Full wwPDB EM Validation Report

May 19, 2025 – 06:38 PM EDT

PDB ID	:	9BUU / pdb_00009buu
EMDB ID	:	EMD-44920
Title	:	Single particle CryoEM structure of the Pf80S ribosome in rotated state with E-site tRNA
Authors	:	Anton, L.; Haile, M.; Ho, C.M.
Deposited on	:	2024-05-17
Resolution	:	2.80 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:

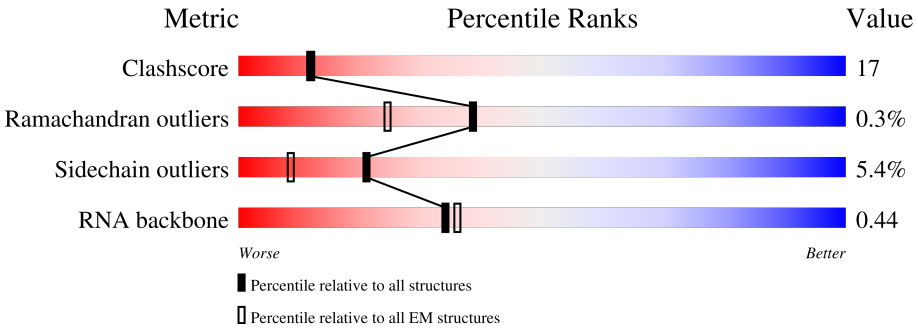
EMDB validation analysis	:	0.0.1.dev118
MolProbity	:	4-5-2 with Phenix2.0rc1
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.43.1

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 2.80 Å.

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



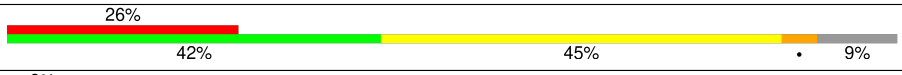
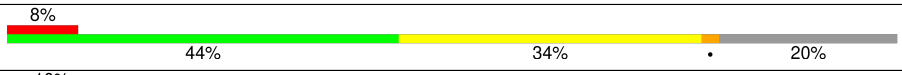
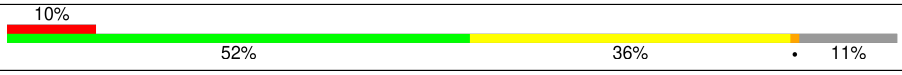
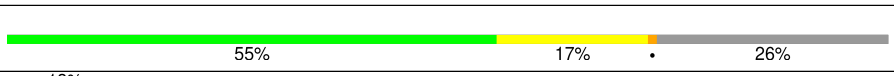
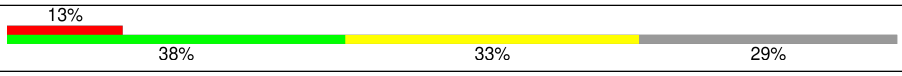
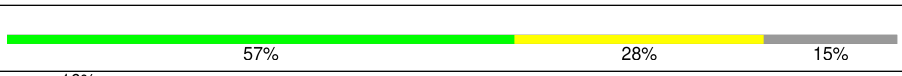
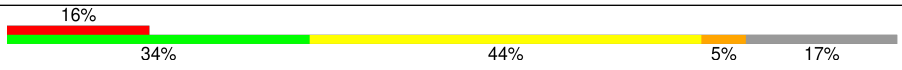
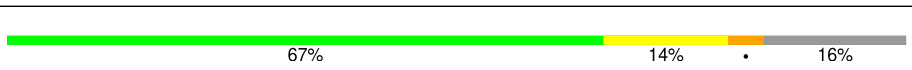
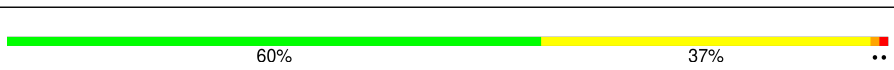
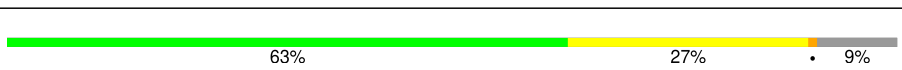
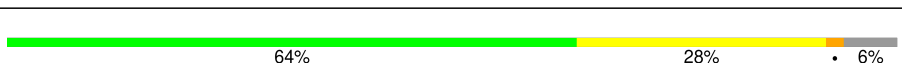
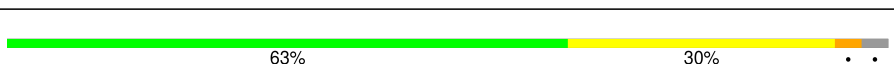
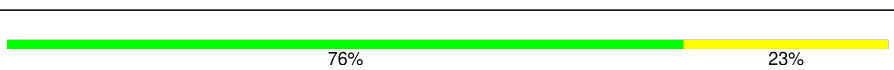
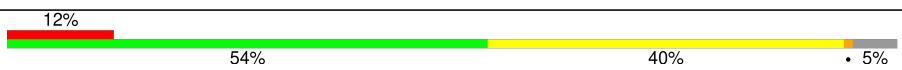
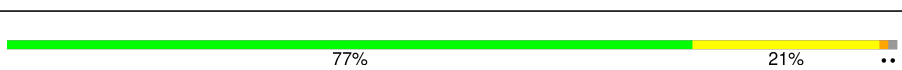
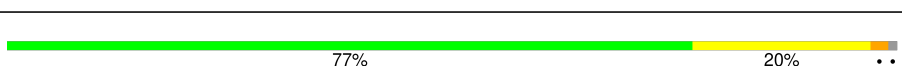
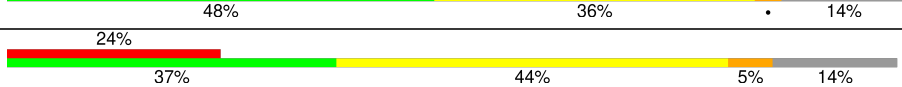
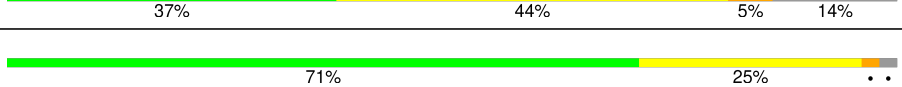
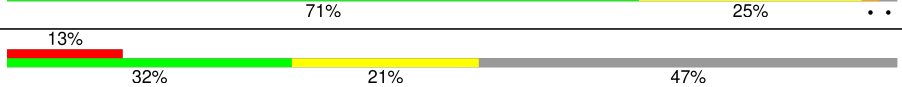
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415
RNA backbone	6643	2191

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

Mol	Chain	Length	Quality of chain
1	S7	76	39% 43% 17%
2	AA	3788	36% 37% 11% 16%
3	AC	159	42% 40% 13% 5%
4	AB	119	25% 49% 25%
5	AL	215	64% 33%
6	A1	146	25% 41% 48% 7%
7	A2	127	63% 17% 18%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
8	A4	67	
9	A6	108	
10	A7	120	
11	AN	165	
12	A8	131	
13	A9	140	
14	Aa	150	
15	Ab	112	
16	Ad	87	
17	Ae	51	
18	Af	128	
19	AP	205	
20	Ah	96	
21	Ai	104	
22	AI	221	
23	AJ	283	
24	Ac	92	
25	AK	202	
26	AM	139	
27	AS	187	
28	AO	148	
29	AQ	219	
30	AR	294	
31	AW	173	
32	AY	190	

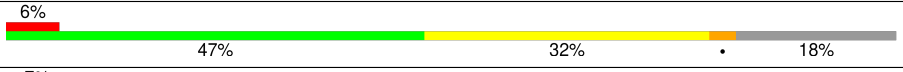
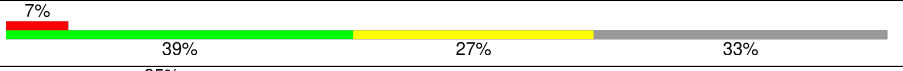
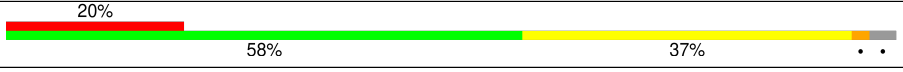
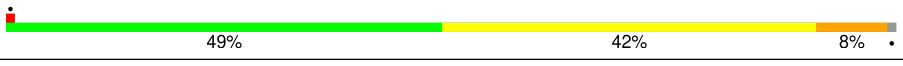
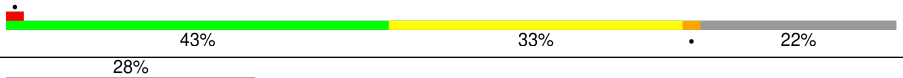
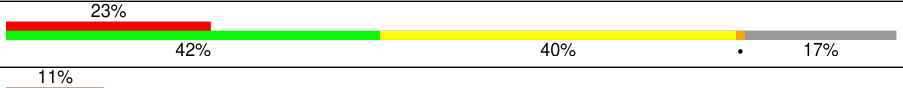
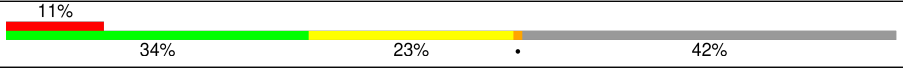
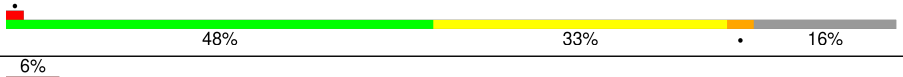
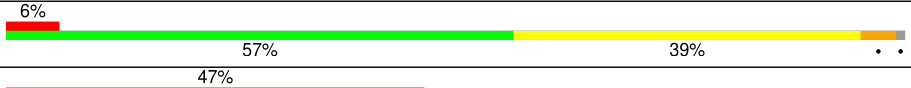
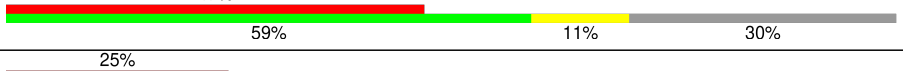
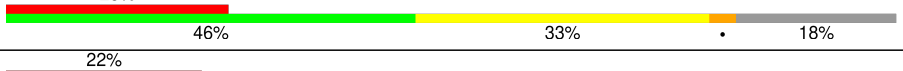
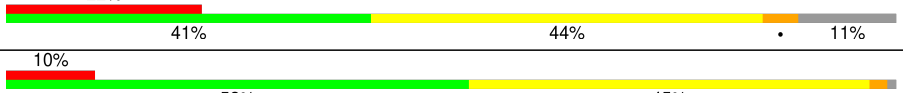
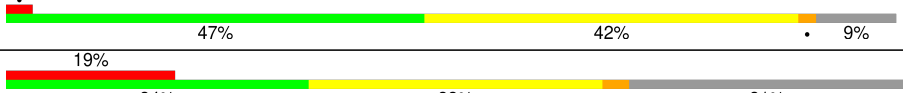
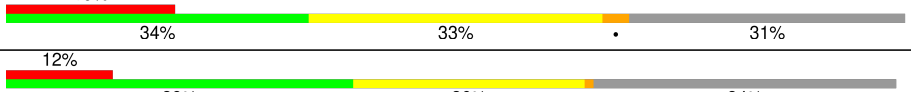
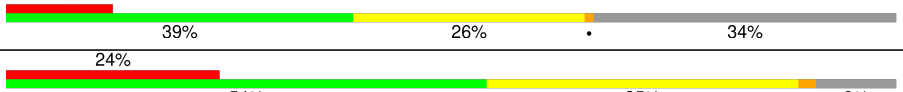
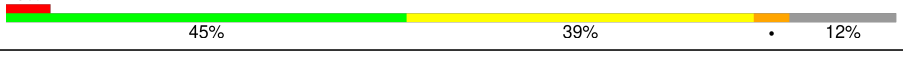
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
33	AT	182	31% 62% 36%
34	AZ	126	55% 37%
35	A3	124	15% 51% 42%
36	A5	257	7% 53% 31% 13%
37	AD	260	70% 23% 5%
38	AE	386	12% 58% 38%
39	AF	411	5% 62% 31% 5%
40	AG	173	11% 30% 38% 28%
41	AU	184	10% 59% 34%
42	AH	190	20% 40% 51% 7%
43	AV	161	7% 60% 31% 5%
44	Ag	39	18% 54% 36% 5% 5%
45	AX	139	29% 33% 32% 5% 30%
46	A0	162	20% 26% 12% 62%
47	S1	133	8% 47% 42% 10%
48	S2	105	34% 35% 61%
49	S3	107	48% 40% 11%
50	S4	82	27% 56% 35% 7%
51	S5	67	22% 49% 37% 12%
52	S6	58	21% 41% 33% 26%
53	SA	2092	25% 41% 10% 23%
54	SB	262	8% 37% 39% 20%
55	SC	263	35% 37% 26%
56	SD	221	20% 44% 25% 29%
57	SE	189	8% 52% 41%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
58	SF	261	
59	SG	272	
60	SH	306	
61	SI	195	
62	SJ	194	
63	SK	130	
64	SL	218	
65	SM	144	
66	SN	118	
67	SO	137	
68	SP	151	
69	SQ	145	
70	SR	141	
71	SS	156	
72	ST	54	
73	SU	151	
74	SV	161	
75	SW	137	
76	SX	145	
77	SY	170	
78	SZ	82	

2 Entry composition (i)

There are 78 unique types of molecules in this entry. The entry contains 193035 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	S7	76	1620	723	295	527	75	0	0

- Molecule 2 is a RNA chain called 28S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	AA	3193	67884	30446	12053	22224	3161	0	0

- Molecule 3 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	AC	151	3215	1444	589	1034	148	0	0

- Molecule 4 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
4	AB	118	2517	1126	457	817	117	0	0

- Molecule 5 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	AL	211	1761	1119	349	290	3	0	0

- Molecule 6 is a protein called 60S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	A1	140	1134	736	204	191	3	0	0

- Molecule 7 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	A2	104	Total	C	N	O	S	0	0
			830	529	151	147	3		

- Molecule 8 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	A4	66	Total	C	N	O	S	0	0
			555	347	116	90	2		

- Molecule 9 is a protein called 60S ribosomal protein L30e.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	A6	98	Total	C	N	O	S	0	0
			740	462	132	139	7		

- Molecule 10 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	A7	96	Total	C	N	O	S	0	0
			793	508	151	129	5		

- Molecule 11 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AN	147	Total	C	N	O	S	0	0
			1210	787	212	205	6		

- Molecule 12 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	A8	125	Total	C	N	O	S	0	0
			1036	660	206	163	7		

- Molecule 13 is a protein called 60S ribosomal protein L35ae.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	A9	103	Total	C	N	O	S	0	0
			844	543	163	135	3		

- Molecule 14 is a protein called 60S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	Aa	106	Total	C	N	O	S	0	0
			858	530	184	138	6		

- Molecule 15 is a protein called 60S ribosomal protein L36.

Mol	Chain	Residues	Atoms				AltConf	Trace
15	Ab	95	Total	C	N	O	0	0
			756	477	150	129		

- Molecule 16 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	Ad	72	Total	C	N	O	S	0	0
			603	395	107	99	2		

- Molecule 17 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Ae	43	Total	C	N	O	S	0	0
			388	243	92	52	1		

- Molecule 18 is a protein called Ubiquitin-60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	Af	51	Total	C	N	O	S	0	0
			413	255	87	66	5		

- Molecule 19 is a protein called Ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AP	204	Total	C	N	O	S	0	0
			1697	1075	351	267	4		

- Molecule 20 is a protein called Large ribosomal subunit protein eL43.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	Ah	85	Total	C	N	O	S	0	0
			658	417	127	107	7		

- Molecule 21 is a protein called Large ribosomal subunit protein eL42.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	Ai	95	Total	C	N	O	S	0	0
			778	490	152	127	9		

- Molecule 22 is a protein called 60S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AI	207	Total	C	N	O	S	0	0
			1685	1096	298	286	5		

- Molecule 23 is a protein called 60S ribosomal protein L7a.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AJ	222	Total	C	N	O	S	0	0
			1813	1174	323	309	7		

- Molecule 24 is a protein called Ribosomal protein L37.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	Ac	89	Total	C	N	O	S	0	0
			709	441	150	113	5		

- Molecule 25 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AK	201	Total	C	N	O	S	0	0
			1659	1064	311	276	8		

- Molecule 26 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AM	132	Total	C	N	O	S	0	0
			996	631	179	178	8		

- Molecule 27 is a protein called 60S ribosomal protein L18-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	AS	186	Total	C	N	O	S	0	0
			1503	958	299	241	5		

- Molecule 28 is a protein called 60S ribosomal protein L27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	AO	147	Total	C	N	O	S	0	0
			1172	747	232	189	4		

- Molecule 29 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AQ	189	Total	C	N	O	S	0	0
			1544	984	291	261	8		

- Molecule 30 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	AR	252	Total	C	N	O	S	0	0
			2049	1301	385	357	6		

- Molecule 31 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	AW	170	Total	C	N	O	S	0	0
			1319	824	266	222	7		

- Molecule 32 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	AY	101	Total	C	N	O	S	0	0
			796	502	144	144	6		

- Molecule 33 is a protein called 60S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	AT	181	Total	C	N	O	S	0	0
			1509	952	309	244	4		

- Molecule 34 is a protein called 60S ribosomal protein L26.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	AZ	121	Total	C	N	O	S	0	0
			1000	626	206	165	3		

- Molecule 35 is a protein called 60S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	A3	119	Total	C	N	O	S	0	0
			994	635	194	163	2		

- Molecule 36 is a protein called 60S ribosomal protein L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	A5	223	Total	C	N	O	S	0	0
			1879	1211	357	306	5		

- Molecule 37 is a protein called 60S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	AD	247	Total	C	N	O	S	0	0
			1866	1166	374	317	9		

- Molecule 38 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	AE	380	Total	C	N	O	S	0	0
			3061	1948	575	521	17		

- Molecule 39 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	AF	390	Total	C	N	O	S	0	0
			3094	1962	594	527	11		

- Molecule 40 is a protein called 60S ribosomal protein L11a.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	AG	124	Total	C	N	O	S	0	0
			1010	636	197	171	6		

- Molecule 41 is a protein called 60S ribosomal protein L18a.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	AU	180	Total	C	N	O	S	0	0
			1497	946	289	255	7		

- Molecule 42 is a protein called 60S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	AH	185	Total	C	N	O	S	0	0
			1475	950	264	255	6		

- Molecule 43 is a protein called 60S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	AV	155	Total	C	N	O	S	0	0
			1275	814	241	214	6		

- Molecule 44 is a protein called 60S ribosomal protein L41.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	Ag	37	Total	C	N	O	S	0	0
			343	210	86	45	2		

- Molecule 45 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	AX	97	Total	C	N	O	S	0	0
			824	548	135	139	2		

- Molecule 46 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	A0	62	Total	C	N	O	S	0	0
			521	336	97	87	1		

- Molecule 47 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	S1	120	Total	C	N	O	S	0	0
			985	632	189	162	2		

- Molecule 48 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms				AltConf	Trace
48	S2	41	Total	C	N	O	0	0
			320	208	56	56		

- Molecule 49 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	S3	95	Total	C	N	O	S	0	0
			781	478	169	128	6		

- Molecule 50 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	S4	76	Total	C	N	O	S	0	0
			586	368	102	107	9		

- Molecule 51 is a protein called 40S ribosomal protein S28e.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	S5	59	Total	C	N	O	S	0	0
			465	290	94	80	1		

- Molecule 52 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues	Atoms				AltConf	Trace
52	S6	43	Total	C	N	O	0	0
			345	213	75	57		

- Molecule 53 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	SA	1608	Total	C	N	O	P	0	0
			34208	15346	6106	11170	1586		

- Molecule 54 is a protein called 40S ribosomal protein S3a.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	SB	210	Total	C	N	O	S	0	0
			1713	1097	301	303	12		

- Molecule 55 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	SC	195	Total	C	N	O	S	0	0
			1538	990	266	273	9		

- Molecule 56 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	SD	157	Total	C	N	O	S	0	0
			1228	782	225	214	7		

- Molecule 57 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	SE	185	Total	C	N	O	S	0	0
			1514	962	290	260	2		

- Molecule 58 is a protein called 40S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	SF	257	Total	C	N	O	S	0	0
			2061	1320	377	356	8		

- Molecule 59 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	SG	224	Total	C	N	O	S	0	0
			1757	1132	307	309	9		

- Molecule 60 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	SH	204	Total	C	N	O	S	0	0
			1651	1046	316	283	6		

- Molecule 61 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	SI	180	Total	C	N	O	S	0	0
			1424	893	263	258	10		

- Molecule 62 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	SJ	188	Total	C	N	O	S	0	0
			1528	982	264	278	4		

- Molecule 63 is a protein called 40S ribosomal protein S15A.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	SK	129	Total	C	N	O	S	0	0
			1037	665	189	178	5		

- Molecule 64 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	SL	171	Total	C	N	O	S	0	0
			1383	872	264	243	4		

- Molecule 65 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	SM	138	Total	C	N	O	S	0	0
			1098	704	200	193	1		

- Molecule 66 is a protein called 40S ribosomal protein S20e.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	SN	98	Total	C	N	O	S	0	0
			772	484	135	148	5		

- Molecule 67 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	SO	79	Total	C	N	O	S	0	0
			686	450	116	118	2		

- Molecule 68 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	SP	127	Total	C	N	O	S	0	0
			954	591	184	176	3		

- Molecule 69 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	SQ	144	Total	C	N	O	S	0	0
			1129	712	222	193	2		

- Molecule 70 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	SR	98	Total	C	N	O	S	0	0
			746	474	123	145	4		

- Molecule 71 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	SS	128	Total	C	N	O	S	0	0
			1046	657	205	180	4		

- Molecule 72 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	ST	48	Total	C	N	O	S	0	0
			405	252	85	64	4		

- Molecule 73 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	SU	149	Total	C	N	O	S	0	0
			1202	769	220	210	3		

- Molecule 74 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	SV	146	Total	C	N	O	S	0	0
			1206	772	227	200	7		

- Molecule 75 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	SW	95	Total	C	N	O	S	0	0
			785	498	149	135	3		

- Molecule 76 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	SX	96	Total	C	N	O	S	0	0
			776	497	137	138	4		

- Molecule 77 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	SY	154	Total	C	N	O	S	0	0
			1266	811	239	214	2		

- Molecule 78 is a protein called 40S ribosomal protein S21.

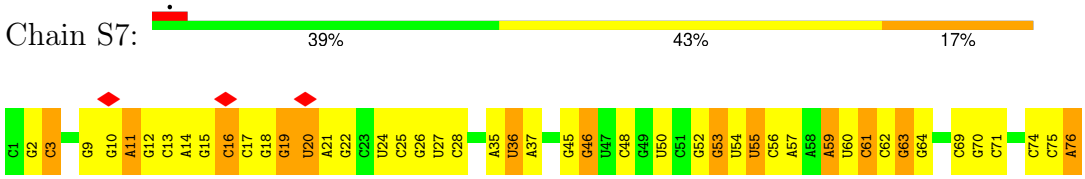
Mol	Chain	Residues	Atoms					AltConf	Trace
78	SZ	72	Total	C	N	O	S	0	0
			557	346	102	105	4		

3 Residue-property plots (i)

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

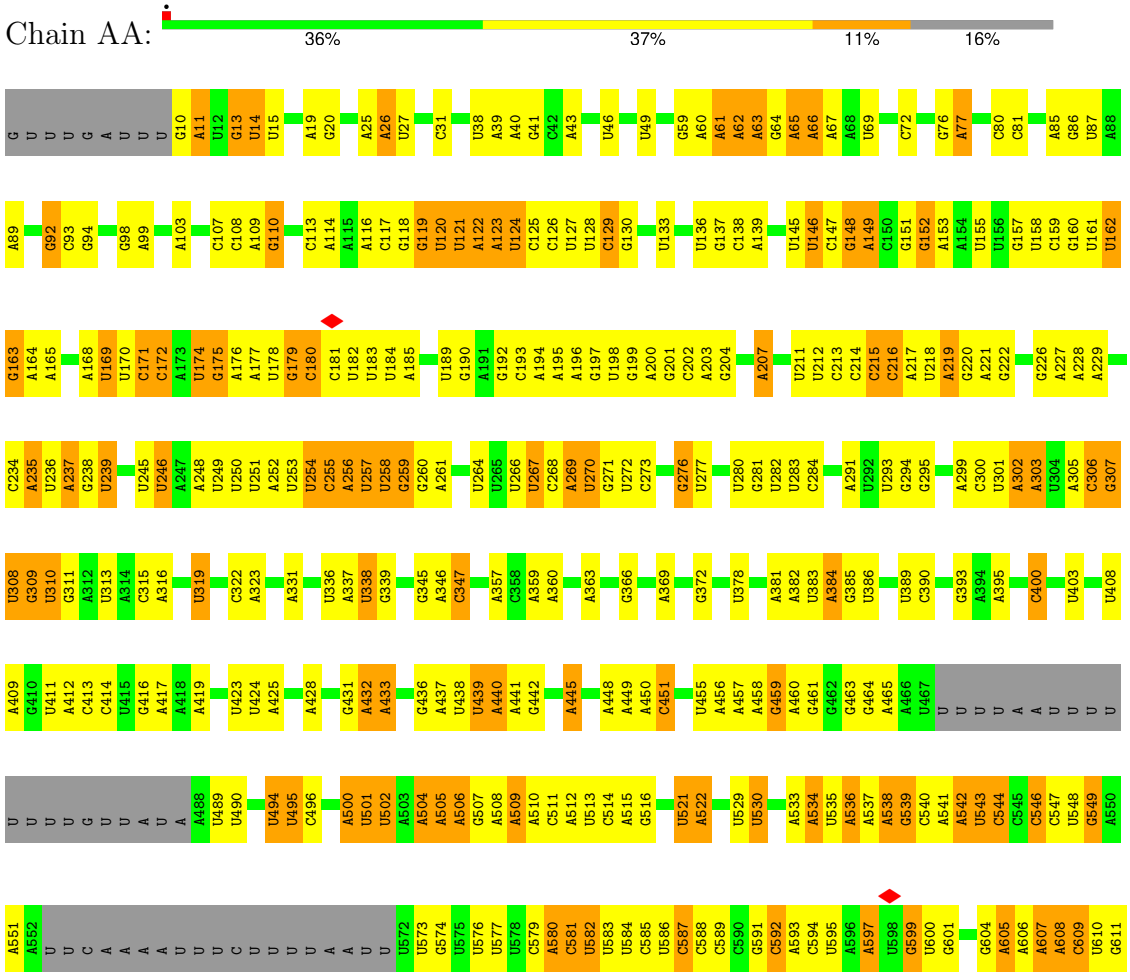
- Molecule 1: tRNA

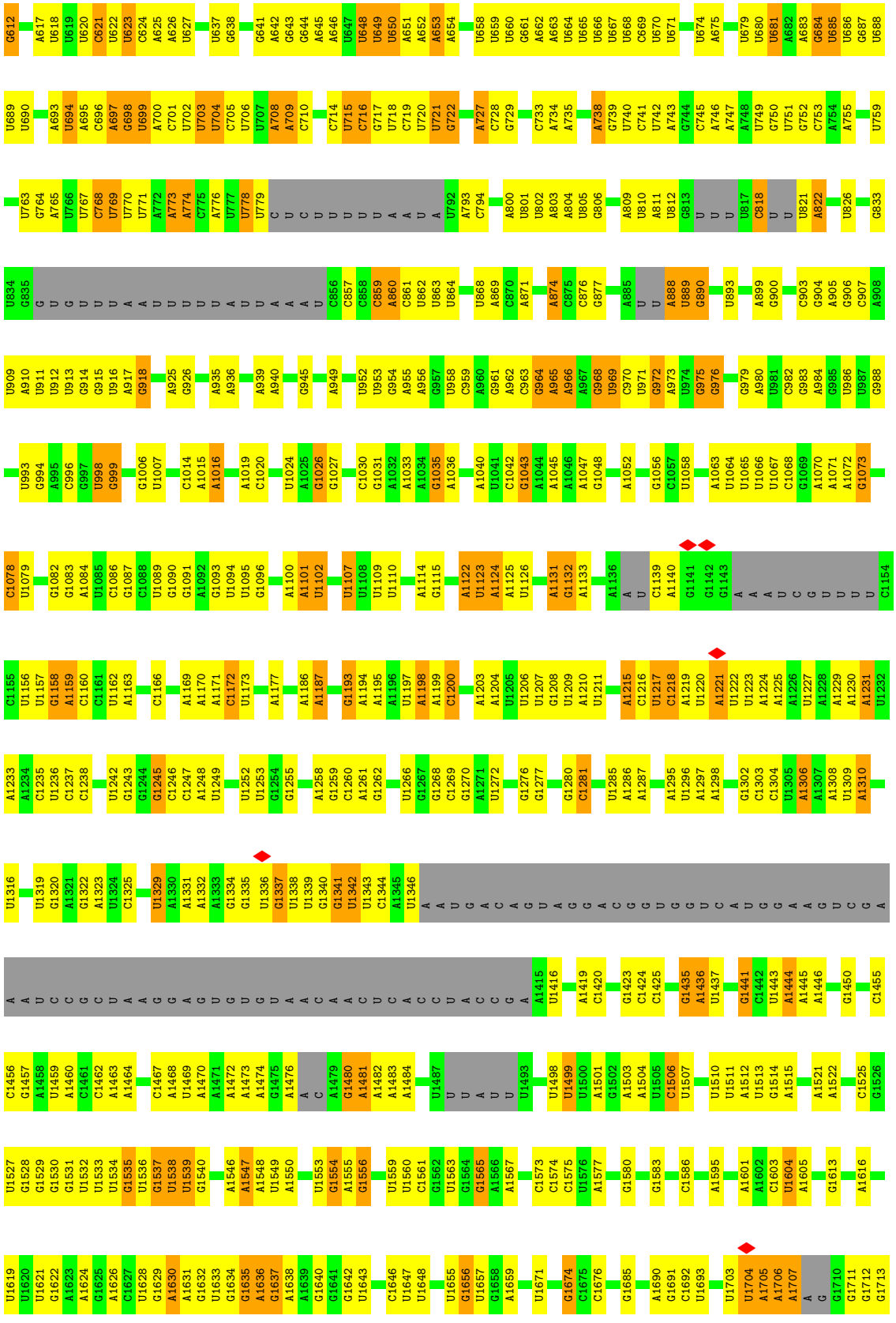
Chain S7:

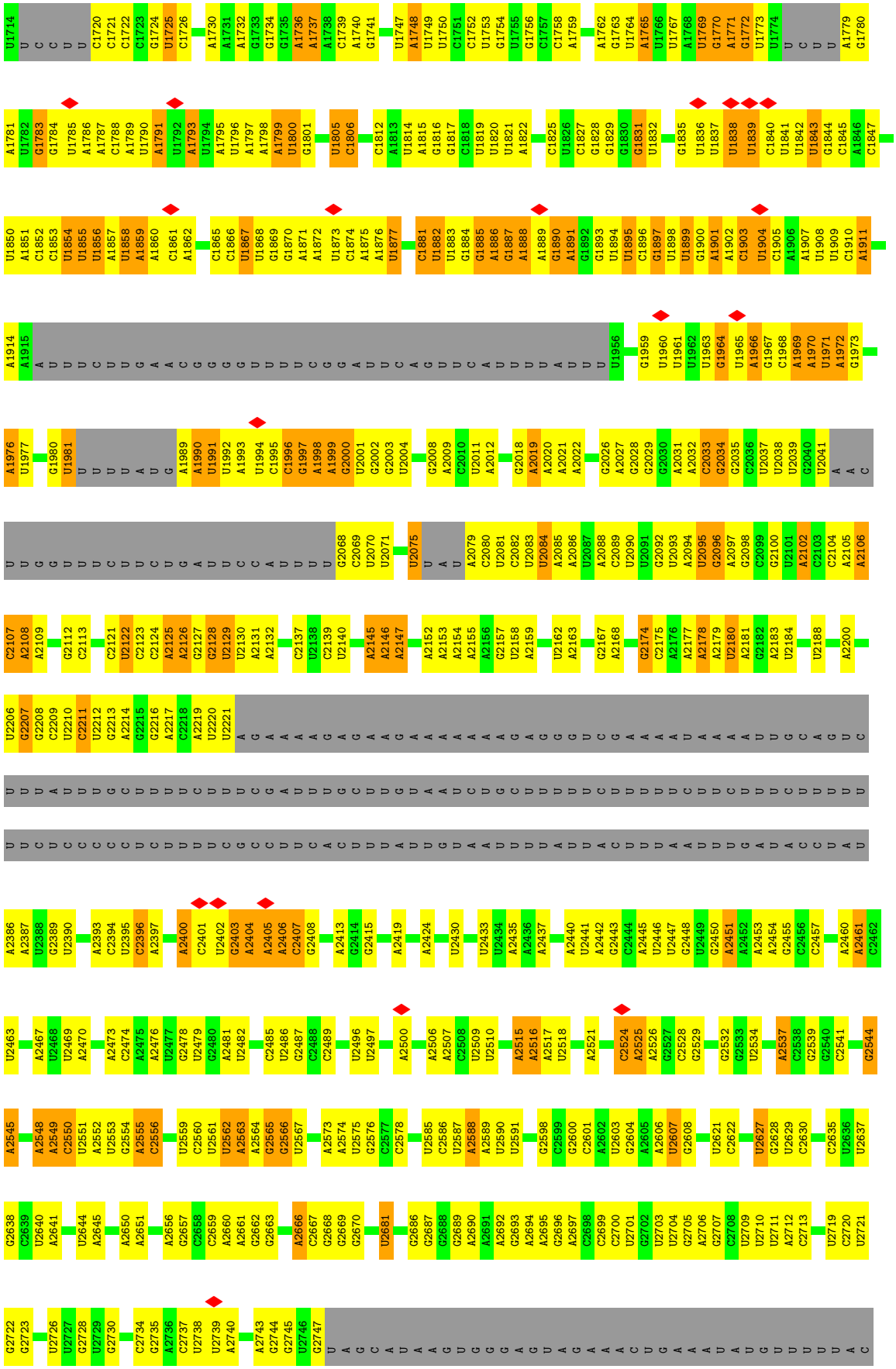


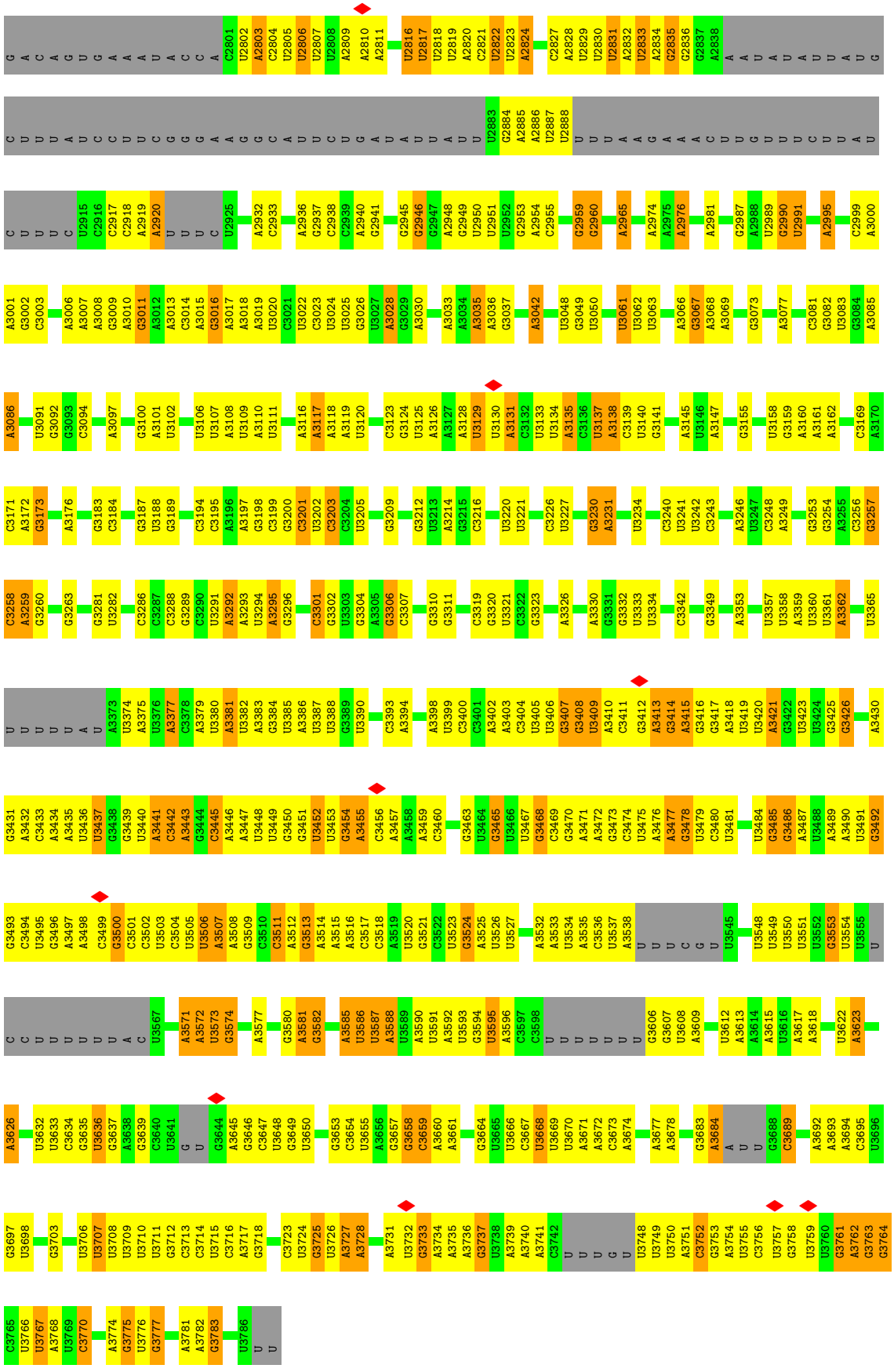
- Molecule 2: 28S ribosomal RNA

Chain AA:



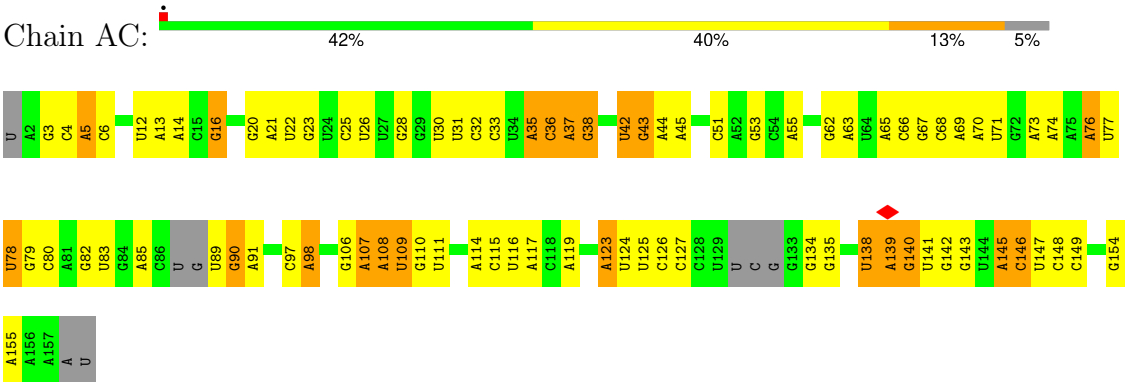






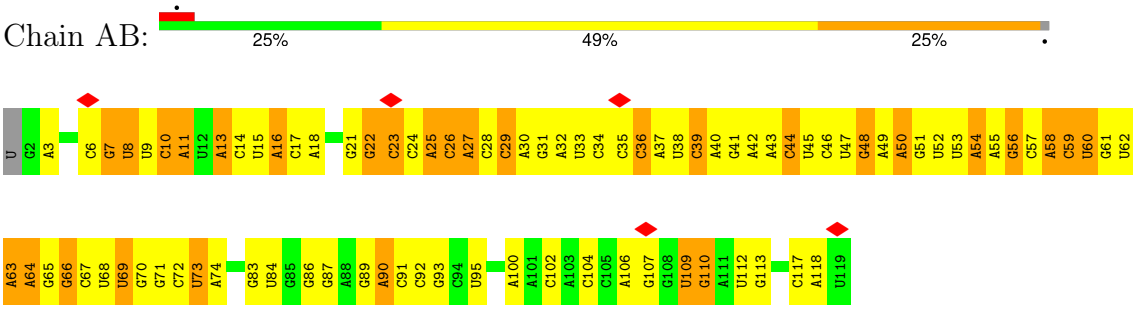
• Molecule 3: 5.8S ribosomal RNA

Chain AC:



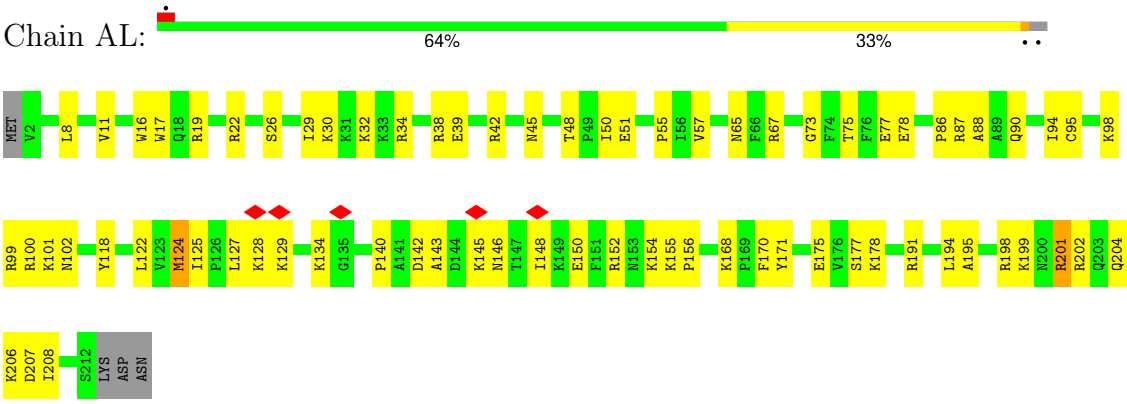
• Molecule 4: 5S ribosomal RNA

Chain AB:



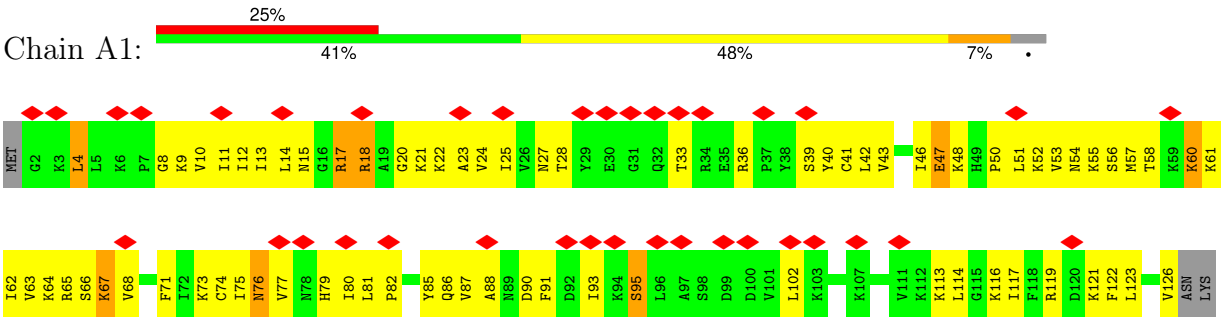
• Molecule 5: 60S ribosomal protein L13

Chain AL:



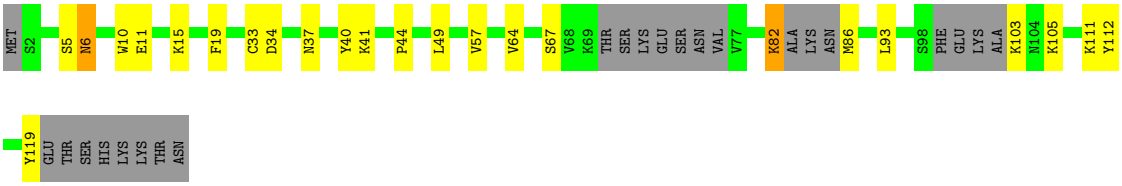
• Molecule 6: 60S ribosomal protein L27

Chain A1:



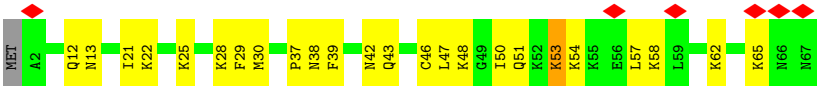
• Molecule 7: 60S ribosomal protein L28

Chain A2:



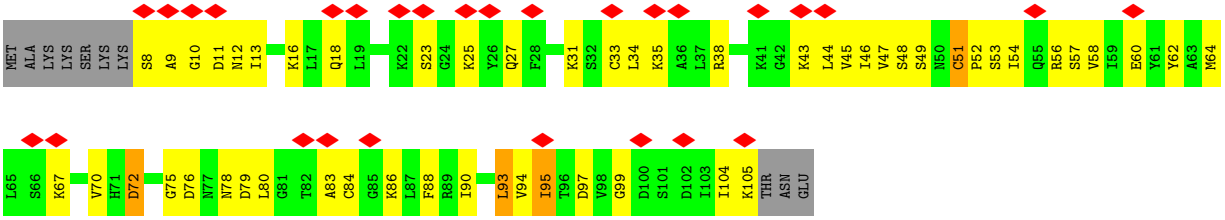
• Molecule 8: 60S ribosomal protein L29

Chain A4:



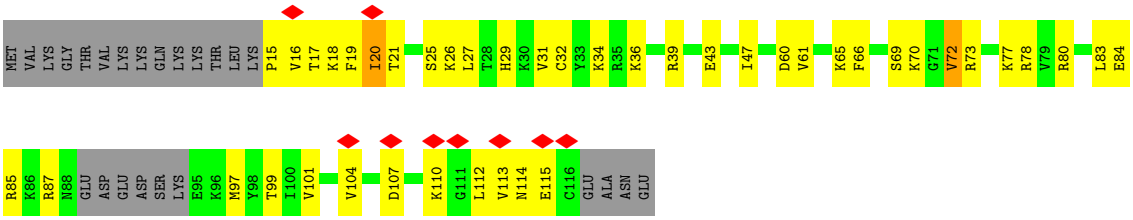
• Molecule 9: 60S ribosomal protein L30e

Chain A6:



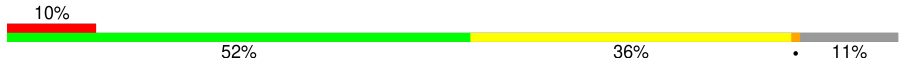
• Molecule 10: 60S ribosomal protein L31

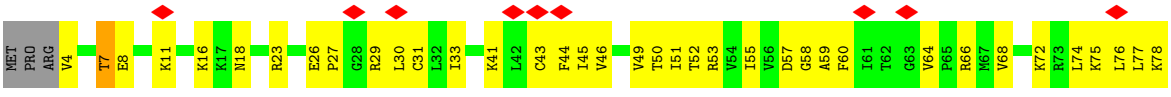
Chain A7:

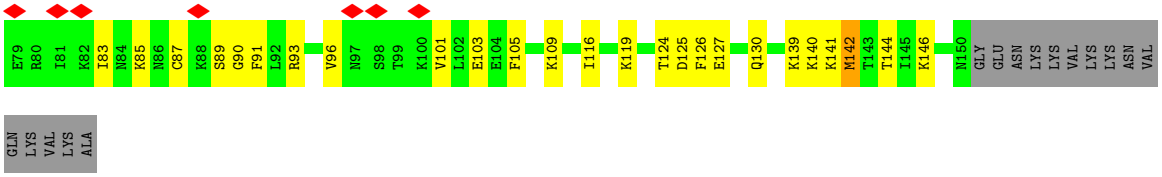


• Molecule 11: 60S ribosomal protein L14

Chain AN:

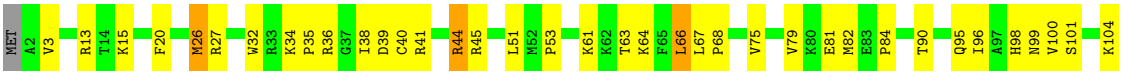


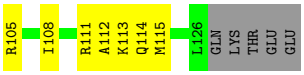




• Molecule 12: 60S ribosomal protein L32

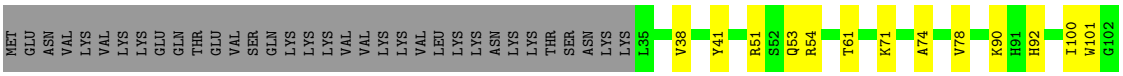
Chain A8:

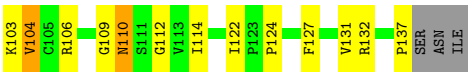




• Molecule 13: 60S ribosomal protein L35ae

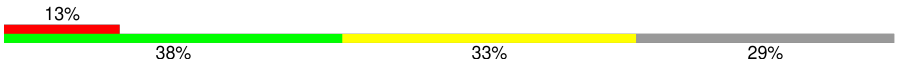
Chain A9:

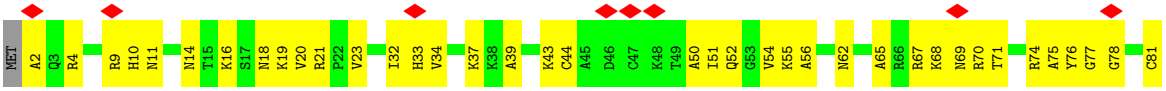


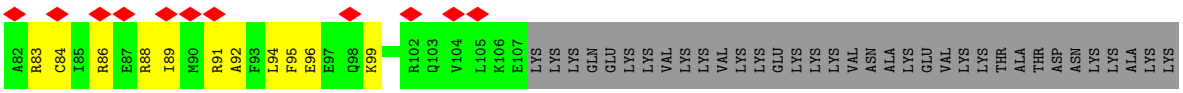


• Molecule 14: 60S ribosomal protein L34

Chain Aa:

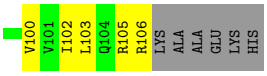






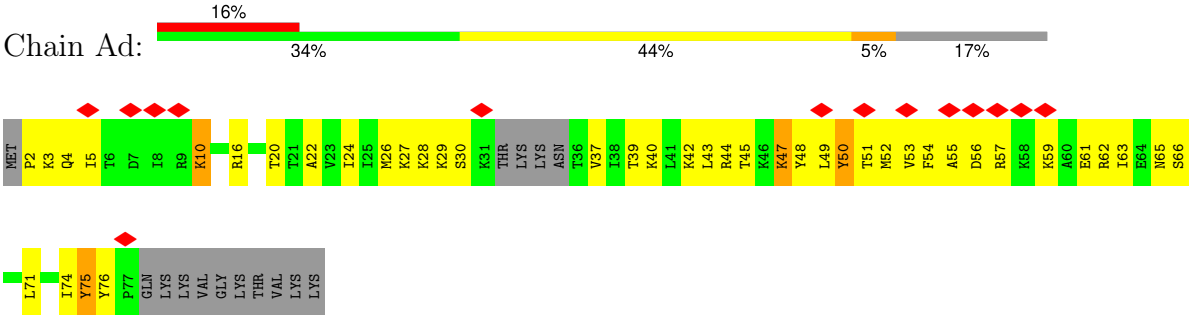
• Molecule 15: 60S ribosomal protein L36

Chain Ab:



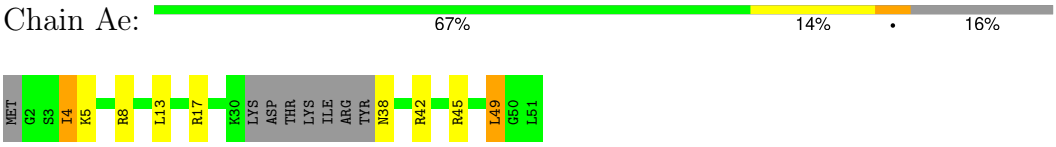
• Molecule 16: 60S ribosomal protein L38

Chain Ad:



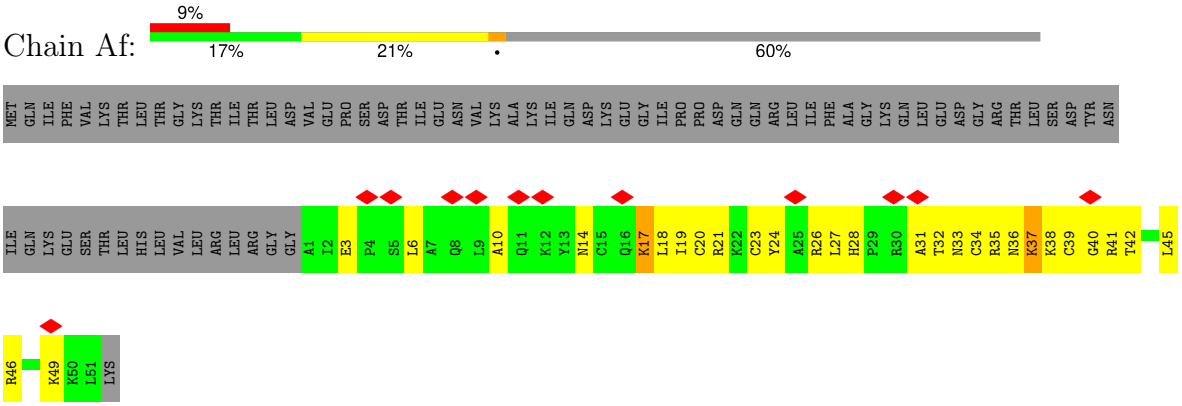
• Molecule 17: 60S ribosomal protein L39

Chain Ae:



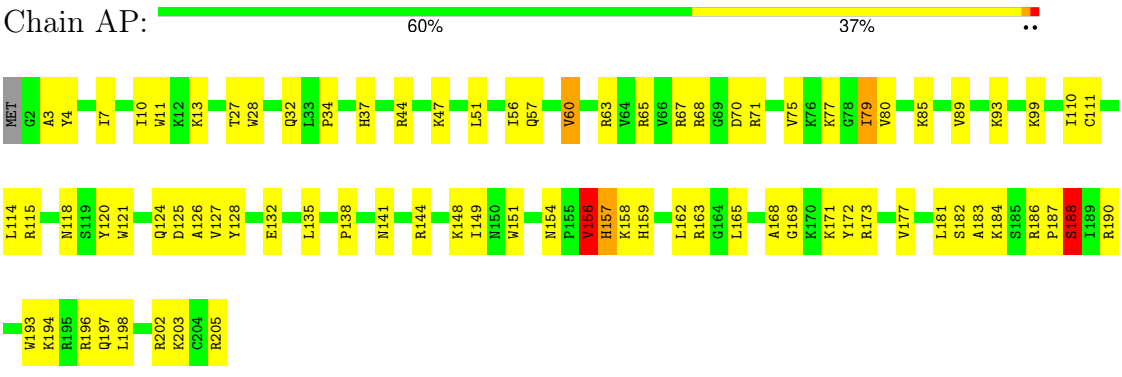
• Molecule 18: Ubiquitin-60S ribosomal protein L40

Chain Af:



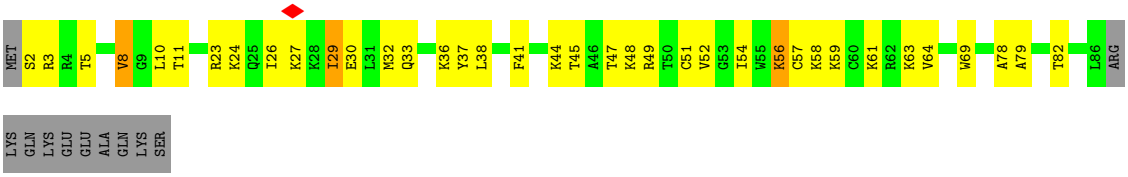
• Molecule 19: Ribosomal protein L15

Chain AP:



• Molecule 20: Large ribosomal subunit protein eL43

Chain Ah:

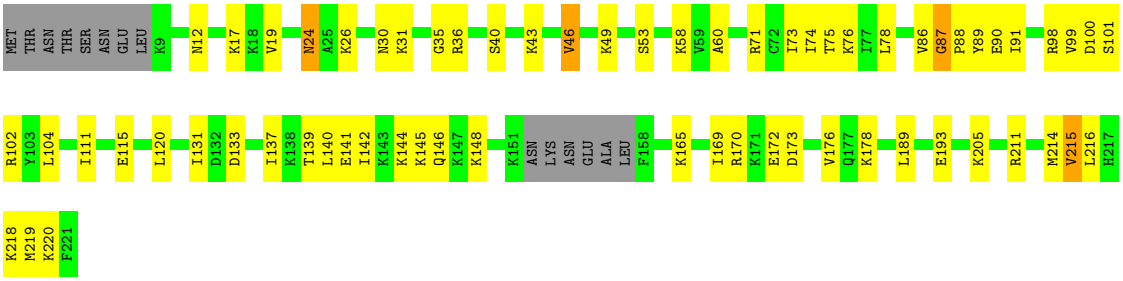


• Molecule 21: Large ribosomal subunit protein eL42

Chain Ai:

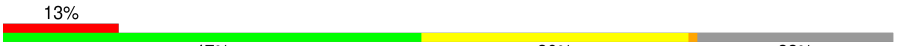
• Molecule 22: 60S ribosomal protein L6

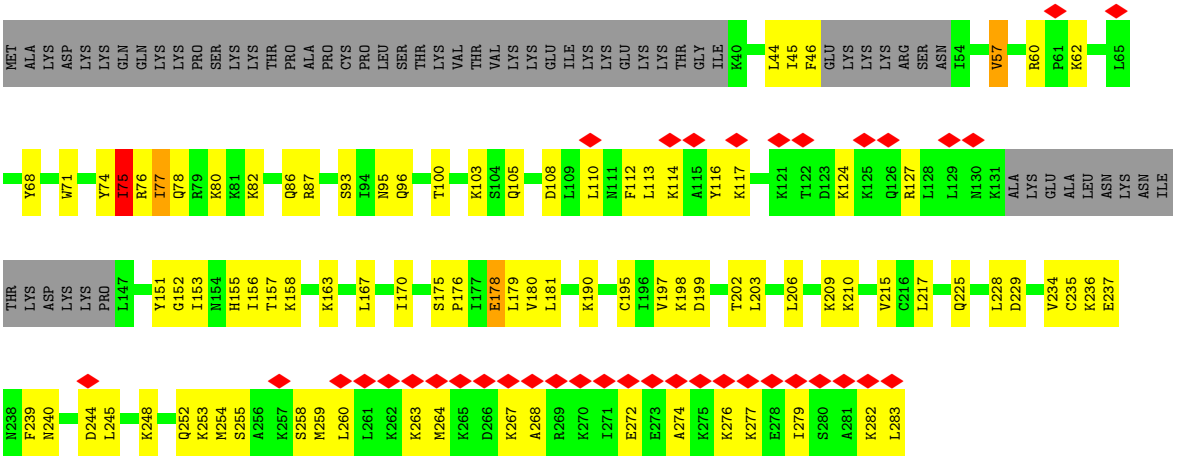
Chain AI:



• Molecule 23: 60S ribosomal protein L7a

Chain AJ:



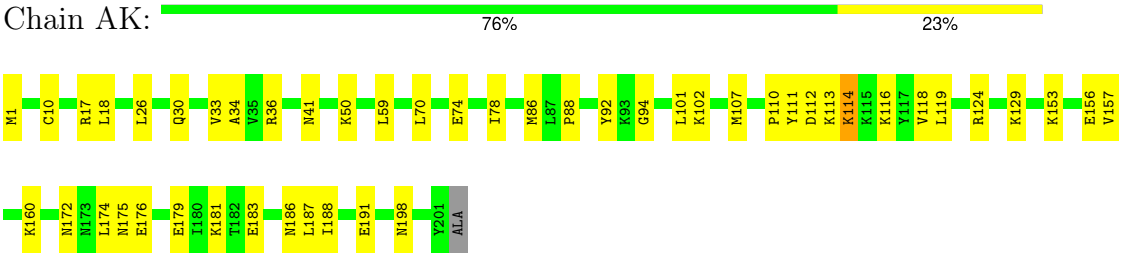


• Molecule 24: Ribosomal protein L37

Chain Ac:

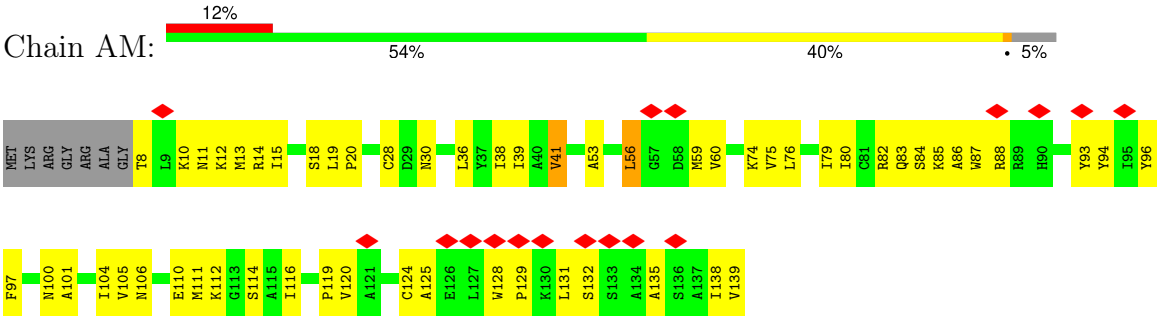
• Molecule 25: 60S ribosomal protein L13

Chain AK:



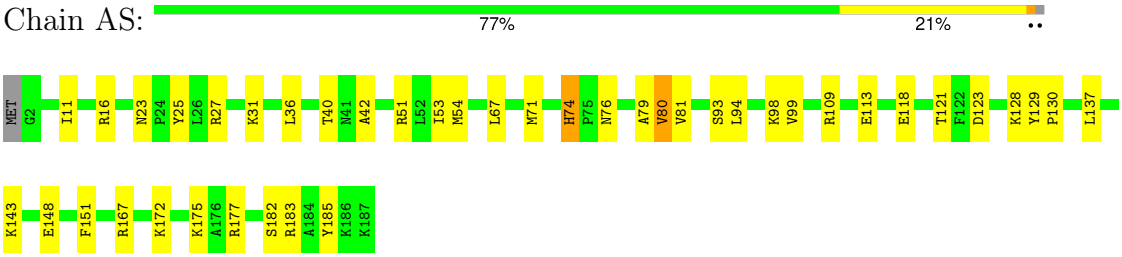
• Molecule 26: 60S ribosomal protein L23

Chain AM:



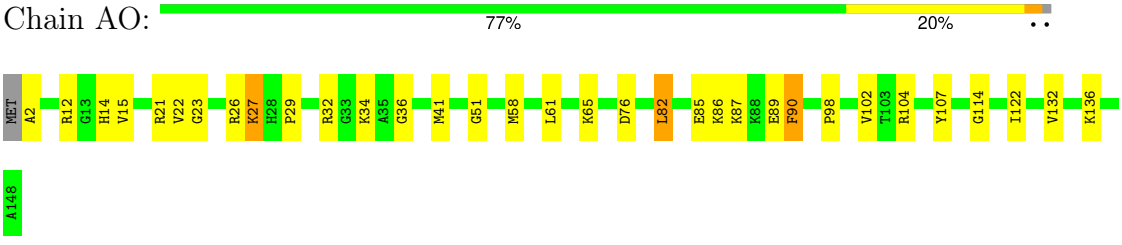
• Molecule 27: 60S ribosomal protein L18-2

Chain AS:



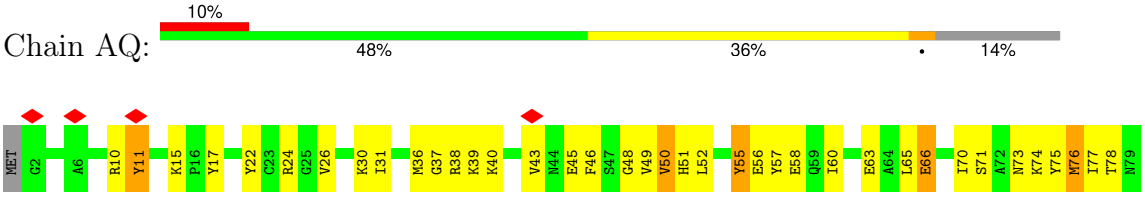
• Molecule 28: 60S ribosomal protein L27a

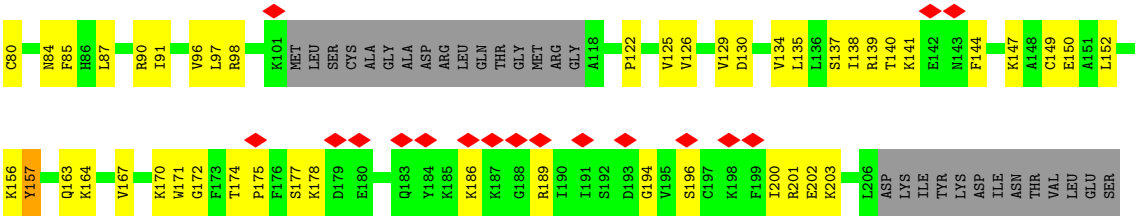
Chain AO:



• Molecule 29: 60S ribosomal protein L10

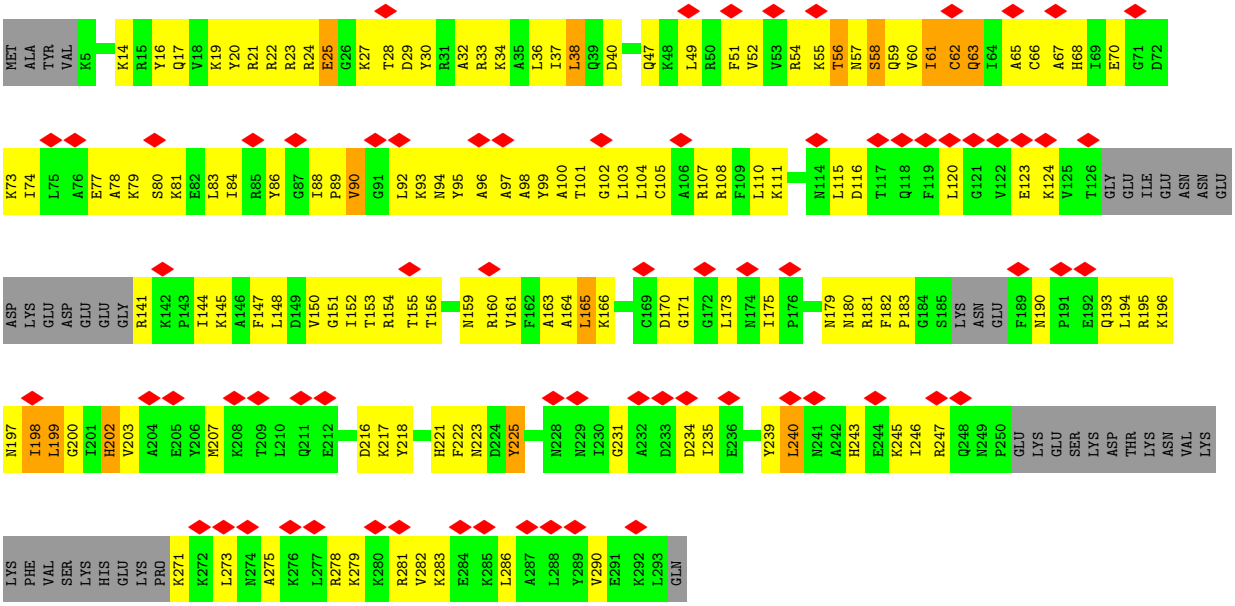
Chain AQ:





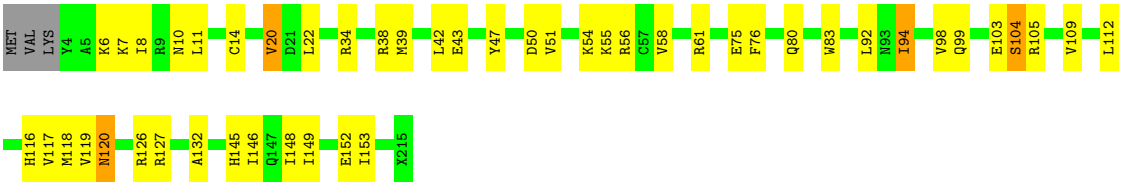
• Molecule 30: 60S ribosomal protein L5

Chain AR:



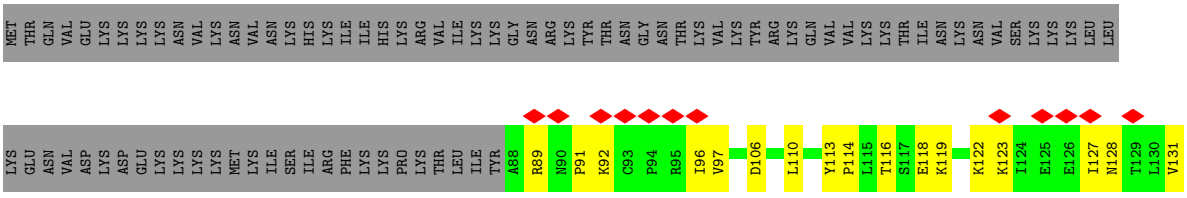
• Molecule 31: 60S ribosomal protein L17

Chain AW:



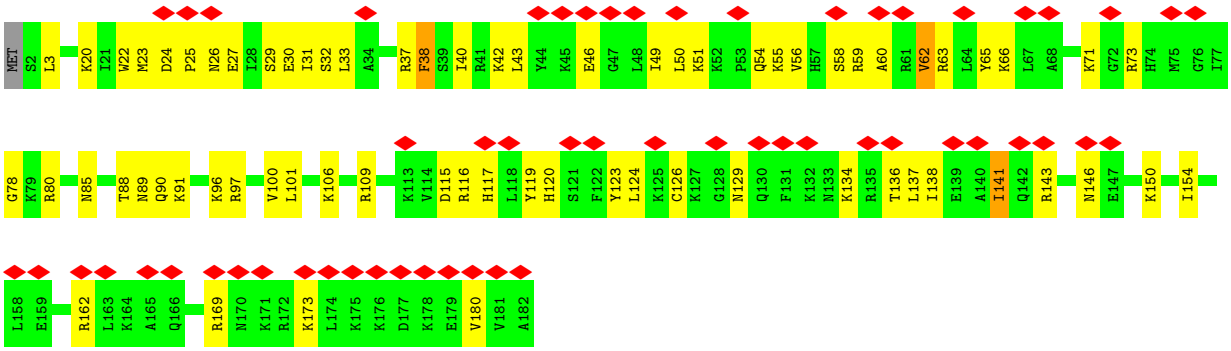
• Molecule 32: 60S ribosomal protein L23

Chain AY:



• Molecule 33: 60S ribosomal protein L19

Chain AT:

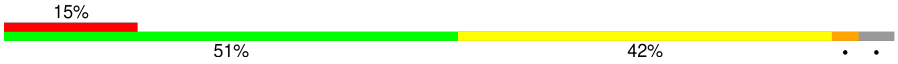


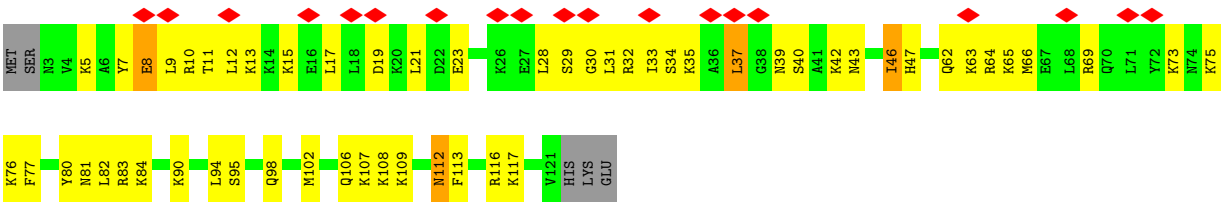
• Molecule 34: 60S ribosomal protein L26

Chain AZ:

• Molecule 35: 60S ribosomal protein L35

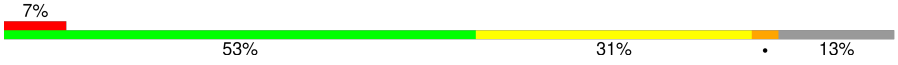
Chain A3:

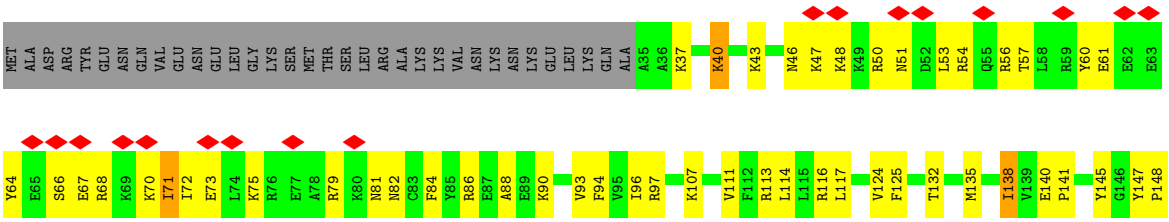


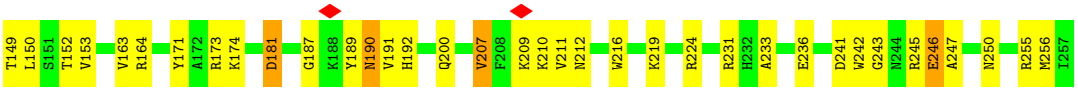


• Molecule 36: 60S ribosomal protein L7

Chain A5:

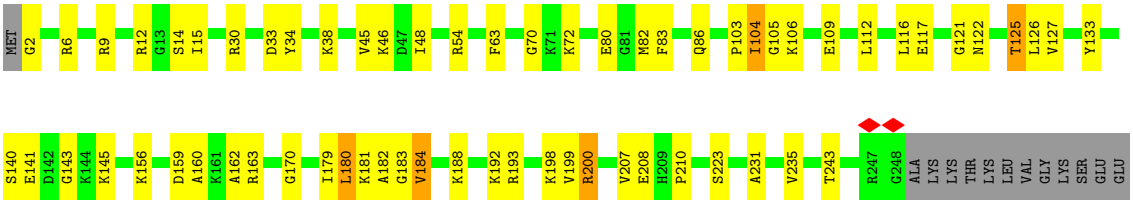






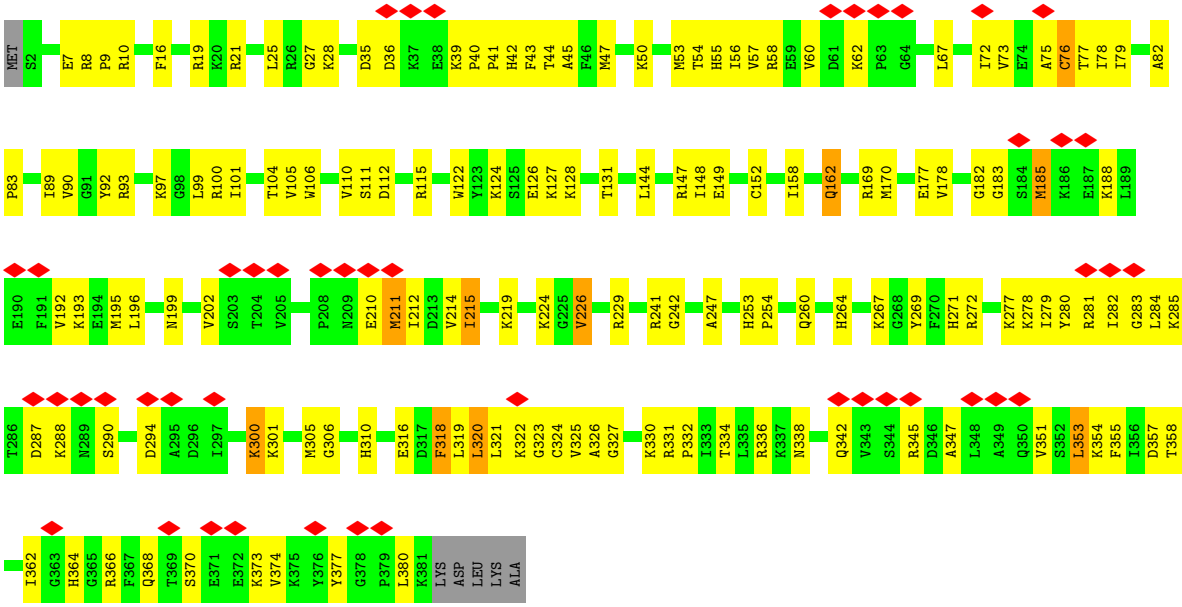
• Molecule 37: 60S ribosomal protein L2

Chain AD:



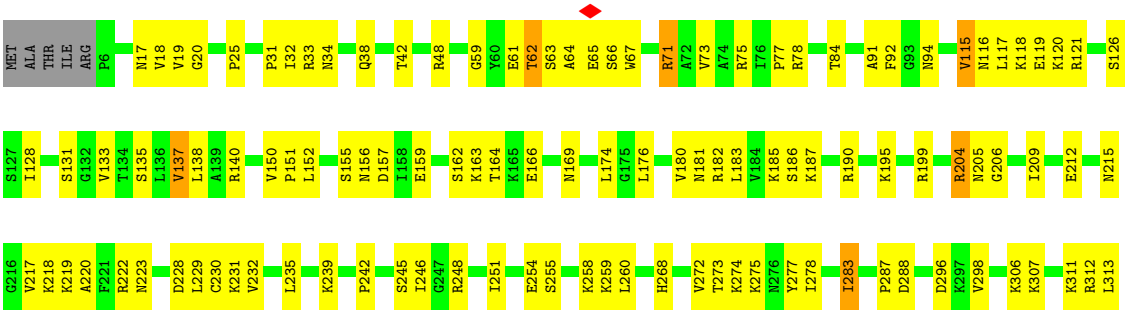
• Molecule 38: 60S ribosomal protein L3

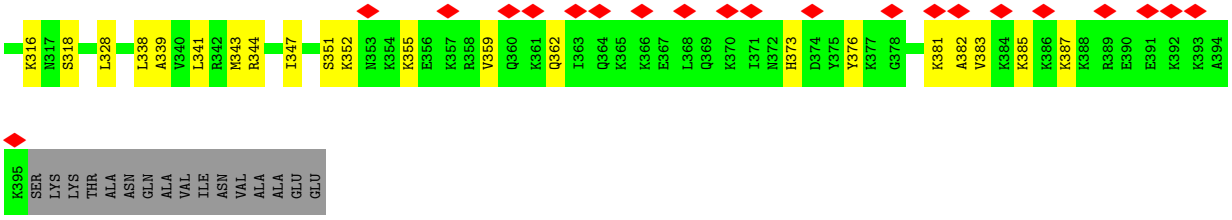
Chain AE:



• Molecule 39: 60S ribosomal protein L4

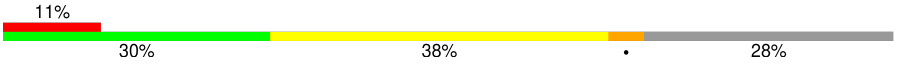
Chain AF:

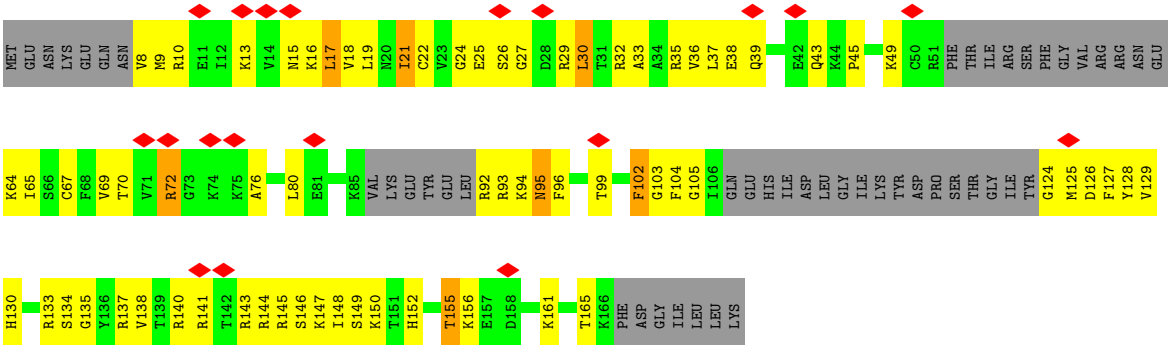




• Molecule 40: 60S ribosomal protein L11a

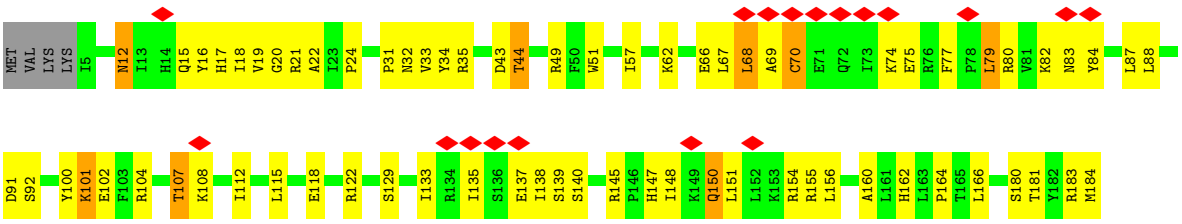
Chain AG:





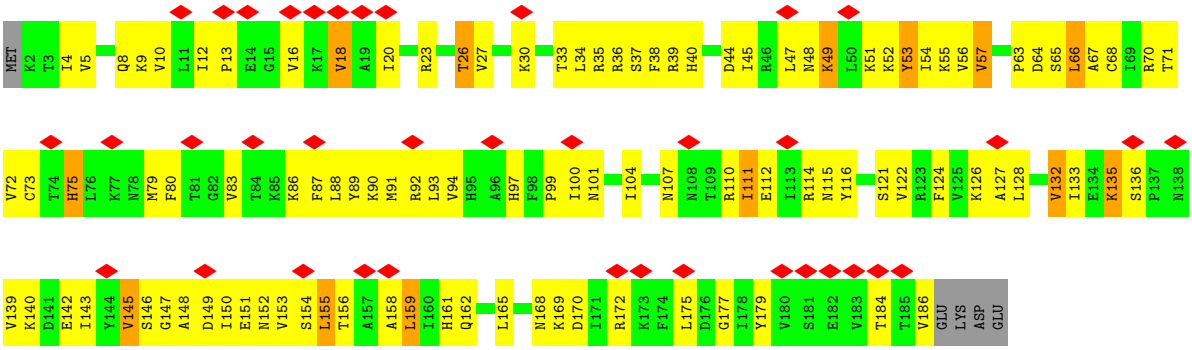
• Molecule 41: 60S ribosomal protein L18a

Chain AU:



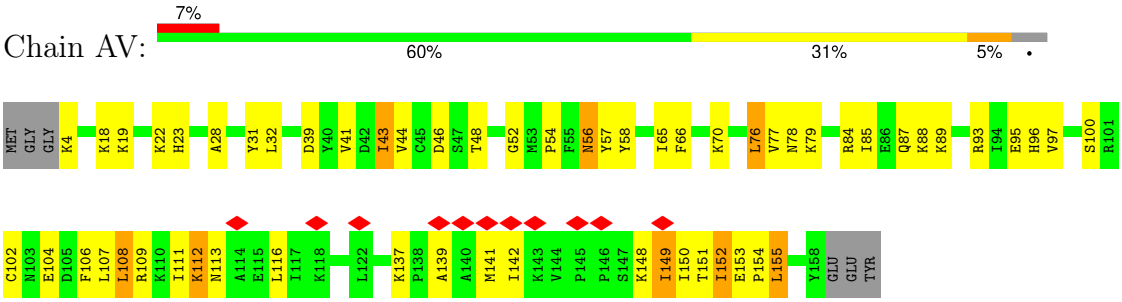
• Molecule 42: 60S ribosomal protein L6

Chain AH:



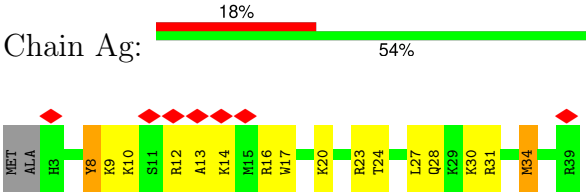
• Molecule 43: 60S ribosomal protein L21

Chain AV:



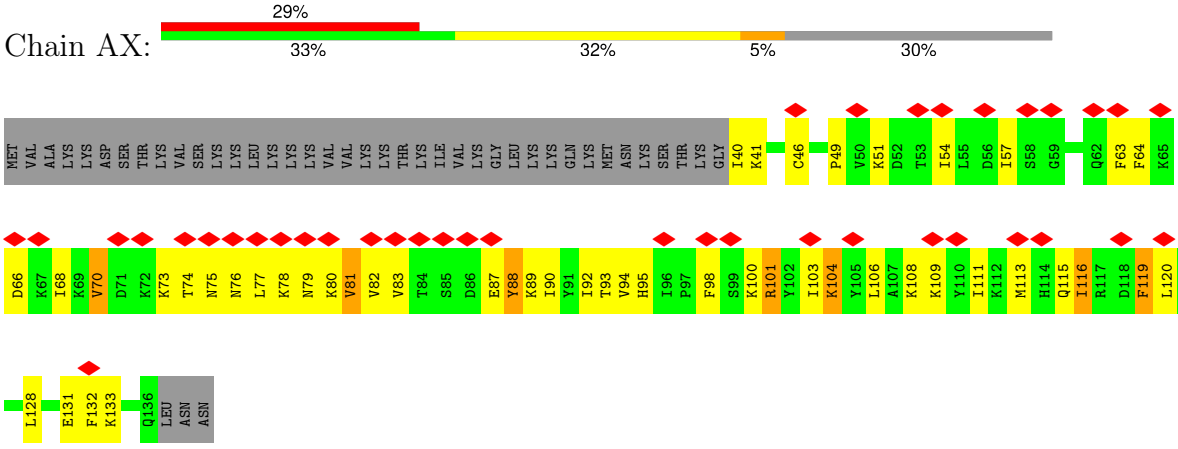
• Molecule 44: 60S ribosomal protein L41

Chain Ag:



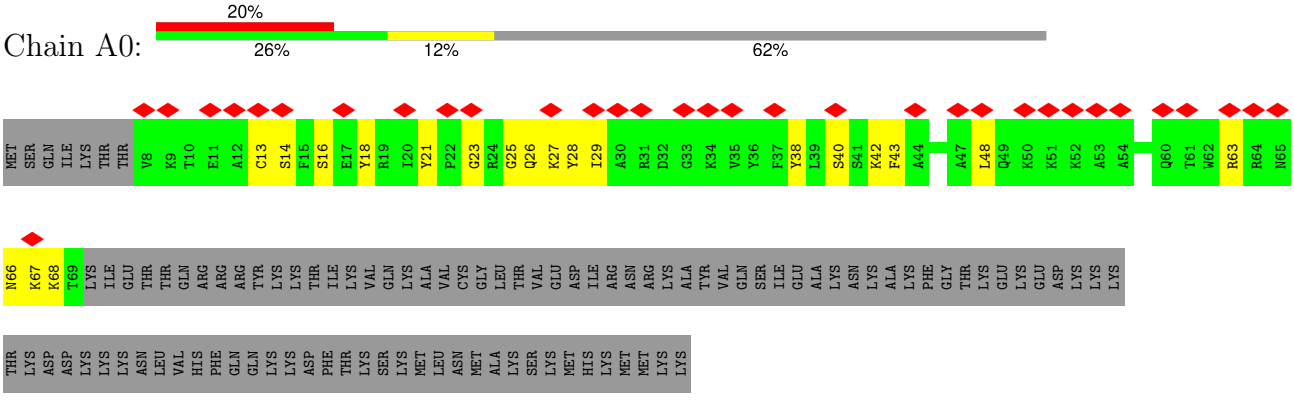
• Molecule 45: 60S ribosomal protein L22

Chain AX:



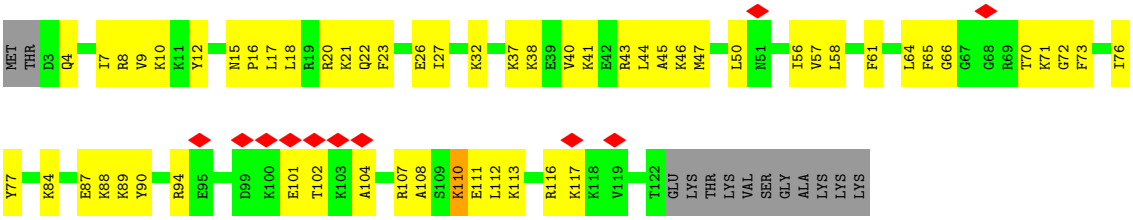
• Molecule 46: 60S ribosomal protein L24

Chain A0:



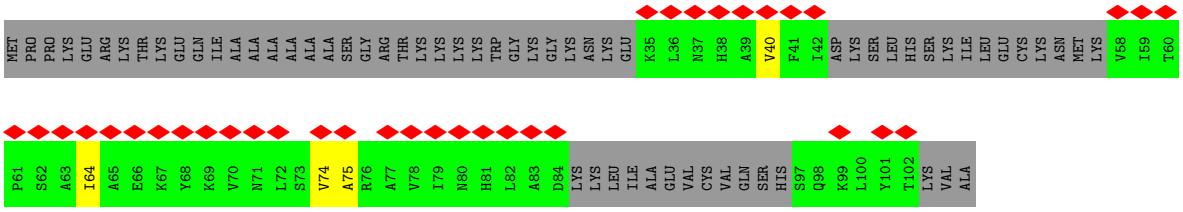
• Molecule 47: 40S ribosomal protein S24

Chain S1:



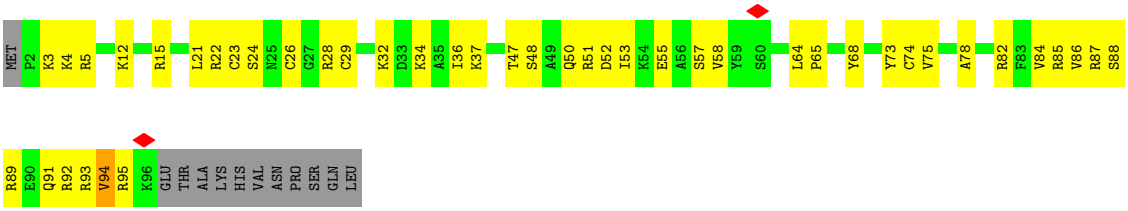
• Molecule 48: 40S ribosomal protein S25

Chain S2:



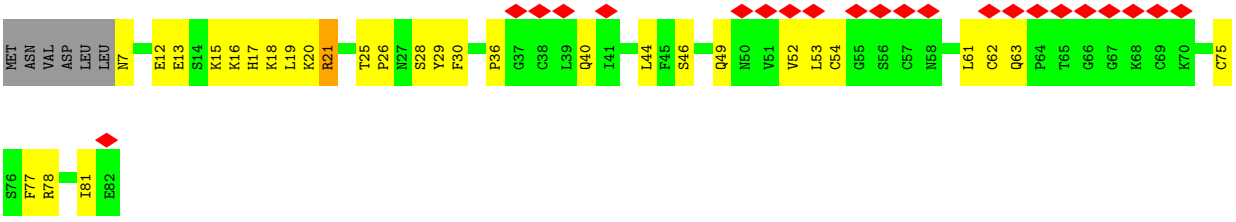
• Molecule 49: 40S ribosomal protein S26

Chain S3:



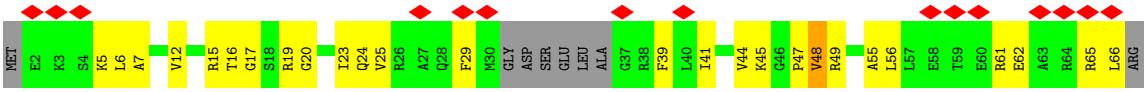
• Molecule 50: 40S ribosomal protein S27

Chain S4:



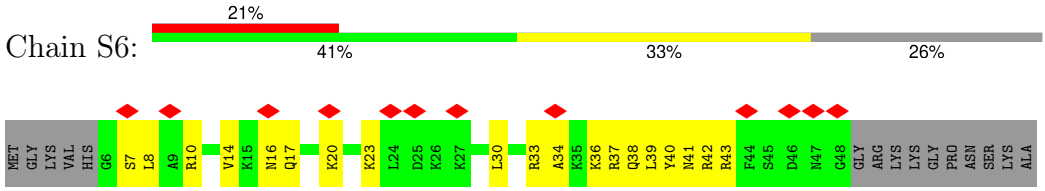
• Molecule 51: 40S ribosomal protein S28e

Chain S5:



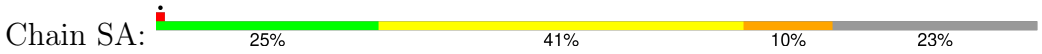
• Molecule 52: 40S ribosomal protein S30

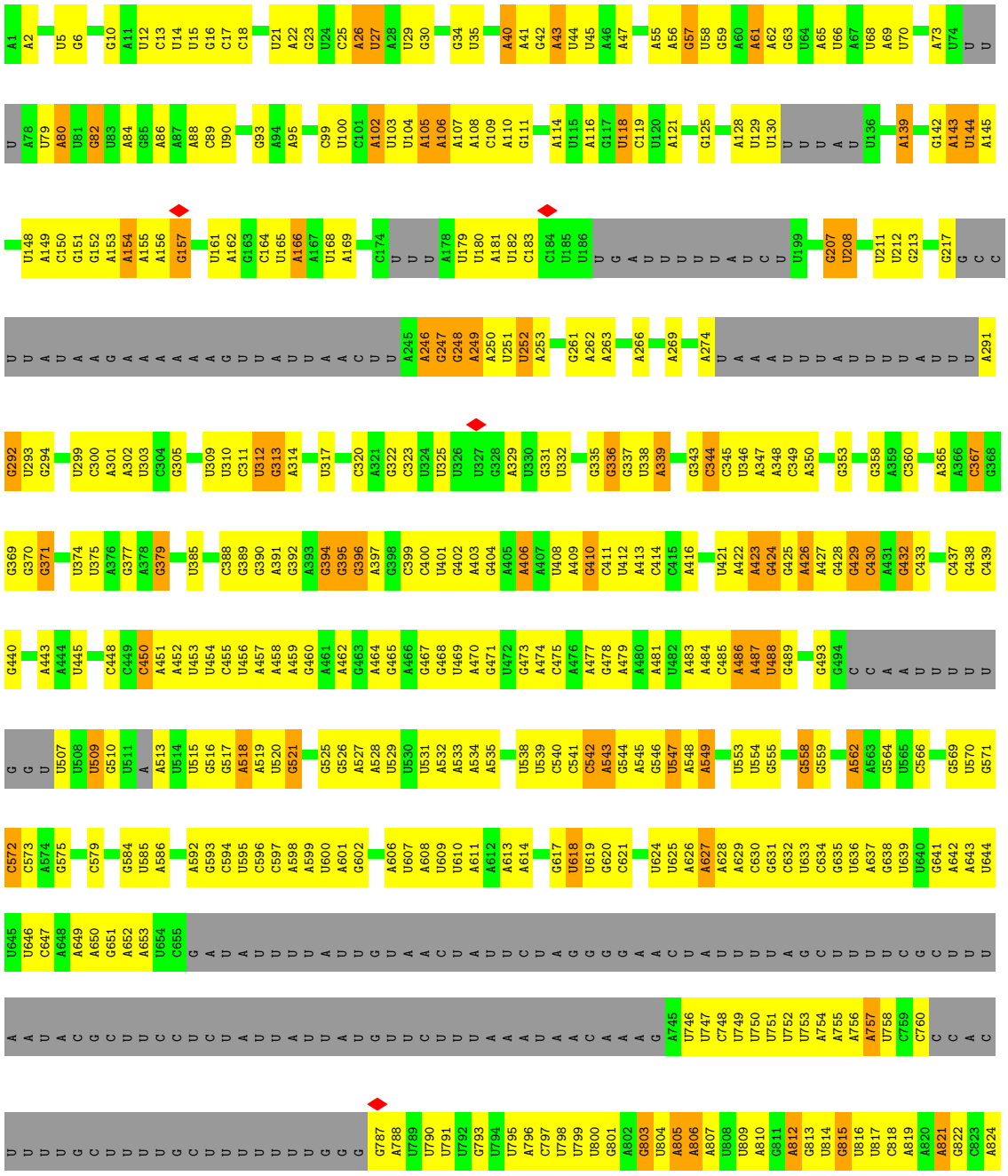
Chain S6:

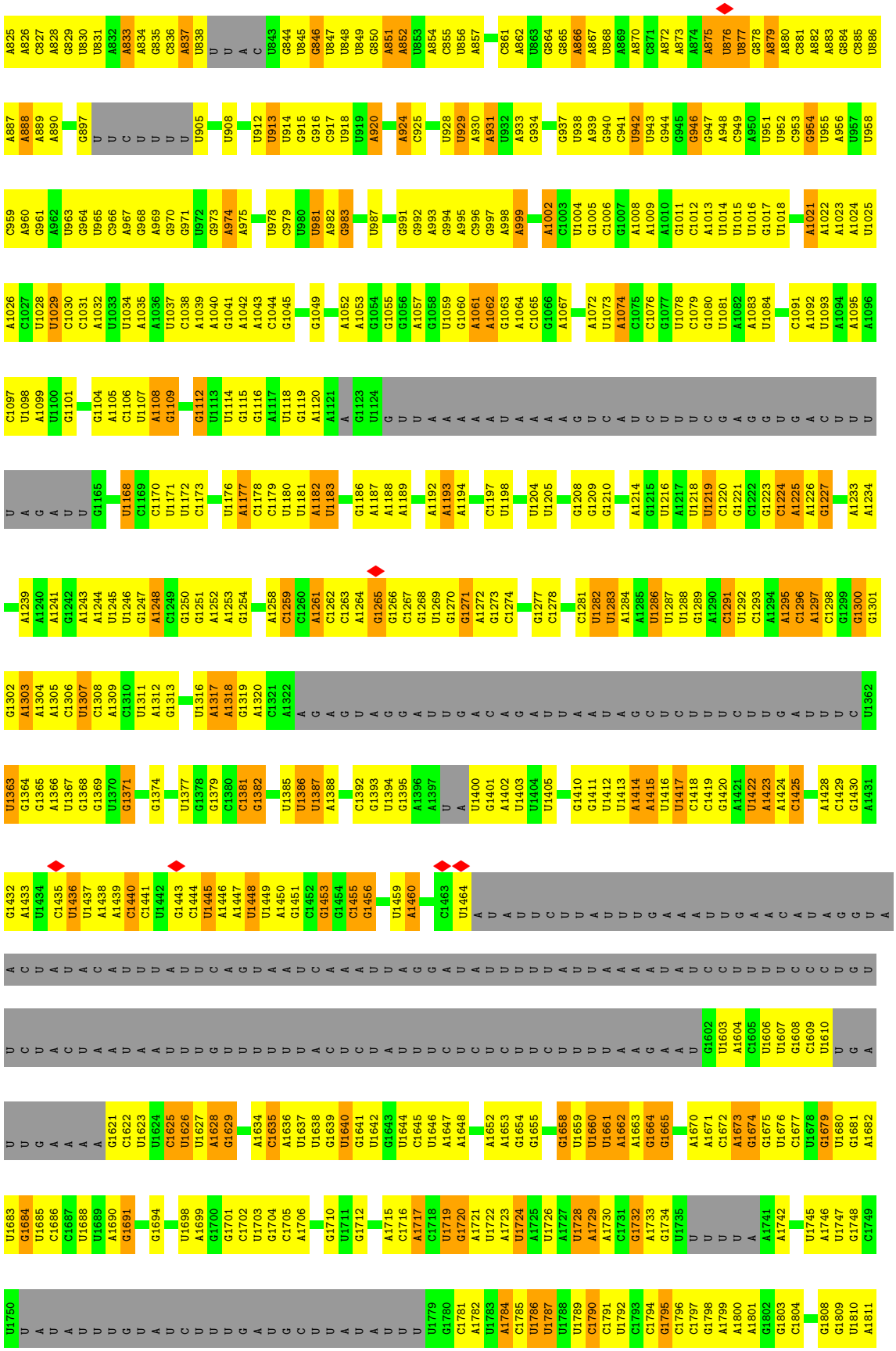


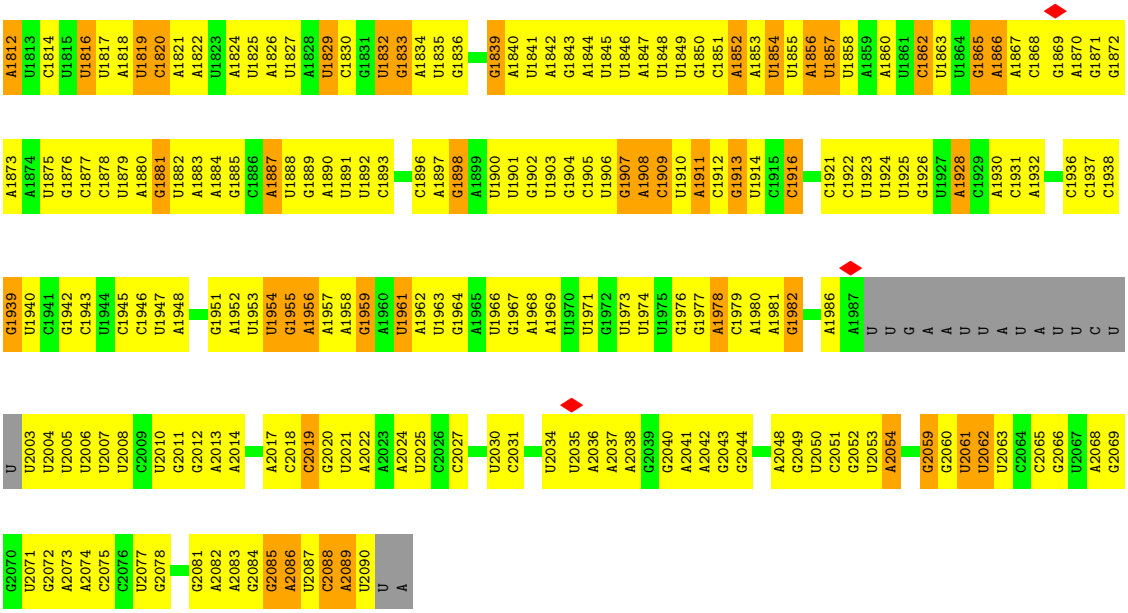
• Molecule 53: 18S ribosomal RNA

Chain SA:



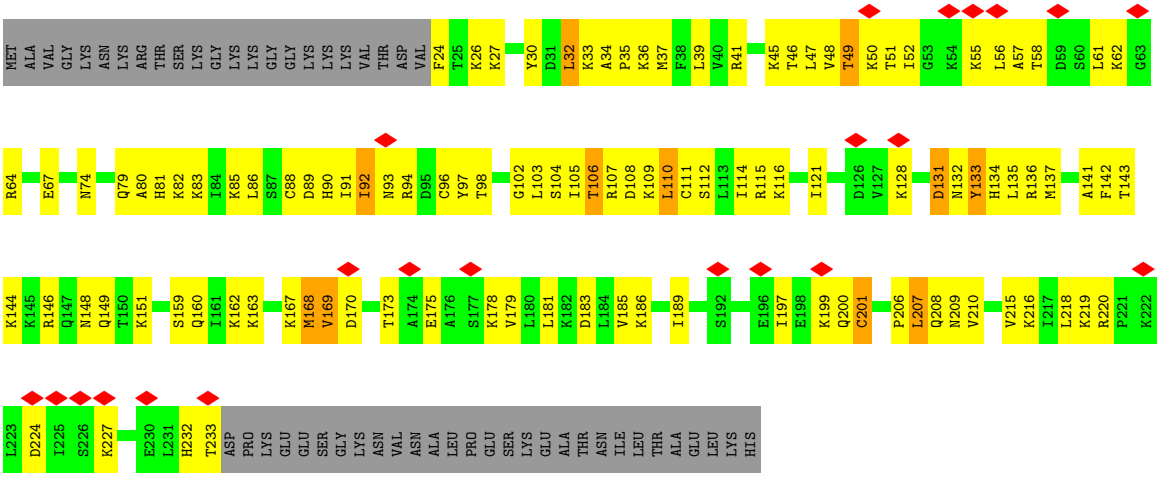






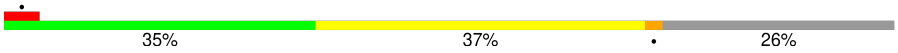
• Molecule 54: 40S ribosomal protein S3a

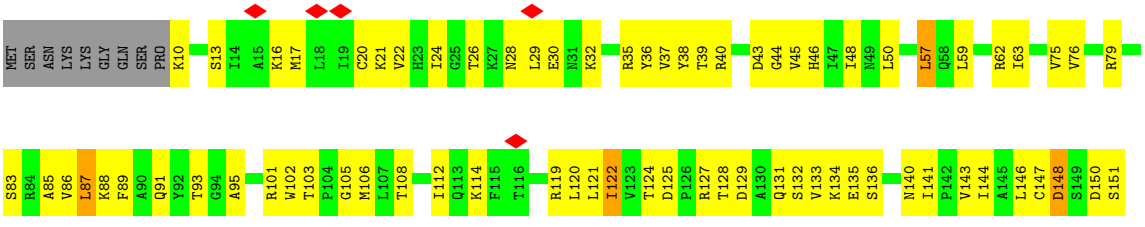
Chain SB:

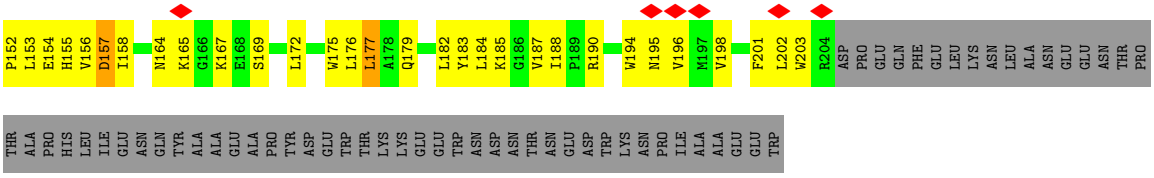


• Molecule 55: 40S ribosomal protein SA

Chain SC:

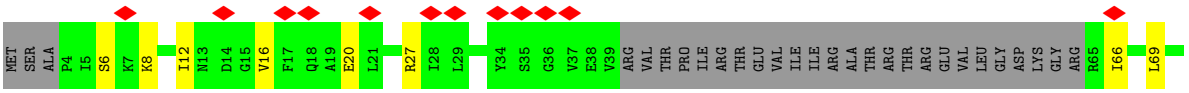


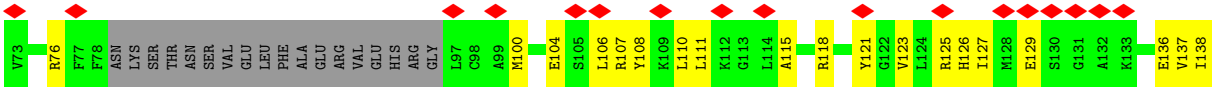


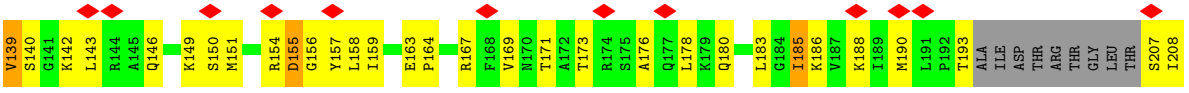


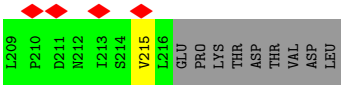
• Molecule 56: 40S ribosomal protein S3

Chain SD:



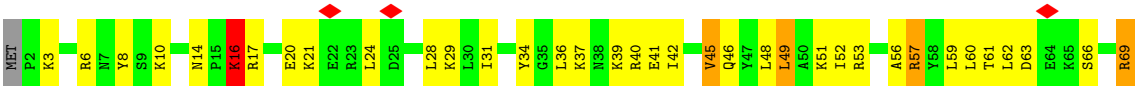


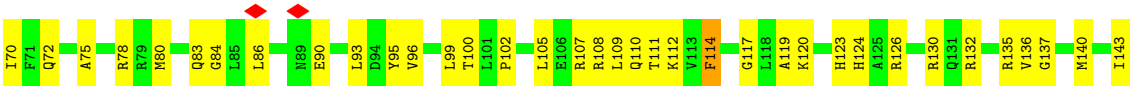


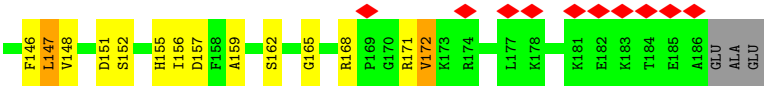


• Molecule 57: 40S ribosomal protein S9

Chain SE:

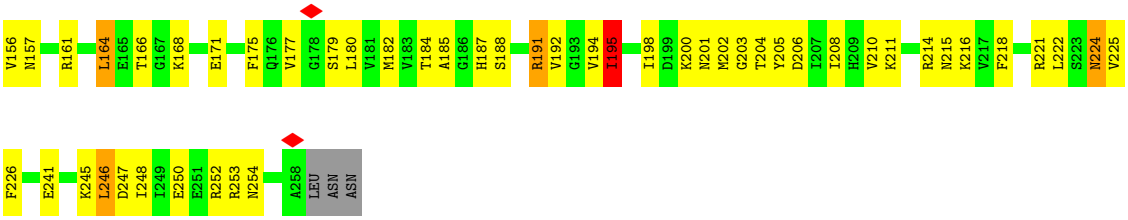






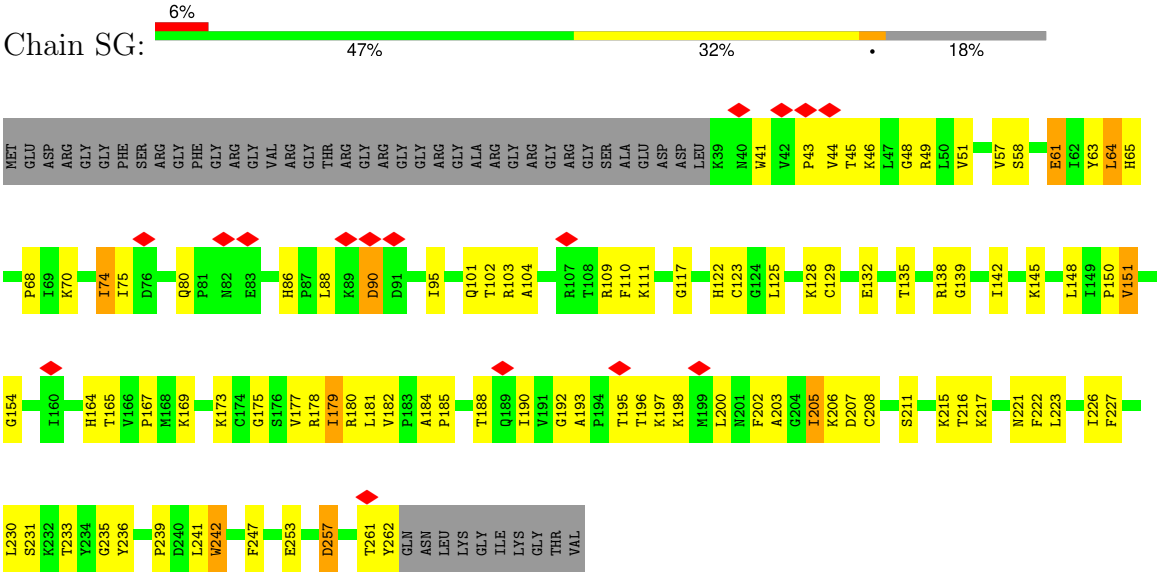
• Molecule 58: 40S ribosomal protein S4

Chain SF:



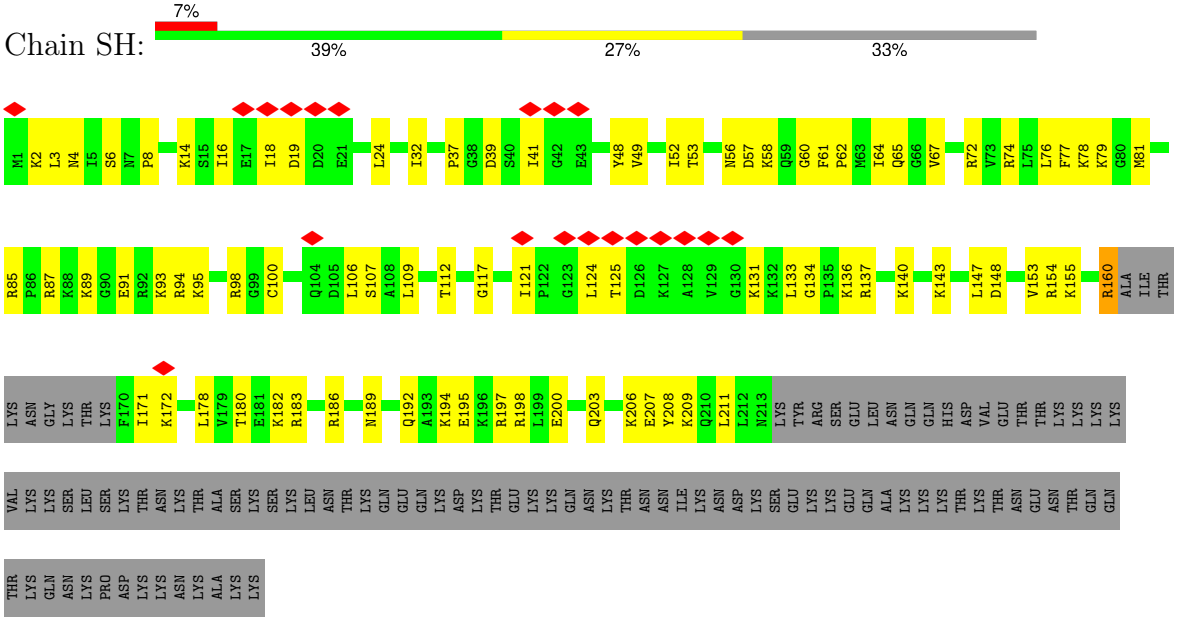
• Molecule 59: 40S ribosomal protein S5

Chain SG:



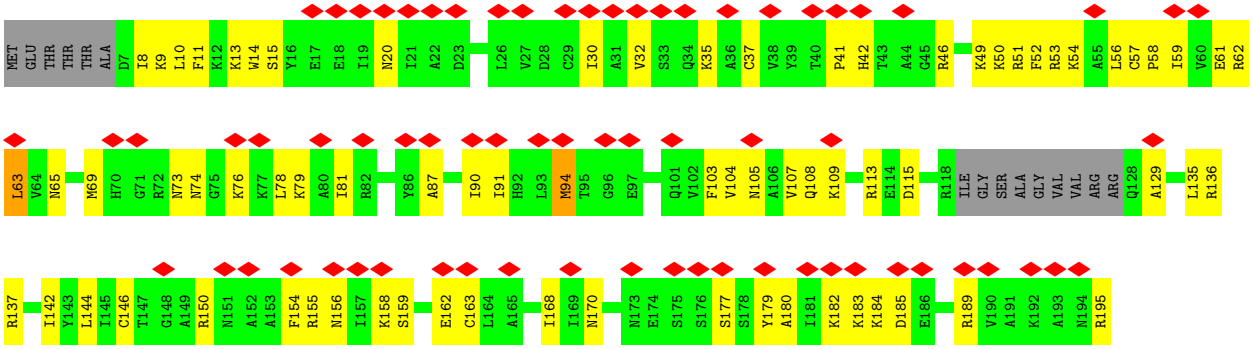
• Molecule 60: 40S ribosomal protein S6

Chain SH:



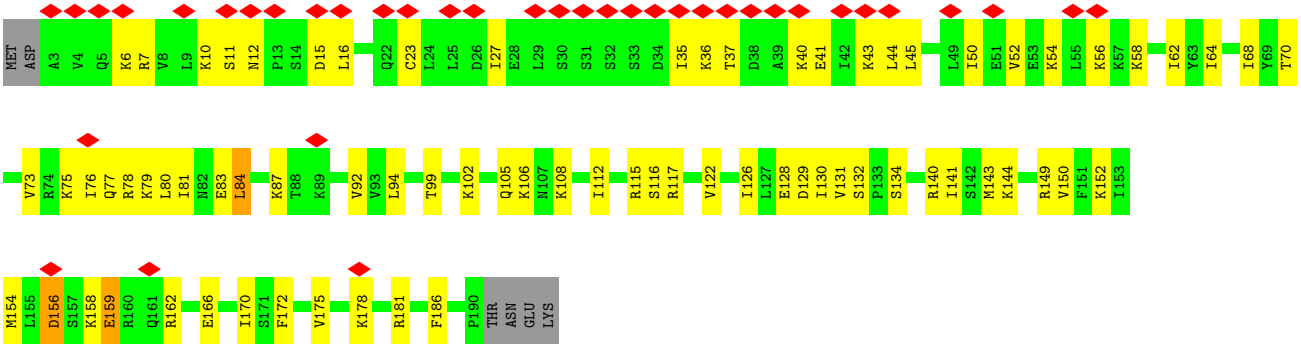
• Molecule 61: 40S ribosomal protein S5

Chain SI:



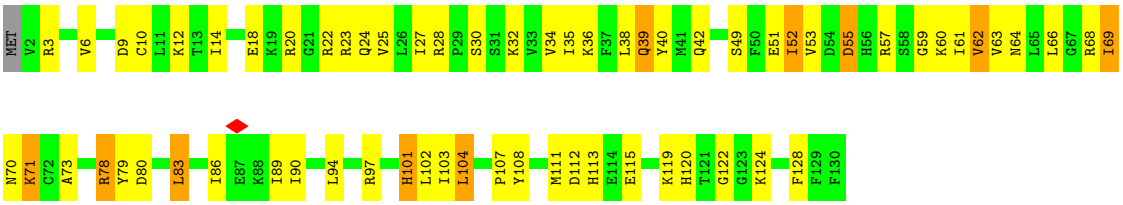
• Molecule 62: 40S ribosomal protein S7

Chain SJ:



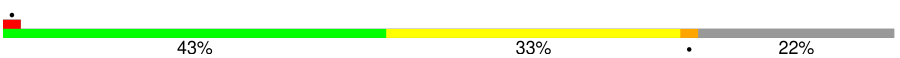
• Molecule 63: 40S ribosomal protein S15A

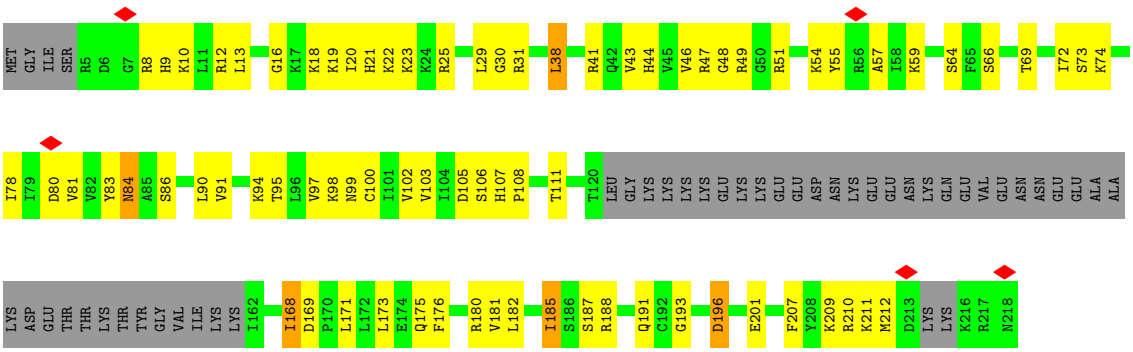
Chain SK:



• Molecule 64: 40S ribosomal protein S8

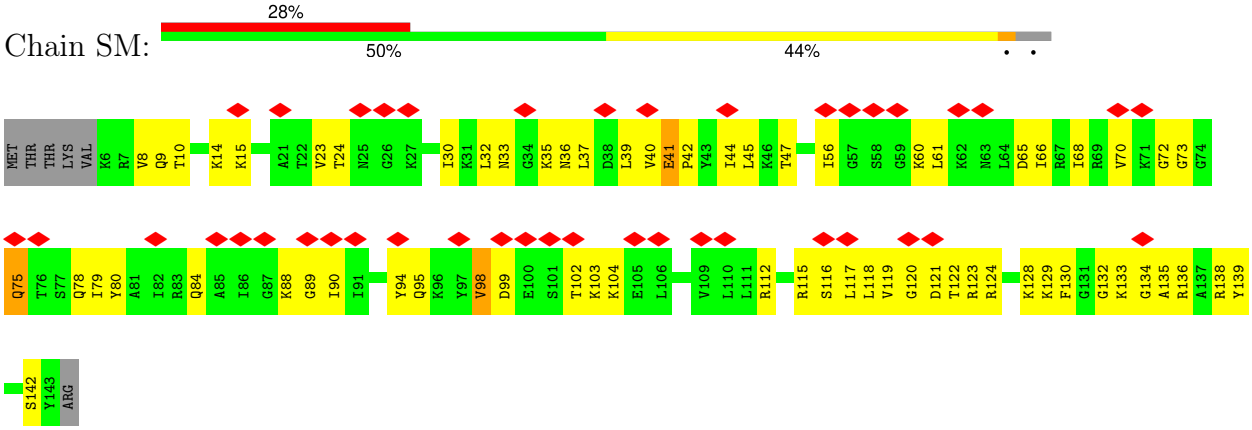
Chain SL:





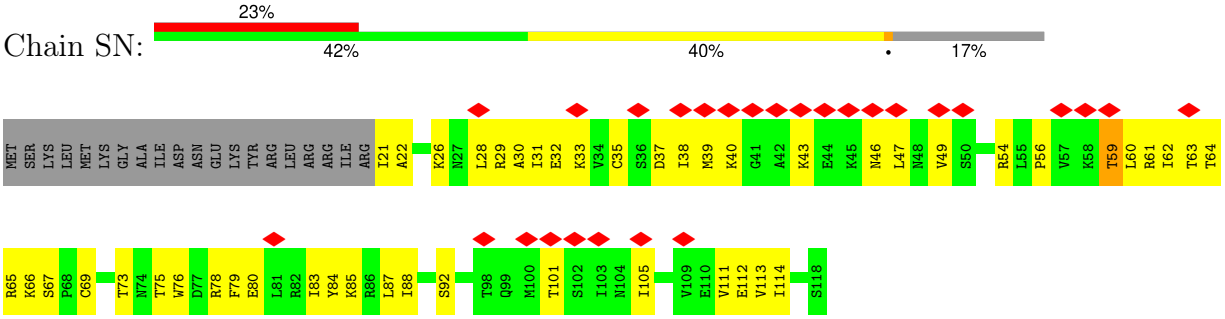
• Molecule 65: 40S ribosomal protein S16

Chain SM:



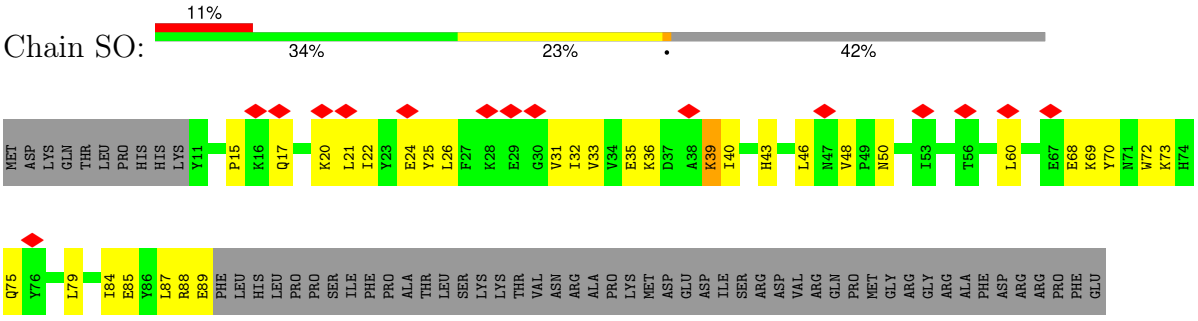
• Molecule 66: 40S ribosomal protein S20e

Chain SN:



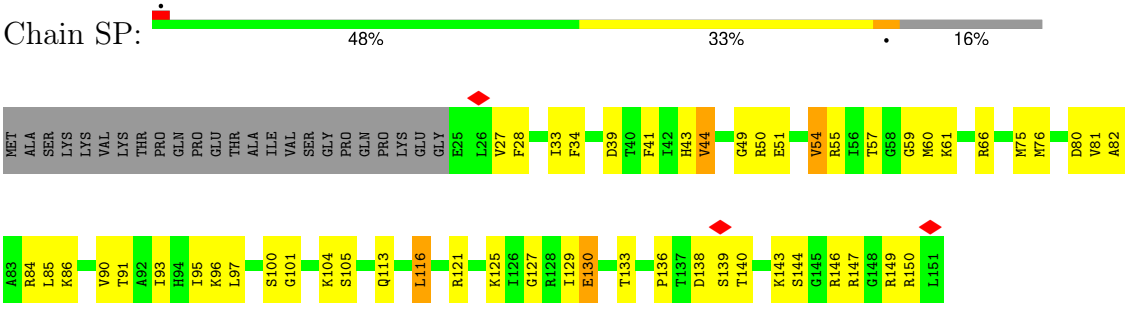
• Molecule 67: 40S ribosomal protein S10

Chain SO:



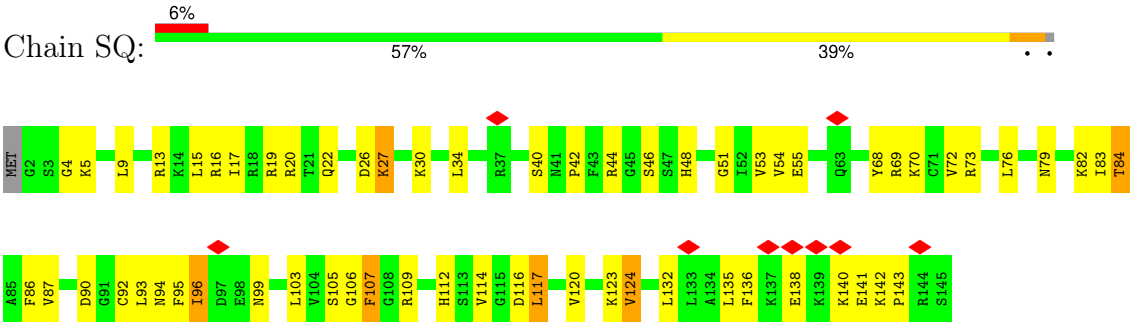
• Molecule 68: 40S ribosomal protein S11

Chain SP:



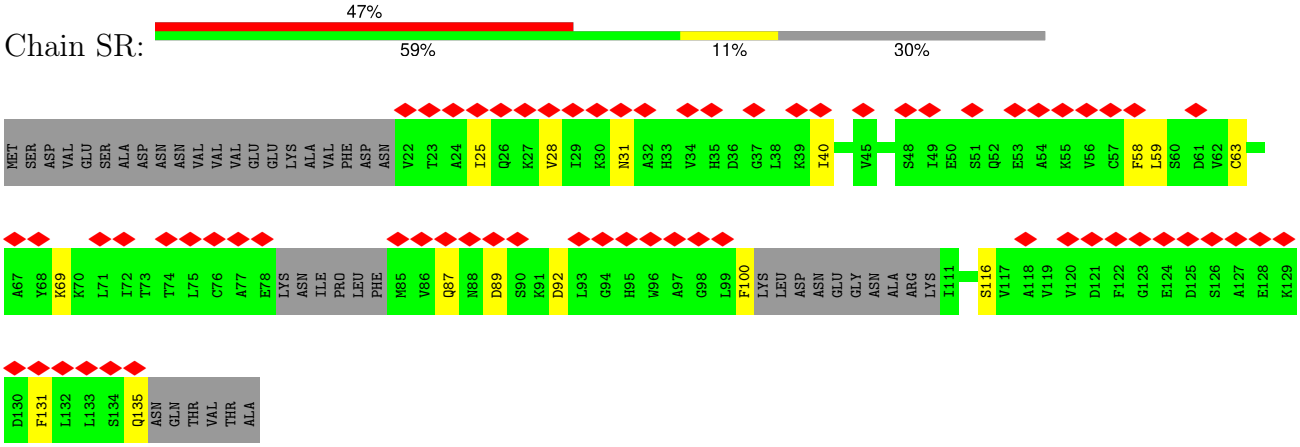
• Molecule 69: 40S ribosomal protein S23

Chain SQ:



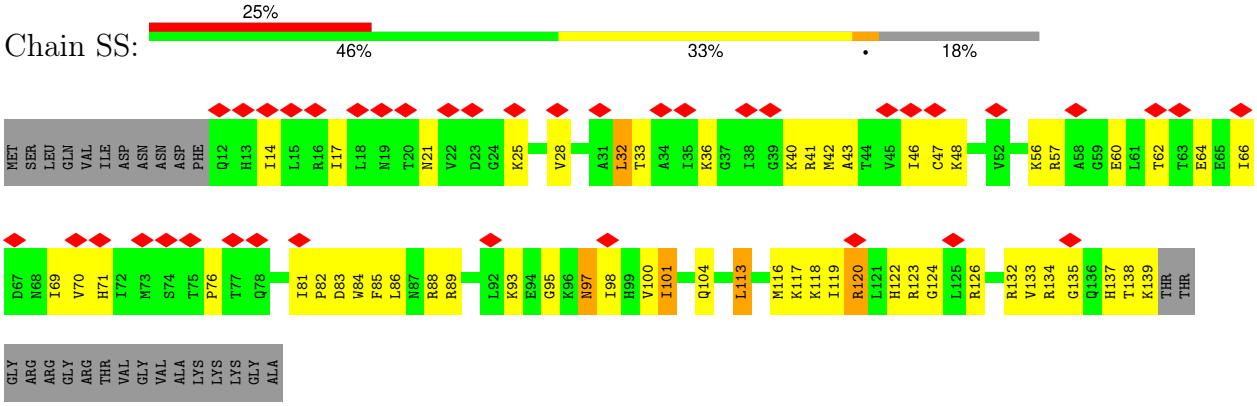
• Molecule 70: 40S ribosomal protein S12

Chain SR:



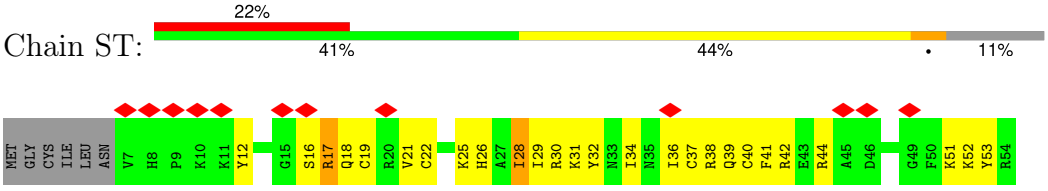
• Molecule 71: 40S ribosomal protein S18

Chain SS:



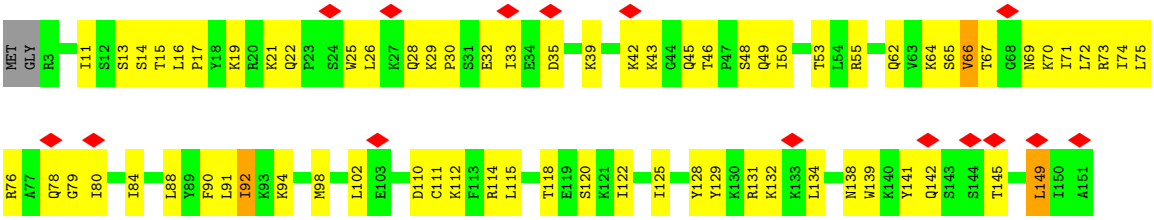
• Molecule 72: 40S ribosomal protein S29

Chain ST:



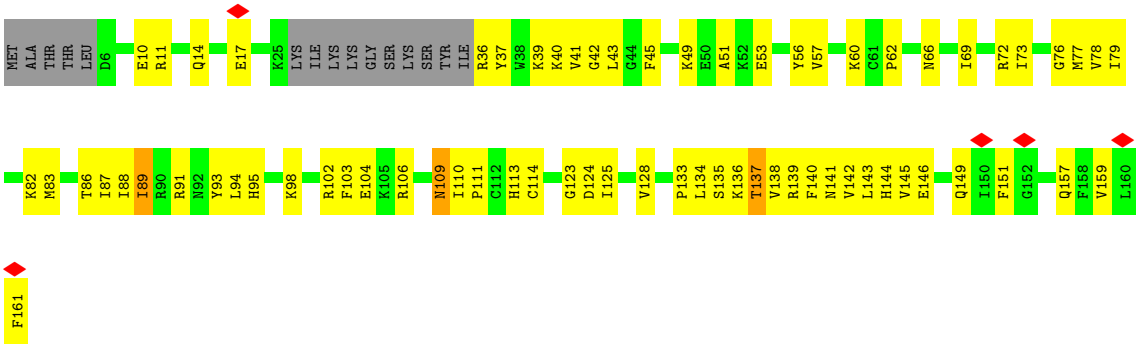
• Molecule 73: 40S ribosomal protein S15

Chain SU:



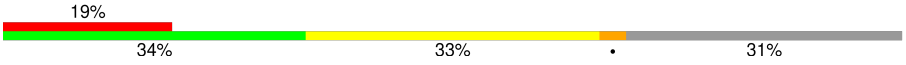
• Molecule 74: 40S ribosomal protein S11

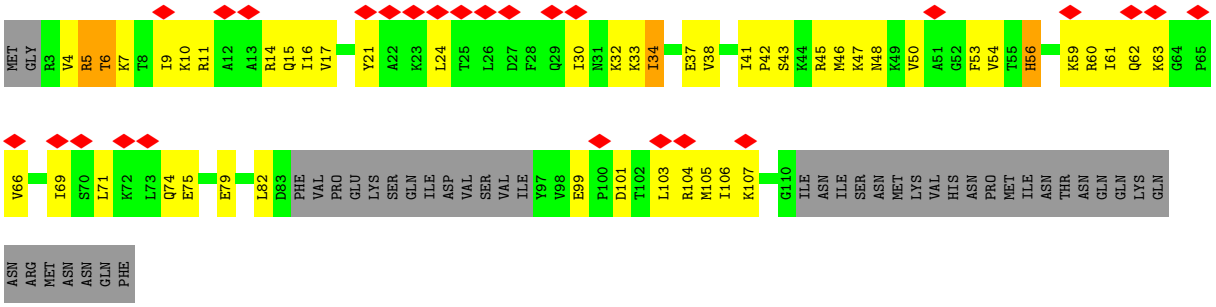
Chain SV:



• Molecule 75: 40S ribosomal protein S17

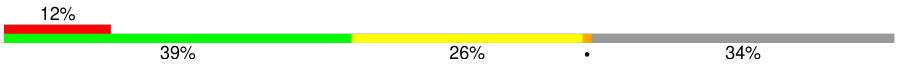
Chain SW:

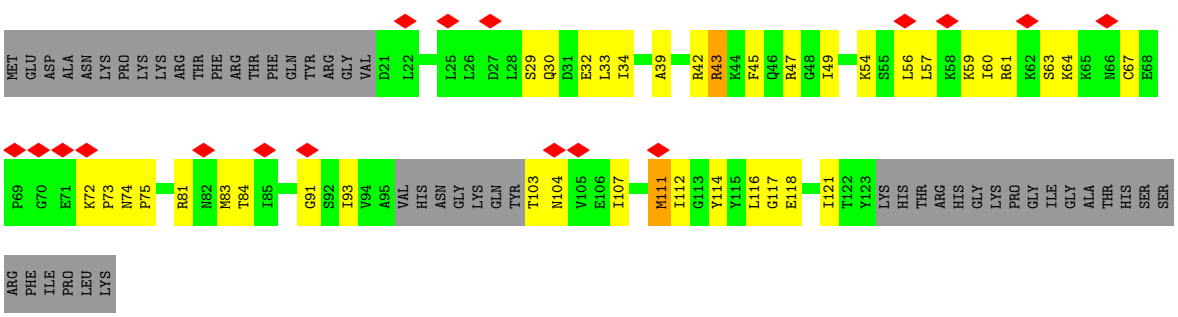




• Molecule 76: 40S ribosomal protein S19

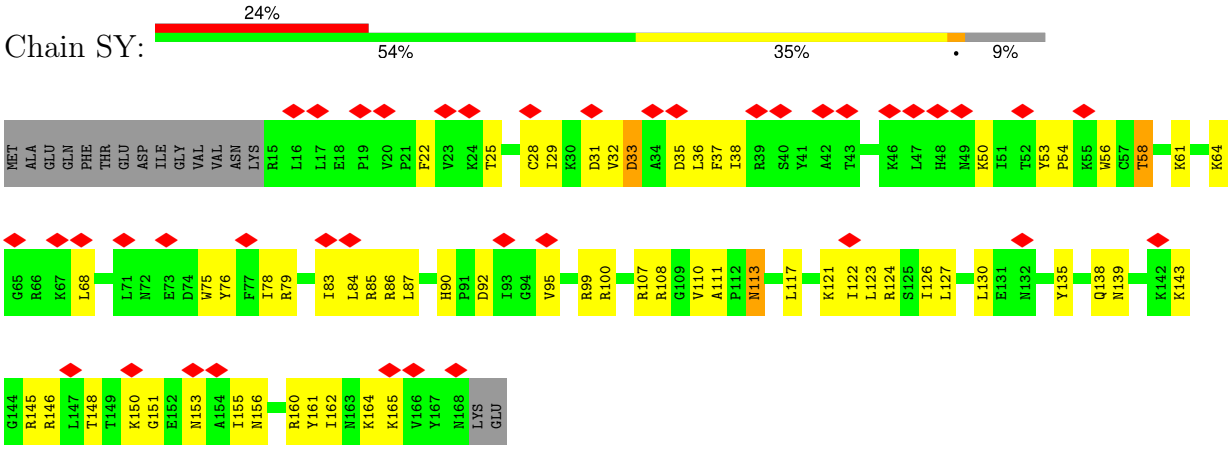
Chain SX:





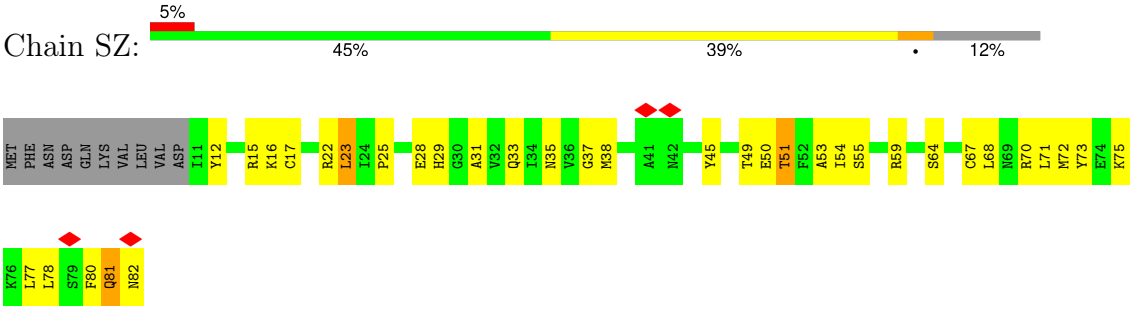
• Molecule 77: 40S ribosomal protein S19

Chain SY:



• Molecule 78: 40S ribosomal protein S21

Chain SZ:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	104647	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	60	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	1800	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.070	Depositor
Minimum map value	-0.024	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.00567	Depositor
Map size (Å)	415.0, 415.0, 415.0	wwPDB
Map dimensions	500, 500, 500	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.83, 0.83, 0.83	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	S7	0.13	0/1810	0.28	0/2821
2	AA	0.20	0/75947	0.33	0/118255
3	AC	0.19	0/3599	0.29	0/5603
4	AB	0.21	0/2816	0.42	0/4388
5	AL	0.19	0/1793	0.40	0/2387
6	A1	0.19	0/1151	0.45	0/1531
7	A2	0.17	0/839	0.33	0/1114
8	A4	0.18	0/564	0.37	0/737
9	A6	0.19	0/748	0.49	0/1001
10	A7	0.22	0/805	0.45	0/1073
11	AN	0.20	0/1226	0.54	1/1632 (0.1%)
12	A8	0.21	0/1053	0.42	0/1399
13	A9	0.20	0/864	0.38	0/1160
14	Aa	0.22	0/871	0.51	0/1161
15	Ab	0.18	0/762	0.43	0/1008
16	Ad	0.17	0/611	0.48	0/812
17	Ae	0.17	0/396	0.29	0/521
18	Af	0.23	0/418	0.57	0/556
19	AP	0.21	0/1735	0.47	0/2320
20	Ah	0.23	0/667	0.51	0/887
21	Ai	0.17	0/788	0.36	0/1032
22	AI	0.18	0/1708	0.37	0/2274
23	AJ	0.18	0/1840	0.44	1/2456 (0.0%)
24	Ac	0.21	0/722	0.41	0/951
25	AK	0.20	0/1689	0.39	0/2260
26	AM	0.21	0/1012	0.47	0/1363
27	AS	0.19	0/1531	0.40	0/2040
28	AO	0.19	0/1199	0.36	0/1597
29	AQ	0.20	0/1579	0.46	0/2113
30	AR	0.19	0/2078	0.46	0/2776
31	AW	0.20	0/1244	0.41	0/1663
32	AY	0.21	0/805	0.47	0/1074
33	AT	0.18	0/1525	0.47	0/2016
34	AZ	0.17	0/1012	0.39	0/1339

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
35	A3	0.23	0/1004	0.54	0/1329
36	A5	0.23	0/1917	0.49	1/2562 (0.0%)
37	AD	0.20	0/1901	0.38	0/2544
38	AE	0.20	0/3129	0.44	0/4195
39	AF	0.18	0/3144	0.37	0/4205
40	AG	0.18	0/1020	0.45	0/1349
41	AU	0.21	0/1527	0.49	0/2043
42	AH	0.23	0/1500	0.57	1/2025 (0.0%)
43	AV	0.25	0/1300	0.47	0/1732
44	Ag	0.16	0/348	0.51	0/448
45	AX	0.15	0/841	0.38	0/1125
46	A0	0.16	0/533	0.40	0/711
47	S1	0.13	0/998	0.34	0/1321
48	S2	0.10	0/323	0.33	0/435
49	S3	0.15	0/793	0.41	0/1055
50	S4	0.17	0/597	0.43	0/801
51	S5	0.13	0/466	0.39	0/616
52	S6	0.12	0/348	0.46	0/458
53	SA	0.12	0/38276	0.27	0/59598
54	SB	0.15	0/1737	0.43	0/2321
55	SC	0.17	0/1569	0.49	0/2129
56	SD	0.13	0/1240	0.37	0/1652
57	SE	0.16	0/1538	0.43	0/2055
58	SF	0.15	0/2097	0.39	0/2819
59	SG	0.16	0/1799	0.42	0/2429
60	SH	0.15	0/1668	0.42	0/2214
61	SI	0.13	0/1443	0.37	0/1936
62	SJ	0.16	0/1544	0.38	0/2064
63	SK	0.17	0/1054	0.47	0/1411
64	SL	0.18	0/1407	0.43	0/1879
65	SM	0.13	0/1113	0.37	0/1487
66	SN	0.17	0/780	0.39	0/1053
67	SO	0.14	0/705	0.37	0/950
68	SP	0.17	0/966	0.47	0/1295
69	SQ	0.27	0/1149	0.46	0/1532
70	SR	0.10	0/754	0.29	0/1013
71	SS	0.13	0/1062	0.40	0/1425
72	ST	0.14	0/412	0.34	0/544
73	SU	0.17	0/1223	0.44	0/1634
74	SV	0.16	0/1233	0.41	0/1645
75	SW	0.17	0/792	0.50	0/1053
76	SX	0.12	0/787	0.37	0/1050
77	SY	0.12	0/1294	0.36	0/1742

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
78	SZ	0.14	0/565	0.40	0/758
All	All	0.18	0/207303	0.36	4/303962 (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
22	AI	0	1

There are no bond length outliers.

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	AN	7	THR	CB-CA-C	-6.39	108.54	117.23
23	AJ	57	VAL	N-CA-C	-6.34	105.16	111.88
36	A5	246	GLU	CB-CA-C	-5.17	110.59	116.54
42	AH	155	LEU	CA-CB-CG	5.02	133.88	116.30

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
22	AI	87	GLY	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	S7	1620	0	827	24	0
2	AA	67884	0	34243	1628	0
3	AC	3215	0	1633	75	0
4	AB	2517	0	1275	135	0
5	AL	1761	0	1896	61	0
6	A1	1134	0	1245	82	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	A2	830	0	887	19	0
8	A4	555	0	599	23	0
9	A6	740	0	763	48	0
10	A7	793	0	869	35	0
11	AN	1210	0	1329	63	0
12	A8	1036	0	1139	40	0
13	A9	844	0	886	19	0
14	Aa	858	0	912	55	0
15	Ab	756	0	842	20	0
16	Ad	603	0	686	45	0
17	Ae	388	0	421	8	0
18	Af	413	0	452	43	0
19	AP	1697	0	1802	62	0
20	Ah	658	0	727	38	0
21	Ai	778	0	861	22	0
22	AI	1685	0	1849	48	0
23	AJ	1813	0	1985	74	0
24	Ac	709	0	761	31	0
25	AK	1659	0	1782	37	0
26	AM	996	0	1044	54	0
27	AS	1503	0	1636	31	0
28	AO	1172	0	1230	28	0
29	AQ	1544	0	1582	69	0
30	AR	2049	0	2145	145	0
31	AW	1319	0	1303	35	0
32	AY	796	0	850	36	0
33	AT	1509	0	1682	60	0
34	AZ	1000	0	1099	48	0
35	A3	994	0	1121	61	0
36	A5	1879	0	2005	72	0
37	AD	1866	0	1964	49	0
38	AE	3061	0	3205	141	0
39	AF	3094	0	3333	103	0
40	AG	1010	0	1073	75	0
41	AU	1497	0	1556	76	0
42	AH	1475	0	1574	98	0
43	AV	1275	0	1355	50	0
44	Ag	343	0	388	18	0
45	AX	824	0	882	38	0
46	A0	521	0	539	19	0
47	S1	985	0	1076	60	0
48	S2	320	0	338	2	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
49	S3	781	0	820	47	0
50	S4	586	0	604	22	0
51	S5	465	0	505	23	0
52	S6	345	0	381	20	0
53	SA	34208	0	17266	1052	0
54	SB	1713	0	1838	95	0
55	SC	1538	0	1600	77	0
56	SD	1228	0	1311	47	0
57	SE	1514	0	1605	89	0
58	SF	2061	0	2200	109	0
59	SG	1757	0	1811	90	0
60	SH	1651	0	1807	74	0
61	SI	1424	0	1471	70	0
62	SJ	1528	0	1680	59	0
63	SK	1037	0	1099	56	0
64	SL	1383	0	1434	72	0
65	SM	1098	0	1183	55	0
66	SN	772	0	813	52	0
67	SO	686	0	695	21	0
68	SP	954	0	997	57	0
69	SQ	1129	0	1196	53	0
70	SR	746	0	754	9	0
71	SS	1046	0	1101	49	0
72	ST	405	0	419	32	0
73	SU	1202	0	1299	76	0
74	SV	1206	0	1239	54	0
75	SW	785	0	858	45	0
76	SX	776	0	832	30	0
77	SY	1266	0	1316	58	0
78	SZ	557	0	558	35	0
All	All	193035	0	144343	5696	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 17.

All (5696) 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)
2:AA:3490:A:N6	2:AA:3513:G:H21	1.34	1.26
2:AA:3490:A:H62	2:AA:3513:G:N2	1.34	1.23
2:AA:965:A:H61	53:SA:1041:G:N2	1.42	1.15

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:3410:A:H62	2:AA:3417:G:N2	1.42	1.14
2:AA:3725:G:N2	2:AA:3762:A:H62	1.44	1.13
2:AA:3410:A:N6	2:AA:3417:G:H21	1.47	1.13
2:AA:11:A:N6	3:AC:154:G:H1	1.49	1.09
29:AQ:48:GLY:HA3	29:AQ:140:THR:O	1.54	1.04
2:AA:179:G:N1	2:AA:252:A:C6	2.28	1.01
2:AA:1869:G:N2	2:AA:1889:A:C8	2.29	1.01
2:AA:163:G:C2	2:AA:269:A:N1	2.31	0.98
53:SA:142:G:H1	53:SA:169:A:N6	1.61	0.97
2:AA:10:G:H21	2:AA:1706:A:N6	1.62	0.97
30:AR:20:TYR:O	30:AR:24:ARG:HB2	1.67	0.95
53:SA:1717:A:H62	53:SA:1835:U:H3	1.11	0.95
2:AA:163:G:H1	2:AA:269:A:N6	1.65	0.94
2:AA:541:A:C2	2:AA:611:G:N1	2.36	0.94
53:SA:651:G:H1	53:SA:749:U:H3	0.95	0.94
2:AA:3635:G:H1	2:AA:3650:U:H3	1.08	0.94
2:AA:3637:G:H1	2:AA:3648:U:H3	1.05	0.94
2:AA:965:A:N6	53:SA:1041:G:H21	1.67	0.93
53:SA:887:A:H2	53:SA:915:G:H1	1.09	0.92
29:AQ:48:GLY:CA	29:AQ:140:THR:O	2.16	0.92
54:SB:183:ASP:HA	54:SB:186:LYS:HG2	1.52	0.92
2:AA:3725:G:H21	2:AA:3762:A:H62	0.94	0.91
2:AA:965:A:H61	53:SA:1041:G:H21	1.04	0.91
2:AA:3499:C:O2'	2:AA:3501:C:N4	2.04	0.90
32:AY:173:ARG:HG2	32:AY:174:LEU:H	1.35	0.90
6:A1:53:VAL:HG21	6:A1:62:ILE:HG12	1.53	0.90
2:AA:163:G:N1	2:AA:269:A:N6	2.18	0.90
65:SM:14:LYS:HD3	65:SM:80:TYR:HB3	1.53	0.89
47:S1:17:LEU:HD22	58:SF:94:LYS:HZ1	1.38	0.89
53:SA:484:A:H61	53:SA:517:G:H1	1.18	0.89
2:AA:541:A:H2	2:AA:611:G:H1	1.16	0.89
2:AA:3725:G:H21	2:AA:3762:A:N6	1.72	0.88
53:SA:1316:U:H3	53:SA:1694:G:H1	1.18	0.88
20:Ah:47:THR:HA	20:Ah:57:CYS:HA	1.54	0.87
2:AA:2128:G:H1'	2:AA:3451:G:H5"	1.54	0.87
34:AZ:114:ARG:HG3	34:AZ:117:ILE:HG12	1.58	0.86
53:SA:1368:G:H1	53:SA:1688:U:H3	1.21	0.86
53:SA:969:A:H3'	53:SA:970:G:H21	1.41	0.86
2:AA:10:G:O6	3:AC:155:A:N1	2.07	0.86
2:AA:10:G:N2	2:AA:1706:A:N6	2.23	0.86
2:AA:3636:U:H3	2:AA:3649:G:H1	0.86	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1791:A:N6	2:AA:1799:A:OP2	2.08	0.85
2:AA:2401:C:H1'	2:AA:3736:A:H8	1.40	0.85
2:AA:3412:G:H22	2:AA:3414:G:H3'	1.40	0.85
53:SA:887:A:N1	53:SA:915:G:O6	2.09	0.85
4:AB:7:G:N2	4:AB:112:U:O2	2.08	0.85
2:AA:3443:A:N1	2:AA:3470:G:O2'	2.10	0.85
12:A8:96:ILE:HG12	12:A8:108:ILE:HD11	1.57	0.85
36:A5:164:ARG:HB3	36:A5:171:TYR:HB3	1.59	0.84
53:SA:1888:U:H3	53:SA:1902:G:H1	1.23	0.84
2:AA:1967:G:H2'	16:Ad:2:PRO:HB2	1.57	0.84
18:Af:24:TYR:O	18:Af:26:ARG:NH2	2.10	0.84
2:AA:3409:U:C4	2:AA:3418:A:N7	2.45	0.84
16:Ad:16:ARG:NE	16:Ad:16:ARG:O	2.11	0.84
2:AA:965:A:N6	53:SA:1041:G:N2	2.24	0.84
2:AA:2094:A:H4'	2:AA:2095:U:H5'	1.60	0.84
77:SY:99:ARG:HB3	77:SY:117:LEU:HB3	1.58	0.84
44:Ag:13:ALA:HB1	53:SA:1937:C:H4'	1.58	0.84
53:SA:955:U:H2'	53:SA:956:A:H8	1.42	0.83
53:SA:1799:A:H5"	77:SY:121:LYS:HD3	1.60	0.83
53:SA:1982:G:H1	53:SA:2008:U:H3	0.86	0.83
29:AQ:38:ARG:HE	29:AQ:39:LYS:H	1.24	0.83
75:SW:101:ASP:HA	75:SW:104:ARG:HE	1.41	0.83
2:AA:1132:G:H1	2:AA:1163:A:H61	1.24	0.83
53:SA:1437:U:H2'	53:SA:1438:A:H8	1.43	0.83
4:AB:38:U:O2'	4:AB:42:A:N6	2.11	0.83
53:SA:1248:A:H5'	59:SG:103:ARG:HD2	1.61	0.82
4:AB:37:A:N6	4:AB:41:G:C6	2.47	0.82
51:S5:47:PRO:HB3	61:SI:51:ARG:HD2	1.62	0.82
2:AA:3511:C:H2'	2:AA:3512:A:H8	1.42	0.82
53:SA:99:C:H1'	53:SA:432:G:H5'	1.60	0.82
53:SA:370:G:H21	53:SA:806:A:N6	1.76	0.82
2:AA:2730:G:H1	2:AA:2819:U:H3	1.28	0.82
2:AA:159:C:H2'	2:AA:160:G:H8	1.45	0.82
73:SU:29:LYS:HD3	73:SU:30:PRO:HD2	1.61	0.81
2:AA:1132:G:H1	2:AA:1163:A:N6	1.77	0.81
2:AA:1630:A:N6	2:AA:2139:C:O2	2.13	0.81
47:S1:94:ARG:HH12	53:SA:532:A:H5"	1.45	0.81
41:AU:150:GLN:HE21	41:AU:150:GLN:H	1.26	0.81
32:AY:136:LYS:HA	32:AY:168:LYS:HG3	1.63	0.81
2:AA:1835:G:H1	2:AA:1843:U:H3	1.27	0.81
59:SG:192:GLY:HA3	59:SG:197:LYS:HE3	1.63	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:103:U:O2	64:SL:21:HIS:NE2	2.13	0.81
30:AR:55:LYS:NZ	30:AR:159:ASN:OD1	2.14	0.80
2:AA:3212:G:N2	29:AQ:157:TYR:OH	2.15	0.80
66:SN:63:THR:HG22	66:SN:78:ARG:HE	1.46	0.80
2:AA:1266:U:OP1	8:A4:13:ASN:ND2	2.15	0.80
43:AV:46:ASP:H	43:AV:96:HIS:HD2	1.29	0.80
2:AA:1887:G:OP1	14:Aa:83:ARG:NH1	2.15	0.79
39:AF:159:GLU:HA	39:AF:217:VAL:HG13	1.63	0.79
4:AB:24:C:OP2	4:AB:25:A:N6	2.15	0.79
30:AR:103:LEU:HD21	30:AR:247:ARG:HG3	1.63	0.79
53:SA:150:C:H1'	60:SH:4:ASN:HD21	1.48	0.79
71:SS:48:LYS:HD3	77:SY:58:THR:HG22	1.64	0.79
53:SA:142:G:H1	53:SA:169:A:H61	0.82	0.79
53:SA:1030:C:H5"	73:SU:71:ILE:HG21	1.64	0.79
69:SQ:70:LYS:HB3	69:SQ:93:LEU:HD12	1.64	0.79
2:AA:163:G:N1	2:AA:269:A:C6	2.51	0.79
2:AA:3443:A:O2'	10:A7:29:HIS:NE2	2.16	0.79
76:SX:81:ARG:HE	76:SX:117:GLY:HA2	1.47	0.79
2:AA:1889:A:H3'	2:AA:1890:G:H8	1.47	0.79
42:AH:90:LYS:NZ	42:AH:142:GLU:OE1	2.15	0.79
26:AM:139:VAL:HG21	46:A0:29:ILE:HG12	1.65	0.79
34:AZ:74:ARG:HE	34:AZ:74:ARG:H	1.29	0.79
2:AA:268:C:N3	2:AA:269:A:N6	2.31	0.78
52:S6:33:ARG:HG2	57:SE:37:LYS:HA	1.65	0.78
53:SA:370:G:N2	53:SA:806:A:H61	1.81	0.78
11:AN:41:LYS:HB3	11:AN:64:VAL:HG21	1.65	0.78
26:AM:82:ARG:HH21	26:AM:119:PRO:HB2	1.47	0.78
41:AU:102:GLU:HG2	41:AU:138:ILE:HG21	1.65	0.78
75:SW:16:ILE:HD12	75:SW:17:VAL:HG23	1.63	0.78
2:AA:541:A:H2	2:AA:611:G:N1	1.77	0.78
41:AU:18:ILE:HG22	41:AU:67:LEU:HD22	1.66	0.78
68:SP:27:VAL:HB	68:SP:90:VAL:HG23	1.66	0.78
2:AA:3492:G:N3	42:AH:162:GLN:NE2	2.32	0.78
54:SB:136:ARG:HB2	54:SB:218:LEU:HD11	1.65	0.78
2:AA:2946:G:H22	19:AP:79:ILE:HD11	1.48	0.77
53:SA:154:A:N6	53:SA:424:G:N7	2.32	0.77
62:SJ:144:LYS:O	63:SK:42:GLN:NE2	2.18	0.77
2:AA:2548:A:H5'	2:AA:2554:G:H22	1.48	0.77
2:AA:3468:G:H21	2:AA:3724:U:H4'	1.49	0.77
53:SA:370:G:N2	53:SA:806:A:N6	2.32	0.77
49:S3:64:LEU:HD12	49:S3:65:PRO:HD2	1.66	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:SL:8:ARG:C	64:SL:9:HIS:HD1	1.92	0.77
2:AA:1784:G:N2	2:AA:1787:A:OP2	2.15	0.77
2:AA:3498:A:OP2	2:AA:3501:C:N4	2.18	0.77
52:S6:41:ASN:HB2	53:SA:510:G:H4'	1.67	0.77
75:SW:41:ILE:HB	75:SW:47:LYS:HD3	1.66	0.77
4:AB:30:A:OP1	40:AG:13:LYS:NZ	2.17	0.77
53:SA:1061:A:O2'	53:SA:2077:U:O2	2.03	0.76
54:SB:144:LYS:HB3	54:SB:206:PRO:HB2	1.66	0.76
55:SC:28:ASN:ND2	55:SC:150:ASP:OD1	2.15	0.76
2:AA:1867:U:H5'	6:A1:76:ASN:HD22	1.49	0.76
58:SF:122:LYS:NZ	58:SF:143:ASP:OD1	2.18	0.76
19:AP:125:ASP:OD1	19:AP:126:ALA:N	2.18	0.76
58:SF:195:ILE:HA	58:SF:210:VAL:HA	1.68	0.76
2:AA:3469:C:H4'	46:A0:42:LYS:HD3	1.67	0.76
2:AA:1277:G:OP2	13:A9:54:ARG:NH2	2.18	0.76
53:SA:1437:U:H2'	53:SA:1438:A:C8	2.21	0.76
53:SA:1625:C:O2	65:SM:9:GLN:NE2	2.18	0.76
2:AA:1058:U:OP2	28:AO:26:ARG:NH2	2.19	0.76
73:SU:98:MET:HE1	73:SU:114:ARG:HB2	1.66	0.76
2:AA:10:G:N2	2:AA:1706:A:C6	2.54	0.76
32:AY:145:LYS:O	32:AY:149:ASN:HB3	1.86	0.76
53:SA:1386:U:H4'	53:SA:1387:U:H5'	1.65	0.76
2:AA:496:C:OP1	12:A8:113:LYS:NZ	2.18	0.76
53:SA:1288:U:H2'	53:SA:1289:G:H8	1.49	0.76
2:AA:3725:G:N2	2:AA:3762:A:N6	2.29	0.75
53:SA:142:G:N2	53:SA:169:A:N1	2.31	0.75
29:AQ:48:GLY:C	29:AQ:140:THR:O	2.29	0.75
53:SA:939:A:H2'	53:SA:940:G:C8	2.21	0.75
2:AA:163:G:N1	2:AA:269:A:N1	2.34	0.75
2:AA:544:C:O2	2:AA:581:C:N4	2.19	0.75
2:AA:1887:G:N2	2:AA:1888:A:N7	2.34	0.75
2:AA:3446:A:H5"	2:AA:3763:G:H22	1.50	0.75
14:Aa:62:ASN:O	14:Aa:70:ARG:NH2	2.19	0.75
55:SC:103:THR:HG22	55:SC:105:GLY:H	1.52	0.75
64:SL:8:ARG:O	64:SL:9:HIS:ND1	2.20	0.75
66:SN:22:ALA:HB2	66:SN:87:LEU:HD12	1.67	0.75
9:A6:43:LYS:N	9:A6:95:ILE:O	2.17	0.75
2:AA:442:G:H5'	13:A9:90:LYS:HD2	1.67	0.75
24:Ac:22:CYS:HB2	24:Ac:30:TYR:HB2	1.68	0.75
23:AJ:276:LYS:HD3	54:SB:51:THR:HG21	1.67	0.75
63:SK:66:LEU:HB2	63:SK:68:ARG:HD2	1.69	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1991:U:H2'	2:AA:1992:U:H6	1.50	0.75
63:SK:49:SER:O	63:SK:64:ASN:ND2	2.19	0.75
18:Af:20:CYS:HB3	18:Af:24:TYR:H	1.52	0.75
53:SA:56:A:OP1	53:SA:409:A:N6	2.17	0.75
53:SA:1875:U:H2'	53:SA:1876:G:H8	1.50	0.75
2:AA:3639:G:H22	2:AA:3646:G:H1	1.34	0.74
4:AB:7:G:N1	4:AB:112:U:N3	2.31	0.74
30:AR:83:LEU:HA	30:AR:86:TYR:HD2	1.51	0.74
53:SA:1845:U:O2	53:SA:1860:A:N6	2.19	0.74
40:AG:155:THR:OG1	40:AG:156:LYS:N	2.20	0.74
49:S3:28:ARG:NH2	53:SA:2062:U:O4	2.20	0.74
53:SA:484:A:N6	53:SA:517:G:H1	1.84	0.74
53:SA:1271:G:H1	53:SA:1715:A:H2	1.33	0.74
2:AA:1531:G:H1	2:AA:1573:C:H5	1.35	0.74
2:AA:3725:G:C2	2:AA:3762:A:N6	2.56	0.74
53:SA:1798:G:O6	77:SY:124:ARG:NH2	2.20	0.74
2:AA:506:A:H2'	2:AA:507:G:C8	2.23	0.74
2:AA:2027:A:H2'	2:AA:2028:G:H8	1.51	0.74
53:SA:1223:G:N2	53:SA:1226:A:OP2	2.19	0.74
54:SB:79:GLN:NE2	54:SB:189:ILE:O	2.20	0.74
2:AA:1783:G:O6	6:A1:17:ARG:NH2	2.21	0.74
53:SA:954:G:OP1	54:SB:136:ARG:NH2	2.19	0.74
53:SA:1319:G:O2'	53:SA:1365:G:N2	2.20	0.74
2:AA:66:A:OP2	5:AL:99:ARG:NH1	2.19	0.74
29:AQ:45:GLU:O	29:AQ:141:LYS:NZ	2.21	0.74
60:SH:3:LEU:HD22	60:SH:109:LEU:HB2	1.68	0.74
49:S3:87:ARG:NH2	49:S3:94:VAL:O	2.19	0.74
42:AH:12:ILE:HD11	42:AH:54:ILE:HG13	1.69	0.74
53:SA:1308:C:H42	53:SA:1702:C:H41	1.33	0.74
56:SD:178:LEU:HD23	56:SD:180:GLN:H	1.52	0.74
2:AA:268:C:C4	2:AA:269:A:N6	2.56	0.73
29:AQ:80:CYS:SG	29:AQ:84:ASN:ND2	2.61	0.73
53:SA:217:G:N2	53:SA:252:U:OP2	2.20	0.73
61:SI:10:LEU:HD23	61:SI:14:TRP:HD1	1.52	0.73
71:SS:123:ARG:HA	71:SS:126:ARG:HD2	1.69	0.73
2:AA:450:A:H5"	2:AA:451:C:H5'	1.70	0.73
2:AA:1821:U:H2'	2:AA:1822:A:C8	2.22	0.73
53:SA:955:U:H2'	53:SA:956:A:C8	2.22	0.73
53:SA:1271:G:O6	53:SA:1715:A:N1	2.20	0.73
3:AC:74:A:OP2	34:AZ:120:ARG:NH1	2.21	0.73
2:AA:542:A:N6	2:AA:608:A:O2'	2.22	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:970:C:H2'	2:AA:971:U:C6	2.23	0.73
40:AG:16:LYS:HB2	40:AG:130:HIS:HB2	1.70	0.73
53:SA:1834:A:O2'	53:SA:1868:C:N4	2.21	0.73
53:SA:1937:C:O2	53:SA:2054:A:N6	2.19	0.73
11:AN:66:ARG:HB3	41:AU:79:LEU:HD11	1.70	0.73
49:S3:82:ARG:NH2	53:SA:1253:A:O2'	2.21	0.73
53:SA:1283:U:O2'	53:SA:1286:U:O2	2.06	0.73
56:SD:76:ARG:HD2	67:SO:33:VAL:HG21	1.70	0.73
4:AB:29:C:H1'	4:AB:50:A:H61	1.53	0.73
32:AY:173:ARG:HG2	32:AY:174:LEU:N	2.03	0.73
2:AA:506:A:H2'	2:AA:507:G:H8	1.53	0.73
2:AA:1821:U:H2'	2:AA:1822:A:H8	1.54	0.73
4:AB:89:G:N3	29:AQ:11:TYR:OH	2.21	0.73
41:AU:100:TYR:O	41:AU:101:LYS:NZ	2.20	0.73
53:SA:554:U:OP1	69:SQ:140:LYS:NZ	2.22	0.73
4:AB:43:A:H4'	40:AG:137:ARG:HD2	1.70	0.73
49:S3:58:VAL:HG22	68:SP:125:LYS:HZ3	1.51	0.73
53:SA:1308:C:OP2	72:ST:26:HIS:NE2	2.22	0.73
2:AA:1560:U:OP1	12:A8:105:ARG:NH2	2.22	0.73
2:AA:3411:C:H2'	2:AA:3412:G:C8	2.24	0.73
53:SA:1448:U:H2'	53:SA:1449:U:H2'	1.69	0.73
2:AA:1850:U:O2'	2:AA:1969:A:N7	2.21	0.73
9:A6:31:LYS:HA	9:A6:34:LEU:HG	1.71	0.73
2:AA:684:G:H22	39:AF:311:LYS:HE3	1.54	0.72
2:AA:1339:U:H2'	2:AA:1340:G:C8	2.24	0.72
40:AG:137:ARG:HG3	40:AG:141:ARG:HG3	1.71	0.72
42:AH:16:VAL:HG11	42:AH:80:PHE:HB3	1.71	0.72
2:AA:3491:U:H5"	18:Af:26:ARG:HH21	1.53	0.72
18:Af:10:ALA:O	18:Af:14:ASN:HB2	1.88	0.72
30:AR:25:GLU:HA	40:AG:144:ARG:HD3	1.71	0.72
42:AH:93:LEU:HB2	42:AH:100:ILE:HD12	1.72	0.72
53:SA:1246:U:O2	59:SG:101:GLN:NE2	2.22	0.72
53:SA:1839:G:N2	53:SA:1866:A:OP2	2.22	0.72
37:AD:210:PRO:HG2	37:AD:235:VAL:HG21	1.71	0.72
14:Aa:54:VAL:HG23	14:Aa:70:ARG:HA	1.72	0.72
24:Ac:66:ARG:HD2	24:Ac:68:ARG:HG2	1.71	0.72
26:AM:94:TYR:H	46:A0:26:GLN:HA	1.52	0.72
4:AB:31:G:H2'	4:AB:32:A:C8	2.24	0.72
59:SG:241:LEU:O	78:SZ:16:LYS:NZ	2.23	0.72
60:SH:203:GLN:HA	60:SH:206:LYS:HD2	1.70	0.72
78:SZ:33:GLN:OE1	78:SZ:51:THR:OG1	2.05	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:2210:U:O2'	2:AA:3737:G:N3	2.23	0.72
31:AW:94:ILE:HD11	31:AW:148:ILE:HG12	1.71	0.72
39:AF:218:LYS:HA	39:AF:229:LEU:HG	1.70	0.72
53:SA:1976:G:H21	53:SA:2014:A:H62	1.38	0.72
65:SM:40:VAL:HG11	65:SM:45:LEU:HD11	1.72	0.72
11:AN:23:ARG:HD2	41:AU:184:MET:HB3	1.71	0.72
35:A3:102:MET:HE3	35:A3:107:LYS:HG2	1.70	0.72
40:AG:18:VAL:O	40:AG:128:TYR:HB2	1.88	0.72
61:SI:87:ALA:HA	61:SI:90:ILE:HD12	1.71	0.72
2:AA:1536:U:O2'	12:A8:99:ASN:O	2.07	0.72
2:AA:3507:A:H2'	2:AA:3508:A:H8	1.54	0.72
6:A1:52:LYS:O	6:A1:65:ARG:NH1	2.22	0.72
23:AJ:176:PRO:HG2	23:AJ:179:LEU:HD12	1.72	0.72
65:SM:129:LYS:HE3	65:SM:136:ARG:HA	1.70	0.72
2:AA:1835:G:N2	2:AA:1843:U:O2	2.23	0.71
2:AA:3452:U:O2'	33:AT:55:LYS:NZ	2.22	0.71
2:AA:1705:A:H62	2:AA:1725:U:H1'	1.53	0.71
4:AB:47:U:OP2	30:AR:93:LYS:NZ	2.20	0.71
70:SR:63:CYS:HB3	70:SR:69:LYS:HE2	1.72	0.71
71:SS:33:THR:HG22	71:SS:43:ALA:HB3	1.73	0.71
2:AA:1480:G:N7	7:A2:103:LYS:NZ	2.38	0.71
50:S4:49:GLN:NE2	53:SA:938:U:O2	2.22	0.71
55:SC:88:LYS:HG3	55:SC:91:GLN:HE21	1.55	0.71
68:SP:95:ILE:HD11	68:SP:116:LEU:HD11	1.70	0.71
2:AA:465:A:OP1	7:A2:82:LYS:NZ	2.22	0.71
2:AA:2560:C:H42	2:AA:2565:G:H22	1.38	0.71
49:S3:37:LYS:NZ	53:SA:1002:A:OP2	2.23	0.71
18:Af:34:CYS:HB3	18:Af:45:LEU:HD21	1.72	0.71
53:SA:886:U:O2	53:SA:916:G:N2	2.21	0.71
53:SA:1381:C:O2'	66:SN:67:SER:OG	2.09	0.71
53:SA:1794:C:OP1	77:SY:95:VAL:N	2.24	0.71
2:AA:2208:G:H2'	2:AA:2209:C:C6	2.25	0.71
18:Af:20:CYS:SG	18:Af:21:ARG:N	2.63	0.71
2:AA:1198:A:O2'	8:A4:42:ASN:ND2	2.24	0.71
2:AA:3478:G:H2'	2:AA:3479:U:C6	2.25	0.71
2:AA:768:C:O2	5:AL:32:LYS:NZ	2.23	0.71
42:AH:170:ASP:OD2	42:AH:172:ARG:NH1	2.24	0.71
2:AA:439:U:H2'	2:AA:440:A:H8	1.55	0.71
2:AA:3637:G:O6	2:AA:3648:U:O4	2.09	0.71
15:Ab:43:LEU:HD21	23:AJ:190:LYS:HE2	1.73	0.71
20:Ah:27:LYS:HA	20:Ah:30:GLU:OE1	1.90	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1890:A:O2'	72:ST:31:LYS:NZ	2.23	0.71
58:SF:35:PRO:HD2	58:SF:83:PRO:HG2	1.71	0.71
2:AA:1295:A:OP2	13:A9:106:ARG:NH1	2.24	0.71
30:AR:207:MET:O	30:AR:218:TYR:OH	2.08	0.71
53:SA:598:A:H5"	57:SE:24:LEU:HD11	1.72	0.71
57:SE:57:ARG:HH12	63:SK:97:ARG:HH22	1.36	0.71
2:AA:1779:A:N7	2:AA:2033:C:O2'	2.24	0.70
2:AA:1859:A:H2'	2:AA:1860:A:C8	2.26	0.70
7:A2:34:ASP:HB2	7:A2:37:ASN:HB2	1.73	0.70
12:A8:79:VAL:HG22	12:A8:108:ILE:HG22	1.73	0.70
47:S1:9:VAL:O	53:SA:829:G:N1	2.23	0.70
53:SA:756:A:C6	53:SA:757:A:N6	2.59	0.70
53:SA:1423:A:H61	55:SC:108:THR:HG21	1.55	0.70
55:SC:93:THR:HG23	55:SC:95:ALA:H	1.55	0.70
45:AX:80:LYS:O	45:AX:95:HIS:ND1	2.20	0.70
53:SA:956:A:H61	53:SA:994:G:H1	1.37	0.70
2:AA:1534:U:O2'	2:AA:1535:G:O5'	2.09	0.70
71:SS:32:LEU:HG	71:SS:43:ALA:HB1	1.72	0.70
2:AA:178:U:C4	2:AA:179:G:O6	2.45	0.70
2:AA:1235:C:OP2	8:A4:22:LYS:NZ	2.25	0.70
41:AU:102:GLU:O	41:AU:145:ARG:NH1	2.24	0.70
2:AA:2126:A:H2'	2:AA:2127:G:C8	2.26	0.70
2:AA:3505:U:H3'	18:Af:35:ARG:NH2	2.07	0.70
22:AI:90:GLU:N	22:AI:90:GLU:OE2	2.25	0.70
2:AA:72:C:O2'	5:AL:65:ASN:OD1	2.10	0.70
2:AA:179:G:C6	2:AA:252:A:N1	2.59	0.70
2:AA:3453:U:H5"	33:AT:56:VAL:HG13	1.74	0.70
30:AR:29:ASP:OD2	30:AR:32:ALA:N	2.17	0.70
30:AR:78:ALA:HB2	30:AR:105:CYS:HB3	1.72	0.70
53:SA:374:U:HO2'	53:SA:610:U:HO2'	1.37	0.70
53:SA:1363:U:H2'	53:SA:1364:G:H8	1.54	0.70
71:SS:93:LYS:HG3	71:SS:95:GLY:H	1.57	0.70
2:AA:179:G:H1	2:AA:252:A:N6	1.90	0.70
2:AA:961:G:H2'	2:AA:962:A:C8	2.27	0.70
4:AB:55:A:H5"	40:AG:152:HIS:CE1	2.27	0.70
63:SK:30:SER:HB3	63:SK:61:ILE:HD11	1.74	0.70
2:AA:169:U:O2'	5:AL:134:LYS:NZ	2.23	0.70
2:AA:727:A:OP2	2:AA:3227:U:O2'	2.09	0.70
18:Af:49:LYS:O	42:AH:172:ARG:NE	2.21	0.70
61:SI:49:LYS:HB3	61:SI:53:ARG:HG3	1.74	0.70
66:SN:30:ALA:HA	66:SN:33:LYS:HE3	1.73	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AP:67:ARG:O	19:AP:71:ARG:NH2	2.25	0.70
2:AA:2554:G:O2'	2:AA:2556:C:N4	2.25	0.69
39:AF:359:VAL:HA	39:AF:362:GLN:HG2	1.74	0.69
53:SA:1852:A:OP1	76:SX:47:ARG:NH2	2.25	0.69
2:AA:92:G:H5'	2:AA:93:C:H5"	1.74	0.69
2:AA:1139:C:H2'	2:AA:1140:A:H8	1.56	0.69
2:AA:2084:U:H2'	2:AA:2085:A:C8	2.26	0.69
42:AH:4:ILE:HG13	42:AH:5:VAL:HG23	1.72	0.69
53:SA:425:G:OP1	60:SH:72:ARG:NH2	2.25	0.69
53:SA:897:G:H22	53:SA:905:U:H2'	1.54	0.69
76:SX:61:ARG:HH22	76:SX:64:LYS:HD3	1.57	0.69
2:AA:3585:A:O2'	2:AA:3586:U:O4'	2.10	0.69
6:A1:58:THR:HG22	6:A1:61:LYS:HD2	1.74	0.69
20:Ah:38:LEU:HA	20:Ah:45:THR:HA	1.74	0.69
53:SA:161:U:H2'	53:SA:162:A:H8	1.57	0.69
53:SA:930:A:O2'	53:SA:1032:A:N1	2.24	0.69
2:AA:733:C:H2'	2:AA:734:A:H8	1.57	0.69
2:AA:2128:G:O2'	2:AA:3451:G:OP1	2.09	0.69
53:SA:152:G:N2	60:SH:60:GLY:O	2.24	0.69
53:SA:1852:A:N6	72:ST:12:TYR:OH	2.24	0.69
58:SF:208:ILE:HD11	58:SF:225:VAL:HG11	1.74	0.69
39:AF:32:ILE:O	39:AF:126:SER:OG	2.10	0.69
53:SA:1963:U:H3	53:SA:2027:C:H42	1.41	0.69
55:SC:179:GLN:O	55:SC:183:TYR:HB2	1.92	0.69
59:SG:95:ILE:HD11	59:SG:110:PHE:HB3	1.75	0.69
60:SH:57:ASP:OD1	60:SH:61:PHE:N	2.26	0.69
2:AA:176:A:H2'	2:AA:177:A:C8	2.27	0.69
2:AA:1739:C:H2'	2:AA:1740:A:C8	2.27	0.69
18:Af:20:CYS:H	18:Af:24:TYR:HA	1.57	0.69
41:AU:15:GLN:NE2	41:AU:75:GLU:OE1	2.22	0.69
53:SA:850:G:H2'	53:SA:851:A:C8	2.27	0.69
2:AA:372:G:OP2	24:Ac:55:LYS:NZ	2.26	0.69
2:AA:1739:C:H2'	2:AA:1740:A:H8	1.58	0.69
2:AA:1968:C:H4'	16:Ad:49:LEU:HD22	1.74	0.69
4:AB:68:U:O2	4:AB:107:G:O6	2.10	0.69
4:AB:83:G:H4'	36:A5:231:ARG:HG2	1.74	0.69
47:S1:37:LYS:NZ	53:SA:529:U:OP1	2.22	0.69
53:SA:106:A:OP2	53:SA:314:A:N6	2.26	0.69
53:SA:394:G:OP2	53:SA:429:G:O2'	2.11	0.69
53:SA:1429:C:O2'	56:SD:154:ARG:NH2	2.24	0.69
57:SE:135:ARG:HG3	57:SE:137:GLY:H	1.56	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:768:C:OP1	39:AF:218:LYS:NZ	2.26	0.69
2:AA:1967:G:N2	16:Ad:2:PRO:HG2	2.07	0.69
4:AB:50:A:H2'	4:AB:51:G:H8	1.56	0.69
67:SO:68:GLU:OE2	67:SO:75:GLN:NE2	2.25	0.69
4:AB:32:A:N7	4:AB:41:G:O2'	2.23	0.69
5:AL:39:GLU:OE1	5:AL:42:ARG:NH1	2.25	0.69
11:AN:26:GLU:OE2	11:AN:29:ARG:NH1	2.26	0.69
58:SF:103:TYR:HE2	58:SF:184:THR:HA	1.58	0.69
2:AA:3587:U:H2'	2:AA:3588:A:H8	1.58	0.68
4:AB:10:C:N4	30:AR:30:TYR:OH	2.26	0.68
30:AR:179:ASN:HA	30:AR:182:PHE:HD2	1.58	0.68
47:S1:107:ARG:NH2	53:SA:448:C:OP1	2.25	0.68
53:SA:1368:G:O6	53:SA:1688:U:O4	2.11	0.68
53:SA:1455:C:O2'	53:SA:1456:G:O5'	2.10	0.68
65:SM:94:TYR:HE2	65:SM:102:THR:HB	1.58	0.68
71:SS:97:ASN:C	71:SS:97:ASN:HD22	2.00	0.68
2:AA:1788:C:O2'	2:AA:1894:U:O2'	2.11	0.68
2:AA:63:A:OP1	19:AP:173:ARG:NH2	2.21	0.68
34:AZ:69:VAL:HA	34:AZ:81:VAL:HA	1.75	0.68
38:AE:355:PHE:HZ	38:AE:368:GLN:HE22	1.41	0.68
45:AX:111:ILE:HG21	45:AX:120:LEU:HD23	1.75	0.68
2:AA:163:G:H1	2:AA:269:A:H61	1.33	0.68
2:AA:283:U:O2	19:AP:93:LYS:NZ	2.25	0.68
2:AA:513:U:H3	2:AA:685:U:H5	1.41	0.68
2:AA:1971:U:H5	16:Ad:26:MET:HE2	1.58	0.68
2:AA:3497:A:N7	2:AA:3503:U:O2	2.26	0.68
30:AR:99:TYR:OH	30:AR:170:ASP:OD2	2.11	0.68
39:AF:77:PRO:HB2	39:AF:91:ALA:HB3	1.76	0.68
73:SU:33:ILE:HD13	73:SU:66:VAL:HG21	1.75	0.68
2:AA:3409:U:C2	2:AA:3418:A:N6	2.62	0.68
4:AB:48:G:O2'	30:AR:221:HIS:O	2.08	0.68
14:Aa:62:ASN:HA	14:Aa:65:ALA:HB2	1.76	0.68
24:Ac:58:ARG:NH2	39:AF:61:GLU:OE1	2.27	0.68
44:Ag:23:ARG:NH2	53:SA:1940:U:OP1	2.27	0.68
53:SA:337:G:N7	64:SL:188:ARG:NH2	2.41	0.68
58:SF:180:LEU:HA	58:SF:194:VAL:HA	1.76	0.68
69:SQ:68:TYR:O	69:SQ:70:LYS:NZ	2.27	0.68
69:SQ:142:LYS:NZ	69:SQ:143:PRO:O	2.26	0.68
2:AA:248:A:O3'	5:AL:152:ARG:NH2	2.26	0.68
2:AA:308:U:HO2'	2:AA:309:G:H8	1.42	0.68
2:AA:715:U:H2'	2:AA:716:C:C6	2.28	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AT:3:LEU:HD11	33:AT:32:SER:HB2	1.75	0.68
37:AD:207:VAL:HG13	37:AD:208:GLU:HG3	1.75	0.68
49:S3:92:ARG:NH2	53:SA:2087:U:OP1	2.26	0.68
53:SA:1274:C:H1'	77:SY:110:VAL:HG21	1.76	0.68
2:AA:1996:C:O2'	2:AA:1997:G:H5"	1.94	0.68
4:AB:60:U:HO2'	30:AR:271:LYS:N	1.92	0.68
9:A6:72:ASP:OD1	9:A6:72:ASP:N	2.15	0.68
38:AE:210:GLU:O	38:AE:279:ILE:N	2.26	0.68
49:S3:87:ARG:NH2	49:S3:91:GLN:O	2.23	0.68
68:SP:34:PHE:HB3	68:SP:41:PHE:HB2	1.75	0.68
2:AA:1753:U:P	32:AY:173:ARG:HH22	2.16	0.68
2:AA:3733:G:H2'	2:AA:3734:A:H8	1.58	0.68
26:AM:15:ILE:HG23	26:AM:87:TRP:HB2	1.76	0.68
33:AT:27:GLU:HB2	33:AT:30:GLU:HG3	1.75	0.68
51:S5:55:ALA:HB3	61:SI:113:ARG:HE	1.59	0.68
53:SA:149:A:N1	53:SA:162:A:N6	2.42	0.68
54:SB:27:LYS:HD3	54:SB:49:THR:HA	1.76	0.68
2:AA:1124:A:H2'	2:AA:1125:A:H8	1.59	0.67
2:AA:1825:C:H4'	2:AA:2126:A:H5'	1.76	0.67
19:AP:158:LYS:O	19:AP:163:ARG:NH1	2.27	0.67
53:SA:993:A:H2'	53:SA:994:G:C8	2.28	0.67
66:SN:65:ARG:H	72:ST:38:ARG:HH22	1.42	0.67
6:A1:141:HIS:HD2	23:AJ:44:LEU:HD11	1.59	0.67
30:AR:77:GLU:O	30:AR:79:LYS:NZ	2.27	0.67
53:SA:1278:C:N4	71:SS:139:LYS:O	2.26	0.67
62:SJ:10:LYS:HE2	62:SJ:43:LYS:HE3	1.74	0.67
2:AA:3733:G:H2'	2:AA:3734:A:C8	2.28	0.67
37:AD:33:ASP:OD1	37:AD:34:TYR:N	2.27	0.67
53:SA:1729:A:H2'	53:SA:1730:A:C8	2.29	0.67
57:SE:57:ARG:HE	59:SG:185:PRO:HB3	1.58	0.67
10:A7:83:LEU:HD21	10:A7:101:VAL:HA	1.77	0.67
31:AW:94:ILE:HG21	31:AW:146:ILE:HD11	1.74	0.67
36:A5:84:PHE:HB3	41:AU:69:ALA:HB2	1.76	0.67
60:SH:200:GLU:HA	60:SH:203:GLN:HE21	1.58	0.67
61:SI:69:MET:SD	61:SI:74:ASN:ND2	2.68	0.67
65:SM:56:ILE:HD13	65:SM:90:ILE:HG12	1.76	0.67
2:AA:178:U:O4	2:AA:179:G:O6	2.13	0.67
29:AQ:171:TRP:H	29:AQ:177:SER:HA	1.59	0.67
53:SA:310:U:O2	74:SV:72:ARG:NH1	2.27	0.67
53:SA:1729:A:H5'	65:SM:72:GLY:HA2	1.75	0.67
74:SV:36:ARG:NH2	74:SV:56:TYR:O	2.28	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:2207:G:H1'	2:AA:2407:C:C2	2.30	0.67
30:AR:182:PHE:HD1	30:AR:183:PRO:HD2	1.59	0.67
42:AH:149:ASP:HB3	42:AH:152:ASN:HB2	1.76	0.67
56:SD:151:MET:N	56:SD:151:MET:SD	2.66	0.67
6:A1:27:ASN:HB3	6:A1:42:LEU:HD13	1.76	0.67
14:Aa:43:LYS:NZ	14:Aa:44:CYS:O	2.24	0.67
23:AJ:236:LYS:HD3	23:AJ:240:ASN:HB3	1.75	0.67
33:AT:162:ARG:NH1	73:SU:79:GLY:O	2.28	0.67
36:A5:86:ARG:HH22	43:AV:139:ALA:HA	1.60	0.67
41:AU:21:ARG:HB2	41:AU:33:VAL:HG12	1.76	0.67
49:S3:15:ARG:NH2	53:SA:1005:G:N7	2.43	0.67
2:AA:703:U:H2'	2:AA:704:U:C6	2.30	0.67
2:AA:1869:G:N2	2:AA:1889:A:H8	1.85	0.67
2:AA:2105:A:H5"	2:AA:2106:A:H5'	1.76	0.67
18:Af:21:ARG:NH1	18:Af:45:LEU:O	2.28	0.67
53:SA:1820:C:H5"	77:SY:100:ARG:HD2	1.77	0.67
62:SJ:35:ILE:HG13	62:SJ:76:ILE:HG12	1.76	0.67
73:SU:129:TYR:HD1	73:SU:132:LYS:HZ1	1.43	0.67
2:AA:3459:A:OP1	10:A7:70:LYS:NZ	2.26	0.67
3:AC:25:C:OP1	39:AF:195:LYS:NZ	2.28	0.67
4:AB:50:A:OP1	30:AR:223:ASN:ND2	2.28	0.67
4:AB:55:A:H2	40:AG:138:VAL:HG11	1.58	0.67
11:AN:141:LYS:HD2	25:AK:187:LEU:HD22	1.76	0.67
32:AY:148:LYS:HE3	32:AY:154:GLU:HA	1.77	0.67
38:AE:76:CYS:HA	38:AE:323:GLY:H	1.59	0.67
47:S1:77:TYR:OH	47:S1:87:GLU:OE1	2.13	0.67
52:S6:39:LEU:HA	52:S6:42:ARG:HG2	1.77	0.67
53:SA:457:A:OP2	53:SA:459:A:N6	2.27	0.67
68:SP:61:LYS:HB3	68:SP:76:MET:HE3	1.76	0.67
2:AA:3409:U:C4	2:AA:3418:A:C5	2.83	0.67
4:AB:37:A:N1	4:AB:41:G:C2	2.62	0.67
53:SA:70:U:H3	53:SA:82:G:H1	1.40	0.67
53:SA:1881:G:N2	53:SA:1907:G:O2'	2.28	0.67
59:SG:45:THR:HG23	59:SG:48:GLY:H	1.59	0.67
11:AN:72:LYS:O	41:AU:162:HIS:NE2	2.28	0.66
36:A5:233:ALA:HB3	36:A5:236:GLU:HG3	1.77	0.66
41:AU:82:LYS:HZ2	41:AU:84:TYR:H	1.42	0.66
43:AV:141:MET:HE3	43:AV:142:ILE:H	1.59	0.66
55:SC:83:SER:HA	55:SC:86:VAL:HG12	1.76	0.66
57:SE:34:TYR:O	57:SE:110:GLN:NE2	2.29	0.66
58:SF:105:ILE:HG23	58:SF:245:LYS:HD2	1.77	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:SL:8:ARG:NH1	64:SL:22:LYS:O	2.29	0.66
2:AA:179:G:C6	2:AA:252:A:C6	2.84	0.66
2:AA:1247:C:H2'	2:AA:1248:A:H8	1.60	0.66
2:AA:1630:A:N3	2:AA:2125:A:H1'	2.11	0.66
2:AA:2206:U:H1'	33:AT:78:GLY:HA3	1.77	0.66
3:AC:106:G:OP2	3:AC:108:A:O2'	2.12	0.66
5:AL:45:ASN:ND2	5:AL:48:THR:O	2.28	0.66
22:AI:211:ARG:H	22:AI:214:MET:HE3	1.60	0.66
53:SA:1653:A:H2'	53:SA:1654:G:H8	1.60	0.66
4:AB:40:A:N3	40:AG:72:ARG:NH1	2.43	0.66
11:AN:29:ARG:NH2	11:AN:78:LYS:O	2.26	0.66
40:AG:24:GLY:HA2	40:AG:65:ILE:HB	1.76	0.66
50:S4:21:ARG:NH1	50:S4:25:THR:OG1	2.29	0.66
54:SB:36:LYS:HA	54:SB:41:ARG:HD3	1.77	0.66
74:SV:94:LEU:HB3	74:SV:103:PHE:HB3	1.77	0.66
4:AB:46:C:H2'	4:AB:47:U:C6	2.30	0.66
61:SI:184:LYS:NZ	61:SI:185:ASP:OD1	2.28	0.66
65:SM:115:ARG:HH12	65:SM:119:VAL:HB	1.60	0.66
2:AA:451:C:N4	2:AA:694:U:O2'	2.29	0.66
2:AA:778:U:OP2	39:AF:275:LYS:NZ	2.29	0.66
3:AC:45:A:HO2'	24:Ac:62:THR:HG1	1.41	0.66
4:AB:89:G:H2'	4:AB:90:A:C8	2.31	0.66
14:Aa:65:ALA:O	14:Aa:67:ARG:NH1	2.28	0.66
34:AZ:26:ARG:NH1	34:AZ:74:ARG:O	2.26	0.66
65:SM:14:LYS:HG2	65:SM:120:GLY:HA3	1.77	0.66
67:SO:26:LEU:HB3	67:SO:79:LEU:HD21	1.77	0.66
3:AC:77:U:P	34:AZ:74:ARG:HH22	2.19	0.66
5:AL:88:ALA:HA	35:A3:113:PHE:HZ	1.61	0.66
6:A1:11:ILE:HA	6:A1:82:PRO:HA	1.76	0.66
26:AM:8:THR:O	26:AM:10:LYS:NZ	2.28	0.66
53:SA:1453:G:N2	53:SA:1621:G:N7	2.44	0.66
59:SG:165:THR:HG21	59:SG:184:ALA:H	1.60	0.66
2:AA:1886:A:N6	20:Ah:41:PHE:O	2.27	0.66
2:AA:541:A:N1	2:AA:611:G:O6	2.28	0.66
2:AA:3413:A:O2'	2:AA:3414:G:OP1	2.12	0.66
2:AA:3595:U:H2'	2:AA:3596:A:C8	2.31	0.66
3:AC:62:G:O6	24:Ac:66:ARG:NH2	2.28	0.66
4:AB:27:A:OP1	40:AG:143:ARG:NH1	2.28	0.66
38:AE:202:VAL:HG21	38:AE:319:LEU:HD21	1.77	0.66
39:AF:254:GLU:OE2	39:AF:258:LYS:NZ	2.29	0.66
42:AH:35:ARG:O	42:AH:35:ARG:NH1	2.26	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:66:U:O4	60:SH:134:GLY:N	2.28	0.66
53:SA:887:A:C2	53:SA:915:G:N1	2.60	0.66
58:SF:68:LYS:NZ	58:SF:78:THR:OG1	2.28	0.66
68:SP:138:ASP:OD1	68:SP:139:SER:N	2.29	0.66
4:AB:90:A:C4	4:AB:91:C:H1'	2.31	0.66
67:SO:43:HIS:HB3	67:SO:46:LEU:HB2	1.78	0.66
9:A6:80:LEU:HD22	9:A6:84:CYS:HB2	1.77	0.66
11:AN:44:PHE:O	11:AN:57:ASP:N	2.27	0.66
53:SA:346:U:H2'	53:SA:347:A:H8	1.61	0.66
53:SA:1956:A:C4	53:SA:1957:A:C8	2.84	0.66
71:SS:117:LYS:NZ	71:SS:124:GLY:O	2.29	0.66
2:AA:3457:A:H4'	2:AA:3728:A:H4'	1.78	0.65
53:SA:812:A:H4'	58:SF:252:ARG:HH12	1.60	0.65
66:SN:65:ARG:HG3	72:ST:38:ARG:HH12	1.61	0.65
74:SV:17:GLU:OE1	74:SV:17:GLU:N	2.29	0.65
2:AA:3100:G:N7	21:Ai:62:LYS:NZ	2.41	0.65
2:AA:3120:U:OP1	5:AL:201:ARG:NH1	2.30	0.65
30:AR:144:ILE:HG12	30:AR:173:LEU:HA	1.78	0.65
38:AE:182:GLY:HA3	38:AE:188:LYS:HZ1	1.60	0.65
2:AA:505:A:H2'	2:AA:506:A:H8	1.62	0.65
2:AA:1758:C:H2'	2:AA:1759:A:C8	2.31	0.65
2:AA:2157:G:H5"	38:AE:242:GLY:HA3	1.78	0.65
2:AA:2478:G:O2'	2:AA:2607:U:OP2	2.14	0.65
38:AE:144:LEU:HA	38:AE:147:ARG:HG3	1.78	0.65
38:AE:290:SER:HB2	38:AE:318:PHE:HE1	1.61	0.65
42:AH:99:PRO:O	42:AH:115:ASN:ND2	2.28	0.65
51:S5:24:GLN:NE2	51:S5:25:VAL:O	2.29	0.65
61:SI:104:VAL:O	61:SI:108:GLN:HG2	1.95	0.65
2:AA:338:U:H2'	2:AA:339:G:H8	1.59	0.65
16:Ad:44:ARG:NH2	16:Ad:48:TYR:O	2.29	0.65
29:AQ:73:ASN:O	29:AQ:77:ILE:HG23	1.96	0.65
38:AE:60:VAL:HG23	38:AE:72:ILE:HG21	1.78	0.65
38:AE:83:PRO:O	38:AE:162:GLN:NE2	2.22	0.65
40:AG:29:ARG:HH22	40:AG:30:LEU:HD13	1.62	0.65
42:AH:63:PRO:HA	42:AH:66:LEU:HB2	1.79	0.65
4:AB:28:C:H1'	4:AB:54:A:H61	1.62	0.65
7:A2:11:GLU:OE1	27:AS:31:LYS:NZ	2.29	0.65
44:Ag:9:LYS:NZ	53:SA:627:A:OP1	2.30	0.65
53:SA:943:U:H2'	53:SA:944:G:C8	2.31	0.65
53:SA:1887:A:OP1	77:SY:113:ASN:ND2	2.27	0.65
54:SB:144:LYS:HD3	54:SB:208:GLN:HG2	1.77	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:SC:62:ARG:NE	78:SZ:37:GLY:O	2.26	0.65
57:SE:51:LYS:O	57:SE:51:LYS:NZ	2.30	0.65
59:SG:169:LYS:HG2	59:SG:182:VAL:HG22	1.77	0.65
2:AA:645:A:O2'	2:AA:649:U:OP1	2.13	0.65
2:AA:1970:A:H1'	2:AA:1971:U:H2'	1.79	0.65
2:AA:2021:A:H2'	2:AA:2022:A:H8	1.60	0.65
3:AC:89:U:O5'	34:AZ:116:LYS:NZ	2.29	0.65
19:AP:11:TRP:NE1	23:AJ:178:GLU:OE1	2.30	0.65
53:SA:79:U:O4	53:SA:80:A:N6	2.30	0.65
53:SA:303:U:O2	58:SF:33:SER:OG	2.14	0.65
53:SA:450:C:N4	53:SA:465:G:OP2	2.24	0.65
58:SF:37:LYS:HB2	58:SF:40:GLU:HG3	1.78	0.65
58:SF:62:LYS:HD2	58:SF:65:LEU:HD11	1.78	0.65
2:AA:1843:U:O4	45:AX:104:LYS:NZ	2.29	0.65
2:AA:3471:A:N6	2:AA:3767:U:H3	1.94	0.65
33:AT:23:MET:HE3	33:AT:31:ILE:HG13	1.77	0.65
2:AA:803:A:H8	28:AO:58:MET:HE2	1.60	0.65
23:AJ:225:GLN:NE2	23:AJ:229:ASP:OD1	2.30	0.65
32:AY:96:ILE:HG12	35:A3:80:TYR:HB2	1.79	0.65
42:AH:23:ARG:HD2	42:AH:39:ARG:HA	1.77	0.65
52:S6:33:ARG:HH12	57:SE:123:HIS:CD2	2.14	0.65
53:SA:467:G:O3'	58:SF:26:GLN:NE2	2.26	0.65
59:SG:49:ARG:HH22	59:SG:262:TYR:HB2	1.61	0.65
2:AA:3107:U:H2'	2:AA:3108:A:H8	1.61	0.65
2:AA:3736:A:N7	2:AA:3754:A:N6	2.45	0.65
30:AR:123:GLU:HG3	30:AR:124:LYS:HG2	1.77	0.65
30:AR:159:ASN:HB3	30:AR:161:VAL:HG22	1.79	0.65
52:S6:10:ARG:O	52:S6:10:ARG:NH1	2.27	0.65
53:SA:399:C:H4'	53:SA:1971:U:H5'	1.79	0.65
53:SA:1786:U:O2'	53:SA:1787:U:OP1	2.14	0.65
2:AA:593:A:O2'	42:AH:51:LYS:NZ	2.30	0.65
2:AA:1083:G:H2'	2:AA:1084:A:C8	2.31	0.65
2:AA:1784:G:H21	2:AA:1786:A:H8	1.44	0.65
2:AA:2084:U:H2'	2:AA:2085:A:H8	1.62	0.65
2:AA:3511:C:H2'	2:AA:3512:A:C8	2.30	0.65
2:AA:3595:U:H2'	2:AA:3596:A:H8	1.62	0.65
4:AB:69:U:H2'	4:AB:70:G:N7	2.12	0.65
26:AM:36:LEU:HD11	26:AM:104:ILE:HD11	1.79	0.65
38:AE:366:ARG:NH2	46:A0:18:TYR:OH	2.27	0.65
2:AA:818:C:O2'	27:AS:93:SER:OG	2.14	0.64
3:AC:77:U:OP1	34:AZ:74:ARG:NH2	2.29	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A1:14:LEU:HD13	14:Aa:86:ARG:HD2	1.79	0.64
25:AK:18:LEU:HD12	25:AK:119:LEU:HD12	1.79	0.64
37:AD:117:GLU:OE2	37:AD:121:GLY:N	2.30	0.64
2:AA:2506:A:H2'	2:AA:2507:A:C8	2.32	0.64
2:AA:3585:A:O2'	2:AA:3586:U:O5'	2.13	0.64
11:AN:30:LEU:C	11:AN:77:LEU:HB2	2.22	0.64
32:AY:145:LYS:O	32:AY:149:ASN:CB	2.44	0.64
39:AF:155:SER:OG	39:AF:157:ASP:OD1	2.15	0.64
53:SA:798:U:O2	53:SA:864:G:O6	2.16	0.64
73:SU:76:ARG:NH1	73:SU:76:ARG:O	2.30	0.64
2:AA:956:A:OP1	20:Ah:5:THR:OG1	2.15	0.64
53:SA:1453:G:H1	53:SA:1610:U:H3	1.45	0.64
53:SA:1797:C:OP2	77:SY:124:ARG:NH1	2.30	0.64
64:SL:84:ASN:HD22	64:SL:84:ASN:C	2.03	0.64
69:SQ:92:CYS:HA	69:SQ:95:PHE:HD2	1.61	0.64
1:S7:16:C:OP1	1:S7:59:A:N6	2.29	0.64
2:AA:1511:U:H2'	2:AA:1512:A:C8	2.31	0.64
2:AA:1624:A:H4'	10:A7:65:LYS:HD2	1.80	0.64
20:Ah:30:GLU:HA	20:Ah:33:GLN:CD	2.22	0.64
39:AF:382:ALA:HB2	43:AV:151:THR:HG21	1.79	0.64
40:AG:18:VAL:HG12	40:AG:19:LEU:H	1.62	0.64
53:SA:888:A:H2'	53:SA:889:A:C8	2.33	0.64
53:SA:1303:A:N6	53:SA:1703:U:O5'	2.30	0.64
2:AA:26:A:N3	2:AA:336:U:O2'	2.28	0.64
2:AA:1122:A:H5'	2:AA:1123:U:C5	2.31	0.64
2:AA:3695:C:O2	38:AE:169:ARG:NH2	2.30	0.64
53:SA:165:U:OP1	60:SH:140:LYS:NZ	2.30	0.64
53:SA:964:G:H2'	53:SA:965:U:C6	2.33	0.64
53:SA:975:A:OP2	68:SP:66:ARG:NH2	2.26	0.64
61:SI:59:ILE:HD11	61:SI:107:VAL:HG21	1.79	0.64
2:AA:440:A:H2'	2:AA:441:A:C8	2.32	0.64
2:AA:3423:U:H5"	38:AE:345:ARG:HH12	1.62	0.64
32:AY:154:GLU:OE1	32:AY:178:HIS:ND1	2.31	0.64
53:SA:402:G:O5'	64:SL:51:ARG:NH2	2.29	0.64
53:SA:2035:U:H2'	53:SA:2036:A:H8	1.63	0.64
54:SB:168:MET:HB2	54:SB:197:ILE:HD11	1.79	0.64
20:Ah:57:CYS:SG	20:Ah:58:LYS:N	2.71	0.64
53:SA:27:U:OP1	53:SA:43:A:N6	2.29	0.64
53:SA:66:U:O2'	53:SA:68:U:OP2	2.16	0.64
53:SA:635:G:H21	53:SA:1040:A:H62	1.44	0.64
53:SA:1305:A:O2'	53:SA:1698:U:OP2	2.16	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1938:C:H2'	53:SA:1939:G:C8	2.32	0.64
53:SA:1947:U:H2'	53:SA:1948:A:C8	2.33	0.64
61:SI:158:LYS:NZ	61:SI:159:SER:O	2.30	0.64
76:SX:29:SER:OG	76:SX:32:GLU:OE1	2.16	0.64
2:AA:2549:A:H61	53:SA:1943:C:H1'	1.61	0.64
2:AA:2830:U:H3	2:AA:2832:A:H8	1.46	0.64
4:AB:9:U:O2	4:AB:110:G:O6	2.16	0.64
53:SA:1286:U:H4'	53:SA:1287:U:H5"	1.80	0.64
60:SH:147:LEU:HD11	60:SH:153:VAL:HG12	1.78	0.64
2:AA:1209:U:H2'	2:AA:1210:A:C8	2.33	0.64
30:AR:94:ASN:ND2	30:AR:239:TYR:OH	2.19	0.64
42:AH:127:ALA:HB1	42:AH:156:THR:HG22	1.80	0.64
53:SA:1008:A:H2'	53:SA:1009:A:C8	2.33	0.64
53:SA:1266:G:O2'	53:SA:1909:C:N4	2.31	0.64
58:SF:87:MET:HE1	58:SF:123:LEU:H	1.63	0.64
75:SW:53:PHE:HA	75:SW:56:HIS:CD2	2.33	0.64
4:AB:37:A:C6	4:AB:41:G:N1	2.66	0.64
37:AD:117:GLU:HG3	37:AD:122:ASN:HB2	1.79	0.64
47:S1:4:GLN:OE1	47:S1:43:ARG:NH2	2.30	0.64
47:S1:7:ILE:HG13	47:S1:43:ARG:HG2	1.79	0.64
55:SC:76:VAL:HG21	55:SC:102:TRP:HZ3	1.62	0.64
2:AA:529:U:H2'	41:AU:74:LYS:HE2	1.80	0.63
2:AA:642:A:H62	2:AA:684:G:HO2'	1.46	0.63
2:AA:773:A:O2'	2:AA:774:A:H8	1.81	0.63
2:AA:2430:U:OP2	2:AA:2435:A:N6	2.24	0.63
21:Ai:13:SER:OG	21:Ai:14:ASN:OD1	2.14	0.63
26:AM:10:LYS:HA	26:AM:12:LYS:HE3	1.79	0.63
43:AV:18:LYS:HG2	43:AV:23:HIS:HA	1.80	0.63
44:Ag:24:THR:O	44:Ag:28:GLN:HG2	1.98	0.63
49:S3:93:ARG:NH2	53:SA:1180:U:OP1	2.31	0.63
53:SA:1798:G:O2'	53:SA:1800:A:N6	2.31	0.63
2:AA:2126:A:H2'	2:AA:2127:G:H8	1.61	0.63
36:A5:71:ILE:HD12	36:A5:72:ILE:HG23	1.80	0.63
38:AE:67:LEU:HD12	38:AE:72:ILE:HG22	1.80	0.63
53:SA:179:U:O2'	60:SH:198:ARG:NH2	2.32	0.63
62:SJ:40:LYS:HE3	62:SJ:41:GLU:HG3	1.80	0.63
71:SS:17:ILE:HG12	71:SS:21:ASN:HB2	1.80	0.63
2:AA:1656:G:H2'	2:AA:2147:A:H1'	1.80	0.63
2:AA:1854:U:O4	2:AA:1900:G:O2'	2.15	0.63
2:AA:3001:A:H2'	2:AA:3002:G:C8	2.33	0.63
16:Ad:44:ARG:NH2	16:Ad:45:THR:O	2.29	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:Af:27:LEU:HD21	18:Af:31:ALA:HB3	1.79	0.63
23:AJ:87:ARG:NH1	23:AJ:253:LYS:O	2.31	0.63
29:AQ:57:TYR:HD2	29:AQ:130:ASP:HA	1.64	0.63
42:AH:132:VAL:HG22	42:AH:146:SER:HB2	1.80	0.63
53:SA:346:U:H2'	53:SA:347:A:C8	2.33	0.63
53:SA:888:A:H2'	53:SA:889:A:H8	1.62	0.63
53:SA:1842:A:H2'	53:SA:1843:G:H8	1.64	0.63
53:SA:1925:U:H2'	53:SA:1926:G:C8	2.34	0.63
58:SF:201:ASN:HD22	58:SF:204:THR:HB	1.63	0.63
69:SQ:109:ARG:HG3	69:SQ:114:VAL:HG22	1.81	0.63
2:AA:2125:A:H2	14:Aa:4:ARG:HH21	1.45	0.63
36:A5:47:LYS:O	36:A5:51:ASN:ND2	2.31	0.63
38:AE:305:MET:SD	38:AE:306:GLY:N	2.71	0.63
57:SE:59:LEU:HD11	57:SE:72:GLN:HB2	1.80	0.63
58:SF:97:GLU:HB2	58:SF:113:ARG:HH22	1.62	0.63
58:SF:139:ALA:HB2	58:SF:150:ILE:HD13	1.79	0.63
2:AA:529:U:OP1	36:A5:79:ARG:NH1	2.31	0.63
2:AA:1083:G:H2'	2:AA:1084:A:H8	1.64	0.63
2:AA:3205:U:O2	18:Af:21:ARG:NH2	2.32	0.63
30:AR:165:LEU:HB2	30:AR:166:LYS:HE2	1.81	0.63
38:AE:211:MET:HA	38:AE:278:LYS:HA	1.79	0.63
53:SA:952:U:H3	53:SA:1014:U:H3	1.44	0.63
55:SC:144:ILE:HD12	55:SC:158:ILE:HD13	1.80	0.63
2:AA:918:G:O2'	5:AL:17:TRP:NE1	2.29	0.63
2:AA:1855:U:H5'	2:AA:1856:U:H5"	1.80	0.63
23:AJ:100:THR:HG21	23:AJ:198:LYS:HG3	1.79	0.63
53:SA:1808:G:H2'	53:SA:1809:G:C8	2.33	0.63
53:SA:1912:C:OP2	61:SI:51:ARG:NH1	2.32	0.63
73:SU:49:GLN:O	73:SU:53:THR:HG23	1.99	0.63
2:AA:595:U:O2	2:AA:599:G:N2	2.31	0.63
2:AA:2210:U:OP2	33:AT:73:ARG:NE	2.32	0.63
2:AA:3035:A:N7	2:AA:3097:A:N6	2.46	0.63
2:AA:3139:C:OP1	5:AL:198:ARG:NH2	2.30	0.63
2:AA:3501:C:H2'	2:AA:3502:C:C6	2.34	0.63
16:Ad:24:ILE:HG21	16:Ad:42:LYS:HE2	1.79	0.63
19:AP:34:PRO:HG2	19:AP:37:HIS:HB3	1.79	0.63
49:S3:95:ARG:NH2	53:SA:2089:A:OP1	2.32	0.63
53:SA:1118:U:H2'	53:SA:1119:G:C8	2.34	0.63
55:SC:32:LYS:O	55:SC:35:ARG:NH1	2.31	0.63
62:SJ:54:LYS:O	62:SJ:58:LYS:NZ	2.30	0.63
2:AA:315:C:H2'	2:AA:316:A:C8	2.34	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1166:C:O3'	29:AQ:90:ARG:NH1	2.29	0.63
39:AF:152:LEU:HD21	39:AF:174:LEU:HD21	1.81	0.63
40:AG:15:ASN:HD22	40:AG:16:LYS:HG2	1.63	0.63
40:AG:18:VAL:HG13	40:AG:70:THR:HG22	1.79	0.63
40:AG:144:ARG:O	40:AG:146:SER:OG	2.14	0.63
53:SA:644:U:OP1	63:SK:32:LYS:N	2.30	0.63
53:SA:1288:U:H2'	53:SA:1289:G:C8	2.31	0.63
78:SZ:38:MET:SD	78:SZ:38:MET:N	2.72	0.63
2:AA:746:A:H2'	2:AA:747:A:C8	2.34	0.63
2:AA:1499:U:OP1	12:A8:90:THR:OG1	2.15	0.63
46:A0:66:ASN:O	46:A0:66:ASN:ND2	2.31	0.63
51:S5:45:LYS:HE2	61:SI:136:ARG:HE	1.64	0.63
69:SQ:16:ARG:NH1	74:SV:104:GLU:OE1	2.32	0.63
2:AA:315:C:H2'	2:AA:316:A:H8	1.64	0.62
2:AA:2127:G:H2'	2:AA:2128:G:H8	1.63	0.62
2:AA:2549:A:H8	53:SA:2048:A:H61	1.47	0.62
7:A2:5:SER:HB3	39:AF:287:PRO:HG2	1.81	0.62
9:A6:25:LYS:HB2	9:A6:97:ASP:HB2	1.81	0.62
37:AD:6:ARG:NH1	37:AD:198:LYS:O	2.32	0.62
53:SA:1410:G:H2'	53:SA:1411:G:H8	1.64	0.62
57:SE:168:ARG:HD2	57:SE:172:VAL:HG23	1.80	0.62
63:SK:83:LEU:HD21	63:SK:122:GLY:H	1.64	0.62
74:SV:95:HIS:HB2	74:SV:106:ARG:HE	1.63	0.62
2:AA:103:A:O3'	5:AL:67:ARG:NH2	2.32	0.62
2:AA:1102:U:H3	2:AA:1231:A:H2	1.46	0.62
2:AA:2404:A:N6	2:AA:3725:G:OP2	2.31	0.62
2:AA:2588:A:N3	2:AA:3288:C:O2'	2.27	0.62
2:AA:3425:G:O2'	26:AM:10:LYS:O	2.16	0.62
4:AB:52:U:O2'	4:AB:54:A:N7	2.31	0.62
4:AB:73:U:O2'	4:AB:102:C:N4	2.31	0.62
6:A1:11:ILE:N	6:A1:23:ALA:O	2.22	0.62
22:AI:73:ILE:HD13	22:AI:111:ILE:HD13	1.81	0.62
33:AT:143:ARG:O	33:AT:146:ASN:ND2	2.32	0.62
38:AE:212:ILE:HD11	38:AE:321:LEU:HD22	1.79	0.62
53:SA:547:U:N3	53:SA:549:A:N7	2.47	0.62
53:SA:2013:A:H5"	60:SH:81:MET:HE1	1.81	0.62
56:SD:100:MET:HE3	56:SD:100:MET:O	1.98	0.62
57:SE:130:ARG:HH22	57:SE:143:ILE:HD13	1.64	0.62
62:SJ:50:ILE:HB	62:SJ:178:LYS:HZ3	1.64	0.62
65:SM:60:LYS:O	65:SM:60:LYS:NZ	2.32	0.62
2:AA:969:U:H2'	2:AA:970:C:C6	2.34	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:3106:U:O2'	21:Ai:29:LYS:O	2.12	0.62
2:AA:3636:U:O2	2:AA:3649:G:N2	2.27	0.62
18:Af:36:ASN:OD1	18:Af:37:LYS:N	2.32	0.62
36:A5:81:ASN:OD1	36:A5:82:ASN:N	2.32	0.62
38:AE:215:ILE:HG23	38:AE:334:THR:HB	1.80	0.62
41:AU:84:TYR:HA	41:AU:137:GLU:HA	1.81	0.62
47:S1:17:LEU:HD22	58:SF:94:LYS:NZ	2.12	0.62
53:SA:1843:G:N3	71:SS:88:ARG:NH2	2.47	0.62
60:SH:58:LYS:HA	60:SH:107:SER:HB3	1.81	0.62
64:SL:107:HIS:O	64:SL:111:THR:HG23	1.99	0.62
2:AA:642:A:N6	2:AA:684:G:O2'	2.29	0.62
2:AA:2106:A:H5"	2:AA:2107:C:C5	2.35	0.62
30:AR:81:LYS:HA	30:AR:92:LEU:HD13	1.79	0.62
42:AH:151:GLU:O	42:AH:155:LEU:HD12	1.99	0.62
55:SC:26:THR:OG1	55:SC:150:ASP:OD2	2.14	0.62
2:AA:439:U:H2'	2:AA:440:A:C8	2.34	0.62
2:AA:3108:A:H5'	21:Ai:79:LYS:HD2	1.82	0.62
3:AC:89:U:O4	34:AZ:113:ASN:ND2	2.33	0.62
30:AR:200:GLY:O	30:AR:203:VAL:HG22	2.00	0.62
53:SA:884:G:H22	53:SA:918:U:H3	1.46	0.62
53:SA:1839:G:OP1	77:SY:107:ARG:NH2	2.32	0.62
59:SG:65:HIS:HA	78:SZ:15:ARG:HH12	1.65	0.62
61:SI:156:ASN:O	61:SI:158:LYS:N	2.31	0.62
2:AA:1280:G:OP2	2:AA:1280:G:N2	2.30	0.62
2:AA:3716:C:H2'	2:AA:3717:A:C8	2.34	0.62
18:Af:35:ARG:HB2	18:Af:35:ARG:CZ	2.29	0.62
23:AJ:74:TYR:HD2	23:AJ:75:ILE:H	1.46	0.62
30:AR:68:HIS:HE1	30:AR:73:LYS:HG2	1.64	0.62
46:A0:63:ARG:NH2	46:A0:68:LYS:O	2.30	0.62
53:SA:180:U:H2'	53:SA:181:A:C8	2.35	0.62
53:SA:1412:U:H3	53:SA:1417:U:H3	1.45	0.62
66:SN:47:LEU:HB2	66:SN:49:VAL:HG23	1.81	0.62
2:AA:3706:U:H4'	38:AE:25:LEU:HD22	1.82	0.62
11:AN:60:PHE:HE2	11:AN:89:SER:HB2	1.64	0.62
30:AR:156:THR:C	30:AR:181:ARG:HG3	2.25	0.62
53:SA:1008:A:OP1	73:SU:114:ARG:NH1	2.28	0.62
53:SA:1670:A:H2'	53:SA:1671:A:C8	2.35	0.62
55:SC:38:TYR:CD2	55:SC:39:THR:HG22	2.34	0.62
55:SC:182:LEU:HD12	55:SC:194:TRP:HH2	1.65	0.62
59:SG:123:CYS:HB3	59:SG:203:ALA:HA	1.80	0.62
2:AA:1139:C:H2'	2:AA:1140:A:C8	2.34	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:2021:A:H2'	2:AA:2022:A:C8	2.35	0.62
2:AA:2127:G:H2'	2:AA:2128:G:C8	2.35	0.62
4:AB:26:C:H3'	4:AB:27:A:H8	1.65	0.62
5:AL:88:ALA:HA	35:A3:113:PHE:CZ	2.34	0.62
42:AH:18:VAL:HG12	42:AH:27:VAL:HG13	1.80	0.62
51:S5:39:PHE:HE1	51:S5:41:ILE:HG23	1.65	0.62
64:SL:57:ALA:HB2	64:SL:193:GLY:HA2	1.82	0.62
2:AA:621:C:O2	11:AN:93:ARG:NH1	2.26	0.62
2:AA:745:C:O2	2:AA:915:G:N2	2.33	0.62
29:AQ:38:ARG:HE	29:AQ:39:LYS:N	1.96	0.62
53:SA:1623:U:O2	53:SA:1625:C:N4	2.33	0.62
2:AA:1971:U:C5	16:Ad:26:MET:HE2	2.34	0.62
9:A6:9:ALA:N	53:SA:1018:U:OP1	2.33	0.62
53:SA:1379:G:OP1	56:SD:186:LYS:NZ	2.32	0.62
58:SF:224:ASN:OD1	58:SF:224:ASN:N	2.33	0.62
62:SJ:84:LEU:HD11	62:SJ:92:VAL:HG11	1.80	0.62
34:AZ:88:LYS:HE3	34:AZ:92:GLU:OE1	2.00	0.61
36:A5:247:ALA:O	36:A5:250:ASN:ND2	2.33	0.61
39:AF:38:GLN:O	39:AF:42:THR:HG23	1.99	0.61
41:AU:87:LEU:HB2	41:AU:133:ILE:HG13	1.81	0.61
52:S6:37:ARG:O	52:S6:41:ASN:ND2	2.32	0.61
53:SA:1745:U:H2'	53:SA:1746:A:C8	2.36	0.61
65:SM:61:LEU:HD11	65:SM:66:ILE:HD11	1.82	0.61
2:AA:1643:U:O2'	17:Ae:17:ARG:NH1	2.34	0.61
2:AA:2008:G:H2'	2:AA:2009:A:C8	2.36	0.61
46:A0:13:CYS:SG	46:A0:14:SER:N	2.74	0.61
53:SA:251:U:N3	74:SV:66:ASN:OD1	2.33	0.61
53:SA:401:U:O3'	60:SH:89:LYS:NZ	2.33	0.61
53:SA:1210:G:N7	69:SQ:27:LYS:NZ	2.46	0.61
66:SN:80:GLU:OE1	72:ST:51:LYS:NZ	2.31	0.61
2:AA:196:A:OP2	34:AZ:45:ARG:NH2	2.33	0.61
2:AA:909:U:H2'	2:AA:910:A:H8	1.65	0.61
2:AA:1981:U:O4	2:AA:1989:A:N6	2.33	0.61
2:AA:3717:A:H2'	2:AA:3718:G:H8	1.65	0.61
12:A8:63:THR:HB	12:A8:66:LEU:HD11	1.83	0.61
41:AU:164:PRO:HG3	41:AU:183:ARG:HD3	1.82	0.61
42:AH:110:ARG:HH22	42:AH:126:LYS:HB2	1.63	0.61
53:SA:1623:U:H1'	53:SA:1625:C:H41	1.65	0.61
55:SC:122:ILE:HD13	55:SC:144:ILE:HG23	1.80	0.61
73:SU:64:LYS:HD2	73:SU:70:LYS:HD3	1.81	0.61
2:AA:155:U:H3	23:AJ:209:LYS:NZ	1.97	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1784:G:N2	2:AA:1786:A:H8	1.97	0.61
11:AN:29:ARG:HB2	11:AN:45:ILE:HD13	1.81	0.61
22:AI:91:ILE:O	22:AI:205:LYS:NZ	2.34	0.61
29:AQ:51:HIS:ND1	29:AQ:137:SER:OG	2.25	0.61
53:SA:80:A:H5'	60:SH:154:ARG:HH21	1.64	0.61
53:SA:956:A:N6	53:SA:994:G:H1	1.97	0.61
53:SA:1955:G:H2'	53:SA:1956:A:C8	2.35	0.61
2:AA:1877:U:OP2	33:AT:109:ARG:NH2	2.32	0.61
13:A9:71:LYS:HB2	13:A9:110:ASN:HA	1.82	0.61
36:A5:224:ARG:NH1	36:A5:224:ARG:O	2.34	0.61
42:AH:20:ILE:HG23	42:AH:47:LEU:HD22	1.83	0.61
47:S1:61:PHE:O	53:SA:529:U:O2'	2.18	0.61
53:SA:1078:U:OP2	68:SP:143:LYS:NZ	2.29	0.61
53:SA:1821:A:H2'	53:SA:1822:A:C8	2.36	0.61
2:AA:1752:C:OP2	32:AY:157:LYS:NZ	2.33	0.61
39:AF:242:PRO:O	39:AF:245:SER:OG	2.17	0.61
53:SA:453:U:O2'	58:SF:27:TYR:O	2.19	0.61
53:SA:1076:C:O3'	68:SP:149:ARG:NH2	2.33	0.61
53:SA:1435:C:O2	72:ST:53:TYR:OH	2.12	0.61
2:AA:773:A:HO2'	2:AA:774:A:H8	1.49	0.61
2:AA:1072:A:H5'	2:AA:1073:G:H5"	1.82	0.61
2:AA:1464:A:OP1	39:AF:312:ARG:NH2	2.34	0.61
5:AL:122:LEU:HD12	5:AL:140:PRO:HB2	1.82	0.61
47:S1:47:MET:SD	53:SA:831:U:O2'	2.58	0.61
53:SA:1023:A:H2'	53:SA:1024:A:C8	2.36	0.61
57:SE:59:LEU:HA	57:SE:62:LEU:HD12	1.83	0.61
65:SM:33:ASN:N	65:SM:68:ILE:O	2.34	0.61
69:SQ:73:ARG:HH11	69:SQ:82:LYS:HB3	1.65	0.61
2:AA:179:G:N1	2:AA:252:A:N6	2.49	0.61
2:AA:2167:G:O2'	2:AA:2627:U:O4	2.19	0.61
2:AA:2650:A:H2'	2:AA:2651:A:H8	1.66	0.61
2:AA:3066:A:OP2	2:AA:3067:G:N2	2.30	0.61
53:SA:16:G:O6	59:SG:215:LYS:NZ	2.34	0.61
53:SA:62:A:O2'	53:SA:269:A:O2'	2.17	0.61
53:SA:517:G:H2'	53:SA:518:A:H8	1.66	0.61
59:SG:65:HIS:HA	78:SZ:15:ARG:HH22	1.65	0.61
64:SL:74:LYS:HD3	64:SL:108:PRO:HB2	1.82	0.61
2:AA:458:A:HO2'	2:AA:459:G:H8	1.49	0.61
2:AA:776:A:OP1	39:AF:121:ARG:NH2	2.31	0.61
2:AA:965:A:H2'	2:AA:966:A:C8	2.35	0.61
2:AA:971:U:OP2	20:Ah:2:SER:OG	2.16	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1186:A:N6	43:AV:113:ASN:OD1	2.34	0.61
2:AA:2819:U:H2'	2:AA:2820:A:H8	1.66	0.61
8:A4:47:LEU:O	8:A4:51:GLN:HG2	2.01	0.61
38:AE:53:MET:HE3	38:AE:325:VAL:H	1.65	0.61
53:SA:467:G:H2'	53:SA:468:G:C8	2.35	0.61
53:SA:531:U:N3	53:SA:534:A:OP2	2.29	0.61
53:SA:636:U:H2'	53:SA:637:A:H8	1.64	0.61
53:SA:803:G:O4'	58:SF:221:ARG:NH1	2.34	0.61
2:AA:2137:C:O2	2:AA:3451:G:O2'	2.18	0.61
2:AA:3128:A:O2'	2:AA:3131:A:N6	2.34	0.61
26:AM:86:ALA:HA	26:AM:96:TYR:HB3	1.82	0.61
53:SA:651:G:O6	53:SA:749:U:O4	2.18	0.61
53:SA:809:U:O4	53:SA:810:A:N6	2.34	0.61
53:SA:877:U:H2'	53:SA:878:G:C8	2.36	0.61
54:SB:121:ILE:HB	54:SB:141:ALA:HB3	1.83	0.61
68:SP:54:VAL:HG21	68:SP:84:ARG:HG2	1.83	0.61
2:AA:179:G:N1	2:AA:252:A:N1	2.49	0.60
2:AA:1331:A:H2'	2:AA:1332:A:C8	2.36	0.60
4:AB:72:C:O2'	4:AB:73:U:O5'	2.14	0.60
20:Ah:79:ALA:HB2	37:AD:112:LEU:HD12	1.83	0.60
38:AE:56:ILE:HD13	38:AE:320:LEU:HD11	1.83	0.60
42:AH:128:LEU:H	42:AH:156:THR:HG22	1.66	0.60
53:SA:1832:U:H3	61:SI:155:ARG:HA	1.66	0.60
2:AA:1553:U:O2'	2:AA:1554:G:O5'	2.20	0.60
2:AA:2474:C:OP1	37:AD:193:ARG:NH2	2.34	0.60
2:AA:3000:A:H2'	2:AA:3001:A:C8	2.37	0.60
2:AA:3613:A:OP1	11:AN:109:LYS:NZ	2.34	0.60
6:A1:13:ILE:HG22	6:A1:14:LEU:H	1.66	0.60
16:Ad:40:LYS:HE3	16:Ad:53:VAL:HG12	1.83	0.60
32:AY:113:TYR:HB3	35:A3:32:ARG:HB3	1.84	0.60
34:AZ:31:SER:HA	34:AZ:48:PRO:HA	1.82	0.60
56:SD:27:ARG:HD2	67:SO:69:LYS:HD2	1.82	0.60
2:AA:3000:A:H2'	2:AA:3001:A:H8	1.64	0.60
2:AA:3409:U:N3	2:AA:3418:A:C6	2.70	0.60
2:AA:3508:A:H2'	2:AA:3509:G:H8	1.66	0.60
4:AB:62:U:OP2	30:AR:278:ARG:NH2	2.30	0.60
6:A1:15:ASN:HD21	14:Aa:86:ARG:HB2	1.66	0.60
33:AT:123:TYR:HB3	33:AT:124:LEU:HD22	1.83	0.60
37:AD:105:GLY:HA3	37:AD:160:ALA:HB1	1.82	0.60
41:AU:12:ASN:OD1	41:AU:12:ASN:N	2.33	0.60
42:AH:20:ILE:HG21	42:AH:45:ILE:HG21	1.82	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:S1:107:ARG:HA	47:S1:110:LYS:HZ2	1.66	0.60
53:SA:914:U:H2'	53:SA:915:G:C8	2.36	0.60
53:SA:1220:C:H2'	53:SA:1221:G:H8	1.66	0.60
62:SJ:68:ILE:H	62:SJ:68:ILE:HD12	1.66	0.60
2:AA:1752:C:O3'	32:AY:173:ARG:NH2	2.27	0.60
18:Af:3:GLU:OE2	42:AH:92:ARG:NH2	2.34	0.60
33:AT:59:ARG:O	33:AT:63:ARG:NH1	2.34	0.60
36:A5:125:PHE:O	36:A5:212:ASN:ND2	2.33	0.60
38:AE:45:ALA:HB3	38:AE:178:VAL:HG13	1.83	0.60
39:AF:239:LYS:O	39:AF:248:ARG:NH1	2.33	0.60
53:SA:1973:U:OP1	64:SL:44:HIS:ND1	2.33	0.60
53:SA:2072:G:H2'	53:SA:2073:A:C8	2.36	0.60
58:SF:42:ILE:HB	58:SF:46:ILE:HD11	1.83	0.60
2:AA:1720:C:H2'	2:AA:1721:C:C6	2.37	0.60
2:AA:3587:U:H2'	2:AA:3588:A:C8	2.34	0.60
5:AL:168:LYS:O	28:AO:104:ARG:NH1	2.35	0.60
18:Af:10:ALA:HB1	42:AH:175:LEU:HD22	1.82	0.60
19:AP:193:TRP:O	19:AP:197:GLN:HG2	2.02	0.60
23:AJ:163:LYS:HE2	23:AJ:190:LYS:HD2	1.83	0.60
60:SH:200:GLU:HA	60:SH:203:GLN:NE2	2.16	0.60
2:AA:733:C:H2'	2:AA:734:A:C8	2.37	0.60
2:AA:874:A:OP1	8:A4:48:LYS:NZ	2.34	0.60
2:AA:2442:A:H4'	37:AD:179:ILE:HG22	1.84	0.60
2:AA:2562:U:H2'	2:AA:2563:A:C8	2.36	0.60
28:AO:98:PRO:HG2	28:AO:122:ILE:HG13	1.84	0.60
29:AQ:48:GLY:O	29:AQ:139:ARG:NH1	2.34	0.60
49:S3:22:ARG:NH2	68:SP:144:SER:O	2.32	0.60
53:SA:157:G:H1'	60:SH:87:ARG:HH12	1.66	0.60
53:SA:179:U:O3'	60:SH:198:ARG:NH1	2.34	0.60
53:SA:1414:A:N6	53:SA:1660:U:O2	2.34	0.60
78:SZ:72:MET:HB2	78:SZ:77:LEU:HD11	1.82	0.60
2:AA:3386:A:H2'	2:AA:3387:U:C6	2.36	0.60
14:Aa:2:ALA:O	14:Aa:4:ARG:NH1	2.34	0.60
25:AK:156:GLU:O	25:AK:160:LYS:HG2	2.01	0.60
53:SA:886:U:O4	53:SA:916:G:O6	2.20	0.60
53:SA:1670:A:H2'	53:SA:1671:A:H8	1.67	0.60
2:AA:911:U:H2'	2:AA:912:U:C6	2.37	0.60
2:AA:1024:U:O2'	37:AD:12:ARG:NH2	2.34	0.60
2:AA:1828:G:H2'	2:AA:1829:G:C8	2.36	0.60
12:A8:13:ARG:HH12	12:A8:51:LEU:HD21	1.66	0.60
34:AZ:37:GLU:CD	34:AZ:37:GLU:H	2.09	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AZ:56:LEU:HD23	34:AZ:66:GLU:HB3	1.83	0.60
42:AH:88:LEU:HD21	42:AH:186:VAL:HG23	1.82	0.60
53:SA:25:C:N4	57:SE:8:TYR:O	2.34	0.60
53:SA:1183:U:O2	78:SZ:22:ARG:NH2	2.33	0.60
62:SJ:128:GLU:OE1	73:SU:21:LYS:HD3	2.02	0.60
67:SO:26:LEU:HD22	67:SO:32:ILE:HD13	1.83	0.60
68:SP:147:ARG:HH21	68:SP:150:ARG:HB2	1.66	0.60
69:SQ:117:LEU:HD21	69:SQ:120:VAL:HB	1.83	0.60
74:SV:125:ILE:H	74:SV:125:ILE:HD12	1.67	0.60
2:AA:176:A:H2'	2:AA:177:A:H8	1.67	0.60
2:AA:1132:G:N2	2:AA:1163:A:N1	2.49	0.60
10:A7:27:LEU:HD13	10:A7:43:GLU:HB3	1.83	0.60
16:Ad:40:LYS:HG2	16:Ad:53:VAL:HA	1.84	0.60
20:Ah:78:ALA:O	20:Ah:82:THR:HG23	2.02	0.60
26:AM:30:ASN:ND2	26:AM:114:SER:OG	2.35	0.60
30:AR:183:PRO:HB2	30:AR:190:ASN:HB3	1.84	0.60
31:AW:99:GLN:O	31:AW:103:GLU:HG3	2.02	0.60
41:AU:21:ARG:NH2	41:AU:66:GLU:OE2	2.35	0.60
53:SA:1910:U:OP1	61:SI:62:ARG:NH1	2.35	0.60
69:SQ:9:LEU:HD23	69:SQ:9:LEU:H	1.66	0.60
2:AA:521:U:O2'	2:AA:522:A:O5'	2.19	0.60
2:AA:746:A:H2'	2:AA:747:A:H8	1.66	0.60
2:AA:2081:U:H2'	2:AA:2082:C:C6	2.37	0.60
2:AA:2884:G:C6	14:Aa:92:ALA:HA	2.36	0.60
4:AB:60:U:O2'	30:AR:271:LYS:N	2.35	0.60
19:AP:187:PRO:O	19:AP:188:SER:HB3	1.99	0.60
22:AI:12:ASN:HA	22:AI:17:LYS:H	1.67	0.60
23:AJ:279:ILE:HG21	54:SB:94:ARG:HB2	1.84	0.60
42:AH:8:GLN:HE21	42:AH:10:VAL:CG2	2.14	0.60
42:AH:165:LEU:HD23	42:AH:165:LEU:H	1.67	0.60
53:SA:58:U:O2'	53:SA:457:A:N3	2.34	0.60
53:SA:467:G:H2'	53:SA:468:G:H8	1.65	0.60
53:SA:644:U:O2	62:SJ:115:ARG:NH2	2.30	0.60
53:SA:1675:G:H2'	53:SA:1676:U:C6	2.37	0.60
53:SA:1810:U:H1'	56:SD:6:SER:HB3	1.84	0.60
77:SY:29:ILE:HD12	77:SY:85:ARG:HD2	1.84	0.60
2:AA:11:A:N1	3:AC:154:G:N2	2.46	0.59
2:AA:1999:A:H2'	2:AA:2000:G:H8	1.67	0.59
4:AB:84:U:OP1	36:A5:231:ARG:NH1	2.34	0.59
9:A6:8:SER:HA	9:A6:11:ASP:HB2	1.83	0.59
16:Ad:29:LYS:HG2	16:Ad:37:VAL:HG12	1.84	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AE:60:VAL:HG12	38:AE:62:LYS:H	1.67	0.59
38:AE:193:LYS:HA	38:AE:196:LEU:HD11	1.85	0.59
40:AG:49:LYS:O	40:AG:64:LYS:N	2.35	0.59
53:SA:887:A:N1	53:SA:915:G:C6	2.69	0.59
53:SA:1432:G:H3'	53:SA:1433:A:H8	1.67	0.59
53:SA:1798:G:O5'	77:SY:121:LYS:NZ	2.34	0.59
2:AA:1072:A:H4'	2:AA:1073:G:H21	1.68	0.59
2:AA:1868:U:H2'	2:AA:1869:G:C8	2.38	0.59
6:A1:41:CYS:SG	6:A1:80:ILE:HD13	2.42	0.59
45:AX:66:ASP:O	45:AX:74:THR:OG1	2.20	0.59
50:S4:40:GLN:NE2	50:S4:54:CYS:SG	2.72	0.59
53:SA:597:C:H2'	53:SA:598:A:C8	2.36	0.59
53:SA:756:A:H2'	53:SA:757:A:C8	2.38	0.59
57:SE:148:VAL:HB	57:SE:152:SER:HB2	1.84	0.59
59:SG:132:GLU:HB3	59:SG:135:THR:HG22	1.84	0.59
2:AA:643:G:H1'	2:AA:684:G:N2	2.17	0.59
2:AA:1721:C:H2'	2:AA:1722:C:H6	1.68	0.59
2:AA:2721:U:H2'	2:AA:2722:G:H8	1.68	0.59
12:A8:111:ARG:O	12:A8:115:MET:HB2	2.03	0.59
23:AJ:199:ASP:HB3	23:AJ:202:THR:HG22	1.83	0.59
53:SA:755:A:N1	62:SJ:105:GLN:NE2	2.49	0.59
64:SL:207:PHE:HA	64:SL:210:ARG:HE	1.68	0.59
2:AA:763:U:OP1	5:AL:38:ARG:NH2	2.34	0.59
4:AB:23:C:H2'	4:AB:24:C:H6	1.67	0.59
10:A7:66:PHE:O	10:A7:69:SER:OG	2.21	0.59
13:A9:110:ASN:N	13:A9:110:ASN:OD1	2.32	0.59
35:A3:13:LYS:HE3	35:A3:15:LYS:H	1.67	0.59
53:SA:484:A:H5'	57:SE:123:HIS:CE1	2.38	0.59
53:SA:865:G:H21	63:SK:107:PRO:HG3	1.68	0.59
53:SA:1091:C:H4'	53:SA:1226:A:H61	1.68	0.59
53:SA:1259:C:O2'	53:SA:1878:C:OP2	2.20	0.59
53:SA:1271:G:N2	53:SA:1868:C:O2'	2.35	0.59
53:SA:1732:G:O6	53:SA:1816:U:N3	2.35	0.59
53:SA:1952:A:N6	53:SA:2037:A:O2'	2.35	0.59
56:SD:155:ASP:H	56:SD:158:LEU:HD11	1.66	0.59
74:SV:113:HIS:HB3	74:SV:141:ASN:ND2	2.16	0.59
2:AA:1822:A:N1	2:AA:2004:U:H5	2.01	0.59
2:AA:3735:A:H3'	2:AA:3753:G:N2	2.17	0.59
25:AK:112:ASP:OD1	25:AK:113:LYS:N	2.36	0.59
38:AE:50:LYS:NZ	38:AE:327:GLY:O	2.35	0.59
39:AF:128:ILE:HD11	39:AF:235:LEU:HD11	1.83	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:AX:57:ILE:HG23	45:AX:90:ILE:HD11	1.85	0.59
53:SA:1955:G:C2	53:SA:1956:A:C4	2.90	0.59
54:SB:175:GLU:HA	54:SB:178:LYS:HE3	1.84	0.59
1:S7:76:A:OP1	21:Ai:57:PHE:N	2.31	0.59
2:AA:2034:G:N2	2:AA:2075:U:O2	2.36	0.59
2:AA:3001:A:H2'	2:AA:3002:G:H8	1.67	0.59
35:A3:63:LYS:HA	35:A3:66:MET:SD	2.42	0.59
41:AU:33:VAL:HG23	43:AV:149:ILE:HA	1.84	0.59
45:AX:63:PHE:HB3	45:AX:106:LEU:HD22	1.85	0.59
47:S1:41:LYS:HG2	47:S1:56:ILE:HD11	1.85	0.59
50:S4:29:TYR:H	50:S4:46:SER:HB3	1.67	0.59
53:SA:109:C:OP1	53:SA:389:G:O2'	2.21	0.59
53:SA:1955:G:H2'	53:SA:1956:A:H8	1.66	0.59
72:ST:38:ARG:O	72:ST:42:ARG:HG3	2.02	0.59
77:SY:75:TRP:O	77:SY:79:ARG:HG2	2.03	0.59
2:AA:1322:G:H2'	2:AA:1323:A:C8	2.38	0.59
2:AA:1770:G:H21	2:AA:1798:A:H1'	1.68	0.59
4:AB:37:A:N6	4:AB:41:G:N1	2.51	0.59
6:A1:14:LEU:HD12	6:A1:79:HIS:HA	1.83	0.59
7:A2:11:GLU:OE2	27:AS:27:ARG:NH1	2.36	0.59
18:Af:20:CYS:HB2	18:Af:45:LEU:HD23	1.83	0.59
38:AE:183:GLY:H	38:AE:188:LYS:HZ3	1.48	0.59
40:AG:17:LEU:HA	40:AG:129:VAL:HA	1.83	0.59
44:Ag:10:LYS:HG3	44:Ag:10:LYS:O	2.02	0.59
49:S3:82:ARG:HH21	53:SA:1254:G:H5'	1.68	0.59
53:SA:1417:U:OP1	53:SA:1430:G:N2	2.27	0.59
62:SJ:6:LYS:NZ	62:SJ:10:LYS:O	2.35	0.59
2:AA:1530:G:H2'	2:AA:1531:G:H8	1.67	0.59
2:AA:2524:C:N4	2:AA:2817:U:OP1	2.35	0.59
2:AA:3412:G:N1	2:AA:3414:G:O5'	2.35	0.59
4:AB:46:C:P	30:AR:160:ARG:HE	2.25	0.59
4:AB:104:C:H4'	29:AQ:201:ARG:CZ	2.33	0.59
25:AK:183:GLU:OE1	25:AK:183:GLU:N	2.29	0.59
34:AZ:114:ARG:HA	34:AZ:117:ILE:HG23	1.84	0.59
53:SA:486:A:H2'	53:SA:487:A:C8	2.38	0.59
2:AA:1015:A:H5"	37:AD:183:GLY:HA2	1.84	0.59
2:AA:1785:U:O2'	6:A1:76:ASN:N	2.36	0.59
2:AA:1901:A:H61	2:AA:1905:C:H1'	1.67	0.59
2:AA:3323:G:N2	2:AA:3326:A:OP2	2.29	0.59
12:A8:96:ILE:HG21	12:A8:105:ARG:HG3	1.83	0.59
30:AR:23:ARG:O	40:AG:144:ARG:NH1	2.36	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:996:C:HO2'	68:SP:139:SER:HG	1.51	0.59
53:SA:1646:U:OP2	75:SW:63:LYS:NZ	2.36	0.59
60:SH:206:LYS:HA	60:SH:209:LYS:HE2	1.84	0.59
63:SK:25:VAL:HG12	63:SK:63:VAL:HB	1.85	0.59
77:SY:83:ILE:HD11	77:SY:127:LEU:HD13	1.83	0.59
2:AA:423:U:OP1	31:AW:34:ARG:NH1	2.36	0.59
2:AA:535:U:H3	2:AA:618:U:H3	1.50	0.59
2:AA:1342:U:H2'	2:AA:1343:U:C6	2.38	0.59
2:AA:1842:U:H5"	2:AA:1843:U:H5'	1.85	0.59
2:AA:2442:A:C2	2:AA:2481:A:H4'	2.38	0.59
2:AA:3319:C:H2'	2:AA:3320:G:H8	1.67	0.59
3:AC:147:U:O2'	19:AP:110:ILE:O	2.19	0.59
4:AB:43:A:O2'	40:AG:140:ARG:O	2.20	0.59
9:A6:12:ASN:OD1	9:A6:13:ILE:N	2.35	0.59
24:Ac:24:ARG:NH2	24:Ac:44:SER:O	2.34	0.59
42:AH:8:GLN:HG3	42:AH:73:CYS:HB2	1.84	0.59
45:AX:120:LEU:HD11	45:AX:132:PHE:HB3	1.84	0.59
53:SA:93:G:OP1	53:SA:403:A:N6	2.34	0.59
53:SA:621:C:OP2	69:SQ:5:LYS:NZ	2.36	0.59
63:SK:35:ILE:O	63:SK:39:GLN:HG2	2.03	0.59
2:AA:1443:U:OP1	25:AK:17:ARG:NH1	2.36	0.58
2:AA:2082:C:H2'	2:AA:2083:U:C6	2.38	0.58
2:AA:2692:A:N6	2:AA:2693:G:O6	2.36	0.58
2:AA:3319:C:H2'	2:AA:3320:G:C8	2.38	0.58
11:AN:7:THR:O	11:AN:11:LYS:HG2	2.03	0.58
12:A8:100:VAL:O	12:A8:105:ARG:NH1	2.35	0.58
23:AJ:279:ILE:HG12	23:AJ:283:LEU:HG	1.84	0.58
26:AM:124:CYS:HG	26:AM:128:TRP:CD1	2.21	0.58
36:A5:37:LYS:HA	36:A5:40:LYS:HE3	1.85	0.58
39:AF:117:LEU:O	39:AF:121:ARG:HG2	2.03	0.58
49:S3:5:ARG:NH1	53:SA:2088:C:OP2	2.37	0.58
59:SG:257:ASP:OD1	59:SG:257:ASP:N	2.33	0.58
65:SM:118:LEU:HD23	65:SM:118:LEU:H	1.67	0.58
66:SN:66:LYS:HB2	66:SN:75:THR:HG23	1.84	0.58
69:SQ:53:VAL:HG21	69:SQ:96:ILE:HD11	1.84	0.58
71:SS:81:ILE:HD11	71:SS:85:PHE:HB3	1.84	0.58
2:AA:86:G:O2'	2:AA:98:G:O6	2.19	0.58
2:AA:2451:A:OP2	37:AD:156:LYS:NZ	2.35	0.58
2:AA:3197:A:N6	2:AA:3209:G:O2'	2.30	0.58
11:AN:30:LEU:HA	11:AN:44:PHE:HA	1.85	0.58
14:Aa:9:ARG:NH2	14:Aa:34:VAL:O	2.36	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AS:40:THR:HG22	27:AS:42:ALA:H	1.67	0.58
31:AW:14:CYS:O	31:AW:105:ARG:NH1	2.36	0.58
35:A3:69:ARG:O	35:A3:73:LYS:HG2	2.03	0.58
53:SA:1382:G:H4'	66:SN:73:THR:H	1.67	0.58
68:SP:93:ILE:O	68:SP:127:GLY:N	2.36	0.58
72:ST:19:CYS:SG	72:ST:22:CYS:N	2.73	0.58
77:SY:126:ILE:O	77:SY:130:LEU:HD22	2.02	0.58
2:AA:440:A:H2'	2:AA:441:A:H8	1.68	0.58
2:AA:2208:G:H2'	2:AA:2209:C:H6	1.68	0.58
2:AA:3106:U:H2'	2:AA:3107:U:C6	2.38	0.58
30:AR:182:PHE:CD1	30:AR:183:PRO:HD2	2.37	0.58
41:AU:83:ASN:ND2	41:AU:102:GLU:OE2	2.36	0.58
42:AH:83:VAL:HG23	42:AH:148:ALA:HB1	1.85	0.58
56:SD:8:LYS:HD2	66:SN:60:LEU:HD11	1.85	0.58
60:SH:98:ARG:HH21	60:SH:106:LEU:HG	1.67	0.58
2:AA:65:A:H61	2:AA:331:A:H62	1.49	0.58
2:AA:163:G:C2	2:AA:269:A:C6	2.91	0.58
2:AA:715:U:H2'	2:AA:716:C:H6	1.68	0.58
2:AA:752:G:OP1	39:AF:33:ARG:NH1	2.34	0.58
2:AA:2128:G:H2'	2:AA:2129:U:C6	2.38	0.58
2:AA:3435:A:C6	38:AE:54:THR:HA	2.38	0.58
16:Ad:22:ALA:HB3	16:Ad:44:ARG:HB2	1.86	0.58
29:AQ:171:TRP:HA	29:AQ:178:LYS:HD3	1.85	0.58
50:S4:81:ILE:H	50:S4:81:ILE:HD12	1.69	0.58
53:SA:483:A:H2'	53:SA:484:A:H8	1.67	0.58
60:SH:77:PHE:HE2	60:SH:95:LYS:HB2	1.68	0.58
73:SU:19:LYS:O	73:SU:62:GLN:NE2	2.36	0.58
74:SV:45:PHE:HZ	74:SV:144:HIS:HB2	1.68	0.58
2:AA:1064:U:H2'	2:AA:1065:U:C6	2.39	0.58
2:AA:1530:G:OP1	39:AF:199:ARG:NH1	2.35	0.58
2:AA:1827:C:H42	2:AA:1998:A:H61	1.52	0.58
2:AA:1860:A:H2'	2:AA:1861:C:C6	2.38	0.58
19:AP:3:ALA:O	19:AP:7:ILE:HG13	2.03	0.58
44:Ag:20:LYS:O	44:Ag:24:THR:HG23	2.02	0.58
53:SA:1799:A:OP2	77:SY:121:LYS:NZ	2.34	0.58
54:SB:135:LEU:HD21	54:SB:181:LEU:HD12	1.85	0.58
62:SJ:129:ASP:O	62:SJ:132:SER:OG	2.21	0.58
71:SS:25:LYS:O	71:SS:57:ARG:NH1	2.32	0.58
2:AA:128:U:H2'	2:AA:129:C:C6	2.39	0.58
2:AA:3014:C:N4	40:AG:22:CYS:SG	2.77	0.58
4:AB:22:G:O2'	4:AB:24:C:OP1	2.18	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A1:28:THR:HA	6:A1:41:CYS:HA	1.86	0.58
11:AN:50:THR:HG23	11:AN:52:THR:H	1.69	0.58
15:Ab:44:ILE:O	15:Ab:48:VAL:HG12	2.04	0.58
27:AS:109:ARG:O	27:AS:113:GLU:HG2	2.02	0.58
32:AY:118:GLU:O	32:AY:122:LYS:HG2	2.04	0.58
34:AZ:117:ILE:HG22	34:AZ:120:ARG:HH21	1.69	0.58
53:SA:1392:C:H2'	53:SA:1393:G:H8	1.67	0.58
69:SQ:51:GLY:HA3	69:SQ:76:LEU:HA	1.84	0.58
78:SZ:68:LEU:O	78:SZ:72:MET:HG2	2.03	0.58
2:AA:3410:A:H2'	2:AA:3411:C:O4'	2.04	0.58
3:AC:126:C:O3'	35:A3:64:ARG:NH1	2.36	0.58
4:AB:57:C:H2'	4:AB:58:A:C8	2.38	0.58
8:A4:30:MET:HE1	43:AV:66:PHE:HB2	1.85	0.58
38:AE:82:ALA:HA	38:AE:316:GLU:HG2	1.85	0.58
42:AH:101:ASN:HB2	42:AH:115:ASN:HB2	1.86	0.58
53:SA:1956:A:H2'	53:SA:1957:A:H8	1.68	0.58
58:SF:132:ARG:HB2	58:SF:136:LEU:HD21	1.85	0.58
2:AA:3494:C:H5'	42:AH:158:ALA:HB2	1.86	0.58
6:A1:51:LEU:O	6:A1:65:ARG:NH1	2.36	0.58
11:AN:23:ARG:NH1	11:AN:76:LEU:O	2.36	0.58
24:Ac:74:ARG:HG2	24:Ac:75:ARG:N	2.19	0.58
33:AT:54:GLN:OE1	33:AT:54:GLN:N	2.36	0.58
40:AG:10:ARG:HG3	40:AG:133:ARG:HE	1.69	0.58
52:S6:33:ARG:HG3	57:SE:37:LYS:HE2	1.86	0.58
53:SA:1108:A:O2'	53:SA:1109:G:O5'	2.22	0.58
53:SA:1843:G:O2'	71:SS:88:ARG:NH1	2.30	0.58
60:SH:140:LYS:HA	60:SH:143:LYS:HD2	1.86	0.58
64:SL:55:TYR:HD2	64:SL:193:GLY:HA3	1.69	0.58
2:AA:909:U:H2'	2:AA:910:A:C8	2.39	0.58
2:AA:1897:G:OP2	14:Aa:55:LYS:NZ	2.37	0.58
2:AA:1967:G:C2	16:Ad:2:PRO:HG2	2.39	0.58
2:AA:3709:U:H5"	2:AA:3710:U:H5'	1.86	0.58
5:AL:78:GLU:OE2	5:AL:100:ARG:NH2	2.37	0.58
5:AL:155:LYS:HD2	5:AL:156:PRO:HD2	1.85	0.58
23:AJ:203:LEU:HD21	23:AJ:215:VAL:HG13	1.85	0.58
30:AR:60:VAL:O	30:AR:80:SER:OG	2.22	0.58
53:SA:520:U:OP2	57:SE:171:ARG:NH2	2.36	0.58
53:SA:600:U:H5'	57:SE:40:ARG:CZ	2.33	0.58
53:SA:1261:A:H2'	53:SA:1262:C:C6	2.38	0.58
53:SA:1841:U:H2'	53:SA:1842:A:C8	2.39	0.58
53:SA:2065:C:H2'	53:SA:2066:G:C8	2.39	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:SF:19:MET:SD	58:SF:108:ARG:HD3	2.43	0.58
63:SK:103:ILE:HA	63:SK:112:ASP:HA	1.86	0.58
74:SV:10:GLU:OE2	74:SV:14:GLN:NE2	2.37	0.58
2:AA:122:A:N7	2:AA:155:U:H5	2.02	0.58
2:AA:1533:U:OP1	39:AF:140:ARG:NH2	2.34	0.58
2:AA:1630:A:H1'	2:AA:2125:A:C4	2.38	0.58
2:AA:3410:A:H62	2:AA:3417:G:H21	0.70	0.58
2:AA:3508:A:C2	42:AH:71:THR:HG21	2.39	0.58
2:AA:3776:U:O2'	10:A7:114:ASN:O	2.22	0.58
4:AB:42:A:O2'	40:AG:137:ARG:NH2	2.36	0.58
53:SA:1295:A:O2'	53:SA:1296:C:OP1	2.22	0.58
55:SC:133:VAL:HG12	55:SC:155:HIS:HB2	1.85	0.58
65:SM:45:LEU:HB2	65:SM:79:ILE:HG13	1.85	0.58
2:AA:400:C:H41	31:AW:105:ARG:HA	1.67	0.57
2:AA:417:A:C2	3:AC:21:A:H1'	2.39	0.57
2:AA:3468:G:H2'	2:AA:3469:C:C6	2.38	0.57
2:AA:3657:G:H2'	2:AA:3658:G:C8	2.39	0.57
2:AA:3757:U:H2'	2:AA:3758:G:C8	2.39	0.57
15:Ab:91:LYS:O	15:Ab:95:GLU:HG2	2.04	0.57
38:AE:277:LYS:HB3	38:AE:322:LYS:O	2.04	0.57
41:AU:57:ILE:HD12	43:AV:155:LEU:HD23	1.85	0.57
43:AV:95:GLU:OE1	43:AV:95:GLU:N	2.31	0.57
47:S1:73:PHE:HE1	58:SF:56:LEU:HD21	1.69	0.57
52:S6:14:VAL:HA	52:S6:17:GLN:HG2	1.86	0.57
53:SA:846:G:H2'	53:SA:847:U:C6	2.38	0.57
66:SN:59:THR:O	66:SN:61:ARG:NH1	2.32	0.57
73:SU:46:THR:OG1	73:SU:49:GLN:OE1	2.22	0.57
2:AA:581:C:O2'	2:AA:582:U:OP1	2.20	0.57
2:AA:1967:G:O2'	16:Ad:4:GLN:N	2.38	0.57
2:AA:3241:U:H2'	2:AA:3242:U:C6	2.39	0.57
6:A1:56:SER:C	6:A1:57:MET:HE2	2.29	0.57
31:AW:42:LEU:HD21	31:AW:109:VAL:HG12	1.86	0.57
43:AV:151:THR:OG1	43:AV:153:GLU:OE1	2.22	0.57
53:SA:454:U:H2'	53:SA:455:C:C6	2.39	0.57
53:SA:1790:C:H2'	53:SA:1791:C:C6	2.39	0.57
2:AA:14:U:H3	3:AC:143:G:H21	1.52	0.57
2:AA:2020:A:H2'	2:AA:2021:A:C8	2.39	0.57
4:AB:8:U:O2'	30:AR:70:GLU:OE1	2.19	0.57
26:AM:125:ALA:HA	26:AM:131:LEU:HB3	1.85	0.57
51:S5:44:VAL:HG11	51:S5:48:VAL:HG11	1.87	0.57
53:SA:953:C:H2'	53:SA:954:G:C8	2.39	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1925:U:H2'	53:SA:1926:G:H8	1.69	0.57
60:SH:160:ARG:NH1	60:SH:171:ILE:O	2.37	0.57
64:SL:64:SER:O	64:SL:196:ASP:HA	2.04	0.57
2:AA:305:A:H4'	2:AA:306:C:H5"	1.86	0.57
2:AA:973:A:H62	20:Ah:2:SER:HA	1.70	0.57
39:AF:65:GLU:O	39:AF:78:ARG:N	2.27	0.57
41:AU:107:THR:HG22	41:AU:108:LYS:H	1.68	0.57
47:S1:12:TYR:HA	47:S1:23:PHE:HB3	1.85	0.57
53:SA:313:G:OP1	74:SV:106:ARG:NH1	2.37	0.57
53:SA:1884:A:H2'	53:SA:1885:G:H8	1.70	0.57
2:AA:653:A:H2'	2:AA:654:A:C8	2.40	0.57
2:AA:3304:G:O2'	2:AA:3307:C:OP2	2.19	0.57
3:AC:73:A:H2'	3:AC:74:A:O4'	2.04	0.57
3:AC:139:A:H5'	3:AC:140:G:C8	2.39	0.57
25:AK:36:ARG:HD3	25:AK:107:MET:HE3	1.86	0.57
30:AR:148:LEU:HD13	30:AR:175:ILE:HG21	1.87	0.57
31:AW:39:MET:HE3	31:AW:43:GLU:HG2	1.86	0.57
47:S1:10:LYS:NZ	53:SA:827:C:OP2	2.38	0.57
49:S3:21:LEU:HD23	49:S3:32:LYS:HA	1.85	0.57
53:SA:1745:U:H2'	53:SA:1746:A:H8	1.70	0.57
55:SC:40:ARG:HA	55:SC:46:HIS:HA	1.87	0.57
62:SJ:80:LEU:HA	62:SJ:83:GLU:HG2	1.86	0.57
68:SP:44:VAL:HG21	68:SP:85:LEU:HD21	1.85	0.57
2:AA:534:A:OP1	11:AN:90:GLY:N	2.38	0.57
2:AA:1797:A:O2'	2:AA:2083:U:O2'	2.22	0.57
2:AA:3109:U:O3'	21:Ai:14:ASN:ND2	2.37	0.57
20:Ah:38:LEU:HB2	20:Ah:45:THR:HG22	1.86	0.57
39:AF:163:LYS:HB2	39:AF:166:GLU:CD	2.29	0.57
53:SA:868:U:O2	63:SK:124:LYS:NZ	2.37	0.57
53:SA:1842:A:H2'	53:SA:1843:G:C8	2.39	0.57
65:SM:130:PHE:CZ	66:SN:76:TRP:HB2	2.40	0.57
73:SU:30:PRO:HA	73:SU:33:ILE:HB	1.87	0.57
2:AA:961:G:H2'	2:AA:962:A:H8	1.67	0.57
2:AA:1048:G:O2'	24:Ac:52:TRP:O	2.19	0.57
2:AA:3085:A:N1	30:AR:150:VAL:HA	2.20	0.57
2:AA:3736:A:N1	2:AA:3753:G:O2'	2.35	0.57
4:AB:29:C:H2'	4:AB:30:A:C8	2.40	0.57
4:AB:55:A:H2'	4:AB:56:G:C8	2.39	0.57
6:A1:50:PRO:HB3	6:A1:66:SER:HA	1.87	0.57
39:AF:25:PRO:HG2	39:AF:260:LEU:HD23	1.87	0.57
40:AG:105:GLY:HA2	40:AG:126:ASP:HA	1.87	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:44:U:OP2	53:SA:443:A:N6	2.25	0.57
53:SA:335:G:H2'	53:SA:336:G:H8	1.69	0.57
53:SA:1363:U:H2'	53:SA:1364:G:C8	2.38	0.57
77:SY:90:HIS:ND1	77:SY:92:ASP:O	2.38	0.57
4:AB:66:G:H22	4:AB:109:U:H3	1.51	0.57
13:A9:104:VAL:HB	13:A9:114:ILE:HD13	1.85	0.57
23:AJ:74:TYR:O	23:AJ:75:ILE:HG13	2.04	0.57
27:AS:67:LEU:HD21	27:AS:99:VAL:HG21	1.87	0.57
30:AR:222:PHE:HB3	30:AR:225:TYR:CD2	2.39	0.57
41:AU:51:TRP:CD1	41:AU:62:LYS:HD3	2.39	0.57
50:S4:44:LEU:HD21	50:S4:52:VAL:HG21	1.86	0.57
53:SA:99:C:H2'	53:SA:100:U:C6	2.39	0.57
53:SA:106:A:N6	53:SA:314:A:OP2	2.37	0.57
53:SA:154:A:H2	53:SA:421:U:H4'	1.70	0.57
56:SD:154:ARG:HG3	56:SD:158:LEU:HD12	1.85	0.57
58:SF:180:LEU:HD11	58:SF:192:VAL:HG22	1.86	0.57
2:AA:998:U:H4'	31:AW:132:ALA:HB2	1.85	0.57
2:AA:2666:A:N3	2:AA:3183:G:O2'	2.29	0.57
2:AA:2706:A:H2'	2:AA:2707:G:H8	1.69	0.57
49:S3:32:LYS:NZ	53:SA:999:A:OP2	2.31	0.57
62:SJ:7:ARG:O	62:SJ:43:LYS:NZ	2.35	0.57
62:SJ:130:ILE:HD13	62:SJ:175:VAL:HG13	1.85	0.57
66:SN:26:LYS:HE3	66:SN:83:ILE:HG13	1.86	0.57
2:AA:2179:A:H2'	2:AA:2180:U:C5	2.40	0.57
2:AA:2884:G:O6	14:Aa:95:PHE:HB3	2.04	0.57
2:AA:3408:G:H4'	2:AA:3409:U:H5'	1.85	0.57
2:AA:3506:U:C5'	18:Af:35:ARG:HH22	2.17	0.57
4:AB:24:C:N4	4:AB:118:A:H1'	2.20	0.57
14:Aa:43:LYS:HA	14:Aa:50:ALA:HA	1.86	0.57
18:Af:20:CYS:HB3	18:Af:24:TYR:N	2.18	0.57
38:AE:41:PRO:HG3	38:AE:188:LYS:HZ2	1.70	0.57
39:AF:186:SER:HB2	39:AF:204:ARG:HE	1.70	0.57
42:AH:94:VAL:HB	42:AH:177:GLY:O	2.05	0.57
53:SA:248:G:H21	74:SV:43:LEU:HD11	1.69	0.57
53:SA:960:A:H2'	53:SA:961:G:C8	2.40	0.57
54:SB:33:LYS:N	54:SB:96:CYS:O	2.37	0.57
58:SF:105:ILE:HG12	58:SF:241:GLU:HB3	1.86	0.57
74:SV:77:MET:HE3	74:SV:78:VAL:N	2.19	0.57
2:AA:718:U:OP1	28:AO:21:ARG:NH1	2.33	0.56
2:AA:1784:G:H2'	2:AA:1786:A:N7	2.20	0.56
2:AA:3137:U:O2'	2:AA:3138:A:OP1	2.21	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:3717:A:H2'	2:AA:3718:G:C8	2.40	0.56
6:A1:17:ARG:HA	14:Aa:74:ARG:HB2	1.85	0.56
14:Aa:23:VAL:HG22	14:Aa:33:HIS:CE1	2.40	0.56
39:AF:150:VAL:HG13	39:AF:151:PRO:HD3	1.86	0.56
43:AV:108:LEU:HA	43:AV:111:ILE:HD12	1.87	0.56
49:S3:92:ARG:NE	53:SA:2088:C:OP2	2.37	0.56
53:SA:311:C:O3'	74:SV:91:ARG:NH2	2.35	0.56
53:SA:1244:A:O2'	53:SA:1402:A:N1	2.29	0.56
61:SI:54:LYS:HB3	61:SI:135:LEU:HD21	1.86	0.56
61:SI:73:ASN:ND2	61:SI:73:ASN:O	2.38	0.56
63:SK:83:LEU:HD11	63:SK:120:HIS:HA	1.87	0.56
2:AA:541:A:N1	2:AA:611:G:C6	2.74	0.56
2:AA:668:U:H4'	2:AA:669:C:H5"	1.87	0.56
2:AA:963:C:H2'	2:AA:964:G:C8	2.40	0.56
2:AA:1342:U:H2'	2:AA:1343:U:H6	1.68	0.56
2:AA:2027:A:H4'	14:Aa:76:TYR:O	2.04	0.56
2:AA:2940:A:H2'	2:AA:2941:G:C8	2.40	0.56
30:AR:68:HIS:CE1	30:AR:73:LYS:HG2	2.40	0.56
53:SA:104:U:H5"	64:SL:19:LYS:HE3	1.87	0.56
53:SA:110:A:H2'	53:SA:111:G:C8	2.39	0.56
53:SA:1875:U:H2'	53:SA:1876:G:C8	2.36	0.56
54:SB:88:CYS:HA	54:SB:98:THR:HA	1.85	0.56
69:SQ:46:SER:OG	69:SQ:48:HIS:O	2.22	0.56
69:SQ:54:VAL:HG23	69:SQ:55:GLU:OE1	2.05	0.56
69:SQ:55:GLU:OE1	69:SQ:55:GLU:N	2.38	0.56
2:AA:14:U:O2'	32:AY:89:ARG:NE	2.38	0.56
2:AA:124:U:H1'	2:AA:158:U:O2	2.05	0.56
2:AA:508:A:H2'	2:AA:509:A:H8	1.70	0.56
2:AA:734:A:H2'	2:AA:735:A:C8	2.40	0.56
2:AA:1881:C:O2'	2:AA:1882:U:O5'	2.19	0.56
2:AA:3405:U:H2'	2:AA:3406:U:O4'	2.04	0.56
2:AA:3505:U:H4'	2:AA:3507:A:H5'	1.87	0.56
4:AB:11:A:O2'	4:AB:13:A:OP2	2.19	0.56
5:AL:202:ARG:O	5:AL:206:LYS:HG2	2.06	0.56
8:A4:50:ILE:O	8:A4:53:LYS:NZ	2.38	0.56
11:AN:60:PHE:CE2	11:AN:89:SER:HB2	2.39	0.56
13:A9:74:ALA:HB2	13:A9:112:GLY:HA2	1.86	0.56
22:AI:145:LYS:HG3	22:AI:169:ILE:HD12	1.87	0.56
23:AJ:74:TYR:O	23:AJ:76:ARG:N	2.33	0.56
23:AJ:175:SER:OG	23:AJ:176:PRO:HD3	2.06	0.56
26:AM:13:MET:HA	26:AM:13:MET:HE2	1.87	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AR:60:VAL:HG23	30:AR:101:THR:HG21	1.87	0.56
41:AU:139:SER:OG	41:AU:140:SER:N	2.38	0.56
43:AV:56:ASN:OD1	43:AV:56:ASN:N	2.30	0.56
53:SA:142:G:O2'	53:SA:143:A:H5'	2.05	0.56
53:SA:331:G:H1'	74:SV:83:MET:HE1	1.88	0.56
53:SA:1269:U:H2'	53:SA:1270:G:H8	1.70	0.56
53:SA:1908:A:C8	53:SA:1909:C:H5	2.23	0.56
54:SB:32:LEU:HD21	54:SB:46:THR:HG22	1.88	0.56
57:SE:20:GLU:OE1	57:SE:20:GLU:N	2.31	0.56
58:SF:125:LYS:NZ	58:SF:126:VAL:O	2.35	0.56
61:SI:10:LEU:N	61:SI:14:TRP:O	2.33	0.56
2:AA:1771:A:H1'	2:AA:1798:A:H2'	1.88	0.56
2:AA:1783:G:H2'	2:AA:1784:G:O4'	2.05	0.56
2:AA:1965:U:O4	2:AA:1995:C:H2'	2.05	0.56
11:AN:125:ASP:OD2	22:AI:71:ARG:NH1	2.37	0.56
22:AI:133:ASP:O	22:AI:137:ILE:HG12	2.05	0.56
33:AT:97:ARG:O	33:AT:101:LEU:HG	2.05	0.56
38:AE:41:PRO:O	38:AE:42:HIS:ND1	2.38	0.56
41:AU:43:ASP:OD1	41:AU:43:ASP:N	2.36	0.56
53:SA:1883:A:OP1	65:SM:135:ALA:N	2.38	0.56
2:AA:159:C:H2'	2:AA:160:G:C8	2.32	0.56
2:AA:293:U:O2'	19:AP:181:LEU:O	2.23	0.56
2:AA:1869:G:O6	2:AA:1870:G:N2	2.39	0.56
11:AN:30:LEU:O	11:AN:77:LEU:N	2.32	0.56
33:AT:173:LYS:HD2	73:SU:35:ASP:HA	1.87	0.56
53:SA:1317:A:O2'	53:SA:1319:G:OP1	2.20	0.56
54:SB:114:ILE:HG22	54:SB:142:PHE:HZ	1.69	0.56
54:SB:209:ASN:N	54:SB:209:ASN:OD1	2.39	0.56
57:SE:117:GLY:O	57:SE:119:ALA:N	2.36	0.56
67:SO:72:TRP:CD1	72:ST:21:VAL:HG23	2.40	0.56
69:SQ:105:SER:OG	69:SQ:106:GLY:N	2.35	0.56
2:AA:127:U:OP1	19:AP:141:ASN:ND2	2.36	0.56
2:AA:1511:U:H2'	2:AA:1512:A:H8	1.71	0.56
2:AA:1630:A:N6	2:AA:2139:C:C2	2.67	0.56
2:AA:1996:C:O2'	2:AA:1997:G:N3	2.33	0.56
2:AA:2598:G:OP2	2:AA:2598:G:N2	2.30	0.56
4:AB:69:U:H2'	4:AB:70:G:C8	2.41	0.56
12:A8:82:MET:HE1	12:A8:112:ALA:HB2	1.88	0.56
37:AD:34:TYR:CE1	37:AD:38:LYS:HG3	2.41	0.56
53:SA:427:A:OP1	60:SH:93:LYS:NZ	2.39	0.56
53:SA:1721:A:N6	53:SA:1830:C:N3	2.53	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1723:A:H2'	53:SA:1724:U:C6	2.40	0.56
75:SW:30:ILE:O	75:SW:34:ILE:HG22	2.06	0.56
2:AA:218:U:O2'	2:AA:237:A:N3	2.37	0.56
2:AA:914:G:H2'	2:AA:915:G:C8	2.41	0.56
2:AA:1093:G:H2'	2:AA:1094:U:C6	2.40	0.56
2:AA:1969:A:H5'	2:AA:1970:A:C4	2.41	0.56
2:AA:3388:U:O2'	38:AE:177:GLU:OE1	2.24	0.56
2:AA:3703:G:O6	38:AE:21:ARG:NH2	2.38	0.56
16:Ad:61:GLU:OE2	16:Ad:65:ASN:ND2	2.36	0.56
30:AR:95:TYR:HB2	30:AR:202:HIS:HE2	1.70	0.56
38:AE:281:ARG:NH2	38:AE:290:SER:O	2.39	0.56
42:AH:8:GLN:HE21	42:AH:10:VAL:HG23	1.70	0.56
45:AX:125:LYS:HG3	45:AX:131:GLU:HB2	1.86	0.56
53:SA:62:A:HO2'	53:SA:269:A:HO2'	1.53	0.56
53:SA:404:G:OP2	64:SL:47:ARG:NH2	2.36	0.56
53:SA:632:C:H2'	53:SA:633:U:C6	2.40	0.56
53:SA:1821:A:N3	53:SA:1887:A:O2'	2.31	0.56
64:SL:105:ASP:HB3	64:SL:107:HIS:CE1	2.39	0.56
75:SW:50:VAL:O	75:SW:54:VAL:HG23	2.05	0.56
2:AA:508:A:H2'	2:AA:509:A:C8	2.41	0.56
2:AA:1603:C:N4	2:AA:2146:A:O2'	2.38	0.56
2:AA:2486:U:H5"	2:AA:2487:G:H5'	1.86	0.56
2:AA:3512:A:H3'	2:AA:3513:G:C8	2.41	0.56
22:AI:30:ASN:HA	22:AI:36:ARG:HG2	1.87	0.56
27:AS:182:SER:OG	27:AS:183:ARG:NH1	2.38	0.56
38:AE:215:ILE:HD11	38:AE:271:HIS:NE2	2.20	0.56
53:SA:635:G:N1	53:SA:1039:A:OP2	2.30	0.56
58:SF:122:LYS:N	58:SF:161:ARG:HH12	2.04	0.56
2:AA:89:A:OP2	27:AS:172:LYS:NZ	2.34	0.56
2:AA:686:U:H4'	22:AI:40:SER:HB2	1.87	0.56
2:AA:911:U:H2'	2:AA:912:U:H6	1.70	0.56
2:AA:2081:U:H2'	2:AA:2082:C:H6	1.68	0.56
2:AA:2816:U:H2'	2:AA:2817:U:C6	2.40	0.56
2:AA:3503:U:H5"	18:Af:28:HIS:HD1	1.70	0.56
2:AA:3735:A:H3'	2:AA:3753:G:H21	1.70	0.56
4:AB:39:C:O2'	40:AG:43:GLN:OE1	2.22	0.56
6:A1:11:ILE:O	6:A1:23:ALA:N	2.38	0.56
30:AR:193:GLN:OE1	30:AR:197:ASN:ND2	2.39	0.56
53:SA:483:A:HO2'	57:SE:123:HIS:HE2	1.54	0.56
58:SF:204:THR:HG22	58:SF:205:TYR:H	1.71	0.56
63:SK:18:GLU:OE2	63:SK:18:GLU:N	2.32	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:SS:118:LYS:O	71:SS:120:ARG:NH1	2.31	0.56
2:AA:864:U:O2'	27:AS:74:HIS:NE2	2.39	0.56
2:AA:1210:A:H1'	8:A4:43:GLN:HE22	1.70	0.56
2:AA:1816:G:H2'	2:AA:1817:G:C8	2.41	0.56
2:AA:2585:U:HO2'	53:SA:1953:U:HO2'	1.37	0.56
2:AA:3061:U:OP1	43:AV:89:LYS:NZ	2.33	0.56
2:AA:3194:C:O2	29:AQ:157:TYR:OH	2.13	0.56
2:AA:3407:G:C6	2:AA:3418:A:C8	2.94	0.56
4:AB:112:U:H2'	4:AB:113:G:C8	2.41	0.56
38:AE:359:SER:HA	38:AE:368:GLN:HA	1.86	0.56
39:AF:152:LEU:HD23	39:AF:251:ILE:HG12	1.87	0.56
49:S3:23:CYS:HB2	49:S3:74:CYS:HB3	1.88	0.56
53:SA:795:U:H2'	53:SA:796:A:H8	1.71	0.56
53:SA:1269:U:H2'	53:SA:1270:G:C8	2.41	0.56
53:SA:1978:A:H8	60:SH:65:GLN:HG2	1.71	0.56
54:SB:49:THR:OG1	54:SB:50:LYS:N	2.35	0.56
62:SJ:36:LYS:HD2	62:SJ:37:THR:HG23	1.87	0.56
69:SQ:44:ARG:HH12	69:SQ:79:ASN:HD21	1.52	0.56
2:AA:363:A:N1	39:AF:84:THR:HG22	2.21	0.55
2:AA:2027:A:H2'	2:AA:2028:G:C8	2.36	0.55
2:AA:2734:C:H2'	2:AA:2735:G:C8	2.41	0.55
2:AA:3386:A:H2'	2:AA:3387:U:H6	1.71	0.55
2:AA:3471:A:H61	2:AA:3767:U:H3	1.54	0.55
2:AA:3495:U:H2'	2:AA:3496:G:O4'	2.06	0.55
11:AN:57:ASP:HB2	11:AN:66:ARG:HA	1.87	0.55
19:AP:169:GLY:HA2	19:AP:172:TYR:CE2	2.41	0.55
51:S5:55:ALA:HB3	61:SI:113:ARG:NE	2.21	0.55
53:SA:12:U:H2'	53:SA:13:C:C6	2.41	0.55
53:SA:1422:U:N3	53:SA:1425:C:OP1	2.38	0.55
53:SA:2034:U:H2'	53:SA:2035:U:O4'	2.06	0.55
55:SC:20:CYS:SG	55:SC:21:LYS:N	2.80	0.55
2:AA:2936:A:H2'	2:AA:2937:G:H8	1.71	0.55
2:AA:3580:G:O2'	2:AA:3582:G:OP2	2.24	0.55
6:A1:113:LYS:O	6:A1:117:ILE:HG13	2.06	0.55
28:AO:85:GLU:CD	28:AO:85:GLU:H	2.15	0.55
41:AU:145:ARG:HD3	41:AU:148:ILE:HG13	1.86	0.55
53:SA:374:U:O2'	53:SA:610:U:O2'	2.13	0.55
53:SA:452:A:N1	53:SA:467:G:O2'	2.35	0.55
55:SC:184:LEU:HD21	78:SZ:45:TYR:HB2	1.88	0.55
65:SM:95:GLN:HB2	65:SM:103:LYS:HE3	1.88	0.55
69:SQ:107:PHE:CE1	69:SQ:123:LYS:HB3	2.41	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1102:U:N3	2:AA:1231:A:H2	2.05	0.55
2:AA:1844:G:O6	45:AX:101:ARG:NH2	2.39	0.55
2:AA:3048:U:H2'	2:AA:3049:G:H8	1.72	0.55
16:Ad:56:ASP:HB3	16:Ad:59:LYS:HB2	1.89	0.55
30:AR:51:PHE:N	30:AR:147:PHE:O	2.28	0.55
33:AT:115:ASP:O	33:AT:119:TYR:CB	2.53	0.55
44:Ag:23:ARG:O	44:Ag:27:LEU:HD12	2.06	0.55
53:SA:886:U:H2'	53:SA:887:A:C8	2.41	0.55
53:SA:1381:C:H2'	53:SA:1382:G:C8	2.41	0.55
54:SB:133:TYR:OH	54:SB:220:ARG:NH1	2.39	0.55
69:SQ:132:LEU:HA	69:SQ:135:LEU:HG	1.88	0.55
2:AA:408:U:N3	3:AC:16:G:OP1	2.40	0.55
2:AA:509:A:H2'	2:AA:510:A:C8	2.42	0.55
2:AA:740:U:H2'	2:AA:741:C:C6	2.40	0.55
2:AA:1837:U:H2'	45:AX:113:MET:HE1	1.88	0.55
2:AA:1901:A:P	2:AA:1966:A:H62	2.29	0.55
10:A7:80:ARG:NH2	10:A7:112:LEU:HB3	2.21	0.55
23:AJ:117:LYS:NZ	23:AJ:206:LEU:O	2.40	0.55
29:AQ:91:ILE:HD13	29:AQ:135:LEU:HD22	1.88	0.55
30:AR:95:TYR:CZ	30:AR:197:ASN:HB3	2.42	0.55
38:AE:210:GLU:O	38:AE:279:ILE:HG12	2.06	0.55
47:S1:21:LYS:HG3	47:S1:76:ILE:HD11	1.87	0.55
53:SA:1672:C:HO2'	53:SA:1674:G:H8	1.52	0.55
53:SA:1982:G:O6	53:SA:2008:U:O4	2.23	0.55
55:SC:108:THR:O	59:SG:70:LYS:NZ	2.18	0.55
64:SL:38:LEU:HD22	64:SL:94:LYS:HE3	1.88	0.55
2:AA:595:U:O4'	2:AA:599:G:N2	2.32	0.55
5:AL:51:GLU:OE1	5:AL:51:GLU:N	2.34	0.55
16:Ad:42:LYS:HD2	16:Ad:51:THR:HB	1.88	0.55
23:AJ:60:ARG:HH11	23:AJ:62:LYS:HA	1.72	0.55
23:AJ:153:ILE:O	23:AJ:157:THR:HG22	2.07	0.55
23:AJ:234:VAL:HA	23:AJ:237:GLU:HG2	1.87	0.55
30:AR:96:ALA:HB1	30:AR:243:HIS:CE1	2.42	0.55
47:S1:107:ARG:HD3	47:S1:110:LYS:HZ1	1.71	0.55
53:SA:599:A:OP1	57:SE:39:LYS:NZ	2.26	0.55
53:SA:1728:U:O2'	65:SM:73:GLY:O	2.22	0.55
2:AA:653:A:H2'	2:AA:654:A:H8	1.72	0.55
2:AA:962:A:H2'	2:AA:963:C:C6	2.41	0.55
2:AA:1626:A:OP1	2:AA:3460:C:O2'	2.22	0.55
2:AA:2206:U:O2'	2:AA:2207:G:H5'	2.07	0.55
16:Ad:3:LYS:HD2	16:Ad:50:TYR:HE1	1.71	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:AH:86:LYS:HE3	42:AH:147:GLY:H	1.71	0.55
47:S1:89:LYS:NZ	47:S1:101:GLU:OE1	2.36	0.55
53:SA:1881:G:H5"	65:SM:123:ARG:HD2	1.89	0.55
68:SP:82:ALA:O	68:SP:86:LYS:HG3	2.07	0.55
2:AA:1220:U:OP1	2:AA:1221:A:N6	2.37	0.55
2:AA:1642:G:OP2	2:AA:1642:G:N2	2.34	0.55
38:AE:73:VAL:HG11	46:A0:23:GLY:HA2	1.89	0.55
49:S3:34:LYS:NZ	53:SA:2087:U:O4	2.39	0.55
53:SA:399:C:H2'	53:SA:400:C:C6	2.42	0.55
53:SA:852:A:C2	58:SF:248:ILE:HD11	2.41	0.55
53:SA:953:C:H2'	53:SA:954:G:H8	1.72	0.55
53:SA:1981:A:H2	53:SA:2010:U:H3	1.55	0.55
54:SB:39:LEU:HD11	54:SB:74:ASN:HA	1.89	0.55
62:SJ:143:MET:N	62:SJ:143:MET:SD	2.80	0.55
64:SL:84:ASN:HB3	64:SL:100:CYS:SG	2.46	0.55
66:SN:21:ILE:HA	66:SN:112:GLU:O	2.06	0.55
77:SY:139:ASN:H	77:SY:146:ARG:HH22	1.54	0.55
2:AA:163:G:H2'	2:AA:164:A:H8	1.72	0.55
2:AA:255:C:H2'	2:AA:256:A:C8	2.42	0.55
2:AA:280:U:H2'	2:AA:281:G:H8	1.71	0.55
2:AA:1019:A:H2'	2:AA:1020:C:C6	2.42	0.55
2:AA:1334:G:H21	18:Af:40:GLY:HA3	1.72	0.55
2:AA:3452:U:H2'	2:AA:3453:U:H5'	1.88	0.55
4:AB:6:C:OP2	30:AR:27:LYS:NZ	2.39	0.55
6:A1:126:VAL:HA	6:A1:132:GLU:HG2	1.89	0.55
29:AQ:65:LEU:HD21	29:AQ:91:ILE:HD11	1.89	0.55
38:AE:183:GLY:N	38:AE:188:LYS:HZ3	2.04	0.55
38:AE:281:ARG:C	38:AE:282:ILE:HD13	2.31	0.55
52:S6:30:LEU:HD12	52:S6:34:ALA:HB1	1.87	0.55
53:SA:150:C:H1'	60:SH:4:ASN:ND2	2.20	0.55
54:SB:136:ARG:HH21	54:SB:216:LYS:HZ1	1.54	0.55
56:SD:137:VAL:HA	56:SD:186:LYS:O	2.07	0.55
58:SF:57:THR:O	58:SF:61:VAL:HG23	2.07	0.55
60:SH:64:ILE:HG22	60:SH:67:VAL:H	1.71	0.55
66:SN:65:ARG:NH1	66:SN:65:ARG:O	2.39	0.55
2:AA:67:A:O2'	2:AA:323:A:N3	2.38	0.55
2:AA:1331:A:H2'	2:AA:1332:A:H8	1.71	0.55
2:AA:1712:G:H2'	2:AA:1713:G:C8	2.42	0.55
2:AA:3554:U:O2'	2:AA:3572:A:O2'	2.25	0.55
19:AP:60:VAL:HG22	19:AP:135:LEU:HB2	1.89	0.55
41:AU:21:ARG:HD2	41:AU:31:PRO:HG2	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:AH:128:LEU:HD21	42:AH:155:LEU:HD13	1.88	0.55
47:S1:43:ARG:HD3	47:S1:46:LYS:HE3	1.88	0.55
53:SA:558:G:H2'	53:SA:559:G:H8	1.71	0.55
53:SA:649:A:H1'	62:SJ:181:ARG:HH11	1.72	0.55
53:SA:1638:U:H2'	53:SA:1639:G:C8	2.41	0.55
53:SA:1908:A:O2'	61:SI:65:ASN:O	2.25	0.55
58:SF:71:LYS:O	58:SF:91:HIS:N	2.40	0.55
71:SS:43:ALA:HA	71:SS:46:ILE:HD12	1.88	0.55
2:AA:179:G:O2'	2:AA:180:C:OP1	2.22	0.55
2:AA:2834:A:N6	23:AJ:60:ARG:HG2	2.22	0.55
4:AB:56:G:H2'	4:AB:57:C:O4'	2.07	0.55
5:AL:8:LEU:HB3	28:AO:34:LYS:HD3	1.89	0.55
6:A1:8:GLY:HA3	6:A1:93:ILE:HG13	1.89	0.55
23:AJ:82:LYS:O	23:AJ:86:GLN:HG2	2.06	0.55
47:S1:61:PHE:HD1	47:S1:72:GLY:HA3	1.72	0.55
49:S3:52:ASP:HA	49:S3:55:GLU:HG3	1.89	0.55
50:S4:19:LEU:HD11	50:S4:26:PRO:HA	1.88	0.55
53:SA:493:G:N2	53:SA:507:U:O2	2.33	0.55
53:SA:1637:U:H2'	53:SA:1638:U:C6	2.42	0.55
54:SB:27:LYS:HD2	54:SB:47:LEU:HD21	1.89	0.55
58:SF:188:SER:O	58:SF:191:ARG:HG3	2.07	0.55
76:SX:57:LEU:O	76:SX:61:ARG:HG2	2.06	0.55
77:SY:84:LEU:HA	77:SY:87:LEU:HB2	1.89	0.55
2:AA:3668:U:OP2	13:A9:101:TRP:NE1	2.34	0.54
6:A1:25:ILE:HA	6:A1:43:VAL:HG22	1.89	0.54
29:AQ:73:ASN:OD1	29:AQ:74:LYS:N	2.40	0.54
30:AR:86:TYR:HD1	30:AR:245:LYS:HG3	1.72	0.54
31:AW:109:VAL:HA	31:AW:112:LEU:HD12	1.90	0.54
34:AZ:118:LEU:HA	34:AZ:121:LYS:HD3	1.88	0.54
38:AE:370:SER:HA	38:AE:373:LYS:HB3	1.88	0.54
40:AG:25:GLU:OE1	40:AG:26:SER:N	2.40	0.54
53:SA:207:G:HO2'	53:SA:261:G:H1	1.53	0.54
53:SA:452:A:H62	53:SA:467:G:H21	1.55	0.54
53:SA:943:U:OP1	54:SB:159:SER:OG	2.15	0.54
53:SA:974:A:N6	53:SA:1067:A:O2'	2.32	0.54
53:SA:2065:C:H2'	53:SA:2066:G:H8	1.72	0.54
55:SC:22:VAL:HG13	55:SC:169:SER:HB2	1.89	0.54
57:SE:6:ARG:HB2	58:SF:23:MET:HE1	1.90	0.54
66:SN:60:LEU:HG	66:SN:83:ILE:HD11	1.87	0.54
68:SP:95:ILE:HG23	68:SP:129:ILE:HA	1.89	0.54
73:SU:88:LEU:HD13	73:SU:125:ILE:HG22	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:338:U:H2'	2:AA:339:G:C8	2.42	0.54
2:AA:1646:C:H2'	2:AA:1647:U:C6	2.42	0.54
2:AA:2662:G:H2'	2:AA:2663:G:C8	2.43	0.54
2:AA:2835:G:N1	2:AA:2919:A:N7	2.55	0.54
2:AA:2946:G:N2	19:AP:79:ILE:HD11	2.21	0.54
2:AA:3403:A:O2'	26:AM:8:THR:O	2.25	0.54
2:AA:3437:U:OP1	38:AE:364:HIS:NE2	2.32	0.54
2:AA:3471:A:C8	2:AA:3472:A:C8	2.96	0.54
11:AN:31:CYS:HB3	11:AN:45:ILE:HD11	1.89	0.54
16:Ad:3:LYS:HD2	16:Ad:50:TYR:CE1	2.43	0.54
30:AR:34:LYS:HD3	43:AV:28:ALA:HA	1.90	0.54
38:AE:212:ILE:HB	38:AE:336:ARG:O	2.06	0.54
42:AH:33:THR:C	42:AH:34:LEU:HD23	2.31	0.54
53:SA:617:G:O2'	53:SA:620:G:O2'	2.25	0.54
53:SA:651:G:N2	53:SA:749:U:O2	2.28	0.54
53:SA:882:A:H2'	53:SA:883:A:H8	1.72	0.54
53:SA:995:A:H2'	53:SA:996:C:C6	2.43	0.54
53:SA:1418:C:H5'	75:SW:7:LYS:HG2	1.90	0.54
55:SC:195:ASN:OD1	55:SC:195:ASN:N	2.41	0.54
58:SF:36:HIS:CG	58:SF:85:GLY:HA2	2.42	0.54
2:AA:217:A:N3	39:AF:223:ASN:ND2	2.55	0.54
2:AA:1162:U:H2'	2:AA:1163:A:C8	2.43	0.54
2:AA:3407:G:H1	2:AA:3418:A:H5"	1.72	0.54
2:AA:3508:A:H2'	2:AA:3509:G:C8	2.43	0.54
12:A8:104:LYS:O	12:A8:108:ILE:HG23	2.06	0.54
53:SA:756:A:H4'	62:SJ:108:LYS:HE3	1.90	0.54
53:SA:946:G:H5'	53:SA:1006:C:H1'	1.89	0.54
53:SA:1017:G:OP2	54:SB:162:LYS:NZ	2.32	0.54
53:SA:1188:A:H2'	53:SA:1189:A:C8	2.42	0.54
53:SA:1638:U:H2'	53:SA:1639:G:H8	1.72	0.54
53:SA:2077:U:H2'	53:SA:2078:G:H8	1.72	0.54
57:SE:72:GLN:HA	57:SE:75:ALA:HB3	1.89	0.54
75:SW:9:ILE:HG23	75:SW:50:VAL:HG23	1.88	0.54
2:AA:573:U:H2'	2:AA:574:G:H8	1.72	0.54
2:AA:962:A:H2'	2:AA:963:C:O4'	2.07	0.54
2:AA:1227:U:O2'	36:A5:114:LEU:O	2.23	0.54
2:AA:1869:G:C2	2:AA:1890:G:C6	2.96	0.54
2:AA:2441:U:H2'	2:AA:2442:A:C8	2.42	0.54
2:AA:3636:U:O4	2:AA:3649:G:O6	2.25	0.54
10:A7:87:ARG:HH11	10:A7:97:MET:HE1	1.72	0.54
25:AK:41:ASN:OD1	25:AK:124:ARG:NE	2.39	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:AF:166:GLU:HA	39:AF:169:ASN:HB2	1.90	0.54
44:Ag:31:ARG:HA	44:Ag:34:MET:SD	2.47	0.54
53:SA:1274:C:H5"	71:SS:132:ARG:HH12	1.72	0.54
53:SA:1392:C:H2'	53:SA:1393:G:C8	2.42	0.54
53:SA:1851:C:H5"	76:SX:47:ARG:HH21	1.72	0.54
53:SA:1954:U:H5"	53:SA:1955:G:H4'	1.89	0.54
54:SB:168:MET:HG3	54:SB:169:VAL:N	2.23	0.54
55:SC:131:GLN:OE1	55:SC:134:LYS:NZ	2.40	0.54
2:AA:319:U:O2'	5:AL:207:ASP:OD2	2.23	0.54
2:AA:507:G:H2'	2:AA:508:A:C8	2.43	0.54
2:AA:1078:C:O2'	2:AA:2703:U:N3	2.39	0.54
2:AA:3506:U:H5'	18:Af:35:ARG:HH12	1.71	0.54
30:AR:275:ALA:O	30:AR:279:LYS:HG2	2.07	0.54
38:AE:60:VAL:HG23	38:AE:72:ILE:HD13	1.89	0.54
53:SA:1672:C:H3'	53:SA:1673:A:H4'	1.90	0.54
53:SA:2068:A:H2'	53:SA:2069:G:C8	2.42	0.54
71:SS:42:MET:HE1	71:SS:86:LEU:HA	1.90	0.54
77:SY:150:LYS:HA	77:SY:153:ASN:HD21	1.73	0.54
2:AA:155:U:H5"	2:AA:157:G:O4'	2.08	0.54
2:AA:309:G:H2'	2:AA:310:U:C6	2.43	0.54
2:AA:2168:A:O2'	2:AA:2174:G:N7	2.37	0.54
9:A6:58:VAL:HG13	14:Aa:94:LEU:HD22	1.90	0.54
20:Ah:56:LYS:HG2	20:Ah:63:LYS:HG2	1.90	0.54
30:AR:34:LYS:HD2	43:AV:31:TYR:HE2	1.71	0.54
53:SA:1045:G:H1	53:SA:1092:A:HO2'	1.54	0.54
53:SA:1955:G:C2	53:SA:2036:A:C6	2.95	0.54
55:SC:103:THR:HB	55:SC:106:MET:HE3	1.89	0.54
75:SW:5:ARG:HD3	75:SW:10:LYS:HE2	1.89	0.54
2:AA:346:A:OP2	39:AF:48:ARG:NH2	2.35	0.54
2:AA:1462:C:H2'	2:AA:1463:A:H8	1.72	0.54
2:AA:1769:U:H2'	2:AA:1770:G:C8	2.43	0.54
2:AA:2442:A:O2'	37:AD:179:ILE:O	2.18	0.54
2:AA:3281:G:C2	2:AA:3311:G:H1'	2.41	0.54
2:AA:3436:U:H2'	2:AA:3437:U:H5	1.72	0.54
2:AA:3758:G:H2'	2:AA:3759:U:C6	2.43	0.54
20:Ah:10:LEU:HG	20:Ah:30:GLU:HG3	1.90	0.54
30:AR:23:ARG:HB2	30:AR:30:TYR:HD2	1.73	0.54
37:AD:116:LEU:HB3	37:AD:126:LEU:HB2	1.89	0.54
49:S3:5:ARG:NH2	53:SA:2087:U:OP2	2.39	0.54
61:SI:115:ASP:OD1	61:SI:115:ASP:N	2.40	0.54
64:SL:81:VAL:HG22	64:SL:91:VAL:HG23	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1262:G:O2'	2:AA:2981:A:N3	2.40	0.54
2:AA:1269:C:O2'	2:AA:1281:C:O2	2.25	0.54
2:AA:1840:C:N4	2:AA:3455:A:N1	2.56	0.54
2:AA:3409:U:N3	2:AA:3418:A:N6	2.56	0.54
2:AA:3593:U:H2'	2:AA:3594:G:H8	1.73	0.54
3:AC:12:U:H2'	3:AC:13:A:C8	2.42	0.54
4:AB:54:A:C5	40:AG:9:MET:HE3	2.43	0.54
6:A1:76:ASN:N	6:A1:76:ASN:OD1	2.34	0.54
14:Aa:10:HIS:ND1	14:Aa:10:HIS:O	2.41	0.54
30:AR:222:PHE:HB3	30:AR:225:TYR:HD2	1.72	0.54
40:AG:27:GLY:HA2	40:AG:30:LEU:HD23	1.90	0.54
40:AG:134:SER:OG	40:AG:135:GLY:N	2.39	0.54
53:SA:388:C:H2'	53:SA:389:G:H8	1.73	0.54
53:SA:1675:G:O2'	66:SN:69:CYS:SG	2.55	0.54
53:SA:1882:U:O2	53:SA:1882:U:H2'	2.07	0.54
54:SB:106:THR:HG23	54:SB:109:LYS:HG2	1.88	0.54
64:SL:69:THR:OG1	64:SL:201:GLU:OE1	2.24	0.54
69:SQ:42:PRO:HG2	69:SQ:83:ILE:HG21	1.89	0.54
76:SX:39:ALA:HA	76:SX:42:ARG:HG3	1.89	0.54
2:AA:163:G:H2'	2:AA:164:A:C8	2.43	0.54
2:AA:1247:C:H2'	2:AA:1248:A:C8	2.43	0.54
2:AA:2544:G:H2'	2:AA:2545:A:H5"	1.89	0.54
2:AA:3495:U:OP1	42:AH:89:TYR:OH	2.19	0.54
10:A7:31:VAL:HG11	10:A7:39:ARG:HG2	1.90	0.54
39:AF:209:ILE:HB	39:AF:229:LEU:HD13	1.89	0.54
53:SA:828:A:H2	53:SA:833:A:H62	1.55	0.54
53:SA:1272:A:H2'	53:SA:1273:G:C8	2.43	0.54
53:SA:1297:A:OP2	53:SA:1710:G:N2	2.21	0.54
54:SB:137:MET:HB3	54:SB:215:VAL:HG13	1.89	0.54
68:SP:100:SER:OG	68:SP:101:GLY:N	2.26	0.54
2:AA:174:U:H2'	2:AA:175:G:C8	2.43	0.54
2:AA:257:U:O2'	2:AA:258:U:H5"	2.08	0.54
2:AA:965:A:O2'	2:AA:966:A:OP1	2.26	0.54
2:AA:973:A:H4'	33:AT:129:ASN:HB2	1.89	0.54
2:AA:1047:A:H2'	2:AA:1048:G:C8	2.42	0.54
2:AA:2950:U:H2'	2:AA:2951:U:C6	2.43	0.54
2:AA:3509:G:H4'	42:AH:40:HIS:CD2	2.43	0.54
3:AC:26:U:OP1	34:AZ:11:ARG:NH2	2.39	0.54
6:A1:39:SER:HB3	6:A1:77:VAL:HG13	1.89	0.54
8:A4:25:LYS:N	8:A4:25:LYS:HD2	2.23	0.54
16:Ad:27:LYS:HZ1	16:Ad:57:ARG:HH22	1.56	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:Ah:64:VAL:HG22	37:AD:83:PHE:HB3	1.89	0.54
26:AM:83:GLN:HG2	26:AM:85:LYS:H	1.72	0.54
31:AW:126:ARG:HB2	31:AW:126:ARG:NH1	2.23	0.54
37:AD:179:ILE:HG23	37:AD:184:VAL:HG22	1.90	0.54
40:AG:17:LEU:HD11	40:AG:76:ALA:HA	1.89	0.54
42:AH:110:ARG:HH11	42:AH:124:PHE:HB2	1.73	0.54
53:SA:1701:G:OP1	53:SA:1855:U:N3	2.29	0.54
56:SD:106:LEU:HD12	56:SD:185:ILE:HD12	1.90	0.54
57:SE:42:ILE:O	57:SE:46:GLN:NE2	2.41	0.54
66:SN:28:LEU:HD12	66:SN:29:ARG:HD2	1.88	0.54
2:AA:203:A:H2	2:AA:207:A:H2	1.57	0.53
2:AA:1740:A:H2'	2:AA:1741:G:C8	2.42	0.53
2:AA:2441:U:O2'	37:AD:182:ALA:HB2	2.08	0.53
2:AA:3606:G:H2'	2:AA:3607:G:H8	1.73	0.53
4:AB:28:C:H2'	4:AB:29:C:H5'	1.90	0.53
4:AB:91:C:H2'	4:AB:92:C:H6	1.72	0.53
6:A1:41:CYS:N	6:A1:75:ILE:O	2.42	0.53
14:Aa:23:VAL:H	14:Aa:33:HIS:CE1	2.25	0.53
27:AS:143:LYS:HB2	27:AS:148:GLU:HG2	1.89	0.53
33:AT:89:ASN:ND2	33:AT:91:LYS:HB3	2.24	0.53
35:A3:76:LYS:O	35:A3:76:LYS:HD3	2.08	0.53
38:AE:77:THR:N	38:AE:321:LEU:O	2.23	0.53
53:SA:292:G:O6	60:SH:186:ARG:NH1	2.41	0.53
53:SA:1386:U:H4'	53:SA:1387:U:C5'	2.36	0.53
53:SA:1976:G:N2	53:SA:2014:A:H62	2.06	0.53
54:SB:185:VAL:O	54:SB:189:ILE:HG12	2.09	0.53
58:SF:7:LYS:O	58:SF:8:HIS:ND1	2.41	0.53
64:SL:168:ILE:HG13	64:SL:169:ASP:H	1.72	0.53
66:SN:37:ASP:HA	66:SN:40:LYS:HG2	1.88	0.53
67:SO:15:PRO:HB2	67:SO:17:GLN:HG3	1.91	0.53
2:AA:236:U:O3'	34:AZ:2:LYS:N	2.41	0.53
2:AA:383:U:O2	34:AZ:76:ARG:NH1	2.41	0.53
2:AA:2549:A:H3'	2:AA:2550:C:H5"	1.90	0.53
4:AB:45:U:C4	4:AB:46:C:N4	2.76	0.53
34:AZ:117:ILE:HG13	34:AZ:118:LEU:N	2.23	0.53
35:A3:108:LYS:O	35:A3:112:ASN:ND2	2.29	0.53
38:AE:92:TYR:CE2	38:AE:101:ILE:HG12	2.44	0.53
49:S3:86:VAL:O	49:S3:87:ARG:HG2	2.07	0.53
57:SE:45:VAL:O	57:SE:49:LEU:HD23	2.08	0.53
57:SE:135:ARG:HB2	57:SE:159:ALA:HA	1.89	0.53
60:SH:19:ASP:OD1	60:SH:19:ASP:N	2.42	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:SJ:78:ARG:HE	62:SJ:78:ARG:H	1.56	0.53
71:SS:76:PRO:HD2	71:SS:98:ILE:HG12	1.89	0.53
2:AA:118:G:C2	2:AA:123:A:C5	2.96	0.53
2:AA:1210:A:H2'	2:AA:1211:U:C6	2.42	0.53
2:AA:1435:G:C6	25:AK:59:LEU:HD21	2.44	0.53
2:AA:1827:C:OP1	33:AT:59:ARG:NH1	2.41	0.53
2:AA:2588:A:C6	26:AM:39:ILE:HB	2.43	0.53
2:AA:2650:A:H2'	2:AA:2651:A:C8	2.43	0.53
2:AA:3377:A:C6	25:AK:110:PRO:HG3	2.43	0.53
9:A6:75:GLY:HA3	9:A6:78:ASN:OD1	2.08	0.53
10:A7:36:LYS:HB2	10:A7:72:VAL:O	2.08	0.53
29:AQ:66:GLU:O	29:AQ:70:ILE:HG23	2.08	0.53
30:AR:34:LYS:O	30:AR:38:LEU:HD12	2.09	0.53
47:S1:116:ARG:HD3	47:S1:117:LYS:H	1.73	0.53
53:SA:2077:U:H2'	53:SA:2078:G:C8	2.43	0.53
70:SR:59:LEU:HD22	70:SR:69:LYS:HG2	1.90	0.53
2:AA:739:G:H4'	2:AA:740:U:C6	2.43	0.53
2:AA:1874:C:H2'	2:AA:1875:A:C8	2.43	0.53
2:AA:3409:U:N3	2:AA:3418:A:C5	2.77	0.53
2:AA:3476:A:N3	2:AA:3477:A:O2'	2.40	0.53
3:AC:51:C:H1'	3:AC:65:A:H2'	1.91	0.53
4:AB:37:A:C6	4:AB:41:G:C2	2.96	0.53
8:A4:53:LYS:HZ1	8:A4:54:LYS:HB2	1.73	0.53
37:AD:2:GLY:HA2	37:AD:207:VAL:HG23	1.89	0.53
53:SA:1447:A:N6	53:SA:1623:U:O2	2.42	0.53
2:AA:507:G:H2'	2:AA:508:A:H8	1.74	0.53
2:AA:1248:A:H2'	2:AA:1249:U:H6	1.74	0.53
2:AA:1474:A:H5"	39:AF:306:LYS:HB3	1.91	0.53
2:AA:1636:A:C2	2:AA:1637:G:H1'	2.44	0.53
2:AA:1969:A:OP2	16:Ad:42:LYS:NZ	2.39	0.53
2:AA:1990:A:O2'	2:AA:1991:U:OP1	2.26	0.53
2:AA:2155:A:H4'	38:AE:224:LYS:HA	1.89	0.53
4:AB:46:C:OP2	30:AR:160:ARG:NE	2.37	0.53
42:AH:9:LYS:HA	42:AH:55:LYS:HG2	1.91	0.53
42:AH:79:MET:O	42:AH:79:MET:HE3	2.08	0.53
53:SA:10:G:H1'	59:SG:101:GLN:HG2	1.91	0.53
53:SA:16:G:H2'	53:SA:17:C:C6	2.44	0.53
53:SA:618:U:H5'	69:SQ:15:LEU:HD22	1.91	0.53
53:SA:952:U:H2'	53:SA:953:C:C6	2.43	0.53
53:SA:963:U:H2'	68:SP:50:ARG:NH2	2.24	0.53
53:SA:1028:U:H5"	73:SU:14:SER:HB2	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1381:C:H2'	53:SA:1382:G:H8	1.73	0.53
61:SI:146:CYS:O	61:SI:150:ARG:HG2	2.08	0.53
61:SI:180:ALA:O	61:SI:184:LYS:HG2	2.09	0.53
64:SL:13:LEU:HD23	64:SL:13:LEU:H	1.73	0.53
65:SM:121:ASP:OD1	65:SM:122:THR:N	2.42	0.53
2:AA:996:C:O2'	2:AA:999:G:O2'	2.26	0.53
2:AA:1006:G:H2'	2:AA:1007:U:C6	2.43	0.53
2:AA:2560:C:H2'	2:AA:2561:U:C6	2.44	0.53
2:AA:3775:G:H21	10:A7:113:VAL:HG13	1.74	0.53
3:AC:31:U:H2'	3:AC:32:C:C6	2.44	0.53
11:AN:76:LEU:HD12	41:AU:184:MET:HE1	1.90	0.53
23:AJ:195:CYS:HB3	23:AJ:235:CYS:SG	2.48	0.53
30:AR:107:ARG:NH1	30:AR:171:GLY:O	2.41	0.53
39:AF:71:ARG:HB3	39:AF:73:VAL:HG22	1.91	0.53
53:SA:1888:U:H2'	53:SA:1889:G:H8	1.74	0.53
53:SA:1921:C:H2'	53:SA:1922:C:H6	1.74	0.53
58:SF:43:PRO:HD2	58:SF:46:ILE:HD11	1.90	0.53
59:SG:138:ARG:O	59:SG:142:ILE:HG12	2.08	0.53
59:SG:247:PHE:HE2	78:SZ:53:ALA:HB3	1.73	0.53
63:SK:86:ILE:HA	63:SK:89:ILE:HG22	1.90	0.53
2:AA:2152:A:H2'	2:AA:2153:A:O4'	2.09	0.53
2:AA:3036:A:H2'	2:AA:3037:G:C8	2.44	0.53
2:AA:3623:A:OP2	11:AN:139:LYS:NZ	2.36	0.53
3:AC:97:C:H3'	24:Ac:75:ARG:HH12	1.72	0.53
14:Aa:74:ARG:HH21	14:Aa:78:GLY:HA2	1.73	0.53
16:Ad:59:LYS:O	16:Ad:63:ILE:HG12	2.09	0.53
30:AR:60:VAL:HG21	30:AR:98:ALA:HA	1.90	0.53
36:A5:56:ARG:NE	36:A5:60:TYR:OH	2.41	0.53
38:AE:79:ILE:HD11	38:AE:319:LEU:HD23	1.90	0.53
44:Ag:10:LYS:O	44:Ag:13:ALA:N	2.24	0.53
49:S3:36:ILE:O	49:S3:73:TYR:N	2.37	0.53
53:SA:148:U:O4	53:SA:149:A:N6	2.41	0.53
53:SA:1108:A:H4'	63:SK:20:ARG:HH21	1.72	0.53
53:SA:1808:G:N3	53:SA:1814:C:H1'	2.24	0.53
65:SM:23:VAL:HG22	65:SM:66:ILE:HG23	1.90	0.53
71:SS:86:LEU:HD13	71:SS:98:ILE:HD11	1.90	0.53
78:SZ:64:SER:O	78:SZ:68:LEU:HG	2.07	0.53
2:AA:968:G:H2'	2:AA:969:U:C6	2.43	0.53
2:AA:1787:A:H2'	2:AA:1788:C:O4'	2.09	0.53
2:AA:1806:C:OP1	37:AD:70:GLY:HA2	2.08	0.53
2:AA:2637:U:H2'	2:AA:2638:G:H8	1.73	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:2681:U:O2'	31:AW:80:GLN:OE1	2.26	0.53
2:AA:2699:C:H2'	2:AA:2700:C:C6	2.43	0.53
2:AA:3042:A:H62	30:AR:29:ASP:HA	1.73	0.53
2:AA:3256:C:H2'	2:AA:3258:C:H5'	1.90	0.53
3:AC:30:U:H2'	3:AC:31:U:C6	2.43	0.53
20:Ah:33:GLN:HB2	20:Ah:49:ARG:HH21	1.74	0.53
26:AM:105:VAL:HG12	26:AM:111:MET:HA	1.91	0.53
32:AY:89:ARG:HD2	32:AY:91:PRO:HD3	1.91	0.53
36:A5:181:ASP:N	36:A5:181:ASP:OD1	2.34	0.53
39:AF:62:THR:OG1	39:AF:63:SER:N	2.42	0.53
53:SA:1307:U:O3'	72:ST:25:LYS:NZ	2.35	0.53
53:SA:1658:G:OP1	61:SI:49:LYS:NZ	2.38	0.53
53:SA:1884:A:H2'	53:SA:1885:G:C8	2.44	0.53
55:SC:182:LEU:HA	55:SC:185:LYS:HB2	1.90	0.53
56:SD:115:ALA:HB3	56:SD:118:ARG:HE	1.73	0.53
78:SZ:49:THR:OG1	78:SZ:50:GLU:N	2.41	0.53
2:AA:179:G:C6	2:AA:252:A:N6	2.77	0.53
2:AA:721:U:O2'	2:AA:722:G:OP1	2.27	0.53
2:AA:1527:U:H2'	2:AA:1528:G:H8	1.73	0.53
2:AA:1629:G:N2	2:AA:2139:C:H5	2.07	0.53
2:AA:2476:A:O2'	37:AD:235:VAL:O	2.24	0.53
2:AA:3445:C:O2'	2:AA:3764:G:N2	2.42	0.53
2:AA:3716:C:H4'	10:A7:21:THR:H	1.72	0.53
29:AQ:58:GLU:N	29:AQ:58:GLU:OE1	2.41	0.53
35:A3:34:SER:OG	35:A3:39:ASN:HB3	2.08	0.53
40:AG:45:PRO:HG3	40:AG:69:VAL:HB	1.91	0.53
53:SA:21:U:H2'	53:SA:22:A:C8	2.44	0.53
53:SA:821:A:H3'	53:SA:822:G:H8	1.74	0.53
53:SA:1966:U:H2'	53:SA:1967:G:O4'	2.09	0.53
55:SC:29:LEU:HD23	55:SC:46:HIS:CD2	2.43	0.53
60:SH:67:VAL:O	60:SH:100:CYS:N	2.40	0.53
2:AA:530:U:H3'	41:AU:74:LYS:HE3	1.90	0.53
2:AA:888:A:H61	2:AA:3111:U:H5	1.56	0.53
2:AA:1872:A:H4'	2:AA:1873:U:H3'	1.91	0.53
2:AA:2112:G:H5'	2:AA:2113:C:H5"	1.91	0.53
2:AA:2699:C:H2'	2:AA:2700:C:H6	1.74	0.53
2:AA:3677:A:H2'	2:AA:3678:A:C8	2.44	0.53
19:AP:121:TRP:CZ2	19:AP:124:GLN:HB2	2.43	0.53
51:S5:15:ARG:NH2	51:S5:20:GLY:O	2.42	0.53
53:SA:347:A:H2'	53:SA:348:A:C8	2.44	0.53
53:SA:787:G:O2'	53:SA:788:A:O4'	2.23	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1747:U:H2'	53:SA:1748:G:C8	2.44	0.53
53:SA:1922:C:H2'	53:SA:1923:U:H6	1.73	0.53
54:SB:61:LEU:HD22	54:SB:64:ARG:HH21	1.74	0.53
54:SB:134:HIS:HB2	54:SB:219:LYS:H	1.74	0.53
58:SF:18:TRP:CD1	58:SF:42:ILE:HG22	2.44	0.53
72:ST:21:VAL:HG21	72:ST:44:ARG:HH12	1.73	0.53
2:AA:119:G:H4'	2:AA:120:U:H5"	1.92	0.52
2:AA:237:A:OP1	34:AZ:4:ASN:N	2.39	0.52
2:AA:543:U:H1'	2:AA:581:C:C5	2.44	0.52
2:AA:1133:A:OP1	29:AQ:40:LYS:HB3	2.09	0.52
2:AA:1797:A:HO2'	2:AA:2083:U:HO2'	1.54	0.52
2:AA:1999:A:H2'	2:AA:2000:G:C8	2.44	0.52
2:AA:2002:G:OP2	2:AA:2002:G:N2	2.22	0.52
3:AC:90:G:N7	35:A3:7:TYR:OH	2.36	0.52
11:AN:31:CYS:HB2	11:AN:76:LEU:HA	1.91	0.52
21:Ai:27:TYR:HB3	21:Ai:68:VAL:HB	1.90	0.52
21:Ai:91:GLU:HG3	21:Ai:94:ALA:HB2	1.92	0.52
34:AZ:117:ILE:HG22	34:AZ:120:ARG:NH2	2.23	0.52
53:SA:599:A:O2'	57:SE:40:ARG:NH2	2.34	0.52
53:SA:1119:G:H2'	53:SA:1120:A:C8	2.44	0.52
53:SA:1670:A:O2'	59:SG:104:ALA:HB1	2.08	0.52
53:SA:1679:G:N3	72:ST:39:GLN:HB3	2.24	0.52
58:SF:177:VAL:HA	58:SF:195:ILE:HD11	1.91	0.52
64:SL:38:LEU:HD13	64:SL:94:LYS:HZ1	1.74	0.52
2:AA:25:A:OP2	24:Ac:49:ARG:NH1	2.42	0.52
2:AA:3249:A:O2'	2:AA:3292:A:N3	2.35	0.52
6:A1:12:ILE:N	6:A1:81:LEU:O	2.30	0.52
7:A2:49:LEU:HB2	39:AF:135:SER:HB3	1.91	0.52
38:AE:56:ILE:HG12	38:AE:353:LEU:HB2	1.90	0.52
38:AE:195:MET:HG3	38:AE:195:MET:O	2.09	0.52
42:AH:12:ILE:HG13	42:AH:53:TYR:HA	1.91	0.52
42:AH:150:ILE:O	42:AH:154:SER:OG	2.07	0.52
45:AX:101:ARG:HG2	45:AX:104:LYS:NZ	2.25	0.52
50:S4:62:CYS:SG	50:S4:63:GLN:N	2.82	0.52
59:SG:242:TRP:CZ3	63:SK:68:ARG:HB2	2.44	0.52
2:AA:157:G:OP2	19:AP:4:TYR:OH	2.16	0.52
2:AA:261:A:H4'	35:A3:108:LYS:HD3	1.90	0.52
2:AA:648:U:H1'	2:AA:650:U:C2	2.44	0.52
2:AA:739:G:H4'	2:AA:740:U:H6	1.73	0.52
2:AA:1525:C:HO2'	2:AA:1556:G:HO2'	1.55	0.52
2:AA:1721:C:H2'	2:AA:1722:C:C6	2.43	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:2082:C:H2'	2:AA:2083:U:H6	1.75	0.52
2:AA:2587:U:H2'	2:AA:2588:A:H2'	1.90	0.52
2:AA:2635:C:OP1	2:AA:3474:C:O2'	2.27	0.52
2:AA:3411:C:H2'	2:AA:3412:G:H8	1.73	0.52
2:AA:3492:G:OP1	18:Af:26:ARG:HB2	2.09	0.52
3:AC:13:A:H2'	3:AC:14:A:C8	2.44	0.52
4:AB:9:U:O4	30:AR:21:ARG:HD2	2.09	0.52
29:AQ:17:TYR:O	29:AQ:96:VAL:HG12	2.09	0.52
51:S5:16:THR:HG22	51:S5:17:GLY:H	1.74	0.52
53:SA:814:U:OP1	57:SE:78:ARG:NH2	2.43	0.52
53:SA:1270:G:N2	53:SA:1872:G:N7	2.56	0.52
53:SA:1273:G:H21	77:SY:110:VAL:HG23	1.74	0.52
53:SA:1422:U:H3'	55:SC:101:ARG:NH2	2.25	0.52
53:SA:1661:U:O4	53:SA:1662:A:N6	2.42	0.52
53:SA:1746:A:H2'	53:SA:1747:U:C6	2.44	0.52
54:SB:85:LYS:HD3	54:SB:102:GLY:HA3	1.91	0.52
58:SF:9:LEU:HD12	58:SF:30:LYS:HA	1.92	0.52
74:SV:62:PRO:HB3	74:SV:69:ILE:HD11	1.92	0.52
75:SW:32:LYS:HE3	75:SW:48:ASN:HA	1.91	0.52
2:AA:282:U:H2'	2:AA:283:U:C6	2.44	0.52
2:AA:587:C:H2'	2:AA:588:C:H6	1.74	0.52
2:AA:1819:U:H2'	2:AA:1820:U:C6	2.44	0.52
2:AA:2179:A:H2'	2:AA:2180:U:H5	1.74	0.52
2:AA:3230:G:H5"	2:AA:3231:A:H5'	1.91	0.52
2:AA:3537:U:H2'	2:AA:3538:A:C8	2.45	0.52
15:Ab:51:ILE:HD11	19:AP:10:ILE:HD11	1.91	0.52
22:AI:76:LYS:HD2	22:AI:78:LEU:HD23	1.90	0.52
35:A3:39:ASN:OD1	35:A3:40:SER:N	2.43	0.52
53:SA:1414:A:O2'	53:SA:1415:A:OP1	2.21	0.52
53:SA:1730:A:N3	53:SA:1903:U:O2'	2.31	0.52
55:SC:75:VAL:HA	55:SC:122:ILE:HB	1.91	0.52
65:SM:130:PHE:CE2	66:SN:76:TRP:HB2	2.44	0.52
71:SS:97:ASN:C	71:SS:97:ASN:ND2	2.67	0.52
78:SZ:33:GLN:HG2	78:SZ:53:ALA:HB2	1.91	0.52
2:AA:119:G:H5'	2:AA:121:U:H4'	1.92	0.52
2:AA:581:C:O2'	2:AA:582:U:H5'	2.09	0.52
2:AA:962:A:H2'	2:AA:963:C:H6	1.75	0.52
2:AA:979:G:C5	37:AD:181:LYS:HB2	2.45	0.52
2:AA:1216:C:C2'	2:AA:1217:U:H5'	2.40	0.52
31:AW:20:VAL:O	31:AW:145:HIS:ND1	2.43	0.52
35:A3:62:GLN:O	35:A3:65:LYS:HB3	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:AU:32:ASN:HB3	41:AU:34:TYR:CZ	2.44	0.52
41:AU:75:GLU:HG3	41:AU:107:THR:HG21	1.92	0.52
47:S1:65:PHE:HE2	53:SA:817:U:C4	2.28	0.52
57:SE:69:ARG:HG3	57:SE:70:ILE:N	2.22	0.52
62:SJ:156:ASP:OD1	62:SJ:156:ASP:N	2.32	0.52
69:SQ:69:ARG:NH2	69:SQ:116:ASP:OD2	2.42	0.52
2:AA:85:A:OP2	28:AO:65:LYS:NZ	2.30	0.52
2:AA:512:A:OP1	22:AI:102:ARG:HD2	2.09	0.52
2:AA:513:U:H4'	22:AI:46:VAL:HG22	1.92	0.52
2:AA:1871:A:O2'	2:AA:1872:A:H5'	2.10	0.52
2:AA:1963:U:O2'	16:Ad:54:PHE:O	2.20	0.52
2:AA:3431:G:OP1	38:AE:19:ARG:NH2	2.42	0.52
2:AA:3505:U:H1'	2:AA:3508:A:OP2	2.09	0.52
2:AA:3639:G:H22	2:AA:3646:G:H22	1.58	0.52
3:AC:124:U:H2'	3:AC:125:U:C6	2.45	0.52
11:AN:27:PRO:HB3	11:AN:46:VAL:O	2.10	0.52
16:Ad:24:ILE:HB	16:Ad:42:LYS:HB2	1.91	0.52
18:Af:19:ILE:O	18:Af:46:ARG:N	2.43	0.52
26:AM:13:MET:SD	26:AM:14:ARG:N	2.82	0.52
31:AW:61:ARG:NH2	31:AW:76:PHE:O	2.43	0.52
39:AF:133:VAL:O	39:AF:137:VAL:HG12	2.10	0.52
40:AG:92:ARG:NE	40:AG:93:ARG:H	2.08	0.52
53:SA:437:C:H2'	53:SA:438:G:H8	1.75	0.52
53:SA:569:G:H2'	53:SA:570:U:H6	1.74	0.52
55:SC:194:TRP:HD1	55:SC:196:VAL:H	1.56	0.52
58:SF:253:ARG:NH1	58:SF:254:ASN:OD1	2.42	0.52
61:SI:54:LYS:HD3	61:SI:62:ARG:NH2	2.25	0.52
63:SK:111:MET:HB2	63:SK:115:GLU:OE2	2.09	0.52
66:SN:21:ILE:HG13	66:SN:113:VAL:HA	1.91	0.52
73:SU:142:GLN:HB3	73:SU:145:THR:HG22	1.92	0.52
75:SW:60:ARG:HA	75:SW:63:LYS:HE3	1.92	0.52
2:AA:670:U:H2'	2:AA:671:U:H6	1.75	0.52
2:AA:716:C:H2'	2:AA:717:G:H8	1.74	0.52
2:AA:1096:G:H21	2:AA:1231:A:H8	1.54	0.52
2:AA:1501:A:O3'	7:A2:41:LYS:NZ	2.43	0.52
2:AA:1899:U:H5'	14:Aa:21:ARG:HH12	1.75	0.52
2:AA:2479:U:OP2	37:AD:200:ARG:NH1	2.39	0.52
2:AA:3503:U:H5"	18:Af:28:HIS:ND1	2.24	0.52
2:AA:3716:C:H2'	2:AA:3717:A:H8	1.74	0.52
2:AA:3768:A:OP1	10:A7:26:LYS:NZ	2.37	0.52
5:AL:87:ARG:HH21	35:A3:109:LYS:NZ	2.07	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:A7:16:VAL:HG12	10:A7:18:LYS:HG3	1.91	0.52
15:Ab:105:ARG:HG2	15:Ab:106:ARG:HH22	1.74	0.52
37:AD:179:ILE:HG23	37:AD:184:VAL:CG2	2.40	0.52
38:AE:43:PHE:HD1	38:AE:44:THR:H	1.58	0.52
46:A0:66:ASN:C	46:A0:67:LYS:HG3	2.34	0.52
53:SA:247:G:N1	53:SA:250:A:OP2	2.41	0.52
54:SB:80:ALA:O	54:SB:109:LYS:NZ	2.43	0.52
54:SB:82:LYS:HA	54:SB:105:ILE:HA	1.92	0.52
56:SD:142:LYS:HZ1	56:SD:146:GLN:HA	1.74	0.52
56:SD:173:THR:HG23	56:SD:186:LYS:HG2	1.92	0.52
60:SH:178:LEU:O	60:SH:183:ARG:NH1	2.43	0.52
67:SO:40:ILE:HG23	67:SO:50:ASN:HD22	1.74	0.52
2:AA:1303:C:O2'	25:AK:86:MET:O	2.27	0.52
2:AA:1771:A:H4'	2:AA:1791:A:H2	1.74	0.52
2:AA:2207:G:H2'	2:AA:2207:G:N3	2.25	0.52
2:AA:2566:G:O2'	2:AA:2604:G:O6	2.26	0.52
2:AA:3307:C:OP1	38:AE:241:ARG:NH2	2.43	0.52
2:AA:3476:A:N6	2:AA:3478:G:N3	2.57	0.52
4:AB:63:A:N6	29:AQ:202:GLU:OE1	2.43	0.52
15:Ab:64:LEU:HD21	15:Ab:75:ARG:HG2	1.92	0.52
19:AP:28:TRP:HZ2	23:AJ:80:LYS:HG2	1.75	0.52
33:AT:180:VAL:HG21	73:SU:32:GLU:HB3	1.90	0.52
42:AH:155:LEU:O	42:AH:159:LEU:HG	2.10	0.52
53:SA:40:A:O3'	57:SE:3:LYS:NZ	2.42	0.52
53:SA:519:A:H2'	53:SA:520:U:C6	2.44	0.52
53:SA:1834:A:N6	53:SA:1869:G:O4'	2.43	0.52
53:SA:1877:C:O3'	65:SM:138:ARG:NH1	2.43	0.52
54:SB:26:LYS:HE2	54:SB:50:LYS:HA	1.92	0.52
56:SD:123:VAL:O	56:SD:127:ILE:HG12	2.08	0.52
59:SG:151:VAL:HG23	59:SG:233:THR:HG21	1.91	0.52
63:SK:9:ASP:HA	63:SK:12:LYS:HD2	1.91	0.52
71:SS:119:ILE:HG12	76:SX:111:MET:HE2	1.92	0.52
2:AA:113:C:OP1	19:AP:148:LYS:NZ	2.41	0.52
2:AA:594:C:O2	2:AA:594:C:H2'	2.08	0.52
2:AA:2467:A:OP2	37:AD:193:ARG:NH1	2.43	0.52
3:AC:35:A:H2'	3:AC:36:C:C6	2.44	0.52
8:A4:22:LYS:HB2	43:AV:84:ARG:HB2	1.92	0.52
21:Ai:6:LYS:HG2	21:Ai:93:GLY:HA3	1.92	0.52
22:AI:120:LEU:HB3	22:AI:189:LEU:HD11	1.92	0.52
34:AZ:74:ARG:HE	34:AZ:74:ARG:N	2.05	0.52
49:S3:47:THR:HA	49:S3:50:GLN:HB3	1.91	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1002:A:OP1	54:SB:116:LYS:NZ	2.36	0.52
53:SA:1265:G:H2'	53:SA:1266:G:C8	2.44	0.52
53:SA:1635:C:H1'	75:SW:32:LYS:HZ3	1.73	0.52
54:SB:200:GLN:NE2	54:SB:201:CYS:SG	2.83	0.52
57:SE:56:ALA:O	57:SE:60:LEU:HD22	2.10	0.52
59:SG:151:VAL:HG21	59:SG:230:LEU:HD22	1.92	0.52
73:SU:84:ILE:HG23	73:SU:88:LEU:HB3	1.91	0.52
2:AA:1122:A:H2	2:AA:1169:A:H62	1.56	0.52
2:AA:1841:U:OP2	45:AX:109:LYS:NZ	2.25	0.52
2:AA:2460:A:H2'	2:AA:2461:A:C8	2.45	0.52
2:AA:3693:A:H2'	2:AA:3694:A:C8	2.45	0.52
5:AL:87:ARG:HH21	35:A3:109:LYS:HZ2	1.58	0.52
14:Aa:74:ARG:O	14:Aa:77:GLY:N	2.42	0.52
30:AR:193:GLN:HA	30:AR:196:LYS:HB3	1.92	0.52
36:A5:224:ARG:HB3	36:A5:255:ARG:HG3	1.91	0.52
39:AF:156:ASN:ND2	39:AF:255:SER:OG	2.42	0.52
53:SA:157:G:H1'	60:SH:87:ARG:NH1	2.25	0.52
53:SA:180:U:H5'	60:SH:198:ARG:CZ	2.39	0.52
53:SA:456:U:H2'	53:SA:457:A:C8	2.45	0.52
53:SA:1626:U:O2'	53:SA:1812:A:N1	2.35	0.52
53:SA:1951:G:N2	53:SA:2037:A:H2'	2.25	0.52
53:SA:2052:G:H1'	53:SA:2073:A:C2	2.44	0.52
58:SF:105:ILE:HD12	58:SF:245:LYS:HG2	1.92	0.52
2:AA:686:U:H2'	2:AA:687:G:H8	1.74	0.51
2:AA:1260:C:H2'	2:AA:1261:A:H8	1.75	0.51
2:AA:1559:U:H5"	12:A8:98:HIS:HB3	1.92	0.51
2:AA:3577:A:N6	13:A9:127:PHE:O	2.42	0.51
29:AQ:156:LYS:HE2	29:AQ:163:GLN:HG2	1.92	0.51
31:AW:116:HIS:HD2	31:AW:149:ILE:HD12	1.74	0.51
36:A5:57:THR:HA	36:A5:60:TYR:CD2	2.45	0.51
36:A5:86:ARG:HH12	43:AV:139:ALA:HA	1.75	0.51
39:AF:235:LEU:HD23	39:AF:235:LEU:H	1.75	0.51
42:AH:75:HIS:C	42:AH:75:HIS:ND1	2.69	0.51
47:S1:107:ARG:HD3	47:S1:110:LYS:NZ	2.25	0.51
53:SA:246:A:H2'	53:SA:247:G:C8	2.45	0.51
53:SA:370:G:N2	53:SA:806:A:C6	2.77	0.51
53:SA:598:A:H2'	53:SA:599:A:C8	2.45	0.51
53:SA:1186:G:OP2	59:SG:173:LYS:NZ	2.39	0.51
73:SU:32:GLU:HA	73:SU:35:ASP:HB2	1.91	0.51
75:SW:11:ARG:HB2	75:SW:14:ARG:HH21	1.75	0.51
2:AA:299:A:OP2	19:AP:68:ARG:NH2	2.41	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1210:A:H2'	2:AA:1211:U:H6	1.74	0.51
2:AA:1999:A:HO2'	2:AA:2000:G:P	2.30	0.51
2:AA:2098:G:OP1	32:AY:140:LYS:N	2.36	0.51
2:AA:2124:C:H2'	2:AA:2125:A:C8	2.45	0.51
2:AA:2127:G:C5	2:AA:2128:G:N7	2.78	0.51
2:AA:3472:A:C4	2:AA:3473:G:C8	2.98	0.51
3:AC:126:C:H2'	3:AC:127:C:H6	1.75	0.51
4:AB:51:G:H21	40:AG:9:MET:HE1	1.76	0.51
6:A1:61:LYS:HA	6:A1:64:LYS:HE2	1.92	0.51
22:AI:165:LYS:O	22:AI:169:ILE:HG23	2.09	0.51
26:AM:56:LEU:HD22	26:AM:56:LEU:H	1.75	0.51
32:AY:106:ASP:OD1	32:AY:106:ASP:N	2.34	0.51
38:AE:278:LYS:NZ	38:AE:347:ALA:O	2.43	0.51
38:AE:288:LYS:HA	38:AE:301:LYS:HE3	1.92	0.51
41:AU:160:ALA:C	41:AU:162:HIS:H	2.17	0.51
42:AH:36:ARG:HG3	42:AH:37:SER:N	2.25	0.51
44:Ag:12:ARG:N	53:SA:1241:A:OP1	2.43	0.51
47:S1:104:ALA:HB1	47:S1:107:ARG:HB2	1.91	0.51
53:SA:541:C:H2'	53:SA:542:C:C6	2.44	0.51
53:SA:1247:G:H2'	53:SA:1248:A:C8	2.45	0.51
53:SA:1274:C:OP1	71:SS:132:ARG:NH2	2.42	0.51
57:SE:136:VAL:HA	57:SE:156:ILE:HD13	1.92	0.51
71:SS:40:LYS:HD2	77:SY:68:LEU:HD11	1.92	0.51
2:AA:381:A:O2'	2:AA:384:A:OP1	2.24	0.51
2:AA:423:U:H2'	2:AA:424:U:C6	2.45	0.51
2:AA:1071:A:H4'	2:AA:1087:G:N2	2.25	0.51
2:AA:1237:C:H2'	2:AA:1238:C:C6	2.46	0.51
2:AA:1340:G:H2'	2:AA:1341:G:O4'	2.10	0.51
2:AA:2657:G:H22	2:AA:2689:G:H1'	1.75	0.51
2:AA:3658:G:O2'	2:AA:3659:C:O5'	2.26	0.51
6:A1:54:ASN:HB3	6:A1:57:MET:HG2	1.92	0.51
9:A6:104:ILE:HG22	9:A6:105:LYS:HG3	1.92	0.51
30:AR:94:ASN:HD22	30:AR:239:TYR:HH	1.49	0.51
36:A5:148:PRO:O	36:A5:152:THR:HB	2.10	0.51
38:AE:211:MET:O	38:AE:338:ASN:ND2	2.29	0.51
47:S1:56:ILE:HG22	47:S1:76:ILE:HG22	1.92	0.51
47:S1:116:ARG:HD2	53:SA:157:G:N3	2.26	0.51
53:SA:12:U:H2'	53:SA:13:C:H6	1.74	0.51
53:SA:40:A:H2'	53:SA:41:A:O4'	2.09	0.51
53:SA:248:G:N1	58:SF:203:GLY:O	2.43	0.51
57:SE:31:ILE:HG13	57:SE:36:LEU:HB2	1.90	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:SI:42:HIS:N	61:SI:61:GLU:OE1	2.43	0.51
74:SV:45:PHE:CZ	74:SV:144:HIS:HB2	2.46	0.51
75:SW:56:HIS:HA	75:SW:59:LYS:HG2	1.92	0.51
2:AA:745:C:H2'	2:AA:746:A:C8	2.45	0.51
2:AA:1122:A:H5'	2:AA:1123:U:H5	1.73	0.51
2:AA:1860:A:H2'	2:AA:1861:C:O4'	2.10	0.51
2:AA:2037:U:H2'	2:AA:2038:U:C6	2.46	0.51
2:AA:3048:U:H2'	2:AA:3049:G:C8	2.44	0.51
4:AB:45:U:H2'	4:AB:46:C:C6	2.45	0.51
30:AR:59:GLN:HB2	30:AR:80:SER:HB2	1.92	0.51
36:A5:50:ARG:NH2	36:A5:53:LEU:HB3	2.26	0.51
36:A5:57:THR:O	36:A5:61:GLU:HG2	2.11	0.51
39:AF:64:ALA:HB2	39:AF:92:PHE:HZ	1.75	0.51
54:SB:181:LEU:O	54:SB:185:VAL:HG23	2.11	0.51
56:SD:121:TYR:O	56:SD:125:ARG:HG2	2.09	0.51
58:SF:36:HIS:CE1	58:SF:143:ASP:HA	2.45	0.51
58:SF:185:ALA:H	58:SF:224:ASN:HB2	1.73	0.51
59:SG:103:ARG:NE	59:SG:103:ARG:HA	2.24	0.51
70:SR:89:ASP:HB3	70:SR:92:ASP:HB2	1.92	0.51
2:AA:536:A:O2'	2:AA:537:A:H5"	2.11	0.51
2:AA:2002:G:H1'	2:AA:2003:G:N7	2.25	0.51
2:AA:2401:C:H2'	2:AA:2402:U:O4'	2.10	0.51
15:Ab:8:LYS:HB2	15:Ab:8:LYS:NZ	2.25	0.51
18:Af:6:LEU:HD21	42:AH:94:VAL:HG13	1.93	0.51
26:AM:83:GLN:NE2	26:AM:85:LYS:O	2.42	0.51
53:SA:41:A:O2'	53:SA:443:A:O2'	2.17	0.51
53:SA:301:A:H2'	53:SA:302:A:C8	2.45	0.51
53:SA:520:U:H2'	53:SA:521:G:C8	2.46	0.51
53:SA:539:U:C2	53:SA:540:C:C5	2.99	0.51
53:SA:1281:C:H2'	53:SA:1282:U:H5	1.76	0.51
55:SC:129:ASP:O	55:SC:132:SER:OG	2.28	0.51
62:SJ:15:ASP:OD1	62:SJ:16:LEU:N	2.44	0.51
2:AA:10:G:O6	3:AC:155:A:C6	2.63	0.51
2:AA:266:U:H2'	2:AA:267:U:C6	2.46	0.51
2:AA:573:U:H2'	2:AA:574:G:C8	2.44	0.51
2:AA:641:G:H21	2:AA:685:U:H5"	1.76	0.51
2:AA:642:A:N6	2:AA:684:G:HO2'	2.06	0.51
2:AA:687:G:H2'	2:AA:688:U:C6	2.45	0.51
2:AA:716:C:H2'	2:AA:717:G:C8	2.46	0.51
2:AA:954:G:O2'	2:AA:976:G:N2	2.32	0.51
2:AA:979:G:O2'	2:AA:1014:C:H4'	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1893:G:H2'	2:AA:1894:U:C6	2.46	0.51
2:AA:2737:C:H2'	2:AA:2738:U:C6	2.45	0.51
17:Ae:49:LEU:HD23	17:Ae:49:LEU:H	1.75	0.51
36:A5:107:LYS:HG3	36:A5:138:ILE:HD13	1.93	0.51
43:AV:57:TYR:CE1	43:AV:79:LYS:HG3	2.46	0.51
45:AX:66:ASP:OD1	45:AX:75:ASN:ND2	2.40	0.51
53:SA:142:G:N7	60:SH:137:ARG:NH1	2.52	0.51
53:SA:207:G:N2	53:SA:208:U:O4	2.31	0.51
53:SA:410:G:H2'	53:SA:411:C:C6	2.45	0.51
55:SC:39:THR:OG1	55:SC:40:ARG:N	2.42	0.51
62:SJ:102:LYS:HB3	62:SJ:105:GLN:HG2	1.91	0.51
2:AA:127:U:H2'	2:AA:128:U:C6	2.46	0.51
2:AA:688:U:H2'	2:AA:689:U:C6	2.46	0.51
2:AA:1789:A:H5'	2:AA:1895:U:H4'	1.92	0.51
2:AA:2574:A:H8	2:AA:3333:U:H1'	1.76	0.51
2:AA:3497:A:N7	2:AA:3503:U:C2	2.79	0.51
2:AA:3506:U:H5'	18:Af:35:ARG:HH22	1.76	0.51
11:AN:43:CYS:HA	11:AN:58:GLY:CA	2.41	0.51
15:Ab:58:GLU:OE2	15:Ab:93:LYS:NZ	2.28	0.51
16:Ad:74:ILE:HD12	16:Ad:75:TYR:H	1.76	0.51
18:Af:34:CYS:HB3	18:Af:45:LEU:CD2	2.41	0.51
26:AM:129:PRO:O	26:AM:132:SER:OG	2.22	0.51
32:AY:144:LYS:HE2	32:AY:158:VAL:HG12	1.92	0.51
38:AE:57:VAL:HB	38:AE:354:LYS:HB3	1.91	0.51
53:SA:151:G:H1'	60:SH:2:LYS:HZ1	1.76	0.51
53:SA:293:U:H2'	53:SA:294:G:H8	1.76	0.51
53:SA:1029:U:H5'	73:SU:55:ARG:HD3	1.93	0.51
53:SA:1854:U:OP2	53:SA:1856:A:O2'	2.28	0.51
57:SE:57:ARG:O	57:SE:61:THR:HG23	2.11	0.51
58:SF:31:THR:HG22	58:SF:43:PRO:HB3	1.93	0.51
77:SY:148:THR:HG23	77:SY:151:GLY:H	1.75	0.51
2:AA:76:G:N7	5:AL:100:ARG:HG3	2.26	0.51
2:AA:179:G:H21	2:AA:251:U:H6	1.57	0.51
2:AA:742:U:H2'	2:AA:743:A:H8	1.75	0.51
2:AA:888:A:H5'	2:AA:890:G:H4'	1.92	0.51
2:AA:2450:G:H4'	2:AA:2451:A:H5'	1.92	0.51
2:AA:2560:C:H2'	2:AA:2561:U:H6	1.76	0.51
2:AA:2739:U:H2'	2:AA:2740:A:C8	2.45	0.51
9:A6:57:SER:OG	14:Aa:94:LEU:HD21	2.11	0.51
22:AI:53:SER:O	22:AI:58:LYS:NZ	2.41	0.51
35:A3:116:ARG:HG2	35:A3:117:LYS:H	1.74	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AE:92:TYR:OH	38:AE:177:GLU:OE2	2.19	0.51
39:AF:115:VAL:HB	39:AF:120:LYS:HD2	1.92	0.51
52:S6:23:LYS:NZ	53:SA:594:C:OP2	2.40	0.51
53:SA:5:U:H2'	53:SA:6:G:H8	1.75	0.51
53:SA:139:A:O2'	60:SH:183:ARG:NH2	2.44	0.51
57:SE:34:TYR:HE2	57:SE:108:ARG:HE	1.58	0.51
57:SE:83:GLN:HG3	57:SE:147:LEU:HD21	1.92	0.51
63:SK:9:ASP:N	63:SK:9:ASP:OD1	2.43	0.51
63:SK:90:ILE:HG23	63:SK:94:LEU:HD12	1.93	0.51
73:SU:75:LEU:HB2	73:SU:80:ILE:HD11	1.93	0.51
75:SW:45:ARG:HA	75:SW:45:ARG:HE	1.76	0.51
2:AA:62:A:H2'	2:AA:63:A:H8	1.76	0.51
2:AA:366:G:N2	2:AA:369:A:OP2	2.37	0.51
2:AA:689:U:H2'	2:AA:690:U:C6	2.46	0.51
2:AA:1340:G:C5	2:AA:1341:G:C8	2.98	0.51
2:AA:1836:U:N3	2:AA:3454:G:O6	2.41	0.51
2:AA:2700:C:H2'	2:AA:2701:U:H6	1.76	0.51
2:AA:3410:A:H4'	42:AH:97:HIS:CD2	2.45	0.51
25:AK:176:GLU:HA	25:AK:179:GLU:HG3	1.92	0.51
30:AR:27:LYS:O	30:AR:54:ARG:NH1	2.44	0.51
30:AR:183:PRO:O	30:AR:190:ASN:N	2.44	0.51
38:AE:277:LYS:HD2	38:AE:323:GLY:HA3	1.93	0.51
40:AG:18:VAL:C	40:AG:128:TYR:HB2	2.36	0.51
47:S1:107:ARG:O	47:S1:111:GLU:HG2	2.11	0.51
53:SA:826:A:H2'	53:SA:827:C:C6	2.46	0.51
53:SA:1233:A:OP1	69:SQ:30:LYS:NZ	2.30	0.51
53:SA:1784:A:H2'	53:SA:1785:C:C6	2.46	0.51
55:SC:43:ASP:OD1	55:SC:44:GLY:N	2.44	0.51
61:SI:170:ASN:ND2	61:SI:177:SER:HB3	2.26	0.51
2:AA:403:U:O3'	34:AZ:86:ARG:NH2	2.44	0.51
2:AA:626:A:H2'	2:AA:627:U:C6	2.46	0.51
2:AA:1316:U:H5"	2:AA:1337:G:N2	2.26	0.51
2:AA:1605:A:C6	10:A7:72:VAL:HG21	2.46	0.51
2:AA:2644:U:H2'	2:AA:2645:A:H8	1.75	0.51
2:AA:3553:G:H21	2:AA:3572:A:H8	1.58	0.51
9:A6:54:ILE:HG13	14:Aa:91:ARG:HE	1.76	0.51
12:A8:79:VAL:C	12:A8:81:GLU:H	2.19	0.51
26:AM:139:VAL:HG11	46:A0:29:ILE:HD13	1.92	0.51
27:AS:71:MET:HG3	27:AS:79:ALA:HB2	1.93	0.51
33:AT:22:TRP:CE3	33:AT:50:LEU:HB2	2.46	0.51
35:A3:66:MET:HA	35:A3:69:ARG:HG2	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AE:40:PRO:HG2	38:AE:42:HIS:NE2	2.25	0.51
47:S1:65:PHE:CE1	53:SA:538:U:H4'	2.46	0.51
53:SA:110:A:H2'	53:SA:111:G:H8	1.74	0.51
53:SA:433:C:H1'	53:SA:465:G:H1'	1.91	0.51
53:SA:955:U:O2'	68:SP:136:PRO:HA	2.11	0.51
53:SA:1114:U:H2'	53:SA:1115:G:H8	1.76	0.51
53:SA:1243:A:H2'	53:SA:1244:A:C8	2.45	0.51
53:SA:1300:G:N7	66:SN:76:TRP:HH2	2.09	0.51
75:SW:10:LYS:HD3	75:SW:53:PHE:CZ	2.46	0.51
2:AA:718:U:H2'	2:AA:719:C:C6	2.46	0.50
2:AA:1510:U:H2'	2:AA:1511:U:C6	2.46	0.50
4:AB:39:C:O2'	4:AB:40:A:O4'	2.28	0.50
4:AB:51:G:N2	40:AG:9:MET:HE1	2.26	0.50
4:AB:61:G:O3'	30:AR:281:ARG:NH1	2.44	0.50
11:AN:51:ILE:HD11	42:AH:4:ILE:HG22	1.91	0.50
31:AW:47:TYR:O	31:AW:51:VAL:HG12	2.11	0.50
37:AD:141:GLU:OE1	53:SA:961:G:O2'	2.29	0.50
38:AE:128:LYS:O	38:AE:131:THR:OG1	2.21	0.50
41:AU:34:TYR:HA	43:AV:150:ILE:O	2.10	0.50
42:AH:8:GLN:HE22	42:AH:56:VAL:H	1.60	0.50
53:SA:391:A:H2'	53:SA:392:G:C8	2.46	0.50
53:SA:1291:C:O2	53:SA:1295:A:N6	2.44	0.50
53:SA:1888:U:O2	53:SA:1902:G:N2	2.31	0.50
60:SH:48:TYR:HE2	60:SH:121:ILE:HD11	1.75	0.50
62:SJ:116:SER:OG	62:SJ:117:ARG:NH1	2.44	0.50
66:SN:83:ILE:H	66:SN:83:ILE:HD12	1.74	0.50
78:SZ:35:ASN:OD1	78:SZ:51:THR:OG1	2.29	0.50
2:AA:913:U:H2'	2:AA:914:G:C8	2.47	0.50
2:AA:1306:A:N3	2:AA:1456:C:O2'	2.41	0.50
2:AA:1893:G:C6	2:AA:1894:U:O4	2.64	0.50
2:AA:3776:U:H2'	2:AA:3777:G:C8	2.46	0.50
7:A2:49:LEU:HD23	7:A2:49:LEU:H	1.76	0.50
22:AI:86:VAL:HG22	22:AI:88:PRO:HA	1.92	0.50
29:AQ:30:LYS:HD2	29:AQ:63:GLU:HG3	1.93	0.50
30:AR:61:ILE:HB	30:AR:63:GLN:HE21	1.74	0.50
40:AG:17:LEU:HB3	40:AG:129:VAL:HG23	1.93	0.50
41:AU:82:LYS:O	41:AU:104:ARG:NE	2.44	0.50
53:SA:454:U:H2'	53:SA:455:C:H6	1.75	0.50
53:SA:477:A:H5"	57:SE:10:LYS:HE3	1.93	0.50
53:SA:1187:A:H2'	53:SA:1188:A:C8	2.46	0.50
53:SA:1381:C:O2'	53:SA:1382:G:OP1	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1846:U:O4	53:SA:1847:A:N6	2.43	0.50
53:SA:1922:C:H2'	53:SA:1923:U:C6	2.46	0.50
55:SC:79:ARG:HD3	55:SC:128:THR:HG21	1.91	0.50
59:SG:68:PRO:HG3	78:SZ:29:HIS:CD2	2.46	0.50
61:SI:11:PHE:HB2	61:SI:13:LYS:HE2	1.93	0.50
64:SL:106:SER:HB3	64:SL:176:PHE:HD1	1.77	0.50
2:AA:216:C:H2'	2:AA:217:A:C8	2.46	0.50
2:AA:276:G:OP1	19:AP:47:LYS:NZ	2.41	0.50
2:AA:588:C:H2'	2:AA:589:C:C6	2.47	0.50
2:AA:738:A:OP1	39:AF:94:ASN:ND2	2.40	0.50
2:AA:1628:U:O4	2:AA:1629:G:N1	2.44	0.50
2:AA:2806:U:H2'	2:AA:2807:U:C6	2.46	0.50
10:A7:15:PRO:HD2	10:A7:87:ARG:CZ	2.42	0.50
10:A7:19:PHE:O	10:A7:20:ILE:HG12	2.12	0.50
20:Ah:24:LYS:HG2	53:SA:1224:C:N3	2.27	0.50
29:AQ:90:ARG:HG3	29:AQ:134:VAL:HG12	1.93	0.50
39:AF:128:ILE:O	39:AF:131:SER:OG	2.28	0.50
45:AX:101:ARG:HG2	45:AX:104:LYS:HZ3	1.76	0.50
53:SA:958:U:H2'	53:SA:959:C:C6	2.47	0.50
53:SA:1052:A:H2'	53:SA:1053:A:H8	1.76	0.50
53:SA:1119:G:H2'	53:SA:1120:A:H8	1.75	0.50
53:SA:1317:A:N3	53:SA:1318:A:O2'	2.42	0.50
53:SA:1800:A:N3	53:SA:1860:A:H1'	2.26	0.50
59:SG:196:THR:HB	59:SG:197:LYS:HE2	1.93	0.50
60:SH:32:ILE:HG22	60:SH:52:ILE:HG13	1.94	0.50
61:SI:54:LYS:HD3	61:SI:62:ARG:HH22	1.76	0.50
61:SI:129:ALA:HB3	61:SI:195:ARG:HB3	1.94	0.50
62:SJ:10:LYS:HZ2	62:SJ:45:LEU:HG	1.75	0.50
74:SV:149:GLN:OE1	74:SV:151:PHE:HE1	1.94	0.50
2:AA:378:U:H4'	2:AA:414:C:H5'	1.93	0.50
2:AA:549:G:N2	2:AA:580:A:O4'	2.45	0.50
2:AA:763:U:OP2	5:AL:34:ARG:NH1	2.43	0.50
2:AA:2721:U:H2'	2:AA:2722:G:C8	2.46	0.50
2:AA:3476:A:H1'	2:AA:3477:A:H2'	1.93	0.50
2:AA:3506:U:H3	18:Af:41:ARG:NH2	2.10	0.50
3:AC:126:C:OP1	35:A3:64:ARG:NH2	2.45	0.50
4:AB:34:C:H2'	4:AB:35:C:H5	1.76	0.50
4:AB:54:A:H5'	40:AG:8:VAL:HG13	1.94	0.50
30:AR:275:ALA:O	30:AR:279:LYS:NZ	2.42	0.50
36:A5:116:ARG:NH2	36:A5:212:ASN:O	2.45	0.50
53:SA:14:U:H2'	53:SA:15:U:C6	2.47	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:247:G:N2	53:SA:250:A:OP2	2.40	0.50
53:SA:1220:C:H2'	53:SA:1221:G:C8	2.46	0.50
54:SB:55:LYS:HG3	54:SB:57:ALA:H	1.76	0.50
54:SB:61:LEU:HA	54:SB:64:ARG:HH21	1.76	0.50
54:SB:107:ARG:NH2	68:SP:133:THR:O	2.39	0.50
56:SD:16:VAL:O	56:SD:20:GLU:HG2	2.10	0.50
73:SU:141:TYR:CD1	73:SU:141:TYR:O	2.65	0.50
2:AA:31:C:OP2	19:AP:190:ARG:NH2	2.39	0.50
2:AA:155:U:H3	23:AJ:209:LYS:HZ3	1.60	0.50
2:AA:703:U:H2'	2:AA:704:U:H6	1.74	0.50
2:AA:1209:U:H2'	2:AA:1210:A:H8	1.77	0.50
2:AA:1787:A:OP1	6:A1:15:ASN:HB3	2.11	0.50
2:AA:2386:A:H2'	2:AA:2387:A:C8	2.46	0.50
2:AA:3425:G:H4'	26:AM:11:ASN:HD22	1.76	0.50
2:AA:3608:U:H2'	2:AA:3609:A:C8	2.47	0.50
2:AA:3731:A:HO2'	2:AA:3733:G:H8	1.57	0.50
4:AB:40:A:H4'	40:AG:43:GLN:HE22	1.77	0.50
5:AL:75:THR:HG22	5:AL:100:ARG:HB3	1.94	0.50
5:AL:150:GLU:O	5:AL:154:LYS:NZ	2.40	0.50
34:AZ:110:VAL:HA	34:AZ:114:ARG:HB3	1.93	0.50
36:A5:86:ARG:HD2	41:AU:68:LEU:HA	1.93	0.50
41:AU:18:ILE:HG23	41:AU:70:CYS:HB2	1.94	0.50
49:S3:12:LYS:NZ	49:S3:15:ARG:O	2.44	0.50
50:S4:12:GLU:O	50:S4:15:LYS:NZ	2.43	0.50
53:SA:478:G:O2'	53:SA:819:A:N3	2.44	0.50
53:SA:1800:A:H2'	53:SA:1801:A:C8	2.46	0.50
53:SA:1803:G:H2'	53:SA:1804:C:C6	2.47	0.50
63:SK:101:HIS:HA	63:SK:113:HIS:HE1	1.75	0.50
64:SL:187:SER:HB3	64:SL:196:ASP:HB2	1.94	0.50
74:SV:49:LYS:O	74:SV:53:GLU:HG3	2.11	0.50
77:SY:138:GLN:OE1	77:SY:138:GLN:N	2.44	0.50
2:AA:61:A:H2'	2:AA:62:A:H8	1.77	0.50
2:AA:534:A:H2'	2:AA:535:U:C6	2.47	0.50
2:AA:1483:A:H2'	2:AA:1484:A:C8	2.47	0.50
2:AA:2129:U:H2'	2:AA:2130:U:O4'	2.11	0.50
2:AA:2211:C:OP2	33:AT:73:ARG:NH2	2.43	0.50
2:AA:3474:C:H2'	2:AA:3475:U:O4'	2.12	0.50
4:AB:49:A:H1'	4:AB:50:A:N7	2.27	0.50
12:A8:61:LYS:HA	12:A8:64:LYS:HB2	1.92	0.50
15:Ab:61:ILE:HG22	15:Ab:97:ILE:HG21	1.93	0.50
29:AQ:87:LEU:HD13	29:AQ:138:ILE:HG12	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:A5:132:THR:HA	36:A5:135:MET:HG2	1.93	0.50
47:S1:113:LYS:NZ	53:SA:55:A:OP2	2.33	0.50
53:SA:23:G:OP1	57:SE:14:ASN:ND2	2.40	0.50
53:SA:180:U:H2'	53:SA:181:A:H8	1.72	0.50
53:SA:369:G:H2'	53:SA:370:G:C8	2.47	0.50
53:SA:470:A:C2	53:SA:471:G:C8	3.00	0.50
55:SC:140:ASN:ND2	78:SZ:31:ALA:O	2.38	0.50
58:SF:90:ILE:HG12	58:SF:99:PHE:HB2	1.93	0.50
65:SM:132:GLY:HA2	65:SM:139:TYR:CE2	2.47	0.50
71:SS:66:ILE:O	71:SS:70:VAL:HG23	2.10	0.50
73:SU:29:LYS:CD	73:SU:30:PRO:HD2	2.37	0.50
74:SV:159:VAL:HG12	74:SV:161:PHE:H	1.75	0.50
2:AA:864:U:HO2'	27:AS:74:HIS:HE2	1.55	0.50
2:AA:1030:C:OP1	37:AD:14:SER:OG	2.30	0.50
2:AA:1787:A:H1'	2:AA:1893:G:H21	1.77	0.50
2:AA:1793:A:C6	2:AA:1797:A:N6	2.80	0.50
2:AA:1990:A:H2'	2:AA:1991:U:N1	2.27	0.50
2:AA:3442:C:H5	10:A7:32:CYS:HB2	1.77	0.50
3:AC:12:U:H2'	3:AC:13:A:H8	1.75	0.50
6:A1:12:ILE:HG12	6:A1:81:LEU:HB3	1.94	0.50
18:Af:18:LEU:HD13	18:Af:45:LEU:HD13	1.94	0.50
19:AP:10:ILE:HD13	23:AJ:181:LEU:HD23	1.92	0.50
33:AT:134:LYS:HA	33:AT:137:LEU:HB2	1.94	0.50
53:SA:104:U:H5"	64:SL:19:LYS:HZ1	1.75	0.50
53:SA:1825:U:O4	53:SA:1826:A:N6	2.45	0.50
58:SF:6:LYS:O	58:SF:30:LYS:NZ	2.45	0.50
73:SU:43:LYS:HE2	73:SU:45:GLN:HE21	1.76	0.50
1:S7:36:U:H2'	1:S7:37:A:O4'	2.12	0.50
2:AA:606:A:H2'	2:AA:607:A:C8	2.47	0.50
2:AA:926:G:OP2	2:AA:926:G:N2	2.31	0.50
2:AA:1655:U:OP2	31:AW:127:ARG:NH1	2.41	0.50
2:AA:1881:C:O2'	2:AA:1882:U:H6	1.94	0.50
2:AA:3134:U:H2'	2:AA:3135:A:C8	2.46	0.50
6:A1:47:GLU:HG2	6:A1:71:PHE:CD1	2.47	0.50
6:A1:86:GLN:HE21	6:A1:88:ALA:H	1.60	0.50
14:Aa:54:VAL:HA	14:Aa:69:ASN:O	2.12	0.50
18:Af:17:LYS:HG3	18:Af:26:ARG:HG2	1.92	0.50
23:AJ:279:ILE:HG13	23:AJ:282:LYS:HB3	1.92	0.50
30:AR:49:LEU:HD22	30:AR:145:LYS:HE3	1.94	0.50
35:A3:29:SER:HA	35:A3:32:ARG:HG2	1.94	0.50
38:AE:122:TRP:CZ2	38:AE:127:LYS:HD2	2.47	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:AU:154:ARG:HD2	41:AU:155:ARG:N	2.26	0.50
53:SA:80:A:OP1	60:SH:155:LYS:HD3	2.12	0.50
55:SC:119:ARG:NH2	59:SG:253:GLU:HB3	2.27	0.50
58:SF:241:GLU:N	58:SF:241:GLU:OE1	2.44	0.50
62:SJ:166:GLU:O	62:SJ:170:ILE:HG12	2.12	0.50
77:SY:25:THR:OG1	77:SY:31:ASP:OD2	2.26	0.50
2:AA:189:U:H2'	2:AA:190:G:C8	2.47	0.50
2:AA:648:U:H5	39:AF:307:LYS:HE2	1.77	0.50
2:AA:1031:G:OP2	37:AD:9:ARG:NH2	2.45	0.50
2:AA:1073:G:H1'	8:A4:12:GLN:CD	2.37	0.50
2:AA:1172:C:H2'	2:AA:1173:U:C6	2.46	0.50
2:AA:1630:A:C6	2:AA:2126:A:C5	3.00	0.50
2:AA:1784:G:N7	6:A1:73:LYS:HE3	2.26	0.50
2:AA:1788:C:H2'	2:AA:1789:A:O4'	2.11	0.50
2:AA:1862:A:N6	2:AA:1897:G:C6	2.79	0.50
2:AA:2163:A:O2'	2:AA:3439:G:H4'	2.11	0.50
2:AA:2817:U:H2'	2:AA:2818:U:C6	2.47	0.50
2:AA:3203:C:O2	2:AA:3257:G:O6	2.30	0.50
2:AA:3408:G:O2'	2:AA:3417:G:O6	2.29	0.50
4:AB:55:A:C2	40:AG:138:VAL:HG11	2.42	0.50
4:AB:91:C:H2'	4:AB:92:C:C6	2.46	0.50
6:A1:11:ILE:HD12	6:A1:80:ILE:HB	1.94	0.50
11:AN:126:PHE:O	11:AN:130:GLN:HG3	2.11	0.50
20:Ah:23:ARG:O	20:Ah:26:ILE:HG22	2.12	0.50
29:AQ:85:PHE:HA	29:AQ:139:ARG:O	2.11	0.50
32:AY:97:VAL:O	35:A3:81:ASN:ND2	2.45	0.50
38:AE:377:TYR:HD2	38:AE:380:LEU:HD11	1.75	0.50
39:AF:34:ASN:HB3	39:AF:246:ILE:HD12	1.94	0.50
47:S1:94:ARG:HH22	53:SA:531:U:H3'	1.77	0.50
53:SA:212:U:H2'	53:SA:213:G:H8	1.77	0.50
53:SA:367:C:N4	53:SA:385:U:OP1	2.38	0.50
53:SA:1308:C:O2'	53:SA:1309:A:OP2	2.30	0.50
53:SA:1822:A:H2	53:SA:1904:G:H21	1.58	0.50
54:SB:41:ARG:NH1	54:SB:232:HIS:O	2.44	0.50
57:SE:49:LEU:O	57:SE:53:ARG:HB2	2.11	0.50
64:SL:185:ILE:HD12	64:SL:196:ASP:O	2.12	0.50
69:SQ:26:ASP:OD1	69:SQ:26:ASP:N	2.38	0.50
2:AA:910:A:H2'	2:AA:911:U:C6	2.46	0.49
2:AA:1885:G:H1'	2:AA:1887:G:C6	2.47	0.49
2:AA:3433:C:H5'	38:AE:326:ALA:HA	1.94	0.49
2:AA:3490:A:H62	2:AA:3513:G:H21	0.61	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:A4:21:ILE:HG22	43:AV:85:ILE:HG13	1.94	0.49
9:A6:80:LEU:HB3	9:A6:84:CYS:HB2	1.93	0.49
11:AN:57:ASP:HB2	11:AN:66:ARG:HD2	1.93	0.49
22:AI:12:ASN:HB3	22:AI:17:LYS:HG2	1.94	0.49
26:AM:94:TYR:N	46:A0:26:GLN:HA	2.23	0.49
33:AT:169:ARG:HE	73:SU:78:GLN:HE21	1.59	0.49
36:A5:96:ILE:HG21	36:A5:256:MET:HE1	1.94	0.49
40:AG:92:ARG:HE	40:AG:93:ARG:H	1.60	0.49
53:SA:403:A:OP2	64:SL:51:ARG:NH2	2.45	0.49
53:SA:834:A:H2'	53:SA:835:G:H8	1.75	0.49
53:SA:1623:U:H1'	53:SA:1625:C:N4	2.26	0.49
53:SA:1641:G:H2'	53:SA:1642:U:C6	2.46	0.49
53:SA:1677:C:H1'	53:SA:1683:U:H3	1.76	0.49
53:SA:1719:U:O3'	61:SI:79:LYS:NZ	2.38	0.49
53:SA:1786:U:HO2'	53:SA:1787:U:P	2.35	0.49
53:SA:1901:U:H4'	66:SN:78:ARG:HH22	1.76	0.49
59:SG:64:LEU:O	78:SZ:15:ARG:NH1	2.45	0.49
61:SI:58:PRO:HB2	61:SI:61:GLU:HG2	1.93	0.49
2:AA:953:U:H2'	2:AA:954:G:O4'	2.13	0.49
2:AA:1187:A:N6	2:AA:1220:U:O4	2.45	0.49
2:AA:1884:G:H4'	2:AA:1887:G:H4'	1.93	0.49
2:AA:2041:U:H3	2:AA:2068:G:H1	1.60	0.49
4:AB:46:C:OP1	30:AR:160:ARG:N	2.41	0.49
7:A2:57:VAL:HG23	7:A2:111:LYS:HG2	1.94	0.49
18:Af:39:CYS:SG	18:Af:42:THR:HG22	2.52	0.49
23:AJ:264:MET:HA	23:AJ:267:LYS:HG2	1.94	0.49
27:AS:128:LYS:HG3	27:AS:129:TYR:CD1	2.47	0.49
44:Ag:10:LYS:NZ	44:Ag:14:LYS:O	2.34	0.49
44:Ag:17:TRP:HD1	53:SA:2065:C:OP1	1.95	0.49
53:SA:151:G:N1	53:SA:152:G:C6	2.79	0.49
53:SA:569:G:H2'	53:SA:570:U:C6	2.47	0.49
53:SA:1418:C:H2'	53:SA:1419:C:C6	2.47	0.49
54:SB:24:PHE:N	54:SB:27:LYS:HG3	2.27	0.49
54:SB:67:GLU:OE2	54:SB:83:LYS:HB2	2.11	0.49
68:SP:60:MET:HB2	68:SP:61:LYS:HD3	1.94	0.49
2:AA:249:U:P	5:AL:152:ARG:HH22	2.35	0.49
2:AA:548:U:H2'	2:AA:549:G:H8	1.78	0.49
2:AA:1815:A:H2'	2:AA:1816:G:C8	2.47	0.49
2:AA:1967:G:H4'	16:Ad:4:GLN:HB2	1.93	0.49
2:AA:3197:A:H2'	2:AA:3198:G:O4'	2.13	0.49
2:AA:3399:U:H2'	2:AA:3400:C:C6	2.47	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:3507:A:H8	42:AH:67:ALA:CB	2.25	0.49
2:AA:3715:U:H2'	2:AA:3716:C:C6	2.48	0.49
6:A1:55:LYS:NZ	23:AJ:46:PHE:O	2.32	0.49
31:AW:152:GLU:O	31:AW:153:ILE:HD13	2.13	0.49
36:A5:117:LEU:HD13	36:A5:124:VAL:HG22	1.93	0.49
38:AE:36:ASP:O	38:AE:183:GLY:HA2	2.13	0.49
40:AG:76:ALA:O	40:AG:80:LEU:HG	2.11	0.49
53:SA:509:U:H2'	53:SA:510:G:C8	2.47	0.49
53:SA:1061:A:H2	53:SA:1081:U:H3	1.59	0.49
59:SG:117:GLY:HA3	59:SG:202:PHE:HB3	1.94	0.49
60:SH:197:ARG:O	60:SH:200:GLU:HG3	2.12	0.49
63:SK:3:ARG:NH2	63:SK:9:ASP:OD2	2.45	0.49
63:SK:52:ILE:HB	63:SK:61:ILE:HD12	1.94	0.49
2:AA:1115:G:N3	2:AA:2976:A:H2'	2.27	0.49
2:AA:1787:A:H1'	2:AA:1893:G:N2	2.27	0.49
2:AA:3727:A:C8	2:AA:3762:A:N3	2.80	0.49
3:AC:76:A:O5'	34:AZ:50:ARG:NH2	2.46	0.49
4:AB:26:C:H3'	4:AB:27:A:C8	2.46	0.49
9:A6:84:CYS:HB3	9:A6:86:LYS:HG2	1.93	0.49
10:A7:19:PHE:HB2	10:A7:115:GLU:H	1.75	0.49
18:Af:33:ASN:OD1	18:Af:41:ARG:HD3	2.12	0.49
18:Af:41:ARG:HG3	18:Af:41:ARG:O	2.12	0.49
20:Ah:56:LYS:HE2	20:Ah:61:LYS:HA	1.93	0.49
22:AI:24:ASN:OD1	22:AI:24:ASN:N	2.37	0.49
23:AJ:110:LEU:O	23:AJ:114:LYS:HG2	2.12	0.49
42:AH:150:ILE:H	42:AH:150:ILE:HD12	1.77	0.49
42:AH:155:LEU:HA	42:AH:158:ALA:HB3	1.94	0.49
43:AV:43:ILE:HD11	43:AV:54:PRO:HB3	1.94	0.49
52:S6:43:ARG:HH12	57:SE:29:LYS:HD3	1.77	0.49
53:SA:517:G:H2'	53:SA:518:A:C8	2.46	0.49
53:SA:877:U:H2'	53:SA:878:G:H8	1.77	0.49
53:SA:1796:C:H2'	53:SA:1797:C:H6	1.77	0.49
55:SC:57:LEU:HD12	55:SC:177:LEU:HD23	1.94	0.49
57:SE:16:LYS:HG2	57:SE:17:ARG:HG3	1.95	0.49
64:SL:175:GLN:HB3	64:SL:181:VAL:HG22	1.94	0.49
2:AA:11:A:H61	3:AC:154:G:H1	0.68	0.49
2:AA:234:C:H5'	34:AZ:31:SER:OG	2.13	0.49
2:AA:295:G:OP1	19:AP:171:LYS:NZ	2.45	0.49
2:AA:423:U:H2'	2:AA:424:U:H6	1.77	0.49
2:AA:683:A:OP2	39:AF:316:LYS:NZ	2.35	0.49
2:AA:800:A:H2'	2:AA:801:U:C6	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1101:A:OP1	36:A5:210:LYS:NZ	2.45	0.49
2:AA:1786:A:O2'	2:AA:1787:A:O4'	2.12	0.49
2:AA:3490:A:N6	2:AA:3513:G:N2	2.15	0.49
2:AA:3585:A:H2'	2:AA:3586:U:C6	2.47	0.49
16:Ad:4:GLN:HE21	16:Ad:53:VAL:HG21	1.76	0.49
39:AF:66:SER:O	39:AF:66:SER:OG	2.30	0.49
53:SA:104:U:H5"	64:SL:19:LYS:CE	2.42	0.49
53:SA:164:C:H4'	60:SH:131:LYS:HE3	1.94	0.49
53:SA:610:U:H2'	53:SA:611:A:C8	2.47	0.49
53:SA:917:C:H2'	53:SA:918:U:C6	2.48	0.49
53:SA:1690:A:H4'	53:SA:1691:G:H3'	1.94	0.49
53:SA:1829:U:H2'	53:SA:1830:C:O4'	2.12	0.49
54:SB:81:HIS:HA	54:SB:109:LYS:HZ2	1.76	0.49
54:SB:131:ASP:OD1	54:SB:131:ASP:N	2.46	0.49
55:SC:127:ARG:HE	55:SC:152:PRO:HD3	1.76	0.49
57:SE:66:SER:O	57:SE:70:ILE:HG13	2.12	0.49
61:SI:53:ARG:HA	61:SI:56:LEU:HB2	1.95	0.49
72:ST:28:ILE:HG22	72:ST:30:ARG:HD3	1.94	0.49
1:S7:2:G:HO2'	1:S7:3:C:H6	1.60	0.49
1:S7:50:U:H3	1:S7:64:G:H1	1.59	0.49
2:AA:138:C:H41	24:Ac:88:LYS:NZ	2.11	0.49
2:AA:309:G:H2'	2:AA:310:U:H6	1.77	0.49
2:AA:963:C:C2	2:AA:964:G:C8	3.00	0.49
2:AA:2534:U:HO2'	37:AD:243:THR:H	1.59	0.49
2:AA:3380:U:C2'	2:AA:3381:A:H5'	2.42	0.49
2:AA:3446:A:H1'	2:AA:3724:U:O2'	2.12	0.49
2:AA:3713:C:H2'	2:AA:3714:C:H6	1.77	0.49
4:AB:90:A:C2	4:AB:91:C:H1'	2.48	0.49
6:A1:76:ASN:OD1	6:A1:79:HIS:HB2	2.12	0.49
11:AN:50:THR:HG22	11:AN:53:ARG:H	1.78	0.49
22:AI:100:ASP:OD2	22:AI:101:SER:N	2.46	0.49
29:AQ:52:LEU:HD11	29:AQ:163:GLN:HG3	1.94	0.49
30:AR:22:ARG:HH11	30:AR:28:THR:HG23	1.78	0.49
30:AR:98:ALA:O	30:AR:101:THR:OG1	2.25	0.49
37:AD:140:SER:OG	37:AD:143:GLY:O	2.30	0.49
42:AH:36:ARG:HG2	42:AH:38:PHE:CZ	2.48	0.49
42:AH:87:PHE:C	42:AH:88:LEU:HD23	2.37	0.49
47:S1:94:ARG:NH2	53:SA:533:A:OP2	2.45	0.49
53:SA:17:C:H2'	53:SA:18:C:C6	2.47	0.49
53:SA:1034:U:O5'	73:SU:131:ARG:NH2	2.46	0.49
53:SA:1863:U:H5'	71:SS:42:MET:HG2	1.94	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1900:U:O2'	66:SN:76:TRP:NE1	2.46	0.49
53:SA:1957:A:C4	53:SA:1958:A:C8	3.01	0.49
53:SA:2004:U:H2'	53:SA:2005:U:C6	2.47	0.49
54:SB:160:GLN:HA	54:SB:163:LYS:HD2	1.93	0.49
58:SF:191:ARG:HG2	58:SF:245:LYS:HG3	1.95	0.49
59:SG:63:TYR:CZ	59:SG:150:PRO:HG2	2.47	0.49
61:SI:158:LYS:HZ1	61:SI:162:GLU:HB2	1.78	0.49
72:ST:38:ARG:HA	72:ST:41:PHE:HB3	1.94	0.49
75:SW:101:ASP:O	75:SW:105:MET:HG3	2.12	0.49
2:AA:1215:A:C6	2:AA:1216:C:C4	3.00	0.49
2:AA:1885:G:H2'	9:A6:88:PHE:CE1	2.48	0.49
4:AB:59:C:H2'	4:AB:60:U:C6	2.47	0.49
22:AI:173:ASP:HB3	22:AI:176:VAL:HB	1.95	0.49
30:AR:279:LYS:O	30:AR:283:LYS:HG2	2.12	0.49
32:AY:128:ASN:CG	32:AY:180:ALA:HB3	2.38	0.49
33:AT:116:ARG:HA	33:AT:119:TYR:HB3	1.93	0.49
37:AD:80:GLU:HB2	37:AD:170:GLY:HA2	1.94	0.49
40:AG:29:ARG:NH2	40:AG:30:LEU:HD13	2.26	0.49
52:S6:10:ARG:NE	53:SA:573:C:O2'	2.46	0.49
53:SA:17:C:H2'	53:SA:18:C:H6	1.77	0.49
53:SA:815:G:H21	53:SA:818:C:H4'	1.78	0.49
53:SA:963:U:H2'	68:SP:50:ARG:HH21	1.78	0.49
53:SA:1052:A:H2'	53:SA:1053:A:C8	2.48	0.49
53:SA:1726:U:H5"	77:SY:86:ARG:HH11	1.78	0.49
53:SA:1862:C:H2'	53:SA:1863:U:C6	2.48	0.49
54:SB:34:ALA:HB3	54:SB:41:ARG:HA	1.94	0.49
55:SC:88:LYS:HB3	55:SC:201:PHE:HE1	1.76	0.49
64:SL:182:LEU:HD12	64:SL:209:LYS:HE3	1.94	0.49
74:SV:109:ASN:OD1	74:SV:109:ASN:N	2.37	0.49
2:AA:600:U:O3'	41:AU:154:ARG:NH2	2.46	0.49
2:AA:1513:U:H2'	2:AA:1514:G:C8	2.48	0.49
2:AA:1630:A:H1'	2:AA:2125:A:N3	2.28	0.49
2:AA:1861:C:C2	2:AA:1862:A:C8	3.01	0.49
2:AA:1861:C:N3	2:AA:1862:A:N7	2.60	0.49
2:AA:2821:C:H2'	2:AA:2822:U:C6	2.47	0.49
2:AA:3009:G:H2'	2:AA:3010:A:H8	1.77	0.49
2:AA:3120:U:OP1	2:AA:3140:U:H5	1.95	0.49
2:AA:3403:A:H1'	26:AM:10:LYS:HG2	1.94	0.49
2:AA:3497:A:H4'	42:AH:70:ARG:HD3	1.94	0.49
3:AC:22:U:H2'	3:AC:23:G:C8	2.47	0.49
4:AB:28:C:H5'	40:AG:138:VAL:HG12	1.95	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AB:67:C:H2'	4:AB:68:U:O4'	2.12	0.49
6:A1:33:THR:OG1	6:A1:36:ARG:O	2.30	0.49
29:AQ:149:CYS:SG	29:AQ:150:GLU:N	2.85	0.49
30:AR:195:ARG:NH1	30:AR:195:ARG:O	2.45	0.49
33:AT:31:ILE:HG23	33:AT:40:ILE:HD11	1.94	0.49
34:AZ:112:LYS:HA	34:AZ:115:LYS:HD3	1.93	0.49
40:AG:35:ARG:NH2	40:AG:38:GLU:HB2	2.27	0.49
50:S4:36:PRO:HD3	50:S4:75:CYS:HA	1.94	0.49
51:S5:19:ARG:NH1	53:SA:1916:C:N3	2.61	0.49
53:SA:1268:G:H1	53:SA:1875:U:H3	1.60	0.49
53:SA:1428:A:O2'	56:SD:156:GLY:O	2.31	0.49
53:SA:1843:G:H21	71:SS:88:ARG:HH21	1.60	0.49
65:SM:99:ASP:N	65:SM:99:ASP:OD1	2.46	0.49
77:SY:50:LYS:NZ	77:SY:135:TYR:OH	2.42	0.49
2:AA:195:A:H8	2:AA:216:C:O2'	1.96	0.49
2:AA:769:U:H1'	34:AZ:2:LYS:O	2.13	0.49
2:AA:1339:U:C2	2:AA:1340:G:N7	2.81	0.49
2:AA:2122:U:O4	2:AA:2123:C:N4	2.46	0.49
2:AA:3009:G:H2'	2:AA:3010:A:C8	2.48	0.49
2:AA:3713:C:H2'	2:AA:3714:C:C6	2.48	0.49
3:AC:42:U:C4	35:A3:83:ARG:HG3	2.48	0.49
3:AC:138:U:H2'	3:AC:140:G:H8	1.77	0.49
4:AB:95:U:OP1	41:AU:49:ARG:NH1	2.46	0.49
6:A1:71:PHE:HE2	6:A1:73:LYS:HB3	1.78	0.49
7:A2:10:TRP:CZ2	7:A2:44:PRO:HD3	2.48	0.49
9:A6:79:ASP:HB3	9:A6:90:ILE:HG23	1.95	0.49
16:Ad:24:ILE:HD13	16:Ad:75:TYR:HA	1.94	0.49
26:AM:20:PRO:HA	26:AM:53:ALA:HA	1.94	0.49
39:AF:19:VAL:HG22	39:AF:20:GLY:H	1.77	0.49
50:S4:28:SER:OG	53:SA:1028:U:O2	2.31	0.49
53:SA:1720:G:H2'	53:SA:1721:A:H8	1.78	0.49
53:SA:1847:A:H2'	53:SA:1848:U:C6	2.48	0.49
53:SA:1947:U:H2'	53:SA:1948:A:H8	1.76	0.49
54:SB:62:LYS:NZ	54:SB:89:ASP:O	2.35	0.49
56:SD:193:THR:OG1	56:SD:207:SER:O	2.23	0.49
58:SF:128:LYS:HA	58:SF:156:VAL:HG23	1.94	0.49
65:SM:112:ARG:NE	65:SM:112:ARG:O	2.46	0.49
67:SO:84:ILE:O	67:SO:88:ARG:HG3	2.12	0.49
2:AA:109:A:O2'	2:AA:331:A:N6	2.45	0.49
2:AA:179:G:O6	2:AA:252:A:N6	2.46	0.49
2:AA:428:A:O2'	2:AA:708:A:OP1	2.24	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:432:A:O2'	2:AA:433:A:OP1	2.30	0.49
2:AA:548:U:H2'	2:AA:549:G:C8	2.48	0.49
2:AA:1897:G:O2'	2:AA:1898:U:O5'	2.27	0.49
2:AA:1971:U:O4	16:Ad:42:LYS:NZ	2.26	0.49
2:AA:2454:A:H2'	2:AA:2455:G:H8	1.78	0.49
2:AA:2489:C:O2'	2:AA:2563:A:N3	2.41	0.49
2:AA:2990:G:H5"	2:AA:2991:U:O4'	2.13	0.49
2:AA:3476:A:C6	2:AA:3478:G:N3	2.81	0.49
2:AA:3501:C:H2'	2:AA:3502:C:H6	1.75	0.49
3:AC:31:U:H2'	3:AC:32:C:H6	1.78	0.49
5:AL:175:GLU:HB3	5:AL:178:LYS:HD3	1.95	0.49
10:A7:107:ASP:OD1	10:A7:107:ASP:N	2.45	0.49
14:Aa:39:ALA:HB3	14:Aa:56:ALA:O	2.13	0.49
29:AQ:46:PHE:HE2	29:AQ:140:THR:HA	1.78	0.49
30:AR:52:VAL:O	30:AR:62:CYS:HA	2.13	0.49
30:AR:283:LYS:O	30:AR:286:LEU:HG	2.13	0.49
35:A3:80:TYR:HA	35:A3:83:ARG:NE	2.27	0.49
36:A5:113:ARG:HG2	36:A5:113:ARG:HH11	1.78	0.49
36:A5:233:ALA:HB2	36:A5:242:TRP:CZ2	2.47	0.49
41:AU:101:LYS:HG3	41:AU:115:LEU:HD13	1.94	0.49
42:AH:91:MET:HG3	42:AH:143:ILE:O	2.13	0.49
50:S4:19:LEU:HG	50:S4:20:LYS:H	1.77	0.49
53:SA:597:C:H2'	53:SA:598:A:H8	1.78	0.49
53:SA:1182:A:O2'	53:SA:1183:U:OP1	2.28	0.49
53:SA:1781:C:H2'	53:SA:1782:A:C8	2.47	0.49
58:SF:103:TYR:HE1	58:SF:109:PHE:CE1	2.30	0.49
58:SF:247:ASP:HB3	58:SF:250:GLU:OE1	2.12	0.49
2:AA:701:C:H2'	2:AA:702:U:O2	2.12	0.48
2:AA:888:A:H4'	2:AA:889:U:O5'	2.13	0.48
2:AA:916:U:H2'	2:AA:917:A:C8	2.48	0.48
2:AA:1711:G:H2'	2:AA:1712:G:H8	1.78	0.48
2:AA:1820:U:H2'	2:AA:1821:U:C6	2.48	0.48
5:AL:204:GLN:O	5:AL:208:ILE:HG13	2.13	0.48
14:Aa:11:ASN:HB3	14:Aa:18:ASN:HD21	1.78	0.48
34:AZ:92:GLU:OE2	34:AZ:92:GLU:N	2.45	0.48
39:AF:181:ASN:O	39:AF:185:LYS:HG2	2.13	0.48
39:AF:212:GLU:O	39:AF:231:LYS:NZ	2.46	0.48
53:SA:889:A:H2'	53:SA:890:A:H8	1.78	0.48
53:SA:948:A:H2'	53:SA:949:C:C6	2.47	0.48
53:SA:1422:U:H3'	55:SC:101:ARG:HH21	1.77	0.48
55:SC:13:SER:HA	55:SC:16:LYS:HD3	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:SE:100:THR:OG1	57:SE:102:PRO:HD2	2.13	0.48
60:SH:208:TYR:HA	60:SH:211:LEU:HG	1.93	0.48
76:SX:56:LEU:O	76:SX:60:ILE:HG12	2.13	0.48
77:SY:108:ARG:NH2	77:SY:111:ALA:HB1	2.28	0.48
2:AA:416:G:OP1	2:AA:1563:U:O2'	2.26	0.48
2:AA:1854:U:H2'	2:AA:1856:U:H5"	1.95	0.48
2:AA:1907:A:N1	2:AA:1963:U:C4	2.81	0.48
2:AA:3635:G:O6	2:AA:3650:U:O4	2.31	0.48
10:A7:80:ARG:HH22	10:A7:112:LEU:HB3	1.77	0.48
11:AN:46:VAL:HB	11:AN:55:ILE:HG22	1.94	0.48
16:Ad:27:LYS:HZ1	16:Ad:57:ARG:NH2	2.12	0.48
20:Ah:8:VAL:O	20:Ah:11:THR:OG1	2.31	0.48
23:AJ:86:GLN:O	23:AJ:252:GLN:N	2.46	0.48
23:AJ:117:LYS:HA	23:AJ:117:LYS:HD2	1.56	0.48
30:AR:100:ALA:HB2	30:AR:243:HIS:CD2	2.49	0.48
36:A5:66:SER:O	36:A5:70:LYS:HG2	2.12	0.48
38:AE:105:VAL:CG2	38:AE:144:LEU:HD11	2.43	0.48
39:AF:162:SER:HA	39:AF:220:ALA:HB2	1.94	0.48
42:AH:12:ILE:HG21	42:AH:52:LYS:HD2	1.94	0.48
53:SA:251:U:OP1	74:SV:37:TYR:OH	2.26	0.48
53:SA:579:C:OP1	69:SQ:109:ARG:NH1	2.46	0.48
53:SA:797:C:H4'	63:SK:80:ASP:OD1	2.13	0.48
61:SI:42:HIS:HB2	61:SI:81:ILE:HD11	1.95	0.48
71:SS:135:GLY:O	71:SS:137:HIS:ND1	2.40	0.48
72:ST:40:CYS:O	72:ST:44:ARG:HG2	2.13	0.48
73:SU:98:MET:HE2	73:SU:111:CYS:SG	2.53	0.48
73:SU:139:TRP:HE1	73:SU:149:LEU:HD11	1.78	0.48
2:AA:116:A:OP1	23:AJ:158:LYS:NZ	2.30	0.48
2:AA:597:A:N6	41:AU:155:ARG:HB3	2.28	0.48
2:AA:776:A:P	39:AF:121:ARG:HH21	2.36	0.48
2:AA:1435:G:C5	25:AK:59:LEU:HD21	2.48	0.48
2:AA:1908:U:H3	2:AA:1961:U:H3	1.61	0.48
2:AA:1990:A:H2'	2:AA:1991:U:C2	2.48	0.48
2:AA:2809:A:H2	2:AA:2811:A:H62	1.62	0.48
2:AA:3577:A:H3'	2:AA:3581:A:N6	2.27	0.48
9:A6:38:ARG:CZ	9:A6:38:ARG:HA	2.43	0.48
21:Ai:57:PHE:CE1	21:Ai:59:LYS:HB2	2.48	0.48
22:AI:99:VAL:HG21	22:AI:104:LEU:HD13	1.95	0.48
22:AI:140:LEU:O	22:AI:144:LYS:HG2	2.14	0.48
33:AT:115:ASP:O	33:AT:119:TYR:HB2	2.13	0.48
35:A3:66:MET:HG3	35:A3:69:ARG:HH21	1.78	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:AH:87:PHE:HB3	42:AH:153:VAL:HG21	1.95	0.48
44:Ag:10:LYS:HG2	53:SA:1928:A:C2	2.48	0.48
45:AX:40:ILE:HB	45:AX:94:VAL:O	2.13	0.48
45:AX:100:LYS:HE3	45:AX:100:LYS:HB2	1.70	0.48
53:SA:978:U:H2'	53:SA:979:C:C6	2.48	0.48
53:SA:1608:G:H2'	53:SA:1609:C:C6	2.48	0.48
53:SA:1976:G:H2'	53:SA:1977:G:C8	2.47	0.48
54:SB:92:ILE:HD11	54:SB:97:TYR:CZ	2.48	0.48
78:SZ:71:LEU:O	78:SZ:75:LYS:HG2	2.13	0.48
2:AA:745:C:H2'	2:AA:746:A:H8	1.79	0.48
2:AA:955:A:OP2	2:AA:975:G:N2	2.43	0.48
2:AA:972:G:C2	2:AA:973:A:C8	3.01	0.48
2:AA:1200:C:C6	8:A4:42:ASN:ND2	2.82	0.48
2:AA:2827:C:H2'	2:AA:2828:A:H8	1.78	0.48
2:AA:2940:A:H2'	2:AA:2941:G:H8	1.76	0.48
2:AA:3062:U:H2'	2:AA:3063:U:C6	2.48	0.48
2:AA:3295:A:H2'	2:AA:3296:G:C8	2.48	0.48
2:AA:3306:G:N3	38:AE:247:ALA:HB1	2.29	0.48
2:AA:3436:U:H2'	2:AA:3437:U:C5	2.48	0.48
3:AC:107:A:H5'	3:AC:108:A:H8	1.79	0.48
3:AC:138:U:H2'	3:AC:140:G:C8	2.48	0.48
6:A1:18:ARG:O	6:A1:21:LYS:NZ	2.28	0.48
6:A1:137:ILE:O	6:A1:141:HIS:HB3	2.13	0.48
19:AP:99:LYS:HG2	19:AP:168:ALA:HB2	1.95	0.48
24:Ac:55:LYS:O	24:Ac:59:ARG:HG2	2.13	0.48
25:AK:191:GLU:OE2	25:AK:191:GLU:N	2.29	0.48
38:AE:28:LYS:H	38:AE:271:HIS:CE1	2.31	0.48
41:AU:77:PHE:H	41:AU:80:ARG:CZ	2.25	0.48
45:AX:82:VAL:HG23	45:AX:93:THR:HB	1.96	0.48
47:S1:88:LYS:HB3	47:S1:90:TYR:CE1	2.48	0.48
53:SA:95:A:H61	53:SA:402:G:H1'	1.77	0.48
53:SA:942:U:H2'	53:SA:943:U:C6	2.48	0.48
53:SA:1247:G:H2'	53:SA:1248:A:H8	1.79	0.48
53:SA:1271:G:C6	53:SA:1715:A:N1	2.82	0.48
53:SA:1401:G:H2'	53:SA:1402:A:C8	2.48	0.48
53:SA:1955:G:C4	53:SA:1956:A:C8	3.00	0.48
53:SA:2085:G:H1'	53:SA:2086:A:H2'	1.95	0.48
54:SB:50:LYS:HG2	54:SB:52:ILE:HG13	1.95	0.48
54:SB:149:GLN:HG2	54:SB:151:LYS:H	1.77	0.48
55:SC:13:SER:O	55:SC:16:LYS:NZ	2.38	0.48
63:SK:18:GLU:HG3	63:SK:69:ILE:HG23	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:SQ:90:ASP:H	69:SQ:136:PHE:HE2	1.61	0.48
2:AA:238:G:H2'	2:AA:239:U:O4'	2.13	0.48
2:AA:600:U:H2'	2:AA:601:G:C8	2.48	0.48
2:AA:1462:C:H2'	2:AA:1463:A:C8	2.48	0.48
2:AA:1968:C:H2'	2:AA:1969:A:C2	2.48	0.48
2:AA:2470:A:C6	37:AD:125:THR:HG23	2.49	0.48
2:AA:2524:C:N4	2:AA:2816:U:HO2'	2.10	0.48
2:AA:2560:C:H42	2:AA:2565:G:N2	2.09	0.48
3:AC:148:C:H2'	3:AC:149:C:H6	1.79	0.48
4:AB:7:G:H5"	30:AR:22:ARG:CZ	2.44	0.48
6:A1:57:MET:HB3	6:A1:61:LYS:HD3	1.95	0.48
25:AK:153:LYS:O	25:AK:157:VAL:HG13	2.14	0.48
30:AR:40:ASP:HB3	43:AV:70:LYS:HA	1.95	0.48
33:AT:20:LYS:HD2	33:AT:51:LYS:HG2	1.95	0.48
33:AT:126:CYS:C	33:AT:129:ASN:H	2.21	0.48
35:A3:5:LYS:HD3	35:A3:5:LYS:HA	1.65	0.48
41:AU:180:SER:OG	41:AU:181:THR:N	2.44	0.48
53:SA:106:A:O2'	64:SL:12:ARG:NH2	2.46	0.48
53:SA:1271:G:N1	53:SA:1715:A:C2	2.73	0.48
53:SA:1306:C:H3'	53:SA:1307:U:C6	2.48	0.48
53:SA:1733:A:OP1	72:ST:32:TYR:OH	2.30	0.48
53:SA:1800:A:H4'	77:SY:64:LYS:HD2	1.95	0.48
59:SG:51:VAL:HG11	59:SG:74:ILE:HG22	1.95	0.48
74:SV:137:THR:HA	74:SV:139:ARG:HH12	1.79	0.48
2:AA:245:U:O2'	2:AA:246:U:H5'	2.12	0.48
2:AA:659:U:H2'	2:AA:660:U:C6	2.48	0.48
2:AA:679:U:H2'	2:AA:680:U:C6	2.47	0.48
2:AA:803:A:C8	28:AO:58:MET:HE2	2.46	0.48
2:AA:1784:G:C5	6:A1:73:LYS:HE3	2.48	0.48
2:AA:2210:U:OP1	33:AT:71:LYS:NZ	2.46	0.48
2:AA:2212:U:H2'	2:AA:2213:G:C8	2.48	0.48
2:AA:2576:G:H1'	2:AA:2578:C:N4	2.29	0.48
2:AA:3260:G:H21	2:AA:3417:G:H4'	1.78	0.48
2:AA:3358:U:H2'	2:AA:3359:A:H8	1.79	0.48
13:A9:53:GLN:O	13:A9:54:ARG:HG2	2.14	0.48
20:Ah:56:LYS:HZ1	20:Ah:61:LYS:H	1.60	0.48
23:AJ:112:PHE:CD2	23:AJ:113:LEU:HD22	2.49	0.48
26:AM:84:SER:O	26:AM:84:SER:OG	2.27	0.48
27:AS:177:ARG:O	28:AO:51:GLY:HA2	2.14	0.48
36:A5:70:LYS:O	36:A5:73:GLU:HG3	2.14	0.48
40:AG:80:LEU:HA	40:AG:127:PHE:HZ	1.79	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:AH:88:LEU:HB2	42:AH:184:THR:HG23	1.95	0.48
53:SA:102:A:H2'	53:SA:103:U:O4'	2.13	0.48
53:SA:478:G:H2'	53:SA:479:A:H8	1.79	0.48
53:SA:632:C:H2'	53:SA:633:U:H6	1.78	0.48
53:SA:937:G:H5"	73:SU:90:PHE:CD2	2.48	0.48
53:SA:1401:G:O3'	59:SG:111:LYS:NZ	2.43	0.48
53:SA:1826:A:H2'	53:SA:1827:U:C6	2.48	0.48
53:SA:2011:G:H2'	53:SA:2012:G:O4'	2.13	0.48
53:SA:2073:A:H2'	53:SA:2074:A:C8	2.48	0.48
71:SS:62:THR:OG1	71:SS:64:GLU:OE2	2.28	0.48
75:SW:11:ARG:O	75:SW:14:ARG:NH2	2.46	0.48
2:AA:26:A:H2'	2:AA:27:U:H6	1.78	0.48
2:AA:119:G:P	2:AA:119:G:H3'	2.53	0.48
2:AA:549:G:OP1	41:AU:137:GLU:HB3	2.14	0.48
2:AA:734:A:H2'	2:AA:735:A:H8	1.77	0.48
2:AA:1159:A:H2'	2:AA:1160:C:O4'	2.14	0.48
2:AA:1621:U:H2'	2:AA:1622:G:H8	1.79	0.48
2:AA:1705:A:N6	2:AA:1725:U:H1'	2.25	0.48
2:AA:2026:G:H2'	2:AA:2027:A:O4'	2.14	0.48
2:AA:2525:A:H2'	2:AA:2526:A:C8	2.49	0.48
2:AA:3550:U:H2'	2:AA:3551:U:C6	2.48	0.48
4:AB:50:A:H2'	4:AB:51:G:C8	2.43	0.48
11:AN:119:LYS:HD2	25:AK:198:ASN:O	2.13	0.48
14:Aa:55:LYS:HG2	14:Aa:56:ALA:H	1.79	0.48
19:AP:28:TRP:CZ2	23:AJ:80:LYS:HG2	2.48	0.48
19:AP:156:VAL:HG12	19:AP:158:LYS:HE3	1.95	0.48
20:Ah:24:LYS:HA	20:Ah:27:LYS:HB2	1.96	0.48
32:AY:116:THR:HG21	35:A3:37:LEU:HD12	1.96	0.48
35:A3:30:GLY:HA2	35:A3:33:ILE:HG12	1.96	0.48
36:A5:189:TYR:O	36:A5:190:ASN:ND2	2.33	0.48
38:AE:148:ILE:O	38:AE:152:CYS:HB2	2.14	0.48
40:AG:137:ARG:HD3	40:AG:140:ARG:HB2	1.96	0.48
53:SA:335:G:H2'	53:SA:336:G:C8	2.49	0.48
53:SA:344:C:OP1	74:SV:136:LYS:HB3	2.13	0.48
53:SA:455:C:H2'	53:SA:456:U:C6	2.48	0.48
53:SA:1178:C:H2'	53:SA:1179:C:C6	2.48	0.48
53:SA:1265:G:H2'	53:SA:1266:G:H8	1.78	0.48
53:SA:1272:A:H2'	53:SA:1273:G:H8	1.77	0.48
53:SA:1646:U:H4'	75:SW:60:ARG:CZ	2.44	0.48
53:SA:1946:C:H2'	53:SA:1947:U:C6	2.49	0.48
53:SA:2050:U:H2'	53:SA:2051:C:C6	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:SE:86:LEU:HB3	57:SE:90:GLU:HG2	1.95	0.48
62:SJ:41:GLU:OE1	62:SJ:41:GLU:N	2.47	0.48
2:AA:62:A:H2'	2:AA:63:A:C8	2.49	0.48
2:AA:62:A:HO2'	2:AA:63:A:P	2.37	0.48
2:AA:624:C:H5"	2:AA:625:A:O4'	2.13	0.48
2:AA:700:A:H5'	13:A9:92:HIS:O	2.14	0.48
2:AA:963:C:H2'	2:AA:964:G:H8	1.78	0.48
2:AA:1613:G:N2	2:AA:1616:A:OP2	2.47	0.48
2:AA:1671:U:OP1	32:AY:119:LYS:NZ	2.38	0.48
2:AA:1693:U:O2'	2:AA:2461:A:N3	2.36	0.48
2:AA:1740:A:H2'	2:AA:1741:G:H8	1.77	0.48
2:AA:1747:U:H4'	2:AA:2102:A:H4'	1.94	0.48
2:AA:2401:C:H1'	2:AA:3736:A:C8	2.32	0.48
2:AA:2585:U:H2'	2:AA:2586:C:C6	2.48	0.48
2:AA:3145:A:H5"	21:Ai:37:LEU:HB2	1.96	0.48
2:AA:3727:A:H2'	2:AA:3727:A:N3	2.28	0.48
5:AL:124:MET:O	5:AL:125:ILE:HD13	2.13	0.48
10:A7:25:SER:OG	10:A7:77:LYS:HD2	2.13	0.48
12:A8:40:CYS:O	12:A8:41:ARG:HB3	2.12	0.48
22:AI:133:ASP:OD1	22:AI:133:ASP:N	2.46	0.48
30:AR:30:TYR:HA	30:AR:33:ARG:HB3	1.96	0.48
36:A5:200:GLN:HG2	36:A5:207:VAL:HG13	1.94	0.48
39:AF:312:ARG:NH1	39:AF:313:LEU:O	2.46	0.48
42:AH:104:ILE:HG23	42:AH:111:ILE:HD13	1.94	0.48
53:SA:371:G:OP1	53:SA:807:A:N6	2.46	0.48
53:SA:392:G:P	64:SL:25:ARG:HH22	2.36	0.48
53:SA:931:A:O5'	63:SK:57:ARG:HG2	2.13	0.48
55:SC:175:TRP:CD1	55:SC:198:VAL:HG23	2.49	0.48
57:SE:28:LEU:HA	57:SE:31:ILE:HG22	1.96	0.48
62:SJ:64:ILE:HD11	62:SJ:94:LEU:HD12	1.96	0.48
62:SJ:154:MET:N	62:SJ:154:MET:SD	2.86	0.48
63:SK:101:HIS:HB3	63:SK:112:ASP:OD1	2.13	0.48
64:SL:103:VAL:HG12	64:SL:180:ARG:HE	1.78	0.48
65:SM:10:THR:HG21	65:SM:89:GLY:HA2	1.96	0.48
67:SO:22:ILE:O	67:SO:26:LEU:HG	2.14	0.48
71:SS:82:PRO:HB2	71:SS:84:TRP:CD1	2.48	0.48
73:SU:66:VAL:HG13	73:SU:67:THR:HG23	1.96	0.48
73:SU:71:ILE:O	73:SU:74:ILE:HG12	2.14	0.48
78:SZ:68:LEU:HD23	78:SZ:71:LEU:HD12	1.96	0.48
2:AA:87:U:OP2	27:AS:167:ARG:NH2	2.46	0.48
2:AA:293:U:H2'	2:AA:294:G:C8	2.49	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1064:U:H2'	2:AA:1065:U:H6	1.75	0.48
2:AA:3007:A:H2'	2:AA:3008:A:H8	1.79	0.48
2:AA:3359:A:H2'	2:AA:3360:U:C6	2.49	0.48
2:AA:3459:A:H2'	2:AA:3460:C:H6	1.79	0.48
2:AA:3727:A:N6	2:AA:3762:A:HO2'	2.12	0.48
4:AB:47:U:OP1	30:AR:94:ASN:HA	2.14	0.48
36:A5:64:TYR:O	36:A5:68:ARG:HG2	2.13	0.48
40:AG:21:ILE:HB	40:AG:67:CYS:SG	2.54	0.48
41:AU:20:GLY:HA3	41:AU:67:LEU:HA	1.95	0.48
42:AH:80:PHE:HA	42:AH:83:VAL:HG12	1.96	0.48
47:S1:64:LEU:HD11	47:S1:71:LYS:HG3	1.95	0.48
47:S1:64:LEU:O	53:SA:538:U:O2'	2.31	0.48
50:S4:16:LYS:H	50:S4:16:LYS:HD2	1.79	0.48
50:S4:77:PHE:C	50:S4:78:ARG:HE	2.22	0.48
53:SA:825:A:H2'	53:SA:826:A:C8	2.49	0.48
53:SA:1025:U:H2'	53:SA:1026:A:H8	1.79	0.48
53:SA:1839:G:O2'	53:SA:1840:A:OP2	2.31	0.48
59:SG:190:ILE:HG13	59:SG:197:LYS:HD2	1.94	0.48
60:SH:203:GLN:O	60:SH:207:GLU:HG2	2.14	0.48
66:SN:79:PHE:CD1	72:ST:52:LYS:HB3	2.49	0.48
2:AA:76:G:C4	5:AL:99:ARG:HB3	2.49	0.48
2:AA:114:A:N3	2:AA:114:A:H2'	2.29	0.48
2:AA:155:U:C2	23:AJ:151:TYR:HE1	2.31	0.48
2:AA:437:A:OP1	12:A8:13:ARG:NH1	2.45	0.48
2:AA:514:C:H2'	2:AA:515:A:C8	2.49	0.48
2:AA:637:U:OP1	22:AI:102:ARG:NH2	2.33	0.48
2:AA:2209:C:C5	33:AT:73:ARG:HB3	2.49	0.48
2:AA:2516:A:H2'	2:AA:2517:A:C8	2.49	0.48
2:AA:3320:G:H2'	2:AA:3321:U:C6	2.49	0.48
19:AP:202:ARG:HG3	19:AP:205:ARG:HA	1.96	0.48
25:AK:183:GLU:HA	25:AK:186:ASN:OD1	2.14	0.48
26:AM:19:LEU:HD21	26:AM:100:ASN:ND2	2.29	0.48
38:AE:170:MET:HE2	38:AE:170:MET:HB3	1.79	0.48
39:AF:17:ASN:OD1	39:AF:18:VAL:N	2.46	0.48
40:AG:103:GLY:HA2	40:AG:127:PHE:O	2.14	0.48
46:A0:28:TYR:CZ	46:A0:48:LEU:HD11	2.48	0.48
53:SA:613:A:H4'	53:SA:614:A:H3'	1.96	0.48
53:SA:1840:A:N6	53:SA:1865:G:O4'	2.45	0.48
53:SA:1945:C:H2'	53:SA:1946:C:C6	2.49	0.48
57:SE:48:LEU:O	57:SE:52:ILE:HG12	2.14	0.48
63:SK:102:LEU:HA	63:SK:128:PHE:HA	1.94	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:SL:98:LYS:HD3	64:SL:188:ARG:HD2	1.96	0.48
75:SW:21:TYR:HA	75:SW:24:LEU:HD12	1.96	0.48
2:AA:359:A:N1	17:Ae:38:ASN:HB2	2.28	0.47
2:AA:419:A:H5"	12:A8:26:MET:CE	2.44	0.47
2:AA:668:U:OP1	39:AF:344:ARG:NH2	2.38	0.47
2:AA:994:G:O2'	2:AA:2159:A:OP1	2.29	0.47
2:AA:2162:U:O2'	2:AA:3440:U:OP1	2.31	0.47
2:AA:2183:A:H2'	2:AA:2184:U:C6	2.49	0.47
2:AA:2402:U:C2'	2:AA:2403:G:H5'	2.43	0.47
2:AA:3445:C:H3'	2:AA:3446:A:H8	1.78	0.47
2:AA:3761:G:OP2	46:A0:68:LYS:NZ	2.43	0.47
11:AN:51:ILE:HD11	42:AH:4:ILE:CG2	2.44	0.47
11:AN:87:CYS:SG	11:AN:91:PHE:HD2	2.37	0.47
20:Ah:3:ARG:HA	20:Ah:3:ARG:HE	1.79	0.47
33:AT:24:ASP:CG	33:AT:25:PRO:HD2	2.39	0.47
35:A3:19:ASP:O	35:A3:23:GLU:HG2	2.14	0.47
36:A5:97:ARG:HB2	36:A5:117:LEU:HG	1.96	0.47
38:AE:58:ARG:C	38:AE:72:ILE:HG12	2.39	0.47
41:AU:35:ARG:HH11	43:AV:151:THR:HB	1.78	0.47
45:AX:111:ILE:HD13	45:AX:120:LEU:HD23	1.96	0.47
53:SA:15:U:H2'	53:SA:16:G:O4'	2.14	0.47
53:SA:349:C:H2'	53:SA:350:A:H8	1.79	0.47
53:SA:885:C:H2'	53:SA:886:U:C6	2.49	0.47
53:SA:1382:G:H4'	66:SN:73:THR:N	2.29	0.47
53:SA:1685:U:C2	53:SA:1686:C:C5	3.02	0.47
53:SA:2081:G:N7	68:SP:146:ARG:NH2	2.61	0.47
58:SF:138:ILE:HA	58:SF:148:PRO:HA	1.96	0.47
59:SG:102:THR:OG1	59:SG:103:ARG:N	2.47	0.47
74:SV:40:LYS:O	74:SV:42:GLY:N	2.47	0.47
78:SZ:78:LEU:HD13	78:SZ:80:PHE:CD1	2.49	0.47
2:AA:215:C:HO2'	2:AA:216:C:P	2.37	0.47
2:AA:436:G:H2'	2:AA:437:A:C8	2.49	0.47
2:AA:538:A:H2'	2:AA:539:G:C8	2.50	0.47
2:AA:584:U:H1'	2:AA:609:C:N4	2.29	0.47
2:AA:684:G:H1	39:AF:311:LYS:NZ	2.12	0.47
2:AA:1030:C:H5"	37:AD:15:ILE:HD13	1.95	0.47
2:AA:1079:U:H4'	2:AA:1082:G:N1	2.29	0.47
2:AA:2108:A:H1'	17:Ae:45:ARG:HH22	1.79	0.47
2:AA:2177:A:H2'	2:AA:2178:A:C8	2.49	0.47
2:AA:3409:U:O2	2:AA:3418:A:N6	2.47	0.47
16:Ad:27:LYS:HD3	16:Ad:27:LYS:HA	1.62	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:Ah:32:MET:HB2	20:Ah:37:TYR:OH	2.14	0.47
41:AU:88:LEU:HD12	41:AU:115:LEU:HD21	1.97	0.47
49:S3:89:ARG:HE	53:SA:1925:U:H5"	1.78	0.47
52:S6:33:ARG:CG	57:SE:37:LYS:HE2	2.43	0.47
53:SA:22:A:H4'	57:SE:16:LYS:HA	1.96	0.47
53:SA:614:A:H5'	53:SA:620:G:N2	2.29	0.47
53:SA:938:U:O4	53:SA:939:A:N6	2.47	0.47
53:SA:960:A:H2'	53:SA:961:G:H8	1.79	0.47
53:SA:1890:A:HO2'	72:ST:31:LYS:HZ3	1.59	0.47
65:SM:36:ASN:HB2	65:SM:39:LEU:HD13	1.96	0.47
70:SR:40:ILE:HD11	70:SR:116:SER:HB2	1.96	0.47
74:SV:135:SER:HB2	74:SV:138:VAL:HB	1.96	0.47
77:SY:139:ASN:OD1	77:SY:146:ARG:NH1	2.47	0.47
2:AA:709:A:H2'	2:AA:710:C:C6	2.48	0.47
2:AA:876:C:H2'	2:AA:877:G:H8	1.79	0.47
2:AA:1302:G:H2'	2:AA:1303:C:C6	2.50	0.47
2:AA:1548:A:H3'	2:AA:1549:U:H5"	1.96	0.47
2:AA:1736:A:H2'	2:AA:1737:A:C8	2.50	0.47
2:AA:1827:C:H2'	2:AA:1828:G:C8	2.49	0.47
2:AA:2562:U:H2'	2:AA:2563:A:H8	1.80	0.47
2:AA:3281:G:N3	2:AA:3311:G:H1'	2.29	0.47
2:AA:3469:C:H3'	2:AA:3470:G:C8	2.50	0.47
4:AB:38:U:O2	4:AB:41:G:H5'	2.13	0.47
4:AB:66:G:H5"	30:AR:14:LYS:HG3	1.95	0.47
4:AB:71:G:C4	4:AB:72:C:N4	2.82	0.47
6:A1:20:GLY:HA3	14:Aa:89:ILE:HG21	1.97	0.47
16:Ad:28:LYS:NZ	16:Ad:30:SER:HA	2.29	0.47
26:AM:97:PHE:CD1	46:A0:29:ILE:HB	2.49	0.47
45:AX:125:LYS:HZ1	45:AX:133:LYS:HB2	1.80	0.47
53:SA:388:C:H2'	53:SA:389:G:C8	2.49	0.47
53:SA:553:U:H2'	53:SA:554:U:C6	2.49	0.47
53:SA:558:G:H2'	53:SA:559:G:C8	2.49	0.47
53:SA:933:A:OP1	63:SK:28:ARG:NH2	2.47	0.47
53:SA:1118:U:H2'	53:SA:1119:G:H8	1.78	0.47
53:SA:1746:A:H2'	53:SA:1747:U:H6	1.79	0.47
54:SB:90:HIS:CD2	54:SB:92:ILE:HG23	2.50	0.47
54:SB:134:HIS:HB3	54:SB:218:LEU:HB2	1.96	0.47
58:SF:63:MET:HA	58:SF:63:MET:HE3	1.95	0.47
59:SG:154:GLY:O	59:SG:164:HIS:N	2.46	0.47
73:SU:118:THR:O	73:SU:122:ILE:HG12	2.14	0.47
1:S7:14:A:C2	1:S7:15:G:H1'	2.48	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S7:22:G:N7	1:S7:46:G:N2	2.44	0.47
1:S7:52:G:H2'	1:S7:53:G:C8	2.49	0.47
2:AA:458:A:O2'	2:AA:459:G:H8	1.98	0.47
2:AA:591:G:H1	2:AA:600:U:H3	1.61	0.47
2:AA:660:U:H2'	2:AA:661:G:C8	2.49	0.47
2:AA:912:U:H2'	2:AA:913:U:C6	2.50	0.47
2:AA:1799:A:O2'	2:AA:1800:U:OP1	2.27	0.47
2:AA:3077:A:H4'	8:A4:37:PRO:HG2	1.97	0.47
2:AA:3633:U:H2'	2:AA:3634:C:C6	2.49	0.47
2:AA:3756:C:H2'	2:AA:3757:U:C6	2.50	0.47
3:AC:3:G:H2'	3:AC:4:C:C6	2.49	0.47
3:AC:32:C:H2'	3:AC:33:C:H6	1.79	0.47
3:AC:45:A:O2'	24:Ac:62:THR:OG1	2.18	0.47
5:AL:198:ARG:O	5:AL:202:ARG:HG2	2.14	0.47
6:A1:113:LYS:HA	6:A1:116:LYS:HE2	1.96	0.47
7:A2:19:PHE:HB3	7:A2:33:CYS:H	1.78	0.47
11:AN:44:PHE:N	11:AN:57:ASP:O	2.47	0.47
15:Ab:40:ARG:O	15:Ab:44:ILE:HG12	2.14	0.47
18:Af:20:CYS:N	18:Af:24:TYR:HA	2.28	0.47
26:AM:82:ARG:NH2	26:AM:119:PRO:HB2	2.23	0.47
38:AE:370:SER:O	38:AE:374:VAL:HG23	2.13	0.47
42:AH:110:ARG:NH2	42:AH:126:LYS:HB2	2.29	0.47
51:S5:61:ARG:HE	61:SI:195:ARG:NH2	2.13	0.47
53:SA:61:A:OP2	53:SA:460:G:N2	2.40	0.47
53:SA:152:G:H2'	53:SA:153:A:C4	2.50	0.47
53:SA:404:G:H5"	64:SL:49:ARG:HG2	1.96	0.47
53:SA:866:A:C8	63:SK:108:TYR:HA	2.49	0.47
53:SA:1734:G:H3'	53:SA:1811:A:H61	1.79	0.47
54:SB:141:ALA:HA	54:SB:210:VAL:HG22	1.96	0.47
54:SB:167:LYS:HD2	54:SB:200:GLN:OE1	2.14	0.47
61:SI:113:ARG:HD2	61:SI:137:ARG:HD3	1.96	0.47
64:SL:43:VAL:HG21	64:SL:55:TYR:CZ	2.50	0.47
68:SP:96:LYS:HA	68:SP:130:GLU:O	2.14	0.47
2:AA:109:A:H4'	2:AA:110:G:OP1	2.13	0.47
2:AA:347:C:OP1	2:AA:1529:G:O2'	2.30	0.47
2:AA:607:A:N3	2:AA:608:A:H5'	2.30	0.47
2:AA:664:U:H2'	2:AA:665:U:C6	2.49	0.47
2:AA:1634:G:H2'	2:AA:1635:G:H8	1.79	0.47
2:AA:2082:C:C2	2:AA:2083:U:C5	3.03	0.47
2:AA:3731:A:O2'	2:AA:3733:G:H5"	2.14	0.47
4:AB:34:C:H2'	4:AB:35:C:C5	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A1:10:VAL:HG13	6:A1:24:VAL:HG12	1.96	0.47
6:A1:114:LEU:HD23	6:A1:117:ILE:HD12	1.96	0.47
9:A6:34:LEU:HD12	9:A6:35:LYS:N	2.29	0.47
9:A6:48:SER:O	9:A6:56:ARG:NH1	2.48	0.47
14:Aa:95:PHE:HD1	14:Aa:95:PHE:O	1.97	0.47
15:Ab:106:ARG:HG2	15:Ab:106:ARG:HH11	1.80	0.47
22:AI:145:LYS:HA	22:AI:148:LYS:HE2	1.97	0.47
33:AT:38:PHE:O	33:AT:42:LYS:HG2	2.15	0.47
39:AF:230:CYS:SG	39:AF:235:LEU:HA	2.54	0.47
39:AF:339:ALA:O	39:AF:343:MET:HG3	2.14	0.47
53:SA:118:U:H2'	53:SA:119:C:C6	2.50	0.47
53:SA:390:G:H2'	53:SA:391:A:H8	1.79	0.47
53:SA:951:U:H2'	53:SA:952:U:C6	2.50	0.47
53:SA:1438:A:H2'	53:SA:1439:A:O4'	2.14	0.47
53:SA:1455:C:H1'	53:SA:1456:G:OP1	2.14	0.47
53:SA:1679:G:O2'	53:SA:1680:U:O4'	2.23	0.47
53:SA:1811:A:O2'	53:SA:1814:C:N4	2.48	0.47
53:SA:1866:A:H2'	53:SA:1867:A:C8	2.49	0.47
74:SV:87:ILE:HG12	74:SV:114:CYS:HB2	1.96	0.47
2:AA:217:A:H4'	2:AA:219:A:N7	2.29	0.47
2:AA:1560:U:H2'	2:AA:1561:C:C6	2.50	0.47
2:AA:2213:G:H2'	2:AA:2214:A:C8	2.50	0.47
2:AA:2824:A:N1	2:AA:2933:C:N4	2.57	0.47
2:AA:3412:G:N2	2:AA:3414:G:H3'	2.20	0.47
2:AA:3494:C:H4'	42:AH:154:SER:HB3	1.96	0.47
3:AC:5:A:H61	31:AW:38:ARG:HD3	1.78	0.47
6:A1:91:PHE:HB2	6:A1:121:LYS:NZ	2.29	0.47
9:A6:80:LEU:H	9:A6:90:ILE:HG21	1.79	0.47
26:AM:38:ILE:HG12	26:AM:60:VAL:HG11	1.96	0.47
31:AW:6:LYS:HD2	31:AW:116:HIS:HB2	1.95	0.47
31:AW:117:VAL:HA	31:AW:148:ILE:HG22	1.97	0.47
38:AE:36:ASP:O	38:AE:39:LYS:HG2	2.14	0.47
38:AE:318:PHE:O	38:AE:319:LEU:HD22	2.14	0.47
38:AE:331:ARG:HG3	38:AE:332:PRO:HD2	1.97	0.47
43:AV:54:PRO:HD3	43:AV:96:HIS:CG	2.49	0.47
49:S3:23:CYS:SG	49:S3:24:SER:N	2.88	0.47
53:SA:394:G:O6	53:SA:416:A:N6	2.48	0.47
53:SA:538:U:C2	53:SA:539:U:C5	3.02	0.47
53:SA:635:G:OP1	73:SU:120:SER:OG	2.31	0.47
53:SA:749:U:H2'	53:SA:750:U:C6	2.49	0.47
53:SA:876:U:O2	73:SU:76:ARG:NH2	2.38	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1304:A:H61	53:SA:1850:G:H1'	1.79	0.47
53:SA:1717:A:N6	53:SA:1835:U:H3	1.94	0.47
55:SC:154:GLU:OE1	55:SC:154:GLU:N	2.41	0.47
59:SG:125:LEU:HD11	59:SG:223:LEU:HB3	1.96	0.47
60:SH:37:PRO:HA	60:SH:49:VAL:HA	1.96	0.47
60:SH:39:ASP:OD1	60:SH:39:ASP:N	2.47	0.47
67:SO:36:LYS:HE3	67:SO:70:TYR:HE1	1.79	0.47
68:SP:41:PHE:HA	68:SP:57:THR:HA	1.97	0.47
69:SQ:44:ARG:NH1	69:SQ:79:ASN:HD21	2.13	0.47
1:S7:62:C:H2'	1:S7:63:G:H5'	1.97	0.47
2:AA:38:U:H4'	28:AO:32:ARG:HD2	1.97	0.47
2:AA:193:C:H2'	2:AA:194:A:O4'	2.15	0.47
2:AA:202:C:H2'	2:AA:203:A:C8	2.49	0.47
2:AA:514:C:H2'	2:AA:515:A:H8	1.80	0.47
2:AA:617:A:H2'	2:AA:618:U:C6	2.49	0.47
2:AA:888:A:H2	2:AA:3138:A:H5'	1.79	0.47
2:AA:1107:U:H1'	36:A5:114:LEU:HD21	1.97	0.47
2:AA:1245:G:O6	2:AA:1270:G:N2	2.48	0.47
2:AA:1707:A:N7	2:AA:1724:G:N1	2.62	0.47
2:AA:1899:U:C5'	14:Aa:21:ARG:HH12	2.27	0.47
2:AA:2443:G:O2'	2:AA:2482:U:OP1	2.29	0.47
2:AA:2445:A:H2'	2:AA:2446:U:H6	1.80	0.47
2:AA:2659:C:H2'	2:AA:2660:A:H8	1.80	0.47
2:AA:2816:U:O2'	2:AA:2817:U:OP1	2.29	0.47
2:AA:3069:A:H4'	27:AS:185:TYR:CG	2.49	0.47
2:AA:3128:A:O2'	2:AA:3129:U:O4'	2.31	0.47
2:AA:3128:A:H2'	2:AA:3129:U:C6	2.49	0.47
2:AA:3201:C:OP1	2:AA:3257:G:N2	2.47	0.47
2:AA:3291:U:H2'	2:AA:3292:A:H2'	1.97	0.47
2:AA:3683:G:H2'	2:AA:3684:A:H4'	1.95	0.47
4:AB:24:C:H42	4:AB:118:A:H1'	1.79	0.47
4:AB:35:C:C4	4:AB:36:C:H1'	2.50	0.47
4:AB:86:G:H2'	4:AB:87:G:O4'	2.15	0.47
9:A6:52:PRO:C	9:A6:54:ILE:H	2.22	0.47
11:AN:77:LEU:HD11	11:AN:105:PHE:CG	2.49	0.47
19:AP:44:ARG:NH1	19:AP:121:TRP:HB3	2.30	0.47
20:Ah:29:ILE:O	20:Ah:29:ILE:HG12	2.14	0.47
20:Ah:56:LYS:NZ	20:Ah:61:LYS:H	2.12	0.47
22:AI:75:THR:OG1	22:AI:86:VAL:HG12	2.14	0.47
24:Ac:74:ARG:O	24:Ac:75:ARG:HG3	2.14	0.47
36:A5:111:VAL:HG21	36:A5:138:ILE:HG12	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AG:21:ILE:O	40:AG:67:CYS:N	2.41	0.47
42:AH:64:ASP:OD1	42:AH:65:SER:N	2.48	0.47
47:S1:65:PHE:HE1	53:SA:538:U:H4'	1.80	0.47
47:S1:102:THR:HG22	47:S1:104:ALA:H	1.80	0.47
47:S1:108:ALA:O	47:S1:112:LEU:HG	2.14	0.47
49:S3:4:LYS:HD3	49:S3:5:ARG:NH2	2.30	0.47
49:S3:12:LYS:HG3	49:S3:15:ARG:HB2	1.96	0.47
53:SA:121:A:H1'	53:SA:403:A:C5	2.49	0.47
53:SA:248:G:H4'	53:SA:249:A:OP1	2.14	0.47
53:SA:439:C:H2'	53:SA:440:G:C8	2.50	0.47
53:SA:746:U:H2'	53:SA:747:U:C6	2.50	0.47
53:SA:867:A:C5	63:SK:107:PRO:HA	2.49	0.47
53:SA:889:A:H2'	53:SA:890:A:C8	2.50	0.47
53:SA:914:U:H2'	53:SA:915:G:H8	1.79	0.47
53:SA:1059:U:H2'	53:SA:1060:G:O4'	2.13	0.47
53:SA:1634:A:H3'	75:SW:45:ARG:NH2	2.30	0.47
53:SA:1679:G:H2'	53:SA:1680:U:C6	2.49	0.47
56:SD:123:VAL:HA	56:SD:126:HIS:ND1	2.30	0.47
56:SD:215:VAL:HB	75:SW:15:GLN:HG3	1.97	0.47
59:SG:196:THR:HG23	59:SG:226:ILE:HG12	1.97	0.47
63:SK:55:ASP:HB3	63:SK:59:GLY:HA2	1.95	0.47
68:SP:50:ARG:HD2	68:SP:50:ARG:HA	1.71	0.47
69:SQ:44:ARG:HH12	69:SQ:79:ASN:ND2	2.12	0.47
71:SS:36:LYS:HD3	71:SS:101:ILE:HG13	1.97	0.47
71:SS:41:ARG:HH12	77:SY:61:LYS:HB3	1.80	0.47
75:SW:6:THR:OG1	75:SW:7:LYS:N	2.48	0.47
76:SX:34:ILE:HG22	76:SX:45:PHE:HD2	1.79	0.47
2:AA:385:G:OP1	34:AZ:88:LYS:HD2	2.15	0.47
2:AA:542:A:O2'	2:AA:608:A:N6	2.48	0.47
2:AA:604:G:H2'	2:AA:605:A:C8	2.49	0.47
2:AA:1089:U:H2'	2:AA:1090:G:C8	2.50	0.47
2:AA:1156:U:H2'	2:AA:1157:U:C6	2.49	0.47
2:AA:1646:C:H2'	2:AA:1647:U:H6	1.78	0.47
2:AA:2029:G:O2'	2:AA:2888:U:O4	2.31	0.47
3:AC:78:U:OP2	34:AZ:75:LYS:NZ	2.48	0.47
3:AC:97:C:H3'	24:Ac:75:ARG:NH1	2.29	0.47
3:AC:124:U:H2'	3:AC:125:U:H6	1.80	0.47
9:A6:44:LEU:O	9:A6:94:VAL:HA	2.15	0.47
33:AT:96:LYS:O	33:AT:100:VAL:HG23	2.15	0.47
36:A5:93:VAL:HG21	36:A5:145:TYR:HD2	1.80	0.47
39:AF:67:TRP:CZ3	39:AF:71:ARG:HG3	2.50	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:AG:94:LYS:O	40:AG:94:LYS:HG2	2.14	0.47
53:SA:1270:G:N1	53:SA:1872:G:OP2	2.38	0.47
53:SA:1609:C:H2'	53:SA:1610:U:C6	2.50	0.47
71:SS:134:ARG:NH1	71:SS:134:ARG:HA	2.30	0.47
75:SW:75:GLU:O	75:SW:79:GLU:HG2	2.15	0.47
2:AA:501:U:O2'	2:AA:502:U:OP1	2.33	0.47
2:AA:741:C:H2'	2:AA:742:U:C6	2.50	0.47
2:AA:1805:U:H2'	2:AA:1806:C:C6	2.50	0.47
2:AA:2660:A:H2'	2:AA:2661:A:C8	2.50	0.47
2:AA:3212:G:N2	29:AQ:157:TYR:CZ	2.83	0.47
2:AA:3448:U:O2	2:AA:3465:G:O6	2.32	0.47
4:AB:9:U:O2	4:AB:110:G:C6	2.68	0.47
4:AB:44:C:H2'	4:AB:45:U:O4'	2.15	0.47
6:A1:63:VAL:HG22	6:A1:119:ARG:HD3	1.97	0.47
9:A6:34:LEU:O	9:A6:38:ARG:HG2	2.15	0.47
10:A7:60:ASP:OD2	10:A7:61:VAL:N	2.48	0.47
24:Ac:47:LYS:HD3	24:Ac:49:ARG:HG2	1.97	0.47
30:AR:22:ARG:HG3	30:AR:25:GLU:OE2	2.15	0.47
34:AZ:30:MET:HE1	34:AZ:77:TYR:HD1	1.80	0.47
39:AF:347:ILE:O	39:AF:351:SER:OG	2.30	0.47
53:SA:312:U:H2'	53:SA:313:G:C8	2.50	0.47
53:SA:810:A:N6	53:SA:854:A:H61	2.13	0.47
53:SA:1016:U:H2'	53:SA:1017:G:C8	2.50	0.47
53:SA:1267:C:H5'	61:SI:69:MET:HE3	1.95	0.47
53:SA:1860:A:H4'	77:SY:64:LYS:HG2	1.97	0.47
58:SF:113:ARG:NE	58:SF:113:ARG:HA	2.30	0.47
61:SI:50:LYS:H	61:SI:53:ARG:HG2	1.80	0.47
62:SJ:134:SER:HA	62:SJ:158:LYS:HG3	1.96	0.47
65:SM:129:LYS:HG2	65:SM:136:ARG:NH1	2.30	0.47
1:S7:61:C:H2'	1:S7:62:C:C6	2.50	0.47
2:AA:171:C:C2'	2:AA:172:C:H5'	2.45	0.47
2:AA:607:A:O2'	2:AA:608:A:H2'	2.15	0.47
2:AA:859:C:O2'	2:AA:860:A:OP1	2.31	0.47
2:AA:1177:A:H5"	2:AA:2976:A:H61	1.80	0.47
2:AA:1815:A:H2'	2:AA:1816:G:H8	1.79	0.47
2:AA:1890:G:H2'	2:AA:1891:A:C8	2.50	0.47
2:AA:1901:A:H2'	2:AA:1966:A:H8	1.79	0.47
2:AA:2473:A:H2'	2:AA:2474:C:C6	2.49	0.47
2:AA:2645:A:H5"	31:AW:83:TRP:O	2.15	0.47
2:AA:3008:A:H2'	2:AA:3009:G:H8	1.80	0.47
3:AC:32:C:H2'	3:AC:33:C:C6	2.50	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:AF:118:LYS:HE3	39:AF:118:LYS:HB2	1.62	0.47
39:AF:341:LEU:HA	39:AF:344:ARG:HB2	1.95	0.47
48:S2:40:VAL:HG23	48:S2:74:VAL:HB	1.97	0.47
52:S6:16:ASN:O	52:S6:20:LYS:NZ	2.44	0.47
53:SA:1008:A:H2'	53:SA:1009:A:H8	1.80	0.47
53:SA:1226:A:C8	53:SA:1227:G:H1'	2.50	0.47
53:SA:1306:C:H2'	53:SA:1307:U:O4'	2.15	0.47
53:SA:1429:C:H5'	56:SD:157:TYR:O	2.14	0.47
68:SP:60:MET:HE2	68:SP:60:MET:HA	1.97	0.47
74:SV:111:PRO:HB2	74:SV:138:VAL:HG22	1.96	0.47
75:SW:24:LEU:HD23	75:SW:34:ILE:HG21	1.96	0.47
75:SW:33:LYS:O	75:SW:37:GLU:HG3	2.15	0.47
2:AA:203:A:H2	2:AA:207:A:C2	2.33	0.46
2:AA:222:G:H21	34:AZ:14:MET:HE1	1.79	0.46
2:AA:821:U:O2	2:AA:821:U:H2'	2.13	0.46
2:AA:1968:C:O4'	16:Ad:2:PRO:HB3	2.15	0.46
2:AA:2575:U:OP1	2:AA:3332:G:O2'	2.25	0.46
2:AA:3007:A:H2'	2:AA:3008:A:C8	2.50	0.46
2:AA:3390:U:H4'	38:AE:99:LEU:O	2.15	0.46
2:AA:3752:C:H2'	2:AA:3753:G:C8	2.50	0.46
9:A6:13:ILE:HA	9:A6:16:LYS:HE3	1.97	0.46
10:A7:21:THR:HG22	10:A7:80:ARG:HE	1.79	0.46
20:Ah:54:ILE:HG12	37:AD:48:ILE:HG22	1.97	0.46
42:AH:27:VAL:HB	42:AH:34:LEU:HB2	1.98	0.46
47:S1:110:LYS:NZ	47:S1:111:GLU:OE2	2.46	0.46
49:S3:48:SER:HA	49:S3:51:ARG:HH21	1.80	0.46
50:S4:18:LYS:HB2	53:SA:1172:U:O3'	2.15	0.46
53:SA:109:C:H2'	53:SA:110:A:H8	1.79	0.46
53:SA:156:A:H3'	53:SA:157:G:H5"	1.97	0.46
53:SA:247:G:H2'	53:SA:248:G:H3'	1.97	0.46
53:SA:293:U:H2'	53:SA:294:G:C8	2.50	0.46
53:SA:331:G:H2'	53:SA:332:U:C6	2.50	0.46
53:SA:1248:A:H5'	59:SG:103:ARG:CD	2.40	0.46
53:SA:1906:U:OP2	65:SM:15:LYS:NZ	2.43	0.46
53:SA:2077:U:OP1	68:SP:150:ARG:NH1	2.48	0.46
64:SL:207:PHE:HA	64:SL:210:ARG:NE	2.30	0.46
68:SP:39:ASP:OD1	68:SP:39:ASP:N	2.47	0.46
68:SP:121:ARG:HH11	68:SP:121:ARG:HG2	1.81	0.46
72:ST:16:SER:OG	72:ST:17:ARG:NH1	2.48	0.46
75:SW:61:ILE:O	75:SW:62:GLN:HG3	2.15	0.46
77:SY:162:ILE:HA	77:SY:165:LYS:HZ2	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:509:A:H2'	2:AA:510:A:H8	1.80	0.46
2:AA:537:A:H2'	2:AA:538:A:O4'	2.15	0.46
2:AA:1534:U:OP2	39:AF:182:ARG:NH1	2.42	0.46
2:AA:1577:A:OP2	28:AO:2:ALA:N	2.48	0.46
2:AA:1655:U:H2'	2:AA:1659:A:H61	1.80	0.46
2:AA:2669:G:H2'	2:AA:2670:G:C8	2.51	0.46
2:AA:3387:U:H2'	2:AA:3388:U:C6	2.50	0.46
2:AA:3426:G:N3	2:AA:3426:G:H2'	2.30	0.46
3:AC:145:A:HO2'	3:AC:146:C:P	2.37	0.46
6:A1:14:LEU:HB3	14:Aa:86:ARG:HG3	1.98	0.46
9:A6:13:ILE:HA	9:A6:16:LYS:HG2	1.97	0.46
9:A6:76:ASP:OD1	9:A6:76:ASP:N	2.38	0.46
14:Aa:9:ARG:CZ	14:Aa:34:VAL:HB	2.45	0.46
19:AP:120:TYR:OH	19:AP:132:GLU:OE2	2.28	0.46
29:AQ:50:VAL:HG23	29:AQ:167:VAL:HG12	1.96	0.46
38:AE:53:MET:HA	38:AE:77:THR:HA	1.97	0.46
38:AE:287:ASP:OD2	38:AE:290:SER:HB3	2.16	0.46
41:AU:160:ALA:C	41:AU:162:HIS:N	2.73	0.46
53:SA:88:A:H2'	53:SA:89:C:H6	1.80	0.46
53:SA:250:A:OP1	74:SV:39:LYS:NZ	2.38	0.46
53:SA:483:A:H2'	53:SA:484:A:C8	2.48	0.46
53:SA:881:C:H2'	53:SA:882:A:C8	2.50	0.46
53:SA:954:G:H2'	53:SA:955:U:C6	2.50	0.46
53:SA:981:U:O2	53:SA:983:G:N1	2.48	0.46
53:SA:1445:U:O2'	66:SN:54:ARG:NH2	2.49	0.46
53:SA:1662:A:H2'	53:SA:1663:A:C8	2.50	0.46
53:SA:1698:U:H2'	53:SA:1699:A:C8	2.50	0.46
53:SA:1865:G:H4'	53:SA:1866:A:O5'	2.16	0.46
56:SD:106:LEU:HD23	56:SD:123:VAL:HG21	1.96	0.46
56:SD:157:TYR:HE1	56:SD:159:ILE:HB	1.80	0.46
58:SF:214:ARG:HG3	58:SF:216:LYS:HG3	1.97	0.46
59:SG:41:TRP:CH2	59:SG:43:PRO:HA	2.51	0.46
60:SH:78:LYS:HG2	60:SH:79:LYS:H	1.80	0.46
65:SM:132:GLY:HA2	65:SM:139:TYR:CD2	2.50	0.46
70:SR:58:PHE:C	70:SR:58:PHE:CD2	2.92	0.46
77:SY:156:ASN:HB3	77:SY:160:ARG:HH12	1.80	0.46
2:AA:906:G:H2'	2:AA:907:C:C6	2.50	0.46
2:AA:1109:U:H2'	2:AA:1110:U:C6	2.51	0.46
2:AA:1467:C:H2'	2:AA:1468:A:C8	2.51	0.46
2:AA:2640:U:H2'	2:AA:2641:A:O4'	2.16	0.46
2:AA:3414:G:HO2'	2:AA:3415:A:P	2.39	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AB:71:G:C5	4:AB:72:C:N4	2.83	0.46
5:AL:30:LYS:HB3	5:AL:30:LYS:HE2	1.72	0.46
6:A1:4:LEU:O	6:A1:9:LYS:NZ	2.39	0.46
22:AI:73:ILE:HD13	22:AI:111:ILE:HG21	1.95	0.46
30:AR:273:LEU:HB3	30:AR:278:ARG:HD3	1.98	0.46
33:AT:26:ASN:C	33:AT:27:GLU:HG3	2.40	0.46
40:AG:96:PHE:HD2	40:AG:102:PHE:HZ	1.64	0.46
43:AV:107:LEU:O	43:AV:111:ILE:HG13	2.14	0.46
53:SA:5:U:OP2	59:SG:216:THR:OG1	2.26	0.46
53:SA:428:G:H2'	53:SA:429:G:C8	2.50	0.46
53:SA:595:U:H2'	53:SA:596:C:C6	2.50	0.46
53:SA:825:A:H2'	53:SA:826:A:H8	1.80	0.46
53:SA:1029:U:O2'	73:SU:48:SER:O	2.28	0.46
53:SA:1170:C:H2'	53:SA:1171:U:C6	2.50	0.46
53:SA:1698:U:H2'	53:SA:1699:A:H8	1.80	0.46
55:SC:75:VAL:HG12	55:SC:86:VAL:HG23	1.96	0.46
56:SD:163:GLU:O	56:SD:167:ARG:HG3	2.15	0.46
58:SF:206:ASP:O	58:SF:222:LEU:N	2.48	0.46
69:SQ:69:ARG:HH21	69:SQ:116:ASP:CG	2.24	0.46
76:SX:59:LYS:O	76:SX:63:SER:OG	2.32	0.46
2:AA:116:A:H5"	23:AJ:158:LYS:NZ	2.29	0.46
2:AA:179:G:HO2'	2:AA:180:C:P	2.38	0.46
2:AA:393:G:H8	2:AA:393:G:OP1	1.99	0.46
2:AA:868:U:H2'	2:AA:869:A:C8	2.51	0.46
2:AA:1866:C:H2'	2:AA:1867:U:C6	2.51	0.46
2:AA:1873:U:O2'	33:AT:117:HIS:NE2	2.42	0.46
2:AA:3199:C:H2'	2:AA:3200:G:O4'	2.16	0.46
29:AQ:174:THR:OG1	29:AQ:175:PRO:HD2	2.16	0.46
36:A5:68:ARG:O	36:A5:72:ILE:HG12	2.16	0.46
38:AE:211:MET:HE1	38:AE:342:GLN:HB2	1.98	0.46
43:AV:76:LEU:HD12	43:AV:76:LEU:HA	1.85	0.46
47:S1:107:ARG:HA	47:S1:107:ARG:HH11	1.80	0.46
53:SA:534:A:H2'	53:SA:535:A:C8	2.50	0.46
53:SA:1022:A:H2'	53:SA:1023:A:C8	2.49	0.46
53:SA:1034:U:H6	73:SU:128:TYR:CZ	2.33	0.46
53:SA:1045:G:N1	53:SA:1092:A:O2'	2.40	0.46
62:SJ:172:PHE:HB3	62:SJ:186:PHE:CE2	2.50	0.46
69:SQ:76:LEU:CD1	69:SQ:79:ASN:H	2.28	0.46
71:SS:56:LYS:HD3	71:SS:60:GLU:HG3	1.96	0.46
76:SX:75:PRO:HA	76:SX:93:ILE:HG23	1.98	0.46
2:AA:10:G:N2	2:AA:1706:A:H61	2.06	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:548:U:O2'	41:AU:137:GLU:OE2	2.27	0.46
2:AA:1444:A:O4'	25:AK:129:LYS:NZ	2.46	0.46
2:AA:2001:U:H2'	2:AA:2002:G:O4'	2.15	0.46
2:AA:2188:U:O2'	2:AA:2200:A:N7	2.43	0.46
2:AA:2739:U:H2'	2:AA:2740:A:H8	1.80	0.46
3:AC:125:U:H2'	3:AC:126:C:H6	1.80	0.46
28:AO:102:VAL:HB	28:AO:107:TYR:HB2	1.97	0.46
29:AQ:186:LYS:HE3	29:AQ:186:LYS:HB2	1.75	0.46
30:AR:216:ASP:OD2	30:AR:217:LYS:NZ	2.35	0.46
31:AW:119:VAL:HG13	31:AW:146:ILE:HG22	1.97	0.46
47:S1:8:ARG:HB3	47:S1:26:GLU:HB2	1.98	0.46
53:SA:541:C:H2'	53:SA:542:C:H6	1.81	0.46
53:SA:1410:G:H2'	53:SA:1411:G:C8	2.46	0.46
58:SF:191:ARG:HB2	58:SF:218:PHE:CZ	2.50	0.46
61:SI:11:PHE:HE1	61:SI:41:PRO:HD3	1.80	0.46
61:SI:59:ILE:O	61:SI:63:LEU:HD13	2.16	0.46
66:SN:39:MET:O	66:SN:43:LYS:HG3	2.16	0.46
71:SS:134:ARG:HA	71:SS:134:ARG:HH11	1.81	0.46
78:SZ:70:ARG:HH22	78:SZ:82:ASN:HB3	1.81	0.46
2:AA:1216:C:O2'	2:AA:1217:U:H5'	2.15	0.46
2:AA:1831:G:H1'	2:AA:1994:U:O2'	2.15	0.46
2:AA:1999:A:O2'	2:AA:2000:G:OP1	2.21	0.46
2:AA:3035:A:N6	2:AA:3097:A:N7	2.63	0.46
2:AA:3486:G:C2	2:AA:3487:A:C2	3.04	0.46
5:AL:127:LEU:HB2	35:A3:116:ARG:CZ	2.45	0.46
25:AK:33:VAL:HG22	25:AK:102:LYS:HB2	1.97	0.46
30:AR:243:HIS:HA	30:AR:246:ILE:HG22	1.97	0.46
32:AY:186:LYS:HG3	32:AY:187:ILE:HD13	1.97	0.46
36:A5:207:VAL:HG22	36:A5:211:VAL:HG23	1.97	0.46
38:AE:16:PHE:HB3	38:AE:272:ARG:HH22	1.81	0.46
41:AU:77:PHE:H	41:AU:80:ARG:NH2	2.13	0.46
41:AU:77:PHE:HB2	41:AU:80:ARG:HG3	1.98	0.46
41:AU:104:ARG:HD3	41:AU:151:LEU:HD22	1.98	0.46
41:AU:133:ILE:HG22	43:AV:154:PRO:HG2	1.97	0.46
43:AV:150:ILE:HG22	43:AV:151:THR:H	1.80	0.46
53:SA:26:A:O2'	53:SA:27:U:O5'	2.27	0.46
53:SA:90:U:H4'	53:SA:169:A:O4'	2.15	0.46
53:SA:460:G:H5'	58:SF:62:LYS:NZ	2.30	0.46
53:SA:884:G:N2	53:SA:918:U:H3	2.13	0.46
53:SA:937:G:H2'	53:SA:938:U:C6	2.50	0.46
53:SA:1112:G:C6	53:SA:1177:A:C6	3.04	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1847:A:OP2	76:SX:42:ARG:NH2	2.49	0.46
54:SB:61:LEU:HD22	54:SB:64:ARG:NH2	2.30	0.46
55:SC:183:TYR:HE2	55:SC:190:ARG:HD2	1.81	0.46
65:SM:70:VAL:HG23	65:SM:78:GLN:NE2	2.31	0.46
69:SQ:84:THR:HB	69:SQ:120:VAL:HG22	1.98	0.46
69:SQ:109:ARG:HB3	69:SQ:112:HIS:HB3	1.97	0.46
73:SU:110:ASP:O	73:SU:114:ARG:HG2	2.15	0.46
1:S7:25:C:H2'	1:S7:26:G:C8	2.50	0.46
2:AA:307:G:C2'	2:AA:308:U:H5'	2.46	0.46
2:AA:600:U:H5"	41:AU:154:ARG:NH1	2.31	0.46
2:AA:1858:U:H3'	2:AA:1859:A:H8	1.79	0.46
2:AA:2712:A:H2'	2:AA:2713:C:C6	2.50	0.46
2:AA:3050:U:O2'	2:AA:3083:U:OP1	2.30	0.46
2:AA:3107:U:H2'	2:AA:3108:A:C8	2.46	0.46
5:AL:26:SER:HA	5:AL:29:ILE:HD12	1.97	0.46
11:AN:43:CYS:HA	11:AN:58:GLY:N	2.31	0.46
11:AN:146:LYS:NZ	25:AK:176:GLU:OE2	2.49	0.46
22:AI:98:ARG:HH22	22:AI:137:ILE:HD13	1.81	0.46
23:AJ:254:MET:HB2	23:AJ:259:MET:HE3	1.97	0.46
26:AM:131:LEU:HD23	26:AM:131:LEU:O	2.16	0.46
29:AQ:55:TYR:N	29:AQ:56:GLU:OE1	2.48	0.46
30:AR:34:LYS:HD2	43:AV:31:TYR:CE2	2.50	0.46
39:AF:183:LEU:HD11	39:AF:206:GLY:HA3	1.97	0.46
43:AV:151:THR:OG1	43:AV:152:ILE:N	2.48	0.46
49:S3:82:ARG:HA	49:S3:82:ARG:HD2	1.73	0.46
52:S6:30:LEU:H	52:S6:30:LEU:HD23	1.81	0.46
53:SA:339:A:OP2	64:SL:54:LYS:NZ	2.38	0.46
53:SA:430:C:H4'	53:SA:432:G:OP1	2.16	0.46
53:SA:1247:G:H4'	59:SG:102:THR:HA	1.97	0.46
53:SA:1419:C:H2'	53:SA:1420:G:O4'	2.16	0.46
54:SB:137:MET:HB2	54:SB:215:VAL:HG22	1.98	0.46
55:SC:43:ASP:OD1	55:SC:45:VAL:HG22	2.16	0.46
57:SE:45:VAL:HG23	57:SE:46:GLN:OE1	2.16	0.46
61:SI:8:ILE:HG21	61:SI:37:CYS:HB3	1.98	0.46
63:SK:71:LYS:HE3	63:SK:73:ALA:HB2	1.98	0.46
73:SU:102:LEU:HD22	73:SU:115:LEU:HD23	1.98	0.46
75:SW:16:ILE:O	75:SW:17:VAL:HB	2.16	0.46
75:SW:61:ILE:HA	75:SW:66:VAL:HG11	1.98	0.46
2:AA:254:U:H2'	2:AA:255:C:C6	2.51	0.46
2:AA:539:G:H2'	2:AA:540:C:C6	2.50	0.46
2:AA:1456:C:H2'	2:AA:1457:G:O4'	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1910:C:H2'	2:AA:1911:A:C8	2.51	0.46
2:AA:3409:U:C4	2:AA:3418:A:C8	3.03	0.46
2:AA:3639:G:N2	2:AA:3646:G:H22	2.13	0.46
4:AB:8:U:OP2	30:AR:22:ARG:HD2	2.16	0.46
11:AN:59:ALA:HB2	11:AN:96:VAL:HG11	1.98	0.46
19:AP:151:TRP:HA	19:AP:154:ASN:HB3	1.98	0.46
23:AJ:255:SER:O	23:AJ:258:SER:OG	2.32	0.46
29:AQ:70:ILE:HG13	29:AQ:71:SER:N	2.30	0.46
30:AR:96:ALA:HB3	30:AR:239:TYR:CD2	2.51	0.46
31:AW:116:HIS:NE2	31:AW:118:MET:SD	2.89	0.46
42:AH:72:VAL:HA	42:AH:75:HIS:HB3	1.97	0.46
52:S6:43:ARG:HH22	57:SE:29:LYS:HD2	1.81	0.46
53:SA:397:A:H4'	53:SA:2022:A:H4'	1.98	0.46
53:SA:633:U:H2'	53:SA:634:C:H6	1.81	0.46
53:SA:1262:C:H2'	53:SA:1263:C:C6	2.51	0.46
53:SA:1900:U:P	65:SM:133:LYS:HZ1	2.38	0.46
56:SD:215:VAL:HG21	75:SW:16:ILE:HG22	1.96	0.46
57:SE:112:LYS:HD2	57:SE:148:VAL:HG21	1.97	0.46
57:SE:168:ARG:HH22	57:SE:171:ARG:NH2	2.13	0.46
59:SG:122:HIS:HD1	59:SG:150:PRO:HB3	1.80	0.46
60:SH:160:ARG:HH12	60:SH:172:LYS:HA	1.80	0.46
65:SM:8:VAL:HG12	65:SM:23:VAL:HB	1.97	0.46
68:SP:66:ARG:HA	68:SP:66:ARG:NE	2.31	0.46
69:SQ:99:ASN:O	69:SQ:99:ASN:ND2	2.48	0.46
74:SV:133:PRO:HA	74:SV:139:ARG:HB3	1.96	0.46
78:SZ:70:ARG:NH2	78:SZ:81:GLN:O	2.49	0.46
2:AA:1203:A:OP1	30:AR:145:LYS:HG2	2.16	0.46
2:AA:1783:G:N7	6:A1:17:ARG:NH1	2.47	0.46
2:AA:1784:G:O3'	2:AA:1786:A:N6	2.48	0.46
2:AA:1883:U:H2'	2:AA:1884:G:C8	2.50	0.46
2:AA:2974:A:OP2	29:AQ:15:LYS:NZ	2.49	0.46
2:AA:3253:G:H2'	2:AA:3254:G:H8	1.80	0.46
11:AN:141:LYS:HA	11:AN:144:THR:HG22	1.98	0.46
13:A9:137:PRO:HB3	22:AI:102:ARG:HB3	1.97	0.46
21:Ai:17:LYS:HD3	21:Ai:17:LYS:HA	1.67	0.46
22:AI:26:LYS:HE2	22:AI:26:LYS:HB3	1.66	0.46
22:AI:216:LEU:HD23	22:AI:219:MET:HE3	1.97	0.46
26:AM:56:LEU:HD12	26:AM:80:ILE:HG22	1.96	0.46
29:AQ:129:VAL:HG21	29:AQ:135:LEU:HD21	1.98	0.46
33:AT:71:LYS:HD2	33:AT:73:ARG:NH2	2.30	0.46
34:AZ:41:LYS:HE3	34:AZ:42:TYR:CZ	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:AZ:116:LYS:O	34:AZ:120:ARG:HG3	2.16	0.46
38:AE:35:ASP:HA	38:AE:39:LYS:NZ	2.31	0.46
38:AE:57:VAL:O	38:AE:354:LYS:N	2.48	0.46
41:AU:33:VAL:HG22	43:AV:148:LYS:HG2	1.97	0.46
41:AU:75:GLU:HB2	41:AU:80:ARG:NH2	2.31	0.46
44:Ag:20:LYS:HA	44:Ag:23:ARG:HD3	1.97	0.46
45:AX:70:VAL:O	45:AX:76:ASN:ND2	2.39	0.46
47:S1:18:LEU:HD13	47:S1:20:ARG:CZ	2.45	0.46
53:SA:360:C:H5"	64:SL:16:GLY:HA3	1.98	0.46
53:SA:635:G:N2	53:SA:1040:A:H62	2.13	0.46
53:SA:649:A:H2'	53:SA:650:A:C8	2.51	0.46
53:SA:881:C:H2'	53:SA:882:A:H8	1.80	0.46
53:SA:1424:A:H2'	53:SA:1425:C:C6	2.51	0.46
53:SA:1732:G:H4'	66:SN:61:ARG:HH22	1.81	0.46
61:SI:78:LEU:HA	61:SI:81:ILE:HD12	1.98	0.46
62:SJ:52:VAL:HG21	62:SJ:54:LYS:HE2	1.97	0.46
64:SL:18:LYS:HG3	64:SL:18:LYS:O	2.16	0.46
64:SL:86:SER:C	74:SV:11:ARG:HH22	2.24	0.46
68:SP:61:LYS:HD3	68:SP:61:LYS:N	2.29	0.46
73:SU:78:GLN:OE1	73:SU:78:GLN:N	2.48	0.46
74:SV:76:GLY:HA3	74:SV:89:ILE:HG23	1.97	0.46
2:AA:119:G:OP1	2:AA:120:U:H3'	2.15	0.46
2:AA:592:C:C4	11:AN:4:VAL:HG21	2.51	0.46
2:AA:1035:G:H2'	2:AA:1043:G:N7	2.30	0.46
2:AA:1096:G:H21	2:AA:1231:A:H1'	1.80	0.46
2:AA:1297:A:H2'	2:AA:1298:A:C8	2.50	0.46
2:AA:1814:U:H2'	2:AA:1815:A:H8	1.81	0.46
2:AA:1965:U:H5'	2:AA:1967:G:OP1	2.16	0.46
2:AA:3416:G:H3'	2:AA:3417:G:C8	2.50	0.46
2:AA:3770:C:H5"	38:AE:310:HIS:CE1	2.50	0.46
3:AC:109:U:H4'	3:AC:110:G:H5"	1.97	0.46
4:AB:51:G:H2'	4:AB:52:U:H5'	1.98	0.46
4:AB:65:G:H2'	4:AB:66:G:O4'	2.16	0.46
4:AB:90:A:H2'	4:AB:91:C:O4'	2.16	0.46
6:A1:87:VAL:O	6:A1:90:ASP:N	2.43	0.46
12:A8:75:VAL:HA	12:A8:95:GLN:O	2.16	0.46
15:Ab:87:HIS:CD2	15:Ab:91:LYS:HG3	2.50	0.46
19:AP:138:PRO:O	19:AP:144:ARG:HD3	2.16	0.46
20:Ah:26:ILE:HD12	37:AD:180:LEU:HD21	1.98	0.46
26:AM:38:ILE:HD11	26:AM:80:ILE:HD11	1.98	0.46
29:AQ:75:TYR:O	29:AQ:78:THR:HG22	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AR:19:LYS:O	30:AR:24:ARG:NH1	2.49	0.46
38:AE:321:LEU:HD12	38:AE:322:LYS:H	1.81	0.46
39:AF:268:HIS:HB2	39:AF:273:THR:HG21	1.97	0.46
42:AH:44:ASP:OD1	42:AH:45:ILE:N	2.49	0.46
49:S3:26:CYS:HA	68:SP:149:ARG:HB3	1.98	0.46
53:SA:331:G:OP1	74:SV:137:THR:HG23	2.16	0.46
53:SA:335:G:O5'	64:SL:98:LYS:NZ	2.43	0.46
53:SA:1205:U:O4	69:SQ:4:GLY:HA2	2.16	0.46
53:SA:1287:U:H2'	53:SA:1288:U:O4'	2.16	0.46
53:SA:1311:U:H2'	53:SA:1312:A:C8	2.51	0.46
53:SA:1628:A:O2'	53:SA:1629:G:N7	2.48	0.46
57:SE:109:LEU:HD12	57:SE:146:PHE:HB3	1.98	0.46
59:SG:122:HIS:ND1	59:SG:150:PRO:HB3	2.31	0.46
61:SI:103:PHE:HA	61:SI:168:ILE:HD11	1.98	0.46
72:ST:17:ARG:HH21	72:ST:30:ARG:HH11	1.64	0.46
74:SV:151:PHE:N	74:SV:151:PHE:CD1	2.84	0.46
2:AA:302:A:H2'	2:AA:303:A:C8	2.51	0.45
2:AA:311:G:O2'	2:AA:3117:A:OP1	2.33	0.45
2:AA:1483:A:H2'	2:AA:1484:A:H8	1.81	0.45
2:AA:2003:G:H2'	2:AA:2004:U:O2	2.16	0.45
2:AA:2209:C:H3'	33:AT:73:ARG:HG3	1.98	0.45
2:AA:2537:A:O2'	37:AD:223:SER:OG	2.23	0.45
2:AA:2827:C:H2'	2:AA:2828:A:C8	2.51	0.45
5:AL:145:LYS:O	5:AL:148:ILE:HG22	2.16	0.45
8:A4:62:LYS:HA	8:A4:65:LYS:HE3	1.98	0.45
9:A6:60:GLU:HG3	9:A6:70:VAL:HG11	1.98	0.45
22:AI:58:LYS:HB2	22:AI:74:ILE:HD12	1.98	0.45
26:AM:15:ILE:HG21	26:AM:56:LEU:CD2	2.46	0.45
26:AM:93:TYR:HA	46:A0:25:GLY:C	2.41	0.45
27:AS:80:VAL:O	27:AS:137:LEU:HA	2.16	0.45
32:AY:106:ASP:O	32:AY:110:LEU:HG	2.16	0.45
33:AT:22:TRP:CD1	33:AT:23:MET:H	2.34	0.45
38:AE:53:MET:HG2	38:AE:324:CYS:HA	1.97	0.45
39:AF:159:GLU:HB3	39:AF:215:ASN:HB2	1.97	0.45
42:AH:18:VAL:HG23	42:AH:47:LEU:HD21	1.98	0.45
42:AH:94:VAL:O	42:AH:100:ILE:HD11	2.15	0.45
42:AH:126:LYS:HD3	42:AH:127:ALA:O	2.16	0.45
49:S3:57:SER:OG	49:S3:58:VAL:N	2.49	0.45
51:S5:6:LEU:HD23	51:S5:7:ALA:N	2.31	0.45
53:SA:310:U:H2'	53:SA:311:C:C6	2.51	0.45
53:SA:390:G:H2'	53:SA:391:A:C8	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:413:A:H2'	53:SA:414:C:C6	2.51	0.45
53:SA:553:U:H2'	53:SA:554:U:H6	1.81	0.45
53:SA:643:A:H5'	63:SK:6:VAL:HG21	1.97	0.45
53:SA:1297:A:H4'	53:SA:1298:C:H5"	1.98	0.45
53:SA:1316:U:O4	53:SA:1694:G:O6	2.33	0.45
53:SA:1400:U:O2	59:SG:221:ASN:ND2	2.45	0.45
53:SA:1747:U:H2'	53:SA:1748:G:H8	1.81	0.45
53:SA:1841:U:H5"	71:SS:132:ARG:HD3	1.97	0.45
53:SA:1845:U:H2'	53:SA:1846:U:C6	2.51	0.45
53:SA:1883:A:H2	61:SI:69:MET:HE1	1.81	0.45
53:SA:2071:U:H2'	53:SA:2073:A:OP2	2.16	0.45
54:SB:81:HIS:HB3	54:SB:109:LYS:HD2	1.97	0.45
57:SE:132:ARG:HB2	57:SE:140:MET:HE1	1.97	0.45
72:ST:29:ILE:O	72:ST:29:ILE:HG13	2.15	0.45
2:AA:19:A:H2'	2:AA:20:G:H8	1.81	0.45
2:AA:686:U:H2'	2:AA:687:G:C8	2.51	0.45
2:AA:719:C:OP1	28:AO:21:ARG:HG2	2.15	0.45
2:AA:1090:G:H2'	2:AA:1091:G:C8	2.51	0.45
2:AA:1993:A:H2'	2:AA:1994:U:C6	2.51	0.45
2:AA:2590:U:O2	2:AA:2590:U:H2'	2.15	0.45
2:AA:2706:A:H2'	2:AA:2707:G:C8	2.49	0.45
2:AA:2734:C:H2'	2:AA:2735:G:H8	1.79	0.45
2:AA:3409:U:C2	2:AA:3410:A:C8	3.04	0.45
3:AC:71:U:OP1	24:Ac:90:LYS:HG3	2.15	0.45
15:Ab:39:LYS:HA	15:Ab:39:LYS:HD3	1.81	0.45
23:AJ:274:ALA:HA	23:AJ:277:LYS:HG2	1.97	0.45
24:Ac:83:GLU:HB2	35:A3:84:LYS:HE2	1.98	0.45
28:AO:76:ASP:HB3	28:AO:114:GLY:HA3	1.97	0.45
29:AQ:56:GLU:OE1	29:AQ:56:GLU:N	2.49	0.45
30:AR:271:LYS:HA	30:AR:271:LYS:HD3	1.72	0.45
31:AW:54:LYS:HB3	31:AW:54:LYS:HE2	1.59	0.45
35:A3:62:GLN:O	35:A3:66:MET:SD	2.74	0.45
38:AE:188:LYS:O	38:AE:192:VAL:HG22	2.16	0.45
38:AE:253:HIS:HA	38:AE:254:PRO:C	2.42	0.45
53:SA:353:G:OP2	74:SV:82:LYS:NZ	2.47	0.45
53:SA:1028:U:H4'	73:SU:16:LEU:HD12	1.99	0.45
53:SA:1440:C:H2'	53:SA:1441:C:C6	2.52	0.45
53:SA:1729:A:H2'	53:SA:1730:A:H8	1.80	0.45
53:SA:1936:C:H2'	53:SA:1937:C:O4'	2.15	0.45
54:SB:111:CYS:O	54:SB:114:ILE:HG12	2.17	0.45
58:SF:11:ARG:N	58:SF:26:GLN:O	2.37	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:SF:121:TYR:HA	58:SF:161:ARG:HH22	1.80	0.45
58:SF:122:LYS:O	58:SF:161:ARG:NH1	2.49	0.45
58:SF:157:ASN:HB3	58:SF:175:PHE:CD2	2.51	0.45
58:SF:204:THR:HG22	58:SF:205:TYR:N	2.32	0.45
62:SJ:73:VAL:HG12	62:SJ:77:GLN:HG3	1.98	0.45
64:SL:66:SER:HA	64:SL:73:SER:HA	1.98	0.45
66:SN:65:ARG:H	72:ST:38:ARG:NH2	2.12	0.45
73:SU:49:GLN:OE1	73:SU:49:GLN:N	2.48	0.45
73:SU:62:GLN:HB3	73:SU:65:SER:HB2	1.98	0.45
2:AA:203:A:H2'	2:AA:204:G:O4'	2.16	0.45
2:AA:221:A:N6	2:AA:235:A:O2'	2.43	0.45
2:AA:308:U:O2'	2:AA:309:G:H8	1.98	0.45
2:AA:400:C:N4	31:AW:104:SER:O	2.49	0.45
2:AA:611:G:H2'	2:AA:612:G:C8	2.52	0.45
2:AA:1223:U:O4	36:A5:209:LYS:HD3	2.17	0.45
2:AA:1640:G:H5'	24:Ac:16:GLY:H	1.80	0.45
2:AA:1970:A:OP1	16:Ad:26:MET:HE1	2.17	0.45
2:AA:3241:U:H2'	2:AA:3242:U:H6	1.79	0.45
2:AA:3478:G:C5	2:AA:3479:U:C4	3.04	0.45
3:AC:53:G:OP1	35:A3:47:HIS:HB2	2.16	0.45
5:AL:87:ARG:HG2	35:A3:113:PHE:HE2	1.82	0.45
9:A6:33:CYS:SG	9:A6:94:VAL:HB	2.55	0.45
29:AQ:36:MET:SD	29:AQ:37:GLY:N	2.90	0.45
38:AE:377:TYR:CD2	38:AE:380:LEU:HD11	2.52	0.45
49:S3:82:ARG:O	49:S3:85:ARG:NH1	2.49	0.45
53:SA:144:U:O2'	53:SA:145:A:O4'	2.32	0.45
53:SA:162:A:H1'	60:SH:6:SER:OG	2.16	0.45
53:SA:917:C:H2'	53:SA:918:U:H6	1.82	0.45
53:SA:1016:U:H2'	53:SA:1017:G:H8	1.82	0.45
53:SA:1787:U:O2'	53:SA:1789:U:O4	2.35	0.45
53:SA:1858:U:H4'	53:SA:1896:C:H4'	1.97	0.45
54:SB:32:LEU:HA	54:SB:96:CYS:HB3	1.99	0.45
57:SE:86:LEU:HD23	57:SE:90:GLU:HG2	1.97	0.45
58:SF:166:THR:HG23	58:SF:168:LYS:HB2	1.98	0.45
65:SM:136:ARG:HG3	65:SM:138:ARG:HH22	1.81	0.45
69:SQ:86:PHE:HB3	69:SQ:107:PHE:CE1	2.51	0.45
69:SQ:132:LEU:H	69:SQ:132:LEU:HD12	1.81	0.45
2:AA:1210:A:H1'	8:A4:43:GLN:NE2	2.32	0.45
2:AA:1248:A:H2'	2:AA:1249:U:C6	2.50	0.45
2:AA:2402:U:O2'	2:AA:2403:G:H5'	2.17	0.45
2:AA:2700:C:H2'	2:AA:2701:U:C6	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:3660:A:H2'	2:AA:3661:A:C8	2.51	0.45
5:AL:22:ARG:CZ	19:AP:198:LEU:HD21	2.46	0.45
7:A2:40:TYR:CD1	12:A8:84:PRO:HA	2.52	0.45
9:A6:23:SER:HB2	9:A6:99:GLY:HA3	1.98	0.45
22:AI:115:GLU:OE1	22:AI:115:GLU:N	2.48	0.45
25:AK:187:LEU:O	25:AK:187:LEU:HD23	2.15	0.45
26:AM:83:GLN:H	26:AM:97:PHE:HD2	1.63	0.45
28:AO:82:LEU:HD13	28:AO:87:LYS:HB2	1.98	0.45
29:AQ:55:TYR:CE2	29:AQ:164:LYS:HD2	2.51	0.45
53:SA:538:U:H2'	53:SA:539:U:H6	1.81	0.45
53:SA:968:G:H4'	68:SP:60:MET:CE	2.47	0.45
53:SA:1849:U:N3	53:SA:1857:U:O4	2.49	0.45
54:SB:47:LEU:O	68:SP:51:GLU:HG2	2.15	0.45
55:SC:120:LEU:HD12	55:SC:121:LEU:H	1.81	0.45
64:SL:66:SER:OG	64:SL:72:ILE:O	2.35	0.45
73:SU:69:ASN:OD1	73:SU:73:ARG:HB2	2.16	0.45
2:AA:125:C:H2'	2:AA:126:C:H6	1.82	0.45
2:AA:291:A:OP2	21:Ai:40:ARG:NH1	2.48	0.45
2:AA:600:U:H5"	41:AU:154:ARG:CZ	2.46	0.45
2:AA:863:U:H2'	2:AA:864:U:C6	2.52	0.45
2:AA:2954:A:H2'	2:AA:2955:C:H6	1.80	0.45
2:AA:3214:A:OP1	29:AQ:10:ARG:HD2	2.16	0.45
2:AA:3333:U:H2'	2:AA:3334:U:C6	2.51	0.45
2:AA:3492:G:H8	2:AA:3492:G:OP2	1.99	0.45
2:AA:3693:A:H2'	2:AA:3694:A:H8	1.81	0.45
4:AB:34:C:OP2	4:AB:36:C:N4	2.49	0.45
10:A7:21:THR:HG22	10:A7:80:ARG:HA	1.98	0.45
29:AQ:43:VAL:HG12	29:AQ:171:TRP:HE1	1.81	0.45
31:AW:146:ILE:C	31:AW:146:ILE:HD12	2.41	0.45
33:AT:60:ALA:HA	33:AT:63:ARG:HB2	1.98	0.45
36:A5:43:LYS:HA	36:A5:46:ASN:OD1	2.17	0.45
38:AE:106:TRP:CH2	38:AE:158:ILE:HD13	2.52	0.45
39:AF:228:ASP:N	39:AF:228:ASP:OD1	2.47	0.45
39:AF:274:LYS:HB2	39:AF:274:LYS:HE3	1.61	0.45
41:AU:77:PHE:O	41:AU:80:ARG:NE	2.44	0.45
45:AX:41:LYS:NZ	45:AX:128:LEU:HB2	2.32	0.45
50:S4:15:LYS:HE2	50:S4:15:LYS:HB2	1.73	0.45
53:SA:302:A:H2'	53:SA:303:U:O4'	2.16	0.45
53:SA:540:C:C2	53:SA:541:C:C5	3.03	0.45
53:SA:600:U:H5'	57:SE:40:ARG:NH2	2.32	0.45
53:SA:617:G:H21	69:SQ:19:ARG:NH2	2.15	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1104:G:H2'	53:SA:1105:A:H8	1.81	0.45
53:SA:1432:G:H3'	53:SA:1433:A:C8	2.51	0.45
53:SA:1800:A:P	77:SY:121:LYS:HB2	2.56	0.45
53:SA:1956:A:C5	53:SA:1957:A:N7	2.85	0.45
54:SB:36:LYS:HD3	54:SB:233:THR:OG1	2.16	0.45
55:SC:136:SER:OG	55:SC:141:ILE:O	2.33	0.45
56:SD:176:ALA:HB3	56:SD:183:LEU:HD21	1.99	0.45
57:SE:34:TYR:OH	57:SE:105:LEU:O	2.20	0.45
60:SH:131:LYS:O	60:SH:133:LEU:HD23	2.16	0.45
65:SM:44:ILE:O	65:SM:47:THR:OG1	2.34	0.45
67:SO:85:GLU:O	67:SO:88:ARG:NE	2.49	0.45
68:SP:41:PHE:CD1	68:SP:57:THR:HG22	2.51	0.45
69:SQ:86:PHE:HB3	69:SQ:107:PHE:HE1	1.81	0.45
72:ST:34:ILE:HG12	72:ST:36:ILE:HB	1.99	0.45
73:SU:70:LYS:O	73:SU:74:ILE:HG23	2.16	0.45
73:SU:72:LEU:O	73:SU:75:LEU:HD12	2.16	0.45
2:AA:719:C:H2'	2:AA:720:U:O4'	2.16	0.45
2:AA:1455:C:O2'	13:A9:109:GLY:HA2	2.17	0.45
2:AA:1467:C:OP1	12:A8:61:LYS:HG2	2.17	0.45
2:AA:1506:C:H2'	2:AA:1507:U:H6	1.82	0.45
2:AA:1632:G:O2'	2:AA:1633:U:H5"	2.17	0.45
2:AA:1764:U:H2'	2:AA:1765:A:C8	2.51	0.45
2:AA:3407:G:N1	2:AA:3418:A:H5"	2.32	0.45
2:AA:3607:G:H5"	42:AH:26:THR:HG21	1.97	0.45
14:Aa:14:ASN:CG	14:Aa:14:ASN:O	2.59	0.45
21:Ai:6:LYS:HD3	21:Ai:92:MET:HB3	1.98	0.45
30:AR:20:TYR:HD2	30:AR:30:TYR:CE1	2.35	0.45
30:AR:36:LEU:O	30:AR:36:LEU:HD12	2.17	0.45
30:AR:37:ILE:HG23	43:AV:32:LEU:HD21	1.98	0.45
30:AR:231:GLY:H	30:AR:234:ASP:HB3	1.81	0.45
33:AT:62:VAL:O	33:AT:66:LYS:NZ	2.47	0.45
37:AD:145:LYS:HD3	37:AD:159:ASP:HA	1.99	0.45
47:S1:16:PRO:C	58:SF:94:LYS:HZ3	2.25	0.45
53:SA:29:U:H2'	53:SA:30:G:H8	1.81	0.45
53:SA:538:U:H2'	53:SA:539:U:C6	2.51	0.45
53:SA:599:A:H2'	53:SA:600:U:O4'	2.16	0.45
53:SA:1292:U:H2'	53:SA:1293:C:C6	2.51	0.45
53:SA:1304:A:N6	53:SA:1850:G:H1'	2.31	0.45
54:SB:35:PRO:HB2	54:SB:37:MET:SD	2.57	0.45
54:SB:143:THR:O	54:SB:208:GLN:HG3	2.16	0.45
59:SG:125:LEU:HB2	59:SG:227:PHE:CE1	2.52	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:SK:51:GLU:N	63:SK:62:VAL:O	2.45	0.45
71:SS:83:ASP:HA	71:SS:86:LEU:HD12	1.98	0.45
2:AA:535:U:H1'	2:AA:621:C:H42	1.81	0.45
2:AA:1308:A:C4	2:AA:1310:A:C8	3.04	0.45
2:AA:1511:U:H4'	36:A5:173:ARG:O	2.16	0.45
2:AA:1786:A:H4'	6:A1:79:HIS:CE1	2.52	0.45
2:AA:2995:A:OP2	21:Ai:96:LYS:HG3	2.17	0.45
2:AA:3025:U:H2'	2:AA:3026:G:O4'	2.16	0.45
2:AA:3677:A:H2'	2:AA:3678:A:H8	1.80	0.45
2:AA:3707:U:H4'	38:AE:170:MET:HG3	1.99	0.45
6:A1:61:LYS:HA	6:A1:64:LYS:CE	2.46	0.45
22:AI:146:GLN:HG3	22:AI:169:ILE:HD11	1.97	0.45
36:A5:43:LYS:HA	36:A5:43:LYS:HD2	1.73	0.45
37:AD:103:PRO:HG2	37:AD:106:LYS:HB2	1.99	0.45
37:AD:116:LEU:HD12	37:AD:117:GLU:H	1.82	0.45
38:AE:285:LYS:HB2	38:AE:316:GLU:C	2.42	0.45
39:AF:383:VAL:O	39:AF:387:LYS:HG2	2.17	0.45
41:AU:138:ILE:HG12	41:AU:139:SER:O	2.17	0.45
42:AH:135:LYS:HD2	42:AH:136:SER:C	2.41	0.45
53:SA:148:U:H2'	53:SA:149:A:C8	2.52	0.45
53:SA:1114:U:H2'	53:SA:1115:G:C8	2.52	0.45
53:SA:1722:U:H2'	53:SA:1723:A:C8	2.52	0.45
53:SA:1798:G:N2	53:SA:1800:A:H3'	2.32	0.45
61:SI:158:LYS:HZ1	61:SI:163:CYS:N	2.13	0.45
64:SL:31:ARG:HH21	64:SL:48:GLY:HA2	1.81	0.45
76:SX:116:LEU:HD23	76:SX:116:LEU:HA	1.77	0.45
2:AA:80:C:H2'	2:AA:81:C:H6	1.82	0.45
2:AA:92:G:H5"	2:AA:94:G:N7	2.31	0.45
2:AA:663:A:H2'	2:AA:664:U:N1	2.31	0.45
2:AA:916:U:H2'	2:AA:917:A:H8	1.82	0.45
2:AA:1468:A:H2'	2:AA:1469:U:C6	2.52	0.45
2:AA:2019:A:H2'	2:AA:2020:A:C8	2.52	0.45
2:AA:3259:A:N1	2:AA:3416:G:N2	2.57	0.45
4:AB:43:A:O3'	40:AG:141:ARG:HG2	2.17	0.45
6:A1:55:LYS:HD2	23:AJ:46:PHE:HB3	1.97	0.45
8:A4:28:LYS:HG2	8:A4:29:PHE:CE1	2.52	0.45
23:AJ:57:VAL:O	23:AJ:57:VAL:HG12	2.17	0.45
24:Ac:5:GLY:O	24:Ac:10:SER:HB3	2.16	0.45
27:AS:51:ARG:HA	27:AS:54:MET:HG3	1.97	0.45
36:A5:90:LYS:HB2	36:A5:147:TYR:CD2	2.52	0.45
41:AU:21:ARG:HE	41:AU:24:PRO:HD3	1.82	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:AH:52:LYS:HB3	42:AH:53:TYR:H	1.55	0.45
53:SA:109:C:H2'	53:SA:110:A:C8	2.52	0.45
53:SA:1890:A:H2'	53:SA:1891:U:C6	2.51	0.45
53:SA:1892:U:C5'	72:ST:30:ARG:HE	2.29	0.45
53:SA:1921:C:H2'	53:SA:1922:C:C6	2.51	0.45
53:SA:1939:G:H2'	53:SA:1940:U:H6	1.81	0.45
53:SA:2060:G:H5"	53:SA:2061:U:H2'	1.99	0.45
55:SC:75:VAL:HG22	55:SC:122:ILE:HB	1.99	0.45
59:SG:164:HIS:HA	59:SG:206:LYS:NZ	2.32	0.45
62:SJ:175:VAL:HA	62:SJ:178:LYS:HG2	1.98	0.45
65:SM:104:LYS:HA	65:SM:104:LYS:HD3	1.70	0.45
70:SR:59:LEU:HD21	70:SR:69:LYS:HA	1.97	0.45
72:ST:19:CYS:N	72:ST:28:ILE:HD11	2.32	0.45
75:SW:99:GLU:CD	75:SW:99:GLU:H	2.24	0.45
2:AA:419:A:H5"	12:A8:26:MET:HE2	1.99	0.45
2:AA:439:U:O2'	2:AA:440:A:OP1	2.32	0.45
2:AA:548:U:H4'	41:AU:137:GLU:CD	2.42	0.45
2:AA:1132:G:P	29:AQ:39:LYS:HE3	2.56	0.45
2:AA:1441:G:O2'	2:AA:1446:A:N1	2.46	0.45
2:AA:2130:U:O2'	2:AA:2132:A:N7	2.42	0.45
2:AA:3524:G:H2'	2:AA:3525:A:O4'	2.17	0.45
2:AA:3639:G:N2	2:AA:3646:G:H1	2.09	0.45
11:AN:83:ILE:HD12	11:AN:87:CYS:HB3	1.99	0.45
23:AJ:95:ASN:ND2	23:AJ:248:LYS:O	2.39	0.45
33:AT:20:LYS:HD3	33:AT:20:LYS:HA	1.78	0.45
33:AT:26:ASN:O	33:AT:27:GLU:HG3	2.17	0.45
34:AZ:118:LEU:HD12	34:AZ:119:ASP:N	2.32	0.45
35:A3:7:TYR:HA	35:A3:10:ARG:HB2	1.98	0.45
36:A5:190:ASN:ND2	36:A5:190:ASN:C	2.75	0.45
40:AG:104:PHE:CD1	40:AG:105:GLY:N	2.79	0.45
45:AX:119:PHE:HD1	45:AX:119:PHE:HA	1.71	0.45
47:S1:61:PHE:CD1	47:S1:72:GLY:HA3	2.51	0.45
53:SA:402:G:P	64:SL:51:ARG:HH22	2.40	0.45
53:SA:618:U:OP2	69:SQ:5:LYS:HE2	2.17	0.45
53:SA:1180:U:H2'	53:SA:1181:U:C6	2.51	0.45
53:SA:1435:C:H2'	53:SA:1436:U:C6	2.52	0.45
53:SA:1639:G:H2'	53:SA:1640:U:C6	2.52	0.45
54:SB:167:LYS:HE3	54:SB:167:LYS:HB3	1.90	0.45
57:SE:152:SER:HA	57:SE:155:HIS:CE1	2.52	0.45
59:SG:64:LEU:HD13	78:SZ:12:TYR:CE2	2.52	0.45
59:SG:88:LEU:HD23	59:SG:88:LEU:HA	1.88	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:SJ:83:GLU:OE1	62:SJ:87:LYS:NZ	2.47	0.45
63:SK:79:TYR:OH	74:SV:102:ARG:NH2	2.50	0.45
70:SR:25:ILE:HD13	70:SR:87:GLN:HE22	1.81	0.45
1:S7:10:G:H2'	1:S7:11:A:H8	1.81	0.45
2:AA:153:A:OP1	23:AJ:210:LYS:NZ	2.43	0.45
2:AA:269:A:O2'	2:AA:270:U:O4'	2.26	0.45
2:AA:1337:G:P	2:AA:1337:G:H8	2.40	0.45
2:AA:1797:A:C2	2:AA:2083:U:O2	2.69	0.45
2:AA:1869:G:N1	2:AA:1888:A:C5	2.85	0.45
2:AA:2919:A:H3'	2:AA:2920:A:C8	2.52	0.45
2:AA:3532:A:H2'	2:AA:3533:A:C8	2.52	0.45
8:A4:46:CYS:O	8:A4:50:ILE:HG13	2.17	0.45
19:AP:115:ARG:HD2	19:AP:138:PRO:HG3	1.99	0.45
24:Ac:74:ARG:HG2	24:Ac:75:ARG:H	1.81	0.45
26:AM:79:ILE:HD12	26:AM:105:VAL:HG11	1.99	0.45
26:AM:88:ARG:HG3	26:AM:94:TYR:CE1	2.52	0.45
28:AO:86:LYS:O	28:AO:89:GLU:HG3	2.17	0.45
31:AW:98:VAL:HG21	31:AW:148:ILE:HG13	1.99	0.45
32:AY:110:LEU:O	32:AY:135:ASP:N	2.48	0.45
32:AY:123:LYS:O	32:AY:128:ASN:N	2.49	0.45
35:A3:5:LYS:N	35:A3:8:GLU:OE2	2.50	0.45
42:AH:116:TYR:OH	42:AH:177:GLY:N	2.51	0.45
53:SA:56:A:H4'	53:SA:57:G:H5'	1.99	0.45
53:SA:182:U:H2'	53:SA:183:C:C6	2.52	0.45
53:SA:423:A:H4'	53:SA:424:G:O5'	2.16	0.45
53:SA:617:G:H21	69:SQ:19:ARG:HH22	1.65	0.45
53:SA:805:A:O2'	53:SA:806:A:OP1	2.33	0.45
53:SA:929:U:P	73:SU:64:LYS:HZ1	2.40	0.45
53:SA:1832:U:HO2'	53:SA:1833:G:N2	2.14	0.45
54:SB:105:ILE:HD11	54:SB:110:LEU:HD12	1.99	0.45
58:SF:17:HIS:NE2	58:SF:39:LEU:O	2.48	0.45
58:SF:94:LYS:HD2	58:SF:95:SER:N	2.32	0.45
60:SH:160:ARG:H	60:SH:160:ARG:HD2	1.82	0.45
2:AA:505:A:O2'	2:AA:506:A:OP1	2.30	0.44
2:AA:1506:C:H2'	2:AA:1507:U:C6	2.52	0.44
2:AA:1634:G:H2'	2:AA:1635:G:C8	2.52	0.44
2:AA:1835:G:O2'	2:AA:1836:U:H6	2.00	0.44
2:AA:2440:A:H2'	2:AA:2441:U:O4'	2.17	0.44
2:AA:2709:U:H2'	2:AA:2710:U:C6	2.52	0.44
2:AA:3028:A:N3	2:AA:3028:A:H2'	2.33	0.44
2:AA:3110:A:OP1	21:Ai:78:LYS:HE3	2.16	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:3301:C:OP1	2:AA:3301:C:H3'	2.16	0.44
9:A6:10:GLY:H	53:SA:1018:U:H5"	1.83	0.44
9:A6:45:VAL:O	9:A6:70:VAL:HA	2.18	0.44
9:A6:51:CYS:O	9:A6:53:SER:N	2.45	0.44
11:AN:33:ILE:H	11:AN:33:ILE:HD12	1.82	0.44
22:AI:120:LEU:HD11	22:AI:193:GLU:HG3	2.00	0.44
23:AJ:75:ILE:O	23:AJ:78:GLN:HG3	2.18	0.44
30:AR:194:LEU:O	30:AR:198:ILE:HG23	2.17	0.44
36:A5:88:ALA:HB2	43:AV:137:LYS:O	2.17	0.44
38:AE:321:LEU:HD12	38:AE:322:LYS:N	2.31	0.44
40:AG:161:LYS:O	40:AG:165:THR:HG23	2.17	0.44
53:SA:406:A:H5"	64:SL:25:ARG:HA	1.98	0.44
53:SA:969:A:OP1	68:SP:59:GLY:HA3	2.17	0.44
53:SA:1250:G:H1	53:SA:1925:U:H3	1.63	0.44
53:SA:1842:A:H5"	71:SS:133:VAL:HG23	2.00	0.44
55:SC:165:LYS:HA	55:SC:165:LYS:HD3	1.86	0.44
56:SD:136:GLU:HB2	56:SD:188:LYS:HB2	1.99	0.44
58:SF:84:VAL:HG21	58:SF:101:LEU:HD12	1.98	0.44
61:SI:91:ILE:HA	61:SI:94:MET:SD	2.57	0.44
62:SJ:158:LYS:O	62:SJ:162:ARG:NH1	2.50	0.44
63:SK:78:ARG:H	63:SK:78:ARG:HG2	1.53	0.44
64:SL:83:TYR:CE2	64:SL:211:LYS:HE3	2.52	0.44
64:SL:188:ARG:HG2	64:SL:191:GLN:HG2	1.98	0.44
75:SW:71:LEU:O	75:SW:74:GLN:NE2	2.44	0.44
75:SW:101:ASP:N	75:SW:101:ASP:OD1	2.48	0.44
2:AA:41:G:N2	2:AA:3162:A:H62	2.15	0.44
2:AA:514:C:O3'	2:AA:681:U:H5'	2.17	0.44
2:AA:715:U:O2'	2:AA:716:C:P	2.76	0.44
2:AA:1740:A:H5'	2:AA:1851:A:H1'	2.00	0.44
2:AA:1901:A:N1	2:AA:1905:C:H1'	2.33	0.44
2:AA:2207:G:H1'	2:AA:2407:C:N1	2.32	0.44
2:AA:2528:C:C2	2:AA:2529:G:C8	3.05	0.44
2:AA:3523:U:H5"	38:AE:271:HIS:O	2.17	0.44
2:AA:3653:G:OP1	11:AN:140:LYS:HE3	2.17	0.44
3:AC:146:C:H2'	3:AC:147:U:C6	2.52	0.44
4:AB:54:A:N7	40:AG:9:MET:HE3	2.31	0.44
4:AB:117:C:H2'	4:AB:118:A:O4'	2.18	0.44
6:A1:66:SER:O	6:A1:68:VAL:HG23	2.17	0.44
10:A7:85:ARG:HG3	10:A7:99:THR:HG22	1.98	0.44
12:A8:38:ILE:HD13	12:A8:38:ILE:HA	1.83	0.44
27:AS:121:THR:OG1	27:AS:123:ASP:OD1	2.28	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AR:74:ILE:HD12	30:AR:74:ILE:H	1.82	0.44
30:AR:278:ARG:O	30:AR:282:VAL:HG22	2.17	0.44
32:AY:136:LYS:HB3	32:AY:136:LYS:HE2	1.80	0.44
35:A3:106:GLN:HA	35:A3:109:LYS:HE2	1.98	0.44
35:A3:113:PHE:CD1	35:A3:113:PHE:C	2.93	0.44
36:A5:84:PHE:CE2	41:AU:19:VAL:HG11	2.52	0.44
36:A5:107:LYS:HB2	36:A5:107:LYS:HE3	1.83	0.44
40:AG:144:ARG:HD2	40:AG:144:ARG:HA	1.64	0.44
45:AX:83:VAL:HG12	45:AX:92:ILE:HG23	1.99	0.44
47:S1:27:ILE:HG21	47:S1:40:VAL:HG11	1.99	0.44
47:S1:58:LEU:HB3	47:S1:61:PHE:CE2	2.52	0.44
51:S5:41:ILE:HD11	51:S5:62:GLU:HB3	1.98	0.44
53:SA:105:A:H4'	53:SA:106:A:O5'	2.18	0.44
53:SA:142:G:O2'	53:SA:143:A:H8	1.99	0.44
53:SA:481:A:P	57:SE:126:ARG:HH21	2.40	0.44
53:SA:818:C:C4	57:SE:143:ILE:HG13	2.52	0.44
53:SA:1015:U:H2'	53:SA:1016:U:C6	2.52	0.44
53:SA:1282:U:O4	53:SA:1704:G:N2	2.50	0.44
53:SA:1387:U:OP2	53:SA:1387:U:H6	2.00	0.44
53:SA:2082:A:H2'	53:SA:2083:A:C8	2.52	0.44
54:SB:178:LYS:HD2	54:SB:179:VAL:HG13	1.99	0.44
55:SC:59:LEU:O	55:SC:63:ILE:HG12	2.17	0.44
57:SE:21:LYS:HD3	57:SE:21:LYS:HA	1.73	0.44
59:SG:45:THR:O	59:SG:49:ARG:HG2	2.17	0.44
59:SG:64:LEU:HD13	78:SZ:12:TYR:HE2	1.83	0.44
59:SG:154:GLY:HA3	59:SG:167:PRO:HD3	2.00	0.44
59:SG:165:THR:HG21	59:SG:184:ALA:N	2.31	0.44
59:SG:247:PHE:CE2	78:SZ:15:ARG:HD2	2.53	0.44
60:SH:121:ILE:HG21	60:SH:124:LEU:HD23	2.00	0.44
62:SJ:58:LYS:HD3	62:SJ:58:LYS:HA	1.71	0.44
63:SK:32:LYS:HB2	63:SK:32:LYS:HE3	1.71	0.44
73:SU:25:TRP:CE3	73:SU:26:LEU:HA	2.52	0.44
77:SY:33:ASP:OD1	77:SY:36:LEU:HB2	2.18	0.44
2:AA:1537:G:H4'	2:AA:1537:G:OP1	2.17	0.44
2:AA:1629:G:N2	2:AA:2139:C:C5	2.85	0.44
2:AA:1753:U:H2'	2:AA:1754:G:O4'	2.17	0.44
2:AA:1909:U:H2'	2:AA:1910:C:O4'	2.17	0.44
2:AA:2070:U:H2'	2:AA:2071:U:C6	2.52	0.44
2:AA:3781:A:H2'	2:AA:3782:A:O4'	2.18	0.44
4:AB:52:U:H4'	40:AG:8:VAL:N	2.32	0.44
6:A1:18:ARG:O	6:A1:21:LYS:HG2	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AI:215:VAL:HG22	22:AI:218:LYS:HB2	1.99	0.44
30:AR:96:ALA:HB3	30:AR:239:TYR:CE2	2.52	0.44
34:AZ:43:LYS:HD3	34:AZ:43:LYS:HA	1.79	0.44
44:Ag:12:ARG:HE	44:Ag:14:LYS:HB3	1.82	0.44
47:S1:15:ASN:HD22	47:S1:22:GLN:HE22	1.66	0.44
50:S4:18:LYS:HG3	50:S4:19:LEU:O	2.17	0.44
53:SA:114:A:C2	53:SA:309:U:H1'	2.52	0.44
53:SA:1079:C:H2'	53:SA:1080:G:O4'	2.17	0.44
53:SA:1208:G:O2'	53:SA:1209:G:H5'	2.16	0.44
53:SA:1218:U:H2'	53:SA:1219:U:C6	2.53	0.44
53:SA:1245:U:H2'	53:SA:1246:U:C6	2.53	0.44
53:SA:1303:A:N6	53:SA:1703:U:O4'	2.50	0.44
53:SA:1320:A:H62	53:SA:1365:G:H21	1.65	0.44
53:SA:1913:G:H2'	53:SA:1914:U:C6	2.53	0.44
61:SI:109:LYS:HA	61:SI:109:LYS:HD3	1.82	0.44
62:SJ:106:LYS:HE3	62:SJ:106:LYS:HB3	1.65	0.44
64:SL:12:ARG:HD2	64:SL:13:LEU:HD23	1.99	0.44
2:AA:162:U:H4'	2:AA:163:G:H5'	2.00	0.44
2:AA:1065:U:H2'	2:AA:1066:U:H6	1.81	0.44
2:AA:1630:A:O2'	2:AA:2125:A:O2'	2.32	0.44
2:AA:1647:U:H2'	2:AA:1648:U:C6	2.52	0.44
2:AA:1793:A:H61	2:AA:2084:U:H1'	1.82	0.44
2:AA:1856:U:C4	2:AA:1966:A:C6	3.06	0.44
2:AA:1856:U:O4	2:AA:1901:A:C8	2.70	0.44
2:AA:1875:A:H5"	33:AT:116:ARG:HG3	1.98	0.44
2:AA:2445:A:H2'	2:AA:2446:U:C6	2.53	0.44
2:AA:2509:U:H2'	2:AA:2510:U:C6	2.52	0.44
2:AA:2554:G:H21	2:AA:2555:A:N6	2.15	0.44
2:AA:3426:G:H5"	26:AM:14:ARG:NH1	2.31	0.44
2:AA:3433:C:O2'	2:AA:3434:A:H5'	2.18	0.44
2:AA:3476:A:N6	2:AA:3478:G:C2	2.86	0.44
2:AA:3717:A:N3	2:AA:3775:G:N2	2.66	0.44
5:AL:55:PRO:HG3	5:AL:73:GLY:O	2.18	0.44
6:A1:46:ILE:HD11	6:A1:48:LYS:O	2.17	0.44
9:A6:46:ILE:HB	9:A6:93:LEU:HB2	1.98	0.44
11:AN:55:ILE:HG12	11:AN:68:VAL:HG22	2.00	0.44
11:AN:124:THR:HG23	11:AN:127:GLU:OE2	2.18	0.44
14:Aa:88:ARG:HH21	14:Aa:89:ILE:HD13	1.83	0.44
20:Ah:44:LYS:HD3	20:Ah:59:LYS:HB2	1.98	0.44
30:AR:97:ALA:O	30:AR:101:THR:HG23	2.17	0.44
38:AE:294:ASP:OD1	38:AE:294:ASP:N	2.49	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AE:359:SER:HB3	38:AE:368:GLN:HG2	1.99	0.44
43:AV:112:LYS:HE2	43:AV:112:LYS:HB3	1.84	0.44
53:SA:847:U:H2'	53:SA:848:U:C6	2.52	0.44
53:SA:875:A:H8	53:SA:875:A:OP1	2.00	0.44
53:SA:1224:C:H2'	53:SA:1225:A:C2	2.52	0.44
53:SA:1720:G:H2'	53:SA:1721:A:C8	2.53	0.44
53:SA:1786:U:H2'	53:SA:1787:U:O4'	2.17	0.44
53:SA:2030:U:H2'	53:SA:2031:C:C6	2.52	0.44
54:SB:36:LYS:HD2	54:SB:41:ARG:CZ	2.47	0.44
57:SE:16:LYS:HE3	57:SE:16:LYS:HB3	1.68	0.44
57:SE:37:LYS:HB3	57:SE:41:GLU:OE1	2.17	0.44
57:SE:63:ASP:O	57:SE:69:ARG:HD2	2.18	0.44
58:SF:155:LYS:HA	58:SF:155:LYS:HD3	1.85	0.44
60:SH:76:LEU:HB2	60:SH:94:ARG:HE	1.82	0.44
66:SN:84:TYR:HD1	66:SN:85:LYS:H	1.65	0.44
71:SS:98:ILE:O	71:SS:100:VAL:HG13	2.17	0.44
76:SX:74:ASN:OD1	76:SX:74:ASN:N	2.45	0.44
2:AA:38:U:H2'	2:AA:39:A:O4'	2.18	0.44
2:AA:64:G:OP1	19:AP:186:ARG:NH2	2.51	0.44
2:AA:280:U:H2'	2:AA:281:G:C8	2.50	0.44
2:AA:1515:A:O2'	12:A8:45:ARG:NH2	2.44	0.44
2:AA:3260:G:O2'	2:AA:3418:A:H1'	2.18	0.44
2:AA:3501:C:H6	2:AA:3501:C:O5'	2.00	0.44
2:AA:3571:A:H8	2:AA:3677:A:O2'	2.00	0.44
4:AB:7:G:H5"	30:AR:22:ARG:HD3	1.99	0.44
4:AB:7:G:O6	4:AB:112:U:O4	2.35	0.44
5:AL:16:TRP:CD2	5:AL:19:ARG:HD2	2.52	0.44
6:A1:41:CYS:HB3	6:A1:43:VAL:HG23	2.00	0.44
6:A1:85:TYR:HB3	6:A1:136:ASP:OD2	2.18	0.44
10:A7:32:CYS:O	10:A7:36:LYS:HG2	2.18	0.44
12:A8:67:LEU:HB3	12:A8:68:PRO:HD2	2.00	0.44
15:Ab:88:LYS:HB3	15:Ab:88:LYS:HE3	1.56	0.44
27:AS:23:ASN:O	27:AS:27:ARG:HG3	2.18	0.44
33:AT:115:ASP:O	33:AT:119:TYR:HB3	2.17	0.44
33:AT:137:LEU:O	33:AT:141:ILE:HG13	2.17	0.44
36:A5:48:LYS:HA	36:A5:51:ASN:HD21	1.83	0.44
37:AD:30:ARG:O	37:AD:163:ARG:NH1	2.40	0.44
39:AF:31:PRO:O	39:AF:126:SER:OG	2.35	0.44
42:AH:93:LEU:HB2	42:AH:100:ILE:CD1	2.44	0.44
43:AV:39:ASP:O	43:AV:65:ILE:HG12	2.16	0.44
53:SA:102:A:H61	53:SA:391:A:H1'	1.82	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:337:G:H2'	53:SA:338:U:C6	2.53	0.44
53:SA:606:A:H2'	53:SA:607:U:C6	2.53	0.44
53:SA:639:U:O2'	53:SA:1204:U:OP1	2.32	0.44
53:SA:1021:A:H5"	73:SU:94:LYS:HE2	2.00	0.44
53:SA:1318:A:H61	67:SO:39:LYS:HE3	1.82	0.44
58:SF:202:MET:HE3	58:SF:203:GLY:N	2.33	0.44
59:SG:222:PHE:O	59:SG:226:ILE:HG13	2.17	0.44
65:SM:84:GLN:NE2	65:SM:116:SER:O	2.50	0.44
74:SV:133:PRO:HB3	74:SV:139:ARG:HH21	1.83	0.44
1:S7:10:G:H2'	1:S7:11:A:C8	2.52	0.44
1:S7:19:G:H4'	1:S7:20:U:H5"	1.99	0.44
2:AA:99:A:OP1	19:AP:196:ARG:HD2	2.17	0.44
2:AA:276:G:OP2	19:AP:44:ARG:NH1	2.50	0.44
2:AA:583:U:H4'	11:AN:85:LYS:HB3	2.00	0.44
2:AA:649:U:H4'	2:AA:650:U:C5	2.53	0.44
2:AA:709:A:N3	13:A9:124:PRO:HG2	2.32	0.44
2:AA:1083:G:H5'	28:AO:29:PRO:HB2	2.00	0.44
2:AA:1604:U:OP1	2:AA:2146:A:N6	2.47	0.44
2:AA:1736:A:O2'	2:AA:1737:A:OP1	2.30	0.44
2:AA:2098:G:O2'	3:AC:117:A:OP1	2.31	0.44
2:AA:2145:A:H2'	2:AA:2146:A:O4'	2.17	0.44
2:AA:2525:A:H2'	2:AA:2526:A:H8	1.82	0.44
2:AA:2948:A:H2'	2:AA:2949:G:C8	2.52	0.44
2:AA:2989:U:O4'	2:AA:3097:A:H2	2.01	0.44
2:AA:3171:C:H2'	2:AA:3172:A:C8	2.53	0.44
2:AA:3626:A:H2'	2:AA:3626:A:N3	2.32	0.44
4:AB:90:A:N3	4:AB:91:C:H1'	2.32	0.44
6:A1:52:LYS:HB3	6:A1:52:LYS:HE2	1.75	0.44
14:Aa:95:PHE:O	14:Aa:99:LYS:HG2	2.17	0.44
15:Ab:4:LYS:HD3	15:Ab:18:ASN:HA	1.99	0.44
18:Af:45:LEU:HD23	18:Af:45:LEU:HA	1.76	0.44
30:AR:180:ASN:OD1	30:AR:181:ARG:NH1	2.50	0.44
35:A3:35:LYS:HE2	35:A3:35:LYS:HB3	1.46	0.44
39:AF:338:LEU:HD23	39:AF:338:LEU:HA	1.86	0.44
39:AF:355:LYS:HA	39:AF:355:LYS:HD2	1.71	0.44
40:AG:19:LEU:HD13	40:AG:19:LEU:HA	1.89	0.44
42:AH:48:ASN:HB2	42:AH:52:LYS:O	2.18	0.44
46:A0:13:CYS:SG	46:A0:38:TYR:HA	2.58	0.44
53:SA:377:G:N2	53:SA:619:U:O2	2.51	0.44
53:SA:1381:C:HO2'	53:SA:1382:G:P	2.41	0.44
55:SC:86:VAL:HG13	55:SC:87:LEU:HD22	1.98	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:SF:88:ASP:O	58:SF:100:ARG:HG3	2.18	0.44
59:SG:63:TYR:HE1	78:SZ:12:TYR:CE1	2.36	0.44
59:SG:193:ALA:O	59:SG:197:LYS:HG2	2.18	0.44
60:SH:14:LYS:HB3	60:SH:14:LYS:HE2	1.61	0.44
68:SP:91:THR:O	68:SP:125:LYS:HB3	2.18	0.44
68:SP:116:LEU:HD12	68:SP:116:LEU:HA	1.70	0.44
68:SP:138:ASP:OD1	68:SP:140:THR:N	2.51	0.44
71:SS:98:ILE:HD12	71:SS:98:ILE:HA	1.80	0.44
74:SV:95:HIS:HB2	74:SV:106:ARG:NE	2.31	0.44
2:AA:302:A:H2'	2:AA:303:A:H8	1.82	0.44
2:AA:389:U:H2'	2:AA:390:C:C6	2.52	0.44
2:AA:699:U:O2'	13:A9:92:HIS:O	2.18	0.44
2:AA:733:C:OP2	12:A8:27:ARG:HD3	2.18	0.44
2:AA:1690:A:H2'	2:AA:1691:G:O4'	2.18	0.44
2:AA:1711:G:H2'	2:AA:1712:G:C8	2.52	0.44
2:AA:2457:C:OP1	37:AD:231:ALA:HA	2.18	0.44
2:AA:2936:A:H2'	2:AA:2937:G:C8	2.53	0.44
2:AA:3220:U:H2'	2:AA:3221:U:O4'	2.18	0.44
2:AA:3500:G:H3'	2:AA:3501:C:C6	2.53	0.44
2:AA:3707:U:H2'	2:AA:3708:U:C6	2.53	0.44
2:AA:3758:G:H2'	2:AA:3759:U:C5	2.53	0.44
3:AC:126:C:H5"	35:A3:64:ARG:HH12	1.83	0.44
4:AB:9:U:OP2	4:AB:10:C:N4	2.51	0.44
6:A1:23:ALA:HB1	6:A1:43:VAL:HG11	1.99	0.44
19:AP:56:ILE:HG22	19:AP:57:GLN:H	1.83	0.44
26:AM:74:LYS:HE2	26:AM:74:LYS:HB3	1.66	0.44
26:AM:82:ARG:NH2	26:AM:120:VAL:O	2.51	0.44
29:AQ:49:VAL:HA	29:AQ:139:ARG:HA	1.99	0.44
29:AQ:144:PHE:CG	29:AQ:147:LYS:HE3	2.53	0.44
30:AR:100:ALA:HB2	30:AR:243:HIS:NE2	2.33	0.44
53:SA:5:U:H2'	53:SA:6:G:C8	2.52	0.44
53:SA:104:U:H5"	64:SL:19:LYS:NZ	2.32	0.44
53:SA:125:G:O6	53:SA:301:A:N6	2.51	0.44
53:SA:392:G:OP1	64:SL:23:LYS:HG2	2.18	0.44
53:SA:795:U:H2'	53:SA:796:A:C8	2.52	0.44
53:SA:818:C:C2	57:SE:143:ILE:HG21	2.53	0.44
53:SA:933:A:H2'	53:SA:934:G:O4'	2.18	0.44
53:SA:1253:A:H2'	53:SA:1254:G:C8	2.53	0.44
53:SA:1395:G:O2'	53:SA:1423:A:N1	2.49	0.44
53:SA:1607:U:H2'	53:SA:1608:G:C8	2.52	0.44
53:SA:1662:A:C6	53:SA:1663:A:N6	2.85	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:SD:139:VAL:HG23	56:SD:151:MET:SD	2.58	0.44
57:SE:53:ARG:HH22	59:SG:185:PRO:HG2	1.82	0.44
61:SI:49:LYS:O	61:SI:50:LYS:HD2	2.18	0.44
75:SW:61:ILE:HD13	75:SW:66:VAL:HG11	2.00	0.44
76:SX:49:ILE:HG12	76:SX:54:LYS:HE3	1.99	0.44
77:SY:123:LEU:HA	77:SY:126:ILE:HG22	2.00	0.44
2:AA:536:A:O2'	2:AA:537:A:H8	2.00	0.44
2:AA:543:U:H4'	2:AA:544:C:C2	2.53	0.44
2:AA:1510:U:O3'	36:A5:174:LYS:NZ	2.51	0.44
2:AA:1636:A:C6	2:AA:1637:G:C8	3.06	0.44
2:AA:1797:A:H2'	2:AA:1798:A:C4	2.53	0.44
2:AA:1836:U:N3	2:AA:3454:G:N7	2.66	0.44
2:AA:3036:A:H2'	2:AA:3037:G:H8	1.81	0.44
2:AA:3171:C:H2'	2:AA:3172:A:H8	1.82	0.44
2:AA:3195:C:H1'	29:AQ:157:TYR:CE2	2.52	0.44
2:AA:3469:C:C5	2:AA:3470:G:C4	3.06	0.44
2:AA:3661:A:O5'	22:AI:89:TYR:OH	2.35	0.44
4:AB:30:A:H2'	4:AB:31:G:C8	2.53	0.44
4:AB:38:U:N3	4:AB:41:G:OP2	2.51	0.44
9:A6:64:MET:O	9:A6:67:LYS:NZ	2.35	0.44
26:AM:28:CYS:SG	26:AM:101:ALA:HB1	2.58	0.44
30:AR:57:ASN:OD1	30:AR:58:SER:OG	2.29	0.44
33:AT:29:SER:O	33:AT:33:LEU:HG	2.17	0.44
37:AD:104:ILE:N	37:AD:162:ALA:O	2.43	0.44
53:SA:88:A:H2'	53:SA:89:C:C6	2.53	0.44
53:SA:1277:G:N3	53:SA:1296:C:O2'	2.50	0.44
53:SA:1720:G:OP1	61:SI:76:LYS:NZ	2.35	0.44
67:SO:73:LYS:NZ	72:ST:18:GLN:OE1	2.39	0.44
74:SV:77:MET:HE1	74:SV:123:GLY:C	2.43	0.44
75:SW:99:GLU:O	75:SW:103:LEU:HD12	2.17	0.44
77:SY:162:ILE:HA	77:SY:165:LYS:NZ	2.32	0.44
78:SZ:38:MET:HE1	78:SZ:49:THR:HA	1.99	0.44
2:AA:14:U:H3	3:AC:143:G:N2	2.14	0.44
2:AA:540:C:H3'	2:AA:541:A:C8	2.53	0.44
2:AA:588:C:H2'	2:AA:589:C:H6	1.82	0.44
2:AA:742:U:H2'	2:AA:743:A:C8	2.52	0.44
2:AA:2447:U:H2'	2:AA:2448:G:H8	1.83	0.44
2:AA:2999:C:H2'	2:AA:3000:A:C8	2.53	0.44
2:AA:3418:A:H2'	2:AA:3419:U:H6	1.83	0.44
5:AL:191:ARG:HD2	5:AL:191:ARG:HA	1.73	0.44
6:A1:91:PHE:HE2	6:A1:95:SER:HG	1.62	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AN:23:ARG:HG3	11:AN:78:LYS:HD3	1.99	0.44
11:AN:30:LEU:HB3	11:AN:77:LEU:HB2	1.99	0.44
11:AN:142:MET:HE1	25:AK:181:LYS:HB2	2.00	0.44
12:A8:32:TRP:CZ2	12:A8:53:PRO:HD2	2.53	0.44
19:AP:159:HIS:HB3	19:AP:162:LEU:HB2	1.99	0.44
21:Ai:14:ASN:OD1	21:Ai:14:ASN:N	2.50	0.44
24:Ac:24:ARG:NH1	24:Ac:40:CYS:SG	2.90	0.44
26:AM:87:TRP:O	26:AM:87:TRP:CD1	2.70	0.44
29:AQ:138:ILE:HD11	29:AQ:152:LEU:HD13	2.00	0.44
29:AQ:150:GLU:H	29:AQ:150:GLU:HG3	1.69	0.44
30:AR:196:LYS:HD2	30:AR:196:LYS:O	2.17	0.44
38:AE:89:ILE:O	38:AE:104:THR:HA	2.17	0.44
38:AE:281:ARG:O	38:AE:282:ILE:HD13	2.18	0.44
53:SA:211:U:H2'	53:SA:212:U:H6	1.83	0.44
53:SA:331:G:H2'	53:SA:332:U:H6	1.83	0.44
53:SA:1637:U:H2'	53:SA:1638:U:H6	1.81	0.44
53:SA:1663:A:H2'	53:SA:1664:G:C8	2.53	0.44
53:SA:2036:A:C6	53:SA:2037:A:C4	3.06	0.44
56:SD:126:HIS:HA	56:SD:129:GLU:HG2	1.98	0.44
58:SF:9:LEU:HD11	58:SF:38:LEU:HD21	2.00	0.44
58:SF:57:THR:HG22	58:SF:59:ASP:H	1.83	0.44
59:SG:109:ARG:HG3	59:SG:129:CYS:SG	2.58	0.44
59:SG:235:GLY:HA2	78:SZ:23:LEU:HD11	1.99	0.44
60:SH:48:TYR:HE1	60:SH:117:GLY:H	1.65	0.44
62:SJ:11:SER:OG	62:SJ:12:ASN:N	2.50	0.44
68:SP:100:SER:OG	68:SP:105:SER:O	2.36	0.44
76:SX:30:GLN:HA	76:SX:33:LEU:HG	2.00	0.44
2:AA:219:A:OP1	39:AF:222:ARG:NE	2.33	0.43
2:AA:424:U:H2'	2:AA:425:A:H8	1.82	0.43
2:AA:705:C:H2'	2:AA:706:U:C6	2.53	0.43
2:AA:1158:G:H2'	2:AA:1159:A:C8	2.52	0.43
2:AA:1857:A:H2	2:AA:1903:C:H41	1.66	0.43
2:AA:1867:U:H5'	6:A1:76:ASN:ND2	2.24	0.43
2:AA:2104:C:H2'	2:AA:2105:A:O4'	2.18	0.43
2:AA:3081:C:H2'	2:AA:3082:G:H8	1.83	0.43
2:AA:3383:A:H2'	2:AA:3384:G:H8	1.83	0.43
2:AA:3441:A:H62	2:AA:3470:G:H2'	1.82	0.43
2:AA:3727:A:N6	2:AA:3762:A:O2'	2.50	0.43
4:AB:69:U:N3	4:AB:70:G:O6	2.51	0.43
13:A9:61:THR:HG21	13:A9:122:ILE:HB	2.00	0.43
17:Ae:5:LYS:HE3	17:Ae:5:LYS:HB3	1.88	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:Ah:51:CYS:SG	20:Ah:52:VAL:N	2.83	0.43
30:AR:56:THR:HG1	30:AR:59:GLN:H	1.63	0.43
30:AR:88:ILE:HG22	30:AR:90:VAL:O	2.18	0.43
30:AR:104:LEU:HB2	30:AR:246:ILE:HD11	1.99	0.43
33:AT:42:LYS:HG2	33:AT:42:LYS:H	1.64	0.43
38:AE:78:ILE:HG23	38:AE:319:LEU:O	2.18	0.43
38:AE:185:MET:HA	38:AE:188:LYS:HG2	1.99	0.43
38:AE:210:GLU:HB3	38:AE:279:ILE:HD11	2.00	0.43
39:AF:190:ARG:HD2	39:AF:199:ARG:O	2.17	0.43
53:SA:325:U:H4'	53:SA:329:A:C8	2.53	0.43
53:SA:861:C:H2'	53:SA:862:A:H8	1.82	0.43
58:SF:125:LYS:HZ1	58:SF:157:ASN:HA	1.83	0.43
59:SG:175:GLY:O	59:SG:178:ARG:NH1	2.47	0.43
59:SG:190:ILE:HG13	59:SG:197:LYS:CD	2.48	0.43
63:SK:86:ILE:O	63:SK:90:ILE:HG12	2.18	0.43
64:SL:84:ASN:C	64:SL:84:ASN:ND2	2.75	0.43
65:SM:129:LYS:HG2	65:SM:136:ARG:HH11	1.83	0.43
73:SU:72:LEU:O	73:SU:76:ARG:HB2	2.17	0.43
76:SX:83:MET:SD	76:SX:84:THR:N	2.91	0.43
76:SX:103:THR:HG23	76:SX:118:GLU:HB3	1.99	0.43
78:SZ:72:MET:HG2	78:SZ:72:MET:H	1.65	0.43
2:AA:322:C:OP1	5:AL:101:LYS:HE3	2.18	0.43
2:AA:661:G:C4	2:AA:662:A:C8	3.06	0.43
2:AA:1066:U:H2'	2:AA:1067:U:C6	2.54	0.43
2:AA:1605:A:C8	10:A7:34:LYS:HD2	2.52	0.43
2:AA:1642:G:H2'	17:Ae:13:LEU:HD22	1.99	0.43
2:AA:1839:U:H2'	2:AA:1840:C:C6	2.53	0.43
2:AA:1899:U:O4	2:AA:1900:G:N2	2.51	0.43
2:AA:1992:U:H3'	2:AA:1993:A:C8	2.52	0.43
2:AA:2183:A:H2'	2:AA:2184:U:H6	1.84	0.43
2:AA:3035:A:H2'	2:AA:3036:A:C8	2.53	0.43
2:AA:3432:A:H2'	2:AA:3433:C:C6	2.53	0.43
2:AA:3513:G:H8	2:AA:3513:G:OP2	2.01	0.43
2:AA:3587:U:P	25:AK:36:ARG:HH22	2.40	0.43
2:AA:3612:U:N3	2:AA:3613:A:N7	2.66	0.43
2:AA:3669:U:H1'	2:AA:3671:A:H62	1.83	0.43
18:Af:38:LYS:HE3	18:Af:38:LYS:HB3	1.75	0.43
19:AP:182:SER:O	19:AP:184:LYS:N	2.50	0.43
33:AT:43:LEU:HD12	33:AT:46:GLU:OE2	2.18	0.43
37:AD:63:PHE:O	37:AD:72:LYS:N	2.46	0.43
38:AE:219:LYS:O	38:AE:269:TYR:N	2.47	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AE:282:ILE:HA	38:AE:319:LEU:CD1	2.48	0.43
38:AE:310:HIS:O	38:AE:330:LYS:HE3	2.18	0.43
39:AF:381:LYS:HE3	39:AF:385:LYS:HG3	1.99	0.43
40:AG:32:ARG:O	40:AG:36:VAL:HG12	2.17	0.43
47:S1:57:VAL:HG13	47:S1:77:TYR:HE2	1.83	0.43
48:S2:64:ILE:HD11	48:S2:75:ALA:HB1	2.00	0.43
53:SA:80:A:OP1	60:SH:154:ARG:NH2	2.51	0.43
53:SA:155:A:H2'	53:SA:156:A:C4	2.52	0.43
53:SA:1063:G:H2'	53:SA:1064:A:H8	1.83	0.43
53:SA:1850:G:O6	76:SX:43:ARG:NH1	2.51	0.43
53:SA:1878:C:H5'	65:SM:138:ARG:HH12	1.83	0.43
53:SA:1955:G:C6	53:SA:2036:A:N6	2.87	0.43
53:SA:1961:U:H2'	53:SA:1962:A:C8	2.53	0.43
54:SB:56:LEU:HG	54:SB:58:THR:HG22	2.00	0.43
54:SB:186:LYS:HD2	54:SB:186:LYS:N	2.33	0.43
59:SG:242:TRP:CE3	59:SG:242:TRP:HA	2.54	0.43
60:SH:77:PHE:CE2	60:SH:95:LYS:HB2	2.49	0.43
61:SI:13:LYS:HB2	61:SI:13:LYS:HE3	1.67	0.43
61:SI:53:ARG:HD3	61:SI:53:ARG:N	2.33	0.43
62:SJ:79:LYS:HD3	62:SJ:79:LYS:HA	1.79	0.43
63:SK:86:ILE:HD11	63:SK:104:LEU:HD11	1.99	0.43
64:SL:10:LYS:HA	64:SL:10:LYS:HD3	1.74	0.43
64:SL:81:VAL:HG11	64:SL:94:LYS:HA	2.00	0.43
65:SM:41:GLU:HB3	65:SM:42:PRO:HD3	1.99	0.43
74:SV:79:ILE:HB	74:SV:88:ILE:HB	2.00	0.43
77:SY:86:ARG:HA	77:SY:86:ARG:HD2	1.78	0.43
2:AA:964:G:O2'	2:AA:966:A:N6	2.50	0.43
2:AA:1086:C:C2	2:AA:1087:G:C8	3.07	0.43
2:AA:1860:A:C5	2:AA:1861:C:C4	3.06	0.43
2:AA:1869:G:C2	2:AA:1889:A:N7	2.86	0.43
2:AA:1887:G:P	14:Aa:83:ARG:HH22	2.40	0.43
2:AA:1964:G:N2	16:Ad:4:GLN:OE1	2.51	0.43
2:AA:2817:U:H2'	2:AA:2818:U:H6	1.82	0.43
2:AA:3022:U:H2'	2:AA:3023:C:C6	2.53	0.43
2:AA:3377:A:O2'	25:AK:114:LYS:NZ	2.52	0.43
2:AA:3420:U:H3'	2:AA:3421:A:H8	1.83	0.43
7:A2:86:MET:HA	7:A2:112:TYR:CE2	2.54	0.43
9:A6:33:CYS:HA	9:A6:94:VAL:CG1	2.48	0.43
17:Ae:8:ARG:HD3	17:Ae:8:ARG:HA	1.71	0.43
20:Ah:48:LYS:N	20:Ah:56:LYS:O	2.33	0.43
22:AI:60:ALA:HB1	22:AI:104:LEU:HG	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AJ:283:LEU:HD11	54:SB:94:ARG:HE	1.83	0.43
30:AR:49:LEU:HA	30:AR:65:ALA:O	2.19	0.43
31:AW:55:LYS:HB3	31:AW:55:LYS:HE3	1.77	0.43
39:AF:121:ARG:HD3	39:AF:277:TYR:CD1	2.54	0.43
53:SA:455:C:H2'	53:SA:456:U:H6	1.83	0.43
53:SA:1716:C:H2'	53:SA:1869:G:H5'	1.99	0.43
55:SC:185:LYS:HD2	55:SC:185:LYS:HA	1.82	0.43
58:SF:57:THR:HB	58:SF:60:GLU:HG3	2.01	0.43
59:SG:190:ILE:HG12	59:SG:200:LEU:HD23	2.00	0.43
60:SH:8:PRO:HD3	60:SH:112:THR:OG1	2.18	0.43
60:SH:189:ASN:O	60:SH:192:GLN:HG3	2.18	0.43
62:SJ:27:ILE:HD13	62:SJ:87:LYS:HD3	2.00	0.43
63:SK:34:VAL:O	63:SK:38:LEU:HG	2.17	0.43
64:SL:59:LYS:HB2	64:SL:59:LYS:HE3	1.79	0.43
66:SN:46:ASN:O	66:SN:46:ASN:ND2	2.50	0.43
2:AA:13:G:H3'	2:AA:14:U:H5"	2.01	0.43
2:AA:203:A:C2	2:AA:207:A:H2	2.35	0.43
2:AA:505:A:H2'	2:AA:506:A:C8	2.49	0.43
2:AA:773:A:C4	2:AA:774:A:C8	3.07	0.43
2:AA:803:A:H2'	2:AA:804:A:O4'	2.19	0.43
2:AA:1329:U:O4	2:AA:3216:C:H5"	2.18	0.43
2:AA:1629:G:C2	2:AA:2139:C:H5	2.36	0.43
2:AA:1856:U:H2'	2:AA:1857:A:C8	2.53	0.43
2:AA:1889:A:C3'	2:AA:1890:G:H5'	2.48	0.43
2:AA:2835:G:OP2	23:AJ:68:TYR:OH	2.36	0.43
2:AA:3086:A:C2	30:AR:150:VAL:HG12	2.53	0.43
2:AA:3188:U:C2	2:AA:3189:G:C8	3.07	0.43
4:AB:24:C:O2'	4:AB:25:A:OP1	2.35	0.43
4:AB:44:C:H2'	4:AB:45:U:H6	1.84	0.43
4:AB:48:G:H8	4:AB:48:G:OP2	2.01	0.43
5:AL:195:ALA:O	5:AL:199:LYS:HG3	2.18	0.43
20:Ah:3:ARG:HA	20:Ah:3:ARG:NE	2.34	0.43
23:AJ:71:TRP:HB3	23:AJ:75:ILE:HD11	2.00	0.43
31:AW:8:ILE:O	31:AW:10:ASN:N	2.48	0.43
38:AE:58:ARG:NH1	38:AE:351:VAL:HB	2.33	0.43
39:AF:182:ARG:NH2	39:AF:205:ASN:O	2.52	0.43
39:AF:318:SER:HB2	39:AF:328:LEU:HD12	1.99	0.43
53:SA:1634:A:N6	53:SA:1655:G:H1'	2.33	0.43
54:SB:114:ILE:HG22	54:SB:142:PHE:CZ	2.53	0.43
54:SB:135:LEU:HD12	54:SB:215:VAL:HG12	2.00	0.43
55:SC:167:LYS:HE2	55:SC:203:TRP:H	1.82	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:SH:76:LEU:HD13	60:SH:94:ARG:HD2	1.99	0.43
62:SJ:141:ILE:HB	63:SK:52:ILE:HG23	2.00	0.43
70:SR:131:PHE:HE1	70:SR:135:GLN:HG3	1.82	0.43
71:SS:100:VAL:O	71:SS:104:GLN:HB3	2.18	0.43
74:SV:72:ARG:C	74:SV:73:ILE:HD13	2.43	0.43
1:S7:15:G:N2	1:S7:59:A:N7	2.67	0.43
2:AA:62:A:O2'	2:AA:63:A:OP1	2.28	0.43
2:AA:63:A:H4'	19:AP:186:ARG:O	2.18	0.43
2:AA:1094:U:H2'	2:AA:1095:U:C6	2.53	0.43
2:AA:1255:G:N2	2:AA:1258:A:OP2	2.31	0.43
2:AA:1472:A:H2'	2:AA:1473:A:H8	1.83	0.43
2:AA:1510:U:OP1	39:AF:311:LYS:NZ	2.44	0.43
2:AA:1725:U:H2'	2:AA:1726:C:C6	2.53	0.43
2:AA:1838:U:O2	2:AA:1838:U:H2'	2.18	0.43
2:AA:2032:A:H2'	2:AA:2033:C:H5'	2.00	0.43
2:AA:2034:G:H2'	2:AA:2035:G:C8	2.54	0.43
2:AA:2100:G:O2'	17:Ae:4:ILE:HA	2.18	0.43
2:AA:2550:C:OP1	2:AA:2550:C:H4'	2.18	0.43
2:AA:3011:G:O3'	40:AG:95:ASN:HB3	2.18	0.43
2:AA:3118:A:H2'	2:AA:3119:A:H8	1.82	0.43
2:AA:3647:C:H2'	2:AA:3648:U:C6	2.53	0.43
2:AA:3657:G:O2'	2:AA:3658:G:H5'	2.18	0.43
3:AC:82:G:H2'	3:AC:83:U:C6	2.53	0.43
9:A6:53:SER:HA	9:A6:56:ARG:HB3	2.01	0.43
12:A8:34:LYS:HD2	12:A8:35:PRO:HD2	1.99	0.43
14:Aa:95:PHE:O	14:Aa:95:PHE:CD1	2.72	0.43
19:AP:65:ARG:HD2	19:AP:128:TYR:CG	2.53	0.43
19:AP:194:LYS:HB2	19:AP:194:LYS:HE3	1.64	0.43
21:Ai:14:ASN:C	21:Ai:16:CYS:H	2.26	0.43
23:AJ:228:LEU:HD12	23:AJ:228:LEU:O	2.19	0.43
25:AK:88:PRO:O	25:AK:94:GLY:HA3	2.18	0.43
30:AR:99:TYR:HA	30:AR:163:ALA:O	2.18	0.43
30:AR:110:LEU:HD11	30:AR:115:LEU:HD12	2.01	0.43
38:AE:183:GLY:N	38:AE:188:LYS:NZ	2.65	0.43
38:AE:224:LYS:HG3	38:AE:267:LYS:HG2	2.01	0.43
43:AV:66:PHE:CZ	43:AV:89:LYS:HB3	2.52	0.43
53:SA:834:A:H2'	53:SA:835:G:C8	2.52	0.43
53:SA:1435:C:O2	53:SA:1665:G:N2	2.41	0.43
53:SA:1445:U:H1'	66:SN:54:ARG:HH21	1.83	0.43
53:SA:1930:A:H2	59:SG:101:GLN:NE2	2.16	0.43
53:SA:1978:A:N6	53:SA:2013:A:C8	2.87	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:SC:57:LEU:HD13	55:SC:57:LEU:HA	1.89	0.43
56:SD:107:ARG:HD3	56:SD:176:ALA:HB2	2.00	0.43
56:SD:163:GLU:HG3	56:SD:164:PRO:HD3	2.01	0.43
57:SE:53:ARG:NH2	59:SG:188:THR:OG1	2.52	0.43
57:SE:111:THR:HA	57:SE:114:PHE:HB3	2.01	0.43
58:SF:98:TYR:HB2	58:SF:114:ILE:O	2.19	0.43
58:SF:100:ARG:HD2	58:SF:102:LEU:HD21	2.01	0.43
59:SG:181:LEU:HD12	59:SG:208:CYS:SG	2.58	0.43
65:SM:32:LEU:HA	65:SM:68:ILE:HB	2.00	0.43
67:SO:39:LYS:HD3	67:SO:39:LYS:HA	1.78	0.43
76:SX:61:ARG:NH1	76:SX:61:ARG:HA	2.34	0.43
1:S7:18:G:N2	1:S7:57:A:H2'	2.34	0.43
2:AA:521:U:O2'	2:AA:522:A:H8	2.02	0.43
2:AA:763:U:OP1	5:AL:34:ARG:HD2	2.19	0.43
2:AA:1073:G:H1	2:AA:1243:G:H1'	1.83	0.43
2:AA:1890:G:H2'	2:AA:1891:A:H8	1.84	0.43
2:AA:2738:U:H2'	2:AA:2739:U:O4'	2.19	0.43
2:AA:3393:C:H2'	2:AA:3394:A:H8	1.84	0.43
2:AA:3577:A:H3'	2:AA:3581:A:H61	1.83	0.43
3:AC:138:U:H5'	32:AY:145:LYS:HE3	2.01	0.43
4:AB:25:A:OP1	30:AR:81:LYS:HE3	2.19	0.43
6:A1:39:SER:HB3	6:A1:77:VAL:H	1.84	0.43
19:AP:157:HIS:C	19:AP:157:HIS:HD1	2.26	0.43
22:AI:139:THR:O	22:AI:142:ILE:HG13	2.18	0.43
24:Ac:88:LYS:HD3	24:Ac:88:LYS:HA	1.74	0.43
25:AK:116:LYS:HE2	25:AK:116:LYS:HB2	1.83	0.43
30:AR:21:ARG:HG2	30:AR:25:GLU:OE1	2.19	0.43
30:AR:110:LEU:HB3	30:AR:116:ASP:OD2	2.18	0.43
32:AY:131:VAL:HG22	32:AY:171:TYR:CD1	2.53	0.43
34:AZ:36:LYS:HE2	34:AZ:36:LYS:HB2	1.89	0.43
36:A5:241:ASP:O	36:A5:245:ARG:NH1	2.52	0.43
40:AG:156:LYS:HE2	40:AG:156:LYS:HB2	1.89	0.43
42:AH:168:ASN:O	42:AH:169:LYS:HD3	2.18	0.43
47:S1:58:LEU:HB3	47:S1:61:PHE:CZ	2.53	0.43
49:S3:15:ARG:NH1	53:SA:1005:G:N7	2.67	0.43
53:SA:253:A:H8	58:SF:131:LEU:HD11	1.83	0.43
53:SA:413:A:H2'	53:SA:414:C:H6	1.83	0.43
53:SA:593:G:H2'	53:SA:594:C:C6	2.53	0.43
53:SA:912:U:H2'	53:SA:913:U:C6	2.54	0.43
53:SA:1037:U:H2'	53:SA:1038:C:O4'	2.18	0.43
53:SA:1931:C:H5"	53:SA:1932:A:C8	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:SB:128:LYS:HD2	54:SB:132:ASN:HA	2.00	0.43
58:SF:137:SER:O	58:SF:149:TYR:N	2.40	0.43
58:SF:161:ARG:HB2	58:SF:171:GLU:H	1.84	0.43
73:SU:17:PRO:HG2	73:SU:62:GLN:NE2	2.33	0.43
2:AA:494:U:O2'	2:AA:495:U:H5'	2.19	0.43
2:AA:1066:U:H2'	2:AA:1067:U:H6	1.84	0.43
2:AA:1068:C:O2'	2:AA:1090:G:OP1	2.29	0.43
2:AA:1177:A:H5"	2:AA:2976:A:N6	2.33	0.43
2:AA:1889:A:H3'	2:AA:1890:G:C8	2.38	0.43
2:AA:2403:G:O2'	2:AA:2404:A:H3'	2.19	0.43
2:AA:2563:A:H2'	2:AA:2564:A:C8	2.54	0.43
2:AA:3409:U:O4	2:AA:3418:A:C8	2.72	0.43
2:AA:3506:U:O4	18:Af:32:THR:OG1	2.37	0.43
4:AB:9:U:H2'	4:AB:13:A:N6	2.33	0.43
7:A2:15:LYS:HA	7:A2:15:LYS:HD3	1.67	0.43
8:A4:58:LYS:HA	8:A4:58:LYS:HD3	1.87	0.43
15:Ab:67:ILE:HD11	15:Ab:72:SER:HB3	2.01	0.43
16:Ad:26:MET:SD	16:Ad:40:LYS:HB2	2.58	0.43
19:AP:32:GLN:CB	23:AJ:77:ILE:HD11	2.49	0.43
23:AJ:113:LEU:HA	23:AJ:116:TYR:HB2	2.00	0.43
26:AM:87:TRP:O	26:AM:87:TRP:HD1	2.01	0.43
29:AQ:65:LEU:HD23	29:AQ:65:LEU:HA	1.89	0.43
29:AQ:76:MET:HE1	29:AQ:85:PHE:CG	2.54	0.43
30:AR:111:LYS:HB3	30:AR:116:ASP:OD1	2.19	0.43
36:A5:187:GLY:HA2	36:A5:192:HIS:ND1	2.34	0.43
53:SA:886:U:H3	53:SA:916:G:H1	0.66	0.43
53:SA:1303:A:H3'	53:SA:1303:A:N3	2.34	0.43
53:SA:1798:G:HO2'	53:SA:1800:A:H62	1.61	0.43
53:SA:1903:U:H2'	53:SA:1904:G:C8	2.54	0.43
53:SA:2062:U:H2'	53:SA:2063:U:C6	2.53	0.43
55:SC:13:SER:O	55:SC:17:MET:HE1	2.19	0.43
55:SC:43:ASP:OD1	55:SC:43:ASP:C	2.61	0.43
55:SC:124:THR:HA	55:SC:146:LEU:HD12	2.00	0.43
58:SF:71:LYS:N	58:SF:91:HIS:O	2.51	0.43
63:SK:104:LEU:N	63:SK:111:MET:O	2.29	0.43
68:SP:80:ASP:OD1	68:SP:81:VAL:N	2.51	0.43
73:SU:11:ILE:H	73:SU:11:ILE:HG13	1.63	0.43
2:AA:436:G:H2'	2:AA:437:A:H8	1.83	0.43
2:AA:622:U:H2'	2:AA:623:U:H6	1.84	0.43
2:AA:1131:A:O2'	29:AQ:39:LYS:HG2	2.18	0.43
2:AA:1223:U:C4	36:A5:209:LYS:HD3	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1857:A:C2	2:AA:1858:U:H1'	2.54	0.43
2:AA:1907:A:H2'	2:AA:1908:U:O4'	2.19	0.43
2:AA:2011:U:C2	2:AA:2012:A:C8	3.07	0.43
2:AA:2088:A:H2'	2:AA:2089:C:C6	2.54	0.43
2:AA:2124:C:O2	14:Aa:4:ARG:HG2	2.18	0.43
2:AA:2442:A:P	2:AA:2442:A:H8	2.41	0.43
2:AA:3727:A:C4	2:AA:3763:G:H1'	2.54	0.43
4:AB:40:A:H2	40:AG:70:THR:HG21	1.84	0.43
6:A1:12:ILE:HG12	6:A1:81:LEU:O	2.18	0.43
6:A1:22:LYS:HD3	6:A1:22:LYS:N	2.33	0.43
19:AP:51:LEU:HD13	19:AP:118:ASN:HB3	2.00	0.43
27:AS:130:PRO:HB3	39:AF:298:VAL:HG22	2.00	0.43
29:AQ:65:LEU:HD11	29:AQ:91:ILE:HG13	1.99	0.43
30:AR:107:ARG:HA	30:AR:107:ARG:HD2	1.73	0.43
35:A3:46:ILE:HG13	35:A3:47:HIS:N	2.33	0.43
35:A3:95:SER:OG	35:A3:98:GLN:HG3	2.18	0.43
38:AE:281:ARG:HB3	38:AE:320:LEU:HB2	2.00	0.43
39:AF:259:LYS:HD2	39:AF:272:VAL:HG11	2.00	0.43
41:AU:21:ARG:HG2	41:AU:22:ALA:N	2.33	0.43
50:S4:13:GLU:HA	50:S4:15:LYS:HZ3	1.82	0.43
53:SA:118:U:H2'	53:SA:119:C:H6	1.84	0.43
53:SA:142:G:C2	53:SA:143:A:C8	3.07	0.43
53:SA:335:G:O3'	64:SL:97:VAL:HB	2.18	0.43
53:SA:1023:A:H2'	53:SA:1024:A:H8	1.83	0.43
53:SA:1214:A:OP1	53:SA:1216:U:H1'	2.19	0.43
53:SA:1253:A:H2'	53:SA:1254:G:H8	1.83	0.43
53:SA:1888:U:H2'	53:SA:1889:G:C8	2.51	0.43
53:SA:2030:U:H2'	53:SA:2031:C:H6	1.83	0.43
54:SB:86:LEU:HB3	54:SB:98:THR:HB	2.00	0.43
54:SB:114:ILE:HA	54:SB:142:PHE:CE2	2.54	0.43
56:SD:104:GLU:HG3	56:SD:108:TYR:CZ	2.54	0.43
65:SM:24:THR:O	65:SM:65:ASP:N	2.39	0.43
65:SM:115:ARG:O	65:SM:115:ARG:NH1	2.42	0.43
72:ST:19:CYS:HB2	72:ST:37:CYS:HB2	2.01	0.43
76:SX:29:SER:O	76:SX:33:LEU:HG	2.18	0.43
77:SY:160:ARG:O	77:SY:164:LYS:HG2	2.19	0.43
2:AA:146:U:H1'	2:AA:147:C:C5	2.53	0.43
2:AA:357:A:C4	3:AC:28:G:H1'	2.53	0.43
2:AA:456:A:H2'	2:AA:457:A:H8	1.84	0.43
2:AA:1897:G:HO2'	2:AA:1898:U:C5'	2.32	0.43
2:AA:2069:C:H2'	2:AA:2070:U:C5	2.53	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:2469:U:OP1	37:AD:54:ARG:NH2	2.38	0.43
2:AA:3361:U:OP1	38:AE:100:ARG:NH1	2.51	0.43
2:AA:3692:A:H1'	2:AA:3783:G:N2	2.34	0.43
2:AA:3718:G:OP1	10:A7:110:LYS:HA	2.18	0.43
4:AB:16:A:N6	4:AB:64:A:C6	2.87	0.43
5:AL:128:LYS:HA	5:AL:128:LYS:HD2	1.70	0.43
9:A6:86:LYS:HD3	9:A6:86:LYS:HA	1.72	0.43
10:A7:27:LEU:HD11	10:A7:47:ILE:HD11	2.01	0.43
11:AN:30:LEU:HD13	11:AN:44:PHE:CG	2.53	0.43
12:A8:82:MET:HE2	12:A8:82:MET:HB3	1.82	0.43
14:Aa:81:CYS:SG	14:Aa:84:CYS:HB2	2.59	0.43
29:AQ:139:ARG:HH22	29:AQ:172:GLY:HA2	1.84	0.43
30:AR:38:LEU:HG	43:AV:31:TYR:HB3	2.00	0.43
30:AR:190:ASN:ND2	30:AR:193:GLN:HB2	2.34	0.43
31:AW:120:ASN:OD1	31:AW:120:ASN:N	2.51	0.43
35:A3:116:ARG:HG2	35:A3:117:LYS:N	2.32	0.43
36:A5:149:THR:O	36:A5:153:VAL:HG12	2.19	0.43
38:AE:10:ARG:HH12	38:AE:260:GLN:HB3	1.83	0.43
38:AE:226:VAL:HG22	38:AE:264:HIS:CE1	2.54	0.43
39:AF:218:LYS:O	39:AF:222:ARG:HD3	2.19	0.43
40:AG:29:ARG:HH12	40:AG:30:LEU:HD13	1.84	0.43
53:SA:40:A:H61	53:SA:473:G:H1'	1.83	0.43
53:SA:335:G:OP1	64:SL:99:ASN:HB2	2.18	0.43
53:SA:1844:A:O2'	71:SS:89:ARG:N	2.51	0.43
53:SA:1955:G:N3	53:SA:1956:A:C8	2.87	0.43
55:SC:131:GLN:NE2	55:SC:135:GLU:OE2	2.52	0.43
59:SG:75:ILE:HG21	59:SG:145:LYS:HD2	2.00	0.43
65:SM:94:TYR:HA	65:SM:98:VAL:HG23	2.00	0.43
66:SN:65:ARG:HD2	66:SN:66:LYS:O	2.19	0.43
73:SU:139:TRP:CH2	73:SU:141:TYR:HB2	2.53	0.43
76:SX:72:LYS:HD2	76:SX:91:GLY:HA2	2.00	0.43
77:SY:122:ILE:O	77:SY:126:ILE:HG22	2.19	0.43
2:AA:259:G:H2'	2:AA:260:G:O4'	2.19	0.43
2:AA:424:U:H2'	2:AA:425:A:C8	2.54	0.43
2:AA:548:U:H4'	41:AU:137:GLU:OE1	2.18	0.43
2:AA:965:A:P	2:AA:965:A:H8	2.42	0.43
2:AA:1463:A:H2'	2:AA:1464:A:H8	1.84	0.43
2:AA:1521:A:H2'	2:AA:1522:A:C8	2.53	0.43
2:AA:1976:A:H2'	2:AA:1977:U:C6	2.54	0.43
2:AA:1993:A:H2'	2:AA:1994:U:H6	1.84	0.43
2:AA:2506:A:H2'	2:AA:2507:A:H8	1.81	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:3509:G:O2'	42:AH:40:HIS:NE2	2.51	0.43
2:AA:3586:U:H4'	25:AK:160:LYS:HD2	2.01	0.43
3:AC:78:U:H2'	3:AC:80:C:OP2	2.18	0.43
5:AL:125:ILE:O	35:A3:116:ARG:NH1	2.46	0.43
19:AP:157:HIS:ND1	19:AP:157:HIS:O	2.52	0.43
21:Ai:70:LYS:HE3	21:Ai:79:LYS:HD3	2.01	0.43
23:AJ:195:CYS:HA	23:AJ:239:PHE:CD2	2.54	0.43
32:AY:92:LYS:HE2	32:AY:92:LYS:HB2	1.86	0.43
33:AT:134:LYS:O	33:AT:138:ILE:HG12	2.18	0.43
38:AE:58:ARG:HD3	38:AE:353:LEU:HA	2.00	0.43
38:AE:105:VAL:HG23	38:AE:144:LEU:HD11	2.01	0.43
38:AE:305:MET:HB3	38:AE:359:SER:O	2.19	0.43
41:AU:154:ARG:H	41:AU:154:ARG:HG3	1.65	0.43
42:AH:140:LYS:HD3	42:AH:140:LYS:C	2.44	0.43
51:S5:5:LYS:HB2	51:S5:29:PHE:CZ	2.54	0.43
53:SA:253:A:C8	58:SF:131:LEU:HD11	2.54	0.43
53:SA:799:U:H2'	53:SA:800:U:C6	2.54	0.43
53:SA:1042:A:H2'	53:SA:1043:A:H8	1.84	0.43
53:SA:1308:C:N4	53:SA:1702:C:H41	2.09	0.43
53:SA:1956:A:H2'	53:SA:1957:A:C8	2.49	0.43
56:SD:107:ARG:HH11	56:SD:111:LEU:HD22	1.84	0.43
56:SD:137:VAL:C	56:SD:138:ILE:HD12	2.43	0.43
56:SD:157:TYR:CE1	56:SD:159:ILE:HB	2.54	0.43
56:SD:208:ILE:HD11	75:SW:42:PRO:HD3	2.01	0.43
59:SG:128:LYS:CD	59:SG:139:GLY:HA3	2.49	0.43
62:SJ:140:ARG:HB2	62:SJ:152:LYS:HB2	1.99	0.43
71:SS:97:ASN:HD22	71:SS:98:ILE:N	2.16	0.43
74:SV:40:LYS:C	74:SV:42:GLY:H	2.26	0.43
75:SW:34:ILE:O	75:SW:38:VAL:HG22	2.19	0.43
77:SY:64:LYS:HE2	77:SY:64:LYS:HB2	1.86	0.43
1:S7:52:G:H2'	1:S7:53:G:H8	1.84	0.42
2:AA:283:U:H2'	2:AA:284:C:C6	2.54	0.42
2:AA:500:A:O2'	2:AA:501:U:H6	2.01	0.42
2:AA:534:A:H2'	2:AA:535:U:H6	1.83	0.42
2:AA:1901:A:N6	2:AA:1905:C:H1'	2.33	0.42
5:AL:168:LYS:HB3	28:AO:104:ARG:HD3	2.01	0.42
6:A1:15:ASN:ND2	14:Aa:86:ARG:HB2	2.34	0.42
6:A1:60:LYS:O	6:A1:64:LYS:HG2	2.18	0.42
14:Aa:96:GLU:HA	14:Aa:99:LYS:HE2	2.00	0.42
22:AI:220:LYS:HE3	22:AI:220:LYS:HB3	1.80	0.42
23:AJ:105:GLN:C	23:AJ:105:GLN:CD	2.87	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AR:49:LEU:HG	30:AR:66:CYS:SG	2.59	0.42
30:AR:102:GLY:HA3	30:AR:164:ALA:O	2.19	0.42
38:AE:56:ILE:CG2	38:AE:58:ARG:HE	2.31	0.42
43:AV:52:GLY:HA3	43:AV:93:ARG:HG3	2.00	0.42
45:AX:46:CYS:CB	45:AX:57:ILE:HD11	2.49	0.42
53:SA:29:U:H2'	53:SA:30:G:C8	2.54	0.42
53:SA:488:U:O4	53:SA:513:A:N6	2.52	0.42
53:SA:872:A:H2'	53:SA:873:A:C8	2.54	0.42
53:SA:1168:U:H4'	54:SB:148:ASN:O	2.18	0.42
53:SA:1258:A:H2'	53:SA:1261:A:N7	2.34	0.42
53:SA:1880:A:O2'	61:SI:46:ARG:NH2	2.52	0.42
60:SH:131:LYS:C	60:SH:133:LEU:H	2.27	0.42
61:SI:50:LYS:H	61:SI:53:ARG:CG	2.31	0.42
63:SK:111:MET:HE2	63:SK:111:MET:HB3	1.75	0.42
73:SU:91:LEU:HD23	73:SU:91:LEU:HA	1.82	0.42
2:AA:159:C:C2	2:AA:160:G:N7	2.87	0.42
2:AA:505:A:HO2'	2:AA:506:A:P	2.42	0.42
2:AA:533:A:H2'	2:AA:534:A:O4'	2.18	0.42
2:AA:582:U:H2'	2:AA:583:U:C6	2.54	0.42
2:AA:625:A:H2'	2:AA:626:A:C8	2.54	0.42
2:AA:970:C:H2'	2:AA:971:U:H6	1.77	0.42
2:AA:1255:G:OP2	29:AQ:98:ARG:NH2	2.51	0.42
2:AA:2125:A:C2	14:Aa:4:ARG:NH2	2.86	0.42
2:AA:2722:G:H2'	2:AA:2723:G:H8	1.84	0.42
2:AA:2737:C:H2'	2:AA:2738:U:H6	1.85	0.42
2:AA:2802:U:H2'	2:AA:2803:A:C8	2.54	0.42
2:AA:3203:C:H42	2:AA:3257:G:H22	1.66	0.42
2:AA:3442:C:H5'	2:AA:3442:C:O2	2.19	0.42
2:AA:3472:A:C5	2:AA:3473:G:C8	3.07	0.42
4:AB:10:C:N3	30:AR:20:TYR:HB3	2.34	0.42
5:AL:86:PRO:O	5:AL:90:GLN:HG2	2.19	0.42
5:AL:124:MET:HB3	5:AL:142:ASP:HB2	2.01	0.42
11:AN:7:THR:OG1	11:AN:8:GLU:N	2.41	0.42
14:Aa:16:LYS:HA	14:Aa:19:LYS:HE2	2.00	0.42
15:Ab:43:LEU:HD12	15:Ab:43:LEU:HA	1.84	0.42
22:AI:87:GLY:O	22:AI:88:PRO:C	2.62	0.42
30:AR:107:ARG:NH1	30:AR:120:LEU:O	2.49	0.42
31:AW:50:ASP:HB3	31:AW:56:ARG:HG2	2.01	0.42
31:AW:117:VAL:HG22	31:AW:148:ILE:HG22	2.01	0.42
32:AY:114:PRO:HB3	32:AY:132:PHE:CD1	2.54	0.42
36:A5:86:ARG:HD3	36:A5:86:ARG:N	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:AE:28:LYS:H	38:AE:271:HIS:HE1	1.65	0.42
39:AF:182:ARG:NH1	39:AF:204:ARG:HG2	2.33	0.42
40:AG:93:ARG:HA	40:AG:96:PHE:CZ	2.55	0.42
42:AH:38:PHE:HA	42:AH:40:HIS:CE1	2.54	0.42
47:S1:57:VAL:O	47:S1:58:LEU:HD13	2.19	0.42
49:S3:89:ARG:HH21	53:SA:1925:U:H4'	1.84	0.42
52:S6:39:LEU:HD12	52:S6:40:TYR:N	2.33	0.42
53:SA:543:A:H2'	53:SA:544:G:O4'	2.18	0.42
53:SA:812:A:H2'	53:SA:813:G:C8	2.54	0.42
53:SA:854:A:H2'	53:SA:855:C:C6	2.55	0.42
53:SA:1394:U:H2'	53:SA:1395:G:O4'	2.19	0.42
53:SA:1729:A:H5"	53:SA:1819:U:C4	2.54	0.42
53:SA:1799:A:H5'	77:SY:56:TRP:HZ3	1.85	0.42
53:SA:1945:C:H2'	53:SA:1946:C:H6	1.84	0.42
53:SA:2006:U:H2'	53:SA:2007:U:C6	2.54	0.42
62:SJ:7:ARG:NH2	62:SJ:40:LYS:O	2.52	0.42
65:SM:117:LEU:HD23	65:SM:117:LEU:HA	1.93	0.42
65:SM:128:LYS:HE2	65:SM:134:GLY:O	2.19	0.42
66:SN:40:LYS:HA	66:SN:43:LYS:HE2	2.01	0.42
69:SQ:70:LYS:HB3	69:SQ:93:LEU:CD1	2.43	0.42
73:SU:22:GLN:HG2	73:SU:26:LEU:HD23	2.00	0.42
73:SU:76:ARG:HH12	73:SU:79:GLY:HA2	1.84	0.42
2:AA:272:U:H2'	2:AA:273:C:O4'	2.19	0.42
2:AA:316:A:H1'	2:AA:2515:A:N3	2.34	0.42
2:AA:513:U:H2'	2:AA:514:C:C6	2.54	0.42
2:AA:1218:C:O2'	2:AA:1224:A:N1	2.46	0.42
2:AA:1220:U:H5"	2:AA:1221:A:N7	2.34	0.42
2:AA:1304:C:O3'	25:AK:88:PRO:HG3	2.19	0.42
2:AA:1338:U:H2'	2:AA:1339:U:O4'	2.18	0.42
2:AA:1462:C:H5"	36:A5:219:LYS:HB3	2.00	0.42
2:AA:1553:U:O2'	2:AA:1554:G:C8	2.61	0.42
2:AA:1889:A:H2'	2:AA:1890:G:H5'	2.00	0.42
2:AA:2400:A:C2	2:AA:3736:A:C8	3.07	0.42
2:AA:2496:U:H2'	2:AA:2497:U:C6	2.54	0.42
2:AA:3183:G:H2'	2:AA:3184:C:C6	2.54	0.42
2:AA:3393:C:H2'	2:AA:3394:A:C8	2.54	0.42
2:AA:3497:A:H8	2:AA:3503:U:H3	1.59	0.42
2:AA:3586:U:O3'	25:AK:160:LYS:HE2	2.19	0.42
2:AA:3664:G:O6	22:AI:170:ARG:HG3	2.19	0.42
6:A1:122:PHE:HZ	6:A1:141:HIS:CE1	2.38	0.42
8:A4:37:PRO:C	8:A4:39:PHE:H	2.27	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AM:82:ARG:HE	26:AM:119:PRO:HB2	1.84	0.42
26:AM:135:ALA:HB1	26:AM:138:ILE:HD11	2.02	0.42
27:AS:16:ARG:NH1	27:AS:53:ILE:O	2.44	0.42
28:AO:61:LEU:HD23	28:AO:61:LEU:HA	1.79	0.42
34:AZ:86:ARG:HG2	34:AZ:87:GLU:N	2.33	0.42
35:A3:13:LYS:O	35:A3:17:LEU:HG	2.19	0.42
38:AE:290:SER:HB2	38:AE:318:PHE:CE1	2.46	0.42
42:AH:68:CYS:O	42:AH:72:VAL:HG23	2.19	0.42
43:AV:19:LYS:HE2	43:AV:19:LYS:HB2	1.80	0.42
44:Ag:8:TYR:HB2	44:Ag:9:LYS:H	1.46	0.42
45:AX:111:ILE:HB	45:AX:116:ILE:HB	2.00	0.42
47:S1:18:LEU:O	47:S1:20:ARG:HG3	2.19	0.42
49:S3:65:PRO:HB2	54:SB:108:ASP:OD2	2.20	0.42
53:SA:145:A:C5	53:SA:166:A:N6	2.88	0.42
53:SA:344:C:H2'	53:SA:345:C:H6	1.85	0.42
53:SA:2020:G:H2'	53:SA:2021:U:C6	2.54	0.42
54:SB:199:LYS:HA	54:SB:199:LYS:HD2	1.81	0.42
55:SC:36:TYR:O	55:SC:48:ILE:HG23	2.18	0.42
59:SG:46:LYS:H	59:SG:46:LYS:HD3	1.84	0.42
59:SG:179:ILE:HD13	59:SG:222:PHE:HE1	1.84	0.42
59:SG:230:LEU:O	59:SG:233:THR:HG22	2.19	0.42
61:SI:57:CYS:HB3	61:SI:62:ARG:HE	1.84	0.42
66:SN:79:PHE:CE1	72:ST:52:LYS:HB3	2.54	0.42
74:SV:39:LYS:HE3	74:SV:40:LYS:H	1.84	0.42
75:SW:43:SER:OG	75:SW:46:MET:HG3	2.19	0.42
76:SX:73:PRO:HD2	76:SX:91:GLY:O	2.18	0.42
2:AA:217:A:H2'	39:AF:164:THR:HG21	2.00	0.42
2:AA:460:A:H2'	2:AA:461:G:O4'	2.20	0.42
2:AA:751:U:H2'	2:AA:752:G:C8	2.53	0.42
2:AA:1245:G:H2'	2:AA:1246:C:C6	2.54	0.42
2:AA:1474:A:H5"	39:AF:306:LYS:CB	2.48	0.42
2:AA:1832:U:O2'	2:AA:1976:A:O4'	2.35	0.42
2:AA:1881:C:O2'	2:AA:1882:U:C6	2.73	0.42
2:AA:1887:G:O2'	2:AA:1888:A:P	2.77	0.42
2:AA:2075:U:O3'	2:AA:2079:A:H1'	2.19	0.42
2:AA:2621:U:H2'	2:AA:2622:C:H6	1.84	0.42
2:AA:2999:C:H2'	2:AA:3000:A:H8	1.85	0.42
2:AA:3259:A:C2	2:AA:3416:G:N2	2.87	0.42
3:AC:126:C:H5"	35:A3:64:ARG:HH22	1.84	0.42
3:AC:145:A:H2'	3:AC:146:C:C6	2.54	0.42
12:A8:44:ARG:H	12:A8:44:ARG:HG2	1.58	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:Aa:65:ALA:HB3	14:Aa:70:ARG:HE	1.84	0.42
19:AP:75:VAL:HG11	19:AP:80:VAL:HG22	2.01	0.42
33:AT:106:LYS:HB2	33:AT:106:LYS:HE3	1.71	0.42
34:AZ:33:LYS:HB3	34:AZ:104:VAL:HG12	2.01	0.42
38:AE:79:ILE:HG13	38:AE:319:LEU:HB2	2.01	0.42
39:AF:176:LEU:O	39:AF:180:VAL:HG13	2.20	0.42
40:AG:21:ILE:HD12	40:AG:37:LEU:HD21	2.01	0.42
41:AU:82:LYS:NZ	41:AU:84:TYR:H	2.15	0.42
41:AU:145:ARG:HH11	41:AU:148:ILE:HG13	1.84	0.42
42:AH:44:ASP:HB3	42:AH:57:VAL:HG13	2.01	0.42
53:SA:882:A:H2'	53:SA:883:A:C8	2.52	0.42
53:SA:937:G:H2'	53:SA:938:U:H6	1.85	0.42
53:SA:1192:A:H4'	53:SA:1193:A:O4'	2.18	0.42
53:SA:1876:G:H2'	53:SA:1877:C:C6	2.54	0.42
53:SA:1889:G:H2'	53:SA:1890:A:H8	1.84	0.42
53:SA:2088:C:H5'	53:SA:2089:A:C8	2.54	0.42
58:SF:198:ILE:HG13	58:SF:198:ILE:O	2.19	0.42
59:SG:179:ILE:HG13	59:SG:180:ARG:N	2.35	0.42
63:SK:57:ARG:HH22	73:SU:15:THR:HG23	1.85	0.42
65:SM:115:ARG:HD2	65:SM:115:ARG:HA	1.81	0.42
67:SO:17:GLN:HA	67:SO:20:LYS:HG2	2.01	0.42
73:SU:39:LYS:HA	73:SU:42:LYS:HE2	2.02	0.42
76:SX:93:ILE:HD11	76:SX:104:ASN:HA	2.01	0.42
2:AA:125:C:H2'	2:AA:126:C:C6	2.55	0.42
2:AA:176:A:N6	2:AA:255:C:H42	2.17	0.42
2:AA:442:G:OP1	13:A9:92:HIS:NE2	2.52	0.42
2:AA:546:C:O4'	2:AA:612:G:O2'	2.32	0.42
2:AA:716:C:H5'	12:A8:20:PHE:HE2	1.85	0.42
2:AA:1758:C:H2'	2:AA:1759:A:H8	1.82	0.42
2:AA:1897:G:O2'	2:AA:1898:U:O4'	2.35	0.42
2:AA:1971:U:O2'	2:AA:1972:A:C8	2.71	0.42
2:AA:3471:A:C6	2:AA:3472:A:H1'	2.55	0.42
2:AA:3480:C:H5"	38:AE:75:ALA:HB3	2.02	0.42
2:AA:3535:A:H2'	2:AA:3536:C:C6	2.55	0.42
4:AB:7:G:O3'	30:AR:33:ARG:NH2	2.52	0.42
11:AN:18:ASN:O	11:AN:18:ASN:ND2	2.52	0.42
12:A8:15:LYS:HG3	12:A8:15:LYS:O	2.20	0.42
16:Ad:10:LYS:HE3	16:Ad:10:LYS:HB3	1.51	0.42
22:AI:31:LYS:HG2	22:AI:35:GLY:O	2.20	0.42
23:AJ:279:ILE:HB	54:SB:93:ASN:OD1	2.20	0.42
25:AK:26:LEU:HD11	25:AK:101:LEU:HB2	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AS:128:LYS:HB2	27:AS:128:LYS:HE2	1.80	0.42
30:AR:79:LYS:H	30:AR:104:LEU:HD22	1.85	0.42
38:AE:281:ARG:HG3	38:AE:282:ILE:N	2.33	0.42
41:AU:133:ILE:HG22	43:AV:154:PRO:CG	2.49	0.42
42:AH:107:ASN:O	42:AH:107:ASN:ND2	2.50	0.42
43:AV:57:TYR:CZ	43:AV:79:LYS:HG3	2.55	0.42
53:SA:468:G:P	58:SF:26:GLN:HE22	2.42	0.42
53:SA:747:U:H2'	53:SA:748:C:C6	2.55	0.42
53:SA:861:C:H2'	53:SA:862:A:C8	2.54	0.42
53:SA:1108:A:H5"	63:SK:20:ARG:HE	1.83	0.42
53:SA:1262:C:H2'	53:SA:1263:C:H6	1.84	0.42
53:SA:1291:C:H1'	53:SA:1295:A:N6	2.34	0.42
53:SA:1845:U:O2'	71:SS:89:ARG:NH1	2.52	0.42
53:SA:2059:G:OP1	53:SA:2062:U:H4'	2.20	0.42
57:SE:57:ARG:NH1	63:SK:97:ARG:HH22	2.12	0.42
65:SM:30:ILE:HG22	65:SM:37:LEU:HD11	2.01	0.42
66:SN:65:ARG:HB3	66:SN:76:TRP:CE3	2.55	0.42
69:SQ:34:LEU:HD23	69:SQ:34:LEU:HA	1.83	0.42
69:SQ:48:HIS:HB3	69:SQ:103:LEU:HD21	2.02	0.42
69:SQ:87:VAL:HG22	69:SQ:124:VAL:HG11	2.00	0.42
73:SU:91:LEU:HB3	73:SU:122:ILE:CD1	2.49	0.42
75:SW:79:GLU:O	75:SW:82:LEU:HG	2.20	0.42
1:S7:60:U:H3'	1:S7:61:C:C6	2.54	0.42
2:AA:281:G:H2'	2:AA:282:U:C6	2.55	0.42
2:AA:1285:U:H2'	2:AA:1286:A:O4'	2.20	0.42
2:AA:1339:U:C2	2:AA:1340:G:C5	3.08	0.42
2:AA:1704:U:O2	23:AJ:76:ARG:NH1	2.52	0.42
2:AA:1772:G:N2	2:AA:2081:U:C2	2.88	0.42
2:AA:1871:A:C4	2:AA:1888:A:C2	3.08	0.42
2:AA:1888:A:C2	2:AA:1889:A:C8	3.07	0.42
2:AA:2541:C:O2'	2:AA:2565:G:H1'	2.19	0.42
2:AA:2950:U:H2'	2:AA:2951:U:H6	1.82	0.42
2:AA:3062:U:H2'	2:AA:3063:U:H6	1.85	0.42
2:AA:3673:C:H2'	2:AA:3674:A:C8	2.54	0.42
4:AB:8:U:P	30:AR:22:ARG:HD2	2.59	0.42
6:A1:67:LYS:HE3	6:A1:67:LYS:HB3	1.78	0.42
11:AN:75:LYS:HZ3	41:AU:184:MET:H	1.68	0.42
12:A8:101:SER:O	12:A8:105:ARG:HB2	2.20	0.42
15:Ab:77:LEU:HB2	15:Ab:94:ARG:NH1	2.35	0.42
22:AI:215:VAL:CG2	22:AI:218:LYS:HB2	2.50	0.42
23:AJ:127:ARG:HH11	23:AJ:127:ARG:C	2.27	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AQ:76:MET:HE1	29:AQ:85:PHE:CD2	2.55	0.42
36:A5:140:GLU:OE1	36:A5:243:GLY:HA2	2.20	0.42
37:AD:46:LYS:HB3	37:AD:46:LYS:HE3	1.75	0.42
42:AH:101:ASN:HB3	42:AH:114:ARG:HB2	2.00	0.42
42:AH:133:ILE:HG22	42:AH:145:VAL:HG12	2.02	0.42
45:AX:88:TYR:C	45:AX:89:LYS:HD3	2.44	0.42
49:S3:52:ASP:HB3	68:SP:121:ARG:HH12	1.85	0.42
49:S3:91:GLN:O	49:S3:94:VAL:HG22	2.19	0.42
50:S4:44:LEU:HD21	50:S4:52:VAL:HG11	2.02	0.42
52:S6:7:SER:O	52:S6:7:SER:OG	2.28	0.42
52:S6:38:GLN:HA	52:S6:41:ASN:HD21	1.85	0.42
53:SA:69:A:H2'	53:SA:70:U:C6	2.55	0.42
53:SA:248:G:C2	58:SF:203:GLY:HA3	2.54	0.42
53:SA:248:G:O2'	53:SA:249:A:O5'	2.37	0.42
53:SA:1017:G:H2'	53:SA:1018:U:C6	2.55	0.42
53:SA:1307:U:C5	53:SA:1308:C:C5	3.08	0.42
55:SC:37:VAL:HG21	55:SC:46:HIS:HB3	2.01	0.42
55:SC:187:VAL:HG12	55:SC:188:ILE:HG23	2.01	0.42
57:SE:37:LYS:HB2	57:SE:126:ARG:HH22	1.85	0.42
57:SE:93:LEU:HA	57:SE:96:VAL:HG12	2.02	0.42
58:SF:136:LEU:HB2	58:SF:149:TYR:CE2	2.55	0.42
59:SG:226:ILE:HD12	59:SG:227:PHE:N	2.35	0.42
61:SI:30:ILE:HG13	61:SI:32:VAL:HG22	2.02	0.42
61:SI:35:LYS:HB2	61:SI:35:LYS:HE2	1.75	0.42
61:SI:62:ARG:HA	61:SI:62:ARG:HD3	1.86	0.42
64:SL:10:LYS:O	64:SL:18:LYS:HG2	2.19	0.42
64:SL:80:ASP:OD1	64:SL:81:VAL:N	2.51	0.42
66:SN:80:GLU:N	66:SN:80:GLU:OE2	2.51	0.42
69:SQ:141:GLU:HG2	69:SQ:142:LYS:O	2.19	0.42
75:SW:21:TYR:CD2	75:SW:71:LEU:HD13	2.54	0.42
76:SX:43:ARG:HG2	76:SX:47:ARG:HG3	2.01	0.42
2:AA:455:U:H2'	2:AA:456:A:C8	2.55	0.42
2:AA:1015:A:O2'	2:AA:1016:A:H5'	2.20	0.42
2:AA:1193:G:C6	2:AA:1215:A:N6	2.88	0.42
2:AA:1260:C:H2'	2:AA:1261:A:C8	2.55	0.42
2:AA:1481:A:O2'	2:AA:1482:A:H5"	2.19	0.42
2:AA:1971:U:H1'	16:Ad:76:TYR:CD1	2.55	0.42
2:AA:2659:C:H2'	2:AA:2660:A:C8	2.55	0.42
2:AA:2918:C:C2	2:AA:2919:A:H8	2.38	0.42
2:AA:3484:U:O2'	2:AA:3485:G:H8	2.02	0.42
2:AA:3672:A:H2'	2:AA:3673:C:C6	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AB:41:G:H8	4:AB:41:G:H2'	1.66	0.42
4:AB:60:U:H3'	4:AB:61:G:H8	1.85	0.42
8:A4:37:PRO:O	8:A4:38:ASN:HB3	2.17	0.42
10:A7:80:ARG:HB3	10:A7:104:VAL:O	2.18	0.42
18:Af:19:ILE:HG22	18:Af:46:ARG:O	2.19	0.42
20:Ah:29:ILE:HD11	20:Ah:69:TRP:CD2	2.54	0.42
23:AJ:45:ILE:HG13	23:AJ:46:PHE:CD1	2.54	0.42
30:AR:173:LEU:HD21	30:AR:175:ILE:HG13	2.01	0.42
35:A3:64:ARG:HA	35:A3:64:ARG:HD2	1.83	0.42
39:AF:32:ILE:CG2	39:AF:246:ILE:HD11	2.50	0.42
40:AG:35:ARG:NH2	40:AG:39:GLN:OE1	2.52	0.42
47:S1:32:LYS:HD2	47:S1:32:LYS:HA	1.74	0.42
51:S5:15:ARG:HA	51:S5:23:ILE:HA	2.00	0.42
53:SA:1369:G:O2'	53:SA:1371:G:OP1	2.30	0.42
53:SA:2017:A:H2'	53:SA:2018:C:C6	2.55	0.42
54:SB:142:PHE:O	54:SB:207:LEU:HD13	2.20	0.42
54:SB:178:LYS:H	54:SB:178:LYS:HG3	1.70	0.42
56:SD:66:ILE:HD13	56:SD:66:ILE:HA	1.94	0.42
58:SF:164:LEU:HD23	58:SF:164:LEU:H	1.85	0.42
62:SJ:131:VAL:HA	62:SJ:172:PHE:CE2	2.55	0.42
71:SS:28:VAL:O	71:SS:32:LEU:HD22	2.19	0.42
73:SU:129:TYR:HA	73:SU:132:LYS:NZ	2.34	0.42
2:AA:516:G:H5"	39:AF:316:LYS:HA	2.02	0.42
2:AA:638:G:H5"	13:A9:103:LYS:HD2	2.02	0.42
2:AA:1242:U:OP1	28:AO:23:GLY:N	2.37	0.42
2:AA:2039:U:H3	2:AA:2071:U:H3	1.68	0.42
2:AA:2208:G:N2	2:AA:2402:U:H1'	2.35	0.42
2:AA:2719:U:H2'	2:AA:2720:C:C6	2.55	0.42
2:AA:2831:U:O2'	2:AA:2833:U:OP2	2.37	0.42
2:AA:2965:A:H4'	43:AV:4:LYS:HE2	2.02	0.42
2:AA:3023:C:H2'	2:AA:3024:U:H6	1.84	0.42
2:AA:3414:G:O2'	2:AA:3415:A:OP1	2.30	0.42
2:AA:3456:C:H3'	2:AA:3457:A:H8	1.84	0.42
2:AA:3471:A:H5"	2:AA:3472:A:C8	2.55	0.42
2:AA:3533:A:O2'	38:AE:104:THR:HG22	2.20	0.42
2:AA:3748:U:H2'	2:AA:3749:U:C6	2.54	0.42
4:AB:39:C:H2'	4:AB:40:A:C4	2.55	0.42
11:AN:74:LEU:HD23	11:AN:74:LEU:HA	1.81	0.42
12:A8:35:PRO:HB2	12:A8:40:CYS:SG	2.60	0.42
18:Af:20:CYS:HB3	18:Af:24:TYR:HA	2.01	0.42
23:AJ:244:ASP:O	23:AJ:248:LYS:HB2	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:Ac:71:LYS:HG3	24:Ac:72:THR:N	2.35	0.42
36:A5:54:ARG:HA	36:A5:54:ARG:HD3	1.86	0.42
38:AE:283:GLY:HA3	38:AE:318:PHE:CE1	2.54	0.42
41:AU:87:LEU:HA	41:AU:100:TYR:HA	2.01	0.42
45:AX:68:ILE:O	45:AX:74:THR:HA	2.20	0.42
45:AX:104:LYS:HB3	45:AX:104:LYS:HE3	1.52	0.42
46:A0:40:SER:H	46:A0:43:PHE:HB2	1.85	0.42
53:SA:299:U:H2'	53:SA:300:C:C6	2.55	0.42
53:SA:1364:G:H3'	53:SA:1365:G:H8	1.85	0.42
53:SA:1622:C:H2'	53:SA:1623:U:C6	2.54	0.42
53:SA:1652:A:H2'	53:SA:1653:A:C8	2.53	0.42
56:SD:143:LEU:HD11	56:SD:149:LYS:HB3	2.02	0.42
56:SD:190:MET:SD	56:SD:190:MET:N	2.93	0.42
58:SF:74:ASN:HB2	58:SF:164:LEU:HD12	2.02	0.42
60:SH:194:LYS:HG3	60:SH:195:GLU:N	2.35	0.42
62:SJ:78:ARG:H	62:SJ:78:ARG:NE	2.17	0.42
69:SQ:73:ARG:NH1	69:SQ:82:LYS:HB3	2.32	0.42
78:SZ:73:TYR:HB2	78:SZ:78:LEU:HD11	2.02	0.42
2:AA:576:U:H2'	2:AA:577:U:C6	2.55	0.42
2:AA:593:A:H4'	2:AA:594:C:O5'	2.20	0.42
2:AA:650:U:O4	2:AA:651:A:N6	2.52	0.42
2:AA:698:G:O2'	2:AA:699:U:O5'	2.30	0.42
2:AA:709:A:H5"	25:AK:92:TYR:CD2	2.55	0.42
2:AA:728:C:H2'	2:AA:729:G:C8	2.54	0.42
2:AA:1736:A:HO2'	2:AA:1737:A:P	2.41	0.42
2:AA:2509:U:H2'	2:AA:2510:U:H6	1.85	0.42
2:AA:3003:C:OP1	40:AG:145:ARG:NH2	2.47	0.42
2:AA:3734:A:C8	2:AA:3735:A:C8	3.08	0.42
3:AC:37:A:H4'	3:AC:38:G:OP1	2.20	0.42
4:AB:21:G:N1	4:AB:58:A:N6	2.68	0.42
5:AL:39:GLU:OE1	5:AL:39:GLU:HA	2.20	0.42
5:AL:142:ASP:OD1	5:AL:143:ALA:N	2.52	0.42
19:AP:3:ALA:N	23:AJ:157:THR:HG21	2.35	0.42
23:AJ:124:LYS:HB3	23:AJ:124:LYS:HE3	1.84	0.42
24:Ac:21:LEU:HD23	24:Ac:21:LEU:HA	1.74	0.42
30:AR:47:GLN:NE2	30:AR:67:ALA:O	2.47	0.42
34:AZ:23:ALA:HA	34:AZ:26:ARG:HB2	2.01	0.42
35:A3:43:ASN:O	35:A3:46:ILE:HG23	2.19	0.42
35:A3:75:LYS:HD3	35:A3:75:LYS:HA	1.84	0.42
36:A5:246:GLU:OE1	41:AU:44:THR:HB	2.20	0.42
38:AE:229:ARG:HG3	38:AE:267:LYS:HB3	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:AF:150:VAL:CG1	39:AF:151:PRO:HD3	2.49	0.42
43:AV:100:SER:OG	43:AV:102:CYS:SG	2.51	0.42
45:AX:89:LYS:HD3	45:AX:89:LYS:N	2.35	0.42
46:A0:13:CYS:SG	46:A0:16:SER:N	2.88	0.42
49:S3:68:TYR:CE2	54:SB:112:SER:HA	2.55	0.42
53:SA:346:U:C2	53:SA:347:A:N7	2.88	0.42
53:SA:453:U:H2'	53:SA:454:U:C6	2.54	0.42
53:SA:607:U:H2'	53:SA:608:A:H8	1.85	0.42
53:SA:649:A:H2'	53:SA:650:A:H8	1.85	0.42
53:SA:947:G:OP1	53:SA:1012:C:O2'	2.29	0.42
53:SA:968:G:H4'	68:SP:60:MET:HE1	2.02	0.42
53:SA:1219:U:H2'	53:SA:1220:C:C6	2.54	0.42
53:SA:1956:A:N3	53:SA:1957:A:C8	2.88	0.42
53:SA:2003:U:H2'	53:SA:2004:U:C6	2.55	0.42
54:SB:115:ARG:HD3	54:SB:115:ARG:HA	1.90	0.42
58:SF:211:LYS:HD2	58:SF:215:ASN:HA	2.00	0.42
59:SG:41:TRP:HZ3	59:SG:44:VAL:HG22	1.85	0.42
60:SH:56:ASN:HD22	60:SH:62:PRO:HA	1.85	0.42
62:SJ:43:LYS:HE3	62:SJ:43:LYS:HB3	1.77	0.42
62:SJ:44:LEU:HB3	62:SJ:62:ILE:HD11	2.02	0.42
62:SJ:126:ILE:O	62:SJ:130:ILE:HG13	2.20	0.42
62:SJ:159:GLU:HA	62:SJ:162:ARG:HH11	1.84	0.42
63:SK:55:ASP:HB3	63:SK:59:GLY:CA	2.49	0.42
74:SV:142:VAL:O	74:SV:143:LEU:HD13	2.20	0.42
77:SY:35:ASP:HA	77:SY:38:ILE:HG12	2.01	0.42
2:AA:118:G:C6	2:AA:160:G:C6	3.07	0.42
2:AA:151:G:H2'	2:AA:152:G:O4'	2.20	0.42
2:AA:162:U:O2'	2:AA:163:G:OP2	2.31	0.42
2:AA:218:U:O2	39:AF:219:LYS:HD3	2.20	0.42
2:AA:752:G:H2'	2:AA:753:C:C6	2.55	0.42
2:AA:1419:A:H2'	2:AA:1420:C:O4'	2.20	0.42
2:AA:1435:G:O2'	2:AA:1436:A:OP2	2.35	0.42
2:AA:1540:G:O2'	2:AA:1565:G:N1	2.47	0.42
2:AA:1630:A:C2	2:AA:2125:A:H1'	2.54	0.42
2:AA:3362:A:OP1	38:AE:93:ARG:NH2	2.50	0.42
6:A1:74:CYS:SG	6:A1:102:LEU:HD22	2.60	0.42
9:A6:18:GLN:NE2	9:A6:83:ALA:O	2.53	0.42
19:AP:154:ASN:HA	35:A3:94:LEU:HD12	2.01	0.42
20:Ah:33:GLN:HB2	20:Ah:49:ARG:NH2	2.34	0.42
21:Ai:58:LYS:HB2	21:Ai:58:LYS:HE3	1.82	0.42
22:AI:169:ILE:HA	22:AI:172:GLU:OE2	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AO:27:LYS:HE3	28:AO:27:LYS:HB3	1.80	0.42
30:AR:151:GLY:C	30:AR:153:THR:H	2.28	0.42
30:AR:156:THR:O	30:AR:159:ASN:HB2	2.19	0.42
39:AF:59:GLY:O	39:AF:92:PHE:HB3	2.20	0.42
39:AF:232:VAL:O	39:AF:235:LEU:HD22	2.19	0.42
42:AH:49:LYS:O	42:AH:52:LYS:HG2	2.19	0.42
50:S4:17:HIS:CG	50:S4:18:LYS:N	2.88	0.42
53:SA:212:U:H2'	53:SA:213:G:C8	2.54	0.42
53:SA:432:G:N2	53:SA:465:G:O2'	2.27	0.42
53:SA:609:U:H2'	53:SA:610:U:C6	2.55	0.42
53:SA:970:G:H2'	53:SA:971:G:O4'	2.20	0.42
53:SA:1712:G:N2	53:SA:1898:G:H21	2.18	0.42
57:SE:80:MET:HG3	57:SE:96:VAL:HG21	2.01	0.42
58:SF:126:VAL:HA	58:SF:141:THR:HA	2.02	0.42
64:SL:196:ASP:N	64:SL:196:ASP:OD1	2.51	0.42
64:SL:212:MET:HE2	64:SL:212:MET:HB3	1.93	0.42
66:SN:64:THR:HA	66:SN:76:TRP:HZ3	1.84	0.42
68:SP:33:ILE:HG23	68:SP:97:LEU:HA	2.02	0.42
2:AA:61:A:O2'	2:AA:62:A:OP1	2.32	0.41
2:AA:267:U:H2'	2:AA:268:C:C6	2.55	0.41
2:AA:432:A:C2	2:AA:2656:A:H4'	2.56	0.41
2:AA:604:G:H2'	2:AA:605:A:H8	1.84	0.41
2:AA:663:A:H2'	2:AA:664:U:C6	2.55	0.41
2:AA:697:A:H4'	2:AA:698:G:O5'	2.20	0.41
2:AA:769:U:H6	2:AA:769:U:H2'	1.73	0.41
2:AA:1026:G:H2'	2:AA:1045:A:H62	1.85	0.41
3:AC:69:A:C4	3:AC:70:A:C8	3.08	0.41
7:A2:93:LEU:HD21	7:A2:105:LYS:HG3	2.02	0.41
8:A4:57:LEU:HD23	8:A4:57:LEU:HA	1.92	0.41
10:A7:21:THR:CG2	10:A7:80:ARG:HE	2.33	0.41
29:AQ:97:LEU:O	29:AQ:122:PRO:HA	2.20	0.41
29:AQ:189:ARG:O	29:AQ:200:ILE:HG22	2.19	0.41
30:AR:155:THR:O	30:AR:181:ARG:NH2	2.52	0.41
36:A5:67:GLU:HB3	36:A5:68:ARG:HH11	1.85	0.41
38:AE:8:ARG:NH1	38:AE:9:PRO:O	2.53	0.41
38:AE:357:ASP:OD1	38:AE:359:SER:N	2.42	0.41
42:AH:66:LEU:HA	42:AH:66:LEU:HD23	1.67	0.41
42:AH:121:SER:OG	42:AH:122:VAL:N	2.49	0.41
49:S3:74:CYS:O	49:S3:78:ALA:HB2	2.20	0.41
51:S5:5:LYS:NZ	51:S5:56:LEU:HB2	2.35	0.41
51:S5:47:PRO:HG3	53:SA:1911:A:H5'	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S5:61:ARG:HH21	61:SI:195:ARG:HH22	1.67	0.41
53:SA:345:C:C2	53:SA:346:U:C5	3.07	0.41
53:SA:485:C:H4'	57:SE:120:LYS:HE2	2.01	0.41
53:SA:592:A:H2'	53:SA:593:G:H8	1.85	0.41
53:SA:956:A:H1'	68:SP:136:PRO:HB3	2.00	0.41
53:SA:1647:A:H4'	75:SW:10:LYS:NZ	2.35	0.41
53:SA:1867:A:H2'	53:SA:1868:C:O4'	2.20	0.41
54:SB:37:MET:HB2	54:SB:186:LYS:NZ	2.35	0.41
57:SE:157:ASP:OD1	57:SE:157:ASP:N	2.51	0.41
60:SH:121:ILE:H	60:SH:125:THR:HG22	1.84	0.41
61:SI:63:LEU:HD12	61:SI:142:ILE:HG23	2.01	0.41
61:SI:144:LEU:HD22	61:SI:183:LYS:HD2	2.02	0.41
68:SP:143:LYS:HG3	68:SP:144:SER:N	2.35	0.41
73:SU:131:ARG:C	74:SV:151:PHE:HE2	2.27	0.41
75:SW:56:HIS:ND1	75:SW:56:HIS:C	2.77	0.41
77:SY:53:TYR:HE2	77:SY:58:THR:HG23	1.85	0.41
77:SY:143:LYS:HB3	77:SY:143:LYS:HE2	1.86	0.41
1:S7:18:G:N1	1:S7:55:U:O4	2.47	0.41
2:AA:1252:U:H2'	2:AA:1253:U:C6	2.56	0.41
2:AA:1674:G:C8	2:AA:2096:G:C4	3.08	0.41
2:AA:2635:C:H5"	2:AA:3474:C:O2'	2.20	0.41
2:AA:2828:A:H2'	2:AA:2829:U:C6	2.56	0.41
2:AA:3430:A:H2'	2:AA:3431:G:H8	1.85	0.41
4:AB:46:C:H2'	4:AB:47:U:H6	1.83	0.41
9:A6:58:VAL:HG12	14:Aa:94:LEU:HD13	2.01	0.41
19:AP:13:LYS:HA	19:AP:13:LYS:HD3	1.80	0.41
21:Ai:11:TYR:O	21:Ai:80:ARG:NH2	2.53	0.41
24:Ac:74:ARG:C	24:Ac:75:ARG:HG3	2.45	0.41
25:AK:10:CYS:SG	25:AK:34:ALA:HB1	2.60	0.41
30:AR:96:ALA:HB1	30:AR:243:HIS:HE1	1.83	0.41
40:AG:18:VAL:HG12	40:AG:19:LEU:N	2.33	0.41
42:AH:91:MET:SD	42:AH:143:ILE:HB	2.60	0.41
45:AX:77:LEU:HB2	45:AX:81:VAL:HG13	2.01	0.41
49:S3:88:SER:OG	49:S3:89:ARG:N	2.53	0.41
53:SA:149:A:C6	53:SA:162:A:N6	2.88	0.41
53:SA:1850:G:N2	53:SA:1853:A:O5'	2.53	0.41
53:SA:1892:U:H5"	72:ST:30:ARG:HE	1.84	0.41
55:SC:155:HIS:HB3	78:SZ:59:ARG:NH1	2.35	0.41
58:SF:191:ARG:CD	58:SF:245:LYS:HG3	2.50	0.41
66:SN:31:ILE:HG13	66:SN:32:GLU:N	2.34	0.41
66:SN:47:LEU:HD22	66:SN:92:SER:HB3	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:SR:28:VAL:HA	70:SR:31:ASN:HD21	1.84	0.41
76:SX:30:GLN:O	76:SX:34:ILE:HG23	2.20	0.41
76:SX:63:SER:O	76:SX:67:CYS:HB3	2.20	0.41
1:S7:24:U:H2'	1:S7:25:C:C6	2.55	0.41
2:AA:300:C:H2'	2:AA:301:U:O4'	2.20	0.41
2:AA:663:A:C2	2:AA:671:U:C2	3.09	0.41
2:AA:749:U:H2'	2:AA:750:G:H8	1.86	0.41
2:AA:1337:G:H8	2:AA:1337:G:OP2	2.03	0.41
2:AA:1470:A:O2'	27:AS:11:ILE:O	2.37	0.41
2:AA:1959:G:H2'	2:AA:1960:U:C6	2.56	0.41
2:AA:2705:G:H2'	2:AA:2706:A:C8	2.54	0.41
2:AA:3240:C:H2'	2:AA:3241:U:C6	2.55	0.41
2:AA:3476:A:C6	2:AA:3478:G:C4	3.08	0.41
2:AA:3481:U:OP1	38:AE:322:LYS:HE3	2.20	0.41
5:AL:171:TYR:HB2	28:AO:86:LYS:NZ	2.36	0.41
6:A1:18:ARG:H	6:A1:18:ARG:HD2	1.85	0.41
16:Ad:5:ILE:HD11	16:Ad:52:MET:SD	2.60	0.41
23:AJ:96:GLN:HB2	23:AJ:245:LEU:HD13	2.01	0.41
23:AJ:112:PHE:HD2	23:AJ:113:LEU:HD22	1.86	0.41
32:AY:122:LYS:HA	32:AY:122:LYS:HD3	1.87	0.41
34:AZ:26:ARG:HB3	34:AZ:74:ARG:HB3	2.01	0.41
35:A3:9:LEU:HD23	35:A3:12:LEU:HD12	2.02	0.41
38:AE:300:LYS:HD3	38:AE:300:LYS:HA	1.67	0.41
43:AV:77:VAL:HG12	43:AV:78:ASN:O	2.19	0.41
45:AX:49:PRO:O	45:AX:54:ILE:N	2.36	0.41
45:AX:73:LYS:HD2	45:AX:73:LYS:HA	1.94	0.41
53:SA:65:A:H2	53:SA:86:A:H62	1.67	0.41
53:SA:317:U:OP2	69:SQ:20:ARG:HD3	2.20	0.41
53:SA:335:G:H3'	64:SL:98:LYS:NZ	2.35	0.41
53:SA:410:G:O2'	60:SH:91:GLU:OE1	2.31	0.41
53:SA:827:C:H2'	53:SA:828:A:C8	2.55	0.41
53:SA:974:A:H5'	68:SP:66:ARG:CZ	2.50	0.41
53:SA:1091:C:H4'	53:SA:1226:A:N6	2.32	0.41
53:SA:1832:U:O2'	53:SA:1833:G:N2	2.52	0.41
53:SA:1853:A:H5"	53:SA:1854:U:H5	1.85	0.41
53:SA:1923:U:H2'	53:SA:1924:U:H6	1.85	0.41
53:SA:2043:G:H2'	53:SA:2044:G:H8	1.85	0.41
53:SA:2051:C:H2'	53:SA:2052:G:C8	2.55	0.41
55:SC:10:LYS:HE3	55:SC:10:LYS:HB2	1.95	0.41
57:SE:90:GLU:HA	57:SE:95:TYR:HD2	1.85	0.41
57:SE:96:VAL:O	57:SE:99:LEU:HG	2.19	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:SF:117:GLU:HA	58:SF:117:GLU:OE2	2.19	0.41
58:SF:122:LYS:HE3	58:SF:122:LYS:HB2	1.91	0.41
61:SI:154:PHE:CD1	61:SI:155:ARG:HG3	2.54	0.41
63:SK:14:ILE:HG22	63:SK:27:ILE:HD11	2.01	0.41
66:SN:38:ILE:HG21	66:SN:88:ILE:HG21	2.03	0.41
74:SV:124:ASP:HB2	74:SV:146:GLU:O	2.20	0.41
74:SV:128:VAL:CG1	74:SV:140:PHE:HB3	2.50	0.41
2:AA:178:U:H2'	2:AA:179:G:C8	2.56	0.41
2:AA:1094:U:H2'	2:AA:1095:U:H6	1.85	0.41
2:AA:1339:U:H2'	2:AA:1340:G:H8	1.82	0.41
2:AA:1532:U:H2'	2:AA:1533:U:C6	2.55	0.41
2:AA:1997:G:H2'	2:AA:1998:A:O4'	2.21	0.41
2:AA:3016:G:O2'	2:AA:3017:A:N7	2.51	0.41
2:AA:3486:G:N2	2:AA:3518:C:C2	2.89	0.41
2:AA:3507:A:H8	42:AH:67:ALA:HB3	1.86	0.41
2:AA:3517:C:H2'	2:AA:3518:C:C6	2.55	0.41
3:AC:44:A:H2'	3:AC:45:A:C8	2.55	0.41
3:AC:97:C:HO2'	3:AC:98:A:H8	1.68	0.41
4:AB:3:A:H1'	4:AB:25:A:C2	2.55	0.41
12:A8:34:LYS:HZ2	12:A8:34:LYS:HG2	1.71	0.41
23:AJ:152:GLY:O	23:AJ:156:ILE:HG12	2.20	0.41
23:AJ:260:LEU:O	23:AJ:263:LYS:HG2	2.20	0.41
24:Ac:75:ARG:HA	24:Ac:78:LYS:HE2	2.02	0.41
32:AY:127:ILE:HD12	32:AY:127:ILE:HA	1.96	0.41
34:AZ:50:ARG:HG3	34:AZ:51:LYS:H	1.85	0.41
38:AE:277:LYS:HB2	38:AE:321:LEU:HD11	2.02	0.41
38:AE:283:GLY:H	38:AE:319:LEU:HD13	1.85	0.41
39:AF:296:ASP:OD2	39:AF:296:ASP:C	2.63	0.41
40:AG:124:GLY:O	40:AG:125:MET:HE2	2.20	0.41
49:S3:3:LYS:HD2	49:S3:3:LYS:HA	1.90	0.41
50:S4:17:HIS:CE1	50:S4:21:ARG:HB3	2.55	0.41
51:S5:39:PHE:C	51:S5:39:PHE:CD1	2.98	0.41
53:SA:5:U:C5	59:SG:217:LYS:HE2	2.56	0.41
53:SA:395:G:H3'	53:SA:396:G:H21	1.85	0.41
53:SA:540:C:H2'	53:SA:541:C:H6	1.85	0.41
53:SA:1106:C:O2'	53:SA:1107:U:H5'	2.20	0.41
53:SA:1627:U:H4'	66:SN:56:PRO:HG3	2.03	0.41
53:SA:1723:A:H2'	53:SA:1724:U:H6	1.83	0.41
54:SB:30:TYR:CE2	54:SB:48:VAL:HB	2.54	0.41
55:SC:85:ALA:HA	55:SC:201:PHE:CD1	2.55	0.41
55:SC:125:ASP:HB3	55:SC:164:ASN:HD22	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:SC:148:ASP:H	55:SC:151:SER:HB3	1.85	0.41
58:SF:182:MET:HG3	58:SF:226:PHE:HB3	2.01	0.41
58:SF:246:LEU:HD11	58:SF:254:ASN:HD21	1.85	0.41
73:SU:92:ILE:HG13	73:SU:122:ILE:HD12	2.02	0.41
74:SV:60:LYS:HB3	74:SV:134:LEU:HD11	2.03	0.41
76:SX:114:TYR:OH	76:SX:118:GLU:OE2	2.35	0.41
1:S7:63:G:H2'	1:S7:64:G:C8	2.55	0.41
2:AA:138:C:H2'	2:AA:139:A:O4'	2.20	0.41
2:AA:769:U:H3'	2:AA:770:U:H6	1.86	0.41
2:AA:1770:G:N2	2:AA:2083:U:C2	2.88	0.41
2:AA:1968:C:H5"	2:AA:1969:A:H2'	2.02	0.41
2:AA:2637:U:H2'	2:AA:2638:G:C8	2.55	0.41
2:AA:3173:G:OP1	39:AF:75:ARG:NH1	2.48	0.41
3:AC:43:G:OP2	3:AC:43:G:H8	2.03	0.41
4:AB:64:A:O3'	29:AQ:203:LYS:HE3	2.20	0.41
5:AL:73:GLY:HA2	5:AL:95:CYS:C	2.45	0.41
7:A2:64:VAL:HG11	7:A2:112:TYR:CD1	2.56	0.41
9:A6:35:LYS:HE3	9:A6:35:LYS:HB3	1.71	0.41
19:AP:202:ARG:H	19:AP:202:ARG:HG2	1.69	0.41
21:Ai:43:ASP:O	21:Ai:47:LYS:HG2	2.21	0.41
26:AM:82:ARG:HD2	26:AM:82:ARG:HA	1.81	0.41
26:AM:106:ASN:HD21	26:AM:110:GLU:CD	2.28	0.41
27:AS:36:LEU:HD23	27:AS:36:LEU:HA	1.87	0.41
27:AS:148:GLU:HA	27:AS:151:PHE:CD2	2.56	0.41
34:AZ:38:LEU:HD23	34:AZ:38:LEU:HA	1.85	0.41
35:A3:17:LEU:O	35:A3:21:LEU:HG	2.20	0.41
47:S1:45:ALA:HA	47:S1:50:LEU:HD12	2.01	0.41
53:SA:331:G:C1'	74:SV:83:MET:HE1	2.49	0.41
53:SA:426:A:OP2	60:SH:74:ARG:NH2	2.53	0.41
53:SA:527:A:H2'	53:SA:528:A:H8	1.84	0.41
53:SA:632:C:H42	53:SA:1043:A:H61	1.68	0.41
53:SA:882:A:H61	53:SA:920:A:H61	1.69	0.41
53:SA:1044:C:H2'	53:SA:1045:G:O4'	2.20	0.41
53:SA:1044:C:OP1	73:SU:112:LYS:NZ	2.53	0.41
53:SA:1796:C:H5"	77:SY:124:ARG:HD2	2.01	0.41
53:SA:1889:G:C6	53:SA:1902:G:C6	3.09	0.41
54:SB:45:LYS:HD2	68:SP:27:VAL:HG13	2.02	0.41
54:SB:46:THR:OG1	54:SB:47:LEU:N	2.52	0.41
55:SC:148:ASP:OD2	55:SC:164:ASN:N	2.46	0.41
57:SE:63:ASP:OD2	57:SE:63:ASP:C	2.64	0.41
58:SF:200:LYS:HE3	58:SF:200:LYS:HB3	1.82	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:SG:200:LEU:HG	59:SG:205:ILE:HG23	2.02	0.41
61:SI:20:ASN:ND2	61:SI:105:ASN:OD1	2.54	0.41
62:SJ:54:LYS:HG3	62:SJ:56:LYS:O	2.20	0.41
64:SL:168:ILE:HG23	64:SL:169:ASP:N	2.36	0.41
67:SO:60:LEU:HD13	67:SO:87:LEU:HD13	2.01	0.41
67:SO:72:TRP:CG	72:ST:21:VAL:HG23	2.55	0.41
77:SY:75:TRP:HA	77:SY:78:ILE:HD12	2.02	0.41
77:SY:150:LYS:HA	77:SY:153:ASN:ND2	2.34	0.41
2:AA:118:G:N1	2:AA:160:G:C6	2.88	0.41
2:AA:504:A:O2'	2:AA:505:A:OP1	2.34	0.41
2:AA:1424:C:H2'	2:AA:1425:C:H6	1.85	0.41
2:AA:1785:U:H4'	6:A1:74:CYS:O	2.20	0.41
2:AA:2726:U:H1'	19:AP:126:ALA:HB2	2.03	0.41
2:AA:3024:U:H2'	2:AA:3025:U:C6	2.56	0.41
2:AA:3137:U:O4	5:AL:198:ARG:HD2	2.21	0.41
2:AA:3234:U:OP2	2:AA:3304:G:N1	2.43	0.41
2:AA:3407:G:O6	2:AA:3419:U:H5	2.02	0.41
2:AA:3520:U:C2	2:AA:3521:G:C8	3.08	0.41
2:AA:3550:U:H2'	2:AA:3551:U:H6	1.85	0.41
4:AB:21:G:O2'	4:AB:22:G:H5"	2.21	0.41
6:A1:13:ILE:HG22	6:A1:14:LEU:N	2.34	0.41
9:A6:27:GLN:OE1	9:A6:27:GLN:N	2.53	0.41
16:Ad:47:LYS:HG2	16:Ad:48:TYR:CD2	2.55	0.41
23:AJ:268:ALA:O	23:AJ:272:GLU:HG2	2.20	0.41
26:AM:56:LEU:HD12	26:AM:80:ILE:O	2.21	0.41
27:AS:80:VAL:HG13	27:AS:137:LEU:HA	2.03	0.41
28:AO:36:GLY:HA3	28:AO:41:MET:HG2	2.02	0.41
30:AR:286:LEU:O	30:AR:290:VAL:HG13	2.20	0.41
33:AT:62:VAL:HA	33:AT:65:TYR:HB3	2.02	0.41
34:AZ:82:GLU:HG3	34:AZ:83:ARG:HE	1.85	0.41
38:AE:122:TRP:CE2	38:AE:127:LYS:HD2	2.56	0.41
38:AE:183:GLY:H	38:AE:188:LYS:NZ	2.14	0.41
43:AV:58:TYR:OH	43:AV:88:LYS:HD3	2.21	0.41
47:S1:84:LYS:HA	47:S1:84:LYS:HD2	1.88	0.41
49:S3:84:VAL:HG13	53:SA:2089:A:N6	2.36	0.41
50:S4:21:ARG:H	50:S4:21:ARG:HG2	1.54	0.41
53:SA:161:U:H4'	60:SH:53:THR:OG1	2.20	0.41
53:SA:750:U:H2'	53:SA:751:U:C6	2.56	0.41
53:SA:928:U:O4'	62:SJ:115:ARG:HG3	2.20	0.41
53:SA:978:U:H2'	53:SA:979:C:H6	1.86	0.41
53:SA:1034:U:H1'	73:SU:128:TYR:CD2	2.56	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:1060:G:N1	53:SA:1081:U:OP2	2.38	0.41
53:SA:1072:A:H1'	53:SA:1074:A:N7	2.36	0.41
53:SA:1438:A:O2'	65:SM:124:ARG:HG3	2.21	0.41
53:SA:1684:G:O2'	56:SD:180:GLN:HG3	2.21	0.41
53:SA:2040:G:H2'	53:SA:2041:A:C8	2.55	0.41
55:SC:40:ARG:HG3	55:SC:46:HIS:CD2	2.56	0.41
57:SE:84:GLY:O	57:SE:107:ARG:NH2	2.54	0.41
57:SE:119:ALA:HB1	57:SE:124:HIS:HB3	2.02	0.41
59:SG:242:TRP:HA	59:SG:242:TRP:HE3	1.85	0.41
60:SH:57:ASP:HA	60:SH:106:LEU:HA	2.03	0.41
61:SI:103:PHE:CD1	61:SI:168:ILE:HG12	2.56	0.41
62:SJ:106:LYS:O	62:SJ:106:LYS:HD2	2.21	0.41
64:SL:90:LEU:HD22	64:SL:95:THR:OG1	2.21	0.41
65:SM:35:LYS:NZ	77:SY:32:VAL:O	2.54	0.41
68:SP:43:HIS:CD2	68:SP:55:ARG:HB2	2.56	0.41
77:SY:161:TYR:C	77:SY:165:LYS:HZ2	2.27	0.41
78:SZ:67:CYS:O	78:SZ:71:LEU:HG	2.20	0.41
1:S7:69:C:O2'	1:S7:70:G:H8	2.04	0.41
2:AA:66:A:N1	2:AA:77:A:H5"	2.35	0.41
2:AA:510:A:H2'	2:AA:511:C:C6	2.55	0.41
2:AA:535:U:O4	2:AA:536:A:N6	2.53	0.41
2:AA:801:U:H1'	2:AA:877:G:H1'	2.02	0.41
2:AA:952:U:OP1	33:AT:85:ASN:HB3	2.21	0.41
2:AA:1235:C:H2'	2:AA:1236:U:C6	2.56	0.41
2:AA:1334:G:N2	18:Af:40:GLY:HA3	2.34	0.41
2:AA:1734:G:H5"	14:Aa:37:LYS:NZ	2.35	0.41
2:AA:1872:A:C4'	2:AA:1873:U:H3'	2.49	0.41
2:AA:2396:C:OP2	33:AT:80:ARG:NH2	2.54	0.41
2:AA:2447:U:H2'	2:AA:2448:G:C8	2.55	0.41
2:AA:2917:C:H2'	2:AA:2918:C:C6	2.55	0.41
2:AA:3242:U:H2'	2:AA:3243:C:C6	2.56	0.41
2:AA:3508:A:O2'	42:AH:68:CYS:SG	2.47	0.41
2:AA:3645:A:H2'	2:AA:3646:G:H8	1.85	0.41
2:AA:3654:C:H2'	2:AA:3655:U:C6	2.56	0.41
3:AC:109:U:H5"	3:AC:111:U:OP2	2.21	0.41
5:AL:77:GLU:OE1	5:AL:102:ASN:HB2	2.21	0.41
6:A1:42:LEU:HA	6:A1:74:CYS:SG	2.60	0.41
9:A6:51:CYS:O	9:A6:56:ARG:NH2	2.54	0.41
9:A6:80:LEU:HD13	9:A6:84:CYS:SG	2.61	0.41
12:A8:13:ARG:NH1	12:A8:51:LEU:HD21	2.34	0.41
12:A8:36:ARG:HH21	28:AO:14:HIS:CE1	2.39	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AJ:170:ILE:HG23	23:AJ:180:VAL:HG21	2.02	0.41
25:AK:33:VAL:HG11	25:AK:111:TYR:CZ	2.55	0.41
25:AK:172:ASN:HA	25:AK:175:ASN:ND2	2.35	0.41
26:AM:59:MET:HE2	26:AM:59:MET:HB2	1.91	0.41
30:AR:83:LEU:HA	30:AR:86:TYR:CD2	2.41	0.41
33:AT:169:ARG:HG2	73:SU:78:GLN:HG2	2.02	0.41
35:A3:77:PHE:O	35:A3:77:PHE:CG	2.73	0.41
35:A3:82:LEU:HD12	35:A3:82:LEU:HA	1.76	0.41
35:A3:90:LYS:HA	35:A3:90:LYS:HD3	1.89	0.41
42:AH:94:VAL:HG21	42:AH:179:TYR:CG	2.55	0.41
43:AV:107:LEU:HD23	43:AV:107:LEU:HA	1.86	0.41
47:S1:27:ILE:HG13	47:S1:70:THR:HB	2.03	0.41
49:S3:28:ARG:HD2	49:S3:29:CYS:N	2.36	0.41
52:S6:36:LYS:HA	52:S6:39:LEU:HG	2.02	0.41
53:SA:66:U:OP1	60:SH:136:LYS:NZ	2.47	0.41
53:SA:533:A:H2'	53:SA:534:A:C8	2.56	0.41
53:SA:638:G:H2'	53:SA:639:U:C6	2.56	0.41
53:SA:996:C:H2'	53:SA:997:G:C8	2.56	0.41
53:SA:1173:C:H4'	73:SU:11:ILE:HD11	2.02	0.41
55:SC:147:CYS:SG	55:SC:151:SER:HB3	2.61	0.41
56:SD:106:LEU:O	56:SD:110:LEU:HG	2.20	0.41
59:SG:90:ASP:OD1	59:SG:90:ASP:N	2.34	0.41
60:SH:3:LEU:HB2	60:SH:16:ILE:HG13	2.02	0.41
63:SK:40:TYR:CE2	63:SK:111:MET:HA	2.56	0.41
65:SM:36:ASN:HB3	77:SY:22:PHE:HZ	1.86	0.41
65:SM:75:GLN:O	65:SM:79:ILE:HG12	2.19	0.41
69:SQ:138:GLU:HG3	69:SQ:140:LYS:HD3	2.02	0.41
71:SS:48:LYS:HE2	71:SS:48:LYS:HB2	1.91	0.41
77:SY:28:CYS:SG	77:SY:29:ILE:N	2.94	0.41
2:AA:180:C:H5'	2:AA:251:U:O4	2.21	0.41
2:AA:252:A:H2'	2:AA:253:U:C6	2.56	0.41
2:AA:276:G:H5'	19:AP:121:TRP:CG	2.55	0.41
2:AA:511:C:H2'	2:AA:512:A:H8	1.86	0.41
2:AA:659:U:H2'	2:AA:660:U:H6	1.86	0.41
2:AA:664:U:H2'	2:AA:665:U:C5	2.56	0.41
2:AA:2112:G:C5'	2:AA:2113:C:H5"	2.51	0.41
2:AA:2210:U:C2	2:AA:2400:A:C2	3.09	0.41
2:AA:2211:C:H2'	2:AA:2212:U:O4'	2.21	0.41
2:AA:2959:G:C4	2:AA:2960:G:C8	3.09	0.41
2:AA:3172:A:H2'	2:AA:3173:G:O4'	2.21	0.41
5:AL:94:ILE:HD11	5:AL:118:TYR:CD2	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AL:194:LEU:HD13	5:AL:194:LEU:HA	1.92	0.41
10:A7:73:ARG:H	10:A7:73:ARG:HG2	1.72	0.41
11:AN:29:ARG:HA	11:AN:29:ARG:HD2	1.88	0.41
19:AP:154:ASN:OD1	19:AP:154:ASN:C	2.64	0.41
27:AS:25:TYR:HB3	39:AF:283:ILE:HG22	2.02	0.41
27:AS:98:LYS:HB3	27:AS:118:GLU:OE2	2.20	0.41
30:AR:54:ARG:HD2	30:AR:151:GLY:HA2	2.01	0.41
31:AW:8:ILE:HD11	31:AW:11:LEU:HD13	2.02	0.41
34:AZ:81:VAL:HG22	34:AZ:84:VAL:HG22	2.02	0.41
35:A3:28:LEU:HA	35:A3:31:LEU:HG	2.03	0.41
40:AG:29:ARG:O	40:AG:32:ARG:HG2	2.21	0.41
45:AX:51:LYS:HB2	45:AX:51:LYS:HE2	1.92	0.41
45:AX:64:PHE:CZ	45:AX:103:ILE:HG23	2.56	0.41
47:S1:66:GLY:HA3	57:SE:140:MET:HG2	2.02	0.41
49:S3:22:ARG:HA	49:S3:22:ARG:HD2	1.86	0.41
53:SA:311:C:N4	53:SA:312:U:O4	2.54	0.41
53:SA:624:U:H2'	53:SA:625:U:C6	2.55	0.41
53:SA:756:A:N1	53:SA:757:A:C6	2.89	0.41
53:SA:817:U:C2	53:SA:818:C:H5	2.38	0.41
53:SA:1179:C:H2'	53:SA:1180:U:C6	2.56	0.41
53:SA:1295:A:HO2'	53:SA:1296:C:P	2.43	0.41
53:SA:1795:G:P	77:SY:145:ARG:HH12	2.43	0.41
53:SA:1939:G:H2'	53:SA:1940:U:C6	2.56	0.41
53:SA:1973:U:H2'	53:SA:1974:U:C6	2.55	0.41
53:SA:2004:U:H2'	53:SA:2005:U:H6	1.85	0.41
53:SA:2052:G:H1'	53:SA:2073:A:H2	1.85	0.41
63:SK:10:CYS:O	63:SK:14:ILE:HG23	2.21	0.41
63:SK:36:LYS:HB2	63:SK:36:LYS:HE2	1.89	0.41
73:SU:62:GLN:O	73:SU:66:VAL:HG12	2.20	0.41
75:SW:105:MET:SD	75:SW:106:ILE:HG12	2.61	0.41
2:AA:61:A:H2'	2:AA:62:A:C8	2.56	0.41
2:AA:119:G:C4	23:AJ:155:HIS:CD2	3.09	0.41
2:AA:148:G:H2'	2:AA:149:A:C8	2.56	0.41
2:AA:252:A:H2'	2:AA:253:U:H6	1.86	0.41
2:AA:495:U:H2'	2:AA:496:C:C6	2.56	0.41
2:AA:539:G:H2'	2:AA:540:C:H6	1.85	0.41
2:AA:696:C:H4'	2:AA:697:A:O5'	2.21	0.41
2:AA:811:A:C8	28:AO:136:LYS:HE2	2.56	0.41
2:AA:1171:A:H2'	29:AQ:22:TYR:CZ	2.56	0.41
2:AA:1203:A:O2'	30:AR:141:ARG:NH1	2.54	0.41
2:AA:1204:A:H62	30:AR:145:LYS:NZ	2.19	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1276:G:O4'	2:AA:1298:A:H2	2.04	0.41
2:AA:1538:U:H4'	2:AA:1539:U:O5'	2.19	0.41
2:AA:1736:A:H8	2:AA:1758:C:O2'	2.04	0.41
2:AA:1752:C:H5"	32:AY:173:ARG:CZ	2.51	0.41
2:AA:1901:A:H2'	2:AA:1966:A:C8	2.55	0.41
2:AA:1970:A:OP2	16:Ad:40:LYS:NZ	2.50	0.41
2:AA:2552:A:H2'	2:AA:2553:U:O4'	2.20	0.41
2:AA:3387:U:H2'	2:AA:3388:U:H6	1.86	0.41
2:AA:3409:U:O4	2:AA:3418:A:C5	2.74	0.41
2:AA:3459:A:H2'	2:AA:3460:C:C6	2.56	0.41
2:AA:3469:C:N4	2:AA:3470:G:N3	2.69	0.41
2:AA:3573:U:H1'	2:AA:3574:G:C8	2.55	0.41
3:AC:33:C:H5"	5:AL:26:SER:HB3	2.02	0.41
3:AC:68:C:C2	3:AC:69:A:C8	3.09	0.41
6:A1:81:LEU:HG	9:A6:62:TYR:OH	2.20	0.41
9:A6:54:ILE:HD12	14:Aa:94:LEU:HD23	2.03	0.41
9:A6:80:LEU:HD12	9:A6:93:LEU:HD21	2.03	0.41
13:A9:41:TYR:CE1	13:A9:132:ARG:HG2	2.55	0.41
16:Ad:42:LYS:O	16:Ad:43:LEU:HD13	2.20	0.41
20:Ah:51:CYS:HB3	20:Ah:54:ILE:HD12	2.02	0.41
25:AK:1:MET:N	25:AK:30:GLN:HE21	2.19	0.41
25:AK:74:GLU:O	25:AK:78:ILE:HG13	2.21	0.41
26:AM:41:VAL:HG12	26:AM:60:VAL:HG22	2.02	0.41
28:AO:86:LYS:O	28:AO:90:PHE:HB2	2.20	0.41
29:AQ:194:GLY:C	29:AQ:196:SER:H	2.26	0.41
30:AR:23:ARG:HB2	30:AR:30:TYR:CD2	2.54	0.41
30:AR:84:ILE:HG12	30:AR:89:PRO:HA	2.03	0.41
30:AR:199:LEU:HD11	30:AR:240:LEU:HD12	2.03	0.41
35:A3:31:LEU:O	35:A3:35:LYS:HG3	2.21	0.41
36:A5:189:TYR:N	36:A5:189:TYR:HD1	2.19	0.41
38:AE:280:TYR:CE2	38:AE:322:LYS:HB2	2.56	0.41
39:AF:32:ILE:HG22	39:AF:246:ILE:HD11	2.02	0.41
39:AF:116:ASN:HB2	39:AF:119:GLU:HB2	2.02	0.41
40:AG:141:ARG:HE	40:AG:141:ARG:HB3	1.71	0.41
41:AU:118:GLU:CD	41:AU:122:ARG:HE	2.28	0.41
42:AH:110:ARG:NE	42:AH:110:ARG:HA	2.35	0.41
43:AV:19:LYS:HB3	43:AV:22:LYS:HG2	2.03	0.41
44:Ag:16:ARG:HH12	53:SA:2065:C:P	2.44	0.41
46:A0:26:GLN:HG2	46:A0:27:LYS:N	2.35	0.41
47:S1:7:ILE:HD13	47:S1:27:ILE:HG22	2.01	0.41
49:S3:58:VAL:HG13	68:SP:125:LYS:NZ	2.36	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:S5:49:ARG:HG2	61:SI:52:PHE:CE2	2.55	0.41
51:S5:65:ARG:HE	51:S5:66:LEU:N	2.18	0.41
53:SA:150:C:O2	60:SH:4:ASN:ND2	2.54	0.41
53:SA:852:A:O5'	58:SF:106:LYS:HE3	2.21	0.41
53:SA:924:A:H61	62:SJ:122:VAL:HG22	1.85	0.41
53:SA:953:C:O2'	53:SA:954:G:H5'	2.21	0.41
53:SA:1061:A:H2'	53:SA:1062:A:H5'	2.03	0.41
53:SA:1176:U:H2'	53:SA:1177:A:C8	2.54	0.41
53:SA:1671:A:H2'	53:SA:1672:C:C6	2.56	0.41
53:SA:1674:G:C2	53:SA:1675:G:C5	3.09	0.41
53:SA:1863:U:OP1	71:SS:41:ARG:N	2.48	0.41
53:SA:1883:A:C2	61:SI:69:MET:HE1	2.55	0.41
53:SA:1938:C:H2'	53:SA:1939:G:H8	1.82	0.41
53:SA:1963:U:H2'	53:SA:1964:G:C8	2.56	0.41
53:SA:2005:U:H2'	53:SA:2006:U:C6	2.56	0.41
55:SC:21:LYS:O	55:SC:24:ILE:HG12	2.21	0.41
55:SC:88:LYS:O	55:SC:91:GLN:HG3	2.20	0.41
55:SC:114:LYS:HD2	55:SC:114:LYS:HA	1.87	0.41
55:SC:153:LEU:HG	55:SC:156:VAL:HB	2.03	0.41
56:SD:163:GLU:CG	56:SD:164:PRO:HD3	2.50	0.41
57:SE:102:PRO:HA	57:SE:105:LEU:HD23	2.03	0.41
57:SE:151:ASP:O	57:SE:155:HIS:NE2	2.54	0.41
58:SF:46:ILE:HD12	58:SF:47:LEU:N	2.36	0.41
58:SF:48:LEU:HD12	58:SF:54:TYR:HB2	2.02	0.41
59:SG:45:THR:HG23	59:SG:48:GLY:N	2.32	0.41
59:SG:188:THR:HB	59:SG:207:ASP:OD2	2.21	0.41
60:SH:180:THR:HG22	60:SH:182:LYS:H	1.85	0.41
61:SI:179:TYR:HD1	61:SI:182:LYS:HZ3	1.68	0.41
63:SK:28:ARG:HA	63:SK:60:LYS:HG2	2.03	0.41
64:SL:20:ILE:HA	64:SL:20:ILE:HD13	1.81	0.41
64:SL:168:ILE:HD12	64:SL:168:ILE:HA	1.92	0.41
66:SN:101:THR:O	66:SN:105:ILE:HG23	2.21	0.41
68:SP:60:MET:HB2	68:SP:61:LYS:NZ	2.36	0.41
71:SS:113:LEU:O	71:SS:116:MET:HB3	2.20	0.41
73:SU:13:SER:OG	73:SU:14:SER:N	2.54	0.41
74:SV:51:ALA:HA	74:SV:56:TYR:HE1	1.86	0.41
1:S7:15:G:H2'	1:S7:59:A:N6	2.35	0.41
2:AA:802:U:O2'	2:AA:804:A:N7	2.54	0.41
2:AA:868:U:H5"	27:AS:143:LYS:HG2	2.02	0.41
2:AA:1515:A:O3'	12:A8:45:ARG:NH2	2.51	0.41
2:AA:1790:U:H5"	14:Aa:68:LYS:HZ3	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:3101:A:H2'	2:AA:3102:U:H6	1.85	0.41
2:AA:3435:A:N1	38:AE:55:HIS:N	2.69	0.41
2:AA:3750:U:O3'	45:AX:73:LYS:NZ	2.45	0.41
2:AA:3766:U:OP2	10:A7:78:ARG:NH2	2.47	0.41
4:AB:7:G:H5"	30:AR:22:ARG:CD	2.51	0.41
5:AL:129:LYS:HD3	5:AL:129:LYS:HA	1.93	0.41
6:A1:14:LEU:N	6:A1:79:HIS:O	2.55	0.41
7:A2:6:ASN:OD1	7:A2:6:ASN:N	2.53	0.41
11:AN:103:GLU:N	11:AN:103:GLU:OE2	2.54	0.41
19:AP:182:SER:OG	19:AP:183:ALA:N	2.53	0.41
23:AJ:74:TYR:C	23:AJ:76:ARG:N	2.79	0.41
23:AJ:197:VAL:HG12	23:AJ:199:ASP:H	1.86	0.41
29:AQ:36:MET:HE3	29:AQ:87:LEU:HB3	2.03	0.41
30:AR:95:TYR:HB2	30:AR:202:HIS:NE2	2.35	0.41
31:AW:92:LEU:HD23	31:AW:92:LEU:HA	1.90	0.41
33:AT:150:LYS:O	33:AT:154:ILE:HG12	2.21	0.41
33:AT:162:ARG:HE	73:SU:76:ARG:HH22	1.69	0.41
35:A3:13:LYS:HA	35:A3:13:LYS:HD2	1.96	0.41
36:A5:141:PRO:HA	36:A5:242:TRP:CD2	2.56	0.41
42:AH:13:PRO:HG3	42:AH:80:PHE:HB2	2.03	0.41
42:AH:149:ASP:O	42:AH:153:VAL:HG13	2.21	0.41
43:AV:18:LYS:HD3	43:AV:48:THR:HG23	2.03	0.41
45:AX:104:LYS:O	45:AX:108:LYS:HG2	2.21	0.41
47:S1:38:LYS:HA	47:S1:38:LYS:HD3	1.95	0.41
53:SA:469:U:H2'	53:SA:470:A:H8	1.86	0.41
53:SA:879:A:H2'	53:SA:880:A:C8	2.55	0.41
53:SA:887:A:C6	53:SA:916:G:C6	3.08	0.41
53:SA:1295:A:O2'	53:SA:1296:C:P	2.79	0.41
53:SA:1646:U:H2'	53:SA:1647:A:H8	1.85	0.41
53:SA:1889:G:H1	53:SA:1901:U:H3	1.69	0.41
53:SA:1903:U:H2'	53:SA:1904:G:H8	1.84	0.41
53:SA:2024:A:H2'	53:SA:2025:U:C6	2.56	0.41
54:SB:91:ILE:HD12	54:SB:96:CYS:HA	2.03	0.41
57:SE:46:GLN:HA	57:SE:49:LEU:CD2	2.51	0.41
74:SV:39:LYS:HD2	74:SV:39:LYS:HA	1.86	0.41
74:SV:157:GLN:H	74:SV:157:GLN:CD	2.27	0.41
77:SY:54:PRO:HD3	77:SY:76:TYR:CE2	2.55	0.41
2:AA:46:U:O4	19:AP:85:LYS:NZ	2.54	0.40
2:AA:145:U:H2'	2:AA:146:U:C6	2.55	0.40
2:AA:582:U:H2'	2:AA:583:U:C5	2.57	0.40
2:AA:1093:G:H2'	2:AA:1094:U:H6	1.84	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1285:U:O2'	2:AA:1297:A:N3	2.44	0.40
2:AA:1472:A:H2'	2:AA:1473:A:C8	2.55	0.40
2:AA:1889:A:C8	2:AA:1890:G:C8	3.09	0.40
2:AA:2211:C:H2'	2:AA:2212:U:C6	2.56	0.40
2:AA:2405:A:N3	2:AA:2406:A:N6	2.69	0.40
2:AA:2442:A:C2	2:AA:2481:A:C4'	3.03	0.40
2:AA:2919:A:N3	2:AA:2919:A:H2'	2.35	0.40
2:AA:3505:U:C4'	2:AA:3507:A:H5'	2.51	0.40
2:AA:3533:A:H2'	2:AA:3534:U:O4'	2.20	0.40
2:AA:3689:C:OP2	38:AE:126:GLU:N	2.53	0.40
11:AN:16:LYS:HD3	11:AN:16:LYS:HA	1.76	0.40
14:Aa:88:ARG:CZ	14:Aa:92:ALA:HB2	2.51	0.40
18:Af:35:ARG:CZ	18:Af:35:ARG:CB	2.99	0.40
22:AI:178:LYS:HE3	22:AI:178:LYS:HB2	1.94	0.40
23:AJ:103:LYS:HB3	23:AJ:103:LYS:HE2	1.80	0.40
24:Ac:23:LEU:HD21	24:Ac:42:TYR:CZ	2.56	0.40
25:AK:33:VAL:HG11	25:AK:111:TYR:CE1	2.56	0.40
28:AO:132:VAL:O	28:AO:136:LYS:HG3	2.21	0.40
30:AR:102:GLY:HA2	30:AR:105:CYS:SG	2.61	0.40
30:AR:108:ARG:HA	30:AR:111:LYS:HG3	2.03	0.40
36:A5:56:ARG:HG2	36:A5:60:TYR:CZ	2.56	0.40
38:AE:27:GLY:HA2	38:AE:271:HIS:CE1	2.56	0.40
38:AE:357:ASP:OD1	38:AE:358:THR:N	2.54	0.40
41:AU:91:ASP:OD1	41:AU:129:SER:HB3	2.21	0.40
53:SA:755:A:H2'	53:SA:756:A:H8	1.85	0.40
53:SA:958:U:H2'	53:SA:959:C:H6	1.84	0.40
53:SA:1234:A:O3'	69:SQ:40:SER:OG	2.39	0.40
53:SA:1450:A:H2'	53:SA:1451:G:H8	1.85	0.40
53:SA:1603:U:H2'	53:SA:1604:A:N7	2.36	0.40
53:SA:1629:G:H5'	66:SN:28:LEU:HD21	2.02	0.40
53:SA:1716:C:O2	53:SA:1868:C:O2'	2.36	0.40
53:SA:1890:A:H2'	53:SA:1891:U:H6	1.86	0.40
54:SB:27:LYS:HD2	54:SB:47:LEU:CD2	2.51	0.40
54:SB:224:ASP:HB3	54:SB:227:LYS:HD3	2.02	0.40
55:SC:88:LYS:HB3	55:SC:201:PHE:CE1	2.55	0.40
60:SH:18:ILE:HD11	60:SH:24:LEU:HD11	2.03	0.40
60:SH:85:ARG:HH12	60:SH:87:ARG:HB2	1.86	0.40
61:SI:9:LYS:HD3	61:SI:15:SER:HB2	2.03	0.40
61:SI:144:LEU:CD2	61:SI:183:LYS:HD2	2.50	0.40
66:SN:35:CYS:O	66:SN:39:MET:HG3	2.21	0.40
66:SN:37:ASP:HA	66:SN:40:LYS:HE2	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:SO:21:LEU:HA	67:SO:24:GLU:OE2	2.21	0.40
68:SP:125:LYS:HA	68:SP:125:LYS:HD2	1.86	0.40
68:SP:147:ARG:NE	68:SP:150:ARG:HD3	2.36	0.40
73:SU:132:LYS:HE2	73:SU:134:LEU:HD21	2.02	0.40
1:S7:60:U:H3'	1:S7:61:C:H6	1.87	0.40
2:AA:416:G:N2	3:AC:20:G:C4	2.89	0.40
2:AA:445:A:N1	2:AA:702:U:H5	2.20	0.40
2:AA:464:G:H2'	2:AA:465:A:C8	2.56	0.40
2:AA:593:A:H5'	2:AA:594:C:C5	2.56	0.40
2:AA:1753:U:P	32:AY:173:ARG:HH12	2.44	0.40
2:AA:1772:G:O3'	2:AA:1780:G:H4'	2.21	0.40
2:AA:1851:A:H2'	2:AA:1852:C:C6	2.56	0.40
2:AA:1889:A:C2'	2:AA:1890:G:H5'	2.52	0.40
2:AA:1904:U:H1'	2:AA:1905:C:H5	1.86	0.40
2:AA:2544:G:C2	2:AA:2545:A:N7	2.89	0.40
2:AA:3006:A:H2'	2:AA:3007:A:O4'	2.22	0.40
2:AA:3086:A:OP2	2:AA:3086:A:H8	2.04	0.40
2:AA:3587:U:HO2'	2:AA:3588:A:P	2.44	0.40
6:A1:122:PHE:HZ	6:A1:141:HIS:ND1	2.19	0.40
7:A2:34:ASP:N	7:A2:34:ASP:OD2	2.53	0.40
11:AN:43:CYS:HB3	11:AN:57:ASP:N	2.36	0.40
15:Ab:102:ILE:O	15:Ab:106:ARG:NH1	2.54	0.40
23:AJ:167:LEU:HD11	23:AJ:235:CYS:SG	2.61	0.40
29:AQ:157:TYR:CD2	29:AQ:157:TYR:C	2.99	0.40
30:AR:99:TYR:HB2	30:AR:163:ALA:HB1	2.02	0.40
36:A5:94:PHE:O	36:A5:145:TYR:HA	2.21	0.40
37:AD:188:LYS:O	37:AD:192:LYS:HG3	2.21	0.40
38:AE:97:LYS:HA	38:AE:97:LYS:HD3	1.91	0.40
38:AE:111:SER:OG	38:AE:112:ASP:N	2.54	0.40
38:AE:277:LYS:CB	38:AE:321:LEU:HD11	2.51	0.40
39:AF:352:LYS:HD2	39:AF:352:LYS:HA	1.84	0.40
45:AX:78:LYS:HB3	45:AX:79:ASN:H	1.65	0.40
45:AX:104:LYS:HG2	45:AX:108:LYS:NZ	2.36	0.40
51:S5:19:ARG:HB3	53:SA:1263:C:H1'	2.02	0.40
53:SA:95:A:N6	53:SA:402:G:H1'	2.35	0.40
53:SA:379:G:OP1	74:SV:98:LYS:HD3	2.20	0.40
53:SA:412:U:H2'	53:SA:413:A:C8	2.57	0.40
53:SA:412:U:H2'	53:SA:413:A:H8	1.85	0.40
53:SA:452:A:N3	53:SA:452:A:H2'	2.35	0.40
53:SA:562:A:O4'	57:SE:21:LYS:NZ	2.38	0.40
53:SA:812:A:C8	53:SA:852:A:N6	2.90	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:924:A:N7	62:SJ:99:THR:HG22	2.36	0.40
53:SA:996:C:H1'	68:SP:138:ASP:OD1	2.20	0.40
53:SA:1031:C:H5"	73:SU:72:LEU:HD12	2.03	0.40
53:SA:1405:U:O2'	53:SA:1424:A:OP2	2.37	0.40
53:SA:1429:C:H2'	53:SA:1430:G:H8	1.86	0.40
53:SA:1459:U:O4	53:SA:1460:A:N6	2.54	0.40
53:SA:1684:G:H2'	53:SA:1685:U:H6	1.85	0.40
53:SA:1982:G:N2	53:SA:2008:U:O2	2.34	0.40
54:SB:62:LYS:HD2	54:SB:62:LYS:HA	1.72	0.40
54:SB:103:LEU:HD12	54:SB:104:SER:N	2.36	0.40
56:SD:169:VAL:HG22	56:SD:190:MET:HB3	2.02	0.40
58:SF:103:TYR:CD2	58:SF:182:MET:HE1	2.56	0.40
58:SF:168:LYS:HD2	58:SF:168:LYS:HA	1.78	0.40
59:SG:179:ILE:HD13	59:SG:222:PHE:CE1	2.57	0.40
59:SG:195:THR:HG23	59:SG:198:LYS:NZ	2.37	0.40
62:SJ:70:THR:O	62:SJ:75:LYS:NZ	2.35	0.40
62:SJ:143:MET:HA	62:SJ:149:ARG:HA	2.03	0.40
65:SM:10:THR:HB	65:SM:88:LYS:HE3	2.03	0.40
66:SN:79:PHE:CD1	66:SN:79:PHE:N	2.88	0.40
71:SS:46:ILE:HG22	71:SS:69:ILE:HD12	2.03	0.40
73:SU:80:ILE:H	73:SU:80:ILE:HG13	1.70	0.40
2:AA:107:C:H2'	2:AA:108:C:O4'	2.21	0.40
2:AA:533:A:O3'	11:AN:89:SER:OG	2.31	0.40
2:AA:549:G:O2'	41:AU:139:SER:HB2	2.22	0.40
2:AA:743:A:OP1	19:AP:205:ARG:NH1	2.47	0.40
2:AA:1268:G:H2'	2:AA:1269:C:C6	2.56	0.40
2:AA:1788:C:H5"	14:Aa:52:GLN:OE1	2.21	0.40
2:AA:1963:U:H1'	16:Ad:55:ALA:HA	2.04	0.40
2:AA:2709:U:H2'	2:AA:2710:U:H6	1.86	0.40
2:AA:2829:U:H2'	2:AA:2830:U:C6	2.56	0.40
2:AA:3197:A:H4'	29:AQ:74:LYS:HD3	2.02	0.40
2:AA:3507:A:C8	2:AA:3508:A:C8	3.09	0.40
3:AC:123:A:H2'	3:AC:124:U:C6	2.56	0.40
4:AB:44:C:H4'	30:AR:154:ARG:HH21	1.86	0.40
9:A6:80:LEU:HD23	9:A6:80:LEU:HA	1.83	0.40
30:AR:108:ARG:HA	30:AR:111:LYS:HE3	2.03	0.40
36:A5:189:TYR:N	36:A5:189:TYR:CD1	2.88	0.40
41:AU:102:GLU:HG2	41:AU:138:ILE:HD13	2.03	0.40
43:AV:109:ARG:O	43:AV:112:LYS:HE2	2.22	0.40
44:Ag:30:LYS:HE3	44:Ag:30:LYS:HB3	1.78	0.40
51:S5:19:ARG:CZ	53:SA:1262:C:H1'	2.50	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:SA:12:U:O2'	53:SA:1401:G:H1'	2.22	0.40
53:SA:555:G:C6	53:SA:598:A:N6	2.89	0.40
53:SA:572:C:N4	53:SA:584:G:OP2	2.52	0.40
53:SA:803:G:OP1	58:SF:187:HIS:N	2.54	0.40
53:SA:1049:G:H4'	53:SA:2068:A:H4'	2.04	0.40
53:SA:1083:A:H2'	53:SA:1084:U:O4'	2.21	0.40
53:SA:1105:A:H2'	53:SA:1106:C:C6	2.56	0.40
53:SA:1746:A:N6	53:SA:1784:A:H61	2.20	0.40
53:SA:1959:G:N3	53:SA:1959:G:H2'	2.35	0.40
53:SA:2072:G:H2'	53:SA:2073:A:H8	1.81	0.40
56:SD:140:SER:OG	56:SD:150:SER:HB2	2.21	0.40
58:SF:2:GLY:O	58:SF:3:LYS:HE2	2.21	0.40
58:SF:246:LEU:HD11	58:SF:254:ASN:ND2	2.36	0.40
59:SG:57:VAL:N	59:SG:61:GLU:OE2	2.52	0.40
59:SG:58:SER:H	59:SG:61:GLU:CD	2.28	0.40
59:SG:63:TYR:CE2	59:SG:150:PRO:HD2	2.56	0.40
59:SG:239:PRO:HA	59:SG:242:TRP:CE2	2.56	0.40
60:SH:2:LYS:C	60:SH:3:LEU:HD23	2.46	0.40
62:SJ:76:ILE:HG23	62:SJ:80:LEU:HD23	2.02	0.40
63:SK:20:ARG:HH11	63:SK:22:ARG:HD3	1.85	0.40
64:SL:29:LEU:HB3	64:SL:30:GLY:H	1.69	0.40
64:SL:43:VAL:HG21	64:SL:55:TYR:CE2	2.55	0.40
64:SL:173:LEU:HD23	64:SL:173:LEU:HA	1.82	0.40
65:SM:36:ASN:HB3	77:SY:22:PHE:CZ	2.56	0.40
67:SO:25:TYR:CZ	67:SO:32:ILE:HG22	2.56	0.40
73:SU:46:THR:O	73:SU:50:ILE:HG13	2.21	0.40
75:SW:104:ARG:O	75:SW:107:LYS:HG2	2.21	0.40
77:SY:37:PHE:HZ	77:SY:155:ILE:HD11	1.87	0.40
78:SZ:17:CYS:HB2	78:SZ:55:SER:HB2	2.03	0.40
2:AA:212:U:H2'	2:AA:213:C:C6	2.56	0.40
2:AA:411:U:H3'	2:AA:412:A:H5'	2.03	0.40
2:AA:542:A:OP2	2:AA:542:A:H8	2.05	0.40
2:AA:939:A:H2'	2:AA:940:A:C8	2.57	0.40
2:AA:982:C:H2'	2:AA:983:G:O4'	2.21	0.40
2:AA:1747:U:H2'	2:AA:1748:A:O4'	2.21	0.40
2:AA:2158:U:H2'	2:AA:2159:A:C8	2.56	0.40
2:AA:2816:U:H2'	2:AA:2817:U:C5	2.55	0.40
2:AA:3306:G:C2	38:AE:247:ALA:HB1	2.56	0.40
2:AA:3425:G:O2'	26:AM:11:ASN:HA	2.22	0.40
14:Aa:32:ILE:HA	14:Aa:32:ILE:HD13	1.88	0.40
16:Ad:62:ARG:HA	16:Ad:62:ARG:HD2	1.94	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:Af:19:ILE:HG12	18:Af:24:TYR:HB2	2.04	0.40
19:AP:37:HIS:CE1	19:AP:63:ARG:HB3	2.57	0.40
20:Ah:36:LYS:HA	20:Ah:47:THR:O	2.21	0.40
20:Ah:56:LYS:HZ2	20:Ah:57:CYS:CA	2.34	0.40
20:Ah:61:LYS:HA	20:Ah:61:LYS:HD3	1.84	0.40
22:AI:131:ILE:H	22:AI:131:ILE:HG12	1.71	0.40
24:Ac:60:ASN:O	24:Ac:60:ASN:ND2	2.43	0.40
32:AY:145:LYS:HB2	32:AY:145:LYS:HE2	1.86	0.40
33:AT:27:GLU:O	33:AT:30:GLU:HG3	2.20	0.40
35:A3:10:ARG:NH2	35:A3:11:THR:OG1	2.54	0.40
36:A5:164:ARG:HG2	36:A5:216:TRP:CE3	2.56	0.40
37:AD:133:TYR:OH	53:SA:1055:G:OP1	2.40	0.40
39:AF:373:HIS:HA	39:AF:376:TYR:CD2	2.56	0.40
40:AG:29:ARG:HH21	40:AG:33:ALA:HB2	1.87	0.40
40:AG:148:ILE:HG12	40:AG:149:SER:O	2.22	0.40
47:S1:64:LEU:HB3	47:S1:65:PHE:H	1.77	0.40
53:SA:487:A:H8	53:SA:487:A:OP2	2.05	0.40
53:SA:837:A:H2'	53:SA:838:U:C6	2.56	0.40
53:SA:880:A:H2'	53:SA:881:C:C6	2.56	0.40
53:SA:992:G:H2'	53:SA:993:A:C8	2.57	0.40
53:SA:1032:A:H4'	73:SU:128:TYR:OH	2.21	0.40
53:SA:1730:A:C2	53:SA:1903:U:H1'	2.57	0.40
53:SA:1732:G:O5'	66:SN:61:ARG:NH1	2.55	0.40
53:SA:1887:A:H5'	77:SY:113:ASN:ND2	2.36	0.40
53:SA:2018:C:H2'	53:SA:2019:C:C6	2.57	0.40
55:SC:89:PHE:O	55:SC:93:THR:HG22	2.22	0.40
55:SC:157:ASP:OD1	55:SC:157:ASP:N	2.54	0.40
57:SE:93:LEU:HD12	57:SE:93:LEU:H	1.87	0.40
57:SE:159:ALA:HB3	57:SE:162:SER:HB3	2.03	0.40
57:SE:159:ALA:O	57:SE:165:GLY:HA3	2.21	0.40
59:SG:236:TYR:O	63:SK:70:ASN:ND2	2.33	0.40
69:SQ:13:ARG:O	69:SQ:17:ILE:HG23	2.21	0.40
71:SS:122:HIS:HD1	76:SX:121:ILE:HG21	1.86	0.40
73:SU:28:GLN:CD	73:SU:28:GLN:N	2.80	0.40
78:SZ:25:PRO:HD2	78:SZ:28:GLU:OE1	2.21	0.40
2:AA:438:U:H2'	2:AA:439:U:C6	2.56	0.40
2:AA:451:C:H3'	2:AA:695:A:H61	1.86	0.40
2:AA:464:G:H2'	2:AA:465:A:H8	1.86	0.40
2:AA:821:U:O5'	2:AA:822:A:N7	2.44	0.40
2:AA:1340:G:N7	2:AA:1341:G:C8	2.89	0.40
2:AA:1423:G:OP1	41:AU:92:SER:HB2	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:1546:A:H2'	2:AA:1547:A:O4'	2.22	0.40
2:AA:1647:U:H2'	2:AA:1648:U:H6	1.87	0.40
2:AA:1893:G:C2	2:AA:1894:U:N3	2.90	0.40
2:AA:3437:U:P	38:AE:364:HIS:HE2	2.43	0.40
2:AA:3594:G:H2'	2:AA:3595:U:C6	2.56	0.40
2:AA:3647:C:H2'	2:AA:3648:U:H6	1.86	0.40
4:AB:48:G:O2'	4:AB:49:A:H5'	2.22	0.40
4:AB:55:A:H5"	40:AG:152:HIS:ND1	2.37	0.40
4:AB:106:A:C2	4:AB:107:G:N7	2.90	0.40
11:AN:31:CYS:HA	11:AN:76:LEU:HA	2.04	0.40
12:A8:82:MET:O	12:A8:115:MET:HE1	2.22	0.40
14:Aa:11:ASN:O	14:Aa:18:ASN:ND2	2.54	0.40
15:Ab:93:LYS:HD2	15:Ab:93:LYS:HA	1.84	0.40
24:Ac:24:ARG:HD2	24:Ac:40:CYS:SG	2.61	0.40
26:AM:18:SER:OG	26:AM:19:LEU:N	2.54	0.40
27:AS:36:LEU:O	27:AS:40:THR:HB	2.22	0.40
33:AT:22:TRP:O	33:AT:49:ILE:HD13	2.22	0.40
33:AT:58:SER:OG	33:AT:59:ARG:N	2.54	0.40
35:A3:42:LYS:HD3	35:A3:42:LYS:HA	1.92	0.40
36:A5:147:TYR:HA	36:A5:148:PRO:HD3	1.89	0.40
36:A5:191:VAL:O	36:A5:191:VAL:CG1	2.70	0.40
37:AD:106:LYS:HD3	37:AD:106:LYS:HA	1.89	0.40
47:S1:43:ARG:HA	47:S1:46:LYS:HE2	2.03	0.40
53:SA:987:U:O2'	68:SP:49:GLY:O	2.36	0.40
53:SA:1105:A:H2'	53:SA:1106:C:H6	1.86	0.40
53:SA:1654:G:H3'	53:SA:1655:G:H8	1.86	0.40
53:SA:1905:C:H2'	53:SA:1906:U:C6	2.56	0.40
53:SA:1908:A:O5'	61:SI:65:ASN:ND2	2.55	0.40
53:SA:2011:G:C2	53:SA:2012:G:H1'	2.57	0.40
57:SE:45:VAL:HG11	57:SE:105:LEU:HD13	2.04	0.40
58:SF:18:TRP:CH2	58:SF:31:THR:HG23	2.56	0.40
59:SG:200:LEU:HA	59:SG:200:LEU:HD12	1.84	0.40
66:SN:66:LYS:HA	66:SN:66:LYS:HD3	1.87	0.40
69:SQ:48:HIS:CD2	69:SQ:105:SER:HB2	2.56	0.40
72:ST:17:ARG:HH21	72:ST:30:ARG:NH1	2.19	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	
5	AL	209/215 (97%)	195 (93%)	14 (7%)	0	100	100
6	A1	136/146 (93%)	125 (92%)	11 (8%)	0	100	100
7	A2	96/127 (76%)	90 (94%)	6 (6%)	0	100	100
8	A4	64/67 (96%)	59 (92%)	5 (8%)	0	100	100
9	A6	96/108 (89%)	89 (93%)	7 (7%)	0	100	100
10	A7	92/120 (77%)	90 (98%)	2 (2%)	0	100	100
11	AN	145/165 (88%)	134 (92%)	11 (8%)	0	100	100
12	A8	123/131 (94%)	110 (89%)	13 (11%)	0	100	100
13	A9	101/140 (72%)	93 (92%)	8 (8%)	0	100	100
14	Aa	104/150 (69%)	93 (89%)	10 (10%)	1 (1%)	13	39
15	Ab	91/112 (81%)	83 (91%)	8 (9%)	0	100	100
16	Ad	68/87 (78%)	64 (94%)	4 (6%)	0	100	100
17	Ae	39/51 (76%)	39 (100%)	0	0	100	100
18	Af	49/128 (38%)	41 (84%)	8 (16%)	0	100	100
19	AP	202/205 (98%)	179 (89%)	19 (9%)	4 (2%)	6	21
20	Ah	83/96 (86%)	75 (90%)	8 (10%)	0	100	100
21	Ai	93/104 (89%)	88 (95%)	5 (5%)	0	100	100
22	AI	203/221 (92%)	192 (95%)	9 (4%)	2 (1%)	13	39
23	AJ	216/283 (76%)	208 (96%)	7 (3%)	1 (0%)	25	56
24	Ac	87/92 (95%)	81 (93%)	6 (7%)	0	100	100
25	AK	199/202 (98%)	192 (96%)	7 (4%)	0	100	100
26	AM	130/139 (94%)	123 (95%)	7 (5%)	0	100	100
27	AS	184/187 (98%)	176 (96%)	8 (4%)	0	100	100
28	AO	145/148 (98%)	138 (95%)	6 (4%)	1 (1%)	19	48
29	AQ	185/219 (84%)	163 (88%)	20 (11%)	2 (1%)	12	37

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
30	AR	244/294 (83%)	226 (93%)	17 (7%)	1 (0%)	30	61
31	AW	149/173 (86%)	141 (95%)	8 (5%)	0	100	100
32	AY	99/190 (52%)	93 (94%)	6 (6%)	0	100	100
33	AT	179/182 (98%)	169 (94%)	10 (6%)	0	100	100
34	AZ	119/126 (94%)	112 (94%)	7 (6%)	0	100	100
35	A3	117/124 (94%)	108 (92%)	9 (8%)	0	100	100
36	A5	221/257 (86%)	205 (93%)	16 (7%)	0	100	100
37	AD	245/260 (94%)	236 (96%)	7 (3%)	2 (1%)	16	44
38	AE	378/386 (98%)	352 (93%)	26 (7%)	0	100	100
39	AF	388/411 (94%)	367 (95%)	21 (5%)	0	100	100
40	AG	116/173 (67%)	98 (84%)	17 (15%)	1 (1%)	14	42
41	AU	178/184 (97%)	162 (91%)	16 (9%)	0	100	100
42	AH	183/190 (96%)	166 (91%)	16 (9%)	1 (0%)	25	56
43	AV	153/161 (95%)	147 (96%)	6 (4%)	0	100	100
44	Ag	35/39 (90%)	29 (83%)	6 (17%)	0	100	100
45	AX	95/139 (68%)	89 (94%)	6 (6%)	0	100	100
46	A0	60/162 (37%)	55 (92%)	5 (8%)	0	100	100
47	S1	118/133 (89%)	115 (98%)	3 (2%)	0	100	100
48	S2	35/105 (33%)	34 (97%)	1 (3%)	0	100	100
49	S3	93/107 (87%)	85 (91%)	8 (9%)	0	100	100
50	S4	74/82 (90%)	63 (85%)	11 (15%)	0	100	100
51	S5	55/67 (82%)	54 (98%)	1 (2%)	0	100	100
52	S6	41/58 (71%)	36 (88%)	5 (12%)	0	100	100
54	SB	208/262 (79%)	192 (92%)	15 (7%)	1 (0%)	25	56
55	SC	193/263 (73%)	176 (91%)	15 (8%)	2 (1%)	13	39
56	SD	149/221 (67%)	146 (98%)	3 (2%)	0	100	100
57	SE	183/189 (97%)	170 (93%)	12 (7%)	1 (0%)	25	56
58	SF	255/261 (98%)	235 (92%)	19 (8%)	1 (0%)	30	61
59	SG	222/272 (82%)	205 (92%)	17 (8%)	0	100	100
60	SH	200/306 (65%)	188 (94%)	11 (6%)	1 (0%)	25	56
61	SI	176/195 (90%)	164 (93%)	12 (7%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
62	SJ	186/194 (96%)	172 (92%)	13 (7%)	1 (0%)	25 56
63	SK	127/130 (98%)	114 (90%)	13 (10%)	0	100 100
64	SL	165/218 (76%)	149 (90%)	15 (9%)	1 (1%)	22 51
65	SM	136/144 (94%)	127 (93%)	8 (6%)	1 (1%)	19 48
66	SN	96/118 (81%)	90 (94%)	6 (6%)	0	100 100
67	SO	77/137 (56%)	75 (97%)	1 (1%)	1 (1%)	10 32
68	SP	125/151 (83%)	116 (93%)	9 (7%)	0	100 100
69	SQ	142/145 (98%)	133 (94%)	9 (6%)	0	100 100
70	SR	92/141 (65%)	86 (94%)	6 (6%)	0	100 100
71	SS	126/156 (81%)	111 (88%)	13 (10%)	2 (2%)	8 27
72	ST	46/54 (85%)	44 (96%)	2 (4%)	0	100 100
73	SU	147/151 (97%)	140 (95%)	7 (5%)	0	100 100
74	SV	142/161 (88%)	131 (92%)	10 (7%)	1 (1%)	19 48
75	SW	91/137 (66%)	82 (90%)	7 (8%)	2 (2%)	5 20
76	SX	92/145 (63%)	85 (92%)	7 (8%)	0	100 100
77	SY	152/170 (89%)	147 (97%)	5 (3%)	0	100 100
78	SZ	70/82 (85%)	68 (97%)	1 (1%)	1 (1%)	9 30
All	All	10113/12049 (84%)	9408 (93%)	673 (7%)	32 (0%)	38 67

All (32) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
19	AP	156	VAL
42	AH	53	TYR
54	SB	146	ARG
62	SJ	112	ILE
65	SM	41	GLU
75	SW	4	VAL
58	SF	195	ILE
60	SH	148	ASP
64	SL	168	ILE
71	SS	101	ILE
74	SV	41	VAL
19	AP	79	ILE
19	AP	188	SER
22	AI	49	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	AR	152	ILE
55	SC	143	VAL
14	Aa	75	ALA
22	AI	19	VAL
29	AQ	24	ARG
29	AQ	60	ILE
37	AD	199	VAL
55	SC	30	GLU
19	AP	149	ILE
57	SE	16	LYS
40	AG	155	THR
67	SO	35	GLU
78	SZ	81	GLN
71	SS	14	ILE
75	SW	69	ILE
23	AJ	75	ILE
28	AO	15	VAL
37	AD	127	VAL

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
5	AL	190/194 (98%)	181 (95%)	9 (5%)	22 54
6	A1	127/132 (96%)	114 (90%)	13 (10%)	6 19
7	A2	97/118 (82%)	93 (96%)	4 (4%)	26 59
8	A4	60/61 (98%)	59 (98%)	1 (2%)	56 84
9	A6	83/92 (90%)	77 (93%)	6 (7%)	12 34
10	A7	90/112 (80%)	86 (96%)	4 (4%)	24 56
11	AN	136/152 (90%)	132 (97%)	4 (3%)	37 71
12	A8	114/120 (95%)	108 (95%)	6 (5%)	19 49
13	A9	90/127 (71%)	83 (92%)	7 (8%)	10 31
14	Aa	89/128 (70%)	86 (97%)	3 (3%)	32 66

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
15	Ab	82/97 (84%)	77 (94%)	5 (6%)	15 43
16	Ad	69/83 (83%)	61 (88%)	8 (12%)	4 15
17	Ae	40/48 (83%)	37 (92%)	3 (8%)	11 33
18	Af	45/114 (40%)	42 (93%)	3 (7%)	13 38
19	AP	179/180 (99%)	165 (92%)	14 (8%)	10 31
20	Ah	70/80 (88%)	67 (96%)	3 (4%)	25 57
21	Ai	87/93 (94%)	83 (95%)	4 (5%)	23 55
22	AI	189/203 (93%)	184 (97%)	5 (3%)	41 75
23	AJ	204/260 (78%)	198 (97%)	6 (3%)	37 71
24	Ac	74/77 (96%)	69 (93%)	5 (7%)	13 38
25	AK	181/182 (100%)	175 (97%)	6 (3%)	33 67
26	AM	106/110 (96%)	100 (94%)	6 (6%)	17 46
27	AS	158/159 (99%)	152 (96%)	6 (4%)	28 62
28	AO	121/122 (99%)	116 (96%)	5 (4%)	26 59
29	AQ	165/190 (87%)	154 (93%)	11 (7%)	13 38
30	AR	215/254 (85%)	198 (92%)	17 (8%)	10 30
31	AW	128/131 (98%)	120 (94%)	8 (6%)	15 42
32	AY	90/177 (51%)	86 (96%)	4 (4%)	24 56
33	AT	162/163 (99%)	154 (95%)	8 (5%)	21 52
34	AZ	111/115 (96%)	100 (90%)	11 (10%)	6 21
35	A3	110/115 (96%)	106 (96%)	4 (4%)	30 64
36	A5	201/231 (87%)	192 (96%)	9 (4%)	23 55
37	AD	191/202 (95%)	182 (95%)	9 (5%)	22 54
38	AE	335/340 (98%)	314 (94%)	21 (6%)	15 42
39	AF	336/352 (96%)	326 (97%)	10 (3%)	36 70
40	AG	110/155 (71%)	101 (92%)	9 (8%)	9 29
41	AU	162/166 (98%)	147 (91%)	15 (9%)	7 23
42	AH	168/173 (97%)	153 (91%)	15 (9%)	8 25
43	AV	140/144 (97%)	125 (89%)	15 (11%)	5 17
44	Ag	34/35 (97%)	32 (94%)	2 (6%)	16 44
45	AX	92/131 (70%)	81 (88%)	11 (12%)	4 14

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
46	A0	53/146 (36%)	52 (98%)	1 (2%)	52 82
47	S1	104/115 (90%)	102 (98%)	2 (2%)	52 82
48	S2	35/88 (40%)	35 (100%)	0	100 100
49	S3	87/98 (89%)	84 (97%)	3 (3%)	32 66
50	S4	70/76 (92%)	65 (93%)	5 (7%)	12 35
51	S5	48/54 (89%)	46 (96%)	2 (4%)	25 58
52	S6	36/47 (77%)	35 (97%)	1 (3%)	38 72
54	SB	195/238 (82%)	182 (93%)	13 (7%)	13 38
55	SC	167/227 (74%)	156 (93%)	11 (7%)	14 39
56	SD	132/188 (70%)	126 (96%)	6 (4%)	23 55
57	SE	161/167 (96%)	153 (95%)	8 (5%)	20 51
58	SF	233/237 (98%)	222 (95%)	11 (5%)	22 54
59	SG	191/222 (86%)	175 (92%)	16 (8%)	9 28
60	SH	182/279 (65%)	180 (99%)	2 (1%)	70 90
61	SI	154/165 (93%)	151 (98%)	3 (2%)	52 82
62	SJ	177/183 (97%)	171 (97%)	6 (3%)	32 66
63	SK	115/116 (99%)	101 (88%)	14 (12%)	4 13
64	SL	151/193 (78%)	142 (94%)	9 (6%)	16 44
65	SM	116/122 (95%)	113 (97%)	3 (3%)	41 75
66	SN	91/109 (84%)	87 (96%)	4 (4%)	24 56
67	SO	76/129 (59%)	72 (95%)	4 (5%)	19 49
68	SP	99/119 (83%)	91 (92%)	8 (8%)	9 29
69	SQ	120/121 (99%)	111 (92%)	9 (8%)	11 33
70	SR	83/121 (69%)	82 (99%)	1 (1%)	67 89
71	SS	114/136 (84%)	107 (94%)	7 (6%)	15 43
72	ST	43/48 (90%)	41 (95%)	2 (5%)	22 54
73	SU	132/133 (99%)	128 (97%)	4 (3%)	36 70
74	SV	131/144 (91%)	123 (94%)	8 (6%)	15 43
75	SW	86/127 (68%)	82 (95%)	4 (5%)	22 54
76	SX	88/130 (68%)	84 (96%)	4 (4%)	23 55
77	SY	137/151 (91%)	134 (98%)	3 (2%)	47 79

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
78	SZ	60/70 (86%)	57 (95%)	3 (5%)	20 51
All	All	9098/10617 (86%)	8606 (95%)	492 (5%)	21 48

All (492) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	AL	11	VAL
5	AL	50	ILE
5	AL	57	VAL
5	AL	98	LYS
5	AL	124	MET
5	AL	146	ASN
5	AL	170	PHE
5	AL	177	SER
5	AL	201	ARG
6	A1	4	LEU
6	A1	17	ARG
6	A1	18	ARG
6	A1	40	TYR
6	A1	47	GLU
6	A1	60	LYS
6	A1	67	LYS
6	A1	76	ASN
6	A1	95	SER
6	A1	123	LEU
6	A1	133	VAL
6	A1	136	ASP
6	A1	141	HIS
7	A2	6	ASN
7	A2	67	SER
7	A2	82	LYS
7	A2	119	TYR
8	A4	53	LYS
9	A6	47	VAL
9	A6	49	SER
9	A6	51	CYS
9	A6	72	ASP
9	A6	93	LEU
9	A6	95	ILE
10	A7	17	THR
10	A7	20	ILE
10	A7	72	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	A7	84	GLU
11	AN	49	VAL
11	AN	101	VAL
11	AN	116	ILE
11	AN	142	MET
12	A8	3	VAL
12	A8	26	MET
12	A8	39	ASP
12	A8	44	ARG
12	A8	66	LEU
12	A8	114	GLN
13	A9	38	VAL
13	A9	51	ARG
13	A9	78	VAL
13	A9	100	ILE
13	A9	104	VAL
13	A9	110	ASN
13	A9	131	VAL
14	Aa	20	VAL
14	Aa	51	ILE
14	Aa	71	THR
15	Ab	21	HIS
15	Ab	24	THR
15	Ab	26	ARG
15	Ab	100	VAL
15	Ab	103	LEU
16	Ad	10	LYS
16	Ad	20	THR
16	Ad	39	THR
16	Ad	47	LYS
16	Ad	50	TYR
16	Ad	66	SER
16	Ad	71	LEU
16	Ad	75	TYR
17	Ae	4	ILE
17	Ae	42	ARG
17	Ae	49	LEU
18	Af	17	LYS
18	Af	23	CYS
18	Af	37	LYS
19	AP	27	THR
19	AP	60	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
19	AP	70	ASP
19	AP	77	LYS
19	AP	89	VAL
19	AP	111	CYS
19	AP	114	LEU
19	AP	127	VAL
19	AP	156	VAL
19	AP	157	HIS
19	AP	165	LEU
19	AP	177	VAL
19	AP	188	SER
19	AP	203	LYS
20	Ah	8	VAL
20	Ah	29	ILE
20	Ah	56	LYS
21	Ai	19	HIS
21	Ai	88	LYS
21	Ai	91	GLU
21	Ai	95	ASP
22	AI	24	ASN
22	AI	43	LYS
22	AI	46	VAL
22	AI	141	GLU
22	AI	215	VAL
23	AJ	75	ILE
23	AJ	77	ILE
23	AJ	93	SER
23	AJ	108	ASP
23	AJ	178	GLU
23	AJ	217	LEU
24	Ac	24	ARG
24	Ac	25	CYS
24	Ac	46	LYS
24	Ac	60	ASN
24	Ac	66	ARG
25	AK	50	LYS
25	AK	70	LEU
25	AK	114	LYS
25	AK	118	VAL
25	AK	174	LEU
25	AK	188	ILE
26	AM	41	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	AM	56	LEU
26	AM	75	VAL
26	AM	76	LEU
26	AM	112	LYS
26	AM	116	ILE
27	AS	74	HIS
27	AS	76	ASN
27	AS	80	VAL
27	AS	81	VAL
27	AS	94	LEU
27	AS	175	LYS
28	AO	12	ARG
28	AO	22	VAL
28	AO	27	LYS
28	AO	82	LEU
28	AO	90	PHE
29	AQ	11	TYR
29	AQ	26	VAL
29	AQ	31	ILE
29	AQ	50	VAL
29	AQ	55	TYR
29	AQ	66	GLU
29	AQ	76	MET
29	AQ	125	VAL
29	AQ	126	VAL
29	AQ	157	TYR
29	AQ	170	LYS
30	AR	16	TYR
30	AR	17	GLN
30	AR	25	GLU
30	AR	38	LEU
30	AR	56	THR
30	AR	58	SER
30	AR	61	ILE
30	AR	62	CYS
30	AR	63	GLN
30	AR	90	VAL
30	AR	165	LEU
30	AR	198	ILE
30	AR	199	LEU
30	AR	202	HIS
30	AR	225	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	AR	235	ILE
30	AR	240	LEU
31	AW	7	LYS
31	AW	20	VAL
31	AW	22	LEU
31	AW	58	VAL
31	AW	75	GLU
31	AW	94	ILE
31	AW	104	SER
31	AW	120	ASN
32	AY	153	ILE
32	AY	160	VAL
32	AY	167	ASP
32	AY	183	VAL
33	AT	37	ARG
33	AT	38	PHE
33	AT	62	VAL
33	AT	88	THR
33	AT	90	GLN
33	AT	120	HIS
33	AT	136	THR
33	AT	141	ILE
34	AZ	34	LEU
34	AZ	40	LEU
34	AZ	55	VAL
34	AZ	57	ILE
34	AZ	62	ASN
34	AZ	69	VAL
34	AZ	72	ILE
34	AZ	74	ARG
34	AZ	81	VAL
34	AZ	114	ARG
34	AZ	117	ILE
35	A3	8	GLU
35	A3	37	LEU
35	A3	46	ILE
35	A3	112	ASN
36	A5	40	LYS
36	A5	71	ILE
36	A5	75	LYS
36	A5	138	ILE
36	A5	150	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
36	A5	163	VAL
36	A5	181	ASP
36	A5	190	ASN
36	A5	207	VAL
37	AD	45	VAL
37	AD	82	MET
37	AD	86	GLN
37	AD	104	ILE
37	AD	109	GLU
37	AD	125	THR
37	AD	180	LEU
37	AD	184	VAL
37	AD	200	ARG
38	AE	7	GLU
38	AE	47	MET
38	AE	76	CYS
38	AE	90	VAL
38	AE	110	VAL
38	AE	115	ARG
38	AE	124	LYS
38	AE	149	GLU
38	AE	162	GLN
38	AE	185	MET
38	AE	199	ASN
38	AE	211	MET
38	AE	214	VAL
38	AE	215	ILE
38	AE	226	VAL
38	AE	284	LEU
38	AE	300	LYS
38	AE	318	PHE
38	AE	320	LEU
38	AE	353	LEU
38	AE	362	ILE
39	AF	62	THR
39	AF	71	ARG
39	AF	115	VAL
39	AF	137	VAL
39	AF	138	LEU
39	AF	187	LYS
39	AF	204	ARG
39	AF	278	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	AF	283	ILE
39	AF	288	ASP
40	AG	17	LEU
40	AG	21	ILE
40	AG	30	LEU
40	AG	72	ARG
40	AG	95	ASN
40	AG	99	THR
40	AG	102	PHE
40	AG	147	LYS
40	AG	150	LYS
41	AU	12	ASN
41	AU	16	TYR
41	AU	17	HIS
41	AU	44	THR
41	AU	68	LEU
41	AU	70	CYS
41	AU	79	LEU
41	AU	101	LYS
41	AU	107	THR
41	AU	112	ILE
41	AU	135	ILE
41	AU	147	HIS
41	AU	150	GLN
41	AU	156	LEU
41	AU	166	LEU
42	AH	18	VAL
42	AH	26	THR
42	AH	30	LYS
42	AH	49	LYS
42	AH	57	VAL
42	AH	66	LEU
42	AH	75	HIS
42	AH	111	ILE
42	AH	112	GLU
42	AH	132	VAL
42	AH	135	LYS
42	AH	139	VAL
42	AH	145	VAL
42	AH	159	LEU
42	AH	161	HIS
43	AV	41	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
43	AV	43	ILE
43	AV	44	VAL
43	AV	56	ASN
43	AV	76	LEU
43	AV	87	GLN
43	AV	97	VAL
43	AV	104	GLU
43	AV	106	PHE
43	AV	108	LEU
43	AV	112	LYS
43	AV	116	LEU
43	AV	149	ILE
43	AV	152	ILE
43	AV	155	LEU
44	Ag	8	TYR
44	Ag	34	MET
45	AX	70	VAL
45	AX	81	VAL
45	AX	87	GLU
45	AX	88	TYR
45	AX	98	PHE
45	AX	101	ARG
45	AX	104	LYS
45	AX	115	GLN
45	AX	116	ILE
45	AX	119	PHE
45	AX	123	ILE
46	A0	21	TYR
47	S1	44	LEU
47	S1	110	LYS
49	S3	53	ILE
49	S3	75	VAL
49	S3	94	VAL
50	S4	7	ASN
50	S4	21	ARG
50	S4	30	PHE
50	S4	53	LEU
50	S4	61	LEU
51	S5	12	VAL
51	S5	48	VAL
52	S6	8	LEU
54	SB	32	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	SB	49	THR
54	SB	92	ILE
54	SB	106	THR
54	SB	110	LEU
54	SB	131	ASP
54	SB	133	TYR
54	SB	168	MET
54	SB	169	VAL
54	SB	170	ASP
54	SB	173	THR
54	SB	201	CYS
54	SB	207	LEU
55	SC	50	LEU
55	SC	57	LEU
55	SC	87	LEU
55	SC	112	ILE
55	SC	122	ILE
55	SC	148	ASP
55	SC	157	ASP
55	SC	172	LEU
55	SC	176	LEU
55	SC	177	LEU
55	SC	202	LEU
56	SD	12	ILE
56	SD	69	LEU
56	SD	139	VAL
56	SD	155	ASP
56	SD	171	THR
56	SD	185	ILE
57	SE	16	LYS
57	SE	45	VAL
57	SE	49	LEU
57	SE	57	ARG
57	SE	69	ARG
57	SE	114	PHE
57	SE	147	LEU
57	SE	172	VAL
58	SF	48	LEU
58	SF	73	ASP
58	SF	90	ILE
58	SF	101	LEU
58	SF	105	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
58	SF	164	LEU
58	SF	179	SER
58	SF	191	ARG
58	SF	195	ILE
58	SF	224	ASN
58	SF	246	LEU
59	SG	61	GLU
59	SG	64	LEU
59	SG	74	ILE
59	SG	80	GLN
59	SG	86	HIS
59	SG	90	ASP
59	SG	148	LEU
59	SG	151	VAL
59	SG	177	VAL
59	SG	179	ILE
59	SG	205	ILE
59	SG	211	SER
59	SG	231	SER
59	SG	242	TRP
59	SG	257	ASP
59	SG	261	THR
60	SH	41	ILE
60	SH	160	ARG
61	SI	63	LEU
61	SI	94	MET
61	SI	189	ARG
62	SJ	23	CYS
62	SJ	81	ILE
62	SJ	84	LEU
62	SJ	150	VAL
62	SJ	156	ASP
62	SJ	159	GLU
63	SK	23	ARG
63	SK	24	GLN
63	SK	39	GLN
63	SK	52	ILE
63	SK	53	VAL
63	SK	55	ASP
63	SK	62	VAL
63	SK	69	ILE
63	SK	71	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
63	SK	78	ARG
63	SK	83	LEU
63	SK	101	HIS
63	SK	104	LEU
63	SK	119	LYS
64	SL	38	LEU
64	SL	41	ARG
64	SL	46	VAL
64	SL	78	ILE
64	SL	84	ASN
64	SL	102	VAL
64	SL	171	LEU
64	SL	185	ILE
64	SL	196	ASP
65	SM	75	GLN
65	SM	98	VAL
65	SM	142	SER
66	SN	59	THR
66	SN	62	ILE
66	SN	111	VAL
66	SN	114	ILE
67	SO	31	VAL
67	SO	39	LYS
67	SO	48	VAL
67	SO	89	GLU
68	SP	28	PHE
68	SP	44	VAL
68	SP	54	VAL
68	SP	75	MET
68	SP	104	LYS
68	SP	113	GLN
68	SP	116	LEU
68	SP	130	GLU
69	SQ	22	GLN
69	SQ	27	LYS
69	SQ	72	VAL
69	SQ	84	THR
69	SQ	94	ASN
69	SQ	96	ILE
69	SQ	107	PHE
69	SQ	117	LEU
69	SQ	124	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
70	SR	100	PHE
71	SS	32	LEU
71	SS	47	CYS
71	SS	71	HIS
71	SS	97	ASN
71	SS	113	LEU
71	SS	120	ARG
71	SS	138	THR
72	ST	17	ARG
72	ST	28	ILE
73	SU	66	VAL
73	SU	92	ILE
73	SU	138	ASN
73	SU	149	LEU
74	SV	57	VAL
74	SV	86	THR
74	SV	89	ILE
74	SV	93	TYR
74	SV	109	ASN
74	SV	110	ILE
74	SV	137	THR
74	SV	145	VAL
75	SW	5	ARG
75	SW	6	THR
75	SW	34	ILE
75	SW	56	HIS
76	SX	43	ARG
76	SX	107	ILE
76	SX	111	MET
76	SX	112	ILE
77	SY	33	ASP
77	SY	58	THR
77	SY	113	ASN
78	SZ	23	LEU
78	SZ	51	THR
78	SZ	54	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (89) such sidechains are listed below:

Mol	Chain	Res	Type
6	A1	15	ASN
6	A1	49	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	A2	39	ASN
8	A4	9	ASN
8	A4	11	ASN
8	A4	42	ASN
12	A8	50	ASN
12	A8	114	GLN
13	A9	59	ASN
13	A9	91	HIS
14	Aa	3	GLN
14	Aa	18	ASN
14	Aa	33	HIS
14	Aa	62	ASN
14	Aa	69	ASN
18	Af	33	ASN
19	AP	15	GLN
19	AP	81	HIS
22	AI	126	ASN
25	AK	30	GLN
25	AK	155	ASN
25	AK	192	GLN
26	AM	49	ASN
27	AS	18	HIS
28	AO	14	HIS
28	AO	113	ASN
29	AQ	84	ASN
31	AW	133	HIS
33	AT	146	ASN
34	AZ	18	HIS
35	A3	70	GLN
36	A5	51	ASN
36	A5	82	ASN
37	AD	8	GLN
37	AD	21	HIS
37	AD	22	HIS
37	AD	215	ASN
38	AE	121	ASN
38	AE	310	HIS
39	AF	29	GLN
39	AF	50	HIS
39	AF	294	HIS
40	AG	15	ASN
40	AG	20	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
40	AG	95	ASN
40	AG	152	HIS
41	AU	14	HIS
41	AU	58	ASN
41	AU	97	HIS
41	AU	150	GLN
42	AH	8	GLN
43	AV	87	GLN
43	AV	96	HIS
47	S1	15	ASN
50	S4	17	HIS
50	S4	47	HIS
50	S4	49	GLN
50	S4	63	GLN
52	S6	38	GLN
54	SB	147	GLN
54	SB	200	GLN
55	SC	91	GLN
55	SC	164	ASN
58	SF	176	GLN
59	SG	40	ASN
59	SG	80	GLN
59	SG	201	ASN
60	SH	4	ASN
60	SH	13	GLN
61	SI	34	GLN
61	SI	74	ASN
61	SI	101	GLN
61	SI	173	ASN
62	SJ	22	GLN
62	SJ	164	ASN
64	SL	191	GLN
65	SM	9	GLN
65	SM	63	ASN
65	SM	84	GLN
67	SO	75	GLN
69	SQ	79	ASN
70	SR	87	GLN
70	SR	95	HIS
71	SS	99	HIS
71	SS	104	GLN
72	ST	33	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
75	SW	31	ASN
76	SX	46	GLN
78	SZ	33	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	S7	75/76 (98%)	27 (36%)	2 (2%)
2	AA	3162/3788 (83%)	782 (24%)	59 (1%)
3	AC	148/159 (93%)	33 (22%)	5 (3%)
4	AB	117/119 (98%)	39 (33%)	1 (0%)
53	SA	1587/2092 (75%)	370 (23%)	25 (1%)
All	All	5089/6234 (81%)	1251 (24%)	92 (1%)

All (1251) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	S7	3	C
1	S7	9	G
1	S7	11	A
1	S7	12	G
1	S7	13	C
1	S7	16	C
1	S7	17	C
1	S7	19	G
1	S7	20	U
1	S7	21	A
1	S7	27	U
1	S7	28	C
1	S7	35	A
1	S7	36	U
1	S7	45	G
1	S7	46	G
1	S7	48	C
1	S7	54	U
1	S7	55	U
1	S7	56	C
1	S7	59	A
1	S7	61	C
1	S7	63	G
1	S7	71	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	S7	74	C
1	S7	75	C
1	S7	76	A
2	AA	11	A
2	AA	13	G
2	AA	14	U
2	AA	15	U
2	AA	26	A
2	AA	40	A
2	AA	43	A
2	AA	49	U
2	AA	59	G
2	AA	60	A
2	AA	62	A
2	AA	63	A
2	AA	65	A
2	AA	66	A
2	AA	69	U
2	AA	77	A
2	AA	92	G
2	AA	110	G
2	AA	117	C
2	AA	119	G
2	AA	120	U
2	AA	121	U
2	AA	123	A
2	AA	124	U
2	AA	129	C
2	AA	130	G
2	AA	133	U
2	AA	136	U
2	AA	137	G
2	AA	146	U
2	AA	148	G
2	AA	149	A
2	AA	152	G
2	AA	161	U
2	AA	162	U
2	AA	163	G
2	AA	165	A
2	AA	168	A
2	AA	169	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	170	U
2	AA	171	C
2	AA	172	C
2	AA	174	U
2	AA	175	G
2	AA	180	C
2	AA	181	C
2	AA	182	U
2	AA	183	U
2	AA	185	A
2	AA	192	G
2	AA	197	G
2	AA	198	U
2	AA	199	G
2	AA	200	A
2	AA	201	G
2	AA	207	A
2	AA	211	U
2	AA	214	C
2	AA	216	C
2	AA	219	A
2	AA	220	G
2	AA	226	G
2	AA	227	A
2	AA	228	A
2	AA	229	A
2	AA	235	A
2	AA	237	A
2	AA	239	U
2	AA	246	U
2	AA	250	U
2	AA	254	U
2	AA	255	C
2	AA	256	A
2	AA	257	U
2	AA	258	U
2	AA	259	G
2	AA	264	U
2	AA	267	U
2	AA	269	A
2	AA	271	G
2	AA	276	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	277	U
2	AA	302	A
2	AA	303	A
2	AA	306	C
2	AA	307	G
2	AA	308	U
2	AA	309	G
2	AA	310	U
2	AA	313	U
2	AA	319	U
2	AA	337	A
2	AA	338	U
2	AA	345	G
2	AA	347	C
2	AA	360	A
2	AA	382	A
2	AA	384	A
2	AA	386	U
2	AA	395	A
2	AA	400	C
2	AA	409	A
2	AA	413	C
2	AA	431	G
2	AA	432	A
2	AA	433	A
2	AA	439	U
2	AA	440	A
2	AA	445	A
2	AA	448	A
2	AA	449	A
2	AA	451	C
2	AA	459	G
2	AA	463	G
2	AA	489	U
2	AA	490	U
2	AA	494	U
2	AA	495	U
2	AA	501	U
2	AA	502	U
2	AA	505	A
2	AA	506	A
2	AA	509	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	521	U
2	AA	522	A
2	AA	530	U
2	AA	534	A
2	AA	536	A
2	AA	538	A
2	AA	539	G
2	AA	542	A
2	AA	543	U
2	AA	544	C
2	AA	546	C
2	AA	547	C
2	AA	549	G
2	AA	551	A
2	AA	580	A
2	AA	581	C
2	AA	582	U
2	AA	585	C
2	AA	586	U
2	AA	587	C
2	AA	592	C
2	AA	597	A
2	AA	599	G
2	AA	605	A
2	AA	607	A
2	AA	608	A
2	AA	609	C
2	AA	610	U
2	AA	612	G
2	AA	620	U
2	AA	621	C
2	AA	623	U
2	AA	644	G
2	AA	646	A
2	AA	648	U
2	AA	649	U
2	AA	650	U
2	AA	652	A
2	AA	653	A
2	AA	658	U
2	AA	666	U
2	AA	667	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	674	U
2	AA	675	A
2	AA	681	U
2	AA	684	G
2	AA	685	U
2	AA	693	A
2	AA	694	U
2	AA	697	A
2	AA	698	G
2	AA	699	U
2	AA	704	U
2	AA	708	A
2	AA	709	A
2	AA	714	C
2	AA	715	U
2	AA	716	C
2	AA	722	G
2	AA	727	A
2	AA	738	A
2	AA	755	A
2	AA	759	U
2	AA	765	A
2	AA	767	U
2	AA	768	C
2	AA	769	U
2	AA	771	U
2	AA	773	A
2	AA	774	A
2	AA	778	U
2	AA	779	U
2	AA	793	A
2	AA	794	C
2	AA	805	U
2	AA	806	G
2	AA	809	A
2	AA	810	U
2	AA	812	U
2	AA	818	C
2	AA	822	A
2	AA	826	U
2	AA	833	G
2	AA	857	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	859	C
2	AA	860	A
2	AA	861	C
2	AA	862	U
2	AA	871	A
2	AA	874	A
2	AA	889	U
2	AA	890	G
2	AA	893	U
2	AA	899	A
2	AA	900	G
2	AA	903	C
2	AA	904	G
2	AA	905	A
2	AA	918	G
2	AA	925	A
2	AA	935	A
2	AA	936	A
2	AA	945	G
2	AA	949	A
2	AA	958	U
2	AA	959	C
2	AA	964	G
2	AA	966	A
2	AA	968	G
2	AA	969	U
2	AA	972	G
2	AA	975	G
2	AA	976	G
2	AA	980	A
2	AA	984	A
2	AA	986	U
2	AA	988	G
2	AA	993	U
2	AA	998	U
2	AA	999	G
2	AA	1016	A
2	AA	1026	G
2	AA	1027	G
2	AA	1033	A
2	AA	1035	G
2	AA	1036	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	1040	A
2	AA	1042	C
2	AA	1043	G
2	AA	1052	A
2	AA	1056	G
2	AA	1063	A
2	AA	1070	A
2	AA	1073	G
2	AA	1078	C
2	AA	1100	A
2	AA	1101	A
2	AA	1102	U
2	AA	1107	U
2	AA	1114	A
2	AA	1122	A
2	AA	1123	U
2	AA	1124	A
2	AA	1126	U
2	AA	1131	A
2	AA	1132	G
2	AA	1158	G
2	AA	1159	A
2	AA	1170	A
2	AA	1172	C
2	AA	1187	A
2	AA	1193	G
2	AA	1194	A
2	AA	1195	A
2	AA	1197	U
2	AA	1198	A
2	AA	1199	A
2	AA	1200	C
2	AA	1206	U
2	AA	1208	G
2	AA	1215	A
2	AA	1217	U
2	AA	1218	C
2	AA	1219	A
2	AA	1221	A
2	AA	1222	U
2	AA	1225	A
2	AA	1229	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	1230	A
2	AA	1231	A
2	AA	1233	A
2	AA	1245	G
2	AA	1259	G
2	AA	1272	U
2	AA	1281	C
2	AA	1287	A
2	AA	1296	U
2	AA	1306	A
2	AA	1309	U
2	AA	1310	A
2	AA	1319	U
2	AA	1320	G
2	AA	1325	C
2	AA	1329	U
2	AA	1335	G
2	AA	1336	U
2	AA	1337	G
2	AA	1341	G
2	AA	1342	U
2	AA	1344	C
2	AA	1346	U
2	AA	1416	U
2	AA	1435	G
2	AA	1436	A
2	AA	1437	U
2	AA	1441	G
2	AA	1444	A
2	AA	1445	A
2	AA	1450	G
2	AA	1459	U
2	AA	1460	A
2	AA	1476	A
2	AA	1480	G
2	AA	1481	A
2	AA	1498	U
2	AA	1499	U
2	AA	1503	A
2	AA	1504	A
2	AA	1506	C
2	AA	1535	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	1537	G
2	AA	1539	U
2	AA	1547	A
2	AA	1550	A
2	AA	1554	G
2	AA	1555	A
2	AA	1556	G
2	AA	1565	G
2	AA	1567	A
2	AA	1575	C
2	AA	1580	G
2	AA	1583	G
2	AA	1586	C
2	AA	1595	A
2	AA	1601	A
2	AA	1604	U
2	AA	1619	U
2	AA	1630	A
2	AA	1631	A
2	AA	1635	G
2	AA	1636	A
2	AA	1637	G
2	AA	1638	A
2	AA	1656	G
2	AA	1657	U
2	AA	1674	G
2	AA	1676	C
2	AA	1685	G
2	AA	1692	C
2	AA	1703	U
2	AA	1704	U
2	AA	1705	A
2	AA	1706	A
2	AA	1707	A
2	AA	1725	U
2	AA	1730	A
2	AA	1732	A
2	AA	1736	A
2	AA	1737	A
2	AA	1748	A
2	AA	1749	U
2	AA	1750	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	1756	G
2	AA	1762	A
2	AA	1763	G
2	AA	1765	A
2	AA	1767	U
2	AA	1769	U
2	AA	1770	G
2	AA	1771	A
2	AA	1772	G
2	AA	1773	U
2	AA	1781	A
2	AA	1783	G
2	AA	1791	A
2	AA	1793	A
2	AA	1795	A
2	AA	1796	U
2	AA	1799	A
2	AA	1800	U
2	AA	1801	G
2	AA	1806	C
2	AA	1812	C
2	AA	1831	G
2	AA	1838	U
2	AA	1839	U
2	AA	1843	U
2	AA	1845	C
2	AA	1847	C
2	AA	1853	C
2	AA	1854	U
2	AA	1855	U
2	AA	1856	U
2	AA	1858	U
2	AA	1859	A
2	AA	1865	C
2	AA	1867	U
2	AA	1876	A
2	AA	1877	U
2	AA	1881	C
2	AA	1882	U
2	AA	1885	G
2	AA	1886	A
2	AA	1887	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	1888	A
2	AA	1890	G
2	AA	1891	A
2	AA	1895	U
2	AA	1896	C
2	AA	1897	G
2	AA	1899	U
2	AA	1901	A
2	AA	1902	A
2	AA	1903	C
2	AA	1904	U
2	AA	1911	A
2	AA	1914	A
2	AA	1964	G
2	AA	1966	A
2	AA	1969	A
2	AA	1970	A
2	AA	1971	U
2	AA	1972	A
2	AA	1973	G
2	AA	1976	A
2	AA	1980	G
2	AA	1981	U
2	AA	1991	U
2	AA	1996	C
2	AA	1997	G
2	AA	1998	A
2	AA	1999	A
2	AA	2000	G
2	AA	2018	G
2	AA	2019	A
2	AA	2031	A
2	AA	2033	C
2	AA	2034	G
2	AA	2075	U
2	AA	2080	C
2	AA	2084	U
2	AA	2086	A
2	AA	2090	U
2	AA	2092	G
2	AA	2093	U
2	AA	2095	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	2096	G
2	AA	2097	A
2	AA	2102	A
2	AA	2106	A
2	AA	2107	C
2	AA	2108	A
2	AA	2109	A
2	AA	2121	C
2	AA	2122	U
2	AA	2125	A
2	AA	2126	A
2	AA	2128	G
2	AA	2129	U
2	AA	2131	A
2	AA	2140	U
2	AA	2145	A
2	AA	2146	A
2	AA	2147	A
2	AA	2154	A
2	AA	2174	G
2	AA	2175	C
2	AA	2178	A
2	AA	2180	U
2	AA	2181	A
2	AA	2207	G
2	AA	2211	C
2	AA	2216	G
2	AA	2217	A
2	AA	2219	A
2	AA	2220	U
2	AA	2221	U
2	AA	2389	G
2	AA	2390	U
2	AA	2393	A
2	AA	2394	C
2	AA	2395	U
2	AA	2396	C
2	AA	2397	A
2	AA	2400	A
2	AA	2403	G
2	AA	2404	A
2	AA	2405	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	2406	A
2	AA	2407	C
2	AA	2408	G
2	AA	2413	A
2	AA	2415	G
2	AA	2419	A
2	AA	2424	A
2	AA	2433	U
2	AA	2437	A
2	AA	2451	A
2	AA	2453	A
2	AA	2461	A
2	AA	2463	U
2	AA	2485	C
2	AA	2500	A
2	AA	2515	A
2	AA	2516	A
2	AA	2518	U
2	AA	2521	A
2	AA	2524	C
2	AA	2525	A
2	AA	2532	G
2	AA	2537	A
2	AA	2539	G
2	AA	2544	G
2	AA	2545	A
2	AA	2548	A
2	AA	2549	A
2	AA	2550	C
2	AA	2551	U
2	AA	2556	C
2	AA	2559	U
2	AA	2562	U
2	AA	2563	A
2	AA	2565	G
2	AA	2566	G
2	AA	2567	U
2	AA	2573	A
2	AA	2588	A
2	AA	2589	A
2	AA	2591	U
2	AA	2600	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	2601	C
2	AA	2603	U
2	AA	2606	A
2	AA	2607	U
2	AA	2608	G
2	AA	2627	U
2	AA	2628	G
2	AA	2629	U
2	AA	2630	C
2	AA	2666	A
2	AA	2667	C
2	AA	2668	G
2	AA	2681	U
2	AA	2686	G
2	AA	2687	G
2	AA	2690	A
2	AA	2694	A
2	AA	2695	A
2	AA	2696	G
2	AA	2697	A
2	AA	2704	U
2	AA	2711	U
2	AA	2728	G
2	AA	2743	A
2	AA	2744	G
2	AA	2745	G
2	AA	2747	G
2	AA	2803	A
2	AA	2804	C
2	AA	2805	U
2	AA	2806	U
2	AA	2810	A
2	AA	2817	U
2	AA	2823	U
2	AA	2824	A
2	AA	2831	U
2	AA	2833	U
2	AA	2835	G
2	AA	2836	G
2	AA	2886	A
2	AA	2887	U
2	AA	2920	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	2932	A
2	AA	2938	C
2	AA	2945	G
2	AA	2946	G
2	AA	2953	G
2	AA	2960	G
2	AA	2965	A
2	AA	2976	A
2	AA	2987	G
2	AA	2990	G
2	AA	2991	U
2	AA	2995	A
2	AA	3011	G
2	AA	3013	A
2	AA	3015	A
2	AA	3016	G
2	AA	3018	A
2	AA	3019	A
2	AA	3020	U
2	AA	3028	A
2	AA	3030	A
2	AA	3033	A
2	AA	3035	A
2	AA	3042	A
2	AA	3061	U
2	AA	3067	G
2	AA	3068	A
2	AA	3073	G
2	AA	3086	A
2	AA	3091	U
2	AA	3092	G
2	AA	3094	C
2	AA	3116	A
2	AA	3117	A
2	AA	3123	C
2	AA	3124	G
2	AA	3125	U
2	AA	3126	A
2	AA	3129	U
2	AA	3130	U
2	AA	3131	A
2	AA	3133	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	3135	A
2	AA	3137	U
2	AA	3138	A
2	AA	3141	G
2	AA	3147	A
2	AA	3155	G
2	AA	3158	U
2	AA	3159	G
2	AA	3160	A
2	AA	3161	A
2	AA	3169	C
2	AA	3173	G
2	AA	3176	A
2	AA	3187	G
2	AA	3201	C
2	AA	3203	C
2	AA	3226	C
2	AA	3230	G
2	AA	3231	A
2	AA	3246	A
2	AA	3248	C
2	AA	3257	G
2	AA	3258	C
2	AA	3259	A
2	AA	3263	G
2	AA	3282	U
2	AA	3286	C
2	AA	3289	G
2	AA	3292	A
2	AA	3293	A
2	AA	3294	U
2	AA	3295	A
2	AA	3301	C
2	AA	3302	G
2	AA	3306	G
2	AA	3310	G
2	AA	3330	A
2	AA	3342	C
2	AA	3349	G
2	AA	3353	A
2	AA	3357	U
2	AA	3362	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	3365	U
2	AA	3374	U
2	AA	3375	A
2	AA	3377	A
2	AA	3379	A
2	AA	3381	A
2	AA	3382	U
2	AA	3385	U
2	AA	3398	A
2	AA	3402	A
2	AA	3404	C
2	AA	3407	G
2	AA	3408	G
2	AA	3409	U
2	AA	3413	A
2	AA	3414	G
2	AA	3415	A
2	AA	3421	A
2	AA	3426	G
2	AA	3437	U
2	AA	3441	A
2	AA	3442	C
2	AA	3443	A
2	AA	3445	C
2	AA	3447	A
2	AA	3449	U
2	AA	3450	G
2	AA	3452	U
2	AA	3454	G
2	AA	3455	A
2	AA	3463	G
2	AA	3465	G
2	AA	3467	U
2	AA	3468	G
2	AA	3477	A
2	AA	3478	G
2	AA	3485	G
2	AA	3486	G
2	AA	3489	A
2	AA	3492	G
2	AA	3493	G
2	AA	3500	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	3504	C
2	AA	3506	U
2	AA	3507	A
2	AA	3511	C
2	AA	3513	G
2	AA	3514	A
2	AA	3515	A
2	AA	3516	A
2	AA	3524	G
2	AA	3526	U
2	AA	3527	U
2	AA	3548	U
2	AA	3549	U
2	AA	3553	G
2	AA	3571	A
2	AA	3572	A
2	AA	3573	U
2	AA	3574	G
2	AA	3581	A
2	AA	3582	G
2	AA	3585	A
2	AA	3586	U
2	AA	3588	A
2	AA	3590	A
2	AA	3591	U
2	AA	3592	A
2	AA	3595	U
2	AA	3615	A
2	AA	3617	A
2	AA	3618	A
2	AA	3622	U
2	AA	3623	A
2	AA	3626	A
2	AA	3632	U
2	AA	3636	U
2	AA	3658	G
2	AA	3659	C
2	AA	3666	U
2	AA	3668	U
2	AA	3670	U
2	AA	3684	A
2	AA	3689	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	3697	G
2	AA	3698	U
2	AA	3707	U
2	AA	3711	U
2	AA	3712	G
2	AA	3723	C
2	AA	3725	G
2	AA	3726	U
2	AA	3727	A
2	AA	3728	A
2	AA	3732	U
2	AA	3733	G
2	AA	3737	G
2	AA	3739	A
2	AA	3740	A
2	AA	3741	A
2	AA	3751	A
2	AA	3752	C
2	AA	3755	U
2	AA	3761	G
2	AA	3762	A
2	AA	3763	G
2	AA	3764	G
2	AA	3767	U
2	AA	3770	C
2	AA	3774	A
2	AA	3775	G
2	AA	3777	G
2	AA	3783	G
3	AC	5	A
3	AC	6	C
3	AC	16	G
3	AC	36	C
3	AC	38	G
3	AC	42	U
3	AC	43	G
3	AC	55	A
3	AC	63	A
3	AC	66	C
3	AC	67	G
3	AC	76	A
3	AC	78	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AC	79	G
3	AC	85	A
3	AC	90	G
3	AC	91	A
3	AC	98	A
3	AC	107	A
3	AC	108	A
3	AC	109	U
3	AC	114	A
3	AC	115	C
3	AC	116	U
3	AC	119	A
3	AC	123	A
3	AC	135	G
3	AC	138	U
3	AC	140	G
3	AC	141	U
3	AC	142	G
3	AC	145	A
3	AC	146	C
4	AB	7	G
4	AB	8	U
4	AB	10	C
4	AB	11	A
4	AB	13	A
4	AB	14	C
4	AB	15	U
4	AB	16	A
4	AB	17	C
4	AB	18	A
4	AB	22	G
4	AB	23	C
4	AB	25	A
4	AB	26	C
4	AB	27	A
4	AB	29	C
4	AB	33	U
4	AB	36	C
4	AB	39	C
4	AB	44	C
4	AB	48	G
4	AB	50	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	AB	53	U
4	AB	54	A
4	AB	56	G
4	AB	58	A
4	AB	59	C
4	AB	60	U
4	AB	63	A
4	AB	64	A
4	AB	66	G
4	AB	69	U
4	AB	73	U
4	AB	74	A
4	AB	90	A
4	AB	93	G
4	AB	100	A
4	AB	109	U
4	AB	110	G
53	SA	2	A
53	SA	26	A
53	SA	27	U
53	SA	34	G
53	SA	35	U
53	SA	40	A
53	SA	42	G
53	SA	43	A
53	SA	45	U
53	SA	47	A
53	SA	57	G
53	SA	59	G
53	SA	61	A
53	SA	63	G
53	SA	73	A
53	SA	80	A
53	SA	82	G
53	SA	84	A
53	SA	102	A
53	SA	106	A
53	SA	107	A
53	SA	108	A
53	SA	116	A
53	SA	118	U
53	SA	128	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	SA	129	U
53	SA	130	U
53	SA	139	A
53	SA	143	A
53	SA	144	U
53	SA	154	A
53	SA	157	G
53	SA	166	A
53	SA	168	U
53	SA	207	G
53	SA	208	U
53	SA	247	G
53	SA	248	G
53	SA	249	A
53	SA	252	U
53	SA	262	A
53	SA	263	A
53	SA	266	A
53	SA	274	A
53	SA	292	G
53	SA	305	G
53	SA	312	U
53	SA	313	G
53	SA	320	C
53	SA	322	G
53	SA	323	C
53	SA	336	G
53	SA	339	A
53	SA	343	G
53	SA	344	C
53	SA	358	G
53	SA	365	A
53	SA	367	C
53	SA	371	G
53	SA	375	U
53	SA	379	G
53	SA	394	G
53	SA	395	G
53	SA	396	G
53	SA	406	A
53	SA	408	U
53	SA	410	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	SA	422	A
53	SA	423	A
53	SA	424	G
53	SA	426	A
53	SA	429	G
53	SA	430	C
53	SA	432	G
53	SA	445	U
53	SA	450	C
53	SA	451	A
53	SA	458	A
53	SA	462	A
53	SA	464	A
53	SA	474	A
53	SA	475	C
53	SA	486	A
53	SA	487	A
53	SA	488	U
53	SA	489	G
53	SA	509	U
53	SA	515	U
53	SA	516	G
53	SA	518	A
53	SA	521	G
53	SA	526	G
53	SA	542	C
53	SA	543	A
53	SA	545	A
53	SA	546	G
53	SA	547	U
53	SA	548	A
53	SA	549	A
53	SA	558	G
53	SA	562	A
53	SA	564	G
53	SA	566	C
53	SA	571	G
53	SA	572	C
53	SA	575	G
53	SA	585	U
53	SA	586	A
53	SA	601	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	SA	602	G
53	SA	618	U
53	SA	626	A
53	SA	627	A
53	SA	628	A
53	SA	629	A
53	SA	630	C
53	SA	631	G
53	SA	641	G
53	SA	642	A
53	SA	646	U
53	SA	647	C
53	SA	652	A
53	SA	653	A
53	SA	753	U
53	SA	754	A
53	SA	757	A
53	SA	758	U
53	SA	760	C
53	SA	790	U
53	SA	791	U
53	SA	793	G
53	SA	801	G
53	SA	803	G
53	SA	804	U
53	SA	805	A
53	SA	806	A
53	SA	812	A
53	SA	815	G
53	SA	816	U
53	SA	821	A
53	SA	824	A
53	SA	830	U
53	SA	833	A
53	SA	836	C
53	SA	837	A
53	SA	845	U
53	SA	846	G
53	SA	849	U
53	SA	851	A
53	SA	852	A
53	SA	856	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	SA	857	A
53	SA	866	A
53	SA	870	A
53	SA	875	A
53	SA	876	U
53	SA	877	U
53	SA	879	A
53	SA	888	A
53	SA	908	U
53	SA	913	U
53	SA	920	A
53	SA	924	A
53	SA	925	C
53	SA	929	U
53	SA	931	A
53	SA	941	C
53	SA	942	U
53	SA	946	G
53	SA	954	G
53	SA	966	C
53	SA	967	A
53	SA	973	G
53	SA	974	A
53	SA	982	A
53	SA	983	G
53	SA	991	G
53	SA	999	A
53	SA	1002	A
53	SA	1004	U
53	SA	1011	G
53	SA	1013	A
53	SA	1021	A
53	SA	1029	U
53	SA	1035	A
53	SA	1057	A
53	SA	1061	A
53	SA	1062	A
53	SA	1065	C
53	SA	1073	U
53	SA	1074	A
53	SA	1093	U
53	SA	1095	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	SA	1097	C
53	SA	1098	U
53	SA	1099	A
53	SA	1101	G
53	SA	1108	A
53	SA	1109	G
53	SA	1112	G
53	SA	1116	G
53	SA	1168	U
53	SA	1177	A
53	SA	1182	A
53	SA	1183	U
53	SA	1193	A
53	SA	1194	A
53	SA	1197	C
53	SA	1198	U
53	SA	1219	U
53	SA	1225	A
53	SA	1227	G
53	SA	1239	A
53	SA	1248	A
53	SA	1251	G
53	SA	1252	A
53	SA	1259	C
53	SA	1261	A
53	SA	1264	A
53	SA	1265	G
53	SA	1271	G
53	SA	1282	U
53	SA	1283	U
53	SA	1284	A
53	SA	1286	U
53	SA	1291	C
53	SA	1295	A
53	SA	1296	C
53	SA	1297	A
53	SA	1300	G
53	SA	1301	G
53	SA	1302	G
53	SA	1303	A
53	SA	1307	U
53	SA	1313	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	SA	1317	A
53	SA	1318	A
53	SA	1363	U
53	SA	1366	A
53	SA	1367	U
53	SA	1371	G
53	SA	1374	G
53	SA	1377	U
53	SA	1382	G
53	SA	1385	U
53	SA	1386	U
53	SA	1387	U
53	SA	1388	A
53	SA	1403	U
53	SA	1414	A
53	SA	1415	A
53	SA	1416	U
53	SA	1417	U
53	SA	1422	U
53	SA	1423	A
53	SA	1425	C
53	SA	1436	U
53	SA	1440	C
53	SA	1443	G
53	SA	1444	C
53	SA	1445	U
53	SA	1446	A
53	SA	1448	U
53	SA	1453	G
53	SA	1456	G
53	SA	1460	A
53	SA	1464	U
53	SA	1606	U
53	SA	1625	C
53	SA	1626	U
53	SA	1628	A
53	SA	1629	G
53	SA	1635	C
53	SA	1636	A
53	SA	1640	U
53	SA	1644	U
53	SA	1645	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	SA	1648	A
53	SA	1658	G
53	SA	1659	U
53	SA	1660	U
53	SA	1661	U
53	SA	1662	A
53	SA	1664	G
53	SA	1665	G
53	SA	1673	A
53	SA	1674	G
53	SA	1679	G
53	SA	1681	G
53	SA	1682	A
53	SA	1684	G
53	SA	1691	G
53	SA	1705	C
53	SA	1706	A
53	SA	1717	A
53	SA	1719	U
53	SA	1720	G
53	SA	1724	U
53	SA	1728	U
53	SA	1729	A
53	SA	1732	G
53	SA	1742	A
53	SA	1784	A
53	SA	1787	U
53	SA	1790	C
53	SA	1792	U
53	SA	1795	G
53	SA	1812	A
53	SA	1816	U
53	SA	1817	U
53	SA	1818	A
53	SA	1819	U
53	SA	1820	C
53	SA	1824	A
53	SA	1829	U
53	SA	1832	U
53	SA	1833	G
53	SA	1836	G
53	SA	1839	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	SA	1852	A
53	SA	1854	U
53	SA	1856	A
53	SA	1857	U
53	SA	1862	C
53	SA	1865	G
53	SA	1866	A
53	SA	1870	A
53	SA	1871	G
53	SA	1873	A
53	SA	1879	U
53	SA	1881	G
53	SA	1887	A
53	SA	1893	C
53	SA	1898	G
53	SA	1907	G
53	SA	1908	A
53	SA	1909	C
53	SA	1911	A
53	SA	1913	G
53	SA	1916	C
53	SA	1928	A
53	SA	1939	G
53	SA	1942	G
53	SA	1954	U
53	SA	1955	G
53	SA	1956	A
53	SA	1959	G
53	SA	1961	U
53	SA	1968	A
53	SA	1969	A
53	SA	1978	A
53	SA	1979	C
53	SA	1980	A
53	SA	1982	G
53	SA	1986	A
53	SA	2019	C
53	SA	2038	A
53	SA	2042	A
53	SA	2049	G
53	SA	2054	A
53	SA	2059	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	SA	2061	U
53	SA	2062	U
53	SA	2075	C
53	SA	2084	G
53	SA	2085	G
53	SA	2086	A
53	SA	2088	C
53	SA	2089	A
53	SA	2090	U

All (92) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	S7	53	G
1	S7	55	U
2	AA	61	A
2	AA	62	A
2	AA	122	A
2	AA	162	U
2	AA	179	G
2	AA	184	U
2	AA	215	C
2	AA	257	U
2	AA	270	U
2	AA	432	A
2	AA	439	U
2	AA	500	A
2	AA	501	U
2	AA	504	A
2	AA	505	A
2	AA	579	C
2	AA	580	A
2	AA	581	C
2	AA	607	A
2	AA	620	U
2	AA	674	U
2	AA	697	A
2	AA	698	G
2	AA	703	U
2	AA	715	U
2	AA	721	U
2	AA	764	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AA	859	C
2	AA	888	A
2	AA	965	A
2	AA	1197	U
2	AA	1207	U
2	AA	1217	U
2	AA	1435	G
2	AA	1538	U
2	AA	1574	C
2	AA	1705	A
2	AA	1736	A
2	AA	1805	U
2	AA	1881	C
2	AA	1990	A
2	AA	1999	A
2	AA	2180	U
2	AA	2219	A
2	AA	2394	C
2	AA	2555	A
2	AA	2816	U
2	AA	2822	U
2	AA	2885	A
2	AA	2959	G
2	AA	3137	U
2	AA	3202	U
2	AA	3230	G
2	AA	3413	A
2	AA	3414	G
2	AA	3587	U
2	AA	3590	A
2	AA	3658	G
2	AA	3667	C
3	AC	35	A
3	AC	37	A
3	AC	134	G
3	AC	139	A
3	AC	145	A
4	AB	22	G
53	SA	105	A
53	SA	246	A
53	SA	248	G
53	SA	291	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	SA	423	A
53	SA	525	G
53	SA	752	U
53	SA	805	A
53	SA	844	G
53	SA	981	U
53	SA	998	A
53	SA	1182	A
53	SA	1224	C
53	SA	1295	A
53	SA	1381	C
53	SA	1386	U
53	SA	1413	U
53	SA	1414	A
53	SA	1455	C
53	SA	1786	U
53	SA	1818	A
53	SA	1819	U
53	SA	1865	G
53	SA	1897	A
53	SA	2053	U

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
31	AW	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AW	154:ASN	C	197:UNK	N	32.89

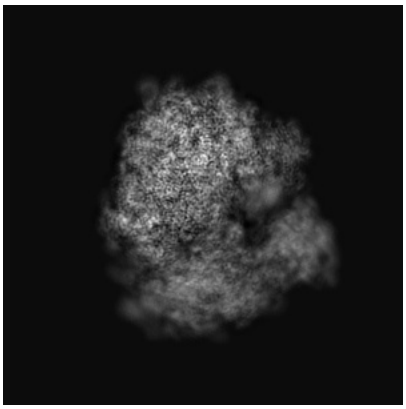
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-44920. These allow visual inspection of the internal detail of the map and identification of artifacts.

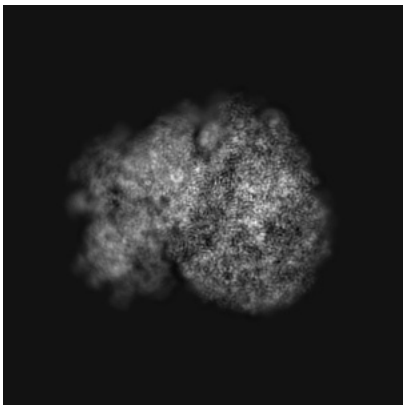
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

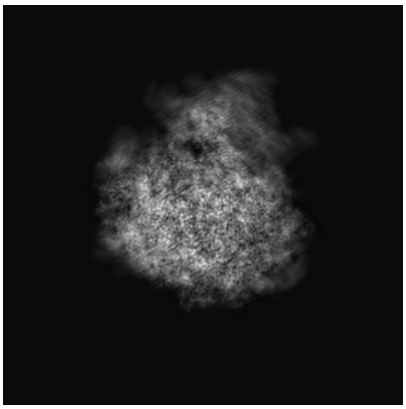
6.1.1 Primary map



X

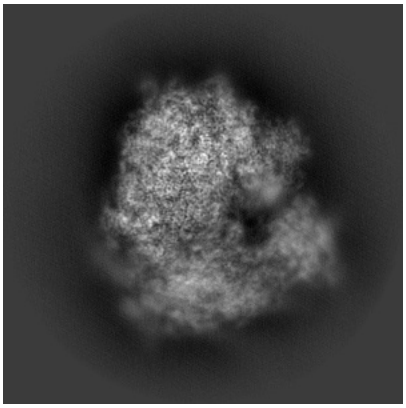


Y

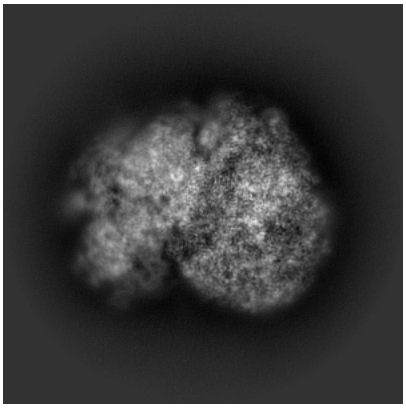


Z

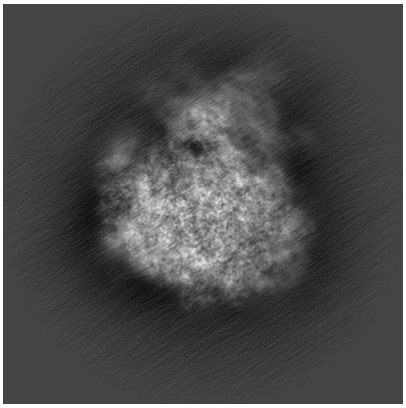
6.1.2 Raw map



X



Y

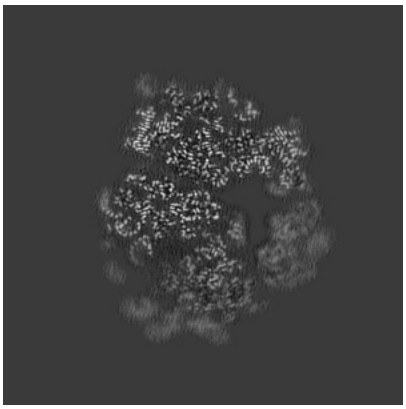


Z

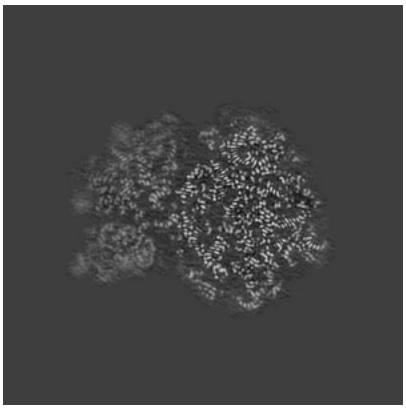
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

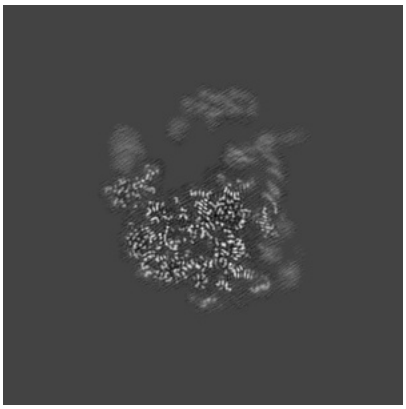
6.2.1 Primary map



X Index: 250

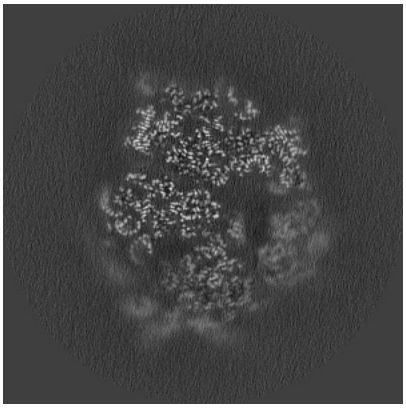


Y Index: 250

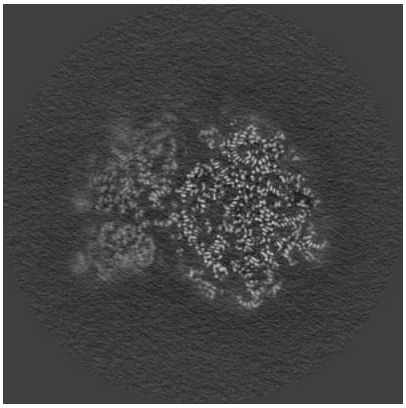


Z Index: 250

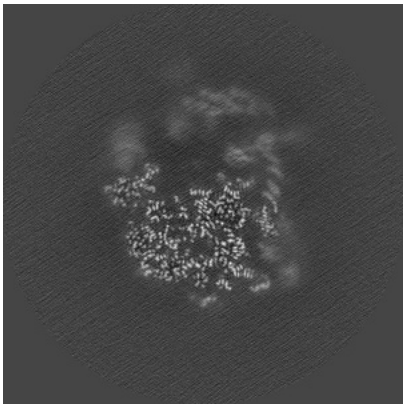
6.2.2 Raw map



X Index: 250



Y Index: 250

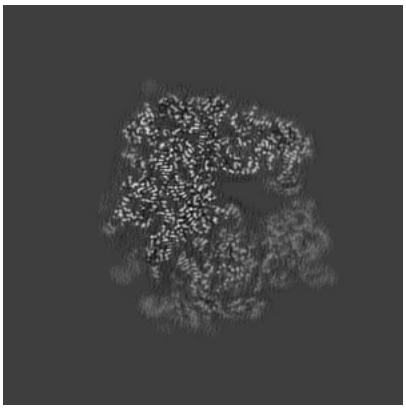


Z Index: 250

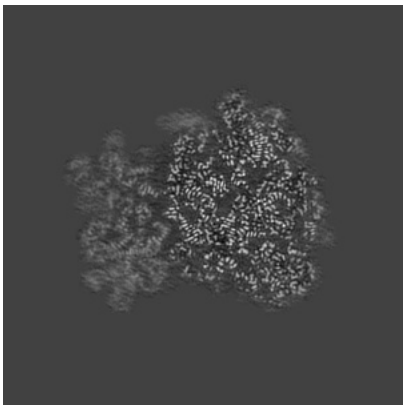
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

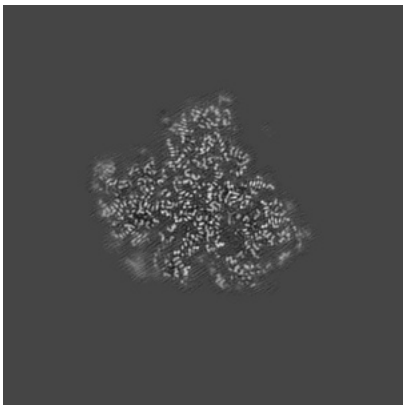
6.3.1 Primary map



X Index: 269

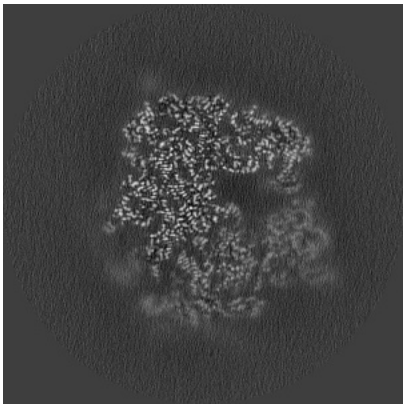


Y Index: 223

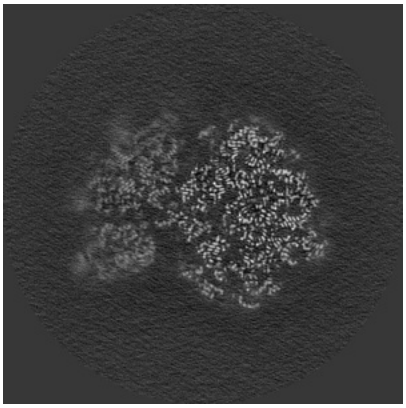


Z Index: 310

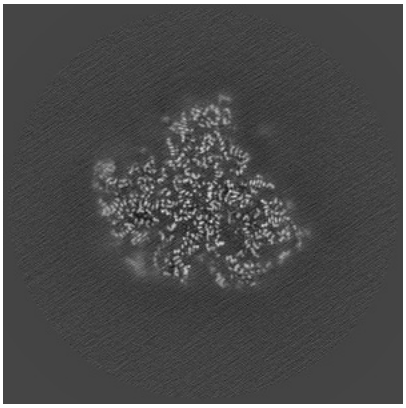
6.3.2 Raw map



X Index: 269



Y Index: 252

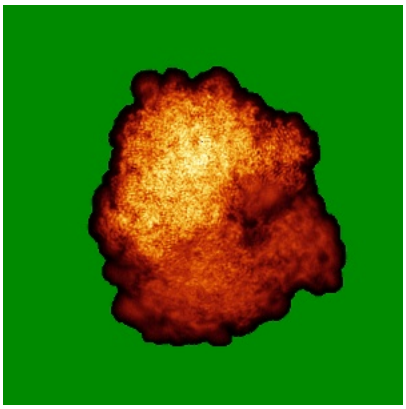


Z Index: 310

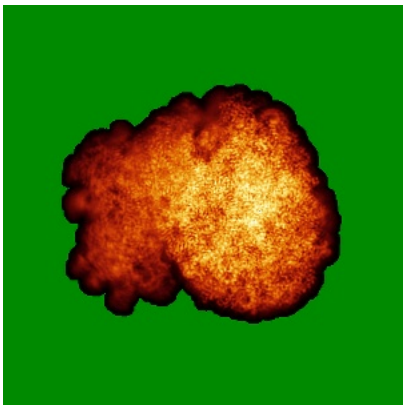
The images above show the largest variance slices of the map in three orthogonal directions.

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

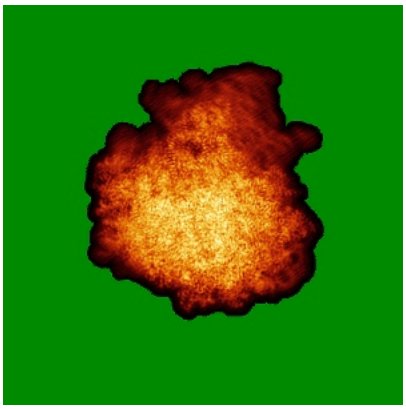
6.4.1 Primary map



X

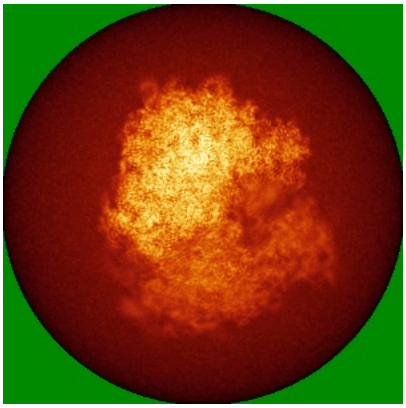


Y

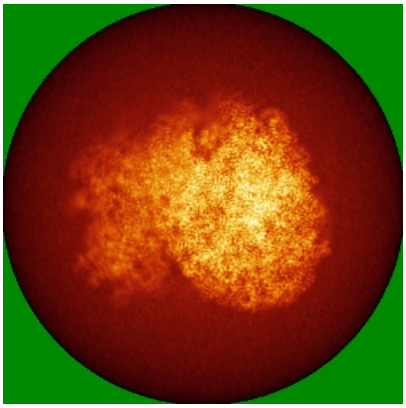


Z

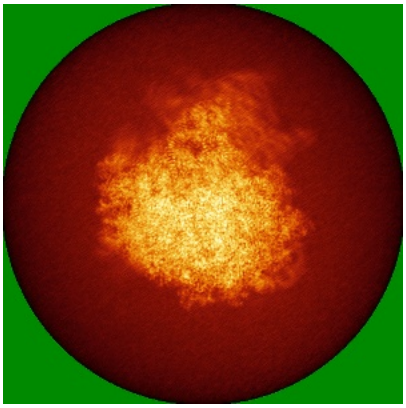
6.4.2 Raw map



X



Y

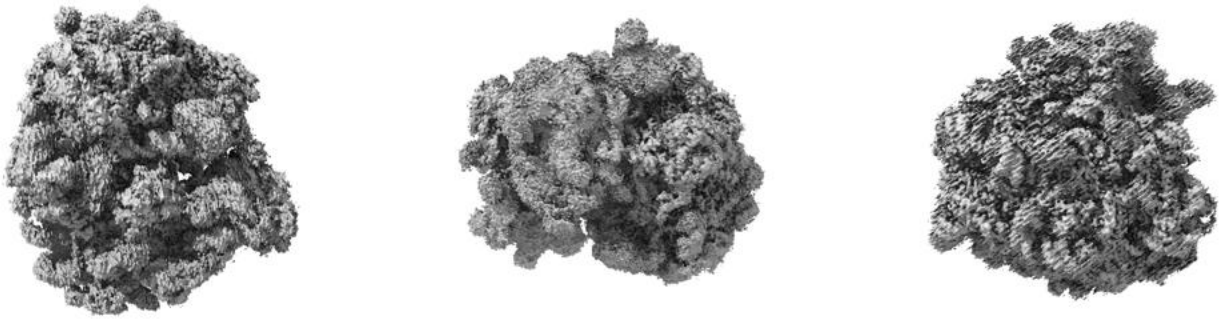


Z

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

6.5 Orthogonal surface views (i)

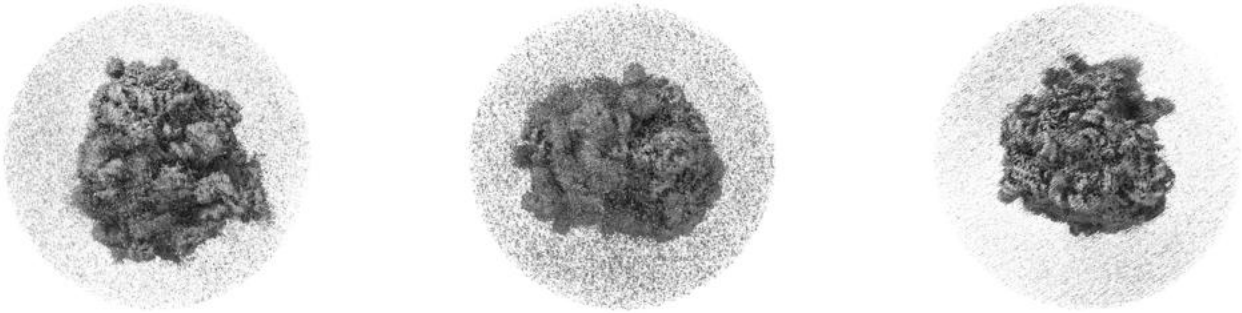
6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.00567. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



X Y Z

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

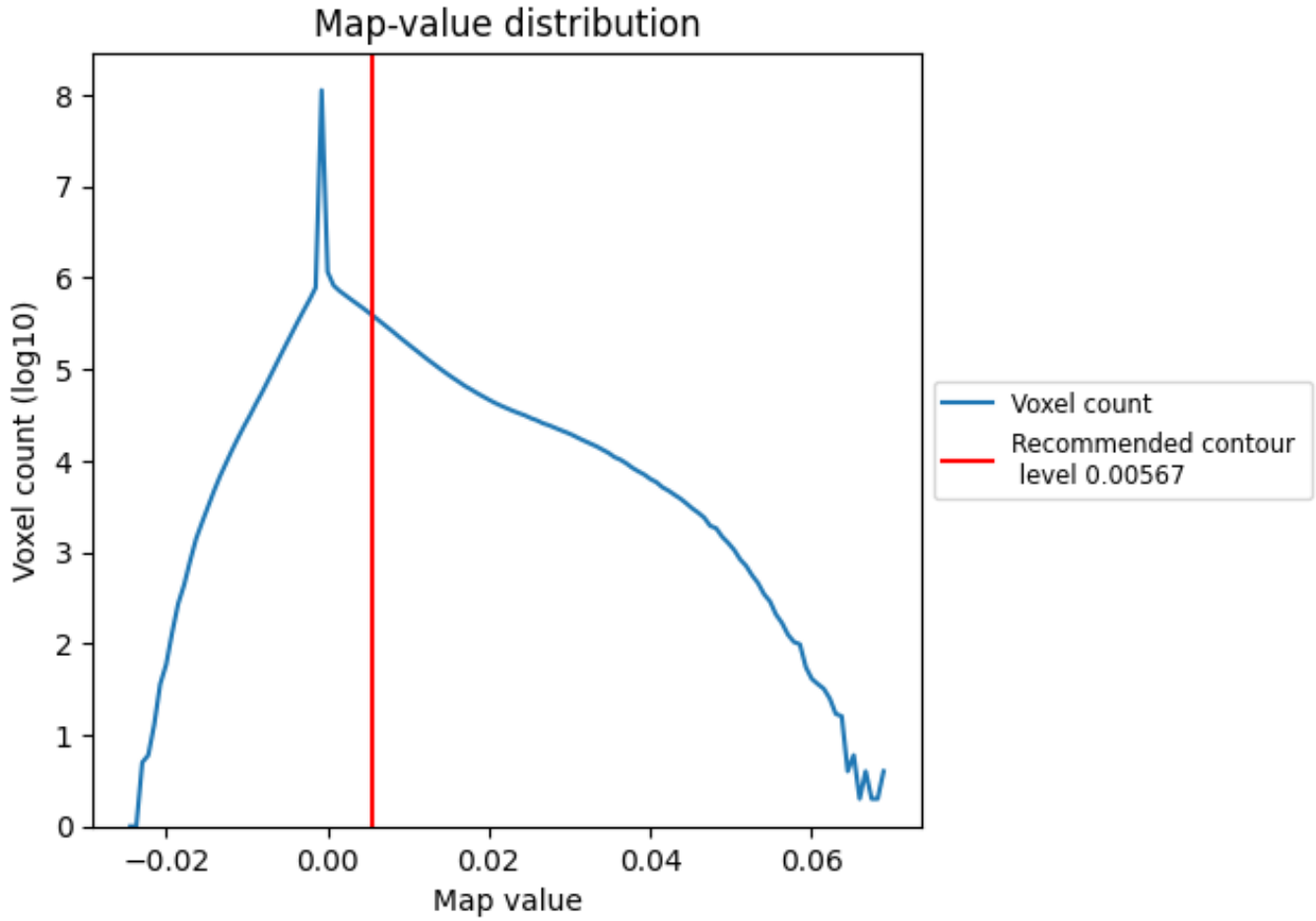
6.6 Mask visualisation (i)

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

7 Map analysis

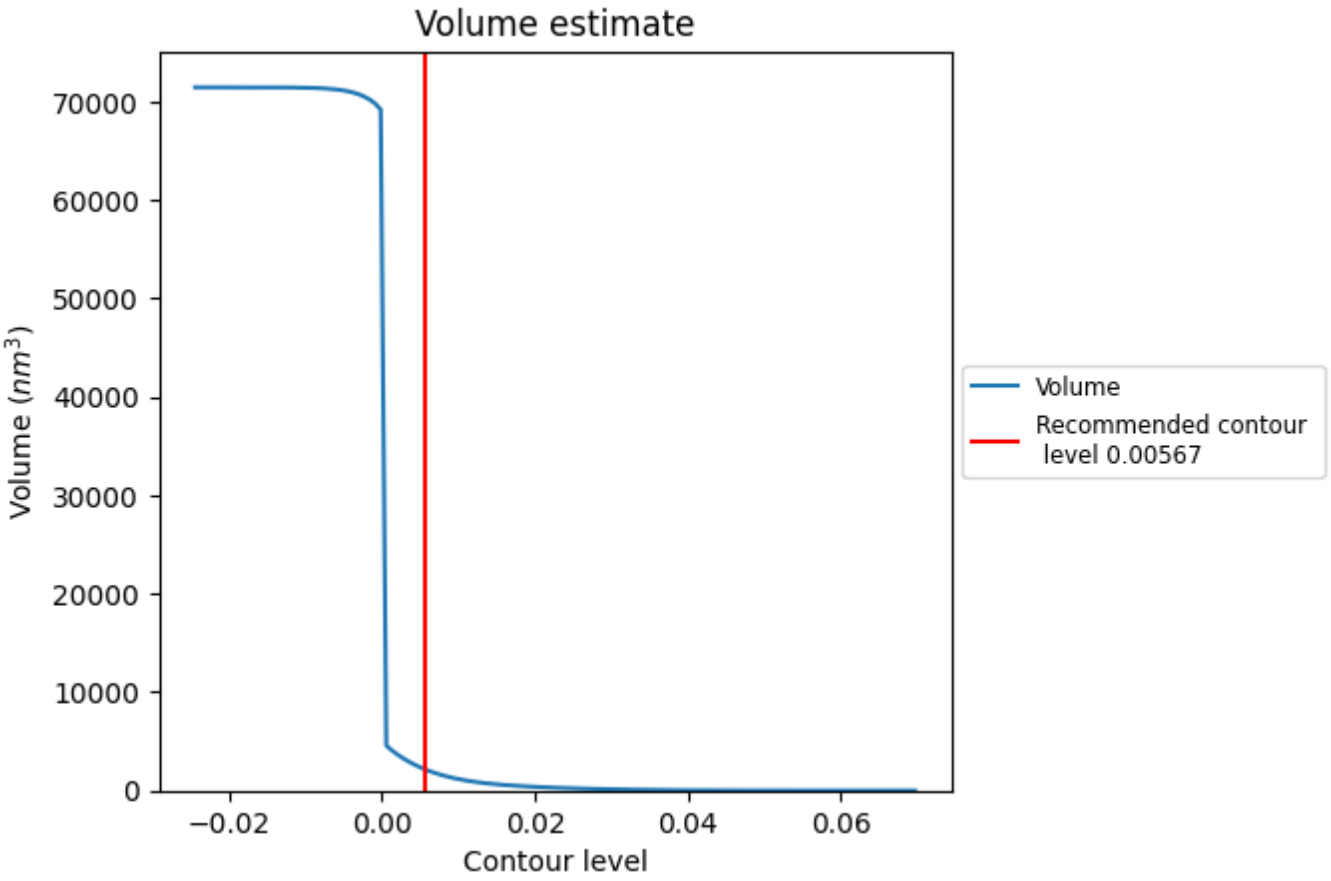
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

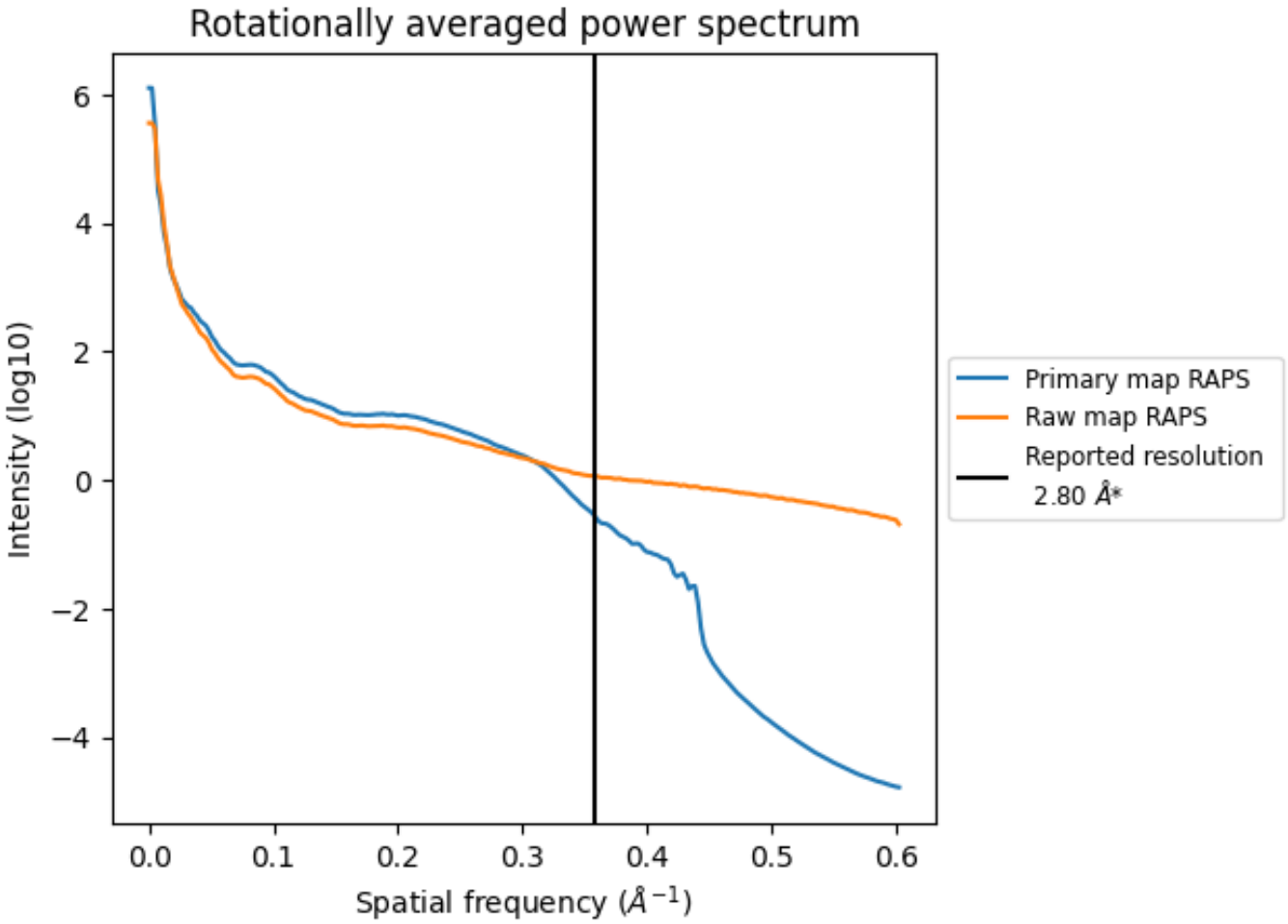
7.2 Volume estimate



The volume at the recommended contour level is 2146 nm^3; this corresponds to an approximate mass of 1938 kDa.

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

7.3 Rotationally averaged power spectrum (i)

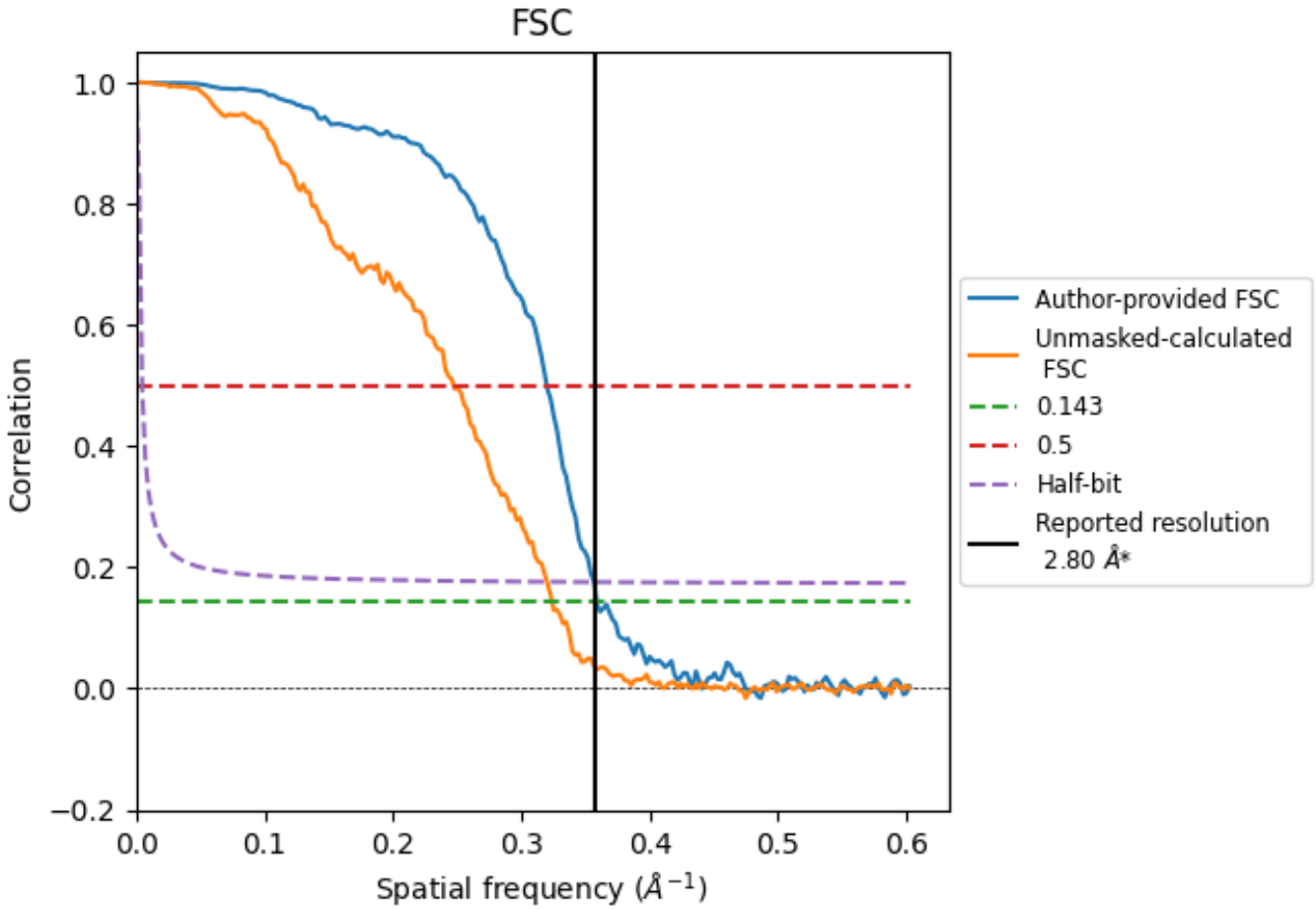


*Reported resolution corresponds to spatial frequency of 0.357 Å^{-1}

8 Fourier-Shell correlation

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



*Reported resolution corresponds to spatial frequency of 0.357 Å^{-1}

8.2 Resolution estimates (i)

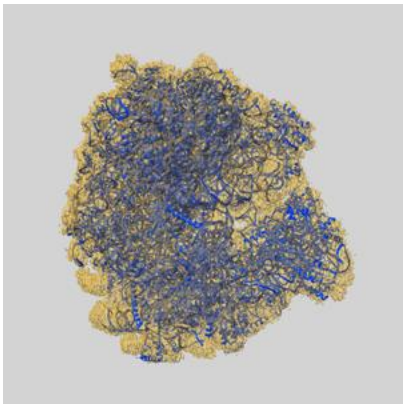
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.80	-	-
Author-provided FSC curve	2.79	3.13	2.80
Unmasked-calculated*	3.09	4.04	3.12

*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 3.09 differs from the reported value 2.8 by more than 10 %

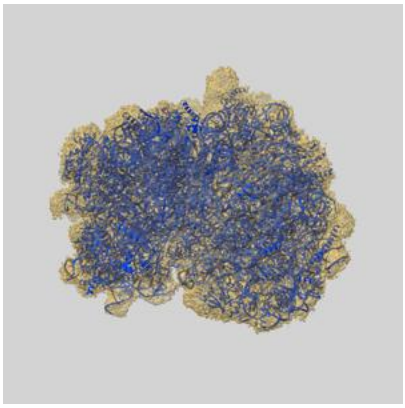
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-44920 and PDB model 9BUU. Per-residue inclusion information can be found in section 3 on page 18.

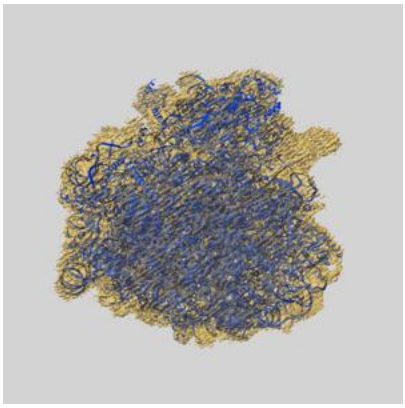
9.1 Map-model overlay



X



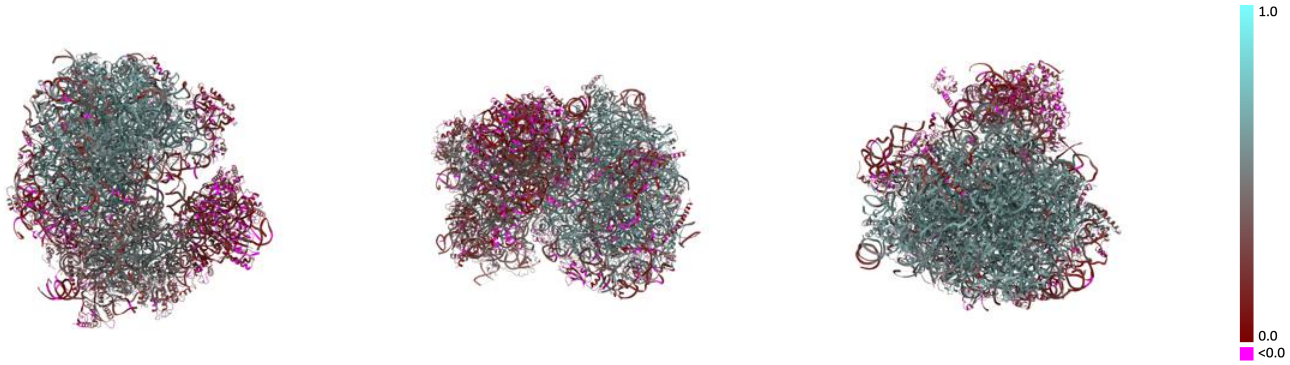
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.00567 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

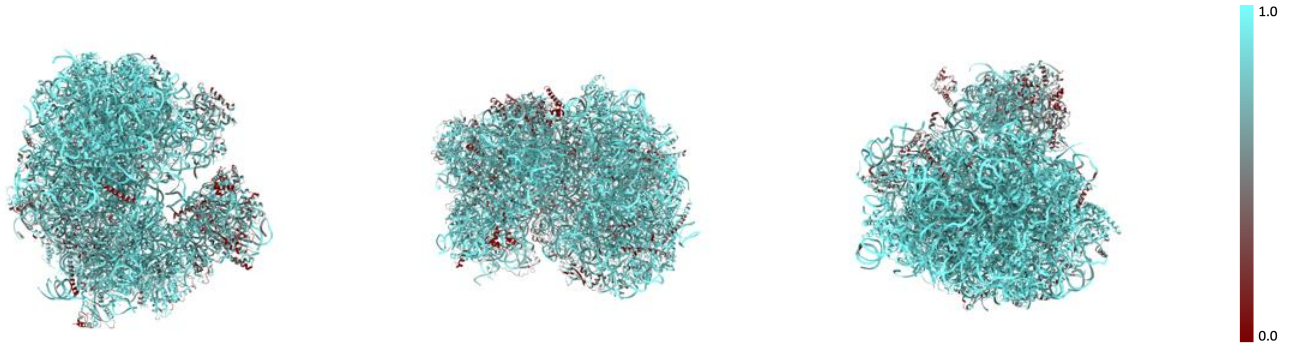
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

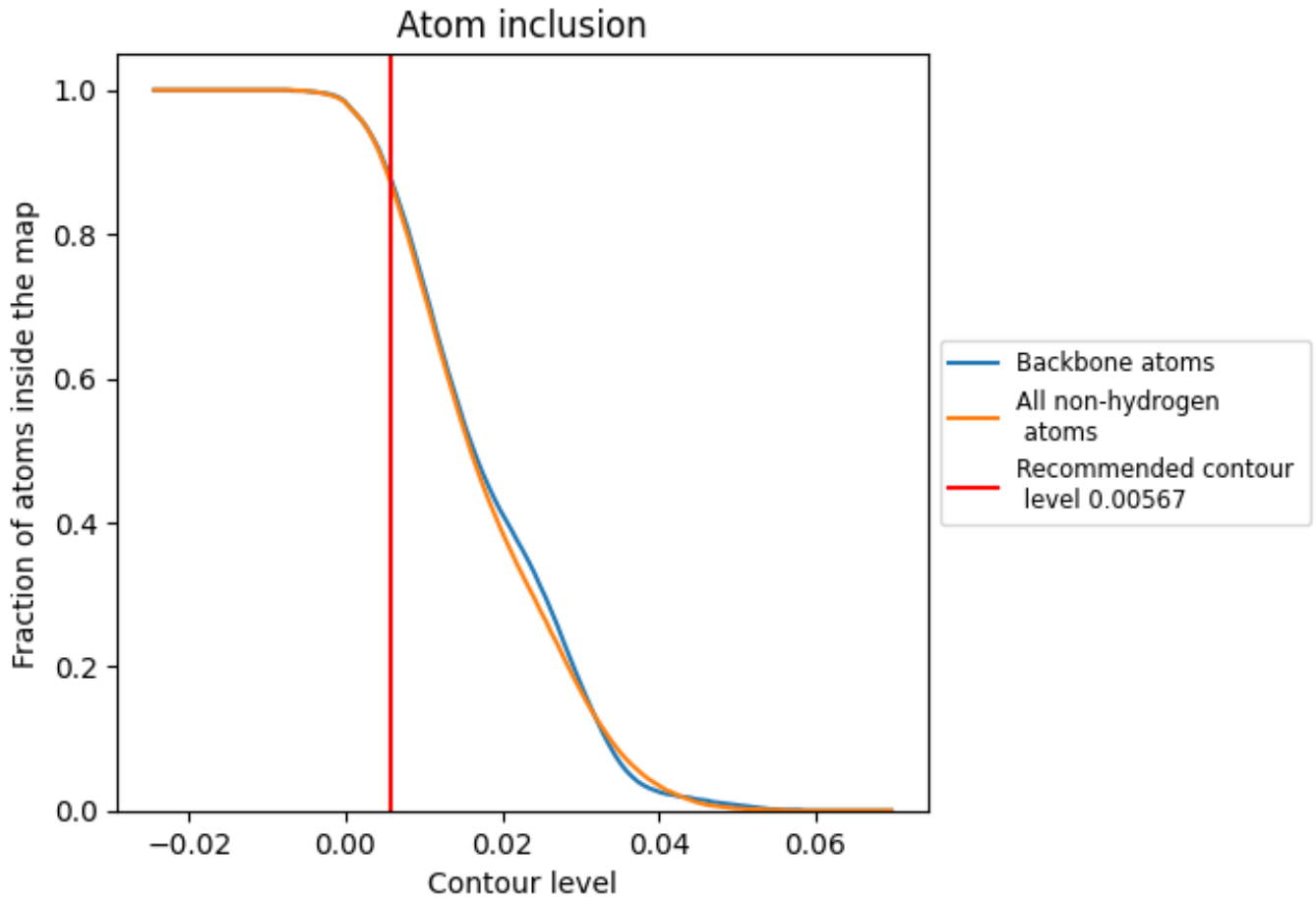
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.00567).

9.4 Atom inclusion (i)



At the recommended contour level, 88% of all backbone atoms, 88% 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 (0.00567) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8750	0.4350
A0	0.4680	0.1690
A1	0.6300	0.1920
A2	0.9540	0.5790
A3	0.7720	0.3560
A4	0.8390	0.4850
A5	0.8740	0.4790
A6	0.6210	0.2170
A7	0.8740	0.4740
A8	0.9570	0.6090
A9	0.9840	0.6290
AA	0.9470	0.5220
AB	0.8240	0.3030
AC	0.9710	0.5470
AD	0.9560	0.6160
AE	0.8320	0.4630
AF	0.8970	0.5360
AG	0.7550	0.2630
AH	0.6750	0.2440
AI	0.9670	0.5720
AJ	0.7640	0.4070
AK	0.9700	0.6010
AL	0.9290	0.5450
AM	0.7970	0.4380
AN	0.8290	0.3920
AO	0.9790	0.6200
AP	0.9720	0.6130
AQ	0.7640	0.3760
AR	0.6370	0.2040
AS	0.9700	0.6200
AT	0.6200	0.2990
AU	0.8040	0.4060
AV	0.8900	0.5170
AW	0.9800	0.6090
AX	0.5330	0.2020

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
AY	0.7470	0.3620
AZ	0.9470	0.5370
Aa	0.7360	0.3480
Ab	0.9540	0.5670
Ac	0.9650	0.6090
Ad	0.6850	0.2520
Ae	0.9610	0.5980
Af	0.6820	0.2610
Ag	0.6920	0.4030
Ah	0.8610	0.5020
Ai	0.9590	0.6110
S1	0.7980	0.2960
S2	0.0760	0.0180
S3	0.8700	0.4400
S4	0.6110	0.2730
S5	0.5840	0.2500
S6	0.6690	0.2520
S7	0.8490	0.2930
SA	0.9230	0.3630
SB	0.7490	0.3710
SC	0.8240	0.3410
SD	0.5640	0.1820
SE	0.7910	0.3410
SF	0.8590	0.3790
SG	0.8220	0.4000
SH	0.7890	0.2990
SI	0.5330	0.1420
SJ	0.6810	0.2960
SK	0.8820	0.4900
SL	0.8350	0.3710
SM	0.5680	0.1330
SN	0.6150	0.1290
SO	0.7020	0.1620
SP	0.8450	0.3860
SQ	0.7980	0.4450
SR	0.2840	0.0600
SS	0.5980	0.1680
ST	0.6570	0.2150
SU	0.7560	0.4200
SV	0.8350	0.4280
SW	0.6350	0.1760
SX	0.7060	0.1920

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
SY	0.6180	0.1280
SZ	0.8460	0.4170