



Full wwPDB EM Validation Report ⓘ

Sep 16, 2026 – 03:41 pm BST

PDB ID : 9SL5 / pdb_00009sl5
EMDB ID : EMD-53671
Title : Model of M. pneumoniae 70S eT-TC (stable)
Authors : Dobbs, J.M.; Mahamid, J.
Deposited on : 2025-09-03
Resolution : 6.50 Å(reported)

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev133
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) : 2.50

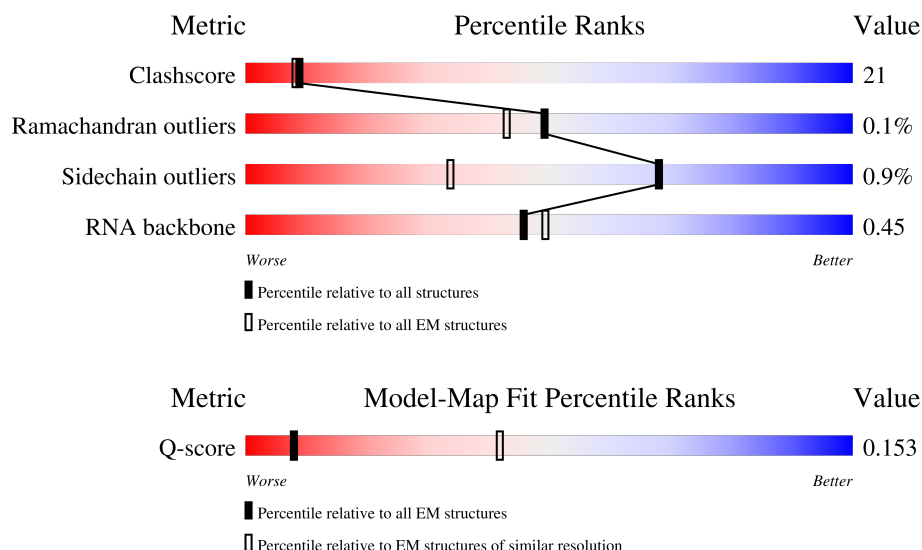
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 6.50 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.



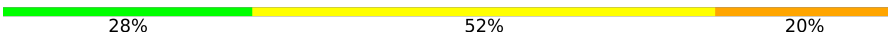
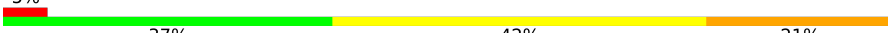
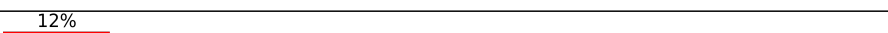
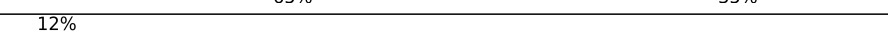
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	556 (6.00 - 7.00)

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	47	
2	1	59	
3	2	37	

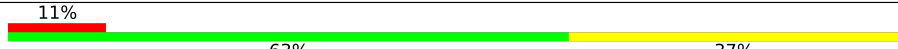
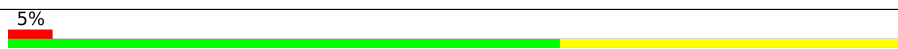
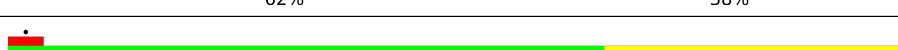
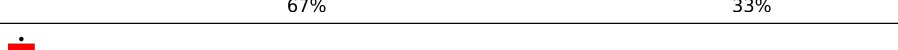
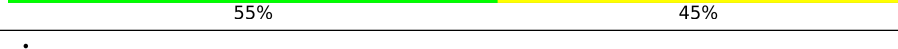
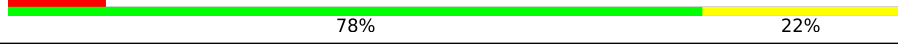
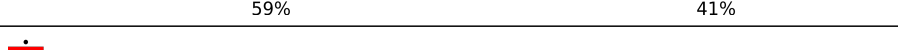
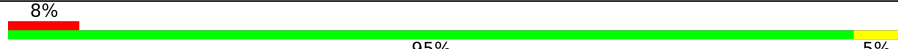
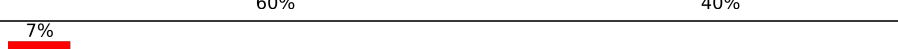
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
4	3	2878	
5	4	105	
6	5	1493	
7	6	327	
7	AB	327	
8	7	76	
9	9	1391	
10	A	240	
11	AA	89	
12	AC	366	
13	AD	32	
14	AE	32	
15	AF	160	
16	B	215	
17	C	203	
18	D	153	
19	E	167	
20	F	154	
21	G	141	
22	H	128	
23	I	101	
24	J	114	
25	K	136	
26	L	118	
27	M	60	

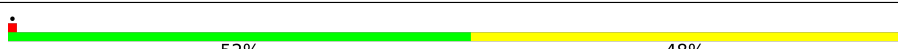
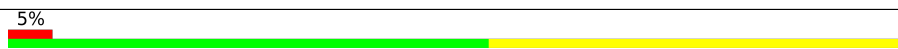
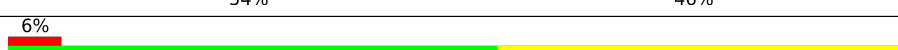
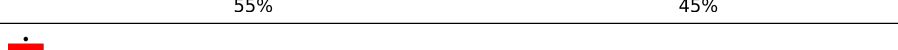
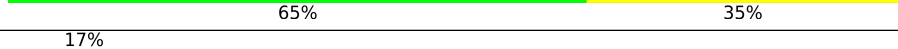
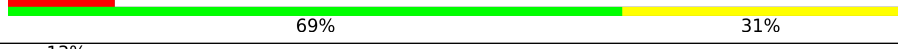
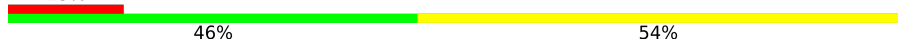
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
28	N	83	
29	O	80	
30	P	83	
31	Q	65	
32	R	84	
33	S	77	
34	T	53	
35	U	161	
36	V	29	
36	W	29	
36	X	29	
36	Y	29	
37	Z	1276	
38	a	285	
39	b	229	
40	c	210	
41	d	175	
42	e	176	
43	f	145	
44	h	128	
45	i	144	
46	j	122	
47	k	148	
48	l	136	
49	m	119	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
50	n	116	
51	o	115	
52	p	114	
53	q	99	
54	r	139	
55	s	92	
56	t	111	
57	u	86	
58	v	63	
59	w	108	
60	x	44	
61	y	56	
62	z	50	

2 Entry composition

There are 62 unique types of molecules in this entry. The entry contains 177858 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 Large ribosomal subunit protein bL34.

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 RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	3	2878	Total	C	N	O	P	0	0
			61664	27558	11236	19995	2875		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
5	4	105	Total	C	N	O	P	0	0
			2239	1003	409	724	103		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
6	5	1493	Total	C	N	O	P	0	0
			31943	14279	5792	10382	1490		

- Molecule 7 is a protein called DNA-directed RNA polymerase subunit alpha.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	6	308	Total	C	N	O	S	0	0
			2421	1550	407	454	10		
7	AB	312	Total	C	N	O	S	0	0
			2452	1571	412	459	10		

- Molecule 8 is a RNA chain called tRNA-Phe.

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

- Molecule 9 is a protein called DNA-directed RNA polymerase subunit beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	9	1391	Total	C	N	O	S	0	0
			10948	6905	1892	2114	37		

- Molecule 10 is a protein called Small ribosomal subunit protein uS2.

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AA	89	Total	C	N	O	S	0	0
			770	505	122	140	3		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AC	366	Total	C	N	O	S	0	0
			2884	1834	479	562	9		

- Molecule 13 is a DNA chain called DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AD	32	Total	C	N	O	P	0	0
			663	317	124	190	32		

- Molecule 14 is a DNA chain called DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AE	32	Total	C	N	O	P	0	0
			649	313	110	194	32		

- Molecule 15 is a protein called Transcription termination/antitermination protein NusG.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AF	160	Total	C	N	O	S	0	0
			1277	821	220	233	3		

- Molecule 16 is a protein called Small ribosomal subunit protein uS3.

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

- Molecule 17 is a protein called Small ribosomal subunit protein uS4.

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

- Molecule 18 is a protein called Small ribosomal subunit protein uS5.

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

- Molecule 19 is a protein called Small ribosomal subunit protein bS6.

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

- Molecule 20 is a protein called Small ribosomal subunit protein uS7.

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

- Molecule 21 is a protein called Small ribosomal subunit protein uS8.

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

- Molecule 22 is a protein called Small ribosomal subunit protein uS9.

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

- Molecule 23 is a protein called Small ribosomal subunit protein uS10.

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

- Molecule 24 is a protein called Small ribosomal subunit protein uS11.

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

- Molecule 25 is a protein called Small ribosomal subunit protein uS12.

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

- Molecule 26 is a protein called Small ribosomal subunit protein uS13.

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

- Molecule 27 is a protein called Small ribosomal subunit protein uS14.

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

- Molecule 28 is a protein called Small ribosomal subunit protein uS15.

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

- Molecule 29 is a protein called Small ribosomal subunit protein bS16.

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

- Molecule 30 is a protein called Small ribosomal subunit protein uS17.

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

- Molecule 31 is a protein called Small ribosomal subunit protein bS18.

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

- Molecule 32 is a protein called Small ribosomal subunit protein uS19.

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

- Molecule 33 is a protein called Small ribosomal subunit protein bS20.

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

- Molecule 34 is a protein called Small ribosomal subunit protein bS21.

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

- Molecule 35 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	U	161	Total	C	N	O	S	0	0
			1239	796	213	225	5		

- Molecule 36 is a protein called Large ribosomal subunit protein bL12.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	V	29	Total	C	N	O	S	0	0
			232	146	34	50	2		
36	W	29	Total	C	N	O	S	0	0
			232	146	34	50	2		
36	X	29	Total	C	N	O	S	0	0
			232	146	34	50	2		
36	Y	29	Total	C	N	O	S	0	0
			232	146	34	50	2		

- Molecule 37 is a protein called DNA-directed RNA polymerase subunit beta'.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	Z	1276	Total	C	N	O	S	0	0
			10085	6431	1752	1872	30		

- Molecule 38 is a protein called Large ribosomal subunit protein uL2.

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

- Molecule 39 is a protein called Large ribosomal subunit protein uL3.

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

- Molecule 40 is a protein called Large ribosomal subunit protein uL4.

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

- Molecule 41 is a protein called Large ribosomal subunit protein uL5.

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

- Molecule 42 is a protein called Large ribosomal subunit protein uL6.

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

- Molecule 43 is a protein called Large ribosomal subunit protein bL9.

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

- Molecule 44 is a protein called Large ribosomal subunit protein uL11.

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

- Molecule 45 is a protein called Large ribosomal subunit protein uL13.

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

- Molecule 46 is a protein called 50S ribosomal protein L14.

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

- Molecule 47 is a protein called Large ribosomal subunit protein uL15.

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

- Molecule 48 is a protein called Large ribosomal subunit protein uL16.

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

- Molecule 49 is a protein called Large ribosomal subunit protein bL17.

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

- Molecule 50 is a protein called Large ribosomal subunit protein uL18.

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

- Molecule 51 is a protein called Large ribosomal subunit protein bL19.

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

- Molecule 52 is a protein called Large ribosomal subunit protein bL20.

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

- Molecule 53 is a protein called Large ribosomal subunit protein bL21.

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

- Molecule 54 is a protein called Large ribosomal subunit protein uL22.

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

- Molecule 55 is a protein called Large ribosomal subunit protein uL23.

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

- Molecule 56 is a protein called 50S ribosomal protein L24.

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

- Molecule 57 is a protein called Large ribosomal subunit protein bL27.

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

- Molecule 58 is a protein called Large ribosomal subunit protein bL28.

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

- Molecule 59 is a protein called Large ribosomal subunit protein uL29.

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

- Molecule 60 is a protein called Large ribosomal subunit protein bL31.

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

- Molecule 61 is a protein called Large ribosomal subunit protein bL32.

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

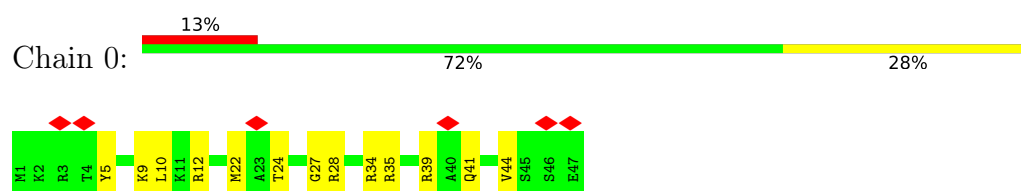
- Molecule 62 is a protein called Large ribosomal subunit protein bL33A.

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

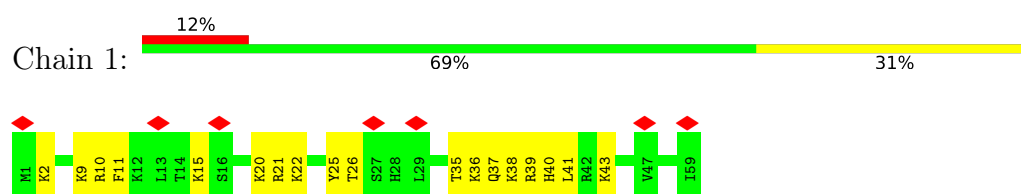
3 Residue-property plots

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.

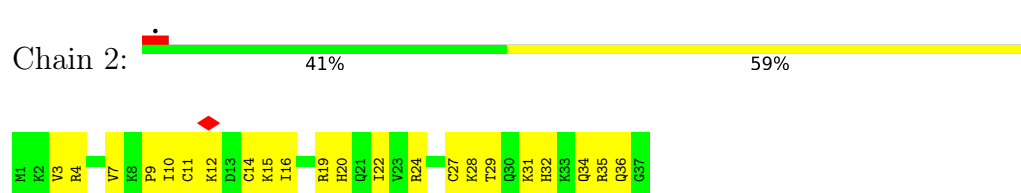
- Molecule 1: Large ribosomal subunit protein bL34



- Molecule 2: 50S ribosomal protein L35



- Molecule 3: 50S ribosomal protein L36



- Molecule 4: 23S ribosomal RNA

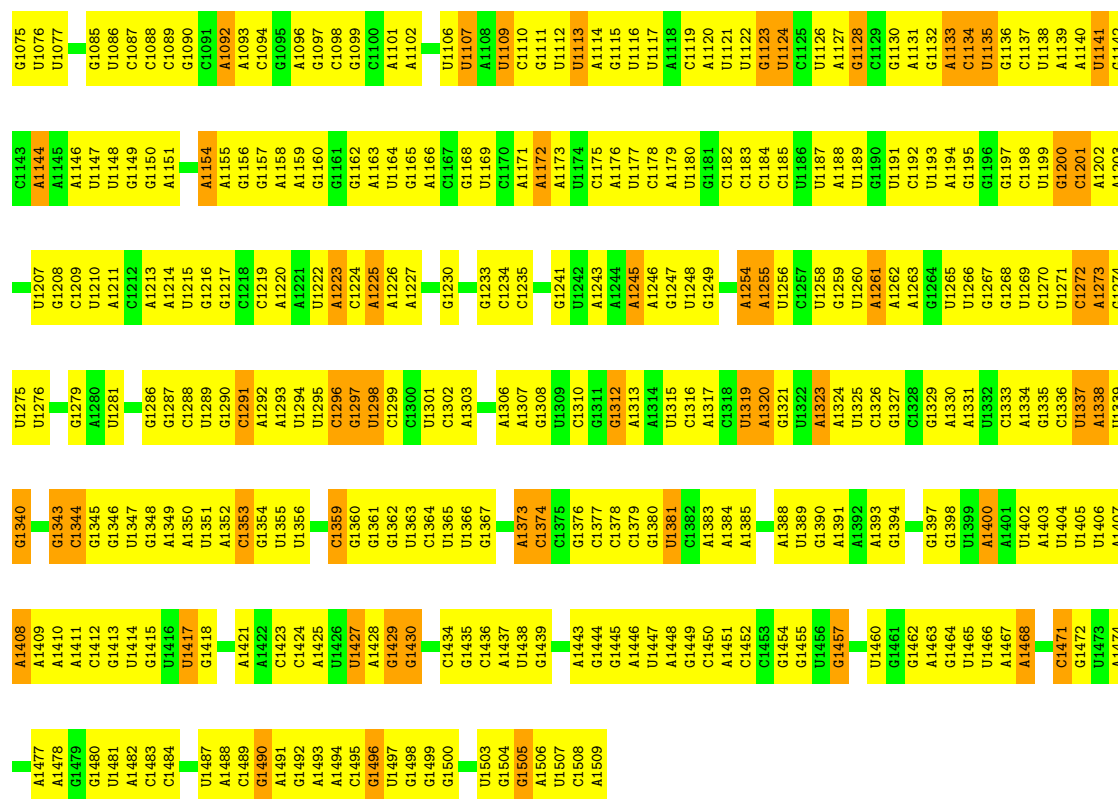


U1150	A1083	G1018	C949	G873	G811	G742	U676	G610	U544	C480	U411	A343	A274	C205
U1151	C1084	A1019	U950	U874	G812	G743	A679	A611	C545	C481	A412	A344	A275	
U1154	A1085	G1020	U951	G875	G813	U744	A679	G612	U546	G482	G413	A345	A276	A208
G1155	G1086	C1021	U952	A876	U814	U745	A680	G613	G547	A483		G346		G209
C1156	C1087	C1022	G953	G877	G815	G746	A681	C614	A548	U484	G418	A347	U279	U210
A1157	A1088	C1023	A954	A878	A816	A747	A682	G615	A549	A485	A419	A348	A280	A211
G1157	G1089	A1024	A955		A817		G683	G616	A550	A486	A420	G349	U281	G212
C1158	C1090	G1025		A881	A818	G752	A684	C617	C551	C486	A421	G350		G213
G1159	G1091	A1026	C958	C882	U819	A753	G685		C552	G488	A422	G351	U284	C214
A1160	A1092	U1027	C959	A883	U820	U754	G686	G620	A553	A489	C423	C352	U285	A216
A1161	A1093	C1028	A960	G887	C821	C755	G687	U621		A490	G424	G353	A286	C215
G1162	G1094	A1029	U961	U886	C822	A756	U688	G622	C558	A491	U425	C354	G287	A217
C1163	C1095	U1030	U962		A823	A757	U689	A623	C559	C492	U426	A355	A288	G218
A1164	A1096	U1031	U963	G891	A824	G758	U690	U624	U560	A493	A427	A356	U289	G219
U1165	U1097	A1032	A964	G892	U825	U759	G691	G625	A561	G494	U428	A357	A290	A220
G1166	G1098	A1033	U965	A893	C826	G760	U692	A626	C562	U495	U429	A358	G291	A221
U1167	C1099	A1034	U966	G894	G827	G761	U693	G627	A563	A496	U430	G359	G292	A222
A1168	A1100	U1035	U967	G895	A828	A762	U694	A628	A564	C497	U431	G360	G293	A223
U1169	U1101	A1036		U896	A829	G763	G695	G629	C565	C498	G432		G294	G224
C1170	A1102	A1037	C974	A897	A830	G764	U696	G630	G566	C499	A433	G363	U295	A225
G1171	G1103	G1038	G975	A898	U831	A765	U697	A631	U567	U500	G434	A364	U296	A226
A1172	A1104	A1039	C976	A899	C832	G766	A698	A632	C568	G501	U435	G372	G297	A227
G1173	A1105	U1040	A977	G900	C833	C767	U699	G633	U569	A502	G436	G367	U298	A228
C1174	G1106	G1041	G978	C901		G768	U700		C570	A437	A437	C369	A299	A229
G1175	C1042	U902	U979	U902	A837	A769	A701	U636	A571	G505	A438	C370	G300	G230
U1176	C1043	A903	C980	A903	U838	A770	U702	U637	G572		U439	C371	G301	A231
A1178	A1044	C904	A981	C904	A839	C771	A703	A638	A573	G509	U441	G372	G306	U232
G1179	G1045	U905	G982	U905	G840	C772	G704	G639	G574	G510	U442	G373	G307	A233
U1180	A983	G906	A983	G906	C841	G773	C705	U640	C575	U511	G442	G374	G308	G234
C1181	C984	U942	C984	U942	U842	A774			A576	G512	A374		A308	U235
G1182	A985	G843	A985	A912	G843	C775	A711	C645	G577	A513	C445	U377	A309	G236
U1183	U913	G844	G986	G914	G844		A712	A646		A514	A446	G378	U310	A237
U1184	U987	U845	U987	G914	U845	G780	A712	A647	U580	A515	G447	G379	G311	U238
U1185	G988	U846	G988	A915	U846	U781	C713	G648	A581	A516	A448	A379	U312	U239
A1186	A996	C847	A996	U916	C847	U782	G714	A649	A582	G517	C449	A380	G313	C240
C1187	C990	U848	C990	G917	U848	G783	G715	G650	U583	A518	C450	A381	G314	C241
G1188	G992	G850	G992	G918	G850	A784	G716	A651		A519	A451	U382	A315	G242
A1189	A993	U851	A993	G920				U652	U587	C520	U452	U383	G316	U243
C1190	U994	C852	U994	G928	U851	G788	G719	G653	G588	G521	U453	G384	U317	G244
G1191	A995	G853	A995	G929	C853	U790	A720	G654	A589	U528	G454	U385	U318	U245
U1192	A996	A854	A996	G930	A854	A791	C722	G655	U590	A523	G455	U386	U246	
A1193	G997	G855	G997	C931	G855	G792	U723	A657	G591	G524	G456	U387	G319	G246
C1194	C998	A856	C998	G931	A856	C793	A724	G658	C593	A525	U457	U388	A322	U247
G1195	U999	U857	U999	U932	U857	G794	G725	C659	G594	G526	G460	C389	A323	U250
U1196	G1066	U862	G1066	U933	U862	G795	A731	G660	U595	A527	A465	A390	G323	G251
C1197	A1067	U863	A1067	U934	U863	A796	G726	U661	U596	U528	U466	U391	G325	G252
G1198	G1068	A858	G1068	U935	A858	A796	U727	G662	G596	G529	C462	A392	G326	C253
A1201	C1069	U864	A1201	U936	U864	U797	A728	U663	C597	G530	U463	C393	A328	G254
U1202	A1070	G860	A1070	G936	C860	U797	U729	A663	G598	G531	A464	C394	G329	A255
G1203	G1071	U861	G1071	A937	U861	G798	U729		U599	A532	A465	A330	A330	G256
A1204	A1072	U862	A1072	U938	U862	A799	G730	G666	U600	G533	U466	G401	C257	
U1207	U1073	U863	U1073	U939	U863	C800	A731	A667	U601	U534	U467	A402	A333	G258
A1208	A1074	A864	A1074	A940	A864	U801	G732	A668	G601	G535	A468	U403	A334	A259
U1209	G1075	A865	G1075	C941	A865	U802	A733	G669	U602	A536		C404	G335	
G1210	C1076	G866	C1076	A942	G866	G803	A734	G670	G603	A537	U474	C405	A267	G268
C1211	A1077	G867	A1077	A943	G867			G671	A604	A538	A475	C406	U337	A269
U1212	G1078	C868	G1078	U944	C868	A806	U737	G672	A605	A539	G476	U407	G338	
A1213	U1079	U869	U1079	U945	U869	U807	U738	G673	G606	U539	U477	G408	U337	G270
U1214	A1080	A870	A1080	A946	A870	U808	G739	A674	U607	A540		A409	G341	G271
G1215	G1148	G871	G1148	A947	G871	U809	A741	U675	U609	U543	A479	G410	G342	

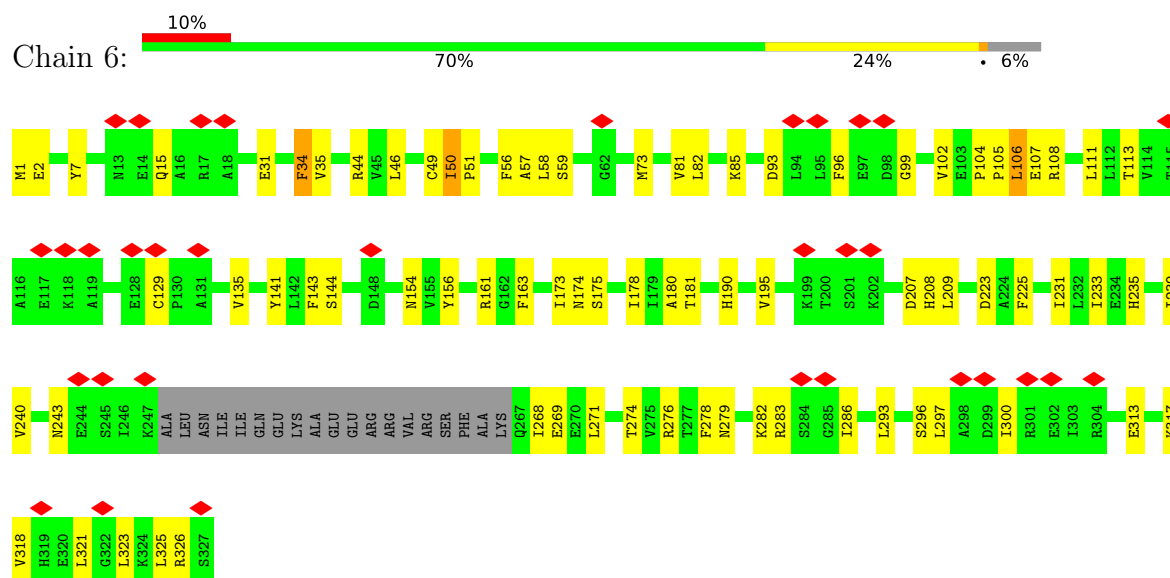
U2129	G2068	C1997	C1921	C1943	G1778	U1713	G1642	G1571	G1491	U1424	G1353	G1286	U1216
A2130	A2069	U1998	U1922	C1844	G1779	U1714	A1643	U1572	G1492	U1425	G1353	C1287	G1217
G2131	C2070	G1999	A1923	C1945	G1780	A1716	C1645	A1573	U1493	C1426	C1355	C1288	G1218
G2132	C2071	U2000	G1928	C1847	G1783	C1718	C1646	G1576	U1494	U1429	U1360	G1289	U1219
G2133	C2072	C2001	G1929	U1848	U1784	C1719	A1647	A1577	U1501	U1430	U1361	C1290	G1220
G2134	C2073	U2002	G1930	G1849	U1785	G1720	A1648	A1578	U1502	U1431	U1362	C1291	G1221
G2135	G2074	C2003	A1934	G1852	U1786	G1721	A1649	A1579	A1503	G1432	C1363	A1292	A1222
U2138	G2076	G2004	U1935	C1853	A1787	U1722	A1650	G1580	A1504	U1433	U1364	C1223	C1223
G2139	A2077	U2007	G1936	U1854	G1788	U1723	A1651	U1581	G1505	U1434	U1365	G1294	A1225
G2140	A2078	A2008	G1937	A1855	C1789	G1724	A1652	U1582	G1506	U1435	G1366	A1295	G1226
G2141	G2079	U2009	U1938	G1856	U1790	G1725	A1653	U1583	U1507	U1436	G1367	C1227	G1227
U2142	C2080	A2010	G1939	G1857	A1791	U1726	G1654	U1584	G1508	U1437	G1368	C1228	C1228
G2143	U2081	G2011	C1941	C1857	A1792	U1727	U1655	A1585	G1509	U1438	U1369	U1229	U1229
G2144	U2082	A2012	G1942	U1858	A1793	A1728	A1656	U1586	U1509	U1439	U1370	G1301	U1230
A2145	U2083	G2013	A1943	U1859	A1794	G1729	G1657	U1587	A1510	U1440	G1371	C1302	A1370
A2146	C2084	G2017	A1944	A1860	C1795	G1730	U1658	A1588	C1511	U1441	U1372	U1232	U1232
G2147	A2085	U2018	A1945	A1861	A1796	G1731	C1659	A1589	A1512	U1442	U1373	U1233	U1233
G2148	U2086	G2019	U1946	A1862	C1797	A1732	A1660	U1590	A1513	U1443	C1373	G1303	A1233
U2149	G2087	A2020	U1947	G1863	A1798	G1733	A1661	G1591	U1514	U1444	U1374	G1305	U1234
G2150	U2088	A2021	C1948	G1864	G1807	C1742	G1676	A1592	U1515	U1445	U1375	G1306	U1235
G2151	A2089	A2022	A1951	G1866	C1808	U1743	G1677	U1593	A1518	U1446	U1376	G1307	G1236
A2154	G2090	U2023	G1952	G1867	U1801	A1736	G1678	U1596	C1519	U1447	G1377	A1308	A1243
G2155	U2092	C2024	U1953	A1868	U1802	G1737	A1669	U1597	A1519	U1448	C1378	U1310	A1244
G2156	U2093	G2025	U1954	G1869	A1803	G1738	U1670	U1598	G1523	U1449	C1379	U1311	A1245
A2157	A2094	A2026	C1954	C1870	U1805	G1739	C1671	U1599	C1524	A1451	U1380	A1312	U1246
G2158	G2095	G2027	G1955	U1871	G1806	U1740	C1672	A1600	G1525	U1452	A1381	G1313	C1247
U2159	U2096	U2028	G1956	U1872	G1807	C1741	G1677	A1603	U1526	U1453	A1382	A1314	A1248
U2160	A2097	A2029	U1957	G1876	C1808	U1742	G1677	A1604	U1527	U1454	U1385	A1315	A1249
G2161	U2098	C2031	A1959	C1877	G1813	U1743	G1677	A1605	G1528	U1455	U1389	U1316	A1250
U2162	U2099	G2032	A1960	A1878	G1814	G1747	G1681	U1608	U1529	U1456	G1389	G1317	G1251
U2163	G2100	C2033	A1961	A1879	U1815	U1748	C1682	G1609	U1530	U1457	G1390	U1318	C1252
G2164	A2101	U2034	U1962	G1880	A1816	A1750	G1685	U1610	A1534	U1458	U1391	C1319	C1253
A2165	U2102	U2035	U1963	C1881	A1817	G1751	U1686	G1611	C1536	U1459	G1392	G1320	U1254
U2166	C2103	G2036	C1964	G1882	G1818	G1752	G1687	C1612	C1537	A1461	A1393	A1322	A1256
G2167	A2104	A2037	G1971	G1885	U1820	U1754	A1688	U1613	U1538	U1462	A1394	A1323	G1257
G2168	G2105	A2038	G1971	C1886	G1821	A1755	A1688	G1614	U1539	U1464	A1395	A1324	G1258
G2169	G2106	G2039	G1974	A1891	A1822	A1756	U1691	G1615	U1540	U1465	U1396	G1325	A1259
A2170	A2107	C2041	G1975	C1891	U1823	G1757	A1692	G1616	G1541	U1466	G1399	C1326	U1260
A2171	G2110	A2042	A1976	U1894	G1824	C1758	U1693	U1617	A1542	U1467	U1400	G1327	U1261
G2172	U2111	C2043	U1977	U1895	U1825	C1759	A1694	U1618	G1543	U1468	A1401	A1328	G1262
G2173	U2112	G2044	U1978	G1895	A1826	G1760	G1695	A1619	U1544	C1469	G1402	U1329	G1263
G2174	U2113	C2044	G1979	C1902	U1827	C1761	C1696	A1620	G1544	C1470	G1405	A1332	U1264
U2175	C2114	G2050	U1980	G1902	A1828	A1762	A1697	U1546	U1545	A1471	A1406	A1332	G1265
U2176	A2115	G2051	U1981	U1905	A1829	G1763	A1698	G1625	U1547	U1475	A1407	A1336	G1266
A2179	U2116	C2054	G1982	G1906	G1830	U1764	A1699	C1626	A1548	C1476	U1408	G1337	A1267
U2180	G2117	A2055	U1983	A1907	G1831	G1765	G1700	U1627	A1549	U1477	G1409	G1338	U1268
A2181	U2118	C2056	G1987	U1908	G1832	A1766	G1701	G1628	G1550	A1480	A1412	U1341	U1270
G2182	A2119	C2057	U1988	A1909	G1833	A1767	A1702	U1551	C1552	U1481	A1413	C1342	A1271
U2183	G2120	G2058	U1989	G1910	A1834	U1768	C1706	C1632	G1553	U1482	A1414	C1343	G1278
A2184	A2121	A2061	C1990	G1911	A1835	A1769	U1707	G1633	U1554	U1483	A1415	C1344	U1279
U2189	G2122	C2062	U1991	G1913	A1836	C1771	G1708	A1634	A1557	G1487	A1416	G1345	G1280
G2190	A2123	G2063	U1992	G1914	A1837	C1772	C1709	G1635	A1558	U1488	G1417	G1346	A1281
G2191	U2124	C2064	U1993	G1915	A1838	G1773	A1710	U1636	G1559	U1489	U1418	A1347	G1282
G2192	U2125	A2065	U1994	G1917	C1839	G1775	A1711	G1640	A1570	U1490	A1423	C1348	A1283
U2193	A2126	G2066	G1995	U1918	U1840	G1776	A1711	A1641				C1349	A1284
G2194	G2127	U1996	A1996	A1919	U1841	G1777	A1712					A1350	U1285



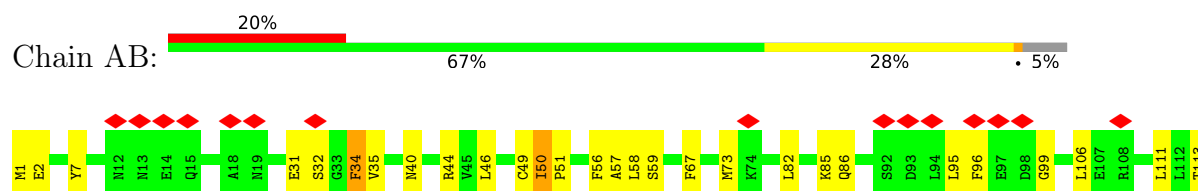


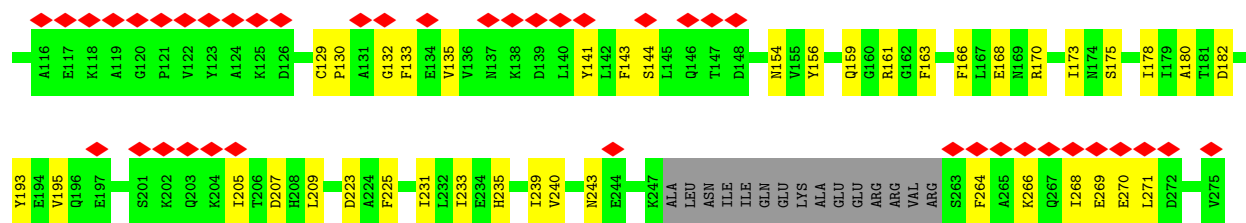


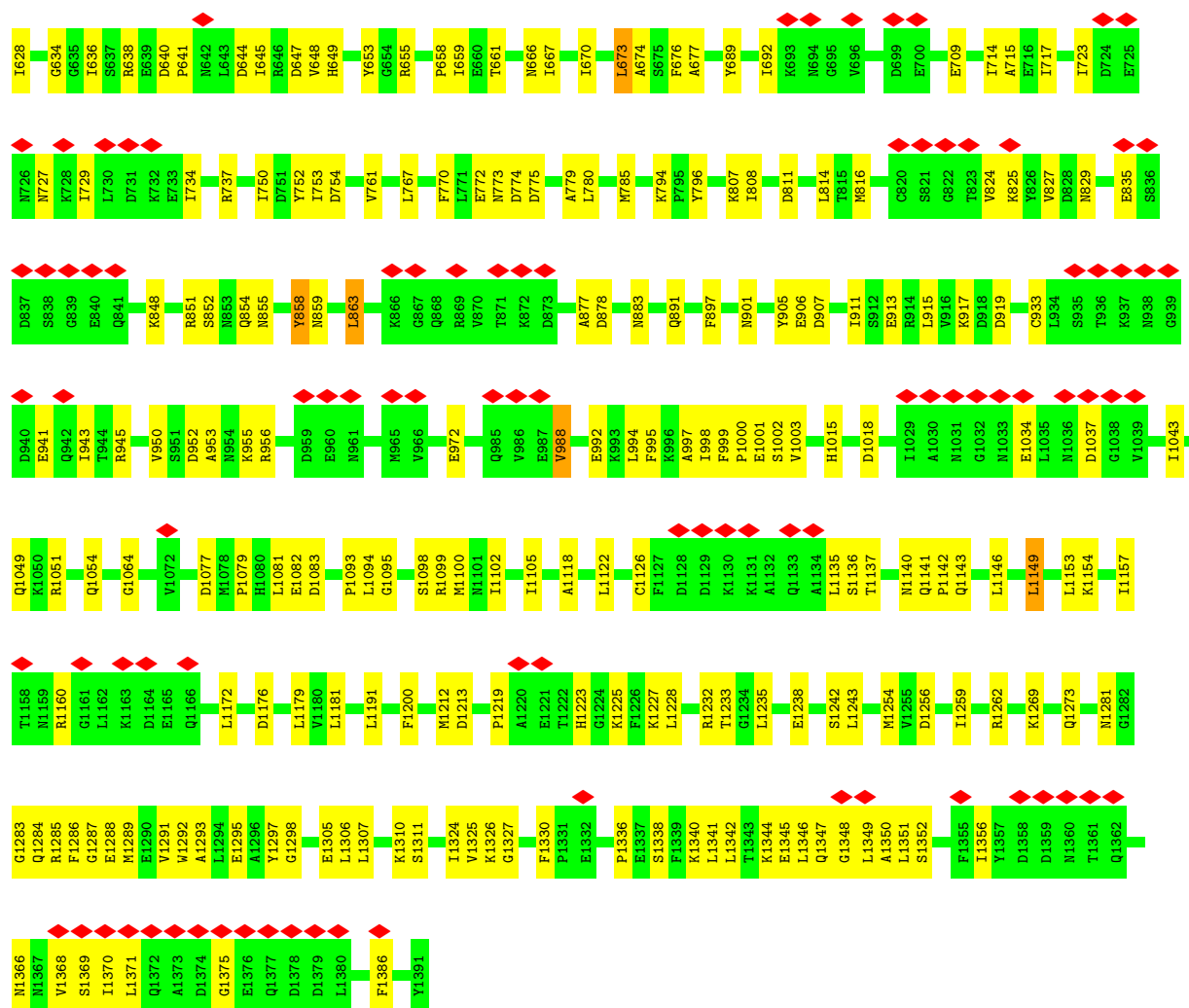
• Molecule 7: DNA-directed RNA polymerase subunit alpha



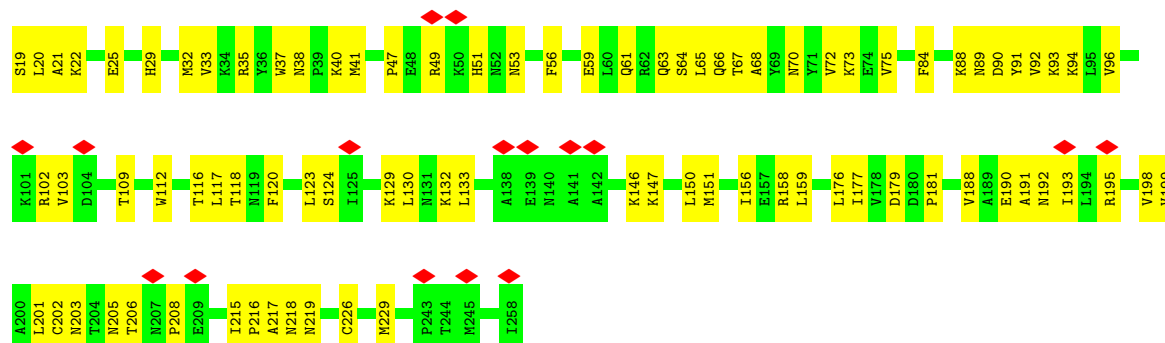
• Molecule 7: DNA-directed RNA polymerase subunit alpha



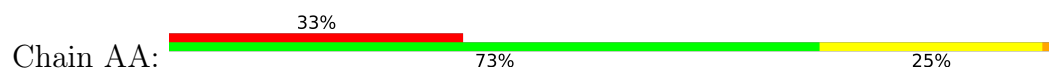


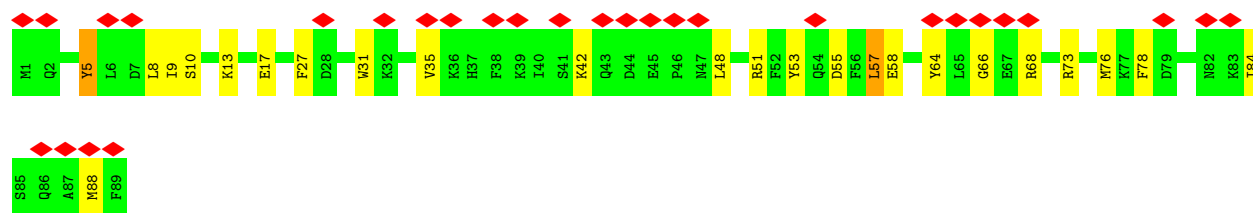


• Molecule 10: Small ribosomal subunit protein uS2

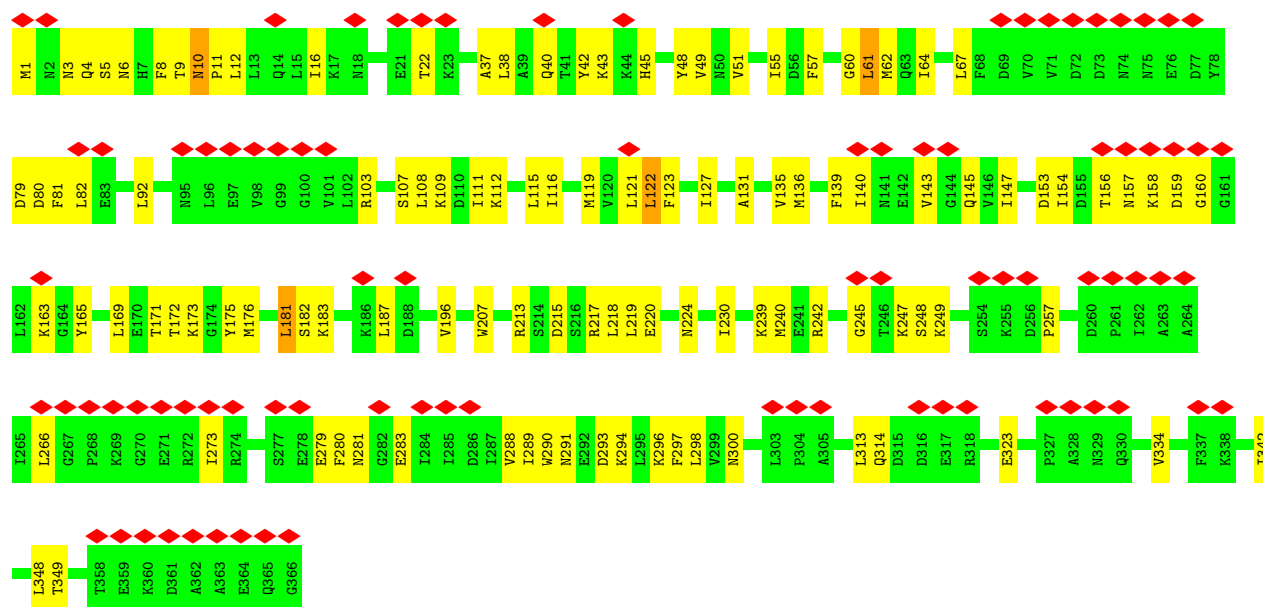


• Molecule 11: Probable DNA-directed RNA polymerase subunit delta





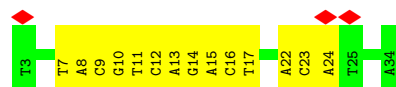
• Molecule 12: Transcription termination/antitermination protein NusA



• Molecule 13: DNA

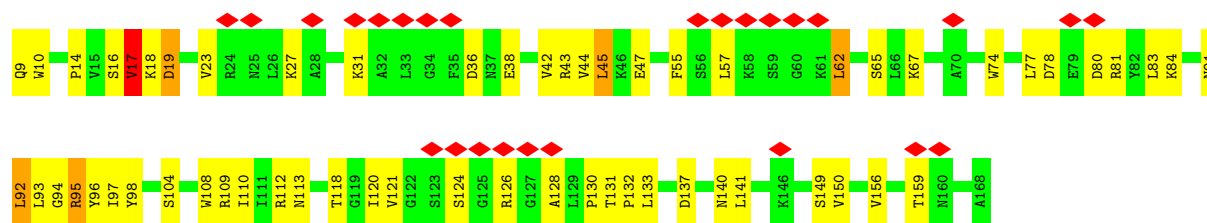


• Molecule 14: DNA

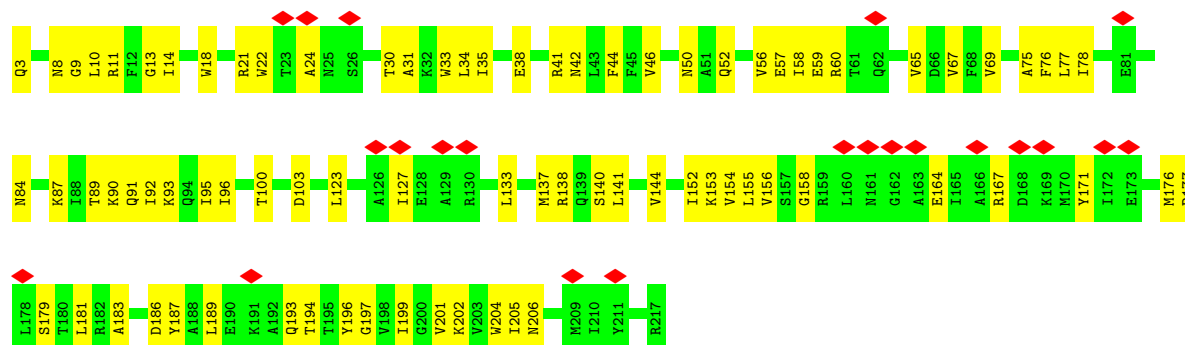


• Molecule 15: Transcription termination/antitermination protein NusG

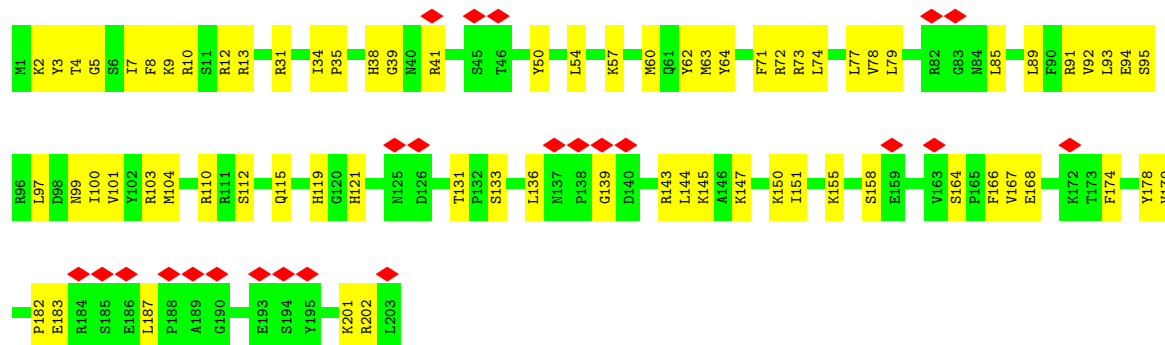




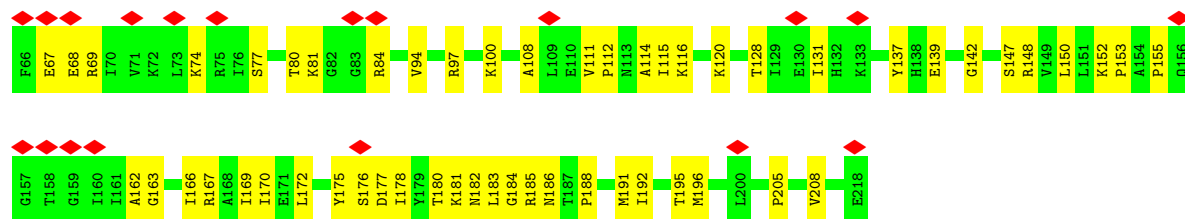
- Molecule 16: Small ribosomal subunit protein uS3



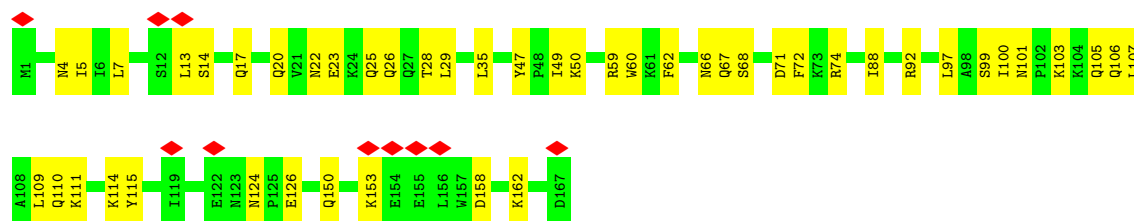
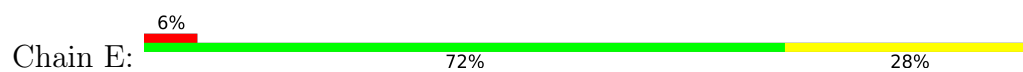
- Molecule 17: Small ribosomal subunit protein uS4



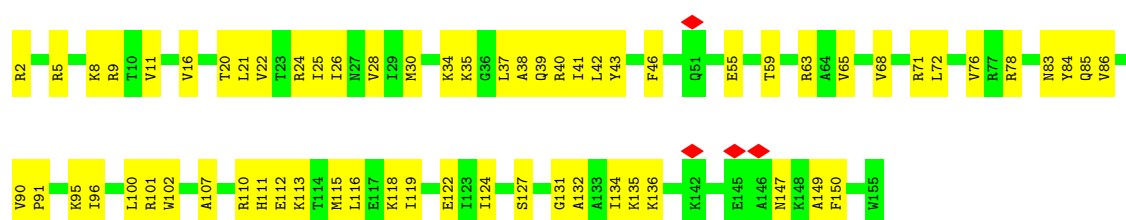
- Molecule 18: Small ribosomal subunit protein uS5



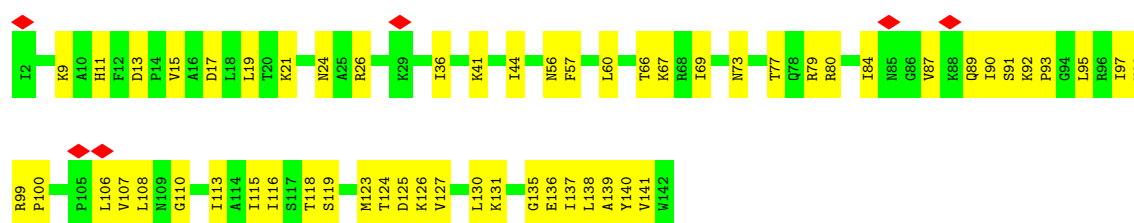
- Molecule 19: Small ribosomal subunit protein bS6



- Molecule 20: Small ribosomal subunit protein uS7



- Molecule 21: Small ribosomal subunit protein uS8



- Molecule 22: Small ribosomal subunit protein uS9



- Molecule 23: Small ribosomal subunit protein uS10

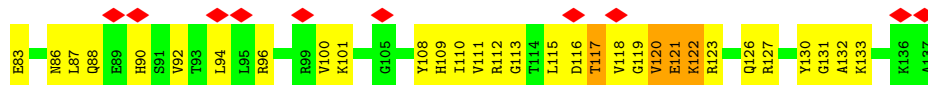
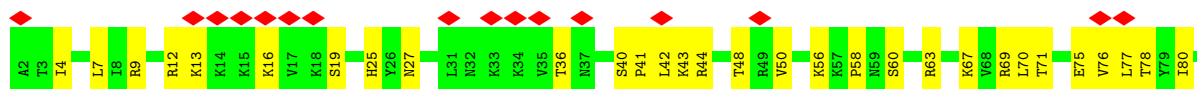




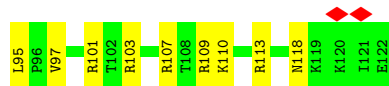
- Molecule 24: Small ribosomal subunit protein uS11



- Molecule 25: Small ribosomal subunit protein uS12



- Molecule 26: Small ribosomal subunit protein uS13

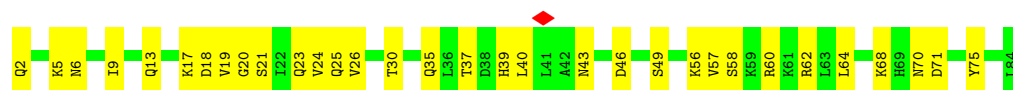


- Molecule 27: Small ribosomal subunit protein uS14

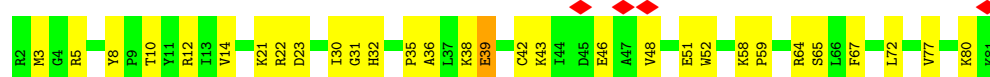


- Molecule 28: Small ribosomal subunit protein uS15





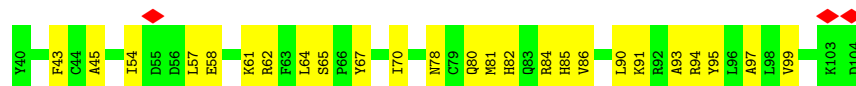
- Molecule 29: Small ribosomal subunit protein bS16



- Molecule 30: Small ribosomal subunit protein uS17



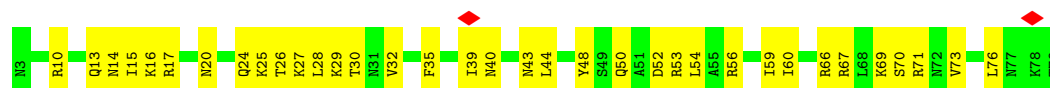
- Molecule 31: Small ribosomal subunit protein bS18



- Molecule 32: Small ribosomal subunit protein uS19



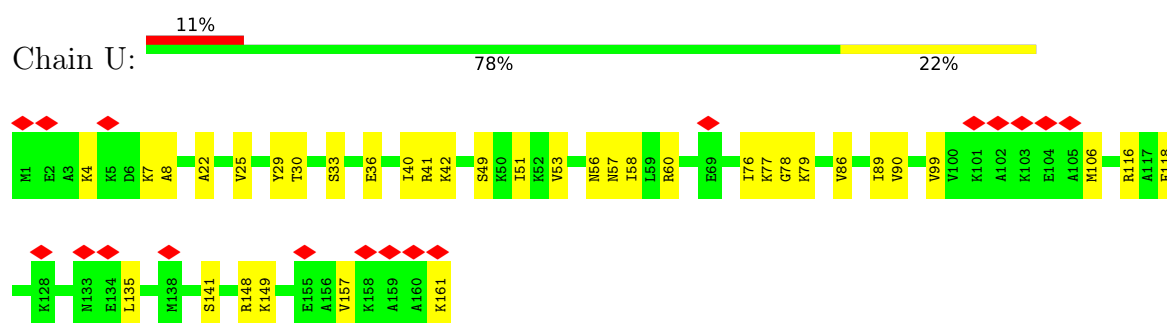
- Molecule 33: Small ribosomal subunit protein bS20



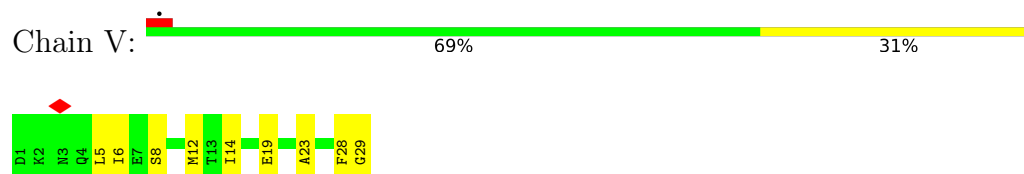
- Molecule 34: Small ribosomal subunit protein bS21



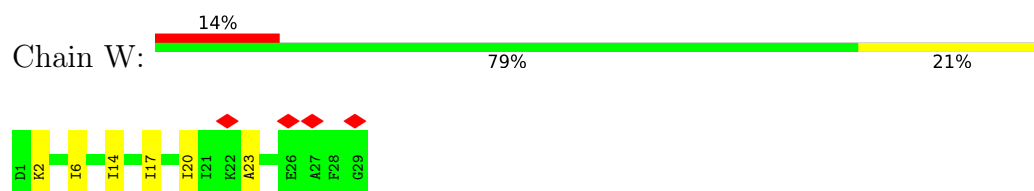
- Molecule 35: 50S ribosomal protein L10



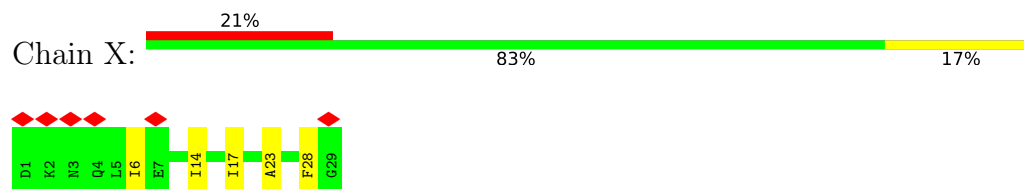
- Molecule 36: Large ribosomal subunit protein bL12



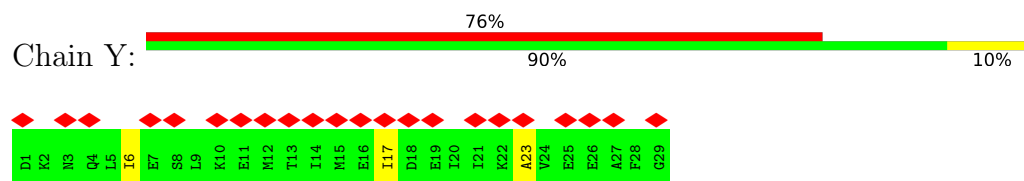
- Molecule 36: Large ribosomal subunit protein bL12



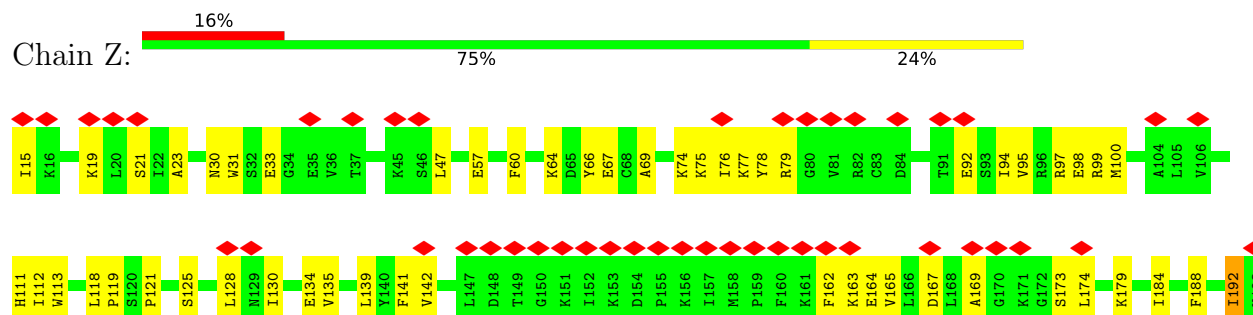
- Molecule 36: Large ribosomal subunit protein bL12

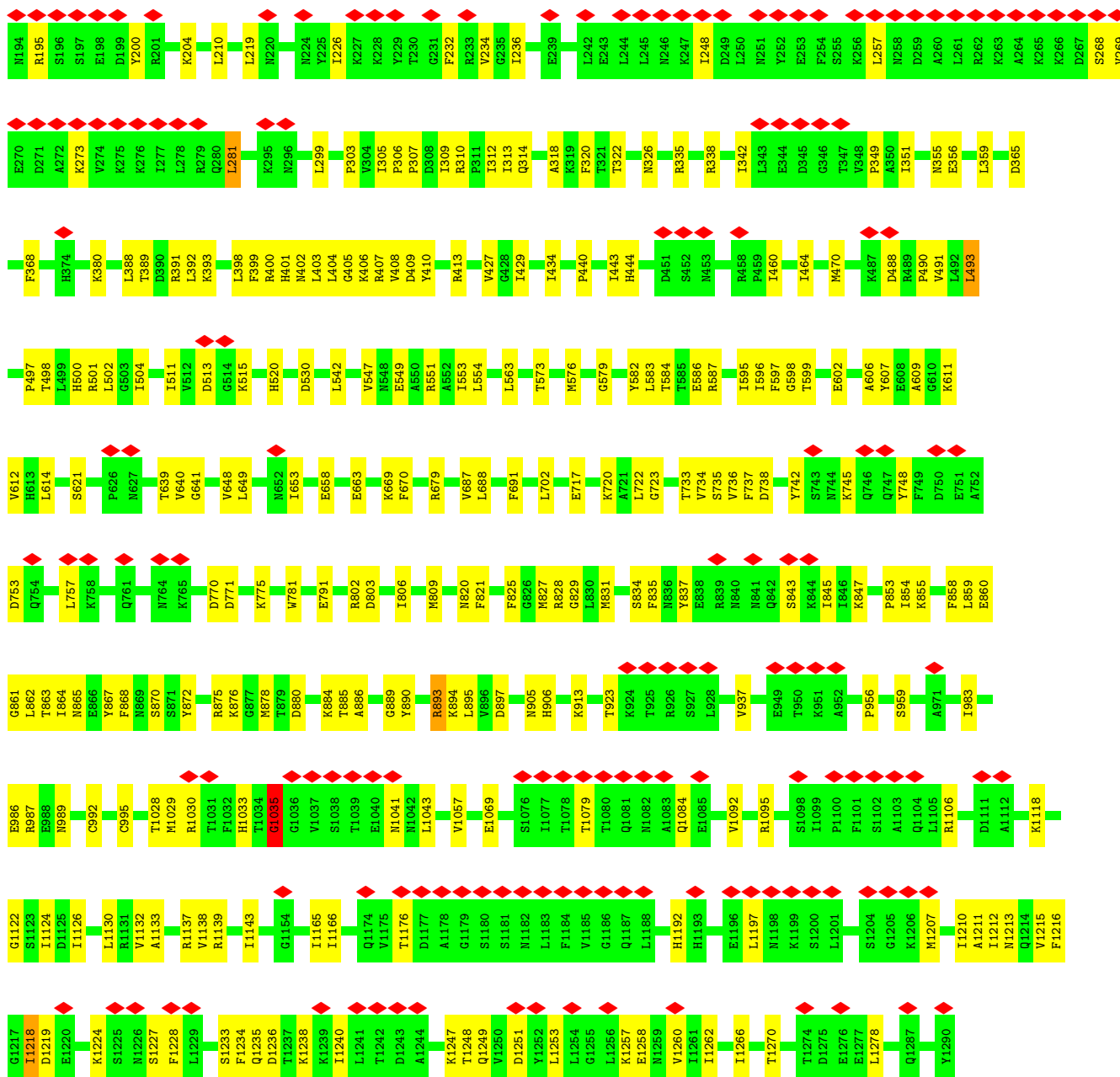


- Molecule 36: Large ribosomal subunit protein bL12

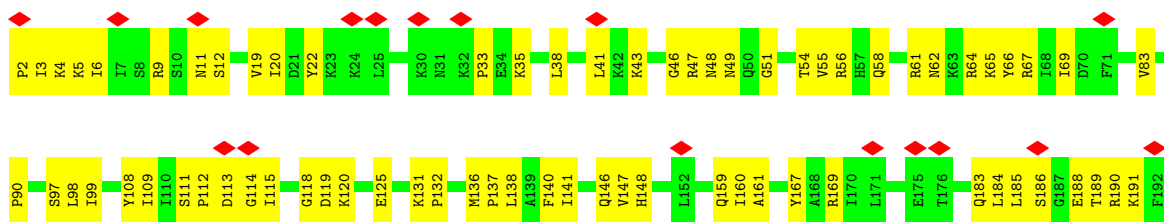


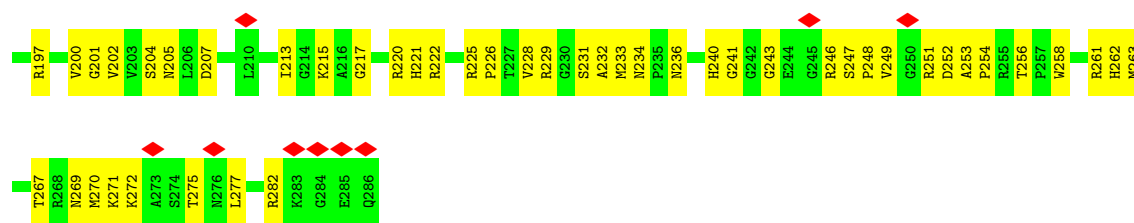
- Molecule 37: DNA-directed RNA polymerase subunit beta'



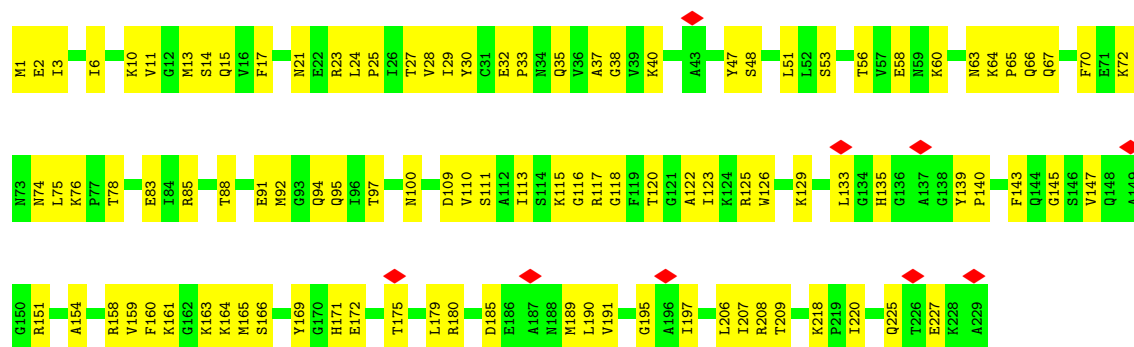


• Molecule 38: Large ribosomal subunit protein uL2

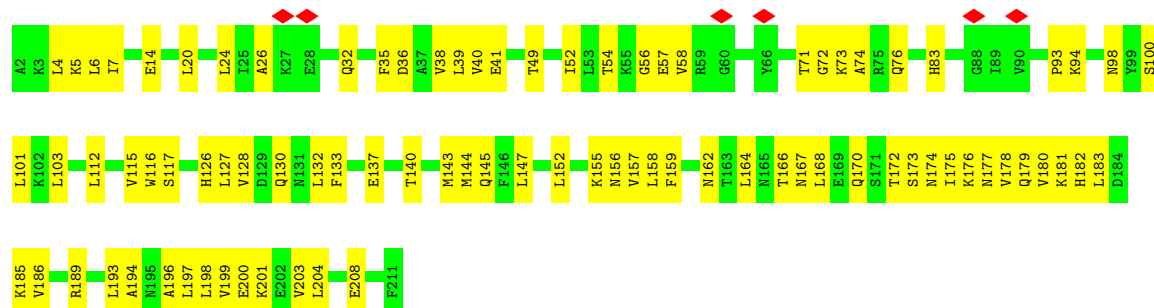




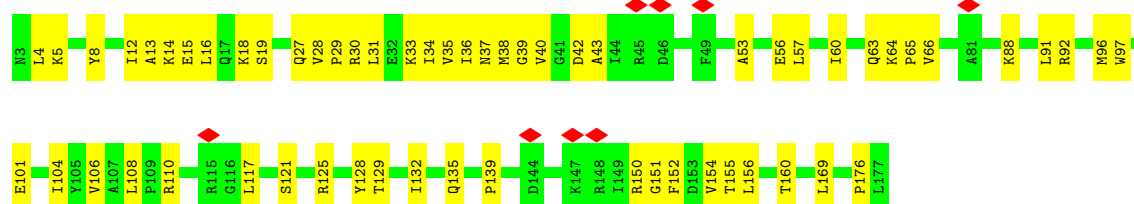
• Molecule 39: Large ribosomal subunit protein uL3



• Molecule 40: Large ribosomal subunit protein uL4

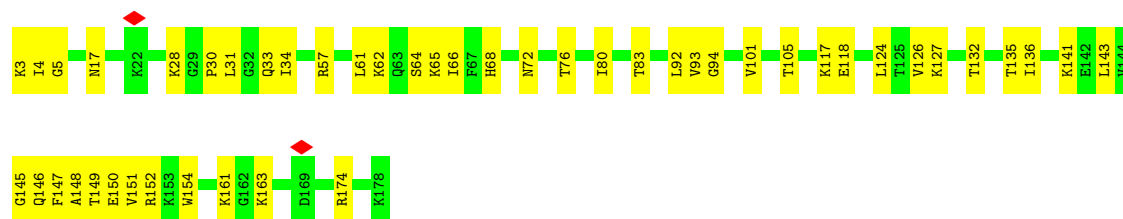


• Molecule 41: Large ribosomal subunit protein uL5

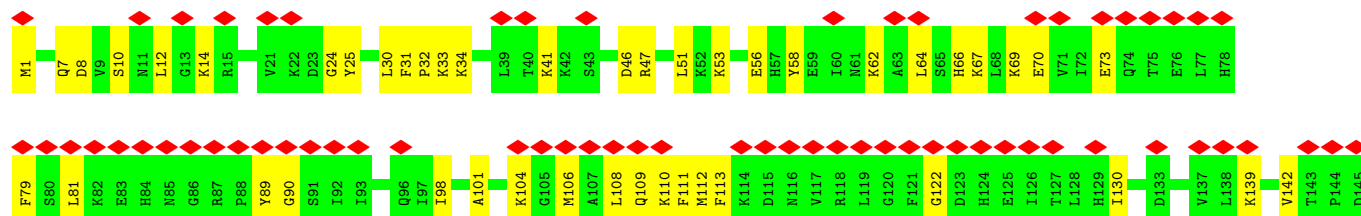
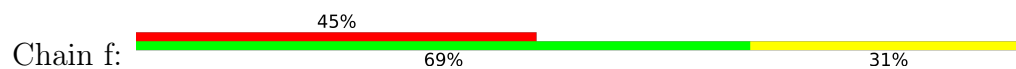


• Molecule 42: Large ribosomal subunit protein uL6

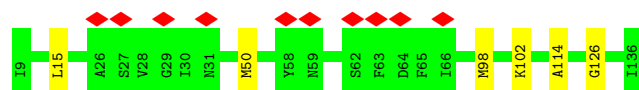




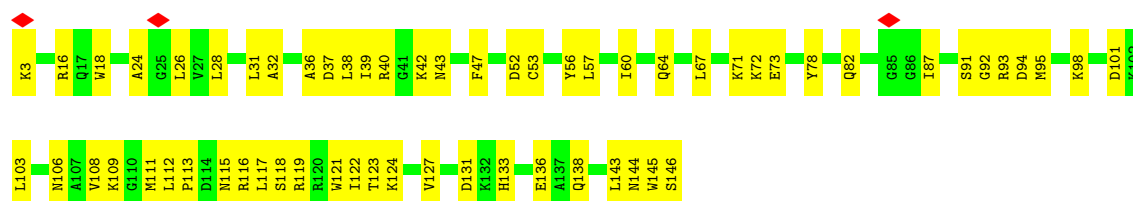
- Molecule 43: Large ribosomal subunit protein bL9



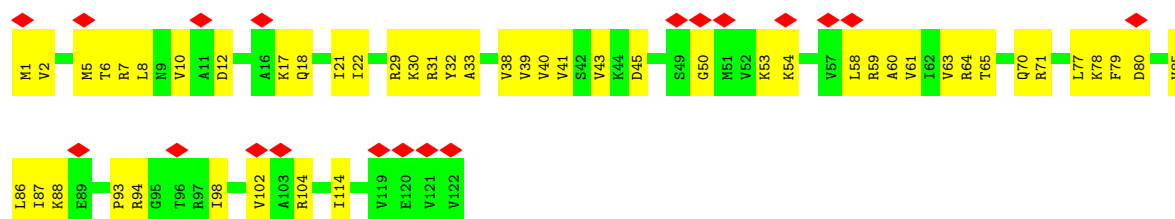
- Molecule 44: Large ribosomal subunit protein uL11



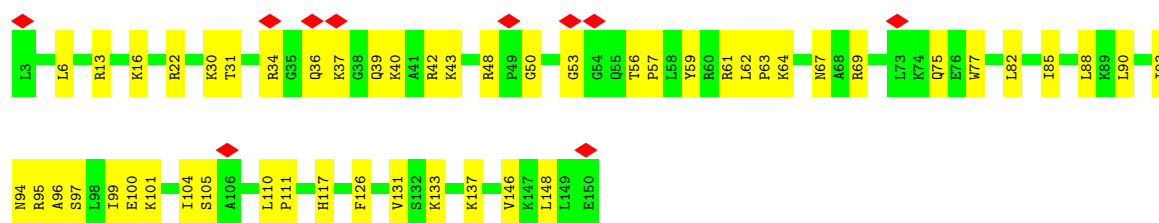
- Molecule 45: Large ribosomal subunit protein uL13



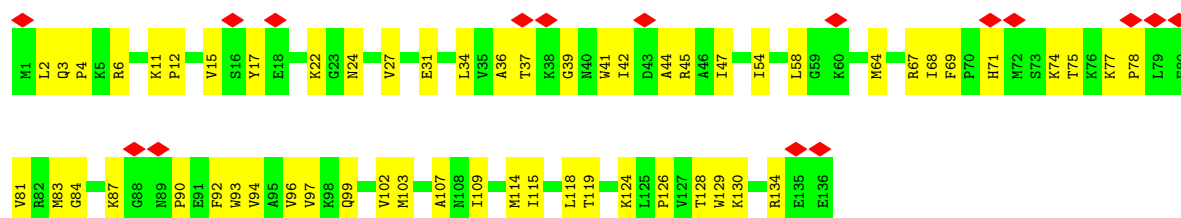
- Molecule 46: 50S ribosomal protein L14



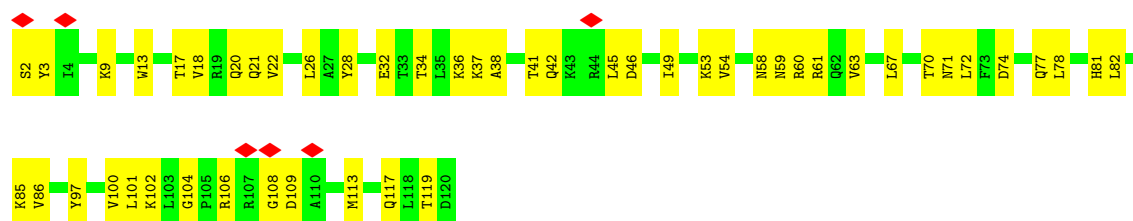
- Molecule 47: Large ribosomal subunit protein uL15



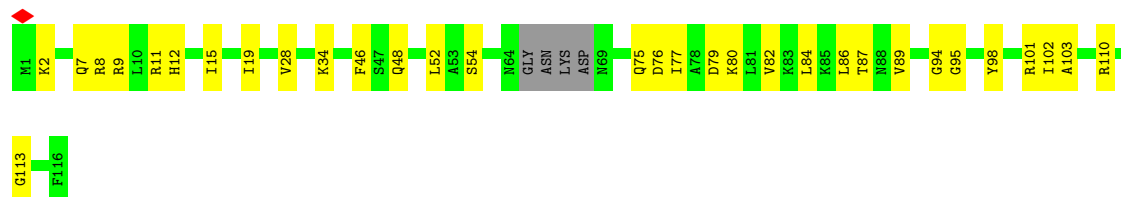
- Molecule 48: Large ribosomal subunit protein uL16



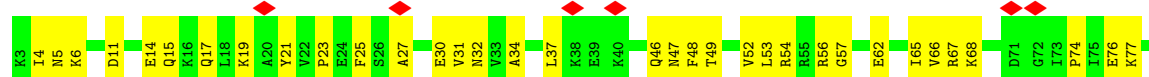
- Molecule 49: Large ribosomal subunit protein bL17



- Molecule 50: Large ribosomal subunit protein uL18

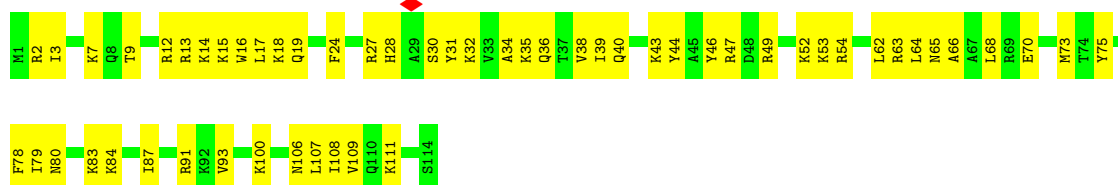


- Molecule 51: Large ribosomal subunit protein bL19

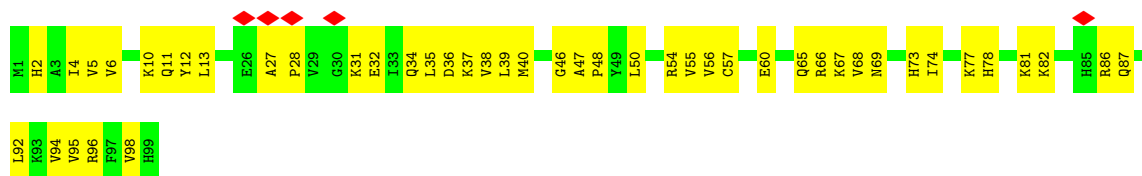




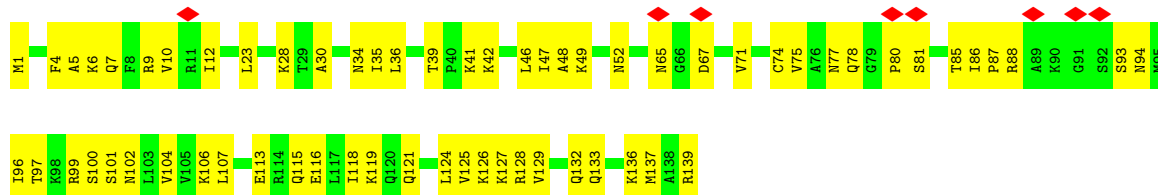
- Molecule 52: Large ribosomal subunit protein bL20



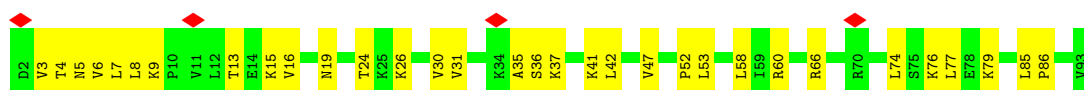
- Molecule 53: Large ribosomal subunit protein bL21



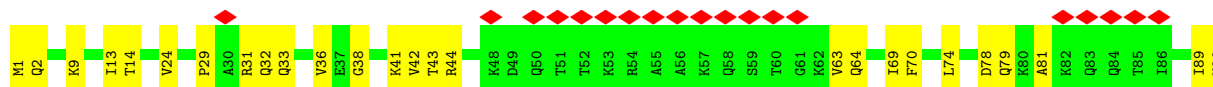
- Molecule 54: Large ribosomal subunit protein uL22



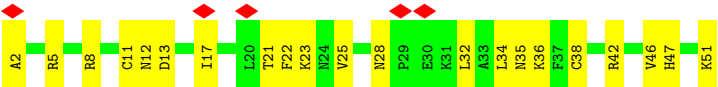
- Molecule 55: Large ribosomal subunit protein uL23



- Molecule 56: 50S ribosomal protein L24







4 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of subtomograms used	3261	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	120	Depositor
Minimum defocus (nm)	2500	Depositor
Maximum defocus (nm)	5000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.019	Depositor
Minimum map value	-0.009	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.001	Depositor
Recommended contour level	0.00157	Depositor
Map size (Å)	600.0, 600.0, 600.0	wwPDB
Map dimensions	300, 300, 300	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	2.0, 2.0, 2.0	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	0.14	0/383	0.38	0/504
2	1	0.18	0/484	0.54	0/637
3	2	0.16	0/306	0.45	0/401
4	3	0.10	0/69073	0.23	0/107710
5	4	0.11	0/2505	0.28	0/3902
6	5	0.09	0/35768	0.23	0/55764
7	6	0.68	0/2458	1.00	0/3313
7	AB	0.69	0/2490	1.00	0/3355
8	7	0.11	0/1808	0.28	0/2817
9	9	0.70	0/11124	1.06	0/15014
10	A	0.15	0/1954	0.43	0/2642
11	AA	0.69	0/792	1.05	0/1065
12	AC	0.70	0/2922	1.01	0/3944
13	AD	0.47	0/745	0.61	1/1149 (0.1%)
14	AE	0.65	1/725 (0.1%)	0.75	2/1115 (0.2%)
15	AF	0.70	0/1298	1.00	0/1752
16	B	0.18	0/1721	0.49	0/2323
17	C	0.17	0/1691	0.49	0/2267
18	D	0.19	0/1188	0.52	1/1593 (0.1%)
19	E	0.17	0/1384	0.48	2/1867 (0.1%)
20	F	0.19	0/1266	0.56	1/1700 (0.1%)
21	G	0.18	0/1126	0.53	0/1517
22	H	0.17	0/1044	0.47	0/1395
23	I	0.20	0/820	0.58	1/1103 (0.1%)
24	J	0.16	0/844	0.44	0/1136
25	K	0.28	0/1094	0.60	2/1468 (0.1%)
26	L	0.19	0/962	0.50	0/1289
27	M	0.18	0/483	0.51	0/643
28	N	0.15	0/679	0.49	1/907 (0.1%)
29	O	0.18	0/659	0.57	1/885 (0.1%)
30	P	0.15	0/684	0.42	0/913
31	Q	0.20	0/545	0.60	0/730
32	R	0.16	0/698	0.49	0/936
33	S	0.18	0/631	0.46	0/838

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
34	T	0.20	0/475	0.56	0/621
35	U	0.68	0/1254	1.11	0/1677
36	V	0.65	0/232	1.16	2/307 (0.7%)
36	W	0.60	0/232	1.10	0/307
36	X	0.64	0/232	1.04	0/307
36	Y	0.64	0/232	1.07	0/307
37	Z	0.71	0/10259	1.06	2/13846 (0.0%)
38	a	0.16	0/2267	0.43	0/3044
39	b	0.17	0/1795	0.51	0/2412
40	c	0.19	0/1671	0.51	1/2246 (0.0%)
41	d	0.16	0/1409	0.44	0/1894
42	e	0.15	0/1420	0.43	0/1912
43	f	0.19	0/1183	0.56	2/1587 (0.1%)
44	h	0.16	0/968	0.43	0/1298
45	i	0.16	0/1186	0.46	0/1592
46	j	0.16	0/953	0.47	0/1275
47	k	0.17	0/1170	0.46	0/1559
48	l	0.18	0/1104	0.47	0/1481
49	m	0.22	0/973	0.58	0/1309
50	n	0.18	0/897	0.53	0/1198
51	o	0.17	0/948	0.50	0/1262
52	p	0.19	0/961	0.48	0/1278
53	q	0.18	0/828	0.56	0/1111
54	r	0.18	0/1077	0.52	0/1441
55	s	0.17	0/732	0.52	1/988 (0.1%)
56	t	0.15	0/879	0.44	0/1165
57	u	0.16	0/665	0.43	0/884
58	v	0.23	0/519	0.53	0/695
59	w	0.18	0/826	0.48	0/1104
60	x	0.17	0/353	0.40	0/474
61	y	0.31	0/457	0.67	0/601
62	z	0.15	0/412	0.48	0/547
All	All	0.32	1/190923 (0.0%)	0.52	20/280323 (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
9	9	0	1
21	G	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
24	J	0	1
29	O	0	1
37	Z	0	1
All	All	0	5

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	AE	22	DA	O3'-P	-15.33	1.38	1.61

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AE	22	DA	P-O3'-C3'	14.70	142.26	120.20
13	AD	17	DT	P-O3'-C3'	8.53	132.99	120.20
14	AE	22	DA	O3'-P-O5'	-8.26	91.61	104.00
20	F	16	VAL	N-CA-C	-6.73	107.32	113.71
19	E	162	LYS	CA-C-N	6.28	133.54	121.54
19	E	162	LYS	C-N-CA	6.28	133.54	121.54
25	K	122	LYS	N-CA-C	-6.25	105.24	112.86
18	D	155	PRO	CA-N-CD	-6.19	103.33	112.00
37	Z	1035	GLY	CA-C-N	6.09	129.01	121.83
37	Z	1035	GLY	C-N-CA	6.09	129.01	121.83
29	O	39	GLU	N-CA-C	-6.06	103.82	110.91
36	V	28	PHE	CA-C-N	5.74	132.04	121.70
36	V	28	PHE	C-N-CA	5.74	132.04	121.70
28	N	19	VAL	N-CA-C	-5.66	107.23	112.43
25	K	117	THR	CB-CA-C	5.59	119.83	109.54
43	f	69	LYS	CA-C-N	-5.25	112.83	120.29
43	f	69	LYS	C-N-CA	-5.25	112.83	120.29
55	s	6	VAL	N-CA-C	-5.15	107.69	112.43
40	c	93	PRO	N-CD-CG	-5.13	95.50	103.20
23	I	96	ILE	N-CA-C	-5.05	108.91	113.71

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
9	9	858	TYR	Sidechain
21	G	108	LEU	Peptide
24	J	111	HIS	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
29	O	39	GLU	Peptide
37	Z	893	ARG	Sidechain

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	9	0
2	1	477	0	530	23	0
3	2	304	0	350	16	0
4	3	61664	0	30953	1938	0
5	4	2239	0	1137	64	0
6	5	31943	0	16058	914	0
7	6	2421	0	2495	140	0
7	AB	2452	0	2522	225	0
8	7	1618	0	821	44	0
9	9	10948	0	11063	1048	0
10	A	1921	0	1973	61	0
11	AA	770	0	739	52	0
12	AC	2884	0	2938	438	0
13	AD	663	0	361	82	0
14	AE	649	0	364	102	0
15	AF	1277	0	1328	92	0
16	B	1698	0	1765	64	0
17	C	1660	0	1719	67	0
18	D	1173	0	1267	34	0
19	E	1362	0	1377	41	0
20	F	1246	0	1308	53	0
21	G	1110	0	1221	60	0
22	H	1028	0	1094	37	0
23	I	809	0	894	37	0
24	J	829	0	855	39	0
25	K	1076	0	1170	48	0
26	L	951	0	1014	34	0
27	M	474	0	509	23	0
28	N	673	0	730	29	0
29	O	646	0	677	26	0
30	P	675	0	728	25	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	Q	535	0	562	22	0
32	R	682	0	691	25	0
33	S	629	0	681	34	0
34	T	471	0	522	18	0
35	U	1239	0	1301	127	0
36	V	232	0	237	9	0
36	W	232	0	237	8	0
36	X	232	0	237	10	0
36	Y	232	0	237	7	0
37	Z	10085	0	10375	842	0
38	a	2225	0	2301	106	0
39	b	1762	0	1808	92	0
40	c	1644	0	1731	71	0
41	d	1388	0	1469	46	0
42	e	1396	0	1481	32	0
43	f	1160	0	1172	34	0
44	h	959	0	1039	9	0
45	i	1164	0	1192	53	0
46	j	944	0	1019	43	0
47	k	1153	0	1256	47	0
48	l	1079	0	1134	49	0
49	m	958	0	1011	40	0
50	n	889	0	952	26	0
51	o	938	0	1008	47	0
52	p	947	0	1028	66	0
53	q	811	0	858	39	0
54	r	1068	0	1150	53	0
55	s	720	0	803	20	0
56	t	872	0	972	18	0
57	u	657	0	695	22	0
58	v	513	0	560	30	0
59	w	818	0	870	21	0
60	x	344	0	333	4	0
61	y	452	0	472	21	0
62	z	408	0	440	16	0
All	All	177858	0	132223	6198	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 21.

All (6198) 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)
4:3:1081:A:C4	35:U:7:LYS:HD3	1.25	1.69
9:9:999:PHE:CZ	12:AC:108:LEU:HD23	1.23	1.67
7:6:107:GLU:HG3	7:AB:319:HIS:CD2	1.30	1.66
9:9:1342:LEU:CD1	37:Z:392:LEU:CD2	1.79	1.61
9:9:999:PHE:CE1	12:AC:108:LEU:HD23	1.28	1.60
12:AC:290:TRP:HE1	12:AC:293:ASP:CB	1.07	1.59
9:9:1344:LYS:HG3	37:Z:309:ILE:CD1	1.26	1.58
12:AC:157:ASN:C	37:Z:76:ILE:CD1	1.75	1.58
9:9:998:ILE:HG22	12:AC:108:LEU:CD2	1.19	1.57
9:9:1306:LEU:CD2	37:Z:408:VAL:HG21	1.33	1.55
9:9:1342:LEU:CB	37:Z:398:LEU:CD2	1.84	1.55
9:9:956:ARG:HG3	7:AB:296:SER:CB	1.34	1.52
12:AC:290:TRP:CZ3	12:AC:296:LYS:NZ	1.74	1.52
9:9:995:PHE:CE1	12:AC:119:MET:SD	2.03	1.49
9:9:1342:LEU:HD12	37:Z:392:LEU:CD2	1.35	1.48
9:9:1344:LYS:HD2	37:Z:306:PRO:CD	1.43	1.48
12:AC:215:ASP:CG	12:AC:217:ARG:NH2	1.68	1.47
9:9:998:ILE:HG21	12:AC:62:MET:CE	1.42	1.46
4:3:1118:U:C5'	35:U:41:ARG:CD	1.82	1.46
7:6:175:SER:H	7:AB:324:LYS:NZ	1.04	1.45
9:9:998:ILE:CG2	12:AC:62:MET:HE2	1.44	1.45
9:9:1342:LEU:HB2	37:Z:398:LEU:CD2	0.97	1.44
12:AC:158:LYS:CA	37:Z:76:ILE:HD11	1.42	1.43
7:6:107:GLU:CG	7:AB:319:HIS:CD2	2.01	1.43
9:9:1342:LEU:CB	37:Z:398:LEU:HD23	1.43	1.43
9:9:956:ARG:CG	7:AB:296:SER:CB	1.97	1.42
9:9:1371:LEU:CD1	37:Z:95:VAL:HG13	0.94	1.42
9:9:658:PRO:HG3	37:Z:868:PHE:CD2	1.52	1.41
9:9:997:ALA:C	12:AC:8:PHE:CE1	1.98	1.41
9:9:998:ILE:CG2	12:AC:62:MET:CE	1.94	1.41
12:AC:290:TRP:NE1	12:AC:293:ASP:CB	1.72	1.41
9:9:1310:LYS:CB	37:Z:409:ASP:H	1.35	1.40
4:3:1081:A:C4	35:U:7:LYS:CD	2.04	1.39
9:9:1289:MET:HE3	14:AE:15:DA:C5'	1.52	1.39
4:3:1142:G:C4'	35:U:78:GLY:N	1.84	1.39
9:9:998:ILE:CA	12:AC:8:PHE:HZ	1.36	1.38
9:9:998:ILE:CG2	12:AC:108:LEU:CD2	1.99	1.38
9:9:956:ARG:HG3	7:AB:296:SER:CA	1.54	1.38
9:9:1348:GLY:C	37:Z:388:LEU:CD1	1.96	1.38
12:AC:196:VAL:HG11	12:AC:217:ARG:NH1	1.36	1.37
7:6:105:PRO:CG	7:AB:320:GLU:HA	1.55	1.37
9:9:1310:LYS:HD3	37:Z:409:ASP:O	1.21	1.37

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:998:ILE:HA	12:AC:8:PHE:CZ	1.57	1.37
9:9:1310:LYS:HB3	37:Z:409:ASP:N	1.16	1.37
14:AE:14:DG:C8	37:Z:886:ALA:HA	1.57	1.36
4:3:1118:U:H5'	35:U:41:ARG:CD	1.39	1.36
12:AC:158:LYS:N	37:Z:76:ILE:HD11	1.04	1.36
9:9:956:ARG:CG	7:AB:296:SER:HB3	1.53	1.35
12:AC:290:TRP:CH2	12:AC:296:LYS:NZ	1.95	1.34
9:9:994:LEU:CD1	12:AC:12:LEU:HD11	1.58	1.33
9:9:999:PHE:CE1	12:AC:42:TYR:OH	1.68	1.33
9:9:649:HIS:CD2	37:Z:837:TYR:CZ	2.16	1.33
12:AC:290:TRP:NE1	12:AC:293:ASP:HB2	1.31	1.33
4:3:1088:A:C2	35:U:79:LYS:HE3	1.63	1.32
9:9:216:ALA:C	13:AD:20:DG:H2'	1.54	1.32
37:Z:876:LYS:HG3	37:Z:1030:ARG:NH1	1.43	1.32
12:AC:239:LYS:HZ3	12:AC:294:LYS:CG	1.41	1.32
12:AC:239:LYS:NZ	12:AC:294:LYS:HG3	1.41	1.32
9:9:1371:LEU:HD12	37:Z:95:VAL:CG1	0.85	1.31
9:9:999:PHE:CZ	12:AC:108:LEU:CD2	2.09	1.31
9:9:1287:GLY:HA3	14:AE:16:DC:OP1	1.30	1.31
9:9:1349:LEU:HA	37:Z:368:PHE:CD1	1.62	1.31
12:AC:131:ALA:O	12:AC:171:THR:HB	1.23	1.31
12:AC:131:ALA:O	12:AC:171:THR:CB	1.79	1.31
4:3:1142:G:H4'	35:U:78:GLY:N	1.01	1.30
9:9:994:LEU:CD1	12:AC:12:LEU:CD1	2.07	1.30
7:AB:283:ARG:NH1	12:AC:81:PHE:HB2	1.41	1.30
9:9:1349:LEU:HD23	37:Z:368:PHE:CA	1.61	1.30
9:9:356:ARG:NH1	15:AF:113:ASN:HB2	1.46	1.30
12:AC:290:TRP:CD1	12:AC:293:ASP:HB3	1.67	1.30
9:9:1269:LYS:CE	37:Z:313:ILE:HG23	1.62	1.30
12:AC:158:LYS:N	37:Z:76:ILE:CD1	1.86	1.30
7:6:175:SER:H	7:AB:324:LYS:CE	1.27	1.29
9:9:1342:LEU:CD1	37:Z:392:LEU:HD22	1.48	1.29
12:AC:157:ASN:O	37:Z:76:ILE:CG1	1.78	1.29
9:9:170:LYS:N	13:AD:25:DC:H1'	1.46	1.29
9:9:1344:LYS:CG	37:Z:309:ILE:CD1	2.09	1.29
4:3:1142:G:C1'	35:U:78:GLY:HA2	1.63	1.28
9:9:999:PHE:CE1	12:AC:108:LEU:CD2	2.16	1.28
9:9:1349:LEU:HD21	37:Z:368:PHE:O	1.21	1.28
12:AC:156:THR:CG2	37:Z:77:LYS:HA	1.50	1.28
9:9:175:ARG:NH2	13:AD:26:DT:C6	2.01	1.28
9:9:1352:SER:OG	37:Z:31:TRP:CZ2	1.86	1.28

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1289:MET:SD	14:AE:15:DA:C4'	2.22	1.28
12:AC:183:LYS:HD2	12:AC:245:GLY:CA	1.63	1.28
9:9:649:HIS:CD2	37:Z:837:TYR:OH	1.86	1.28
9:9:997:ALA:C	12:AC:8:PHE:HE1	1.36	1.28
9:9:1371:LEU:HD11	37:Z:92:GLU:O	1.24	1.27
9:9:1344:LYS:O	37:Z:305:ILE:HG21	1.32	1.27
7:AB:82:LEU:HD22	37:Z:598:GLY:N	1.45	1.27
4:3:1081:A:O2'	35:U:7:LYS:NZ	1.67	1.27
4:3:1142:G:O4'	35:U:78:GLY:C	1.78	1.27
7:6:106:LEU:CB	7:AB:319:HIS:HE1	1.46	1.26
7:6:175:SER:N	7:AB:324:LYS:NZ	1.76	1.26
12:AC:196:VAL:HG11	12:AC:217:ARG:CZ	1.65	1.26
9:9:1345:GLU:OE2	37:Z:391:ARG:CB	1.84	1.26
9:9:999:PHE:HB3	12:AC:108:LEU:O	1.25	1.26
14:AE:23:DC:N1	37:Z:380:LYS:HB3	1.47	1.25
12:AC:157:ASN:O	37:Z:76:ILE:HG12	1.16	1.25
9:9:1306:LEU:CD2	37:Z:408:VAL:CG2	2.14	1.25
12:AC:288:VAL:HG21	12:AC:297:PHE:CD2	1.69	1.25
9:9:1002:SER:O	12:AC:112:LYS:HG2	1.18	1.25
9:9:1289:MET:CE	14:AE:15:DA:H5'	1.67	1.25
9:9:1306:LEU:O	37:Z:408:VAL:HG12	1.36	1.25
14:AE:17:DT:H4'	37:Z:413:ARG:NH1	1.51	1.25
12:AC:290:TRP:CE3	12:AC:296:LYS:NZ	2.03	1.24
9:9:956:ARG:CB	7:AB:296:SER:HB3	1.66	1.24
9:9:998:ILE:O	12:AC:108:LEU:CD1	1.83	1.24
9:9:1285:ARG:HB3	14:AE:17:DT:P	1.72	1.24
9:9:956:ARG:CA	7:AB:296:SER:HB3	1.67	1.23
14:AE:10:DG:C4'	37:Z:119:PRO:HD3	1.68	1.23
11:AA:42:LYS:HE3	21:G:123:MET:CE	1.68	1.23
9:9:1344:LYS:HE3	37:Z:306:PRO:CG	1.67	1.23
37:Z:876:LYS:CG	37:Z:1030:ARG:NH1	1.99	1.23
12:AC:215:ASP:CB	12:AC:217:ARG:NH2	2.01	1.23
9:9:1289:MET:CG	14:AE:15:DA:H4'	1.68	1.22
12:AC:135:VAL:CG2	12:AC:171:THR:OG1	1.87	1.22
4:3:1142:G:C4'	35:U:78:GLY:CA	2.17	1.22
11:AA:42:LYS:CE	21:G:123:MET:HE1	1.69	1.22
9:9:1306:LEU:CB	37:Z:408:VAL:HG11	1.68	1.22
4:3:1118:U:C5'	35:U:41:ARG:HD3	1.52	1.21
9:9:1352:SER:CB	37:Z:31:TRP:HH2	1.53	1.21
9:9:1352:SER:OG	37:Z:31:TRP:HZ2	1.19	1.21
9:9:175:ARG:NH2	13:AD:26:DT:C2	2.07	1.20

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1307:LEU:CA	37:Z:406:LYS:HD2	1.71	1.20
7:AB:82:LEU:HD22	37:Z:598:GLY:CA	1.70	1.20
9:9:1344:LYS:CG	37:Z:309:ILE:HD12	1.69	1.20
9:9:1371:LEU:CG	37:Z:95:VAL:HG13	1.70	1.20
12:AC:156:THR:OG1	37:Z:76:ILE:HG23	1.36	1.20
9:9:1269:LYS:HD2	37:Z:313:ILE:CG2	1.69	1.20
9:9:1289:MET:CE	14:AE:14:DG:H2''	1.71	1.20
14:AE:13:DA:H4'	37:Z:890:TYR:CD1	1.55	1.20
9:9:649:HIS:CD2	37:Z:837:TYR:CE1	2.29	1.20
9:9:999:PHE:CB	12:AC:108:LEU:O	1.89	1.20
4:3:1119:A:C4	35:U:53:VAL:HG21	1.76	1.19
9:9:1352:SER:CB	37:Z:31:TRP:CH2	2.24	1.19
12:AC:215:ASP:CG	12:AC:217:ARG:CZ	2.14	1.19
9:9:1269:LYS:CD	37:Z:313:ILE:HG23	1.72	1.19
7:6:106:LEU:HB3	7:AB:319:HIS:CE1	1.77	1.18
9:9:1344:LYS:CD	37:Z:306:PRO:HD2	1.71	1.18
7:6:105:PRO:HG3	7:AB:320:GLU:CA	1.71	1.18
9:9:998:ILE:C	12:AC:108:LEU:HD13	1.67	1.18
4:3:1081:A:C5	35:U:7:LYS:CD	2.12	1.17
9:9:216:ALA:HB1	13:AD:20:DG:C8	1.80	1.17
9:9:1105:ILE:CG2	37:Z:736:VAL:HG23	1.74	1.17
9:9:1344:LYS:O	37:Z:305:ILE:CG2	1.91	1.17
9:9:1347:GLN:OE1	37:Z:100:MET:SD	2.02	1.17
12:AC:156:THR:HG21	37:Z:77:LYS:CA	1.73	1.17
4:3:1141:U:O2'	35:U:79:LYS:HA	1.42	1.17
12:AC:153:ASP:OD1	37:Z:77:LYS:NZ	1.75	1.16
9:9:1344:LYS:CD	37:Z:306:PRO:CD	2.24	1.16
14:AE:17:DT:C4'	37:Z:413:ARG:NH1	2.07	1.16
9:9:634:GLY:HA2	13:AD:24:DT:C7	1.76	1.16
9:9:649:HIS:NE2	37:Z:837:TYR:CE1	2.12	1.16
9:9:1348:GLY:C	37:Z:388:LEU:HD13	1.71	1.16
4:3:1118:U:H5'	35:U:41:ARG:CD	1.66	1.15
9:9:1269:LYS:CD	37:Z:313:ILE:HG12	1.76	1.15
9:9:1348:GLY:CA	37:Z:388:LEU:CD1	2.24	1.15
14:AE:10:DG:H4'	37:Z:119:PRO:HD3	1.17	1.15
9:9:998:ILE:O	12:AC:108:LEU:HD13	1.37	1.15
9:9:1342:LEU:HB2	37:Z:398:LEU:HD21	1.15	1.15
12:AC:157:ASN:C	37:Z:76:ILE:HD11	1.45	1.15
7:6:106:LEU:CB	7:AB:319:HIS:CE1	2.30	1.14
7:6:175:SER:N	7:AB:324:LYS:CE	1.83	1.14
4:3:1142:G:C4'	35:U:78:GLY:H	1.48	1.14

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:U:42:LYS:HE2	44:h:114:ALA:N	1.58	1.14
7:6:107:GLU:CD	7:AB:319:HIS:CD2	2.25	1.14
9:9:1273:GLN:NE2	37:Z:402:ASN:HD22	1.44	1.14
9:9:1352:SER:CA	37:Z:31:TRP:HH2	1.59	1.14
9:9:1371:LEU:CD2	37:Z:94:ILE:HG22	1.78	1.14
9:9:175:ARG:NH2	13:AD:26:DT:C5	2.13	1.14
9:9:814:LEU:HD23	9:9:858:TYR:CZ	1.83	1.14
12:AC:135:VAL:HG23	12:AC:171:THR:OG1	0.96	1.14
12:AC:153:ASP:OD2	37:Z:75:LYS:NZ	1.80	1.14
7:6:174:ASN:HD22	7:AB:324:LYS:N	1.11	1.13
7:6:175:SER:N	7:AB:324:LYS:HE2	1.49	1.13
13:AD:17:DT:H5''	15:AF:118:THR:HG22	1.14	1.13
4:3:1142:G:OP1	35:U:56:ASN:HB2	1.48	1.13
9:9:1289:MET:SD	14:AE:15:DA:O4'	2.06	1.13
12:AC:183:LYS:CD	12:AC:245:GLY:HA2	1.77	1.13
9:9:647:ASP:HB2	37:Z:835:PHE:CZ	1.84	1.13
9:9:998:ILE:CG2	12:AC:108:LEU:HD22	1.64	1.13
11:AA:42:LYS:N	21:G:127:VAL:HB	1.47	1.13
9:9:1289:MET:SD	14:AE:15:DA:H4'	1.82	1.13
9:9:1344:LYS:CE	37:Z:306:PRO:HG2	1.78	1.13
9:9:1349:LEU:CD2	37:Z:368:PHE:O	1.97	1.12
13:AD:16:DG:H4'	15:AF:16:SER:HB2	1.29	1.12
6:5:1331:A:N6	6:5:1340:G:H1	1.44	1.12
9:9:1348:GLY:O	37:Z:368:PHE:CE1	2.01	1.12
9:9:1371:LEU:HD12	37:Z:95:VAL:HG11	1.19	1.12
7:6:279:ASN:OD1	12:AC:314:GLN:OE1	1.67	1.12
9:9:1269:LYS:NZ	37:Z:313:ILE:HG23	1.64	1.12
9:9:998:ILE:CA	12:AC:8:PHE:CZ	2.22	1.11
9:9:1306:LEU:HB3	37:Z:408:VAL:HG11	1.15	1.11
9:9:1345:GLU:HA	37:Z:388:LEU:HD22	1.30	1.11
9:9:1349:LEU:CD2	37:Z:368:PHE:HA	1.79	1.11
36:W:14:ILE:HD11	36:X:17:ILE:HG13	1.32	1.11
9:9:1348:GLY:HA3	37:Z:388:LEU:CD1	1.78	1.11
9:9:997:ALA:C	12:AC:8:PHE:CZ	2.28	1.11
9:9:1349:LEU:CD2	37:Z:368:PHE:CA	2.28	1.11
9:9:1344:LYS:HD2	37:Z:306:PRO:HD3	1.32	1.10
14:AE:14:DG:H5'	37:Z:890:TYR:CB	1.81	1.10
14:AE:23:DC:C6	37:Z:380:LYS:CB	2.31	1.10
4:3:1081:A:C5	35:U:7:LYS:HD2	1.76	1.10
9:9:1307:LEU:HA	37:Z:406:LYS:HD2	1.33	1.10
9:9:1345:GLU:OE2	37:Z:391:ARG:HB3	1.44	1.10

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:U:42:LYS:CE	44:h:114:ALA:N	1.98	1.10
9:9:170:LYS:H	13:AD:25:DC:C1'	1.64	1.10
9:9:1306:LEU:HD23	37:Z:408:VAL:CB	1.82	1.10
17:C:168:GLU:HG2	37:Z:30:ASN:HD21	1.01	1.09
9:9:998:ILE:HD13	12:AC:62:MET:HE1	1.18	1.09
9:9:1352:SER:HA	37:Z:31:TRP:CH2	1.87	1.09
17:C:168:GLU:HG2	37:Z:30:ASN:ND2	1.66	1.09
4:3:1142:G:H4'	35:U:78:GLY:CA	1.75	1.09
4:3:1142:G:C3'	35:U:78:GLY:H	1.65	1.09
9:9:356:ARG:NH1	15:AF:109:ARG:O	1.85	1.09
7:6:174:ASN:ND2	7:AB:324:LYS:H	1.49	1.09
9:9:1348:GLY:HA3	37:Z:388:LEU:HD11	1.23	1.09
7:6:174:ASN:ND2	7:AB:324:LYS:N	1.93	1.09
9:9:175:ARG:NH2	13:AD:26:DT:N1	1.99	1.09
9:9:1287:GLY:CA	14:AE:16:DC:OP1	2.01	1.09
9:9:998:ILE:HG21	12:AC:62:MET:HE1	1.11	1.08
9:9:1285:ARG:CB	14:AE:17:DT:P	2.41	1.08
12:AC:196:VAL:CG1	12:AC:217:ARG:NH1	2.15	1.08
15:AF:137:ASP:OD2	37:Z:349:PRO:HB3	1.51	1.08
9:9:901:ASN:ND2	9:9:1232:ARG:HH12	1.49	1.08
7:AB:304:ARG:NH1	12:AC:48:TYR:CZ	2.22	1.08
7:6:175:SER:N	7:AB:324:LYS:HZ3	1.42	1.08
9:9:356:ARG:HH11	15:AF:113:ASN:CB	1.66	1.08
9:9:1001:GLU:H	12:AC:109:LYS:HG2	1.14	1.08
12:AC:157:ASN:C	37:Z:76:ILE:HD13	1.58	1.08
9:9:998:ILE:CG2	12:AC:108:LEU:HD21	1.78	1.08
12:AC:183:LYS:HD2	12:AC:245:GLY:HA2	1.08	1.08
14:AE:13:DA:H4'	37:Z:890:TYR:CG	1.78	1.08
14:AE:10:DG:H4'	37:Z:119:PRO:CD	1.81	1.08
4:3:1807:C:H42	4:3:1824:G:N2	1.51	1.07
9:9:175:ARG:NH2	13:AD:26:DT:C4	2.18	1.07
9:9:1342:LEU:HD11	37:Z:392:LEU:HD22	1.09	1.07
12:AC:156:THR:CB	37:Z:76:ILE:HG23	1.71	1.07
12:AC:239:LYS:HB2	12:AC:293:ASP:N	1.70	1.07
4:3:1081:A:N3	35:U:7:LYS:HD3	1.68	1.07
11:AA:42:LYS:O	21:G:126:LYS:HB2	1.52	1.07
15:AF:108:TRP:HE1	15:AF:112:ARG:CZ	1.67	1.07
7:6:173:ILE:HG22	7:AB:324:LYS:HZ2	1.16	1.07
9:9:217:VAL:N	13:AD:20:DG:H2'	1.68	1.07
9:9:628:ILE:HD11	9:9:673:LEU:HD12	1.33	1.07
9:9:1348:GLY:CA	37:Z:388:LEU:HD11	1.81	1.07

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1352:SER:HB2	37:Z:23:ALA:HB2	1.07	1.07
12:AC:139:PHE:CE2	12:AC:147:ILE:HD11	1.89	1.07
14:AE:23:DC:C6	37:Z:380:LYS:HB3	1.66	1.07
9:9:523:ASP:OD2	37:Z:837:TYR:CD1	2.07	1.06
9:9:1002:SER:O	12:AC:112:LYS:CG	2.03	1.06
12:AC:156:THR:CG2	37:Z:77:LYS:CA	2.29	1.06
7:AB:283:ARG:HH11	12:AC:81:PHE:HB2	0.92	1.06
37:Z:400:ARG:NH2	37:Z:1234:PHE:O	1.85	1.06
9:9:998:ILE:HD13	12:AC:62:MET:CE	1.86	1.05
9:9:1105:ILE:HG22	37:Z:736:VAL:HG23	1.09	1.05
12:AC:290:TRP:NE1	12:AC:293:ASP:HB3	1.48	1.05
4:3:1142:G:C4'	35:U:78:GLY:O	2.03	1.05
12:AC:156:THR:OG1	37:Z:76:ILE:CG2	2.05	1.05
14:AE:23:DC:C2	37:Z:380:LYS:HB3	1.90	1.05
6:5:1136:G:H1	6:5:1151:A:N6	1.53	1.05
9:9:217:VAL:CA	13:AD:20:DG:H2''	1.74	1.05
9:9:1311:SER:HB2	37:Z:407:ARG:O	1.55	1.05
12:AC:213:ARG:O	12:AC:218:LEU:HB2	1.56	1.05
13:AD:29:DC:H5''	37:Z:1057:VAL:HG22	1.38	1.05
9:9:829:ASN:O	9:9:848:LYS:CE	2.05	1.05
9:9:1348:GLY:O	37:Z:368:PHE:HE1	1.33	1.05
7:6:173:ILE:HG22	7:AB:324:LYS:NZ	1.71	1.04
12:AC:158:LYS:HA	37:Z:76:ILE:HD11	1.37	1.04
7:6:161:ARG:NH1	7:AB:2:GLU:O	1.90	1.04
9:9:216:ALA:CB	13:AD:20:DG:C8	2.39	1.04
9:9:997:ALA:O	12:AC:8:PHE:CE1	2.10	1.04
9:9:994:LEU:HD11	12:AC:12:LEU:HD11	1.05	1.04
9:9:1269:LYS:HD2	37:Z:313:ILE:CG1	1.87	1.04
37:Z:890:TYR:CE1	37:Z:894:LYS:HE3	1.92	1.04
7:6:107:GLU:OE1	7:AB:319:HIS:HD2	1.40	1.04
9:9:658:PRO:CG	37:Z:868:PHE:CD2	2.41	1.04
9:9:998:ILE:CG2	12:AC:108:LEU:CD1	2.34	1.04
9:9:1349:LEU:HD23	37:Z:368:PHE:HA	1.04	1.04
7:AB:86:GLN:NE2	37:Z:599:THR:CG2	2.21	1.04
4:3:1119:A:N9	35:U:53:VAL:HG21	1.72	1.03
9:9:1289:MET:HG3	14:AE:15:DA:H4'	1.37	1.03
12:AC:158:LYS:CA	37:Z:76:ILE:CD1	2.32	1.03
13:AD:17:DT:C5'	15:AF:118:THR:HG22	1.87	1.03
4:3:1807:C:N4	4:3:1824:G:H22	1.56	1.03
6:5:684:A:H62	6:5:700:G:N2	1.55	1.03
4:3:1119:A:N1	35:U:29:TYR:CE2	2.27	1.03

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1142:G:O4'	35:U:78:GLY:CA	2.06	1.03
9:9:998:ILE:N	12:AC:8:PHE:CZ	2.26	1.03
9:9:1341:LEU:HD12	37:Z:309:ILE:HG23	1.41	1.02
9:9:1093:PRO:HB2	37:Z:734:VAL:HG23	1.41	1.02
9:9:1307:LEU:CD2	37:Z:406:LYS:HG3	1.88	1.02
37:Z:876:LYS:HG2	37:Z:1030:ARG:HH11	1.19	1.02
6:5:661:G:H1	6:5:738:A:N6	1.55	1.02
9:9:216:ALA:C	13:AD:20:DG:C2'	2.32	1.02
9:9:1352:SER:CB	37:Z:23:ALA:HB2	1.87	1.02
7:6:279:ASN:CG	12:AC:314:GLN:OE1	2.02	1.02
9:9:997:ALA:CB	12:AC:8:PHE:CE1	2.44	1.01
9:9:998:ILE:HG22	12:AC:108:LEU:CG	1.89	1.01
9:9:1341:LEU:HD12	37:Z:309:ILE:CG2	1.90	1.01
12:AC:183:LYS:HD3	12:AC:280:PHE:O	1.59	1.01
9:9:175:ARG:NH2	13:AD:26:DT:N3	2.08	1.01
9:9:1325:VAL:CG1	37:Z:464:ILE:CG2	2.38	1.01
12:AC:215:ASP:OD2	12:AC:217:ARG:NH2	1.94	1.01
6:5:69:G:H1	6:5:86:A:H61	1.06	1.01
9:9:997:ALA:CA	12:AC:8:PHE:HE1	1.72	1.01
9:9:94:ILE:HG23	9:9:135:LEU:HD12	1.43	1.01
9:9:953:ALA:O	7:AB:326:ARG:HD3	1.60	1.01
12:AC:196:VAL:HG11	12:AC:217:ARG:NH2	1.76	1.01
14:AE:14:DG:H5'	37:Z:890:TYR:HB2	1.04	1.01
4:3:1142:G:H5'	35:U:78:GLY:O	1.60	1.01
9:9:408:LEU:HD23	9:9:410:CYS:O	1.59	1.01
9:9:1001:GLU:N	12:AC:109:LYS:HG2	1.74	1.01
9:9:1269:LYS:HD3	37:Z:313:ILE:HG12	1.39	1.01
9:9:1341:LEU:CD1	37:Z:309:ILE:HG23	1.89	1.01
14:AE:14:DG:C5'	37:Z:890:TYR:HB2	1.91	1.01
9:9:956:ARG:HA	7:AB:296:SER:HB3	1.39	1.00
9:9:997:ALA:CB	12:AC:8:PHE:HE1	1.73	1.00
9:9:1297:TYR:OH	37:Z:504:ILE:O	1.77	1.00
9:9:1325:VAL:CG1	37:Z:464:ILE:HG21	1.91	1.00
12:AC:1:MET:HE3	12:AC:92:LEU:O	1.61	1.00
4:3:192:U:H3	4:3:212:G:H1	1.10	1.00
12:AC:131:ALA:C	12:AC:171:THR:HB	1.85	1.00
12:AC:160:GLY:HA3	37:Z:79:ARG:HB3	1.43	1.00
9:9:729:ILE:HG21	9:9:734:ILE:HD11	1.39	1.00
9:9:999:PHE:CA	12:AC:108:LEU:HB3	1.92	1.00
12:AC:139:PHE:CZ	12:AC:147:ILE:HD11	1.97	1.00
12:AC:291:ASN:H	12:AC:296:LYS:CB	1.75	1.00

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1345:GLU:OE2	37:Z:391:ARG:HB2	1.55	1.00
9:9:1371:LEU:CD1	37:Z:92:GLU:O	2.10	1.00
9:9:217:VAL:HA	13:AD:20:DG:H2''	1.41	1.00
12:AC:183:LYS:NZ	12:AC:245:GLY:O	1.93	0.99
13:AD:29:DC:H5''	37:Z:1057:VAL:CG2	1.92	0.99
4:3:1089:A:H1'	35:U:30:THR:HG23	1.44	0.99
9:9:1306:LEU:HD22	37:Z:408:VAL:HG21	1.00	0.99
15:AF:124:SER:HB3	37:Z:142:VAL:HG13	1.41	0.99
4:3:226:A:N6	4:3:236:G:C2	2.30	0.99
9:9:998:ILE:HG23	12:AC:108:LEU:HD11	1.43	0.99
12:AC:239:LYS:CE	12:AC:294:LYS:HG3	1.93	0.99
4:3:204:U:H3	4:3:254:G:H1	1.05	0.99
6:5:460:A:H2	6:5:467:G:H1	1.06	0.99
9:9:217:VAL:CA	13:AD:20:DG:C2'	2.39	0.99
9:9:956:ARG:HG3	7:AB:296:SER:HA	1.41	0.99
14:AE:17:DT:C4'	37:Z:413:ARG:HH12	1.71	0.99
4:3:1142:G:OP1	35:U:56:ASN:CB	2.08	0.99
9:9:1310:LYS:CD	37:Z:409:ASP:O	2.10	0.99
14:AE:13:DA:C4'	37:Z:890:TYR:CD1	2.42	0.99
4:3:1142:G:C2'	35:U:78:GLY:HA2	1.92	0.99
9:9:998:ILE:O	12:AC:6:ASN:ND2	1.96	0.99
9:9:1344:LYS:HD2	37:Z:306:PRO:HD2	1.02	0.99
12:AC:215:ASP:C	12:AC:217:ARG:H	1.48	0.99
4:3:629:G:H1	4:3:696:U:H3	1.02	0.99
4:3:1141:U:N3	35:U:79:LYS:HE2	1.77	0.99
9:9:1306:LEU:HD22	37:Z:408:VAL:CG2	1.81	0.99
9:9:1306:LEU:C	37:Z:408:VAL:HG12	1.86	0.99
35:U:42:LYS:HE2	44:h:114:ALA:H	1.12	0.99
12:AC:111:ILE:HD13	12:AC:119:MET:HE1	1.45	0.99
9:9:163:MET:HE2	9:9:514:ILE:HD12	1.45	0.98
9:9:999:PHE:CE2	12:AC:108:LEU:CD2	2.45	0.98
39:b:185:ASP:O	39:b:189:MET:HA	1.63	0.98
9:9:998:ILE:CD1	12:AC:62:MET:HE1	1.93	0.98
9:9:1102:ILE:HD11	37:Z:858:PHE:C	1.87	0.98
6:5:290:G:H1	6:5:299:U:H3	1.08	0.98
9:9:1306:LEU:HD23	37:Z:408:VAL:CG2	1.89	0.98
6:5:684:A:N6	6:5:700:G:H21	1.60	0.98
12:AC:196:VAL:CG1	12:AC:217:ARG:HH12	1.75	0.98
12:AC:290:TRP:CD2	12:AC:296:LYS:HD2	1.97	0.98
9:9:999:PHE:HE1	12:AC:42:TYR:OH	1.40	0.98
9:9:1349:LEU:CD2	37:Z:368:PHE:C	2.37	0.98

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:999:PHE:CE2	12:AC:108:LEU:HD23	1.99	0.98
7:6:106:LEU:HB3	7:AB:319:HIS:HE1	0.85	0.98
35:U:42:LYS:CE	44:h:114:ALA:H	1.62	0.98
7:6:107:GLU:HG3	7:AB:319:HIS:NE2	1.78	0.97
9:9:1094:LEU:HD23	37:Z:809:MET:SD	2.03	0.97
4:3:1142:G:C1'	35:U:78:GLY:CA	2.42	0.97
4:3:1807:C:H42	4:3:1824:G:H22	1.03	0.97
9:9:956:ARG:CA	7:AB:296:SER:CB	2.42	0.97
9:9:649:HIS:HD2	37:Z:837:TYR:OH	1.37	0.97
12:AC:289:ILE:O	12:AC:300:ASN:ND2	1.97	0.97
12:AC:215:ASP:CB	12:AC:217:ARG:HE	1.77	0.97
12:AC:157:ASN:O	37:Z:76:ILE:CD1	1.99	0.97
12:AC:158:LYS:HA	37:Z:76:ILE:CD1	1.93	0.97
9:9:772:GLU:O	37:Z:862:LEU:N	1.97	0.97
6:5:319:U:H3	6:5:323:A:H62	1.07	0.97
4:3:1089:A:H1'	35:U:30:THR:CG2	1.94	0.96
4:3:1764:U:C2	4:3:1769:A:N6	2.32	0.96
9:9:258:VAL:HG12	9:9:268:VAL:HG11	1.46	0.96
15:AF:137:ASP:CG	37:Z:349:PRO:HG3	1.89	0.96
6:5:779:A:H62	6:5:797:G:N2	1.63	0.96
12:AC:239:LYS:HZ3	12:AC:294:LYS:CB	1.77	0.96
9:9:634:GLY:HA2	13:AD:24:DT:H72	1.46	0.96
12:AC:239:LYS:NZ	12:AC:294:LYS:CG	2.09	0.96
9:9:1289:MET:HE1	14:AE:14:DG:H2''	1.45	0.96
9:9:1325:VAL:HG11	37:Z:464:ILE:HG21	1.43	0.96
9:9:376:ARG:NH2	13:AD:20:DG:N7	2.13	0.96
9:9:1200:PHE:CE2	37:Z:864:ILE:HD13	2.00	0.96
9:9:1344:LYS:CE	37:Z:306:PRO:CG	2.40	0.96
9:9:814:LEU:HD23	9:9:858:TYR:OH	1.66	0.96
7:AB:268:ILE:HD11	7:AB:286:ILE:HG22	1.47	0.96
4:3:633:G:H1	4:3:692:U:H3	1.03	0.95
9:9:956:ARG:HA	7:AB:296:SER:CB	1.94	0.95
9:9:1352:SER:HB2	37:Z:31:TRP:CH2	1.99	0.95
4:3:418:G:H1	4:3:430:U:H3	1.07	0.95
4:3:1142:G:C5'	35:U:78:GLY:O	2.13	0.95
9:9:956:ARG:CG	7:AB:296:SER:HB2	1.91	0.95
37:Z:687:VAL:HG11	37:Z:802:ARG:HH22	1.31	0.95
9:9:998:ILE:HA	12:AC:8:PHE:HZ	0.80	0.95
9:9:998:ILE:HG23	12:AC:108:LEU:CD1	1.95	0.95
9:9:1342:LEU:CA	37:Z:398:LEU:CD2	2.42	0.95
4:3:2695:U:H3	4:3:2730:G:H1	1.06	0.95

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1349:LEU:N	37:Z:388:LEU:HD13	1.80	0.95
12:AC:239:LYS:HZ3	12:AC:294:LYS:HG3	0.93	0.95
9:9:995:PHE:CD1	12:AC:119:MET:SD	2.59	0.95
12:AC:139:PHE:CE1	12:AC:147:ILE:HG13	2.00	0.95
7:6:268:ILE:HD11	7:6:286:ILE:HG22	1.49	0.95
4:3:1118:U:H5'	35:U:41:ARG:HD2	1.47	0.95
9:9:1293:ALA:HB2	37:Z:498:THR:HG21	1.47	0.95
4:3:900:G:N2	4:3:903:A:H61	1.64	0.95
12:AC:290:TRP:CD1	12:AC:293:ASP:CB	2.34	0.95
9:9:1307:LEU:CB	37:Z:406:LYS:HD2	1.95	0.95
4:3:1142:G:O4'	35:U:78:GLY:O	1.83	0.95
9:9:775:ASP:OD1	37:Z:828:ARG:NH2	1.99	0.94
9:9:1324:ILE:HD13	37:Z:440:PRO:HG3	1.49	0.94
9:9:1348:GLY:C	37:Z:388:LEU:HD12	1.92	0.94
9:9:1371:LEU:HD23	37:Z:94:ILE:HG22	1.48	0.94
15:AF:137:ASP:OD2	37:Z:349:PRO:CB	2.16	0.94
4:3:739:G:HO2'	4:3:761:G:H1	1.07	0.94
9:9:997:ALA:O	12:AC:8:PHE:CZ	2.19	0.94
9:9:997:ALA:HB1	12:AC:8:PHE:CE1	2.01	0.94
9:9:1325:VAL:HG13	37:Z:464:ILE:HG23	1.48	0.94
4:3:725:G:H1	4:3:807:U:H3	1.09	0.94
12:AC:215:ASP:OD1	12:AC:217:ARG:CZ	2.15	0.94
9:9:1003:VAL:HG22	12:AC:116:ILE:HD11	1.47	0.94
9:9:1307:LEU:HD22	37:Z:406:LYS:HG3	1.47	0.94
9:9:219:GLU:HG3	13:AD:21:DC:N4	1.83	0.94
9:9:1000:PRO:HD2	12:AC:6:ASN:HD21	1.32	0.94
6:5:63:U:H3	6:5:90:G:H1	1.15	0.94
6:5:1405:U:H3	6:5:1445:G:H1	1.02	0.94
4:3:2035:U:H3	4:3:2040:A:N6	1.66	0.93
9:9:1306:LEU:HB3	37:Z:408:VAL:CG1	1.98	0.93
7:AB:283:ARG:HH11	12:AC:81:PHE:CB	1.79	0.93
36:X:6:ILE:HD11	36:Y:23:ALA:HB1	1.49	0.93
4:3:1142:G:H1'	35:U:78:GLY:HA2	1.46	0.93
4:3:2299:U:H3	4:3:2349:G:H1	0.94	0.93
9:9:1344:LYS:CG	37:Z:309:ILE:HD13	1.95	0.93
12:AC:182:SER:HB3	12:AC:280:PHE:CE1	2.03	0.93
9:9:567:GLY:HA3	15:AF:31:LYS:HE2	1.48	0.93
12:AC:196:VAL:HG11	12:AC:217:ARG:HH12	1.10	0.93
37:Z:427:VAL:HG21	37:Z:493:LEU:HD11	1.48	0.93
4:3:1142:G:O2'	35:U:78:GLY:HA2	1.67	0.93
9:9:1371:LEU:CD1	37:Z:95:VAL:CG1	1.79	0.93

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AB:82:LEU:HD22	37:Z:597:PHE:C	1.94	0.93
7:6:99:GLY:O	7:AB:1:MET:N	2.01	0.93
9:9:829:ASN:O	9:9:848:LYS:HE3	1.66	0.93
14:AE:14:DG:H1'	37:Z:889:GLY:HA3	1.49	0.92
4:3:1088:A:H2	35:U:79:LYS:HE3	1.18	0.92
9:9:998:ILE:HG23	12:AC:62:MET:HE2	0.95	0.92
14:AE:14:DG:C8	37:Z:886:ALA:CA	2.50	0.92
9:9:1349:LEU:HG	37:Z:388:LEU:HB2	1.51	0.92
4:3:1142:G:C4'	35:U:78:GLY:C	2.34	0.92
6:5:518:A:H62	6:5:527:G:H21	1.14	0.92
9:9:60:LYS:HD3	9:9:64:ASP:OD1	1.68	0.92
9:9:1310:LYS:CB	37:Z:409:ASP:N	2.09	0.92
9:9:1352:SER:HB2	37:Z:23:ALA:CB	1.99	0.92
12:AC:215:ASP:HB3	12:AC:217:ARG:HE	1.33	0.92
9:9:995:PHE:CZ	12:AC:119:MET:SD	2.61	0.92
9:9:1342:LEU:CD1	37:Z:392:LEU:HD23	1.96	0.92
9:9:1348:GLY:CA	37:Z:388:LEU:HD13	1.93	0.92
9:9:998:ILE:CA	12:AC:108:LEU:HD13	1.97	0.92
4:3:1141:U:C2	35:U:79:LYS:HE2	2.04	0.91
7:6:269:GLU:OE1	7:6:282:LYS:NZ	2.03	0.91
9:9:1349:LEU:HD21	37:Z:368:PHE:C	1.95	0.91
9:9:1366:ASN:ND2	37:Z:100:MET:HB2	1.85	0.91
12:AC:131:ALA:O	12:AC:171:THR:OG1	1.88	0.91
9:9:994:LEU:CD1	12:AC:12:LEU:HD12	1.99	0.91
9:9:1342:LEU:HD13	37:Z:392:LEU:CD2	1.99	0.91
12:AC:215:ASP:OD1	12:AC:217:ARG:NE	2.02	0.91
14:AE:17:DT:H4'	37:Z:413:ARG:HH11	1.28	0.91
41:d:132:ILE:O	41:d:151:GLY:HA3	1.70	0.91
4:3:1027:U:H3	4:3:1198:G:H1	1.10	0.91
9:9:45:LEU:O	9:9:75:ARG:NH2	2.04	0.91
7:6:271:LEU:O	7:6:317:LYS:HE2	1.70	0.91
9:9:1370:ILE:HG22	37:Z:94:ILE:HG21	1.53	0.91
12:AC:291:ASN:H	12:AC:296:LYS:HB3	1.33	0.91
9:9:169:LEU:HD13	9:9:193:VAL:HG11	1.50	0.91
9:9:999:PHE:HA	12:AC:108:LEU:HB3	1.50	0.91
9:9:999:PHE:CD1	12:AC:108:LEU:HD23	2.04	0.91
9:9:1273:GLN:HE22	37:Z:402:ASN:HD22	1.16	0.91
4:3:2061:A:H62	4:3:2585:A:H61	1.11	0.91
9:9:1351:LEU:HD11	37:Z:113:TRP:CZ3	2.05	0.91
12:AC:183:LYS:HG2	12:AC:281:ASN:CB	2.01	0.91
4:3:1801:U:H3	4:3:1832:G:H1	1.18	0.90

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:998:ILE:O	12:AC:108:LEU:CB	2.20	0.90
37:Z:775:LYS:HE3	37:Z:845:ILE:HD13	1.53	0.90
4:3:1118:U:H5''	35:U:41:ARG:HD3	1.09	0.90
9:9:1338:SER:O	37:Z:398:LEU:HD11	1.70	0.90
6:5:245:U:H3	6:5:271:G:H1	1.16	0.90
9:9:1269:LYS:HZ2	37:Z:313:ILE:CG2	1.83	0.90
9:9:1370:ILE:HD13	37:Z:94:ILE:HD11	1.54	0.90
7:AB:82:LEU:CD2	37:Z:598:GLY:N	2.34	0.90
9:9:994:LEU:HD13	12:AC:12:LEU:CD1	2.02	0.90
9:9:1370:ILE:HD12	37:Z:97:ARG:HD3	1.52	0.90
12:AC:1:MET:CE	12:AC:92:LEU:O	2.19	0.90
4:3:80:U:H3	4:3:109:G:H1	0.95	0.90
9:9:729:ILE:CG2	9:9:734:ILE:HD11	2.01	0.90
9:9:1349:LEU:HD23	37:Z:368:PHE:CB	2.01	0.90
4:3:1142:G:H4'	35:U:77:LYS:C	1.97	0.90
9:9:1342:LEU:HD12	37:Z:392:LEU:HD21	0.90	0.90
9:9:1366:ASN:ND2	37:Z:31:TRP:O	2.04	0.90
48:1:68:ILE:HD11	48:1:103:MET:HB2	1.51	0.90
4:3:742:G:H1	4:3:759:U:H3	1.08	0.90
9:9:1371:LEU:HD12	37:Z:95:VAL:CB	2.01	0.90
6:5:1390:G:H1	6:5:1460:U:H3	1.19	0.90
9:9:1269:LYS:CD	37:Z:313:ILE:CG1	2.47	0.90
9:9:1289:MET:CE	14:AE:15:DA:O4'	2.20	0.90
9:9:1352:SER:CA	37:Z:31:TRP:CH2	2.43	0.90
9:9:170:LYS:H	13:AD:25:DC:H1'	1.10	0.89
9:9:994:LEU:HD13	12:AC:12:LEU:HD12	1.52	0.89
9:9:994:LEU:HD12	12:AC:12:LEU:CD1	1.98	0.89
37:Z:488:ASP:HB3	37:Z:551:ARG:HH22	1.37	0.89
9:9:1345:GLU:HA	37:Z:388:LEU:CD2	2.02	0.89
7:6:107:GLU:OE1	7:AB:319:HIS:CD2	2.23	0.89
9:9:1105:ILE:HG22	37:Z:736:VAL:CG2	2.01	0.89
12:AC:215:ASP:HB3	12:AC:217:ARG:NE	1.86	0.89
7:6:107:GLU:N	7:AB:319:HIS:CE1	2.40	0.89
12:AC:290:TRP:CG	12:AC:296:LYS:HD2	2.07	0.89
7:6:235:HIS:O	7:AB:7:TYR:OH	1.91	0.89
9:9:1371:LEU:CG	37:Z:94:ILE:HG22	2.03	0.89
15:AF:23:VAL:HG21	15:AF:44:VAL:HG23	1.53	0.89
4:3:413:G:H1	4:3:435:U:H3	1.18	0.89
6:5:826:G:H1	6:5:851:U:H3	1.17	0.89
9:9:997:ALA:HB1	12:AC:8:PHE:CD1	2.07	0.89
9:9:1349:LEU:HG	37:Z:388:LEU:CB	2.03	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1269:LYS:HZ2	37:Z:313:ILE:HG23	1.35	0.89
7:6:7:TYR:OH	7:AB:235:HIS:O	1.89	0.89
7:6:174:ASN:HD22	7:AB:324:LYS:H	0.97	0.89
9:9:1347:GLN:HB3	37:Z:100:MET:HE1	1.53	0.89
14:AE:23:DC:C2	37:Z:380:LYS:CB	2.52	0.89
4:3:1081:A:H61	35:U:8:ALA:N	1.70	0.89
4:3:1088:A:N1	35:U:79:LYS:HE3	1.88	0.88
9:9:1345:GLU:CA	37:Z:388:LEU:HD22	2.03	0.88
9:9:1306:LEU:HD23	37:Z:408:VAL:HB	1.52	0.88
4:3:1494:U:H3	4:3:1550:G:H1	1.16	0.88
4:3:2360:A:H62	4:3:2373:G:H21	1.14	0.88
6:5:590:G:H1	6:5:644:U:H3	1.20	0.88
9:9:567:GLY:HA3	15:AF:31:LYS:CE	2.02	0.88
13:AD:19:DT:H2''	13:AD:21:DC:H4'	1.54	0.88
9:9:956:ARG:HG2	7:AB:296:SER:HB2	1.54	0.88
9:9:1269:LYS:HB2	37:Z:313:ILE:CD1	2.03	0.88
9:9:1344:LYS:HG3	37:Z:309:ILE:HD13	1.51	0.88
9:9:779:ALA:CB	37:Z:867:TYR:OH	2.22	0.88
12:AC:215:ASP:C	12:AC:217:ARG:N	2.30	0.88
17:C:168:GLU:CD	37:Z:30:ASN:OD1	2.17	0.88
9:9:999:PHE:CD1	12:AC:108:LEU:CD2	2.57	0.88
12:AC:215:ASP:HB3	12:AC:217:ARG:NH2	1.87	0.88
4:3:1088:A:C2	35:U:79:LYS:CE	2.55	0.88
4:3:2090:G:H1	4:3:2244:U:H3	1.21	0.88
9:9:402:ARG:HD3	9:9:510:TYR:CE2	2.08	0.88
9:9:1349:LEU:CA	37:Z:368:PHE:CD1	2.54	0.88
6:5:779:A:H62	6:5:797:G:H21	1.17	0.87
6:5:253:G:H1	6:5:265:U:H3	1.19	0.87
7:6:2:GLU:O	7:AB:161:ARG:NH1	2.06	0.87
9:9:1306:LEU:CB	37:Z:408:VAL:CG1	2.52	0.87
4:3:2035:U:H3	4:3:2040:A:H62	0.89	0.87
7:6:173:ILE:CG2	7:AB:324:LYS:HZ2	1.86	0.87
4:3:442:G:H1	4:3:457:U:H3	1.18	0.87
9:9:1269:LYS:CD	37:Z:313:ILE:CG2	2.41	0.87
9:9:1347:GLN:OE1	37:Z:100:MET:CE	2.23	0.87
4:3:1118:U:H5'	35:U:41:ARG:HD3	1.37	0.87
9:9:634:GLY:HA2	13:AD:24:DT:H73	1.55	0.87
36:X:23:ALA:HB1	36:Y:6:ILE:HD11	1.55	0.87
9:9:1289:MET:CE	14:AE:15:DA:C4'	2.53	0.87
4:3:1119:A:C1'	35:U:53:VAL:HB	2.04	0.86
39:b:40:LYS:O	39:b:48:SER:HA	1.74	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:279:ASN:ND2	12:AC:314:GLN:OE1	2.08	0.86
9:9:1347:GLN:O	37:Z:303:PRO:HG2	1.74	0.86
11:AA:5:TYR:CE2	11:AA:48:LEU:HD23	2.10	0.86
4:3:163:A:H62	4:3:169:U:H3	1.21	0.86
9:9:1366:ASN:HD21	37:Z:100:MET:HB2	1.38	0.86
12:AC:183:LYS:HD2	12:AC:245:GLY:HA3	1.58	0.86
4:3:1071:G:H1	4:3:1154:U:H3	0.88	0.86
15:AF:78:ASP:OD1	15:AF:81:ARG:HB2	1.75	0.86
9:9:779:ALA:HB2	37:Z:867:TYR:OH	1.74	0.86
9:9:998:ILE:HG22	12:AC:108:LEU:CD1	2.01	0.86
7:AB:283:ARG:HD3	12:AC:49:VAL:HG21	1.58	0.86
12:AC:160:GLY:HA3	37:Z:79:ARG:CB	2.05	0.86
37:Z:488:ASP:O	37:Z:551:ARG:NH2	2.07	0.86
37:Z:876:LYS:HG3	37:Z:1030:ARG:HH12	1.06	0.86
6:5:779:A:N6	6:5:797:G:H21	1.73	0.86
9:9:999:PHE:CG	12:AC:108:LEU:O	2.09	0.86
7:6:108:ARG:HH21	7:AB:316:LYS:CE	1.88	0.86
9:9:1371:LEU:HG	37:Z:94:ILE:CG2	2.04	0.86
12:AC:153:ASP:OD1	37:Z:77:LYS:CE	2.23	0.86
12:AC:215:ASP:CB	12:AC:217:ARG:NE	2.39	0.86
9:9:998:ILE:N	12:AC:8:PHE:HZ	1.69	0.85
9:9:1269:LYS:HB2	37:Z:313:ILE:HD11	1.58	0.85
9:9:1342:LEU:CA	37:Z:398:LEU:HD22	2.05	0.85
9:9:814:LEU:CD2	9:9:858:TYR:CZ	2.58	0.85
9:9:1102:ILE:HD11	37:Z:859:LEU:N	1.91	0.85
9:9:1306:LEU:CA	37:Z:408:VAL:CG1	2.55	0.85
51:o:92:ARG:HD3	51:o:115:LYS:HE3	1.58	0.85
9:9:1325:VAL:HG12	37:Z:464:ILE:HD13	1.58	0.85
14:AE:14:DG:C1'	37:Z:889:GLY:HA3	2.06	0.85
15:AF:108:TRP:NE1	15:AF:112:ARG:CZ	2.39	0.85
12:AC:249:LYS:HB2	12:AC:297:PHE:CE1	2.10	0.85
9:9:953:ALA:O	7:AB:326:ARG:CD	2.24	0.85
9:9:1342:LEU:CB	37:Z:398:LEU:HD21	1.78	0.85
9:9:1371:LEU:HD11	37:Z:95:VAL:HG13	1.54	0.85
9:9:356:ARG:CZ	15:AF:109:ARG:O	2.25	0.84
9:9:1324:ILE:HD12	37:Z:410:TYR:OH	1.76	0.84
12:AC:135:VAL:HG23	12:AC:171:THR:HG1	1.09	0.84
4:3:1119:A:H1'	35:U:53:VAL:HB	1.59	0.84
7:6:82:LEU:HD13	9:9:794:LYS:HE3	1.59	0.84
9:9:1225:LYS:NZ	37:Z:738:ASP:OD1	2.10	0.84
9:9:523:ASP:OD2	37:Z:837:TYR:HD1	1.50	0.84

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1344:LYS:HE3	37:Z:306:PRO:HG2	0.86	0.84
4:3:2810:A:N7	4:3:2895:A:N6	2.24	0.84
6:5:1112:U:H3	6:5:1128:G:H1	0.86	0.84
9:9:567:GLY:CA	15:AF:31:LYS:HE2	2.08	0.84
9:9:658:PRO:HB3	37:Z:868:PHE:CE2	2.13	0.84
13:AD:15:DT:H3'	15:AF:95:ARG:HH22	1.39	0.84
4:3:61:U:H3	4:3:70:G:H1	0.87	0.84
9:9:998:ILE:CG2	12:AC:108:LEU:HD13	2.06	0.84
9:9:1352:SER:HA	37:Z:31:TRP:HH2	1.25	0.84
14:AE:12:DC:H4'	37:Z:1235:GLN:OE1	1.78	0.84
6:5:365:U:H3	6:5:388:G:H1	1.20	0.84
37:Z:905:ASN:ND2	37:Z:989:ASN:O	2.09	0.84
4:3:2534:G:H1	4:3:2545:U:H3	0.84	0.84
4:3:1081:A:N7	35:U:7:LYS:HD2	1.91	0.84
4:3:1142:G:OP1	35:U:56:ASN:CG	2.20	0.84
7:6:107:GLU:CD	7:AB:319:HIS:HD2	1.70	0.84
7:6:173:ILE:CG2	7:AB:324:LYS:NZ	2.40	0.84
9:9:1289:MET:HE3	14:AE:15:DA:C4'	2.08	0.84
9:9:1289:MET:CE	14:AE:14:DG:C2'	2.56	0.84
5:4:5:G:OP1	50:n:9:ARG:NH1	2.10	0.83
9:9:772:GLU:HB2	37:Z:862:LEU:O	1.78	0.83
9:9:1259:ILE:HD12	37:Z:515:LYS:HB3	1.61	0.83
9:9:1293:ALA:CB	37:Z:498:THR:HG21	2.07	0.83
12:AC:196:VAL:CG1	12:AC:217:ARG:CZ	2.54	0.83
13:AD:16:DG:C4'	15:AF:16:SER:HB2	2.09	0.83
9:9:1306:LEU:CD2	37:Z:408:VAL:HG11	2.07	0.83
9:9:1368:VAL:O	37:Z:98:GLU:HB2	1.78	0.83
11:AA:42:LYS:H	21:G:127:VAL:HB	1.38	0.83
13:AD:29:DC:C5'	37:Z:1057:VAL:HG13	2.08	0.83
15:AF:43:ARG:NH1	15:AF:159:THR:O	2.10	0.83
37:Z:488:ASP:HB3	37:Z:551:ARG:NH2	1.92	0.83
6:5:134:G:H1	6:5:160:A:H61	1.26	0.83
9:9:647:ASP:CB	37:Z:835:PHE:CZ	2.60	0.83
7:AB:85:LYS:HD3	37:Z:602:GLU:OE1	1.77	0.83
7:AB:271:LEU:O	7:AB:317:LYS:HE2	1.79	0.83
12:AC:158:LYS:HA	37:Z:66:TYR:CE2	2.11	0.83
50:n:7:GLN:HG3	50:n:11:ARG:HH21	1.44	0.83
4:3:2405:G:H1	4:3:2427:U:H3	1.25	0.83
6:5:579:G:H5'	28:N:58:SER:HB2	1.59	0.83
4:3:2851:U:H3	4:3:2873:G:H1	1.25	0.83
9:9:523:ASP:OD2	37:Z:837:TYR:CE1	2.31	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AC:182:SER:HB3	12:AC:280:PHE:HE1	1.43	0.83
43:f:112:MET:HE3	43:f:130:ILE:HG23	1.59	0.83
9:9:729:ILE:HG21	9:9:734:ILE:CD1	2.09	0.83
11:AA:42:LYS:N	21:G:127:VAL:CB	2.38	0.83
9:9:1093:PRO:CB	37:Z:734:VAL:HG23	2.08	0.83
9:9:1342:LEU:CG	37:Z:398:LEU:HD23	2.08	0.83
13:AD:17:DT:H2''	13:AD:18:DG:C8	2.14	0.83
9:9:217:VAL:N	13:AD:20:DG:C2'	2.40	0.82
9:9:998:ILE:HG22	12:AC:108:LEU:HD22	0.83	0.82
9:9:1325:VAL:CG1	37:Z:464:ILE:HG23	2.07	0.82
12:AC:215:ASP:CG	12:AC:217:ARG:NE	2.36	0.82
7:AB:205:ILE:HD11	37:Z:513:ASP:OD2	1.79	0.82
9:9:355:LEU:HD12	9:9:372:LEU:HD22	1.62	0.82
9:9:1289:MET:HE3	14:AE:15:DA:H5'	0.83	0.82
9:9:1310:LYS:HE2	37:Z:410:TYR:HB2	1.59	0.82
12:AC:239:LYS:CB	12:AC:293:ASP:N	2.42	0.82
9:9:394:SER:HA	9:9:489:ILE:HD11	1.60	0.82
51:o:80:GLN:HG3	51:o:83:ASN:HB2	1.61	0.82
4:3:313:G:N2	4:3:394:C:O2	2.13	0.82
4:3:1119:A:N9	35:U:53:VAL:CG2	2.43	0.82
9:9:176:LYS:HE3	14:AE:9:DC:C5	2.14	0.82
9:9:169:LEU:HD23	13:AD:25:DC:N3	1.95	0.82
9:9:995:PHE:HE1	12:AC:38:LEU:CD2	1.92	0.82
9:9:1269:LYS:HD2	37:Z:313:ILE:CB	2.08	0.82
11:AA:78:PHE:CE2	37:Z:1095:ARG:NH1	2.48	0.82
7:AB:283:ARG:NH1	12:AC:81:PHE:CB	2.36	0.82
15:AF:124:SER:CB	37:Z:142:VAL:HG13	2.08	0.82
4:3:1142:G:O2'	35:U:78:GLY:CA	2.27	0.82
9:9:1293:ALA:HB2	37:Z:498:THR:CG2	2.09	0.82
9:9:1306:LEU:HD21	37:Z:408:VAL:HG21	1.60	0.82
8:7:2:G:N2	8:7:73:C:O2	2.13	0.81
9:9:1311:SER:CB	37:Z:407:ARG:O	2.27	0.81
8:7:2:G:N1	8:7:73:C:N3	2.28	0.81
9:9:170:LYS:NZ	13:AD:25:DC:O5'	2.13	0.81
7:AB:86:GLN:NE2	37:Z:599:THR:HG22	1.95	0.81
7:AB:296:SER:HA	7:AB:326:ARG:O	1.80	0.81
12:AC:139:PHE:CZ	12:AC:147:ILE:CD1	2.62	0.81
12:AC:215:ASP:HB3	12:AC:217:ARG:CZ	2.09	0.81
12:AC:249:LYS:CB	12:AC:297:PHE:CE1	2.46	0.81
13:AD:32:DA:H5''	37:Z:121:PRO:HD3	1.63	0.81
36:V:23:ALA:HB1	36:W:6:ILE:HD11	1.62	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:m:26:LEU:HD21	49:m:67:LEU:HD11	1.62	0.81
9:9:141:VAL:HG11	9:9:613:LEU:HD22	1.61	0.81
9:9:999:PHE:HA	12:AC:108:LEU:CB	2.09	0.81
12:AC:290:TRP:CD2	12:AC:296:LYS:NZ	2.46	0.81
9:9:1289:MET:HE1	14:AE:14:DG:C2'	2.09	0.81
9:9:1307:LEU:CD2	37:Z:406:LYS:CG	2.58	0.81
9:9:1285:ARG:HB3	14:AE:17:DT:OP2	1.79	0.81
7:AB:205:ILE:CD1	37:Z:513:ASP:OD2	2.28	0.81
4:3:900:G:N2	4:3:903:A:N6	2.29	0.81
4:3:1119:A:C2	35:U:29:TYR:CE2	2.67	0.81
9:9:953:ALA:HA	7:AB:294:SER:O	1.79	0.81
9:9:1346:LEU:CD2	37:Z:392:LEU:HD11	2.09	0.81
11:AA:42:LYS:O	21:G:126:LYS:CB	2.25	0.81
11:AA:58:GLU:HG2	37:Z:1213:ASN:HD21	1.44	0.81
7:AB:168:GLU:OE1	37:Z:611:LYS:NZ	2.14	0.81
7:AB:264:PHE:HB3	7:AB:290:GLN:HB2	1.63	0.81
9:9:1350:ALA:HB2	37:Z:368:PHE:HZ	1.44	0.81
21:G:56:ASN:HB2	21:G:73:ASN:HD22	1.46	0.81
45:i:32:ALA:HB1	45:i:111:MET:HE1	1.63	0.81
9:9:901:ASN:HD21	9:9:1232:ARG:HH12	1.28	0.81
12:AC:143:VAL:C	12:AC:145:GLN:HG2	2.06	0.81
12:AC:196:VAL:HG21	12:AC:217:ARG:CZ	2.11	0.81
9:9:1288:GLU:OE1	37:Z:893:ARG:NH2	2.14	0.80
9:9:1307:LEU:HD23	37:Z:406:LYS:CG	2.11	0.80
9:9:1289:MET:HG3	14:AE:15:DA:C4'	2.10	0.80
12:AC:111:ILE:CD1	12:AC:119:MET:HE1	2.11	0.80
4:3:900:G:H21	4:3:903:A:N6	1.79	0.80
4:3:1054:U:O2'	4:3:1056:A:N7	2.14	0.80
4:3:1382:A:H62	4:3:1405:G:H21	1.30	0.80
9:9:218:ARG:HH22	15:AF:126:ARG:HG2	1.45	0.80
9:9:1000:PRO:CD	12:AC:6:ASN:HD21	1.94	0.80
7:AB:283:ARG:NH2	12:AC:79:ASP:OD2	2.15	0.80
12:AC:183:LYS:HG2	12:AC:281:ASN:HB2	1.63	0.80
12:AC:290:TRP:CE2	12:AC:296:LYS:HD2	2.15	0.80
4:3:2570:U:H3	4:3:2574:A:H62	1.25	0.80
6:5:661:G:H1	6:5:738:A:H61	0.84	0.80
9:9:998:ILE:CG2	12:AC:62:MET:HE1	1.85	0.80
9:9:1345:GLU:CD	37:Z:391:ARG:CB	2.54	0.80
6:5:69:G:H1	6:5:86:A:N6	1.79	0.80
7:6:175:SER:H	7:AB:324:LYS:HZ1	1.28	0.80
9:9:288:ARG:HB3	9:9:298:ARG:NH2	1.97	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1370:ILE:CD1	37:Z:97:ARG:HD3	2.10	0.80
14:AE:12:DC:O3'	37:Z:890:TYR:OH	1.98	0.79
24:J:17:SER:HB2	24:J:80:LYS:HE3	1.63	0.79
28:N:35:GLN:HG2	28:N:39:HIS:HE1	1.46	0.79
4:3:1492:G:H5''	4:3:1493:A:H5'	1.64	0.79
9:9:170:LYS:N	13:AD:25:DC:C1'	2.28	0.79
9:9:1310:LYS:HA	37:Z:409:ASP:HB2	1.62	0.79
9:9:1350:ALA:HB2	37:Z:368:PHE:CZ	2.17	0.79
37:Z:923:THR:OG1	37:Z:1106:ARG:NH2	2.16	0.79
4:3:186:A:N1	4:3:219:G:O6	2.16	0.79
4:3:2799:U:O4	4:3:2895:A:C6	2.36	0.79
9:9:1371:LEU:HG	37:Z:94:ILE:HG22	1.62	0.79
9:9:1370:ILE:CD1	37:Z:94:ILE:CG1	2.60	0.79
9:9:649:HIS:HD2	37:Z:837:TYR:CZ	1.91	0.79
9:9:1289:MET:CE	14:AE:15:DA:C5'	2.39	0.79
10:A:191:ALA:HB1	10:A:198:VAL:HG21	1.65	0.79
12:AC:215:ASP:CB	12:AC:217:ARG:CZ	2.54	0.79
15:AF:55:PHE:HB3	15:AF:62:LEU:HD12	1.63	0.79
9:9:258:VAL:CG1	9:9:268:VAL:HG11	2.13	0.79
4:3:1305:G:N3	49:m:20:GLN:NE2	2.31	0.79
9:9:1368:VAL:O	37:Z:98:GLU:CB	2.31	0.79
51:o:34:ALA:HA	51:o:46:GLN:O	1.83	0.79
12:AC:5:SER:HB2	12:AC:61:LEU:CD2	2.13	0.79
4:3:329:G:H1	4:3:377:U:H3	1.29	0.78
9:9:216:ALA:O	13:AD:20:DG:C2'	2.22	0.78
4:3:2143:G:H1	4:3:2162:U:H3	1.31	0.78
6:5:1136:G:H1	6:5:1151:A:H61	0.80	0.78
12:AC:183:LYS:HG2	12:AC:281:ASN:HB3	1.64	0.78
4:3:454:G:H2'	4:3:455:G:H8	1.47	0.78
9:9:658:PRO:HG3	37:Z:868:PHE:CE2	2.17	0.78
9:9:1297:TYR:CZ	37:Z:504:ILE:O	2.35	0.78
9:9:1346:LEU:CD2	37:Z:392:LEU:CD1	2.62	0.78
4:3:1118:U:C5'	35:U:41:ARG:HD2	2.02	0.78
9:9:356:ARG:NH1	15:AF:113:ASN:CB	2.35	0.78
9:9:1310:LYS:HG2	37:Z:409:ASP:HB2	1.62	0.78
13:AD:19:DT:C2'	13:AD:21:DC:H4'	2.13	0.78
4:3:1141:U:C2	35:U:79:LYS:CE	2.63	0.78
9:9:648:VAL:HB	37:Z:872:TYR:CD1	2.19	0.78
4:3:358:A:N6	4:3:372:G:H21	1.82	0.78
7:AB:82:LEU:CD2	37:Z:598:GLY:CA	2.60	0.78
37:Z:669:LYS:HE3	37:Z:670:PHE:CZ	2.19	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2570:U:H3	4:3:2574:A:N6	1.82	0.77
9:9:412:LEU:HD13	9:9:471:LEU:HD11	1.63	0.77
9:9:653:TYR:HE2	37:Z:865:ASN:OD1	1.66	0.77
9:9:1310:LYS:HB3	37:Z:408:VAL:C	2.05	0.77
13:AD:29:DC:H5''	37:Z:1057:VAL:CG1	2.14	0.77
9:9:444:ILE:HG22	9:9:446:PHE:CD1	2.19	0.77
9:9:653:TYR:CE2	37:Z:865:ASN:OD1	2.36	0.77
9:9:1269:LYS:NZ	37:Z:313:ILE:CG2	2.42	0.77
9:9:1306:LEU:CD2	37:Z:408:VAL:CB	2.53	0.77
9:9:1324:ILE:CD1	37:Z:410:TYR:OH	2.32	0.77
6:5:732:A:H2'	6:5:733:A:H8	1.49	0.77
9:9:901:ASN:ND2	9:9:1232:ARG:NH1	2.30	0.77
15:AF:47:GLU:HB2	15:AF:92:LEU:HD12	1.67	0.77
4:3:1937:G:HO2'	4:3:1975:G:H1	1.32	0.77
9:9:658:PRO:HG3	37:Z:868:PHE:HD2	0.97	0.77
7:AB:86:GLN:HE21	37:Z:599:THR:CG2	1.96	0.77
15:AF:44:VAL:HG22	15:AF:97:ILE:HG22	1.66	0.77
20:F:115:MET:HG3	20:F:118:LYS:HE2	1.65	0.77
9:9:1324:ILE:HD13	37:Z:440:PRO:CG	2.15	0.77
12:AC:290:TRP:CD2	12:AC:296:LYS:CD	2.68	0.77
9:9:995:PHE:HE1	12:AC:119:MET:SD	2.02	0.77
9:9:1307:LEU:HD23	37:Z:406:LYS:HG3	1.67	0.77
9:9:1346:LEU:HD21	37:Z:392:LEU:CD1	2.15	0.77
9:9:1349:LEU:O	37:Z:111:HIS:NE2	2.18	0.77
12:AC:156:THR:HG21	37:Z:77:LYS:HA	0.79	0.77
4:3:186:A:H2	4:3:219:G:H1	1.29	0.77
4:3:2116:U:OP1	4:3:2156:G:N2	2.17	0.77
6:5:655:G:O6	6:5:744:U:C2	2.38	0.77
8:7:12:C:O2	8:7:25:G:N2	2.17	0.77
9:9:169:LEU:C	13:AD:25:DC:H1'	2.09	0.77
9:9:998:ILE:CD1	12:AC:62:MET:CE	2.59	0.77
39:b:110:VAL:HG11	39:b:197:ILE:HD12	1.67	0.77
4:3:2175:U:N3	4:3:2179:A:C8	2.53	0.77
6:5:603:U:H3	6:5:630:G:H1	1.33	0.77
9:9:264:PHE:HZ	9:9:342:ARG:HG2	1.47	0.77
9:9:999:PHE:CE2	12:AC:108:LEU:HD22	2.19	0.77
40:c:54:THR:HG22	40:c:57:GLU:HG3	1.66	0.77
41:d:31:LEU:HD11	41:d:156:LEU:HB3	1.66	0.77
51:o:25:PHE:HE1	51:o:31:VAL:HG21	1.47	0.77
48:l:74:LYS:HB2	48:l:92:PHE:HB2	1.65	0.77
7:6:105:PRO:CB	7:AB:320:GLU:HA	2.15	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:190:HIS:HE1	9:9:1083:ASP:O	1.67	0.77
9:9:1344:LYS:C	37:Z:305:ILE:HG21	2.09	0.77
9:9:1350:ALA:CB	37:Z:368:PHE:CZ	2.68	0.77
18:D:192:ILE:HG22	18:D:196:MET:HE1	1.67	0.77
19:E:59:ARG:HH22	31:Q:54:ILE:HD13	1.50	0.77
49:m:46:ASP:HB2	49:m:97:TYR:HD1	1.50	0.77
53:q:65:GLN:HB3	53:q:87:GLN:HB3	1.67	0.77
57:u:86:PHE:O	57:u:92:LYS:HB2	1.85	0.77
9:9:185:GLU:HG2	9:9:195:LEU:HD21	1.66	0.76
9:9:1286:PHE:HB3	37:Z:406:LYS:O	1.85	0.76
14:AE:12:DC:H5''	37:Z:1235:GLN:HB2	1.66	0.76
23:I:48:LEU:HB3	23:I:77:LYS:HE2	1.66	0.76
9:9:216:ALA:HB1	13:AD:20:DG:H8	1.51	0.76
9:9:618:PRO:HA	9:9:814:LEU:HD12	1.66	0.76
9:9:998:ILE:O	12:AC:108:LEU:HD12	1.84	0.76
12:AC:156:THR:HG23	37:Z:77:LYS:CB	2.16	0.76
9:9:995:PHE:CE1	12:AC:38:LEU:HD21	2.21	0.76
12:AC:183:LYS:HE2	12:AC:281:ASN:HB3	1.67	0.76
51:o:27:ALA:HB3	51:o:96:VAL:HG21	1.66	0.76
4:3:2189:U:H2'	4:3:2190:G:H8	1.50	0.76
4:3:2683:G:H5''	46:j:31:ARG:HH12	1.51	0.76
6:5:319:U:O4	6:5:323:A:N7	2.19	0.76
6:5:1381:U:O2	6:5:1492:G:N2	2.18	0.76
9:9:1291:VAL:HG21	37:Z:404:LEU:O	1.84	0.76
14:AE:10:DG:O4'	37:Z:119:PRO:HD3	1.85	0.76
4:3:2590:G:N2	4:3:2591:G:N2	2.34	0.76
9:9:1306:LEU:CA	37:Z:408:VAL:HG12	2.15	0.76
12:AC:111:ILE:HD13	12:AC:119:MET:CE	2.15	0.76
38:a:119:ASP:OD2	38:a:120:LYS:N	2.18	0.76
51:o:30:GLU:HB3	51:o:92:ARG:HB2	1.67	0.76
9:9:1310:LYS:CA	37:Z:409:ASP:H	1.97	0.76
11:AA:5:TYR:OH	11:AA:51:ARG:HB2	1.86	0.76
4:3:1785:U:H3	4:3:1792:A:H62	1.33	0.76
4:3:2291:U:O2	4:3:2333:G:O6	2.04	0.76
6:5:1331:A:N1	6:5:1340:G:N2	2.33	0.76
14:AE:13:DA:C4'	37:Z:890:TYR:CG	2.59	0.76
4:3:1446:G:H22	4:3:1612:U:H5''	1.50	0.76
9:9:998:ILE:HG23	12:AC:62:MET:CE	1.82	0.76
11:AA:5:TYR:CE2	11:AA:48:LEU:CD2	2.68	0.76
4:3:2019:G:H4'	54:r:96:ILE:HD11	1.67	0.76
9:9:1346:LEU:HD21	37:Z:392:LEU:HD13	1.67	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:42:LYS:HE3	21:G:123:MET:HE1	0.84	0.76
12:AC:135:VAL:CG2	12:AC:171:THR:HG1	1.83	0.76
7:6:106:LEU:C	7:AB:319:HIS:CE1	2.64	0.75
9:9:1102:ILE:CD1	37:Z:859:LEU:HA	2.16	0.75
11:AA:31:TRP:HE1	21:G:130:LEU:HD11	1.52	0.75
12:AC:157:ASN:CA	37:Z:76:ILE:HD13	2.15	0.75
12:AC:247:LYS:HE2	12:AC:348:LEU:HD11	1.67	0.75
13:AD:29:DC:H5''	37:Z:1057:VAL:HG13	1.67	0.75
36:V:6:ILE:HD11	36:W:23:ALA:HB1	1.68	0.75
6:5:36:G:H4'	25:K:131:GLY:HA2	1.66	0.75
6:5:619:A:O2'	17:C:73:ARG:NH2	2.19	0.75
7:AB:86:GLN:HE21	37:Z:599:THR:HG23	1.50	0.75
12:AC:290:TRP:CZ2	12:AC:296:LYS:NZ	2.38	0.75
4:3:1830:G:H5''	38:a:55:VAL:HG21	1.66	0.75
4:3:2088:U:H3	4:3:2247:G:H1	1.33	0.75
9:9:428:VAL:HG23	9:9:431:GLU:OE2	1.86	0.75
7:AB:82:LEU:CD2	37:Z:597:PHE:C	2.58	0.75
12:AC:183:LYS:CD	12:AC:245:GLY:CA	2.48	0.75
9:9:374:CYS:CB	9:9:459:VAL:CG1	2.63	0.75
12:AC:45:HIS:HB3	12:AC:115:LEU:HD21	1.67	0.75
12:AC:176:MET:HE1	12:AC:187:LEU:HD11	1.68	0.75
38:a:233:MET:SD	38:a:234:ASN:N	2.55	0.75
4:3:1141:U:H3	35:U:79:LYS:HE2	1.50	0.75
14:AE:11:DT:H4'	37:Z:1236:ASP:OD1	1.86	0.75
4:3:1764:U:N3	4:3:1769:A:C6	2.55	0.75
6:5:833:G:H1	6:5:844:U:H3	0.79	0.75
9:9:1273:GLN:CD	37:Z:402:ASN:HD22	1.95	0.75
9:9:1289:MET:HE3	14:AE:14:DG:H2''	1.66	0.75
9:9:1341:LEU:HD13	37:Z:309:ILE:HG23	1.69	0.75
9:9:658:PRO:CG	37:Z:868:PHE:CE2	2.69	0.75
9:9:1002:SER:OG	12:AC:108:LEU:O	2.05	0.75
9:9:1287:GLY:HA3	14:AE:16:DC:P	2.27	0.75
6:5:1295:U:H3'	6:5:1296:C:H2'	1.68	0.75
6:5:41:C:H2'	6:5:42:G:H8	1.52	0.74
7:6:107:GLU:CG	7:AB:319:HIS:CG	2.70	0.74
12:AC:288:VAL:HG21	12:AC:297:PHE:HD2	1.46	0.74
37:Z:835:PHE:HB2	37:Z:837:TYR:CE2	2.22	0.74
4:3:1541:A:O2'	4:3:1590:U:O2'	2.04	0.74
6:5:711:G:H2'	6:5:712:A:H8	1.51	0.74
9:9:998:ILE:N	12:AC:8:PHE:CE1	2.51	0.74
4:3:2645:U:H3	4:3:2784:A:H62	1.35	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2736:U:HO2'	4:3:2737:G:H8	1.33	0.74
6:5:1138:U:H3	6:5:1149:G:H1	1.35	0.74
9:9:613:LEU:HD23	9:9:615:HIS:NE2	2.03	0.74
9:9:998:ILE:HD13	12:AC:62:MET:SD	2.27	0.74
49:m:42:GLN:HE21	49:m:100:VAL:HG11	1.52	0.74
4:3:1392:G:N2	4:3:1395:A:OP2	2.20	0.74
7:6:105:PRO:CG	7:AB:320:GLU:CA	2.48	0.74
8:7:12:C:N3	8:7:25:G:N1	2.35	0.74
11:AA:88:MET:HB3	37:Z:1212:ILE:CD1	2.18	0.74
6:5:600:G:H1	6:5:633:U:H3	1.33	0.74
7:6:293:LEU:HD11	7:6:323:LEU:HD13	1.68	0.74
7:6:34:PHE:HE2	7:AB:49:CYS:HG	1.34	0.74
7:6:276:ARG:CZ	12:AC:323:GLU:OE1	2.36	0.74
9:9:408:LEU:HD12	9:9:427:LEU:HD11	1.68	0.74
15:AF:108:TRP:HE1	15:AF:112:ARG:NH2	1.85	0.74
40:c:175:ILE:HG22	40:c:177:ASN:H	1.52	0.74
4:3:219:G:N2	4:3:468:A:N1	2.35	0.74
4:3:675:U:H3	4:3:685:G:H1	1.35	0.74
7:6:276:ARG:NH1	12:AC:323:GLU:OE1	2.20	0.74
9:9:218:ARG:NH2	15:AF:126:ARG:HG2	2.03	0.74
11:AA:5:TYR:HE2	11:AA:48:LEU:HD23	1.50	0.74
13:AD:29:DC:C5'	37:Z:1057:VAL:CG1	2.65	0.74
9:9:46:ASP:HA	9:9:75:ARG:HH22	1.51	0.74
9:9:131:THR:HG21	9:9:600:ILE:HD12	1.70	0.74
9:9:1342:LEU:CD1	37:Z:392:LEU:HD21	1.75	0.74
16:B:152:ILE:HD12	16:B:205:ILE:HD12	1.70	0.74
19:E:158:ASP:HB2	21:G:80:ARG:HH11	1.52	0.74
4:3:161:U:H3	4:3:171:G:H1	1.33	0.74
4:3:421:A:N6	4:3:424:G:OP2	2.20	0.74
4:3:2360:A:H62	4:3:2373:G:N2	1.86	0.74
12:AC:5:SER:HB2	12:AC:61:LEU:HD21	1.70	0.74
4:3:1081:A:H61	35:U:8:ALA:H	1.35	0.74
6:5:715:A:H61	31:Q:94:ARG:HH22	1.36	0.74
9:9:1273:GLN:NE2	37:Z:402:ASN:ND2	2.30	0.74
9:9:1344:LYS:HG3	37:Z:309:ILE:HD12	0.74	0.74
12:AC:288:VAL:HB	12:AC:300:ASN:HD22	1.51	0.74
21:G:92:LYS:HB2	21:G:95:LEU:HB2	1.68	0.74
26:L:34:LEU:HA	26:L:39:ILE:HD12	1.69	0.74
6:5:317:A:N1	6:5:328:G:O6	2.21	0.73
4:3:2589:G:N2	4:3:2589:G:OP2	2.22	0.73
56:t:69:ILE:HD12	56:t:74:LEU:HD21	1.70	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1344:LYS:HB3	37:Z:305:ILE:HB	1.68	0.73
4:3:2223:C:H2'	4:3:2224:A:H8	1.52	0.73
4:3:2820:G:N3	4:3:2887:A:O2'	2.20	0.73
6:5:1136:G:N2	6:5:1151:A:N1	2.35	0.73
7:6:107:GLU:CD	7:AB:319:HIS:CG	2.66	0.73
9:9:1344:LYS:CE	37:Z:306:PRO:CD	2.64	0.73
1:0:24:THR:HG23	1:0:27:GLY:H	1.54	0.73
6:5:21:U:O2'	6:5:571:A:N6	2.21	0.73
7:6:174:ASN:C	7:AB:324:LYS:HZ3	1.97	0.73
17:C:168:GLU:OE2	37:Z:30:ASN:OD1	2.07	0.73
9:9:402:ARG:HD3	9:9:510:TYR:CD2	2.23	0.73
9:9:412:LEU:HD13	9:9:471:LEU:CD1	2.17	0.73
15:AF:94:GLY:O	37:Z:338:ARG:NH2	2.21	0.73
56:t:38:GLY:H	56:t:41:LYS:HE2	1.54	0.73
9:9:998:ILE:HG21	12:AC:108:LEU:HD21	1.68	0.73
9:9:1349:LEU:N	37:Z:388:LEU:CD1	2.43	0.73
10:A:90:ASP:HB2	10:A:94:LYS:HE2	1.70	0.73
10:A:176:LEU:HD21	10:A:198:VAL:HG22	1.70	0.73
13:AD:15:DT:H3'	15:AF:95:ARG:NH2	2.04	0.73
4:3:1803:U:H3	4:3:1830:G:H1	1.37	0.73
6:5:111:A:OP1	6:5:603:U:O2'	2.07	0.73
6:5:518:A:H62	6:5:527:G:N2	1.86	0.73
6:5:807:C:O2'	6:5:894:A:N6	2.20	0.73
9:9:998:ILE:HA	12:AC:8:PHE:CE2	2.24	0.73
12:AC:239:LYS:HD2	12:AC:293:ASP:HA	1.70	0.73
20:F:55:GLU:OE2	20:F:59:THR:OG1	2.05	0.73
37:Z:771:ASP:HB3	37:Z:845:ILE:HD12	1.71	0.73
4:3:247:U:N3	4:3:259:A:C8	2.56	0.72
4:3:2332:U:H3	4:3:2339:G:H1	1.34	0.72
6:5:170:A:O2'	6:5:220:U:OP1	2.06	0.72
12:AC:131:ALA:CA	12:AC:171:THR:HB	2.19	0.72
50:n:76:ASP:OD1	50:n:77:ILE:N	2.21	0.72
4:3:898:A:O2'	5:4:76:A:N3	2.22	0.72
5:4:40:U:H4'	41:d:64:LYS:HB2	1.70	0.72
6:5:1224:C:N3	6:5:1262:A:N7	2.37	0.72
37:Z:895:LEU:HD22	37:Z:1165:ILE:HD13	1.70	0.72
9:9:814:LEU:CD2	9:9:858:TYR:CE2	2.72	0.72
11:AA:78:PHE:CZ	37:Z:1095:ARG:CZ	2.72	0.72
4:3:1832:G:OP2	38:a:56:ARG:NH2	2.22	0.72
9:9:1348:GLY:O	37:Z:368:PHE:CD1	2.41	0.72
9:9:1289:MET:HG3	14:AE:15:DA:C5'	2.20	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1349:LEU:HA	37:Z:368:PHE:CE1	2.22	0.72
9:9:673:LEU:HD23	9:9:677:ALA:HB3	1.72	0.72
9:9:1336:PRO:HG2	37:Z:406:LYS:HZ3	1.55	0.72
9:9:1341:LEU:CD1	37:Z:309:ILE:CG2	2.58	0.72
12:AC:290:TRP:CD1	12:AC:296:LYS:HD2	2.23	0.72
37:Z:1133:ALA:HB1	37:Z:1137:ARG:HD3	1.72	0.72
4:3:1956:G:H2'	4:3:1957:G:C8	2.24	0.72
6:5:739:G:OP1	28:N:56:LYS:NZ	2.22	0.72
9:9:1307:LEU:HA	37:Z:406:LYS:CD	2.14	0.72
12:AC:290:TRP:HE1	12:AC:293:ASP:HB2	0.55	0.72
15:AF:108:TRP:NE1	15:AF:112:ARG:NE	2.37	0.72
4:3:1119:A:H1'	35:U:53:VAL:CB	2.19	0.72
9:9:613:LEU:HD23	9:9:615:HIS:HE2	1.54	0.72
30:P:22:ALA:HB3	30:P:47:ALA:O	1.90	0.72
4:3:1489:G:H2'	4:3:1490:G:C8	2.24	0.72
20:F:102:TRP:CD1	20:F:136:LYS:HZ2	2.07	0.72
31:Q:81:MET:HE3	31:Q:85:HIS:HE1	1.55	0.72
9:9:998:ILE:CG1	12:AC:62:MET:CE	2.68	0.72
9:9:999:PHE:CD2	12:AC:108:LEU:HD22	2.24	0.72
9:9:1285:ARG:CB	14:AE:17:DT:OP2	2.37	0.72
9:9:1351:LEU:CD1	37:Z:113:TRP:CZ3	2.73	0.72
12:AC:143:VAL:C	12:AC:145:GLN:CG	2.43	0.72
59:w:57:ILE:O	59:w:61:ARG:NH1	2.22	0.72
4:3:1070:U:H3	4:3:1155:G:H1	1.37	0.71
4:3:1262:G:H2'	4:3:1263:G:C8	2.25	0.71
9:9:1126:CYS:O	9:9:1154:LYS:HE2	1.90	0.71
54:r:126:LYS:HA	54:r:129:VAL:HG22	1.71	0.71
4:3:51:A:N7	4:3:121:U:O4	2.24	0.71
4:3:638:A:H62	4:3:660:U:H3	1.37	0.71
9:9:1307:LEU:O	37:Z:406:LYS:CD	2.38	0.71
46:j:70:GLN:NE2	46:j:71:ARG:O	2.23	0.71
6:5:460:A:H2	6:5:467:G:N1	1.87	0.71
9:9:217:VAL:HA	13:AD:20:DG:C2'	2.10	0.71
16:B:155:LEU:HD23	16:B:202:LYS:HD2	1.70	0.71
32:R:27:LYS:HZ1	32:R:47:ASN:HD22	1.38	0.71
4:3:2695:U:O2	4:3:2730:G:N2	2.23	0.71
9:9:1370:ILE:CD1	37:Z:94:ILE:HG12	2.20	0.71
25:K:86:ASN:OD1	25:K:88:GLN:NE2	2.23	0.71
4:3:1385:U:H3	4:3:1402:G:H1	1.37	0.71
6:5:1193:U:H2'	6:5:1194:A:H8	1.54	0.71
6:5:1217:G:H1	6:5:1269:U:H3	1.38	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1306:LEU:CD2	37:Z:408:VAL:CG1	2.69	0.71
12:AC:242:ARG:HG3	12:AC:248:SER:OG	1.90	0.71
12:AC:288:VAL:HG21	12:AC:297:PHE:CE2	2.23	0.71
40:c:183:LEU:HG	40:c:203:VAL:HG11	1.72	0.71
4:3:598:G:H1	4:3:609:U:H3	1.38	0.71
4:3:1081:A:C8	35:U:7:LYS:HD2	2.25	0.71
15:AF:108:TRP:CZ3	15:AF:130:PRO:HB3	2.26	0.71
16:B:176:MET:HE2	16:B:204:TRP:HB3	1.71	0.71
55:s:60:ARG:O	55:s:77:LEU:HA	1.90	0.71
58:v:34:GLN:HE22	58:v:55:LEU:HD11	1.54	0.71
7:6:106:LEU:CA	7:AB:319:HIS:CE1	2.74	0.71
9:9:168:GLN:O	13:AD:25:DC:C2'	2.38	0.71
9:9:1344:LYS:CG	37:Z:306:PRO:HD2	2.20	0.71
4:3:250:U:H3	4:3:256:G:H1	1.39	0.71
4:3:2572:A:N6	4:3:2655:U:O2'	2.24	0.71
6:5:1413:G:N2	6:5:1438:U:O2	2.24	0.71
7:6:108:ARG:NH2	7:AB:316:LYS:CE	2.54	0.71
12:AC:291:ASN:H	12:AC:296:LYS:CG	1.79	0.71
24:J:100:ILE:HG23	34:T:8:ASN:HD21	1.55	0.71
51:o:62:GLU:HB3	51:o:81:ILE:HD12	1.72	0.71
4:3:990:G:H1	4:3:999:U:H3	1.36	0.71
4:3:1143:U:C4	4:3:1144:C:N4	2.58	0.71
9:9:1003:VAL:HG13	12:AC:116:ILE:CD1	2.21	0.71
12:AC:135:VAL:HG21	12:AC:172:THR:HG22	1.71	0.71
21:G:115:ILE:HB	21:G:138:LEU:HB2	1.73	0.71
4:3:1083:A:H1'	4:3:1147:G:H21	1.56	0.70
9:9:1344:LYS:O	37:Z:305:ILE:HG22	1.88	0.70
30:P:68:PRO:HB3	30:P:74:ARG:HG2	1.73	0.70
31:Q:78:ASN:HB3	31:Q:82:HIS:HB2	1.72	0.70
4:3:226:A:N6	4:3:236:G:N2	2.39	0.70
4:3:313:G:N1	4:3:394:C:N3	2.37	0.70
9:9:265:LEU:HD11	9:9:335:MET:HE3	1.73	0.70
9:9:1200:PHE:CE2	37:Z:864:ILE:CD1	2.74	0.70
12:AC:8:PHE:O	12:AC:60:GLY:HA3	1.91	0.70
4:3:1081:A:N9	35:U:7:LYS:HD3	1.99	0.70
4:3:1090:G:H4'	35:U:33:SER:HA	1.73	0.70
4:3:1661:A:H2'	4:3:1662:G:H8	1.54	0.70
4:3:2799:U:C4	4:3:2895:A:N1	2.60	0.70
9:9:952:ASP:CB	7:AB:295:LYS:HD3	2.21	0.70
9:9:1003:VAL:CG2	12:AC:116:ILE:HD11	2.21	0.70
7:AB:166:PHE:CE2	37:Z:679:ARG:NH2	2.60	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:S:13:GLN:HA	33:S:16:LYS:HE2	1.72	0.70
4:3:2010:A:N3	49:m:2:SER:N	2.39	0.70
4:3:2061:A:H62	4:3:2585:A:N6	1.85	0.70
6:5:1316:C:H2'	6:5:1317:A:C8	2.27	0.70
9:9:1306:LEU:CA	37:Z:408:VAL:HG11	2.18	0.70
12:AC:131:ALA:HA	12:AC:171:THR:HB	1.74	0.70
12:AC:135:VAL:N	12:AC:171:THR:OG1	2.24	0.70
4:3:2360:A:N6	4:3:2373:G:H21	1.90	0.70
6:5:688:G:N7	24:J:21:ASN:ND2	2.40	0.70
14:AE:14:DG:N7	37:Z:886:ALA:HA	2.04	0.70
5:4:28:C:O2'	5:4:55:A:N1	2.25	0.70
6:5:885:U:O2	6:5:901:A:N7	2.25	0.70
9:9:216:ALA:HB3	13:AD:20:DG:C8	2.25	0.70
9:9:374:CYS:CB	9:9:459:VAL:HG11	2.22	0.70
7:AB:82:LEU:HD22	37:Z:598:GLY:HA2	1.69	0.70
12:AC:183:LYS:O	12:AC:279:GLU:O	2.10	0.70
12:AC:290:TRP:CE2	12:AC:296:LYS:NZ	2.59	0.70
4:3:1807:C:O2'	38:a:159:GLN:NE2	2.25	0.70
12:AC:159:ASP:CG	37:Z:79:ARG:HH22	1.98	0.70
59:w:57:ILE:HG22	59:w:61:ARG:HH22	1.55	0.70
9:9:999:PHE:CB	12:AC:108:LEU:C	2.65	0.70
14:AE:14:DG:H5'	37:Z:890:TYR:CA	2.21	0.70
44:h:15:LEU:HA	44:h:50:MET:HA	1.73	0.70
4:3:1119:A:C2	35:U:29:TYR:CZ	2.80	0.70
6:5:821:U:O2	21:G:11:HIS:NE2	2.25	0.70
9:9:1000:PRO:CD	12:AC:6:ASN:ND2	2.54	0.70
12:AC:160:GLY:CA	37:Z:79:ARG:HB3	2.20	0.70
4:3:487:C:N4	4:3:490:A:OP2	2.25	0.70
6:5:684:A:H62	6:5:700:G:H21	0.78	0.70
9:9:561:ALA:HB1	9:9:585:LEU:HD11	1.74	0.70
18:D:169:ILE:HD11	18:D:192:ILE:HD12	1.73	0.70
57:u:84:GLN:OE1	57:u:94:ARG:NH2	2.25	0.70
4:3:638:A:N6	4:3:661:G:C6	2.58	0.69
4:3:1553:G:N2	4:3:1577:A:OP2	2.24	0.69
4:3:2536:U:H3	4:3:2543:G:H1	1.40	0.69
6:5:1046:A:N7	6:5:1175:C:N4	2.40	0.69
7:6:106:LEU:HB2	7:AB:319:HIS:CE1	2.25	0.69
9:9:1307:LEU:HB3	37:Z:406:LYS:HD2	1.71	0.69
9:9:1352:SER:OG	37:Z:31:TRP:CH2	2.28	0.69
12:AC:160:GLY:CA	37:Z:79:ARG:CB	2.69	0.69
12:AC:196:VAL:HG11	12:AC:217:ARG:HH22	1.56	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:358:A:H62	4:3:372:G:N2	1.90	0.69
4:3:849:C:H2'	4:3:850:G:H8	1.55	0.69
6:5:134:G:H1	6:5:160:A:N6	1.89	0.69
9:9:999:PHE:CE2	12:AC:111:ILE:HD12	2.27	0.69
11:AA:42:LYS:HD2	21:G:124:THR:O	1.93	0.69
15:AF:27:LYS:HE3	15:AF:42:VAL:O	1.93	0.69
2:1:36:LYS:HG3	2:1:40:HIS:HE1	1.57	0.69
2:1:36:LYS:O	2:1:40:HIS:ND1	2.25	0.69
2:1:39:ARG:NH2	4:3:2359:G:O6	2.25	0.69
4:3:1446:G:O2'	4:3:1613:A:N6	2.21	0.69
6:5:1106:U:H3	6:5:1160:G:H1	1.40	0.69
7:6:108:ARG:HH21	7:AB:316:LYS:HE3	1.57	0.69
9:9:185:GLU:HG2	9:9:195:LEU:CD2	2.21	0.69
12:AC:182:SER:CB	12:AC:280:PHE:HE1	2.05	0.69
12:AC:196:VAL:CG1	12:AC:217:ARG:NH2	2.52	0.69
14:AE:10:DG:H4'	37:Z:119:PRO:N	2.07	0.69
16:B:93:LYS:HA	16:B:96:ILE:HG22	1.73	0.69
43:f:47:ARG:HH22	43:f:51:LEU:HB2	1.57	0.69
4:3:782:U:H2'	54:r:88:ARG:HH21	1.56	0.69
4:3:1141:U:O2'	35:U:79:LYS:CA	2.34	0.69
4:3:2455:G:H21	4:3:2457:U:H3'	1.56	0.69
12:AC:247:LYS:HE2	12:AC:348:LEU:CD1	2.23	0.69
28:N:35:GLN:HG2	28:N:39:HIS:CE1	2.27	0.69
58:v:4:LYS:O	58:v:6:GLN:NE2	2.26	0.69
4:3:631:A:H2'	4:3:632:A:H8	1.57	0.69
4:3:1738:G:H2'	4:3:1739:G:C8	2.27	0.69
6:5:1162:G:N2	27:M:60:SER:OG	2.25	0.69
9:9:176:LYS:HD2	14:AE:8:DA:H2'	1.74	0.69
9:9:956:ARG:HG3	7:AB:296:SER:HB3	1.21	0.69
9:9:1346:LEU:HD23	37:Z:392:LEU:HD11	1.74	0.69
7:AB:283:ARG:HD3	12:AC:49:VAL:CG2	2.23	0.69
16:B:127:ILE:HD12	16:B:133:LEU:HD22	1.73	0.69
24:J:116:PRO:HD2	34:T:35:HIS:HB2	1.74	0.69
4:3:1764:U:N3	4:3:1769:A:N6	2.39	0.69
9:9:999:PHE:CE1	12:AC:108:LEU:CG	2.69	0.69
20:F:43:TYR:HA	20:F:46:PHE:HD2	1.58	0.69
48:l:39:GLY:HA2	48:l:97:VAL:O	1.92	0.69
4:3:703:A:H2'	4:3:705:A:H62	1.58	0.69
4:3:1418:U:O4	4:3:1423:A:N7	2.26	0.69
9:9:998:ILE:O	12:AC:108:LEU:HB2	1.92	0.69
13:AD:17:DT:H4'	13:AD:18:DG:OP1	1.93	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1099:C:N4	4:3:1105:A:OP1	2.22	0.69
6:5:249:U:H3	6:5:269:A:H61	1.41	0.69
9:9:94:ILE:CG2	9:9:135:LEU:HD12	2.21	0.69
37:Z:884:LYS:HG2	37:Z:1029:MET:HG3	1.75	0.69
57:u:35:LEU:HD13	57:u:54:GLN:HA	1.75	0.69
3:2:27:CYS:SG	3:2:28:LYS:N	2.66	0.69
9:9:1001:GLU:CA	12:AC:109:LYS:HG2	2.13	0.69
9:9:1306:LEU:C	37:Z:408:VAL:CG1	2.65	0.69
9:9:1371:LEU:HG	37:Z:94:ILE:HG23	1.74	0.69
13:AD:16:DG:H4'	15:AF:16:SER:CB	2.17	0.69
46:j:86:LEU:HB3	46:j:94:ARG:HD2	1.75	0.69
4:3:420:A:H62	4:3:425:U:H3	1.40	0.69
9:9:644:ASP:O	37:Z:835:PHE:CE1	2.45	0.69
9:9:995:PHE:HE1	12:AC:38:LEU:HD21	1.56	0.69
11:AA:64:TYR:HB3	11:AA:88:MET:HE1	1.74	0.69
7:AB:82:LEU:CD1	37:Z:621:SER:HB2	2.23	0.69
37:Z:128:LEU:HD23	37:Z:248:ILE:HD11	1.75	0.69
4:3:2574:A:H4'	4:3:2575:G:H5''	1.74	0.68
6:5:70:A:H2'	6:5:71:A:H8	1.57	0.68
9:9:998:ILE:CD1	12:AC:62:MET:SD	2.81	0.68
12:AC:139:PHE:CE1	12:AC:147:ILE:CG1	2.74	0.68
25:K:67:LYS:HE3	25:K:75:GLU:HG3	1.74	0.68
3:2:3:VAL:HG12	3:2:35:ARG:HB3	1.75	0.68
7:AB:73:MET:HE3	7:AB:143:PHE:CD2	2.28	0.68
4:3:640:U:H3	4:3:658:G:H1	1.40	0.68
4:3:1089:A:H1'	35:U:30:THR:HG22	1.75	0.68
4:3:1141:U:N3	35:U:79:LYS:CE	2.56	0.68
6:5:742:C:H2'	6:5:743:A:C8	2.28	0.68
4:3:1554:A:OP2	4:3:1576:G:N2	2.27	0.68
7:6:105:PRO:CB	7:AB:320:GLU:CA	2.70	0.68
43:f:7:GLN:NE2	43:f:8:ASP:OD1	2.26	0.68
4:3:895:G:OP2	57:u:58:ARG:NH1	2.26	0.68
4:3:1043:C:H3'	4:3:1044:C:H2'	1.74	0.68
4:3:1081:A:C2'	35:U:7:LYS:NZ	2.55	0.68
4:3:1379:C:O2'	4:3:1605:A:O2'	2.12	0.68
4:3:2661:U:O2	4:3:2676:G:C2	2.46	0.68
6:5:1164:U:H5''	16:B:10:LEU:HD11	1.75	0.68
38:a:3:ILE:HD11	38:a:207:ASP:HB3	1.76	0.68
4:3:226:A:C6	4:3:236:G:N2	2.61	0.68
4:3:1067:A:N1	4:3:1157:G:O6	2.27	0.68
4:3:2570:U:O4	4:3:2574:A:N7	2.26	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2754:U:H5''	42:e:141:LYS:HE2	1.75	0.68
6:5:294:A:O2'	6:5:295:G:O5'	2.09	0.68
9:9:956:ARG:HA	7:AB:296:SER:OG	1.92	0.68
15:AF:57:LEU:HD12	15:AF:80:ASP:HA	1.75	0.68
25:K:86:ASN:HD22	25:K:118:VAL:H	1.39	0.68
6:5:1150:G:H2'	6:5:1151:A:H8	1.58	0.68
6:5:1224:C:O2	6:5:1262:A:N6	2.27	0.68
9:9:219:GLU:HG3	13:AD:21:DC:H42	1.58	0.68
39:b:158:ARG:NH1	39:b:159:VAL:O	2.26	0.68
4:3:733:C:H4'	4:3:769:A:H61	1.59	0.68
6:5:662:G:O6	6:5:721:G:O6	2.12	0.68
6:5:1077:U:H3	6:5:1090:G:H22	1.40	0.68
9:9:390:ARG:CD	9:9:496:ASN:O	2.41	0.68
9:9:1310:LYS:HA	37:Z:409:ASP:CB	2.23	0.68
12:AC:175:TYR:HB2	12:AC:207:TRP:HB3	1.76	0.68
12:AC:239:LYS:HD3	12:AC:294:LYS:N	2.09	0.68
40:c:159:PHE:HB2	40:c:180:VAL:HG22	1.76	0.68
4:3:2020:A:H1'	54:r:94:ASN:HD21	1.59	0.68
4:3:2521:A:OP1	39:b:164:LYS:NZ	2.27	0.68
9:9:269:ASP:OD2	9:9:342:ARG:NE	2.21	0.68
9:9:1349:LEU:HD11	37:Z:389:THR:N	2.09	0.68
20:F:86:VAL:HG22	20:F:150:PHE:HB3	1.76	0.68
46:j:63:VAL:HG23	46:j:64:ARG:HG3	1.73	0.68
56:t:93:MET:HG3	56:t:95:PRO:HD3	1.75	0.68
12:AC:9:THR:C	12:AC:11:PRO:HD2	2.19	0.68
17:C:168:GLU:CG	37:Z:30:ASN:ND2	2.53	0.68
35:U:42:LYS:HE2	44:h:114:ALA:C	2.19	0.68
4:3:1295:A:H61	4:3:2020:A:H3'	1.60	0.67
4:3:2124:A:O2'	4:3:2126:A:OP2	2.11	0.67
4:3:2321:C:H2'	4:3:2322:G:H8	1.60	0.67
5:4:22:G:O2'	5:4:25:A:N6	2.28	0.67
9:9:638:ARG:HH21	9:9:666:ASN:ND2	1.92	0.67
9:9:1105:ILE:CG2	37:Z:736:VAL:CG2	2.63	0.67
12:AC:165:TYR:CE2	12:AC:181:LEU:HD11	2.30	0.67
37:Z:884:LYS:CG	37:Z:1029:MET:HG3	2.24	0.67
42:e:101:VAL:HG21	42:e:126:VAL:HG21	1.75	0.67
59:w:38:LEU:HD23	59:w:40:LYS:H	1.59	0.67
4:3:1700:G:H4'	46:j:6:THR:HG23	1.75	0.67
6:5:273:C:H5''	30:P:44:LYS:HE2	1.75	0.67
7:6:105:PRO:HG3	7:AB:320:GLU:HA	0.75	0.67
21:G:118:THR:HA	21:G:135:GLY:HA3	1.76	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:S:35:PHE:HE1	33:S:44:LEU:HB2	1.59	0.67
33:S:52:ASP:O	33:S:56:ARG:NH2	2.27	0.67
4:3:2655:U:H2'	4:3:2656:G:H8	1.58	0.67
12:AC:165:TYR:HE2	12:AC:181:LEU:HD11	1.59	0.67
14:AE:10:DG:H4'	37:Z:118:LEU:C	2.19	0.67
18:D:163:GLY:O	18:D:167:ARG:N	2.25	0.67
39:b:3:ILE:HG23	39:b:209:THR:HB	1.76	0.67
51:o:32:ASN:HB3	51:o:91:LYS:HZ1	1.58	0.67
4:3:2291:U:O4	4:3:2292:A:N6	2.27	0.67
6:5:201:G:H1	6:5:214:U:H3	1.42	0.67
6:5:1213:A:N6	6:5:1275:U:N3	2.41	0.67
7:AB:82:LEU:HD13	37:Z:598:GLY:HA2	1.75	0.67
12:AC:248:SER:OG	12:AC:283:GLU:OE1	2.10	0.67
33:S:16:LYS:O	33:S:20:ASN:ND2	2.27	0.67
53:q:36:ASP:HA	53:q:54:ARG:HE	1.59	0.67
4:3:590:U:OP1	45:i:116:ARG:NH2	2.27	0.67
4:3:2096:U:H3	4:3:2238:G:H1	1.41	0.67
6:5:1265:U:H4'	22:H:42:PRO:HB3	1.77	0.67
4:3:1187:C:H5''	52:p:79:ILE:HD13	1.76	0.67
9:9:214:ARG:NH2	13:AD:22:DA:C6	2.63	0.67
9:9:658:PRO:CB	37:Z:868:PHE:CE2	2.77	0.67
14:AE:10:DG:C4'	37:Z:119:PRO:CD	2.52	0.67
4:3:193:G:H1	4:3:209:G:HO2'	1.41	0.67
4:3:2749:A:H62	4:3:2771:G:H21	1.41	0.67
6:5:289:U:OP1	6:5:608:G:N2	2.28	0.67
6:5:1245:A:H2'	6:5:1246:A:H8	1.59	0.67
14:AE:12:DC:C5'	37:Z:1235:GLN:HB2	2.25	0.67
4:3:1616:G:O2'	4:3:1619:A:N3	2.28	0.67
9:9:170:LYS:NZ	13:AD:25:DC:C5'	2.57	0.67
9:9:1002:SER:N	12:AC:109:LYS:HA	2.10	0.67
17:C:74:LEU:HD23	17:C:77:LEU:HD21	1.77	0.67
54:r:36:LEU:HD21	54:r:47:ILE:HG13	1.76	0.67
4:3:2455:G:N2	4:3:2458:A:OP2	2.28	0.67
4:3:411:U:H3	4:3:437:A:H62	1.42	0.67
6:5:1012:A:OP2	6:5:1013:C:N4	2.28	0.67
9:9:998:ILE:O	12:AC:108:LEU:CG	2.42	0.67
9:9:1102:ILE:HD11	37:Z:859:LEU:CA	2.25	0.67
9:9:1307:LEU:O	37:Z:406:LYS:HD3	1.95	0.67
11:AA:13:LYS:HE2	11:AA:17:GLU:OE1	1.95	0.67
12:AC:156:THR:HG23	37:Z:77:LYS:HB3	1.76	0.67
12:AC:291:ASN:N	12:AC:296:LYS:HB3	2.08	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1119:A:C1'	35:U:53:VAL:CB	2.73	0.66
9:9:1349:LEU:CA	37:Z:368:PHE:CE1	2.79	0.66
19:E:97:LEU:HG	19:E:99:SER:H	1.60	0.66
38:a:83:VAL:HB	38:a:118:GLY:H	1.59	0.66
39:b:56:THR:HA	39:b:78:THR:HA	1.77	0.66
42:e:4:ILE:O	42:e:72:ASN:ND2	2.28	0.66
61:y:47:MET:HG3	61:y:52:ARG:HB2	1.74	0.66
12:AC:156:THR:CG2	37:Z:77:LYS:CB	2.73	0.66
50:n:8:ARG:HG2	50:n:95:GLY:HA3	1.78	0.66
4:3:1023:C:O2'	4:3:1036:A:N3	2.27	0.66
6:5:350:G:N2	6:5:384:G:O2'	2.28	0.66
6:5:460:A:N1	6:5:467:G:O6	2.28	0.66
9:9:1370:ILE:HD13	37:Z:94:ILE:CD1	2.22	0.66
12:AC:153:ASP:OD2	37:Z:75:LYS:CD	2.44	0.66
22:H:9:LEU:H	22:H:87:ARG:HD2	1.61	0.66
26:L:8:ASP:OD1	26:L:9:ILE:N	2.27	0.66
39:b:185:ASP:O	39:b:189:MET:CA	2.42	0.66
46:j:80:ASP:OD2	51:o:67:ARG:NH2	2.29	0.66
46:j:87:ILE:HA	46:j:93:PRO:HA	1.78	0.66
4:3:857:U:O4	4:3:858:A:N6	2.28	0.66
4:3:1092:A:OP2	4:3:1124:G:N1	2.23	0.66
6:5:460:A:C2	6:5:467:G:N1	2.55	0.66
9:9:956:ARG:CG	7:AB:296:SER:HA	2.21	0.66
9:9:1305:GLU:OE1	9:9:1310:LYS:HE3	1.95	0.66
38:a:43:LYS:NZ	38:a:62:ASN:O	2.29	0.66
4:3:840:G:H5''	47:k:42:ARG:HG3	1.77	0.66
4:3:1232:U:H2'	4:3:1233:A:H8	1.61	0.66
6:5:423:U:OP1	17:C:31:ARG:NH2	2.29	0.66
6:5:786:U:N3	6:5:789:A:OP2	2.28	0.66
7:6:300:ILE:HD12	7:6:325:LEU:HD13	1.77	0.66
9:9:374:CYS:HB2	9:9:459:VAL:CG1	2.24	0.66
40:c:140:THR:HA	40:c:143:MET:HE2	1.78	0.66
3:2:14:CYS:HA	3:2:27:CYS:HB2	1.77	0.66
6:5:871:U:OP1	21:G:92:LYS:NZ	2.29	0.66
9:9:945:ARG:HH22	7:AB:298:ALA:CB	2.07	0.66
9:9:952:ASP:CB	7:AB:295:LYS:CD	2.74	0.66
37:Z:828:ARG:NH1	37:Z:870:SER:HB2	2.09	0.66
52:p:16:TRP:HA	52:p:19:GLN:HE22	1.60	0.66
4:3:648:G:H22	40:c:185:LYS:HG3	1.61	0.66
7:6:268:ILE:CD1	7:6:286:ILE:HG22	2.24	0.66
9:9:390:ARG:HD3	9:9:496:ASN:O	1.95	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:649:HIS:HD2	37:Z:837:TYR:CE1	2.07	0.66
9:9:907:ASP:OD2	9:9:1099:ARG:NH2	2.27	0.66
9:9:1310:LYS:HB3	37:Z:409:ASP:CA	2.23	0.66
9:9:1347:GLN:CD	37:Z:100:MET:HE2	2.21	0.66
19:E:66:ASN:OD1	19:E:67:GLN:NE2	2.25	0.66
37:Z:890:TYR:CE1	37:Z:894:LYS:CE	2.76	0.66
46:j:10:VAL:HG12	46:j:12:ASP:H	1.59	0.66
4:3:1141:U:H1'	35:U:79:LYS:HG2	1.77	0.66
4:3:1187:C:H2'	4:3:1188:C:H6	1.61	0.66
9:9:1307:LEU:HD22	37:Z:406:LYS:CG	2.24	0.66
7:AB:268:ILE:CD1	7:AB:286:ILE:HG22	2.22	0.66
37:Z:77:LYS:HE3	37:Z:78:TYR:CZ	2.31	0.66
49:m:42:GLN:HA	49:m:45:LEU:HD12	1.77	0.66
2:1:20:LYS:HZ3	4:3:666:G:H5''	1.60	0.66
4:3:49:C:HO2'	4:3:54:A:HO2'	1.42	0.66
9:9:780:LEU:HD22	37:Z:878:MET:HE1	1.76	0.66
9:9:1338:SER:HB3	37:Z:402:ASN:HB3	1.77	0.66
37:Z:1234:PHE:CD1	37:Z:1235:GLN:HG2	2.31	0.66
38:a:38:LEU:HD11	38:a:65:LYS:HB3	1.78	0.66
60:x:12:VAL:HB	60:x:27:SER:HB2	1.77	0.66
4:3:2732:A:OP1	39:b:117:ARG:NH2	2.22	0.66
6:5:1503:U:OP2	34:T:43:ARG:NH2	2.28	0.66
9:9:649:HIS:CD2	37:Z:837:TYR:HE1	2.07	0.66
10:A:59:GLU:O	10:A:63:GLN:NE2	2.29	0.66
4:3:2315:G:N1	41:d:39:GLY:O	2.29	0.65
6:5:673:A:H1'	24:J:110:PRO:HB3	1.78	0.65
6:5:683:G:O2'	6:5:700:G:N2	2.29	0.65
9:9:1342:LEU:HA	37:Z:398:LEU:HD22	1.78	0.65
9:9:1349:LEU:CG	37:Z:388:LEU:HB2	2.25	0.65
16:B:133:LEU:HB3	16:B:137:MET:HE1	1.77	0.65
4:3:2104:A:H2'	4:3:2105:G:C8	2.32	0.65
5:4:29:C:OP1	41:d:30:ARG:NH1	2.29	0.65
9:9:1371:LEU:CG	37:Z:94:ILE:CG2	2.70	0.65
12:AC:139:PHE:CE1	12:AC:147:ILE:CD1	2.79	0.65
37:Z:1069:GLU:HB2	37:Z:1095:ARG:NH1	2.10	0.65
39:b:110:VAL:HG21	39:b:179:LEU:HD22	1.78	0.65
4:3:620:G:H1	47:k:34:ARG:HH21	1.44	0.65
4:3:1476:C:H2'	4:3:1477:A:H8	1.60	0.65
4:3:1837:C:H2'	4:3:1838:A:H8	1.58	0.65
4:3:2266:C:O2'	4:3:2435:C:OP2	2.13	0.65
9:9:412:LEU:CD1	9:9:471:LEU:CD1	2.74	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:772:GLU:CB	37:Z:862:LEU:O	2.43	0.65
9:9:956:ARG:O	7:AB:296:SER:CB	2.44	0.65
4:3:816:A:OP2	38:a:225:ARG:NH2	2.30	0.65
4:3:2828:C:H3'	4:3:2829:G:H21	1.62	0.65
7:6:107:GLU:CD	7:AB:319:HIS:CB	2.69	0.65
9:9:1338:SER:CB	37:Z:402:ASN:HB3	2.26	0.65
23:I:12:LEU:HB3	23:I:82:LEU:HB2	1.77	0.65
49:m:46:ASP:HB2	49:m:97:TYR:CD1	2.32	0.65
58:v:4:LYS:HG2	58:v:11:GLY:HA2	1.78	0.65
3:2:31:LYS:NZ	4:3:2535:C:O2'	2.30	0.65
4:3:287:G:H22	58:v:63:ARG:HH22	1.44	0.65
4:3:625:G:H2'	4:3:626:A:H8	1.62	0.65
4:3:1355:C:N3	4:3:1681:G:N2	2.44	0.65
4:3:2035:U:O4	4:3:2040:A:N7	2.29	0.65
4:3:2070:C:N4	4:3:2509:C:O2	2.29	0.65
6:5:376:G:N2	6:5:379:A:OP2	2.25	0.65
6:5:1225:A:H4'	22:H:71:GLY:HA2	1.78	0.65
35:U:42:LYS:HE2	44:h:114:ALA:CA	2.27	0.65
4:3:515:A:H1'	4:3:517:G:H5'	1.78	0.65
4:3:1414:C:H2'	4:3:1415:A:C8	2.31	0.65
9:9:1306:LEU:O	37:Z:408:VAL:CG1	2.30	0.65
9:9:1307:LEU:HD23	37:Z:406:LYS:CB	2.27	0.65
17:C:168:GLU:HG2	37:Z:30:ASN:CG	2.22	0.65
31:Q:67:TYR:HE1	34:T:5:GLU:HA	1.61	0.65
4:3:713:C:H2'	4:3:714:G:H8	1.61	0.65
4:3:2676:G:H2'	4:3:2677:A:H8	1.61	0.65
9:9:307:LEU:HD12	9:9:334:LEU:HD13	1.78	0.65
12:AC:183:LYS:O	12:AC:280:PHE:HA	1.97	0.65
26:L:87:ARG:HG3	26:L:97:VAL:HG13	1.78	0.65
32:R:32:LYS:HA	32:R:50:ALA:HB3	1.79	0.65
40:c:158:LEU:HD11	40:c:181:LYS:HG3	1.78	0.65
49:m:117:GLN:HE22	49:m:119:THR:HG22	1.62	0.65
4:3:1081:A:N9	35:U:7:LYS:CD	2.58	0.65
4:3:2641:A:O2'	39:b:66:GLN:NE2	2.29	0.65
6:5:133:G:H2'	6:5:134:G:C8	2.32	0.65
7:6:1:MET:N	7:AB:99:GLY:O	2.20	0.65
9:9:356:ARG:HH11	15:AF:113:ASN:HB2	0.71	0.65
9:9:356:ARG:CZ	15:AF:109:ARG:C	2.62	0.65
9:9:1306:LEU:CG	37:Z:408:VAL:HG11	2.25	0.65
39:b:139:TYR:CG	39:b:140:PRO:HD3	2.31	0.65
4:3:1729:G:H4'	38:a:9:ARG:HG3	1.79	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:1224:C:O2'	22:H:72:GLY:O	2.14	0.65
9:9:998:ILE:HG21	12:AC:108:LEU:CD2	2.19	0.65
9:9:1307:LEU:HD23	37:Z:406:LYS:HB2	1.79	0.65
38:a:251:ARG:HH21	38:a:254:PRO:HA	1.61	0.65
43:f:101:ALA:HA	43:f:106:MET:HE2	1.79	0.65
47:k:62:LEU:HD12	47:k:63:PRO:HD2	1.78	0.65
49:m:70:THR:HG23	49:m:72:LEU:H	1.62	0.65
4:3:155:A:H2'	4:3:156:A:C8	2.32	0.64
4:3:1067:A:H2	4:3:1157:G:H1	1.44	0.64
4:3:1292:A:H61	4:3:2024:C:H42	1.44	0.64
6:5:1414:U:OP1	33:S:29:LYS:NZ	2.29	0.64
9:9:1223:HIS:HB3	37:Z:737:PHE:HB2	1.79	0.64
12:AC:215:ASP:C	12:AC:217:ARG:HE	2.04	0.64
55:s:8:LEU:HB3	55:s:30:VAL:HG13	1.79	0.64
4:3:1807:C:N3	4:3:1824:G:N1	2.42	0.64
4:3:2017:G:H5''	54:r:42:LYS:HB2	1.79	0.64
4:3:2499:U:H5'	4:3:2578:A:H5''	1.79	0.64
4:3:2592:U:O2'	8:7:77:A:N6	2.30	0.64
4:3:2812:U:H1'	4:3:2813:A:H2'	1.80	0.64
6:5:540:U:OP1	17:C:9:LYS:NZ	2.31	0.64
9:9:1098:SER:HA	37:Z:820:ASN:ND2	2.11	0.64
41:d:34:ILE:HG13	41:d:96:MET:HE3	1.78	0.64
43:f:79:PHE:HB2	43:f:142:VAL:HG12	1.79	0.64
45:i:73:GLU:HG3	45:i:93:ARG:HD2	1.79	0.64
4:3:354:C:O2	40:c:174:ASN:ND2	2.30	0.64
4:3:1128:G:N2	4:3:1134:G:O6	2.30	0.64
9:9:1273:GLN:HE22	37:Z:402:ASN:ND2	1.94	0.64
37:Z:906:HIS:HB2	37:Z:987:ARG:HE	1.63	0.64
39:b:48:SER:O	39:b:85:ARG:NH1	2.29	0.64
4:3:1920:A:H62	6:5:1468:A:H1'	1.63	0.64
4:3:2321:C:O4'	41:d:37:ASN:ND2	2.31	0.64
9:9:374:CYS:HB3	9:9:459:VAL:CG1	2.27	0.64
9:9:444:ILE:CG2	9:9:446:PHE:CD1	2.80	0.64
9:9:1285:ARG:HB2	14:AE:17:DT:P	2.37	0.64
9:9:1345:GLU:CD	37:Z:391:ARG:HB3	2.21	0.64
12:AC:139:PHE:CE2	12:AC:147:ILE:CD1	2.73	0.64
14:AE:12:DC:H2''	37:Z:890:TYR:OH	1.96	0.64
15:AF:10:TRP:HB3	15:AF:133:LEU:HD12	1.79	0.64
4:3:512:G:N2	4:3:515:A:N7	2.46	0.64
4:3:700:U:H2'	4:3:701:A:H8	1.61	0.64
4:3:1086:G:H4'	4:3:2760:C:H1'	1.79	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1511:C:N4	4:3:1512:A:N6	2.46	0.64
4:3:1737:G:H2'	4:3:1738:G:C8	2.33	0.64
4:3:2626:A:O2'	39:b:158:ARG:NH1	2.26	0.64
6:5:33:A:H61	6:5:550:U:H3	1.46	0.64
6:5:1429:G:H2'	6:5:1430:G:H8	1.63	0.64
9:9:1342:LEU:HB2	37:Z:398:LEU:HD23	0.65	0.64
4:3:1016:A:N6	4:3:1171:G:OP2	2.31	0.64
4:3:1141:U:H3	35:U:79:LYS:CE	2.10	0.64
4:3:2745:G:H2'	4:3:2746:A:C8	2.32	0.64
6:5:213:U:OP1	6:5:461:G:N2	2.31	0.64
6:5:736:U:OP1	28:N:2:GLN:NE2	2.30	0.64
7:6:276:ARG:HD2	12:AC:323:GLU:OE1	1.98	0.64
11:AA:53:TYR:CE1	11:AA:57:LEU:HD12	2.33	0.64
50:n:2:LYS:HD2	50:n:7:GLN:HB2	1.79	0.64
4:3:312:U:H2'	4:3:313:G:C8	2.32	0.64
4:3:1685:G:H4'	49:m:36:LYS:HD2	1.79	0.64
7:AB:82:LEU:HB3	37:Z:598:GLY:HA3	1.80	0.64
12:AC:289:ILE:C	12:AC:300:ASN:HD21	2.01	0.64
37:Z:897:ASP:OD2	37:Z:1234:PHE:CD2	2.51	0.64
4:3:452:U:H3	4:3:2415:A:H61	1.46	0.64
6:5:1497:U:H2'	6:5:1498:G:H8	1.61	0.64
7:6:107:GLU:N	7:AB:319:HIS:ND1	2.40	0.64
38:a:38:LEU:HD21	38:a:65:LYS:HD3	1.78	0.64
38:a:254:PRO:O	38:a:261:ARG:NH1	2.31	0.64
4:3:1081:A:H2	35:U:58:ILE:CD1	2.11	0.64
4:3:1722:U:O2'	4:3:1734:A:N7	2.30	0.64
4:3:2588:U:H2'	4:3:2589:G:C4	2.33	0.64
4:3:2697:C:OP2	4:3:2699:C:N4	2.31	0.64
6:5:316:G:H2'	6:5:317:A:C8	2.33	0.64
6:5:1436:C:H2'	6:5:1437:A:C8	2.33	0.64
7:6:269:GLU:HG3	7:6:278:PHE:CE2	2.33	0.64
9:9:1149:LEU:HD11	9:9:1181:LEU:HD23	1.79	0.64
9:9:1349:LEU:CD2	37:Z:368:PHE:CB	2.70	0.64
10:A:47:PRO:HB2	10:A:49:ARG:HH12	1.62	0.64
15:AF:137:ASP:CG	37:Z:349:PRO:CG	2.69	0.64
22:H:19:VAL:HG12	22:H:67:VAL:HG22	1.80	0.64
43:f:7:GLN:HB2	43:f:34:LYS:HG2	1.79	0.64
4:3:919:C:H2'	4:3:920:G:H8	1.63	0.64
6:5:749:G:H1'	6:5:751:C:H41	1.63	0.64
9:9:956:ARG:CG	7:AB:296:SER:CA	2.50	0.64
9:9:1002:SER:H	12:AC:109:LYS:HA	1.62	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:88:MET:HB3	37:Z:1212:ILE:HD11	1.78	0.64
12:AC:183:LYS:HB3	12:AC:280:PHE:C	2.22	0.64
21:G:19:LEU:HD22	21:G:87:VAL:HG11	1.79	0.64
37:Z:1069:GLU:OE2	37:Z:1095:ARG:NH1	2.26	0.64
55:s:52:PRO:HA	55:s:85:LEU:HD13	1.77	0.64
1:O:12:ARG:NH1	4:3:500:U:O2'	2.31	0.63
3:2:11:CYS:SG	3:2:12:LYS:N	2.71	0.63
4:3:1010:G:OP2	53:q:77:LYS:NZ	2.31	0.63
9:9:956:ARG:HG2	7:AB:296:SER:CB	2.06	0.63
9:9:1269:LYS:HD2	37:Z:313:ILE:HG21	1.77	0.63
9:9:1297:TYR:CE2	37:Z:501:ARG:O	2.51	0.63
16:B:22:TRP:H	27:M:54:PRO:HG3	1.63	0.63
35:U:40:ILE:HG22	35:U:51:ILE:HD11	1.79	0.63
40:c:144:MET:HE1	40:c:147:LEU:HD23	1.79	0.63
45:i:24:ALA:HA	45:i:64:GLN:HE21	1.63	0.63
4:3:1028:C:OP1	52:p:46:TYR:OH	2.12	0.63
4:3:1119:A:C8	35:U:53:VAL:HG21	2.33	0.63
4:3:1491:G:H2'	4:3:1492:G:C8	2.33	0.63
4:3:1734:A:H3'	4:3:1735:A:H8	1.64	0.63
9:9:376:ARG:CZ	13:AD:20:DG:N7	2.61	0.63
9:9:628:ILE:HD11	9:9:673:LEU:CD1	2.17	0.63
9:9:988:VAL:HG12	9:9:992:GLU:OE2	1.99	0.63
9:9:1200:PHE:HE2	37:Z:864:ILE:HD13	1.62	0.63
9:9:1295:GLU:OE1	37:Z:1260:VAL:HG21	1.99	0.63
4:3:356:A:OP1	40:c:173:SER:OG	2.15	0.63
4:3:1119:A:C8	35:U:53:VAL:CG2	2.80	0.63
4:3:2145:A:H2'	4:3:2146:A:H8	1.63	0.63
6:5:96:G:H5''	29:O:21:LYS:HA	1.80	0.63
9:9:1297:TYR:HE2	37:Z:504:ILE:HB	1.63	0.63
18:D:68:GLU:H	18:D:94:VAL:HG23	1.64	0.63
4:3:892:G:H2'	4:3:893:A:H8	1.62	0.63
4:3:1230:U:H2'	4:3:1231:G:C8	2.33	0.63
4:3:1872:U:N3	4:3:1882:G:N1	2.46	0.63
4:3:2691:C:H41	4:3:2735:G:H21	1.47	0.63
9:9:1371:LEU:N	37:Z:94:ILE:HG23	2.13	0.63
12:AC:183:LYS:CD	12:AC:280:PHE:O	2.43	0.63
2:1:10:ARG:NH1	47:k:59:TYR:O	2.31	0.63
2:1:10:ARG:NH1	47:k:62:LEU:O	2.32	0.63
4:3:552:C:OP1	61:y:13:ARG:NH1	2.31	0.63
4:3:2789:A:H5''	4:3:2790:A:H5'	1.79	0.63
5:4:37:A:O2'	5:4:44:A:N1	2.32	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:1110:C:H2'	6:5:1111:G:H8	1.62	0.63
9:9:168:GLN:O	13:AD:25:DC:C1'	2.47	0.63
9:9:999:PHE:CZ	12:AC:42:TYR:CE2	2.86	0.63
4:3:1119:A:O4'	35:U:53:VAL:HB	1.98	0.63
4:3:1166:G:O2'	4:3:2032:G:O2'	2.14	0.63
5:4:58:C:H2'	5:4:59:A:H8	1.63	0.63
6:5:265:U:H2'	6:5:266:A:H8	1.63	0.63
7:6:269:GLU:HG3	7:6:278:PHE:HE2	1.63	0.63
9:9:342:ARG:HH11	9:9:345:LYS:HD3	1.63	0.63
9:9:1366:ASN:ND2	37:Z:100:MET:CB	2.58	0.63
40:c:71:THR:HG22	40:c:73:LYS:H	1.64	0.63
4:3:85:U:H4'	56:t:2:GLN:HE22	1.63	0.63
4:3:1418:U:H3	4:3:1423:A:N6	1.97	0.63
4:3:1702:A:H62	4:3:1998:U:H3	1.45	0.63
4:3:1748:U:N3	4:3:1751:A:N7	2.47	0.63
9:9:1100:MET:HB3	37:Z:858:PHE:CD2	2.34	0.63
9:9:1352:SER:CB	37:Z:31:TRP:CZ2	2.64	0.63
16:B:57:GLU:O	16:B:67:VAL:HA	1.98	0.63
28:N:35:GLN:O	28:N:39:HIS:ND1	2.32	0.63
51:o:4:ILE:O	51:o:6:LYS:NZ	2.32	0.63
57:u:35:LEU:HD11	57:u:55:ARG:HH11	1.64	0.63
4:3:1020:G:H5''	4:3:1021:C:H5	1.64	0.63
4:3:1446:G:N1	4:3:1612:U:OP2	2.32	0.63
4:3:1511:C:N4	4:3:1512:A:H62	1.96	0.63
6:5:311:A:O2'	6:5:326:C:O2'	2.15	0.63
6:5:709:A:H2'	6:5:710:G:C8	2.34	0.63
6:5:1213:A:N6	6:5:1275:U:C2	2.67	0.63
9:9:999:PHE:CD2	12:AC:108:LEU:CD2	2.81	0.63
9:9:1306:LEU:HA	37:Z:408:VAL:CG1	2.27	0.63
45:i:106:ASN:HA	45:i:109:LYS:HG2	1.81	0.63
4:3:86:A:OP2	4:3:103:G:N2	2.31	0.63
4:3:1204:A:N6	4:3:1212:C:N3	2.46	0.63
6:5:87:G:H2'	6:5:88:A:H8	1.63	0.63
6:5:500:G:H5''	25:K:126:GLN:HA	1.81	0.63
6:5:732:A:OP1	31:Q:91:LYS:NZ	2.30	0.63
9:9:952:ASP:HB2	7:AB:295:LYS:HD3	1.81	0.63
15:AF:108:TRP:HZ3	15:AF:130:PRO:HB3	1.64	0.63
17:C:57:LYS:O	17:C:60:MET:HG3	1.98	0.63
22:H:22:THR:O	22:H:64:ASP:HB3	1.97	0.63
4:3:2299:U:H1'	4:3:2382:A:H1'	1.80	0.62
6:5:403:A:H2'	6:5:404:A:C8	2.34	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:416:U:C2	6:5:421:G:C2	2.87	0.62
6:5:940:G:N2	6:5:1308:G:O2'	2.32	0.62
9:9:661:THR:O	9:9:780:LEU:HD11	1.99	0.62
9:9:995:PHE:CE1	12:AC:38:LEU:CD2	2.78	0.62
9:9:1307:LEU:HB3	37:Z:406:LYS:CE	2.28	0.62
20:F:76:VAL:HG12	20:F:85:GLN:HE22	1.64	0.62
37:Z:687:VAL:HG11	37:Z:802:ARG:NH2	2.08	0.62
4:3:1323:A:H2'	4:3:1324:A:C8	2.34	0.62
4:3:2436:G:H5''	4:3:2437:G:H5'	1.80	0.62
6:5:1261:A:H2'	6:5:1262:A:C8	2.33	0.62
9:9:1223:HIS:C	37:Z:737:PHE:CD2	2.77	0.62
12:AC:220:GLU:HB2	12:AC:240:MET:HE1	1.81	0.62
25:K:115:LEU:HB3	25:K:117:THR:HG22	1.81	0.62
38:a:113:ASP:HB3	38:a:202:VAL:HG23	1.81	0.62
4:3:631:A:H2'	4:3:632:A:C8	2.33	0.62
6:5:518:A:N6	6:5:527:G:H21	1.92	0.62
9:9:614:ASP:H	9:9:624:ASN:HD22	1.47	0.62
9:9:772:GLU:C	37:Z:862:LEU:H	2.02	0.62
9:9:1102:ILE:HD12	37:Z:859:LEU:HA	1.80	0.62
9:9:1298:GLY:HA2	37:Z:1266:ILE:HD11	1.79	0.62
26:L:15:ILE:HG21	26:L:39:ILE:HG21	1.81	0.62
38:a:138:LEU:HD23	38:a:141:ILE:HD12	1.81	0.62
4:3:782:U:H3	4:3:2021:A:H1'	1.64	0.62
4:3:1367:G:H5''	55:s:15:LYS:HD2	1.80	0.62
4:3:2859:U:H2'	4:3:2860:A:H8	1.64	0.62
6:5:1448:A:H2'	6:5:1449:G:C8	2.35	0.62
9:9:363:GLU:HG2	9:9:379:ARG:NH1	2.13	0.62
7:AB:283:ARG:NH1	12:AC:79:ASP:OD1	2.32	0.62
18:D:192:ILE:O	18:D:195:THR:OG1	2.15	0.62
37:Z:19:LYS:HE3	37:Z:1248:THR:HG22	1.80	0.62
4:3:1043:C:H4'	45:i:113:PRO:HD3	1.82	0.62
4:3:2321:C:H2'	4:3:2322:G:C8	2.34	0.62
5:4:79:U:H2'	5:4:80:G:C4	2.34	0.62
6:5:831:C:H2'	6:5:832:G:C8	2.35	0.62
6:5:1302:C:H5''	26:L:28:SER:HB3	1.82	0.62
9:9:205:GLU:O	9:9:252:ARG:CZ	2.47	0.62
10:A:146:LYS:O	10:A:150:LEU:HB2	1.99	0.62
14:AE:12:DC:H5''	37:Z:1235:GLN:CB	2.29	0.62
16:B:153:LYS:NZ	16:B:154:VAL:O	2.32	0.62
33:S:66:ARG:HA	33:S:69:LYS:HE2	1.81	0.62
4:3:614:C:OP1	52:p:30:SER:OG	2.17	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1034:A:H5''	52:p:83:LYS:HZ3	1.64	0.62
4:3:1306:G:H2'	4:3:1307:G:H8	1.64	0.62
4:3:1712:A:O2'	4:3:1997:C:O2'	2.16	0.62
4:3:2590:G:N2	4:3:2591:G:H22	1.96	0.62
6:5:320:G:N1	6:5:323:A:OP2	2.29	0.62
9:9:1336:PRO:CG	37:Z:406:LYS:HZ3	2.12	0.62
41:d:106:VAL:HG11	41:d:139:PRO:HD3	1.81	0.62
4:3:201:A:N6	4:3:2438:A:O2'	2.33	0.62
4:3:389:C:H2'	4:3:390:A:C8	2.35	0.62
4:3:2757:A:H1'	42:e:66:ILE:HG12	1.82	0.62
9:9:100:LEU:HD13	9:9:591:ILE:CD1	2.30	0.62
4:3:603:G:H1'	4:3:1019:A:N1	2.14	0.62
4:3:1700:G:O2'	46:j:5:MET:O	2.16	0.62
4:3:2307:G:H1	4:3:2325:U:H3	1.45	0.62
5:4:12:U:H2'	5:4:13:G:H21	1.64	0.62
5:4:40:U:O2	41:d:63:GLN:NE2	2.33	0.62
6:5:670:G:H2'	6:5:671:G:C8	2.34	0.62
9:9:628:ILE:CD1	9:9:673:LEU:HD12	2.22	0.62
9:9:1351:LEU:HD11	37:Z:113:TRP:CE3	2.34	0.62
11:AA:55:ASP:OD1	37:Z:913:LYS:NZ	2.30	0.62
20:F:147:ASN:HB2	20:F:150:PHE:HD2	1.62	0.62
33:S:48:TYR:CE1	33:S:69:LYS:HD2	2.35	0.62
39:b:10:LYS:HD3	39:b:197:ILE:HB	1.80	0.62
4:3:2528:C:H2'	4:3:2529:C:C6	2.34	0.62
6:5:831:C:H2'	6:5:832:G:H8	1.64	0.62
6:5:1213:A:N6	6:5:1275:U:H3	1.96	0.62
6:5:1330:A:H2'	6:5:1331:A:H8	1.64	0.62
9:9:90:LYS:NZ	9:9:1034:GLU:HB3	2.15	0.62
9:9:227:THR:HG21	9:9:254:LEU:HG	1.82	0.62
9:9:999:PHE:HB3	12:AC:108:LEU:C	2.18	0.62
9:9:1310:LYS:CA	37:Z:409:ASP:HB2	2.29	0.62
9:9:1344:LYS:HG3	37:Z:309:ILE:HD11	1.66	0.62
12:AC:157:ASN:C	37:Z:76:ILE:CG1	2.46	0.62
23:I:9:TYR:HB3	23:I:85:VAL:HB	1.82	0.62
32:R:19:VAL:HG21	32:R:44:PHE:HE1	1.64	0.62
40:c:54:THR:H	40:c:57:GLU:HB2	1.63	0.62
56:t:90:LYS:NZ	56:t:104:PHE:O	2.33	0.62
4:3:611:A:H2'	4:3:2025:C:H5''	1.81	0.62
4:3:1999:G:H22	4:3:2003:C:H1'	1.64	0.62
4:3:2031:C:H2'	4:3:2032:G:H8	1.65	0.62
6:5:305:A:O2'	6:5:605:A:N1	2.32	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:1288:C:H2'	6:5:1289:U:H6	1.64	0.62
9:9:1095:GLY:O	9:9:1099:ARG:HD2	2.00	0.62
7:AB:293:LEU:HD11	7:AB:323:LEU:HD13	1.81	0.62
12:AC:239:LYS:NZ	12:AC:294:LYS:CD	2.63	0.62
15:AF:124:SER:HB3	37:Z:142:VAL:CG1	2.25	0.62
17:C:78:VAL:HG11	17:C:89:LEU:HB3	1.82	0.62
37:Z:742:TYR:HE1	37:Z:745:LYS:HB3	1.64	0.62
53:q:39:LEU:HA	53:q:50:LEU:HG	1.81	0.62
4:3:163:A:N7	4:3:169:U:O4	2.32	0.61
4:3:1287:C:OP1	40:c:73:LYS:NZ	2.31	0.61
4:3:2090:G:N2	4:3:2244:U:O2	2.32	0.61
4:3:2195:U:H2'	4:3:2196:G:H8	1.64	0.61
5:4:4:G:O6	5:4:105:A:N6	2.33	0.61
6:5:474:G:H2'	6:5:475:U:C6	2.35	0.61
6:5:1507:U:OP2	6:5:1509:A:N6	2.33	0.61
9:9:1212:MET:SD	37:Z:737:PHE:HZ	2.23	0.61
4:3:1382:A:H62	4:3:1405:G:N2	1.94	0.61
6:5:655:G:O6	6:5:744:U:O2	2.19	0.61
9:9:647:ASP:HB3	37:Z:835:PHE:CE2	2.36	0.61
9:9:1269:LYS:HZ3	37:Z:313:ILE:HA	1.66	0.61
9:9:1349:LEU:HA	37:Z:368:PHE:CG	2.29	0.61
10:A:201:LEU:HD12	10:A:217:ALA:HB3	1.83	0.61
49:m:60:ARG:HA	49:m:63:VAL:HG22	1.82	0.61
4:3:485:A:H1'	52:p:2:ARG:NH1	2.15	0.61
4:3:1476:C:H2'	4:3:1477:A:C8	2.35	0.61
4:3:1794:A:OP1	38:a:246:ARG:NH2	2.33	0.61
4:3:2144:C:H2'	4:3:2145:A:H8	1.65	0.61
6:5:319:U:H3	6:5:323:A:N6	1.89	0.61
6:5:397:C:O3'	17:C:73:ARG:NH2	2.33	0.61
4:3:33:C:O2'	4:3:1268:U:OP1	2.17	0.61
4:3:686:C:H2'	4:3:687:G:H8	1.65	0.61
4:3:2645:U:O4	4:3:2784:A:N7	2.33	0.61
4:3:2735:G:H2'	4:3:2736:U:C6	2.35	0.61
5:4:31:G:O6	5:4:48:A:N6	2.34	0.61
6:5:394:U:H2'	6:5:395:G:H8	1.64	0.61
9:9:1336:PRO:CG	37:Z:406:LYS:NZ	2.63	0.61
10:A:32:MET:SD	10:A:203:ASN:ND2	2.71	0.61
15:AF:93:LEU:O	37:Z:338:ARG:NH2	2.33	0.61
52:p:9:THR:O	52:p:13:ARG:HG3	2.01	0.61
4:3:638:A:C6	4:3:661:G:C6	2.88	0.61
4:3:1462:A:O2'	4:3:1463:G:O5'	2.18	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1345:GLU:O	37:Z:388:LEU:HD22	2.01	0.61
7:AB:304:ARG:O	12:AC:81:PHE:CZ	2.54	0.61
16:B:153:LYS:HB3	16:B:204:TRP:HB2	1.82	0.61
45:i:47:PHE:HB3	52:p:63:ARG:HD3	1.83	0.61
52:p:108:ILE:HA	52:p:111:LYS:HE2	1.82	0.61
54:r:115:GLN:HA	54:r:118:ILE:HD12	1.81	0.61
56:t:44:ARG:HG3	56:t:63:VAL:HB	1.83	0.61
4:3:31:U:O2'	52:p:7:LYS:NZ	2.32	0.61
4:3:742:G:O6	4:3:759:U:O4	2.19	0.61
4:3:869:U:H2'	4:3:870:A:C8	2.35	0.61
4:3:896:U:H2'	4:3:897:A:H8	1.64	0.61
4:3:2469:A:N1	4:3:2498:G:N2	2.48	0.61
6:5:185:G:O2'	30:P:67:ARG:NH2	2.33	0.61
6:5:838:A:OP2	19:E:105:GLN:NE2	2.33	0.61
9:9:30:GLN:HG3	9:9:676:PHE:CE1	2.36	0.61
9:9:952:ASP:HB3	7:AB:295:LYS:HD3	1.82	0.61
9:9:1356:ILE:O	37:Z:15:ILE:HG23	2.01	0.61
11:AA:68:ARG:HH21	37:Z:1207:MET:HB2	1.65	0.61
48:l:54:ILE:O	48:l:58:LEU:HB2	2.01	0.61
4:3:205:C:OP1	58:v:18:ARG:NH2	2.30	0.61
6:5:870:A:O3'	21:G:89:GLN:NE2	2.34	0.61
9:9:956:ARG:C	7:AB:296:SER:CB	2.74	0.61
25:K:120:VAL:HG23	25:K:132:ALA:HB2	1.82	0.61
49:m:34:THR:HB	49:m:37:LYS:HG3	1.82	0.61
4:3:729:U:H3	4:3:803:G:H1	1.46	0.61
4:3:1012:G:H2'	4:3:1013:G:H8	1.66	0.61
15:AF:31:LYS:HA	15:AF:36:ASP:OD1	2.00	0.61
25:K:50:VAL:HG21	25:K:87:LEU:HD13	1.81	0.61
4:3:2057:C:H2'	4:3:2058:G:C4	2.36	0.61
4:3:2093:U:H2'	4:3:2094:A:C8	2.36	0.61
6:5:1115:G:N2	6:5:1116:U:O4	2.33	0.61
10:A:96:VAL:HA	10:A:229:MET:HE1	1.81	0.61
16:B:38:GLU:HA	16:B:41:ARG:HG3	1.83	0.61
16:B:90:LYS:HD3	16:B:93:LYS:HZ1	1.66	0.61
4:3:26:G:N2	54:r:78:GLN:OE1	2.34	0.61
4:3:1702:A:N7	4:3:1998:U:O4	2.34	0.61
5:4:12:U:OP2	5:4:68:C:O2'	2.18	0.61
6:5:70:A:H2'	6:5:71:A:C8	2.36	0.61
6:5:358:G:OP1	25:K:44:ARG:NH1	2.34	0.61
6:5:893:C:H3'	6:5:894:A:C8	2.36	0.61
9:9:288:ARG:HB3	9:9:298:ARG:HH22	1.66	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:863:LEU:CD1	9:9:878:ASP:OD2	2.49	0.61
9:9:998:ILE:C	12:AC:108:LEU:HB3	2.25	0.61
9:9:998:ILE:CG1	12:AC:62:MET:HE1	2.30	0.61
9:9:1307:LEU:C	37:Z:406:LYS:HD2	2.26	0.61
23:I:27:THR:HG21	23:I:102:VAL:HG21	1.81	0.61
48:l:34:LEU:HD11	48:l:129:TRP:HB2	1.83	0.61
4:3:869:U:O4	4:3:980:C:N4	2.35	0.60
4:3:2385:A:H1'	50:n:110:ARG:HH22	1.65	0.60
5:4:16:G:O6	5:4:63:U:O2	2.18	0.60
6:5:1241:G:N1	6:5:1245:A:N6	2.49	0.60
7:6:107:GLU:CD	7:AB:319:HIS:HB2	2.25	0.60
7:6:113:THR:HG22	7:6:154:ASN:OD1	1.99	0.60
9:9:796:TYR:HA	9:9:883:ASN:HD22	1.66	0.60
9:9:1349:LEU:C	37:Z:368:PHE:CE1	2.78	0.60
9:9:1371:LEU:N	37:Z:94:ILE:CG2	2.63	0.60
12:AC:5:SER:HB2	12:AC:61:LEU:HD23	1.82	0.60
12:AC:239:LYS:HZ1	12:AC:294:LYS:CD	2.13	0.60
15:AF:65:SER:OG	15:AF:67:LYS:HG3	2.01	0.60
21:G:97:ILE:HG23	21:G:99:ARG:HH22	1.66	0.60
4:3:2274:A:N6	4:3:2281:A:OP2	2.34	0.60
4:3:2855:A:N3	49:m:58:ASN:ND2	2.47	0.60
6:5:576:A:O2'	6:5:725:A:N3	2.33	0.60
6:5:1166:A:OP2	16:B:3:GLN:NE2	2.35	0.60
6:5:1200:G:H2'	26:L:103:ARG:HH22	1.64	0.60
9:9:1001:GLU:CB	12:AC:109:LYS:HB3	2.31	0.60
9:9:1102:ILE:HD11	37:Z:859:LEU:HA	1.81	0.60
12:AC:153:ASP:OD2	37:Z:75:LYS:CE	2.48	0.60
46:j:98:ILE:HG12	46:j:114:ILE:HG23	1.82	0.60
50:n:34:LYS:HD3	50:n:102:ILE:HD11	1.83	0.60
6:5:94:A:N7	6:5:320:G:N2	2.47	0.60
6:5:565:G:N7	25:K:12:ARG:NH1	2.45	0.60
6:5:659:U:H3	6:5:740:G:H1	1.48	0.60
6:5:1112:U:O2	6:5:1128:G:N2	2.28	0.60
7:6:107:GLU:OE2	7:AB:319:HIS:CB	2.49	0.60
9:9:271:GLU:OE2	9:9:342:ARG:NH1	2.34	0.60
14:AE:13:DA:OP1	37:Z:890:TYR:HE2	1.84	0.60
25:K:27:ASN:OD1	25:K:36:THR:OG1	2.20	0.60
39:b:180:ARG:NH1	39:b:218:LYS:O	2.31	0.60
48:l:39:GLY:N	48:l:99:GLN:OE1	2.35	0.60
2:1:9:LYS:NZ	4:3:253:C:O2	2.32	0.60
4:3:672:G:H4'	4:3:674:G:H4'	1.84	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1141:U:C1'	35:U:79:LYS:HG2	2.27	0.60
4:3:2829:G:N2	4:3:2829:G:OP2	2.31	0.60
9:9:1310:LYS:CG	37:Z:409:ASP:HB2	2.30	0.60
12:AC:290:TRP:HE1	12:AC:293:ASP:CG	2.02	0.60
15:AF:149:SER:HB2	15:AF:156:VAL:HG23	1.82	0.60
36:X:6:ILE:HD11	36:Y:23:ALA:CB	2.27	0.60
37:Z:880:ASP:OD2	37:Z:1030:ARG:HD2	2.00	0.60
56:t:31:ARG:HG3	56:t:33:GLN:HG2	1.83	0.60
4:3:2032:G:H2'	4:3:2033:G:H8	1.67	0.60
4:3:2754:U:O2	4:3:2766:A:N6	2.33	0.60
6:5:1003:G:O6	6:5:1018:U:C4	2.54	0.60
9:9:794:LYS:O	9:9:891:GLN:NE2	2.33	0.60
11:AA:42:LYS:O	21:G:126:LYS:C	2.43	0.60
12:AC:8:PHE:N	12:AC:60:GLY:O	2.30	0.60
17:C:99:ASN:HA	17:C:110:ARG:HG2	1.81	0.60
17:C:139:GLY:N	17:C:178:TYR:O	2.34	0.60
25:K:60:SER:O	25:K:63:ARG:NH1	2.35	0.60
45:i:98:LYS:HA	45:i:98:LYS:HE3	1.83	0.60
4:3:204:U:O4	4:3:254:G:N2	2.26	0.60
4:3:1619:A:H2'	4:3:1620:A:C8	2.36	0.60
4:3:1764:U:C2	4:3:1769:A:C6	2.89	0.60
6:5:983:G:H21	6:5:1012:A:H8	1.49	0.60
6:5:1115:G:H4'	23:I:43:LYS:HD2	1.82	0.60
6:5:1241:G:N1	6:5:1245:A:C6	2.69	0.60
9:9:341:GLU:OE1	9:9:368:SER:OG	2.15	0.60
12:AC:219:LEU:HD23	12:AC:240:MET:SD	2.42	0.60
38:a:125:GLU:OE1	43:f:89:TYR:OH	2.19	0.60
39:b:117:ARG:HD2	39:b:169:TYR:HD2	1.65	0.60
48:l:75:THR:HG22	48:l:90:PRO:HG3	1.84	0.60
4:3:2133:A:N6	4:3:2180:U:OP2	2.35	0.60
13:AD:16:DG:C5'	15:AF:16:SER:HB2	2.31	0.60
22:H:12:ARG:O	22:H:15:SER:HB2	2.02	0.60
38:a:213:ILE:HG23	38:a:222:ARG:HH22	1.66	0.60
61:y:27:LEU:HD12	61:y:28:SER:H	1.67	0.60
4:3:764:G:N2	38:a:12:SER:O	2.34	0.60
4:3:2822:C:H2'	4:3:2823:A:C8	2.36	0.60
6:5:689:U:O4	24:J:21:ASN:ND2	2.33	0.60
9:9:65:ARG:HB3	9:9:562:ASP:OD1	2.01	0.60
9:9:1135:LEU:HD23	9:9:1146:LEU:HD22	1.83	0.60
37:Z:876:LYS:HG2	37:Z:1030:ARG:NH1	1.81	0.60
41:d:104:ILE:HG22	41:d:108:LEU:HD12	1.83	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1081:A:N6	35:U:4:LYS:O	2.35	0.60
4:3:1208:A:H2'	4:3:1209:U:H4'	1.83	0.60
5:4:11:A:OP2	57:u:90:GLN:NE2	2.34	0.60
6:5:65:G:H5''	6:5:378:A:H61	1.67	0.60
6:5:195:U:H2'	6:5:196:G:C8	2.37	0.60
8:7:53:A:H4'	48:l:6:ARG:HH12	1.67	0.60
9:9:997:ALA:HB1	12:AC:8:PHE:HD1	1.66	0.60
12:AC:196:VAL:HG21	12:AC:217:ARG:NE	2.16	0.60
4:3:559:C:O2'	4:3:589:A:OP1	2.19	0.60
4:3:1142:G:C2'	35:U:78:GLY:CA	2.67	0.60
4:3:2720:C:OP1	4:3:2722:G:O2'	2.18	0.60
6:5:68:C:H2'	6:5:69:G:C8	2.36	0.60
6:5:215:C:N4	6:5:216:G:O6	2.35	0.60
4:3:95:G:H2'	4:3:96:A:C8	2.37	0.59
4:3:1093:U:H3	4:3:1115:G:H1	1.51	0.59
4:3:1414:C:H2'	4:3:1415:A:H8	1.65	0.59
4:3:2376:C:H2'	4:3:2377:A:H8	1.67	0.59
9:9:170:LYS:HZ2	13:AD:25:DC:H5'	1.67	0.59
9:9:1349:LEU:HG	37:Z:388:LEU:HB3	1.81	0.59
7:AB:304:ARG:NH1	12:AC:48:TYR:CE1	2.70	0.59
35:U:161:LYS:HE3	36:Y:17:ILE:HD11	1.84	0.59
38:a:190:ARG:NH1	38:a:191:LYS:O	2.35	0.59
40:c:32:GLN:NE2	40:c:36:ASP:OD2	2.35	0.59
4:3:1495:A:OP2	4:3:1548:A:N6	2.35	0.59
4:3:2092:U:H3	4:3:2242:G:H1	1.50	0.59
4:3:2603:G:N2	4:3:2606:A:OP2	2.35	0.59
6:5:435:U:H4'	17:C:119:HIS:HB3	1.83	0.59
9:9:175:ARG:CZ	13:AD:26:DT:C6	2.83	0.59
12:AC:182:SER:HB3	12:AC:280:PHE:CD1	2.36	0.59
4:3:746:G:H2'	4:3:747:A:H8	1.67	0.59
4:3:869:U:H2'	4:3:870:A:H8	1.67	0.59
4:3:918:G:N2	4:3:932:U:O2'	2.27	0.59
4:3:1261:U:H2'	4:3:1262:G:C8	2.38	0.59
4:3:1418:U:N3	4:3:1423:A:N6	2.51	0.59
4:3:1436:C:H2'	4:3:1437:A:H8	1.67	0.59
4:3:2604:U:O2'	4:3:2605:G:OP1	2.20	0.59
6:5:893:C:H3'	6:5:894:A:H8	1.67	0.59
6:5:941:A:H2'	6:5:942:G:C8	2.38	0.59
14:AE:11:DT:C4'	37:Z:1236:ASP:OD1	2.50	0.59
19:E:49:ILE:HG23	19:E:50:LYS:H	1.67	0.59
23:I:61:PRO:HA	27:M:41:ARG:HH12	1.67	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:M:6:LEU:HD13	27:M:23:ARG:HD3	1.83	0.59
38:a:269:ASN:O	38:a:272:LYS:NZ	2.35	0.59
40:c:128:VAL:HG13	40:c:132:LEU:HD21	1.84	0.59
4:3:1588:A:H2'	4:3:1589:A:C8	2.37	0.59
6:5:1130:G:H2'	6:5:1131:A:H8	1.67	0.59
9:9:71:LYS:HE3	9:9:101:GLU:OE2	2.02	0.59
9:9:539:ILE:HG22	9:9:543:LEU:HD12	1.85	0.59
9:9:779:ALA:HB3	37:Z:867:TYR:OH	2.02	0.59
9:9:952:ASP:HB2	7:AB:295:LYS:CE	2.27	0.59
15:AF:94:GLY:C	37:Z:338:ARG:NH2	2.60	0.59
15:AF:108:TRP:NE1	15:AF:112:ARG:NH2	2.49	0.59
17:C:64:TYR:CZ	17:C:93:LEU:HB3	2.36	0.59
45:i:117:LEU:O	45:i:121:TRP:N	2.34	0.59
4:3:1298:A:H62	4:3:2019:G:H21	1.49	0.59
4:3:1305:G:H2'	4:3:1306:G:C8	2.36	0.59
4:3:2812:U:H5'	4:3:2895:A:C8	2.38	0.59
6:5:48:C:N4	6:5:356:G:O6	2.35	0.59
6:5:1245:A:HO2'	6:5:1287:G:HO2'	1.51	0.59
9:9:89:SER:HA	9:9:146:GLY:HA3	1.84	0.59
9:9:863:LEU:CD1	9:9:878:ASP:CG	2.76	0.59
9:9:1223:HIS:O	37:Z:737:PHE:CD2	2.56	0.59
9:9:1297:TYR:CZ	37:Z:501:ARG:O	2.56	0.59
37:Z:669:LYS:HE3	37:Z:670:PHE:CE2	2.37	0.59
38:a:61:ARG:HH21	38:a:64:ARG:HE	1.49	0.59
43:f:81:LEU:HD21	43:f:90:GLY:HA3	1.85	0.59
53:q:95:VAL:HG13	53:q:96:ARG:HG3	1.85	0.59
3:2:24:ARG:NH1	4:3:2750:A:OP2	2.32	0.59
4:3:8:A:H2'	4:3:9:G:C8	2.37	0.59
4:3:28:G:O6	4:3:29:G:N2	2.36	0.59
6:5:677:C:H2'	6:5:678:A:H8	1.68	0.59
6:5:1344:C:OP1	22:H:116:LYS:N	2.28	0.59
6:5:1407:A:H5''	51:o:110:LYS:HG3	1.83	0.59
9:9:169:LEU:HD11	9:9:187:LEU:CD1	2.32	0.59
9:9:1269:LYS:CE	37:Z:313:ILE:CG2	2.58	0.59
9:9:1330:PHE:CZ	37:Z:542:LEU:HD13	2.38	0.59
20:F:41:ILE:HD12	20:F:116:LEU:HD21	1.85	0.59
35:U:149:LYS:NZ	36:V:29:GLY:O	2.35	0.59
40:c:7:ILE:HD11	40:c:126:HIS:HB2	1.84	0.59
40:c:116:TRP:HZ2	40:c:186:VAL:HG21	1.67	0.59
4:3:1142:G:O2'	35:U:78:GLY:N	2.36	0.59
4:3:2253:U:H5''	4:3:2254:G:H5'	1.84	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2704:U:H2'	4:3:2705:G:H8	1.68	0.59
6:5:727:G:O2'	6:5:811:A:N6	2.35	0.59
9:9:131:THR:HG21	9:9:600:ILE:CD1	2.32	0.59
9:9:647:ASP:CB	37:Z:835:PHE:CE2	2.85	0.59
9:9:1307:LEU:CA	37:Z:406:LYS:CD	2.64	0.59
9:9:1325:VAL:HG11	37:Z:464:ILE:CG2	2.15	0.59
7:AB:175:SER:OG	7:AB:178:ILE:HD12	2.02	0.59
26:L:107:ARG:HG3	26:L:110:LYS:HB2	1.84	0.59
40:c:172:THR:HA	40:c:178:VAL:HG23	1.83	0.59
50:n:54:SER:O	50:n:80:LYS:NZ	2.36	0.59
2:1:21:ARG:NH1	2:1:22:LYS:O	2.36	0.59
4:3:53:G:H21	4:3:119:A:H62	1.48	0.59
6:5:810:U:OP2	6:5:813:A:N6	2.36	0.59
6:5:934:G:H4'	20:F:101:ARG:HH22	1.68	0.59
6:5:1062:C:H2'	6:5:1063:G:H8	1.68	0.59
6:5:1225:A:H2'	6:5:1226:A:C8	2.38	0.59
9:9:264:PHE:CZ	9:9:342:ARG:HG2	2.34	0.59
14:AE:14:DG:C4'	37:Z:890:TYR:N	2.65	0.59
17:C:145:LYS:HD3	17:C:147:LYS:HE2	1.85	0.59
20:F:149:ALA:HB3	24:J:49:ARG:NH1	2.18	0.59
4:3:615:G:H2'	4:3:616:G:H8	1.67	0.59
4:3:788:G:H2'	4:3:789:A:H8	1.68	0.59
4:3:872:C:N4	4:3:978:G:O6	2.35	0.59
4:3:1345:G:H2'	4:3:1346:G:H8	1.67	0.59
4:3:2031:C:H2'	4:3:2032:G:C8	2.38	0.59
6:5:448:A:N6	6:5:478:G:OP2	2.35	0.59
6:5:621:C:O2	29:O:5:ARG:NH2	2.36	0.59
6:5:1397:G:H2'	6:5:1398:G:H8	1.66	0.59
9:9:100:LEU:HD13	9:9:591:ILE:HD11	1.85	0.59
12:AC:239:LYS:CD	12:AC:294:LYS:H	2.16	0.59
14:AE:12:DC:C4'	37:Z:1235:GLN:OE1	2.51	0.59
29:O:5:ARG:HB2	29:O:8:TYR:HB3	1.84	0.59
37:Z:100:MET:SD	37:Z:306:PRO:HD3	2.43	0.59
59:w:16:VAL:HG21	59:w:67:GLU:HB3	1.85	0.59
2:1:36:LYS:HG3	2:1:40:HIS:CE1	2.38	0.59
4:3:593:C:O2'	52:p:47:ARG:NH2	2.35	0.59
4:3:1081:A:C2	35:U:7:LYS:HD3	2.34	0.59
4:3:1103:G:O2'	4:3:1131:A:N3	2.36	0.59
6:5:433:C:H2'	6:5:434:U:C6	2.38	0.59
10:A:61:GLN:NE2	10:A:216:PRO:O	2.34	0.59
17:C:168:GLU:CD	37:Z:30:ASN:CG	2.71	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:499:G:N2	4:3:502:A:OP2	2.33	0.58
4:3:1332:A:N1	4:3:1659:C:N4	2.50	0.58
4:3:1833:G:O2'	4:3:1978:U:OP2	2.21	0.58
4:3:2700:C:H2'	4:3:2701:A:H8	1.67	0.58
7:6:105:PRO:HB3	7:AB:320:GLU:CA	2.33	0.58
9:9:1336:PRO:HG2	37:Z:406:LYS:NZ	2.17	0.58
51:o:53:LEU:HB3	51:o:101:ILE:O	2.03	0.58
4:3:734:A:H62	4:3:768:G:H21	1.51	0.58
4:3:2299:U:O4	4:3:2349:G:O6	2.20	0.58
6:5:823:C:O2	21:G:24:ASN:ND2	2.33	0.58
6:5:1384:A:H2'	6:5:1385:A:H8	1.67	0.58
9:9:44:PHE:HA	9:9:48:ASP:HB2	1.85	0.58
9:9:1310:LYS:HD3	37:Z:409:ASP:C	2.20	0.58
19:E:5:ILE:HG12	19:E:62:PHE:HE1	1.68	0.58
20:F:24:ARG:NH2	20:F:96:ILE:HD12	2.17	0.58
22:H:120:LEU:HD13	22:H:124:ARG:HA	1.85	0.58
40:c:112:LEU:O	40:c:116:TRP:HD1	1.86	0.58
61:y:12:ARG:HA	61:y:15:LYS:HG2	1.83	0.58
4:3:192:U:O4	4:3:212:G:O6	2.21	0.58
4:3:784:A:N7	4:3:1652:A:N6	2.52	0.58
4:3:947:A:H62	48:l:12:PRO:HA	1.69	0.58
4:3:2655:U:H2'	4:3:2656:G:C8	2.38	0.58
6:5:287:U:N3	6:5:306:G:C6	2.71	0.58
6:5:573:G:H4'	6:5:574:C:H5''	1.85	0.58
6:5:663:G:O6	6:5:737:U:O2	2.21	0.58
6:5:1406:U:H3	6:5:1444:G:H1	1.49	0.58
9:9:68:ILE:HD12	9:9:554:LEU:HD21	1.85	0.58
9:9:644:ASP:O	37:Z:835:PHE:CZ	2.57	0.58
9:9:1297:TYR:CE2	37:Z:504:ILE:O	2.56	0.58
7:AB:35:VAL:HG21	7:AB:207:ASP:HB3	1.86	0.58
12:AC:135:VAL:HG22	12:AC:169:LEU:O	2.04	0.58
14:AE:14:DG:H4'	37:Z:889:GLY:C	2.28	0.58
16:B:90:LYS:HA	16:B:93:LYS:HZ3	1.67	0.58
19:E:4:ASN:HB2	19:E:88:ILE:HB	1.86	0.58
6:5:164:C:OP2	33:S:53:ARG:NH1	2.33	0.58
6:5:1068:G:N2	6:5:1071:A:OP2	2.36	0.58
9:9:585:LEU:CD2	9:9:590:LEU:HD21	2.34	0.58
10:A:21:ALA:HB2	10:A:65:LEU:HD23	1.85	0.58
16:B:50:ASN:O	16:B:52:GLN:NE2	2.36	0.58
49:m:81:HIS:CE1	49:m:85:LYS:HD3	2.39	0.58
3:2:10:ILE:HD12	3:2:32:HIS:HA	1.84	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1301:G:H22	4:3:1649:C:H42	1.50	0.58
4:3:1909:C:H5''	38:a:249:VAL:HG11	1.85	0.58
6:5:369:A:H61	6:5:387:G:H1'	1.69	0.58
6:5:473:A:O2'	6:5:474:G:O4'	2.14	0.58
6:5:680:G:O6	6:5:705:A:N6	2.36	0.58
6:5:1141:U:HO2'	6:5:1142:G:H8	1.49	0.58
6:5:1326:C:H2'	6:5:1327:G:C8	2.38	0.58
9:9:182:TYR:CD1	9:9:514:ILE:HG22	2.39	0.58
9:9:1297:TYR:HB3	37:Z:554:LEU:HD21	1.86	0.58
9:9:1347:GLN:CD	37:Z:100:MET:CE	2.75	0.58
7:AB:163:PHE:CZ	37:Z:606:ALA:HB2	2.39	0.58
12:AC:136:MET:O	12:AC:140:ILE:HB	2.03	0.58
20:F:24:ARG:HH22	20:F:96:ILE:HD12	1.69	0.58
37:Z:884:LYS:NZ	37:Z:1028:THR:HA	2.19	0.58
37:Z:1216:PHE:CE1	37:Z:1224:LYS:NZ	2.70	0.58
41:d:42:ASP:OD1	41:d:43:ALA:N	2.37	0.58
2:1:35:THR:HA	2:1:38:LYS:HB2	1.84	0.58
4:3:247:U:C2	4:3:259:A:N7	2.71	0.58
4:3:489:A:N3	4:3:493:A:O2'	2.36	0.58
4:3:2032:G:H2'	4:3:2033:G:C8	2.39	0.58
6:5:704:U:H2'	6:5:705:A:C8	2.38	0.58
6:5:1208:G:O2'	6:5:1340:G:OP1	2.22	0.58
9:9:171:LEU:HD13	9:9:212:LEU:CD2	2.33	0.58
9:9:1223:HIS:O	37:Z:737:PHE:HD2	1.84	0.58
13:AD:25:DC:H3'	13:AD:26:DT:C5'	2.33	0.58
37:Z:429:ILE:HD11	37:Z:491:VAL:HG21	1.85	0.58
4:3:61:U:O4	4:3:70:G:O6	2.20	0.58
4:3:1172:G:H21	45:i:111:MET:HA	1.68	0.58
4:3:2294:A:H1'	4:3:2295:A:C5	2.38	0.58
4:3:2814:A:H2'	4:3:2815:G:O4'	2.04	0.58
6:5:22:G:H2'	6:5:23:G:C8	2.38	0.58
6:5:519:G:N7	25:K:63:ARG:NH2	2.51	0.58
6:5:1089:C:OP2	10:A:158:ARG:NH2	2.37	0.58
6:5:1329:G:H2'	6:5:1330:A:H8	1.69	0.58
9:9:659:ILE:O	9:9:780:LEU:CD1	2.51	0.58
9:9:999:PHE:CG	12:AC:108:LEU:CD2	2.87	0.58
9:9:1307:LEU:HB3	37:Z:406:LYS:CD	2.32	0.58
9:9:1349:LEU:CD2	37:Z:368:PHE:HB3	2.34	0.58
10:A:93:LYS:NZ	10:A:109:THR:O	2.36	0.58
7:AB:141:TYR:OH	7:AB:144:SER:HB2	2.03	0.58
42:e:57:ARG:HG3	42:e:68:HIS:HD2	1.69	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:70:G:N2	4:3:76:A:O4'	2.35	0.58
4:3:529:G:H4'	54:r:6:LYS:HB2	1.86	0.58
4:3:739:G:O2'	4:3:761:G:N1	2.25	0.58
4:3:2794:U:H5''	39:b:72:LYS:HD2	1.86	0.58
6:5:834:G:H2'	6:5:835:G:C8	2.39	0.58
6:5:1388:A:H2	6:5:1462:G:H22	1.52	0.58
9:9:634:GLY:CA	13:AD:24:DT:H72	2.27	0.58
9:9:998:ILE:HG21	12:AC:62:MET:HE3	1.69	0.58
9:9:1269:LYS:CB	37:Z:313:ILE:CD1	2.80	0.58
21:G:97:ILE:HG23	21:G:99:ARG:NH2	2.17	0.58
37:Z:488:ASP:C	37:Z:551:ARG:HH21	2.12	0.58
40:c:128:VAL:HG21	40:c:198:LEU:HB2	1.86	0.58
61:y:27:LEU:HD11	61:y:36:LYS:HE3	1.84	0.58
4:3:1316:U:O2'	4:3:1681:G:N2	2.35	0.58
6:5:373:A:H2'	6:5:374:G:H8	1.69	0.58
6:5:585:G:N1	6:5:751:C:OP2	2.37	0.58
6:5:715:A:H5''	6:5:716:C:H5	1.69	0.58
6:5:885:U:H2'	6:5:886:A:H8	1.67	0.58
9:9:1100:MET:HB3	37:Z:858:PHE:CE2	2.39	0.58
14:AE:12:DC:C5'	37:Z:1235:GLN:OE1	2.52	0.58
29:O:48:VAL:HG23	29:O:52:TRP:CZ3	2.38	0.58
4:3:1081:A:C2'	35:U:7:LYS:HZ2	2.16	0.58
9:9:1310:LYS:HA	37:Z:409:ASP:CG	2.29	0.58
9:9:1342:LEU:HD13	37:Z:392:LEU:HD23	1.71	0.58
7:AB:82:LEU:HB3	37:Z:598:GLY:CA	2.34	0.58
20:F:11:VAL:HG23	20:F:20:THR:HB	1.85	0.58
37:Z:770:ASP:OD2	37:Z:847:LYS:NZ	2.36	0.58
40:c:152:LEU:HD22	40:c:155:LYS:HG3	1.86	0.58
57:u:84:GLN:NE2	57:u:85:LYS:O	2.36	0.58
4:3:333:A:H2'	4:3:334:A:C4	2.38	0.57
4:3:590:U:H2'	4:3:591:G:C8	2.38	0.57
4:3:713:C:H2'	4:3:714:G:C8	2.38	0.57
4:3:2290:G:HO2'	62:z:2:ALA:N	2.02	0.57
4:3:2481:U:OP1	4:3:2537:G:N2	2.34	0.57
6:5:661:G:N2	6:5:738:A:N1	2.42	0.57
8:7:63:U:H2'	8:7:64:G:C8	2.39	0.57
9:9:1269:LYS:HD2	37:Z:313:ILE:CD1	2.34	0.57
10:A:91:TYR:HE1	10:A:226:CYS:HB3	1.69	0.57
35:U:40:ILE:CG2	35:U:51:ILE:HD11	2.33	0.57
45:i:144:ASN:OD1	45:i:145:TRP:N	2.37	0.57
58:v:52:THR:HA	58:v:55:LEU:HD12	1.86	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:640:U:O4	4:3:658:G:O6	2.22	0.57
4:3:697:U:H2'	4:3:698:A:H8	1.68	0.57
4:3:839:A:OP2	47:k:43:LYS:NZ	2.37	0.57
4:3:1093:U:O2	4:3:1115:G:N2	2.37	0.57
4:3:1294:G:N1	4:3:2021:A:OP2	2.35	0.57
4:3:1445:U:H2'	4:3:1446:G:O4'	2.04	0.57
4:3:1768:G:O6	4:3:1769:A:N6	2.37	0.57
4:3:2447:A:N6	8:7:77:A:OP2	2.37	0.57
4:3:2552:G:H2'	4:3:2553:G:C8	2.38	0.57
4:3:2847:C:H2'	4:3:2848:A:H8	1.69	0.57
6:5:1241:G:C2	6:5:1245:A:C6	2.93	0.57
6:5:1326:C:H2'	6:5:1327:G:H8	1.69	0.57
6:5:1343:G:O3'	22:H:115:ARG:NH1	2.36	0.57
9:9:952:ASP:HB2	7:AB:295:LYS:CD	2.34	0.57
9:9:956:ARG:O	7:AB:296:SER:HB2	2.04	0.57
9:9:1102:ILE:HD11	37:Z:858:PHE:O	2.02	0.57
9:9:1347:GLN:CB	37:Z:100:MET:HE1	2.28	0.57
9:9:1369:SER:OG	37:Z:95:VAL:HG12	2.04	0.57
49:m:42:GLN:NE2	49:m:100:VAL:HG11	2.19	0.57
49:m:46:ASP:HA	49:m:49:ILE:HD12	1.85	0.57
58:v:27:ARG:NH1	58:v:28:LYS:O	2.37	0.57
4:3:247:U:O2	4:3:259:A:N7	2.37	0.57
4:3:799:A:H5''	38:a:217:GLY:HA2	1.87	0.57
4:3:1032:A:O5'	52:p:91:ARG:NH2	2.36	0.57
4:3:1191:A:OP1	52:p:53:LYS:NZ	2.33	0.57
6:5:416:U:N3	6:5:421:G:N1	2.52	0.57
6:5:779:A:N6	6:5:797:G:N2	2.38	0.57
6:5:1329:G:H2'	6:5:1330:A:C8	2.40	0.57
7:6:107:GLU:OE1	7:AB:315:ILE:HG22	2.04	0.57
9:9:636:ILE:HD13	9:9:645:ILE:HG21	1.85	0.57
9:9:945:ARG:HH12	7:AB:298:ALA:HB1	1.68	0.57
9:9:999:PHE:N	12:AC:108:LEU:HB3	2.18	0.57
9:9:1344:LYS:CD	37:Z:306:PRO:HD3	2.14	0.57
27:M:14:PRO:HG3	27:M:20:ALA:HB2	1.86	0.57
49:m:32:GLU:N	49:m:32:GLU:OE2	2.34	0.57
52:p:13:ARG:O	52:p:17:LEU:HD23	2.04	0.57
4:3:286:A:O2'	4:3:288:A:N7	2.34	0.57
4:3:1019:A:O2'	4:3:1020:G:O4'	2.20	0.57
4:3:1286:G:N2	40:c:83:HIS:O	2.35	0.57
4:3:2021:A:H2'	4:3:2022:A:C4	2.40	0.57
9:9:177:ARG:NH1	9:9:221:ALA:H	2.03	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1122:LEU:HD21	9:9:1149:LEU:CD2	2.35	0.57
9:9:1342:LEU:N	37:Z:398:LEU:CD2	2.67	0.57
21:G:60:LEU:HB2	21:G:69:ILE:HG13	1.84	0.57
23:I:24:LEU:O	23:I:28:THR:HG23	2.04	0.57
4:3:159:G:O6	4:3:174:A:N6	2.38	0.57
4:3:633:G:O6	4:3:692:U:O4	2.21	0.57
4:3:740:A:O2'	38:a:9:ARG:NH2	2.37	0.57
4:3:1513:A:O2'	4:3:1514:U:O4'	2.21	0.57
4:3:1702:A:N6	4:3:1998:U:H3	2.03	0.57
4:3:1837:C:H2'	4:3:1838:A:C8	2.38	0.57
6:5:1214:A:H62	6:5:1273:A:H62	1.51	0.57
24:J:81:GLY:O	24:J:86:LYS:NZ	2.27	0.57
25:K:42:LEU:HD23	25:K:94:LEU:HD21	1.87	0.57
25:K:56:LYS:HG3	25:K:58:PRO:HD2	1.86	0.57
51:o:34:ALA:HB3	51:o:87:SER:HB2	1.85	0.57
4:3:522:C:H2'	4:3:523:A:C8	2.40	0.57
4:3:752:C:H3'	4:3:753:A:H8	1.68	0.57
6:5:359:A:N1	25:K:40:SER:OG	2.38	0.57
6:5:558:U:H4'	6:5:559:U:H3'	1.86	0.57
6:5:732:A:H2'	6:5:733:A:C8	2.37	0.57
6:5:966:A:O2'	6:5:1340:G:O2'	2.16	0.57
7:6:296:SER:HA	7:6:326:ARG:O	2.04	0.57
9:9:851:ARG:NH1	9:9:855:ASN:OD1	2.38	0.57
17:C:63:MET:HE2	17:C:63:MET:HA	1.87	0.57
21:G:106:LEU:HB2	21:G:110:GLY:HA2	1.87	0.57
25:K:92:VAL:HG22	25:K:115:LEU:HD21	1.85	0.57
46:j:59:ARG:O	46:j:94:ARG:NH1	2.31	0.57
4:3:90:G:H2'	4:3:91:G:C8	2.39	0.57
4:3:846:U:H2'	47:k:22:ARG:HA	1.86	0.57
4:3:1207:U:O2	4:3:1208:A:N6	2.36	0.57
4:3:1248:A:H2'	4:3:1249:A:C8	2.39	0.57
4:3:1316:U:H5	4:3:1354:U:H3	1.52	0.57
4:3:1391:U:O2'	4:3:1816:A:N3	2.34	0.57
4:3:1754:U:H2'	4:3:1755:A:H8	1.69	0.57
4:3:2141:A:OP2	4:3:2164:G:N2	2.38	0.57
4:3:2781:C:H2'	4:3:2782:A:H8	1.69	0.57
6:5:927:C:OP2	20:F:2:ARG:N	2.37	0.57
9:9:692:ILE:HD11	9:9:753:ILE:HB	1.87	0.57
9:9:1001:GLU:H	12:AC:109:LYS:CG	2.03	0.57
10:A:35:ARG:HE	10:A:37:TRP:HE1	1.52	0.57
7:AB:304:ARG:NH1	12:AC:48:TYR:CE2	2.67	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AE:10:DG:H4'	37:Z:118:LEU:O	2.04	0.57
18:D:69:ARG:HE	18:D:172:LEU:HD21	1.69	0.57
29:O:77:VAL:HG23	29:O:80:LYS:HE3	1.84	0.57
46:j:104:ARG:HH12	51:o:37:LEU:HD13	1.68	0.57
4:3:552:C:H5''	61:y:13:ARG:HH12	1.70	0.57
4:3:1081:A:H2	35:U:58:ILE:HD13	1.70	0.57
4:3:2154:A:H2'	4:3:2155:G:C8	2.39	0.57
4:3:2676:G:H2'	4:3:2677:A:C8	2.38	0.57
4:3:2745:G:H2'	4:3:2746:A:H8	1.69	0.57
6:5:170:A:H61	6:5:195:U:H3	1.52	0.57
6:5:509:C:O2	17:C:38:HIS:NE2	2.38	0.57
6:5:1389:U:H2'	6:5:1390:G:H8	1.70	0.57
9:9:640:ASP:OD1	13:AD:26:DT:H5'	2.05	0.57
30:P:20:LYS:HB2	30:P:48:HIS:HB2	1.86	0.57
32:R:36:ARG:HA	32:R:72:GLY:HA3	1.87	0.57
37:Z:884:LYS:HZ3	37:Z:1028:THR:HA	1.70	0.57
40:c:130:GLN:HA	40:c:133:PHE:CE1	2.39	0.57
48:l:39:GLY:CA	48:l:97:VAL:O	2.52	0.57
4:3:2381:G:H2'	4:3:2382:A:H8	1.70	0.57
6:5:262:G:OP1	6:5:262:G:N2	2.38	0.57
6:5:664:A:H2'	6:5:665:G:C8	2.40	0.57
6:5:672:A:H61	6:5:712:A:H61	1.51	0.57
7:6:49:CYS:HG	7:AB:34:PHE:HE2	1.53	0.57
9:9:638:ARG:HH21	9:9:666:ASN:HD21	1.53	0.57
9:9:1269:LYS:HZ2	37:Z:313:ILE:HG22	1.69	0.57
9:9:1344:LYS:CB	37:Z:309:ILE:HD13	2.35	0.57
10:A:67:THR:HA	10:A:70:ASN:HD21	1.70	0.57
38:a:185:LEU:HD23	38:a:186:SER:N	2.20	0.57
4:3:312:U:H2'	4:3:313:G:H8	1.68	0.57
4:3:657:A:OP2	47:k:105:SER:OG	2.20	0.57
4:3:1141:U:H2'	4:3:1142:G:H8	1.70	0.57
4:3:1289:G:H2'	4:3:1290:G:C8	2.40	0.57
6:5:146:A:H2'	6:5:147:A:C4	2.39	0.57
6:5:354:U:H2'	6:5:355:A:H8	1.70	0.57
6:5:462:G:O2'	6:5:463:U:O4'	2.14	0.57
6:5:833:G:O6	6:5:844:U:O4	2.22	0.57
9:9:394:SER:HA	9:9:489:ILE:CD1	2.34	0.57
9:9:829:ASN:O	9:9:848:LYS:NZ	2.37	0.57
9:9:998:ILE:C	12:AC:6:ASN:HD22	2.09	0.57
10:A:147:LYS:HB3	10:A:151:MET:HE1	1.87	0.57
32:R:29:ARG:HH11	32:R:47:ASN:HB3	1.69	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:i:3:LYS:N	53:q:12:TYR:OH	2.38	0.57
48:l:41:TRP:HB3	48:l:94:VAL:HG11	1.87	0.57
4:3:164:A:H3'	4:3:165:U:H2'	1.87	0.56
4:3:1180:U:H2'	4:3:1181:A:C8	2.40	0.56
4:3:2484:A:H2	4:3:2489:G:H1	1.53	0.56
5:4:104:C:H2'	5:4:105:A:C8	2.40	0.56
6:5:60:A:H3'	6:5:327:G:H22	1.70	0.56
6:5:372:G:H2'	6:5:373:A:H8	1.70	0.56
6:5:680:G:H21	24:J:33:ASN:HA	1.70	0.56
6:5:768:G:O6	6:5:806:A:N6	2.38	0.56
7:6:161:ARG:NH2	7:AB:31:GLU:OE1	2.37	0.56
7:6:240:VAL:HG21	7:AB:233:ILE:HD12	1.86	0.56
9:9:1000:PRO:HD2	12:AC:6:ASN:ND2	2.10	0.56
9:9:1325:VAL:HG13	37:Z:443:ILE:HG21	1.87	0.56
11:AA:73:ARG:NH1	37:Z:1132:VAL:O	2.28	0.56
12:AC:49:VAL:HG21	12:AC:81:PHE:HB3	1.87	0.56
37:Z:584:THR:HG21	37:Z:691:PHE:CD2	2.39	0.56
38:a:262:HIS:ND1	38:a:263:MET:SD	2.78	0.56
48:l:44:ALA:O	48:l:47:ILE:N	2.38	0.56
2:1:10:ARG:HD3	47:k:64:LYS:HA	1.88	0.56
4:3:29:G:OP1	4:3:1289:G:O2'	2.22	0.56
6:5:145:G:N2	6:5:148:A:OP2	2.36	0.56
7:6:107:GLU:H	7:AB:319:HIS:CG	2.22	0.56
7:6:163:PHE:HB2	9:9:917:LYS:HE2	1.87	0.56
14:AE:14:DG:C2	37:Z:885:THR:HG22	2.40	0.56
31:Q:81:MET:O	31:Q:85:HIS:ND1	2.37	0.56
37:Z:781:TRP:CD2	37:Z:853:PRO:HG3	2.40	0.56
4:3:26:G:H2'	4:3:27:U:C6	2.40	0.56
4:3:1764:U:H5'	4:3:1765:G:H5''	1.87	0.56
4:3:2081:U:HO2'	4:3:2605:G:HO2'	1.39	0.56
4:3:2332:U:O4	4:3:2339:G:O6	2.24	0.56
4:3:2580:A:OP2	39:b:151:ARG:N	2.29	0.56
6:5:18:U:H5''	18:D:74:LYS:HE2	1.87	0.56
6:5:145:G:N1	6:5:149:G:N7	2.54	0.56
6:5:556:G:OP2	6:5:557:A:O2'	2.23	0.56
6:5:748:U:H2'	6:5:749:G:O4'	2.05	0.56
6:5:1051:U:H2'	6:5:1052:G:H8	1.70	0.56
6:5:1197:G:OP2	6:5:1296:C:N4	2.39	0.56
6:5:1202:A:OP2	26:L:110:LYS:NZ	2.32	0.56
9:9:245:LYS:NZ	9:9:472:ASP:OD2	2.39	0.56
9:9:381:ARG:NH2	9:9:551:GLU:OE2	2.38	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:972:GLU:CD	9:9:1015:HIS:HD1	2.13	0.56
11:AA:9:ILE:HG13	11:AA:55:ASP:HB3	1.87	0.56
7:AB:85:LYS:HD3	37:Z:602:GLU:CD	2.29	0.56
7:AB:268:ILE:HD12	7:AB:286:ILE:O	2.05	0.56
32:R:41:PHE:CG	32:R:42:PRO:HD2	2.40	0.56
36:W:17:ILE:HG13	36:X:14:ILE:HD11	1.88	0.56
38:a:147:VAL:HG22	38:a:200:VAL:HG12	1.86	0.56
42:e:105:THR:HG21	42:e:117:LYS:HE3	1.85	0.56
62:z:23:LYS:NZ	62:z:28:ASN:O	2.39	0.56
3:2:36:GLN:OE1	4:3:1159:C:O2'	2.22	0.56
4:3:154:U:H2'	4:3:155:A:C8	2.40	0.56
5:4:11:A:H1'	5:4:13:G:H2'	1.86	0.56
6:5:1193:U:H2'	6:5:1194:A:C8	2.40	0.56
7:6:15:GLN:NE2	9:9:1160:ARG:HG2	2.21	0.56
9:9:571:ASN:HB3	9:9:577:ILE:HD11	1.88	0.56
9:9:953:ALA:O	7:AB:326:ARG:NE	2.24	0.56
10:A:192:ASN:O	10:A:195:ARG:NH1	2.39	0.56
37:Z:586:GLU:HG2	37:Z:639:THR:HG21	1.88	0.56
48:l:64:MET:N	48:l:64:MET:SD	2.79	0.56
4:3:1796:A:OP2	38:a:229:ARG:NH1	2.38	0.56
4:3:2521:A:H2'	4:3:2522:U:C6	2.41	0.56
4:3:2577:G:H2'	4:3:2578:A:C8	2.41	0.56
4:3:2684:G:H2'	4:3:2685:A:C8	2.41	0.56
6:5:207:C:H3'	6:5:208:A:C8	2.41	0.56
6:5:1287:G:H2'	6:5:1288:C:H6	1.71	0.56
6:5:1393:A:N6	6:5:1457:G:O2'	2.38	0.56
9:9:356:ARG:HD2	15:AF:113:ASN:HD22	1.70	0.56
9:9:1093:PRO:HB2	37:Z:734:VAL:CG2	2.27	0.56
9:9:1342:LEU:CD1	37:Z:398:LEU:HD23	2.35	0.56
10:A:130:LEU:HD12	10:A:159:LEU:HD22	1.86	0.56
12:AC:183:LYS:CG	12:AC:281:ASN:HB3	2.33	0.56
37:Z:587:ARG:NH1	37:Z:803:ASP:OD2	2.39	0.56
55:s:74:LEU:O	55:s:76:LYS:NZ	2.37	0.56
4:3:1081:A:N6	35:U:8:ALA:N	2.50	0.56
4:3:2409:U:H3	4:3:2423:G:H1	1.52	0.56
4:3:2663:G:N1	4:3:2673:A:OP2	2.32	0.56
4:3:2798:A:H5''	4:3:2799:U:C6	2.41	0.56
6:5:1224:C:N4	6:5:1262:A:OP2	2.33	0.56
6:5:1288:C:H2'	6:5:1289:U:C6	2.40	0.56
8:7:67:C:H2'	8:7:68:G:H8	1.71	0.56
9:9:450:ILE:HD11	9:9:505:ILE:HD12	1.86	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1370:ILE:HG22	37:Z:94:ILE:CG2	2.26	0.56
16:B:11:ARG:HH22	16:B:183:ALA:HB3	1.70	0.56
39:b:143:PHE:HD2	39:b:145:GLY:H	1.52	0.56
42:e:30:PRO:HG2	42:e:31:LEU:HD12	1.88	0.56
43:f:104:LYS:HB2	43:f:106:MET:HE1	1.85	0.56
47:k:31:THR:HG21	47:k:36:GLN:HE22	1.70	0.56
49:m:106:ARG:HG2	49:m:108:GLY:H	1.71	0.56
4:3:78:C:OP1	59:w:49:ARG:NH1	2.38	0.56
4:3:164:A:H62	4:3:168:A:H61	1.53	0.56
4:3:410:G:H4'	4:3:411:U:O5'	2.04	0.56
9:9:814:LEU:HD21	9:9:858:TYR:CE2	2.41	0.56
23:I:53:GLU:HB2	23:I:73:LYS:HB3	1.86	0.56
48:l:4:PRO:HG3	48:l:69:PHE:HE2	1.71	0.56
4:3:220:A:H2'	4:3:221:A:H8	1.68	0.56
4:3:500:U:O2'	4:3:501:G:OP1	2.23	0.56
4:3:1245:G:O3'	52:p:7:LYS:NZ	2.38	0.56
4:3:1784:U:H2'	4:3:1785:U:C6	2.40	0.56
4:3:1853:G:H2'	4:3:1854:A:C4	2.41	0.56
4:3:2716:U:H2'	4:3:2717:G:H8	1.70	0.56
4:3:2781:C:H2'	4:3:2782:A:C8	2.41	0.56
6:5:621:C:H2'	6:5:622:A:H8	1.70	0.56
6:5:641:U:H2'	6:5:642:A:H8	1.71	0.56
6:5:880:G:H1	6:5:905:U:H3	1.53	0.56
8:7:18:C:H4'	8:7:19:G:H5''	1.87	0.56
9:9:211:ILE:HD13	9:9:229:LEU:HD22	1.88	0.56
26:L:34:LEU:HD21	26:L:41:PRO:HD3	1.86	0.56
46:j:88:LYS:HB3	46:j:94:ARG:HG2	1.88	0.56
4:3:1016:A:C2	4:3:1171:G:H4'	2.41	0.56
4:3:1543:U:H2'	4:3:1544:G:H8	1.68	0.56
4:3:2088:U:O4	4:3:2247:G:O6	2.22	0.56
4:3:2094:A:H2'	4:3:2095:A:C8	2.40	0.56
4:3:2175:U:C2	4:3:2179:A:N7	2.74	0.56
4:3:2323:U:O2	41:d:125:ARG:NH1	2.38	0.56
4:3:2556:C:OP1	46:j:29:ARG:NH2	2.39	0.56
9:9:115:LYS:HG2	9:9:126:ASP:OD1	2.06	0.56
9:9:715:ALA:HB2	9:9:750:ILE:HD13	1.88	0.56
16:B:11:ARG:HD3	16:B:181:LEU:HA	1.88	0.56
35:U:135:LEU:CD1	36:V:14:ILE:HG23	2.36	0.56
43:f:122:GLY:N	43:f:142:VAL:O	2.39	0.56
4:3:1141:U:C2'	35:U:79:LYS:HA	2.35	0.56
4:3:1326:C:H2'	4:3:1327:G:C8	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2706:U:H2'	4:3:2707:A:C8	2.41	0.56
4:3:2750:A:H2'	4:3:2751:C:C6	2.41	0.56
4:3:2802:C:H41	4:3:2807:G:H4'	1.70	0.56
6:5:145:G:O2'	6:5:147:A:N6	2.39	0.56
6:5:711:G:H2'	6:5:712:A:C8	2.35	0.56
6:5:1281:U:O3'	26:L:109:ARG:NH1	2.39	0.56
9:9:94:ILE:HG23	9:9:135:LEU:CD1	2.28	0.56
11:AA:78:PHE:CZ	37:Z:1095:ARG:NH1	2.74	0.56
22:H:116:LYS:HE2	22:H:123:ALA:HA	1.86	0.56
30:P:48:HIS:CE1	30:P:69:LEU:HD11	2.41	0.56
37:Z:607:TYR:CE2	37:Z:614:LEU:HG	2.41	0.56
47:k:77:TRP:CZ3	47:k:111:PRO:HB2	2.41	0.56
4:3:711:A:HO2'	4:3:2450:C:HO2'	1.54	0.55
6:5:1051:U:H5''	23:I:59:ARG:HB3	1.89	0.55
6:5:1226:A:H2'	6:5:1227:A:C8	2.42	0.55
9:9:1105:ILE:HG21	37:Z:736:VAL:HG23	1.82	0.55
9:9:1136:SER:HB2	9:9:1143:GLN:OE1	2.07	0.55
7:AB:113:THR:HG22	7:AB:154:ASN:OD1	2.05	0.55
18:D:188:PRO:O	18:D:192:ILE:HG12	2.06	0.55
20:F:115:MET:HA	20:F:118:LYS:HG2	1.86	0.55
29:O:12:ARG:HH22	29:O:23:ASP:HB2	1.71	0.55
30:P:50:GLU:OE1	30:P:76:ARG:NH1	2.39	0.55
48:l:15:VAL:HG11	48:l:96:VAL:HG11	1.87	0.55
4:3:517:G:H1	4:3:544:U:H3	1.52	0.55
4:3:892:G:H2'	4:3:893:A:C8	2.41	0.55
4:3:1159:C:H3'	4:3:1160:G:C8	2.41	0.55
4:3:2514:U:OP2	4:3:2584:G:N1	2.37	0.55
5:4:60:C:H2'	5:4:61:A:H8	1.70	0.55
6:5:576:A:H2'	6:5:577:G:H8	1.71	0.55
7:6:46:LEU:HD23	7:6:50:ILE:HD11	1.87	0.55
9:9:761:VAL:HG13	37:Z:864:ILE:HD11	1.88	0.55
9:9:1306:LEU:HD22	37:Z:408:VAL:HG11	1.86	0.55
12:AC:8:PHE:O	12:AC:60:GLY:CA	2.54	0.55
15:AF:17:VAL:HG12	15:AF:18:LYS:H	1.71	0.55
37:Z:434:ILE:HD12	37:Z:511:ILE:HG12	1.88	0.55
37:Z:501:ARG:CZ	37:Z:563:LEU:HD21	2.35	0.55
38:a:4:LYS:NZ	38:a:5:LYS:O	2.35	0.55
4:3:902:U:N3	4:3:941:C:OP2	2.39	0.55
4:3:2335:A:H2'	4:3:2336:A:C8	2.41	0.55
5:4:11:A:N6	5:4:67:G:O2'	2.39	0.55
6:5:1213:A:N7	6:5:1275:U:O4	2.39	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:648:VAL:O	37:Z:835:PHE:HE2	1.89	0.55
9:9:999:PHE:CZ	12:AC:42:TYR:HE2	2.23	0.55
10:A:22:LYS:HB3	10:A:25:GLU:HB3	1.88	0.55
12:AC:176:MET:HE1	12:AC:187:LEU:CD1	2.35	0.55
14:AE:14:DG:C5'	37:Z:890:TYR:CA	2.84	0.55
16:B:186:ASP:OD1	16:B:187:TYR:N	2.39	0.55
39:b:125:ARG:HD2	39:b:126:TRP:NE1	2.21	0.55
40:c:24:LEU:HD21	40:c:208:GLU:HA	1.88	0.55
51:o:92:ARG:HD3	51:o:115:LYS:CE	2.32	0.55
52:p:91:ARG:HD3	53:q:11:GLN:HB3	1.88	0.55
54:r:71:VAL:HA	54:r:107:LEU:HD13	1.88	0.55
56:t:29:PRO:O	56:t:32:GLN:NE2	2.39	0.55
4:3:254:G:H2'	4:3:255:A:C8	2.41	0.55
4:3:432:G:H5'	58:v:13:LEU:HB2	1.87	0.55
4:3:1549:U:H3'	4:3:1550:G:H8	1.71	0.55
4:3:1645:C:H2'	4:3:1646:G:C8	2.42	0.55
4:3:1963:U:H2'	4:3:1964:C:H5'	1.87	0.55
4:3:2769:G:H2'	4:3:2770:U:C6	2.42	0.55
4:3:2828:C:H3'	4:3:2829:G:N2	2.21	0.55
6:5:412:G:H2'	6:5:413:G:H8	1.71	0.55
6:5:416:U:N3	6:5:421:G:C6	2.74	0.55
6:5:1138:U:H2'	6:5:1139:A:H8	1.72	0.55
6:5:1330:A:H2'	6:5:1331:A:C8	2.40	0.55
6:5:1397:G:H2'	6:5:1398:G:C8	2.41	0.55
7:6:107:GLU:CG	7:AB:319:HIS:HD2	1.80	0.55
9:9:403:ILE:HD12	9:9:427:LEU:HD13	1.88	0.55
9:9:952:ASP:HB3	7:AB:295:LYS:CD	2.36	0.55
17:C:139:GLY:H	17:C:179:VAL:HA	1.71	0.55
32:R:81:LYS:NZ	32:R:84:THR:O	2.31	0.55
37:Z:488:ASP:C	37:Z:551:ARG:NH2	2.65	0.55
48:l:2:LEU:HB3	48:l:69:PHE:HE1	1.72	0.55
52:p:12:ARG:HA	52:p:15:LYS:HG2	1.88	0.55
53:q:28:PRO:HD2	53:q:31:LYS:HE3	1.88	0.55
3:2:7:VAL:HG12	3:2:34:GLN:HG3	1.87	0.55
4:3:61:U:O2	4:3:70:G:N2	2.38	0.55
4:3:697:U:H2'	4:3:698:A:C8	2.41	0.55
4:3:1261:U:H2'	4:3:1262:G:H8	1.71	0.55
4:3:1382:A:N6	4:3:1405:G:H21	2.00	0.55
4:3:1942:G:N2	4:3:1971:G:O5'	2.38	0.55
4:3:2176:G:N1	4:3:2179:A:OP2	2.39	0.55
4:3:2644:U:HO2'	39:b:47:TYR:HH	1.55	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:172:C:O2'	33:S:73:VAL:HG11	2.07	0.55
6:5:461:G:O6	6:5:462:G:N2	2.39	0.55
6:5:1102:A:N6	16:B:179:SER:OG	2.39	0.55
9:9:169:LEU:HD23	13:AD:25:DC:C2	2.42	0.55
9:9:307:LEU:CD1	9:9:334:LEU:HD13	2.36	0.55
9:9:390:ARG:HD2	9:9:496:ASN:O	2.05	0.55
9:9:644:ASP:O	37:Z:835:PHE:HE1	1.88	0.55
24:J:70:MET:HB2	24:J:72:MET:HE1	1.89	0.55
25:K:80:ILE:HG12	25:K:112:ARG:HH11	1.71	0.55
39:b:6:ILE:HG22	39:b:207:ILE:HB	1.87	0.55
51:o:21:TYR:CE2	51:o:23:PRO:HG3	2.41	0.55
4:3:611:A:OP1	4:3:1285:U:O2'	2.25	0.55
4:3:1529:U:H2'	4:3:1530:G:C8	2.41	0.55
4:3:2080:C:H5''	38:a:236:ASN:HB2	1.89	0.55
6:5:536:U:H2'	6:5:537:A:C8	2.42	0.55
7:6:34:PHE:HE2	7:AB:49:CYS:SG	2.30	0.55
9:9:1340:LYS:NZ	9:9:1370:ILE:CG1	2.70	0.55
9:9:1369:SER:OG	37:Z:95:VAL:HA	2.06	0.55
12:AC:196:VAL:CG1	12:AC:217:ARG:HH22	2.19	0.55
15:AF:140:ASN:OD1	15:AF:150:VAL:HG21	2.07	0.55
29:O:10:THR:HA	29:O:35:PRO:HD2	1.89	0.55
34:T:20:ARG:O	34:T:23:LEU:HG	2.06	0.55
38:a:243:GLY:HA3	38:a:247:SER:HB3	1.88	0.55
41:d:14:LYS:HB2	41:d:18:LYS:NZ	2.21	0.55
4:3:764:G:N2	38:a:12:SER:OG	2.38	0.55
4:3:886:U:H3	4:3:964:A:H61	1.52	0.55
4:3:939:U:H2'	4:3:940:A:H8	1.71	0.55
4:3:945:U:O2'	48:l:71:HIS:NE2	2.39	0.55
6:5:149:G:H2'	6:5:150:A:C8	2.42	0.55
6:5:295:G:H2'	6:5:296:A:C4	2.42	0.55
9:9:1347:GLN:HB3	37:Z:100:MET:CE	2.31	0.55
7:AB:305:ASN:HB3	12:AC:80:ASP:HB3	1.87	0.55
25:K:48:THR:HA	25:K:90:HIS:CE1	2.42	0.55
27:M:42:LEU:O	27:M:45:ARG:N	2.36	0.55
37:Z:897:ASP:OD2	37:Z:1234:PHE:HD2	1.88	0.55
54:r:1:MET:N	54:r:113:GLU:OE1	2.39	0.55
4:3:477:U:H2'	4:3:478:G:C8	2.42	0.55
4:3:552:C:OP2	61:y:10:LYS:NZ	2.37	0.55
4:3:1249:A:N3	54:r:128:ARG:NH2	2.55	0.55
4:3:2832:G:H2'	4:3:2833:A:H8	1.70	0.55
6:5:536:U:H2'	6:5:537:A:H8	1.71	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:233:ILE:HD12	7:AB:240:VAL:HG21	1.88	0.55
9:9:419:LEU:HD21	9:9:422:LYS:HG3	1.88	0.55
9:9:1370:ILE:HD12	37:Z:94:ILE:CG1	2.35	0.55
12:AC:183:LYS:CE	12:AC:281:ASN:HB3	2.37	0.55
17:C:10:ARG:HD3	17:C:62:TYR:CE2	2.42	0.55
4:3:2691:C:OP1	51:o:56:ARG:NH1	2.39	0.55
6:5:257:U:OP2	33:S:67:ARG:NH2	2.40	0.55
6:5:265:U:H2'	6:5:266:A:C8	2.42	0.55
6:5:540:U:O2'	17:C:13:ARG:NH1	2.40	0.55
6:5:748:U:H3'	6:5:749:G:C8	2.42	0.55
7:6:107:GLU:OE2	7:AB:319:HIS:HB2	2.07	0.55
9:9:709:GLU:HG3	9:9:714:ILE:CD1	2.37	0.55
12:AC:43:LYS:HA	12:AC:48:TYR:O	2.06	0.55
14:AE:11:DT:O3'	37:Z:1236:ASP:OD1	2.24	0.55
40:c:140:THR:O	40:c:144:MET:N	2.36	0.55
40:c:166:THR:O	40:c:170:GLN:HB2	2.06	0.55
4:3:941:C:H2'	4:3:942:A:C8	2.42	0.55
4:3:1027:U:O4	4:3:1198:G:O6	2.25	0.55
4:3:2259:G:H2'	4:3:2260:G:H8	1.71	0.55
4:3:2382:A:H2'	4:3:2383:G:C8	2.42	0.55
5:4:58:C:H2'	5:4:59:A:C8	2.41	0.55
4:3:116:C:O2'	4:3:128:A:O2'	2.21	0.54
4:3:358:A:N6	4:3:372:G:N2	2.50	0.54
4:3:799:A:N3	38:a:220:ARG:NH1	2.55	0.54
4:3:1203:G:H2'	4:3:1204:A:H8	1.71	0.54
4:3:1805:U:H3'	38:a:282:ARG:HH22	1.72	0.54
4:3:1923:A:N6	6:5:1383:A:O2'	2.41	0.54
4:3:2054:C:H2'	4:3:2055:A:H8	1.71	0.54
6:5:136:U:H3	6:5:157:A:H62	1.55	0.54
6:5:144:U:O2	6:5:149:G:O6	2.24	0.54
6:5:375:C:H2'	6:5:376:G:C8	2.42	0.54
6:5:684:A:N1	6:5:697:G:O2'	2.36	0.54
41:d:4:LEU:HD22	41:d:101:GLU:HB2	1.90	0.54
4:3:139:G:H2'	4:3:140:G:C8	2.43	0.54
4:3:226:A:C6	4:3:236:G:C2	2.95	0.54
4:3:425:U:H4'	4:3:426:U:OP2	2.06	0.54
4:3:1450:G:H1	4:3:1610:U:H3	1.55	0.54
4:3:1978:U:H1'	38:a:248:PRO:HB3	1.89	0.54
4:3:2591:G:H2'	4:3:2592:U:C6	2.42	0.54
4:3:2823:A:O2'	4:3:2825:A:N7	2.35	0.54
6:5:14:U:H3	6:5:909:A:H62	1.54	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:448:A:H62	6:5:478:G:H5'	1.70	0.54
6:5:1054:C:OP2	6:5:1055:G:O2'	2.23	0.54
9:9:219:GLU:HG3	13:AD:21:DC:H41	1.72	0.54
9:9:943:ILE:HD13	9:9:1043:ILE:CD1	2.37	0.54
9:9:1235:LEU:HD21	7:AB:44:ARG:HH12	1.72	0.54
9:9:1297:TYR:CG	37:Z:554:LEU:CD2	2.90	0.54
9:9:1350:ALA:HB3	37:Z:368:PHE:CE2	2.42	0.54
17:C:91:ARG:HG3	17:C:182:PRO:HD2	1.89	0.54
35:U:116:ARG:HG3	35:U:118:PHE:CE2	2.42	0.54
46:j:8:LEU:O	46:j:18:GLN:NE2	2.40	0.54
55:s:13:THR:H	55:s:16:VAL:HB	1.71	0.54
4:3:389:C:H2'	4:3:390:A:H8	1.71	0.54
5:4:55:A:H4'	41:d:27:GLN:NE2	2.21	0.54
6:5:1003:G:C6	6:5:1018:U:N3	2.76	0.54
9:9:398:ARG:NH2	9:9:494:ASP:OD2	2.40	0.54
9:9:998:ILE:HA	12:AC:108:LEU:HD13	1.86	0.54
9:9:1273:GLN:CD	37:Z:402:ASN:ND2	2.64	0.54
11:AA:78:PHE:CZ	37:Z:1095:ARG:NH2	2.75	0.54
35:U:90:VAL:HG21	36:V:14:ILE:HG21	1.89	0.54
4:3:51:A:N7	4:3:121:U:C4	2.76	0.54
4:3:370:C:H2'	4:3:371:C:C6	2.43	0.54
4:3:1253:G:N7	53:q:67:LYS:NZ	2.47	0.54
4:3:1416:G:H2'	4:3:1417:G:C8	2.42	0.54
6:5:319:U:O2'	33:S:17:ARG:NH2	2.40	0.54
6:5:951:U:H3	6:5:1200:G:H1	1.55	0.54
9:9:148:GLU:OE2	9:9:615:HIS:CE1	2.60	0.54
9:9:1370:ILE:CD1	37:Z:94:ILE:CD1	2.84	0.54
12:AC:135:VAL:CB	12:AC:171:THR:OG1	2.55	0.54
47:k:126:PHE:HB2	47:k:146:VAL:HG22	1.89	0.54
4:3:2393:C:H2'	4:3:2394:A:C8	2.42	0.54
4:3:2493:G:OP2	48:l:45:ARG:NH2	2.40	0.54
6:5:957:C:H2'	6:5:958:G:C8	2.43	0.54
9:9:907:ASP:CG	9:9:1099:ARG:HH22	2.15	0.54
10:A:202:CYS:HG	10:A:206:THR:HG1	1.46	0.54
12:AC:154:ILE:O	37:Z:77:LYS:HB3	2.06	0.54
37:Z:192:ILE:O	37:Z:195:ARG:HG3	2.07	0.54
38:a:64:ARG:NH1	38:a:90:PRO:O	2.41	0.54
53:q:27:ALA:HB1	53:q:31:LYS:HZ1	1.72	0.54
4:3:408:G:O2'	4:3:460:G:OP1	2.24	0.54
6:5:541:C:H2'	6:5:542:G:H8	1.72	0.54
6:5:1241:G:C2	6:5:1245:A:N1	2.76	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:1384:A:H2'	6:5:1385:A:C8	2.42	0.54
9:9:170:LYS:HZ2	13:AD:25:DC:C5'	2.20	0.54
9:9:999:PHE:HZ	12:AC:42:TYR:HE2	1.53	0.54
9:9:1348:GLY:O	37:Z:388:LEU:CD1	2.52	0.54
10:A:117:LEU:N	10:A:190:GLU:OE1	2.41	0.54
12:AC:183:LYS:HB3	12:AC:280:PHE:CA	2.38	0.54
19:E:23:GLU:HA	19:E:26:GLN:HG2	1.88	0.54
33:S:10:ARG:HD3	33:S:13:GLN:HE21	1.71	0.54
37:Z:21:SER:HB3	37:Z:1248:THR:HG23	1.89	0.54
38:a:69:ILE:HG23	38:a:109:ILE:HA	1.89	0.54
43:f:64:LEU:HD23	43:f:67:LYS:HZ1	1.73	0.54
50:n:87:THR:OG1	50:n:113:GLY:O	2.25	0.54
2:1:11:PHE:HE2	47:k:59:TYR:HB3	1.72	0.54
4:3:401:G:O2'	4:3:402:A:OP1	2.25	0.54
4:3:714:G:H2'	4:3:715:G:H8	1.73	0.54
4:3:2294:A:N6	62:z:21:THR:OG1	2.39	0.54
4:3:2417:G:H2'	4:3:2418:G:C8	2.43	0.54
4:3:2704:U:H2'	4:3:2705:G:C8	2.41	0.54
4:3:2840:U:H2'	4:3:2841:A:C8	2.42	0.54
8:7:23:G:H2'	8:7:24:A:H8	1.72	0.54
45:i:133:HIS:CE1	45:i:136:GLU:HG3	2.43	0.54
4:3:1046:A:H5''	52:p:65:ASN:ND2	2.23	0.54
4:3:1717:C:H2'	4:3:1718:C:C6	2.43	0.54
4:3:1807:C:N4	4:3:1824:G:N2	2.26	0.54
4:3:1845:C:H4'	4:3:1846:A:H5'	1.90	0.54
4:3:2682:A:H4'	46:j:30:LYS:HD3	1.88	0.54
4:3:2695:U:O4	4:3:2730:G:O6	2.25	0.54
5:4:3:U:H2'	5:4:4:G:H8	1.73	0.54
6:5:612:G:H1	6:5:624:U:H3	1.56	0.54
6:5:1109:U:OP2	22:H:11:ARG:NH1	2.36	0.54
6:5:1302:C:H2'	6:5:1303:A:C8	2.43	0.54
7:6:268:ILE:HD12	7:6:286:ILE:O	2.08	0.54
9:9:649:HIS:CG	37:Z:837:TYR:OH	2.56	0.54
9:9:906:GLU:OE2	37:Z:530:ASP:HB3	2.07	0.54
9:9:1001:GLU:CB	12:AC:109:LYS:CB	2.53	0.54
9:9:1345:GLU:C	37:Z:388:LEU:HD22	2.31	0.54
17:C:34:ILE:HD11	17:C:39:GLY:HA3	1.88	0.54
21:G:15:VAL:O	21:G:19:LEU:HG	2.07	0.54
25:K:19:SER:HB3	25:K:25:HIS:HE2	1.71	0.54
33:S:14:ASN:OD1	33:S:15:ILE:HD12	2.07	0.54
51:o:57:GLY:HA3	51:o:62:GLU:HG2	1.90	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:30:A:H2'	4:3:31:U:C6	2.43	0.54
4:3:59:C:H2'	4:3:60:G:C8	2.43	0.54
4:3:802:U:H2'	4:3:803:G:H8	1.73	0.54
6:5:372:G:H2'	6:5:373:A:C8	2.42	0.54
12:AC:45:HIS:CB	12:AC:115:LEU:HD21	2.37	0.54
18:D:142:GLY:O	18:D:148:ARG:HA	2.08	0.54
29:O:12:ARG:HH12	29:O:23:ASP:C	2.16	0.54
38:a:97:SER:HB3	38:a:111:SER:HB3	1.89	0.54
39:b:122:ALA:N	39:b:166:SER:OG	2.40	0.54
39:b:161:LYS:NZ	45:i:82:GLN:HG3	2.23	0.54
41:d:29:PRO:HD2	41:d:169:LEU:HD11	1.88	0.54
47:k:67:ASN:ND2	47:k:69:ARG:O	2.40	0.54
4:3:96:A:H2'	4:3:97:A:C8	2.43	0.54
4:3:1354:U:HO2'	4:3:2017:G:HO2'	1.55	0.54
4:3:1754:U:H2'	4:3:1755:A:C8	2.43	0.54
4:3:2025:C:H2'	4:3:2026:A:H8	1.73	0.54
4:3:2031:C:H5''	39:b:158:ARG:HD3	1.91	0.54
4:3:2826:G:OP1	39:b:118:GLY:N	2.41	0.54
6:5:939:G:N2	6:5:1313:A:OP2	2.41	0.54
7:6:283:ARG:CZ	12:AC:313:LEU:O	2.56	0.54
28:N:46:ASP:O	28:N:49:SER:OG	2.24	0.54
39:b:13:MET:HA	39:b:27:THR:HA	1.90	0.54
53:q:32:GLU:OE2	53:q:56:VAL:HG12	2.08	0.54
4:3:452:U:H3	4:3:2415:A:N6	2.04	0.53
4:3:700:U:H2'	4:3:701:A:C8	2.42	0.53
4:3:732:G:H2'	4:3:733:C:C6	2.43	0.53
9:9:1370:ILE:HD13	37:Z:94:ILE:CG1	2.35	0.53
12:AC:139:PHE:CZ	12:AC:147:ILE:CG1	2.90	0.53
16:B:123:LEU:O	16:B:127:ILE:HG12	2.07	0.53
24:J:85:GLY:O	24:J:88:THR:OG1	2.17	0.53
28:N:6:ASN:HA	28:N:9:ILE:HG12	1.90	0.53
37:Z:488:ASP:CB	37:Z:551:ARG:NH2	2.70	0.53
40:c:127:LEU:HD12	40:c:199:VAL:HG23	1.89	0.53
45:i:26:LEU:HB3	45:i:31:LEU:HD23	1.89	0.53
2:1:20:LYS:NZ	4:3:666:G:H5''	2.22	0.53
4:3:17:G:O6	4:3:560:U:O2	2.26	0.53
4:3:144:C:H2'	4:3:145:A:C8	2.43	0.53
4:3:725:G:O2'	38:a:47:ARG:NH2	2.42	0.53
4:3:2631:G:O5'	4:3:2830:A:O2'	2.26	0.53
6:5:369:A:H2'	6:5:370:A:H8	1.74	0.53
6:5:510:U:H2'	6:5:511:A:H8	1.72	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:1225:A:H2	6:5:1345:G:H1'	1.72	0.53
8:7:19:G:H4'	8:7:20:G:OP1	2.08	0.53
9:9:30:GLN:HG3	9:9:676:PHE:HE1	1.73	0.53
10:A:32:MET:O	10:A:53:ASN:ND2	2.32	0.53
12:AC:153:ASP:OD1	37:Z:77:LYS:CD	2.55	0.53
32:R:25:GLN:O	32:R:26:GLU:HG3	2.08	0.53
37:Z:876:LYS:CG	37:Z:1030:ARG:HH11	1.77	0.53
37:Z:1233:SER:OG	37:Z:1257:LYS:HE2	2.09	0.53
45:i:42:LYS:HE3	52:p:62:LEU:HD11	1.89	0.53
46:j:77:LEU:HD13	51:o:77:LYS:HB2	1.89	0.53
4:3:241:C:H2'	4:3:242:G:H8	1.73	0.53
4:3:523:A:C6	4:3:529:G:N1	2.77	0.53
4:3:2350:C:H2'	4:3:2351:U:C6	2.44	0.53
4:3:2697:C:H5'	4:3:2876:G:H22	1.73	0.53
4:3:2822:C:H2'	4:3:2823:A:H8	1.74	0.53
4:3:2885:U:H2'	4:3:2886:A:H8	1.73	0.53
7:6:173:ILE:HG22	7:AB:324:LYS:HZ1	1.65	0.53
12:AC:40:GLN:OE1	12:AC:122:LEU:HD21	2.08	0.53
15:AF:137:ASP:CB	37:Z:349:PRO:HG3	2.38	0.53
37:Z:162:PHE:CE1	37:Z:163:LYS:HE3	2.43	0.53
2:1:37:GLN:NE2	4:3:2371:U:OP2	2.40	0.53
4:3:269:A:N6	4:3:315:A:O4'	2.42	0.53
4:3:982:G:H2'	4:3:983:A:C8	2.44	0.53
4:3:1079:U:O2'	4:3:1146:A:N1	2.41	0.53
4:3:1184:U:H2'	4:3:1185:U:C6	2.43	0.53
4:3:1224:G:N7	47:k:16:LYS:NZ	2.56	0.53
4:3:1633:C:H2'	4:3:1634:A:C8	2.44	0.53
4:3:2587:U:H2'	4:3:2588:U:C6	2.43	0.53
4:3:2706:U:H2'	4:3:2707:A:H8	1.74	0.53
4:3:2857:C:H2'	4:3:2858:A:C8	2.44	0.53
6:5:169:G:N2	6:5:219:A:O2'	2.41	0.53
6:5:331:C:H2'	6:5:332:A:H8	1.74	0.53
6:5:448:A:H3'	29:O:38:LYS:HE3	1.90	0.53
7:6:35:VAL:HG21	7:6:207:ASP:CB	2.38	0.53
8:7:67:C:H2'	8:7:68:G:C8	2.42	0.53
9:9:825:LYS:HE3	9:9:835:GLU:OE2	2.08	0.53
9:9:1094:LEU:CD2	37:Z:809:MET:SD	2.87	0.53
9:9:1370:ILE:HD12	37:Z:94:ILE:HG12	1.90	0.53
12:AC:49:VAL:CG2	12:AC:81:PHE:HB3	2.38	0.53
12:AC:157:ASN:OD1	12:AC:163:LYS:HB2	2.07	0.53
17:C:94:GLU:HG3	17:C:187:LEU:HD13	1.91	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C:143:ARG:NH2	17:C:144:LEU:O	2.41	0.53
37:Z:586:GLU:HG2	37:Z:639:THR:CG2	2.38	0.53
37:Z:775:LYS:HE3	37:Z:845:ILE:CD1	2.32	0.53
46:j:2:VAL:HG23	46:j:33:ALA:HB3	1.88	0.53
47:k:75:GLN:OE1	47:k:77:TRP:NE1	2.42	0.53
4:3:740:A:OP2	4:3:761:G:N2	2.42	0.53
4:3:999:U:O2'	4:3:2258:G:O6	2.26	0.53
4:3:1119:A:C8	35:U:53:VAL:HG23	2.43	0.53
4:3:2018:U:H2'	4:3:2019:G:O4'	2.09	0.53
4:3:2126:A:O2'	4:3:2127:G:H5'	2.08	0.53
4:3:2206:A:H1'	43:f:30:LEU:HD21	1.91	0.53
4:3:2798:A:N1	4:3:2897:G:C6	2.77	0.53
6:5:681:U:H2'	6:5:682:G:C8	2.44	0.53
6:5:1113:U:H2'	6:5:1114:A:C8	2.43	0.53
9:9:406:LYS:HE3	9:9:518:ILE:HG12	1.90	0.53
9:9:1000:PRO:HD3	12:AC:6:ASN:ND2	2.23	0.53
9:9:1310:LYS:O	37:Z:409:ASP:N	2.42	0.53
9:9:1371:LEU:HD23	37:Z:94:ILE:CG2	2.29	0.53
12:AC:139:PHE:CZ	12:AC:147:ILE:HG13	2.43	0.53
12:AC:239:LYS:NZ	12:AC:294:LYS:CB	2.60	0.53
33:S:35:PHE:CE1	33:S:44:LEU:HB2	2.42	0.53
47:k:131:VAL:HG22	47:k:148:LEU:HD11	1.90	0.53
4:3:163:A:H2'	4:3:164:A:C8	2.44	0.53
4:3:974:C:N4	4:3:975:G:O6	2.42	0.53
4:3:2195:U:H2'	4:3:2196:G:C8	2.43	0.53
4:3:2694:A:H2'	4:3:2695:U:H6	1.74	0.53
6:5:219:A:H2'	6:5:220:U:O4'	2.09	0.53
7:6:271:LEU:HD22	7:6:321:LEU:HD11	1.90	0.53
9:9:627:ARG:HD3	9:9:670:ILE:CG2	2.39	0.53
9:9:1102:ILE:CD1	37:Z:859:LEU:CA	2.82	0.53
9:9:1212:MET:SD	37:Z:737:PHE:CZ	3.02	0.53
9:9:1289:MET:SD	14:AE:15:DA:C1'	2.96	0.53
9:9:1348:GLY:O	37:Z:388:LEU:HD12	2.08	0.53
19:E:13:LEU:HB3	19:E:17:GLN:HE21	1.73	0.53
29:O:31:GLY:HA3	29:O:43:LYS:O	2.08	0.53
37:Z:983:ILE:HG21	37:Z:1139:ARG:HD3	1.91	0.53
51:o:32:ASN:HA	51:o:49:THR:HA	1.90	0.53
4:3:1463:G:H2'	4:3:1464:G:H8	1.73	0.53
4:3:2351:U:O2'	4:3:2381:G:O2'	2.22	0.53
4:3:2383:G:N2	4:3:2386:A:OP2	2.23	0.53
6:5:742:C:H2'	6:5:743:A:H8	1.74	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:881:G:N1	6:5:905:U:C2	2.77	0.53
6:5:1345:G:H2'	6:5:1346:G:H8	1.73	0.53
6:5:1350:A:H4'	20:F:28:VAL:HG12	1.91	0.53
7:6:141:TYR:OH	7:6:144:SER:HB2	2.08	0.53
7:6:283:ARG:NH2	12:AC:313:LEU:O	2.42	0.53
8:7:29:C:H2'	8:7:30:G:H8	1.74	0.53
12:AC:156:THR:HG23	37:Z:77:LYS:CA	2.28	0.53
26:L:55:ALA:O	26:L:58:ASN:HB2	2.08	0.53
51:o:32:ASN:HD21	51:o:47:ASN:HB3	1.74	0.53
4:3:129:U:H2'	4:3:130:C:C6	2.44	0.53
4:3:499:G:N2	4:3:501:G:H3'	2.24	0.53
4:3:733:C:H5''	4:3:734:A:H5'	1.91	0.53
4:3:2098:U:O2'	58:v:34:GLN:NE2	2.41	0.53
4:3:2102:U:H5''	43:f:12:LEU:HD21	1.90	0.53
4:3:2285:G:H5''	48:l:11:LYS:HD2	1.91	0.53
4:3:2855:A:H3'	4:3:2856:G:H8	1.73	0.53
6:5:650:A:C5	21:G:67:LYS:HG2	2.44	0.53
7:6:223:ASP:OD1	7:AB:243:ASN:ND2	2.41	0.53
9:9:1348:GLY:C	37:Z:388:LEU:HD11	2.01	0.53
12:AC:239:LYS:CD	12:AC:294:LYS:N	2.70	0.53
18:D:177:ASP:N	18:D:177:ASP:OD1	2.42	0.53
19:E:22:ASN:O	19:E:26:GLN:NE2	2.41	0.53
23:I:21:SER:O	23:I:25:ASP:N	2.35	0.53
25:K:69:ARG:HD2	25:K:70:LEU:O	2.09	0.53
27:M:10:GLN:NE2	27:M:21:TYR:O	2.42	0.53
45:i:106:ASN:HA	45:i:109:LYS:HE2	1.91	0.53
54:r:81:SER:OG	54:r:97:THR:OG1	2.23	0.53
54:r:136:LYS:O	54:r:139:ARG:NH2	2.39	0.53
4:3:1012:G:H2'	4:3:1013:G:C8	2.44	0.53
4:3:1081:A:O3'	35:U:57:ASN:ND2	2.42	0.53
4:3:1142:G:C3'	35:U:78:GLY:N	2.43	0.53
4:3:1370:A:N6	4:3:1636:U:O2	2.41	0.53
4:3:2885:U:H2'	4:3:2886:A:C8	2.44	0.53
6:5:836:C:H2'	6:5:837:G:C4	2.44	0.53
6:5:1197:G:OP1	6:5:1295:U:O2'	2.26	0.53
9:9:479:ASN:HB3	9:9:481:ASP:OD1	2.08	0.53
9:9:953:ALA:CA	7:AB:294:SER:O	2.53	0.53
9:9:1371:LEU:HB2	37:Z:95:VAL:CG1	2.39	0.53
15:AF:55:PHE:CB	15:AF:62:LEU:HD12	2.37	0.53
17:C:166:PHE:CD2	17:C:167:VAL:HG13	2.44	0.53
25:K:76:VAL:HG21	25:K:108:TYR:HE1	1.74	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:223:A:N6	4:3:464:A:OP2	2.40	0.53
4:3:1034:A:OP1	52:p:83:LYS:NZ	2.42	0.53
4:3:1262:G:H2'	4:3:1263:G:H8	1.74	0.53
4:3:1262:G:H1'	54:r:128:ARG:HG2	1.90	0.53
4:3:1764:U:O4	4:3:1769:A:N7	2.42	0.53
6:5:320:G:H5'	33:S:17:ARG:HH22	1.73	0.53
6:5:675:U:H2'	6:5:676:U:H6	1.73	0.53
6:5:1156:G:H4'	6:5:1157:G:H5'	1.89	0.53
6:5:1436:C:H2'	6:5:1437:A:H8	1.71	0.53
9:9:94:ILE:CG2	9:9:135:LEU:CD1	2.87	0.53
9:9:1225:LYS:NZ	37:Z:738:ASP:CG	2.66	0.53
9:9:1310:LYS:CB	37:Z:409:ASP:HB2	2.39	0.53
9:9:1338:SER:O	37:Z:398:LEU:HD21	2.09	0.53
19:E:5:ILE:HG12	19:E:62:PHE:CE1	2.44	0.53
20:F:21:LEU:O	20:F:24:ARG:HG2	2.09	0.53
20:F:91:PRO:O	20:F:95:LYS:HG3	2.09	0.53
25:K:67:LYS:HD3	25:K:77:LEU:HD23	1.91	0.53
35:U:135:LEU:HD11	36:V:14:ILE:HG23	1.90	0.53
42:e:92:LEU:N	42:e:132:THR:O	2.39	0.53
4:3:73:A:H4'	4:3:74:U:H3'	1.91	0.52
4:3:599:U:OP1	53:q:78:HIS:NE2	2.42	0.52
4:3:686:C:H2'	4:3:687:G:C8	2.44	0.52
4:3:1119:A:C1'	35:U:53:VAL:CG2	2.87	0.52
4:3:2494:C:H2'	4:3:2495:A:H8	1.73	0.52
5:4:95:G:H2'	5:4:96:G:H8	1.74	0.52
5:4:104:C:H2'	5:4:105:A:H8	1.73	0.52
6:5:407:A:N6	6:5:426:U:O5'	2.41	0.52
6:5:612:G:N2	6:5:624:U:O2	2.40	0.52
6:5:944:A:O2'	6:5:966:A:N6	2.42	0.52
6:5:1267:G:H2'	6:5:1268:G:H8	1.74	0.52
8:7:54:G:N1	8:7:63:U:N3	2.57	0.52
9:9:1002:SER:N	12:AC:109:LYS:CA	2.72	0.52
9:9:1081:LEU:HD21	9:9:1243:LEU:HD21	1.91	0.52
9:9:1160:ARG:HD2	9:9:1176:ASP:OD1	2.08	0.52
9:9:1325:VAL:HG12	37:Z:464:ILE:CD1	2.34	0.52
9:9:1368:VAL:O	37:Z:98:GLU:HB3	2.07	0.52
24:J:100:ILE:HG12	24:J:103:ILE:HD11	1.91	0.52
40:c:194:ALA:C	40:c:196:ALA:H	2.16	0.52
50:n:7:GLN:HG3	50:n:11:ARG:NH2	2.20	0.52
4:3:300:G:H2'	4:3:301:G:C8	2.44	0.52
4:3:313:G:N2	4:3:394:C:C2	2.75	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:7:U:O2'	6:5:294:A:N3	2.42	0.52
6:5:412:G:H2'	6:5:413:G:C8	2.44	0.52
6:5:909:A:H2'	6:5:911:G:H5''	1.90	0.52
6:5:923:G:O2'	6:5:1508:C:OP1	2.26	0.52
6:5:1287:G:H2'	6:5:1288:C:C6	2.44	0.52
9:9:997:ALA:CB	12:AC:8:PHE:CD1	2.81	0.52
9:9:1306:LEU:HD23	37:Z:408:VAL:CG1	2.32	0.52
28:N:21:SER:OG	28:N:23:GLN:OE1	2.27	0.52
45:i:67:LEU:HB2	45:i:72:LYS:HG3	1.92	0.52
48:l:77:LYS:HG3	48:l:81:VAL:HG11	1.91	0.52
4:3:57:G:H2'	4:3:58:A:C8	2.45	0.52
4:3:220:A:H2'	4:3:221:A:C8	2.44	0.52
4:3:355:A:O2'	4:3:374:A:N3	2.41	0.52
4:3:567:U:H4'	4:3:568:G:C8	2.44	0.52
4:3:762:A:OP2	4:3:1459:A:O2'	2.25	0.52
4:3:1187:C:H5'	52:p:79:ILE:HG21	1.90	0.52
4:3:2372:C:H4'	57:u:72:THR:HG21	1.91	0.52
4:3:2743:U:H2'	4:3:2744:A:C8	2.45	0.52
6:5:47:G:O2'	6:5:361:U:H1'	2.09	0.52
6:5:879:G:H2'	6:5:880:G:H8	1.75	0.52
6:5:939:G:N1	6:5:1312:G:OP2	2.34	0.52
6:5:941:A:OP2	26:L:113:ARG:NH1	2.42	0.52
9:9:648:VAL:O	37:Z:835:PHE:CE2	2.63	0.52
9:9:829:ASN:O	9:9:848:LYS:HE2	2.03	0.52
19:E:153:LYS:HA	21:G:56:ASN:HD21	1.74	0.52
22:H:23:PRO:HB3	22:H:62:ASN:O	2.09	0.52
48:l:31:GLU:H	48:l:107:ALA:HB2	1.74	0.52
48:l:115:ILE:O	48:l:119:THR:HG23	2.08	0.52
50:n:11:ARG:NH1	50:n:95:GLY:O	2.42	0.52
4:3:347:C:H2'	4:3:348:A:C8	2.44	0.52
4:3:670:G:H2'	4:3:671:C:C6	2.45	0.52
4:3:869:U:O2'	4:3:2366:A:H1'	2.09	0.52
4:3:894:G:H21	4:3:2276:A:H3'	1.75	0.52
4:3:935:U:H2'	4:3:936:G:C8	2.45	0.52
4:3:1142:G:H4'	35:U:78:GLY:H	1.01	0.52
4:3:1280:G:P	47:k:22:ARG:HE	2.33	0.52
4:3:1872:U:O4	4:3:1882:G:O6	2.28	0.52
4:3:2083:U:O5'	4:3:2246:G:N2	2.42	0.52
4:3:2609:C:H2'	4:3:2611:G:C8	2.44	0.52
6:5:560:U:O2	25:K:13:LYS:N	2.42	0.52
6:5:610:C:H2'	6:5:611:A:H8	1.74	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:621:C:H2'	6:5:622:A:C8	2.44	0.52
6:5:1039:G:H5''	27:M:2:ALA:HA	1.92	0.52
6:5:1114:A:N6	6:5:1127:A:H61	2.07	0.52
7:6:111:LEU:HD21	7:6:156:TYR:CE1	2.45	0.52
8:7:2:G:N2	8:7:74:A:N7	2.58	0.52
9:9:216:ALA:CB	13:AD:20:DG:N7	2.72	0.52
9:9:998:ILE:C	12:AC:108:LEU:CB	2.81	0.52
9:9:998:ILE:C	12:AC:108:LEU:CD1	2.52	0.52
10:A:120:PHE:O	10:A:124:SER:N	2.36	0.52
7:AB:300:ILE:HD12	7:AB:325:LEU:HD13	1.90	0.52
16:B:89:THR:HA	16:B:92:ILE:HG12	1.90	0.52
18:D:67:GLU:HG2	18:D:97:ARG:HH11	1.75	0.52
18:D:139:GLU:OE1	18:D:152:LYS:HB2	2.09	0.52
22:H:49:ASP:OD1	22:H:50:MET:N	2.41	0.52
22:H:93:ASN:ND2	22:H:95:GLU:OE2	2.42	0.52
24:J:73:ALA:O	24:J:99:SER:OG	2.27	0.52
38:a:136:MET:HE2	38:a:140:PHE:HB2	1.92	0.52
4:3:513:A:O2'	4:3:514:A:OP1	2.27	0.52
4:3:893:A:H2'	4:3:894:G:C8	2.44	0.52
4:3:1106:G:O2'	4:3:1124:G:OP2	2.28	0.52
4:3:1649:C:OP2	4:3:1651:C:N4	2.43	0.52
4:3:2826:G:O2'	4:3:2828:C:OP2	2.22	0.52
6:5:34:A:H2'	6:5:35:C:C6	2.45	0.52
6:5:36:G:H2'	6:5:37:C:C6	2.43	0.52
6:5:1178:C:H2'	6:5:1179:A:C8	2.44	0.52
6:5:1312:G:H2'	6:5:1313:A:C4	2.44	0.52
9:9:1118:ALA:HB1	9:9:1191:LEU:O	2.09	0.52
11:AA:35:VAL:HG11	21:G:131:LYS:NZ	2.24	0.52
18:D:191:MET:O	18:D:195:THR:HG23	2.09	0.52
23:I:25:ASP:O	23:I:29:LYS:HG2	2.10	0.52
23:I:28:THR:CG2	23:I:78:ARG:HG2	2.39	0.52
37:Z:335:ARG:NH1	37:Z:359:LEU:HD13	2.24	0.52
48:l:3:GLN:OE1	48:l:4:PRO:HD2	2.10	0.52
53:q:28:PRO:O	53:q:31:LYS:NZ	2.41	0.52
54:r:115:GLN:CD	54:r:115:GLN:H	2.17	0.52
59:w:15:LEU:HD22	59:w:58:LEU:HD21	1.90	0.52
4:3:86:A:N6	4:3:101:C:O4'	2.42	0.52
4:3:723:U:H2'	4:3:724:A:H8	1.74	0.52
6:5:675:U:H2'	6:5:676:U:C6	2.44	0.52
6:5:724:G:N2	6:5:727:G:OP2	2.37	0.52
6:5:1176:A:H4'	6:5:1177:U:H5''	1.91	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:1219:C:H2'	6:5:1220:A:C8	2.44	0.52
6:5:1266:U:OP2	20:F:40:ARG:NH2	2.43	0.52
7:6:108:ARG:NH2	7:AB:316:LYS:HE2	2.24	0.52
9:9:667:ILE:HD11	37:Z:875:ARG:HG3	1.92	0.52
11:AA:35:VAL:CG1	21:G:131:LYS:NZ	2.73	0.52
15:AF:78:ASP:OD2	15:AF:81:ARG:NH2	2.37	0.52
33:S:25:LYS:O	33:S:28:LEU:HG	2.10	0.52
40:c:57:GLU:OE1	40:c:94:LYS:NZ	2.43	0.52
47:k:48:ARG:HG2	47:k:50:GLY:H	1.74	0.52
57:u:62:GLY:N	57:u:95:VAL:O	2.42	0.52
4:3:21:U:OP1	52:p:28:HIS:NE2	2.43	0.52
4:3:274:A:OP2	4:3:294:G:N1	2.42	0.52
4:3:379:A:N3	4:3:381:A:N6	2.58	0.52
4:3:453:U:H2'	4:3:454:G:C8	2.45	0.52
4:3:1081:A:C2	35:U:58:ILE:CD1	2.91	0.52
4:3:1862:A:N6	4:3:1863:G:O6	2.43	0.52
4:3:2353:G:H1'	4:3:2389:A:H2'	1.90	0.52
4:3:2646:G:O2'	4:3:2647:A:N7	2.41	0.52
6:5:306:G:H2'	6:5:307:C:C6	2.45	0.52
6:5:561:A:H2'	6:5:565:G:C8	2.45	0.52
6:5:649:U:O4	6:5:749:G:O2'	2.21	0.52
6:5:655:G:C6	6:5:746:A:C6	2.98	0.52
6:5:1203:A:OP2	26:L:107:ARG:NH2	2.41	0.52
8:7:7:U:H3	8:7:68:G:H1	1.57	0.52
9:9:998:ILE:CB	12:AC:62:MET:HE1	2.40	0.52
12:AC:224:ASN:OD1	12:AC:230:ILE:HG22	2.10	0.52
20:F:124:ILE:O	20:F:127:SER:OG	2.27	0.52
24:J:22:ASN:OD1	24:J:23:THR:N	2.43	0.52
32:R:19:VAL:HG21	32:R:44:PHE:CE1	2.45	0.52
37:Z:393:LYS:HE3	37:Z:1238:LYS:HB2	1.92	0.52
45:i:78:TYR:HB3	45:i:87:ILE:HD12	1.91	0.52
48:l:44:ALA:HA	48:l:47:ILE:HD12	1.91	0.52
4:3:134:U:H2'	4:3:135:A:C8	2.45	0.52
4:3:2409:U:O4	4:3:2423:G:O6	2.27	0.52
5:4:95:G:H2'	5:4:96:G:C8	2.45	0.52
6:5:250:G:H2'	6:5:251:G:H8	1.74	0.52
6:5:519:G:C6	6:5:527:G:N1	2.78	0.52
6:5:599:G:O6	6:5:634:U:O2	2.28	0.52
11:AA:5:TYR:OH	11:AA:48:LEU:HA	2.09	0.52
11:AA:58:GLU:HG2	37:Z:1213:ASN:ND2	2.19	0.52
7:AB:86:GLN:CD	37:Z:599:THR:CG2	2.81	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AC:183:LYS:HB3	12:AC:280:PHE:O	2.09	0.52
12:AC:239:LYS:HE2	12:AC:294:LYS:HG3	1.89	0.52
19:E:97:LEU:HD23	19:E:100:ILE:HB	1.92	0.52
27:M:47:LEU:HD12	27:M:52:ALA:HB2	1.91	0.52
37:Z:64:LYS:HD2	37:Z:67:GLU:OE2	2.09	0.52
37:Z:884:LYS:HE2	37:Z:1029:MET:HG3	1.91	0.52
4:3:454:G:H2'	4:3:455:G:C8	2.37	0.52
4:3:2376:C:H2'	4:3:2377:A:C8	2.45	0.52
4:3:2700:C:H2'	4:3:2701:A:C8	2.45	0.52
6:5:1112:U:O4	6:5:1128:G:O6	2.28	0.52
9:9:998:ILE:CB	12:AC:62:MET:CE	2.81	0.52
9:9:999:PHE:CZ	12:AC:42:TYR:CZ	2.98	0.52
10:A:72:VAL:HA	10:A:75:VAL:HG12	1.92	0.52
10:A:90:ASP:OD1	10:A:91:TYR:N	2.43	0.52
11:AA:42:LYS:CB	21:G:126:LYS:HG3	2.26	0.52
12:AC:156:THR:O	37:Z:76:ILE:HD13	2.10	0.52
13:AD:17:DT:C2'	13:AD:18:DG:C8	2.92	0.52
20:F:107:ALA:HA	20:F:122:GLU:CD	2.35	0.52
21:G:26:ARG:HG3	21:G:84:ILE:HG23	1.92	0.52
39:b:165:MET:HE3	39:b:166:SER:H	1.75	0.52
56:t:24:VAL:HA	56:t:36:VAL:HG22	1.92	0.52
4:3:142:A:H2	4:3:1628:G:H21	1.58	0.52
4:3:316:C:O2'	4:3:392:A:N1	2.38	0.52
4:3:616:G:OP1	52:p:13:ARG:NH2	2.43	0.52
4:3:1691:U:H4'	39:b:139:TYR:HD2	1.75	0.52
5:4:103:C:H2'	5:4:104:C:C6	2.45	0.52
6:5:251:G:H5''	30:P:20:LYS:HE2	1.91	0.52
6:5:1139:A:H2'	6:5:1140:A:H8	1.75	0.52
8:7:68:G:H2'	8:7:69:A:H8	1.75	0.52
9:9:76:THR:HG22	9:9:125:VAL:HG21	1.91	0.52
9:9:1285:ARG:NH2	37:Z:401:HIS:ND1	2.57	0.52
9:9:1292:TRP:CZ2	37:Z:893:ARG:HG3	2.45	0.52
7:AB:35:VAL:HG21	7:AB:207:ASP:CB	2.40	0.52
12:AC:290:TRP:CE2	12:AC:296:LYS:CD	2.89	0.52
33:S:50:GLN:HA	33:S:53:ARG:HD2	1.91	0.52
58:v:57:THR:O	58:v:61:HIS:ND1	2.42	0.52
4:3:494:G:HO2'	4:3:505:G:H1	1.58	0.51
4:3:1119:A:C5	35:U:53:VAL:HG21	2.39	0.51
4:3:1364:A:OP1	55:s:66:ARG:NH1	2.43	0.51
4:3:2269:C:H2'	4:3:2270:U:H6	1.74	0.51
6:5:63:U:O2'	6:5:375:C:O2	2.28	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:65:G:H4'	6:5:66:A:H3'	1.91	0.51
6:5:250:G:H2'	6:5:251:G:C8	2.44	0.51
6:5:713:A:H1'	24:J:113:GLY:HA2	1.92	0.51
6:5:753:C:OP2	28:N:62:ARG:NH2	2.41	0.51
6:5:1003:G:N1	6:5:1018:U:N3	2.58	0.51
6:5:1031:A:H2'	6:5:1032:G:C8	2.45	0.51
11:AA:35:VAL:HG12	21:G:131:LYS:HZ1	1.75	0.51
18:D:162:ALA:HB1	18:D:166:ILE:HG22	1.92	0.51
37:Z:67:GLU:HG2	37:Z:74:LYS:HG2	1.92	0.51
37:Z:342:ILE:CD1	37:Z:356:GLU:HG3	2.40	0.51
38:a:147:VAL:HA	38:a:200:VAL:HA	1.91	0.51
40:c:26:ALA:N	40:c:117:SER:OG	2.42	0.51
52:p:65:ASN:OD1	52:p:75:TYR:HB2	2.11	0.51
2:1:36:LYS:O	2:1:39:ARG:HD3	2.10	0.51
4:3:632:A:H2'	4:3:633:G:H8	1.76	0.51
4:3:1088:A:N1	35:U:79:LYS:CE	2.67	0.51
4:3:1511:C:H2'	4:3:1512:A:C8	2.45	0.51
4:3:1846:A:H1'	4:3:1934:A:C8	2.45	0.51
6:5:1248:U:H2'	6:5:1249:G:O4'	2.09	0.51
8:7:2:G:O6	8:7:73:C:N4	2.42	0.51
8:7:55:U:O2	8:7:59:A:N7	2.43	0.51
9:9:945:ARG:HH22	7:AB:298:ALA:HB1	1.75	0.51
12:AC:139:PHE:CD1	12:AC:147:ILE:HD12	2.45	0.51
12:AC:249:LYS:HB2	12:AC:297:PHE:HE1	1.72	0.51
13:AD:17:DT:H5''	15:AF:118:THR:CG2	2.09	0.51
28:N:70:ASN:OD1	28:N:71:ASP:N	2.44	0.51
32:R:22:MET:O	32:R:27:LYS:N	2.35	0.51
55:s:36:SER:OG	55:s:37:LYS:N	2.43	0.51
62:z:35:ASN:HB3	62:z:46:VAL:HG22	1.92	0.51
4:3:680:A:H2'	4:3:682:A:N7	2.24	0.51
4:3:808:U:H4'	38:a:51:GLY:HA3	1.92	0.51
4:3:1292:A:OP1	54:r:99:ARG:NH1	2.44	0.51
4:3:1543:U:H2'	4:3:1544:G:C8	2.45	0.51
4:3:2104:A:H2'	4:3:2105:G:H8	1.75	0.51
4:3:2659:U:H2'	4:3:2660:C:C6	2.45	0.51
6:5:190:A:H2'	6:5:191:A:O4'	2.10	0.51
6:5:519:G:C6	6:5:527:G:C2	2.97	0.51
6:5:537:A:H2'	6:5:538:G:C8	2.46	0.51
6:5:662:G:H1'	6:5:730:G:H5'	1.92	0.51
6:5:736:U:O2'	28:N:39:HIS:HD2	1.93	0.51
6:5:1417:U:H2'	6:5:1418:G:H8	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:173:ILE:CG2	7:AB:324:LYS:HZ1	2.21	0.51
9:9:450:ILE:CD1	9:9:505:ILE:HD12	2.40	0.51
9:9:659:ILE:O	9:9:780:LEU:HD13	2.09	0.51
9:9:1344:LYS:HB2	37:Z:309:ILE:HG21	1.92	0.51
15:AF:124:SER:CB	37:Z:142:VAL:CG1	2.82	0.51
17:C:168:GLU:CG	37:Z:30:ASN:OD1	2.58	0.51
19:E:25:GLN:O	19:E:28:THR:OG1	2.24	0.51
51:o:67:ARG:HE	51:o:74:PRO:HB2	1.73	0.51
4:3:299:A:H2'	4:3:300:G:C8	2.45	0.51
4:3:300:G:H2'	4:3:301:G:H8	1.76	0.51
4:3:815:G:H21	4:3:818:A:H61	1.56	0.51
4:3:990:G:N2	4:3:999:U:O2	2.29	0.51
4:3:1029:A:OP1	52:p:49:ARG:NE	2.42	0.51
4:3:1032:A:H2'	4:3:1033:A:H8	1.75	0.51
4:3:1475:C:H1'	4:3:1577:A:H2	1.76	0.51
4:3:1756:A:H2'	4:3:1757:G:C8	2.45	0.51
4:3:1816:A:H2'	4:3:1817:A:C8	2.46	0.51
4:3:2668:A:O2'	4:3:2669:G:H8	1.93	0.51
4:3:2892:U:H2'	4:3:2893:C:H6	1.75	0.51
6:5:832:G:H2'	6:5:833:G:H8	1.76	0.51
6:5:842:C:H2'	6:5:843:C:C6	2.45	0.51
6:5:1065:G:H2'	6:5:1066:U:H6	1.76	0.51
7:6:243:ASN:ND2	7:AB:223:ASP:OD1	2.44	0.51
9:9:994:LEU:HD12	12:AC:12:LEU:HD13	1.87	0.51
9:9:999:PHE:CZ	12:AC:42:TYR:OH	2.31	0.51
11:AA:68:ARG:NH2	37:Z:1207:MET:HB2	2.25	0.51
12:AC:43:LYS:HG3	12:AC:49:VAL:HA	1.91	0.51
12:AC:159:ASP:OD1	37:Z:79:ARG:NH2	2.44	0.51
12:AC:290:TRP:CE2	12:AC:296:LYS:CE	2.94	0.51
19:E:71:ASP:N	19:E:71:ASP:OD1	2.43	0.51
59:w:51:LEU:O	59:w:55:LEU:HD23	2.11	0.51
60:x:16:CYS:HB3	60:x:21:ASN:HB3	1.91	0.51
4:3:163:A:N6	4:3:169:U:H3	2.00	0.51
4:3:674:G:H2'	4:3:675:U:H6	1.74	0.51
4:3:1662:G:H2'	4:3:1663:G:H8	1.75	0.51
4:3:2339:G:H2'	4:3:2340:U:O4'	2.11	0.51
4:3:2843:G:O6	4:3:2882:U:O2	2.27	0.51
6:5:331:C:H2'	6:5:332:A:C8	2.46	0.51
6:5:1201:C:H4'	32:R:81:LYS:HD3	1.91	0.51
6:5:1222:U:H2'	6:5:1223:A:H8	1.74	0.51
9:9:356:ARG:HH12	15:AF:113:ASN:H	1.59	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1371:LEU:HB2	37:Z:95:VAL:HG12	1.92	0.51
11:AA:5:TYR:HE2	11:AA:48:LEU:CD2	2.15	0.51
7:AB:129:CYS:SG	7:AB:135:VAL:HG23	2.50	0.51
16:B:42:ASN:O	16:B:46:VAL:HG22	2.10	0.51
37:Z:47:LEU:HD21	37:Z:320:PHE:HZ	1.75	0.51
38:a:131:LYS:HD2	38:a:132:PRO:HD2	1.92	0.51
54:r:124:LEU:O	54:r:127:LYS:HG2	2.10	0.51
4:3:67:C:O2'	4:3:492:C:N3	2.35	0.51
4:3:669:A:O2'	4:3:2412:A:OP1	2.24	0.51
4:3:1088:A:H2	35:U:79:LYS:CE	2.06	0.51
4:3:2249:A:H2'	4:3:2250:G:C8	2.45	0.51
4:3:2311:G:N3	41:d:129:THR:HG21	2.25	0.51
5:4:38:U:H1'	5:4:43:A:H62	1.74	0.51
5:4:59:A:O2'	5:4:60:C:OP1	2.28	0.51
6:5:1065:G:H2'	6:5:1066:U:C6	2.45	0.51
6:5:1483:C:H2'	6:5:1484:C:H6	1.75	0.51
9:9:374:CYS:HB2	9:9:459:VAL:HG13	1.91	0.51
10:A:32:MET:HE3	10:A:33:VAL:HG22	1.92	0.51
12:AC:239:LYS:HD2	12:AC:293:ASP:CA	2.39	0.51
50:n:28:VAL:HG13	50:n:89:VAL:HG12	1.91	0.51
60:x:13:SER:HA	60:x:24:THR:HB	1.91	0.51
4:3:192:U:O2	4:3:212:G:N2	2.36	0.51
4:3:784:A:H61	4:3:788:G:H21	1.57	0.51
4:3:793:C:H2'	4:3:794:G:H8	1.76	0.51
4:3:1201:A:H2'	4:3:1202:A:H8	1.74	0.51
4:3:1917:G:H2'	4:3:1918:U:C6	2.45	0.51
4:3:2145:A:H2'	4:3:2146:A:C8	2.44	0.51
4:3:2622:A:O4'	61:y:2:ALA:N	2.43	0.51
4:3:2892:U:H2'	4:3:2893:C:C6	2.45	0.51
8:7:23:G:H2'	8:7:24:A:C8	2.46	0.51
9:9:807:LYS:HE3	9:9:811:ASP:OD2	2.11	0.51
9:9:953:ALA:C	7:AB:326:ARG:HD3	2.35	0.51
9:9:956:ARG:HG2	7:AB:327:SER:C	2.35	0.51
14:AE:14:DG:C5'	37:Z:890:TYR:CB	2.67	0.51
16:B:11:ARG:NH1	16:B:177:PRO:O	2.43	0.51
26:L:54:VAL:O	26:L:58:ASN:N	2.41	0.51
31:Q:43:PHE:HB2	31:Q:82:HIS:ND1	2.26	0.51
38:a:136:MET:HA	38:a:197:ARG:HH21	1.76	0.51
38:a:229:ARG:HH21	38:a:232:ALA:HB2	1.74	0.51
39:b:117:ARG:HD2	39:b:169:TYR:CD2	2.46	0.51
39:b:161:LYS:HZ1	45:i:82:GLN:HG3	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:k:93:ILE:HD13	47:k:126:PHE:HE1	1.75	0.51
51:o:48:PHE:HE2	51:o:66:VAL:HG13	1.74	0.51
4:3:49:C:O2'	4:3:54:A:O2'	2.26	0.51
4:3:1347:A:H2'	4:3:1348:C:C6	2.46	0.51
4:3:2555:U:H2'	4:3:2556:C:C6	2.46	0.51
4:3:2841:A:H2'	4:3:2842:G:H8	1.76	0.51
6:5:603:U:O2	6:5:630:G:N2	2.37	0.51
7:6:73:MET:HE3	7:6:143:PHE:CD2	2.46	0.51
9:9:1269:LYS:HB2	37:Z:313:ILE:HD13	1.88	0.51
9:9:1370:ILE:CG2	37:Z:94:ILE:CG2	2.89	0.51
10:A:133:LEU:HB3	10:A:156:ILE:HD11	1.92	0.51
7:AB:269:GLU:HG3	7:AB:278:PHE:HE2	1.75	0.51
12:AC:139:PHE:CG	12:AC:147:ILE:HD12	2.46	0.51
14:AE:23:DC:C6	37:Z:380:LYS:HB2	2.40	0.51
23:I:45:PRO:HB3	23:I:78:ARG:HD2	1.93	0.51
31:Q:57:LEU:O	31:Q:61:LYS:HG2	2.10	0.51
33:S:53:ARG:HA	33:S:56:ARG:NH2	2.25	0.51
37:Z:753:ASP:OD2	37:Z:855:LYS:NZ	2.43	0.51
42:e:118:GLU:OE2	42:e:154:TRP:NE1	2.38	0.51
45:i:3:LYS:N	53:q:12:TYR:HH	2.08	0.51
4:3:960:A:H2'	4:3:961:U:C6	2.45	0.51
4:3:966:U:H2'	4:3:967:U:C6	2.46	0.51
4:3:1315:A:N6	49:m:109:ASP:OD2	2.38	0.51
4:3:1455:A:H2	38:a:35:LYS:HD3	1.75	0.51
4:3:2097:A:N6	4:3:2238:G:O6	2.44	0.51
4:3:2744:A:H2'	4:3:2745:G:H8	1.74	0.51
5:4:3:U:OP1	5:4:59:A:O2'	2.29	0.51
5:4:76:A:C6	5:4:77:G:C6	2.99	0.51
6:5:554:C:H2'	6:5:555:G:C8	2.45	0.51
9:9:570:ILE:CG2	9:9:574:GLY:HA2	2.41	0.51
9:9:1305:GLU:OE1	37:Z:542:LEU:HG	2.11	0.51
10:A:88:LYS:HB2	10:A:92:VAL:HG12	1.93	0.51
18:D:167:ARG:HA	18:D:170:ILE:HG22	1.93	0.51
23:I:28:THR:HG22	23:I:78:ARG:HG2	1.93	0.51
33:S:53:ARG:HA	33:S:56:ARG:HH22	1.75	0.51
37:Z:19:LYS:HE3	37:Z:1248:THR:CG2	2.40	0.51
37:Z:167:ASP:O	37:Z:173:SER:HA	2.11	0.51
37:Z:1253:LEU:HD13	37:Z:1262:ILE:HD13	1.91	0.51
51:o:92:ARG:HB3	51:o:115:LYS:HD2	1.93	0.51
62:z:8:ARG:HD3	62:z:17:ILE:HG23	1.93	0.51
4:3:715:G:OP2	4:3:811:G:N1	2.44	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1164:A:O2'	4:3:2523:C:O2'	2.19	0.51
4:3:1305:G:C6	4:3:1322:A:C6	2.99	0.51
4:3:1866:G:N1	4:3:1891:A:N7	2.59	0.51
4:3:2312:G:H1	4:3:2320:U:H3	1.57	0.51
4:3:2321:C:H5'	41:d:88:LYS:HE2	1.93	0.51
4:3:2744:A:H2'	4:3:2745:G:C8	2.46	0.51
4:3:2845:U:H2'	4:3:2846:A:H8	1.75	0.51
6:5:318:C:H2'	6:5:319:U:C6	2.46	0.51
6:5:1124:U:H4'	22:H:18:LYS:HD2	1.93	0.51
6:5:1230:G:N7	6:5:1254:A:N6	2.59	0.51
6:5:1359:C:H2'	6:5:1360:G:C8	2.45	0.51
8:7:63:U:H2'	8:7:64:G:H8	1.73	0.51
9:9:1307:LEU:CB	37:Z:406:LYS:CD	2.80	0.51
9:9:1346:LEU:HD23	37:Z:392:LEU:CD1	2.33	0.51
7:AB:35:VAL:CG1	7:AB:195:VAL:HG22	2.40	0.51
20:F:63:ARG:NE	20:F:127:SER:O	2.44	0.51
37:Z:1043:LEU:HD21	37:Z:1122:GLY:HA2	1.93	0.51
40:c:116:TRP:CZ2	40:c:186:VAL:HG21	2.46	0.51
41:d:33:LYS:HD3	41:d:92:ARG:HH11	1.76	0.51
49:m:28:TYR:OH	49:m:71:ASN:OD1	2.26	0.51
54:r:9:ARG:H	54:r:102:ASN:HA	1.76	0.51
4:3:148:U:H2'	4:3:149:A:C8	2.47	0.50
4:3:192:U:H5''	58:v:14:TYR:CD1	2.46	0.50
4:3:385:U:H2'	4:3:386:U:C6	2.46	0.50
4:3:522:C:H2'	4:3:523:A:H8	1.76	0.50
4:3:1073:A:H2'	4:3:1074:A:C8	2.46	0.50
4:3:1820:U:O2'	4:3:1821:G:OP1	2.25	0.50
6:5:500:G:H2'	6:5:501:A:C8	2.46	0.50
6:5:510:U:H2'	6:5:511:A:C8	2.46	0.50
6:5:650:A:N6	21:G:66:THR:O	2.44	0.50
6:5:1156:G:H1'	6:5:1157:G:C4	2.46	0.50
9:9:1018:ASP:O	9:9:1049:GLN:HG2	2.11	0.50
9:9:1347:GLN:OE1	37:Z:100:MET:HE2	2.09	0.50
10:A:89:ASN:OD1	10:A:90:ASP:N	2.40	0.50
7:AB:111:LEU:HD21	7:AB:156:TYR:CE1	2.47	0.50
18:D:176:SER:OG	18:D:177:ASP:OD1	2.28	0.50
37:Z:1118:LYS:HE2	37:Z:1124:ILE:HG13	1.93	0.50
39:b:63:ASN:HB3	39:b:66:GLN:OE1	2.11	0.50
45:i:101:ASP:HB2	45:i:127:VAL:HG13	1.94	0.50
4:3:130:C:H2'	4:3:131:C:C6	2.47	0.50
4:3:606:G:O6	4:3:2036:G:O2'	2.24	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1024:A:N1	4:3:1025:G:N2	2.59	0.50
4:3:1224:G:H2'	4:3:1225:A:C8	2.47	0.50
4:3:2561:G:N2	4:3:2591:G:H21	2.09	0.50
6:5:435:U:O2'	6:5:437:U:O4	2.29	0.50
6:5:441:U:H2'	6:5:442:G:C8	2.46	0.50
6:5:590:G:H2'	6:5:591:A:H8	1.77	0.50
6:5:1331:A:H61	6:5:1340:G:H1	0.64	0.50
9:9:162:TYR:HA	9:9:522:ASP:OD2	2.12	0.50
9:9:1262:ARG:HD2	9:9:1281:ASN:O	2.12	0.50
7:AB:85:LYS:NZ	37:Z:602:GLU:OE1	2.37	0.50
7:AB:269:GLU:HG3	7:AB:278:PHE:CE2	2.46	0.50
12:AC:157:ASN:O	37:Z:76:ILE:HD11	1.89	0.50
36:X:23:ALA:CB	36:Y:6:ILE:HD11	2.35	0.50
39:b:30:TYR:OH	39:b:32:GLU:OE2	2.23	0.50
50:n:8:ARG:NH1	50:n:9:ARG:HE	2.09	0.50
62:z:5:ARG:HB2	62:z:22:PHE:HB3	1.93	0.50
4:3:118:G:OP2	4:3:120:A:O2'	2.25	0.50
4:3:673:A:OP1	47:k:117:HIS:HB2	2.11	0.50
4:3:725:G:H4'	38:a:225:ARG:HH22	1.77	0.50
4:3:1196:U:H2'	4:3:1197:G:C8	2.47	0.50
4:3:1290:G:H2'	4:3:1291:C:C6	2.46	0.50
4:3:1691:U:H2'	4:3:1692:A:C8	2.47	0.50
4:3:1834:U:H2'	4:3:1835:G:O4'	2.12	0.50
4:3:2017:G:H2'	4:3:2018:U:C6	2.46	0.50
4:3:2072:C:H2'	4:3:2073:C:H6	1.76	0.50
4:3:2093:U:H2'	4:3:2094:A:H8	1.73	0.50
4:3:2235:A:H5''	38:a:271:LYS:HE3	1.93	0.50
4:3:2478:G:O6	4:3:2489:G:N2	2.43	0.50
6:5:283:U:H2'	6:5:284:A:C8	2.47	0.50
6:5:1175:C:OP1	6:5:1176:A:O2'	2.24	0.50
9:9:774:ASP:O	37:Z:867:TYR:HE2	1.94	0.50
9:9:1003:VAL:CG1	12:AC:116:ILE:CD1	2.89	0.50
7:AB:170:ARG:HH22	37:Z:679:ARG:HH12	1.59	0.50
12:AC:55:ILE:HG12	12:AC:62:MET:HG3	1.92	0.50
18:D:181:LYS:NZ	18:D:182:ASN:O	2.40	0.50
37:Z:427:VAL:HG21	37:Z:493:LEU:CD1	2.32	0.50
4:3:325:G:H1	4:3:383:U:H3	1.58	0.50
4:3:904:C:H42	4:3:949:C:H1'	1.76	0.50
4:3:1176:U:H4'	4:3:1177:A:O4'	2.12	0.50
4:3:2144:C:H2'	4:3:2145:A:C8	2.44	0.50
4:3:2843:G:H2'	4:3:2844:U:C6	2.46	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:57:U:N3	6:5:58:G:O6	2.44	0.50
6:5:58:G:H2'	6:5:59:C:C6	2.46	0.50
6:5:506:U:O2	6:5:507:A:N6	2.45	0.50
6:5:830:U:H3	6:5:847:G:H1	1.59	0.50
6:5:937:G:H1	6:5:1315:U:H3	1.60	0.50
6:5:1096:A:H2'	6:5:1097:G:H8	1.77	0.50
6:5:1219:C:H2'	6:5:1220:A:H8	1.76	0.50
9:9:381:ARG:HH22	9:9:551:GLU:CD	2.20	0.50
9:9:649:HIS:NE2	37:Z:837:TYR:CZ	2.53	0.50
24:J:119:ARG:HB2	34:T:34:TYR:HB2	1.93	0.50
37:Z:33:GLU:HG3	37:Z:99:ARG:HE	1.76	0.50
38:a:213:ILE:HD13	38:a:222:ARG:HH12	1.77	0.50
4:3:14:U:O4	4:3:2634:C:O2'	2.30	0.50
4:3:609:U:H2'	4:3:610:G:C8	2.47	0.50
4:3:663:A:N3	4:3:672:G:N2	2.59	0.50
4:3:1187:C:C5'	52:p:79:ILE:HG21	2.42	0.50
4:3:1451:A:H2'	4:3:1452:G:H8	1.76	0.50
4:3:1609:U:H2'	4:3:1610:U:C6	2.47	0.50
4:3:2297:G:N2	4:3:2354:A:OP1	2.44	0.50
4:3:2352:U:H2'	62:z:34:LEU:HD22	1.92	0.50
4:3:2494:C:H2'	4:3:2495:A:C8	2.47	0.50
6:5:442:G:H2'	6:5:443:G:C8	2.47	0.50
6:5:631:C:H2'	6:5:632:A:C8	2.46	0.50
6:5:1147:U:H2'	6:5:1148:U:C6	2.47	0.50
7:6:31:GLU:OE1	7:AB:161:ARG:NH2	2.43	0.50
7:AB:271:LEU:HD22	7:AB:321:LEU:HD11	1.94	0.50
15:AF:137:ASP:OD2	37:Z:349:PRO:CG	2.60	0.50
54:r:49:LYS:HA	54:r:52:ASN:HD21	1.75	0.50
59:w:55:LEU:O	59:w:59:THR:HG23	2.11	0.50
4:3:590:U:H2'	4:3:591:G:H8	1.77	0.50
4:3:1081:A:C8	35:U:7:LYS:CD	2.89	0.50
4:3:1104:A:H5''	4:3:1105:A:C8	2.47	0.50
4:3:1222:A:H2'	4:3:1223:C:C6	2.47	0.50
4:3:1838:A:H2'	4:3:1839:C:C6	2.46	0.50
4:3:2213:A:H2'	4:3:2214:A:C8	2.47	0.50
4:3:2301:C:H2'	4:3:2302:C:C6	2.46	0.50
4:3:2602:C:N4	4:3:2603:G:O6	2.44	0.50
5:4:31:G:N2	5:4:34:U:O4	2.45	0.50
6:5:319:U:O3'	33:S:17:ARG:NH2	2.44	0.50
6:5:649:U:H1'	6:5:650:A:C8	2.47	0.50
6:5:671:G:H2'	6:5:672:A:H8	1.77	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:101:GLU:HG2	9:9:110:ILE:HG23	1.93	0.50
9:9:1344:LYS:CB	37:Z:309:ILE:CD1	2.87	0.50
10:A:29:HIS:CD2	10:A:56:PHE:HB2	2.45	0.50
14:AE:14:DG:N2	37:Z:497:PRO:HG3	2.26	0.50
14:AE:17:DT:C5'	37:Z:413:ARG:NH1	2.72	0.50
40:c:145:GLN:NE2	40:c:145:GLN:O	2.45	0.50
41:d:14:LYS:HB2	41:d:18:LYS:HZ3	1.77	0.50
51:o:54:ARG:HG3	51:o:100:TYR:CE1	2.45	0.50
4:3:482:G:H5'	52:p:2:ARG:NH2	2.27	0.50
4:3:1306:G:H2'	4:3:1307:G:C8	2.46	0.50
4:3:2799:U:N3	4:3:2810:A:N6	2.60	0.50
6:5:318:C:H2'	6:5:319:U:H6	1.75	0.50
6:5:385:A:H3'	6:5:386:U:C6	2.46	0.50
6:5:441:U:H2'	6:5:442:G:H8	1.76	0.50
6:5:1051:U:H2'	6:5:1052:G:C8	2.46	0.50
6:5:1098:C:OP1	16:B:176:MET:N	2.39	0.50
6:5:1222:U:H2'	6:5:1223:A:C8	2.46	0.50
6:5:1353:C:H5''	20:F:5:ARG:HH12	1.77	0.50
7:6:49:CYS:SG	7:AB:34:PHE:HE2	2.34	0.50
8:7:36:A:H2'	8:7:37:A:C8	2.47	0.50
9:9:37:GLN:HG3	9:9:150:PHE:CZ	2.46	0.50
9:9:618:PRO:HA	9:9:814:LEU:CD1	2.40	0.50
9:9:648:VAL:HG12	37:Z:872:TYR:CE1	2.46	0.50
10:A:181:PRO:HB3	10:A:188:VAL:HG11	1.92	0.50
17:C:72:ARG:HH12	17:C:202:ARG:HH21	1.59	0.50
27:M:3:LYS:HG3	27:M:4:LYS:HD3	1.93	0.50
28:N:20:GLY:HA2	28:N:25:GLN:HE22	1.77	0.50
31:Q:58:GLU:O	31:Q:62:ARG:HG3	2.12	0.50
37:Z:113:TRP:CD1	37:Z:1238:LYS:HE3	2.47	0.50
37:Z:742:TYR:CE1	37:Z:745:LYS:HB3	2.45	0.50
62:z:32:LEU:HD21	62:z:34:LEU:HD12	1.94	0.50
4:3:655:G:H3'	4:3:656:G:H21	1.77	0.50
4:3:859:G:H21	4:3:2366:A:N6	2.09	0.50
4:3:1028:C:H2'	4:3:1029:A:H8	1.77	0.50
4:3:1081:A:H61	35:U:7:LYS:C	2.00	0.50
4:3:1260:U:O2'	54:r:132:GLN:OE1	2.26	0.50
4:3:1416:G:H2'	4:3:1417:G:H8	1.77	0.50
4:3:1511:C:H42	4:3:1512:A:N6	2.10	0.50
4:3:2061:A:N6	4:3:2585:A:H61	1.93	0.50
4:3:2100:G:N7	4:3:2233:A:H2'	2.26	0.50
4:3:2575:G:H2'	4:3:2576:A:C8	2.47	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2743:U:H2'	4:3:2744:A:H8	1.77	0.50
4:3:2794:U:H2'	4:3:2795:C:C6	2.47	0.50
4:3:2849:G:H2'	4:3:2850:G:C8	2.47	0.50
6:5:442:G:H2'	6:5:443:G:H8	1.77	0.50
6:5:654:U:O2'	28:N:25:GLN:NE2	2.43	0.50
6:5:704:U:H2'	6:5:705:A:H8	1.77	0.50
6:5:714:C:H4'	24:J:112:ASN:OD1	2.12	0.50
6:5:882:U:H3'	6:5:883:A:H8	1.76	0.50
9:9:567:GLY:HA2	15:AF:31:LYS:HE2	1.92	0.50
9:9:1297:TYR:CD1	37:Z:554:LEU:HD23	2.47	0.50
7:AB:173:ILE:HD12	7:AB:180:ALA:HB2	1.92	0.50
24:J:119:ARG:HH12	34:T:36:LEU:HD13	1.76	0.50
25:K:94:LEU:HD22	25:K:111:VAL:HB	1.94	0.50
29:O:14:VAL:HA	29:O:30:ILE:HD13	1.93	0.50
39:b:185:ASP:HB3	39:b:190:LEU:H	1.76	0.50
46:j:50:GLY:O	46:j:53:LYS:NZ	2.41	0.50
54:r:124:LEU:O	54:r:128:ARG:HG3	2.12	0.50
56:t:9:LYS:HB2	56:t:79:GLN:HE21	1.77	0.50
4:3:200:A:H61	4:3:866:G:H21	1.60	0.50
4:3:322:A:H2'	4:3:323:A:C8	2.47	0.50
4:3:769:A:H3'	4:3:770:A:H8	1.76	0.50
4:3:931:G:H2'	4:3:932:U:H4'	1.94	0.50
4:3:984:C:H2'	4:3:985:A:H8	1.76	0.50
4:3:1461:A:H2'	4:3:1462:A:C8	2.47	0.50
4:3:1934:A:H2'	4:3:1935:A:C8	2.47	0.50
4:3:1959:A:N3	46:j:22:ILE:HD11	2.27	0.50
4:3:2331:G:O2'	4:3:2332:U:H5'	2.11	0.50
4:3:2412:A:O3'	47:k:69:ARG:NH2	2.45	0.50
6:5:679:U:H2'	6:5:680:G:H8	1.77	0.50
9:9:913:GLU:CD	9:9:917:LYS:HE3	2.36	0.50
9:9:1349:LEU:HD22	37:Z:368:PHE:HB3	1.94	0.50
11:AA:53:TYR:CE1	11:AA:57:LEU:CD1	2.95	0.50
14:AE:10:DG:H5''	37:Z:118:LEU:CB	2.42	0.50
17:C:145:LYS:HG2	17:C:147:LYS:H	1.76	0.50
20:F:132:ALA:O	20:F:135:LYS:NZ	2.45	0.50
37:Z:595:ILE:HD12	37:Z:612:VAL:HG22	1.93	0.50
37:Z:835:PHE:HB2	37:Z:837:TYR:CZ	2.47	0.50
38:a:56:ARG:NH1	38:a:228:VAL:O	2.45	0.50
38:a:252:ASP:N	38:a:252:ASP:OD1	2.44	0.50
46:j:43:VAL:HG13	46:j:54:LYS:HA	1.94	0.50
47:k:13:ARG:HD2	47:k:13:ARG:O	2.12	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:15:LYS:NZ	3:2:16:ILE:O	2.37	0.49
4:3:199:A:H61	4:3:202:C:H3'	1.76	0.49
4:3:945:U:OP1	48:l:22:LYS:HG3	2.12	0.49
4:3:1119:A:C2	35:U:29:TYR:OH	2.64	0.49
4:3:1730:C:H4'	38:a:11:ASN:OD1	2.12	0.49
4:3:2635:G:O2'	4:3:2789:A:N1	2.36	0.49
5:4:27:A:O2'	5:4:56:A:N1	2.41	0.49
6:5:91:C:H2'	6:5:92:G:C8	2.47	0.49
6:5:601:U:H2'	6:5:602:G:C8	2.47	0.49
6:5:843:C:H2'	6:5:844:U:H6	1.77	0.49
7:6:163:PHE:CB	9:9:917:LYS:HE2	2.41	0.49
8:7:12:C:N4	8:7:25:G:O6	2.43	0.49
8:7:76:C:H3'	8:7:77:A:H8	1.77	0.49
9:9:90:LYS:HZ2	9:9:1034:GLU:HB3	1.76	0.49
9:9:661:THR:HG21	37:Z:875:ARG:CZ	2.42	0.49
9:9:770:PHE:HB3	9:9:773:ASN:HD22	1.75	0.49
9:9:933:CYS:SG	9:9:941:GLU:O	2.70	0.49
9:9:1342:LEU:N	37:Z:398:LEU:HD21	2.27	0.49
15:AF:108:TRP:CZ3	15:AF:120:ILE:HD12	2.47	0.49
48:l:24:ASN:OD1	48:l:67:ARG:NH1	2.44	0.49
49:m:102:LYS:HG2	61:y:48:TYR:HE1	1.77	0.49
53:q:57:CYS:HA	53:q:94:VAL:HA	1.93	0.49
2:1:26:THR:HG22	2:1:41:LEU:HD22	1.95	0.49
4:3:343:A:H1'	4:3:363:G:C2	2.47	0.49
4:3:572:G:N2	4:3:590:U:O4	2.45	0.49
4:3:772:C:N4	4:3:773:G:O6	2.46	0.49
4:3:815:G:O2'	4:3:817:A:N7	2.45	0.49
4:3:1437:A:H2'	4:3:1438:G:C8	2.47	0.49
4:3:1784:U:H2'	4:3:1785:U:H6	1.77	0.49
4:3:2268:C:H2'	4:3:2269:C:C6	2.47	0.49
4:3:2405:G:N2	4:3:2427:U:O2	2.36	0.49
4:3:2477:A:H2'	4:3:2478:G:O4'	2.12	0.49
6:5:1497:U:OP1	24:J:121:ARG:NH2	2.29	0.49
9:9:709:GLU:HG3	9:9:714:ILE:HD11	1.94	0.49
11:AA:64:TYR:CZ	37:Z:1210:ILE:CD1	2.95	0.49
12:AC:290:TRP:NE1	12:AC:296:LYS:HD2	2.27	0.49
20:F:35:LYS:O	20:F:38:ALA:N	2.46	0.49
27:M:24:CYS:HB2	27:M:40:CYS:H	1.77	0.49
54:r:12:ILE:HD11	54:r:46:LEU:HD13	1.93	0.49
4:3:133:G:H2'	4:3:134:U:H6	1.77	0.49
4:3:352:C:H2'	4:3:353:G:C8	2.47	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:511:U:H4'	4:3:545:C:H5''	1.94	0.49
4:3:694:U:H2'	4:3:695:G:H8	1.77	0.49
4:3:866:G:O2'	47:k:39:GLN:OE1	2.22	0.49
4:3:987:U:H2'	4:3:988:G:C8	2.47	0.49
4:3:1009:A:H5'	4:3:1219:U:H1'	1.94	0.49
4:3:1176:U:O2	4:3:1177:A:N6	2.45	0.49
4:3:1190:A:O3'	52:p:54:ARG:NH2	2.42	0.49
4:3:1246:U:H2'	4:3:1247:C:C6	2.48	0.49
4:3:1710:A:H2'	4:3:1711:A:O4'	2.13	0.49
4:3:2100:G:H2'	4:3:2101:A:H8	1.78	0.49
4:3:2332:U:N3	4:3:2339:G:N1	2.45	0.49
6:5:357:G:H2'	6:5:358:G:O4'	2.13	0.49
6:5:818:A:H2'	6:5:819:G:C8	2.46	0.49
6:5:1052:G:O6	6:5:1172:A:N6	2.45	0.49
8:7:38:G:H3'	8:7:39:A:H8	1.76	0.49
8:7:70:G:H2'	8:7:71:A:C8	2.47	0.49
9:9:166:LYS:HE3	9:9:178:VAL:HG11	1.94	0.49
9:9:1352:SER:HG	37:Z:31:TRP:HZ2	0.53	0.49
12:AC:290:TRP:CD1	12:AC:293:ASP:N	2.80	0.49
15:AF:74:TRP:CZ2	15:AF:84:LYS:HD2	2.46	0.49
16:B:13:GLY:O	27:M:57:LYS:NZ	2.46	0.49
37:Z:310:ARG:HD2	37:Z:326:ASN:OD1	2.12	0.49
47:k:94:ASN:HD21	47:k:96:ALA:HB3	1.77	0.49
50:n:8:ARG:HH12	50:n:9:ARG:HE	1.61	0.49
53:q:68:VAL:H	53:q:86:ARG:HH11	1.59	0.49
4:3:485:A:H1'	52:p:2:ARG:HH12	1.76	0.49
4:3:986:G:H2'	4:3:987:U:H6	1.77	0.49
4:3:1080:A:H5''	4:3:1082:A:O4'	2.12	0.49
4:3:1436:C:H2'	4:3:1437:A:C8	2.47	0.49
4:3:1480:A:O2'	4:3:2710:G:O6	2.21	0.49
4:3:2039:G:H1'	39:b:154:ALA:H	1.76	0.49
4:3:2378:G:H2'	4:3:2379:G:C8	2.47	0.49
6:5:259:A:C8	6:5:260:C:H5	2.29	0.49
6:5:1408:A:N7	6:5:1443:A:N6	2.60	0.49
9:9:1291:VAL:HG21	37:Z:405:GLY:HA2	1.94	0.49
9:9:1352:SER:HB2	37:Z:31:TRP:HH2	1.39	0.49
12:AC:291:ASN:HB3	12:AC:296:LYS:HG2	1.93	0.49
37:Z:47:LEU:HD21	37:Z:320:PHE:CZ	2.47	0.49
40:c:4:LEU:HB3	40:c:20:LEU:HD21	1.93	0.49
51:o:67:ARG:NH1	51:o:76:GLU:OE1	2.45	0.49
4:3:81:C:H2'	4:3:82:G:H8	1.77	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:155:A:C6	4:3:178:A:N1	2.80	0.49
4:3:202:C:O2'	4:3:203:A:H5'	2.12	0.49
4:3:768:G:H3'	4:3:796:A:H61	1.78	0.49
4:3:1292:A:N6	4:3:2024:C:H42	2.10	0.49
4:3:1378:C:N4	4:3:1379:C:N4	2.61	0.49
4:3:2694:A:H2'	4:3:2695:U:C6	2.47	0.49
6:5:85:U:O2	6:5:86:A:N6	2.42	0.49
6:5:293:G:N2	6:5:295:G:OP1	2.46	0.49
6:5:939:G:N2	6:5:1312:G:H3'	2.28	0.49
6:5:977:U:H5'	6:5:978:A:C8	2.48	0.49
6:5:1123:G:OP1	22:H:20:TYR:OH	2.29	0.49
9:9:614:ASP:HA	9:9:854:GLN:NE2	2.27	0.49
9:9:636:ILE:CD1	9:9:645:ILE:HG21	2.42	0.49
9:9:1342:LEU:H	37:Z:398:LEU:HD21	1.77	0.49
9:9:1344:LYS:HB2	37:Z:309:ILE:HD13	1.95	0.49
24:J:53:PRO:HB2	24:J:88:THR:HG21	1.94	0.49
25:K:40:SER:OG	25:K:42:LEU:O	2.30	0.49
27:M:23:ARG:O	27:M:25:GLN:NE2	2.45	0.49
34:T:22:SER:HA	34:T:25:ILE:HG12	1.95	0.49
37:Z:192:ILE:HA	37:Z:200:TYR:CE2	2.48	0.49
37:Z:821:PHE:HB3	37:Z:825:PHE:CZ	2.48	0.49
38:a:113:ASP:OD1	38:a:114:GLY:N	2.46	0.49
43:f:10:SER:HG	43:f:14:LYS:HZ3	1.51	0.49
45:i:72:LYS:HA	45:i:92:GLY:HA3	1.94	0.49
62:z:8:ARG:HD3	62:z:17:ILE:HD12	1.95	0.49
4:3:606:G:N2	4:3:2038:A:OP1	2.40	0.49
4:3:1393:A:O3'	58:v:4:LYS:NZ	2.46	0.49
4:3:1833:G:H2'	4:3:1834:U:C6	2.47	0.49
4:3:2599:C:H2'	4:3:2600:G:C8	2.47	0.49
6:5:141:A:H2'	6:5:142:G:H8	1.77	0.49
6:5:308:C:H2'	6:5:309:A:C8	2.47	0.49
6:5:823:C:O2'	21:G:21:LYS:NZ	2.30	0.49
6:5:1138:U:H2'	6:5:1139:A:C8	2.48	0.49
6:5:1183:C:H2'	6:5:1184:C:H6	1.78	0.49
6:5:1303:A:OP1	26:L:27:LEU:N	2.29	0.49
6:5:1323:A:H3'	6:5:1324:A:H8	1.78	0.49
6:5:1377:C:H2'	6:5:1378:C:O4'	2.13	0.49
9:9:634:GLY:CA	13:AD:24:DT:C7	2.69	0.49
10:A:38:ASN:OD1	10:A:40:LYS:HG2	2.13	0.49
14:AE:14:DG:O4'	37:Z:889:GLY:HA3	2.11	0.49
19:E:101:ASN:C	19:E:103:LYS:H	2.20	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:G:11:HIS:HB3	21:G:17:ASP:OD1	2.12	0.49
34:T:27:ARG:O	34:T:31:ARG:NH1	2.46	0.49
38:a:112:PRO:HD2	38:a:115:ILE:HD13	1.93	0.49
40:c:127:LEU:HD21	40:c:201:LYS:HB3	1.95	0.49
54:r:77:ASN:HB2	54:r:102:ASN:HB2	1.94	0.49
4:3:116:C:H2'	4:3:117:C:H6	1.76	0.49
4:3:410:G:O5'	58:v:60:LYS:NZ	2.36	0.49
4:3:1389:G:H2'	4:3:1390:C:H6	1.77	0.49
4:3:2078:A:H2'	4:3:2079:G:C8	2.48	0.49
4:3:2118:U:C2	4:3:2125:U:H4'	2.48	0.49
4:3:2580:A:H5''	4:3:2582:G:H4'	1.94	0.49
6:5:249:U:H3	6:5:269:A:N6	2.08	0.49
6:5:885:U:H2'	6:5:886:A:C8	2.48	0.49
6:5:1135:U:O4'	6:5:1157:G:N2	2.46	0.49
6:5:1214:A:H62	6:5:1273:A:N6	2.09	0.49
6:5:1348:G:H4'	20:F:30:MET:HE3	1.94	0.49
9:9:171:LEU:HD12	9:9:195:LEU:HD12	1.94	0.49
12:AC:5:SER:CB	12:AC:61:LEU:HD21	2.40	0.49
18:D:185:ARG:HE	18:D:186:ASN:H	1.61	0.49
37:Z:520:HIS:NE2	37:Z:717:GLU:OE1	2.46	0.49
52:p:73:MET:HE1	52:p:78:PHE:HB2	1.94	0.49
4:3:1982:G:H2'	4:3:1983:U:O4'	2.13	0.49
4:3:2123:A:N7	4:3:2169:G:O2'	2.46	0.49
4:3:2292:A:O2'	4:3:2296:A:N1	2.32	0.49
4:3:2301:C:H2'	4:3:2302:C:H6	1.78	0.49
6:5:223:G:H2'	6:5:224:A:H8	1.77	0.49
6:5:483:U:H2'	6:5:484:A:C8	2.47	0.49
6:5:1016:A:H2'	6:5:1017:A:C8	2.47	0.49
6:5:1213:A:OP1	6:5:1310:C:N4	2.45	0.49
6:5:1316:C:H4'	22:H:129:PHE:HB3	1.93	0.49
15:AF:74:TRP:CZ3	15:AF:84:LYS:HB2	2.48	0.49
15:AF:108:TRP:CZ3	15:AF:130:PRO:HG3	2.48	0.49
24:J:14:ILE:HG23	24:J:77:LEU:HA	1.94	0.49
47:k:95:ARG:NH1	47:k:110:LEU:O	2.46	0.49
4:3:112:A:O2'	4:3:113:U:O4'	2.26	0.49
4:3:178:A:H2'	4:3:179:A:C8	2.48	0.49
4:3:241:C:H2'	4:3:242:G:C8	2.48	0.49
4:3:853:G:N1	4:3:1219:U:OP2	2.39	0.49
4:3:1282:G:H21	52:p:32:LYS:HA	1.77	0.49
4:3:2331:G:H22	4:3:2340:U:H2'	1.78	0.49
4:3:2561:G:H21	4:3:2590:G:H21	1.61	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2644:U:H2'	4:3:2645:U:C6	2.47	0.49
4:3:2840:U:H2'	4:3:2841:A:H8	1.77	0.49
6:5:1425:A:H2'	6:5:1427:U:H3	1.78	0.49
7:6:35:VAL:HG21	7:6:207:ASP:HB3	1.95	0.49
7:6:276:ARG:CD	12:AC:323:GLU:OE1	2.61	0.49
9:9:161:ILE:HG13	9:9:393:VAL:HG22	1.95	0.49
9:9:950:VAL:HB	9:9:955:LYS:HE3	1.95	0.49
10:A:120:PHE:HA	10:A:123:LEU:HB2	1.93	0.49
16:B:8:ASN:OD1	16:B:9:GLY:N	2.44	0.49
16:B:92:ILE:HA	16:B:95:ILE:HG22	1.95	0.49
20:F:21:LEU:O	20:F:25:ILE:HG12	2.13	0.49
20:F:110:ARG:HH11	20:F:122:GLU:HG3	1.78	0.49
23:I:89:ALA:O	23:I:93:LEU:HG	2.12	0.49
35:U:22:ALA:HB3	35:U:86:VAL:O	2.12	0.49
37:Z:663:GLU:HB3	37:Z:702:LEU:HD11	1.95	0.49
37:Z:906:HIS:HD2	37:Z:987:ARG:NH2	2.10	0.49
38:a:20:ILE:HB	38:a:22:TYR:CZ	2.48	0.49
47:k:90:LEU:HD21	47:k:97:SER:HB2	1.94	0.49
54:r:86:ILE:HD12	54:r:87:PRO:HD2	1.95	0.49
4:3:15:A:N6	4:3:561:A:OP2	2.37	0.49
4:3:24:U:H2'	4:3:25:G:C8	2.47	0.49
4:3:474:U:H2'	4:3:475:A:C8	2.47	0.49
4:3:891:G:H2'	4:3:892:G:C8	2.48	0.49
4:3:1116:U:H2'	4:3:1117:U:C6	2.48	0.49
4:3:1389:G:H2'	4:3:1390:C:C6	2.47	0.49
4:3:1801:U:O2	4:3:1832:G:N2	2.30	0.49
4:3:2315:G:N2	4:3:2319:A:O2'	2.44	0.49
4:3:2325:U:H2'	4:3:2326:G:O4'	2.13	0.49
4:3:2406:U:H2'	4:3:2407:G:C8	2.48	0.49
4:3:2832:G:H2'	4:3:2833:A:C8	2.47	0.49
6:5:432:U:H2'	6:5:433:C:H6	1.78	0.49
6:5:775:G:H1'	24:J:114:CYS:SG	2.53	0.49
6:5:885:U:C2	6:5:901:A:N7	2.80	0.49
6:5:905:U:H2'	6:5:906:C:C6	2.48	0.49
6:5:927:C:H42	6:5:1360:G:H1	1.58	0.49
6:5:1255:A:H3'	6:5:1256:U:H6	1.77	0.49
6:5:1297:G:H2'	6:5:1298:U:O4'	2.13	0.49
9:9:171:LEU:CD1	9:9:212:LEU:CD2	2.91	0.49
9:9:1307:LEU:CD2	37:Z:406:LYS:CD	2.90	0.49
19:E:13:LEU:HD12	19:E:17:GLN:HE22	1.77	0.49
20:F:131:GLY:HA2	20:F:134:ILE:HB	1.94	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:H:86:VAL:HA	22:H:89:LEU:HG	1.94	0.49
23:I:73:LYS:NZ	23:I:75:ARG:HE	2.11	0.49
45:i:91:SER:N	45:i:94:ASP:OD2	2.43	0.49
49:m:18:VAL:O	49:m:22:VAL:HG13	2.13	0.49
51:o:54:ARG:NH2	51:o:65:ILE:HG13	2.28	0.49
53:q:47:ALA:HB3	53:q:48:PRO:HD3	1.94	0.49
55:s:35:ALA:O	55:s:79:LYS:NZ	2.45	0.49
4:3:53:G:N2	4:3:119:A:H62	2.09	0.48
4:3:161:U:H2'	4:3:162:G:O4'	2.13	0.48
4:3:352:C:H2'	4:3:353:G:H8	1.78	0.48
4:3:615:G:H2'	4:3:616:G:C8	2.48	0.48
4:3:1201:A:H2'	4:3:1202:A:C8	2.47	0.48
4:3:1227:C:H2'	4:3:1228:G:H8	1.77	0.48
4:3:1504:G:H1	4:3:1539:U:H3	1.60	0.48
4:3:1803:U:H2'	4:3:1804:A:C8	2.48	0.48
4:3:2134:G:H2'	4:3:2135:C:C6	2.48	0.48
5:4:47:C:P	50:n:101:ARG:HE	2.36	0.48
6:5:673:A:H2'	6:5:674:U:H6	1.77	0.48
6:5:733:A:H2'	6:5:734:A:C8	2.48	0.48
6:5:822:A:H2'	6:5:823:C:C6	2.48	0.48
6:5:1214:A:H1'	6:5:1216:G:C5	2.48	0.48
7:6:105:PRO:HB3	7:AB:320:GLU:C	2.38	0.48
9:9:65:ARG:HA	9:9:105:SER:OG	2.13	0.48
9:9:1213:ASP:OD1	9:9:1219:PRO:HD2	2.13	0.48
11:AA:58:GLU:CG	37:Z:1213:ASN:HD21	2.22	0.48
14:AE:14:DG:N7	37:Z:886:ALA:CA	2.71	0.48
16:B:14:ILE:HG12	16:B:181:LEU:HD21	1.94	0.48
21:G:36:ILE:HA	21:G:69:ILE:HG22	1.94	0.48
25:K:115:LEU:HG	25:K:116:ASP:H	1.77	0.48
25:K:121:GLU:C	25:K:123:ARG:N	2.71	0.48
39:b:109:ASP:HB3	39:b:208:ARG:HE	1.78	0.48
39:b:165:MET:HE3	39:b:166:SER:N	2.28	0.48
40:c:164:LEU:HD21	40:c:182:HIS:HD2	1.78	0.48
42:e:94:GLY:HA2	42:e:163:LYS:HE2	1.95	0.48
4:3:155:A:H2'	4:3:156:A:H8	1.74	0.48
4:3:224:G:H1	4:3:463:U:H3'	1.78	0.48
4:3:650:G:O6	40:c:185:LYS:NZ	2.45	0.48
4:3:740:A:H2'	4:3:741:A:O4'	2.13	0.48
4:3:1648:A:OP1	4:3:1651:C:N4	2.45	0.48
4:3:2063:G:H2'	4:3:2064:G:C8	2.48	0.48
6:5:34:A:H4'	6:5:360:A:N3	2.28	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:372:G:O2'	6:5:373:A:H5'	2.13	0.48
6:5:858:A:H2'	6:5:859:A:C8	2.47	0.48
6:5:1013:C:H2'	6:5:1014:A:N9	2.28	0.48
6:5:1088:C:OP1	10:A:158:ARG:NH1	2.46	0.48
6:5:1182:C:C4	6:5:1183:C:N4	2.80	0.48
6:5:1402:U:H2'	6:5:1403:A:C8	2.48	0.48
6:5:1425:A:O2'	6:5:1428:A:N6	2.46	0.48
7:6:175:SER:OG	7:6:178:ILE:HD12	2.14	0.48
7:6:231:ILE:HG22	7:AB:34:PHE:HZ	1.78	0.48
9:9:1349:LEU:C	37:Z:368:PHE:CZ	2.91	0.48
11:AA:5:TYR:HH	11:AA:51:ARG:HB2	1.76	0.48
7:AB:86:GLN:CD	37:Z:599:THR:HG21	2.38	0.48
12:AC:239:LYS:HZ1	12:AC:294:LYS:HD2	1.78	0.48
23:I:78:ARG:HD3	23:I:79:LEU:N	2.28	0.48
25:K:86:ASN:HD22	25:K:118:VAL:N	2.10	0.48
34:T:20:ARG:O	34:T:23:LEU:N	2.46	0.48
37:Z:488:ASP:CA	37:Z:551:ARG:HH21	2.26	0.48
37:Z:490:PRO:HD2	37:Z:547:VAL:HG13	1.95	0.48
38:a:125:GLU:HG3	38:a:137:PRO:HG2	1.95	0.48
41:d:29:PRO:HB3	41:d:160:THR:HG23	1.94	0.48
45:i:109:LYS:HB3	45:i:122:ILE:HD12	1.95	0.48
46:j:18:GLN:HB3	46:j:45:ASP:HB2	1.95	0.48
1:0:9:LYS:HG3	1:0:10:LEU:HD22	1.94	0.48
4:3:189:U:H2'	4:3:190:G:C8	2.49	0.48
4:3:329:G:O6	4:3:377:U:O4	2.30	0.48
4:3:530:G:H5''	54:r:4:PHE:CE2	2.48	0.48
4:3:1653:C:N4	4:3:1654:G:O6	2.45	0.48
4:3:1736:G:H2'	4:3:1737:G:H5''	1.94	0.48
4:3:1797:C:H5'	38:a:226:PRO:HB3	1.94	0.48
4:3:2000:U:H5''	39:b:133:LEU:HD12	1.96	0.48
4:3:2324:A:H2'	4:3:2325:U:C6	2.48	0.48
4:3:2547:C:H2'	4:3:2548:G:C8	2.48	0.48
5:4:61:A:H2'	5:4:62:G:C8	2.48	0.48
6:5:405:C:H2'	6:5:406:G:O4'	2.14	0.48
6:5:1216:G:H2'	6:5:1217:G:H8	1.79	0.48
7:6:1:MET:HG3	7:AB:51:PRO:HG3	1.96	0.48
7:6:107:GLU:H	7:AB:319:HIS:CE1	2.14	0.48
7:6:190:HIS:CE1	9:9:1083:ASP:O	2.56	0.48
9:9:475:VAL:HG13	9:9:516:SER:HB3	1.95	0.48
9:9:673:LEU:CD2	9:9:677:ALA:HB3	2.42	0.48
9:9:1305:GLU:CD	37:Z:542:LEU:HD12	2.38	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AE:11:DT:H2'	14:AE:12:DC:C6	2.49	0.48
19:E:17:GLN:O	19:E:20:GLN:HG2	2.14	0.48
32:R:22:MET:HG3	32:R:27:LYS:HD2	1.95	0.48
38:a:146:GLN:HG3	38:a:169:ARG:HD3	1.94	0.48
39:b:11:VAL:HG23	39:b:28:VAL:HG23	1.94	0.48
39:b:33:PRO:HG3	39:b:97:THR:HG22	1.95	0.48
40:c:6:LEU:HG	40:c:14:GLU:HG3	1.95	0.48
41:d:57:LEU:HD23	41:d:65:PRO:HB3	1.95	0.48
53:q:4:ILE:HB	53:q:39:LEU:O	2.13	0.48
54:r:133:GLN:HB3	54:r:137:MET:HE1	1.95	0.48
4:3:404:C:H2'	4:3:405:C:C6	2.48	0.48
4:3:650:G:H1	40:c:185:LYS:HD2	1.79	0.48
4:3:669:A:N3	4:3:2411:C:H4'	2.29	0.48
4:3:694:U:H2'	4:3:695:G:C8	2.48	0.48
4:3:720:A:H5''	4:3:809:A:H62	1.78	0.48
4:3:762:A:H2'	4:3:763:G:C8	2.48	0.48
4:3:845:U:C5	47:k:30:LYS:HD3	2.49	0.48
4:3:849:C:H2'	4:3:850:G:C8	2.42	0.48
4:3:2001:C:H2'	4:3:2002:U:C6	2.48	0.48
4:3:2843:G:O6	4:3:2881:A:N6	2.47	0.48
6:5:285:G:H2'	6:5:286:C:C6	2.48	0.48
6:5:966:A:HO2'	6:5:1340:G:HO2'	1.56	0.48
6:5:1156:G:H1'	6:5:1157:G:C5	2.47	0.48
6:5:1321:G:C8	22:H:111:ARG:HG2	2.49	0.48
6:5:1493:A:H2'	6:5:1494:A:C4	2.49	0.48
7:6:318:VAL:HG12	7:6:323:LEU:O	2.13	0.48
9:9:169:LEU:HD11	9:9:187:LEU:HD12	1.95	0.48
9:9:211:ILE:HD13	9:9:229:LEU:CD2	2.44	0.48
9:9:1289:MET:CG	14:AE:15:DA:C4'	2.54	0.48
11:AA:57:LEU:CD2	37:Z:1211:ALA:O	2.61	0.48
12:AC:239:LYS:HZ3	12:AC:294:LYS:HB2	1.71	0.48
13:AD:19:DT:H2''	13:AD:21:DC:C4'	2.37	0.48
13:AD:29:DC:C5'	37:Z:1057:VAL:CG2	2.81	0.48
23:I:18:SER:HB2	23:I:102:VAL:HG12	1.94	0.48
36:V:8:SER:OG	36:V:12:MET:HE3	2.12	0.48
39:b:70:PHE:O	39:b:74:ASN:N	2.46	0.48
40:c:201:LYS:HA	40:c:204:LEU:HG	1.94	0.48
46:j:29:ARG:O	46:j:31:ARG:NH1	2.43	0.48
55:s:8:LEU:HG	55:s:9:LYS:HG3	1.95	0.48
59:w:30:ARG:HH22	59:w:44:ILE:HG12	1.78	0.48
4:3:337:U:H2'	4:3:338:G:C8	2.49	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:638:A:C6	4:3:661:G:N1	2.82	0.48
4:3:1182:U:H2'	4:3:1183:A:C8	2.48	0.48
4:3:1588:A:O2'	4:3:1589:A:O4'	2.22	0.48
7:6:44:ARG:NH1	9:9:1077:ASP:OD1	2.46	0.48
7:6:274:THR:HG23	7:6:313:GLU:OE1	2.14	0.48
9:9:1344:LYS:HG2	37:Z:309:ILE:CD1	2.28	0.48
9:9:1371:LEU:CB	37:Z:95:VAL:CG1	2.91	0.48
12:AC:183:LYS:NZ	12:AC:245:GLY:C	2.68	0.48
15:AF:9:GLN:OE1	15:AF:132:PRO:HG3	2.13	0.48
15:AF:14:PRO:HD3	15:AF:121:VAL:HG23	1.96	0.48
16:B:59:GLU:HG3	23:I:100:VAL:HG22	1.94	0.48
19:E:14:SER:H	19:E:17:GLN:HE21	1.59	0.48
28:N:26:VAL:O	28:N:30:THR:HG23	2.14	0.48
37:Z:112:ILE:HD12	37:Z:365:ASP:HB3	1.96	0.48
38:a:183:GLN:OE1	38:a:189:THR:OG1	2.31	0.48
39:b:139:TYR:CD2	39:b:140:PRO:HD3	2.49	0.48
46:j:6:THR:H	46:j:21:ILE:HG22	1.77	0.48
48:l:37:THR:O	48:l:99:GLN:NE2	2.45	0.48
55:s:3:VAL:HG13	55:s:5:ASN:H	1.77	0.48
55:s:4:THR:HG21	55:s:47:VAL:HB	1.96	0.48
4:3:1005:G:H2'	4:3:1006:U:C6	2.49	0.48
4:3:1545:A:H2'	4:3:1546:U:C6	2.49	0.48
4:3:1600:A:N3	38:a:62:ASN:ND2	2.62	0.48
4:3:1987:C:H3'	4:3:1988:A:H5''	1.95	0.48
4:3:2495:A:H2'	4:3:2496:G:C8	2.48	0.48
4:3:2738:U:H2'	4:3:2739:C:C6	2.49	0.48
4:3:2825:A:H5''	39:b:116:GLY:HA3	1.95	0.48
6:5:560:U:OP1	6:5:564:G:N2	2.47	0.48
6:5:643:U:H2'	6:5:644:U:C6	2.49	0.48
6:5:833:G:N2	6:5:844:U:O2	2.30	0.48
6:5:912:G:H2'	6:5:913:A:C8	2.47	0.48
6:5:946:G:H2'	6:5:947:U:C6	2.49	0.48
6:5:1146:A:H2'	6:5:1147:U:C6	2.49	0.48
7:6:129:CYS:SG	7:6:135:VAL:HG23	2.53	0.48
9:9:717:ILE:HG22	9:9:754:ASP:HB2	1.96	0.48
9:9:997:ALA:HB3	12:AC:8:PHE:CE1	2.45	0.48
7:AB:266:LYS:HG2	7:AB:270:GLU:OE2	2.12	0.48
18:D:111:VAL:O	18:D:115:ILE:HG12	2.12	0.48
20:F:38:ALA:O	20:F:42:LEU:HD23	2.14	0.48
22:H:108:ARG:NH1	22:H:110:LYS:HB3	2.29	0.48
35:U:141:SER:O	35:U:148:ARG:NH2	2.46	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:a:183:GLN:NE2	38:a:188:GLU:O	2.46	0.48
58:v:34:GLN:NE2	58:v:55:LEU:HD11	2.27	0.48
4:3:568:G:H2'	4:3:569:U:C6	2.49	0.48
4:3:696:U:H2'	4:3:697:U:C6	2.48	0.48
4:3:863:U:H4'	4:3:866:G:N1	2.29	0.48
4:3:1775:G:H2'	4:3:1776:G:C8	2.49	0.48
4:3:2090:G:O6	4:3:2244:U:O4	2.31	0.48
4:3:2267:G:H2'	4:3:2268:C:C6	2.49	0.48
4:3:2324:A:H2'	4:3:2325:U:H6	1.79	0.48
4:3:2464:C:N4	4:3:2465:U:O4	2.46	0.48
4:3:2527:U:O2'	4:3:2529:C:OP2	2.30	0.48
4:3:2695:U:H2'	4:3:2696:G:O4'	2.14	0.48
4:3:2764:U:H1'	4:3:2765:A:H5''	1.96	0.48
4:3:2825:A:H2'	4:3:2826:G:O4'	2.13	0.48
6:5:317:A:H2	6:5:328:G:H1	1.57	0.48
6:5:640:C:H2'	6:5:641:U:C6	2.49	0.48
6:5:672:A:N6	6:5:712:A:H61	2.12	0.48
6:5:980:C:H2'	6:5:981:U:C6	2.49	0.48
6:5:999:C:O2	6:5:1000:A:O2'	2.29	0.48
6:5:1376:G:H2'	6:5:1377:C:C6	2.48	0.48
9:9:219:GLU:CG	13:AD:21:DC:N4	2.67	0.48
9:9:773:ASN:OD1	37:Z:861:GLY:N	2.47	0.48
9:9:1003:VAL:HG13	12:AC:116:ILE:HD12	1.92	0.48
9:9:1289:MET:HG3	14:AE:15:DA:H5''	1.94	0.48
15:AF:38:GLU:OE2	15:AF:104:SER:OG	2.23	0.48
20:F:119:ILE:HA	20:F:122:GLU:OE1	2.12	0.48
25:K:7:LEU:HB3	30:P:35:TYR:CZ	2.49	0.48
31:Q:64:LEU:HD23	31:Q:65:SER:O	2.14	0.48
37:Z:312:ILE:HG12	37:Z:322:THR:HG22	1.94	0.48
37:Z:986:GLU:HA	37:Z:1192:HIS:CE1	2.48	0.48
4:3:139:G:O6	4:3:145:A:N6	2.47	0.48
4:3:173:C:H2'	4:3:174:A:C8	2.48	0.48
4:3:771:C:H2'	4:3:772:C:C6	2.49	0.48
4:3:863:U:O2'	4:3:866:G:O6	2.30	0.48
4:3:1073:A:H2'	4:3:1074:A:H8	1.78	0.48
4:3:1119:A:N1	35:U:29:TYR:HE2	2.03	0.48
4:3:1203:G:H2'	4:3:1204:A:C8	2.49	0.48
4:3:1552:C:H2'	4:3:1553:G:O4'	2.14	0.48
4:3:2644:U:OP1	39:b:83:GLU:HB2	2.14	0.48
4:3:2665:A:H1'	4:3:2673:A:H61	1.78	0.48
6:5:149:G:H2'	6:5:150:A:H8	1.78	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:368:C:N4	6:5:384:G:OP2	2.35	0.48
6:5:741:C:H2'	6:5:742:C:C6	2.49	0.48
6:5:1179:A:H2'	6:5:1180:U:O4'	2.13	0.48
6:5:1297:G:O2'	6:5:1336:C:H1'	2.13	0.48
9:9:863:LEU:HD11	9:9:878:ASP:OD2	2.12	0.48
9:9:999:PHE:HB3	9:9:1002:SER:OG	2.14	0.48
9:9:1288:GLU:OE2	37:Z:893:ARG:NH1	2.47	0.48
19:E:88:ILE:HG23	19:E:92:ARG:HE	1.79	0.48
33:S:29:LYS:HA	33:S:32:VAL:HG22	1.96	0.48
39:b:35:GLN:HG2	39:b:75:LEU:HD23	1.96	0.48
46:j:78:LYS:HB2	51:o:76:GLU:HG3	1.96	0.48
56:t:70:PHE:O	56:t:74:LEU:HD23	2.14	0.48
4:3:450:C:O2'	4:3:1871:U:O2	2.32	0.48
4:3:511:U:H3'	4:3:512:G:C8	2.48	0.48
4:3:674:G:H2'	4:3:675:U:C6	2.48	0.48
4:3:1142:G:P	35:U:56:ASN:CG	2.96	0.48
4:3:1374:U:N3	4:3:1375:G:N7	2.61	0.48
4:3:1406:A:O2'	4:3:1408:G:OP2	2.32	0.48
4:3:1872:U:C4	4:3:1882:G:O6	2.67	0.48
4:3:2311:G:O2'	41:d:129:THR:OG1	2.22	0.48
6:5:386:U:H2'	6:5:387:G:C8	2.49	0.48
6:5:1142:G:H2'	6:5:1144:A:OP2	2.14	0.48
9:9:363:GLU:HG2	9:9:379:ARG:CZ	2.44	0.48
9:9:648:VAL:HB	37:Z:872:TYR:HD1	1.77	0.48
9:9:1051:ARG:HH11	9:9:1254:MET:HE3	1.78	0.48
9:9:1126:CYS:SG	9:9:1153:LEU:HD23	2.54	0.48
14:AE:10:DG:C5'	37:Z:118:LEU:HB3	2.44	0.48
17:C:155:LYS:O	17:C:158:SER:OG	2.19	0.48
17:C:168:GLU:CG	37:Z:30:ASN:CG	2.86	0.48
20:F:65:VAL:HA	20:F:68:VAL:HG22	1.95	0.48
26:L:15:ILE:HD13	26:L:39:ILE:HD13	1.96	0.48
40:c:168:LEU:HB3	40:c:180:VAL:HG21	1.96	0.48
61:y:27:LEU:HD11	61:y:36:LYS:HB3	1.95	0.48
4:3:34:C:N4	4:3:510:G:O6	2.47	0.48
4:3:336:C:H2'	4:3:337:U:C6	2.49	0.48
4:3:563:A:N1	45:i:119:ARG:NH1	2.62	0.48
4:3:576:A:H2'	4:3:577:C:O4'	2.14	0.48
4:3:595:U:C4	4:3:605:A:N7	2.82	0.48
4:3:1229:U:H2'	4:3:1230:U:C6	2.49	0.48
4:3:1287:C:H2'	4:3:1288:C:C6	2.48	0.48
4:3:1511:C:C4	4:3:1512:A:N6	2.81	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2071:C:H2'	4:3:2072:C:H6	1.79	0.48
4:3:2146:A:H2'	4:3:2147:G:C8	2.49	0.48
4:3:2338:G:H21	57:u:56:GLY:HA2	1.78	0.48
4:3:2859:U:H2'	4:3:2860:A:C8	2.46	0.48
6:5:509:C:H4'	17:C:38:HIS:HB3	1.94	0.48
6:5:1290:G:N1	6:5:1293:A:OP2	2.44	0.48
9:9:374:CYS:HB3	9:9:459:VAL:HG11	1.92	0.48
9:9:563:GLY:HA2	9:9:566:ARG:HG3	1.94	0.48
13:AD:17:DT:C5'	15:AF:118:THR:CG2	2.76	0.48
39:b:110:VAL:CG2	39:b:179:LEU:HD22	2.44	0.48
41:d:57:LEU:HA	41:d:60:ILE:HG22	1.96	0.48
51:o:94:GLY:HA2	51:o:115:LYS:HA	1.96	0.48
4:3:133:G:H2'	4:3:134:U:C6	2.48	0.47
4:3:144:C:H2'	4:3:145:A:H8	1.79	0.47
4:3:406:C:H2'	4:3:407:U:C6	2.49	0.47
4:3:568:G:H2'	4:3:569:U:H6	1.79	0.47
4:3:610:G:H2'	4:3:611:A:C8	2.49	0.47
4:3:696:U:H2'	4:3:697:U:H6	1.78	0.47
4:3:913:U:H2'	4:3:914:G:O4'	2.14	0.47
4:3:987:U:H2'	4:3:988:G:H8	1.79	0.47
4:3:993:A:N6	4:3:995:A:N1	2.62	0.47
4:3:1115:G:H1'	44:h:126:GLY:HA3	1.95	0.47
4:3:1305:G:H2'	4:3:1306:G:H8	1.79	0.47
4:3:1608:C:H2'	4:3:1609:U:C6	2.49	0.47
4:3:1735:A:OP1	4:3:1770:A:N6	2.47	0.47
4:3:2190:G:H2'	4:3:2191:G:C8	2.49	0.47
4:3:2391:G:H2'	4:3:2392:U:C6	2.49	0.47
4:3:2623:U:H2'	4:3:2624:C:C6	2.49	0.47
4:3:2776:U:O4	4:3:2777:A:N6	2.47	0.47
6:5:335:C:H2'	6:5:336:U:H6	1.78	0.47
6:5:399:C:H4'	17:C:131:THR:HG22	1.96	0.47
6:5:1241:G:C6	6:5:1245:A:N6	2.82	0.47
10:A:179:ASP:OD1	10:A:179:ASP:N	2.47	0.47
12:AC:48:TYR:HB3	12:AC:51:VAL:CG2	2.43	0.47
16:B:76:PHE:O	16:B:84:ASN:ND2	2.47	0.47
21:G:91:SER:OG	21:G:137:ILE:O	2.25	0.47
35:U:49:SER:OG	35:U:86:VAL:HA	2.14	0.47
53:q:69:ASN:HD21	53:q:82:LYS:HE3	1.79	0.47
4:3:59:C:H2'	4:3:60:G:H8	1.79	0.47
4:3:210:U:H2'	4:3:211:A:H8	1.78	0.47
4:3:279:U:H2'	4:3:280:A:C8	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:461:C:H2'	4:3:462:C:C6	2.49	0.47
4:3:518:A:O2'	4:3:532:A:N1	2.47	0.47
4:3:587:U:H2'	4:3:588:G:O4'	2.14	0.47
4:3:759:U:H2'	4:3:760:G:O4'	2.13	0.47
4:3:768:G:H2'	4:3:769:A:H5''	1.95	0.47
4:3:917:G:N2	4:3:935:U:O2	2.47	0.47
4:3:1187:C:H2'	4:3:1188:C:C6	2.45	0.47
4:3:1319:C:H2'	4:3:1320:C:C6	2.49	0.47
4:3:1463:G:H2'	4:3:1464:G:C8	2.49	0.47
4:3:2197:U:H2'	4:3:2198:G:C8	2.49	0.47
4:3:2781:C:O2'	39:b:172:GLU:OE2	2.32	0.47
4:3:2795:C:H1'	39:b:65:PRO:HB3	1.95	0.47
4:3:2852:G:H1'	4:3:2872:A:H61	1.79	0.47
6:5:9:A:H62	17:C:201:LYS:HB3	1.78	0.47
6:5:1010:A:H2'	6:5:1011:A:C8	2.48	0.47
6:5:1207:U:H5''	22:H:128:GLN:HB3	1.96	0.47
8:7:38:G:H3'	8:7:39:A:C8	2.50	0.47
9:9:168:GLN:HG3	9:9:524:ILE:HD13	1.95	0.47
9:9:169:LEU:CD2	13:AD:25:DC:N3	2.71	0.47
9:9:824:VAL:HG11	9:9:827:VAL:CG2	2.44	0.47
9:9:1051:ARG:HH11	9:9:1254:MET:CE	2.27	0.47
9:9:1157:ILE:HG12	9:9:1172:LEU:HD11	1.96	0.47
9:9:1288:GLU:OE1	37:Z:893:ARG:CZ	2.61	0.47
9:9:1350:ALA:HB3	37:Z:368:PHE:CZ	2.48	0.47
10:A:41:MET:HE3	10:A:208:PRO:HD3	1.96	0.47
19:E:106:GLN:O	19:E:110:GLN:N	2.44	0.47
20:F:149:ALA:HB3	24:J:49:ARG:HH12	1.77	0.47
37:Z:827:MET:HE2	37:Z:829:GLY:HA2	1.95	0.47
39:b:15:GLN:OE1	39:b:23:ARG:NH2	2.42	0.47
40:c:112:LEU:C	40:c:116:TRP:HD1	2.22	0.47
46:j:8:LEU:H	46:j:8:LEU:HD23	1.79	0.47
53:q:68:VAL:N	53:q:86:ARG:HH11	2.12	0.47
54:r:7:GLN:NE2	54:r:10:VAL:HB	2.29	0.47
59:w:26:LEU:HD13	59:w:48:ARG:HH12	1.78	0.47
4:3:50:G:H22	4:3:179:A:H2'	1.79	0.47
4:3:134:U:H2'	4:3:135:A:H8	1.79	0.47
4:3:246:G:N2	4:3:259:A:OP2	2.47	0.47
4:3:432:G:OP2	58:v:10:ARG:NH1	2.47	0.47
4:3:650:G:H2'	4:3:651:A:C8	2.49	0.47
4:3:652:U:H2'	4:3:653:G:H8	1.79	0.47
4:3:1076:U:O2	4:3:1149:G:N2	2.44	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1376:G:O6	4:3:1377:A:N6	2.48	0.47
4:3:1470:C:H2'	4:3:1471:A:C8	2.49	0.47
4:3:1471:A:N6	4:3:1582:G:O6	2.47	0.47
4:3:1951:A:H61	4:3:2565:G:H1'	1.79	0.47
4:3:2071:C:H2'	4:3:2072:C:C6	2.49	0.47
4:3:2106:G:H22	4:3:2198:G:H1	1.62	0.47
4:3:2200:U:H2'	4:3:2201:G:H8	1.79	0.47
4:3:2388:C:H2'	4:3:2389:A:C8	2.49	0.47
4:3:2413:G:O2'	4:3:2419:A:N6	2.47	0.47
4:3:2577:G:H2'	4:3:2578:A:H8	1.78	0.47
5:4:3:U:H2'	5:4:4:G:C8	2.49	0.47
6:5:85:U:O2'	6:5:86:A:N7	2.35	0.47
6:5:671:G:H2'	6:5:672:A:C8	2.48	0.47
6:5:706:U:H2'	6:5:707:G:C8	2.49	0.47
6:5:838:A:C8	19:E:109:LEU:HD13	2.49	0.47
8:7:70:G:H2'	8:7:71:A:H8	1.79	0.47
9:9:653:TYR:CE1	9:9:737:ARG:NH2	2.82	0.47
9:9:1269:LYS:CD	37:Z:313:ILE:CB	2.81	0.47
9:9:1289:MET:SD	14:AE:15:DA:C5'	2.97	0.47
9:9:1340:LYS:NZ	9:9:1370:ILE:HG13	2.29	0.47
10:A:68:ALA:O	10:A:72:VAL:HG13	2.13	0.47
12:AC:266:LEU:HD23	12:AC:273:ILE:HG21	1.96	0.47
14:AE:14:DG:H5'	37:Z:890:TYR:N	2.29	0.47
15:AF:77:LEU:CD1	15:AF:83:LEU:HB2	2.44	0.47
19:E:7:LEU:HD21	19:E:72:PHE:HZ	1.79	0.47
35:U:86:VAL:HG11	35:U:89:ILE:HD12	1.97	0.47
36:W:14:ILE:HD11	36:X:17:ILE:CG1	2.22	0.47
39:b:38:GLY:HA2	39:b:92:MET:HE1	1.96	0.47
47:k:36:GLN:OE1	47:k:37:LYS:HE3	2.14	0.47
47:k:36:GLN:HG3	47:k:37:LYS:HG2	1.96	0.47
4:3:319:G:O6	4:3:390:A:N6	2.47	0.47
4:3:421:A:N6	4:3:423:C:H2'	2.30	0.47
4:3:445:C:H2'	4:3:446:A:C8	2.50	0.47
4:3:499:G:H22	4:3:501:G:H3'	1.79	0.47
4:3:1298:A:H2'	4:3:1299:A:O4'	2.15	0.47
4:3:1400:U:H2'	4:3:1401:A:H8	1.79	0.47
4:3:1544:G:H2'	4:3:1545:A:H8	1.79	0.47
4:3:2420:A:H2'	4:3:2421:U:O4'	2.14	0.47
4:3:2683:G:H2'	4:3:2684:G:C8	2.49	0.47
4:3:2843:G:H2'	4:3:2844:U:H6	1.79	0.47
6:5:26:C:H2'	6:5:27:A:C8	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:302:A:H3'	6:5:303:A:H8	1.78	0.47
8:7:16:G:N2	8:7:22:A:N3	2.62	0.47
8:7:57:C:H3'	8:7:58:G:C8	2.49	0.47
9:9:419:LEU:HD21	9:9:422:LYS:CG	2.44	0.47
9:9:525:ASP:HA	9:9:530:LYS:HE3	1.96	0.47
9:9:1344:LYS:C	37:Z:305:ILE:CG2	2.77	0.47
21:G:9:LYS:HA	21:G:36:ILE:HD11	1.96	0.47
23:I:27:THR:O	23:I:31:ILE:HG12	2.14	0.47
32:R:20:ILE:O	32:R:24:LYS:HG2	2.15	0.47
37:Z:806:ILE:HA	37:Z:809:MET:HE3	1.96	0.47
4:3:1070:U:H2'	4:3:1071:G:H8	1.78	0.47
4:3:1143:U:N3	4:3:1144:C:N4	2.61	0.47
4:3:2043:C:H2'	4:3:2044:C:C6	2.50	0.47
4:3:2409:U:N3	4:3:2423:G:N1	2.54	0.47
4:3:2799:U:O4	4:3:2895:A:N1	2.45	0.47
4:3:2799:U:H3'	4:3:2896:G:N2	2.30	0.47
6:5:253:G:O6	6:5:265:U:O4	2.32	0.47
6:5:1266:U:H2'	6:5:1267:G:C8	2.49	0.47
6:5:1505:G:O2'	6:5:1506:A:O4'	2.26	0.47
9:9:1001:GLU:C	12:AC:109:LYS:HB3	2.40	0.47
10:A:66:GLN:O	10:A:70:ASN:ND2	2.47	0.47
10:A:91:TYR:CE1	10:A:226:CYS:HB3	2.50	0.47
14:AE:10:DG:H5''	37:Z:118:LEU:HB3	1.97	0.47
31:Q:43:PHE:HB2	31:Q:82:HIS:CG	2.50	0.47
40:c:128:VAL:O	40:c:200:GLU:HA	2.14	0.47
43:f:58:TYR:O	43:f:62:LYS:HG2	2.15	0.47
46:j:63:VAL:HB	46:j:102:VAL:HG23	1.97	0.47
47:k:110:LEU:HD12	47:k:111:PRO:HD2	1.96	0.47
48:l:24:ASN:O	48:l:102:VAL:N	2.47	0.47
51:o:11:ASP:O	51:o:15:GLN:HG3	2.14	0.47
4:3:34:C:N4	4:3:483:A:OP2	2.48	0.47
4:3:117:C:H2'	4:3:118:G:O4'	2.14	0.47
4:3:569:U:H2'	4:3:570:C:C6	2.50	0.47
4:3:580:U:OP1	4:3:1249:A:O2'	2.21	0.47
4:3:860:C:H4'	4:3:2436:G:C5	2.50	0.47
4:3:941:C:H2'	4:3:942:A:H8	1.78	0.47
4:3:1264:U:H2'	4:3:1265:G:O4'	2.14	0.47
4:3:2259:G:H2'	4:3:2260:G:C8	2.49	0.47
4:3:2418:G:H2'	4:3:2419:A:C8	2.49	0.47
4:3:2534:G:O6	4:3:2545:U:O4	2.32	0.47
4:3:2558:G:H2'	4:3:2559:C:H6	1.80	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:33:A:H2'	6:5:34:A:C8	2.48	0.47
6:5:109:G:N2	6:5:233:C:O2	2.35	0.47
6:5:309:A:H2'	6:5:310:C:C6	2.50	0.47
6:5:337:C:H2'	6:5:338:C:C6	2.49	0.47
9:9:90:LYS:CE	9:9:1034:GLU:O	2.63	0.47
9:9:1284:GLN:OE1	14:AE:17:DT:H5''	2.14	0.47
30:P:13:VAL:HG13	30:P:57:ASP:HA	1.95	0.47
30:P:68:PRO:HA	30:P:74:ARG:HA	1.96	0.47
46:j:85:VAL:HG13	46:j:87:ILE:HD11	1.96	0.47
59:w:25:GLU:HA	59:w:28:GLU:HG3	1.97	0.47
4:3:730:G:H1	4:3:802:U:H3	1.61	0.47
4:3:767:C:H2'	4:3:768:G:O4'	2.14	0.47
4:3:986:G:H2'	4:3:987:U:C6	2.50	0.47
4:3:991:G:H21	48:l:83:MET:HE2	1.78	0.47
4:3:1071:G:O6	4:3:1154:U:O4	2.31	0.47
4:3:1180:U:H2'	4:3:1181:A:H8	1.78	0.47
4:3:1221:G:H2'	4:3:1222:A:C8	2.49	0.47
4:3:1546:U:H3'	4:3:1547:G:C8	2.49	0.47
4:3:1764:U:N3	4:3:1769:A:C5	2.83	0.47
4:3:1871:U:H3	4:3:1885:G:H1	1.62	0.47
4:3:2223:C:H2'	4:3:2224:A:C8	2.41	0.47
4:3:2394:A:H4'	57:u:70:ASP:HA	1.97	0.47
4:3:2476:A:H2'	4:3:2484:A:C6	2.50	0.47
4:3:2645:U:H2'	4:3:2646:G:O4'	2.15	0.47
4:3:2677:A:H2'	4:3:2678:A:C8	2.49	0.47
6:5:117:U:O2'	6:5:258:A:O2'	2.26	0.47
6:5:144:U:N3	6:5:145:G:N7	2.62	0.47
6:5:361:U:H5''	6:5:362:U:H5'	1.96	0.47
6:5:381:C:H2'	6:5:382:U:C6	2.49	0.47
6:5:416:U:C2	6:5:421:G:N1	2.83	0.47
6:5:701:A:H2'	6:5:702:U:C6	2.50	0.47
6:5:718:A:H4'	6:5:719:G:C4	2.50	0.47
6:5:737:U:H2'	6:5:738:A:C8	2.50	0.47
6:5:740:G:C2	6:5:741:C:C5	3.03	0.47
6:5:744:U:H4'	6:5:745:U:H5	1.79	0.47
6:5:781:A:H2'	6:5:782:G:H8	1.80	0.47
7:6:35:VAL:HG13	7:6:209:LEU:HB2	1.96	0.47
9:9:147:ILE:HG21	9:9:612:PHE:CE1	2.50	0.47
9:9:998:ILE:CB	12:AC:108:LEU:HD13	2.44	0.47
9:9:1082:GLU:OE1	9:9:1227:LYS:HD3	2.14	0.47
9:9:1370:ILE:HB	37:Z:94:ILE:CG2	2.44	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AB:85:LYS:CD	37:Z:602:GLU:OE1	2.56	0.47
7:AB:205:ILE:HD13	37:Z:513:ASP:OD2	2.10	0.47
12:AC:153:ASP:OD1	37:Z:77:LYS:HD3	2.15	0.47
12:AC:196:VAL:CG2	12:AC:217:ARG:CZ	2.87	0.47
14:AE:13:DA:P	37:Z:890:TYR:HH	2.36	0.47
16:B:41:ARG:HD2	16:B:42:ASN:N	2.29	0.47
16:B:56:VAL:HG12	16:B:69:VAL:HG12	1.97	0.47
16:B:194:THR:HG23	16:B:196:TYR:H	1.79	0.47
20:F:102:TRP:HD1	20:F:136:LYS:HZ2	1.58	0.47
24:J:17:SER:CB	24:J:80:LYS:HE3	2.41	0.47
26:L:11:ASN:OD1	26:L:12:GLN:HG2	2.14	0.47
26:L:42:ASP:HB3	26:L:45:VAL:HB	1.97	0.47
27:M:23:ARG:NH1	27:M:30:ALA:HB2	2.30	0.47
32:R:15:LEU:HD23	32:R:15:LEU:H	1.79	0.47
37:Z:992:CYS:SG	37:Z:995:CYS:SG	3.13	0.47
39:b:160:PHE:H	39:b:163:LYS:HE2	1.80	0.47
40:c:74:ALA:O	40:c:76:GLN:NE2	2.48	0.47
43:f:47:ARG:NH2	43:f:51:LEU:HB2	2.28	0.47
45:i:118:SER:HA	45:i:121:TRP:HB2	1.95	0.47
53:q:4:ILE:HG13	53:q:40:MET:HE3	1.95	0.47
53:q:46:GLY:H	53:q:50:LEU:HD23	1.79	0.47
59:w:22:LEU:HA	59:w:25:GLU:HG3	1.95	0.47
4:3:20:C:H2'	4:3:21:U:C6	2.49	0.47
4:3:333:A:C6	4:3:356:A:C4	3.03	0.47
4:3:411:U:O4	4:3:437:A:N7	2.48	0.47
4:3:486:G:N1	4:3:490:A:OP1	2.45	0.47
4:3:597:C:H2'	4:3:598:G:C8	2.50	0.47
4:3:679:A:N1	4:3:2377:A:O2'	2.48	0.47
4:3:762:A:H2'	4:3:763:G:N9	2.30	0.47
4:3:1400:U:H2'	4:3:1401:A:C8	2.50	0.47
4:3:1698:A:N3	4:3:1698:A:H2'	2.29	0.47
4:3:1767:A:H2'	4:3:1768:G:C8	2.49	0.47
4:3:2002:U:OP2	4:3:2003:C:O2'	2.25	0.47
4:3:2629:G:H2'	4:3:2630:U:O4'	2.15	0.47
4:3:2823:A:C2	4:3:2832:G:C2	3.03	0.47
6:5:38:U:H2'	6:5:39:G:H8	1.80	0.47
6:5:146:A:N1	6:5:340:A:O2'	2.36	0.47
6:5:373:A:H2'	6:5:374:G:C8	2.47	0.47
6:5:432:U:H2'	6:5:433:C:C6	2.49	0.47
6:5:931:C:C2	6:5:932:A:C8	3.02	0.47
9:9:785:MET:CE	9:9:1064:GLY:HA2	2.44	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:905:TYR:CE1	9:9:906:GLU:HG3	2.50	0.47
9:9:1345:GLU:O	37:Z:388:LEU:HB3	2.14	0.47
7:AB:35:VAL:HG11	7:AB:195:VAL:HG22	1.97	0.47
15:AF:128:ALA:HA	37:Z:169:ALA:HB1	1.96	0.47
17:C:50:TYR:CE2	17:C:54:LEU:HD11	2.49	0.47
19:E:107:LEU:O	19:E:110:GLN:HB2	2.15	0.47
22:H:47:ILE:O	22:H:50:MET:HE3	2.14	0.47
22:H:56:LEU:HD13	22:H:103:LYS:HG3	1.95	0.47
38:a:98:LEU:HB2	38:a:108:TYR:CE1	2.49	0.47
39:b:1:MET:N	39:b:88:THR:H	2.11	0.47
40:c:40:VAL:HG12	40:c:101:LEU:HD13	1.96	0.47
50:n:15:ILE:O	50:n:19:ILE:HG12	2.15	0.47
52:p:91:ARG:HE	52:p:93:VAL:HG12	1.79	0.47
53:q:34:GLN:O	53:q:34:GLN:HG2	2.15	0.47
3:2:29:THR:HB	3:2:32:HIS:CG	2.50	0.47
4:3:359:G:H2'	4:3:360:G:C8	2.50	0.47
4:3:652:U:H2'	4:3:653:G:C8	2.50	0.47
4:3:1000:U:H1'	4:3:2281:A:C2	2.50	0.47
4:3:1019:A:H2'	4:3:1020:G:C4	2.50	0.47
4:3:1142:G:C2'	35:U:78:GLY:N	2.77	0.47
4:3:1761:C:H2'	4:3:1762:A:C8	2.50	0.47
4:3:2076:G:H2'	4:3:2077:A:C8	2.50	0.47
4:3:2496:G:O2'	4:3:2497:U:H5'	2.15	0.47
4:3:2678:A:H2'	4:3:2679:G:C8	2.50	0.47
4:3:2844:U:H2'	4:3:2845:U:C6	2.50	0.47
6:5:61:A:N6	6:5:92:G:O2'	2.48	0.47
6:5:706:U:H2'	6:5:707:G:H8	1.80	0.47
6:5:732:A:H1'	31:Q:95:TYR:CE2	2.50	0.47
6:5:1245:A:H2'	6:5:1246:A:C8	2.45	0.47
9:9:1200:PHE:CZ	37:Z:864:ILE:HA	2.49	0.47
9:9:1242:SER:HB2	37:Z:735:SER:HB2	1.97	0.47
9:9:1305:GLU:OE2	37:Z:542:LEU:HB2	2.15	0.47
11:AA:51:ARG:NH2	37:Z:986:GLU:OE2	2.47	0.47
16:B:90:LYS:HA	16:B:93:LYS:NZ	2.30	0.47
18:D:116:LYS:HE3	18:D:120:LYS:HZ1	1.79	0.47
30:P:30:PHE:CZ	30:P:41:ARG:HD3	2.50	0.47
30:P:44:LYS:HD3	30:P:46:GLN:OE1	2.14	0.47
37:Z:125:SER:HB2	37:Z:130:ILE:O	2.15	0.47
37:Z:1228:PHE:CE1	37:Z:1251:ASP:HB2	2.50	0.47
39:b:58:GLU:HG2	39:b:60:LYS:H	1.79	0.47
41:d:35:VAL:HG12	41:d:155:THR:HG22	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:t:1:MET:HB2	56:t:100:LYS:HE2	1.97	0.47
4:3:141:A:H3'	4:3:142:A:C8	2.50	0.47
4:3:381:A:H2'	4:3:382:U:C6	2.50	0.47
4:3:448:A:H62	4:3:2420:A:H1'	1.80	0.47
4:3:450:C:H2'	4:3:451:A:H8	1.79	0.47
4:3:567:U:H5''	52:p:27:ARG:NH2	2.29	0.47
4:3:1141:U:O2'	35:U:78:GLY:O	2.17	0.47
4:3:1589:A:H2'	4:3:1590:U:C6	2.49	0.47
4:3:1806:G:N2	4:3:1826:A:OP2	2.35	0.47
4:3:2547:C:H2'	4:3:2548:G:H8	1.79	0.47
5:4:47:C:OP1	50:n:101:ARG:NE	2.42	0.47
6:5:408:U:H4'	6:5:409:G:H5'	1.97	0.47
6:5:749:G:H1'	6:5:751:C:N4	2.28	0.47
6:5:822:A:H2'	6:5:823:C:H6	1.80	0.47
6:5:881:G:C2	6:5:905:U:C2	3.03	0.47
6:5:919:C:H2'	6:5:920:G:C8	2.50	0.47
6:5:1343:G:H5'	22:H:116:LYS:HB3	1.96	0.47
6:5:1362:G:H2'	6:5:1363:U:C6	2.50	0.47
9:9:179:GLN:NE2	9:9:212:LEU:HD13	2.30	0.47
9:9:1289:MET:CG	14:AE:15:DA:C5'	2.89	0.47
14:AE:14:DG:C4'	37:Z:889:GLY:C	2.88	0.47
19:E:17:GLN:HA	19:E:20:GLN:HG2	1.96	0.47
37:Z:1176:THR:HG21	37:Z:1212:ILE:CD1	2.44	0.47
43:f:12:LEU:HB2	43:f:14:LYS:NZ	2.29	0.47
45:i:115:ASN:OD1	45:i:116:ARG:N	2.48	0.47
51:o:53:LEU:HD11	51:o:104:MET:HE2	1.97	0.47
4:3:20:C:O2'	4:3:587:U:H5''	2.15	0.46
4:3:35:U:H3	4:3:483:A:H62	1.63	0.46
4:3:615:G:H5''	52:p:13:ARG:NH2	2.30	0.46
4:3:997:G:N2	4:3:2037:A:OP1	2.48	0.46
4:3:1016:A:H2'	4:3:1017:A:C4	2.50	0.46
4:3:1065:G:O6	4:3:1160:G:N2	2.48	0.46
4:3:1953:U:H2'	4:3:1954:C:O4'	2.15	0.46
4:3:2313:U:H3	41:d:150:ARG:HB2	1.80	0.46
4:3:2627:U:H5''	39:b:161:LYS:HE2	1.97	0.46
4:3:2845:U:H2'	4:3:2846:A:C8	2.49	0.46
5:4:56:A:C4	5:4:57:G:C8	3.03	0.46
6:5:511:A:H2'	6:5:512:U:C6	2.50	0.46
6:5:590:G:H2'	6:5:591:A:C8	2.50	0.46
6:5:1269:U:H2'	6:5:1270:C:C6	2.50	0.46
9:9:413:HIS:CE1	9:9:419:LEU:HD12	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AE:17:DT:C4'	37:Z:413:ARG:HH11	1.98	0.46
15:AF:94:GLY:O	15:AF:95:ARG:HG3	2.15	0.46
19:E:59:ARG:HH12	31:Q:54:ILE:HB	1.79	0.46
37:Z:134:GLU:HB3	37:Z:165:VAL:HG21	1.97	0.46
41:d:15:GLU:O	41:d:19:SER:OG	2.17	0.46
41:d:135:GLN:HA	41:d:152:PHE:CZ	2.50	0.46
53:q:74:ILE:HG22	53:q:77:LYS:HG3	1.97	0.46
54:r:28:LYS:NZ	54:r:67:ASP:O	2.42	0.46
59:w:39:ASP:O	59:w:40:LYS:HE2	2.15	0.46
1:0:34:ARG:NH2	1:0:41:GLN:O	2.41	0.46
2:1:43:LYS:NZ	4:3:2358:U:O5'	2.48	0.46
4:3:29:G:O2'	4:3:30:A:N7	2.40	0.46
4:3:761:G:O2'	4:3:762:A:N7	2.47	0.46
4:3:918:G:H22	4:3:932:U:HO2'	1.54	0.46
4:3:1032:A:H2'	4:3:1033:A:C8	2.49	0.46
4:3:1089:A:C1'	35:U:30:THR:HG22	2.45	0.46
4:3:1281:A:OP1	52:p:9:THR:OG1	2.33	0.46
4:3:1460:G:H2'	4:3:1461:A:C8	2.50	0.46
4:3:1475:C:H1'	4:3:1577:A:C2	2.50	0.46
4:3:1604:A:H2'	4:3:1605:A:O4'	2.15	0.46
4:3:1833:G:H2'	4:3:1834:U:H6	1.79	0.46
4:3:1842:G:H2'	4:3:1843:C:H6	1.80	0.46
4:3:1928:G:H2'	4:3:1929:G:C8	2.50	0.46
4:3:2085:C:H2'	4:3:2086:U:C6	2.50	0.46
4:3:2189:U:H2'	4:3:2190:G:C8	2.40	0.46
4:3:2609:C:H2'	4:3:2611:G:H8	1.79	0.46
4:3:2861:G:N2	4:3:2863:G:OP2	2.47	0.46
6:5:330:C:H2'	6:5:331:C:C6	2.49	0.46
6:5:929:C:N3	6:5:932:A:N6	2.63	0.46
6:5:1139:A:H2'	6:5:1140:A:C8	2.50	0.46
6:5:1347:U:H2'	6:5:1348:G:O4'	2.16	0.46
9:9:141:VAL:HG11	9:9:613:LEU:CD2	2.39	0.46
9:9:363:GLU:CG	9:9:379:ARG:NH1	2.78	0.46
9:9:659:ILE:O	9:9:780:LEU:HD12	2.15	0.46
10:A:70:ASN:HA	10:A:73:LYS:NZ	2.30	0.46
12:AC:154:ILE:O	37:Z:77:LYS:HD3	2.16	0.46
27:M:33:VAL:HA	27:M:40:CYS:HA	1.97	0.46
37:Z:460:ILE:HG22	37:Z:470:MET:HE1	1.97	0.46
37:Z:501:ARG:HG2	37:Z:563:LEU:HD11	1.97	0.46
37:Z:670:PHE:CE1	37:Z:688:LEU:HD11	2.50	0.46
37:Z:831:MET:HE3	37:Z:854:ILE:HD12	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:b:180:ARG:HE	39:b:220:ILE:HD12	1.79	0.46
41:d:117:LEU:H	41:d:176:PRO:HB2	1.79	0.46
42:e:149:THR:O	42:e:152:ARG:HG2	2.15	0.46
45:i:52:ASP:OD1	45:i:121:TRP:NE1	2.48	0.46
51:o:31:VAL:HG13	51:o:90:LEU:HA	1.96	0.46
53:q:6:VAL:HA	53:q:11:GLN:HA	1.97	0.46
59:w:4:ALA:HA	59:w:7:LEU:HD23	1.96	0.46
4:3:383:U:H2'	4:3:384:G:H8	1.79	0.46
4:3:746:G:H2'	4:3:747:A:C8	2.49	0.46
4:3:2200:U:H2'	4:3:2201:G:C8	2.50	0.46
4:3:2503:G:H2'	4:3:2504:C:C6	2.50	0.46
4:3:2708:G:H2'	4:3:2709:C:C6	2.51	0.46
6:5:337:C:H2'	6:5:338:C:H6	1.81	0.46
6:5:460:A:N1	6:5:467:G:C6	2.83	0.46
6:5:736:U:H2'	6:5:737:U:O4'	2.15	0.46
6:5:911:G:H2'	6:5:912:G:H8	1.79	0.46
6:5:1011:A:H2'	6:5:1012:A:N3	2.31	0.46
6:5:1289:U:O2'	6:5:1334:A:N3	2.47	0.46
9:9:1269:LYS:CB	37:Z:313:ILE:HD11	2.39	0.46
13:AD:29:DC:C5'	37:Z:1057:VAL:HG22	2.28	0.46
20:F:110:ARG:HG2	20:F:111:HIS:N	2.30	0.46
23:I:54:VAL:HG21	27:M:61:TRP:HH2	1.81	0.46
37:Z:500:HIS:CE1	37:Z:502:LEU:HB2	2.50	0.46
58:v:62:ASN:O	58:v:63:ARG:NE	2.48	0.46
4:3:78:C:H1'	59:w:56:THR:HG21	1.97	0.46
4:3:86:A:H2	4:3:104:A:C5	2.33	0.46
4:3:252:G:O5'	4:3:253:C:H5''	2.16	0.46
4:3:464:A:H2'	4:3:464:A:N3	2.31	0.46
4:3:616:G:H2'	4:3:617:C:C6	2.50	0.46
4:3:793:C:H2'	4:3:794:G:C8	2.50	0.46
4:3:801:U:H2'	4:3:802:U:C6	2.51	0.46
4:3:1158:C:H2'	4:3:1159:C:C6	2.50	0.46
4:3:1219:U:H2'	4:3:1220:A:O4'	2.16	0.46
4:3:1345:G:H2'	4:3:1346:G:C8	2.49	0.46
4:3:1477:A:N6	4:3:1489:G:O6	2.48	0.46
4:3:1819:G:H2'	4:3:1820:U:H6	1.79	0.46
4:3:1870:G:H4'	4:3:2419:A:H4'	1.96	0.46
4:3:1999:G:N2	4:3:2003:C:H1'	2.30	0.46
4:3:2094:A:H2'	4:3:2095:A:H8	1.77	0.46
4:3:2213:A:H2'	4:3:2214:A:H8	1.80	0.46
4:3:2299:U:H2'	4:3:2300:A:C8	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2533:A:H2'	4:3:2534:G:H8	1.79	0.46
4:3:2687:A:H2'	4:3:2688:C:C6	2.50	0.46
6:5:253:G:C6	6:5:266:A:C6	3.03	0.46
6:5:1126:U:H2'	6:5:1127:A:C8	2.49	0.46
6:5:1389:U:H2'	6:5:1390:G:C8	2.50	0.46
6:5:1406:U:H2'	6:5:1407:A:C8	2.50	0.46
7:6:49:CYS:SG	7:AB:34:PHE:CE2	3.07	0.46
7:6:239:ILE:HG23	7:AB:225:PHE:CE1	2.49	0.46
9:9:30:GLN:CG	9:9:676:PHE:HE1	2.29	0.46
7:AB:35:VAL:HG13	7:AB:209:LEU:HB2	1.97	0.46
12:AC:158:LYS:CA	37:Z:66:TYR:CE2	2.90	0.46
19:E:150:GLN:HB2	21:G:57:PHE:CE1	2.50	0.46
28:N:64:LEU:O	28:N:68:LYS:HG2	2.16	0.46
38:a:6:ILE:HD11	38:a:19:VAL:HG22	1.98	0.46
39:b:27:THR:HG21	39:b:197:ILE:HG12	1.98	0.46
43:f:73:GLU:OE2	43:f:139:LYS:NZ	2.48	0.46
54:r:6:LYS:HD3	54:r:104:VAL:HB	1.97	0.46
54:r:28:LYS:HG2	54:r:30:ALA:H	1.80	0.46
4:3:558:C:H5''	4:3:575:C:O2'	2.16	0.46
4:3:629:G:N2	4:3:696:U:O2	2.39	0.46
4:3:1095:U:H1'	4:3:1097:G:OP2	2.15	0.46
4:3:1141:U:H2'	4:3:1142:G:C8	2.48	0.46
4:3:1186:A:H2'	4:3:1187:C:O4'	2.16	0.46
4:3:1654:G:H2'	4:3:1655:U:C6	2.50	0.46
4:3:2506:C:O2'	4:3:2507:C:OP1	2.26	0.46
6:5:45:A:H2'	6:5:46:U:C6	2.51	0.46
6:5:280:G:H2'	6:5:281:U:C6	2.51	0.46
6:5:526:C:H4'	6:5:533:A:C6	2.51	0.46
6:5:797:G:N2	6:5:798:U:O4	2.48	0.46
6:5:950:C:H2'	6:5:951:U:C2	2.50	0.46
9:9:408:LEU:HD13	9:9:427:LEU:HD21	1.97	0.46
9:9:1238:GLU:OE2	37:Z:582:TYR:OH	2.32	0.46
10:A:202:CYS:SG	10:A:206:THR:OG1	2.62	0.46
7:AB:57:ALA:HB2	7:AB:173:ILE:HD11	1.97	0.46
20:F:78:ARG:HE	20:F:83:ASN:HA	1.81	0.46
22:H:56:LEU:HD23	22:H:56:LEU:H	1.80	0.46
24:J:63:VAL:HA	24:J:66:THR:HG22	1.97	0.46
29:O:32:HIS:O	29:O:42:CYS:HA	2.16	0.46
37:Z:986:GLU:HA	37:Z:1192:HIS:HE1	1.80	0.46
38:a:83:VAL:HA	38:a:99:ILE:HG13	1.97	0.46
41:d:5:LYS:HB2	41:d:97:TRP:CD1	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:n:46:PHE:C	50:n:48:GLN:H	2.22	0.46
51:o:48:PHE:CE1	51:o:68:LYS:HB2	2.51	0.46
4:3:8:A:H2'	4:3:9:G:H8	1.77	0.46
4:3:568:G:P	52:p:24:PHE:H	2.38	0.46
4:3:1392:G:H3'	58:v:2:ALA:HB1	1.97	0.46
4:3:1641:A:H4'	4:3:1642:G:C8	2.51	0.46
4:3:2034:G:H2'	4:3:2035:U:C6	2.50	0.46
4:3:2684:G:H2'	4:3:2685:A:H8	1.80	0.46
6:5:366:C:H2'	6:5:367:A:C8	2.50	0.46
6:5:703:A:H2'	6:5:704:U:C6	2.50	0.46
6:5:823:C:H2'	6:5:824:U:C6	2.51	0.46
6:5:1319:U:O2'	6:5:1352:A:N6	2.46	0.46
8:7:2:G:N2	8:7:73:C:C2	2.78	0.46
9:9:627:ARG:HD3	9:9:670:ILE:HG21	1.97	0.46
9:9:641:PRO:HD2	13:AD:26:DT:H5'	1.73	0.46
9:9:998:ILE:CG2	12:AC:108:LEU:CG	2.68	0.46
12:AC:289:ILE:N	12:AC:300:ASN:ND2	2.64	0.46
16:B:33:TRP:HB3	16:B:60:ARG:NH2	2.31	0.46
17:C:164:SER:HB2	17:C:167:VAL:HG22	1.97	0.46
37:Z:828:ARG:NH1	37:Z:870:SER:CB	2.76	0.46
37:Z:1033:HIS:ND1	37:Z:1041:ASN:HB3	2.31	0.46
38:a:234:ASN:C	38:a:241:GLY:HA3	2.41	0.46
39:b:111:SER:OG	39:b:206:LEU:HB2	2.15	0.46
47:k:56:THR:O	47:k:61:ARG:NH2	2.49	0.46
61:y:28:SER:N	61:y:37:LYS:O	2.42	0.46
4:3:186:A:N1	4:3:219:G:C6	2.83	0.46
4:3:224:G:N1	4:3:464:A:OP2	2.48	0.46
4:3:755:C:H2'	4:3:756:A:C8	2.51	0.46
4:3:756:A:H2'	4:3:757:A:H8	1.80	0.46
4:3:831:U:H2'	4:3:832:C:C6	2.51	0.46
4:3:886:U:H3	4:3:964:A:N6	2.13	0.46
4:3:1081:A:C2	35:U:7:LYS:CD	2.97	0.46
4:3:1634:A:N6	4:3:1635:G:O6	2.49	0.46
4:3:1702:A:H5'	46:j:5:MET:HE2	1.97	0.46
4:3:1730:C:H2'	4:3:1731:G:O4'	2.15	0.46
4:3:1872:U:N3	4:3:1882:G:C6	2.84	0.46
4:3:1941:C:H2'	4:3:1942:G:C8	2.50	0.46
4:3:2497:U:H2'	4:3:2498:G:C4	2.51	0.46
5:4:74:G:H2'	5:4:75:U:C6	2.50	0.46
6:5:37:C:H5''	25:K:133:LYS:HA	1.98	0.46
6:5:664:A:OP1	6:5:729:C:O2'	2.26	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:1294:U:H1'	32:R:73:GLU:HB2	1.98	0.46
6:5:1383:A:H2'	6:5:1384:A:C8	2.51	0.46
9:9:354:SER:N	13:AD:20:DG:C4	2.83	0.46
9:9:723:ILE:HG22	9:9:727:ASN:HA	1.98	0.46
9:9:945:ARG:HH22	7:AB:298:ALA:HB3	1.80	0.46
7:AB:163:PHE:HB3	37:Z:609:ALA:CB	2.46	0.46
12:AC:67:LEU:HD23	12:AC:103:ARG:HG2	1.96	0.46
12:AC:123:PHE:CZ	12:AC:127:ILE:HD11	2.51	0.46
29:O:48:VAL:O	29:O:51:GLU:HB3	2.16	0.46
37:Z:745:LYS:NZ	37:Z:860:GLU:OE2	2.46	0.46
37:Z:748:TYR:OH	37:Z:791:GLU:OE1	2.24	0.46
39:b:120:THR:HG21	39:b:169:TYR:HB2	1.98	0.46
40:c:162:ASN:N	40:c:200:GLU:OE2	2.49	0.46
45:i:38:LEU:HD23	45:i:57:LEU:HD22	1.97	0.46
46:j:65:THR:O	46:j:79:PHE:HB2	2.15	0.46
52:p:87:ILE:H	52:p:87:ILE:HD12	1.80	0.46
58:v:16:ASN:HD21	58:v:25:THR:H	1.63	0.46
4:3:317:U:H2'	4:3:318:U:C6	2.50	0.46
4:3:448:A:H3'	4:3:449:C:C6	2.51	0.46
4:3:1010:G:H1'	4:3:1025:G:N2	2.31	0.46
4:3:1289:G:H2'	4:3:1290:G:H8	1.78	0.46
4:3:1380:U:H1'	4:3:1604:A:H2	1.81	0.46
4:3:1709:C:H3'	4:3:1710:A:H8	1.81	0.46
4:3:1777:G:O6	4:3:1990:C:N4	2.49	0.46
4:3:1819:G:H2'	4:3:1820:U:C6	2.51	0.46
4:3:2066:A:OP1	40:c:72:GLY:N	2.49	0.46
4:3:2171:A:H5''	4:3:2180:U:O2'	2.16	0.46
4:3:2467:A:H2'	4:3:2468:U:O4'	2.16	0.46
4:3:2530:U:H1'	4:3:2572:A:H2	1.81	0.46
4:3:2823:A:N1	4:3:2832:G:C6	2.84	0.46
6:5:1106:U:O2'	6:5:1107:U:H5'	2.15	0.46
6:5:1183:C:H2'	6:5:1184:C:C6	2.51	0.46
6:5:1325:U:H2'	6:5:1326:C:C6	2.51	0.46
9:9:723:ILE:CG2	9:9:727:ASN:HA	2.45	0.46
9:9:1001:GLU:CA	12:AC:109:LYS:CG	2.53	0.46
10:A:112:TRP:HZ2	10:A:117:LEU:HG	1.80	0.46
12:AC:291:ASN:N	12:AC:296:LYS:CG	2.41	0.46
15:AF:131:THR:HB	37:Z:351:ILE:CD1	2.46	0.46
23:I:62:HIS:CD2	23:I:63:VAL:HG23	2.51	0.46
24:J:17:SER:OG	24:J:24:ILE:HB	2.15	0.46
52:p:91:ARG:HH21	52:p:93:VAL:HG11	1.81	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:q:37:LYS:HB2	53:q:37:LYS:HE3	1.75	0.46
54:r:34:ASN:OD1	54:r:35:ILE:N	2.45	0.46
4:3:173:C:H2'	4:3:174:A:H8	1.80	0.46
4:3:341:G:N1	4:3:344:A:OP2	2.35	0.46
4:3:2381:G:H2'	4:3:2382:A:C8	2.50	0.46
4:3:2591:G:O2'	4:3:2592:U:O4'	2.18	0.46
4:3:2651:G:H2'	4:3:2652:U:O4'	2.16	0.46
4:3:2784:A:O2'	4:3:2790:A:N7	2.40	0.46
4:3:2866:A:H2'	4:3:2867:U:C6	2.51	0.46
6:5:319:U:H4'	33:S:17:ARG:HD3	1.98	0.46
6:5:402:G:N3	17:C:115:GLN:NE2	2.63	0.46
6:5:406:G:O6	6:5:426:U:O2'	2.20	0.46
6:5:874:C:H5''	25:K:9:ARG:NH1	2.31	0.46
6:5:1010:A:H5''	32:R:14:HIS:ND1	2.31	0.46
6:5:1429:G:H2'	6:5:1430:G:C8	2.48	0.46
6:5:1446:A:H2'	6:5:1447:U:C6	2.51	0.46
9:9:1149:LEU:HD11	9:9:1181:LEU:CD2	2.45	0.46
9:9:1200:PHE:CD1	37:Z:862:LEU:O	2.69	0.46
12:AC:183:LYS:CD	12:AC:281:ASN:HB3	2.46	0.46
17:C:57:LYS:HA	17:C:60:MET:HG3	1.98	0.46
28:N:21:SER:O	28:N:24:VAL:HG22	2.16	0.46
30:P:7:LYS:HZ2	30:P:65:GLU:H	1.63	0.46
32:R:22:MET:HE1	32:R:31:ILE:HD13	1.97	0.46
41:d:121:SER:HB3	41:d:128:TYR:CZ	2.51	0.46
46:j:17:LYS:HE3	46:j:45:ASP:HB3	1.97	0.46
48:l:4:PRO:HG3	48:l:69:PHE:CE2	2.50	0.46
50:n:2:LYS:HD3	50:n:2:LYS:HA	1.74	0.46
53:q:5:VAL:HG22	53:q:38:VAL:HG23	1.97	0.46
54:r:129:VAL:O	54:r:133:GLN:HG3	2.16	0.46
4:3:214:C:H2'	4:3:215:A:C8	2.51	0.46
4:3:715:G:H2'	4:3:716:G:H8	1.81	0.46
4:3:845:U:OP2	47:k:30:LYS:HE2	2.16	0.46
4:3:858:A:H2'	4:3:859:G:H8	1.80	0.46
4:3:990:G:H2'	4:3:991:G:C8	2.51	0.46
4:3:1042:C:H2'	4:3:1043:C:C6	2.51	0.46
4:3:1371:G:N3	4:3:1371:G:H2'	2.31	0.46
4:3:1390:C:H2'	4:3:1391:U:H6	1.81	0.46
4:3:1453:U:H3'	4:3:1454:G:C8	2.51	0.46
4:3:1954:C:H2'	4:3:1955:G:H8	1.79	0.46
4:3:2110:U:H2'	4:3:2111:U:O2	2.16	0.46
4:3:2681:G:H2'	4:3:2682:A:C8	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:1066:U:H2'	6:5:1067:C:C6	2.51	0.46
6:5:1184:C:H2'	6:5:1185:C:C6	2.51	0.46
6:5:1379:C:H2'	6:5:1380:G:C8	2.51	0.46
9:9:658:PRO:CB	37:Z:868:PHE:CD2	2.99	0.46
9:9:1352:SER:HG	37:Z:31:TRP:CH2	1.74	0.46
7:AB:283:ARG:NH2	12:AC:82:LEU:CD1	2.79	0.46
23:I:16:LEU:HD21	23:I:78:ARG:HG3	1.98	0.46
33:S:40:ASN:OD1	33:S:43:ASN:ND2	2.49	0.46
37:Z:890:TYR:CD1	37:Z:894:LYS:HE3	2.47	0.46
37:Z:1079:THR:HG22	37:Z:1084:GLN:HG2	1.97	0.46
38:a:191:LYS:HB2	38:a:277:LEU:HD12	1.98	0.46
52:p:107:LEU:O	52:p:111:LYS:HG3	2.16	0.46
58:v:18:ARG:HB3	58:v:22:LYS:HA	1.98	0.46
4:3:498:C:N4	4:3:499:G:O6	2.49	0.45
4:3:851:U:H2'	4:3:852:C:C6	2.50	0.45
4:3:1372:U:H4'	4:3:1412:A:C5	2.51	0.45
4:3:1688:A:H62	4:3:2012:A:H2	1.63	0.45
4:3:1848:U:C2	4:3:1849:G:C8	3.04	0.45
4:3:2106:G:H2'	4:3:2107:A:H8	1.81	0.45
4:3:2496:G:H2'	4:3:2497:U:C6	2.51	0.45
4:3:2568:G:H2'	4:3:2569:A:C8	2.51	0.45
5:4:78:C:H3'	5:4:79:U:C2	2.51	0.45
6:5:72:A:H2'	6:5:73:G:C8	2.50	0.45
6:5:290:G:OP1	6:5:608:G:O2'	2.33	0.45
6:5:416:U:O2	6:5:421:G:C2	2.68	0.45
6:5:649:U:H1'	6:5:650:A:H8	1.80	0.45
6:5:732:A:H1'	31:Q:95:TYR:CD2	2.51	0.45
6:5:922:G:H1	6:5:1365:U:H3	1.65	0.45
7:6:1:MET:HE3	7:AB:51:PRO:HD3	1.97	0.45
9:9:1292:TRP:CH2	37:Z:893:ARG:HG3	2.52	0.45
9:9:1371:LEU:CD1	37:Z:95:VAL:CB	2.78	0.45
12:AC:215:ASP:CA	12:AC:217:ARG:HE	2.27	0.45
14:AE:23:DC:H2''	14:AE:24:DA:C8	2.51	0.45
21:G:56:ASN:HB2	21:G:73:ASN:ND2	2.23	0.45
40:c:130:GLN:HA	40:c:133:PHE:CD1	2.51	0.45
61:y:43:CYS:SG	61:y:46:GLY:N	2.89	0.45
4:3:704:G:N3	4:3:704:G:H2'	2.31	0.45
4:3:774:A:H1'	4:3:775:C:H5	1.81	0.45
4:3:1127:C:H2'	4:3:1128:G:O4'	2.16	0.45
4:3:1292:A:OP2	54:r:99:ARG:NH2	2.49	0.45
4:3:1457:A:H2'	4:3:1458:A:C8	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1505:G:H2'	4:3:1506:U:C6	2.51	0.45
4:3:1661:A:H2'	4:3:1662:G:C8	2.43	0.45
4:3:1798:A:C2	4:3:1836:A:H4'	2.52	0.45
4:3:2078:A:H2'	4:3:2079:G:H8	1.81	0.45
4:3:2277:A:C4	4:3:2278:G:C8	3.05	0.45
4:3:2483:C:H42	4:3:2537:G:N2	2.14	0.45
4:3:2570:U:N3	4:3:2574:A:N6	2.48	0.45
4:3:2856:G:H2'	4:3:2857:C:H6	1.81	0.45
6:5:69:G:N2	6:5:86:A:N1	2.48	0.45
6:5:224:A:H2'	6:5:225:U:C6	2.51	0.45
6:5:236:C:H2'	6:5:237:A:C8	2.51	0.45
6:5:1047:U:H2'	6:5:1048:G:H8	1.81	0.45
6:5:1261:A:N3	6:5:1327:G:O2'	2.32	0.45
6:5:1294:U:N3	6:5:1295:U:O4	2.49	0.45
6:5:1360:G:H2'	6:5:1361:G:C8	2.51	0.45
6:5:1361:G:H2'	6:5:1362:G:H8	1.81	0.45
7:AB:82:LEU:HD13	37:Z:621:SER:HB2	1.96	0.45
7:AB:82:LEU:HD12	37:Z:621:SER:HB2	1.98	0.45
15:AF:131:THR:HB	37:Z:351:ILE:HD11	1.97	0.45
16:B:18:TRP:CD1	27:M:54:PRO:HA	2.50	0.45
20:F:22:VAL:O	20:F:26:ILE:HG12	2.17	0.45
23:I:86:ASN:O	23:I:89:ALA:N	2.46	0.45
30:P:20:LYS:HD2	30:P:48:HIS:HB2	1.98	0.45
30:P:25:GLN:OE1	30:P:42:HIS:HB2	2.16	0.45
37:Z:164:GLU:OE1	37:Z:179:LYS:NZ	2.49	0.45
37:Z:501:ARG:HG2	37:Z:563:LEU:CD1	2.46	0.45
37:Z:1219:ASP:HB3	37:Z:1235:GLN:HE22	1.82	0.45
55:s:53:LEU:HD11	55:s:86:PRO:HA	1.98	0.45
57:u:38:LYS:N	57:u:51:ILE:O	2.44	0.45
4:3:1061:A:H2'	4:3:1062:A:H8	1.81	0.45
4:3:1070:U:H5''	42:e:62:LYS:HE2	1.98	0.45
4:3:1390:C:H2'	4:3:1391:U:C6	2.51	0.45
4:3:1813:C:OP1	38:a:258:TRP:NE1	2.49	0.45
4:3:1830:G:OP1	38:a:58:GLN:NE2	2.49	0.45
4:3:1872:U:O2	4:3:1882:G:N2	2.49	0.45
4:3:1955:G:C2'	4:3:1956:G:H5'	2.46	0.45
4:3:2269:C:H2'	4:3:2270:U:C6	2.51	0.45
4:3:2275:A:N6	4:3:2280:U:C2	2.85	0.45
4:3:2582:G:H2'	4:3:2583:U:C6	2.51	0.45
4:3:2656:G:H2'	4:3:2657:C:C6	2.52	0.45
4:3:2701:A:H2'	4:3:2702:G:H8	1.80	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2835:G:O3'	4:3:2838:G:N2	2.50	0.45
5:4:93:U:H2'	5:4:94:A:C8	2.50	0.45
6:5:255:G:OP2	33:S:71:ARG:HD3	2.15	0.45
6:5:934:G:O2'	20:F:101:ARG:NH1	2.47	0.45
6:5:1116:U:O2'	6:5:1117:U:O5'	2.26	0.45
6:5:1223:A:H2'	6:5:1224:C:C6	2.51	0.45
9:9:176:LYS:HD3	14:AE:7:DT:H2''	1.97	0.45
9:9:848:LYS:HD3	9:9:859:ASN:OD1	2.16	0.45
9:9:1283:GLY:O	37:Z:407:ARG:NH1	2.50	0.45
9:9:1310:LYS:HB3	37:Z:408:VAL:CA	2.46	0.45
17:C:144:LEU:HB3	17:C:174:PHE:HB3	1.98	0.45
26:L:19:LEU:HD12	26:L:25:ILE:HG21	1.97	0.45
31:Q:81:MET:HA	31:Q:84:ARG:NH2	2.31	0.45
38:a:125:GLU:HB2	43:f:89:TYR:HE1	1.82	0.45
45:i:108:VAL:O	45:i:112:LEU:HD23	2.15	0.45
46:j:30:LYS:O	46:j:31:ARG:HG2	2.16	0.45
58:v:39:LYS:HB3	58:v:64:LEU:HD12	1.98	0.45
4:3:77:G:OP1	59:w:49:ARG:NH2	2.50	0.45
4:3:477:U:H2'	4:3:478:G:H8	1.82	0.45
4:3:491:A:H2	4:3:509:G:H5'	1.81	0.45
4:3:780:G:O2'	4:3:783:G:H1'	2.16	0.45
4:3:897:A:H62	4:3:953:G:H21	1.63	0.45
4:3:1091:G:N1	4:3:1137:C:OP2	2.48	0.45
4:3:1243:A:H2'	4:3:1244:A:O4'	2.17	0.45
4:3:1544:G:C2	4:3:1545:A:C5	3.05	0.45
4:3:1842:G:H2'	4:3:1843:C:C6	2.51	0.45
4:3:2157:A:H2'	4:3:2158:C:C6	2.51	0.45
4:3:2330:A:H3'	4:3:2331:G:H8	1.82	0.45
4:3:2524:U:H2'	4:3:2525:C:C6	2.52	0.45
4:3:2699:C:H2'	4:3:2700:C:H6	1.81	0.45
5:4:57:G:C5	5:4:58:C:C5	3.05	0.45
6:5:264:C:H2'	6:5:265:U:C6	2.51	0.45
6:5:403:A:H2'	6:5:404:A:H8	1.79	0.45
6:5:875:G:OP1	25:K:9:ARG:NH1	2.50	0.45
6:5:879:G:H2'	6:5:880:G:C8	2.51	0.45
6:5:1003:G:C6	6:5:1018:U:C4	3.04	0.45
6:5:1320:A:H2'	20:F:9:ARG:HE	1.80	0.45
9:9:395:ARG:O	9:9:401:GLU:HG3	2.17	0.45
13:AD:29:DC:H5''	37:Z:1057:VAL:CB	2.46	0.45
14:AE:14:DG:H4'	37:Z:890:TYR:N	2.29	0.45
17:C:89:LEU:HA	17:C:92:VAL:HG22	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:D:108:ALA:HB3	18:D:114:ALA:HB2	1.98	0.45
31:Q:93:ALA:O	31:Q:97:ALA:N	2.49	0.45
37:Z:299:LEU:CD1	37:Z:368:PHE:HE2	2.29	0.45
48:l:109:ILE:O	48:l:114:MET:HE2	2.16	0.45
49:m:106:ARG:HB2	49:m:113:MET:HE1	1.98	0.45
4:3:109:G:H1'	4:3:380:A:H61	1.80	0.45
4:3:1039:G:H2'	4:3:1040:U:C6	2.52	0.45
4:3:1108:A:H2'	4:3:1109:G:O4'	2.17	0.45
4:3:1544:G:H2'	4:3:1545:A:C8	2.51	0.45
4:3:1709:C:H3'	4:3:1710:A:C8	2.51	0.45
4:3:1826:A:H1'	4:3:1828:A:C5	2.52	0.45
4:3:2268:C:H2'	4:3:2269:C:H6	1.81	0.45
4:3:2322:G:H2'	4:3:2323:U:C6	2.51	0.45
4:3:2395:U:H1'	57:u:55:ARG:HG2	1.99	0.45
4:3:2515:C:H2'	4:3:2516:G:O4'	2.17	0.45
4:3:2604:U:HO2'	4:3:2605:G:P	2.39	0.45
4:3:2799:U:H3	4:3:2810:A:N6	2.14	0.45
5:4:105:A:H2'	5:4:106:A:C8	2.51	0.45
6:5:137:A:H3'	6:5:138:A:H8	1.81	0.45
6:5:238:U:H2'	6:5:280:G:H22	1.82	0.45
6:5:473:A:H2'	6:5:474:G:C8	2.52	0.45
6:5:503:G:H2'	6:5:504:A:C8	2.50	0.45
6:5:538:G:H2'	6:5:539:G:C8	2.51	0.45
9:9:409:ALA:O	9:9:423:LYS:HE3	2.17	0.45
9:9:1001:GLU:N	12:AC:109:LYS:HE2	2.32	0.45
9:9:1340:LYS:HZ2	9:9:1370:ILE:CG1	2.28	0.45
9:9:1348:GLY:C	37:Z:368:PHE:CE1	2.88	0.45
17:C:7:ILE:HG13	17:C:8:PHE:CD1	2.52	0.45
18:D:80:THR:OG1	18:D:81:LYS:N	2.50	0.45
21:G:118:THR:OG1	21:G:119:SER:N	2.49	0.45
29:O:58:LYS:HB3	29:O:64:ARG:NH1	2.32	0.45
32:R:15:LEU:HA	32:R:18:LYS:NZ	2.32	0.45
37:Z:687:VAL:CG1	37:Z:802:ARG:HH22	2.16	0.45
45:i:18:TRP:NE1	45:i:138:GLN:HE21	2.14	0.45
52:p:79:ILE:HD11	52:p:83:LYS:NZ	2.32	0.45
53:q:27:ALA:HB1	53:q:31:LYS:NZ	2.31	0.45
2:1:11:PHE:CE2	47:k:59:TYR:HB3	2.52	0.45
4:3:84:G:H2'	4:3:85:U:C6	2.52	0.45
4:3:562:C:O2	45:i:119:ARG:NH2	2.49	0.45
4:3:794:G:H2'	4:3:795:G:H8	1.82	0.45
4:3:843:G:H2'	4:3:844:G:C8	2.52	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:892:G:H4'	57:u:83:TYR:CD2	2.52	0.45
4:3:1037:A:H3'	4:3:1038:G:H8	1.82	0.45
4:3:1202:A:H2'	4:3:1203:G:C8	2.52	0.45
4:3:1468:U:H2'	4:3:1469:C:O4'	2.16	0.45
4:3:1557:G:H21	4:3:1573:A:H62	1.65	0.45
4:3:1820:U:HO2'	4:3:1821:G:P	2.38	0.45
4:3:2054:C:H2'	4:3:2055:A:C8	2.51	0.45
4:3:2100:G:H2'	4:3:2101:A:C8	2.51	0.45
4:3:2372:C:H2'	4:3:2373:G:C8	2.51	0.45
4:3:2472:G:H2'	4:3:2473:C:H6	1.82	0.45
4:3:2731:U:OP1	39:b:115:LYS:NZ	2.37	0.45
4:3:2780:U:H2'	4:3:2781:C:C6	2.52	0.45
6:5:152:U:H2'	6:5:153:A:C8	2.52	0.45
6:5:394:U:H2'	6:5:395:G:C8	2.48	0.45
6:5:606:A:H3'	6:5:607:A:H8	1.82	0.45
7:AB:67:PHE:CE1	37:Z:596:ILE:CD1	2.99	0.45
12:AC:139:PHE:CD2	12:AC:147:ILE:CD1	2.99	0.45
31:Q:61:LYS:NZ	31:Q:99:VAL:HG12	2.32	0.45
39:b:35:GLN:HE22	39:b:76:LYS:HB2	1.81	0.45
51:o:107:ARG:HD3	51:o:108:SER:O	2.16	0.45
54:r:88:ARG:HG3	54:r:94:ASN:HB2	1.97	0.45
4:3:342:G:N2	4:3:513:A:OP1	2.46	0.45
4:3:513:A:H2'	4:3:514:A:C8	2.51	0.45
4:3:625:G:H2'	4:3:626:A:C8	2.47	0.45
4:3:719:G:C6	4:3:809:A:H1'	2.51	0.45
4:3:877:G:H2'	4:3:878:A:C8	2.52	0.45
4:3:958:C:H2'	4:3:959:C:C6	2.52	0.45
4:3:975:G:H2'	4:3:976:C:C6	2.51	0.45
4:3:1167:U:C5	45:i:78:TYR:HB2	2.51	0.45
4:3:1841:U:H5''	4:3:1842:G:H5''	1.99	0.45
4:3:2269:C:H1'	4:3:2396:A:H1'	1.99	0.45
6:5:446:A:H2'	6:5:447:G:O4'	2.16	0.45
6:5:660:A:H61	6:5:739:G:H1	1.64	0.45
6:5:669:U:H2'	6:5:670:G:C8	2.51	0.45
6:5:742:C:H5''	6:5:845:C:O2'	2.16	0.45
6:5:767:U:H1'	6:5:894:A:H2	1.81	0.45
6:5:1032:G:H2'	6:5:1033:U:C6	2.52	0.45
6:5:1203:A:OP1	26:L:107:ARG:NH1	2.39	0.45
6:5:1351:U:H2'	6:5:1352:A:H8	1.82	0.45
6:5:1447:U:H2'	6:5:1448:A:C8	2.51	0.45
10:A:102:ARG:HE	10:A:103:VAL:HG13	1.81	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AC:298:LEU:HA	12:AC:349:THR:HG21	1.97	0.45
25:K:113:GLY:HA2	25:K:119:GLY:HA2	1.99	0.45
39:b:14:SER:HB2	51:o:14:GLU:OE1	2.17	0.45
40:c:40:VAL:HG11	40:c:103:LEU:HD23	1.99	0.45
45:i:37:ASP:OD2	45:i:43:ASN:ND2	2.49	0.45
45:i:95:MET:HE2	45:i:103:LEU:HB2	1.99	0.45
46:j:1:MET:HE1	46:j:32:TYR:HB3	1.97	0.45
53:q:81:LYS:HD3	53:q:81:LYS:HA	1.69	0.45
54:r:115:GLN:HB3	54:r:119:LYS:NZ	2.31	0.45
4:3:61:U:O2'	4:3:76:A:OP2	2.33	0.45
4:3:648:G:N2	40:c:185:LYS:HG3	2.30	0.45
4:3:1758:C:H2'	4:3:1759:C:C6	2.52	0.45
4:3:2106:G:N2	4:3:2198:G:H1	2.15	0.45
4:3:2126:A:H2	4:3:2176:G:H21	1.65	0.45
4:3:2712:C:C2	4:3:2713:A:C8	3.04	0.45
5:4:85:A:O2'	5:4:86:G:O4'	2.32	0.45
6:5:106:C:H41	6:5:231:U:H3'	1.82	0.45
6:5:402:G:O6	6:5:403:A:N6	2.50	0.45
6:5:403:A:H4'	17:C:112:SER:HA	1.99	0.45
6:5:597:C:H5''	21:G:100:PRO:HA	1.98	0.45
9:9:1297:TYR:CE2	37:Z:504:ILE:HB	2.46	0.45
9:9:1310:LYS:HA	37:Z:409:ASP:OD2	2.17	0.45
9:9:1310:LYS:HG2	37:Z:409:ASP:CB	2.40	0.45
9:9:1370:ILE:CD1	37:Z:94:ILE:HG13	2.46	0.45
10:A:112:TRP:CZ2	10:A:116:THR:HB	2.51	0.45
15:AF:96:TYR:OH	37:Z:355:ASN:ND2	2.50	0.45
16:B:60:ARG:HG2	16:B:65:VAL:HA	1.99	0.45
20:F:90:VAL:HG13	20:F:95:LYS:HG2	1.99	0.45
25:K:96:ARG:HH22	25:K:130:TYR:HE1	1.65	0.45
30:P:30:PHE:HZ	30:P:41:ARG:HD3	1.82	0.45
32:R:41:PHE:CD1	32:R:42:PRO:HD2	2.52	0.45
38:a:146:GLN:O	38:a:201:GLY:N	2.39	0.45
39:b:208:ARG:HD2	39:b:209:THR:N	2.32	0.45
42:e:148:ALA:HA	42:e:151:VAL:HG22	1.99	0.45
4:3:853:G:H21	4:3:1220:A:H62	1.64	0.45
4:3:873:G:H2'	4:3:874:U:C6	2.52	0.45
4:3:1171:G:H2'	4:3:1172:G:H8	1.82	0.45
4:3:1349:C:H2'	4:3:1350:A:C8	2.51	0.45
4:3:1462:A:O2'	4:3:1463:G:H8	1.99	0.45
4:3:2002:U:H2'	4:3:2003:C:C5	2.52	0.45
4:3:2023:U:H2'	4:3:2024:C:O4'	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2330:A:H2'	4:3:2331:G:O4'	2.17	0.45
4:3:2447:A:H1'	4:3:2595:A:OP1	2.17	0.45
6:5:94:A:O2'	6:5:95:C:H5'	2.16	0.45
6:5:223:G:H2'	6:5:224:A:C8	2.52	0.45
6:5:490:U:H2'	6:5:491:U:C6	2.52	0.45
6:5:501:A:H2'	6:5:502:C:C6	2.52	0.45
6:5:643:U:H2'	6:5:644:U:H6	1.79	0.45
6:5:1168:G:H2'	6:5:1169:U:H6	1.82	0.45
6:5:1258:U:H2'	6:5:1259:G:C8	2.52	0.45
6:5:1414:U:P	33:S:29:LYS:HZ1	2.36	0.45
6:5:1464:G:H2'	6:5:1465:U:C6	2.52	0.45
7:6:283:ARG:NH1	12:AC:313:LEU:O	2.50	0.45
8:7:30:G:H5''	26:L:118:ASN:CG	2.42	0.45
9:9:661:THR:HG21	37:Z:875:ARG:NE	2.31	0.45
9:9:1371:LEU:CG	37:Z:95:VAL:CG1	2.57	0.45
12:AC:156:THR:N	37:Z:76:ILE:CG2	2.77	0.45
16:B:11:ARG:HG2	16:B:181:LEU:HD12	1.99	0.45
17:C:74:LEU:HA	17:C:77:LEU:HG	1.99	0.45
22:H:106:THR:HG23	22:H:107:THR:HG23	1.99	0.45
31:Q:70:ILE:HD12	31:Q:90:LEU:HD21	1.99	0.45
32:R:81:LYS:HG3	32:R:83:HIS:H	1.82	0.45
37:Z:781:TRP:CE3	37:Z:853:PRO:HG3	2.52	0.45
39:b:1:MET:CE	39:b:2:GLU:HG2	2.46	0.45
50:n:28:VAL:HG11	50:n:86:LEU:HD13	1.99	0.45
58:v:4:LYS:HG2	58:v:12:PRO:HD3	1.99	0.45
4:3:8:A:H1'	45:i:138:GLN:OE1	2.17	0.45
4:3:174:A:H2'	4:3:175:A:H8	1.82	0.45
4:3:405:C:H2'	4:3:406:C:C6	2.52	0.45
4:3:874:U:H2'	4:3:875:G:C8	2.52	0.45
4:3:899:A:H2'	4:3:900:G:C8	2.52	0.45
4:3:1065:G:H5''	48:l:129:TRP:HH2	1.81	0.45
4:3:1101:U:O2	4:3:1108:A:N6	2.50	0.45
4:3:1300:C:OP1	4:3:1301:G:H5'	2.17	0.45
4:3:1475:C:H2'	4:3:1476:C:O4'	2.16	0.45
4:3:1778:G:H2'	4:3:1779:G:C8	2.52	0.45
4:3:1785:U:H2'	4:3:1786:U:O2	2.17	0.45
4:3:1839:C:H2'	4:3:1840:C:C6	2.51	0.45
4:3:2303:U:C2	4:3:2346:G:N1	2.85	0.45
4:3:2810:A:C8	4:3:2895:A:N6	2.83	0.45
6:5:304:U:H2'	6:5:305:A:C8	2.52	0.45
6:5:733:A:H2'	6:5:734:A:H8	1.81	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:887:C:H2'	6:5:888:A:O4'	2.17	0.45
6:5:949:G:H3'	6:5:950:C:C5	2.52	0.45
6:5:1072:G:H2'	6:5:1073:A:C8	2.52	0.45
6:5:1390:G:H2'	6:5:1391:A:H8	1.82	0.45
7:6:57:ALA:HB2	7:6:173:ILE:HD11	1.98	0.45
9:9:98:ALA:HB2	9:9:130:LEU:HD11	1.98	0.45
9:9:999:PHE:CZ	12:AC:64:ILE:CD1	3.01	0.45
16:B:141:LEU:HA	16:B:144:VAL:HG22	1.98	0.45
19:E:88:ILE:HG23	19:E:92:ARG:NE	2.32	0.45
23:I:63:VAL:HG12	23:I:64:ASP:H	1.81	0.45
33:S:50:GLN:NE2	33:S:54:LEU:HD23	2.32	0.45
37:Z:1130:LEU:HD22	37:Z:1215:VAL:HG23	1.98	0.45
42:e:145:GLY:O	42:e:149:THR:HG23	2.16	0.45
45:i:143:LEU:HG	45:i:146:SER:HB3	1.99	0.45
53:q:35:LEU:HB3	53:q:55:VAL:HG23	1.99	0.45
4:3:195:A:H2'	4:3:196:G:C8	2.52	0.44
4:3:289:U:H2'	4:3:290:A:C8	2.52	0.44
4:3:1001:C:H2'	4:3:1002:A:C8	2.53	0.44
4:3:1149:G:O2'	4:3:1150:U:H5'	2.18	0.44
4:3:1457:A:H2'	4:3:1458:A:H8	1.81	0.44
4:3:1513:A:H2'	4:3:1514:U:C6	2.52	0.44
4:3:1596:U:H2'	4:3:1597:U:C6	2.51	0.44
4:3:1600:A:H1'	38:a:62:ASN:HD22	1.80	0.44
4:3:2265:U:H2'	4:3:2266:C:C6	2.52	0.44
4:3:2754:U:H5''	42:e:141:LYS:HB3	1.99	0.44
4:3:2852:G:H1'	4:3:2872:A:N6	2.32	0.44
5:4:4:G:C6	5:4:105:A:N6	2.86	0.44
6:5:176:G:H2'	6:5:177:G:C8	2.52	0.44
6:5:519:G:C5	6:5:527:G:N2	2.86	0.44
6:5:619:A:OP2	6:5:619:A:H8	2.00	0.44
6:5:744:U:H4'	6:5:745:U:C5	2.51	0.44
6:5:1114:A:N6	6:5:1127:A:N6	2.65	0.44
7:6:44:ARG:NH1	9:9:1232:ARG:HA	2.32	0.44
8:7:3:G:H1'	57:u:20:GLY:HA3	1.99	0.44
9:9:404:TYR:HA	9:9:432:ILE:HD11	1.99	0.44
9:9:648:VAL:C	37:Z:835:PHE:HE2	2.25	0.44
9:9:1160:ARG:NH1	9:9:1176:ASP:OD2	2.50	0.44
9:9:1350:ALA:N	37:Z:368:PHE:CZ	2.86	0.44
7:AB:82:LEU:HD21	37:Z:597:PHE:C	2.42	0.44
7:AB:283:ARG:HH12	12:AC:79:ASP:CG	2.25	0.44
15:AF:78:ASP:OD1	15:AF:81:ARG:CB	2.58	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C:2:LYS:HG3	17:C:3:TYR:HD1	1.82	0.44
18:D:148:ARG:HB2	18:D:183:LEU:HB2	1.98	0.44
21:G:21:LYS:HA	21:G:21:LYS:HD2	1.67	0.44
21:G:116:ILE:O	21:G:123:MET:N	2.39	0.44
33:S:27:LYS:O	33:S:30:THR:OG1	2.34	0.44
39:b:227:GLU:OE1	39:b:227:GLU:N	2.51	0.44
40:c:176:LYS:C	40:c:179:GLN:HE22	2.23	0.44
50:n:79:ASP:O	50:n:82:VAL:HG22	2.16	0.44
53:q:67:LYS:HA	53:q:86:ARG:HE	1.82	0.44
54:r:85:THR:OG1	54:r:93:SER:OG	2.35	0.44
4:3:306:G:H2'	4:3:307:C:C6	2.51	0.44
4:3:858:A:N6	4:3:870:A:H61	2.15	0.44
4:3:1408:G:H2'	4:3:1409:G:H8	1.82	0.44
4:3:1447:A:O2'	4:3:1448:U:H5''	2.18	0.44
4:3:1587:U:O2'	4:3:1588:A:N7	2.45	0.44
4:3:1687:G:OP1	4:3:2826:G:N1	2.50	0.44
4:3:1703:A:H8	46:j:5:MET:HG2	1.80	0.44
4:3:2002:U:H3'	4:3:2003:C:H2'	1.99	0.44
4:3:2701:A:H2'	4:3:2702:G:C8	2.53	0.44
4:3:2850:G:H2'	4:3:2851:U:H6	1.82	0.44
6:5:108:C:H5''	6:5:307:C:H1'	1.99	0.44
6:5:256:G:O6	33:S:71:ARG:NH1	2.50	0.44
6:5:747:C:H5'	28:N:17:LYS:HE3	1.98	0.44
6:5:939:G:N2	6:5:1312:G:H8	2.16	0.44
6:5:964:A:H2'	6:5:965:C:C6	2.52	0.44
6:5:1089:C:H2'	6:5:1090:G:C8	2.51	0.44
9:9:1338:SER:HB3	37:Z:402:ASN:CB	2.46	0.44
9:9:1340:LYS:HZ2	9:9:1370:ILE:HG13	1.82	0.44
10:A:193:ILE:O	10:A:195:ARG:NH2	2.48	0.44
7:AB:168:GLU:CD	37:Z:611:LYS:NZ	2.75	0.44
12:AC:290:TRP:CZ2	12:AC:296:LYS:CE	3.00	0.44
13:AD:15:DT:C3'	15:AF:95:ARG:NH2	2.76	0.44
17:C:147:LYS:O	17:C:150:LYS:NZ	2.49	0.44
19:E:35:LEU:HD12	19:E:60:TRP:CD1	2.51	0.44
20:F:71:ARG:HG3	20:F:72:LEU:HD22	1.99	0.44
37:Z:1126:ILE:HG23	37:Z:1138:VAL:HG13	1.99	0.44
39:b:64:LYS:O	39:b:67:GLN:HG2	2.16	0.44
40:c:156:ASN:O	40:c:194:ALA:HA	2.16	0.44
42:e:127:LYS:HB2	42:e:135:THR:HB	1.98	0.44
62:z:11:CYS:HA	62:z:47:HIS:ND1	2.33	0.44
4:3:57:G:H2'	4:3:58:A:H8	1.81	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:731:A:H2'	4:3:732:G:C8	2.53	0.44
4:3:832:C:H2'	4:3:833:C:C6	2.52	0.44
4:3:858:A:H2'	4:3:859:G:C8	2.52	0.44
4:3:984:C:H2'	4:3:985:A:C8	2.52	0.44
4:3:991:G:H4'	48:1:87:LYS:HE3	1.99	0.44
4:3:1343:C:H2'	4:3:1344:U:C6	2.52	0.44
4:3:1364:A:H2'	4:3:1365:G:C8	2.53	0.44
4:3:1369:U:OP1	4:3:1636:U:O2'	2.27	0.44
4:3:1692:A:H2'	4:3:1693:U:C6	2.53	0.44
4:3:1756:A:H2'	4:3:1757:G:H8	1.81	0.44
4:3:1843:C:H2'	4:3:1844:C:C6	2.52	0.44
4:3:2382:A:H2'	4:3:2383:G:H8	1.82	0.44
6:5:255:G:H2'	6:5:256:G:C8	2.53	0.44
6:5:409:G:H1'	6:5:425:G:H21	1.81	0.44
6:5:623:G:H4'	29:O:32:HIS:HE2	1.82	0.44
6:5:678:A:H2'	6:5:679:U:H6	1.83	0.44
6:5:911:G:H2'	6:5:912:G:C8	2.51	0.44
6:5:1438:U:H2'	6:5:1439:G:C8	2.52	0.44
9:9:392:LYS:NZ	9:9:529:ASN:HA	2.33	0.44
9:9:614:ASP:HA	9:9:854:GLN:HE22	1.82	0.44
9:9:816:MET:HB3	9:9:877:ALA:HB3	1.99	0.44
9:9:1269:LYS:HD2	37:Z:313:ILE:HD13	1.99	0.44
18:D:137:TYR:O	18:D:153:PRO:HG3	2.17	0.44
23:I:57:ILE:HD12	27:M:41:ARG:HB2	2.00	0.44
37:Z:135:VAL:HG12	37:Z:139:LEU:HD12	1.99	0.44
37:Z:583:LEU:O	37:Z:641:GLY:HA3	2.17	0.44
49:m:117:GLN:HG2	61:y:53:VAL:HG21	2.00	0.44
56:t:41:LYS:HD2	56:t:64:GLN:HB3	1.99	0.44
4:3:297:G:H1	4:3:440:C:H5	1.65	0.44
4:3:387:U:H2'	4:3:388:U:C6	2.52	0.44
4:3:810:G:H4'	4:3:811:G:H5'	1.99	0.44
4:3:892:G:H4'	57:u:83:TYR:HD2	1.83	0.44
4:3:1028:C:H2'	4:3:1029:A:C8	2.53	0.44
4:3:1229:U:H2'	4:3:1230:U:H6	1.83	0.44
4:3:1308:A:H2'	4:3:1309:G:H8	1.83	0.44
4:3:1344:U:H2'	4:3:1345:G:C8	2.53	0.44
4:3:1749:A:O2'	4:3:1750:A:O4'	2.18	0.44
4:3:2028:G:OP1	61:y:11:HIS:NE2	2.50	0.44
4:3:2087:G:H2'	4:3:2088:U:H6	1.82	0.44
4:3:2643:A:O2'	39:b:83:GLU:OE2	2.32	0.44
4:3:2823:A:C6	4:3:2832:G:N1	2.86	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:77:G:H2'	5:4:78:C:H1'	1.98	0.44
6:5:80:U:H2'	6:5:81:A:C8	2.53	0.44
6:5:571:A:O2'	6:5:572:A:O4'	2.27	0.44
6:5:909:A:O2'	6:5:910:C:H5'	2.18	0.44
6:5:1154:A:H5''	22:H:107:THR:HA	2.00	0.44
7:6:276:ARG:HG3	12:AC:313:LEU:HD22	1.99	0.44
9:9:17:THR:H	9:9:1140:ASN:HD21	1.65	0.44
9:9:168:GLN:O	13:AD:25:DC:H2''	2.18	0.44
9:9:1342:LEU:N	37:Z:398:LEU:HD22	2.29	0.44
9:9:1345:GLU:CD	37:Z:391:ARG:HB2	2.29	0.44
17:C:100:ILE:HG13	17:C:136:LEU:HG	1.98	0.44
23:I:56:THR:O	23:I:68:ARG:NH1	2.50	0.44
24:J:46:LYS:HE2	24:J:46:LYS:HB2	1.89	0.44
37:Z:257:LEU:HB3	37:Z:281:LEU:HD12	1.99	0.44
37:Z:314:GLN:HE21	37:Z:318:ALA:HA	1.80	0.44
41:d:106:VAL:O	41:d:110:ARG:HB2	2.17	0.44
48:l:36:ALA:N	48:l:103:MET:HE1	2.33	0.44
51:o:5:ASN:C	51:o:6:LYS:HD3	2.43	0.44
51:o:90:LEU:C	51:o:91:LYS:HD3	2.42	0.44
54:r:65:ASN:ND2	54:r:67:ASP:OD2	2.50	0.44
3:2:15:LYS:HA	3:2:15:LYS:HD2	1.81	0.44
4:3:455:G:C4	4:3:456:G:C8	3.05	0.44
4:3:745:U:H2'	4:3:746:G:C8	2.52	0.44
4:3:815:G:H5''	38:a:225:ARG:NH2	2.33	0.44
4:3:868:C:H2'	4:3:869:U:C6	2.53	0.44
4:3:1954:C:H2'	4:3:1955:G:C8	2.53	0.44
4:3:2858:A:H2'	4:3:2859:U:C6	2.53	0.44
4:3:2861:G:O2'	4:3:2863:G:N7	2.46	0.44
6:5:10:G:H2'	6:5:11:A:C8	2.53	0.44
6:5:371:U:H2'	6:5:372:G:C8	2.53	0.44
6:5:433:C:O2'	17:C:151:ILE:HG12	2.18	0.44
6:5:434:U:O2'	17:C:121:HIS:NE2	2.45	0.44
6:5:523:U:H5''	25:K:101:LYS:NZ	2.33	0.44
6:5:865:U:O2'	6:5:866:A:OP1	2.34	0.44
6:5:881:G:N1	6:5:905:U:N3	2.66	0.44
8:7:68:G:H2'	8:7:69:A:C8	2.51	0.44
9:9:648:VAL:HB	37:Z:872:TYR:CE1	2.53	0.44
9:9:1079:PRO:HB2	9:9:1228:LEU:HD21	2.00	0.44
9:9:1200:PHE:CD1	37:Z:864:ILE:N	2.86	0.44
9:9:1289:MET:HE3	14:AE:14:DG:C2'	2.36	0.44
9:9:1307:LEU:C	37:Z:406:LYS:CD	2.89	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:F:78:ARG:HH11	20:F:84:TYR:N	2.15	0.44
28:N:37:THR:HA	28:N:40:LEU:HG	2.00	0.44
35:U:25:VAL:CG2	35:U:89:ILE:HD11	2.48	0.44
53:q:10:LYS:HD3	53:q:10:LYS:HA	1.75	0.44
4:3:280:A:H2'	4:3:281:U:C6	2.52	0.44
4:3:535:G:N1	4:3:538:A:OP2	2.42	0.44
4:3:727:C:H2'	4:3:728:A:C8	2.52	0.44
4:3:1535:A:H2'	4:3:1536:C:O4'	2.16	0.44
4:3:1695:G:H4'	4:3:2720:C:O2	2.17	0.44
4:3:1725:G:O6	4:3:1731:G:N2	2.51	0.44
4:3:1830:G:H2'	4:3:1831:G:C8	2.52	0.44
4:3:2334:U:O2'	4:3:2335:A:N7	2.51	0.44
4:3:2599:C:H2'	4:3:2600:G:H8	1.81	0.44
4:3:2656:G:H2'	4:3:2657:C:H6	1.82	0.44
5:4:70:G:H21	5:4:94:A:H62	1.65	0.44
6:5:14:U:H3'	6:5:15:U:C6	2.52	0.44
6:5:324:C:H4'	6:5:325:A:H5''	2.00	0.44
6:5:335:C:H2'	6:5:336:U:C6	2.51	0.44
6:5:492:G:H2'	6:5:494:A:H8	1.83	0.44
6:5:613:C:H2'	6:5:614:U:H6	1.82	0.44
6:5:763:A:N7	6:5:810:U:O4	2.50	0.44
6:5:839:U:H1'	31:Q:45:ALA:HB2	1.99	0.44
6:5:1132:G:N2	6:5:1154:A:C2	2.86	0.44
6:5:1194:A:H2'	6:5:1195:G:H8	1.83	0.44
6:5:1463:A:H2'	6:5:1464:G:C8	2.53	0.44
9:9:1126:CYS:O	9:9:1154:LYS:CE	2.64	0.44
9:9:1349:LEU:HD11	37:Z:389:THR:CA	2.48	0.44
16:B:35:ILE:HG12	27:M:25:GLN:HB2	2.00	0.44
17:C:3:TYR:HD2	17:C:5:GLY:H	1.66	0.44
17:C:41:ARG:HH21	17:C:41:ARG:HG2	1.81	0.44
20:F:37:LEU:O	20:F:41:ILE:HG12	2.18	0.44
21:G:41:LYS:HA	21:G:44:ILE:HG12	2.00	0.44
28:N:9:ILE:O	28:N:13:GLN:HG3	2.18	0.44
39:b:29:ILE:HB	39:b:191:VAL:HG13	2.00	0.44
40:c:112:LEU:O	40:c:115:VAL:HG12	2.18	0.44
43:f:98:ILE:HD13	43:f:108:LEU:HD12	1.99	0.44
4:3:27:U:H4'	54:r:80:PRO:HD3	1.98	0.44
4:3:1307:G:H2'	4:3:1308:A:C8	2.53	0.44
4:3:1317:C:H2'	4:3:1318:U:C6	2.53	0.44
4:3:1775:G:H2'	4:3:1776:G:H8	1.82	0.44
4:3:2073:C:H2'	4:3:2074:G:C8	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2891:C:H2'	4:3:2892:U:H6	1.83	0.44
5:4:59:A:H2'	5:4:60:C:H6	1.83	0.44
6:5:596:U:H2'	6:5:597:C:C6	2.53	0.44
6:5:1012:A:O2'	6:5:1192:C:O2'	2.33	0.44
6:5:1098:C:C2	6:5:1099:G:C8	3.05	0.44
6:5:1348:G:H5''	20:F:35:LYS:HE3	1.99	0.44
7:6:108:ARG:HH21	7:AB:316:LYS:NZ	2.16	0.44
9:9:177:ARG:NH1	9:9:221:ALA:O	2.51	0.44
9:9:1330:PHE:CZ	37:Z:542:LEU:CD1	3.01	0.44
12:AC:183:LYS:HB3	12:AC:280:PHE:HA	1.99	0.44
14:AE:12:DC:C2'	37:Z:890:TYR:OH	2.65	0.44
16:B:18:TRP:O	16:B:21:ARG:NH1	2.50	0.44
17:C:12:ARG:HG2	17:C:35:PRO:HD3	1.99	0.44
17:C:95:SER:O	17:C:95:SER:OG	2.35	0.44
24:J:119:ARG:HH22	34:T:36:LEU:HD13	1.82	0.44
26:L:90:ARG:HG2	26:L:95:LEU:HB2	2.00	0.44
30:P:7:LYS:O	30:P:64:VAL:HG12	2.18	0.44
30:P:14:LYS:HD2	30:P:15:SER:OG	2.17	0.44
34:T:28:LEU:HA	34:T:31:ARG:NH2	2.33	0.44
40:c:54:THR:HG23	40:c:56:GLY:H	1.83	0.44
42:e:57:ARG:NH1	42:e:64:SER:OG	2.50	0.44
43:f:33:LYS:HE3	43:f:109:GLN:NE2	2.33	0.44
54:r:116:GLU:N	54:r:116:GLU:OE1	2.50	0.44
58:v:51:SER:O	58:v:54:THR:OG1	2.30	0.44
4:3:107:C:H2'	4:3:108:G:C8	2.53	0.44
4:3:595:U:H2'	4:3:605:A:C1'	2.48	0.44
4:3:616:G:H2'	4:3:617:C:H6	1.82	0.44
4:3:755:C:H2'	4:3:756:A:H8	1.82	0.44
4:3:764:G:O4'	38:a:215:LYS:NZ	2.49	0.44
4:3:1172:G:N2	45:i:111:MET:HA	2.31	0.44
4:3:1992:C:H2'	4:3:1993:U:C6	2.53	0.44
4:3:2070:C:O2'	8:7:77:A:H5''	2.17	0.44
4:3:2113:U:O2	4:3:2191:G:N2	2.51	0.44
4:3:2127:G:N3	4:3:2127:G:H2'	2.33	0.44
4:3:2534:G:N2	4:3:2545:U:O2	2.37	0.44
4:3:2736:U:O2'	4:3:2737:G:H8	1.95	0.44
4:3:2749:A:H62	4:3:2771:G:N2	2.10	0.44
4:3:2799:U:H3'	4:3:2896:G:H21	1.82	0.44
6:5:287:U:N3	6:5:306:G:N1	2.66	0.44
6:5:747:C:H4'	28:N:18:ASP:HA	2.00	0.44
6:5:826:G:N2	6:5:851:U:O2	2.35	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:912:G:H2'	6:5:913:A:H8	1.81	0.44
6:5:1114:A:H2'	6:5:1115:G:C8	2.53	0.44
7:6:276:ARG:NE	12:AC:323:GLU:OE1	2.50	0.44
8:7:11:G:N2	8:7:27:A:H1'	2.33	0.44
9:9:607:HIS:HE1	9:9:609:LEU:HD12	1.83	0.44
9:9:943:ILE:HD13	9:9:1043:ILE:HD11	2.00	0.44
9:9:1326:LYS:HG2	37:Z:464:ILE:HD11	2.00	0.44
9:9:1340:LYS:NZ	9:9:1370:ILE:HG12	2.32	0.44
7:AB:67:PHE:HE1	37:Z:596:ILE:CD1	2.30	0.44
7:AB:82:LEU:CD1	37:Z:598:GLY:HA2	2.47	0.44
7:AB:283:ARG:HH22	12:AC:82:LEU:HD12	1.83	0.44
12:AC:156:THR:H	37:Z:76:ILE:CG2	2.30	0.44
18:D:131:ILE:HD13	18:D:175:TYR:CE2	2.53	0.44
25:K:100:VAL:HG13	25:K:109:HIS:HE1	1.83	0.44
37:Z:576:MET:SD	37:Z:720:LYS:HG3	2.58	0.44
42:e:93:VAL:HG13	42:e:163:LYS:HA	1.99	0.44
43:f:25:TYR:CE2	43:f:30:LEU:HB2	2.53	0.44
46:j:21:ILE:HD11	46:j:39:VAL:HB	1.99	0.44
47:k:99:ILE:HG13	47:k:100:GLU:N	2.33	0.44
61:y:40:HIS:O	61:y:41:ARG:HD2	2.18	0.44
4:3:40:A:H1'	40:c:49:THR:HB	2.00	0.44
4:3:137:U:H2'	4:3:138:U:C6	2.53	0.44
4:3:481:C:O3'	52:p:2:ARG:NH2	2.51	0.44
4:3:498:C:H2'	4:3:499:G:C8	2.53	0.44
4:3:730:G:H2'	4:3:731:A:C8	2.53	0.44
4:3:898:A:O3'	5:4:76:A:O2'	2.26	0.44
4:3:1050:A:N6	4:3:1183:A:H61	2.15	0.44
4:3:1451:A:H2'	4:3:1452:G:C8	2.53	0.44
4:3:1460:G:N2	4:3:1596:U:O2	2.50	0.44
4:3:1597:U:H2'	4:3:1598:U:C6	2.53	0.44
4:3:2041:C:H2'	4:3:2042:A:C8	2.53	0.44
4:3:2074:G:H3'	4:3:2075:U:H4'	1.99	0.44
4:3:2179:A:H1'	4:3:2180:U:C5	2.53	0.44
4:3:2677:A:H2'	4:3:2678:A:H8	1.83	0.44
4:3:2893:C:H2'	4:3:2894:G:O4'	2.17	0.44
6:5:13:U:O2'	6:5:908:A:OP2	2.29	0.44
6:5:656:U:H2'	6:5:657:G:C8	2.53	0.44
9:9:945:ARG:NH1	7:AB:298:ALA:HB1	2.33	0.44
9:9:998:ILE:CG1	12:AC:8:PHE:CZ	3.01	0.44
9:9:998:ILE:HG12	12:AC:62:MET:CE	2.47	0.44
9:9:999:PHE:HZ	12:AC:64:ILE:CD1	2.31	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:A:132:LYS:HE2	10:A:132:LYS:HB3	1.83	0.44
21:G:90:ILE:HG12	21:G:139:ALA:HA	2.00	0.44
24:J:11:SER:OG	24:J:76:LYS:NZ	2.50	0.44
25:K:43:LYS:HA	25:K:43:LYS:HD2	1.74	0.44
37:Z:184:ILE:HD12	37:Z:210:LEU:CD1	2.47	0.44
41:d:40:VAL:HG23	41:d:150:ARG:CZ	2.48	0.44
42:e:161:LYS:HA	42:e:174:ARG:HH12	1.83	0.44
55:s:16:VAL:HA	55:s:19:ASN:HD22	1.83	0.44
61:y:40:HIS:C	61:y:41:ARG:HD2	2.42	0.44
4:3:609:U:O2'	4:3:610:G:H5'	2.18	0.43
4:3:1030:U:OP1	52:p:52:LYS:NZ	2.35	0.43
4:3:1213:U:H2'	4:3:1214:U:C6	2.53	0.43
4:3:1320:C:H2'	4:3:1321:C:C6	2.53	0.43
4:3:1337:G:H2'	4:3:1338:G:C8	2.53	0.43
4:3:1368:U:O2	4:3:1636:U:H5''	2.18	0.43
4:3:1470:C:H2'	4:3:1471:A:H8	1.82	0.43
4:3:2080:C:H2'	4:3:2081:U:C6	2.53	0.43
4:3:2087:G:H2'	4:3:2088:U:C6	2.53	0.43
4:3:2348:U:H2'	4:3:2349:G:H8	1.83	0.43
6:5:276:U:C2	30:P:41:ARG:HA	2.53	0.43
6:5:317:A:N1	6:5:328:G:C6	2.85	0.43
6:5:343:G:H2'	6:5:344:G:O4'	2.18	0.43
6:5:404:A:H2'	6:5:405:C:C6	2.53	0.43
6:5:591:A:H2'	6:5:592:A:C8	2.52	0.43
6:5:604:U:H5''	6:5:605:A:H5'	2.00	0.43
6:5:712:A:H2'	6:5:713:A:C8	2.52	0.43
10:A:70:ASN:HA	10:A:73:LYS:HZ3	1.83	0.43
11:AA:42:LYS:CB	21:G:126:LYS:CG	2.93	0.43
36:W:14:ILE:CD1	36:X:17:ILE:HG13	2.23	0.43
37:Z:57:GLU:OE2	37:Z:69:ALA:HB2	2.17	0.43
39:b:123:ILE:H	39:b:123:ILE:HD12	1.82	0.43
40:c:189:ARG:O	40:c:193:LEU:N	2.51	0.43
41:d:40:VAL:HA	41:d:150:ARG:NH1	2.33	0.43
42:e:147:PHE:HA	42:e:150:GLU:CD	2.42	0.43
43:f:1:MET:N	43:f:24:GLY:HA2	2.33	0.43
47:k:6:LEU:HD23	47:k:6:LEU:H	1.83	0.43
49:m:17:THR:O	49:m:21:GLN:OE1	2.36	0.43
51:o:52:VAL:HA	51:o:65:ILE:O	2.18	0.43
60:x:39:CYS:H	60:x:42:CYS:HB2	1.82	0.43
4:3:109:G:H2'	4:3:110:A:C8	2.52	0.43
4:3:433:A:H2'	4:3:434:G:H8	1.83	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:565:C:O2'	4:3:567:U:O4	2.32	0.43
4:3:725:G:H2'	4:3:726:U:C6	2.53	0.43
4:3:929:G:H2'	4:3:930:C:C6	2.52	0.43
4:3:1065:G:H2'	4:3:1066:G:C8	2.53	0.43
4:3:1077:G:H2'	4:3:1078:C:C6	2.54	0.43
4:3:1310:U:H2'	4:3:1311:G:C8	2.53	0.43
4:3:1440:U:H2'	4:3:1441:A:C8	2.52	0.43
4:3:1640:G:H4'	4:3:1642:G:N1	2.33	0.43
4:3:1857:G:H2'	4:3:1858:U:C6	2.53	0.43
4:3:2258:G:N2	48:l:84:GLY:HA3	2.33	0.43
4:3:2267:G:H2'	4:3:2268:C:H6	1.83	0.43
4:3:2639:G:H2'	4:3:2640:A:C8	2.52	0.43
6:5:798:U:C2	6:5:799:A:C8	3.06	0.43
6:5:862:C:H2'	6:5:863:A:O4'	2.17	0.43
6:5:914:A:H2'	6:5:915:U:C6	2.54	0.43
6:5:1487:U:H3	6:5:1498:G:H1	1.64	0.43
7:6:107:GLU:OE2	7:AB:316:LYS:HA	2.18	0.43
9:9:465:SER:HB2	9:9:500:THR:HB	2.00	0.43
9:9:943:ILE:HD13	9:9:1043:ILE:HD12	1.99	0.43
12:AC:43:LYS:HE3	12:AC:49:VAL:HG13	2.00	0.43
23:I:63:VAL:HG12	23:I:64:ASP:N	2.33	0.43
28:N:5:LYS:O	28:N:9:ILE:HG23	2.18	0.43
30:P:11:GLY:HA3	30:P:26:VAL:HG12	2.00	0.43
37:Z:648:VAL:HG21	37:Z:722:LEU:CD1	2.49	0.43
39:b:161:LYS:HG2	45:i:82:GLN:HG2	2.00	0.43
40:c:137:GLU:HA	40:c:167:ASN:HD22	1.83	0.43
41:d:117:LEU:HB2	41:d:176:PRO:HG2	2.00	0.43
43:f:110:LYS:HB3	43:f:110:LYS:HE3	1.85	0.43
47:k:34:ARG:NH1	47:k:40:LYS:O	2.46	0.43
53:q:54:ARG:HB2	53:q:98:VAL:HG22	1.99	0.43
59:w:35:HIS:CG	59:w:36:GLY:H	2.36	0.43
3:2:4:ARG:HB3	4:3:2474:C:OP1	2.18	0.43
4:3:344:A:H1'	4:3:346:G:N7	2.33	0.43
4:3:481:C:H2'	4:3:482:G:C8	2.53	0.43
4:3:990:G:H2'	4:3:991:G:H8	1.84	0.43
4:3:1255:G:O2'	4:3:1256:A:O5'	2.33	0.43
4:3:1459:A:H2'	4:3:1460:G:C8	2.53	0.43
4:3:1701:G:H5''	46:j:7:ARG:NH1	2.33	0.43
4:3:2001:C:H2'	4:3:2002:U:C5	2.52	0.43
4:3:2138:U:H4'	4:3:2140:G:N7	2.34	0.43
4:3:2258:G:H22	48:l:84:GLY:HA3	1.83	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2730:G:H2'	4:3:2731:U:C6	2.53	0.43
6:5:59:C:H42	6:5:351:C:N4	2.16	0.43
6:5:60:A:N6	6:5:327:G:H1'	2.33	0.43
6:5:137:A:C2	6:5:138:A:H1'	2.53	0.43
6:5:499:U:H2'	6:5:500:G:C8	2.53	0.43
6:5:949:G:H21	6:5:1202:A:N6	2.16	0.43
6:5:980:C:H2'	6:5:981:U:H6	1.83	0.43
6:5:1003:G:N1	6:5:1018:U:C2	2.86	0.43
6:5:1366:U:H2'	6:5:1367:G:C8	2.53	0.43
6:5:1471:C:H2'	6:5:1472:G:C8	2.54	0.43
9:9:998:ILE:HG12	12:AC:8:PHE:CE2	2.53	0.43
9:9:1327:GLY:HA3	37:Z:444:HIS:ND1	2.34	0.43
12:AC:153:ASP:OD2	37:Z:75:LYS:HD2	2.16	0.43
12:AC:173:LYS:HB2	12:AC:207:TRP:HZ3	1.83	0.43
19:E:71:ASP:HA	19:E:74:ARG:NE	2.34	0.43
37:Z:226:ILE:HG22	37:Z:232:PHE:HB3	1.99	0.43
38:a:204:SER:OG	38:a:205:ASN:N	2.50	0.43
52:p:14:LYS:HE2	52:p:14:LYS:HB2	1.72	0.43
4:3:349:G:H2'	4:3:350:C:C6	2.53	0.43
4:3:897:A:C2	5:4:76:A:H2	2.37	0.43
4:3:1142:G:C1'	35:U:78:GLY:C	2.76	0.43
4:3:1231:G:H2'	4:3:1232:U:C6	2.53	0.43
4:3:1263:G:H2'	4:3:1264:U:H6	1.83	0.43
4:3:1278:G:C5	52:p:2:ARG:HB2	2.53	0.43
4:3:1619:A:H2'	4:3:1620:A:H8	1.83	0.43
4:3:1691:U:O3'	39:b:139:TYR:HB2	2.19	0.43
4:3:1741:G:H2'	4:3:1742:C:C6	2.53	0.43
4:3:2025:C:H2'	4:3:2026:A:C8	2.51	0.43
4:3:2673:A:H2'	4:3:2674:C:C6	2.53	0.43
4:3:2702:G:H2'	4:3:2703:U:C6	2.53	0.43
4:3:2780:U:H4'	39:b:175:THR:HG21	2.00	0.43
5:4:16:G:O6	5:4:63:U:C2	2.70	0.43
6:5:118:C:H2'	6:5:119:U:C6	2.54	0.43
6:5:203:C:H2'	6:5:204:C:C6	2.54	0.43
6:5:519:G:O6	6:5:527:G:N1	2.51	0.43
6:5:818:A:H2'	6:5:819:G:H8	1.83	0.43
6:5:843:C:H2'	6:5:844:U:C6	2.54	0.43
6:5:1002:A:H3'	6:5:1003:G:H8	1.83	0.43
6:5:1233:G:H2'	6:5:1234:C:C6	2.53	0.43
6:5:1423:C:H2'	6:5:1424:C:C6	2.54	0.43
7:6:34:PHE:HZ	7:AB:231:ILE:HG22	1.82	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:225:PHE:CE1	7:AB:239:ILE:HG23	2.54	0.43
9:9:376:ARG:NH2	13:AD:20:DG:C8	2.55	0.43
9:9:1118:ALA:CB	9:9:1191:LEU:O	2.67	0.43
10:A:67:THR:HA	10:A:70:ASN:ND2	2.33	0.43
12:AC:249:LYS:HB3	12:AC:297:PHE:CE1	2.10	0.43
16:B:123:LEU:HD21	16:B:140:SER:HB2	1.99	0.43
33:S:24:GLN:HA	33:S:27:LYS:HG2	2.00	0.43
38:a:61:ARG:NH2	38:a:64:ARG:HE	2.16	0.43
38:a:253:ALA:O	38:a:261:ARG:NH2	2.43	0.43
4:3:9:G:H2'	4:3:10:U:C6	2.53	0.43
4:3:42:U:H2'	4:3:43:A:C8	2.52	0.43
4:3:47:G:H5''	4:3:48:G:OP1	2.17	0.43
4:3:591:G:H2'	4:3:592:G:H8	1.83	0.43
4:3:675:U:H2'	4:3:676:U:H6	1.83	0.43
4:3:683:G:H2'	4:3:684:A:H8	1.83	0.43
4:3:1454:G:H2'	4:3:1455:A:N7	2.33	0.43
4:3:1578:A:H2'	4:3:1579:G:O4'	2.18	0.43
4:3:1585:A:N3	4:3:1585:A:H2'	2.34	0.43
4:3:1758:C:H2'	4:3:1759:C:H6	1.83	0.43
4:3:2222:C:H2'	4:3:2223:C:O4'	2.19	0.43
4:3:2463:G:H2'	4:3:2464:C:C6	2.53	0.43
4:3:2566:C:H2'	4:3:2567:C:C6	2.53	0.43
4:3:2669:G:H2'	4:3:2670:A:C8	2.54	0.43
4:3:2681:G:H2'	4:3:2682:A:H8	1.82	0.43
6:5:111:A:H8	6:5:111:A:OP2	2.01	0.43
6:5:222:U:H2'	6:5:223:G:C8	2.53	0.43
6:5:386:U:H2'	6:5:387:G:H8	1.83	0.43
6:5:409:G:O3'	6:5:425:G:N2	2.51	0.43
6:5:418:U:H5''	6:5:420:A:H2	1.83	0.43
6:5:781:A:H2'	6:5:782:G:C8	2.53	0.43
6:5:927:C:H5''	20:F:2:ARG:N	2.33	0.43
6:5:1214:A:H1'	6:5:1216:G:C4	2.53	0.43
6:5:1405:U:O2	6:5:1445:G:N2	2.34	0.43
6:5:1482:A:H2'	6:5:1483:C:O4'	2.18	0.43
7:6:173:ILE:HD12	7:6:180:ALA:HB2	1.98	0.43
9:9:62:PRO:HG2	9:9:559:THR:HG23	2.00	0.43
9:9:76:THR:CG2	9:9:125:VAL:HG21	2.48	0.43
9:9:163:MET:HG3	9:9:510:TYR:CD1	2.53	0.43
9:9:1325:VAL:HG22	37:Z:443:ILE:CD1	2.49	0.43
10:A:129:LYS:O	10:A:133:LEU:HD23	2.19	0.43
12:AC:131:ALA:HA	12:AC:171:THR:CB	2.46	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AC:175:TYR:HB2	12:AC:207:TRP:CB	2.44	0.43
12:AC:183:LYS:NZ	12:AC:245:GLY:CA	2.82	0.43
14:AE:17:DT:C5'	37:Z:413:ARG:HH11	2.31	0.43
17:C:103:ARG:HG3	17:C:166:PHE:HZ	1.83	0.43
18:D:77:SER:OG	18:D:84:ARG:HD3	2.19	0.43
18:D:166:ILE:H	18:D:166:ILE:HD12	1.83	0.43
42:e:147:PHE:HA	42:e:150:GLU:OE2	2.18	0.43
56:t:13:ILE:HG13	56:t:14:THR:N	2.32	0.43
59:w:87:TRP:O	59:w:91:LEU:HG	2.18	0.43
4:3:105:U:H2'	4:3:106:C:H5'	2.00	0.43
4:3:597:C:O2'	4:3:1283:A:N1	2.41	0.43
4:3:762:A:H2'	4:3:763:G:C4	2.53	0.43
4:3:766:C:H2'	4:3:767:C:C6	2.53	0.43
4:3:1541:A:H3'	4:3:1542:G:H8	1.83	0.43
4:3:1805:U:H5'	38:a:267:THR:HB	2.01	0.43
4:3:1869:G:H2'	4:3:1870:G:C8	2.53	0.43
4:3:2009:U:H5'	49:m:9:LYS:HB2	2.00	0.43
4:3:2024:C:O3'	61:y:6:ARG:NH1	2.51	0.43
4:3:2384:A:H2'	4:3:2385:A:O4'	2.19	0.43
4:3:2855:A:O2'	49:m:61:ARG:NH1	2.52	0.43
6:5:212:G:H2'	6:5:213:U:C6	2.53	0.43
6:5:455:U:H3	6:5:472:G:H22	1.65	0.43
6:5:575:A:H2'	6:5:576:A:C8	2.53	0.43
6:5:672:A:H61	6:5:712:A:N6	2.14	0.43
6:5:1224:C:H42	6:5:1262:A:H8	1.62	0.43
6:5:1373:A:H4'	6:5:1374:C:O5'	2.17	0.43
6:5:1454:G:H2'	6:5:1455:G:C8	2.54	0.43
6:5:1499:G:H2'	6:5:1500:G:H8	1.83	0.43
7:6:35:VAL:HG21	7:6:207:ASP:HB2	2.00	0.43
9:9:141:VAL:CG1	9:9:613:LEU:HD22	2.42	0.43
9:9:304:TYR:CE2	9:9:335:MET:HE2	2.54	0.43
9:9:385:LEU:O	9:9:389:GLY:HA3	2.19	0.43
9:9:773:ASN:OD1	37:Z:861:GLY:CA	2.67	0.43
11:AA:5:TYR:CZ	11:AA:48:LEU:HD23	2.53	0.43
12:AC:158:LYS:HG2	37:Z:66:TYR:HE2	1.83	0.43
12:AC:239:LYS:HZ1	12:AC:294:LYS:CG	2.15	0.43
16:B:77:LEU:HD12	16:B:78:ILE:HG12	2.00	0.43
16:B:158:GLY:HA3	16:B:199:ILE:HG13	1.99	0.43
23:I:62:HIS:CG	23:I:63:VAL:H	2.36	0.43
28:N:57:VAL:HG23	28:N:60:ARG:NH1	2.34	0.43
38:a:132:PRO:HA	38:a:200:VAL:HG23	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:b:17:PHE:HZ	39:b:21:ASN:HD22	1.66	0.43
43:f:110:LYS:HD2	43:f:113:PHE:CE2	2.54	0.43
45:i:16:ARG:HD2	45:i:56:TYR:CZ	2.53	0.43
45:i:40:ARG:HA	45:i:121:TRP:CZ3	2.53	0.43
46:j:22:ILE:HG22	46:j:40:VAL:O	2.19	0.43
50:n:12:HIS:ND1	50:n:94:GLY:HA2	2.34	0.43
52:p:34:ALA:O	52:p:38:VAL:HG23	2.18	0.43
59:w:89:GLN:O	59:w:92:GLU:HG2	2.18	0.43
4:3:870:A:C6	4:3:871:G:C6	3.06	0.43
4:3:942:A:H2'	4:3:943:A:O4'	2.19	0.43
4:3:944:U:OP1	48:l:24:ASN:N	2.35	0.43
4:3:1019:A:H2'	4:3:1020:G:N3	2.34	0.43
4:3:1057:G:N7	45:i:71:LYS:HD3	2.34	0.43
4:3:1408:G:H2'	4:3:1409:G:C8	2.54	0.43
4:3:1959:A:C4	46:j:22:ILE:HD11	2.53	0.43
4:3:2332:U:O2	4:3:2339:G:N2	2.47	0.43
4:3:2363:C:O3'	57:u:38:LYS:NZ	2.52	0.43
4:3:2639:G:H2'	4:3:2640:A:H8	1.83	0.43
6:5:87:G:H2'	6:5:88:A:C8	2.49	0.43
6:5:175:U:H3	6:5:190:A:H61	1.67	0.43
6:5:610:C:H2'	6:5:611:A:C8	2.53	0.43
6:5:944:A:H2'	6:5:945:U:C6	2.54	0.43
6:5:1267:G:H2'	6:5:1268:G:C8	2.53	0.43
6:5:1306:A:H2'	6:5:1307:A:O4'	2.19	0.43
9:9:1342:LEU:HD13	37:Z:398:LEU:HD23	1.99	0.43
10:A:37:TRP:CD1	10:A:37:TRP:H	2.37	0.43
11:AA:57:LEU:HD21	37:Z:1211:ALA:H	1.84	0.43
7:AB:86:GLN:NE2	37:Z:599:THR:HG23	2.08	0.43
12:AC:45:HIS:CB	12:AC:115:LEU:CD2	2.96	0.43
15:AF:93:LEU:HD11	15:AF:98:TYR:OH	2.19	0.43
15:AF:108:TRP:CZ3	15:AF:130:PRO:CB	2.99	0.43
19:E:13:LEU:HB3	19:E:17:GLN:NE2	2.32	0.43
24:J:109:ILE:HG23	34:T:32:HIS:ND1	2.34	0.43
32:R:19:VAL:HA	32:R:22:MET:HG2	2.01	0.43
37:Z:579:GLY:HA3	37:Z:723:GLY:O	2.19	0.43
38:a:33:PRO:HG3	38:a:67:ARG:NH1	2.34	0.43
38:a:98:LEU:HB2	38:a:108:TYR:HE1	1.84	0.43
39:b:97:THR:OG1	39:b:100:ASN:OD1	2.36	0.43
46:j:22:ILE:HG22	46:j:40:VAL:C	2.43	0.43
48:l:67:ARG:HB2	48:l:103:MET:HA	2.00	0.43
58:v:14:TYR:CE2	58:v:28:LYS:HB2	2.53	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:347:C:H2'	4:3:348:A:H8	1.84	0.43
4:3:482:G:H5'	52:p:2:ARG:HH21	1.83	0.43
4:3:912:A:H2'	4:3:913:U:C6	2.54	0.43
4:3:1764:U:C4	4:3:1769:A:N7	2.86	0.43
4:3:2022:A:H8	4:3:2023:U:C5	2.37	0.43
4:3:2092:U:O3'	38:a:270:MET:HE1	2.18	0.43
4:3:2478:G:H2'	4:3:2479:A:H8	1.84	0.43
4:3:2764:U:H4'	4:3:2765:A:OP1	2.18	0.43
4:3:2874:C:H2'	4:3:2875:U:C6	2.54	0.43
6:5:253:G:H2'	6:5:254:G:C8	2.53	0.43
6:5:292:U:H1'	6:5:554:C:H1'	2.01	0.43
6:5:451:G:H5'	29:O:65:SER:HB2	2.01	0.43
6:5:1208:G:H2'	6:5:1209:C:C6	2.54	0.43
6:5:1364:C:H2'	6:5:1365:U:C6	2.53	0.43
7:6:34:PHE:CE2	7:AB:49:CYS:SG	3.03	0.43
9:9:15:THR:HG21	9:9:863:LEU:HD23	1.99	0.43
9:9:906:GLU:OE2	37:Z:530:ASP:CB	2.66	0.43
7:AB:166:PHE:CE1	37:Z:595:ILE:HG12	2.54	0.43
12:AC:16:ILE:HD12	12:AC:57:PHE:HE1	1.84	0.43
15:AF:74:TRP:CH2	15:AF:84:LYS:HD2	2.53	0.43
26:L:57:ARG:HA	26:L:60:ALA:HB3	2.00	0.43
35:U:161:LYS:HE3	36:Y:17:ILE:CD1	2.47	0.43
41:d:16:LEU:HA	41:d:19:SER:OG	2.18	0.43
42:e:33:GLN:NE2	42:e:34:ILE:O	2.52	0.43
50:n:75:GLN:O	50:n:79:ASP:N	2.39	0.43
4:3:428:U:H2'	4:3:429:U:C6	2.54	0.43
4:3:491:A:C2	4:3:509:G:H5'	2.54	0.43
4:3:852:C:H2'	4:3:853:G:O4'	2.18	0.43
4:3:867:G:H1'	47:k:53:GLY:HA2	2.01	0.43
4:3:963:U:O2	4:3:964:A:C8	2.71	0.43
4:3:1171:G:H2'	4:3:1172:G:C8	2.53	0.43
4:3:1315:A:H8	49:m:106:ARG:NH1	2.16	0.43
4:3:1829:U:H2'	4:3:1830:G:H8	1.84	0.43
4:3:2183:U:H2'	4:3:2184:A:C8	2.53	0.43
4:3:2231:A:H2'	4:3:2232:G:O4'	2.19	0.43
4:3:2237:U:H2'	4:3:2238:G:H8	1.82	0.43
5:4:40:U:C5	41:d:66:VAL:HG21	2.54	0.43
6:5:719:G:C8	6:5:721:G:H1'	2.53	0.43
6:5:1113:U:H2'	6:5:1114:A:H8	1.84	0.43
6:5:1201:C:OP2	26:L:90:ARG:NH1	2.46	0.43
6:5:1315:U:H2'	6:5:1316:C:C5	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:824:VAL:CG1	9:9:827:VAL:HG23	2.49	0.43
10:A:218:ASN:OD1	10:A:219:ASN:N	2.51	0.43
7:AB:130:PRO:HG2	7:AB:133:PHE:CD2	2.54	0.43
7:AB:163:PHE:O	37:Z:611:LYS:HE3	2.19	0.43
19:E:111:LYS:O	19:E:115:TYR:N	2.51	0.43
20:F:30:MET:SD	20:F:34:LYS:N	2.92	0.43
20:F:100:LEU:HD12	20:F:101:ARG:N	2.34	0.43
21:G:107:VAL:HG13	21:G:140:TYR:HB3	2.01	0.43
24:J:80:LYS:HD3	24:J:108:PRO:HD3	2.00	0.43
25:K:76:VAL:HG21	25:K:108:TYR:CE1	2.53	0.43
32:R:11:VAL:HG22	32:R:13:ALA:H	1.84	0.43
37:Z:835:PHE:CB	37:Z:837:TYR:CZ	3.02	0.43
40:c:35:PHE:HE2	47:k:13:ARG:HH21	1.67	0.43
56:t:90:LYS:HG2	56:t:105:LYS:HE2	2.01	0.43
61:y:52:ARG:HE	61:y:52:ARG:HB3	1.74	0.43
4:3:500:U:HO2'	4:3:501:G:P	2.42	0.43
4:3:552:C:H2'	4:3:553:A:H8	1.84	0.43
4:3:659:C:H2'	4:3:660:U:C5	2.54	0.43
4:3:1070:U:H2'	4:3:1071:G:C8	2.53	0.43
4:3:1173:G:H2'	4:3:1174:G:O4'	2.19	0.43
4:3:1314:A:H1'	4:3:1316:U:OP1	2.19	0.43
4:3:1363:C:H2'	4:3:1364:A:C8	2.54	0.43
4:3:1458:A:H2'	4:3:1459:A:C8	2.54	0.43
4:3:2728:U:H2'	4:3:2729:A:O4'	2.19	0.43
4:3:2800:U:O2	4:3:2800:U:H2'	2.18	0.43
6:5:290:G:H2'	6:5:291:C:C6	2.54	0.43
6:5:524:C:C4	6:5:525:G:H1'	2.54	0.43
6:5:621:C:H1'	29:O:5:ARG:CZ	2.48	0.43
6:5:880:G:H2'	6:5:881:G:C8	2.54	0.43
6:5:1451:A:H2'	6:5:1452:C:C6	2.54	0.43
9:9:999:PHE:CG	12:AC:108:LEU:HD22	2.52	0.43
7:AB:32:SER:HA	7:AB:207:ASP:OD2	2.19	0.43
16:B:92:ILE:O	16:B:96:ILE:N	2.52	0.43
25:K:70:LEU:HG	25:K:71:THR:H	1.84	0.43
26:L:17:ILE:O	26:L:20:THR:OG1	2.32	0.43
37:Z:1235:GLN:O	37:Z:1240:ILE:HD12	2.19	0.43
39:b:37:ALA:HB3	39:b:51:LEU:HD22	2.01	0.43
40:c:36:ASP:HA	40:c:39:LEU:HD12	2.01	0.43
42:e:126:VAL:HG12	42:e:136:ILE:HD13	2.00	0.43
43:f:67:LYS:HA	43:f:70:GLU:CD	2.44	0.43
46:j:38:VAL:HA	46:j:61:VAL:HG22	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:9:PRO:HB3	3:2:14:CYS:HB2	2.01	0.42
4:3:82:G:N2	4:3:328:A:N3	2.66	0.42
4:3:552:C:H2'	4:3:553:A:C8	2.54	0.42
4:3:666:G:N1	4:3:670:G:O6	2.51	0.42
4:3:756:A:H2'	4:3:757:A:C8	2.53	0.42
4:3:1082:A:O2'	4:3:1083:A:O5'	2.36	0.42
4:3:1270:C:H2'	4:3:1271:A:H8	1.83	0.42
4:3:1423:A:O2'	4:3:1425:U:OP2	2.31	0.42
4:3:1439:U:H3	4:3:1625:G:H1	1.66	0.42
4:3:1489:G:C6	4:3:1490:G:C6	3.07	0.42
4:3:1974:U:H2'	4:3:1975:G:O4'	2.19	0.42
4:3:2623:U:H2'	4:3:2624:C:H6	1.83	0.42
4:3:2798:A:H5''	4:3:2799:U:H6	1.83	0.42
4:3:2819:C:H2'	4:3:2820:G:H8	1.84	0.42
6:5:82:C:H2'	6:5:83:U:C6	2.54	0.42
6:5:253:G:O6	6:5:266:A:N6	2.52	0.42
6:5:290:G:H2'	6:5:291:C:H6	1.84	0.42
6:5:652:A:H2'	6:5:653:G:O4'	2.19	0.42
6:5:681:U:O2	24:J:34:VAL:HG12	2.19	0.42
6:5:1056:U:H1'	6:5:1057:C:H5	1.84	0.42
9:9:774:ASP:O	37:Z:867:TYR:CE2	2.71	0.42
9:9:1223:HIS:O	37:Z:737:PHE:HB2	2.18	0.42
16:B:24:ALA:HB3	16:B:30:THR:HG22	2.01	0.42
17:C:57:LYS:O	17:C:60:MET:N	2.48	0.42
21:G:77:THR:HG22	21:G:79:ARG:H	1.84	0.42
24:J:43:MET:HE3	24:J:45:PHE:HE1	1.83	0.42
26:L:57:ARG:HA	26:L:57:ARG:HD3	1.90	0.42
36:X:6:ILE:CD1	36:Y:23:ALA:HB1	2.35	0.42
37:Z:269:VAL:HG11	37:Z:273:LYS:HD3	2.01	0.42
37:Z:488:ASP:CA	37:Z:551:ARG:NH2	2.82	0.42
37:Z:658:GLU:CD	37:Z:669:LYS:HZ1	2.26	0.42
38:a:167:TYR:HE1	38:a:169:ARG:HD3	1.84	0.42
39:b:147:VAL:O	39:b:163:LYS:NZ	2.52	0.42
43:f:41:LYS:HB2	43:f:46:ASP:HB2	2.01	0.42
43:f:53:LYS:HA	43:f:56:GLU:HG2	2.00	0.42
48:l:27:VAL:HG13	48:l:134:ARG:HG3	2.00	0.42
52:p:66:ALA:O	52:p:70:GLU:HG3	2.19	0.42
54:r:5:ALA:O	54:r:104:VAL:HA	2.19	0.42
54:r:48:ALA:O	54:r:52:ASN:ND2	2.52	0.42
58:v:18:ARG:HA	58:v:23:THR:O	2.19	0.42
62:z:35:ASN:HA	62:z:46:VAL:HA	2.00	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:164:A:OP2	4:3:165:U:O2'	2.35	0.42
4:3:309:A:N3	4:3:311:G:N1	2.66	0.42
4:3:493:A:H4'	4:3:494:G:H4'	2.01	0.42
4:3:563:A:OP1	45:i:116:ARG:NH1	2.53	0.42
4:3:659:C:H2'	4:3:660:U:C6	2.54	0.42
4:3:667:A:N1	4:3:2424:C:H4'	2.34	0.42
4:3:788:G:H2'	4:3:789:A:C8	2.50	0.42
4:3:1084:C:C2	4:3:1085:A:C8	3.07	0.42
4:3:1211:U:H2'	4:3:1212:C:O4'	2.19	0.42
4:3:1367:G:H3'	55:s:60:ARG:HH12	1.82	0.42
4:3:1399:G:OP1	38:a:49:ASN:ND2	2.52	0.42
4:3:1475:C:H2'	4:3:1476:C:C6	2.54	0.42
4:3:1536:C:H2'	4:3:1537:A:C8	2.53	0.42
4:3:1647:A:H61	4:3:1651:C:H2'	1.83	0.42
4:3:1672:C:H1'	4:3:2706:U:O2'	2.19	0.42
4:3:1881:C:H2'	4:3:1882:G:C8	2.54	0.42
4:3:1920:A:N6	6:5:1468:A:H1'	2.33	0.42
4:3:2519:U:H5'	39:b:129:LYS:NZ	2.34	0.42
4:3:2797:C:N4	4:3:2798:A:N6	2.66	0.42
5:4:90:G:H2'	5:4:91:A:O4'	2.19	0.42
6:5:576:A:H2'	6:5:577:G:C8	2.53	0.42
7:6:81:VAL:HG13	7:6:181:THR:HG22	2.01	0.42
9:9:911:ILE:HB	9:9:915:LEU:HD12	2.00	0.42
9:9:945:ARG:NH2	7:AB:298:ALA:CB	2.80	0.42
9:9:999:PHE:HZ	12:AC:42:TYR:CE2	2.29	0.42
7:AB:168:GLU:CD	37:Z:611:LYS:HZ2	2.27	0.42
16:B:103:ASP:N	16:B:103:ASP:OD1	2.52	0.42
37:Z:1227:SER:HB2	37:Z:1258:GLU:OE1	2.19	0.42
38:a:148:HIS:HB2	38:a:161:ALA:O	2.19	0.42
43:f:66:HIS:O	43:f:70:GLU:OE1	2.38	0.42
48:l:114:MET:O	48:l:118:LEU:HD23	2.19	0.42
51:o:48:PHE:CE2	51:o:66:VAL:HG13	2.54	0.42
52:p:13:ARG:HA	52:p:31:TYR:HE1	1.85	0.42
2:1:36:LYS:C	2:1:40:HIS:HD1	2.23	0.42
4:3:500:U:H2'	4:3:501:G:C8	2.54	0.42
4:3:597:C:H2'	4:3:598:G:H8	1.82	0.42
4:3:714:G:H2'	4:3:715:G:C8	2.52	0.42
4:3:1155:G:H2'	4:3:1156:C:C6	2.55	0.42
4:3:1598:U:H2'	4:3:1599:C:O4'	2.19	0.42
4:3:2522:U:H2'	4:3:2523:C:C6	2.54	0.42
4:3:2551:G:H21	4:3:2654:U:H5''	1.84	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2795:C:H2'	4:3:2796:C:C6	2.54	0.42
4:3:2800:U:H3'	4:3:2801:U:C5	2.54	0.42
6:5:1061:U:H2'	6:5:1062:C:C6	2.54	0.42
6:5:1272:C:C6	20:F:113:LYS:HD2	2.54	0.42
7:6:35:VAL:CG1	7:6:195:VAL:HG22	2.50	0.42
7:6:51:PRO:HG3	7:AB:1:MET:SD	2.60	0.42
8:7:28:A:H2'	8:7:29:C:C6	2.53	0.42
9:9:814:LEU:CD2	9:9:858:TYR:OH	2.53	0.42
9:9:1200:PHE:HD1	37:Z:862:LEU:O	2.02	0.42
12:AC:288:VAL:CG2	12:AC:297:PHE:CE2	2.98	0.42
34:T:20:ARG:HA	34:T:23:LEU:HG	2.01	0.42
37:Z:188:PHE:CE2	37:Z:204:LYS:HB2	2.54	0.42
37:Z:399:PHE:HA	37:Z:403:LEU:HD12	2.00	0.42
45:i:39:ILE:HD11	45:i:121:TRP:HB3	2.00	0.42
45:i:47:PHE:HA	45:i:53:CYS:SG	2.58	0.42
50:n:98:TYR:CE1	50:n:103:ALA:HA	2.54	0.42
52:p:64:LEU:O	52:p:68:LEU:HG	2.18	0.42
52:p:80:ASN:HD22	52:p:84:LYS:HE3	1.83	0.42
54:r:125:VAL:O	54:r:128:ARG:HB2	2.19	0.42
58:v:13:LEU:HB3	58:v:29:TRP:HB2	2.01	0.42
4:3:226:A:C5	4:3:236:G:N2	2.86	0.42
4:3:355:A:N3	40:c:170:GLN:NE2	2.50	0.42
4:3:847:C:H5''	4:3:1280:G:O2'	2.19	0.42
4:3:904:C:H2'	4:3:905:U:O4'	2.19	0.42
4:3:915:A:C6	4:3:937:A:C8	3.07	0.42
4:3:1061:A:H2'	4:3:1062:A:C8	2.53	0.42
4:3:1095:U:O4'	4:3:1097:G:H5'	2.19	0.42
4:3:1176:U:OP2	45:i:71:LYS:NZ	2.39	0.42
4:3:1301:G:H22	4:3:1649:C:N4	2.16	0.42
4:3:1369:U:H4'	55:s:58:LEU:HG	2.00	0.42
4:3:1921:C:H3'	4:3:1922:U:H6	1.84	0.42
4:3:2056:A:H2'	4:3:2057:C:C6	2.55	0.42
4:3:2238:G:H2'	4:3:2239:U:C6	2.53	0.42
4:3:2345:G:H2'	4:3:2345:G:N3	2.33	0.42
4:3:2782:A:H2'	4:3:2783:A:O4'	2.19	0.42
4:3:2849:G:H2'	4:3:2850:G:H8	1.83	0.42
6:5:176:G:O6	6:5:190:A:N6	2.52	0.42
6:5:214:U:H2'	6:5:215:C:C6	2.53	0.42
6:5:273:C:H2'	6:5:274:A:C8	2.54	0.42
6:5:358:G:O2'	6:5:359:A:N7	2.45	0.42
6:5:671:G:H5'	19:E:47:TYR:CE1	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:780:U:H2'	6:5:781:A:H8	1.84	0.42
6:5:899:U:H2'	6:5:900:G:O4'	2.20	0.42
6:5:1016:A:H2'	6:5:1017:A:H8	1.83	0.42
6:5:1092:A:H4'	6:5:1093:A:O5'	2.19	0.42
6:5:1182:C:H2'	6:5:1183:C:C6	2.55	0.42
6:5:1488:A:H2'	6:5:1489:C:C6	2.54	0.42
6:5:1490:G:H2'	6:5:1491:A:C8	2.53	0.42
7:6:300:ILE:HD11	7:6:325:LEU:HD22	2.01	0.42
9:9:524:ILE:O	9:9:530:LYS:HE3	2.19	0.42
10:A:68:ALA:HB2	10:A:215:ILE:HD11	2.01	0.42
11:AA:42:LYS:HD3	21:G:125:ASP:O	2.19	0.42
7:AB:95:LEU:HD11	7:AB:132:GLY:HA3	2.00	0.42
16:B:58:ILE:HG13	16:B:67:VAL:HG12	2.00	0.42
28:N:57:VAL:HG23	28:N:60:ARG:CZ	2.49	0.42
38:a:136:MET:CE	38:a:140:PHE:HB2	2.49	0.42
40:c:98:ASN:ND2	40:c:100:SER:OG	2.52	0.42
41:d:53:ALA:O	41:d:56:GLU:HG3	2.18	0.42
47:k:104:ILE:HG13	47:k:105:SER:N	2.35	0.42
49:m:49:ILE:O	49:m:53:LYS:HG3	2.19	0.42
54:r:74:CYS:SG	54:r:75:VAL:N	2.92	0.42
55:s:41:LYS:HG3	55:s:42:LEU:HD22	2.01	0.42
3:2:20:HIS:O	3:2:22:ILE:HD12	2.19	0.42
4:3:200:A:N7	47:k:39:GLN:NE2	2.66	0.42
4:3:325:G:C6	4:3:384:G:C6	3.07	0.42
4:3:430:U:H2'	4:3:431:U:C6	2.54	0.42
4:3:815:G:H21	4:3:818:A:N6	2.17	0.42
4:3:1041:C:H2'	4:3:1042:C:C6	2.54	0.42
4:3:1230:U:H1'	52:p:3:ILE:HD11	2.01	0.42
4:3:1299:A:H61	4:3:2018:U:H3	1.67	0.42
4:3:1433:U:H2'	4:3:1434:U:H6	1.84	0.42
4:3:1501:U:H2'	4:3:1502:A:O4'	2.19	0.42
4:3:1720:C:H3'	4:3:1721:G:H8	1.85	0.42
4:3:2072:C:H2'	4:3:2073:C:C6	2.52	0.42
4:3:2174:G:H2'	4:3:2175:U:C6	2.54	0.42
4:3:2513:G:O2'	4:3:2514:U:O5'	2.33	0.42
6:5:56:A:H2'	6:5:57:U:O4'	2.19	0.42
6:5:360:A:C8	6:5:361:U:C5	3.07	0.42
6:5:451:G:H2'	6:5:451:G:N3	2.35	0.42
6:5:453:C:H2'	6:5:454:U:C6	2.55	0.42
6:5:494:A:H5'	6:5:495:U:OP2	2.19	0.42
6:5:779:A:OP1	6:5:1496:G:N2	2.42	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:1320:A:H62	6:5:1349:A:H3'	1.83	0.42
9:9:20:TYR:CE1	9:9:22:GLY:HA3	2.55	0.42
9:9:356:ARG:NH1	15:AF:110:ILE:O	2.41	0.42
9:9:648:VAL:CG1	37:Z:872:TYR:CE1	3.02	0.42
9:9:1051:ARG:NH1	9:9:1254:MET:HE3	2.34	0.42
7:AB:166:PHE:HE1	37:Z:595:ILE:HG12	1.84	0.42
7:AB:280:CYS:SG	12:AC:81:PHE:HE2	2.43	0.42
12:AC:10:ASN:N	12:AC:11:PRO:HD2	2.35	0.42
16:B:31:ALA:HA	16:B:34:LEU:HG	2.00	0.42
25:K:121:GLU:C	25:K:123:ARG:H	2.26	0.42
37:Z:1143:ILE:HG13	37:Z:1166:ILE:CD1	2.50	0.42
38:a:46:GLY:O	38:a:54:THR:OG1	2.28	0.42
38:a:256:THR:HG23	38:a:262:HIS:HB2	2.02	0.42
39:b:24:LEU:HD12	39:b:25:PRO:HD2	2.02	0.42
39:b:165:MET:HE3	39:b:166:SER:HB2	2.02	0.42
43:f:31:PHE:HD1	43:f:111:PHE:CD1	2.37	0.42
46:j:21:ILE:HA	46:j:41:VAL:HG12	2.01	0.42
47:k:133:LYS:O	47:k:137:LYS:HG2	2.19	0.42
49:m:9:LYS:HD3	49:m:13:TRP:CZ3	2.53	0.42
51:o:89:GLU:HG2	51:o:91:LYS:NZ	2.34	0.42
2:1:15:LYS:HB3	4:3:687:G:H5''	2.02	0.42
4:3:17:G:H2'	4:3:18:G:O4'	2.19	0.42
4:3:29:G:N2	4:3:547:G:O2'	2.46	0.42
4:3:675:U:O4	4:3:685:G:O6	2.38	0.42
4:3:837:A:H2'	4:3:838:U:C6	2.54	0.42
4:3:1255:G:O2'	4:3:1256:A:O4'	2.34	0.42
4:3:1611:C:H2'	4:3:1612:U:C6	2.55	0.42
4:3:2472:G:H2'	4:3:2473:C:C6	2.55	0.42
5:4:14:U:H2'	5:4:15:C:C6	2.55	0.42
6:5:203:C:H2'	6:5:204:C:H6	1.84	0.42
6:5:778:A:H2	6:5:1489:C:H4'	1.83	0.42
6:5:831:C:H5''	31:Q:80:GLN:HB2	2.01	0.42
6:5:1013:C:H2'	6:5:1014:A:C8	2.55	0.42
6:5:1051:U:OP1	23:I:59:ARG:NH1	2.53	0.42
6:5:1052:G:C6	6:5:1053:U:C4	3.07	0.42
10:A:177:ILE:HD13	10:A:199:VAL:HG13	2.01	0.42
11:AA:42:LYS:HE3	21:G:127:VAL:HG13	2.01	0.42
13:AD:19:DT:C2'	13:AD:21:DC:C4'	2.92	0.42
18:D:178:ILE:HG23	18:D:180:THR:HG23	2.01	0.42
22:H:121:TYR:CE2	22:H:127:PRO:HB3	2.55	0.42
26:L:16:GLU:OE2	26:L:17:ILE:HG23	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:Z:612:VAL:HG11	37:Z:640:VAL:HG21	2.02	0.42
38:a:2:PRO:HB2	38:a:3:ILE:H	1.61	0.42
42:e:76:THR:O	42:e:80:ILE:HG12	2.19	0.42
42:e:143:LEU:O	42:e:146:GLN:HG3	2.20	0.42
49:m:54:VAL:HB	49:m:59:ASN:HD22	1.84	0.42
52:p:35:LYS:O	52:p:39:ILE:HG12	2.19	0.42
53:q:60:GLU:CD	53:q:92:LEU:HA	2.45	0.42
55:s:7:LEU:HD23	55:s:31:VAL:HG12	2.01	0.42
56:t:42:VAL:HG22	56:t:43:THR:H	1.84	0.42
56:t:89:ILE:HG21	56:t:102:ARG:HB3	2.02	0.42
3:2:19:ARG:HA	4:3:2764:U:H5''	2.01	0.42
4:3:101:C:H4'	4:3:103:G:C5	2.54	0.42
4:3:243:U:H2'	4:3:244:G:O4'	2.20	0.42
4:3:745:U:H2'	4:3:746:G:H8	1.85	0.42
4:3:1392:G:H2'	4:3:1394:A:OP2	2.20	0.42
4:3:1635:G:H2'	4:3:1636:U:C6	2.54	0.42
4:3:1656:A:H2'	4:3:1657:G:O4'	2.19	0.42
4:3:1702:A:N7	4:3:1998:U:C4	2.87	0.42
4:3:1737:G:C6	4:3:1738:G:C6	3.07	0.42
4:3:1766:A:H2'	4:3:1767:A:C8	2.54	0.42
4:3:1974:U:H3'	4:3:1975:G:H8	1.85	0.42
4:3:2562:U:H2'	4:3:2563:U:H6	1.84	0.42
6:5:63:U:H2'	6:5:64:C:C6	2.55	0.42
6:5:173:U:H2'	6:5:174:U:C6	2.54	0.42
6:5:569:U:H5'	6:5:816:A:C5	2.55	0.42
6:5:779:A:N6	6:5:797:G:C2	2.86	0.42
6:5:872:C:H5''	21:G:93:PRO:O	2.20	0.42
6:5:974:C:H2'	6:5:974:C:O2	2.19	0.42
6:5:1055:G:H1'	6:5:1165:G:N2	2.34	0.42
7:6:174:ASN:C	7:AB:324:LYS:NZ	2.51	0.42
9:9:1306:LEU:HD22	37:Z:408:VAL:CG1	2.42	0.42
9:9:1324:ILE:CD1	37:Z:410:TYR:CZ	3.03	0.42
9:9:1371:LEU:HD11	37:Z:95:VAL:HG22	2.01	0.42
11:AA:76:MET:HE1	11:AA:84:ILE:HD12	2.02	0.42
15:AF:108:TRP:CE3	15:AF:120:ILE:HD12	2.54	0.42
16:B:153:LYS:NZ	16:B:171:TYR:O	2.39	0.42
17:C:60:MET:HE1	17:C:71:PHE:HE1	1.83	0.42
17:C:100:ILE:O	17:C:104:MET:HG2	2.20	0.42
21:G:113:ILE:HB	21:G:141:VAL:HB	2.01	0.42
23:I:48:LEU:HD23	23:I:48:LEU:HA	1.88	0.42
27:M:21:TYR:OH	27:M:23:ARG:NH1	2.49	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:S:59:ILE:HG13	33:S:60:ILE:N	2.34	0.42
37:Z:232:PHE:CE1	37:Z:234:VAL:HG13	2.55	0.42
37:Z:876:LYS:CG	37:Z:1030:ARG:HH12	1.86	0.42
39:b:1:MET:SD	39:b:3:ILE:HD12	2.60	0.42
42:e:80:ILE:HA	42:e:83:THR:HG22	2.02	0.42
46:j:58:LEU:HD23	46:j:94:ARG:NE	2.35	0.42
47:k:101:LYS:HA	47:k:101:LYS:HD2	1.82	0.42
49:m:38:ALA:O	49:m:41:THR:N	2.52	0.42
51:o:21:TYR:HE2	51:o:23:PRO:HG3	1.84	0.42
52:p:13:ARG:HA	52:p:31:TYR:CE1	2.54	0.42
52:p:40:GLN:HG3	52:p:44:TYR:CZ	2.55	0.42
54:r:39:THR:HG22	54:r:41:LYS:HG2	2.01	0.42
57:u:37:ALA:HA	57:u:52:TYR:HD2	1.83	0.42
4:3:228:A:N6	4:3:455:G:O2'	2.48	0.42
4:3:270:G:H2'	4:3:271:G:H8	1.84	0.42
4:3:358:A:P	40:c:176:LYS:HE2	2.59	0.42
4:3:534:U:H2'	4:3:535:G:O4'	2.19	0.42
4:3:594:G:H4'	52:p:47:ARG:HH12	1.85	0.42
4:3:867:G:H2'	4:3:868:C:C6	2.55	0.42
4:3:1249:A:H1'	54:r:128:ARG:HH22	1.84	0.42
4:3:1429:G:H2'	4:3:1430:U:C6	2.53	0.42
4:3:1455:A:C2	38:a:35:LYS:HD3	2.54	0.42
4:3:1842:G:O6	4:3:1937:G:N2	2.53	0.42
4:3:1860:A:H2'	4:3:1861:A:O4'	2.20	0.42
4:3:2034:G:H2'	4:3:2035:U:H6	1.84	0.42
4:3:2120:G:H2'	4:3:2121:A:O4'	2.20	0.42
4:3:2294:A:H8	4:3:2295:A:N6	2.18	0.42
4:3:2718:C:H2'	4:3:2719:A:C8	2.54	0.42
4:3:2841:A:C4	4:3:2842:G:C8	3.08	0.42
5:4:69:C:OP1	57:u:89:LYS:NZ	2.39	0.42
6:5:150:A:H2'	6:5:151:C:C6	2.54	0.42
6:5:191:A:H2'	6:5:192:A:C8	2.55	0.42
6:5:206:G:H2'	6:5:208:A:OP2	2.20	0.42
6:5:260:C:H2'	6:5:261:G:O4'	2.20	0.42
6:5:387:G:OP1	29:O:22:ARG:NH2	2.53	0.42
6:5:511:A:H2'	6:5:512:U:H6	1.85	0.42
6:5:924:A:H2'	6:5:925:C:C6	2.55	0.42
6:5:1247:G:H2'	6:5:1248:U:C6	2.54	0.42
9:9:767:LEU:HD21	9:9:808:ILE:HD12	2.01	0.42
12:AC:4:GLN:OE1	12:AC:107:SER:HB2	2.20	0.42
15:AF:137:ASP:OD2	37:Z:349:PRO:CA	2.66	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:B:176:MET:SD	16:B:206:ASN:HB2	2.60	0.42
18:D:205:PRO:HA	18:D:208:VAL:HG22	2.01	0.42
19:E:49:ILE:HG23	19:E:50:LYS:N	2.32	0.42
26:L:70:ARG:NH2	26:L:74:ALA:HB2	2.35	0.42
27:M:4:LYS:HA	27:M:7:LYS:HD3	2.02	0.42
37:Z:806:ILE:HG22	37:Z:821:PHE:CE1	2.55	0.42
41:d:36:ILE:HD13	41:d:154:VAL:HG12	2.02	0.42
43:f:32:PRO:HG2	43:f:111:PHE:HZ	1.84	0.42
45:i:121:TRP:CD1	45:i:124:LYS:HZ3	2.38	0.42
48:l:34:LEU:HD12	48:l:130:LYS:O	2.20	0.42
53:q:5:VAL:N	53:q:11:GLN:OE1	2.53	0.42
54:r:104:VAL:HG13	54:r:106:LYS:NZ	2.34	0.42
54:r:125:VAL:O	54:r:129:VAL:HG13	2.20	0.42
55:s:24:THR:HG1	55:s:26:LYS:HZ2	1.63	0.42
1:0:22:MET:O	1:0:28:ARG:NH1	2.53	0.42
2:1:15:LYS:HD2	4:3:687:G:H5''	2.02	0.42
4:3:51:A:C5	4:3:121:U:O4	2.73	0.42
4:3:107:C:H2'	4:3:108:G:H8	1.85	0.42
4:3:172:U:H2'	4:3:173:C:C6	2.54	0.42
4:3:435:U:H2'	4:3:436:G:O4'	2.20	0.42
4:3:462:C:H2'	4:3:463:U:C6	2.55	0.42
4:3:993:A:C6	4:3:995:A:N1	2.88	0.42
4:3:1046:A:H5''	52:p:65:ASN:HD22	1.85	0.42
4:3:1163:G:H1'	4:3:1164:A:C8	2.54	0.42
4:3:1867:G:H2'	4:3:1868:A:H8	1.85	0.42
4:3:2348:U:H2'	4:3:2349:G:C8	2.55	0.42
4:3:2419:A:H2'	4:3:2420:A:C8	2.54	0.42
4:3:2596:A:N6	4:3:2615:G:O6	2.53	0.42
4:3:2657:C:H2'	4:3:2658:U:C6	2.54	0.42
4:3:2668:A:O2'	4:3:2669:G:O5'	2.30	0.42
6:5:446:A:O2'	29:O:36:ALA:O	2.34	0.42
6:5:458:G:H2'	6:5:459:C:C6	2.55	0.42
6:5:500:G:OP1	25:K:127:ARG:N	2.52	0.42
6:5:543:C:C2	6:5:544:A:C8	3.08	0.42
6:5:741:C:H2'	6:5:742:C:H6	1.84	0.42
6:5:880:G:H2'	6:5:881:G:H8	1.85	0.42
6:5:946:G:OP2	26:L:101:ARG:NH2	2.49	0.42
6:5:951:U:H2'	6:5:952:U:C6	2.54	0.42
6:5:1046:A:H62	6:5:1175:C:N4	2.18	0.42
6:5:1434:C:H2'	6:5:1435:G:H8	1.85	0.42
9:9:1122:LEU:HD21	9:9:1149:LEU:HD23	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:9:1269:LYS:HE3	37:Z:313:ILE:HG23	1.82	0.42
10:A:19:SER:OG	10:A:20:LEU:N	2.51	0.42
15:AF:137:ASP:HB3	37:Z:349:PRO:HG3	2.02	0.42
18:D:100:LYS:HA	18:D:128:THR:HA	2.02	0.42
19:E:110:GLN:O	19:E:114:LYS:HG2	2.19	0.42
29:O:48:VAL:HG23	29:O:52:TRP:HZ3	1.82	0.42
32:R:27:LYS:HG3	32:R:29:ARG:HD3	2.02	0.42
36:V:19:GLU:HB3	36:W:2:LYS:HD3	2.02	0.42
38:a:48:ASN:OD1	38:a:49:ASN:N	2.52	0.42
38:a:183:GLN:NE2	38:a:184:LEU:O	2.36	0.42
38:a:272:LYS:HB2	38:a:275:THR:HG23	2.02	0.42
40:c:157:VAL:HB	40:c:159:PHE:CE1	2.55	0.42
42:e:17:ASN:OD1	42:e:28:LYS:HB3	2.20	0.42
48:l:77:LYS:HD3	48:l:78:PRO:HD2	2.02	0.42
4:3:23:A:H2'	4:3:24:U:C6	2.55	0.42
4:3:228:A:H62	4:3:455:G:HO2'	1.68	0.42
4:3:680:A:H2'	4:3:682:A:C8	2.55	0.42
4:3:771:C:H2'	4:3:772:C:H6	1.84	0.42
4:3:849:C:O2'	4:3:850:G:H5'	2.19	0.42
4:3:1138:A:H2'	4:3:1139:C:O4'	2.19	0.42
4:3:1280:G:OP1	47:k:22:ARG:NH1	2.47	0.42
4:3:1307:G:H2'	4:3:1308:A:H8	1.83	0.42
4:3:1523:C:H2'	4:3:1524:C:H6	1.85	0.42
4:3:1783:G:C2	4:3:1796:A:C2	3.08	0.42
4:3:1840:C:H2'	4:3:1841:U:C6	2.55	0.42
4:3:1853:G:N2	4:3:1902:C:C2	2.88	0.42
4:3:2175:U:O2	4:3:2179:A:N7	2.53	0.42
4:3:2254:G:H2'	4:3:2255:A:C8	2.55	0.42
4:3:2558:G:H2'	4:3:2559:C:C6	2.55	0.42
4:3:2608:A:H2'	4:3:2609:C:C6	2.55	0.42
4:3:2644:U:O2'	39:b:47:TYR:OH	2.27	0.42
4:3:2726:G:H4'	51:o:100:TYR:CE2	2.55	0.42
4:3:2750:A:H2'	4:3:2751:C:H6	1.82	0.42
4:3:2847:C:H2'	4:3:2848:A:C8	2.52	0.42
5:4:4:G:H5'	5:4:25:A:H2	1.84	0.42
5:4:76:A:H2'	5:4:77:G:C8	2.54	0.42
5:4:76:A:N6	5:4:89:A:H1'	2.35	0.42
6:5:287:U:C4	6:5:306:G:C6	3.08	0.42
6:5:404:A:H2'	6:5:405:C:H6	1.85	0.42
6:5:710:G:H2'	6:5:711:G:C8	2.55	0.42
6:5:1402:U:H2'	6:5:1403:A:H8	1.84	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:56:PHE:CE1	7:6:156:TYR:HB3	2.55	0.42
8:7:54:G:C2	8:7:63:U:C2	3.07	0.42
9:9:100:LEU:CD1	9:9:591:ILE:CD1	2.97	0.42
19:E:26:GLN:HE22	19:E:60:TRP:HZ2	1.67	0.42
22:H:15:SER:OG	22:H:72:GLY:HA3	2.20	0.42
24:J:88:THR:O	24:J:91:ARG:HB2	2.20	0.42
37:Z:1247:LYS:HE3	37:Z:1249:GLN:OE1	2.20	0.42
42:e:5:GLY:HA2	42:e:72:ASN:HD22	1.85	0.42
42:e:146:GLN:O	42:e:149:THR:OG1	2.20	0.42
54:r:23:LEU:HD11	61:y:22:LEU:HG	2.01	0.42
58:v:35:PRO:HB3	58:v:49:LEU:HD22	2.02	0.42
62:z:51:LYS:H	62:z:51:LYS:HG2	1.69	0.42
4:3:194:A:N6	4:3:211:A:H1'	2.35	0.41
4:3:239:U:O4	4:3:240:C:N4	2.54	0.41
4:3:355:A:O4'	40:c:170:GLN:NE2	2.46	0.41
4:3:524:G:O2'	54:r:49:LYS:NZ	2.35	0.41
4:3:568:G:OP1	52:p:24:PHE:N	2.48	0.41
4:3:612:G:H5'	4:3:2024:C:H3'	2.01	0.41
4:3:637:U:C6	47:k:88:LEU:HD13	2.55	0.41
4:3:928:G:H2'	4:3:929:G:C8	2.55	0.41
4:3:1446:G:N2	4:3:1612:U:H5''	2.28	0.41
4:3:1482:U:O4'	49:m:60:ARG:NH1	2.39	0.41
4:3:1558:A:H3'	4:3:1570:A:H61	1.84	0.41
4:3:1714:U:H2'	4:3:1715:A:O4'	2.20	0.41
4:3:1801:U:H2'	4:3:1802:C:C6	2.55	0.41
4:3:1991:U:H2'	4:3:1992:C:C6	2.55	0.41
4:3:2520:C:H2'	4:3:2521:A:O4'	2.20	0.41
4:3:2578:A:H2'	4:3:2579:U:C6	2.55	0.41
5:4:1:U:H2'	5:4:2:U:O4'	2.20	0.41
5:4:61:A:H2'	5:4:62:G:H8	1.85	0.41
6:5:16:G:O2'	18:D:84:ARG:NH2	2.53	0.41
6:5:320:G:N1	6:5:323:A:N7	2.68	0.41
6:5:1087:C:H2'	6:5:1088:C:C6	2.55	0.41
6:5:1261:A:H2'	6:5:1262:A:H8	1.81	0.41
6:5:1355:U:O2'	20:F:2:ARG:NH1	2.53	0.41
7:6:108:ARG:NH2	7:AB:316:LYS:NZ	2.67	0.41
9:9:374:CYS:HB3	9:9:459:VAL:HG12	2.00	0.41
9:9:566:ARG:HH22	9:9:582:LYS:HG2	1.85	0.41
9:9:1341:LEU:HD11	37:Z:391:ARG:NH1	2.35	0.41
16:B:65:VAL:HG12	16:B:100:THR:HB	2.01	0.41
28:N:18:ASP:OD1	28:N:18:ASP:N	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:P:71:ALA:O	30:P:72:THR:OG1	2.35	0.41
35:U:60:ARG:NH2	35:U:76:ILE:O	2.49	0.41
39:b:33:PRO:HB2	39:b:95:GLN:HB3	2.01	0.41
39:b:91:GLU:HB2	39:b:94:GLN:NE2	2.36	0.41
45:i:52:ASP:OD1	45:i:53:CYS:N	2.52	0.41
46:j:60:ALA:HB2	46:j:86:LEU:HD13	2.02	0.41
1:0:12:ARG:HG3	1:0:44:VAL:HG11	2.00	0.41
4:3:19:G:H4'	52:p:24:PHE:CE1	2.55	0.41
4:3:224:G:H22	4:3:463:U:H2'	1.84	0.41
4:3:280:A:H2'	4:3:281:U:H6	1.85	0.41
4:3:377:U:H2'	4:3:378:G:C8	2.55	0.41
4:3:985:A:C6	4:3:1005:G:C6	3.08	0.41
4:3:1806:G:N2	38:a:160:ILE:HG23	2.34	0.41
4:3:1836:A:H3'	4:3:1837:C:C6	2.54	0.41
4:3:1878:A:H2'	4:3:1879:A:O4'	2.20	0.41
4:3:1885:G:H2'	4:3:1886:C:C6	2.55	0.41
4:3:1954:C:C2	4:3:1955:G:C8	3.08	0.41
4:3:1958:U:H2'	4:3:1960:A:OP2	2.21	0.41
4:3:2148:U:H2'	4:3:2149:U:C6	2.55	0.41
4:3:2229:C:H2'	4:3:2230:A:C8	2.55	0.41
6:5:10:G:H2'	6:5:11:A:H8	1.85	0.41
6:5:400:G:N3	6:5:400:G:H2'	2.35	0.41
6:5:498:G:H2'	6:5:499:U:O4'	2.20	0.41
6:5:861:A:H2'	6:5:862:C:H6	1.84	0.41
6:5:1052:G:C6	6:5:1172:A:C6	3.08	0.41
6:5:1124:U:O2'	22:H:16:SER:OG	2.31	0.41
6:5:1376:G:H2'	6:5:1377:C:H6	1.85	0.41
7:6:85:LYS:NZ	9:9:919:ASP:OD2	2.52	0.41
9:9:356:ARG:NH1	15:AF:113:ASN:H	2.18	0.41
9:9:626:ARG:NH2	9:9:674:ALA:O	2.53	0.41
9:9:772:GLU:O	37:Z:861:GLY:HA2	2.20	0.41
16:B:138:ARG:HD2	16:B:138:ARG:HA	1.89	0.41
16:B:164:GLU:OE1	16:B:167:ARG:NE	2.35	0.41
19:E:124:ASN:O	19:E:126:GLU:N	2.50	0.41
23:I:16:LEU:HA	23:I:104:LEU:HA	2.01	0.41
24:J:54:TYR:CZ	24:J:58:ILE:HD11	2.55	0.41
37:Z:895:LEU:HD23	37:Z:1218:ILE:HG21	2.02	0.41
39:b:25:PRO:O	39:b:195:GLY:N	2.51	0.41
51:o:49:THR:HG22	51:o:68:LYS:HE3	2.02	0.41
52:p:14:LYS:C	52:p:18:LYS:HZ3	2.27	0.41
52:p:91:ARG:CD	53:q:11:GLN:HB3	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:116:C:H2'	4:3:117:C:C6	2.54	0.41
4:3:217:A:H2'	4:3:218:G:C8	2.55	0.41
4:3:656:G:H4'	4:3:657:A:H5''	2.02	0.41
4:3:657:A:C5	4:3:658:G:H1'	2.55	0.41
4:3:851:U:H2'	4:3:852:C:H6	1.85	0.41
4:3:983:A:H2'	4:3:984:C:C6	2.56	0.41
4:3:1167:U:H2'	4:3:1168:A:C5	2.55	0.41
4:3:1309:G:H2'	4:3:1310:U:C6	2.55	0.41
4:3:1437:A:H2'	4:3:1438:G:H8	1.84	0.41
4:3:1737:G:H2'	4:3:1738:G:H8	1.80	0.41
4:3:1790:U:C2	4:3:2595:A:N6	2.89	0.41
4:3:2155:G:H2'	4:3:2156:G:C8	2.56	0.41
4:3:2630:U:H2'	4:3:2631:G:C8	2.55	0.41
4:3:2649:G:H2'	4:3:2650:A:C8	2.56	0.41
4:3:2788:U:H5''	45:i:123:THR:HB	2.02	0.41
6:5:622:A:H2'	6:5:623:G:C8	2.55	0.41
6:5:675:U:O2	6:5:710:G:N2	2.52	0.41
6:5:838:A:H4'	19:E:106:GLN:HG2	2.01	0.41
6:5:874:C:H2'	6:5:875:G:C8	2.55	0.41
6:5:951:U:H2'	6:5:952:U:N1	2.35	0.41
6:5:1262:A:H2'	6:5:1263:A:C8	2.55	0.41
6:5:1291:C:H3'	6:5:1292:A:C8	2.56	0.41
6:5:1413:G:H2'	6:5:1414:U:C6	2.55	0.41
8:7:19:G:N7	8:7:56:U:O2'	2.47	0.41
9:9:90:LYS:HZ1	9:9:1034:GLU:HB3	1.84	0.41
9:9:258:VAL:CG1	9:9:268:VAL:CG1	2.94	0.41
9:9:1233:THR:HA	7:AB:40:ASN:ND2	2.35	0.41
12:AC:196:VAL:CB	12:AC:217:ARG:CZ	2.99	0.41
16:B:156:VAL:HG22	16:B:201:VAL:HG12	2.01	0.41
19:E:29:LEU:HD22	19:E:68:SER:OG	2.20	0.41
22:H:128:GLN:HE21	22:H:130:THR:HG1	1.63	0.41
25:K:41:PRO:C	25:K:42:LEU:HD12	2.45	0.41
33:S:70:SER:HA	33:S:73:VAL:HG12	2.01	0.41
38:a:62:ASN:HD21	38:a:221:HIS:CD2	2.39	0.41
39:b:113:ILE:HD11	39:b:171:HIS:CD2	2.55	0.41
41:d:34:ILE:O	41:d:91:LEU:HD23	2.20	0.41
47:k:57:PRO:O	47:k:61:ARG:HG3	2.20	0.41
49:m:101:LEU:HD13	61:y:48:TYR:HB3	2.02	0.41
52:p:49:ARG:HA	52:p:52:LYS:HE2	2.02	0.41
58:v:58:LEU:CD1	58:v:63:ARG:HB2	2.51	0.41
4:3:525:A:N6	4:3:1312:A:N1	2.69	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:720:A:O2'	4:3:808:U:O4	2.27	0.41
4:3:1055:A:N6	4:3:1176:U:O2'	2.49	0.41
4:3:1077:G:C6	4:3:1149:G:C6	3.07	0.41
4:3:1142:G:OP1	35:U:56:ASN:ND2	2.53	0.41
4:3:1676:G:H2'	4:3:1677:G:C8	2.55	0.41
4:3:1738:G:C6	4:3:1739:G:C6	3.08	0.41
4:3:2035:U:C2	4:3:2040:A:N6	2.88	0.41
4:3:2082:U:OP2	4:3:2246:G:O2'	2.24	0.41
4:3:2129:U:H2'	4:3:2130:A:C8	2.56	0.41
4:3:2196:G:H2'	4:3:2197:U:C6	2.55	0.41
4:3:2803:G:H8	4:3:2805:A:H4'	1.85	0.41
6:5:174:U:H2'	6:5:175:U:C6	2.55	0.41
6:5:226:G:H2'	6:5:227:A:C8	2.55	0.41
6:5:294:A:H2'	6:5:295:G:C8	2.56	0.41
6:5:421:G:H2'	6:5:422:A:H8	1.86	0.41
6:5:950:C:H2'	6:5:951:U:C6	2.56	0.41
6:5:981:U:H2'	6:5:982:A:C8	2.56	0.41
6:5:1178:C:H2'	6:5:1179:A:H8	1.85	0.41
9:9:134:PRO:HG2	9:9:604:PHE:CD2	2.55	0.41
9:9:349:HIS:CE1	15:AF:109:ARG:NH2	2.88	0.41
9:9:409:ALA:HA	9:9:474:TYR:CE2	2.55	0.41
9:9:655:ARG:NH2	9:9:709:GLU:OE2	2.46	0.41
9:9:772:GLU:HB2	37:Z:862:LEU:N	2.35	0.41
9:9:1297:TYR:CD1	37:Z:554:LEU:CD2	3.03	0.41
11:AA:35:VAL:CG1	21:G:131:LYS:HZ1	2.34	0.41
7:AB:300:ILE:HD11	7:AB:325:LEU:HD22	2.01	0.41
14:AE:10:DG:O4'	37:Z:119:PRO:CD	2.63	0.41
15:AF:45:LEU:HD12	15:AF:98:TYR:CE2	2.55	0.41
16:B:65:VAL:HG11	16:B:96:ILE:HG12	2.03	0.41
23:I:78:ARG:HD3	23:I:79:LEU:H	1.85	0.41
26:L:9:ILE:HD13	26:L:53:PHE:CZ	2.55	0.41
31:Q:82:HIS:O	31:Q:86:VAL:HG22	2.21	0.41
34:T:11:LEU:HG	34:T:12:GLU:HG2	2.03	0.41
37:Z:573:THR:H	37:Z:576:MET:HE3	1.85	0.41
39:b:58:GLU:HG2	39:b:60:LYS:HB2	2.02	0.41
40:c:4:LEU:HD12	40:c:5:LYS:H	1.86	0.41
40:c:52:ILE:HD12	40:c:52:ILE:HA	1.95	0.41
52:p:32:LYS:O	52:p:36:GLN:HG3	2.21	0.41
62:z:38:CYS:O	62:z:42:ARG:N	2.53	0.41
4:3:149:A:H2'	4:3:150:U:O4'	2.21	0.41
4:3:190:G:H2'	4:3:191:G:C8	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:257:C:H2'	4:3:258:G:O4'	2.21	0.41
4:3:609:U:H2'	4:3:610:G:H8	1.86	0.41
4:3:638:A:C5	4:3:661:G:C2	3.08	0.41
4:3:645:C:H2'	4:3:646:A:C8	2.54	0.41
4:3:688:U:H5''	4:3:689:U:H5'	2.02	0.41
4:3:860:C:H4'	4:3:2436:G:N7	2.35	0.41
4:3:945:U:H2'	4:3:946:A:H8	1.84	0.41
4:3:947:A:H2'	4:3:948:A:C8	2.55	0.41
4:3:955:A:N3	5:4:78:C:O2'	2.54	0.41
4:3:1231:G:H2'	4:3:1232:U:H6	1.86	0.41
4:3:1588:A:O2'	4:3:1589:A:P	2.78	0.41
4:3:1707:U:H5	39:b:135:HIS:HE1	1.68	0.41
4:3:1845:C:N4	4:3:1905:U:H2'	2.35	0.41
4:3:1894:U:H2'	4:3:1895:G:O4'	2.20	0.41
4:3:1995:G:C2	4:3:1996:A:C5	3.09	0.41
4:3:1997:C:H2'	4:3:1998:U:C6	2.55	0.41
4:3:2321:C:O2'	41:d:35:VAL:HG11	2.20	0.41
4:3:2373:G:H4'	57:u:74:PHE:CZ	2.55	0.41
4:3:2545:U:H2'	4:3:2546:U:C6	2.55	0.41
4:3:2819:C:C2	4:3:2820:G:C8	3.09	0.41
4:3:2846:A:H2'	4:3:2847:C:C6	2.55	0.41
6:5:311:A:H4'	6:5:313:U:OP2	2.19	0.41
6:5:398:G:H5'	17:C:73:ARG:NH2	2.36	0.41
6:5:614:U:H2'	6:5:615:G:H8	1.86	0.41
6:5:957:C:H2'	6:5:958:G:H8	1.86	0.41
6:5:1137:C:H2'	6:5:1138:U:H6	1.84	0.41
6:5:1301:U:H2'	6:5:1302:C:C6	2.55	0.41
6:5:1337:U:O5'	6:5:1338:A:H5'	2.21	0.41
7:6:44:ARG:HH11	9:9:1232:ARG:HA	1.86	0.41
9:9:212:LEU:HD12	9:9:223:ILE:HG12	2.01	0.41
9:9:999:PHE:CE1	12:AC:42:TYR:CZ	2.89	0.41
9:9:1122:LEU:HD11	9:9:1149:LEU:HD23	2.02	0.41
9:9:1310:LYS:CA	37:Z:409:ASP:CB	2.94	0.41
10:A:177:ILE:CD1	10:A:199:VAL:HG13	2.51	0.41
7:AB:46:LEU:HD23	7:AB:50:ILE:HD11	2.01	0.41
12:AC:42:TYR:CE2	12:AC:111:ILE:HD11	2.56	0.41
16:B:193:GLN:NE2	16:B:194:THR:O	2.53	0.41
17:C:79:LEU:HA	17:C:85:LEU:HD11	2.02	0.41
17:C:89:LEU:O	17:C:93:LEU:HD23	2.20	0.41
20:F:111:HIS:ND1	20:F:112:GLU:HG3	2.35	0.41
22:H:17:ALA:HA	22:H:68:VAL:O	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:I:15:LYS:HD3	23:I:79:LEU:HD11	2.02	0.41
23:I:30:LYS:O	23:I:33:GLU:HG3	2.20	0.41
25:K:83:GLU:O	25:K:112:ARG:NH2	2.52	0.41
28:N:68:LYS:HD3	28:N:75:TYR:CD1	2.56	0.41
33:S:20:ASN:O	33:S:24:GLN:OE1	2.39	0.41
37:Z:60:PHE:CD1	37:Z:307:PRO:HD3	2.55	0.41
37:Z:649:LEU:HB3	37:Z:653:ILE:CD1	2.51	0.41
38:a:215:LYS:HG3	38:a:217:GLY:H	1.85	0.41
39:b:53:SER:HB2	39:b:78:THR:OG1	2.21	0.41
45:i:28:LEU:HD21	45:i:103:LEU:HD21	2.03	0.41
61:y:27:LEU:HD12	61:y:28:SER:N	2.32	0.41
62:z:36:LYS:O	62:z:47:HIS:NE2	2.49	0.41
4:3:27:U:H2'	4:3:28:G:C8	2.55	0.41
4:3:196:G:H2'	4:3:197:U:O4'	2.21	0.41
4:3:627:U:H2'	4:3:628:A:C8	2.55	0.41
4:3:772:C:H4'	4:3:801:U:H4'	2.03	0.41
4:3:1269:C:H2'	4:3:1270:C:C6	2.56	0.41
4:3:1652:A:N1	49:m:3:TYR:HE2	2.18	0.41
4:3:2007:U:H2'	4:3:2008:A:C8	2.55	0.41
4:3:2384:A:N6	50:n:98:TYR:CG	2.89	0.41
4:3:2557:G:H2'	4:3:2558:G:H8	1.84	0.41
6:5:177:G:H2'	6:5:178:U:C6	2.56	0.41
6:5:259:A:H2'	6:5:260:C:C5	2.56	0.41
6:5:618:U:C2	17:C:133:SER:HB2	2.56	0.41
6:5:1325:U:H2'	6:5:1326:C:H6	1.86	0.41
6:5:1424:C:H2'	6:5:1425:A:O4'	2.21	0.41
9:9:185:GLU:HG2	9:9:195:LEU:HD23	2.01	0.41
9:9:689:TYR:HB3	9:9:752:TYR:HB3	2.03	0.41
17:C:4:THR:HG21	17:C:62:TYR:CE1	2.56	0.41
22:H:82:ARG:HA	22:H:85:ILE:HG12	2.02	0.41
37:Z:490:PRO:HG3	37:Z:551:ARG:HG3	2.03	0.41
37:Z:553:ILE:CD1	37:Z:1270:THR:HG23	2.51	0.41
38:a:41:LEU:HD23	38:a:66:TYR:HB3	2.02	0.41
38:a:231:SER:HA	38:a:240:HIS:HB3	2.03	0.41
39:b:47:TYR:HB2	39:b:85:ARG:CZ	2.50	0.41
42:e:3:LYS:HB3	42:e:4:ILE:H	1.61	0.41
48:l:15:VAL:HG11	48:l:96:VAL:HG21	2.03	0.41
49:m:26:LEU:CD1	49:m:78:LEU:HD13	2.50	0.41
4:3:23:A:O2'	54:r:121:GLN:OE1	2.29	0.41
4:3:140:G:N2	4:3:143:A:H62	2.18	0.41
4:3:267:A:H2'	4:3:268:C:C6	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:291:G:C2	4:3:292:G:C5	3.08	0.41
4:3:476:G:H2'	4:3:477:U:H6	1.86	0.41
4:3:647:G:O3'	40:c:185:LYS:NZ	2.54	0.41
4:3:764:G:C8	38:a:215:LYS:HD3	2.56	0.41
4:3:894:G:H3'	4:3:895:G:C8	2.55	0.41
4:3:1036:A:H2'	4:3:1037:A:C8	2.55	0.41
4:3:1041:C:H2'	4:3:1042:C:C5	2.56	0.41
4:3:1167:U:O2'	4:3:1168:A:O5'	2.37	0.41
4:3:1251:G:OP1	53:q:66:ARG:NH1	2.45	0.41
4:3:1268:U:H2'	4:3:1269:C:C6	2.56	0.41
4:3:1367:G:H3'	55:s:60:ARG:NH1	2.36	0.41
4:3:1798:A:O3'	38:a:213:ILE:HB	2.20	0.41
4:3:2553:G:H2'	4:3:2554:U:H6	1.85	0.41
4:3:2873:G:H2'	4:3:2874:C:C6	2.55	0.41
6:5:23:G:H2'	6:5:24:C:C6	2.55	0.41
6:5:388:G:O2'	6:5:480:C:O2'	2.30	0.41
6:5:596:U:H4'	21:G:98:TYR:HD1	1.86	0.41
6:5:1093:A:H2'	6:5:1094:C:C6	2.55	0.41
6:5:1198:C:P	32:R:78:ARG:HH11	2.44	0.41
8:7:55:U:C2	8:7:59:A:N7	2.89	0.41
9:9:658:PRO:HD3	37:Z:868:PHE:HE2	1.85	0.41
9:9:1141:GLN:OE1	9:9:1142:PRO:HD2	2.21	0.41
9:9:1200:PHE:CE1	37:Z:864:ILE:HA	2.56	0.41
9:9:1350:ALA:N	37:Z:368:PHE:CE1	2.89	0.41
7:AB:73:MET:HE3	7:AB:143:PHE:CG	2.54	0.41
7:AB:304:ARG:O	12:AC:81:PHE:HZ	2.02	0.41
15:AF:23:VAL:CG2	15:AF:44:VAL:HG23	2.38	0.41
15:AF:108:TRP:CD1	15:AF:112:ARG:NH2	2.89	0.41
17:C:97:LEU:O	17:C:101:VAL:HG23	2.21	0.41
20:F:28:VAL:HG11	20:F:100:LEU:CD1	2.51	0.41
23:I:14:ILE:HD11	23:I:104:LEU:HD13	2.02	0.41
26:L:23:PHE:HB3	26:L:66:GLU:HB2	2.02	0.41
34:T:24:GLU:HG3	34:T:27:ARG:NH1	2.35	0.41
39:b:56:THR:HB	39:b:78:THR:HG22	2.02	0.41
40:c:4:LEU:HD11	40:c:127:LEU:N	2.36	0.41
40:c:54:THR:O	40:c:58:VAL:HG23	2.19	0.41
41:d:37:ASN:O	41:d:38:MET:HE2	2.21	0.41
42:e:61:LEU:O	42:e:65:LYS:N	2.47	0.41
49:m:17:THR:O	49:m:18:VAL:C	2.64	0.41
57:u:77:SER:OG	57:u:78:ASP:N	2.52	0.41
1:0:35:ARG:NH2	4:3:182:C:O3'	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:163:A:N3	4:3:2216:U:O2'	2.42	0.41
4:3:404:C:H2'	4:3:405:C:H6	1.86	0.41
4:3:738:U:H3'	4:3:739:G:C8	2.55	0.41
4:3:744:U:H2'	4:3:745:U:C6	2.56	0.41
4:3:764:G:H5'	4:3:765:A:H5''	2.02	0.41
4:3:766:C:H2'	4:3:767:C:H6	1.83	0.41
4:3:1336:A:H2'	4:3:1337:G:O4'	2.21	0.41
4:3:2770:U:H2'	4:3:2771:G:O4'	2.21	0.41
5:4:89:A:C4	5:4:90:G:C8	3.09	0.41
6:5:333:U:H2'	6:5:334:A:C8	2.56	0.41
6:5:471:A:H2'	6:5:472:G:C8	2.56	0.41
6:5:588:U:H2'	6:5:589:U:H6	1.86	0.41
6:5:821:U:H2'	6:5:822:A:C8	2.56	0.41
6:5:1133:A:H5'	6:5:1134:C:C6	2.56	0.41
6:5:1409:A:H2'	6:5:1410:A:H8	1.86	0.41
9:9:647:ASP:HB3	37:Z:834:SER:HB3	2.02	0.41
9:9:907:ASP:OD1	9:9:1099:ARG:NH1	2.40	0.41
11:AA:64:TYR:CE1	11:AA:66:GLY:HA2	2.56	0.41
12:AC:136:MET:HG2	12:AC:140:ILE:HD12	2.02	0.41
12:AC:173:LYS:HB2	12:AC:207:TRP:CZ3	2.56	0.41
12:AC:290:TRP:CD2	12:AC:296:LYS:CE	3.03	0.41
15:AF:10:TRP:CB	15:AF:133:LEU:HD12	2.49	0.41
29:O:3:MET:N	29:O:3:MET:SD	2.94	0.41
34:T:18:PHE:HA	34:T:21:VAL:HG22	2.02	0.41
37:Z:956:PRO:HG2	37:Z:959:SER:OG	2.21	0.41
56:t:78:ASP:OD2	56:t:81:ALA:HB3	2.21	0.41
1:0:5:TYR:HD1	4:3:823:A:H2	1.69	0.41
4:3:35:U:O4	4:3:483:A:N7	2.54	0.41
4:3:47:G:H4'	4:3:48:G:H5'	2.03	0.41
4:3:63:U:C2	59:w:41:PRO:HB2	2.56	0.41
4:3:101:C:H4'	4:3:103:G:C4	2.55	0.41
4:3:173:C:N4	4:3:174:A:H62	2.19	0.41
4:3:174:A:C2	4:3:175:A:C5	3.08	0.41
4:3:178:A:O2'	4:3:179:A:O4'	2.16	0.41
4:3:226:A:C8	4:3:456:G:H4'	2.56	0.41
4:3:291:G:H2'	4:3:292:G:C8	2.56	0.41
4:3:386:U:H2'	4:3:387:U:C6	2.55	0.41
4:3:525:A:C6	4:3:1312:A:N6	2.89	0.41
4:3:820:U:H2'	4:3:821:C:O4'	2.21	0.41
4:3:1067:A:N1	4:3:1157:G:C6	2.88	0.41
4:3:1082:A:H2'	4:3:1145:G:N1	2.36	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:1106:G:H21	4:3:1124:G:H2'	1.86	0.41
4:3:1140:U:H2'	4:3:1141:U:C6	2.56	0.41
4:3:1230:U:H2'	4:3:1231:G:H8	1.83	0.41
4:3:1477:A:C6	4:3:1489:G:C6	3.08	0.41
4:3:1592:A:H4'	4:3:1593:U:H3'	2.03	0.41
4:3:1603:A:H2'	4:3:1604:A:O4'	2.21	0.41
4:3:1613:A:H3'	4:3:1614:G:H8	1.86	0.41
4:3:1701:G:C6	4:3:1998:U:H3'	2.56	0.41
4:3:1802:C:H2'	4:3:1803:U:C6	2.56	0.41
4:3:1999:G:H5'	4:3:2001:C:H41	1.85	0.41
4:3:2166:U:H2'	4:3:2167:G:H8	1.86	0.41
4:3:2324:A:H1'	41:d:125:ARG:CZ	2.51	0.41
4:3:2336:A:H61	4:3:2395:U:H3	1.69	0.41
4:3:2363:C:H2'	4:3:2364:A:C4	2.56	0.41
4:3:2491:C:N3	48:l:124:LYS:NZ	2.55	0.41
4:3:2530:U:H1'	4:3:2572:A:C2	2.56	0.41
4:3:2661:U:H3'	4:3:2662:A:H8	1.86	0.41
5:4:26:C:H2'	5:4:27:A:C8	2.55	0.41
6:5:130:G:H2'	6:5:131:G:C8	2.55	0.41
6:5:172:C:H2'	6:5:173:U:C6	2.56	0.41
6:5:271:G:H5'	30:P:17:LYS:HD3	2.03	0.41
6:5:398:G:H4'	6:5:618:U:H3	1.85	0.41
6:5:562:U:OP2	25:K:12:ARG:NH1	2.53	0.41
6:5:664:A:H2'	6:5:665:G:H8	1.84	0.41
6:5:665:G:H1'	28:N:43:ASN:HD22	1.86	0.41
6:5:727:G:C5	6:5:728:G:H1'	2.56	0.41
6:5:736:U:O2'	28:N:39:HIS:CD2	2.73	0.41
6:5:1065:G:O2'	10:A:118:THR:HG21	2.21	0.41
6:5:1191:U:H2'	6:5:1192:C:C6	2.55	0.41
6:5:1298:U:H2'	6:5:1299:C:C6	2.56	0.41
7:6:93:ASP:HA	7:6:96:PHE:CD2	2.55	0.41
7:6:106:LEU:N	7:AB:319:HIS:ND1	2.69	0.41
9:9:150:PHE:CE1	9:9:625:LYS:HA	2.56	0.41
9:9:161:ILE:HG23	9:9:184:CYS:SG	2.61	0.41
9:9:647:ASP:HB3	37:Z:834:SER:CB	2.51	0.41
9:9:1002:SER:N	12:AC:109:LYS:CB	2.84	0.41
9:9:1375:GLY:HA3	12:AC:159:ASP:OD2	2.20	0.41
10:A:37:TRP:HA	10:A:205:ASN:HB3	2.03	0.41
7:AB:283:ARG:CD	12:AC:49:VAL:HG21	2.40	0.41
12:AC:37:ALA:HA	12:AC:122:LEU:HD23	2.03	0.41
12:AC:156:THR:H	37:Z:76:ILE:HG22	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AF:108:TRP:CZ3	15:AF:130:PRO:CG	3.04	0.41
16:B:33:TRP:HB3	16:B:60:ARG:CZ	2.51	0.41
16:B:44:PHE:HD2	16:B:56:VAL:HG21	1.85	0.41
17:C:183:GLU:O	17:C:187:LEU:HG	2.21	0.41
20:F:8:LYS:HA	20:F:8:LYS:HD3	1.94	0.41
21:G:13:ASP:N	21:G:13:ASP:OD1	2.54	0.41
21:G:95:LEU:HD13	25:K:4:ILE:HD13	2.03	0.41
21:G:116:ILE:HA	21:G:136:GLU:O	2.20	0.41
22:H:74:PHE:CD2	22:H:75:THR:HG23	2.56	0.41
25:K:16:LYS:HA	25:K:16:LYS:HD3	1.97	0.41
27:M:56:VAL:O	27:M:57:LYS:HE2	2.20	0.41
29:O:46:GLU:OE1	29:O:72:LEU:HD12	2.20	0.41
29:O:67:PHE:CD2	29:O:72:LEU:HD13	2.55	0.41
33:S:39:ILE:HG23	33:S:76:LEU:HD12	2.03	0.41
35:U:36:GLU:HG2	35:U:99:VAL:HG12	2.03	0.41
37:Z:775:LYS:HE2	37:Z:1035:GLY:O	2.21	0.41
37:Z:884:LYS:HG3	37:Z:1029:MET:HE2	2.03	0.41
38:a:12:SER:O	38:a:12:SER:OG	2.38	0.41
39:b:225:GLN:NE2	51:o:84:PRO:HG3	2.36	0.41
41:d:8:TYR:HA	41:d:12:ILE:HG12	2.02	0.41
41:d:13:ALA:HA	41:d:28:VAL:HG11	2.03	0.41
42:e:124:LEU:HB3	42:e:136:ILE:HD11	2.03	0.41
43:f:12:LEU:HB2	43:f:14:LYS:HZ2	1.86	0.41
44:h:98:MET:O	44:h:102:LYS:HB2	2.21	0.41
49:m:82:LEU:O	49:m:86:VAL:HG22	2.21	0.41
51:o:19:LYS:HD2	51:o:82:HIS:HA	2.02	0.41
52:p:31:TYR:CZ	52:p:35:LYS:HD2	2.56	0.41
62:z:23:LYS:HZ3	62:z:25:VAL:HA	1.85	0.41
4:3:38:G:H4'	4:3:487:C:C4	2.56	0.41
4:3:483:A:O4'	4:3:485:A:N6	2.53	0.41
4:3:519:A:H3'	4:3:520:C:H6	1.86	0.41
4:3:531:G:C4	4:3:532:A:C8	3.08	0.41
4:3:615:G:O2'	4:3:616:G:H5'	2.21	0.41
4:3:621:U:H2'	4:3:622:U:C6	2.55	0.41
4:3:983:A:H2'	4:3:984:C:H6	1.86	0.41
4:3:1119:A:P	4:3:1119:A:H8	2.44	0.41
4:3:1227:C:H2'	4:3:1228:G:C8	2.56	0.41
4:3:1701:G:O2'	4:3:1998:U:O4	2.36	0.41
4:3:1980:G:H2'	4:3:1981:U:C6	2.55	0.41
4:3:2080:C:OP1	38:a:236:ASN:ND2	2.54	0.41
4:3:2388:C:H2'	4:3:2389:A:H8	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:3:2625:U:O4	4:3:2626:A:N6	2.54	0.41
4:3:2699:C:H2'	4:3:2700:C:C6	2.56	0.41
6:5:248:U:H2'	6:5:249:U:C6	2.56	0.41
6:5:949:G:N7	6:5:950:C:N4	2.69	0.41
6:5:1137:C:H2'	6:5:1138:U:C6	2.55	0.41
8:7:20:G:O3'	8:7:58:G:N2	2.54	0.41
9:9:342:ARG:NH1	9:9:345:LYS:HD3	2.33	0.41
9:9:653:TYR:CD1	9:9:737:ARG:NH2	2.89	0.41
9:9:1306:LEU:HA	37:Z:408:VAL:HG12	1.93	0.41
10:A:84:PHE:HA	10:A:177:ILE:HG22	2.02	0.41
7:AB:166:PHE:N	7:AB:182:ASP:OD1	2.44	0.41
7:AB:283:ARG:CZ	12:AC:79:ASP:OD2	2.69	0.41
12:AC:213:ARG:O	12:AC:218:LEU:CB	2.48	0.41
15:AF:19:ASP:CG	15:AF:91:ASN:HD22	2.29	0.41
18:D:111:VAL:HB	18:D:112:PRO:HD3	2.02	0.41
22:H:106:THR:OG1	22:H:107:THR:N	2.53	0.41
24:J:54:TYR:O	24:J:58:ILE:HG12	2.21	0.41
25:K:78:THR:HG22	25:K:110:ILE:HG13	2.03	0.41
26:L:79:HIS:HA	26:L:82:GLU:OE1	2.20	0.41
29:O:58:LYS:HA	29:O:59:PRO:HD3	1.97	0.41
30:P:65:GLU:HA	30:P:75:PHE:HD1	1.86	0.41
40:c:197:LEU:HD23	40:c:198:LEU:N	2.35	0.41
49:m:74:ASP:HB3	49:m:77:GLN:OE1	2.21	0.41
50:n:52:LEU:HD13	50:n:84:LEU:HD13	2.02	0.41
58:v:36:CYS:O	58:v:47:ARG:HA	2.21	0.41
4:3:167:A:H2'	4:3:168:A:O4'	2.21	0.40
4:3:256:G:H2'	4:3:257:C:C6	2.56	0.40
4:3:595:U:H2'	4:3:605:A:H1'	2.03	0.40
4:3:1202:A:H2'	4:3:1203:G:H8	1.86	0.40
4:3:1327:G:H4'	4:3:1328:A:O5'	2.21	0.40
4:3:1391:U:C2	4:3:1392:G:C8	3.08	0.40
4:3:1742:C:H2'	4:3:1743:U:C6	2.57	0.40
4:3:2264:G:H2'	4:3:2265:U:C6	2.57	0.40
4:3:2337:U:H2'	4:3:2338:G:C8	2.56	0.40
4:3:2483:C:N4	4:3:2537:G:N2	2.69	0.40
4:3:2624:C:H2'	4:3:2625:U:C6	2.56	0.40
4:3:2791:U:H2'	4:3:2792:C:C6	2.55	0.40
6:5:663:G:C6	6:5:737:U:O2	2.74	0.40
6:5:815:G:N2	6:5:817:U:O2'	2.54	0.40
6:5:827:C:H2'	6:5:828:U:C6	2.56	0.40
6:5:1411:A:H2'	6:5:1412:C:C6	2.56	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:1477:A:O2'	6:5:1478:A:H3'	2.21	0.40
9:9:1054:GLN:NE2	9:9:1256:ASP:OD1	2.53	0.40
10:A:177:ILE:HA	10:A:199:VAL:O	2.21	0.40
12:AC:334:VAL:HG12	12:AC:342:ILE:HD13	2.03	0.40
13:AD:26:DT:OP1	13:AD:26:DT:H3'	2.20	0.40
26:L:10:PRO:HG2	26:L:13:LYS:HD2	2.02	0.40
26:L:10:PRO:HB2	26:L:13:LYS:HZ2	1.87	0.40
37:Z:549:GLU:OE1	37:Z:1270:THR:OG1	2.27	0.40
39:b:17:PHE:HB3	51:o:17:GLN:HE22	1.86	0.40
40:c:174:ASN:ND2	40:c:175:ILE:HG13	2.36	0.40
41:d:92:ARG:HA	41:d:96:MET:SD	2.61	0.40
43:f:67:LYS:HA	43:f:70:GLU:OE1	2.21	0.40
51:o:4:ILE:C	51:o:6:LYS:HZ2	2.26	0.40
53:q:2:HIS:HB2	53:q:13:LEU:HD11	2.03	0.40
4:3:142:A:O2'	4:3:1436:C:O2'	2.18	0.40
4:3:166:A:H2'	4:3:167:A:C8	2.56	0.40
4:3:385:U:H2'	4:3:386:U:H6	1.85	0.40
4:3:487:C:O2	4:3:489:A:N6	2.55	0.40
4:3:495:U:H2'	4:3:496:A:H8	1.87	0.40
4:3:598:G:H2'	4:3:599:U:C6	2.56	0.40
4:3:730:G:H2'	4:3:731:A:H8	1.86	0.40
4:3:992:G:O3'	4:3:993:A:H8	2.04	0.40
4:3:1103:G:H4'	4:3:1105:A:H62	1.86	0.40
4:3:1117:U:H2'	4:3:1118:U:O4'	2.21	0.40
4:3:1625:G:H2'	4:3:1626:C:C6	2.57	0.40
4:3:1647:A:N6	4:3:1651:C:H2'	2.36	0.40
4:3:1852:G:H2'	4:3:1853:G:C8	2.56	0.40
4:3:2590:G:C2	4:3:2591:G:N2	2.88	0.40
4:3:2748:A:H2'	4:3:2749:A:C8	2.56	0.40
4:3:2821:U:O2'	4:3:2841:A:H1'	2.21	0.40
6:5:103:U:O4	6:5:285:G:O2'	2.30	0.40
6:5:434:U:HO2'	17:C:121:HIS:HE2	1.65	0.40
6:5:1011:A:H1'	6:5:1193:U:O2'	2.22	0.40
6:5:1038:G:OP1	27:M:4:LYS:HE3	2.20	0.40
6:5:1046:A:H2	16:B:197:GLY:HA2	1.85	0.40
6:5:1365:U:H2'	6:5:1366:U:C6	2.57	0.40
8:7:57:C:H3'	8:7:58:G:H8	1.86	0.40
9:9:265:LEU:HD23	9:9:276:LEU:CD1	2.52	0.40
9:9:1200:PHE:CD1	37:Z:863:THR:C	2.99	0.40
24:J:19:SER:N	24:J:22:ASN:O	2.54	0.40
24:J:28:SER:OG	24:J:33:ASN:N	2.54	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:P:23:THR:HG22	30:P:46:GLN:OE1	2.21	0.40
40:c:38:VAL:O	40:c:41:GLU:HG3	2.22	0.40
48:l:37:THR:OG1	48:l:128:THR:HB	2.20	0.40
48:l:41:TRP:CD1	48:l:41:TRP:N	2.89	0.40
49:m:104:GLY:O	49:m:113:MET:HE2	2.21	0.40
54:r:10:VAL:C	54:r:100:SER:HG	2.26	0.40
57:u:39:LYS:HD2	57:u:45:ILE:HG21	2.03	0.40
2:1:2:LYS:HE3	4:3:246:G:O2'	2.21	0.40
2:1:25:TYR:HD1	4:3:2400:A:H4'	1.86	0.40
4:3:186:A:C2	4:3:219:G:N1	2.77	0.40
4:3:201:A:H2	4:3:2442:A:H62	1.70	0.40
4:3:205:C:H1'	4:3:255:A:H2	1.86	0.40
4:3:255:A:O5'	4:3:255:A:H8	2.04	0.40
4:3:436:G:N7	58:v:56:ARG:NH1	2.68	0.40
4:3:549:A:H2'	4:3:550:A:C8	2.57	0.40
4:3:738:U:H3	4:3:763:G:H1	1.69	0.40
4:3:759:U:C4	4:3:760:G:C5	3.09	0.40
4:3:784:A:H4'	4:3:1301:G:N3	2.37	0.40
4:3:794:G:H2'	4:3:795:G:C8	2.55	0.40
4:3:1263:G:H2'	4:3:1264:U:C6	2.56	0.40
4:3:1391:U:H2'	4:3:1392:G:C8	2.55	0.40
4:3:1795:C:OP1	38:a:229:ARG:NH2	2.48	0.40
4:3:1841:U:H4'	4:3:1842:G:H5'	2.03	0.40
4:3:1872:U:C2	4:3:1882:G:N1	2.90	0.40
4:3:2003:C:H4'	4:3:2004:G:O4'	2.20	0.40
4:3:2160:U:H2'	4:3:2161:G:C8	2.56	0.40
4:3:2513:G:H2'	4:3:2584:G:H1	1.86	0.40
4:3:2557:G:O2'	4:3:2558:G:H5'	2.21	0.40
4:3:2845:U:C2	4:3:2846:A:C8	3.10	0.40
5:4:30:U:C2	5:4:49:G:N2	2.89	0.40
6:5:554:C:N4	6:5:555:G:O6	2.54	0.40
6:5:983:G:N2	6:5:1012:A:H8	2.17	0.40
6:5:1055:G:H1'	6:5:1165:G:H21	1.87	0.40
6:5:1447:U:H2'	6:5:1448:A:H8	1.86	0.40
8:7:2:G:H1	8:7:74:A:H62	1.68	0.40
9:9:150:PHE:CZ	9:9:625:LYS:HA	2.56	0.40
9:9:897:PHE:O	37:Z:733:THR:OG1	2.28	0.40
9:9:1325:VAL:HG22	37:Z:443:ILE:HD13	2.03	0.40
11:AA:27:PHE:CE2	11:AA:53:TYR:HD2	2.39	0.40
7:AB:193:TYR:HB2	7:AB:209:LEU:HD11	2.03	0.40
12:AC:257:PRO:C	16:B:75:ALA:HB3	2.25	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:B:87:LYS:O	16:B:91:GLN:OE1	2.39	0.40
18:D:150:LEU:HD12	18:D:150:LEU:HA	1.83	0.40
21:G:15:VAL:HG21	21:G:138:LEU:HD12	2.03	0.40
22:H:90:LEU:HD23	22:H:90:LEU:HA	1.89	0.40
32:R:42:PRO:HD3	32:R:67:VAL:HG21	2.03	0.40
33:S:26:THR:O	33:S:30:THR:HG23	2.21	0.40
35:U:157:VAL:HG22	36:X:28:PHE:CD2	2.56	0.40
47:k:82:LEU:HA	47:k:85:ILE:HG22	2.03	0.40
52:p:106:ASN:HA	52:p:109:VAL:HG12	2.03	0.40
54:r:12:ILE:O	54:r:101:SER:OG	2.25	0.40
62:z:12:ASN:OD1	62:z:13:ASP:N	2.53	0.40
1:0:39:ARG:NE	4:3:494:G:O2'	2.55	0.40
4:3:342:G:C2	4:3:536:A:N7	2.90	0.40
4:3:573:A:H2'	4:3:574:G:O4'	2.21	0.40
4:3:596:G:C6	4:3:2025:C:C2	3.09	0.40
4:3:725:G:N2	4:3:807:U:O2	2.35	0.40
4:3:1525:G:H2'	4:3:1526:U:O4'	2.22	0.40
4:3:1821:G:H2'	4:3:1822:A:C8	2.57	0.40
4:3:1838:A:H2'	4:3:1839:C:H6	1.87	0.40
4:3:2364:A:H2	4:3:2370:G:N1	2.19	0.40
4:3:2614:U:H2'	4:3:2615:G:C8	2.56	0.40
4:3:2793:U:H2'	4:3:2794:U:C6	2.56	0.40
4:3:2823:A:C6	4:3:2832:G:C6	3.09	0.40
6:5:31:U:H3	6:5:551:A:H61	1.69	0.40
6:5:398:G:H2'	6:5:399:C:C6	2.56	0.40
6:5:408:U:H1'	6:5:409:G:H2'	2.03	0.40
6:5:449:A:OP2	29:O:38:LYS:NZ	2.38	0.40
6:5:737:U:H5'	28:N:39:HIS:CD2	2.55	0.40
6:5:1225:A:C6	6:5:1226:A:C6	3.10	0.40
6:5:1286:G:C2	6:5:1287:G:C8	3.10	0.40
6:5:1390:G:H2'	6:5:1391:A:C8	2.56	0.40
7:6:102:VAL:O	7:6:104:PRO:HD3	2.22	0.40
9:9:1136:SER:HA	9:9:1146:LEU:CD1	2.51	0.40
9:9:1288:GLU:OE2	37:Z:893:ARG:CZ	2.70	0.40
9:9:1288:GLU:HG2	9:9:1292:TRP:CZ2	2.56	0.40
9:9:1370:ILE:HB	37:Z:94:ILE:HG23	2.03	0.40
10:A:64:SER:O	10:A:67:THR:OG1	2.32	0.40
7:AB:96:PHE:CZ	7:AB:159:GLN:OE1	2.75	0.40
12:AC:183:LYS:HD3	12:AC:245:GLY:HA2	1.86	0.40
18:D:147:SER:HA	18:D:184:GLY:HA3	2.04	0.40
19:E:13:LEU:HD12	19:E:17:GLN:NE2	2.36	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:F:26:ILE:HG21	20:F:39:GLN:NE2	2.37	0.40
23:I:50:THR:O	23:I:52:LYS:HG3	2.21	0.40
34:T:41:ARG:O	34:T:44:GLU:HG3	2.21	0.40
36:V:5:LEU:HD23	36:W:20:ILE:HG23	2.04	0.40
37:Z:141:PHE:HA	37:Z:236:ILE:HD11	2.03	0.40
38:a:125:GLU:HB2	43:f:89:TYR:CE1	2.56	0.40
38:a:185:LEU:HD23	38:a:186:SER:H	1.86	0.40
45:i:36:ALA:HA	45:i:39:ILE:HG22	2.02	0.40
48:l:3:GLN:HE22	48:l:93:TRP:NE1	2.19	0.40
48:l:17:TYR:HD1	48:l:41:TRP:NE1	2.19	0.40
52:p:43:LYS:HZ3	53:q:73:HIS:C	2.25	0.40
4:3:38:G:N3	4:3:486:G:O2'	2.54	0.40
4:3:329:G:H2'	4:3:330:A:H8	1.86	0.40
4:3:343:A:H1'	4:3:363:G:N3	2.36	0.40
4:3:806:A:H2'	4:3:807:U:C6	2.57	0.40
4:3:812:G:H2'	4:3:813:G:C8	2.56	0.40
4:3:985:A:N6	4:3:1005:G:O6	2.54	0.40
4:3:1418:U:C2	4:3:1423:A:N6	2.89	0.40
4:3:1611:C:H2'	4:3:1612:U:N1	2.36	0.40
4:3:1760:G:N2	4:3:1762:A:H5''	2.36	0.40
4:3:1943:A:H4'	4:3:1944:A:C8	2.56	0.40
4:3:2590:G:C2	4:3:2591:G:C2	3.09	0.40
4:3:2637:A:N3	4:3:2898:A:N6	2.70	0.40
4:3:2661:U:OP2	4:3:2662:A:O2'	2.29	0.40
6:5:253:G:H2'	6:5:254:G:H8	1.86	0.40
6:5:602:G:O6	6:5:632:A:N6	2.55	0.40
6:5:881:G:C2	6:5:905:U:O2	2.74	0.40
6:5:960:C:H5'	6:5:964:A:H5'	2.04	0.40
6:5:1131:A:C4	6:5:1132:G:C8	3.10	0.40
6:5:1209:C:H2'	6:5:1210:U:O4'	2.21	0.40
6:5:1400:A:H61	6:5:1450:C:N4	2.20	0.40
6:5:1495:C:H2'	6:5:1496:G:C8	2.56	0.40
9:9:567:GLY:HA3	15:AF:31:LYS:CD	2.49	0.40
9:9:615:HIS:HB3	9:9:852:SER:HB2	2.04	0.40
9:9:618:PRO:CA	9:9:814:LEU:HD12	2.46	0.40
9:9:659:ILE:HD11	37:Z:867:TYR:CE1	2.56	0.40
9:9:956:ARG:O	7:AB:296:SER:OG	2.37	0.40
7:AB:56:PHE:CE1	7:AB:156:TYR:HB3	2.56	0.40
12:AC:131:ALA:C	12:AC:171:THR:C	2.86	0.40
16:B:189:LEU:HD12	16:B:202:LYS:HE2	2.03	0.40
24:J:77:LEU:HB3	24:J:103:ILE:HG13	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:O:58:LYS:HB3	29:O:64:ARG:HH12	1.84	0.40
45:i:60:ILE:HG23	45:i:131:ASP:HA	2.02	0.40
48:l:42:ILE:HD12	48:l:126:PRO:HG2	2.03	0.40
52:p:100:LYS:HD3	52:p:100:LYS:HA	1.59	0.40
58:v:16:ASN:ND2	58:v:25:THR:H	2.20	0.40
59:w:106:GLU:O	59:w:109:SER:OG	2.37	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	0	45/47 (96%)	44 (98%)	1 (2%)	0	100	100
2	1	57/59 (97%)	54 (95%)	3 (5%)	0	100	100
3	2	35/37 (95%)	33 (94%)	2 (6%)	0	100	100
7	6	304/327 (93%)	301 (99%)	3 (1%)	0	100	100
7	AB	308/327 (94%)	305 (99%)	3 (1%)	0	100	100
9	9	1389/1391 (100%)	1355 (98%)	33 (2%)	1 (0%)	48	83
10	A	238/240 (99%)	222 (93%)	16 (7%)	0	100	100
11	AA	87/89 (98%)	85 (98%)	2 (2%)	0	100	100
12	AC	358/366 (98%)	350 (98%)	6 (2%)	2 (1%)	21	59
15	AF	158/160 (99%)	155 (98%)	1 (1%)	2 (1%)	9	42
16	B	213/215 (99%)	196 (92%)	17 (8%)	0	100	100
17	C	201/203 (99%)	191 (95%)	10 (5%)	0	100	100
18	D	151/153 (99%)	145 (96%)	6 (4%)	0	100	100
19	E	165/167 (99%)	147 (89%)	18 (11%)	0	100	100
20	F	152/154 (99%)	135 (89%)	17 (11%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
21	G	139/141 (99%)	125 (90%)	14 (10%)	0	100	100
22	H	126/128 (98%)	115 (91%)	11 (9%)	0	100	100
23	I	99/101 (98%)	87 (88%)	12 (12%)	0	100	100
24	J	112/114 (98%)	105 (94%)	7 (6%)	0	100	100
25	K	134/136 (98%)	125 (93%)	9 (7%)	0	100	100
26	L	116/118 (98%)	104 (90%)	12 (10%)	0	100	100
27	M	58/60 (97%)	56 (97%)	2 (3%)	0	100	100
28	N	81/83 (98%)	81 (100%)	0	0	100	100
29	O	78/80 (98%)	70 (90%)	8 (10%)	0	100	100
30	P	81/83 (98%)	78 (96%)	3 (4%)	0	100	100
31	Q	63/65 (97%)	51 (81%)	12 (19%)	0	100	100
32	R	82/84 (98%)	72 (88%)	10 (12%)	0	100	100
33	S	75/77 (97%)	74 (99%)	1 (1%)	0	100	100
34	T	51/53 (96%)	50 (98%)	1 (2%)	0	100	100
35	U	159/161 (99%)	154 (97%)	4 (2%)	1 (1%)	21	59
36	V	27/29 (93%)	27 (100%)	0	0	100	100
36	W	27/29 (93%)	27 (100%)	0	0	100	100
36	X	27/29 (93%)	27 (100%)	0	0	100	100
36	Y	27/29 (93%)	27 (100%)	0	0	100	100
37	Z	1274/1276 (100%)	1252 (98%)	21 (2%)	1 (0%)	48	83
38	a	283/285 (99%)	265 (94%)	18 (6%)	0	100	100
39	b	227/229 (99%)	214 (94%)	13 (6%)	0	100	100
40	c	208/210 (99%)	197 (95%)	11 (5%)	0	100	100
41	d	173/175 (99%)	161 (93%)	12 (7%)	0	100	100
42	e	174/176 (99%)	166 (95%)	8 (5%)	0	100	100
43	f	143/145 (99%)	125 (87%)	18 (13%)	0	100	100
44	h	126/128 (98%)	114 (90%)	12 (10%)	0	100	100
45	i	142/144 (99%)	136 (96%)	6 (4%)	0	100	100
46	j	120/122 (98%)	113 (94%)	7 (6%)	0	100	100
47	k	146/148 (99%)	139 (95%)	7 (5%)	0	100	100
48	l	134/136 (98%)	124 (92%)	10 (8%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
49	m	117/119 (98%)	110 (94%)	7 (6%)	0	100	100
50	n	108/116 (93%)	99 (92%)	9 (8%)	0	100	100
51	o	113/115 (98%)	101 (89%)	12 (11%)	0	100	100
52	p	112/114 (98%)	108 (96%)	4 (4%)	0	100	100
53	q	97/99 (98%)	90 (93%)	7 (7%)	0	100	100
54	r	137/139 (99%)	134 (98%)	3 (2%)	0	100	100
55	s	90/92 (98%)	88 (98%)	2 (2%)	0	100	100
56	t	109/111 (98%)	104 (95%)	5 (5%)	0	100	100
57	u	84/86 (98%)	81 (96%)	3 (4%)	0	100	100
58	v	61/63 (97%)	59 (97%)	2 (3%)	0	100	100
59	w	96/108 (89%)	89 (93%)	7 (7%)	0	100	100
60	x	42/44 (96%)	35 (83%)	7 (17%)	0	100	100
61	y	54/56 (96%)	52 (96%)	2 (4%)	0	100	100
62	z	48/50 (96%)	47 (98%)	1 (2%)	0	100	100
All	All	9841/10021 (98%)	9376 (95%)	458 (5%)	7 (0%)	49	83

All (7) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
15	AF	95	ARG
9	9	582	LYS
37	Z	1035	GLY
35	U	106	MET
12	AC	3	ASN
12	AC	10	ASN
15	AF	17	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	0	40/40 (100%)	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
7	6	269/285 (94%)	262 (97%)	7 (3%)	40	62
7	AB	272/285 (95%)	265 (97%)	7 (3%)	40	62
9	9	1213/1213 (100%)	1188 (98%)	25 (2%)	47	65
10	A	212/212 (100%)	211 (100%)	1 (0%)	81	83
11	AA	83/83 (100%)	79 (95%)	4 (5%)	23	44
12	AC	327/327 (100%)	322 (98%)	5 (2%)	57	72
15	AF	140/140 (100%)	134 (96%)	6 (4%)	26	47
16	B	180/180 (100%)	180 (100%)	0	100	100
17	C	181/181 (100%)	181 (100%)	0	100	100
18	D	123/123 (100%)	123 (100%)	0	100	100
19	E	150/150 (100%)	150 (100%)	0	100	100
20	F	131/131 (100%)	131 (100%)	0	100	100
21	G	123/123 (100%)	123 (100%)	0	100	100
22	H	111/111 (100%)	111 (100%)	0	100	100
23	I	95/95 (100%)	95 (100%)	0	100	100
24	J	91/91 (100%)	91 (100%)	0	100	100
25	K	117/117 (100%)	114 (97%)	3 (3%)	40	62
26	L	100/100 (100%)	99 (99%)	1 (1%)	68	78
27	M	47/47 (100%)	47 (100%)	0	100	100
28	N	76/76 (100%)	76 (100%)	0	100	100
29	O	69/69 (100%)	69 (100%)	0	100	100
30	P	73/73 (100%)	73 (100%)	0	100	100
31	Q	56/56 (100%)	56 (100%)	0	100	100
32	R	74/74 (100%)	74 (100%)	0	100	100
33	S	70/70 (100%)	70 (100%)	0	100	100
34	T	49/49 (100%)	49 (100%)	0	100	100
35	U	129/129 (100%)	129 (100%)	0	100	100
36	V	26/26 (100%)	26 (100%)	0	100	100
36	W	26/26 (100%)	26 (100%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
36	X	26/26 (100%)	26 (100%)	0	100	100
36	Y	26/26 (100%)	26 (100%)	0	100	100
37	Z	1113/1113 (100%)	1100 (99%)	13 (1%)	63	75
38	a	241/241 (100%)	241 (100%)	0	100	100
39	b	186/186 (100%)	186 (100%)	0	100	100
40	c	182/182 (100%)	182 (100%)	0	100	100
41	d	150/150 (100%)	150 (100%)	0	100	100
42	e	153/153 (100%)	153 (100%)	0	100	100
43	f	123/131 (94%)	123 (100%)	0	100	100
44	h	102/102 (100%)	102 (100%)	0	100	100
45	i	126/126 (100%)	126 (100%)	0	100	100
46	j	103/103 (100%)	103 (100%)	0	100	100
47	k	123/123 (100%)	123 (100%)	0	100	100
48	l	113/113 (100%)	113 (100%)	0	100	100
49	m	105/105 (100%)	105 (100%)	0	100	100
50	n	96/99 (97%)	96 (100%)	0	100	100
51	o	101/101 (100%)	101 (100%)	0	100	100
52	p	100/100 (100%)	100 (100%)	0	100	100
53	q	90/90 (100%)	90 (100%)	0	100	100
54	r	116/116 (100%)	116 (100%)	0	100	100
55	s	82/82 (100%)	82 (100%)	0	100	100
56	t	96/96 (100%)	96 (100%)	0	100	100
57	u	69/69 (100%)	69 (100%)	0	100	100
58	v	58/58 (100%)	58 (100%)	0	100	100
59	w	87/95 (92%)	87 (100%)	0	100	100
60	x	41/41 (100%)	41 (100%)	0	100	100
61	y	48/48 (100%)	45 (94%)	3 (6%)	16	37
62	z	47/47 (100%)	47 (100%)	0	100	100
All	All	8642/8690 (99%)	8567 (99%)	75 (1%)	68	79

All (75) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
7	6	34	PHE
7	6	50	ILE
7	6	58	LEU
7	6	59	SER
7	6	106	LEU
7	6	208	HIS
7	6	297	LEU
9	9	135	LEU
9	9	187	LEU
9	9	204	ILE
9	9	258	VAL
9	9	265	LEU
9	9	284	THR
9	9	310	GLU
9	9	314	LEU
9	9	334	LEU
9	9	355	LEU
9	9	408	LEU
9	9	428	VAL
9	9	446	PHE
9	9	459	VAL
9	9	514	ILE
9	9	554	LEU
9	9	585	LEU
9	9	673	LEU
9	9	863	LEU
9	9	988	VAL
9	9	1037	ASP
9	9	1137	THR
9	9	1149	LEU
9	9	1179	LEU
9	9	1386	PHE
10	A	51	HIS
11	AA	5	TYR
11	AA	8	LEU
11	AA	10	SER
11	AA	57	LEU
7	AB	34	PHE
7	AB	50	ILE
7	AB	58	LEU
7	AB	59	SER
7	AB	106	LEU
7	AB	297	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	AB	319	HIS
12	AC	22	THR
12	AC	61	LEU
12	AC	121	LEU
12	AC	122	LEU
12	AC	181	LEU
15	AF	17	VAL
15	AF	19	ASP
15	AF	45	LEU
15	AF	62	LEU
15	AF	92	LEU
15	AF	141	LEU
25	K	120	VAL
25	K	121	GLU
25	K	122	LYS
26	L	91	HIS
37	Z	174	LEU
37	Z	192	ILE
37	Z	219	LEU
37	Z	268	SER
37	Z	281	LEU
37	Z	493	LEU
37	Z	757	LEU
37	Z	843	SER
37	Z	937	VAL
37	Z	1092	VAL
37	Z	1197	LEU
37	Z	1218	ILE
37	Z	1278	LEU
61	y	47	MET
61	y	48	TYR
61	y	52	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (121) such sidechains are listed below:

Mol	Chain	Res	Type
2	1	44	GLN
7	6	174	ASN
7	6	190	HIS
9	9	47	HIS
9	9	63	ASN
9	9	132	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	9	179	GLN
9	9	210	GLN
9	9	349	HIS
9	9	413	HIS
9	9	477	ASN
9	9	616	GLN
9	9	624	ASN
9	9	652	GLN
9	9	804	GLN
9	9	841	GLN
9	9	842	HIS
9	9	883	ASN
9	9	901	ASN
9	9	1033	ASN
9	9	1115	HIS
9	9	1140	ASN
9	9	1192	HIS
9	9	1223	HIS
9	9	1253	HIS
9	9	1273	GLN
9	9	1304	GLN
10	A	52	ASN
10	A	63	GLN
10	A	66	GLN
10	A	70	ASN
10	A	97	ASN
10	A	98	ASN
10	A	192	ASN
11	AA	54	GLN
7	AB	40	ASN
7	AB	86	GLN
7	AB	184	ASN
7	AB	287	HIS
7	AB	305	ASN
7	AB	319	HIS
12	AC	6	ASN
12	AC	7	HIS
12	AC	300	ASN
15	AF	113	ASN
16	B	6	ASN
16	B	47	ASN
16	B	193	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
18	D	190	ASN
18	D	193	HIS
19	E	17	GLN
19	E	36	GLN
20	F	85	GLN
21	G	56	ASN
22	H	77	GLN
23	I	74	ASN
25	K	59	ASN
25	K	86	ASN
25	K	88	GLN
26	L	40	ASN
28	N	13	GLN
28	N	25	GLN
28	N	39	HIS
30	P	5	GLN
31	Q	82	HIS
32	R	47	ASN
33	S	20	ASN
33	S	43	ASN
33	S	46	ASN
34	T	8	ASN
35	U	16	HIS
35	U	57	ASN
37	Z	137	GLN
37	Z	143	ASN
37	Z	296	ASN
37	Z	314	GLN
37	Z	355	ASN
37	Z	374	HIS
37	Z	402	ASN
37	Z	500	HIS
37	Z	820	ASN
37	Z	906	HIS
37	Z	968	GLN
37	Z	1018	GLN
37	Z	1082	ASN
37	Z	1190	HIS
37	Z	1192	HIS
37	Z	1213	ASN
38	a	62	ASN
38	a	159	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	a	209	ASN
39	b	178	ASN
40	c	104	ASN
40	c	108	HIS
41	d	7	HIS
42	e	6	ASN
42	e	54	GLN
42	e	63	GLN
42	e	68	HIS
42	e	72	ASN
45	i	61	ASN
45	i	138	GLN
47	k	36	GLN
48	l	14	ASN
48	l	113	GLN
49	m	59	ASN
49	m	117	GLN
50	n	75	GLN
52	p	85	HIS
53	q	69	ASN
54	r	52	ASN
54	r	94	ASN
55	s	5	ASN
55	s	19	ASN
56	t	33	GLN
56	t	64	GLN
57	u	64	ASN
58	v	6	GLN
58	v	16	ASN
61	y	19	HIS
62	z	18	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
4	3	2875/2878 (99%)	733 (25%)	25 (0%)
5	4	103/105 (98%)	34 (33%)	5 (4%)
6	5	1490/1493 (99%)	349 (23%)	6 (0%)
8	7	75/76 (98%)	25 (33%)	2 (2%)
All	All	4543/4552 (99%)	1141 (25%)	38 (0%)

All (1141) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
4	3	12	A
4	3	14	U
4	3	15	A
4	3	17	G
4	3	29	G
4	3	37	G
4	3	47	G
4	3	48	G
4	3	51	A
4	3	53	G
4	3	54	A
4	3	63	U
4	3	65	A
4	3	73	A
4	3	75	A
4	3	76	A
4	3	77	G
4	3	82	G
4	3	86	A
4	3	92	U
4	3	102	A
4	3	103	G
4	3	112	A
4	3	115	U
4	3	116	C
4	3	119	A
4	3	120	A
4	3	121	U
4	3	122	G
4	3	126	C
4	3	129	U
4	3	132	G
4	3	141	A
4	3	143	A
4	3	148	U
4	3	165	U
4	3	178	A
4	3	180	A
4	3	184	A
4	3	185	U
4	3	186	A
4	3	187	C
4	3	188	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	200	A
4	3	208	A
4	3	219	G
4	3	220	A
4	3	226	A
4	3	230	G
4	3	232	A
4	3	234	G
4	3	237	A
4	3	245	U
4	3	246	G
4	3	252	G
4	3	254	G
4	3	256	G
4	3	269	A
4	3	270	G
4	3	276	A
4	3	284	U
4	3	287	G
4	3	295	U
4	3	296	U
4	3	297	G
4	3	298	U
4	3	299	A
4	3	309	A
4	3	310	U
4	3	312	U
4	3	314	G
4	3	315	A
4	3	319	G
4	3	325	G
4	3	334	A
4	3	336	C
4	3	341	G
4	3	345	A
4	3	346	G
4	3	347	C
4	3	351	G
4	3	357	A
4	3	358	A
4	3	363	G
4	3	364	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	367	G
4	3	369	C
4	3	374	A
4	3	380	A
4	3	401	G
4	3	402	A
4	3	403	U
4	3	404	C
4	3	409	A
4	3	410	G
4	3	411	U
4	3	422	A
4	3	425	U
4	3	426	U
4	3	432	G
4	3	437	A
4	3	439	U
4	3	440	C
4	3	441	U
4	3	447	G
4	3	448	A
4	3	449	C
4	3	457	U
4	3	460	G
4	3	464	A
4	3	465	A
4	3	466	A
4	3	467	U
4	3	480	C
4	3	482	G
4	3	484	U
4	3	485	A
4	3	487	C
4	3	491	A
4	3	492	C
4	3	495	U
4	3	500	U
4	3	501	G
4	3	509	G
4	3	514	A
4	3	515	A
4	3	516	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	517	G
4	3	519	A
4	3	527	A
4	3	540	A
4	3	543	U
4	3	544	U
4	3	545	C
4	3	565	C
4	3	566	G
4	3	567	U
4	3	581	A
4	3	582	A
4	3	583	U
4	3	595	U
4	3	596	G
4	3	599	U
4	3	601	U
4	3	605	A
4	3	606	G
4	3	607	U
4	3	608	A
4	3	610	G
4	3	616	G
4	3	620	G
4	3	623	A
4	3	636	U
4	3	637	U
4	3	638	A
4	3	663	A
4	3	668	A
4	3	670	G
4	3	673	A
4	3	681	A
4	3	682	A
4	3	689	U
4	3	690	U
4	3	691	G
4	3	694	U
4	3	695	G
4	3	701	A
4	3	702	U
4	3	705	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	706	C
4	3	712	A
4	3	721	G
4	3	722	C
4	3	730	G
4	3	737	U
4	3	740	A
4	3	752	C
4	3	761	G
4	3	763	G
4	3	764	G
4	3	765	A
4	3	769	A
4	3	775	C
4	3	782	U
4	3	790	U
4	3	792	G
4	3	798	G
4	3	799	A
4	3	800	C
4	3	801	U
4	3	810	G
4	3	811	G
4	3	815	G
4	3	816	A
4	3	817	A
4	3	819	U
4	3	820	U
4	3	824	A
4	3	825	U
4	3	827	G
4	3	828	A
4	3	829	A
4	3	840	G
4	3	841	C
4	3	846	U
4	3	847	C
4	3	850	G
4	3	854	A
4	3	855	A
4	3	862	U
4	3	863	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	865	A
4	3	873	G
4	3	881	A
4	3	882	C
4	3	883	A
4	3	893	A
4	3	895	G
4	3	902	U
4	3	903	A
4	3	904	C
4	3	906	G
4	3	917	G
4	3	918	G
4	3	931	G
4	3	932	U
4	3	944	U
4	3	947	A
4	3	949	C
4	3	951	C
4	3	977	A
4	3	980	C
4	3	981	A
4	3	982	G
4	3	989	G
4	3	991	G
4	3	993	A
4	3	995	A
4	3	997	G
4	3	1009	A
4	3	1013	G
4	3	1016	A
4	3	1019	A
4	3	1021	C
4	3	1022	C
4	3	1024	A
4	3	1026	A
4	3	1027	U
4	3	1032	A
4	3	1042	C
4	3	1044	C
4	3	1045	A
4	3	1049	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	1055	A
4	3	1061	A
4	3	1068	U
4	3	1075	G
4	3	1080	A
4	3	1081	A
4	3	1083	A
4	3	1092	A
4	3	1095	U
4	3	1096	U
4	3	1100	U
4	3	1102	A
4	3	1105	A
4	3	1106	G
4	3	1113	U
4	3	1124	G
4	3	1125	U
4	3	1129	U
4	3	1140	U
4	3	1145	G
4	3	1147	G
4	3	1150	U
4	3	1151	U
4	3	1155	G
4	3	1157	G
4	3	1162	A
4	3	1165	U
4	3	1167	U
4	3	1168	A
4	3	1169	A
4	3	1170	C
4	3	1171	G
4	3	1176	U
4	3	1177	A
4	3	1178	A
4	3	1184	U
4	3	1186	A
4	3	1203	G
4	3	1204	A
4	3	1208	A
4	3	1209	U
4	3	1210	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	1212	C
4	3	1215	G
4	3	1217	G
4	3	1222	A
4	3	1226	G
4	3	1234	U
4	3	1236	G
4	3	1248	A
4	3	1250	A
4	3	1251	G
4	3	1252	C
4	3	1255	G
4	3	1256	A
4	3	1257	G
4	3	1259	A
4	3	1266	G
4	3	1268	U
4	3	1278	G
4	3	1279	U
4	3	1280	G
4	3	1281	A
4	3	1283	A
4	3	1285	U
4	3	1286	G
4	3	1292	A
4	3	1293	U
4	3	1301	G
4	3	1302	C
4	3	1303	U
4	3	1304	U
4	3	1322	A
4	3	1323	A
4	3	1326	C
4	3	1328	A
4	3	1329	U
4	3	1341	U
4	3	1342	C
4	3	1343	C
4	3	1349	C
4	3	1353	G
4	3	1360	U
4	3	1361	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	1369	U
4	3	1370	A
4	3	1371	G
4	3	1372	U
4	3	1378	C
4	3	1393	A
4	3	1396	A
4	3	1400	U
4	3	1406	A
4	3	1412	A
4	3	1414	C
4	3	1423	A
4	3	1424	U
4	3	1425	U
4	3	1426	C
4	3	1431	A
4	3	1436	C
4	3	1444	C
4	3	1445	U
4	3	1448	U
4	3	1455	A
4	3	1456	C
4	3	1462	A
4	3	1463	G
4	3	1466	U
4	3	1467	U
4	3	1480	A
4	3	1481	U
4	3	1483	G
4	3	1487	U
4	3	1508	G
4	3	1510	A
4	3	1513	A
4	3	1515	A
4	3	1518	C
4	3	1519	A
4	3	1528	G
4	3	1534	A
4	3	1541	A
4	3	1546	U
4	3	1548	A
4	3	1549	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	1550	G
4	3	1558	A
4	3	1559	A
4	3	1571	G
4	3	1572	U
4	3	1577	A
4	3	1580	G
4	3	1583	G
4	3	1584	U
4	3	1585	A
4	3	1589	A
4	3	1592	A
4	3	1603	A
4	3	1612	U
4	3	1615	G
4	3	1616	G
4	3	1618	U
4	3	1619	A
4	3	1632	C
4	3	1641	A
4	3	1642	G
4	3	1643	A
4	3	1644	A
4	3	1647	A
4	3	1648	A
4	3	1651	C
4	3	1659	C
4	3	1669	A
4	3	1670	U
4	3	1681	G
4	3	1682	C
4	3	1694	A
4	3	1695	G
4	3	1697	C
4	3	1698	A
4	3	1699	A
4	3	1702	A
4	3	1706	C
4	3	1707	U
4	3	1708	G
4	3	1727	U
4	3	1732	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	1733	G
4	3	1737	G
4	3	1747	G
4	3	1748	U
4	3	1761	C
4	3	1763	G
4	3	1764	U
4	3	1769	A
4	3	1770	A
4	3	1771	C
4	3	1772	G
4	3	1780	A
4	3	1785	U
4	3	1788	A
4	3	1790	U
4	3	1791	A
4	3	1794	A
4	3	1807	C
4	3	1808	C
4	3	1815	U
4	3	1816	A
4	3	1821	G
4	3	1822	A
4	3	1823	U
4	3	1824	G
4	3	1827	U
4	3	1836	A
4	3	1837	C
4	3	1842	G
4	3	1844	C
4	3	1854	A
4	3	1855	A
4	3	1857	G
4	3	1876	G
4	3	1891	A
4	3	1906	G
4	3	1907	A
4	3	1910	G
4	3	1913	G
4	3	1920	A
4	3	1921	C
4	3	1934	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	1936	G
4	3	1937	G
4	3	1938	U
4	3	1943	A
4	3	1944	A
4	3	1945	A
4	3	1947	U
4	3	1948	C
4	3	1951	A
4	3	1956	G
4	3	1960	A
4	3	1962	U
4	3	1971	G
4	3	1977	A
4	3	1978	U
4	3	1979	G
4	3	1988	A
4	3	1998	U
4	3	1999	G
4	3	2000	U
4	3	2007	U
4	3	2010	A
4	3	2011	G
4	3	2020	A
4	3	2022	A
4	3	2025	C
4	3	2028	G
4	3	2030	A
4	3	2037	A
4	3	2038	A
4	3	2040	A
4	3	2041	C
4	3	2043	C
4	3	2050	G
4	3	2057	C
4	3	2058	G
4	3	2062	C
4	3	2063	G
4	3	2067	A
4	3	2068	G
4	3	2069	A
4	3	2070	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	2076	G
4	3	2080	C
4	3	2083	U
4	3	2084	A
4	3	2087	G
4	3	2099	U
4	3	2100	G
4	3	2106	G
4	3	2107	A
4	3	2110	U
4	3	2111	U
4	3	2112	A
4	3	2114	C
4	3	2118	U
4	3	2123	A
4	3	2124	A
4	3	2126	A
4	3	2127	G
4	3	2128	G
4	3	2131	G
4	3	2132	G
4	3	2133	A
4	3	2138	U
4	3	2140	G
4	3	2151	G
4	3	2157	A
4	3	2164	G
4	3	2166	U
4	3	2171	A
4	3	2172	A
4	3	2180	U
4	3	2181	A
4	3	2184	A
4	3	2189	U
4	3	2192	U
4	3	2193	U
4	3	2195	U
4	3	2196	G
4	3	2197	U
4	3	2198	G
4	3	2199	C
4	3	2200	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	2201	G
4	3	2202	U
4	3	2206	A
4	3	2211	G
4	3	2212	U
4	3	2219	U
4	3	2220	A
4	3	2222	C
4	3	2231	A
4	3	2233	A
4	3	2246	G
4	3	2247	G
4	3	2257	U
4	3	2258	G
4	3	2274	A
4	3	2276	A
4	3	2277	A
4	3	2287	G
4	3	2288	G
4	3	2291	U
4	3	2294	A
4	3	2295	A
4	3	2296	A
4	3	2297	G
4	3	2305	C
4	3	2313	U
4	3	2316	G
4	3	2317	A
4	3	2319	A
4	3	2327	U
4	3	2328	A
4	3	2330	A
4	3	2332	U
4	3	2333	G
4	3	2341	G
4	3	2342	U
4	3	2343	A
4	3	2344	A
4	3	2345	G
4	3	2351	U
4	3	2353	G
4	3	2355	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	2358	U
4	3	2362	A
4	3	2391	G
4	3	2393	C
4	3	2397	G
4	3	2410	C
4	3	2411	C
4	3	2414	U
4	3	2415	A
4	3	2417	G
4	3	2430	C
4	3	2433	A
4	3	2434	A
4	3	2435	C
4	3	2436	G
4	3	2437	G
4	3	2438	A
4	3	2442	A
4	3	2443	A
4	3	2447	A
4	3	2448	C
4	3	2449	U
4	3	2455	G
4	3	2477	A
4	3	2483	C
4	3	2484	A
4	3	2486	A
4	3	2488	C
4	3	2489	G
4	3	2492	G
4	3	2497	U
4	3	2498	G
4	3	2499	U
4	3	2500	U
4	3	2503	G
4	3	2505	A
4	3	2506	C
4	3	2507	C
4	3	2509	C
4	3	2511	A
4	3	2512	U
4	3	2513	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	2514	U
4	3	2515	C
4	3	2516	G
4	3	2526	A
4	3	2527	U
4	3	2528	C
4	3	2539	A
4	3	2543	G
4	3	2558	G
4	3	2560	U
4	3	2570	U
4	3	2574	A
4	3	2577	G
4	3	2580	A
4	3	2581	C
4	3	2587	U
4	3	2590	G
4	3	2593	U
4	3	2594	C
4	3	2595	A
4	3	2596	A
4	3	2597	A
4	3	2605	G
4	3	2606	A
4	3	2610	A
4	3	2611	G
4	3	2618	C
4	3	2619	C
4	3	2621	U
4	3	2622	A
4	3	2623	U
4	3	2629	G
4	3	2631	G
4	3	2637	A
4	3	2638	G
4	3	2642	G
4	3	2644	U
4	3	2647	A
4	3	2649	G
4	3	2653	G
4	3	2654	U
4	3	2655	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	2664	U
4	3	2668	A
4	3	2669	G
4	3	2675	C
4	3	2689	C
4	3	2693	U
4	3	2694	A
4	3	2697	C
4	3	2698	U
4	3	2703	U
4	3	2708	G
4	3	2715	C
4	3	2722	G
4	3	2732	A
4	3	2734	C
4	3	2737	G
4	3	2738	U
4	3	2741	A
4	3	2747	U
4	3	2752	G
4	3	2756	A
4	3	2761	A
4	3	2765	A
4	3	2772	A
4	3	2773	A
4	3	2774	A
4	3	2786	A
4	3	2788	U
4	3	2799	U
4	3	2800	U
4	3	2801	U
4	3	2804	C
4	3	2806	A
4	3	2809	A
4	3	2811	G
4	3	2812	U
4	3	2813	A
4	3	2814	A
4	3	2815	G
4	3	2822	C
4	3	2824	A
4	3	2828	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	3	2837	U
4	3	2839	A
4	3	2853	U
4	3	2854	A
4	3	2856	G
4	3	2863	G
4	3	2870	U
4	3	2871	G
4	3	2872	A
4	3	2876	G
4	3	2884	C
4	3	2888	U
4	3	2889	U
4	3	2890	G
4	3	2895	A
4	3	2897	G
4	3	2898	A
4	3	2899	C
5	4	9	C
5	4	10	C
5	4	11	A
5	4	13	G
5	4	14	U
5	4	15	C
5	4	16	G
5	4	23	A
5	4	25	A
5	4	28	C
5	4	33	U
5	4	38	U
5	4	39	U
5	4	40	U
5	4	41	C
5	4	42	G
5	4	48	A
5	4	49	G
5	4	50	C
5	4	51	A
5	4	54	U
5	4	55	A
5	4	60	C
5	4	71	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	4	74	G
5	4	77	G
5	4	78	C
5	4	88	G
5	4	89	A
5	4	98	A
5	4	99	A
5	4	103	C
5	4	106	A
5	4	108	C
6	5	6	C
6	5	8	G
6	5	9	A
6	5	10	G
6	5	33	A
6	5	40	G
6	5	48	C
6	5	49	C
6	5	52	A
6	5	55	C
6	5	56	A
6	5	58	G
6	5	67	U
6	5	85	U
6	5	86	A
6	5	94	A
6	5	95	C
6	5	100	G
6	5	101	A
6	5	103	U
6	5	105	A
6	5	106	C
6	5	107	A
6	5	111	A
6	5	114	C
6	5	115	A
6	5	116	A
6	5	117	U
6	5	120	A
6	5	128	A
6	5	129	U
6	5	130	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	5	134	G
6	5	136	U
6	5	145	G
6	5	147	A
6	5	149	G
6	5	159	U
6	5	167	A
6	5	168	A
6	5	169	G
6	5	179	U
6	5	186	A
6	5	190	A
6	5	197	A
6	5	198	A
6	5	200	G
6	5	218	U
6	5	219	A
6	5	220	U
6	5	230	G
6	5	236	C
6	5	239	A
6	5	241	C
6	5	242	A
6	5	243	G
6	5	247	G
6	5	259	A
6	5	260	C
6	5	262	G
6	5	263	C
6	5	270	A
6	5	285	G
6	5	286	C
6	5	294	A
6	5	295	G
6	5	302	A
6	5	311	A
6	5	323	A
6	5	324	C
6	5	325	A
6	5	326	C
6	5	328	G
6	5	340	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	5	341	C
6	5	342	G
6	5	344	G
6	5	345	A
6	5	348	C
6	5	349	A
6	5	350	G
6	5	352	A
6	5	359	A
6	5	363	U
6	5	364	U
6	5	368	C
6	5	373	A
6	5	377	A
6	5	381	C
6	5	384	G
6	5	385	A
6	5	386	U
6	5	393	A
6	5	394	U
6	5	402	G
6	5	409	G
6	5	410	A
6	5	412	G
6	5	417	U
6	5	418	U
6	5	420	A
6	5	423	U
6	5	425	G
6	5	426	U
6	5	432	U
6	5	436	U
6	5	440	U
6	5	445	A
6	5	446	A
6	5	449	A
6	5	451	G
6	5	452	A
6	5	453	C
6	5	456	U
6	5	457	A
6	5	461	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	5	464	A
6	5	471	A
6	5	473	A
6	5	476	U
6	5	477	U
6	5	478	G
6	5	481	U
6	5	482	G
6	5	488	U
6	5	493	A
6	5	504	A
6	5	507	A
6	5	509	C
6	5	510	U
6	5	515	G
6	5	516	C
6	5	517	C
6	5	524	C
6	5	525	G
6	5	527	G
6	5	529	U
6	5	530	A
6	5	531	A
6	5	543	C
6	5	545	A
6	5	548	G
6	5	557	A
6	5	558	U
6	5	560	U
6	5	562	U
6	5	569	U
6	5	570	A
6	5	571	A
6	5	574	C
6	5	575	A
6	5	585	G
6	5	586	G
6	5	594	A
6	5	595	G
6	5	608	G
6	5	616	C
6	5	619	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	5	628	A
6	5	638	A
6	5	639	A
6	5	646	A
6	5	650	A
6	5	653	G
6	5	662	G
6	5	663	G
6	5	683	G
6	5	684	A
6	5	699	A
6	5	700	G
6	5	715	A
6	5	716	C
6	5	718	A
6	5	719	G
6	5	720	U
6	5	721	G
6	5	726	A
6	5	729	C
6	5	744	U
6	5	745	U
6	5	746	A
6	5	752	G
6	5	753	C
6	5	763	A
6	5	791	A
6	5	793	C
6	5	796	A
6	5	802	C
6	5	809	G
6	5	811	A
6	5	812	A
6	5	814	C
6	5	815	G
6	5	818	A
6	5	825	A
6	5	826	G
6	5	829	G
6	5	836	C
6	5	849	A
6	5	858	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	5	864	U
6	5	866	A
6	5	867	A
6	5	870	A
6	5	875	G
6	5	879	G
6	5	883	A
6	5	885	U
6	5	895	A
6	5	907	A
6	5	908	A
6	5	910	C
6	5	911	G
6	5	921	G
6	5	922	G
6	5	929	C
6	5	930	A
6	5	934	G
6	5	953	A
6	5	954	A
6	5	955	U
6	5	956	U
6	5	958	G
6	5	964	A
6	5	966	A
6	5	970	A
6	5	971	A
6	5	972	A
6	5	973	A
6	5	978	A
6	5	984	A
6	5	987	U
6	5	988	G
6	5	1000	A
6	5	1001	A
6	5	1003	G
6	5	1010	A
6	5	1011	A
6	5	1013	C
6	5	1014	A
6	5	1015	U
6	5	1016	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	5	1033	U
6	5	1037	A
6	5	1044	G
6	5	1045	C
6	5	1046	A
6	5	1047	U
6	5	1056	U
6	5	1057	C
6	5	1072	G
6	5	1074	U
6	5	1075	G
6	5	1076	U
6	5	1085	G
6	5	1086	U
6	5	1092	A
6	5	1101	A
6	5	1107	U
6	5	1109	U
6	5	1113	U
6	5	1119	C
6	5	1120	A
6	5	1121	U
6	5	1122	U
6	5	1123	G
6	5	1124	U
6	5	1128	G
6	5	1133	A
6	5	1134	C
6	5	1135	U
6	5	1141	U
6	5	1144	A
6	5	1154	A
6	5	1155	A
6	5	1158	A
6	5	1159	A
6	5	1163	A
6	5	1171	A
6	5	1172	A
6	5	1173	A
6	5	1187	U
6	5	1188	A
6	5	1189	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	5	1199	U
6	5	1200	G
6	5	1201	C
6	5	1211	A
6	5	1215	U
6	5	1223	A
6	5	1225	A
6	5	1235	C
6	5	1243	A
6	5	1245	A
6	5	1254	A
6	5	1255	A
6	5	1260	U
6	5	1261	A
6	5	1271	U
6	5	1272	C
6	5	1273	A
6	5	1274	G
6	5	1276	U
6	5	1279	G
6	5	1291	C
6	5	1296	C
6	5	1297	G
6	5	1298	U
6	5	1312	G
6	5	1319	U
6	5	1320	A
6	5	1323	A
6	5	1333	C
6	5	1335	G
6	5	1337	U
6	5	1338	A
6	5	1339	U
6	5	1340	G
6	5	1343	G
6	5	1344	C
6	5	1353	C
6	5	1354	G
6	5	1356	U
6	5	1359	C
6	5	1373	A
6	5	1374	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	5	1381	U
6	5	1394	G
6	5	1400	A
6	5	1404	U
6	5	1408	A
6	5	1415	G
6	5	1417	U
6	5	1421	A
6	5	1427	U
6	5	1429	G
6	5	1430	G
6	5	1457	G
6	5	1466	U
6	5	1467	A
6	5	1468	A
6	5	1471	C
6	5	1474	A
6	5	1480	G
6	5	1481	U
6	5	1490	G
6	5	1496	G
6	5	1504	G
6	5	1505	G
8	7	3	G
8	7	9	U
8	7	11	G
8	7	16	G
8	7	17	U
8	7	18	C
8	7	19	G
8	7	20	G
8	7	21	U
8	7	22	A
8	7	38	G
8	7	42	C
8	7	44	U
8	7	48	U
8	7	49	C
8	7	53	A
8	7	54	G
8	7	57	C
8	7	58	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	7	59	A
8	7	60	U
8	7	63	U
8	7	71	A
8	7	72	C
8	7	76	C

All (38) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
4	3	309	A
4	3	410	G
4	3	425	U
4	3	500	U
4	3	513	A
4	3	688	U
4	3	881	A
4	3	996	A
4	3	1048	A
4	3	1082	A
4	3	1209	U
4	3	1255	G
4	3	1327	G
4	3	1583	G
4	3	1588	A
4	3	1820	U
4	3	1920	A
4	3	2180	U
4	3	2504	C
4	3	2506	C
4	3	2513	G
4	3	2604	U
4	3	2668	A
4	3	2764	U
4	3	2897	G
5	4	10	C
5	4	50	C
5	4	54	U
5	4	59	A
5	4	70	G
6	5	294	A
6	5	417	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	5	448	A
6	5	1075	G
6	5	1123	G
6	5	1373	A
8	7	16	G
8	7	19	G

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
12	AC	3
14	AE	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AC	292:GLU	C	293:ASP	N	8.91
1	AC	143:VAL	C	144:GLY	N	6.10
1	AC	215:ASP	C	216:SER	N	3.12
1	AE	22:DA	O3'	23:DC	P	1.38

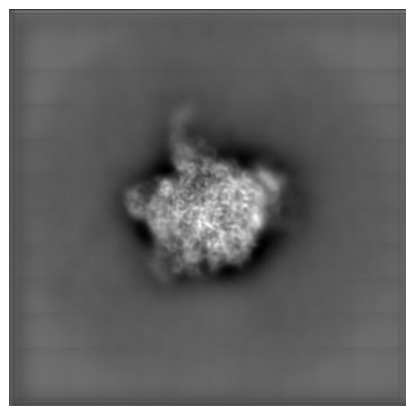
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-53671. These allow visual inspection of the internal detail of the map and identification of artifacts.

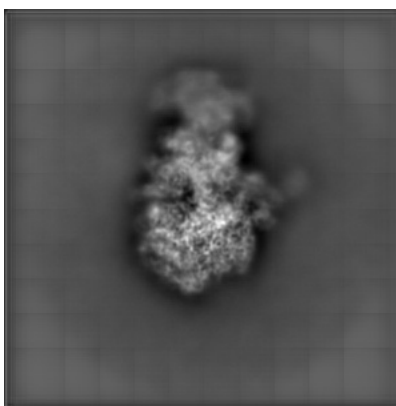
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

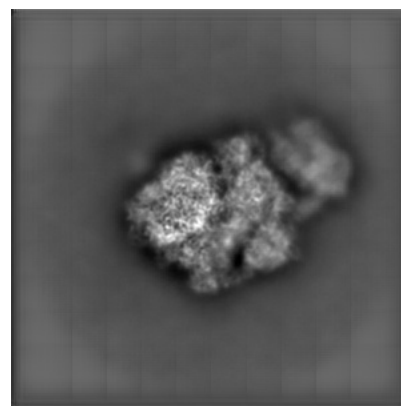
6.1.1 Primary map



X

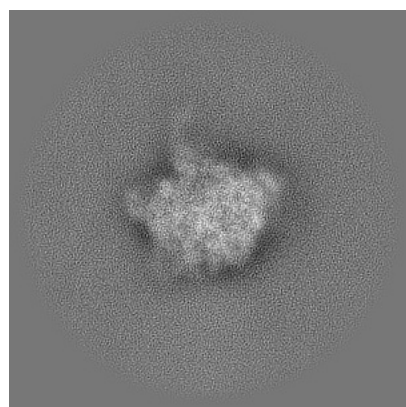


Y

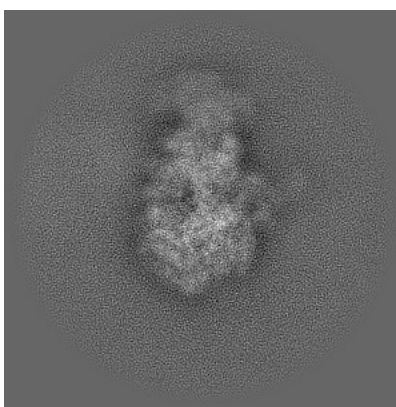


Z

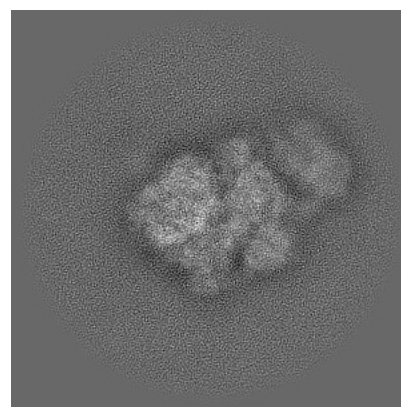
6.1.2 Raw map



X



Y

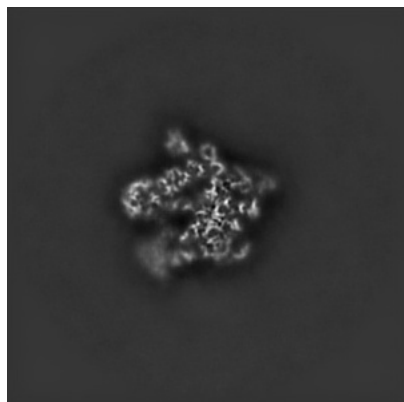


Z

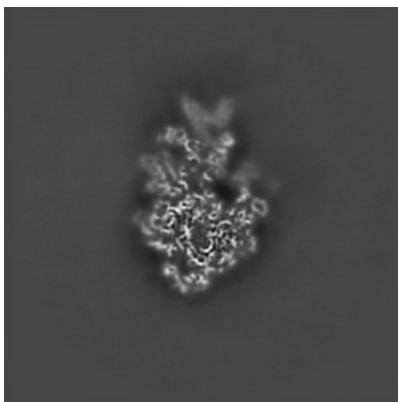
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

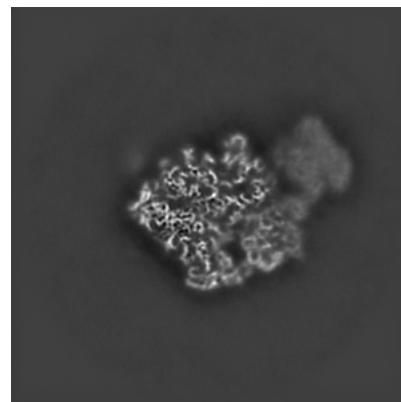
6.2.1 Primary map



X Index: 150

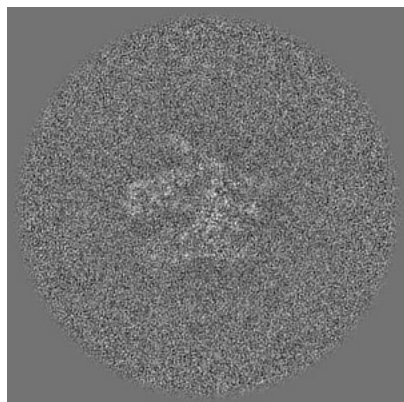


Y Index: 150

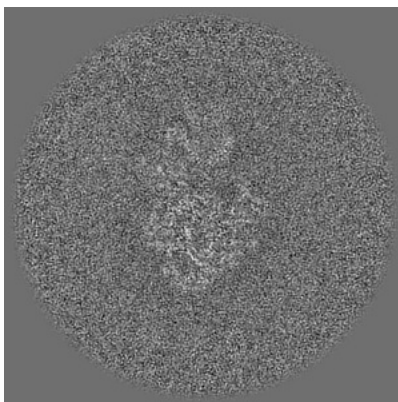


Z Index: 150

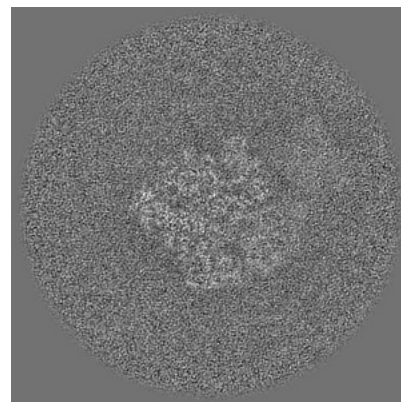
6.2.2 Raw map



X Index: 150



Y Index: 150

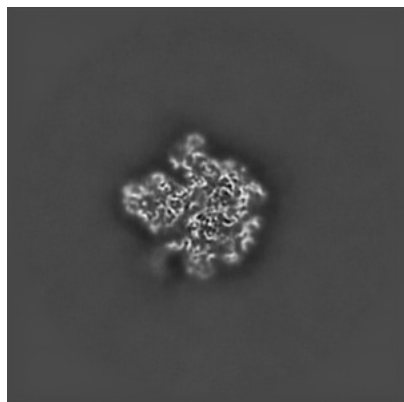


Z Index: 150

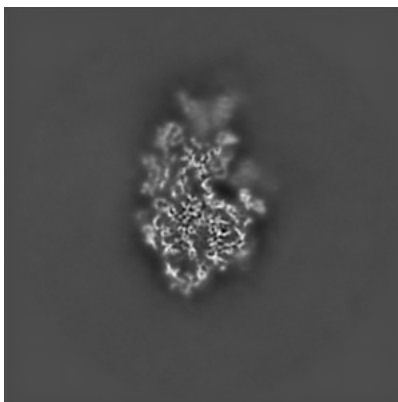
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

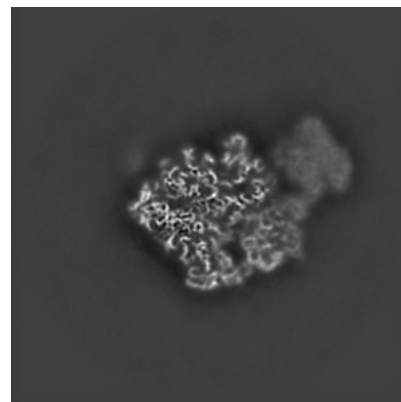
6.3.1 Primary map



X Index: 140

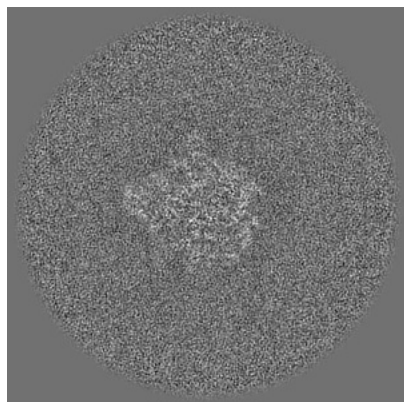


Y Index: 154

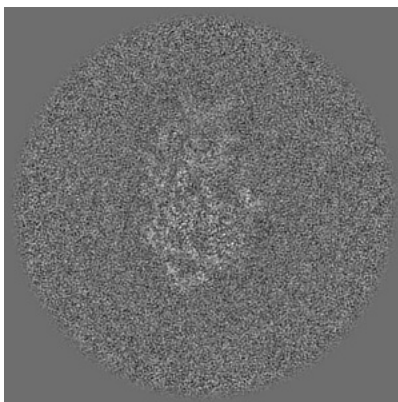


Z Index: 150

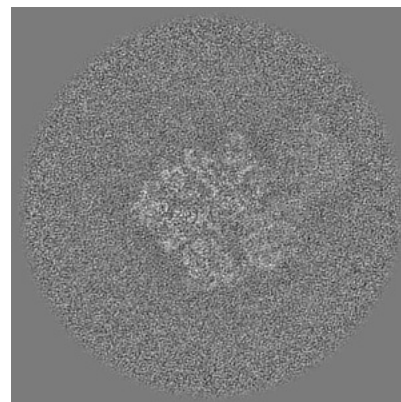
6.3.2 Raw map



X Index: 140



Y Index: 153

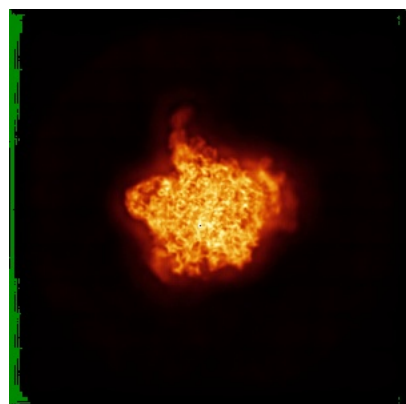


Z Index: 151

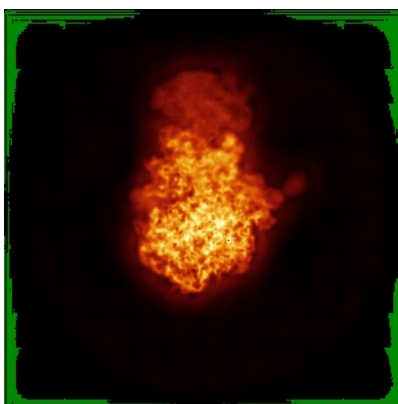
The images above show the largest variance slices of the map in three orthogonal directions.

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

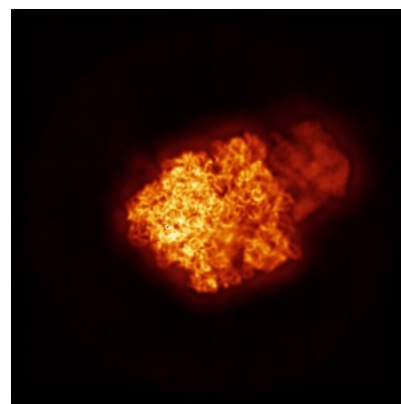
6.4.1 Primary map



X

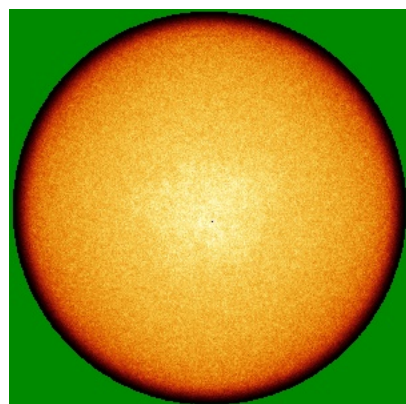


Y

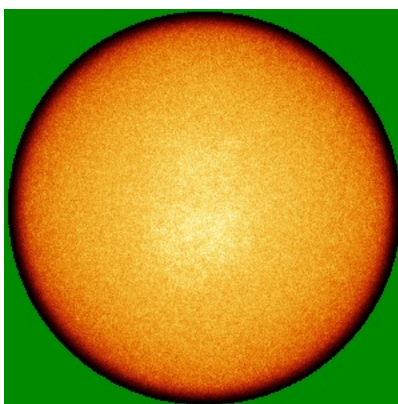


Z

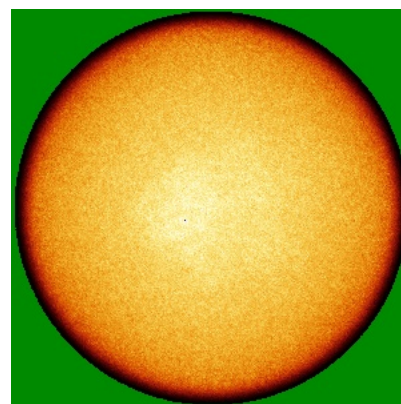
6.4.2 Raw map



X



Y

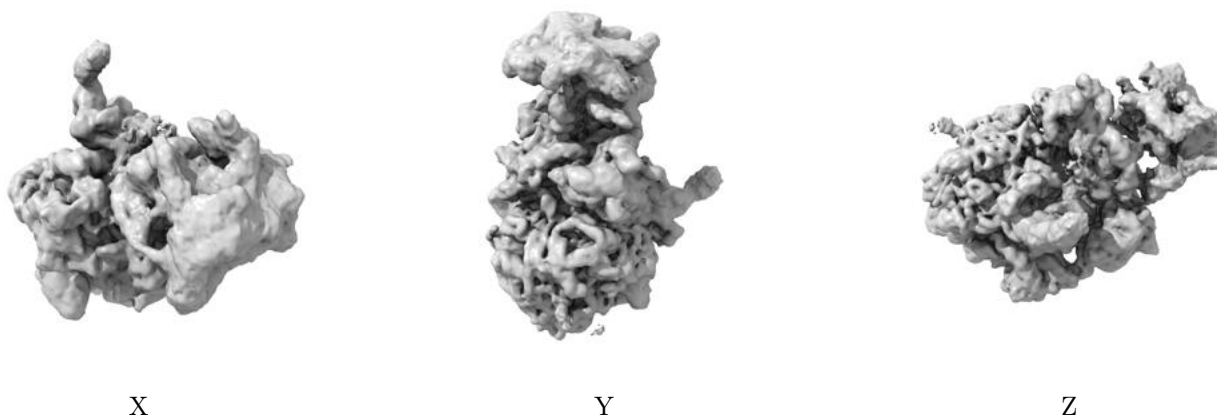


Z

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.

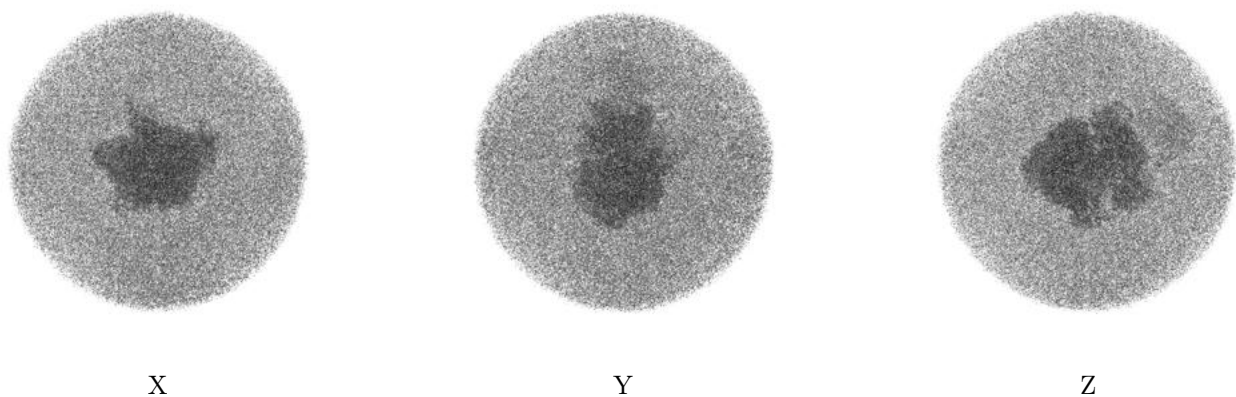
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.00157. 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



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.

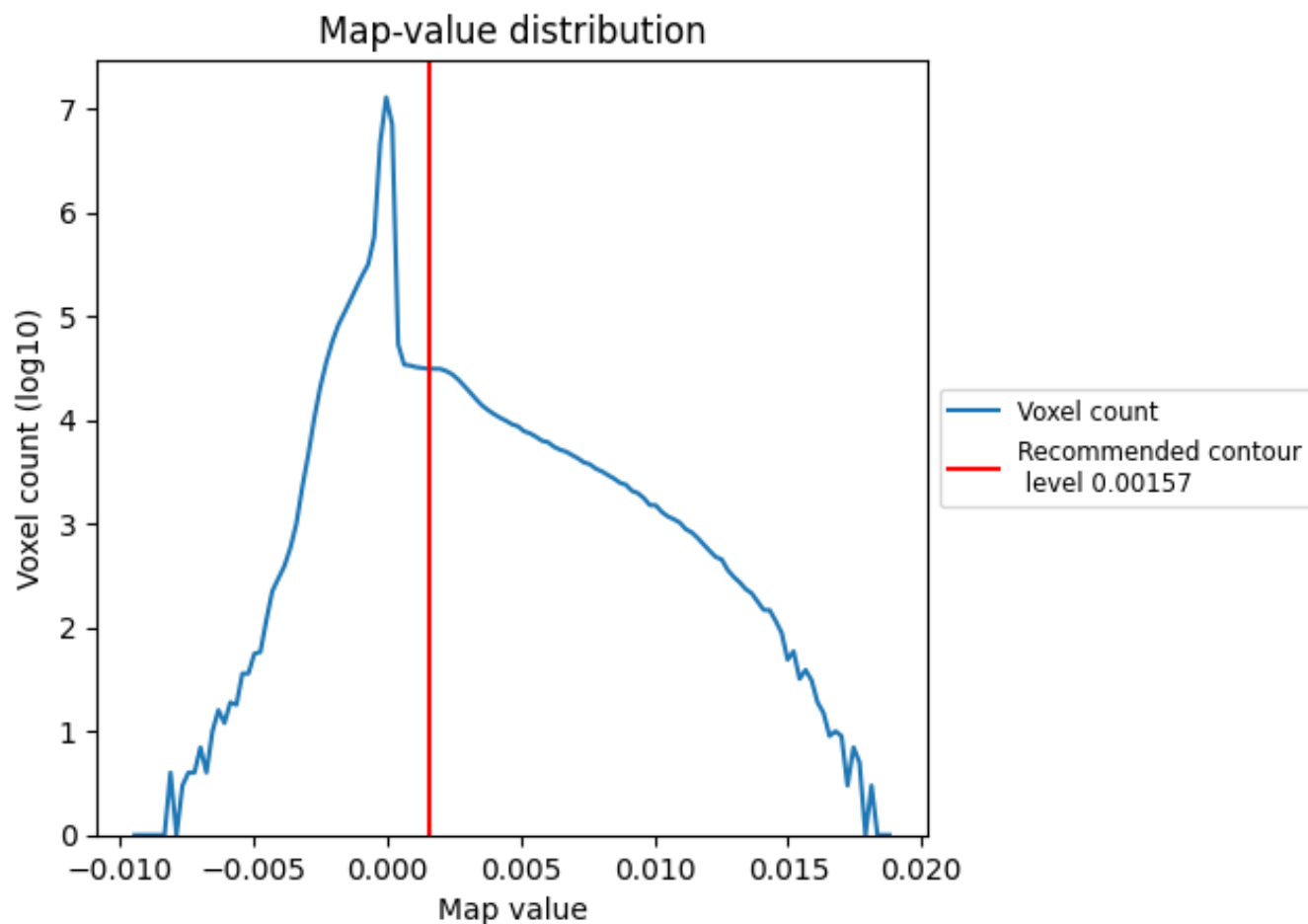
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

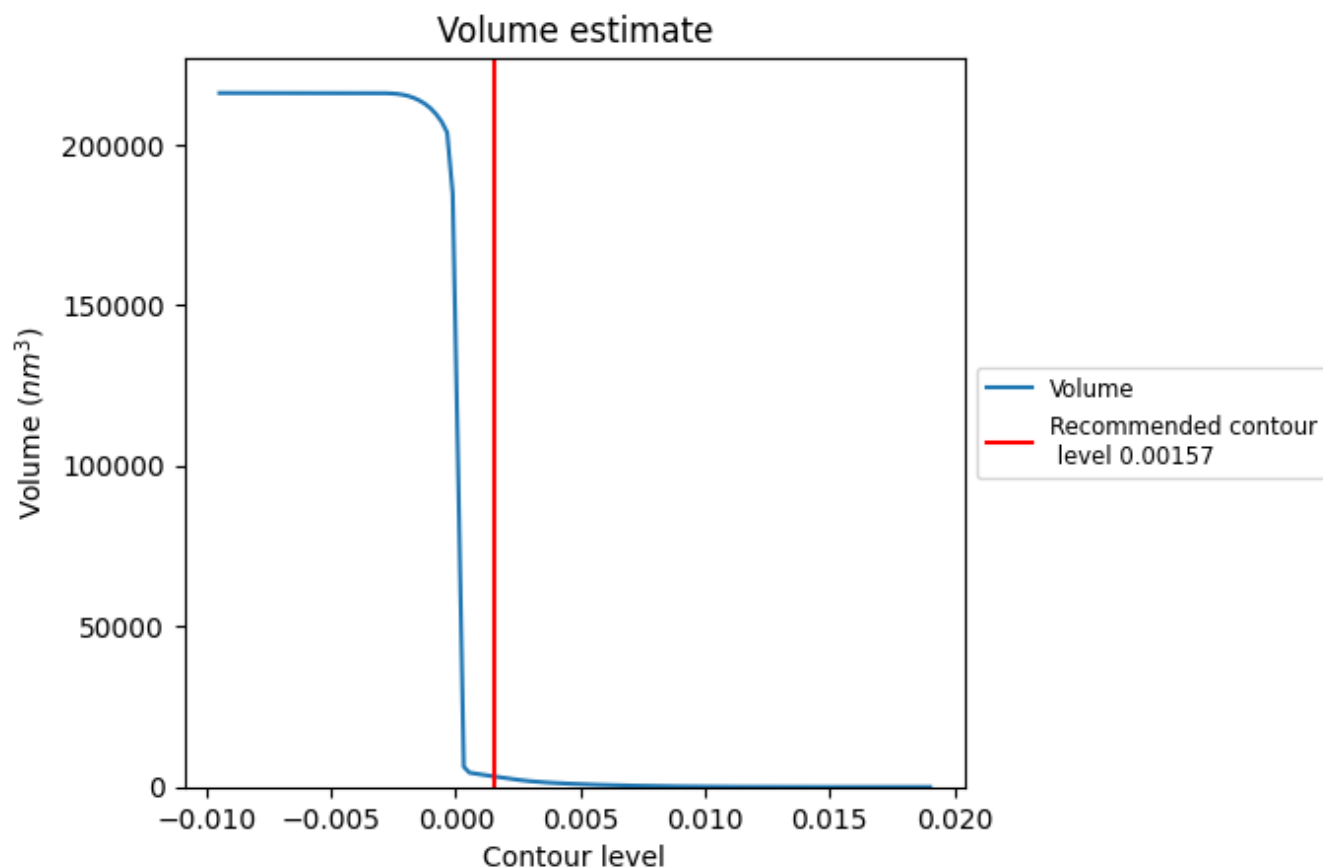
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

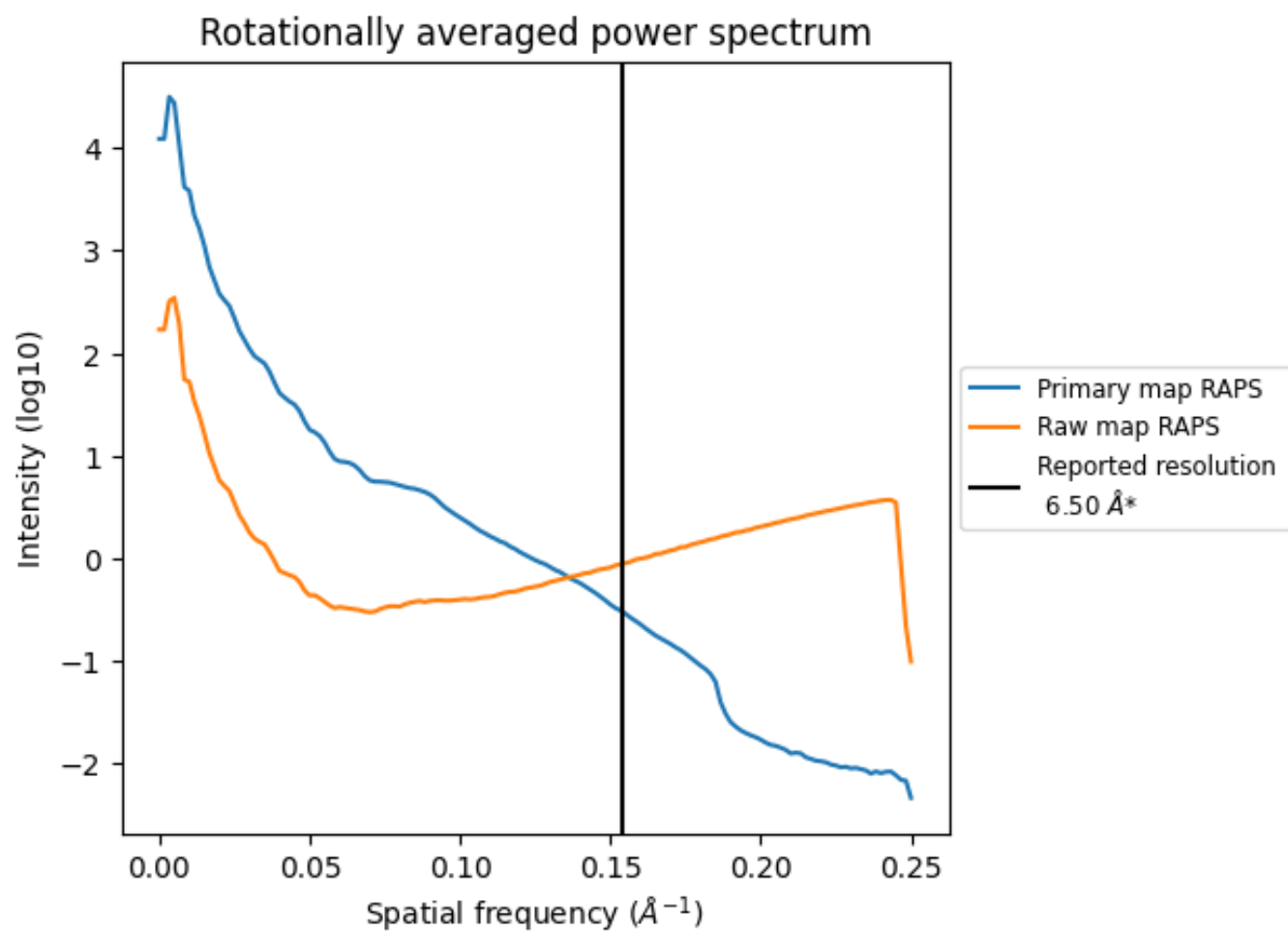
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 3244 nm^3 ; this corresponds to an approximate mass of 2931 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 ⓘ

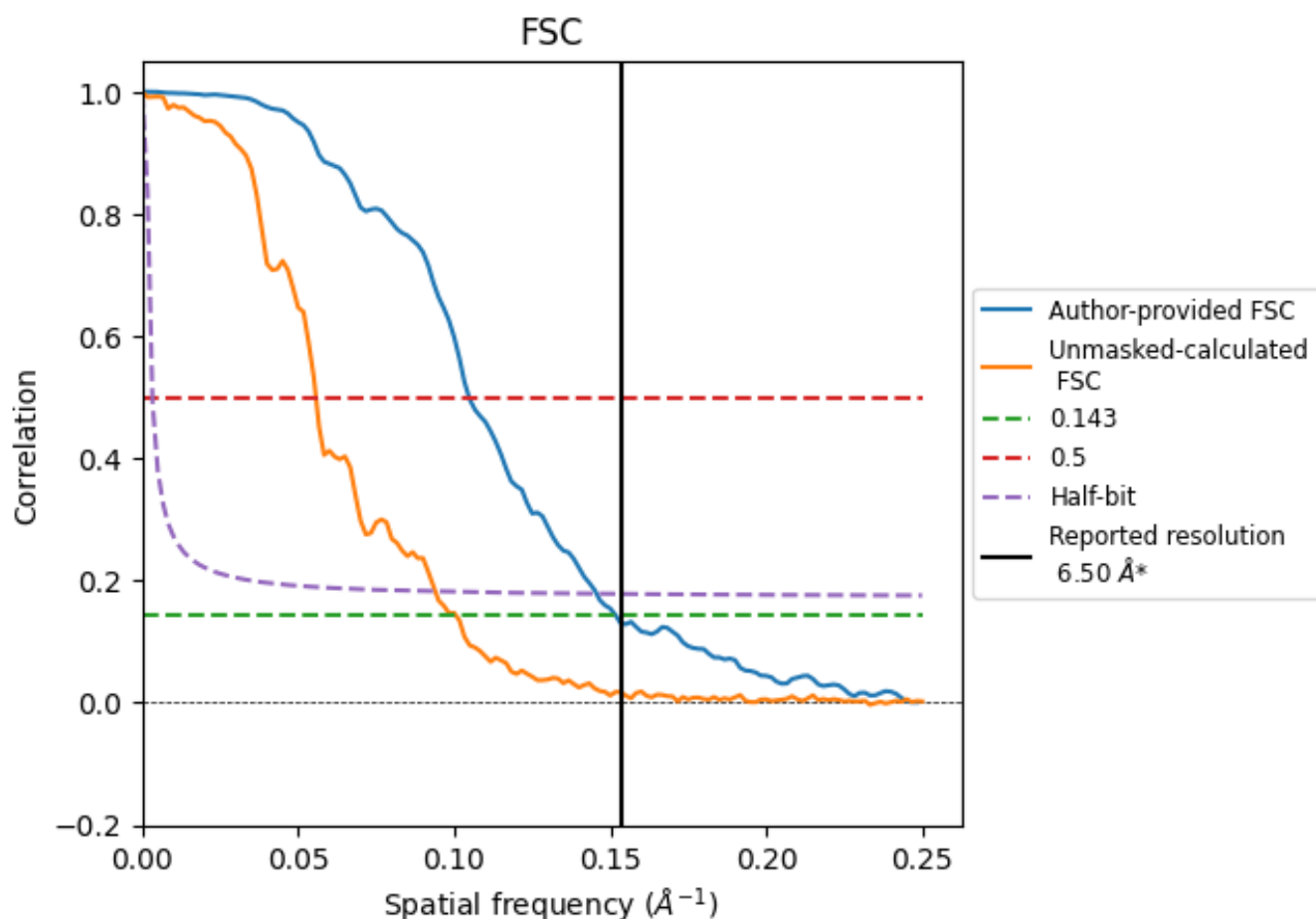


*Reported resolution corresponds to spatial frequency of 0.154 Å⁻¹

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 0.154 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

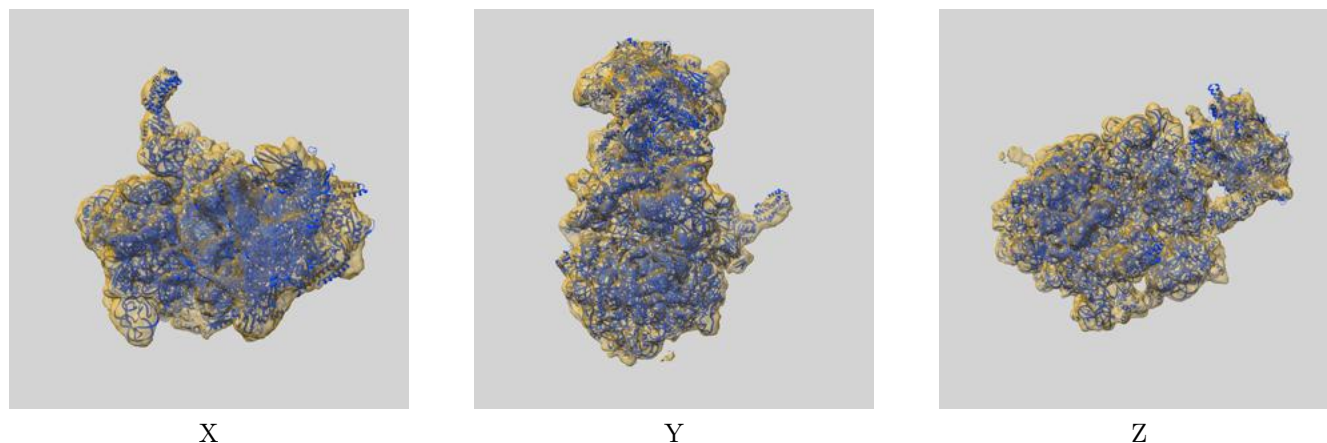
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	6.50	-	-
Author-provided FSC curve	6.59	9.54	6.87
Unmasked-calculated*	9.95	17.95	10.64

*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 9.95 differs from the reported value 6.5 by more than 10 %

9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-53671 and PDB model 9SL5. Per-residue inclusion information can be found in section 3 on page 16.

9.1 Map-model overlay [i](#)



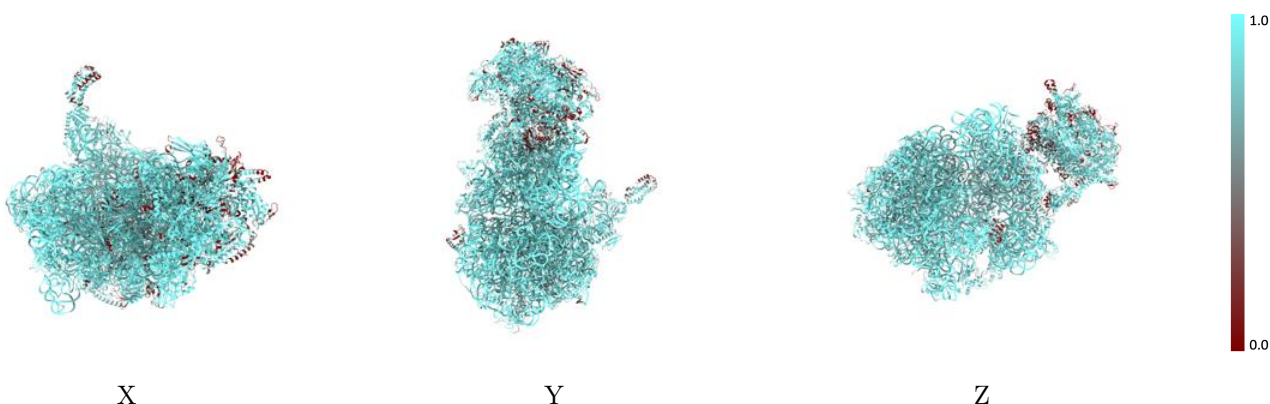
The images above show the 3D surface view of the map at the recommended contour level 0.00157 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



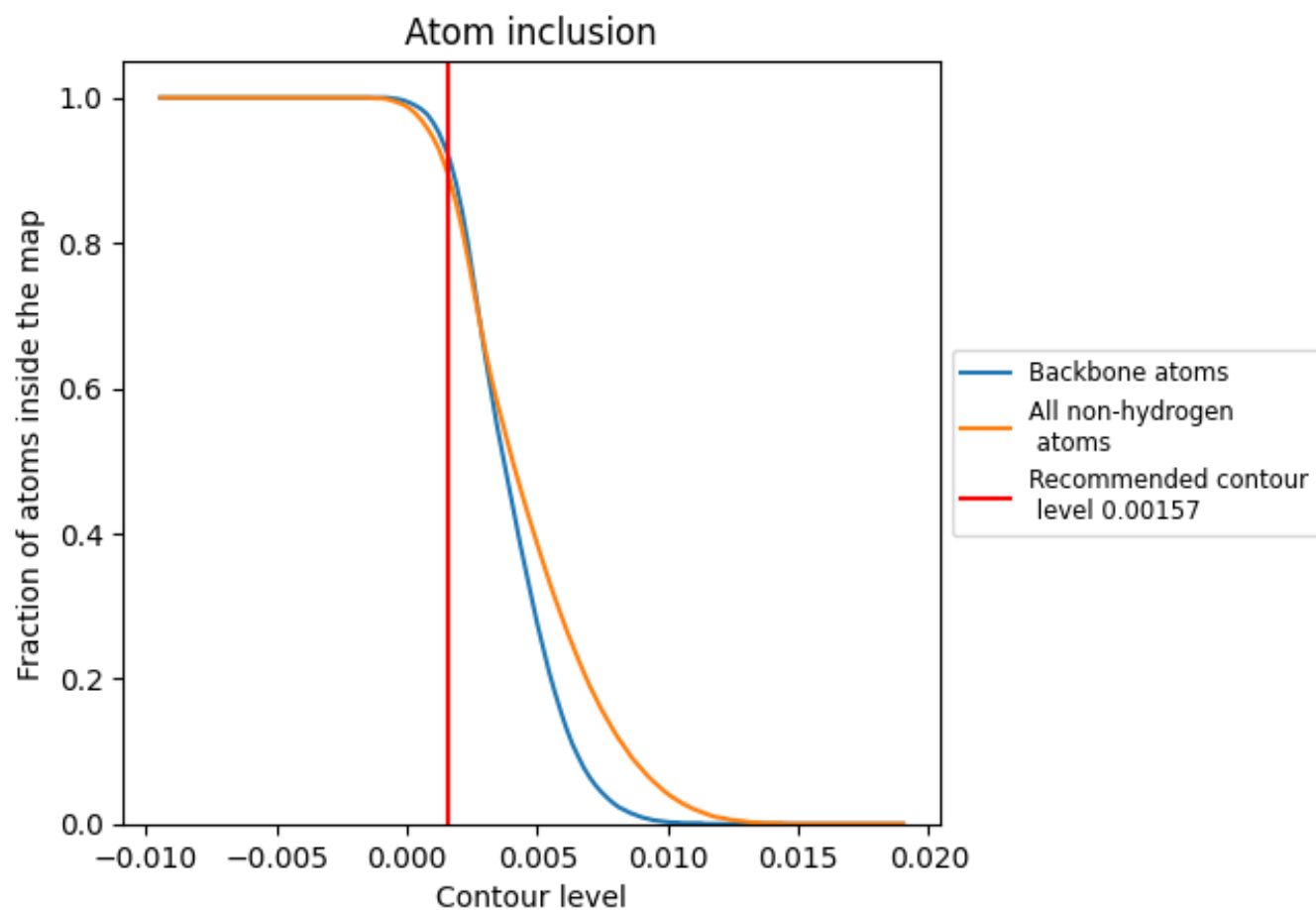
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.00157).

9.4 Atom inclusion [i](#)



At the recommended contour level, 92% of all backbone atoms, 90% 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 (0.00157) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8950	 0.1530
0	 0.6600	 0.1260
1	 0.6820	 0.1230
2	 0.7940	 0.1270
3	 0.9690	 0.2090
4	 0.9900	 0.1930
5	 0.9800	 0.1780
6	 0.8490	 0.0460
7	 0.8790	 0.1600
9	 0.7820	 0.0440
A	 0.8640	 0.1490
AA	 0.6360	 0.0470
AB	 0.7580	 0.0600
AC	 0.7420	 0.0340
AD	 0.9120	 0.0810
AE	 0.8440	 0.0800
AF	 0.8220	 0.0600
B	 0.8020	 0.1240
C	 0.7780	 0.0990
D	 0.6930	 0.1330
E	 0.8500	 0.1430
F	 0.9120	 0.1360
G	 0.8060	 0.1310
H	 0.9550	 0.1160
I	 0.9320	 0.1320
J	 0.8290	 0.1280
K	 0.6860	 0.1000
L	 0.8670	 0.1210
M	 0.8090	 0.0630
N	 0.8870	 0.1530
O	 0.8330	 0.1040
P	 0.8160	 0.0960
Q	 0.9150	 0.1050
R	 0.9100	 0.1040
S	 0.8850	 0.1240



Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
T	 0.7990	 0.1310
U	 0.8500	 0.0910
V	 0.9010	 0.0460
W	 0.8320	 0.0690
X	 0.7110	 0.0830
Y	 0.3150	 0.0320
Z	 0.7810	 0.0640
a	 0.7700	 0.1430
b	 0.8400	 0.1540
c	 0.8220	 0.1550
d	 0.8920	 0.1260
e	 0.8920	 0.1510
f	 0.5100	 0.1000
h	 0.8660	 0.0850
i	 0.8380	 0.1460
j	 0.6530	 0.1510
k	 0.8020	 0.1500
l	 0.7630	 0.1450
m	 0.7890	 0.1500
n	 0.9100	 0.1490
o	 0.7580	 0.1400
p	 0.8080	 0.1310
q	 0.8500	 0.1510
r	 0.7720	 0.1550
s	 0.7910	 0.1380
t	 0.7820	 0.1060
u	 0.7800	 0.1370
v	 0.7190	 0.1240
w	 0.8660	 0.1520
x	 0.9150	 0.1280
y	 0.7370	 0.1310
z	 0.8490	 0.1290