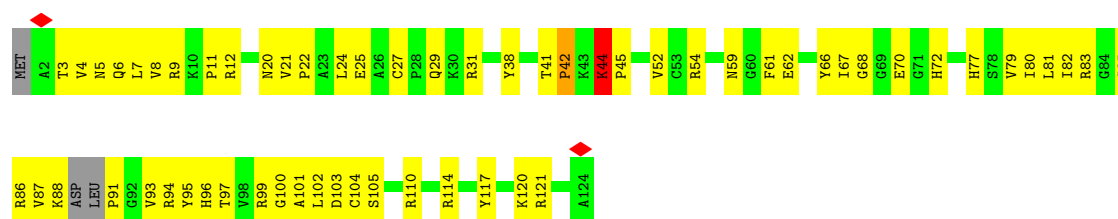
- Molecule 28: 30S ribosomal protein S10



- Molecule 29: 30S ribosomal protein S11



- Molecule 30: 30S ribosomal protein S12

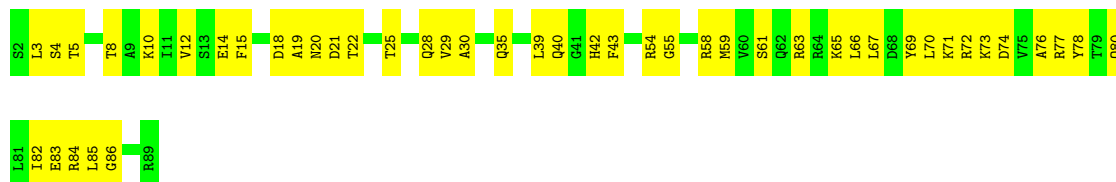


- Molecule 31: 30S ribosomal protein S14





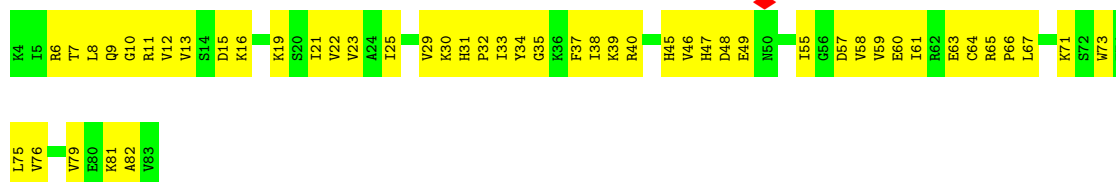
- Molecule 32: 30S ribosomal protein S15



- Molecule 33: 30S ribosomal protein S16



- Molecule 34: 30S ribosomal protein S17

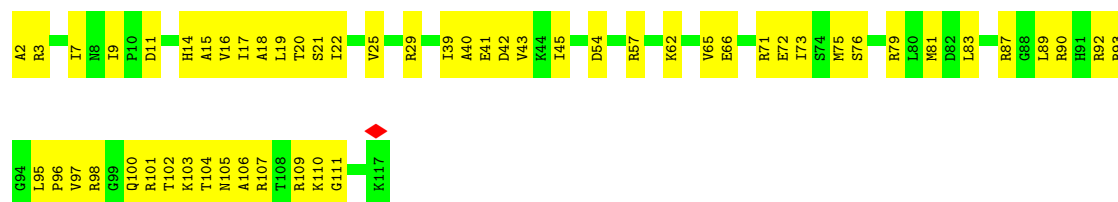


- Molecule 35: 30S ribosomal protein S19

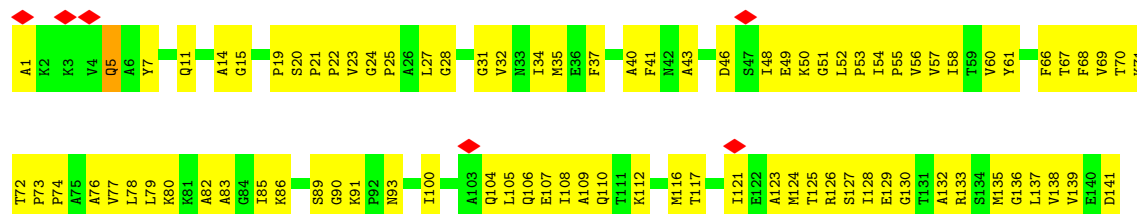


- Molecule 36: 30S ribosomal protein S13





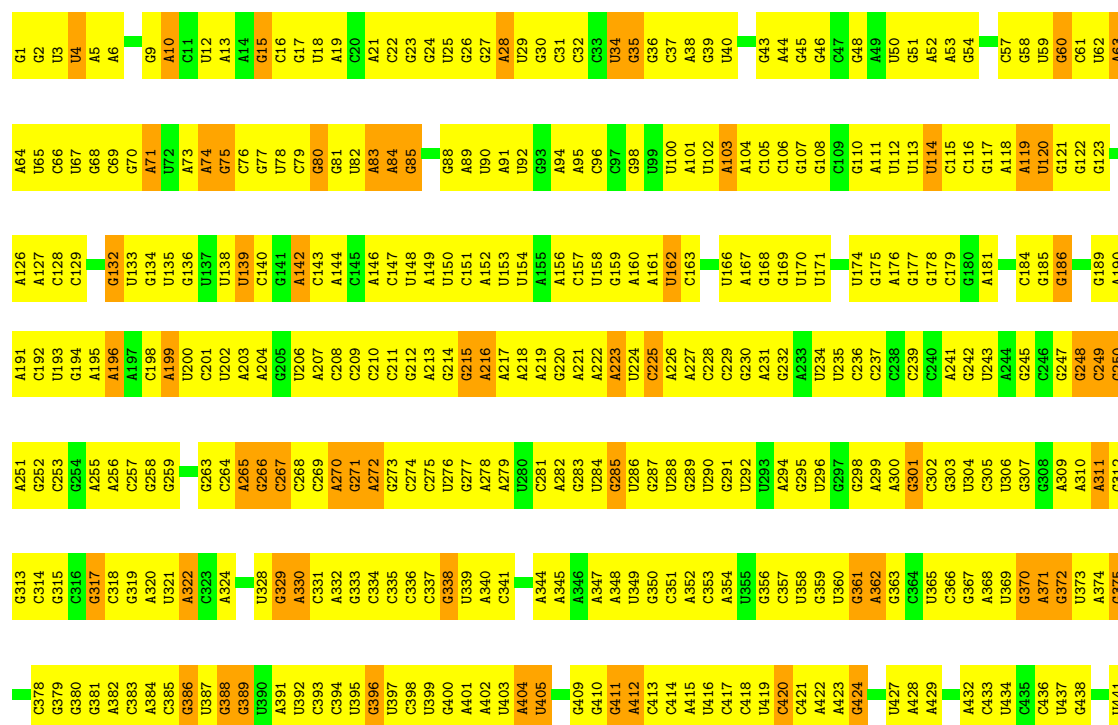
• Molecule 37: 50S ribosomal protein L11



• Molecule 38: 50S ribosomal protein L7/L12

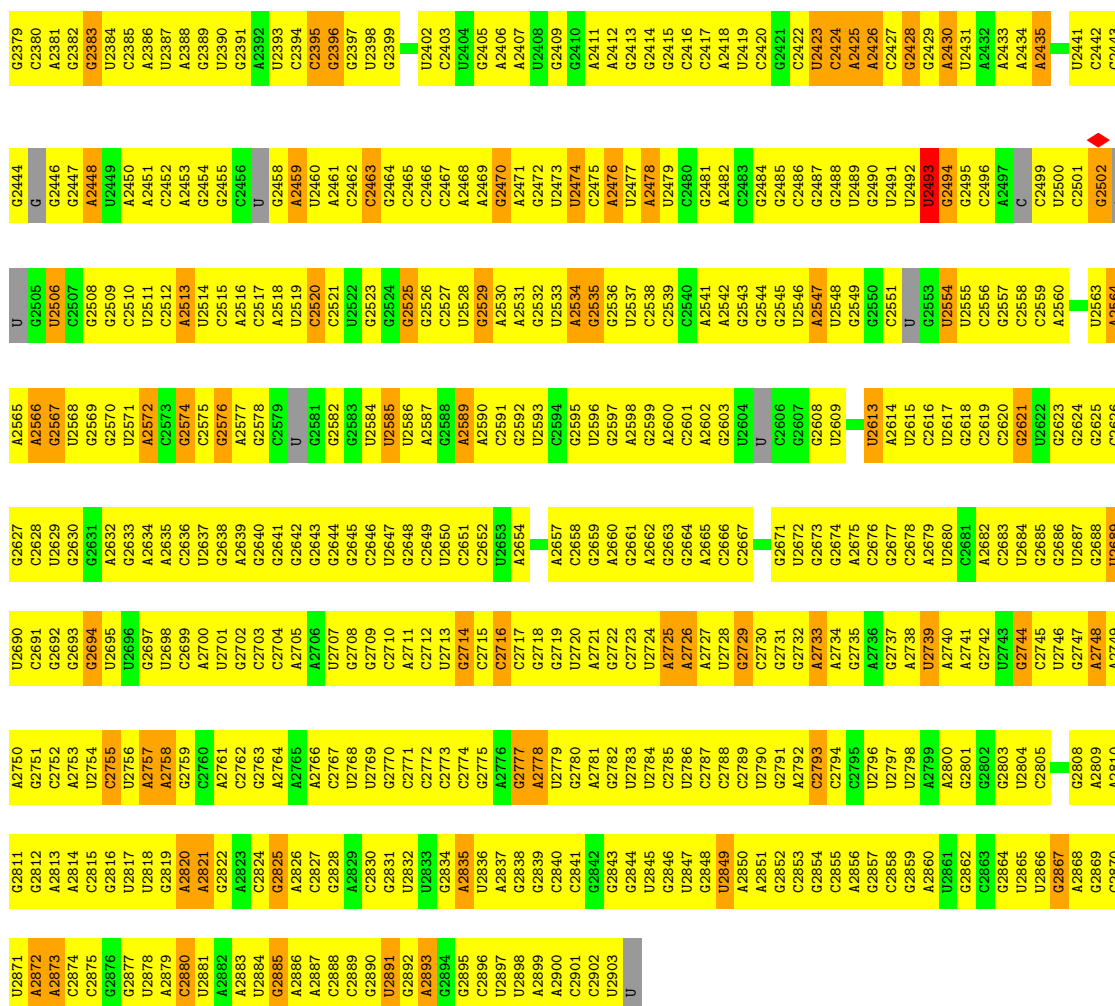


• Molecule 39: 23S rRNA

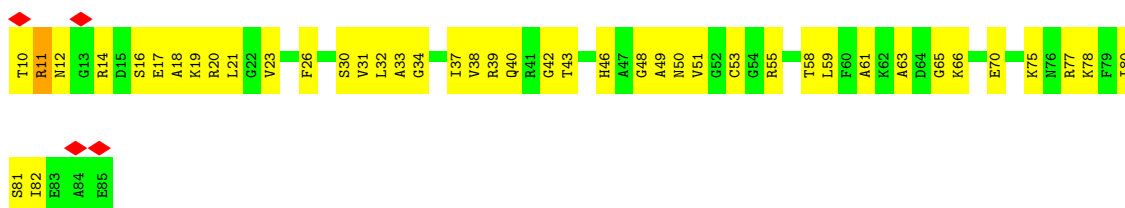


G1369	G1309	G1248	U1183	C1123	U1061	G997	C937	C876	C815	A753	U688	U566	G506	G442
C1370	G1310	U1249	U1184	G1124	G1062	C998	G938	A877	C816	U754	A689	U567	A507	A443
G1371	G1310	G1249	G1185	G1125	G1063	U999	G939	A878	C817	U755	A690	U568	A508	C444
U1372	G1311	C1251	G1186	A1126	C1064	A1001	G879	C880	G818	A756	C691	U569	C509	C445
A1373	G1312	G1252	G1187	A1127	U1065	A1001	A941	G881	A819	G757	C692	G570	C510	G446
	U1313	A1253	U1188	G1128	U1066	G1002	G942	G881	A820	C758	A693	U571	U511	
G1377	C1314	A1254	A1189	U1129	A1067	G1003	A943	G882	A821	G759	U694	A572	G512	A449
A1378	G1315	U1255	G1190	U1130	G1068	U1004	C944	G883	G822	G760	G695	U573	G513	G450
U1379	G1316	G1256	G1191	G1131	G1069	C1005	A945	U884	C823	U761	G696	A574	A514	G451
G1380	G1317	C1257	G1380	U1132	A1070	C1006	C946	C885	U824	U762	G697	A575	A515	G452
G1381	G1318	U1258		U1133	G1071	C1007	A947	A886	U825	G763	C698	U576	C516	C456
G1382	C1319	G1259	G1195	A1134	C1072	A1008	C948	A887	A826	A764	A699	G577	C517	C456
A1383	C1320	A1260	C1196	C1135	A1073		G949	C888	U827	C765	G700	G578	G518	A457
A1384	A1321	C1261	G1197	G1136	G1074		G950	C889	U828	U766	G701	G579	U519	G458
A1385	A1322	A1262	U1198	G1137	C1075	U1012	C951	U641	A829	U767	U702	U580	G520	U459
C1386	C1323	U1263	U1199	G1138	C1076	C1013	G952	C891	G830	G768	U703	C581	G521	A460
A1387	G1324	A1264	C1200	G1139	A1077	A1014	G953	A892	G831	U769	G704	A643	A522	C461
		A1265	U1201	C1140	U1078	U1015	G954	C893	U832	G770	A705	G583	C523	C462
A1327		G1266	G1202	U1141	C1079	G1016	U	U894	A833	G771	A706	C584	G524	G463
A1328		U1267	U1203	A1142	A1080	G956	G956	U895	A834	C772	G707	C585	G525	G464
A1329	U1329	A1268	A1204	A1143	U1081	A1019	C957	A896	C835	U773		G586	A526	U465
C1330	C1330	A1269	A1205	A1144	U1082	A1020	U1458	A897	C836	G774	U710	C587	C527	A466
A1391	A1395	C1270	U1206	C1145	U1083	A1021	A959	C898	C837	G775	G711	U588	A528	G467
G1332	G1332	G1271	C1267	C1146	A1084	G1022	A960	A899	C838	G776		U589	A529	G468
U1397	G1333	A1272	C1208	A1147	A1085	U1023	C961	A900	U839	G777	C717	A590	G530	G469
C1398	G1334	U1273	U1209	U1148	A1086	G1025	G962	C901	G840	G778	A718	U591	A532	A470
G1399	A1335	A1274	G1210	G1149	U1087	G1024	U963	C902	G841	U779	C719	A592	G531	
U1400	A1336	A1275	C1211	G1150	U1088	C964	G1026	C903	U842	G780	U720	U593	G533	G474
G1401	G1337	A1276	G1212	A1151	A1089	A1027	C965	G904	G843	A781	A721	U594	G534	
U1402	G1338	G1277	A1213	C1152		A1028	G966	A905	A844	A782	A722	C595	G535	C475
A1403	G1339	C1278	A1214	C1153	C1092	A1029	U967	U906	A845	A783	G723	U596	G536	C476
C1404	U1340	G1279	G1215	G1154	G1093	C1030	C968	G907	U846	G784	U724	G597	G537	A477
U1405	G1341	U1280		A1155	U1094	U1033	U1159	U1097	U847	G725	G726	A598	G538	A478
A1406	A1342	G1281	U1218	A1156	A1095		G971	A910	A849	C787	A727	G600	G539	A479
U1407	U1343	U1282	U1219	G1157	A1096	G971	A911	A910	U850	A788	G728	C601	A541	A480
G1408	U1344	G1283	G1220	C1158	U1097	A972	A973	C912	C851	U789	G663	G602	A542	C481
U1409	C1345	A1284	C1221	U1159	A1098	G1036	G974	C912	U852		G664	A603	G543	A482
G1410	G1346	A1285	U1222	G1160	U1098	U1037	A975	G914		A792	G730	G604	C544	A483
U1411	A1347	A1286	G1223	C1161	C1102	A1039	U975	G914	G855		C731	G605	U545	C484
U1412	C1348	A1287	U1224	G1162	C1103	A1040	G976	C915	G856	A794	G732	U666	U546	C485
A1413	G1349	G1288	G1225	G1163	A1104	G1041	G977		G857	C795	G733	U607	A547	C486
C1350	C1350	C1289	A1226	C1164	C1104	G1042	G977	A918	C857	C796	A734	A608	A547	C487
C1414	G1351	C1290	U1227	A1165	U1105	C1043	A979	U919	G858	C796	A608	A609	G548	G488
U1415	C1352	C1291	G1352	G1166	G1106	C1044	A980	A920	G859		A609	C610	C550	G489
G1416	A1353	G1292	C1417	C1167	G1107	C1045	A981	C921	U860	G799	C611	C610	C550	C490
C1417	C1353	U1293	G1229	G1168	U1108	A1046	C982	C922	A861	G800	G738	G672	G551	C491
G1418	A1354	U1294	U1231	A1169	C1109	G1047	A983	G923	G862	A759	A739	C673	U552	A492
A1419	G1355	C1295	G1232	C1170	C1109	A1048	A984	G924	A863	G801	A739	C674	G553	C493
A1420	G1356	G1296	C1233	G1171	A1111	C1049	C985	A925	G864	U803	C740	A613	G554	C494
G1421	C1357	U1297	U1234	C1172	G1112	C986	C986	G926	C885	U741	U741	A675	U554	G494
G1422	G1358	C1298	G1235	U1173	G1113	A1050	C987	A927	A866	A804	A742	A676	G555	C495
A1423	A1359	G1299	G1236	U1174	U1113	G1051	C987	A927	C867	G805	A743	A677	A556	C496
G1424	G1360	U1300	A1237	A1175	C1114	C1052	A988	A928	U868	U807	U744	C678	C557	A497
G1361	G1361	G1300	U1301	U1176	G1115	G989	G989	A929	U868	U807	G	C679	C557	G498
G1425	C1362	A1301	G1238	U1176	G1116	A1054	A990	G930	U869	U807	U	G619	U558	A499
G1426	A1427	A1302		U1177	G1117	C1055	C991	U931	C889	G808	U	G620	G559	U499
C1428	G1363	G1303	C1243	C1177	G1118	G1056	C992	U931	U870	G809	U	G621	G559	U499
G1429	A1365	A1304	A1244	C1178	C1118	G1057	C993	U932	U871	G809	G683	G622	G561	A501
A1430	A1366	C1305	G1245	U1179	U1119	A1058	G993	A933	U872	U811	A749	C623	U562	A502
		C1306	A1246	U1180	G1120	U1057	C994	U934	C812	A750	A685	C624	A563	A503
A1431	G1367	C1307	A1247	U1181	G1121	G1059	C995	C935	G874	U813	A751	G625	C564	A504
	G1368	A1307	C1247	C1182	U1060	U936			C875	C814	A752	A626	C565	A504

G2318	U2257	C2196	U2130	C2066	A2003	U1943	C1881	U1820	A1757	U1693	A1630	A1569	A1504	A1433
G2319	C2258	U2197	U2131	G2067	G2004	U1944	U1882	A1821	U1758	C1694	G1631	A1570	A1505	A1434
U2320	U2259	A2198	U2132	U2068	A2005	G1945	G1883	C1822	A1759	G1695	G1632	A1571	A1506	G1435
G2321	C2260	G	G2133	U1946	G2006	U1947	G1884	G1823		G1696	G1633	A1572	C1507	G1436
A2322	C2261	A2070	A2134	C1947	U2007	U1948	U1885	G1824	A1762	G1697	A1634	C1573	A1508	C1437
G2323	U2262	A2071	A2135	G1948	C2008	U1949	U1886	U1825	G1763	G1698	A1635	C1574	A1509	U1438
U2324	G2263	C2072	G2136	G1949	A2009	G1950	C1887	G1826	C1764	G1699	U1636	C1575	G1510	A1439
G2325	C2264	C2073	U2137	U1951	G2010	U1952	C1888	G1827	U1765	A1700	A1637	C1576	A1440	A1439
A2326	U2265	U	G2138	U1951	U2011	A1952	A1889	G1828	G1767		C1638	C1577	G1514	U1441
A2327	A2266	U2075		A1952	G2012	A1953	A1890	A1829		A1706	C1639	A1578	A1515	U1442
G2328	C2267	U2076	G2139	G1954	A2013	G1955	G1891	C1830	G1770	C1706	A1640	A1579	G1516	U1443
U2329	A2268	A2077	G2144	G1954	A2014	U1955	C1892	G1831	G1771	G1707	A1641	A1580	G1517	U1444
G2330	C2269	C2078	C2145	U1955	A2015	U1956	C1893	C1832	C1771	G1708	A1642	A1581	G1518	G1445
G2331	A2270	U2079	C2146	U1956	U2016	U1957	C1894	C1833	A1772	U1709	G1643	C1582	G1519	
C2332	G2271	A2080	A2147	C1957	U2017	C1958	G1895	A1834	A1773	G1710		A1583	U1520	
A2333	U2272	U2081	G2148	U1958	G2018	C1958	G1896	G	A1774	A1711	C1646	A1584	G1521	G1450
U2334	A2273	G2083	U2149	G1959	A2019	U1959	U1897	C1836	U1775	U1712	U1647	C1585	A1522	G1451
A2335	G2274	A2082	C2150	A1960	A2020	U1960	U1898	C1837	U1776	U1713	U1648	A1586	G1452	A1453
A2336	C2275	G2083	U2151	C1961	C2021	C	A1899	C1838	U1777	U1714	G1649	G1587	C1454	
G2337	G2276	U2086	G2152	U1962	U2022	U1963	A1900	G1839	U1778	G1715	A1650	G1588	C1525	
C2338	G2277	G2087	C2153	U1963	C2023	U1964	A1901	G1840	U1779	U1716	G1651	U1589	C1526	U1458
A2339	A2278		A2154	G1965	G2024	C1965	C1902	A1841	U1780	A1717	A1652	A1590	G1527	G1459
G2340	G2279	C2091	U2155	U1966	C2025	U1966	G1903	G1842	U1781	G1718	G1653	A1591	G1528	U1460
U2341	G2280	U2092	G2156	A1967	G2026	U1967	G1904	C1843	U1782	G1719	A1654	C1592	G1529	U1461
C2342	A2281	G2093	G2157	C1968	U2027	C1968	C1905	C1844	U1783	U1720	A1655	C1593	G1530	C1462
U2343	G2282	A2094	A2158	U1968	U2028	U1968	G1906	G1845	A1784	G1721	C1656	U1594	A1532	C1463
G2344	C2283	A2095	G2159	U1969	G2029	U1969	G1907	A1846	A1785	A1722	U1657	C1595	C1533	G1464
A2345	A2284	C2096	C2160	A1970	A	A1970	G1910	G1847	A1786	G1723	U1658	A1596	U1534	U1465
G2346	C2285	U2097	G2161	U1971	A2031	U1972	U	A1848	A1787	G1726	G1660	A1597	A1535	U1466
A2347	A2286	U2098	G2162	U1972	G2032	U1973	A1912	G1849	C1788	C1727	G1661	A1598	C1536	U1467
G2348	G2287	U2099	A2163	G1973	A2033	G1974	A1913	G1850	A1789	G1728	U1662	U1599	G1537	U1468
C2349	A2288	G2100	C2164	U1974	U2034	U1975	A1914	U1851	C1790	G1729	G1663	C1600	A1469	A1470
G2350	G2289	A2101	C2165	U1976	C2035	G1976	U	A1852	G1792	C1730	U1664	A1602	G1540	G1471
A2351	U2290	G2102		C1975	G2036	U1977	A1915	A1853	C1793	G1731	A1665	A1603	C1541	C1472
C2352	U2291	C2103	A2170	U1978	A2037	A1978	U	U1855	A1794	G1732	G1666	C1604	U1542	G1473
G2353	G2292	C2104	U2172	U1979	G2038	U1979	A1916	U1856	C1795	G1733	G1667	C1605	A1544	U1474
U2354	G2293	U2105	A2173	G1980	U2039	U1980	A1917	G1857	U1796	G1734	A1668	C1606	A1545	G1475
G2355	G2294	U2106	C2174	A1981	G2040	A1981	A1919	A1858	G1797	A1735	A1669	C1607	G1546	U1476
U2356	C2295	G2107	C2175	U1982	C2043	U1982	C1920	A1888	U1798	U1736	C1670	A1608	C1547	A1477
A2357	U2296	A2108	C2176	U1983	G2044	G1983	G1921	A1889	G1799	U1737	U1671	A1609	A1548	G1478
C2358	G2297	U2109	A2177	G1984	C2045	U1984	U1922	G1860	C1800	G1737	A1672	A1610	A1549	G1479
G2359	U2298	G2110	C2178	G1985	G2046	C1985	U1923	G1861	A1801	G1738	G1673	C1611	C1550	C1480
U2360	C2300	U2111	C2179	C1986	C2047	C1986	C1924	G1862	A1802	G1739	G1674	C1612	A1551	U1481
G2361	G2301	G2112	C2180	A1987	G2048	U1987	U1925	G1863	A1803	G1740	C1675	G1613	A1552	G1482
C2362	U2302	U2113	U2181	G1988	G2049	U1988	A1927	U1865	C1804	U1742	A1676	A1614	A1553	
G2363	A2241	A2114	U2182	G1989	C2050	C1989	U1928	A1866	A1805	G1743	A1677	C1615	U1554	A1490
C2364	U2242	G2115	G2183	U1990	A2051	G1990	G1929	G1867	A1744	A1745	A1678	C1616	G1555	A1491
A2365	U2244	A2116	A2184	U1991	A2052	U1991	G1930	C1868	U1808	A1746	U1680	A	C1556	G1492
G2366	U2245	G2117	C2185	U1992		G1992	U1931	G1869	A1809	A1747	G1681	G1619	C1557	C1493
C2367	G2246	U2118	G2186	U1993	C2055	U1993	A1932	C1870	A1810	U1747	G1682	G1620	G1560	A1494
G2368	A2247	G2121	U2187	C1994	G2056	U1994	G1933	A1871	U1811	U1748	U1683	U1621	C1561	A1495
A2369	C2248	U2122	U2188	U1995	G2057	U1995	A1936	A1872	U1812	A1749	G1684	G1622	U1562	A1496
G2370	U2249	G2123	U2189	C1996		C1996	U1937	G1873	G1813	G1750		G1623	U1563	U1497
C2371	G2250	G2124	U2190	U1997	A2060	A1997	A1937		G1814	U1751	U1688	G1624	C1564	C1498
U2372	A2251	G2125	C2191	C1998	G2061	U1998	U1937	G1876	A1815	C1752	U1689	C1625	C1565	G1500
C2373	G2252	A2126	U2192	C1999	A2062	C1999	U	A1877	C1816	G1753	A1690	C1626	A1566	G1501
G2374	C2253	G2127	G2193	C2000	C2063	C2000	U1940	G1878	U1817	A1754	C1691	G1627	G1567	U1502
A2375	U2254	G2128	U2194	C2001	C2064	C2001	C1941	G1879	U1818	A1755	A1692	G1628	A1568	A1503
C2376	G2255	G2129	U2195	G2002	C2065	G2002	C1942	U1880	A1819	G1756	U1692			



• Molecule 40: 50S ribosomal protein L27

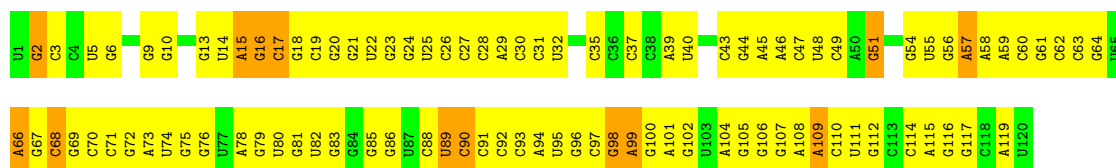


• Molecule 41: 50S ribosomal protein L28

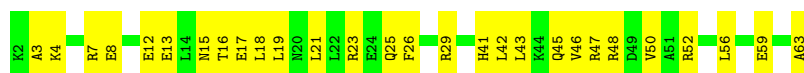


• Molecule 42: 5S rRNA





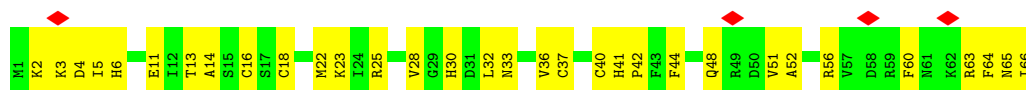
• Molecule 43: 50S ribosomal protein L29



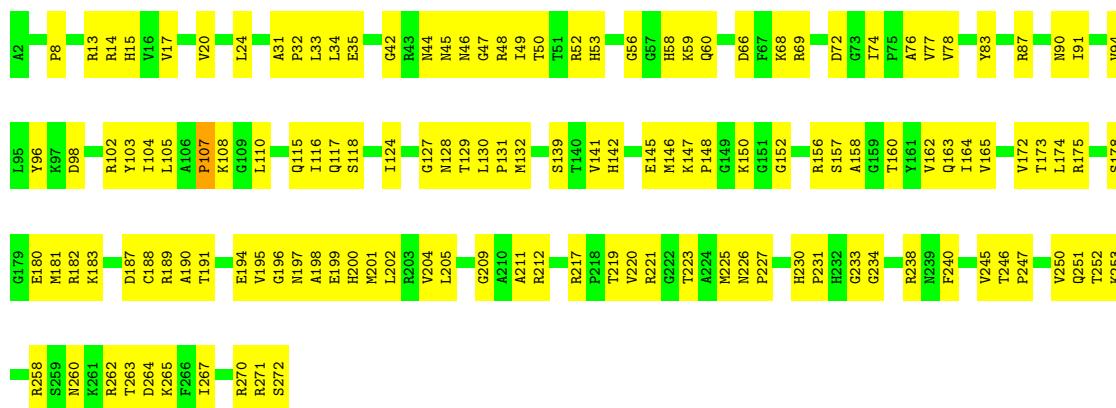
• Molecule 44: 50S ribosomal protein L30



• Molecule 45: 50S ribosomal protein L31

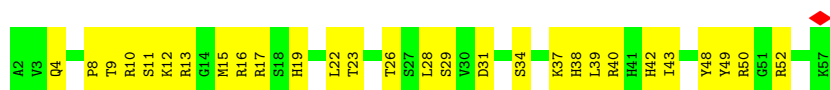


• Molecule 46: 50S ribosomal protein L2



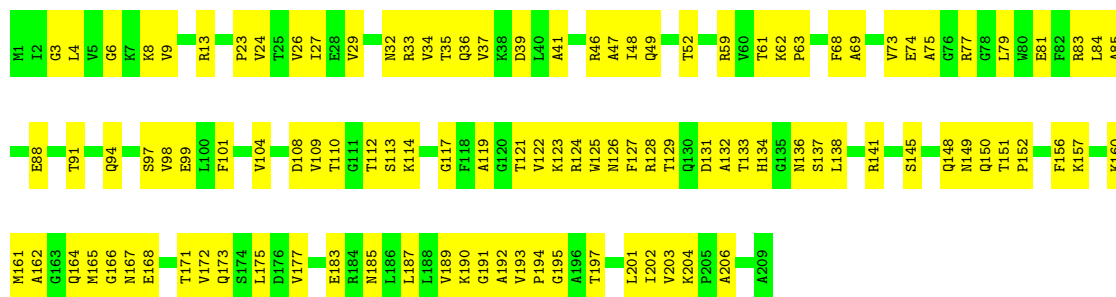
• Molecule 47: 50S ribosomal protein L32





• Molecule 48: 50S ribosomal protein L3

Chain j: 48% 52%



• Molecule 49: 50S ribosomal protein L33

Chain k: 40% 60%



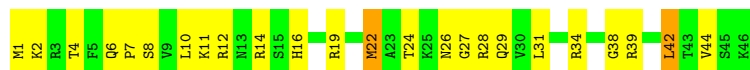
• Molecule 50: 50S ribosomal protein L4

Chain l: 45% 55%



• Molecule 51: 50S ribosomal protein L34

Chain m: 48% 48%

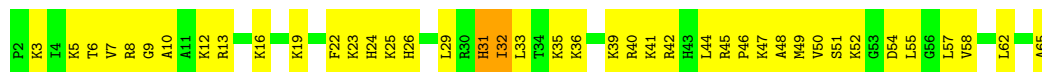


• Molecule 52: 50S ribosomal protein L5

Chain n: 54% 45%



• Molecule 53: 50S ribosomal protein L35



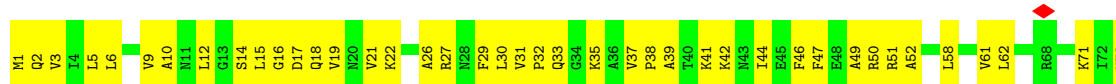
• Molecule 54: 50S ribosomal protein L6



• Molecule 55: 50S ribosomal protein L36

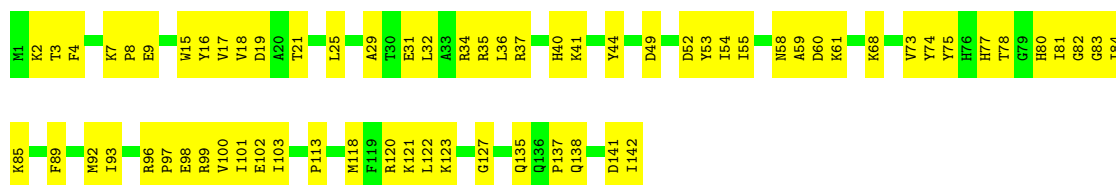


• Molecule 56: 50S ribosomal protein L9



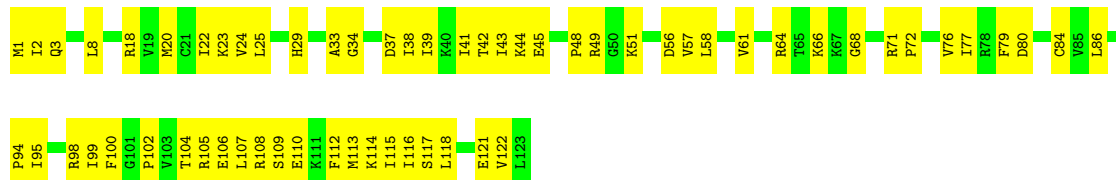
• Molecule 57: 50S ribosomal protein L13





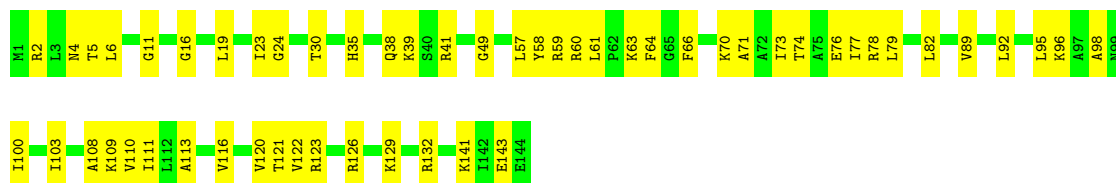
- Molecule 58: 50S ribosomal protein L14

Chain t: 50% 50%



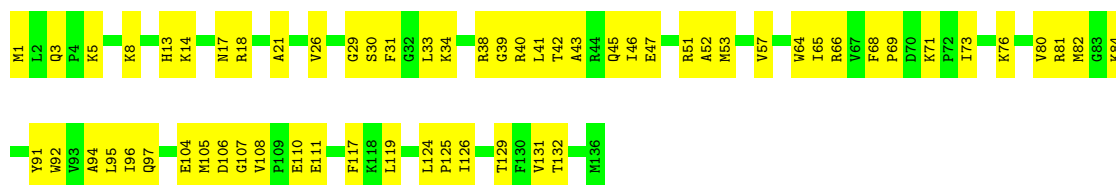
- Molecule 59: 50S ribosomal protein L15

Chain u: 62% 38%



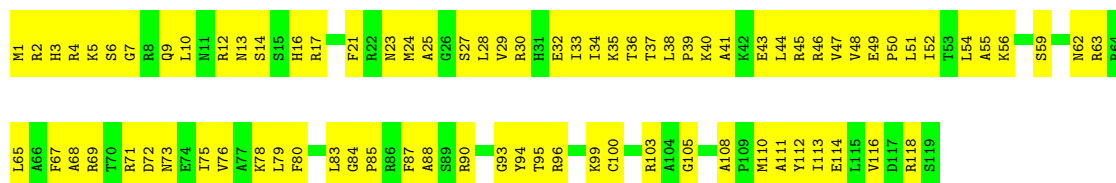
- Molecule 60: 50S ribosomal protein L16

Chain v: 55% 45%



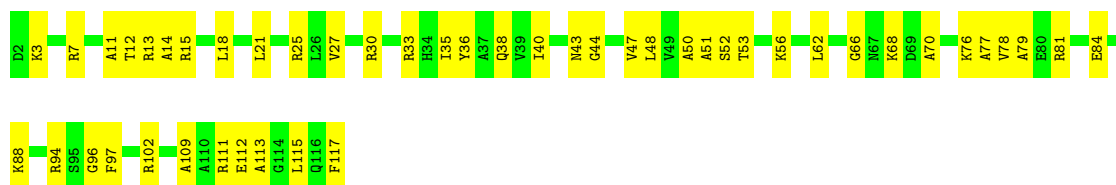
- Molecule 61: 50S ribosomal protein L17

Chain w: 31% 69%

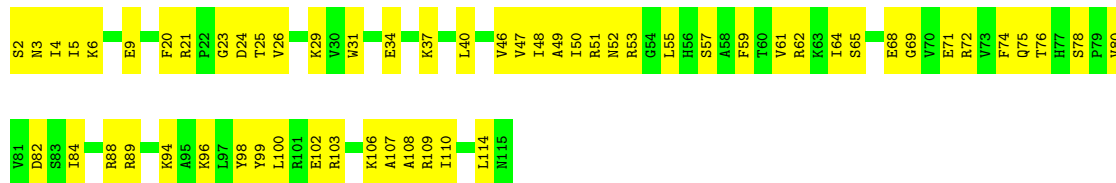


- Molecule 62: 50S ribosomal protein L18

Chain x: 59% 41%



- Molecule 63: 50S ribosomal protein L19



- Molecule 64: 50S ribosomal protein L20



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	24959	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	45	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.093	Depositor
Minimum map value	-0.039	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.004	Depositor
Recommended contour level	0.007	Depositor
Map size ($\text{\AA}$)	548.05, 548.05, 548.05	wwPDB
Map dimensions	500, 500, 500	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.0961, 1.0961, 1.0961	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	0	0.48	0/829	0.67	0/1107
2	1	0.49	0/864	0.63	0/1156
3	2	0.44	0/752	0.60	0/1005
4	3	0.45	0/796	0.66	0/1062
5	4	0.46	0/766	0.59	0/1025
6	5	0.63	1/528 (0.2%)	0.55	0/810
7	6	0.55	1/603 (0.2%)	0.56	0/926
8	7	0.59	2/681 (0.3%)	0.88	3/1058 (0.3%)
9	9	0.30	0/1131	0.72	2/1524 (0.1%)
10	A	0.28	0/1810	0.61	0/2821
10	B	0.28	0/1810	0.61	0/2821
11	AA	0.67	11/10591 (0.1%)	0.96	54/14289 (0.4%)
12	AB	0.42	1/808 (0.1%)	0.70	2/1088 (0.2%)
13	AC	0.60	3/1808 (0.2%)	0.73	9/2450 (0.4%)
13	AD	0.39	0/1789	0.55	0/2425
14	AE	0.53	7/10545 (0.1%)	0.74	22/14236 (0.2%)
15	C	1.04	2/553 (0.4%)	1.30	5/743 (0.7%)
16	D	0.34	0/36610	0.49	10/57091 (0.0%)
17	E	0.52	0/675	0.70	0/895
18	F	0.51	0/597	0.69	0/792
19	G	0.48	0/1791	0.70	1/2413 (0.0%)
20	H	0.81	4/1746 (0.2%)	1.63	39/2382 (1.6%)
21	I	0.58	0/1663	0.98	0/2241
22	J	0.64	0/1665	1.10	3/2227 (0.1%)
23	K	0.51	0/1165	0.72	0/1568
24	L	0.51	0/867	0.73	0/1171
25	M	0.49	0/1195	0.64	0/1602
26	N	0.49	0/989	0.64	0/1326
27	O	0.58	0/1034	0.81	0/1375
28	P	0.62	0/800	1.18	9/1082 (0.8%)
29	Q	0.47	0/893	0.65	0/1205
30	R	0.90	2/952 (0.2%)	1.06	3/1274 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
31	S	0.49	0/817	0.75	2/1088 (0.2%)
32	T	0.48	0/722	0.62	0/964
33	U	0.52	0/659	0.72	1/884 (0.1%)
34	V	0.47	0/657	0.66	0/881
35	W	0.44	0/680	0.59	0/915
36	X	0.42	0/909	0.64	0/1215
37	Y	0.39	1/1046 (0.1%)	0.70	0/1410
38	Z	0.22	0/227	0.56	0/304
39	a	0.34	0/69247	0.50	10/107985 (0.0%)
40	b	0.45	0/589	0.65	0/779
41	c	0.44	0/635	0.69	0/848
42	d	0.32	0/2872	0.44	0/4478
43	e	0.44	0/502	0.58	0/667
44	f	0.46	0/452	0.66	1/605 (0.2%)
45	g	0.39	0/531	0.59	0/709
46	h	0.60	2/2121 (0.1%)	0.76	4/2852 (0.1%)
47	i	0.68	1/450 (0.2%)	0.88	2/599 (0.3%)
48	j	0.47	0/1586	0.67	0/2134
49	k	0.46	0/433	0.59	0/576
50	l	0.44	0/1571	0.63	0/2113
51	m	0.71	0/380	1.26	0/498
52	n	0.77	4/1434 (0.3%)	0.94	8/1926 (0.4%)
53	o	0.48	0/513	0.71	0/676
54	p	0.62	3/1333 (0.2%)	0.79	4/1805 (0.2%)
55	q	0.75	0/303	0.83	0/397
56	r	0.39	0/1122	0.59	0/1515
57	s	0.45	0/1152	0.67	0/1551
58	t	0.53	0/955	0.69	0/1279
59	u	0.47	0/1062	0.71	0/1413
60	v	0.53	0/1093	0.68	0/1460
61	w	0.51	0/964	0.70	0/1289
62	x	0.45	0/902	0.64	0/1209
63	y	0.51	0/929	0.67	0/1242
64	z	0.54	0/960	0.78	2/1278 (0.2%)
All	All	0.44	45/189114 (0.0%)	0.63	196/278734 (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	9	0	3

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
11	AA	0	10
14	AE	0	5
20	H	0	1
27	O	0	1
30	R	0	1
36	X	0	1
40	b	0	1
52	n	0	1
53	o	0	1
54	p	0	1
All	All	0	26

All (45) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	R	42	PRO	N-CA	19.82	1.70	1.47
15	C	41	PRO	N-CA	18.54	1.71	1.47
11	AA	374	GLU	C-N	17.49	1.54	1.33
46	h	107	PRO	CG-CD	-13.62	1.04	1.50
52	n	176	PRO	CG-CD	-13.13	1.06	1.50
11	AA	850	ILE	N-CA	-13.07	1.30	1.46
14	AE	93	THR	CA-C	12.21	1.69	1.52
20	H	169	SER	N-CA	11.73	1.61	1.46
52	n	29	PRO	CG-CD	-11.54	1.11	1.50
30	R	41	THR	C-N	10.50	1.46	1.33
52	n	29	PRO	N-CD	9.41	1.60	1.47
14	AE	70	CYS	CA-CB	-8.76	1.41	1.53
54	p	154	PRO	CG-CD	-8.54	1.21	1.50
8	7	19	G	C1'-N9	-7.48	1.36	1.48
46	h	107	PRO	N-CD	7.47	1.58	1.47
54	p	153	ARG	C-N	-7.41	1.24	1.33
47	i	8	PRO	CG-CD	-7.17	1.26	1.50
8	7	-7	U	C1'-N1	7.14	1.59	1.48
20	H	88	LYS	N-CA	7.05	1.55	1.46
13	AC	76	GLU	N-CA	-6.98	1.37	1.46
6	5	109	DT	O3'-P	6.97	1.71	1.61
52	n	176	PRO	N-CD	6.83	1.57	1.47
54	p	154	PRO	N-CD	6.75	1.57	1.47
20	H	168	VAL	C-N	6.42	1.42	1.33
13	AC	75	GLN	CA-C	-6.14	1.45	1.53
20	H	88	LYS	CA-C	5.82	1.60	1.52
14	AE	90	VAL	CA-C	5.76	1.60	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	Y	5	GLN	CA-C	5.75	1.58	1.52
15	C	40	VAL	C-N	5.63	1.47	1.33
11	AA	885	GLY	C-O	-5.51	1.16	1.23
7	6	10	DG	C1'-N9	-5.37	1.35	1.46
11	AA	604	HIS	ND1-CE1	5.36	1.38	1.32
14	AE	1350	ASN	CG-ND2	-5.27	1.22	1.33
11	AA	996	ARG	N-CA	-5.26	1.38	1.45
13	AC	160	HIS	CD2-NE2	-5.23	1.32	1.37
11	AA	1157	GLN	CD-NE2	-5.15	1.22	1.33
11	AA	1116	HIS	CD2-NE2	-5.14	1.32	1.37
12	AB	81	HIS	ND1-CE1	5.14	1.37	1.32
14	AE	424	ASN	CG-ND2	-5.13	1.22	1.33
11	AA	1257	GLN	CD-OE1	5.13	1.33	1.23
14	AE	777	HIS	ND1-CE1	5.13	1.37	1.32
14	AE	1108	GLN	CD-OE1	5.12	1.33	1.23
11	AA	1116	HIS	ND1-CE1	5.08	1.37	1.32
11	AA	1256	GLN	CD-OE1	5.08	1.33	1.23
11	AA	604	HIS	CD2-NE2	-5.05	1.32	1.37

All (196) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	AA	727	VAL	N-CA-C	-17.25	95.05	110.74
20	H	88	LYS	CA-C-N	16.88	143.50	120.38
20	H	88	LYS	C-N-CA	16.88	143.50	120.38
46	h	107	PRO	N-CD-CG	-16.88	77.88	103.20
30	R	41	THR	CA-C-N	16.66	136.53	120.03
30	R	41	THR	C-N-CA	16.66	136.53	120.03
52	n	29	PRO	N-CD-CG	-16.56	78.36	103.20
54	p	154	PRO	N-CD-CG	-16.45	78.52	103.20
15	C	40	VAL	CA-C-N	15.71	139.48	119.84
15	C	40	VAL	C-N-CA	15.71	139.48	119.84
52	n	176	PRO	N-CD-CG	-15.69	79.67	103.20
11	AA	1250	SER	CA-C-N	14.97	149.66	123.01
11	AA	1250	SER	C-N-CA	14.97	149.66	123.01
11	AA	374	GLU	CA-C-N	14.89	135.72	120.38
11	AA	374	GLU	C-N-CA	14.89	135.72	120.38
20	H	332	VAL	N-CA-C	13.68	124.57	110.62
20	H	169	SER	N-CA-C	12.79	138.04	110.80
20	H	330	VAL	N-CA-C	12.15	126.88	109.51
20	H	305	HIS	N-CA-C	12.00	131.18	111.37
15	C	41	PRO	CA-N-CD	-10.36	97.50	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	i	8	PRO	N-CD-CG	-10.18	87.94	103.20
11	AA	995	ASP	O-C-N	-9.85	109.49	122.59
14	AE	90	VAL	N-CA-C	9.84	122.11	107.75
11	AA	375	PRO	CA-N-CD	-9.66	98.48	112.00
11	AA	935	THR	CA-CB-OG1	-9.41	95.48	109.60
28	P	54	SER	CA-C-N	9.41	129.11	118.85
28	P	54	SER	C-N-CA	9.41	129.11	118.85
11	AA	376	PRO	N-CA-CB	-9.12	93.67	103.25
11	AA	943	LYS	CA-C-O	-8.96	107.69	120.51
8	7	-8	A	O3'-P-O5'	-8.59	91.11	104.00
20	H	339	ARG	CA-C-N	8.55	137.87	121.54
20	H	339	ARG	C-N-CA	8.55	137.87	121.54
11	AA	375	PRO	N-CA-C	8.47	121.03	110.70
64	z	55	ARG	NE-CZ-NH2	8.36	126.73	119.20
11	AA	849	GLU	CA-C-N	8.36	137.02	121.97
11	AA	849	GLU	C-N-CA	8.36	137.02	121.97
8	7	-5	U	C2'-C3'-O3'	8.35	122.03	109.50
52	n	176	PRO	CA-N-CD	-8.33	100.34	112.00
28	P	57	VAL	N-CA-C	8.28	120.02	107.77
52	n	29	PRO	CA-CB-CG	-8.25	88.82	104.50
30	R	42	PRO	CA-N-CD	-8.20	100.51	112.00
46	h	107	PRO	CA-N-CD	-8.03	100.75	112.00
54	p	154	PRO	CA-CB-CG	-8.00	89.31	104.50
11	AA	1048	LYS	CA-C-N	-7.99	115.37	122.96
11	AA	1048	LYS	C-N-CA	-7.99	115.37	122.96
52	n	29	PRO	CA-N-CD	-7.98	100.83	112.00
54	p	154	PRO	N-CA-CB	-7.98	96.01	103.19
11	AA	855	PRO	N-CA-CB	-7.84	95.02	103.25
20	H	155	LYS	CA-C-N	-7.72	111.00	121.66
20	H	155	LYS	C-N-CA	-7.72	111.00	121.66
20	H	168	VAL	CA-C-N	7.65	136.15	121.54
20	H	168	VAL	C-N-CA	7.65	136.15	121.54
14	AE	903	LEU	CA-C-N	7.64	136.13	121.54
14	AE	903	LEU	C-N-CA	7.64	136.13	121.54
20	H	84	LEU	N-CA-C	7.60	120.98	110.35
20	H	52	GLN	N-CA-C	-7.58	104.18	113.50
11	AA	864	LYS	N-CA-C	-7.51	102.34	112.26
20	H	336	ASP	CB-CA-C	-7.48	98.60	110.79
16	D	37	U	N3-C4-O4	-7.42	97.16	119.40
52	n	176	PRO	N-CA-C	7.27	122.24	114.68
11	AA	751	TYR	CA-C-N	7.16	132.09	121.72
11	AA	751	TYR	C-N-CA	7.16	132.09	121.72

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	AA	375	PRO	CB-CA-C	-7.11	102.25	110.92
46	h	107	PRO	CA-CB-CG	-6.93	91.33	104.50
39	a	1141	U	N3-C4-O4	-6.89	98.72	119.40
16	D	1358	U	N3-C4-O4	-6.88	98.77	119.40
20	H	140	PRO	N-CA-CB	6.88	110.47	103.25
16	D	37	U	C5-C4-O4	6.86	146.47	125.90
39	a	1082	U	N3-C4-O4	-6.85	98.85	119.40
13	AC	160	HIS	CB-CG-CD2	-6.84	122.31	131.20
16	D	884	U	N3-C4-O4	-6.80	99.00	119.40
11	AA	604	HIS	CB-CG-CD2	-6.80	122.36	131.20
20	H	340	ARG	CA-C-N	-6.79	112.56	123.23
20	H	340	ARG	C-N-CA	-6.79	112.56	123.23
11	AA	728	ASP	N-CA-C	6.78	125.25	110.80
16	D	827	U	N3-C4-O4	-6.75	99.15	119.40
46	h	107	PRO	N-CA-CB	-6.73	96.19	103.25
39	a	1141	U	C5-C4-O4	6.71	146.02	125.90
9	9	77	VAL	N-CA-C	-6.68	105.97	111.91
11	AA	855	PRO	CB-CA-C	-6.67	100.56	111.56
39	a	1019	U	N3-C4-O4	-6.64	99.47	119.40
28	P	47	GLU	CA-C-N	6.63	130.90	121.42
28	P	47	GLU	C-N-CA	6.63	130.90	121.42
20	H	170	ARG	N-CA-C	6.61	119.57	110.24
13	AC	117	HIS	CB-CA-C	-6.61	97.95	109.64
20	H	87	GLU	N-CA-C	-6.60	104.09	111.28
11	AA	1116	HIS	CB-CG-CD2	-6.58	122.65	131.20
20	H	132	PRO	N-CA-CB	6.57	110.28	103.38
20	H	303	LEU	N-CA-C	6.56	121.12	112.13
64	z	55	ARG	NE-CZ-NH1	-6.56	114.94	121.50
20	H	155	LYS	N-CA-C	-6.51	98.28	108.90
20	H	112	ILE	N-CA-C	6.50	117.06	106.72
13	AC	23	HIS	CB-CG-CD2	-6.48	122.78	131.20
12	AB	81	HIS	CB-CG-CD2	-6.47	122.80	131.20
14	AE	61	ILE	CA-C-N	-6.40	113.96	121.64
14	AE	61	ILE	C-N-CA	-6.40	113.96	121.64
16	D	1358	U	C5-C4-O4	6.39	145.06	125.90
14	AE	450	HIS	CB-CG-CD2	-6.38	122.91	131.20
22	J	86	THR	CA-C-N	6.37	127.19	119.99
22	J	86	THR	C-N-CA	6.37	127.19	119.99
14	AE	93	THR	CA-C-N	6.34	132.99	121.06
14	AE	93	THR	C-N-CA	6.34	132.99	121.06
20	H	268	VAL	N-CA-C	-6.34	106.11	111.56
39	a	2613	U	N3-C4-O4	-6.34	100.38	119.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AE	777	HIS	CB-CG-CD2	-6.31	123.00	131.20
20	H	153	GLU	N-CA-C	-6.27	97.44	110.80
11	AA	150	HIS	CB-CG-CD2	-6.27	123.05	131.20
8	7	11	U	C4'-C3'-O3'	6.26	118.79	109.40
11	AA	888	THR	CB-CA-C	-6.25	99.35	108.91
11	AA	850	ILE	N-CA-CB	6.22	121.49	111.23
39	a	1019	U	C5-C4-O4	6.21	144.53	125.90
11	AA	861	ALA	CA-C-N	6.15	133.28	121.54
11	AA	861	ALA	C-N-CA	6.15	133.28	121.54
14	AE	70	CYS	CB-CA-C	6.14	120.36	110.29
31	S	98	LYS	CA-C-N	-6.14	113.50	122.65
31	S	98	LYS	C-N-CA	-6.14	113.50	122.65
20	H	113	ASN	N-CA-C	6.14	118.05	111.36
16	D	884	U	C5-C4-O4	6.13	144.29	125.90
39	a	2613	U	C5-C4-O4	6.10	144.21	125.90
39	a	1082	U	C5-C4-O4	6.07	144.12	125.90
16	D	827	U	C5-C4-O4	6.01	143.93	125.90
11	AA	1004	ASP	CB-CA-C	6.00	122.37	110.42
11	AA	869	GLY	CA-C-O	-5.98	117.79	122.52
13	AC	74	VAL	N-CA-C	5.97	117.44	108.96
14	AE	90	VAL	CA-C-O	-5.96	114.20	120.39
13	AC	75	GLN	N-CA-CB	5.94	119.39	110.19
20	H	109	THR	N-CA-C	-5.86	99.09	109.06
11	AA	604	HIS	CB-CG-ND1	5.84	131.47	122.70
20	H	150	LYS	N-CA-C	5.83	118.22	110.53
13	AC	160	HIS	CB-CG-ND1	5.83	131.44	122.70
20	H	75	VAL	N-CA-C	5.81	116.48	108.12
11	AA	1116	HIS	CB-CG-ND1	5.79	131.38	122.70
13	AC	76	GLU	N-CA-C	-5.78	101.72	110.28
15	C	41	PRO	N-CD-CG	5.78	111.87	103.20
11	AA	732	ILE	CB-CA-C	-5.78	103.64	111.15
14	AE	91	GLU	N-CA-C	5.75	123.06	110.80
11	AA	936	ARG	CA-C-O	-5.75	114.09	120.70
54	p	154	PRO	CA-N-CD	-5.72	103.99	112.00
52	n	176	PRO	CA-CB-CG	-5.71	93.65	104.50
52	n	176	PRO	N-CA-CB	-5.69	95.94	102.60
9	9	79	PRO	CA-N-CD	-5.67	104.06	112.00
12	AB	81	HIS	CB-CG-ND1	5.66	131.19	122.70
47	i	8	PRO	CA-CB-CG	-5.65	93.76	104.50
11	AA	996	ARG	N-CA-C	-5.64	101.23	109.63
20	H	114	GLY	N-CA-C	5.63	121.28	111.14
14	AE	450	HIS	CB-CG-ND1	5.57	131.06	122.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AC	23	HIS	CB-CG-ND1	5.57	131.05	122.70
22	J	167	LYS	N-CA-C	5.56	118.36	110.24
11	AA	942	ASP	N-CA-C	-5.56	106.67	113.50
19	G	95	ARG	N-CA-C	5.54	117.44	110.24
11	AA	940	GLU	CA-C-O	-5.53	112.60	120.51
11	AA	853	ASP	CA-C-N	5.53	130.32	120.70
11	AA	853	ASP	C-N-CA	5.53	130.32	120.70
15	C	16	GLU	N-CA-C	-5.50	105.36	111.36
11	AA	150	HIS	CB-CG-ND1	5.47	130.90	122.70
11	AA	872	TYR	CA-C-N	5.43	131.74	121.97
11	AA	872	TYR	C-N-CA	5.43	131.74	121.97
14	AE	69	GLU	CA-C-N	-5.39	113.91	121.72
14	AE	69	GLU	C-N-CA	-5.39	113.91	121.72
14	AE	93	THR	CB-CA-C	5.38	121.12	110.42
14	AE	777	HIS	CB-CG-ND1	5.37	130.76	122.70
20	H	75	VAL	CA-C-N	5.37	131.80	121.54
20	H	75	VAL	C-N-CA	5.37	131.80	121.54
33	U	36	VAL	N-CA-C	5.37	117.35	111.77
20	H	81	GLU	CA-C-N	5.36	131.77	121.54
20	H	81	GLU	C-N-CA	5.36	131.77	121.54
14	AE	70	CYS	N-CA-C	-5.34	101.08	109.25
11	AA	375	PRO	N-CA-CB	5.30	108.22	103.08
28	P	48	ARG	N-CA-CB	-5.30	102.06	110.06
16	D	1124	G	C5'-C4'-C3'	5.29	123.14	115.20
11	AA	1158	LYS	CA-C-N	5.29	131.49	121.97
11	AA	1158	LYS	C-N-CA	5.29	131.49	121.97
11	AA	1030	GLU	N-CA-C	-5.29	105.19	111.69
11	AA	732	ILE	N-CA-CB	5.26	116.27	110.53
14	AE	90	VAL	O-C-N	-5.24	117.64	123.20
39	a	2493	U	C5'-C4'-C3'	5.24	123.86	116.00
14	AE	73	GLY	N-CA-C	5.23	125.58	113.18
44	f	51	VAL	N-CA-C	-5.23	107.61	112.43
11	AA	870	ILE	CA-C-N	5.23	128.33	120.69
11	AA	870	ILE	C-N-CA	5.23	128.33	120.69
28	P	86	ALA	CA-C-N	5.22	127.70	120.29
28	P	86	ALA	C-N-CA	5.22	127.70	120.29
11	AA	934	PHE	N-CA-C	-5.19	103.82	111.81
20	H	128	ARG	CA-C-N	-5.15	114.15	122.81
20	H	128	ARG	C-N-CA	-5.15	114.15	122.81
14	AE	61	ILE	CA-C-O	-5.13	115.61	120.95
20	H	154	PHE	N-CA-C	-5.10	100.40	109.06
13	AC	117	HIS	N-CA-C	5.07	116.83	110.24

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	a	974	G	O4'-C1'-N9	5.07	115.81	108.20
11	AA	943	LYS	N-CA-C	5.05	121.56	110.80
28	P	25	ILE	N-CA-CB	5.03	117.38	110.54
16	D	1340	A	C5'-C4'-C3'	5.02	123.53	116.00
14	AE	1184	ASP	N-CA-C	5.02	120.90	109.81
20	H	108	VAL	N-CA-C	-5.01	98.92	109.34
11	AA	377	THR	CA-C-N	5.00	126.95	120.44
11	AA	377	THR	C-N-CA	5.00	126.95	120.44

There are no chirality outliers.

All (26) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
9	9	107	GLU	Peptide
9	9	79	PRO	Peptide
9	9	92	ALA	Peptide
11	AA	1134	GLN	Peptide
11	AA	1157	GLN	Peptide
11	AA	1158	LYS	Peptide
11	AA	205	PRO	Peptide
11	AA	594	VAL	Peptide
11	AA	595	THR	Peptide
11	AA	596	ASP	Mainchain
11	AA	696	ASP	Peptide
11	AA	746	ALA	Peptide
11	AA	853	ASP	Mainchain
14	AE	1184	ASP	Peptide
14	AE	1326	GLN	Peptide
14	AE	313	GLY	Peptide
14	AE	416	ILE	Peptide
14	AE	804	ALA	Peptide
20	H	274	TYR	Peptide
27	O	12	ARG	Peptide
30	R	44	LYS	Peptide
36	X	65	VAL	Peptide
40	b	11	ARG	Peptide
52	n	176	PRO	Peptide
53	o	31	HIS	Peptide
54	p	47	ASP	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	0	816	839	839	52	0
2	1	857	922	922	67	0
3	2	746	811	811	42	0
4	3	788	844	844	77	0
5	4	753	780	780	32	0
6	5	472	260	261	22	0
7	6	542	306	306	26	0
8	7	612	97	302	99	0
9	9	1117	0	1155	221	0
10	A	1620	826	827	100	0
10	B	1620	813	827	106	0
11	AA	10425	10426	10427	370	0
12	AB	790	783	783	7	0
13	AC	1786	1813	1813	59	0
13	AD	1767	1789	1789	46	0
14	AE	10388	10612	10611	363	0
15	C	544	559	560	62	0
16	D	32703	16423	16456	1805	0
17	E	669	719	719	43	0
18	F	589	629	629	45	0
19	G	1760	1785	1787	123	0
20	H	1730	1454	1454	224	0
21	I	1636	1710	1709	147	0
22	J	1643	1707	1707	41	0
23	K	1152	1196	1196	111	0
24	L	848	846	846	56	0
25	M	1181	1235	1238	71	0
26	N	979	1031	1031	81	0
27	O	1022	1070	1070	83	0
28	P	790	831	831	55	0
29	Q	877	887	887	41	0
30	R	939	1001	1001	59	0
31	S	805	844	844	173	0
32	T	714	734	734	40	0
33	U	649	666	666	33	0
34	V	648	691	691	58	0
35	W	663	688	688	46	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
36	X	900	964	965	54	0
37	Y	1032	0	1088	133	0
38	Z	227	0	237	15	0
39	a	61841	31077	31119	3354	0
40	b	582	599	599	41	0
41	c	625	652	652	39	0
42	d	2569	1301	1301	123	0
43	e	501	531	531	23	0
44	f	448	488	488	29	0
45	g	522	520	520	32	0
46	h	2082	2154	2154	151	0
47	i	444	459	458	30	0
48	j	1565	1617	1616	117	0
49	k	426	464	464	28	0
50	l	1552	1619	1619	108	0
51	m	377	418	418	42	0
52	n	1410	1443	1444	80	0
53	o	504	572	572	48	0
54	p	1313	1358	1358	69	0
55	q	302	343	343	29	0
56	r	1111	1148	1148	63	0
57	s	1129	1162	1162	69	0
58	t	946	1023	1023	58	0
59	u	1053	1129	1129	60	0
60	v	1074	1157	1157	64	0
61	w	951	994	994	92	0
62	x	892	923	923	41	0
63	y	917	962	962	55	0
64	z	947	1020	1019	60	0
65	7	1	0	0	0	0
66	AA	2	0	0	0	0
All	All	175885	124724	127504	9290	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 31.

All (9290) 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)
20:H:131:LEU:CB	20:H:167:VAL:CA	1.78	1.56
20:H:131:LEU:CB	20:H:167:VAL:HA	1.03	1.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:P:66:GLU:CG	31:S:99:ALA:HB2	1.43	1.43
18:F:25:LYS:HD2	20:H:336:ASP:CG	1.41	1.43
30:R:42:PRO:N	30:R:42:PRO:CA	1.70	1.42
20:H:267:TRP:CZ3	20:H:342:ILE:HD11	1.56	1.40
15:C:41:PRO:N	15:C:41:PRO:CA	1.71	1.40
15:C:12:ARG:HB2	20:H:264:GLU:CB	1.52	1.40
39:a:682:G:H5'	51:m:26:ASN:CG	1.47	1.39
18:F:25:LYS:CD	20:H:336:ASP:CG	1.97	1.36
20:H:118:GLY:O	20:H:133:GLY:CA	1.74	1.35
20:H:71:ALA:C	20:H:72:LEU:HD12	1.49	1.35
28:P:49:PHE:CZ	31:S:76:LYS:NZ	1.91	1.32
21:I:30:ALA:HB1	31:S:77:PHE:C	1.54	1.31
18:F:25:LYS:HD2	20:H:336:ASP:CB	1.59	1.30
21:I:30:ALA:CB	31:S:77:PHE:C	2.05	1.30
20:H:118:GLY:O	20:H:133:GLY:HA3	1.27	1.29
8:7:5:U:C5	23:K:57:PRO:HB3	1.69	1.28
15:C:34:THR:HA	20:H:338:GLU:CG	1.63	1.28
21:I:36:ASP:HB3	31:S:92:GLU:OE2	1.22	1.27
39:a:467:G:N7	51:m:39:ARG:NH2	1.81	1.27
8:7:17:G:OP2	11:AA:540:ARG:NH1	1.68	1.24
21:I:29:PHE:CD1	31:S:77:PHE:CE1	2.26	1.23
8:7:-5:U:C5	16:D:1403:C:H1'	1.73	1.21
13:AC:168:ILE:HB	21:I:80:LYS:NZ	1.57	1.19
21:I:22:TRP:CD2	31:S:94:PRO:HG3	1.77	1.19
21:I:22:TRP:CE3	31:S:94:PRO:HG3	1.76	1.19
16:D:1125:U:OP2	16:D:1145:A:N6	1.75	1.18
21:I:36:ASP:CB	31:S:92:GLU:OE2	1.90	1.17
21:I:30:ALA:HB2	31:S:77:PHE:CA	1.76	1.15
15:C:34:THR:HA	20:H:338:GLU:HG3	1.21	1.15
8:7:-7:U:P	16:D:1505:G:H8	1.68	1.14
20:H:119:GLY:HA2	20:H:133:GLY:HA2	1.14	1.13
20:H:135:LEU:CB	20:H:167:VAL:CB	2.27	1.13
21:I:29:PHE:CE1	31:S:77:PHE:CE1	2.38	1.12
25:M:27:VAL:HG12	25:M:43:VAL:HG21	1.29	1.11
39:a:727:A:O2'	46:h:13:ARG:NH2	1.84	1.11
16:D:1309:G:N7	36:X:98:ARG:NH2	1.98	1.10
18:F:25:LYS:HD3	20:H:336:ASP:OD1	1.47	1.10
28:P:66:GLU:CG	31:S:99:ALA:CB	2.28	1.10
14:AE:24:LEU:HG	14:AE:232:ASN:HD21	1.17	1.08
15:C:33:ILE:O	20:H:338:GLU:CD	1.97	1.07
21:I:30:ALA:HB1	31:S:77:PHE:O	1.50	1.07

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:F:25:LYS:HD2	20:H:336:ASP:HB3	1.30	1.07
15:C:12:ARG:CB	20:H:264:GLU:CB	2.33	1.07
9:9:23:LEU:HD13	9:9:92:ALA:HB2	1.09	1.06
28:P:66:GLU:HG2	31:S:99:ALA:HB2	1.12	1.06
37:Y:77:VAL:HG13	37:Y:80:LYS:HD2	1.37	1.06
39:a:779:U:OP1	46:h:48:ARG:NH1	1.88	1.06
20:H:267:TRP:CZ2	20:H:300:VAL:HG12	1.90	1.06
9:9:97:LYS:HD2	9:9:125:ARG:HH12	1.17	1.05
20:H:71:ALA:O	20:H:72:LEU:HD12	1.54	1.05
2:1:61:ASN:OD1	39:a:496:G:O2'	1.74	1.05
28:P:66:GLU:CB	31:S:99:ALA:HB2	1.86	1.05
37:Y:105:LEU:HD23	37:Y:108:ILE:HD11	1.39	1.04
20:H:19:ARG:O	20:H:72:LEU:HB2	1.58	1.04
39:a:1056:G:O2'	39:a:1103:A:N6	1.91	1.03
20:H:162:LYS:CB	20:H:298:GLU:CD	2.30	1.03
28:P:66:GLU:CD	31:S:99:ALA:CB	2.32	1.03
16:D:1190:G:OP1	21:I:5:VAL:N	1.91	1.02
16:D:1368:A:OP2	27:O:114:LYS:NZ	1.91	1.02
20:H:267:TRP:CH2	20:H:342:ILE:CD1	2.43	1.02
20:H:290:TYR:O	20:H:305:HIS:O	1.77	1.02
15:C:34:THR:CA	20:H:338:GLU:HG3	1.89	1.02
20:H:267:TRP:CZ3	20:H:342:ILE:CD1	2.41	1.02
39:a:1190:G:OP1	59:u:30:THR:OG1	1.77	1.02
11:AA:992:LEU:HD22	11:AA:992:LEU:H	1.21	1.01
16:D:545:C:P	22:J:62:ARG:HH12	1.83	1.01
39:a:467:G:C5	51:m:39:ARG:NH2	2.25	1.01
39:a:1283:G:O2'	39:a:1285:A:N7	1.92	1.01
39:a:2458:G:N2	39:a:2493:U:O4	1.94	1.00
2:1:88:ARG:O	39:a:1614:A:N6	1.92	1.00
14:AE:111:THR:HG23	14:AE:300:GLN:CD	1.86	1.00
26:N:48:ASP:OD1	26:N:62:THR:OG1	1.80	1.00
28:P:66:GLU:CD	31:S:99:ALA:HB1	1.85	1.00
8:7:-7:U:P	16:D:1505:G:C8	2.55	1.00
9:9:92:ALA:HB1	9:9:129:LEU:HD22	1.41	1.00
39:a:534:U:O2'	64:z:49:ASP:OD2	1.80	0.99
16:D:1368:A:OP1	28:P:64:GLN:NE2	1.95	0.99
8:7:1:U:H5''	8:7:1:U:H6	1.24	0.99
18:F:25:LYS:HD3	20:H:336:ASP:CG	1.79	0.99
21:I:29:PHE:CD1	31:S:77:PHE:HE1	1.78	0.98
17:E:28:MET:HE1	17:E:58:VAL:HG22	1.45	0.98
8:7:3:U:H4'	23:K:33:PHE:HZ	1.28	0.98

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:Y:121:ILE:HA	37:Y:124:MET:HE2	1.45	0.98
39:a:2474:U:O4	39:a:2529:G:N2	1.95	0.98
20:H:131:LEU:CB	20:H:167:VAL:CB	2.40	0.98
39:a:1141:U:OP2	57:s:68:LYS:NZ	1.96	0.98
8:7:-5:U:C6	16:D:1403:C:H1'	1.97	0.98
16:D:824:G:O2'	26:N:3:MET:SD	2.22	0.98
16:D:1005:A:O3'	16:D:1037:C:O2'	1.82	0.98
9:9:58:THR:HB	9:9:81:LEU:HD12	1.43	0.97
37:Y:100:ILE:HD11	37:Y:139:VAL:HB	1.44	0.97
21:I:30:ALA:CB	31:S:77:PHE:CA	2.40	0.97
37:Y:104:GLN:HE21	37:Y:108:ILE:HG21	1.28	0.97
8:7:-7:U:OP2	16:D:1505:G:C8	2.18	0.97
9:9:23:LEU:HD13	9:9:92:ALA:CB	1.95	0.97
52:n:92:ARG:O	52:n:95:ARG:NH1	1.99	0.96
9:9:73:LYS:HE3	9:9:117:LEU:HG	1.45	0.95
39:a:2334:U:O4'	62:x:13:ARG:NH2	1.99	0.95
7:6:15:DC:N4	7:6:16:DC:N4	2.15	0.95
20:H:119:GLY:CA	20:H:133:GLY:HA2	1.95	0.95
16:D:1328:C:O2'	36:X:29:ARG:NH1	1.99	0.95
39:a:2270:A:O2'	40:b:20:ARG:NH1	2.00	0.95
21:I:22:TRP:CE3	31:S:94:PRO:CG	2.50	0.94
60:v:47:GLU:OE2	60:v:51:ARG:NH1	1.99	0.94
13:AC:168:ILE:CB	21:I:80:LYS:NZ	2.31	0.94
14:AE:53:ARG:NH2	22:J:164:GLN:O	1.99	0.94
28:P:49:PHE:CE1	31:S:76:LYS:NZ	2.23	0.94
39:a:460:A:N6	39:a:469:G:N3	2.15	0.94
14:AE:68:TYR:O	14:AE:75:TYR:CE2	2.20	0.94
21:I:29:PHE:HE1	31:S:93:ILE:CG2	1.81	0.94
20:H:118:GLY:O	20:H:133:GLY:HA2	1.63	0.94
26:N:49:PHE:O	26:N:50:LYS:NZ	1.98	0.94
39:a:2682:A:N3	48:j:13:ARG:NH1	2.16	0.94
15:C:35:GLU:H	20:H:338:GLU:HG3	1.31	0.94
25:M:140:ASP:OD2	25:M:143:ARG:NH2	2.00	0.94
21:I:36:ASP:HB3	31:S:92:GLU:CD	1.92	0.93
15:C:33:ILE:O	20:H:338:GLU:OE1	1.86	0.93
21:I:29:PHE:CE1	31:S:93:ILE:CG2	2.51	0.93
15:C:34:THR:HA	20:H:338:GLU:CB	1.97	0.93
39:a:2718:G:O2'	39:a:2847:U:OP1	1.85	0.93
21:I:37:PHE:CG	31:S:66:GLN:NE2	2.37	0.93
20:H:135:LEU:HA	20:H:157:ILE:CB	1.98	0.93
46:h:44:ASN:OD1	46:h:47:GLY:N	2.01	0.93

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:868:SER:OG	11:AA:941:LYS:HG2	1.69	0.92
21:I:36:ASP:CG	31:S:92:GLU:OE2	2.12	0.92
13:AC:158:ARG:HB3	13:AC:158:ARG:HH11	1.32	0.92
39:a:686:U:O2	51:m:8:SER:N	2.03	0.92
8:7:3:U:H4'	23:K:33:PHE:CZ	2.05	0.92
11:AA:878:THR:O	11:AA:920:VAL:HG11	1.68	0.92
20:H:119:GLY:HA3	20:H:131:LEU:O	1.68	0.92
14:AE:202:ARG:HG2	14:AE:202:ARG:HH11	1.35	0.92
16:D:979:C:O2	31:S:59:ARG:NH2	2.02	0.92
11:AA:768:MET:CE	13:AC:80:GLU:OE1	2.17	0.92
53:o:13:ARG:NE	59:u:61:LEU:O	2.02	0.92
16:D:411:A:N6	16:D:430:A:N7	2.16	0.91
39:a:805:G:O4'	59:u:38:GLN:NE2	2.02	0.91
19:G:24:ASN:ND2	19:G:192:ASP:OD1	2.02	0.91
39:a:2357:G:OP1	40:b:20:ARG:NH2	2.03	0.91
16:D:1251:A:N3	16:D:1369:C:O2'	2.03	0.91
39:a:2849:U:O4	63:y:21:ARG:NH2	2.04	0.91
11:AA:728:ASP:OD1	11:AA:769:PRO:HG2	1.71	0.91
26:N:69:LYS:NZ	26:N:70:ALA:O	2.02	0.91
39:a:682:G:C5'	51:m:26:ASN:CG	2.41	0.91
39:a:2831:G:OP2	48:j:59:ARG:NH1	2.04	0.91
6:5:113:DC:OP2	11:AA:163:LYS:HD3	1.71	0.91
39:a:300:A:O2'	39:a:318:C:O2	1.89	0.90
39:a:2285:C:OP2	49:k:6:ARG:NH1	2.04	0.90
20:H:71:ALA:C	20:H:72:LEU:CD1	2.42	0.90
20:H:119:GLY:HA2	20:H:133:GLY:CA	2.01	0.90
39:a:2076:U:OP2	39:a:2238:G:N2	2.04	0.90
10:A:60:U:OP2	10:A:61:C:N4	2.05	0.90
16:D:94:G:N1	16:D:97:G:O6	2.04	0.90
39:a:1814:G:OP2	39:a:1815:A:O2'	1.90	0.90
15:C:35:GLU:N	20:H:338:GLU:HG3	1.85	0.90
16:D:280:C:O2	34:V:40:ARG:NH1	2.04	0.90
12:AB:107:GLU:OE1	14:AE:288:PRO:HB3	1.72	0.90
14:AE:136:GLU:OE1	14:AE:312:ARG:NH1	2.04	0.90
18:F:25:LYS:NZ	20:H:336:ASP:HA	1.87	0.90
21:I:30:ALA:HB2	31:S:77:PHE:HA	1.50	0.90
30:R:7:LEU:HD12	30:R:11:PRO:HA	1.52	0.90
39:a:851:C:O2'	44:f:47:MET:SD	2.29	0.90
6:5:109:DT:H2''	11:AA:200:ARG:HG3	1.53	0.89
39:a:449:A:OP1	50:l:80:SER:N	2.04	0.89
10:B:60:U:OP2	10:B:61:C:N4	2.05	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:H:267:TRP:HZ3	20:H:342:ILE:HD11	1.14	0.89
39:a:1023:U:OP2	39:a:1025:G:O2'	1.90	0.89
10:B:6:G:O2'	10:B:7:G:O5'	1.90	0.89
39:a:1754:A:N1	39:a:2716:C:O2'	2.05	0.89
20:H:267:TRP:CH2	20:H:342:ILE:HD11	2.05	0.89
6:5:114:DC:H5''	14:AE:1148:ARG:NH2	1.87	0.89
21:I:33:LEU:HD11	31:S:93:ILE:HG12	1.52	0.89
8:7:5:U:C5	23:K:57:PRO:CB	2.55	0.89
16:D:195:A:O2'	16:D:196:A:O4'	1.89	0.89
20:H:279:LYS:HA	20:H:331:MET:HB3	1.54	0.89
16:D:1308:U:OP2	36:X:100:GLN:NE2	2.06	0.88
20:H:162:LYS:N	20:H:298:GLU:OE2	2.06	0.88
8:7:5:U:C4	23:K:57:PRO:HB3	2.08	0.88
10:A:6:G:O2'	10:A:7:G:O5'	1.90	0.88
16:D:507:C:OP2	16:D:508:U:O2'	1.92	0.88
39:a:2250:G:O2'	60:v:81:ARG:NH2	2.07	0.88
46:h:107:PRO:HD3	46:h:110:LEU:HD22	1.54	0.88
21:I:20:SER:OG	31:S:92:GLU:HA	1.72	0.88
44:f:37:GLU:O	44:f:38:ARG:NH1	2.07	0.88
13:AC:168:ILE:HB	21:I:80:LYS:HZ3	1.36	0.88
37:Y:20:SER:HB3	37:Y:21:PRO:HD3	1.56	0.88
13:AC:91:ARG:NE	13:AC:122:GLU:OE2	2.07	0.88
39:a:467:G:OP2	51:m:34:ARG:NH1	2.05	0.88
9:9:73:LYS:HB3	9:9:117:LEU:HD21	1.54	0.87
12:AB:107:GLU:CD	14:AE:288:PRO:HB3	1.99	0.87
14:AE:24:LEU:HB2	14:AE:232:ASN:OD1	1.72	0.87
18:F:25:LYS:HZ2	20:H:336:ASP:HA	1.38	0.87
58:t:57:VAL:C	58:t:58:LEU:HD12	1.99	0.87
27:O:113:ARG:HD3	31:S:101:TRP:HD1	1.38	0.87
39:a:682:G:H5'	51:m:26:ASN:ND2	1.87	0.87
39:a:1715:G:O2'	39:a:1743:G:O6	1.91	0.87
14:AE:68:TYR:C	14:AE:75:TYR:HE2	1.80	0.87
16:D:685:G:N2	16:D:705:G:O6	2.06	0.87
16:D:1360:A:OP2	31:S:75:ARG:NH2	2.08	0.87
21:I:22:TRP:O	31:S:94:PRO:HB2	1.73	0.87
11:AA:1008:GLN:NE2	11:AA:1008:GLN:O	2.07	0.87
8:7:17:G:OP2	11:AA:540:ARG:CZ	2.21	0.87
9:9:92:ALA:O	9:9:129:LEU:HD13	1.73	0.87
39:a:245:G:N7	53:o:8:ARG:NH1	2.22	0.87
39:a:2291:U:OP1	39:a:2380:C:O2'	1.93	0.87
39:a:1169:A:N6	39:a:1180:U:O4	2.06	0.87

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:253:C:OP2	53:o:5:LYS:NZ	2.07	0.87
45:g:37:CYS:N	45:g:40:CYS:SG	2.46	0.87
11:AA:975:ILE:HG13	11:AA:1014:LEU:HD23	1.57	0.87
14:AE:24:LEU:HG	14:AE:232:ASN:ND2	1.90	0.86
14:AE:68:TYR:O	14:AE:75:TYR:HE2	1.58	0.86
22:J:61:VAL:HG21	22:J:200:ILE:HD11	1.57	0.86
28:P:66:GLU:HB3	31:S:99:ALA:CB	2.05	0.86
33:U:51:ARG:C	33:U:52:LEU:HD22	2.00	0.86
37:Y:14:ALA:HB3	37:Y:51:GLY:H	1.37	0.86
39:a:884:U:O2'	39:a:885:C:O4'	1.93	0.86
9:9:37:LYS:O	9:9:41:LEU:HG	1.75	0.86
16:D:583:A:N6	16:D:758:C:O2	2.08	0.86
20:H:131:LEU:CB	20:H:167:VAL:N	2.37	0.86
20:H:332:VAL:HG11	20:H:335:ILE:HG13	1.57	0.86
21:I:30:ALA:CB	31:S:77:PHE:HA	2.03	0.86
39:a:603:A:N6	39:a:655:A:O4'	2.09	0.86
39:a:2277:G:OP2	40:b:10:THR:HG22	1.76	0.86
16:D:1319:A:OP1	35:W:3:ARG:NH1	2.09	0.86
20:H:348:GLN:N	20:H:348:GLN:OE1	2.08	0.86
31:S:88:ALA:HA	31:S:96:LEU:HD23	1.58	0.86
50:I:6:LYS:O	50:I:9:GLN:NE2	2.07	0.86
6:5:110:DA:N7	11:AA:183:TRP:CH2	2.43	0.86
16:D:1220:G:O3'	35:W:36:ARG:NH1	2.09	0.86
54:p:18:LYS:NZ	54:p:19:ILE:O	2.08	0.86
14:AE:425:ARG:NH1	14:AE:458:ASN:O	2.09	0.86
37:Y:104:GLN:HG2	37:Y:108:ILE:HD13	1.57	0.85
37:Y:126:ARG:HD2	37:Y:127:SER:N	1.91	0.85
9:9:73:LYS:CB	9:9:117:LEU:HD21	2.06	0.85
9:9:88:HIS:HB3	9:9:89:PRO:CD	2.06	0.85
39:a:1697:G:OP2	39:a:1698:A:O2'	1.94	0.85
11:AA:1090:ASN:O	13:AC:182:ARG:NH1	2.08	0.85
16:D:1279:G:O2'	16:D:1282:C:N4	2.09	0.85
19:G:32:PHE:HZ	20:H:7:GLN:HG3	1.41	0.85
18:F:25:LYS:CD	20:H:336:ASP:OD1	2.14	0.85
39:a:1225:G:O2'	39:a:1226:A:O4'	1.95	0.85
39:a:1941:C:N4	39:a:1965:C:O4'	2.09	0.85
11:AA:867:GLU:HB3	21:I:75:ILE:HG12	1.59	0.85
11:AA:981:ALA:HB3	11:AA:1008:GLN:HG3	1.57	0.85
39:a:2788:C:O2'	39:a:2809:A:N3	2.09	0.85
9:9:24:SER:HA	9:9:95:LEU:CD2	2.07	0.85
11:AA:883:LEU:HD11	11:AA:920:VAL:HG22	1.59	0.85

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:967:LEU:O	11:AA:967:LEU:HD12	1.76	0.85
10:B:22:G:O2'	10:B:23:C:OP1	1.94	0.85
39:a:161:A:OP2	39:a:162:U:O2'	1.93	0.85
8:7:5:U:C4	23:K:57:PRO:CB	2.59	0.84
16:D:453:G:O6	16:D:479:U:N3	2.09	0.84
39:a:1469:A:OP2	39:a:1522:A:N6	2.09	0.84
10:A:18:G:N2	10:A:55:U:O2	2.10	0.84
20:H:135:LEU:CB	20:H:167:VAL:C	2.50	0.84
39:a:801:G:O4'	50:l:49:ARG:NH2	2.08	0.84
39:a:2780:G:OP2	57:s:120:ARG:NH1	2.09	0.84
1:0:10:LYS:NZ	39:a:996:A:OP2	2.10	0.84
18:F:25:LYS:CD	20:H:336:ASP:CB	2.44	0.84
39:a:84:A:N1	39:a:98:G:O2'	2.09	0.84
45:g:16:CYS:CB	45:g:37:CYS:HB3	2.08	0.84
14:AE:68:TYR:HB3	14:AE:75:TYR:OH	1.76	0.84
16:D:262:A:OP2	17:E:71:LYS:NZ	2.11	0.84
20:H:131:LEU:CB	20:H:166:VAL:O	2.26	0.84
39:a:684:G:OP1	51:m:16:HIS:ND1	2.09	0.84
39:a:2144:G:N2	39:a:2146:C:O2	2.11	0.84
11:AA:953:LEU:HA	11:AA:1036:ILE:HD13	1.59	0.84
19:G:32:PHE:HZ	20:H:7:GLN:CG	1.90	0.84
10:A:22:G:O2'	10:A:23:C:OP1	1.94	0.84
10:B:18:G:N2	10:B:55:U:O2	2.10	0.84
16:D:545:C:OP1	22:J:62:ARG:NH1	2.09	0.84
31:S:93:ILE:HD12	31:S:96:LEU:CD2	2.08	0.83
39:a:918:A:HO2'	42:d:80:U:HO2'	1.19	0.83
39:a:2359:C:O2'	53:o:54:ASP:OD2	1.94	0.83
11:AA:980:VAL:HA	11:AA:984:VAL:HB	1.58	0.83
39:a:298:G:N1	39:a:339:U:OP2	2.12	0.83
14:AE:26:SER:HB2	14:AE:236:TRP:CZ2	2.12	0.83
7:6:21:DA:N1	8:7:15:G:N2	2.26	0.83
39:a:682:G:H5'	51:m:26:ASN:OD1	1.78	0.83
28:P:66:GLU:HG2	31:S:99:ALA:CB	2.00	0.83
39:a:223:A:O2'	39:a:420:C:O2	1.95	0.83
39:a:704:G:HO2'	39:a:726:G:H1	1.25	0.83
39:a:2816:G:N3	39:a:2883:A:O2'	2.10	0.83
39:a:467:G:C8	51:m:39:ARG:NH2	2.46	0.83
58:t:114:LYS:O	58:t:117:SER:OG	1.97	0.83
8:7:-7:U:OP2	16:D:1505:G:H8	1.55	0.83
9:9:17:GLU:HB3	9:9:86:MET:HG2	1.61	0.83
61:w:67:PHE:O	61:w:71:ARG:N	2.10	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:48:ALA:HB3	9:9:51:TYR:HE1	1.44	0.82
24:L:1:MET:N	24:L:65:GLU:OE2	2.11	0.82
27:O:91:ASP:OD1	27:O:92:GLU:N	2.11	0.82
39:a:465:G:O2'	39:a:466:A:O4'	1.95	0.82
39:a:1065:U:O2'	39:a:1066:U:O5'	1.97	0.82
52:n:117:LEU:N	52:n:177:PHE:O	2.12	0.82
39:a:2641:G:OP1	57:s:85:LYS:HE2	1.79	0.82
20:H:267:TRP:CZ2	20:H:300:VAL:CG1	2.63	0.82
39:a:1913:A:O2'	39:a:1914:C:OP1	1.95	0.82
19:G:176:ALA:O	19:G:180:GLY:N	2.11	0.82
39:a:2418:A:OP1	53:o:45:ARG:NH2	2.12	0.82
14:AE:141:PHE:HE2	14:AE:296:LYS:HB2	1.45	0.82
13:AD:86:LYS:CE	14:AE:528:THR:HB	2.09	0.82
39:a:2306:C:OP2	39:a:2307:G:O2'	1.96	0.82
6:5:110:DA:N7	11:AA:183:TRP:HH2	1.78	0.82
20:H:122:VAL:O	20:H:129:ALA:N	2.13	0.82
39:a:1406:U:O2'	39:a:1407:G:O5'	1.98	0.82
15:C:10:PHE:N	16:D:845:A:HO2'	1.77	0.82
20:H:305:HIS:CD2	20:H:306:VAL:H	1.98	0.82
23:K:66:LYS:O	23:K:70:ASN:ND2	2.12	0.82
39:a:818:G:N1	39:a:1188:U:OP2	2.12	0.82
24:L:2:ARG:N	24:L:65:GLU:OE2	2.13	0.81
28:P:52:LEU:HB2	31:S:81:ARG:NH2	1.94	0.81
8:7:-5:U:C5	16:D:1403:C:C1'	2.61	0.81
9:9:126:LEU:HD12	9:9:128:THR:OG1	1.80	0.81
37:Y:107:GLU:O	37:Y:110:GLN:HG3	1.78	0.81
57:s:58:ASN:N	57:s:127:GLY:O	2.12	0.81
14:AE:111:THR:HG23	14:AE:300:GLN:OE1	1.81	0.81
16:D:452:A:N6	16:D:480:U:O2	2.13	0.81
45:g:16:CYS:SG	45:g:37:CYS:N	2.53	0.81
10:A:35:A:O2'	10:A:36:U:O4'	1.98	0.81
21:I:29:PHE:CD1	31:S:77:PHE:CD1	2.68	0.81
39:a:1223:G:N2	39:a:1226:A:OP2	2.12	0.81
4:3:12:ILE:HD11	4:3:80:ALA:HB2	1.61	0.81
7:6:18:DC:H42	8:7:17:G:H1	1.27	0.81
11:AA:724:VAL:CG1	11:AA:774:GLY:H	1.93	0.81
16:D:73:C:N4	16:D:94:G:O6	2.14	0.81
11:AA:886:LYS:HE3	11:AA:886:LYS:O	1.80	0.81
14:AE:141:PHE:CE2	14:AE:296:LYS:HB2	2.15	0.81
10:B:76:A:O2'	39:a:2493:U:H4'	1.81	0.81
16:D:1145:A:O2'	16:D:1146:A:O5'	1.98	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1069:A:O2'	39:a:1073:A:N6	2.12	0.81
39:a:1799:G:OP2	46:h:270:ARG:NH2	2.14	0.81
7:6:21:DA:N1	8:7:15:G:C2	2.49	0.81
16:D:1017:U:O2'	16:D:1018:G:O4'	1.98	0.81
16:D:1059:C:O2	28:P:55:PRO:HG3	1.79	0.81
28:P:52:LEU:HB2	31:S:81:ARG:HH22	1.44	0.81
39:a:210:C:OP1	51:m:29:GLN:NE2	2.13	0.81
9:9:97:LYS:HD3	9:9:127:ALA:HA	1.62	0.81
10:B:35:A:O2'	10:B:36:U:O4'	1.98	0.81
16:D:936:C:H1'	16:D:1382:C:H42	1.46	0.81
16:D:1369:C:OP1	27:O:113:ARG:NH1	2.13	0.81
20:H:155:LYS:CB	20:H:169:SER:CB	2.58	0.81
11:AA:1043:ALA:HB1	11:AA:1044:PRO:HD2	1.61	0.80
39:a:1453:A:O2'	61:w:73:ASN:ND2	2.14	0.80
8:7:-5:U:O2'	16:D:1403:C:O2	1.99	0.80
14:AE:1169:THR:OG1	14:AE:1192:LYS:NZ	2.13	0.80
37:Y:58:ILE:HG22	37:Y:60:VAL:HG23	1.63	0.80
38:Z:19:VAL:HG13	38:Z:20:VAL:HG23	1.62	0.80
39:a:500:G:O2'	39:a:502:A:N7	2.14	0.80
16:D:1249:C:O2'	27:O:70:GLY:O	1.99	0.80
19:G:87:CYS:O	19:G:89:GLN:NE2	2.13	0.80
21:I:30:ALA:HB2	31:S:77:PHE:C	1.88	0.80
39:a:1135:C:N4	39:a:1138:G:OP2	2.11	0.80
1:0:58:VAL:O	1:0:59:ILE:HD13	1.81	0.80
4:3:18:ASP:OD2	4:3:39:ILE:HG23	1.82	0.80
9:9:73:LYS:CE	9:9:117:LEU:HG	2.12	0.80
9:9:134:GLU:HB3	38:Z:26:MET:HE1	1.62	0.80
16:D:126:G:OP1	16:D:605:U:O2'	1.98	0.80
16:D:1287:A:N3	16:D:1353:G:O2'	2.12	0.80
25:M:91:VAL:O	25:M:96:ARG:NH2	2.15	0.80
8:7:-7:U:OP2	16:D:926:G:N2	2.14	0.80
16:D:410:G:N2	16:D:431:A:N7	2.29	0.80
62:x:111:ARG:NH2	62:x:117:PHE:OXT	2.15	0.80
20:H:270:ILE:CG2	20:H:337:GLU:HB3	2.12	0.80
37:Y:121:ILE:HA	37:Y:124:MET:CE	2.12	0.80
39:a:1869:G:N2	39:a:1871:A:O2'	2.13	0.80
18:F:25:LYS:CD	20:H:336:ASP:HB3	2.08	0.80
16:D:1111:A:C2	21:I:177:THR:HG23	2.16	0.80
11:AA:118:LYS:NZ	11:AA:487:LEU:O	2.14	0.80
14:AE:144:TYR:HE1	14:AE:162:GLU:OE2	1.64	0.80
19:G:74:ARG:O	19:G:74:ARG:NH2	2.15	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:976:G:O2'	39:a:1155:A:O2'	1.98	0.80
9:9:136:ILE:HD12	9:9:139:LEU:HD12	1.62	0.80
39:a:675:A:OP1	50:l:58:LYS:NZ	2.15	0.80
29:Q:88:GLY:O	29:Q:93:ARG:NH2	2.14	0.79
39:a:2717:C:O3'	63:y:98:TYR:OH	1.99	0.79
41:c:47:VAL:HG13	41:c:49:LEU:HD11	1.64	0.79
58:t:34:GLY:N	58:t:37:ASP:OD2	2.15	0.79
16:D:1317:C:OP1	31:S:56:SER:OG	1.99	0.79
39:a:586:A:N1	39:a:809:G:O2'	2.14	0.79
9:9:33:VAL:HG12	9:9:34:THR:H	1.46	0.79
16:D:1224:U:O2'	36:X:101:ARG:NH1	2.15	0.79
20:H:123:GLU:HA	20:H:128:ARG:HA	1.63	0.79
38:Z:2:ILE:HB	38:Z:5:ASP:HB3	1.65	0.79
16:D:1077:G:N2	16:D:1080:A:OP2	2.13	0.79
25:M:15:ASP:OD1	25:M:20:SER:N	2.14	0.79
39:a:918:A:O2'	42:d:81:G:O4'	2.01	0.79
2:1:78:GLU:O	39:a:24:G:O2'	1.99	0.79
14:AE:37:GLU:O	14:AE:61:ILE:HD11	1.81	0.79
64:z:47:TYR:O	64:z:50:ARG:NH1	2.15	0.79
8:7:-7:U:OP1	16:D:1505:G:C8	2.36	0.79
20:H:267:TRP:CH2	20:H:300:VAL:HB	2.18	0.79
11:AA:1007:LYS:O	11:AA:1007:LYS:HD2	1.83	0.79
21:I:33:LEU:CD1	31:S:93:ILE:HG23	2.12	0.79
47:i:40:ARG:O	47:i:42:HIS:ND1	2.15	0.79
50:l:41:GLN:OE1	50:l:43:THR:OG1	2.01	0.79
21:I:29:PHE:CZ	31:S:93:ILE:HG22	2.18	0.78
39:a:981:A:OP2	39:a:982:C:N4	2.14	0.78
11:AA:955:GLN:OE1	11:AA:955:GLN:HA	1.83	0.78
21:I:30:ALA:CA	31:S:77:PHE:HA	2.12	0.78
39:a:2848:G:O2'	39:a:2867:G:N2	2.17	0.78
4:3:15:THR:OG1	4:3:69:ASN:ND2	2.17	0.78
14:AE:186:GLN:HG3	14:AE:238:ILE:HG13	1.65	0.78
20:H:19:ARG:HD3	20:H:73:ASP:CG	2.09	0.78
39:a:685:A:O2'	39:a:773:U:O4	2.00	0.78
16:D:327:A:O2'	16:D:328:C:O4'	2.01	0.78
16:D:499:A:O4'	16:D:547:A:N6	2.17	0.78
39:a:1416:G:O2'	39:a:1417:C:O5'	2.02	0.78
16:D:450:G:N1	16:D:484:G:O6	2.16	0.78
16:D:520:A:O2'	30:R:70:GLU:OE1	2.01	0.78
39:a:1993:U:H4'	48:j:133:THR:HG21	1.64	0.78
11:AA:964:LEU:HD12	11:AA:964:LEU:O	1.84	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:H:267:TRP:HZ2	20:H:300:VAL:HA	1.49	0.78
21:I:22:TRP:O	31:S:94:PRO:CB	2.31	0.78
21:I:33:LEU:HD11	31:S:93:ILE:HG23	1.65	0.78
9:9:37:LYS:HE3	9:9:41:LEU:HD21	1.65	0.78
21:I:33:LEU:HD11	31:S:93:ILE:CG1	2.14	0.78
11:AA:1257:GLN:HE22	14:AE:345:LYS:HA	1.48	0.78
17:E:54:MET:HE1	17:E:79:LEU:HD13	1.63	0.78
45:g:16:CYS:HB2	45:g:37:CYS:HB3	1.65	0.78
14:AE:1075:ARG:NH2	14:AE:1168:GLU:OE2	2.17	0.78
39:a:756:A:H2'	39:a:757:G:O4'	1.84	0.78
60:v:41:LEU:HB3	60:v:46:ILE:HD11	1.66	0.78
7:6:15:DC:C4	7:6:16:DC:N4	2.53	0.77
9:9:7:ASP:O	9:9:11:ILE:HD12	1.84	0.77
13:AC:76:GLU:CD	13:AC:131:CYS:HA	2.09	0.77
14:AE:90:VAL:HG13	14:AE:90:VAL:O	1.82	0.77
20:H:305:HIS:CD2	20:H:306:VAL:N	2.53	0.77
9:9:88:HIS:HB3	9:9:89:PRO:HD2	1.65	0.77
17:E:57:ILE:O	17:E:61:GLN:OE1	2.02	0.77
9:9:48:ALA:HB3	9:9:51:TYR:CE1	2.19	0.77
11:AA:1024:GLU:HA	11:AA:1027:LYS:HE3	1.66	0.77
15:C:12:ARG:CG	20:H:264:GLU:CB	2.62	0.77
20:H:264:GLU:O	20:H:268:VAL:HG12	1.84	0.77
52:n:36:LEU:HD11	52:n:152:LEU:HD13	1.66	0.77
8:7:1:U:H6	8:7:1:U:C5'	1.95	0.77
9:9:8:LYS:O	9:9:12:VAL:HG23	1.83	0.77
39:a:1277:G:O2'	61:w:24:MET:HE1	1.83	0.77
42:d:76:G:N2	42:d:100:G:O6	2.17	0.77
63:y:102:GLU:OE1	63:y:102:GLU:N	2.17	0.77
13:AC:168:ILE:CB	21:I:80:LYS:HZ3	1.96	0.77
16:D:404:G:O2'	16:D:498:A:N1	2.17	0.77
39:a:585:G:H2'	39:a:1251:C:H42	1.48	0.77
9:9:87:GLU:HG3	9:9:95:LEU:HD22	1.66	0.77
11:AA:1026:GLU:HA	11:AA:1026:GLU:OE2	1.84	0.77
15:C:34:THR:HA	20:H:338:GLU:HB3	1.65	0.77
16:D:1321:U:OP2	16:D:1322:C:O2'	2.03	0.77
29:Q:37:ARG:O	29:Q:37:ARG:NH2	2.16	0.77
1:0:27:ILE:O	1:0:66:HIS:NE2	2.18	0.77
11:AA:1257:GLN:OE1	14:AE:345:LYS:CG	2.32	0.77
16:D:781:A:OP2	16:D:800:G:N1	2.18	0.77
22:J:202:GLU:OE1	23:K:105:ILE:O	2.01	0.77
16:D:1192:C:OP1	21:I:4:LYS:HE2	1.85	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:Y:55:PRO:O	37:Y:71:LYS:HB2	1.85	0.76
39:a:307:G:N1	39:a:310:A:OP2	2.18	0.76
11:AA:1246:ARG:HH11	11:AA:1266:GLY:HA2	1.50	0.76
20:H:162:LYS:CA	20:H:298:GLU:OE2	2.17	0.76
39:a:1085:A:O2'	39:a:1086:A:O4'	2.01	0.76
60:v:42:THR:O	60:v:46:ILE:HD12	1.86	0.76
11:AA:611:GLU:OE2	11:AA:637:ARG:NH2	2.13	0.76
39:a:68:G:N2	39:a:74:A:N3	2.33	0.76
3:2:50:LEU:HD23	43:e:26:PHE:CE2	2.19	0.76
11:AA:954:LYS:HZ2	11:AA:954:LYS:C	1.93	0.76
28:P:66:GLU:CB	31:S:99:ALA:CB	2.56	0.76
39:a:545:U:O2'	39:a:546:U:O3'	2.03	0.76
42:d:37:C:N4	42:d:48:U:O2	2.18	0.76
14:AE:123:ARG:HG3	14:AE:1337:VAL:HG11	1.67	0.76
14:AE:202:ARG:HG2	14:AE:202:ARG:NH1	1.99	0.76
39:a:2202:U:O2'	39:a:2204:G:OP1	2.03	0.76
16:D:229:U:O2'	33:U:25:ARG:NH2	2.18	0.76
16:D:692:U:O2'	16:D:694:A:N7	2.16	0.76
21:I:30:ALA:HB2	31:S:76:LYS:O	1.86	0.76
8:7:-7:U:OP1	16:D:1505:G:H8	1.68	0.76
9:9:58:THR:CB	9:9:81:LEU:HA	2.16	0.76
39:a:482:A:N6	39:a:506:G:O2'	2.18	0.76
39:a:1824:G:OP1	46:h:53:HIS:NE2	2.18	0.76
9:9:2:ALA:O	9:9:3:LEU:HD23	1.86	0.76
11:AA:871:VAL:N	11:AA:883:LEU:O	2.18	0.76
39:a:498:G:N1	39:a:506:G:O6	2.19	0.76
50:l:188:MET:HE2	50:l:193:VAL:HG22	1.68	0.76
16:D:323:U:OP1	17:E:18:ARG:NH1	2.18	0.76
8:7:1:U:H5''	8:7:1:U:C6	2.16	0.76
16:D:492:C:H2'	16:D:493:A:C8	2.21	0.76
1:0:68:ARG:HD3	1:0:90:ARG:HB2	1.67	0.75
9:9:43:LYS:HG3	9:9:46:ARG:NH2	2.00	0.75
9:9:60:LEU:HA	9:9:64:VAL:HB	1.67	0.75
22:J:88:GLU:OE1	22:J:188:ARG:HB2	1.85	0.75
39:a:1212:G:N2	39:a:1236:G:O2'	2.19	0.75
9:9:60:LEU:HD23	9:9:64:VAL:HG21	1.65	0.75
16:D:81:A:N6	16:D:88:U:O4	2.14	0.75
14:AE:110:PRO:HG2	14:AE:183:GLU:HG3	1.68	0.75
39:a:1139:G:O2'	39:a:1143:A:N1	2.18	0.75
14:AE:88:CYS:HB3	14:AE:90:VAL:HG12	1.68	0.75
21:I:34:ASP:CG	31:S:65:ARG:HD3	2.11	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:O:106:ARG:NH1	27:O:107:ASP:O	2.20	0.75
34:V:7:THR:C	34:V:8:LEU:HD12	2.11	0.75
39:a:1045:C:H41	39:a:1111:A:H2'	1.52	0.75
39:a:1083:U:O2'	39:a:1085:A:OP2	2.03	0.75
16:D:1124:G:H2'	16:D:1145:A:C6	2.21	0.75
6:5:108:DT:H72	11:AA:199:ASP:HB3	1.68	0.75
16:D:1080:A:OP1	23:K:52:LYS:NZ	2.20	0.75
25:M:26:PHE:CE2	25:M:30:LEU:HD11	2.22	0.75
39:a:282:A:N6	39:a:359:G:O6	2.20	0.75
13:AC:158:ARG:HB3	13:AC:158:ARG:NH1	2.02	0.75
39:a:887:A:O2'	39:a:889:C:OP2	2.05	0.75
39:a:2848:G:HO2'	39:a:2867:G:N2	1.85	0.75
11:AA:1272:GLU:OE2	14:AE:798:ARG:NH1	2.19	0.75
20:H:131:LEU:CB	20:H:166:VAL:C	2.60	0.75
31:S:47:LYS:O	31:S:50:THR:OG1	2.01	0.75
39:a:1128:G:O4'	39:a:2516:A:O2'	2.05	0.75
16:D:542:G:OP1	22:J:10:LYS:NZ	2.20	0.74
16:D:673:A:H2'	16:D:674:G:C8	2.21	0.74
37:Y:104:GLN:NE2	37:Y:108:ILE:HG21	2.02	0.74
39:a:1026:G:OP1	39:a:1134:A:O2'	2.03	0.74
62:x:109:ALA:O	62:x:113:ALA:N	2.20	0.74
16:D:1348:U:H4'	27:O:122:ARG:HB2	1.69	0.74
39:a:306:U:H2'	39:a:307:G:O4'	1.87	0.74
9:9:92:ALA:CB	9:9:129:LEU:HD22	2.14	0.74
11:AA:1034:ARG:HG2	11:AA:1034:ARG:HH11	1.51	0.74
39:a:570:G:O4'	39:a:983:A:N6	2.20	0.74
11:AA:867:GLU:HB3	21:I:75:ILE:CG1	2.18	0.74
23:K:109:GLY:O	23:K:112:ARG:N	2.21	0.74
27:O:57:MET:HA	27:O:60:LYS:HE2	1.70	0.74
2:1:42:LYS:NZ	39:a:2010:G:O3'	2.19	0.74
3:2:50:LEU:HD23	43:e:26:PHE:HE2	1.51	0.74
16:D:1125:U:OP2	16:D:1127:G:O6	2.05	0.74
39:a:1665:A:O3'	58:t:66:LYS:NZ	2.21	0.74
39:a:2902:C:N4	39:a:2903:U:O4	2.19	0.74
9:9:129:LEU:N	9:9:130:PRO:HD3	2.03	0.74
11:AA:998:LEU:HD13	11:AA:998:LEU:C	2.13	0.74
21:I:22:TRP:CZ3	31:S:94:PRO:CG	2.69	0.74
24:L:16:GLU:N	24:L:16:GLU:OE2	2.20	0.74
56:r:14:SER:OG	56:r:17:ASP:OD2	2.05	0.74
9:9:77:VAL:C	9:9:79:PRO:HD3	2.12	0.74
34:V:8:LEU:N	34:V:60:GLU:OE2	2.19	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2297:A:N1	39:a:2321:U:C4	2.56	0.74
20:H:109:THR:CA	20:H:153:GLU:HA	2.18	0.74
21:I:30:ALA:CB	31:S:77:PHE:O	2.25	0.74
37:Y:79:LEU:CD1	37:Y:132:ALA:HA	2.18	0.74
11:AA:991:LYS:HD2	11:AA:991:LYS:N	2.03	0.74
13:AD:196:THR:HB	14:AE:443:GLU:HG3	1.68	0.74
20:H:304:VAL:HG12	20:H:309:MET:SD	2.28	0.74
21:I:20:SER:OG	31:S:92:GLU:CD	2.31	0.74
27:O:113:ARG:HD3	31:S:101:TRP:CD1	2.22	0.74
39:a:1565:C:O2'	39:a:1567:G:N7	2.19	0.74
20:H:110:GLY:CA	20:H:153:GLU:O	2.36	0.74
39:a:2523:G:HO2'	39:a:2764:A:HO2'	1.35	0.74
7:6:18:DC:N3	8:7:17:G:N2	2.31	0.73
14:AE:120:LEU:O	14:AE:1330:ARG:NH1	2.21	0.73
14:AE:1143:ASP:OD1	14:AE:1148:ARG:NH1	2.21	0.73
31:S:74:LEU:HD21	31:S:76:LYS:HE3	1.69	0.73
11:AA:985:GLU:HG2	11:AA:988:LYS:HE3	1.68	0.73
30:R:21:VAL:HG12	30:R:95:TYR:HE1	1.54	0.73
61:w:68:ALA:O	61:w:69:ARG:NH1	2.20	0.73
9:9:23:LEU:HA	9:9:118:ILE:CG1	2.19	0.73
19:G:32:PHE:CZ	20:H:7:GLN:CG	2.71	0.73
39:a:27:G:O2'	39:a:28:A:OP2	2.03	0.73
40:b:11:ARG:O	40:b:14:ARG:NH2	2.20	0.73
6:5:115:DA:OP1	14:AE:1148:ARG:NE	2.21	0.73
9:9:14:GLU:OE2	9:9:15:VAL:HG23	1.87	0.73
20:H:109:THR:HA	20:H:153:GLU:HA	1.69	0.73
23:K:126:LYS:NZ	23:K:127:ALA:O	2.21	0.73
39:a:2751:G:N7	54:p:3:ARG:NH1	2.35	0.73
11:AA:972:PHE:HA	11:AA:975:ILE:HD12	1.71	0.73
21:I:29:PHE:CE1	31:S:93:ILE:HG23	2.23	0.73
35:W:73:GLU:OE1	35:W:73:GLU:N	2.20	0.73
39:a:1653:G:OP1	61:w:2:ARG:NE	2.21	0.73
50:l:163:ASN:O	50:l:163:ASN:ND2	2.20	0.73
1:0:58:VAL:C	1:0:59:ILE:HD13	2.14	0.73
14:AE:44:ILE:HD12	14:AE:252:LEU:CD2	2.18	0.73
14:AE:210:SER:HB3	14:AE:213:LYS:HB2	1.71	0.73
21:I:20:SER:CB	31:S:92:GLU:O	2.37	0.73
62:x:30:ARG:HD3	62:x:102:ARG:NH1	2.03	0.73
8:7:14:U:H4'	14:AE:322:ARG:CD	2.18	0.73
14:AE:157:GLN:OE1	14:AE:157:GLN:HA	1.88	0.73
24:L:21:MET:HE2	24:L:21:MET:N	2.02	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:l:138:LEU:O	50:l:142:ALA:N	2.20	0.73
1:0:64:VAL:N	1:0:95:ASP:O	2.22	0.73
16:D:2:A:O2'	16:D:3:A:O4'	2.06	0.73
11:AA:1047:LEU:O	11:AA:1049:ILE:HD12	1.89	0.73
19:G:20:THR:HG22	19:G:39:HIS:HD1	1.54	0.73
20:H:19:ARG:HB2	20:H:73:ASP:OD2	1.88	0.73
20:H:267:TRP:CH2	20:H:300:VAL:CG1	2.71	0.73
14:AE:44:ILE:HD12	14:AE:252:LEU:HD21	1.71	0.73
16:D:483:C:OP2	16:D:484:G:O2'	2.06	0.73
21:I:37:PHE:CB	31:S:66:GLN:NE2	2.52	0.73
31:S:93:ILE:HD12	31:S:96:LEU:HD23	1.70	0.73
39:a:2519:U:C2'	39:a:2541:A:H61	2.00	0.73
47:i:50:ARG:O	47:i:52:ARG:NH2	2.21	0.73
2:1:4:ILE:CD1	2:1:106:VAL:HG22	2.18	0.72
4:3:40:ASN:O	4:3:63:ALA:N	2.22	0.72
7:6:21:DA:C6	8:7:15:G:N2	2.57	0.72
9:9:100:ALA:HA	9:9:113:PHE:CZ	2.24	0.72
11:AA:1253:LEU:HD12	14:AE:253:VAL:CG1	2.19	0.72
18:F:25:LYS:HD2	20:H:336:ASP:OD2	1.87	0.72
22:J:85:ASN:HB3	23:K:102:GLY:HA3	1.68	0.72
25:M:126:ASP:OD1	25:M:131:LYS:HG3	1.89	0.72
37:Y:79:LEU:HD21	37:Y:105:LEU:HD21	1.70	0.72
39:a:2286:G:O6	49:k:23:THR:OG1	2.07	0.72
11:AA:979:LEU:HD21	11:AA:998:LEU:HD23	1.70	0.72
11:AA:1257:GLN:OE1	14:AE:345:LYS:HD3	1.90	0.72
20:H:267:TRP:CH2	20:H:342:ILE:HD13	2.22	0.72
39:a:830:G:H22	39:a:2446:G:H5'	1.53	0.72
39:a:1753:G:N1	39:a:1756:G:OP2	2.21	0.72
39:a:573:U:O4	39:a:2029:G:O2'	2.06	0.72
39:a:1141:U:O2	39:a:1142:A:N6	2.22	0.72
56:r:76:GLU:OE1	56:r:141:LYS:O	2.08	0.72
9:9:67:THR:CG2	9:9:68:PRO:HD3	2.19	0.72
1:0:4:VAL:HG22	1:0:13:ARG:HG2	1.71	0.72
11:AA:870:ILE:HG12	11:AA:884:VAL:HG12	1.71	0.72
16:D:1358:U:OP2	16:D:1359:C:N4	2.20	0.72
21:I:20:SER:HG	31:S:92:GLU:CD	1.97	0.72
21:I:22:TRP:CH2	31:S:94:PRO:HD2	2.24	0.72
9:9:73:LYS:HB3	9:9:117:LEU:HD11	1.70	0.72
9:9:109:LYS:HG2	9:9:111:ALA:H	1.53	0.72
14:AE:142:GLU:HG3	14:AE:142:GLU:O	1.89	0.72
39:a:575:A:C2	39:a:576:U:C5	2.77	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2756:U:OP2	55:q:19:ARG:NE	2.23	0.72
57:s:92:MET:HE1	57:s:100:VAL:HG22	1.70	0.72
13:AD:86:LYS:HE3	14:AE:528:THR:HB	1.72	0.72
21:I:29:PHE:HD1	31:S:77:PHE:CD1	2.05	0.72
39:a:972:A:OP2	39:a:973:A:O2'	2.06	0.72
39:a:1924:C:O2'	39:a:1925:C:H5'	1.89	0.72
9:9:58:THR:HB	9:9:81:LEU:HA	1.71	0.72
13:AC:61:ILE:HB	13:AC:64:VAL:HG21	1.71	0.72
39:a:686:U:O2	51:m:7:PRO:C	2.33	0.72
39:a:1826:G:OP1	46:h:223:THR:N	2.23	0.72
46:h:69:ARG:NH1	46:h:129:THR:OG1	2.22	0.72
19:G:204:ASP:OD1	19:G:205:ASP:N	2.23	0.72
39:a:1386:C:O2'	39:a:1469:A:N3	2.21	0.72
14:AE:107:LEU:HD11	14:AE:242:LEU:HB2	1.70	0.72
37:Y:79:LEU:HD11	37:Y:132:ALA:HA	1.72	0.72
4:3:94:ARG:HB3	4:3:103:ILE:HD12	1.71	0.71
11:AA:956:ALA:HB1	11:AA:1032:LYS:HG3	1.70	0.71
11:AA:964:LEU:HD12	11:AA:964:LEU:C	2.13	0.71
14:AE:105:ILE:HD12	14:AE:242:LEU:HD22	1.71	0.71
16:D:408:A:H5'	22:J:113:GLU:OE1	1.90	0.71
32:T:10:LYS:O	32:T:14:GLU:OE1	2.07	0.71
11:AA:1043:ALA:HB1	11:AA:1044:PRO:CD	2.19	0.71
48:j:4:LEU:HD12	48:j:32:ASN:OD1	1.90	0.71
56:r:6:LEU:N	56:r:35:LYS:O	2.21	0.71
18:F:25:LYS:CD	20:H:336:ASP:OD2	2.39	0.71
19:G:187:VAL:HG21	19:G:199:VAL:HG23	1.71	0.71
21:I:29:PHE:HE1	31:S:93:ILE:HG23	1.56	0.71
35:W:36:ARG:O	35:W:72:GLY:N	2.23	0.71
39:a:1809:A:O2'	39:a:1810:A:O4'	2.08	0.71
11:AA:207:THR:OG1	11:AA:354:ASP:OD2	2.08	0.71
11:AA:839:VAL:O	11:AA:886:LYS:HD3	1.90	0.71
11:AA:878:THR:HA	11:AA:925:SER:HA	1.73	0.71
16:D:973:G:OP2	16:D:974:A:O2'	2.07	0.71
16:D:1109:C:OP1	21:I:176:HIS:CD2	2.43	0.71
39:a:635:C:OP1	59:u:126:ARG:NH1	2.23	0.71
1:0:61:ALA:HB1	1:0:96:VAL:HG22	1.73	0.71
2:1:82:MET:O	2:1:98:LYS:NZ	2.22	0.71
11:AA:839:VAL:HA	11:AA:1048:LYS:O	1.91	0.71
10:B:32:C:H5'	16:D:1340:A:O2'	1.90	0.71
15:C:31:ASN:HD21	20:H:268:VAL:HG23	1.56	0.71
39:a:1028:A:OP2	39:a:1126:A:N6	2.23	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:h:196:GLY:O	46:h:198:ALA:N	2.24	0.71
14:AE:211:GLU:HG2	14:AE:215:LYS:HE3	1.70	0.71
15:C:35:GLU:H	20:H:338:GLU:CG	2.04	0.71
16:D:1125:U:C2	16:D:1127:G:C8	2.77	0.71
9:9:44:ALA:CB	9:9:52:MET:HB2	2.21	0.71
10:A:22:G:HO2'	10:A:23:C:P	2.14	0.71
19:G:92:VAL:O	19:G:92:VAL:HG13	1.89	0.71
23:K:105:ILE:HA	23:K:123:VAL:HG22	1.73	0.71
37:Y:60:VAL:HG22	37:Y:66:PHE:HB3	1.72	0.71
39:a:532:A:N1	39:a:2035:G:N2	2.39	0.71
39:a:2820:A:N6	48:j:197:THR:OG1	2.24	0.71
8:7:7:G:N3	8:7:7:G:H3'	2.06	0.71
9:9:23:LEU:CD1	9:9:92:ALA:HB2	2.05	0.71
9:9:73:LYS:HD2	9:9:117:LEU:HD11	1.73	0.71
19:G:114:LEU:HD13	19:G:144:LEU:CB	2.21	0.71
39:a:2357:G:N2	39:a:2360:G:OP2	2.24	0.71
2:1:18:ARG:NH2	39:a:518:G:O3'	2.24	0.70
20:H:70:VAL:HA	20:H:85:SER:CB	2.20	0.70
20:H:86:ARG:O	20:H:89:ALA:HB3	1.91	0.70
4:3:34:VAL:HG13	4:3:67:VAL:HG22	1.71	0.70
8:7:16:A:P	11:AA:540:ARG:HH21	2.14	0.70
9:9:100:ALA:HA	9:9:113:PHE:HZ	1.53	0.70
11:AA:866:ASP:OD2	21:I:79:LYS:NZ	2.23	0.70
17:E:54:MET:O	17:E:58:VAL:HG23	1.91	0.70
21:I:22:TRP:H	31:S:94:PRO:HB3	1.56	0.70
39:a:126:A:OP2	51:m:19:ARG:HG3	1.91	0.70
42:d:57:A:C4	52:n:26:MET:HE1	2.26	0.70
11:AA:883:LEU:HD11	11:AA:920:VAL:CG2	2.21	0.70
31:S:88:ALA:CB	31:S:96:LEU:HD21	2.22	0.70
2:1:109:ASP:OD2	2:1:110:ARG:NH2	2.24	0.70
9:9:24:SER:HA	9:9:95:LEU:HD23	1.73	0.70
14:AE:68:TYR:C	14:AE:75:TYR:CE2	2.65	0.70
16:D:1338:G:O2'	16:D:1339:A:O4'	2.04	0.70
20:H:267:TRP:HH2	20:H:342:ILE:HD13	1.55	0.70
39:a:200:U:O4	39:a:250:G:N2	2.25	0.70
32:T:28:GLN:HB2	32:T:66:LEU:HD21	1.73	0.70
39:a:1475:G:O2'	39:a:1514:G:O6	2.08	0.70
39:a:2091:C:OP2	39:a:2092:U:O2'	2.09	0.70
39:a:2824:C:H3'	39:a:2825:G:H21	1.54	0.70
11:AA:935:THR:HA	11:AA:1049:ILE:HD12	1.74	0.70
20:H:70:VAL:HA	20:H:85:SER:CA	2.22	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2688:G:N1	39:a:2720:U:OP2	2.24	0.70
8:7:5:U:C4	23:K:57:PRO:HB2	2.25	0.70
8:7:8:A:H2'	8:7:8:A:N3	2.07	0.70
9:9:24:SER:HB3	9:9:85:SER:O	1.92	0.70
15:C:12:ARG:HG2	20:H:264:GLU:CB	2.22	0.70
15:C:31:ASN:ND2	20:H:268:VAL:HG23	2.06	0.70
16:D:13:U:O4	16:D:21:G:C2	2.45	0.70
16:D:547:A:OP2	22:J:2:ALA:CA	2.39	0.70
16:D:1111:A:H2	21:I:177:THR:HG23	1.57	0.70
16:D:1432:G:O5'	63:y:106:LYS:NZ	2.25	0.70
20:H:19:ARG:HD3	20:H:73:ASP:OD1	1.92	0.70
14:AE:128:LEU:HD11	14:AE:189:LEU:HG	1.73	0.70
14:AE:395:LYS:HZ2	14:AE:399:LYS:CD	2.05	0.70
16:D:74:A:O2'	16:D:75:G:O4'	2.09	0.70
16:D:613:C:OP1	22:J:81:ARG:NH2	2.25	0.70
19:G:32:PHE:CZ	20:H:7:GLN:HG2	2.26	0.70
24:L:98:GLU:N	24:L:98:GLU:OE1	2.22	0.70
39:a:2754:U:O2'	55:q:19:ARG:NH2	2.24	0.70
14:AE:220:ARG:HG2	14:AE:220:ARG:HH11	1.55	0.70
15:C:31:ASN:ND2	20:H:268:VAL:CG2	2.55	0.70
27:O:79:ILE:O	27:O:83:ILE:HD12	1.89	0.70
9:9:59:LEU:HB2	9:9:62:ARG:HB2	1.74	0.69
13:AC:168:ILE:CG2	21:I:80:LYS:HZ3	2.05	0.69
16:D:800:G:N2	16:D:801:U:O4	2.25	0.69
16:D:1191:A:H5''	21:I:4:LYS:HE3	1.74	0.69
13:AC:76:GLU:OE1	13:AC:131:CYS:HA	1.92	0.69
21:I:33:LEU:HD11	31:S:93:ILE:CB	2.22	0.69
38:Z:26:MET:O	38:Z:30:PHE:HB2	1.92	0.69
39:a:1125:G:OP2	39:a:1126:A:O2'	2.07	0.69
39:a:1750:G:O2'	39:a:2860:A:N1	2.25	0.69
39:a:1818:U:OP2	46:h:156:ARG:NH2	2.25	0.69
20:H:267:TRP:CH2	20:H:300:VAL:HG12	2.27	0.69
20:H:19:ARG:HD3	20:H:73:ASP:OD2	1.92	0.69
39:a:871:U:H2'	39:a:872:U:C6	2.27	0.69
39:a:1921:G:C2'	39:a:1922:G:H5'	2.21	0.69
11:AA:1009:ASN:O	11:AA:1009:ASN:ND2	2.24	0.69
39:a:636:G:OP2	59:u:109:LYS:NZ	2.25	0.69
39:a:704:G:HO2'	39:a:726:G:N2	1.90	0.69
39:a:1111:A:N3	39:a:1112:G:H1'	2.07	0.69
48:j:121:THR:O	48:j:125:TRP:N	2.21	0.69
4:3:56:GLY:N	39:a:498:G:O3'	2.26	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:44:ALA:HB1	9:9:52:MET:HB2	1.72	0.69
16:D:518:C:OP2	16:D:530:G:O2'	2.07	0.69
46:h:107:PRO:HD2	46:h:110:LEU:HB2	1.74	0.69
48:j:131:ASP:O	48:j:136:ASN:ND2	2.25	0.69
16:D:13:U:C4	16:D:915:A:N6	2.60	0.69
16:D:1315:U:O2'	16:D:1360:A:N3	2.20	0.69
25:M:59:LEU:O	25:M:63:GLU:OE1	2.10	0.69
26:N:27:MET:N	26:N:58:GLU:OE2	2.26	0.69
39:a:1218:G:N1	39:a:1232:G:N7	2.40	0.69
1:0:79:ARG:NH1	39:a:564:C:OP2	2.26	0.69
8:7:4:U:H1'	23:K:56:VAL:HG11	1.74	0.69
9:9:17:GLU:HG2	9:9:88:HIS:CE1	2.28	0.69
9:9:28:ALA:H	9:9:110:ALA:HA	1.56	0.69
11:AA:1047:LEU:O	11:AA:1049:ILE:CD1	2.40	0.69
16:D:193:C:O2'	17:E:59:ASP:OD2	2.07	0.69
16:D:1338:G:H2'	16:D:1339:A:C8	2.27	0.69
19:G:133:GLU:O	19:G:137:ARG:HG3	1.93	0.69
20:H:110:GLY:HA3	20:H:153:GLU:O	1.93	0.69
20:H:117:LYS:CB	20:H:279:LYS:O	2.41	0.69
37:Y:100:ILE:HD12	37:Y:105:LEU:CD1	2.22	0.69
39:a:13:A:O2'	39:a:15:G:N7	2.25	0.69
39:a:2595:G:N2	39:a:2598:A:OP2	2.22	0.69
39:a:2734:A:N6	39:a:2770:G:O2'	2.24	0.69
16:D:1438:G:OP2	17:E:29:ARG:NH1	2.26	0.69
39:a:1406:U:C2	39:a:1407:G:C8	2.80	0.69
39:a:2512:C:O2'	48:j:145:SER:O	2.09	0.69
48:j:6:GLY:N	48:j:201:LEU:O	2.23	0.69
15:C:34:THR:C	20:H:338:GLU:HG3	2.18	0.69
39:a:1997:C:O5'	48:j:129:THR:OG1	2.10	0.69
61:w:28:LEU:O	61:w:32:GLU:N	2.23	0.69
11:AA:802:VAL:HA	11:AA:1096:ILE:O	1.93	0.68
16:D:1125:U:H2'	16:D:1127:G:N7	2.07	0.68
60:v:45:GLN:HE21	60:v:124:LEU:HA	1.57	0.68
5:4:38:LEU:HD23	5:4:93:ARG:HH22	1.56	0.68
26:N:103:VAL:HG23	26:N:126:ILE:HB	1.74	0.68
39:a:203:A:OP2	39:a:204:A:O2'	2.12	0.68
39:a:393:C:C2	39:a:394:C:C5	2.81	0.68
45:g:16:CYS:CB	45:g:37:CYS:CB	2.71	0.68
26:N:5:ASP:OD2	26:N:77:ARG:NH2	2.26	0.68
37:Y:14:ALA:HB3	37:Y:51:GLY:N	2.09	0.68
39:a:1798:U:OP2	46:h:271:ARG:NH2	2.26	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2705:A:O2'	39:a:2852:G:OP1	2.12	0.68
20:H:267:TRP:CZ2	20:H:300:VAL:CB	2.76	0.68
39:a:974:G:OP1	39:a:1187:G:O2'	2.08	0.68
48:j:164:GLN:NE2	48:j:166:GLY:O	2.26	0.68
9:9:18:VAL:HA	9:9:86:MET:SD	2.33	0.68
11:AA:19:PRO:HA	11:AA:1156:ARG:HD3	1.73	0.68
14:AE:832:LYS:C	14:AE:1242:ARG:HH12	2.01	0.68
16:D:399:G:H2'	16:D:400:C:C6	2.29	0.68
36:X:14:HIS:ND1	36:X:42:ASP:O	2.26	0.68
39:a:2061:G:O2'	39:a:2062:A:OP2	2.09	0.68
39:a:2857:G:N2	39:a:2860:A:OP2	2.23	0.68
14:AE:54:ASP:OD1	14:AE:54:ASP:N	2.24	0.68
17:E:57:ILE:HG23	17:E:61:GLN:HE22	1.58	0.68
39:a:2822:G:O2'	39:a:2824:C:OP2	2.04	0.68
54:p:39:ASP:OD1	54:p:40:ALA:N	2.26	0.68
7:6:21:DA:C2	8:7:15:G:N2	2.62	0.68
8:7:14:U:H4'	14:AE:322:ARG:HD2	1.73	0.68
9:9:33:VAL:HG12	9:9:34:THR:N	2.08	0.68
16:D:1213:A:O2'	16:D:1215:G:N7	2.26	0.68
27:O:57:MET:HE1	27:O:94:LEU:HD11	1.75	0.68
9:9:47:GLU:HG3	9:9:52:MET:HE3	1.75	0.68
11:AA:339:ASN:HB3	11:AA:343:HIS:H	1.58	0.68
11:AA:768:MET:HE1	13:AC:80:GLU:OE1	1.94	0.68
11:AA:1005:GLU:OE1	11:AA:1005:GLU:HA	1.92	0.68
16:D:1266:G:N1	16:D:1269:A:OP2	2.26	0.68
39:a:1688:U:O2'	39:a:1700:A:N7	2.20	0.68
39:a:2093:G:H21	39:a:2198:A:N6	1.91	0.68
11:AA:768:MET:HE1	13:AC:80:GLU:CD	2.19	0.68
14:AE:141:PHE:CD2	14:AE:293:ARG:O	2.47	0.68
15:C:31:ASN:HD21	20:H:268:VAL:CG2	2.05	0.68
15:C:31:ASN:ND2	20:H:268:VAL:HB	2.08	0.68
16:D:1157:A:C2	16:D:1181:G:C4	2.82	0.68
37:Y:15:GLY:HA2	37:Y:50:LYS:HD3	1.74	0.68
39:a:2280:G:O2'	39:a:2388:A:N1	2.25	0.68
9:9:11:ILE:HG23	9:9:14:GLU:OE2	1.93	0.68
16:D:674:G:H2'	16:D:675:A:H8	1.58	0.68
9:9:34:THR:O	9:9:38:MET:HG2	1.94	0.67
11:AA:878:THR:O	11:AA:920:VAL:CG1	2.40	0.67
14:AE:39:LYS:O	14:AE:273:ILE:CG2	2.41	0.67
21:I:33:LEU:HD11	31:S:93:ILE:HA	1.76	0.67
39:a:64:A:H2'	39:a:65:U:C6	2.28	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1779:U:OP2	39:a:1784:A:N6	2.26	0.67
57:s:120:ARG:O	57:s:123:LYS:NZ	2.27	0.67
7:6:8:DC:C2'	7:6:9:DT:H71	2.24	0.67
22:J:164:GLN:HA	22:J:164:GLN:OE1	1.93	0.67
39:a:918:A:O2'	42:d:80:U:O2'	1.94	0.67
39:a:1799:G:O2'	46:h:182:ARG:NH2	2.27	0.67
11:AA:768:MET:HE3	13:AC:80:GLU:OE1	1.95	0.67
16:D:1052:U:O2'	16:D:1055:A:OP2	2.12	0.67
19:G:131:LYS:O	19:G:134:ALA:HB3	1.94	0.67
39:a:2327:A:H3'	39:a:2328:A:C8	2.30	0.67
39:a:2654:A:N6	39:a:2666:C:OP2	2.28	0.67
50:l:147:LEU:HB3	50:l:186:VAL:HG22	1.74	0.67
9:9:134:GLU:OE1	9:9:136:ILE:N	2.25	0.67
14:AE:1355:ARG:NH1	14:AE:1369:ARG:HH12	1.93	0.67
34:V:59:VAL:HG22	34:V:60:GLU:N	2.09	0.67
40:b:31:VAL:HG22	40:b:65:GLY:O	1.94	0.67
46:h:264:ASP:OD1	46:h:265:LYS:N	2.27	0.67
47:i:9:THR:HG22	47:i:11:SER:H	1.60	0.67
37:Y:78:LEU:HD21	37:Y:108:ILE:HB	1.75	0.67
44:f:4:THR:OG1	44:f:37:GLU:OE2	2.12	0.67
11:AA:868:SER:OG	11:AA:941:LYS:CG	2.41	0.67
14:AE:94:GLN:HB2	14:AE:97:VAL:HG23	1.76	0.67
16:D:1348:U:OP2	16:D:1373:G:N2	2.27	0.67
20:H:84:LEU:HD22	20:H:84:LEU:H	1.60	0.67
22:J:85:ASN:ND2	23:K:101:GLU:O	2.28	0.67
38:Z:2:ILE:HG22	38:Z:5:ASP:H	1.59	0.67
39:a:226:A:H1'	39:a:230:G:N2	2.09	0.67
14:AE:108:ALA:CB	14:AE:279:LEU:HD22	2.25	0.67
14:AE:117:LEU:HD12	14:AE:117:LEU:O	1.94	0.67
16:D:563:A:C2	16:D:567:G:C5	2.83	0.67
29:Q:64:GLN:HG2	29:Q:99:ALA:HB2	1.76	0.67
39:a:993:G:OP2	64:z:50:ARG:NH2	2.28	0.67
11:AA:728:ASP:OD1	11:AA:769:PRO:CG	2.41	0.67
11:AA:960:LEU:HD13	11:AA:1029:LEU:HB2	1.77	0.67
20:H:70:VAL:HA	20:H:85:SER:HA	1.77	0.67
20:H:110:GLY:N	20:H:153:GLU:C	2.53	0.67
24:L:19:PRO:HA	24:L:22:ILE:HD12	1.77	0.67
39:a:235:U:C2	39:a:236:C:C5	2.83	0.67
39:a:682:G:C5'	51:m:26:ASN:OD1	2.42	0.67
9:9:17:GLU:HG2	9:9:88:HIS:NE2	2.10	0.67
9:9:45:GLY:HA2	9:9:49:GLY:O	1.95	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AE:161:THR:HG22	14:AE:164:GLN:HB2	1.76	0.67
16:D:1288:A:N3	16:D:1352:C:O2'	2.22	0.67
23:K:126:LYS:HD3	23:K:127:ALA:N	2.09	0.67
30:R:25:GLU:OE1	30:R:59:ASN:ND2	2.26	0.67
39:a:615:U:O4	50:l:39:ALA:HB2	1.94	0.67
39:a:754:U:H2'	39:a:755:U:C6	2.30	0.67
39:a:1844:C:C2	39:a:1845:G:C8	2.82	0.67
41:c:18:ARG:HE	41:c:24:ALA:HB2	1.60	0.67
9:9:24:SER:HA	9:9:95:LEU:HD21	1.75	0.67
37:Y:31:GLY:C	37:Y:60:VAL:HG11	2.20	0.67
39:a:743:A:O2'	39:a:1659:G:OP1	2.12	0.67
39:a:2175:C:H2'	39:a:2176:A:C8	2.29	0.67
52:n:116:GLY:C	52:n:117:LEU:HD12	2.20	0.67
4:3:9:ASP:O	4:3:25:VAL:HG23	1.95	0.66
21:I:33:LEU:CD1	31:S:93:ILE:HG12	2.25	0.66
36:X:107:ARG:O	36:X:111:GLY:N	2.28	0.66
39:a:2021:C:OP1	47:i:9:THR:OG1	2.12	0.66
39:a:2620:C:P	48:j:157:LYS:HD3	2.35	0.66
59:u:82:LEU:HD21	59:u:120:VAL:HG21	1.77	0.66
64:z:16:LYS:O	64:z:20:GLN:NE2	2.27	0.66
7:6:16:DC:H1'	14:AE:426:ALA:HB1	1.76	0.66
14:AE:1037:PHE:HB3	14:AE:1040:MET:HB2	1.77	0.66
37:Y:79:LEU:HD23	37:Y:83:ALA:HB2	1.77	0.66
39:a:1359:A:OP2	39:a:1371:G:N2	2.24	0.66
39:a:1399:C:C2	39:a:1400:U:C5	2.83	0.66
39:a:2519:U:H2'	39:a:2541:A:H61	1.60	0.66
4:3:12:ILE:HD13	4:3:73:PHE:HD1	1.61	0.66
11:AA:958:LYS:HB3	11:AA:958:LYS:NZ	2.08	0.66
11:AA:964:LEU:HD21	11:AA:1022:LYS:HD2	1.77	0.66
11:AA:1253:LEU:HD12	14:AE:253:VAL:HG11	1.77	0.66
39:a:32:C:N4	39:a:474:G:O6	2.28	0.66
39:a:462:C:H2'	39:a:463:G:O4'	1.95	0.66
11:AA:9:LYS:HG2	11:AA:1171:ARG:NH1	2.11	0.66
20:H:270:ILE:HG23	20:H:337:GLU:HB3	1.78	0.66
21:I:30:ALA:HA	31:S:77:PHE:HA	1.77	0.66
31:S:88:ALA:HB2	31:S:96:LEU:HD21	1.78	0.66
39:a:463:G:N2	39:a:466:A:OP2	2.27	0.66
14:AE:111:THR:CG2	14:AE:300:GLN:CD	2.66	0.66
19:G:87:CYS:SG	19:G:89:GLN:HG2	2.36	0.66
20:H:110:GLY:H	20:H:153:GLU:CA	2.08	0.66
39:a:814:C:N4	59:u:24:GLY:O	2.29	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:966:G:H4'	39:a:2271:G:H22	1.60	0.66
11:AA:859:GLU:HG3	21:I:109:PRO:HG3	1.77	0.66
13:AC:76:GLU:OE2	13:AC:131:CYS:HA	1.95	0.66
21:I:33:LEU:HD11	31:S:93:ILE:CG2	2.26	0.66
30:R:79:VAL:N	30:R:103:ASP:OD2	2.27	0.66
39:a:309:A:N3	39:a:329:G:O2'	2.27	0.66
45:g:37:CYS:O	45:g:40:CYS:N	2.27	0.66
11:AA:1251:TYR:C	11:AA:1259:LEU:CD1	2.69	0.66
16:D:1124:G:H2'	16:D:1145:A:N1	2.10	0.66
19:G:128:LYS:HD2	19:G:128:LYS:O	1.95	0.66
33:U:51:ARG:O	33:U:52:LEU:HD22	1.94	0.66
37:Y:14:ALA:HB1	37:Y:50:LYS:HA	1.77	0.66
39:a:2014:A:O2'	39:a:2015:A:O4'	2.07	0.66
48:j:164:GLN:NE2	48:j:168:GLU:OE2	2.27	0.66
53:o:29:LEU:HD23	53:o:29:LEU:O	1.95	0.66
11:AA:858:GLY:C	11:AA:860:ALA:H	2.03	0.66
11:AA:995:ASP:OD1	11:AA:995:ASP:N	2.29	0.66
31:S:74:LEU:HD21	31:S:76:LYS:CE	2.25	0.66
9:9:73:LYS:HE3	9:9:117:LEU:CG	2.24	0.66
11:AA:9:LYS:HG2	11:AA:1171:ARG:HH12	1.61	0.66
16:D:1137:C:O2	16:D:1138:G:N2	2.28	0.66
21:I:75:ILE:O	21:I:75:ILE:HD13	1.95	0.66
27:O:28:ILE:HG23	27:O:63:LEU:HD11	1.75	0.66
37:Y:72:THR:OG1	37:Y:73:PRO:HD2	1.96	0.66
39:a:1233:C:C2	39:a:1234:U:C5	2.84	0.66
16:D:1169:A:H2'	16:D:1170:A:C8	2.31	0.66
21:I:22:TRP:CZ2	31:S:94:PRO:CD	2.79	0.66
39:a:884:U:HO2'	39:a:885:C:C4'	2.07	0.66
5:4:77:VAL:HG23	5:4:89:ILE:HG12	1.75	0.65
10:A:76:A:N6	39:a:2422:C:O4'	2.30	0.65
14:AE:108:ALA:HB3	14:AE:279:LEU:HD22	1.77	0.65
14:AE:978:ARG:HG2	14:AE:1197:ASN:HD21	1.60	0.65
16:D:545:C:P	22:J:62:ARG:NH1	2.64	0.65
20:H:162:LYS:CB	20:H:298:GLU:OE1	2.44	0.65
21:I:30:ALA:HB2	31:S:76:LYS:C	2.20	0.65
26:N:36:ILE:O	26:N:40:LEU:HD23	1.96	0.65
49:k:11:LEU:HB3	49:k:49:TYR:HB3	1.78	0.65
11:AA:852:ALA:O	11:AA:854:ILE:N	2.28	0.65
14:AE:193:ASP:HB3	14:AE:196:GLN:HB2	1.78	0.65
20:H:85:SER:O	20:H:88:LYS:CB	2.45	0.65
28:P:41:PRO:HB3	28:P:72:ARG:CZ	2.27	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1482:G:O6	39:a:1508:A:N6	2.29	0.65
63:y:103:ARG:HD2	63:y:107:ALA:HB1	1.78	0.65
9:9:92:ALA:HB1	9:9:129:LEU:CD2	2.24	0.65
11:AA:839:VAL:O	11:AA:886:LYS:CD	2.44	0.65
11:AA:963:GLU:HA	11:AA:966:ILE:HD12	1.77	0.65
13:AC:71:LYS:HZ1	13:AC:140:ILE:HB	1.61	0.65
13:AD:86:LYS:HE3	14:AE:528:THR:CG2	2.26	0.65
16:D:1266:G:N2	16:D:1269:A:OP2	2.29	0.65
39:a:2328:A:H2'	39:a:2329:U:C6	2.31	0.65
9:9:77:VAL:HG12	9:9:82:ILE:HG21	1.77	0.65
11:AA:858:GLY:O	11:AA:860:ALA:N	2.17	0.65
16:D:979:C:OP1	16:D:1223:C:N4	2.30	0.65
20:H:52:GLN:O	20:H:53:PHE:CD1	2.50	0.65
39:a:760:G:H2'	39:a:761:A:O4'	1.97	0.65
39:a:2511:U:O5'	48:j:128:ARG:NH2	2.29	0.65
52:n:42:GLU:N	52:n:42:GLU:OE2	2.30	0.65
53:o:9:GLY:O	53:o:12:LYS:N	2.29	0.65
3:2:14:PRO:HA	3:2:32:LEU:HD13	1.79	0.65
11:AA:978:VAL:HG21	11:AA:1010:GLN:HG3	1.78	0.65
14:AE:984:LEU:HB3	14:AE:993:GLU:HB2	1.77	0.65
10:B:53:G:C2	10:B:54:U:C5	2.84	0.65
16:D:16:A:N3	16:D:1080:A:O2'	2.24	0.65
21:I:33:LEU:HD21	31:S:93:ILE:HG12	1.78	0.65
23:K:165:LEU:HD12	26:N:114:ARG:NH1	2.10	0.65
37:Y:14:ALA:CB	37:Y:50:LYS:HA	2.26	0.65
39:a:381:G:OP1	41:c:18:ARG:NH1	2.29	0.65
39:a:1283:G:N2	39:a:1286:A:O5'	2.30	0.65
54:p:11:VAL:HG13	54:p:11:VAL:O	1.97	0.65
9:9:60:LEU:O	9:9:64:VAL:HB	1.96	0.65
11:AA:1257:GLN:OE1	14:AE:345:LYS:CD	2.44	0.65
16:D:246:A:C2	16:D:282:A:C5	2.85	0.65
37:Y:104:GLN:HG2	37:Y:105:LEU:H	1.62	0.65
39:a:372:G:O2'	39:a:400:G:O6	2.10	0.65
39:a:1076:C:H2'	39:a:1077:A:C8	2.31	0.65
42:d:66:A:H61	42:d:107:G:H2'	1.61	0.65
16:D:558:G:OP2	16:D:559:A:O2'	2.11	0.65
24:L:38:ARG:NH2	24:L:98:GLU:C	2.54	0.65
29:Q:36:ASP:OD1	29:Q:40:ASN:N	2.30	0.65
36:X:71:ARG:HD2	36:X:72:GLU:N	2.12	0.65
54:p:43:VAL:HG22	54:p:50:LEU:HD11	1.79	0.65
11:AA:529:ARG:HH11	11:AA:572:ILE:HG22	1.62	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:859:GLU:HG3	21:I:109:PRO:CG	2.27	0.65
14:AE:975:ILE:HG22	14:AE:977:SER:H	1.62	0.65
16:D:324:G:N1	16:D:327:A:OP2	2.27	0.65
37:Y:46:ASP:OD1	37:Y:50:LYS:HE2	1.95	0.65
39:a:927:A:H2'	39:a:928:A:C8	2.32	0.65
39:a:2391:G:C6	39:a:2427:C:H1'	2.32	0.65
39:a:2659:G:N2	39:a:2662:A:OP2	2.30	0.65
50:l:46:GLN:OE1	50:l:87:ALA:N	2.21	0.65
57:s:78:THR:HG23	57:s:83:GLY:O	1.97	0.65
2:1:7:HIS:CD2	2:1:10:ALA:HB2	2.32	0.65
34:V:9:GLN:HG2	34:V:60:GLU:OE1	1.97	0.65
39:a:1225:G:H2'	39:a:1226:A:C8	2.31	0.65
39:a:1754:A:H2'	39:a:1755:A:C8	2.32	0.65
61:w:12:ARG:O	61:w:17:ARG:NH1	2.30	0.65
9:9:127:ALA:O	9:9:130:PRO:HD3	1.96	0.65
10:A:53:G:C2	10:A:54:U:C5	2.84	0.65
11:AA:1257:GLN:OE1	14:AE:345:LYS:HG2	1.96	0.65
13:AD:102:LEU:HB2	13:AD:115:ILE:HG13	1.77	0.65
14:AE:68:TYR:HB3	14:AE:75:TYR:CE2	2.32	0.65
14:AE:84:ILE:O	14:AE:84:ILE:HG13	1.96	0.65
14:AE:162:GLU:OE1	14:AE:162:GLU:HA	1.97	0.65
39:a:241:A:O3'	53:o:3:LYS:NZ	2.29	0.65
39:a:283:G:N2	39:a:358:U:O2	2.30	0.65
39:a:1841:U:C2	39:a:1842:G:C8	2.85	0.65
16:D:790:A:H2'	16:D:791:G:O4'	1.96	0.64
28:P:87:LEU:HD23	28:P:100:ILE:HD13	1.78	0.64
39:a:1283:G:N1	39:a:1286:A:OP2	2.31	0.64
39:a:1528:A:OP2	39:a:1543:G:N2	2.30	0.64
50:l:4:VAL:HA	50:l:11:ALA:HA	1.78	0.64
53:o:13:ARG:HG3	59:u:58:TYR:O	1.97	0.64
1:0:59:ILE:HD12	1:0:101:ILE:HG23	1.79	0.64
2:1:81:SER:HG	2:1:98:LYS:C	2.05	0.64
16:D:1126:U:OP1	28:P:7:ARG:NH2	2.29	0.64
18:F:20:LYS:O	18:F:24:GLU:HG3	1.96	0.64
56:r:115:VAL:HG12	56:r:132:PHE:HE2	1.62	0.64
58:t:94:PRO:HB3	58:t:115:ILE:HD11	1.79	0.64
2:1:37:THR:HG22	2:1:38:TYR:CD2	2.32	0.64
11:AA:1257:GLN:HE22	14:AE:345:LYS:CA	2.09	0.64
12:AB:93:ILE:HG22	14:AE:290:ILE:CG2	2.27	0.64
18:F:4:ILE:CD1	18:F:19:PHE:HA	2.28	0.64
20:H:267:TRP:HH2	20:H:300:VAL:HB	1.59	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:L:99:ALA:O	24:L:104:LYS:NZ	2.26	0.64
29:Q:36:ASP:OD1	29:Q:39:GLY:N	2.29	0.64
39:a:1670:C:O2	48:j:134:HIS:NE2	2.31	0.64
39:a:1925:C:O2'	39:a:1926:U:H5'	1.96	0.64
39:a:1927:A:H2'	39:a:1928:A:C8	2.31	0.64
16:D:28:A:O2'	16:D:296:U:OP1	2.11	0.64
16:D:1190:G:OP1	21:I:4:LYS:HA	1.98	0.64
20:H:332:VAL:HG12	20:H:334:ASP:H	1.62	0.64
30:R:68:GLY:O	30:R:99:ARG:NH1	2.31	0.64
45:g:14:ALA:N	45:g:22:MET:O	2.28	0.64
60:v:52:ALA:HB1	60:v:119:LEU:HD22	1.78	0.64
61:w:48:VAL:HA	61:w:51:LEU:HD12	1.77	0.64
9:9:129:LEU:HD12	9:9:129:LEU:O	1.98	0.64
16:D:1068:G:OP1	16:D:1387:G:O2'	2.16	0.64
16:D:1150:A:N3	28:P:41:PRO:HG2	2.12	0.64
16:D:1315:U:H2'	16:D:1316:G:O4'	1.97	0.64
25:M:71:PRO:HG3	25:M:99:LEU:HD23	1.80	0.64
50:l:102:ARG:HA	50:l:105:LEU:HD12	1.78	0.64
4:3:46:GLN:N	4:3:57:GLY:O	2.29	0.64
16:D:1297:G:N2	16:D:1298:U:O4	2.31	0.64
16:D:1314:C:H2'	16:D:1315:U:C6	2.33	0.64
39:a:1177:G:O2'	39:a:1178:C:O5'	2.15	0.64
39:a:1713:A:N6	39:a:1746:A:N1	2.46	0.64
39:a:2383:G:O3'	40:b:55:ARG:NH2	2.29	0.64
39:a:2412:A:H2'	39:a:2413:G:O4'	1.98	0.64
9:9:64:VAL:O	9:9:67:THR:HG22	1.98	0.64
16:D:842:U:H3'	16:D:843:U:C5'	2.27	0.64
21:I:34:ASP:HB2	31:S:65:ARG:CD	2.28	0.64
39:a:732:C:H2'	39:a:733:G:O4'	1.98	0.64
39:a:1818:U:OP2	46:h:87:ARG:NE	2.31	0.64
39:a:1998:A:OP2	48:j:141:ARG:NH2	2.30	0.64
56:r:5:LEU:HD12	56:r:14:SER:O	1.98	0.64
56:r:58:LEU:O	56:r:61:VAL:HG22	1.97	0.64
7:6:15:DC:N4	7:6:16:DC:H41	1.96	0.64
9:9:58:THR:OG1	9:9:79:PRO:O	2.15	0.64
18:F:48:ALA:O	18:F:51:SER:OG	2.16	0.64
28:P:49:PHE:HZ	31:S:76:LYS:NZ	1.86	0.64
39:a:496:G:C5	39:a:497:A:C8	2.86	0.64
39:a:728:G:O4'	46:h:13:ARG:NH2	2.29	0.64
39:a:1363:C:O2'	39:a:1809:A:H1'	1.97	0.64
54:p:39:ASP:O	54:p:55:ARG:NH1	2.31	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:53:ARG:HD2	9:9:54:VAL:H	1.62	0.64
11:AA:962:GLU:OE1	11:AA:962:GLU:HA	1.97	0.64
10:B:60:U:H4'	10:B:61:C:OP2	1.97	0.64
22:J:85:ASN:CB	23:K:102:GLY:HA3	2.27	0.64
32:T:63:ARG:O	32:T:67:LEU:HD23	1.98	0.64
37:Y:52:LEU:HD23	37:Y:52:LEU:H	1.61	0.64
37:Y:90:GLY:C	37:Y:91:LYS:HD3	2.22	0.64
37:Y:100:ILE:CD1	37:Y:139:VAL:HB	2.23	0.64
39:a:1788:C:C2	39:a:1789:A:C8	2.85	0.64
9:9:61:ARG:C	9:9:65:GLU:HB2	2.22	0.64
16:D:1189:U:H5''	21:I:5:VAL:HB	1.80	0.64
24:L:38:ARG:NH2	24:L:98:GLU:O	2.31	0.64
39:a:265:A:O2'	39:a:428:A:N6	2.31	0.64
39:a:624:C:O2'	39:a:657:U:OP1	2.16	0.64
40:b:16:SER:OG	40:b:19:LYS:NZ	2.31	0.64
52:n:76:GLY:O	52:n:78:LYS:NZ	2.31	0.64
8:7:16:A:P	11:AA:540:ARG:NH2	2.71	0.63
14:AE:395:LYS:HZ2	14:AE:399:LYS:HD3	1.62	0.63
10:B:75:C:HO2'	10:B:76:A:H8	1.44	0.63
19:G:129:LEU:CD1	19:G:134:ALA:HB2	2.28	0.63
20:H:135:LEU:CA	20:H:157:ILE:CB	2.74	0.63
31:S:64:CYS:O	31:S:68:GLY:N	2.27	0.63
39:a:686:U:C2	51:m:7:PRO:HA	2.33	0.63
39:a:1268:A:H1'	39:a:2013:A:N6	2.13	0.63
39:a:1499:C:C2	39:a:1500:G:C8	2.86	0.63
39:a:1582:C:H3'	39:a:1583:A:H5''	1.80	0.63
39:a:2139:U:O2	39:a:2152:G:O6	2.15	0.63
39:a:2725:A:C4	39:a:2727:A:C8	2.85	0.63
52:n:57:LEU:HD23	52:n:65:PRO:HB3	1.80	0.63
4:3:28:VAL:HG23	4:3:34:VAL:HG12	1.78	0.63
9:9:77:VAL:CG1	9:9:82:ILE:HG21	2.28	0.63
14:AE:136:GLU:CD	14:AE:312:ARG:HH22	2.06	0.63
15:C:25:ASP:OD2	15:C:28:THR:OG1	2.08	0.63
21:I:29:PHE:CE1	31:S:77:PHE:CZ	2.87	0.63
23:K:157:ARG:NE	26:N:43:GLU:O	2.31	0.63
26:N:35:ALA:HA	26:N:38:ASN:HD22	1.62	0.63
32:T:58:ARG:NH2	32:T:61:SER:OG	2.31	0.63
39:a:2864:G:H2'	39:a:2865:U:O4'	1.99	0.63
14:AE:141:PHE:HD2	14:AE:293:ARG:O	1.80	0.63
16:D:294:U:OP1	16:D:610:U:O2'	2.06	0.63
20:H:119:GLY:CA	20:H:131:LEU:O	2.46	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:K:146:ASN:OD1	23:K:147:MET:N	2.32	0.63
39:a:669:G:N1	39:a:801:G:O6	2.31	0.63
46:h:246:THR:N	46:h:250:VAL:O	2.31	0.63
8:7:5:U:C6	23:K:57:PRO:HB3	2.30	0.63
10:A:60:U:H4'	10:A:61:C:OP2	1.97	0.63
56:r:14:SER:N	56:r:17:ASP:OD2	2.32	0.63
11:AA:981:ALA:HB3	11:AA:1008:GLN:CG	2.28	0.63
11:AA:988:LYS:NZ	11:AA:988:LYS:HB3	2.13	0.63
15:C:22:ASP:OD2	15:C:24:LYS:N	2.30	0.63
16:D:120:A:O2'	16:D:122:G:N7	2.23	0.63
16:D:496:A:O2'	16:D:497:G:N7	2.32	0.63
30:R:4:VAL:O	30:R:8:VAL:HG23	1.98	0.63
39:a:2627:G:H2'	39:a:2628:C:C6	2.34	0.63
41:c:34:HIS:N	41:c:51:VAL:O	2.28	0.63
57:s:93:ILE:HD11	57:s:100:VAL:HG21	1.81	0.63
58:t:107:LEU:HD11	58:t:112:PHE:HB3	1.80	0.63
59:u:82:LEU:CD2	59:u:120:VAL:HG21	2.28	0.63
6:5:101:DT:OP2	14:AE:275:ARG:NH2	2.31	0.63
9:9:78:GLY:N	9:9:79:PRO:HD3	2.13	0.63
10:A:58:A:O2'	10:A:59:A:H3'	1.97	0.63
13:AD:176:CYS:SG	14:AE:535:ARG:NH2	2.72	0.63
15:C:34:THR:HG23	20:H:338:GLU:HB2	1.81	0.63
16:D:679:C:C2	16:D:680:C:C5	2.86	0.63
20:H:43:LYS:HE3	20:H:76:GLU:OE1	1.98	0.63
36:X:11:ASP:HA	36:X:45:ILE:HB	1.81	0.63
39:a:581:C:C2	39:a:582:A:C8	2.86	0.63
39:a:1106:G:C2	39:a:1107:G:C8	2.87	0.63
39:a:1857:G:N2	39:a:1884:G:N3	2.46	0.63
39:a:2444:G:OP1	50:l:63:LYS:NZ	2.24	0.63
9:9:36:ASP:OD2	9:9:37:LYS:N	2.32	0.63
16:D:651:C:H2'	16:D:652:U:C6	2.33	0.63
16:D:683:G:C6	16:D:708:C:N3	2.67	0.63
28:P:52:LEU:CB	31:S:81:ARG:HH22	2.10	0.63
39:a:858:G:H21	39:a:2268:A:H2'	1.63	0.63
39:a:1708:C:C2	39:a:1709:U:C5	2.86	0.63
39:a:1921:G:H2'	39:a:1922:G:H5'	1.80	0.63
50:l:145:ASP:OD1	50:l:184:ASP:N	2.29	0.63
62:x:43:ASN:OD1	62:x:44:GLY:N	2.32	0.63
14:AE:128:LEU:HA	14:AE:192:MET:HE1	1.81	0.63
19:G:114:LEU:HD13	19:G:144:LEU:HB2	1.81	0.63
25:M:113:ASP:O	25:M:119:ARG:NE	2.32	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:Y:126:ARG:NH1	37:Y:127:SER:HB3	2.13	0.63
39:a:548:G:H3'	39:a:549:G:O4'	1.99	0.63
58:t:43:ILE:HD12	58:t:56:ASP:HB2	1.81	0.63
10:B:58:A:O2'	10:B:59:A:H3'	1.98	0.63
16:D:610:U:N3	16:D:611:C:C5	2.67	0.63
16:D:744:C:H2'	16:D:745:G:H8	1.63	0.63
16:D:1216:A:C2	16:D:1217:C:C5	2.87	0.63
21:I:20:SER:HB2	31:S:92:GLU:O	1.97	0.63
9:9:35:VAL:HG21	37:Y:1:ALA:O	1.99	0.62
20:H:110:GLY:N	20:H:153:GLU:O	2.32	0.62
39:a:225:C:H2'	39:a:226:A:O4'	1.98	0.62
39:a:989:G:OP1	39:a:1157:G:O2'	2.15	0.62
39:a:2395:C:H2'	39:a:2396:G:O4'	1.99	0.62
46:h:187:ASP:OD1	46:h:188:CYS:N	2.32	0.62
6:5:98:DA:C2'	6:5:99:DT:H72	2.28	0.62
16:D:1425:U:H2'	16:D:1426:G:H8	1.63	0.62
37:Y:106:GLN:NE2	37:Y:125:THR:HG21	2.14	0.62
39:a:1111:A:O2'	39:a:1112:G:O4'	2.15	0.62
39:a:1845:G:C6	39:a:1896:G:C6	2.87	0.62
39:a:2202:U:HO2'	39:a:2204:G:P	2.21	0.62
39:a:2297:A:C2	39:a:2321:U:C5	2.87	0.62
40:b:34:GLY:N	40:b:61:ALA:O	2.27	0.62
11:AA:1328:LYS:HD2	14:AE:102:MET:SD	2.40	0.62
14:AE:245:LEU:HG	14:AE:246:PRO:HD2	1.80	0.62
16:D:375:U:H2'	16:D:376:G:O4'	1.99	0.62
16:D:410:G:N1	16:D:431:A:OP2	2.28	0.62
16:D:999:C:H42	16:D:1042:A:H61	1.45	0.62
20:H:49:PRO:CD	20:H:84:LEU:HD11	2.29	0.62
24:L:8:PHE:O	24:L:9:MET:HE2	1.99	0.62
24:L:67:PRO:O	24:L:70:VAL:HG22	1.99	0.62
26:N:30:SER:O	26:N:34:VAL:HG23	1.99	0.62
34:V:59:VAL:HG22	34:V:60:GLU:H	1.64	0.62
39:a:76:C:O3'	43:e:48:ARG:NH2	2.32	0.62
39:a:299:A:C6	39:a:322:A:C4	2.87	0.62
39:a:1281:G:H2'	39:a:1282:U:C6	2.35	0.62
39:a:1378:A:O2'	39:a:1380:G:N7	2.26	0.62
39:a:2199:A:OP2	39:a:2200:C:N4	2.27	0.62
46:h:145:GLU:OE1	46:h:152:GLY:N	2.32	0.62
9:9:53:ARG:HD2	9:9:54:VAL:N	2.14	0.62
9:9:73:LYS:HG2	9:9:73:LYS:O	1.97	0.62
16:D:309:A:O2'	16:D:607:A:N1	2.31	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:L:21:MET:HE2	24:L:21:MET:CA	2.29	0.62
25:M:126:ASP:OD1	25:M:131:LYS:O	2.17	0.62
39:a:402:A:H2'	39:a:403:U:O4'	1.99	0.62
45:g:14:ALA:O	45:g:22:MET:N	2.33	0.62
21:I:30:ALA:HB2	31:S:77:PHE:N	2.13	0.62
22:J:85:ASN:HB3	23:K:102:GLY:CA	2.30	0.62
36:X:89:LEU:HD23	36:X:89:LEU:C	2.25	0.62
39:a:345:A:O2'	39:a:347:A:N6	2.23	0.62
39:a:534:U:H2'	39:a:535:G:C8	2.34	0.62
39:a:593:U:H2'	39:a:594:U:C6	2.33	0.62
39:a:1889:A:H2'	39:a:1890:A:O4'	1.99	0.62
39:a:2754:U:O3'	55:q:19:ARG:NH2	2.32	0.62
49:k:25:LYS:HD3	49:k:34:LEU:HD11	1.82	0.62
11:AA:992:LEU:HD13	11:AA:992:LEU:N	2.14	0.62
14:AE:67:ASP:OD1	14:AE:95:THR:OG1	2.15	0.62
22:J:162:ALA:O	22:J:165:ARG:O	2.17	0.62
25:M:126:ASP:OD1	25:M:131:LYS:C	2.43	0.62
39:a:249:C:H4'	39:a:250:G:O5'	2.00	0.62
39:a:600:G:H2'	39:a:601:C:C6	2.34	0.62
39:a:697:G:H2'	39:a:698:C:C6	2.34	0.62
39:a:966:G:C1'	39:a:2267:A:H62	2.13	0.62
39:a:1857:G:C2	39:a:1884:G:N3	2.68	0.62
39:a:2104:C:H2'	39:a:2105:U:O4'	2.00	0.62
11:AA:868:SER:CB	11:AA:941:LYS:HG2	2.29	0.62
14:AE:44:ILE:CD1	14:AE:252:LEU:HD21	2.29	0.62
23:K:150:PRO:O	23:K:153:VAL:HG22	1.99	0.62
35:W:53:ASN:OD1	35:W:56:GLN:N	2.27	0.62
42:d:5:U:OP1	42:d:61:G:O2'	2.17	0.62
11:AA:978:VAL:HG11	11:AA:1010:GLN:HB3	1.82	0.62
11:AA:1251:TYR:C	11:AA:1259:LEU:HD13	2.24	0.62
13:AC:168:ILE:CG2	21:I:80:LYS:NZ	2.62	0.62
18:F:25:LYS:NZ	20:H:336:ASP:CA	2.59	0.62
21:I:29:PHE:CE1	31:S:93:ILE:HG22	2.28	0.62
37:Y:100:ILE:HD12	37:Y:105:LEU:HD11	1.82	0.62
39:a:1792:G:N2	39:a:1827:U:O2	2.28	0.62
40:b:40:GLN:NE2	40:b:42:GLY:O	2.31	0.62
50:l:106:LYS:HG2	50:l:200:LEU:HD23	1.81	0.62
60:v:47:GLU:OE1	60:v:51:ARG:NH2	2.32	0.62
11:AA:850:ILE:O	11:AA:850:ILE:HG22	1.98	0.62
14:AE:201:LEU:HB2	14:AE:221:ILE:HD13	1.80	0.62
14:AE:1355:ARG:NH1	14:AE:1369:ARG:NH1	2.47	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:701:U:O2	16:D:703:G:N1	2.33	0.62
16:D:1496:C:O2	16:D:1517:G:N2	2.25	0.62
19:G:217:VAL:O	19:G:220:THR:HG22	1.99	0.62
20:H:118:GLY:C	20:H:133:GLY:CA	2.68	0.62
20:H:270:ILE:HG21	20:H:337:GLU:HB3	1.80	0.62
37:Y:139:VAL:HG13	37:Y:141:ASP:HB2	1.81	0.62
39:a:569:U:O2'	39:a:983:A:N1	2.33	0.62
39:a:839:U:C2	39:a:840:C:C5	2.88	0.62
39:a:1953:A:O2'	39:a:2559:C:O2	2.16	0.62
42:d:15:A:OP2	42:d:69:G:N1	2.30	0.62
48:j:48:ILE:HG12	48:j:84:LEU:HD21	1.82	0.62
3:2:53:VAL:HG22	3:2:87:LEU:HD12	1.80	0.62
11:AA:724:VAL:HG23	11:AA:734:ILE:HD13	1.80	0.62
14:AE:92:VAL:O	14:AE:92:VAL:HG12	1.99	0.62
14:AE:111:THR:CG2	14:AE:300:GLN:NE2	2.63	0.62
16:D:612:C:C2	16:D:613:C:C5	2.87	0.62
16:D:781:A:O2'	16:D:1522:U:O2	2.17	0.62
16:D:984:C:C2	16:D:985:C:C5	2.87	0.62
16:D:1159:U:O4'	16:D:1182:G:N2	2.33	0.62
20:H:19:ARG:O	20:H:72:LEU:CB	2.41	0.62
20:H:84:LEU:H	20:H:84:LEU:CD2	2.13	0.62
34:V:9:GLN:CG	34:V:60:GLU:OE1	2.48	0.62
39:a:632:A:H2'	39:a:633:A:C8	2.34	0.62
39:a:1398:C:C2	39:a:1399:C:C5	2.88	0.62
42:d:39:A:H2'	42:d:40:U:C6	2.35	0.62
48:j:133:THR:OG1	48:j:134:HIS:N	2.33	0.62
54:p:163:ARG:HD3	54:p:167:GLU:OE1	1.99	0.62
64:z:112:LYS:O	64:z:115:ALA:HB3	2.00	0.62
14:AE:24:LEU:CG	14:AE:232:ASN:ND2	2.63	0.61
16:D:204:G:O6	16:D:215:C:H1'	2.01	0.61
16:D:324:G:H2'	16:D:326:G:N7	2.15	0.61
19:G:32:PHE:CE1	20:H:7:GLN:HG2	2.35	0.61
19:G:129:LEU:HD11	19:G:134:ALA:HB2	1.82	0.61
20:H:304:VAL:HG12	20:H:304:VAL:O	1.99	0.61
25:M:69:VAL:HG23	25:M:100:ALA:HB1	1.81	0.61
27:O:12:ARG:HD3	27:O:13:LYS:H	1.65	0.61
39:a:26:G:H2'	39:a:27:G:O4'	2.00	0.61
39:a:560:C:H2'	39:a:561:G:O4'	2.00	0.61
39:a:577:G:H2'	39:a:578:G:C8	2.35	0.61
39:a:644:A:H2'	39:a:645:C:O4'	2.00	0.61
39:a:861:A:H2'	39:a:862:G:O4'	2.00	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:943:A:OP1	59:u:35:HIS:N	2.25	0.61
56:r:41:LYS:HA	56:r:44:ILE:HD12	1.82	0.61
6:5:108:DT:O4	11:AA:199:ASP:OD2	2.18	0.61
9:9:58:THR:HG21	9:9:80:THR:O	1.99	0.61
11:AA:660:VAL:HG13	11:AA:661:VAL:HG13	1.82	0.61
16:D:996:A:N7	16:D:1046:A:O2'	2.32	0.61
28:P:57:VAL:O	28:P:58:ASN:CG	2.43	0.61
39:a:2470:G:O6	39:a:2476:A:O2'	2.15	0.61
9:9:11:ILE:HA	9:9:14:GLU:CG	2.29	0.61
10:A:60:U:P	10:A:61:C:H41	2.22	0.61
14:AE:395:LYS:NZ	14:AE:399:LYS:HD3	2.15	0.61
20:H:280:LEU:N	20:H:330:VAL:O	2.32	0.61
39:a:9:G:O2'	39:a:2800:A:N6	2.33	0.61
39:a:591:U:C2	39:a:592:A:C8	2.87	0.61
39:a:771:G:P	51:m:14:ARG:HH21	2.24	0.61
39:a:1730:C:O2'	39:a:1731:G:O4'	2.17	0.61
39:a:1837:C:C2	39:a:1904:G:C2	2.88	0.61
57:s:100:VAL:O	57:s:103:ILE:HG22	2.00	0.61
4:3:55:PRO:HG2	39:a:499:U:OP2	2.01	0.61
9:9:43:LYS:HG3	9:9:46:ARG:HH21	1.63	0.61
9:9:46:ARG:HH22	9:9:98:GLU:CD	2.07	0.61
11:AA:13:LYS:HB2	11:AA:1180:MET:HE2	1.81	0.61
16:D:1314:C:C2	16:D:1315:U:C5	2.88	0.61
20:H:267:TRP:CH2	20:H:300:VAL:CB	2.83	0.61
20:H:270:ILE:CG2	20:H:337:GLU:CB	2.77	0.61
23:K:45:ARG:O	23:K:46:VAL:HG13	2.00	0.61
37:Y:40:ALA:HB1	37:Y:68:PHE:CE1	2.36	0.61
39:a:48:G:N2	39:a:177:G:OP2	2.33	0.61
39:a:230:G:H2'	39:a:231:A:H8	1.64	0.61
39:a:1582:C:C3'	39:a:1583:A:H5''	2.30	0.61
48:j:119:ALA:O	48:j:162:ALA:HB1	2.01	0.61
14:AE:68:TYR:HB3	14:AE:75:TYR:CZ	2.35	0.61
16:D:106:C:H2'	16:D:107:G:O4'	2.00	0.61
16:D:976:G:H5''	16:D:1358:U:O2'	2.00	0.61
21:I:22:TRP:CH2	31:S:94:PRO:CD	2.82	0.61
39:a:631:A:H2'	39:a:632:A:C8	2.34	0.61
39:a:1233:C:N3	39:a:1234:U:C5	2.68	0.61
39:a:2358:A:H2'	39:a:2359:C:O4'	2.00	0.61
7:6:15:DC:C4	7:6:16:DC:C4	2.89	0.61
9:9:67:THR:HG22	9:9:68:PRO:HD3	1.83	0.61
11:AA:1223:ARG:NH2	14:AE:721:SER:OG	2.34	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AE:90:VAL:O	14:AE:90:VAL:CG1	2.48	0.61
14:AE:223:LEU:HG	14:AE:223:LEU:O	2.00	0.61
10:B:60:U:P	10:B:61:C:H41	2.22	0.61
16:D:1250:A:H2'	16:D:1251:A:C8	2.36	0.61
26:N:111:MET:SD	26:N:116:ALA:N	2.74	0.61
29:Q:98:ARG:NE	29:Q:98:ARG:HA	2.16	0.61
36:X:54:ASP:OD1	36:X:57:ARG:NH1	2.33	0.61
37:Y:104:GLN:HG2	37:Y:108:ILE:CD1	2.29	0.61
39:a:705:A:H2'	39:a:706:A:O4'	2.00	0.61
39:a:742:A:H2'	39:a:743:A:C8	2.35	0.61
16:D:181:A:O2'	16:D:194:C:N4	2.34	0.61
17:E:75:HIS:O	17:E:79:LEU:HD12	2.01	0.61
19:G:58:ASN:OD1	19:G:224:GLY:N	2.33	0.61
20:H:84:LEU:HD22	20:H:84:LEU:N	2.15	0.61
31:S:26:GLU:HG2	31:S:30:ILE:HD11	1.82	0.61
39:a:1274:A:OP1	39:a:1646:C:N4	2.31	0.61
48:j:114:LYS:NZ	48:j:195:GLY:O	2.31	0.61
3:2:46:ALA:O	3:2:50:LEU:HD13	2.00	0.61
11:AA:374:GLU:HG3	11:AA:374:GLU:O	2.01	0.61
16:D:31:G:H2'	16:D:48:C:H41	1.64	0.61
27:O:113:ARG:CD	31:S:101:TRP:HD1	2.11	0.61
39:a:840:C:C2	39:a:841:G:C8	2.88	0.61
39:a:1169:A:H3'	39:a:1170:C:H6	1.66	0.61
39:a:2357:G:N1	39:a:2360:G:OP2	2.33	0.61
39:a:2849:U:N3	39:a:2867:G:O4'	2.31	0.61
54:p:35:ARG:HB2	54:p:75:MET:HE1	1.82	0.61
59:u:57:LEU:HD13	59:u:60:ARG:HH11	1.65	0.61
16:D:1029:U:O2	16:D:1033:G:N1	2.34	0.61
17:E:83:ILE:HD12	17:E:86:LEU:HD12	1.83	0.61
19:G:37:LYS:O	19:G:37:LYS:HG3	2.01	0.61
32:T:61:SER:C	32:T:65:LYS:HZ3	2.08	0.61
54:p:9:VAL:HG22	54:p:73:ASN:HD21	1.66	0.61
54:p:85:LYS:HB2	54:p:133:LEU:HD21	1.83	0.61
11:AA:478:ARG:NH1	11:AA:491:ASP:O	2.34	0.61
14:AE:154:LEU:HD21	14:AE:160:LEU:HD21	1.83	0.61
16:D:1151:A:H1'	28:P:41:PRO:HB2	1.83	0.61
23:K:105:ILE:HD11	23:K:120:VAL:HG23	1.83	0.61
39:a:824:U:H1'	39:a:2358:A:N7	2.15	0.61
39:a:1906:G:C8	39:a:1929:G:C4	2.89	0.61
45:g:48:GLN:O	45:g:51:VAL:HG12	2.00	0.61
52:n:34:ILE:HG12	52:n:96:MET:HG3	1.82	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:o:24:HIS:N	53:o:48:ALA:O	2.31	0.61
16:D:100:G:C4	16:D:101:A:C8	2.88	0.60
16:D:1111:A:N1	21:I:177:THR:HA	2.15	0.60
20:H:305:HIS:CD2	20:H:307:SER:H	2.19	0.60
36:X:90:ARG:CG	36:X:97:VAL:HG22	2.30	0.60
39:a:2699:C:H2'	39:a:2700:A:O4'	2.01	0.60
11:AA:979:LEU:HD11	11:AA:998:LEU:HD23	1.83	0.60
16:D:107:G:O6	17:E:10:ARG:NH1	2.34	0.60
24:L:73:GLU:O	24:L:77:THR:HG23	2.01	0.60
26:N:111:MET:SD	26:N:115:ALA:HB3	2.41	0.60
32:T:21:ASP:O	32:T:22:THR:OG1	2.14	0.60
39:a:250:G:H2'	39:a:251:A:C8	2.37	0.60
39:a:686:U:O4	51:m:12:ARG:HB2	2.01	0.60
39:a:783:A:O2'	39:a:785:G:OP1	2.18	0.60
39:a:1042:G:C5	39:a:1043:C:C5	2.89	0.60
39:a:1321:A:C4	39:a:1322:A:C8	2.89	0.60
48:j:48:ILE:HG22	48:j:49:GLN:N	2.14	0.60
50:l:51:GLU:OE2	50:l:88:ARG:NH1	2.31	0.60
4:3:10:GLU:HA	4:3:24:LYS:HA	1.81	0.60
8:7:4:U:O2'	23:K:57:PRO:HD3	2.01	0.60
14:AE:67:ASP:OD1	14:AE:67:ASP:N	2.34	0.60
14:AE:144:TYR:CE1	14:AE:162:GLU:OE2	2.51	0.60
14:AE:416:ILE:HG13	14:AE:441:LEU:HD11	1.83	0.60
39:a:133:U:H2'	39:a:134:G:O4'	2.01	0.60
39:a:370:G:O2'	39:a:423:A:H3'	2.01	0.60
39:a:1223:G:N1	39:a:1226:A:OP2	2.33	0.60
39:a:1418:G:O2'	39:a:1580:A:N6	2.33	0.60
14:AE:951:GLN:NE2	14:AE:1014:GLY:O	2.35	0.60
15:C:38:LYS:HZ3	16:D:718:A:H2	1.48	0.60
16:D:1225:A:H2'	16:D:1226:C:C5	2.36	0.60
16:D:1288:A:H2'	16:D:1289:A:O4'	2.01	0.60
37:Y:105:LEU:H	37:Y:108:ILE:HG12	1.66	0.60
39:a:952:G:C6	39:a:966:G:C6	2.90	0.60
39:a:1172:C:H3'	39:a:1173:U:H5''	1.84	0.60
39:a:2756:U:C4	39:a:2759:G:O6	2.54	0.60
16:D:440:C:C4	16:D:441:A:N7	2.69	0.60
16:D:687:A:C8	16:D:701:U:C4	2.90	0.60
16:D:1160:G:C2	16:D:1161:C:C6	2.90	0.60
20:H:117:LYS:CB	20:H:278:THR:HG23	2.32	0.60
20:H:331:MET:N	20:H:331:MET:SD	2.75	0.60
21:I:33:LEU:HD11	31:S:93:ILE:CA	2.31	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:R:29:GLN:HB3	30:R:81:LEU:HD11	1.83	0.60
37:Y:32:VAL:HG22	37:Y:60:VAL:HG21	1.82	0.60
39:a:703:U:H2'	39:a:704:G:O4'	2.02	0.60
39:a:947:A:H2'	39:a:948:C:C6	2.36	0.60
39:a:2139:U:C2	39:a:2152:G:O6	2.54	0.60
39:a:2496:C:OP2	60:v:81:ARG:NH1	2.33	0.60
2:1:43:ALA:O	2:1:47:VAL:HG22	2.01	0.60
7:6:18:DC:N4	8:7:17:G:H1	1.99	0.60
9:9:38:MET:HA	9:9:41:LEU:HD12	1.82	0.60
14:AE:370:LYS:HG2	14:AE:441:LEU:HD23	1.84	0.60
14:AE:412:LEU:HD22	14:AE:441:LEU:HD21	1.84	0.60
16:D:811:C:O2'	16:D:901:A:N1	2.33	0.60
16:D:1318:A:H4'	35:W:37:ARG:HH22	1.66	0.60
19:G:11:LYS:O	19:G:208:ARG:NH2	2.35	0.60
30:R:67:ILE:HG21	30:R:72:HIS:CD2	2.36	0.60
39:a:265:A:N1	39:a:427:U:O2'	2.33	0.60
39:a:1068:G:O6	39:a:1069:A:N6	2.34	0.60
39:a:1949:G:H2'	39:a:1950:G:O4'	2.02	0.60
54:p:4:VAL:HG22	54:p:69:ARG:HD2	1.84	0.60
16:D:1332:A:H2'	16:D:1333:A:O4'	2.01	0.60
29:Q:110:ILE:HG13	29:Q:110:ILE:O	2.02	0.60
34:V:33:ILE:HD12	34:V:33:ILE:N	2.17	0.60
39:a:1165:A:H2'	39:a:1166:G:H8	1.67	0.60
39:a:1590:A:H2'	39:a:1591:A:C8	2.37	0.60
39:a:2766:A:C2	39:a:2767:C:C6	2.90	0.60
46:h:173:THR:C	46:h:174:LEU:HD22	2.26	0.60
54:p:9:VAL:HG22	54:p:73:ASN:ND2	2.17	0.60
8:7:-2:U:H3'	8:7:-2:U:H6	1.65	0.60
9:9:11:ILE:HG12	9:9:65:GLU:HG2	1.83	0.60
11:AA:861:ALA:HA	11:AA:882:ILE:HD13	1.83	0.60
14:AE:342:LEU:HD23	14:AE:1352:ILE:HG23	1.83	0.60
10:B:68:C:H3'	10:B:69:C:H5''	1.84	0.60
16:D:690:G:H2'	16:D:691:G:C8	2.37	0.60
39:a:552:U:C2	39:a:553:G:C8	2.90	0.60
39:a:704:G:O2'	39:a:726:G:N2	2.35	0.60
39:a:1050:A:H2'	39:a:1051:G:C8	2.36	0.60
39:a:1668:A:O2'	39:a:1674:G:N7	2.31	0.60
39:a:2639:A:H4'	57:s:96:ARG:HH12	1.67	0.60
8:7:4:U:H4'	8:7:4:U:OP1	2.02	0.60
11:AA:967:LEU:HD12	11:AA:967:LEU:C	2.25	0.60
16:D:686:U:O4	16:D:703:G:H1'	2.00	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:H:305:HIS:O	20:H:306:VAL:HB	2.00	0.60
37:Y:67:THR:HG23	37:Y:67:THR:O	2.02	0.60
39:a:686:U:O4	51:m:12:ARG:NE	2.34	0.60
39:a:932:U:O2'	39:a:934:U:O4	2.19	0.60
39:a:2473:U:C4	39:a:2474:U:C5	2.90	0.60
39:a:2687:U:H2'	39:a:2688:G:O4'	2.02	0.60
46:h:157:SER:O	46:h:195:VAL:HG11	2.02	0.60
48:j:46:ARG:NH1	48:j:85:ALA:O	2.32	0.60
52:n:36:LEU:CD1	52:n:152:LEU:HD13	2.31	0.60
2:l:88:ARG:NE	39:a:748:G:OP2	2.35	0.60
8:7:-5:U:P	8:7:-5:U:H3'	2.42	0.60
16:D:386:C:H2'	16:D:387:U:O4'	2.01	0.60
16:D:444:G:C6	16:D:491:G:C6	2.90	0.60
16:D:1304:G:N2	16:D:1334:G:C6	2.70	0.60
19:G:187:VAL:CG2	19:G:199:VAL:HG23	2.31	0.60
39:a:2191:A:H2'	39:a:2192:U:C6	2.37	0.60
55:q:24:ARG:HB3	55:q:26:ILE:HD11	1.83	0.60
56:r:115:VAL:HG12	56:r:132:PHE:CE2	2.37	0.60
3:2:4:GLU:N	3:2:4:GLU:OE2	2.33	0.59
8:7:7:G:N3	8:7:7:G:H5''	2.16	0.59
10:A:35:A:C2'	10:A:36:U:O4'	2.50	0.59
10:A:76:A:N6	39:a:2422:C:O5'	2.35	0.59
11:AA:376:PRO:O	11:AA:376:PRO:HG2	2.02	0.59
13:AD:86:LYS:HE3	14:AE:528:THR:CB	2.32	0.59
16:D:842:U:O3'	16:D:844:G:N2	2.35	0.59
16:D:1124:G:C2'	16:D:1145:A:C6	2.84	0.59
19:G:217:VAL:O	19:G:221:VAL:HG23	2.01	0.59
20:H:270:ILE:HG21	20:H:337:GLU:CB	2.32	0.59
24:L:90:MET:HA	24:L:90:MET:HE3	1.83	0.59
27:O:57:MET:HE1	27:O:94:LEU:CD1	2.31	0.59
28:P:49:PHE:CE1	31:S:76:LYS:CE	2.84	0.59
39:a:813:U:O2'	39:a:1225:G:H1'	2.02	0.59
39:a:832:U:H2'	39:a:833:A:H8	1.67	0.59
39:a:1146:C:C2	39:a:1147:A:C8	2.90	0.59
39:a:1564:C:H2'	39:a:1565:C:C6	2.37	0.59
39:a:1789:A:OP1	46:h:221:ARG:NH1	2.34	0.59
54:p:11:VAL:HG12	54:p:48:ASN:O	2.01	0.59
9:9:23:LEU:HA	9:9:118:ILE:HG12	1.85	0.59
9:9:52:MET:SD	9:9:87:GLU:HG2	2.41	0.59
11:AA:218:GLU:OE2	11:AA:300:ASP:N	2.28	0.59
13:AC:76:GLU:OE1	13:AC:131:CYS:CA	2.51	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:35:A:C2'	10:B:36:U:O4'	2.50	0.59
16:D:751:U:H2'	16:D:752:G:O4'	2.02	0.59
37:Y:104:GLN:CG	37:Y:108:ILE:HD13	2.29	0.59
39:a:1028:A:N3	39:a:2486:C:O2'	2.20	0.59
39:a:1779:U:O2	39:a:1783:A:N6	2.35	0.59
39:a:2189:U:O2'	39:a:2190:G:O4'	2.20	0.59
10:A:68:C:H3'	10:A:69:C:H5''	1.84	0.59
39:a:132:G:H2'	39:a:133:U:C6	2.36	0.59
39:a:396:G:C6	39:a:397:U:C4	2.90	0.59
39:a:858:G:OP1	40:b:78:LYS:NZ	2.35	0.59
39:a:1277:G:H2'	39:a:1278:C:C6	2.37	0.59
54:p:167:GLU:OE1	54:p:169:VAL:HG23	2.01	0.59
60:v:17:ASN:O	60:v:38:ARG:NH1	2.34	0.59
60:v:29:GLY:N	60:v:104:GLU:OE2	2.35	0.59
14:AE:201:LEU:HD11	14:AE:220:ARG:HH11	1.67	0.59
15:C:34:THR:HA	20:H:338:GLU:CD	2.27	0.59
16:D:103:U:O2'	16:D:172:A:N1	2.23	0.59
16:D:160:A:H2'	16:D:161:A:O4'	2.02	0.59
26:N:26:THR:OG1	26:N:58:GLU:OE2	2.17	0.59
39:a:728:G:H3'	39:a:729:G:H5'	1.82	0.59
39:a:1348:C:C4	39:a:1349:C:C6	2.90	0.59
39:a:2016:U:H2'	39:a:2017:U:C6	2.37	0.59
16:D:1487:G:C2	16:D:1488:G:C8	2.90	0.59
39:a:132:G:H2'	39:a:133:U:H6	1.67	0.59
39:a:1298:C:H2'	39:a:1299:G:O4'	2.03	0.59
39:a:1813:G:N3	46:h:50:THR:OG1	2.24	0.59
39:a:1925:C:H2'	39:a:1926:U:C6	2.38	0.59
3:2:66:LYS:NZ	39:a:1338:G:N7	2.33	0.59
13:AD:81:ILE:HD13	13:AD:131:CYS:HB2	1.83	0.59
14:AE:438:GLU:HG3	14:AE:485:MET:HE1	1.85	0.59
18:F:62:ARG:NH2	18:F:63:GLU:OE2	2.35	0.59
20:H:36:VAL:HB	20:H:48:ILE:HB	1.84	0.59
39:a:1075:C:H2'	39:a:1076:C:C6	2.37	0.59
39:a:1079:C:C2	39:a:1080:A:C8	2.90	0.59
39:a:1359:A:OP2	39:a:1371:G:N1	2.34	0.59
39:a:1570:A:H2'	39:a:1571:A:C8	2.37	0.59
39:a:2334:U:O4'	62:x:13:ARG:HD2	2.03	0.59
39:a:2364:C:H2'	39:a:2365:G:O4'	2.02	0.59
48:j:110:THR:O	48:j:201:LEU:HD12	2.02	0.59
51:m:31:LEU:HD22	51:m:42:LEU:HD13	1.84	0.59
11:AA:888:THR:OG1	11:AA:889:PRO:HD2	2.02	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:992:LEU:HD22	11:AA:992:LEU:N	2.04	0.59
11:AA:1142:ARG:NH2	11:AA:1166:ASP:OD1	2.36	0.59
12:AB:93:ILE:HG22	14:AE:290:ILE:HG22	1.85	0.59
14:AE:99:ARG:HG3	14:AE:99:ARG:NH1	2.18	0.59
16:D:376:G:C2	16:D:389:A:C2	2.91	0.59
16:D:1181:G:H1'	16:D:1182:G:C5	2.37	0.59
16:D:1415:G:C5	16:D:1486:G:C6	2.90	0.59
16:D:1457:G:O2'	16:D:1458:G:H5'	2.01	0.59
23:K:138:ARG:O	23:K:141:ILE:HG22	2.03	0.59
27:O:5:GLN:OE1	27:O:5:GLN:N	2.33	0.59
37:Y:133:ARG:O	37:Y:133:ARG:HG2	2.03	0.59
39:a:499:U:H2'	39:a:500:G:O4'	2.02	0.59
39:a:1220:G:C6	39:a:1230:A:C6	2.91	0.59
39:a:1315:C:O2'	39:a:1392:A:N3	2.26	0.59
39:a:1605:C:H2'	39:a:1606:C:O4'	2.03	0.59
39:a:1737:G:H2'	39:a:1738:G:C1'	2.33	0.59
39:a:1824:G:O2'	46:h:252:THR:HG21	2.02	0.59
11:AA:979:LEU:HD13	11:AA:1011:LEU:HD21	1.84	0.59
16:D:300:A:O2'	16:D:564:C:N3	2.34	0.59
16:D:714:G:H2'	16:D:715:A:H8	1.67	0.59
19:G:31:ILE:HD13	19:G:39:HIS:HD2	1.66	0.59
20:H:71:ALA:O	20:H:72:LEU:CD1	2.42	0.59
26:N:103:VAL:HG22	26:N:127:CYS:O	2.03	0.59
30:R:83:ARG:CZ	30:R:96:HIS:HB3	2.32	0.59
39:a:112:U:H2'	39:a:113:U:O4'	2.02	0.59
39:a:2192:U:H2'	39:a:2193:G:C8	2.37	0.59
39:a:2708:G:H2'	39:a:2709:G:H8	1.68	0.59
39:a:2749:A:C8	39:a:2750:A:H2'	2.37	0.59
39:a:2845:U:OP1	63:y:52:ASN:OD1	2.21	0.59
50:l:60:TRP:HZ2	50:l:68:ALA:O	1.85	0.59
52:n:49:LEU:HD12	52:n:49:LEU:N	2.18	0.59
9:9:95:LEU:CD1	9:9:99:PHE:CE2	2.86	0.59
9:9:134:GLU:OE1	9:9:137:ALA:N	2.35	0.59
11:AA:958:LYS:HB3	11:AA:958:LYS:HZ1	1.65	0.59
14:AE:1161:GLY:HA3	14:AE:1179:PRO:HA	1.83	0.59
16:D:180:U:C2'	16:D:181:A:H5'	2.33	0.59
21:I:20:SER:HB2	31:S:92:GLU:C	2.28	0.59
26:N:41:LYS:HB2	26:N:46:ILE:HD11	1.85	0.59
36:X:73:ILE:O	36:X:76:SER:OG	2.17	0.59
38:Z:16:VAL:O	38:Z:19:VAL:HG12	2.03	0.59
39:a:964:C:O2	39:a:2273:A:H2	1.86	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2291:U:H2'	39:a:2292:U:C6	2.38	0.59
39:a:2740:A:OP2	39:a:2763:G:N1	2.35	0.59
54:p:76:VAL:O	54:p:80:THR:HG23	2.02	0.59
61:w:69:ARG:HA	61:w:69:ARG:NE	2.17	0.59
2:1:29:VAL:HG11	2:1:69:LEU:HB3	1.84	0.59
5:4:77:VAL:HG23	5:4:89:ILE:CG1	2.33	0.59
9:9:77:VAL:HG12	9:9:77:VAL:O	2.03	0.59
10:A:58:A:O2'	10:A:60:U:OP2	2.21	0.59
11:AA:1256:GLN:OE1	11:AA:1256:GLN:HA	2.03	0.59
14:AE:97:VAL:HG11	14:AE:101:ARG:NH2	2.18	0.59
10:B:76:A:H1'	39:a:2493:U:O2'	2.02	0.59
15:C:34:THR:HG23	20:H:338:GLU:CB	2.33	0.59
16:D:66:A:C2	16:D:104:G:H1'	2.38	0.59
16:D:339:C:H2'	16:D:340:U:H6	1.67	0.59
16:D:482:A:H2'	16:D:483:C:O4'	2.02	0.59
16:D:684:U:O2'	29:Q:41:ALA:N	2.35	0.59
16:D:816:A:OP1	16:D:1526:G:O2'	2.21	0.59
16:D:1191:A:OP2	21:I:3:GLN:OE1	2.21	0.59
16:D:1462:C:O2'	63:y:109:ARG:NH1	2.36	0.59
20:H:118:GLY:C	20:H:133:GLY:HA2	2.28	0.59
20:H:284:VAL:HG12	20:H:294:VAL:HB	1.84	0.59
21:I:33:LEU:CD1	31:S:93:ILE:HA	2.33	0.59
39:a:767:U:H2'	39:a:768:G:H8	1.67	0.59
39:a:1289:C:C2	39:a:1290:C:C5	2.91	0.59
39:a:1827:U:H2'	39:a:1828:G:O4'	2.03	0.59
9:9:95:LEU:CD1	9:9:99:PHE:HE2	2.16	0.58
11:AA:914:LYS:H	11:AA:914:LYS:HD3	1.68	0.58
15:C:40:VAL:CG1	20:H:338:GLU:O	2.51	0.58
15:C:40:VAL:HG13	20:H:338:GLU:O	2.03	0.58
16:D:1091:U:C2	16:D:1095:U:C4	2.91	0.58
16:D:1244:G:C6	16:D:1294:G:C6	2.90	0.58
20:H:119:GLY:HA3	20:H:132:PRO:C	2.28	0.58
21:I:33:LEU:HD23	31:S:79:LEU:CD1	2.33	0.58
24:L:23:GLU:O	24:L:26:THR:OG1	2.13	0.58
30:R:7:LEU:HD13	30:R:12:ARG:HG3	1.85	0.58
39:a:200:U:C5	39:a:201:C:C5	2.91	0.58
39:a:498:G:C2	39:a:506:G:O6	2.57	0.58
39:a:609:A:H3'	39:a:610:C:H6	1.67	0.58
39:a:1754:A:OP1	63:y:94:LYS:HE2	2.02	0.58
64:z:83:LEU:HD22	64:z:113:ALA:CB	2.33	0.58
2:1:37:THR:HG22	2:1:38:TYR:HD2	1.68	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:118:LYS:NZ	11:AA:485:ASP:OD1	2.25	0.58
11:AA:954:LYS:O	11:AA:954:LYS:NZ	2.33	0.58
10:B:18:G:H21	10:B:57:A:H3'	1.67	0.58
16:D:49:U:C2	16:D:361:G:N2	2.71	0.58
16:D:385:C:O2'	16:D:386:C:H5'	2.03	0.58
16:D:750:C:C2	16:D:751:U:C5	2.91	0.58
16:D:945:G:C2	16:D:946:A:C8	2.91	0.58
39:a:806:C:OP2	59:u:41:ARG:NH1	2.37	0.58
39:a:1196:C:C2	39:a:1197:G:C8	2.92	0.58
39:a:1820:U:O2	46:h:201:MET:N	2.35	0.58
39:a:1980:G:O2'	39:a:1982:U:OP2	2.16	0.58
42:d:90:C:H5'	60:v:18:ARG:HB3	1.84	0.58
1:0:62:GLU:C	1:0:96:VAL:HG23	2.29	0.58
11:AA:974:ARG:HD2	11:AA:1014:LEU:HD11	1.85	0.58
11:AA:976:ARG:HG3	11:AA:989:LEU:HD13	1.85	0.58
14:AE:118:LYS:HD2	14:AE:312:ARG:NH2	2.17	0.58
14:AE:161:THR:HG23	14:AE:164:GLN:H	1.68	0.58
14:AE:514:THR:HG21	14:AE:596:LEU:HD12	1.84	0.58
16:D:376:G:H2'	16:D:377:G:H8	1.68	0.58
16:D:1165:U:H2'	16:D:1166:G:O4'	2.03	0.58
19:G:14:VAL:HG13	19:G:213:TYR:OH	2.02	0.58
21:I:34:ASP:HB2	31:S:65:ARG:HD3	1.85	0.58
32:T:61:SER:OG	32:T:65:LYS:NZ	2.36	0.58
37:Y:123:ALA:O	37:Y:126:ARG:HG3	2.02	0.58
39:a:1710:G:H4'	39:a:2858:C:O2	2.03	0.58
39:a:2493:U:H2'	39:a:2494:G:O4'	2.03	0.58
39:a:2523:G:O2'	39:a:2764:A:O2'	2.13	0.58
11:AA:963:GLU:HA	11:AA:963:GLU:OE1	2.01	0.58
14:AE:275:ARG:NH1	14:AE:278:ARG:NH1	2.51	0.58
10:B:58:A:O2'	10:B:60:U:OP2	2.21	0.58
16:D:373:A:C2	16:D:374:A:C8	2.91	0.58
16:D:674:G:H2'	16:D:675:A:C8	2.38	0.58
16:D:916:U:O2	16:D:917:G:C8	2.56	0.58
16:D:1287:A:H2'	16:D:1288:A:C8	2.38	0.58
19:G:32:PHE:CZ	20:H:7:GLN:HG3	2.30	0.58
20:H:110:GLY:H	20:H:153:GLU:C	2.12	0.58
39:a:500:G:N1	39:a:503:A:OP2	2.36	0.58
39:a:1145:C:C2	39:a:1146:C:C5	2.92	0.58
39:a:2466:C:C2	39:a:2467:C:C5	2.92	0.58
39:a:2493:U:C2	39:a:2494:G:C8	2.92	0.58
42:d:28:C:H2'	42:d:29:A:O4'	2.02	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:x:33:ARG:O	62:x:66:GLY:N	2.37	0.58
1:O:32:THR:HG22	1:O:33:VAL:N	2.17	0.58
14:AE:241:VAL:HG12	14:AE:241:VAL:O	2.04	0.58
16:D:74:A:C4	16:D:75:G:C8	2.92	0.58
16:D:161:A:N6	16:D:347:G:O2'	2.36	0.58
16:D:229:U:H2'	16:D:230:G:O4'	2.04	0.58
16:D:545:C:H5'	22:J:69:GLU:HB2	1.84	0.58
16:D:547:A:OP2	22:J:2:ALA:N	2.36	0.58
39:a:465:G:H2'	39:a:466:A:C8	2.38	0.58
39:a:645:C:H42	39:a:2350:C:C1'	2.17	0.58
39:a:1141:U:H4'	39:a:1142:A:O5'	2.03	0.58
41:c:41:GLU:O	41:c:44:LYS:NZ	2.31	0.58
53:o:50:VAL:HG12	53:o:51:SER:O	2.03	0.58
54:p:133:LEU:HD23	54:p:133:LEU:H	1.68	0.58
64:z:69:ALA:HB1	64:z:74:ILE:HG23	1.84	0.58
4:3:55:PRO:HA	39:a:498:G:OP1	2.04	0.58
9:9:23:LEU:HB2	9:9:118:ILE:HG13	1.86	0.58
11:AA:528:ARG:NH2	11:AA:576:SER:O	2.34	0.58
11:AA:981:ALA:CB	11:AA:1008:GLN:HG3	2.31	0.58
11:AA:1184:THR:HG23	11:AA:1190:ALA:H	1.67	0.58
16:D:17:U:H2'	16:D:18:C:C6	2.39	0.58
16:D:180:U:O2'	16:D:181:A:H5'	2.04	0.58
16:D:354:G:C2'	16:D:355:C:H5'	2.33	0.58
25:M:97:ASN:O	25:M:101:MET:HG3	2.04	0.58
27:O:21:ILE:HG22	27:O:61:LEU:HD23	1.86	0.58
39:a:1802:A:H2'	39:a:1803:A:C8	2.38	0.58
39:a:2521:C:O2'	39:a:2564:A:N3	2.34	0.58
58:t:77:ILE:HD11	63:y:72:ARG:NH1	2.19	0.58
11:AA:1084:ASP:OD1	13:AC:45:ARG:NH1	2.33	0.58
14:AE:638:SER:OG	14:AE:639:VAL:N	2.36	0.58
16:D:935:A:O2'	16:D:1383:C:N3	2.24	0.58
16:D:1091:U:C2	16:D:1093:A:OP2	2.57	0.58
20:H:290:TYR:C	20:H:305:HIS:O	2.47	0.58
30:R:120:LYS:HD3	30:R:121:ARG:N	2.19	0.58
31:S:89:MET:N	31:S:89:MET:HE2	2.18	0.58
39:a:1117:C:N3	39:a:1118:C:C5	2.72	0.58
39:a:1322:A:C5	39:a:1323:C:C5	2.92	0.58
39:a:2225:A:H4'	39:a:2226:C:O5'	2.02	0.58
9:9:77:VAL:HG13	9:9:82:ILE:HG13	1.86	0.58
10:A:18:G:H21	10:A:57:A:H3'	1.68	0.58
11:AA:10:ARG:NH1	11:AA:697:LYS:HD3	2.19	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:870:ILE:HG12	11:AA:884:VAL:CG1	2.33	0.58
16:D:255:G:C4	16:D:256:U:C5	2.91	0.58
16:D:820:U:H4'	16:D:821:G:OP2	2.03	0.58
16:D:1172:C:C2	16:D:1173:U:C5	2.91	0.58
16:D:1191:A:OP1	21:I:4:LYS:NZ	2.32	0.58
20:H:43:LYS:NZ	20:H:76:GLU:HB2	2.18	0.58
23:K:69:ARG:HG3	23:K:70:ASN:HD22	1.66	0.58
33:U:52:LEU:HD12	33:U:57:ILE:HD11	1.85	0.58
39:a:151:C:H2'	39:a:152:A:H8	1.69	0.58
39:a:271:G:N3	39:a:272:A:C8	2.72	0.58
39:a:391:A:H1'	39:a:411:G:O4'	2.03	0.58
39:a:1343:G:C8	39:a:1597:A:C5	2.92	0.58
39:a:2236:U:H2'	39:a:2237:G:O4'	2.04	0.58
46:h:77:VAL:HG23	46:h:115:GLN:OE1	2.03	0.58
50:l:138:LEU:HD22	50:l:143:LEU:HD12	1.86	0.58
9:9:126:LEU:HD12	9:9:128:THR:HG1	1.68	0.58
11:AA:1034:ARG:NH1	11:AA:1034:ARG:O	2.37	0.58
16:D:746:A:H2'	16:D:747:A:C8	2.38	0.58
16:D:1209:C:C2	16:D:1210:C:C5	2.92	0.58
16:D:1230:C:H2'	16:D:1231:G:H8	1.68	0.58
18:F:42:THR:O	18:F:46:LYS:HG2	2.03	0.58
20:H:43:LYS:HZ1	20:H:76:GLU:HB2	1.69	0.58
31:S:88:ALA:HA	31:S:96:LEU:CD2	2.32	0.58
35:W:64:ASP:O	45:g:56:ARG:NH1	2.36	0.58
39:a:17:G:H2'	39:a:18:U:C6	2.39	0.58
39:a:70:G:H4'	39:a:71:A:OP1	2.04	0.58
39:a:189:G:OP2	41:c:26:LYS:NZ	2.27	0.58
39:a:394:C:H2'	39:a:395:U:C6	2.38	0.58
39:a:997:G:C2	39:a:1159:U:C2	2.92	0.58
39:a:1359:A:N6	39:a:1360:G:N3	2.51	0.58
39:a:2375:G:N2	39:a:2378:A:OP2	2.32	0.58
39:a:2519:U:H2'	39:a:2541:A:N6	2.18	0.58
1:0:84:ARG:NH1	1:0:86:GLN:OE1	2.37	0.58
11:AA:1008:GLN:HE21	11:AA:1008:GLN:C	2.11	0.58
14:AE:926:PRO:HG2	14:AE:1248:ILE:HD11	1.84	0.58
16:D:161:A:H2'	16:D:162:A:C8	2.39	0.58
16:D:427:U:OP2	16:D:428:G:O2'	2.11	0.58
16:D:581:G:N1	16:D:759:A:OP2	2.33	0.58
16:D:687:A:C2	16:D:704:A:C5	2.92	0.58
16:D:762:U:C2	16:D:763:G:C8	2.92	0.58
16:D:1140:C:O2'	16:D:1141:C:O5'	2.19	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1524:C:C2	16:D:1525:G:C8	2.91	0.58
20:H:110:GLY:N	20:H:153:GLU:CA	2.67	0.58
20:H:162:LYS:CB	20:H:298:GLU:OE2	2.45	0.58
20:H:330:VAL:HB	20:H:344:LEU:HD23	1.86	0.58
21:I:20:SER:OG	31:S:92:GLU:CA	2.49	0.58
27:O:56:ASP:O	27:O:60:LYS:NZ	2.32	0.58
32:T:30:ALA:HA	32:T:85:LEU:HD21	1.84	0.58
39:a:479:A:N1	39:a:506:G:N2	2.51	0.58
39:a:2373:G:H2'	39:a:2374:C:C6	2.39	0.58
39:a:2591:C:OP1	46:h:238:ARG:NE	2.34	0.58
39:a:2646:C:H2'	39:a:2647:U:O4'	2.04	0.58
39:a:2672:U:C2	39:a:2673:G:C8	2.92	0.58
57:s:25:LEU:HD21	57:s:100:VAL:CG1	2.33	0.58
58:t:64:ARG:HD2	58:t:79:PHE:CD2	2.39	0.58
6:5:99:DT:H2''	6:5:100:DA:H5''	1.85	0.57
8:7:-6:G:H5'	16:D:1501:C:H41	1.68	0.57
14:AE:88:CYS:HB3	14:AE:90:VAL:CG1	2.32	0.57
14:AE:198:CYS:HA	14:AE:221:ILE:HD11	1.86	0.57
16:D:131:A:O2'	16:D:262:A:H2'	2.04	0.57
16:D:827:U:H2'	16:D:870:U:O4	2.04	0.57
16:D:1233:G:OP1	27:O:126:GLN:HB3	2.04	0.57
33:U:19:VAL:HG12	33:U:37:GLY:C	2.29	0.57
39:a:1114:C:H2'	39:a:1115:G:C8	2.39	0.57
39:a:1572:A:C4	39:a:1573:G:C8	2.92	0.57
39:a:2815:C:C2	39:a:2816:G:C8	2.92	0.57
1:0:78:ARG:HG3	1:0:81:LYS:CG	2.34	0.57
11:AA:1008:GLN:C	11:AA:1010:GLN:H	2.12	0.57
39:a:873:C:C2	39:a:874:G:C8	2.92	0.57
39:a:1814:G:O5'	39:a:1815:A:H2'	2.05	0.57
42:d:6:G:C6	42:d:115:A:C6	2.92	0.57
42:d:45:A:C4	42:d:46:A:C8	2.92	0.57
48:j:48:ILE:O	48:j:81:GLU:HA	2.04	0.57
7:6:8:DC:H2'	7:6:9:DT:H71	1.86	0.57
14:AE:491:LEU:HB2	14:AE:904:ALA:HA	1.86	0.57
10:B:76:A:O2'	39:a:2493:U:C4'	2.50	0.57
16:D:71:A:N1	16:D:100:G:C8	2.72	0.57
16:D:136:C:C2	16:D:137:U:C6	2.92	0.57
16:D:377:G:H2'	16:D:378:G:H8	1.68	0.57
16:D:598:U:C2	16:D:599:C:C5	2.93	0.57
16:D:1077:G:N2	16:D:1079:G:H3'	2.19	0.57
16:D:1363:A:C8	16:D:1365:G:C5	2.92	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:K:81:LEU:HD12	23:K:81:LEU:N	2.19	0.57
39:a:2259:U:N3	39:a:2260:C:C5	2.72	0.57
39:a:2548:U:C2	39:a:2549:G:C8	2.91	0.57
50:l:200:LEU:N	50:l:200:LEU:HD12	2.19	0.57
57:s:36:LEU:HD12	57:s:121:LYS:HB2	1.86	0.57
1:0:68:ARG:NH1	1:0:92:TRP:CZ2	2.72	0.57
9:9:58:THR:CB	9:9:81:LEU:HD12	2.26	0.57
9:9:109:LYS:HE3	9:9:111:ALA:HA	1.86	0.57
14:AE:510:LEU:HD22	14:AE:601:ILE:HD12	1.86	0.57
16:D:144:G:N2	16:D:179:A:H1'	2.20	0.57
16:D:714:G:H2'	16:D:715:A:C8	2.39	0.57
16:D:1082:A:C6	16:D:1083:U:C4	2.93	0.57
16:D:1347:G:O5'	27:O:109:ARG:NH1	2.37	0.57
16:D:1349:A:OP1	27:O:123:ARG:N	2.38	0.57
37:Y:116:MET:SD	37:Y:124:MET:HB3	2.44	0.57
39:a:153:U:H2'	39:a:154:U:C6	2.39	0.57
39:a:271:G:C2	39:a:272:A:C5	2.92	0.57
39:a:549:G:O2'	39:a:550:C:O5'	2.22	0.57
39:a:875:G:C2	39:a:903:C:C2	2.93	0.57
39:a:1115:G:N3	39:a:1116:G:C8	2.72	0.57
39:a:1839:G:H1'	39:a:1927:A:C8	2.39	0.57
39:a:2050:C:H2'	39:a:2051:A:O4'	2.03	0.57
39:a:2532:G:O2'	39:a:2657:A:N1	2.33	0.57
39:a:2660:A:H2'	39:a:2661:G:O4'	2.04	0.57
39:a:2811:G:H2'	39:a:2812:G:O4'	2.04	0.57
50:l:19:PHE:HA	50:l:109:LEU:CD2	2.34	0.57
52:n:31:VAL:HG23	52:n:31:VAL:O	2.04	0.57
56:r:97:ARG:HG2	56:r:112:LYS:HD3	1.86	0.57
10:A:10:G:H2'	10:A:11:A:C8	2.40	0.57
10:B:76:A:H4'	39:a:2494:G:OP1	2.04	0.57
16:D:1047:G:O3'	31:S:3:LYS:HE3	2.05	0.57
17:E:35:VAL:HG22	17:E:50:ALA:HB3	1.86	0.57
21:I:29:PHE:HZ	31:S:93:ILE:HG22	1.68	0.57
38:Z:20:VAL:O	38:Z:20:VAL:HG12	2.04	0.57
39:a:1682:G:C6	39:a:1757:A:C8	2.92	0.57
39:a:1782:U:O2	39:a:2608:G:O2'	2.16	0.57
39:a:2191:A:H2'	39:a:2192:U:H6	1.67	0.57
11:AA:1257:GLN:OE1	14:AE:345:LYS:HB3	2.05	0.57
14:AE:102:MET:HG2	14:AE:246:PRO:HG3	1.87	0.57
14:AE:1046:ILE:HD12	14:AE:1059:LEU:HB3	1.86	0.57
16:D:857:C:H2'	16:D:858:G:O4'	2.04	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:952:U:H5'	16:D:972:C:H41	1.70	0.57
16:D:996:A:N6	16:D:1046:A:O4'	2.37	0.57
16:D:1145:A:HO2'	16:D:1146:A:P	2.27	0.57
26:N:35:ALA:HB1	26:N:110:VAL:HG11	1.86	0.57
37:Y:133:ARG:HG2	37:Y:136:GLY:HA2	1.85	0.57
39:a:34:U:O2'	39:a:35:G:H5'	2.04	0.57
39:a:584:C:C2	39:a:585:G:C8	2.93	0.57
39:a:679:C:C2	39:a:799:G:N2	2.71	0.57
39:a:753:A:C2	39:a:754:U:C6	2.93	0.57
39:a:1198:U:C2	39:a:1199:U:C5	2.92	0.57
39:a:1436:G:O2'	39:a:1515:A:N1	2.35	0.57
56:r:33:GLN:OE1	56:r:35:LYS:NZ	2.37	0.57
4:3:28:VAL:HG23	4:3:34:VAL:CG1	2.35	0.57
4:3:75:ALA:HB1	39:a:337:C:OP1	2.05	0.57
14:AE:343:LEU:HD11	14:AE:1324:SER:HB3	1.87	0.57
10:B:10:G:H2'	10:B:11:A:C8	2.40	0.57
16:D:123:U:C2	16:D:124:C:C5	2.92	0.57
16:D:810:C:H2'	16:D:811:C:O4'	2.05	0.57
39:a:152:A:H2'	39:a:153:U:C6	2.40	0.57
39:a:1167:C:C2	39:a:1168:G:C8	2.92	0.57
39:a:1196:C:H2'	39:a:1197:G:O4'	2.04	0.57
39:a:1359:A:N6	39:a:1360:G:C2	2.73	0.57
39:a:1753:G:N2	39:a:1756:G:O5'	2.34	0.57
39:a:2262:U:OP2	40:b:16:SER:HB3	2.05	0.57
39:a:2298:A:C4	39:a:2321:U:C5	2.93	0.57
41:c:64:ILE:HG13	41:c:65:ASP:N	2.20	0.57
61:w:114:GLU:OE1	61:w:118:ARG:NH2	2.37	0.57
9:9:16:SER:HB3	9:9:20:LYS:NZ	2.19	0.57
14:AE:37:GLU:O	14:AE:61:ILE:CD1	2.52	0.57
14:AE:124:ILE:HG22	14:AE:124:ILE:O	2.04	0.57
16:D:335:C:C2	16:D:336:A:C8	2.92	0.57
16:D:1324:A:C5	16:D:1325:C:C5	2.93	0.57
26:N:81:PRO:HA	26:N:84:ARG:HE	1.69	0.57
28:P:6:ILE:HG23	28:P:100:ILE:HG23	1.87	0.57
37:Y:90:GLY:O	37:Y:91:LYS:HD3	2.04	0.57
39:a:518:G:H2'	39:a:519:U:C6	2.40	0.57
39:a:672:C:C2	39:a:673:C:C5	2.93	0.57
39:a:1580:A:C8	39:a:1581:G:C8	2.93	0.57
39:a:1695:G:N2	39:a:1696:G:N7	2.53	0.57
39:a:2818:U:H4'	39:a:2837:A:C4'	2.34	0.57
45:g:16:CYS:HB3	45:g:37:CYS:HB3	1.86	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:37:PRO:C	5:4:38:LEU:HD22	2.30	0.57
9:9:23:LEU:N	9:9:118:ILE:HD11	2.20	0.57
10:A:71:C:H2'	10:A:72:A:C8	2.39	0.57
11:AA:1014:LEU:HA	11:AA:1017:GLN:HG2	1.85	0.57
16:D:176:C:O4'	16:D:1447:A:C2	2.57	0.57
21:I:34:ASP:CB	31:S:65:ARG:HD3	2.34	0.57
30:R:79:VAL:O	30:R:103:ASP:HB2	2.05	0.57
37:Y:112:LYS:HG2	37:Y:112:LYS:O	2.05	0.57
39:a:1278:C:O3'	61:w:34:ILE:HD11	2.05	0.57
39:a:1972:G:C2	39:a:1973:G:N7	2.73	0.57
39:a:2370:G:H2'	39:a:2371:G:O4'	2.05	0.57
52:n:98:GLU:OE1	52:n:102:ARG:NH1	2.33	0.57
57:s:59:ALA:HB1	57:s:101:ILE:HD13	1.87	0.57
59:u:89:VAL:HG23	59:u:123:ARG:HD3	1.87	0.57
6:5:115:DA:OP2	14:AE:1148:ARG:HG3	2.04	0.57
13:AC:69:SER:OG	13:AC:70:THR:N	2.38	0.57
13:AD:15:ASP:HB3	13:AD:27:THR:HB	1.87	0.57
14:AE:99:ARG:HH11	14:AE:99:ARG:CG	2.18	0.57
10:B:71:C:H2'	10:B:72:A:C8	2.39	0.57
16:D:517:G:H2'	16:D:531:U:H5	1.69	0.57
16:D:1073:U:C2	16:D:1074:G:C8	2.93	0.57
16:D:1112:C:N3	21:I:177:THR:HA	2.19	0.57
16:D:1144:G:H2'	16:D:1145:A:C1'	2.35	0.57
19:G:120:GLN:HG3	19:G:126:PHE:CE1	2.40	0.57
25:M:30:LEU:CD2	25:M:105:VAL:HG22	2.34	0.57
26:N:88:ARG:NE	26:N:91:GLU:OE2	2.37	0.57
37:Y:56:VAL:HG23	37:Y:69:VAL:O	2.05	0.57
39:a:682:G:C5'	51:m:26:ASN:ND2	2.66	0.57
39:a:1318:U:C2	39:a:1319:C:C5	2.93	0.57
39:a:2850:A:OP2	39:a:2866:U:N3	2.38	0.57
50:l:168:ASP:OD2	50:l:170:ARG:NE	2.37	0.57
11:AA:840:SER:O	11:AA:840:SER:OG	2.19	0.56
11:AA:1072:ASN:ND2	11:AA:1111:GLN:OE1	2.37	0.56
16:D:547:A:OP2	22:J:2:ALA:HA	2.05	0.56
19:G:114:LEU:HD13	19:G:144:LEU:HB3	1.86	0.56
24:L:38:ARG:HH22	24:L:98:GLU:C	2.13	0.56
37:Y:48:ILE:HG23	37:Y:49:GLU:N	2.19	0.56
37:Y:126:ARG:HD2	37:Y:126:ARG:C	2.30	0.56
39:a:630:G:N2	39:a:632:A:H3'	2.20	0.56
39:a:686:U:O2	51:m:7:PRO:HA	2.05	0.56
39:a:2731:G:H2'	39:a:2732:G:C8	2.39	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:d:89:U:O2'	42:d:90:C:O5'	2.22	0.56
52:n:57:LEU:CD2	52:n:65:PRO:HB3	2.35	0.56
59:u:132:ARG:HB3	59:u:132:ARG:CZ	2.35	0.56
2:l:90:LYS:N	39:a:751:A:OP2	2.34	0.56
5:4:2:PHE:HB2	5:4:61:LEU:HD22	1.86	0.56
8:7:-8:A:H2'	8:7:-7:U:H6	1.71	0.56
11:AA:1006:GLU:OE1	11:AA:1006:GLU:HA	2.04	0.56
13:AD:81:ILE:HD11	13:AD:130:ILE:HG22	1.87	0.56
16:D:34:C:H2'	16:D:35:G:H8	1.70	0.56
16:D:679:C:N3	16:D:680:C:C5	2.73	0.56
16:D:743:A:H2'	16:D:744:C:C6	2.40	0.56
16:D:918:A:H2'	16:D:919:A:C8	2.40	0.56
16:D:1314:C:H2'	16:D:1315:U:H6	1.67	0.56
16:D:1428:A:H2'	16:D:1429:A:O4'	2.05	0.56
39:a:89:A:H2'	39:a:90:U:C6	2.40	0.56
39:a:603:A:N6	39:a:655:A:C1'	2.68	0.56
39:a:851:C:C2	39:a:852:U:C5	2.93	0.56
39:a:880:G:C2	39:a:881:G:C8	2.94	0.56
39:a:1069:A:C4	39:a:1073:A:N7	2.73	0.56
39:a:2133:G:O2'	39:a:2157:G:N2	2.39	0.56
56:r:127:GLU:N	56:r:127:GLU:OE2	2.38	0.56
57:s:101:ILE:H	57:s:101:ILE:HD12	1.69	0.56
58:t:51:LYS:NZ	58:t:95:ILE:O	2.37	0.56
9:9:3:LEU:C	9:9:6:GLN:HE22	2.12	0.56
9:9:6:GLN:OE1	9:9:6:GLN:N	2.38	0.56
9:9:23:LEU:CB	9:9:118:ILE:HG13	2.35	0.56
11:AA:818:VAL:HG22	11:AA:1096:ILE:HG12	1.87	0.56
14:AE:144:TYR:HE1	14:AE:162:GLU:CD	2.14	0.56
14:AE:247:PRO:HA	14:AE:250:ARG:HG3	1.87	0.56
15:C:31:ASN:ND2	20:H:268:VAL:CB	2.67	0.56
16:D:362:G:N2	16:D:365:U:OP2	2.38	0.56
20:H:267:TRP:CZ2	20:H:300:VAL:HA	2.37	0.56
20:H:291:GLY:HA2	20:H:305:HIS:HA	1.86	0.56
29:Q:35:THR:OG1	29:Q:40:ASN:O	2.24	0.56
32:T:5:THR:O	32:T:8:THR:OG1	2.19	0.56
35:W:44:MET:HE1	35:W:71:LEU:HD11	1.87	0.56
37:Y:78:LEU:O	37:Y:78:LEU:HD23	2.04	0.56
39:a:391:A:C5	39:a:392:U:C5	2.93	0.56
39:a:730:A:C2	39:a:731:C:C6	2.94	0.56
39:a:1042:G:C4	39:a:1043:C:C6	2.94	0.56
39:a:1198:U:H2'	39:a:1199:U:C6	2.40	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1234:U:C4	39:a:1235:G:C6	2.93	0.56
39:a:1346:G:H2'	39:a:1347:A:O4'	2.06	0.56
39:a:1607:C:N4	39:a:1621:U:H3'	2.20	0.56
39:a:1800:C:OP2	46:h:182:ARG:NH1	2.39	0.56
39:a:2184:A:H2'	39:a:2185:U:C6	2.40	0.56
39:a:2189:U:P	39:a:2189:U:O4'	2.62	0.56
39:a:2391:G:H1'	39:a:2424:C:H41	1.70	0.56
39:a:2547:A:H2'	39:a:2548:U:C6	2.41	0.56
39:a:2625:G:H2'	39:a:2626:C:C6	2.40	0.56
39:a:2838:G:C4	39:a:2839:G:C8	2.93	0.56
46:h:175:ARG:HB2	46:h:181:MET:HE1	1.88	0.56
47:i:31:ASP:OD2	47:i:34:SER:OG	2.20	0.56
59:u:77:ILE:HB	59:u:110:VAL:HG22	1.87	0.56
59:u:123:ARG:HD2	59:u:143:GLU:OE2	2.05	0.56
8:7:0:U:H6	8:7:0:U:H3'	1.70	0.56
16:D:547:A:OP2	22:J:2:ALA:HB2	2.06	0.56
16:D:580:C:H2'	16:D:581:G:O4'	2.05	0.56
16:D:902:G:C2	16:D:903:G:C5	2.94	0.56
16:D:1356:G:H2'	16:D:1357:A:C8	2.41	0.56
24:L:80:PHE:HE1	46:h:124:ILE:HD12	1.71	0.56
39:a:13:A:N1	39:a:525:U:H2'	2.20	0.56
39:a:271:G:C4	39:a:272:A:C8	2.94	0.56
39:a:963:U:C2	39:a:964:C:C5	2.93	0.56
42:d:46:A:C5	42:d:47:C:C5	2.93	0.56
61:w:52:ILE:HG23	61:w:83:LEU:CD2	2.36	0.56
4:3:28:VAL:CB	4:3:34:VAL:HG12	2.35	0.56
4:3:55:PRO:O	39:a:498:G:OP1	2.22	0.56
10:A:71:C:H3'	10:A:72:A:C8	2.41	0.56
11:AA:801:ARG:HG2	11:AA:1094:VAL:HG23	1.87	0.56
11:AA:855:PRO:O	11:AA:855:PRO:HG2	2.04	0.56
16:D:412:A:H2'	16:D:414:A:H5''	1.86	0.56
16:D:736:C:O3'	24:L:90:MET:HE1	2.06	0.56
16:D:1136:C:OP2	16:D:1137:C:N4	2.38	0.56
16:D:1241:G:H2'	16:D:1242:G:H8	1.69	0.56
19:G:20:THR:HG22	19:G:39:HIS:ND1	2.18	0.56
26:N:48:ASP:HB2	26:N:50:LYS:HZ3	1.70	0.56
37:Y:15:GLY:CA	37:Y:50:LYS:HD3	2.35	0.56
39:a:150:U:H2'	39:a:151:C:C6	2.40	0.56
39:a:247:G:OP2	39:a:249:C:N4	2.23	0.56
39:a:464:U:C4	39:a:788:A:C5	2.93	0.56
39:a:571:U:O2'	39:a:573:U:O5'	2.22	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:856:G:H2'	39:a:857:G:C8	2.40	0.56
39:a:2193:G:O2'	39:a:2194:U:OP1	2.22	0.56
39:a:2654:A:N1	39:a:2665:A:H5''	2.20	0.56
45:g:36:VAL:HG23	45:g:40:CYS:O	2.06	0.56
61:w:68:ALA:HB3	61:w:69:ARG:HH22	1.71	0.56
4:3:21:LYS:HG2	4:3:22:ARG:N	2.20	0.56
7:6:21:DA:N6	8:7:15:G:H1	2.04	0.56
11:AA:227:LYS:NZ	11:AA:298:ALA:HB1	2.21	0.56
11:AA:400:VAL:HG11	11:AA:452:ARG:HD2	1.86	0.56
14:AE:1166:GLY:HA3	14:AE:1174:ARG:HB2	1.88	0.56
16:D:611:C:C2	16:D:612:C:C6	2.94	0.56
16:D:891:U:OP2	16:D:906:A:N6	2.33	0.56
19:G:20:THR:OG1	19:G:37:LYS:NZ	2.36	0.56
21:I:22:TRP:CZ2	31:S:94:PRO:HD3	2.41	0.56
35:W:52:HIS:HA	35:W:57:HIS:HA	1.87	0.56
39:a:1197:G:H2'	39:a:1198:U:H6	1.70	0.56
39:a:1232:G:C6	39:a:1233:C:C4	2.94	0.56
39:a:1283:G:N2	39:a:1286:A:C8	2.73	0.56
39:a:1319:C:N4	39:a:1334:G:O6	2.38	0.56
39:a:1528:A:H3'	39:a:1529:G:O4'	2.04	0.56
39:a:1893:C:C4	39:a:1894:C:C6	2.93	0.56
39:a:2093:G:H1'	39:a:2198:A:C2	2.41	0.56
39:a:2616:C:C2	39:a:2617:U:C6	2.94	0.56
39:a:2899:A:H2'	39:a:2900:A:C8	2.41	0.56
57:s:15:TRP:CE2	57:s:53:TYR:HD2	2.24	0.56
59:u:120:VAL:O	59:u:141:LYS:N	2.34	0.56
60:v:17:ASN:CB	60:v:95:LEU:HD11	2.36	0.56
11:AA:1046:VAL:HG22	11:AA:1049:ILE:HG13	1.88	0.56
14:AE:741:ALA:O	14:AE:762:ASN:ND2	2.38	0.56
14:AE:903:LEU:HD21	14:AE:1249:ASN:HD22	1.70	0.56
16:D:35:G:H2'	16:D:36:C:H6	1.71	0.56
16:D:1112:C:N3	21:I:178:LEU:N	2.45	0.56
16:D:1193:G:C2	16:D:1194:U:C5	2.94	0.56
16:D:1267:C:H2'	16:D:1268:G:O4'	2.06	0.56
19:G:141:LEU:C	19:G:141:LEU:HD23	2.31	0.56
20:H:49:PRO:HD3	20:H:84:LEU:HD11	1.87	0.56
20:H:72:LEU:HD12	20:H:72:LEU:N	2.10	0.56
32:T:55:GLY:O	32:T:59:MET:HE3	2.06	0.56
37:Y:11:GLN:CG	37:Y:53:PRO:HB3	2.35	0.56
39:a:1441:G:H2'	39:a:1442:U:C6	2.40	0.56
46:h:158:ALA:HB1	46:h:197:ASN:O	2.05	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:p:152:ARG:O	54:p:162:VAL:N	2.36	0.56
11:AA:39:ILE:HD12	11:AA:75:LEU:HD22	1.88	0.56
11:AA:1246:ARG:NH1	11:AA:1266:GLY:HA2	2.20	0.56
13:AD:196:THR:HB	14:AE:443:GLU:CG	2.36	0.56
14:AE:160:LEU:HD22	14:AE:164:GLN:HB3	1.86	0.56
14:AE:171:GLU:HA	14:AE:171:GLU:OE1	2.05	0.56
14:AE:1175:LEU:HD22	14:AE:1190:ILE:HD11	1.88	0.56
10:B:71:C:H3'	10:B:72:A:C8	2.41	0.56
16:D:121:U:O2'	16:D:122:G:H5''	2.06	0.56
16:D:322:C:H2'	16:D:323:U:C6	2.41	0.56
16:D:542:G:OP1	22:J:10:LYS:CE	2.53	0.56
16:D:911:U:H2'	16:D:912:C:C6	2.41	0.56
16:D:978:A:C4	16:D:1319:A:C2	2.94	0.56
21:I:33:LEU:HD13	31:S:93:ILE:HG23	1.87	0.56
29:Q:70:CYS:SG	29:Q:71:ALA:N	2.79	0.56
32:T:67:LEU:O	32:T:71:LYS:HG3	2.05	0.56
39:a:321:U:O2'	39:a:340:A:N3	2.39	0.56
39:a:1043:C:C4	39:a:1044:C:C4	2.94	0.56
39:a:1156:A:OP2	64:z:55:ARG:NH2	2.38	0.56
39:a:2649:C:C2	39:a:2650:U:C5	2.94	0.56
39:a:2673:G:C2	39:a:2674:G:C8	2.93	0.56
39:a:2850:A:N7	39:a:2868:A:O2'	2.26	0.56
41:c:59:ILE:HG23	41:c:64:ILE:HG22	1.86	0.56
59:u:57:LEU:HD13	59:u:60:ARG:NH1	2.21	0.56
1:0:68:ARG:HG2	1:0:90:ARG:HB3	1.88	0.56
4:3:28:VAL:CG2	4:3:34:VAL:HG12	2.36	0.56
11:AA:855:PRO:CB	11:AA:913:VAL:HG21	2.36	0.56
15:C:57:ARG:HG2	15:C:57:ARG:HH11	1.70	0.56
16:D:141:G:C6	16:D:223:A:N6	2.74	0.56
16:D:686:U:O2'	16:D:687:A:OP2	2.20	0.56
19:G:100:MET:HA	19:G:107:VAL:HG21	1.86	0.56
20:H:332:VAL:CG1	20:H:335:ILE:HG13	2.33	0.56
25:M:13:LEU:HD12	25:M:13:LEU:N	2.21	0.56
33:U:39:PHE:CD1	33:U:74:LEU:HD13	2.40	0.56
37:Y:89:SER:OG	37:Y:135:MET:HG3	2.06	0.56
39:a:64:A:H2'	39:a:65:U:H6	1.68	0.56
39:a:461:C:H5''	39:a:462:C:OP2	2.06	0.56
39:a:599:A:C6	39:a:659:G:C6	2.94	0.56
39:a:975:A:O2'	39:a:1156:A:N1	2.36	0.56
39:a:1001:A:H2'	39:a:1002:G:O4'	2.04	0.56
39:a:1422:G:H1'	39:a:1496:A:N1	2.20	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1994:C:OP1	48:j:132:ALA:N	2.36	0.56
39:a:2284:A:C2	39:a:2325:G:O6	2.58	0.56
39:a:2297:A:N1	39:a:2321:U:C5	2.74	0.56
39:a:2494:G:C2	39:a:2495:G:C8	2.93	0.56
39:a:2517:C:O2	39:a:2542:A:N6	2.39	0.56
9:9:67:THR:HG23	9:9:68:PRO:HD3	1.87	0.56
14:AE:130:MET:HE2	14:AE:135:ILE:HG12	1.87	0.56
39:a:673:C:H2'	39:a:674:G:O4'	2.06	0.56
39:a:687:C:H5'	51:m:6:GLN:HG3	1.88	0.56
39:a:737:C:C2	39:a:760:G:N2	2.74	0.56
39:a:807:U:H2'	39:a:808:G:H8	1.70	0.56
39:a:1632:A:H2'	39:a:1633:G:O4'	2.06	0.56
39:a:1805:A:N6	39:a:1813:G:O6	2.39	0.56
39:a:2547:A:H4'	58:t:29:HIS:NE2	2.21	0.56
39:a:2677:G:C6	39:a:2731:G:C6	2.94	0.56
50:l:5:LEU:N	50:l:10:SER:O	2.38	0.56
58:t:66:LYS:HA	58:t:79:PHE:O	2.05	0.56
59:u:57:LEU:HB2	59:u:60:ARG:NH1	2.21	0.56
9:9:97:LYS:HD2	9:9:125:ARG:NH1	2.03	0.55
16:D:125:U:H2'	16:D:126:G:O4'	2.05	0.55
16:D:273:U:O4	16:D:274:A:N6	2.39	0.55
16:D:327:A:H1'	16:D:329:A:O4'	2.06	0.55
16:D:337:G:H2'	16:D:338:A:C8	2.41	0.55
16:D:407:U:O4'	22:J:116:GLN:OE1	2.23	0.55
16:D:704:A:C4	16:D:705:G:C8	2.94	0.55
16:D:1031:C:H4'	16:D:1032:G:N2	2.21	0.55
16:D:1300:G:C4	16:D:1334:G:C6	2.93	0.55
18:F:25:LYS:HZ3	20:H:336:ASP:CA	2.19	0.55
30:R:54:ARG:NH2	30:R:62:GLU:OE1	2.39	0.55
39:a:136:G:O6	39:a:144:A:N6	2.39	0.55
39:a:855:G:C6	39:a:923:G:C6	2.94	0.55
39:a:2586:U:H2'	39:a:2587:A:O4'	2.06	0.55
46:h:66:ASP:OD1	46:h:69:ARG:N	2.36	0.55
52:n:34:ILE:O	52:n:34:ILE:HG13	2.06	0.55
61:w:25:ALA:O	61:w:29:VAL:HG23	2.06	0.55
8:7:0:U:OP1	16:D:1397:C:N4	2.39	0.55
9:9:136:ILE:CD1	9:9:139:LEU:HD12	2.35	0.55
10:A:60:U:H3'	10:A:61:C:C5	2.42	0.55
17:E:25:ARG:HH11	17:E:25:ARG:HG3	1.71	0.55
39:a:84:A:N6	39:a:103:A:N7	2.54	0.55
39:a:136:G:C6	39:a:144:A:C6	2.94	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:528:A:O2'	39:a:529:A:O5'	2.20	0.55
39:a:1746:A:H2'	39:a:1747:U:C6	2.41	0.55
39:a:2134:A:O2'	39:a:2159:G:N3	2.37	0.55
52:n:170:LEU:O	52:n:173:PHE:N	2.37	0.55
54:p:87:LEU:O	54:p:130:GLU:HG3	2.07	0.55
55:q:24:ARG:CB	55:q:26:ILE:HD11	2.36	0.55
60:v:42:THR:C	60:v:46:ILE:HD12	2.31	0.55
9:9:33:VAL:CG1	9:9:34:THR:H	2.18	0.55
10:A:60:U:H3'	10:A:61:C:H5	1.70	0.55
16:D:84:U:H2'	16:D:86:G:N2	2.21	0.55
16:D:380:G:N1	16:D:384:G:O6	2.40	0.55
16:D:803:G:H2'	16:D:804:U:O4'	2.07	0.55
37:Y:78:LEU:CD2	37:Y:108:ILE:HD12	2.36	0.55
39:a:465:G:H1'	39:a:683:U:O2'	2.05	0.55
39:a:607:U:O2'	39:a:608:A:H5'	2.05	0.55
39:a:1432:G:C2	39:a:1433:A:C5	2.95	0.55
39:a:1815:A:O4'	39:a:1817:G:C8	2.59	0.55
39:a:2228:G:H2'	39:a:2229:U:C6	2.42	0.55
39:a:2803:G:H2'	39:a:2804:U:C6	2.41	0.55
39:a:2830:C:H3'	48:j:59:ARG:NH1	2.22	0.55
39:a:2880:C:H4'	61:w:90:ARG:HH21	1.70	0.55
52:n:65:PRO:HA	52:n:89:VAL:HG22	1.87	0.55
56:r:128:HIS:O	56:r:144:VAL:N	2.34	0.55
9:9:77:VAL:CG1	9:9:82:ILE:HG13	2.37	0.55
11:AA:174:ALA:HB2	11:AA:432:LEU:HD13	1.88	0.55
11:AA:867:GLU:CB	21:I:75:ILE:HG13	2.36	0.55
11:AA:880:GLY:O	11:AA:919:ARG:HD3	2.06	0.55
11:AA:976:ARG:HG3	11:AA:976:ARG:HH11	1.72	0.55
11:AA:991:LYS:HB2	11:AA:992:LEU:HD22	1.88	0.55
10:B:22:G:O2'	10:B:23:C:P	2.65	0.55
16:D:1326:U:C2	16:D:1327:C:C5	2.94	0.55
29:Q:47:ALA:HA	29:Q:50:SER:HB2	1.87	0.55
37:Y:11:GLN:HG2	37:Y:53:PRO:HB3	1.89	0.55
39:a:685:A:N1	39:a:787:C:H1'	2.21	0.55
39:a:974:G:C6	39:a:989:G:C5	2.94	0.55
39:a:1074:G:C6	39:a:1075:C:N4	2.74	0.55
39:a:1425:G:H2'	39:a:1426:G:C8	2.42	0.55
39:a:1431:A:H2'	39:a:1432:G:H8	1.71	0.55
39:a:1649:G:C6	39:a:2009:A:N6	2.74	0.55
39:a:1665:A:H2'	39:a:1666:G:O4'	2.06	0.55
39:a:1840:G:C6	39:a:1841:U:C4	2.95	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2349:G:O6	39:a:2369:A:N6	2.39	0.55
39:a:2867:G:C8	63:y:21:ARG:NH1	2.74	0.55
41:c:36:HIS:CE1	41:c:37:ARG:O	2.59	0.55
50:l:1:MET:HB3	50:l:14:VAL:HG23	1.88	0.55
52:n:29:PRO:HB2	52:n:169:LEU:HD22	1.86	0.55
56:r:132:PHE:N	56:r:140:ALA:O	2.39	0.55
61:w:29:VAL:HG11	61:w:75:ILE:HG23	1.88	0.55
4:3:61:LYS:NZ	4:3:62:GLU:OE1	2.30	0.55
11:AA:1251:TYR:C	11:AA:1259:LEU:HD11	2.31	0.55
16:D:246:A:C2	16:D:282:A:C4	2.94	0.55
16:D:1486:G:H2'	16:D:1487:G:C8	2.42	0.55
37:Y:23:VAL:HG23	37:Y:24:GLY:N	2.22	0.55
39:a:995:C:N4	57:s:2:LYS:HE3	2.21	0.55
39:a:1107:G:C2	39:a:1108:U:C6	2.94	0.55
39:a:1232:G:C5	39:a:1233:C:C5	2.94	0.55
39:a:1792:G:H1	39:a:1827:U:H3	1.55	0.55
50:l:106:LYS:CG	50:l:200:LEU:HD23	2.37	0.55
60:v:57:VAL:HG11	60:v:105:MET:CE	2.37	0.55
60:v:131:VAL:HG22	60:v:132:THR:N	2.21	0.55
9:9:92:ALA:HB3	9:9:129:LEU:HB2	1.88	0.55
11:AA:1252:SER:N	11:AA:1259:LEU:CD1	2.70	0.55
16:D:608:A:C2	16:D:609:A:H1'	2.42	0.55
16:D:842:U:H3'	16:D:843:U:H5''	1.89	0.55
16:D:1162:C:N4	16:D:1175:G:O6	2.39	0.55
17:E:10:ARG:HA	17:E:13:GLN:OE1	2.06	0.55
30:R:4:VAL:HG13	30:R:5:ASN:N	2.21	0.55
37:Y:82:ALA:C	37:Y:104:GLN:HE22	2.15	0.55
39:a:409:G:H2'	39:a:410:G:C8	2.42	0.55
39:a:463:G:O5'	39:a:464:U:OP2	2.25	0.55
39:a:464:U:H2'	39:a:465:G:O5'	2.07	0.55
39:a:1042:G:O2'	39:a:1043:C:H6	1.89	0.55
39:a:1429:G:H2'	39:a:1430:G:H8	1.71	0.55
39:a:2063:C:C4	39:a:2064:C:C5	2.95	0.55
39:a:2839:G:C4	39:a:2840:C:C5	2.95	0.55
39:a:2857:G:N2	39:a:2859:G:H3'	2.21	0.55
54:p:8:PRO:HB3	54:p:51:THR:HG22	1.88	0.55
57:s:15:TRP:CZ2	57:s:53:TYR:CD2	2.93	0.55
61:w:35:LYS:O	61:w:36:THR:OG1	2.22	0.55
3:2:31:VAL:C	3:2:32:LEU:HD22	2.32	0.55
9:9:129:LEU:HD12	9:9:129:LEU:C	2.32	0.55
13:AD:215:GLU:OE1	13:AD:218:ARG:NH1	2.40	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:343:U:H2'	16:D:345:C:C5	2.42	0.55
16:D:868:C:H2'	16:D:869:G:O4'	2.06	0.55
16:D:1413:A:H2'	16:D:1414:U:O4'	2.07	0.55
17:E:45:ALA:HA	17:E:48:GLN:OE1	2.06	0.55
21:I:22:TRP:CZ3	31:S:94:PRO:HG2	2.40	0.55
23:K:105:ILE:HD12	23:K:116:GLU:OE2	2.06	0.55
39:a:883:G:H21	39:a:884:U:H5	1.54	0.55
39:a:884:U:O4	39:a:893:C:H1'	2.07	0.55
39:a:1527:G:H3'	39:a:1543:G:H22	1.72	0.55
39:a:1945:G:C4	39:a:1946:U:C5	2.95	0.55
39:a:2535:G:C2	39:a:2536:G:C8	2.95	0.55
42:d:37:C:N3	42:d:48:U:O2'	2.40	0.55
48:j:61:THR:HG22	48:j:63:PRO:HD3	1.89	0.55
60:v:73:ILE:HG21	60:v:91:TYR:CZ	2.42	0.55
8:7:-8:A:C4	8:7:-7:U:C5	2.95	0.55
11:AA:1257:GLN:NE2	14:AE:346:ARG:H	2.04	0.55
16:D:624:C:H4'	33:U:11:ALA:HB2	1.87	0.55
16:D:963:G:C2	16:D:964:A:C8	2.95	0.55
16:D:982:U:H4'	16:D:983:A:O4'	2.06	0.55
19:G:95:ARG:NH1	19:G:96:TRP:O	2.40	0.55
39:a:65:U:C2	39:a:66:C:C6	2.94	0.55
39:a:248:G:N7	39:a:250:G:N3	2.55	0.55
39:a:445:C:O2'	39:a:446:G:H5'	2.07	0.55
39:a:464:U:H4'	51:m:12:ARG:NH2	2.22	0.55
39:a:980:A:H2'	39:a:981:A:C8	2.42	0.55
39:a:1129:A:N1	39:a:2569:G:O2'	2.30	0.55
39:a:1380:G:O2'	39:a:1569:A:N6	2.40	0.55
39:a:1589:U:O2'	39:a:1590:A:O5'	2.24	0.55
39:a:1753:G:H22	39:a:1756:G:P	2.30	0.55
39:a:1799:G:H22	39:a:1819:A:P	2.29	0.55
39:a:1893:C:C5	39:a:1894:C:C5	2.95	0.55
39:a:2465:C:O2	39:a:2465:C:H2'	2.05	0.55
50:l:19:PHE:HD1	50:l:109:LEU:HD21	1.71	0.55
50:l:59:PRO:HG3	50:l:73:ILE:HG23	1.89	0.55
2:1:41:LYS:O	2:1:44:ALA:HB3	2.07	0.55
11:AA:449:GLY:HA3	11:AA:609:ILE:HG23	1.88	0.55
14:AE:26:SER:HB2	14:AE:236:TRP:CE2	2.42	0.55
14:AE:124:ILE:HG23	14:AE:128:LEU:HD12	1.89	0.55
10:B:60:U:H3'	10:B:61:C:H5	1.71	0.55
16:D:1120:C:C2	16:D:1121:U:C5	2.95	0.55
18:F:4:ILE:HD12	18:F:19:PHE:HA	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:G:95:ARG:HG2	19:G:96:TRP:N	2.20	0.55
20:H:154:PHE:CB	20:H:168:VAL:CB	2.85	0.55
21:I:26:THR:HG23	31:S:76:LYS:CB	2.36	0.55
22:J:88:GLU:HG2	22:J:197:GLU:OE1	2.07	0.55
24:L:8:PHE:C	24:L:9:MET:HE2	2.32	0.55
28:P:52:LEU:H	31:S:81:ARG:NH2	2.04	0.55
33:U:34:GLU:OE1	33:U:36:VAL:HG13	2.07	0.55
34:V:49:GLU:OE1	34:V:49:GLU:HA	2.06	0.55
38:Z:19:VAL:O	38:Z:23:ILE:HG12	2.07	0.55
39:a:150:U:H2'	39:a:151:C:H6	1.72	0.55
39:a:219:A:H2'	39:a:220:G:C8	2.41	0.55
39:a:250:G:H2'	39:a:251:A:O4'	2.06	0.55
39:a:360:U:O3'	39:a:361:G:O4'	2.25	0.55
39:a:543:G:C6	39:a:544:C:C4	2.94	0.55
39:a:976:G:C2'	39:a:1155:A:O2'	2.54	0.55
39:a:985:C:C2	39:a:986:C:C5	2.94	0.55
39:a:1000:A:OP2	39:a:1154:G:N1	2.25	0.55
39:a:1671:U:N3	39:a:1674:G:OP2	2.33	0.55
39:a:2349:G:C6	39:a:2369:A:C6	2.95	0.55
39:a:2637:U:H2'	39:a:2638:G:O4'	2.07	0.55
39:a:2888:C:C2	39:a:2889:C:C5	2.95	0.55
42:d:95:U:C2	42:d:96:G:C8	2.95	0.55
45:g:65:ASN:OD1	45:g:66:ILE:N	2.40	0.55
60:v:17:ASN:HB3	60:v:95:LEU:HD11	1.89	0.55
64:z:79:PHE:CZ	64:z:83:LEU:HD21	2.42	0.55
5:4:59:GLU:HG2	5:4:60:VAL:O	2.06	0.55
9:9:7:ASP:OD2	9:9:8:LYS:N	2.40	0.55
9:9:24:SER:C	9:9:96:PHE:HE1	2.15	0.55
11:AA:1246:ARG:NH1	11:AA:1258:PRO:HB3	2.22	0.55
16:D:21:G:C2	16:D:22:G:C5	2.95	0.55
16:D:332:G:C2	16:D:333:U:C6	2.95	0.55
16:D:1149:C:H2'	16:D:1150:A:H8	1.72	0.55
16:D:1330:U:O4	16:D:1331:G:N1	2.39	0.55
20:H:305:HIS:HD2	20:H:306:VAL:H	1.49	0.55
21:I:29:PHE:CE1	31:S:77:PHE:HE1	2.04	0.55
21:I:30:ALA:HB1	31:S:78:GLY:N	2.14	0.55
32:T:76:ALA:O	32:T:80:GLN:CD	2.50	0.55
37:Y:104:GLN:HG3	37:Y:108:ILE:CG2	2.37	0.55
39:a:543:G:C6	39:a:551:G:C6	2.94	0.55
39:a:669:G:OP1	39:a:670:A:N6	2.36	0.55
39:a:1108:U:C4	39:a:1109:C:C4	2.95	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1204:A:O4'	39:a:1206:G:C8	2.60	0.55
39:a:1770:G:C6	39:a:1983:G:C6	2.95	0.55
39:a:1790:C:C3'	39:a:1791:A:C8	2.90	0.55
39:a:1839:G:C2	39:a:1840:G:C8	2.95	0.55
39:a:2519:U:C4	39:a:2542:A:C5	2.95	0.55
42:d:16:G:N2	42:d:69:G:H1'	2.21	0.55
42:d:89:U:O2'	42:d:90:C:P	2.65	0.55
50:l:138:LEU:HD22	50:l:143:LEU:HB2	1.88	0.55
52:n:138:PHE:O	52:n:141:ILE:HG22	2.06	0.55
4:3:20:GLY:HA3	39:a:85:G:OP2	2.07	0.54
7:6:26:DT:H2''	7:6:27:DG:H5'	1.89	0.54
15:C:34:THR:CA	20:H:338:GLU:HB3	2.35	0.54
16:D:8:A:N6	22:J:202:GLU:O	2.36	0.54
16:D:50:A:H1'	16:D:52:C:C6	2.43	0.54
16:D:1319:A:OP1	35:W:3:ARG:HD3	2.06	0.54
23:K:111:MET:O	23:K:115:LEU:HG	2.08	0.54
26:N:11:LEU:HD12	26:N:77:ARG:HG3	1.89	0.54
39:a:382:A:C2	39:a:393:C:C2	2.95	0.54
39:a:409:G:H2'	39:a:410:G:H8	1.72	0.54
39:a:1153:C:H2'	39:a:1154:G:O4'	2.07	0.54
39:a:1183:U:OP1	44:f:30:ARG:NH2	2.39	0.54
39:a:1385:A:C4	39:a:1386:C:C5	2.96	0.54
39:a:1926:U:C6	39:a:1928:A:OP2	2.59	0.54
39:a:2006:C:C2	39:a:2007:U:C5	2.95	0.54
39:a:2563:U:N3	39:a:2566:A:OP2	2.38	0.54
9:9:6:GLN:HG2	9:9:7:ASP:N	2.21	0.54
13:AD:142:MET:N	13:AD:142:MET:SD	2.80	0.54
16:D:334:C:C2	16:D:335:C:C5	2.95	0.54
16:D:334:C:N3	16:D:335:C:C5	2.74	0.54
16:D:583:A:H2'	16:D:584:G:O4'	2.06	0.54
16:D:1086:U:C2	16:D:1087:G:C8	2.95	0.54
19:G:60:ILE:HG22	19:G:65:GLY:HA3	1.89	0.54
39:a:152:A:H2'	39:a:153:U:H6	1.72	0.54
39:a:534:U:H2'	39:a:535:G:H8	1.72	0.54
39:a:752:A:O5'	51:m:1:MET:SD	2.65	0.54
39:a:834:G:C6	39:a:835:C:C4	2.95	0.54
39:a:1391:U:C6	39:a:1393:A:OP2	2.60	0.54
39:a:2207:C:C2	39:a:2218:G:C2	2.96	0.54
39:a:2460:U:C2	39:a:2461:A:C8	2.94	0.54
52:n:57:LEU:HD23	52:n:65:PRO:CB	2.37	0.54
57:s:122:LEU:HD12	57:s:123:LYS:H	1.71	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:37:PRO:O	5:4:38:LEU:HD22	2.08	0.54
8:7:-2:U:C3'	8:7:-2:U:C6	2.90	0.54
9:9:88:HIS:O	9:9:89:PRO:C	2.50	0.54
13:AC:91:ARG:HD2	13:AC:122:GLU:HB3	1.89	0.54
14:AE:833:GLU:HB2	14:AE:1242:ARG:NH1	2.22	0.54
10:B:24:U:H2'	10:B:25:C:C6	2.42	0.54
10:B:52:G:N1	10:B:63:G:C6	2.76	0.54
16:D:426:U:H2'	16:D:427:U:C6	2.42	0.54
19:G:151:ILE:O	19:G:154:MET:N	2.31	0.54
35:W:12:ASP:OD2	35:W:35:SER:OG	2.21	0.54
35:W:33:THR:O	35:W:57:HIS:ND1	2.40	0.54
39:a:32:C:N3	39:a:474:G:C6	2.76	0.54
39:a:987:C:H2'	39:a:988:A:O4'	2.07	0.54
39:a:1759:A:H4'	39:a:2715:C:O4'	2.07	0.54
39:a:2249:U:H3'	39:a:2250:G:C5'	2.37	0.54
39:a:2616:C:N3	39:a:2617:U:C5	2.75	0.54
39:a:2856:A:C6	39:a:2862:G:C6	2.96	0.54
52:n:8:TYR:OH	52:n:29:PRO:O	2.26	0.54
54:p:29:LYS:NZ	54:p:80:THR:O	2.37	0.54
58:t:48:PRO:HB2	58:t:49:ARG:HD2	1.89	0.54
2:1:51:LEU:O	2:1:55:ILE:HG12	2.08	0.54
3:2:43:ILE:O	3:2:47:VAL:HG23	2.07	0.54
11:AA:867:GLU:CB	21:I:75:ILE:CG1	2.85	0.54
14:AE:145:VAL:HG23	14:AE:159:ILE:HG22	1.89	0.54
14:AE:1155:ILE:HG13	14:AE:1210:ILE:HB	1.89	0.54
16:D:159:G:N2	16:D:162:A:OP2	2.37	0.54
16:D:1504:G:H4'	16:D:1505:G:O4'	2.07	0.54
26:N:77:ARG:HH22	26:N:80:ARG:HA	1.71	0.54
34:V:13:VAL:HB	34:V:22:VAL:HG13	1.88	0.54
37:Y:20:SER:CB	37:Y:21:PRO:HD3	2.33	0.54
39:a:285:G:C5	39:a:356:G:C6	2.96	0.54
39:a:1158:C:H5''	44:f:31:ARG:HD2	1.89	0.54
39:a:1335:C:H2'	39:a:1336:A:H8	1.73	0.54
39:a:1563:U:H2'	39:a:1564:C:C6	2.42	0.54
39:a:2013:A:N1	39:a:2014:A:C2	2.75	0.54
39:a:2036:C:H2'	39:a:2037:A:H8	1.72	0.54
39:a:2063:C:O2	39:a:2063:C:H2'	2.05	0.54
39:a:2266:A:H4'	39:a:2267:A:O5'	2.06	0.54
2:1:57:ASN:OD1	39:a:495:G:H1'	2.08	0.54
8:7:-6:G:H5''	16:D:1401:G:O6	2.08	0.54
11:AA:241:LEU:HD21	11:AA:246:LEU:HD11	1.88	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AE:814:CYS:SG	14:AE:883:ARG:NH2	2.81	0.54
10:B:60:U:H3'	10:B:61:C:C5	2.42	0.54
16:D:182:A:N1	16:D:223:A:O2'	2.41	0.54
16:D:506:G:H2'	16:D:507:C:O4'	2.08	0.54
16:D:545:C:H5'	22:J:69:GLU:CB	2.38	0.54
16:D:748:G:C2	16:D:749:A:C8	2.96	0.54
16:D:1113:C:C2	16:D:1114:C:C5	2.96	0.54
18:F:7:ARG:N	18:F:10:GLU:OE1	2.31	0.54
39:a:147:C:O2'	39:a:148:U:H5'	2.06	0.54
39:a:191:A:H2'	39:a:192:C:C6	2.42	0.54
39:a:833:A:C2	39:a:834:G:C5	2.95	0.54
39:a:976:G:C2'	39:a:1155:A:HO2'	2.20	0.54
39:a:1923:U:C2	39:a:1924:C:C5	2.95	0.54
39:a:2345:G:N3	39:a:2381:A:H2'	2.22	0.54
39:a:2748:A:C2	39:a:2757:A:C5	2.95	0.54
48:j:124:ARG:NH1	48:j:161:MET:O	2.40	0.54
53:o:24:HIS:NE2	53:o:49:MET:O	2.40	0.54
56:r:9:VAL:HG11	56:r:12:LEU:CD2	2.37	0.54
4:3:7:ARG:O	4:3:25:VAL:O	2.25	0.54
9:9:105:LYS:O	9:9:106:PHE:HB3	2.07	0.54
10:A:52:G:N1	10:A:63:G:C6	2.75	0.54
16:D:20:U:O2'	16:D:573:A:N6	2.41	0.54
16:D:72:A:C5	16:D:73:C:C5	2.95	0.54
16:D:151:A:H3'	16:D:152:A:H8	1.72	0.54
16:D:797:C:O2'	16:D:798:U:H5'	2.08	0.54
16:D:1363:A:C5	16:D:1365:G:C6	2.96	0.54
20:H:135:LEU:CB	20:H:167:VAL:CA	2.86	0.54
26:N:8:ALA:O	26:N:12:THR:HG23	2.08	0.54
26:N:49:PHE:C	26:N:49:PHE:CD2	2.85	0.54
37:Y:54:ILE:HG23	37:Y:54:ILE:O	2.07	0.54
39:a:90:U:OP2	39:a:91:A:O2'	2.24	0.54
39:a:227:A:O4'	39:a:229:C:N4	2.41	0.54
39:a:392:U:C2	39:a:393:C:C5	2.95	0.54
39:a:514:A:H1'	39:a:581:C:O2'	2.08	0.54
39:a:910:A:C8	60:v:13:HIS:HD2	2.25	0.54
39:a:1040:A:H2'	39:a:1041:G:O4'	2.08	0.54
39:a:1579:A:H2'	39:a:1580:A:C8	2.42	0.54
39:a:1791:A:C2	39:a:1829:A:H4'	2.43	0.54
39:a:2405:G:N2	39:a:2412:A:H62	2.05	0.54
64:z:44:GLN:O	64:z:47:TYR:HB3	2.08	0.54
8:7:15:G:H2'	8:7:16:A:C8	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:73:LYS:HB3	9:9:117:LEU:CD2	2.31	0.54
14:AE:111:THR:HG22	14:AE:300:GLN:NE2	2.23	0.54
14:AE:746:LEU:HG	14:AE:758:PRO:HG3	1.90	0.54
16:D:275:G:C2	16:D:276:G:C8	2.96	0.54
16:D:532:A:H3'	16:D:533:A:C5'	2.37	0.54
16:D:588:G:C5	16:D:589:U:C5	2.95	0.54
16:D:693:G:H2'	16:D:694:A:O4'	2.08	0.54
16:D:819:A:N7	16:D:1529:G:C2	2.76	0.54
16:D:911:U:C2	16:D:912:C:C5	2.95	0.54
16:D:1513:A:H2'	16:D:1514:G:H8	1.73	0.54
19:G:12:ALA:HA	19:G:208:ARG:HD2	1.89	0.54
20:H:267:TRP:CZ2	20:H:300:VAL:HB	2.41	0.54
23:K:86:LYS:HA	23:K:94:VAL:O	2.08	0.54
32:T:69:TYR:O	32:T:73:LYS:HG2	2.07	0.54
39:a:44:A:H2'	39:a:45:G:O4'	2.08	0.54
39:a:60:G:O6	39:a:89:A:N6	2.41	0.54
39:a:871:U:H2'	39:a:872:U:H6	1.71	0.54
39:a:1223:G:C6	39:a:1227:G:C6	2.96	0.54
39:a:1454:C:H4'	61:w:63:ARG:NH1	2.23	0.54
39:a:2649:C:H2'	39:a:2650:U:H6	1.73	0.54
39:a:2740:A:C8	39:a:2763:G:N2	2.75	0.54
41:c:6:GLN:NE2	41:c:7:VAL:HG23	2.23	0.54
46:h:34:LEU:HD23	46:h:35:GLU:N	2.22	0.54
52:n:33:LYS:HA	52:n:96:MET:SD	2.48	0.54
54:p:34:THR:HG22	54:p:35:ARG:N	2.23	0.54
56:r:9:VAL:HG12	56:r:10:ALA:N	2.23	0.54
60:v:125:PRO:HD2	60:v:126:ILE:H	1.73	0.54
9:9:24:SER:O	9:9:116:GLU:HB2	2.08	0.54
11:AA:452:ARG:HH12	11:AA:458:GLU:CD	2.15	0.54
13:AC:215:GLU:OE2	13:AC:219:ARG:NH2	2.41	0.54
13:AD:22:THR:OG1	13:AD:207:THR:O	2.26	0.54
14:AE:78:LEU:O	14:AE:78:LEU:HD13	2.08	0.54
15:C:26:ILE:HA	15:C:29:LEU:HD12	1.89	0.54
16:D:255:G:H2'	16:D:256:U:H6	1.73	0.54
16:D:338:A:H2'	16:D:339:C:O4'	2.08	0.54
16:D:824:G:C6	16:D:877:G:C6	2.96	0.54
16:D:894:G:O2'	16:D:895:G:H5'	2.08	0.54
16:D:1128:C:C2	16:D:1129:C:C5	2.96	0.54
16:D:1176:A:H2'	16:D:1177:G:O4'	2.07	0.54
16:D:1246:A:C6	16:D:1292:G:C6	2.96	0.54
20:H:116:VAL:C	20:H:279:LYS:HB2	2.33	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:H:332:VAL:O	20:H:334:ASP:N	2.40	0.54
39:a:50:U:H3'	39:a:51:G:H5'	1.88	0.54
39:a:285:G:C6	39:a:356:G:C6	2.95	0.54
39:a:1059:G:H2'	39:a:1060:U:C5	2.42	0.54
39:a:1830:C:C2	39:a:1831:G:C8	2.96	0.54
39:a:2773:C:H2'	39:a:2774:C:H6	1.73	0.54
59:u:120:VAL:HG12	59:u:121:THR:N	2.21	0.54
3:2:89:GLU:OE1	3:2:89:GLU:N	2.38	0.54
11:AA:835:GLU:OE2	11:AA:1051:LYS:HD3	2.08	0.54
11:AA:1287:LEU:HD13	14:AE:1357:ILE:HD11	1.89	0.54
14:AE:46:TYR:CD1	14:AE:46:TYR:C	2.86	0.54
16:D:124:C:H2'	16:D:125:U:H6	1.72	0.54
16:D:214:C:C2	16:D:215:C:C5	2.95	0.54
16:D:1324:A:C4	16:D:1325:C:C6	2.95	0.54
17:E:24:ARG:CZ	17:E:24:ARG:HA	2.37	0.54
28:P:90:LEU:O	28:P:90:LEU:HD13	2.08	0.54
37:Y:19:PRO:HG2	37:Y:23:VAL:HG22	1.89	0.54
39:a:463:G:C4	39:a:465:G:OP2	2.60	0.54
39:a:498:G:O2'	39:a:499:U:O5'	2.15	0.54
39:a:608:A:C4	39:a:609:A:C8	2.96	0.54
39:a:2014:A:H2'	39:a:2015:A:C8	2.42	0.54
39:a:2015:A:H8	39:a:2016:U:C5	2.26	0.54
39:a:2032:G:N3	48:j:150:GLN:NE2	2.55	0.54
39:a:2240:U:C2	39:a:2241:A:C8	2.96	0.54
39:a:2299:U:N3	39:a:2300:C:C5	2.76	0.54
42:d:89:U:OP1	42:d:90:C:C6	2.61	0.54
46:h:15:HIS:O	46:h:204:VAL:HG11	2.07	0.54
61:w:67:PHE:CZ	61:w:71:ARG:HG3	2.43	0.54
11:AA:699:LEU:HG	11:AA:799:ASN:HD22	1.71	0.54
12:AB:107:GLU:OE1	14:AE:288:PRO:CB	2.52	0.54
13:AC:140:ILE:HD11	13:AC:142:MET:HE3	1.89	0.54
14:AE:39:LYS:O	14:AE:273:ILE:HG23	2.08	0.54
16:D:306:A:C5	16:D:307:C:C6	2.96	0.54
16:D:320:A:H2'	16:D:321:A:O4'	2.07	0.54
16:D:453:G:H3'	16:D:454:G:H8	1.72	0.54
16:D:683:G:C6	16:D:684:U:C4	2.96	0.54
16:D:940:C:OP1	25:M:102:ARG:NH2	2.41	0.54
16:D:1370:G:C2	16:D:1371:G:C8	2.96	0.54
16:D:1513:A:N6	16:D:1523:G:O6	2.41	0.54
20:H:52:GLN:OE1	20:H:86:ARG:CB	2.55	0.54
23:K:107:ALA:O	23:K:112:ARG:CZ	2.56	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:78:U:H2'	39:a:79:C:C6	2.43	0.54
39:a:496:G:H2'	39:a:497:A:H5'	1.90	0.54
39:a:770:G:O3'	51:m:14:ARG:NH2	2.41	0.54
39:a:782:A:C2	46:h:225:MET:SD	3.01	0.54
39:a:960:A:C8	39:a:962:G:C8	2.96	0.54
39:a:974:G:HO2'	39:a:975:A:P	2.31	0.54
39:a:1218:G:N1	39:a:1232:G:C5	2.76	0.54
39:a:1263:U:O2'	47:i:4:GLN:NE2	2.41	0.54
39:a:1821:A:H2'	39:a:1822:C:C6	2.43	0.54
39:a:1956:U:C2	39:a:1957:C:C6	2.96	0.54
39:a:2093:G:N7	39:a:2225:A:H2'	2.23	0.54
39:a:2259:U:C2	39:a:2260:C:C6	2.96	0.54
39:a:2686:G:H2'	39:a:2687:U:C6	2.44	0.54
53:o:7:VAL:HG23	53:o:7:VAL:O	2.08	0.54
10:A:24:U:H2'	10:A:25:C:C6	2.42	0.53
11:AA:872:TYR:HD2	21:I:78:GLY:O	1.90	0.53
14:AE:39:LYS:O	14:AE:273:ILE:HG21	2.06	0.53
16:D:37:U:OP1	30:R:120:LYS:NZ	2.41	0.53
16:D:131:A:O2'	16:D:262:A:N3	2.33	0.53
16:D:159:G:O2'	16:D:161:A:N7	2.34	0.53
16:D:219:U:H2'	16:D:220:G:O4'	2.09	0.53
16:D:634:C:C2	16:D:635:A:C8	2.96	0.53
18:F:49:LYS:O	18:F:53:VAL:HG23	2.07	0.53
23:K:85:VAL:HG21	23:K:147:MET:HE2	1.88	0.53
25:M:69:VAL:HG21	25:M:104:ILE:HD11	1.89	0.53
37:Y:14:ALA:O	37:Y:50:LYS:HD3	2.08	0.53
39:a:65:U:H2'	39:a:66:C:H6	1.73	0.53
39:a:146:A:H2'	39:a:147:C:C6	2.43	0.53
39:a:235:U:N3	39:a:236:C:C5	2.76	0.53
39:a:433:C:H2'	39:a:434:U:C6	2.44	0.53
39:a:726:G:O5'	39:a:1432:G:O2'	2.25	0.53
39:a:861:A:C2	39:a:862:G:H1'	2.43	0.53
39:a:958:U:O4	60:v:40:ARG:NH1	2.41	0.53
39:a:1007:C:OP2	39:a:1008:A:O2'	2.23	0.53
39:a:1175:A:OP1	39:a:1177:G:H1'	2.08	0.53
39:a:1349:C:C2	39:a:1350:C:C5	2.95	0.53
39:a:1385:A:C4	39:a:1403:A:C2	2.96	0.53
39:a:1601:G:H2'	39:a:1602:U:C6	2.42	0.53
39:a:1926:U:H2'	39:a:1927:A:H3'	1.89	0.53
39:a:2149:U:H2'	39:a:2150:C:C6	2.43	0.53
39:a:2222:C:H2'	39:a:2223:G:O4'	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2299:U:C2	39:a:2300:C:C6	2.96	0.53
39:a:2469:A:H61	39:a:2481:G:C2'	2.20	0.53
48:j:9:VAL:HG11	63:y:4:ILE:HD11	1.90	0.53
55:q:1:MET:HE1	55:q:34:LYS:HG3	1.89	0.53
58:t:18:ARG:HB3	58:t:45:GLU:OE1	2.08	0.53
4:3:83:VAL:HG22	4:3:103:ILE:HD11	1.90	0.53
9:9:52:MET:HE1	9:9:87:GLU:HG2	1.89	0.53
10:A:22:G:O2'	10:A:23:C:P	2.65	0.53
14:AE:58:CYS:SG	14:AE:59:ALA:N	2.80	0.53
16:D:101:A:C2	16:D:102:G:C8	2.97	0.53
16:D:269:C:H2'	16:D:270:A:H8	1.74	0.53
16:D:440:C:C2	16:D:441:A:C8	2.96	0.53
16:D:996:A:H2'	16:D:997:U:C6	2.44	0.53
16:D:1005:A:H4'	16:D:1037:C:H1'	1.90	0.53
16:D:1071:C:H2'	16:D:1072:G:H8	1.73	0.53
16:D:1527:U:H2'	16:D:1528:U:C6	2.43	0.53
18:F:41:PRO:O	18:F:45:ARG:HG2	2.08	0.53
19:G:95:ARG:NH2	19:G:97:LEU:HD22	2.23	0.53
20:H:45:GLU:OE1	20:H:45:GLU:N	2.40	0.53
20:H:321:VAL:HG13	20:H:322:VAL:HG23	1.90	0.53
29:Q:29:ASN:ND2	29:Q:31:ILE:HD11	2.23	0.53
32:T:8:THR:O	32:T:12:VAL:HG23	2.08	0.53
37:Y:21:PRO:HB2	37:Y:22:PRO:HD3	1.90	0.53
39:a:135:U:N3	39:a:136:G:N7	2.56	0.53
39:a:458:G:H3'	51:m:38:GLY:O	2.09	0.53
39:a:522:A:H2'	39:a:523:C:C6	2.43	0.53
39:a:1042:G:H1	39:a:1113:U:H3	1.55	0.53
39:a:1649:G:O6	39:a:2009:A:N6	2.41	0.53
39:a:1672:A:C6	39:a:1673:G:C6	2.97	0.53
39:a:1672:A:H2'	39:a:1673:G:C8	2.43	0.53
39:a:2093:G:H1'	39:a:2198:A:N1	2.23	0.53
48:j:23:PRO:O	48:j:191:GLY:N	2.30	0.53
48:j:121:THR:HB	48:j:127:PHE:CD2	2.44	0.53
52:n:175:PHE:CG	52:n:176:PRO:HD3	2.44	0.53
53:o:39:LYS:HA	53:o:42:ARG:NH2	2.23	0.53
54:p:38:ASN:ND2	54:p:64:GLN:OE1	2.40	0.53
2:1:25:ARG:NH1	2:1:74:ILE:O	2.42	0.53
2:1:84:ARG:NH2	2:1:98:LYS:HZ1	2.07	0.53
11:AA:870:ILE:HG23	11:AA:884:VAL:HG13	1.90	0.53
11:AA:985:GLU:HB2	11:AA:988:LYS:HB2	1.90	0.53
11:AA:998:LEU:HD21	11:AA:1011:LEU:HD13	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AE:785:ASP:O	14:AE:789:LYS:HB2	2.08	0.53
15:C:72:ASP:OD1	15:C:72:ASP:N	2.40	0.53
16:D:496:A:N3	16:D:496:A:H2'	2.24	0.53
16:D:511:C:C2	16:D:512:U:C5	2.97	0.53
16:D:1006:G:H2'	16:D:1007:U:C6	2.43	0.53
19:G:104:TRP:O	19:G:107:VAL:N	2.42	0.53
39:a:151:C:C2	39:a:152:A:N7	2.77	0.53
39:a:579:G:C5	39:a:1262:A:N6	2.76	0.53
39:a:638:G:O6	39:a:651:G:C6	2.61	0.53
39:a:1351:C:N3	39:a:1381:G:C6	2.76	0.53
39:a:2191:A:C4	39:a:2192:U:C5	2.96	0.53
39:a:2271:G:C5'	40:b:18:ALA:HB2	2.38	0.53
39:a:2287:A:C8	39:a:2289:G:C8	2.96	0.53
39:a:2766:A:C5	39:a:2767:C:C5	2.96	0.53
39:a:2891:U:H2'	39:a:2892:G:C8	2.43	0.53
46:h:245:VAL:HA	46:h:250:VAL:O	2.08	0.53
64:z:62:ILE:HG23	64:z:76:TYR:CE2	2.42	0.53
8:7:-6:G:H5'	16:D:1501:C:N4	2.23	0.53
9:9:11:ILE:HA	9:9:14:GLU:HG3	1.90	0.53
11:AA:1275:VAL:HG13	11:AA:1287:LEU:HD11	1.90	0.53
14:AE:209:ASN:HA	14:AE:214:ARG:HH21	1.74	0.53
10:B:48:C:C5	10:B:59:A:C8	2.97	0.53
15:C:34:THR:CA	20:H:338:GLU:CG	2.55	0.53
16:D:298:A:H2'	16:D:299:G:O4'	2.09	0.53
16:D:341:C:C2	16:D:342:C:C5	2.96	0.53
16:D:373:A:N3	16:D:374:A:C8	2.77	0.53
16:D:469:C:H2'	16:D:470:C:O4'	2.09	0.53
16:D:683:G:O6	16:D:708:C:N4	2.42	0.53
20:H:24:VAL:HG12	20:H:69:ASP:H	1.74	0.53
26:N:35:ALA:HB1	26:N:110:VAL:CG1	2.38	0.53
27:O:114:LYS:HD3	27:O:115:LYS:N	2.24	0.53
33:U:15:PRO:HB2	33:U:17:TYR:CE1	2.44	0.53
35:W:50:ALA:HA	35:W:59:PRO:HA	1.90	0.53
37:Y:124:MET:O	37:Y:127:SER:OG	2.26	0.53
39:a:514:A:O2'	39:a:515:A:H5'	2.09	0.53
39:a:582:A:C4	39:a:583:G:C8	2.96	0.53
39:a:638:G:C6	39:a:651:G:C6	2.97	0.53
39:a:2492:U:H3'	39:a:2493:U:H5''	1.91	0.53
47:i:29:SER:N	47:i:38:HIS:O	2.30	0.53
48:j:6:GLY:O	48:j:201:LEU:N	2.39	0.53
54:p:140:VAL:O	54:p:144:VAL:HG23	2.07	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:y:72:ARG:HB3	63:y:74:PHE:CE2	2.44	0.53
2:1:92:ARG:O	39:a:1614:A:N6	2.34	0.53
7:6:2:DC:H2''	7:6:3:DC:C5	2.43	0.53
13:AD:109:PRO:HA	13:AD:132:HIS:HA	1.91	0.53
14:AE:56:LEU:CD1	14:AE:273:ILE:HD12	2.39	0.53
14:AE:136:GLU:OE1	14:AE:312:ARG:CZ	2.55	0.53
14:AE:759:ILE:HG23	14:AE:771:GLN:HB3	1.89	0.53
16:D:609:A:C5	16:D:610:U:C5	2.96	0.53
16:D:677:U:C2	16:D:678:U:C6	2.97	0.53
16:D:1346:A:O2'	16:D:1347:G:OP2	2.22	0.53
16:D:1347:G:C4	16:D:1373:G:C6	2.96	0.53
23:K:81:LEU:HD23	23:K:147:MET:HE1	1.89	0.53
29:Q:27:PHE:CE2	29:Q:89:PRO:HG2	2.44	0.53
30:R:100:GLY:N	30:R:105:SER:O	2.42	0.53
39:a:303:G:C6	39:a:315:G:C6	2.96	0.53
39:a:1200:C:C2	39:a:1201:U:C5	2.96	0.53
39:a:1287:A:N1	39:a:1648:U:O2'	2.41	0.53
39:a:1394:U:H2'	39:a:1395:A:O4'	2.07	0.53
39:a:1798:U:O2'	39:a:1802:A:N3	2.40	0.53
39:a:1856:U:H2'	39:a:1857:G:O4'	2.09	0.53
39:a:2880:C:O3'	61:w:90:ARG:NH2	2.41	0.53
58:t:24:VAL:HG23	58:t:33:ALA:HB2	1.90	0.53
10:A:48:C:C5	10:A:59:A:C8	2.97	0.53
10:A:69:C:C2	10:A:70:G:C8	2.96	0.53
11:AA:724:VAL:HG12	11:AA:774:GLY:H	1.72	0.53
11:AA:994:ARG:HD2	11:AA:994:ARG:O	2.09	0.53
11:AA:1034:ARG:HH11	11:AA:1034:ARG:CG	2.20	0.53
11:AA:1253:LEU:HD12	14:AE:253:VAL:HG13	1.90	0.53
14:AE:975:ILE:HD11	14:AE:1003:LEU:HD11	1.91	0.53
10:B:69:C:C2	10:B:70:G:C8	2.96	0.53
16:D:22:G:C6	16:D:23:C:C4	2.97	0.53
16:D:284:C:C2	16:D:285:C:C5	2.97	0.53
16:D:687:A:C2	16:D:704:A:C4	2.96	0.53
16:D:1013:G:N2	16:D:1016:A:OP2	2.37	0.53
21:I:22:TRP:CE2	31:S:94:PRO:HG3	2.39	0.53
30:R:77:HIS:CG	30:R:77:HIS:O	2.62	0.53
36:X:22:ILE:HB	36:X:25:VAL:HG22	1.91	0.53
39:a:295:G:C2	39:a:296:U:C5	2.97	0.53
39:a:544:C:H2'	39:a:545:U:C2	2.43	0.53
39:a:545:U:O3'	39:a:546:U:H4'	2.09	0.53
39:a:675:A:H2'	39:a:676:A:C8	2.43	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:748:G:C8	39:a:750:A:C8	2.96	0.53
39:a:993:G:C6	39:a:1162:G:C6	2.96	0.53
39:a:1022:G:C6	39:a:1141:U:C5	2.96	0.53
39:a:1482:G:C6	39:a:1508:A:N6	2.77	0.53
39:a:2001:C:C4	39:a:2002:G:N7	2.76	0.53
39:a:2098:U:H2'	39:a:2099:U:O4'	2.09	0.53
39:a:2186:G:H2'	39:a:2187:U:C6	2.43	0.53
46:h:260:ASN:HD21	46:h:263:THR:HG23	1.73	0.53
56:r:12:LEU:HD23	56:r:12:LEU:H	1.74	0.53
57:s:73:VAL:HG12	57:s:74:TYR:N	2.24	0.53
5:4:72:VAL:HG12	5:4:93:ARG:HA	1.91	0.53
9:9:73:LYS:HD3	9:9:122:GLN:OE1	2.09	0.53
14:AE:30:ILE:HG21	14:AE:241:VAL:O	2.08	0.53
14:AE:832:LYS:HB3	14:AE:1242:ARG:NH1	2.24	0.53
16:D:147:G:N2	16:D:176:C:C2	2.77	0.53
16:D:415:A:C4	16:D:416:G:C8	2.96	0.53
21:I:77:ILE:HA	21:I:84:VAL:HG23	1.91	0.53
36:X:22:ILE:HG23	36:X:66:GLU:OE2	2.09	0.53
39:a:396:G:C4	39:a:397:U:C5	2.96	0.53
39:a:420:C:H2'	39:a:421:C:C6	2.44	0.53
39:a:1105:U:H2'	39:a:1106:G:H8	1.74	0.53
39:a:1144:A:C4	39:a:1145:C:C5	2.97	0.53
39:a:2752:C:H2'	39:a:2753:A:O4'	2.09	0.53
2:1:74:ILE:HD12	2:1:104:THR:O	2.09	0.53
3:2:61:LEU:HD13	39:a:1341:G:H4'	1.90	0.53
3:2:85:VAL:O	3:2:85:VAL:HG13	2.08	0.53
11:AA:726:TYR:HD2	11:AA:726:TYR:O	1.92	0.53
14:AE:205:LEU:HG	14:AE:217:LEU:HB3	1.90	0.53
16:D:73:C:O2	16:D:73:C:H2'	2.08	0.53
16:D:176:C:C2	16:D:177:G:C2	2.96	0.53
16:D:416:G:C4	16:D:417:G:C8	2.97	0.53
37:Y:28:GLY:C	37:Y:32:VAL:HB	2.34	0.53
37:Y:104:GLN:HG3	37:Y:108:ILE:HG23	1.91	0.53
39:a:667:U:H2'	39:a:668:A:O4'	2.09	0.53
39:a:725:G:O2'	39:a:726:G:O4'	2.26	0.53
39:a:1262:A:C5	39:a:1263:U:C5	2.97	0.53
39:a:1752:C:H2'	39:a:1753:G:C8	2.44	0.53
39:a:2271:G:H5''	40:b:18:ALA:HB2	1.91	0.53
39:a:2734:A:C5	39:a:2735:G:C8	2.96	0.53
43:e:26:PHE:HA	43:e:29:ARG:HD2	1.90	0.53
46:h:162:VAL:HG12	46:h:163:GLN:N	2.23	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:k:40:ASP:O	49:k:44:ARG:N	2.42	0.53
56:r:71:LYS:O	56:r:73:ASN:N	2.41	0.53
8:7:-2:U:H3'	8:7:-2:U:C6	2.43	0.53
9:9:60:LEU:HA	9:9:64:VAL:CB	2.37	0.53
11:AA:724:VAL:CG1	11:AA:774:GLY:N	2.68	0.53
13:AC:162:GLU:O	13:AC:162:GLU:HG2	2.04	0.53
16:D:377:G:H2'	16:D:378:G:C8	2.43	0.53
16:D:607:A:H2'	16:D:608:A:O4'	2.09	0.53
16:D:1173:U:H2'	16:D:1174:G:O4'	2.09	0.53
21:I:33:LEU:HD23	31:S:79:LEU:HD12	1.90	0.53
28:P:13:PHE:CD2	31:S:95:GLY:HA3	2.44	0.53
32:T:10:LYS:C	32:T:14:GLU:OE1	2.52	0.53
39:a:532:A:N1	39:a:2020:A:H1'	2.24	0.53
39:a:615:U:N3	50:l:35:TYR:O	2.37	0.53
39:a:752:A:H3'	51:m:1:MET:SD	2.49	0.53
39:a:780:G:C2	39:a:785:G:O6	2.62	0.53
39:a:1819:A:O4'	39:a:1821:A:C5	2.62	0.53
39:a:1892:C:C2	39:a:1893:C:C6	2.97	0.53
39:a:2471:A:H2'	39:a:2472:G:O4'	2.09	0.53
39:a:2517:C:O2'	39:a:2542:A:N7	2.40	0.53
39:a:2772:C:C2	39:a:2773:C:C5	2.97	0.53
42:d:54:G:O2'	42:d:55:U:H5'	2.08	0.53
50:l:147:LEU:HD13	50:l:183:PHE:CD1	2.44	0.53
54:p:101:ASN:HA	54:p:117:LEU:HD12	1.91	0.53
8:7:17:G:H2'	8:7:18:A:C8	2.44	0.53
9:9:60:LEU:CA	9:9:64:VAL:HB	2.38	0.53
9:9:84:TYR:HD1	9:9:116:GLU:OE2	1.92	0.53
14:AE:201:LEU:HD12	14:AE:224:LEU:HD12	1.91	0.53
15:C:34:THR:O	15:C:37:GLY:N	2.40	0.53
16:D:380:G:C2	16:D:384:G:C6	2.97	0.53
16:D:582:C:C2	16:D:583:A:C8	2.97	0.53
26:N:95:VAL:HG11	26:N:129:VAL:O	2.08	0.53
36:X:93:ARG:HB3	36:X:95:LEU:HD13	1.91	0.53
39:a:57:C:H2'	39:a:58:G:O4'	2.09	0.53
39:a:221:A:C4	39:a:266:G:N7	2.77	0.53
39:a:464:U:C2'	39:a:465:G:O5'	2.57	0.53
39:a:1042:G:HO2'	39:a:1043:C:H6	1.57	0.53
39:a:1360:G:N7	39:a:1361:G:C8	2.77	0.53
39:a:1515:A:H1'	39:a:1557:C:C1'	2.38	0.53
39:a:1766:G:C6	39:a:1987:A:C6	2.97	0.53
39:a:1983:G:C2	39:a:1984:G:C8	2.97	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2071:A:H2'	39:a:2072:C:C6	2.44	0.53
39:a:2189:U:O4'	39:a:2189:U:OP1	2.27	0.53
39:a:2373:G:H2'	39:a:2374:C:H6	1.74	0.53
46:h:74:ILE:HD12	46:h:74:ILE:N	2.24	0.53
48:j:9:VAL:CG1	63:y:4:ILE:HD11	2.39	0.53
48:j:122:VAL:O	48:j:126:ASN:N	2.40	0.53
1:0:39:LEU:HD12	1:0:39:LEU:N	2.24	0.52
5:4:62:THR:HG23	5:4:71:LYS:HE2	1.90	0.52
8:7:0:U:C3'	8:7:0:U:C6	2.93	0.52
9:9:23:LEU:CA	9:9:118:ILE:HG13	2.39	0.52
11:AA:242:VAL:HB	11:AA:245:ARG:NH1	2.24	0.52
11:AA:984:VAL:O	11:AA:984:VAL:HG22	2.10	0.52
13:AD:182:ARG:HD3	14:AE:581:MET:HE1	1.92	0.52
14:AE:112:ALA:HA	14:AE:238:ILE:HA	1.91	0.52
16:D:375:U:H4'	33:U:6:LEU:HD11	1.91	0.52
16:D:439:U:O2	16:D:440:C:C6	2.62	0.52
16:D:557:G:H2'	16:D:558:G:O4'	2.09	0.52
16:D:824:G:O4'	26:N:2:SER:N	2.42	0.52
16:D:976:G:N7	16:D:1362:A:N6	2.57	0.52
16:D:1006:G:C4	16:D:1007:U:C5	2.97	0.52
16:D:1493:A:O2'	16:D:1494:G:P	2.67	0.52
19:G:114:LEU:HD22	19:G:144:LEU:HB3	1.91	0.52
23:K:89:HIS:NE2	23:K:138:ARG:HD3	2.25	0.52
26:N:11:LEU:HD12	26:N:77:ARG:CG	2.39	0.52
37:Y:100:ILE:HG23	37:Y:137:LEU:HG	1.90	0.52
39:a:458:G:N2	39:a:469:G:H2'	2.24	0.52
39:a:515:A:C8	39:a:516:C:C5	2.97	0.52
39:a:1442:U:H2'	39:a:1443:U:C6	2.44	0.52
39:a:1477:A:H61	39:a:1514:G:C2'	2.21	0.52
39:a:1936:A:N7	39:a:1945:G:C8	2.77	0.52
39:a:2275:C:O2	60:v:84:LYS:NZ	2.42	0.52
39:a:2644:G:O2'	39:a:2645:G:H5'	2.09	0.52
39:a:2674:G:C6	39:a:2675:A:C6	2.97	0.52
59:u:57:LEU:N	59:u:60:ARG:NH2	2.57	0.52
60:v:97:GLN:N	60:v:97:GLN:OE1	2.43	0.52
2:1:8:ARG:HD3	39:a:494:G:H5''	1.91	0.52
7:6:8:DC:H2''	7:6:9:DT:H71	1.91	0.52
11:AA:1257:GLN:OE1	14:AE:345:LYS:CB	2.57	0.52
14:AE:215:LYS:HA	14:AE:218:THR:HG22	1.91	0.52
16:D:1095:U:H2'	16:D:1096:C:C6	2.45	0.52
16:D:1181:G:O2'	16:D:1182:G:N7	2.41	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1366:C:H2'	16:D:1367:C:C6	2.44	0.52
16:D:1442:G:H2'	16:D:1443:C:C6	2.44	0.52
16:D:1448:C:N3	16:D:1449:C:C5	2.78	0.52
20:H:19:ARG:O	20:H:72:LEU:HD22	2.09	0.52
20:H:22:SER:N	20:H:69:ASP:OD2	2.40	0.52
24:L:21:MET:HE2	24:L:21:MET:HA	1.91	0.52
28:P:13:PHE:CG	31:S:95:GLY:HA3	2.43	0.52
29:Q:14:LYS:HD3	29:Q:15:GLN:O	2.10	0.52
31:S:80:SER:O	31:S:84:VAL:HG23	2.10	0.52
39:a:372:G:O6	41:c:57:ARG:NH1	2.42	0.52
39:a:608:A:C2'	39:a:609:A:O5'	2.57	0.52
39:a:966:G:H4'	39:a:2271:G:N2	2.24	0.52
39:a:1071:G:H2'	39:a:1072:C:C6	2.44	0.52
39:a:1348:C:C5	39:a:1349:C:C5	2.97	0.52
39:a:1844:C:C2	39:a:1897:G:N2	2.76	0.52
39:a:2303:G:C6	39:a:2314:A:C6	2.97	0.52
48:j:27:ILE:HD12	48:j:27:ILE:N	2.24	0.52
56:r:1:MET:N	56:r:21:VAL:O	2.42	0.52
57:s:73:VAL:CG1	57:s:74:TYR:N	2.71	0.52
62:x:76:LYS:HG3	62:x:77:ALA:N	2.24	0.52
63:y:48:ILE:HG13	63:y:49:ALA:N	2.22	0.52
3:2:36:LYS:HA	3:2:81:LYS:HB2	1.90	0.52
3:2:53:VAL:HG22	3:2:87:LEU:CD1	2.39	0.52
11:AA:738:GLU:HA	11:AA:741:MET:HE2	1.90	0.52
16:D:185:U:H2'	16:D:186:C:H6	1.74	0.52
16:D:450:G:O6	16:D:484:G:N1	2.42	0.52
16:D:1016:A:OP2	16:D:1017:U:C5	2.62	0.52
16:D:1111:A:N1	21:I:177:THR:OG1	2.40	0.52
18:F:16:LEU:HD11	18:F:20:LYS:HE2	1.91	0.52
20:H:267:TRP:HZ2	20:H:300:VAL:CA	2.19	0.52
27:O:25:ASN:N	27:O:62:ASP:OD1	2.41	0.52
27:O:60:LYS:HB3	27:O:61:LEU:HD12	1.91	0.52
33:U:17:TYR:HB2	33:U:39:PHE:HB3	1.91	0.52
33:U:18:GLN:NE2	33:U:37:GLY:O	2.43	0.52
36:X:2:ALA:O	36:X:9:ILE:N	2.41	0.52
37:Y:133:ARG:HG2	37:Y:133:ARG:HH11	1.74	0.52
39:a:609:A:H3'	39:a:610:C:C6	2.44	0.52
39:a:867:C:C4	39:a:868:U:C4	2.97	0.52
39:a:2340:A:C2	39:a:2341:G:N7	2.77	0.52
39:a:2737:G:H2'	39:a:2738:A:C8	2.44	0.52
39:a:2748:A:H2'	39:a:2749:A:O4'	2.08	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:d:94:A:C6	42:d:95:U:C4	2.98	0.52
3:2:34:VAL:HG23	3:2:81:LYS:HB3	1.91	0.52
3:2:44:LYS:O	3:2:48:GLN:HG2	2.09	0.52
4:3:53:ASN:O	4:3:55:PRO:HD3	2.10	0.52
4:3:55:PRO:C	39:a:498:G:H5''	2.35	0.52
5:4:43:ASP:OD2	5:4:44:HIS:N	2.40	0.52
11:AA:628:HIS:HB3	11:AA:647:ARG:HH21	1.74	0.52
13:AC:171:LEU:HD23	13:AC:171:LEU:N	2.24	0.52
13:AD:33:ARG:HD3	13:AD:197:ASP:HB2	1.91	0.52
15:C:12:ARG:HG2	20:H:265:ASP:OD1	2.09	0.52
16:D:8:A:H62	22:J:202:GLU:C	2.18	0.52
16:D:104:G:C2	16:D:105:G:C8	2.98	0.52
16:D:1189:U:H4'	21:I:5:VAL:HG11	1.91	0.52
16:D:1319:A:C8	16:D:1323:G:C6	2.98	0.52
29:Q:26:SER:OG	29:Q:29:ASN:O	2.20	0.52
39:a:319:G:H2'	39:a:320:A:O4'	2.08	0.52
39:a:457:A:H61	39:a:470:A:H3'	1.74	0.52
39:a:563:A:C6	39:a:2018:G:C5	2.98	0.52
39:a:988:A:H3'	44:f:14:ILE:HD12	1.90	0.52
39:a:1364:G:N7	41:c:2:SER:OG	2.37	0.52
39:a:1565:C:C2	39:a:1567:G:C8	2.98	0.52
39:a:1690:A:H2'	39:a:1691:C:O4'	2.09	0.52
39:a:2557:G:H2'	39:a:2558:C:C6	2.43	0.52
61:w:1:MET:SD	61:w:3:HIS:NE2	2.83	0.52
63:y:25:THR:HG22	63:y:46:VAL:HG22	1.92	0.52
16:D:275:G:OP1	34:V:16:LYS:NZ	2.42	0.52
16:D:354:G:H2'	16:D:355:C:H5'	1.91	0.52
16:D:677:U:H2'	16:D:678:U:H6	1.73	0.52
16:D:736:C:H2'	16:D:737:C:H6	1.74	0.52
16:D:736:C:C2	16:D:737:C:C5	2.98	0.52
16:D:1279:G:C2'	16:D:1282:C:N4	2.72	0.52
19:G:20:THR:OG1	19:G:37:LYS:HD2	2.10	0.52
20:H:49:PRO:HD2	20:H:84:LEU:CD1	2.39	0.52
20:H:135:LEU:CB	20:H:157:ILE:CB	2.87	0.52
27:O:21:ILE:CG2	27:O:61:LEU:HD23	2.40	0.52
28:P:8:ILE:HD12	28:P:25:ILE:HD11	1.89	0.52
39:a:1022:G:N1	39:a:1140:C:C2	2.77	0.52
39:a:1122:G:H2'	39:a:1122:G:N3	2.24	0.52
39:a:1710:G:C6	39:a:1749:A:C6	2.98	0.52
39:a:1770:G:C6	39:a:1983:G:C5	2.97	0.52
39:a:1910:G:N1	39:a:1921:G:C6	2.77	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2024:G:H2'	39:a:2025:C:H6	1.74	0.52
39:a:2187:U:H2'	39:a:2188:U:O4'	2.08	0.52
39:a:2289:G:N2	39:a:2344:U:O2	2.42	0.52
41:c:53:ALA:O	41:c:56:MET:HB3	2.09	0.52
44:f:53:PHE:CE1	44:f:54:MET:SD	3.03	0.52
46:h:24:LEU:HD11	46:h:83:TYR:CA	2.40	0.52
46:h:162:VAL:CG1	46:h:174:LEU:HD12	2.40	0.52
60:v:3:GLN:HE21	60:v:92:TRP:CD1	2.28	0.52
62:x:7:ARG:HD2	62:x:97:PHE:CE1	2.45	0.52
10:A:37:A:H2'	10:A:38:A:O4'	2.09	0.52
11:AA:840:SER:HA	11:AA:886:LYS:HD2	1.90	0.52
11:AA:946:LEU:HD23	11:AA:946:LEU:N	2.23	0.52
11:AA:1045:GLY:O	11:AA:1047:LEU:HD13	2.10	0.52
14:AE:68:TYR:CA	14:AE:75:TYR:HE2	2.22	0.52
14:AE:144:TYR:CE1	14:AE:162:GLU:CD	2.88	0.52
16:D:621:A:C6	16:D:622:A:C6	2.98	0.52
16:D:1325:C:C2	16:D:1326:U:C5	2.97	0.52
16:D:1511:G:H2'	16:D:1512:U:O4'	2.10	0.52
19:G:100:MET:O	19:G:104:TRP:HA	2.09	0.52
19:G:113:ARG:NH1	19:G:113:ARG:O	2.42	0.52
23:K:111:MET:O	23:K:114:VAL:HG22	2.09	0.52
24:L:38:ARG:HH21	24:L:97:THR:C	2.18	0.52
27:O:12:ARG:O	27:O:13:LYS:C	2.51	0.52
30:R:67:ILE:HG21	30:R:72:HIS:HD2	1.73	0.52
31:S:27:LEU:HA	31:S:30:ILE:HD12	1.90	0.52
34:V:29:VAL:O	34:V:38:ILE:N	2.37	0.52
36:X:18:ALA:O	36:X:21:SER:OG	2.08	0.52
36:X:79:ARG:O	36:X:83:LEU:HD13	2.10	0.52
37:Y:37:PHE:CZ	37:Y:41:PHE:CD2	2.98	0.52
38:Z:2:ILE:HG22	38:Z:4:LYS:H	1.74	0.52
39:a:30:G:C5	39:a:31:C:C5	2.98	0.52
39:a:397:U:H2'	39:a:398:C:C6	2.43	0.52
39:a:580:U:H2'	39:a:581:C:C6	2.44	0.52
39:a:594:U:H2'	39:a:595:C:C6	2.45	0.52
39:a:909:A:C4	39:a:912:C:C5	2.97	0.52
39:a:1085:A:O2'	39:a:1086:A:C5'	2.58	0.52
39:a:2766:A:C6	39:a:2767:C:C5	2.97	0.52
42:d:106:G:H2'	42:d:107:G:O4'	2.10	0.52
47:i:52:ARG:HH21	47:i:52:ARG:HG2	1.75	0.52
48:j:9:VAL:HG21	48:j:26:VAL:HG12	1.89	0.52
52:n:70:ALA:HB2	52:n:79:ILE:HG21	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:n:92:ARG:O	52:n:95:ARG:HG2	2.09	0.52
54:p:107:LEU:HB3	54:p:152:ARG:HG3	1.92	0.52
58:t:116:ILE:HD11	58:t:122:VAL:HG11	1.92	0.52
4:3:94:ARG:CB	4:3:103:ILE:HD12	2.40	0.52
11:AA:876:GLU:HG2	13:AC:159:ILE:HD11	1.92	0.52
11:AA:988:LYS:NZ	11:AA:988:LYS:CB	2.73	0.52
14:AE:99:ARG:HA	14:AE:248:ASP:HB2	1.92	0.52
10:B:22:G:HO2'	10:B:23:C:P	2.30	0.52
16:D:800:G:H2'	16:D:801:U:C5	2.44	0.52
16:D:945:G:C2	16:D:1337:G:C2	2.98	0.52
23:K:13:GLU:CB	23:K:39:VAL:HG12	2.40	0.52
25:M:24:ALA:O	25:M:27:VAL:HG22	2.09	0.52
32:T:67:LEU:HD12	32:T:78:TYR:CE2	2.45	0.52
37:Y:40:ALA:O	37:Y:43:ALA:HB3	2.09	0.52
37:Y:93:ASN:ND2	37:Y:135:MET:HA	2.25	0.52
37:Y:133:ARG:O	37:Y:133:ARG:NH1	2.43	0.52
39:a:139:U:OP2	39:a:140:C:N4	2.42	0.52
39:a:1665:A:H1'	58:t:1:MET:HE1	1.92	0.52
39:a:1720:U:H2'	39:a:1721:G:O4'	2.09	0.52
39:a:2702:G:C5	39:a:2703:C:C5	2.98	0.52
47:i:22:LEU:H	47:i:22:LEU:HD23	1.74	0.52
62:x:30:ARG:HB3	62:x:97:PHE:CZ	2.45	0.52
1:0:79:ARG:NH2	39:a:563:A:OP1	2.43	0.52
8:7:4:U:O2'	23:K:56:VAL:HB	2.10	0.52
11:AA:808:ASN:H	14:AE:633:ALA:HB2	1.74	0.52
11:AA:862:LEU:N	11:AA:862:LEU:HD23	2.25	0.52
11:AA:953:LEU:HD13	11:AA:1036:ILE:HG21	1.91	0.52
15:C:12:ARG:HE	20:H:265:ASP:CG	2.17	0.52
16:D:592:G:C6	16:D:648:A:C6	2.98	0.52
16:D:609:A:C4	16:D:610:U:C6	2.98	0.52
16:D:684:U:H2'	16:D:685:G:O4'	2.10	0.52
16:D:1081:A:C2	16:D:1082:A:C8	2.97	0.52
16:D:1146:A:C5	16:D:1147:C:C5	2.97	0.52
16:D:1147:C:O2	27:O:18:ARG:NH1	2.43	0.52
16:D:1261:A:C5	16:D:1262:C:C6	2.98	0.52
16:D:1430:A:C5	16:D:1431:A:C5	2.98	0.52
19:G:19:GLN:NE2	19:G:21:ARG:HG2	2.25	0.52
24:L:9:MET:SD	24:L:59:TYR:CD1	3.02	0.52
25:M:80:VAL:HG13	25:M:81:GLY:N	2.25	0.52
26:N:48:ASP:O	26:N:62:THR:OG1	2.27	0.52
39:a:4:U:C2	39:a:5:A:C8	2.98	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:167:A:C5	39:a:168:G:C8	2.98	0.52
39:a:304:U:O2	39:a:313:G:N2	2.37	0.52
39:a:366:C:H2'	39:a:367:G:O4'	2.10	0.52
39:a:496:G:C2'	39:a:497:A:H5'	2.40	0.52
39:a:661:A:H2'	39:a:662:G:O4'	2.09	0.52
39:a:880:G:N3	39:a:881:G:C8	2.77	0.52
39:a:1258:U:C2	39:a:1259:G:C8	2.97	0.52
39:a:1275:A:C4	61:w:16:HIS:CE1	2.98	0.52
39:a:1320:C:H2'	39:a:1329:U:OP1	2.10	0.52
39:a:1711:A:C2	39:a:1748:C:C2	2.98	0.52
39:a:2045:C:H4'	47:i:15:MET:SD	2.50	0.52
39:a:2283:C:O5'	39:a:2389:G:O2'	2.28	0.52
9:9:51:TYR:CD2	9:9:88:HIS:HB2	2.45	0.52
16:D:22:G:C5	16:D:23:C:C5	2.97	0.52
16:D:36:C:C4	16:D:37:U:C5	2.98	0.52
16:D:750:C:N3	16:D:751:U:C5	2.77	0.52
16:D:963:G:H1'	16:D:973:G:N2	2.25	0.52
16:D:1382:C:N3	16:D:1383:C:C5	2.78	0.52
16:D:1496:C:H2'	16:D:1497:G:O4'	2.10	0.52
23:K:81:LEU:HD21	23:K:96:MET:HG3	1.92	0.52
24:L:47:LEU:HD12	24:L:55:HIS:C	2.35	0.52
24:L:72:ASP:O	24:L:76:THR:HG23	2.10	0.52
37:Y:138:VAL:HG23	37:Y:138:VAL:O	2.09	0.52
39:a:15:G:C6	39:a:16:C:C4	2.97	0.52
39:a:175:G:H2'	39:a:176:A:C8	2.45	0.52
39:a:273:G:C2	39:a:365:U:C2	2.98	0.52
39:a:692:C:OP1	46:h:56:GLY:N	2.40	0.52
39:a:979:A:C5	39:a:982:C:C4	2.97	0.52
39:a:1067:A:O2'	39:a:1068:G:O4'	2.27	0.52
39:a:1405:U:H2'	39:a:1406:U:C6	2.44	0.52
39:a:1657:U:H2'	39:a:1658:C:H6	1.75	0.52
39:a:1805:A:C6	39:a:1813:G:C6	2.97	0.52
39:a:1887:C:H2'	39:a:1888:G:O4'	2.09	0.52
39:a:2258:C:O2'	39:a:2426:A:H5''	2.10	0.52
39:a:2276:G:C2	39:a:2277:G:C8	2.98	0.52
39:a:2479:U:OP1	39:a:2537:U:O2'	2.21	0.52
39:a:2898:U:O4	39:a:2899:A:N6	2.43	0.52
40:b:17:GLU:O	40:b:19:LYS:NZ	2.43	0.52
44:f:39:GLU:HG3	44:f:41:THR:HG23	1.92	0.52
46:h:162:VAL:HG12	46:h:174:LEU:HD12	1.91	0.52
54:p:123:ALA:HA	54:p:133:LEU:HA	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:z:15:LYS:O	64:z:16:LYS:C	2.53	0.52
1:0:62:GLU:OE1	1:0:99:THR:HG22	2.10	0.52
2:1:74:ILE:HD12	2:1:105:VAL:HA	1.92	0.52
8:7:-6:G:C5'	16:D:1501:C:N4	2.72	0.52
8:7:20:G:O2'	14:AE:425:ARG:NH2	2.40	0.52
9:9:58:THR:OG1	9:9:81:LEU:HA	2.10	0.52
9:9:106:PHE:CG	9:9:106:PHE:O	2.63	0.52
13:AD:182:ARG:CD	14:AE:581:MET:HE1	2.39	0.52
16:D:142:G:C2	16:D:222:C:C2	2.97	0.52
16:D:341:C:N3	16:D:342:C:C5	2.77	0.52
16:D:373:A:N1	16:D:391:G:H1'	2.25	0.52
16:D:895:G:H2'	16:D:896:C:C6	2.45	0.52
16:D:936:C:N3	16:D:937:A:C8	2.77	0.52
16:D:1055:A:C2	16:D:1206:G:C4	2.97	0.52
16:D:1463:U:H5'	63:y:109:ARG:NH2	2.25	0.52
23:K:23:LYS:HD2	23:K:24:THR:N	2.25	0.52
27:O:96:SER:O	27:O:100:LYS:HD3	2.10	0.52
39:a:16:C:H4'	47:i:11:SER:HA	1.91	0.52
39:a:690:G:O3'	46:h:217:ARG:NH1	2.43	0.52
39:a:706:A:H2'	39:a:707:G:O4'	2.10	0.52
39:a:947:A:H2'	39:a:948:C:H6	1.75	0.52
39:a:1672:A:H2'	39:a:1673:G:O4'	2.09	0.52
39:a:1953:A:H2	39:a:2549:G:N3	2.08	0.52
39:a:2328:A:H2'	39:a:2329:U:H6	1.71	0.52
39:a:2513:A:C5	39:a:2574:G:C6	2.98	0.52
41:c:59:ILE:CG2	41:c:64:ILE:HG22	2.40	0.52
60:v:26:VAL:HG21	60:v:132:THR:C	2.35	0.52
1:0:2:TYR:CZ	1:0:42:ALA:HB3	2.46	0.51
8:7:7:G:N3	8:7:7:G:C3'	2.73	0.51
11:AA:657:THR:HG21	11:AA:1188:ASP:HB2	1.92	0.51
11:AA:813:GLU:HB2	14:AE:461:PHE:HD2	1.74	0.51
11:AA:862:LEU:HD23	11:AA:862:LEU:H	1.74	0.51
11:AA:884:VAL:HG11	11:AA:1050:VAL:HG11	1.90	0.51
14:AE:67:ASP:CG	14:AE:95:THR:HG1	2.17	0.51
14:AE:850:LYS:HB2	14:AE:857:LEU:HB2	1.91	0.51
10:B:37:A:H2'	10:B:38:A:O4'	2.09	0.51
16:D:277:C:C2	16:D:278:G:C8	2.98	0.51
16:D:624:C:C4'	33:U:11:ALA:HB2	2.40	0.51
16:D:936:C:C4	16:D:937:A:N7	2.79	0.51
16:D:1051:C:C2'	16:D:1052:U:O5'	2.58	0.51
16:D:1236:A:H4'	16:D:1304:G:H4'	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:54:MET:CE	17:E:79:LEU:HD13	2.38	0.51
19:G:99:GLY:O	19:G:103:ASN:N	2.43	0.51
21:I:37:PHE:HB2	31:S:66:GLN:NE2	2.24	0.51
23:K:137:VAL:O	23:K:140:THR:OG1	2.25	0.51
28:P:90:LEU:HD13	28:P:90:LEU:C	2.34	0.51
33:U:40:ASN:N	33:U:49:GLY:O	2.42	0.51
35:W:31:LEU:O	35:W:49:ILE:HG13	2.10	0.51
39:a:207:A:H3'	39:a:208:C:H6	1.74	0.51
39:a:340:A:H2'	39:a:341:C:H5'	1.92	0.51
39:a:488:G:C2	39:a:493:G:O6	2.62	0.51
39:a:910:A:H2'	39:a:911:A:C8	2.45	0.51
39:a:1026:G:C8	39:a:1134:A:C4	2.98	0.51
39:a:1117:C:C2	39:a:1118:C:C5	2.98	0.51
39:a:1607:C:N4	39:a:1621:U:C3'	2.73	0.51
39:a:2297:A:C2	39:a:2320:U:C1'	2.93	0.51
39:a:2306:C:OP2	39:a:2307:G:C2'	2.58	0.51
39:a:2747:G:O6	39:a:2755:C:H5''	2.10	0.51
42:d:97:C:H2'	42:d:98:G:O4'	2.10	0.51
57:s:73:VAL:HG11	57:s:75:TYR:CZ	2.45	0.51
59:u:2:ARG:HH11	59:u:2:ARG:HA	1.74	0.51
8:7:0:U:H3'	8:7:0:U:C6	2.45	0.51
9:9:95:LEU:HG	9:9:99:PHE:HE2	1.75	0.51
11:AA:960:LEU:HB3	11:AA:1025:PHE:CE1	2.45	0.51
15:C:59:ILE:HG22	15:C:63:ARG:HD3	1.93	0.51
16:D:74:A:O2'	16:D:75:G:H5''	2.10	0.51
16:D:398:U:H2'	16:D:399:G:H8	1.74	0.51
16:D:407:U:C2	16:D:408:A:C8	2.99	0.51
16:D:425:G:H2'	16:D:426:U:C6	2.45	0.51
16:D:563:A:O2'	16:D:566:G:O3'	2.28	0.51
16:D:867:G:H2'	16:D:868:C:C6	2.45	0.51
16:D:1348:U:OP2	16:D:1373:G:N1	2.40	0.51
16:D:1405:G:C2	16:D:1406:U:C5	2.97	0.51
16:D:1417:G:H2'	16:D:1482:G:N2	2.25	0.51
20:H:308:GLU:O	20:H:310:ASP:N	2.43	0.51
26:N:111:MET:CG	26:N:115:ALA:HB3	2.40	0.51
27:O:12:ARG:HD2	27:O:74:GLY:HA2	1.90	0.51
28:P:57:VAL:O	28:P:57:VAL:HG13	2.11	0.51
35:W:32:ARG:HG3	35:W:57:HIS:CG	2.44	0.51
39:a:271:G:C4	39:a:272:A:N7	2.79	0.51
39:a:669:G:H2'	39:a:670:A:N7	2.25	0.51
39:a:678:C:H2'	39:a:679:C:H6	1.74	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:686:U:O2	51:m:7:PRO:CA	2.59	0.51
39:a:766:U:H2'	39:a:767:U:H6	1.75	0.51
39:a:1386:C:H2'	39:a:1387:A:C8	2.46	0.51
39:a:1515:A:H1'	39:a:1557:C:H1'	1.92	0.51
39:a:1573:G:N3	39:a:1573:G:H2'	2.25	0.51
39:a:1607:C:H5''	39:a:1608:A:H5'	1.91	0.51
39:a:1845:G:C6	39:a:1846:G:N7	2.78	0.51
39:a:1924:C:H2'	39:a:1925:C:C6	2.45	0.51
39:a:1979:U:O2'	39:a:1980:G:H5'	2.10	0.51
39:a:2039:U:H2'	39:a:2040:G:H8	1.76	0.51
39:a:2259:U:C6	39:a:2427:C:C4	2.97	0.51
39:a:2506:U:OP2	39:a:2576:G:N1	2.28	0.51
40:b:30:SER:C	40:b:31:VAL:HG13	2.35	0.51
42:d:69:G:C5	42:d:70:C:C6	2.99	0.51
48:j:124:ARG:HG2	48:j:125:TRP:NE1	2.26	0.51
50:l:25:GLU:OE2	50:l:25:GLU:N	2.37	0.51
53:o:39:LYS:HA	53:o:42:ARG:CZ	2.40	0.51
57:s:7:LYS:HD3	57:s:9:GLU:OE2	2.11	0.51
3:2:29:THR:HG23	3:2:85:VAL:C	2.36	0.51
9:9:88:HIS:HB3	9:9:89:PRO:HD3	1.91	0.51
14:AE:1321:SER:OG	14:AE:1349:GLU:OE2	2.21	0.51
16:D:744:C:H2'	16:D:745:G:C8	2.44	0.51
16:D:1159:U:C6	16:D:1182:G:C2	2.98	0.51
16:D:1227:A:C2	16:D:1228:C:C6	2.98	0.51
16:D:1253:G:H2'	16:D:1254:A:C8	2.45	0.51
25:M:66:LEU:O	25:M:69:VAL:HG22	2.10	0.51
26:N:89:LYS:HG3	26:N:90:ASP:N	2.26	0.51
28:P:52:LEU:H	31:S:81:ARG:HH22	1.57	0.51
35:W:65:GLU:HA	45:g:56:ARG:HH12	1.75	0.51
39:a:103:A:C2	39:a:104:A:H1'	2.46	0.51
39:a:272:A:N3	39:a:273:G:C8	2.78	0.51
39:a:554:U:C2	39:a:555:G:C8	2.99	0.51
39:a:642:U:C2	39:a:644:A:OP2	2.63	0.51
39:a:1113:U:C2	39:a:1114:C:C5	2.99	0.51
39:a:1226:A:OP2	39:a:1227:G:C8	2.63	0.51
39:a:1249:U:O4'	64:z:4:VAL:HG21	2.10	0.51
39:a:1353:A:H2'	39:a:1354:A:C8	2.45	0.51
39:a:1581:G:C4	39:a:1582:C:C5	2.99	0.51
39:a:1596:A:H2'	39:a:1597:A:C8	2.45	0.51
39:a:1754:A:N1	39:a:2717:C:H5'	2.25	0.51
39:a:2227:A:C5	39:a:2228:G:C5	2.97	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:z:55:ARG:N	64:z:55:ARG:HD2	2.26	0.51
2:1:35:ILE:O	2:1:38:TYR:N	2.43	0.51
8:7:15:G:H2'	8:7:16:A:H8	1.75	0.51
9:9:25:ALA:HB2	9:9:96:PHE:CD1	2.45	0.51
13:AD:95:LYS:O	13:AD:148:ARG:NH2	2.42	0.51
16:D:537:G:H5''	30:R:110:ARG:HH12	1.75	0.51
16:D:541:G:H2'	16:D:542:G:O4'	2.10	0.51
16:D:673:A:C6	16:D:734:G:C6	2.98	0.51
16:D:910:C:C2	16:D:911:U:C6	2.98	0.51
16:D:973:G:C6	16:D:974:A:C6	2.98	0.51
22:J:85:ASN:HA	23:K:102:GLY:HA3	1.93	0.51
23:K:50:TYR:H	23:K:66:LYS:HD2	1.75	0.51
25:M:29:ILE:CD1	25:M:101:MET:HE2	2.40	0.51
25:M:88:PRO:HG3	25:M:145:ALA:HA	1.92	0.51
35:W:44:MET:HE3	35:W:62:VAL:HG21	1.93	0.51
35:W:80:TYR:OH	35:W:83:HIS:ND1	2.43	0.51
39:a:577:G:O2'	39:a:1254:A:OP1	2.28	0.51
39:a:780:G:C2	39:a:782:A:C2	2.98	0.51
39:a:948:C:C2	39:a:949:G:C8	2.98	0.51
39:a:1051:G:H2'	39:a:1052:C:C6	2.45	0.51
39:a:1312:U:O2	39:a:1339:G:N2	2.40	0.51
39:a:1614:A:O5'	39:a:1617:C:N4	2.43	0.51
39:a:1733:G:C2	39:a:1734:G:C8	2.99	0.51
39:a:2255:G:C4	39:a:2256:G:C8	2.98	0.51
39:a:2700:A:H2'	39:a:2701:U:C6	2.45	0.51
50:l:21:ARG:NH2	50:l:103:GLY:O	2.43	0.51
52:n:36:LEU:O	52:n:88:LYS:HA	2.10	0.51
52:n:69:LYS:HA	52:n:83:TYR:O	2.11	0.51
55:q:11:CYS:SG	55:q:13:ASN:N	2.82	0.51
56:r:15:LEU:HD12	56:r:16:GLY:H	1.75	0.51
63:y:4:ILE:HG13	63:y:5:ILE:N	2.25	0.51
1:0:77:PHE:CZ	1:0:79:ARG:HA	2.45	0.51
4:3:7:ARG:CG	4:3:26:LYS:O	2.59	0.51
11:AA:1007:LYS:HD2	11:AA:1007:LYS:C	2.35	0.51
16:D:21:G:C2	16:D:22:G:N7	2.78	0.51
16:D:292:G:N1	16:D:309:A:C6	2.79	0.51
16:D:712:A:H2'	16:D:713:G:C8	2.46	0.51
16:D:1063:C:O5'	16:D:1064:G:H2'	2.10	0.51
16:D:1086:U:O2	16:D:1086:U:H2'	2.11	0.51
16:D:1208:C:H2'	16:D:1209:C:H6	1.76	0.51
23:K:134:ILE:HG23	23:K:135:ASN:N	2.26	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:M:15:ASP:O	25:M:19:GLY:N	2.43	0.51
30:R:52:VAL:N	30:R:67:ILE:HD12	2.25	0.51
32:T:69:TYR:O	32:T:72:ARG:HG3	2.10	0.51
39:a:36:G:C6	39:a:37:C:C4	2.99	0.51
39:a:553:G:C5	39:a:554:U:C5	2.99	0.51
39:a:974:G:C4	39:a:989:G:C2	2.99	0.51
39:a:1832:C:C4	39:a:1833:C:C5	2.99	0.51
39:a:2840:C:C2	39:a:2841:C:C5	2.98	0.51
48:j:61:THR:HG22	48:j:63:PRO:CD	2.41	0.51
64:z:55:ARG:O	64:z:59:GLN:HG2	2.10	0.51
3:2:54:GLU:C	3:2:88:LYS:HZ2	2.19	0.51
9:9:61:ARG:O	9:9:65:GLU:HB2	2.10	0.51
9:9:95:LEU:HG	9:9:99:PHE:CE2	2.45	0.51
16:D:114:U:O2'	16:D:115:G:H5'	2.10	0.51
16:D:181:A:N6	16:D:195:A:OP2	2.43	0.51
16:D:503:C:C2	16:D:504:C:C5	2.98	0.51
16:D:779:C:H2'	16:D:780:A:C8	2.45	0.51
16:D:898:G:C6	16:D:902:G:O6	2.64	0.51
16:D:1389:C:H2'	16:D:1390:U:O4'	2.11	0.51
16:D:1520:C:C2	16:D:1521:C:C5	2.98	0.51
26:N:95:VAL:HG21	26:N:101:ILE:O	2.10	0.51
30:R:5:ASN:O	30:R:8:VAL:HB	2.10	0.51
39:a:75:G:C2	39:a:76:C:C5	2.99	0.51
39:a:77:G:H2'	39:a:78:U:O4'	2.11	0.51
39:a:195:A:H61	39:a:198:C:H3'	1.76	0.51
39:a:459:U:H2'	39:a:460:A:O4'	2.10	0.51
39:a:641:U:H3'	39:a:642:U:C5	2.46	0.51
39:a:706:A:H61	39:a:725:G:H1'	1.75	0.51
39:a:728:G:HO2'	39:a:730:A:H8	1.57	0.51
39:a:826:U:C2	39:a:828:U:O4'	2.64	0.51
39:a:874:G:C6	39:a:904:G:C6	2.99	0.51
39:a:880:G:C4	39:a:881:G:C8	2.98	0.51
39:a:1287:A:O2'	39:a:1288:G:H5'	2.11	0.51
39:a:1348:C:O2	39:a:1348:C:H2'	2.11	0.51
39:a:1656:C:H2'	39:a:1657:U:H6	1.75	0.51
39:a:2330:G:C6	39:a:2331:G:C5	2.99	0.51
39:a:2637:U:H5''	48:j:83:ARG:NH1	2.25	0.51
60:v:31:PHE:HD1	60:v:132:THR:HG22	1.75	0.51
9:9:73:LYS:HB2	9:9:117:LEU:HD21	1.87	0.51
11:AA:876:GLU:HA	11:AA:876:GLU:OE2	2.11	0.51
16:D:196:A:N3	16:D:222:C:H1'	2.26	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:201:G:H1	16:D:216:U:H3	1.58	0.51
16:D:690:G:O6	29:Q:53:ARG:NH2	2.44	0.51
16:D:1127:G:C5	16:D:1128:C:C5	2.98	0.51
16:D:1151:A:C2	16:D:1152:A:C5	2.99	0.51
16:D:1157:A:N6	16:D:1177:G:N2	2.59	0.51
16:D:1233:G:OP2	27:O:126:GLN:OE1	2.28	0.51
16:D:1236:A:H2'	16:D:1237:C:C6	2.45	0.51
23:K:60:ILE:O	23:K:64:MET:HG3	2.11	0.51
23:K:101:GLU:HA	23:K:122:ASN:ND2	2.25	0.51
24:L:80:PHE:CE1	46:h:124:ILE:HD12	2.46	0.51
27:O:118:LEU:CD2	27:O:122:ARG:HA	2.40	0.51
39:a:27:G:C2	39:a:512:G:N3	2.79	0.51
39:a:74:A:N7	39:a:88:G:C6	2.79	0.51
39:a:268:C:N3	39:a:269:C:C5	2.79	0.51
39:a:393:C:H2'	39:a:394:C:H6	1.76	0.51
39:a:523:C:H5''	39:a:540:C:O2'	2.10	0.51
39:a:645:C:H2'	39:a:647:G:C8	2.45	0.51
39:a:649:G:H2'	39:a:650:C:C6	2.46	0.51
39:a:920:A:C6	39:a:921:C:C4	2.99	0.51
39:a:1314:C:C2	39:a:1315:C:C5	2.99	0.51
39:a:1841:U:C4	39:a:1842:G:N7	2.78	0.51
39:a:1857:G:O2'	39:a:1884:G:N2	2.44	0.51
39:a:1881:C:C2	39:a:1882:U:C6	2.99	0.51
39:a:2017:U:O2'	39:a:2019:A:OP2	2.21	0.51
39:a:2179:C:O2	39:a:2179:C:H2'	2.10	0.51
39:a:2199:A:C8	39:a:2225:A:N6	2.79	0.51
39:a:2271:G:H5'	40:b:20:ARG:HH12	1.76	0.51
39:a:2420:C:OP2	53:o:32:ILE:HA	2.10	0.51
39:a:2463:C:C2	39:a:2464:G:C8	2.99	0.51
40:b:37:ILE:HG22	40:b:59:LEU:O	2.11	0.51
42:d:15:A:O4'	42:d:109:A:C8	2.64	0.51
49:k:11:LEU:HD23	49:k:51:GLU:HA	1.92	0.51
51:m:31:LEU:HD22	51:m:42:LEU:CD1	2.40	0.51
60:v:68:PHE:C	60:v:94:ALA:HB2	2.35	0.51
64:z:47:TYR:HA	64:z:50:ARG:NH1	2.25	0.51
11:AA:524:ILE:HG21	11:AA:708:VAL:HG13	1.92	0.51
13:AC:120:ASP:HB3	28:P:31:ARG:NH2	2.25	0.51
13:AD:100:LEU:O	13:AD:144:ILE:N	2.39	0.51
14:AE:390:LEU:N	14:AE:390:LEU:CD1	2.73	0.51
16:D:417:G:C5	16:D:418:C:C5	2.99	0.51
16:D:925:G:C2	16:D:927:G:C8	2.98	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1147:C:O2	27:O:18:ARG:CZ	2.59	0.51
16:D:1355:G:C6	16:D:1368:A:C6	2.99	0.51
19:G:133:GLU:O	19:G:137:ARG:CG	2.58	0.51
27:O:91:ASP:OD2	27:O:94:LEU:HD12	2.11	0.51
39:a:68:G:H2'	39:a:69:C:O4'	2.10	0.51
39:a:372:G:N7	41:c:61:LYS:HD2	2.25	0.51
39:a:404:A:H1'	39:a:405:U:OP2	2.10	0.51
39:a:492:A:H2'	39:a:493:G:O4'	2.10	0.51
39:a:593:U:H2'	39:a:594:U:H6	1.74	0.51
39:a:1355:G:C2	39:a:1356:G:C8	2.99	0.51
39:a:1796:U:O2'	46:h:252:THR:O	2.25	0.51
39:a:1952:A:C6	58:t:22:ILE:HD11	2.45	0.51
39:a:2397:G:H2'	39:a:2398:U:H6	1.76	0.51
39:a:2489:U:H2'	39:a:2490:G:C8	2.46	0.51
39:a:2642:G:C2	39:a:2643:G:C8	2.99	0.51
42:d:2:G:H2'	42:d:3:C:H6	1.75	0.51
48:j:101:PHE:O	48:j:104:VAL:HG22	2.11	0.51
1:O:89:HIS:CD2	1:O:90:ARG:N	2.79	0.51
9:9:72:LEU:N	9:9:72:LEU:HD12	2.25	0.51
11:AA:880:GLY:C	11:AA:919:ARG:HD3	2.36	0.51
14:AE:804:ALA:O	14:AE:806:ASP:N	2.41	0.51
10:B:71:C:H3'	10:B:72:A:H8	1.76	0.51
10:B:72:A:H2'	10:B:73:A:O4'	2.11	0.51
16:D:71:A:C2	16:D:100:G:C8	2.99	0.51
16:D:466:A:C2	16:D:468:A:C4	2.98	0.51
16:D:922:G:H2'	16:D:923:A:C8	2.45	0.51
16:D:1055:A:N7	16:D:1200:C:N4	2.59	0.51
16:D:1175:G:O2'	16:D:1176:A:O5'	2.28	0.51
16:D:1262:C:C2	16:D:1263:C:C6	2.99	0.51
21:I:22:TRP:CD2	31:S:94:PRO:CG	2.72	0.51
25:M:43:VAL:O	25:M:47:LEU:HG	2.11	0.51
25:M:88:PRO:HB3	25:M:145:ALA:HB1	1.93	0.51
37:Y:79:LEU:CD2	37:Y:83:ALA:HB2	2.40	0.51
39:a:278:A:N1	39:a:361:G:O2'	2.35	0.51
39:a:281:C:H2'	39:a:282:A:H8	1.76	0.51
39:a:566:U:H2'	39:a:567:U:C6	2.45	0.51
39:a:590:A:H2'	39:a:591:U:C6	2.46	0.51
39:a:970:U:C2	39:a:971:G:C8	2.99	0.51
39:a:1562:U:C4	39:a:1563:U:C4	2.99	0.51
39:a:1866:A:H2'	39:a:1867:G:O4'	2.10	0.51
39:a:2848:G:O2'	39:a:2867:G:N1	2.35	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:b:50:ASN:HB3	40:b:63:ALA:HB3	1.92	0.51
46:h:53:HIS:O	46:h:217:ARG:N	2.31	0.51
46:h:131:PRO:HA	46:h:189:ARG:HA	1.92	0.51
49:k:32:GLU:OE1	49:k:33:LYS:O	2.29	0.51
52:n:176:PRO:O	52:n:177:PHE:C	2.53	0.51
62:x:50:ALA:O	62:x:81:ARG:NH2	2.43	0.51
63:y:3:ASN:OD1	63:y:4:ILE:N	2.43	0.51
64:z:83:LEU:HD22	64:z:113:ALA:HB2	1.92	0.51
6:5:96:DT:H2''	6:5:97:DC:C5	2.46	0.51
10:A:71:C:H3'	10:A:72:A:H8	1.76	0.51
11:AA:14:ASP:HA	11:AA:1183:ALA:HB3	1.93	0.51
11:AA:817:LEU:HD12	11:AA:1078:LYS:HB3	1.93	0.51
11:AA:935:THR:HA	11:AA:1049:ILE:CD1	2.41	0.51
16:D:13:U:O4	16:D:20:U:O4	2.29	0.51
16:D:346:G:N2	16:D:347:G:C8	2.79	0.51
16:D:363:A:OP2	30:R:31:ARG:NE	2.38	0.51
16:D:713:G:H2'	16:D:714:G:C8	2.46	0.51
16:D:1066:C:O2	16:D:1066:C:H2'	2.09	0.51
16:D:1111:A:N1	21:I:177:THR:HG23	2.25	0.51
16:D:1127:G:C6	16:D:1128:C:C4	2.99	0.51
16:D:1343:G:H2'	16:D:1344:C:C6	2.46	0.51
17:E:35:VAL:HG22	17:E:50:ALA:CB	2.40	0.51
19:G:7:ARG:HA	19:G:10:LEU:HD12	1.92	0.51
19:G:28:LYS:HA	19:G:31:ILE:HD12	1.92	0.51
19:G:99:GLY:HA2	19:G:102:THR:OG1	2.11	0.51
24:L:18:VAL:HG12	24:L:22:ILE:HD11	1.93	0.51
25:M:15:ASP:O	25:M:19:GLY:HA2	2.10	0.51
29:Q:108:THR:HG22	29:Q:109:ASN:OD1	2.11	0.51
39:a:23:G:C6	39:a:518:G:C6	2.99	0.51
39:a:104:A:C5	39:a:105:C:C5	2.99	0.51
39:a:396:G:OP2	41:c:10:LYS:NZ	2.42	0.51
39:a:590:A:H2'	39:a:591:U:H6	1.76	0.51
39:a:638:G:H2'	39:a:639:U:C6	2.46	0.51
39:a:749:A:N1	39:a:753:A:H1'	2.26	0.51
39:a:1074:G:C2	39:a:1075:C:C4	2.99	0.51
39:a:1122:G:C2	39:a:1123:C:C6	2.98	0.51
39:a:1198:U:H2'	39:a:1199:U:H6	1.76	0.51
39:a:1341:G:OP1	39:a:1397:U:N3	2.38	0.51
39:a:1453:A:O2'	61:w:73:ASN:CG	2.54	0.51
39:a:1653:G:OP1	61:w:2:ARG:CZ	2.59	0.51
39:a:1659:G:C2'	39:a:1660:G:O5'	2.59	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1957:C:H2'	39:a:1958:C:C6	2.45	0.51
39:a:2066:C:O2'	39:a:2067:G:H5'	2.09	0.51
39:a:2094:A:OP1	56:r:22:LYS:HE3	2.11	0.51
39:a:2099:U:C2	39:a:2100:G:C8	2.99	0.51
39:a:2345:G:C5	39:a:2347:C:C5	2.99	0.51
39:a:2357:G:C2	39:a:2360:G:OP2	2.64	0.51
42:d:47:C:C4	42:d:48:U:C5	2.99	0.51
42:d:58:A:H2'	42:d:59:A:O4'	2.11	0.51
42:d:99:A:C4	42:d:100:G:C8	2.99	0.51
43:e:46:VAL:O	43:e:50:VAL:HG23	2.11	0.51
64:z:79:PHE:O	64:z:83:LEU:HD23	2.11	0.51
4:3:104:LYS:HD3	39:a:301:G:OP2	2.10	0.50
9:9:141:ALA:HB1	9:9:145:GLU:OE1	2.12	0.50
11:AA:1252:SER:CA	11:AA:1259:LEU:HD11	2.41	0.50
16:D:33:A:H2'	16:D:34:C:C6	2.45	0.50
16:D:264:C:H2'	16:D:265:G:O4'	2.11	0.50
16:D:655:A:C2	16:D:754:C:N4	2.79	0.50
16:D:699:C:H3'	16:D:700:G:H5''	1.93	0.50
16:D:1004:A:H62	16:D:1025:U:H5'	1.76	0.50
16:D:1288:A:N1	16:D:1371:G:H1'	2.25	0.50
16:D:1493:A:HO2'	16:D:1494:G:P	2.34	0.50
16:D:1513:A:C6	16:D:1523:G:C6	3.00	0.50
23:K:153:VAL:HA	23:K:156:LYS:HD2	1.93	0.50
27:O:6:TYR:CD2	27:O:90:TYR:HA	2.47	0.50
39:a:299:A:O2'	39:a:300:A:H5'	2.11	0.50
39:a:418:C:H2'	39:a:419:U:O4'	2.10	0.50
39:a:570:G:H2'	39:a:571:U:H5'	1.93	0.50
39:a:704:G:N2	39:a:726:G:C4	2.79	0.50
39:a:706:A:N6	39:a:725:G:H1'	2.27	0.50
39:a:1117:C:C2	39:a:1118:C:C6	3.00	0.50
39:a:1409:U:C2	39:a:1410:G:C8	2.98	0.50
39:a:1880:U:H2'	39:a:1881:C:H6	1.76	0.50
39:a:1906:G:C8	39:a:1929:G:C5	2.99	0.50
39:a:1977:A:C4	39:a:1978:A:C8	2.99	0.50
39:a:2104:C:N4	39:a:2186:G:C2	2.79	0.50
39:a:2395:C:C2	39:a:2396:G:C8	2.98	0.50
39:a:2510:C:C4	39:a:2511:U:C4	2.99	0.50
39:a:2685:G:H2'	39:a:2686:G:H8	1.76	0.50
46:h:8:PRO:HB2	46:h:14:ARG:CZ	2.41	0.50
46:h:201:MET:HG3	46:h:202:LEU:HD22	1.92	0.50
47:i:12:LYS:HE2	47:i:12:LYS:HA	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:p:69:ARG:NE	54:p:73:ASN:OD1	2.44	0.50
60:v:110:GLU:HG3	60:v:111:GLU:N	2.26	0.50
8:7:16:A:H2'	8:7:17:G:C8	2.45	0.50
9:9:19:ALA:CB	9:9:69:PHE:HE2	2.23	0.50
9:9:28:ALA:N	9:9:109:LYS:O	2.44	0.50
9:9:92:ALA:C	9:9:129:LEU:HD13	2.35	0.50
9:9:94:ARG:O	9:9:98:GLU:HG3	2.11	0.50
11:AA:694:ARG:NH2	13:AC:83:LEU:HD13	2.26	0.50
16:D:193:C:H2'	16:D:194:C:C6	2.45	0.50
16:D:745:G:N3	16:D:746:A:C8	2.79	0.50
16:D:767:A:H2'	16:D:768:A:O4'	2.11	0.50
16:D:861:G:H2'	16:D:862:C:H6	1.76	0.50
16:D:863:U:H2'	16:D:865:A:OP2	2.11	0.50
16:D:1052:U:O4	16:D:1200:C:O2'	2.28	0.50
16:D:1092:A:H2'	16:D:1093:A:C8	2.47	0.50
16:D:1410:A:C6	16:D:1411:C:C4	2.99	0.50
16:D:1429:A:C2	16:D:1430:A:C8	3.00	0.50
27:O:91:ASP:CG	27:O:92:GLU:N	2.69	0.50
31:S:16:LEU:HD23	31:S:55:SER:N	2.26	0.50
33:U:22:ALA:CB	33:U:32:PHE:HA	2.40	0.50
36:X:3:ARG:NH1	36:X:3:ARG:HB3	2.26	0.50
37:Y:74:PRO:HG2	37:Y:77:VAL:HB	1.94	0.50
39:a:241:A:N1	39:a:255:A:H5''	2.26	0.50
39:a:271:G:H4'	39:a:272:A:OP1	2.11	0.50
39:a:739:A:N3	39:a:740:C:N4	2.58	0.50
39:a:1027:A:N7	39:a:1126:A:C2	2.79	0.50
39:a:1070:A:N7	39:a:1096:A:O2'	2.44	0.50
39:a:1181:U:C2	39:a:1182:G:C8	3.00	0.50
39:a:2020:A:C2	39:a:2022:U:C6	2.99	0.50
39:a:2220:U:N3	39:a:2221:G:N7	2.59	0.50
39:a:2536:G:C6	39:a:2537:U:C4	2.99	0.50
39:a:2869:G:H2'	39:a:2870:C:C6	2.47	0.50
53:o:33:LEU:HA	53:o:36:LYS:HD3	1.92	0.50
55:q:3:VAL:O	55:q:3:VAL:HG13	2.11	0.50
63:y:65:SER:N	63:y:68:GLU:O	2.44	0.50
5:4:78:GLN:OE1	5:4:78:GLN:N	2.44	0.50
9:9:14:GLU:CD	9:9:15:VAL:HG23	2.36	0.50
11:AA:733:VAL:HG22	11:AA:750:ILE:HG12	1.93	0.50
15:C:26:ILE:HG23	15:C:27:ALA:N	2.26	0.50
15:C:59:ILE:O	15:C:63:ARG:HD3	2.11	0.50
16:D:632:U:H3'	16:D:633:G:H5'	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:685:G:N1	16:D:704:A:OP2	2.43	0.50
16:D:983:A:H5'	16:D:984:C:OP2	2.11	0.50
16:D:985:C:C2	16:D:986:U:C5	2.99	0.50
16:D:1006:G:H2'	16:D:1007:U:H6	1.74	0.50
16:D:1240:U:C2	25:M:32:VAL:HG12	2.47	0.50
20:H:49:PRO:HD2	20:H:84:LEU:HD11	1.92	0.50
20:H:279:LYS:HA	20:H:331:MET:CB	2.33	0.50
20:H:332:VAL:C	20:H:334:ASP:H	2.18	0.50
24:L:1:MET:C	24:L:65:GLU:OE2	2.54	0.50
26:N:11:LEU:HD22	26:N:75:ILE:HG12	1.93	0.50
37:Y:129:GLU:OE2	37:Y:130:GLY:N	2.44	0.50
39:a:3:U:H2'	39:a:4:U:H6	1.76	0.50
39:a:82:U:H2'	39:a:83:A:C8	2.47	0.50
39:a:669:G:H3'	39:a:670:A:C8	2.46	0.50
39:a:924:G:C2	39:a:925:A:C8	2.99	0.50
39:a:1047:G:HO2'	39:a:1110:G:H1	1.58	0.50
39:a:1142:A:C4	39:a:1144:A:N7	2.79	0.50
39:a:1858:A:N6	39:a:1884:G:H1'	2.25	0.50
39:a:2212:A:H2'	39:a:2212:A:OP2	2.11	0.50
39:a:2233:U:H2'	39:a:2234:G:H8	1.76	0.50
39:a:2253:G:C5	39:a:2254:C:C5	2.99	0.50
39:a:2814:A:C2	39:a:2815:C:C6	2.99	0.50
39:a:2850:A:H3'	39:a:2851:A:H8	1.75	0.50
46:h:147:LYS:HD2	46:h:150:LYS:HD2	1.93	0.50
48:j:48:ILE:CG2	48:j:49:GLN:N	2.74	0.50
52:n:134:GLU:N	52:n:134:GLU:OE1	2.44	0.50
58:t:41:ILE:HD11	58:t:86:LEU:HD11	1.92	0.50
61:w:56:LYS:HZ2	61:w:88:ALA:HA	1.77	0.50
4:3:18:ASP:OD2	4:3:21:LYS:HB3	2.12	0.50
4:3:86:ARG:CZ	4:3:95:PHE:CD2	2.94	0.50
6:5:101:DT:H72	14:AE:271:ARG:CZ	2.41	0.50
12:AB:71:VAL:HG12	12:AB:73:MET:HB2	1.93	0.50
16:D:152:A:C8	16:D:153:C:C5	3.00	0.50
16:D:339:C:H2'	16:D:340:U:C6	2.44	0.50
16:D:588:G:C6	16:D:589:U:C4	3.00	0.50
16:D:599:C:C2	16:D:600:A:C8	2.99	0.50
16:D:662:U:H2'	16:D:663:A:C8	2.46	0.50
16:D:960:U:O2'	16:D:1223:C:H4'	2.12	0.50
16:D:1256:A:O2'	16:D:1278:G:O6	2.24	0.50
24:L:3:HIS:N	24:L:65:GLU:OE1	2.43	0.50
25:M:30:LEU:HD21	25:M:105:VAL:HG22	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:R:66:TYR:CG	30:R:67:ILE:N	2.80	0.50
34:V:15:ASP:CG	34:V:55:ILE:HG23	2.37	0.50
37:Y:109:ALA:HB2	37:Y:128:ILE:HG13	1.92	0.50
39:a:38:A:H4'	50:l:45:ALA:HB3	1.92	0.50
39:a:269:C:C2	39:a:270:A:C8	2.99	0.50
39:a:301:G:O4'	39:a:317:G:N2	2.44	0.50
39:a:614:A:O2'	39:a:615:U:OP2	2.29	0.50
39:a:1038:G:H2'	39:a:1039:A:C8	2.47	0.50
39:a:1575:C:H2'	39:a:1576:U:O4'	2.11	0.50
39:a:1818:U:H2'	46:h:156:ARG:HE	1.76	0.50
39:a:1842:G:H3'	39:a:1843:C:C6	2.47	0.50
39:a:2205:A:H2'	39:a:2206:C:H6	1.75	0.50
39:a:2584:U:H3'	39:a:2585:U:H5''	1.93	0.50
39:a:2689:U:O4'	39:a:2713:U:C2	2.64	0.50
39:a:2835:A:N6	39:a:2879:A:O5'	2.45	0.50
39:a:2837:A:C4	39:a:2838:G:C8	2.99	0.50
39:a:2847:U:H2'	39:a:2848:G:O4'	2.11	0.50
45:g:4:ASP:OD1	45:g:5:ILE:N	2.44	0.50
48:j:138:LEU:HD12	48:j:138:LEU:N	2.27	0.50
52:n:34:ILE:HD11	52:n:91:LEU:HD22	1.94	0.50
52:n:163:ASP:OD1	52:n:164:GLU:N	2.44	0.50
54:p:155:GLU:CG	54:p:156:PRO:HD2	2.41	0.50
60:v:33:LEU:HB2	60:v:117:PHE:CD1	2.46	0.50
3:2:57:VAL:HG22	3:2:58:VAL:N	2.26	0.50
5:4:49:ASN:O	5:4:52:ALA:HB3	2.10	0.50
8:7:8:A:N3	8:7:8:A:C2'	2.73	0.50
10:A:36:U:C5	10:A:37:A:N7	2.80	0.50
11:AA:1032:LYS:HZ1	11:AA:1036:ILE:HD11	1.76	0.50
14:AE:99:ARG:HG3	14:AE:99:ARG:HH11	1.74	0.50
16:D:32:A:H2'	16:D:33:A:C8	2.46	0.50
16:D:778:G:H2'	16:D:779:C:C6	2.46	0.50
16:D:860:A:H2'	16:D:861:G:O4'	2.12	0.50
16:D:978:A:N7	16:D:1318:A:N6	2.59	0.50
39:a:247:G:H4'	39:a:386:G:C5	2.47	0.50
39:a:441:U:O2'	50:l:41:GLN:NE2	2.42	0.50
39:a:751:A:C4	39:a:789:A:C2	3.00	0.50
39:a:824:U:O2'	39:a:2358:A:N7	2.40	0.50
39:a:984:A:N3	39:a:984:A:H2'	2.26	0.50
39:a:1285:A:C6	39:a:1329:U:C5	3.00	0.50
39:a:1349:C:N3	39:a:1350:C:C5	2.80	0.50
39:a:1527:G:H3'	39:a:1543:G:N2	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1707:G:H1'	39:a:1756:G:N3	2.27	0.50
39:a:1812:U:O4'	46:h:45:ASN:ND2	2.44	0.50
39:a:1863:G:C2'	39:a:1864:U:O5'	2.60	0.50
39:a:1869:G:N1	39:a:1873:G:C6	2.79	0.50
39:a:1883:U:H2'	39:a:1884:G:O4'	2.11	0.50
39:a:2046:G:H1'	47:i:19:HIS:NE2	2.26	0.50
39:a:2773:C:H2'	39:a:2774:C:C6	2.47	0.50
39:a:2848:G:O2'	39:a:2867:G:C2	2.63	0.50
48:j:84:LEU:HD22	48:j:84:LEU:N	2.26	0.50
52:n:14:LYS:CD	52:n:14:LYS:N	2.75	0.50
52:n:34:ILE:HG13	52:n:91:LEU:HB2	1.92	0.50
60:v:41:LEU:HB3	60:v:46:ILE:CD1	2.40	0.50
9:9:11:ILE:O	9:9:14:GLU:HG3	2.12	0.50
14:AE:683:ILE:HD12	14:AE:754:ILE:HG21	1.93	0.50
16:D:469:C:C2	16:D:470:C:C6	3.00	0.50
16:D:1347:G:O2'	16:D:1348:U:P	2.69	0.50
16:D:1442:G:N2	16:D:1461:G:H1'	2.26	0.50
19:G:210:VAL:O	19:G:214:LEU:HG	2.12	0.50
25:M:90:GLU:OE1	25:M:96:ARG:NH2	2.45	0.50
32:T:3:LEU:HB2	32:T:35:GLN:OE1	2.10	0.50
39:a:301:G:C4	39:a:302:C:C5	2.99	0.50
39:a:372:G:OP2	41:c:62:LYS:NZ	2.45	0.50
39:a:414:C:H2'	39:a:415:A:H8	1.77	0.50
39:a:593:U:C2	39:a:594:U:C5	3.00	0.50
39:a:721:A:H2'	39:a:722:A:H8	1.75	0.50
39:a:1124:G:O2'	39:a:1125:G:H5'	2.11	0.50
39:a:1279:G:C6	39:a:1292:G:C6	2.99	0.50
39:a:1295:C:C2	39:a:1296:G:C8	2.99	0.50
39:a:1310:G:H3'	39:a:1311:G:C8	2.46	0.50
39:a:1560:G:C5	39:a:1561:C:C5	3.00	0.50
39:a:1608:A:C8	39:a:1611:C:N4	2.80	0.50
39:a:1637:A:O2'	39:a:1638:C:H5'	2.12	0.50
39:a:1853:A:H2'	39:a:1854:A:C8	2.47	0.50
39:a:1997:C:P	48:j:129:THR:OG1	2.69	0.50
39:a:2772:C:H2'	39:a:2773:C:H6	1.76	0.50
39:a:2880:C:O2'	61:w:93:GLY:HA3	2.10	0.50
48:j:201:LEU:HG	48:j:202:ILE:N	2.25	0.50
54:p:155:GLU:HG3	54:p:156:PRO:HD2	1.93	0.50
56:r:108:VAL:HG12	56:r:109:GLU:N	2.27	0.50
62:x:47:VAL:HG22	62:x:48:LEU:N	2.27	0.50
2:1:106:VAL:HG12	2:1:107:VAL:N	2.27	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:46:LYS:O	5:4:50:MET:HG3	2.12	0.50
9:9:87:GLU:CG	9:9:95:LEU:HD22	2.38	0.50
10:A:12:G:H2'	10:A:13:C:OP1	2.12	0.50
11:AA:125:GLY:HA2	11:AA:499:SER:HB2	1.94	0.50
13:AC:71:LYS:NZ	13:AC:140:ILE:HB	2.27	0.50
16:D:151:A:N7	16:D:170:U:O2	2.45	0.50
16:D:264:C:H4'	34:V:65:ARG:NH1	2.27	0.50
16:D:1119:C:P	27:O:11:ARG:NH2	2.84	0.50
16:D:1257:A:H2	31:S:57:PRO:HB3	1.77	0.50
16:D:1465:A:H2'	16:D:1466:C:C6	2.46	0.50
19:G:22:TYR:O	19:G:190:ASN:CB	2.59	0.50
20:H:132:PRO:N	20:H:167:VAL:CB	2.75	0.50
30:R:85:GLY:O	30:R:96:HIS:ND1	2.45	0.50
35:W:40:ILE:HD12	35:W:66:MET:O	2.12	0.50
36:X:75:MET:HA	36:X:75:MET:HE3	1.92	0.50
39:a:30:G:H2'	39:a:31:C:H6	1.75	0.50
39:a:184:C:O2'	39:a:217:A:N3	2.44	0.50
39:a:191:A:H2'	39:a:192:C:O4'	2.11	0.50
39:a:569:U:C1'	39:a:983:A:H61	2.25	0.50
39:a:599:A:O2'	39:a:600:G:H5'	2.11	0.50
39:a:672:C:H2'	39:a:673:C:H6	1.77	0.50
39:a:686:U:O4'	51:m:11:LYS:HD2	2.11	0.50
39:a:763:G:C6	39:a:765:C:C4	3.00	0.50
39:a:1343:G:C2	39:a:1344:U:C4	3.00	0.50
39:a:1470:A:H3'	39:a:1471:G:H8	1.77	0.50
39:a:1659:G:O2'	39:a:1660:G:O5'	2.29	0.50
39:a:1790:C:O3'	39:a:1791:A:C8	2.65	0.50
39:a:1854:A:OP2	39:a:1888:G:N2	2.45	0.50
39:a:1863:G:O2'	39:a:1864:U:O5'	2.25	0.50
39:a:2350:C:OP2	53:o:42:ARG:HG3	2.12	0.50
39:a:2378:A:C5	39:a:2379:G:H1'	2.46	0.50
42:d:71:C:C2	42:d:72:G:C8	2.99	0.50
52:n:89:VAL:HG12	52:n:91:LEU:HD12	1.94	0.50
63:y:78:SER:OG	63:y:80:VAL:HG12	2.12	0.50
4:3:43:LYS:HG2	4:3:60:GLU:HG3	1.94	0.50
4:3:99:ASN:C	4:3:99:ASN:OD1	2.55	0.50
9:9:17:GLU:O	9:9:21:GLY:HA3	2.12	0.50
10:A:54:U:H3	10:A:58:A:N6	2.10	0.50
11:AA:1070:HIS:NE2	11:AA:1114:GLU:OE1	2.36	0.50
10:B:12:G:H2'	10:B:13:C:OP1	2.11	0.50
10:B:36:U:C5	10:B:37:A:N7	2.80	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:312:C:H2'	16:D:313:A:C8	2.47	0.50
16:D:803:G:H2'	16:D:804:U:C6	2.47	0.50
16:D:830:G:H2'	16:D:831:A:O4'	2.12	0.50
16:D:912:C:H2'	16:D:913:A:C8	2.47	0.50
16:D:1005:A:H3'	16:D:1006:G:H8	1.77	0.50
16:D:1130:A:C8	16:D:1146:A:C6	3.00	0.50
16:D:1138:G:C8	16:D:1140:C:O4'	2.64	0.50
16:D:1192:C:OP1	21:I:4:LYS:CE	2.58	0.50
22:J:61:VAL:HG21	22:J:200:ILE:CD1	2.35	0.50
24:L:97:THR:O	24:L:97:THR:HG22	2.11	0.50
26:N:95:VAL:O	26:N:96:MET:HB2	2.10	0.50
39:a:393:C:N3	39:a:394:C:C5	2.80	0.50
39:a:669:G:N2	39:a:670:A:C2	2.80	0.50
39:a:825:A:O4'	39:a:2358:A:N6	2.45	0.50
39:a:866:A:H61	39:a:913:U:C1'	2.25	0.50
39:a:957:C:C2	39:a:959:A:C8	2.99	0.50
39:a:1316:U:O4'	39:a:1392:A:C2	2.65	0.50
39:a:1334:G:C6	39:a:1335:C:C4	2.99	0.50
39:a:1797:G:H2'	39:a:1798:U:C6	2.47	0.50
39:a:1851:U:H2'	39:a:1852:U:O4'	2.12	0.50
39:a:1932:A:H3'	39:a:1933:G:H8	1.76	0.50
39:a:1948:G:C6	39:a:1959:G:C6	3.00	0.50
39:a:2193:G:O2'	39:a:2194:U:P	2.70	0.50
39:a:2452:C:H2'	39:a:2453:A:C8	2.46	0.50
39:a:2537:U:C2	39:a:2538:C:C5	3.00	0.50
39:a:2620:C:C2	39:a:2621:G:C8	3.00	0.50
39:a:2620:C:H2'	39:a:2621:G:O4'	2.12	0.50
39:a:2756:U:O4'	39:a:2757:A:C8	2.64	0.50
39:a:2813:A:C4	39:a:2814:A:C8	3.00	0.50
55:q:14:CYS:C	55:q:15:LYS:HD2	2.37	0.50
58:t:61:VAL:O	58:t:84:CYS:HB2	2.12	0.50
1:0:27:ILE:O	1:0:66:HIS:CE1	2.63	0.50
4:3:5:ILE:HD13	4:3:67:VAL:HG12	1.94	0.50
4:3:74:ASN:ND2	4:3:96:PHE:CG	2.79	0.50
10:A:72:A:H2'	10:A:73:A:O4'	2.12	0.50
10:B:35:A:H2'	10:B:36:U:O4'	2.11	0.50
16:D:334:C:H2'	16:D:335:C:H6	1.77	0.50
16:D:340:U:C2	16:D:341:C:C6	2.99	0.50
16:D:573:A:O2'	16:D:574:A:O4'	2.10	0.50
16:D:612:C:O2	16:D:613:C:C5	2.65	0.50
16:D:920:U:H2'	16:D:921:U:C6	2.47	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:938:A:C6	16:D:939:G:C5	2.99	0.50
16:D:964:A:H2	16:D:969:A:N3	2.08	0.50
16:D:1005:A:H5'	16:D:1038:C:H1'	1.93	0.50
16:D:1054:C:OP2	16:D:1196:A:O2'	2.28	0.50
16:D:1432:G:C2	16:D:1467:C:C4	3.00	0.50
23:K:32:SER:HG	23:K:53:ALA:C	2.17	0.50
30:R:3:THR:HG22	30:R:5:ASN:H	1.77	0.50
34:V:65:ARG:HG2	34:V:66:PRO:HD2	1.94	0.50
39:a:231:A:H3'	39:a:232:G:C8	2.47	0.50
39:a:569:U:H1'	39:a:983:A:H61	1.76	0.50
39:a:1039:A:H2'	39:a:1040:A:O4'	2.12	0.50
39:a:1223:G:C2	39:a:1226:A:OP2	2.65	0.50
39:a:1355:G:C6	39:a:1377:G:N2	2.79	0.50
39:a:1385:A:C5	39:a:1403:A:C2	3.00	0.50
39:a:1882:U:C2	39:a:1883:U:C5	2.99	0.50
39:a:1954:G:N2	39:a:2551:C:H5''	2.27	0.50
39:a:2361:G:C6	39:a:2362:C:C4	2.99	0.50
39:a:2473:U:OP1	39:a:2475:C:N4	2.38	0.50
39:a:2534:A:C2	39:a:2535:G:H1'	2.47	0.50
39:a:2635:A:O2'	48:j:81:GLU:OE2	2.17	0.50
39:a:2747:G:N2	39:a:2756:U:C6	2.80	0.50
39:a:2839:G:H5'	61:w:46:ARG:HB3	1.94	0.50
39:a:2840:C:O2'	39:a:2841:C:H5'	2.12	0.50
43:e:7:ARG:HE	43:e:56:LEU:HD11	1.77	0.50
52:n:38:MET:SD	52:n:53:ALA:HB1	2.52	0.50
53:o:31:HIS:O	53:o:33:LEU:HG	2.11	0.50
61:w:84:GLY:N	61:w:85:PRO:HD2	2.27	0.50
61:w:95:THR:HG22	61:w:96:ARG:H	1.77	0.50
10:A:69:C:H2'	10:A:70:G:O4'	2.12	0.49
11:AA:728:ASP:HA	11:AA:731:ARG:O	2.12	0.49
11:AA:1252:SER:HA	11:AA:1259:LEU:HD11	1.93	0.49
16:D:109:A:H2'	16:D:326:G:N2	2.27	0.49
16:D:306:A:C5	16:D:307:C:C5	3.00	0.49
16:D:362:G:N2	16:D:364:A:H3'	2.28	0.49
16:D:615:G:C6	16:D:626:G:C6	3.00	0.49
16:D:643:C:H2'	16:D:644:U:C6	2.47	0.49
16:D:900:A:H2'	16:D:901:A:C8	2.47	0.49
16:D:1124:G:O6	16:D:1150:A:N6	2.45	0.49
21:I:37:PHE:CD2	31:S:66:GLN:CD	2.90	0.49
25:M:99:LEU:HD11	25:M:103:TRP:CE2	2.47	0.49
39:a:236:C:C2	39:a:237:C:C5	3.00	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:242:G:O2'	39:a:243:U:P	2.69	0.49
39:a:446:G:OP1	64:z:3:ARG:HD3	2.11	0.49
39:a:510:C:H2'	39:a:511:U:O4'	2.12	0.49
39:a:569:U:C2'	39:a:983:A:H61	2.25	0.49
39:a:615:U:C4	50:l:35:TYR:CZ	3.00	0.49
39:a:675:A:H4'	50:l:62:GLN:NE2	2.27	0.49
39:a:750:A:H2'	39:a:751:A:H5''	1.94	0.49
39:a:1169:A:C5	39:a:1170:C:C5	3.00	0.49
39:a:1515:A:H3'	39:a:1516:G:H8	1.77	0.49
39:a:1549:A:O2'	39:a:1550:C:H5'	2.11	0.49
39:a:1857:G:C2	39:a:1884:G:C2	3.00	0.49
39:a:1986:C:C2	39:a:1987:A:C8	2.98	0.49
42:d:46:A:H5''	62:x:3:LYS:HE3	1.94	0.49
46:h:76:ALA:HB2	46:h:96:TYR:HD2	1.75	0.49
46:h:94:VAL:HG22	46:h:102:ARG:O	2.12	0.49
46:h:240:PHE:CG	46:h:240:PHE:O	2.64	0.49
48:j:121:THR:HG22	48:j:161:MET:HA	1.94	0.49
50:l:108:ILE:HG13	50:l:109:LEU:N	2.27	0.49
57:s:17:VAL:HG23	57:s:137:PRO:HB2	1.94	0.49
58:t:42:THR:HG22	58:t:57:VAL:HG22	1.93	0.49
64:z:50:ARG:O	64:z:54:LYS:NZ	2.44	0.49
5:4:16:ALA:HA	5:4:19:ARG:NH2	2.27	0.49
9:9:129:LEU:H	9:9:130:PRO:HD3	1.77	0.49
13:AC:158:ARG:NH1	13:AC:158:ARG:CB	2.73	0.49
10:B:69:C:H2'	10:B:70:G:O4'	2.12	0.49
16:D:576:C:H2'	16:D:578:C:OP2	2.12	0.49
16:D:617:G:C2	16:D:624:C:C2	3.00	0.49
16:D:737:C:C2	16:D:738:C:C5	3.00	0.49
16:D:1433:A:H3'	16:D:1434:A:C8	2.47	0.49
16:D:1450:U:O2'	16:D:1453:G:O6	2.16	0.49
17:E:44:LYS:O	17:E:48:GLN:OE1	2.30	0.49
19:G:126:PHE:CE2	19:G:129:LEU:HD23	2.47	0.49
20:H:117:LYS:CB	20:H:278:THR:CG2	2.90	0.49
33:U:22:ALA:HB2	33:U:32:PHE:HA	1.94	0.49
33:U:80:LYS:N	33:U:80:LYS:HD2	2.27	0.49
35:W:65:GLU:O	45:g:56:ARG:NH2	2.42	0.49
37:Y:48:ILE:O	37:Y:49:GLU:HB2	2.11	0.49
37:Y:139:VAL:CG1	37:Y:141:ASP:HB2	2.42	0.49
39:a:820:A:H4'	39:a:836:G:H22	1.77	0.49
39:a:1145:C:N3	39:a:1146:C:C5	2.80	0.49
39:a:1410:G:N2	39:a:1411:U:H1'	2.27	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1613:G:H1	39:a:1617:C:HO2'	1.60	0.49
39:a:1864:U:H2'	39:a:1865:U:C6	2.46	0.49
39:a:1953:A:C2	39:a:2549:G:N3	2.80	0.49
39:a:2079:U:H2'	39:a:2080:A:O4'	2.12	0.49
39:a:2216:G:C4	39:a:2217:G:C8	3.00	0.49
39:a:2297:A:C6	39:a:2321:U:O4	2.66	0.49
39:a:2708:G:O2'	39:a:2709:G:H5'	2.12	0.49
40:b:75:LYS:HD3	40:b:77:ARG:HE	1.76	0.49
42:d:78:A:H2'	42:d:79:G:O4'	2.13	0.49
52:n:54:ALA:HB1	52:n:65:PRO:HG2	1.94	0.49
55:q:25:VAL:HB	55:q:35:GLN:HB2	1.92	0.49
56:r:100:ALA:HB2	56:r:112:LYS:HA	1.94	0.49
11:AA:689:ALA:HB2	11:AA:1233:LEU:HD23	1.92	0.49
11:AA:1013:GLN:N	11:AA:1013:GLN:NE2	2.60	0.49
14:AE:802:ASP:OD1	14:AE:1348:LYS:NZ	2.31	0.49
15:C:33:ILE:O	20:H:338:GLU:OE2	2.27	0.49
16:D:6:G:O2'	16:D:7:A:O5'	2.31	0.49
16:D:138:G:C6	16:D:226:G:C5	3.00	0.49
16:D:609:A:C5	16:D:610:U:C6	3.00	0.49
16:D:824:G:C2	16:D:825:A:C8	3.01	0.49
16:D:1046:A:H2'	16:D:1047:G:H5'	1.93	0.49
16:D:1378:C:C5	16:D:1379:G:C8	2.99	0.49
16:D:1404:C:C2	16:D:1499:A:N6	2.80	0.49
19:G:87:CYS:HB3	19:G:222:ARG:HG3	1.94	0.49
26:N:32:LEU:H	26:N:32:LEU:HD12	1.76	0.49
39:a:464:U:O5'	39:a:464:U:H6	1.95	0.49
39:a:502:A:C6	39:a:505:A:C6	3.00	0.49
39:a:779:U:P	46:h:48:ARG:NH1	2.84	0.49
39:a:1065:U:O2'	39:a:1066:U:P	2.69	0.49
39:a:1141:U:H4'	39:a:1142:A:O4'	2.13	0.49
39:a:1266:G:O2'	39:a:2012:G:O6	2.25	0.49
39:a:1372:U:C2	39:a:1373:A:C8	3.00	0.49
39:a:2210:U:C2	39:a:2212:A:C8	3.00	0.49
39:a:2297:A:C2	39:a:2320:U:O4'	2.65	0.49
39:a:2569:G:C2	39:a:2570:G:C8	3.01	0.49
39:a:2595:G:N1	39:a:2599:G:C6	2.80	0.49
39:a:2684:U:C4	39:a:2685:G:N7	2.80	0.49
57:s:7:LYS:CG	57:s:8:PRO:HD2	2.42	0.49
58:t:23:LYS:O	58:t:39:ILE:HB	2.12	0.49
9:9:17:GLU:HB3	9:9:86:MET:CG	2.40	0.49
9:9:23:LEU:HA	9:9:118:ILE:HG13	1.95	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:529:ARG:HH22	11:AA:687:ARG:NH1	2.11	0.49
14:AE:220:ARG:HG2	14:AE:220:ARG:NH1	2.26	0.49
14:AE:437:PHE:HZ	14:AE:453:VAL:HG11	1.76	0.49
16:D:207:C:H2'	16:D:208:U:C6	2.48	0.49
16:D:340:U:N3	16:D:341:C:C5	2.80	0.49
16:D:1147:C:O2	27:O:18:ARG:NH2	2.46	0.49
16:D:1190:G:O2'	21:I:3:GLN:HB3	2.12	0.49
16:D:1203:C:C2	16:D:1204:A:C8	2.99	0.49
19:G:28:LYS:HE2	19:G:31:ILE:HD12	1.94	0.49
21:I:30:ALA:CB	31:S:78:GLY:N	2.70	0.49
23:K:88:VAL:HG12	23:K:93:ARG:HA	1.94	0.49
25:M:42:ILE:HG23	25:M:117:ALA:HB2	1.93	0.49
39:a:510:C:C2'	39:a:511:U:H5'	2.41	0.49
39:a:531:C:C2	39:a:2019:A:C2	3.00	0.49
39:a:538:A:N6	39:a:555:G:H1'	2.28	0.49
39:a:600:G:H2'	39:a:601:C:O4'	2.11	0.49
39:a:646:U:H3'	39:a:647:G:C5'	2.41	0.49
39:a:776:G:H22	39:a:2072:C:H5'	1.78	0.49
39:a:1116:G:C2	39:a:1117:C:C6	3.00	0.49
39:a:1319:C:O2'	39:a:1320:C:H5'	2.13	0.49
39:a:1439:A:H3'	39:a:1440:U:C6	2.46	0.49
39:a:1450:G:N2	39:a:1452:G:O6	2.44	0.49
39:a:1678:A:H2'	39:a:1679:A:O4'	2.12	0.49
39:a:1906:G:N7	39:a:1929:G:C2	2.80	0.49
39:a:2051:A:N6	39:a:2614:A:O2'	2.34	0.49
39:a:2305:U:O2'	39:a:2306:C:H5'	2.12	0.49
39:a:2627:G:C6	39:a:2777:G:C6	3.00	0.49
39:a:2636:C:H4'	48:j:81:GLU:OE1	2.12	0.49
39:a:2885:G:H2'	39:a:2886:A:O5'	2.12	0.49
52:n:8:TYR:O	52:n:13:VAL:HG23	2.12	0.49
53:o:23:LYS:CG	53:o:47:LYS:HB3	2.43	0.49
9:9:16:SER:HB3	9:9:20:LYS:HZ2	1.78	0.49
9:9:68:PRO:O	9:9:72:LEU:HD21	2.13	0.49
10:A:19:G:N1	39:a:2112:G:O4'	2.46	0.49
11:AA:632:ASP:HA	11:AA:647:ARG:HB2	1.94	0.49
11:AA:1008:GLN:C	11:AA:1010:GLN:N	2.70	0.49
11:AA:1069:ARG:NH2	11:AA:1114:GLU:OE2	2.30	0.49
13:AD:20:SER:OG	13:AD:21:SER:N	2.46	0.49
14:AE:421:VAL:O	14:AE:436:ALA:HA	2.11	0.49
10:B:54:U:H3	10:B:58:A:N6	2.10	0.49
16:D:453:G:O6	16:D:479:U:C4	2.65	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:936:C:O2'	16:D:1382:C:N3	2.41	0.49
16:D:1162:C:N3	16:D:1175:G:C6	2.80	0.49
16:D:1315:U:O2	16:D:1360:A:H2	1.95	0.49
19:G:104:TRP:O	19:G:105:LYS:C	2.55	0.49
24:L:40:GLU:CD	24:L:103:VAL:HG21	2.38	0.49
28:P:66:GLU:HB3	31:S:99:ALA:HB3	1.88	0.49
35:W:33:THR:O	35:W:57:HIS:CE1	2.64	0.49
39:a:24:G:H2'	39:a:25:U:C6	2.48	0.49
39:a:208:C:H2'	39:a:209:C:C6	2.48	0.49
39:a:214:G:H2'	39:a:215:G:C8	2.48	0.49
39:a:217:A:C4	39:a:218:A:C8	3.00	0.49
39:a:272:A:C2	39:a:273:G:C8	3.00	0.49
39:a:656:G:O2'	39:a:657:U:H5'	2.12	0.49
39:a:755:U:C2	39:a:756:A:C8	3.00	0.49
39:a:794:A:H2'	39:a:795:C:C6	2.47	0.49
39:a:812:C:O2'	39:a:813:U:H5'	2.12	0.49
39:a:1005:C:C2	39:a:1006:C:C5	3.01	0.49
39:a:1362:C:C2	39:a:1363:C:C6	3.01	0.49
46:h:108:LYS:N	46:h:194:GLU:O	2.45	0.49
48:j:166:GLY:O	48:j:168:GLU:OE2	2.31	0.49
50:l:83:VAL:HG12	50:l:85:PHE:H	1.77	0.49
54:p:125:CYS:O	54:p:125:CYS:SG	2.70	0.49
58:t:99:ILE:HG22	58:t:100:PHE:N	2.26	0.49
59:u:82:LEU:HD23	59:u:82:LEU:C	2.37	0.49
64:z:68:ALA:HB1	64:z:106:PHE:CE2	2.47	0.49
2:1:4:ILE:HD13	2:1:106:VAL:HG22	1.95	0.49
6:5:98:DA:N9	6:5:99:DT:H72	2.27	0.49
11:AA:232:ILE:HD12	11:AA:331:LYS:HA	1.94	0.49
13:AC:71:LYS:NZ	13:AC:140:ILE:CG1	2.76	0.49
14:AE:800:LEU:HB3	14:AE:920:ALA:HB1	1.95	0.49
16:D:35:G:H2'	16:D:36:C:C6	2.47	0.49
16:D:76:G:N3	16:D:76:G:H2'	2.28	0.49
16:D:100:G:C6	16:D:101:A:C5	3.00	0.49
16:D:147:G:H2'	16:D:148:G:C8	2.48	0.49
16:D:207:C:O2'	16:D:208:U:O5'	2.27	0.49
16:D:292:G:N2	16:D:309:A:C4	2.81	0.49
16:D:322:C:H5''	17:E:18:ARG:NH2	2.27	0.49
16:D:519:C:H2'	16:D:520:A:O4'	2.12	0.49
16:D:600:A:C4	16:D:639:G:N2	2.81	0.49
16:D:616:G:O2'	16:D:617:G:H5'	2.13	0.49
16:D:727:G:N2	16:D:730:G:OP2	2.45	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1130:A:C4	16:D:1131:G:C8	3.01	0.49
16:D:1328:C:H4'	36:X:29:ARG:HH12	1.77	0.49
18:F:55:ARG:HD3	18:F:56:HIS:N	2.28	0.49
19:G:151:ILE:O	19:G:152:LYS:C	2.54	0.49
20:H:43:LYS:CE	20:H:76:GLU:OE1	2.60	0.49
29:Q:88:GLY:H	29:Q:114:THR:HG22	1.78	0.49
33:U:34:GLU:OE1	33:U:36:VAL:CG1	2.60	0.49
37:Y:85:ILE:H	37:Y:85:ILE:HD12	1.76	0.49
39:a:463:G:H2'	39:a:465:G:N7	2.27	0.49
39:a:468:G:C4	39:a:469:G:C8	3.00	0.49
39:a:598:U:H2'	39:a:599:A:C8	2.48	0.49
39:a:966:G:H1'	39:a:2267:A:H62	1.76	0.49
39:a:1014:A:C6	39:a:1149:G:C6	3.01	0.49
39:a:1695:G:N2	39:a:1696:G:C8	2.81	0.49
39:a:1936:A:C8	39:a:1945:G:N7	2.81	0.49
39:a:2183:A:H2'	39:a:2184:A:C8	2.48	0.49
39:a:2390:U:O5'	53:o:35:LYS:HE2	2.12	0.49
39:a:2458:G:H21	39:a:2459:A:H61	1.61	0.49
39:a:2469:A:C6	39:a:2482:A:C8	3.01	0.49
39:a:2809:A:OP2	39:a:2890:G:N1	2.31	0.49
48:j:33:ARG:HD3	48:j:73:VAL:CG2	2.42	0.49
50:l:111:GLU:HA	50:l:114:ARG:NH1	2.27	0.49
59:u:98:ALA:HB3	59:u:100:ILE:HG12	1.95	0.49
61:w:36:THR:HG22	61:w:37:THR:N	2.26	0.49
62:x:52:SER:OG	62:x:53:THR:N	2.46	0.49
63:y:51:ARG:HE	63:y:53:ARG:HG3	1.78	0.49
2:1:29:VAL:HG23	2:1:30:SER:N	2.28	0.49
3:2:75:GLY:HA3	39:a:64:A:H4'	1.94	0.49
4:3:55:PRO:HB2	39:a:498:G:O5'	2.12	0.49
9:9:43:LYS:HD3	9:9:98:GLU:HB3	1.93	0.49
9:9:73:LYS:NZ	9:9:117:LEU:HG	2.28	0.49
10:A:52:G:C4	10:A:53:G:C8	3.01	0.49
14:AE:24:LEU:CB	14:AE:232:ASN:OD1	2.54	0.49
14:AE:114:ILE:HG12	14:AE:311:ARG:HD2	1.95	0.49
14:AE:275:ARG:HH12	14:AE:278:ARG:NH1	2.09	0.49
14:AE:395:LYS:NZ	14:AE:399:LYS:CD	2.74	0.49
10:B:18:G:C5	10:B:57:A:N6	2.81	0.49
10:B:52:G:C4	10:B:53:G:C8	3.01	0.49
16:D:617:G:N1	16:D:624:C:N3	2.59	0.49
16:D:715:A:H2'	16:D:716:A:C8	2.47	0.49
16:D:727:G:N1	16:D:730:G:OP2	2.36	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1229:A:H2'	16:D:1230:C:C6	2.47	0.49
16:D:1366:C:H2'	16:D:1367:C:H6	1.77	0.49
16:D:1381:U:C2	16:D:1382:C:C6	3.01	0.49
17:E:24:ARG:HA	17:E:24:ARG:NH1	2.28	0.49
26:N:47:GLU:HG3	26:N:62:THR:OG1	2.12	0.49
27:O:46:MET:O	27:O:50:GLN:HG2	2.12	0.49
28:P:66:GLU:OE2	31:S:99:ALA:CB	2.60	0.49
39:a:367:G:C6	39:a:368:A:C5	3.01	0.49
39:a:413:C:H2'	39:a:414:C:H6	1.78	0.49
39:a:444:C:O2'	39:a:445:C:H5'	2.13	0.49
39:a:478:A:N6	39:a:480:A:C6	2.81	0.49
39:a:651:G:C6	39:a:652:U:C4	3.00	0.49
39:a:765:C:H2'	39:a:766:U:H6	1.78	0.49
39:a:858:G:N3	39:a:2268:A:N3	2.61	0.49
39:a:1028:A:H2'	39:a:1029:A:C8	2.48	0.49
39:a:1301:A:C8	39:a:1303:G:C8	3.01	0.49
39:a:1529:G:C2	39:a:1530:G:C8	3.00	0.49
39:a:1707:G:C8	39:a:1756:G:C5	3.00	0.49
39:a:1859:U:H2'	39:a:1860:G:O4'	2.13	0.49
39:a:2086:U:H2'	39:a:2087:G:C8	2.48	0.49
39:a:2135:A:N6	39:a:2156:G:O2'	2.45	0.49
39:a:2270:A:C4	39:a:2271:G:C8	3.01	0.49
39:a:2600:A:H2'	39:a:2601:C:C6	2.48	0.49
39:a:2658:C:N4	39:a:2664:G:N2	2.61	0.49
39:a:2854:G:C6	39:a:2864:G:C6	3.00	0.49
39:a:2889:C:H2'	39:a:2890:G:O4'	2.13	0.49
42:d:60:C:C2	42:d:61:G:C8	3.01	0.49
48:j:47:ALA:HA	48:j:84:LEU:HD23	1.93	0.49
2:1:81:SER:OG	2:1:98:LYS:C	2.54	0.49
9:9:26:VAL:HB	9:9:82:ILE:HD12	1.95	0.49
9:9:60:LEU:HA	9:9:64:VAL:CG2	2.43	0.49
10:A:35:A:H2'	10:A:36:U:O4'	2.12	0.49
14:AE:749:LYS:HB3	14:AE:755:ILE:HD11	1.94	0.49
16:D:39:G:O2'	16:D:40:C:H5'	2.12	0.49
16:D:339:C:C2	16:D:340:U:C5	3.00	0.49
16:D:597:G:C4	16:D:598:U:C6	3.00	0.49
16:D:705:G:C5	16:D:706:A:C8	3.01	0.49
16:D:983:A:H1'	16:D:1049:U:O2	2.12	0.49
16:D:1323:G:H2'	16:D:1324:A:H8	1.77	0.49
24:L:2:ARG:HB2	24:L:4:TYR:CE2	2.48	0.49
26:N:95:VAL:CG2	26:N:102:ALA:HB2	2.43	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:Y:79:LEU:HD11	37:Y:132:ALA:CA	2.40	0.49
39:a:176:A:H2'	39:a:177:G:N3	2.28	0.49
39:a:208:C:H2'	39:a:209:C:H6	1.78	0.49
39:a:631:A:O2'	39:a:632:A:H5'	2.13	0.49
39:a:675:A:C6	39:a:676:A:C6	3.01	0.49
39:a:770:G:H5''	51:m:10:LEU:HD23	1.95	0.49
39:a:1391:U:O2'	39:a:1393:A:N7	2.40	0.49
39:a:1571:A:H2'	39:a:1572:A:O4'	2.13	0.49
39:a:1662:U:O2'	39:a:2687:U:OP1	2.28	0.49
39:a:1682:G:OP1	39:a:1699:G:N1	2.46	0.49
39:a:1952:A:C5	58:t:22:ILE:HD11	2.48	0.49
39:a:1987:A:C2	39:a:1988:G:C8	3.00	0.49
39:a:2180:U:C4	39:a:2181:U:C4	3.00	0.49
39:a:2519:U:C6	39:a:2541:A:C6	3.01	0.49
39:a:2822:G:OP1	48:j:117:GLY:HA2	2.13	0.49
42:d:39:A:C2	42:d:44:G:C2	3.01	0.49
42:d:48:U:H2'	42:d:49:C:C6	2.48	0.49
57:s:55:ILE:HD13	57:s:123:LYS:HB2	1.94	0.49
61:w:55:ALA:HA	61:w:80:PHE:CE2	2.48	0.49
10:A:18:G:C5	10:A:57:A:N6	2.81	0.49
11:AA:24:VAL:HG22	11:AA:578:TYR:HE1	1.78	0.49
14:AE:550:VAL:O	14:AE:569:LEU:HA	2.13	0.49
14:AE:972:LYS:HD2	14:AE:1004:ALA:HA	1.93	0.49
14:AE:1371:ARG:HE	14:AE:1372:ARG:NH1	2.10	0.49
10:B:48:C:C2'	10:B:49:G:OP2	2.61	0.49
16:D:46:G:C6	16:D:366:A:C2	3.01	0.49
16:D:142:G:N2	16:D:222:C:C2	2.81	0.49
16:D:459:A:C6	16:D:474:G:C6	3.00	0.49
16:D:631:C:H3'	16:D:632:U:H5'	1.95	0.49
16:D:1307:U:H2'	16:D:1308:U:C6	2.47	0.49
16:D:1446:A:N1	16:D:1447:A:C5	2.81	0.49
18:F:25:LYS:HZ3	20:H:336:ASP:HA	1.70	0.49
18:F:40:LYS:HE3	18:F:41:PRO:HD2	1.93	0.49
18:F:55:ARG:HA	18:F:58:LYS:NZ	2.28	0.49
19:G:126:PHE:CD2	19:G:126:PHE:O	2.66	0.49
27:O:101:ALA:HB1	27:O:103:PHE:CE2	2.48	0.49
28:P:6:ILE:CG2	28:P:100:ILE:HG23	2.43	0.49
28:P:66:GLU:OE2	31:S:99:ALA:HB1	2.11	0.49
39:a:210:C:O2'	39:a:211:C:H5'	2.13	0.49
39:a:226:A:H1'	39:a:230:G:H22	1.73	0.49
39:a:247:G:H4'	39:a:386:G:C4	2.46	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:272:A:C2'	39:a:273:G:O5'	2.61	0.49
39:a:1175:A:O3'	39:a:1176:U:O4'	2.31	0.49
39:a:1797:G:C6	39:a:1823:G:C6	3.01	0.49
39:a:1827:U:C2	39:a:1828:G:C8	3.01	0.49
39:a:1844:C:N3	39:a:1845:G:N7	2.60	0.49
39:a:1922:G:H2'	39:a:1923:U:H5'	1.94	0.49
39:a:2390:U:O2'	39:a:2391:G:H5'	2.13	0.49
39:a:2487:G:C2	39:a:2488:G:C8	3.01	0.49
39:a:2529:G:H5''	39:a:2530:A:H5''	1.95	0.49
39:a:2843:G:H2'	39:a:2844:G:O4'	2.13	0.49
42:d:44:G:N2	42:d:48:U:C2	2.80	0.49
42:d:104:A:H2'	42:d:105:G:O4'	2.12	0.49
45:g:32:LEU:HD12	45:g:33:ASN:N	2.27	0.49
46:h:76:ALA:O	46:h:116:ILE:N	2.38	0.49
48:j:47:ALA:CA	48:j:84:LEU:HD23	2.42	0.49
50:l:138:LEU:CD2	50:l:143:LEU:HD12	2.43	0.49
54:p:127:THR:HG22	54:p:128:GLN:N	2.28	0.49
58:t:41:ILE:HD11	58:t:86:LEU:CD1	2.42	0.49
58:t:116:ILE:HD11	58:t:122:VAL:CG1	2.43	0.49
61:w:29:VAL:HG12	61:w:78:LYS:HD3	1.95	0.49
1:0:37:GLU:HA	1:0:37:GLU:OE1	2.12	0.49
2:1:97:LEU:HB3	2:1:99:ARG:HD2	1.94	0.49
11:AA:1101:LEU:HD21	14:AE:508:LEU:HD22	1.95	0.49
14:AE:220:ARG:HH11	14:AE:220:ARG:CG	2.26	0.49
10:B:52:G:C6	10:B:63:G:O6	2.65	0.49
16:D:42:G:C2	16:D:401:C:C2	3.01	0.49
16:D:303:A:H2'	16:D:304:U:O4'	2.13	0.49
16:D:608:A:C5	16:D:609:A:C8	3.00	0.49
16:D:1408:A:N6	16:D:1494:G:O6	2.46	0.49
18:F:58:LYS:O	18:F:62:ARG:HB3	2.12	0.49
19:G:131:LYS:HG3	19:G:132:LYS:N	2.28	0.49
21:I:33:LEU:CG	31:S:93:ILE:HG12	2.43	0.49
27:O:55:VAL:HG11	27:O:94:LEU:HD13	1.93	0.49
30:R:114:ARG:CZ	30:R:121:ARG:HA	2.43	0.49
31:S:76:LYS:HG3	31:S:77:PHE:CD1	2.48	0.49
33:U:67:ILE:HG22	33:U:68:SER:O	2.13	0.49
34:V:47:HIS:HB2	34:V:67:LEU:HG	1.95	0.49
36:X:75:MET:O	36:X:79:ARG:HB2	2.13	0.49
39:a:462:C:C2'	39:a:463:G:H5'	2.42	0.49
39:a:674:G:OP1	50:l:71:GLY:N	2.46	0.49
39:a:910:A:C8	60:v:13:HIS:CD2	3.01	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:962:G:C6	39:a:963:U:C4	3.01	0.49
39:a:1108:U:H2'	39:a:1109:C:O4'	2.11	0.49
39:a:1214:A:H3'	39:a:1215:G:H8	1.77	0.49
39:a:1319:C:N3	39:a:1334:G:C6	2.81	0.49
39:a:1427:A:H4'	39:a:1428:C:C5'	2.43	0.49
39:a:1840:G:C4	39:a:1841:U:C5	3.01	0.49
39:a:1967:C:H2'	39:a:1968:G:O4'	2.12	0.49
39:a:2347:C:C2	39:a:2348:U:C5	3.01	0.49
39:a:2814:A:C5	39:a:2815:C:C5	3.00	0.49
46:h:14:ARG:NH1	46:h:14:ARG:HB2	2.28	0.49
46:h:52:ARG:HG2	46:h:52:ARG:HH21	1.77	0.49
52:n:34:ILE:CG1	52:n:91:LEU:HB2	2.42	0.49
52:n:77:PHE:O	52:n:79:ILE:HD12	2.12	0.49
56:r:42:LYS:HG3	56:r:46:PHE:CE1	2.48	0.49
61:w:72:ASP:O	61:w:76:VAL:HG23	2.13	0.49
8:7:5:U:H3'	8:7:5:U:H6	1.78	0.48
9:9:129:LEU:N	9:9:130:PRO:CD	2.74	0.48
10:A:36:U:H2'	10:A:37:A:H8	1.78	0.48
11:AA:103:VAL:HG12	11:AA:117:ILE:HG22	1.94	0.48
10:B:36:U:H2'	10:B:37:A:H8	1.78	0.48
10:B:51:C:C4	10:B:52:G:N7	2.81	0.48
16:D:72:A:C4	16:D:73:C:C6	3.01	0.48
16:D:451:A:O4'	16:D:452:A:C8	2.66	0.48
16:D:509:A:H2'	16:D:510:A:C8	2.48	0.48
16:D:790:A:H2'	16:D:791:G:C8	2.48	0.48
16:D:1053:G:O6	16:D:1199:U:H2'	2.13	0.48
16:D:1107:C:H2'	16:D:1108:G:O4'	2.12	0.48
16:D:1131:G:C5	16:D:1132:C:C5	3.01	0.48
16:D:1414:U:H2'	16:D:1415:G:H8	1.77	0.48
17:E:9:LYS:O	17:E:13:GLN:HG3	2.14	0.48
19:G:92:VAL:O	19:G:92:VAL:CG1	2.60	0.48
23:K:15:LEU:HD13	23:K:37:THR:HG22	1.95	0.48
39:a:94:A:H2'	39:a:95:A:C8	2.48	0.48
39:a:199:A:N6	39:a:2434:A:C5	2.81	0.48
39:a:467:G:N1	39:a:468:G:C5	2.80	0.48
39:a:909:A:C8	39:a:912:C:N4	2.81	0.48
39:a:968:C:C2	39:a:969:G:C8	3.01	0.48
39:a:974:G:H1'	39:a:990:A:N6	2.28	0.48
39:a:1166:G:C2	39:a:1167:C:C2	3.01	0.48
39:a:1243:C:H1'	59:u:4:ASN:CB	2.43	0.48
39:a:1270:C:H5''	39:a:1271:G:H5'	1.94	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1427:A:O4'	39:a:1428:C:C6	2.66	0.48
39:a:1573:G:C5	39:a:1574:C:C5	3.01	0.48
39:a:2026:U:C2	39:a:2027:G:C8	3.01	0.48
39:a:2077:A:OP1	39:a:2238:G:N1	2.37	0.48
39:a:2650:U:C2	39:a:2651:C:C5	3.01	0.48
46:h:172:VAL:CA	46:h:183:LYS:HZ1	2.26	0.48
48:j:35:THR:HG22	48:j:36:GLN:HG2	1.94	0.48
48:j:193:VAL:HB	48:j:194:PRO:HD2	1.95	0.48
49:k:6:ARG:HB3	49:k:24:THR:CG2	2.42	0.48
50:l:129:PRO:HB3	50:l:156:ASN:HA	1.95	0.48
57:s:53:TYR:O	57:s:54:ILE:HD13	2.13	0.48
58:t:71:ARG:HB3	58:t:72:PRO:HD2	1.94	0.48
64:z:41:LYS:HG3	64:z:45:TYR:CE1	2.48	0.48
8:7:3:U:C4'	23:K:33:PHE:CZ	2.88	0.48
9:9:33:VAL:CG1	9:9:34:THR:N	2.76	0.48
10:A:52:G:C6	10:A:63:G:O6	2.65	0.48
14:AE:115:TRP:O	14:AE:1333:THR:HG21	2.13	0.48
14:AE:145:VAL:HG12	14:AE:184:ALA:HB1	1.94	0.48
10:B:35:A:H2'	10:B:36:U:N1	2.27	0.48
10:B:65:C:C2	10:B:66:C:C5	3.01	0.48
16:D:21:G:H2'	16:D:22:G:H8	1.77	0.48
16:D:58:C:O2	16:D:58:C:H2'	2.12	0.48
16:D:261:U:C5	17:E:74:ARG:NH2	2.81	0.48
16:D:417:G:C4	16:D:418:C:C5	3.01	0.48
16:D:598:U:H2'	16:D:599:C:C6	2.48	0.48
16:D:721:G:H4'	16:D:722:G:C5'	2.43	0.48
16:D:734:G:C2	16:D:735:C:C6	3.01	0.48
16:D:769:G:H4'	16:D:1513:A:H4'	1.95	0.48
16:D:907:A:H2'	16:D:908:A:O4'	2.13	0.48
16:D:1055:A:C2	16:D:1206:G:N3	2.81	0.48
16:D:1108:G:OP2	21:I:174:PRO:HA	2.12	0.48
16:D:1109:C:OP1	21:I:176:HIS:NE2	2.45	0.48
16:D:1188:A:O2'	21:I:10:ILE:HD11	2.13	0.48
18:F:16:LEU:HD12	18:F:16:LEU:O	2.13	0.48
19:G:133:GLU:OE2	19:G:133:GLU:N	2.36	0.48
20:H:120:PHE:CB	20:H:136:VAL:CB	2.90	0.48
37:Y:11:GLN:HB3	37:Y:53:PRO:HB3	1.94	0.48
39:a:104:A:C4	39:a:105:C:C5	3.01	0.48
39:a:208:C:C2	39:a:209:C:C5	3.02	0.48
39:a:467:G:C2	39:a:468:G:C4	3.01	0.48
39:a:575:A:C2	39:a:576:U:C6	3.01	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:579:G:C4	39:a:580:U:C5	3.01	0.48
39:a:1252:G:O6	64:z:37:GLN:NE2	2.46	0.48
39:a:1430:G:C4	39:a:1431:A:C8	3.01	0.48
39:a:1785:A:N1	39:a:1787:A:H1'	2.28	0.48
39:a:2535:G:N3	39:a:2536:G:C8	2.82	0.48
39:a:2642:G:C5'	57:s:80:HIS:ND1	2.76	0.48
39:a:2692:G:H1'	39:a:2847:U:H1'	1.95	0.48
39:a:2728:U:O2	39:a:2729:G:C8	2.67	0.48
39:a:2826:A:C6	39:a:2827:C:C4	3.01	0.48
42:d:6:G:O6	42:d:115:A:N6	2.46	0.48
43:e:59:GLU:O	43:e:63:ALA:HB3	2.13	0.48
46:h:33:LEU:HB2	46:h:103:TYR:CE2	2.48	0.48
46:h:160:THR:H	46:h:195:VAL:CG1	2.26	0.48
47:i:39:LEU:HG	47:i:40:ARG:N	2.28	0.48
54:p:124:GLU:N	54:p:132:VAL:O	2.35	0.48
57:s:18:VAL:HG22	57:s:55:ILE:O	2.13	0.48
57:s:78:THR:HG22	57:s:85:LYS:HE2	1.95	0.48
58:t:104:THR:OG1	58:t:106:GLU:OE1	2.12	0.48
4:3:40:ASN:OD1	4:3:65:ILE:HB	2.14	0.48
7:6:21:DA:N6	8:7:15:G:N1	2.61	0.48
9:9:51:TYR:CE2	9:9:52:MET:HE2	2.48	0.48
9:9:82:ILE:HG21	9:9:84:TYR:CE1	2.48	0.48
13:AC:102:LEU:HB2	13:AC:115:ILE:HG12	1.95	0.48
16:D:144:G:O2'	16:D:145:G:H5'	2.13	0.48
16:D:206:C:H41	16:D:213:G:H1	1.60	0.48
16:D:263:A:H2'	16:D:264:C:C6	2.48	0.48
16:D:276:G:C2	16:D:277:C:C6	3.02	0.48
16:D:544:G:OP1	22:J:63:ARG:NH2	2.47	0.48
16:D:592:G:H2'	16:D:593:U:O4'	2.14	0.48
16:D:824:G:O6	16:D:877:G:O6	2.31	0.48
16:D:1054:C:OP2	16:D:1197:A:P	2.71	0.48
16:D:1410:A:C5	16:D:1411:C:C5	3.00	0.48
20:H:23:ILE:N	20:H:69:ASP:OD2	2.47	0.48
20:H:318:PRO:HA	20:H:321:VAL:HG12	1.95	0.48
31:S:98:LYS:HZ2	31:S:100:SER:HB3	1.79	0.48
35:W:36:ARG:HB2	35:W:72:GLY:HA2	1.95	0.48
35:W:67:VAL:HG13	35:W:68:GLY:N	2.28	0.48
39:a:53:A:H2'	39:a:54:G:O4'	2.13	0.48
39:a:68:G:C2	39:a:74:A:N3	2.81	0.48
39:a:310:A:N3	39:a:312:G:C8	2.81	0.48
39:a:351:C:H2'	39:a:352:A:C8	2.49	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:413:C:C2	39:a:414:C:C5	3.02	0.48
39:a:639:U:H2'	39:a:640:C:C6	2.47	0.48
39:a:690:G:O2'	39:a:780:G:OP1	2.31	0.48
39:a:704:G:H1'	39:a:727:A:N6	2.28	0.48
39:a:763:G:C2	39:a:765:C:C2	3.01	0.48
39:a:1664:A:C8	39:a:2726:A:N6	2.81	0.48
39:a:1851:U:C4	39:a:1852:U:C4	3.01	0.48
39:a:1970:A:C5	39:a:1972:G:C6	3.01	0.48
39:a:2138:G:H2'	39:a:2139:U:O4'	2.13	0.48
39:a:2355:G:O2'	39:a:2356:U:H5'	2.13	0.48
39:a:2617:U:N3	39:a:2618:G:C8	2.81	0.48
39:a:2720:U:C6	39:a:2872:A:N6	2.82	0.48
40:b:70:GLU:OE1	40:b:70:GLU:N	2.46	0.48
41:c:27:ARG:HB3	41:c:27:ARG:HH11	1.78	0.48
43:e:59:GLU:HA	43:e:63:ALA:CB	2.43	0.48
46:h:58:HIS:ND1	46:h:59:LYS:N	2.61	0.48
50:l:14:VAL:HB	50:l:19:PHE:CD2	2.48	0.48
53:o:26:HIS:HB3	53:o:44:LEU:HD22	1.95	0.48
57:s:41:LYS:NZ	57:s:52:ASP:OD1	2.40	0.48
4:3:56:GLY:O	39:a:498:G:H4'	2.13	0.48
11:AA:991:LYS:N	11:AA:991:LYS:CD	2.73	0.48
14:AE:1261:LEU:HD12	14:AE:1304:ARG:HH21	1.78	0.48
16:D:13:U:O2	16:D:914:A:H5''	2.13	0.48
16:D:102:G:O2'	16:D:151:A:N3	2.45	0.48
16:D:160:A:N1	16:D:343:U:H1'	2.28	0.48
16:D:284:C:H2'	16:D:285:C:H6	1.77	0.48
16:D:356:A:C2'	16:D:368:U:O2'	2.61	0.48
16:D:386:C:O2'	16:D:387:U:H5'	2.13	0.48
16:D:673:A:H2'	16:D:674:G:H8	1.78	0.48
16:D:1147:C:N3	16:D:1148:U:C5	2.81	0.48
16:D:1173:U:C2	16:D:1174:G:C8	3.01	0.48
16:D:1190:G:P	21:I:5:VAL:H	2.27	0.48
16:D:1263:C:C2	16:D:1264:U:C5	3.01	0.48
16:D:1266:G:C2	16:D:1269:A:OP2	2.67	0.48
16:D:1267:C:O2'	16:D:1268:G:H5'	2.14	0.48
16:D:1321:U:H3'	16:D:1322:C:O2	2.13	0.48
16:D:1411:C:C2	16:D:1412:C:C5	3.01	0.48
21:I:37:PHE:CD2	31:S:66:GLN:NE2	2.80	0.48
24:L:39:LEU:HD21	24:L:62:MET:SD	2.53	0.48
26:N:32:LEU:O	26:N:36:ILE:HG13	2.14	0.48
27:O:15:SER:CB	27:O:75:GLN:HA	2.43	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:596:U:H2'	39:a:597:G:C8	2.49	0.48
39:a:608:A:C6	39:a:609:A:C5	3.02	0.48
39:a:637:A:N1	39:a:651:G:O2'	2.39	0.48
39:a:748:G:O6	39:a:751:A:H4'	2.14	0.48
39:a:765:C:C2	39:a:766:U:C6	3.01	0.48
39:a:1000:A:H2'	39:a:1001:A:C8	2.48	0.48
39:a:1208:C:C4	39:a:1209:U:C4	3.01	0.48
39:a:1395:A:C8	39:a:1398:C:N4	2.82	0.48
39:a:1425:G:N2	39:a:1573:G:N7	2.61	0.48
39:a:1525:A:H2'	39:a:1526:C:O4'	2.13	0.48
39:a:1683:U:C2	39:a:1684:G:C8	3.02	0.48
39:a:1800:C:HO2'	39:a:1818:U:H3	1.61	0.48
39:a:1809:A:H2'	39:a:1810:A:C8	2.48	0.48
39:a:2093:G:N7	39:a:2225:A:C2'	2.76	0.48
39:a:2617:U:C2	39:a:2618:G:C8	3.02	0.48
42:d:14:U:H2'	42:d:15:A:H2	1.78	0.48
45:g:28:VAL:HG13	45:g:30:HIS:CE1	2.48	0.48
53:o:6:THR:HG23	53:o:62:LEU:HD23	1.95	0.48
59:u:77:ILE:HD11	59:u:108:ALA:HB1	1.95	0.48
64:z:112:LYS:O	64:z:115:ALA:N	2.46	0.48
2:1:66:ILE:HA	2:1:69:LEU:HD13	1.95	0.48
10:A:35:A:H2'	10:A:36:U:N1	2.28	0.48
10:A:48:C:C2'	10:A:49:G:OP2	2.61	0.48
11:AA:724:VAL:HG13	11:AA:774:GLY:H	1.76	0.48
14:AE:102:MET:HG2	14:AE:246:PRO:HD3	1.95	0.48
14:AE:103:GLY:H	14:AE:244:VAL:HG22	1.79	0.48
16:D:71:A:C6	16:D:100:G:N7	2.82	0.48
16:D:729:A:C4	16:D:730:G:C8	3.01	0.48
16:D:909:A:C4	16:D:910:C:C6	3.02	0.48
16:D:1115:U:H2'	16:D:1116:U:C6	2.48	0.48
16:D:1418:A:C5'	16:D:1419:G:OP2	2.61	0.48
19:G:70:VAL:HG21	19:G:161:LEU:HD11	1.95	0.48
31:S:16:LEU:HD21	31:S:52:PRO:HB2	1.94	0.48
34:V:30:LYS:HG3	34:V:37:PHE:CE2	2.49	0.48
36:X:22:ILE:HB	36:X:25:VAL:CG2	2.44	0.48
39:a:642:U:O2	39:a:644:A:C8	2.66	0.48
39:a:972:A:H3'	39:a:973:A:H2'	1.95	0.48
39:a:1166:G:C6	39:a:1167:C:C4	3.01	0.48
39:a:1230:A:H2'	39:a:1231:U:C6	2.48	0.48
39:a:1716:U:C2	39:a:1717:A:C8	3.01	0.48
39:a:1745:A:H2'	39:a:1746:A:O4'	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2044:C:O2'	39:a:2045:C:H5'	2.13	0.48
39:a:2086:U:C4	39:a:2234:G:C6	3.01	0.48
39:a:2545:G:H2'	39:a:2546:U:O4'	2.14	0.48
39:a:2590:A:C2	39:a:2591:C:C5	3.02	0.48
42:d:91:C:H2'	42:d:92:C:H6	1.77	0.48
46:h:172:VAL:N	46:h:183:LYS:HZ1	2.12	0.48
48:j:3:GLY:C	48:j:4:LEU:HD22	2.38	0.48
50:l:29:HIS:HB2	59:u:6:LEU:HD22	1.94	0.48
52:n:20:PHE:HB2	52:n:22:TYR:CE2	2.49	0.48
56:r:12:LEU:HD12	56:r:19:VAL:HG21	1.93	0.48
60:v:34:LYS:O	60:v:129:THR:HG22	2.13	0.48
64:z:50:ARG:HH21	64:z:51:ARG:NH2	2.11	0.48
2:1:80:PRO:HG3	39:a:25:U:H5''	1.95	0.48
9:9:51:TYR:O	9:9:88:HIS:HD2	1.97	0.48
9:9:131:THR:HG22	38:Z:26:MET:SD	2.53	0.48
10:A:51:C:C4	10:A:52:G:N7	2.81	0.48
14:AE:99:ARG:NH1	14:AE:99:ARG:CG	2.76	0.48
14:AE:201:LEU:HD11	14:AE:220:ARG:HG2	1.95	0.48
15:C:57:ARG:HG2	15:C:57:ARG:NH1	2.28	0.48
16:D:309:A:O2'	16:D:310:G:H5'	2.13	0.48
16:D:597:G:C5	16:D:598:U:C5	3.02	0.48
16:D:769:G:C2	16:D:770:C:C6	3.02	0.48
16:D:865:A:H2'	16:D:866:C:H6	1.78	0.48
16:D:938:A:C2'	16:D:939:G:O5'	2.61	0.48
16:D:953:G:H2'	16:D:954:G:O4'	2.13	0.48
16:D:1120:C:H2'	16:D:1121:U:C6	2.49	0.48
16:D:1309:G:OP2	36:X:98:ARG:NE	2.45	0.48
16:D:1486:G:C6	16:D:1487:G:C6	3.02	0.48
19:G:47:VAL:N	19:G:48:PRO:HD2	2.28	0.48
20:H:72:LEU:CD1	20:H:72:LEU:N	2.72	0.48
24:L:17:GLN:OE1	24:L:17:GLN:HA	2.13	0.48
25:M:59:LEU:O	25:M:62:PHE:HB3	2.13	0.48
26:N:39:VAL:O	26:N:43:GLU:OE1	2.30	0.48
31:S:42:TRP:O	31:S:46:LEU:HD23	2.13	0.48
34:V:46:VAL:HG12	34:V:73:TRP:HB2	1.95	0.48
39:a:58:G:C6	39:a:70:G:C6	3.02	0.48
39:a:104:A:C6	39:a:105:C:C4	3.01	0.48
39:a:166:U:C2	39:a:167:A:C8	3.02	0.48
39:a:462:C:N3	39:a:463:G:C5	2.81	0.48
39:a:607:U:N3	39:a:608:A:N7	2.61	0.48
39:a:706:A:C2	39:a:707:G:H1'	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:770:G:C2	39:a:771:G:C8	3.02	0.48
39:a:912:C:C2	39:a:913:U:C5	3.01	0.48
39:a:989:G:OP2	44:f:14:ILE:HD11	2.14	0.48
39:a:1245:G:O2'	39:a:1246:A:H5'	2.13	0.48
39:a:2019:A:C2'	39:a:2020:A:O5'	2.62	0.48
39:a:2051:A:H61	39:a:2614:A:C2'	2.26	0.48
39:a:2082:A:H3'	39:a:2083:G:H8	1.78	0.48
39:a:2155:U:C2	39:a:2156:G:C8	3.01	0.48
39:a:2282:G:H21	39:a:2390:U:H3	1.62	0.48
39:a:2386:A:H2'	39:a:2387:U:C6	2.49	0.48
39:a:2466:C:N3	39:a:2467:C:C5	2.81	0.48
39:a:2615:U:H1'	47:i:4:GLN:HA	1.94	0.48
39:a:2661:G:H2'	39:a:2662:A:O4'	2.14	0.48
39:a:2673:G:N3	39:a:2674:G:C8	2.81	0.48
42:d:29:A:H2'	42:d:30:C:C6	2.48	0.48
42:d:59:A:C5	42:d:60:C:C5	3.02	0.48
44:f:41:THR:O	44:f:44:ILE:HG22	2.13	0.48
46:h:260:ASN:OD1	46:h:262:ARG:N	2.46	0.48
60:v:45:GLN:NE2	60:v:124:LEU:HA	2.27	0.48
64:z:58:ARG:O	64:z:62:ILE:HD12	2.12	0.48
2:1:36:LEU:HD13	2:1:48:LYS:HA	1.96	0.48
10:A:12:G:C2'	10:A:13:C:OP1	2.61	0.48
11:AA:27:LEU:O	11:AA:528:ARG:NH1	2.42	0.48
11:AA:867:GLU:HB2	21:I:75:ILE:HG13	1.94	0.48
14:AE:117:LEU:HG	14:AE:118:LYS:HG3	1.95	0.48
14:AE:1347:LEU:HG	14:AE:1357:ILE:HG23	1.96	0.48
16:D:502:A:C6	16:D:503:C:C4	3.01	0.48
16:D:745:G:C2	16:D:746:A:C5	3.01	0.48
16:D:745:G:H2'	16:D:746:A:H8	1.79	0.48
16:D:1225:A:C2	16:D:1226:C:C4	3.01	0.48
16:D:1305:G:HO2'	16:D:1306:A:H8	1.61	0.48
16:D:1340:A:H2'	16:D:1341:U:C6	2.49	0.48
17:E:55:GLN:N	17:E:56:PRO:HD2	2.29	0.48
23:K:15:LEU:HD13	23:K:37:THR:CG2	2.44	0.48
30:R:101:ALA:HB1	30:R:102:LEU:HD13	1.95	0.48
35:W:44:MET:HA	35:W:47:LEU:HD13	1.96	0.48
37:Y:104:GLN:HG2	37:Y:105:LEU:N	2.26	0.48
39:a:25:U:O2'	39:a:26:G:H5'	2.13	0.48
39:a:27:G:C4	39:a:512:G:C2	3.02	0.48
39:a:527:C:O2	39:a:527:C:O2'	2.23	0.48
39:a:539:G:C6	39:a:540:C:C4	3.01	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:641:U:H3'	39:a:642:U:C6	2.48	0.48
39:a:669:G:C2	39:a:801:G:C6	3.02	0.48
39:a:959:A:N6	39:a:2495:G:O2'	2.45	0.48
39:a:960:A:C2	39:a:962:G:H1'	2.48	0.48
39:a:961:C:N4	39:a:2031:A:C8	2.82	0.48
39:a:1435:G:O2'	39:a:1436:G:H5'	2.13	0.48
39:a:1440:U:H2'	39:a:1441:G:C8	2.49	0.48
39:a:1495:A:H2'	39:a:1496:A:O4'	2.14	0.48
39:a:1503:A:C2	39:a:1504:A:C8	3.01	0.48
39:a:1599:U:H2'	39:a:1600:C:C6	2.48	0.48
39:a:1948:G:O2'	39:a:1949:G:H5'	2.13	0.48
39:a:2061:G:C2	39:a:2063:C:C5	3.02	0.48
39:a:2465:C:N3	39:a:2466:C:C5	2.82	0.48
39:a:2520:C:C6	39:a:2567:G:H1'	2.49	0.48
39:a:2548:U:N3	39:a:2549:G:N7	2.62	0.48
39:a:2591:C:C2	39:a:2592:G:C8	3.02	0.48
39:a:2638:G:N2	39:a:2775:G:H2'	2.29	0.48
42:d:73:A:H2'	42:d:73:A:N3	2.29	0.48
46:h:34:LEU:HD23	46:h:35:GLU:CA	2.44	0.48
50:l:19:PHE:HA	50:l:109:LEU:HD22	1.96	0.48
51:m:22:MET:O	51:m:28:ARG:NH1	2.45	0.48
52:n:175:PHE:CD2	52:n:176:PRO:HD3	2.48	0.48
56:r:6:LEU:C	56:r:15:LEU:HD13	2.38	0.48
56:r:18:GLN:HE22	56:r:39:ALA:HB2	1.78	0.48
60:v:3:GLN:HE21	60:v:92:TRP:NE1	2.11	0.48
62:x:35:ILE:O	62:x:52:SER:OG	2.20	0.48
4:3:21:LYS:CG	4:3:22:ARG:N	2.76	0.48
11:AA:618:GLN:HG3	14:AE:770:LEU:HD13	1.95	0.48
11:AA:857:VAL:CG1	11:AA:861:ALA:HB2	2.43	0.48
13:AD:48:LEU:HD22	14:AE:535:ARG:HG3	1.96	0.48
14:AE:152:THR:HB	14:AE:172:PHE:CZ	2.48	0.48
14:AE:968:ASN:HA	14:AE:1117:SER:HB2	1.96	0.48
14:AE:1060:VAL:HG13	14:AE:1106:ILE:HG12	1.96	0.48
10:B:12:G:C2'	10:B:13:C:OP1	2.61	0.48
15:C:11:CYS:SG	15:C:47:THR:HG23	2.54	0.48
16:D:258:G:C4	16:D:259:G:C8	3.02	0.48
16:D:286:C:O2'	16:D:287:U:H5'	2.14	0.48
16:D:338:A:H2'	16:D:339:C:H6	1.78	0.48
16:D:373:A:C2	16:D:482:A:N1	2.82	0.48
16:D:905:U:C5	16:D:906:A:N7	2.82	0.48
16:D:912:C:O2'	16:D:913:A:H5'	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1523:G:C2	16:D:1524:C:C5	3.02	0.48
16:D:1526:G:H2'	16:D:1527:U:C6	2.49	0.48
20:H:76:GLU:HA	20:H:76:GLU:OE2	2.13	0.48
21:I:33:LEU:CD2	31:S:93:ILE:HG12	2.44	0.48
25:M:75:VAL:HG12	25:M:88:PRO:HA	1.95	0.48
27:O:44:ALA:O	27:O:47:VAL:HG22	2.14	0.48
34:V:23:VAL:O	34:V:23:VAL:HG13	2.14	0.48
37:Y:31:GLY:O	37:Y:60:VAL:HG11	2.14	0.48
39:a:71:A:H5'	39:a:73:A:C8	2.49	0.48
39:a:80:G:C6	39:a:107:G:C6	3.02	0.48
39:a:538:A:N1	39:a:556:A:C8	2.81	0.48
39:a:545:U:C3'	39:a:546:U:H4'	2.43	0.48
39:a:834:G:C5	39:a:835:C:C5	3.02	0.48
39:a:839:U:H2'	39:a:840:C:C6	2.48	0.48
39:a:980:A:N7	39:a:1136:G:H5'	2.29	0.48
39:a:1438:U:H2'	39:a:1439:A:H8	1.78	0.48
39:a:1473:G:C6	39:a:1519:G:C6	3.01	0.48
39:a:1571:A:H2'	39:a:1572:A:H8	1.78	0.48
39:a:1880:U:H2'	39:a:1881:C:C6	2.48	0.48
39:a:1952:A:H2'	39:a:1953:A:O4'	2.13	0.48
39:a:2174:C:C2	39:a:2175:C:C6	3.01	0.48
39:a:2189:U:O2'	39:a:2190:G:C5'	2.61	0.48
39:a:2277:G:N7	40:b:12:ASN:HB3	2.28	0.48
39:a:2896:C:O2'	39:a:2897:U:H5'	2.13	0.48
56:r:47:PHE:CE1	56:r:52:ALA:HA	2.48	0.48
56:r:117:LEU:HD23	56:r:122:LEU:CD1	2.44	0.48
57:s:81:ILE:HG13	57:s:82:GLY:N	2.29	0.48
61:w:47:VAL:C	61:w:50:PRO:HD2	2.38	0.48
2:1:49:LYS:NZ	39:a:491:G:O6	2.39	0.48
8:7:1:U:C5'	8:7:1:U:C6	2.86	0.48
10:A:5:G:H2'	10:A:6:G:C5'	2.43	0.48
10:A:59:A:H2'	10:A:60:U:H5'	1.96	0.48
10:A:65:C:C2	10:A:66:C:C5	3.01	0.48
11:AA:618:GLN:OE1	11:AA:635:THR:OG1	2.32	0.48
13:AD:60:GLU:OE2	13:AD:170:ARG:NE	2.45	0.48
14:AE:1146:GLU:OE2	14:AE:1310:THR:HG22	2.14	0.48
16:D:404:G:O3'	16:D:439:U:C5	2.67	0.48
16:D:439:U:O4	16:D:498:A:N6	2.46	0.48
16:D:765:G:H2'	16:D:812:G:H21	1.79	0.48
16:D:1208:C:C2	16:D:1209:C:C5	3.01	0.48
16:D:1241:G:C2	16:D:1242:G:C5	3.02	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1391:U:O2'	16:D:1532:U:OP1	2.30	0.48
24:L:21:MET:N	24:L:21:MET:CE	2.76	0.48
37:Y:34:ILE:HG22	37:Y:34:ILE:O	2.13	0.48
39:a:475:C:H2'	39:a:476:G:O4'	2.13	0.48
39:a:690:G:C6	39:a:691:C:C4	3.02	0.48
39:a:848:C:H2'	39:a:849:A:C8	2.48	0.48
39:a:1682:G:H2'	39:a:1683:U:C6	2.49	0.48
39:a:1840:G:C2'	39:a:1841:U:H5'	2.44	0.48
39:a:1945:G:H2'	39:a:1946:U:H6	1.79	0.48
39:a:2205:A:H2'	39:a:2206:C:C6	2.49	0.48
39:a:2230:G:H4'	41:c:30:LEU:HB2	1.96	0.48
39:a:2543:G:C2	39:a:2544:G:C4	3.02	0.48
41:c:17:ASN:O	41:c:25:THR:N	2.46	0.48
46:h:108:LYS:HA	46:h:196:GLY:HA2	1.95	0.48
46:h:116:ILE:C	46:h:117:GLN:CD	2.81	0.48
48:j:172:VAL:HG12	48:j:175:LEU:HD21	1.96	0.48
49:k:39:PHE:CZ	49:k:44:ARG:HA	2.49	0.48
53:o:32:ILE:HG23	53:o:36:LYS:HZ3	1.77	0.48
60:v:47:GLU:CD	60:v:51:ARG:NH1	2.72	0.48
60:v:119:LEU:HD23	60:v:119:LEU:C	2.39	0.48
2:1:5:ALA:HB3	2:1:54:ALA:HB2	1.96	0.48
2:1:68:ASP:HB3	2:1:109:ASP:CG	2.39	0.48
10:A:23:C:H2'	10:A:24:U:C6	2.49	0.48
11:AA:735:LYS:HA	11:AA:748:ILE:HG22	1.96	0.48
11:AA:845:LEU:HD23	11:AA:845:LEU:N	2.28	0.48
11:AA:985:GLU:OE2	11:AA:1000:LEU:HD11	2.14	0.48
10:B:52:G:N3	10:B:53:G:C8	2.82	0.48
10:B:58:A:HO2'	10:B:60:U:P	2.35	0.48
16:D:22:G:C4	16:D:23:C:C5	3.01	0.48
16:D:100:G:C5	16:D:101:A:N7	2.82	0.48
16:D:285:C:H2'	16:D:286:C:H6	1.77	0.48
16:D:325:A:H2'	16:D:326:G:O4'	2.13	0.48
16:D:469:C:C4	16:D:470:C:C5	3.01	0.48
16:D:689:C:H2'	16:D:690:G:O4'	2.14	0.48
16:D:730:G:C5	16:D:731:G:H1'	2.49	0.48
16:D:888:G:N2	16:D:910:C:N4	2.62	0.48
16:D:1086:U:N3	16:D:1087:G:N7	2.61	0.48
16:D:1110:A:C4	16:D:1111:A:C8	3.02	0.48
16:D:1124:G:C2'	16:D:1145:A:N6	2.77	0.48
16:D:1268:G:O2'	16:D:1269:A:O4'	2.30	0.48
16:D:1269:A:N7	16:D:1270:G:H1'	2.28	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:K:68:ARG:HB2	23:K:68:ARG:CZ	2.44	0.48
39:a:84:A:N1	39:a:103:A:C5	2.81	0.48
39:a:134:G:H2'	39:a:135:U:H6	1.79	0.48
39:a:160:A:H2'	39:a:161:A:C8	2.49	0.48
39:a:201:C:O2'	39:a:202:U:H5'	2.14	0.48
39:a:219:A:N3	39:a:234:U:O2'	2.46	0.48
39:a:307:G:N2	39:a:309:A:H3'	2.29	0.48
39:a:480:A:H3'	39:a:481:G:H5''	1.96	0.48
39:a:586:A:C2	39:a:1254:A:C2	3.02	0.48
39:a:1199:U:C2	39:a:1200:C:C6	3.01	0.48
39:a:1358:G:O2'	39:a:1359:A:O5'	2.30	0.48
39:a:1482:G:C2	39:a:1508:A:N7	2.82	0.48
39:a:1515:A:H1'	39:a:1557:C:O4'	2.13	0.48
39:a:1681:G:C2	39:a:1762:A:C5	3.02	0.48
39:a:1709:U:O2'	39:a:2859:G:H1'	2.13	0.48
39:a:1752:C:O2'	39:a:1753:G:H5'	2.14	0.48
39:a:2009:A:O2'	39:a:2010:G:H5'	2.14	0.48
39:a:2277:G:OP2	40:b:12:ASN:ND2	2.47	0.48
39:a:2298:A:N6	39:a:2317:A:N1	2.62	0.48
39:a:2450:A:C2	39:a:2451:A:C4	3.02	0.48
39:a:2478:A:C8	39:a:2529:G:C5	3.01	0.48
39:a:2679:A:C6	39:a:2680:U:C4	3.01	0.48
39:a:2730:C:O2'	39:a:2731:G:H5'	2.14	0.48
44:f:5:ILE:HD12	44:f:59:GLU:OE1	2.14	0.48
46:h:199:GLU:HA	46:h:202:LEU:HD23	1.95	0.48
48:j:157:LYS:CG	57:s:80:HIS:NE2	2.76	0.48
59:u:76:GLU:HB2	59:u:111:ILE:HD13	1.95	0.48
62:x:11:ALA:HB2	62:x:96:GLY:N	2.29	0.48
63:y:29:LYS:HB3	63:y:40:LEU:HG	1.95	0.48
9:9:23:LEU:HD22	9:9:92:ALA:HA	1.95	0.47
16:D:31:G:C2'	16:D:48:C:H41	2.27	0.47
16:D:39:G:C4	16:D:404:G:N2	2.82	0.47
16:D:41:G:C6	16:D:402:G:C6	3.02	0.47
16:D:173:U:H5'	16:D:197:A:O4'	2.13	0.47
16:D:520:A:N7	16:D:521:G:C8	2.82	0.47
16:D:573:A:H2'	16:D:574:A:C8	2.48	0.47
16:D:996:A:N1	16:D:1045:C:O2'	2.42	0.47
16:D:1132:C:O2	16:D:1132:C:H2'	2.12	0.47
16:D:1392:G:C4	16:D:1393:U:C5	3.02	0.47
16:D:1457:G:C2	16:D:1458:G:C8	3.01	0.47
17:E:44:LYS:HG2	17:E:48:GLN:NE2	2.29	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:G:163:VAL:O	19:G:186:ILE:HD12	2.14	0.47
26:N:11:LEU:HD22	26:N:75:ILE:CD1	2.44	0.47
26:N:47:GLU:OE2	26:N:62:THR:HB	2.14	0.47
27:O:15:SER:HB3	27:O:75:GLN:HA	1.95	0.47
28:P:52:LEU:N	31:S:81:ARG:NH2	2.62	0.47
36:X:90:ARG:HG2	36:X:97:VAL:HG22	1.96	0.47
39:a:10:A:C6	39:a:2800:A:C2	3.02	0.47
39:a:150:U:C2	39:a:151:C:C5	3.02	0.47
39:a:196:A:N7	39:a:805:G:C5	2.82	0.47
39:a:200:U:C5	39:a:201:C:C6	3.02	0.47
39:a:728:G:O2'	39:a:730:A:H8	1.97	0.47
39:a:1016:G:C6	39:a:1147:A:C6	3.02	0.47
39:a:1312:U:O4'	39:a:1313:U:N3	2.47	0.47
39:a:1344:U:O4'	39:a:1384:A:C5	2.67	0.47
39:a:1433:A:H2'	39:a:1434:A:C8	2.48	0.47
39:a:1494:A:H2'	39:a:1495:A:C8	2.48	0.47
39:a:1532:A:C6	39:a:1540:G:C6	3.01	0.47
39:a:1627:G:C6	39:a:1640:A:C5	3.02	0.47
39:a:1651:G:C4	39:a:1652:A:C8	3.01	0.47
39:a:1778:U:C4	39:a:1784:A:C4	3.02	0.47
39:a:2027:G:C6	39:a:2028:U:C4	3.02	0.47
39:a:2061:G:N2	39:a:2063:C:C6	2.82	0.47
39:a:2359:C:H2'	39:a:2360:G:C8	2.49	0.47
39:a:2782:G:C2	39:a:2783:U:C6	3.02	0.47
46:h:178:SER:O	46:h:271:ARG:HB2	2.14	0.47
47:i:31:ASP:OD2	47:i:34:SER:N	2.29	0.47
50:l:35:TYR:CE2	50:l:178:VAL:HG11	2.49	0.47
52:n:100:PHE:HA	52:n:103:LEU:HD12	1.96	0.47
54:p:81:GLU:HA	54:p:81:GLU:OE2	2.14	0.47
55:q:10:LEU:HB2	55:q:33:HIS:ND1	2.29	0.47
56:r:37:VAL:HG13	56:r:38:PRO:HD2	1.96	0.47
58:t:102:PRO:HB2	58:t:121:GLU:OE1	2.14	0.47
60:v:46:ILE:CG2	60:v:65:ILE:HD11	2.44	0.47
11:AA:914:LYS:NZ	11:AA:914:LYS:HB2	2.29	0.47
11:AA:991:LYS:HA	11:AA:991:LYS:HE3	1.95	0.47
11:AA:1029:LEU:C	11:AA:1029:LEU:HD23	2.39	0.47
11:AA:1102:GLY:HA2	11:AA:1106:ARG:NH1	2.29	0.47
11:AA:1244:HIS:NE2	11:AA:1266:GLY:O	2.34	0.47
14:AE:47:ARG:CZ	14:AE:47:ARG:HB2	2.44	0.47
14:AE:395:LYS:NZ	14:AE:399:LYS:CE	2.77	0.47
14:AE:891:ASP:OD2	14:AE:1290:ARG:NH2	2.47	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:C:48:ARG:O	15:C:52:GLN:HB2	2.14	0.47
16:D:122:G:C5	16:D:123:U:C5	3.02	0.47
16:D:195:A:H2'	16:D:196:A:C8	2.50	0.47
16:D:218:U:H2'	16:D:219:U:C6	2.49	0.47
16:D:1029:U:H1'	16:D:1033:G:N2	2.29	0.47
16:D:1490:U:C2	16:D:1491:G:C8	3.03	0.47
20:H:119:GLY:CA	20:H:133:GLY:CA	2.74	0.47
27:O:33:ARG:HG3	27:O:37:GLN:CB	2.45	0.47
29:Q:20:VAL:HA	29:Q:83:GLU:O	2.14	0.47
30:R:24:LEU:HD12	30:R:27:CYS:O	2.14	0.47
39:a:365:U:H2'	39:a:366:C:O4'	2.14	0.47
39:a:659:G:C6	39:a:660:C:C4	3.02	0.47
39:a:694:U:C2	39:a:695:G:C8	3.02	0.47
39:a:1348:C:C4	39:a:1349:C:C5	3.02	0.47
39:a:1406:U:H2'	39:a:1407:G:H8	1.78	0.47
39:a:1553:A:C5	39:a:1555:G:C5	3.02	0.47
39:a:1839:G:C5	39:a:1927:A:C2	3.02	0.47
39:a:1882:U:N3	39:a:1883:U:C5	2.82	0.47
39:a:2032:G:C8	39:a:2454:G:O2'	2.66	0.47
39:a:2298:A:N3	39:a:2321:U:C5	2.82	0.47
39:a:2650:U:H2'	39:a:2651:C:H6	1.79	0.47
39:a:2725:A:C4	39:a:2727:A:N7	2.82	0.47
39:a:2825:G:C5	39:a:2826:A:C8	3.02	0.47
39:a:2830:C:H3'	48:j:59:ARG:HH12	1.78	0.47
41:c:13:VAL:HG22	41:c:14:THR:N	2.29	0.47
42:d:57:A:C4	42:d:58:A:C8	3.02	0.47
46:h:59:LYS:HG3	46:h:60:GLN:H	1.79	0.47
46:h:107:PRO:HA	46:h:194:GLU:O	2.12	0.47
46:h:175:ARG:CB	46:h:181:MET:HE1	2.44	0.47
50:l:24:ASN:ND2	50:l:27:LEU:HB2	2.29	0.47
51:m:24:THR:HG23	51:m:27:GLY:H	1.78	0.47
53:o:10:ALA:HA	59:u:58:TYR:HB2	1.96	0.47
53:o:31:HIS:O	53:o:32:ILE:C	2.57	0.47
60:v:45:GLN:NE2	60:v:125:PRO:HD3	2.28	0.47
4:3:46:GLN:HB2	4:3:59:VAL:HG22	1.95	0.47
5:4:60:VAL:HG12	5:4:61:LEU:N	2.29	0.47
11:AA:936:ARG:O	11:AA:936:ARG:HD3	2.14	0.47
14:AE:799:ARG:HG2	14:AE:1325:PHE:HZ	1.78	0.47
16:D:175:C:C2	16:D:176:C:C5	3.02	0.47
16:D:337:G:H2'	16:D:338:A:H8	1.79	0.47
16:D:371:A:C6	16:D:391:G:C6	3.02	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:439:U:O2	16:D:440:C:C5	2.68	0.47
16:D:460:A:H2'	16:D:461:A:C8	2.48	0.47
16:D:608:A:C6	16:D:609:A:C4	3.02	0.47
16:D:681:A:O2'	16:D:682:G:H5'	2.14	0.47
16:D:743:A:H2'	16:D:744:C:H6	1.77	0.47
16:D:800:G:H2'	16:D:801:U:C6	2.49	0.47
16:D:997:U:O2'	16:D:998:C:H5'	2.14	0.47
16:D:1002:G:C6	16:D:1039:G:C6	3.02	0.47
16:D:1158:C:C5	16:D:1160:G:H1'	2.49	0.47
16:D:1179:A:H2'	16:D:1180:A:O4'	2.14	0.47
16:D:1463:U:C2	16:D:1464:U:C5	3.02	0.47
19:G:41:ILE:O	19:G:43:LEU:HD12	2.15	0.47
20:H:330:VAL:HG12	20:H:345:GLY:O	2.14	0.47
21:I:20:SER:CB	31:S:92:GLU:HA	2.44	0.47
38:Z:2:ILE:CG2	38:Z:5:ASP:H	2.24	0.47
38:Z:24:SER:O	38:Z:28:GLU:HG2	2.15	0.47
39:a:3:U:H2'	39:a:4:U:C6	2.49	0.47
39:a:290:U:C2	39:a:291:G:C8	3.02	0.47
39:a:348:A:H2'	39:a:349:U:O4'	2.13	0.47
39:a:379:G:N1	39:a:396:G:C6	2.82	0.47
39:a:489:G:N2	39:a:1321:A:OP1	2.46	0.47
39:a:826:U:OP1	39:a:2428:G:H3'	2.15	0.47
39:a:1470:A:C4	39:a:1471:G:C8	3.02	0.47
39:a:1506:U:H2'	39:a:1507:C:C6	2.49	0.47
39:a:1586:A:C5	39:a:1587:G:C5	3.02	0.47
39:a:1609:A:H4'	39:a:1617:C:OP2	2.14	0.47
39:a:1663:G:C6	39:a:1998:A:N6	2.82	0.47
39:a:1839:G:H2'	39:a:1839:G:N3	2.29	0.47
39:a:2220:U:C2	39:a:2221:G:C8	3.03	0.47
39:a:2299:U:C2	39:a:2300:C:C5	3.02	0.47
39:a:2370:G:C6	39:a:2371:G:C6	3.02	0.47
39:a:2708:G:O4'	61:w:71:ARG:NH2	2.48	0.47
39:a:2803:G:C2	39:a:2804:U:C4	3.02	0.47
42:d:101:A:C6	42:d:102:G:C5	3.03	0.47
46:h:31:ALA:N	46:h:32:PRO:CD	2.77	0.47
46:h:59:LYS:HG3	46:h:60:GLN:N	2.29	0.47
52:n:41:GLY:O	52:n:44:ILE:HG12	2.15	0.47
55:q:1:MET:CE	55:q:34:LYS:HG3	2.45	0.47
56:r:2:GLN:OE1	56:r:2:GLN:HA	2.13	0.47
56:r:132:PHE:HB2	56:r:140:ALA:O	2.14	0.47
62:x:50:ALA:O	62:x:81:ARG:NH1	2.47	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1:88:ARG:HD3	2:1:89:ALA:N	2.29	0.47
9:9:2:ALA:H	9:9:6:GLN:HG3	1.79	0.47
14:AE:1036:ARG:HE	14:AE:1081:VAL:HG11	1.79	0.47
10:B:70:G:H3'	10:B:71:C:H5''	1.96	0.47
16:D:302:G:C4	16:D:303:A:C8	3.03	0.47
16:D:488:C:C2	16:D:489:C:C5	3.02	0.47
16:D:678:U:C2	16:D:679:C:C5	3.03	0.47
16:D:738:C:C2	16:D:739:C:C5	3.03	0.47
16:D:740:U:H2'	16:D:741:G:H8	1.78	0.47
16:D:828:U:C4	16:D:859:G:C4	3.02	0.47
16:D:1150:A:H2'	16:D:1151:A:C8	2.49	0.47
16:D:1151:A:HO2'	16:D:1152:A:P	2.36	0.47
16:D:1184:G:C2	16:D:1185:G:C8	3.02	0.47
16:D:1209:C:H2'	16:D:1210:C:H6	1.79	0.47
16:D:1216:A:OP1	31:S:3:LYS:NZ	2.48	0.47
16:D:1251:A:O2'	16:D:1369:C:O3'	2.30	0.47
16:D:1327:C:O2'	16:D:1328:C:H5'	2.14	0.47
16:D:1418:A:H5''	16:D:1419:G:OP2	2.14	0.47
21:I:26:THR:HG23	31:S:76:LYS:HB3	1.95	0.47
21:I:37:PHE:HB2	31:S:66:GLN:HE22	1.80	0.47
24:L:50:PRO:HA	24:L:54:LEU:O	2.15	0.47
26:N:111:MET:SD	26:N:112:THR:O	2.73	0.47
27:O:34:SER:HB3	27:O:37:GLN:HG2	1.96	0.47
32:T:80:GLN:O	32:T:84:ARG:HG2	2.15	0.47
36:X:62:LYS:HA	36:X:62:LYS:HE2	1.96	0.47
37:Y:77:VAL:HA	37:Y:80:LYS:HG3	1.96	0.47
39:a:174:U:C4	39:a:175:G:N7	2.82	0.47
39:a:277:G:H4'	39:a:278:A:C8	2.49	0.47
39:a:386:G:H4'	39:a:387:U:OP2	2.15	0.47
39:a:392:U:N3	39:a:393:C:C5	2.82	0.47
39:a:396:G:C5	39:a:397:U:C5	3.02	0.47
39:a:597:G:O2'	59:u:11:GLY:O	2.32	0.47
39:a:647:G:H2'	39:a:648:G:O4'	2.15	0.47
39:a:675:A:C8	39:a:804:A:N1	2.82	0.47
39:a:730:A:C2	39:a:731:C:C5	3.02	0.47
39:a:813:U:C2	39:a:814:C:C5	3.02	0.47
39:a:906:U:C4	39:a:907:G:N7	2.82	0.47
39:a:1049:C:N3	39:a:1050:A:N7	2.62	0.47
39:a:1107:G:C6	39:a:1108:U:C5	3.02	0.47
39:a:1255:U:O4'	39:a:2502:G:N2	2.46	0.47
39:a:1707:G:C4	39:a:1708:C:C5	3.02	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2063:C:N3	39:a:2064:C:C5	2.82	0.47
39:a:2177:C:H2'	39:a:2178:C:O4'	2.14	0.47
39:a:2747:G:C2	39:a:2756:U:C5	3.03	0.47
39:a:2839:G:N3	39:a:2840:C:C6	2.82	0.47
39:a:2846:G:H2'	39:a:2847:U:H6	1.78	0.47
48:j:98:VAL:CG2	48:j:187:LEU:HD13	2.45	0.47
54:p:69:ARG:HD3	54:p:70:ALA:N	2.29	0.47
61:w:44:LEU:O	61:w:47:VAL:HG22	2.15	0.47
63:y:5:ILE:HG23	63:y:6:LYS:N	2.29	0.47
63:y:62:ARG:HB2	63:y:71:GLU:OE1	2.14	0.47
4:3:5:ILE:HA	4:3:72:ILE:HD11	1.96	0.47
4:3:55:PRO:CA	39:a:498:G:OP1	2.63	0.47
9:9:23:LEU:CA	9:9:118:ILE:CG1	2.90	0.47
9:9:67:THR:HG23	9:9:68:PRO:CD	2.43	0.47
10:A:52:G:N3	10:A:53:G:C8	2.82	0.47
11:AA:641:GLU:OE2	14:AE:749:LYS:NZ	2.47	0.47
11:AA:1010:GLN:C	11:AA:1010:GLN:NE2	2.73	0.47
11:AA:1280:ALA:HB1	14:AE:918:ILE:HG22	1.96	0.47
14:AE:833:GLU:N	14:AE:1242:ARG:HH12	2.12	0.47
14:AE:1150:PRO:HG3	14:AE:1214:PRO:HB2	1.96	0.47
16:D:214:C:N3	16:D:215:C:C5	2.83	0.47
16:D:284:C:C2	16:D:285:C:C6	3.03	0.47
16:D:445:G:C2	16:D:490:C:C2	3.03	0.47
16:D:496:A:O2'	16:D:497:G:C8	2.63	0.47
16:D:551:U:H2'	16:D:552:U:C6	2.49	0.47
16:D:1108:G:C6	16:D:1109:C:C5	3.03	0.47
16:D:1119:C:N3	16:D:1120:C:C5	2.83	0.47
16:D:1127:G:C2	16:D:1128:C:C6	3.02	0.47
16:D:1148:U:H2'	16:D:1149:C:O4'	2.15	0.47
16:D:1319:A:C8	16:D:1323:G:C5	3.02	0.47
16:D:1321:U:OP2	16:D:1322:C:C2'	2.63	0.47
16:D:1437:A:C2	16:D:1438:G:C8	3.03	0.47
16:D:1452:C:H4'	16:D:1453:G:O4'	2.15	0.47
18:F:25:LYS:CE	20:H:336:ASP:HB3	2.43	0.47
20:H:135:LEU:CB	20:H:167:VAL:O	2.63	0.47
23:K:133:PRO:O	23:K:137:VAL:HG22	2.14	0.47
24:L:11:HIS:N	24:L:85:ILE:HD11	2.29	0.47
28:P:6:ILE:HG23	28:P:100:ILE:CG2	2.43	0.47
29:Q:65:VAL:O	29:Q:69:ARG:HG3	2.14	0.47
39:a:28:A:H2'	39:a:29:U:O4'	2.13	0.47
39:a:662:G:H4'	59:u:16:GLY:CA	2.44	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1170:C:O2	39:a:1170:C:H2'	2.14	0.47
39:a:1297:C:H2'	39:a:1298:C:C6	2.50	0.47
39:a:1351:C:C2	39:a:1381:G:N1	2.82	0.47
39:a:1421:G:N2	39:a:1495:A:N1	2.52	0.47
39:a:1429:G:H2'	39:a:1430:G:C8	2.48	0.47
39:a:1838:C:C6	39:a:1898:U:C5	3.03	0.47
39:a:1839:G:C6	39:a:1840:G:N7	2.82	0.47
39:a:2080:A:H2'	39:a:2081:U:O4'	2.14	0.47
39:a:2174:C:C4	39:a:2175:C:C5	3.03	0.47
39:a:2351:G:O6	53:o:42:ARG:NH1	2.47	0.47
39:a:2874:C:C2	39:a:2875:C:C5	3.03	0.47
39:a:2888:C:H2'	39:a:2889:C:H6	1.79	0.47
42:d:30:C:H2'	42:d:31:C:H5'	1.96	0.47
47:i:43:ILE:HG12	47:i:49:TYR:HB2	1.97	0.47
48:j:110:THR:HG23	48:j:171:THR:OG1	2.15	0.47
55:q:30:GLU:OE2	55:q:33:HIS:NE2	2.47	0.47
57:s:19:ASP:OD1	57:s:21:THR:OG1	2.32	0.47
59:u:92:LEU:C	59:u:92:LEU:HD12	2.40	0.47
9:9:14:GLU:OE1	9:9:66:GLY:HA3	2.14	0.47
11:AA:756:TYR:CD2	13:AC:68:TYR:O	2.68	0.47
10:B:23:C:H2'	10:B:24:U:C6	2.49	0.47
16:D:41:G:O2'	16:D:42:G:H5'	2.14	0.47
16:D:197:A:H1'	16:D:198:G:OP2	2.14	0.47
16:D:273:U:C4	16:D:274:A:N7	2.83	0.47
16:D:323:U:H2'	16:D:324:G:O4'	2.15	0.47
16:D:457:G:H3'	16:D:458:U:H5''	1.96	0.47
16:D:865:A:H2'	16:D:866:C:C6	2.49	0.47
16:D:893:C:C2	16:D:894:G:C8	3.02	0.47
16:D:899:C:H2'	16:D:900:A:C8	2.50	0.47
16:D:1124:G:C2'	16:D:1145:A:N1	2.77	0.47
16:D:1423:G:H2'	16:D:1424:U:C6	2.50	0.47
16:D:1434:A:H2'	16:D:1435:G:O4'	2.14	0.47
18:F:46:LYS:HA	18:F:49:LYS:HZ3	1.80	0.47
24:L:71:ILE:HA	24:L:74:LEU:HD12	1.95	0.47
28:P:41:PRO:HB3	28:P:72:ARG:NH2	2.29	0.47
29:Q:13:ARG:NE	29:Q:13:ARG:HA	2.30	0.47
32:T:76:ALA:O	32:T:80:GLN:NE2	2.48	0.47
39:a:370:G:C8	39:a:370:G:OP2	2.68	0.47
39:a:384:A:C5	39:a:385:C:C5	3.03	0.47
39:a:398:C:C2'	39:a:399:U:O5'	2.63	0.47
39:a:485:C:N3	39:a:486:C:C5	2.82	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:500:G:C2'	39:a:502:A:N7	2.77	0.47
39:a:591:U:N3	39:a:592:A:N7	2.63	0.47
39:a:665:U:H2'	39:a:666:A:H8	1.79	0.47
39:a:933:A:H5'	39:a:934:U:OP2	2.14	0.47
39:a:1007:C:P	39:a:1008:A:H3'	2.55	0.47
39:a:1181:U:N3	39:a:1182:G:N7	2.61	0.47
39:a:1288:G:O2'	39:a:1327:A:N1	2.44	0.47
39:a:1399:C:H2'	39:a:1400:U:H6	1.78	0.47
39:a:1528:A:C4	39:a:1544:A:C6	3.03	0.47
39:a:1638:C:H1'	39:a:2698:U:O2'	2.14	0.47
39:a:1709:U:C2	39:a:1710:G:C8	3.02	0.47
39:a:1840:G:C2	39:a:1841:U:C2	3.02	0.47
39:a:1844:C:C2	39:a:1897:G:C2	3.03	0.47
39:a:2013:A:N6	39:a:2014:A:N1	2.63	0.47
39:a:2513:A:C6	39:a:2574:G:C6	3.02	0.47
39:a:2641:G:OP1	57:s:85:LYS:CE	2.59	0.47
39:a:2822:G:O6	61:w:2:ARG:HG2	2.15	0.47
42:d:43:C:O2	52:n:92:ARG:NH2	2.47	0.47
42:d:116:G:H2'	42:d:117:G:H8	1.78	0.47
46:h:90:ASN:OD1	46:h:197:ASN:ND2	2.47	0.47
53:o:52:LYS:O	53:o:55:LEU:HB3	2.15	0.47
53:o:55:LEU:O	53:o:58:VAL:HB	2.15	0.47
58:t:57:VAL:N	58:t:58:LEU:HD12	2.29	0.47
2:1:80:PRO:CD	39:a:25:U:H5''	2.45	0.47
8:7:16:A:H2'	8:7:17:G:H8	1.79	0.47
9:9:18:VAL:HG11	9:9:71:CYS:HB2	1.96	0.47
9:9:25:ALA:HB2	9:9:96:PHE:CE1	2.50	0.47
10:A:58:A:HO2'	10:A:60:U:P	2.38	0.47
10:A:70:G:H3'	10:A:71:C:H5''	1.96	0.47
11:AA:227:LYS:HZ2	11:AA:298:ALA:HB1	1.78	0.47
11:AA:948:ILE:HA	11:AA:951:MET:SD	2.55	0.47
11:AA:1119:MET:HG3	11:AA:1204:LEU:HD13	1.97	0.47
13:AC:43:LEU:O	13:AC:47:LEU:HB2	2.14	0.47
13:AC:166:ARG:HB3	13:AC:166:ARG:NH1	2.30	0.47
13:AD:191:ARG:NH2	13:AD:193:GLU:O	2.47	0.47
14:AE:43:THR:HG22	14:AE:57:PHE:HE1	1.80	0.47
14:AE:842:ARG:HH22	14:AE:1250:ASP:HB2	1.80	0.47
14:AE:1027:VAL:HB	14:AE:1121:LEU:HB2	1.96	0.47
10:B:37:A:C2	10:B:38:A:H1'	2.50	0.47
10:B:70:G:C3'	10:B:71:C:H5''	2.45	0.47
16:D:103:U:H1'	16:D:171:A:N1	2.30	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:152:A:C5	16:D:153:C:C6	3.02	0.47
16:D:180:U:O4	16:D:195:A:OP2	2.32	0.47
16:D:363:A:C2'	16:D:364:A:O5'	2.63	0.47
16:D:398:U:C2	16:D:399:G:C8	3.03	0.47
16:D:419:C:C4	16:D:420:U:C4	3.03	0.47
16:D:547:A:OP2	22:J:2:ALA:CB	2.62	0.47
16:D:576:C:H3'	16:D:577:G:H5''	1.95	0.47
16:D:597:G:N7	16:D:598:U:C5	2.83	0.47
16:D:611:C:C2	16:D:612:C:C5	3.02	0.47
16:D:621:A:H2'	16:D:622:A:O4'	2.14	0.47
16:D:689:C:C2	16:D:690:G:C8	3.03	0.47
16:D:886:G:O6	16:D:912:C:N4	2.48	0.47
16:D:889:A:O4'	16:D:891:U:C1'	2.63	0.47
16:D:915:A:N6	16:D:916:U:C4	2.82	0.47
16:D:934:C:C4	16:D:1345:U:C5	3.02	0.47
16:D:1146:A:C6	16:D:1147:C:C5	3.03	0.47
16:D:1256:A:C4	16:D:1278:G:C6	3.03	0.47
16:D:1320:C:H2'	16:D:1321:U:O4'	2.14	0.47
16:D:1348:U:C5	16:D:1373:G:N2	2.83	0.47
16:D:1437:A:C4	16:D:1438:G:C8	3.02	0.47
16:D:1465:A:H2'	16:D:1466:C:H6	1.77	0.47
23:K:77:ASN:HB2	23:K:82:GLN:HG3	1.97	0.47
26:N:35:ALA:CB	26:N:110:VAL:HG11	2.44	0.47
30:R:6:GLN:HA	30:R:9:ARG:HD2	1.97	0.47
30:R:88:LYS:HD3	30:R:88:LYS:N	2.30	0.47
34:V:11:ARG:O	34:V:23:VAL:HG23	2.15	0.47
35:W:77:THR:HG23	35:W:78:ARG:N	2.30	0.47
39:a:65:U:N3	39:a:66:C:C5	2.83	0.47
39:a:132:G:C4	39:a:133:U:C5	3.03	0.47
39:a:142:A:H2'	39:a:143:C:O4'	2.15	0.47
39:a:178:G:C2	39:a:179:C:C6	3.02	0.47
39:a:282:A:C6	39:a:359:G:C6	3.03	0.47
39:a:380:G:OP1	41:c:18:ARG:HB2	2.14	0.47
39:a:401:A:H2'	39:a:402:A:C8	2.49	0.47
39:a:413:C:H2'	39:a:414:C:C6	2.48	0.47
39:a:462:C:C2	39:a:463:G:C8	3.02	0.47
39:a:482:A:H1'	39:a:498:G:N2	2.30	0.47
39:a:585:G:H21	39:a:1254:A:H62	1.63	0.47
39:a:728:G:C4	39:a:730:A:C8	3.03	0.47
39:a:755:U:N3	39:a:756:A:N7	2.62	0.47
39:a:814:C:H1'	39:a:1225:G:N2	2.30	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:869:G:C6	39:a:870:U:C4	3.03	0.47
39:a:893:C:H2'	39:a:894:U:C6	2.50	0.47
39:a:954:G:H1	39:a:963:U:H3	1.63	0.47
39:a:1085:A:H2'	39:a:1086:A:C4	2.49	0.47
39:a:1114:C:O2'	39:a:1115:G:H5'	2.15	0.47
39:a:1175:A:H4'	39:a:1176:U:O4'	2.14	0.47
39:a:1467:U:H5	39:a:1546:G:H2'	1.79	0.47
39:a:1588:G:C6	39:a:1589:U:O4	2.67	0.47
39:a:1660:G:C2	39:a:2001:C:C2	3.03	0.47
39:a:1720:U:H3'	39:a:1721:G:H8	1.79	0.47
39:a:1770:G:H2'	39:a:1771:C:C6	2.50	0.47
39:a:1817:G:H3'	46:h:156:ARG:NH2	2.30	0.47
39:a:2046:G:C4	39:a:2047:C:C5	3.03	0.47
39:a:2261:C:H41	40:b:14:ARG:HG2	1.79	0.47
39:a:2383:G:O2'	39:a:2384:U:H5'	2.15	0.47
39:a:2454:G:C4	39:a:2455:G:C8	3.02	0.47
39:a:2536:G:C4	39:a:2537:U:C5	3.03	0.47
39:a:2554:U:H2'	39:a:2555:U:C6	2.49	0.47
39:a:2591:C:H2'	39:a:2592:G:H8	1.80	0.47
39:a:2698:U:H2'	39:a:2699:C:C6	2.50	0.47
39:a:2723:C:H2'	39:a:2724:U:O4'	2.14	0.47
39:a:2818:U:H4'	39:a:2837:A:O4'	2.14	0.47
39:a:2846:G:H2'	39:a:2847:U:C6	2.50	0.47
39:a:2873:A:O3'	61:w:4:ARG:O	2.31	0.47
41:c:33:LEU:HA	41:c:52:SER:HA	1.96	0.47
41:c:56:MET:SD	56:r:27:ARG:NH1	2.88	0.47
42:d:16:G:C6	42:d:17:C:C5	3.03	0.47
43:e:13:GLU:O	43:e:16:THR:OG1	2.28	0.47
43:e:52:ARG:O	43:e:56:LEU:HD23	2.14	0.47
46:h:147:LYS:HB2	46:h:150:LYS:HB2	1.96	0.47
47:i:28:LEU:HB2	47:i:37:LYS:HE3	1.96	0.47
48:j:84:LEU:HD12	48:j:88:GLU:CB	2.45	0.47
50:l:109:LEU:HD23	50:l:109:LEU:C	2.39	0.47
60:v:57:VAL:HG11	60:v:105:MET:HE2	1.96	0.47
62:x:11:ALA:HB2	62:x:96:GLY:CA	2.45	0.47
62:x:30:ARG:HB3	62:x:97:PHE:CE1	2.49	0.47
62:x:62:LEU:HD13	62:x:70:ALA:HA	1.95	0.47
63:y:46:VAL:CG1	63:y:47:VAL:N	2.78	0.47
64:z:48:ARG:O	64:z:51:ARG:HB2	2.15	0.47
2:1:69:LEU:HD12	2:1:69:LEU:N	2.29	0.47
3:2:55:VAL:N	3:2:88:LYS:HZ2	2.12	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:-8:A:H2'	8:7:-7:U:C6	2.50	0.47
9:9:19:ALA:HA	9:9:70:GLU:HG2	1.97	0.47
11:AA:562:GLU:OE1	11:AA:662:SER:OG	2.31	0.47
11:AA:1032:LYS:CA	11:AA:1032:LYS:CE	2.92	0.47
11:AA:1034:ARG:HG2	11:AA:1034:ARG:NH1	2.25	0.47
14:AE:198:CYS:HA	14:AE:221:ILE:CD1	2.45	0.47
10:B:5:G:H2'	10:B:6:G:C5'	2.44	0.47
10:B:59:A:H2'	10:B:60:U:H5'	1.96	0.47
15:C:44:ILE:HG23	15:C:44:ILE:O	2.14	0.47
15:C:71:THR:OG1	15:C:74:HIS:CD2	2.68	0.47
16:D:36:C:N3	16:D:37:U:C5	2.83	0.47
16:D:60:A:N7	16:D:108:G:O2'	2.45	0.47
16:D:166:U:H2'	16:D:167:A:H8	1.80	0.47
16:D:357:G:OP1	16:D:367:U:H2'	2.15	0.47
16:D:440:C:N3	16:D:441:A:C8	2.82	0.47
16:D:502:A:H2'	16:D:503:C:H6	1.80	0.47
16:D:750:C:O2	16:D:751:U:C6	2.68	0.47
16:D:819:A:H4'	16:D:820:U:OP2	2.15	0.47
16:D:942:G:C6	16:D:1342:C:C4	3.02	0.47
16:D:1287:A:H2	16:D:1353:G:H1'	1.79	0.47
16:D:1289:A:N1	16:D:1371:G:O2'	2.45	0.47
16:D:1330:U:O4	16:D:1331:G:C6	2.68	0.47
16:D:1357:A:N6	16:D:1363:A:C2	2.83	0.47
16:D:1455:G:H2'	16:D:1456:A:O4'	2.15	0.47
16:D:1488:G:N3	16:D:1489:G:C8	2.82	0.47
25:M:105:VAL:O	25:M:109:ARG:HG2	2.15	0.47
25:M:138:ARG:CD	25:M:142:HIS:CE1	2.98	0.47
28:P:49:PHE:CE1	31:S:76:LYS:HE2	2.50	0.47
29:Q:50:SER:HA	29:Q:69:ARG:CZ	2.43	0.47
34:V:46:VAL:C	34:V:71:LYS:HD2	2.40	0.47
36:X:90:ARG:HG3	36:X:97:VAL:HG22	1.96	0.47
37:Y:23:VAL:HG21	37:Y:27:LEU:HD13	1.97	0.47
37:Y:80:LYS:HA	37:Y:86:LYS:HA	1.96	0.47
39:a:460:A:H5''	39:a:461:C:OP2	2.15	0.47
39:a:830:G:O4'	39:a:2448:A:C2	2.68	0.47
39:a:833:A:H2'	39:a:834:G:H8	1.80	0.47
39:a:1085:A:H2'	39:a:1086:A:N3	2.29	0.47
39:a:1211:C:H3'	39:a:1212:G:H5'	1.96	0.47
39:a:1243:C:H1'	59:u:4:ASN:HB2	1.97	0.47
39:a:1442:U:H2'	39:a:1443:U:H6	1.78	0.47
39:a:1469:A:H2'	39:a:1470:A:C8	2.50	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1608:A:C5	39:a:1611:C:C4	3.03	0.47
39:a:1747:U:H2'	39:a:1748:C:C6	2.50	0.47
39:a:1854:A:N6	39:a:1888:G:H1'	2.30	0.47
39:a:2139:U:O2	39:a:2152:G:C6	2.68	0.47
39:a:2323:G:O2'	39:a:2324:U:H5'	2.15	0.47
39:a:2693:G:N1	39:a:2717:C:C4	2.83	0.47
39:a:2702:G:C2	39:a:2703:C:C6	3.03	0.47
39:a:2819:G:N2	39:a:2821:A:C1'	2.78	0.47
43:e:3:ALA:O	43:e:7:ARG:N	2.47	0.47
45:g:51:VAL:HG13	45:g:52:ALA:N	2.30	0.47
50:l:57:LYS:HD2	50:l:58:LYS:O	2.14	0.47
50:l:171:ASP:OD1	50:l:172:ALA:N	2.48	0.47
55:q:10:LEU:HB2	55:q:33:HIS:CE1	2.50	0.47
56:r:2:GLN:HB3	56:r:18:GLN:NE2	2.29	0.47
59:u:89:VAL:CG2	59:u:123:ARG:HD3	2.45	0.47
61:w:99:LYS:HA	61:w:111:ALA:HB2	1.97	0.47
63:y:71:GLU:HG3	63:y:72:ARG:N	2.30	0.47
1:0:44:GLY:O	1:0:45:GLU:HB2	2.15	0.47
4:3:12:ILE:HD11	4:3:80:ALA:CB	2.40	0.47
9:9:17:GLU:O	9:9:86:MET:HE2	2.14	0.47
9:9:73:LYS:HB3	9:9:117:LEU:CD1	2.41	0.47
11:AA:243:PRO:HB2	11:AA:274:ILE:HG23	1.96	0.47
13:AD:212:ASP:O	13:AD:215:GLU:N	2.48	0.47
14:AE:809:VAL:HG21	14:AE:909:ILE:HG12	1.95	0.47
14:AE:1167:LYS:HZ2	14:AE:1170:LYS:HB2	1.79	0.47
14:AE:1167:LYS:NZ	14:AE:1170:LYS:HB2	2.30	0.47
16:D:142:G:C2	16:D:143:A:H1'	2.50	0.47
16:D:260:G:H2'	16:D:261:U:C6	2.50	0.47
16:D:347:G:C6	16:D:348:G:N7	2.83	0.47
16:D:634:C:H2'	16:D:635:A:H8	1.78	0.47
16:D:977:A:N6	16:D:1224:U:O5'	2.48	0.47
16:D:977:A:O2'	16:D:979:C:OP2	2.21	0.47
16:D:1062:U:H2'	16:D:1063:C:C6	2.50	0.47
16:D:1085:U:H3'	16:D:1086:U:C5	2.49	0.47
16:D:1133:G:C6	16:D:1134:G:C6	3.03	0.47
16:D:1144:G:H2'	16:D:1145:A:O4'	2.15	0.47
16:D:1177:G:H2'	16:D:1178:G:O4'	2.15	0.47
16:D:1225:A:N3	16:D:1225:A:O2'	2.48	0.47
16:D:1326:U:H2'	16:D:1327:C:H6	1.79	0.47
19:G:20:THR:OG1	19:G:37:LYS:CE	2.63	0.47
19:G:73:LYS:O	19:G:74:ARG:HB3	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:H:83:LEU:HA	20:H:83:LEU:HD13	1.77	0.47
34:V:59:VAL:CG2	34:V:60:GLU:N	2.78	0.47
39:a:79:C:C2	39:a:108:G:C6	3.03	0.47
39:a:452:G:C4	39:a:458:G:C6	3.02	0.47
39:a:498:G:C2'	39:a:499:U:O5'	2.62	0.47
39:a:909:A:H2'	39:a:912:C:H5	1.79	0.47
39:a:1656:C:OP1	48:j:141:ARG:HD2	2.14	0.47
39:a:2147:A:N6	39:a:2148:G:C2	2.83	0.47
39:a:2190:G:C4	39:a:2191:A:C8	3.03	0.47
39:a:2190:G:H2'	39:a:2191:A:O4'	2.15	0.47
39:a:2197:U:C5	39:a:2224:G:C6	3.03	0.47
39:a:2250:G:O2'	39:a:2496:C:OP1	2.32	0.47
39:a:2261:C:C2	39:a:2262:U:C5	3.02	0.47
39:a:2280:G:C2	39:a:2281:A:C8	3.02	0.47
39:a:2355:G:C6	39:a:2363:G:C6	3.03	0.47
39:a:2399:G:C6	39:a:2418:A:C6	3.03	0.47
39:a:2494:G:N3	39:a:2495:G:C8	2.83	0.47
39:a:2568:U:C2	39:a:2569:G:C8	3.02	0.47
39:a:2649:C:C2	39:a:2650:U:C6	3.03	0.47
39:a:2688:G:H2'	39:a:2719:G:N2	2.29	0.47
39:a:2746:U:O4	39:a:2755:C:H4'	2.14	0.47
39:a:2825:G:C4	39:a:2826:A:C8	3.03	0.47
42:d:26:C:C2	42:d:27:C:C6	3.03	0.47
42:d:30:C:C4	42:d:31:C:C6	3.02	0.47
42:d:66:A:N6	42:d:107:G:H2'	2.30	0.47
43:e:43:LEU:CD2	43:e:47:ARG:HH22	2.28	0.47
46:h:45:ASN:OD1	46:h:46:ASN:N	2.46	0.47
46:h:69:ARG:NH1	46:h:127:GLY:O	2.43	0.47
46:h:226:ASN:HA	46:h:234:GLY:H	1.80	0.47
61:w:54:LEU:HD22	61:w:65:LEU:HD22	1.96	0.47
1:0:40:MET:HG3	1:0:49:ILE:CD1	2.45	0.47
8:7:-5:U:P	8:7:-5:U:C3'	3.03	0.47
9:9:54:VAL:HG23	9:9:54:VAL:O	2.15	0.47
9:9:95:LEU:HD11	9:9:99:PHE:HE2	1.79	0.47
9:9:108:VAL:O	9:9:109:LYS:HB2	2.13	0.47
11:AA:318:SER:H	11:AA:321:LEU:HD12	1.80	0.47
11:AA:559:CYS:HB2	11:AA:662:SER:HB3	1.97	0.47
11:AA:976:ARG:HG3	11:AA:976:ARG:NH1	2.30	0.47
14:AE:141:PHE:HE2	14:AE:296:LYS:CB	2.23	0.47
14:AE:209:ASN:HA	14:AE:214:ARG:NH2	2.30	0.47
15:C:56:ALA:O	15:C:60:LYS:HG3	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:42:G:H2'	16:D:43:C:C6	2.50	0.47
16:D:150:U:O2'	16:D:151:A:O4'	2.21	0.47
16:D:359:G:C4	16:D:360:G:C8	3.03	0.47
16:D:394:G:C6	16:D:395:C:C4	3.02	0.47
16:D:420:U:C2	16:D:424:G:N1	2.82	0.47
16:D:483:C:O5'	16:D:484:G:H2'	2.15	0.47
16:D:792:A:O2'	16:D:794:A:N7	2.47	0.47
16:D:942:G:C2	16:D:1342:C:C2	3.03	0.47
16:D:980:C:C4	16:D:981:U:C2	3.03	0.47
16:D:1061:G:C6	16:D:1197:A:C6	3.03	0.47
16:D:1112:C:C2	21:I:178:LEU:N	2.83	0.47
16:D:1118:U:H1'	16:D:1179:A:C4	2.50	0.47
16:D:1146:A:C6	16:D:1147:C:C6	3.03	0.47
16:D:1438:G:C4	16:D:1439:G:C8	3.03	0.47
19:G:70:VAL:O	19:G:164:ILE:HG12	2.15	0.47
20:H:33:LYS:HA	20:H:34:ASP:HA	1.61	0.47
20:H:52:GLN:O	20:H:53:PHE:HD1	1.95	0.47
20:H:69:ASP:O	20:H:85:SER:CB	2.63	0.47
20:H:291:GLY:HA2	20:H:305:HIS:O	2.15	0.47
21:I:36:ASP:OD2	31:S:92:GLU:OE2	2.31	0.47
23:K:160:SER:OG	23:K:163:GLU:HB2	2.14	0.47
26:N:47:GLU:O	26:N:48:ASP:HB3	2.15	0.47
31:S:7:LYS:NZ	31:S:67:THR:O	2.43	0.47
34:V:6:ARG:NH1	34:V:6:ARG:HB3	2.30	0.47
37:Y:105:LEU:O	37:Y:125:THR:HG23	2.14	0.47
39:a:80:G:N1	39:a:107:G:C6	2.83	0.47
39:a:607:U:H2'	39:a:608:A:O5'	2.15	0.47
39:a:628:G:C6	39:a:636:G:C2	3.03	0.47
39:a:870:U:N3	39:a:871:U:C5	2.83	0.47
39:a:1419:A:O4'	39:a:1579:A:N6	2.47	0.47
39:a:1427:A:N6	39:a:1571:A:OP2	2.43	0.47
39:a:1439:A:H3'	39:a:1440:U:H6	1.80	0.47
39:a:1789:A:OP2	46:h:221:ARG:NH2	2.45	0.47
39:a:2244:U:H2'	39:a:2245:U:O4'	2.14	0.47
39:a:2253:G:C4	39:a:2254:C:C5	3.03	0.47
39:a:2373:G:C4	39:a:2374:C:C5	3.03	0.47
39:a:2489:U:O2'	39:a:2490:G:H5'	2.15	0.47
39:a:2493:U:N3	39:a:2494:G:C8	2.83	0.47
44:f:5:ILE:HG12	44:f:6:LYS:N	2.29	0.47
46:h:33:LEU:CB	46:h:103:TYR:CE2	2.97	0.47
60:v:1:MET:H1	60:v:47:GLU:HG3	1.80	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:w:37:THR:HB	61:w:40:LYS:HG2	1.97	0.47
64:z:17:ILE:HG21	64:z:36:PHE:HA	1.95	0.47
2:1:65:ASP:O	2:1:69:LEU:CD1	2.63	0.46
9:9:43:LYS:NZ	9:9:98:GLU:O	2.48	0.46
10:A:37:A:C2	10:A:38:A:H1'	2.50	0.46
10:A:70:G:C3'	10:A:71:C:H5''	2.45	0.46
11:AA:93:SER:HA	11:AA:128:PRO:HA	1.97	0.46
14:AE:420:PRO:HA	14:AE:437:PHE:O	2.15	0.46
15:C:71:THR:O	15:C:74:HIS:CD2	2.68	0.46
16:D:161:A:N1	16:D:347:G:O2'	2.38	0.46
16:D:167:A:C2	16:D:168:G:C8	3.03	0.46
16:D:553:A:C4	16:D:554:A:C8	3.03	0.46
16:D:597:G:C5	16:D:598:U:C6	3.03	0.46
16:D:858:G:O6	16:D:869:G:H3'	2.15	0.46
16:D:898:G:N1	16:D:902:G:C6	2.83	0.46
17:E:9:LYS:O	17:E:12:ILE:HG12	2.14	0.46
23:K:80:THR:OG1	23:K:81:LEU:N	2.48	0.46
23:K:85:VAL:HG21	23:K:147:MET:HG3	1.97	0.46
25:M:101:MET:O	25:M:105:VAL:HG23	2.15	0.46
33:U:38:PHE:CE2	33:U:51:ARG:HB3	2.50	0.46
39:a:226:A:O2'	39:a:227:A:H5'	2.16	0.46
39:a:417:C:C2	39:a:418:C:C5	3.03	0.46
39:a:459:U:H3'	39:a:460:A:H8	1.80	0.46
39:a:467:G:OP2	51:m:34:ARG:HD2	2.15	0.46
39:a:638:G:C5	39:a:651:G:C2	3.04	0.46
39:a:687:C:H2'	39:a:688:U:O4'	2.15	0.46
39:a:805:G:OP2	39:a:806:C:N4	2.35	0.46
39:a:806:C:P	59:u:41:ARG:HH11	2.37	0.46
39:a:832:U:H2'	39:a:833:A:C8	2.50	0.46
39:a:837:C:N3	39:a:941:A:N6	2.62	0.46
39:a:858:G:O2'	39:a:2268:A:N3	2.42	0.46
39:a:1195:G:H2'	39:a:1196:C:H6	1.79	0.46
39:a:1338:G:O2'	39:a:1393:A:N1	2.40	0.46
39:a:1346:G:C6	39:a:1601:G:C6	3.03	0.46
39:a:1369:G:H2'	39:a:1370:C:O4'	2.15	0.46
39:a:1407:G:C4	39:a:1408:G:C8	3.02	0.46
39:a:1653:G:P	61:w:2:ARG:CZ	3.03	0.46
39:a:1669:A:O2'	39:a:2549:G:OP1	2.30	0.46
39:a:1752:C:O2'	39:a:1753:G:O4'	2.28	0.46
39:a:2047:C:H2'	39:a:2048:G:H8	1.78	0.46
39:a:2242:G:C6	39:a:2243:U:C4	3.03	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2508:G:C4	39:a:2509:G:C8	3.03	0.46
42:d:47:C:OP1	62:x:3:LYS:HD2	2.15	0.46
46:h:76:ALA:O	46:h:115:GLN:HA	2.15	0.46
54:p:10:VAL:HA	54:p:49:THR:HG22	1.97	0.46
54:p:90:VAL:HG11	54:p:163:ARG:HH11	1.80	0.46
57:s:84:ILE:HG23	57:s:84:ILE:O	2.15	0.46
61:w:37:THR:HG22	61:w:39:PRO:HD2	1.95	0.46
63:y:2:SER:OG	63:y:5:ILE:HG22	2.15	0.46
1:0:83:TYR:CD1	39:a:1187:G:H5''	2.51	0.46
11:AA:1023:HIS:C	11:AA:1023:HIS:ND1	2.73	0.46
11:AA:1034:ARG:NH1	11:AA:1034:ARG:C	2.73	0.46
11:AA:1047:LEU:O	11:AA:1049:ILE:HD11	2.13	0.46
13:AD:109:PRO:HB3	13:AD:132:HIS:CD2	2.50	0.46
16:D:124:C:H2'	16:D:125:U:C6	2.50	0.46
16:D:124:C:C2	16:D:125:U:C5	3.03	0.46
16:D:309:A:H2'	16:D:310:G:H8	1.79	0.46
16:D:410:G:H2'	16:D:429:U:C5	2.51	0.46
16:D:467:U:O2'	16:D:468:A:OP1	2.26	0.46
16:D:728:A:N7	32:T:54:ARG:NH1	2.63	0.46
16:D:930:C:C4	16:D:931:C:C5	3.03	0.46
16:D:988:G:C1'	16:D:1014:A:H61	2.28	0.46
16:D:1323:G:H2'	16:D:1324:A:C8	2.50	0.46
16:D:1369:C:OP1	27:O:113:ARG:HD3	2.14	0.46
20:H:316:ILE:HD11	20:H:321:VAL:HG11	1.97	0.46
23:K:89:HIS:HB3	23:K:135:ASN:O	2.16	0.46
36:X:106:ALA:HB1	36:X:110:LYS:HG3	1.97	0.46
37:Y:80:LYS:HB3	37:Y:86:LYS:HA	1.97	0.46
39:a:250:G:C6	39:a:251:A:C2	3.03	0.46
39:a:319:G:C6	39:a:333:G:C6	3.04	0.46
39:a:351:C:H2'	39:a:352:A:H8	1.80	0.46
39:a:483:A:C5	39:a:484:C:C6	3.03	0.46
39:a:654:A:H61	53:o:19:LYS:HG2	1.80	0.46
39:a:879:G:C6	39:a:880:G:C5	3.03	0.46
39:a:1322:A:C6	39:a:1323:C:C4	3.03	0.46
39:a:1993:U:H2'	39:a:1994:C:O4'	2.15	0.46
39:a:2019:A:H2'	39:a:2020:A:O5'	2.16	0.46
39:a:2094:A:C2	39:a:2196:C:C2	3.03	0.46
39:a:2517:C:C2	39:a:2542:A:N6	2.82	0.46
39:a:2599:G:N1	39:a:2600:A:C5	2.84	0.46
39:a:2615:U:C2	39:a:2616:C:C5	3.02	0.46
39:a:2886:A:C2	39:a:2887:A:H1'	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:d:26:C:C4	42:d:27:C:C5	3.02	0.46
43:e:42:LEU:O	43:e:45:GLN:HB2	2.15	0.46
46:h:227:PRO:HG3	46:h:234:GLY:HA3	1.96	0.46
48:j:61:THR:HG22	48:j:62:LYS:N	2.30	0.46
54:p:32:GLU:OE1	54:p:32:GLU:N	2.48	0.46
56:r:18:GLN:HE22	56:r:39:ALA:CB	2.28	0.46
56:r:26:ALA:HA	56:r:30:LEU:HB2	1.97	0.46
60:v:52:ALA:HB1	60:v:119:LEU:CD2	2.43	0.46
60:v:68:PHE:CE2	60:v:69:PRO:O	2.69	0.46
61:w:27:SER:HA	61:w:30:ARG:NH2	2.31	0.46
63:y:3:ASN:OD1	63:y:4:ILE:HG23	2.14	0.46
2:1:59:GLU:O	2:1:63:GLY:HA2	2.15	0.46
4:3:7:ARG:O	4:3:25:VAL:HB	2.15	0.46
9:9:17:GLU:C	9:9:86:MET:HG2	2.40	0.46
9:9:64:VAL:O	9:9:64:VAL:HG12	2.14	0.46
9:9:95:LEU:HD11	9:9:99:PHE:CE2	2.50	0.46
10:A:5:G:H2'	10:A:6:G:H5'	1.96	0.46
11:AA:800:MET:HB2	11:AA:800:MET:HE3	1.60	0.46
11:AA:841:ARG:HB2	11:AA:841:ARG:NH1	2.30	0.46
11:AA:994:ARG:C	11:AA:994:ARG:CD	2.89	0.46
14:AE:515:ARG:NH2	14:AE:718:SER:O	2.48	0.46
14:AE:526:VAL:HG12	14:AE:549:LYS:HB2	1.96	0.46
14:AE:902:ASP:OD2	14:AE:905:ARG:HB2	2.15	0.46
10:B:5:G:H2'	10:B:6:G:H5'	1.97	0.46
10:B:16:C:H3'	10:B:17:C:C5'	2.45	0.46
16:D:112:G:N2	16:D:354:G:O5'	2.47	0.46
16:D:552:U:C2	16:D:553:A:C8	3.03	0.46
16:D:735:C:N3	16:D:736:C:C5	2.84	0.46
16:D:1108:G:C6	16:D:1109:C:C6	3.03	0.46
16:D:1127:G:C4	16:D:1128:C:C5	3.03	0.46
16:D:1383:C:H2'	16:D:1384:C:C6	2.51	0.46
16:D:1472:U:C2	16:D:1473:G:C8	3.03	0.46
19:G:20:THR:HG23	19:G:37:LYS:C	2.40	0.46
19:G:160:ALA:HA	19:G:182:PRO:HG2	1.96	0.46
19:G:171:ILE:O	19:G:175:GLU:HG3	2.15	0.46
25:M:71:PRO:HA	25:M:142:HIS:CE1	2.50	0.46
25:M:94:VAL:HG13	25:M:95:ARG:N	2.30	0.46
30:R:66:TYR:HB2	30:R:87:VAL:HG21	1.96	0.46
39:a:58:G:H2'	39:a:59:U:C6	2.50	0.46
39:a:241:A:O4'	39:a:243:U:C6	2.69	0.46
39:a:287:G:C4	39:a:354:A:C2	3.03	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:554:U:C4	39:a:555:G:C5	3.03	0.46
39:a:609:A:H5''	39:a:610:C:OP2	2.15	0.46
39:a:648:G:C2	39:a:649:G:C5	3.04	0.46
39:a:784:G:H4'	39:a:785:G:O5'	2.16	0.46
39:a:873:C:N3	39:a:874:G:N7	2.64	0.46
39:a:958:U:O4'	60:v:14:LYS:HE2	2.15	0.46
39:a:1042:G:C6	39:a:1043:C:C4	3.03	0.46
39:a:1118:C:C4	39:a:1119:U:C4	3.03	0.46
39:a:1263:U:H2'	39:a:1264:A:C8	2.50	0.46
39:a:1427:A:H4'	39:a:1428:C:O4'	2.15	0.46
39:a:1525:A:H2'	39:a:1526:C:C6	2.50	0.46
39:a:1723:G:H2'	39:a:1723:G:N3	2.29	0.46
39:a:1790:C:O3'	39:a:1791:A:H8	1.97	0.46
39:a:2239:G:C2	39:a:2240:U:C6	3.04	0.46
39:a:2362:C:H2'	39:a:2363:G:O4'	2.15	0.46
39:a:2459:A:C5	39:a:2460:U:C5	3.03	0.46
39:a:2688:G:H2'	39:a:2719:G:C2	2.51	0.46
39:a:2714:G:C6	39:a:2715:C:C4	3.04	0.46
53:o:57:LEU:HD11	59:u:49:GLY:HA2	1.97	0.46
54:p:10:VAL:HG22	54:p:11:VAL:N	2.30	0.46
61:w:17:ARG:O	61:w:21:PHE:CD1	2.69	0.46
63:y:25:THR:HG21	63:y:88:ARG:NH2	2.30	0.46
64:z:86:ALA:HB3	64:z:88:VAL:HG23	1.98	0.46
4:3:104:LYS:CG	39:a:301:G:OP2	2.63	0.46
11:AA:549:ASP:OD2	14:AE:750:PRO:HB3	2.15	0.46
13:AC:197:ASP:OD1	13:AC:197:ASP:N	2.43	0.46
10:B:18:G:H2'	10:B:57:A:C2	2.50	0.46
16:D:111:G:H1	16:D:330:C:N4	2.13	0.46
16:D:138:G:C6	16:D:226:G:C6	3.03	0.46
16:D:316:C:C5	16:D:351:G:C5	3.03	0.46
16:D:359:G:C6	16:D:360:G:C5	3.03	0.46
16:D:437:U:O2'	16:D:438:U:H5'	2.14	0.46
16:D:613:C:O2'	16:D:614:C:H5'	2.15	0.46
16:D:633:G:C4	16:D:634:C:C5	3.03	0.46
16:D:1118:U:H1'	16:D:1179:A:C5	2.49	0.46
16:D:1208:C:H2'	16:D:1209:C:C6	2.50	0.46
16:D:1238:A:H2'	16:D:1238:A:N3	2.29	0.46
16:D:1280:A:O2'	16:D:1281:C:H5'	2.16	0.46
16:D:1448:C:C2	16:D:1449:C:C6	3.04	0.46
16:D:1456:A:C6	16:D:1457:G:C4	3.04	0.46
17:E:35:VAL:HG12	17:E:39:ILE:HD11	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:E:69:LYS:HG3	17:E:70:ASN:N	2.30	0.46
19:G:162:PHE:CE1	19:G:217:VAL:HG21	2.50	0.46
21:I:34:ASP:OD2	31:S:65:ARG:HD3	2.15	0.46
22:J:61:VAL:CG2	22:J:200:ILE:HD11	2.39	0.46
23:K:60:ILE:HG13	23:K:61:GLN:N	2.30	0.46
25:M:50:LEU:HD22	25:M:124:LEU:HB3	1.96	0.46
26:N:110:VAL:O	26:N:111:MET:HB2	2.16	0.46
34:V:65:ARG:NH2	34:V:66:PRO:O	2.47	0.46
34:V:67:LEU:N	34:V:71:LYS:O	2.45	0.46
39:a:37:C:H4'	50:l:47:LYS:NZ	2.30	0.46
39:a:169:G:O2'	39:a:170:U:H5'	2.16	0.46
39:a:216:A:C4	39:a:217:A:C8	3.04	0.46
39:a:243:U:O2	39:a:243:U:H2'	2.15	0.46
39:a:370:G:O2'	39:a:424:G:OP1	2.28	0.46
39:a:893:C:H2'	39:a:894:U:C5	2.50	0.46
39:a:923:G:C2	39:a:924:G:C8	3.03	0.46
39:a:994:C:OP1	64:z:50:ARG:HB2	2.16	0.46
39:a:1127:A:N7	39:a:2488:G:O2'	2.47	0.46
39:a:1263:U:O2'	47:i:4:GLN:OE1	2.34	0.46
39:a:2063:C:C2	39:a:2064:C:C6	3.04	0.46
39:a:2070:A:H2'	39:a:2071:A:O4'	2.14	0.46
39:a:2264:C:H2'	39:a:2265:U:C6	2.50	0.46
39:a:2265:U:O2	39:a:2276:G:C2	2.67	0.46
39:a:2291:U:O2'	39:a:2374:C:H1'	2.15	0.46
39:a:2702:G:C4	39:a:2703:C:C5	3.03	0.46
39:a:2808:G:C6	39:a:2891:U:C5	3.03	0.46
42:d:46:A:C6	42:d:47:C:C4	3.03	0.46
48:j:149:ASN:C	48:j:151:THR:H	2.24	0.46
54:p:30:ASN:OD1	54:p:80:THR:C	2.58	0.46
61:w:13:ASN:O	61:w:17:ARG:HG2	2.15	0.46
8:7:5:U:C6	23:K:57:PRO:CB	2.97	0.46
9:9:126:LEU:HD23	9:9:126:LEU:H	1.81	0.46
10:A:16:C:H3'	10:A:17:C:C5'	2.45	0.46
10:A:29:G:C6	10:A:30:G:N7	2.84	0.46
11:AA:685:MET:SD	11:AA:1073:LYS:HG2	2.55	0.46
13:AD:104:LYS:HG2	13:AD:110:VAL:HB	1.96	0.46
14:AE:385:LEU:HD23	14:AE:390:LEU:HB2	1.98	0.46
14:AE:1221:LEU:HD22	14:AE:1306:LEU:HB2	1.97	0.46
16:D:1054:C:P	16:D:1196:A:O2'	2.74	0.46
16:D:1141:C:O2'	16:D:1142:G:P	2.73	0.46
16:D:1158:C:C4	16:D:1160:G:C8	3.04	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1323:G:C2	16:D:1324:A:C5	3.03	0.46
16:D:1490:U:N3	16:D:1491:G:N7	2.63	0.46
23:K:109:GLY:O	23:K:110:ALA:C	2.59	0.46
39:a:64:A:N1	39:a:91:A:N6	2.64	0.46
39:a:80:G:C6	39:a:81:G:C5	3.04	0.46
39:a:199:A:N3	39:a:2433:A:C2	2.83	0.46
39:a:360:U:H3'	39:a:361:G:C8	2.51	0.46
39:a:388:G:H5'	39:a:389:G:OP2	2.16	0.46
39:a:795:C:O2'	39:a:796:C:H5'	2.15	0.46
39:a:849:A:H2'	39:a:850:U:C6	2.51	0.46
39:a:880:G:H2'	39:a:881:G:H8	1.79	0.46
39:a:962:G:C4	39:a:963:U:C5	3.04	0.46
39:a:974:G:N1	39:a:989:G:C4	2.84	0.46
39:a:999:U:O2	39:a:999:U:H2'	2.15	0.46
39:a:1251:C:OP2	64:z:6:ARG:NH2	2.43	0.46
39:a:1290:C:C2	39:a:1291:C:C5	3.04	0.46
39:a:1321:A:C5	39:a:1322:A:N7	2.84	0.46
39:a:1691:C:C2'	39:a:1692:U:H5'	2.46	0.46
39:a:1809:A:C2'	39:a:1810:A:O4'	2.63	0.46
39:a:2000:C:O2'	39:a:2001:C:H5'	2.16	0.46
39:a:2209:G:N1	39:a:2216:G:C6	2.84	0.46
39:a:2305:U:O4	52:n:39:GLY:O	2.33	0.46
39:a:2393:U:C2	39:a:2394:C:C6	3.03	0.46
39:a:2512:C:O2	48:j:145:SER:HB2	2.15	0.46
39:a:2707:U:C2	39:a:2708:G:C8	3.04	0.46
39:a:2790:U:H5'	39:a:2893:A:N7	2.31	0.46
42:d:25:U:C4	42:d:26:C:C5	3.04	0.46
42:d:30:C:H2'	42:d:30:C:O2	2.14	0.46
42:d:97:C:C4	42:d:98:G:C8	3.03	0.46
46:h:117:GLN:O	46:h:128:ASN:HA	2.16	0.46
52:n:44:ILE:HA	52:n:83:TYR:OH	2.15	0.46
55:q:18:LYS:HA	55:q:22:VAL:O	2.15	0.46
63:y:52:ASN:CG	63:y:52:ASN:O	2.58	0.46
3:2:30:ILE:HG22	3:2:31:VAL:N	2.30	0.46
9:9:19:ALA:HB2	9:9:69:PHE:CE2	2.51	0.46
10:A:8:U:O4	10:A:14:A:N7	2.49	0.46
11:AA:588:GLU:HA	11:AA:606:LEU:O	2.15	0.46
11:AA:957:LYS:HA	11:AA:1029:LEU:HD12	1.97	0.46
11:AA:1020:GLU:HA	11:AA:1023:HIS:HD2	1.81	0.46
13:AD:199:ASP:N	13:AD:199:ASP:OD1	2.48	0.46
16:D:124:C:O2'	16:D:125:U:H5'	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:141:G:C6	16:D:223:A:C6	3.03	0.46
16:D:333:U:N3	16:D:334:C:C5	2.84	0.46
16:D:393:A:C2	16:D:394:G:C8	3.03	0.46
16:D:575:G:N2	16:D:881:G:H1'	2.30	0.46
16:D:801:U:H2'	16:D:802:A:H8	1.81	0.46
16:D:808:C:N3	16:D:809:G:C8	2.83	0.46
16:D:917:G:H2'	16:D:918:A:C8	2.50	0.46
16:D:984:C:O2	16:D:985:C:C5	2.68	0.46
16:D:985:C:H2'	16:D:986:U:H6	1.81	0.46
16:D:1097:C:H1'	16:D:1170:A:H1'	1.98	0.46
16:D:1195:C:H5''	16:D:1196:A:OP2	2.15	0.46
19:G:151:ILE:O	19:G:153:ASP:N	2.48	0.46
19:G:196:VAL:HG12	19:G:198:PHE:C	2.41	0.46
21:I:30:ALA:CB	31:S:76:LYS:O	2.59	0.46
23:K:32:SER:OG	23:K:33:PHE:N	2.44	0.46
23:K:82:GLN:O	23:K:83:HIS:HB3	2.16	0.46
25:M:30:LEU:HD23	25:M:105:VAL:HG22	1.96	0.46
26:N:67:GLN:O	26:N:67:GLN:CD	2.59	0.46
28:P:8:ILE:HD12	28:P:25:ILE:CD1	2.46	0.46
29:Q:96:THR:O	29:Q:100:LEU:HG	2.15	0.46
35:W:44:MET:HE3	35:W:62:VAL:CG2	2.46	0.46
39:a:66:C:N4	39:a:74:A:H62	2.14	0.46
39:a:167:A:C2	39:a:168:G:H1'	2.51	0.46
39:a:383:C:N3	39:a:391:A:N6	2.64	0.46
39:a:384:A:N3	39:a:384:A:H2'	2.31	0.46
39:a:565:C:H2'	39:a:566:U:C6	2.51	0.46
39:a:710:U:N3	39:a:711:G:N7	2.64	0.46
39:a:813:U:H2'	39:a:814:C:H6	1.79	0.46
39:a:962:G:C5	39:a:963:U:C5	3.04	0.46
39:a:1232:G:C4	39:a:1233:C:C6	3.04	0.46
39:a:1317:G:C6	39:a:1336:A:C6	3.03	0.46
39:a:1812:U:H2'	39:a:1813:G:H8	1.80	0.46
39:a:1901:A:O5'	46:h:253:LYS:HE2	2.16	0.46
39:a:1965:C:OP1	39:a:1966:A:O2'	2.20	0.46
39:a:2038:G:H2'	39:a:2039:U:C6	2.50	0.46
39:a:2246:G:H2'	39:a:2247:A:C8	2.51	0.46
39:a:2256:G:C6	39:a:2257:U:C4	3.03	0.46
39:a:2599:G:C2	39:a:2600:A:C5	3.04	0.46
39:a:2682:A:H2'	39:a:2683:C:O4'	2.16	0.46
39:a:2885:G:C2'	39:a:2886:A:O5'	2.64	0.46
39:a:2889:C:H2'	39:a:2890:G:C8	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:d:74:U:H2'	42:d:75:G:O4'	2.15	0.46
42:d:101:A:H2'	42:d:102:G:O4'	2.16	0.46
46:h:204:VAL:HG22	46:h:205:LEU:N	2.29	0.46
48:j:4:LEU:HD23	48:j:101:PHE:CE1	2.50	0.46
48:j:4:LEU:N	48:j:203:VAL:O	2.45	0.46
48:j:177:VAL:HA	48:j:189:VAL:HG12	1.97	0.46
59:u:79:LEU:HB2	59:u:113:ALA:O	2.14	0.46
61:w:13:ASN:OD1	61:w:13:ASN:C	2.59	0.46
5:4:85:LYS:C	5:4:86:LEU:HD23	2.40	0.46
9:9:111:ALA:O	9:9:114:GLU:HG2	2.16	0.46
11:AA:1257:GLN:CD	14:AE:345:LYS:HB3	2.40	0.46
13:AC:73:GLY:HA3	13:AC:138:ALA:CB	2.46	0.46
16:D:197:A:C4'	16:D:198:G:O5'	2.63	0.46
16:D:251:G:C6	16:D:266:G:O6	2.69	0.46
16:D:728:A:C2	16:D:729:A:C4	3.03	0.46
16:D:749:A:C6	16:D:750:C:C5	3.04	0.46
16:D:985:C:O2'	16:D:986:U:H5'	2.15	0.46
16:D:1083:U:H3'	16:D:1084:G:C8	2.51	0.46
16:D:1250:A:N7	16:D:1287:A:C8	2.84	0.46
16:D:1270:G:C2	16:D:1271:A:C8	3.04	0.46
16:D:1349:A:C4	16:D:1350:A:C8	3.04	0.46
16:D:1449:C:O2'	16:D:1450:U:H5'	2.16	0.46
19:G:92:VAL:HG11	19:G:96:TRP:CZ3	2.51	0.46
19:G:115:LYS:HD2	19:G:115:LYS:C	2.41	0.46
20:H:267:TRP:HZ3	20:H:342:ILE:CD1	2.03	0.46
21:I:26:THR:HG23	31:S:76:LYS:HB2	1.97	0.46
31:S:73:PHE:CG	31:S:74:LEU:N	2.83	0.46
37:Y:105:LEU:HA	37:Y:108:ILE:HD11	1.97	0.46
39:a:194:G:H2'	39:a:195:A:O4'	2.15	0.46
39:a:270:A:C2	39:a:370:G:C4	3.03	0.46
39:a:337:C:H2'	39:a:338:G:O4'	2.16	0.46
39:a:374:A:C2	39:a:375:G:H1'	2.50	0.46
39:a:738:G:C6	39:a:759:G:O6	2.69	0.46
39:a:893:C:C4	39:a:894:U:O4	2.69	0.46
39:a:1050:A:C6	39:a:1051:G:C6	3.03	0.46
39:a:1135:C:C6	39:a:1137:G:OP2	2.69	0.46
39:a:1304:A:C2	39:a:1625:C:C2	3.04	0.46
39:a:1340:U:C5	39:a:1603:A:C8	3.03	0.46
39:a:1430:G:H2'	39:a:1431:A:C8	2.51	0.46
39:a:1799:G:H8	46:h:180:GLU:OE1	1.98	0.46
39:a:1827:U:O2'	39:a:1828:G:H5'	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2233:U:H2'	39:a:2234:G:C8	2.51	0.46
39:a:2284:A:O2'	39:a:2288:A:N1	2.40	0.46
39:a:2320:U:H4'	39:a:2321:U:H5''	1.97	0.46
39:a:2549:G:C6	39:a:2560:A:C6	3.03	0.46
39:a:2555:U:OP2	39:a:2556:C:H5	1.98	0.46
39:a:2571:U:O2'	48:j:151:THR:HG23	2.16	0.46
39:a:2590:A:H2'	39:a:2591:C:H6	1.81	0.46
39:a:2888:C:H2'	39:a:2889:C:C6	2.50	0.46
40:b:49:ALA:N	40:b:81:SER:OG	2.40	0.46
42:d:30:C:H1'	42:d:57:A:H61	1.80	0.46
42:d:75:G:H2'	42:d:76:G:O4'	2.16	0.46
46:h:76:ALA:HB2	46:h:96:TYR:CD2	2.51	0.46
50:l:17:THR:O	50:l:106:LYS:HE2	2.15	0.46
55:q:22:VAL:HG11	55:q:36:ARG:NH1	2.30	0.46
56:r:31:VAL:N	56:r:32:PRO:CD	2.79	0.46
56:r:73:ASN:HB3	56:r:108:VAL:HG23	1.97	0.46
59:u:71:ALA:O	59:u:74:THR:OG1	2.33	0.46
61:w:103:ARG:N	61:w:108:ALA:O	2.44	0.46
1:0:73:LYS:NZ	39:a:1225:G:OP1	2.48	0.46
11:AA:596:ASP:N	11:AA:596:ASP:OD1	2.49	0.46
14:AE:53:ARG:HA	14:AE:54:ASP:HA	1.55	0.46
10:B:29:G:C6	10:B:30:G:N7	2.84	0.46
16:D:23:C:C2	16:D:24:U:C5	3.04	0.46
16:D:73:C:O2	16:D:73:C:C2'	2.64	0.46
16:D:409:U:H2'	16:D:410:G:O4'	2.15	0.46
16:D:610:U:C2	16:D:611:C:C5	3.04	0.46
16:D:790:A:C2'	16:D:791:G:O4'	2.62	0.46
16:D:935:A:O2'	16:D:1384:C:C2	2.68	0.46
16:D:1178:G:O2'	16:D:1180:A:N7	2.30	0.46
16:D:1215:G:C5	16:D:1216:A:N7	2.84	0.46
21:I:117:ALA:HB2	21:I:200:VAL:CG1	2.46	0.46
25:M:70:ARG:HA	25:M:100:ALA:HB2	1.98	0.46
31:S:44:ALA:HA	31:S:47:LYS:HE3	1.98	0.46
34:V:21:ILE:O	34:V:45:HIS:HA	2.16	0.46
37:Y:79:LEU:HA	37:Y:83:ALA:CB	2.46	0.46
39:a:285:G:C5	39:a:286:U:C5	3.04	0.46
39:a:285:G:C6	39:a:356:G:C5	3.04	0.46
39:a:301:G:C5	39:a:317:G:C6	3.03	0.46
39:a:552:U:N3	39:a:553:G:N7	2.64	0.46
39:a:552:U:H2'	39:a:553:G:H8	1.80	0.46
39:a:779:U:H2'	39:a:780:G:O4'	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:786:C:O2'	39:a:787:C:H5'	2.16	0.46
39:a:1258:U:H6	39:a:1258:U:O5'	1.98	0.46
39:a:1287:A:OP1	61:w:105:GLY:N	2.49	0.46
39:a:1324:G:H1'	39:a:1616:A:N6	2.31	0.46
39:a:1490:A:O2'	39:a:1491:G:H5'	2.16	0.46
39:a:2130:U:N3	39:a:2159:G:O6	2.48	0.46
39:a:2256:G:C5	39:a:2257:U:C5	3.03	0.46
39:a:2259:U:O4'	39:a:2427:C:H2'	2.16	0.46
39:a:2659:G:C2	39:a:2663:G:C6	3.04	0.46
39:a:2846:G:H2'	39:a:2847:U:O4'	2.15	0.46
42:d:28:C:C2	42:d:29:A:C8	3.04	0.46
44:f:6:LYS:HB2	44:f:58:GLU:HB3	1.97	0.46
47:i:13:ARG:O	47:i:16:ARG:N	2.49	0.46
50:l:60:TRP:HD1	50:l:61:ARG:O	1.99	0.46
50:l:147:LEU:N	50:l:185:LYS:O	2.44	0.46
52:n:14:LYS:N	52:n:14:LYS:HD3	2.30	0.46
59:u:2:ARG:N	59:u:5:THR:OG1	2.28	0.46
61:w:36:THR:C	61:w:110:MET:SD	2.99	0.46
62:x:18:LEU:HA	62:x:21:LEU:HD12	1.98	0.46
64:z:70:ARG:NH2	64:z:75:SER:HA	2.30	0.46
4:3:41:LEU:HD23	4:3:62:GLU:HA	1.97	0.46
9:9:47:GLU:HG3	9:9:52:MET:CE	2.45	0.46
10:B:8:U:O4	10:B:14:A:N7	2.49	0.46
16:D:16:A:C6	16:D:17:U:C5	3.04	0.46
16:D:142:G:N2	16:D:143:A:H1'	2.30	0.46
16:D:235:C:H2'	16:D:236:A:H8	1.81	0.46
16:D:364:A:H2'	16:D:365:U:O2	2.16	0.46
16:D:793:U:O2	16:D:1516:G:H4'	2.16	0.46
16:D:1303:C:O2'	16:D:1304:G:H5'	2.16	0.46
16:D:1348:U:C4'	27:O:122:ARG:HB2	2.44	0.46
20:H:309:MET:HE2	20:H:318:PRO:HB3	1.97	0.46
25:M:151:PHE:CD1	25:M:152:ALA:N	2.84	0.46
33:U:4:ILE:HD13	33:U:67:ILE:HG13	1.98	0.46
35:W:13:LEU:HG	35:W:14:HIS:N	2.29	0.46
39:a:126:A:O2'	39:a:127:A:H5'	2.16	0.46
39:a:184:C:C2	39:a:213:A:N1	2.84	0.46
39:a:335:C:N3	39:a:336:C:C5	2.84	0.46
39:a:412:A:C8	39:a:413:C:C5	3.03	0.46
39:a:538:A:H2'	39:a:539:G:O4'	2.16	0.46
39:a:817:C:O2'	39:a:839:U:H5''	2.15	0.46
39:a:959:A:N1	39:a:2495:G:H1'	2.31	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1042:G:C4	39:a:1043:C:C5	3.04	0.46
39:a:1073:A:C6	39:a:1074:G:C6	3.04	0.46
39:a:1353:A:H2'	39:a:1354:A:H8	1.81	0.46
39:a:1650:A:C4	39:a:1651:G:C8	3.04	0.46
39:a:1675:C:C4	39:a:1676:A:C5	3.04	0.46
39:a:2094:A:OP1	56:r:22:LYS:CE	2.63	0.46
39:a:2176:A:C6	39:a:2177:C:N4	2.83	0.46
39:a:2229:U:H2'	39:a:2230:G:H8	1.81	0.46
39:a:2533:U:H2'	39:a:2534:A:O4'	2.16	0.46
39:a:2574:G:C6	39:a:2575:C:C4	3.04	0.46
39:a:2740:A:H2'	39:a:2741:A:C8	2.51	0.46
39:a:2785:C:C2	39:a:2786:U:C6	3.04	0.46
39:a:2872:A:O2'	39:a:2873:A:H5'	2.16	0.46
47:i:13:ARG:O	47:i:17:ARG:HG3	2.15	0.46
57:s:141:ASP:C	57:s:142:ILE:HG13	2.40	0.46
63:y:37:LYS:HG3	63:y:37:LYS:O	2.15	0.46
63:y:61:VAL:N	63:y:71:GLU:OE2	2.49	0.46
1:0:32:THR:CG2	1:0:33:VAL:N	2.79	0.46
7:6:21:DA:C6	8:7:15:G:C2	3.03	0.46
8:7:9:U:OP2	8:7:9:U:H6	1.98	0.46
9:9:11:ILE:C	9:9:14:GLU:HG3	2.41	0.46
10:A:20:U:H3'	10:A:21:A:H5''	1.98	0.46
10:A:36:U:H2'	10:A:37:A:C8	2.51	0.46
10:A:64:G:C4	10:A:65:C:C5	3.04	0.46
11:AA:538:LEU:HD11	11:AA:571:LEU:HD22	1.98	0.46
11:AA:855:PRO:HB3	11:AA:913:VAL:HG21	1.97	0.46
11:AA:967:LEU:HD23	11:AA:1021:LEU:HD21	1.98	0.46
11:AA:1029:LEU:HD11	11:AA:1033:ARG:HH21	1.81	0.46
11:AA:1032:LYS:CE	11:AA:1032:LYS:HA	2.45	0.46
14:AE:109:SER:HB2	14:AE:296:LYS:HG2	1.98	0.46
14:AE:115:TRP:HB3	14:AE:1333:THR:CG2	2.46	0.46
14:AE:128:LEU:HD21	14:AE:188:LEU:HB3	1.97	0.46
16:D:74:A:C2	16:D:75:G:C4	3.03	0.46
16:D:131:A:C6	16:D:232:G:C6	3.04	0.46
16:D:213:G:C5	16:D:214:C:C6	3.04	0.46
16:D:253:A:N6	16:D:274:A:C6	2.84	0.46
16:D:255:G:C6	16:D:256:U:C4	3.04	0.46
16:D:266:G:H1'	16:D:268:U:OP2	2.15	0.46
16:D:340:U:C2	16:D:341:C:C5	3.05	0.46
16:D:360:G:H2'	16:D:361:G:C8	2.51	0.46
16:D:643:C:N3	16:D:644:U:C4	2.83	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:774:G:C2	16:D:806:C:C2	3.04	0.46
16:D:957:U:C2	16:D:959:A:OP2	2.69	0.46
16:D:1130:A:H61	16:D:1144:G:H1'	1.80	0.46
16:D:1157:A:C2	16:D:1181:G:C5	3.03	0.46
16:D:1169:A:O2'	16:D:1170:A:C5'	2.64	0.46
16:D:1175:G:HO2'	16:D:1176:A:P	2.38	0.46
16:D:1192:C:C5	16:D:1193:G:C8	3.04	0.46
16:D:1391:U:C2	16:D:1392:G:N7	2.84	0.46
19:G:162:PHE:CZ	19:G:186:ILE:HD11	2.51	0.46
20:H:332:VAL:HG13	20:H:342:ILE:HG23	1.98	0.46
25:M:99:LEU:HD11	25:M:103:TRP:NE1	2.31	0.46
30:R:82:ILE:CD1	30:R:97:THR:HG22	2.45	0.46
35:W:47:LEU:O	35:W:62:VAL:HG23	2.16	0.46
39:a:18:U:C2'	39:a:19:A:H5'	2.45	0.46
39:a:67:U:N3	39:a:74:A:N6	2.64	0.46
39:a:203:A:H3'	39:a:204:A:H2'	1.98	0.46
39:a:583:G:C6	39:a:584:C:C4	3.04	0.46
39:a:589:U:H2'	39:a:590:A:H8	1.81	0.46
39:a:675:A:C8	39:a:804:A:C6	3.04	0.46
39:a:677:A:C2	39:a:678:C:C6	3.04	0.46
39:a:996:A:N6	39:a:1160:G:C6	2.84	0.46
39:a:1073:A:C6	39:a:1074:G:C5	3.04	0.46
39:a:1176:U:H4'	39:a:1177:G:O4'	2.15	0.46
39:a:1587:G:H2'	39:a:1588:G:C8	2.51	0.46
39:a:1604:C:O2'	39:a:1605:C:H5'	2.16	0.46
39:a:1656:C:OP1	48:j:141:ARG:CG	2.64	0.46
39:a:1820:U:O2	46:h:200:HIS:HB3	2.16	0.46
39:a:2329:U:C2	39:a:2330:G:C8	3.04	0.46
39:a:2335:A:C8	39:a:2337:G:C6	3.04	0.46
39:a:2337:G:C2	39:a:2338:C:C5	3.04	0.46
39:a:2769:U:C2	39:a:2770:G:C8	3.04	0.46
39:a:2827:C:C2	39:a:2828:G:C8	3.04	0.46
39:a:2834:G:H2'	39:a:2879:A:H61	1.81	0.46
39:a:2839:G:H2'	39:a:2840:C:H6	1.81	0.46
46:h:118:SER:HA	46:h:129:THR:O	2.16	0.46
49:k:35:GLU:C	49:k:36:LEU:HD22	2.41	0.46
50:l:7:ASP:OD1	50:l:8:ALA:N	2.49	0.46
50:l:176:ASP:HB2	50:l:177:PRO:HD2	1.98	0.46
60:v:45:GLN:O	60:v:46:ILE:C	2.58	0.46
4:3:28:VAL:HB	4:3:34:VAL:HG12	1.96	0.45
4:3:36:VAL:HG12	4:3:37:GLU:N	2.31	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:78:GLY:N	9:9:79:PRO:CD	2.79	0.45
9:9:88:HIS:CB	9:9:89:PRO:CD	2.83	0.45
9:9:102:ALA:O	9:9:107:GLU:HB2	2.15	0.45
11:AA:974:ARG:HD2	11:AA:1014:LEU:CD1	2.46	0.45
13:AC:59:VAL:O	13:AC:171:LEU:HG	2.16	0.45
13:AD:96:ASP:HB3	13:AD:148:ARG:HE	1.81	0.45
14:AE:123:ARG:HA	14:AE:123:ARG:HD3	1.49	0.45
14:AE:201:LEU:CD1	14:AE:224:LEU:HD12	2.46	0.45
10:B:64:G:C4	10:B:65:C:C5	3.04	0.45
15:C:23:TYR:CE1	15:C:24:LYS:HD3	2.51	0.45
16:D:94:G:C2	16:D:97:G:O6	2.69	0.45
16:D:269:C:H2'	16:D:270:A:C8	2.51	0.45
16:D:515:G:C6	16:D:537:G:C6	3.04	0.45
16:D:598:U:H2'	16:D:599:C:H6	1.79	0.45
16:D:677:U:C2	16:D:678:U:C5	3.05	0.45
16:D:737:C:N3	16:D:738:C:C5	2.85	0.45
16:D:778:G:H2'	16:D:779:C:O4'	2.16	0.45
16:D:915:A:C6	16:D:916:U:C4	3.04	0.45
18:F:38:TYR:CE1	18:F:39:GLU:O	2.69	0.45
19:G:157:LEU:HD12	19:G:158:PRO:O	2.16	0.45
20:H:332:VAL:HG11	20:H:335:ILE:CG1	2.38	0.45
26:N:10:MET:HA	26:N:27:MET:HE1	1.98	0.45
31:S:81:ARG:HG3	31:S:82:ILE:N	2.31	0.45
31:S:88:ALA:CB	31:S:96:LEU:CD2	2.93	0.45
39:a:48:G:N1	39:a:177:G:OP2	2.50	0.45
39:a:185:G:C6	39:a:212:G:C6	3.03	0.45
39:a:200:U:O4	39:a:250:G:C2	2.69	0.45
39:a:367:G:C4	39:a:368:A:C8	3.04	0.45
39:a:371:A:N6	39:a:402:A:OP2	2.49	0.45
39:a:531:C:H4'	39:a:532:A:H5''	1.97	0.45
39:a:690:G:H2'	39:a:691:C:H6	1.81	0.45
39:a:757:G:C6	39:a:758:C:C6	3.04	0.45
39:a:766:U:H2'	39:a:767:U:C6	2.51	0.45
39:a:906:U:H2'	39:a:907:G:O4'	2.16	0.45
39:a:985:C:O2	39:a:985:C:H2'	2.15	0.45
39:a:1050:A:N1	39:a:2751:G:C5	2.84	0.45
39:a:1218:G:C2	39:a:1232:G:C5	3.05	0.45
39:a:1273:U:O2	39:a:2002:G:O2'	2.33	0.45
39:a:1507:C:H2'	39:a:1508:A:O4'	2.15	0.45
39:a:1603:A:C5	39:a:1604:C:C5	3.04	0.45
39:a:1713:A:N6	39:a:1746:A:C6	2.84	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2397:G:C4	39:a:2398:U:C5	3.04	0.45
39:a:2447:G:N3	39:a:2501:C:N4	2.65	0.45
39:a:2447:G:C4	39:a:2501:C:C4	3.05	0.45
39:a:2514:U:H2'	39:a:2515:C:C6	2.51	0.45
39:a:2715:C:H2'	39:a:2716:C:O5'	2.16	0.45
39:a:2734:A:C2	39:a:2735:G:H1'	2.51	0.45
46:h:260:ASN:OD1	46:h:263:THR:N	2.41	0.45
48:j:9:VAL:HB	48:j:26:VAL:HB	1.98	0.45
50:l:5:LEU:CD2	50:l:120:VAL:HG12	2.47	0.45
50:l:137:LYS:O	50:l:141:MET:HG2	2.16	0.45
52:n:34:ILE:HD12	52:n:99:PHE:HD1	1.80	0.45
57:s:81:ILE:HG13	57:s:82:GLY:H	1.80	0.45
64:z:79:PHE:CE2	64:z:83:LEU:HD21	2.51	0.45
1:0:68:ARG:HD2	1:0:90:ARG:CZ	2.47	0.45
3:2:55:VAL:O	3:2:88:LYS:NZ	2.41	0.45
11:AA:965:GLN:HA	11:AA:968:GLU:HB3	1.97	0.45
14:AE:213:LYS:HA	14:AE:213:LYS:HE3	1.99	0.45
14:AE:926:PRO:HB2	14:AE:1241:TYR:HE1	1.82	0.45
16:D:166:U:C2	16:D:167:A:C8	3.04	0.45
16:D:284:C:O2'	16:D:285:C:H5'	2.16	0.45
16:D:371:A:O2'	16:D:373:A:N7	2.48	0.45
16:D:578:C:O2'	16:D:728:A:N3	2.34	0.45
16:D:780:A:N6	16:D:801:U:OP2	2.47	0.45
16:D:781:A:C8	16:D:802:A:C6	3.05	0.45
16:D:814:A:C8	16:D:816:A:C8	3.04	0.45
16:D:833:G:H2'	16:D:834:U:C6	2.51	0.45
16:D:861:G:H2'	16:D:862:C:C6	2.51	0.45
16:D:1111:A:N1	21:I:177:THR:CB	2.79	0.45
16:D:1193:G:C2	16:D:1194:U:C6	3.05	0.45
16:D:1231:G:C6	16:D:1232:U:C4	3.05	0.45
16:D:1231:G:C5	16:D:1232:U:C5	3.04	0.45
16:D:1521:C:O2'	16:D:1522:U:H5'	2.16	0.45
21:I:75:ILE:HD13	21:I:75:ILE:C	2.40	0.45
23:K:94:VAL:HG13	23:K:111:MET:CE	2.46	0.45
26:N:104:VAL:HG13	26:N:124:GLU:O	2.17	0.45
26:N:110:VAL:HG22	26:N:111:MET:N	2.32	0.45
27:O:23:PRO:HA	27:O:61:LEU:HG	1.97	0.45
31:S:16:LEU:CD2	31:S:54:ASP:HB2	2.45	0.45
34:V:61:ILE:HG12	34:V:75:LEU:HA	1.99	0.45
37:Y:60:VAL:CG2	37:Y:66:PHE:HB3	2.43	0.45
39:a:24:G:C6	39:a:25:U:C4	3.04	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:39:G:C4	39:a:40:U:C5	3.04	0.45
39:a:153:U:H2'	39:a:154:U:H6	1.81	0.45
39:a:393:C:H2'	39:a:394:C:C6	2.52	0.45
39:a:710:U:C2	39:a:711:G:C8	3.04	0.45
39:a:730:A:N3	39:a:731:C:C6	2.84	0.45
39:a:851:C:H1'	44:f:47:MET:SD	2.56	0.45
39:a:914:G:H5'	39:a:915:C:OP2	2.17	0.45
39:a:953:G:C6	39:a:965:C:N4	2.84	0.45
39:a:962:G:C2	39:a:963:U:C6	3.04	0.45
39:a:985:C:O2	39:a:986:C:C6	2.69	0.45
39:a:1201:U:C2	39:a:1202:G:C8	3.03	0.45
39:a:1257:C:C2	39:a:1258:U:C5	3.04	0.45
39:a:1573:G:C5	39:a:1574:C:C6	3.04	0.45
39:a:1812:U:C2	39:a:1813:G:C8	3.04	0.45
39:a:2027:G:C6	39:a:2037:A:N6	2.84	0.45
39:a:2093:G:N7	39:a:2225:A:O2'	2.46	0.45
39:a:2276:G:N3	39:a:2277:G:C8	2.85	0.45
39:a:2682:A:O2'	39:a:2683:C:H5'	2.16	0.45
39:a:2756:U:O4'	39:a:2757:A:H8	1.99	0.45
39:a:2838:G:C6	39:a:2839:G:C5	3.04	0.45
40:b:21:LEU:HD23	40:b:21:LEU:H	1.81	0.45
42:d:66:A:O4'	42:d:108:A:N6	2.48	0.45
42:d:80:U:H2'	42:d:81:G:C8	2.51	0.45
44:f:5:ILE:O	44:f:37:GLU:HA	2.16	0.45
44:f:6:LYS:HD3	44:f:37:GLU:HB2	1.98	0.45
46:h:44:ASN:O	46:h:47:GLY:N	2.49	0.45
48:j:108:ASP:CG	48:j:206:ALA:HA	2.41	0.45
48:j:183:GLU:OE2	48:j:183:GLU:N	2.47	0.45
52:n:93:GLY:O	52:n:96:MET:N	2.49	0.45
52:n:142:ASP:OD2	52:n:145:LYS:HG2	2.16	0.45
56:r:47:PHE:HA	56:r:51:ARG:HB2	1.98	0.45
61:w:49:GLU:OE1	61:w:93:GLY:N	2.49	0.45
8:7:14:U:H2'	8:7:15:G:C8	2.52	0.45
10:A:18:G:H2'	10:A:57:A:C2	2.50	0.45
11:AA:859:GLU:HG3	21:I:109:PRO:HG2	1.96	0.45
14:AE:108:ALA:HB1	14:AE:279:LEU:HD22	1.95	0.45
14:AE:506:VAL:HG23	14:AE:628:GLY:HA3	1.99	0.45
14:AE:1219:ASP:O	14:AE:1223:LEU:HB2	2.15	0.45
10:B:46:G:C2'	10:B:47:U:OP2	2.64	0.45
16:D:209:U:OP2	16:D:210:C:N3	2.49	0.45
16:D:683:G:C5	16:D:684:U:C5	3.04	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1411:C:H2'	16:D:1412:C:C6	2.51	0.45
19:G:92:VAL:HG22	19:G:94:HIS:O	2.16	0.45
19:G:127:ASP:O	19:G:128:LYS:HB3	2.16	0.45
19:G:129:LEU:HD11	19:G:134:ALA:CB	2.47	0.45
24:L:38:ARG:HD2	24:L:63:ASN:OD1	2.15	0.45
25:M:58:GLU:CD	25:M:58:GLU:H	2.24	0.45
25:M:107:ALA:HB1	25:M:123:GLU:OE2	2.16	0.45
34:V:21:ILE:HG22	34:V:22:VAL:N	2.32	0.45
37:Y:104:GLN:O	37:Y:105:LEU:HB2	2.15	0.45
39:a:1:G:O6	39:a:2903:U:O4	2.34	0.45
39:a:134:G:O2'	39:a:135:U:H5'	2.15	0.45
39:a:356:G:O2'	39:a:357:C:H5'	2.15	0.45
39:a:464:U:H4'	51:m:12:ARG:HH21	1.81	0.45
39:a:526:A:O2'	39:a:2043:C:O2	2.29	0.45
39:a:576:U:H2'	39:a:577:G:C8	2.51	0.45
39:a:581:C:H2'	39:a:582:A:H8	1.81	0.45
39:a:921:C:O2'	39:a:922:C:H5'	2.16	0.45
39:a:956:G:C2	39:a:962:G:O6	2.69	0.45
39:a:1050:A:C5	39:a:1051:G:C5	3.04	0.45
39:a:1145:C:H2'	39:a:1146:C:H6	1.80	0.45
39:a:1426:G:H1'	39:a:1572:A:N6	2.31	0.45
39:a:1603:A:H2'	39:a:1603:A:N3	2.31	0.45
39:a:1631:G:N2	39:a:1633:G:H3'	2.31	0.45
39:a:1715:G:H22	39:a:1743:G:H3'	1.80	0.45
39:a:1791:A:H8	39:a:1791:A:P	2.38	0.45
39:a:1853:A:H3'	39:a:1888:G:H22	1.81	0.45
39:a:1866:A:C6	39:a:1876:A:C8	3.04	0.45
39:a:2024:G:H2'	39:a:2025:C:C6	2.50	0.45
39:a:2093:G:N3	39:a:2198:A:C6	2.84	0.45
39:a:2176:A:H2'	39:a:2177:C:C6	2.52	0.45
39:a:2262:U:H4'	39:a:2328:A:C2	2.50	0.45
39:a:2521:C:C2	39:a:2545:G:N2	2.85	0.45
39:a:2632:A:O4'	39:a:2810:A:H2	1.99	0.45
39:a:2803:G:H2'	39:a:2804:U:C5	2.52	0.45
39:a:2848:G:N2	39:a:2867:G:C4	2.84	0.45
44:f:44:ILE:HG13	44:f:48:ILE:HD11	1.98	0.45
46:h:24:LEU:HD11	46:h:83:TYR:N	2.30	0.45
58:t:99:ILE:O	58:t:100:PHE:CD2	2.69	0.45
58:t:104:THR:CG2	58:t:106:GLU:OE1	2.64	0.45
59:u:95:LEU:HD22	59:u:100:ILE:HG21	1.98	0.45
61:w:59:SER:OG	61:w:62:ASN:HB2	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:89:HIS:NE2	1:O:91:GLN:OE1	2.49	0.45
6:5:113:DC:P	11:AA:163:LYS:HD3	2.55	0.45
9:9:24:SER:OG	9:9:87:GLU:N	2.49	0.45
10:A:46:G:C2'	10:A:47:U:OP2	2.64	0.45
11:AA:724:VAL:HG12	11:AA:774:GLY:N	2.31	0.45
13:AC:58:GLU:HB3	13:AC:170:ARG:HG2	1.99	0.45
14:AE:26:SER:HB2	14:AE:236:TRP:CH2	2.51	0.45
16:D:185:U:C2	16:D:186:C:C5	3.05	0.45
16:D:608:A:H2'	16:D:609:A:O4'	2.16	0.45
16:D:1053:G:H4'	16:D:1055:A:OP1	2.16	0.45
16:D:1126:U:H1'	16:D:1281:C:O4'	2.16	0.45
16:D:1160:G:C6	16:D:1161:C:C5	3.04	0.45
16:D:1239:A:N3	16:D:1241:G:C6	2.83	0.45
16:D:1458:G:H5''	17:E:26:SER:HB2	1.99	0.45
27:O:114:LYS:NZ	27:O:115:LYS:O	2.50	0.45
30:R:20:ASN:O	30:R:21:VAL:HG13	2.16	0.45
31:S:42:TRP:O	31:S:45:VAL:HG12	2.16	0.45
37:Y:37:PHE:CE2	37:Y:41:PHE:HD2	2.34	0.45
39:a:32:C:C4	39:a:474:G:O6	2.70	0.45
39:a:382:A:N1	39:a:393:C:C4	2.85	0.45
39:a:501:A:H2'	39:a:502:A:C8	2.51	0.45
39:a:685:A:C8	39:a:773:U:C4	3.04	0.45
39:a:934:U:H2'	39:a:935:C:C6	2.52	0.45
39:a:969:G:H2'	39:a:970:U:C6	2.50	0.45
39:a:1030:C:C4	39:a:1125:G:N2	2.84	0.45
39:a:1054:A:H2'	39:a:1055:G:O4'	2.16	0.45
39:a:1322:A:C6	39:a:1323:C:C5	3.04	0.45
39:a:1370:C:H2'	39:a:1371:G:O4'	2.16	0.45
39:a:1404:C:H2'	39:a:1405:U:H6	1.81	0.45
39:a:1550:C:OP1	39:a:1720:U:O2'	2.21	0.45
39:a:1604:C:H2'	39:a:1605:C:H6	1.81	0.45
39:a:1858:A:C2'	39:a:1859:U:O5'	2.64	0.45
39:a:2093:G:H21	39:a:2198:A:H62	1.62	0.45
39:a:2578:G:H2'	39:a:2578:G:N3	2.31	0.45
39:a:2716:C:C2	39:a:2717:C:C5	3.05	0.45
39:a:2814:A:C4	39:a:2815:C:C5	3.03	0.45
44:f:9:GLN:O	44:f:33:GLY:N	2.29	0.45
45:g:41:HIS:CG	45:g:42:PRO:HD2	2.51	0.45
48:j:148:GLN:N	48:j:148:GLN:CD	2.75	0.45
50:l:57:LYS:HD2	50:l:58:LYS:N	2.32	0.45
50:l:149:ILE:HD12	50:l:175:ILE:CG2	2.46	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:o:45:ARG:HB3	53:o:46:PRO:CD	2.47	0.45
61:w:67:PHE:CE1	61:w:71:ARG:HA	2.51	0.45
62:x:109:ALA:O	62:x:112:GLU:N	2.49	0.45
2:1:82:MET:HE3	2:1:84:ARG:HH12	1.82	0.45
4:3:15:THR:O	4:3:69:ASN:OD1	2.34	0.45
4:3:22:ARG:HB2	4:3:22:ARG:CZ	2.46	0.45
10:A:68:C:C3'	10:A:69:C:H5''	2.46	0.45
11:AA:850:ILE:HD12	11:AA:1048:LYS:HG2	1.99	0.45
11:AA:992:LEU:H	11:AA:992:LEU:CD2	1.95	0.45
14:AE:395:LYS:HE3	14:AE:395:LYS:HB3	1.44	0.45
16:D:70:U:O2	16:D:71:A:N6	2.50	0.45
16:D:255:G:C6	16:D:256:U:O4	2.70	0.45
16:D:259:G:C4	16:D:260:G:C8	3.05	0.45
16:D:262:A:N3	16:D:263:A:C8	2.84	0.45
16:D:395:C:C2	16:D:396:C:C5	3.04	0.45
16:D:417:G:C6	16:D:418:C:C4	3.05	0.45
16:D:425:G:C2	16:D:426:U:C2	3.05	0.45
16:D:502:A:H2'	16:D:503:C:C6	2.52	0.45
16:D:597:G:C8	16:D:598:U:C5	3.04	0.45
16:D:715:A:H2'	16:D:716:A:H8	1.80	0.45
16:D:818:G:C2	16:D:820:U:O2'	2.62	0.45
16:D:826:C:H2'	16:D:827:U:C6	2.51	0.45
16:D:826:C:H5'	26:N:13:ARG:NH2	2.31	0.45
16:D:955:U:H2'	16:D:956:U:C6	2.51	0.45
16:D:1215:G:C6	16:D:1216:A:N7	2.85	0.45
16:D:1246:A:N1	16:D:1292:G:C6	2.84	0.45
16:D:1342:C:H2'	16:D:1343:G:C8	2.51	0.45
16:D:1526:G:C4	16:D:1527:U:C5	3.05	0.45
19:G:43:LEU:O	19:G:47:VAL:HG23	2.15	0.45
23:K:152:MET:HG3	23:K:156:LYS:NZ	2.32	0.45
26:N:64:LYS:HG2	26:N:71:VAL:HG21	1.97	0.45
30:R:21:VAL:HG12	30:R:95:TYR:CE1	2.43	0.45
30:R:38:TYR:O	30:R:52:VAL:O	2.35	0.45
37:Y:35:MET:HE3	37:Y:35:MET:HB3	1.77	0.45
39:a:68:G:N1	39:a:74:A:C2	2.85	0.45
39:a:111:A:C5	39:a:112:U:C5	3.05	0.45
39:a:528:A:OP2	57:s:113:PRO:HB3	2.16	0.45
39:a:674:G:O2'	50:l:62:GLN:NE2	2.49	0.45
39:a:817:C:H2'	39:a:818:G:O4'	2.16	0.45
39:a:821:A:H5''	39:a:822:G:O5'	2.16	0.45
39:a:900:A:C5	39:a:901:C:C5	3.04	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:947:A:C6	39:a:971:G:C6	3.05	0.45
39:a:993:G:H2'	39:a:993:G:N3	2.31	0.45
39:a:1163:G:H2'	39:a:1164:C:H6	1.80	0.45
39:a:1218:G:C6	39:a:1232:G:C6	3.04	0.45
39:a:1222:U:C2	39:a:1228:G:N1	2.85	0.45
39:a:1420:A:C2	39:a:2211:A:C8	3.04	0.45
39:a:1845:G:N1	39:a:1846:G:C5	2.85	0.45
39:a:2011:U:H2'	39:a:2012:G:O4'	2.16	0.45
39:a:2413:G:C6	39:a:2414:G:C5	3.04	0.45
39:a:2473:U:O2	39:a:2473:U:H2'	2.15	0.45
39:a:2707:U:H2'	61:w:71:ARG:HH22	1.82	0.45
39:a:2787:C:H2'	39:a:2788:C:H6	1.81	0.45
42:d:46:A:C4	42:d:47:C:C5	3.04	0.45
45:g:51:VAL:HG13	45:g:52:ALA:H	1.81	0.45
56:r:75:LEU:HD12	56:r:76:GLU:N	2.32	0.45
59:u:120:VAL:CG1	59:u:121:THR:N	2.79	0.45
62:x:50:ALA:H	62:x:81:ARG:NH1	2.14	0.45
62:x:94:ARG:NH2	62:x:97:PHE:O	2.49	0.45
1:0:10:LYS:CE	39:a:996:A:OP2	2.65	0.45
1:0:71:LYS:HA	1:0:90:ARG:HG2	1.98	0.45
5:4:23:ALA:O	5:4:25:LYS:NZ	2.42	0.45
8:7:5:U:C6	8:7:5:U:C3'	3.00	0.45
11:AA:988:LYS:HB3	11:AA:988:LYS:HZ1	1.81	0.45
13:AC:85:LEU:HA	13:AC:85:LEU:HD23	1.80	0.45
14:AE:201:LEU:HD11	14:AE:220:ARG:NH1	2.31	0.45
16:D:18:C:H2'	16:D:19:A:O4'	2.16	0.45
16:D:151:A:C2	16:D:152:A:H1'	2.51	0.45
16:D:151:A:C5	16:D:152:A:C8	3.05	0.45
16:D:231:U:O2'	16:D:232:G:H5'	2.16	0.45
16:D:234:C:C2	16:D:235:C:C5	3.05	0.45
16:D:284:C:N3	16:D:285:C:C5	2.85	0.45
16:D:285:C:H2'	16:D:286:C:C6	2.52	0.45
16:D:420:U:H2'	16:D:422:C:C5	2.52	0.45
16:D:910:C:N3	16:D:911:U:C5	2.85	0.45
16:D:1146:A:H2'	16:D:1146:A:N3	2.32	0.45
16:D:1309:G:OP1	36:X:87:ARG:NH1	2.49	0.45
16:D:1488:G:C2	16:D:1489:G:C8	3.04	0.45
16:D:1515:G:H2'	16:D:1516:G:H8	1.82	0.45
21:I:155:GLY:HA2	21:I:163:ALA:HB1	1.99	0.45
23:K:20:ARG:HD2	23:K:31:PHE:CD1	2.52	0.45
23:K:68:ARG:HB2	23:K:68:ARG:NH2	2.31	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:M:29:ILE:HD12	25:M:101:MET:HE2	1.99	0.45
27:O:59:GLU:OE1	27:O:59:GLU:N	2.38	0.45
29:Q:84:VAL:CG1	29:Q:110:ILE:HG22	2.47	0.45
30:R:80:ILE:HG12	30:R:81:LEU:N	2.32	0.45
32:T:35:GLN:HE21	32:T:39:LEU:HD11	1.80	0.45
39:a:283:G:C2	39:a:358:U:O2	2.70	0.45
39:a:283:G:H2'	39:a:284:U:C6	2.52	0.45
39:a:462:C:C4	39:a:463:G:C5	3.04	0.45
39:a:537:G:N1	39:a:555:G:C2	2.84	0.45
39:a:568:U:O2	39:a:570:G:C8	2.70	0.45
39:a:572:A:H5''	39:a:573:U:OP2	2.17	0.45
39:a:835:C:C2	39:a:836:G:C8	3.04	0.45
39:a:1386:C:O2'	39:a:1469:A:H2'	2.16	0.45
39:a:1879:C:H2'	39:a:1880:U:O4'	2.17	0.45
39:a:2215:C:H2'	39:a:2216:G:H8	1.82	0.45
39:a:2243:U:O2'	39:a:2434:A:N1	2.38	0.45
39:a:2447:G:C2'	39:a:2500:U:OP2	2.64	0.45
39:a:2462:C:C2	39:a:2463:C:C5	3.04	0.45
39:a:2465:C:O2	39:a:2465:C:C2'	2.65	0.45
39:a:2597:G:H2'	39:a:2598:A:C8	2.52	0.45
42:d:39:A:C2	42:d:44:G:N3	2.85	0.45
43:e:8:GLU:HA	43:e:8:GLU:OE2	2.17	0.45
45:g:16:CYS:HB2	45:g:37:CYS:CB	2.40	0.45
46:h:44:ASN:OD1	46:h:46:ASN:HB2	2.17	0.45
46:h:66:ASP:OD1	46:h:68:LYS:N	2.50	0.45
49:k:35:GLU:HG3	49:k:50:LYS:CG	2.46	0.45
56:r:9:VAL:HB	56:r:12:LEU:HD23	1.98	0.45
60:v:107:GLY:C	60:v:108:VAL:HG13	2.41	0.45
1:0:62:GLU:OE1	1:0:99:THR:CG2	2.65	0.45
3:2:25:GLU:HG3	3:2:26:LYS:HG2	1.99	0.45
4:3:11:VAL:HG12	4:3:72:ILE:HA	1.98	0.45
8:7:3:U:OP2	23:K:20:ARG:HD3	2.17	0.45
9:9:82:ILE:HG22	9:9:84:TYR:CD2	2.52	0.45
11:AA:978:VAL:HG11	11:AA:1010:GLN:CB	2.45	0.45
13:AC:71:LYS:NZ	13:AC:140:ILE:HG13	2.32	0.45
13:AC:228:LEU:HD11	13:AD:224:LEU:HD23	1.97	0.45
10:B:20:U:H3'	10:B:21:A:H5''	1.98	0.45
10:B:36:U:H2'	10:B:37:A:C8	2.51	0.45
16:D:49:U:C4	16:D:364:A:C5	3.05	0.45
16:D:70:U:H1'	16:D:71:A:N7	2.30	0.45
16:D:71:A:O5'	16:D:72:A:OP2	2.35	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:270:A:C6	16:D:271:C:C4	3.05	0.45
16:D:373:A:C2	16:D:374:A:N7	2.84	0.45
16:D:591:U:N3	16:D:592:G:N7	2.64	0.45
16:D:821:G:H2'	16:D:822:U:C6	2.52	0.45
16:D:865:A:H2'	16:D:866:C:O4'	2.17	0.45
16:D:1215:G:C4	16:D:1216:A:C8	3.05	0.45
16:D:1427:C:H2'	16:D:1428:A:H8	1.82	0.45
16:D:1457:G:C2'	16:D:1458:G:H5'	2.47	0.45
19:G:58:ASN:OD1	19:G:220:THR:O	2.34	0.45
20:H:38:VAL:HG22	20:H:48:ILE:HD11	1.98	0.45
23:K:94:VAL:HG13	23:K:111:MET:HE1	1.97	0.45
23:K:134:ILE:O	23:K:137:VAL:HG22	2.17	0.45
23:K:163:GLU:O	26:N:114:ARG:NH2	2.46	0.45
24:L:66:ALA:HB1	24:L:67:PRO:HD2	1.99	0.45
26:N:39:VAL:O	26:N:42:GLU:N	2.50	0.45
39:a:37:C:H4'	50:l:47:LYS:HZ3	1.81	0.45
39:a:272:A:C4	39:a:273:G:C8	3.05	0.45
39:a:537:G:C2	39:a:555:G:N2	2.84	0.45
39:a:755:U:C4	39:a:756:A:N7	2.85	0.45
39:a:832:U:OP1	59:u:38:GLN:N	2.50	0.45
39:a:871:U:H2'	39:a:872:U:C5	2.52	0.45
39:a:975:A:C5	39:a:976:G:C8	3.05	0.45
39:a:995:C:C5	64:z:57:PHE:HE2	2.35	0.45
39:a:1036:G:C5	39:a:1120:G:C6	3.04	0.45
39:a:1044:C:O2	39:a:1112:G:C6	2.69	0.45
39:a:1135:C:C5	39:a:1137:G:P	3.10	0.45
39:a:1232:G:C4	39:a:1233:C:C5	3.05	0.45
39:a:1316:U:C2	39:a:1337:G:C2	3.04	0.45
39:a:1428:C:C5	39:a:1569:A:H5''	2.52	0.45
39:a:1441:G:H2'	39:a:1442:U:H6	1.79	0.45
39:a:1502:A:H2'	39:a:1502:A:N3	2.32	0.45
39:a:1722:A:C6	39:a:1739:A:C8	3.05	0.45
39:a:1801:A:C8	39:a:2203:U:H2'	2.51	0.45
39:a:2306:C:C4	39:a:2307:G:C5	3.04	0.45
39:a:2467:C:H2'	39:a:2468:A:O4'	2.17	0.45
39:a:2538:C:N3	39:a:2539:C:C5	2.85	0.45
39:a:2590:A:H2'	39:a:2591:C:C6	2.52	0.45
39:a:2771:C:H2'	39:a:2772:C:H6	1.80	0.45
39:a:2847:U:C2'	39:a:2848:G:H5'	2.47	0.45
39:a:2854:G:C6	39:a:2855:C:C4	3.05	0.45
44:f:44:ILE:O	44:f:48:ILE:HG13	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:h:230:HIS:CG	46:h:231:PRO:HD2	2.52	0.45
48:j:68:PHE:O	48:j:69:ALA:C	2.58	0.45
52:n:83:TYR:CE2	52:n:84:PRO:O	2.70	0.45
61:w:9:GLN:O	61:w:10:LEU:HB2	2.16	0.45
61:w:41:ALA:HA	61:w:44:LEU:HD12	1.97	0.45
9:9:95:LEU:CG	9:9:99:PHE:HE2	2.30	0.45
11:AA:726:TYR:O	11:AA:726:TYR:CD2	2.69	0.45
11:AA:829:THR:HG23	11:AA:1059:ARG:HA	1.98	0.45
14:AE:978:ARG:HD3	14:AE:999:TYR:H	1.82	0.45
10:B:68:C:C3'	10:B:69:C:H5''	2.46	0.45
16:D:131:A:O2'	16:D:262:A:C2'	2.65	0.45
16:D:192:A:O2'	16:D:193:C:H5'	2.17	0.45
16:D:254:G:O2'	16:D:255:G:H5'	2.17	0.45
16:D:363:A:O2'	16:D:364:A:H5'	2.17	0.45
16:D:408:A:C5'	22:J:113:GLU:OE1	2.64	0.45
16:D:455:G:N1	16:D:456:A:C5	2.85	0.45
16:D:459:A:H2'	16:D:460:A:C8	2.52	0.45
16:D:747:A:C6	16:D:748:G:C5	3.05	0.45
16:D:838:G:H2'	16:D:839:C:O4'	2.17	0.45
16:D:891:U:H2'	16:D:892:A:H8	1.81	0.45
16:D:1052:U:O2'	16:D:1055:A:P	2.74	0.45
16:D:1118:U:C1'	16:D:1179:A:C4	2.99	0.45
16:D:1242:G:H2'	16:D:1243:C:H6	1.82	0.45
18:F:29:LEU:O	18:F:33:ARG:HG2	2.17	0.45
20:H:79:PHE:CD2	20:H:79:PHE:O	2.69	0.45
24:L:40:GLU:OE1	24:L:100:SER:OG	2.35	0.45
27:O:33:ARG:HG3	27:O:37:GLN:HB2	1.99	0.45
37:Y:77:VAL:O	37:Y:77:VAL:HG12	2.17	0.45
37:Y:78:LEU:HD11	37:Y:108:ILE:O	2.17	0.45
39:a:239:C:C2	39:a:259:G:C2	3.05	0.45
39:a:391:A:H2'	39:a:391:A:N3	2.32	0.45
39:a:1036:G:C6	39:a:1120:G:C5	3.04	0.45
39:a:1096:A:C2'	39:a:1097:U:O5'	2.64	0.45
39:a:1169:A:N3	39:a:1169:A:O4'	2.50	0.45
39:a:1249:U:H2'	39:a:1250:G:C8	2.52	0.45
39:a:1355:G:N3	39:a:1356:G:C8	2.84	0.45
39:a:1651:G:C6	39:a:1652:A:C5	3.05	0.45
39:a:1657:U:H2'	39:a:1658:C:C6	2.51	0.45
39:a:1665:A:N1	39:a:1996:C:N4	2.65	0.45
39:a:2357:G:P	40:b:20:ARG:HH21	2.39	0.45
39:a:2371:G:O2'	49:k:46:HIS:CE1	2.70	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2850:A:OP2	39:a:2865:U:O4	2.35	0.45
42:d:9:G:C6	42:d:112:G:C6	3.05	0.45
42:d:46:A:C4	42:d:47:C:C6	3.04	0.45
42:d:78:A:C2	42:d:79:G:H1'	2.52	0.45
42:d:82:U:C2	42:d:83:G:C8	3.05	0.45
46:h:260:ASN:ND2	46:h:263:THR:HG23	2.32	0.45
47:i:29:SER:O	47:i:38:HIS:N	2.38	0.45
50:l:96:VAL:HG11	50:l:101:TYR:HB2	1.99	0.45
56:r:133:GLN:HG3	56:r:139:PHE:CZ	2.52	0.45
58:t:80:ASP:OD2	63:y:69:GLY:O	2.35	0.45
58:t:109:SER:O	58:t:113:MET:N	2.50	0.45
63:y:46:VAL:HG12	63:y:47:VAL:N	2.31	0.45
2:1:23:LEU:HB2	47:i:22:LEU:HD11	1.98	0.45
9:9:43:LYS:HD3	9:9:98:GLU:CB	2.47	0.45
9:9:73:LYS:CE	9:9:122:GLN:OE1	2.65	0.45
10:A:11:A:H3'	10:A:12:G:H8	1.82	0.45
10:A:25:C:C5	10:A:26:G:N7	2.85	0.45
11:AA:933:VAL:O	11:AA:933:VAL:HG12	2.16	0.45
11:AA:1008:GLN:HE22	11:AA:1011:LEU:HG	1.82	0.45
11:AA:1252:SER:N	11:AA:1259:LEU:HD11	2.31	0.45
14:AE:75:TYR:CD2	14:AE:75:TYR:O	2.70	0.45
10:B:34:C:N4	10:B:35:A:N6	2.65	0.45
16:D:13:U:O2	16:D:914:A:C8	2.70	0.45
16:D:90:C:N3	16:D:91:U:C5	2.85	0.45
16:D:301:G:C2	16:D:302:G:C4	3.05	0.45
16:D:439:U:O5'	16:D:440:C:OP2	2.35	0.45
16:D:487:A:C8	16:D:488:C:C5	3.04	0.45
16:D:521:G:C2'	16:D:522:C:H5'	2.47	0.45
16:D:567:G:C5	16:D:568:G:C8	3.05	0.45
16:D:569:C:H1'	16:D:574:A:H2'	1.99	0.45
16:D:610:U:C2	16:D:611:C:C6	3.04	0.45
16:D:766:A:C8	16:D:814:A:N6	2.85	0.45
16:D:1313:U:O2'	16:D:1314:C:H5'	2.17	0.45
16:D:1408:A:N6	16:D:1494:G:C6	2.84	0.45
16:D:1438:G:C6	16:D:1439:G:C5	3.05	0.45
16:D:1459:G:O2'	17:E:19:LYS:NZ	2.50	0.45
19:G:6:MET:O	19:G:10:LEU:HG	2.17	0.45
26:N:18:GLN:OE1	26:N:65:TYR:CE1	2.70	0.45
27:O:44:ALA:HA	27:O:47:VAL:HG22	1.99	0.45
28:P:99:GLN:O	28:P:99:GLN:HG2	2.16	0.45
31:S:98:LYS:NZ	31:S:100:SER:HB3	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:Y:105:LEU:CD2	37:Y:108:ILE:HD11	2.28	0.45
39:a:263:G:H2'	39:a:264:C:O4'	2.17	0.45
39:a:411:G:OP2	39:a:2406:A:O2'	2.27	0.45
39:a:417:C:H2'	39:a:418:C:H6	1.81	0.45
39:a:623:C:H2'	39:a:624:C:C6	2.52	0.45
39:a:647:G:C6	39:a:648:G:C5	3.04	0.45
39:a:672:C:N3	39:a:673:C:C5	2.85	0.45
39:a:734:A:C4	39:a:735:A:C8	3.05	0.45
39:a:738:G:N1	39:a:739:A:C2	2.85	0.45
39:a:750:A:C2'	39:a:751:A:H5''	2.47	0.45
39:a:970:U:N3	39:a:971:G:N7	2.65	0.45
39:a:1068:G:C6	39:a:1069:A:N6	2.85	0.45
39:a:1246:A:H2'	39:a:1247:A:O4'	2.16	0.45
39:a:1357:C:H2'	39:a:1358:G:O4'	2.16	0.45
39:a:1681:G:O2'	39:a:1762:A:N3	2.46	0.45
39:a:1774:C:O2	39:a:1774:C:H2'	2.16	0.45
39:a:1900:A:C2	39:a:1970:A:C4	3.04	0.45
39:a:2070:A:C2	39:a:2442:C:C2	3.05	0.45
39:a:2129:C:C4	39:a:2130:U:C5	3.05	0.45
39:a:2175:C:C2'	39:a:2176:A:C8	3.00	0.45
39:a:2397:G:H2'	39:a:2398:U:C6	2.52	0.45
39:a:2427:C:H5''	39:a:2428:G:OP1	2.17	0.45
39:a:2464:G:H2'	39:a:2464:G:N3	2.32	0.45
39:a:2564:A:H2'	39:a:2565:A:C8	2.51	0.45
39:a:2571:U:C4	39:a:2574:G:C8	3.05	0.45
39:a:2700:A:H2'	39:a:2701:U:H6	1.80	0.45
39:a:2857:G:C4	39:a:2859:G:OP2	2.70	0.45
43:e:4:LYS:N	43:e:4:LYS:HD3	2.31	0.45
48:j:24:VAL:HG12	48:j:190:LYS:HA	1.97	0.45
49:k:41:PRO:O	49:k:44:ARG:HG3	2.17	0.45
50:l:21:ARG:HG2	50:l:110:SER:OG	2.17	0.45
50:l:76:PRO:HB3	50:l:82:GLY:O	2.17	0.45
54:p:139:GLN:OE1	54:p:139:GLN:HA	2.17	0.45
61:w:12:ARG:HD3	61:w:16:HIS:CG	2.51	0.45
64:z:59:GLN:OE1	64:z:59:GLN:HA	2.17	0.45
7:6:15:DC:N3	7:6:16:DC:C4	2.84	0.45
8:7:0:U:C6	8:7:0:U:O5'	2.70	0.45
11:AA:446:ASP:HA	11:AA:451:ARG:HH21	1.81	0.45
11:AA:803:ALA:HB2	11:AA:1094:VAL:HG21	1.99	0.45
11:AA:1018:TYR:CD1	11:AA:1018:TYR:C	2.94	0.45
16:D:76:G:O6	16:D:93:U:O4	2.35	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:122:G:C4	16:D:123:U:C6	3.05	0.45
16:D:429:U:O2	16:D:430:A:N7	2.50	0.45
16:D:438:U:C2	16:D:494:G:C6	3.05	0.45
16:D:678:U:H2'	16:D:679:C:H6	1.82	0.45
16:D:894:G:C4	16:D:895:G:C8	3.04	0.45
16:D:908:A:C2	16:D:909:A:C8	3.05	0.45
16:D:978:A:C5	16:D:1319:A:C2	3.05	0.45
16:D:1325:C:O2	16:D:1326:U:C6	2.70	0.45
16:D:1361:G:H2'	16:D:1362:A:O4'	2.17	0.45
16:D:1480:A:C5	16:D:1481:U:C5	3.05	0.45
16:D:1524:C:N3	16:D:1525:G:N7	2.65	0.45
21:I:22:TRP:CE3	31:S:94:PRO:HG2	2.46	0.45
27:O:57:MET:CE	27:O:94:LEU:HD11	2.46	0.45
32:T:28:GLN:HB2	32:T:66:LEU:CD2	2.44	0.45
33:U:55:ASP:O	33:U:59:HIS:N	2.43	0.45
37:Y:69:VAL:HG12	37:Y:70:THR:N	2.32	0.45
39:a:58:G:C4	39:a:59:U:C5	3.05	0.45
39:a:79:C:N3	39:a:108:G:O6	2.50	0.45
39:a:138:U:O3'	39:a:139:U:O2	2.34	0.45
39:a:300:A:H1'	39:a:333:G:H21	1.81	0.45
39:a:311:A:C8	39:a:332:A:C5	3.05	0.45
39:a:340:A:H2'	39:a:341:C:C5'	2.46	0.45
39:a:789:A:H5'	51:m:4:THR:CG2	2.46	0.45
39:a:831:G:C5	39:a:832:U:C5	3.05	0.45
39:a:889:C:O2'	39:a:890:C:O4'	2.29	0.45
39:a:1045:C:C5	39:a:1111:A:C8	3.05	0.45
39:a:1049:C:C4	39:a:1050:A:N7	2.85	0.45
39:a:1069:A:C8	39:a:1073:A:N6	2.85	0.45
39:a:1361:G:H2'	39:a:1362:C:H6	1.82	0.45
39:a:1527:G:H1'	39:a:1545:A:H61	1.82	0.45
39:a:1678:A:C4	39:a:1679:A:C8	3.05	0.45
39:a:1791:A:C2	39:a:1829:A:C4'	3.00	0.45
39:a:1880:U:C2	39:a:1881:C:C5	3.05	0.45
39:a:2020:A:C4	39:a:2022:U:C5	3.05	0.45
39:a:2345:G:H21	39:a:2381:A:H3'	1.82	0.45
39:a:2526:G:O2'	55:q:1:MET:N	2.27	0.45
39:a:2632:A:O2'	39:a:2633:G:H5'	2.17	0.45
39:a:2718:G:O2'	39:a:2847:U:H5''	2.16	0.45
42:d:16:G:C2	42:d:17:C:C6	3.05	0.45
45:g:11:GLU:HA	45:g:25:ARG:HA	1.99	0.45
48:j:8:LYS:HD2	48:j:197:THR:HA	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:k:24:THR:HG22	49:k:25:LYS:N	2.31	0.45
49:k:40:ASP:N	49:k:45:GLN:O	2.42	0.45
50:l:18:THR:HA	50:l:106:LYS:CE	2.47	0.45
50:l:156:ASN:OD1	50:l:157:LEU:N	2.49	0.45
52:n:98:GLU:O	52:n:101:GLU:HG3	2.16	0.45
54:p:73:ASN:O	54:p:77:ILE:HG12	2.17	0.45
8:7:17:G:H2'	8:7:18:A:H8	1.80	0.44
9:9:14:GLU:O	9:9:18:VAL:HG23	2.18	0.44
9:9:77:VAL:HG12	9:9:84:TYR:CE1	2.52	0.44
11:AA:1010:GLN:C	11:AA:1010:GLN:CD	2.86	0.44
11:AA:1046:VAL:CG2	11:AA:1049:ILE:HG13	2.45	0.44
13:AC:92:VAL:HG12	13:AC:121:VAL:HG12	1.98	0.44
13:AD:16:ILE:HD13	13:AD:214:GLU:HG2	1.99	0.44
13:AD:86:LYS:HE3	14:AE:528:THR:HG21	1.97	0.44
13:AD:211:ILE:HD11	13:AD:215:GLU:HG3	1.98	0.44
14:AE:395:LYS:NZ	14:AE:399:LYS:HE2	2.32	0.44
14:AE:1227:HIS:HA	14:AE:1230:THR:HG22	1.99	0.44
16:D:54:C:C4	16:D:352:C:C5	3.04	0.44
16:D:75:G:C4	16:D:76:G:C8	3.05	0.44
16:D:112:G:C4	16:D:113:G:C8	3.05	0.44
16:D:119:A:C4	16:D:240:G:N7	2.85	0.44
16:D:165:G:O2'	16:D:166:U:H5'	2.17	0.44
16:D:179:A:C5	16:D:180:U:C5	3.05	0.44
16:D:360:G:H2'	16:D:361:G:H8	1.82	0.44
16:D:519:C:H2'	16:D:520:A:C8	2.52	0.44
16:D:563:A:H2'	16:D:567:G:C8	2.53	0.44
16:D:910:C:C2	16:D:911:U:C5	3.05	0.44
16:D:941:G:N1	16:D:1343:G:C6	2.86	0.44
16:D:990:C:O2'	16:D:991:U:H5'	2.16	0.44
16:D:1113:C:N3	16:D:1114:C:C5	2.85	0.44
16:D:1190:G:OP1	21:I:4:LYS:CA	2.65	0.44
16:D:1323:G:C4	16:D:1324:A:C8	3.05	0.44
16:D:1446:A:O2'	16:D:1447:A:H5'	2.17	0.44
16:D:1531:A:O2'	16:D:1532:U:H5'	2.17	0.44
19:G:15:HIS:HB3	19:G:43:LEU:HD11	1.99	0.44
23:K:20:ARG:HG2	23:K:20:ARG:HH11	1.81	0.44
23:K:53:ALA:HB3	23:K:59:ALA:HB2	1.99	0.44
35:W:80:TYR:HH	35:W:83:HIS:HD1	1.60	0.44
37:Y:5:GLN:HB3	37:Y:61:TYR:CE1	2.52	0.44
37:Y:79:LEU:HD11	37:Y:132:ALA:CB	2.47	0.44
39:a:27:G:N2	39:a:512:G:H1'	2.31	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:76:C:O2'	39:a:77:G:H5'	2.16	0.44
39:a:110:G:C6	39:a:111:A:N7	2.85	0.44
39:a:398:C:H2'	39:a:399:U:O5'	2.17	0.44
39:a:487:C:N4	39:a:488:G:C6	2.86	0.44
39:a:516:C:N3	39:a:517:C:C5	2.85	0.44
39:a:543:G:H1	39:a:550:C:H42	1.64	0.44
39:a:569:U:H2'	39:a:570:G:O4'	2.17	0.44
39:a:645:C:H42	39:a:2350:C:H1'	1.80	0.44
39:a:684:G:C6	39:a:774:G:C4	3.04	0.44
39:a:841:G:H2'	39:a:842:U:C6	2.52	0.44
39:a:857:G:C6	39:a:858:G:C6	3.05	0.44
39:a:1256:G:C2	39:a:1257:C:C5	3.05	0.44
39:a:1359:A:OP2	39:a:1371:G:C2	2.70	0.44
39:a:1364:G:N2	39:a:1368:G:C4	2.85	0.44
39:a:1421:G:N2	39:a:1495:A:C2	2.85	0.44
39:a:1766:G:C6	39:a:1767:G:N7	2.85	0.44
39:a:1805:A:N3	46:h:50:THR:HB	2.32	0.44
39:a:1811:G:H2'	39:a:1812:U:C6	2.51	0.44
39:a:1825:U:H2'	39:a:1826:G:H8	1.81	0.44
39:a:1829:A:C8	39:a:1830:C:C5	3.04	0.44
39:a:1863:G:H2'	39:a:1864:U:H6	1.82	0.44
39:a:2046:G:C6	39:a:2047:C:C4	3.05	0.44
39:a:2293:G:H2'	39:a:2294:G:O4'	2.17	0.44
39:a:2366:A:C2	39:a:2367:G:H1'	2.51	0.44
39:a:2454:G:C5	39:a:2455:G:C8	3.05	0.44
39:a:2531:A:N3	39:a:2658:C:O2'	2.37	0.44
39:a:2643:G:C6	39:a:2644:G:C5	3.05	0.44
39:a:2711:A:N6	39:a:2714:G:C5	2.85	0.44
39:a:2714:G:C4	39:a:2715:C:C5	3.05	0.44
39:a:2787:C:H2'	39:a:2788:C:C6	2.52	0.44
39:a:2848:G:H1'	39:a:2868:A:N6	2.32	0.44
42:d:9:G:C5	42:d:10:G:C8	3.05	0.44
46:h:258:ARG:HD2	46:h:270:ARG:NH2	2.32	0.44
48:j:79:LEU:HD23	48:j:79:LEU:H	1.82	0.44
50:l:199:MET:HB3	50:l:200:LEU:HD12	1.99	0.44
54:p:11:VAL:O	54:p:11:VAL:CG1	2.65	0.44
60:v:69:PRO:HA	60:v:94:ALA:HB2	1.98	0.44
3:2:5:GLU:HB3	3:2:9:LYS:NZ	2.32	0.44
4:3:55:PRO:CB	39:a:498:G:P	3.05	0.44
7:6:15:DC:C4	7:6:16:DC:C5	3.05	0.44
9:9:6:GLN:CG	9:9:7:ASP:N	2.80	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:21:GLY:HA2	9:9:87:GLU:O	2.17	0.44
9:9:38:MET:HE1	37:Y:117:THR:HG22	1.99	0.44
10:A:34:C:N4	10:A:35:A:N6	2.65	0.44
11:AA:1340:GLU:HB3	11:AA:1341:ASP:H	1.58	0.44
13:AD:96:ASP:OD1	13:AD:96:ASP:N	2.46	0.44
14:AE:68:TYR:HB3	14:AE:75:TYR:HE2	1.81	0.44
14:AE:105:ILE:HD12	14:AE:242:LEU:CD2	2.44	0.44
14:AE:126:LEU:HD12	14:AE:223:LEU:HD22	1.99	0.44
14:AE:141:PHE:CE2	14:AE:296:LYS:CB	2.94	0.44
14:AE:847:ASP:N	14:AE:847:ASP:OD1	2.49	0.44
10:B:11:A:H3'	10:B:12:G:H8	1.81	0.44
15:C:36:SER:O	15:C:72:ASP:N	2.50	0.44
16:D:35:G:C4	16:D:36:C:C5	3.06	0.44
16:D:121:U:H3'	16:D:122:G:H5'	1.98	0.44
16:D:488:C:H2'	16:D:489:C:H6	1.81	0.44
16:D:575:G:H4'	16:D:576:C:H5''	1.99	0.44
16:D:603:U:C2	16:D:604:G:C8	3.06	0.44
16:D:605:U:H2'	16:D:606:G:O4'	2.17	0.44
16:D:1015:G:H2'	16:D:1016:A:C8	2.52	0.44
16:D:1119:C:C2	16:D:1120:C:C6	3.05	0.44
16:D:1324:A:C6	16:D:1325:C:C4	3.05	0.44
19:G:59:LYS:O	19:G:62:SER:OG	2.31	0.44
19:G:90:PHE:CD2	19:G:154:MET:HG3	2.53	0.44
25:M:113:ASP:OD1	25:M:118:LEU:HB2	2.17	0.44
27:O:47:VAL:HA	27:O:50:GLN:HG2	1.99	0.44
31:S:97:LYS:HB3	31:S:97:LYS:HE3	1.73	0.44
37:Y:11:GLN:CB	37:Y:53:PRO:HB3	2.48	0.44
39:a:419:U:H2'	39:a:420:C:C6	2.52	0.44
39:a:662:G:C2	39:a:663:G:C8	3.05	0.44
39:a:727:A:H2'	39:a:728:G:C8	2.52	0.44
39:a:740:C:OP1	39:a:1784:A:H2'	2.17	0.44
39:a:755:U:O2'	39:a:756:A:H5'	2.17	0.44
39:a:840:C:N3	39:a:841:G:N7	2.65	0.44
39:a:841:G:C6	39:a:938:G:C6	3.05	0.44
39:a:929:U:H1'	44:f:26:GLY:HA2	1.98	0.44
39:a:1069:A:C2'	39:a:1073:A:H62	2.30	0.44
39:a:1125:G:OP2	39:a:1126:A:C2'	2.65	0.44
39:a:1287:A:H5'	61:w:103:ARG:HD2	1.99	0.44
39:a:1360:G:C8	39:a:1361:G:C8	3.05	0.44
39:a:1430:G:H2'	39:a:1431:A:O4'	2.18	0.44
39:a:1611:C:N3	39:a:1612:C:C5	2.85	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1754:A:C6	39:a:1755:A:C6	3.05	0.44
39:a:1871:A:O2'	39:a:1872:A:C8	2.70	0.44
39:a:2116:G:N2	39:a:2162:G:OP2	2.50	0.44
39:a:2122:U:H2'	39:a:2123:G:C8	2.52	0.44
39:a:2242:G:H2'	39:a:2243:U:O5'	2.18	0.44
39:a:2638:G:H22	39:a:2775:G:H2'	1.81	0.44
39:a:2773:C:C2	39:a:2774:C:C5	3.05	0.44
52:n:5:HIS:NE2	52:n:9:LYS:HD2	2.32	0.44
55:q:19:ARG:CG	55:q:24:ARG:NH2	2.80	0.44
55:q:19:ARG:HG3	55:q:24:ARG:NH2	2.33	0.44
57:s:15:TRP:CH2	57:s:53:TYR:CD2	3.05	0.44
60:v:64:TRP:HB2	60:v:104:GLU:HB2	1.98	0.44
61:w:36:THR:HG22	61:w:40:LYS:HB2	1.99	0.44
8:7:11:U:C5	8:7:11:U:OP2	2.71	0.44
9:9:79:PRO:O	9:9:80:THR:C	2.59	0.44
10:A:71:C:C3'	10:A:72:A:C8	3.00	0.44
11:AA:933:VAL:HG22	11:AA:935:THR:CG2	2.47	0.44
11:AA:976:ARG:NH2	11:AA:989:LEU:HB3	2.32	0.44
14:AE:51:PRO:HB2	14:AE:52:GLU:H	1.65	0.44
14:AE:1033:GLY:HA3	14:AE:1081:VAL:O	2.18	0.44
14:AE:1079:LYS:HD3	14:AE:1098:GLN:HB3	2.00	0.44
10:B:25:C:C5	10:B:26:G:N7	2.85	0.44
16:D:6:G:O2'	16:D:7:A:H8	2.01	0.44
16:D:21:G:H5'	16:D:573:A:N6	2.32	0.44
16:D:373:A:C2	16:D:482:A:C6	3.05	0.44
16:D:476:U:C2	16:D:477:C:C6	3.05	0.44
16:D:687:A:N1	16:D:704:A:C4	2.86	0.44
16:D:826:C:C2	16:D:827:U:C5	3.05	0.44
16:D:878:A:OP1	26:N:80:ARG:HD2	2.18	0.44
16:D:1055:A:N1	16:D:1206:G:C4	2.85	0.44
16:D:1060:U:N3	16:D:1198:G:C6	2.86	0.44
16:D:1202:U:H2'	16:D:1203:C:H5'	1.99	0.44
16:D:1231:G:C4	16:D:1232:U:C5	3.05	0.44
16:D:1239:A:C4	16:D:1298:U:O4	2.70	0.44
16:D:1347:G:O2'	16:D:1348:U:OP1	2.30	0.44
16:D:1366:C:H2'	16:D:1367:C:O4'	2.17	0.44
17:E:45:ALA:CA	17:E:48:GLN:OE1	2.66	0.44
18:F:26:ALA:CB	18:F:28:VAL:HG13	2.46	0.44
18:F:35:ARG:NE	18:F:35:ARG:HA	2.31	0.44
19:G:35:ARG:HD3	19:G:35:ARG:N	2.32	0.44
24:L:99:ALA:C	24:L:104:LYS:HE2	2.42	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:T:40:GLN:OE1	32:T:40:GLN:HA	2.17	0.44
37:Y:117:THR:OG1	39:a:1082:U:H4'	2.17	0.44
39:a:81:G:H2'	39:a:82:U:O4'	2.17	0.44
39:a:170:U:O5'	39:a:170:U:H6	2.00	0.44
39:a:186:G:C2	39:a:211:C:C2	3.05	0.44
39:a:310:A:C5	39:a:330:A:C6	3.06	0.44
39:a:358:U:C5	39:a:359:G:N7	2.85	0.44
39:a:464:U:C5	39:a:788:A:C4	3.06	0.44
39:a:476:G:N1	39:a:479:A:OP2	2.50	0.44
39:a:563:A:H2'	39:a:564:C:H6	1.82	0.44
39:a:582:A:C5	39:a:583:G:N7	2.85	0.44
39:a:615:U:O2	50:l:35:TYR:HA	2.17	0.44
39:a:672:C:O2'	39:a:673:C:H5'	2.18	0.44
39:a:676:A:H1'	39:a:2443:C:H1'	1.99	0.44
39:a:704:G:C2	39:a:726:G:C4	3.05	0.44
39:a:765:C:H2'	39:a:766:U:C6	2.52	0.44
39:a:965:C:H1'	39:a:2273:A:C2	2.52	0.44
39:a:976:G:H5'	39:a:1156:A:C6	2.52	0.44
39:a:1467:U:C4	39:a:1546:G:C2	3.04	0.44
39:a:1470:A:C2	39:a:1471:G:H1'	2.52	0.44
39:a:1665:A:C4'	58:t:66:LYS:NZ	2.81	0.44
39:a:1824:G:P	46:h:53:HIS:HE2	2.40	0.44
39:a:1837:C:N1	39:a:1904:G:N2	2.65	0.44
39:a:1954:G:H21	39:a:2551:C:H5''	1.82	0.44
39:a:2018:G:O2'	39:a:2019:A:H5'	2.17	0.44
39:a:2201:G:C6	39:a:2223:G:C6	3.05	0.44
39:a:2253:G:C4	39:a:2254:C:C6	3.05	0.44
39:a:2395:C:OP2	59:u:63:LYS:NZ	2.50	0.44
39:a:2615:U:N3	39:a:2616:C:C5	2.85	0.44
39:a:2682:A:O2'	48:j:13:ARG:CZ	2.65	0.44
42:d:105:G:N1	42:d:106:G:C5	2.86	0.44
46:h:53:HIS:CE1	46:h:219:THR:HG23	2.52	0.44
46:h:96:TYR:HB2	46:h:98:ASP:OD1	2.18	0.44
47:i:43:ILE:HG23	47:i:48:TYR:O	2.17	0.44
48:j:39:ASP:OD2	48:j:41:ALA:HB3	2.17	0.44
50:l:21:ARG:HH21	50:l:106:LYS:HB2	1.82	0.44
58:t:2:ILE:HG22	58:t:3:GLN:N	2.32	0.44
58:t:22:ILE:O	58:t:22:ILE:HG13	2.16	0.44
58:t:57:VAL:O	58:t:58:LEU:HD12	2.16	0.44
58:t:108:ARG:NH2	63:y:34:GLU:OE2	2.50	0.44
59:u:96:LYS:CD	59:u:103:ILE:HA	2.48	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:w:3:HIS:O	61:w:5:LYS:HG3	2.17	0.44
2:1:4:ILE:HD11	2:1:106:VAL:HG22	1.97	0.44
2:1:76:VAL:HG22	2:1:103:ILE:HD12	1.98	0.44
11:AA:1029:LEU:HA	11:AA:1032:LYS:HB2	1.99	0.44
11:AA:1032:LYS:CA	11:AA:1032:LYS:HE2	2.47	0.44
13:AD:57:THR:HG21	13:AD:147:GLN:HB2	1.99	0.44
14:AE:388:ARG:HG2	14:AE:388:ARG:NH1	2.32	0.44
10:B:52:G:C2	10:B:53:G:C8	3.06	0.44
16:D:130:A:N1	16:D:233:C:H1'	2.32	0.44
16:D:240:G:O2'	16:D:241:G:H5'	2.17	0.44
16:D:321:A:H2'	16:D:322:C:C6	2.52	0.44
16:D:394:G:C2	16:D:395:C:C6	3.06	0.44
16:D:432:A:C5	16:D:433:G:C8	3.06	0.44
16:D:456:A:C6	16:D:457:G:C5	3.06	0.44
16:D:604:G:C6	16:D:635:A:C6	3.05	0.44
16:D:611:C:N3	16:D:612:C:C5	2.85	0.44
16:D:836:G:C6	16:D:851:G:N7	2.86	0.44
16:D:953:G:C6	16:D:1229:A:N6	2.85	0.44
16:D:1084:G:OP1	16:D:1086:U:C6	2.71	0.44
16:D:1395:C:H2'	16:D:1396:A:C8	2.52	0.44
16:D:1523:G:C4	16:D:1524:C:C5	3.05	0.44
19:G:117:LEU:HD21	19:G:141:LEU:HB2	2.00	0.44
20:H:294:VAL:HG21	20:H:330:VAL:HG21	1.99	0.44
21:I:22:TRP:CE2	31:S:94:PRO:HD3	2.53	0.44
24:L:2:ARG:C	24:L:65:GLU:OE1	2.61	0.44
26:N:78:VAL:HG21	26:N:128:TYR:CE1	2.52	0.44
27:O:57:MET:HA	27:O:60:LYS:CE	2.43	0.44
30:R:4:VAL:HG23	34:V:34:TYR:CD2	2.52	0.44
34:V:30:LYS:HG2	34:V:35:GLY:HA2	1.99	0.44
34:V:58:VAL:HG12	34:V:79:VAL:CG1	2.47	0.44
38:Z:4:LYS:O	38:Z:7:ILE:HG12	2.18	0.44
39:a:9:G:C2'	39:a:2800:A:N6	2.81	0.44
39:a:243:U:P	53:o:8:ARG:NH2	2.90	0.44
39:a:272:A:N1	39:a:273:G:C5	2.86	0.44
39:a:288:U:O2'	39:a:289:G:H5'	2.18	0.44
39:a:414:C:C2	39:a:415:A:N7	2.84	0.44
39:a:487:C:H2'	39:a:488:G:O4'	2.17	0.44
39:a:506:G:H5''	39:a:509:C:H1'	2.00	0.44
39:a:580:U:H2'	39:a:581:C:H6	1.82	0.44
39:a:597:G:H2'	39:a:598:U:C6	2.53	0.44
39:a:604:G:C6	39:a:625:G:N1	2.85	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:632:A:O4'	59:u:66:PHE:CE1	2.71	0.44
39:a:669:G:C2	39:a:801:G:O6	2.70	0.44
39:a:721:A:H2'	39:a:722:A:C8	2.51	0.44
39:a:946:C:H2'	39:a:947:A:H8	1.82	0.44
39:a:1159:U:C2'	39:a:1160:G:H5'	2.47	0.44
39:a:1226:A:N7	39:a:1227:G:H1'	2.33	0.44
39:a:1298:C:H3'	39:a:1299:G:C8	2.53	0.44
39:a:1419:A:C8	39:a:1579:A:N6	2.86	0.44
39:a:1422:G:C6	39:a:1577:C:N3	2.85	0.44
39:a:1500:G:H2'	39:a:1501:G:H8	1.82	0.44
39:a:1520:U:O4	39:a:1521:G:C6	2.71	0.44
39:a:1636:U:H2'	39:a:1637:A:C8	2.52	0.44
39:a:1799:G:N1	39:a:1819:A:OP2	2.45	0.44
39:a:2044:C:C2	39:a:2625:G:C2	3.05	0.44
39:a:2060:A:O4'	39:a:2502:G:H1'	2.17	0.44
39:a:2335:A:C5	39:a:2337:G:C5	3.06	0.44
39:a:2557:G:C6	39:a:2558:C:N4	2.85	0.44
39:a:2620:C:OP1	48:j:157:LYS:HD3	2.17	0.44
39:a:2624:G:H2'	39:a:2625:G:H8	1.83	0.44
39:a:2741:A:C2	39:a:2742:G:H1'	2.52	0.44
39:a:2835:A:O4'	39:a:2879:A:N6	2.51	0.44
43:e:21:LEU:O	43:e:25:GLN:N	2.36	0.44
45:g:63:ARG:O	45:g:64:PHE:CD1	2.70	0.44
46:h:141:VAL:HB	46:h:191:THR:O	2.18	0.44
46:h:165:VAL:HG11	46:h:175:ARG:HB2	1.99	0.44
49:k:8:LYS:HG2	49:k:9:ILE:N	2.33	0.44
50:l:138:LEU:O	50:l:141:MET:N	2.51	0.44
57:s:89:PHE:O	57:s:93:ILE:HG12	2.17	0.44
58:t:107:LEU:HD11	58:t:112:PHE:CB	2.45	0.44
61:w:95:THR:N	61:w:116:VAL:HG23	2.32	0.44
63:y:53:ARG:H	63:y:57:SER:HB3	1.82	0.44
1:0:41:ILE:CD1	1:0:103:ALA:HA	2.47	0.44
2:1:80:PRO:HB3	39:a:26:G:P	2.58	0.44
4:3:79:LYS:HG2	39:a:84:A:OP1	2.16	0.44
6:5:115:DA:P	14:AE:1148:ARG:HG3	2.58	0.44
9:9:43:LYS:CD	9:9:98:GLU:HB3	2.47	0.44
9:9:52:MET:CE	9:9:87:GLU:HG2	2.47	0.44
10:A:3:C:H2'	10:A:4:G:H8	1.83	0.44
10:A:32:C:H2'	10:A:33:U:O4'	2.17	0.44
10:A:37:A:C5	10:A:38:A:C8	3.06	0.44
14:AE:1158:GLU:HA	14:AE:1223:LEU:HD21	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:6:G:C4	10:B:7:G:C8	3.06	0.44
10:B:31:G:O6	10:B:40:C:N4	2.51	0.44
16:D:253:A:H2'	16:D:254:G:O4'	2.17	0.44
16:D:401:C:O2'	16:D:402:G:H5'	2.18	0.44
16:D:408:A:C5	16:D:409:U:C5	3.05	0.44
16:D:913:A:H4'	16:D:914:A:OP1	2.17	0.44
16:D:980:C:C5	16:D:981:U:N3	2.85	0.44
16:D:998:C:H2'	16:D:999:C:C6	2.53	0.44
16:D:1102:A:H2'	16:D:1103:C:H6	1.83	0.44
16:D:1181:G:H1'	16:D:1182:G:N7	2.32	0.44
16:D:1261:A:H2'	16:D:1262:C:H5'	1.98	0.44
20:H:19:ARG:O	20:H:72:LEU:HD13	2.16	0.44
22:J:197:GLU:HA	22:J:200:ILE:HD12	1.99	0.44
23:K:34:THR:HG22	23:K:52:LYS:HD2	1.99	0.44
25:M:46:ALA:O	25:M:49:THR:OG1	2.30	0.44
30:R:3:THR:HG22	30:R:4:VAL:N	2.32	0.44
31:S:10:GLU:O	31:S:14:VAL:HG23	2.18	0.44
34:V:30:LYS:HE2	34:V:35:GLY:HA2	2.00	0.44
39:a:81:G:C2	39:a:106:C:C2	3.06	0.44
39:a:161:A:C5	39:a:162:U:C5	3.05	0.44
39:a:437:U:H2'	39:a:438:G:H8	1.82	0.44
39:a:535:G:H2'	39:a:536:G:O4'	2.18	0.44
39:a:553:G:C4	39:a:554:U:C6	3.05	0.44
39:a:588:U:O2'	39:a:589:U:H5'	2.18	0.44
39:a:603:A:H4'	39:a:604:G:O5'	2.17	0.44
39:a:607:U:C5	39:a:620:G:C4	3.06	0.44
39:a:607:U:H3'	39:a:619:G:H1	1.82	0.44
39:a:666:A:H2'	39:a:667:U:C6	2.53	0.44
39:a:675:A:H4'	50:l:62:GLN:CD	2.43	0.44
39:a:687:C:H5'	51:m:6:GLN:CG	2.47	0.44
39:a:722:A:C5	39:a:723:C:C5	3.05	0.44
39:a:728:G:O4'	46:h:13:ARG:NH1	2.49	0.44
39:a:728:G:N3	39:a:730:A:C8	2.85	0.44
39:a:856:G:HO2'	40:b:26:PHE:HD2	1.65	0.44
39:a:1022:G:N2	39:a:1024:G:N2	2.65	0.44
39:a:1050:A:C6	39:a:2751:G:C6	3.06	0.44
39:a:1060:U:C2	39:a:1062:G:H5'	2.52	0.44
39:a:1218:G:C6	39:a:1232:G:C5	3.06	0.44
39:a:1344:U:H6	39:a:1344:U:C5'	2.31	0.44
39:a:1500:G:N3	39:a:1501:G:C8	2.85	0.44
39:a:1749:A:C4	39:a:1750:G:C8	3.05	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1837:C:C2	39:a:1904:G:N2	2.86	0.44
39:a:2520:C:C5	39:a:2567:G:C4	3.05	0.44
39:a:2520:C:C4	39:a:2567:G:C8	3.05	0.44
39:a:2747:G:O6	39:a:2754:U:H2'	2.16	0.44
39:a:2768:U:H2'	39:a:2769:U:O5'	2.18	0.44
39:a:2852:G:C6	39:a:2853:C:C4	3.06	0.44
39:a:2870:C:O2'	39:a:2871:U:H5'	2.16	0.44
40:b:32:LEU:O	40:b:33:ALA:C	2.61	0.44
40:b:53:CYS:HA	40:b:58:THR:O	2.18	0.44
42:d:90:C:H6	42:d:90:C:H5''	1.82	0.44
46:h:24:LEU:HD11	46:h:83:TYR:HA	1.98	0.44
46:h:160:THR:O	46:h:195:VAL:HG12	2.17	0.44
50:l:85:PHE:O	50:l:86:ALA:C	2.61	0.44
50:l:167:VAL:HG12	50:l:168:ASP:N	2.33	0.44
51:m:12:ARG:HG3	51:m:44:VAL:HG11	1.99	0.44
54:p:40:ALA:HA	54:p:58:TYR:CD2	2.52	0.44
56:r:58:LEU:O	56:r:62:LEU:HD13	2.17	0.44
57:s:15:TRP:CZ2	57:s:53:TYR:CE2	3.05	0.44
57:s:77:HIS:CE1	57:s:80:HIS:O	2.70	0.44
58:t:68:GLY:CA	58:t:77:ILE:O	2.66	0.44
1:0:78:ARG:HG3	1:0:81:LYS:HG2	1.98	0.44
2:1:14:ALA:O	2:1:15:GLN:C	2.61	0.44
5:4:83:LYS:NZ	39:a:1118:C:H5''	2.33	0.44
10:A:6:G:C4	10:A:7:G:C8	3.06	0.44
10:A:52:G:C2	10:A:53:G:C8	3.06	0.44
11:AA:176:ILE:HD12	11:AA:184:LEU:HD23	1.99	0.44
11:AA:241:LEU:N	11:AA:283:LYS:O	2.51	0.44
11:AA:318:SER:OG	11:AA:320:ASP:OD1	2.31	0.44
14:AE:850:LYS:HB3	14:AE:855:ASP:HB2	2.00	0.44
10:B:71:C:C3'	10:B:72:A:C8	3.00	0.44
16:D:156:C:H2'	16:D:157:U:O4'	2.16	0.44
16:D:234:C:O2'	16:D:235:C:H5'	2.17	0.44
16:D:259:G:C2	16:D:268:U:C2	3.05	0.44
16:D:672:U:H2'	16:D:673:A:C8	2.53	0.44
16:D:682:G:C2	16:D:709:U:C2	3.06	0.44
16:D:762:U:H2'	16:D:763:G:O4'	2.17	0.44
16:D:766:A:C2	16:D:767:A:H1'	2.52	0.44
16:D:872:A:O2'	16:D:873:A:H3'	2.18	0.44
16:D:1044:A:C5	16:D:1045:C:H1'	2.52	0.44
16:D:1054:C:P	16:D:1196:A:HO2'	2.38	0.44
16:D:1068:G:C2'	16:D:1069:C:H5'	2.48	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1127:G:C6	16:D:1128:C:C5	3.05	0.44
16:D:1134:G:N1	16:D:1141:C:C4	2.85	0.44
16:D:1239:A:C2	16:D:1241:G:N1	2.85	0.44
16:D:1410:A:H2'	16:D:1411:C:H6	1.83	0.44
16:D:1458:G:H5''	17:E:26:SER:CB	2.48	0.44
16:D:1507:A:H2'	16:D:1508:A:C8	2.53	0.44
16:D:1522:U:H2'	16:D:1523:G:H8	1.83	0.44
19:G:70:VAL:CG2	19:G:161:LEU:HD11	2.48	0.44
19:G:167:ASP:O	19:G:170:HIS:ND1	2.47	0.44
20:H:136:VAL:HA	20:H:168:VAL:O	2.18	0.44
23:K:83:HIS:HB2	23:K:84:PRO:CD	2.48	0.44
26:N:79:SER:HB3	26:N:124:GLU:OE2	2.18	0.44
32:T:18:ASP:C	32:T:20:ASN:H	2.25	0.44
32:T:74:ASP:OD2	32:T:77:ARG:HB2	2.17	0.44
34:V:46:VAL:O	34:V:71:LYS:HD2	2.17	0.44
35:W:7:LYS:O	35:W:7:LYS:HG2	2.17	0.44
35:W:39:THR:HG22	35:W:40:ILE:N	2.32	0.44
37:Y:125:THR:O	37:Y:128:ILE:N	2.51	0.44
39:a:106:C:H1'	39:a:294:A:O2'	2.17	0.44
39:a:255:A:C4	39:a:256:A:C8	3.06	0.44
39:a:523:C:O2	39:a:554:U:O2'	2.35	0.44
39:a:677:A:N6	39:a:802:A:N7	2.66	0.44
39:a:839:U:H2'	39:a:840:C:H6	1.82	0.44
39:a:881:G:C6	39:a:882:G:N7	2.86	0.44
39:a:1125:G:C6	39:a:1126:A:N6	2.86	0.44
39:a:1145:C:O2'	39:a:1146:C:H5'	2.18	0.44
39:a:1191:G:C2	39:a:1192:G:C8	3.06	0.44
39:a:1250:G:H4'	64:z:6:ARG:HD2	2.00	0.44
39:a:1274:A:C8	39:a:1646:C:C4	3.05	0.44
39:a:1362:C:C4	39:a:1363:C:C5	3.06	0.44
39:a:1431:A:C2	39:a:1432:G:C5	3.05	0.44
39:a:1498:C:C2	39:a:1499:C:C6	3.06	0.44
39:a:1545:A:H2'	39:a:1546:G:O4'	2.18	0.44
39:a:1572:A:H2'	39:a:1573:G:O4'	2.18	0.44
39:a:1750:G:C5	39:a:1751:U:C5	3.05	0.44
39:a:1814:G:H2'	39:a:1815:A:C8	2.52	0.44
39:a:1829:A:H3'	39:a:1830:C:C6	2.52	0.44
39:a:1845:G:C2	39:a:1846:G:C8	3.06	0.44
39:a:2592:G:C5	39:a:2593:U:C5	3.06	0.44
39:a:2649:C:N3	39:a:2650:U:C5	2.86	0.44
42:d:2:G:C4	42:d:3:C:C5	3.05	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:d:109:A:C6	42:d:110:C:C4	3.06	0.44
43:e:15:ASN:O	43:e:18:LEU:HB3	2.18	0.44
48:j:84:LEU:HD12	48:j:88:GLU:HB3	1.98	0.44
50:l:115:GLN:O	50:l:116:ASP:HB2	2.17	0.44
54:p:101:ASN:O	54:p:116:GLN:NE2	2.51	0.44
62:x:27:VAL:HG21	62:x:40:ILE:HD12	2.00	0.44
62:x:56:LYS:H	62:x:56:LYS:HD2	1.82	0.44
62:x:81:ARG:O	62:x:84:GLU:HG3	2.18	0.44
1:0:40:MET:SD	1:0:41:ILE:N	2.91	0.44
4:3:7:ARG:HG3	4:3:26:LYS:O	2.18	0.44
4:3:59:VAL:HG12	39:a:499:U:H5''	1.99	0.44
10:A:26:G:C4	10:A:27:U:C5	3.06	0.44
14:AE:111:THR:CG2	14:AE:300:GLN:HA	2.48	0.44
14:AE:139:LEU:HD23	14:AE:139:LEU:HA	1.89	0.44
14:AE:222:LYS:HA	14:AE:222:LYS:HD2	1.32	0.44
14:AE:824:PRO:HD3	14:AE:835:LEU:HD12	2.00	0.44
16:D:15:G:C4	16:D:16:A:C8	3.05	0.44
16:D:15:G:C4'	23:K:29:ARG:HH12	2.31	0.44
16:D:37:U:P	30:R:120:LYS:NZ	2.90	0.44
16:D:203:G:N2	16:D:205:A:N6	2.65	0.44
16:D:308:C:H2'	16:D:309:A:H8	1.82	0.44
16:D:408:A:C6	16:D:409:U:C4	3.05	0.44
16:D:449:G:H2'	16:D:450:G:C8	2.52	0.44
16:D:672:U:H2'	16:D:673:A:H8	1.82	0.44
16:D:716:A:C2'	16:D:717:U:O5'	2.65	0.44
16:D:720:C:OP2	16:D:721:G:O2'	2.31	0.44
16:D:749:A:C2	16:D:750:C:C6	3.05	0.44
16:D:768:A:C5	16:D:769:G:C8	3.06	0.44
16:D:951:G:C6	16:D:1231:G:C6	3.06	0.44
16:D:1106:G:H2'	16:D:1107:C:C6	2.53	0.44
16:D:1112:C:O2	21:I:178:LEU:N	2.51	0.44
16:D:1213:A:C8	16:D:1215:G:C6	3.05	0.44
16:D:1297:G:C2	16:D:1298:U:O4	2.71	0.44
16:D:1321:U:O5'	16:D:1322:C:H2'	2.17	0.44
16:D:1325:C:O2'	16:D:1326:U:H5'	2.18	0.44
16:D:1450:U:H2'	16:D:1452:C:C4	2.52	0.44
17:E:47:ALA:HB3	17:E:83:ILE:HD13	1.99	0.44
21:I:22:TRP:O	31:S:94:PRO:CG	2.66	0.44
25:M:6:VAL:C	25:M:7:ILE:HG13	2.42	0.44
36:X:16:VAL:CG1	36:X:41:GLU:HB3	2.48	0.44
39:a:43:G:N1	39:a:437:U:C4	2.85	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:417:C:H2'	39:a:418:C:C6	2.52	0.44
39:a:599:A:N6	39:a:659:G:O6	2.50	0.44
39:a:611:C:H2'	39:a:612:G:O4'	2.18	0.44
39:a:644:A:C2	39:a:2369:A:H1'	2.52	0.44
39:a:647:G:C4	39:a:648:G:C8	3.06	0.44
39:a:664:G:O2'	39:a:940:G:OP1	2.33	0.44
39:a:845:A:O2'	39:a:847:U:OP1	2.35	0.44
39:a:966:G:C6	39:a:967:U:C4	3.05	0.44
39:a:1042:G:O6	39:a:1114:C:N4	2.51	0.44
39:a:1120:G:H2'	39:a:1121:C:O4'	2.18	0.44
39:a:1138:G:C4	39:a:1139:G:H1'	2.53	0.44
39:a:1212:G:H1'	39:a:1237:A:N6	2.33	0.44
39:a:1319:C:C4	39:a:1334:G:O6	2.71	0.44
39:a:1320:C:N4	39:a:1333:G:N1	2.65	0.44
39:a:1355:G:C4	39:a:1356:G:C8	3.06	0.44
39:a:1593:A:C5	39:a:1594:U:C5	3.06	0.44
39:a:1828:G:O6	46:h:221:ARG:NH1	2.51	0.44
39:a:2109:U:H2'	39:a:2110:G:C8	2.52	0.44
39:a:2290:G:N1	39:a:2343:U:C2	2.86	0.44
39:a:2509:G:C5	39:a:2510:C:C5	3.05	0.44
40:b:19:LYS:O	40:b:20:ARG:C	2.61	0.44
45:g:44:PHE:CD1	45:g:44:PHE:N	2.84	0.44
48:j:32:ASN:HD22	48:j:52:THR:HB	1.82	0.44
49:k:15:ALA:HB2	49:k:47:VAL:HG21	1.99	0.44
50:l:12:LEU:CD2	50:l:14:VAL:HG13	2.48	0.44
50:l:188:MET:CE	50:l:193:VAL:HA	2.48	0.44
54:p:168:VAL:O	54:p:168:VAL:HG13	2.17	0.44
4:3:42:VAL:HB	4:3:44:LYS:HE3	2.00	0.44
4:3:79:LYS:HG2	39:a:84:A:P	2.58	0.44
8:7:9:U:OP2	8:7:9:U:C6	2.70	0.44
8:7:11:U:OP2	8:7:11:U:C4	2.70	0.44
9:9:18:VAL:HG13	9:9:71:CYS:SG	2.57	0.44
10:A:19:G:C6	39:a:2112:G:O4'	2.71	0.44
13:AD:131:CYS:SG	13:AD:132:HIS:N	2.89	0.44
10:B:31:G:N1	10:B:40:C:N3	2.66	0.44
10:B:34:C:H2'	10:B:35:A:H5'	2.00	0.44
16:D:211:G:O4'	16:D:211:G:OP1	2.36	0.44
16:D:216:U:H2'	16:D:217:C:C6	2.53	0.44
16:D:246:A:C8	16:D:279:A:C6	3.06	0.44
16:D:338:A:H2'	16:D:339:C:C6	2.53	0.44
16:D:356:A:C5	16:D:357:G:C8	3.06	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:453:G:H3'	16:D:454:G:C8	2.51	0.44
16:D:549:C:C2	16:D:550:G:C8	3.06	0.44
16:D:557:G:H2'	16:D:558:G:C1'	2.47	0.44
16:D:837:U:H2'	16:D:838:G:H8	1.81	0.44
16:D:880:C:O2'	16:D:881:G:H5'	2.17	0.44
16:D:928:G:C4	16:D:929:G:C8	3.06	0.44
16:D:1069:C:H2'	16:D:1070:U:O4'	2.17	0.44
16:D:1093:A:C4	16:D:1095:U:O4'	2.71	0.44
16:D:1294:G:C6	16:D:1295:U:C4	3.06	0.44
16:D:1316:G:O2'	16:D:1318:A:N7	2.43	0.44
16:D:1355:G:H2'	16:D:1356:G:C8	2.53	0.44
16:D:1376:U:C2	16:D:1377:A:C8	3.06	0.44
19:G:56:GLU:OE1	19:G:60:ILE:CD1	2.66	0.44
19:G:184:PHE:CZ	19:G:198:PHE:HD1	2.36	0.44
23:K:78:ASN:OD1	23:K:79:GLY:N	2.50	0.44
29:Q:36:ASP:OD2	29:Q:38:GLN:HB3	2.18	0.44
37:Y:82:ALA:O	37:Y:104:GLN:NE2	2.48	0.44
39:a:12:U:O2	39:a:2626:C:H4'	2.18	0.44
39:a:319:G:C5	39:a:333:G:C2	3.06	0.44
39:a:457:A:O4'	39:a:459:U:C6	2.71	0.44
39:a:1064:C:O2'	39:a:1065:U:C6	2.70	0.44
39:a:1119:U:O2'	39:a:1120:G:H5'	2.17	0.44
39:a:1411:U:H3'	39:a:1412:U:C6	2.53	0.44
39:a:1705:A:O2'	39:a:1706:C:H5'	2.18	0.44
39:a:1973:G:C4	39:a:1974:C:C5	3.05	0.44
39:a:2162:G:OP2	39:a:2164:C:N4	2.48	0.44
39:a:2183:A:H2'	39:a:2184:A:H8	1.83	0.44
39:a:2252:G:C2	39:a:2253:G:C8	3.06	0.44
39:a:2300:C:H2'	39:a:2301:C:H6	1.83	0.44
39:a:2616:C:O2	39:a:2617:U:C6	2.71	0.44
39:a:2723:C:C2'	39:a:2724:U:O5'	2.65	0.44
41:c:2:SER:O	41:c:50:ARG:NH1	2.50	0.44
42:d:57:A:N9	52:n:26:MET:HE1	2.32	0.44
46:h:146:MET:HE1	46:h:182:ARG:HE	1.83	0.44
46:h:148:PRO:HG3	46:h:187:ASP:OD1	2.18	0.44
46:h:205:LEU:HD23	46:h:211:ALA:N	2.33	0.44
46:h:250:VAL:HG12	46:h:251:GLN:O	2.18	0.44
49:k:32:GLU:CD	49:k:33:LYS:O	2.61	0.44
57:s:7:LYS:HG3	57:s:8:PRO:HD2	2.00	0.44
58:t:33:ALA:HB1	58:t:37:ASP:HB2	2.00	0.44
60:v:39:GLY:O	60:v:95:LEU:HD12	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:z:93:LYS:HG3	64:z:94:ILE:H	1.83	0.44
10:A:65:C:C2'	10:A:66:C:H5'	2.48	0.44
14:AE:76:LYS:HB3	14:AE:76:LYS:NZ	2.32	0.44
16:D:215:C:C2	16:D:216:U:C6	3.06	0.44
16:D:280:C:H4'	16:D:281:G:OP2	2.18	0.44
16:D:692:U:O3'	29:Q:127:ARG:NH2	2.51	0.44
16:D:812:G:O3'	16:D:813:U:H6	2.00	0.44
16:D:824:G:C6	16:D:877:G:O6	2.70	0.44
16:D:1095:U:H2'	16:D:1096:C:H6	1.80	0.44
16:D:1248:A:C6	16:D:1290:G:C4	3.05	0.44
16:D:1266:G:N2	16:D:1268:G:H3'	2.33	0.44
16:D:1384:C:H2'	16:D:1385:G:C8	2.53	0.44
16:D:1454:G:H8	16:D:1454:G:OP2	2.01	0.44
23:K:13:GLU:HB2	23:K:39:VAL:HG12	1.99	0.44
23:K:47:GLY:N	23:K:71:MET:SD	2.91	0.44
24:L:7:VAL:HG22	24:L:9:MET:HE3	2.00	0.44
25:M:15:ASP:O	25:M:19:GLY:CA	2.65	0.44
29:Q:72:ASP:O	29:Q:75:LYS:HE3	2.17	0.44
31:S:74:LEU:HD21	31:S:76:LYS:HG2	2.00	0.44
32:T:18:ASP:O	32:T:19:ALA:HB3	2.16	0.44
34:V:60:GLU:C	34:V:61:ILE:HG13	2.43	0.44
35:W:14:HIS:ND1	35:W:18:LYS:HE2	2.33	0.44
37:Y:126:ARG:NH1	39:a:1082:U:OP1	2.50	0.44
39:a:58:G:C2	39:a:59:U:C2	3.06	0.44
39:a:116:C:H2'	39:a:117:G:O4'	2.18	0.44
39:a:199:A:C2	39:a:2433:A:C2	3.06	0.44
39:a:496:G:C6	39:a:497:A:C8	3.06	0.44
39:a:583:G:C4	39:a:584:C:C5	3.06	0.44
39:a:627:A:O3'	39:a:628:G:H8	2.01	0.44
39:a:643:A:N1	39:a:2369:A:O2'	2.51	0.44
39:a:777:G:H2'	39:a:778:G:O4'	2.18	0.44
39:a:869:G:O2'	60:v:8:LYS:HG3	2.18	0.44
39:a:872:U:H2'	39:a:873:C:H6	1.82	0.44
39:a:1057:A:N7	39:a:1086:A:H2'	2.32	0.44
39:a:1074:G:H2'	39:a:1075:C:C6	2.53	0.44
39:a:1230:A:C2	39:a:1231:U:C2	3.06	0.44
39:a:1258:U:H2'	39:a:1259:G:O4'	2.17	0.44
39:a:1297:C:H2'	39:a:1298:C:H6	1.81	0.44
39:a:1304:A:O2'	39:a:1305:C:H5'	2.18	0.44
39:a:1315:C:C2	39:a:1338:G:C2	3.06	0.44
39:a:1332:G:H2'	39:a:1332:G:N3	2.31	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1391:U:N3	39:a:1394:U:OP2	2.50	0.44
39:a:1607:C:H42	39:a:1622:G:P	2.39	0.44
39:a:2204:G:C2	39:a:2205:A:C8	3.06	0.44
39:a:2249:U:H3'	39:a:2250:G:H5''	2.00	0.44
39:a:2277:G:H2'	39:a:2278:A:H5''	2.00	0.44
39:a:2374:C:C4	39:a:2375:G:N7	2.86	0.44
39:a:2384:U:P	40:b:55:ARG:NH2	2.91	0.44
39:a:2473:U:N3	39:a:2474:U:C6	2.86	0.44
39:a:2485:G:C2	39:a:2486:C:C6	3.06	0.44
39:a:2643:G:C6	39:a:2644:G:C6	3.06	0.44
39:a:2704:C:H2'	39:a:2705:A:O4'	2.18	0.44
39:a:2707:U:C2'	61:w:71:ARG:HH22	2.31	0.44
53:o:32:ILE:HG23	53:o:36:LYS:NZ	2.32	0.44
54:p:166:ASP:OD1	54:p:167:GLU:N	2.50	0.44
57:s:16:TYR:HA	57:s:138:GLN:O	2.18	0.44
60:v:42:THR:C	60:v:46:ILE:CD1	2.91	0.44
60:v:46:ILE:HG21	60:v:65:ILE:HD11	2.00	0.44
61:w:36:THR:CG2	61:w:37:THR:N	2.81	0.44
63:y:23:GLY:N	63:y:47:VAL:O	2.40	0.44
1:0:78:ARG:NE	1:0:78:ARG:HA	2.32	0.43
9:9:134:GLU:OE1	9:9:136:ILE:HG22	2.17	0.43
14:AE:201:LEU:CB	14:AE:221:ILE:HD13	2.47	0.43
10:B:37:A:C5	10:B:38:A:C8	3.06	0.43
10:B:48:C:H5''	10:B:59:A:O4'	2.18	0.43
16:D:57:G:H2'	16:D:58:C:H6	1.83	0.43
16:D:327:A:O2'	16:D:328:C:C4'	2.66	0.43
16:D:418:C:C2	16:D:419:C:C5	3.06	0.43
16:D:581:G:N2	16:D:582:C:N4	2.66	0.43
16:D:599:C:O2	16:D:600:A:C8	2.71	0.43
16:D:613:C:C2	16:D:614:C:C5	3.06	0.43
16:D:764:C:H2'	16:D:765:G:O4'	2.18	0.43
16:D:765:G:C6	16:D:812:G:C4	3.06	0.43
16:D:899:C:H2'	16:D:900:A:O4'	2.18	0.43
16:D:926:G:C6	16:D:1505:G:C6	3.06	0.43
16:D:1015:G:C6	16:D:1016:A:C6	3.06	0.43
16:D:1056:U:OP1	21:I:163:ALA:N	2.36	0.43
16:D:1148:U:H2'	16:D:1149:C:C6	2.53	0.43
16:D:1175:G:N3	16:D:1176:A:C8	2.86	0.43
16:D:1360:A:C4	16:D:1361:G:C8	3.06	0.43
16:D:1365:G:C6	16:D:1366:C:C4	3.06	0.43
19:G:24:ASN:ND2	19:G:190:ASN:O	2.51	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:H:280:LEU:HB2	20:H:330:VAL:O	2.19	0.43
20:H:290:TYR:O	20:H:305:HIS:C	2.56	0.43
25:M:121:ALA:HA	25:M:124:LEU:HD12	1.99	0.43
26:N:79:SER:HA	26:N:85:ILE:HG12	2.00	0.43
34:V:7:THR:C	34:V:60:GLU:OE2	2.61	0.43
34:V:81:LYS:HG3	34:V:82:ALA:N	2.33	0.43
36:X:16:VAL:HG23	36:X:17:ILE:N	2.33	0.43
39:a:36:G:C2'	39:a:37:C:H5'	2.48	0.43
39:a:234:U:C4	39:a:235:U:C5	3.06	0.43
39:a:281:C:H2'	39:a:282:A:C8	2.52	0.43
39:a:383:C:N4	39:a:385:C:H2'	2.33	0.43
39:a:563:A:N6	39:a:2018:G:C5	2.86	0.43
39:a:1056:G:HO2'	39:a:1103:A:N6	2.10	0.43
39:a:1084:A:N7	39:a:1085:A:N6	2.66	0.43
39:a:1146:C:O2'	39:a:1147:A:H5'	2.17	0.43
39:a:1332:G:O6	39:a:1609:A:C8	2.71	0.43
39:a:1412:U:N3	39:a:1413:A:N7	2.66	0.43
39:a:1414:C:H2'	39:a:1415:U:C6	2.52	0.43
39:a:1431:A:H2'	39:a:1432:G:C8	2.52	0.43
39:a:1717:A:H2'	39:a:1718:G:O4'	2.18	0.43
39:a:1755:A:N6	39:a:2694:G:O2'	2.50	0.43
39:a:1800:C:C6	39:a:1802:A:O4'	2.71	0.43
39:a:1893:C:O2	39:a:1893:C:H2'	2.18	0.43
39:a:1945:G:H2'	39:a:1946:U:C6	2.53	0.43
39:a:2094:A:O4'	39:a:2198:A:N6	2.51	0.43
39:a:2150:C:H2'	39:a:2151:U:O4'	2.17	0.43
39:a:2415:G:C6	39:a:2416:C:C4	3.06	0.43
39:a:2466:C:OP1	55:q:5:ALA:HB3	2.18	0.43
39:a:2628:C:O2'	39:a:2781:A:H2'	2.18	0.43
39:a:2758:A:C2	39:a:2759:G:C8	3.06	0.43
39:a:2767:C:C2	39:a:2768:U:C5	3.05	0.43
39:a:2783:U:H2'	39:a:2784:U:H6	1.82	0.43
39:a:2808:G:N2	39:a:2890:G:C8	2.86	0.43
40:b:33:ALA:HB2	40:b:63:ALA:CA	2.48	0.43
42:d:58:A:C4	42:d:59:A:C8	3.06	0.43
42:d:62:C:H2'	42:d:63:C:C6	2.53	0.43
50:l:14:VAL:HB	50:l:19:PHE:CE2	2.53	0.43
52:n:117:LEU:O	52:n:177:PHE:O	2.36	0.43
58:t:64:ARG:CZ	63:y:68:GLU:OE2	2.66	0.43
59:u:19:LEU:N	59:u:19:LEU:HD12	2.32	0.43
61:w:33:ILE:HD11	61:w:112:TYR:HD1	1.83	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:w:44:LEU:O	61:w:45:ARG:C	2.61	0.43
64:z:79:PHE:HE1	64:z:110:VAL:HA	1.83	0.43
2:1:7:HIS:ND1	39:a:493:G:O2'	2.33	0.43
2:1:74:ILE:CD1	2:1:105:VAL:HG22	2.47	0.43
4:3:4:LYS:O	4:3:72:ILE:HD11	2.18	0.43
4:3:36:VAL:HG12	4:3:37:GLU:H	1.83	0.43
9:9:57:ASN:HB3	9:9:63:ALA:HB2	2.00	0.43
10:A:34:C:H2'	10:A:35:A:H5'	2.00	0.43
11:AA:75:LEU:HD23	11:AA:94:ALA:HB3	2.00	0.43
11:AA:939:VAL:HG12	11:AA:939:VAL:O	2.17	0.43
13:AD:64:VAL:HG11	13:AD:78:ILE:HG21	1.99	0.43
14:AE:58:CYS:SG	14:AE:60:ARG:HG2	2.59	0.43
14:AE:111:THR:HG21	14:AE:303:VAL:HB	2.00	0.43
14:AE:1024:THR:HG23	14:AE:1123:ARG:HA	2.00	0.43
14:AE:1357:ILE:HG22	14:AE:1359:ALA:H	1.83	0.43
10:B:32:C:H2'	10:B:33:U:O4'	2.17	0.43
15:C:59:ILE:HG22	15:C:63:ARG:CD	2.48	0.43
16:D:42:G:N1	16:D:401:C:N3	2.66	0.43
16:D:101:A:H2'	16:D:102:G:O5'	2.17	0.43
16:D:255:G:H2'	16:D:256:U:C6	2.53	0.43
16:D:263:A:H2'	16:D:264:C:C5	2.53	0.43
16:D:265:G:O2'	16:D:267:C:OP1	2.27	0.43
16:D:306:A:C6	16:D:307:C:C6	3.07	0.43
16:D:405:U:H4'	16:D:498:A:C6	2.53	0.43
16:D:483:C:H3'	16:D:484:G:C8	2.53	0.43
16:D:625:U:H4'	33:U:16:PHE:CD1	2.54	0.43
16:D:815:A:H4'	16:D:817:C:C5	2.53	0.43
16:D:896:C:H2'	16:D:897:C:O4'	2.19	0.43
16:D:936:C:O2	16:D:936:C:H2'	2.17	0.43
16:D:1072:G:H2'	16:D:1073:U:C6	2.53	0.43
16:D:1092:A:C6	16:D:1093:A:C6	3.06	0.43
16:D:1130:A:N3	16:D:1131:G:C8	2.86	0.43
16:D:1159:U:C4	16:D:1182:G:C4	3.06	0.43
16:D:1202:U:C5	16:D:1203:C:C5	3.06	0.43
16:D:1313:U:H2'	16:D:1314:C:O4'	2.18	0.43
16:D:1338:G:H2'	16:D:1339:A:N9	2.32	0.43
16:D:1469:C:H2'	16:D:1470:U:O4'	2.18	0.43
20:H:109:THR:C	20:H:153:GLU:HA	2.43	0.43
23:K:88:VAL:CG1	23:K:93:ARG:HG2	2.48	0.43
26:N:59:LEU:HD23	26:N:60:GLU:N	2.33	0.43
26:N:75:ILE:HG13	26:N:129:VAL:HG22	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:O:41:ARG:NH1	27:O:43:THR:HG21	2.32	0.43
32:T:35:GLN:O	32:T:39:LEU:HG	2.18	0.43
39:a:9:G:C2	39:a:2895:G:C6	3.07	0.43
39:a:30:G:C6	39:a:511:U:O2	2.71	0.43
39:a:88:G:C6	39:a:89:A:C5	3.06	0.43
39:a:398:C:OP2	41:c:54:LYS:NZ	2.51	0.43
39:a:475:C:N3	39:a:479:A:N7	2.66	0.43
39:a:528:A:C2'	39:a:529:A:O5'	2.66	0.43
39:a:584:C:N4	39:a:585:G:C6	2.86	0.43
39:a:849:A:H2'	39:a:850:U:H6	1.83	0.43
39:a:928:A:O2'	39:a:929:U:H5'	2.18	0.43
39:a:964:C:C2	39:a:965:C:C5	3.06	0.43
39:a:1055:G:H1	39:a:1104:C:N4	2.16	0.43
39:a:1069:A:H4'	39:a:1070:A:C8	2.53	0.43
39:a:1232:G:H2'	39:a:1232:G:N3	2.33	0.43
39:a:1243:C:H2'	39:a:1244:A:O5'	2.18	0.43
39:a:1298:C:H2'	39:a:1299:G:C8	2.53	0.43
39:a:1407:G:C2	39:a:1408:G:C8	3.06	0.43
39:a:1462:C:O2'	39:a:1463:C:H5'	2.18	0.43
39:a:1741:C:H2'	39:a:1742:U:O4'	2.18	0.43
39:a:1842:G:H3'	39:a:1843:C:H6	1.83	0.43
39:a:1927:A:C6	39:a:1928:A:N6	2.86	0.43
39:a:2109:U:C2	39:a:2180:U:O4	2.71	0.43
39:a:2315:G:C2	39:a:2316:G:C4	3.06	0.43
39:a:2697:G:H2'	39:a:2698:U:C6	2.53	0.43
42:d:15:A:C1'	42:d:109:A:C8	3.01	0.43
43:e:17:GLU:O	43:e:18:LEU:C	2.61	0.43
54:p:96:ALA:HB2	54:p:105:LEU:HD23	2.00	0.43
57:s:17:VAL:N	57:s:138:GLN:O	2.39	0.43
58:t:102:PRO:HB3	58:t:121:GLU:HB3	2.00	0.43
61:w:56:LYS:NZ	61:w:87:PHE:O	2.51	0.43
64:z:85:LYS:HZ2	64:z:117:LEU:HA	1.83	0.43
4:3:104:LYS:CD	39:a:301:G:OP2	2.65	0.43
6:5:98:DA:C2'	6:5:99:DT:C7	2.96	0.43
9:9:18:VAL:CG1	9:9:71:CYS:HB2	2.48	0.43
9:9:28:ALA:N	9:9:110:ALA:HA	2.29	0.43
14:AE:1046:ILE:HG22	14:AE:1061:VAL:HA	2.00	0.43
10:B:3:C:H2'	10:B:4:G:H8	1.83	0.43
16:D:121:U:C3'	16:D:122:G:H5'	2.49	0.43
16:D:705:G:C4	16:D:706:A:C8	3.06	0.43
16:D:842:U:H4'	16:D:846:G:C6	2.53	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:891:U:O2	16:D:892:A:C8	2.72	0.43
16:D:927:G:C2	16:D:928:G:C8	3.07	0.43
16:D:1228:C:O2	16:D:1229:A:C8	2.72	0.43
16:D:1266:G:C6	16:D:1270:G:O6	2.72	0.43
16:D:1404:C:H1'	16:D:1499:A:N1	2.33	0.43
16:D:1436:U:C2	16:D:1437:A:C8	3.07	0.43
22:J:48:LEU:N	22:J:48:LEU:HD13	2.33	0.43
23:K:114:VAL:HG23	23:K:115:LEU:N	2.34	0.43
27:O:65:ILE:HD13	27:O:79:ILE:HG23	2.00	0.43
29:Q:47:ALA:HB1	29:Q:62:ALA:HB1	1.99	0.43
36:X:102:THR:O	36:X:103:LYS:C	2.60	0.43
39:a:66:C:C4	39:a:67:U:C5	3.06	0.43
39:a:121:G:C8	39:a:148:U:C4	3.07	0.43
39:a:250:G:H4'	59:u:59:ARG:NH1	2.33	0.43
39:a:721:A:C2	39:a:722:A:C5	3.06	0.43
39:a:945:A:C5	39:a:2448:A:C2	3.06	0.43
39:a:1084:A:C6	39:a:1085:A:N1	2.86	0.43
39:a:1111:A:O2'	39:a:1112:G:C1'	2.66	0.43
39:a:1407:G:H2'	39:a:1408:G:O4'	2.18	0.43
39:a:1432:G:H2'	39:a:1433:A:C8	2.53	0.43
39:a:1794:A:H2'	39:a:1795:C:C6	2.53	0.43
39:a:1892:C:H2'	39:a:1893:C:O4'	2.18	0.43
39:a:2082:A:H2'	39:a:2083:G:O4'	2.18	0.43
39:a:2209:G:N2	39:a:2216:G:C4	2.85	0.43
39:a:2283:C:C5	39:a:2389:G:C5	3.07	0.43
39:a:2363:G:C2	39:a:2364:C:C5	3.07	0.43
39:a:2378:A:C6	39:a:2379:G:H1'	2.53	0.43
39:a:2405:G:H21	39:a:2412:A:H62	1.65	0.43
40:b:38:VAL:HG12	40:b:39:ARG:N	2.32	0.43
40:b:46:HIS:NE2	40:b:77:ARG:HD2	2.33	0.43
42:d:20:G:C4	42:d:21:G:C8	3.06	0.43
42:d:27:C:C4	42:d:28:C:C4	3.06	0.43
42:d:69:G:C2	42:d:70:C:H1'	2.53	0.43
45:g:3:LYS:HD2	45:g:4:ASP:N	2.33	0.43
46:h:162:VAL:CG1	46:h:163:GLN:N	2.81	0.43
46:h:226:ASN:C	46:h:233:GLY:HA3	2.43	0.43
50:l:55:SER:C	50:l:57:LYS:H	2.25	0.43
50:l:146:VAL:HG22	50:l:147:LEU:N	2.34	0.43
50:l:146:VAL:O	50:l:183:PHE:CD2	2.72	0.43
58:t:8:LEU:N	58:t:8:LEU:HD12	2.33	0.43
64:z:66:ASN:CG	64:z:76:TYR:HB2	2.43	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:6:ARG:O	3:2:10:VAL:HG23	2.17	0.43
3:2:63:VAL:O	3:2:79:ASP:HA	2.19	0.43
9:9:100:ALA:HB3	9:9:125:ARG:NH2	2.34	0.43
11:AA:230:PHE:HB2	11:AA:333:ILE:HB	2.01	0.43
11:AA:400:VAL:HG21	11:AA:452:ARG:HE	1.84	0.43
11:AA:469:VAL:HA	11:AA:472:GLU:HG2	2.00	0.43
11:AA:991:LYS:HD2	11:AA:991:LYS:H	1.80	0.43
11:AA:1253:LEU:CD1	14:AE:253:VAL:CG1	2.95	0.43
11:AA:1329:GLU:HA	14:AE:245:LEU:HD13	2.00	0.43
14:AE:107:LEU:HA	14:AE:276:ASN:ND2	2.33	0.43
14:AE:128:LEU:CD2	14:AE:188:LEU:HB3	2.47	0.43
14:AE:213:LYS:HE3	14:AE:213:LYS:CA	2.47	0.43
14:AE:1108:GLN:HG3	14:AE:1109:LEU:HD12	1.99	0.43
16:D:108:G:H5'	16:D:109:A:H5''	2.00	0.43
16:D:122:G:C4	16:D:123:U:C5	3.06	0.43
16:D:341:C:O2	16:D:342:C:C6	2.71	0.43
16:D:360:G:O2'	16:D:361:G:H5'	2.18	0.43
16:D:384:G:C6	16:D:385:C:N4	2.87	0.43
16:D:745:G:C2	16:D:746:A:N7	2.87	0.43
16:D:748:G:N3	16:D:749:A:C8	2.86	0.43
16:D:784:A:N6	16:D:799:G:C6	2.86	0.43
16:D:864:A:C3'	16:D:865:A:C8	3.02	0.43
16:D:958:A:O2'	16:D:959:A:H5'	2.18	0.43
16:D:1041:G:H2'	16:D:1042:A:C8	2.53	0.43
16:D:1150:A:H2'	16:D:1151:A:O4'	2.19	0.43
16:D:1163:A:C6	16:D:1174:G:C6	3.07	0.43
16:D:1250:A:N3	16:D:1370:G:O2'	2.41	0.43
16:D:1338:G:C2	16:D:1339:A:C2	3.06	0.43
19:G:20:THR:HB	19:G:39:HIS:HE1	1.83	0.43
19:G:31:ILE:HD13	19:G:39:HIS:CD2	2.49	0.43
21:I:37:PHE:CG	31:S:66:GLN:CD	2.94	0.43
23:K:49:GLY:HA3	23:K:63:ALA:O	2.18	0.43
36:X:81:MET:HE2	39:a:888:C:C4	2.54	0.43
36:X:90:ARG:NE	36:X:96:PRO:O	2.30	0.43
38:Z:14:MET:HB2	38:Z:17:MET:HB3	1.99	0.43
39:a:36:G:H4'	39:a:451:U:C2	2.53	0.43
39:a:61:C:N4	39:a:62:U:O4	2.51	0.43
39:a:75:G:N3	39:a:75:G:H2'	2.33	0.43
39:a:91:A:H1'	39:a:92:U:C6	2.53	0.43
39:a:362:A:C4	39:a:363:G:C8	3.06	0.43
39:a:368:A:O2'	39:a:369:U:H5'	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:412:A:H3'	39:a:413:C:H6	1.83	0.43
39:a:690:G:C4	39:a:691:C:C5	3.06	0.43
39:a:801:G:H3'	39:a:802:A:H5'	2.01	0.43
39:a:904:G:C4	39:a:905:A:C8	3.07	0.43
39:a:1144:A:C6	39:a:1145:C:N4	2.86	0.43
39:a:1202:G:C6	39:a:1244:A:C6	3.07	0.43
39:a:1212:G:O2'	39:a:1236:G:N2	2.50	0.43
39:a:1262:A:C6	39:a:1263:U:C4	3.06	0.43
39:a:1266:G:O2'	39:a:1267:U:OP2	2.36	0.43
39:a:1354:A:H2'	39:a:1355:G:O4'	2.18	0.43
39:a:1361:G:H2'	39:a:1362:C:C6	2.53	0.43
39:a:1437:C:H2'	39:a:1438:U:O4'	2.19	0.43
39:a:1452:G:C2	39:a:2702:G:C5	3.06	0.43
39:a:1734:G:N1	39:a:1735:A:C5	2.86	0.43
39:a:1975:G:H2'	39:a:1976:U:O4'	2.18	0.43
39:a:2312:U:OP1	52:n:72:LYS:O	2.35	0.43
39:a:2317:A:C4	39:a:2318:G:C8	3.07	0.43
39:a:2334:U:C4'	62:x:13:ARG:HH21	2.29	0.43
39:a:2452:C:O2'	39:a:2453:A:O4'	2.36	0.43
39:a:2744:G:C6	39:a:2761:A:C6	3.06	0.43
39:a:2783:U:H2'	39:a:2784:U:C6	2.54	0.43
42:d:45:A:C6	42:d:46:A:C5	3.06	0.43
50:l:33:VAL:O	50:l:36:ALA:HB3	2.18	0.43
52:n:177:PHE:O	52:n:178:ARG:HB2	2.18	0.43
55:q:33:HIS:O	55:q:35:GLN:HG3	2.19	0.43
57:s:29:ALA:O	57:s:32:LEU:N	2.52	0.43
63:y:2:SER:O	63:y:6:LYS:HG3	2.18	0.43
64:z:9:ILE:HG23	64:z:10:ALA:N	2.34	0.43
1:0:68:ARG:HA	1:0:92:TRP:HA	2.01	0.43
2:1:42:LYS:CE	39:a:2010:G:O3'	2.66	0.43
3:2:56:GLU:CG	3:2:88:LYS:HA	2.49	0.43
9:9:70:GLU:HG3	9:9:71:CYS:N	2.34	0.43
10:A:31:G:N1	10:A:40:C:N3	2.66	0.43
10:A:48:C:H5''	10:A:59:A:O4'	2.18	0.43
11:AA:960:LEU:HB3	11:AA:1025:PHE:CD1	2.53	0.43
13:AC:71:LYS:HZ1	13:AC:140:ILE:HD12	1.84	0.43
14:AE:62:PHE:N	14:AE:62:PHE:CD1	2.86	0.43
16:D:20:U:H2'	16:D:21:G:C5'	2.48	0.43
16:D:98:A:C2	16:D:99:C:C2	3.07	0.43
16:D:229:U:C2	16:D:230:G:C8	3.07	0.43
16:D:429:U:O2	16:D:430:A:C8	2.71	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:441:A:C5	16:D:442:G:C8	3.06	0.43
16:D:491:G:C6	16:D:492:C:N4	2.86	0.43
16:D:792:A:H1'	16:D:794:A:N7	2.33	0.43
16:D:984:C:H2'	16:D:985:C:C6	2.52	0.43
16:D:1002:G:C6	16:D:1039:G:C5	3.05	0.43
16:D:1060:U:H4'	28:P:54:SER:HA	2.01	0.43
16:D:1241:G:H2'	16:D:1242:G:C8	2.52	0.43
16:D:1241:G:C2	16:D:1242:G:N7	2.86	0.43
16:D:1254:A:C2	16:D:1284:C:O2	2.71	0.43
16:D:1256:A:C8	16:D:1278:G:N7	2.87	0.43
16:D:1268:G:N2	16:D:1327:C:C1'	2.81	0.43
16:D:1433:A:H3'	16:D:1434:A:H8	1.82	0.43
16:D:1474:U:C2'	16:D:1475:G:O5'	2.67	0.43
28:P:72:ARG:HG2	28:P:72:ARG:NH1	2.33	0.43
30:R:21:VAL:HB	30:R:24:LEU:HD23	1.99	0.43
32:T:25:THR:O	32:T:29:VAL:HG23	2.19	0.43
33:U:19:VAL:HG11	33:U:52:LEU:CD1	2.48	0.43
34:V:29:VAL:O	34:V:37:PHE:HA	2.18	0.43
34:V:61:ILE:HA	34:V:75:LEU:HA	1.99	0.43
37:Y:58:ILE:CG2	37:Y:60:VAL:HG23	2.41	0.43
37:Y:76:ALA:CB	39:a:1059:G:O2'	2.67	0.43
39:a:3:U:C2'	39:a:4:U:O5'	2.67	0.43
39:a:35:G:C6	39:a:36:G:C5	3.07	0.43
39:a:299:A:N3	39:a:319:G:O2'	2.50	0.43
39:a:311:A:C2	39:a:330:A:H3'	2.53	0.43
39:a:1177:G:HO2'	39:a:1178:C:P	2.40	0.43
39:a:1260:A:O2'	39:a:1261:C:H5'	2.19	0.43
39:a:1277:G:H2'	39:a:1278:C:H6	1.78	0.43
39:a:1419:A:C5	39:a:1421:G:C5	3.06	0.43
39:a:1586:A:C2	39:a:1587:G:H1'	2.54	0.43
39:a:1607:C:H4'	39:a:1608:A:O5'	2.18	0.43
39:a:1722:A:OP2	39:a:1738:G:N2	2.40	0.43
39:a:1798:U:C4	39:a:1819:A:C2	3.06	0.43
39:a:1905:C:C5	39:a:1930:G:C6	3.07	0.43
39:a:2101:A:O2'	39:a:2102:G:O4'	2.29	0.43
39:a:2454:G:N2	39:a:2455:G:H1'	2.33	0.43
39:a:2461:A:H2'	39:a:2462:C:C6	2.53	0.43
39:a:2528:U:H2'	39:a:2530:A:O5'	2.18	0.43
39:a:2556:C:H2'	39:a:2557:G:O4'	2.19	0.43
39:a:2868:A:C6	39:a:2869:G:C5	3.06	0.43
41:c:17:ASN:HB3	41:c:25:THR:OG1	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:c:30:LEU:N	41:c:30:LEU:HD12	2.33	0.43
42:d:17:C:N3	42:d:18:G:C8	2.86	0.43
48:j:137:SER:HB3	48:j:138:LEU:HD13	2.01	0.43
52:n:12:VAL:HG12	52:n:16:LEU:HD11	2.00	0.43
52:n:175:PHE:CD2	52:n:176:PRO:CD	3.02	0.43
56:r:117:LEU:HD23	56:r:122:LEU:HD11	2.00	0.43
58:t:109:SER:OG	58:t:110:GLU:N	2.52	0.43
61:w:52:ILE:HG21	61:w:94:TYR:CD2	2.52	0.43
3:2:84:TYR:CE2	39:a:1341:G:N3	2.87	0.43
4:3:40:ASN:HB2	4:3:63:ALA:O	2.18	0.43
5:4:80:HIS:ND1	5:4:83:LYS:HB2	2.33	0.43
8:7:5:U:C6	8:7:5:U:H3'	2.53	0.43
11:AA:1034:ARG:NH1	11:AA:1034:ARG:CG	2.77	0.43
13:AC:141:SER:O	13:AC:141:SER:OG	2.33	0.43
13:AD:207:THR:OG1	13:AD:208:ASN:N	2.52	0.43
14:AE:68:TYR:O	14:AE:75:TYR:CD2	2.70	0.43
14:AE:894:VAL:HG22	14:AE:1258:ARG:HH11	1.83	0.43
10:B:54:U:C4	10:B:55:U:C4	3.07	0.43
16:D:71:A:C6	16:D:72:A:C8	3.06	0.43
16:D:136:C:C4	16:D:137:U:C5	3.06	0.43
16:D:348:G:C2	16:D:349:A:C8	3.05	0.43
16:D:379:C:H2'	16:D:380:G:C8	2.53	0.43
16:D:537:G:C2	16:D:538:G:C8	3.07	0.43
16:D:570:G:H1'	16:D:820:U:C4	2.53	0.43
16:D:623:C:C2	16:D:624:C:C5	3.07	0.43
16:D:665:A:H2'	16:D:725:G:N2	2.33	0.43
16:D:706:A:C5	16:D:707:U:C4	3.07	0.43
16:D:766:A:C4	16:D:767:A:C8	3.06	0.43
16:D:889:A:O4'	16:D:891:U:C6	2.71	0.43
16:D:1165:U:C4	16:D:1166:G:C5	3.07	0.43
16:D:1277:C:H1'	16:D:1282:C:O2	2.17	0.43
16:D:1310:G:C2	16:D:1328:C:C2	3.06	0.43
16:D:1438:G:OP1	17:E:29:ARG:CZ	2.67	0.43
16:D:1456:A:C2	16:D:1457:G:H1'	2.54	0.43
16:D:1489:G:H2'	16:D:1490:U:H6	1.83	0.43
19:G:74:ARG:O	19:G:74:ARG:HG2	2.18	0.43
19:G:105:LYS:O	19:G:108:ARG:HB3	2.19	0.43
25:M:51:ALA:O	25:M:55:GLY:N	2.49	0.43
27:O:12:ARG:HA	27:O:106:ARG:HH12	1.84	0.43
33:U:21:VAL:HG11	33:U:60:TRP:CE2	2.53	0.43
39:a:18:U:O2'	64:z:23:GLY:HA2	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:30:G:C4	39:a:31:C:C5	3.07	0.43
39:a:65:U:C2	39:a:66:C:C5	3.06	0.43
39:a:434:U:O2	39:a:436:C:N4	2.52	0.43
39:a:615:U:OP1	39:a:615:U:H2'	2.18	0.43
39:a:629:G:N3	39:a:639:U:O2'	2.50	0.43
39:a:682:G:H5'	51:m:26:ASN:CB	2.37	0.43
39:a:690:G:C5	39:a:691:C:C5	3.06	0.43
39:a:795:C:H2'	39:a:796:C:C6	2.54	0.43
39:a:912:C:O2'	39:a:913:U:H5'	2.18	0.43
39:a:1007:C:OP2	39:a:1008:A:C3'	2.66	0.43
39:a:1153:C:C4	39:a:1154:G:C5	3.07	0.43
39:a:1399:C:N3	39:a:1400:U:C5	2.86	0.43
39:a:1794:A:H2'	39:a:1795:C:H6	1.84	0.43
39:a:1850:G:H2'	39:a:1851:U:C6	2.53	0.43
39:a:2010:G:O2'	39:a:2011:U:H5'	2.17	0.43
39:a:2072:C:C2	39:a:2073:C:C5	3.06	0.43
39:a:2236:U:O2'	39:a:2237:G:H5'	2.19	0.43
39:a:2260:C:N3	39:a:2261:C:C5	2.86	0.43
39:a:2357:G:C2	39:a:2361:G:C5	3.06	0.43
39:a:2423:U:C2	39:a:2425:A:C2	3.06	0.43
39:a:2536:G:C5	39:a:2537:U:C5	3.07	0.43
39:a:2595:G:C6	39:a:2599:G:O6	2.72	0.43
39:a:2646:C:O5'	39:a:2646:C:H6	2.01	0.43
39:a:2739:U:H3'	39:a:2763:G:H1	1.83	0.43
39:a:2787:C:C2	39:a:2788:C:C5	3.07	0.43
39:a:2815:C:O2	39:a:2816:G:C8	2.72	0.43
39:a:2819:G:C6	39:a:2828:G:C6	3.07	0.43
39:a:2831:G:H1'	39:a:2883:A:H2'	2.01	0.43
39:a:2856:A:C6	39:a:2862:G:N1	2.86	0.43
39:a:2886:A:C5	39:a:2887:A:C8	3.07	0.43
42:d:68:C:H2'	42:d:69:G:O4'	2.19	0.43
42:d:114:C:H2'	42:d:115:A:H8	1.83	0.43
43:e:43:LEU:HD23	43:e:43:LEU:C	2.43	0.43
44:f:2:ALA:O	44:f:3:LYS:HB2	2.17	0.43
46:h:17:VAL:HG23	46:h:204:VAL:HG12	2.01	0.43
48:j:3:GLY:HA3	48:j:204:LYS:HA	2.01	0.43
48:j:37:VAL:O	48:j:37:VAL:HG23	2.19	0.43
49:k:39:PHE:HA	49:k:46:HIS:HA	1.98	0.43
50:l:188:MET:HE2	50:l:193:VAL:HA	2.01	0.43
54:p:43:VAL:HG22	54:p:44:LYS:N	2.34	0.43
56:r:15:LEU:HD12	56:r:16:GLY:N	2.34	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:u:23:ILE:HG13	59:u:24:GLY:N	2.33	0.43
60:v:42:THR:O	60:v:43:ALA:C	2.60	0.43
1:0:35:PHE:N	1:0:35:PHE:CD1	2.85	0.43
4:3:42:VAL:HG22	4:3:61:LYS:O	2.19	0.43
4:3:55:PRO:C	39:a:498:G:OP1	2.61	0.43
9:9:16:SER:HA	9:9:20:LYS:HE3	1.99	0.43
9:9:97:LYS:HB3	9:9:97:LYS:HE2	1.76	0.43
9:9:129:LEU:O	9:9:129:LEU:CD1	2.66	0.43
11:AA:95:PRO:HB3	11:AA:123:TYR:HE1	1.82	0.43
11:AA:998:LEU:CD2	11:AA:1011:LEU:HD13	2.49	0.43
13:AC:145:LYS:HE3	13:AC:145:LYS:HB2	1.83	0.43
10:B:26:G:C4	10:B:27:U:C5	3.06	0.43
10:B:65:C:C2'	10:B:66:C:H5'	2.48	0.43
15:C:62:ALA:HB3	15:C:68:LEU:HD12	2.01	0.43
16:D:402:G:O2'	16:D:403:C:H5'	2.19	0.43
16:D:716:A:C6	16:D:717:U:C4	3.07	0.43
16:D:747:A:C2	16:D:748:G:C4	3.07	0.43
16:D:877:G:C2	16:D:878:A:C8	3.07	0.43
16:D:1086:U:O2	16:D:1087:G:C8	2.72	0.43
16:D:1118:U:H2'	16:D:1119:C:H6	1.83	0.43
16:D:1185:G:C4	16:D:1186:G:C8	3.06	0.43
16:D:1337:G:H5''	16:D:1338:G:OP1	2.19	0.43
16:D:1451:U:H3'	16:D:1452:C:C6	2.53	0.43
23:K:77:ASN:O	23:K:78:ASN:C	2.60	0.43
23:K:140:THR:O	23:K:144:LEU:HG	2.18	0.43
25:M:138:ARG:O	25:M:141:VAL:HG12	2.18	0.43
26:N:35:ALA:O	26:N:39:VAL:HG23	2.19	0.43
26:N:46:ILE:HB	26:N:61:LEU:HD11	2.01	0.43
32:T:15:PHE:CE1	32:T:30:ALA:CB	3.02	0.43
34:V:11:ARG:NE	34:V:58:VAL:HG22	2.33	0.43
35:W:53:ASN:HB2	35:W:76:PRO:O	2.18	0.43
39:a:25:U:H2'	39:a:26:G:C8	2.54	0.43
39:a:68:G:C2	39:a:69:C:H1'	2.54	0.43
39:a:79:C:N3	39:a:108:G:C6	2.87	0.43
39:a:243:U:O5'	53:o:8:ARG:NH2	2.51	0.43
39:a:257:C:H2'	39:a:258:G:O4'	2.19	0.43
39:a:503:A:C6	39:a:505:A:C6	3.07	0.43
39:a:579:G:H2'	39:a:580:U:C6	2.53	0.43
39:a:705:A:C2	39:a:727:A:H1'	2.54	0.43
39:a:1014:A:N6	39:a:1149:G:C6	2.87	0.43
39:a:1443:U:H2'	39:a:1444:G:H8	1.82	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1527:G:N1	39:a:1544:A:OP2	2.52	0.43
39:a:1581:G:H2'	39:a:1582:C:C6	2.53	0.43
39:a:2199:A:C8	39:a:2200:C:C5	3.06	0.43
39:a:2222:C:C2	39:a:2223:G:C8	3.06	0.43
39:a:2329:U:H2'	39:a:2330:G:O4'	2.19	0.43
39:a:2417:C:N3	39:a:2418:A:N7	2.66	0.43
39:a:2466:C:H2'	39:a:2467:C:H6	1.83	0.43
39:a:2511:U:C3'	48:j:128:ARG:HH21	2.32	0.43
39:a:2638:G:H1'	39:a:2778:A:N6	2.34	0.43
39:a:2771:C:C2	39:a:2772:C:C5	3.07	0.43
39:a:2847:U:C4	39:a:2848:G:C5	3.07	0.43
41:c:18:ARG:HH21	41:c:22:LEU:HD22	1.84	0.43
50:l:1:MET:O	50:l:14:VAL:N	2.41	0.43
53:o:31:HIS:O	53:o:32:ILE:O	2.37	0.43
63:y:114:LEU:HD23	63:y:114:LEU:H	1.82	0.43
3:2:3:ARG:HH12	39:a:144:A:H1'	1.84	0.43
6:5:116:DG:C6	6:5:117:DA:C6	3.06	0.43
8:7:11:U:H6	8:7:11:U:H2'	1.68	0.43
10:A:11:A:H2'	10:A:12:G:O4'	2.19	0.43
11:AA:55:SER:CB	11:AA:465:ARG:HH12	2.32	0.43
11:AA:488:MET:O	11:AA:490:GLN:N	2.47	0.43
11:AA:857:VAL:HG11	11:AA:861:ALA:HB2	1.99	0.43
11:AA:914:LYS:HD3	11:AA:914:LYS:N	2.31	0.43
14:AE:126:LEU:CD1	14:AE:223:LEU:HD22	2.49	0.43
16:D:23:C:O2'	16:D:24:U:H5'	2.19	0.43
16:D:142:G:C4	16:D:143:A:C8	3.07	0.43
16:D:173:U:C6	16:D:198:G:H1'	2.53	0.43
16:D:177:G:C8	16:D:178:C:C6	3.06	0.43
16:D:292:G:C2	16:D:309:A:C2	3.06	0.43
16:D:297:G:N2	16:D:300:A:OP2	2.51	0.43
16:D:340:U:H2'	16:D:341:C:H6	1.84	0.43
16:D:358:U:C2	16:D:359:G:C8	3.06	0.43
16:D:683:G:C4	16:D:684:U:C5	3.07	0.43
16:D:876:C:H2'	16:D:877:G:H8	1.83	0.43
16:D:884:U:H4'	16:D:885:G:H5''	2.00	0.43
16:D:937:A:C6	16:D:938:A:C5	3.06	0.43
16:D:1095:U:C2	16:D:1096:C:C5	3.07	0.43
16:D:1244:G:O6	16:D:1294:G:C6	2.71	0.43
16:D:1333:A:H2'	16:D:1334:G:O4'	2.19	0.43
16:D:1353:G:C2	16:D:1354:U:C6	3.07	0.43
19:G:132:LYS:O	19:G:136:MET:HG3	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:G:157:LEU:HD12	19:G:157:LEU:C	2.43	0.43
20:H:110:GLY:H	20:H:153:GLU:N	2.17	0.43
23:K:144:LEU:HA	23:K:147:MET:HE3	2.00	0.43
34:V:29:VAL:HG22	34:V:30:LYS:N	2.33	0.43
34:V:58:VAL:CG1	34:V:79:VAL:HG13	2.48	0.43
34:V:63:GLU:OE1	34:V:64:CYS:O	2.37	0.43
36:X:15:ALA:O	36:X:16:VAL:C	2.61	0.43
39:a:382:A:C2	39:a:393:C:N3	2.86	0.43
39:a:412:A:H3'	39:a:413:C:C6	2.54	0.43
39:a:560:C:C2	39:a:561:G:C8	3.06	0.43
39:a:851:C:H2'	39:a:852:U:H6	1.84	0.43
39:a:871:U:OP1	60:v:5:LYS:N	2.52	0.43
39:a:877:A:H2'	39:a:878:A:C8	2.53	0.43
39:a:905:A:H2'	39:a:906:U:H5'	2.01	0.43
39:a:938:G:C2	39:a:939:G:C8	3.07	0.43
39:a:972:A:C2'	39:a:973:A:OP1	2.67	0.43
39:a:992:C:H2'	39:a:993:G:H8	1.84	0.43
39:a:1022:G:N2	39:a:1142:A:N7	2.65	0.43
39:a:1188:U:O2'	39:a:1189:A:H5'	2.19	0.43
39:a:1470:A:C5	39:a:1471:G:C8	3.07	0.43
39:a:1505:A:C6	39:a:1506:U:C4	3.06	0.43
39:a:1597:A:H5''	39:a:1598:A:H5'	2.00	0.43
39:a:1653:G:OP2	61:w:2:ARG:NH1	2.50	0.43
39:a:1708:C:O2	39:a:1709:U:C6	2.71	0.43
39:a:1726:C:C2	39:a:1735:A:C2	3.07	0.43
39:a:1750:G:C6	39:a:1751:U:C4	3.07	0.43
39:a:1966:A:C2	39:a:2593:U:O4'	2.71	0.43
39:a:2045:C:N3	39:a:2624:G:N1	2.67	0.43
39:a:2065:C:N3	39:a:2066:C:C5	2.87	0.43
39:a:2290:G:C2	39:a:2343:U:O2	2.71	0.43
39:a:2367:G:C2	39:a:2368:C:C5	3.07	0.43
39:a:2415:G:C4	39:a:2416:C:C5	3.07	0.43
39:a:2451:A:N6	39:a:2452:C:N4	2.67	0.43
39:a:2672:U:N3	39:a:2673:G:C8	2.87	0.43
39:a:2699:C:N3	39:a:2709:G:C6	2.87	0.43
39:a:2767:C:O2	39:a:2767:C:H2'	2.18	0.43
39:a:2817:U:H2'	39:a:2818:U:O5'	2.19	0.43
39:a:2817:U:O2	39:a:2836:U:H1'	2.19	0.43
42:d:2:G:C6	42:d:119:A:C6	3.07	0.43
43:e:26:PHE:HD1	43:e:29:ARG:HD2	1.84	0.43
46:h:230:HIS:CD2	46:h:247:PRO:HA	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:j:192:ALA:O	48:j:193:VAL:HG13	2.18	0.43
49:k:13:SER:HB2	49:k:49:TYR:CZ	2.54	0.43
53:o:12:LYS:O	59:u:64:PHE:CE2	2.71	0.43
54:p:87:LEU:HD13	54:p:164:TYR:HA	2.01	0.43
56:r:12:LEU:HD12	56:r:19:VAL:HG11	2.00	0.43
56:r:29:PHE:O	56:r:33:GLN:HG3	2.19	0.43
57:s:25:LEU:HD11	57:s:100:VAL:HG12	2.00	0.43
63:y:59:PHE:CZ	63:y:74:PHE:HB2	2.53	0.43
2:1:32:ALA:O	2:1:36:LEU:HG	2.19	0.43
3:2:54:GLU:O	3:2:88:LYS:HG3	2.17	0.43
3:2:55:VAL:HA	3:2:87:LEU:HD13	2.01	0.43
5:4:77:VAL:HG22	5:4:78:GLN:N	2.34	0.43
10:A:5:G:C2'	10:A:6:G:H5''	2.49	0.43
10:A:32:C:C2'	10:A:33:U:H5'	2.49	0.43
11:AA:796:LEU:N	11:AA:1231:TYR:OH	2.52	0.43
11:AA:958:LYS:NZ	11:AA:958:LYS:CB	2.73	0.43
14:AE:161:THR:H	14:AE:164:GLN:HB2	1.82	0.43
14:AE:244:VAL:HA	14:AE:269:TYR:OH	2.19	0.43
16:D:257:G:C2'	16:D:258:G:O5'	2.67	0.43
16:D:459:A:H2'	16:D:460:A:H8	1.83	0.43
16:D:507:C:C4	16:D:508:U:C4	3.07	0.43
16:D:606:G:H5''	16:D:607:A:H5'	2.01	0.43
16:D:902:G:N2	16:D:903:G:C4	2.87	0.43
16:D:936:C:C2	16:D:937:A:C8	3.07	0.43
16:D:960:U:C4	16:D:1225:A:C8	3.07	0.43
16:D:1061:G:H2'	16:D:1062:U:O4'	2.18	0.43
16:D:1085:U:H3'	16:D:1086:U:C6	2.54	0.43
16:D:1328:C:H4'	36:X:29:ARG:HH22	1.83	0.43
16:D:1418:A:N6	16:D:1482:G:O2'	2.47	0.43
16:D:1471:U:N3	16:D:1472:U:C5	2.87	0.43
16:D:1477:U:H2'	16:D:1478:U:C6	2.53	0.43
18:F:55:ARG:HA	18:F:58:LYS:HZ2	1.83	0.43
19:G:82:ASP:HA	19:G:85:LEU:HD12	2.01	0.43
20:H:342:ILE:HG22	20:H:344:LEU:HD12	2.01	0.43
23:K:89:HIS:CE1	23:K:138:ARG:HD3	2.54	0.43
26:N:53:GLY:HA3	26:N:57:PRO:HA	2.01	0.43
27:O:114:LYS:CE	27:O:118:LEU:O	2.67	0.43
37:Y:133:ARG:HG2	37:Y:133:ARG:NH1	2.33	0.43
39:a:48:G:H22	39:a:177:G:P	2.41	0.43
39:a:422:A:H2'	39:a:423:A:C8	2.54	0.43
39:a:485:C:C2	39:a:486:C:C6	3.07	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:813:U:H2'	39:a:814:C:C6	2.54	0.43
39:a:1005:C:O4'	39:a:1012:U:C2	2.72	0.43
39:a:1073:A:C4	39:a:1074:G:C8	3.06	0.43
39:a:1211:C:H3'	39:a:1212:G:C5'	2.49	0.43
39:a:1227:G:C4	39:a:1228:G:C8	3.06	0.43
39:a:1373:A:O4'	39:a:2212:A:C2	2.71	0.43
39:a:1422:G:H5''	39:a:1493:C:OP2	2.18	0.43
39:a:1491:G:N1	39:a:1492:G:C5	2.87	0.43
39:a:1619:G:C4	39:a:1620:G:C8	3.07	0.43
39:a:1630:A:N1	39:a:1637:A:N6	2.67	0.43
39:a:1632:A:C2'	39:a:1633:G:O4'	2.67	0.43
39:a:1671:U:H2'	39:a:1673:G:OP2	2.19	0.43
39:a:2003:A:C6	39:a:2004:G:N7	2.87	0.43
39:a:2215:C:C2	39:a:2216:G:C8	3.06	0.43
39:a:2329:U:H2'	39:a:2330:G:C8	2.54	0.43
39:a:2616:C:O2'	39:a:2617:U:H5'	2.18	0.43
39:a:2710:C:O2'	39:a:2711:A:H5'	2.18	0.43
39:a:2814:A:H1'	47:i:26:THR:HG21	2.01	0.43
39:a:2819:G:N2	39:a:2821:A:O4'	2.51	0.43
39:a:2850:A:C4	39:a:2851:A:C8	3.07	0.43
41:c:54:LYS:O	41:c:57:ARG:HB2	2.19	0.43
42:d:18:G:C6	42:d:19:C:C4	3.06	0.43
44:f:7:ILE:HG22	44:f:8:THR:N	2.34	0.43
45:g:60:PHE:O	45:g:63:ARG:HG2	2.18	0.43
46:h:104:ILE:HG13	46:h:105:LEU:N	2.34	0.43
46:h:205:LEU:N	46:h:205:LEU:HD12	2.34	0.43
50:l:73:ILE:HG22	50:l:78:TRP:CZ3	2.54	0.43
60:v:21:ALA:HB2	60:v:97:GLN:O	2.19	0.43
61:w:47:VAL:HG23	61:w:48:VAL:HG23	2.01	0.43
2:1:78:GLU:OE2	39:a:517:C:O2'	2.32	0.43
5:4:85:LYS:O	5:4:86:LEU:HD23	2.18	0.43
9:9:136:ILE:HG13	9:9:136:ILE:O	2.19	0.43
11:AA:68:LEU:HD11	11:AA:100:LEU:HB3	2.01	0.43
14:AE:242:LEU:C	14:AE:242:LEU:HD23	2.44	0.43
10:B:11:A:H2'	10:B:12:G:O4'	2.19	0.43
16:D:57:G:C6	16:D:58:C:C4	3.07	0.43
16:D:111:G:N3	16:D:111:G:H2'	2.34	0.43
16:D:153:C:C2	16:D:154:U:C5	3.06	0.43
16:D:171:A:O2'	16:D:172:A:O4'	2.28	0.43
16:D:209:U:H3'	16:D:210:C:C5'	2.49	0.43
16:D:262:A:H5''	16:D:263:A:OP2	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:308:C:H2'	16:D:309:A:C8	2.54	0.43
16:D:328:C:O2	16:D:328:C:H2'	2.18	0.43
16:D:334:C:C2	16:D:335:C:C6	3.07	0.43
16:D:363:A:H2'	16:D:364:A:O5'	2.18	0.43
16:D:476:U:N3	16:D:477:C:C5	2.87	0.43
16:D:524:G:C2	16:D:525:C:C4	3.06	0.43
16:D:567:G:H2'	16:D:568:G:O4'	2.19	0.43
16:D:633:G:H2'	16:D:634:C:H6	1.84	0.43
16:D:756:C:C2	16:D:757:U:C6	3.07	0.43
16:D:771:G:H2'	16:D:772:U:C6	2.53	0.43
16:D:928:G:N1	16:D:929:G:C5	2.87	0.43
16:D:1388:C:O2'	16:D:1389:C:H5'	2.18	0.43
16:D:1451:U:O2'	16:D:1453:G:N7	2.52	0.43
20:H:152:LEU:CB	20:H:171:ARG:H	2.32	0.43
23:K:69:ARG:O	23:K:70:ASN:CG	2.62	0.43
26:N:10:MET:O	26:N:14:ILE:HG13	2.19	0.43
26:N:24:ALA:HB1	26:N:61:LEU:O	2.18	0.43
27:O:101:ALA:HB1	27:O:103:PHE:CZ	2.54	0.43
29:Q:31:ILE:HG23	29:Q:46:THR:HG22	2.01	0.43
29:Q:60:PRO:HB2	29:Q:95:SER:OG	2.19	0.43
35:W:31:LEU:HD12	35:W:31:LEU:N	2.34	0.43
39:a:170:U:H2'	39:a:171:U:O4'	2.19	0.43
39:a:178:G:N3	39:a:179:C:C6	2.87	0.43
39:a:287:G:H2'	39:a:288:U:O5'	2.19	0.43
39:a:415:A:C6	39:a:2409:G:C6	3.07	0.43
39:a:640:C:H2'	39:a:641:U:O4'	2.19	0.43
39:a:757:G:C5	39:a:758:C:C6	3.06	0.43
39:a:814:C:C2	39:a:815:C:C5	3.07	0.43
39:a:822:G:N2	39:a:836:G:H1'	2.34	0.43
39:a:867:C:N4	39:a:868:U:O4	2.51	0.43
39:a:1025:G:H3'	39:a:1026:G:C5'	2.49	0.43
39:a:1087:G:H2'	39:a:1089:A:O4'	2.19	0.43
39:a:1218:G:C5	39:a:1232:G:C6	3.07	0.43
39:a:1307:A:H62	39:a:1606:C:H2'	1.84	0.43
39:a:1465:G:C2	39:a:1466:U:C2	3.07	0.43
39:a:1632:A:H2'	39:a:1633:G:C8	2.53	0.43
39:a:1650:A:C6	39:a:1651:G:N7	2.87	0.43
39:a:1722:A:C4	39:a:1723:G:C8	3.06	0.43
39:a:1774:C:H4'	39:a:1978:A:H2	1.83	0.43
39:a:2138:G:C6	39:a:2154:A:C6	3.07	0.43
39:a:2246:G:H2'	39:a:2247:A:H8	1.84	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2299:U:H2'	39:a:2300:C:H6	1.83	0.43
39:a:2362:C:H2'	39:a:2363:G:H8	1.84	0.43
39:a:2384:U:OP1	40:b:55:ARG:NH2	2.52	0.43
39:a:2647:U:H2'	39:a:2648:G:H8	1.84	0.43
39:a:2734:A:N6	39:a:2770:G:C2'	2.82	0.43
39:a:2821:A:C4	39:a:2822:G:C8	3.07	0.43
42:d:39:A:H2'	42:d:40:U:C5	2.53	0.43
45:g:18:CYS:HB3	45:g:40:CYS:HB2	1.82	0.43
48:j:29:VAL:O	48:j:185:ASN:HB3	2.19	0.43
48:j:52:THR:HG23	48:j:77:ARG:NH2	2.33	0.43
48:j:73:VAL:HG22	48:j:74:GLU:N	2.34	0.43
49:k:7:GLU:OE2	49:k:27:LYS:NZ	2.48	0.43
50:l:46:GLN:OE1	50:l:87:ALA:HB3	2.18	0.43
52:n:80:ARG:HG3	52:n:80:ARG:NH1	2.34	0.43
53:o:24:HIS:O	53:o:48:ALA:N	2.44	0.43
59:u:79:LEU:HB3	59:u:116:VAL:HG23	2.00	0.43
62:x:36:TYR:CD1	62:x:36:TYR:N	2.87	0.43
64:z:117:LEU:C	64:z:117:LEU:HD23	2.44	0.43
1:0:62:GLU:CD	1:0:99:THR:CG2	2.92	0.42
9:9:97:LYS:CD	9:9:125:ARG:HH12	2.07	0.42
11:AA:623:LEU:HD13	11:AA:627:GLY:HA2	2.01	0.42
11:AA:1117:LEU:HD12	11:AA:1195:ILE:HG12	2.00	0.42
13:AC:29:GLU:HA	13:AC:30:PRO:HA	1.84	0.42
14:AE:797:THR:HG22	14:AE:924:GLY:HA3	2.01	0.42
14:AE:950:ILE:HB	14:AE:1018:ALA:HB3	2.01	0.42
10:B:5:G:C2'	10:B:6:G:H5''	2.49	0.42
10:B:65:C:H2'	10:B:66:C:H5'	2.01	0.42
16:D:285:C:C2	16:D:286:C:C5	3.07	0.42
16:D:415:A:C6	16:D:416:G:C5	3.07	0.42
16:D:865:A:O2'	16:D:866:C:H5'	2.19	0.42
16:D:927:G:N1	16:D:928:G:C5	2.87	0.42
16:D:944:G:H21	16:D:1339:A:H62	1.67	0.42
16:D:964:A:C2	16:D:969:A:N3	2.86	0.42
16:D:1268:G:N2	16:D:1327:C:O4'	2.51	0.42
16:D:1346:A:N1	16:D:1374:A:H5''	2.33	0.42
16:D:1430:A:C6	16:D:1431:A:C5	3.06	0.42
16:D:1433:A:H2'	16:D:1434:A:C8	2.54	0.42
18:F:55:ARG:O	18:F:58:LYS:HG2	2.19	0.42
19:G:43:LEU:HD12	19:G:43:LEU:N	2.33	0.42
19:G:170:HIS:CD2	19:G:171:ILE:HG13	2.53	0.42
22:J:85:ASN:CA	23:K:102:GLY:HA3	2.49	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:O:65:ILE:HG22	27:O:66:THR:N	2.34	0.42
29:Q:25:ALA:O	29:Q:88:GLY:C	2.62	0.42
31:S:85:ARG:O	31:S:88:ALA:HB3	2.18	0.42
31:S:85:ARG:NH2	31:S:89:MET:HG2	2.34	0.42
34:V:59:VAL:CG2	34:V:60:GLU:H	2.32	0.42
34:V:63:GLU:HG2	34:V:73:TRP:CD1	2.54	0.42
39:a:138:U:C5	39:a:142:A:C6	3.06	0.42
39:a:190:A:N1	39:a:191:A:C2	2.87	0.42
39:a:273:G:C6	39:a:274:C:C4	3.07	0.42
39:a:437:U:C2	39:a:438:G:C8	3.07	0.42
39:a:563:A:C6	39:a:2018:G:C4	3.07	0.42
39:a:838:C:C2	39:a:839:U:C6	3.06	0.42
39:a:1095:A:O2'	39:a:1096:A:C8	2.58	0.42
39:a:1155:A:N7	39:a:1157:G:C5	2.87	0.42
39:a:1275:A:N1	39:a:1295:C:O2'	2.46	0.42
39:a:1431:A:N3	39:a:1432:G:C8	2.87	0.42
39:a:1445:G:O6	39:a:1466:U:O2	2.37	0.42
39:a:1500:G:C2	39:a:1501:G:C8	3.06	0.42
39:a:1528:A:N7	39:a:1529:G:C4	2.87	0.42
39:a:1530:G:N1	39:a:1542:U:C2	2.87	0.42
39:a:1551:A:O2'	39:a:1552:A:H5'	2.18	0.42
39:a:1659:G:H2'	39:a:1660:G:C5'	2.49	0.42
39:a:1830:C:N3	39:a:1831:G:N7	2.66	0.42
39:a:1902:C:C5	39:a:1903:G:C8	3.07	0.42
39:a:1970:A:N7	39:a:1972:G:C6	2.87	0.42
39:a:1977:A:C5	39:a:1978:A:C8	3.07	0.42
39:a:2046:G:C5	39:a:2623:G:C2	3.07	0.42
39:a:2190:G:H2'	39:a:2191:A:C8	2.54	0.42
39:a:2204:G:N3	39:a:2205:A:C8	2.87	0.42
39:a:2346:A:C2	39:a:2383:G:C6	3.07	0.42
39:a:2414:G:C2	39:a:2415:G:C8	3.07	0.42
39:a:2549:G:C6	39:a:2560:A:N6	2.87	0.42
39:a:2577:A:H5''	39:a:2578:G:H5'	2.00	0.42
39:a:2615:U:H2'	39:a:2616:C:H6	1.83	0.42
39:a:2677:G:O2'	39:a:2678:C:H5'	2.19	0.42
39:a:2900:A:H2'	39:a:2901:C:C6	2.54	0.42
48:j:34:VAL:HG12	48:j:35:THR:N	2.34	0.42
48:j:68:PHE:CD2	48:j:75:ALA:HA	2.54	0.42
50:l:18:THR:HA	50:l:106:LYS:HE2	2.00	0.42
50:l:48:THR:O	50:l:52:VAL:HG23	2.19	0.42
54:p:50:LEU:HD23	54:p:52:PHE:CZ	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:q:24:ARG:HB3	55:q:26:ILE:CD1	2.49	0.42
56:r:37:VAL:CG1	56:r:38:PRO:HD2	2.49	0.42
58:t:8:LEU:HD22	58:t:84:CYS:HB3	2.01	0.42
64:z:85:LYS:NZ	64:z:117:LEU:HA	2.34	0.42
4:3:82:ARG:HB3	4:3:97:LYS:HG3	2.01	0.42
4:3:96:PHE:O	4:3:100:SER:HA	2.19	0.42
5:4:17:SER:HB3	5:4:21:ARG:NH1	2.34	0.42
8:7:-6:G:H5''	16:D:1501:C:N4	2.35	0.42
9:9:38:MET:SD	9:9:41:LEU:HD12	2.59	0.42
10:A:31:G:O6	10:A:40:C:N4	2.51	0.42
11:AA:524:ILE:HB	11:AA:712:SER:HB2	1.99	0.42
11:AA:529:ARG:HH22	11:AA:687:ARG:HH11	1.66	0.42
11:AA:839:VAL:O	11:AA:886:LYS:HD2	2.19	0.42
11:AA:998:LEU:C	11:AA:998:LEU:CD1	2.85	0.42
11:AA:1018:TYR:HA	11:AA:1021:LEU:HD12	2.00	0.42
13:AD:49:SER:O	13:AD:49:SER:OG	2.32	0.42
13:AD:86:LYS:NZ	14:AE:528:THR:HB	2.33	0.42
14:AE:395:LYS:HZ2	14:AE:399:LYS:CE	2.32	0.42
14:AE:515:ARG:HH12	14:AE:724:MET:HG2	1.83	0.42
14:AE:1026:PRO:HB2	14:AE:1028:ILE:HG23	2.00	0.42
15:C:33:ILE:HG13	15:C:38:LYS:O	2.19	0.42
16:D:35:G:O2'	16:D:36:C:H5'	2.19	0.42
16:D:299:G:H2'	16:D:300:A:O4'	2.18	0.42
16:D:329:A:C5	16:D:332:G:C6	3.07	0.42
16:D:501:C:H2'	16:D:502:A:C8	2.54	0.42
16:D:517:G:C8	16:D:531:U:C5	3.07	0.42
16:D:784:A:H2'	16:D:785:G:O4'	2.18	0.42
16:D:867:G:C6	16:D:868:C:N4	2.87	0.42
16:D:916:U:C2	16:D:917:G:N7	2.87	0.42
16:D:935:A:C6	16:D:936:C:C5	3.07	0.42
16:D:939:G:H2'	16:D:940:C:C6	2.54	0.42
16:D:1009:U:O2	16:D:1021:A:C2	2.72	0.42
16:D:1025:U:H4'	16:D:1026:G:C8	2.54	0.42
16:D:1175:G:O2'	16:D:1176:A:P	2.77	0.42
16:D:1448:C:C2	16:D:1449:C:C5	3.07	0.42
23:K:95:PHE:C	23:K:95:PHE:CD2	2.96	0.42
24:L:75:GLU:OE1	24:L:79:ARG:HD2	2.19	0.42
29:Q:53:ARG:HG3	29:Q:54:GLY:N	2.33	0.42
30:R:59:ASN:ND2	30:R:61:PHE:CD1	2.86	0.42
32:T:39:LEU:O	32:T:43:PHE:HD2	2.02	0.42
32:T:70:LEU:HD11	32:T:77:ARG:HB3	2.00	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:Y:106:GLN:CD	37:Y:125:THR:HG21	2.43	0.42
39:a:107:G:H2'	39:a:108:G:H8	1.83	0.42
39:a:138:U:C5	39:a:142:A:N1	2.87	0.42
39:a:138:U:C6	39:a:140:C:C6	3.06	0.42
39:a:600:G:N2	39:a:657:U:O2	2.52	0.42
39:a:786:C:H5''	39:a:1780:A:N7	2.35	0.42
39:a:814:C:C1'	39:a:1225:G:N2	2.82	0.42
39:a:986:C:C2	39:a:987:C:C5	3.08	0.42
39:a:1184:U:H2'	39:a:1185:G:H8	1.84	0.42
39:a:1306:C:C2	39:a:1307:A:C8	3.07	0.42
39:a:1651:G:C5	39:a:1652:A:N7	2.87	0.42
39:a:1749:A:C2	39:a:1750:G:N9	2.87	0.42
39:a:2128:G:O2'	39:a:2174:C:H4'	2.19	0.42
39:a:2259:U:C5	39:a:2427:C:N4	2.87	0.42
39:a:2291:U:H2'	39:a:2292:U:H6	1.80	0.42
39:a:2366:A:C4	39:a:2367:G:C8	3.07	0.42
39:a:2462:C:C2'	39:a:2463:C:H5'	2.49	0.42
39:a:2642:G:H5'	57:s:80:HIS:ND1	2.34	0.42
39:a:2689:U:P	39:a:2719:G:H22	2.41	0.42
39:a:2793:C:N3	39:a:2794:C:C5	2.87	0.42
39:a:2852:G:H2'	39:a:2853:C:C6	2.53	0.42
42:d:86:G:C2	42:d:91:C:C2	3.08	0.42
46:h:77:VAL:HG22	46:h:78:VAL:N	2.33	0.42
48:j:113:SER:O	48:j:167:ASN:HA	2.18	0.42
49:k:6:ARG:HG2	49:k:26:ASN:N	2.33	0.42
54:p:3:ARG:HA	54:p:6:LYS:NZ	2.34	0.42
59:u:129:LYS:O	59:u:132:ARG:NH2	2.52	0.42
61:w:6:SER:OG	61:w:7:GLY:N	2.51	0.42
61:w:14:SER:O	61:w:17:ARG:HG2	2.19	0.42
61:w:94:TYR:C	61:w:116:VAL:HG23	2.44	0.42
63:y:20:PHE:CE2	63:y:50:ILE:HD12	2.53	0.42
64:z:31:VAL:O	64:z:35:ALA:HB3	2.19	0.42
64:z:51:ARG:O	64:z:52:GLN:C	2.62	0.42
64:z:65:ILE:HB	64:z:76:TYR:CE1	2.54	0.42
2:1:37:THR:HG22	2:1:38:TYR:CE2	2.53	0.42
3:2:51:PHE:CD1	3:2:93:LEU:HD22	2.53	0.42
3:2:56:GLU:HG2	3:2:88:LYS:N	2.34	0.42
4:3:14:LEU:HD21	4:3:71:ALA:CB	2.49	0.42
8:7:6:U:H3'	8:7:6:U:H6	1.83	0.42
9:9:67:THR:N	9:9:68:PRO:CD	2.83	0.42
10:A:8:U:O2'	10:A:9:G:H5'	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:A:54:U:C4	10:A:55:U:C4	3.07	0.42
10:A:65:C:H2'	10:A:66:C:H5'	2.01	0.42
11:AA:565:GLU:HA	11:AA:569:ILE:HG12	2.01	0.42
11:AA:717:VAL:HG22	11:AA:782:VAL:HG12	2.00	0.42
11:AA:844:LYS:HD3	11:AA:844:LYS:HA	1.47	0.42
11:AA:914:LYS:C	11:AA:914:LYS:HE3	2.45	0.42
11:AA:971:LEU:HG	11:AA:1014:LEU:HG	2.00	0.42
13:AC:116:THR:O	13:AC:116:THR:OG1	2.34	0.42
13:AC:211:ILE:HD12	13:AC:211:ILE:HA	1.92	0.42
14:AE:211:GLU:CG	14:AE:215:LYS:HE3	2.44	0.42
14:AE:388:ARG:HG2	14:AE:388:ARG:HH11	1.84	0.42
10:B:8:U:O2'	10:B:9:G:H5'	2.20	0.42
16:D:33:A:H2'	16:D:34:C:H6	1.84	0.42
16:D:57:G:H2'	16:D:58:C:C6	2.55	0.42
16:D:71:A:H2'	16:D:72:A:O4'	2.19	0.42
16:D:421:U:O2	16:D:421:U:O4'	2.37	0.42
16:D:524:G:H2'	16:D:525:C:C6	2.55	0.42
16:D:596:A:N6	16:D:645:G:C6	2.87	0.42
16:D:624:C:H2'	16:D:625:U:O4'	2.19	0.42
16:D:711:G:O2'	16:D:712:A:H5'	2.20	0.42
16:D:734:G:C6	16:D:735:C:C4	3.07	0.42
16:D:789:U:O2'	16:D:791:G:N7	2.30	0.42
16:D:824:G:N3	16:D:825:A:C8	2.87	0.42
16:D:1015:G:H1'	16:D:1218:C:O2'	2.20	0.42
16:D:1135:U:H3'	16:D:1137:C:H42	1.85	0.42
16:D:1158:C:C5	16:D:1160:G:C1'	3.02	0.42
16:D:1253:G:C2	16:D:1254:A:C5	3.07	0.42
16:D:1363:A:H2'	16:D:1365:G:N7	2.34	0.42
16:D:1368:A:C2	16:D:1369:C:C6	3.07	0.42
16:D:1386:G:H2'	16:D:1387:G:H8	1.83	0.42
16:D:1410:A:C6	16:D:1491:G:C6	3.08	0.42
16:D:1412:C:H2'	16:D:1413:A:C8	2.54	0.42
16:D:1489:G:H2'	16:D:1490:U:C6	2.55	0.42
20:H:335:ILE:HG12	20:H:342:ILE:HG23	2.00	0.42
21:I:50:ALA:HB2	21:I:75:ILE:HD12	2.00	0.42
23:K:165:LEU:HB2	26:N:114:ARG:NH1	2.33	0.42
26:N:73:GLU:N	26:N:130:ALA:O	2.51	0.42
27:O:6:TYR:CD1	27:O:6:TYR:N	2.87	0.42
30:R:66:TYR:O	30:R:97:THR:HG23	2.18	0.42
30:R:101:ALA:O	30:R:102:LEU:HB2	2.19	0.42
32:T:82:ILE:HG13	32:T:83:GLU:N	2.33	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:T:82:ILE:O	32:T:86:GLY:N	2.51	0.42
33:U:6:LEU:C	33:U:6:LEU:HD12	2.43	0.42
34:V:58:VAL:HB	34:V:79:VAL:O	2.19	0.42
36:X:42:ASP:OD2	36:X:42:ASP:N	2.47	0.42
37:Y:71:LYS:HD3	37:Y:71:LYS:HA	1.83	0.42
37:Y:132:ALA:O	37:Y:137:LEU:HB3	2.18	0.42
39:a:23:G:N1	39:a:24:G:C5	2.87	0.42
39:a:349:U:H2'	39:a:350:G:H8	1.83	0.42
39:a:397:U:P	41:c:54:LYS:NZ	2.93	0.42
39:a:417:C:C2	39:a:418:C:C6	3.07	0.42
39:a:481:G:C2	39:a:507:A:C4	3.07	0.42
39:a:491:G:H3'	39:a:492:A:C8	2.54	0.42
39:a:503:A:C5	39:a:506:G:C6	3.07	0.42
39:a:688:U:P	51:m:2:LYS:NZ	2.92	0.42
39:a:727:A:C2'	46:h:13:ARG:NH2	2.80	0.42
39:a:945:A:C4	39:a:2448:A:C2	3.07	0.42
39:a:949:G:H2'	39:a:950:G:H8	1.84	0.42
39:a:975:A:P	39:a:975:A:H8	2.42	0.42
39:a:1042:G:O2'	39:a:1043:C:O4'	2.33	0.42
39:a:1107:G:C2	39:a:1108:U:C5	3.07	0.42
39:a:1180:U:C4	39:a:1181:U:C4	3.08	0.42
39:a:1299:G:O2'	39:a:1301:A:C5	2.71	0.42
39:a:1346:G:C4	39:a:1347:A:C8	3.07	0.42
39:a:1360:G:N2	39:a:2212:A:C2	2.87	0.42
39:a:1408:G:C6	39:a:1409:U:C4	3.07	0.42
39:a:1430:G:H2'	39:a:1431:A:H8	1.85	0.42
39:a:1496:A:H2'	39:a:1498:C:C5	2.53	0.42
39:a:1502:A:N3	39:a:1503:A:C8	2.88	0.42
39:a:1573:G:N7	39:a:1574:C:C5	2.87	0.42
39:a:1581:G:C6	39:a:1582:C:N4	2.87	0.42
39:a:1679:A:H2	39:a:1764:C:O4'	2.03	0.42
39:a:1728:C:O2	39:a:1731:G:N2	2.52	0.42
39:a:1792:G:O6	39:a:1828:G:C2	2.72	0.42
39:a:1844:C:H2'	39:a:1845:G:H8	1.84	0.42
39:a:1849:G:C2	39:a:1850:G:C5	3.07	0.42
39:a:1850:G:C5	39:a:1851:U:C4	3.07	0.42
39:a:1890:A:C2	39:a:1891:G:H1'	2.54	0.42
39:a:2016:U:H2'	39:a:2017:U:H6	1.82	0.42
39:a:2116:G:H5'	39:a:2117:A:P	2.59	0.42
39:a:2252:G:C4	39:a:2253:G:C8	3.06	0.42
39:a:2264:C:H2'	39:a:2265:U:O4'	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2269:G:C4	39:a:2270:A:C8	3.08	0.42
39:a:2359:C:N4	39:a:2360:G:O6	2.52	0.42
39:a:2398:U:C2	39:a:2399:G:C8	3.07	0.42
39:a:2526:G:O2'	55:q:1:MET:HG2	2.19	0.42
39:a:2547:A:H2'	39:a:2548:U:H6	1.83	0.42
39:a:2639:A:H2'	39:a:2640:G:O4'	2.20	0.42
39:a:2641:G:OP1	57:s:78:THR:HA	2.19	0.42
39:a:2675:A:H2'	39:a:2676:C:H6	1.83	0.42
39:a:2837:A:H2'	39:a:2838:G:H8	1.84	0.42
46:h:91:ILE:CG2	46:h:103:TYR:HB3	2.48	0.42
46:h:245:VAL:CA	46:h:250:VAL:O	2.68	0.42
48:j:3:GLY:HA3	48:j:203:VAL:O	2.20	0.42
54:p:89:LEU:HG	54:p:129:THR:O	2.19	0.42
54:p:103:ILE:O	54:p:114:ASP:HA	2.19	0.42
62:x:38:GLN:HG3	62:x:50:ALA:HB2	2.01	0.42
1:0:62:GLU:O	1:0:96:VAL:HG23	2.18	0.42
3:2:33:LYS:HG3	3:2:80:TRP:CE3	2.55	0.42
4:3:55:PRO:O	39:a:498:G:H5''	2.19	0.42
9:9:24:SER:OG	9:9:86:MET:HA	2.19	0.42
11:AA:666:SER:HB2	11:AA:1186:VAL:HG21	2.00	0.42
11:AA:959:ASP:HA	11:AA:962:GLU:HB2	2.01	0.42
13:AC:159:ILE:HD13	13:AC:159:ILE:HA	1.69	0.42
14:AE:220:ARG:NH1	14:AE:220:ARG:CG	2.82	0.42
10:B:32:C:C2'	10:B:33:U:H5'	2.49	0.42
16:D:588:G:C4	16:D:589:U:C6	3.08	0.42
16:D:681:A:N6	16:D:710:G:C6	2.88	0.42
16:D:935:A:C5	16:D:936:C:C5	3.08	0.42
16:D:992:U:H4'	16:D:993:G:C5'	2.49	0.42
16:D:1077:G:C4	16:D:1079:G:OP2	2.72	0.42
16:D:1082:A:C5	16:D:1083:U:C5	3.08	0.42
16:D:1264:U:C4	16:D:1272:G:N1	2.87	0.42
16:D:1319:A:P	35:W:3:ARG:NH1	2.93	0.42
16:D:1477:U:H2'	16:D:1478:U:H6	1.84	0.42
24:L:62:MET:SD	24:L:64:VAL:CG2	3.08	0.42
30:R:38:TYR:O	30:R:52:VAL:N	2.45	0.42
30:R:86:ARG:CB	30:R:94:ARG:HA	2.49	0.42
30:R:99:ARG:HA	30:R:104:CYS:SG	2.59	0.42
34:V:19:LYS:HA	34:V:48:ASP:O	2.19	0.42
35:W:13:LEU:O	35:W:17:LYS:HG2	2.19	0.42
35:W:38:SER:O	35:W:71:LEU:HD23	2.20	0.42
36:X:96:PRO:CA	36:X:109:ARG:HG3	2.50	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:Y:100:ILE:HG23	37:Y:137:LEU:CG	2.49	0.42
39:a:196:A:C5	39:a:805:G:C6	3.08	0.42
39:a:215:G:N2	39:a:432:A:C2	2.87	0.42
39:a:313:G:H2'	39:a:314:C:C6	2.55	0.42
39:a:328:U:C2'	39:a:329:G:OP1	2.68	0.42
39:a:358:U:H2'	39:a:359:G:H8	1.83	0.42
39:a:496:G:C2	39:a:497:A:C1'	3.02	0.42
39:a:532:A:N7	39:a:2021:C:O2'	2.53	0.42
39:a:589:U:O2'	39:a:590:A:H5'	2.18	0.42
39:a:608:A:H2'	39:a:609:A:O4'	2.19	0.42
39:a:627:A:C6	39:a:637:A:C8	3.07	0.42
39:a:799:G:C6	39:a:800:A:C6	3.07	0.42
39:a:1058:U:O5'	39:a:1058:U:H6	2.03	0.42
39:a:1254:A:N7	39:a:1256:G:C8	2.87	0.42
39:a:1268:A:H3'	39:a:1269:A:C8	2.55	0.42
39:a:1283:G:C2	39:a:1286:A:OP2	2.72	0.42
39:a:1432:G:H2'	39:a:1433:A:H8	1.82	0.42
39:a:1678:A:C2	39:a:1679:A:H1'	2.54	0.42
39:a:1987:A:C2	39:a:1988:G:N7	2.87	0.42
39:a:2179:C:O2	39:a:2180:U:C5	2.73	0.42
39:a:2289:G:C2'	39:a:2290:G:H5'	2.48	0.42
39:a:2361:G:C2	39:a:2362:C:C2	3.07	0.42
39:a:2514:U:H2'	39:a:2515:C:H6	1.83	0.42
39:a:2637:U:C2'	39:a:2638:G:H5'	2.49	0.42
39:a:2673:G:N1	39:a:2674:G:C5	2.88	0.42
39:a:2834:G:H2'	39:a:2879:A:N6	2.34	0.42
42:d:93:C:H2'	42:d:94:A:H8	1.84	0.42
46:h:132:MET:HE2	46:h:190:ALA:HB2	2.01	0.42
46:h:142:HIS:N	46:h:191:THR:O	2.47	0.42
52:n:43:ALA:O	52:n:46:ASP:O	2.38	0.42
52:n:69:LYS:HA	52:n:85:ILE:HG22	2.00	0.42
56:r:84:ALA:CB	56:r:90:LEU:HD12	2.50	0.42
59:u:78:ARG:HA	59:u:113:ALA:HB3	2.00	0.42
62:x:111:ARG:HG3	62:x:117:PHE:CZ	2.54	0.42
63:y:75:GLN:O	63:y:76:THR:C	2.62	0.42
64:z:74:ILE:HG12	64:z:75:SER:N	2.34	0.42
2:1:14:ALA:O	2:1:18:ARG:HG3	2.20	0.42
2:1:82:MET:C	2:1:98:LYS:HZ3	2.23	0.42
3:2:30:ILE:HG22	3:2:32:LEU:CD2	2.49	0.42
4:3:55:PRO:HB2	39:a:498:G:H3'	2.01	0.42
8:7:5:U:N3	23:K:57:PRO:HB2	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:302:ILE:O	11:AA:330:HIS:NE2	2.34	0.42
11:AA:830:THR:HG22	11:AA:1234:LYS:NZ	2.34	0.42
11:AA:1009:ASN:ND2	11:AA:1012:GLU:HB3	2.34	0.42
13:AC:231:PHE:HE2	13:AD:39:LEU:HD13	1.85	0.42
14:AE:47:ARG:HA	14:AE:47:ARG:NE	2.34	0.42
14:AE:137:ARG:HA	14:AE:142:GLU:HG2	2.02	0.42
14:AE:513:MET:HG3	14:AE:544:LEU:HD11	2.01	0.42
14:AE:568:SER:HB3	14:AE:570:LYS:NZ	2.34	0.42
15:C:30:LYS:O	15:C:33:ILE:HG22	2.20	0.42
16:D:185:U:O2	17:E:76:LYS:NZ	2.51	0.42
16:D:262:A:H2'	16:D:262:A:N3	2.34	0.42
16:D:267:C:H2'	16:D:268:U:C6	2.55	0.42
16:D:339:C:OP2	58:t:98:ARG:NH1	2.52	0.42
16:D:362:G:N1	16:D:365:U:OP2	2.51	0.42
16:D:373:A:N3	16:D:482:A:N6	2.68	0.42
16:D:487:A:C2	16:D:488:C:H1'	2.55	0.42
16:D:518:C:O2'	16:D:530:G:N2	2.53	0.42
16:D:552:U:C2'	16:D:553:A:H5'	2.49	0.42
16:D:582:C:C4	16:D:583:A:N7	2.88	0.42
16:D:723:U:C4	16:D:856:C:H5'	2.54	0.42
16:D:819:A:N7	16:D:1529:G:N1	2.67	0.42
16:D:821:G:O6	16:D:880:C:N4	2.52	0.42
16:D:879:C:O2'	16:D:880:C:H5'	2.19	0.42
16:D:895:G:H2'	16:D:896:C:H6	1.83	0.42
16:D:898:G:N2	16:D:901:A:OP2	2.42	0.42
16:D:1081:A:N3	16:D:1082:A:C8	2.87	0.42
16:D:1091:U:O2	16:D:1093:A:C8	2.71	0.42
16:D:1111:A:C6	16:D:1112:C:C4	3.07	0.42
16:D:1128:C:H2'	16:D:1129:C:C6	2.54	0.42
16:D:1133:G:C6	16:D:1134:G:C5	3.08	0.42
16:D:1151:A:N3	16:D:1152:A:C8	2.88	0.42
16:D:1217:C:C2	16:D:1218:C:C6	3.08	0.42
16:D:1257:A:C2	31:S:57:PRO:HB3	2.53	0.42
16:D:1266:G:C6	16:D:1270:G:C6	3.08	0.42
16:D:1270:G:N3	16:D:1271:A:C8	2.88	0.42
16:D:1352:C:N3	16:D:1371:G:C6	2.87	0.42
16:D:1368:A:N3	16:D:1368:A:H2'	2.34	0.42
16:D:1385:G:O2'	16:D:1386:G:H5'	2.19	0.42
16:D:1427:C:H2'	16:D:1428:A:C8	2.54	0.42
16:D:1468:A:H2'	16:D:1469:C:O4'	2.20	0.42
16:D:1488:G:H2'	16:D:1489:G:H8	1.84	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:G:196:VAL:HG11	19:G:199:VAL:HA	2.00	0.42
20:H:302:GLY:HA3	20:H:344:LEU:HD13	2.00	0.42
25:M:13:LEU:N	25:M:13:LEU:CD1	2.82	0.42
30:R:44:LYS:HB3	30:R:44:LYS:HE3	1.79	0.42
31:S:38:ASP:O	31:S:42:TRP:CD1	2.72	0.42
35:W:29:LYS:O	35:W:31:LEU:HD12	2.20	0.42
37:Y:77:VAL:HG22	37:Y:80:LYS:CE	2.49	0.42
39:a:12:U:O2'	39:a:13:A:H5'	2.20	0.42
39:a:234:U:C2	39:a:235:U:C6	3.08	0.42
39:a:295:G:C2	39:a:296:U:C6	3.07	0.42
39:a:300:A:H2'	39:a:334:C:H1'	2.01	0.42
39:a:387:U:O4'	39:a:388:G:C4	2.73	0.42
39:a:404:A:N6	39:a:421:C:O2'	2.52	0.42
39:a:536:G:C2	39:a:558:U:C2	3.08	0.42
39:a:579:G:H2'	39:a:580:U:H6	1.83	0.42
39:a:655:A:O3'	39:a:656:G:H8	2.02	0.42
39:a:818:G:O6	39:a:1187:G:H3'	2.19	0.42
39:a:1059:G:C6	39:a:1080:A:C6	3.08	0.42
39:a:1177:G:O2'	39:a:1178:C:H6	2.02	0.42
39:a:1399:C:H2'	39:a:1400:U:C6	2.55	0.42
39:a:1425:G:O2'	39:a:1426:G:H5'	2.19	0.42
39:a:1434:A:N3	39:a:1434:A:H2'	2.34	0.42
39:a:1479:G:H2'	39:a:1480:C:O4'	2.20	0.42
39:a:1613:G:C2	39:a:1619:G:C6	3.07	0.42
39:a:1642:G:H2'	39:a:1643:G:O4'	2.20	0.42
39:a:1722:A:N6	39:a:1738:G:O2'	2.51	0.42
39:a:1739:A:H2'	39:a:1740:G:O4'	2.19	0.42
39:a:2208:C:O2'	39:a:2209:G:H5'	2.19	0.42
39:a:2230:G:C4	39:a:2231:U:C5	3.08	0.42
39:a:2272:U:H5''	39:a:2273:A:OP1	2.20	0.42
39:a:2538:C:C2	39:a:2539:C:C5	3.07	0.42
39:a:2641:G:OP1	57:s:78:THR:HG22	2.19	0.42
39:a:2848:G:O2'	39:a:2849:U:OP2	2.38	0.42
45:g:2:LYS:N	45:g:2:LYS:HD2	2.35	0.42
46:h:202:LEU:HD22	46:h:202:LEU:N	2.33	0.42
48:j:109:VAL:HG21	48:j:193:VAL:HG12	2.00	0.42
48:j:122:VAL:HG11	48:j:141:ARG:NH1	2.34	0.42
53:o:16:LYS:HD2	53:o:65:ALA:HB1	2.01	0.42
56:r:9:VAL:CG1	56:r:10:ALA:N	2.82	0.42
58:t:25:LEU:HD12	58:t:38:ILE:HG22	2.02	0.42
58:t:102:PRO:CB	58:t:121:GLU:OE1	2.67	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:v:30:SER:HB2	60:v:106:ASP:OD1	2.20	0.42
62:x:76:LYS:CG	62:x:77:ALA:N	2.82	0.42
64:z:79:PHE:O	64:z:80:ILE:C	2.62	0.42
1:0:23:GLU:CD	1:0:24:LYS:O	2.62	0.42
9:9:4:ASN:O	9:9:7:ASP:OD2	2.38	0.42
13:AC:205:MET:HE3	13:AC:205:MET:HB2	1.87	0.42
14:AE:141:PHE:CD2	14:AE:297:ARG:HB2	2.54	0.42
14:AE:1350:ASN:HA	14:AE:1353:VAL:HG12	2.01	0.42
16:D:31:G:C8	16:D:306:A:H1'	2.55	0.42
16:D:411:A:C5	16:D:413:G:N3	2.88	0.42
16:D:411:A:O2'	16:D:413:G:C8	2.70	0.42
16:D:620:C:H2'	16:D:621:A:C8	2.54	0.42
16:D:736:C:N3	16:D:737:C:C5	2.88	0.42
16:D:777:A:C6	16:D:778:G:C5	3.08	0.42
16:D:1080:A:N7	16:D:1081:A:H1'	2.34	0.42
16:D:1118:U:O2'	16:D:1119:C:H5'	2.20	0.42
16:D:1151:A:C2	16:D:1152:A:N7	2.88	0.42
16:D:1231:G:C4	16:D:1232:U:C6	3.08	0.42
16:D:1262:C:C4	16:D:1263:C:C5	3.07	0.42
16:D:1276:G:H2'	16:D:1277:C:H6	1.84	0.42
16:D:1368:A:OP2	27:O:116:VAL:HA	2.19	0.42
16:D:1415:G:C6	16:D:1486:G:C5	3.08	0.42
19:G:59:LYS:NZ	19:G:62:SER:OG	2.53	0.42
19:G:149:GLY:O	19:G:150:GLY:C	2.62	0.42
24:L:27:ALA:O	24:L:28:ALA:C	2.63	0.42
25:M:79:ARG:HA	25:M:84:THR:HA	2.01	0.42
26:N:86:TYR:CE1	26:N:124:GLU:HB2	2.54	0.42
27:O:116:VAL:HB	28:P:64:GLN:CD	2.45	0.42
36:X:20:THR:HA	36:X:25:VAL:HG23	2.00	0.42
39:a:81:G:C2	39:a:106:C:N3	2.88	0.42
39:a:120:U:C2	39:a:149:A:C6	3.08	0.42
39:a:190:A:N6	39:a:207:A:H1'	2.35	0.42
39:a:334:C:OP1	39:a:335:C:N4	2.52	0.42
39:a:496:G:C2	39:a:497:A:H1'	2.55	0.42
39:a:603:A:C5	39:a:655:A:C4	3.08	0.42
39:a:737:C:H2'	39:a:738:G:O4'	2.19	0.42
39:a:929:U:C4	39:a:930:G:N7	2.88	0.42
39:a:1002:G:H2'	39:a:1003:G:O4'	2.20	0.42
39:a:1024:G:C8	39:a:1025:G:H2'	2.55	0.42
39:a:1149:G:O2'	39:a:1150:C:H5'	2.20	0.42
39:a:1327:A:C6	39:a:1328:A:C5	3.07	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1332:G:N7	39:a:1609:A:O2'	2.47	0.42
39:a:1353:A:OP2	39:a:1377:G:N1	2.35	0.42
39:a:1451:C:C4	39:a:1458:U:C4	3.07	0.42
39:a:1581:G:C6	39:a:1582:C:C4	3.07	0.42
39:a:1611:C:C2	39:a:1612:C:C5	3.07	0.42
39:a:1658:C:C2	39:a:1659:G:N7	2.88	0.42
39:a:1857:G:H22	39:a:1884:G:H1'	1.84	0.42
39:a:1881:C:C4	39:a:1882:U:C5	3.07	0.42
39:a:1973:G:H2'	39:a:1974:C:H6	1.85	0.42
39:a:2135:A:C2	39:a:2136:G:H1'	2.55	0.42
39:a:2271:G:H5'	40:b:20:ARG:NH1	2.34	0.42
39:a:2526:G:HO2'	55:q:1:MET:H3	1.58	0.42
39:a:2658:C:H2'	39:a:2659:G:O4'	2.19	0.42
42:d:20:G:C6	42:d:21:G:C5	3.07	0.42
42:d:59:A:C4	42:d:60:C:C6	3.08	0.42
46:h:48:ARG:NH1	46:h:49:ILE:HD12	2.35	0.42
50:l:16:GLU:OE2	50:l:20:GLY:HA3	2.20	0.42
50:l:46:GLN:OE1	50:l:87:ALA:CB	2.67	0.42
52:n:40:VAL:HG23	52:n:40:VAL:O	2.20	0.42
53:o:54:ASP:O	53:o:58:VAL:HG23	2.19	0.42
56:r:93:SER:OG	56:r:121:VAL:HG13	2.19	0.42
56:r:133:GLN:C	56:r:135:HIS:N	2.76	0.42
57:s:60:ASP:OD1	57:s:61:LYS:N	2.53	0.42
61:w:17:ARG:O	61:w:21:PHE:CE1	2.73	0.42
61:w:103:ARG:HD3	61:w:110:MET:HE3	2.02	0.42
62:x:79:ALA:HB3	62:x:113:ALA:CB	2.49	0.42
64:z:14:HIS:O	64:z:15:LYS:C	2.62	0.42
1:0:24:LYS:O	1:0:24:LYS:HG3	2.19	0.42
2:1:27:LYS:O	2:1:70:LYS:HG3	2.19	0.42
3:2:11:LEU:HD11	3:2:32:LEU:HD12	2.01	0.42
7:6:12:DC:O5'	7:6:12:DC:H6	2.01	0.42
8:7:-6:G:H5''	16:D:1501:C:H42	1.84	0.42
9:9:73:LYS:O	9:9:73:LYS:CG	2.68	0.42
10:A:14:A:H2'	10:A:14:A:N3	2.35	0.42
11:AA:218:GLU:HG2	11:AA:299:LYS:HA	2.02	0.42
14:AE:586:GLY:HA3	14:AE:612:LEU:HD11	2.01	0.42
10:B:14:A:N3	10:B:14:A:H2'	2.35	0.42
10:B:25:C:C4	10:B:26:G:N7	2.88	0.42
15:C:74:HIS:O	15:C:75:GLN:HB3	2.20	0.42
16:D:16:A:H2'	16:D:17:U:H5'	2.02	0.42
16:D:86:G:N3	16:D:87:C:O2	2.52	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:208:U:H2'	16:D:210:C:C2	2.54	0.42
16:D:335:C:N3	16:D:336:A:N7	2.68	0.42
16:D:431:A:H2'	16:D:432:A:O4'	2.19	0.42
16:D:471:U:H2'	16:D:472:U:C6	2.55	0.42
16:D:559:A:H4'	16:D:560:A:H3'	2.01	0.42
16:D:591:U:C2	16:D:592:G:C8	3.07	0.42
16:D:663:A:H2'	16:D:664:G:C8	2.55	0.42
16:D:821:G:H2'	16:D:822:U:H6	1.84	0.42
16:D:909:A:C2	16:D:910:C:H1'	2.55	0.42
16:D:1022:A:H2'	16:D:1023:U:O5'	2.20	0.42
16:D:1373:G:OP1	25:M:36:LYS:HE3	2.20	0.42
16:D:1437:A:C6	16:D:1438:G:N7	2.88	0.42
16:D:1438:G:P	17:E:29:ARG:NH1	2.93	0.42
16:D:1472:U:N3	16:D:1473:G:N7	2.67	0.42
16:D:1504:G:H4'	16:D:1505:G:C4	2.55	0.42
17:E:25:ARG:CZ	17:E:25:ARG:HB2	2.50	0.42
19:G:164:ILE:HD13	19:G:186:ILE:HD13	2.02	0.42
26:N:111:MET:HE3	26:N:111:MET:HB3	1.94	0.42
31:S:62:ASN:OD1	31:S:73:PHE:CD2	2.72	0.42
32:T:42:HIS:HD2	32:T:43:PHE:CD2	2.37	0.42
35:W:37:ARG:O	35:W:70:LYS:HD3	2.18	0.42
39:a:18:U:O5'	39:a:18:U:H6	2.02	0.42
39:a:94:A:H2'	39:a:95:A:O4'	2.19	0.42
39:a:156:A:H2'	39:a:157:C:C6	2.55	0.42
39:a:410:G:C2	39:a:2407:A:C5	3.08	0.42
39:a:422:A:C6	39:a:423:A:C6	3.08	0.42
39:a:457:A:N1	39:a:470:A:H5''	2.34	0.42
39:a:595:C:C2	39:a:596:U:C5	3.08	0.42
39:a:711:G:C6	39:a:721:A:C6	3.08	0.42
39:a:767:U:H2'	39:a:768:G:C8	2.52	0.42
39:a:771:G:P	51:m:14:ARG:NH2	2.92	0.42
39:a:864:G:N1	39:a:913:U:C4	2.88	0.42
39:a:1080:A:C6	39:a:1081:U:C4	3.07	0.42
39:a:1594:U:H2'	39:a:1595:C:C6	2.55	0.42
39:a:1649:G:C6	39:a:2009:A:C6	3.08	0.42
39:a:1742:U:H2'	39:a:1743:G:C8	2.55	0.42
39:a:2065:C:C2	39:a:2066:C:C6	3.08	0.42
39:a:2127:G:C2	39:a:2162:G:N7	2.88	0.42
39:a:2131:U:O2	39:a:2158:A:N6	2.52	0.42
39:a:2145:C:H4'	39:a:2146:C:OP2	2.19	0.42
39:a:2160:C:H2'	39:a:2161:C:O4'	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2470:G:C6	39:a:2481:G:N2	2.88	0.42
39:a:2477:U:O2	55:q:4:ARG:NH2	2.52	0.42
39:a:2627:G:N1	39:a:2777:G:C6	2.88	0.42
39:a:2634:A:C2'	39:a:2635:A:H5'	2.50	0.42
39:a:2707:U:N3	39:a:2708:G:N7	2.68	0.42
39:a:2762:C:C2	39:a:2763:G:C8	3.07	0.42
39:a:2838:G:C5	39:a:2839:G:N7	2.88	0.42
39:a:2881:U:H5''	61:w:96:ARG:HH11	1.84	0.42
41:c:10:LYS:HE3	41:c:54:LYS:HE3	2.01	0.42
42:d:2:G:H2'	42:d:3:C:C6	2.55	0.42
46:h:175:ARG:HA	46:h:181:MET:HE1	2.02	0.42
49:k:10:LYS:CE	49:k:54:ILE:HA	2.49	0.42
50:l:111:GLU:OE2	50:l:114:ARG:NH1	2.52	0.42
52:n:34:ILE:HG22	52:n:156:ILE:HG12	2.01	0.42
52:n:173:PHE:O	52:n:174:ASP:CG	2.62	0.42
54:p:42:GLU:OE1	54:p:55:ARG:HD3	2.20	0.42
57:s:15:TRP:CE2	57:s:135:GLN:HB3	2.55	0.42
59:u:111:ILE:HD12	59:u:111:ILE:N	2.35	0.42
64:z:79:PHE:C	64:z:83:LEU:HD23	2.45	0.42
8:7:13:G:H5''	8:7:13:G:H8	1.85	0.42
11:AA:933:VAL:O	11:AA:933:VAL:CG1	2.68	0.42
13:AC:50:SER:HB3	13:AD:8:PHE:HZ	1.84	0.42
14:AE:24:LEU:CD1	14:AE:232:ASN:ND2	2.82	0.42
14:AE:515:ARG:HG2	14:AE:516:ASP:H	1.85	0.42
14:AE:923:ILE:O	14:AE:1241:TYR:OH	2.31	0.42
16:D:151:A:OP2	16:D:169:C:N4	2.51	0.42
16:D:185:U:H2'	16:D:186:C:C6	2.53	0.42
16:D:223:A:C6	16:D:224:U:C4	3.08	0.42
16:D:267:C:C2	16:D:268:U:C5	3.08	0.42
16:D:283:U:C2	16:D:284:C:C6	3.08	0.42
16:D:322:C:O3'	17:E:18:ARG:CZ	2.68	0.42
16:D:379:C:H2'	16:D:380:G:O4'	2.20	0.42
16:D:429:U:H3	16:D:431:A:N6	2.17	0.42
16:D:515:G:N1	16:D:537:G:C6	2.88	0.42
16:D:633:G:N3	16:D:634:C:C6	2.88	0.42
16:D:643:C:H5''	26:N:32:LEU:HD21	2.02	0.42
16:D:718:A:C6	29:Q:118:HIS:CE1	3.08	0.42
16:D:867:G:H2'	16:D:868:C:H6	1.84	0.42
16:D:900:A:H2'	16:D:901:A:O4'	2.18	0.42
16:D:915:A:C6	16:D:916:U:C5	3.08	0.42
16:D:1068:G:N7	16:D:1094:G:H2'	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1110:A:C6	16:D:1111:A:C5	3.07	0.42
16:D:1124:G:H3'	16:D:1145:A:N6	2.34	0.42
16:D:1233:G:H2'	16:D:1234:C:C6	2.54	0.42
16:D:1304:G:H2'	16:D:1305:G:C1'	2.49	0.42
21:I:20:SER:CB	31:S:92:GLU:C	2.91	0.42
24:L:73:GLU:O	24:L:76:THR:OG1	2.29	0.42
26:N:10:MET:HB2	26:N:33:LYS:NZ	2.35	0.42
29:Q:14:LYS:HD3	29:Q:14:LYS:C	2.44	0.42
34:V:9:GLN:HG3	34:V:60:GLU:OE1	2.20	0.42
34:V:47:HIS:HA	34:V:71:LYS:HD2	2.01	0.42
37:Y:37:PHE:CE2	37:Y:41:PHE:CD2	3.08	0.42
39:a:221:A:C8	39:a:266:G:O6	2.73	0.42
39:a:282:A:N6	39:a:359:G:C6	2.87	0.42
39:a:365:U:O2'	39:a:366:C:H5'	2.20	0.42
39:a:368:A:C5	39:a:369:U:C4	3.08	0.42
39:a:381:G:C6	39:a:394:C:N4	2.88	0.42
39:a:391:A:C5	39:a:392:U:C6	3.08	0.42
39:a:542:C:N3	39:a:543:G:N7	2.67	0.42
39:a:597:G:H2'	39:a:598:U:O4'	2.19	0.42
39:a:646:U:H3'	39:a:647:G:H5''	2.02	0.42
39:a:699:A:H4'	39:a:1554:U:H3	1.84	0.42
39:a:818:G:N7	39:a:1187:G:C6	2.88	0.42
39:a:898:C:C4	39:a:899:A:C5	3.07	0.42
39:a:975:A:H1'	39:a:990:A:C6	2.54	0.42
39:a:1117:C:O2'	39:a:1118:C:H5'	2.19	0.42
39:a:1168:G:C4	39:a:1169:A:C2	3.08	0.42
39:a:1169:A:C8	39:a:1170:C:C6	3.07	0.42
39:a:1198:U:O2	64:z:4:VAL:HG22	2.20	0.42
39:a:1309:G:C4	39:a:1310:G:C8	3.08	0.42
39:a:1406:U:O2	39:a:1407:G:C8	2.72	0.42
39:a:1532:A:C6	39:a:1533:C:C4	3.07	0.42
39:a:1584:U:O2	39:a:1584:U:P	2.78	0.42
39:a:1586:A:C4	39:a:1587:G:C8	3.08	0.42
39:a:2197:U:C4	39:a:2224:G:C5	3.07	0.42
39:a:2200:C:N4	39:a:2224:G:N2	2.68	0.42
39:a:2391:G:H1'	39:a:2424:C:N4	2.35	0.42
39:a:2499:C:H2'	39:a:2500:U:C6	2.55	0.42
39:a:2531:A:N3	39:a:2531:A:H2'	2.34	0.42
39:a:2592:G:C6	39:a:2593:U:C4	3.07	0.42
39:a:2720:U:C6	39:a:2872:A:C6	3.08	0.42
39:a:2756:U:H4'	39:a:2757:A:OP1	2.18	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2851:A:H2'	39:a:2852:G:C8	2.54	0.42
42:d:32:U:C4	42:d:51:G:N1	2.88	0.42
42:d:116:G:H2'	42:d:117:G:C8	2.54	0.42
47:i:10:ARG:H	47:i:10:ARG:HD3	1.84	0.42
48:j:112:THR:O	48:j:195:GLY:HA2	2.20	0.42
49:k:10:LYS:NZ	49:k:54:ILE:O	2.37	0.42
50:l:154:ASP:O	50:l:158:PHE:CD2	2.72	0.42
52:n:48:LYS:HD2	52:n:48:LYS:N	2.35	0.42
53:o:22:PHE:CD2	53:o:58:VAL:HG11	2.54	0.42
55:q:10:LEU:HD13	55:q:33:HIS:CG	2.55	0.42
55:q:24:ARG:CZ	55:q:36:ARG:NH1	2.82	0.42
60:v:76:LYS:NZ	60:v:80:VAL:HB	2.35	0.42
61:w:2:ARG:HA	61:w:5:LYS:HE2	2.01	0.42
61:w:75:ILE:O	61:w:79:LEU:HG	2.20	0.42
2:l:6:LYS:NZ	2:l:103:ILE:O	2.42	0.42
2:l:80:PRO:CG	39:a:25:U:H5''	2.50	0.42
3:2:54:GLU:O	3:2:87:LEU:CD1	2.67	0.42
4:3:49:VAL:HG23	4:3:51:ALA:O	2.20	0.42
9:9:106:PHE:O	9:9:107:GLU:C	2.63	0.42
9:9:127:ALA:O	9:9:130:PRO:CD	2.66	0.42
11:AA:257:ALA:HB2	11:AA:285:ILE:HG22	2.02	0.42
11:AA:1046:VAL:HG22	11:AA:1049:ILE:CG1	2.50	0.42
13:AC:79:LEU:HD23	13:AC:79:LEU:HA	1.86	0.42
14:AE:647:PRO:HG3	14:AE:697:MET:HB3	2.01	0.42
16:D:80:A:C2	16:D:81:A:C4	3.08	0.42
16:D:206:C:N4	16:D:213:G:H1	2.17	0.42
16:D:253:A:C4	16:D:254:G:C8	3.08	0.42
16:D:369:G:C6	16:D:393:A:C6	3.08	0.42
16:D:376:G:H2'	16:D:377:G:C8	2.52	0.42
16:D:378:G:H2'	16:D:379:C:C6	2.55	0.42
16:D:613:C:H2'	16:D:614:C:H6	1.85	0.42
16:D:877:G:C2	16:D:878:A:C5	3.07	0.42
16:D:927:G:C4	16:D:928:G:C8	3.08	0.42
16:D:933:G:N2	16:D:1385:G:C4	2.87	0.42
16:D:1131:G:C6	16:D:1132:C:C5	3.08	0.42
16:D:1256:A:N6	16:D:1277:C:C2	2.88	0.42
16:D:1260:G:C2	16:D:1274:A:C2	3.08	0.42
16:D:1280:A:OP2	28:P:9:ARG:NH2	2.53	0.42
16:D:1433:A:H2'	16:D:1434:A:O4'	2.20	0.42
19:G:71:GLY:C	19:G:72:THR:HG23	2.45	0.42
20:H:61:GLU:HG2	20:H:62:ILE:HG23	2.00	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:H:119:GLY:CA	20:H:132:PRO:C	2.92	0.42
25:M:14:PRO:HB3	25:M:20:SER:N	2.35	0.42
25:M:145:ALA:O	25:M:149:LYS:HG3	2.19	0.42
27:O:12:ARG:O	27:O:14:SER:N	2.52	0.42
30:R:81:LEU:HG	30:R:82:ILE:N	2.35	0.42
34:V:29:VAL:HG22	34:V:30:LYS:H	1.85	0.42
34:V:39:LYS:HE2	34:V:39:LYS:HB2	1.87	0.42
34:V:60:GLU:O	34:V:76:VAL:HG22	2.20	0.42
35:W:53:ASN:N	35:W:56:GLN:O	2.47	0.42
36:X:39:ILE:HG22	36:X:40:ALA:N	2.34	0.42
37:Y:24:GLY:HA3	37:Y:25:PRO:HD3	1.83	0.42
39:a:48:G:C2	39:a:177:G:OP2	2.73	0.42
39:a:52:A:C2	39:a:53:A:C5	3.08	0.42
39:a:217:A:H3'	39:a:218:A:H8	1.84	0.42
39:a:241:A:O2'	53:o:3:LYS:NZ	2.53	0.42
39:a:305:C:C2	39:a:313:G:C2	3.08	0.42
39:a:333:G:C4	39:a:334:C:C5	3.07	0.42
39:a:371:A:H61	39:a:401:A:H3'	1.84	0.42
39:a:531:C:C5	39:a:2035:G:C2	3.08	0.42
39:a:784:G:C6	39:a:792:A:C4	3.08	0.42
39:a:851:C:H2'	39:a:852:U:C6	2.55	0.42
39:a:874:G:O2'	39:a:875:G:H5'	2.20	0.42
39:a:878:A:C2	39:a:900:A:C4	3.08	0.42
39:a:959:A:H2'	39:a:960:A:C8	2.55	0.42
39:a:1075:C:O2'	39:a:1076:C:H5'	2.20	0.42
39:a:1214:A:H61	39:a:1235:G:H1'	1.84	0.42
39:a:1223:G:N1	39:a:1227:G:C5	2.88	0.42
39:a:1365:A:C6	39:a:1366:A:C5	3.08	0.42
39:a:1386:C:C1'	39:a:1470:A:H1'	2.50	0.42
39:a:1394:U:C4	39:a:1395:A:C6	3.08	0.42
39:a:1422:G:C6	39:a:1577:C:C2	3.08	0.42
39:a:1463:C:C2	39:a:1464:G:C8	3.08	0.42
39:a:1500:G:C4	39:a:1501:G:C8	3.08	0.42
39:a:1553:A:N7	39:a:1555:G:C6	2.88	0.42
39:a:1589:U:O2'	39:a:1590:A:P	2.78	0.42
39:a:1740:G:C5	39:a:1741:C:C5	3.08	0.42
39:a:1786:A:C2	39:a:1938:A:C5	3.08	0.42
39:a:1912:A:H5''	39:a:1913:A:OP1	2.20	0.42
39:a:2283:C:C5	39:a:2389:G:C8	3.08	0.42
39:a:2380:C:H2'	39:a:2381:A:O4'	2.20	0.42
39:a:2825:G:H3'	39:a:2826:A:H8	1.84	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:d:66:A:C4	42:d:108:A:C6	3.08	0.42
46:h:220:VAL:HG12	46:h:221:ARG:N	2.34	0.42
49:k:43:VAL:O	49:k:45:GLN:HG2	2.20	0.42
52:n:12:VAL:HG13	52:n:172:ALA:HB1	2.02	0.42
54:p:143:GLN:HA	54:p:143:GLN:OE1	2.19	0.42
57:s:74:TYR:OH	57:s:89:PHE:HA	2.20	0.42
4:3:75:ALA:HB1	39:a:337:C:P	2.60	0.42
9:9:77:VAL:CA	9:9:79:PRO:HD3	2.50	0.42
11:AA:300:ASP:OD1	11:AA:313:ALA:N	2.52	0.42
14:AE:609:TYR:HD2	14:AE:610:ARG:NH1	2.17	0.42
15:C:70:TYR:CE2	16:D:674:G:H4'	2.55	0.42
16:D:115:G:C2	16:D:289:G:N7	2.87	0.42
16:D:125:U:O2'	16:D:126:G:H5'	2.20	0.42
16:D:147:G:N2	16:D:176:C:N3	2.67	0.42
16:D:160:A:N6	16:D:347:G:H1'	2.35	0.42
16:D:192:A:H2'	16:D:193:C:O4'	2.20	0.42
16:D:500:G:H2'	16:D:501:C:C6	2.55	0.42
16:D:629:A:H2'	16:D:630:A:O4'	2.19	0.42
16:D:661:G:N1	16:D:745:G:C6	2.88	0.42
16:D:682:G:N1	16:D:709:U:N3	2.68	0.42
16:D:718:A:C1'	29:Q:119:ASN:OD1	2.68	0.42
16:D:774:G:H2'	16:D:775:G:O4'	2.19	0.42
16:D:836:G:C4	16:D:837:U:C6	3.08	0.42
16:D:963:G:C4	16:D:964:A:C8	3.07	0.42
16:D:1008:U:C2	16:D:1022:A:C2	3.08	0.42
16:D:1161:C:N3	16:D:1162:C:C5	2.88	0.42
16:D:1233:G:OP1	27:O:126:GLN:CB	2.68	0.42
16:D:1267:C:O2	16:D:1327:C:H4'	2.20	0.42
16:D:1300:G:C5	16:D:1334:G:C5	3.08	0.42
16:D:1381:U:N3	16:D:1382:C:C5	2.88	0.42
16:D:1387:G:C4	16:D:1388:C:C5	3.08	0.42
16:D:1437:A:N1	16:D:1438:G:C5	2.87	0.42
16:D:1458:G:H2'	16:D:1459:G:H8	1.84	0.42
18:F:40:LYS:HD2	18:F:40:LYS:HA	1.89	0.42
19:G:114:LEU:HD21	19:G:145:GLU:OE2	2.20	0.42
19:G:153:ASP:O	19:G:153:ASP:CG	2.63	0.42
23:K:83:HIS:HB2	23:K:84:PRO:HD3	2.02	0.42
24:L:75:GLU:O	24:L:79:ARG:HG3	2.20	0.42
30:R:22:PRO:O	30:R:25:GLU:N	2.51	0.42
33:U:52:LEU:HD13	33:U:52:LEU:HA	1.87	0.42
37:Y:15:GLY:HA2	37:Y:50:LYS:HB3	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:Y:78:LEU:HD23	37:Y:78:LEU:C	2.45	0.42
39:a:67:U:C4	39:a:74:A:N6	2.87	0.42
39:a:370:G:C6	39:a:424:G:N7	2.88	0.42
39:a:414:C:C2	39:a:415:A:C8	3.08	0.42
39:a:432:A:H2'	39:a:433:C:C6	2.53	0.42
39:a:489:G:C2	39:a:1284:A:N6	2.88	0.42
39:a:491:G:H3'	39:a:492:A:H8	1.84	0.42
39:a:649:G:O2'	39:a:650:C:H5'	2.20	0.42
39:a:765:C:H2'	39:a:766:U:O4'	2.19	0.42
39:a:766:U:C2	39:a:767:U:C5	3.08	0.42
39:a:841:G:H2'	39:a:842:U:H6	1.85	0.42
39:a:878:A:H5'	39:a:879:G:OP2	2.20	0.42
39:a:962:G:N3	39:a:963:U:C6	2.88	0.42
39:a:1112:G:C4	39:a:1113:U:C5	3.08	0.42
39:a:1125:G:OP2	39:a:1126:A:H2'	2.19	0.42
39:a:1474:U:C5	39:a:1475:G:C5	3.08	0.42
39:a:1509:A:H1'	39:a:1510:G:H5'	2.01	0.42
39:a:1587:G:C6	39:a:1588:G:C6	3.07	0.42
39:a:1604:C:H2'	39:a:1605:C:C6	2.54	0.42
39:a:1664:A:C2	39:a:1665:A:C4	3.08	0.42
39:a:1846:G:H2'	39:a:1847:A:O4'	2.20	0.42
39:a:1883:U:O2'	39:a:1884:G:H5'	2.20	0.42
39:a:1883:U:C2'	39:a:1884:G:H5'	2.50	0.42
39:a:2016:U:O2'	39:a:2017:U:H5'	2.19	0.42
39:a:2150:C:O2'	39:a:2151:U:H5'	2.20	0.42
39:a:2193:G:HO2'	39:a:2194:U:P	2.43	0.42
39:a:2249:U:H2'	39:a:2252:G:OP1	2.20	0.42
39:a:2298:A:C8	39:a:2299:U:C5	3.08	0.42
39:a:2361:G:H2'	39:a:2362:C:C6	2.55	0.42
39:a:2677:G:C6	39:a:2678:C:N4	2.88	0.42
39:a:2691:C:C6	39:a:2872:A:C2	3.08	0.42
39:a:2722:G:H2'	39:a:2723:C:C6	2.54	0.42
39:a:2820:A:O5'	61:w:3:HIS:HA	2.20	0.42
39:a:2850:A:C2	39:a:2851:A:C4	3.08	0.42
39:a:2852:G:H2'	39:a:2853:C:H6	1.85	0.42
42:d:20:G:C6	42:d:64:G:C6	3.08	0.42
42:d:22:U:H2'	42:d:23:G:C8	2.55	0.42
46:h:42:GLY:O	46:h:49:ILE:HA	2.19	0.42
48:j:151:THR:HA	48:j:152:PRO:C	2.45	0.42
54:p:86:LYS:C	54:p:87:LEU:HD22	2.45	0.42
3:2:69:ARG:HG2	3:2:69:ARG:HH11	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:7:ARG:CZ	4:3:26:LYS:O	2.68	0.41
5:4:36:ALA:O	5:4:38:LEU:HD23	2.19	0.41
5:4:71:LYS:O	5:4:94:ALA:N	2.44	0.41
6:5:108:DT:C7	11:AA:199:ASP:HB3	2.45	0.41
10:A:4:G:C2	10:A:5:G:C8	3.08	0.41
10:A:63:G:C2	10:A:64:G:C8	3.08	0.41
11:AA:812:PHE:HZ	14:AE:503:SER:HB2	1.85	0.41
13:AD:152:TYR:HE2	14:AE:535:ARG:HH21	1.68	0.41
14:AE:47:ARG:NE	14:AE:47:ARG:CA	2.83	0.41
14:AE:246:PRO:HA	14:AE:247:PRO:HD3	1.96	0.41
14:AE:820:ILE:HG12	14:AE:884:SER:HB2	2.02	0.41
14:AE:839:VAL:HG12	14:AE:864:LEU:HD12	2.02	0.41
10:B:4:G:C2	10:B:5:G:C8	3.09	0.41
16:D:113:G:H2'	16:D:114:U:C6	2.55	0.41
16:D:246:A:N7	16:D:279:A:C6	2.88	0.41
16:D:264:C:O3'	34:V:65:ARG:NH1	2.53	0.41
16:D:404:G:H2'	16:D:405:U:O4'	2.20	0.41
16:D:406:G:N9	16:D:495:A:C6	2.88	0.41
16:D:483:C:O5'	16:D:483:C:H6	2.02	0.41
16:D:683:G:O6	16:D:708:C:C4	2.73	0.41
16:D:736:C:H2'	16:D:737:C:C6	2.53	0.41
16:D:1124:G:C3'	16:D:1145:A:N6	2.83	0.41
16:D:1137:C:O2	16:D:1138:G:C2	2.73	0.41
16:D:1270:G:N1	16:D:1271:A:C5	2.88	0.41
16:D:1314:C:N3	16:D:1315:U:C4	2.88	0.41
16:D:1513:A:C6	16:D:1523:G:O6	2.73	0.41
16:D:1521:C:H2'	16:D:1522:U:C6	2.55	0.41
20:H:119:GLY:O	20:H:120:PHE:C	2.62	0.41
22:J:88:GLU:CD	22:J:188:ARG:HB2	2.45	0.41
23:K:126:LYS:HD3	23:K:127:ALA:C	2.45	0.41
25:M:46:ALA:HB3	25:M:120:LEU:HD23	2.01	0.41
25:M:133:THR:O	25:M:136:LYS:HB2	2.20	0.41
27:O:80:ARG:O	27:O:84:THR:HG23	2.20	0.41
28:P:57:VAL:O	28:P:58:ASN:ND2	2.53	0.41
30:R:66:TYR:CD1	30:R:67:ILE:N	2.88	0.41
33:U:1:MET:HG2	33:U:2:VAL:N	2.35	0.41
33:U:39:PHE:CD1	33:U:74:LEU:CD1	3.03	0.41
35:W:42:PRO:O	35:W:45:ILE:HD12	2.20	0.41
37:Y:19:PRO:HG2	37:Y:23:VAL:CG2	2.50	0.41
39:a:105:C:O2'	39:a:106:C:H5'	2.20	0.41
39:a:151:C:H2'	39:a:152:A:C8	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:322:A:C2	39:a:340:A:C6	3.08	0.41
39:a:389:G:C8	39:a:2413:G:H4'	2.54	0.41
39:a:442:G:C4	39:a:444:C:C5	3.08	0.41
39:a:485:C:C2	39:a:486:C:C5	3.08	0.41
39:a:531:C:N3	39:a:2019:A:N1	2.68	0.41
39:a:582:A:C6	39:a:583:G:C5	3.08	0.41
39:a:706:A:C4	39:a:707:G:C8	3.08	0.41
39:a:711:G:H1	39:a:720:U:H3	1.68	0.41
39:a:729:G:N3	39:a:1775:U:H1'	2.34	0.41
39:a:748:G:C4	39:a:750:A:C5	3.07	0.41
39:a:986:C:N3	39:a:987:C:C5	2.88	0.41
39:a:1120:G:C6	39:a:1121:C:C4	3.07	0.41
39:a:1256:G:C4	39:a:1257:C:C5	3.08	0.41
39:a:1283:G:H2'	39:a:1285:A:C8	2.54	0.41
39:a:1414:C:O2'	39:a:1415:U:H5'	2.20	0.41
39:a:1430:G:C6	39:a:1431:A:C5	3.08	0.41
39:a:1496:A:O2'	39:a:1577:C:O2'	2.35	0.41
39:a:1498:C:H2'	39:a:1499:C:H6	1.85	0.41
39:a:1586:A:C6	39:a:1587:G:C4	3.08	0.41
39:a:1654:A:N6	39:a:2049:G:OP1	2.33	0.41
39:a:1799:G:P	46:h:270:ARG:HH22	2.37	0.41
39:a:1885:A:H2'	39:a:1886:U:H5'	2.00	0.41
39:a:1920:C:H2'	39:a:1921:G:C8	2.55	0.41
39:a:1924:C:C2'	39:a:1925:C:H5'	2.49	0.41
39:a:1930:G:N2	39:a:1968:G:H2'	2.35	0.41
39:a:1964:G:H4'	39:a:1965:C:OP2	2.20	0.41
39:a:1993:U:H4'	48:j:133:THR:CG2	2.43	0.41
39:a:2096:C:H2'	39:a:2097:A:C8	2.54	0.41
39:a:2257:U:H2'	39:a:2258:C:C6	2.55	0.41
39:a:2511:U:O4	39:a:2575:C:N3	2.52	0.41
39:a:2567:G:O2'	39:a:2568:U:H5'	2.20	0.41
39:a:2697:G:C6	39:a:2711:A:C6	3.08	0.41
39:a:2712:C:C2	39:a:2715:C:OP1	2.73	0.41
39:a:2779:U:C6	39:a:2781:A:C2	3.08	0.41
39:a:2811:G:OP1	48:j:61:THR:HG23	2.19	0.41
39:a:2835:A:C4	39:a:2879:A:C6	3.08	0.41
39:a:2851:A:C4	39:a:2852:G:C8	3.08	0.41
42:d:73:A:C2	42:d:74:U:C1'	3.03	0.41
42:d:75:G:H2'	42:d:76:G:C8	2.55	0.41
42:d:111:U:H2'	42:d:112:G:H8	1.85	0.41
48:j:97:SER:C	48:j:99:GLU:N	2.76	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:l:141:MET:HA	50:l:141:MET:HE2	2.02	0.41
53:o:25:LYS:N	53:o:47:LYS:HZ2	2.18	0.41
56:r:90:LEU:HB3	56:r:123:ARG:O	2.19	0.41
56:r:143:ILE:HG23	56:r:143:ILE:O	2.19	0.41
58:t:106:GLU:OE1	58:t:106:GLU:N	2.40	0.41
59:u:70:LYS:O	59:u:74:THR:HG23	2.20	0.41
62:x:51:ALA:HB3	62:x:78:VAL:HB	2.01	0.41
63:y:24:ASP:OD1	63:y:89:ARG:HA	2.20	0.41
64:z:31:VAL:O	64:z:35:ALA:CB	2.68	0.41
5:4:4:ILE:HG22	5:4:5:ASN:N	2.35	0.41
7:6:18:DC:C2	8:7:17:G:N2	2.78	0.41
7:6:27:DG:H1'	7:6:28:DA:C5	2.55	0.41
9:9:11:ILE:HG12	9:9:65:GLU:CG	2.49	0.41
10:A:25:C:C4	10:A:26:G:N7	2.88	0.41
11:AA:56:VAL:HG11	11:AA:468:LEU:HD13	2.02	0.41
11:AA:104:ILE:HD11	11:AA:116:ASP:HB2	2.01	0.41
11:AA:452:ARG:NH1	11:AA:458:GLU:OE2	2.52	0.41
11:AA:1043:ALA:CB	11:AA:1044:PRO:CD	2.91	0.41
11:AA:1251:TYR:CE2	11:AA:1301:ARG:NH1	2.88	0.41
14:AE:385:LEU:CD2	14:AE:390:LEU:HB2	2.50	0.41
14:AE:390:LEU:N	14:AE:390:LEU:HD13	2.35	0.41
10:B:46:G:H1'	10:B:47:U:C5	2.56	0.41
16:D:23:C:N3	16:D:24:U:C5	2.87	0.41
16:D:51:A:C2	16:D:353:A:N1	2.88	0.41
16:D:125:U:C2	16:D:126:G:C8	3.08	0.41
16:D:139:A:N1	16:D:225:C:N3	2.67	0.41
16:D:165:G:C6	16:D:166:U:C4	3.08	0.41
16:D:165:G:N2	16:D:166:U:C2	2.88	0.41
16:D:226:G:N2	16:D:227:G:H1'	2.36	0.41
16:D:412:A:C2	16:D:414:A:H1'	2.55	0.41
16:D:483:C:H3'	16:D:484:G:H8	1.85	0.41
16:D:620:C:H2'	16:D:621:A:H8	1.85	0.41
16:D:665:A:C5	16:D:733:G:C5	3.08	0.41
16:D:718:A:H1'	29:Q:119:ASN:OD1	2.20	0.41
16:D:953:G:H3'	16:D:954:G:H8	1.84	0.41
16:D:1051:C:H2'	16:D:1052:U:C6	2.55	0.41
16:D:1157:A:N7	16:D:1180:A:N6	2.68	0.41
16:D:1174:G:H2'	16:D:1175:G:H5'	2.02	0.41
16:D:1202:U:C4	16:D:1203:C:C6	3.07	0.41
16:D:1487:G:O2'	16:D:1488:G:H5'	2.20	0.41
18:F:59:LYS:O	18:F:63:GLU:HG2	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:H:267:TRP:CZ2	20:H:300:VAL:CA	3.00	0.41
21:I:33:LEU:HD23	31:S:79:LEU:HD11	2.02	0.41
23:K:49:GLY:N	23:K:67:ALA:HB2	2.35	0.41
23:K:83:HIS:CE1	23:K:85:VAL:HG22	2.55	0.41
28:P:72:ARG:HG2	28:P:72:ARG:HH11	1.84	0.41
30:R:7:LEU:HD12	30:R:11:PRO:CA	2.38	0.41
33:U:78:VAL:HA	33:U:81:ALA:HB3	2.02	0.41
36:X:3:ARG:HA	36:X:7:ILE:O	2.21	0.41
39:a:391:A:H1'	39:a:411:G:C1'	2.50	0.41
39:a:584:C:C4	39:a:585:G:N7	2.88	0.41
39:a:628:G:C5	39:a:636:G:N2	2.89	0.41
39:a:673:C:C2	39:a:674:G:C8	3.08	0.41
39:a:689:A:H2'	39:a:690:G:H8	1.85	0.41
39:a:722:A:C6	39:a:723:C:C4	3.09	0.41
39:a:948:C:O2'	39:a:949:G:H5'	2.21	0.41
39:a:957:C:N4	39:a:2459:A:C8	2.88	0.41
39:a:1048:A:C2	39:a:1049:C:C6	3.07	0.41
39:a:1096:A:H2'	39:a:1097:U:C5'	2.49	0.41
39:a:1201:U:N3	39:a:1202:G:N7	2.68	0.41
39:a:1209:U:H2'	39:a:1210:G:H21	1.85	0.41
39:a:1246:A:C6	39:a:1247:A:C5	3.09	0.41
39:a:1278:C:H2'	39:a:1279:G:H8	1.85	0.41
39:a:1356:G:C4	39:a:1357:C:C5	3.08	0.41
39:a:1498:C:C2	39:a:1499:C:C5	3.08	0.41
39:a:1571:A:H2'	39:a:1572:A:C8	2.55	0.41
39:a:1788:C:H2'	39:a:1789:A:O4'	2.20	0.41
39:a:2677:G:H2'	39:a:2678:C:C6	2.54	0.41
39:a:2719:G:H4'	39:a:2846:G:H4'	2.01	0.41
39:a:2786:U:H2'	39:a:2787:C:H6	1.85	0.41
39:a:2811:G:C6	39:a:2890:G:N2	2.88	0.41
39:a:2854:G:C6	39:a:2864:G:N1	2.88	0.41
40:b:49:ALA:O	40:b:51:VAL:HG23	2.21	0.41
46:h:72:ASP:O	46:h:74:ILE:HD12	2.20	0.41
47:i:39:LEU:HD23	47:i:42:HIS:ND1	2.34	0.41
50:l:99:LYS:HA	50:l:102:ARG:NH2	2.35	0.41
52:n:43:ALA:O	52:n:46:ASP:N	2.51	0.41
56:r:49:ALA:HB3	56:r:50:ARG:HE	1.84	0.41
57:s:34:ARG:NH2	57:s:40:HIS:HB3	2.36	0.41
58:t:44:LYS:HB2	58:t:45:GLU:OE1	2.19	0.41
59:u:122:VAL:O	59:u:143:GLU:HG2	2.19	0.41
5:4:48:MET:SD	5:4:48:MET:C	3.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:78:GLN:HB3	5:4:87:GLN:HB3	2.01	0.41
6:5:109:DT:H2''	11:AA:200:ARG:CG	2.37	0.41
8:7:1:U:C6	8:7:1:U:C4'	3.03	0.41
9:9:11:ILE:CA	9:9:14:GLU:HG3	2.49	0.41
9:9:56:ARG:HG3	9:9:56:ARG:O	2.20	0.41
12:AB:7:LYS:HG2	12:AB:74:VAL:HG13	2.01	0.41
14:AE:136:GLU:OE1	14:AE:312:ARG:NH2	2.53	0.41
14:AE:319:SER:HA	14:AE:320:ASN:HA	1.64	0.41
10:B:63:G:C2	10:B:64:G:C8	3.08	0.41
16:D:106:C:O2'	16:D:107:G:H5'	2.21	0.41
16:D:119:A:C8	16:D:288:A:C2	3.08	0.41
16:D:153:C:N3	16:D:154:U:C5	2.88	0.41
16:D:163:C:O5'	16:D:163:C:H6	2.03	0.41
16:D:236:A:H2'	16:D:237:G:C8	2.54	0.41
16:D:264:C:H5''	34:V:65:ARG:HH11	1.85	0.41
16:D:642:A:C6	16:D:643:C:C4	3.07	0.41
16:D:655:A:H2'	16:D:656:G:O4'	2.21	0.41
16:D:927:G:H1	16:D:1390:U:H3	1.68	0.41
16:D:937:A:C2	16:D:938:A:C8	3.08	0.41
16:D:1102:A:H2'	16:D:1103:C:C6	2.54	0.41
16:D:1119:C:P	27:O:11:ARG:HH22	2.43	0.41
16:D:1133:G:C6	16:D:1142:G:N1	2.88	0.41
16:D:1150:A:H2'	16:D:1151:A:C1'	2.51	0.41
16:D:1323:G:C2	16:D:1324:A:C4	3.08	0.41
16:D:1355:G:H2'	16:D:1356:G:H8	1.84	0.41
16:D:1356:G:H2'	16:D:1357:A:H8	1.84	0.41
16:D:1410:A:H2'	16:D:1411:C:C6	2.55	0.41
16:D:1485:U:O2'	16:D:1486:G:H5'	2.20	0.41
16:D:1500:A:OP2	16:D:1505:G:OP2	2.38	0.41
19:G:56:GLU:OE1	19:G:60:ILE:HD11	2.20	0.41
20:H:274:TYR:HD1	20:H:335:ILE:HD12	1.85	0.41
23:K:100:SER:OG	23:K:103:THR:CG2	2.68	0.41
25:M:75:VAL:HG12	25:M:88:PRO:CA	2.50	0.41
25:M:138:ARG:O	25:M:142:HIS:ND1	2.45	0.41
26:N:69:LYS:HG2	26:N:70:ALA:N	2.35	0.41
27:O:12:ARG:HD3	27:O:13:LYS:HG3	2.01	0.41
27:O:94:LEU:O	27:O:95:ARG:C	2.64	0.41
37:Y:76:ALA:HB2	39:a:1059:G:O2'	2.20	0.41
39:a:5:A:H2'	39:a:6:A:H8	1.83	0.41
39:a:82:U:H2'	39:a:83:A:O4'	2.20	0.41
39:a:231:A:H2'	39:a:232:G:C8	2.56	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:247:G:N2	39:a:250:G:H3'	2.34	0.41
39:a:494:G:N2	39:a:495:G:C4	2.88	0.41
39:a:538:A:C2	39:a:556:A:C4	3.08	0.41
39:a:570:G:C2'	39:a:571:U:H5'	2.49	0.41
39:a:583:G:C6	39:a:584:C:N4	2.88	0.41
39:a:737:C:C2	39:a:760:G:C2	3.08	0.41
39:a:739:A:H1'	39:a:740:C:H5	1.86	0.41
39:a:922:C:H2'	39:a:923:G:H8	1.84	0.41
39:a:1116:G:C6	39:a:1117:C:C5	3.09	0.41
39:a:1156:A:P	64:z:55:ARG:NH2	2.93	0.41
39:a:1301:A:C4	39:a:1303:G:N7	2.88	0.41
39:a:1317:G:O2'	39:a:1318:U:H5'	2.21	0.41
39:a:1322:A:C2	39:a:1323:C:C6	3.08	0.41
39:a:1407:G:N3	39:a:1408:G:C8	2.88	0.41
39:a:1421:G:C2	39:a:1422:G:C8	3.08	0.41
39:a:1428:C:N4	39:a:1569:A:H3'	2.34	0.41
39:a:1587:G:C2	39:a:1588:G:C4	3.08	0.41
39:a:1661:G:C6	39:a:2000:C:N3	2.88	0.41
39:a:1740:G:C6	39:a:1741:C:C4	3.08	0.41
39:a:1811:G:O2'	46:h:45:ASN:ND2	2.53	0.41
39:a:1841:U:N3	39:a:1842:G:N7	2.68	0.41
39:a:1951:U:H2'	39:a:1953:A:OP2	2.20	0.41
39:a:2207:C:C4	39:a:2218:G:N1	2.88	0.41
39:a:2391:G:C1'	39:a:2424:C:H41	2.33	0.41
39:a:2395:C:P	59:u:63:LYS:NZ	2.93	0.41
39:a:2788:C:H2'	39:a:2789:C:C6	2.55	0.41
39:a:2839:G:C5	39:a:2840:C:C5	3.08	0.41
39:a:2877:G:C2'	39:a:2878:U:H5'	2.50	0.41
40:b:48:GLY:N	40:b:80:ILE:O	2.50	0.41
42:d:61:G:C6	42:d:62:C:C4	3.09	0.41
42:d:96:G:C2	42:d:97:C:C6	3.09	0.41
46:h:139:SER:O	46:h:164:ILE:HD12	2.21	0.41
47:i:38:HIS:ND1	47:i:39:LEU:O	2.51	0.41
48:j:49:GLN:NE2	48:j:79:LEU:HD12	2.35	0.41
50:l:117:ARG:HA	50:l:185:LYS:HD3	2.03	0.41
50:l:178:VAL:HG13	50:l:179:SER:N	2.35	0.41
50:l:190:ALA:HA	50:l:193:VAL:HG23	2.01	0.41
56:r:3:VAL:N	56:r:18:GLN:HE22	2.18	0.41
61:w:94:TYR:CD1	61:w:94:TYR:N	2.88	0.41
62:x:14:ALA:O	62:x:18:LEU:HD23	2.20	0.41
4:3:59:VAL:HG12	39:a:499:U:C5'	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:0:U:H6	8:7:0:U:C3'	2.30	0.41
11:AA:1020:GLU:HA	11:AA:1023:HIS:CD2	2.56	0.41
13:AD:111:THR:OG1	13:AD:126:PRO:O	2.36	0.41
10:B:35:A:H2'	10:B:36:U:C6	2.55	0.41
10:B:71:C:C2'	10:B:72:A:C8	3.03	0.41
15:C:26:ILE:O	15:C:29:LEU:HB2	2.20	0.41
16:D:21:G:N2	16:D:22:G:C5	2.88	0.41
16:D:115:G:H1'	16:D:116:A:N7	2.36	0.41
16:D:169:C:O2'	16:D:170:U:H5'	2.21	0.41
16:D:275:G:C4	16:D:276:G:C8	3.08	0.41
16:D:411:A:C4	16:D:413:G:H1'	2.55	0.41
16:D:502:A:C2	16:D:503:C:C2	3.08	0.41
16:D:575:G:H4'	16:D:576:C:OP1	2.19	0.41
16:D:823:C:C2	16:D:824:G:C8	3.09	0.41
16:D:939:G:O2'	16:D:940:C:H5'	2.20	0.41
16:D:959:A:H5''	16:D:960:U:OP2	2.20	0.41
16:D:1072:G:C6	16:D:1073:U:C4	3.09	0.41
16:D:1083:U:H2'	16:D:1084:G:O4'	2.20	0.41
16:D:1147:C:C2	16:D:1148:U:C6	3.08	0.41
16:D:1179:A:H2'	16:D:1180:A:C8	2.54	0.41
16:D:1220:G:C6	16:D:1221:G:C5	3.08	0.41
16:D:1242:G:H2'	16:D:1243:C:C6	2.56	0.41
16:D:1325:C:N3	16:D:1326:U:C5	2.89	0.41
16:D:1513:A:H2'	16:D:1514:G:C8	2.54	0.41
17:E:45:ALA:O	17:E:48:GLN:OE1	2.38	0.41
19:G:20:THR:O	19:G:23:TRP:CD1	2.72	0.41
19:G:24:ASN:ND2	19:G:191:SER:O	2.54	0.41
19:G:107:VAL:O	19:G:111:ILE:HG12	2.20	0.41
23:K:81:LEU:HD23	23:K:147:MET:CE	2.50	0.41
25:M:93:PRO:HA	25:M:96:ARG:HG2	2.02	0.41
26:N:79:SER:CB	26:N:124:GLU:OE2	2.68	0.41
27:O:36:GLU:OE1	27:O:36:GLU:HA	2.21	0.41
31:S:6:MET:O	31:S:10:GLU:HG2	2.20	0.41
31:S:7:LYS:O	31:S:11:VAL:HG23	2.20	0.41
39:a:158:U:H2'	39:a:159:G:O4'	2.20	0.41
39:a:206:U:H2'	39:a:207:A:H8	1.85	0.41
39:a:289:G:H2'	39:a:290:U:O4'	2.20	0.41
39:a:412:A:N7	39:a:2411:A:H2	2.18	0.41
39:a:459:U:C2	39:a:460:A:C8	3.08	0.41
39:a:476:G:C4	39:a:478:A:OP2	2.73	0.41
39:a:551:G:C6	39:a:552:U:C4	3.08	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:586:A:H8	39:a:811:U:O4	2.03	0.41
39:a:718:A:H2'	39:a:719:C:O4'	2.20	0.41
39:a:869:G:H2'	39:a:870:U:H6	1.85	0.41
39:a:1007:C:C4	39:a:1008:A:C5	3.08	0.41
39:a:1014:A:C5	39:a:1149:G:N1	2.88	0.41
39:a:1016:G:O6	39:a:1147:A:N6	2.54	0.41
39:a:1039:A:H2'	39:a:1040:A:C8	2.55	0.41
39:a:1092:C:C2	39:a:1093:G:C8	3.08	0.41
39:a:1097:U:H2'	39:a:1098:A:H5'	2.03	0.41
39:a:1168:G:C2	39:a:1169:A:C4	3.09	0.41
39:a:1290:C:O2'	39:a:1291:C:H5'	2.19	0.41
39:a:1400:U:H2'	39:a:1401:G:O4'	2.20	0.41
39:a:1461:C:O2'	39:a:1462:C:H5'	2.21	0.41
39:a:2045:C:H4'	47:i:15:MET:HB3	2.01	0.41
39:a:2060:A:O4'	39:a:2502:G:C1'	2.68	0.41
39:a:2170:A:O2'	39:a:2171:A:OP2	2.30	0.41
39:a:2259:U:C2	39:a:2260:C:C5	3.09	0.41
39:a:2398:U:N3	39:a:2399:G:N7	2.67	0.41
39:a:2415:G:C5	39:a:2416:C:C5	3.09	0.41
39:a:2452:C:H2'	39:a:2453:A:N9	2.35	0.41
39:a:2532:G:C5	39:a:2533:U:C5	3.09	0.41
39:a:2563:U:C2	39:a:2565:A:OP2	2.74	0.41
39:a:2590:A:C2	39:a:2591:C:C4	3.08	0.41
41:c:71:LEU:HD23	41:c:78:TYR:CD2	2.56	0.41
42:d:28:C:H2'	42:d:29:A:C8	2.56	0.41
42:d:73:A:C4	42:d:74:U:C6	3.09	0.41
47:i:23:THR:O	47:i:23:THR:HG23	2.21	0.41
48:j:133:THR:O	48:j:134:HIS:HB2	2.21	0.41
50:l:154:ASP:OD1	50:l:155:GLU:N	2.53	0.41
53:o:8:ARG:O	53:o:8:ARG:HD3	2.21	0.41
54:p:102:VAL:O	54:p:102:VAL:HG23	2.21	0.41
60:v:131:VAL:HG22	60:v:132:THR:H	1.86	0.41
61:w:68:ALA:C	61:w:69:ARG:CZ	2.93	0.41
61:w:100:CYS:SG	61:w:110:MET:C	3.03	0.41
63:y:62:ARG:HD3	63:y:100:LEU:HD22	2.02	0.41
1:0:1:MET:SD	1:0:43:ASN:OD1	2.79	0.41
3:2:54:GLU:O	3:2:87:LEU:HD13	2.20	0.41
8:7:-1:U:H6	8:7:-1:U:H2'	1.72	0.41
10:A:26:G:H1	10:A:44:A:N6	2.19	0.41
10:A:29:G:C6	10:A:42:G:C6	3.08	0.41
11:AA:46:GLN:HA	11:AA:47:TYR:HA	1.77	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1252:SER:N	11:AA:1259:LEU:HD13	2.35	0.41
14:AE:144:TYR:CE1	14:AE:162:GLU:OE1	2.73	0.41
14:AE:820:ILE:HD11	14:AE:822:MET:HE2	2.02	0.41
14:AE:930:LEU:HA	14:AE:1244:GLN:HG3	2.02	0.41
14:AE:1289:ASN:O	14:AE:1293:GLU:HB2	2.20	0.41
15:C:19:GLN:N	15:C:19:GLN:CD	2.79	0.41
16:D:31:G:H2'	16:D:48:C:N4	2.32	0.41
16:D:160:A:N6	16:D:346:G:C6	2.88	0.41
16:D:283:U:C4	16:D:284:C:C4	3.09	0.41
16:D:286:C:H2'	16:D:287:U:O4'	2.20	0.41
16:D:376:G:C2	16:D:389:A:N1	2.89	0.41
16:D:378:G:H2'	16:D:379:C:H6	1.86	0.41
16:D:391:G:C6	16:D:392:C:C4	3.07	0.41
16:D:418:C:H2'	16:D:419:C:C6	2.56	0.41
16:D:505:G:C8	16:D:535:A:C8	3.08	0.41
16:D:567:G:C6	16:D:568:G:C5	3.08	0.41
16:D:959:A:O3'	16:D:960:U:H4'	2.20	0.41
16:D:1073:U:H2'	16:D:1074:G:O4'	2.20	0.41
16:D:1170:A:C8	16:D:1171:A:C8	3.08	0.41
16:D:1246:A:C6	16:D:1292:G:O6	2.74	0.41
16:D:1336:C:H4'	16:D:1337:G:C4	2.56	0.41
16:D:1523:G:C6	16:D:1524:C:N4	2.88	0.41
16:D:1524:C:C2	16:D:1525:G:N7	2.88	0.41
18:F:58:LYS:CG	18:F:59:LYS:N	2.83	0.41
19:G:113:ARG:HH12	19:G:117:LEU:N	2.18	0.41
19:G:157:LEU:HD13	19:G:181:ILE:HD11	2.03	0.41
20:H:19:ARG:CD	20:H:73:ASP:OD1	2.65	0.41
23:K:15:LEU:HA	23:K:37:THR:HG22	2.02	0.41
23:K:165:LEU:HD12	26:N:114:ARG:HH11	1.85	0.41
24:L:9:MET:SD	24:L:59:TYR:CG	3.13	0.41
24:L:95:ALA:O	24:L:96:VAL:C	2.64	0.41
25:M:51:ALA:HB2	25:M:58:GLU:HG3	2.02	0.41
36:X:40:ALA:O	36:X:43:VAL:HG22	2.20	0.41
36:X:103:LYS:HG3	36:X:104:THR:HG23	2.01	0.41
37:Y:104:GLN:CG	37:Y:108:ILE:HG21	2.51	0.41
38:Z:3:THR:O	38:Z:3:THR:HG22	2.19	0.41
39:a:2:G:C4	39:a:3:U:C5	3.08	0.41
39:a:15:G:C5	39:a:16:C:C5	3.08	0.41
39:a:26:G:O2'	39:a:27:G:H5'	2.20	0.41
39:a:110:G:C4	39:a:111:A:C8	3.08	0.41
39:a:122:G:O2'	39:a:123:G:H5'	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:290:U:H2'	39:a:291:G:O4'	2.21	0.41
39:a:300:A:O2'	39:a:334:C:O2	2.39	0.41
39:a:304:U:H2'	39:a:305:C:C6	2.56	0.41
39:a:516:C:C2	39:a:517:C:C6	3.08	0.41
39:a:523:C:C2	39:a:524:G:C8	3.08	0.41
39:a:717:C:C5	39:a:718:A:C8	3.08	0.41
39:a:833:A:H2'	39:a:834:G:C8	2.56	0.41
39:a:847:U:C2'	39:a:848:C:H5'	2.51	0.41
39:a:1202:G:O6	39:a:1244:A:C6	2.74	0.41
39:a:1428:C:C4	39:a:1569:A:H5''	2.56	0.41
39:a:1452:G:C2	39:a:2702:G:C4	3.08	0.41
39:a:1527:G:O2'	39:a:1544:A:N6	2.53	0.41
39:a:1709:U:O2'	39:a:1710:G:H5'	2.19	0.41
39:a:1799:G:H4'	39:a:1800:C:H6	1.85	0.41
39:a:1810:A:C8	39:a:1811:G:C8	3.08	0.41
39:a:1858:A:H2'	39:a:1859:U:O5'	2.20	0.41
39:a:2038:G:H2'	39:a:2039:U:O4'	2.20	0.41
39:a:2063:C:O2	39:a:2063:C:C2'	2.69	0.41
39:a:2269:G:N2	39:a:2270:A:H1'	2.35	0.41
39:a:2294:G:C2	39:a:2339:C:C2	3.09	0.41
39:a:2297:A:C2	39:a:2320:U:N1	2.88	0.41
39:a:2337:G:C2	39:a:2338:C:C4	3.07	0.41
39:a:2639:A:C2	39:a:2778:A:C8	3.08	0.41
39:a:2646:C:OP2	39:a:2732:G:O2'	2.33	0.41
39:a:2719:G:H4'	39:a:2846:G:O3'	2.20	0.41
39:a:2745:C:H2'	39:a:2746:U:C6	2.55	0.41
39:a:2748:A:C2	39:a:2757:A:C4	3.08	0.41
44:f:9:GLN:HB2	44:f:29:LEU:HD13	2.01	0.41
46:h:132:MET:HE2	46:h:190:ALA:CB	2.50	0.41
46:h:187:ASP:O	46:h:188:CYS:C	2.63	0.41
46:h:227:PRO:HD3	46:h:234:GLY:CA	2.51	0.41
54:p:72:LEU:O	54:p:73:ASN:C	2.62	0.41
54:p:91:GLY:HA3	54:p:94:TYR:CD1	2.55	0.41
56:r:46:PHE:HA	56:r:50:ARG:NH1	2.34	0.41
57:s:37:ARG:NE	57:s:44:TYR:OH	2.53	0.41
57:s:78:THR:OG1	57:s:83:GLY:HA3	2.21	0.41
60:v:26:VAL:HG21	60:v:132:THR:O	2.21	0.41
61:w:68:ALA:C	61:w:69:ARG:NH1	2.79	0.41
62:x:12:THR:O	62:x:15:ARG:HB2	2.20	0.41
62:x:68:LYS:HG2	62:x:102:ARG:HG2	2.03	0.41
4:3:73:PHE:CZ	4:3:78:GLY:C	2.98	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:A:46:G:H1'	10:A:47:U:C5	2.56	0.41
14:AE:109:SER:HA	14:AE:110:PRO:HD3	1.96	0.41
14:AE:279:LEU:HD13	14:AE:299:LEU:HD13	2.02	0.41
14:AE:1272:SER:OG	14:AE:1273:ASP:N	2.53	0.41
10:B:26:G:H1	10:B:44:A:N6	2.19	0.41
10:B:31:G:H2'	10:B:32:C:C6	2.56	0.41
16:D:207:C:C2'	16:D:208:U:O5'	2.68	0.41
16:D:299:G:H2'	16:D:300:A:C8	2.55	0.41
16:D:371:A:N1	16:D:391:G:C6	2.89	0.41
16:D:389:A:C6	16:D:390:U:H1'	2.56	0.41
16:D:438:U:C4	16:D:494:G:C5	3.09	0.41
16:D:567:G:C2	16:D:568:G:H1'	2.56	0.41
16:D:634:C:O2	16:D:635:A:C8	2.74	0.41
16:D:636:U:H2'	16:D:637:C:H6	1.85	0.41
16:D:665:A:H2'	16:D:732:C:O2	2.21	0.41
16:D:665:A:C8	16:D:725:G:C2	3.08	0.41
16:D:675:A:N6	16:D:715:A:H61	2.19	0.41
16:D:678:U:H2'	16:D:679:C:C6	2.56	0.41
16:D:685:G:O2'	16:D:686:U:H5'	2.20	0.41
16:D:729:A:C6	16:D:730:G:C5	3.09	0.41
16:D:877:G:C2	16:D:878:A:N7	2.89	0.41
16:D:916:U:C2	16:D:917:G:C8	3.09	0.41
16:D:1040:U:H2'	16:D:1041:G:C8	2.55	0.41
16:D:1190:G:OP2	21:I:5:VAL:HB	2.20	0.41
16:D:1369:C:H2'	16:D:1370:G:C8	2.55	0.41
16:D:1385:G:C4	16:D:1386:G:C8	3.08	0.41
16:D:1386:G:C2	16:D:1387:G:C8	3.09	0.41
16:D:1476:A:C6	16:D:1477:U:C4	3.08	0.41
20:H:155:LYS:O	20:H:169:SER:CB	2.69	0.41
25:M:70:ARG:CZ	25:M:70:ARG:HB2	2.50	0.41
30:R:66:TYR:CG	30:R:87:VAL:HG21	2.55	0.41
32:T:4:SER:O	32:T:8:THR:HG23	2.20	0.41
32:T:71:LYS:HG3	32:T:78:TYR:CE2	2.55	0.41
34:V:25:ILE:HD12	34:V:25:ILE:N	2.35	0.41
34:V:31:HIS:ND1	34:V:32:PRO:HD2	2.35	0.41
36:X:107:ARG:O	36:X:111:GLY:CA	2.68	0.41
39:a:39:G:H2'	39:a:40:U:H6	1.86	0.41
39:a:128:C:C2	39:a:129:C:C5	3.08	0.41
39:a:231:A:H2'	39:a:232:G:O4'	2.20	0.41
39:a:340:A:C2'	39:a:341:C:H5'	2.50	0.41
39:a:461:C:N4	39:a:469:G:N2	2.68	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:542:C:C2	39:a:543:G:C8	3.09	0.41
39:a:599:A:H2'	39:a:600:G:H8	1.85	0.41
39:a:625:G:H2'	39:a:626:A:C8	2.55	0.41
39:a:660:C:C5'	50:l:94:GLN:OE1	2.69	0.41
39:a:675:A:O2'	39:a:676:A:H5'	2.20	0.41
39:a:1136:G:N1	39:a:1137:G:C5	2.89	0.41
39:a:1215:G:O6	39:a:1235:G:C2	2.74	0.41
39:a:1323:C:C4	39:a:1324:G:N7	2.89	0.41
39:a:1354:A:O5'	39:a:1355:G:OP2	2.39	0.41
39:a:1562:U:O2'	39:a:1563:U:H5'	2.20	0.41
39:a:1597:A:C5'	39:a:1598:A:H5'	2.50	0.41
39:a:1631:G:C5	39:a:1633:G:OP2	2.74	0.41
39:a:1633:G:C6	39:a:1635:A:C6	3.08	0.41
39:a:1656:C:OP1	48:j:141:ARG:HG2	2.20	0.41
39:a:1733:G:N3	39:a:1734:G:C8	2.88	0.41
39:a:1789:A:P	46:h:221:ARG:NH1	2.93	0.41
39:a:1790:C:H2'	39:a:1791:A:C8	2.56	0.41
39:a:1809:A:H2'	39:a:1810:A:O4'	2.21	0.41
39:a:1827:U:C4	39:a:1828:G:C5	3.09	0.41
39:a:1877:A:C6	39:a:1878:G:C5	3.08	0.41
39:a:2009:A:C2	39:a:2010:G:C8	3.08	0.41
39:a:2227:A:C4	39:a:2228:G:C8	3.08	0.41
39:a:2231:U:O2'	39:a:2232:C:H5'	2.21	0.41
39:a:2316:G:H5'	52:n:125:ARG:CZ	2.51	0.41
39:a:2321:U:H3'	39:a:2322:A:H5'	2.02	0.41
39:a:2534:A:C2	39:a:2535:G:C1'	3.03	0.41
39:a:2637:U:O2'	39:a:2638:G:H5'	2.19	0.41
39:a:2651:C:N3	39:a:2652:C:C5	2.89	0.41
39:a:2837:A:N3	39:a:2838:G:C8	2.89	0.41
39:a:2845:U:O3'	63:y:53:ARG:NH2	2.53	0.41
40:b:66:LYS:O	40:b:82:ILE:HA	2.20	0.41
41:c:19:SER:H	41:c:23:ASN:H	1.67	0.41
42:d:58:A:C6	42:d:59:A:C5	3.08	0.41
42:d:85:G:C2	42:d:92:C:C2	3.09	0.41
45:g:5:ILE:HD12	52:n:64:LYS:HD3	2.01	0.41
52:n:103:LEU:O	52:n:108:VAL:HG23	2.21	0.41
54:p:137:ASP:OD1	54:p:138:LYS:N	2.54	0.41
55:q:22:VAL:CG1	55:q:36:ARG:NH1	2.83	0.41
56:r:3:VAL:N	56:r:18:GLN:NE2	2.69	0.41
56:r:14:SER:HG	56:r:17:ASP:CG	2.18	0.41
58:t:68:GLY:HA3	58:t:77:ILE:O	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:v:53:MET:SD	60:v:105:MET:HE3	2.60	0.41
60:v:66:ARG:HG2	60:v:66:ARG:O	2.20	0.41
60:v:71:LYS:NZ	60:v:73:ILE:HD13	2.36	0.41
60:v:81:ARG:CG	60:v:82:MET:H	2.34	0.41
2:1:15:GLN:O	2:1:18:ARG:N	2.53	0.41
2:1:77:ASP:OD1	39:a:24:G:H1'	2.21	0.41
4:3:5:ILE:HD13	4:3:67:VAL:CG1	2.51	0.41
4:3:8:ASP:HB2	4:3:24:LYS:HE3	2.02	0.41
5:4:51:GLN:HA	5:4:56:PHE:CG	2.56	0.41
9:9:82:ILE:HG22	9:9:84:TYR:CG	2.55	0.41
10:A:70:G:C6	10:A:71:C:C5	3.08	0.41
11:AA:395:TYR:HE2	11:AA:420:LEU:HG	1.84	0.41
11:AA:868:SER:OG	11:AA:941:LYS:HB2	2.21	0.41
15:C:12:ARG:NE	20:H:265:ASP:OD1	2.54	0.41
16:D:39:G:H2'	16:D:40:C:O5'	2.21	0.41
16:D:76:G:C5	16:D:77:A:N7	2.89	0.41
16:D:257:G:N1	16:D:270:A:C6	2.89	0.41
16:D:282:A:C5	16:D:283:U:C6	3.09	0.41
16:D:389:A:H3'	16:D:390:U:C6	2.55	0.41
16:D:555:U:H2'	16:D:556:C:C6	2.56	0.41
16:D:563:A:C2	16:D:567:G:C4	3.08	0.41
16:D:585:G:C5	16:D:586:C:C5	3.08	0.41
16:D:599:C:O2'	16:D:600:A:H5'	2.21	0.41
16:D:600:A:N1	16:D:601:G:C5	2.89	0.41
16:D:611:C:C4	16:D:612:C:C5	3.08	0.41
16:D:611:C:H2'	16:D:612:C:H6	1.86	0.41
16:D:679:C:O2	16:D:680:C:C6	2.73	0.41
16:D:736:C:C2	16:D:737:C:C6	3.09	0.41
16:D:765:G:C5	16:D:812:G:C2	3.08	0.41
16:D:773:G:C6	16:D:807:A:N6	2.89	0.41
16:D:917:G:H2'	16:D:918:A:H8	1.85	0.41
16:D:999:C:H2'	16:D:1000:A:C8	2.56	0.41
16:D:1048:G:P	31:S:3:LYS:HE3	2.60	0.41
16:D:1111:A:N1	21:I:177:THR:CA	2.82	0.41
16:D:1145:A:O2'	16:D:1146:A:P	2.75	0.41
16:D:1267:C:H42	16:D:1327:C:H1'	1.86	0.41
16:D:1304:G:H2'	16:D:1305:G:H1'	2.02	0.41
16:D:1428:A:C4	16:D:1429:A:C8	3.09	0.41
16:D:1492:A:C2	39:a:1913:A:C2	3.08	0.41
16:D:1526:G:H2'	16:D:1527:U:H6	1.84	0.41
19:G:206:ALA:O	19:G:210:VAL:HG23	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:J:88:GLU:HG2	22:J:188:ARG:HD3	2.03	0.41
22:J:100:ASN:OD1	22:J:111:ARG:NH1	2.54	0.41
25:M:127:ALA:O	25:M:130:ASN:N	2.52	0.41
26:N:92:LEU:HA	26:N:92:LEU:HD12	1.81	0.41
26:N:92:LEU:HD21	26:N:113:ASP:HA	2.02	0.41
27:O:31:ASN:C	27:O:32:GLN:OE1	2.64	0.41
35:W:32:ARG:HH21	35:W:32:ARG:HG2	1.86	0.41
36:X:92:ARG:HD2	39:a:888:C:C5	2.55	0.41
36:X:101:ARG:HA	36:X:101:ARG:NE	2.36	0.41
37:Y:100:ILE:HG13	37:Y:139:VAL:HG23	2.03	0.41
39:a:192:C:C5	39:a:193:U:C5	3.09	0.41
39:a:201:C:C4	39:a:202:U:C5	3.09	0.41
39:a:228:C:H4'	39:a:229:C:H5''	2.03	0.41
39:a:241:A:O4'	39:a:243:U:C1'	2.69	0.41
39:a:272:A:O2'	39:a:273:G:O5'	2.36	0.41
39:a:603:A:N7	39:a:655:A:C5	2.88	0.41
39:a:666:A:H2'	39:a:667:U:H6	1.86	0.41
39:a:827:U:C4	39:a:2430:A:C5	3.09	0.41
39:a:833:A:OP1	59:u:39:LYS:HD3	2.20	0.41
39:a:870:U:C4	39:a:871:U:C5	3.09	0.41
39:a:947:A:C6	39:a:971:G:N1	2.89	0.41
39:a:966:G:H1'	39:a:2267:A:N7	2.35	0.41
39:a:994:C:P	64:z:50:ARG:HD2	2.61	0.41
39:a:1021:A:C2	39:a:1022:G:O4'	2.73	0.41
39:a:1385:A:C6	39:a:1403:A:C5	3.08	0.41
39:a:1406:U:OP2	39:a:1406:U:H6	2.03	0.41
39:a:1614:A:H3'	39:a:1617:C:H41	1.86	0.41
39:a:1652:A:H2'	39:a:1653:G:C8	2.55	0.41
39:a:1657:U:C2	39:a:1658:C:C5	3.09	0.41
39:a:1754:A:C6	39:a:2717:C:O4'	2.73	0.41
39:a:2006:C:O2	39:a:2006:C:H2'	2.20	0.41
39:a:2026:U:C4	39:a:2027:G:N7	2.89	0.41
39:a:2044:C:C2	39:a:2625:G:N2	2.89	0.41
39:a:2136:G:H2'	39:a:2136:G:N3	2.35	0.41
39:a:2190:G:C2	39:a:2191:A:C4	3.09	0.41
39:a:2266:A:C2	39:a:2272:U:C5	3.07	0.41
39:a:2352:A:H62	39:a:2365:G:N2	2.19	0.41
39:a:2415:G:C2	39:a:2416:C:C6	3.09	0.41
39:a:2715:C:C2'	39:a:2716:C:O5'	2.68	0.41
39:a:2768:U:C2'	39:a:2769:U:O5'	2.68	0.41
39:a:2792:A:N1	39:a:2805:C:C4	2.88	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:b:23:VAL:HA	40:b:38:VAL:HG22	2.03	0.41
44:f:13:ALA:HA	44:f:16:ARG:HG3	2.03	0.41
48:j:123:LYS:HB3	48:j:165:MET:HE1	2.03	0.41
48:j:160:LYS:O	48:j:161:MET:HG3	2.20	0.41
52:n:9:LYS:O	52:n:14:LYS:NZ	2.50	0.41
54:p:74:SER:OG	54:p:138:LYS:HB2	2.20	0.41
57:s:3:THR:HG22	57:s:4:PHE:N	2.36	0.41
63:y:9:GLU:HG3	63:y:55:LEU:HB2	2.03	0.41
63:y:108:ALA:O	63:y:110:ILE:HD12	2.21	0.41
2:1:88:ARG:O	2:1:89:ALA:C	2.63	0.41
5:4:9:ARG:HG3	5:4:40:ILE:C	2.45	0.41
10:A:18:G:C2	10:A:58:A:C5	3.09	0.41
11:AA:960:LEU:HD21	11:AA:1028:LYS:HB3	2.02	0.41
11:AA:985:GLU:CG	11:AA:988:LYS:HE3	2.45	0.41
14:AE:190:LYS:HE3	14:AE:190:LYS:HB2	1.42	0.41
14:AE:616:PRO:HA	14:AE:619:ILE:HG22	2.02	0.41
10:B:9:G:O2'	10:B:10:G:OP1	2.35	0.41
16:D:66:A:O2'	16:D:67:C:H5'	2.21	0.41
16:D:181:A:C2	16:D:195:A:C6	3.08	0.41
16:D:186:C:O4'	17:E:76:LYS:HE3	2.21	0.41
16:D:255:G:C2	16:D:272:C:C2	3.09	0.41
16:D:282:A:N3	16:D:282:A:H2'	2.35	0.41
16:D:307:C:C2	16:D:308:C:C6	3.09	0.41
16:D:322:C:H5''	17:E:18:ARG:HH21	1.85	0.41
16:D:335:C:H2'	16:D:336:A:H8	1.85	0.41
16:D:363:A:H2'	16:D:364:A:C8	2.56	0.41
16:D:413:G:H22	16:D:429:U:P	2.44	0.41
16:D:464:U:O2	16:D:466:A:C8	2.74	0.41
16:D:544:G:H2'	16:D:545:C:C6	2.54	0.41
16:D:656:G:C2	16:D:657:U:C5	3.09	0.41
16:D:861:G:C5	16:D:862:C:C5	3.08	0.41
16:D:910:C:H2'	16:D:911:U:H6	1.85	0.41
16:D:978:A:C2	16:D:1319:A:N3	2.89	0.41
16:D:1080:A:OP2	16:D:1081:A:C8	2.74	0.41
16:D:1082:A:C4	16:D:1083:U:C5	3.09	0.41
16:D:1109:C:C2	16:D:1110:A:C8	3.09	0.41
16:D:1262:C:C4	16:D:1263:C:C4	3.09	0.41
19:G:25:PRO:O	19:G:28:LYS:HG2	2.21	0.41
25:M:40:GLU:O	25:M:43:VAL:HB	2.21	0.41
39:a:1:G:H2'	39:a:2:G:C8	2.55	0.41
39:a:63:A:C2	39:a:64:A:C5	3.08	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:77:G:C6	39:a:110:G:C6	3.09	0.41
39:a:114:U:C2	39:a:115:C:C5	3.09	0.41
39:a:116:C:H1'	39:a:127:A:N3	2.36	0.41
39:a:128:C:O2'	39:a:129:C:H5'	2.21	0.41
39:a:209:C:H2'	39:a:210:C:C6	2.56	0.41
39:a:360:U:H2'	39:a:361:G:N9	2.35	0.41
39:a:513:A:N1	39:a:514:A:C6	2.89	0.41
39:a:579:G:C4	39:a:1262:A:C6	3.09	0.41
39:a:608:A:H2'	39:a:609:A:H8	1.86	0.41
39:a:630:G:N2	39:a:633:A:OP2	2.49	0.41
39:a:776:G:N3	39:a:793:A:C6	2.89	0.41
39:a:858:G:C4	39:a:2268:A:C2	3.09	0.41
39:a:876:C:H2'	39:a:877:A:O5'	2.21	0.41
39:a:904:G:N1	39:a:905:A:C5	2.89	0.41
39:a:963:U:H2'	39:a:964:C:C6	2.56	0.41
39:a:1047:G:N2	39:a:1110:G:C4	2.89	0.41
39:a:1084:A:N7	39:a:1085:A:C6	2.89	0.41
39:a:1087:G:C6	39:a:1089:A:C2	3.08	0.41
39:a:1183:U:H2'	39:a:1184:U:C6	2.56	0.41
39:a:1212:G:C2	39:a:1236:G:C4	3.08	0.41
39:a:1220:G:O6	39:a:1230:A:N6	2.54	0.41
39:a:1227:G:C6	39:a:1228:G:C5	3.08	0.41
39:a:1277:G:HO2'	61:w:24:MET:HE1	1.83	0.41
39:a:1323:C:O2'	39:a:1324:G:H5'	2.20	0.41
39:a:1386:C:H1'	39:a:1470:A:H1'	2.03	0.41
39:a:1637:A:H2'	39:a:1638:C:C6	2.56	0.41
39:a:1682:G:C5	39:a:1757:A:C4	3.09	0.41
39:a:1838:C:N4	39:a:1899:A:O4'	2.53	0.41
39:a:2046:G:C4	39:a:2623:G:C2	3.09	0.41
39:a:2094:A:C6	39:a:2196:C:N3	2.89	0.41
39:a:2255:G:C5	39:a:2256:G:C8	3.08	0.41
39:a:2526:G:H2'	39:a:2527:C:C6	2.56	0.41
39:a:2714:G:C5	39:a:2715:C:C5	3.09	0.41
39:a:2808:G:H22	39:a:2890:G:H3'	1.85	0.41
39:a:2895:G:H2'	39:a:2896:C:C6	2.56	0.41
41:c:15:GLY:O	41:c:26:LYS:HA	2.21	0.41
41:c:23:ASN:O	41:c:24:ALA:C	2.64	0.41
41:c:38:PHE:HD2	41:c:49:LEU:HD13	1.84	0.41
42:d:82:U:N3	42:d:83:G:N7	2.69	0.41
44:f:44:ILE:HG23	44:f:45:ARG:N	2.35	0.41
45:g:5:ILE:HG13	45:g:6:HIS:CD2	2.56	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:g:13:THR:HA	45:g:23:LYS:HA	2.03	0.41
46:h:130:LEU:HD23	46:h:130:LEU:N	2.36	0.41
48:j:175:LEU:HD13	48:j:175:LEU:HA	1.96	0.41
49:k:32:GLU:CD	49:k:33:LYS:N	2.78	0.41
50:l:98:LYS:HB3	50:l:102:ARG:NH1	2.36	0.41
52:n:10:ASP:CG	52:n:11:GLU:HG2	2.45	0.41
52:n:14:LYS:HD3	52:n:14:LYS:H	1.86	0.41
57:s:17:VAL:C	57:s:18:VAL:HG13	2.46	0.41
57:s:93:ILE:HG23	57:s:97:PRO:HB3	2.02	0.41
58:t:20:MET:O	58:t:41:ILE:HB	2.20	0.41
58:t:104:THR:OG1	58:t:105:ARG:N	2.54	0.41
59:u:79:LEU:N	59:u:113:ALA:O	2.53	0.41
59:u:96:LYS:HD2	59:u:103:ILE:HA	2.02	0.41
61:w:24:MET:HE2	61:w:24:MET:HB2	1.84	0.41
61:w:99:LYS:HA	61:w:111:ALA:CB	2.51	0.41
62:x:25:ARG:NE	62:x:27:VAL:CG2	2.84	0.41
63:y:64:ILE:HA	63:y:69:GLY:HA2	2.03	0.41
1:0:36:ALA:O	1:0:38:VAL:HG22	2.21	0.41
1:0:79:ARG:O	1:0:80:ARG:HB2	2.20	0.41
1:0:83:TYR:CE1	39:a:1187:G:H5''	2.55	0.41
1:0:84:ARG:NH1	1:0:86:GLN:CD	2.79	0.41
2:1:36:LEU:HD22	2:1:47:VAL:HG23	2.03	0.41
3:2:2:ILE:HG22	3:2:3:ARG:N	2.36	0.41
7:6:21:DA:H5''	11:AA:141:THR:HG21	2.03	0.41
8:7:-1:U:OP2	8:7:-1:U:H4'	2.21	0.41
8:7:4:U:H1'	23:K:56:VAL:CG1	2.49	0.41
8:7:13:G:H8	8:7:13:G:C5'	2.33	0.41
10:A:31:G:H2'	10:A:32:C:C6	2.56	0.41
10:A:35:A:H2'	10:A:36:U:C6	2.56	0.41
11:AA:69:GLN:HE21	11:AA:101:ARG:HD2	1.85	0.41
11:AA:133:ASN:O	11:AA:527:LYS:NZ	2.45	0.41
11:AA:678:ARG:HA	11:AA:678:ARG:HD3	1.87	0.41
11:AA:884:VAL:CG1	11:AA:1050:VAL:HG11	2.51	0.41
11:AA:978:VAL:HG11	11:AA:1010:GLN:CG	2.51	0.41
11:AA:1029:LEU:HD21	11:AA:1033:ARG:CZ	2.50	0.41
11:AA:1286:THR:O	11:AA:1290:MET:HB2	2.21	0.41
13:AC:158:ARG:HH12	13:AC:172:LEU:HD23	1.86	0.41
14:AE:87:LYS:HA	14:AE:87:LYS:HE3	2.01	0.41
14:AE:245:LEU:CG	14:AE:246:PRO:HD2	2.47	0.41
14:AE:394:ILE:O	14:AE:394:ILE:HG13	2.18	0.41
14:AE:1223:LEU:HD23	14:AE:1223:LEU:HA	1.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:8:U:H3	10:B:14:A:H62	1.69	0.41
16:D:39:G:C6	16:D:404:G:N1	2.89	0.41
16:D:98:A:C6	16:D:99:C:C4	3.09	0.41
16:D:99:C:O2'	16:D:100:G:H8	2.04	0.41
16:D:104:G:C2	16:D:105:G:N7	2.89	0.41
16:D:142:G:C2	16:D:222:C:N3	2.89	0.41
16:D:160:A:H2'	16:D:161:A:C8	2.56	0.41
16:D:202:G:O2'	16:D:468:A:H8	2.04	0.41
16:D:223:A:H2'	16:D:224:U:C6	2.56	0.41
16:D:247:G:OP1	16:D:247:G:H4'	2.21	0.41
16:D:247:G:C6	16:D:248:C:C4	3.09	0.41
16:D:293:G:C2	16:D:294:U:C6	3.09	0.41
16:D:296:U:H2'	16:D:297:G:O4'	2.20	0.41
16:D:419:C:O2'	16:D:420:U:H5'	2.21	0.41
16:D:423:G:N2	16:D:424:G:C8	2.89	0.41
16:D:472:U:O2'	16:D:473:U:H5'	2.21	0.41
16:D:622:A:C8	16:D:623:C:C5	3.09	0.41
16:D:726:C:C2	16:D:727:G:C8	3.08	0.41
16:D:739:C:C4	16:D:740:U:C5	3.08	0.41
16:D:794:A:C6	16:D:795:C:C4	3.09	0.41
16:D:948:C:P	36:X:105:ASN:HB3	2.61	0.41
16:D:955:U:H2'	16:D:956:U:H6	1.86	0.41
16:D:979:C:OP2	16:D:980:C:H5	2.04	0.41
16:D:997:U:H2'	16:D:998:C:C6	2.56	0.41
16:D:1022:A:C2'	16:D:1023:U:O5'	2.69	0.41
16:D:1086:U:H3	16:D:1099:G:H22	1.68	0.41
16:D:1317:C:H2'	16:D:1318:A:O4'	2.21	0.41
16:D:1318:A:H5''	35:W:3:ARG:NH2	2.35	0.41
16:D:1413:A:H2'	16:D:1414:U:H6	1.86	0.41
18:F:2:PRO:HB3	18:F:22:SER:OG	2.21	0.41
18:F:31:GLU:OE2	18:F:35:ARG:HG3	2.21	0.41
20:H:292:CYS:SG	20:H:304:VAL:HB	2.60	0.41
22:J:88:GLU:OE1	22:J:188:ARG:CB	2.63	0.41
23:K:97:GLN:O	23:K:97:GLN:OE1	2.38	0.41
23:K:111:MET:SD	23:K:127:ALA:HB2	2.61	0.41
23:K:132:ASN:O	23:K:133:PRO:C	2.62	0.41
24:L:36:ILE:HG23	24:L:62:MET:SD	2.61	0.41
24:L:100:SER:O	24:L:104:LYS:HE3	2.21	0.41
27:O:118:LEU:HD12	27:O:118:LEU:N	2.35	0.41
28:P:65:TYR:HA	31:S:99:ALA:H	1.86	0.41
31:S:2:ALA:HB3	31:S:7:LYS:HZ2	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:T:76:ALA:HB1	32:T:80:GLN:HE22	1.85	0.41
33:U:12:LYS:C	33:U:14:ARG:H	2.28	0.41
34:V:12:VAL:HB	34:V:57:ASP:H	1.86	0.41
35:W:49:ILE:O	35:W:49:ILE:HG23	2.21	0.41
35:W:55:ARG:NH2	35:W:79:THR:HG21	2.36	0.41
36:X:66:GLU:CD	36:X:66:GLU:H	2.28	0.41
36:X:72:GLU:O	36:X:73:ILE:C	2.63	0.41
37:Y:14:ALA:HB3	37:Y:50:LYS:HA	2.01	0.41
37:Y:15:GLY:HA2	37:Y:50:LYS:CD	2.46	0.41
37:Y:21:PRO:CB	37:Y:22:PRO:HD3	2.50	0.41
37:Y:37:PHE:CZ	37:Y:56:VAL:HG11	2.55	0.41
39:a:24:G:C4	39:a:25:U:C5	3.09	0.41
39:a:37:C:O2'	39:a:38:A:H5'	2.20	0.41
39:a:192:C:C6	39:a:193:U:C6	3.09	0.41
39:a:216:A:C8	39:a:432:A:N6	2.89	0.41
39:a:242:G:P	53:o:3:LYS:NZ	2.94	0.41
39:a:266:G:C6	39:a:267:C:C5	3.09	0.41
39:a:271:G:C2	39:a:272:A:C4	3.09	0.41
39:a:272:A:C2	39:a:273:G:C5	3.08	0.41
39:a:362:A:C6	39:a:363:G:C5	3.09	0.41
39:a:379:G:N2	39:a:396:G:C5	2.89	0.41
39:a:478:A:N6	39:a:480:A:N1	2.68	0.41
39:a:533:G:C2	39:a:534:U:C2	3.08	0.41
39:a:564:C:C2	39:a:565:C:C6	3.09	0.41
39:a:569:U:O2'	39:a:570:G:H5'	2.21	0.41
39:a:580:U:C2	39:a:581:C:C5	3.09	0.41
39:a:591:U:C2'	39:a:592:A:O5'	2.69	0.41
39:a:657:U:O2'	39:a:658:U:H5'	2.20	0.41
39:a:700:G:O2'	39:a:701:G:H5'	2.21	0.41
39:a:704:G:N3	39:a:726:G:C2	2.89	0.41
39:a:737:C:N3	39:a:760:G:N1	2.69	0.41
39:a:781:A:H2	39:a:1776:G:N3	2.19	0.41
39:a:799:G:C2'	39:a:800:A:OP1	2.69	0.41
39:a:836:G:C5	39:a:837:C:C5	3.08	0.41
39:a:877:A:H5'	39:a:878:A:OP1	2.21	0.41
39:a:897:C:H2'	39:a:898:C:C6	2.56	0.41
39:a:941:A:H2'	39:a:942:G:O4'	2.21	0.41
39:a:997:G:O2'	39:a:998:C:H5'	2.20	0.41
39:a:1030:C:N4	39:a:1125:G:N2	2.69	0.41
39:a:1069:A:HO2'	39:a:1073:A:H62	1.64	0.41
39:a:1209:U:H2'	39:a:1210:G:N2	2.36	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1233:C:C2	39:a:1234:U:C6	3.09	0.41
39:a:1234:U:C4	39:a:1235:G:C5	3.09	0.41
39:a:1286:A:H1'	39:a:1288:G:OP2	2.21	0.41
39:a:1347:A:C5	39:a:1348:C:C6	3.09	0.41
39:a:1358:G:N2	39:a:1372:U:C5	2.89	0.41
39:a:1544:A:H2'	39:a:1545:A:O4'	2.21	0.41
39:a:1560:G:C6	39:a:1561:C:C4	3.09	0.41
39:a:1561:C:C2	39:a:1562:U:C5	3.09	0.41
39:a:1620:G:H2'	39:a:1621:U:H6	1.86	0.41
39:a:1630:A:C6	39:a:1637:A:N6	2.89	0.41
39:a:1736:U:H2'	39:a:1737:G:O4'	2.21	0.41
39:a:1849:G:N1	39:a:1850:G:C5	2.89	0.41
39:a:1850:G:H2'	39:a:1851:U:O4'	2.21	0.41
39:a:1862:G:C6	39:a:1881:C:C4	3.09	0.41
39:a:1868:C:H2'	39:a:1869:G:C8	2.56	0.41
39:a:1879:C:O2'	39:a:1880:U:H5'	2.21	0.41
39:a:1881:C:H2'	39:a:1882:U:O4'	2.21	0.41
39:a:1925:C:O2'	39:a:1926:U:O4'	2.36	0.41
39:a:1990:C:H2'	39:a:1991:U:C6	2.56	0.41
39:a:2100:G:O6	39:a:2189:U:C4	2.74	0.41
39:a:2160:C:H2'	39:a:2161:C:C6	2.55	0.41
39:a:2370:G:C5	39:a:2371:G:C5	3.09	0.41
39:a:2393:U:O2	39:a:2393:U:H2'	2.20	0.41
39:a:2461:A:H1'	39:a:2492:U:C4	2.55	0.41
39:a:2572:A:OP1	48:j:149:ASN:HB3	2.21	0.41
39:a:2634:A:C6	39:a:2635:A:C5	3.08	0.41
39:a:2666:C:C5	39:a:2667:C:C5	3.09	0.41
39:a:2679:A:O2'	39:a:2680:U:H5'	2.21	0.41
39:a:2694:G:H2'	39:a:2695:U:C6	2.56	0.41
39:a:2757:A:C6	39:a:2758:A:N7	2.89	0.41
39:a:2783:U:C2	39:a:2784:U:C5	3.08	0.41
39:a:2814:A:C6	39:a:2815:C:C5	3.08	0.41
39:a:2820:A:C2'	39:a:2821:A:OP1	2.69	0.41
39:a:2873:A:C2	61:w:5:LYS:HD2	2.56	0.41
41:c:41:GLU:O	41:c:44:LYS:CE	2.68	0.41
43:e:41:HIS:O	43:e:42:LEU:C	2.63	0.41
46:h:77:VAL:CG2	46:h:115:GLN:OE1	2.68	0.41
46:h:209:GLY:O	46:h:212:ARG:HB2	2.21	0.41
48:j:73:VAL:HG22	48:j:74:GLU:H	1.86	0.41
50:l:137:LYS:O	50:l:140:ASP:HB2	2.21	0.41
50:l:187:VAL:HG12	50:l:188:MET:N	2.36	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:m:12:ARG:CG	51:m:44:VAL:HG11	2.50	0.41
54:p:30:ASN:HB2	54:p:79:VAL:HA	2.03	0.41
54:p:34:THR:CG2	54:p:35:ARG:N	2.84	0.41
54:p:170:ARG:CZ	54:p:170:ARG:HA	2.51	0.41
56:r:9:VAL:CG1	56:r:12:LEU:CD2	2.99	0.41
57:s:31:GLU:O	57:s:34:ARG:HB3	2.21	0.41
57:s:35:ARG:HA	57:s:40:HIS:ND1	2.35	0.41
57:s:77:HIS:HA	57:s:83:GLY:O	2.20	0.41
57:s:98:GLU:HB3	57:s:102:GLU:OE1	2.21	0.41
58:t:76:VAL:O	58:t:77:ILE:HD13	2.20	0.41
59:u:70:LYS:O	59:u:73:ILE:HG12	2.21	0.41
61:w:27:SER:O	61:w:28:LEU:C	2.63	0.41
61:w:38:LEU:N	61:w:39:PRO:CD	2.83	0.41
62:x:88:LYS:O	62:x:115:LEU:HD12	2.21	0.41
63:y:26:VAL:HG11	63:y:84:ILE:CG2	2.50	0.41
63:y:57:SER:O	63:y:76:THR:OG1	2.39	0.41
64:z:79:PHE:CE1	64:z:83:LEU:HD21	2.56	0.41
1:0:61:ALA:HB2	1:0:98:ILE:HD13	2.03	0.41
6:5:114:DC:H5''	14:AE:1148:ARG:CZ	2.46	0.41
9:9:11:ILE:HA	9:9:14:GLU:HG2	2.03	0.41
10:A:38:A:C5	10:A:39:C:C5	3.09	0.41
11:AA:976:ARG:HA	11:AA:979:LEU:HB2	2.02	0.41
13:AD:86:LYS:HZ1	14:AE:528:THR:N	2.19	0.41
14:AE:102:MET:HG2	14:AE:246:PRO:CG	2.49	0.41
14:AE:120:LEU:HA	14:AE:121:PRO:HA	1.84	0.41
14:AE:144:TYR:N	14:AE:144:TYR:CD1	2.88	0.41
14:AE:559:ALA:HB3	14:AE:562:GLU:HB3	2.01	0.41
10:B:7:G:H4'	10:B:8:U:OP2	2.20	0.41
10:B:70:G:C6	10:B:71:C:C5	3.08	0.41
16:D:49:U:H5	16:D:365:U:O4	2.04	0.41
16:D:57:G:C5	16:D:58:C:C5	3.09	0.41
16:D:176:C:H2'	16:D:177:G:N3	2.35	0.41
16:D:400:C:O2'	16:D:401:C:H5'	2.21	0.41
16:D:465:A:H2'	16:D:466:A:C8	2.55	0.41
16:D:502:A:C5	16:D:503:C:C5	3.09	0.41
16:D:568:G:C2	16:D:569:C:C4	3.09	0.41
16:D:676:A:H2'	16:D:677:U:H6	1.86	0.41
16:D:687:A:C2	16:D:704:A:C6	3.09	0.41
16:D:704:A:C6	16:D:705:G:C5	3.08	0.41
16:D:1056:U:O5'	21:I:163:ALA:HB2	2.21	0.41
16:D:1098:C:C4	16:D:1099:G:N7	2.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1270:G:C2	16:D:1271:A:C5	3.09	0.41
16:D:1365:G:C4	16:D:1366:C:C5	3.09	0.41
23:K:20:ARG:HG3	23:K:33:PHE:CZ	2.56	0.41
23:K:112:ARG:O	23:K:116:GLU:HG2	2.20	0.41
25:M:118:LEU:O	25:M:122:ASN:CG	2.64	0.41
26:N:78:VAL:O	26:N:85:ILE:HG13	2.21	0.41
27:O:49:ARG:HH11	27:O:49:ARG:HG2	1.86	0.41
31:S:74:LEU:HD21	31:S:76:LYS:CG	2.51	0.41
32:T:72:ARG:HG3	32:T:73:LYS:N	2.36	0.41
34:V:19:LYS:HE3	34:V:49:GLU:OE1	2.21	0.41
35:W:5:LEU:HD23	35:W:6:LYS:H	1.86	0.41
36:X:19:LEU:O	36:X:22:ILE:HD12	2.21	0.41
37:Y:105:LEU:N	37:Y:108:ILE:HG12	2.31	0.41
39:a:66:C:C2	39:a:89:A:C2	3.09	0.41
39:a:481:G:O2'	39:a:482:A:P	2.79	0.41
39:a:502:A:C2	39:a:505:A:C4	3.09	0.41
39:a:516:C:C2	39:a:517:C:C5	3.09	0.41
39:a:519:U:H2'	39:a:520:G:H8	1.86	0.41
39:a:532:A:H4'	39:a:533:G:C8	2.56	0.41
39:a:597:G:H2'	39:a:598:U:H6	1.86	0.41
39:a:604:G:H2'	39:a:605:G:C8	2.56	0.41
39:a:729:G:N2	39:a:1775:U:O4'	2.54	0.41
39:a:748:G:C2'	39:a:750:A:N7	2.84	0.41
39:a:845:A:C2	39:a:847:U:C5	3.09	0.41
39:a:910:A:N7	60:v:13:HIS:CD2	2.89	0.41
39:a:934:U:H2'	39:a:935:C:H6	1.85	0.41
39:a:937:C:C2	39:a:938:G:C8	3.09	0.41
39:a:1045:C:C5	39:a:1111:A:N7	2.89	0.41
39:a:1056:G:N1	39:a:1102:C:OP2	2.45	0.41
39:a:1079:C:H2'	39:a:1080:A:O4'	2.21	0.41
39:a:1152:C:N3	39:a:1153:C:C5	2.89	0.41
39:a:1197:G:C2	39:a:1198:U:C5	3.09	0.41
39:a:1197:G:C4	39:a:1198:U:C5	3.09	0.41
39:a:1249:U:O4'	64:z:4:VAL:CG2	2.69	0.41
39:a:1349:C:O2	39:a:1350:C:C6	2.74	0.41
39:a:1423:G:C2	39:a:1576:U:O2	2.74	0.41
39:a:1471:G:C4	39:a:1472:C:C5	3.09	0.41
39:a:1498:C:N3	39:a:1499:C:C5	2.88	0.41
39:a:1620:G:C4	39:a:1621:U:C5	3.09	0.41
39:a:1684:G:C6	39:a:1705:A:C6	3.09	0.41
39:a:1692:U:N3	39:a:1694:C:N3	2.69	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:1707:G:N3	39:a:1707:G:H2'	2.35	0.41
39:a:1842:G:H2'	39:a:1843:C:C6	2.56	0.41
39:a:1945:G:N3	39:a:1946:U:C6	2.89	0.41
39:a:1994:C:O2'	39:a:1995:U:H5'	2.21	0.41
39:a:2078:C:C2	39:a:2079:U:C6	3.09	0.41
39:a:2086:U:C4	39:a:2234:G:O6	2.74	0.41
39:a:2149:U:O2'	39:a:2150:C:C5'	2.69	0.41
39:a:2193:G:H2'	39:a:2194:U:C6	2.56	0.41
39:a:2316:G:C2	39:a:2317:A:C8	3.09	0.41
39:a:2340:A:C2	39:a:2341:G:C5	3.09	0.41
39:a:2413:G:C6	39:a:2414:G:N7	2.89	0.41
39:a:2718:G:H4'	63:y:96:LYS:HD3	2.02	0.41
39:a:2733:A:C2	39:a:2734:A:N9	2.89	0.41
39:a:2734:A:C6	39:a:2735:G:C4	3.09	0.41
39:a:2812:G:H2'	39:a:2813:A:C8	2.55	0.41
39:a:2813:A:N3	39:a:2814:A:C8	2.89	0.41
39:a:2818:U:O2'	39:a:2837:A:H5'	2.21	0.41
39:a:2826:A:C4	39:a:2827:C:C5	3.09	0.41
42:d:2:G:C6	42:d:3:C:C4	3.09	0.41
42:d:109:A:C5	42:d:110:C:C4	3.09	0.41
50:l:98:LYS:O	50:l:102:ARG:HG3	2.21	0.41
50:l:196:VAL:O	50:l:199:MET:N	2.54	0.41
54:p:35:ARG:CB	54:p:75:MET:HE1	2.51	0.41
58:t:118:LEU:O	58:t:118:LEU:HD23	2.21	0.41
64:z:16:LYS:HA	64:z:19:LYS:NZ	2.35	0.41
64:z:38:ALA:O	64:z:42:ALA:N	2.40	0.41
2:1:13:SER:O	2:1:14:ALA:C	2.65	0.40
2:1:74:ILE:CD1	2:1:105:VAL:HA	2.50	0.40
8:7:-8:A:C6	8:7:-7:U:C4	3.09	0.40
8:7:20:G:H21	14:AE:427:PRO:HD3	1.86	0.40
11:AA:26:TYR:HE2	11:AA:32:LEU:HD12	1.86	0.40
13:AC:49:SER:OG	13:AC:50:SER:OG	2.26	0.40
14:AE:324:LEU:H	14:AE:324:LEU:HG	1.78	0.40
14:AE:805:GLN:HG3	14:AE:1348:LYS:HD3	2.03	0.40
10:B:18:G:C2	10:B:58:A:C5	3.09	0.40
16:D:5:U:O2	16:D:5:U:O4'	2.39	0.40
16:D:132:C:H5'	16:D:262:A:O2'	2.21	0.40
16:D:456:A:C4	16:D:457:G:C8	3.09	0.40
16:D:501:C:H2'	16:D:502:A:H8	1.86	0.40
16:D:533:A:O2'	16:D:534:U:H5''	2.21	0.40
16:D:585:G:C6	16:D:586:C:C4	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:605:U:C2	16:D:606:G:C8	3.09	0.40
16:D:769:G:C2	16:D:770:C:C5	3.09	0.40
16:D:1152:A:H2'	16:D:1153:G:H8	1.86	0.40
16:D:1229:A:H2'	16:D:1230:C:H6	1.85	0.40
16:D:1269:A:H1'	16:D:1326:U:C1'	2.50	0.40
16:D:1300:G:H1'	16:D:1303:C:N4	2.36	0.40
16:D:1338:G:C6	16:D:1339:A:N1	2.89	0.40
16:D:1355:G:C2	16:D:1368:A:C4	3.08	0.40
16:D:1385:G:C2	16:D:1386:G:C4	3.09	0.40
19:G:4:VAL:HG12	19:G:5:SER:N	2.36	0.40
21:I:30:ALA:CA	31:S:77:PHE:O	2.68	0.40
24:L:10:VAL:O	24:L:57:ALA:HB1	2.21	0.40
24:L:46:GLN:OE1	24:L:55:HIS:O	2.39	0.40
28:P:87:LEU:HD23	28:P:100:ILE:CD1	2.47	0.40
29:Q:24:HIS:ND1	29:Q:87:LYS:HE2	2.36	0.40
30:R:82:ILE:HD13	30:R:97:THR:HA	2.03	0.40
37:Y:7:TYR:HB2	37:Y:57:VAL:HG12	2.02	0.40
39:a:26:G:C2'	39:a:27:G:O4'	2.66	0.40
39:a:135:U:C2	39:a:136:G:C8	3.08	0.40
39:a:256:A:C2	39:a:257:C:C6	3.09	0.40
39:a:295:G:C6	39:a:344:A:C6	3.10	0.40
39:a:479:A:N3	39:a:481:G:H5''	2.36	0.40
39:a:599:A:C6	39:a:659:G:O6	2.74	0.40
39:a:659:G:C4	39:a:660:C:C5	3.10	0.40
39:a:729:G:C2	39:a:1775:U:C1'	3.04	0.40
39:a:778:G:C2	39:a:787:C:C2	3.09	0.40
39:a:801:G:H3'	39:a:802:A:C5'	2.51	0.40
39:a:811:U:C2	39:a:1251:C:C5	3.09	0.40
39:a:843:G:H2'	39:a:844:A:C8	2.56	0.40
39:a:968:C:C4	39:a:969:G:N7	2.90	0.40
39:a:988:A:OP1	44:f:12:SER:HB3	2.21	0.40
39:a:1011:G:C6	39:a:1151:A:C6	3.09	0.40
39:a:1083:U:O2	39:a:1085:A:OP2	2.40	0.40
39:a:1234:U:H2'	39:a:1235:G:C8	2.56	0.40
39:a:1669:A:OP2	39:a:1670:C:OP2	2.39	0.40
39:a:1744:A:C4	39:a:1745:A:C8	3.09	0.40
39:a:1821:A:H2'	39:a:1822:C:H6	1.85	0.40
39:a:1829:A:C4	39:a:1830:C:C6	3.10	0.40
39:a:1838:C:N4	39:a:1899:A:C8	2.90	0.40
39:a:1910:G:C2	39:a:1921:G:C6	3.09	0.40
39:a:2077:A:C4	39:a:2435:A:C8	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2149:U:C2'	39:a:2150:C:O5'	2.69	0.40
39:a:2260:C:C2	39:a:2261:C:C5	3.09	0.40
39:a:2266:A:N3	39:a:2272:U:C4	2.89	0.40
39:a:2307:G:N2	39:a:2311:A:H2'	2.36	0.40
39:a:2508:G:C2	39:a:2509:G:N9	2.89	0.40
39:a:2589:A:H2'	39:a:2590:A:H8	1.87	0.40
39:a:2734:A:C4	39:a:2735:G:C8	3.09	0.40
41:c:16:ASN:OD1	41:c:26:LYS:HA	2.21	0.40
42:d:99:A:N3	42:d:99:A:H2'	2.36	0.40
44:f:20:HIS:O	44:f:24:LEU:HG	2.22	0.40
46:h:31:ALA:O	46:h:32:PRO:C	2.64	0.40
46:h:180:GLU:OE2	46:h:267:ILE:HD12	2.20	0.40
46:h:271:ARG:O	46:h:272:SER:OG	2.34	0.40
48:j:152:PRO:HG3	48:j:156:PHE:CZ	2.56	0.40
50:l:18:THR:HB	50:l:19:PHE:CE2	2.56	0.40
52:n:93:GLY:O	52:n:94:GLU:C	2.64	0.40
52:n:97:TRP:CD1	52:n:97:TRP:H	2.40	0.40
54:p:25:THR:HG22	54:p:34:THR:HG23	2.03	0.40
54:p:39:ASP:O	54:p:40:ALA:C	2.63	0.40
57:s:135:GLN:HA	57:s:135:GLN:OE1	2.21	0.40
61:w:43:GLU:O	61:w:46:ARG:HG2	2.21	0.40
63:y:31:TRP:NE1	63:y:82:ASP:HB2	2.36	0.40
2:1:42:LYS:HE3	39:a:2010:G:H5''	2.03	0.40
5:4:89:ILE:CG2	5:4:90:ASP:N	2.84	0.40
9:9:93:ALA:O	9:9:94:ARG:HG3	2.21	0.40
10:A:51:C:N4	10:A:52:G:O6	2.54	0.40
11:AA:6:THR:HA	11:AA:9:LYS:HG3	2.03	0.40
11:AA:855:PRO:O	11:AA:857:VAL:N	2.54	0.40
14:AE:109:SER:CB	14:AE:296:LYS:HG2	2.51	0.40
14:AE:1002:VAL:N	14:AE:1019:ASN:O	2.46	0.40
10:B:29:G:C6	10:B:42:G:C6	3.09	0.40
16:D:48:C:H4'	16:D:49:U:OP2	2.21	0.40
16:D:217:C:H2'	16:D:218:U:H6	1.87	0.40
16:D:335:C:H2'	16:D:336:A:C8	2.56	0.40
16:D:697:U:C5	16:D:698:G:C8	3.09	0.40
16:D:867:G:C4	16:D:868:C:C5	3.09	0.40
16:D:930:C:H2'	16:D:931:C:O4'	2.22	0.40
16:D:962:C:H2'	16:D:963:G:H8	1.86	0.40
16:D:1016:A:OP2	16:D:1017:U:C4	2.74	0.40
16:D:1078:U:H4'	23:K:138:ARG:NH1	2.36	0.40
16:D:1130:A:H2'	16:D:1131:G:C8	2.56	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:D:1430:A:C4	16:D:1431:A:C8	3.09	0.40
16:D:1437:A:N3	16:D:1438:G:C8	2.89	0.40
18:F:40:LYS:O	18:F:44:GLU:HG3	2.22	0.40
20:H:123:GLU:CA	20:H:128:ARG:HA	2.43	0.40
23:K:33:PHE:CD1	23:K:56:VAL:HG22	2.57	0.40
25:M:46:ALA:CB	25:M:120:LEU:HD23	2.51	0.40
26:N:5:ASP:OD2	26:N:77:ARG:CZ	2.69	0.40
27:O:30:ILE:HG12	27:O:65:ILE:HD12	2.03	0.40
27:O:114:LYS:CG	27:O:120:LYS:HA	2.52	0.40
29:Q:42:LEU:HD22	29:Q:77:TYR:CE1	2.56	0.40
30:R:4:VAL:CG1	30:R:5:ASN:N	2.83	0.40
30:R:91:PRO:O	30:R:93:VAL:HG13	2.22	0.40
30:R:99:ARG:HG3	30:R:117:TYR:CD2	2.57	0.40
32:T:71:LYS:CG	32:T:78:TYR:CE2	3.05	0.40
36:X:20:THR:O	36:X:20:THR:HG22	2.21	0.40
39:a:67:U:N3	39:a:74:A:C6	2.89	0.40
39:a:104:A:C4	39:a:105:C:C6	3.09	0.40
39:a:184:C:O2'	39:a:185:G:H5'	2.20	0.40
39:a:470:A:C2	39:a:471:A:C4	3.10	0.40
39:a:479:A:N3	39:a:481:G:O4'	2.54	0.40
39:a:648:G:C2	39:a:649:G:N7	2.90	0.40
39:a:662:G:C2	39:a:663:G:N7	2.89	0.40
39:a:678:C:C2	39:a:679:C:C5	3.10	0.40
39:a:725:G:C2'	39:a:726:G:O4'	2.70	0.40
39:a:738:G:C6	39:a:739:A:N1	2.89	0.40
39:a:740:C:OP1	39:a:1784:A:O2'	2.24	0.40
39:a:840:C:H2'	39:a:841:G:O4'	2.20	0.40
39:a:860:U:O2	39:a:860:U:H2'	2.20	0.40
39:a:1159:U:C2	39:a:1160:G:C8	3.09	0.40
39:a:1433:A:H2'	39:a:1434:A:H8	1.87	0.40
39:a:1444:G:C4	39:a:1548:A:C2	3.09	0.40
39:a:1589:U:HO2'	39:a:1590:A:C5'	2.34	0.40
39:a:1619:G:N3	39:a:1620:G:C8	2.89	0.40
39:a:1623:G:C2	39:a:1624:U:C6	3.09	0.40
39:a:1633:G:C5	39:a:1635:A:C5	3.08	0.40
39:a:1942:C:OP2	39:a:1943:U:C2'	2.69	0.40
39:a:2313:C:H5''	52:n:68:THR:HG21	2.04	0.40
39:a:2333:A:C8	39:a:2335:A:C4	3.09	0.40
39:a:2347:C:H2'	39:a:2348:U:C6	2.56	0.40
39:a:2464:G:C6	39:a:2465:C:C4	3.09	0.40
39:a:2525:G:N1	39:a:2539:C:C4	2.90	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2537:U:H2'	39:a:2538:C:H6	1.87	0.40
39:a:2619:C:C2	39:a:2620:C:C5	3.09	0.40
39:a:2825:G:N3	39:a:2825:G:O4'	2.54	0.40
40:b:43:THR:O	40:b:43:THR:HG23	2.21	0.40
42:d:17:C:C2	42:d:18:G:C8	3.08	0.40
42:d:59:A:C6	42:d:60:C:C4	3.10	0.40
42:d:90:C:H5'	60:v:18:ARG:CB	2.48	0.40
42:d:94:A:C2	42:d:95:U:C2	3.09	0.40
44:f:29:LEU:CD2	44:f:34:HIS:O	2.69	0.40
46:h:20:VAL:O	46:h:20:VAL:HG23	2.20	0.40
48:j:192:ALA:C	48:j:193:VAL:HG13	2.46	0.40
52:n:26:MET:HE2	52:n:26:MET:HB3	2.00	0.40
53:o:31:HIS:O	53:o:33:LEU:CD2	2.70	0.40
58:t:114:LYS:HD2	58:t:114:LYS:HA	1.95	0.40
61:w:69:ARG:NE	61:w:69:ARG:CA	2.84	0.40
61:w:96:ARG:O	61:w:113:ILE:HD12	2.21	0.40
2:1:109:ASP:OD2	2:1:109:ASP:C	2.64	0.40
3:2:3:ARG:HH22	39:a:144:A:H4'	1.85	0.40
8:7:6:U:C3'	8:7:6:U:C6	3.04	0.40
9:9:6:GLN:H	9:9:6:GLN:CD	2.28	0.40
10:A:7:G:H4'	10:A:8:U:OP2	2.20	0.40
11:AA:972:PHE:CA	11:AA:975:ILE:HD12	2.48	0.40
11:AA:1120:ALA:HB1	11:AA:1198:LEU:HG	2.04	0.40
14:AE:239:LEU:HD23	14:AE:239:LEU:N	2.36	0.40
10:B:52:G:C2	10:B:63:G:C6	3.10	0.40
10:B:53:G:H2'	10:B:53:G:N3	2.36	0.40
16:D:94:G:H4'	16:D:95:C:OP1	2.22	0.40
16:D:275:G:N3	16:D:276:G:C8	2.90	0.40
16:D:309:A:N3	16:D:310:G:C8	2.89	0.40
16:D:324:G:C2	16:D:326:G:H3'	2.56	0.40
16:D:380:G:C4	16:D:382:A:OP2	2.74	0.40
16:D:734:G:C4	16:D:735:C:C5	3.09	0.40
16:D:938:A:N6	16:D:939:G:C6	2.89	0.40
16:D:992:U:H4'	16:D:993:G:H5''	2.04	0.40
16:D:1079:G:H2'	16:D:1080:A:C8	2.57	0.40
16:D:1108:G:H2'	16:D:1108:G:N3	2.36	0.40
16:D:1119:C:OP1	27:O:11:ARG:NH2	2.55	0.40
16:D:1439:G:H2'	16:D:1440:U:C6	2.56	0.40
24:L:43:GLY:C	24:L:58:HIS:HD2	2.29	0.40
25:M:55:GLY:O	25:M:56:LYS:C	2.64	0.40
26:N:64:LYS:CD	26:N:71:VAL:HG21	2.51	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:V:10:GLY:HA3	34:V:23:VAL:HG22	2.03	0.40
36:X:25:VAL:HG23	36:X:25:VAL:O	2.21	0.40
39:a:39:G:N3	39:a:40:U:C6	2.90	0.40
39:a:77:G:C2	39:a:110:G:C4	3.09	0.40
39:a:372:G:H1'	39:a:400:G:C6	2.57	0.40
39:a:445:C:H2'	39:a:446:G:O4'	2.20	0.40
39:a:460:A:C2	39:a:470:A:C5	3.10	0.40
39:a:625:G:C2	39:a:626:A:C5	3.10	0.40
39:a:735:A:C8	39:a:736:C:C5	3.09	0.40
39:a:775:G:C4	39:a:777:G:N1	2.90	0.40
39:a:901:C:C2	39:a:902:C:C6	3.09	0.40
39:a:939:G:C4	39:a:940:G:C8	3.09	0.40
39:a:976:G:N1	39:a:977:G:C5	2.89	0.40
39:a:1197:G:C2	39:a:1198:U:C6	3.09	0.40
39:a:1268:A:H3'	39:a:1269:A:H8	1.86	0.40
39:a:1329:U:OP2	39:a:1330:C:C5	2.74	0.40
39:a:1438:U:C2	39:a:1439:A:C8	3.09	0.40
39:a:1464:G:C2	39:a:1465:G:C4	3.10	0.40
39:a:1615:C:C6	39:a:1617:C:C5	3.09	0.40
39:a:1622:G:N3	39:a:1623:G:C8	2.89	0.40
39:a:1826:G:C5	39:a:1827:U:C5	3.09	0.40
39:a:1941:C:H2'	39:a:1942:C:O4'	2.22	0.40
39:a:2262:U:O4	39:a:2279:G:C6	2.74	0.40
39:a:2348:U:O4	39:a:2382:G:C6	2.75	0.40
39:a:2617:U:C4	39:a:2618:G:N7	2.90	0.40
39:a:2660:A:H2'	39:a:2661:G:C8	2.56	0.40
39:a:2780:G:P	57:s:120:ARG:NH1	2.94	0.40
42:d:47:C:C2	42:d:48:U:C6	3.09	0.40
48:j:91:THR:OG1	48:j:94:GLN:HB2	2.20	0.40
48:j:157:LYS:CG	57:s:80:HIS:HE2	2.35	0.40
52:n:12:VAL:HG13	52:n:172:ALA:CB	2.51	0.40
55:q:22:VAL:HB	55:q:36:ARG:HH12	1.87	0.40
56:r:42:LYS:CG	56:r:46:PHE:CE1	3.04	0.40
57:s:49:ASP:HA	57:s:118:MET:HE1	2.02	0.40
63:y:99:TYR:O	63:y:102:GLU:CD	2.65	0.40
64:z:98:ILE:HG22	64:z:106:PHE:HB2	2.03	0.40
1:0:1:MET:O	1:0:15:SER:OG	2.37	0.40
4:3:65:ILE:HD11	4:3:69:ASN:OD1	2.21	0.40
4:3:85:PHE:CE1	4:3:94:ARG:HG3	2.55	0.40
5:4:8:VAL:HG22	5:4:9:ARG:N	2.36	0.40
5:4:89:ILE:HG22	5:4:90:ASP:N	2.35	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:118:ILE:N	9:9:119:PRO:CD	2.85	0.40
10:A:63:G:C4	10:A:64:G:C8	3.10	0.40
11:AA:674:ASP:OD2	11:AA:1070:HIS:ND1	2.55	0.40
11:AA:936:ARG:HH21	11:AA:936:ARG:HG3	1.86	0.40
11:AA:979:LEU:HD13	11:AA:979:LEU:HA	1.73	0.40
13:AD:81:ILE:O	13:AD:85:LEU:HB2	2.22	0.40
14:AE:182:ALA:HB1	14:AE:238:ILE:CG2	2.52	0.40
14:AE:351:GLY:O	14:AE:467:ALA:HA	2.21	0.40
14:AE:390:LEU:HD13	14:AE:390:LEU:H	1.86	0.40
14:AE:576:ARG:HD3	14:AE:593:ASN:HA	2.03	0.40
10:B:48:C:O2	10:B:48:C:H2'	2.21	0.40
10:B:63:G:C4	10:B:64:G:C8	3.10	0.40
15:C:34:THR:C	15:C:36:SER:N	2.79	0.40
16:D:166:U:N3	16:D:167:A:N7	2.69	0.40
16:D:236:A:C2	16:D:237:G:C4	3.10	0.40
16:D:246:A:N6	16:D:279:A:C8	2.90	0.40
16:D:316:C:C2	16:D:317:U:C5	3.09	0.40
16:D:377:G:O2'	16:D:378:G:H5'	2.22	0.40
16:D:412:A:C4	16:D:414:A:O4'	2.74	0.40
16:D:419:C:C2	16:D:420:U:C6	3.10	0.40
16:D:447:G:O2'	16:D:487:A:N6	2.52	0.40
16:D:451:A:N6	16:D:481:G:H5'	2.36	0.40
16:D:539:A:C4	16:D:540:G:C8	3.09	0.40
16:D:543:U:O2'	16:D:544:G:H5'	2.22	0.40
16:D:546:A:OP2	22:J:68:LEU:HB3	2.21	0.40
16:D:560:A:H4'	16:D:561:U:H5''	2.02	0.40
16:D:715:A:C2	16:D:716:A:C5	3.09	0.40
16:D:784:A:C6	16:D:799:G:N1	2.89	0.40
16:D:864:A:H3'	16:D:865:A:C8	2.56	0.40
16:D:872:A:C8	16:D:874:G:C8	3.10	0.40
16:D:969:A:O2'	16:D:970:C:H5'	2.21	0.40
16:D:1148:U:C5	16:D:1149:C:C4	3.09	0.40
16:D:1166:G:C2	16:D:1171:A:N6	2.90	0.40
16:D:1198:G:H2'	16:D:1199:U:C6	2.56	0.40
16:D:1352:C:H2'	16:D:1353:G:O4'	2.22	0.40
16:D:1385:G:H2'	16:D:1386:G:O4'	2.21	0.40
16:D:1404:C:O2	16:D:1404:C:H2'	2.22	0.40
16:D:1426:G:H2'	16:D:1427:C:O4'	2.22	0.40
23:K:89:HIS:CD2	23:K:138:ARG:HD3	2.56	0.40
24:L:9:MET:SD	24:L:59:TYR:CE1	3.15	0.40
27:O:14:SER:OG	27:O:70:GLY:HA2	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:O:36:GLU:OE1	27:O:45:ARG:NE	2.53	0.40
29:Q:14:LYS:O	29:Q:77:TYR:CE2	2.74	0.40
29:Q:35:THR:OG1	29:Q:36:ASP:N	2.54	0.40
30:R:72:HIS:HA	30:R:99:ARG:NH2	2.36	0.40
31:S:93:ILE:CD1	31:S:96:LEU:CD2	2.91	0.40
39:a:17:G:H2'	39:a:18:U:H6	1.84	0.40
39:a:21:A:O2'	39:a:22:C:H5'	2.20	0.40
39:a:39:G:C2	39:a:40:U:C5	3.10	0.40
39:a:51:G:O2'	39:a:119:A:N1	2.52	0.40
39:a:161:A:OP2	39:a:162:U:C2'	2.69	0.40
39:a:345:A:HO2'	39:a:347:A:H62	1.60	0.40
39:a:387:U:C6	39:a:388:G:C6	3.09	0.40
39:a:466:A:N3	39:a:683:U:H1'	2.36	0.40
39:a:475:C:O2	39:a:479:A:N6	2.52	0.40
39:a:545:U:P	39:a:545:U:O2	2.79	0.40
39:a:564:C:C2	39:a:565:C:C5	3.09	0.40
39:a:584:C:N3	39:a:585:G:C5	2.89	0.40
39:a:660:C:H5''	50:l:94:GLN:HE22	1.87	0.40
39:a:689:A:H2'	39:a:690:G:C8	2.57	0.40
39:a:862:G:C6	39:a:863:A:C5	3.09	0.40
39:a:1025:G:H1	39:a:1139:G:H1	1.69	0.40
39:a:1059:G:OP2	39:a:1060:U:H3'	2.22	0.40
39:a:1069:A:C2	39:a:1073:A:C8	3.09	0.40
39:a:1103:A:H3'	39:a:1104:C:C6	2.56	0.40
39:a:1199:U:C2	39:a:1200:C:C5	3.09	0.40
39:a:1230:A:C5	39:a:1231:U:C4	3.10	0.40
39:a:1289:C:O2	39:a:1290:C:C5	2.73	0.40
39:a:1294:U:O2'	61:w:23:ASN:OD1	2.39	0.40
39:a:1430:G:C6	39:a:1431:A:C6	3.09	0.40
39:a:1619:G:H2'	39:a:1620:G:H8	1.86	0.40
39:a:1819:A:H1'	39:a:1821:A:N6	2.37	0.40
39:a:1820:U:C2	46:h:201:MET:HB3	2.57	0.40
39:a:2533:U:H2'	39:a:2534:A:C5'	2.52	0.40
39:a:2537:U:N3	39:a:2538:C:C5	2.88	0.40
39:a:2616:C:C2	39:a:2617:U:C5	3.09	0.40
39:a:2648:G:C4	39:a:2649:C:C5	3.10	0.40
39:a:2812:G:H2'	39:a:2813:A:O4'	2.22	0.40
42:d:39:A:C2	42:d:44:G:C4	3.10	0.40
43:e:12:GLU:O	43:e:13:GLU:C	2.64	0.40
44:f:27:LEU:HD23	44:f:29:LEU:HG	2.03	0.40
48:j:133:THR:HG1	48:j:134:HIS:H	1.65	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:k:19:HIS:ND1	49:k:49:TYR:OH	2.43	0.40
50:l:49:ARG:N	50:l:82:GLY:HA3	2.36	0.40
52:n:5:HIS:CE1	52:n:9:LYS:HD2	2.55	0.40
53:o:29:LEU:CD1	53:o:41:LYS:O	2.70	0.40
62:x:111:ARG:CZ	62:x:117:PHE:CE2	3.05	0.40
1:0:38:VAL:CG1	1:0:59:ILE:HG12	2.52	0.40
9:9:37:LYS:CE	9:9:41:LEU:HD11	2.51	0.40
10:A:71:C:C2'	10:A:72:A:C8	3.03	0.40
11:AA:180:ARG:NH1	11:AA:393:ASP:O	2.37	0.40
11:AA:211:ARG:HH21	11:AA:351:LEU:HD22	1.86	0.40
11:AA:941:LYS:HD3	11:AA:941:LYS:HA	1.78	0.40
13:AC:156:SER:O	13:AC:159:ILE:HB	2.22	0.40
14:AE:68:TYR:CB	14:AE:75:TYR:HE2	2.34	0.40
14:AE:117:LEU:HD22	14:AE:139:LEU:CD1	2.52	0.40
10:B:27:U:H2'	10:B:28:C:H6	1.87	0.40
16:D:155:A:C6	16:D:167:A:C6	3.09	0.40
16:D:247:G:O2'	16:D:248:C:H5'	2.21	0.40
16:D:255:G:C5	16:D:256:U:C5	3.10	0.40
16:D:371:A:H2'	16:D:372:C:O4'	2.22	0.40
16:D:496:A:N3	16:D:496:A:C2'	2.84	0.40
16:D:616:G:N1	16:D:625:U:C2	2.90	0.40
16:D:720:C:H2'	16:D:721:G:C8	2.57	0.40
16:D:792:A:N3	16:D:794:A:C5	2.89	0.40
16:D:794:A:O2'	16:D:795:C:H5'	2.22	0.40
16:D:898:G:C2	16:D:902:G:C6	3.10	0.40
16:D:933:G:N1	16:D:935:A:H1'	2.36	0.40
16:D:1051:C:O2'	16:D:1052:U:O5'	2.40	0.40
16:D:1074:G:C5	16:D:1075:U:C5	3.09	0.40
16:D:1258:G:H2'	16:D:1259:C:C6	2.57	0.40
16:D:1273:C:H2'	16:D:1274:A:C5'	2.51	0.40
16:D:1306:A:C4	16:D:1307:U:C6	3.10	0.40
16:D:1306:A:C5	16:D:1332:A:C2	3.09	0.40
16:D:1384:C:H2'	16:D:1385:G:H8	1.86	0.40
16:D:1483:A:O5'	16:D:1483:A:H8	2.05	0.40
17:E:28:MET:CE	17:E:58:VAL:HG22	2.33	0.40
19:G:9:MET:SD	19:G:47:VAL:HG22	2.62	0.40
25:M:16:PRO:O	25:M:17:LYS:C	2.64	0.40
26:N:27:MET:SD	26:N:33:LYS:NZ	2.80	0.40
27:O:17:ALA:CB	27:O:79:ILE:HA	2.52	0.40
27:O:39:PHE:O	27:O:45:ARG:NH2	2.54	0.40
27:O:113:ARG:HH12	28:P:48:ARG:HH22	1.69	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:O:114:LYS:CE	27:O:115:LYS:O	2.69	0.40
28:P:52:LEU:CB	31:S:81:ARG:NH2	2.73	0.40
28:P:72:ARG:HA	28:P:72:ARG:HD3	1.70	0.40
29:Q:83:GLU:N	29:Q:83:GLU:OE1	2.54	0.40
31:S:16:LEU:HD22	31:S:54:ASP:HB2	2.02	0.40
33:U:42:ILE:O	33:U:42:ILE:HG13	2.21	0.40
33:U:54:LEU:O	33:U:58:ALA:N	2.46	0.40
36:X:96:PRO:HA	36:X:109:ARG:HG3	2.04	0.40
36:X:109:ARG:HA	36:X:109:ARG:CZ	2.51	0.40
39:a:270:A:C5'	39:a:271:G:H5''	2.51	0.40
39:a:298:G:O6	39:a:338:G:H5'	2.21	0.40
39:a:338:G:C5	39:a:339:U:C5	3.09	0.40
39:a:378:C:H2'	39:a:379:G:H5'	2.03	0.40
39:a:414:C:H2'	39:a:415:A:C8	2.56	0.40
39:a:458:G:H22	39:a:470:A:P	2.44	0.40
39:a:462:C:N4	39:a:463:G:C6	2.89	0.40
39:a:569:U:OP1	39:a:945:A:O2'	2.30	0.40
39:a:725:G:H2'	39:a:726:G:N9	2.36	0.40
39:a:738:G:C6	39:a:739:A:C2	3.10	0.40
39:a:768:G:C4	39:a:769:U:C5	3.10	0.40
39:a:929:U:C2	39:a:930:G:C8	3.10	0.40
39:a:975:A:N3	39:a:1156:A:C2	2.89	0.40
39:a:1038:G:O6	39:a:1118:C:N4	2.55	0.40
39:a:1059:G:C6	39:a:1080:A:N1	2.89	0.40
39:a:1320:C:N4	39:a:1331:G:N7	2.66	0.40
39:a:1412:U:C4	39:a:1413:A:N7	2.89	0.40
39:a:1506:U:O2'	39:a:1507:C:C5'	2.70	0.40
39:a:1516:G:C4	39:a:1517:G:C8	3.09	0.40
39:a:1571:A:C4	39:a:1572:A:C8	3.10	0.40
39:a:1583:A:O3'	39:a:1584:U:O2	2.38	0.40
39:a:1675:C:H3'	39:a:1676:A:H8	1.86	0.40
39:a:1677:A:N3	39:a:1678:A:C8	2.89	0.40
39:a:1682:G:N3	39:a:1757:A:H1'	2.36	0.40
39:a:1753:G:N2	39:a:1755:A:H3'	2.36	0.40
39:a:1759:A:HO2'	39:a:2714:G:H1'	1.86	0.40
39:a:1796:U:C2	39:a:1797:G:C8	3.10	0.40
39:a:1797:G:N1	39:a:1823:G:C5	2.89	0.40
39:a:1956:U:C4	39:a:1957:C:C4	3.10	0.40
39:a:2101:A:C2'	39:a:2102:G:O5'	2.70	0.40
39:a:2194:U:H2'	39:a:2195:U:H6	1.87	0.40
39:a:2204:G:C5	39:a:2221:G:C2	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:a:2227:A:C6	39:a:2228:G:C4	3.10	0.40
39:a:2331:G:N3	39:a:2336:A:C2	2.90	0.40
39:a:2596:U:H2'	39:a:2597:G:O4'	2.22	0.40
39:a:2675:A:O2'	39:a:2676:C:H5'	2.21	0.40
39:a:2721:A:H2'	39:a:2722:G:C8	2.56	0.40
39:a:2732:G:H3'	39:a:2733:A:C5'	2.50	0.40
39:a:2741:A:C8	39:a:2742:G:C8	3.10	0.40
39:a:2831:G:O2'	39:a:2832:U:H5	2.04	0.40
42:d:45:A:C5	42:d:46:A:N7	2.89	0.40
43:e:19:LEU:HG	43:e:23:ARG:NH1	2.37	0.40
46:h:91:ILE:HG21	46:h:103:TYR:HB3	2.03	0.40
46:h:157:SER:O	46:h:195:VAL:CG1	2.69	0.40
49:k:25:LYS:HG3	49:k:26:ASN:N	2.36	0.40
50:l:118:LEU:HD23	50:l:118:LEU:C	2.46	0.40
53:o:39:LYS:HG3	53:o:40:ARG:N	2.35	0.40
54:p:95:ARG:CZ	54:p:95:ARG:HB2	2.51	0.40
54:p:149:ARG:HA	54:p:162:VAL:CG1	2.51	0.40
56:r:90:LEU:HD21	56:r:94:ILE:HD11	2.04	0.40
57:s:15:TRP:CE2	57:s:53:TYR:CD2	3.07	0.40
57:s:99:ARG:HD2	57:s:99:ARG:HA	1.92	0.40
60:v:39:GLY:C	60:v:96:ILE:HG22	2.46	0.40
63:y:9:GLU:CG	63:y:55:LEU:HB2	2.51	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	0	101/103 (98%)	89 (88%)	12 (12%)	0	100	100
2	1	108/110 (98%)	99 (92%)	9 (8%)	0	100	100
3	2	92/94 (98%)	87 (95%)	5 (5%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	3	101/103 (98%)	93 (92%)	7 (7%)	1 (1%)	12	43
5	4	92/94 (98%)	82 (89%)	10 (11%)	0	100	100
9	9	146/148 (99%)	112 (77%)	33 (23%)	1 (1%)	18	50
11	AA	1318/1342 (98%)	1149 (87%)	137 (10%)	32 (2%)	4	29
12	AB	94/181 (52%)	88 (94%)	6 (6%)	0	100	100
13	AC	228/230 (99%)	215 (94%)	11 (5%)	2 (1%)	14	45
13	AD	226/230 (98%)	212 (94%)	14 (6%)	0	100	100
14	AE	1329/1407 (94%)	1199 (90%)	121 (9%)	9 (1%)	18	50
15	C	64/66 (97%)	59 (92%)	4 (6%)	1 (2%)	7	35
17	E	84/86 (98%)	82 (98%)	2 (2%)	0	100	100
18	F	68/70 (97%)	68 (100%)	0	0	100	100
19	G	223/225 (99%)	201 (90%)	22 (10%)	0	100	100
20	H	255/557 (46%)	187 (73%)	56 (22%)	12 (5%)	2	18
21	I	206/208 (99%)	197 (96%)	8 (4%)	1 (0%)	24	56
22	J	203/205 (99%)	198 (98%)	5 (2%)	0	100	100
23	K	154/156 (99%)	140 (91%)	13 (8%)	1 (1%)	21	52
24	L	102/104 (98%)	95 (93%)	7 (7%)	0	100	100
25	M	149/151 (99%)	142 (95%)	7 (5%)	0	100	100
26	N	127/129 (98%)	110 (87%)	17 (13%)	0	100	100
27	O	125/127 (98%)	111 (89%)	14 (11%)	0	100	100
28	P	97/99 (98%)	88 (91%)	8 (8%)	1 (1%)	12	43
29	Q	115/117 (98%)	104 (90%)	11 (10%)	0	100	100
30	R	117/124 (94%)	105 (90%)	11 (9%)	1 (1%)	14	45
31	S	98/100 (98%)	95 (97%)	2 (2%)	1 (1%)	12	43
32	T	86/88 (98%)	82 (95%)	4 (5%)	0	100	100
33	U	80/82 (98%)	74 (92%)	6 (8%)	0	100	100
34	V	78/80 (98%)	67 (86%)	11 (14%)	0	100	100
35	W	81/83 (98%)	75 (93%)	6 (7%)	0	100	100
36	X	114/116 (98%)	100 (88%)	14 (12%)	0	100	100
37	Y	139/141 (99%)	121 (87%)	18 (13%)	0	100	100
38	Z	28/30 (93%)	27 (96%)	1 (4%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	b	74/76 (97%)	67 (90%)	7 (10%)	0	100	100
41	c	75/77 (97%)	69 (92%)	6 (8%)	0	100	100
43	e	60/62 (97%)	58 (97%)	2 (3%)	0	100	100
44	f	56/58 (97%)	51 (91%)	5 (9%)	0	100	100
45	g	64/66 (97%)	58 (91%)	6 (9%)	0	100	100
46	h	269/271 (99%)	241 (90%)	28 (10%)	0	100	100
47	i	54/56 (96%)	49 (91%)	5 (9%)	0	100	100
48	j	207/209 (99%)	188 (91%)	19 (9%)	0	100	100
49	k	50/52 (96%)	48 (96%)	2 (4%)	0	100	100
50	l	199/201 (99%)	184 (92%)	15 (8%)	0	100	100
51	m	44/46 (96%)	43 (98%)	1 (2%)	0	100	100
52	n	175/177 (99%)	161 (92%)	14 (8%)	0	100	100
53	o	62/64 (97%)	54 (87%)	7 (11%)	1 (2%)	7	35
54	p	173/175 (99%)	156 (90%)	16 (9%)	1 (1%)	21	52
55	q	36/38 (95%)	33 (92%)	3 (8%)	0	100	100
56	r	147/149 (99%)	136 (92%)	11 (8%)	0	100	100
57	s	140/142 (99%)	127 (91%)	13 (9%)	0	100	100
58	t	121/123 (98%)	108 (89%)	13 (11%)	0	100	100
59	u	142/144 (99%)	132 (93%)	10 (7%)	0	100	100
60	v	134/136 (98%)	121 (90%)	13 (10%)	0	100	100
61	w	117/119 (98%)	109 (93%)	8 (7%)	0	100	100
62	x	114/116 (98%)	110 (96%)	4 (4%)	0	100	100
63	y	112/114 (98%)	104 (93%)	8 (7%)	0	100	100
64	z	115/117 (98%)	107 (93%)	8 (7%)	0	100	100
All	All	9368/9974 (94%)	8467 (90%)	836 (9%)	65 (1%)	20	50

All (65) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
11	AA	596	ASP
11	AA	853	ASP
11	AA	859	GLU
11	AA	862	LEU
11	AA	873	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	AA	937	ASP
11	AA	993	PRO
20	H	76	GLU
20	H	139	ARG
20	H	153	GLU
20	H	169	SER
20	H	306	VAL
20	H	340	ARG
31	S	96	LEU
11	AA	375	PRO
11	AA	856	ASN
11	AA	870	ILE
11	AA	940	GLU
11	AA	985	GLU
11	AA	1003	THR
11	AA	1158	LYS
14	AE	175	GLU
20	H	108	VAL
20	H	309	MET
20	H	333	LEU
53	o	32	ILE
11	AA	376	PRO
11	AA	723	VAL
11	AA	728	ASP
11	AA	935	THR
11	AA	980	VAL
11	AA	1005	GLU
11	AA	1045	GLY
13	AC	164	ASP
13	AC	165	GLU
14	AE	51	PRO
14	AE	805	GLN
20	H	78	GLY
20	H	142	ARG
28	P	58	ASN
30	R	45	PRO
11	AA	850	ILE
11	AA	943	LYS
11	AA	995	ASP
14	AE	174	ASP
14	AE	193	ASP
21	I	80	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	p	48	ASN
9	9	79	PRO
11	AA	917	SER
11	AA	991	LYS
11	AA	997	TRP
11	AA	1044	PRO
14	AE	91	GLU
15	C	41	PRO
20	H	70	VAL
14	AE	49	PHE
14	AE	73	GLY
14	AE	904	ALA
23	K	91	GLY
11	AA	697	LYS
11	AA	1159	VAL
11	AA	1317	PRO
4	3	55	PRO
11	AA	933	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	0	84/84 (100%)	84 (100%)	0	100	100
2	1	93/93 (100%)	93 (100%)	0	100	100
3	2	81/81 (100%)	81 (100%)	0	100	100
4	3	84/84 (100%)	84 (100%)	0	100	100
5	4	78/78 (100%)	78 (100%)	0	100	100
9	9	112/112 (100%)	112 (100%)	0	100	100
11	AA	1140/1157 (98%)	1027 (90%)	113 (10%)	7	30
12	AB	86/158 (54%)	85 (99%)	1 (1%)	63	72
13	AC	198/198 (100%)	183 (92%)	15 (8%)	12	38
13	AD	196/198 (99%)	193 (98%)	3 (2%)	57	68

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
14	AE	1120/1168 (96%)	1046 (93%)	74 (7%)	15	42
15	C	57/57 (100%)	53 (93%)	4 (7%)	14	41
17	E	65/65 (100%)	65 (100%)	0	100	100
18	F	60/60 (100%)	59 (98%)	1 (2%)	53	67
19	G	187/187 (100%)	185 (99%)	2 (1%)	65	73
20	H	137/461 (30%)	121 (88%)	16 (12%)	5	24
21	I	171/171 (100%)	162 (95%)	9 (5%)	20	46
22	J	172/172 (100%)	162 (94%)	10 (6%)	18	45
23	K	119/119 (100%)	119 (100%)	0	100	100
24	L	91/91 (100%)	91 (100%)	0	100	100
25	M	124/124 (100%)	124 (100%)	0	100	100
26	N	104/104 (100%)	104 (100%)	0	100	100
27	O	105/105 (100%)	105 (100%)	0	100	100
28	P	86/86 (100%)	76 (88%)	10 (12%)	5	24
29	Q	90/90 (100%)	90 (100%)	0	100	100
30	R	101/104 (97%)	100 (99%)	1 (1%)	68	74
31	S	83/83 (100%)	82 (99%)	1 (1%)	63	72
32	T	76/76 (100%)	76 (100%)	0	100	100
33	U	65/65 (100%)	65 (100%)	0	100	100
34	V	74/74 (100%)	74 (100%)	0	100	100
35	W	72/72 (100%)	72 (100%)	0	100	100
36	X	94/94 (100%)	94 (100%)	0	100	100
37	Y	109/109 (100%)	109 (100%)	0	100	100
38	Z	26/26 (100%)	26 (100%)	0	100	100
40	b	58/58 (100%)	58 (100%)	0	100	100
41	c	67/67 (100%)	67 (100%)	0	100	100
43	e	54/54 (100%)	54 (100%)	0	100	100
44	f	48/48 (100%)	48 (100%)	0	100	100
45	g	59/59 (100%)	59 (100%)	0	100	100
46	h	216/216 (100%)	216 (100%)	0	100	100
47	i	47/47 (100%)	47 (100%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
48	j	164/164 (100%)	163 (99%)	1 (1%)	78	79
49	k	47/47 (100%)	47 (100%)	0	100	100
50	l	165/165 (100%)	165 (100%)	0	100	100
51	m	38/38 (100%)	36 (95%)	2 (5%)	20	46
52	n	148/148 (100%)	148 (100%)	0	100	100
53	o	51/51 (100%)	51 (100%)	0	100	100
54	p	136/136 (100%)	136 (100%)	0	100	100
55	q	34/34 (100%)	33 (97%)	1 (3%)	37	57
56	r	114/114 (100%)	114 (100%)	0	100	100
57	s	116/116 (100%)	116 (100%)	0	100	100
58	t	104/104 (100%)	104 (100%)	0	100	100
59	u	103/103 (100%)	103 (100%)	0	100	100
60	v	109/109 (100%)	109 (100%)	0	100	100
61	w	99/99 (100%)	99 (100%)	0	100	100
62	x	86/86 (100%)	86 (100%)	0	100	100
63	y	99/99 (100%)	99 (100%)	0	100	100
64	z	89/89 (100%)	89 (100%)	0	100	100
All	All	7791/8257 (94%)	7527 (97%)	264 (3%)	33	55

All (264) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
11	AA	39	ILE
11	AA	145	ILE
11	AA	376	PRO
11	AA	615	VAL
11	AA	723	VAL
11	AA	727	VAL
11	AA	728	ASP
11	AA	731	ARG
11	AA	732	ILE
11	AA	752	ASN
11	AA	753	LEU
11	AA	802	VAL
11	AA	817	LEU
11	AA	840	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	AA	844	LYS
11	AA	845	LEU
11	AA	851	THR
11	AA	854	ILE
11	AA	855	PRO
11	AA	857	VAL
11	AA	862	LEU
11	AA	864	LYS
11	AA	865	LEU
11	AA	866	ASP
11	AA	867	GLU
11	AA	868	SER
11	AA	871	VAL
11	AA	873	ILE
11	AA	876	GLU
11	AA	884	VAL
11	AA	886	LYS
11	AA	887	VAL
11	AA	890	LYS
11	AA	912	ASP
11	AA	913	VAL
11	AA	914	LYS
11	AA	918	LEU
11	AA	933	VAL
11	AA	936	ARG
11	AA	939	VAL
11	AA	941	LYS
11	AA	943	LYS
11	AA	944	ARG
11	AA	946	LEU
11	AA	947	GLU
11	AA	949	GLU
11	AA	950	GLU
11	AA	951	MET
11	AA	952	GLN
11	AA	953	LEU
11	AA	954	LYS
11	AA	955	GLN
11	AA	957	LYS
11	AA	958	LYS
11	AA	959	ASP
11	AA	960	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	AA	962	GLU
11	AA	963	GLU
11	AA	964	LEU
11	AA	965	GLN
11	AA	967	LEU
11	AA	968	GLU
11	AA	971	LEU
11	AA	973	SER
11	AA	974	ARG
11	AA	979	LEU
11	AA	980	VAL
11	AA	985	GLU
11	AA	988	LYS
11	AA	989	LEU
11	AA	991	LYS
11	AA	992	LEU
11	AA	994	ARG
11	AA	995	ASP
11	AA	997	TRP
11	AA	998	LEU
11	AA	999	GLU
11	AA	1002	LEU
11	AA	1005	GLU
11	AA	1006	GLU
11	AA	1008	GLN
11	AA	1009	ASN
11	AA	1013	GLN
11	AA	1014	LEU
11	AA	1019	ASP
11	AA	1020	GLU
11	AA	1023	HIS
11	AA	1024	GLU
11	AA	1025	PHE
11	AA	1026	GLU
11	AA	1027	LYS
11	AA	1029	LEU
11	AA	1032	LYS
11	AA	1034	ARG
11	AA	1035	LYS
11	AA	1037	THR
11	AA	1038	GLN
11	AA	1041	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	AA	1042	LEU
11	AA	1046	VAL
11	AA	1047	LEU
11	AA	1048	LYS
11	AA	1076	ILE
11	AA	1151	LEU
11	AA	1159	VAL
11	AA	1248	THR
11	AA	1250	SER
11	AA	1252	SER
11	AA	1253	LEU
11	AA	1254	VAL
11	AA	1256	GLN
11	AA	1259	LEU
11	AA	1298	VAL
12	AB	47	GLU
13	AC	62	ASP
13	AC	65	LEU
13	AC	72	GLU
13	AC	91	ARG
13	AC	134	THR
13	AC	158	ARG
13	AC	159	ILE
13	AC	160	HIS
13	AC	162	GLU
13	AC	163	GLU
13	AC	165	GLU
13	AC	166	ARG
13	AC	168	ILE
13	AC	170	ARG
13	AC	171	LEU
13	AD	110	VAL
13	AD	187	VAL
13	AD	208	ASN
14	AE	40	LYS
14	AE	42	GLU
14	AE	44	ILE
14	AE	46	TYR
14	AE	47	ARG
14	AE	49	PHE
14	AE	50	LYS
14	AE	52	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	AE	53	ARG
14	AE	54	ASP
14	AE	56	LEU
14	AE	60	ARG
14	AE	66	LYS
14	AE	67	ASP
14	AE	70	CYS
14	AE	74	LYS
14	AE	76	LYS
14	AE	78	LEU
14	AE	80	HIS
14	AE	81	ARG
14	AE	87	LYS
14	AE	88	CYS
14	AE	91	GLU
14	AE	94	GLN
14	AE	95	THR
14	AE	96	LYS
14	AE	99	ARG
14	AE	100	GLU
14	AE	114	ILE
14	AE	117	LEU
14	AE	119	SER
14	AE	123	ARG
14	AE	132	LEU
14	AE	135	ILE
14	AE	142	GLU
14	AE	144	TYR
14	AE	145	VAL
14	AE	146	VAL
14	AE	147	ILE
14	AE	152	THR
14	AE	154	LEU
14	AE	157	GLN
14	AE	159	ILE
14	AE	175	GLU
14	AE	180	MET
14	AE	190	LYS
14	AE	193	ASP
14	AE	196	GLN
14	AE	210	SER
14	AE	212	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	AE	216	LYS
14	AE	222	LYS
14	AE	223	LEU
14	AE	227	PHE
14	AE	233	LYS
14	AE	237	MET
14	AE	238	ILE
14	AE	239	LEU
14	AE	240	THR
14	AE	244	VAL
14	AE	271	ARG
14	AE	324	LEU
14	AE	385	LEU
14	AE	386	GLU
14	AE	387	LEU
14	AE	390	LEU
14	AE	393	THR
14	AE	394	ILE
14	AE	395	LYS
14	AE	506	VAL
14	AE	514	THR
14	AE	839	VAL
14	AE	1172	LYS
14	AE	1233	ILE
15	C	12	ARG
15	C	41	PRO
15	C	43	ARG
15	C	44	ILE
18	F	66	ARG
19	G	19	GLN
19	G	35	ARG
20	H	9	PHE
20	H	31	ILE
20	H	43	LYS
20	H	54	LYS
20	H	62	ILE
20	H	70	VAL
20	H	79	PHE
20	H	83	LEU
20	H	268	VAL
20	H	294	VAL
20	H	305	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	H	336	ASP
20	H	337	GLU
20	H	338	GLU
20	H	339	ARG
20	H	340	ARG
21	I	14	ILE
21	I	21	THR
21	I	33	LEU
21	I	75	ILE
21	I	89	LYS
21	I	132	ARG
21	I	175	LEU
21	I	178	LEU
21	I	200	VAL
22	J	47	ARG
22	J	48	LEU
22	J	83	LYS
22	J	95	GLU
22	J	104	ARG
22	J	105	MET
22	J	116	GLN
22	J	138	SER
22	J	143	VAL
22	J	166	GLU
28	P	17	LEU
28	P	18	ILE
28	P	24	GLU
28	P	25	ILE
28	P	27	GLU
28	P	37	ARG
28	P	72	ARG
28	P	87	LEU
28	P	89	ARG
28	P	102	LEU
30	R	44	LYS
31	S	97	LYS
48	j	173	GLN
51	m	22	MET
51	m	42	LEU
55	q	37	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (83) such sidechains are listed below:

Mol	Chain	Res	Type
1	0	87	GLN
2	1	9	HIS
4	3	69	ASN
4	3	74	ASN
9	9	57	ASN
11	AA	69	GLN
11	AA	193	ASN
11	AA	273	HIS
11	AA	761	GLN
11	AA	808	ASN
11	AA	824	GLN
11	AA	965	GLN
11	AA	1008	GLN
11	AA	1157	GLN
11	AA	1236	ASN
13	AC	41	ASN
13	AC	132	HIS
13	AD	41	ASN
13	AD	93	GLN
13	AD	103	ASN
14	AE	196	GLN
14	AE	469	HIS
14	AE	865	HIS
14	AE	1195	GLN
14	AE	1238	GLN
14	AE	1249	ASN
15	C	31	ASN
15	C	74	HIS
17	E	61	GLN
18	F	56	HIS
19	G	24	ASN
19	G	177	ASN
21	I	6	HIS
21	I	123	GLN
22	J	36	GLN
23	K	19	ASN
23	K	70	ASN
24	L	94	HIS
25	M	148	ASN
27	O	81	HIS
28	P	58	ASN
29	Q	40	ASN
31	S	66	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	U	9	HIS
33	U	18	GLN
36	X	52	GLN
37	Y	104	GLN
41	c	6	GLN
41	c	34	HIS
43	e	41	HIS
43	e	45	GLN
44	f	20	HIS
45	g	6	HIS
46	h	15	HIS
46	h	21	ASN
46	h	134	ASN
47	i	4	GLN
47	i	5	GLN
47	i	41	HIS
48	j	49	GLN
48	j	173	GLN
49	k	46	HIS
50	l	62	GLN
51	m	29	GLN
53	o	28	ASN
54	p	38	ASN
54	p	115	HIS
55	q	13	ASN
56	r	2	GLN
56	r	18	GLN
56	r	28	ASN
58	t	3	GLN
59	u	38	GLN
60	v	3	GLN
60	v	13	HIS
61	w	9	GLN
61	w	11	ASN
61	w	31	HIS
61	w	81	ASN
63	y	15	GLN
63	y	75	GLN
64	z	14	HIS
64	z	20	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
10	A	75/76 (98%)	30 (40%)	8 (10%)
10	B	75/76 (98%)	30 (40%)	8 (10%)
16	D	1514/1542 (98%)	304 (20%)	10 (0%)
39	a	2859/2904 (98%)	582 (20%)	0
42	d	119/120 (99%)	19 (15%)	0
8	7	28/29 (96%)	18 (64%)	3 (10%)
All	All	4670/4747 (98%)	983 (21%)	29 (0%)

All (983) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
8	7	-6	G
8	7	-5	U
8	7	-4	U
8	7	-2	U
8	7	-1	U
8	7	0	U
8	7	1	U
8	7	2	U
8	7	3	U
8	7	4	U
8	7	5	U
8	7	7	G
8	7	8	A
8	7	9	U
8	7	10	U
8	7	11	U
8	7	12	G
8	7	13	G
10	A	2	G
10	A	6	G
10	A	7	G
10	A	8	U
10	A	10	G
10	A	13	C
10	A	14	A
10	A	15	G
10	A	16	C
10	A	17	C
10	A	18	G
10	A	19	G
10	A	20	U
10	A	21	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	A	23	C
10	A	46	G
10	A	47	U
10	A	48	C
10	A	49	G
10	A	52	G
10	A	57	A
10	A	58	A
10	A	59	A
10	A	60	U
10	A	61	C
10	A	66	C
10	A	69	C
10	A	71	C
10	A	73	A
10	A	76	A
10	B	2	G
10	B	6	G
10	B	7	G
10	B	8	U
10	B	10	G
10	B	13	C
10	B	14	A
10	B	15	G
10	B	16	C
10	B	17	C
10	B	18	G
10	B	19	G
10	B	20	U
10	B	21	A
10	B	23	C
10	B	46	G
10	B	47	U
10	B	48	C
10	B	49	G
10	B	52	G
10	B	57	A
10	B	58	A
10	B	59	A
10	B	60	U
10	B	61	C
10	B	66	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	B	69	C
10	B	71	C
10	B	73	A
10	B	76	A
16	D	4	U
16	D	5	U
16	D	7	A
16	D	9	G
16	D	15	G
16	D	22	G
16	D	32	A
16	D	37	U
16	D	39	G
16	D	47	C
16	D	48	C
16	D	50	A
16	D	51	A
16	D	52	C
16	D	61	G
16	D	69	G
16	D	71	A
16	D	72	A
16	D	73	C
16	D	74	A
16	D	76	G
16	D	82	G
16	D	83	C
16	D	84	U
16	D	87	C
16	D	94	G
16	D	95	C
16	D	96	U
16	D	108	G
16	D	120	A
16	D	121	U
16	D	122	G
16	D	128	G
16	D	130	A
16	D	131	A
16	D	141	G
16	D	144	G
16	D	150	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	D	160	A
16	D	163	C
16	D	173	U
16	D	181	A
16	D	182	A
16	D	189	A
16	D	197	A
16	D	198	G
16	D	202	G
16	D	204	G
16	D	208	U
16	D	210	C
16	D	211	G
16	D	212	G
16	D	216	U
16	D	226	G
16	D	245	U
16	D	246	A
16	D	247	G
16	D	252	U
16	D	253	A
16	D	258	G
16	D	262	A
16	D	266	G
16	D	267	C
16	D	276	G
16	D	279	A
16	D	289	G
16	D	306	A
16	D	316	C
16	D	321	A
16	D	328	C
16	D	329	A
16	D	332	G
16	D	347	G
16	D	351	G
16	D	352	C
16	D	353	A
16	D	354	G
16	D	355	C
16	D	367	U
16	D	372	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	D	382	A
16	D	397	A
16	D	406	G
16	D	411	A
16	D	412	A
16	D	413	G
16	D	414	A
16	D	421	U
16	D	422	C
16	D	424	G
16	D	429	U
16	D	430	A
16	D	446	G
16	D	452	A
16	D	457	G
16	D	458	U
16	D	463	U
16	D	464	U
16	D	467	U
16	D	468	A
16	D	469	C
16	D	478	A
16	D	479	U
16	D	481	G
16	D	484	G
16	D	485	U
16	D	486	U
16	D	496	A
16	D	500	G
16	D	505	G
16	D	506	G
16	D	511	C
16	D	515	G
16	D	518	C
16	D	519	C
16	D	521	G
16	D	522	C
16	D	531	U
16	D	532	A
16	D	533	A
16	D	547	A
16	D	559	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	D	564	C
16	D	568	G
16	D	572	A
16	D	573	A
16	D	575	G
16	D	576	C
16	D	577	G
16	D	579	A
16	D	596	A
16	D	628	G
16	D	633	G
16	D	650	G
16	D	653	U
16	D	665	A
16	D	687	A
16	D	692	U
16	D	700	G
16	D	723	U
16	D	724	G
16	D	727	G
16	D	731	G
16	D	747	A
16	D	748	G
16	D	759	A
16	D	777	A
16	D	792	A
16	D	793	U
16	D	794	A
16	D	802	A
16	D	815	A
16	D	817	C
16	D	828	U
16	D	829	G
16	D	832	G
16	D	841	C
16	D	844	G
16	D	845	A
16	D	846	G
16	D	849	G
16	D	874	G
16	D	887	G
16	D	889	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	D	902	G
16	D	914	A
16	D	916	U
16	D	926	G
16	D	934	C
16	D	935	A
16	D	942	G
16	D	945	G
16	D	958	A
16	D	960	U
16	D	965	U
16	D	969	A
16	D	972	C
16	D	975	A
16	D	976	G
16	D	977	A
16	D	984	C
16	D	992	U
16	D	993	G
16	D	996	A
16	D	1003	G
16	D	1004	A
16	D	1006	G
16	D	1008	U
16	D	1009	U
16	D	1014	A
16	D	1017	U
16	D	1018	G
16	D	1021	A
16	D	1024	G
16	D	1026	G
16	D	1028	C
16	D	1030	U
16	D	1031	C
16	D	1033	G
16	D	1036	A
16	D	1038	C
16	D	1043	G
16	D	1044	A
16	D	1052	U
16	D	1056	U
16	D	1065	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	D	1085	U
16	D	1086	U
16	D	1094	G
16	D	1095	U
16	D	1099	G
16	D	1101	A
16	D	1108	G
16	D	1124	G
16	D	1125	U
16	D	1131	G
16	D	1133	G
16	D	1135	U
16	D	1136	C
16	D	1137	C
16	D	1139	G
16	D	1140	C
16	D	1141	C
16	D	1142	G
16	D	1143	G
16	D	1145	A
16	D	1146	A
16	D	1151	A
16	D	1152	A
16	D	1154	G
16	D	1158	C
16	D	1159	U
16	D	1167	A
16	D	1171	A
16	D	1175	G
16	D	1176	A
16	D	1179	A
16	D	1184	G
16	D	1193	G
16	D	1196	A
16	D	1197	A
16	D	1201	A
16	D	1206	G
16	D	1213	A
16	D	1215	G
16	D	1224	U
16	D	1227	A
16	D	1234	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	D	1238	A
16	D	1239	A
16	D	1252	A
16	D	1254	A
16	D	1256	A
16	D	1257	A
16	D	1260	G
16	D	1275	A
16	D	1276	G
16	D	1279	G
16	D	1280	A
16	D	1285	A
16	D	1286	U
16	D	1287	A
16	D	1299	A
16	D	1302	C
16	D	1303	C
16	D	1305	G
16	D	1312	G
16	D	1317	C
16	D	1320	C
16	D	1322	C
16	D	1338	G
16	D	1343	G
16	D	1346	A
16	D	1347	G
16	D	1353	G
16	D	1363	A
16	D	1368	A
16	D	1370	G
16	D	1378	C
16	D	1379	G
16	D	1381	U
16	D	1396	A
16	D	1397	C
16	D	1398	A
16	D	1404	C
16	D	1419	G
16	D	1429	A
16	D	1432	G
16	D	1441	A
16	D	1446	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	D	1452	C
16	D	1453	G
16	D	1475	G
16	D	1487	G
16	D	1493	A
16	D	1494	G
16	D	1497	G
16	D	1503	A
16	D	1506	U
16	D	1507	A
16	D	1517	G
16	D	1529	G
16	D	1530	G
16	D	1534	A
39	a	4	U
39	a	10	A
39	a	15	G
39	a	28	A
39	a	34	U
39	a	35	G
39	a	46	G
39	a	60	G
39	a	63	A
39	a	71	A
39	a	74	A
39	a	75	G
39	a	80	G
39	a	83	A
39	a	84	A
39	a	85	G
39	a	96	C
39	a	100	U
39	a	101	A
39	a	102	U
39	a	103	A
39	a	114	U
39	a	118	A
39	a	119	A
39	a	120	U
39	a	132	G
39	a	139	U
39	a	142	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	162	U
39	a	163	C
39	a	181	A
39	a	186	G
39	a	196	A
39	a	199	A
39	a	215	G
39	a	216	A
39	a	222	A
39	a	223	A
39	a	224	U
39	a	225	C
39	a	248	G
39	a	249	C
39	a	250	G
39	a	252	G
39	a	265	A
39	a	266	G
39	a	267	C
39	a	270	A
39	a	271	G
39	a	272	A
39	a	275	C
39	a	276	U
39	a	279	A
39	a	285	G
39	a	292	U
39	a	301	G
39	a	311	A
39	a	317	G
39	a	322	A
39	a	324	A
39	a	329	G
39	a	330	A
39	a	331	C
39	a	338	G
39	a	353	C
39	a	361	G
39	a	362	A
39	a	370	G
39	a	371	A
39	a	372	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	373	U
39	a	375	G
39	a	386	G
39	a	388	G
39	a	389	G
39	a	396	G
39	a	404	A
39	a	405	U
39	a	411	G
39	a	412	A
39	a	416	U
39	a	420	C
39	a	424	G
39	a	429	A
39	a	451	U
39	a	456	C
39	a	457	A
39	a	461	C
39	a	462	C
39	a	479	A
39	a	480	A
39	a	481	G
39	a	482	A
39	a	483	A
39	a	491	G
39	a	499	U
39	a	501	A
39	a	505	A
39	a	508	A
39	a	509	C
39	a	510	C
39	a	522	A
39	a	529	A
39	a	531	C
39	a	532	A
39	a	533	G
39	a	543	G
39	a	546	U
39	a	547	A
39	a	548	G
39	a	549	G
39	a	551	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	563	A
39	a	567	U
39	a	569	U
39	a	573	U
39	a	574	A
39	a	575	A
39	a	586	A
39	a	588	U
39	a	594	U
39	a	599	A
39	a	603	A
39	a	608	A
39	a	609	A
39	a	613	A
39	a	614	A
39	a	615	U
39	a	616	A
39	a	621	A
39	a	627	A
39	a	637	A
39	a	640	C
39	a	642	U
39	a	645	C
39	a	646	U
39	a	647	G
39	a	654	A
39	a	655	A
39	a	661	A
39	a	664	G
39	a	668	A
39	a	676	A
39	a	685	A
39	a	686	U
39	a	702	U
39	a	710	U
39	a	717	C
39	a	726	G
39	a	729	G
39	a	730	A
39	a	738	G
39	a	757	G
39	a	764	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	765	C
39	a	775	G
39	a	776	G
39	a	782	A
39	a	784	G
39	a	785	G
39	a	800	A
39	a	805	G
39	a	812	C
39	a	819	A
39	a	827	U
39	a	828	U
39	a	831	G
39	a	845	A
39	a	846	U
39	a	857	G
39	a	858	G
39	a	859	G
39	a	866	A
39	a	869	G
39	a	878	A
39	a	884	U
39	a	885	C
39	a	887	A
39	a	891	G
39	a	895	U
39	a	896	A
39	a	897	C
39	a	899	A
39	a	910	A
39	a	914	G
39	a	915	C
39	a	931	U
39	a	941	A
39	a	946	C
39	a	953	G
39	a	961	C
39	a	973	A
39	a	974	G
39	a	983	A
39	a	984	A
39	a	994	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	995	C
39	a	996	A
39	a	999	U
39	a	1012	U
39	a	1013	C
39	a	1022	G
39	a	1023	U
39	a	1026	G
39	a	1033	U
39	a	1041	G
39	a	1045	C
39	a	1046	A
39	a	1047	G
39	a	1060	U
39	a	1062	G
39	a	1064	C
39	a	1066	U
39	a	1067	A
39	a	1068	G
39	a	1070	A
39	a	1071	G
39	a	1073	A
39	a	1074	G
39	a	1079	C
39	a	1081	U
39	a	1083	U
39	a	1084	A
39	a	1087	G
39	a	1088	A
39	a	1101	U
39	a	1107	G
39	a	1111	A
39	a	1112	G
39	a	1119	U
39	a	1122	G
39	a	1129	A
39	a	1130	U
39	a	1132	U
39	a	1133	A
39	a	1134	A
39	a	1135	C
39	a	1136	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	1141	U
39	a	1142	A
39	a	1169	A
39	a	1170	C
39	a	1173	U
39	a	1174	U
39	a	1175	A
39	a	1176	U
39	a	1177	G
39	a	1178	C
39	a	1179	G
39	a	1180	U
39	a	1186	G
39	a	1210	G
39	a	1227	G
39	a	1236	G
39	a	1238	G
39	a	1248	G
39	a	1249	U
39	a	1253	A
39	a	1255	U
39	a	1256	G
39	a	1265	A
39	a	1266	G
39	a	1271	G
39	a	1272	A
39	a	1273	U
39	a	1284	A
39	a	1300	G
39	a	1301	A
39	a	1329	U
39	a	1344	U
39	a	1345	C
39	a	1352	U
39	a	1359	A
39	a	1365	A
39	a	1368	G
39	a	1378	A
39	a	1379	U
39	a	1380	G
39	a	1383	A
39	a	1392	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	1395	A
39	a	1406	U
39	a	1408	G
39	a	1409	U
39	a	1416	G
39	a	1417	C
39	a	1419	A
39	a	1420	A
39	a	1427	A
39	a	1428	C
39	a	1452	G
39	a	1453	A
39	a	1459	G
39	a	1460	U
39	a	1478	G
39	a	1482	G
39	a	1490	A
39	a	1491	G
39	a	1493	C
39	a	1497	U
39	a	1502	A
39	a	1503	A
39	a	1508	A
39	a	1509	A
39	a	1510	G
39	a	1515	A
39	a	1526	C
39	a	1529	G
39	a	1534	U
39	a	1535	A
39	a	1536	C
39	a	1537	G
39	a	1554	U
39	a	1566	A
39	a	1569	A
39	a	1578	U
39	a	1580	A
39	a	1581	G
39	a	1583	A
39	a	1589	U
39	a	1590	A
39	a	1607	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	1608	A
39	a	1610	A
39	a	1613	G
39	a	1616	A
39	a	1622	G
39	a	1634	A
39	a	1646	C
39	a	1647	U
39	a	1648	U
39	a	1649	G
39	a	1651	G
39	a	1659	G
39	a	1665	A
39	a	1668	A
39	a	1674	G
39	a	1713	A
39	a	1714	U
39	a	1715	G
39	a	1722	A
39	a	1729	U
39	a	1730	C
39	a	1732	C
39	a	1738	G
39	a	1754	A
39	a	1764	C
39	a	1773	A
39	a	1787	A
39	a	1791	A
39	a	1799	G
39	a	1800	C
39	a	1801	A
39	a	1808	A
39	a	1816	C
39	a	1829	A
39	a	1833	C
39	a	1841	U
39	a	1847	A
39	a	1848	A
39	a	1858	A
39	a	1859	U
39	a	1863	G
39	a	1864	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	1869	G
39	a	1870	C
39	a	1872	A
39	a	1881	C
39	a	1889	A
39	a	1907	G
39	a	1913	A
39	a	1914	C
39	a	1919	A
39	a	1920	C
39	a	1922	G
39	a	1923	U
39	a	1925	C
39	a	1926	U
39	a	1929	G
39	a	1930	G
39	a	1938	A
39	a	1955	U
39	a	1960	A
39	a	1965	C
39	a	1967	C
39	a	1970	A
39	a	1971	U
39	a	1972	G
39	a	1976	U
39	a	1987	A
39	a	1991	U
39	a	1992	G
39	a	1993	U
39	a	1997	C
39	a	2018	G
39	a	2020	A
39	a	2021	C
39	a	2022	U
39	a	2023	C
39	a	2027	G
39	a	2033	A
39	a	2043	C
39	a	2052	A
39	a	2055	C
39	a	2056	G
39	a	2057	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	2060	A
39	a	2061	G
39	a	2062	A
39	a	2072	C
39	a	2080	A
39	a	2097	A
39	a	2099	U
39	a	2100	G
39	a	2107	G
39	a	2108	A
39	a	2110	G
39	a	2111	U
39	a	2112	G
39	a	2113	U
39	a	2115	G
39	a	2116	G
39	a	2117	A
39	a	2118	U
39	a	2121	G
39	a	2122	U
39	a	2124	G
39	a	2125	G
39	a	2126	A
39	a	2127	G
39	a	2128	G
39	a	2131	U
39	a	2132	U
39	a	2133	G
39	a	2134	A
39	a	2139	U
39	a	2146	C
39	a	2147	A
39	a	2154	A
39	a	2157	G
39	a	2158	A
39	a	2159	G
39	a	2161	C
39	a	2162	G
39	a	2163	A
39	a	2164	C
39	a	2165	C
39	a	2171	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	2172	U
39	a	2176	A
39	a	2182	U
39	a	2183	A
39	a	2189	U
39	a	2190	G
39	a	2193	G
39	a	2194	U
39	a	2198	A
39	a	2203	U
39	a	2204	G
39	a	2211	A
39	a	2212	A
39	a	2225	A
39	a	2226	C
39	a	2229	U
39	a	2231	U
39	a	2238	G
39	a	2239	G
39	a	2243	U
39	a	2250	G
39	a	2273	A
39	a	2278	A
39	a	2283	C
39	a	2287	A
39	a	2288	A
39	a	2297	A
39	a	2305	U
39	a	2309	A
39	a	2322	A
39	a	2325	G
39	a	2327	A
39	a	2333	A
39	a	2335	A
39	a	2339	C
39	a	2344	U
39	a	2345	G
39	a	2347	C
39	a	2350	C
39	a	2361	G
39	a	2372	U
39	a	2376	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	2383	G
39	a	2385	C
39	a	2395	C
39	a	2396	G
39	a	2402	U
39	a	2403	C
39	a	2419	U
39	a	2423	U
39	a	2424	C
39	a	2425	A
39	a	2426	A
39	a	2428	G
39	a	2429	G
39	a	2430	A
39	a	2431	U
39	a	2435	A
39	a	2441	U
39	a	2448	A
39	a	2459	A
39	a	2463	C
39	a	2470	G
39	a	2474	U
39	a	2476	A
39	a	2478	A
39	a	2484	G
39	a	2491	U
39	a	2493	U
39	a	2494	G
39	a	2502	G
39	a	2506	U
39	a	2513	A
39	a	2518	A
39	a	2520	C
39	a	2525	G
39	a	2529	G
39	a	2534	A
39	a	2535	G
39	a	2547	A
39	a	2554	U
39	a	2564	A
39	a	2566	A
39	a	2567	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	2572	A
39	a	2574	G
39	a	2576	G
39	a	2582	G
39	a	2585	U
39	a	2589	A
39	a	2602	A
39	a	2603	G
39	a	2609	U
39	a	2613	U
39	a	2621	G
39	a	2629	U
39	a	2630	G
39	a	2671	G
39	a	2689	U
39	a	2690	U
39	a	2694	G
39	a	2714	G
39	a	2716	C
39	a	2725	A
39	a	2726	A
39	a	2729	G
39	a	2733	A
39	a	2739	U
39	a	2744	G
39	a	2748	A
39	a	2755	C
39	a	2757	A
39	a	2758	A
39	a	2777	G
39	a	2778	A
39	a	2791	G
39	a	2793	C
39	a	2796	U
39	a	2797	U
39	a	2798	U
39	a	2801	G
39	a	2820	A
39	a	2821	A
39	a	2825	G
39	a	2835	A
39	a	2849	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	a	2867	G
39	a	2872	A
39	a	2873	A
39	a	2880	C
39	a	2884	U
39	a	2885	G
39	a	2891	U
39	a	2893	A
42	d	2	G
42	d	13	G
42	d	15	A
42	d	16	G
42	d	17	C
42	d	24	G
42	d	35	C
42	d	51	G
42	d	56	G
42	d	57	A
42	d	66	A
42	d	67	G
42	d	68	C
42	d	88	C
42	d	89	U
42	d	90	C
42	d	98	G
42	d	99	A
42	d	109	A

All (29) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
8	7	-5	U
8	7	1	U
8	7	11	U
10	A	6	G
10	A	9	G
10	A	12	G
10	A	22	G
10	A	46	G
10	A	48	C
10	A	57	A
10	A	60	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	B	6	G
10	B	9	G
10	B	12	G
10	B	22	G
10	B	46	G
10	B	48	C
10	B	57	A
10	B	60	U
16	D	197	A
16	D	428	G
16	D	496	A
16	D	758	C
16	D	873	A
16	D	992	U
16	D	1109	C
16	D	1145	A
16	D	1492	A
16	D	1493	A

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](#)

Of 3 ligands modelled in this entry, 3 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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.

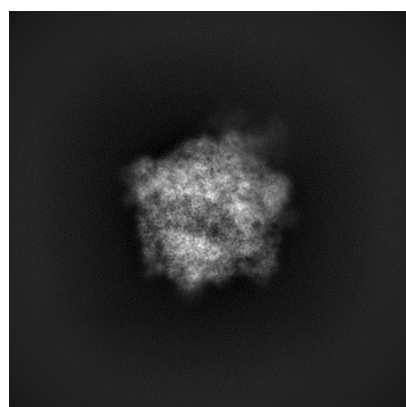
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-21386. These allow visual inspection of the internal detail of the map and identification of artifacts.

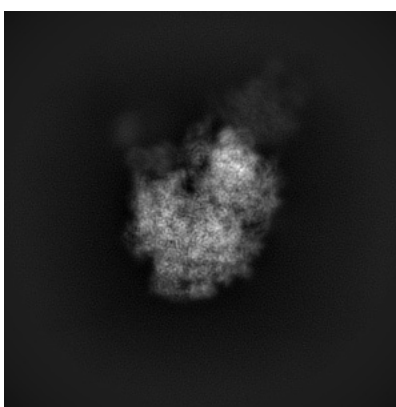
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

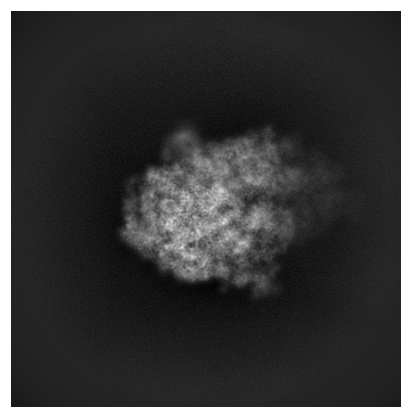
6.1.1 Primary map



X



Y

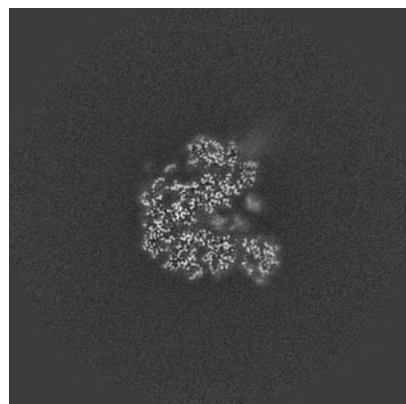


Z

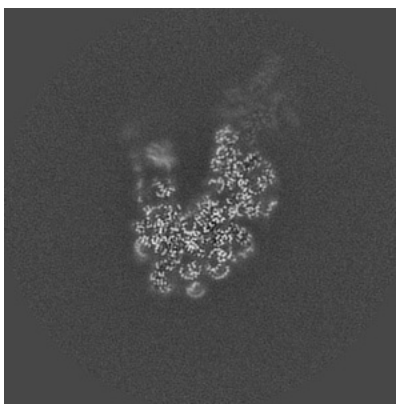
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

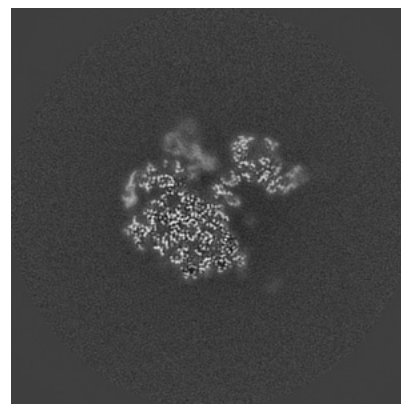
6.2.1 Primary map



X Index: 250



Y Index: 250

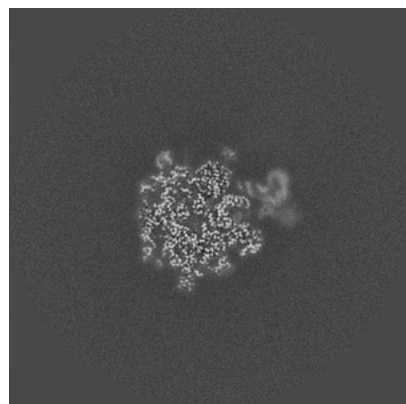


Z Index: 250

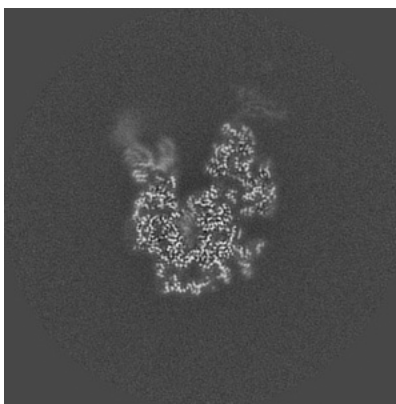
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

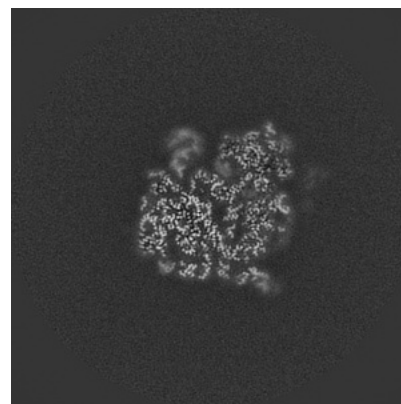
6.3.1 Primary map



X Index: 215



Y Index: 233

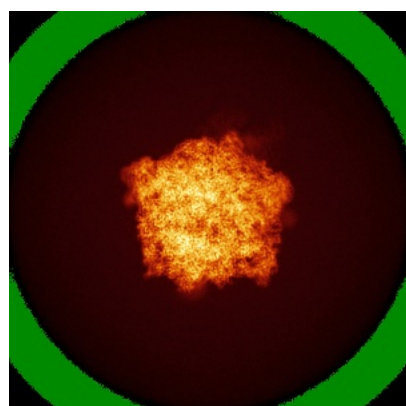


Z Index: 271

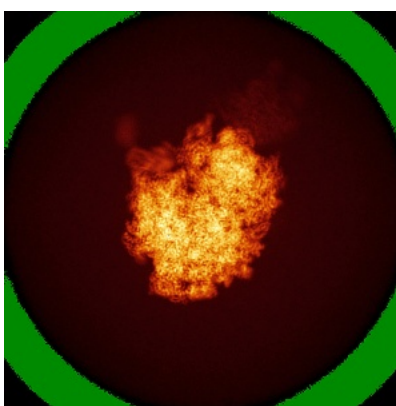
The images above show the largest variance slices of the map in three orthogonal directions.

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

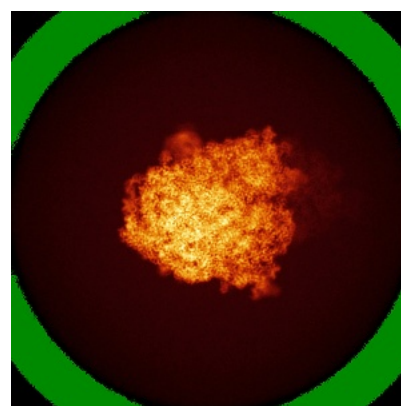
6.4.1 Primary map



X



Y

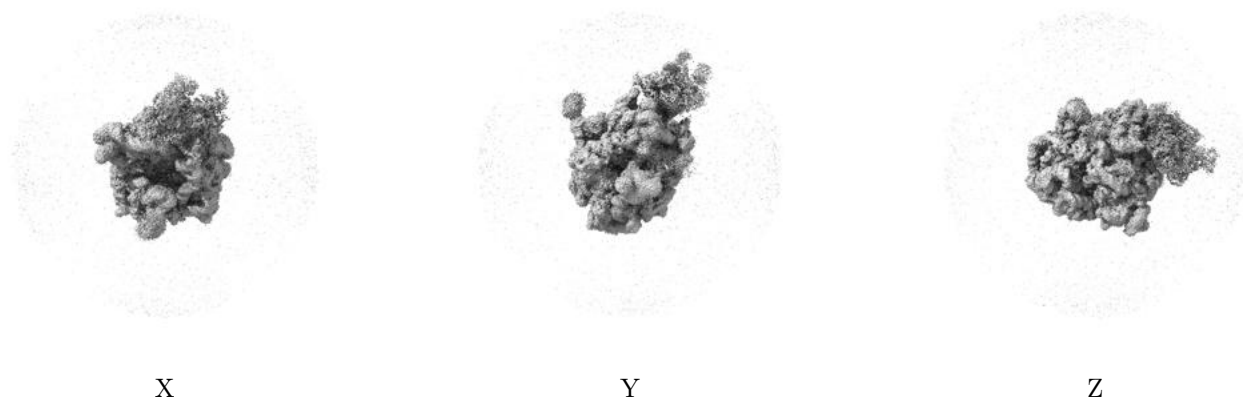


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.007. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

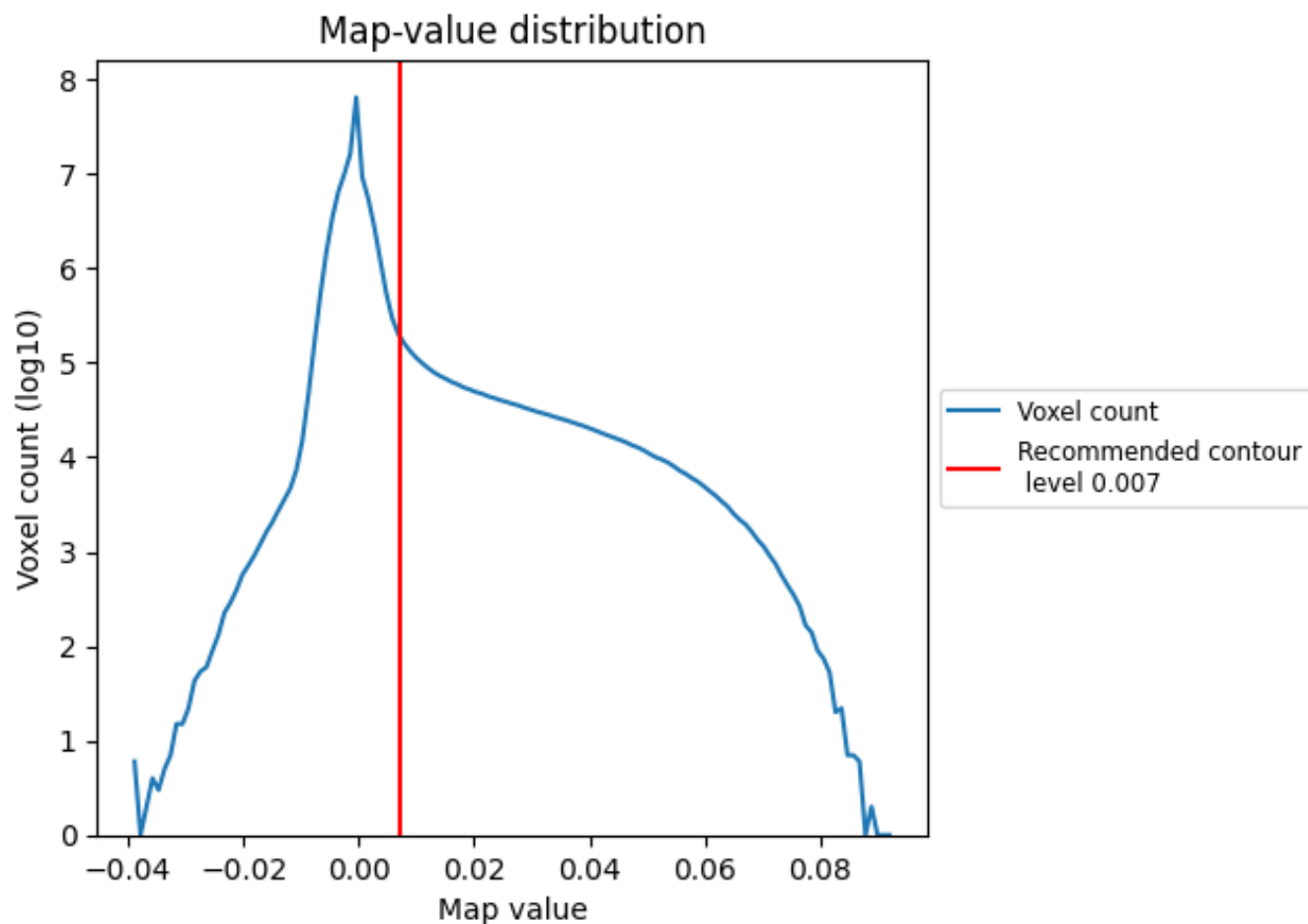
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

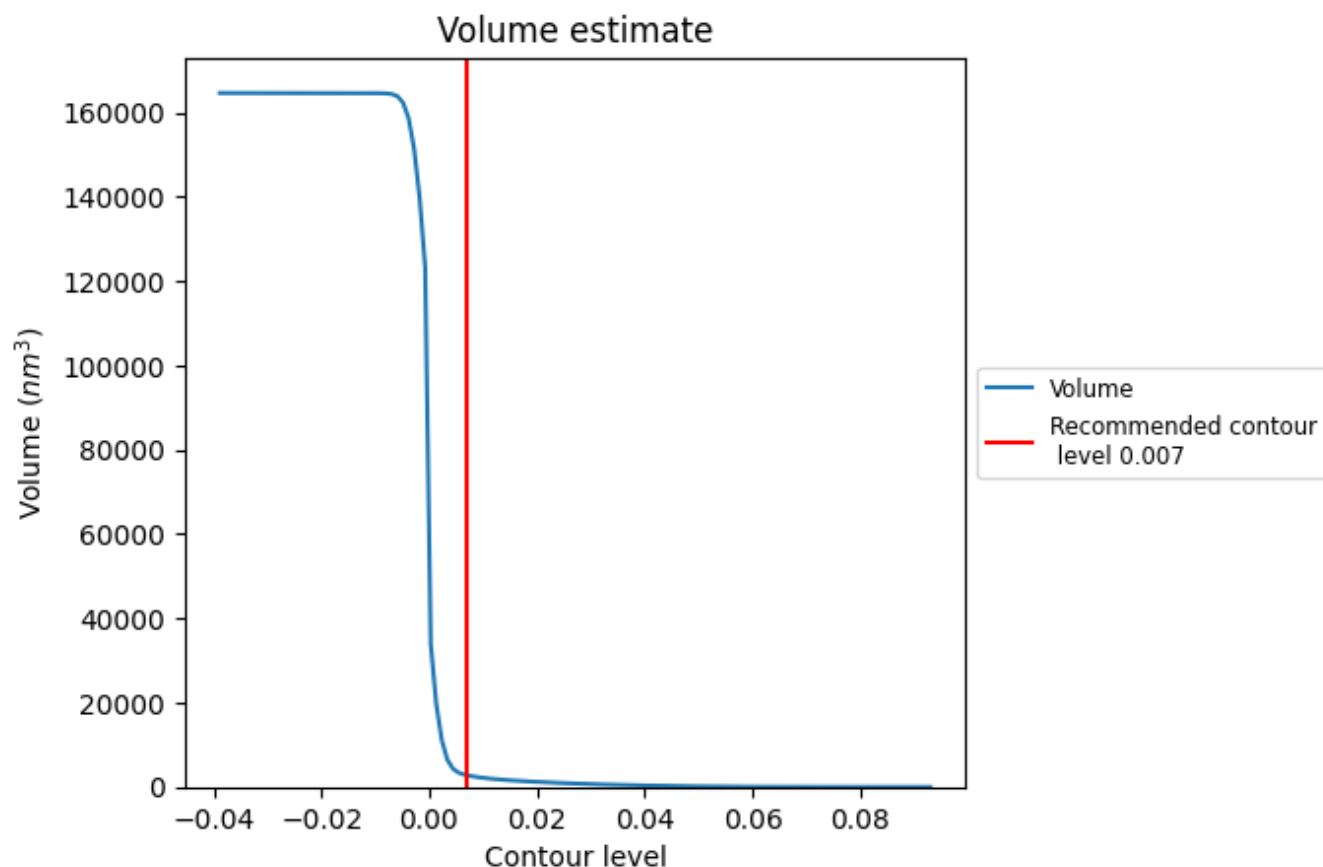
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

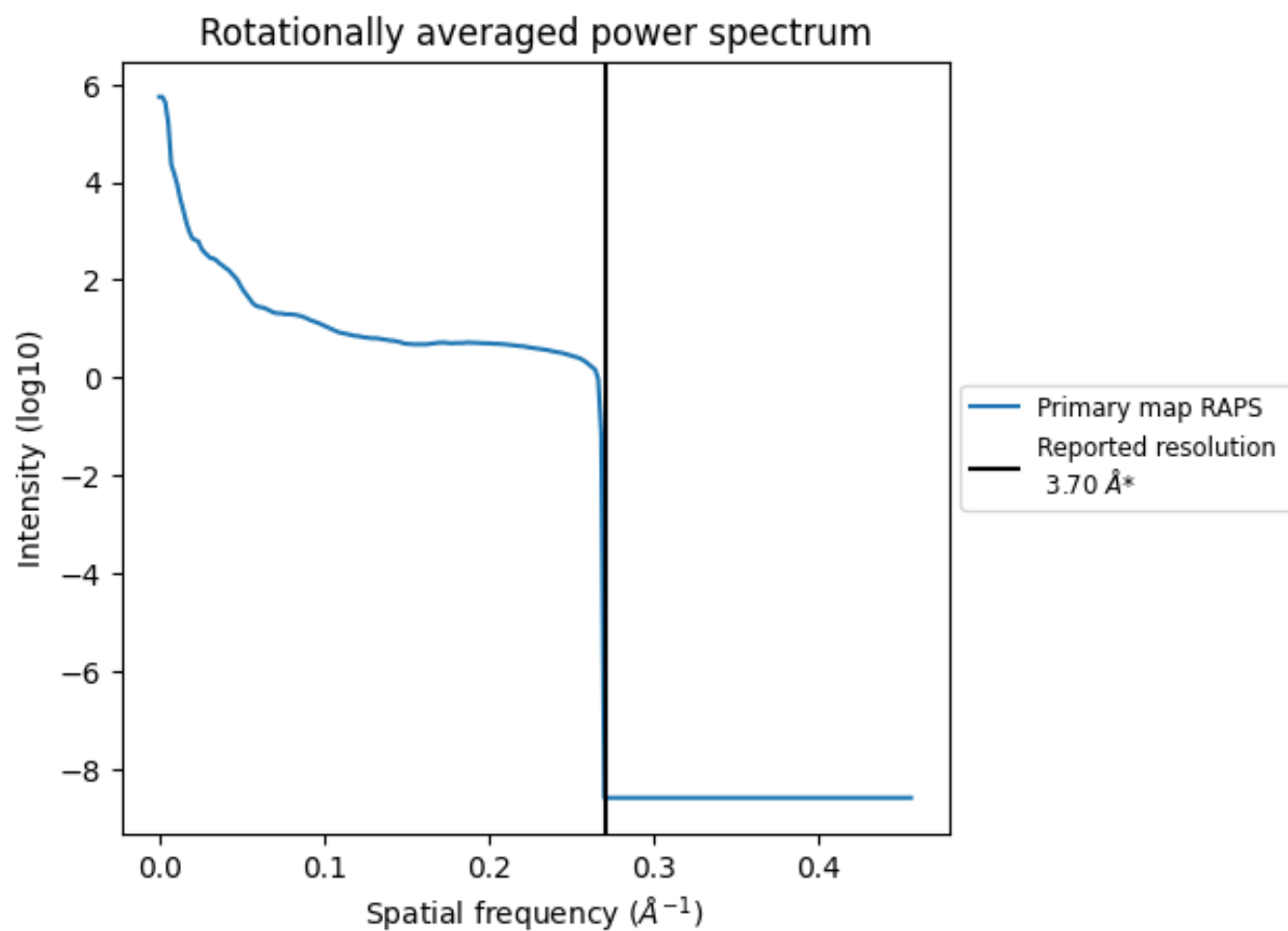
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2788 nm^3 ; this corresponds to an approximate mass of 2518 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

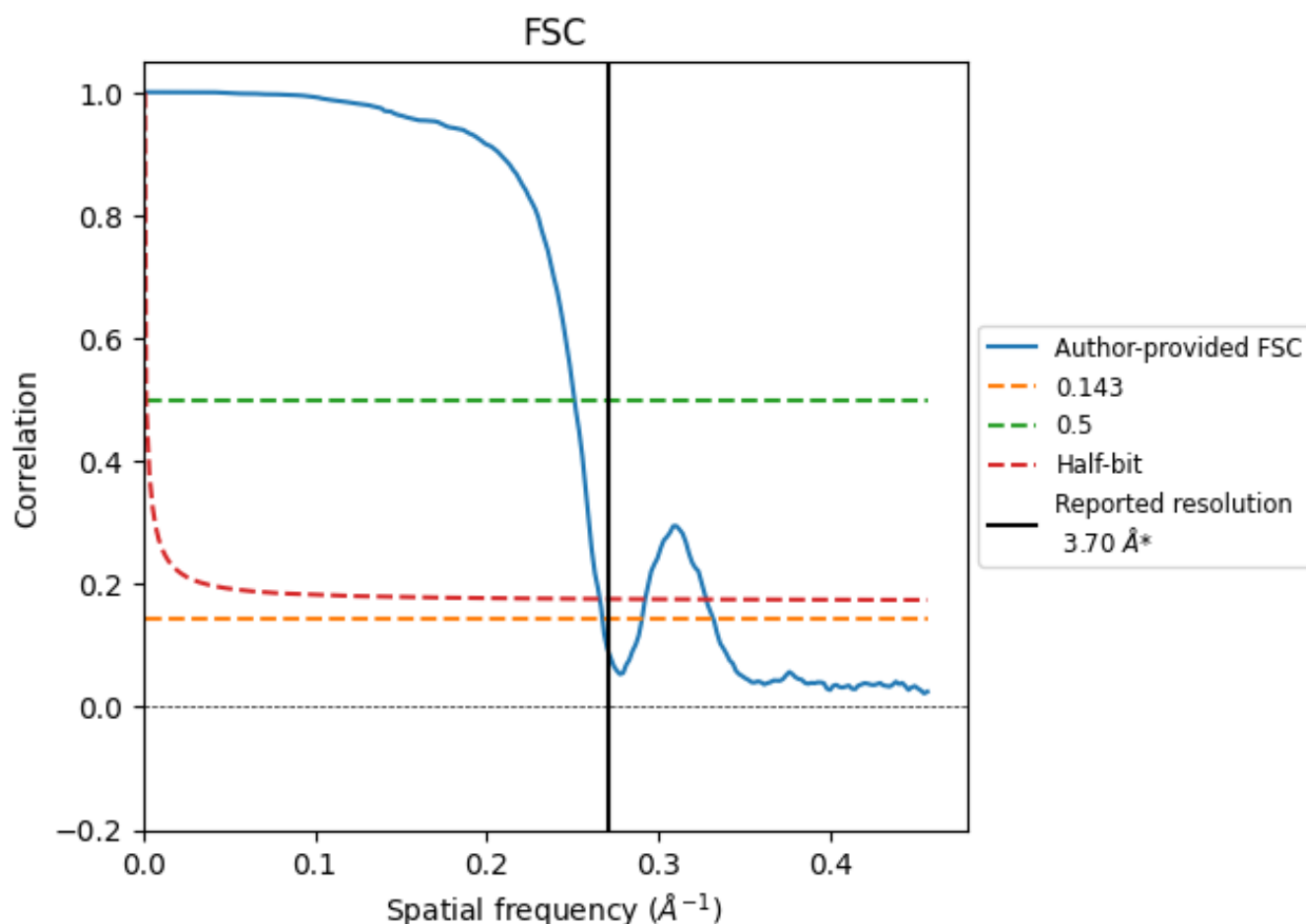


*Reported resolution corresponds to spatial frequency of 0.270 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.270 Å⁻¹

8.2 Resolution estimates [i](#)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.70	-	-
Author-provided FSC curve	3.74	3.99	3.77
Unmasked-calculated*	-	-	-

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

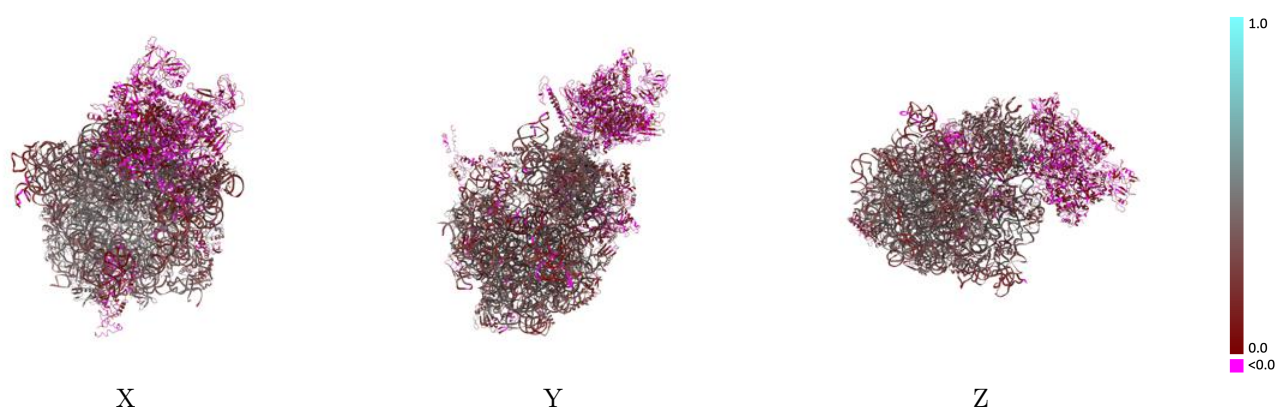
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-21386 and PDB model 6VU3. Per-residue inclusion information can be found in section 3 on page 16.

9.1 Map-model overlay [i](#)

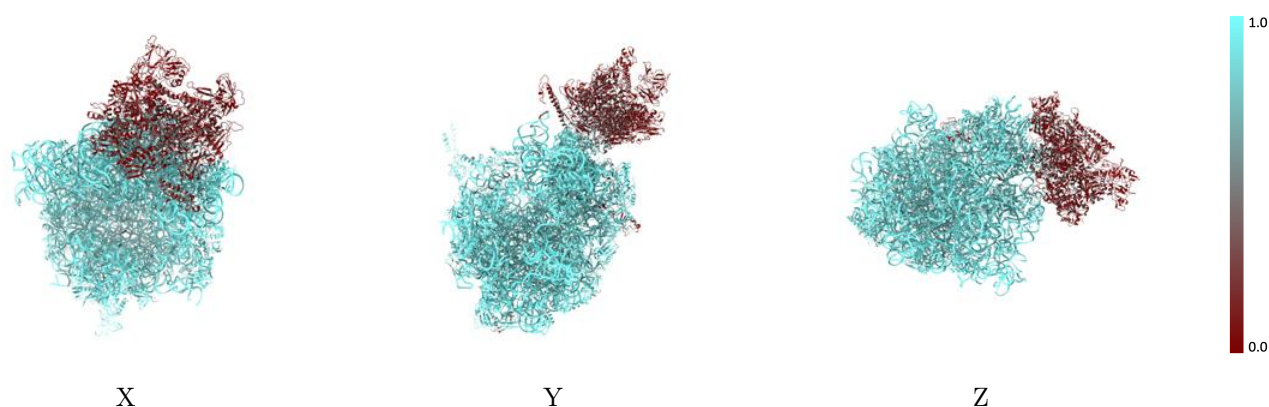
This section was not generated.

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



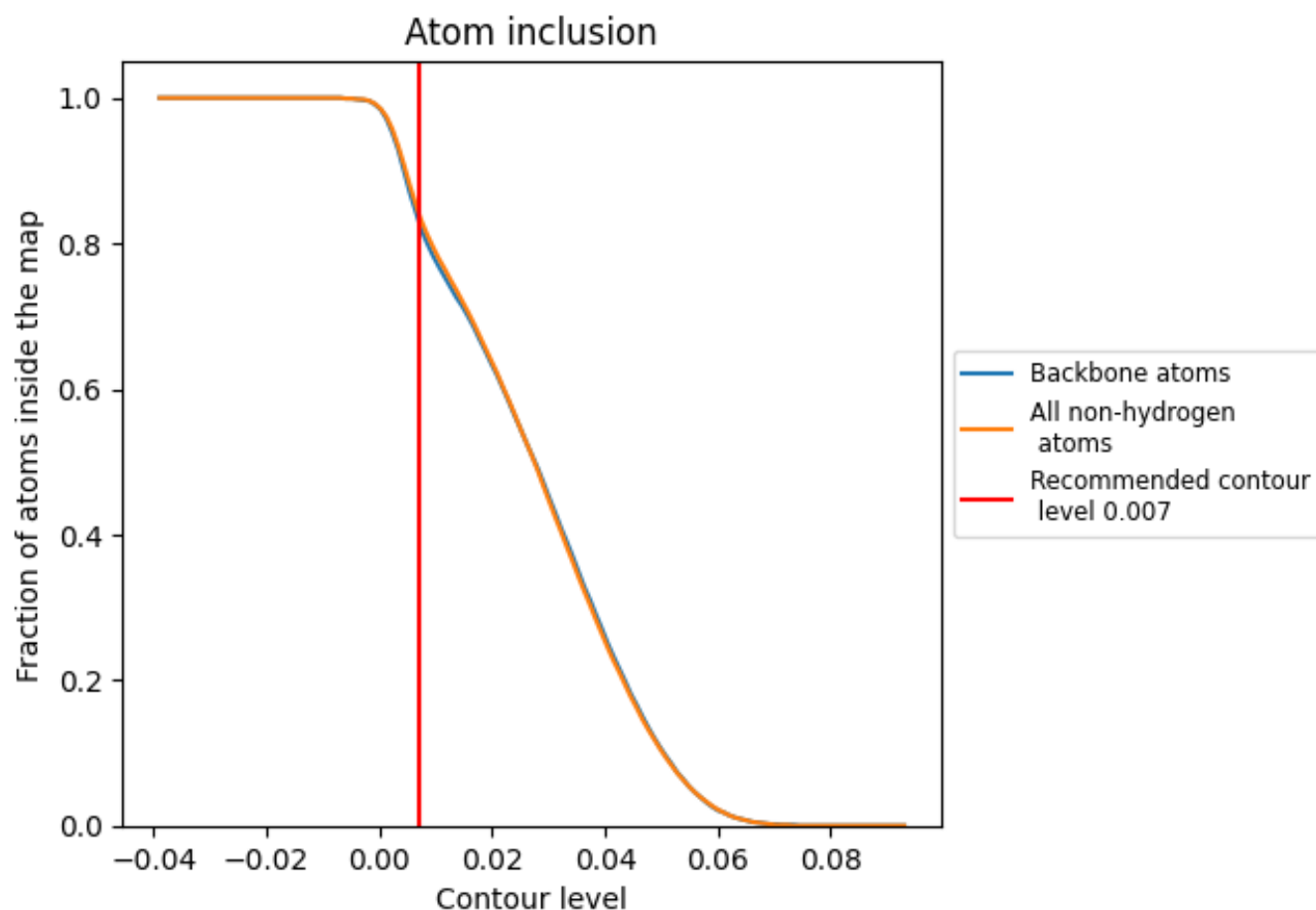
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.007).

9.4 Atom inclusion [i](#)



At the recommended contour level, 83% of all backbone atoms, 84% 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 (0.007) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8420	 0.2760
0	 0.8630	 0.1500
1	 0.9110	 0.3400
2	 0.9110	 0.2660
3	 0.6280	 0.0310
4	 0.9420	 0.3370
5	 0.2100	 0.0920
6	 0.3360	 0.0790
7	 0.6430	 0.0640
9	 0.9420	 0.1200
A	 0.9890	 0.2070
AA	 0.2260	 0.0620
AB	 0.1630	 0.1010
AC	 0.2250	 0.0630
AD	 0.1360	 0.0640
AE	 0.1910	 0.0790
B	 0.9170	 0.1670
C	 0.8680	 0.1580
D	 0.9890	 0.3430
E	 0.9480	 0.3300
F	 0.8230	 0.0680
G	 0.8700	 0.1600
H	 0.6290	 0.0360
I	 0.9350	 0.3890
J	 0.9180	 0.2940
K	 0.8750	 0.1820
L	 0.9190	 0.2480
M	 0.9170	 0.2680
N	 0.8870	 0.2180
O	 0.9100	 0.1900
P	 0.9310	 0.3190
Q	 0.9030	 0.2490
R	 0.8880	 0.2860
S	 0.9110	 0.2460
T	 0.9130	 0.2380



Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
U	 0.9280	 0.2700
V	 0.8810	 0.2100
W	 0.9460	 0.3250
X	 0.9290	 0.3180
Y	 0.8830	 0.0510
Z	 0.9210	 0.0010
a	 0.9850	 0.3450
b	 0.8550	 0.1810
c	 0.9150	 0.3260
d	 0.9950	 0.3210
e	 0.8850	 0.1590
f	 0.9130	 0.3480
g	 0.8400	 0.0960
h	 0.9530	 0.4140
i	 0.8760	 0.2890
j	 0.9270	 0.3660
k	 0.8900	 0.2720
l	 0.8740	 0.2520
m	 0.9270	 0.3560
n	 0.9300	 0.2780
o	 0.9230	 0.3850
p	 0.9530	 0.3550
q	 0.9310	 0.3900
r	 0.8750	 0.2450
s	 0.9260	 0.3160
t	 0.9250	 0.3760
u	 0.9430	 0.3710
v	 0.9300	 0.3530
w	 0.9210	 0.2700
x	 0.9270	 0.2180
y	 0.9090	 0.2750
z	 0.9060	 0.2850