



Full wwPDB EM Validation Report ⓘ

Mar 12, 2026 – 05:05 PM UTC

PDB ID : 7PAH / pdb_00007pah
EMDB ID : EMD-13272
Title : 70S ribosome with P- and E-site tRNAs in Mycoplasma pneumoniae cells
Authors : Xue, L.; Lenz, S.; Rappsilber, J.; Mahamid, J.
Deposited on : 2021-07-30
Resolution : 9.50 Å (reported)
Based on initial models : 4V7C, 7OOC, 7OOD

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:

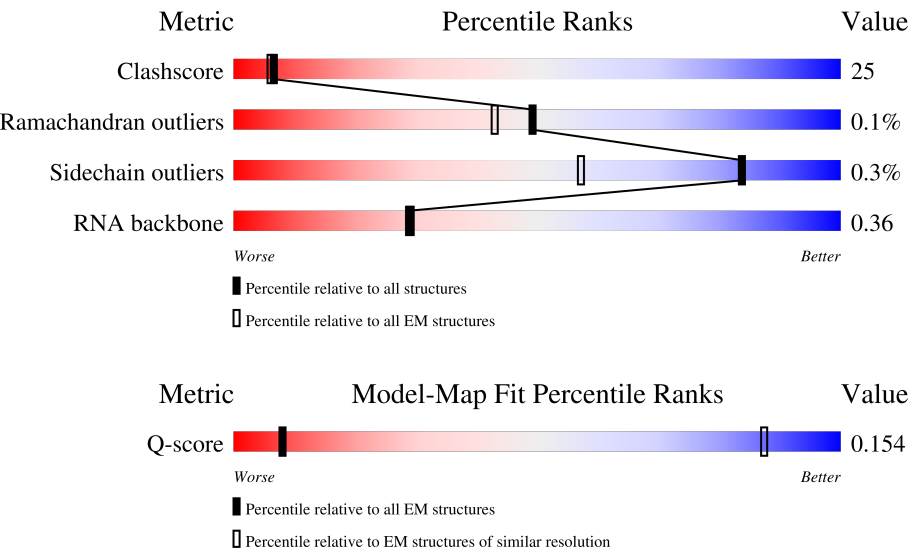
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance i

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

The reported resolution of this entry is 9.50 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	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	234 (9.00 - 10.00)

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	48	
2	1	59	
3	2	37	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
4	A	294	
5	B	273	
6	C	205	
7	D	219	
8	E	215	
9	F	155	
10	G	142	
11	H	132	
12	I	108	
13	J	121	
14	K	139	
15	L	124	
16	M	61	
17	N	86	
18	O	94	
19	P	85	
20	Q	104	
21	R	87	
22	S	87	
23	T	60	
24	a	287	
25	b	287	
26	c	212	
27	d	180	
28	e	184	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
29	f	149	
30	g	161	
31	h	137	
32	i	146	
33	j	122	
34	k	151	
35	l	139	
36	m	124	
37	n	116	
38	o	119	
39	p	127	
40	q	100	
41	r	159	
42	s	237	
43	t	111	
44	u	104	
45	v	65	
46	w	111	
47	x	97	
48	y	57	
49	z	53	
50	3	2907	
51	4	108	
52	5	1520	
53	7	76	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
53	8	76	46% 28% 53% 20%

2 Entry composition

There are 53 unique types of molecules in this entry. The entry contains 146120 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	0	47	Total	C	N	O	S	0	0
			380	236	81	61	2		

- Molecule 2 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	1	59	Total	C	N	O	S	0	0
			477	300	99	77	1		

- Molecule 3 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	2	37	Total	C	N	O	S	0	0
			304	189	65	46	4		

- Molecule 4 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	A	240	Total	C	N	O	S	0	0
			1921	1226	334	352	9		

- Molecule 5 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	B	215	Total	C	N	O	S	0	0
			1698	1073	313	307	5		

- Molecule 6 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	C	203	Total	C	N	O	S	0	0
			1660	1051	314	290	5		

- Molecule 7 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	D	153	Total	C	N	O	S	0	0
			1173	742	226	202	3		

- Molecule 8 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	E	167	Total	C	N	O	S	0	0
			1362	857	240	263	2		

- Molecule 9 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	F	154	Total	C	N	O	S	0	0
			1246	785	239	216	6		

- Molecule 10 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	G	141	Total	C	N	O	S	0	0
			1110	723	193	192	2		

- Molecule 11 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	H	128	Total	C	N	O	S	0	0
			1028	655	191	181	1		

- Molecule 12 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	I	101	Total	C	N	O	S	0	0
			809	523	142	143	1		

- Molecule 13 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	J	114	Total	C	N	O	S	0	0
			829	514	153	156	6		

- Molecule 14 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	K	136	Total	C	N	O	S	0	0
			1076	680	213	181	2		

- Molecule 15 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	L	118	Total	C	N	O		0	0
			951	594	191	166			

- Molecule 16 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	M	60	Total	C	N	O	S	0	0
			474	302	96	72	4		

- Molecule 17 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	N	83	Total	C	N	O		0	0
			673	428	125	120			

- Molecule 18 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	O	80	Total	C	N	O	S	0	0
			646	414	119	111	2		

- Molecule 19 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	P	83	Total	C	N	O		0	0
			675	425	135	115			

- Molecule 20 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	Q	65	Total	C	N	O	S	0	0
			535	342	103	86	4		

- Molecule 21 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	R	84	Total	C	N	O	S	0	0
			682	435	127	118	2		

- Molecule 22 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	S	77	Total	C	N	O	S	0	0
			629	383	135	111			

- Molecule 23 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	T	53	Total	C	N	O	S	0	0
			471	295	103	72	1		

- Molecule 24 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	a	285	Total	C	N	O	S	0	0
			2225	1385	437	397	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
25	b	229	Total	C	N	O	S	0	0
			1762	1119	318	318	7		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
26	c	210	Total	C	N	O	S	0	0
			1644	1047	297	297	3		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
27	d	175	Total	C	N	O	S	0	0
			1388	893	245	246	4		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
28	e	176	Total	C	N	O	0	0
			1396	899	247	250		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
29	f	145	Total	C	N	O	S	0
			1160	746	204	207	3	0

- Molecule 30 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms				AltConf	Trace
30	g	126	Total	C	N	O	S	0
			960	612	167	178	3	0

- Molecule 31 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms				AltConf	Trace
31	h	128	Total	C	N	O	S	0
			959	616	160	177	6	0

- Molecule 32 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms				AltConf	Trace
32	i	144	Total	C	N	O	S	0
			1164	737	213	209	5	0

- Molecule 33 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms				AltConf	Trace
33	j	122	Total	C	N	O	S	0
			944	595	178	167	4	0

- Molecule 34 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms				AltConf	Trace
34	k	148	Total	C	N	O	0	0
			1153	731	226	196		

- Molecule 35 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	l	136	Total	C	N	O	S	0	0
			1079	694	196	182	7		

- Molecule 36 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	m	119	Total	C	N	O	S	0	0
			958	609	175	171	3		

- Molecule 37 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	n	112	Total	C	N	O	S	0	0
			889	557	175	155	2		

- Molecule 38 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	o	115	Total	C	N	O	S	0	0
			938	592	180	165	1		

- Molecule 39 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	p	114	Total	C	N	O	S	0	0
			947	603	188	154	2		

- Molecule 40 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	q	99	Total	C	N	O	S	0	0
			811	525	148	134	4		

- Molecule 41 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	r	139	Total	C	N	O	S	0	0
			1068	663	207	191	7		

- Molecule 42 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	s	92	Total	C	N	O	S	0	0
			720	475	122	122	1		

- Molecule 43 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	t	111	Total	C	N	O	S	0	0
			872	550	166	153	3		

- Molecule 44 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	u	86	Total	C	N	O	S	0	0
			657	409	130	117	1		

- Molecule 45 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	v	63	Total	C	N	O	S	0	0
			513	317	108	87	1		

- Molecule 46 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms				AltConf	Trace
46	w	100	Total	C	N	O	0	0
			818	517	153	148		

- Molecule 47 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	x	44	Total	C	N	O	S	0	0
			344	221	55	64	4		

- Molecule 48 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	y	56	Total	C	N	O	S	0	0
			452	274	98	75	5		

- Molecule 49 is a protein called 50S ribosomal protein L33 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	z	50	Total	C	N	O	S	0	0
			408	255	81	68	4		

- Molecule 50 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	3	2878	Total	C	N	O	P	0	0
			61664	27558	11236	19995	2875		

- Molecule 51 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	4	105	Total	C	N	O	P	0	0
			2239	1003	409	724	103		

- Molecule 52 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	5	1493	Total	C	N	O	P	0	0
			31943	14279	5792	10382	1490		

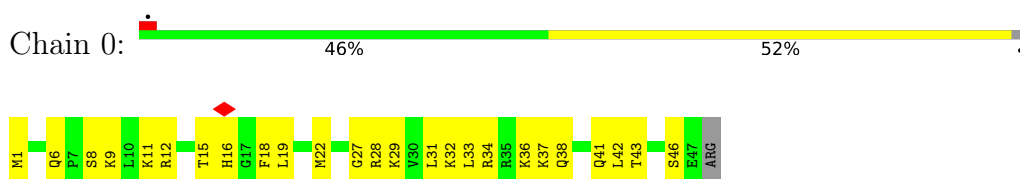
- Molecule 53 is a RNA chain called tRNA-Phe.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	7	76	Total	C	N	O	P	0	0
			1618	723	289	531	75		
53	8	76	Total	C	N	O	P	0	0
			1618	723	289	531	75		

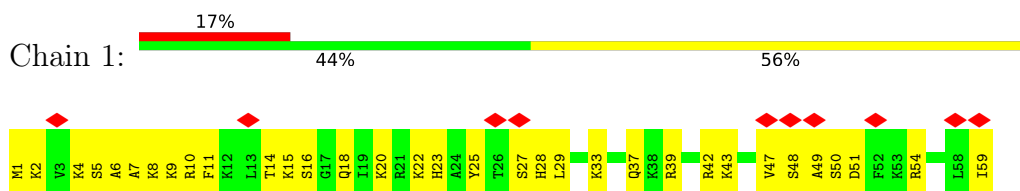
3 Residue-property plots

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.

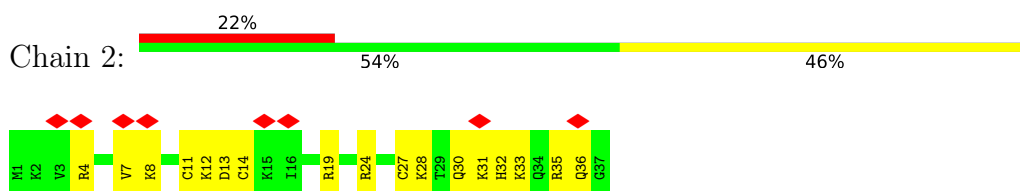
- Molecule 1: 50S ribosomal protein L34



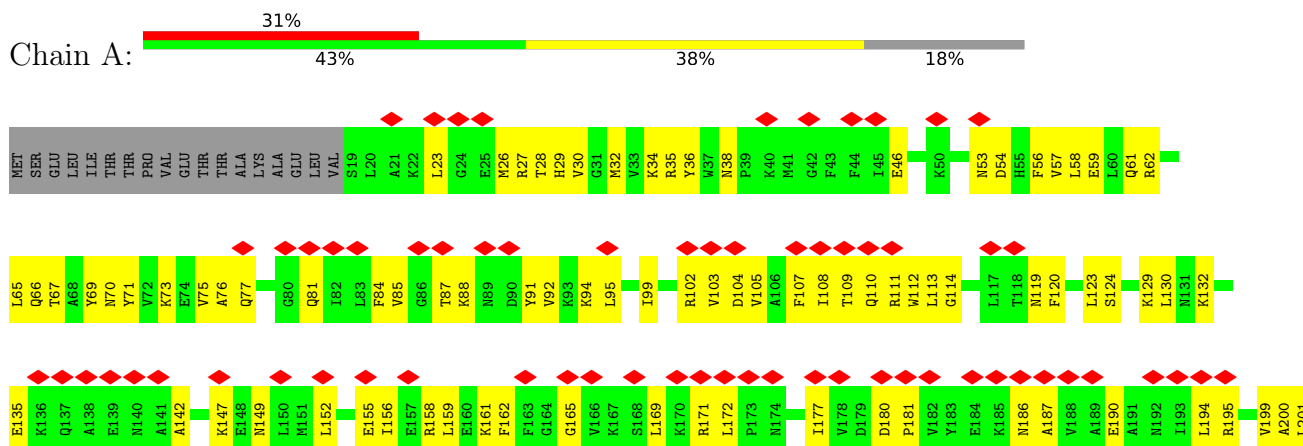
- Molecule 2: 50S ribosomal protein L35

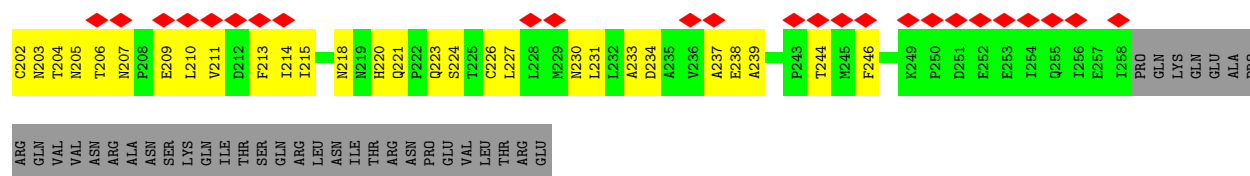


- Molecule 3: 50S ribosomal protein L36

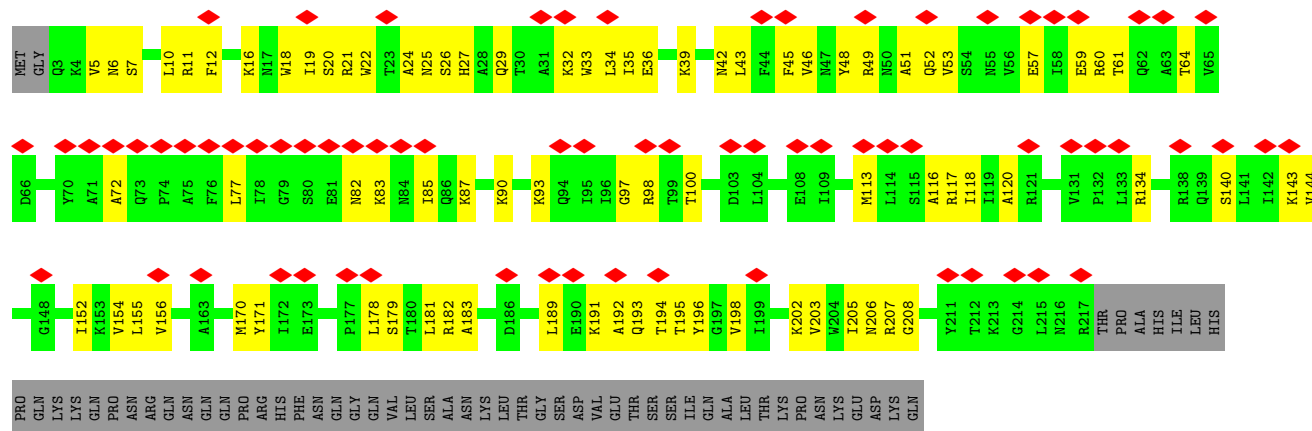


- Molecule 4: 30S ribosomal protein S2

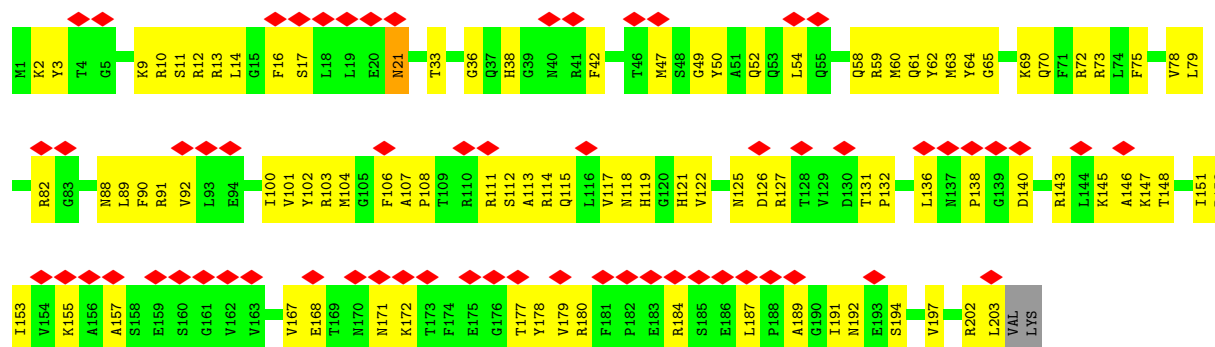




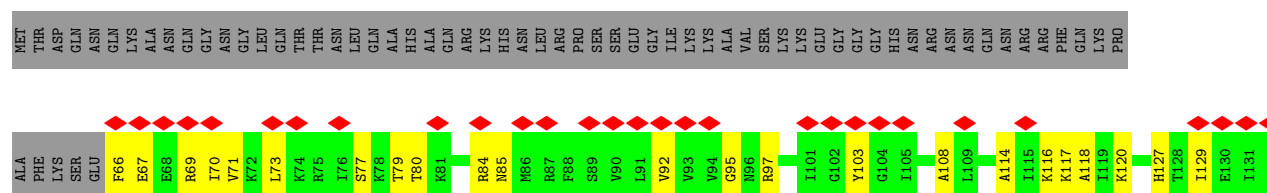
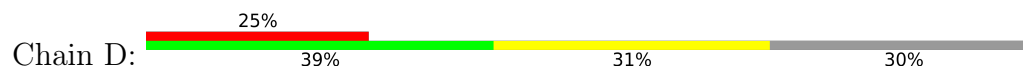
• Molecule 5: 30S ribosomal protein S3

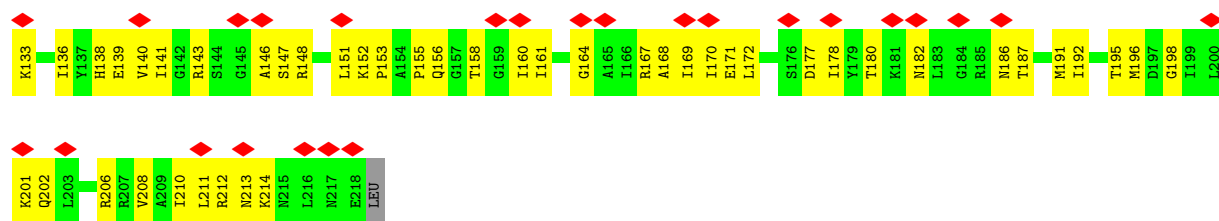


• Molecule 6: 30S ribosomal protein S4

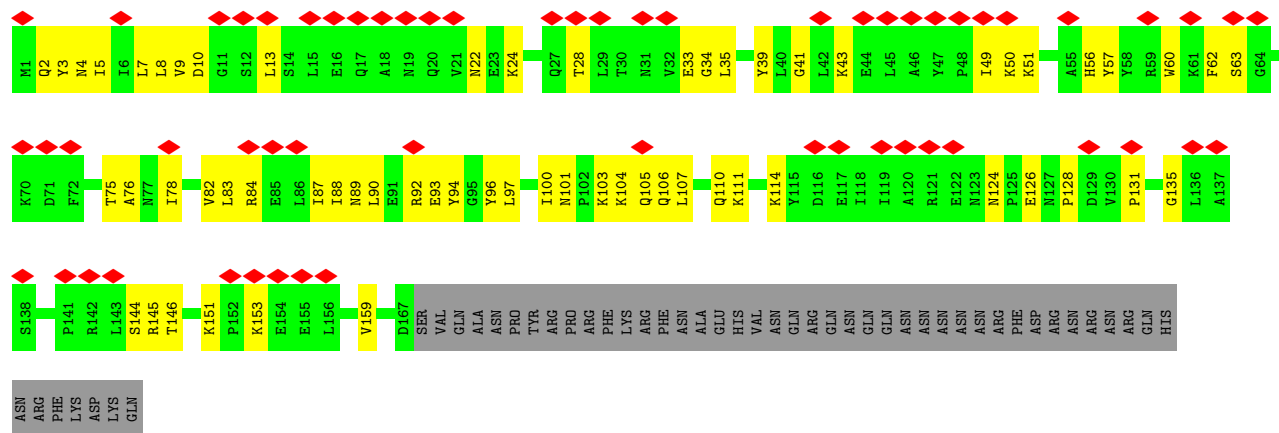


• Molecule 7: 30S ribosomal protein S5

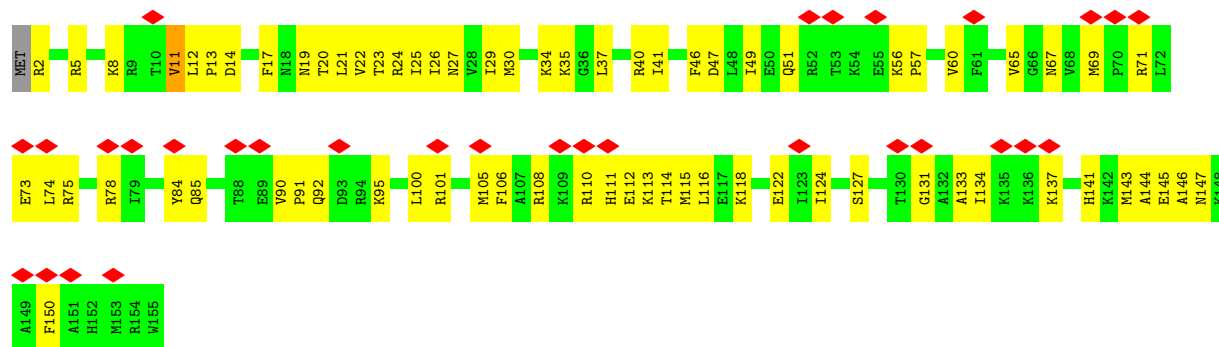




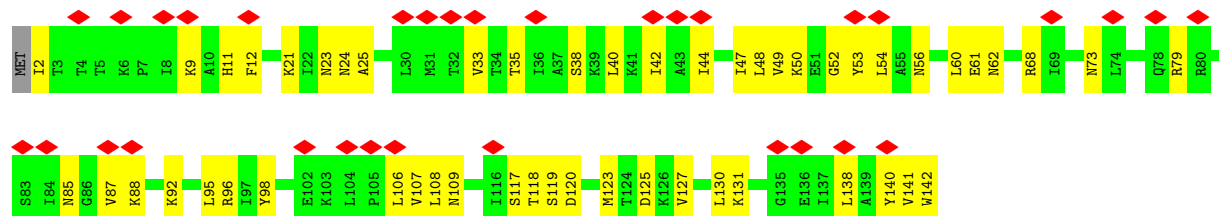
• Molecule 8: 30S ribosomal protein S6



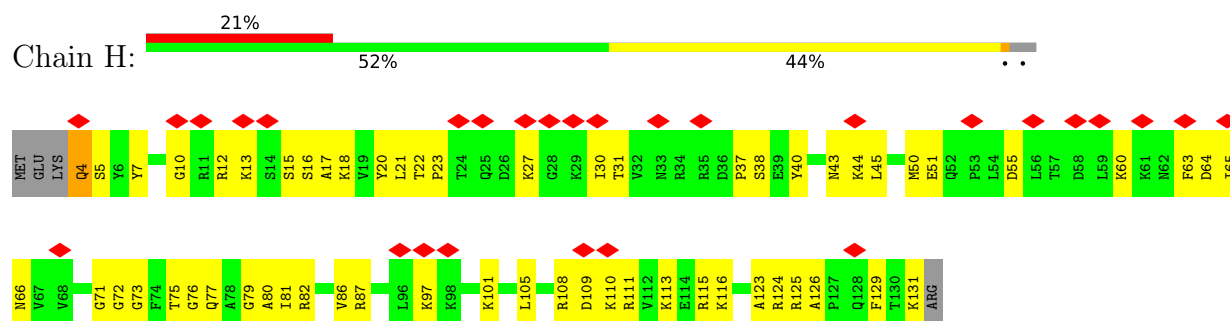
• Molecule 9: 30S ribosomal protein S7



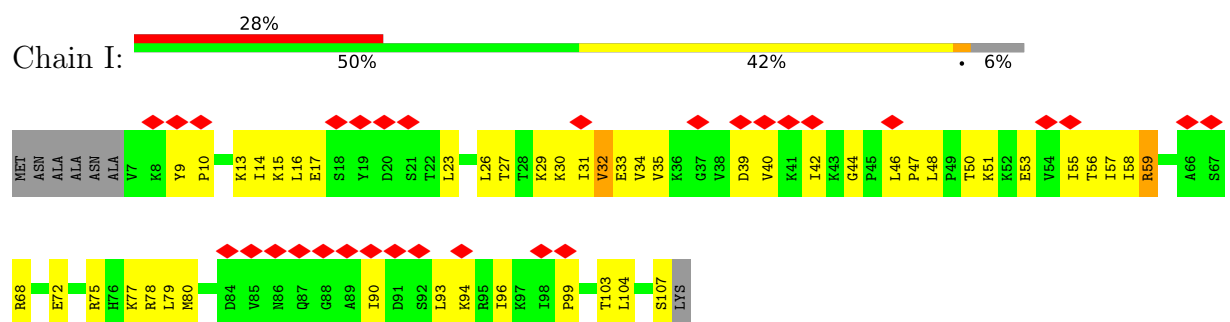
• Molecule 10: 30S ribosomal protein S8



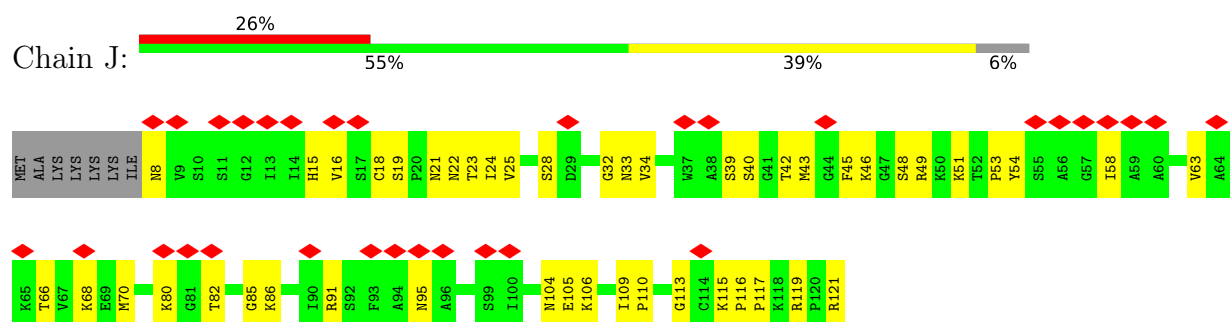
- Molecule 11: 30S ribosomal protein S9



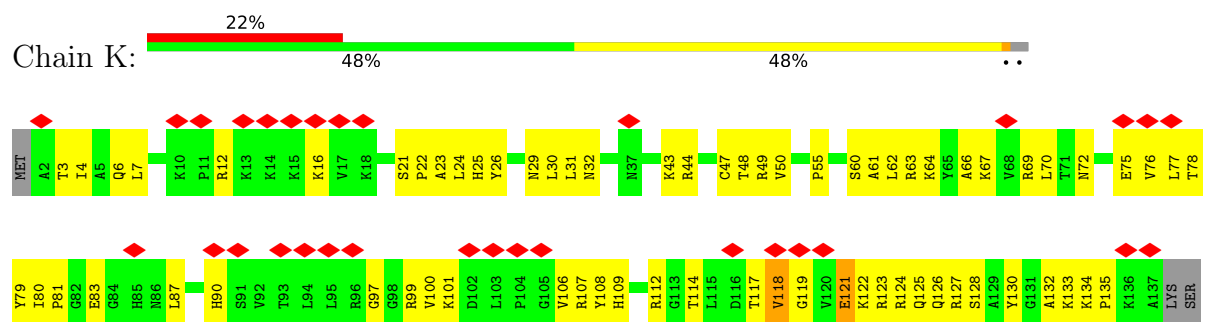
- Molecule 12: 30S ribosomal protein S10



- Molecule 13: 30S ribosomal protein S11

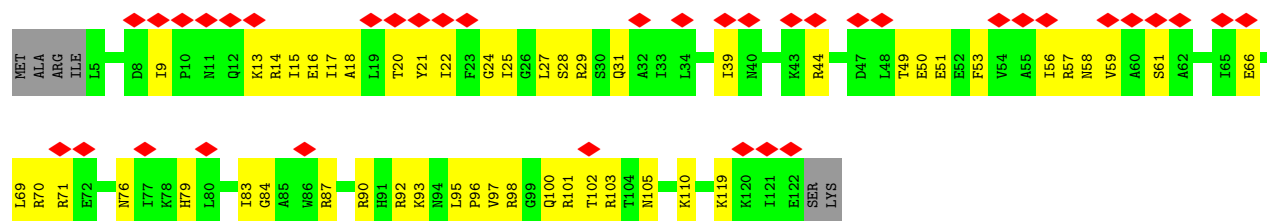


- Molecule 14: 30S ribosomal protein S12



- Molecule 15: 30S ribosomal protein S13

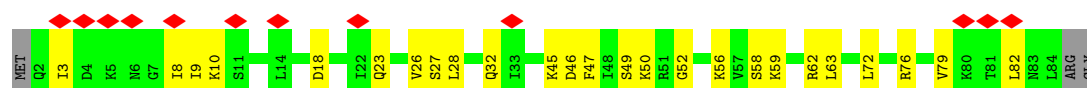




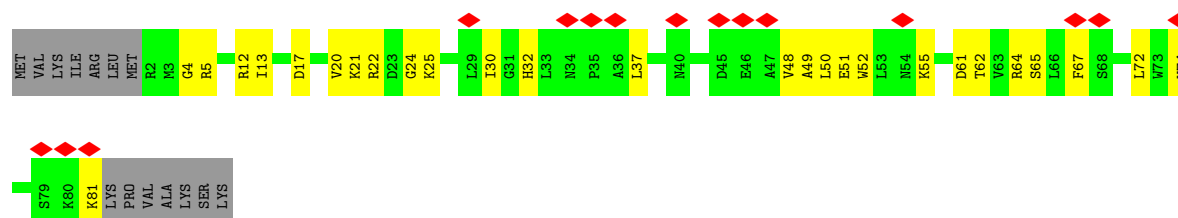
- Molecule 16: 30S ribosomal protein S14 type Z



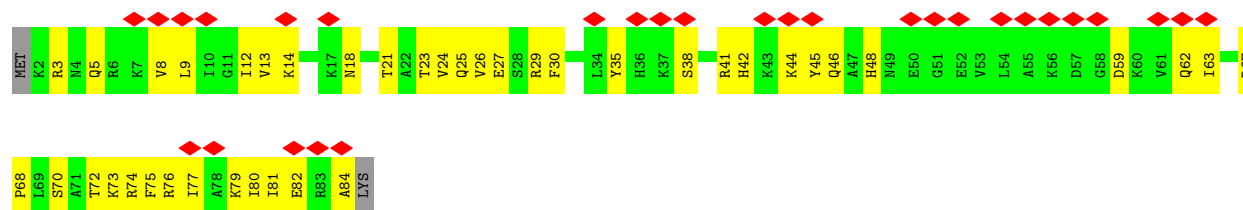
- Molecule 17: 30S ribosomal protein S15



- Molecule 18: 30S ribosomal protein S16

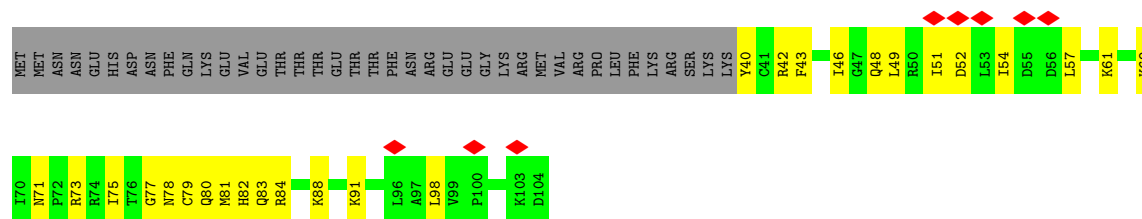


- Molecule 19: 30S ribosomal protein S17

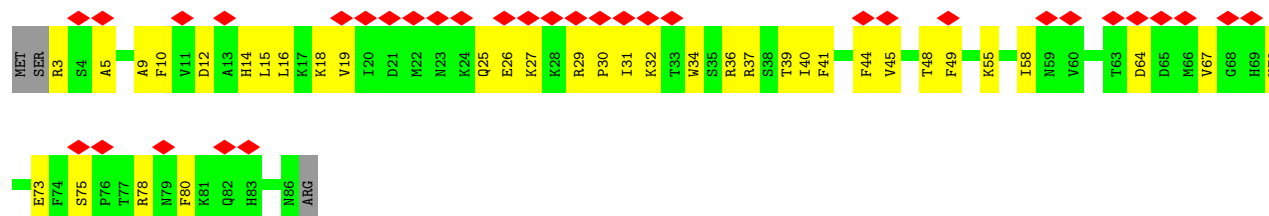
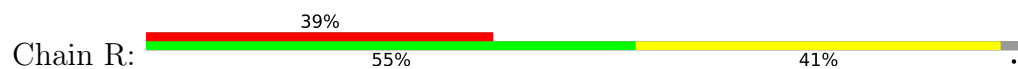


- Molecule 20: 30S ribosomal protein S18

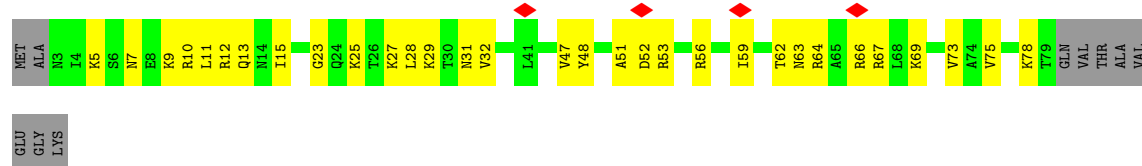




- Molecule 21: 30S ribosomal protein S19



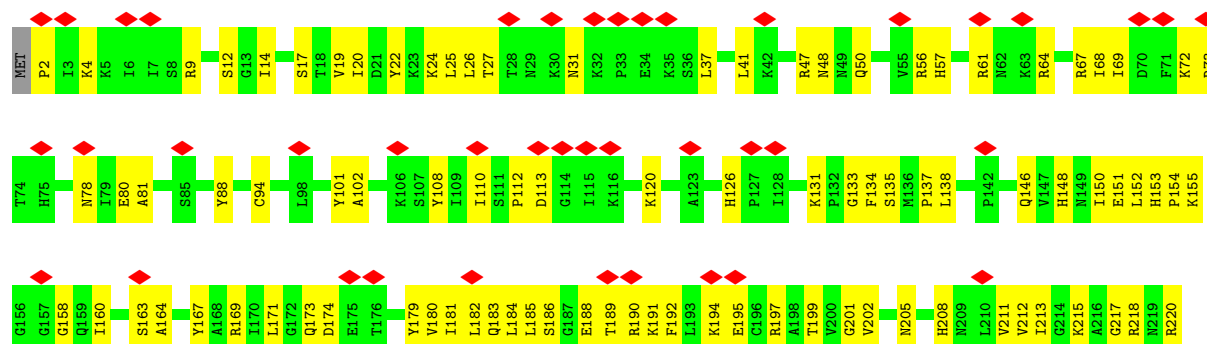
- Molecule 22: 30S ribosomal protein S20

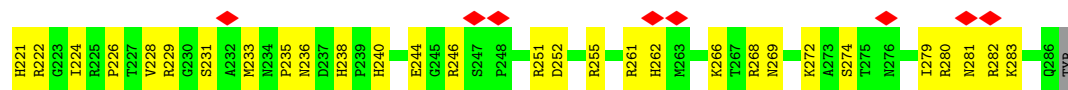


- Molecule 23: 30S ribosomal protein S21

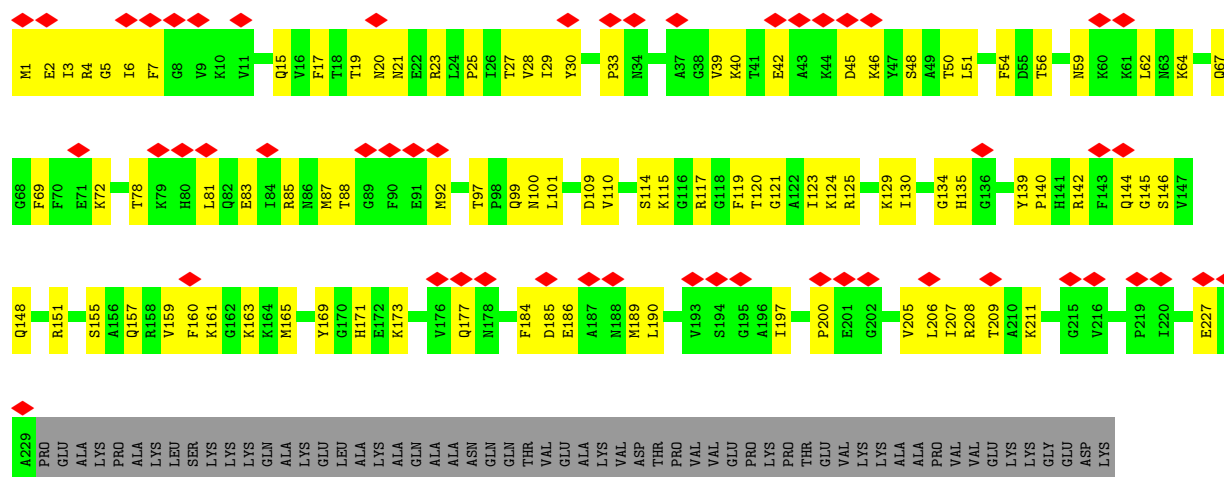


- Molecule 24: 50S ribosomal protein L2

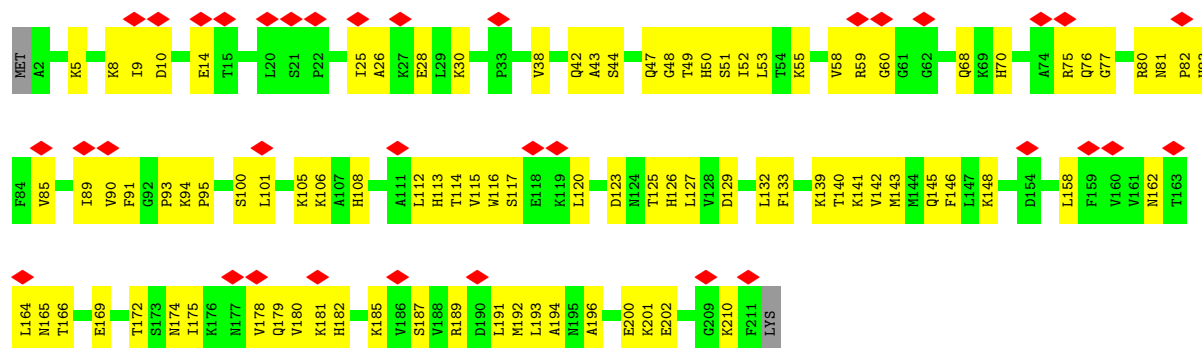




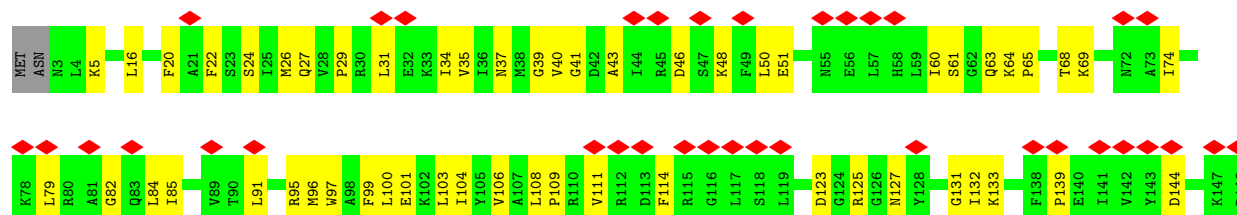
• Molecule 25: 50S ribosomal protein L3

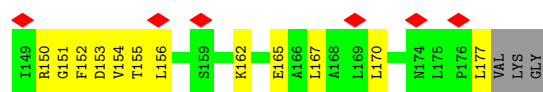


• Molecule 26: 50S ribosomal protein L4

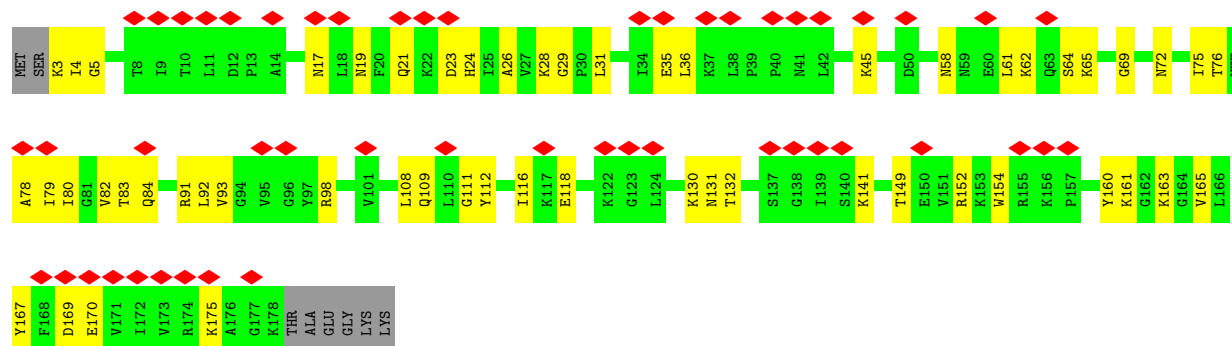


• Molecule 27: 50S ribosomal protein L5

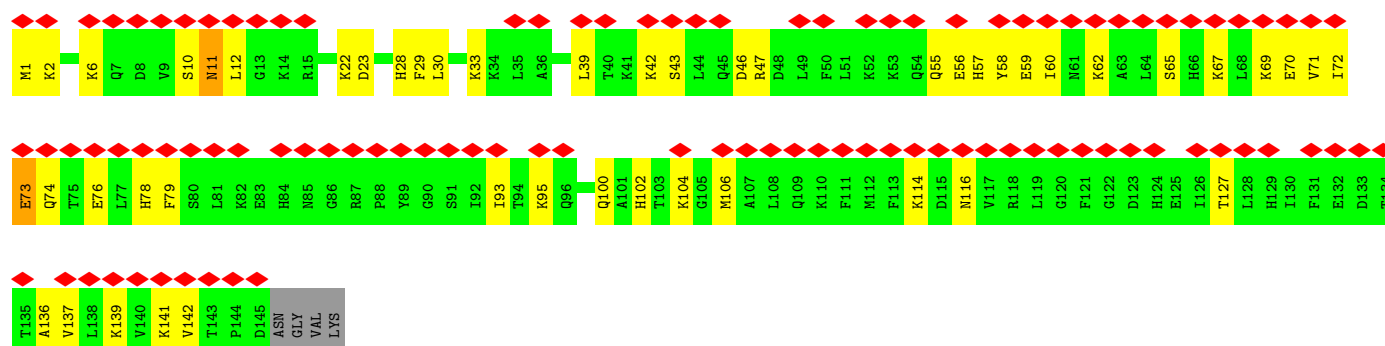




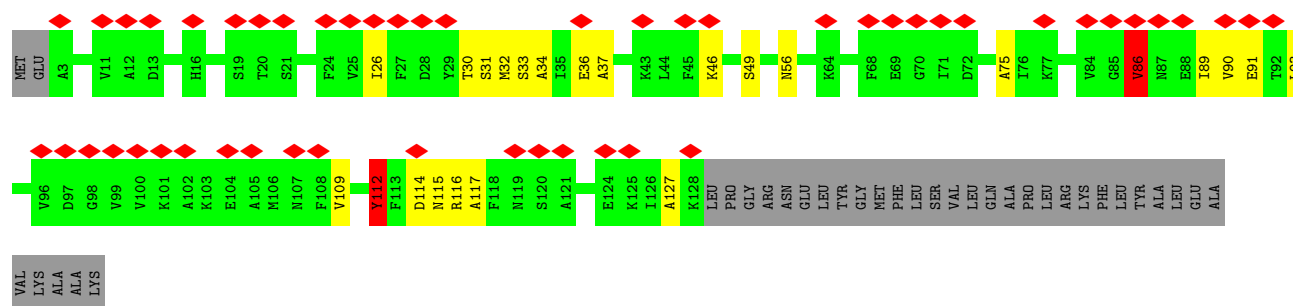
• Molecule 28: 50S ribosomal protein L6



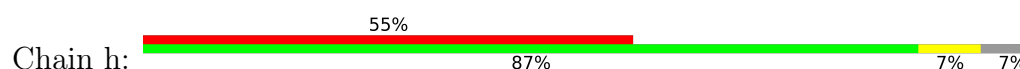
• Molecule 29: 50S ribosomal protein L9

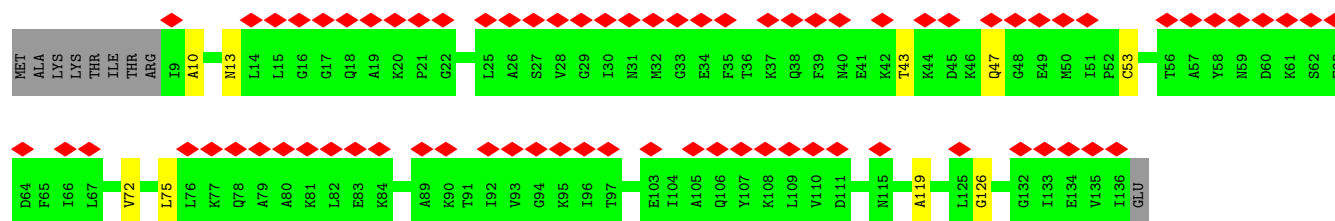


• Molecule 30: 50S ribosomal protein L10

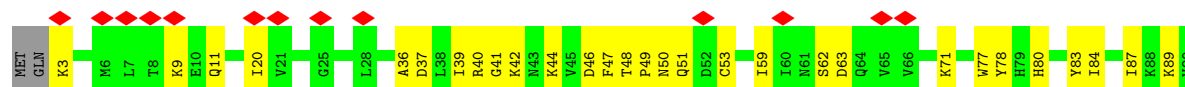


• Molecule 31: 50S ribosomal protein L11

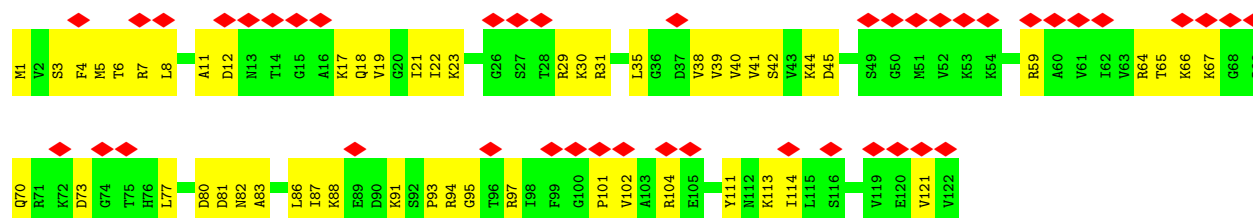




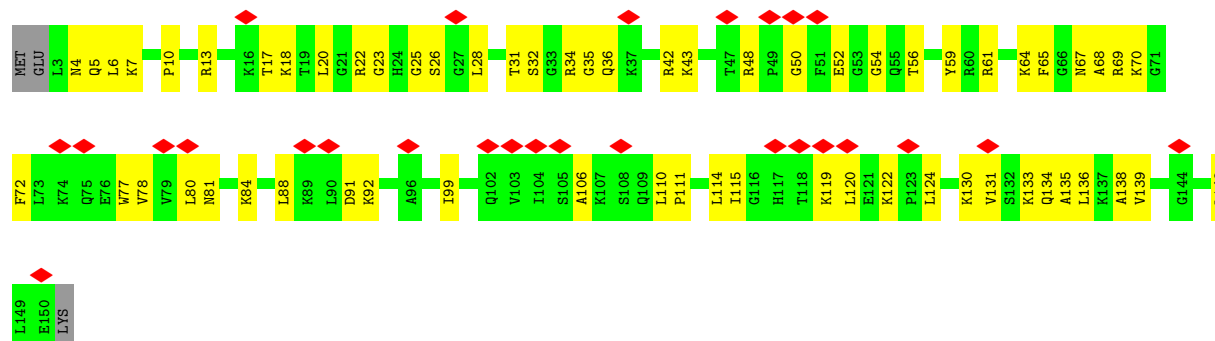
• Molecule 32: 50S ribosomal protein L13



• Molecule 33: 50S ribosomal protein L14

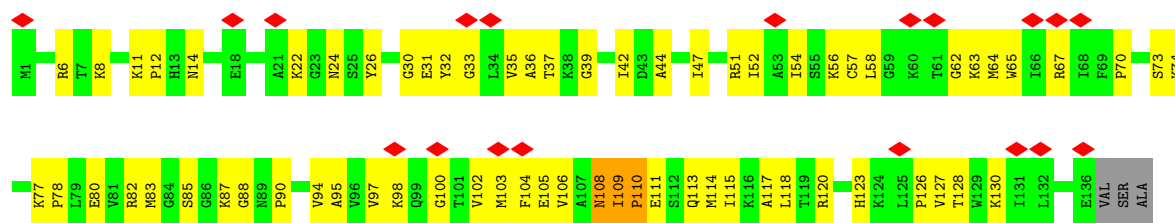


• Molecule 34: 50S ribosomal protein L15

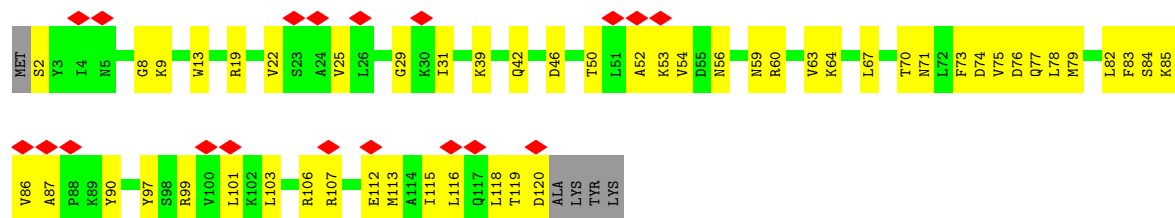


• Molecule 35: 50S ribosomal protein L16

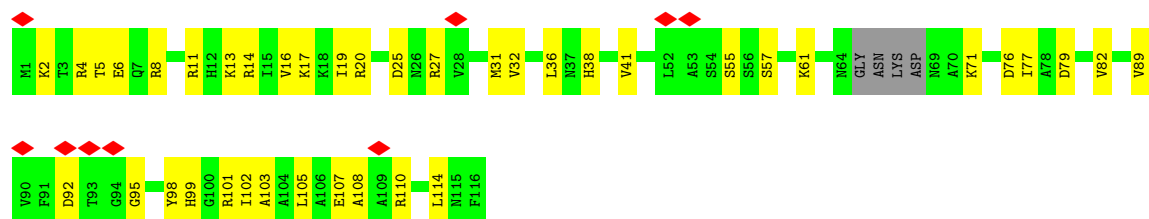




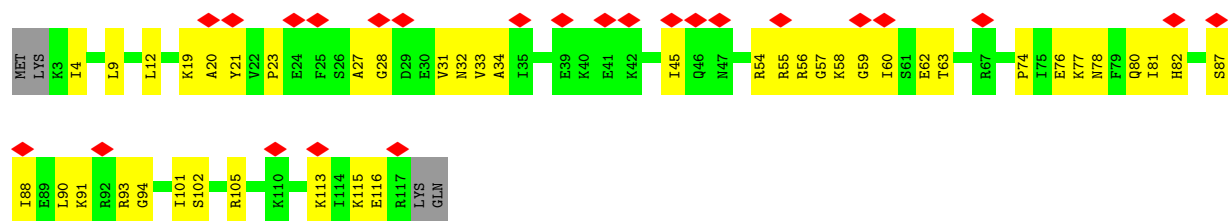
• Molecule 36: 50S ribosomal protein L17



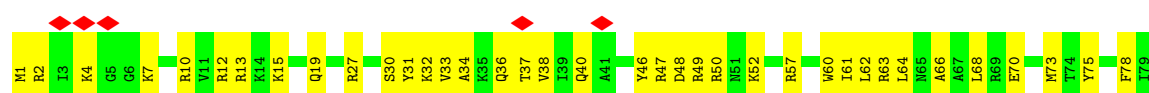
• Molecule 37: 50S ribosomal protein L18

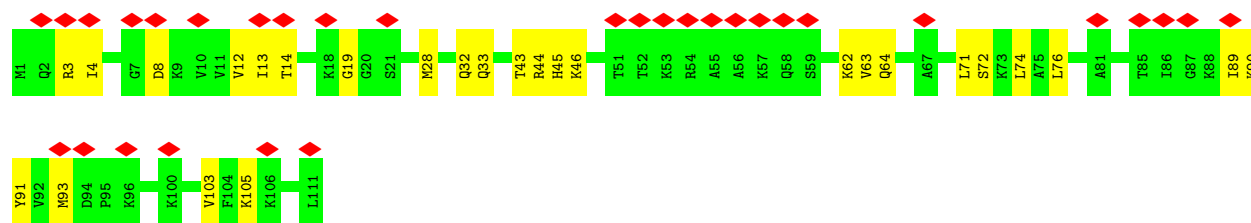


• Molecule 38: 50S ribosomal protein L19

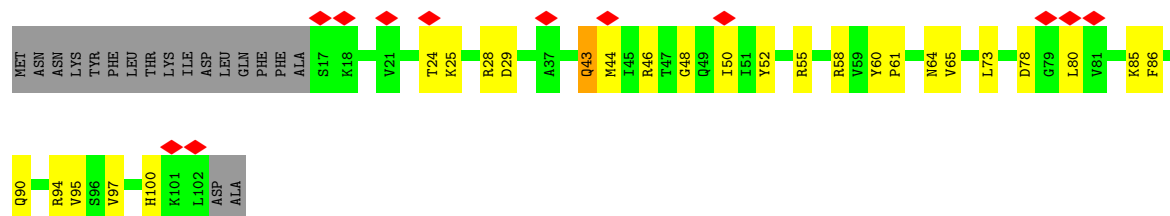


• Molecule 39: 50S ribosomal protein L20

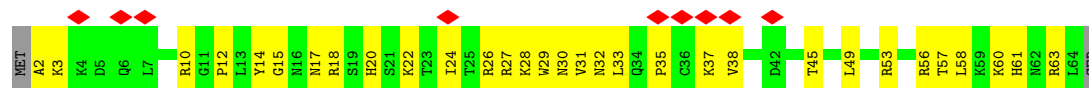




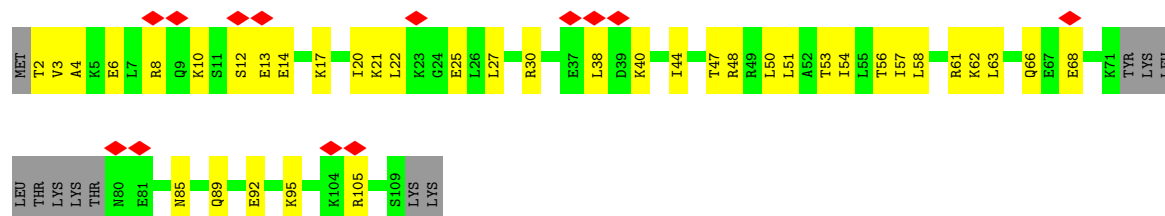
• Molecule 44: 50S ribosomal protein L27



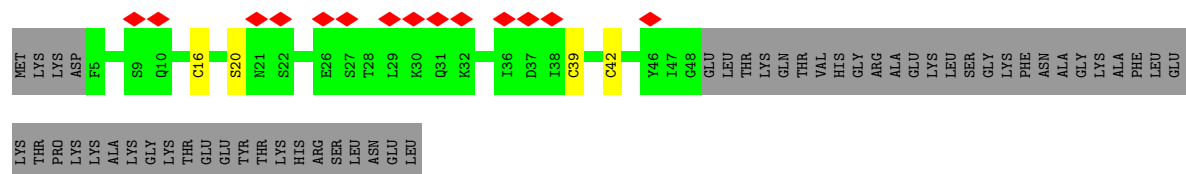
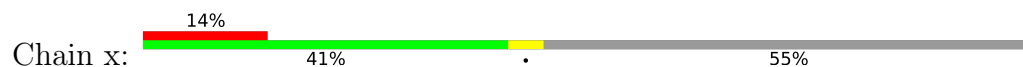
• Molecule 45: 50S ribosomal protein L28



• Molecule 46: 50S ribosomal protein L29

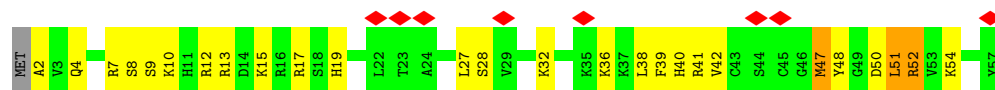


• Molecule 47: 50S ribosomal protein L31



• Molecule 48: 50S ribosomal protein L32

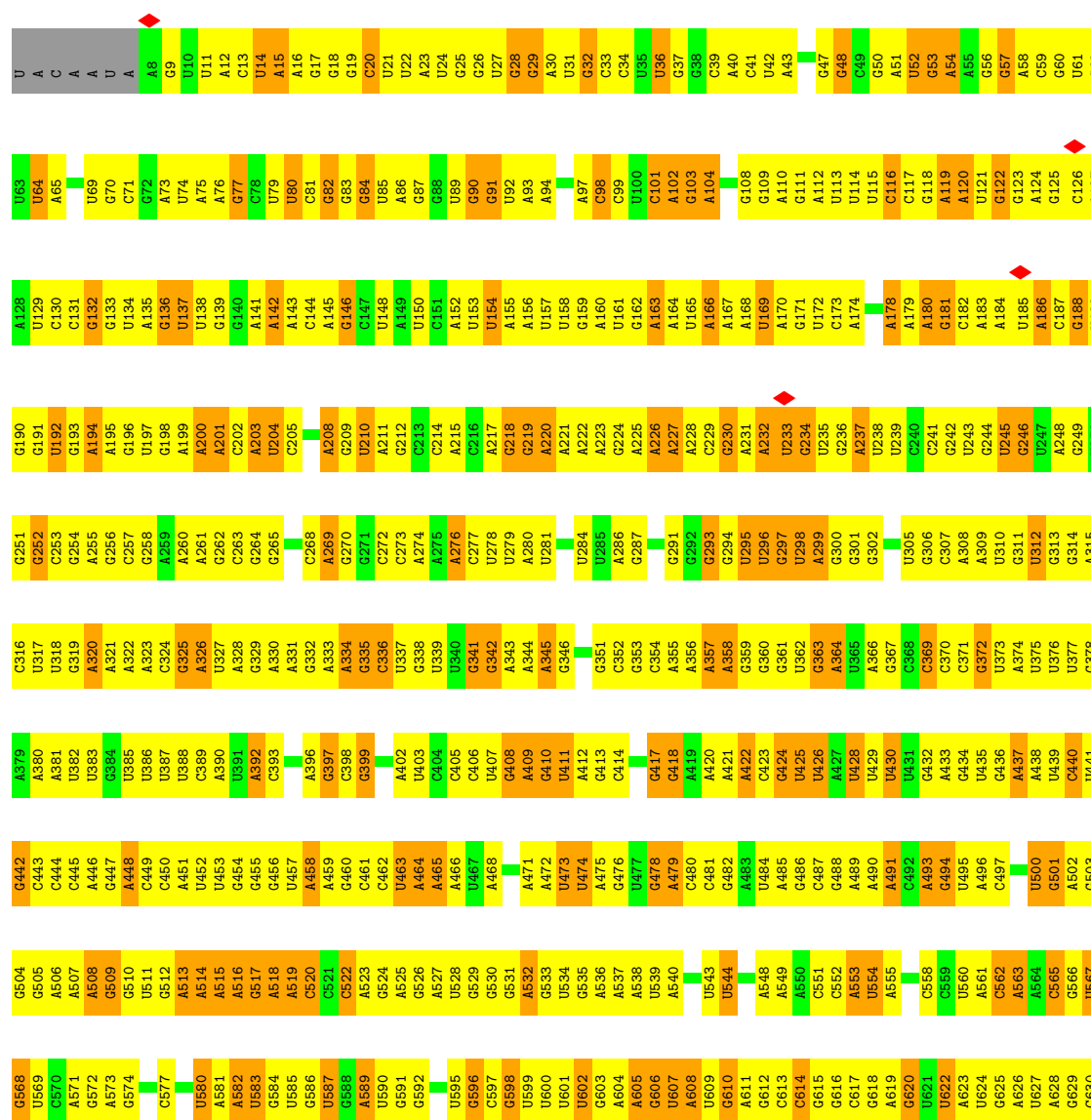
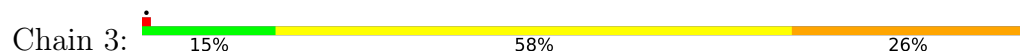




- Molecule 49: 50S ribosomal protein L33 1

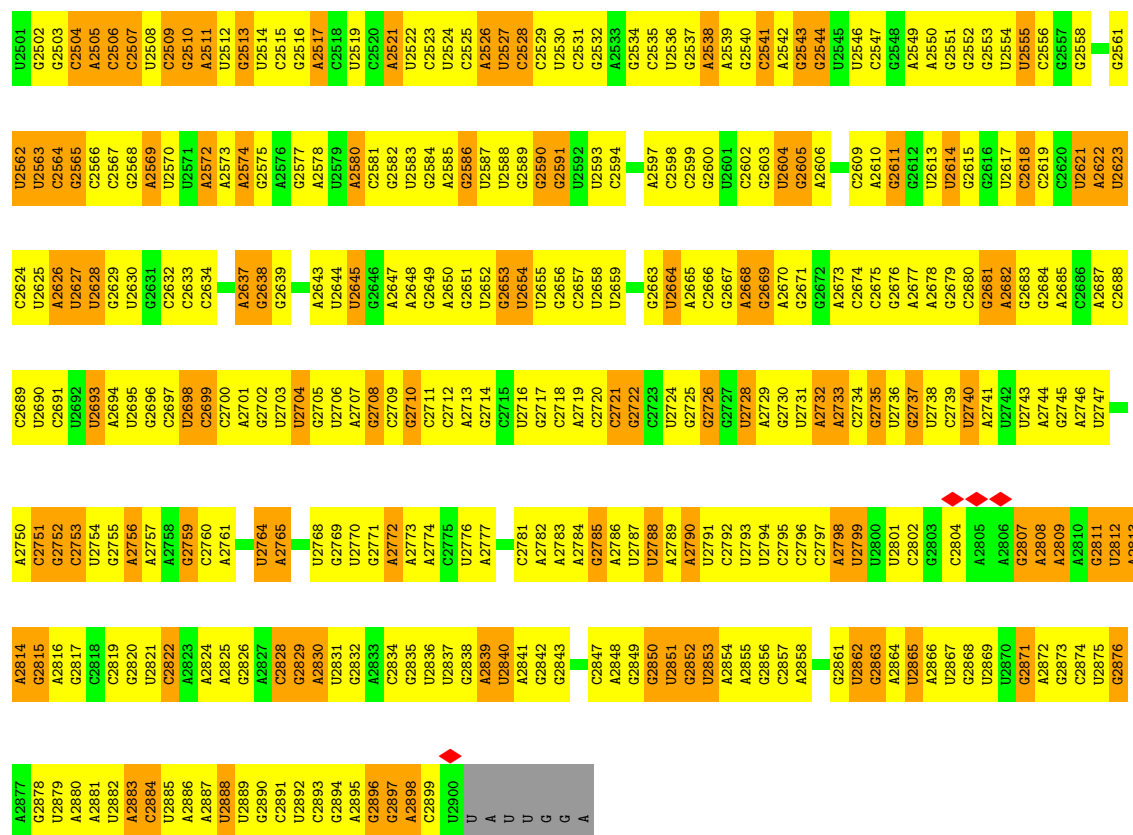


- Molecule 50: 23S ribosomal RNA



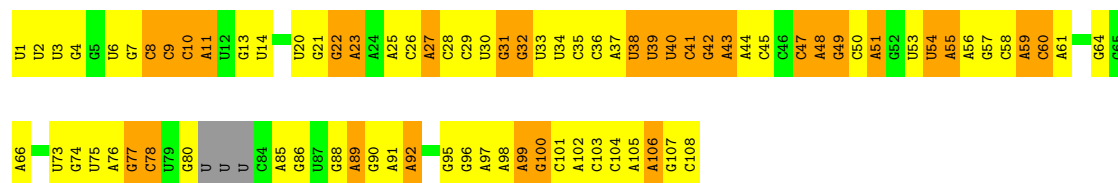
A1503	G1504	A1441	C1379	U1316	U1254	C1187	G1126	G1066	C1001	U939	G875	U814	C752	G691	A631
G1505	A1443	G1442	U1380	C1317	G1255	C1188	C1127	A1067	A1002	A940	A878	G815	A753	U692	A632
U1506	C1319	A1444	A1381	G1189	G1256	U1128	U1129	U1068	U1003	C941	U879	A816	C754	U693	G633
G1507	G1383	G1445	C1320	A1191	C1257	A1190	A1130	U1070	U1004	A942	U880	A817	C755	U694	C634
G1508	C1321	G1446	C1321	U1191	C1258	A1131	A1131	U1071	U1005	U943	A881	A818	A756	U695	G635
U1509	A1322	A1447	U1385	A1322	U1260	U1192	C1132	A1072	U1006	U944	U882	U819	A757	U696	U636
A1510	A1323	G1448	U1386	A1323	U1261	U1193	C1133	A1073	C1007	U945	U883	U820	C758	U697	U637
C1511	A1324	G1449	U1387	A1324	U1262	U1194	G1134	A1074	A1008	A946	U884	C821	C759	A698	A638
A1512	C1325	G1450	G1388	C1325	U1263	U1195	U1135	G1075	U1009	A947	A885	C822	C760	U699	G639
A1513	G1326	A1451	U1389	C1326	U1264	U1196	U1136	U1076	G1010	C948	A888	A823	A761	U700	U640
U1514	G1327	G1452	G1390	G1327	G1265	G1197	U1137	U1077	A1011	A949	U889	A824	C949	A701	U641
A1515	A1328	A1453	U1391	A1328	G1266	U1198	C1138	C1078	U950	C951	U890	U825	G763	U702	A642
U1516	U1329	G1454	U1200	U1329	A1267	U1199	C1139	U1079	U952	U952	U891	C827	A765	G704	C644
G1517	U1330	A1455	A1201	U1330	U1268	U1201	U1140	A1080	G953	G953	U892	A828	C766	A705	C645
C1518	G1331	C1456	A1202	U1331	U1269	A1081	U1141	A1081	A1019	A954	U893	A829	C767	C706	A646
A1519	A1332	A1457	A1203	A1332	C1270	U1082	G1142	A1082	G1020	A955	U894	A830	G768	C707	G647
U1520	G1333	A1458	A1204	G1333	A1271	U1083	U1143	A1083	G1021	U956	U895	U831	A769	C708	G648
A1521	U1204	A1271	A1204	A1204	C1084	C1084	C1144	C1084	C1022	G957	U896	C832	A770	G709	A649
U1522	A1208	A1274	A1208	A1208	A1085	A1085	G1145	A1085	C1023	C958	U897	C833	C771	A710	G650
G1523	U1209	G1275	U1209	U1209	A1086	A1086	A1146	A1086	A1024	C959	U898	C841	C772	A711	A651
C1524	A1210	A1276	U1210	A1210	C1087	C1087	G1147	C1087	G1025	C960	U899	A836	A773	A712	U652
G1525	U1211	A1277	U1211	U1211	A1088	A1088	U1148	A1088	A1026	U961	U900	A837	A774	C713	G653
U1526	G1212	G1278	U1212	G1212	A1089	A1089	G1149	A1089	U1027	U962	C901	U838	A775	G714	G654
U1527	U1213	U1279	U1213	U1213	G1090	G1090	U1150	A1090	C1028	U963	U902	A839	U776	G715	G655
G1528	U1214	G1280	U1214	U1214	G1091	G1091	U1151	G1091	A1029	A964	A903	G840	C777	G716	G656
U1529	A1215	A1281	G1215	A1215	A1092	A1092	U1152	A1092	U1030	U965	U904	C841	C778	U717	A657
G1530	U1216	G1282	U1216	G1216	U1093	U1093	U1153	U1093	U1031	U966	U905	U842	C779	U718	G658
C1531	C1343	A1283	G1343	A1343	G1217	G1217	U1154	A1094	A1032	U967	U906	A834	A782	G719	G659
A1532	U1344	A1284	G1344	U1344	G1218	G1218	U1155	A1095	A1033	U968	A907	G843	C780	A720	U660
U1533	G1345	A1285	U1345	G1345	U1219	U1219	C1156	U1096	A1034	A969	U908	U845	A783	G721	G661
A1534	U1346	G1286	U1346	U1346	G1220	A1220	G1157	G1097	U1035	U970	U909	U846	A785	C722	U662
U1535	A1350	C1287	A1350	A1350	G1287	G1287	C1158	A1098	A1036	U971	U910	U847	A786	U723	A663
A1536	G1351	C1288	G1351	G1351	U1288	U1288	C1159	A1099	A1037	U972	U911	U848	C787	A724	G664
C1537	U1352	G1289	C1352	U1352	C1223	C1223	G1160	U1100	G1038	C976	A912	C849	G788	G725	C665
U1538	G1353	A1292	G1353	G1353	U1227	U1227	A1161	U1101	G1039	C976	U913	G850	A789	U726	G666
U1539	U1354	U1293	U1354	U1354	G1227	G1227	A1162	A1102	U1040	A977	G914	U851	C727	C727	A667
G1540	C1355	U1294	C1355	C1355	G1228	G1228	G1163	G1103	C1041	G978	A915	C852	A791	A728	A668
A1541	U1356	G1294	U1356	U1356	G1231	G1231	A1164	A1104	C1042	U979	U916	G853	C792	U729	A669
U1542	G1357	A1295	G1357	G1357	U1232	U1232	U1165	A1105	C1043	C980	G917	A854	C793	G730	G670
G1543	A1421	G1296	U1421	U1421	U1232	U1232	G1166	A1106	C1044	A981	G918	A855	G794	A731	C671
U1544	G1360	U1297	U1360	U1360	A1233	A1233	U1167	G1107	A1045	G982	C919	A856	G795	G732	G672
A1545	U1361	A1298	U1361	U1361	U1234	U1234	A1168	A1108	A1046	A983	G920	U857	A796	C733	A673
U1546	C1362	U1299	C1362	U1362	U1235	U1235	A1169	A1109	A1047	C984	C921	U858	U797	A734	G674
G1547	U1363	C1300	U1363	U1363	G1236	G1236	C1170	G1109	A1048	A985	C922	G859	C798	G735	U675
A1548	A1364	G1301	A1364	A1364	G1237	G1237	G1171	C1110	U1049	C986	A	C860	A799	C736	U676
U1549	G1365	C1302	G1365	G1365	U1239	U1239	G1172	C1111	A1050	U987	C	U861	C800	U737	U677
G1550	U1428	U1303	U1428	U1428	U1240	U1240	G1173	A1112	U1051	G988	C	U862	U801	U738	U678
U1551	G1366	U1304	G1366	G1366	U1241	U1241	G1174	A1113	A1052	G989	U	U863	U802	G739	A679
C1552	U1367	G1305	U1367	U1367	U1242	U1242	C1175	C1114	C1053	G990	A	A864	G803	A740	A680
G1553	U1368	G1306	U1368	U1368	A1243	A1243	U1176	G1115	U1054	G991	G928	A865	U804	A741	A681
A1554	A1370	G1307	A1370	A1370	U1244	U1244	A1177	U1116	A1055	G992	G929	C866	G805	G742	A682
U1555	U1371	A1308	U1371	U1371	G1245	G1245	A1178	U1117	A1056	A993	U932	C867	A806	G743	G683
G1556	G1372	G1309	G1372	G1372	U1246	U1246	G1179	U1118	U1057	U994	U932	C868	U807	U744	A684
U1557	U1373	U1310	U1373	U1373	U1247	U1247	U1180	A1119	A995	A996	A933	U869	U808	U745	G685
A1558	C1436	G1311	C1436	C1436	U1311	U1311	A1181	A1120	A1061	A996	C934	A870	A809	G746	C686
U1559	G1375	A1437	G1375	G1375	A1312	A1312	U1182	A1121	A1062	G997	U935	G871	G810	A747	G687
G	U1313	G1376	U1313	U1313	G1251	G1251	A1183	A1122	A1063	C998	G936	C872	G811	G748	U688
A	A1314	C1252	A1314	A1314	C1252	C1252	G1123	A1123	A1064	U999	A937	G873	G812	U749	U689
	A1315	G1253	A1315	A1315	U1125	U1125	A1186	U1125	G1065	U1000	A938	U874	G813		U690

A2441	G2381	C2321	G2258	U2197	G2134	C2070	U2007	A1944	C1877	A1816	A1755	A1688	U1628	G
A2442	A2382	G2322	G2259	G2198	C2135	C2071	A2008	A1945	A1878	A1817	A1756	A1689	U1629	U
A2443	G2383	U2323	G2260	C2199	A2136	C2072	U2009	A1946	A1879	G1818	G1757	C1690	A1630	G
A2444	A2384	U2200	G2261	U2200	A2137	C2073	A2010	U1947	A1880	G1819	C1758	U1691	A1631	A
A2445	A2385	G2201	G2262	U2201	U2138	G2074	C2012	C1948	C1881	G1820	G1759	A1692	C1632	C
U2446	A2386	U2202	G2263	U2202	C2139	U2075	A2011	G1949	C1882	G1821	G1760	U1693	C1633	U
U2447	U2387	U2203	G2264	U2203	C2140	G2076	C2013	U1950	A1883	A1822	C1761	A1694	A1634	A
C2448	C2388	C2204	U2265	U2205	A2141	A2077	G2016	G1951	A1884	U1823	A1762	C1695	G1635	A1570
U2449	A2389	U2206	G2266	U2206	A2142	A2078	G2017	G1952	A1885	U1824	G1763	C1696	U1636	A1571
C2450	G2390	A2206	G2267	A2207	G2143	C2079	U2018	U1953	A1886	G1825	U1764	C1697	A1637	U
C2451	G2391	A2207	G2268	A2207	G2143	C2080	U2019	C1954	U1887	A1826	G1765	A1698	C1576	G1576
G2452	U2392	U2208	G2269	U2208	A2144	U2081	G2019	G1955	U1888	U1827	A1766	A1699	G1639	A1577
G2453	C2393	U2209	U2270	U2209	A2145	U2082	A2020	G1956	U1889	A1828	A1767	G1700	G1640	G1580
C2454	A2394	G2210	C2271	G2210	A2146	U2083	A2021	G1957	U1890	U1829	G1768	G1701	A1641	U1581
U2455	U2395	G2211	U2272	G2211	U2149	A2084	A2022	U1958	A1891	G1830	A1769	G1702	A1642	U1582
A2456	A2396	U2212	U2273	U2212	C2150	C2085	A2026	A1959	A1892	G1831	A1770	A1703	A1643	U1583
U2457	U2397	A2213	A2274	A2213	G2151	G2087	G2027	A1960	C1893	G1832	C1771	G1704	G1644	U1584
A2458	U2398	U2218	G2275	U2218	C2152	U2088	G2028	U1962	U1895	U1834	G1772	U1705	C1645	U1585
A2459	A2399	U2219	G2276	U2219	C2153	A2089	U2029	U1963	A1896	G1835	G1773	G1706	G1646	U1586
C2460	A2400	G2221	A2277	U2221	U2153	U2090	U2030	C1964	A1897	A1836	G1774	U1707	A1647	U1587
A2461	U2401	U2217	G2278	U2217	A2154	U2091	A2031	C1965	U1898	C1837	G1775	G1708	A1648	U1588
G2462	C2402	U2218	G2279	U2218	C2155	A2094	G2032	G1966	G1899	C1838	G1776	U1713	C1649	A1589
C2463	C2403	A2220	G2280	U2220	G2156	U2095	G2033	U1967	A1903	C1839	G1777	U1714	A1650	U1590
G2464	G2404	U2221	A2278	U2221	A2157	U2096	G2034	C1968	G1904	C1840	G1778	U1715	A1651	C1591
U2465	A2405	C2222	G2281	U2222	C2158	U2097	U2035	C1969	U1905	U1841	A1780	A1716	C1652	A1592
C2466	U2406	C2223	A2279	C2223	U2159	A2097	G2036	C1970	G1906	G1842	C1781	G1720	G1653	U1593
A2467	G2407	U2224	G2282	G2225	U2160	U2099	A2037	G1971	A1907	C1843	U1782	C1721	G1654	C1594
U2468	U2408	G2225	C2283	U2225	G2161	G2100	A2038	C1972	U1908	C1844	G1783	G1721	A1656	C1595
A2469	U2409	U2226	G2284	U2226	U2162	G2101	G2039	C1973	C1909	G1845	U1784	U1722	G1657	U1596
C2470	C2410	U2227	G2285	U2227	U2163	U2102	U2040	U1974	G1910	A1846	U1785	A1723	G1658	U1597
U2471	G2411	U2228	U2291	U2228	G2164	C2103	C2041	G1975	G1911	G1847	U1786	A1724	C1659	U1598
C2472	A2412	C2229	A2292	C2229	A2165	A2104	A2042	C1976	C1912	U1848	G1787	G1725	U1660	C1599
U2473	G2413	A2230	A2293	A2230	U2166	G2105	C2043	A1977	G1913	G1849	U1788	U1726	A1601	A1600
C2474	U2414	G2231	A2294	G2231	U2166	G2106	C2044	U1978	G1914	C1850	C1789	U1727	G1662	A1601
C2475	A2415	G2232	A2295	G2232	G2169	A2107	G2045	G1979	G1918	U1851	U1790	A1728	G1663	G1602
A2476	U2416	A2233	A2296	A2233	A2170	C2108	G2046	G1980	U1918	G1852	A1791	G1731	A1664	A1603
C2477	G2417	C2234	G2297	C2234	A2171	A2109	U2047	U1984	A1919	U1855	A1792	G1732	G1665	A1604
G2478	A2418	A2235	G2298	A2235	A2172	U2110	U2048	A1984	A1920	G1856	A1793	A1732	A1666	A1605
A2479	U2419	G2236	U2299	G2236	G2173	U2111	A2049	A1985	C1921	G1857	A1794	G1733	G1667	A1606
C2480	A2420	U2237	A2300	U2237	C2174	A2112	G2050	C1986	U1924	U1858	G1796	A1734	G1668	G1607
U2481	U2421	G2238	C2301	G2238	U2175	U2113	G2051	C1987	U1925	U1859	A1797	G1735	A1669	C1608
C2482	G2422	U2239	C2302	U2239	G2176	C2114	G2052	A1988	A1926	G1861	C1797	G1736	U1670	U1609
G2483	G2423	U2240	U2303	U2240	C2177	A2115	G2053	U1989	U1927	U1860	A1798	G1737	C1671	U1610
A2484	C2424	A2241	U2304	A2241	G2178	U2116	C2054	C1990	C1927	A1861	U1799	G1738	C1672	C1611
U2485	C2425	G2242	C2305	G2242	A2179	G2117	A2055	C1991	G1928	A1862	C1800	G1739	U1673	U1612
C2486	A2426	G2243	U2306	G2243	U2180	U2118	A2056	U1991	G1929	G1863	A1801	U1740	A1674	A1613
U2487	U2427	U2244	G2307	U2244	A2181	G2122	C2057	C1992	U1930	A1864	G1802	U1741	G1675	G1614
C2488	C2428	G2245	U2308	G2245	C2182	G2123	G2058	U1993	C1931	A1865	U1803	U1742	G1676	G1615
G2489	G2429	G2246	A2309	G2246	U2183	A2124	G2059	G1994	U1932	G1866	A1804	U1743	U1677	G1616
A2490	U2430	G2247	C2310	G2247	C2182	U2125	G2060	U1995	U1933	G1867	U1798	U1744	G1677	G1617
C2491	C2431	C2248	G2311	C2248	A2184	U2126	A2061	C1997	U1934	A1868	A1799	A1745	U1678	U1617
U2492	U2432	A2249	C2312	A2249	C2185	A2126	G2062	C1998	G1928	G1869	C1806	U1746	U1679	U1618
C2493	A2433	G2250	U2313	G2250	C2186	G2127	G2063	U1998	A1935	G1870	C1807	U1747	A1680	A1619
G2494	A2434	U2251	U2314	U2251	C2187	U2128	G2064	G1999	G1936	G1871	U1748	U1748	G1681	A1620
A2495	C2435	U2252	G2315	U2252	U2188	U2129	A2065	U2000	U1937	U1871	A1809	G1749	C1682	U1621
C2496	G2436	U2253	G2316	U2253	U2188	U2130	G2066	C2003	U1938	U1872	G1683	A1750	G1682	U1621
U2497	A2437	G2254	A2317	G2254	G2191	A2130	A2066	C2004	C1941	A1873	C1812	A1751	A1684	A1624
G2498	U2438	A2255	U2318	A2255	U2192	G2131	G2067	G2005	U1942	G1874	C1813	A1752	G1685	G1625
U2499	A2439	C2256	U2319	C2256	U2193	U2132	A2068	G2006	A1943	G1875	G1814	G1753	U1686	C1626
A2500	U2440	U2257	G2194	U2257	U2195	A2133	A2069	C2006		G1876	U1815	U1754	G1687	G1627



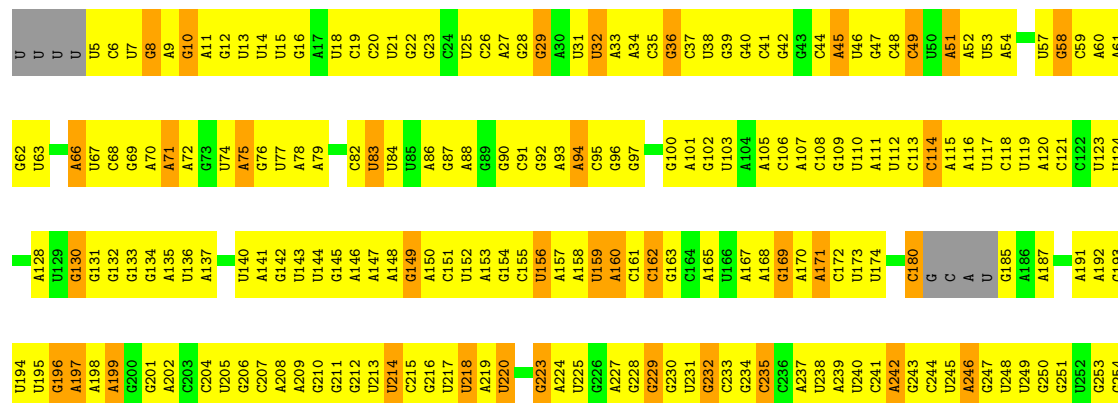
Molecule 51: 5S ribosomal RNA

Chain 4: 22% 47% 28%

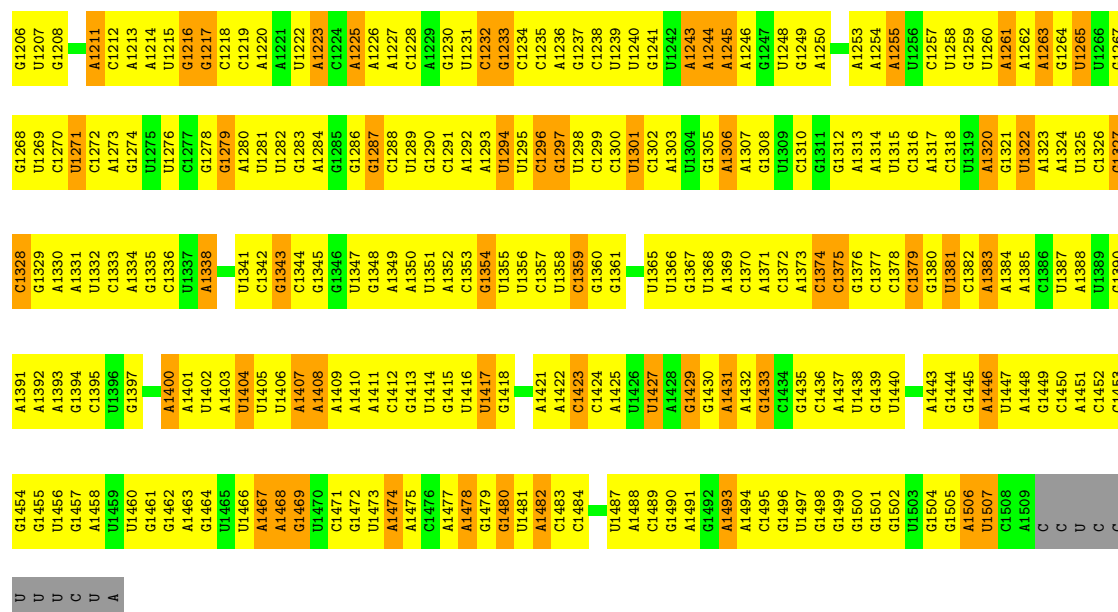


Molecule 52: 16S ribosomal RNA

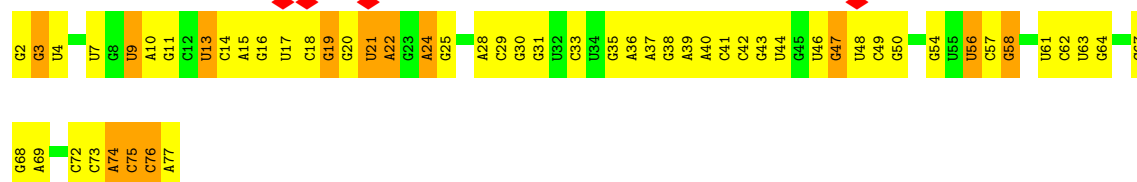
Chain 5: 16% 62% 20%



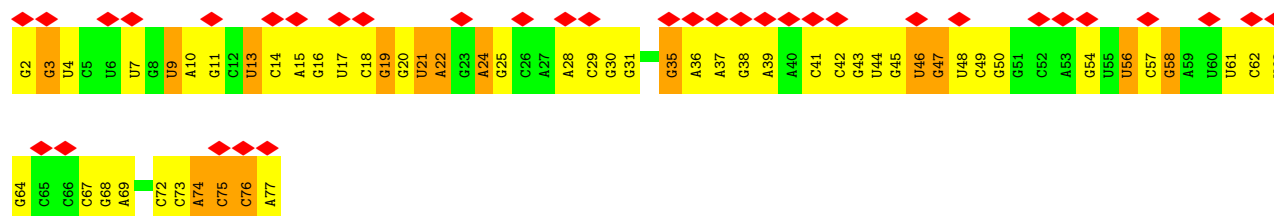
A1146	U1082	U1015	U948	A886	A822	C753	G688	G636	U563	G503	U441	G380	U319	G255
U1147	A1083	A1016	G949	C887	C823	U754	U689	U627	G564	A504	G442	C381	G320	G256
G1148	A1084	A1017	C950	A888	U824	A755	G690	A628	G565	C505	G443	U382	A321	A257
U1149	U1018	U1018	U951	U889	A825	A756	A691	U629	G566	U506	G444	U383	G322	A258
G1150	U1086	G1019	U952	U890	G826	A756	A692	C631	C567	A507	A445	G384	A323	A259
A1151	C1087	G	A953	C827	G827	U761	A693	G630	G568	A508	A446	C324	C324	C260
G1152	C1088	A	A954	G892	U828	G762	G687	A632	U569	C509	A447	U386	A325	G261
G1153	C1089	G	U955	C893	U829	A763	U698	U633	A570	U510	A448	G387	G326	G262
A1154	A894	G	U956	A894	G830	A764	U698	U634	A571	A511	A449	G388	G327	G263
A1155	A895	U	C957	A895	U831	A765	A699	G635	A572	U512	U450	A389	G328	C264
G1156	C958	U	G958	G896	G832	G766	G700	G636	G573	G513	G451	G390	G329	U265
G1157	A959	A	A959	G833	G833	U767	A701	A637	C574	U514	A452	C391	C330	A266
A1158	C960	A	C960	A898	G834	G768	U702	A638	A575	G515	C453	A392	C331	C267
A1159	G961	C1028	G961	U899	G835	U769	A703	A639	A576	C516	U454	A393	A332	C268
G1160	A894	C1036	G964	G900	C836	G770	U704	C640	G577	C517	U455	U394	U333	A269
G1161	A894	A1037	A964	A901	G837	G771	A705	U641	G578	A518	U456	G395	A334	A270
G1162	U1099	G1043	C965	A902	U838	G772	A706	A642	G579	G519	A457	C396	C335	G271
A1163	C1100	G1038	A966	A903	A839	G773	G707	U643	C580	C520	G458	C397	C337	G272
U1164	A1101	G1044	C964	C904	C840	A774	A708	U644	A581	A521	C459	G398	C337	C273
G1165	A1102	U1040	U905	U905	C840	G775	A709	A645	G582	G522	A460	C399	C338	A274
A1166	C1103	G1041	C906	C906	U844	G776	G710	G653	G583	U523	G461	G400	U339	A275
G1167	U1106	U1047	A970	A907	C845	G776	G711	G654	G584	C524	G462	U401	A340	U276
G1168	U1106	U1048	A971	A907	G846	A778	A712	G655	A591	G525	G463	U407	A341	G277
U1169	U1106	U1049	A972	A908	G847	A779	A713	U656	A592	G526	A464	A403	A278	A278
G1170	G1110	G1045	C974	C910	U848	U780	C714	G658	A594	C526	A465	A404	G343	G279
A1171	G1111	A1046	C975	G911	A849	A781	A715	U659	G595	G528	U466	C405	G344	G280
A1172	U1112	U1047	C976	G912	U850	G782	C716	G660	G599	U529	G467	G406	A345	U281
G1173	U1113	G1048	A976	A908	G851	G783	G717	G661	G599	A536	G474	A414	A346	G282
U1174	U1114	U1049	A977	A909	G852	A784	A718	U662	A605	A537	U475	A415	U354	G290
G1175	G1115	U1050	C980	U916	A853	A787	G719	G663	U601	G538	U476	A416	A355	C291
A1176	U1116	U1051	U981	G917	A854	A787	U720	G664	G602	G539	U477	U417	G356	U292
U1177	U1117	G1052	A982	A918	G855	G788	G721	G665	U603	U540	G478	U418	G357	G293
C1178	A1118	U1053	G983	C919	U856	G789	G721	U666	U604	C541	U481	A419	G358	A294
A1179	C1120	G1054	A984	G920	U857	U790	A725	U667	A605	G542	U481	A419	G359	A295
U1180	U1120	U1055	G985	G921	A858	A726	A726	U668	A606	C543	G482	A420	A360	A296
C1181	U1121	U1056	U987	G922	A859	G797	A734	U669	A607	A544	G483	G421	U361	G297
C1182	U1122	C1057	U988	G923	C860	G797	A735	G670	G608	A545	A484	A422	U362	U298
C1183	G1123	A1058	A989	G923	A861	U798	G736	G671	G609	G545	A484	U423	U363	U299
C1184	U1124	U1058	C926	C926	C862	A798	G737	A672	C610	C547	A487	U424	U364	A300
C1185	U1125	C1062	C927	C927	A863	U799	A732	A673	A611	G548	U488	G425	U365	G301
U1186	U1126	U1063	G928	G928	U864	C800	A732	U674	G612	U549	U489	U426	U366	A302
U1187	A1127	U1064	U996	U996	U865	C803	A734	U675	C613	U550	U490	A427	U367	A303
U1188	G1128	U1064	G997	A930	A866	C804	A735	U676	U614	A551	U491	A428	A368	U304
G1189	C1129	U1065	C998	C931	A866	C805	G736	C677	G615	U552	U492	A429	A369	A305
G1190	G1130	U1066	C999	A932	A867	C806	U737	A678	C616	C553	A493	G430	U370	G306
U1191	A1131	C1067	C999	A933	U870	A806	U737	A678	U617	C554	A494	U431	A371	C308
G1192	G1132	U1068	A1000	A934	U871	C807	A738	A678	A611	G555	U495	U432	U371	C309
U1193	U1133	U1069	A1001	G934	C872	C808	G739	U680	G612	G556	U496	A496	A372	A309
A1194	C1134	U1070	A1002	U935	U873	G809	G740	U681	C613	G557	A497	A434	A373	C310
G1195	U1135	G1070	G1003	G936	C874	U810	G741	U682	U614	U558	A498	U435	A311	A311
G1196	U1136	A1071	U1004	G937	G875	A811	C742	U683	U615	U559	U499	U436	C375	G375
G1197	G1137	G1072	U1005	U938	C876	A812	A743	G684	C616	C553	A494	U437	G376	G376
C1198	U1138	A1073	U1006	U939	C877	A813	A744	U685	U617	U560	A501	U438	A377	G316
U1199	U1139	U1074	U1007	G940	U878	C814	U745	U686	U618	U561	G500	A439	A378	A317
U1200	A1140	G1075	U1008	A941	U879	G815	A746	U687	U619	U562	C502	U440	A379	C318
C1201	U1141	U1076	G1009	G942	G880	A816	A748	G682	A620	U563	A497	U436	G375	G375
A1202	G1142	U1077	U1010	C943	G881	U817	U748	G683	A621	U564	A498	U437	G376	G376
A1203	C1143	G1078	A1011	A944	U882	A818	G749	G684	A622	U565	U499	U438	A377	G316
A1204	U1144	U1079	A1012	U945	U883	G819	A750	G685	G623	U566	G500	U439	A378	A317
C1205	A1145	U1081	A1014	U947	U884	U821	G752	G687	U625	U562	C502	U440	A379	C318



• Molecule 53: tRNA-Phe



• Molecule 53: tRNA-Phe



4 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of subtomograms used	1803	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 ($e^-/\text{\AA}^2$)	3.2	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	3750	Depositor
Magnification	81000	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	1.376	Depositor
Minimum map value	-0.350	Depositor
Average map value	0.026	Depositor
Map value standard deviation	0.119	Depositor
Recommended contour level	0.47	Depositor
Map size (Å)	435.328, 435.328, 435.328	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.7005, 1.7005, 1.7005	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	0	0.13	0/383	0.43	0/504
2	1	0.16	0/484	0.46	0/637
3	2	0.14	0/306	0.42	0/401
4	A	0.17	0/1954	0.50	0/2642
5	B	0.16	0/1721	0.48	0/2323
6	C	0.16	0/1691	0.47	0/2267
7	D	0.16	0/1188	0.46	0/1593
8	E	0.15	0/1384	0.45	0/1867
9	F	0.18	0/1266	0.60	2/1700 (0.1%)
10	G	0.19	0/1126	0.53	0/1517
11	H	0.20	0/1044	0.54	0/1395
12	I	0.24	0/820	0.69	5/1103 (0.5%)
13	J	0.15	0/844	0.41	0/1136
14	K	0.30	0/1094	0.67	2/1468 (0.1%)
15	L	0.16	0/962	0.48	0/1289
16	M	0.15	0/483	0.40	0/643
17	N	0.14	0/679	0.40	0/907
18	O	0.15	0/659	0.48	0/885
19	P	0.16	0/684	0.44	0/913
20	Q	0.23	0/545	0.62	0/730
21	R	0.18	0/698	0.52	0/936
22	S	0.16	0/631	0.45	0/838
23	T	0.14	0/475	0.45	0/621
24	a	0.17	0/2267	0.48	0/3044
25	b	0.17	0/1795	0.47	0/2412
26	c	0.19	0/1671	0.51	0/2246
27	d	0.19	0/1409	0.55	0/1894
28	e	0.18	0/1420	0.47	0/1912
29	f	0.24	0/1183	0.67	2/1587 (0.1%)
30	g	0.66	2/969 (0.2%)	0.87	1/1295 (0.1%)
31	h	0.18	0/968	0.46	0/1298
32	i	0.15	0/1186	0.41	0/1592
33	j	0.18	0/953	0.48	0/1275
34	k	0.15	0/1170	0.46	0/1559

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
35	l	0.18	0/1104	0.55	2/1481 (0.1%)
36	m	0.16	0/973	0.46	0/1309
37	n	0.17	0/897	0.51	0/1198
38	o	0.15	0/948	0.41	0/1262
39	p	0.16	0/961	0.45	0/1278
40	q	0.22	0/828	0.49	0/1111
41	r	0.37	0/1077	0.72	3/1441 (0.2%)
42	s	0.21	0/732	0.51	0/988
43	t	0.14	0/879	0.41	0/1165
44	u	0.17	0/665	0.51	0/884
45	v	0.16	0/519	0.46	0/695
46	w	0.16	0/826	0.49	2/1104 (0.2%)
47	x	0.18	0/353	0.44	0/474
48	y	0.39	0/457	0.69	0/601
49	z	0.15	0/412	0.43	0/547
50	3	0.12	0/69073	0.29	0/107710
51	4	0.11	0/2505	0.29	0/3902
52	5	0.11	0/35768	0.27	0/55764
53	7	0.12	0/1808	0.30	0/2817
53	8	0.12	0/1808	0.30	0/2817
All	All	0.15	2/158705 (0.0%)	0.36	19/236977 (0.0%)

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
6	C	0	1
10	G	0	1
21	R	0	1
29	f	0	1
30	g	0	2
35	l	0	1
All	All	0	7

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	g	112	TYR	CG-CD1	9.09	1.58	1.39
30	g	112	TYR	CG-CD2	7.60	1.55	1.39

All (19) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	r	99	ARG	NE-CZ-NH2	10.00	128.20	119.20
30	g	112	TYR	CB-CA-C	8.63	124.92	109.38
41	r	99	ARG	NE-CZ-NH1	-8.45	113.05	121.50
14	K	118	VAL	N-CA-C	8.04	118.14	110.42
12	I	32	VAL	CA-C-N	-7.92	107.22	120.68
12	I	32	VAL	C-N-CA	-7.92	107.22	120.68
14	K	117	THR	CB-CA-C	7.69	124.04	111.05
41	r	99	ARG	CB-CG-CD	7.59	128.75	111.30
12	I	33	GLU	CA-CB-CG	6.25	126.59	114.10
12	I	59	ARG	CA-C-N	6.17	130.06	120.68
12	I	59	ARG	C-N-CA	6.17	130.06	120.68
9	F	11	VAL	CA-C-N	6.10	129.15	120.49
9	F	11	VAL	C-N-CA	6.10	129.15	120.49
29	f	73	GLU	CA-C-N	-5.34	113.37	120.63
29	f	73	GLU	C-N-CA	-5.34	113.37	120.63
35	l	108	ASN	CA-C-N	5.30	131.94	122.13
35	l	108	ASN	C-N-CA	5.30	131.94	122.13
46	w	38	LEU	CA-C-N	5.26	131.59	121.54
46	w	38	LEU	C-N-CA	5.26	131.59	121.54

There are no chirality outliers.

All (7) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
6	C	21	ASN	Peptide
10	G	108	LEU	Peptide
21	R	25	GLN	Peptide
29	f	11	ASN	Peptide
30	g	112	TYR	Sidechain
30	g	114	ASP	Mainchain
35	l	110	PRO	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	380	0	429	23	0
2	1	477	0	530	39	0
3	2	304	0	350	16	0
4	A	1921	0	1973	90	0
5	B	1698	0	1768	71	0
6	C	1660	0	1719	83	0
7	D	1173	0	1267	52	0
8	E	1362	0	1377	56	0
9	F	1246	0	1308	61	0
10	G	1110	0	1226	43	0
11	H	1028	0	1094	62	0
12	I	809	0	894	42	0
13	J	829	0	855	43	0
14	K	1076	0	1170	71	0
15	L	951	0	1014	36	0
16	M	474	0	509	38	0
17	N	673	0	730	18	0
18	O	646	0	677	26	0
19	P	675	0	728	38	0
20	Q	535	0	562	25	0
21	R	682	0	691	40	0
22	S	629	0	681	27	0
23	T	471	0	522	17	0
24	a	2225	0	2301	116	0
25	b	1762	0	1808	91	0
26	c	1644	0	1731	95	0
27	d	1388	0	1469	59	0
28	e	1396	0	1481	46	0
29	f	1160	0	1172	34	0
30	g	960	0	1014	30	0
31	h	959	0	1039	6	0
32	i	1164	0	1192	49	0
33	j	944	0	1019	45	0
34	k	1153	0	1256	73	0
35	l	1079	0	1134	57	0
36	m	958	0	1011	37	0
37	n	889	0	952	28	0
38	o	938	0	1008	31	0
39	p	947	0	1028	53	0
40	q	811	0	858	41	0
41	r	1068	0	1150	50	0
42	s	720	0	803	35	0
43	t	872	0	972	21	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	u	657	0	695	27	0
45	v	513	0	560	32	0
46	w	818	0	870	31	0
47	x	344	0	333	2	0
48	y	452	0	472	31	0
49	z	408	0	440	14	0
50	3	61664	0	30954	2653	0
51	4	2239	0	1137	69	0
52	5	31943	0	16058	1459	0
53	7	1618	0	821	37	0
53	8	1618	0	821	35	0
All	All	146120	0	99633	5675	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 25.

All (5675) 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)
52:5:1133:A:H61	52:5:1153:G:N2	1.37	1.21
50:3:1807:C:H42	50:3:1824:G:N2	1.47	1.11
50:3:1807:C:N4	50:3:1824:G:H22	1.49	1.10
50:3:2075:U:C2	50:3:2438:A:N6	2.20	1.09
50:3:1702:A:N6	50:3:1998:U:C2	2.21	1.09
50:3:2480:G:C2	50:3:2486:A:N6	2.21	1.09
52:5:1133:A:N6	52:5:1153:G:H21	1.47	1.09
30:g:112:TYR:CZ	30:g:117:ALA:HB2	1.89	1.08
30:g:112:TYR:CE2	30:g:117:ALA:HB2	1.90	1.06
52:5:145:G:N2	52:5:148:A:C8	2.23	1.05
30:g:112:TYR:CD2	30:g:117:ALA:HB2	1.91	1.04
30:g:112:TYR:CE1	30:g:117:ALA:HB2	1.93	1.03
50:3:2143:G:H1	50:3:2162:U:H3	1.03	1.02
50:3:2297:G:H1	50:3:2351:U:H3	1.08	1.02
30:g:112:TYR:CD1	30:g:117:ALA:HB2	1.95	1.00
50:3:341:G:H21	50:3:364:A:H61	1.04	1.00
52:5:661:G:H1	52:5:738:A:H61	1.08	0.99
52:5:1406:U:H3	52:5:1444:G:H1	1.05	0.98
52:5:1217:G:H1	52:5:1269:U:H3	1.02	0.98
50:3:1501:U:H3	50:3:1542:G:H1	1.07	0.98
50:3:2480:G:N3	50:3:2486:A:N6	2.12	0.98
30:g:112:TYR:CG	30:g:117:ALA:HB2	1.99	0.97

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:612:G:H1	52:5:624:U:H3	1.01	0.97
50:3:1708:G:H1	50:3:1998:U:H3	1.12	0.97
50:3:1027:U:H3	50:3:1198:G:H1	1.10	0.97
52:5:1106:U:H3	52:5:1160:G:H1	1.09	0.97
50:3:2465:U:H3	50:3:2502:G:H1	1.00	0.95
50:3:2843:G:H1	50:3:2882:U:H3	0.96	0.95
52:5:63:U:H3	52:5:90:G:H1	1.08	0.94
50:3:2409:U:H3	50:3:2423:G:H1	1.05	0.94
27:d:132:ILE:O	27:d:151:GLY:HA3	1.68	0.93
50:3:137:U:H3	50:3:146:G:H1	0.95	0.93
50:3:1070:U:H3	50:3:1155:G:H1	1.14	0.93
8:E:93:GLU:OE2	20:Q:88:LYS:NZ	2.01	0.93
52:5:1487:U:H3	52:5:1498:G:H1	1.14	0.93
50:3:1803:U:H3	50:3:1830:G:H1	1.11	0.93
50:3:1091:G:H2'	50:3:1138:A:H61	1.34	0.92
50:3:418:G:H1	50:3:430:U:H3	1.08	0.92
50:3:1385:U:H3	50:3:1402:G:H1	0.93	0.92
52:5:1293:A:C2	52:5:1335:G:N2	2.38	0.92
39:p:91:ARG:HB2	39:p:94:LEU:HB2	1.50	0.91
50:3:730:G:H1	50:3:802:U:H3	1.00	0.91
50:3:200:A:H61	50:3:866:G:N2	1.69	0.90
50:3:133:G:H1	50:3:150:U:H3	1.19	0.90
50:3:1200:U:H3	50:3:1215:G:H1	1.08	0.90
50:3:535:G:N3	50:3:540:A:N6	2.19	0.89
52:5:1134:C:O2	52:5:1156:G:N2	2.05	0.89
50:3:2480:G:N2	50:3:2486:A:N6	2.21	0.89
52:5:603:U:H3	52:5:630:G:H1	0.93	0.89
52:5:1112:U:H3	52:5:1128:G:H1	1.21	0.89
50:3:989:G:H1	50:3:1000:U:H3	0.89	0.89
52:5:169:G:H1	52:5:196:G:H22	1.19	0.89
52:5:1390:G:H1	52:5:1460:U:H3	1.18	0.88
52:5:573:G:H4'	52:5:574:C:H5''	1.56	0.87
50:3:569:U:H3	50:3:592:G:H1	1.22	0.87
20:Q:84:ARG:NH1	52:5:719:G:N7	2.22	0.87
50:3:1071:G:H1	50:3:1154:U:H3	0.87	0.87
50:3:2053:G:H1	50:3:2630:U:H3	1.22	0.87
52:5:1416:U:H3	52:5:1435:G:H1	1.19	0.86
33:j:70:GLN:NE2	50:3:2691:C:O2	2.09	0.86
50:3:341:G:N2	50:3:364:A:H61	1.72	0.86
50:3:1871:U:H3	50:3:1885:G:H1	0.86	0.85
52:5:1289:U:H3	52:5:1293:A:N6	1.74	0.85

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:990:G:H1	50:3:999:U:H3	0.90	0.85
27:d:63:GLN:NE2	51:4:40:U:O2	2.08	0.85
50:3:243:U:H3	50:3:262:G:H1	1.20	0.85
50:3:2887:A:H5'	50:3:2888:U:H5''	1.59	0.85
52:5:1237:G:H1	52:5:1248:U:H3	0.86	0.85
52:5:1289:U:H3	52:5:1293:A:H62	0.89	0.85
52:5:1322:U:H3	52:5:1349:A:H8	1.22	0.85
18:O:21:LYS:HB3	52:5:96:G:H5''	1.58	0.85
46:w:57:ILE:HG22	46:w:61:ARG:HH22	1.41	0.84
26:c:185:LYS:HB3	50:3:648:G:H22	1.42	0.84
30:g:112:TYR:CD1	30:g:117:ALA:N	2.46	0.84
25:b:5:GLY:HA2	25:b:207:ILE:O	1.78	0.84
50:3:1422:U:H4'	50:3:1637:A:H4'	1.57	0.84
19:P:44:LYS:NZ	52:5:273:C:OP1	2.11	0.84
52:5:1322:U:O2	52:5:1349:A:N7	2.11	0.84
11:H:129:PHE:H	52:5:1316:C:H4'	1.42	0.83
30:g:112:TYR:CD2	30:g:117:ALA:CB	2.60	0.83
50:3:200:A:N6	50:3:866:G:N2	2.27	0.83
50:3:511:U:C2	50:3:515:A:N7	2.46	0.83
7:D:116:LYS:HG3	7:D:120:LYS:HE3	1.61	0.83
36:m:2:SER:N	50:3:1692:A:HO2'	1.76	0.82
52:5:826:G:H1	52:5:851:U:H3	1.23	0.82
52:5:833:G:H1	52:5:844:U:H3	0.84	0.82
6:C:17:SER:HB2	6:C:21:ASN:HA	1.61	0.82
13:J:33:ASN:HA	52:5:680:G:H21	1.43	0.82
50:3:230:G:H1	50:3:455:G:H1'	1.44	0.82
50:3:1772:G:H1	50:3:1994:U:H3	0.84	0.82
50:3:2480:G:N2	50:3:2486:A:H62	1.77	0.82
34:k:36:GLN:NE2	50:3:1220:A:O2'	2.13	0.82
50:3:1508:G:N2	50:3:1531:C:O2	2.13	0.82
1:O:34:ARG:HA	1:O:37:LYS:HB2	1.62	0.81
50:3:341:G:H21	50:3:364:A:N6	1.77	0.81
50:3:1297:U:O2	50:3:2020:A:N6	2.12	0.81
50:3:1702:A:N3	50:3:1704:C:N4	2.27	0.81
30:g:112:TYR:CE1	30:g:117:ALA:CB	2.62	0.81
41:r:14:PRO:O	41:r:18:ARG:HB2	1.80	0.81
41:r:88:ARG:NH1	41:r:94:ASN:OD1	2.11	0.81
50:3:574:G:H1	50:3:587:U:H3	1.25	0.81
50:3:1807:C:N3	50:3:1824:G:N1	2.27	0.81
30:g:112:TYR:CE2	30:g:117:ALA:CB	2.64	0.81
52:5:830:U:H3	52:5:847:G:H1	1.17	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1:25:TYR:HA	50:3:2400:A:H5''	1.64	0.80
39:p:91:ARG:NH1	50:3:1032:A:O3'	2.14	0.80
50:3:1007:C:O2'	50:3:1019:A:N3	2.14	0.80
20:Q:78:ASN:HB2	20:Q:82:HIS:HB2	1.64	0.80
30:g:112:TYR:CZ	30:g:117:ALA:CB	2.64	0.80
38:o:34:ALA:HB1	38:o:45:ILE:HD11	1.62	0.80
32:i:84:ILE:HG21	50:3:2523:C:H5''	1.61	0.80
50:3:2075:U:N3	50:3:2438:A:N6	2.29	0.80
50:3:2716:U:H2'	50:3:2717:G:H8	1.46	0.80
50:3:2077:A:H2'	50:3:2078:A:H8	1.46	0.80
11:H:4:GLN:N	11:H:4:GLN:HE21	1.79	0.80
35:l:11:LYS:NZ	35:l:88:GLY:O	2.15	0.80
41:r:49:LYS:HE2	50:3:524:G:H5'	1.64	0.80
27:d:26:MET:HE1	51:4:53:U:H1'	1.63	0.79
30:g:112:TYR:CD1	30:g:117:ALA:CB	2.64	0.79
35:l:54:ILE:O	35:l:58:LEU:HB2	1.81	0.79
48:y:38:LEU:HG	48:y:41:ARG:HH21	1.47	0.79
50:3:1777:G:N2	50:3:1793:A:C5	2.50	0.79
12:I:14:ILE:HD11	12:I:104:LEU:HB3	1.65	0.79
50:3:1785:U:O2	50:3:1792:A:N7	2.15	0.79
52:5:96:G:H22	52:5:326:C:H41	1.29	0.79
52:5:1138:U:H3	52:5:1149:G:H1	1.29	0.79
50:3:2145:A:N6	50:3:2161:G:O6	2.16	0.79
52:5:27:A:H61	52:5:556:G:H1'	1.45	0.79
52:5:563:U:H3'	52:5:564:G:H2'	1.64	0.79
52:5:660:A:H2	52:5:739:G:H1	1.26	0.79
50:3:2303:U:H3	50:3:2345:G:H1	1.28	0.79
52:5:134:G:H1	52:5:160:A:H61	1.30	0.78
44:u:64:ASN:HB2	44:u:97:VAL:HB	1.65	0.78
50:3:80:U:H3	50:3:109:G:H1	0.86	0.78
52:5:1217:G:N2	52:5:1269:U:O2	2.15	0.78
11:H:97:LYS:NZ	52:5:1153:G:OP2	2.16	0.78
52:5:165:A:N6	52:5:198:A:OP2	2.15	0.78
28:e:141:LYS:HE2	50:3:2754:U:H5''	1.65	0.78
52:5:1370:C:H5'	52:5:1376:G:H21	1.48	0.78
52:5:60:A:H5''	52:5:383:U:H5''	1.64	0.78
50:3:2413:G:O2'	50:3:2419:A:N6	2.16	0.78
50:3:37:G:O2'	50:3:487:C:N4	2.16	0.78
50:3:2455:G:H4'	50:3:2456:A:H3'	1.66	0.78
50:3:2589:G:N2	50:3:2589:G:OP2	2.16	0.78
50:3:1800:C:O2'	50:3:1907:A:N6	2.17	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1841:U:H5''	50:3:1842:G:H5'	1.65	0.78
50:3:1925:A:O2'	50:3:1927:C:N4	2.17	0.78
50:3:2703:U:O2	50:3:2722:G:O6	2.02	0.77
52:5:34:A:H4'	52:5:360:A:H1'	1.66	0.77
42:s:26:LYS:HG2	42:s:84:THR:HG22	1.64	0.77
50:3:511:U:O2	50:3:515:A:C5	2.38	0.77
50:3:2695:U:H3	50:3:2730:G:H1	1.32	0.77
6:C:10:ARG:HH22	6:C:13:ARG:HD3	1.48	0.77
11:H:37:PRO:HA	11:H:40:TYR:HB3	1.65	0.77
50:3:1914:G:H1	50:3:1930:U:H3	1.32	0.77
50:3:2038:A:O2'	50:3:2462:G:N2	2.17	0.77
52:5:1222:U:O2	52:5:1264:G:O6	2.02	0.77
50:3:2299:U:H3	50:3:2349:G:H1	0.80	0.77
50:3:1414:C:H2'	50:3:1415:A:C8	2.19	0.77
52:5:459:C:N3	52:5:468:G:N1	2.30	0.77
35:l:6:ARG:HG2	50:3:907:A:H5'	1.66	0.77
50:3:1244:A:H61	50:3:1265:G:H1'	1.50	0.77
19:P:25:GLN:HE22	19:P:27:GLU:HG2	1.50	0.76
50:3:2483:C:N4	50:3:2537:G:N2	2.33	0.76
4:A:34:LYS:HG2	4:A:35:ARG:HG2	1.68	0.76
10:G:68:ARG:NH1	52:5:587:A:O2'	2.18	0.76
50:3:1868:A:H2'	50:3:1869:G:H8	1.49	0.76
18:O:22:ARG:NH2	52:5:371:U:O2	2.18	0.76
50:3:730:G:OP1	50:3:1603:A:N6	2.17	0.76
52:5:354:U:H2'	52:5:355:A:H8	1.50	0.76
52:5:754:U:O2'	52:5:873:U:O2'	2.03	0.76
8:E:89:ASN:HB2	52:5:734:A:H5''	1.67	0.76
50:3:1414:C:H2'	50:3:1415:A:H8	1.51	0.76
22:S:56:ARG:NH1	52:5:197:A:O2'	2.19	0.76
22:S:67:ARG:NH1	52:5:257:U:OP2	2.18	0.76
50:3:61:U:H3	50:3:70:G:H1	0.82	0.76
50:3:1807:C:H42	50:3:1824:G:H22	0.77	0.76
52:5:684:A:N6	52:5:700:G:N2	2.33	0.76
50:3:641:U:O2	50:3:657:A:N7	2.18	0.76
52:5:1293:A:N1	52:5:1335:G:C2	2.54	0.76
43:t:45:HIS:HB2	50:3:518:A:H5''	1.68	0.76
50:3:704:G:N2	50:3:707:C:OP1	2.17	0.76
50:3:2502:G:H2'	50:3:2503:G:H8	1.50	0.76
52:5:655:G:O6	52:5:744:U:C2	2.38	0.76
11:H:22:THR:N	11:H:64:ASP:OD1	2.19	0.76
49:z:27:LYS:NZ	50:3:2293:C:OP1	2.18	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:n:57:SER:HA	37:n:61:LYS:HB3	1.68	0.75
50:3:840:G:H5'	50:3:841:C:H5	1.51	0.75
50:3:2262:C:H2'	50:3:2263:G:H8	1.52	0.75
50:3:1063:A:OP2	50:3:1161:A:N6	2.19	0.75
51:4:60:C:H2'	51:4:61:A:H8	1.52	0.75
30:g:112:TYR:CG	30:g:117:ALA:CB	2.70	0.75
50:3:490:A:OP1	50:3:491:A:N6	2.19	0.75
50:3:2840:U:O4	50:3:2883:A:N6	2.20	0.75
52:5:250:G:H2'	52:5:251:G:C8	2.20	0.75
52:5:312:A:H61	52:5:333:U:H3	1.34	0.75
50:3:640:U:O2	50:3:658:G:O6	2.05	0.75
52:5:671:G:H2'	52:5:672:A:H8	1.51	0.75
34:k:6:LEU:HD13	50:3:1235:U:H1'	1.69	0.75
50:3:1699:A:H2'	50:3:1700:G:H8	1.52	0.75
50:3:13:C:H3'	50:3:14:U:H4'	1.69	0.74
52:5:37:C:H42	52:5:546:G:H1	1.34	0.74
50:3:47:G:H5''	50:3:48:G:H5'	1.67	0.74
50:3:2483:C:H42	50:3:2537:G:N2	1.85	0.74
10:G:98:TYR:OH	52:5:595:G:N2	2.20	0.74
28:e:4:ILE:O	28:e:72:ASN:ND2	2.20	0.74
40:q:6:VAL:HG12	40:q:11:GLN:HG2	1.70	0.74
50:3:710:A:H5''	50:3:837:A:H62	1.51	0.74
50:3:1505:G:H1	50:3:1538:U:H3	1.34	0.74
50:3:1777:G:H1	50:3:1989:U:H3	1.35	0.74
52:5:803:C:H2'	52:5:804:A:H8	1.51	0.74
52:5:1046:A:N7	52:5:1175:C:N3	2.35	0.74
11:H:129:PHE:HB3	52:5:1316:C:H5''	1.68	0.74
36:m:56:ASN:OD1	36:m:59:ASN:ND2	2.21	0.74
50:3:647:G:N2	50:3:651:A:OP2	2.20	0.74
50:3:648:G:OP1	50:3:648:G:N2	2.18	0.74
50:3:2755:G:H21	50:3:2765:A:H62	1.33	0.74
35:l:83:MET:HE1	50:3:2504:C:H5'	1.70	0.74
36:m:71:ASN:ND2	50:3:1320:C:O2'	2.21	0.73
50:3:1778:G:H2'	50:3:1779:G:C8	2.23	0.73
52:5:590:G:H1	52:5:644:U:H3	1.35	0.73
27:d:39:GLY:O	27:d:150:ARG:NH1	2.21	0.73
34:k:31:THR:HB	34:k:34:ARG:HG2	1.69	0.73
50:3:665:C:O2'	50:3:675:U:O2	2.07	0.73
52:5:435:U:N3	52:5:494:A:C8	2.54	0.73
52:5:882:U:O2'	52:5:1463:A:O2'	2.07	0.73
52:5:1046:A:N6	52:5:1175:C:O2	2.21	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1065:G:O6	50:3:1160:G:N2	2.20	0.73
50:3:1182:U:H2'	50:3:1183:A:C8	2.23	0.73
52:5:45:A:H61	52:5:394:U:H3	1.35	0.73
52:5:1289:U:O4	52:5:1293:A:N7	2.21	0.73
50:3:1170:C:N4	50:3:1173:G:OP2	2.19	0.73
50:3:2789:A:H5''	50:3:2790:A:H5'	1.69	0.73
30:g:112:TYR:CG	30:g:117:ALA:CA	2.72	0.73
52:5:1212:C:O2'	52:5:1274:G:N2	2.22	0.73
28:e:141:LYS:HB3	50:3:2754:U:H4'	1.69	0.73
50:3:1261:U:H2'	50:3:1262:G:H8	1.53	0.73
50:3:1536:C:H2'	50:3:1537:A:C8	2.24	0.73
52:5:62:G:N2	52:5:374:G:O2'	2.22	0.73
52:5:434:U:O2	52:5:493:A:N7	2.22	0.73
35:l:11:LYS:HD3	35:l:87:LYS:HD2	1.70	0.72
50:3:50:G:N2	50:3:180:A:OP2	2.21	0.72
50:3:1529:U:H2'	50:3:1530:G:H8	1.54	0.72
12:I:50:THR:HG22	12:I:77:LYS:H	1.54	0.72
26:c:164:LEU:HD11	26:c:182:HIS:HB2	1.71	0.72
50:3:2088:U:H3	50:3:2247:G:H1	0.80	0.72
52:5:660:A:C2	52:5:739:G:N1	2.55	0.72
52:5:787:A:N7	53:7:38:G:N2	2.37	0.72
52:5:831:C:H2'	52:5:832:G:C8	2.23	0.72
50:3:2826:G:H4'	50:3:2829:G:H1	1.54	0.72
14:K:12:ARG:HD2	52:5:560:U:H1'	1.70	0.72
15:L:87:ARG:NH2	21:R:73:GLU:OE2	2.22	0.72
50:3:2305:C:H3'	50:3:2326:G:H22	1.53	0.72
52:5:407:A:H61	52:5:427:A:H62	1.37	0.72
52:5:661:G:H1	52:5:738:A:N6	1.85	0.72
13:J:23:THR:HG22	13:J:40:SER:HB3	1.72	0.72
52:5:832:G:H2'	52:5:833:G:H8	1.55	0.72
52:5:1241:G:N2	52:5:1244:A:OP2	2.18	0.72
45:v:35:PRO:HG3	45:v:49:LEU:HD13	1.72	0.72
50:3:1221:G:H2'	50:3:1222:A:H8	1.55	0.72
50:3:2655:U:O2	50:3:2681:G:O6	2.07	0.72
29:f:127:THR:HG23	29:f:137:VAL:HA	1.72	0.72
50:3:1631:A:H5''	50:3:1632:C:H5'	1.70	0.72
8:E:76:ALA:HB1	8:E:82:VAL:HG11	1.71	0.72
9:F:115:MET:HA	9:F:118:LYS:HG2	1.71	0.72
10:G:123:MET:HE3	10:G:127:VAL:HG11	1.71	0.72
20:Q:84:ARG:O	20:Q:88:LYS:HG2	1.90	0.72
50:3:17:G:H1	50:3:560:U:H3	1.35	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1495:A:OP2	50:3:1548:A:N6	2.22	0.72
52:5:146:A:N7	52:5:340:A:O2'	2.22	0.71
11:H:71:GLY:HA2	52:5:1225:A:H4'	1.72	0.71
50:3:1464:G:N2	50:3:1541:A:O2'	2.23	0.71
9:F:34:LYS:NZ	52:5:1325:U:O2'	2.23	0.71
50:3:1180:U:H2'	50:3:1181:A:H8	1.56	0.71
26:c:68:GLN:NE2	50:3:710:A:O2'	2.23	0.71
50:3:1085:A:N6	50:3:1144:C:C4	2.58	0.71
50:3:2536:U:O2	50:3:2543:G:O6	2.08	0.71
52:5:674:U:H3	52:5:710:G:H22	1.36	0.71
52:5:780:U:H2'	52:5:781:A:H8	1.56	0.71
52:5:974:C:O2'	52:5:1195:G:OP2	2.09	0.71
39:p:36:GLN:NE2	50:3:596:G:N3	2.38	0.71
40:q:38:VAL:HG21	40:q:41:LEU:HD12	1.71	0.71
50:3:622:U:H2'	50:3:623:A:C8	2.26	0.71
52:5:956:U:O2	52:5:1176:A:N6	2.18	0.71
19:P:13:VAL:HA	19:P:24:VAL:HA	1.71	0.71
25:b:99:GLN:HE22	25:b:186:GLU:HG2	1.55	0.71
41:r:81:SER:HG	41:r:97:THR:HG1	1.39	0.71
50:3:389:C:H2'	50:3:390:A:C8	2.26	0.71
50:3:742:G:H1	50:3:759:U:H3	1.36	0.71
50:3:2005:G:HO2'	50:3:2732:A:HO2'	1.35	0.71
50:3:2140:G:O2'	50:3:2165:A:N6	2.24	0.71
50:3:2516:G:H1	50:3:2588:U:H3	1.36	0.71
52:5:762:G:H21	52:5:813:A:H61	1.38	0.71
19:P:48:HIS:HB3	19:P:73:LYS:HD3	1.73	0.71
50:3:1867:G:H1	50:3:1890:U:H3	1.37	0.71
52:5:940:G:N2	52:5:1308:G:O2'	2.23	0.71
25:b:64:LYS:HG2	50:3:2814:A:H5''	1.73	0.71
50:3:1698:A:H61	50:3:2003:C:H42	1.39	0.71
50:3:1708:G:N2	50:3:1998:U:O2	2.24	0.71
50:3:429:U:H2'	50:3:430:U:H6	1.56	0.71
50:3:618:G:H3'	50:3:1281:A:H61	1.56	0.71
52:5:245:U:O2	52:5:271:G:O6	2.09	0.71
50:3:144:C:H2'	50:3:145:A:H8	1.56	0.71
35:l:108:ASN:O	35:l:109:ILE:HG22	1.91	0.70
7:D:170:ILE:HD13	7:D:178:ILE:HG21	1.74	0.70
26:c:142:VAL:HG23	26:c:143:MET:HG3	1.71	0.70
52:5:830:U:O2	52:5:847:G:N2	2.24	0.70
30:g:34:ALA:HB1	50:3:1121:A:H62	1.57	0.70
50:3:1354:U:O2'	50:3:2017:G:O2'	2.09	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2381:G:H2'	50:3:2382:A:H8	1.56	0.70
52:5:616:C:O2	52:5:620:A:N6	2.25	0.70
52:5:1193:U:H2'	52:5:1194:A:H8	1.56	0.70
2:1:37:GLN:NE2	50:3:2371:U:OP2	2.24	0.70
24:a:14:ILE:O	50:3:1780:A:N6	2.24	0.70
26:c:49:THR:OG1	50:3:478:G:N2	2.22	0.70
50:3:2101:A:H1'	50:3:2206:A:H61	1.55	0.70
50:3:2784:A:O2'	50:3:2790:A:N7	2.21	0.70
52:5:289:U:O2'	52:5:303:A:N6	2.23	0.70
50:3:595:U:H2'	50:3:605:A:H1'	1.73	0.70
52:5:1193:U:H2'	52:5:1194:A:C8	2.27	0.70
24:a:190:ARG:HH21	24:a:279:ILE:H	1.40	0.70
50:3:1723:A:H2'	50:3:1724:A:H8	1.57	0.70
50:3:1672:C:O2	50:3:2706:U:O2'	2.09	0.70
50:3:2308:U:H2'	50:3:2309:A:H8	1.57	0.70
5:B:179:SER:HB2	52:5:1102:A:H61	1.57	0.70
27:d:132:ILE:O	27:d:151:GLY:CA	2.40	0.70
34:k:6:LEU:HG	34:k:7:LYS:HG2	1.73	0.70
41:r:127:LYS:HG3	50:3:1262:G:H4'	1.74	0.70
47:x:16:CYS:H	47:x:20:SER:HA	1.56	0.70
50:3:511:U:O2	50:3:515:A:N7	2.24	0.70
50:3:1137:C:H2'	50:3:1138:A:H8	1.57	0.70
50:3:2075:U:N3	50:3:2438:A:C6	2.58	0.70
50:3:2359:G:H22	50:3:2373:G:H2'	1.57	0.70
26:c:30:LYS:HE2	50:3:633:G:H5''	1.71	0.70
50:3:597:C:H2'	50:3:598:G:C8	2.27	0.70
52:5:691:A:H1'	53:8:38:G:H22	1.57	0.70
11:H:123:ALA:N	52:5:1323:A:OP1	2.21	0.69
13:J:82:THR:HG21	23:T:26:ARG:HB3	1.73	0.69
37:n:4:ARG:HG3	51:4:44:A:H5''	1.73	0.69
50:3:590:U:H2'	50:3:591:G:H8	1.56	0.69
4:A:32:MET:H	4:A:220:HIS:HB2	1.57	0.69
6:C:88:ASN:OD1	6:C:91:ARG:NH1	2.25	0.69
27:d:162:LYS:HE2	27:d:165:GLU:HG2	1.75	0.69
39:p:13:ARG:NH1	50:3:615:G:OP2	2.25	0.69
50:3:1200:U:O2	50:3:1215:G:N2	2.22	0.69
50:3:2157:A:OP1	50:3:2170:A:N6	2.24	0.69
50:3:2706:U:H3	50:3:2717:G:H1	1.39	0.69
50:3:418:G:O6	50:3:430:U:O4	2.08	0.69
50:3:1455:A:N6	50:3:1605:A:OP2	2.22	0.69
50:3:2074:G:O2'	50:3:2076:G:O4'	2.10	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2241:A:H2'	50:3:2242:G:H8	1.57	0.69
50:3:2266:C:O2'	50:3:2435:C:OP2	2.07	0.69
32:i:109:LYS:NZ	50:3:2047:U:OP1	2.22	0.69
50:3:841:C:OP1	50:3:865:A:O2'	2.11	0.69
50:3:874:U:O2'	50:3:1222:A:N3	2.25	0.69
50:3:1350:A:N1	50:3:1361:U:O2'	2.25	0.69
50:3:2504:C:OP2	50:3:2505:A:N6	2.24	0.69
52:5:1072:G:H2'	52:5:1073:A:H8	1.57	0.69
6:C:70:GLN:NE2	52:5:399:C:OP2	2.25	0.69
6:C:100:ILE:HG21	6:C:136:LEU:HD22	1.74	0.69
10:G:96:ARG:NH1	52:5:585:G:OP1	2.26	0.69
50:3:734:A:N6	50:3:768:G:O2'	2.26	0.69
50:3:1301:G:O2'	50:3:1652:A:N7	2.24	0.69
52:5:1136:G:N1	52:5:1151:A:C2	2.60	0.69
52:5:1489:C:H2'	52:5:1490:G:H8	1.57	0.69
39:p:62:LEU:HB2	50:3:1045:A:H5'	1.75	0.69
50:3:500:U:H3	50:3:719:G:H4'	1.57	0.69
50:3:984:C:H2'	50:3:985:A:H8	1.57	0.69
52:5:94:A:H62	52:5:320:G:H21	1.40	0.69
52:5:663:G:O6	52:5:737:U:O2	2.09	0.69
52:5:1225:A:H2'	52:5:1226:A:C8	2.27	0.69
52:5:1460:U:H2'	52:5:1461:G:H8	1.57	0.69
23:T:11:LEU:HG	23:T:12:GLU:HG2	1.74	0.69
50:3:360:G:H2'	50:3:361:G:C8	2.27	0.69
50:3:2169:G:H4'	50:3:2170:A:H3'	1.72	0.69
10:G:49:VAL:HG22	10:G:54:LEU:HB3	1.75	0.69
15:L:95:LEU:HG	15:L:110:LYS:HD3	1.75	0.69
24:a:252:ASP:O	24:a:261:ARG:NH2	2.26	0.69
25:b:99:GLN:HE21	25:b:184:PHE:HB3	1.57	0.69
34:k:42:ARG:NH2	50:3:842:U:OP2	2.26	0.69
44:u:48:GLY:O	50:3:2361:G:N2	2.25	0.69
50:3:1027:U:O4	50:3:1198:G:O6	2.11	0.69
52:5:637:A:H2'	52:5:638:A:C4	2.28	0.69
52:5:670:G:H2'	52:5:671:G:C8	2.28	0.69
52:5:754:U:HO2'	52:5:873:U:HO2'	1.39	0.69
5:B:48:TYR:HB2	5:B:51:ALA:HB2	1.72	0.69
6:C:72:ARG:HH22	6:C:202:ARG:HH21	1.39	0.69
50:3:535:G:C2	50:3:540:A:N6	2.61	0.69
50:3:1944:A:N6	50:3:1946:U:O2'	2.25	0.69
51:4:32:G:O2'	51:4:42:G:N7	2.22	0.69
28:e:19:ASN:HB2	28:e:26:ALA:HB3	1.74	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:64:MET:HG2	35:l:106:VAL:HG22	1.76	0.68
38:o:19:LYS:NZ	38:o:81:ILE:O	2.25	0.68
46:w:48:ARG:NH1	50:3:61:U:O2'	2.26	0.68
50:3:163:A:N7	50:3:169:U:O2	2.26	0.68
50:3:306:G:N2	50:3:398:C:O2	2.19	0.68
52:5:136:U:H2'	52:5:137:A:H8	1.57	0.68
34:k:13:ARG:NH2	50:3:695:G:N3	2.36	0.68
50:3:915:A:N6	50:3:936:G:O2'	2.26	0.68
22:S:13:GLN:NE2	52:5:90:G:OP2	2.25	0.68
50:3:1335:A:OP2	50:3:1640:G:N2	2.27	0.68
50:3:2077:A:H2'	50:3:2078:A:C8	2.27	0.68
50:3:2812:U:H1'	50:3:2813:A:H2'	1.75	0.68
51:4:31:G:N2	51:4:34:U:O4	2.26	0.68
52:5:59:C:N4	52:5:350:G:O6	2.27	0.68
52:5:63:U:O2'	52:5:375:C:O2	2.11	0.68
52:5:108:C:OP1	52:5:307:C:O2'	2.11	0.68
52:5:213:U:HO2'	52:5:467:G:HO2'	1.33	0.68
52:5:253:G:H1	52:5:265:U:H3	1.39	0.68
50:3:80:U:O2	50:3:109:G:N2	2.23	0.68
50:3:204:U:O2	50:3:424:G:N2	2.27	0.68
50:3:1337:G:O6	50:3:1640:G:N2	2.26	0.68
50:3:2096:U:O2	50:3:2238:G:O6	2.12	0.68
52:5:1057:C:H42	52:5:1166:A:H62	1.38	0.68
25:b:2:GLU:OE2	25:b:4:ARG:NH1	2.26	0.68
32:i:9:LYS:HD3	32:i:48:THR:HA	1.75	0.68
40:q:55:VAL:HA	40:q:97:PHE:HA	1.74	0.68
50:3:1507:G:O2'	50:3:1508:G:OP1	2.12	0.68
5:B:193:GLN:NE2	5:B:194:THR:O	2.26	0.68
34:k:69:ARG:HB3	34:k:72:PHE:HB2	1.75	0.68
50:3:86:A:OP2	50:3:103:G:N2	2.26	0.68
50:3:755:C:H2'	50:3:756:A:H8	1.58	0.68
5:B:52:GLN:HE22	5:B:118:ILE:HD12	1.58	0.68
13:J:53:PRO:HA	13:J:85:GLY:HA2	1.75	0.68
50:3:917:G:N2	50:3:934:C:O2	2.24	0.68
6:C:148:THR:HA	6:C:151:ILE:HG12	1.76	0.68
29:f:116:ASN:ND2	50:3:2229:C:OP1	2.26	0.68
50:3:373:U:H2'	50:3:374:A:H8	1.57	0.68
50:3:846:U:O2'	50:3:1280:G:O2'	2.11	0.68
50:3:1715:A:H4'	50:3:1733:G:H1	1.58	0.68
52:5:684:A:H62	52:5:700:G:N2	1.91	0.68
32:i:71:LYS:NZ	50:3:1057:G:O6	2.26	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:605:A:H61	50:3:2036:G:H21	1.40	0.68
50:3:647:G:O2'	50:3:650:G:N7	2.26	0.68
50:3:2650:A:H2'	50:3:2651:G:H8	1.58	0.68
52:5:444:G:N2	52:5:483:U:OP2	2.27	0.68
8:E:104:LYS:HG2	8:E:107:LEU:HD12	1.76	0.68
8:E:110:GLN:OE1	8:E:114:LYS:NZ	2.20	0.68
13:J:121:ARG:HH11	52:5:1497:U:H5''	1.58	0.68
26:c:113:HIS:HA	26:c:116:TRP:HE3	1.58	0.68
50:3:989:G:N2	50:3:1000:U:O2	2.18	0.68
52:5:434:U:C2	52:5:493:A:N7	2.61	0.68
52:5:556:G:H3'	52:5:557:A:H2'	1.75	0.68
52:5:787:A:OP1	53:7:39:A:O2'	2.11	0.68
52:5:933:A:N3	52:5:1351:U:O2'	2.26	0.68
2:1:16:SER:OG	50:3:687:G:OP1	2.11	0.67
2:1:42:ARG:HH22	50:3:2426:A:H5''	1.57	0.67
19:P:70:SER:O	19:P:74:ARG:NH1	2.27	0.67
22:S:31:ASN:HB3	22:S:47:VAL:HG22	1.74	0.67
44:u:29:ASP:OD2	50:3:2271:C:N4	2.27	0.67
50:3:2829:G:H3'	50:3:2830:A:H8	1.58	0.67
8:E:33:GLU:HG3	8:E:34:GLY:H	1.59	0.67
11:H:108:ARG:HD3	11:H:110:LYS:H	1.57	0.67
33:j:29:ARG:NH1	50:3:2683:G:O2'	2.28	0.67
50:3:1077:G:N1	50:3:1148:U:N3	2.41	0.67
52:5:1416:U:O4	52:5:1435:G:O6	2.12	0.67
2:1:50:SER:OG	50:3:2366:A:O2'	2.12	0.67
27:d:125:ARG:HH22	50:3:2309:A:H2	1.41	0.67
35:l:123:HIS:O	50:3:2492:G:N2	2.21	0.67
50:3:609:U:H4'	50:3:2510:G:H2'	1.76	0.67
50:3:610:G:H5''	50:3:1285:U:H1'	1.75	0.67
50:3:2840:U:H2'	50:3:2841:A:C8	2.29	0.67
52:5:416:U:O2	52:5:421:G:N2	2.28	0.67
52:5:671:G:H2'	52:5:672:A:C8	2.29	0.67
50:3:1858:U:O2	50:3:1898:G:O6	2.12	0.67
50:3:2084:A:N3	50:3:2442:A:O2'	2.24	0.67
50:3:2794:U:H2'	50:3:2795:C:C6	2.29	0.67
5:B:182:ARG:NH2	52:5:1103:C:O2'	2.26	0.67
33:j:67:LYS:NZ	50:3:1698:A:N3	2.42	0.67
50:3:563:A:H62	50:3:2049:A:H3'	1.59	0.67
52:5:114:C:H42	52:5:228:G:H1	1.42	0.67
52:5:1379:C:O2	52:5:1494:A:O2'	2.12	0.67
14:K:126:GLN:O	14:K:127:ARG:HG2	1.95	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:T:37:ARG:NH1	23:T:40:MET:SD	2.68	0.67
52:5:369:A:O2'	52:5:448:A:N7	2.27	0.67
52:5:716:C:OP2	52:5:717:C:N4	2.28	0.67
52:5:943:C:H2'	52:5:944:A:H8	1.60	0.67
50:3:2035:U:O2	50:3:2040:A:N7	2.28	0.67
45:v:28:LYS:NZ	45:v:30:ASN:OD1	2.28	0.67
50:3:1064:A:N6	50:3:1160:G:O2'	2.28	0.67
50:3:299:A:H2'	50:3:300:G:H8	1.59	0.67
50:3:322:A:H2'	50:3:323:A:C8	2.30	0.67
50:3:453:U:H2'	50:3:454:G:C8	2.30	0.67
52:5:1384:A:H2'	52:5:1385:A:C8	2.30	0.67
52:5:1394:G:H1	52:5:1456:U:H3	1.41	0.67
6:C:60:MET:HE3	6:C:191:ILE:HG13	1.77	0.67
11:H:126:ALA:HB3	52:5:1317:A:H4'	1.77	0.67
38:o:19:LYS:HG3	38:o:81:ILE:HG22	1.77	0.67
50:3:2158:C:H2'	50:3:2159:U:C6	2.29	0.67
52:5:1110:C:H2'	52:5:1111:G:H8	1.60	0.67
52:5:1478:A:N6	52:5:1507:U:O2'	2.28	0.67
1:0:34:ARG:NH2	1:0:41:GLN:O	2.23	0.66
11:H:13:LYS:HB2	11:H:76:GLY:HA3	1.76	0.66
50:3:293:G:H2'	50:3:294:G:C4	2.30	0.66
50:3:697:U:H2'	50:3:698:A:H8	1.59	0.66
52:5:294:A:H2'	52:5:295:G:C8	2.30	0.66
52:5:316:G:H2'	52:5:317:A:C8	2.30	0.66
52:5:1012:A:O2'	52:5:1192:C:O2'	2.11	0.66
33:j:12:ASP:HB2	33:j:95:GLY:HA3	1.76	0.66
27:d:106:VAL:HG11	27:d:139:PRO:HD3	1.76	0.66
50:3:269:A:H2'	50:3:464:A:H62	1.60	0.66
50:3:622:U:H2'	50:3:623:A:H8	1.60	0.66
50:3:676:U:C4	50:3:677:U:O4	2.48	0.66
50:3:2540:G:N2	50:3:2671:G:O2'	2.29	0.66
1:0:6:GLN:O	50:3:721:G:N2	2.28	0.66
6:C:69:LYS:HE3	52:5:544:A:H5''	1.78	0.66
39:p:27:ARG:NH1	50:3:2027:G:O2'	2.25	0.66
50:3:748:G:N2	50:3:754:U:O4	2.28	0.66
52:5:400:G:O2'	52:5:496:A:N6	2.28	0.66
52:5:655:G:O6	52:5:744:U:O2	2.14	0.66
6:C:179:VAL:HG12	6:C:180:ARG:HG2	1.77	0.66
7:D:138:HIS:HE1	7:D:202:GLN:HB2	1.60	0.66
14:K:61:ALA:HA	52:5:517:C:H5''	1.78	0.66
50:3:633:G:O6	50:3:692:U:O4	2.14	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2088:U:H2'	50:3:2089:A:H8	1.58	0.66
51:4:54:U:O2	51:4:56:A:N6	2.29	0.66
6:C:108:PRO:HD3	6:C:157:ALA:HB2	1.76	0.66
29:f:42:LYS:HD2	29:f:46:ASP:HB3	1.78	0.66
50:3:39:C:H2'	50:3:40:A:C8	2.31	0.66
50:3:1121:A:O2'	50:3:1122:G:N7	2.28	0.66
52:5:763:A:N7	52:5:810:U:C4	2.63	0.66
52:5:1065:G:N1	52:5:1074:U:N3	2.43	0.66
25:b:15:GLN:OE1	25:b:23:ARG:NH2	2.28	0.66
28:e:24:HIS:HB3	28:e:35:GLU:OE2	1.96	0.66
50:3:1752:A:H3'	50:3:1753:G:H8	1.60	0.66
50:3:1920:A:H4'	50:3:1921:C:H5'	1.78	0.66
52:5:304:U:H2'	52:5:305:A:H8	1.60	0.66
52:5:1062:C:H2'	52:5:1063:G:C8	2.31	0.66
6:C:118:ASN:HD21	52:5:400:G:H4'	1.60	0.66
14:K:97:GLY:H	52:5:550:U:H4'	1.61	0.66
24:a:26:LEU:HD21	24:a:88:TYR:HB3	1.77	0.66
29:f:1:MET:HA	29:f:29:PHE:HE2	1.60	0.66
50:3:326:A:N6	50:3:383:U:O2	2.29	0.66
50:3:673:A:H1'	50:3:687:G:H21	1.60	0.66
50:3:2310:C:H2'	50:3:2311:G:H8	1.60	0.66
50:3:2872:A:H2'	50:3:2873:G:C8	2.31	0.66
52:5:36:G:O6	52:5:547:C:N4	2.19	0.66
10:G:87:VAL:HG12	10:G:141:VAL:HG23	1.77	0.66
24:a:47:ARG:NH2	50:3:725:G:N3	2.43	0.66
26:c:105:LYS:NZ	50:3:655:G:O6	2.27	0.66
32:i:3:LYS:N	40:q:12:TYR:HH	1.94	0.66
50:3:1227:C:H2'	50:3:1228:G:C8	2.30	0.66
52:5:442:G:H2'	52:5:443:G:C8	2.30	0.66
52:5:1134:C:C2	52:5:1156:G:N2	2.63	0.66
4:A:113:LEU:O	52:5:1093:A:O2'	2.10	0.66
27:d:111:VAL:HB	27:d:114:PHE:HB2	1.77	0.66
40:q:74:ILE:H	40:q:79:HIS:HB3	1.60	0.66
15:L:16:GLU:OE2	15:L:31:GLN:NE2	2.29	0.65
50:3:294:G:O2'	50:3:296:U:N3	2.26	0.65
50:3:1834:U:O2'	50:3:1977:A:N3	2.29	0.65
50:3:1867:G:H2'	50:3:1868:A:C8	2.31	0.65
52:5:1126:U:H2'	52:5:1127:A:C8	2.31	0.65
33:j:18:GLN:HB2	33:j:45:ASP:HB2	1.77	0.65
35:l:11:LYS:O	50:3:947:A:N6	2.29	0.65
45:v:22:LYS:HD3	53:8:77:A:C8	2.31	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:w:85:ASN:O	46:w:89:GLN:NE2	2.29	0.65
50:3:325:G:O6	50:3:383:U:O2	2.13	0.65
50:3:1868:A:H2'	50:3:1869:G:C8	2.31	0.65
52:5:684:A:N6	52:5:700:G:H21	1.93	0.65
14:K:43:LYS:NZ	52:5:358:G:O2'	2.29	0.65
50:3:784:A:H61	50:3:788:G:H21	1.43	0.65
50:3:904:C:N3	50:3:949:C:O2'	2.29	0.65
50:3:1265:G:H2'	50:3:1266:G:C4	2.30	0.65
52:5:531:A:O2'	52:5:533:A:OP2	2.14	0.65
52:5:1011:A:N3	52:5:1193:U:O2'	2.25	0.65
52:5:1133:A:N6	52:5:1153:G:N2	2.23	0.65
6:C:47:MET:HE1	6:C:52:GLN:HE21	1.62	0.65
12:I:59:ARG:NH1	52:5:1164:U:OP1	2.30	0.65
22:S:52:ASP:OD1	52:5:195:U:O2'	2.15	0.65
26:c:68:GLN:NE2	50:3:2451:C:O3'	2.29	0.65
35:l:6:ARG:NH1	50:3:906:G:O2'	2.30	0.65
42:s:65:ILE:HG23	42:s:66:ARG:HG2	1.78	0.65
50:3:794:G:H4'	50:3:1988:A:H5'	1.78	0.65
50:3:1672:C:O2'	50:3:2706:U:O2	2.15	0.65
50:3:1776:G:H2'	50:3:1777:G:H8	1.60	0.65
52:5:61:A:OP1	52:5:327:G:N2	2.24	0.65
52:5:1043:U:O2	52:5:1181:G:O6	2.14	0.65
10:G:107:VAL:HG12	10:G:140:TYR:CE1	2.31	0.65
25:b:56:THR:HA	25:b:78:THR:HA	1.78	0.65
46:w:3:VAL:HG22	46:w:57:ILE:HD11	1.79	0.65
50:3:562:C:N4	50:3:2785:G:O2'	2.27	0.65
50:3:602:U:O2'	50:3:1019:A:N6	2.28	0.65
50:3:1479:A:N3	50:3:1480:A:N6	2.45	0.65
50:3:2840:U:H2'	50:3:2841:A:H8	1.61	0.65
52:5:881:G:N1	52:5:905:U:N3	2.43	0.65
52:5:1322:U:N3	52:5:1349:A:C8	2.56	0.65
53:7:2:G:H2'	53:7:3:G:C8	2.32	0.65
13:J:24:ILE:HG21	52:5:703:A:H4'	1.77	0.65
25:b:151:ARG:HH12	50:3:2513:G:H5'	1.61	0.65
26:c:90:VAL:HG23	50:3:836:G:H22	1.60	0.65
27:d:69:LYS:HA	27:d:84:LEU:HA	1.77	0.65
32:i:71:LYS:NZ	50:3:1176:U:OP2	2.26	0.65
50:3:194:A:H3'	50:3:208:A:H61	1.62	0.65
50:3:1083:A:H1'	50:3:1147:G:H21	1.60	0.65
50:3:2584:G:OP1	50:3:2584:G:N2	2.29	0.65
52:5:242:A:C8	52:5:277:G:N2	2.65	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:O:50:LEU:HD21	18:O:72:LEU:HD11	1.79	0.65
24:a:50:GLN:NE2	50:3:1813:C:O2	2.30	0.65
27:d:85:ILE:HD11	50:3:2320:U:H5'	1.78	0.65
28:e:28:LYS:NZ	28:e:29:GLY:O	2.29	0.65
41:r:92:SER:O	50:3:1648:A:N6	2.30	0.65
50:3:440:C:H1'	50:3:442:G:C5	2.31	0.65
50:3:1415:A:H2'	50:3:1416:G:C8	2.31	0.65
52:5:396:C:O2	52:5:620:A:O2'	2.12	0.65
52:5:610:C:H2'	52:5:611:A:C8	2.31	0.65
26:c:38:VAL:O	26:c:42:GLN:NE2	2.29	0.65
40:q:40:MET:HE1	40:q:45:ILE:HA	1.79	0.65
50:3:305:U:O2	50:3:399:G:O6	2.13	0.65
50:3:2310:C:H2'	50:3:2311:G:C8	2.32	0.65
53:8:2:G:H2'	53:8:3:G:C8	2.32	0.65
6:C:184:ARG:HH12	6:C:189:ALA:HA	1.61	0.65
9:F:90:VAL:O	9:F:95:LYS:NZ	2.26	0.65
12:I:17:GLU:OE1	12:I:77:LYS:NZ	2.25	0.65
34:k:70:LYS:HE2	50:3:249:G:H5'	1.78	0.65
50:3:1871:U:O4	50:3:1885:G:O6	2.14	0.65
11:H:12:ARG:HD3	11:H:79:GLY:HA3	1.76	0.65
18:O:55:LYS:HB2	52:5:223:G:H21	1.61	0.65
21:R:78:ARG:NH2	52:5:1198:C:OP1	2.29	0.65
39:p:10:ARG:NH2	50:3:31:U:O2'	2.30	0.65
48:y:2:ALA:N	50:3:2585:A:HO2'	1.94	0.65
50:3:1095:U:H4'	50:3:1096:U:H3'	1.77	0.65
50:3:1332:A:H61	50:3:1659:C:H42	1.45	0.65
50:3:2306:A:H3'	50:3:2307:G:H8	1.61	0.65
50:3:2755:G:N2	50:3:2765:A:H62	1.95	0.65
52:5:265:U:H2'	52:5:266:A:C8	2.31	0.65
52:5:586:G:N7	52:5:750:A:O2'	2.25	0.65
52:5:606:A:H3'	52:5:607:A:H8	1.62	0.65
50:3:648:G:O2'	50:3:649:A:OP1	2.15	0.64
50:3:1007:C:OP1	50:3:1025:G:N1	2.30	0.64
50:3:1581:U:H2'	50:3:1582:G:C8	2.32	0.64
51:4:23:A:OP2	51:4:25:A:N6	2.28	0.64
52:5:1293:A:C2	52:5:1335:G:C2	2.84	0.64
13:J:109:ILE:O	52:5:672:A:O2'	2.13	0.64
18:O:25:LYS:HE2	52:5:306:G:H4'	1.79	0.64
20:Q:71:ASN:HD22	20:Q:75:ILE:HG21	1.62	0.64
25:b:27:THR:HG21	25:b:197:ILE:HG13	1.79	0.64
27:d:64:LYS:NZ	27:d:65:PRO:O	2.29	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:629:G:H1	50:3:696:U:H3	1.44	0.64
50:3:1807:C:H41	50:3:1826:A:H62	1.43	0.64
24:a:189:THR:HB	24:a:280:ARG:HB2	1.79	0.64
27:d:125:ARG:NH2	50:3:2323:U:O2	2.30	0.64
50:3:711:A:O2'	50:3:2450:C:O2	2.15	0.64
50:3:1624:A:H2'	50:3:1625:G:H8	1.60	0.64
52:5:351:C:H1'	52:5:384:G:H1'	1.80	0.64
52:5:366:C:H2'	52:5:367:A:C8	2.32	0.64
12:I:29:LYS:O	12:I:32:VAL:HG12	1.97	0.64
50:3:226:A:C6	50:3:237:A:H5''	2.32	0.64
50:3:517:G:N1	50:3:544:U:N3	2.46	0.64
50:3:2483:C:N4	50:3:2537:G:H22	1.95	0.64
52:5:112:U:H3	52:5:230:G:H1	1.43	0.64
12:I:27:THR:O	12:I:31:ILE:HG12	1.97	0.64
50:3:2819:C:H2'	50:3:2820:G:H8	1.61	0.64
52:5:116:A:N6	52:5:229:G:N3	2.44	0.64
52:5:459:C:O2	52:5:468:G:N2	2.19	0.64
52:5:1088:C:O2'	52:5:1144:A:N3	2.27	0.64
52:5:1293:A:H61	52:5:1334:A:H2	1.45	0.64
5:B:134:ARG:NH2	5:B:171:TYR:OH	2.30	0.64
45:v:3:LYS:HB3	45:v:12:PRO:HG3	1.80	0.64
50:3:580:U:OP1	50:3:1249:A:O2'	2.14	0.64
50:3:1870:G:H2'	50:3:1871:U:C6	2.33	0.64
50:3:1953:U:H2'	50:3:1954:C:C6	2.33	0.64
50:3:2143:G:N2	50:3:2162:U:O2	2.29	0.64
50:3:2155:G:H2'	50:3:2156:G:H8	1.62	0.64
50:3:2704:U:H2'	50:3:2705:G:C8	2.33	0.64
52:5:1322:U:C2	52:5:1349:A:N7	2.65	0.64
14:K:124:ARG:HA	14:K:127:ARG:HH12	1.61	0.64
25:b:42:GLU:HB3	25:b:48:SER:HB2	1.79	0.64
26:c:59:ARG:NH2	50:3:494:G:N7	2.46	0.64
50:3:189:U:H4'	50:3:222:A:H4'	1.79	0.64
52:5:376:G:N1	52:5:378:A:OP2	2.30	0.64
52:5:770:G:O6	52:5:804:A:N6	2.29	0.64
52:5:1489:C:H2'	52:5:1490:G:C8	2.33	0.64
6:C:152:PRO:HA	6:C:155:LYS:HD2	1.78	0.64
21:R:70:LYS:NZ	52:5:1292:A:O2'	2.25	0.64
50:3:169:U:H2'	50:3:170:A:C8	2.33	0.64
50:3:493:A:N7	50:3:508:A:N6	2.46	0.64
50:3:1430:U:O2'	50:3:1547:G:O2'	2.16	0.64
52:5:218:U:H2'	52:5:219:A:C8	2.32	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:748:U:H3'	52:5:749:G:C8	2.32	0.64
52:5:1056:U:O4'	52:5:1165:G:N2	2.31	0.64
8:E:49:ILE:HG12	8:E:83:LEU:HD23	1.80	0.64
12:I:58:ILE:HG22	12:I:68:ARG:HB3	1.79	0.64
24:a:266:LYS:NZ	50:3:1804:A:OP1	2.29	0.64
50:3:909:U:H2'	50:3:910:G:H8	1.63	0.64
50:3:998:C:O2'	50:3:2505:A:OP1	2.12	0.64
50:3:1073:A:H2'	50:3:1074:A:H8	1.63	0.64
50:3:2704:U:H2'	50:3:2705:G:H8	1.62	0.64
3:2:30:GLN:HB3	50:3:2535:C:H5''	1.80	0.64
3:2:31:LYS:HG2	50:3:2536:U:H5''	1.80	0.64
11:H:131:LYS:NZ	53:7:33:C:O5'	2.31	0.64
29:f:100:GLN:OE1	29:f:104:LYS:NZ	2.30	0.64
34:k:25:GLY:HA3	40:q:80:LEU:HD11	1.80	0.64
48:y:27:LEU:HD22	48:y:36:LYS:HG3	1.80	0.64
50:3:900:G:N2	50:3:903:A:H61	1.96	0.64
50:3:2075:U:C2	50:3:2438:A:C6	2.86	0.64
52:5:710:G:H2'	52:5:711:G:C8	2.32	0.64
9:F:111:HIS:HD1	9:F:112:GLU:H	1.45	0.63
11:H:50:MET:HG3	11:H:81:ILE:HD11	1.80	0.63
12:I:53:GLU:OE2	12:I:75:ARG:NH2	2.31	0.63
16:M:41:ARG:NH1	52:5:970:A:O2'	2.32	0.63
41:r:41:LYS:NZ	50:3:2016:G:OP1	2.30	0.63
48:y:8:SER:OG	50:3:1294:G:OP1	2.14	0.63
50:3:359:G:H2'	50:3:360:G:C8	2.33	0.63
50:3:450:C:H42	50:3:2417:G:H1	1.46	0.63
50:3:697:U:H2'	50:3:698:A:C8	2.33	0.63
50:3:863:U:H4'	50:3:866:G:N1	2.13	0.63
50:3:1463:G:H2'	50:3:1464:G:H8	1.63	0.63
50:3:2381:G:H2'	50:3:2382:A:C8	2.33	0.63
52:5:304:U:H2'	52:5:305:A:C8	2.32	0.63
52:5:621:C:H2'	52:5:622:A:C8	2.33	0.63
27:d:22:PHE:HB3	27:d:27:GLN:HB2	1.80	0.63
50:3:200:A:N6	50:3:866:G:H21	1.95	0.63
50:3:2100:G:C8	50:3:2233:A:H2'	2.33	0.63
52:5:1075:G:O2'	52:5:1094:C:N4	2.32	0.63
52:5:1400:A:H61	52:5:1450:C:H42	1.44	0.63
4:A:61:GLN:HE21	4:A:65:LEU:HG	1.63	0.63
4:A:218:ASN:HD21	4:A:221:GLN:HB2	1.62	0.63
6:C:82:ARG:NH2	52:5:611:A:OP1	2.30	0.63
10:G:107:VAL:HG12	10:G:140:TYR:HE1	1.63	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:b:3:ILE:O	25:b:87:MET:HG3	1.98	0.63
50:3:1725:G:O6	50:3:1731:G:N2	2.32	0.63
50:3:2104:A:H2'	50:3:2105:G:C8	2.34	0.63
52:5:1156:G:H1'	52:5:1157:G:C4	2.33	0.63
50:3:334:A:N3	50:3:367:G:N2	2.45	0.63
50:3:597:C:H2'	50:3:598:G:H8	1.62	0.63
50:3:599:U:O2'	50:3:843:G:OP1	2.15	0.63
50:3:763:G:O2'	50:3:765:A:O4'	2.15	0.63
50:3:897:A:N3	51:4:77:G:O2'	2.30	0.63
52:5:26:C:H2'	52:5:27:A:C8	2.34	0.63
52:5:711:G:H2'	52:5:712:A:H8	1.63	0.63
52:5:885:U:H2'	52:5:886:A:H8	1.62	0.63
52:5:1261:A:H2'	52:5:1262:A:C8	2.33	0.63
52:5:1406:U:O2	52:5:1444:G:N2	2.22	0.63
15:L:105:ASN:ND2	52:5:945:U:O4	2.31	0.63
40:q:73:HIS:ND1	40:q:79:HIS:O	2.32	0.63
52:5:290:G:OP1	52:5:608:G:O2'	2.16	0.63
52:5:983:G:O2'	52:5:1012:A:N6	2.31	0.63
7:D:67:GLU:HB3	7:D:69:ARG:HG3	1.79	0.63
26:c:182:HIS:HB3	26:c:185:LYS:HG2	1.81	0.63
41:r:35:ILE:HD13	48:y:27:LEU:HD21	1.81	0.63
45:v:27:ARG:NH1	50:3:417:G:O2'	2.31	0.63
52:5:191:A:H2'	52:5:192:A:H8	1.62	0.63
52:5:397:C:O2'	52:5:619:A:N3	2.25	0.63
52:5:487:A:H3'	52:5:488:U:H5''	1.79	0.63
52:5:660:A:H2	52:5:739:G:N1	1.92	0.63
1:0:43:THR:H	1:0:46:SER:HG	1.44	0.63
24:a:138:LEU:HD11	24:a:150:ILE:HD11	1.81	0.63
25:b:33:PRO:HD3	25:b:189:MET:HG3	1.79	0.63
40:q:87:GLN:OE1	50:3:1197:G:N2	2.21	0.63
43:t:44:ARG:HB3	50:3:516:A:H5''	1.81	0.63
50:3:682:A:N6	50:3:2357:G:O2'	2.32	0.63
50:3:812:G:H2'	50:3:813:G:H8	1.63	0.63
51:4:73:U:H2'	51:4:74:G:C8	2.33	0.63
52:5:1079:G:H2'	52:5:1080:G:C8	2.33	0.63
5:B:7:SER:O	5:B:16:LYS:NZ	2.32	0.63
7:D:140:VAL:HG23	7:D:151:LEU:HD13	1.79	0.63
9:F:40:ARG:NH2	52:5:1265:U:O5'	2.30	0.63
11:H:16:SER:OG	52:5:1125:C:OP1	2.17	0.63
15:L:13:LYS:NZ	15:L:21:TYR:OH	2.32	0.63
20:Q:81:MET:HE2	52:5:832:G:H5''	1.81	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:S:56:ARG:HH12	52:5:218:U:H4'	1.63	0.63
24:a:231:SER:N	50:3:1833:G:OP1	2.32	0.63
31:h:72:VAL:HA	31:h:75:LEU:HB3	1.81	0.63
50:3:142:A:H2	50:3:1628:G:H21	1.46	0.63
50:3:853:G:N1	50:3:1219:U:OP2	2.29	0.63
52:5:76:G:N2	52:5:79:A:OP2	2.30	0.63
52:5:1244:A:O2'	52:5:1299:C:O2	2.15	0.63
52:5:1432:A:H2'	52:5:1433:G:C8	2.34	0.63
4:A:30:VAL:HG12	4:A:56:PHE:H	1.64	0.63
5:B:22:TRP:H	16:M:54:PRO:HB3	1.64	0.63
50:3:535:G:N2	50:3:540:A:H62	1.96	0.63
50:3:2502:G:H2'	50:3:2503:G:C8	2.34	0.63
52:5:135:A:H2'	52:5:136:U:C6	2.34	0.63
52:5:1287:G:N2	52:5:1298:U:O2	2.32	0.63
52:5:1323:A:H3'	52:5:1324:A:H8	1.64	0.63
18:O:12:ARG:HA	18:O:32:HIS:HA	1.81	0.62
21:R:78:ARG:NH2	52:5:1200:G:OP2	2.32	0.62
26:c:70:HIS:HA	50:3:2066:A:H5''	1.80	0.62
50:3:517:G:O6	50:3:544:U:O4	2.16	0.62
50:3:1676:G:H2'	50:3:1677:G:C4	2.34	0.62
8:E:8:LEU:HD23	8:E:84:ARG:HB2	1.81	0.62
14:K:25:HIS:HE1	52:5:551:A:H4'	1.63	0.62
20:Q:48:GLN:HG2	20:Q:51:ILE:HD13	1.81	0.62
27:d:34:ILE:O	27:d:91:LEU:HD23	1.99	0.62
37:n:20:ARG:HH12	51:4:8:C:P	2.23	0.62
50:3:772:C:H2'	50:3:773:G:C8	2.35	0.62
50:3:1070:U:H2'	50:3:1071:G:C8	2.34	0.62
50:3:2094:A:H2'	50:3:2095:A:C8	2.33	0.62
50:3:2299:U:O4	50:3:2349:G:O6	2.16	0.62
52:5:1463:A:H2'	52:5:1464:G:H8	1.64	0.62
18:O:55:LYS:O	52:5:223:G:N2	2.32	0.62
24:a:113:ASP:N	24:a:202:VAL:O	2.27	0.62
27:d:153:ASP:OD2	50:3:2312:G:O2'	2.16	0.62
37:n:76:ASP:OD1	37:n:77:ILE:N	2.32	0.62
50:3:412:A:C2	50:3:413:G:H1'	2.34	0.62
50:3:800:C:H2'	50:3:801:U:C6	2.35	0.62
52:5:172:C:H42	52:5:193:G:H1	1.46	0.62
52:5:1463:A:H2'	52:5:1464:G:C8	2.34	0.62
7:D:136:ILE:H	7:D:178:ILE:HD13	1.64	0.62
12:I:46:LEU:HD23	12:I:79:LEU:HD23	1.81	0.62
13:J:8:ASN:N	13:J:70:MET:O	2.32	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:3:THR:OG1	52:5:874:C:OP2	2.16	0.62
17:N:9:ILE:HD11	17:N:28:LEU:HD13	1.82	0.62
50:3:788:G:H2'	50:3:789:A:H8	1.63	0.62
50:3:874:U:H2'	50:3:875:G:H8	1.63	0.62
52:5:1125:C:H2'	52:5:1126:U:C6	2.34	0.62
52:5:1254:A:O2'	52:5:1257:C:N4	2.33	0.62
8:E:153:LYS:N	10:G:56:ASN:OD1	2.23	0.62
18:O:4:GLY:HA2	52:5:622:A:H4'	1.80	0.62
24:a:183:GLN:NE2	24:a:188:GLU:O	2.33	0.62
25:b:72:LYS:NZ	50:3:2794:U:OP1	2.32	0.62
50:3:2297:G:H4'	50:3:2391:G:H21	1.65	0.62
50:3:2867:U:H2'	50:3:2868:G:C8	2.34	0.62
6:C:147:LYS:HB2	52:5:488:U:H1'	1.82	0.62
25:b:135:HIS:NE2	50:3:1704:C:O2	2.31	0.62
33:j:17:LYS:HE2	33:j:45:ASP:HB3	1.82	0.62
50:3:615:G:H2'	50:3:616:G:H8	1.63	0.62
50:3:2057:C:H42	50:3:2626:A:H61	1.47	0.62
52:5:473:A:H2'	52:5:474:G:C8	2.35	0.62
52:5:941:A:O2'	52:5:1307:A:N3	2.30	0.62
7:D:160:ILE:HB	7:D:177:ASP:HA	1.82	0.62
9:F:47:ASP:O	9:F:51:GLN:NE2	2.32	0.62
50:3:2815:G:H2'	50:3:2816:A:C8	2.34	0.62
53:8:73:C:O2'	53:8:74:A:O4'	2.16	0.62
4:A:84:PHE:HA	4:A:177:ILE:HG12	1.82	0.62
21:R:41:PHE:H	21:R:44:PHE:HB2	1.64	0.62
25:b:123:ILE:HD13	25:b:130:ILE:HA	1.81	0.62
28:e:152:ARG:NH1	28:e:165:VAL:O	2.33	0.62
34:k:78:VAL:HB	34:k:110:LEU:HD23	1.81	0.62
50:3:81:C:H2'	50:3:82:G:C8	2.35	0.62
50:3:1056:A:H2'	50:3:1057:G:H4'	1.82	0.62
50:3:1073:A:H2'	50:3:1074:A:C8	2.35	0.62
50:3:1331:G:H2'	50:3:1332:A:C8	2.34	0.62
50:3:1446:G:H22	50:3:1612:U:H5''	1.63	0.62
52:5:228:G:H2'	52:5:229:G:H8	1.65	0.62
52:5:770:G:H2'	52:5:771:G:H8	1.63	0.62
52:5:1321:G:O2'	52:5:1348:G:O6	2.17	0.62
21:R:80:PHE:O	52:5:1200:G:N2	2.33	0.62
24:a:64:ARG:HH21	50:3:1600:A:H4'	1.65	0.62
26:c:127:LEU:HD23	26:c:201:LYS:HG3	1.80	0.62
32:i:20:ILE:HB	32:i:142:THR:HA	1.81	0.62
34:k:56:THR:OG1	50:3:2436:G:O2'	2.17	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1083:A:OP2	50:3:1145:G:N1	2.32	0.62
50:3:1422:U:H2'	50:3:1423:A:O4'	2.00	0.62
52:5:242:A:N7	52:5:277:G:C2	2.68	0.62
52:5:891:C:N4	52:5:892:G:O6	2.33	0.62
4:A:190:GLU:OE2	52:5:1092:A:N6	2.32	0.62
5:B:116:ALA:HB1	5:B:203:VAL:HG23	1.81	0.62
21:R:26:GLU:HG2	21:R:27:LYS:H	1.63	0.62
25:b:173:LYS:HD2	50:3:2781:C:H5''	1.82	0.62
45:v:18:ARG:NH1	45:v:22:LYS:O	2.32	0.62
50:3:720:A:H5''	50:3:722:C:H41	1.64	0.62
50:3:815:G:H2'	50:3:817:A:C6	2.35	0.62
50:3:856:A:H61	50:3:1008:A:H1'	1.63	0.62
50:3:1160:G:H3'	50:3:1161:A:C8	2.35	0.62
50:3:1943:A:OP2	50:3:1968:C:N4	2.22	0.62
50:3:2570:U:O2	50:3:2574:A:N7	2.33	0.62
52:5:146:A:N6	52:5:339:U:O2'	2.32	0.62
52:5:881:G:N1	52:5:905:U:C2	2.68	0.62
52:5:1225:A:H2	52:5:1345:G:H1'	1.65	0.62
52:5:1245:A:H2'	52:5:1246:A:C8	2.35	0.62
52:5:1359:C:H2'	52:5:1360:G:C8	2.34	0.62
23:T:28:LEU:HG	23:T:31:ARG:HH12	1.64	0.61
48:y:17:ARG:NH2	50:3:1295:A:O2'	2.33	0.61
50:3:243:U:O2	50:3:262:G:N2	2.26	0.61
50:3:453:U:H2'	50:3:454:G:H8	1.65	0.61
52:5:369:A:H61	52:5:387:G:H1'	1.63	0.61
52:5:629:U:H2'	52:5:630:G:C8	2.35	0.61
21:R:29:ARG:NH2	21:R:48:THR:HG23	2.15	0.61
50:3:454:G:H2'	50:3:455:G:C8	2.35	0.61
50:3:1103:G:O2'	50:3:1131:A:O4'	2.13	0.61
50:3:1446:G:N1	50:3:1612:U:OP2	2.33	0.61
52:5:641:U:H2'	52:5:642:A:H8	1.64	0.61
52:5:726:A:N1	52:5:761:U:O2'	2.32	0.61
52:5:1329:G:H2'	52:5:1330:A:C8	2.35	0.61
5:B:97:GLY:O	5:B:98:ARG:NH2	2.32	0.61
9:F:46:PHE:HA	9:F:49:ILE:HD12	1.82	0.61
21:R:45:VAL:HG11	21:R:64:ASP:HA	1.81	0.61
50:3:1872:U:O2'	50:3:1873:A:N7	2.29	0.61
50:3:2738:U:H2'	50:3:2739:C:C6	2.35	0.61
52:5:873:U:H2'	52:5:874:C:H6	1.65	0.61
52:5:973:A:O2'	52:5:1295:U:O4	2.17	0.61
52:5:1046:A:C8	52:5:1175:C:N4	2.67	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:192:ALA:O	5:B:198:VAL:HA	2.00	0.61
45:v:2:ALA:N	50:3:1392:G:OP2	2.34	0.61
50:3:1063:A:N6	50:3:1161:A:OP1	2.33	0.61
50:3:2117:G:H5''	50:3:2152:C:H41	1.65	0.61
50:3:2433:A:H4'	50:3:2434:A:H3'	1.81	0.61
52:5:101:A:H61	52:5:310:C:H1'	1.65	0.61
52:5:366:C:H2'	52:5:367:A:H8	1.65	0.61
4:A:110:GLN:HB2	4:A:162:PHE:HA	1.82	0.61
38:o:102:SER:HB3	38:o:105:ARG:HE	1.64	0.61
41:r:91:GLY:HA3	50:3:786:A:C8	2.36	0.61
50:3:373:U:H2'	50:3:374:A:C8	2.35	0.61
50:3:535:G:N2	50:3:540:A:N6	2.49	0.61
50:3:1553:G:N1	50:3:1577:A:OP2	2.30	0.61
50:3:1809:A:OP2	50:3:1822:A:N6	2.34	0.61
52:5:36:G:N1	52:5:547:C:N3	2.45	0.61
52:5:711:G:H2'	52:5:712:A:C8	2.36	0.61
52:5:1002:A:H3'	52:5:1003:G:H8	1.64	0.61
52:5:1383:A:H2'	52:5:1384:A:C8	2.36	0.61
16:M:16:PHE:HB2	16:M:19:ARG:HG3	1.81	0.61
43:t:72:SER:OG	50:3:369:C:O2	2.17	0.61
46:w:27:LEU:HD13	46:w:30:ARG:HE	1.65	0.61
50:3:195:A:H2'	50:3:196:G:C8	2.35	0.61
50:3:517:G:O6	50:3:544:U:C4	2.54	0.61
50:3:2821:U:O2'	50:3:2840:U:O2	2.17	0.61
52:5:369:A:N1	52:5:387:G:O2'	2.32	0.61
52:5:497:A:H1'	52:5:498:G:C8	2.35	0.61
52:5:631:C:H2'	52:5:632:A:C8	2.36	0.61
52:5:1392:A:O2'	52:5:1458:A:N6	2.33	0.61
53:8:7:U:H3	53:8:68:G:H1	1.49	0.61
5:B:48:TYR:OH	5:B:87:LYS:NZ	2.33	0.61
8:E:103:LYS:NZ	52:5:837:G:OP2	2.33	0.61
34:k:18:LYS:HB2	50:3:698:A:H5''	1.83	0.61
50:3:144:C:H2'	50:3:145:A:C8	2.36	0.61
50:3:200:A:N6	50:3:866:G:C2	2.66	0.61
50:3:746:G:H2'	50:3:747:A:H8	1.63	0.61
50:3:2400:A:N6	50:3:2432:C:O2	2.33	0.61
52:5:1417:U:H2'	52:5:1418:G:C8	2.35	0.61
53:7:22:A:N6	53:7:47:G:O3'	2.34	0.61
48:y:2:ALA:N	50:3:2621:U:OP2	2.33	0.61
50:3:549:A:N3	50:3:614:C:O2'	2.33	0.61
50:3:730:G:H2'	50:3:731:A:C8	2.35	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1101:U:O2'	50:3:1104:A:N7	2.33	0.61
50:3:1300:C:H5''	50:3:1301:G:H5'	1.83	0.61
50:3:1387:A:OP2	50:3:1399:G:N2	2.27	0.61
13:J:48:SER:HA	13:J:51:LYS:HE2	1.81	0.61
14:K:81:PRO:O	14:K:112:ARG:NH1	2.34	0.61
16:M:29:ARG:HH21	52:5:1177:U:H5'	1.66	0.61
19:P:81:ILE:HG22	19:P:82:GLU:H	1.65	0.61
35:l:14:ASN:ND2	50:3:991:G:OP2	2.33	0.61
41:r:18:ARG:HG3	41:r:76:ALA:HB2	1.81	0.61
42:s:44:PHE:HD2	42:s:52:PRO:HD3	1.65	0.61
48:y:7:ARG:NH1	50:3:1292:A:N3	2.49	0.61
50:3:982:G:H2'	50:3:983:A:H8	1.64	0.61
50:3:1172:G:H2'	50:3:1173:G:H8	1.65	0.61
50:3:1293:U:H2'	50:3:1294:G:C4	2.36	0.61
50:3:2011:G:H3'	50:3:2012:A:H8	1.65	0.61
50:3:2075:U:O4	50:3:2438:A:N7	2.33	0.61
50:3:2808:A:N7	50:3:2809:A:N6	2.49	0.61
52:5:145:G:C2	52:5:148:A:N7	2.68	0.61
52:5:287:U:H3'	52:5:301:G:H22	1.66	0.61
52:5:449:A:H3'	52:5:450:U:H5''	1.83	0.61
52:5:1413:G:N2	52:5:1438:U:O2	2.34	0.61
52:5:1487:U:H2'	52:5:1488:A:C8	2.35	0.61
53:8:29:C:H2'	53:8:30:G:H8	1.66	0.61
1:0:34:ARG:NH1	50:3:503:G:OP2	2.31	0.61
26:c:76:GLN:NE2	50:3:708:C:O2'	2.34	0.61
26:c:174:ASN:ND2	50:3:354:C:O2	2.34	0.61
33:j:1:MET:N	50:3:1699:A:N3	2.47	0.61
50:3:15:A:N6	50:3:561:A:OP2	2.33	0.61
50:3:218:G:N3	50:3:220:A:O2'	2.34	0.61
50:3:389:C:H2'	50:3:390:A:H8	1.66	0.61
50:3:932:U:H2'	50:3:934:C:C4	2.36	0.61
50:3:1221:G:H2'	50:3:1222:A:C8	2.34	0.61
50:3:1493:A:O2'	50:3:1494:U:O4'	2.17	0.61
50:3:1920:A:H5''	52:5:1469:G:H1'	1.82	0.61
52:5:1068:G:N2	52:5:1071:A:OP2	2.25	0.61
7:D:84:ARG:NH2	52:5:1372:C:OP2	2.34	0.60
50:3:645:C:H2'	50:3:646:A:C8	2.36	0.60
50:3:1344:U:H2'	50:3:1345:G:C8	2.36	0.60
50:3:2847:C:H2'	50:3:2848:A:H8	1.66	0.60
29:f:1:MET:HA	29:f:29:PHE:CE2	2.36	0.60
50:3:117:C:H2'	50:3:118:G:O4'	2.01	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:947:A:N3	50:3:2272:C:O2'	2.30	0.60
50:3:1311:G:N1	50:3:1314:A:OP2	2.28	0.60
50:3:1754:U:H2'	50:3:1755:A:C8	2.36	0.60
50:3:1777:G:H2'	50:3:1778:G:C8	2.37	0.60
50:3:1805:U:O2'	50:3:1809:A:N3	2.33	0.60
52:5:394:U:H2'	52:5:395:G:H8	1.66	0.60
52:5:1388:A:H2	52:5:1462:G:H22	1.47	0.60
53:8:30:G:H2'	53:8:31:G:C8	2.36	0.60
24:a:31:ASN:HB3	50:3:1602:G:C6	2.37	0.60
26:c:114:THR:O	26:c:117:SER:OG	2.18	0.60
33:j:86:LEU:HB3	33:j:94:ARG:HD2	1.83	0.60
50:3:939:U:H2'	50:3:940:A:H8	1.65	0.60
50:3:1232:U:O4	50:3:1233:A:N6	2.34	0.60
50:3:2078:A:H2'	50:3:2079:G:C8	2.35	0.60
50:3:2093:U:H2'	50:3:2094:A:C8	2.36	0.60
52:5:631:C:H2'	52:5:632:A:H8	1.66	0.60
52:5:1384:A:H2'	52:5:1385:A:H8	1.65	0.60
52:5:1429:G:H2'	52:5:1430:G:H8	1.64	0.60
5:B:11:ARG:HH11	5:B:183:ALA:HB3	1.66	0.60
21:R:36:ARG:NH1	21:R:75:SER:OG	2.34	0.60
41:r:128:ARG:NH2	50:3:1262:G:N3	2.48	0.60
50:3:245:U:O3'	50:3:246:G:H4'	2.01	0.60
50:3:294:G:HO2'	50:3:296:U:H3	1.45	0.60
50:3:488:G:N2	50:3:494:G:O4'	2.34	0.60
50:3:752:C:H3'	50:3:753:A:H8	1.67	0.60
50:3:755:C:H2'	50:3:756:A:C8	2.36	0.60
50:3:992:G:O6	50:3:994:U:O2'	2.14	0.60
50:3:1338:G:O6	50:3:1639:C:N4	2.31	0.60
50:3:1954:C:H2'	50:3:1955:G:C8	2.36	0.60
50:3:2459:A:N7	50:3:2460:C:N4	2.49	0.60
50:3:2495:A:H2'	50:3:2496:G:C8	2.36	0.60
50:3:2603:G:N2	50:3:2606:A:OP2	2.26	0.60
50:3:2815:G:H2'	50:3:2816:A:H8	1.66	0.60
50:3:2838:G:H2'	50:3:2883:A:H61	1.66	0.60
52:5:1288:C:H2'	52:5:1289:U:H6	1.67	0.60
53:7:30:G:H2'	53:7:31:G:C8	2.36	0.60
9:F:65:VAL:O	9:F:69:MET:HG2	2.01	0.60
11:H:87:ARG:NH2	52:5:1110:C:OP1	2.32	0.60
36:m:99:ARG:NH2	36:m:119:THR:OG1	2.34	0.60
50:3:1164:A:O2'	50:3:2523:C:O2	2.16	0.60
50:3:2270:U:H1'	50:3:2336:A:H1'	1.83	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2539:A:N6	50:3:2669:G:O6	2.34	0.60
52:5:1043:U:C2	52:5:1181:G:O6	2.54	0.60
6:C:132:PRO:HD2	52:5:399:C:H5''	1.82	0.60
50:3:793:C:H2'	50:3:794:G:C8	2.36	0.60
50:3:840:G:H5'	50:3:841:C:C5	2.36	0.60
50:3:1019:A:H2'	50:3:1020:G:C4	2.37	0.60
50:3:1132:C:H3'	50:3:1133:A:H8	1.66	0.60
50:3:2297:G:H5''	50:3:2392:U:H1'	1.83	0.60
52:5:1046:A:N7	52:5:1175:C:C4	2.69	0.60
52:5:1230:G:O2'	52:5:1233:G:N3	2.24	0.60
9:F:113:LYS:HB3	52:5:1272:C:C4	2.35	0.60
30:g:33:SER:O	30:g:37:ALA:N	2.33	0.60
32:i:121:TRP:HA	32:i:124:LYS:HE2	1.83	0.60
35:l:11:LYS:O	50:3:948:A:N6	2.34	0.60
50:3:214:C:H2'	50:3:215:A:C8	2.37	0.60
50:3:1516:G:N1	50:3:1525:G:H1'	2.17	0.60
50:3:2059:G:O6	50:3:2625:U:O2	2.19	0.60
50:3:2531:C:O2	50:3:2772:A:O2'	2.20	0.60
50:3:2865:U:H2'	50:3:2866:A:H8	1.66	0.60
52:5:446:A:H3'	52:5:447:G:H8	1.67	0.60
52:5:708:A:H2'	52:5:709:A:C8	2.36	0.60
53:8:22:A:N6	53:8:47:G:O3'	2.34	0.60
5:B:33:TRP:HA	5:B:36:GLU:HB3	1.83	0.60
9:F:8:LYS:NZ	52:5:1352:A:OP2	2.29	0.60
13:J:113:GLY:HA2	52:5:713:A:H1'	1.83	0.60
24:a:56:ARG:NH2	50:3:1830:G:O2'	2.34	0.60
50:3:421:A:N6	50:3:424:G:OP2	2.21	0.60
50:3:509:G:H2'	50:3:510:G:C8	2.37	0.60
50:3:716:G:H1	50:3:831:U:H3	1.49	0.60
50:3:761:G:H3'	50:3:1460:G:H4'	1.84	0.60
50:3:1702:A:N6	50:3:1998:U:N3	2.49	0.60
51:4:42:G:H1'	51:4:45:C:H42	1.66	0.60
52:5:601:U:H2'	52:5:602:G:C8	2.36	0.60
52:5:932:A:H1'	52:5:1354:G:H22	1.65	0.60
16:M:12:ARG:HH12	52:5:989:A:H1'	1.66	0.60
32:i:116:ARG:N	50:3:591:G:OP1	2.35	0.60
50:3:632:A:H2'	50:3:633:G:H8	1.66	0.60
50:3:963:U:H2'	50:3:964:A:H8	1.67	0.60
50:3:2879:U:H2'	50:3:2880:A:C8	2.37	0.60
52:5:873:U:H2'	52:5:874:C:C6	2.36	0.60
52:5:1110:C:H2'	52:5:1111:G:C8	2.37	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1374:C:H4'	52:5:1375:C:H3'	1.83	0.60
52:5:1390:G:H2'	52:5:1391:A:C8	2.36	0.60
6:C:119:HIS:HB3	52:5:435:U:H4'	1.82	0.60
24:a:181:ILE:HG12	24:a:191:LYS:HG2	1.82	0.60
50:3:443:C:H2'	50:3:444:C:C6	2.37	0.60
50:3:1645:C:H2'	50:3:1646:G:C8	2.37	0.60
50:3:1807:C:O2	50:3:1824:G:O6	2.20	0.60
52:5:1184:C:N4	52:5:1185:C:N4	2.50	0.60
52:5:1268:G:H2'	52:5:1269:U:H6	1.67	0.60
52:5:1301:U:H2'	52:5:1302:C:O4'	2.02	0.60
6:C:192:ASN:ND2	6:C:194:SER:OG	2.35	0.59
27:d:61:SER:HA	27:d:99:PHE:HZ	1.66	0.59
28:e:161:LYS:NZ	50:3:2668:A:OP2	2.30	0.59
34:k:115:ILE:HG23	50:3:663:A:H62	1.67	0.59
41:r:16:LYS:NZ	50:3:2018:U:OP2	2.34	0.59
50:3:1071:G:N2	50:3:1154:U:O2	2.28	0.59
50:3:1337:G:H21	50:3:1642:G:H1	1.50	0.59
52:5:663:G:H2'	52:5:664:A:C8	2.37	0.59
53:8:13:U:N3	53:8:25:G:N1	2.50	0.59
25:b:109:ASP:HB3	25:b:177:GLN:HA	1.82	0.59
41:r:15:GLN:OE1	48:y:17:ARG:NH1	2.35	0.59
43:t:32:GLN:O	43:t:33:GLN:NE2	2.35	0.59
50:3:84:G:N2	50:3:104:A:OP2	2.33	0.59
50:3:241:C:O2	50:3:643:A:O2'	2.19	0.59
50:3:386:U:H2'	50:3:387:U:H6	1.67	0.59
50:3:613:C:H2'	50:3:614:C:H6	1.67	0.59
50:3:900:G:N2	50:3:950:U:O2	2.35	0.59
50:3:1137:C:H2'	50:3:1138:A:C8	2.37	0.59
50:3:1702:A:C6	50:3:1998:U:N3	2.70	0.59
51:4:75:U:O2	51:4:89:A:N6	2.35	0.59
52:5:499:U:H3	52:5:542:G:H1	1.50	0.59
52:5:1116:U:H2'	52:5:1118:A:N7	2.16	0.59
52:5:1154:A:H2'	52:5:1155:A:C8	2.37	0.59
9:F:30:MET:O	9:F:108:ARG:NH2	2.36	0.59
13:J:33:ASN:ND2	52:5:680:G:N3	2.49	0.59
41:r:81:SER:OG	41:r:97:THR:OG1	2.11	0.59
50:3:369:C:H2'	50:3:370:C:C6	2.36	0.59
50:3:1449:G:N2	50:3:1612:U:O2	2.36	0.59
50:3:2306:A:N6	50:3:2326:G:O2'	2.34	0.59
52:5:63:U:O2	52:5:375:C:O2'	2.20	0.59
52:5:660:A:N1	52:5:739:G:O6	2.35	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1151:A:H2'	52:5:1152:G:C8	2.37	0.59
52:5:1161:G:H2'	52:5:1162:G:H8	1.67	0.59
52:5:1390:G:H2'	52:5:1391:A:H8	1.67	0.59
53:7:13:U:N3	53:7:25:G:N1	2.50	0.59
53:7:29:C:H2'	53:7:30:G:H8	1.66	0.59
15:L:49:THR:OG1	15:L:51:GLU:OE1	2.20	0.59
24:a:57:HIS:HD2	24:a:224:ILE:HG23	1.68	0.59
28:e:118:GLU:OE2	28:e:154:TRP:NE1	2.32	0.59
46:w:10:LYS:HB3	46:w:14:GLU:HB3	1.83	0.59
50:3:603:G:O4'	50:3:1019:A:N6	2.35	0.59
50:3:1171:G:H2'	50:3:1172:G:C8	2.38	0.59
52:5:763:A:N6	52:5:810:U:C2	2.71	0.59
32:i:36:ALA:HA	32:i:39:ILE:HG22	1.84	0.59
36:m:2:SER:N	50:3:1692:A:O2'	2.34	0.59
36:m:70:THR:HG23	36:m:73:PHE:H	1.66	0.59
50:3:500:U:O2'	50:3:501:G:OP1	2.20	0.59
50:3:720:A:OP1	50:3:823:A:N6	2.34	0.59
50:3:890:U:H2'	50:3:891:G:H8	1.67	0.59
50:3:1104:A:H4'	50:3:1105:A:H2'	1.83	0.59
50:3:2145:A:H2'	50:3:2146:A:C8	2.38	0.59
50:3:2514:U:OP2	50:3:2584:G:N2	2.30	0.59
50:3:2795:C:H2'	50:3:2796:C:C6	2.37	0.59
52:5:20:C:O2'	52:5:570:A:N1	2.30	0.59
52:5:317:A:OP2	52:5:324:C:N4	2.36	0.59
52:5:502:C:H1'	52:5:508:A:H2'	1.84	0.59
52:5:881:G:C2	52:5:905:U:C2	2.90	0.59
53:8:10:A:N6	53:8:25:G:N7	2.51	0.59
24:a:24:LYS:HG3	24:a:25:LEU:HD12	1.83	0.59
50:3:641:U:O2	50:3:657:A:C5	2.55	0.59
50:3:688:U:H5''	50:3:689:U:H4'	1.84	0.59
50:3:883:A:H2'	50:3:884:A:C8	2.38	0.59
50:3:982:G:H2'	50:3:983:A:C8	2.37	0.59
50:3:1105:A:OP2	50:3:1110:C:N4	2.36	0.59
50:3:2321:C:H2'	50:3:2322:G:H8	1.68	0.59
50:3:2382:A:H2'	50:3:2383:G:C8	2.38	0.59
50:3:2524:U:H2'	50:3:2525:C:C6	2.38	0.59
52:5:145:G:H22	52:5:147:A:H3'	1.66	0.59
2:1:10:ARG:NH2	50:3:2402:C:OP1	2.35	0.59
4:A:38:ASN:ND2	4:A:206:THR:O	2.35	0.59
24:a:183:GLN:NE2	24:a:184:LEU:O	2.33	0.59
34:k:35:GLY:H	50:3:978:G:H5''	1.66	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:w:2:THR:OG1	50:3:80:U:OP1	2.20	0.59
50:3:122:G:H2'	50:3:123:G:H8	1.68	0.59
50:3:341:G:N2	50:3:343:A:H3'	2.17	0.59
50:3:1503:A:N6	50:3:1540:G:O2'	2.35	0.59
50:3:1677:G:H2'	50:3:1678:U:C6	2.38	0.59
53:7:7:U:H3	53:7:68:G:H1	1.48	0.59
7:D:141:ILE:HG12	7:D:148:ARG:HB3	1.85	0.59
8:E:101:ASN:HA	8:E:104:LYS:HE3	1.85	0.59
10:G:40:LEU:HD22	52:5:640:C:H5'	1.85	0.59
35:l:87:LYS:HG2	35:l:88:GLY:H	1.68	0.59
48:y:19:HIS:HE1	50:3:2632:C:H1'	1.68	0.59
50:3:201:A:O2'	50:3:2076:G:OP2	2.18	0.59
50:3:224:G:H1	50:3:463:U:H3'	1.67	0.59
50:3:306:G:N1	50:3:398:C:N3	2.35	0.59
50:3:764:G:H8	50:3:799:A:H5''	1.67	0.59
50:3:1670:U:H1'	50:3:1768:G:H21	1.68	0.59
50:3:1886:C:H2'	50:3:1887:U:C6	2.38	0.59
52:5:886:A:H1'	52:5:901:A:N6	2.17	0.59
7:D:161:ILE:HD12	52:5:8:G:H3'	1.85	0.59
8:E:97:LEU:HD13	52:5:658:G:H5''	1.83	0.59
25:b:50:THR:HB	25:b:87:MET:HE3	1.85	0.59
34:k:34:ARG:CZ	50:3:620:G:H1	2.16	0.59
50:3:1054:U:O2'	50:3:1056:A:N7	2.31	0.59
50:3:1553:G:OP2	50:3:1576:G:N1	2.35	0.59
50:3:1702:A:H1'	50:3:1704:C:H41	1.67	0.59
50:3:1798:A:N6	50:3:1835:G:H1'	2.18	0.59
50:3:2249:A:H2'	50:3:2250:G:C8	2.38	0.59
52:5:644:U:H2'	52:5:645:A:H8	1.68	0.59
52:5:1051:U:H2'	52:5:1052:G:C8	2.37	0.59
52:5:1081:U:H3	52:5:1086:U:H3	1.49	0.59
52:5:1314:A:O2'	52:5:1315:U:O4'	2.17	0.59
53:7:10:A:N6	53:7:25:G:N7	2.51	0.59
6:C:38:HIS:NE2	52:5:510:U:O4'	2.34	0.59
25:b:85:ARG:HD3	50:3:2645:U:H5''	1.85	0.59
34:k:34:ARG:HH12	50:3:706:C:N4	2.00	0.59
50:3:18:G:H2'	50:3:19:G:H8	1.68	0.59
50:3:118:G:OP2	50:3:120:A:O2'	2.17	0.59
50:3:299:A:H2'	50:3:300:G:C8	2.37	0.59
50:3:615:G:H2'	50:3:616:G:C8	2.38	0.59
50:3:1023:C:O2'	50:3:1036:A:N3	2.33	0.59
50:3:1261:U:H2'	50:3:1262:G:C8	2.36	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2151:G:H1'	50:3:2154:A:H61	1.65	0.59
50:3:2481:U:OP1	50:3:2483:C:N4	2.36	0.59
50:3:2667:G:H2'	50:3:2668:A:H2'	1.84	0.59
52:5:512:U:H2'	52:5:513:G:H8	1.67	0.59
52:5:648:C:N4	52:5:750:A:OP2	2.35	0.59
52:5:830:U:H2'	52:5:831:C:C6	2.38	0.59
52:5:881:G:C2	52:5:905:U:O2	2.56	0.59
5:B:113:MET:HA	5:B:118:ILE:HD11	1.85	0.58
6:C:12:ARG:NH1	52:5:423:U:OP1	2.36	0.58
14:K:6:GLN:NE2	52:5:875:G:OP2	2.34	0.58
25:b:123:ILE:HD12	25:b:142:ARG:HG3	1.85	0.58
39:p:31:TYR:OH	50:3:1282:G:OP2	2.20	0.58
42:s:76:LYS:NZ	50:3:61:U:OP2	2.26	0.58
50:3:1803:U:O2	50:3:1830:G:N2	2.30	0.58
50:3:1999:G:N2	50:3:2003:C:O2'	2.36	0.58
50:3:2538:A:OP2	50:3:2543:G:N2	2.36	0.58
52:5:141:A:H2'	52:5:142:G:C8	2.37	0.58
52:5:1402:U:H2'	52:5:1403:A:C8	2.38	0.58
2:1:15:LYS:HD3	50:3:664:G:H5''	1.85	0.58
37:n:99:HIS:H	37:n:102:ILE:HB	1.68	0.58
44:u:60:TYR:OH	50:3:2339:G:O3'	2.21	0.58
50:3:625:G:H2'	50:3:626:A:H8	1.67	0.58
50:3:1503:A:H8	50:3:1540:G:H21	1.51	0.58
50:3:1819:G:H2'	50:3:1820:U:C6	2.38	0.58
52:5:285:G:H2'	52:5:286:C:H6	1.67	0.58
52:5:826:G:N2	52:5:851:U:O2	2.31	0.58
52:5:1161:G:H2'	52:5:1162:G:C8	2.38	0.58
53:7:19:G:OP2	53:7:61:U:O2'	2.21	0.58
2:1:10:ARG:NH1	34:k:59:TYR:O	2.32	0.58
13:J:105:GLU:HG3	23:T:5:GLU:HB3	1.86	0.58
23:T:38:LYS:NZ	52:5:1500:G:OP1	2.31	0.58
26:c:113:HIS:HA	26:c:116:TRP:CE3	2.39	0.58
36:m:60:ARG:NH2	50:3:1482:U:OP2	2.36	0.58
38:o:57:GLY:HA3	38:o:62:GLU:HA	1.85	0.58
48:y:12:ARG:NH1	50:3:2029:U:OP2	2.24	0.58
50:3:23:A:OP1	50:3:1248:A:H4'	2.04	0.58
50:3:246:G:O2'	50:3:258:G:O6	2.21	0.58
50:3:629:G:O6	50:3:696:U:O4	2.22	0.58
50:3:714:G:H2'	50:3:715:G:C8	2.39	0.58
50:3:892:G:H2'	50:3:893:A:C8	2.39	0.58
50:3:955:A:H62	50:3:2276:A:H8	1.50	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1934:A:H2'	50:3:1935:A:C8	2.38	0.58
50:3:2231:A:H3'	50:3:2232:G:H8	1.67	0.58
52:5:68:C:H2'	52:5:69:G:C8	2.38	0.58
52:5:585:G:N1	52:5:751:C:OP2	2.35	0.58
52:5:711:G:H1'	52:5:774:A:C8	2.38	0.58
53:7:73:C:O2'	53:7:74:A:O4'	2.16	0.58
8:E:146:THR:HB	10:G:2:ILE:HD11	1.86	0.58
8:E:159:VAL:O	10:G:79:ARG:NH1	2.36	0.58
32:i:59:ILE:HD13	32:i:127:VAL:HG22	1.84	0.58
34:k:48:ARG:HG2	34:k:50:GLY:H	1.69	0.58
38:o:27:ALA:HB1	38:o:101:ILE:HG12	1.86	0.58
48:y:9:SER:HB3	48:y:12:ARG:HB3	1.85	0.58
50:3:61:U:O4	50:3:70:G:O6	2.22	0.58
50:3:254:G:H2'	50:3:255:A:C8	2.39	0.58
50:3:370:C:H2'	50:3:371:C:C6	2.38	0.58
50:3:652:U:H2'	50:3:653:G:C8	2.38	0.58
50:3:1143:U:O2'	50:3:1144:C:O5'	2.21	0.58
50:3:1702:A:N7	50:3:1998:U:C4	2.72	0.58
50:3:2054:C:H2'	50:3:2055:A:C8	2.37	0.58
50:3:2495:A:H2'	50:3:2496:G:H8	1.67	0.58
52:5:649:U:H1'	52:5:650:A:C8	2.38	0.58
6:C:153:ILE:HD12	52:5:433:C:H1'	1.84	0.58
7:D:164:GLY:HA2	7:D:167:ARG:HE	1.69	0.58
24:a:228:VAL:HG22	50:3:1796:A:H5'	1.85	0.58
35:l:82:ARG:NH1	50:3:2259:G:N7	2.49	0.58
50:3:51:A:OP1	50:3:52:U:O2'	2.21	0.58
50:3:522:C:H2'	50:3:523:A:C8	2.37	0.58
50:3:1213:U:H2'	50:3:1214:U:C6	2.38	0.58
50:3:2382:A:H2'	50:3:2383:G:H8	1.66	0.58
50:3:2551:G:H2'	50:3:2552:G:H8	1.69	0.58
52:5:105:A:O2'	52:5:107:A:N7	2.33	0.58
52:5:923:G:OP1	52:5:1478:A:N6	2.36	0.58
13:J:21:ASN:HA	13:J:51:LYS:HB3	1.85	0.58
24:a:220:ARG:NH1	50:3:799:A:N3	2.51	0.58
26:c:28:GLU:O	26:c:114:THR:OG1	2.18	0.58
32:i:63:ASP:HB3	32:i:129:LYS:HD3	1.84	0.58
34:k:61:ARG:NH1	50:3:2368:A:O2'	2.36	0.58
50:3:501:G:N3	50:3:718:U:O2'	2.37	0.58
50:3:1076:U:H2'	50:3:1077:G:C8	2.38	0.58
50:3:1314:A:N1	50:3:1357:U:O2'	2.33	0.58
50:3:2604:U:O2'	50:3:2605:G:O5'	2.21	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:679:U:H2'	52:5:680:G:C8	2.38	0.58
15:L:14:ARG:HG2	15:L:44:ARG:H	1.67	0.58
15:L:90:ARG:HA	15:L:93:LYS:HE3	1.86	0.58
50:3:82:G:H2'	50:3:83:G:H8	1.69	0.58
50:3:152:A:H2'	50:3:153:U:C6	2.39	0.58
50:3:665:C:H2'	50:3:666:G:O4'	2.03	0.58
50:3:1433:U:H2'	50:3:1434:U:C6	2.38	0.58
50:3:1855:A:H1'	52:5:699:A:H5'	1.86	0.58
50:3:2538:A:O2'	50:3:2542:A:N6	2.37	0.58
51:4:64:G:O2'	51:4:97:A:N6	2.37	0.58
8:E:9:VAL:HG22	8:E:56:HIS:H	1.68	0.58
14:K:128:SER:N	52:5:500:G:OP1	2.36	0.58
48:y:47:MET:HB3	48:y:52:ARG:HD3	1.84	0.58
50:3:297:G:N2	50:3:440:C:O2'	2.36	0.58
50:3:647:G:N2	50:3:650:G:OP1	2.36	0.58
50:3:1645:C:H2'	50:3:1646:G:H8	1.69	0.58
50:3:1772:G:O6	50:3:1994:U:O4	2.22	0.58
50:3:1928:G:H2'	50:3:1929:G:H8	1.69	0.58
50:3:2100:G:N7	50:3:2233:A:H2'	2.19	0.58
50:3:2791:U:H2'	50:3:2792:C:C6	2.38	0.58
52:5:254:G:H2'	52:5:255:G:C8	2.39	0.58
52:5:609:G:H1	52:5:627:U:H3	1.51	0.58
52:5:678:A:H2'	52:5:679:U:O4'	2.04	0.58
52:5:973:A:OP1	52:5:975:C:N4	2.36	0.58
52:5:1051:U:H2'	52:5:1052:G:H8	1.69	0.58
52:5:1293:A:H2	52:5:1335:G:N2	1.97	0.58
5:B:7:SER:HA	5:B:10:LEU:HB2	1.84	0.58
15:L:25:ILE:HG23	15:L:29:ARG:HG3	1.86	0.58
17:N:3:ILE:HD12	17:N:32:GLN:HG3	1.85	0.58
50:3:508:A:O2'	50:3:509:G:OP1	2.21	0.58
50:3:1159:C:H2'	50:3:1160:G:O4'	2.02	0.58
50:3:1937:G:N2	50:3:1976:A:O5'	2.36	0.58
50:3:2031:C:H2'	50:3:2032:G:C8	2.39	0.58
50:3:2291:U:O2	50:3:2333:G:O6	2.22	0.58
52:5:41:C:H2'	52:5:42:G:C8	2.39	0.58
52:5:331:C:H2'	52:5:332:A:C8	2.38	0.58
52:5:434:U:H2'	52:5:435:U:C6	2.39	0.58
16:M:35:SER:OG	52:5:1332:U:OP1	2.20	0.58
26:c:26:ALA:HB2	26:c:113:HIS:ND1	2.19	0.58
26:c:52:ILE:HG22	26:c:94:LYS:HD3	1.86	0.58
35:l:62:GLY:HA2	35:l:108:ASN:O	2.04	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:w:85:ASN:OD1	46:w:89:GLN:NE2	2.26	0.58
50:3:89:U:H5''	50:3:90:G:H5''	1.86	0.58
50:3:1451:A:H2'	50:3:1452:G:C8	2.38	0.58
52:5:662:G:O6	52:5:721:G:O6	2.21	0.58
32:i:100:SER:H	32:i:129:LYS:HZ1	1.50	0.57
39:p:7:LYS:HE3	50:3:1245:G:H5''	1.84	0.57
50:3:153:U:H3	50:3:180:A:H2	1.52	0.57
50:3:219:G:H1'	50:3:220:A:H4'	1.86	0.57
50:3:339:U:O2	50:3:346:G:O6	2.22	0.57
50:3:2249:A:H2'	50:3:2250:G:H8	1.69	0.57
52:5:170:A:H61	52:5:195:U:H3	1.52	0.57
52:5:228:G:H2'	52:5:229:G:C8	2.39	0.57
52:5:932:A:H1'	52:5:1354:G:H1	1.68	0.57
52:5:1211:A:H4'	52:5:1278:G:H4'	1.86	0.57
3:2:35:ARG:NH2	50:3:2750:A:OP1	2.37	0.57
4:A:23:LEU:HD22	4:A:58:LEU:HB3	1.85	0.57
5:B:33:TRP:HB3	5:B:60:ARG:NH1	2.19	0.57
14:K:112:ARG:HG3	14:K:119:GLY:HA2	1.86	0.57
24:a:2:PRO:HD2	24:a:25:LEU:HD11	1.85	0.57
25:b:119:PHE:HD2	50:3:1689:A:H1'	1.68	0.57
30:g:112:TYR:CG	30:g:117:ALA:N	2.72	0.57
50:3:223:A:H2'	50:3:224:G:C8	2.39	0.57
50:3:1077:G:O6	50:3:1148:U:O4	2.23	0.57
50:3:1813:C:N4	50:3:1814:G:O6	2.37	0.57
50:3:1818:G:H2'	50:3:1819:G:H8	1.70	0.57
50:3:2057:C:H2'	50:3:2058:G:C8	2.40	0.57
50:3:2469:A:H2'	50:3:2470:C:C6	2.39	0.57
52:5:57:U:H2'	52:5:58:G:C5	2.38	0.57
52:5:563:U:OP2	52:5:564:G:O2'	2.18	0.57
52:5:1093:A:H2'	52:5:1094:C:H6	1.69	0.57
52:5:1283:G:H2'	52:5:1284:A:H8	1.70	0.57
6:C:9:LYS:NZ	52:5:425:G:OP2	2.37	0.57
8:E:39:TYR:HD2	8:E:41:GLY:H	1.52	0.57
8:E:144:SER:HA	10:G:62:ASN:HA	1.86	0.57
21:R:45:VAL:HG21	21:R:67:VAL:HG12	1.85	0.57
25:b:3:ILE:HA	25:b:209:THR:HB	1.86	0.57
41:r:28:LYS:HG3	41:r:30:ALA:H	1.68	0.57
50:3:297:G:H2'	50:3:457:U:OP2	2.05	0.57
50:3:479:A:N1	50:3:1276:A:H1'	2.19	0.57
50:3:628:A:H2'	50:3:629:G:H8	1.68	0.57
50:3:868:C:H2'	50:3:869:U:C6	2.39	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:909:U:H2'	50:3:910:G:C8	2.39	0.57
50:3:1889:U:H2'	50:3:1890:U:C2	2.39	0.57
50:3:2103:C:H2'	50:3:2104:A:C8	2.39	0.57
50:3:2133:A:N3	50:3:2171:A:O2'	2.37	0.57
52:5:1133:A:H61	52:5:1153:G:H21	0.68	0.57
4:A:81:GLN:HB3	4:A:169:LEU:HD13	1.86	0.57
9:F:75:ARG:NH1	52:5:932:A:O2'	2.35	0.57
11:H:4:GLN:N	11:H:4:GLN:NE2	2.49	0.57
14:K:76:VAL:HG11	14:K:108:TYR:HD2	1.70	0.57
24:a:229:ARG:NH2	50:3:1796:A:OP1	2.37	0.57
50:3:759:U:H2'	50:3:760:G:O4'	2.03	0.57
50:3:874:U:H2'	50:3:875:G:C8	2.39	0.57
50:3:899:A:H2'	50:3:900:G:C8	2.39	0.57
50:3:941:C:H2'	50:3:942:A:C8	2.39	0.57
50:3:1091:G:C2'	50:3:1138:A:H61	2.14	0.57
50:3:1434:U:H2'	50:3:1435:A:C8	2.38	0.57
50:3:2376:C:H2'	50:3:2377:A:H8	1.68	0.57
50:3:2650:A:H2'	50:3:2651:G:C8	2.40	0.57
50:3:2796:C:H2'	50:3:2797:C:C6	2.40	0.57
51:4:29:C:O2'	51:4:51:A:N1	2.34	0.57
2:1:27:SER:O	50:3:2428:C:N4	2.38	0.57
4:A:28:THR:O	4:A:224:SER:OG	2.22	0.57
5:B:93:LYS:NZ	5:B:100:THR:O	2.34	0.57
11:H:5:SER:HA	11:H:21:LEU:O	2.04	0.57
13:J:115:LYS:O	52:5:775:G:O2'	2.21	0.57
17:N:45:LYS:NZ	52:5:805:C:OP1	2.36	0.57
42:s:56:ASN:HB3	50:3:1369:U:H1'	1.86	0.57
44:u:86:PHE:CE1	44:u:94:ARG:HB3	2.39	0.57
48:y:27:LEU:HB3	48:y:36:LYS:HE3	1.86	0.57
50:3:142:A:H2'	50:3:143:A:C8	2.39	0.57
50:3:251:G:OP2	50:3:253:C:N4	2.37	0.57
50:3:852:C:H2'	50:3:853:G:O4'	2.05	0.57
50:3:1503:A:OP2	50:3:1540:G:N2	2.37	0.57
50:3:2365:U:O2'	50:3:2369:G:N1	2.37	0.57
52:5:621:C:H2'	52:5:622:A:H8	1.70	0.57
52:5:1267:G:H2'	52:5:1268:G:C8	2.40	0.57
52:5:1467:A:H2'	52:5:1468:A:C4	2.39	0.57
53:8:56:U:H2'	53:8:58:G:H5''	1.86	0.57
4:A:234:ASP:OD2	4:A:246:PHE:HD2	1.87	0.57
9:F:40:ARG:HH22	52:5:1265:U:P	2.27	0.57
29:f:2:LYS:HA	29:f:39:LEU:HD21	1.86	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:j:5:MET:O	50:3:1701:G:H5''	2.05	0.57
50:3:122:G:H2'	50:3:123:G:C8	2.40	0.57
50:3:454:G:H2'	50:3:455:G:H8	1.69	0.57
50:3:535:G:H21	50:3:540:A:N6	2.03	0.57
50:3:1262:G:H2'	50:3:1263:G:C8	2.39	0.57
50:3:1451:A:H2'	50:3:1452:G:H8	1.68	0.57
50:3:2248:C:H2'	50:3:2249:A:H8	1.70	0.57
52:5:975:C:O2'	52:5:976:U:OP1	2.21	0.57
5:B:191:LYS:NZ	52:5:1048:G:H21	2.02	0.57
24:a:246:ARG:HG2	50:3:2598:C:H5''	1.86	0.57
50:3:409:A:N6	50:3:438:A:OP2	2.27	0.57
50:3:739:G:H21	50:3:762:A:H62	1.52	0.57
50:3:1649:C:N3	50:3:1651:C:N4	2.52	0.57
50:3:2457:U:OP1	50:3:2505:A:O2'	2.21	0.57
50:3:2736:U:HO2'	50:3:2737:G:H8	1.53	0.57
50:3:2755:G:H2'	50:3:2756:A:C8	2.40	0.57
52:5:134:G:N2	52:5:161:C:O2	2.38	0.57
52:5:213:U:H5''	52:5:461:G:H22	1.69	0.57
52:5:561:A:H1'	52:5:565:G:H5'	1.86	0.57
52:5:634:U:H2'	52:5:635:G:C8	2.39	0.57
52:5:767:U:H1'	52:5:894:A:C2	2.40	0.57
24:a:154:PRO:O	50:3:2212:U:O2'	2.23	0.57
33:j:64:ARG:NH1	33:j:81:ASP:OD2	2.37	0.57
50:3:59:C:H2'	50:3:60:G:H8	1.69	0.57
50:3:774:A:N3	50:3:775:C:N4	2.51	0.57
50:3:868:C:H2'	50:3:869:U:H6	1.70	0.57
50:3:1158:C:H2'	50:3:1159:C:H6	1.70	0.57
50:3:1480:A:O2'	50:3:2710:G:O6	2.18	0.57
50:3:1888:U:H2'	50:3:1889:U:C2	2.40	0.57
52:5:254:G:H2'	52:5:255:G:H8	1.69	0.57
52:5:747:C:H2'	52:5:748:U:C6	2.39	0.57
52:5:1115:G:N2	52:5:1116:U:O4	2.34	0.57
1:0:12:ARG:NH2	50:3:501:G:OP1	2.38	0.57
1:0:19:LEU:HA	1:0:22:MET:HG3	1.87	0.57
5:B:179:SER:O	52:5:1102:A:N6	2.38	0.57
7:D:69:ARG:NH1	7:D:168:ALA:O	2.38	0.57
7:D:70:ILE:HG22	7:D:92:VAL:HG12	1.87	0.57
28:e:3:LYS:HZ3	50:3:2757:A:H5'	1.69	0.57
35:l:51:ARG:HH21	35:l:52:ILE:HG22	1.70	0.57
36:m:74:ASP:H	36:m:77:GLN:HB2	1.70	0.57
42:s:66:ARG:HH12	50:3:65:A:H2	1.53	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:w:4:ALA:O	46:w:8:ARG:NH1	2.38	0.57
46:w:56:THR:HG21	50:3:79:U:H1'	1.87	0.57
50:3:18:G:H2'	50:3:19:G:C8	2.40	0.57
50:3:511:U:N3	50:3:515:A:C8	2.73	0.57
50:3:1754:U:H2'	50:3:1755:A:H8	1.69	0.57
50:3:1937:G:H22	50:3:1976:A:P	2.27	0.57
50:3:2376:C:H2'	50:3:2377:A:C8	2.40	0.57
51:4:21:G:H2'	51:4:22:G:C8	2.40	0.57
52:5:296:A:HO2'	52:5:562:U:H3	1.49	0.57
52:5:945:U:H2'	52:5:946:G:C8	2.40	0.57
53:7:56:U:H2'	53:7:58:G:H5''	1.86	0.57
2:1:39:ARG:HH12	50:3:2390:G:H21	1.53	0.57
4:A:120:PHE:O	4:A:124:SER:N	2.37	0.57
21:R:29:ARG:HB2	21:R:30:PRO:HD3	1.86	0.57
28:e:98:ARG:HG3	28:e:109:GLN:HB3	1.87	0.57
38:o:55:ARG:HH12	38:o:62:GLU:HB3	1.69	0.57
41:r:88:ARG:HH21	50:3:782:U:H2'	1.69	0.57
50:3:1063:A:H2'	50:3:1064:A:C8	2.40	0.57
50:3:1426:C:H2'	50:3:1427:C:C6	2.40	0.57
50:3:1472:C:H2'	50:3:1473:C:H6	1.69	0.57
50:3:1510:A:N6	50:3:1530:G:O6	2.38	0.57
50:3:1976:A:H2'	50:3:1979:G:H21	1.70	0.57
50:3:2252:U:H1'	50:3:2442:A:H2'	1.86	0.57
50:3:2755:G:H21	50:3:2765:A:N6	2.02	0.57
52:5:242:A:C5	52:5:277:G:C2	2.93	0.57
52:5:341:C:H4'	52:5:342:G:H5''	1.87	0.57
52:5:459:C:N4	52:5:468:G:O6	2.30	0.57
21:R:15:LEU:O	21:R:19:VAL:N	2.35	0.56
35:l:8:LYS:HD2	50:3:906:G:H1'	1.86	0.56
50:3:1326:C:O2	50:3:1330:U:O2'	2.22	0.56
50:3:1903:A:H2'	50:3:1904:G:C8	2.40	0.56
50:3:2315:G:N2	50:3:2319:A:O2'	2.37	0.56
50:3:2504:C:O2'	50:3:2505:A:OP1	2.22	0.56
50:3:2736:U:H2'	50:3:2737:G:H8	1.70	0.56
52:5:140:U:O2	52:5:154:G:O6	2.22	0.56
16:M:7:LYS:NZ	16:M:26:ARG:O	2.32	0.56
26:c:82:PRO:HB3	26:c:89:ILE:HA	1.87	0.56
35:l:42:ILE:HD12	35:l:97:VAL:HG21	1.86	0.56
39:p:2:ARG:HB2	50:3:1278:G:C6	2.40	0.56
50:3:793:C:H2'	50:3:794:G:H8	1.70	0.56
50:3:1076:U:H2'	50:3:1077:G:H8	1.70	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1111:C:H2'	50:3:1112:A:H8	1.71	0.56
50:3:1340:U:O2'	50:3:1342:C:N4	2.38	0.56
50:3:2514:U:O4	50:3:2618:C:N4	2.38	0.56
50:3:2528:C:H2'	50:3:2529:C:C6	2.40	0.56
50:3:2555:U:OP2	50:3:2574:A:O2'	2.22	0.56
52:5:1002:A:C2	52:5:1003:G:H1'	2.40	0.56
52:5:1436:C:H2'	52:5:1437:A:C8	2.40	0.56
8:E:92:ARG:O	8:E:94:TYR:HD1	1.86	0.56
10:G:11:HIS:CG	10:G:12:PHE:H	2.23	0.56
10:G:92:LYS:HB2	10:G:95:LEU:HB3	1.86	0.56
12:I:27:THR:HA	12:I:30:LYS:HE2	1.85	0.56
22:S:11:LEU:O	22:S:15:ILE:HG12	2.04	0.56
27:d:170:LEU:HB2	27:d:177:LEU:HD11	1.88	0.56
28:e:78:ALA:O	28:e:82:VAL:HG12	2.06	0.56
32:i:80:HIS:NE2	32:i:83:TYR:O	2.37	0.56
41:r:71:VAL:HA	41:r:107:LEU:HD23	1.86	0.56
50:3:222:A:H3'	50:3:223:A:H8	1.69	0.56
50:3:410:G:H4'	50:3:411:U:O5'	2.04	0.56
50:3:841:C:O2	50:3:2452:G:O2'	2.23	0.56
50:3:995:A:H2'	50:3:996:A:C8	2.40	0.56
50:3:1260:U:H2'	50:3:1261:U:C6	2.41	0.56
50:3:1520:A:H2'	50:3:1521:A:C8	2.39	0.56
50:3:1723:A:OP2	50:3:1732:A:N6	2.37	0.56
50:3:1818:G:H2'	50:3:1819:G:C8	2.40	0.56
50:3:2584:G:O2'	50:3:2587:U:OP2	2.18	0.56
52:5:26:C:H2'	52:5:27:A:H8	1.69	0.56
52:5:71:A:H2'	52:5:72:A:H8	1.70	0.56
52:5:259:A:H2'	52:5:260:C:H6	1.70	0.56
52:5:331:C:H2'	52:5:332:A:H8	1.70	0.56
52:5:512:U:H2'	52:5:513:G:C8	2.40	0.56
52:5:590:G:H2'	52:5:591:A:C8	2.40	0.56
52:5:1117:U:H6	52:5:1255:A:H2'	1.70	0.56
52:5:1316:C:H2'	52:5:1317:A:C5	2.40	0.56
52:5:1328:C:H2'	52:5:1329:G:H8	1.71	0.56
4:A:27:ARG:HD3	4:A:27:ARG:H	1.69	0.56
4:A:61:GLN:HE22	4:A:215:ILE:HG23	1.70	0.56
36:m:19:ARG:NH2	36:m:67:LEU:O	2.35	0.56
44:u:64:ASN:ND2	44:u:97:VAL:O	2.34	0.56
50:3:59:C:H2'	50:3:60:G:C8	2.40	0.56
50:3:353:G:C2	50:3:367:G:C2	2.93	0.56
50:3:604:A:N6	50:3:2508:U:OP1	2.38	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:831:U:H2'	50:3:832:C:C6	2.41	0.56
50:3:1197:G:H2'	50:3:1198:G:H8	1.69	0.56
50:3:1914:G:O6	50:3:1930:U:O4	2.24	0.56
50:3:2224:A:H2'	50:3:2225:G:H8	1.70	0.56
50:3:2260:G:N2	53:7:75:C:O3'	2.38	0.56
52:5:70:A:H2'	52:5:71:A:H8	1.70	0.56
52:5:931:C:O2'	52:5:1357:C:N3	2.36	0.56
53:7:22:A:N7	53:7:47:G:O2'	2.31	0.56
7:D:97:ARG:NH2	7:D:171:GLU:O	2.39	0.56
24:a:236:ASN:CG	50:3:2080:C:H5''	2.30	0.56
33:j:7:ARG:HH12	50:3:1701:G:H3'	1.71	0.56
50:3:535:G:N1	50:3:538:A:OP2	2.20	0.56
50:3:585:U:H2'	50:3:586:G:H8	1.70	0.56
50:3:1919:A:N1	52:5:1382:C:O2'	2.35	0.56
50:3:2436:G:H4'	50:3:2437:G:C4	2.39	0.56
50:3:2483:C:N3	50:3:2537:G:N1	2.52	0.56
50:3:2797:C:H2'	50:3:2798:A:C4	2.40	0.56
5:B:20:SER:HB2	16:M:52:ALA:HA	1.86	0.56
5:B:144:VAL:HG13	5:B:152:ILE:HG12	1.88	0.56
14:K:24:LEU:HD23	14:K:70:LEU:HD21	1.88	0.56
27:d:40:VAL:HG11	27:d:43:ALA:HB3	1.86	0.56
35:l:42:ILE:HD11	35:l:127:VAL:HG13	1.87	0.56
39:p:4:LYS:HB3	50:3:617:C:H5''	1.88	0.56
40:q:76:GLN:NE2	50:3:600:U:O4	2.38	0.56
42:s:15:LYS:O	42:s:19:ASN:ND2	2.39	0.56
45:v:10:ARG:NH2	50:3:433:A:OP1	2.39	0.56
45:v:60:LYS:NZ	50:3:409:A:N3	2.53	0.56
50:3:583:U:H5''	50:3:584:G:H5'	1.88	0.56
50:3:1158:C:H2'	50:3:1159:C:C6	2.40	0.56
50:3:1371:G:H1'	50:3:1631:A:H2'	1.88	0.56
50:3:2359:G:N2	50:3:2373:G:H2'	2.21	0.56
3:2:11:CYS:SG	3:2:12:LYS:N	2.78	0.56
11:H:30:ILE:HA	11:H:65:ILE:HG23	1.86	0.56
14:K:49:ARG:HB3	14:K:67:LYS:HB3	1.86	0.56
19:P:12:ILE:N	19:P:25:GLN:O	2.38	0.56
33:j:104:ARG:NH2	33:j:121:VAL:O	2.38	0.56
34:k:88:LEU:HB2	50:3:637:U:H5	1.70	0.56
39:p:12:ARG:NH1	50:3:1281:A:OP1	2.32	0.56
43:t:3:ARG:HH22	50:3:370:C:H4'	1.69	0.56
46:w:10:LYS:HG3	46:w:12:SER:H	1.71	0.56
50:3:101:C:H5''	50:3:102:A:H2'	1.88	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:173:C:H2'	50:3:174:A:H8	1.71	0.56
50:3:501:G:H2'	50:3:502:A:C8	2.41	0.56
50:3:513:A:H2'	50:3:514:A:C8	2.41	0.56
50:3:691:G:H2'	50:3:692:U:C6	2.41	0.56
50:3:1070:U:H2'	50:3:1071:G:H8	1.70	0.56
50:3:1630:A:H2'	50:3:1631:A:H8	1.70	0.56
50:3:2893:C:H2'	50:3:2894:G:O4'	2.05	0.56
52:5:130:G:H2'	52:5:131:G:H8	1.70	0.56
52:5:237:A:C6	52:5:282:G:N1	2.74	0.56
52:5:612:G:O6	52:5:624:U:O4	2.22	0.56
52:5:733:A:H2'	52:5:734:A:C8	2.41	0.56
52:5:780:U:H2'	52:5:781:A:C8	2.37	0.56
52:5:834:G:H2'	52:5:835:G:C8	2.41	0.56
52:5:1198:C:H5	52:5:1296:C:H42	1.54	0.56
5:B:195:THR:O	52:5:1181:G:O2'	2.24	0.56
7:D:136:ILE:HG13	7:D:151:LEU:HD23	1.86	0.56
27:d:16:LEU:HD13	27:d:29:PRO:HG2	1.88	0.56
34:k:28:LEU:HB2	34:k:32:SER:HA	1.88	0.56
46:w:40:LYS:NZ	50:3:98:C:OP1	2.38	0.56
50:3:713:C:H2'	50:3:714:G:C8	2.41	0.56
50:3:941:C:H2'	50:3:942:A:H8	1.70	0.56
50:3:2169:G:O3'	50:3:2173:G:N1	2.38	0.56
52:5:70:A:H2'	52:5:71:A:C8	2.40	0.56
52:5:141:A:H2'	52:5:142:G:H8	1.70	0.56
52:5:691:A:H2'	52:5:692:A:C8	2.41	0.56
52:5:920:G:O2'	52:5:922:G:OP1	2.23	0.56
52:5:1000:A:H1'	52:5:1001:A:C8	2.40	0.56
52:5:1223:A:H61	52:5:1262:A:H3'	1.71	0.56
52:5:1293:A:N1	52:5:1335:G:N3	2.53	0.56
14:K:4:ILE:HD11	19:P:35:TYR:HB3	1.87	0.56
15:L:101:ARG:HH11	15:L:103:ARG:HD3	1.71	0.56
24:a:72:LYS:NZ	24:a:155:LYS:O	2.38	0.56
25:b:51:LEU:HA	25:b:83:GLU:HA	1.87	0.56
41:r:133:GLN:HG2	41:r:137:MET:HE1	1.88	0.56
42:s:86:PRO:HB2	42:s:89:ILE:HG12	1.88	0.56
50:3:413:G:O6	50:3:435:U:O2	2.24	0.56
50:3:965:U:H2'	50:3:966:U:C6	2.40	0.56
50:3:1093:U:H3	50:3:1115:G:H1	1.53	0.56
50:3:1884:A:H2'	50:3:1885:G:C8	2.40	0.56
50:3:2753:C:H2'	50:3:2754:U:C6	2.40	0.56
52:5:22:G:H2'	52:5:23:G:C8	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:644:U:H2'	52:5:645:A:C8	2.41	0.56
52:5:989:A:N7	52:5:1191:U:O2'	2.33	0.56
52:5:1115:G:N2	52:5:1124:U:O4	2.39	0.56
6:C:112:SER:HB3	52:5:404:A:H5'	1.88	0.56
25:b:209:THR:O	25:b:211:LYS:NZ	2.39	0.56
33:j:11:ALA:HB2	33:j:83:ALA:HB1	1.88	0.56
35:l:74:LYS:HE3	35:l:94:VAL:HG11	1.88	0.56
44:u:28:ARG:O	50:3:2286:A:N6	2.38	0.56
48:y:28:SER:OG	50:3:2888:U:O4	2.23	0.56
50:3:569:U:O2	50:3:592:G:N2	2.38	0.56
50:3:1843:C:H2'	50:3:1844:C:C6	2.41	0.56
50:3:2509:C:H4'	50:3:2511:A:H5''	1.87	0.56
50:3:2564:C:H3'	50:3:2565:G:H8	1.71	0.56
52:5:365:U:H3	52:5:388:G:H1	1.54	0.56
52:5:656:U:H2'	52:5:657:G:C8	2.40	0.56
5:B:12:PHE:HE2	16:M:56:VAL:HB	1.70	0.55
14:K:22:PRO:HD2	14:K:107:ARG:HD2	1.87	0.55
15:L:24:GLY:HA3	15:L:69:LEU:HG	1.87	0.55
37:n:32:VAL:HG12	37:n:41:VAL:HG22	1.88	0.55
43:t:4:ILE:HD11	43:t:8:ASP:HB2	1.88	0.55
50:3:161:U:H3	50:3:171:G:H1	1.53	0.55
50:3:534:U:H3'	50:3:535:G:C8	2.41	0.55
50:3:897:A:H3'	50:3:898:A:H8	1.71	0.55
50:3:914:G:H22	50:3:936:G:H2'	1.71	0.55
50:3:943:A:H2'	50:3:944:U:H5''	1.87	0.55
50:3:1094:G:C6	50:3:1095:U:C4	2.95	0.55
50:3:1509:U:H3	50:3:1530:G:H1	1.54	0.55
50:3:1697:C:H4'	50:3:2694:A:H4'	1.88	0.55
50:3:1861:A:O2'	50:3:2240:U:O2'	2.24	0.55
50:3:2062:C:N4	50:3:2508:U:O4'	2.38	0.55
50:3:2115:A:O3'	50:3:2156:G:N2	2.39	0.55
52:5:629:U:H2'	52:5:630:G:H8	1.71	0.55
52:5:767:U:H2'	52:5:768:G:H8	1.71	0.55
52:5:1237:G:N2	52:5:1248:U:O2	2.27	0.55
5:B:155:LEU:HD13	5:B:170:MET:HB2	1.88	0.55
8:E:4:ASN:HB2	8:E:88:ILE:HB	1.88	0.55
15:L:84:GLY:HA2	15:L:92:ARG:HH12	1.69	0.55
16:M:21:TYR:HE2	16:M:23:ARG:HE	1.54	0.55
21:R:10:PHE:O	21:R:39:THR:N	2.35	0.55
32:i:11:GLN:HE22	32:i:50:ASN:HD21	1.52	0.55
50:3:669:A:O2'	50:3:2412:A:OP1	2.25	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1077:G:N2	50:3:1148:U:O2	2.38	0.55
50:3:1553:G:O5'	50:3:1576:G:N2	2.39	0.55
50:3:2333:G:H2'	50:3:2334:U:H5'	1.88	0.55
52:5:259:A:H2'	52:5:260:C:C6	2.40	0.55
52:5:441:U:H2'	52:5:442:G:C8	2.42	0.55
52:5:885:U:H2'	52:5:886:A:C8	2.39	0.55
52:5:1173:A:H2'	52:5:1174:U:C6	2.41	0.55
2:1:5:SER:OG	50:3:256:G:N7	2.39	0.55
7:D:80:THR:OG1	7:D:85:ASN:OD1	2.23	0.55
24:a:160:ILE:HD12	50:3:1806:G:N3	2.21	0.55
24:a:180:VAL:HG13	24:a:194:LYS:HB3	1.89	0.55
25:b:142:ARG:N	50:3:1691:U:OP1	2.37	0.55
50:3:210:U:H2'	50:3:211:A:H8	1.71	0.55
50:3:864:A:N6	50:3:2255:A:O2'	2.34	0.55
50:3:1218:G:N2	50:3:1219:U:O4	2.39	0.55
50:3:1426:C:H2'	50:3:1427:C:H6	1.72	0.55
50:3:1462:A:O2'	50:3:1463:G:O5'	2.24	0.55
50:3:1748:U:C4	50:3:1750:A:C8	2.94	0.55
50:3:2187:C:H2'	50:3:2188:U:C6	2.41	0.55
52:5:169:G:N2	52:5:219:A:O2'	2.39	0.55
52:5:1038:G:H2'	52:5:1039:G:C8	2.42	0.55
52:5:1204:A:H2'	52:5:1205:C:C6	2.41	0.55
4:A:130:LEU:HD13	4:A:159:LEU:HB3	1.89	0.55
5:B:36:GLU:HA	5:B:39:LYS:HZ3	1.72	0.55
6:C:151:ILE:HD12	52:5:434:U:H5'	1.88	0.55
20:Q:43:PHE:HA	20:Q:46:ILE:HG22	1.88	0.55
21:R:37:ARG:HD3	52:5:1292:A:N3	2.21	0.55
27:d:74:ILE:HB	27:d:79:LEU:HB3	1.87	0.55
28:e:21:GLN:HB2	28:e:24:HIS:HB2	1.88	0.55
44:u:46:ARG:NH1	50:3:2361:G:O3'	2.39	0.55
50:3:429:U:H2'	50:3:430:U:C6	2.40	0.55
50:3:563:A:O2'	50:3:565:C:N4	2.40	0.55
50:3:937:A:OP2	50:3:938:A:N6	2.38	0.55
50:3:1001:C:H2'	50:3:1002:A:H8	1.72	0.55
50:3:1180:U:H2'	50:3:1181:A:C8	2.38	0.55
50:3:1663:G:N3	50:3:2706:U:H4'	2.20	0.55
52:5:285:G:H2'	52:5:286:C:C6	2.42	0.55
52:5:1297:G:O2'	52:5:1336:C:H1'	2.06	0.55
24:a:282:ARG:NH1	50:3:1805:U:OP2	2.39	0.55
29:f:43:SER:O	29:f:47:ARG:NH1	2.39	0.55
34:k:43:LYS:HD2	50:3:707:C:OP2	2.06	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:634:C:H2'	50:3:635:G:H8	1.71	0.55
50:3:957:G:H21	50:3:2277:A:H8	1.53	0.55
50:3:1295:A:H61	50:3:2020:A:H5''	1.71	0.55
50:3:1767:A:H2'	50:3:1768:G:C4	2.41	0.55
50:3:2172:A:H3'	50:3:2173:G:H8	1.72	0.55
50:3:2303:U:O2	50:3:2345:G:N2	2.37	0.55
50:3:2476:A:O2'	50:3:2489:G:N2	2.36	0.55
52:5:687:G:H2'	52:5:688:G:C8	2.42	0.55
52:5:747:C:H2'	52:5:748:U:H6	1.72	0.55
52:5:1447:U:H2'	52:5:1448:A:C8	2.41	0.55
4:A:67:THR:HA	4:A:70:ASN:HD21	1.72	0.55
4:A:111:ARG:HH22	4:A:187:ALA:HB2	1.70	0.55
16:M:5:SER:O	16:M:9:LYS:HG2	2.06	0.55
17:N:47:PHE:HA	17:N:50:LYS:HG2	1.88	0.55
24:a:37:LEU:HB3	24:a:68:ILE:HB	1.89	0.55
24:a:208:HIS:HA	24:a:211:VAL:HG13	1.88	0.55
25:b:3:ILE:HD12	25:b:3:ILE:H	1.72	0.55
36:m:84:SER:OG	36:m:85:LYS:NZ	2.31	0.55
45:v:56:ARG:NH1	50:3:436:G:N7	2.55	0.55
49:z:8:ARG:HD2	49:z:17:ILE:HG23	1.88	0.55
50:3:173:C:H2'	50:3:174:A:C8	2.41	0.55
50:3:758:C:H2'	50:3:759:U:C6	2.41	0.55
50:3:2551:G:H2'	50:3:2552:G:C8	2.42	0.55
50:3:2689:C:O2	50:3:2733:A:N6	2.40	0.55
50:3:2792:C:H2'	50:3:2793:U:H6	1.72	0.55
52:5:119:U:O2'	52:5:120:A:N7	2.39	0.55
52:5:957:C:H2'	52:5:958:G:C8	2.41	0.55
9:F:110:ARG:HG2	9:F:111:HIS:H	1.71	0.55
19:P:18:ASN:HB3	52:5:250:G:H4'	1.87	0.55
24:a:181:ILE:HA	24:a:191:LYS:HA	1.88	0.55
32:i:11:GLN:HB3	50:3:573:A:H4'	1.89	0.55
37:n:5:THR:HG23	37:n:8:ARG:HE	1.72	0.55
37:n:76:ASP:O	37:n:79:ASP:HB2	2.07	0.55
46:w:62:LYS:HD3	46:w:66:GLN:HB2	1.88	0.55
50:3:81:C:H2'	50:3:82:G:H8	1.72	0.55
50:3:210:U:H2'	50:3:211:A:C8	2.42	0.55
50:3:645:C:H2'	50:3:646:A:H8	1.72	0.55
50:3:893:A:C6	50:3:894:G:C6	2.95	0.55
50:3:1841:U:O2'	50:3:1977:A:OP2	2.24	0.55
50:3:1942:G:H3'	50:3:1969:C:H42	1.70	0.55
51:4:60:C:H2'	51:4:61:A:C8	2.39	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:830:U:O4	52:5:847:G:O6	2.24	0.55
52:5:1280:A:P	52:5:1305:G:H22	2.30	0.55
53:7:13:U:C2	53:7:25:G:N1	2.75	0.55
2:1:8:LYS:NZ	50:3:248:A:OP2	2.38	0.55
7:D:206:ARG:O	7:D:210:ILE:HG12	2.07	0.55
17:N:62:ARG:NH1	52:5:755:U:O4	2.40	0.55
24:a:217:GLY:O	24:a:221:HIS:ND1	2.40	0.55
50:3:241:C:H2'	50:3:242:G:C8	2.42	0.55
50:3:1385:U:O4	50:3:1402:G:O6	2.24	0.55
50:3:1392:G:N2	50:3:1395:A:OP2	2.37	0.55
50:3:2451:C:H2'	50:3:2452:G:C8	2.42	0.55
52:5:28:G:H21	52:5:292:U:H4'	1.71	0.55
52:5:402:G:N7	52:5:493:A:O2'	2.36	0.55
52:5:772:G:H2'	52:5:773:G:C8	2.42	0.55
52:5:1380:G:H2'	52:5:1381:U:H5''	1.89	0.55
53:8:19:G:OP2	53:8:61:U:O2'	2.21	0.55
3:2:14:CYS:SG	3:2:32:HIS:ND1	2.80	0.55
6:C:58:GLN:HB3	6:C:62:TYR:CE2	2.42	0.55
23:T:37:ARG:HE	23:T:40:MET:HE1	1.71	0.55
28:e:112:TYR:HD2	50:3:2675:C:H1'	1.72	0.55
50:3:513:A:O2'	50:3:514:A:OP1	2.24	0.55
50:3:674:G:H2'	50:3:675:U:C6	2.42	0.55
50:3:818:A:H2'	50:3:819:U:H4'	1.88	0.55
50:3:1198:G:H2'	50:3:1199:A:C8	2.41	0.55
50:3:1994:U:H2'	50:3:1995:G:H8	1.69	0.55
50:3:2308:U:H2'	50:3:2309:A:C8	2.39	0.55
52:5:591:A:H2'	52:5:592:A:C8	2.41	0.55
53:8:13:U:C2	53:8:25:G:N1	2.75	0.55
19:P:68:PRO:O	52:5:260:C:O2'	2.25	0.55
24:a:150:ILE:HG22	24:a:160:ILE:HB	1.87	0.55
50:3:337:U:H2'	50:3:338:G:H8	1.72	0.55
50:3:786:A:O2'	50:3:1788:A:N1	2.37	0.55
50:3:2614:U:H2'	50:3:2615:G:C8	2.42	0.55
52:5:23:G:N2	52:5:907:A:O2'	2.40	0.55
52:5:293:G:N2	52:5:295:G:H3'	2.22	0.55
52:5:616:C:C2	52:5:620:A:N6	2.75	0.55
52:5:885:U:O2	52:5:901:A:N7	2.40	0.55
15:L:76:ASN:HA	15:L:79:HIS:NE2	2.22	0.54
24:a:14:ILE:HG22	50:3:1780:A:N1	2.22	0.54
26:c:8:LYS:HG2	26:c:14:GLU:CD	2.32	0.54
50:3:28:G:N1	50:3:548:A:OP2	2.40	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1472:C:H2'	50:3:1473:C:C6	2.42	0.54
50:3:2072:C:H2'	50:3:2073:C:H6	1.72	0.54
50:3:2260:G:H2'	50:3:2261:G:H8	1.72	0.54
50:3:2331:G:N2	50:3:2345:G:O4'	2.33	0.54
50:3:2687:A:H2'	50:3:2688:C:C6	2.43	0.54
52:5:23:G:O2'	52:5:907:A:N1	2.36	0.54
52:5:231:U:H2'	52:5:232:G:C8	2.42	0.54
52:5:331:C:O2'	52:5:1408:A:N3	2.35	0.54
52:5:526:C:N4	52:5:527:G:O6	2.39	0.54
52:5:677:C:H2'	52:5:678:A:C8	2.42	0.54
52:5:947:U:O3'	52:5:959:A:N6	2.38	0.54
52:5:976:U:H2'	52:5:977:U:C5	2.42	0.54
8:E:2:GLN:HA	8:E:63:SER:HA	1.88	0.54
13:J:46:LYS:HG3	13:J:49:ARG:HH11	1.71	0.54
14:K:80:ILE:HG12	14:K:87:LEU:HD12	1.89	0.54
16:M:27:CYS:O	52:5:1177:U:O2'	2.26	0.54
19:P:3:ARG:HE	52:5:114:C:H5''	1.72	0.54
21:R:5:ALA:HB1	52:5:1288:C:OP2	2.07	0.54
26:c:26:ALA:H	26:c:117:SER:HB3	1.70	0.54
26:c:60:GLY:HA3	26:c:80:ARG:HE	1.72	0.54
26:c:133:PHE:O	26:c:165:ASN:ND2	2.41	0.54
26:c:143:MET:HA	26:c:146:PHE:CD2	2.43	0.54
50:3:746:G:H2'	50:3:747:A:C8	2.42	0.54
50:3:1334:U:H2'	50:3:1335:A:H8	1.71	0.54
50:3:1721:G:H2'	50:3:1722:U:C6	2.42	0.54
50:3:2516:G:H2'	50:3:2517:A:H8	1.71	0.54
50:3:2669:G:H2'	50:3:2670:A:C8	2.41	0.54
50:3:2801:U:H2'	50:3:2808:A:H61	1.72	0.54
52:5:767:U:H1'	52:5:894:A:H2	1.72	0.54
52:5:1300:C:H2'	52:5:1301:U:C6	2.41	0.54
52:5:1360:G:H2'	52:5:1361:G:C8	2.42	0.54
6:C:14:LEU:HD13	6:C:59:ARG:HG3	1.88	0.54
8:E:35:LEU:HB3	8:E:62:PHE:HB3	1.88	0.54
24:a:244:GLU:HG2	50:3:2597:A:C8	2.43	0.54
26:c:76:GLN:OE1	26:c:81:ASN:ND2	2.41	0.54
30:g:112:TYR:HA	30:g:117:ALA:HA	1.89	0.54
39:p:57:ARG:O	39:p:61:ILE:HG12	2.07	0.54
43:t:44:ARG:HA	50:3:516:A:O3'	2.07	0.54
50:3:116:C:H2'	50:3:117:C:C6	2.43	0.54
50:3:1301:G:H2'	50:3:1651:C:H5'	1.89	0.54
50:3:1470:C:H2'	50:3:1471:A:C8	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1801:U:H3	50:3:1832:G:H22	1.54	0.54
50:3:2853:U:H4'	50:3:2854:A:H5'	1.88	0.54
50:3:2880:A:H2'	50:3:2881:A:C8	2.42	0.54
52:5:656:U:H2'	52:5:657:G:H8	1.72	0.54
52:5:1267:G:C6	52:5:1268:G:C6	2.96	0.54
52:5:1376:G:O6	52:5:1479:G:N2	2.40	0.54
6:C:54:LEU:O	6:C:58:GLN:HG2	2.06	0.54
13:J:22:ASN:OD1	13:J:40:SER:OG	2.25	0.54
14:K:114:THR:HG21	52:5:36:G:H5''	1.89	0.54
19:P:67:ARG:N	52:5:116:A:OP2	2.39	0.54
36:m:103:LEU:HD11	36:m:115:ILE:HB	1.89	0.54
41:r:26:GLY:H	41:r:71:VAL:HG13	1.72	0.54
44:u:50:ILE:HD11	50:3:2363:C:H1'	1.90	0.54
45:v:12:PRO:HA	45:v:29:TRP:O	2.08	0.54
50:3:561:A:O2'	50:3:2051:G:O4'	2.25	0.54
50:3:818:A:H1'	50:3:1786:U:H1'	1.89	0.54
50:3:1028:C:H2'	50:3:1029:A:H8	1.72	0.54
50:3:1090:G:H3'	50:3:1091:G:H8	1.71	0.54
50:3:1324:A:H2'	50:3:1325:C:C6	2.43	0.54
50:3:1830:G:H2'	50:3:1831:G:H8	1.72	0.54
50:3:2241:A:H2'	50:3:2242:G:C8	2.42	0.54
50:3:2420:A:H2'	50:3:2421:U:O4'	2.07	0.54
50:3:2857:C:H2'	50:3:2858:A:C8	2.42	0.54
50:3:2865:U:H2'	50:3:2866:A:C8	2.43	0.54
51:4:9:C:H2'	51:4:10:C:O4'	2.07	0.54
52:5:288:A:N6	52:5:302:A:OP2	2.41	0.54
52:5:377:A:H3'	52:5:378:A:H8	1.72	0.54
52:5:610:C:H2'	52:5:611:A:H8	1.71	0.54
52:5:753:C:H2'	52:5:754:U:O4'	2.08	0.54
52:5:852:G:N2	52:5:864:U:OP2	2.40	0.54
52:5:1015:U:H2'	52:5:1016:A:C8	2.42	0.54
52:5:1205:C:H2'	52:5:1206:G:H8	1.73	0.54
8:E:35:LEU:HD13	8:E:60:TRP:CE3	2.42	0.54
25:b:129:LYS:HD3	50:3:2519:U:H5''	1.88	0.54
25:b:130:ILE:HD11	50:3:2004:G:H3'	1.89	0.54
34:k:91:ASP:OD1	34:k:92:LYS:N	2.41	0.54
50:3:337:U:H2'	50:3:338:G:C8	2.42	0.54
50:3:529:G:H2'	50:3:530:G:H8	1.72	0.54
50:3:1446:G:O2'	50:3:1613:A:N6	2.28	0.54
50:3:2334:U:N3	50:3:2397:G:N1	2.53	0.54
52:5:305:A:H2'	52:5:306:G:H8	1.71	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:613:C:H2'	52:5:614:U:C6	2.42	0.54
52:5:1178:C:H2'	52:5:1179:A:C8	2.43	0.54
52:5:1226:A:N3	52:5:1344:C:O2'	2.37	0.54
7:D:161:ILE:HG22	52:5:9:A:C5	2.43	0.54
14:K:134:LYS:HG3	14:K:135:PRO:HD2	1.90	0.54
24:a:17:SER:HA	24:a:212:VAL:HG11	1.90	0.54
29:f:70:GLU:OE1	29:f:74:GLN:NE2	2.35	0.54
33:j:111:TYR:HB3	33:j:114:ILE:HD13	1.89	0.54
34:k:130:LYS:NZ	50:3:671:C:OP2	2.32	0.54
46:w:92:GLU:HA	46:w:95:LYS:HB2	1.90	0.54
50:3:320:A:H2'	50:3:321:A:C8	2.43	0.54
50:3:325:G:O6	50:3:383:U:C2	2.61	0.54
50:3:585:U:C2	50:3:586:G:C8	2.96	0.54
50:3:890:U:H2'	50:3:891:G:C8	2.43	0.54
50:3:1603:A:H2'	50:3:1604:A:C8	2.43	0.54
50:3:1723:A:H2'	50:3:1724:A:C8	2.41	0.54
50:3:2248:C:H2'	50:3:2249:A:C8	2.43	0.54
50:3:2251:U:O2'	50:3:2442:A:N1	2.37	0.54
50:3:2683:G:H2'	50:3:2684:G:C8	2.42	0.54
51:4:58:C:H2'	51:4:59:A:C8	2.42	0.54
52:5:34:A:H2'	52:5:35:C:O4'	2.07	0.54
52:5:487:A:H5''	52:5:488:U:OP2	2.07	0.54
52:5:773:G:O2'	52:5:775:G:O6	2.26	0.54
52:5:1278:G:C8	52:5:1279:G:H1'	2.41	0.54
52:5:1412:C:H2'	52:5:1413:G:C8	2.41	0.54
53:7:9:U:O2	53:7:15:A:N7	2.41	0.54
4:A:66:GLN:HE21	4:A:70:ASN:HD22	1.54	0.54
8:E:7:LEU:HD23	8:E:60:TRP:CD1	2.41	0.54
11:H:125:ARG:NH2	52:5:1323:A:O3'	2.39	0.54
27:d:60:ILE:HG12	27:d:99:PHE:HE1	1.73	0.54
27:d:152:PHE:HB3	27:d:154:VAL:HG13	1.90	0.54
50:3:558:C:H1'	50:3:587:U:H1'	1.89	0.54
50:3:1010:G:O4'	50:3:1026:A:N6	2.41	0.54
50:3:1140:U:H2'	50:3:1141:U:C6	2.43	0.54
50:3:1528:G:H2'	50:3:1529:U:C6	2.43	0.54
50:3:1701:G:O2'	50:3:1998:U:O4	2.20	0.54
50:3:1956:G:H2'	50:3:1957:G:C8	2.43	0.54
50:3:2159:U:H2'	50:3:2160:U:C6	2.42	0.54
52:5:538:G:H2'	52:5:539:G:C8	2.42	0.54
52:5:712:A:H2'	52:5:713:A:C8	2.43	0.54
52:5:727:G:O2'	52:5:811:A:N6	2.41	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:833:G:O6	52:5:844:U:O4	2.26	0.54
52:5:1000:A:H4'	52:5:1001:A:H5'	1.88	0.54
9:F:144:ALA:O	9:F:145:GLU:HG2	2.08	0.54
18:O:5:ARG:HD2	52:5:44:C:H4'	1.88	0.54
33:j:35:LEU:HD21	33:j:65:THR:HG23	1.89	0.54
34:k:26:SER:HB2	50:3:848:U:H5	1.72	0.54
39:p:63:ARG:HB3	39:p:96:GLU:OE2	2.07	0.54
50:3:353:G:N2	50:3:357:A:N7	2.50	0.54
50:3:724:A:H2'	50:3:725:G:H8	1.72	0.54
50:3:1476:C:H4'	50:3:1554:A:H2	1.72	0.54
50:3:1523:C:H2'	50:3:1524:C:C6	2.42	0.54
50:3:2071:C:H1'	50:3:2458:A:C2	2.43	0.54
51:4:90:G:H3'	51:4:91:A:H8	1.72	0.54
52:5:58:G:H2'	52:5:59:C:C6	2.42	0.54
52:5:1330:A:H2'	52:5:1331:A:C8	2.43	0.54
52:5:1360:G:H2'	52:5:1361:G:H8	1.72	0.54
13:J:33:ASN:HA	52:5:680:G:N2	2.18	0.54
27:d:24:SER:HB3	27:d:27:GLN:HG3	1.90	0.54
41:r:135:ALA:O	41:r:139:ARG:NE	2.40	0.54
44:u:90:GLN:NE2	51:4:10:C:OP1	2.41	0.54
50:3:496:A:H1'	50:3:506:A:H62	1.73	0.54
50:3:844:G:H1'	50:3:1284:A:H1'	1.90	0.54
50:3:1691:U:H2'	50:3:1692:A:C8	2.42	0.54
50:3:1720:C:N4	50:3:1721:G:O6	2.41	0.54
50:3:1759:C:H2'	50:3:1760:G:C8	2.43	0.54
50:3:2589:G:H22	50:3:2618:C:H2'	1.73	0.54
50:3:2718:C:H2'	50:3:2719:A:C8	2.43	0.54
52:5:246:A:H1'	52:5:248:U:C4	2.42	0.54
52:5:356:G:H2'	52:5:357:G:C8	2.42	0.54
52:5:453:C:H2'	52:5:454:U:C6	2.43	0.54
52:5:902:A:H2'	52:5:903:A:H8	1.73	0.54
52:5:1005:U:H2'	52:5:1006:A:C8	2.43	0.54
52:5:1038:G:H1'	52:5:1190:G:H4'	1.90	0.54
52:5:1194:A:H2'	52:5:1195:G:H8	1.73	0.54
6:C:108:PRO:HB2	52:5:404:A:H4'	1.90	0.54
12:I:17:GLU:O	12:I:103:THR:OG1	2.21	0.54
13:J:63:VAL:HA	13:J:66:THR:HG22	1.89	0.54
14:K:29:ASN:ND2	14:K:32:ASN:O	2.38	0.54
14:K:61:ALA:HB2	52:5:527:G:H1	1.73	0.54
29:f:93:ILE:HG13	29:f:95:LYS:H	1.73	0.54
35:l:77:LYS:HD3	35:l:78:PRO:HD2	1.90	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:126:PRO:HG3	50:3:2493:G:H5''	1.90	0.54
38:o:32:ASN:HB2	38:o:91:LYS:HD3	1.89	0.54
38:o:56:ARG:NH2	38:o:63:THR:OG1	2.41	0.54
50:3:1028:C:H2'	50:3:1029:A:C8	2.43	0.54
50:3:1699:A:H2'	50:3:1700:G:C8	2.38	0.54
50:3:2425:C:H2'	50:3:2426:A:C8	2.42	0.54
50:3:2699:C:H2'	50:3:2700:C:C6	2.43	0.54
52:5:354:U:H2'	52:5:355:A:C8	2.39	0.54
52:5:499:U:H2'	52:5:500:G:C8	2.43	0.54
52:5:1279:G:O3'	52:5:1305:G:N2	2.38	0.54
18:O:62:THR:OG1	52:5:372:G:OP2	2.14	0.53
25:b:145:GLY:HA2	50:3:2586:G:H1'	1.88	0.53
37:n:89:VAL:HG22	37:n:114:LEU:HD12	1.90	0.53
41:r:57:ASN:HD21	50:3:529:G:H21	1.54	0.53
50:3:119:A:H1'	50:3:181:G:H1'	1.90	0.53
50:3:590:U:H2'	50:3:591:G:C8	2.41	0.53
50:3:914:G:N2	50:3:915:A:N7	2.55	0.53
50:3:1010:G:C2	50:3:1025:G:H1'	2.43	0.53
50:3:2088:U:O2	50:3:2247:G:N2	2.30	0.53
50:3:2299:U:H2'	50:3:2300:A:C8	2.42	0.53
50:3:2523:C:H2'	50:3:2524:U:C6	2.43	0.53
50:3:2706:U:H2'	50:3:2707:A:C8	2.43	0.53
52:5:1182:C:H2'	52:5:1183:C:O4'	2.07	0.53
4:A:76:ALA:CB	4:A:239:ALA:HB1	2.39	0.53
6:C:58:GLN:HE22	6:C:61:GLN:HE21	1.56	0.53
26:c:48:GLY:HA2	26:c:50:HIS:CD2	2.43	0.53
32:i:42:LYS:NZ	50:3:1045:A:OP1	2.41	0.53
50:3:130:C:H2'	50:3:131:C:C6	2.43	0.53
50:3:385:U:H2'	50:3:386:U:C6	2.43	0.53
50:3:2164:G:O2'	50:3:2165:A:O5'	2.26	0.53
50:3:2530:U:H1'	50:3:2655:U:H5''	1.90	0.53
52:5:168:A:H3'	52:5:169:G:H8	1.73	0.53
52:5:748:U:H3'	52:5:749:G:H8	1.72	0.53
52:5:784:A:N6	52:5:790:U:OP1	2.40	0.53
52:5:1134:C:N3	52:5:1156:G:N1	2.56	0.53
5:B:42:ASN:HA	5:B:45:PHE:CE1	2.43	0.53
13:J:34:VAL:O	52:5:681:U:O2'	2.25	0.53
21:R:10:PHE:HB3	21:R:70:LYS:HZ3	1.74	0.53
24:a:137:PRO:HA	24:a:197:ARG:HA	1.91	0.53
32:i:62:SER:HB3	32:i:129:LYS:HG2	1.91	0.53
33:j:29:ARG:HH21	33:j:31:ARG:HH12	1.56	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:p:89:ILE:HG22	39:p:91:ARG:NH2	2.23	0.53
50:3:667:A:H2'	50:3:668:A:O4'	2.09	0.53
50:3:1062:A:C2	50:3:2496:G:H5'	2.43	0.53
50:3:1480:A:O2'	50:3:1485:A:N6	2.41	0.53
50:3:2572:A:N1	50:3:2655:U:H4'	2.23	0.53
52:5:1344:C:H2'	52:5:1345:G:C8	2.43	0.53
53:8:9:U:O2	53:8:15:A:N7	2.41	0.53
8:E:100:ILE:HG21	20:Q:49:LEU:HD22	1.90	0.53
25:b:4:ARG:NH1	25:b:88:THR:O	2.42	0.53
25:b:29:ILE:HD13	25:b:205:VAL:HG21	1.89	0.53
25:b:185:ASP:O	25:b:189:MET:N	2.41	0.53
26:c:75:ARG:NH2	50:3:2453:G:OP1	2.42	0.53
32:i:117:LEU:HD21	50:3:590:U:H4'	1.91	0.53
50:3:217:A:H2	50:3:221:A:H4'	1.73	0.53
50:3:613:C:H2'	50:3:614:C:C6	2.44	0.53
50:3:2084:A:H2'	50:3:2085:C:C6	2.43	0.53
50:3:2259:G:O2'	50:3:2457:U:O2	2.25	0.53
52:5:22:G:H2'	52:5:23:G:H8	1.74	0.53
52:5:87:G:H2'	52:5:88:A:H8	1.74	0.53
9:F:113:LYS:HB3	52:5:1272:C:C5	2.43	0.53
12:I:80:MET:HA	12:I:80:MET:HE3	1.89	0.53
15:L:9:ILE:HG13	15:L:18:ALA:HB1	1.90	0.53
26:c:158:LEU:HD22	26:c:191:LEU:HA	1.91	0.53
36:m:106:ARG:HG3	36:m:113:MET:HG3	1.90	0.53
50:3:188:G:H2'	50:3:189:U:H6	1.74	0.53
50:3:342:G:H2'	50:3:343:A:C8	2.43	0.53
50:3:493:A:N6	50:3:507:A:OP2	2.41	0.53
50:3:552:C:H2'	50:3:553:A:C8	2.43	0.53
50:3:710:A:N3	50:3:2451:C:O2'	2.37	0.53
50:3:786:A:N7	50:3:824:A:N6	2.56	0.53
50:3:788:G:H2'	50:3:789:A:C8	2.42	0.53
50:3:2469:A:H2'	50:3:2470:C:H6	1.74	0.53
50:3:2624:C:H2'	50:3:2625:U:O4'	2.07	0.53
50:3:2695:U:H2'	50:3:2696:G:O4'	2.08	0.53
50:3:2891:C:H2'	50:3:2892:U:C6	2.43	0.53
52:5:735:C:H2'	52:5:736:U:C6	2.44	0.53
52:5:1001:A:OP2	52:5:1019:G:N1	2.42	0.53
52:5:1125:C:H2'	52:5:1126:U:H6	1.73	0.53
5:B:6:ASN:HD22	16:M:49:TYR:HB3	1.74	0.53
19:P:27:GLU:HA	19:P:41:ARG:O	2.08	0.53
25:b:144:GLN:NE2	25:b:146:SER:O	2.29	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:d:39:GLY:HA3	50:3:2315:G:H22	1.74	0.53
30:g:112:TYR:CG	30:g:117:ALA:HA	2.44	0.53
37:n:71:LYS:HB2	37:n:108:ALA:HB2	1.91	0.53
50:3:97:A:H2'	50:3:98:C:O4'	2.07	0.53
50:3:226:A:H62	50:3:236:G:H1'	1.74	0.53
50:3:276:A:O2'	50:3:406:C:O4'	2.25	0.53
50:3:307:C:H2'	50:3:308:A:C8	2.43	0.53
50:3:714:G:H2'	50:3:715:G:H8	1.71	0.53
50:3:1678:U:O2'	50:3:1679:U:O4'	2.20	0.53
50:3:1867:G:N2	50:3:1890:U:O2	2.37	0.53
50:3:2541:C:H2'	50:3:2542:A:N9	2.24	0.53
52:5:227:A:H2'	52:5:228:G:C8	2.44	0.53
52:5:565:G:H2'	52:5:566:G:O4'	2.08	0.53
52:5:648:C:H2'	52:5:649:U:C6	2.44	0.53
52:5:708:A:H2'	52:5:709:A:H8	1.73	0.53
52:5:773:G:H4'	52:5:774:A:C8	2.43	0.53
52:5:1409:A:H2'	52:5:1410:A:C8	2.44	0.53
12:I:57:ILE:HD12	16:M:41:ARG:HD2	1.90	0.53
36:m:90:TYR:HE2	36:m:118:LEU:HD12	1.72	0.53
50:3:71:C:O2	50:3:75:A:O2'	2.24	0.53
50:3:709:G:H21	50:3:2452:G:H4'	1.73	0.53
50:3:1327:G:H1	50:3:1673:U:H3'	1.74	0.53
50:3:2383:G:H22	50:3:2385:A:H3'	1.73	0.53
50:3:2480:G:H21	50:3:2486:A:N6	2.05	0.53
50:3:2609:C:H2'	50:3:2611:G:C8	2.43	0.53
51:4:11:A:O2'	51:4:13:G:OP2	2.18	0.53
52:5:90:G:N2	52:5:375:C:O2'	2.42	0.53
52:5:345:A:H2'	52:5:346:G:C8	2.44	0.53
52:5:1460:U:H2'	52:5:1461:G:C8	2.42	0.53
53:8:14:C:N3	53:8:24:A:N6	2.57	0.53
2:1:50:SER:O	2:1:54:ARG:NH1	2.33	0.53
6:C:65:GLY:HA3	6:C:111:ARG:HH12	1.73	0.53
12:I:47:PRO:HA	12:I:78:ARG:HA	1.89	0.53
13:J:16:VAL:HG13	13:J:25:VAL:HG12	1.90	0.53
14:K:78:THR:HG22	14:K:108:TYR:HB2	1.90	0.53
45:v:20:HIS:HA	53:8:77:A:H61	1.74	0.53
49:z:5:ARG:HD2	49:z:24:ASN:HA	1.91	0.53
49:z:38:CYS:O	49:z:42:ARG:N	2.41	0.53
50:3:169:U:H2'	50:3:170:A:H8	1.74	0.53
50:3:859:G:O2'	50:3:2366:A:N6	2.35	0.53
50:3:928:G:H2'	50:3:929:G:C8	2.44	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1042:C:H2'	50:3:1043:C:C6	2.44	0.53
50:3:1117:U:H2'	50:3:1118:U:O4'	2.09	0.53
50:3:1182:U:H2'	50:3:1183:A:H8	1.69	0.53
50:3:1345:G:H2'	50:3:1346:G:H8	1.74	0.53
50:3:1583:G:H2'	50:3:1584:U:C6	2.44	0.53
52:5:305:A:H2'	52:5:306:G:C8	2.43	0.53
52:5:839:U:H3'	52:5:840:C:H6	1.73	0.53
52:5:1124:U:H3'	52:5:1125:C:C6	2.43	0.53
1:0:38:GLN:NE2	50:3:488:G:O6	2.32	0.53
8:E:151:LYS:HB2	10:G:50:LYS:HZ2	1.73	0.53
11:H:110:LYS:HE2	52:5:1159:A:H2	1.72	0.53
15:L:56:ILE:HA	15:L:59:VAL:HG22	1.89	0.53
28:e:45:LYS:HD3	28:e:58:ASN:HD22	1.73	0.53
50:3:635:G:N2	50:3:636:U:O4	2.42	0.53
50:3:1048:A:H2'	50:3:1049:U:H6	1.73	0.53
50:3:1201:A:H2'	50:3:1202:A:C8	2.44	0.53
50:3:1270:C:H2'	50:3:1271:A:H8	1.73	0.53
50:3:1460:G:H2'	50:3:1461:A:C8	2.44	0.53
50:3:1800:C:H2'	50:3:1801:U:C6	2.43	0.53
50:3:2070:C:OP2	50:3:2071:C:N4	2.41	0.53
50:3:2372:C:H2'	50:3:2373:G:O4'	2.09	0.53
52:5:168:A:H3'	52:5:169:G:C8	2.44	0.53
52:5:497:A:O4'	52:5:545:A:N6	2.42	0.53
52:5:882:U:H5''	52:5:883:A:H2'	1.91	0.53
53:7:63:U:H2'	53:7:64:G:H8	1.74	0.53
53:8:63:U:H2'	53:8:64:G:H8	1.74	0.53
5:B:93:LYS:O	5:B:98:ARG:NH2	2.43	0.53
13:J:91:ARG:O	13:J:95:ASN:ND2	2.42	0.53
14:K:124:ARG:NH2	52:5:537:A:OP1	2.42	0.53
40:q:5:VAL:HG12	40:q:55:VAL:HG11	1.90	0.53
50:3:235:U:H2'	50:3:236:G:O4'	2.09	0.53
50:3:449:C:H2'	50:3:450:C:C6	2.44	0.53
50:3:450:C:H2'	50:3:451:A:H8	1.74	0.53
50:3:634:C:H2'	50:3:635:G:C8	2.43	0.53
50:3:712:A:H2'	50:3:713:C:C6	2.44	0.53
50:3:1361:U:H2'	50:3:1362:C:C6	2.43	0.53
50:3:2371:U:H2'	50:3:2372:C:C6	2.43	0.53
50:3:2380:U:H2'	50:3:2381:G:C8	2.44	0.53
52:5:435:U:C2	52:5:494:A:N7	2.77	0.53
52:5:1214:A:N6	52:5:1271:U:C2	2.77	0.53
52:5:1376:G:H2'	52:5:1377:C:O4'	2.09	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:87:LYS:O	5:B:90:LYS:HG3	2.09	0.52
6:C:58:GLN:NE2	6:C:61:GLN:HE21	2.07	0.52
10:G:118:THR:OG1	10:G:119:SER:N	2.42	0.52
24:a:269:ASN:HD22	24:a:272:LYS:HG3	1.74	0.52
39:p:99:ILE:HA	39:p:105:PHE:CD1	2.45	0.52
49:z:9:LEU:HB2	49:z:19:TYR:HB2	1.91	0.52
50:3:76:A:H5''	50:3:77:G:O4'	2.09	0.52
50:3:301:G:H2'	50:3:302:G:C8	2.44	0.52
50:3:386:U:H2'	50:3:387:U:C6	2.43	0.52
50:3:518:A:O2'	50:3:532:A:N1	2.40	0.52
50:3:1123:A:H4'	50:3:1124:G:H8	1.74	0.52
50:3:1708:G:O6	50:3:1998:U:O4	2.27	0.52
52:5:421:G:H2'	52:5:422:A:C8	2.44	0.52
52:5:752:G:H2'	52:5:753:C:C6	2.43	0.52
52:5:944:A:O2'	52:5:1338:A:OP2	2.22	0.52
52:5:1351:U:H2'	52:5:1352:A:H8	1.74	0.52
52:5:1431:A:H2'	52:5:1432:A:O4'	2.09	0.52
5:B:179:SER:CB	52:5:1102:A:H61	2.22	0.52
9:F:78:ARG:HA	9:F:84:TYR:HD2	1.74	0.52
28:e:149:THR:HG21	50:3:2753:C:H5'	1.90	0.52
39:p:49:ARG:NE	50:3:1029:A:OP1	2.38	0.52
40:q:75:SER:OG	50:3:597:C:OP1	2.24	0.52
50:3:711:A:H1'	50:3:2451:C:H1'	1.90	0.52
50:3:1309:G:H2'	50:3:1310:U:H6	1.73	0.52
50:3:1541:A:H3'	50:3:1542:G:H8	1.74	0.52
50:3:1801:U:H3	50:3:1832:G:H1	1.55	0.52
50:3:1848:U:H2'	50:3:1849:G:O4'	2.09	0.52
50:3:2413:G:N1	50:3:2419:A:OP2	2.42	0.52
50:3:2516:G:H2'	50:3:2517:A:C8	2.43	0.52
50:3:2828:C:OP2	50:3:2829:G:N2	2.41	0.52
50:3:2897:G:H4'	50:3:2898:A:H5'	1.90	0.52
52:5:136:U:H2'	52:5:137:A:C8	2.40	0.52
52:5:145:G:N2	52:5:147:A:H3'	2.24	0.52
53:7:14:C:N3	53:7:24:A:N6	2.57	0.52
10:G:127:VAL:O	10:G:131:LYS:HG2	2.09	0.52
14:K:100:VAL:HG22	14:K:109:HIS:HE1	1.75	0.52
26:c:10:ASP:OD2	26:c:10:ASP:N	2.41	0.52
34:k:34:ARG:NH2	50:3:620:G:H1	2.07	0.52
34:k:67:ASN:HA	50:3:667:A:O2'	2.10	0.52
38:o:34:ALA:N	38:o:87:SER:O	2.29	0.52
38:o:94:GLY:HA2	38:o:115:LYS:HA	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:125:G:OP1	50:3:1404:C:O2'	2.21	0.52
50:3:603:G:N2	50:3:2037:A:O4'	2.42	0.52
50:3:1111:C:H2'	50:3:1112:A:C8	2.44	0.52
50:3:1342:C:H5'	50:3:1644:A:N1	2.25	0.52
50:3:1393:A:H3'	50:3:1394:A:C8	2.44	0.52
50:3:1838:A:H2'	50:3:1839:C:C6	2.44	0.52
50:3:1862:A:H2'	50:3:1863:G:C8	2.44	0.52
50:3:2359:G:N2	50:3:2374:A:C8	2.75	0.52
50:3:2713:A:O2'	50:3:2856:G:OP1	2.25	0.52
50:3:2743:U:H2'	50:3:2744:A:C8	2.44	0.52
52:5:40:G:H2'	52:5:41:C:O4'	2.09	0.52
52:5:201:G:H2'	52:5:202:A:C8	2.45	0.52
52:5:434:U:O2	52:5:493:A:C5	2.61	0.52
4:A:200:ALA:HB3	4:A:211:VAL:HG11	1.92	0.52
7:D:147:SER:OG	7:D:191:MET:HE1	2.08	0.52
9:F:60:VAL:HG13	9:F:127:SER:HB3	1.92	0.52
10:G:119:SER:OG	52:5:637:A:N3	2.36	0.52
36:m:107:ARG:HD3	50:3:1314:A:H5''	1.91	0.52
50:3:33:C:H2'	50:3:34:C:C6	2.45	0.52
50:3:264:G:O2'	50:3:642:A:N6	2.42	0.52
50:3:558:C:O2	50:3:587:U:O2'	2.23	0.52
50:3:880:C:O2	50:3:968:U:O2'	2.18	0.52
50:3:2588:U:H2'	50:3:2589:G:C4	2.44	0.52
50:3:2735:G:H2'	50:3:2736:U:C6	2.45	0.52
52:5:172:C:N4	52:5:193:G:H1	2.06	0.52
52:5:530:A:N1	52:5:1181:G:O2'	2.37	0.52
52:5:555:G:N3	52:5:555:G:H2'	2.23	0.52
52:5:582:G:H2'	52:5:583:G:C8	2.45	0.52
52:5:1065:G:N2	52:5:1074:U:O2	2.43	0.52
52:5:1261:A:O2'	52:5:1262:A:O4'	2.20	0.52
52:5:1382:C:H2'	52:5:1383:A:C8	2.44	0.52
1:0:16:HIS:NE2	50:3:500:U:O2	2.39	0.52
4:A:76:ALA:HB3	4:A:239:ALA:HB1	1.91	0.52
7:D:108:ALA:HB3	7:D:114:ALA:HB2	1.90	0.52
11:H:113:LYS:HD2	52:5:1347:U:H5	1.72	0.52
20:Q:80:GLN:HG2	52:5:831:C:H4'	1.92	0.52
26:c:50:HIS:ND1	26:c:93:PRO:HB2	2.25	0.52
41:r:14:PRO:O	41:r:18:ARG:CB	2.54	0.52
43:t:28:MET:O	43:t:32:GLN:N	2.40	0.52
44:u:58:ARG:NH1	50:3:894:G:OP1	2.42	0.52
44:u:65:VAL:HG21	44:u:95:VAL:HG13	1.90	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:297:G:O2'	50:3:298:U:OP2	2.27	0.52
50:3:1335:A:H3'	50:3:1336:A:H8	1.73	0.52
50:3:1337:G:N2	50:3:1642:G:H1	2.08	0.52
50:3:1363:C:H2'	50:3:1364:A:C8	2.44	0.52
50:3:1415:A:H2'	50:3:1416:G:H8	1.75	0.52
50:3:1440:U:H2'	50:3:1441:A:C8	2.44	0.52
50:3:1627:U:H2'	50:3:1628:G:C8	2.44	0.52
50:3:2075:U:N3	50:3:2438:A:C5	2.78	0.52
50:3:2237:U:H2'	50:3:2238:G:H8	1.75	0.52
52:5:11:A:H2'	52:5:12:G:C8	2.45	0.52
52:5:779:A:H62	52:5:797:G:H21	1.57	0.52
52:5:1382:C:H2'	52:5:1383:A:H8	1.75	0.52
4:A:112:TRP:CE2	4:A:186:ASN:HB3	2.45	0.52
9:F:73:GLU:HG3	9:F:90:VAL:HB	1.92	0.52
14:K:99:ARG:NH2	14:K:106:VAL:O	2.42	0.52
18:O:48:VAL:HA	18:O:51:GLU:HG2	1.91	0.52
25:b:83:GLU:HG2	50:3:2643:A:O3'	2.09	0.52
26:c:162:ASN:OD1	26:c:182:HIS:NE2	2.43	0.52
37:n:14:ARG:HA	37:n:17:LYS:HE2	1.92	0.52
50:3:896:U:C2	50:3:897:A:C8	2.97	0.52
50:3:990:G:N2	50:3:999:U:O2	2.29	0.52
50:3:1088:A:H2'	50:3:1089:A:H8	1.75	0.52
50:3:1343:C:H2'	50:3:1344:U:H6	1.74	0.52
50:3:1819:G:H2'	50:3:1820:U:H6	1.74	0.52
50:3:2141:A:OP2	50:3:2163:U:N3	2.43	0.52
50:3:2387:U:H2'	50:3:2388:C:C6	2.45	0.52
50:3:2705:G:H2'	50:3:2706:U:C6	2.44	0.52
52:5:918:A:H2'	52:5:919:C:C6	2.45	0.52
52:5:1118:A:O2'	52:5:1119:C:O4'	2.20	0.52
52:5:1321:G:N2	52:5:1349:A:O5'	2.43	0.52
3:2:24:ARG:NH2	50:3:2750:A:OP1	2.38	0.52
3:2:36:GLN:OE1	50:3:1160:G:H5'	2.09	0.52
8:E:10:ASP:HB3	8:E:13:LEU:HD12	1.91	0.52
8:E:49:ILE:HG23	8:E:50:LYS:H	1.74	0.52
19:P:29:ARG:HG2	19:P:38:SER:OG	2.10	0.52
35:l:80:GLU:HA	50:3:2502:G:H4'	1.91	0.52
41:r:110:ASN:HD22	41:r:112:ASN:HB2	1.74	0.52
50:3:69:U:H2'	50:3:70:G:C8	2.44	0.52
50:3:412:A:N3	50:3:437:A:N6	2.57	0.52
50:3:707:C:H2'	50:3:708:C:C6	2.45	0.52
50:3:775:C:H5''	50:3:1791:A:P	2.50	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2080:C:H2'	50:3:2081:U:C6	2.45	0.52
50:3:2353:G:H1'	50:3:2389:A:H2'	1.91	0.52
50:3:2374:A:H3'	50:3:2375:A:H8	1.73	0.52
50:3:2638:G:N2	50:3:2895:A:O2'	2.42	0.52
52:5:133:G:H2'	52:5:134:G:C8	2.45	0.52
52:5:140:U:O2	52:5:154:G:C6	2.63	0.52
52:5:709:A:H2'	52:5:710:G:C8	2.44	0.52
52:5:1344:C:H2'	52:5:1345:G:H8	1.75	0.52
9:F:40:ARG:HD3	11:H:44:LYS:HE2	1.92	0.52
11:H:51:GLU:O	11:H:55:ASP:N	2.42	0.52
11:H:115:ARG:NE	52:5:1344:C:OP1	2.43	0.52
12:I:72:GLU:O	16:M:57:LYS:N	2.37	0.52
30:g:32:MET:O	50:3:1090:G:O2'	2.25	0.52
31:h:13:ASN:HB2	31:h:53:CYS:H	1.74	0.52
38:o:55:ARG:HH22	38:o:62:GLU:HB3	1.75	0.52
43:t:93:MET:HE2	43:t:103:VAL:HB	1.92	0.52
50:3:186:A:H2'	50:3:187:C:H6	1.75	0.52
50:3:461:C:H2'	50:3:462:C:C6	2.45	0.52
50:3:529:G:H2'	50:3:530:G:C8	2.45	0.52
50:3:937:A:H3'	50:3:938:A:C8	2.44	0.52
50:3:1803:U:H2'	50:3:1804:A:C8	2.44	0.52
50:3:1952:G:N3	50:3:1952:G:H2'	2.25	0.52
50:3:2080:C:H2'	50:3:2081:U:H6	1.75	0.52
50:3:2104:A:H2'	50:3:2105:G:H8	1.75	0.52
50:3:2424:C:H2'	50:3:2425:C:C6	2.45	0.52
52:5:63:U:O2	52:5:90:G:N2	2.27	0.52
52:5:153:A:H2'	52:5:154:G:H8	1.74	0.52
4:A:203:ASN:ND2	4:A:205:ASN:OD1	2.43	0.52
24:a:135:SER:O	24:a:197:ARG:NH2	2.43	0.52
26:c:192:MET:SD	34:k:4:ASN:HA	2.50	0.52
32:i:50:ASN:O	32:i:51:GLN:NE2	2.43	0.52
39:p:97:LEU:HD23	40:q:13:LEU:HB3	1.92	0.52
44:u:86:PHE:HE1	44:u:94:ARG:HB3	1.75	0.52
50:3:182:C:H2'	50:3:183:A:O4'	2.09	0.52
50:3:410:G:N2	50:3:437:A:OP2	2.38	0.52
50:3:958:C:H2'	50:3:959:C:C6	2.45	0.52
50:3:990:G:H2'	50:3:991:G:H8	1.75	0.52
50:3:1262:G:C6	50:3:1263:G:C6	2.97	0.52
50:3:1343:C:H2'	50:3:1344:U:C6	2.45	0.52
50:3:2299:U:O2	50:3:2382:A:O2'	2.27	0.52
50:3:2367:C:H2'	50:3:2368:A:O4'	2.10	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2513:G:H2'	50:3:2584:G:N1	2.25	0.52
50:3:2668:A:O2'	50:3:2669:G:H8	1.92	0.52
50:3:2819:C:H2'	50:3:2820:G:C8	2.43	0.52
52:5:584:C:O2'	52:5:872:C:H4'	2.10	0.52
52:5:684:A:C6	52:5:700:G:N2	2.77	0.52
52:5:764:A:H2'	52:5:765:A:C8	2.45	0.52
52:5:788:G:H1	52:5:1472:G:H4'	1.75	0.52
52:5:983:G:H21	52:5:1012:A:H8	1.58	0.52
52:5:1471:C:H2'	52:5:1472:G:C8	2.45	0.52
15:L:119:LYS:O	52:5:949:G:O2'	2.26	0.52
18:O:13:ILE:HG22	18:O:30:ILE:HB	1.92	0.52
28:e:91:ARG:HH22	28:e:93:VAL:HB	1.75	0.52
33:j:21:ILE:HG23	33:j:39:VAL:HG11	1.92	0.52
40:q:72:LYS:HB2	40:q:81:LYS:HB2	1.92	0.52
50:3:91:G:H2'	50:3:92:U:C6	2.45	0.52
50:3:317:U:H2'	50:3:318:U:C6	2.45	0.52
50:3:632:A:H2'	50:3:633:G:C8	2.45	0.52
50:3:1243:A:H2'	50:3:1244:A:C8	2.44	0.52
50:3:1381:A:OP2	50:3:1405:G:N1	2.35	0.52
50:3:2552:G:H4'	50:3:2653:G:O5'	2.09	0.52
50:3:2820:G:H2'	50:3:2821:U:C6	2.44	0.52
52:5:491:U:H2'	52:5:492:G:C8	2.45	0.52
52:5:616:C:H5''	52:5:618:U:P	2.50	0.52
52:5:1245:A:N6	52:5:1246:A:N6	2.57	0.52
4:A:32:MET:HE3	4:A:36:TYR:CD2	2.45	0.51
6:C:78:VAL:HG21	6:C:89:LEU:HD13	1.92	0.51
7:D:160:ILE:HG13	7:D:178:ILE:HG22	1.90	0.51
12:I:13:LYS:H	12:I:107:SER:HB3	1.73	0.51
13:J:110:PRO:HB3	52:5:673:A:H1'	1.92	0.51
40:q:17:ASN:HA	40:q:93:LYS:HE2	1.92	0.51
50:3:31:U:C2	50:3:32:G:C8	2.98	0.51
50:3:1037:A:H3'	50:3:1038:G:H8	1.74	0.51
50:3:1786:U:H3	50:3:1792:A:N6	2.08	0.51
50:3:2513:G:H2'	50:3:2584:G:H1	1.74	0.51
50:3:2802:C:OP2	50:3:2807:G:N2	2.43	0.51
51:4:91:A:H3'	51:4:92:A:H8	1.76	0.51
52:5:450:U:H3'	52:5:451:G:H8	1.75	0.51
52:5:603:U:O2	52:5:630:G:N2	2.28	0.51
52:5:607:A:C4	52:5:608:G:C8	2.98	0.51
52:5:881:G:C6	52:5:905:U:N3	2.78	0.51
52:5:892:G:O2'	52:5:894:A:N6	2.43	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:121:HIS:HE2	52:5:435:U:H4'	1.75	0.51
7:D:79:THR:O	52:5:916:U:O2'	2.25	0.51
9:F:71:ARG:HB2	9:F:141:HIS:CD2	2.45	0.51
12:I:35:VAL:HG22	12:I:39:ASP:HB3	1.91	0.51
14:K:125:GLN:HE22	52:5:502:C:H5	1.57	0.51
24:a:222:ARG:NE	50:3:1600:A:OP1	2.39	0.51
25:b:99:GLN:NE2	25:b:186:GLU:HG2	2.24	0.51
27:d:48:LYS:NZ	27:d:144:ASP:O	2.42	0.51
32:i:20:ILE:HG12	32:i:140:PRO:HB2	1.92	0.51
34:k:5:GLN:OE1	50:3:1233:A:O2'	2.21	0.51
39:p:34:ALA:O	39:p:38:VAL:HG23	2.11	0.51
42:s:25:LYS:HG3	42:s:90:ALA:HB2	1.93	0.51
50:3:11:U:N3	50:3:2898:A:N1	2.53	0.51
50:3:573:A:H2'	50:3:574:G:O4'	2.09	0.51
50:3:1088:A:H2'	50:3:1089:A:C8	2.45	0.51
50:3:1386:G:H2'	50:3:1400:U:O4	2.10	0.51
50:3:1849:G:H2'	50:3:1850:C:C6	2.44	0.51
50:3:1870:G:H2'	50:3:1871:U:H6	1.74	0.51
50:3:2428:C:H2'	50:3:2429:G:C8	2.46	0.51
50:3:2587:U:H2'	50:3:2588:U:C6	2.44	0.51
50:3:2658:U:H2'	50:3:2659:U:C6	2.45	0.51
50:3:2745:G:H2'	50:3:2746:A:H8	1.75	0.51
50:3:2807:G:O2'	50:3:2809:A:N7	2.43	0.51
52:5:216:G:H2'	52:5:217:U:C6	2.45	0.51
52:5:575:A:H2'	52:5:576:A:C8	2.46	0.51
52:5:831:C:H2'	52:5:832:G:H8	1.70	0.51
22:S:7:ASN:O	22:S:11:LEU:N	2.40	0.51
22:S:62:THR:OG1	22:S:66:ARG:NH1	2.43	0.51
35:l:70:PRO:HA	35:l:95:ALA:HB2	1.91	0.51
36:m:82:LEU:HD12	36:m:86:VAL:HB	1.91	0.51
41:r:13:SER:HB3	41:r:99:ARG:HE	1.75	0.51
50:3:141:A:H2'	50:3:142:A:C8	2.46	0.51
50:3:190:G:H2'	50:3:191:G:C8	2.46	0.51
50:3:1449:G:H2'	50:3:1450:G:H8	1.76	0.51
52:5:191:A:H2'	52:5:192:A:C8	2.43	0.51
52:5:365:U:OP2	52:5:384:G:N1	2.25	0.51
4:A:66:GLN:O	4:A:70:ASN:ND2	2.43	0.51
12:I:51:LYS:NZ	52:5:1255:A:O5'	2.43	0.51
26:c:53:LEU:HD13	26:c:58:VAL:HG13	1.93	0.51
26:c:83:HIS:HB2	50:3:1286:G:H21	1.75	0.51
34:k:52:GLU:OE2	50:3:868:C:O2'	2.28	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:q:82:LYS:HE3	50:3:1255:G:H4'	1.91	0.51
48:y:41:ARG:NH1	48:y:42:VAL:O	2.43	0.51
50:3:1344:U:H2'	50:3:1345:G:H8	1.74	0.51
50:3:1588:A:O2'	50:3:1589:A:OP1	2.25	0.51
50:3:1846:A:C4	50:3:1847:G:C8	2.99	0.51
50:3:1941:C:H2'	50:3:1942:G:O4'	2.11	0.51
50:3:2259:G:C8	50:3:2458:A:H5'	2.45	0.51
50:3:2753:C:H2'	50:3:2754:U:H6	1.76	0.51
52:5:579:G:N2	52:5:756:A:OP2	2.30	0.51
52:5:640:C:H2'	52:5:641:U:C6	2.45	0.51
52:5:1055:G:H1'	52:5:1165:G:N2	2.24	0.51
52:5:1093:A:H2'	52:5:1094:C:C6	2.45	0.51
52:5:1227:A:H2'	52:5:1228:C:C6	2.46	0.51
13:J:21:ASN:ND2	52:5:688:G:O5'	2.38	0.51
14:K:44:ARG:NH1	52:5:358:G:OP1	2.43	0.51
27:d:37:ASN:ND2	50:3:2320:U:O2'	2.43	0.51
34:k:131:VAL:HG23	34:k:148:LEU:HD13	1.91	0.51
35:l:12:PRO:O	35:l:87:LYS:NZ	2.40	0.51
40:q:4:ILE:HB	40:q:39:LEU:O	2.11	0.51
46:w:44:ILE:HA	46:w:47:THR:HG22	1.91	0.51
50:3:158:U:H2'	50:3:159:G:C8	2.46	0.51
50:3:610:G:H2'	50:3:611:A:C8	2.45	0.51
50:3:1499:C:H2'	50:3:1500:A:H8	1.76	0.51
50:3:1761:C:H2'	50:3:1762:A:C4	2.45	0.51
50:3:2702:G:H2'	50:3:2703:U:O4'	2.11	0.51
50:3:2863:G:O2'	50:3:2864:A:O4'	2.21	0.51
52:5:288:A:O2'	52:5:607:A:N1	2.28	0.51
52:5:821:U:H2'	52:5:822:A:C8	2.44	0.51
5:B:33:TRP:HB3	5:B:60:ARG:HH11	1.75	0.51
14:K:30:LEU:O	14:K:31:LEU:HG	2.11	0.51
22:S:10:ARG:HD3	52:5:91:C:H41	1.76	0.51
27:d:60:ILE:HG12	27:d:99:PHE:CE1	2.46	0.51
33:j:6:THR:HG22	33:j:8:LEU:HG	1.92	0.51
35:l:32:TYR:O	35:l:105:GLU:HA	2.10	0.51
39:p:80:ASN:ND2	50:3:1186:A:O2'	2.44	0.51
45:v:38:VAL:O	45:v:45:THR:HA	2.10	0.51
50:3:54:A:H62	50:3:120:A:H62	1.58	0.51
50:3:358:A:N6	50:3:373:U:O4'	2.44	0.51
50:3:496:A:H62	50:3:505:G:H21	1.59	0.51
50:3:596:G:OP2	50:3:605:A:O2'	2.28	0.51
50:3:1377:A:H3'	50:3:1378:C:C5'	2.39	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1457:A:H2'	50:3:1458:A:C8	2.45	0.51
50:3:1523:C:H2'	50:3:1524:C:H6	1.74	0.51
50:3:1871:U:H2'	50:3:1872:U:O4'	2.10	0.51
51:4:20:U:H2'	51:4:21:G:C8	2.45	0.51
52:5:10:G:O6	52:5:556:G:O2'	2.29	0.51
52:5:231:U:H2'	52:5:232:G:H8	1.74	0.51
52:5:292:U:H2'	52:5:293:G:C8	2.45	0.51
52:5:416:U:H3	52:5:421:G:H1	1.59	0.51
52:5:427:A:H2'	52:5:428:A:H5'	1.91	0.51
52:5:880:G:H2'	52:5:881:G:C8	2.45	0.51
52:5:896:G:H2'	52:5:897:A:H8	1.74	0.51
52:5:1194:A:H2'	52:5:1195:G:C8	2.46	0.51
52:5:1371:A:H4'	52:5:1372:C:H5''	1.91	0.51
2:1:9:LYS:NZ	50:3:251:G:O6	2.44	0.51
3:2:33:LYS:NZ	50:3:2751:C:OP1	2.35	0.51
4:A:207:ASN:HB3	4:A:210:LEU:HG	1.92	0.51
8:E:114:LYS:HZ2	20:Q:42:ARG:HH12	1.56	0.51
14:K:128:SER:HB2	52:5:500:G:H5'	1.92	0.51
15:L:58:ASN:O	15:L:61:SER:OG	2.29	0.51
19:P:41:ARG:HA	52:5:276:U:H5	1.76	0.51
45:v:53:ARG:NH1	50:3:435:U:O4	2.43	0.51
47:x:39:CYS:H	47:x:42:CYS:HB3	1.75	0.51
50:3:663:A:H4'	50:3:664:G:H5'	1.92	0.51
50:3:2006:C:H1'	50:3:2695:U:H1'	1.92	0.51
50:3:2291:U:OP2	50:3:2397:G:O2'	2.26	0.51
50:3:2754:U:H2'	50:3:2755:G:O4'	2.10	0.51
50:3:2816:A:H2'	50:3:2817:G:H8	1.75	0.51
50:3:2861:G:H2'	50:3:2863:G:N7	2.26	0.51
51:4:36:C:H2'	51:4:37:A:H8	1.76	0.51
52:5:939:G:O2'	52:5:1313:A:N6	2.44	0.51
52:5:1245:A:H4'	52:5:1287:G:O2'	2.11	0.51
52:5:1262:A:H2'	52:5:1263:A:C8	2.46	0.51
52:5:1403:A:H2'	52:5:1404:U:C6	2.46	0.51
8:E:5:ILE:HG23	8:E:87:ILE:HD13	1.93	0.51
15:L:93:LYS:HG3	15:L:95:LEU:HD13	1.92	0.51
25:b:109:ASP:CB	25:b:177:GLN:HA	2.40	0.51
25:b:159:VAL:O	50:3:2626:A:O2'	2.28	0.51
26:c:139:LYS:HA	50:3:355:A:OP2	2.11	0.51
26:c:169:GLU:HA	26:c:180:VAL:HG11	1.93	0.51
28:e:31:LEU:N	28:e:82:VAL:O	2.44	0.51
33:j:21:ILE:HD12	33:j:39:VAL:HG11	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:m:22:VAL:HA	36:m:25:VAL:HG12	1.93	0.51
42:s:41:LYS:O	42:s:45:GLU:OE1	2.29	0.51
50:3:859:G:H2'	50:3:860:C:C6	2.45	0.51
50:3:2338:G:H2'	50:3:2339:G:O4'	2.11	0.51
52:5:664:A:H2'	52:5:665:G:C8	2.46	0.51
52:5:743:A:O2'	52:5:745:U:O4	2.27	0.51
52:5:928:G:OP2	52:5:930:A:N6	2.44	0.51
52:5:1058:A:H2'	52:5:1084:A:H4'	1.93	0.51
52:5:1076:U:H5'	52:5:1085:G:C6	2.46	0.51
53:8:22:A:N7	53:8:47:G:O2'	2.31	0.51
1:0:38:GLN:HB3	50:3:494:G:H5''	1.93	0.51
11:H:86:VAL:HG11	11:H:105:LEU:HD22	1.92	0.51
22:S:63:ASN:HB3	52:5:258:A:H5''	1.93	0.51
27:d:123:ASP:CG	27:d:127:ASN:HD22	2.18	0.51
30:g:26:ILE:O	30:g:109:VAL:HB	2.10	0.51
32:i:111:MET:HE1	50:3:1173:G:H21	1.75	0.51
43:t:62:LYS:O	43:t:64:GLN:NE2	2.42	0.51
50:3:219:G:O2'	50:3:220:A:OP2	2.29	0.51
50:3:442:G:H2'	50:3:443:C:C6	2.45	0.51
50:3:569:U:O4	50:3:592:G:O6	2.27	0.51
50:3:612:G:H2'	50:3:613:C:O4'	2.11	0.51
50:3:771:C:H2'	50:3:772:C:C6	2.46	0.51
50:3:1328:A:N7	50:3:1668:G:H5''	2.25	0.51
50:3:1400:U:H2'	50:3:1401:A:C8	2.46	0.51
50:3:1454:G:H1'	50:3:1606:A:H61	1.76	0.51
50:3:2224:A:H2'	50:3:2225:G:C8	2.45	0.51
50:3:2861:G:N2	50:3:2864:A:OP2	2.23	0.51
52:5:534:C:H2'	52:5:535:A:H8	1.75	0.51
52:5:660:A:H2'	52:5:661:G:C8	2.46	0.51
52:5:681:U:H2'	52:5:682:G:C8	2.46	0.51
52:5:834:G:H2'	52:5:835:G:H8	1.76	0.51
52:5:1048:G:H2'	52:5:1049:G:O4'	2.11	0.51
52:5:1366:U:H2'	52:5:1367:G:C8	2.45	0.51
52:5:1413:G:H1	52:5:1438:U:H3	1.56	0.51
52:5:1445:G:H2'	52:5:1446:A:H8	1.76	0.51
2:1:33:LYS:NZ	50:3:2399:G:OP1	2.44	0.51
18:O:65:SER:HB3	52:5:450:U:H2'	1.92	0.51
24:a:146:GLN:O	24:a:201:GLY:N	2.44	0.51
30:g:112:TYR:CD1	30:g:117:ALA:CA	2.94	0.51
50:3:519:A:H2'	50:3:520:C:H5'	1.92	0.51
50:3:769:A:H2'	50:3:770:A:O4'	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:790:U:H2'	50:3:791:A:C8	2.46	0.51
50:3:827:G:H4'	50:3:828:A:O4'	2.10	0.51
50:3:1172:G:H2'	50:3:1173:G:C8	2.46	0.51
50:3:1345:G:H2'	50:3:1346:G:C8	2.46	0.51
50:3:1871:U:O2	50:3:1885:G:N2	2.29	0.51
50:3:2208:U:O4	50:3:2232:G:N2	2.44	0.51
50:3:2726:G:H21	50:3:2851:U:H4'	1.76	0.51
50:3:2759:G:H21	50:3:2759:G:P	2.34	0.51
50:3:2856:G:H2'	50:3:2857:C:C6	2.46	0.51
52:5:87:G:H2'	52:5:88:A:C8	2.46	0.51
52:5:447:G:H5'	52:5:449:A:H2	1.76	0.51
52:5:919:C:N4	52:5:920:G:O6	2.44	0.51
52:5:1329:G:H2'	52:5:1330:A:H8	1.74	0.51
52:5:1454:G:H2'	52:5:1455:G:C8	2.46	0.51
4:A:111:ARG:HH12	4:A:187:ALA:H	1.59	0.50
4:A:113:LEU:HD21	4:A:123:LEU:HD21	1.93	0.50
7:D:169:ILE:HA	7:D:172:LEU:HD12	1.93	0.50
11:H:97:LYS:HZ1	11:H:101:LYS:HD3	1.76	0.50
15:L:90:ARG:HG2	15:L:97:VAL:HA	1.93	0.50
25:b:19:THR:HG22	25:b:20:ASN:H	1.76	0.50
40:q:4:ILE:HG13	40:q:13:LEU:HD13	1.92	0.50
41:r:12:ILE:H	41:r:100:SER:HA	1.75	0.50
42:s:56:ASN:HB2	42:s:82:VAL:HG23	1.92	0.50
50:3:450:C:H4'	50:3:1886:C:O2	2.11	0.50
50:3:1136:U:H2'	50:3:1137:C:C6	2.45	0.50
50:3:1406:A:O2'	50:3:1408:G:OP2	2.29	0.50
50:3:2112:A:H2'	50:3:2113:U:C6	2.46	0.50
50:3:2196:G:H2'	50:3:2197:U:C6	2.46	0.50
50:3:2222:C:H2'	50:3:2223:C:O4'	2.11	0.50
52:5:767:U:H2'	52:5:768:G:C8	2.45	0.50
4:A:238:GLU:HB3	4:A:244:THR:HB	1.93	0.50
13:J:18:CYS:SG	13:J:19:SER:N	2.84	0.50
19:P:59:ASP:OD1	19:P:84:ALA:N	2.42	0.50
24:a:112:PRO:HG3	24:a:133:GLY:HA2	1.94	0.50
33:j:80:ASP:HB2	38:o:74:PRO:O	2.12	0.50
34:k:17:THR:HA	50:3:697:U:O3'	2.11	0.50
39:p:96:GLU:O	39:p:100:LYS:NZ	2.44	0.50
45:v:26:ARG:NH1	50:3:193:G:OP2	2.34	0.50
45:v:57:THR:HG22	50:3:410:G:H2'	1.93	0.50
50:3:56:G:O6	50:3:118:G:N2	2.44	0.50
50:3:448:A:N6	50:3:2420:A:H1'	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:648:G:HO2'	50:3:649:A:P	2.34	0.50
50:3:668:A:N6	50:3:677:U:OP1	2.38	0.50
50:3:732:G:H2'	50:3:733:C:C6	2.46	0.50
50:3:814:U:H2'	50:3:815:G:C8	2.45	0.50
50:3:821:C:O3'	50:3:1787:A:N6	2.44	0.50
50:3:1309:G:H2'	50:3:1310:U:C6	2.47	0.50
50:3:1372:U:H5'	50:3:1412:A:C6	2.46	0.50
50:3:1379:C:H4'	50:3:1606:A:H4'	1.92	0.50
50:3:1702:A:H1'	50:3:1704:C:N4	2.26	0.50
50:3:1881:C:H3'	50:3:1882:G:H8	1.77	0.50
50:3:1931:C:H2'	50:3:1932:C:H6	1.75	0.50
50:3:2097:A:H2'	50:3:2098:U:O4'	2.11	0.50
50:3:2191:G:H2'	50:3:2192:U:C6	2.46	0.50
50:3:2843:G:O6	50:3:2882:U:O4	2.30	0.50
52:5:260:C:H2'	52:5:261:G:C8	2.46	0.50
52:5:663:G:H2'	52:5:664:A:H8	1.77	0.50
52:5:1010:A:H2'	52:5:1011:A:C8	2.47	0.50
2:1:6:ALA:HA	2:1:9:LYS:HE2	1.93	0.50
6:C:202:ARG:HG2	6:C:203:LEU:HG	1.92	0.50
16:M:4:LYS:O	16:M:8:VAL:HG23	2.12	0.50
26:c:172:THR:HG22	26:c:178:VAL:HG23	1.93	0.50
29:f:57:HIS:HA	29:f:60:ILE:HG12	1.94	0.50
36:m:101:LEU:HB3	48:y:48:TYR:CE1	2.47	0.50
50:3:471:A:H2'	50:3:472:A:O4'	2.12	0.50
50:3:481:C:H2'	50:3:482:G:O4'	2.11	0.50
50:3:1089:A:H2'	50:3:1090:G:C8	2.46	0.50
50:3:1702:A:C6	50:3:1998:U:C2	2.98	0.50
50:3:1986:C:H2'	50:3:1987:C:C6	2.47	0.50
50:3:2670:A:H2'	50:3:2671:G:O4'	2.11	0.50
50:3:2794:U:H2'	50:3:2795:C:H6	1.75	0.50
52:5:160:A:H2'	52:5:161:C:O4'	2.12	0.50
52:5:207:C:H3'	52:5:208:A:H8	1.76	0.50
52:5:227:A:H2'	52:5:228:G:H8	1.75	0.50
52:5:333:U:H2'	52:5:334:A:H8	1.76	0.50
52:5:428:A:H2'	52:5:429:A:H8	1.76	0.50
52:5:1128:G:H2'	52:5:1129:C:C6	2.47	0.50
52:5:1160:G:H2'	52:5:1161:G:C8	2.46	0.50
52:5:1166:A:H2'	52:5:1167:C:H6	1.76	0.50
52:5:1322:U:H2'	52:5:1323:A:H8	1.77	0.50
53:7:40:A:O2'	53:8:35:G:N2	2.34	0.50
4:A:95:LEU:O	4:A:99:ILE:HG12	2.11	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:43:LYS:HB2	8:E:57:TYR:HE2	1.76	0.50
13:J:80:LYS:HA	13:J:106:LYS:O	2.12	0.50
25:b:17:PHE:HE1	38:o:80:GLN:HG2	1.77	0.50
45:v:14:TYR:HE1	45:v:28:LYS:HG3	1.75	0.50
50:3:116:C:H2'	50:3:117:C:H6	1.76	0.50
50:3:279:U:H2'	50:3:280:A:C8	2.46	0.50
50:3:567:U:H4'	50:3:568:G:C8	2.47	0.50
50:3:1115:G:H2'	50:3:1116:U:C6	2.47	0.50
50:3:1162:A:O2'	50:3:2526:A:OP1	2.23	0.50
50:3:1394:A:H2'	50:3:1395:A:C8	2.47	0.50
50:3:1543:U:H2'	50:3:1544:G:C8	2.47	0.50
50:3:1638:C:H2'	50:3:1639:C:C6	2.46	0.50
50:3:1654:G:H2'	50:3:1655:U:O4'	2.11	0.50
50:3:2044:C:H2'	50:3:2045:C:C6	2.46	0.50
50:3:2400:A:N7	50:3:2432:C:N3	2.59	0.50
50:3:2530:U:H2'	50:3:2531:C:H5'	1.93	0.50
50:3:2687:A:N1	50:3:2737:G:C6	2.80	0.50
50:3:2880:A:H2'	50:3:2881:A:H8	1.76	0.50
52:5:108:C:H2'	52:5:109:G:C8	2.47	0.50
52:5:365:U:H2'	52:5:366:C:C6	2.46	0.50
52:5:977:U:O2	52:5:1197:G:N1	2.31	0.50
52:5:1065:G:O2'	52:5:1092:A:N1	2.41	0.50
52:5:1225:A:C2	52:5:1261:A:C6	2.99	0.50
4:A:88:LYS:NZ	4:A:180:ASP:OD1	2.39	0.50
9:F:110:ARG:NE	9:F:122:GLU:HB2	2.25	0.50
24:a:67:ARG:NE	24:a:88:TYR:O	2.45	0.50
24:a:229:ARG:NE	50:3:1834:U:OP2	2.39	0.50
26:c:49:THR:HB	50:3:40:A:H1'	1.93	0.50
31:h:119:ALA:HB1	50:3:1116:U:O2'	2.12	0.50
36:m:74:ASP:OD1	36:m:75:VAL:N	2.45	0.50
45:v:33:LEU:HD13	45:v:49:LEU:HD12	1.92	0.50
48:y:32:LYS:HD3	48:y:51:LEU:H	1.76	0.50
50:3:297:G:H4'	50:3:298:U:C5	2.46	0.50
50:3:641:U:H3'	50:3:655:G:H1	1.75	0.50
50:3:679:A:H61	50:3:2378:G:H1'	1.77	0.50
50:3:724:A:H2'	50:3:725:G:C8	2.45	0.50
50:3:1390:C:O2'	50:3:1817:A:O2'	2.27	0.50
50:3:1499:C:H2'	50:3:1500:A:C8	2.47	0.50
50:3:1755:A:H2'	50:3:1756:A:H8	1.76	0.50
50:3:2223:C:H2'	50:3:2224:A:C8	2.47	0.50
50:3:2484:A:H2'	50:3:2485:U:C6	2.47	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:572:A:O2'	52:5:876:C:O2	2.29	0.50
52:5:679:U:H2'	52:5:680:G:H8	1.76	0.50
52:5:763:A:OP2	52:5:809:G:N2	2.41	0.50
52:5:1134:C:O2	52:5:1156:G:C2	2.65	0.50
52:5:1195:G:C4	52:5:1196:G:C8	2.99	0.50
52:5:1429:G:H2'	52:5:1430:G:C8	2.45	0.50
6:C:152:PRO:HG2	52:5:433:C:H5''	1.94	0.50
11:H:79:GLY:O	11:H:82:ARG:HG3	2.12	0.50
24:a:12:SER:OG	50:3:765:A:OP1	2.26	0.50
24:a:180:VAL:O	24:a:192:PHE:N	2.45	0.50
39:p:30:SER:HB3	39:p:33:VAL:HB	1.93	0.50
49:z:42:ARG:NH1	50:3:2356:U:O2	2.38	0.50
50:3:625:G:H2'	50:3:626:A:C8	2.45	0.50
50:3:628:A:H2'	50:3:629:G:C8	2.46	0.50
50:3:2348:U:H2'	50:3:2349:G:C8	2.46	0.50
50:3:2395:U:H5''	50:3:2396:A:OP2	2.11	0.50
50:3:2670:A:H8	50:3:2670:A:O5'	1.94	0.50
52:5:91:C:O2'	52:5:375:C:H5'	2.11	0.50
52:5:611:A:H2'	52:5:612:G:H8	1.77	0.50
52:5:649:U:H1'	52:5:650:A:H8	1.77	0.50
52:5:905:U:H2'	52:5:906:C:C6	2.46	0.50
52:5:988:G:H8	52:5:1190:G:H21	1.59	0.50
52:5:1130:G:H2'	52:5:1131:A:C8	2.46	0.50
52:5:1178:C:H2'	52:5:1179:A:H8	1.76	0.50
52:5:1262:A:O2'	52:5:1263:A:H5'	2.11	0.50
52:5:1299:C:H2'	52:5:1300:C:C6	2.47	0.50
52:5:1400:A:H2'	52:5:1401:A:C8	2.47	0.50
4:A:194:LEU:O	4:A:195:ARG:NH2	2.44	0.50
14:K:134:LYS:NZ	52:5:38:U:O3'	2.42	0.50
36:m:9:LYS:HG2	36:m:13:TRP:CG	2.47	0.50
38:o:58:LYS:HB3	50:3:2849:G:H4'	1.94	0.50
49:z:31:LYS:HG3	49:z:49:GLU:HB3	1.93	0.50
50:3:42:U:H2'	50:3:43:A:C8	2.46	0.50
50:3:258:G:H4'	50:3:422:A:H1'	1.92	0.50
50:3:892:G:H2'	50:3:893:A:H8	1.75	0.50
50:3:893:A:H2	50:3:957:G:H22	1.59	0.50
50:3:895:G:O4'	50:3:2276:A:O2'	2.30	0.50
50:3:1961:A:O2'	50:3:1963:U:O4	2.30	0.50
50:3:2403:C:H2'	50:3:2404:G:C8	2.47	0.50
50:3:2447:A:H5'	50:3:2449:U:O5'	2.10	0.50
50:3:2680:C:H2'	50:3:2681:G:O4'	2.11	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2724:U:H2'	50:3:2725:G:C8	2.46	0.50
50:3:2851:U:H2'	50:3:2852:G:O4'	2.12	0.50
52:5:71:A:H2'	52:5:72:A:C8	2.46	0.50
52:5:569:U:H5'	52:5:816:A:C5	2.47	0.50
52:5:1058:A:N1	52:5:1099:G:O2'	2.33	0.50
52:5:1268:G:H2'	52:5:1269:U:C6	2.46	0.50
53:7:67:C:H2'	53:7:68:G:C8	2.47	0.50
4:A:147:LYS:NZ	52:5:1136:G:OP1	2.41	0.50
7:D:208:VAL:HA	7:D:211:LEU:HG	1.93	0.50
9:F:24:ARG:HG3	9:F:100:LEU:HD21	1.94	0.50
21:R:16:LEU:HA	21:R:19:VAL:HG12	1.92	0.50
25:b:134:GLY:HA3	50:3:2000:U:H5''	1.94	0.50
36:m:74:ASP:O	36:m:78:LEU:HG	2.12	0.50
48:y:40:HIS:H	50:3:2888:U:H5	1.58	0.50
50:3:301:G:H2'	50:3:302:G:H8	1.77	0.50
50:3:850:G:H2'	50:3:851:U:C6	2.47	0.50
50:3:1071:G:H2'	50:3:1072:A:H8	1.76	0.50
50:3:1495:A:P	50:3:1548:A:H61	2.33	0.50
50:3:1521:A:H2'	50:3:1523:C:H41	1.77	0.50
50:3:1698:A:H61	50:3:2003:C:N4	2.07	0.50
50:3:1779:G:H2'	50:3:1780:A:O3'	2.12	0.50
50:3:1942:G:N2	50:3:1947:U:O4	2.40	0.50
50:3:2134:G:H2'	50:3:2135:C:C6	2.47	0.50
50:3:2157:A:H2'	50:3:2158:C:C6	2.47	0.50
50:3:2299:U:O2	50:3:2349:G:N2	2.34	0.50
50:3:2357:G:H2'	50:3:2358:U:O4'	2.11	0.50
50:3:2359:G:N2	50:3:2374:A:OP2	2.45	0.50
50:3:2707:A:H2'	50:3:2708:G:O4'	2.11	0.50
50:3:2752:G:H2'	50:3:2753:C:C6	2.47	0.50
50:3:2835:G:H5'	50:3:2836:U:H5'	1.94	0.50
52:5:130:G:H2'	52:5:131:G:C8	2.46	0.50
52:5:153:A:H2'	52:5:154:G:C8	2.47	0.50
52:5:268:C:H2'	52:5:269:A:C8	2.47	0.50
52:5:435:U:H3	52:5:494:A:H8	1.50	0.50
52:5:659:U:H2'	52:5:660:A:C8	2.47	0.50
52:5:998:G:N2	52:5:1028:C:O2	2.45	0.50
52:5:1079:G:H2'	52:5:1080:G:H8	1.76	0.50
52:5:1087:C:H2'	52:5:1088:C:C6	2.47	0.50
52:5:1321:G:N2	52:5:1322:U:O4	2.25	0.50
53:7:2:G:N2	53:7:74:A:N7	2.60	0.50
1:0:18:PHE:N	50:3:127:A:OP2	2.45	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:91:TYR:OH	4:A:223:GLN:NE2	2.45	0.50
8:E:9:VAL:HG21	8:E:56:HIS:ND1	2.27	0.50
9:F:47:ASP:CG	9:F:51:GLN:HE22	2.19	0.50
10:G:38:SER:O	10:G:42:ILE:HG12	2.12	0.50
12:I:57:ILE:HG23	16:M:41:ARG:HD2	1.94	0.50
14:K:26:TYR:O	14:K:72:ASN:ND2	2.45	0.50
15:L:66:GLU:HA	15:L:69:LEU:HD23	1.94	0.50
15:L:70:ARG:HG3	15:L:71:ARG:HD3	1.92	0.50
18:O:81:LYS:NZ	52:5:460:A:O2'	2.40	0.50
19:P:46:GLN:HB3	19:P:72:THR:HG23	1.93	0.50
24:a:61:ARG:HB3	24:a:64:ARG:HH12	1.77	0.50
33:j:23:LYS:HG3	50:3:2569:A:H1'	1.94	0.50
33:j:102:VAL:HG23	33:j:121:VAL:HG13	1.94	0.50
41:r:80:PRO:HD3	50:3:27:U:H4'	1.92	0.50
42:s:56:ASN:OD1	50:3:1370:A:H5'	2.12	0.50
50:3:26:G:H2'	50:3:27:U:C6	2.46	0.50
50:3:123:G:H2'	50:3:124:A:C8	2.46	0.50
50:3:243:U:H2'	50:3:244:G:O4'	2.12	0.50
50:3:276:A:H5'	50:3:277:C:OP2	2.12	0.50
50:3:1432:C:H2'	50:3:1433:U:C6	2.47	0.50
50:3:1851:U:H2'	50:3:1852:G:C8	2.47	0.50
50:3:1890:U:O2'	50:3:1891:A:H5''	2.12	0.50
50:3:2088:U:O4	50:3:2247:G:O6	2.30	0.50
50:3:2268:C:H2'	50:3:2269:C:H6	1.77	0.50
50:3:2371:U:H2'	50:3:2372:C:H6	1.77	0.50
50:3:2531:C:H2'	50:3:2532:G:C8	2.47	0.50
51:4:6:U:H2'	51:4:7:G:C8	2.46	0.50
52:5:616:C:O2	52:5:616:C:H2'	2.10	0.50
52:5:823:C:H2'	52:5:824:U:C6	2.47	0.50
52:5:858:A:O2'	52:5:1069:U:O4	2.27	0.50
52:5:973:A:C8	52:5:974:C:H5	2.30	0.50
52:5:1341:U:H2'	52:5:1342:C:C6	2.46	0.50
2:1:2:LYS:NZ	50:3:257:C:O5'	2.45	0.49
9:F:106:PHE:O	9:F:110:ARG:HB2	2.12	0.49
10:G:117:SER:HB3	52:5:639:A:H1'	1.94	0.49
24:a:9:ARG:NH1	50:3:762:A:H61	2.09	0.49
24:a:73:ARG:HH22	24:a:110:ILE:H	1.60	0.49
24:a:78:ASN:HD21	24:a:126:HIS:HE1	1.60	0.49
27:d:150:ARG:HB2	50:3:2313:U:H3	1.76	0.49
37:n:11:ARG:NH2	37:n:95:GLY:O	2.43	0.49
40:q:45:ILE:H	40:q:45:ILE:HD12	1.75	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:166:A:H2'	50:3:167:A:C8	2.47	0.49
50:3:720:A:N6	50:3:809:A:O4'	2.44	0.49
50:3:838:U:H2'	50:3:839:A:O4'	2.12	0.49
50:3:1544:G:H2'	50:3:1545:A:H8	1.76	0.49
50:3:1551:U:H2'	50:3:1552:C:O4'	2.12	0.49
50:3:2136:A:H2	50:3:2165:A:H2	1.60	0.49
50:3:2603:G:H2'	50:3:2605:G:N7	2.27	0.49
51:4:77:G:N3	51:4:78:C:H1'	2.26	0.49
52:5:568:G:H2'	52:5:569:U:C5	2.47	0.49
52:5:770:G:H2'	52:5:771:G:C8	2.44	0.49
52:5:1232:C:H5''	52:5:1233:G:C8	2.46	0.49
52:5:1246:A:H5'	52:5:1288:C:H5''	1.94	0.49
4:A:29:HIS:CE1	4:A:56:PHE:HB3	2.47	0.49
11:H:17:ALA:C	11:H:18:LYS:HD3	2.36	0.49
19:P:5:GLN:HG3	52:5:113:C:H5'	1.94	0.49
25:b:124:LYS:HB2	25:b:142:ARG:HH21	1.76	0.49
35:l:102:VAL:O	35:l:103:MET:HE2	2.12	0.49
43:t:44:ARG:HG3	43:t:63:VAL:HB	1.94	0.49
50:3:231:A:N6	50:3:446:A:N3	2.60	0.49
50:3:342:G:H1'	50:3:363:G:H22	1.76	0.49
50:3:720:A:N6	50:3:813:G:H1'	2.27	0.49
50:3:1005:G:H2'	50:3:1006:U:C6	2.47	0.49
50:3:1071:G:O6	50:3:1154:U:O4	2.30	0.49
50:3:1084:C:H2'	50:3:1085:A:O4'	2.12	0.49
50:3:1630:A:H2'	50:3:1631:A:C8	2.46	0.49
50:3:1665:G:N2	50:3:1668:G:OP2	2.33	0.49
50:3:1731:G:H3'	50:3:1732:A:H2'	1.94	0.49
50:3:2075:U:C4	50:3:2438:A:N7	2.80	0.49
50:3:2102:U:H2'	50:3:2103:C:C6	2.47	0.49
50:3:2124:A:O2'	50:3:2126:A:OP2	2.23	0.49
50:3:2572:A:H2'	50:3:2573:A:C8	2.47	0.49
52:5:94:A:N6	52:5:320:G:H21	2.09	0.49
52:5:162:C:N3	52:5:163:G:N1	2.60	0.49
52:5:1325:U:H2'	52:5:1326:C:C6	2.47	0.49
53:8:2:G:N2	53:8:74:A:N7	2.60	0.49
4:A:73:LYS:HD3	4:A:77:GLN:OE1	2.12	0.49
6:C:106:PHE:HE1	6:C:171:ASN:HA	1.77	0.49
7:D:146:ALA:HB2	52:5:858:A:H5'	1.94	0.49
16:M:8:VAL:HG21	52:5:989:A:H2	1.77	0.49
22:S:48:TYR:CE1	22:S:69:LYS:HB2	2.47	0.49
24:a:220:ARG:HG2	24:a:226:PRO:HD3	1.93	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:a:252:ASP:OD2	24:a:252:ASP:N	2.45	0.49
27:d:95:ARG:O	27:d:99:PHE:HD2	1.95	0.49
38:o:9:LEU:HA	38:o:12:LEU:HB2	1.94	0.49
39:p:75:TYR:HE1	50:3:1188:C:H5'	1.75	0.49
50:3:857:U:H2'	50:3:858:A:C8	2.47	0.49
50:3:1099:C:C4	50:3:1100:U:C4	3.00	0.49
50:3:1201:A:H2'	50:3:1202:A:H8	1.76	0.49
50:3:1837:C:H2'	50:3:1838:A:H8	1.77	0.49
50:3:1881:C:H2'	50:3:1882:G:O4'	2.13	0.49
50:3:2099:U:N3	50:3:2234:C:OP2	2.34	0.49
50:3:2321:C:H2'	50:3:2322:G:C8	2.47	0.49
50:3:2637:A:H4'	50:3:2638:G:H5'	1.93	0.49
52:5:407:A:N6	52:5:427:A:H62	2.08	0.49
52:5:600:G:H2'	52:5:601:U:C6	2.47	0.49
52:5:922:G:O2'	52:5:1506:A:O2'	2.26	0.49
52:5:1238:C:H2'	52:5:1239:U:C6	2.48	0.49
53:8:67:C:H2'	53:8:68:G:C8	2.47	0.49
9:F:26:ILE:HD12	9:F:29:ILE:HD11	1.95	0.49
14:K:67:LYS:HG3	14:K:75:GLU:HG2	1.94	0.49
16:M:31:ARG:HD2	52:5:969:A:C8	2.47	0.49
18:O:22:ARG:HH22	52:5:386:U:H4'	1.76	0.49
23:T:23:LEU:O	23:T:26:ARG:HG3	2.12	0.49
34:k:4:ASN:HB3	34:k:6:LEU:HD23	1.94	0.49
50:3:966:U:H2'	50:3:967:U:C6	2.47	0.49
50:3:988:G:H2'	50:3:989:G:O4'	2.12	0.49
50:3:1129:U:N3	50:3:1132:C:OP2	2.43	0.49
50:3:1200:U:H2'	50:3:1201:A:C8	2.47	0.49
50:3:1295:A:OP1	50:3:2021:A:N6	2.38	0.49
50:3:1384:C:H2'	50:3:1385:U:H6	1.77	0.49
50:3:1597:U:H2'	50:3:1598:U:C6	2.47	0.49
50:3:1775:G:N2	50:3:1991:U:O2	2.38	0.49
50:3:2185:C:H2'	50:3:2186:C:C6	2.48	0.49
50:3:2268:C:O2'	50:3:2396:A:H4'	2.11	0.49
50:3:2487:U:H4'	50:3:2544:G:O2'	2.12	0.49
52:5:41:C:H2'	52:5:42:G:H8	1.77	0.49
52:5:636:G:H2'	52:5:637:A:C8	2.47	0.49
52:5:1278:G:N1	52:5:1305:G:O2'	2.46	0.49
8:E:145:ARG:N	10:G:61:GLU:O	2.34	0.49
19:P:8:VAL:HG13	19:P:62:GLN:HG3	1.94	0.49
37:n:20:ARG:NH1	51:4:8:C:OP1	2.42	0.49
41:r:98:LYS:NZ	50:3:1352:G:OP1	2.46	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:s:44:PHE:CD2	42:s:52:PRO:HD3	2.48	0.49
49:z:20:LEU:HD11	50:3:2427:U:H5''	1.94	0.49
50:3:21:U:H2'	50:3:22:U:C6	2.47	0.49
50:3:710:A:H5''	50:3:837:A:N6	2.23	0.49
50:3:1300:C:H2'	50:3:1682:C:C6	2.48	0.49
50:3:1306:G:H2'	50:3:1307:G:C8	2.47	0.49
50:3:1588:A:H2'	50:3:1589:A:C8	2.48	0.49
50:3:1694:A:H2'	50:3:1695:G:C8	2.48	0.49
50:3:1746:U:O2	50:3:1753:G:N2	2.37	0.49
50:3:1987:C:H3'	50:3:1988:A:H5''	1.95	0.49
50:3:2111:U:C2	50:3:2194:G:N1	2.80	0.49
50:3:2149:U:H3	50:3:2157:A:H2	1.59	0.49
50:3:2399:G:H22	50:3:2437:G:H1'	1.76	0.49
50:3:2770:U:H2'	50:3:2771:G:O4'	2.12	0.49
50:3:2856:G:H1	50:3:2869:U:H3	1.59	0.49
52:5:638:A:H2	52:5:639:A:H62	1.60	0.49
52:5:684:A:N6	52:5:700:G:C2	2.80	0.49
52:5:1139:A:H2'	52:5:1140:A:C8	2.47	0.49
1:0:36:LYS:NZ	50:3:183:A:OP1	2.43	0.49
9:F:147:ASN:HB3	9:F:150:PHE:CD2	2.48	0.49
12:I:93:LEU:O	12:I:96:ILE:HG12	2.13	0.49
16:M:2:ALA:N	52:5:1041:G:OP1	2.45	0.49
20:Q:54:ILE:HD11	20:Q:98:LEU:HD11	1.93	0.49
25:b:30:TYR:HA	25:b:190:LEU:HD12	1.94	0.49
26:c:193:LEU:HB2	34:k:5:GLN:NE2	2.27	0.49
32:i:131:ASP:OD1	32:i:131:ASP:N	2.44	0.49
39:p:108:ILE:HA	39:p:111:LYS:HD3	1.94	0.49
50:3:895:G:N2	50:3:953:G:H2'	2.28	0.49
50:3:1599:C:O2'	50:3:1601:A:N7	2.44	0.49
50:3:1700:G:H2'	50:3:1701:G:H5'	1.95	0.49
50:3:1837:C:H2'	50:3:1838:A:C8	2.47	0.49
50:3:1896:A:H61	50:3:2242:G:H1'	1.78	0.49
50:3:2262:C:H2'	50:3:2263:G:C8	2.40	0.49
52:5:67:U:H2'	52:5:68:C:C6	2.48	0.49
52:5:201:G:H2'	52:5:202:A:H8	1.78	0.49
52:5:224:A:H2'	52:5:225:U:C6	2.47	0.49
52:5:603:U:O4	52:5:630:G:O6	2.30	0.49
52:5:1131:A:H2'	52:5:1132:G:O4'	2.12	0.49
52:5:1263:A:H2'	52:5:1264:G:H5'	1.94	0.49
5:B:52:GLN:HG3	5:B:72:ALA:H	1.77	0.49
5:B:61:THR:H	5:B:64:THR:HG22	1.76	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:178:LEU:N	52:5:1099:G:OP1	2.46	0.49
8:E:106:GLN:HB2	52:5:838:A:H4'	1.94	0.49
25:b:227:GLU:HB2	38:o:20:ALA:H	1.78	0.49
28:e:111:GLY:O	50:3:2674:C:N4	2.45	0.49
44:u:90:GLN:HE22	51:4:10:C:P	2.36	0.49
50:3:90:G:H2'	50:3:91:G:H8	1.77	0.49
50:3:633:G:H1	50:3:692:U:H3	1.58	0.49
50:3:837:A:H2'	50:3:838:U:C6	2.48	0.49
50:3:1038:G:H2'	50:3:1039:G:C8	2.48	0.49
50:3:1871:U:H5''	50:3:2418:G:N3	2.28	0.49
50:3:1949:C:H2'	50:3:1950:U:C5	2.47	0.49
50:3:2590:G:H2'	50:3:2591:G:C8	2.48	0.49
52:5:69:G:H2'	52:5:70:A:O4'	2.12	0.49
52:5:123:U:H2'	52:5:124:U:C6	2.48	0.49
52:5:194:U:H2'	52:5:195:U:C6	2.47	0.49
52:5:242:A:N6	52:5:275:A:O4'	2.46	0.49
52:5:413:G:H2'	52:5:414:U:C6	2.47	0.49
52:5:515:G:N1	52:5:531:A:OP2	2.45	0.49
52:5:858:A:H2'	52:5:859:A:C8	2.48	0.49
52:5:1127:A:O2'	52:5:1128:G:H8	1.96	0.49
52:5:1280:A:H2'	52:5:1281:U:O4'	2.12	0.49
9:F:5:ARG:HH21	52:5:1353:C:H4'	1.77	0.49
24:a:183:GLN:OE1	24:a:189:THR:OG1	2.31	0.49
29:f:102:HIS:HB3	50:3:166:A:N7	2.28	0.49
35:l:77:LYS:N	50:3:993:A:OP1	2.46	0.49
41:r:62:HIS:HB2	41:r:64:MET:HE1	1.95	0.49
50:3:252:G:C4	50:3:2439:U:H4'	2.47	0.49
50:3:513:A:H2'	50:3:514:A:C4	2.48	0.49
50:3:1507:G:H1'	50:3:1508:G:P	2.52	0.49
50:3:2267:G:H2'	50:3:2268:C:H6	1.77	0.49
50:3:2729:A:H2'	50:3:2730:G:O4'	2.12	0.49
50:3:2856:G:H2'	50:3:2857:C:H6	1.78	0.49
52:5:440:U:H3	52:5:489:U:H3	1.59	0.49
52:5:534:C:H2'	52:5:535:A:C8	2.48	0.49
52:5:683:G:N2	52:5:700:G:O2'	2.38	0.49
52:5:704:U:H2'	52:5:705:A:C8	2.48	0.49
52:5:936:G:H2'	52:5:937:G:O4'	2.13	0.49
52:5:1351:U:H2'	52:5:1352:A:C8	2.47	0.49
2:1:1:MET:HE2	50:3:625:G:H1'	1.93	0.49
2:1:48:SER:OG	2:1:49:ALA:N	2.45	0.49
6:C:73:ARG:NH2	52:5:397:C:O3'	2.45	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:71:VAL:HG21	7:D:192:ILE:HD11	1.94	0.49
7:D:212:ARG:HD2	10:G:53:TYR:HE1	1.78	0.49
12:I:16:LEU:HD22	12:I:80:MET:HG2	1.95	0.49
22:S:25:LYS:HE3	22:S:29:LYS:HZ2	1.77	0.49
24:a:26:LEU:HG	24:a:27:THR:H	1.78	0.49
29:f:42:LYS:HA	29:f:46:ASP:HB3	1.94	0.49
32:i:95:MET:SD	32:i:103:LEU:HB2	2.53	0.49
34:k:120:LEU:HD22	34:k:122:LYS:HE3	1.95	0.49
37:n:8:ARG:HG2	37:n:95:GLY:HA3	1.95	0.49
50:3:730:G:N2	50:3:802:U:O2	2.28	0.49
50:3:1539:U:H2'	50:3:1540:G:C8	2.48	0.49
50:3:1583:G:O2'	50:3:1584:U:OP1	2.31	0.49
50:3:2114:C:H2'	50:3:2115:A:C8	2.48	0.49
50:3:2638:G:H2'	50:3:2639:G:C8	2.48	0.49
52:5:575:A:H2'	52:5:576:A:H8	1.77	0.49
52:5:636:G:O2'	52:5:637:A:H5'	2.12	0.49
52:5:852:G:H1	52:5:863:A:H3'	1.78	0.49
52:5:1010:A:N3	52:5:1194:A:H1'	2.28	0.49
52:5:1403:A:H2'	52:5:1404:U:H6	1.77	0.49
9:F:111:HIS:ND1	9:F:112:GLU:OE1	2.27	0.49
20:Q:91:LYS:HD2	52:5:732:A:H5''	1.95	0.49
22:S:67:ARG:HH21	52:5:259:A:P	2.35	0.49
24:a:80:GLU:O	24:a:102:ALA:N	2.45	0.49
24:a:167:TYR:HD2	24:a:202:VAL:HG13	1.77	0.49
28:e:98:ARG:HB2	28:e:131:ASN:HB3	1.94	0.49
30:g:33:SER:HB2	30:g:36:GLU:HB3	1.95	0.49
30:g:49:SER:HB3	30:g:86:VAL:H	1.78	0.49
37:n:98:TYR:CE2	37:n:103:ALA:HA	2.48	0.49
42:s:8:LEU:HB2	42:s:30:VAL:HG13	1.94	0.49
42:s:63:THR:HG21	50:3:1340:U:H2'	1.94	0.49
43:t:45:HIS:HB3	50:3:519:A:O4'	2.11	0.49
50:3:23:A:H2'	50:3:24:U:H6	1.78	0.49
50:3:230:G:H2'	50:3:231:A:C8	2.48	0.49
50:3:412:A:H1'	50:3:437:A:H62	1.77	0.49
50:3:1176:U:H4'	50:3:1177:A:O4'	2.13	0.49
50:3:1553:G:O2'	50:3:1577:A:N6	2.46	0.49
50:3:1702:A:H2'	50:3:1702:A:OP2	2.13	0.49
50:3:1873:A:H2'	50:3:1874:G:O4'	2.13	0.49
50:3:1930:U:H2'	50:3:1931:C:C6	2.48	0.49
50:3:2093:U:H2'	50:3:2094:A:H8	1.77	0.49
50:3:2700:C:O2	50:3:2851:U:O2'	2.26	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:28:G:N2	52:5:292:U:H4'	2.28	0.49
52:5:334:A:H2'	52:5:335:C:C6	2.47	0.49
52:5:473:A:H2'	52:5:474:G:H8	1.75	0.49
52:5:766:G:OP1	52:5:800:G:O2'	2.25	0.49
52:5:829:G:H2'	52:5:830:U:C6	2.48	0.49
52:5:980:C:H2'	52:5:981:U:C6	2.47	0.49
9:F:143:MET:O	9:F:147:ASN:ND2	2.46	0.48
16:M:34:LEU:O	16:M:38:GLY:N	2.45	0.48
25:b:148:GLN:HB2	50:3:2583:U:H1'	1.94	0.48
28:e:79:ILE:O	28:e:83:THR:OG1	2.31	0.48
28:e:175:LYS:NZ	50:3:2536:U:O5'	2.46	0.48
45:v:37:LYS:HB3	45:v:45:THR:HB	1.93	0.48
50:3:159:G:H2'	50:3:160:A:C8	2.48	0.48
50:3:179:A:H1'	50:3:180:A:H5'	1.95	0.48
50:3:226:A:N3	50:3:228:A:H1'	2.28	0.48
50:3:888:A:H2'	50:3:889:G:H8	1.77	0.48
50:3:895:G:H1'	50:3:953:G:N1	2.28	0.48
50:3:1487:U:O2'	50:3:2710:G:N2	2.44	0.48
50:3:1503:A:P	50:3:1540:G:H22	2.36	0.48
50:3:1776:G:H2'	50:3:1777:G:C8	2.45	0.48
50:3:2036:G:H22	50:3:2040:A:H5'	1.78	0.48
50:3:2655:U:H2'	50:3:2656:G:C8	2.48	0.48
52:5:344:G:H2'	52:5:345:A:C8	2.48	0.48
52:5:358:G:N1	52:5:361:U:OP2	2.45	0.48
52:5:379:A:H2'	52:5:380:G:O4'	2.13	0.48
52:5:536:U:H2'	52:5:537:A:H8	1.78	0.48
52:5:926:C:H2'	52:5:927:C:C6	2.48	0.48
52:5:1406:U:H2'	52:5:1407:A:C8	2.47	0.48
5:B:25:ASN:H	5:B:29:GLN:NE2	2.11	0.48
7:D:143:ARG:HA	7:D:148:ARG:HG3	1.94	0.48
11:H:20:TYR:HB2	11:H:66:ASN:HB3	1.95	0.48
14:K:30:LEU:HG	52:5:51:A:H62	1.78	0.48
16:M:14:PRO:HG2	16:M:19:ARG:HB2	1.94	0.48
26:c:101:LEU:HB3	50:3:695:G:H5''	1.94	0.48
27:d:41:GLY:H	27:d:150:ARG:HH22	1.61	0.48
39:p:33:VAL:O	39:p:37:THR:HG23	2.13	0.48
41:r:18:ARG:HD2	50:3:553:A:H4'	1.95	0.48
50:3:343:A:N7	50:3:364:A:N6	2.61	0.48
50:3:511:U:H2'	50:3:512:G:C8	2.47	0.48
50:3:1043:C:OP2	50:3:1044:C:O2'	2.30	0.48
50:3:1262:G:N1	50:3:1263:G:C6	2.81	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1437:A:H2'	50:3:1438:G:C8	2.48	0.48
50:3:2812:U:O2'	50:3:2894:G:N2	2.46	0.48
52:5:268:C:H2'	52:5:269:A:H8	1.78	0.48
52:5:839:U:H3'	52:5:840:C:C6	2.49	0.48
52:5:1222:U:C2	52:5:1264:G:O6	2.67	0.48
52:5:1237:G:O6	52:5:1248:U:O4	2.31	0.48
52:5:1499:G:H2'	52:5:1500:G:C8	2.48	0.48
13:J:54:TYR:O	13:J:58:ILE:HG12	2.13	0.48
15:L:22:ILE:HB	15:L:25:ILE:HB	1.95	0.48
19:P:68:PRO:HB3	19:P:74:ARG:NH1	2.28	0.48
20:Q:69:LYS:HG2	52:5:715:A:H62	1.77	0.48
26:c:194:ALA:C	26:c:196:ALA:H	2.22	0.48
32:i:47:PHE:HA	32:i:53:CYS:SG	2.53	0.48
35:l:37:THR:HB	35:l:128:THR:HB	1.94	0.48
44:u:28:ARG:NH1	50:3:2288:G:N7	2.61	0.48
44:u:52:TYR:HB3	44:u:73:LEU:HB2	1.94	0.48
50:3:297:G:O4'	50:3:299:A:O2'	2.29	0.48
50:3:382:U:H2'	50:3:383:U:O4'	2.14	0.48
50:3:664:G:H2'	50:3:665:C:C6	2.48	0.48
50:3:811:G:OP1	50:3:811:G:N2	2.35	0.48
50:3:1127:C:H2'	50:3:1128:G:O4'	2.13	0.48
50:3:1445:U:H2'	50:3:1446:G:O4'	2.13	0.48
50:3:1760:G:H2'	50:3:1762:A:OP2	2.13	0.48
50:3:1829:U:H2'	50:3:1830:G:H8	1.78	0.48
50:3:2121:A:H2'	50:3:2122:G:O4'	2.13	0.48
50:3:2760:C:H3'	50:3:2761:A:C8	2.48	0.48
52:5:128:A:O2'	52:5:198:A:N6	2.46	0.48
52:5:863:A:H4'	52:5:866:A:C4	2.49	0.48
52:5:1241:G:C2	52:5:1243:A:H8	2.32	0.48
52:5:1287:G:H2'	52:5:1288:C:C6	2.49	0.48
52:5:1412:C:H2'	52:5:1413:G:H8	1.78	0.48
4:A:71:TYR:O	4:A:75:VAL:HG23	2.14	0.48
4:A:111:ARG:NE	4:A:112:TRP:HB2	2.28	0.48
8:E:3:TYR:HA	8:E:88:ILE:O	2.14	0.48
9:F:11:VAL:HG23	9:F:20:THR:HG23	1.96	0.48
17:N:62:ARG:NH2	52:5:753:C:OP2	2.46	0.48
24:a:72:LYS:HZ1	50:3:2213:A:H5''	1.78	0.48
24:a:94:CYS:SG	24:a:164:ALA:HA	2.54	0.48
28:e:3:LYS:HG2	28:e:5:GLY:H	1.78	0.48
34:k:99:ILE:HD11	34:k:106:ALA:HA	1.94	0.48
50:3:155:A:H2'	50:3:156:A:H8	1.79	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:294:G:H4'	50:3:301:G:O3'	2.13	0.48
50:3:742:G:O6	50:3:759:U:O4	2.31	0.48
50:3:810:G:O2'	50:3:829:A:OP2	2.30	0.48
50:3:840:G:H22	50:3:863:U:H5''	1.77	0.48
50:3:1702:A:O2'	50:3:1708:G:N7	2.42	0.48
50:3:2205:U:O3'	50:3:2206:A:H2'	2.12	0.48
50:3:2698:U:O2'	50:3:2876:G:O4'	2.31	0.48
50:3:2700:C:H2'	50:3:2701:A:C8	2.49	0.48
51:4:55:A:C4	51:4:56:A:C8	3.02	0.48
52:5:326:C:H3'	52:5:327:G:C8	2.48	0.48
52:5:378:A:O3'	52:5:453:C:H5''	2.14	0.48
52:5:557:A:H4'	52:5:559:U:H2'	1.95	0.48
52:5:859:A:H2'	52:5:860:C:C6	2.48	0.48
52:5:1043:U:H2'	52:5:1175:C:C4	2.48	0.48
52:5:1142:G:N2	52:5:1144:A:H3'	2.28	0.48
52:5:1225:A:C2	52:5:1345:G:H1'	2.46	0.48
52:5:1230:G:H3'	52:5:1254:A:H61	1.78	0.48
52:5:1323:A:H1'	52:5:1349:A:N6	2.29	0.48
52:5:1391:A:H2'	52:5:1392:A:O4'	2.13	0.48
9:F:131:GLY:HA2	9:F:134:ILE:HB	1.94	0.48
13:J:104:ASN:OD1	13:J:105:GLU:N	2.47	0.48
14:K:25:HIS:CE1	52:5:551:A:H4'	2.46	0.48
16:M:18:VAL:HG21	52:5:1292:A:N6	2.28	0.48
16:M:48:ALA:HB1	16:M:56:VAL:HG11	1.95	0.48
32:i:91:SER:O	32:i:95:MET:HE2	2.14	0.48
35:l:26:TYR:O	35:l:67:ARG:NH2	2.46	0.48
40:q:24:LYS:HA	40:q:90:THR:OG1	2.14	0.48
50:3:571:A:H3'	50:3:572:G:H8	1.78	0.48
50:3:606:G:O2'	50:3:608:A:OP1	2.32	0.48
50:3:674:G:H2'	50:3:675:U:H6	1.77	0.48
50:3:730:G:H2'	50:3:731:A:H8	1.78	0.48
50:3:1051:U:H2'	50:3:1052:A:C8	2.49	0.48
50:3:1156:C:H2'	50:3:1157:G:H8	1.78	0.48
50:3:1269:C:H2'	50:3:1270:C:C6	2.48	0.48
50:3:2297:G:O6	50:3:2351:U:O4	2.31	0.48
50:3:2477:A:C6	50:3:2490:A:C8	3.01	0.48
50:3:2589:G:H8	50:3:2590:G:O6	1.97	0.48
50:3:2822:C:O2'	50:3:2841:A:H5'	2.13	0.48
52:5:265:U:H2'	52:5:266:A:H8	1.75	0.48
52:5:337:C:H2'	52:5:338:C:C6	2.48	0.48
52:5:643:U:H2'	52:5:644:U:C6	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:750:A:H5'	52:5:751:C:C6	2.48	0.48
52:5:807:C:O2'	52:5:894:A:N6	2.34	0.48
52:5:888:A:H2'	52:5:889:U:C6	2.49	0.48
52:5:1383:A:H2'	52:5:1384:A:H8	1.77	0.48
1:0:31:LEU:HD22	1:0:42:LEU:HB3	1.94	0.48
4:A:34:LYS:HB2	4:A:53:ASN:HD22	1.79	0.48
6:C:3:TYR:HE2	52:5:400:G:H5'	1.78	0.48
6:C:11:SER:HB2	6:C:16:PHE:O	2.12	0.48
6:C:126:ASP:HA	6:C:143:ARG:HH12	1.77	0.48
22:S:28:LEU:O	22:S:32:VAL:HG23	2.13	0.48
24:a:131:LYS:HB2	24:a:134:PHE:CE2	2.48	0.48
24:a:188:GLU:OE2	50:3:1806:G:H2'	2.13	0.48
26:c:47:GLN:N	50:3:479:A:OP1	2.46	0.48
26:c:143:MET:HA	26:c:146:PHE:HD2	1.78	0.48
28:e:17:ASN:OD1	28:e:28:LYS:HB3	2.13	0.48
32:i:77:TRP:O	32:i:89:LYS:HA	2.13	0.48
33:j:88:LYS:NZ	33:j:93:PRO:O	2.43	0.48
34:k:114:LEU:HD23	34:k:131:VAL:HG13	1.96	0.48
39:p:30:SER:O	39:p:34:ALA:N	2.41	0.48
43:t:76:LEU:HD12	43:t:89:ILE:HG13	1.96	0.48
46:w:105:ARG:HH22	50:3:1497:A:H2	1.60	0.48
50:3:36:U:O4	50:3:509:G:H1'	2.14	0.48
50:3:129:U:H2'	50:3:130:C:C6	2.48	0.48
50:3:230:G:O2'	50:3:232:A:N1	2.36	0.48
50:3:397:G:H2'	50:3:398:C:C6	2.48	0.48
50:3:536:A:H3'	50:3:537:A:H8	1.79	0.48
50:3:619:A:N1	50:3:844:G:O2'	2.45	0.48
50:3:731:A:H2'	50:3:732:G:C8	2.48	0.48
50:3:864:A:H62	50:3:2255:A:HO2'	1.59	0.48
50:3:1119:A:H2	50:3:1141:U:H1'	1.78	0.48
50:3:1641:A:H62	50:3:1656:A:P	2.36	0.48
50:3:1675:A:C5	50:3:1676:G:C5	3.01	0.48
50:3:1755:A:H2'	50:3:1756:A:C8	2.49	0.48
50:3:1972:C:H5''	50:3:1973:U:H2'	1.96	0.48
50:3:2078:A:H2'	50:3:2079:G:H8	1.79	0.48
50:3:2176:G:N2	50:3:2178:A:H3'	2.28	0.48
50:3:2347:G:O2'	51:4:39:U:N3	2.46	0.48
50:3:2572:A:C6	50:3:2655:U:H4'	2.48	0.48
50:3:2633:C:H2'	50:3:2634:C:C6	2.48	0.48
50:3:2792:C:H2'	50:3:2793:U:C6	2.48	0.48
51:4:59:A:O2'	51:4:60:C:OP1	2.29	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:150:A:H2'	52:5:151:C:C6	2.48	0.48
52:5:599:G:H2'	52:5:600:G:C8	2.47	0.48
52:5:1065:G:H2'	52:5:1066:U:C6	2.49	0.48
53:8:68:G:H2'	53:8:69:A:C8	2.49	0.48
1:0:1:MET:N	50:3:1653:C:O2	2.46	0.48
7:D:117:LYS:HA	7:D:120:LYS:HD2	1.95	0.48
9:F:5:ARG:NH2	52:5:1353:C:O3'	2.47	0.48
11:H:116:LYS:HD3	52:5:1343:G:C8	2.49	0.48
11:H:124:ARG:HG3	52:5:1322:U:H4'	1.95	0.48
16:M:24:CYS:HB3	16:M:28:GLY:H	1.78	0.48
19:P:41:ARG:NH1	52:5:233:C:H5''	2.28	0.48
22:S:9:LYS:NZ	52:5:90:G:N7	2.61	0.48
25:b:134:GLY:HA3	50:3:2000:U:H4'	1.96	0.48
32:i:40:ARG:NH1	32:i:111:MET:O	2.47	0.48
32:i:59:ILE:HB	32:i:127:VAL:HA	1.94	0.48
34:k:91:ASP:HA	34:k:124:LEU:HD22	1.95	0.48
50:3:134:U:H2'	50:3:135:A:H8	1.78	0.48
50:3:822:C:P	50:3:1787:A:H62	2.37	0.48
50:3:912:A:H2'	50:3:913:U:C6	2.48	0.48
50:3:1321:C:H2'	50:3:1322:A:C8	2.48	0.48
50:3:2663:G:N2	50:3:2664:U:O4	2.40	0.48
50:3:2820:G:H2'	50:3:2821:U:H6	1.79	0.48
52:5:295:G:N2	52:5:563:U:O2	2.46	0.48
52:5:608:G:H2'	52:5:609:G:H8	1.77	0.48
52:5:609:G:H2'	52:5:610:C:H6	1.79	0.48
52:5:664:A:N6	52:5:737:U:O2	2.46	0.48
52:5:1074:U:C4	52:5:1075:G:C6	3.02	0.48
52:5:1259:G:H2'	52:5:1329:G:H5''	1.95	0.48
52:5:1317:A:H2'	52:5:1318:C:C6	2.49	0.48
3:2:19:ARG:HA	50:3:2764:U:H5''	1.95	0.48
4:A:171:ARG:NH2	4:A:172:LEU:O	2.47	0.48
4:A:199:VAL:HG12	4:A:213:PHE:HD2	1.78	0.48
7:D:187:THR:O	7:D:191:MET:HG2	2.12	0.48
10:G:120:ASP:OD2	52:5:637:A:O2'	2.30	0.48
19:P:23:THR:HB	19:P:44:LYS:HZ1	1.79	0.48
21:R:58:ILE:HD11	21:R:75:SER:HB2	1.96	0.48
26:c:141:LYS:HE3	50:3:354:C:H5	1.78	0.48
27:d:133:LYS:HB2	50:3:2313:U:H1'	1.94	0.48
29:f:79:PHE:O	29:f:142:VAL:HA	2.13	0.48
36:m:64:LYS:HD2	36:m:75:VAL:HG22	1.95	0.48
50:3:23:A:H2'	50:3:24:U:C6	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:69:U:H2'	50:3:70:G:H8	1.78	0.48
50:3:86:A:O2'	50:3:101:C:N4	2.46	0.48
50:3:234:G:H2'	50:3:235:U:H6	1.78	0.48
50:3:585:U:H2'	50:3:586:G:C8	2.48	0.48
50:3:698:A:H2'	50:3:699:U:C6	2.49	0.48
50:3:704:G:H2'	50:3:705:A:O4'	2.14	0.48
50:3:1304:U:H2'	50:3:1305:G:C8	2.49	0.48
50:3:1385:U:H2'	50:3:1386:G:O4'	2.14	0.48
50:3:1746:U:H3	50:3:1753:G:H1	1.59	0.48
50:3:1950:U:C6	50:3:1952:G:H1'	2.49	0.48
50:3:2227:U:H2'	50:3:2228:U:C6	2.48	0.48
50:3:2267:G:H5'	50:3:2435:C:H3'	1.96	0.48
50:3:2324:A:H2'	50:3:2325:U:O4'	2.13	0.48
50:3:2625:U:N3	50:3:2626:A:N7	2.61	0.48
51:4:1:U:H2'	51:4:2:U:C6	2.49	0.48
52:5:32:U:C4	52:5:49:C:H5''	2.48	0.48
52:5:292:U:H2'	52:5:293:G:H8	1.77	0.48
52:5:849:A:OP2	52:5:865:U:N3	2.44	0.48
52:5:888:A:H2'	52:5:889:U:H6	1.78	0.48
52:5:1499:G:H2'	52:5:1500:G:H8	1.78	0.48
8:E:145:ARG:O	10:G:60:LEU:HB3	2.14	0.48
11:H:15:SER:OG	11:H:72:GLY:HA3	2.14	0.48
15:L:17:ILE:O	15:L:20:THR:OG1	2.26	0.48
16:M:32:ALA:O	16:M:41:ARG:NH2	2.47	0.48
26:c:182:HIS:HB3	26:c:185:LYS:CG	2.44	0.48
27:d:35:VAL:HG11	50:3:2322:G:H4'	1.95	0.48
29:f:69:LYS:O	29:f:72:ILE:HG22	2.14	0.48
29:f:76:GLU:HB2	29:f:139:LYS:O	2.14	0.48
34:k:110:LEU:HD12	34:k:111:PRO:HD2	1.96	0.48
34:k:131:VAL:HG11	34:k:136:LEU:HD13	1.95	0.48
45:v:32:ASN:HB2	50:3:433:A:H5''	1.94	0.48
50:3:269:A:H5'	50:3:464:A:N6	2.29	0.48
50:3:457:U:H4'	50:3:458:A:H5'	1.95	0.48
50:3:827:G:N2	50:3:2079:G:O2'	2.36	0.48
50:3:1010:G:C4'	50:3:1026:A:H61	2.26	0.48
50:3:1054:U:H2'	50:3:1055:A:C8	2.49	0.48
50:3:1202:A:H2'	50:3:1203:G:H8	1.78	0.48
50:3:1240:U:O4'	50:3:1267:A:N6	2.46	0.48
50:3:1505:G:N2	50:3:1539:U:H1'	2.29	0.48
50:3:1760:G:N2	50:3:1763:G:O5'	2.47	0.48
50:3:2425:C:H2'	50:3:2426:A:H8	1.79	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:4:36:C:H2'	51:4:37:A:C8	2.48	0.48
52:5:344:G:H2'	52:5:345:A:H8	1.78	0.48
52:5:688:G:H1	52:5:692:A:H5''	1.79	0.48
52:5:1009:G:N2	52:5:1011:A:H3'	2.29	0.48
52:5:1012:A:C2	52:5:1013:C:H1'	2.49	0.48
52:5:1445:G:H2'	52:5:1446:A:C8	2.49	0.48
52:5:1462:G:H2'	52:5:1463:A:H8	1.78	0.48
12:I:14:ILE:HG23	12:I:80:MET:HB2	1.96	0.48
14:K:107:ARG:HG3	14:K:108:TYR:CE1	2.49	0.48
24:a:213:ILE:C	24:a:218:ARG:HH21	2.22	0.48
24:a:233:MET:HE1	50:3:817:A:N1	2.29	0.48
27:d:51:GLU:N	27:d:51:GLU:OE1	2.46	0.48
32:i:3:LYS:N	40:q:12:TYR:OH	2.46	0.48
50:3:237:A:H2'	50:3:238:U:C6	2.49	0.48
50:3:712:A:C6	50:3:837:A:C8	3.02	0.48
50:3:723:U:C2	50:3:724:A:C8	3.02	0.48
50:3:846:U:O2	50:3:1280:G:H3'	2.13	0.48
50:3:1470:C:H2'	50:3:1471:A:H8	1.77	0.48
50:3:1554:A:C5	50:3:1555:G:H1'	2.48	0.48
50:3:1591:C:OP2	50:3:1592:A:O2'	2.28	0.48
50:3:1743:U:H2'	50:3:1744:U:H6	1.78	0.48
50:3:2156:G:H3'	50:3:2157:A:C8	2.49	0.48
50:3:2399:G:O6	50:3:2433:A:H5''	2.14	0.48
50:3:2857:C:H2'	50:3:2858:A:H8	1.77	0.48
52:5:229:G:H2'	52:5:230:G:C8	2.49	0.48
52:5:281:U:H2'	52:5:282:G:C8	2.49	0.48
52:5:727:G:H4'	52:5:811:A:H61	1.79	0.48
52:5:1008:G:O6	52:5:1014:A:N6	2.47	0.48
52:5:1293:A:N6	52:5:1334:A:H2	2.10	0.48
52:5:1316:C:H2'	52:5:1317:A:C8	2.49	0.48
2:1:28:HIS:HD2	2:1:29:LEU:HG	1.79	0.47
8:E:24:LYS:O	8:E:28:THR:HG23	2.13	0.47
26:c:26:ALA:H	26:c:117:SER:CB	2.25	0.47
27:d:69:LYS:HB2	27:d:82:GLY:HA2	1.96	0.47
28:e:62:LYS:HE3	50:3:1070:U:H4'	1.96	0.47
32:i:106:ASN:HA	32:i:109:LYS:HG2	1.95	0.47
33:j:38:VAL:HG23	33:j:87:ILE:HD11	1.96	0.47
34:k:119:LYS:HD3	34:k:138:ALA:HA	1.97	0.47
38:o:59:GLY:H	38:o:62:GLU:HG3	1.79	0.47
39:p:52:LYS:NZ	50:3:1031:U:OP1	2.45	0.47
50:3:607:U:H5''	50:3:2062:C:OP2	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:871:G:H2'	50:3:872:C:C6	2.49	0.47
50:3:2155:G:H2'	50:3:2156:G:C8	2.47	0.47
52:5:170:A:H3'	52:5:171:A:H8	1.79	0.47
52:5:371:U:H2'	52:5:372:G:O4'	2.13	0.47
52:5:450:U:H2'	52:5:451:G:O4'	2.14	0.47
52:5:514:U:H2'	52:5:515:G:O4'	2.14	0.47
52:5:851:U:H2'	52:5:852:G:O4'	2.13	0.47
52:5:953:A:H2'	52:5:954:A:C8	2.49	0.47
52:5:1087:C:O2'	52:5:1088:C:O5'	2.28	0.47
52:5:1350:A:H2'	52:5:1351:U:O4'	2.13	0.47
52:5:1393:A:N6	52:5:1457:G:O2'	2.47	0.47
52:5:1402:U:H2'	52:5:1403:A:H8	1.78	0.47
4:A:77:GLN:NE2	4:A:239:ALA:HA	2.29	0.47
4:A:158:ARG:NH1	52:5:1089:C:OP2	2.48	0.47
5:B:116:ALA:HB2	5:B:205:ILE:HG22	1.96	0.47
22:S:73:VAL:HG21	52:5:173:U:H1'	1.97	0.47
33:j:7:ARG:HG3	33:j:44:LYS:HD2	1.96	0.47
36:m:60:ARG:HD2	36:m:83:PHE:CE2	2.50	0.47
39:p:49:ARG:O	39:p:52:LYS:HG2	2.13	0.47
40:q:14:VAL:HG21	40:q:20:PHE:CZ	2.49	0.47
50:3:353:G:H1	50:3:357:A:H62	1.62	0.47
50:3:496:A:H1'	50:3:506:A:N6	2.29	0.47
50:3:777:C:H2'	50:3:778:U:C6	2.49	0.47
50:3:1318:U:H2'	50:3:1319:C:C6	2.49	0.47
50:3:1471:A:H2'	50:3:1472:C:O4'	2.14	0.47
50:3:1634:A:H2'	50:3:1635:G:C8	2.49	0.47
50:3:1666:A:H2'	50:3:1667:G:C4	2.48	0.47
50:3:2553:G:H21	50:3:2573:A:H2	1.62	0.47
50:3:2638:G:H2'	50:3:2639:G:H8	1.79	0.47
50:3:2721:C:H3'	50:3:2722:G:H5''	1.96	0.47
50:3:2738:U:H2'	50:3:2739:C:H6	1.78	0.47
51:4:77:G:C4	51:4:78:C:H1'	2.49	0.47
52:5:212:G:O2'	52:5:465:A:N1	2.46	0.47
52:5:443:G:H2'	52:5:444:G:O4'	2.13	0.47
52:5:580:C:OP2	52:5:755:U:N3	2.46	0.47
52:5:820:A:H2'	52:5:821:U:O4'	2.14	0.47
52:5:1186:U:O2'	52:5:1187:U:H5''	2.13	0.47
52:5:1236:A:C8	52:5:1250:A:C6	3.02	0.47
52:5:1456:U:H2'	52:5:1457:G:C8	2.49	0.47
4:A:59:GLU:HB2	4:A:62:ARG:HH11	1.78	0.47
6:C:101:VAL:HG12	6:C:107:ALA:HB2	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:182:ASN:ND2	7:D:186:ASN:OD1	2.47	0.47
10:G:44:ILE:HD12	10:G:138:LEU:HD22	1.96	0.47
15:L:90:ARG:HH11	15:L:96:PRO:HG2	1.80	0.47
20:Q:81:MET:HG3	20:Q:82:HIS:CD2	2.49	0.47
33:j:91:LYS:O	33:j:113:LYS:HB2	2.14	0.47
50:3:156:A:H2'	50:3:157:U:H6	1.79	0.47
50:3:254:G:H2'	50:3:255:A:H8	1.77	0.47
50:3:659:C:H2'	50:3:660:U:C6	2.49	0.47
50:3:928:G:H2'	50:3:929:G:H8	1.79	0.47
50:3:1100:U:H2'	50:3:1101:U:O4'	2.14	0.47
50:3:1196:U:H2'	50:3:1197:G:C8	2.49	0.47
50:3:1239:G:O2'	50:3:1267:A:N1	2.42	0.47
50:3:1332:A:H61	50:3:1659:C:N4	2.09	0.47
50:3:1412:A:H1'	50:3:1433:U:H1'	1.95	0.47
50:3:1463:G:H2'	50:3:1464:G:C8	2.45	0.47
50:3:1830:G:H2'	50:3:1831:G:C8	2.49	0.47
50:3:1833:G:H2'	50:3:1834:U:C6	2.49	0.47
50:3:2060:G:OP2	50:3:2585:A:N6	2.48	0.47
50:3:2590:G:H2'	50:3:2591:G:H8	1.80	0.47
50:3:2609:C:H2'	50:3:2611:G:H8	1.79	0.47
52:5:871:U:H2'	52:5:872:C:H6	1.78	0.47
52:5:1098:C:H2'	52:5:1099:G:H8	1.79	0.47
52:5:1140:A:H2'	52:5:1141:U:H5'	1.94	0.47
52:5:1239:U:H2'	52:5:1240:U:C6	2.50	0.47
52:5:1394:G:C6	52:5:1457:G:C2	3.02	0.47
52:5:1417:U:O2	52:5:1435:G:N2	2.47	0.47
53:7:68:G:H2'	53:7:69:A:C8	2.49	0.47
4:A:102:ARG:HE	4:A:103:VAL:HG13	1.79	0.47
21:R:10:PHE:CG	52:5:1292:A:H4'	2.49	0.47
26:c:55:LYS:NZ	50:3:709:G:OP1	2.47	0.47
31:h:10:ALA:HB3	50:3:1132:C:C2	2.49	0.47
32:i:94:ASP:OD1	32:i:95:MET:N	2.47	0.47
35:l:36:ALA:O	35:l:100:GLY:N	2.38	0.47
41:r:49:LYS:HD2	41:r:52:ASN:HB2	1.96	0.47
43:t:91:TYR:N	50:3:332:G:OP1	2.46	0.47
50:3:20:C:H2'	50:3:21:U:C6	2.49	0.47
50:3:205:C:O2'	50:3:424:G:O6	2.32	0.47
50:3:273:C:N4	50:3:295:U:O2'	2.36	0.47
50:3:633:G:H2'	50:3:634:C:O4'	2.14	0.47
50:3:829:A:H2'	50:3:830:A:C8	2.50	0.47
50:3:1244:A:H61	50:3:1265:G:C1'	2.23	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1317:C:H2'	50:3:1318:U:C6	2.49	0.47
50:3:1814:G:N2	50:3:1817:A:OP2	2.41	0.47
50:3:2154:A:H2'	50:3:2155:G:O4'	2.13	0.47
50:3:2394:A:H2'	50:3:2395:U:C6	2.49	0.47
50:3:2409:U:O4	50:3:2423:G:O6	2.31	0.47
50:3:2527:U:O2'	50:3:2549:A:N6	2.47	0.47
50:3:2703:U:O2	50:3:2722:G:C6	2.68	0.47
50:3:2743:U:H2'	50:3:2744:A:H8	1.80	0.47
50:3:2862:U:O2'	50:3:2863:G:O5'	2.31	0.47
52:5:290:G:O4'	52:5:302:A:N6	2.48	0.47
52:5:435:U:O2	52:5:494:A:N7	2.47	0.47
52:5:542:G:H2'	52:5:543:C:C6	2.50	0.47
52:5:558:U:H5''	52:5:564:G:C2	2.49	0.47
52:5:1057:C:H2'	52:5:1058:A:O4'	2.14	0.47
52:5:1132:G:O2'	52:5:1154:A:N6	2.48	0.47
52:5:1405:U:H2'	52:5:1406:U:H6	1.78	0.47
53:7:67:C:H2'	53:7:68:G:H8	1.79	0.47
4:A:107:PHE:CZ	4:A:165:GLY:HA2	2.49	0.47
22:S:75:VAL:HA	22:S:78:LYS:HG2	1.97	0.47
24:a:94:CYS:HA	24:a:205:ASN:HD22	1.79	0.47
27:d:150:ARG:NH2	50:3:2315:G:O6	2.48	0.47
29:f:56:GLU:HA	29:f:59:GLU:CD	2.39	0.47
30:g:30:THR:C	30:g:32:MET:H	2.23	0.47
38:o:21:TYR:O	38:o:23:PRO:HD3	2.15	0.47
50:3:325:G:C6	50:3:383:U:O2	2.68	0.47
50:3:450:C:H2'	50:3:451:A:C8	2.49	0.47
50:3:728:A:H1'	50:3:1382:A:H1'	1.95	0.47
50:3:1446:G:H1'	50:3:1614:G:C6	2.49	0.47
50:3:2157:A:OP2	50:3:2157:A:H8	1.96	0.47
50:3:2419:A:H2'	50:3:2420:A:C8	2.50	0.47
50:3:2497:U:H2'	50:3:2498:G:C8	2.49	0.47
50:3:2701:A:H2'	50:3:2702:G:C8	2.50	0.47
50:3:2724:U:H2'	50:3:2725:G:H8	1.79	0.47
52:5:1133:A:H4'	52:5:1134:C:OP1	2.13	0.47
11:H:87:ARG:HH22	52:5:1110:C:P	2.37	0.47
19:P:68:PRO:HD2	52:5:260:C:H1'	1.97	0.47
22:S:28:LEU:HD11	22:S:51:ALA:HB2	1.96	0.47
25:b:6:ILE:HD11	25:b:101:LEU:HD23	1.96	0.47
26:c:172:THR:HG21	26:c:180:VAL:HG12	1.96	0.47
33:j:4:PHE:CE1	33:j:5:MET:HE3	2.50	0.47
50:3:131:C:H5''	50:3:1376:G:H21	1.80	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:494:G:N2	50:3:506:A:O5'	2.44	0.47
50:3:1099:C:OP2	50:3:1105:A:N6	2.41	0.47
50:3:1188:C:H2'	50:3:1189:G:O4'	2.14	0.47
50:3:2745:G:H2'	50:3:2746:A:C8	2.48	0.47
51:4:22:G:H2'	51:4:25:A:N1	2.29	0.47
52:5:83:U:H2'	52:5:84:U:C6	2.50	0.47
52:5:149:G:H2'	52:5:150:A:C8	2.49	0.47
52:5:223:G:H2'	52:5:224:A:O4'	2.15	0.47
52:5:253:G:C6	52:5:266:A:N6	2.83	0.47
52:5:381:C:H2'	52:5:382:U:H6	1.79	0.47
52:5:732:A:H2'	52:5:733:A:O4'	2.15	0.47
53:8:67:C:H2'	53:8:68:G:H8	1.80	0.47
1:0:22:MET:HA	1:0:28:ARG:HG3	1.97	0.47
2:1:2:LYS:HZ1	50:3:257:C:H3'	1.79	0.47
4:A:181:PRO:HB2	4:A:206:THR:OG1	2.15	0.47
5:B:34:LEU:HD11	16:M:47:LEU:HD13	1.96	0.47
5:B:61:THR:HG22	5:B:64:THR:CG2	2.45	0.47
7:D:103:TYR:HE1	7:D:196:MET:HG2	1.80	0.47
7:D:180:THR:O	52:5:8:G:O2'	2.33	0.47
11:H:110:LYS:HE2	52:5:1159:A:C2	2.50	0.47
14:K:47:CYS:O	14:K:90:HIS:N	2.37	0.47
17:N:28:LEU:O	17:N:32:GLN:NE2	2.48	0.47
18:O:12:ARG:HH11	52:5:623:G:H5''	1.80	0.47
24:a:163:SER:HB2	50:3:1825:U:H3'	1.96	0.47
25:b:119:PHE:CD2	50:3:1689:A:H1'	2.49	0.47
26:c:77:GLY:H	50:3:709:G:H5''	1.79	0.47
27:d:24:SER:OG	27:d:26:MET:SD	2.73	0.47
33:j:91:LYS:HB3	33:j:111:TYR:HA	1.97	0.47
34:k:6:LEU:HD23	34:k:6:LEU:H	1.80	0.47
34:k:22:ARG:HH11	50:3:1280:G:H2'	1.80	0.47
34:k:80:LEU:O	34:k:115:ILE:HG22	2.14	0.47
35:l:30:GLY:HA3	35:l:105:GLU:HB2	1.97	0.47
40:q:57:CYS:SG	40:q:92:LEU:HD13	2.54	0.47
41:r:69:LEU:HA	41:r:108:SER:O	2.14	0.47
41:r:83:LYS:HB3	41:r:95:MET:HE2	1.97	0.47
49:z:5:ARG:HB3	49:z:22:PHE:HD1	1.80	0.47
50:3:108:G:H21	50:3:380:A:N6	2.13	0.47
50:3:159:G:O6	50:3:174:A:N6	2.48	0.47
50:3:341:G:H22	50:3:343:A:H3'	1.79	0.47
50:3:351:G:H2'	50:3:352:C:C6	2.50	0.47
50:3:439:U:O2'	50:3:440:C:N3	2.47	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:493:A:H61	50:3:506:A:H3'	1.80	0.47
50:3:535:G:H22	50:3:538:A:P	2.37	0.47
50:3:707:C:H2'	50:3:708:C:H6	1.79	0.47
50:3:888:A:H2'	50:3:889:G:C8	2.50	0.47
50:3:900:G:H2'	50:3:901:C:C6	2.49	0.47
50:3:1090:G:H2'	50:3:1091:G:O4'	2.14	0.47
50:3:1120:A:H2'	50:3:1121:A:C8	2.50	0.47
50:3:1698:A:N6	50:3:2003:C:H42	2.09	0.47
50:3:1829:U:H2'	50:3:1830:G:C8	2.49	0.47
50:3:1851:U:H2'	50:3:1852:G:H8	1.78	0.47
50:3:2068:G:H1'	50:3:2069:A:H2'	1.96	0.47
50:3:2144:C:N4	50:3:2145:A:H62	2.12	0.47
50:3:2227:U:H2'	50:3:2228:U:H6	1.79	0.47
50:3:2242:G:H2'	50:3:2243:G:C8	2.49	0.47
50:3:2423:G:H2'	50:3:2424:C:C6	2.50	0.47
50:3:2488:C:H2'	50:3:2489:G:O4'	2.14	0.47
50:3:2567:C:H2'	50:3:2568:G:C8	2.50	0.47
50:3:2706:U:O4	50:3:2717:G:O6	2.33	0.47
50:3:2731:U:H3'	50:3:2732:A:H8	1.80	0.47
52:5:25:U:H2'	52:5:26:C:C6	2.49	0.47
52:5:242:A:C2	52:5:278:A:C4	3.03	0.47
52:5:684:A:N1	52:5:697:G:O2'	2.42	0.47
52:5:880:G:N2	52:5:905:U:O2	2.44	0.47
52:5:1234:C:O2'	52:5:1258:U:O2	2.26	0.47
52:5:1288:C:H2'	52:5:1289:U:C6	2.48	0.47
52:5:1333:C:H2'	52:5:1335:G:OP2	2.14	0.47
52:5:1487:U:H2'	52:5:1488:A:H8	1.80	0.47
4:A:109:THR:OG1	4:A:161:LYS:O	2.25	0.47
5:B:45:PHE:O	5:B:49:ARG:NH2	2.48	0.47
6:C:126:ASP:OD1	6:C:143:ARG:NH1	2.46	0.47
9:F:144:ALA:C	9:F:146:ALA:H	2.23	0.47
14:K:64:LYS:NZ	52:5:519:G:OP2	2.39	0.47
25:b:50:THR:OG1	25:b:87:MET:O	2.28	0.47
25:b:51:LEU:HD21	25:b:81:LEU:HB2	1.96	0.47
28:e:36:LEU:HD22	28:e:75:ILE:HD13	1.97	0.47
33:j:30:LYS:HD2	50:3:2682:A:H4'	1.96	0.47
34:k:4:ASN:N	34:k:7:LYS:O	2.41	0.47
37:n:25:ASP:HB2	37:n:27:ARG:HE	1.80	0.47
42:s:38:THR:O	42:s:41:LYS:HG2	2.15	0.47
50:3:14:U:O2	50:3:14:U:H2'	2.13	0.47
50:3:464:A:H2'	50:3:464:A:N3	2.29	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:606:G:N2	50:3:2038:A:OP1	2.46	0.47
50:3:1166:G:O2'	50:3:2032:G:O2'	2.28	0.47
50:3:1396:A:H2'	50:3:1397:G:C8	2.50	0.47
50:3:2132:G:H1'	50:3:2181:A:H61	1.80	0.47
50:3:2386:A:O5'	50:3:2386:A:H8	1.97	0.47
52:5:20:C:H2'	52:5:21:U:H6	1.79	0.47
52:5:38:U:H2'	52:5:39:G:C8	2.50	0.47
52:5:66:A:H4'	52:5:67:U:H5''	1.97	0.47
52:5:599:G:H2'	52:5:600:G:H8	1.80	0.47
52:5:669:U:H2'	52:5:670:G:C8	2.50	0.47
52:5:675:U:H2'	52:5:676:U:C6	2.50	0.47
4:A:61:GLN:NE2	4:A:215:ILE:HG23	2.29	0.47
5:B:53:VAL:HG22	5:B:77:LEU:HD11	1.97	0.47
7:D:92:VAL:HG22	7:D:118:ALA:HB1	1.97	0.47
25:b:62:LEU:HD23	25:b:67:GLN:HA	1.97	0.47
33:j:66:LYS:N	33:j:82:ASN:OD1	2.28	0.47
39:p:95:SER:O	39:p:99:ILE:HG13	2.15	0.47
41:r:77:ASN:HB3	50:3:26:G:H1'	1.96	0.47
45:v:10:ARG:HH21	45:v:31:VAL:HB	1.80	0.47
48:y:13:ARG:O	48:y:17:ARG:HG3	2.15	0.47
50:3:255:A:N6	50:3:256:G:N3	2.63	0.47
50:3:420:A:H2'	50:3:421:A:O4'	2.15	0.47
50:3:515:A:N6	50:3:544:U:C2	2.82	0.47
50:3:956:U:C2	50:3:957:G:C8	3.03	0.47
50:3:1017:A:H1'	50:3:2044:C:O4'	2.14	0.47
50:3:1095:U:C4	50:3:1123:A:C5	3.03	0.47
50:3:1384:C:H2'	50:3:1385:U:C6	2.50	0.47
50:3:1634:A:H2'	50:3:1635:G:H8	1.80	0.47
50:3:1657:G:H2'	50:3:1658:U:O4'	2.15	0.47
50:3:1662:G:H2'	50:3:1663:G:H8	1.79	0.47
50:3:1701:G:N1	50:3:1999:G:OP2	2.31	0.47
50:3:1836:A:H3'	50:3:1837:C:C6	2.50	0.47
50:3:1847:G:H2'	50:3:1848:U:C6	2.50	0.47
50:3:2140:G:H1'	50:3:2165:A:H62	1.80	0.47
50:3:2782:A:H2'	50:3:2783:A:C8	2.50	0.47
52:5:261:G:H3'	52:5:263:C:H5	1.80	0.47
52:5:396:C:H2'	52:5:397:C:C6	2.49	0.47
52:5:861:A:H2'	52:5:862:C:C6	2.50	0.47
7:D:138:HIS:CE1	7:D:202:GLN:HB2	2.47	0.47
9:F:37:LEU:O	9:F:41:ILE:HG12	2.15	0.47
13:J:43:MET:HG2	13:J:45:PHE:H	1.80	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:L:27:LEU:HD11	52:5:1302:C:OP1	2.15	0.47
19:P:79:LYS:NZ	19:P:81:ILE:HD11	2.30	0.47
20:Q:73:ARG:NH2	20:Q:79:CYS:O	2.48	0.47
28:e:3:LYS:HZ1	28:e:69:GLY:H	1.63	0.47
37:n:107:GLU:HA	37:n:110:ARG:HB2	1.96	0.47
40:q:4:ILE:HD12	40:q:40:MET:HB2	1.96	0.47
50:3:137:U:H2'	50:3:138:U:C6	2.49	0.47
50:3:332:G:N2	50:3:375:U:O4	2.48	0.47
50:3:425:U:H4'	50:3:426:U:OP2	2.12	0.47
50:3:863:U:H4'	50:3:866:G:C6	2.49	0.47
50:3:1104:A:O2'	50:3:1108:A:N6	2.48	0.47
50:3:1591:C:H3'	50:3:1592:A:H2'	1.97	0.47
50:3:1744:U:H2'	50:3:1745:A:C8	2.50	0.47
50:3:2232:G:H4'	50:3:2234:C:H1'	1.97	0.47
50:3:2353:G:O6	50:3:2379:G:O6	2.32	0.47
52:5:169:G:H1	52:5:196:G:N2	2.00	0.47
52:5:318:C:H2'	52:5:319:U:C6	2.50	0.47
52:5:457:A:H2'	52:5:458:G:C8	2.50	0.47
52:5:601:U:H2'	52:5:602:G:H8	1.77	0.47
5:B:43:LEU:HA	5:B:46:VAL:HB	1.97	0.46
5:B:117:ARG:HH22	5:B:189:LEU:H	1.62	0.46
11:H:5:SER:HA	11:H:22:THR:HG1	1.80	0.46
11:H:43:ASN:C	11:H:44:LYS:HD2	2.40	0.46
11:H:45:LEU:HD23	11:H:45:LEU:H	1.79	0.46
14:K:7:LEU:HB3	19:P:35:TYR:CE2	2.50	0.46
14:K:64:LYS:HZ1	52:5:519:G:P	2.37	0.46
24:a:152:LEU:HA	24:a:192:PHE:HE1	1.80	0.46
24:a:262:HIS:NE2	50:3:1831:G:O2'	2.46	0.46
25:b:39:VAL:H	25:b:92:MET:HE1	1.80	0.46
25:b:46:LYS:NZ	50:3:2792:C:H5'	2.30	0.46
25:b:117:ARG:NH1	50:3:2688:C:OP1	2.48	0.46
27:d:167:LEU:HD12	27:d:177:LEU:HD13	1.97	0.46
43:t:46:LYS:O	50:3:519:A:H4'	2.15	0.46
48:y:39:PHE:HD2	50:3:2819:C:H1'	1.80	0.46
50:3:363:G:C2	50:3:513:A:C6	3.03	0.46
50:3:891:G:O6	50:3:960:A:N6	2.47	0.46
50:3:919:C:H2'	50:3:920:G:C8	2.50	0.46
50:3:1173:G:C2	50:3:1174:G:H1'	2.50	0.46
50:3:1848:U:C2	50:3:1849:G:C8	3.02	0.46
50:3:2299:U:O2'	50:3:2382:A:N3	2.41	0.46
50:3:2327:U:O2'	50:3:2341:G:O6	2.32	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2353:G:O2'	50:3:2389:A:N3	2.35	0.46
51:4:22:G:H2'	51:4:25:A:C6	2.50	0.46
51:4:26:C:O2'	51:4:57:G:N2	2.49	0.46
52:5:33:A:H2	52:5:551:A:H61	1.61	0.46
52:5:641:U:H2'	52:5:642:A:C8	2.47	0.46
52:5:1483:C:H2'	52:5:1484:C:C6	2.50	0.46
52:5:1497:U:H2'	52:5:1498:G:C8	2.50	0.46
2:1:10:ARG:HE	34:k:64:LYS:HG3	1.80	0.46
5:B:24:ALA:HB1	5:B:29:GLN:HG2	1.96	0.46
24:a:57:HIS:NE2	50:3:1830:G:OP1	2.48	0.46
26:c:145:GLN:O	26:c:148:LYS:HG3	2.15	0.46
27:d:31:LEU:HD13	27:d:156:LEU:HD12	1.97	0.46
32:i:83:TYR:CD1	50:3:2650:A:H5''	2.49	0.46
39:p:91:ARG:HB2	39:p:94:LEU:H	1.80	0.46
41:r:83:LYS:HE3	41:r:97:THR:HB	1.98	0.46
50:3:153:U:H2'	50:3:154:U:C6	2.49	0.46
50:3:197:U:H2'	50:3:198:G:C8	2.50	0.46
50:3:322:A:H2'	50:3:323:A:H8	1.80	0.46
50:3:331:A:H2'	50:3:332:G:O4'	2.15	0.46
50:3:345:A:H2	50:3:362:U:C4	2.33	0.46
50:3:376:U:H2'	50:3:377:U:O4'	2.15	0.46
50:3:571:A:H2'	50:3:572:G:O4'	2.14	0.46
50:3:727:C:H2'	50:3:728:A:C8	2.50	0.46
50:3:1001:C:H2'	50:3:1002:A:C8	2.50	0.46
50:3:1011:A:O2'	50:3:1191:A:N1	2.44	0.46
50:3:2244:U:H2'	50:3:2245:G:C8	2.51	0.46
50:3:2385:A:H2'	50:3:2386:A:C8	2.50	0.46
50:3:2598:C:H2'	50:3:2599:C:C6	2.50	0.46
51:4:77:G:C2	51:4:78:C:H1'	2.51	0.46
52:5:195:U:H2'	52:5:196:G:C8	2.51	0.46
52:5:461:G:C2	52:5:462:G:H1'	2.50	0.46
52:5:1192:C:H2'	52:5:1193:U:C6	2.50	0.46
52:5:1328:C:H2'	52:5:1329:G:C8	2.50	0.46
52:5:1374:C:O2	52:5:1477:A:N6	2.48	0.46
52:5:1439:G:N1	52:5:1440:U:C4	2.83	0.46
6:C:88:ASN:O	6:C:92:VAL:HG23	2.15	0.46
6:C:112:SER:O	6:C:115:GLN:HG3	2.15	0.46
8:E:35:LEU:HD13	8:E:60:TRP:HE3	1.81	0.46
18:O:37:LEU:HA	52:5:449:A:N6	2.29	0.46
34:k:23:GLY:H	50:3:846:U:H2'	1.80	0.46
35:l:39:GLY:HA2	35:l:97:VAL:O	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:o:31:VAL:HB	38:o:88:ILE:HD11	1.97	0.46
45:v:58:LEU:HG	45:v:63:ARG:HB2	1.96	0.46
50:3:79:U:H2'	50:3:80:U:C6	2.50	0.46
50:3:811:G:H21	50:3:811:G:P	2.38	0.46
50:3:1091:G:H5''	50:3:1092:A:O4'	2.16	0.46
50:3:1119:A:H1'	50:3:1140:U:H1'	1.96	0.46
50:3:1220:A:H3'	50:3:1221:G:H8	1.80	0.46
50:3:1867:G:O2'	50:3:1868:A:O4'	2.20	0.46
50:3:2388:C:H2'	50:3:2389:A:C8	2.50	0.46
50:3:2405:G:H2'	50:3:2406:U:C6	2.49	0.46
50:3:2679:G:H2'	50:3:2680:C:C6	2.51	0.46
52:5:37:C:H2'	52:5:38:U:O4'	2.16	0.46
52:5:133:G:N2	52:5:162:C:C2	2.84	0.46
52:5:171:A:H2'	52:5:172:C:C5	2.49	0.46
52:5:317:A:H62	52:5:324:C:H1'	1.80	0.46
52:5:666:U:H2'	52:5:667:U:C6	2.50	0.46
52:5:1096:A:H2'	52:5:1097:G:H8	1.80	0.46
52:5:1124:U:H3'	52:5:1125:C:H6	1.80	0.46
52:5:1261:A:C2	52:5:1345:G:N2	2.83	0.46
52:5:1321:G:H22	52:5:1349:A:P	2.39	0.46
4:A:27:ARG:HH21	4:A:28:THR:H	1.62	0.46
4:A:85:VAL:HG22	4:A:108:ILE:HD12	1.97	0.46
4:A:142:ALA:HA	4:A:149:ASN:HD22	1.81	0.46
12:I:48:LEU:HD23	12:I:48:LEU:HA	1.79	0.46
15:L:15:ILE:HG21	15:L:39:ILE:HG21	1.96	0.46
19:P:46:GLN:HG2	19:P:73:LYS:HE2	1.97	0.46
19:P:63:ILE:HD12	19:P:75:PHE:HB3	1.96	0.46
24:a:12:SER:O	50:3:764:G:N2	2.49	0.46
24:a:151:GLU:HG3	24:a:158:GLY:HA2	1.98	0.46
29:f:55:GLN:O	29:f:59:GLU:OE1	2.33	0.46
36:m:90:TYR:HE1	36:m:120:ASP:HB2	1.80	0.46
50:3:274:A:OP2	50:3:294:G:N1	2.41	0.46
50:3:630:C:H2'	50:3:631:A:C8	2.51	0.46
50:3:712:A:H2'	50:3:713:C:H6	1.78	0.46
50:3:713:C:H2'	50:3:714:G:H8	1.79	0.46
50:3:939:U:H2'	50:3:940:A:C8	2.49	0.46
50:3:1354:U:O4	50:3:1682:C:O2'	2.22	0.46
50:3:1373:C:H2'	50:3:1374:U:C6	2.51	0.46
50:3:1475:C:H2'	50:3:1476:C:C6	2.51	0.46
50:3:1490:G:H2'	50:3:1491:G:C8	2.50	0.46
50:3:2260:G:H2'	50:3:2261:G:C8	2.49	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2339:G:O2'	50:3:2344:A:N6	2.48	0.46
50:3:2613:U:N3	50:3:2614:U:O4	2.48	0.46
52:5:377:A:H3'	52:5:378:A:C8	2.50	0.46
52:5:1062:C:H2'	52:5:1063:G:H8	1.77	0.46
52:5:1223:A:N6	52:5:1262:A:O5'	2.49	0.46
53:8:29:C:H2'	53:8:30:G:C8	2.49	0.46
6:C:12:ARG:NE	6:C:33:THR:O	2.48	0.46
7:D:198:GLY:HA2	7:D:201:LYS:HG2	1.98	0.46
7:D:213:ASN:HB3	10:G:52:GLY:HA3	1.98	0.46
12:I:39:ASP:OD1	12:I:40:VAL:N	2.49	0.46
24:a:152:LEU:HA	24:a:192:PHE:CE1	2.51	0.46
25:b:157:GLN:CD	50:3:2060:G:H4'	2.40	0.46
30:g:112:TYR:HB3	30:g:116:ARG:H	1.80	0.46
35:l:24:ASN:ND2	50:3:945:U:OP1	2.49	0.46
44:u:55:ARG:NH2	50:3:2395:U:H5'	2.31	0.46
50:3:406:C:H2'	50:3:407:U:C6	2.50	0.46
50:3:716:G:N2	50:3:831:U:O2	2.39	0.46
50:3:829:A:H2'	50:3:830:A:H8	1.80	0.46
50:3:851:U:H2'	50:3:852:C:C6	2.51	0.46
50:3:1292:A:H2'	50:3:1293:U:C6	2.50	0.46
50:3:1337:G:H2'	50:3:1338:G:H8	1.81	0.46
50:3:1490:G:H2'	50:3:1491:G:H8	1.80	0.46
50:3:2380:U:H2'	50:3:2381:G:H8	1.80	0.46
50:3:2458:A:H62	50:3:2509:C:H42	1.64	0.46
50:3:2599:C:N4	50:3:2600:G:O6	2.49	0.46
52:5:144:U:O2	52:5:149:G:O6	2.34	0.46
52:5:266:A:N1	52:5:267:C:C4	2.83	0.46
52:5:552:U:H2'	52:5:553:C:C5	2.51	0.46
52:5:568:G:H2'	52:5:569:U:C6	2.51	0.46
52:5:877:C:H2'	52:5:878:U:C6	2.50	0.46
52:5:935:U:H2'	52:5:936:G:O4'	2.16	0.46
52:5:1156:G:H1'	52:5:1157:G:C5	2.50	0.46
5:B:35:ILE:HD13	16:M:25:GLN:HG2	1.98	0.46
5:B:82:ASN:HB3	5:B:85:ILE:HG22	1.98	0.46
9:F:56:LYS:HD3	9:F:57:PRO:HD2	1.97	0.46
11:H:116:LYS:N	52:5:1344:C:OP2	2.49	0.46
12:I:56:THR:HG22	12:I:68:ARG:HE	1.80	0.46
14:K:127:ARG:NE	14:K:133:LYS:O	2.43	0.46
16:M:16:PHE:HB3	16:M:18:VAL:HG22	1.97	0.46
25:b:161:LYS:HA	50:3:2627:U:H5''	1.97	0.46
27:d:41:GLY:N	50:3:2315:G:O6	2.49	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:k:43:LYS:HB3	34:k:43:LYS:HE2	1.80	0.46
35:l:33:GLY:HA2	35:l:104:PHE:O	2.16	0.46
36:m:46:ASP:HA	36:m:97:TYR:HD1	1.79	0.46
36:m:76:ASP:HA	36:m:79:MET:HE2	1.97	0.46
37:n:31:MET:HA	37:n:92:ASP:HB3	1.97	0.46
45:v:14:TYR:O	45:v:26:ARG:NH1	2.46	0.46
45:v:61:HIS:O	45:v:63:ARG:NH2	2.49	0.46
50:3:186:A:H2'	50:3:187:C:C6	2.51	0.46
50:3:740:A:C6	50:3:762:A:C5	3.04	0.46
50:3:1316:U:H1'	50:3:1681:G:H22	1.80	0.46
50:3:1505:G:O2'	50:3:1506:U:H5'	2.16	0.46
50:3:1511:C:N4	50:3:1512:A:N6	2.64	0.46
50:3:2654:U:C2	50:3:2683:G:N2	2.84	0.46
52:5:15:U:N3	52:5:18:U:OP2	2.48	0.46
52:5:862:C:H3'	52:5:863:A:H8	1.80	0.46
52:5:901:A:H2'	52:5:902:A:O4'	2.16	0.46
52:5:1293:A:C8	52:5:1297:G:C6	3.04	0.46
52:5:1461:G:H2'	52:5:1462:G:C8	2.50	0.46
52:5:1497:U:H2'	52:5:1498:G:H8	1.80	0.46
4:A:65:LEU:O	4:A:69:TYR:HB2	2.15	0.46
11:H:116:LYS:HG3	52:5:1343:G:H5''	1.98	0.46
21:R:12:ASP:HB3	21:R:14:HIS:CD2	2.51	0.46
21:R:12:ASP:HB2	21:R:15:LEU:HD13	1.98	0.46
26:c:94:LYS:HE3	26:c:95:PRO:HD2	1.97	0.46
29:f:114:LYS:NZ	50:3:2205:U:H5''	2.31	0.46
48:y:13:ARG:HD2	48:y:17:ARG:HH21	1.81	0.46
50:3:30:A:H2'	50:3:31:U:H6	1.81	0.46
50:3:39:C:H5'	50:3:487:C:H5''	1.97	0.46
50:3:433:A:H2'	50:3:434:G:C8	2.51	0.46
50:3:748:G:H2'	50:3:749:U:C6	2.50	0.46
50:3:1383:G:H2'	50:3:1384:C:C6	2.51	0.46
50:3:1414:C:H1'	50:3:1496:A:H1'	1.97	0.46
50:3:1658:U:H2'	50:3:1659:C:C6	2.50	0.46
50:3:1661:A:C2	50:3:1662:G:C8	3.04	0.46
50:3:2270:U:H2'	50:3:2271:C:H6	1.81	0.46
50:3:2272:C:H2'	50:3:2273:U:O4'	2.15	0.46
50:3:2479:A:H3'	50:3:2480:G:H8	1.81	0.46
52:5:54:A:N1	52:5:355:A:C5	2.83	0.46
52:5:606:A:C2	52:5:607:A:H1'	2.50	0.46
52:5:752:G:H2'	52:5:753:C:H6	1.81	0.46
52:5:946:G:N3	52:5:965:C:O2'	2.42	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1141:U:O2'	52:5:1142:G:H5''	2.16	0.46
52:5:1480:G:H5'	52:5:1481:U:H3'	1.98	0.46
1:0:11:LYS:NZ	1:0:15:THR:OG1	2.34	0.46
4:A:95:LEU:HD21	4:A:226:CYS:SG	2.56	0.46
21:R:40:ILE:HD12	21:R:45:VAL:HG22	1.98	0.46
22:S:66:ARG:O	22:S:69:LYS:HG2	2.16	0.46
28:e:3:LYS:NZ	50:3:2757:A:H5'	2.31	0.46
29:f:102:HIS:HB3	50:3:166:A:C8	2.51	0.46
33:j:8:LEU:HD22	33:j:82:ASN:HB2	1.98	0.46
35:l:35:VAL:HB	35:l:130:LYS:HB3	1.98	0.46
41:r:9:ARG:O	41:r:9:ARG:HD2	2.16	0.46
50:3:334:A:H2	50:3:353:G:H21	1.62	0.46
50:3:962:U:H2'	50:3:963:U:C6	2.51	0.46
50:3:1048:A:H2'	50:3:1049:U:C6	2.51	0.46
50:3:1310:U:H3'	50:3:1311:G:H8	1.80	0.46
50:3:1849:G:H2'	50:3:1850:C:H6	1.80	0.46
50:3:2309:A:H2'	50:3:2310:C:C6	2.51	0.46
50:3:2522:U:H2'	50:3:2523:C:H6	1.80	0.46
50:3:2651:G:C5	50:3:2652:U:C4	3.04	0.46
50:3:2736:U:O2'	50:3:2737:G:O4'	2.34	0.46
50:3:2852:G:H1'	50:3:2872:A:H61	1.81	0.46
52:5:74:U:H2'	52:5:75:A:C8	2.50	0.46
52:5:118:C:H2'	52:5:119:U:O4'	2.16	0.46
52:5:293:G:H22	52:5:295:G:H3'	1.81	0.46
52:5:307:C:H2'	52:5:308:C:N1	2.30	0.46
52:5:446:A:H3'	52:5:447:G:C8	2.49	0.46
52:5:452:A:H2'	52:5:452:A:N3	2.31	0.46
52:5:498:G:H2'	52:5:499:U:C6	2.51	0.46
52:5:966:A:OP2	52:5:1206:G:O2'	2.27	0.46
52:5:980:C:H2'	52:5:981:U:H6	1.81	0.46
52:5:1179:A:H2'	52:5:1180:U:O4'	2.15	0.46
52:5:1377:C:H2'	52:5:1378:C:O4'	2.15	0.46
53:7:38:G:H3'	53:7:39:A:H8	1.81	0.46
53:8:38:G:H3'	53:8:39:A:H8	1.81	0.46
2:1:14:THR:OG1	2:1:18:GLN:O	2.32	0.46
6:C:14:LEU:HD11	6:C:62:TYR:HD2	1.80	0.46
6:C:58:GLN:O	6:C:62:TYR:N	2.37	0.46
6:C:147:LYS:HG3	52:5:488:U:O2'	2.15	0.46
8:E:135:GLY:O	52:5:835:G:O2'	2.27	0.46
9:F:92:GLN:HA	9:F:95:LYS:HD2	1.98	0.46
12:I:59:ARG:O	16:M:45:ARG:NH2	2.49	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:R:14:HIS:O	21:R:18:LYS:HG2	2.15	0.46
25:b:50:THR:HB	25:b:87:MET:CE	2.45	0.46
26:c:9:ILE:HB	26:c:132:LEU:HD22	1.97	0.46
26:c:120:LEU:O	26:c:125:THR:HG21	2.16	0.46
29:f:30:LEU:HD23	29:f:30:LEU:HA	1.73	0.46
50:3:60:G:H2'	50:3:61:U:C6	2.51	0.46
50:3:574:G:N2	50:3:587:U:O2	2.47	0.46
50:3:998:C:H2'	50:3:999:U:H6	1.80	0.46
50:3:1685:G:H2'	50:3:1686:U:C6	2.51	0.46
50:3:1943:A:H4'	50:3:1944:A:C8	2.50	0.46
50:3:2242:G:H2'	50:3:2243:G:H8	1.80	0.46
50:3:2657:C:H2'	50:3:2658:U:H6	1.81	0.46
52:5:319:U:H2'	52:5:320:G:N9	2.29	0.46
52:5:1184:C:O2'	52:5:1189:U:O4	2.34	0.46
52:5:1267:G:N1	52:5:1268:G:C6	2.84	0.46
52:5:1280:A:OP2	52:5:1305:G:N1	2.39	0.46
9:F:101:ARG:HH12	52:5:1351:U:H4'	1.81	0.46
15:L:102:THR:HG21	52:5:1201:C:OP2	2.15	0.46
16:M:3:LYS:HD2	52:5:1040:U:C5	2.51	0.46
22:S:64:ARG:HD2	22:S:67:ARG:NH1	2.31	0.46
24:a:148:HIS:CD2	24:a:199:THR:HB	2.51	0.46
24:a:195:GLU:OE1	50:3:2230:A:H5'	2.15	0.46
26:c:90:VAL:HG21	50:3:707:C:H5''	1.97	0.46
27:d:101:GLU:HA	27:d:104:ILE:HG12	1.98	0.46
28:e:80:ILE:HG23	28:e:84:GLN:HE21	1.79	0.46
34:k:133:LYS:HG3	34:k:134:GLN:HG3	1.98	0.46
35:l:54:ILE:HG23	35:l:58:LEU:HD22	1.98	0.46
36:m:67:LEU:HB2	36:m:75:VAL:HG23	1.98	0.46
37:n:79:ASP:HA	37:n:82:VAL:HG22	1.97	0.46
39:p:111:LYS:HE3	40:q:45:ILE:HG21	1.98	0.46
42:s:53:LEU:N	42:s:84:THR:O	2.49	0.46
49:z:5:ARG:HB3	49:z:22:PHE:CD1	2.51	0.46
50:3:163:A:N3	50:3:2216:U:O2'	2.43	0.46
50:3:188:G:H2'	50:3:189:U:C6	2.51	0.46
50:3:218:G:H21	50:3:220:A:H1'	1.80	0.46
50:3:372:G:H3'	50:3:373:U:H6	1.81	0.46
50:3:472:A:H2'	50:3:473:U:C6	2.50	0.46
50:3:648:G:H3'	50:3:650:G:C8	2.51	0.46
50:3:1135:C:H2'	50:3:1136:U:O4'	2.16	0.46
50:3:1383:G:H2'	50:3:1384:C:H6	1.81	0.46
50:3:1396:A:H2'	50:3:1397:G:H8	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1488:U:H2'	50:3:1489:G:C8	2.51	0.46
50:3:1606:A:H3'	50:3:1607:G:H8	1.81	0.46
50:3:2203:U:H2'	50:3:2204:C:O4'	2.16	0.46
50:3:2407:G:H2'	50:3:2408:G:C8	2.51	0.46
50:3:2842:G:H2'	50:3:2843:G:H8	1.81	0.46
52:5:46:U:H2'	52:5:47:G:C8	2.51	0.46
52:5:82:C:H2'	52:5:83:U:C6	2.51	0.46
52:5:380:G:H2'	52:5:381:C:C6	2.50	0.46
52:5:624:U:H2'	52:5:625:U:C6	2.51	0.46
52:5:692:A:C2	52:5:784:A:H4'	2.50	0.46
52:5:706:U:H2'	52:5:707:G:C8	2.51	0.46
52:5:783:G:C2	52:5:784:A:H1'	2.51	0.46
52:5:822:A:H2'	52:5:823:C:C6	2.51	0.46
52:5:950:C:H2'	52:5:951:U:C6	2.50	0.46
53:8:41:C:H2'	53:8:42:C:C6	2.51	0.46
3:2:4:ARG:NH1	50:3:2485:U:O2	2.41	0.45
4:A:104:ASP:OD1	4:A:104:ASP:N	2.49	0.45
5:B:154:VAL:HG22	5:B:203:VAL:HG12	1.98	0.45
13:J:68:LYS:HD3	13:J:68:LYS:HA	1.76	0.45
14:K:132:ALA:O	52:5:37:C:H4'	2.15	0.45
17:N:18:ASP:OD1	17:N:18:ASP:N	2.48	0.45
26:c:123:ASP:N	26:c:123:ASP:OD1	2.48	0.45
27:d:155:THR:HG21	50:3:2322:G:H1'	1.98	0.45
41:r:116:GLU:OE2	41:r:120:GLN:NE2	2.49	0.45
50:3:1530:G:C6	50:3:1531:C:C4	3.03	0.45
50:3:1743:U:H2'	50:3:1744:U:C6	2.51	0.45
50:3:2096:U:O2	50:3:2238:G:C6	2.69	0.45
50:3:2155:G:H8	50:3:2155:G:O5'	1.99	0.45
50:3:2522:U:H2'	50:3:2523:C:C6	2.50	0.45
50:3:2546:U:H2'	50:3:2547:C:C6	2.51	0.45
50:3:2816:A:H2'	50:3:2817:G:C8	2.51	0.45
51:4:3:U:H2'	51:4:4:G:C8	2.50	0.45
51:4:104:C:H2'	51:4:105:A:C8	2.51	0.45
52:5:211:G:H2'	52:5:212:G:O4'	2.15	0.45
52:5:317:A:O2'	52:5:318:C:H5'	2.16	0.45
52:5:450:U:H3'	52:5:451:G:C8	2.50	0.45
52:5:457:A:H2'	52:5:458:G:H8	1.80	0.45
52:5:499:U:H2'	52:5:500:G:H8	1.81	0.45
52:5:744:U:H4'	52:5:745:U:C5	2.50	0.45
52:5:1283:G:H2'	52:5:1284:A:C8	2.50	0.45
2:1:22:LYS:HG3	34:k:65:PHE:CZ	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:94:LYS:HD2	4:A:94:LYS:HA	1.80	0.45
10:G:21:LYS:HG3	10:G:35:THR:HG22	1.98	0.45
15:L:83:ILE:O	15:L:92:ARG:NH1	2.50	0.45
23:T:17:LYS:HA	23:T:17:LYS:HD2	1.78	0.45
24:a:160:ILE:HG23	50:3:1806:G:C2	2.51	0.45
26:c:141:LYS:HB2	50:3:354:C:H5	1.81	0.45
26:c:145:GLN:HG2	26:c:148:LYS:HE3	1.98	0.45
30:g:93:LEU:HB3	30:g:127:ALA:HA	1.98	0.45
38:o:76:GLU:N	38:o:76:GLU:OE1	2.49	0.45
39:p:73:MET:HE1	39:p:78:PHE:HB2	1.98	0.45
50:3:124:A:H2'	50:3:125:G:O4'	2.16	0.45
50:3:137:U:H2'	50:3:138:U:H6	1.81	0.45
50:3:335:G:O2'	50:3:336:C:O5'	2.30	0.45
50:3:503:G:H2'	50:3:504:G:O4'	2.16	0.45
50:3:580:U:H2'	50:3:1250:A:H3'	1.99	0.45
50:3:893:A:O2'	50:3:894:G:H5'	2.16	0.45
50:3:1263:G:C5	50:3:1264:U:C5	3.04	0.45
50:3:1476:C:H4'	50:3:1554:A:C2	2.52	0.45
50:3:1492:G:H5''	50:3:1493:A:H5'	1.98	0.45
50:3:1863:G:N1	50:3:1894:U:C2	2.85	0.45
50:3:2706:U:H2'	50:3:2707:A:H8	1.80	0.45
50:3:2713:A:H2'	50:3:2714:G:O4'	2.16	0.45
50:3:2814:A:N1	50:3:2894:G:O2'	2.35	0.45
52:5:97:G:H22	52:5:311:A:H2	1.64	0.45
52:5:332:A:H2'	52:5:333:U:O4'	2.16	0.45
52:5:416:U:H3'	52:5:417:U:H4'	1.99	0.45
52:5:428:A:C4	52:5:429:A:C8	3.04	0.45
52:5:1069:U:H3'	52:5:1070:G:C8	2.52	0.45
52:5:1139:A:H2'	52:5:1140:A:H8	1.81	0.45
52:5:1205:C:H2'	52:5:1206:G:C8	2.51	0.45
52:5:1244:A:H2'	52:5:1287:G:H1'	1.98	0.45
52:5:1432:A:H2'	52:5:1433:G:H8	1.79	0.45
4:A:202:CYS:SG	4:A:214:ILE:HA	2.57	0.45
6:C:127:ARG:HH12	52:5:617:U:H5''	1.82	0.45
15:L:87:ARG:HH11	15:L:98:ARG:HH22	1.64	0.45
23:T:39:GLY:HA3	52:5:1502:G:OP2	2.16	0.45
26:c:8:LYS:HB2	26:c:10:ASP:OD2	2.16	0.45
26:c:181:LYS:HG3	26:c:185:LYS:HB2	1.99	0.45
27:d:5:LYS:HB2	27:d:97:TRP:CD2	2.52	0.45
35:l:126:PRO:HA	50:3:2493:G:O3'	2.16	0.45
40:q:2:HIS:HA	40:q:15:HIS:HA	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:w:63:LEU:HB2	46:w:66:GLN:HG2	1.97	0.45
50:3:111:G:H2'	50:3:112:A:C8	2.52	0.45
50:3:124:A:H3'	50:3:125:G:H8	1.81	0.45
50:3:166:A:H2'	50:3:167:A:H8	1.80	0.45
50:3:604:A:H61	50:3:2508:U:P	2.39	0.45
50:3:641:U:C2	50:3:657:A:N7	2.85	0.45
50:3:747:A:H2'	50:3:748:G:O4'	2.16	0.45
50:3:849:C:O2'	50:3:1255:G:N2	2.49	0.45
50:3:1397:G:H21	50:3:1817:A:H2	1.63	0.45
50:3:2355:C:H2'	50:3:2356:U:H6	1.81	0.45
50:3:2705:G:H2'	50:3:2706:U:H6	1.81	0.45
52:5:40:G:C6	52:5:400:G:C5	3.04	0.45
52:5:825:A:N6	52:5:853:A:N7	2.65	0.45
52:5:872:C:H2'	52:5:873:U:C6	2.51	0.45
52:5:1190:G:C2	52:5:1191:U:H1'	2.51	0.45
53:7:41:C:H2'	53:7:42:C:C6	2.51	0.45
4:A:111:ARG:HH12	4:A:187:ALA:N	2.14	0.45
5:B:198:VAL:HG21	52:5:1179:A:N3	2.31	0.45
7:D:79:THR:HB	52:5:1373:A:N1	2.31	0.45
13:J:15:HIS:HB3	13:J:80:LYS:NZ	2.32	0.45
13:J:42:THR:HA	52:5:685:G:O5'	2.16	0.45
14:K:121:GLU:C	14:K:123:ARG:H	2.24	0.45
19:P:21:THR:HG22	19:P:48:HIS:HA	1.98	0.45
22:S:52:ASP:OD1	52:5:196:G:H1'	2.17	0.45
27:d:131:GLY:HA2	27:d:152:PHE:O	2.17	0.45
31:h:43:THR:O	31:h:47:GLN:N	2.49	0.45
40:q:72:LYS:HB3	40:q:79:HIS:CE1	2.51	0.45
43:t:71:LEU:HA	43:t:74:LEU:HD12	1.98	0.45
43:t:91:TYR:HB2	50:3:332:G:OP2	2.17	0.45
45:v:20:HIS:ND1	50:3:2087:G:OP1	2.49	0.45
50:3:444:C:H2'	50:3:445:C:C6	2.51	0.45
50:3:608:A:O2'	50:3:2509:C:OP1	2.23	0.45
50:3:614:C:H2'	50:3:615:G:C8	2.52	0.45
50:3:633:G:O6	50:3:692:U:C4	2.69	0.45
50:3:692:U:H2'	50:3:693:U:O4'	2.16	0.45
50:3:1091:G:N3	50:3:1139:C:N4	2.64	0.45
50:3:1094:G:C6	50:3:1115:G:C6	3.05	0.45
50:3:1288:C:H2'	50:3:1289:G:C8	2.51	0.45
50:3:1362:C:H2'	50:3:1363:C:C6	2.51	0.45
50:3:1392:G:O2'	50:3:1815:U:O4	2.35	0.45
50:3:1610:U:H2'	50:3:1611:C:C6	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1672:C:H1'	50:3:2706:U:H1'	1.99	0.45
50:3:1776:G:C2	50:3:1777:G:N7	2.85	0.45
50:3:1928:G:H2'	50:3:1929:G:C8	2.49	0.45
50:3:2073:C:H2'	50:3:2074:G:C8	2.52	0.45
50:3:2267:G:H2'	50:3:2268:C:C6	2.52	0.45
50:3:2531:C:H2'	50:3:2532:G:H8	1.80	0.45
52:5:109:G:H2'	52:5:110:U:O4'	2.16	0.45
52:5:1323:A:H3'	52:5:1324:A:C8	2.50	0.45
52:5:1354:G:H2'	52:5:1355:U:C6	2.51	0.45
52:5:1394:G:N2	52:5:1456:U:O2	2.38	0.45
53:7:16:G:OP2	53:7:16:G:H8	1.99	0.45
53:7:29:C:H2'	53:7:30:G:C8	2.49	0.45
20:Q:43:PHE:HB2	20:Q:82:HIS:CG	2.52	0.45
25:b:25:PRO:HB3	50:3:2690:U:N3	2.31	0.45
26:c:59:ARG:NH1	50:3:488:G:N7	2.65	0.45
28:e:36:LEU:HD11	28:e:78:ALA:HB2	1.99	0.45
28:e:152:ARG:CZ	28:e:165:VAL:HG23	2.47	0.45
42:s:24:THR:HG23	42:s:26:LYS:HG3	1.99	0.45
46:w:10:LYS:HE2	46:w:12:SER:HB2	1.97	0.45
50:3:163:A:N7	50:3:169:U:C2	2.85	0.45
50:3:381:A:H2'	50:3:382:U:C6	2.50	0.45
50:3:519:A:OP2	50:3:520:C:N4	2.42	0.45
50:3:664:G:C6	50:3:672:G:C2	3.03	0.45
50:3:1881:C:H3'	50:3:1882:G:C8	2.52	0.45
50:3:1994:U:H2'	50:3:1995:G:C8	2.51	0.45
50:3:2197:U:H2'	50:3:2198:G:C8	2.51	0.45
50:3:2539:A:C2	50:3:2667:G:H1'	2.52	0.45
51:4:7:G:N7	51:4:8:C:N4	2.65	0.45
51:4:59:A:H2'	51:4:60:C:C6	2.51	0.45
52:5:18:U:H2'	52:5:19:C:C6	2.51	0.45
52:5:447:G:H5'	52:5:449:A:C2	2.52	0.45
52:5:593:A:N6	52:5:638:A:H2'	2.32	0.45
52:5:611:A:H2'	52:5:612:G:C8	2.51	0.45
52:5:1062:C:H41	52:5:1076:U:H5	1.64	0.45
52:5:1220:A:C6	52:5:1267:G:C6	3.04	0.45
7:D:152:LYS:HB3	7:D:152:LYS:HE2	1.68	0.45
14:K:99:ARG:NH2	14:K:100:VAL:O	2.49	0.45
24:a:171:LEU:HD11	24:a:183:GLN:HB2	1.98	0.45
25:b:115:LYS:HB2	25:b:200:PRO:HG3	1.97	0.45
26:c:106:LYS:HB2	50:3:640:U:OP1	2.17	0.45
34:k:42:ARG:HD2	50:3:841:C:N4	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:m:31:ILE:HB	36:m:116:LEU:HG	1.97	0.45
41:r:77:ASN:OD1	50:3:25:G:N2	2.35	0.45
45:v:14:TYR:CE1	45:v:28:LYS:HG3	2.52	0.45
50:3:29:G:H1'	50:3:30:A:N7	2.31	0.45
50:3:323:A:H2'	50:3:324:C:C6	2.51	0.45
50:3:718:U:H2'	50:3:719:G:O4'	2.17	0.45
50:3:766:C:H2'	50:3:767:C:C6	2.52	0.45
50:3:891:G:C6	50:3:960:A:C6	3.05	0.45
50:3:918:G:O6	50:3:932:U:O2'	2.29	0.45
50:3:1739:G:H2'	50:3:1740:U:C6	2.52	0.45
50:3:1879:A:H2'	50:3:1880:G:O4'	2.17	0.45
50:3:2034:G:H2'	50:3:2035:U:C6	2.52	0.45
50:3:2316:G:O2'	50:3:2317:A:OP1	2.33	0.45
50:3:2472:G:H2'	50:3:2473:C:H6	1.80	0.45
50:3:2543:G:H2'	50:3:2543:G:N3	2.31	0.45
50:3:2831:U:H2'	50:3:2832:G:C8	2.52	0.45
51:4:55:A:H3'	51:4:56:A:H8	1.81	0.45
52:5:376:G:N2	52:5:379:A:OP2	2.48	0.45
52:5:771:G:H3'	52:5:772:G:C8	2.52	0.45
52:5:889:U:H2'	52:5:890:U:C6	2.51	0.45
52:5:1086:U:OP1	52:5:1099:G:N1	2.44	0.45
52:5:1218:C:H2'	52:5:1219:C:C6	2.51	0.45
52:5:1313:A:H1'	53:7:42:C:H1'	1.99	0.45
52:5:1316:C:H2'	52:5:1317:A:N7	2.32	0.45
2:1:4:LYS:NZ	50:3:256:G:H5''	2.32	0.45
5:B:11:ARG:H	5:B:16:LYS:HD2	1.81	0.45
6:C:145:LYS:O	6:C:147:LYS:N	2.50	0.45
6:C:202:ARG:H	6:C:202:ARG:HD3	1.80	0.45
11:H:13:LYS:HZ2	11:H:113:LYS:H	1.65	0.45
14:K:69:ARG:HA	14:K:75:GLU:HA	1.98	0.45
14:K:83:GLU:HA	52:5:519:G:H4'	1.99	0.45
15:L:27:LEU:HD12	15:L:28:SER:N	2.32	0.45
20:Q:91:LYS:HE3	52:5:732:A:OP1	2.17	0.45
26:c:112:LEU:HA	26:c:115:VAL:HG12	1.98	0.45
26:c:175:ILE:HB	26:c:178:VAL:HG22	1.97	0.45
32:i:104:VAL:O	32:i:108:VAL:HG12	2.17	0.45
33:j:12:ASP:N	33:j:12:ASP:OD1	2.49	0.45
34:k:135:ALA:O	34:k:139:VAL:HG23	2.17	0.45
35:l:44:ALA:HA	35:l:47:ILE:HB	1.98	0.45
35:l:109:ILE:HD13	35:l:113:GLN:HG2	1.98	0.45
39:p:27:ARG:NH2	50:3:2026:A:O2'	2.50	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:u:43:GLN:H	44:u:43:GLN:CD	2.25	0.45
50:3:39:C:C5'	50:3:487:C:H5''	2.47	0.45
50:3:123:G:H2'	50:3:124:A:H8	1.81	0.45
50:3:159:G:H2'	50:3:160:A:H8	1.80	0.45
50:3:193:G:H1	50:3:209:G:HO2'	1.64	0.45
50:3:224:G:N1	50:3:464:A:OP2	2.50	0.45
50:3:269:A:C8	50:3:464:A:N7	2.85	0.45
50:3:307:C:H2'	50:3:308:A:H8	1.79	0.45
50:3:623:A:H2'	50:3:624:U:C6	2.51	0.45
50:3:744:U:H2'	50:3:745:U:C6	2.51	0.45
50:3:799:A:N7	50:3:1783:G:H1'	2.31	0.45
50:3:990:G:O6	50:3:999:U:O4	2.34	0.45
50:3:1079:U:O2'	50:3:1082:A:O2'	2.35	0.45
50:3:1164:A:N6	50:3:2499:U:OP1	2.50	0.45
50:3:1248:A:N1	50:3:1262:G:C6	2.85	0.45
50:3:1441:A:H2'	50:3:1442:G:C8	2.51	0.45
50:3:2134:G:H2'	50:3:2135:C:H6	1.82	0.45
50:3:2277:A:H2'	50:3:2278:G:H8	1.82	0.45
50:3:2349:G:H2'	50:3:2350:C:O4'	2.17	0.45
50:3:2776:U:C2	50:3:2777:A:C8	3.05	0.45
50:3:2797:C:O2	50:3:2895:A:O2'	2.31	0.45
51:4:30:U:C2	51:4:49:G:N2	2.85	0.45
52:5:238:U:O2	52:5:280:G:N2	2.47	0.45
52:5:435:U:H2'	52:5:492:G:O6	2.17	0.45
52:5:1088:C:H1'	52:5:1145:A:H1'	1.97	0.45
52:5:1100:C:C4	52:5:1101:A:C5	3.05	0.45
52:5:1482:A:H2'	52:5:1483:C:O4'	2.17	0.45
2:1:47:VAL:HG22	2:1:51:ASP:OD1	2.17	0.45
4:A:92:VAL:HA	4:A:95:LEU:HB2	1.98	0.45
5:B:19:ILE:H	5:B:19:ILE:HD12	1.82	0.45
6:C:75:PHE:O	6:C:79:LEU:HG	2.16	0.45
7:D:133:LYS:O	7:D:156:GLN:NE2	2.50	0.45
10:G:11:HIS:CD2	10:G:12:PHE:H	2.34	0.45
11:H:23:PRO:HA	11:H:63:PHE:HA	1.99	0.45
11:H:38:SER:HA	11:H:43:ASN:HB3	1.98	0.45
12:I:47:PRO:HA	12:I:78:ARG:HG3	1.98	0.45
14:K:44:ARG:HG2	52:5:359:A:H5'	1.98	0.45
14:K:55:PRO:HG3	14:K:61:ALA:H	1.82	0.45
17:N:72:LEU:O	17:N:76:ARG:HG2	2.17	0.45
19:P:77:ILE:HG22	19:P:80:ILE:HD11	1.98	0.45
24:a:228:VAL:HG21	50:3:817:A:H2'	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:k:23:GLY:HA3	34:k:26:SER:OG	2.17	0.45
34:k:77:TRP:CZ3	34:k:111:PRO:HB2	2.52	0.45
34:k:133:LYS:HZ1	50:3:674:G:H5'	1.82	0.45
48:y:7:ARG:HB2	50:3:1293:U:O2'	2.17	0.45
50:3:306:G:O6	50:3:398:C:N4	2.36	0.45
50:3:408:G:O2'	50:3:459:A:H3'	2.17	0.45
50:3:695:G:H2'	50:3:696:U:C6	2.52	0.45
50:3:1006:U:H2'	50:3:1007:C:C6	2.51	0.45
50:3:1086:G:H5''	50:3:2760:C:C2	2.52	0.45
50:3:1166:G:H1'	50:3:1168:A:H62	1.81	0.45
50:3:1543:U:H2'	50:3:1544:G:H8	1.82	0.45
50:3:1737:G:O2'	52:5:1404:U:O2'	2.30	0.45
50:3:1752:A:C8	50:3:1753:G:C8	3.05	0.45
50:3:1760:G:N2	50:3:1762:A:H3'	2.32	0.45
50:3:1777:G:O2'	50:3:1778:G:H5'	2.16	0.45
50:3:1840:C:O2'	50:3:1976:A:N1	2.49	0.45
50:3:1904:G:H2'	50:3:1905:U:O4'	2.15	0.45
50:3:2414:U:P	50:3:2419:A:H61	2.40	0.45
50:3:2739:C:O2'	50:3:2740:U:H5'	2.17	0.45
50:3:2764:U:H4'	50:3:2765:A:OP1	2.17	0.45
50:3:2826:G:O2'	50:3:2829:G:N2	2.33	0.45
52:5:94:A:C8	52:5:322:G:H2'	2.52	0.45
52:5:264:C:H2'	52:5:265:U:C6	2.52	0.45
52:5:362:U:H1'	52:5:390:G:H22	1.81	0.45
52:5:369:A:H5''	52:5:477:U:O2'	2.17	0.45
52:5:661:G:H2'	52:5:663:G:OP1	2.17	0.45
52:5:972:A:H1'	52:5:1198:C:C4	2.51	0.45
52:5:1302:C:H2'	52:5:1303:A:H8	1.81	0.45
53:7:13:U:C2	53:7:25:G:C2	3.05	0.45
53:7:75:C:H3'	53:7:76:C:O4'	2.16	0.45
3:2:36:GLN:CD	50:3:1160:G:H5'	2.41	0.45
5:B:18:TRP:HB2	5:B:21:ARG:HB3	1.99	0.45
8:E:110:GLN:HB2	8:E:114:LYS:HZ3	1.81	0.45
9:F:30:MET:HE1	9:F:35:LYS:HG2	1.98	0.45
10:G:106:LEU:HD13	10:G:109:ASN:HA	1.99	0.45
12:I:90:ILE:O	12:I:94:LYS:HG2	2.17	0.45
14:K:30:LEU:C	14:K:32:ASN:H	2.25	0.45
19:P:23:THR:HB	19:P:44:LYS:NZ	2.32	0.45
24:a:72:LYS:NZ	50:3:2213:A:H5''	2.32	0.45
26:c:43:ALA:HB1	26:c:100:SER:HA	1.99	0.45
27:d:69:LYS:HB3	27:d:84:LEU:HD23	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:73:SER:HB3	35:l:90:PRO:HB3	1.99	0.45
36:m:54:VAL:HB	36:m:59:ASN:ND2	2.32	0.45
38:o:60:ILE:HA	38:o:82:HIS:CE1	2.52	0.45
40:q:76:GLN:HG3	50:3:598:G:OP2	2.16	0.45
50:3:716:G:H2'	50:3:717:U:C6	2.52	0.45
50:3:720:A:H61	50:3:813:G:H1'	1.82	0.45
50:3:729:U:O2	50:3:803:G:N2	2.45	0.45
50:3:977:A:H2	50:3:1220:A:H2	1.65	0.45
50:3:1363:C:H2'	50:3:1364:A:H8	1.82	0.45
50:3:1774:G:H2'	50:3:1775:G:H8	1.82	0.45
50:3:1793:A:H62	50:3:1990:C:H1'	1.82	0.45
50:3:1992:C:H2'	50:3:1993:U:C6	2.52	0.45
50:3:2374:A:H3'	50:3:2375:A:C8	2.52	0.45
50:3:2480:G:H21	50:3:2537:G:H1	1.65	0.45
50:3:2529:C:C2	50:3:2553:G:N2	2.85	0.45
50:3:2536:U:C2	50:3:2543:G:O6	2.70	0.45
52:5:425:G:C4	52:5:427:A:C6	3.05	0.45
52:5:787:A:H2'	52:5:788:G:C8	2.52	0.45
52:5:836:C:H2'	52:5:837:G:O4'	2.17	0.45
5:B:191:LYS:HZ1	52:5:1048:G:H21	1.64	0.45
8:E:22:ASN:OD1	8:E:60:TRP:HH2	2.00	0.45
22:S:23:GLY:O	22:S:27:LYS:NZ	2.43	0.45
32:i:44:LYS:HB3	32:i:46:ASP:OD1	2.15	0.45
32:i:106:ASN:CG	32:i:109:LYS:HE3	2.42	0.45
34:k:54:GLY:HA3	50:3:861:U:O2'	2.17	0.45
38:o:91:LYS:HB2	38:o:91:LYS:HE3	1.74	0.45
39:p:81:LEU:HD13	39:p:112:VAL:HB	1.98	0.45
40:q:34:GLN:NE2	40:q:54:ARG:HD2	2.32	0.45
44:u:24:THR:OG1	44:u:25:LYS:N	2.50	0.45
46:w:68:GLU:HB2	50:3:138:U:H5'	1.97	0.45
48:y:10:LYS:HD2	50:3:552:C:OP1	2.17	0.45
50:3:57:G:H2'	50:3:58:A:C8	2.52	0.45
50:3:65:A:H62	50:3:93:A:N6	2.15	0.45
50:3:597:C:O2'	50:3:1283:A:N6	2.29	0.45
50:3:670:G:H2'	50:3:671:C:C6	2.51	0.45
50:3:810:G:H21	50:3:828:A:H1'	1.82	0.45
50:3:812:G:H2'	50:3:813:G:C8	2.48	0.45
50:3:1703:A:H5''	50:3:1704:C:OP2	2.16	0.45
50:3:1834:U:H2'	50:3:1835:G:H5'	1.99	0.45
50:3:2247:G:H2'	50:3:2248:C:C6	2.52	0.45
50:3:2523:C:H2'	50:3:2524:U:H6	1.82	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2654:U:H2'	50:3:2655:U:O4'	2.17	0.45
50:3:2799:U:P	50:3:2896:G:H21	2.40	0.45
52:5:82:C:H2'	52:5:83:U:C5	2.51	0.45
52:5:206:G:N2	52:5:209:A:OP2	2.21	0.45
52:5:232:G:H2'	52:5:233:C:O4'	2.17	0.45
52:5:537:A:H2'	52:5:538:G:C8	2.52	0.45
52:5:970:A:H8	52:5:1331:A:HO2'	1.64	0.45
52:5:1404:U:C4	52:5:1405:U:C4	3.05	0.45
6:C:73:ARG:HH22	52:5:398:G:H5'	1.81	0.44
9:F:12:LEU:HD12	9:F:13:PRO:HD2	1.98	0.44
10:G:56:ASN:HD22	10:G:73:ASN:HD22	1.64	0.44
16:M:24:CYS:HB2	16:M:40:CYS:HB2	1.99	0.44
17:N:8:ILE:HD11	17:N:27:SER:HB2	1.99	0.44
18:O:21:LYS:HD2	52:5:306:G:OP1	2.17	0.44
18:O:24:GLY:HA2	52:5:306:G:OP1	2.17	0.44
21:R:32:LYS:HZ3	21:R:34:TRP:HE1	1.64	0.44
24:a:20:ILE:HB	24:a:22:TYR:CE1	2.52	0.44
24:a:120:LYS:HD2	24:a:120:LYS:HA	1.69	0.44
29:f:69:LYS:HE3	29:f:136:ALA:HA	1.99	0.44
33:j:22:ILE:HD13	33:j:42:SER:HB2	1.99	0.44
45:v:15:GLY:O	45:v:26:ARG:NH2	2.50	0.44
50:3:524:G:N2	50:3:526:G:H3'	2.32	0.44
50:3:955:A:OP2	50:3:2276:A:N6	2.48	0.44
50:3:1443:A:H2	50:3:1621:U:H3	1.64	0.44
50:3:2058:G:H2'	50:3:2622:A:N6	2.31	0.44
50:3:2102:U:H2'	50:3:2103:C:H6	1.82	0.44
50:3:2292:A:H1'	50:3:2333:G:C6	2.53	0.44
50:3:2455:G:N7	50:3:2508:U:H2'	2.32	0.44
50:3:2738:U:C2	50:3:2739:C:C5	3.04	0.44
52:5:305:A:C2	52:5:306:G:C5	3.05	0.44
52:5:397:C:H2'	52:5:398:G:C8	2.52	0.44
52:5:1075:G:H1'	52:5:1094:C:H41	1.81	0.44
53:8:16:G:H8	53:8:16:G:OP2	1.99	0.44
3:2:24:ARG:HH22	50:3:2750:A:P	2.39	0.44
5:B:57:GLU:HG3	5:B:59:GLU:OE1	2.17	0.44
11:H:113:LYS:NZ	52:5:1347:U:O4	2.44	0.44
13:J:34:VAL:HG22	52:5:681:U:O2	2.17	0.44
23:T:37:ARG:HG2	52:5:1501:G:OP2	2.17	0.44
24:a:215:LYS:NZ	50:3:799:A:OP1	2.47	0.44
25:b:1:MET:HE2	25:b:1:MET:N	2.32	0.44
25:b:46:LYS:NZ	50:3:2791:U:O3'	2.43	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:d:96:MET:HB2	27:d:97:TRP:CE3	2.52	0.44
28:e:92:LEU:HD13	28:e:165:VAL:HG12	1.99	0.44
28:e:160:TYR:CD2	50:3:2539:A:H4'	2.53	0.44
30:g:33:SER:HA	50:3:1090:G:O3'	2.17	0.44
42:s:24:THR:OG1	42:s:85:LEU:O	2.32	0.44
50:3:352:C:H2'	50:3:353:G:C8	2.52	0.44
50:3:515:A:H62	50:3:544:U:H3	1.63	0.44
50:3:676:U:H2'	50:3:677:U:C6	2.52	0.44
50:3:769:A:H4'	50:3:1669:A:H4'	1.98	0.44
50:3:1125:U:H2'	50:3:1126:G:C8	2.53	0.44
50:3:1243:A:H2'	50:3:1244:A:H8	1.83	0.44
50:3:1264:U:H3'	50:3:1265:G:C8	2.52	0.44
50:3:1429:G:H2'	50:3:1430:U:C6	2.52	0.44
50:3:1432:C:H2'	50:3:1433:U:H6	1.82	0.44
50:3:1766:A:N6	50:3:2705:G:H1'	2.32	0.44
50:3:1786:U:H5''	50:3:1787:A:H5''	1.98	0.44
50:3:2007:U:H2'	50:3:2008:A:C8	2.52	0.44
50:3:2657:C:H2'	50:3:2658:U:C6	2.52	0.44
50:3:2855:A:H2'	50:3:2856:G:O4'	2.18	0.44
51:4:32:G:N7	51:4:42:G:O2'	2.49	0.44
52:5:136:U:O2	52:5:158:A:N6	2.50	0.44
52:5:461:G:H2'	52:5:462:G:O4'	2.17	0.44
52:5:829:G:C5	52:5:849:A:C6	3.05	0.44
52:5:839:U:OP2	52:5:840:C:N4	2.49	0.44
52:5:1075:G:OP2	52:5:1076:U:O2'	2.26	0.44
52:5:1391:A:H3'	52:5:1392:A:H8	1.83	0.44
52:5:1454:G:H2'	52:5:1455:G:H8	1.81	0.44
53:8:13:U:C2	53:8:25:G:C2	3.05	0.44
53:8:75:C:H3'	53:8:76:C:O4'	2.16	0.44
1:0:32:LYS:HG2	1:0:33:LEU:HD23	1.99	0.44
6:C:131:THR:HB	52:5:617:U:H3	1.81	0.44
7:D:66:PHE:HA	7:D:95:GLY:O	2.16	0.44
8:E:5:ILE:HB	8:E:60:TRP:HB2	1.99	0.44
11:H:31:THR:OG1	11:H:66:ASN:HA	2.18	0.44
11:H:131:LYS:HB3	11:H:131:LYS:HE2	1.72	0.44
12:I:48:LEU:O	12:I:50:THR:HG23	2.17	0.44
19:P:5:GLN:H	52:5:113:C:H5''	1.81	0.44
21:R:41:PHE:O	21:R:45:VAL:HG23	2.18	0.44
21:R:55:LYS:HB2	52:5:953:A:N1	2.31	0.44
24:a:235:PRO:HG2	50:3:819:U:H5	1.82	0.44
26:c:141:LYS:HB2	50:3:354:C:C5	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:115:ILE:HA	35:l:118:LEU:HG	1.99	0.44
43:t:90:LYS:HD2	43:t:105:LYS:HG2	1.99	0.44
50:3:417:G:C2	50:3:432:G:C5	3.06	0.44
50:3:889:G:H2'	50:3:890:U:H6	1.81	0.44
50:3:1141:U:C2	50:3:1142:G:C8	3.05	0.44
50:3:1197:G:H2'	50:3:1198:G:C8	2.51	0.44
50:3:1296:G:N2	50:3:2020:A:OP2	2.48	0.44
50:3:2129:U:H2'	50:3:2130:A:C8	2.52	0.44
50:3:2149:U:N3	50:3:2157:A:H2	2.15	0.44
50:3:2562:U:H2'	50:3:2564:C:C5	2.52	0.44
50:3:2825:A:H2	50:3:2830:A:H61	1.63	0.44
50:3:2850:G:H2'	50:3:2851:U:C6	2.52	0.44
51:4:41:C:C2	51:4:43:A:C8	3.06	0.44
52:5:234:G:O2'	52:5:235:C:H5'	2.17	0.44
52:5:439:U:H2'	52:5:440:U:C5	2.52	0.44
52:5:930:A:H2'	52:5:931:C:H6	1.83	0.44
52:5:957:C:H2'	52:5:958:G:H8	1.83	0.44
52:5:1150:G:H2'	52:5:1151:A:C8	2.52	0.44
2:1:23:HIS:ND1	2:1:43:LYS:O	2.50	0.44
2:1:29:LEU:HD12	50:3:2399:G:H3'	2.00	0.44
3:2:8:LYS:HE2	3:2:8:LYS:HB2	1.83	0.44
10:G:85:ASN:H	10:G:142:TRP:C	2.26	0.44
11:H:7:TYR:OH	11:H:18:LYS:HG2	2.17	0.44
11:H:115:ARG:HB3	52:5:1344:C:OP1	2.18	0.44
24:a:281:ASN:O	24:a:283:LYS:N	2.50	0.44
33:j:77:LEU:HA	38:o:77:LYS:HE3	1.99	0.44
33:j:97:ARG:HH12	52:5:335:C:P	2.41	0.44
41:r:49:LYS:HD2	41:r:49:LYS:HA	1.74	0.44
50:3:82:G:H2'	50:3:83:G:C8	2.50	0.44
50:3:119:A:H5'	50:3:120:A:C8	2.52	0.44
50:3:1305:G:H2'	50:3:1306:G:C8	2.53	0.44
50:3:1427:C:H2'	50:3:1428:U:C6	2.52	0.44
50:3:1756:A:H2'	50:3:1757:G:C8	2.53	0.44
50:3:1863:G:N1	50:3:1894:U:N3	2.66	0.44
50:3:1877:C:H3'	50:3:1878:A:C2	2.52	0.44
50:3:1950:U:H4'	50:3:1951:A:H3'	1.99	0.44
50:3:2035:U:C2	50:3:2040:A:N7	2.85	0.44
50:3:2089:A:H61	50:3:2245:G:C2'	2.31	0.44
50:3:2483:C:C4	50:3:2537:G:N2	2.86	0.44
50:3:2700:C:H2'	50:3:2701:A:H8	1.83	0.44
52:5:101:A:H2'	52:5:102:G:O4'	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:214:U:H2'	52:5:215:C:C6	2.51	0.44
52:5:371:U:H3'	52:5:372:G:C8	2.52	0.44
52:5:546:G:H2'	52:5:547:C:C5	2.52	0.44
52:5:762:G:N1	52:5:809:G:O2'	2.28	0.44
52:5:922:G:N2	52:5:1365:U:O2	2.41	0.44
52:5:983:G:H2'	52:5:984:A:C8	2.52	0.44
52:5:1166:A:H2'	52:5:1167:C:C6	2.51	0.44
52:5:1280:A:H8	52:5:1305:G:N2	2.14	0.44
52:5:1322:U:H2'	52:5:1323:A:C8	2.53	0.44
52:5:1483:C:H2'	52:5:1484:C:H6	1.82	0.44
1:0:9:LYS:HG2	50:3:1337:G:OP1	2.17	0.44
1:0:29:LYS:O	1:0:33:LEU:HG	2.18	0.44
2:1:4:LYS:NZ	50:3:256:G:OP2	2.37	0.44
4:A:30:VAL:HG12	4:A:56:PHE:N	2.30	0.44
4:A:36:TYR:O	4:A:204:THR:HG23	2.17	0.44
8:E:75:THR:HA	8:E:78:ILE:HG12	1.99	0.44
9:F:8:LYS:HB3	52:5:1352:A:N7	2.32	0.44
9:F:49:ILE:HG23	9:F:124:ILE:HD11	1.99	0.44
10:G:24:ASN:ND2	52:5:823:C:O2	2.50	0.44
10:G:48:LEU:HD11	10:G:141:VAL:HG11	1.98	0.44
14:K:112:ARG:O	14:K:114:THR:HG23	2.18	0.44
15:L:53:PHE:O	15:L:57:ARG:HG2	2.17	0.44
18:O:64:ARG:HH11	18:O:67:PHE:HE2	1.66	0.44
20:Q:83:GLN:HE21	52:5:718:A:P	2.40	0.44
25:b:97:THR:OG1	25:b:100:ASN:OD1	2.35	0.44
26:c:5:LYS:H	26:c:126:HIS:CE1	2.35	0.44
33:j:86:LEU:HB3	33:j:94:ARG:HH11	1.82	0.44
34:k:115:ILE:HD11	50:3:672:G:C4	2.52	0.44
35:l:65:TRP:HE3	35:l:105:GLU:HG3	1.82	0.44
37:n:101:ARG:O	37:n:105:LEU:HD23	2.17	0.44
40:q:73:HIS:HB2	40:q:80:LEU:HA	2.00	0.44
48:y:47:MET:HB3	48:y:52:ARG:HA	1.99	0.44
50:3:230:G:O6	50:3:454:G:N2	2.51	0.44
50:3:526:G:H2'	50:3:527:A:O4'	2.18	0.44
50:3:823:A:OP2	50:3:823:A:H8	2.01	0.44
50:3:869:U:O2'	50:3:2366:A:H1'	2.18	0.44
50:3:894:G:N3	50:3:2276:A:H2'	2.33	0.44
50:3:1106:G:O2'	50:3:1124:G:H2'	2.18	0.44
50:3:1107:C:H5'	50:3:1124:G:OP2	2.17	0.44
50:3:1605:A:H2'	50:3:1606:A:O4'	2.18	0.44
50:3:1608:C:H2'	50:3:1609:U:C6	2.53	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1784:U:H2'	50:3:1785:U:O4'	2.17	0.44
50:3:2085:C:H2'	50:3:2086:U:H6	1.83	0.44
50:3:2337:U:H3	50:3:2395:U:H3	1.64	0.44
50:3:2455:G:H5''	50:3:2456:A:H2'	2.00	0.44
50:3:2839:A:H61	50:3:2884:C:H41	1.64	0.44
52:5:77:U:H2'	52:5:78:A:C8	2.53	0.44
52:5:95:C:H3'	52:5:96:G:H8	1.83	0.44
52:5:660:A:N1	52:5:739:G:C6	2.85	0.44
52:5:972:A:H8	52:5:1198:C:C6	2.35	0.44
52:5:1083:A:H2'	52:5:1084:A:C4	2.52	0.44
52:5:1487:U:O2	52:5:1498:G:N2	2.34	0.44
2:1:2:LYS:HG2	50:3:246:G:C8	2.53	0.44
5:B:26:SER:O	5:B:27:HIS:ND1	2.50	0.44
12:I:15:LYS:NZ	52:5:1255:A:OP1	2.50	0.44
12:I:29:LYS:HA	12:I:32:VAL:HG12	1.99	0.44
18:O:64:ARG:NH1	18:O:67:PHE:HE2	2.15	0.44
25:b:148:GLN:HG2	50:3:2582:G:N3	2.33	0.44
26:c:5:LYS:H	26:c:126:HIS:HD1	1.64	0.44
33:j:22:ILE:O	33:j:23:LYS:HG2	2.18	0.44
35:l:109:ILE:HG23	35:l:109:ILE:O	2.18	0.44
37:n:13:LYS:HA	37:n:16:VAL:HG12	2.00	0.44
37:n:38:HIS:NE2	51:4:26:C:OP1	2.50	0.44
50:3:251:G:H22	50:3:254:G:H3'	1.82	0.44
50:3:527:A:H2'	50:3:528:U:O4'	2.18	0.44
50:3:701:A:H2'	50:3:702:U:C6	2.52	0.44
50:3:723:U:H2'	50:3:724:A:H8	1.81	0.44
50:3:895:G:H1'	50:3:953:G:H1	1.81	0.44
50:3:904:C:N3	50:3:905:U:C5	2.85	0.44
50:3:954:A:H3'	50:3:955:A:H8	1.82	0.44
50:3:1092:A:P	50:3:1092:A:H8	2.40	0.44
50:3:1453:U:O2	50:3:1607:G:N2	2.48	0.44
50:3:1833:G:H2'	50:3:1834:U:H6	1.83	0.44
50:3:2678:A:H2'	50:3:2679:G:C8	2.53	0.44
52:5:266:A:C6	52:5:267:C:N4	2.85	0.44
52:5:272:G:H2'	52:5:273:C:C6	2.53	0.44
52:5:290:G:H2'	52:5:291:C:C6	2.52	0.44
52:5:561:A:H2'	52:5:565:G:C8	2.52	0.44
52:5:562:U:H2'	52:5:563:U:C6	2.51	0.44
52:5:609:G:H2'	52:5:610:C:C6	2.53	0.44
52:5:743:A:H2'	52:5:744:U:O4'	2.17	0.44
52:5:958:G:O2'	52:5:959:A:H5'	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1491:A:H2'	52:5:1493:A:OP2	2.18	0.44
4:A:34:LYS:HB2	4:A:53:ASN:ND2	2.33	0.44
5:B:193:GLN:CD	52:5:1180:U:H4'	2.43	0.44
6:C:100:ILE:O	6:C:104:MET:HG2	2.18	0.44
12:I:23:LEU:HD11	12:I:99:PRO:HG3	1.99	0.44
14:K:23:ALA:HB3	14:K:108:TYR:HE2	1.82	0.44
14:K:50:VAL:HA	14:K:66:ALA:HA	2.00	0.44
28:e:23:ASP:OD1	28:e:23:ASP:N	2.51	0.44
28:e:62:LYS:HA	28:e:65:LYS:HE2	1.99	0.44
35:l:120:ARG:NE	50:3:2475:C:O2'	2.50	0.44
40:q:85:HIS:HE1	50:3:1198:G:C2	2.35	0.44
50:3:145:A:C6	50:3:146:G:N7	2.86	0.44
50:3:199:A:H2'	50:3:202:C:N4	2.33	0.44
50:3:272:C:N4	50:3:295:U:O2'	2.51	0.44
50:3:511:U:O2	50:3:515:A:C6	2.70	0.44
50:3:904:C:O2	50:3:904:C:H2'	2.18	0.44
50:3:942:A:H2'	50:3:943:A:O4'	2.18	0.44
50:3:1047:A:N6	50:3:1186:A:C6	2.85	0.44
50:3:1343:C:H1'	50:3:1421:A:N3	2.33	0.44
50:3:1626:C:H2'	50:3:1627:U:C6	2.53	0.44
50:3:2028:G:O2'	50:3:2029:U:H5'	2.17	0.44
50:3:2126:A:H61	50:3:2176:G:H1'	1.82	0.44
50:3:2311:G:H2'	50:3:2312:G:C8	2.52	0.44
50:3:2388:C:H2'	50:3:2389:A:H8	1.82	0.44
50:3:2446:U:O2'	50:3:2447:A:H3'	2.18	0.44
50:3:2694:A:H2'	50:3:2695:U:H6	1.83	0.44
51:4:105:A:H2'	51:4:106:A:C8	2.53	0.44
52:5:210:G:H2'	52:5:211:G:H8	1.81	0.44
52:5:218:U:H2'	52:5:219:A:H8	1.78	0.44
52:5:233:C:H2'	52:5:234:G:C8	2.53	0.44
52:5:515:G:H4'	52:5:517:C:C4	2.53	0.44
52:5:1225:A:N3	52:5:1261:A:N6	2.65	0.44
52:5:1290:G:H1'	52:5:1334:A:C2	2.53	0.44
52:5:1425:A:H2'	52:5:1427:U:H3	1.83	0.44
53:8:10:A:H4'	53:8:47:G:H4'	1.99	0.44
5:B:60:ARG:HG2	5:B:64:THR:O	2.18	0.44
5:B:206:ASN:OD1	5:B:207:ARG:N	2.50	0.44
9:F:17:PHE:CE2	9:F:22:VAL:HG21	2.52	0.44
9:F:114:THR:HG22	9:F:116:LEU:H	1.82	0.44
11:H:111:ARG:HH21	52:5:1320:A:H1'	1.82	0.44
20:Q:57:LEU:HG	20:Q:61:LYS:NZ	2.32	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:a:182:LEU:HD23	24:a:192:PHE:HB3	2.00	0.44
25:b:3:ILE:HD11	25:b:211:LYS:HE3	1.99	0.44
25:b:110:VAL:HG22	25:b:207:ILE:HD13	1.99	0.44
25:b:155:SER:OG	50:3:2039:G:N2	2.51	0.44
26:c:52:ILE:HD13	26:c:93:PRO:HD2	2.00	0.44
26:c:166:THR:HA	26:c:169:GLU:HG2	2.00	0.44
39:p:32:LYS:HE3	50:3:1282:G:N2	2.33	0.44
44:u:43:GLN:HG3	50:3:960:A:H4'	1.99	0.44
50:3:227:A:O2'	50:3:456:G:N3	2.31	0.44
50:3:260:A:H2'	50:3:261:A:C8	2.52	0.44
50:3:406:C:H2'	50:3:407:U:H6	1.83	0.44
50:3:639:G:H2'	50:3:640:U:O4'	2.17	0.44
50:3:739:G:N2	50:3:762:A:H62	2.16	0.44
50:3:813:G:C5	50:3:814:U:C4	3.06	0.44
50:3:848:U:H1'	50:3:1256:A:H1'	2.00	0.44
50:3:914:G:N2	50:3:936:G:H2'	2.32	0.44
50:3:1181:A:C2	50:3:1182:U:C4	3.06	0.44
50:3:1328:A:H4'	50:3:1329:U:O2	2.17	0.44
50:3:1534:A:C4	50:3:1535:A:C8	3.06	0.44
50:3:1596:U:H2'	50:3:1597:U:C6	2.53	0.44
50:3:1797:C:OP2	50:3:1835:G:N1	2.50	0.44
50:3:2044:C:H2'	50:3:2045:C:H6	1.81	0.44
50:3:2290:G:N3	50:3:2398:U:N3	2.64	0.44
50:3:2353:G:N7	50:3:2379:G:N1	2.63	0.44
52:5:13:U:O2'	52:5:908:A:OP2	2.23	0.44
52:5:279:C:H2'	52:5:280:G:O4'	2.18	0.44
52:5:619:A:OP2	52:5:619:A:H8	2.01	0.44
52:5:835:G:N7	52:5:836:C:N4	2.66	0.44
52:5:880:G:H1	52:5:905:U:H3	1.64	0.44
52:5:1083:A:O2'	52:5:1084:A:O4'	2.33	0.44
52:5:1261:A:H2	52:5:1327:G:N3	2.16	0.44
52:5:1286:G:H2'	52:5:1287:G:C8	2.53	0.44
2:1:51:ASP:HB3	2:1:54:ARG:NH2	2.33	0.44
6:C:104:MET:HE1	6:C:167:VAL:HB	1.99	0.44
8:E:87:ILE:HB	52:5:733:A:O2'	2.17	0.44
11:H:17:ALA:HB1	11:H:81:ILE:HG22	1.99	0.44
11:H:108:ARG:HD3	11:H:110:LYS:N	2.31	0.44
12:I:55:ILE:HG22	12:I:57:ILE:HD11	1.99	0.44
24:a:69:ILE:HG21	24:a:110:ILE:HG13	2.00	0.44
24:a:228:VAL:HG21	50:3:817:A:H8	1.82	0.44
25:b:21:ASN:O	33:j:73:ASP:HA	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:31:GLU:N	35:l:106:VAL:O	2.50	0.44
37:n:14:ARG:NH1	50:3:2342:U:O2	2.50	0.44
37:n:16:VAL:HA	37:n:19:ILE:HG12	2.00	0.44
40:q:24:LYS:O	50:3:1197:G:H4'	2.17	0.44
40:q:24:LYS:HE2	40:q:26:GLU:HG3	2.00	0.44
50:3:15:A:H61	50:3:560:U:H3'	1.83	0.44
50:3:190:G:H2'	50:3:191:G:H8	1.81	0.44
50:3:262:G:H2'	50:3:263:C:H6	1.83	0.44
50:3:344:A:H1'	50:3:346:G:N7	2.32	0.44
50:3:626:A:H2'	50:3:627:U:C6	2.53	0.44
50:3:694:U:H2'	50:3:695:G:C8	2.52	0.44
50:3:832:C:H2'	50:3:833:C:C6	2.53	0.44
50:3:914:G:O2'	50:3:915:A:O4'	2.25	0.44
50:3:1070:U:O4	50:3:1155:G:O6	2.36	0.44
50:3:2625:U:H2'	50:3:2626:A:H8	1.83	0.44
50:3:2834:C:O2'	50:3:2887:A:N1	2.47	0.44
52:5:239:A:H4'	52:5:240:U:H3'	2.00	0.44
52:5:535:A:H2'	52:5:536:U:H6	1.83	0.44
52:5:705:A:H2'	52:5:706:U:H6	1.82	0.44
52:5:1241:G:N2	52:5:1243:A:H8	2.16	0.44
52:5:1359:C:H2'	52:5:1360:G:H8	1.78	0.44
52:5:1387:U:H2'	52:5:1388:A:C8	2.53	0.44
52:5:1413:G:H2'	52:5:1414:U:C6	2.53	0.44
53:7:10:A:H4'	53:7:47:G:H4'	2.00	0.44
53:8:63:U:H2'	53:8:64:G:C8	2.52	0.44
6:C:2:LYS:HD2	6:C:114:ARG:HH12	1.83	0.43
6:C:111:ARG:HG3	52:5:403:A:H5''	1.99	0.43
8:E:89:ASN:ND2	52:5:735:C:OP1	2.51	0.43
12:I:46:LEU:HD21	52:5:1116:U:C2	2.53	0.43
16:M:53:ILE:HB	16:M:56:VAL:HG23	2.00	0.43
22:S:59:ILE:H	22:S:59:ILE:HD12	1.84	0.43
23:T:26:ARG:O	23:T:30:GLN:HG3	2.18	0.43
25:b:19:THR:HG22	25:b:20:ASN:N	2.33	0.43
27:d:29:PRO:HG3	27:d:165:GLU:OE1	2.18	0.43
34:k:36:GLN:OE1	50:3:979:U:H5'	2.18	0.43
39:p:60:TRP:CD1	39:p:93:VAL:HB	2.53	0.43
44:u:85:LYS:NZ	44:u:90:GLN:O	2.51	0.43
50:3:221:A:C4	50:3:222:A:C8	3.06	0.43
50:3:685:G:H2'	50:3:686:C:C6	2.53	0.43
50:3:891:G:H2'	50:3:892:G:H8	1.83	0.43
50:3:1037:A:H2'	50:3:1038:G:O4'	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1142:G:H2'	50:3:1142:G:N3	2.33	0.43
50:3:1311:G:H2'	50:3:1313:G:N7	2.32	0.43
50:3:1512:A:C2	50:3:1528:G:C2	3.06	0.43
50:3:2008:A:H2'	50:3:2009:U:C6	2.53	0.43
50:3:2338:G:N1	50:3:2394:A:N1	2.66	0.43
50:3:2455:G:H1	50:3:2460:C:H42	1.66	0.43
52:5:38:U:O2'	52:5:498:G:H4'	2.18	0.43
52:5:150:A:H2'	52:5:151:C:H6	1.83	0.43
52:5:429:A:H3'	52:5:430:G:H8	1.83	0.43
52:5:1096:A:H2'	52:5:1097:G:C8	2.52	0.43
52:5:1320:A:H4'	52:5:1321:G:H4'	2.00	0.43
52:5:1444:G:H2'	52:5:1445:G:H8	1.82	0.43
6:C:102:TYR:HA	6:C:107:ALA:HB3	2.00	0.43
8:E:131:PRO:HG2	52:5:837:G:O2'	2.18	0.43
10:G:88:LYS:HD3	10:G:88:LYS:HA	1.83	0.43
11:H:97:LYS:NZ	11:H:101:LYS:HD3	2.33	0.43
12:I:30:LYS:O	12:I:34:VAL:HG12	2.18	0.43
14:K:55:PRO:HG2	14:K:60:SER:HA	2.01	0.43
14:K:61:ALA:HB2	52:5:527:G:H22	1.83	0.43
25:b:4:ARG:HB3	25:b:101:LEU:HD21	2.00	0.43
25:b:69:PHE:CD1	50:3:2794:U:H4'	2.53	0.43
40:q:39:LEU:HG	40:q:40:MET:HG2	2.00	0.43
40:q:72:LYS:O	40:q:81:LYS:N	2.51	0.43
50:3:268:C:H4'	50:3:465:A:N3	2.33	0.43
50:3:643:A:H62	50:3:655:G:H21	1.66	0.43
50:3:945:U:H2'	50:3:946:A:C8	2.54	0.43
50:3:1017:A:C8	50:3:1018:G:C5	3.06	0.43
50:3:1066:G:H2'	50:3:1067:A:C8	2.53	0.43
50:3:1513:A:H5''	50:3:1514:U:OP2	2.18	0.43
50:3:1628:G:H2'	50:3:1629:U:C6	2.52	0.43
50:3:1814:G:N2	50:3:1816:A:H8	2.16	0.43
50:3:1885:G:N7	50:3:1886:C:N4	2.65	0.43
50:3:2418:G:H2'	50:3:2419:A:C8	2.53	0.43
50:3:2436:G:H4'	50:3:2437:G:C5	2.53	0.43
51:4:43:A:C4	51:4:44:A:C8	3.06	0.43
52:5:321:A:H2'	52:5:322:G:C8	2.54	0.43
52:5:1281:U:H2'	52:5:1282:U:O4'	2.17	0.43
52:5:1300:C:H2'	52:5:1301:U:H6	1.83	0.43
4:A:54:ASP:CB	4:A:204:THR:HG21	2.48	0.43
4:A:114:GLY:O	52:5:1093:A:H1'	2.18	0.43
5:B:93:LYS:HD2	5:B:98:ARG:HA	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C:50:TYR:HE2	52:5:507:A:C8	2.37	0.43
6:C:90:PHE:CE1	6:C:187:LEU:HD12	2.53	0.43
6:C:172:LYS:HE3	6:C:172:LYS:HB2	1.86	0.43
8:E:124:ASN:C	8:E:126:GLU:H	2.26	0.43
9:F:24:ARG:HA	9:F:27:ASN:HD22	1.83	0.43
14:K:101:LYS:HD2	52:5:523:U:H5''	2.01	0.43
17:N:52:GLY:O	17:N:56:LYS:HG2	2.18	0.43
21:R:5:ALA:HB3	52:5:1288:C:H5	1.84	0.43
27:d:40:VAL:HB	27:d:85:ILE:HB	2.00	0.43
27:d:99:PHE:O	27:d:103:LEU:HG	2.19	0.43
28:e:161:LYS:HD2	50:3:2667:G:OP1	2.18	0.43
29:f:102:HIS:HA	29:f:106:MET:O	2.18	0.43
46:w:21:LYS:NZ	46:w:25:GLU:HB3	2.33	0.43
50:3:40:A:H2'	50:3:41:C:H6	1.82	0.43
50:3:54:A:N6	50:3:120:A:H62	2.17	0.43
50:3:62:G:H1'	50:3:64:U:C4	2.53	0.43
50:3:532:A:H2'	50:3:533:G:C8	2.53	0.43
50:3:639:G:N3	50:3:692:U:O2'	2.51	0.43
50:3:653:G:H2'	50:3:654:G:H8	1.84	0.43
50:3:722:C:N3	50:3:823:A:H5'	2.33	0.43
50:3:978:G:H2'	50:3:979:U:O4'	2.18	0.43
50:3:1264:U:C4	50:3:1265:G:C6	3.07	0.43
50:3:1691:U:H2'	50:3:1692:A:H8	1.82	0.43
50:3:2209:U:H2'	50:3:2210:G:C8	2.53	0.43
50:3:2728:U:C2	50:3:2729:A:C8	3.07	0.43
52:5:358:G:H2'	52:5:360:A:N7	2.32	0.43
52:5:682:G:H8	52:5:682:G:OP2	2.00	0.43
52:5:812:A:H62	52:5:1484:C:H1'	1.82	0.43
52:5:972:A:H2'	52:5:973:A:H5''	2.00	0.43
52:5:1039:G:O2'	52:5:1041:G:O5'	2.34	0.43
52:5:1192:C:O2'	52:5:1193:U:O4'	2.36	0.43
3:2:13:ASP:HB3	3:2:27:CYS:SG	2.59	0.43
5:B:140:SER:HA	5:B:143:LYS:HG2	1.99	0.43
6:C:103:ARG:HD3	6:C:103:ARG:HA	1.70	0.43
6:C:107:ALA:HB2	6:C:113:ALA:HB2	2.00	0.43
8:E:94:TYR:CE2	8:E:96:TYR:HB2	2.53	0.43
10:G:11:HIS:CG	10:G:12:PHE:N	2.85	0.43
13:J:32:GLY:HA3	52:5:705:A:O4'	2.18	0.43
20:Q:43:PHE:HB2	20:Q:82:HIS:ND1	2.34	0.43
26:c:210:LYS:HD2	26:c:210:LYS:HA	1.86	0.43
35:l:22:LYS:HB3	35:l:98:LYS:NZ	2.33	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:p:108:ILE:HD13	39:p:111:LYS:HD3	2.00	0.43
42:s:38:THR:OG1	50:3:146:G:OP1	2.34	0.43
46:w:2:THR:OG1	46:w:3:VAL:N	2.49	0.43
50:3:392:A:N3	50:3:392:A:H2'	2.32	0.43
50:3:456:G:H2'	50:3:457:U:C6	2.53	0.43
50:3:736:G:H1'	50:3:1666:A:C2	2.54	0.43
50:3:934:C:H2'	50:3:935:U:C6	2.54	0.43
50:3:967:U:H2'	50:3:968:U:C2	2.52	0.43
50:3:1075:G:H2'	50:3:1076:U:O4'	2.18	0.43
50:3:1112:A:H61	50:3:1123:A:H2'	1.82	0.43
50:3:1149:G:H2'	50:3:1150:U:C6	2.53	0.43
50:3:1156:C:H2'	50:3:1157:G:C8	2.53	0.43
50:3:1615:G:H2'	50:3:1616:G:C8	2.54	0.43
50:3:1685:G:H2'	50:3:1686:U:H6	1.83	0.43
50:3:1924:U:H2'	50:3:1925:A:O4'	2.19	0.43
50:3:2231:A:H3'	50:3:2232:G:C8	2.51	0.43
50:3:2555:U:H2'	50:3:2556:C:C6	2.53	0.43
50:3:2599:C:H2'	50:3:2600:G:H8	1.84	0.43
50:3:2701:A:H2'	50:3:2702:G:H8	1.84	0.43
52:5:45:A:N6	52:5:392:A:N1	2.66	0.43
52:5:62:G:O2'	52:5:374:G:N2	2.50	0.43
52:5:357:G:H2'	52:5:358:G:C8	2.53	0.43
52:5:508:A:H1'	52:5:541:C:H1'	2.00	0.43
52:5:638:A:H4'	52:5:639:A:OP1	2.18	0.43
52:5:762:G:H21	52:5:813:A:N6	2.12	0.43
52:5:807:C:HO2'	52:5:894:A:H61	1.58	0.43
52:5:912:G:H2'	52:5:913:A:C8	2.53	0.43
52:5:1243:A:O2'	52:5:1244:A:O4'	2.29	0.43
4:A:207:ASN:ND2	4:A:209:GLU:OE2	2.51	0.43
25:b:160:PHE:CZ	32:i:83:TYR:HD2	2.36	0.43
26:c:108:HIS:ND1	50:3:653:G:OP1	2.52	0.43
28:e:76:THR:O	28:e:80:ILE:HG12	2.18	0.43
29:f:78:HIS:HA	29:f:141:LYS:O	2.18	0.43
33:j:19:VAL:HG12	33:j:41:VAL:HB	2.01	0.43
34:k:64:LYS:HE3	34:k:64:LYS:HB2	1.71	0.43
37:n:2:LYS:HD2	37:n:6:GLU:HB3	1.99	0.43
40:q:3:ALA:HA	40:q:41:LEU:HA	1.99	0.43
42:s:3:VAL:HG12	42:s:6:VAL:HG13	2.00	0.43
42:s:26:LYS:HA	42:s:83:ILE:O	2.18	0.43
50:3:231:A:H2'	50:3:2415:A:C4'	2.48	0.43
50:3:325:G:H2'	50:3:326:A:C8	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:458:A:H2'	50:3:459:A:O4'	2.19	0.43
50:3:710:A:H3'	50:3:711:A:C8	2.54	0.43
50:3:899:A:H4'	51:4:90:G:N3	2.33	0.43
50:3:1303:U:OP2	50:3:1680:A:H2'	2.19	0.43
50:3:2042:A:OP1	50:3:2043:C:N4	2.50	0.43
50:3:2444:G:H2'	50:3:2445:C:C6	2.54	0.43
50:3:2506:C:O2'	50:3:2507:C:OP1	2.34	0.43
52:5:356:G:H2'	52:5:357:G:H8	1.81	0.43
52:5:608:G:N3	52:5:609:G:C8	2.87	0.43
52:5:1332:U:OP2	52:5:1333:C:N4	2.47	0.43
52:5:1496:G:H2'	52:5:1497:U:C6	2.54	0.43
4:A:26:MET:HB3	4:A:58:LEU:HD23	2.00	0.43
4:A:132:LYS:O	4:A:135:GLU:HG3	2.18	0.43
5:B:120:ALA:HB2	5:B:203:VAL:HG21	1.99	0.43
9:F:115:MET:HA	9:F:118:LYS:HE3	1.99	0.43
10:G:44:ILE:HA	10:G:47:ILE:HG22	2.01	0.43
13:J:86:LYS:HE2	13:J:86:LYS:HB3	1.75	0.43
17:N:79:VAL:HA	17:N:82:LEU:HD21	2.00	0.43
18:O:17:ASP:HB3	18:O:20:VAL:HG23	2.01	0.43
21:R:31:ILE:HD11	21:R:49:PHE:CE1	2.53	0.43
26:c:143:MET:HG2	26:c:146:PHE:HD2	1.84	0.43
32:i:116:ARG:NH1	50:3:563:A:O3'	2.51	0.43
33:j:40:VAL:HG22	33:j:59:ARG:HE	1.83	0.43
34:k:56:THR:HB	34:k:61:ARG:HD3	2.01	0.43
36:m:39:LYS:O	36:m:42:GLN:HG2	2.18	0.43
38:o:54:ARG:NH1	38:o:78:ASN:OD1	2.52	0.43
42:s:42:LEU:HA	42:s:45:GLU:CD	2.43	0.43
50:3:1052:A:N6	50:3:1181:A:N6	2.67	0.43
50:3:1465:U:H4'	50:3:1541:A:H2	1.84	0.43
50:3:1512:A:C2	50:3:1528:G:N1	2.87	0.43
50:3:1708:G:N1	50:3:1998:U:N3	2.38	0.43
50:3:2066:A:O2'	50:3:2511:A:N6	2.52	0.43
50:3:2088:U:H2'	50:3:2089:A:C8	2.46	0.43
50:3:2238:G:C6	50:3:2239:U:C4	3.06	0.43
50:3:2534:G:H2'	50:3:2535:C:H6	1.83	0.43
52:5:75:A:H2'	52:5:76:G:O4'	2.18	0.43
52:5:170:A:H3'	52:5:171:A:C8	2.54	0.43
52:5:578:C:H2'	52:5:579:G:O4'	2.19	0.43
52:5:742:C:H5''	52:5:845:C:O2'	2.19	0.43
52:5:832:G:H2'	52:5:833:G:C8	2.44	0.43
52:5:998:G:H21	52:5:999:C:H1'	1.84	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1206:G:H2'	52:5:1207:U:O4'	2.17	0.43
4:A:112:TRP:C	4:A:114:GLY:H	2.27	0.43
4:A:230:ASN:ND2	4:A:246:PHE:HE2	2.17	0.43
7:D:143:ARG:HD2	7:D:148:ARG:HD2	2.01	0.43
9:F:101:ARG:O	9:F:105:MET:HG3	2.19	0.43
14:K:6:GLN:HE22	52:5:875:G:H8	1.63	0.43
14:K:112:ARG:HB3	14:K:130:TYR:O	2.18	0.43
17:N:10:LYS:HA	17:N:10:LYS:HD3	1.82	0.43
24:a:282:ARG:NH2	50:3:1826:A:N1	2.67	0.43
28:e:80:ILE:HG23	28:e:84:GLN:NE2	2.34	0.43
35:l:111:GLU:N	35:l:114:MET:HE2	2.34	0.43
43:t:43:THR:O	50:3:516:A:O2'	2.35	0.43
50:3:70:G:H2'	50:3:71:C:C6	2.54	0.43
50:3:911:U:H2'	50:3:912:A:C8	2.53	0.43
50:3:1154:U:H2'	50:3:1155:G:C8	2.53	0.43
50:3:1164:A:H1'	50:3:2524:U:H1'	2.00	0.43
50:3:1193:U:H2'	50:3:1194:U:H6	1.84	0.43
50:3:1367:G:H21	50:3:1637:A:H1'	1.84	0.43
50:3:1457:A:H2'	50:3:1458:A:H8	1.82	0.43
50:3:1661:A:C2	50:3:1674:A:N7	2.87	0.43
50:3:1766:A:O2'	50:3:2720:C:OP1	2.37	0.43
50:3:1831:G:H2'	50:3:1832:G:C8	2.53	0.43
50:3:1844:C:C2	50:3:1911:G:N2	2.86	0.43
50:3:1863:G:C2	50:3:1894:U:O2	2.72	0.43
50:3:2700:C:H1'	50:3:2851:U:H1'	2.00	0.43
50:3:2760:C:H3'	50:3:2761:A:H8	1.84	0.43
50:3:2793:U:H2'	50:3:2794:U:H6	1.84	0.43
51:4:42:G:C1'	51:4:45:C:H42	2.32	0.43
52:5:207:C:H3'	52:5:208:A:C8	2.53	0.43
52:5:448:A:N6	52:5:478:G:OP2	2.42	0.43
52:5:452:A:N6	52:5:475:U:O2	2.52	0.43
52:5:455:U:H2'	52:5:456:U:C6	2.54	0.43
52:5:982:A:H2'	52:5:983:G:H8	1.83	0.43
52:5:1394:G:H2'	52:5:1395:C:C6	2.53	0.43
8:E:103:LYS:HD3	8:E:103:LYS:HA	1.85	0.43
9:F:17:PHE:HD2	9:F:19:ASN:HB2	1.84	0.43
9:F:91:PRO:O	9:F:95:LYS:HG3	2.18	0.43
9:F:111:HIS:CG	9:F:112:GLU:H	2.35	0.43
9:F:115:MET:SD	52:5:1214:A:H5'	2.58	0.43
13:J:109:ILE:O	13:J:109:ILE:HG23	2.19	0.43
16:M:32:ALA:H	52:5:971:A:P	2.41	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:b:64:LYS:HA	25:b:67:GLN:HB3	2.01	0.43
33:j:7:ARG:NH1	50:3:1702:A:OP1	2.52	0.43
49:z:37:PHE:HE1	50:3:2379:G:H1'	1.83	0.43
50:3:132:G:H2'	50:3:133:G:H8	1.83	0.43
50:3:171:G:H2'	50:3:172:U:C6	2.54	0.43
50:3:300:G:H2'	50:3:301:G:C8	2.53	0.43
50:3:455:G:H2'	50:3:456:G:C8	2.54	0.43
50:3:487:C:O2'	50:3:489:A:OP2	2.31	0.43
50:3:641:U:H2'	50:3:642:A:H8	1.84	0.43
50:3:894:G:C6	50:3:2276:A:C6	3.06	0.43
50:3:911:U:O4	50:3:912:A:N6	2.52	0.43
50:3:1098:G:C2	50:3:1099:C:C5	3.06	0.43
50:3:1413:A:O2'	50:3:1414:C:H5''	2.18	0.43
50:3:1658:U:H2'	50:3:1659:C:C5	2.54	0.43
50:3:1701:G:H22	50:3:1999:G:H5'	1.83	0.43
50:3:1856:G:H2'	50:3:1857:G:H8	1.83	0.43
50:3:1890:U:H1'	50:3:1891:A:C8	2.54	0.43
50:3:2101:A:H2'	50:3:2102:U:O4'	2.18	0.43
50:3:2111:U:C2	50:3:2194:G:C2	3.07	0.43
50:3:2307:G:H2'	50:3:2308:U:C6	2.54	0.43
50:3:2383:G:N2	50:3:2385:A:H3'	2.34	0.43
50:3:2402:C:O2	50:3:2402:C:H2'	2.18	0.43
50:3:2484:A:O2'	50:3:2488:C:N4	2.47	0.43
50:3:2663:G:H22	50:3:2673:A:P	2.41	0.43
50:3:2676:G:H2'	50:3:2677:A:C8	2.54	0.43
52:5:96:G:H2'	52:5:97:G:C8	2.53	0.43
52:5:149:G:H2'	52:5:150:A:H8	1.81	0.43
52:5:312:A:C6	52:5:334:A:C6	3.07	0.43
52:5:605:A:H2'	52:5:606:A:O4'	2.19	0.43
52:5:684:A:C5	52:5:700:G:N2	2.87	0.43
52:5:763:A:N7	52:5:810:U:O4	2.51	0.43
52:5:885:U:C2	52:5:901:A:N7	2.86	0.43
52:5:1128:G:H2'	52:5:1129:C:H6	1.84	0.43
52:5:1184:C:C4	52:5:1185:C:C4	3.06	0.43
52:5:1233:G:H2'	52:5:1234:C:C6	2.54	0.43
52:5:1293:A:C8	52:5:1297:G:C5	3.07	0.43
4:A:27:ARG:NH1	4:A:223:GLN:HB3	2.33	0.43
5:B:52:GLN:NE2	5:B:118:ILE:HD12	2.29	0.43
14:K:61:ALA:HB3	14:K:63:ARG:CZ	2.49	0.43
15:L:76:ASN:OD1	15:L:79:HIS:NE2	2.51	0.43
19:P:30:PHE:HB2	19:P:41:ARG:NH2	2.34	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:R:3:ARG:N	52:5:1287:G:O6	2.52	0.43
24:a:186:SER:HB3	50:3:1826:A:O2'	2.18	0.43
25:b:59:ASN:OD1	25:b:67:GLN:HG3	2.18	0.43
32:i:107:ALA:O	32:i:111:MET:HG2	2.18	0.43
39:p:50:ARG:NH1	50:3:1029:A:OP2	2.51	0.43
39:p:80:ASN:HA	39:p:83:LYS:HE2	2.01	0.43
41:r:84:ARG:NH2	50:3:1350:A:O2'	2.52	0.43
44:u:46:ARG:HA	44:u:78:ASP:OD1	2.19	0.43
50:3:699:U:H4'	50:3:976:C:H5''	2.00	0.43
50:3:853:G:O2'	50:3:873:G:O2'	2.36	0.43
50:3:894:G:O2'	50:3:2276:A:O2'	2.30	0.43
50:3:1375:G:N1	50:3:1376:G:N7	2.67	0.43
50:3:1646:G:H2'	50:3:1647:A:O4'	2.17	0.43
50:3:1715:A:N3	50:3:1769:A:H3'	2.33	0.43
50:3:2055:A:C5	50:3:2056:A:C8	3.06	0.43
50:3:2736:U:C2'	50:3:2737:G:H8	2.31	0.43
50:3:2760:C:H2'	50:3:2761:A:O4'	2.18	0.43
50:3:2849:G:H2'	50:3:2850:G:H8	1.84	0.43
52:5:428:A:H2'	52:5:429:A:C8	2.54	0.43
52:5:429:A:C2	52:5:430:G:H1'	2.53	0.43
52:5:487:A:C3'	52:5:488:U:H5''	2.46	0.43
52:5:536:U:H2'	52:5:537:A:C8	2.54	0.43
52:5:574:C:H5'	52:5:576:A:OP2	2.18	0.43
52:5:607:A:C5	52:5:608:G:C8	3.07	0.43
52:5:826:G:H2'	52:5:827:C:C6	2.53	0.43
52:5:871:U:H2'	52:5:872:C:C6	2.53	0.43
52:5:972:A:H8	52:5:1198:C:C5	2.36	0.43
52:5:1245:A:H2'	52:5:1246:A:H8	1.79	0.43
4:A:84:PHE:CD2	4:A:105:VAL:HG11	2.54	0.43
6:C:125:ASN:ND2	6:C:140:ASP:OD1	2.45	0.43
6:C:184:ARG:O	6:C:184:ARG:NH2	2.52	0.43
7:D:143:ARG:NH1	52:5:857:U:OP1	2.52	0.43
11:H:82:ARG:NH2	11:H:105:LEU:O	2.52	0.43
12:I:39:ASP:HB3	12:I:42:ILE:HD11	2.01	0.43
13:J:28:SER:OG	13:J:34:VAL:HG12	2.19	0.43
13:J:117:PRO:O	23:T:34:TYR:HA	2.18	0.43
19:P:45:TYR:OH	52:5:232:G:O5'	2.26	0.43
20:Q:71:ASN:HB3	20:Q:75:ILE:HD13	2.00	0.43
21:R:5:ALA:HB3	52:5:1288:C:C5	2.54	0.43
24:a:240:HIS:NE2	24:a:251:ARG:HG3	2.34	0.43
26:c:112:LEU:O	26:c:115:VAL:HG12	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:d:108:LEU:HB2	27:d:109:PRO:HD3	2.01	0.43
28:e:167:TYR:HB2	28:e:170:GLU:OE1	2.19	0.43
28:e:169:ASP:OD2	28:e:169:ASP:N	2.51	0.43
35:l:65:TRP:HB2	35:l:105:GLU:CG	2.48	0.43
36:m:8:GLY:HA3	50:3:2010:A:H5'	2.00	0.43
46:w:54:ILE:O	46:w:58:LEU:N	2.43	0.43
50:3:449:C:O2'	50:3:1887:U:H1'	2.18	0.43
50:3:450:C:N4	50:3:2417:G:H1	2.15	0.43
50:3:474:U:H2'	50:3:475:A:C8	2.54	0.43
50:3:635:G:H2'	50:3:636:U:C5	2.54	0.43
50:3:767:C:H3'	50:3:768:G:H8	1.84	0.43
50:3:1091:G:H2'	50:3:1138:A:N6	2.16	0.43
50:3:1119:A:H2'	50:3:1120:A:O4'	2.18	0.43
50:3:1222:A:H2'	50:3:1223:C:O4'	2.18	0.43
50:3:1299:A:N6	50:3:2019:G:N3	2.67	0.43
50:3:1775:G:H1	50:3:1991:U:H3	1.67	0.43
50:3:1798:A:H62	50:3:1835:G:H1'	1.84	0.43
50:3:2122:G:H2'	50:3:2124:A:H62	1.84	0.43
50:3:2277:A:C4	50:3:2278:G:C8	3.06	0.43
50:3:2325:U:H2'	50:3:2326:G:C8	2.54	0.43
50:3:2552:G:H2'	50:3:2553:G:O4'	2.19	0.43
50:3:2861:G:H3'	50:3:2862:U:H5''	2.01	0.43
52:5:29:G:O2'	52:5:292:U:OP1	2.36	0.43
52:5:237:A:C2	52:5:282:G:C2	3.07	0.43
52:5:1048:G:O6	52:5:1179:A:N6	2.51	0.43
52:5:1141:U:C2	52:5:1142:G:C8	3.07	0.43
52:5:1150:G:H2'	52:5:1151:A:H8	1.83	0.43
52:5:1225:A:C2	52:5:1226:A:C6	3.07	0.43
2:1:20:LYS:HE2	2:1:20:LYS:HB3	1.76	0.42
5:B:83:LYS:HB2	5:B:83:LYS:HE3	1.74	0.42
6:C:194:SER:HA	6:C:197:VAL:HG12	2.01	0.42
8:E:105:GLN:HG2	8:E:106:GLN:N	2.33	0.42
15:L:50:GLU:HA	15:L:53:PHE:HD2	1.84	0.42
17:N:23:GLN:HA	17:N:26:VAL:HG22	2.01	0.42
19:P:25:GLN:HE21	19:P:42:HIS:HB2	1.84	0.42
24:a:152:LEU:HD22	50:3:1807:C:H3'	2.00	0.42
41:r:28:LYS:HG3	41:r:30:ALA:N	2.32	0.42
50:3:42:U:C2	50:3:476:G:N2	2.87	0.42
50:3:60:G:H2'	50:3:61:U:H6	1.84	0.42
50:3:202:C:O2'	50:3:203:A:H5'	2.19	0.42
50:3:438:A:H2'	50:3:439:U:C6	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:846:U:HO2'	50:3:1280:G:HO2'	1.57	0.42
50:3:1447:A:O2'	50:3:1448:U:H5''	2.19	0.42
50:3:1671:C:H2'	50:3:1672:C:C6	2.54	0.42
50:3:1860:A:H2	50:3:2241:A:N3	2.17	0.42
50:3:2307:G:C2	50:3:2308:U:C2	3.06	0.42
50:3:2331:G:H2'	50:3:2332:U:C6	2.54	0.42
50:3:2488:C:H3'	50:3:2489:G:H8	1.83	0.42
50:3:2529:C:H2'	50:3:2530:U:C6	2.54	0.42
50:3:2599:C:H2'	50:3:2600:G:C8	2.54	0.42
50:3:2795:C:H2'	50:3:2796:C:C5	2.54	0.42
52:5:161:C:H2'	52:5:162:C:C6	2.54	0.42
52:5:989:A:H62	52:5:1191:U:H4'	1.83	0.42
52:5:1136:G:C6	52:5:1151:A:N1	2.87	0.42
52:5:1236:A:H3'	52:5:1237:G:H8	1.84	0.42
52:5:1448:A:H2'	52:5:1449:G:C8	2.54	0.42
10:G:127:VAL:HA	10:G:130:LEU:HD12	2.01	0.42
24:a:233:MET:HB3	24:a:238:HIS:HB3	2.01	0.42
25:b:28:VAL:HG12	25:b:190:LEU:HD11	2.00	0.42
25:b:40:LYS:HG3	25:b:45:ASP:OD2	2.18	0.42
25:b:48:SER:O	25:b:85:ARG:NE	2.45	0.42
28:e:4:ILE:HG22	28:e:72:ASN:HB3	2.01	0.42
33:j:97:ARG:NH1	52:5:335:C:OP2	2.52	0.42
39:p:32:LYS:HE3	50:3:1282:G:H21	1.83	0.42
42:s:9:LYS:O	42:s:30:VAL:HG12	2.18	0.42
48:y:12:ARG:HA	48:y:15:LYS:HD2	2.00	0.42
50:3:211:A:H2'	50:3:212:G:O4'	2.19	0.42
50:3:312:U:H2'	50:3:313:G:C8	2.54	0.42
50:3:326:A:H2'	50:3:327:U:O4'	2.19	0.42
50:3:428:U:H2'	50:3:429:U:O4'	2.20	0.42
50:3:451:A:H2'	50:3:452:U:C6	2.54	0.42
50:3:525:A:H2'	50:3:526:G:C8	2.53	0.42
50:3:682:A:N3	50:3:682:A:H2'	2.33	0.42
50:3:761:G:O5'	50:3:1460:G:O2'	2.37	0.42
50:3:984:C:O2	50:3:1020:G:O2'	2.37	0.42
50:3:1305:G:C6	50:3:1322:A:N1	2.87	0.42
50:3:1355:C:H3'	50:3:1356:G:C8	2.54	0.42
50:3:1912:C:O2'	50:3:1936:G:H1'	2.19	0.42
50:3:1932:C:O2	50:3:1936:G:O6	2.36	0.42
50:3:2216:U:H2'	50:3:2217:G:C8	2.54	0.42
50:3:2521:A:H2'	50:3:2522:U:C6	2.54	0.42
50:3:2871:G:H4'	50:3:2872:A:H8	1.84	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2874:C:H2'	50:3:2875:U:O4'	2.19	0.42
52:5:38:U:H2'	52:5:39:G:H8	1.85	0.42
52:5:40:G:C6	52:5:400:G:C6	3.07	0.42
52:5:93:A:OP1	52:5:95:C:H1'	2.19	0.42
52:5:120:A:H1'	52:5:321:A:C8	2.54	0.42
52:5:169:G:H21	52:5:220:U:C4'	2.33	0.42
52:5:244:C:H2'	52:5:245:U:O4'	2.19	0.42
52:5:290:G:N2	52:5:299:U:O2	2.53	0.42
52:5:370:A:H2'	52:5:371:U:C6	2.55	0.42
52:5:667:U:H2'	52:5:668:U:O4'	2.18	0.42
52:5:704:U:H2'	52:5:705:A:N7	2.34	0.42
52:5:1039:G:H2'	52:5:1041:G:H8	1.84	0.42
52:5:1068:G:N2	52:5:1070:G:H3'	2.34	0.42
52:5:1452:C:H2'	52:5:1453:C:C6	2.54	0.42
6:C:36:GLY:HA2	52:5:539:G:O2'	2.19	0.42
6:C:63:MET:HG3	6:C:64:TYR:CD1	2.54	0.42
8:E:51:LYS:NZ	52:5:707:G:OP1	2.52	0.42
10:G:53:TYR:HE2	10:G:141:VAL:HG13	1.84	0.42
13:J:119:ARG:HB2	23:T:34:TYR:HB2	2.01	0.42
14:K:23:ALA:HB3	14:K:108:TYR:CE2	2.53	0.42
18:O:21:LYS:HE2	52:5:96:G:OP1	2.19	0.42
18:O:74:LYS:HD3	52:5:470:U:H1'	2.00	0.42
19:P:14:LYS:N	19:P:23:THR:O	2.50	0.42
25:b:151:ARG:NH1	50:3:2513:G:H5'	2.31	0.42
28:e:93:VAL:HG13	28:e:163:LYS:HA	2.01	0.42
32:i:41:GLY:HA3	32:i:53:CYS:SG	2.59	0.42
33:j:64:ARG:HD3	33:j:101:PRO:HG2	2.00	0.42
39:p:60:TRP:HA	39:p:96:GLU:OE2	2.19	0.42
45:v:60:LYS:HD3	50:3:410:G:N7	2.34	0.42
50:3:217:A:H2'	50:3:218:G:C8	2.54	0.42
50:3:612:G:C2	50:3:1292:A:C2	3.06	0.42
50:3:699:U:H2'	50:3:700:U:O4'	2.19	0.42
50:3:1083:A:H5'	50:3:1145:G:N2	2.34	0.42
50:3:1086:G:H2'	50:3:1087:C:O4'	2.19	0.42
50:3:1090:G:H3'	50:3:1091:G:C8	2.53	0.42
50:3:1316:U:H1'	50:3:1681:G:N2	2.34	0.42
50:3:1534:A:O2'	50:3:1535:A:H8	2.03	0.42
50:3:1677:G:O2'	50:3:1678:U:O4'	2.32	0.42
50:3:2097:A:C6	50:3:2238:G:C6	3.08	0.42
50:3:2233:A:H4'	50:3:2234:C:H5'	2.00	0.42
50:3:2240:U:H2'	50:3:2241:A:C8	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2299:U:H2'	50:3:2300:A:O4'	2.19	0.42
50:3:2411:C:H2'	50:3:2412:A:C8	2.54	0.42
50:3:2685:A:N6	50:3:2739:C:H42	2.17	0.42
50:3:2769:G:H2'	50:3:2770:U:C6	2.54	0.42
52:5:143:U:H2'	52:5:144:U:O4'	2.20	0.42
52:5:715:A:H5''	52:5:716:C:C5	2.55	0.42
52:5:725:A:H2'	52:5:726:A:C8	2.54	0.42
52:5:747:C:C2	52:5:748:U:C5	3.07	0.42
52:5:926:C:H2'	52:5:927:C:H6	1.84	0.42
52:5:929:C:O2	52:5:932:A:N6	2.53	0.42
52:5:1140:A:C2'	52:5:1141:U:H5'	2.49	0.42
52:5:1225:A:H2'	52:5:1226:A:H8	1.79	0.42
52:5:1439:G:C6	52:5:1440:U:C4	3.07	0.42
52:5:1498:G:H2'	52:5:1499:G:H8	1.84	0.42
1:0:1:MET:H1	50:3:1653:C:H2'	1.84	0.42
2:1:37:GLN:NE2	50:3:2370:G:O5'	2.53	0.42
7:D:139:GLU:HG3	7:D:153:PRO:HD2	2.01	0.42
12:I:15:LYS:NZ	52:5:1254:A:H5''	2.34	0.42
14:K:124:ARG:HA	14:K:127:ARG:NH1	2.32	0.42
17:N:47:PHE:O	17:N:50:LYS:HG2	2.19	0.42
39:p:97:LEU:HD23	40:q:13:LEU:HD23	2.00	0.42
42:s:37:LYS:HG3	50:3:1633:C:OP1	2.19	0.42
50:3:596:G:H2'	50:3:597:C:H6	1.85	0.42
50:3:800:C:H2'	50:3:801:U:H6	1.82	0.42
50:3:1537:A:H2'	50:3:1538:U:C6	2.53	0.42
50:3:1747:G:H5'	50:3:1748:U:OP2	2.19	0.42
50:3:1954:C:H2'	50:3:1955:G:H8	1.80	0.42
50:3:2083:U:O5'	50:3:2246:G:N2	2.52	0.42
50:3:2345:G:H2'	50:3:2346:G:C8	2.54	0.42
50:3:2399:G:N2	50:3:2437:G:H1'	2.35	0.42
50:3:2627:U:H2'	50:3:2628:U:H6	1.85	0.42
50:3:2693:U:H2'	50:3:2694:A:C8	2.54	0.42
51:4:103:C:H2'	51:4:104:C:C6	2.55	0.42
52:5:137:A:H62	52:5:156:U:H3	1.66	0.42
52:5:146:A:C6	52:5:340:A:C8	3.07	0.42
52:5:255:G:H2'	52:5:256:G:H8	1.84	0.42
52:5:453:C:H2'	52:5:454:U:H6	1.84	0.42
52:5:630:G:H2'	52:5:631:C:H6	1.84	0.42
52:5:655:G:H2'	52:5:656:U:H6	1.84	0.42
52:5:833:G:N2	52:5:844:U:O2	2.34	0.42
52:5:973:A:C5	52:5:1293:A:C2	3.07	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:974:C:O2	52:5:974:C:H2'	2.20	0.42
52:5:1493:A:H2'	52:5:1494:A:C8	2.54	0.42
53:7:63:U:H2'	53:7:64:G:C8	2.52	0.42
4:A:102:ARG:NH1	4:A:233:ALA:O	2.52	0.42
14:K:79:TYR:OH	52:5:520:C:OP2	2.31	0.42
16:M:2:ALA:O	16:M:6:LEU:HD23	2.20	0.42
21:R:3:ARG:O	52:5:1288:C:N4	2.35	0.42
24:a:68:ILE:O	24:a:108:TYR:HB2	2.19	0.42
25:b:115:LYS:O	25:b:117:ARG:NE	2.53	0.42
28:e:61:LEU:HB3	28:e:64:SER:HB3	2.00	0.42
28:e:130:LYS:HB2	28:e:130:LYS:HE3	1.77	0.42
29:f:69:LYS:O	29:f:73:GLU:OE1	2.37	0.42
35:l:57:CYS:SG	35:l:117:ALA:HA	2.59	0.42
37:n:101:ARG:NE	51:4:47:C:H5''	2.35	0.42
39:p:15:LYS:O	39:p:19:GLN:HG2	2.20	0.42
39:p:46:TYR:CD1	40:q:70:VAL:HG23	2.54	0.42
45:v:17:ASN:OD1	45:v:18:ARG:N	2.53	0.42
50:3:31:U:H2'	50:3:32:G:C8	2.55	0.42
50:3:172:U:H2'	50:3:173:C:C6	2.54	0.42
50:3:758:C:H2'	50:3:759:U:H6	1.82	0.42
50:3:856:A:N6	50:3:1008:A:H1'	2.32	0.42
50:3:1501:U:N3	50:3:1502:A:H1'	2.34	0.42
50:3:1702:A:N6	50:3:1998:U:N1	2.63	0.42
50:3:1748:U:C4	50:3:1750:A:N7	2.87	0.42
50:3:1836:A:N6	50:3:1984:A:N7	2.68	0.42
50:3:1895:G:O3'	50:3:1896:A:H8	2.02	0.42
50:3:1965:C:H2'	50:3:1966:G:C8	2.54	0.42
50:3:1995:G:H2'	50:3:1996:A:C8	2.55	0.42
50:3:2096:U:H2'	50:3:2097:A:N7	2.34	0.42
50:3:2539:A:N3	50:3:2539:A:H2'	2.35	0.42
50:3:2676:G:H2'	50:3:2677:A:H8	1.85	0.42
50:3:2828:C:H2'	50:3:2829:G:O4'	2.19	0.42
50:3:2842:G:H2'	50:3:2843:G:C8	2.55	0.42
52:5:14:U:H1'	52:5:908:A:H5''	2.02	0.42
52:5:60:A:O2'	52:5:385:A:OP1	2.30	0.42
52:5:444:G:H1	52:5:482:G:H4'	1.84	0.42
52:5:546:G:H2'	52:5:547:C:C6	2.54	0.42
52:5:688:G:H2'	52:5:689:U:C6	2.55	0.42
52:5:796:A:H2'	52:5:797:G:O4'	2.19	0.42
52:5:940:G:H22	52:5:1211:A:H2	1.67	0.42
52:5:1141:U:O2'	52:5:1142:G:H8	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:27:CYS:SG	3:2:28:LYS:N	2.93	0.42
4:A:119:ASN:HB3	52:5:1065:G:H4'	2.02	0.42
6:C:13:ARG:CD	52:5:541:C:H5''	2.50	0.42
24:a:169:ARG:HA	24:a:169:ARG:HD2	1.87	0.42
24:a:180:VAL:N	24:a:192:PHE:O	2.52	0.42
25:b:114:SER:O	25:b:171:HIS:HA	2.20	0.42
26:c:60:GLY:HA3	26:c:80:ARG:NE	2.35	0.42
26:c:85:VAL:HG13	50:3:1287:C:O2'	2.20	0.42
26:c:91:PHE:HE2	50:3:704:G:H22	1.66	0.42
32:i:9:LYS:CD	32:i:48:THR:HG23	2.49	0.42
34:k:84:LYS:NZ	50:3:662:U:O3'	2.52	0.42
36:m:25:VAL:O	36:m:29:GLY:N	2.51	0.42
41:r:99:ARG:NH2	50:3:1296:G:O6	2.52	0.42
46:w:22:LEU:O	46:w:25:GLU:HG2	2.20	0.42
50:3:167:A:H2'	50:3:168:A:O4'	2.19	0.42
50:3:601:U:H5'	50:3:602:U:OP2	2.20	0.42
50:3:1326:C:H2'	50:3:1327:G:O4'	2.19	0.42
50:3:1794:A:H5'	50:3:2597:A:O2'	2.19	0.42
50:3:2246:G:H2'	50:3:2246:G:N3	2.35	0.42
50:3:2253:U:O2	50:3:2443:A:H3'	2.20	0.42
50:3:2368:A:H3'	50:3:2369:G:H8	1.85	0.42
50:3:2469:A:H1'	50:3:2500:U:N3	2.35	0.42
50:3:2598:C:H2'	50:3:2599:C:H6	1.84	0.42
52:5:102:G:N1	52:5:309:A:O2'	2.49	0.42
52:5:736:U:H2'	52:5:737:U:O4'	2.20	0.42
52:5:1263:A:OP2	52:5:1264:G:C8	2.72	0.42
53:7:16:G:O2'	53:7:21:U:O4	2.37	0.42
7:D:168:ALA:O	7:D:172:LEU:HG	2.19	0.42
24:a:268:ARG:NH2	24:a:274:SER:OG	2.51	0.42
42:s:7:LEU:O	46:w:30:ARG:NH2	2.53	0.42
48:y:9:SER:OG	48:y:10:LYS:N	2.52	0.42
50:3:79:U:H2'	50:3:80:U:H6	1.85	0.42
50:3:364:A:H8	50:3:1240:U:H2'	1.84	0.42
50:3:696:U:H2'	50:3:697:U:O4'	2.20	0.42
50:3:820:U:H4'	50:3:1786:U:H4'	2.02	0.42
50:3:855:A:N6	50:3:1008:A:H2'	2.35	0.42
50:3:932:U:H4'	50:3:933:A:OP2	2.17	0.42
50:3:1032:A:H2'	50:3:1033:A:C8	2.53	0.42
50:3:1077:G:O6	50:3:1148:U:C4	2.73	0.42
50:3:1179:G:H2'	50:3:1180:U:C6	2.55	0.42
50:3:1702:A:C5	50:3:1998:U:C4	3.07	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1736:G:H4'	52:5:1448:A:O2'	2.19	0.42
50:3:1746:U:H2'	50:3:1747:G:O4'	2.19	0.42
50:3:1751:A:C5	50:3:1752:A:C8	3.07	0.42
50:3:1831:G:H2'	50:3:1832:G:H8	1.84	0.42
50:3:1866:G:N1	50:3:1891:A:N7	2.67	0.42
50:3:2527:U:O4'	50:3:2550:A:N6	2.50	0.42
50:3:2561:G:H1'	50:3:2590:G:N3	2.34	0.42
50:3:2602:C:H2'	50:3:2603:G:O4'	2.20	0.42
50:3:2682:A:H2'	50:3:2683:G:C8	2.55	0.42
51:4:13:G:H1'	51:4:99:A:C5	2.55	0.42
52:5:120:A:H1'	52:5:321:A:C5	2.55	0.42
52:5:253:G:O6	52:5:266:A:N6	2.53	0.42
52:5:580:C:H41	52:5:755:U:H2'	1.84	0.42
52:5:637:A:H2'	52:5:638:A:N9	2.34	0.42
52:5:658:G:O2'	52:5:834:G:OP1	2.37	0.42
52:5:693:A:H8	52:5:693:A:OP2	2.02	0.42
52:5:1147:U:H2'	52:5:1148:U:C6	2.54	0.42
52:5:1342:C:C4	52:5:1343:G:C8	3.07	0.42
53:8:16:G:O2'	53:8:21:U:O4	2.37	0.42
5:B:61:THR:HG22	5:B:64:THR:HG22	2.02	0.42
7:D:73:LEU:HD23	7:D:73:LEU:H	1.84	0.42
7:D:169:ILE:HG21	7:D:195:THR:HB	2.02	0.42
10:G:25:ALA:HB2	10:G:33:VAL:HG21	2.02	0.42
13:J:116:PRO:HD2	23:T:35:HIS:HB2	2.02	0.42
16:M:31:ARG:NH1	52:5:1040:U:O4	2.51	0.42
23:T:37:ARG:NH2	52:5:1501:G:O5'	2.53	0.42
24:a:9:ARG:HH11	50:3:763:G:H1	1.67	0.42
24:a:160:ILE:HD13	50:3:1825:U:O2	2.20	0.42
24:a:255:ARG:HH11	24:a:261:ARG:NH1	2.18	0.42
36:m:53:LYS:HG2	36:m:87:ALA:HB1	2.02	0.42
36:m:112:GLU:O	36:m:113:MET:HE2	2.19	0.42
45:v:22:LYS:O	50:3:204:U:H4'	2.20	0.42
46:w:50:LEU:O	46:w:53:THR:OG1	2.31	0.42
50:3:108:G:H2'	50:3:109:G:H8	1.85	0.42
50:3:109:G:H1'	50:3:380:A:H61	1.84	0.42
50:3:238:U:H2'	50:3:239:U:H6	1.85	0.42
50:3:280:A:H2'	50:3:281:U:C6	2.54	0.42
50:3:300:G:H2'	50:3:301:G:H8	1.84	0.42
50:3:486:G:C2	50:3:487:C:H5	2.37	0.42
50:3:591:G:H2'	50:3:592:G:H8	1.84	0.42
50:3:688:U:O2'	50:3:689:U:OP2	2.36	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:700:U:H2'	50:3:701:A:C8	2.54	0.42
50:3:1310:U:H3'	50:3:1311:G:C8	2.54	0.42
50:3:1457:A:P	50:3:1457:A:H8	2.42	0.42
50:3:1518:C:N3	50:3:1519:A:C8	2.88	0.42
50:3:1604:A:H2'	50:3:1605:A:C8	2.55	0.42
50:3:1656:A:H2'	50:3:1657:G:C8	2.55	0.42
50:3:1734:A:C5	50:3:1735:A:H1'	2.53	0.42
50:3:1821:G:OP2	50:3:1822:A:H3'	2.20	0.42
52:5:100:G:H21	52:5:103:U:H3	1.67	0.42
52:5:109:G:N1	52:5:234:G:C6	2.87	0.42
52:5:497:A:H4'	52:5:498:G:H5'	2.02	0.42
52:5:662:G:H1'	52:5:730:G:H5'	2.02	0.42
52:5:1194:A:C4	52:5:1195:G:C8	3.08	0.42
52:5:1280:A:C8	52:5:1305:G:N2	2.88	0.42
52:5:1370:C:H5'	52:5:1376:G:N2	2.26	0.42
52:5:1408:A:C8	52:5:1443:A:C6	3.07	0.42
5:B:155:LEU:HD12	5:B:156:VAL:H	1.85	0.42
6:C:3:TYR:CE2	52:5:400:G:H5'	2.54	0.42
6:C:117:VAL:HG22	6:C:122:VAL:HG21	2.01	0.42
9:F:115:MET:HE1	52:5:1214:A:H5'	2.02	0.42
11:H:12:ARG:NH2	11:H:75:THR:O	2.53	0.42
11:H:50:MET:CG	11:H:81:ILE:HD11	2.47	0.42
13:J:91:ARG:HD3	13:J:91:ARG:HA	1.88	0.42
25:b:4:ARG:O	25:b:208:ARG:HA	2.19	0.42
25:b:151:ARG:HG2	50:3:2580:A:N7	2.35	0.42
26:c:140:THR:HG23	50:3:355:A:H5''	2.01	0.42
27:d:100:LEU:O	27:d:104:ILE:HG23	2.19	0.42
29:f:56:GLU:HA	29:f:59:GLU:OE2	2.20	0.42
35:l:65:TRP:HE1	50:3:910:G:H4'	1.84	0.42
39:p:78:PHE:CE2	39:p:82:LEU:HD11	2.55	0.42
50:3:355:A:O2'	50:3:374:A:H1'	2.19	0.42
50:3:451:A:H5'	50:3:1885:G:H21	1.85	0.42
50:3:582:A:C8	50:3:584:G:H1'	2.55	0.42
50:3:598:G:O4'	50:3:1283:A:N6	2.52	0.42
50:3:598:G:C6	50:3:610:G:N1	2.88	0.42
50:3:719:G:N2	50:3:829:A:C6	2.88	0.42
50:3:740:A:H2'	50:3:741:A:H8	1.85	0.42
50:3:804:U:H2'	50:3:805:G:C8	2.55	0.42
50:3:1202:A:H2'	50:3:1203:G:C8	2.54	0.42
50:3:1233:A:H61	50:3:1274:A:N6	2.17	0.42
50:3:1505:G:C2'	50:3:1506:U:H5'	2.50	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1514:U:H6	50:3:1514:U:H2'	1.72	0.42
50:3:1639:C:O2	50:3:1644:A:O2'	2.35	0.42
50:3:1759:C:H2'	50:3:1760:G:H8	1.85	0.42
50:3:1777:G:N2	50:3:1793:A:N7	2.66	0.42
50:3:1846:A:N7	50:3:1934:A:C4	2.88	0.42
50:3:2647:A:H3'	50:3:2648:A:C8	2.55	0.42
50:3:2658:U:H2'	50:3:2659:U:H6	1.84	0.42
50:3:2868:G:H2'	50:3:2869:U:O4'	2.19	0.42
52:5:51:A:N6	52:5:356:G:O2'	2.49	0.42
52:5:469:C:H2'	52:5:470:U:C6	2.54	0.42
52:5:1424:C:H2'	52:5:1425:A:O4'	2.19	0.42
4:A:91:TYR:CE2	4:A:226:CYS:HB2	2.55	0.42
4:A:102:ARG:NH1	4:A:237:ALA:HB2	2.34	0.42
4:A:227:LEU:O	4:A:231:LEU:HD23	2.20	0.42
7:D:155:PRO:HD2	7:D:158:THR:HG21	2.02	0.42
9:F:74:LEU:HD11	9:F:143:MET:HB2	2.02	0.42
10:G:125:ASP:OD1	10:G:125:ASP:N	2.53	0.42
14:K:23:ALA:N	14:K:108:TYR:OH	2.52	0.42
17:N:46:ASP:OD2	17:N:49:SER:OG	2.35	0.42
17:N:58:SER:HB2	52:5:579:G:H5'	2.02	0.42
21:R:32:LYS:NZ	21:R:34:TRP:HE1	2.18	0.42
25:b:109:ASP:OD1	25:b:208:ARG:HB2	2.20	0.42
26:c:55:LYS:HZ1	50:3:708:C:H5''	1.84	0.42
50:3:229:C:O2'	50:3:261:A:H5'	2.20	0.42
50:3:233:U:H3'	50:3:234:G:C5'	2.50	0.42
50:3:241:C:H2'	50:3:242:G:H8	1.83	0.42
50:3:262:G:H2'	50:3:263:C:C6	2.55	0.42
50:3:276:A:H3'	50:3:277:C:H6	1.85	0.42
50:3:805:G:H2'	50:3:806:A:C8	2.55	0.42
50:3:1096:U:H4'	50:3:1105:A:O3'	2.20	0.42
50:3:1127:C:H3'	50:3:1128:G:H8	1.85	0.42
50:3:1471:A:C6	50:3:1472:C:C2	3.07	0.42
50:3:1582:G:H2'	50:3:1583:G:C8	2.55	0.42
50:3:1597:U:H2'	50:3:1598:U:H6	1.83	0.42
50:3:1865:A:H3'	50:3:1866:G:H8	1.85	0.42
50:3:2106:G:H22	50:3:2198:G:H1	1.67	0.42
50:3:2217:G:H3'	50:3:2218:U:H2'	2.01	0.42
50:3:2468:U:C2	50:3:2469:A:C8	3.08	0.42
50:3:2472:G:H2'	50:3:2473:C:C6	2.55	0.42
50:3:2625:U:C2	50:3:2626:A:N7	2.88	0.42
50:3:2664:U:H2'	50:3:2665:A:H8	1.85	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2752:G:N2	50:3:2768:U:O2	2.53	0.42
50:3:2884:C:H2'	50:3:2885:U:H6	1.85	0.42
52:5:112:U:H2'	52:5:113:C:H6	1.85	0.42
52:5:673:A:H2'	52:5:674:U:C6	2.55	0.42
52:5:799:A:H3'	52:5:800:G:H8	1.84	0.42
52:5:951:U:H2'	52:5:952:U:O4'	2.20	0.42
52:5:996:U:H2'	52:5:997:G:O4'	2.20	0.42
52:5:1212:C:H3'	52:5:1213:A:H5'	2.02	0.42
52:5:1225:A:C5	52:5:1261:A:C5	3.08	0.42
52:5:1231:U:H2'	52:5:1253:A:C5	2.55	0.42
4:A:129:LYS:NZ	52:5:1096:A:OP1	2.53	0.41
6:C:38:HIS:HD2	6:C:42:PHE:CE1	2.37	0.41
6:C:168:GLU:HB3	6:C:177:THR:OG1	2.20	0.41
9:F:2:ARG:HH21	52:5:926:C:H3'	1.84	0.41
9:F:23:THR:O	9:F:26:ILE:HG22	2.20	0.41
12:I:72:GLU:HG2	16:M:57:LYS:HD2	2.02	0.41
13:J:39:SER:OG	13:J:42:THR:HG23	2.20	0.41
21:R:70:LYS:HG3	52:5:1294:U:C6	2.55	0.41
25:b:165:MET:HB3	50:3:2628:U:H1'	2.02	0.41
29:f:10:SER:OG	29:f:11:ASN:N	2.50	0.41
32:i:49:PRO:HB2	50:3:591:G:H1'	2.01	0.41
38:o:31:VAL:HG12	38:o:90:LEU:HG	2.02	0.41
41:r:11:ARG:HA	41:r:100:SER:HA	2.02	0.41
44:u:80:LEU:O	44:u:97:VAL:HA	2.20	0.41
49:z:35:ASN:HB3	49:z:44:VAL:HG12	2.02	0.41
50:3:170:A:H3'	50:3:171:G:H8	1.85	0.41
50:3:180:A:O2'	50:3:181:G:OP1	2.35	0.41
50:3:421:A:H5''	50:3:423:C:OP2	2.20	0.41
50:3:1002:A:H2'	50:3:1003:U:O4'	2.20	0.41
50:3:1155:G:H2'	50:3:1156:C:C6	2.55	0.41
50:3:1444:C:HO2'	50:3:1445:U:H6	1.65	0.41
50:3:1516:G:H1	50:3:1525:G:H1'	1.84	0.41
50:3:1727:U:H5'	50:3:1728:A:C8	2.54	0.41
50:3:2483:C:N3	50:3:2537:G:C2	2.87	0.41
50:3:2679:G:H2'	50:3:2680:C:H6	1.84	0.41
50:3:2709:C:O5'	50:3:2710:G:H5''	2.20	0.41
50:3:2892:U:H2'	50:3:2893:C:C6	2.55	0.41
52:5:405:C:H2'	52:5:406:G:O4'	2.20	0.41
52:5:440:U:H2'	52:5:441:U:O4'	2.20	0.41
52:5:1116:U:O2'	52:5:1117:U:O5'	2.32	0.41
52:5:1413:G:N1	52:5:1439:G:C6	2.87	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1423:C:H2'	52:5:1424:C:C6	2.55	0.41
2:1:2:LYS:HG2	50:3:246:G:N7	2.35	0.41
4:A:67:THR:HA	4:A:70:ASN:ND2	2.36	0.41
6:C:73:ARG:NH2	52:5:398:G:H5'	2.35	0.41
8:E:128:PRO:HA	52:5:840:C:O2	2.20	0.41
11:H:10:GLY:HA3	11:H:80:ALA:O	2.20	0.41
11:H:27:LYS:HA	11:H:60:LYS:O	2.20	0.41
14:K:21:SER:HB2	52:5:551:A:H5''	2.02	0.41
19:P:9:LEU:HD11	19:P:26:VAL:HG11	2.02	0.41
22:S:5:LYS:HE2	52:5:63:U:OP2	2.20	0.41
24:a:48:ASN:ND2	50:3:1819:G:H21	2.18	0.41
24:a:153:HIS:HD1	50:3:1808:C:P	2.43	0.41
24:a:190:ARG:HH21	24:a:279:ILE:N	2.12	0.41
25:b:206:LEU:HD23	25:b:208:ARG:HG3	2.02	0.41
29:f:23:ASP:HB2	29:f:28:HIS:CD2	2.54	0.41
35:l:65:TRP:HB2	35:l:105:GLU:HG2	2.02	0.41
36:m:52:ALA:HB2	36:m:63:VAL:HG11	2.02	0.41
39:p:36:GLN:O	39:p:40:GLN:HG2	2.20	0.41
50:3:80:U:H2'	50:3:81:C:C6	2.54	0.41
50:3:133:G:O6	50:3:150:U:O4	2.38	0.41
50:3:278:U:H3	50:3:291:G:H1	1.68	0.41
50:3:907:A:H3'	50:3:908:A:C8	2.56	0.41
50:3:960:A:C5	50:3:961:U:C4	3.08	0.41
50:3:1050:A:C6	50:3:1183:A:N6	2.88	0.41
50:3:1244:A:N6	50:3:1265:G:H1'	2.26	0.41
50:3:1297:U:C2	50:3:1298:A:C8	3.08	0.41
50:3:1361:U:H2'	50:3:1362:C:H6	1.83	0.41
50:3:1491:G:H2'	50:3:1492:G:O4'	2.20	0.41
50:3:1519:A:C5	50:3:1520:A:C5	3.08	0.41
50:3:1549:U:H5''	50:3:1550:G:N7	2.35	0.41
50:3:1580:G:C2	50:3:1581:U:C4	3.08	0.41
50:3:1701:G:H1'	50:3:1702:A:C8	2.56	0.41
50:3:1777:G:N3	50:3:1793:A:C6	2.88	0.41
50:3:2085:C:H2'	50:3:2086:U:C6	2.55	0.41
50:3:2263:G:C4	50:3:2264:G:C8	3.08	0.41
50:3:2294:A:H4'	50:3:2295:A:O4'	2.20	0.41
50:3:2312:G:H8	50:3:2312:G:OP2	2.02	0.41
50:3:2522:U:C2	50:3:2523:C:C5	3.08	0.41
50:3:2668:A:C4	50:3:2669:G:C8	3.08	0.41
50:3:2688:C:N4	50:3:2735:G:O6	2.53	0.41
50:3:2788:U:O2'	50:3:2789:A:H5'	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2842:G:C4	50:3:2843:G:C8	3.08	0.41
52:5:5:U:H2'	52:5:6:C:C6	2.55	0.41
52:5:410:A:P	52:5:425:G:H1	2.43	0.41
52:5:549:U:H2'	52:5:550:U:C6	2.55	0.41
52:5:664:A:H2'	52:5:665:G:H8	1.86	0.41
52:5:787:A:H62	53:7:38:G:H21	1.68	0.41
52:5:899:U:H2'	52:5:900:G:O4'	2.20	0.41
52:5:1057:C:N4	52:5:1166:A:H62	2.10	0.41
52:5:1124:U:OP2	52:5:1125:C:N4	2.53	0.41
52:5:1274:G:O2'	52:5:1306:A:OP2	2.39	0.41
52:5:1472:G:H2'	52:5:1473:U:O4'	2.21	0.41
52:5:1488:A:H2'	52:5:1489:C:C6	2.55	0.41
5:B:32:LYS:HG3	5:B:33:TRP:HD1	1.85	0.41
7:D:69:ARG:HH12	7:D:171:GLU:HB2	1.84	0.41
8:E:89:ASN:OD1	8:E:90:LEU:N	2.47	0.41
11:H:73:GLY:O	11:H:77:GLN:NE2	2.53	0.41
11:H:108:ARG:NH2	11:H:109:ASP:OD1	2.53	0.41
12:I:9:TYR:CD1	12:I:10:PRO:HD2	2.55	0.41
20:Q:40:TYR:HD2	20:Q:77:GLY:HA3	1.85	0.41
22:S:9:LYS:HA	22:S:12:ARG:HH11	1.84	0.41
22:S:53:ARG:HE	52:5:196:G:H5''	1.85	0.41
27:d:37:ASN:HD21	27:d:68:THR:HG21	1.85	0.41
27:d:40:VAL:HG21	27:d:50:LEU:HD13	2.02	0.41
27:d:74:ILE:HD13	27:d:74:ILE:HA	1.95	0.41
30:g:56:ASN:HB2	30:g:75:ALA:O	2.20	0.41
36:m:74:ASP:N	36:m:77:GLN:HB2	2.34	0.41
38:o:28:GLY:HA2	38:o:113:LYS:HZ1	1.86	0.41
42:s:6:VAL:HG23	42:s:7:LEU:HD12	2.02	0.41
44:u:61:PRO:HB2	44:u:65:VAL:HB	2.02	0.41
50:3:217:A:C6	50:3:218:G:C2	3.08	0.41
50:3:263:C:H2'	50:3:264:G:C8	2.54	0.41
50:3:465:A:O2'	50:3:466:A:O4'	2.27	0.41
50:3:589:A:H2'	50:3:590:U:O4'	2.20	0.41
50:3:1306:G:H2'	50:3:1307:G:H8	1.83	0.41
50:3:1445:U:H2'	50:3:1446:G:C8	2.55	0.41
50:3:1687:G:N1	50:3:2010:A:OP2	2.54	0.41
50:3:1721:G:N1	50:3:1734:A:OP1	2.53	0.41
50:3:1780:A:H2'	50:3:1781:C:O4'	2.20	0.41
50:3:1957:G:H22	50:3:1963:U:H3	1.68	0.41
50:3:2127:G:C6	50:3:2187:C:C4	3.07	0.41
50:3:2306:A:OP2	50:3:2326:G:N2	2.52	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2689:C:H5''	50:3:2731:U:OP2	2.21	0.41
50:3:2737:G:N1	50:3:2738:U:C4	2.88	0.41
51:4:89:A:OP1	51:4:89:A:H4'	2.21	0.41
51:4:95:G:H2'	51:4:96:G:C8	2.55	0.41
52:5:305:A:H1'	52:5:605:A:H61	1.85	0.41
52:5:439:U:H2'	52:5:440:U:C6	2.54	0.41
52:5:663:G:C6	52:5:737:U:O2	2.72	0.41
52:5:1405:U:H2'	52:5:1406:U:C6	2.55	0.41
52:5:1437:A:H2'	52:5:1438:U:O4'	2.20	0.41
1:0:19:LEU:HB2	50:3:126:C:H5''	2.01	0.41
4:A:46:GLU:CD	4:A:57:VAL:HG13	2.46	0.41
6:C:191:ILE:HD13	6:C:191:ILE:HA	1.86	0.41
9:F:21:LEU:O	9:F:25:ILE:HG12	2.20	0.41
12:I:44:GLY:C	12:I:80:MET:HE1	2.46	0.41
13:J:115:LYS:HE3	52:5:776:C:H1'	2.02	0.41
25:b:4:ARG:HG3	25:b:101:LEU:HD11	2.02	0.41
32:i:105:TYR:CZ	32:i:122:ILE:HG13	2.55	0.41
35:l:85:SER:H	50:3:2283:C:H1'	1.85	0.41
39:p:64:LEU:O	39:p:68:LEU:HG	2.20	0.41
40:q:65:GLN:CD	40:q:87:GLN:HB3	2.46	0.41
42:s:33:PRO:HA	42:s:79:LYS:HD2	2.02	0.41
46:w:17:LYS:HA	46:w:20:ILE:HG12	2.02	0.41
50:3:40:A:H2'	50:3:41:C:C6	2.55	0.41
50:3:582:A:H3'	50:3:582:A:N3	2.34	0.41
50:3:643:A:H2'	50:3:644:C:O4'	2.21	0.41
50:3:1812:C:H2'	50:3:1813:C:C6	2.56	0.41
50:3:1834:U:H5''	50:3:1978:U:H5''	2.01	0.41
50:3:2172:A:H3'	50:3:2173:G:C8	2.52	0.41
50:3:2289:C:H1'	50:3:2396:A:C4	2.55	0.41
50:3:2328:A:H2'	50:3:2341:G:C2	2.55	0.41
50:3:2562:U:O2'	50:3:2563:U:O5'	2.37	0.41
51:4:78:C:H5	51:4:86:G:H1	1.67	0.41
51:4:91:A:H3'	51:4:92:A:C8	2.55	0.41
52:5:111:A:H5''	52:5:603:U:H1'	2.02	0.41
52:5:290:G:H2'	52:5:291:C:H6	1.85	0.41
52:5:472:G:H2'	52:5:473:A:H8	1.84	0.41
52:5:582:G:N1	52:5:755:U:O2	2.53	0.41
52:5:606:A:H3'	52:5:607:A:C8	2.49	0.41
52:5:808:C:H4'	52:5:895:A:N1	2.34	0.41
52:5:908:A:H2'	52:5:909:A:O4'	2.20	0.41
52:5:1012:A:H3'	52:5:1013:C:O4'	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:34:LYS:HA	4:A:53:ASN:HA	2.03	0.41
4:A:152:LEU:O	4:A:155:GLU:HG3	2.20	0.41
7:D:77:SER:OG	52:5:16:G:O2'	2.15	0.41
11:H:12:ARG:HG2	11:H:76:GLY:HA2	2.03	0.41
12:I:47:PRO:HG2	52:5:1127:A:H1'	2.03	0.41
14:K:62:LEU:HB3	52:5:518:A:OP1	2.20	0.41
24:a:131:LYS:HB3	24:a:131:LYS:HE2	1.81	0.41
24:a:217:GLY:HA2	24:a:220:ARG:HD3	2.03	0.41
25:b:7:PHE:HD2	25:b:54:PHE:CE1	2.39	0.41
25:b:139:TYR:HB2	25:b:140:PRO:HD3	2.01	0.41
33:j:21:ILE:HA	33:j:41:VAL:HG12	2.02	0.41
41:r:18:ARG:NH1	50:3:553:A:O3'	2.53	0.41
41:r:78:GLN:NE2	50:3:552:C:O4'	2.54	0.41
44:u:43:GLN:O	44:u:44:MET:HE2	2.21	0.41
48:y:9:SER:O	48:y:13:ARG:NH2	2.53	0.41
50:3:29:G:H1'	50:3:30:A:C8	2.55	0.41
50:3:255:A:N6	50:3:424:G:O6	2.48	0.41
50:3:344:A:H61	50:3:1241:U:H5	1.69	0.41
50:3:454:G:C2	50:3:455:G:C5	3.09	0.41
50:3:513:A:H2'	50:3:514:A:N9	2.36	0.41
50:3:533:G:H2'	50:3:534:U:C6	2.55	0.41
50:3:608:A:O2'	50:3:2511:A:OP1	2.38	0.41
50:3:673:A:H1'	50:3:687:G:N2	2.30	0.41
50:3:740:A:OP2	50:3:760:G:N2	2.52	0.41
50:3:794:G:C6	50:3:795:G:C5	3.07	0.41
50:3:870:A:N6	50:3:871:G:O6	2.53	0.41
50:3:938:A:H2'	50:3:939:U:C6	2.55	0.41
50:3:1385:U:C2	50:3:1403:G:N2	2.88	0.41
50:3:1433:U:O2'	50:3:1434:U:H5'	2.20	0.41
50:3:1497:A:H2'	50:3:1498:U:C6	2.55	0.41
50:3:1683:G:H2'	50:3:1684:A:C8	2.54	0.41
50:3:2058:G:N2	50:3:2059:G:O6	2.54	0.41
50:3:2100:G:H2'	50:3:2101:A:C8	2.56	0.41
50:3:2243:G:H2'	50:3:2244:U:C6	2.56	0.41
50:3:2465:U:H3'	50:3:2466:G:C8	2.56	0.41
50:3:2683:G:H2'	50:3:2684:G:H8	1.84	0.41
50:3:2855:A:C2	50:3:2856:G:H1'	2.55	0.41
52:5:19:C:H2'	52:5:20:C:C6	2.56	0.41
52:5:92:G:H4'	52:5:374:G:H4'	2.03	0.41
52:5:365:U:O2	52:5:388:G:N2	2.41	0.41
52:5:382:U:C4	52:5:383:U:C4	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:456:U:H2'	52:5:457:A:C8	2.55	0.41
52:5:613:C:H2'	52:5:614:U:H6	1.81	0.41
52:5:1257:C:H2'	52:5:1258:U:C6	2.55	0.41
52:5:1367:G:H2'	52:5:1368:U:C6	2.55	0.41
2:1:11:PHE:CE2	2:1:59:ILE:HD11	2.56	0.41
4:A:107:PHE:CE1	4:A:165:GLY:HA2	2.55	0.41
18:O:61:ASP:N	18:O:61:ASP:OD1	2.53	0.41
24:a:148:HIS:HB3	24:a:167:TYR:HA	2.01	0.41
36:m:70:THR:OG1	36:m:71:ASN:N	2.54	0.41
37:n:55:SER:OG	37:n:77:ILE:HB	2.20	0.41
38:o:33:VAL:HA	38:o:88:ILE:HA	2.03	0.41
38:o:93:ARG:O	38:o:116:GLU:N	2.44	0.41
43:t:12:VAL:O	43:t:19:GLY:N	2.42	0.41
50:3:153:U:O2'	50:3:154:U:H5'	2.20	0.41
50:3:330:A:H2'	50:3:331:A:C8	2.56	0.41
50:3:387:U:H2'	50:3:388:U:C6	2.56	0.41
50:3:644:C:H2'	50:3:645:C:C6	2.56	0.41
50:3:664:G:H2'	50:3:665:C:H6	1.84	0.41
50:3:669:A:N7	50:3:670:G:H1'	2.36	0.41
50:3:671:C:H2'	50:3:672:G:O4'	2.20	0.41
50:3:807:U:H2'	50:3:808:U:C6	2.54	0.41
50:3:959:C:H2'	50:3:960:A:C8	2.54	0.41
50:3:985:A:H1'	50:3:1021:C:H5''	2.02	0.41
50:3:1055:A:N6	50:3:1176:U:O2'	2.51	0.41
50:3:1151:U:H2'	50:3:1152:U:O4'	2.21	0.41
50:3:1174:G:H21	50:3:1178:A:H2	1.68	0.41
50:3:1220:A:H3'	50:3:1221:G:C8	2.55	0.41
50:3:1318:U:H2'	50:3:1319:C:H6	1.85	0.41
50:3:1538:U:H2'	50:3:1539:U:O4'	2.19	0.41
50:3:1777:G:H2'	50:3:1778:G:H8	1.82	0.41
50:3:1896:A:H2'	50:3:1897:A:O4'	2.21	0.41
50:3:2070:C:O2	53:7:77:A:H5''	2.21	0.41
52:5:561:A:H4'	52:5:564:G:O2'	2.21	0.41
52:5:579:G:N1	52:5:755:U:H3'	2.35	0.41
52:5:1067:C:H2'	52:5:1068:G:H8	1.85	0.41
52:5:1331:A:H2'	52:5:1332:U:C6	2.56	0.41
6:C:10:ARG:NH2	52:5:541:C:OP1	2.53	0.41
8:E:107:LEU:O	8:E:111:LYS:HG2	2.21	0.41
9:F:108:ARG:HE	9:F:108:ARG:HB3	1.73	0.41
14:K:7:LEU:HD23	14:K:7:LEU:HA	1.96	0.41
14:K:77:LEU:HB3	14:K:106:VAL:HG22	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:P:42:HIS:NE2	52:5:275:A:OP1	2.53	0.41
21:R:55:LYS:HB2	52:5:953:A:C2	2.56	0.41
24:a:41:LEU:HB2	24:a:64:ARG:O	2.19	0.41
24:a:150:ILE:CG2	24:a:160:ILE:HB	2.50	0.41
26:c:52:ILE:HD12	26:c:52:ILE:HA	1.89	0.41
26:c:142:VAL:O	26:c:145:GLN:HB3	2.20	0.41
26:c:200:GLU:OE2	26:c:202:GLU:HB2	2.20	0.41
32:i:78:TYR:HB3	32:i:87:ILE:HG23	2.01	0.41
34:k:81:ASN:OD1	50:3:663:A:N6	2.54	0.41
35:l:56:LYS:HE2	50:3:2477:A:O2'	2.20	0.41
49:z:31:LYS:NZ	49:z:49:GLU:O	2.53	0.41
50:3:98:C:H2'	50:3:99:C:C6	2.56	0.41
50:3:573:A:C2	50:3:589:A:H1'	2.55	0.41
50:3:717:U:H2'	50:3:718:U:C6	2.55	0.41
50:3:1039:G:H2'	50:3:1040:U:C6	2.56	0.41
50:3:1883:A:H3'	50:3:1884:A:C8	2.56	0.41
50:3:1896:A:H1'	50:3:2094:A:H4'	2.03	0.41
50:3:2106:G:H22	50:3:2198:G:H22	1.68	0.41
50:3:2239:U:H2'	50:3:2240:U:C6	2.56	0.41
50:3:2256:C:H3'	50:3:2257:U:H6	1.84	0.41
50:3:2366:A:H2'	50:3:2367:C:H6	1.86	0.41
50:3:2383:G:H2'	50:3:2385:A:N7	2.36	0.41
50:3:2465:U:H3'	50:3:2466:G:H8	1.86	0.41
50:3:2633:C:H2'	50:3:2634:C:H6	1.85	0.41
50:3:2811:G:H21	50:3:2896:G:H1	1.66	0.41
51:4:2:U:H2'	51:4:3:U:C6	2.56	0.41
51:4:76:A:C2	51:4:77:G:H1'	2.56	0.41
52:5:159:U:H4'	52:5:199:A:C8	2.55	0.41
52:5:213:U:OP1	52:5:461:G:N2	2.51	0.41
52:5:288:A:H2'	52:5:289:U:O4'	2.20	0.41
52:5:319:U:H2'	52:5:320:G:C4	2.55	0.41
52:5:779:A:H62	52:5:797:G:N2	2.18	0.41
52:5:950:C:H2'	52:5:951:U:H6	1.85	0.41
52:5:1214:A:C2	52:5:1270:C:C4	3.09	0.41
52:5:1220:A:N6	52:5:1267:G:O6	2.54	0.41
52:5:1243:A:H2'	52:5:1244:A:C4	2.55	0.41
52:5:1249:G:N2	52:5:1250:A:N7	2.69	0.41
21:R:9:ALA:HB1	21:R:41:PHE:HE1	1.86	0.41
24:a:14:ILE:H	50:3:1780:A:H61	1.67	0.41
24:a:163:SER:HB2	50:3:1825:U:H5''	2.02	0.41
25:b:163:LYS:HD2	25:b:163:LYS:HA	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:c:187:SER:HB2	26:c:189:ARG:HG2	2.02	0.41
29:f:6:LYS:HB3	29:f:33:LYS:O	2.21	0.41
33:j:3:SER:O	33:j:6:THR:OG1	2.31	0.41
34:k:35:GLY:HA2	50:3:978:G:O3'	2.20	0.41
35:l:32:TYR:CE2	35:l:114:MET:HE3	2.56	0.41
39:p:47:ARG:NH1	39:p:48:ASP:OD1	2.53	0.41
41:r:78:GLN:HB2	50:3:26:G:H21	1.86	0.41
42:s:45:GLU:HA	42:s:50:ILE:O	2.21	0.41
46:w:2:THR:O	46:w:6:GLU:HG3	2.20	0.41
50:3:39:C:H2'	50:3:40:A:H8	1.77	0.41
50:3:448:A:H2'	50:3:449:C:O4'	2.20	0.41
50:3:910:G:C6	50:3:942:A:C6	3.08	0.41
50:3:1017:A:H2	50:3:2034:G:N3	2.19	0.41
50:3:1162:A:H2'	50:3:2526:A:C2	2.55	0.41
50:3:1212:C:C2	50:3:1213:U:C5	3.08	0.41
50:3:1331:G:C6	50:3:1332:A:N6	2.89	0.41
50:3:1455:A:H8	50:3:1455:A:O5'	2.03	0.41
50:3:1503:A:N6	50:3:1591:C:O2'	2.53	0.41
50:3:1588:A:HO2'	50:3:1589:A:P	2.43	0.41
50:3:1692:A:H2'	50:3:1693:U:O4'	2.21	0.41
50:3:1874:G:H2'	50:3:1875:C:C6	2.55	0.41
50:3:1918:U:H2'	50:3:1925:A:C2	2.56	0.41
50:3:2011:G:H3'	50:3:2012:A:C8	2.51	0.41
50:3:2095:A:H2'	50:3:2096:U:O4'	2.21	0.41
50:3:2106:G:N2	50:3:2198:G:H22	2.19	0.41
50:3:2111:U:H5''	50:3:2112:A:C8	2.56	0.41
50:3:2117:G:H5''	50:3:2152:C:N4	2.33	0.41
50:3:2301:C:H2'	50:3:2302:C:C6	2.56	0.41
50:3:2470:C:H2'	50:3:2471:U:C6	2.56	0.41
50:3:2476:A:OP1	50:3:2484:A:N6	2.53	0.41
51:4:3:U:H2'	51:4:4:G:H8	1.85	0.41
52:5:180:C:O2'	52:5:185:G:N2	2.31	0.41
52:5:826:G:H2'	52:5:827:C:H6	1.86	0.41
52:5:934:G:H1	52:5:1318:C:N4	2.18	0.41
52:5:999:C:N3	52:5:1028:C:H1'	2.36	0.41
5:B:5:VAL:HG12	52:5:1165:G:OP1	2.20	0.41
5:B:36:GLU:HA	5:B:39:LYS:NZ	2.35	0.41
5:B:181:LEU:HD23	5:B:181:LEU:H	1.86	0.41
6:C:138:PRO:HA	6:C:178:TYR:HD2	1.85	0.41
7:D:212:ARG:C	7:D:214:LYS:H	2.29	0.41
8:E:94:TYR:HE2	8:E:96:TYR:HB2	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:F:14:ASP:HB3	9:F:17:PHE:HB3	2.02	0.41
9:F:67:ASN:O	9:F:137:LYS:HE2	2.20	0.41
9:F:106:PHE:HE2	9:F:133:ALA:HB2	1.85	0.41
11:H:12:ARG:HB3	11:H:76:GLY:O	2.20	0.41
14:K:112:ARG:HD3	14:K:112:ARG:HA	1.85	0.41
15:L:98:ARG:HB2	15:L:100:GLN:OE1	2.21	0.41
16:M:43:CYS:O	16:M:46:GLU:HG2	2.21	0.41
20:Q:81:MET:HE1	52:5:833:G:P	2.61	0.41
24:a:81:ALA:HB2	24:a:101:TYR:CD1	2.56	0.41
24:a:174:ASP:HB2	24:a:179:TYR:O	2.20	0.41
24:a:185:LEU:O	24:a:186:SER:OG	2.30	0.41
25:b:54:PHE:O	25:b:78:THR:HB	2.21	0.41
25:b:125:ARG:NH2	25:b:165:MET:O	2.54	0.41
26:c:51:SER:OG	26:c:95:PRO:HG3	2.21	0.41
27:d:61:SER:OG	27:d:63:GLN:O	2.31	0.41
28:e:92:LEU:HB3	28:e:132:THR:HA	2.03	0.41
29:f:1:MET:SD	29:f:22:LYS:HA	2.61	0.41
29:f:65:SER:C	29:f:69:LYS:HD3	2.46	0.41
32:i:37:ASP:OD1	32:i:40:ARG:NH2	2.53	0.41
34:k:22:ARG:HD2	34:k:22:ARG:HA	1.84	0.41
35:l:54:ILE:O	35:l:58:LEU:CB	2.62	0.41
38:o:4:ILE:HD12	38:o:4:ILE:HA	1.98	0.41
39:p:1:MET:HG2	39:p:1:MET:O	2.21	0.41
39:p:66:ALA:O	39:p:70:GLU:HG3	2.21	0.41
41:r:18:ARG:O	41:r:22:GLN:HG2	2.21	0.41
41:r:116:GLU:HA	41:r:119:LYS:HE2	2.03	0.41
41:r:124:LEU:O	41:r:127:LYS:HG2	2.21	0.41
45:v:53:ARG:O	45:v:57:THR:HG23	2.21	0.41
46:w:4:ALA:O	46:w:8:ARG:HG2	2.21	0.41
46:w:51:LEU:HD23	46:w:51:LEU:HA	1.95	0.41
48:y:4:GLN:HA	50:3:2623:U:C6	2.56	0.41
50:3:155:A:N6	50:3:178:A:H61	2.19	0.41
50:3:161:U:H2'	50:3:162:G:O4'	2.21	0.41
50:3:188:G:C4	50:3:217:A:C6	3.09	0.41
50:3:306:G:C6	50:3:399:G:C5	3.09	0.41
50:3:323:A:H2'	50:3:324:C:H6	1.85	0.41
50:3:410:G:N2	50:3:436:G:H2'	2.35	0.41
50:3:495:U:O2	50:3:507:A:N6	2.53	0.41
50:3:584:G:C2	50:3:585:U:C5	3.09	0.41
50:3:610:G:O3'	50:3:1285:U:O2'	2.38	0.41
50:3:668:A:O2'	50:3:2411:C:O2'	2.32	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:739:G:C2	50:3:761:G:C4	3.09	0.41
50:3:825:U:H5'	50:3:826:C:OP2	2.20	0.41
50:3:897:A:O2'	51:4:77:G:H4'	2.21	0.41
50:3:906:G:C4	50:3:907:A:C8	3.09	0.41
50:3:1085:A:N6	50:3:1144:C:C5	2.88	0.41
50:3:1099:C:N4	50:3:1105:A:OP1	2.53	0.41
50:3:1195:A:H2'	50:3:1196:U:C6	2.56	0.41
50:3:1210:A:OP2	50:3:1210:A:H8	2.04	0.41
50:3:1449:G:H4'	50:3:1518:C:H41	1.86	0.41
50:3:1725:G:H2'	50:3:1726:U:O4'	2.21	0.41
50:3:2038:A:N3	50:3:2463:G:O2'	2.43	0.41
50:3:2278:G:C4	50:3:2279:G:C8	3.09	0.41
50:3:2413:G:N2	50:3:2419:A:C8	2.89	0.41
50:3:2414:U:OP1	50:3:2419:A:N6	2.53	0.41
50:3:2650:A:C2	50:3:2651:G:C5	3.09	0.41
50:3:2884:C:H2'	50:3:2885:U:C6	2.56	0.41
50:3:2885:U:H2'	50:3:2886:A:C8	2.56	0.41
52:5:26:C:O2'	52:5:506:U:O4	2.38	0.41
52:5:36:G:H2'	52:5:37:C:C6	2.55	0.41
52:5:116:A:O3'	52:5:259:A:O2'	2.39	0.41
52:5:135:A:N6	52:5:157:A:OP2	2.54	0.41
52:5:154:G:H2'	52:5:155:C:O4'	2.21	0.41
52:5:215:C:H2'	52:5:216:G:O4'	2.20	0.41
52:5:942:G:H2'	52:5:943:C:C6	2.56	0.41
52:5:982:A:H2'	52:5:983:G:C8	2.56	0.41
52:5:987:U:H5''	52:5:988:G:C2	2.56	0.41
52:5:1142:G:N2	52:5:1145:A:OP2	2.46	0.41
52:5:1243:A:H1'	52:5:1300:C:O2'	2.21	0.41
52:5:1273:A:H2'	52:5:1273:A:N3	2.36	0.41
52:5:1306:A:H2'	52:5:1307:A:O4'	2.21	0.41
2:1:4:LYS:HD2	2:1:4:LYS:HA	1.79	0.41
2:1:37:GLN:HE22	50:3:2370:G:C5'	2.34	0.41
4:A:87:THR:HG21	4:A:111:ARG:HB2	2.02	0.41
4:A:201:LEU:HA	4:A:215:ILE:HB	2.03	0.41
5:B:202:LYS:NZ	52:5:1049:G:OP1	2.50	0.41
5:B:206:ASN:OD1	5:B:208:GLY:N	2.49	0.41
6:C:49:GLY:O	6:C:52:GLN:HB2	2.20	0.41
8:E:8:LEU:HB2	8:E:84:ARG:H	1.86	0.41
11:H:115:ARG:CZ	52:5:1344:C:H5''	2.51	0.41
14:K:16:LYS:HA	14:K:16:LYS:HD2	1.80	0.41
17:N:59:LYS:O	17:N:63:LEU:HG	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:T:11:LEU:H	23:T:11:LEU:HD23	1.86	0.41
26:c:133:PHE:HB3	26:c:165:ASN:HD22	1.85	0.41
26:c:185:LYS:HB3	50:3:648:G:N2	2.22	0.41
29:f:67:LYS:O	29:f:71:VAL:HG23	2.22	0.41
32:i:63:ASP:HA	32:i:129:LYS:HE3	2.03	0.41
34:k:92:LYS:HA	34:k:92:LYS:HD3	1.98	0.41
36:m:50:THR:HA	36:m:53:LYS:HE2	2.03	0.41
41:r:35:ILE:HD13	48:y:27:LEU:HD11	2.02	0.41
48:y:50:ASP:O	48:y:51:LEU:HB2	2.20	0.41
50:3:53:G:H8	50:3:53:G:OP2	2.04	0.41
50:3:74:U:C5	50:3:113:U:H4'	2.55	0.41
50:3:178:A:O2'	50:3:179:A:O4'	2.21	0.41
50:3:603:G:N1	50:3:2507:C:OP2	2.32	0.41
50:3:890:U:C2	50:3:891:G:C8	3.09	0.41
50:3:905:U:C2	50:3:906:G:C8	3.09	0.41
50:3:1638:C:H2'	50:3:1639:C:H6	1.86	0.41
50:3:2097:A:N6	50:3:2238:G:O6	2.53	0.41
50:3:2381:G:C6	50:3:2389:A:N1	2.89	0.41
50:3:2439:U:H2'	50:3:2441:A:N7	2.36	0.41
50:3:2513:G:H2'	50:3:2584:G:C6	2.56	0.41
50:3:2530:U:H4'	50:3:2656:G:OP1	2.21	0.41
50:3:2854:A:H3'	50:3:2855:A:H8	1.85	0.41
52:5:204:C:H2'	52:5:205:U:C6	2.55	0.41
52:5:825:A:H2'	52:5:826:G:O4'	2.21	0.41
52:5:932:A:H1'	52:5:1354:G:N2	2.33	0.41
52:5:1119:C:H4'	52:5:1124:U:H1'	2.02	0.41
52:5:1214:A:N3	52:5:1216:G:C6	2.89	0.41
52:5:1244:A:H1'	52:5:1286:G:H21	1.85	0.41
52:5:1467:A:H3'	52:5:1468:A:C8	2.56	0.41
9:F:74:LEU:HD22	9:F:85:GLN:HG3	2.03	0.40
10:G:9:LYS:HD2	52:5:822:A:H5''	2.03	0.40
13:J:106:LYS:HD3	13:J:106:LYS:HA	1.82	0.40
14:K:48:THR:OG1	14:K:75:GLU:OE2	2.34	0.40
14:K:122:LYS:O	52:5:536:U:H5''	2.20	0.40
18:O:49:ALA:HA	18:O:52:TRP:HD1	1.86	0.40
21:R:34:TRP:HH2	52:5:982:A:H1'	1.87	0.40
24:a:4:LYS:HZ3	24:a:19:VAL:HG13	1.86	0.40
24:a:31:ASN:HB2	50:3:1601:A:H1'	2.03	0.40
24:a:173:GLN:HG2	24:a:180:VAL:HG12	2.03	0.40
26:c:129:ASP:HB3	26:c:201:LYS:HE3	2.04	0.40
27:d:26:MET:SD	27:d:26:MET:N	2.93	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:e:108:LEU:HD13	28:e:116:ILE:HG22	2.03	0.40
29:f:55:GLN:O	29:f:58:TYR:HB2	2.22	0.40
29:f:62:LYS:O	29:f:65:SER:HB2	2.20	0.40
31:h:126:GLY:HA3	50:3:1115:G:H1'	2.04	0.40
34:k:68:ALA:HA	50:3:2423:G:H1'	2.03	0.40
34:k:80:LEU:HD11	34:k:114:LEU:HD12	2.02	0.40
38:o:9:LEU:H	38:o:9:LEU:HD12	1.86	0.40
39:p:32:LYS:HG3	50:3:614:C:OP1	2.21	0.40
43:t:13:ILE:HG13	43:t:14:THR:N	2.36	0.40
44:u:28:ARG:C	50:3:2286:A:H62	2.29	0.40
50:3:82:G:N2	50:3:328:A:H1'	2.35	0.40
50:3:135:A:H2'	50:3:136:G:C8	2.56	0.40
50:3:330:A:H2'	50:3:331:A:H8	1.86	0.40
50:3:562:C:N4	50:3:2787:U:OP2	2.50	0.40
50:3:805:G:H2'	50:3:806:A:H8	1.85	0.40
50:3:806:A:O2'	50:3:1383:G:O2'	2.34	0.40
50:3:861:U:H2'	50:3:863:U:O4'	2.21	0.40
50:3:1212:C:H2'	50:3:1213:U:C6	2.56	0.40
50:3:1336:A:H2'	50:3:1337:G:C8	2.56	0.40
50:3:1377:A:H3'	50:3:1378:C:H5'	2.02	0.40
50:3:1510:A:C6	50:3:1530:G:C6	3.09	0.40
50:3:1698:A:C2	50:3:1699:A:C8	3.08	0.40
50:3:1703:A:H3'	50:3:1703:A:N3	2.37	0.40
50:3:1873:A:H61	50:3:1882:G:C2'	2.33	0.40
50:3:2234:C:C2	50:3:2235:A:C8	3.08	0.40
50:3:2666:C:H3'	50:3:2667:G:H8	1.86	0.40
50:3:2732:A:H2'	50:3:2733:A:C8	2.56	0.40
50:3:2733:A:O3'	50:3:2734:C:H2'	2.21	0.40
51:4:38:U:O2'	51:4:40:U:OP2	2.38	0.40
52:5:116:A:N1	52:5:229:G:H1'	2.35	0.40
52:5:434:U:H2'	52:5:435:U:C5	2.56	0.40
52:5:464:A:H2'	52:5:465:A:O4'	2.21	0.40
52:5:920:G:H1	52:5:1366:U:H3	1.68	0.40
52:5:1136:G:C6	52:5:1137:C:C4	3.09	0.40
52:5:1200:G:OP2	52:5:1200:G:H8	2.04	0.40
2:1:7:ALA:HB1	2:1:11:PHE:CE2	2.55	0.40
6:C:10:ARG:NH2	6:C:13:ARG:HD3	2.27	0.40
10:G:23:ASN:C	10:G:23:ASN:HD22	2.28	0.40
20:Q:52:ASP:OD1	20:Q:52:ASP:N	2.54	0.40
21:R:15:LEU:HA	21:R:18:LYS:HB2	2.02	0.40
24:a:226:PRO:HG3	50:3:799:A:H2	1.86	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:d:43:ALA:C	27:d:46:ASP:H	2.28	0.40
34:k:20:LEU:HA	34:k:32:SER:HB2	2.02	0.40
34:k:48:ARG:NH1	50:3:199:A:H5'	2.36	0.40
41:r:77:ASN:HB2	41:r:102:ASN:O	2.21	0.40
42:s:13:THR:H	42:s:16:VAL:HB	1.86	0.40
42:s:56:ASN:OD1	50:3:1369:U:O2'	2.26	0.40
44:u:78:ASP:HB3	44:u:100:HIS:CE1	2.55	0.40
50:3:227:A:H2'	50:3:456:G:H21	1.86	0.40
50:3:234:G:H2'	50:3:235:U:C6	2.55	0.40
50:3:638:A:H2'	50:3:639:G:C8	2.57	0.40
50:3:1320:C:H2'	50:3:1321:C:C6	2.56	0.40
50:3:1510:A:H2'	50:3:1511:C:C6	2.56	0.40
50:3:1665:G:H22	50:3:1668:G:P	2.41	0.40
50:3:1842:G:H2'	50:3:1843:C:C6	2.56	0.40
50:3:1911:G:H21	50:3:1935:A:H2	1.65	0.40
50:3:1951:A:H61	50:3:2566:C:H1'	1.86	0.40
50:3:2122:G:O2'	50:3:2179:A:N6	2.53	0.40
50:3:2258:G:C8	50:3:2504:C:H5''	2.56	0.40
50:3:2541:C:H2'	50:3:2542:A:C4	2.55	0.40
50:3:2553:G:H2'	50:3:2554:U:O4'	2.21	0.40
50:3:2862:U:O2'	50:3:2863:G:P	2.80	0.40
51:4:47:C:O2'	51:4:48:A:H5'	2.21	0.40
51:4:90:G:C2	51:4:91:A:H1'	2.56	0.40
52:5:26:C:H5'	52:5:522:G:H1'	2.02	0.40
52:5:173:U:H2'	52:5:174:U:C6	2.56	0.40
52:5:250:G:H2'	52:5:251:G:H8	1.81	0.40
52:5:343:G:H2'	52:5:344:G:O4'	2.22	0.40
52:5:703:A:H3'	52:5:704:U:H6	1.86	0.40
52:5:981:U:H2'	52:5:982:A:C8	2.56	0.40
52:5:1214:A:N7	52:5:1272:C:N4	2.69	0.40
52:5:1474:A:H2'	52:5:1475:A:C8	2.56	0.40
53:7:3:G:H8	53:7:3:G:OP2	2.04	0.40
53:8:3:G:H8	53:8:3:G:OP2	2.05	0.40
2:1:10:ARG:HA	34:k:65:PHE:CD2	2.55	0.40
4:A:156:ILE:HD13	4:A:156:ILE:HA	1.91	0.40
6:C:151:ILE:HG22	6:C:153:ILE:H	1.87	0.40
12:I:26:LEU:O	12:I:30:LYS:HG3	2.21	0.40
15:L:16:GLU:O	15:L:20:THR:HG23	2.20	0.40
19:P:76:ARG:HH22	52:5:185:G:H1'	1.86	0.40
25:b:120:THR:OG1	25:b:121:GLY:N	2.54	0.40
26:c:44:SER:OG	50:3:651:A:OP1	2.26	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:c:141:LYS:NZ	50:3:354:C:OP2	2.55	0.40
30:g:37:ALA:HB2	50:3:1120:A:H62	1.87	0.40
32:i:42:LYS:NZ	50:3:1043:C:OP1	2.33	0.40
32:i:48:THR:HG21	32:i:51:GLN:HB2	2.03	0.40
34:k:10:PRO:HD3	50:3:1274:A:H5'	2.04	0.40
34:k:34:ARG:NH2	50:3:620:G:H22	2.20	0.40
37:n:36:LEU:HD12	51:4:27:A:C8	2.57	0.40
39:p:107:LEU:O	39:p:110:GLN:HG3	2.22	0.40
40:q:21:PHE:HZ	50:3:583:U:H1'	1.86	0.40
40:q:44:LYS:O	40:q:50:LEU:HD13	2.21	0.40
46:w:10:LYS:HG3	46:w:13:GLU:H	1.85	0.40
50:3:65:A:H62	50:3:93:A:H61	1.70	0.40
50:3:192:U:H2'	50:3:193:G:O4'	2.20	0.40
50:3:210:U:C2	50:3:211:A:C8	3.09	0.40
50:3:914:G:C6	50:3:936:G:C5	3.09	0.40
50:3:983:A:H2'	50:3:984:C:C6	2.57	0.40
50:3:1264:U:H2'	50:3:1265:G:O4'	2.21	0.40
50:3:1324:A:O2'	50:3:1325:C:O4'	2.22	0.40
50:3:1584:U:H5''	50:3:1585:A:OP1	2.20	0.40
50:3:1615:G:H2'	50:3:1616:G:H8	1.85	0.40
50:3:1724:A:H3'	50:3:1725:G:H8	1.86	0.40
50:3:1920:A:H4'	50:3:1921:C:C5'	2.49	0.40
50:3:1942:G:H22	50:3:1971:G:P	2.44	0.40
50:3:1958:U:O2'	50:3:1960:A:N7	2.41	0.40
50:3:2006:C:H2'	50:3:2007:U:C6	2.56	0.40
50:3:2071:C:C2	50:3:2072:C:C5	3.09	0.40
50:3:2150:C:H1'	50:3:2156:G:O6	2.21	0.40
50:3:2752:G:C5	50:3:2769:G:C6	3.09	0.40
52:5:92:G:C2	52:5:93:A:H1'	2.55	0.40
52:5:288:A:H3'	52:5:289:U:C6	2.57	0.40
52:5:425:G:H1'	52:5:427:A:C5	2.56	0.40
52:5:1081:U:H2'	52:5:1082:U:O4'	2.20	0.40
52:5:1154:A:H8	52:5:1154:A:P	2.44	0.40
52:5:1287:G:H2'	52:5:1288:C:H6	1.85	0.40
1:0:8:SER:H	50:3:721:G:H21	1.70	0.40
1:0:27:GLY:O	1:0:31:LEU:HG	2.22	0.40
3:2:7:VAL:HG22	50:3:1066:G:O2'	2.21	0.40
4:A:32:MET:HE2	4:A:205:ASN:ND2	2.37	0.40
4:A:195:ARG:HA	4:A:195:ARG:HD3	1.91	0.40
5:B:194:THR:HG23	5:B:196:TYR:H	1.87	0.40
7:D:127:HIS:CD2	7:D:129:ILE:HD11	2.56	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:110:GLN:HB2	8:E:114:LYS:NZ	2.36	0.40
21:R:14:HIS:CE1	21:R:15:LEU:HD12	2.56	0.40
26:c:5:LYS:HD2	26:c:14:GLU:O	2.21	0.40
32:i:93:ARG:NH1	50:3:2746:A:H4'	2.37	0.40
34:k:91:ASP:OD1	34:k:92:LYS:HE2	2.21	0.40
35:l:63:LYS:HD2	35:l:63:LYS:HA	1.81	0.40
42:s:32:ASN:HA	42:s:33:PRO:HD3	1.95	0.40
42:s:65:ILE:HG22	42:s:73:GLY:C	2.47	0.40
46:w:62:LYS:HD2	46:w:63:LEU:O	2.22	0.40
49:z:26:LYS:HE2	49:z:26:LYS:HB3	1.80	0.40
50:3:36:U:H3'	50:3:37:G:C8	2.57	0.40
50:3:62:G:O2'	50:3:64:U:OP2	2.36	0.40
50:3:90:G:H2'	50:3:91:G:C8	2.55	0.40
50:3:141:A:H1'	50:3:1437:A:O2'	2.21	0.40
50:3:198:G:H2'	50:3:199:A:O4'	2.21	0.40
50:3:306:G:H2'	50:3:307:C:O4'	2.22	0.40
50:3:429:U:C2	50:3:430:U:C5	3.10	0.40
50:3:554:U:H2'	50:3:555:A:C8	2.57	0.40
50:3:563:A:H2'	50:3:2049:A:N1	2.37	0.40
50:3:675:U:H2'	50:3:676:U:C6	2.57	0.40
50:3:720:A:H5'	50:3:809:A:N6	2.36	0.40
50:3:907:A:H3'	50:3:908:A:H8	1.86	0.40
50:3:961:U:H2'	50:3:962:U:C6	2.56	0.40
50:3:1258:C:H2'	50:3:1259:A:O4'	2.22	0.40
50:3:1474:C:H2'	50:3:1475:C:C6	2.56	0.40
50:3:1535:A:C5	50:3:1536:C:C4	3.10	0.40
50:3:1686:U:H2'	50:3:1687:G:O4'	2.21	0.40
50:3:1694:A:H2'	50:3:1695:G:H8	1.83	0.40
50:3:1874:G:H2'	50:3:1875:C:H6	1.86	0.40
50:3:2062:C:H2'	50:3:2512:U:H4'	2.03	0.40
50:3:2072:C:H2'	50:3:2073:C:C6	2.54	0.40
50:3:2301:C:H2'	50:3:2302:C:H6	1.86	0.40
50:3:2471:U:H2'	50:3:2472:G:C8	2.57	0.40
50:3:2525:C:C2	50:3:2550:A:N6	2.90	0.40
52:5:20:C:H2'	52:5:21:U:C6	2.56	0.40
52:5:326:C:H3'	52:5:327:G:H8	1.85	0.40
52:5:615:G:H2'	52:5:616:C:O4'	2.22	0.40
53:8:13:U:H3	53:8:24:A:H61	1.69	0.40
53:8:45:G:H2'	53:8:46:U:O4'	2.22	0.40
14:K:76:VAL:HG11	14:K:108:TYR:CD2	2.54	0.40
15:L:105:ASN:ND2	52:5:944:A:N7	2.70	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:R:37:ARG:HB2	52:5:1292:A:O2'	2.21	0.40
24:a:26:LEU:HD11	24:a:88:TYR:N	2.37	0.40
25:b:125:ARG:HG3	25:b:169:TYR:CD1	2.57	0.40
26:c:25:ILE:HG13	26:c:120:LEU:HD23	2.03	0.40
26:c:90:VAL:HG23	50:3:836:G:N2	2.34	0.40
27:d:20:PHE:HB2	27:d:22:PHE:CZ	2.57	0.40
39:p:97:LEU:HA	39:p:100:LYS:HG2	2.04	0.40
42:s:56:ASN:HB2	42:s:82:VAL:CG2	2.51	0.40
42:s:59:ILE:HG23	42:s:78:GLU:O	2.22	0.40
45:v:18:ARG:HD3	45:v:24:ILE:HA	2.03	0.40
50:3:489:A:H4'	50:3:508:A:H62	1.87	0.40
50:3:710:A:H3'	50:3:711:A:H8	1.85	0.40
50:3:730:G:C6	50:3:803:G:C6	3.09	0.40
50:3:1003:U:H2'	50:3:1004:U:C5	2.56	0.40
50:3:1071:G:H2'	50:3:1072:A:C8	2.54	0.40
50:3:1176:U:O2	50:3:1177:A:N6	2.55	0.40
50:3:1322:A:H2'	50:3:1323:A:C8	2.57	0.40
50:3:1364:A:H2'	50:3:1365:G:C8	2.57	0.40
50:3:1706:C:H5''	50:3:1707:U:OP2	2.20	0.40
50:3:1756:A:H2'	50:3:1757:G:H8	1.87	0.40
50:3:2268:C:H2'	50:3:2269:C:C6	2.57	0.40
50:3:2711:C:H2'	50:3:2712:C:C6	2.57	0.40
51:4:85:A:H2'	51:4:86:G:O4'	2.21	0.40
51:4:99:A:C4	51:4:100:G:H1'	2.56	0.40
52:5:96:G:N2	52:5:326:C:H41	2.07	0.40
52:5:239:A:N6	52:5:277:G:N3	2.69	0.40
52:5:272:G:H2'	52:5:273:C:H6	1.87	0.40
52:5:424:U:H3'	52:5:425:G:C5'	2.51	0.40
52:5:498:G:H2'	52:5:499:U:H6	1.87	0.40
52:5:573:G:C6	52:5:818:A:C5	3.09	0.40
52:5:692:A:C2'	52:5:693:A:H5'	2.51	0.40
52:5:703:A:H2'	52:5:704:U:O4'	2.22	0.40
52:5:714:C:H2'	52:5:731:A:O4'	2.21	0.40
52:5:953:A:O2'	52:5:954:A:O4'	2.30	0.40
52:5:1184:C:C4	52:5:1185:C:N4	2.90	0.40
52:5:1380:G:H1'	52:5:1494:A:H4'	2.02	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	0	45/48 (94%)	44 (98%)	1 (2%)	0	100	100
2	1	57/59 (97%)	50 (88%)	7 (12%)	0	100	100
3	2	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
4	A	238/294 (81%)	221 (93%)	17 (7%)	0	100	100
5	B	213/273 (78%)	201 (94%)	12 (6%)	0	100	100
6	C	201/205 (98%)	185 (92%)	15 (8%)	1 (0%)	24	63
7	D	151/219 (69%)	138 (91%)	13 (9%)	0	100	100
8	E	165/215 (77%)	147 (89%)	18 (11%)	0	100	100
9	F	152/155 (98%)	136 (90%)	16 (10%)	0	100	100
10	G	139/142 (98%)	123 (88%)	16 (12%)	0	100	100
11	H	126/132 (96%)	112 (89%)	14 (11%)	0	100	100
12	I	99/108 (92%)	93 (94%)	6 (6%)	0	100	100
13	J	112/121 (93%)	104 (93%)	8 (7%)	0	100	100
14	K	134/139 (96%)	111 (83%)	23 (17%)	0	100	100
15	L	116/124 (94%)	100 (86%)	16 (14%)	0	100	100
16	M	58/61 (95%)	52 (90%)	6 (10%)	0	100	100
17	N	81/86 (94%)	78 (96%)	3 (4%)	0	100	100
18	O	78/94 (83%)	70 (90%)	8 (10%)	0	100	100
19	P	81/85 (95%)	73 (90%)	8 (10%)	0	100	100
20	Q	63/104 (61%)	51 (81%)	12 (19%)	0	100	100
21	R	82/87 (94%)	70 (85%)	12 (15%)	0	100	100
22	S	75/87 (86%)	68 (91%)	7 (9%)	0	100	100
23	T	51/60 (85%)	51 (100%)	0	0	100	100
24	a	283/287 (99%)	259 (92%)	24 (8%)	0	100	100
25	b	227/287 (79%)	202 (89%)	25 (11%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
26	c	208/212 (98%)	195 (94%)	13 (6%)	0	100	100
27	d	173/180 (96%)	158 (91%)	15 (9%)	0	100	100
28	e	174/184 (95%)	164 (94%)	10 (6%)	0	100	100
29	f	143/149 (96%)	125 (87%)	17 (12%)	1 (1%)	18	56
30	g	124/161 (77%)	109 (88%)	12 (10%)	3 (2%)	4	27
31	h	126/137 (92%)	111 (88%)	15 (12%)	0	100	100
32	i	142/146 (97%)	131 (92%)	11 (8%)	0	100	100
33	j	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
34	k	146/151 (97%)	134 (92%)	12 (8%)	0	100	100
35	l	134/139 (96%)	121 (90%)	11 (8%)	2 (2%)	8	40
36	m	117/124 (94%)	110 (94%)	7 (6%)	0	100	100
37	n	108/116 (93%)	99 (92%)	9 (8%)	0	100	100
38	o	113/119 (95%)	106 (94%)	7 (6%)	0	100	100
39	p	112/127 (88%)	109 (97%)	3 (3%)	0	100	100
40	q	97/100 (97%)	86 (89%)	11 (11%)	0	100	100
41	r	137/159 (86%)	127 (93%)	10 (7%)	0	100	100
42	s	90/237 (38%)	85 (94%)	5 (6%)	0	100	100
43	t	109/111 (98%)	101 (93%)	8 (7%)	0	100	100
44	u	84/104 (81%)	79 (94%)	5 (6%)	0	100	100
45	v	61/65 (94%)	59 (97%)	2 (3%)	0	100	100
46	w	96/111 (86%)	90 (94%)	6 (6%)	0	100	100
47	x	42/97 (43%)	41 (98%)	1 (2%)	0	100	100
48	y	54/57 (95%)	47 (87%)	7 (13%)	0	100	100
49	z	48/53 (91%)	46 (96%)	2 (4%)	0	100	100
All	All	5820/6670 (87%)	5320 (91%)	493 (8%)	7 (0%)	49	83

All (7) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
30	g	115	ASN
30	g	31	SER
30	g	86	VAL
6	C	146	ALA
29	f	12	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	1	109	ILE
35	1	110	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	0	40/41 (98%)	40 (100%)	0	100	100
2	1	51/51 (100%)	51 (100%)	0	100	100
3	2	35/35 (100%)	35 (100%)	0	100	100
4	A	212/262 (81%)	212 (100%)	0	100	100
5	B	180/232 (78%)	180 (100%)	0	100	100
6	C	181/183 (99%)	181 (100%)	0	100	100
7	D	123/178 (69%)	123 (100%)	0	100	100
8	E	150/196 (76%)	150 (100%)	0	100	100
9	F	131/132 (99%)	131 (100%)	0	100	100
10	G	123/124 (99%)	123 (100%)	0	100	100
11	H	111/115 (96%)	110 (99%)	1 (1%)	70	79
12	I	95/99 (96%)	95 (100%)	0	100	100
13	J	91/97 (94%)	91 (100%)	0	100	100
14	K	117/120 (98%)	115 (98%)	2 (2%)	53	69
15	L	100/105 (95%)	100 (100%)	0	100	100
16	M	47/48 (98%)	47 (100%)	0	100	100
17	N	76/78 (97%)	76 (100%)	0	100	100
18	O	69/82 (84%)	69 (100%)	0	100	100
19	P	73/75 (97%)	73 (100%)	0	100	100
20	Q	56/94 (60%)	56 (100%)	0	100	100
21	R	74/77 (96%)	74 (100%)	0	100	100
22	S	70/77 (91%)	70 (100%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
23	T	49/56 (88%)	49 (100%)	0	100	100
24	a	241/243 (99%)	241 (100%)	0	100	100
25	b	186/233 (80%)	186 (100%)	0	100	100
26	c	182/184 (99%)	181 (100%)	1 (0%)	81	83
27	d	150/154 (97%)	150 (100%)	0	100	100
28	e	153/159 (96%)	153 (100%)	0	100	100
29	f	123/134 (92%)	123 (100%)	0	100	100
30	g	101/129 (78%)	95 (94%)	6 (6%)	18	39
31	h	102/110 (93%)	102 (100%)	0	100	100
32	i	126/128 (98%)	126 (100%)	0	100	100
33	j	103/103 (100%)	103 (100%)	0	100	100
34	k	123/126 (98%)	123 (100%)	0	100	100
35	l	113/115 (98%)	113 (100%)	0	100	100
36	m	105/109 (96%)	105 (100%)	0	100	100
37	n	96/99 (97%)	96 (100%)	0	100	100
38	o	101/105 (96%)	101 (100%)	0	100	100
39	p	100/108 (93%)	100 (100%)	0	100	100
40	q	90/91 (99%)	90 (100%)	0	100	100
41	r	116/132 (88%)	116 (100%)	0	100	100
42	s	82/208 (39%)	82 (100%)	0	100	100
43	t	96/96 (100%)	96 (100%)	0	100	100
44	u	69/85 (81%)	68 (99%)	1 (1%)	59	72
45	v	58/60 (97%)	58 (100%)	0	100	100
46	w	87/98 (89%)	87 (100%)	0	100	100
47	x	41/86 (48%)	41 (100%)	0	100	100
48	y	48/49 (98%)	44 (92%)	4 (8%)	10	30
49	z	47/50 (94%)	47 (100%)	0	100	100
All	All	5093/5751 (89%)	5078 (100%)	15 (0%)	84	86

All (15) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
11	H	4	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	K	118	VAL
14	K	121	GLU
26	c	179	GLN
30	g	46	LYS
30	g	86	VAL
30	g	89	ILE
30	g	90	VAL
30	g	91	GLU
30	g	112	TYR
44	u	43	GLN
48	y	47	MET
48	y	51	LEU
48	y	52	ARG
48	y	54	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (73) such sidechains are listed below:

Mol	Chain	Res	Type
2	1	37	GLN
2	1	44	GLN
4	A	51	HIS
4	A	55	HIS
4	A	61	GLN
4	A	70	ASN
4	A	149	ASN
4	A	220	HIS
4	A	223	GLN
4	A	230	ASN
5	B	29	GLN
5	B	101	ASN
6	C	52	GLN
6	C	61	GLN
6	C	118	ASN
6	C	192	ASN
8	E	79	ASN
9	F	51	GLN
10	G	11	HIS
11	H	93	ASN
13	J	15	HIS
13	J	95	ASN
14	K	109	HIS
15	L	91	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	M	36	HIS
17	N	2	GLN
17	N	25	GLN
17	N	32	GLN
17	N	43	ASN
18	O	69	GLN
19	P	25	GLN
20	Q	48	GLN
20	Q	82	HIS
21	R	14	HIS
22	S	46	ASN
22	S	63	ASN
24	a	78	ASN
24	a	149	ASN
24	a	205	ASN
24	a	238	HIS
24	a	281	ASN
25	b	63	ASN
25	b	86	ASN
25	b	99	GLN
25	b	103	GLN
25	b	127	ASN
25	b	141	HIS
25	b	177	GLN
25	b	178	ASN
26	c	68	GLN
26	c	76	GLN
26	c	81	ASN
26	c	167	ASN
26	c	170	GLN
27	d	37	ASN
29	f	55	GLN
32	i	11	GLN
32	i	13	ASN
33	j	9	ASN
33	j	112	ASN
34	k	36	GLN
34	k	102	GLN
34	k	117	HIS
35	l	113	GLN
36	m	59	ASN
41	r	33	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
41	r	57	ASN
41	r	110	ASN
42	s	19	ASN
43	t	2	GLN
43	t	108	ASN
44	u	90	GLN
48	y	4	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
50	3	2875/2907 (98%)	964 (33%)	41 (1%)
51	4	103/108 (95%)	42 (40%)	3 (2%)
52	5	1490/1520 (98%)	427 (28%)	6 (0%)
53	7	75/76 (98%)	32 (42%)	2 (2%)
53	8	75/76 (98%)	32 (42%)	2 (2%)
All	All	4618/4687 (98%)	1497 (32%)	54 (1%)

All (1497) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
50	3	9	G
50	3	12	A
50	3	14	U
50	3	15	A
50	3	16	A
50	3	20	C
50	3	28	G
50	3	29	G
50	3	32	G
50	3	36	U
50	3	48	G
50	3	52	U
50	3	53	G
50	3	54	A
50	3	57	G
50	3	64	U
50	3	73	A
50	3	77	G
50	3	80	U
50	3	82	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	84	G
50	3	85	U
50	3	87	G
50	3	90	G
50	3	91	G
50	3	94	A
50	3	98	C
50	3	101	C
50	3	102	A
50	3	103	G
50	3	104	A
50	3	110	A
50	3	114	U
50	3	115	U
50	3	116	C
50	3	119	A
50	3	120	A
50	3	121	U
50	3	122	G
50	3	132	G
50	3	136	G
50	3	137	U
50	3	139	G
50	3	142	A
50	3	146	G
50	3	148	U
50	3	154	U
50	3	163	A
50	3	164	A
50	3	165	U
50	3	166	A
50	3	169	U
50	3	178	A
50	3	180	A
50	3	181	G
50	3	184	A
50	3	185	U
50	3	186	A
50	3	188	G
50	3	192	U
50	3	194	A
50	3	200	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	201	A
50	3	203	A
50	3	204	U
50	3	208	A
50	3	210	U
50	3	218	G
50	3	219	G
50	3	220	A
50	3	225	A
50	3	226	A
50	3	227	A
50	3	230	G
50	3	232	A
50	3	233	U
50	3	234	G
50	3	237	A
50	3	245	U
50	3	246	G
50	3	252	G
50	3	265	G
50	3	269	A
50	3	270	G
50	3	276	A
50	3	284	U
50	3	286	A
50	3	287	G
50	3	293	G
50	3	295	U
50	3	296	U
50	3	297	G
50	3	298	U
50	3	299	A
50	3	309	A
50	3	310	U
50	3	311	G
50	3	312	U
50	3	314	G
50	3	315	A
50	3	316	C
50	3	319	G
50	3	320	A
50	3	325	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	326	A
50	3	329	G
50	3	333	A
50	3	334	A
50	3	335	G
50	3	336	C
50	3	341	G
50	3	342	G
50	3	345	A
50	3	356	A
50	3	357	A
50	3	358	A
50	3	363	G
50	3	364	A
50	3	366	A
50	3	369	C
50	3	372	G
50	3	378	G
50	3	392	A
50	3	393	C
50	3	396	A
50	3	397	G
50	3	399	G
50	3	402	A
50	3	403	U
50	3	405	C
50	3	408	G
50	3	409	A
50	3	410	G
50	3	411	U
50	3	414	C
50	3	417	G
50	3	418	G
50	3	422	A
50	3	424	G
50	3	425	U
50	3	426	U
50	3	428	U
50	3	430	U
50	3	437	A
50	3	440	C
50	3	441	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	442	G
50	3	447	G
50	3	448	A
50	3	458	A
50	3	460	G
50	3	463	U
50	3	464	A
50	3	465	A
50	3	468	A
50	3	473	U
50	3	474	U
50	3	478	G
50	3	479	A
50	3	480	C
50	3	484	U
50	3	485	A
50	3	491	A
50	3	493	A
50	3	494	G
50	3	497	C
50	3	501	G
50	3	508	A
50	3	509	G
50	3	514	A
50	3	515	A
50	3	516	A
50	3	517	G
50	3	518	A
50	3	519	A
50	3	520	C
50	3	522	C
50	3	531	G
50	3	532	A
50	3	539	U
50	3	543	U
50	3	544	U
50	3	551	C
50	3	553	A
50	3	554	U
50	3	562	C
50	3	563	A
50	3	565	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	566	G
50	3	567	U
50	3	568	G
50	3	577	C
50	3	580	U
50	3	581	A
50	3	582	A
50	3	583	U
50	3	587	U
50	3	589	A
50	3	596	G
50	3	598	G
50	3	602	U
50	3	605	A
50	3	606	G
50	3	607	U
50	3	608	A
50	3	610	G
50	3	614	C
50	3	620	G
50	3	622	U
50	3	636	U
50	3	637	U
50	3	638	A
50	3	648	G
50	3	649	A
50	3	650	G
50	3	652	U
50	3	656	G
50	3	657	A
50	3	663	A
50	3	664	G
50	3	667	A
50	3	670	G
50	3	673	A
50	3	679	A
50	3	681	A
50	3	682	A
50	3	683	G
50	3	684	A
50	3	687	G
50	3	689	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	691	G
50	3	698	A
50	3	703	A
50	3	704	G
50	3	706	C
50	3	709	G
50	3	712	A
50	3	714	G
50	3	717	U
50	3	719	G
50	3	720	A
50	3	721	G
50	3	722	C
50	3	723	U
50	3	730	G
50	3	734	A
50	3	738	U
50	3	739	G
50	3	740	A
50	3	752	C
50	3	761	G
50	3	763	G
50	3	764	G
50	3	765	A
50	3	774	A
50	3	782	U
50	3	783	G
50	3	787	C
50	3	792	G
50	3	797	U
50	3	799	A
50	3	800	C
50	3	810	G
50	3	811	G
50	3	812	G
50	3	814	U
50	3	816	A
50	3	817	A
50	3	819	U
50	3	820	U
50	3	823	A
50	3	824	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	825	U
50	3	826	C
50	3	827	G
50	3	828	A
50	3	840	G
50	3	841	C
50	3	847	C
50	3	854	A
50	3	862	U
50	3	863	U
50	3	865	A
50	3	866	G
50	3	873	G
50	3	878	A
50	3	880	C
50	3	881	A
50	3	882	C
50	3	883	A
50	3	894	G
50	3	896	U
50	3	904	C
50	3	906	G
50	3	908	A
50	3	909	U
50	3	914	G
50	3	916	U
50	3	917	G
50	3	932	U
50	3	933	A
50	3	934	C
50	3	936	G
50	3	937	A
50	3	943	A
50	3	944	U
50	3	947	A
50	3	949	C
50	3	952	U
50	3	953	G
50	3	968	U
50	3	970	U
50	3	971	U
50	3	975	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	977	A
50	3	978	G
50	3	981	A
50	3	982	G
50	3	986	G
50	3	989	G
50	3	991	G
50	3	993	A
50	3	995	A
50	3	997	G
50	3	998	C
50	3	1001	C
50	3	1005	G
50	3	1007	C
50	3	1009	A
50	3	1010	G
50	3	1011	A
50	3	1016	A
50	3	1017	A
50	3	1018	G
50	3	1019	A
50	3	1021	C
50	3	1026	A
50	3	1027	U
50	3	1032	A
50	3	1033	A
50	3	1035	U
50	3	1041	C
50	3	1045	A
50	3	1049	U
50	3	1052	A
50	3	1055	A
50	3	1056	A
50	3	1057	G
50	3	1061	A
50	3	1068	U
50	3	1075	G
50	3	1080	A
50	3	1081	A
50	3	1082	A
50	3	1083	A
50	3	1095	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1096	U
50	3	1097	G
50	3	1102	A
50	3	1103	G
50	3	1104	A
50	3	1105	A
50	3	1106	G
50	3	1108	A
50	3	1113	U
50	3	1115	G
50	3	1119	A
50	3	1123	A
50	3	1125	U
50	3	1126	G
50	3	1130	A
50	3	1132	C
50	3	1138	A
50	3	1143	U
50	3	1144	C
50	3	1145	G
50	3	1147	G
50	3	1148	U
50	3	1151	U
50	3	1154	U
50	3	1157	G
50	3	1161	A
50	3	1164	A
50	3	1165	U
50	3	1167	U
50	3	1168	A
50	3	1170	C
50	3	1171	G
50	3	1175	C
50	3	1176	U
50	3	1177	A
50	3	1178	A
50	3	1179	G
50	3	1182	U
50	3	1186	A
50	3	1201	A
50	3	1203	G
50	3	1204	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1208	A
50	3	1209	U
50	3	1210	A
50	3	1212	C
50	3	1213	U
50	3	1215	G
50	3	1216	U
50	3	1217	G
50	3	1231	G
50	3	1234	U
50	3	1235	U
50	3	1236	G
50	3	1241	U
50	3	1242	G
50	3	1243	A
50	3	1250	A
50	3	1251	G
50	3	1253	G
50	3	1255	G
50	3	1256	A
50	3	1257	G
50	3	1260	U
50	3	1265	G
50	3	1266	G
50	3	1268	U
50	3	1277	A
50	3	1279	U
50	3	1281	A
50	3	1282	G
50	3	1283	A
50	3	1285	U
50	3	1286	G
50	3	1292	A
50	3	1295	A
50	3	1297	U
50	3	1298	A
50	3	1301	G
50	3	1302	C
50	3	1304	U
50	3	1315	A
50	3	1316	U
50	3	1317	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1322	A
50	3	1324	A
50	3	1326	C
50	3	1328	A
50	3	1329	U
50	3	1330	U
50	3	1331	G
50	3	1335	A
50	3	1338	G
50	3	1340	U
50	3	1342	C
50	3	1350	A
50	3	1354	U
50	3	1357	U
50	3	1360	U
50	3	1361	U
50	3	1368	U
50	3	1369	U
50	3	1372	U
50	3	1373	C
50	3	1375	G
50	3	1376	G
50	3	1378	C
50	3	1387	A
50	3	1388	G
50	3	1390	C
50	3	1393	A
50	3	1396	A
50	3	1403	G
50	3	1406	A
50	3	1407	U
50	3	1418	U
50	3	1420	A
50	3	1421	A
50	3	1422	U
50	3	1423	A
50	3	1424	U
50	3	1425	U
50	3	1426	C
50	3	1434	U
50	3	1435	A
50	3	1444	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1448	U
50	3	1455	A
50	3	1456	C
50	3	1457	A
50	3	1463	G
50	3	1466	U
50	3	1467	U
50	3	1479	A
50	3	1480	A
50	3	1481	U
50	3	1482	U
50	3	1483	G
50	3	1485	A
50	3	1487	U
50	3	1502	A
50	3	1506	U
50	3	1507	G
50	3	1508	G
50	3	1511	C
50	3	1513	A
50	3	1514	U
50	3	1515	A
50	3	1517	G
50	3	1518	C
50	3	1520	A
50	3	1523	C
50	3	1526	U
50	3	1528	G
50	3	1532	A
50	3	1533	U
50	3	1534	A
50	3	1540	G
50	3	1541	A
50	3	1542	G
50	3	1543	U
50	3	1546	U
50	3	1548	A
50	3	1550	G
50	3	1554	A
50	3	1555	G
50	3	1557	G
50	3	1559	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1571	G
50	3	1577	A
50	3	1581	U
50	3	1584	U
50	3	1585	A
50	3	1586	U
50	3	1588	A
50	3	1589	A
50	3	1594	G
50	3	1600	A
50	3	1601	A
50	3	1603	A
50	3	1612	U
50	3	1613	A
50	3	1614	G
50	3	1615	G
50	3	1616	G
50	3	1618	U
50	3	1619	A
50	3	1635	G
50	3	1636	U
50	3	1637	A
50	3	1640	G
50	3	1641	A
50	3	1642	G
50	3	1643	A
50	3	1644	A
50	3	1648	A
50	3	1650	A
50	3	1651	C
50	3	1652	A
50	3	1656	A
50	3	1668	G
50	3	1677	G
50	3	1679	U
50	3	1680	A
50	3	1681	G
50	3	1682	C
50	3	1687	G
50	3	1688	A
50	3	1694	A
50	3	1695	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1698	A
50	3	1702	A
50	3	1703	A
50	3	1704	C
50	3	1706	C
50	3	1707	U
50	3	1708	G
50	3	1713	U
50	3	1716	A
50	3	1727	U
50	3	1748	U
50	3	1751	A
50	3	1758	C
50	3	1761	C
50	3	1762	A
50	3	1763	G
50	3	1764	U
50	3	1765	G
50	3	1766	A
50	3	1768	G
50	3	1769	A
50	3	1770	A
50	3	1771	C
50	3	1772	G
50	3	1777	G
50	3	1778	G
50	3	1780	A
50	3	1783	G
50	3	1784	U
50	3	1789	C
50	3	1790	U
50	3	1791	A
50	3	1794	A
50	3	1807	C
50	3	1808	C
50	3	1809	A
50	3	1815	U
50	3	1816	A
50	3	1821	G
50	3	1822	A
50	3	1823	U
50	3	1826	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1828	A
50	3	1831	G
50	3	1832	G
50	3	1836	A
50	3	1837	C
50	3	1842	G
50	3	1855	A
50	3	1856	G
50	3	1864	A
50	3	1871	U
50	3	1873	A
50	3	1876	G
50	3	1889	U
50	3	1890	U
50	3	1891	A
50	3	1892	A
50	3	1896	A
50	3	1907	A
50	3	1908	A
50	3	1910	G
50	3	1913	G
50	3	1920	A
50	3	1921	C
50	3	1934	A
50	3	1936	G
50	3	1937	G
50	3	1938	U
50	3	1942	G
50	3	1943	A
50	3	1944	A
50	3	1948	C
50	3	1949	C
50	3	1950	U
50	3	1952	G
50	3	1953	U
50	3	1959	A
50	3	1962	U
50	3	1966	G
50	3	1968	C
50	3	1969	C
50	3	1971	G
50	3	1972	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1974	U
50	3	1977	A
50	3	1978	U
50	3	1979	G
50	3	1980	G
50	3	1988	A
50	3	1998	U
50	3	2000	U
50	3	2004	G
50	3	2009	U
50	3	2011	G
50	3	2013	C
50	3	2020	A
50	3	2022	A
50	3	2027	G
50	3	2028	G
50	3	2030	A
50	3	2032	G
50	3	2037	A
50	3	2038	A
50	3	2040	A
50	3	2041	C
50	3	2043	C
50	3	2044	C
50	3	2050	G
50	3	2053	G
50	3	2056	A
50	3	2057	C
50	3	2062	C
50	3	2063	G
50	3	2064	G
50	3	2067	A
50	3	2068	G
50	3	2069	A
50	3	2070	C
50	3	2071	C
50	3	2072	C
50	3	2075	U
50	3	2076	G
50	3	2079	G
50	3	2083	U
50	3	2084	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2087	G
50	3	2088	U
50	3	2099	U
50	3	2100	G
50	3	2106	G
50	3	2107	A
50	3	2108	C
50	3	2110	U
50	3	2111	U
50	3	2112	A
50	3	2114	C
50	3	2115	A
50	3	2117	G
50	3	2123	A
50	3	2124	A
50	3	2126	A
50	3	2127	G
50	3	2130	A
50	3	2132	G
50	3	2133	A
50	3	2138	U
50	3	2139	C
50	3	2140	G
50	3	2144	C
50	3	2145	A
50	3	2157	A
50	3	2161	G
50	3	2164	G
50	3	2165	A
50	3	2166	U
50	3	2170	A
50	3	2171	A
50	3	2173	G
50	3	2180	U
50	3	2181	A
50	3	2182	C
50	3	2184	A
50	3	2193	U
50	3	2194	G
50	3	2195	U
50	3	2198	G
50	3	2199	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2200	U
50	3	2202	U
50	3	2204	C
50	3	2205	U
50	3	2206	A
50	3	2211	G
50	3	2212	U
50	3	2219	U
50	3	2220	A
50	3	2222	C
50	3	2228	U
50	3	2229	C
50	3	2231	A
50	3	2233	A
50	3	2238	G
50	3	2244	U
50	3	2246	G
50	3	2247	G
50	3	2251	U
50	3	2258	G
50	3	2259	G
50	3	2266	C
50	3	2267	G
50	3	2274	A
50	3	2275	A
50	3	2276	A
50	3	2277	A
50	3	2286	A
50	3	2291	U
50	3	2295	A
50	3	2297	G
50	3	2298	G
50	3	2299	U
50	3	2305	C
50	3	2312	G
50	3	2313	U
50	3	2316	G
50	3	2317	A
50	3	2318	A
50	3	2320	U
50	3	2327	U
50	3	2328	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2329	G
50	3	2331	G
50	3	2333	G
50	3	2334	U
50	3	2335	A
50	3	2341	G
50	3	2342	U
50	3	2343	A
50	3	2344	A
50	3	2353	G
50	3	2354	A
50	3	2355	C
50	3	2358	U
50	3	2362	A
50	3	2365	U
50	3	2366	A
50	3	2374	A
50	3	2377	A
50	3	2380	U
50	3	2381	G
50	3	2387	U
50	3	2391	G
50	3	2393	C
50	3	2396	A
50	3	2397	G
50	3	2398	U
50	3	2410	C
50	3	2411	C
50	3	2414	U
50	3	2415	A
50	3	2417	G
50	3	2422	G
50	3	2431	U
50	3	2433	A
50	3	2434	A
50	3	2435	C
50	3	2436	G
50	3	2438	A
50	3	2439	U
50	3	2442	A
50	3	2443	A
50	3	2447	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2449	U
50	3	2452	G
50	3	2456	A
50	3	2457	U
50	3	2458	A
50	3	2460	C
50	3	2461	A
50	3	2469	A
50	3	2474	C
50	3	2484	A
50	3	2486	A
50	3	2488	C
50	3	2490	A
50	3	2492	G
50	3	2499	U
50	3	2505	A
50	3	2506	C
50	3	2507	C
50	3	2509	C
50	3	2510	G
50	3	2511	A
50	3	2513	G
50	3	2515	C
50	3	2517	A
50	3	2521	A
50	3	2526	A
50	3	2527	U
50	3	2528	C
50	3	2538	A
50	3	2541	C
50	3	2543	G
50	3	2544	G
50	3	2555	U
50	3	2558	G
50	3	2563	U
50	3	2564	C
50	3	2565	G
50	3	2569	A
50	3	2572	A
50	3	2574	A
50	3	2575	G
50	3	2577	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2578	A
50	3	2580	A
50	3	2581	C
50	3	2586	G
50	3	2590	G
50	3	2591	G
50	3	2593	U
50	3	2594	C
50	3	2604	U
50	3	2605	G
50	3	2610	A
50	3	2611	G
50	3	2614	U
50	3	2617	U
50	3	2618	C
50	3	2619	C
50	3	2621	U
50	3	2622	A
50	3	2623	U
50	3	2626	A
50	3	2627	U
50	3	2628	U
50	3	2629	G
50	3	2637	A
50	3	2638	G
50	3	2644	U
50	3	2645	U
50	3	2649	G
50	3	2653	G
50	3	2654	U
50	3	2664	U
50	3	2668	A
50	3	2669	G
50	3	2681	G
50	3	2682	A
50	3	2693	U
50	3	2697	C
50	3	2698	U
50	3	2699	C
50	3	2704	U
50	3	2708	G
50	3	2710	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2721	C
50	3	2722	G
50	3	2726	G
50	3	2728	U
50	3	2732	A
50	3	2733	A
50	3	2735	G
50	3	2737	G
50	3	2740	U
50	3	2741	A
50	3	2747	U
50	3	2751	C
50	3	2752	G
50	3	2753	C
50	3	2756	A
50	3	2759	G
50	3	2765	A
50	3	2772	A
50	3	2773	A
50	3	2774	A
50	3	2785	G
50	3	2786	A
50	3	2788	U
50	3	2790	A
50	3	2798	A
50	3	2799	U
50	3	2804	C
50	3	2807	G
50	3	2808	A
50	3	2809	A
50	3	2811	G
50	3	2812	U
50	3	2813	A
50	3	2814	A
50	3	2815	G
50	3	2822	C
50	3	2824	A
50	3	2828	C
50	3	2829	G
50	3	2830	A
50	3	2837	U
50	3	2839	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2840	U
50	3	2850	G
50	3	2851	U
50	3	2852	G
50	3	2853	U
50	3	2862	U
50	3	2863	G
50	3	2865	U
50	3	2871	G
50	3	2876	G
50	3	2878	G
50	3	2883	A
50	3	2884	C
50	3	2888	U
50	3	2889	U
50	3	2890	G
50	3	2896	G
50	3	2897	G
50	3	2898	A
50	3	2899	C
51	4	8	C
51	4	9	C
51	4	10	C
51	4	11	A
51	4	14	U
51	4	22	G
51	4	23	A
51	4	27	A
51	4	28	C
51	4	31	G
51	4	32	G
51	4	33	U
51	4	35	C
51	4	38	U
51	4	39	U
51	4	40	U
51	4	41	C
51	4	42	G
51	4	43	A
51	4	47	C
51	4	48	A
51	4	49	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
51	4	50	C
51	4	51	A
51	4	54	U
51	4	55	A
51	4	60	C
51	4	66	A
51	4	77	G
51	4	78	C
51	4	80	G
51	4	88	G
51	4	89	A
51	4	92	A
51	4	98	A
51	4	99	A
51	4	100	G
51	4	101	C
51	4	102	A
51	4	106	A
51	4	107	G
51	4	108	C
52	5	7	U
52	5	8	G
52	5	10	G
52	5	29	G
52	5	32	U
52	5	36	G
52	5	45	A
52	5	48	C
52	5	49	C
52	5	51	A
52	5	52	A
52	5	53	U
52	5	58	G
52	5	66	A
52	5	71	A
52	5	75	A
52	5	83	U
52	5	86	A
52	5	94	A
52	5	106	C
52	5	114	C
52	5	115	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	117	U
52	5	121	C
52	5	130	G
52	5	132	G
52	5	149	G
52	5	152	U
52	5	156	U
52	5	159	U
52	5	160	A
52	5	162	C
52	5	167	A
52	5	169	G
52	5	171	A
52	5	180	C
52	5	187	A
52	5	196	G
52	5	197	A
52	5	199	A
52	5	214	U
52	5	218	U
52	5	220	U
52	5	223	G
52	5	229	G
52	5	232	G
52	5	235	C
52	5	241	C
52	5	242	A
52	5	243	G
52	5	246	A
52	5	247	G
52	5	249	U
52	5	256	G
52	5	258	A
52	5	259	A
52	5	260	C
52	5	262	G
52	5	263	C
52	5	272	G
52	5	276	U
52	5	277	G
52	5	279	C
52	5	285	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	294	A
52	5	301	G
52	5	311	A
52	5	312	A
52	5	323	A
52	5	324	C
52	5	325	A
52	5	326	C
52	5	327	G
52	5	328	G
52	5	330	C
52	5	335	C
52	5	341	C
52	5	342	G
52	5	344	G
52	5	347	G
52	5	348	C
52	5	349	A
52	5	350	G
52	5	357	G
52	5	363	U
52	5	364	U
52	5	365	U
52	5	369	A
52	5	373	A
52	5	375	C
52	5	376	G
52	5	377	A
52	5	378	A
52	5	384	G
52	5	386	U
52	5	393	A
52	5	400	G
52	5	401	U
52	5	402	G
52	5	407	A
52	5	408	U
52	5	409	G
52	5	410	A
52	5	414	U
52	5	417	U
52	5	418	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	419	A
52	5	420	A
52	5	421	G
52	5	424	U
52	5	425	G
52	5	426	U
52	5	427	A
52	5	431	U
52	5	436	U
52	5	438	A
52	5	439	U
52	5	449	A
52	5	450	U
52	5	452	A
52	5	453	C
52	5	456	U
52	5	457	A
52	5	461	G
52	5	464	A
52	5	469	C
52	5	471	A
52	5	473	A
52	5	476	U
52	5	477	U
52	5	478	G
52	5	481	U
52	5	482	G
52	5	483	U
52	5	484	A
52	5	487	A
52	5	488	U
52	5	489	U
52	5	493	A
52	5	494	A
52	5	495	U
52	5	497	A
52	5	504	A
52	5	507	A
52	5	509	C
52	5	510	U
52	5	511	A
52	5	516	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	517	C
52	5	519	G
52	5	525	G
52	5	527	G
52	5	528	G
52	5	529	U
52	5	530	A
52	5	531	A
52	5	532	U
52	5	534	C
52	5	545	A
52	5	553	C
52	5	557	A
52	5	558	U
52	5	559	U
52	5	560	U
52	5	562	U
52	5	565	G
52	5	568	G
52	5	569	U
52	5	570	A
52	5	573	G
52	5	574	C
52	5	575	A
52	5	580	C
52	5	586	G
52	5	594	A
52	5	595	G
52	5	605	A
52	5	609	G
52	5	612	G
52	5	617	U
52	5	619	A
52	5	621	C
52	5	628	A
52	5	635	G
52	5	637	A
52	5	638	A
52	5	641	U
52	5	644	U
52	5	650	A
52	5	653	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	662	G
52	5	663	G
52	5	667	U
52	5	668	U
52	5	672	A
52	5	680	G
52	5	682	G
52	5	683	G
52	5	684	A
52	5	690	G
52	5	692	A
52	5	693	A
52	5	697	G
52	5	699	A
52	5	700	G
52	5	701	A
52	5	715	A
52	5	718	A
52	5	719	G
52	5	720	U
52	5	721	G
52	5	731	A
52	5	732	A
52	5	740	G
52	5	745	U
52	5	746	A
52	5	749	G
52	5	750	A
52	5	752	G
52	5	756	A
52	5	770	G
52	5	775	G
52	5	778	A
52	5	789	A
52	5	790	U
52	5	796	A
52	5	798	U
52	5	806	A
52	5	809	G
52	5	810	U
52	5	812	A
52	5	814	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	815	G
52	5	816	A
52	5	817	U
52	5	818	A
52	5	822	A
52	5	825	A
52	5	829	G
52	5	838	A
52	5	846	G
52	5	849	A
52	5	855	G
52	5	866	A
52	5	870	A
52	5	882	U
52	5	883	A
52	5	885	U
52	5	887	C
52	5	896	G
52	5	906	C
52	5	907	A
52	5	908	A
52	5	909	A
52	5	910	C
52	5	911	G
52	5	917	G
52	5	918	A
52	5	920	G
52	5	921	G
52	5	922	G
52	5	929	C
52	5	930	A
52	5	934	G
52	5	937	G
52	5	953	A
52	5	955	U
52	5	956	U
52	5	961	G
52	5	964	A
52	5	965	C
52	5	966	A
52	5	970	A
52	5	971	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	972	A
52	5	975	C
52	5	976	U
52	5	977	U
52	5	987	U
52	5	988	G
52	5	989	A
52	5	991	A
52	5	997	G
52	5	999	C
52	5	1000	A
52	5	1003	G
52	5	1008	G
52	5	1009	G
52	5	1012	A
52	5	1014	A
52	5	1015	U
52	5	1017	A
52	5	1036	C
52	5	1037	A
52	5	1042	G
52	5	1044	G
52	5	1045	C
52	5	1046	A
52	5	1047	U
52	5	1053	U
52	5	1055	G
52	5	1056	U
52	5	1057	C
52	5	1061	U
52	5	1071	A
52	5	1072	G
52	5	1076	U
52	5	1077	U
52	5	1079	G
52	5	1084	A
52	5	1085	G
52	5	1086	U
52	5	1088	C
52	5	1092	A
52	5	1095	G
52	5	1099	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	1102	A
52	5	1113	U
52	5	1115	G
52	5	1118	A
52	5	1121	U
52	5	1122	U
52	5	1123	G
52	5	1128	G
52	5	1130	G
52	5	1134	C
52	5	1135	U
52	5	1136	G
52	5	1141	U
52	5	1151	A
52	5	1158	A
52	5	1159	A
52	5	1162	G
52	5	1163	A
52	5	1165	G
52	5	1166	A
52	5	1169	U
52	5	1171	A
52	5	1172	A
52	5	1173	A
52	5	1176	A
52	5	1179	A
52	5	1187	U
52	5	1188	A
52	5	1189	U
52	5	1192	C
52	5	1199	U
52	5	1200	G
52	5	1201	C
52	5	1203	A
52	5	1208	G
52	5	1211	A
52	5	1215	U
52	5	1216	G
52	5	1217	G
52	5	1223	A
52	5	1225	A
52	5	1232	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	1233	G
52	5	1235	C
52	5	1243	A
52	5	1244	A
52	5	1245	A
52	5	1255	A
52	5	1260	U
52	5	1261	A
52	5	1263	A
52	5	1265	U
52	5	1271	U
52	5	1276	U
52	5	1279	G
52	5	1287	G
52	5	1291	C
52	5	1294	U
52	5	1296	C
52	5	1297	G
52	5	1301	U
52	5	1306	A
52	5	1310	C
52	5	1312	G
52	5	1320	A
52	5	1322	U
52	5	1327	G
52	5	1328	C
52	5	1338	A
52	5	1343	G
52	5	1354	G
52	5	1356	U
52	5	1358	U
52	5	1359	C
52	5	1369	A
52	5	1374	C
52	5	1375	C
52	5	1379	C
52	5	1381	U
52	5	1383	A
52	5	1397	G
52	5	1400	A
52	5	1404	U
52	5	1407	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	1408	A
52	5	1411	A
52	5	1415	G
52	5	1417	U
52	5	1421	A
52	5	1422	A
52	5	1423	C
52	5	1427	U
52	5	1429	G
52	5	1431	A
52	5	1433	G
52	5	1446	A
52	5	1451	A
52	5	1466	U
52	5	1467	A
52	5	1468	A
52	5	1469	G
52	5	1474	A
52	5	1478	A
52	5	1480	G
52	5	1482	A
52	5	1493	A
52	5	1495	C
52	5	1504	G
52	5	1505	G
52	5	1506	A
52	5	1507	U
53	7	3	G
53	7	4	U
53	7	9	U
53	7	11	G
53	7	13	U
53	7	17	U
53	7	18	C
53	7	19	G
53	7	20	G
53	7	21	U
53	7	22	A
53	7	24	A
53	7	28	A
53	7	35	G
53	7	36	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	7	37	A
53	7	43	G
53	7	44	U
53	7	46	U
53	7	47	G
53	7	48	U
53	7	49	C
53	7	50	G
53	7	54	G
53	7	56	U
53	7	57	C
53	7	58	G
53	7	62	C
53	7	72	C
53	7	74	A
53	7	75	C
53	7	76	C
53	8	3	G
53	8	4	U
53	8	9	U
53	8	11	G
53	8	13	U
53	8	17	U
53	8	18	C
53	8	19	G
53	8	20	G
53	8	21	U
53	8	22	A
53	8	24	A
53	8	28	A
53	8	35	G
53	8	36	A
53	8	37	A
53	8	43	G
53	8	44	U
53	8	46	U
53	8	47	G
53	8	48	U
53	8	49	C
53	8	50	G
53	8	54	G
53	8	56	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	8	57	C
53	8	58	G
53	8	62	C
53	8	72	C
53	8	74	A
53	8	75	C
53	8	76	C

All (54) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
50	3	180	A
50	3	296	U
50	3	311	G
50	3	315	A
50	3	402	A
50	3	410	G
50	3	425	U
50	3	500	U
50	3	508	A
50	3	513	A
50	3	648	G
50	3	688	U
50	3	881	A
50	3	932	U
50	3	952	U
50	3	1048	A
50	3	1143	U
50	3	1209	U
50	3	1216	U
50	3	1507	G
50	3	1512	A
50	3	1583	G
50	3	1585	A
50	3	1587	U
50	3	1588	A
50	3	1820	U
50	3	1872	U
50	3	1919	A
50	3	2164	G
50	3	2180	U
50	3	2342	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2386	A
50	3	2395	U
50	3	2504	C
50	3	2506	C
50	3	2562	U
50	3	2604	U
50	3	2668	A
50	3	2764	U
50	3	2862	U
50	3	2897	G
51	4	10	C
51	4	54	U
51	4	59	A
52	5	31	U
52	5	408	U
52	5	975	C
52	5	1087	C
52	5	1133	A
52	5	1158	A
53	7	57	C
53	7	74	A
53	8	57	C
53	8	74	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](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

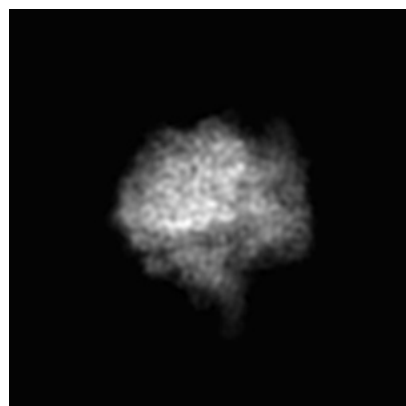
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-13272. These allow visual inspection of the internal detail of the map and identification of artifacts.

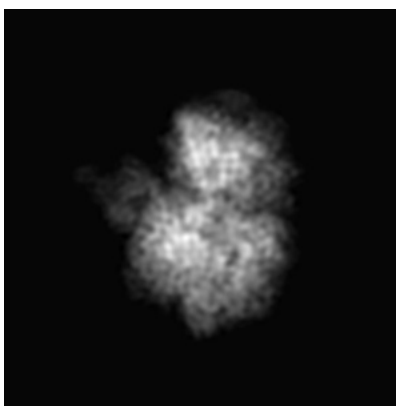
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

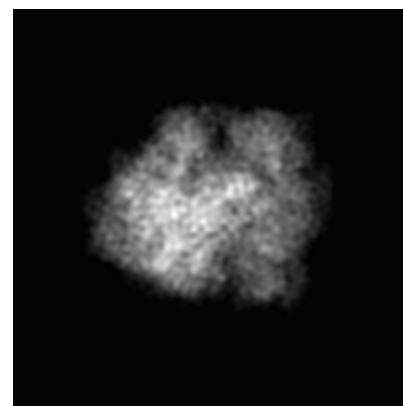
6.1.1 Primary map



X

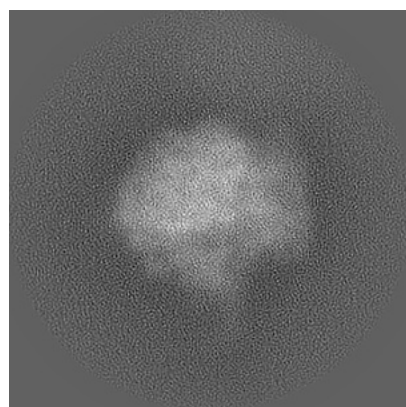


Y

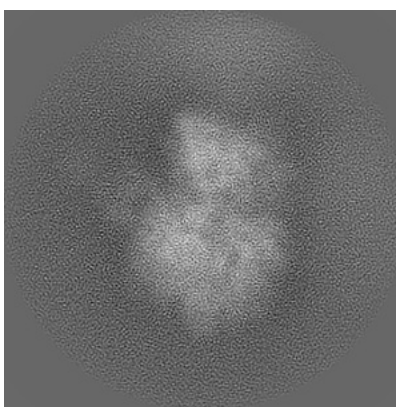


Z

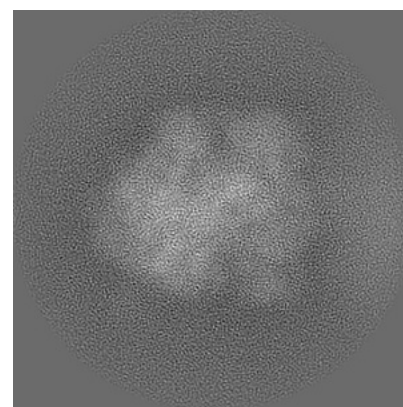
6.1.2 Raw map



X



Y

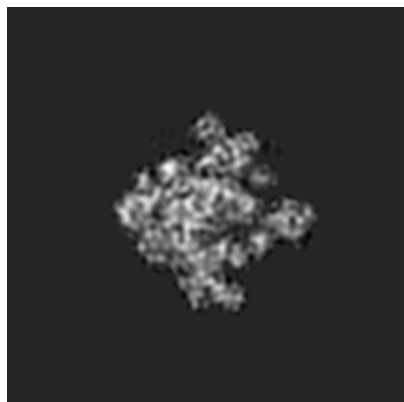


Z

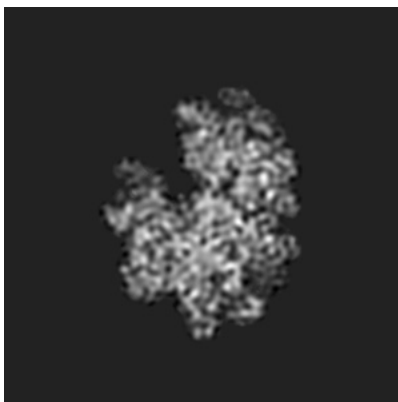
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

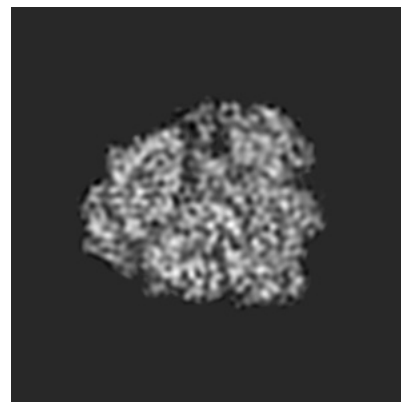
6.2.1 Primary map



X Index: 128

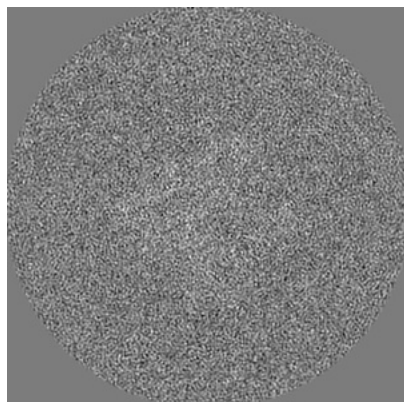


Y Index: 128

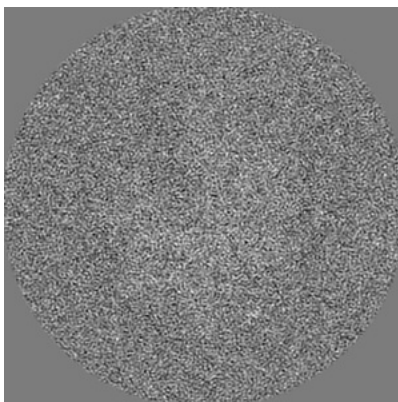


Z Index: 128

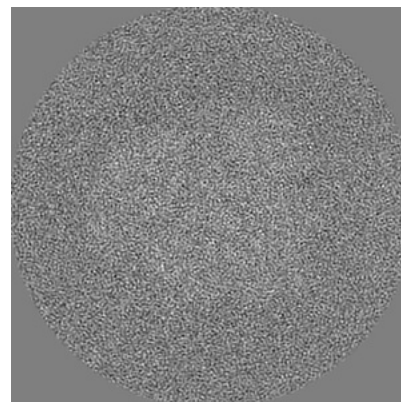
6.2.2 Raw map



X Index: 128



Y Index: 128

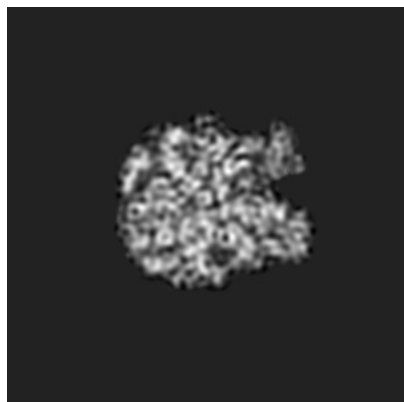


Z Index: 128

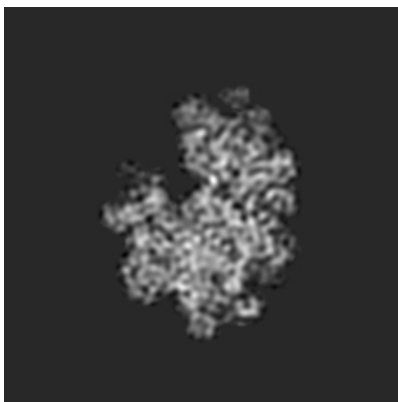
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

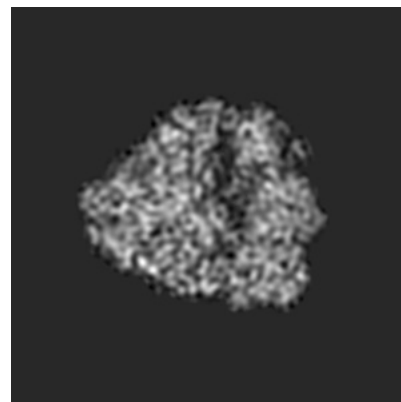
6.3.1 Primary map



X Index: 104

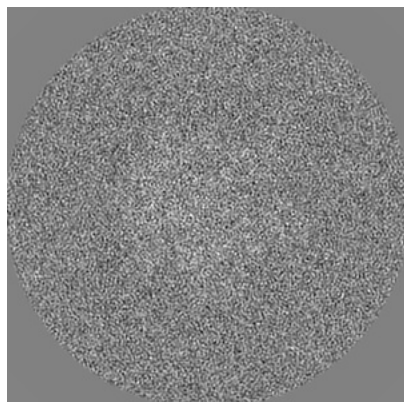


Y Index: 126

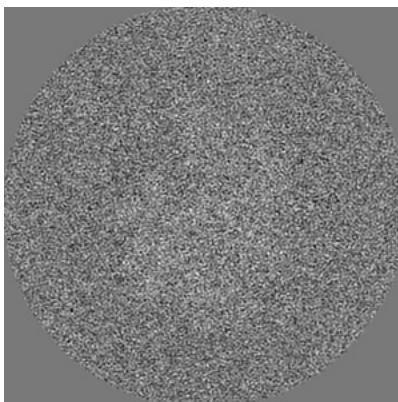


Z Index: 122

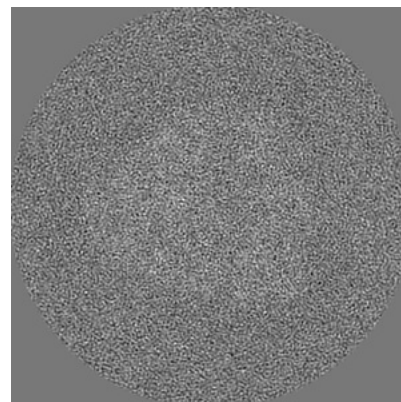
6.3.2 Raw map



X Index: 121



Y Index: 123

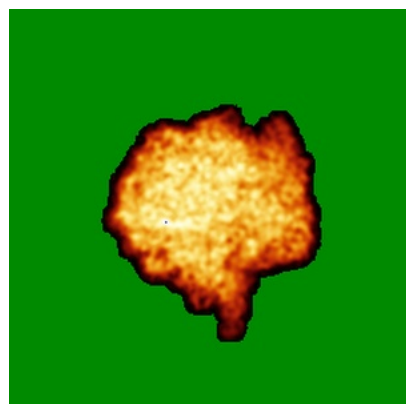


Z Index: 123

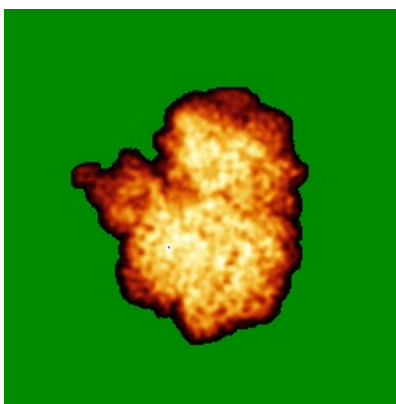
The images above show the largest variance slices of the map in three orthogonal directions.

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

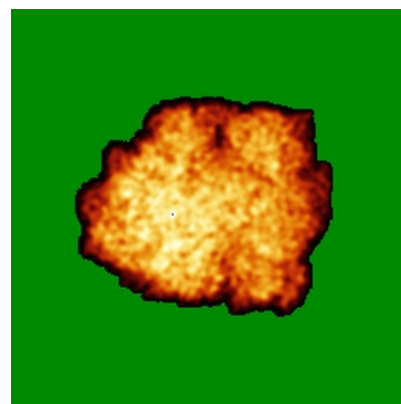
6.4.1 Primary map



X

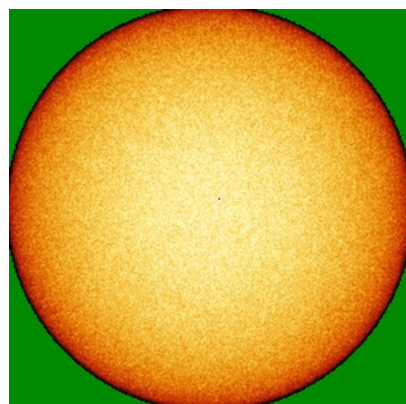


Y

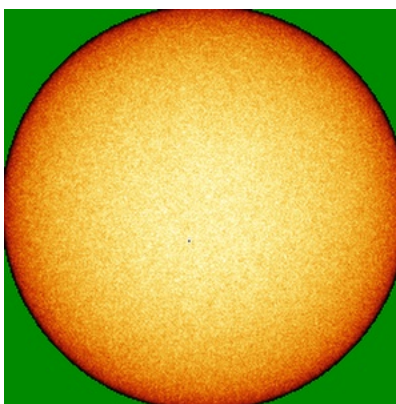


Z

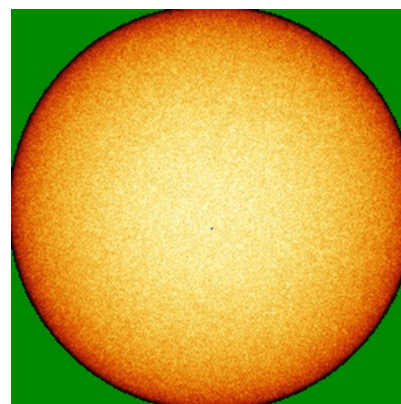
6.4.2 Raw map



X



Y



Z

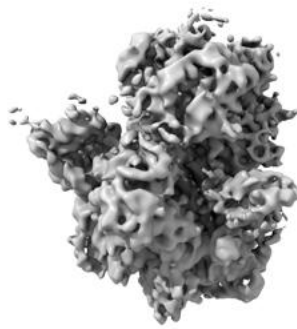
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

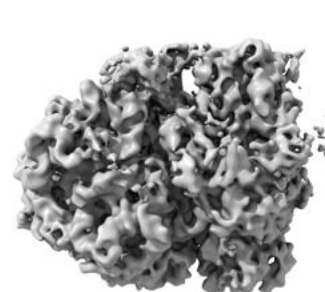
6.5.1 Primary map



X



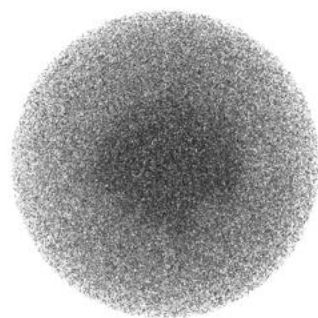
Y



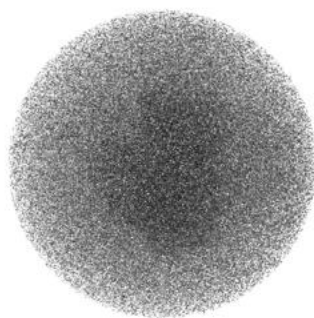
Z

The images above show the 3D surface view of the map at the recommended contour level 0.47. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

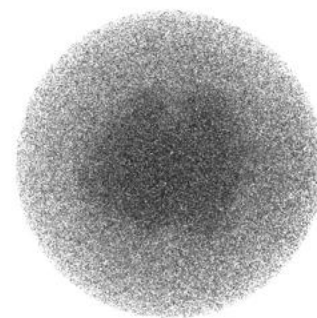
6.5.2 Raw map



X



Y



Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

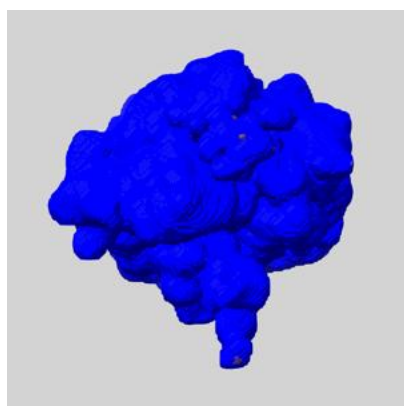
6.6 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

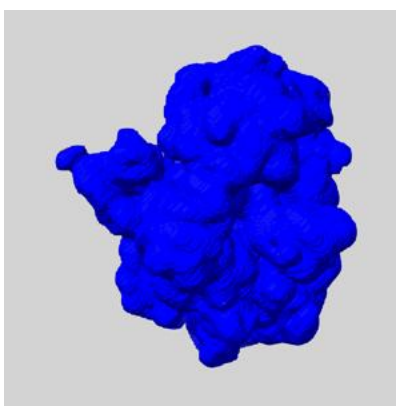
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

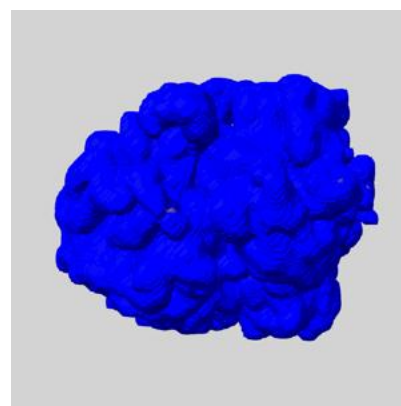
6.6.1 emd_13272_msk_1.map [i](#)



X



Y

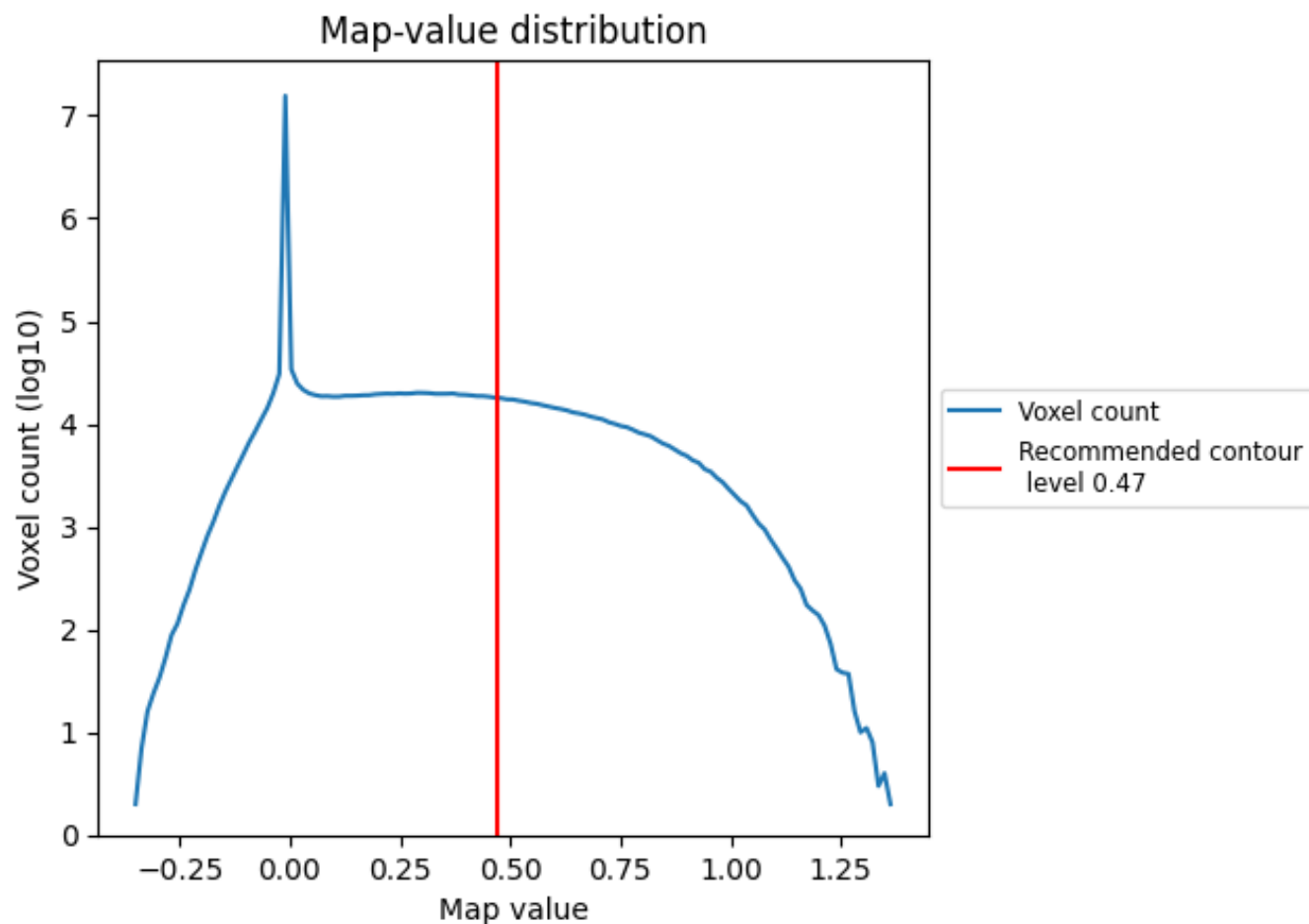


Z

7 Map analysis [i](#)

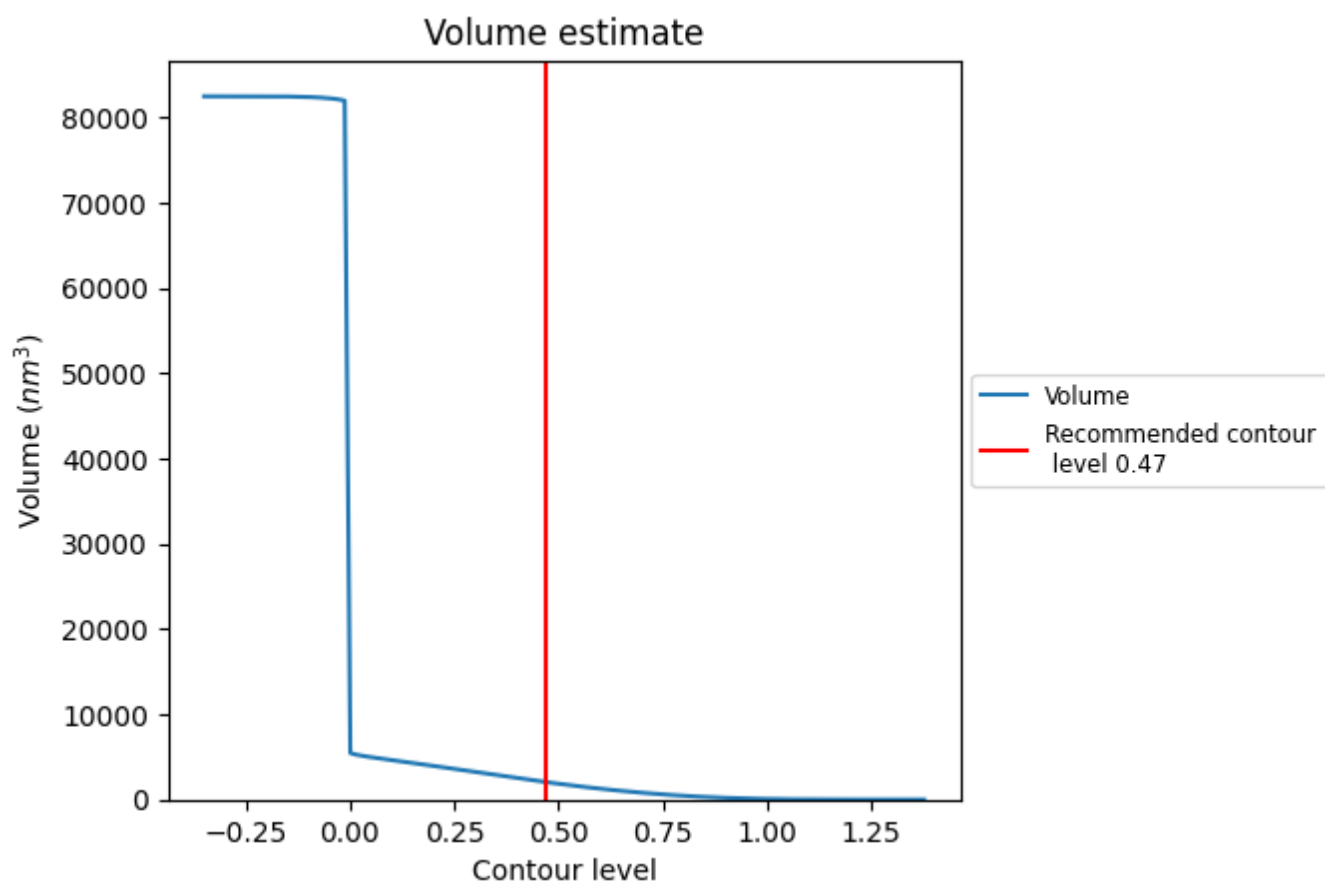
This section contains the results of statistical analysis of the map.

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.

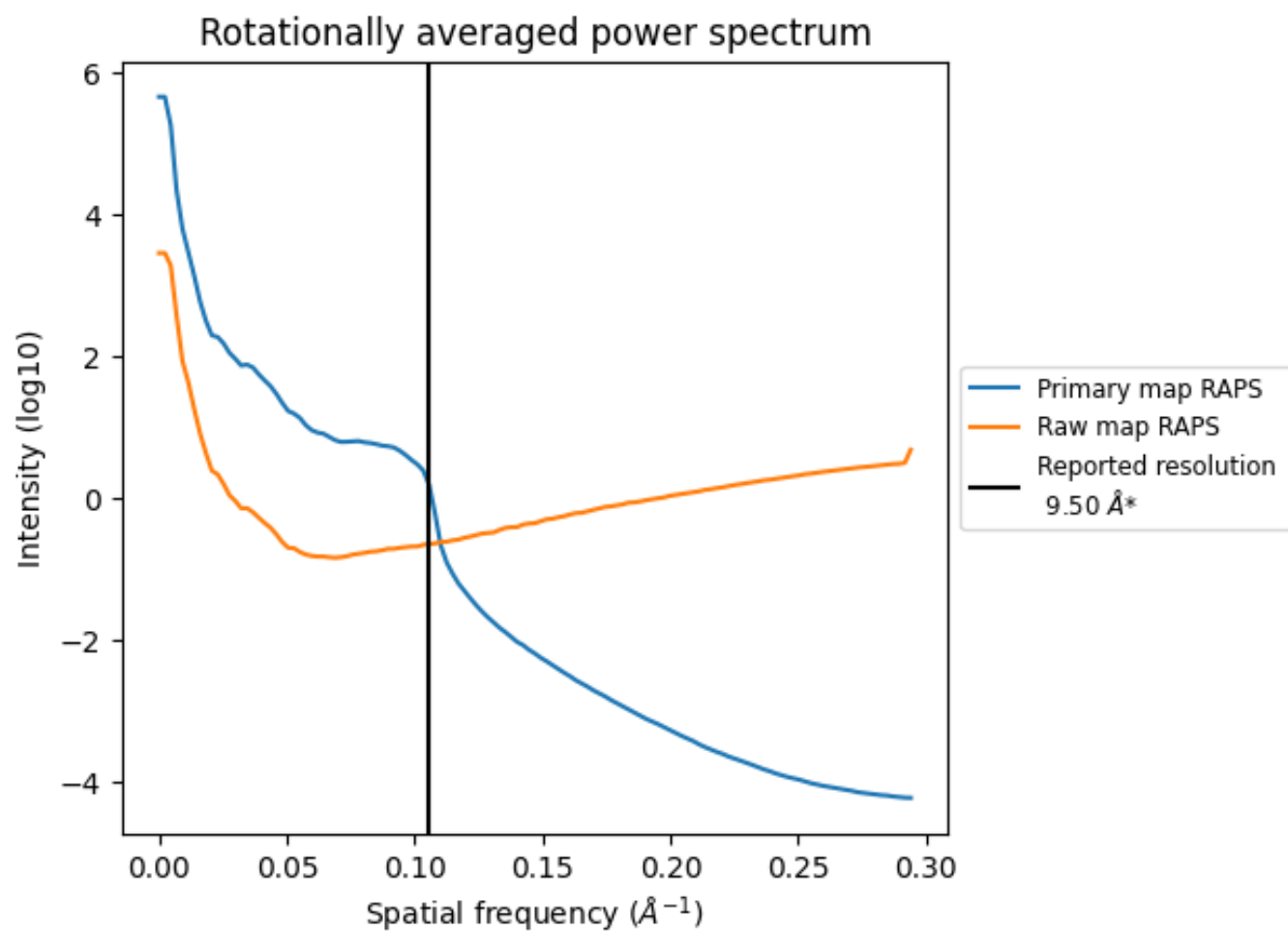
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2047 nm³; this corresponds to an approximate mass of 1849 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 ⓘ

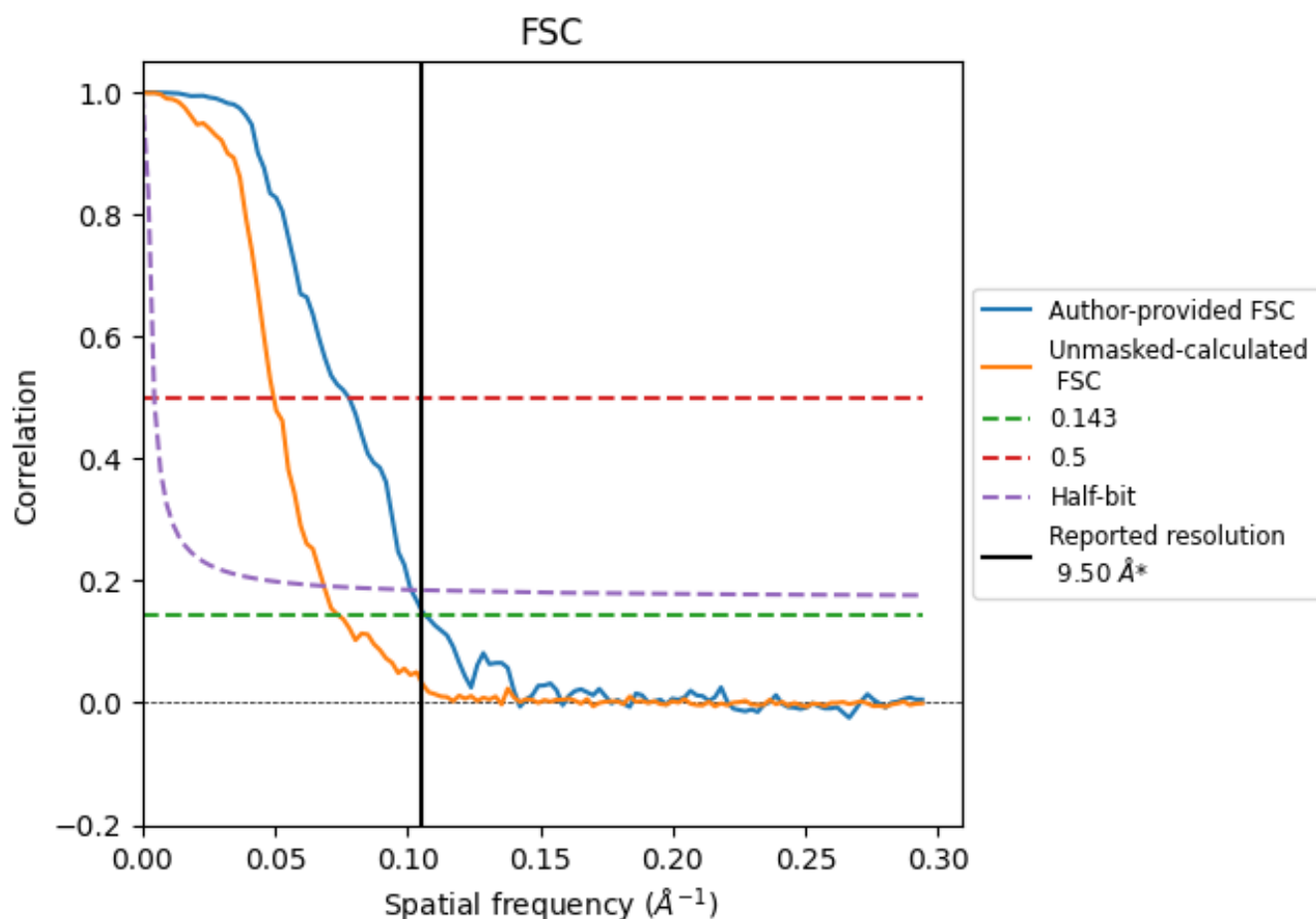


*Reported resolution corresponds to spatial frequency of 0.105 Å⁻¹

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 0.105 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

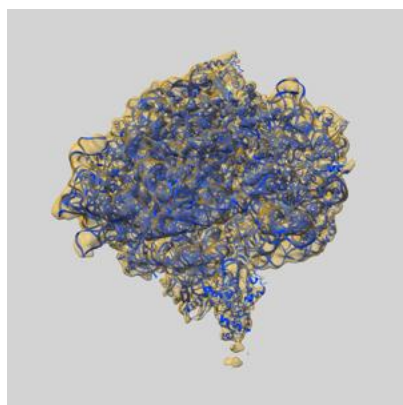
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	9.50	-	-
Author-provided FSC curve	9.36	12.85	9.87
Unmasked-calculated*	13.51	20.16	14.60

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 13.51 differs from the reported value 9.5 by more than 10 %

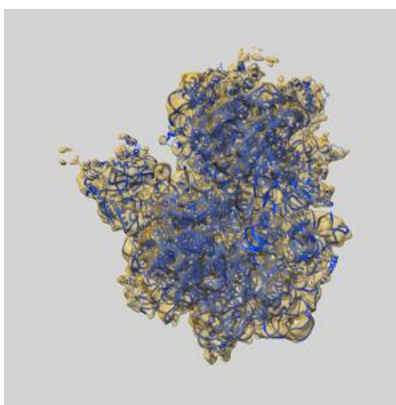
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-13272 and PDB model 7PAH. Per-residue inclusion information can be found in section 3 on page 14.

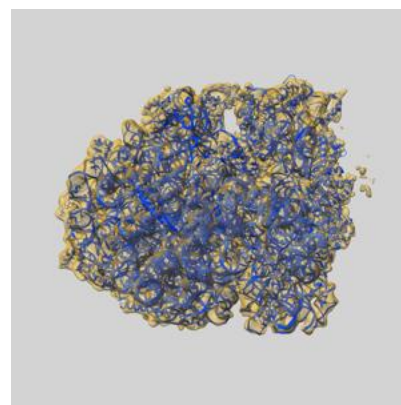
9.1 Map-model overlay [i](#)



X



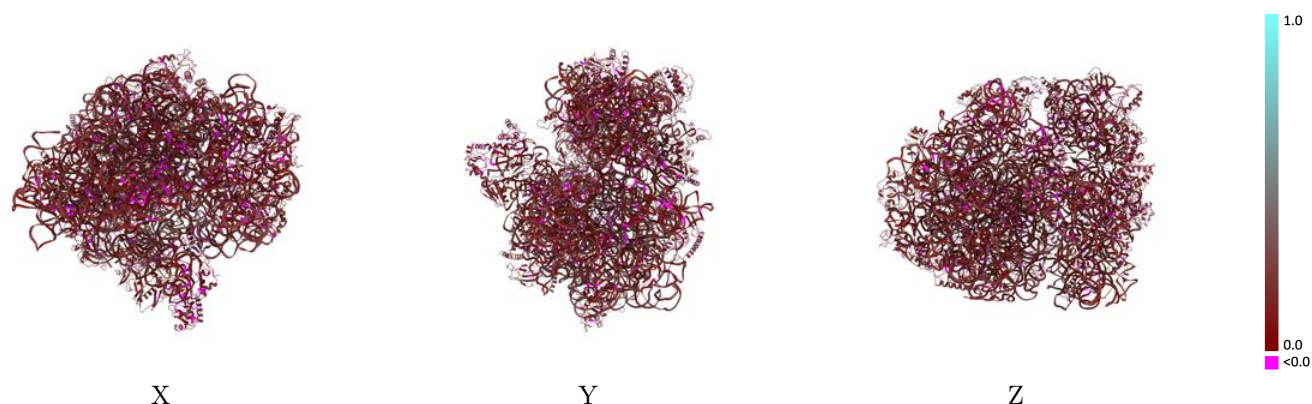
Y



Z

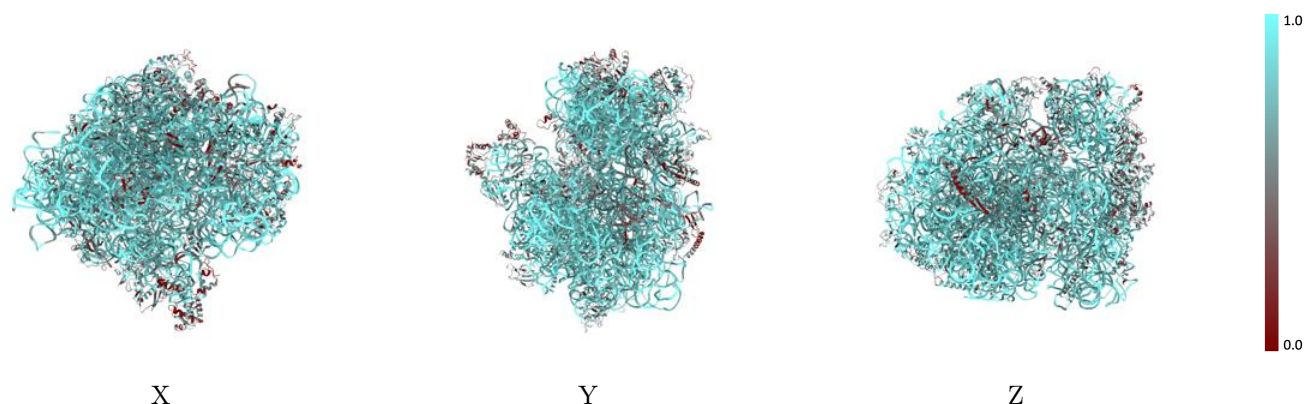
The images above show the 3D surface view of the map at the recommended contour level 0.47 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



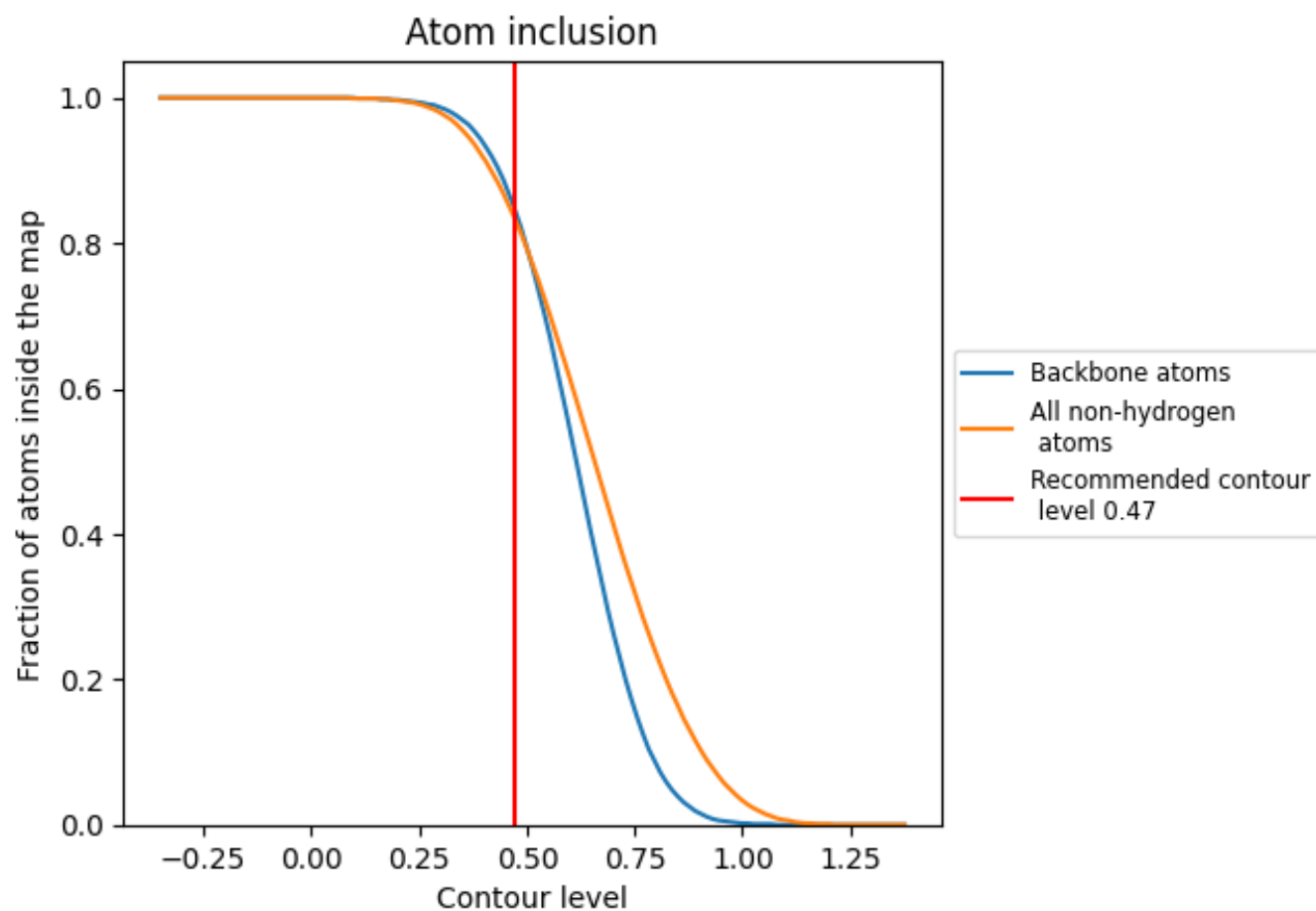
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.47).

9.4 Atom inclusion [i](#)



At the recommended contour level, 85% 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 (0.47) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8370	 0.1540
0	 0.8000	 0.1280
1	 0.6820	 0.0980
2	 0.6930	 0.0720
3	 0.9490	 0.1660
4	 0.9580	 0.1780
5	 0.9400	 0.1620
7	 0.8490	 0.1580
8	 0.4730	 0.0800
A	 0.5210	 0.1520
B	 0.5520	 0.1430
C	 0.6010	 0.1330
D	 0.5270	 0.1270
E	 0.5290	 0.1530
F	 0.6000	 0.1340
G	 0.6130	 0.1350
H	 0.6380	 0.1320
I	 0.5760	 0.1330
J	 0.6050	 0.1220
K	 0.6500	 0.1080
L	 0.5860	 0.1350
M	 0.6550	 0.0800
N	 0.6830	 0.1560
O	 0.7380	 0.1420
P	 0.5980	 0.1100
Q	 0.6880	 0.1390
R	 0.5120	 0.0960
S	 0.7560	 0.1590
T	 0.6790	 0.1810
a	 0.7020	 0.1170
b	 0.6570	 0.1230
c	 0.6790	 0.1340
d	 0.6300	 0.1310
e	 0.5650	 0.1610
f	 0.2570	 0.1390



Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
g	 0.4640	 0.1110
h	 0.3630	 0.1130
i	 0.7270	 0.1430
j	 0.5720	 0.1330
k	 0.6870	 0.1260
l	 0.7210	 0.1290
m	 0.6680	 0.1350
n	 0.7650	 0.1530
o	 0.6110	 0.1440
p	 0.7700	 0.1230
q	 0.6570	 0.1280
r	 0.7510	 0.1450
s	 0.6330	 0.1510
t	 0.5740	 0.1380
u	 0.7500	 0.1070
v	 0.7430	 0.1300
w	 0.6950	 0.1770
x	 0.5450	 0.1410
y	 0.7170	 0.1110
z	 0.7480	 0.1230