



Full wwPDB X-ray Structure Validation Report ⓘ

May 22, 2020 – 06:48 pm BST

PDB ID : 4U25
Title : Crystal structure of the E. coli ribosome bound to virginiamycin M1.
Authors : Noeske, J.; Huang, J.; Olivier, N.B.; Giacobbe, R.A.; Zambrowski, M.; Cate, J.H.D.
Deposited on : 2014-07-16
Resolution : 2.90 Å(reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.11
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

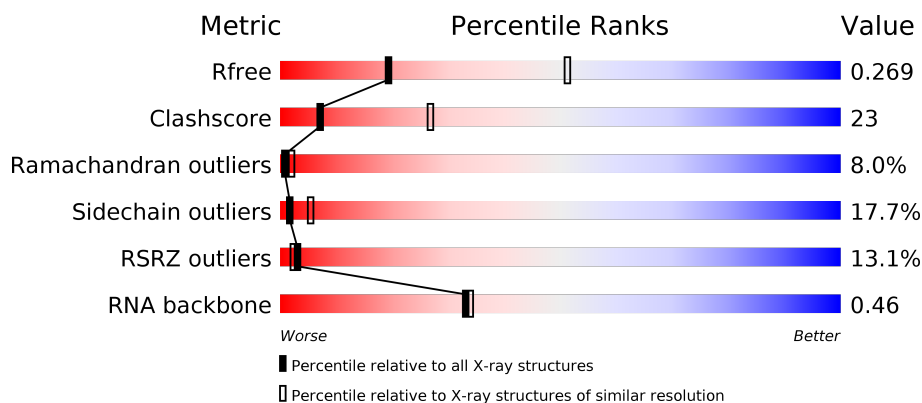
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.90 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)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1957 (2.90-2.90)
Clashscore	141614	2172 (2.90-2.90)
Ramachandran outliers	138981	2115 (2.90-2.90)
Sidechain outliers	138945	2117 (2.90-2.90)
RSRZ outliers	127900	1906 (2.90-2.90)
RNA backbone	3102	1007 (3.16-2.64)

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

Mol	Chain	Length	Quality of chain
1	AA	1539	<div> <div>2%</div> <div>32%</div> <div>52%</div> <div>15%</div> </div>
1	CA	1539	<div> <div>4%</div> <div>33%</div> <div>53%</div> <div>13%</div> </div>
2	AB	218	<div> <div>14%</div> <div>20%</div> <div>50%</div> <div>23%</div> <div>6%</div> </div>
2	CB	218	<div> <div>27%</div> <div>30%</div> <div>51%</div> <div>17%</div> <div>•</div> </div>

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
3	AC	206	
3	CC	206	
4	AD	205	
4	CD	205	
5	AE	150	
5	CE	150	
6	AF	100	
6	CF	100	
7	AG	151	
7	CG	151	
8	AH	129	
8	CH	129	
9	AI	127	
9	CI	127	
10	AJ	98	
10	CJ	98	
11	AK	117	
11	CK	117	
12	AL	123	
12	CL	123	
13	AM	114	
13	CM	114	
14	AN	100	
14	CN	100	
15	AO	88	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
15	CO	88	
16	AP	82	
16	CP	82	
17	AQ	80	
17	CQ	80	
18	AR	55	
18	CR	55	
19	AS	79	
19	CS	79	
20	AT	85	
20	CT	85	
21	AU	51	
21	CU	51	
22	BA	2903	
22	DA	2903	
23	BB	119	
23	DB	119	
24	BC	271	
24	DC	271	
25	BD	209	
25	DD	209	
26	BE	201	
26	DE	201	
27	BF	177	
27	DF	177	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
28	BG	176	
28	DG	176	
29	BH	149	
29	DH	149	
30	BI	141	
30	DI	141	
31	BJ	142	
31	DJ	142	
32	BK	122	
32	DK	122	
33	BL	143	
33	DL	143	
34	BM	136	
34	DM	136	
35	BN	120	
35	DN	120	
36	BO	116	
36	DO	116	
37	BP	114	
37	DP	114	
38	BQ	117	
38	DQ	117	
39	BR	103	
39	DR	103	
40	BS	110	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
40	DS	110	
41	BT	93	
41	DT	93	
42	BU	102	
42	DU	102	
43	BV	94	
43	DV	94	
44	BW	76	
44	DW	76	
45	BX	77	
45	DX	77	
46	BY	63	
46	DY	63	
47	BZ	58	
47	DZ	58	
48	B0	56	
48	D0	56	
49	B1	50	
49	D1	50	
50	B2	46	
50	D2	46	
51	B3	64	
51	D3	64	
52	B4	38	
52	D4	38	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
53	B5	228	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	AA	1643	-	-	-	X
54	MG	AA	1657	-	-	-	X
54	MG	AA	1659	-	-	-	X
54	MG	AA	1667	-	-	-	X
54	MG	AA	1671	-	-	-	X
54	MG	BA	3016	-	-	-	X
54	MG	BA	3058	-	-	-	X
54	MG	BA	3077	-	-	-	X
54	MG	CA	1630	-	-	-	X
54	MG	CA	1656	-	-	-	X
54	MG	DA	3008	-	-	-	X
54	MG	DA	3009	-	-	-	X
54	MG	DA	3017	-	-	-	X
54	MG	DA	3027	-	-	-	X
54	MG	DA	3059	-	-	-	X
54	MG	DA	3061	-	-	-	X
54	MG	DA	3062	-	-	-	X
54	MG	DA	3063	-	-	-	X
54	MG	DA	3093	-	-	-	X
54	MG	DA	3094	-	-	-	X
54	MG	DA	3100	-	-	-	X
54	MG	DA	3114	-	-	-	X
54	MG	DA	3120	-	-	-	X
54	MG	DA	3125	-	-	-	X
54	MG	DA	3132	-	-	-	X
54	MG	DA	3134	-	-	-	X
54	MG	DA	3136	-	-	-	X
54	MG	DA	3148	-	-	-	X

2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 288258 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1538	Total	C	N	O	P	0	0	0
			32995	14716	6050	10691	1538			
1	CA	1539	Total	C	N	O	P	0	0	0
			33015	14725	6052	10699	1539			

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	218	Total	C	N	O	S	0	0	0
			1705	1081	305	312	7			
2	CB	218	Total	C	N	O	S	0	0	0
			1705	1081	305	312	7			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1625	1028	305	289	3			
3	CC	206	Total	C	N	O	S	0	0	0
			1625	1028	305	289	3			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
4	CD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	150	Total	C	N	O	S	0	0	0
			1106	687	211	202	6			
5	CE	150	Total	C	N	O	S	0	0	0
			1106	687	211	202	6			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			818	515	148	149	6			
6	CF	100	Total	C	N	O	S	0	0	0
			818	515	148	149	6			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	151	Total	C	N	O	S	0	0	0
			1182	735	227	216	4			
7	CG	151	Total	C	N	O	S	0	0	0
			1182	735	227	216	4			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
8	CH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
9	CI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	98	Total	C	N	O	S	0	0	0
			787	493	150	143	1			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	CJ	98	Total	C	N	O	S	0	0	0
			787	493	150	143	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
11	CK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
12	CL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	114	Total	C	N	O	S	0	0	0
			884	546	178	157	3			
13	CM	114	Total	C	N	O	S	0	0	0
			884	546	178	157	3			

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
14	CN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			710	437	143	129	1			
15	CO	88	Total	C	N	O	S	0	0	0
			710	437	143	129	1			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
16	CP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	80	Total	C	N	O	S	0	0	0
			649	411	121	114	3			
17	CQ	80	Total	C	N	O	S	0	0	0
			649	411	121	114	3			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	55	Total	C	N	O	0	0	0
			456	288	86	82			
18	CR	55	Total	C	N	O	0	0	0
			456	288	86	82			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	79	Total	C	N	O	S	0	0	0
			638	408	120	108	2			
19	CS	79	Total	C	N	O	S	0	0	0
			638	408	120	108	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
20	CT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			

- Molecule 21 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AU	51	Total	C	N	O	S	0	0	0
			426	265	86	74	1			
21	CU	51	Total	C	N	O	S	0	0	0
			426	265	86	74	1			

- Molecule 22 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	BA	2897	Total	C	N	O	P	0	0	0
			62195	27745	11446	20107	2897			
22	DA	2897	Total	C	N	O	P	0	0	0
			62195	27745	11446	20107	2897			

- Molecule 23 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	BB	119	Total	C	N	O	P	0	0	0
			2549	1135	466	829	119			
23	DB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BC	271	Total	C	N	O	S	0	0	0
			2083	1288	423	365	7			
24	DC	271	Total	C	N	O	S	0	0	0
			2083	1288	423	365	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
25	DD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	DE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BF	177	Total	C	N	O	S	0	0	0
			1411	899	249	257	6			
27	DF	177	Total	C	N	O	S	0	0	0
			1411	899	249	257	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			
28	DG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BH	149	Total	C	N	O	S	0	0	0
			1110	699	197	213	1			
29	DH	149	Total	C	N	O	S	0	0	0
			1110	699	197	213	1			

- Molecule 30 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
30	DI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			

- Molecule 31 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
31	DJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			

- Molecule 32 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BK	122	Total	C	N	O	S	0	0	0
			939	587	180	166	6			
32	DK	122	Total	C	N	O	S	0	0	0
			939	587	180	166	6			

- Molecule 33 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
33	DL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

- Molecule 34 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
34	DM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

- Molecule 35 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BN	120	Total	C	N	O	S	0	0	0
			961	593	196	167	5			
35	DN	120	Total	C	N	O	S	0	0	0
			961	593	196	167	5			

- Molecule 36 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
36	BO	116	Total	C	N	O	0	0	0
			892	552	178	162			
36	DO	116	Total	C	N	O	0	0	0
			892	552	178	162			

- Molecule 37 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
37	DP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			

- Molecule 38 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BQ	117	Total	C	N	O	S	0	0	0
			947	604	192	151				
38	DQ	117	Total	C	N	O	S	0	0	0
			947	604	192	151				

- Molecule 39 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
39	DR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

- Molecule 40 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
40	DS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 41 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BT	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			
41	DT	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			

- Molecule 42 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BU	102	Total	C	N	O	S	0	0	0
			780	492	146	142				

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	DU	102	Total	C	N	O	0	0	0
			780	492	146	142			

- Molecule 43 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
43	DV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BW	76	Total	C	N	O	S	0	0	0
			580	359	117	103	1			
44	DW	75	Total	C	N	O	S	0	0	0
			569	353	113	102	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
45	DX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BY	63	Total 509	C 313	N 99	O 95	S 2	0	0	0
46	DY	63	Total 509	C 313	N 99	O 95	S 2	0	0	0

- Molecule 47 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BZ	58	Total 449	C 281	N 87	O 79	S 2	0	0	0
47	DZ	58	Total 449	C 281	N 87	O 79	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
48	D0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	B1	50	Total	C	N	O	0	0	0
			410	263	75	72			
49	D1	50	Total	C	N	O	0	0	0
			410	263	75	72			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
50	D2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

- Molecule 51 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
51	D3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			

- Molecule 52 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
52	D4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

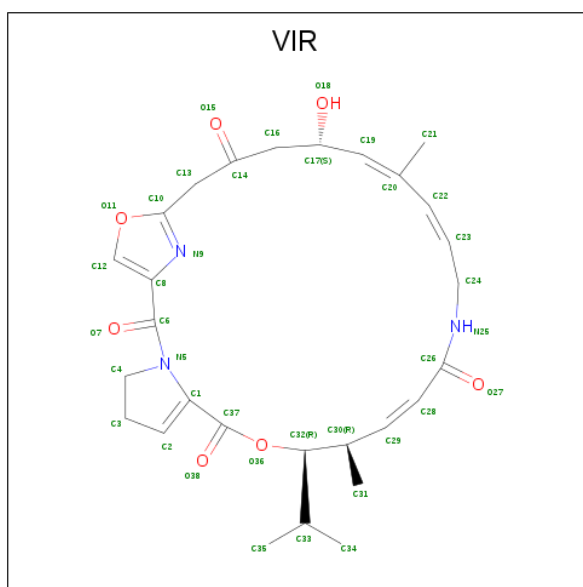
- Molecule 53 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
53	B5	191	Total	C	N	O	0	0	1
			1142	691	221	230			

- Molecule 54 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	BB	4	Total	Mg	0	0
			4	4		
54	BA	193	Total	Mg	0	0
			193	193		
54	CA	56	Total	Mg	0	0
			56	56		
54	DQ	1	Total	Mg	0	0
			1	1		
54	BD	1	Total	Mg	0	0
			1	1		
54	DA	166	Total	Mg	0	0
			166	166		
54	AA	71	Total	Mg	0	0
			71	71		
54	BQ	1	Total	Mg	0	0
			1	1		
54	AN	1	Total	Mg	0	0
			1	1		
54	D2	1	Total	Mg	0	0
			1	1		
54	DB	3	Total	Mg	0	0
			3	3		

- Molecule 55 is VIRGINIAMYCIN M1 (three-letter code: VIR) (formula: C₂₈H₃₅N₃O₇).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
55	BA	1	Total	C	N	O	0	0
			38	28	3	7		
55	DA	1	Total	C	N	O	0	0
			38	28	3	7		

- Molecule 56 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	B4	1	Total	Zn	0	0
			1	1		
56	D4	1	Total	Zn	0	0
			1	1		

- Molecule 57 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	AA	192	Total	O	0	0
			192	192		
57	AL	2	Total	O	0	0
			2	2		
57	AN	6	Total	O	0	0
			6	6		
57	AT	2	Total	O	0	0
			2	2		
57	AU	1	Total	O	0	0
			1	1		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	BA	620	Total 620	O 620	0	0
57	BB	13	Total 13	O 13	0	0
57	BC	7	Total 7	O 7	0	0
57	BD	3	Total 3	O 3	0	0
57	BE	4	Total 4	O 4	0	0
57	BF	1	Total 1	O 1	0	0
57	BJ	1	Total 1	O 1	0	0
57	BL	5	Total 5	O 5	0	0
57	BN	3	Total 3	O 3	0	0
57	BQ	1	Total 1	O 1	0	0
57	BS	1	Total 1	O 1	0	0
57	BT	1	Total 1	O 1	0	0
57	BV	1	Total 1	O 1	0	0
57	B2	1	Total 1	O 1	0	0
57	B3	2	Total 2	O 2	0	0
57	B4	2	Total 2	O 2	0	0
57	CA	191	Total 191	O 191	0	0
57	CL	1	Total 1	O 1	0	0
57	CN	2	Total 2	O 2	0	0
57	CT	2	Total 2	O 2	0	0
57	CU	2	Total 2	O 2	0	0

Continued on next page...

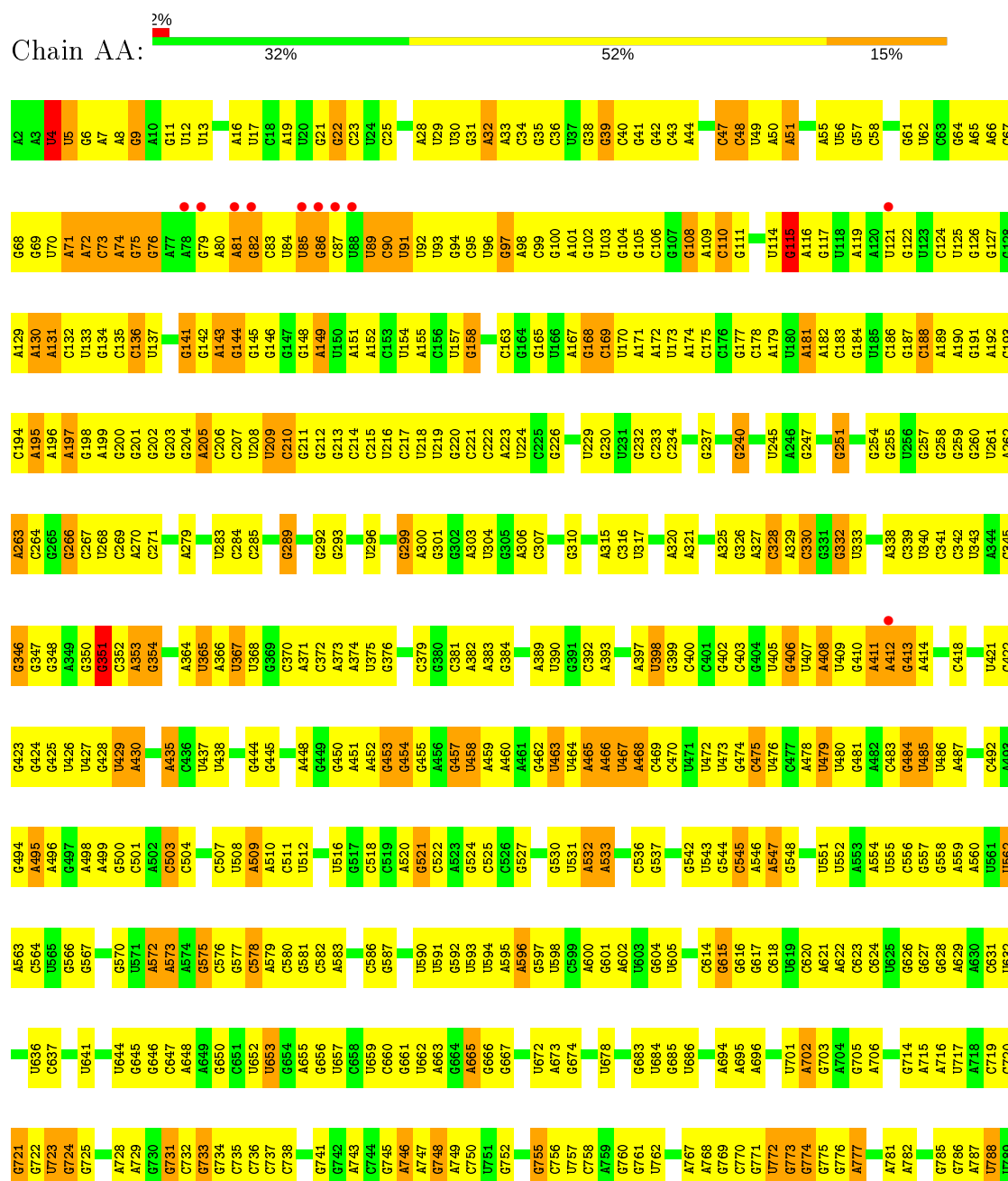
Continued from previous page...

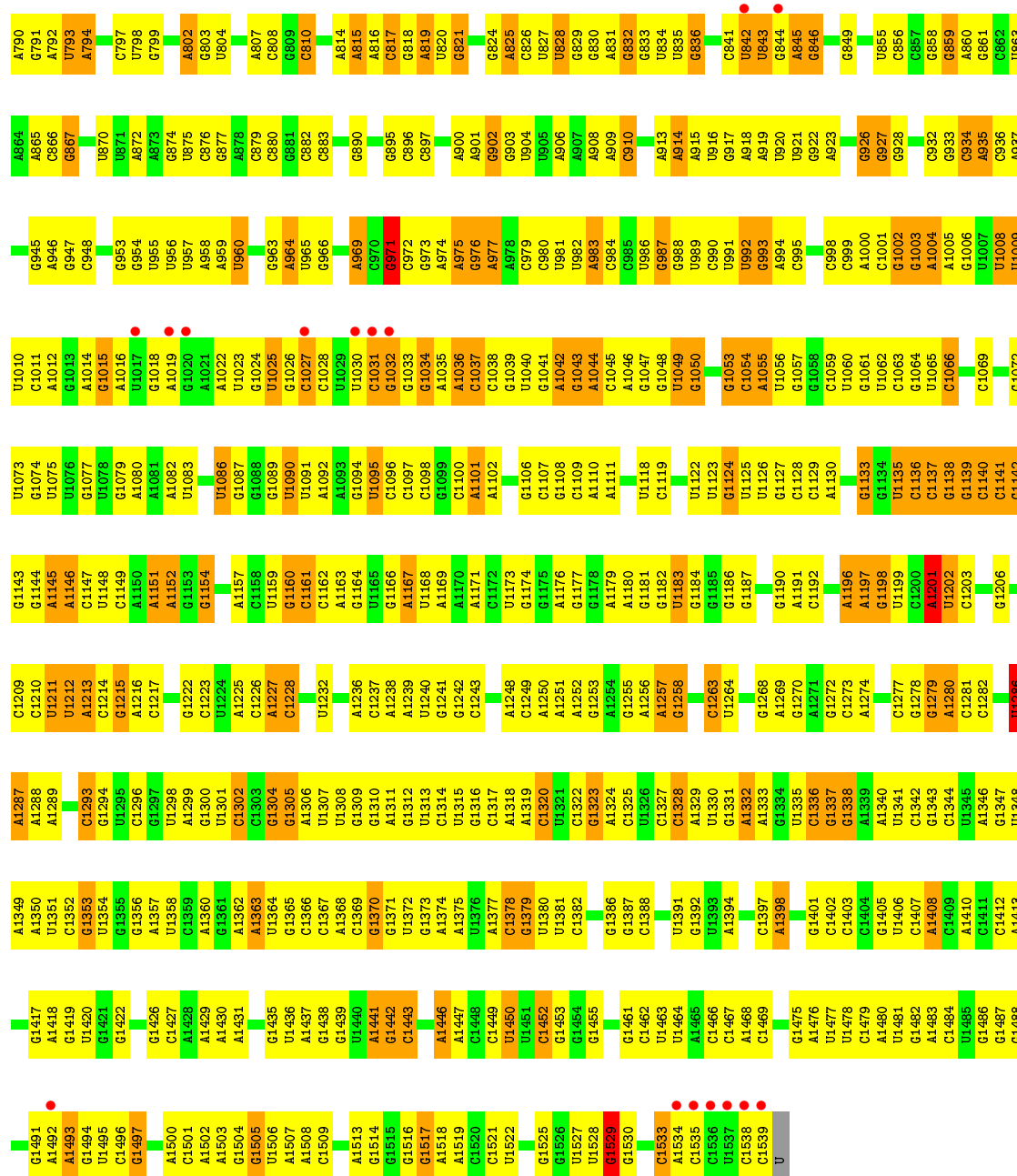
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	DA	607	Total 607	O 607	0	0
57	DB	13	Total 13	O 13	0	0
57	DC	12	Total 12	O 12	0	0
57	DD	4	Total 4	O 4	0	0
57	DE	6	Total 6	O 6	0	0
57	DJ	1	Total 1	O 1	0	0
57	DL	4	Total 4	O 4	0	0
57	DN	2	Total 2	O 2	0	0
57	DT	1	Total 1	O 1	0	0
57	DU	1	Total 1	O 1	0	0
57	DV	1	Total 1	O 1	0	0
57	D2	1	Total 1	O 1	0	0
57	D3	2	Total 2	O 2	0	0
57	D4	1	Total 1	O 1	0	0

3 Residue-property plots

These plots are drawn for all protein, RNA and DNA 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 electron 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 dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). 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.

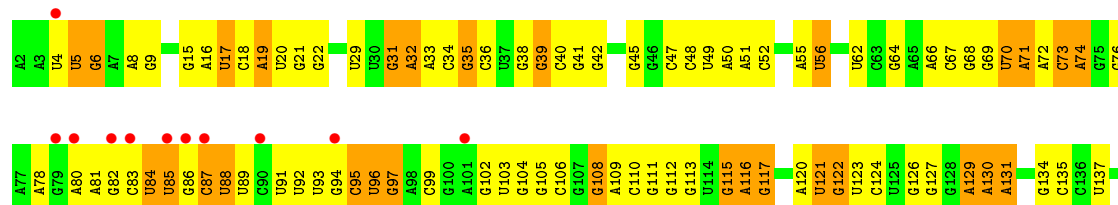
• Molecule 1: 16S rRNA



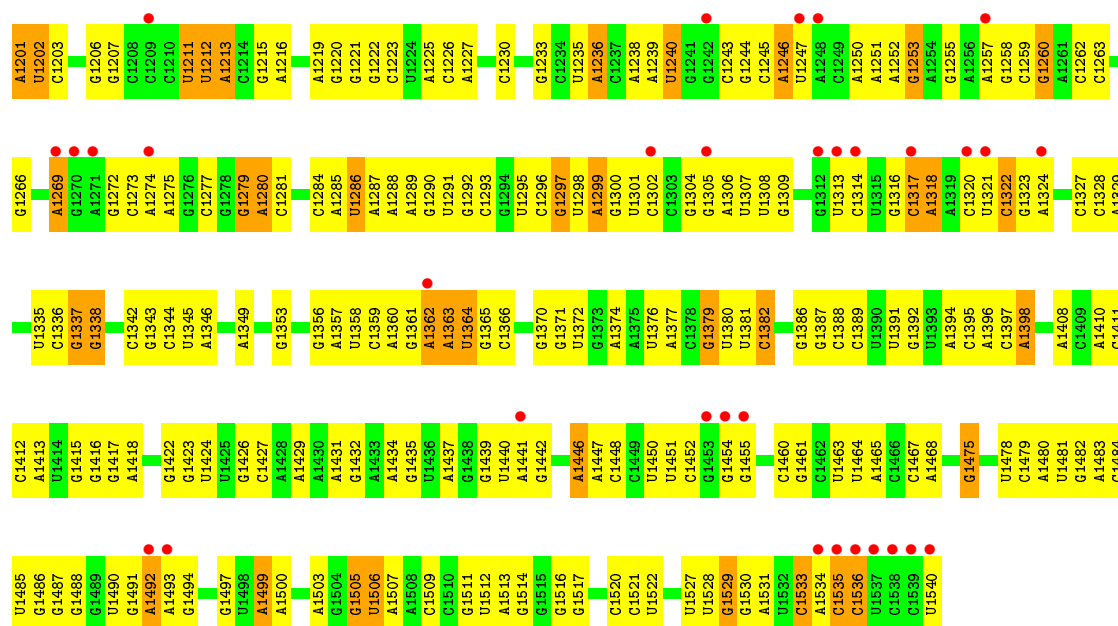


• Molecule 1: 16S rRNA

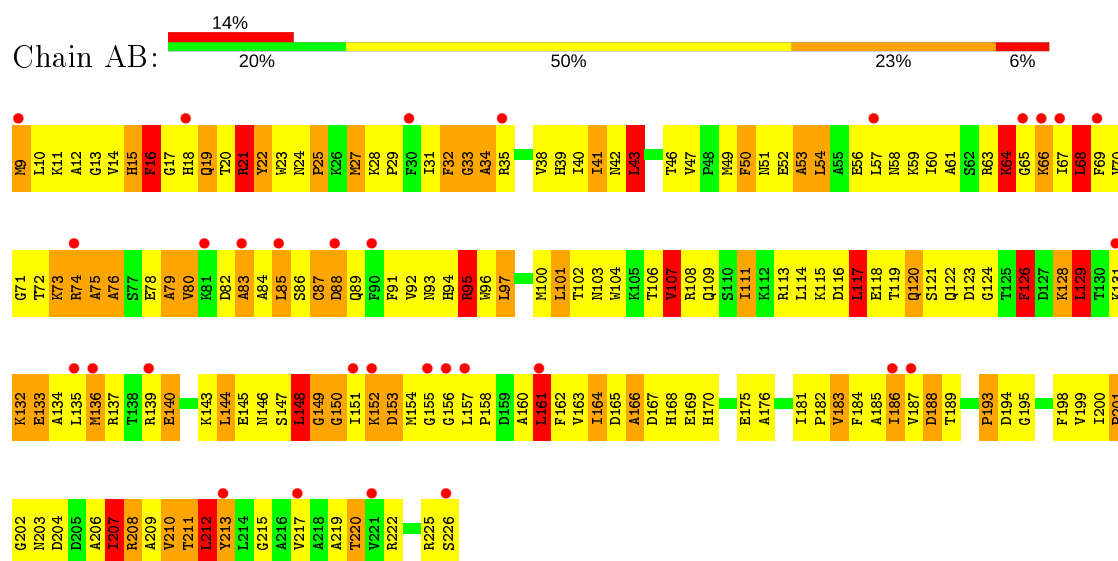
Chain CA:



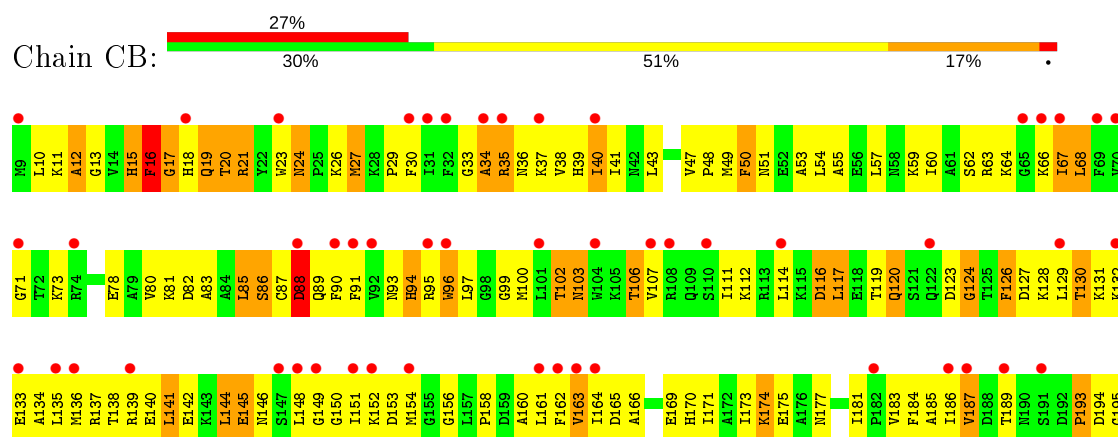
C1137	G142	G204	G350	G413	U485	G554	C637	A715	A782	G852	C930	C995	U1062	G1138	G1166	G1177	G1184	G1186	G1190	G1191	G1192	G1193	G1194	G1195	G1196	G1197	G1198	G1199	G1200
G1139	A143	A205	G351	A414	U486	U555	U638	A716	G783	G857	C931	A996	U1065	G1139	G1167	G1178	G1185	G1187	G1189	G1190	G1191	G1192	G1193	G1194	G1195	G1196	G1197	G1198	G1199
C1140	G144	C206	A145	A415	U487	C556	G639	U717	A784	G858	C932	C997	U1066	G1140	G1168	G1179	G1186	G1188	G1189	G1190	G1191	G1192	G1193	G1194	G1195	G1196	G1197	G1198	G1199
G1141	G145	C207	A146	C418	C490	G557	A642	A718	G785	G859	C933	C998	C1065	G1141	G1169	G1180	G1187	G1189	G1190	G1191	G1192	G1193	G1194	G1195	G1196	G1197	G1198	G1199	G1200
G1142	G146	U208	A147	C419	C491	G558	A643	C719	G786	G860	C934	C999	U1067	G1142	G1170	G1181	G1188	G1190	G1191	G1192	G1193	G1194	G1195	G1196	G1197	G1198	G1199	G1200	G1201
G1143	G147	U209	A148	C420	C492	G559	A644	C720	A787	G861	C935	C1001	U1068	G1143	U1070	G1182	G1189	G1191	G1192	G1193	G1194	G1195	G1196	G1197	G1198	G1199	G1200	G1201	G1202
G1144	G148	C210	A149	U221	C493	G560	U645	C721	A790	G862	C936	C1002	U1069	G1144	U1071	G1183	G1190	G1192	G1193	G1194	G1195	G1196	G1197	G1198	G1199	G1200	G1201	G1202	G1203
G1145	U150	G211	A151	U222	C494	U561	U646	C722	G791	G863	C937	C1003	U1070	G1145	U1072	G1184	G1191	G1193	G1194	G1195	G1196	G1197	G1198	G1199	G1200	G1201	G1202	G1203	G1204
G1146	A152	G212	A153	C425	C495	U562	U647	C723	A792	G864	C938	C1004	U1071	G1146	U1073	G1185	G1192	G1194	G1195	G1196	G1197	G1198	G1199	G1200	G1201	G1202	G1203	G1204	G1205
G1147	A153	G213	U154	G426	C496	U563	U648	C724	A793	G865	C939	C1005	U1072	G1147	U1074	G1186	G1193	G1195	G1196	G1197	G1198	G1199	G1200	G1201	G1202	G1203	G1204	G1205	G1206
G1148	A154	G214	U155	G427	C497	U564	U649	C725	A794	G866	C940	C1006	U1073	G1148	U1075	G1187	G1194	G1196	G1197	G1198	G1199	G1200	G1201	G1202	G1203	G1204	G1205	G1206	G1207
G1149	A155	G215	U156	G428	C500	U565	U650	C726	A795	G867	C941	C1007	U1074	G1149	U1076	G1188	G1195	G1197	G1198	G1199	G1200	G1201	G1202	G1203	G1204	G1205	G1206	G1207	G1208
G1150	A156	G216	U157	G429	C501	U566	U651	C727	A796	G868	C942	C1008	U1075	G1150	U1077	G1189	G1196	G1198	G1199	G1200	G1201	G1202	G1203	G1204	G1205	G1206	G1207	G1208	G1209
G1151	A157	G217	U158	G430	C502	U567	U652	C728	A797	G869	C943	C1009	U1076	G1151	U1078	G1190	G1197	G1199	G1200	G1201	G1202	G1203	G1204	G1205	G1206	G1207	G1208	G1209	G1210
G1152	A158	G218	U159	G431	C503	U568	U653	C729	A798	G870	C944	C1010	U1077	G1152	U1079	G1191	G1198	G1200	G1201	G1202	G1203	G1204	G1205	G1206	G1207	G1208	G1209	G1210	G1211
G1153	A159	G219	U160	G432	C504	U569	U654	C730	A799	G871	C945	C1011	U1078	G1153	U1080	G1192	G1199	G1201	G1202	G1203	G1204	G1205	G1206	G1207	G1208	G1209	G1210	G1211	G1212
G1154	A160	G220	U161	G433	C505	U570	U655	C731	A800	G872	C946	C1012	U1079	G1154	U1081	G1193	G1200	G1202	G1203	G1204	G1205	G1206	G1207	G1208	G1209	G1210	G1211	G1212	G1213
G1155	A161	G221	U162	G434	C506	U571	U656	C732	A801	G873	C947	C1013	U1080	G1155	U1082	G1194	G1201	G1203	G1204	G1205	G1206	G1207	G1208	G1209	G1210	G1211	G1212	G1213	G1214
G1156	A162	G222	U163	G435	C507	U572	U657	C733	A802	G874	C948	C1014	U1081	G1156	U1083	G1195	G1202	G1204	G1205	G1206	G1207	G1208	G1209	G1210	G1211	G1212	G1213	G1214	G1215
G1157	A163	G223	U164	G436	C508	U573	U658	C734	A803	G875	C949	C1015	U1082	G1157	U1084	G1196	G1203	G1205	G1206	G1207	G1208	G1209	G1210	G1211	G1212	G1213	G1214	G1215	G1216
G1158	A164	G224	U165	G437	C509	U574	U659	C735	A804	G876	C950	C1016	U1083	G1158	U1085	G1197	G1204	G1206	G1207	G1208	G1209	G1210	G1211	G1212	G1213	G1214	G1215	G1216	G1217
G1159	A165	G225	U166	G438	C510	U575	U660	C736	A805	G877	C951	C1017	U1084	G1159	U1086	G1198	G1205	G1207	G1208	G1209	G1210	G1211	G1212	G1213	G1214	G1215	G1216	G1217	G1218
G1160	A166	G226	U167	G439	C511	U576	U661	C737	A806	G878	C952	C1018	U1085	G1160	U1087	G1199	G1206	G1208	G1209	G1210	G1211	G1212	G1213	G1214	G1215	G1216	G1217	G1218	G1219
G1161	A167	G227	U168	G440	C512	U577	U662	C738	A807	G879	C953	C1019	U1086	G1161	U1088	G1200	G1207	G1209	G1210	G1211	G1212	G1213	G1214	G1215	G1216	G1217	G1218	G1219	G1220
G1162	A168	G228	U169	G441	C513	U578	U663	C739	A808	G880	C954	C1020	U1087	G1162	U1089	G1201	G1208	G1210	G1211	G1212	G1213	G1214	G1215	G1216	G1217	G1218	G1219	G1220	G1221
G1163	A169	G229	U170	G442	C514	U579	U664	C740	A809	G881	C955	C1021	U1088	G1163	U1090	G1202	G1209	G1211	G1212	G1213	G1214	G1215	G1216	G1217	G1218	G1219	G1220	G1221	G1222
G1164	A170	G230	U171	G443	C515	U580	U665	C741	A810	G882	C956	C1022	U1089	G1164	U1091	G1203	G1210	G1212	G1213	G1214	G1215	G1216	G1217	G1218	G1219	G1220	G1221	G1222	G1223
G1165	A171	G231	U172	G444	C516	U581	U666	C742	A811	G883	C957	C1023	U1090	G1165	U1092	G1204	G1211	G1213	G1214	G1215	G1216	G1217	G1218	G1219	G1220	G1221	G1222	G1223	G1224
G1166	A172	G232	U173	G445	C517	U582	U667	C743	A812	G884	C958	C1024	U1091	G1166	U1093	G1205	G1212	G1214	G1215	G1216	G1217	G1218	G1219	G1220	G1221	G1222	G1223	G1224	G1225
G1167	A173	G233	U174	G446	C518	U583	U668	C744	A813	G885	C959	C1025	U1092	G1167	U1094	G1206	G1213	G1215	G1216	G1217	G1218	G1219	G1220	G1221	G1222	G1223	G1224	G1225	G1226
G1168	A174	G234	U175	G447	C519	U584	U669	C745	A814	G886	C960	C1026	U1093	G1168	U1095	G1207	G1214	G1216	G1217	G1218	G1219	G1220	G1221	G1222	G1223	G1224	G1225	G1226	G1227
G1169	A175	G235	U176	G448	C520	U585	U670	C746	A815	G887	C961	C1027	U1094	G1169	U1096	G1208	G1215	G1217	G1218	G1219	G1220	G1221	G1222	G1223	G1224	G1225	G1226	G1227	G1228
G1170	A176	G236	U177	G449	C521	U586	U671	C747	A816	G888	C962	C1028	U1095	G1170	U1097	G1209	G1216	G1218	G1219	G1220	G1221	G1222	G1223	G1224	G1225	G1226	G1227	G1228	G1229
G1171	A177	G237	U178	G450	C522	U587	U672	C748	A817	G889	C963	C1029	U1096	G1171	U1098	G1210	G1217	G1219	G1220	G1221	G1222	G1223	G1224	G1225	G1226	G1227	G1228	G1229	G1230
G1172	A178	G238	U179	G451	C523	U588	U673	C749	A818	G890	C964	C1030	U1097	G1172	U1099	G1211	G1218	G1220	G1221	G1222	G1223	G1224	G1225	G1226	G1227	G1228	G1229	G1230	G1231
G1173	A179	G239	U180	G452	C524	U589	U674	C750	A819	G891	C965	C1031	U1098	G1173	U1100	G1212	G1219	G1221	G1222	G1223	G1224	G1225	G1226	G1227	G1228	G1229	G1230	G1231	G1232
G1174	A180	G240	U181	G453	C525	U590	U675	C751	A820	G892	C966	C1032	U1099	G1174	U1101	G1213	G1220	G1222	G1223	G1224	G1225	G1226	G1227	G1228	G1229	G1230	G1231	G1232	G1233
G1175	A181	G241	U182	G454	C526	U591	U676	C752	A821	G893	C967	C1033	U1100	G1175	U1102	G1214	G1221	G1223	G1224	G1225	G1226	G1227	G1228	G1229	G1230	G1231	G1232	G1233	G1234
G1176	A182	G242	U183	G455	C527	U592	U677	C753	A822	G894	C968	C1034	U1101	G1176	U1103	G1215	G1222	G1224	G1225	G1226	G1227	G1228	G1229	G1230	G1231	G1232	G1233	G1234	G1235
G1177	A183	G243	U184	G456	C528	U593	U678	C754	A823	G895	C969	C1035	U1102	G1177	U1104	G1216	G1223	G1225	G1226	G1227	G1228	G1229	G1230	G1231	G1232	G1233	G1234	G1235	G1236
G1178	A184	G244	U185	G457	C529	U594	U679	C755	A824	G896	C970	C1036	U1103	G1178	U1105	G1217	G1224	G1226	G1227	G1228	G1229	G1230	G1231	G1232	G1233	G1234	G1235	G1236	G1237
G1179	A185	G245	U186	G458	C530	U595	U680	C756	A825	G897	C971	C1037	U1104	G1179	U1106	G1218	G1225	G1227	G1228	G1229	G1230	G1231	G1232	G1233	G1234	G1235	G1236	G1237	G1238
G1180	A186	G246	U187	G459	C531	U596	U681	C757	A826	G898	C972	C1038	U1105	G1180	U1107	G1219	G1226	G1228	G1229	G1230	G1231	G1232	G1233	G1234	G1235	G1236	G1237	G1238	G1239
G1181	A187	G247	U188	G460	C532	U597	U682	C758	A827	G899	C973	C1039	U1106	G1181	U1108	G1220	G1227	G1229	G1230	G1231	G1232	G1233	G1234	G1235	G1236	G1237	G1238	G1239	G1240
G1182	A188	G248	U189	G461	C533	U598	U683	C759	A828	G900	C974	C1040	U1107	G1182	U1109	G1221	G1228	G1230	G1231	G1232	G1233	G1234	G1235	G1236	G1237	G1238	G1239	G1240	G1241
G1183	A189	G249	U190	G462	C534	U599	U684	C760	A829	G901	C975	C1041	U1108																



• Molecule 2: 30S ribosomal protein S2

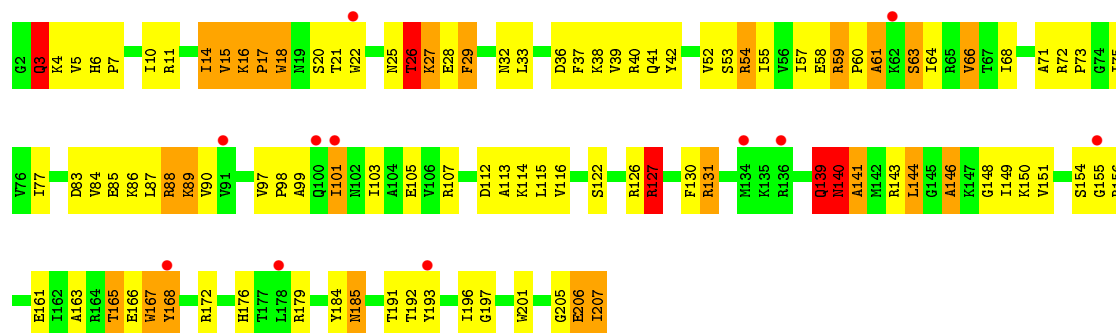


• Molecule 2: 30S ribosomal protein S2

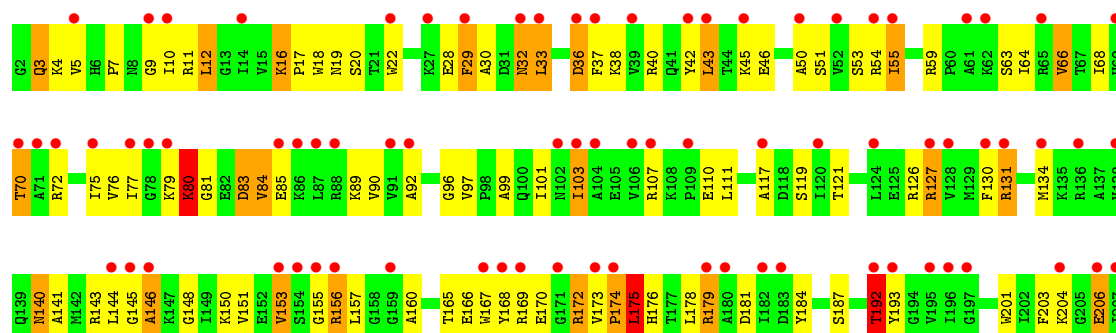
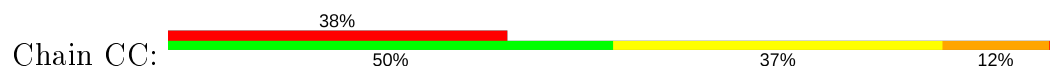




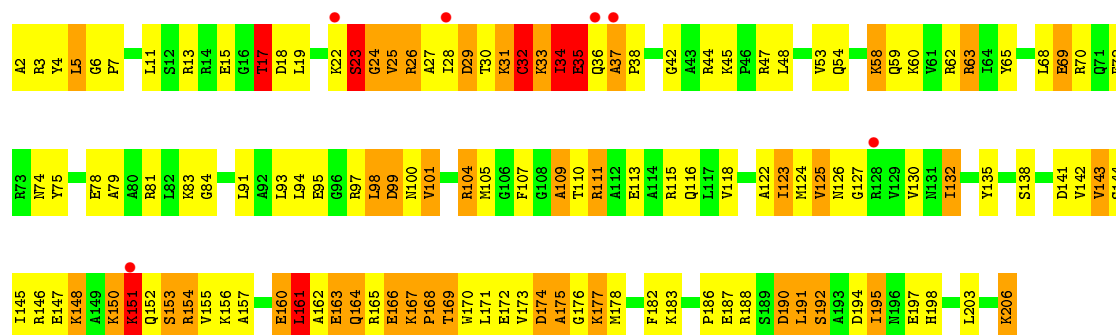
- Molecule 3: 30S ribosomal protein S3



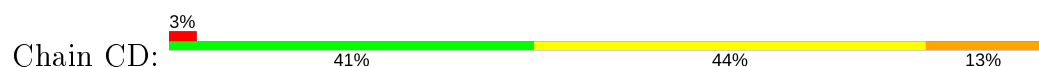
- Molecule 3: 30S ribosomal protein S3

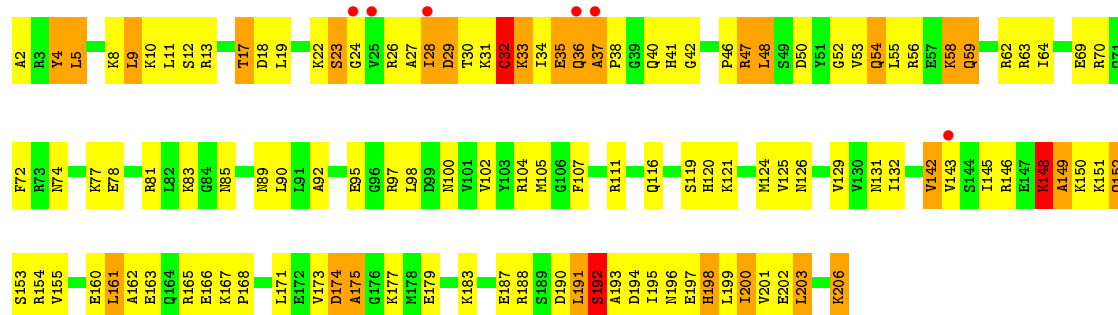


- Molecule 4: 30S ribosomal protein S4

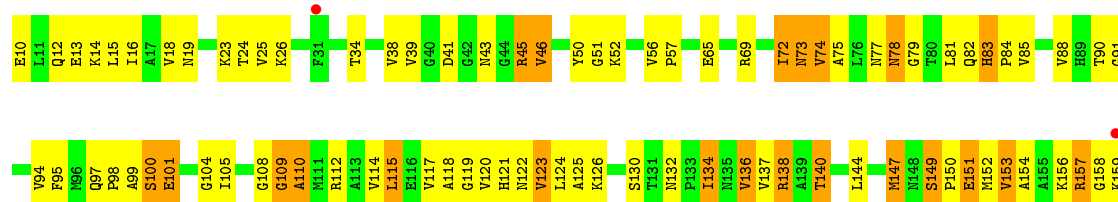


- Molecule 4: 30S ribosomal protein S4

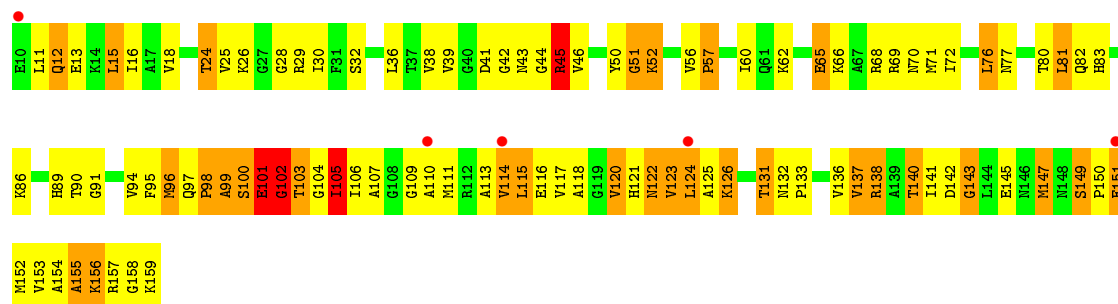




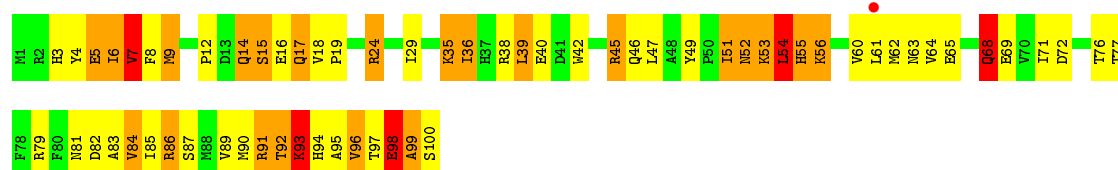
• Molecule 5: 30S ribosomal protein S5



• Molecule 5: 30S ribosomal protein S5

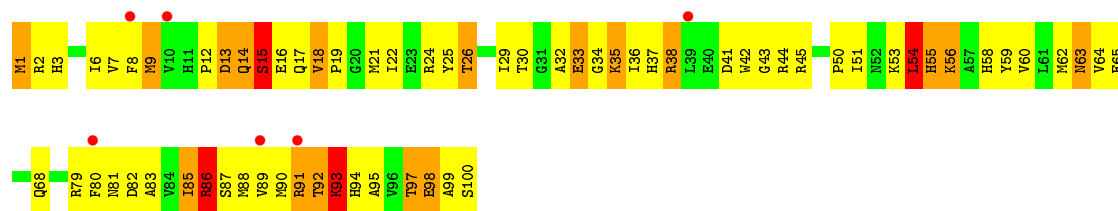


• Molecule 6: 30S ribosomal protein S6

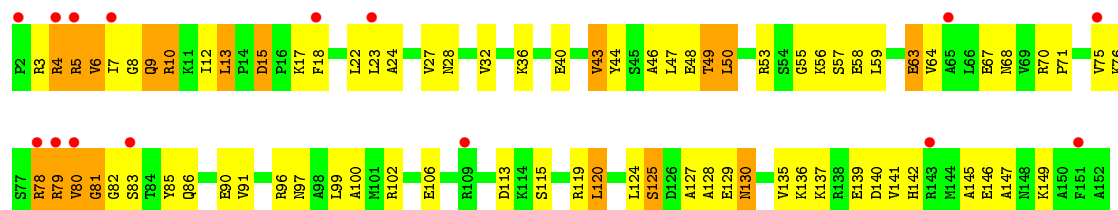


• Molecule 6: 30S ribosomal protein S6

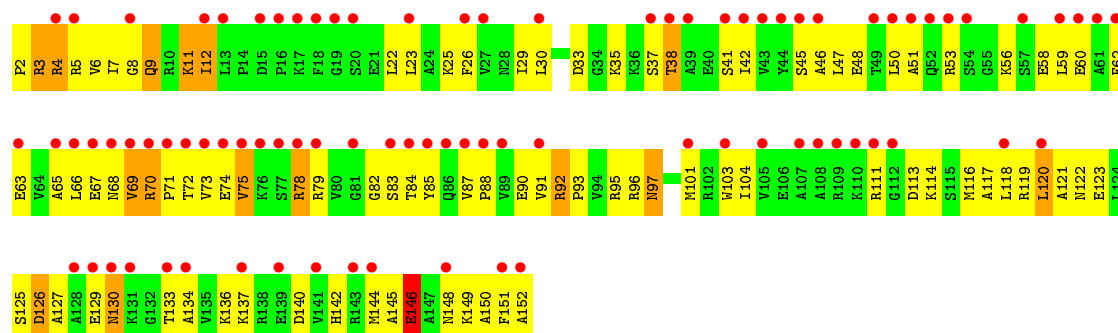




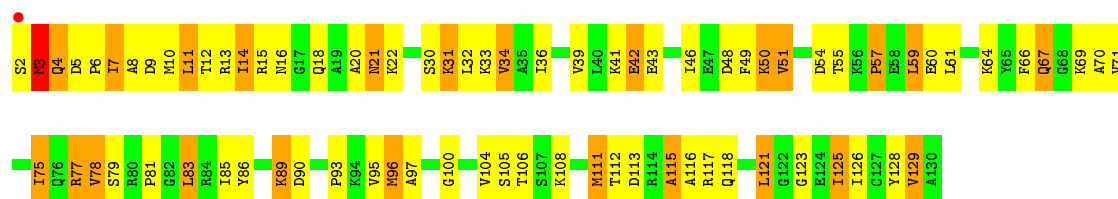
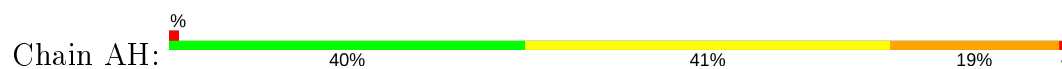
• Molecule 7: 30S ribosomal protein S7



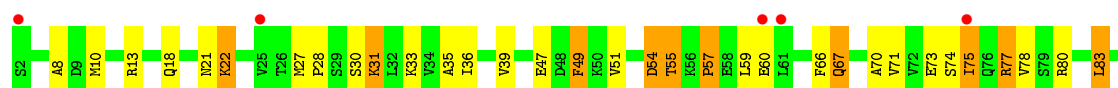
• Molecule 7: 30S ribosomal protein S7

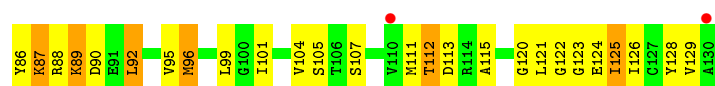


• Molecule 8: 30S ribosomal protein S8

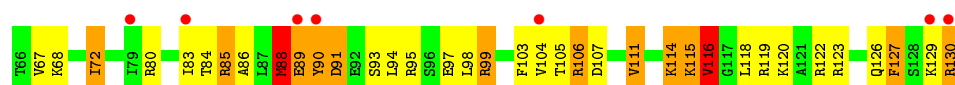
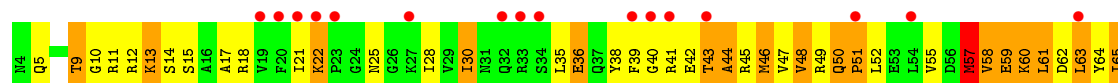


• Molecule 8: 30S ribosomal protein S8

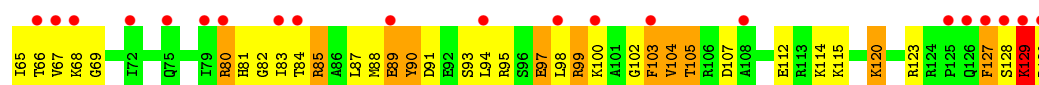
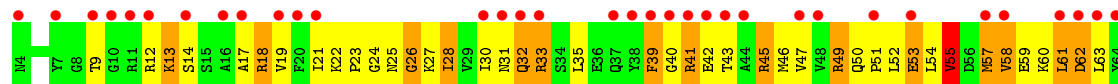
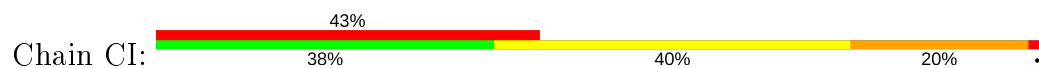




- Molecule 9: 30S ribosomal protein S9



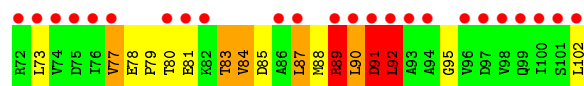
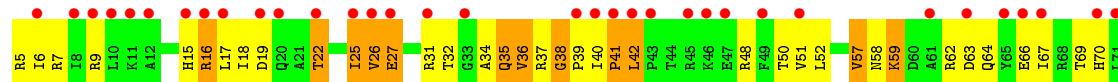
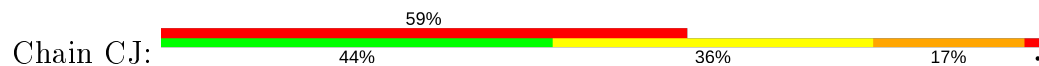
- Molecule 9: 30S ribosomal protein S9



- Molecule 10: 30S ribosomal protein S10

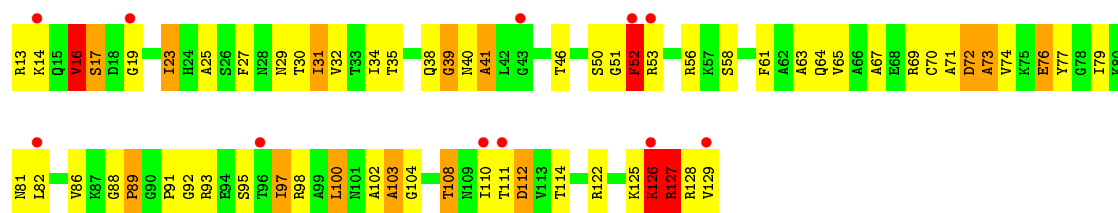


- Molecule 10: 30S ribosomal protein S10

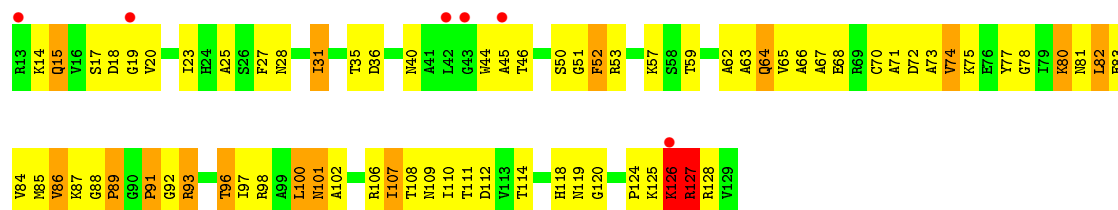


- Molecule 11: 30S ribosomal protein S11

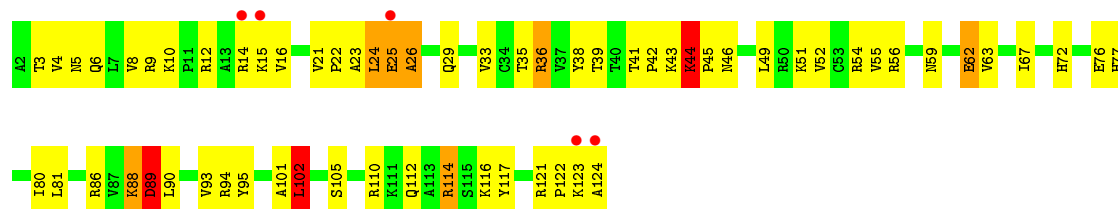




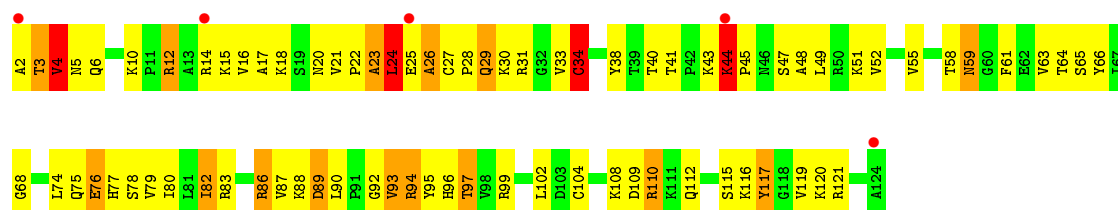
• Molecule 11: 30S ribosomal protein S11



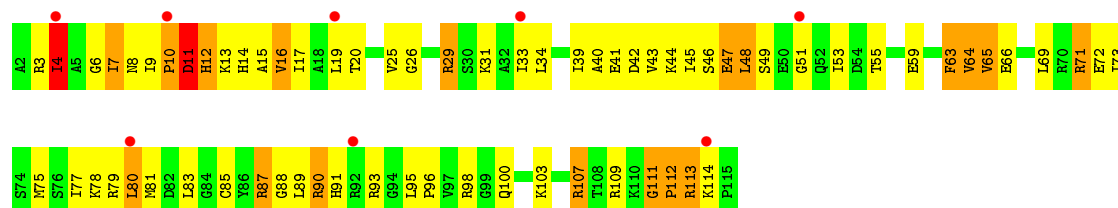
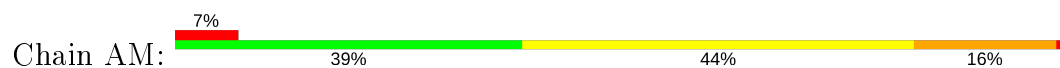
• Molecule 12: 30S ribosomal protein S12



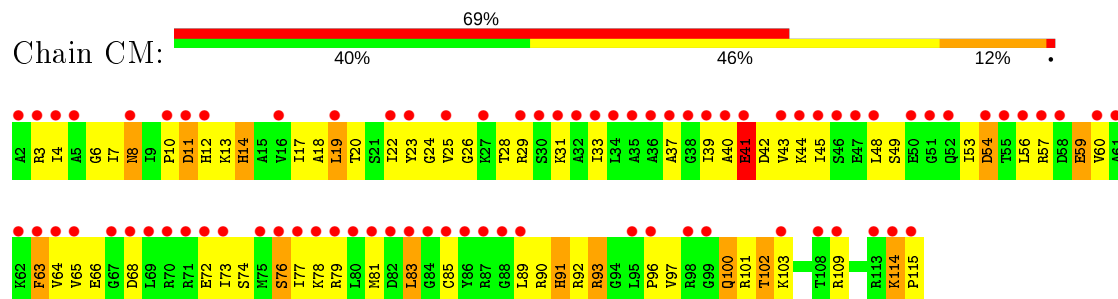
• Molecule 12: 30S ribosomal protein S12



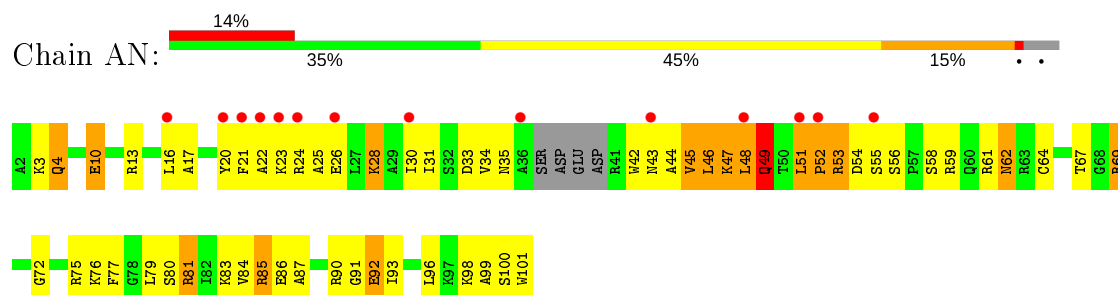
• Molecule 13: 30S ribosomal protein S13



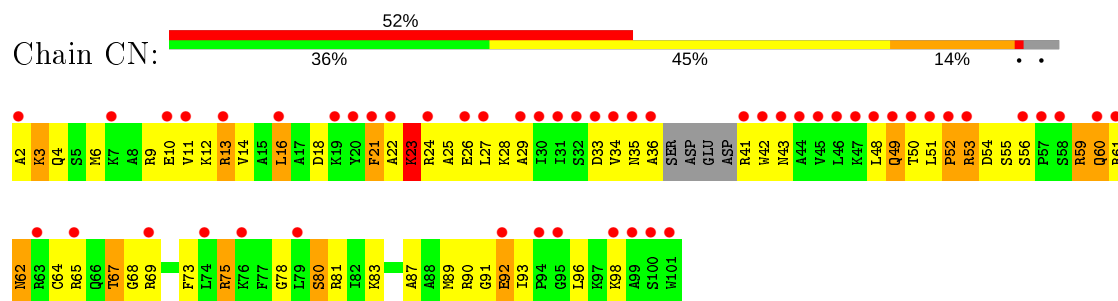
- Molecule 13: 30S ribosomal protein S13



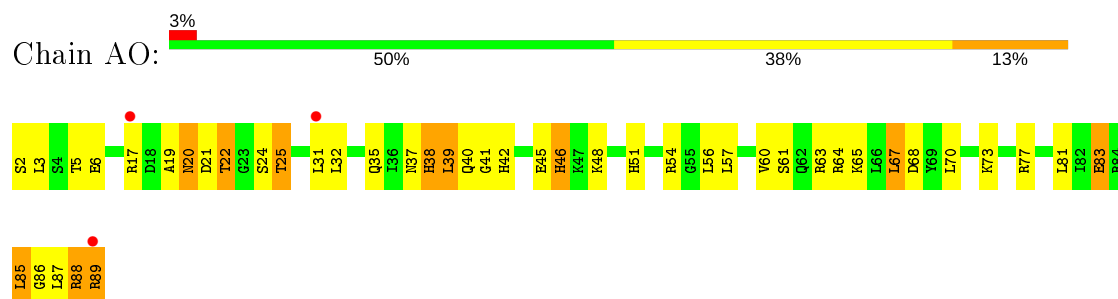
- Molecule 14: 30S ribosomal protein S14



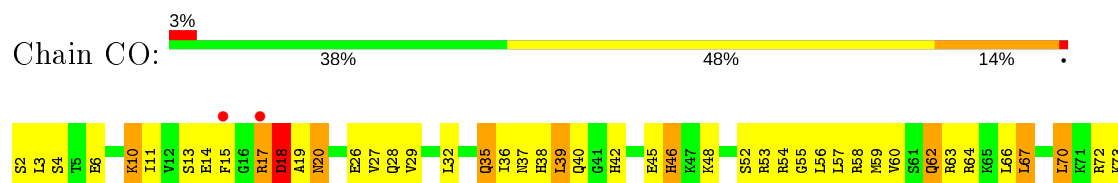
- Molecule 14: 30S ribosomal protein S14

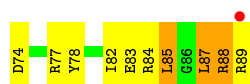


- Molecule 15: 30S ribosomal protein S15



- Molecule 15: 30S ribosomal protein S15

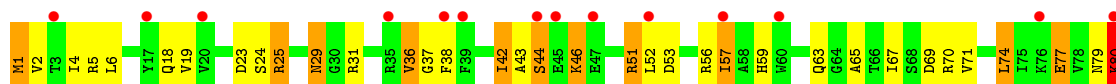




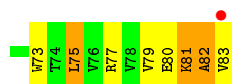
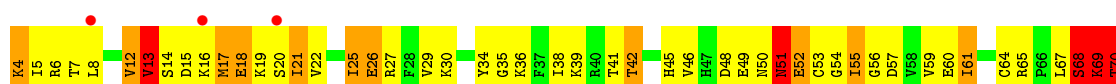
• Molecule 16: 30S ribosomal protein S16



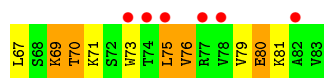
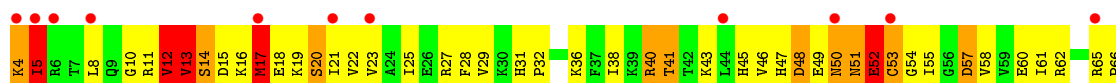
• Molecule 16: 30S ribosomal protein S16



• Molecule 17: 30S ribosomal protein S17

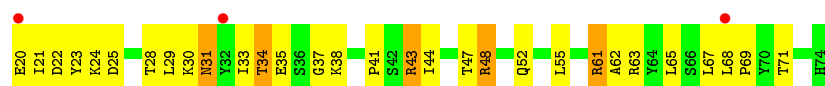


• Molecule 17: 30S ribosomal protein S17

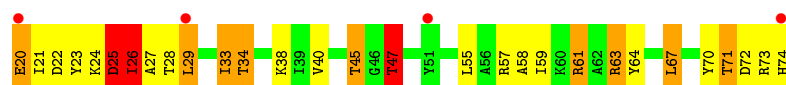


• Molecule 18: 30S ribosomal protein S18

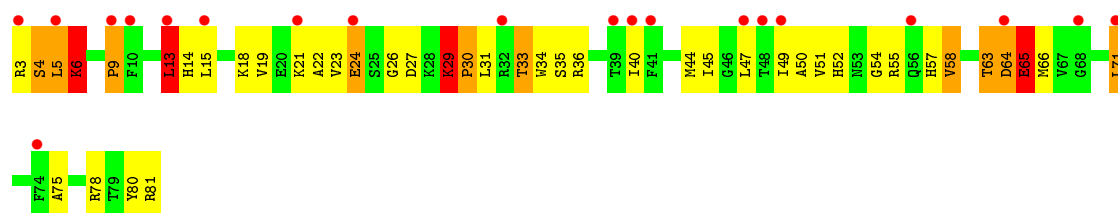




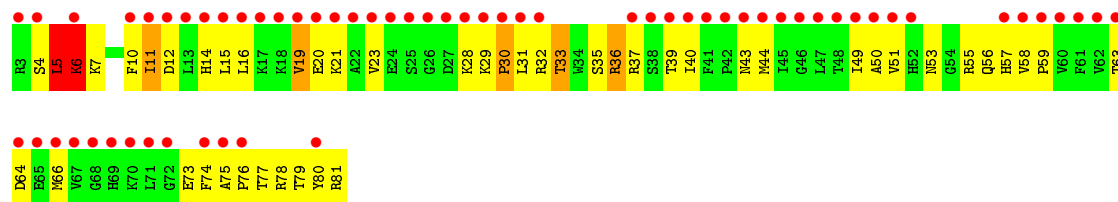
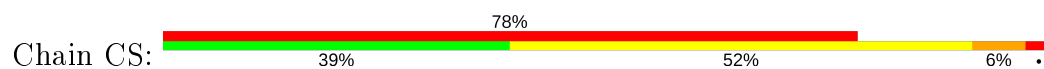
- Molecule 18: 30S ribosomal protein S18



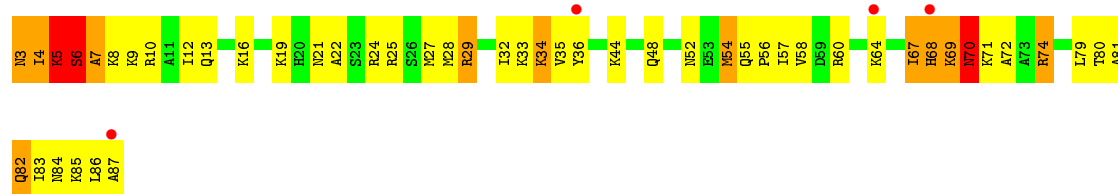
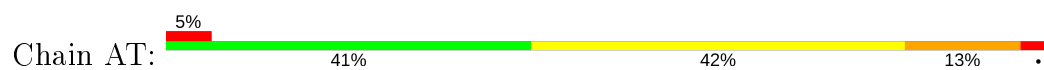
- Molecule 19: 30S ribosomal protein S19



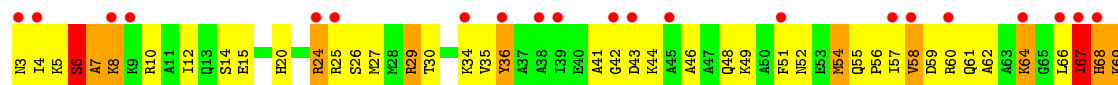
- Molecule 19: 30S ribosomal protein S19

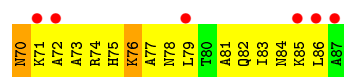


- Molecule 20: 30S ribosomal protein S20

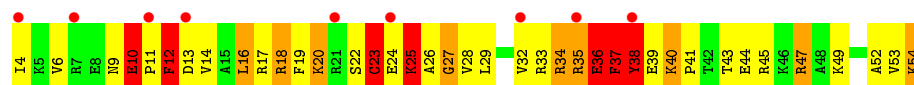


- Molecule 20: 30S ribosomal protein S20

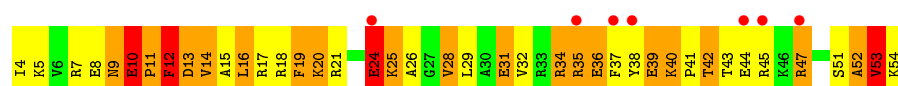
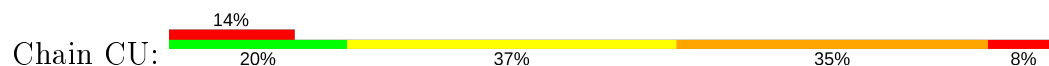




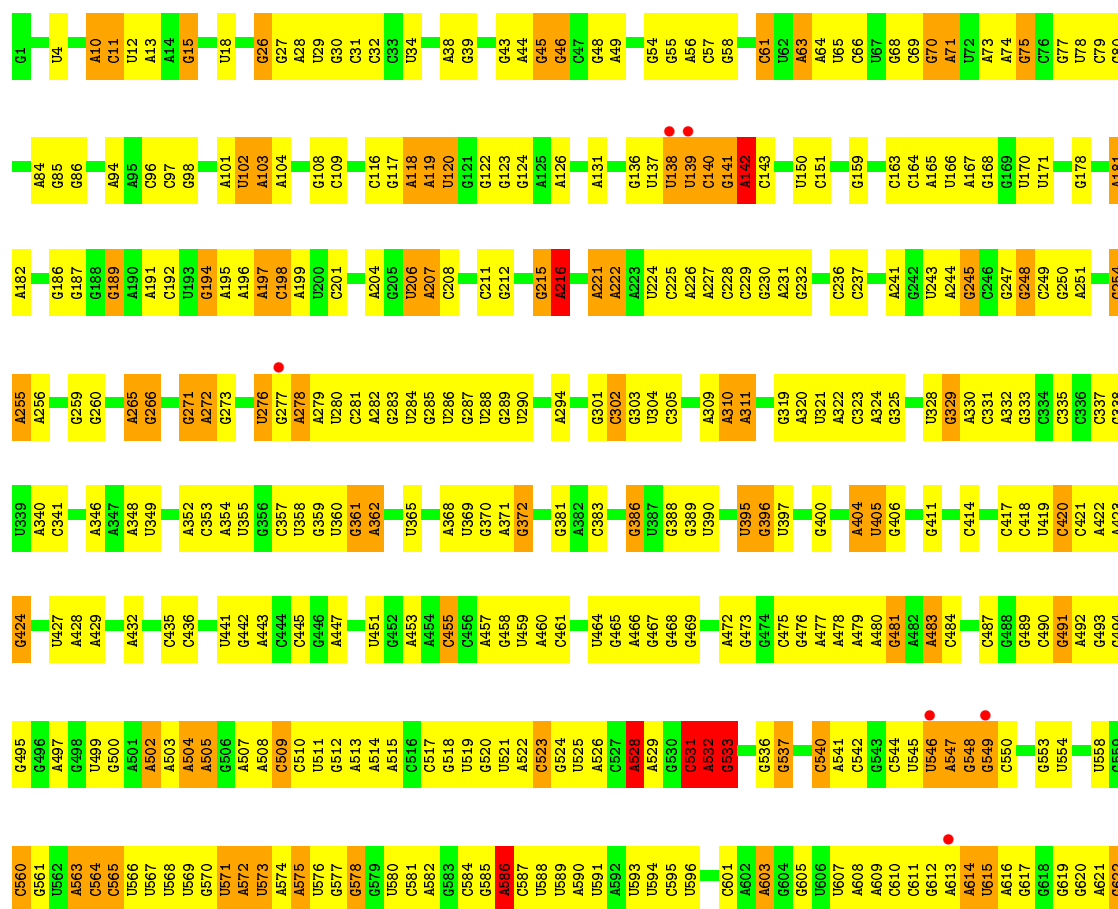
- Molecule 21: 30S ribosomal protein S21



- Molecule 21: 30S ribosomal protein S21

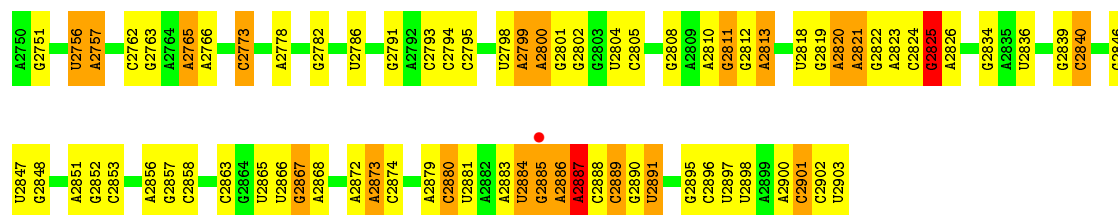


- Molecule 22: 23S rRNA

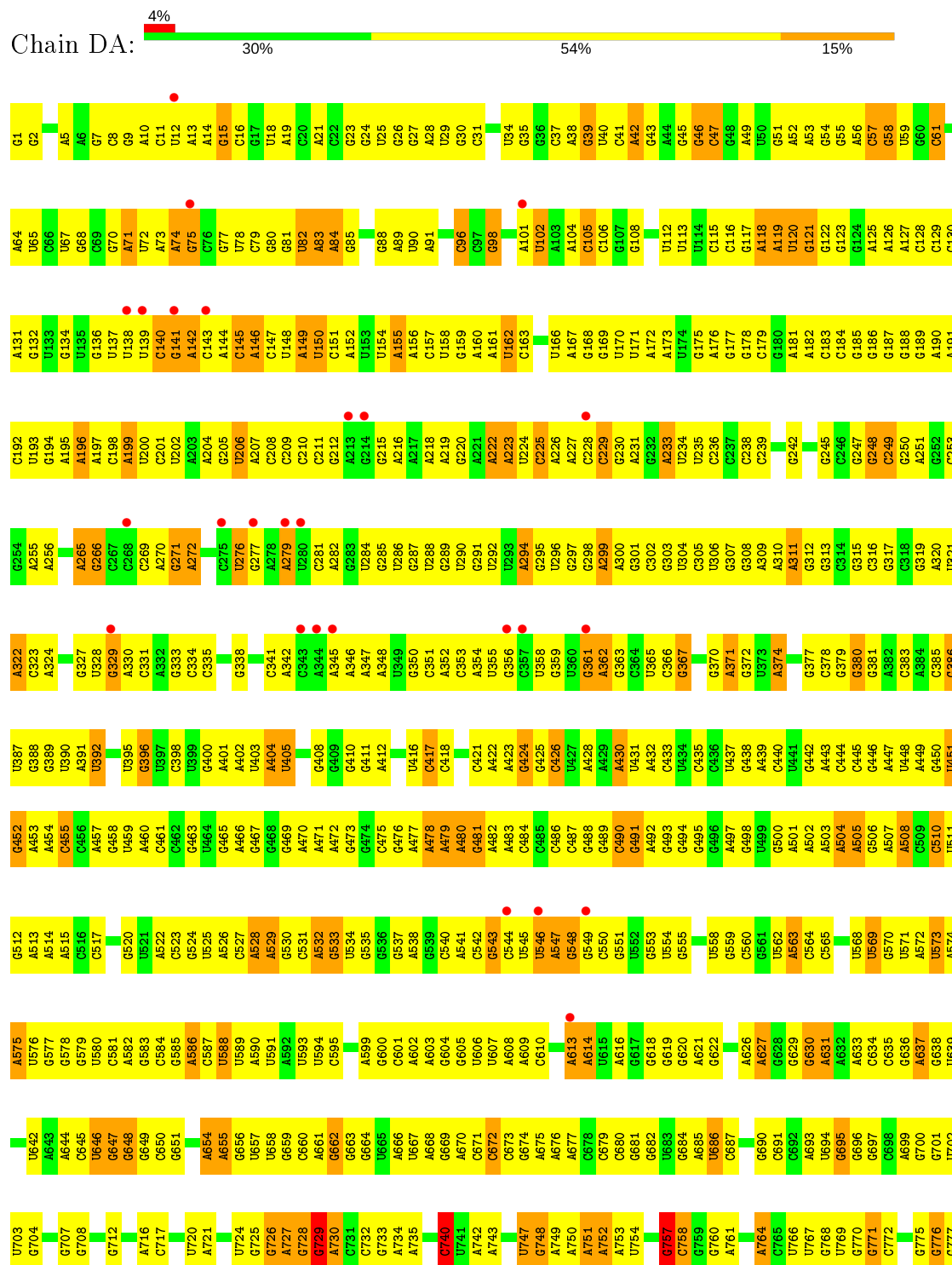


C1856	A1572	A1494	G1421	G1278	U1198	C1135	G1071	C998	C922	C851	A783	A689	C656
U1857	G1573	A1495	G1422	G1279	U1199	G1136	C1072	U999	A927	U852	A784	G700	G630
G1659	C1574	A1496	G1423	G1280	U1203	G1137	A1073	A1000	A928	C853	G785	G704	A631
G1660	C1575	A1499	G1426	G1283	G1206	G1139	C1076	G1002	U932	C858	A788	A705	G634
U1662	U1578	G1427	G1427	A1284	C1207	G1140	A077	C1007	A933	G859	A789	G713	G635
G1663	C1582	G1428	C1428	A1285	C1208	U1141	U1077	A1008	U934	U860	U790	U714	G636
A1664	U1583	G1429	C1429	A1286	C1209	A1142	C1078	A1009	C935	A861	C791	G717	G637
C1583	A1583	G1430	G1430	A1287	U1209	A1143	C1079	A1010	U936	A862	A792	U720	G638
G1665	U1584	G1431	G1431	G1288	G1210	A1144	A080	A1011	C937	A863	A793	U721	G639
G1666	A1585	G1432	G1432	C1145	U1081	C1145	U1081	G1012	U938	C865	A794	G722	G640
G1667	C1586	G1433	G1433	G1146	U1082	G1146	U1082	U1013	C939	C866	C796	G723	G641
A1668	U1587	G1434	G1434	U1147	G1224	U1147	U1083	A1014	G940	C867	G797	G724	G642
C1669	G1588	G1435	G1435	U1148	G1225	U1148	A1084	A1015	A941	U868	G798	G725	G643
G1670	U1589	A1365	A1365	C1149	G1226	C1149	A1085	G1016	A942	U869	G799	G726	G644
A1671	C1590	G1366	G1366	C1150	G1227	C1150	A1086	G1017	A943	U870	A800	G727	G645
G1672	U1591	A1367	A1367	G1228	C1229	C1151	A1087	U1018	U944	U871	A801	G728	G646
A1673	C1592	G1368	G1368	G1229	C1230	C1152	A1088	A1020	A945	U872	A802	G729	G647
U1674	U1440	G1369	G1369	G1231	G1231	C1153	A1089	A1021	C946	U873	U883	G730	G648
A1675	G1441	G1370	G1370	G1232	U1241	G1154	A1090	G1022	A947	C873	A803	G731	G649
U1676	U1442	G1371	G1371	G1233	U1242	G1155	A1091	U1023	C948	A877	A804	G732	G650
G1677	G1443	U1372	U1372	C1234	G1243	A1156	A1092	G1024	C949	A878	U885	G733	G651
U1678	G1444	G1373	G1373	A1301	G1244	G1157	C1093	G1025	U958	A879	A806	G734	G652
G1679	G1445	G1374	G1374	A1302	G1245	C1158	U1101	A1032	C959	A880	A807	G735	G653
U1680	U1523	U1375	U1375	G1303	A1246	U1159	C1102	U1033	A960	C881	A808	G736	G654
G1681	G1524	C1376	C1376	A1304	G1247	C1160	A1103	G1034	C961	U882	A809	G737	G655
A1682	A1525	G1377	G1377	G1305	U1248	G1171	C1104	G1041	U963	A883	A810	G738	G656
U1683	C1526	U1378	U1378	G1306	A1249	C1172	U1105	U1045	U967	U884	A811	G739	G657
C1684	G1527	G1449	G1449	G1307	G1250	C1173	G1107	A1046	C968	U885	A812	G740	G658
G1685	U1528	U1450	U1450	G1308	A1251	U1173	G1108	A1047	U973	A886	A813	G741	G659
C1686	G1529	C1451	C1451	G1311	G1252	U1174	C1109	G1048	A974	C897	A814	G742	G660
U1687	U1452	G1452	G1452	G1312	A1253	U1175	C1110	U1049	U975	U887	A815	G743	G661
A1688	C1453	A1383	A1383	G1313	A1254	G1176	G1111	A1050	A976	C898	A816	G744	G662
U1689	G1454	A1384	A1384	G1314	U1255	G1177	A1112	G1051	C977	U888	A817	G745	G663
G1690	C1455	A1385	A1385	G1315	G1256	C1178	U1113	C1052	A978	U889	A818	G746	G664
U1691	U1534	U1386	U1386	G1316	C1257	U1179	C1114	G1053	U979	A890	A819	G747	G665
A1692	A1535	G1387	G1387	G1317	U1258	U1180	G1115	G1054	A980	C899	A820	G748	G666
G1693	C1536	U1388	U1388	G1318	G1259	U1181	C1116	G1055	U981	U890	A821	G749	G667
U1694	U1537	U1389	U1389	G1319	U1263	U1182	G1117	G1056	A982	U891	A822	G750	G668
A1695	G1538	A1390	A1390	U1320	A1264	U1183	C1118	G1057	U983	U892	A823	G751	G669
G1696	C1539	U1391	U1391	U1321	G1265	U1184	G1119	A1058	A984	C900	A824	G752	G670
U1697	U1540	U1392	U1392	G1322	A1266	G1185	C1120	G1059	U985	U893	A825	G753	G671
A1698	G1541	U1393	U1393	G1323	U1267	G1186	G1121	U1060	A986	U894	A826	G754	G672
G1699	U1406	U1406	U1406	G1324	A1268	G1187	G1122	U1061	U987	C901	A827	G755	G673
U1700	C1407	G1407	G1407	U1325	U1269	U1188	G1123	U1062	A988	U895	A828	G756	G674
A1701	U1408	U1408	U1408	U1326	A1270	U1189	G1124	G1063	U989	U896	A829	G757	G675
G1702	C1409	U1409	U1409	G1327	G1271	G1190	A1126	C1064	A990	C902	A830	G758	G676
U1703	A1410	U1410	U1410	U1328	U1272	G1191	G1127	U1065	U991	U897	A831	G759	G677
G1704	U1411	U1411	U1411	G1329	A1273	G1192	G1128	U1066	C992	U898	A832	G760	G678
A1705	C1412	U1412	U1412	U1330	U1274	G1193	G1129	U1067	U993	U899	A833	G761	G679
U1706	U1413	A1413	A1413	G1331	U1275	G1194	G1130	A1068	C994	U900	A834	G762	G680
G1707	G1414	U1414	U1414	U1332	A1276	G1195	G1131	G1069	U995	U901	A835	G763	G681
U1708	C1415	U1415	U1415	G1333	U1277	G1196	G1132	A1070	C996	U902	A836	G764	G682
A1709	U1416	U1416	U1416	U1334	A1278	G1197	G1133	U1071	U997	U903	A837	G765	G683
G1710	C1417	U1417	U1417	G1335	U1279	G1198	G1134	U1072	A998	U904	A838	G766	G684
U1711	U1418	U1418	U1418	U1336	A1280	U1199	G1135	U1073	U999	U905	A839	G767	G685
A1712	C1419	U1419	U1419	G1337	U1281	G1200	G1136	U1074	A999	U906	A840	G768	G686
G1713	U1420	U1420	U1420	U1338	A1282	G1201	G1137	U1075	U999	U907	A841	G769	G687
U1714	C1421	U1421	U1421	G1339	U1283	G1202	G1138	U1076	A999	U908	A842	G770	G688
A1715	U1422	U1422	U1422	U1340	A1284	U1203	G1139	U1077	U999	U909	A843	G771	G689
U1716	C1423	U1423	U1423	G1341	U1285	G1204	G1140	U1078	A999	U910	A844	G772	G690
G1717	U1424	U1424	U1424	U1342	A1286	G1205	G1141	U1079	A999	U911	A845	G773	G691
A1718	C1425	U1425	U1425	G1343	U1287	G1206	G1142	U1080	A999	U912	A846	G774	G692
U1719	U1426	U1426	U1426	U1344	A1288	G1207	G1143	U1081	A999	U913	A847	G775	G693
G1720	C1427	U1427	U1427	G1345	U1289	G1208	G1144	U1082	A999	U914	A848	G776	G694
U1721	U1428	U1428	U1428	U1346	A1290	G1209	G1145	U1083	A999	U915	A849	G777	G695
A1722	C1429	U1429	U1429	G1347	U1291	G1210	G1146	U1084	A999	U916	A850	G778	G696
	U1430	U1430	U1430	U1348	A1292	G1211	G1147	U1085	A999	U917	A851	G779	G697
	C1431	U1431	U1431	G1349	U1293	G1212	G1148	U1086	A999	U918	A852	G780	G698
	U1432	U1432	U1432	U1350	A1294	G1213	G1149	U1087	A999	U919	A853	G781	G699
	C1433	U1433	U1433	G1351	U1295	G1214	G1150	U1088	A999	U920	A854	G782	G700
	U1434	U1434	U1434	U1352	A1296	G1215	G1151	U1089	A999	U921	A855	G783	G701
	G1435	U1435	U1435	G1353	U1297	G1216	G1152	U1090	A999	U922	A856	G784	G702
	U1436	U1436	U1436	U1354	U1298	G1217	G1153	U1091	A999	U923	A857	G785	G703
	C1437	U1437	U1437	G1355	U1299	G1218	G1154	U1092	A999	U924	A858	G786	G704
	U1438	U1438	U1438	U1356	U1300	G1219	G1155	U1093	A999	U925	A859	G787	G705
	C1439	U1439	U1439	G1357	A1301	G1220	G1156	U1094	A999	U926	A860	G788	G706
	U1440	U1440	U1440	U1358	A1302	G1221	G1157	U1095	A999	U927	A861	G789	G707
	G1441	U1441	U1441	G1359	A1303	G1222	G1158	U1096	A999	U928	A862	G790	G708
	C1442	U1442	U1442	U1360	A1304	G1223	G1159	U1097	A999	U929	A863	G791	G709
	U1443	U1443	U1443	G1361	A1305	G1224	G1160	U1098	A999	U930	A864	G792	G710
	C1444	U1444	U1444	U1362	A1306	G1225	G1161	U1099	A999	U931	A865	G793	G711
	U1445	U1445	U1445	G1363	A1307	G1226	G1162	U1100	A999	U932	A866	G794	G712
	C1446	U1446	U1446	U1364	A1308	G1227	G1163	U1101	A999	U933	A867	G795	G713
	G1447	U1447	U1447	G1365	A1309	G1228	G1164	U1102	A999	U934	A868	G796	G714
	U1448	U1448	U1448	U1366	A1310	G1229	G1165	U1103	A999	U935	A869	G797	G715
	C1449	U1449	U1449	G1367	A1311	G1230	G1166	U1104	A999	U936	A870	G798	G716
	U1450	U1450	U1450	U1368	A1312	G1231	G1167	U1105	A999	U937	A871	G799	G717
	C1451	U1451	U1451	G1369	A1313	G1232	G1168	U1106	A999	U938	A872	G800	G718
	U1452	U1452	U1452	U1370	A1314	G1233	G1169	U1107	A999	U939	A873	G801	G719
	C1453	U1453	U1453	G1371	A1315	G1234	G1170	U1108	A999	U940	A874	G802	G720
	U1454	U1454	U1454	U1372	A1316	G1235	G1171	U1109	A999	U941	A875	G803	G721
	C1455	U1455	U1455	G1373	A1317	G1236	G1172	U1110	A999	U942	A876	G804	G722
	U1456	U1456	U1456	U1374	A1318	G1237	G1173	U1111	A999	U943	A877	G805	G723
	G1457	U1457	U1457	G1375	A1319	G1238	G1174	U1112	A999	U944	A878	G806	G724
	U1458	U1458	U1458	U1376	A1320	G1239	G1175	U1113	A999	U945	A879	G807	G725
	C1459	U1459	U1459	G1377	A1321	G1240	G1176	U1114	A999	U946	A880		

U2680	C2681	C2682	C2683	U2684	U2685	U2686	U2687	U2688	U2689	C2691	U2694	U2695	U2696	U2697	U2698	U2699	U2700	U2701	C2702	C2703	U2707	C2712	U2713	C2714	C2715	C2716	C2717	C2718	C2719	U2720	C2723	U2724	U2725	U2726	U2727	U2728	C2729	U2730	C2731	C2732	U2733	U2738	U2739	U2740	U2741	U2742	U2743	U2744	U2745	U2746	U2747	U2748	U2749																																																																					
U2441	C2442	C2443	C2444	C2445	C2446	C2447	C2448	C2449	C2450	C2451	C2452	C2453	U2458	U2459	U2460	U2461	U2462	U2463	U2464	U2465	U2466	U2467	U2468	U2469	U2470	U2471	U2472	U2473	U2474	U2475	U2476	U2477	U2478	U2479	U2480	U2481	U2482	U2483	U2484	U2485	U2486	U2487	U2488	U2489	U2490	U2491	U2492	U2493	U2494	U2495	U2496	U2497	U2498	U2499	U2500	U2501	U2502	U2503	U2504	U2505	U2506	U2507	U2508	U2509	U2510	U2511	U2512	U2513	U2514	U2515	U2516																																																			
C2517	A2518	U2519	C2520	C2521	U2526	U2526	U2529	U2530	U2531	U2532	U2533	U2534	U2535	U2536	U2537	U2538	U2539	U2540	U2541	U2542	U2547	U2548	U2549	U2553	U2553	U2554	U2555	U2556	U2557	U2558	U2564	U2565	U2566	U2567	U2572	U2573	U2574	U2575	U2578	U2579	U2580	U2581	U2582	U2583	U2584	U2585	U2586	U2587	U2588	U2589	U2590	U2591	U2592																																																																					
U2593	C2594	C2595	U2598	U2599	U2602	U2603	U2604	U2605	U2606	U2609	U2613	U2614	U2615	U2616	U2617	U2618	U2619	U2620	U2621	U2622	U2623	U2624	U2625	U2626	U2627	U2628	U2629	U2630	U2631	U2632	U2633	U2634	U2635	U2636	U2637	U2638	U2639	U2640	U2641	U2642	U2643	U2644	U2645	U2646	U2647	U2648	U2649	U2650	U2651	U2652	U2653	U2654	U2655	U2656	U2657	U2658	U2659	U2660	U2661	U2662	U2663	U2664	U2665	U2666	U2667	U2668	U2669	U2670	U2671	U2672	U2673	U2674	U2675	U2676	U2677	U2678	U2679																																													
G2290	U2291	U2292	U2293	U2296	U2297	U2298	U2302	U2303	U2304	U2305	U2306	U2307	U2308	U2309	U2310	U2311	U2315	U2316	U2317	U2318	U2319	U2320	U2321	U2322	U2325	U2326	U2327	U2328	U2329	U2330	U2331	U2332	U2333	U2334	U2335	U2336	U2339	U2340	U2341	U2342	U2343	U2344	U2345	U2346	U2347	U2348	U2349	U2350	U2351	U2352	U2353	U2354	U2355	U2356																																																																				
G2218	U2219	U2220	U2221	U2222	U2223	U2224	U2225	U2226	U2227	U2228	U2229	U2233	U2234	U2235	U2236	U2237	U2238	U2239	U2243	U2244	U2248	U2249	U2250	U2251	U2252	U2253	U2254	U2255	U2256	U2257	U2258	U2259	U2262	U2263	U2264	U2265	U2266	U2267	U2268	U2269	U2270	U2271	U2272	U2273	U2274	U2275	U2276	U2277	U2278	U2279	U2282	U2283	U2284	U2285	U2286	U2287	U2288	U2289																																																																
U2155	U2156	U2157	U2158	U2159	U2160	U2161	U2162	U2163	U2164	U2165	U2166	U2167	U2168	U2169	U2170	U2171	U2172	U2173	U2174	U2175	U2176	U2177	U2178	U2179	U2180	U2181	U2182	U2183	U2184	U2185	U2186	U2187	U2188	U2189	U2190	U2191	U2192	U2193	U2194	U2195	U2196	U2197	U2198	U2201	U2202	U2203	U2204	U2205	U2209	U2210	U2211	U2212	U2213	U2214	U2215	U2216	U2217																																																																	
A2094	U2097	U2098	U2099	U2100	U2101	U2102	U2103	U2104	U2105	U2106	U2107	U2108	U2109	U2110	U2111	U2112	U2113	U2114	U2115	U2116	U2117	U2118	U2119	U2120	U2121	U2122	U2123	U2124	U2125	U2126	U2127	U2128	U2129	U2130	U2131	U2132	U2133	U2134	U2135	U2136	U2137	U2138	U2139	U2140	U2141	U2142	U2143	U2144	U2145	U2146	U2147	U2148	U2149	U2150	U2151	U2152	U2153	U2154																																																																
A1801	A1802	A1808	A1809	A1810	A1811	C1816	U1820	A1821	C1822	G1823	U1824	U1825	U1826	U1827	U1828	A1829	C1830	G1831	C1832	C1833	U1834	G1835	C1836	C1837	G1842	U1843	G1844	U1845	U1846	U1847	A1848	G1849	C1850	U1851	U1852	A1853	U1854	U1855	U1856	G1857	A1858	U1859	G1860	U1865	A1866	C1867	C1868	G1869	U1870	A1871	U1876	U1877	U1878	U1879	U1880	U1881	U1882	U1883	U1884	U1885	U1886	U1887	U1888	U1889	U1890	U1891	U1892	U1893	U1894	U1895	U1896	U1897	U1898	U1899	U1900	U1901	U1902	U1903	U1904	U1905	U1906	U1907	U1908	U1909	U1910	U1911	U1912	U1913	U1914	U1915	U1916	U1917	U1918	U1919	U1920	U1921	U1922	U1923	U1924	U1925	U1926	U1927	U1928	U1929	U1930	U1931	U1932	U1933	U1934	U1935	U1936	U1937	U1938	U1939	U1940	U1941	U1942	U1943	U1944	U1945	U1946	U1947
U1729	C1730	C1731	C1732	C1733	C1734	U1735	U1736	U1737	U1738	U1739	A1744	U1745	U1746	U1747	U1748	U1749	U1750	U1751	A1754	A1755	A1759	C1760	C1761	C1762	C1763	C1764	U1765	C1766	U1769	C1770	C1771	C1772	C1773	C1774	C1775	C1776	U1779	U1780	A1783	A1784	A1785	A1786	A1787	C1788	C1789	C1790	A1791	U1794	C1795	U1796	U1797	U1798	U1799	C1800																																																																				

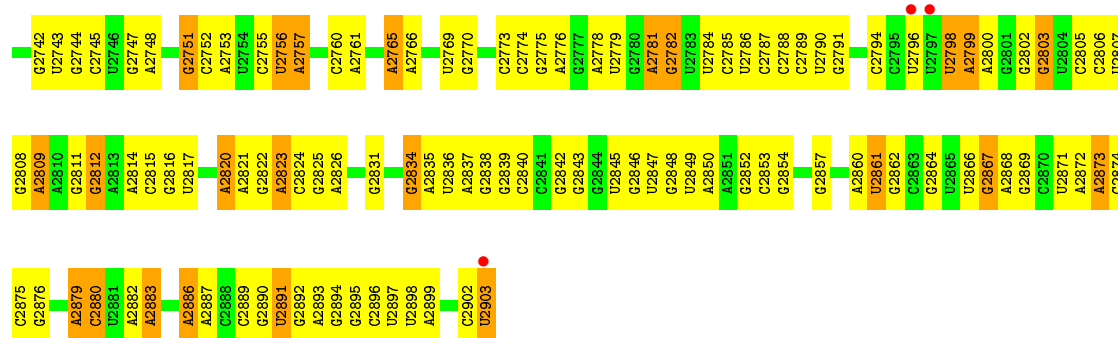


• Molecule 22: 23S rRNA



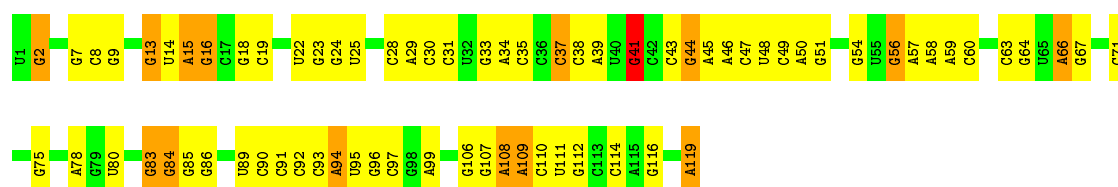
G1681	U1662	A1591	G1521	G1449	A1385	A1322	A1260	G1197	G1115	C1052	G978	A910	G843	G778
G1663	A1663	C1592	A1522	G1450	C1386	C1323	C1261	U1198	G1116	C1053	A979	A911	A844	U779
A1664	G1523	C1451	G1451	G1452	A1388	G1324	A1262	U1199	C1117	G1056	A980	C912	A845	G780
A1593	G1524	C1452	A1453	A1453	G1390	U1326	A1264	C1200	C1118	A1057	A981	U913	U846	A781
A1595	A1525	A1594	A1453	G1454	G1390	U1326	A1265	U1203	U1119	U1058	A982	C915	U847	A782
A1596	C1526	G1454	A1454	G1455	U1391	A1328	G1266	A1204	G1121	G1059	A984	C916	C948	A783
A1597	G1527	G1455	G1455	G1456	A1393	A1328	U1267	A1205	G1122	U1060	C985	G916	A849	G784
A1598	A1528	U1457	A1393	U1457	A1393	C1330	U1267	A1206	G1125	U1061	A988	U919	G785	G786
A1599	G1529	U1457	A1393	U1457	A1393	C1330	U1267	A1206	G1125	U1061	A988	U919	G787	G788
C1600	G1530	U1458	A1394	G1458	U1394	G1331	A1269	C1207	A1126	G1063	A989	C921	A788	A789
A1603	C1531	G1459	A1395	U1459	A1395	G1332	C1270	C1208	A1127	C1064	A990	C922	A790	U790
C1604	A1532	U1460	U1396	U1397	U1396	G1333	G1271	U1209	A1128	U1065	G993	C923	A791	C791
C1605	C1533	C1461	U1397	C1461	U1397	G1334	A1272	G1210	G1128	U1066	G994	U931	A792	A793
C1606	U1534	C1462	C1398	C1462	C1398	C1335	U1273	G1211	G1131	U1067	C994	U931	U860	A794
C1607	A1535	G1463	G1401	G1464	G1401	A1336	A1274	G1212	U1132	G1068	C995	U932	A861	A795
C1608	A1536	G1464	U1402	G1465	U1402	G1337	A1275	A1213	U1133	A1069	A996	A933	A862	C795
C1609	G1537	U1466	A1403	U1466	A1403	G1338	A1276	G1214	A1134	A1070	G997	U934	A863	G796
A1610	G1538	A1466	A1404	U1466	A1404	G1339	G1277	G1215	A1135	G1071	C998	C935	G864	C797
A1611	U1539	A1466	A1404	U1466	A1404	G1340	G1278	U1216	C1135	C1072	G1002	A936	C865	G798
A1612	G1540	A1469	U1405	U1469	U1405	G1341	G1279	U1217	G1136	C1073	A937	A937	C866	G799
A1613	C1541	A1470	U1406	A1470	U1406	A1342	G1280	G1218	G1139	G1074	G1003	C937	A867	A802
A1616	U1542	G1471	G1407	G1471	G1407	G1343	G1281	U1219	C1140	C1075	C1006	C938	U868	U803
A1617	G1543	C1472	G1408	C1472	G1408	U1344	U1282	G1220	U1141	C1076	C1007	C940	U869	U804
A1618	A1544	G1473	U1409	G1473	U1409	C1345	A1285	G1221	A1142	U1077	A1008	C942	U870	G805
A1619	G1545	U1476	G1410	U1476	G1410	C1350	A1286	G1223	C1146	U1078	A1009	A943	U871	C806
A1620	G1546	A1477	U1411	A1477	U1411	C1351	A1287	U1224	A1147	C1079	A1010	C944	U807	U807
A1621	C1547	G1478	U1412	G1478	U1412	U1352	G1288	G1225	C1148	U1081	C1080	C945	G808	G808
A1622	A1548	A1478	U1413	A1478	U1413	A1353	C1289	A1226	U1153	U1082	G1011	C946	G809	G809
A1623	G1552	U1482	U1415	U1482	U1415	A1354	C1290	G1227	G1154	U1083	U1012	C947	U810	U810
A1624	A1553	G1483	U1416	G1483	U1416	G1355	C1291	G1228	A1155	A1084	C1013	C948	U811	U811
A1625	G1556	U1484	U1417	U1484	U1417	G1356	G1292	G1229	A1156	A1085	U1019	C949	U872	C812
A1626	C1557	U1485	U1418	U1485	U1418	G1357	C1293	A1230	A1169	A1086	A1020	C950	U881	U813
A1627	G1560	U1487	G1422	U1487	G1422	G1358	G1294	U1231	C1170	G1087	A1021	C951	C882	C814
A1628	U1563	C1488	G1423	C1488	G1423	G1360	G1295	G1232	G1171	A1088	G1022	C952	C815	C815
A1635	C1564	A1490	U1426	A1490	U1426	C1361	C1297	C1236	C1172	A1090	G1025	C953	C816	C816
A1636	G1491	U1491	A1427	G1491	A1427	C1362	C1298	A1237	C1173	A1091	G1026	C954	C817	C817
A1637	C1492	U1492	G1428	C1492	G1428	C1363	C1299	G1238	U1174	C1092	U1027	C956	A819	A819
A1638	G1493	U1493	G1429	G1493	G1429	G1364	G1300	G1239	U1175	C1093	A1028	C957	A820	A820
A1639	C1494	U1494	G1430	C1494	G1430	A1365	A1301	U1240	U1176	U1094	A1029	C958	A821	A821
A1640	G1495	U1495	A1431	U1495	A1431	A1366	A1367	A1241	G1177	A1095	C	C	G822	G822
A1641	C1496	U1496	A1432	C1496	A1432	G1368	C1306	U1242	C1178	A1096	A1032	C960	A825	A825
A1644	G1500	U1500	A1433	G1500	A1433	G1369	C1307	G1245	G1179	U1097	U1033	C961	U826	U826
A1645	C1501	G1501	A1434	C1501	A1434	C1370	A1307	A1246	U1180	G1098	G1034	C962	U827	U827
A1646	U1504	A1504	G1435	U1504	G1435	G1371	A1308	G1247	U1181	G1099	U1035	C963	U828	U828
A1647	A1509	A1509	G1436	A1509	G1436	U1372	G1309	U1249	G1182	C964	U1036	C965	A829	A829
A1648	G1510	U1510	G1437	G1510	G1437	G1374	G1310	G1248	U1183	U1101	G1041	C966	G830	G830
A1649	U1511	U1511	U1438	U1511	U1438	U1375	U1312	G1250	G1185	A1103	G1042	C969	A833	A833
A1650	C1512	G1512	A1439	C1512	A1439	C1376	U1313	C1251	G1186	C1104	C1043	U970	C834	C834
A1651	U1513	U1513	U1441	U1513	U1441	G1377	C1314	G1252	G1187	G1107	C1044	C971	C835	C835
A1652	G1514	U1514	G1442	G1514	G1442	A1378	C1315	A1253	U1188	C1045	C1045	A972	G836	G836
A1653	U1515	U1515	U1443	U1515	U1443	U1379	U1316	U1255	A1189	U1108	A1046	C973	C837	C837
A1654	C1516	C1516	G1444	C1516	G1444	G1380	G1317	G1256	G1190	C1109	G1047	C974	C838	C838
A1655	U1517	U1517	G1445	U1517	G1445	G1381	U1318	G1257	A1194	G1110	A1048	C975	U839	U839
A1656	C1518	C1518	G1446	C1518	G1446	G1382	C1319	U1258	U1195	C1049	C976	A900	U906	U906
A1657	U1519	U1519	G1448	U1519	G1448	A1383	G1320	G1259	G1112	G1051	G1051	C977	U842	U842
A1658	C1520	U1520	G1448	C1520	G1448	A1384	A1321							

G2664	G2599	G2443	G2374	C2310	G2237	U2172	A2108	A2031	G1877	A1809	G1738
A2585	A2590	G2444	G2375	A2311	G2238	A2173	U2109	G2032	G1878	A1810	A1739
G2596	G2591	G2445	A2376	G2312	A2241	C2174	U2110	A2033	G1879	G1811	G1740
G2671	G2592	G2446	A2377	G2313	A2242	C2175	U2111	U2034	U1880	G1812	C1741
U2672	U2594	G2447	G2378	G2314	U2243	C2176	U2112	A2037	C1881	G1813	U1742
G2595	G2594	G2448	G2379	G2315	U2244	C2177	U2113	G2038	G1882	G1814	G1743
U2660	G2595	U2449	G2380	G2316	U2245	C2178	U2114	G2039	U1883	G1815	G1744
G2681	G2596	G2454	A2381	G2317	U2246	C2179	G2115	U2040	G1884	G1816	A1745
G2682	G2597	G2455	G2382	G2318	U2247	U2180	G2116	U2041	G1885	G1817	A1746
G2683	A2534	U2457	G2383	G2319	G2250	U2181	U2117	A2042	G1968	U1818	U1747
U2684	G2603	G2458	U2384	G2320	G2251	U2182	U2118	A2043	U1869	A1819	G1748
G2685	U2604	G2459	G2385	G2321	G2252	A2183	G2119	G2044	A1889	U1820	A1749
G2686	G2539	A2461	A2386	G2322	G2253	A2184	G2120	G2045	U1971	G1821	G1750
U2687	G2540	G2462	U2387	G2323	C2254	U2185	G2121	C2050	G1972	C1822	U1751
G2688	A2541	G2463	U2388	G2324	G2255	U2186	U2122	A2051	A1889	G1823	A1754
U2689	U2609	G2464	A2389	G2325	C2256	U2187	G2123	A2052	A1900	G1824	G1754
U2690	G2543	G2465	G2390	G2326	C2257	U2188	G2124	G2053	G1903	U1825	G1755
G2691	G2544	G2466	A2392	G2327	C2261	U2189	G2125	A2054	G1904	G1826	G1756
G2692	G2545	G2467	U2393	G2328	U2262	G2190	A2126	C2055	U1976	U1827	A1757
G2693	U2546	A2468	G2394	G2329	C2263	A2191	G2127	G2056	G1906	G1828	U1758
U2698	A2547	A2469	G2395	G2330	C2264	G2192	G2128	G2057	G1907	A1829	
G2699	U2548	G2470	U2402	G2331	U2265	U2194	U2129	A2058	U1911	G1830	A1762
A2700	G2550	U2473	U2403	G2332	U2266	U2195	U2130	A2059	A1912	G1831	G1763
U2701	G2551	G2474	A2406	G2333	A2267	C2196	U2131	A2060	A1913	C1832	C1764
G2704	U2552	G2475	A2407	G2334	A2268	U2197	U2132	A2061	G1914	C1833	
G2705	G2553	A2476	U2408	G2335	G2271	A2198	G2133	A2062	U1915	U1834	U1769
G2706	U2554	G2477	G2410	G2336	U2272	U2199	A2134	C2063	G1916	G1835	A1773
U2707	G2555	G2478	G2411	G2337	A2273	G2201	G2135	G2066	U1917	C1836	C1774
G2708	G2556	G2481	G2412	G2338	G2274	G2202	U2136	G2067	U1918	U1837	U1775
G2709	A2557	G2482	G2413	G2339	U2275	U2203	G2138	G2068	G1919	C1838	U1776
G2710	G2558	G2483	G2414	G2340	U2276	G2204	A2142	A2070	G1920	G1839	U1777
A2711	G2559	G2484	G2415	G2341	G2277	C2208	C2143	A2071	G1921		U1778
G2712	U2560	G2485	G2416	G2342	G2278	G2209	C2144	G2072	U1922	G1842	U1779
G2713	G2561	G2486	G2417	G2343	G2279	U2210	C2145	C2073	U1923	C1843	U1780
G2714	U2562	G2487	U2418	G2344	C2280	U2211	G2146	U2074	G1924	G1844	
G2715	G2563	G2488	G2419	G2345	C2281	A2212	A2147	U2075	G1925	G1845	A1783
G2716	A2564	U2490	G2420	G2346	C2282	G2213	G2148	A2004	U1926	G1846	A1784
G2717	G2565	G2491	G2421	G2347	C2283	G2214	U2149	A2005	U1927	A1847	A1785
G2718	U2566	U2492	G2422	G2348	C2284	G2215	C2150	A2006	G1928	A1848	A1786
G2719	G2567	G2501	U2423	G2349	U2285	G2216	G2151	A2007	G1929	U1855	A1787
U2720	U2568	G2502	G2424	G2350	G2286	G2217	A2154	A2008	U1930	G1857	G1788
A2721	G2571	A2503	G2425	G2351	U2287	G2218	U2155	A2009	U1931	U1856	A1789
G2722	C2572	U2504	G2426	G2352	U2288	G2219	G2156	G2012	G1934	G1857	C1790
G2723	G2573	G2505	G2427	G2353	U2289	G2220	G2157	A2013	G1935	A1858	A1791
U2724	U2574	U2506	G2428	G2354	G2290	G2221	A2158	A2014	G1936	G1792	G1792
G2725	G2575	G2507	G2429	G2355	G2291	G2222	G2159	G2018	A1937	G1793	A1794
G2726	U2576	G2508	U2430	G2356	G2292	G2223	C2160	A2019	A1938	G1862	
U2727	G2577	A2509	A2431	G2357	U2293	G2224	G2161	A2020	U1943	U1865	G1797
U2728	G2578	G2511	G2432	G2358	U2294	G2225	G2162	A2021	U1944	A1866	G1798
G2729	U2579	G2512	G2433	G2359	U2295	G2226	C2163	G2022	U1945	G1867	U1799
G2730	U2580	A2513	A2434	G2360	C2300	G2227	C2164	G2023	G1946	C1868	C1800
G2731	G2581	U2514	A2435	G2361	G2301	U2228	G2165	G2024	G1947	C1869	A1801
G2732	G2582	G2515	G2436	G2362	G2302	G2229	G2166	G2025	G1948	A1871	A1802
G2733	U2583	A2516	G2437	G2363	U2303	G2230	U2167	U2026	U1950	A1872	
A2734	U2584	G2517	U2438	G2364	G2304	G2231	G2168	G2027	U1951	G1873	A1805
G2735	G2585	A2518	A2439	G2365	C2305	U2232	G2169	U2028	A1952	C1874	A1806
G2736	U2586	U2519	G2440	G2366	U2306	G2233	A2170	G2029	G1953	G1875	G1807
G2737	U2587	G2520	U2441	G2367	A2307	G2234	G2171	G2100	U1954	A1876	A1808
G2738	G2588	G2521	G2442	G2368	A2308	U2235	U2172	C2103			
				G2369	A2309	U2236		C2104			
				G2370		U2237		U2105			
				G2371		G2238		G2106			
				U2372		G2239		G2107			
				G2373		U2240		G2108			
				G2374		G2241		G2109			
				G2375		G2242		G2110			
				G2376		G2243		U2111			
				G2377		G2244		U2112			
				G2378		G2245		U2113			
				G2379		G2246		U2114			
				G2380		G2247		U2115			
				A2381		G2248		U2116			
				G2382		G2249		U2117			
				G2383		G2250		U2118			
				U2384		G2251		U2119			
				G2385		G2252		U2120			
				A2386		G2253		U2121			
				U2387		G2254		U2122			
				G2388		G2255		U2123			
				A2389		G2256		U2124			
				G2390		G2257		U2125			
				U2392		G2258		U2126			
				G2393		G2259		U2127			
				G2394		G2260		U2128			
				U2395		G2261		U2129			
				G2396		G2262		U2130			
				U2397		G2263		U2131			
				G2398		G2264		U2132			
				U2399		G2265		U2133			
				G2400		G2266		U2134			
				U2402		G2267		U2135			
				G2403		G2268		U2136			
				A2406		G2269		U2137			
				U2407		G2270		U2138			
				G2408		G2271		A2142			
				A2410		G2272		C2143			
				G2411		G2273		C2144			
				U2412		G2274		C2145			
				G2413		G2275		U2074			
				A2414		G2276		U2075			
				G2415		G2277		A2004			
				U2416		G2278		A2005			
				G2417		G2279		A2006			
				U2418		G2280		U2007			
				G2419		G2281		G2008			
				U2420		G2282		A2009			
				G2421		G2283		G2012			
				U2422		G2284		A2013			
				G2423		G2285		A2014			
				U2424		G2286		G2018			
				G2425		G2287		A2019			
				A2426		G2288		A2020			
				U2427		G2289		G2021			
				G2428		G2290		U2092			
				U2429		G2291		G2093			
				G2430		G2292		A2094			
				A2431		G2293		A2095			
				U2432		G2294		G2096			
				G2433		G2295		G2097			
				A2434		G2296		G2098			
				U2435		G2297		G2099			
				G2436		G2298		G2100			
				A2437		G2299		C2103			
				U2438		G2300		C2104			
				G2439		G2301		U2105			
				A2440		G2302		G2106			
				U2441		G2303		G2107			
				G2442		G2304		G2108			
				U2443		G2305		G2109			
				A2444		G2306		G2110			
				G2445		G2307		G2111			
				U2446		G2308		G2112			
				A2447		G2309		G2113			
				G2448		G2310		G2114			
				U2449		G2311		G2115			
				A2450		G2312		G2116			
				G2451		G2313		G2117			
				U2452		G2314		G2118			
				A2453		G2315		G2119			
				G2454		G2316		G2120			
				U2455		G2317</					



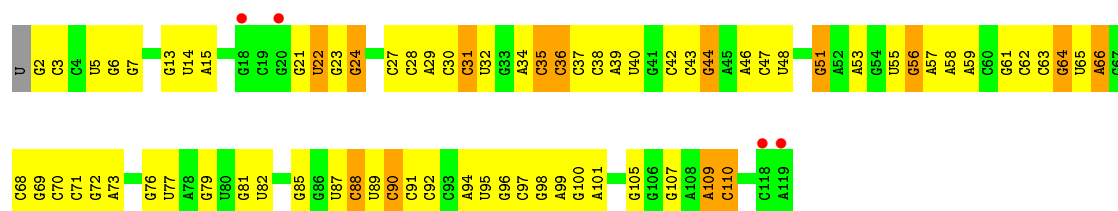
• Molecule 23: 5S rRNA

Chain BB: 39% 48% 12%



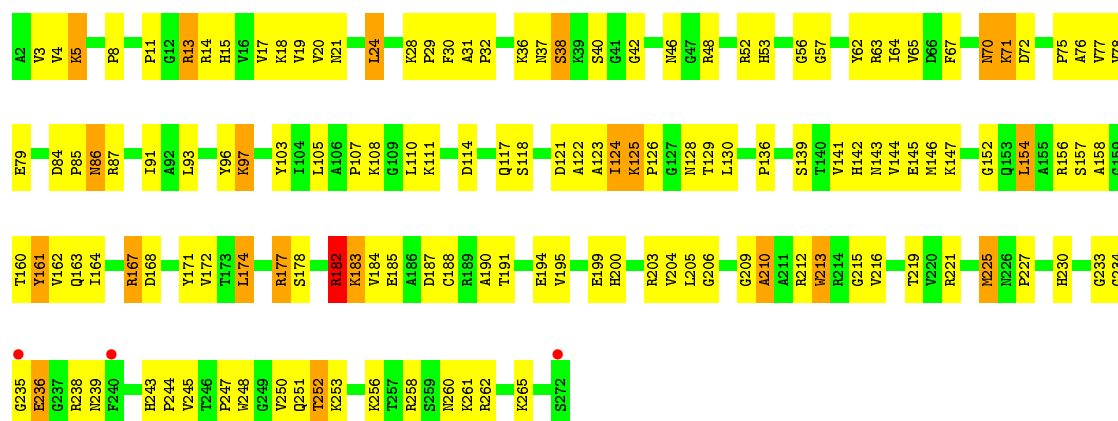
• Molecule 23: 5S rRNA

Chain DB: 3% 37% 50% 12%

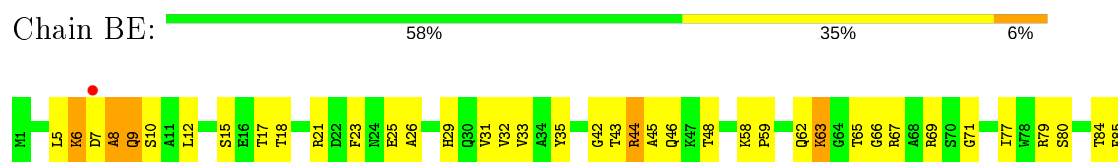


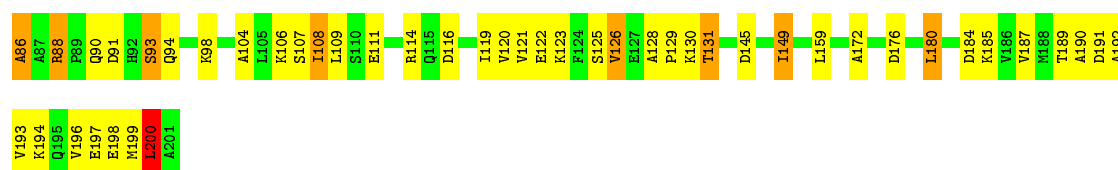
• Molecule 24: 50S ribosomal protein L2

Chain BC: 47% 45% 8%

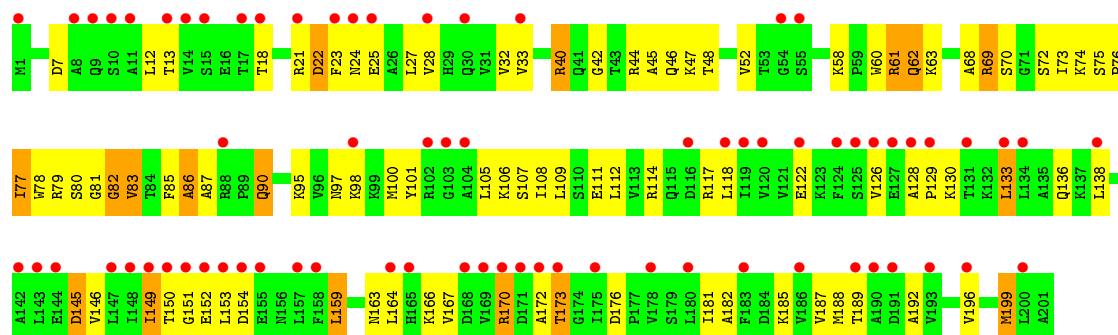
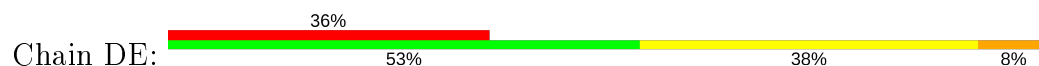


• Molecule 24: 50S ribosomal protein L2

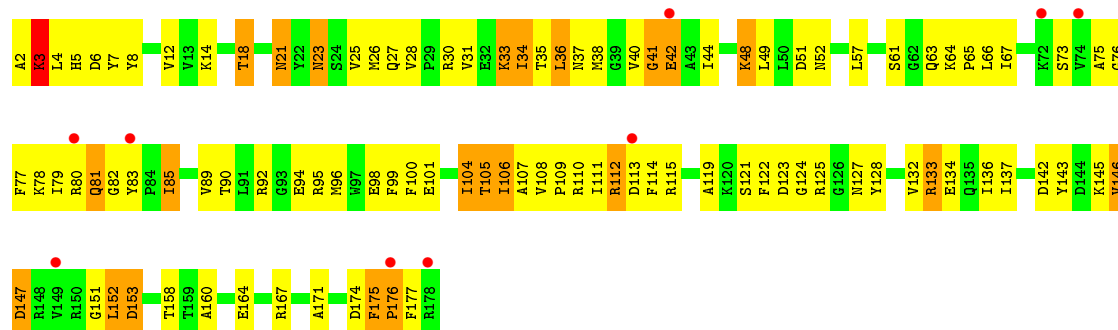
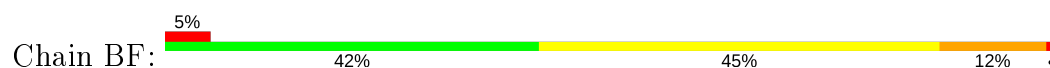




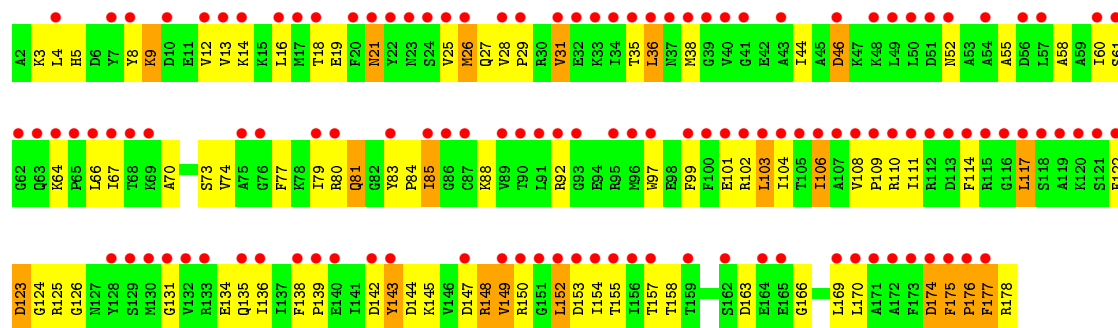
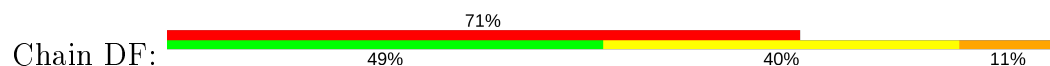
• Molecule 26: 50S ribosomal protein L4



• Molecule 27: 50S ribosomal protein L5

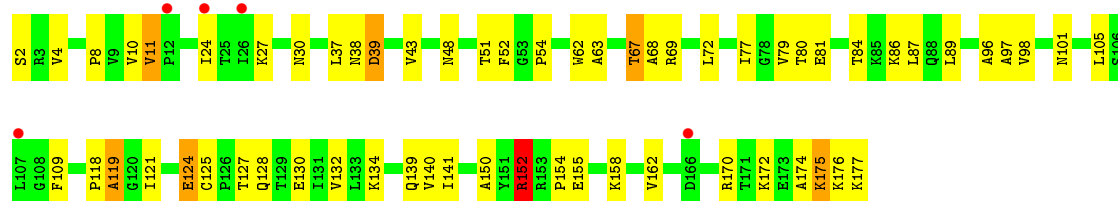


• Molecule 27: 50S ribosomal protein L5



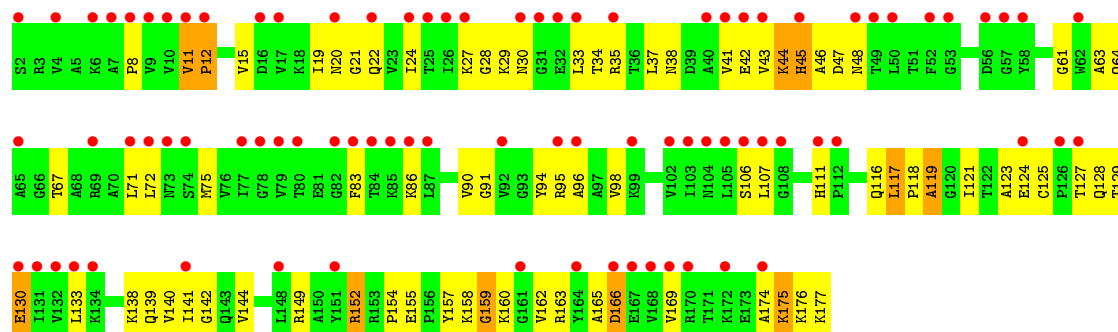
• Molecule 28: 50S ribosomal protein L6

Chain BG: 



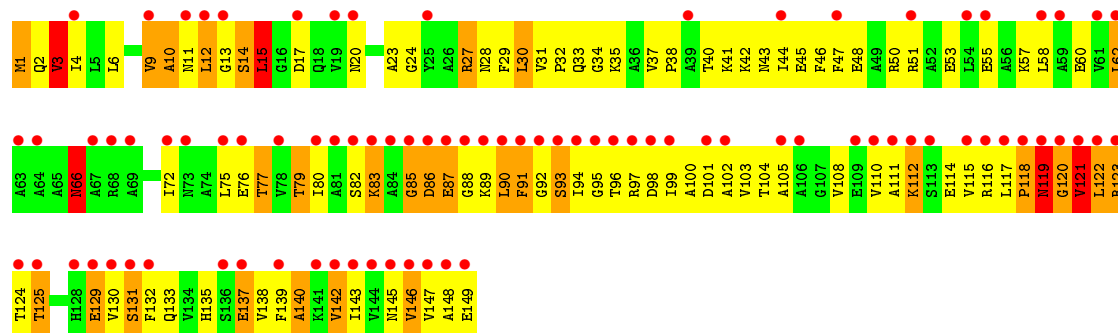
• Molecule 28: 50S ribosomal protein L6

Chain DG: 



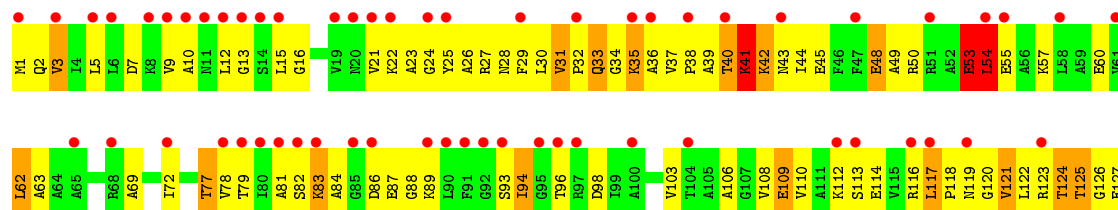
• Molecule 29: 50S ribosomal protein L9

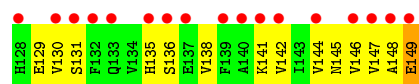
Chain BH: 



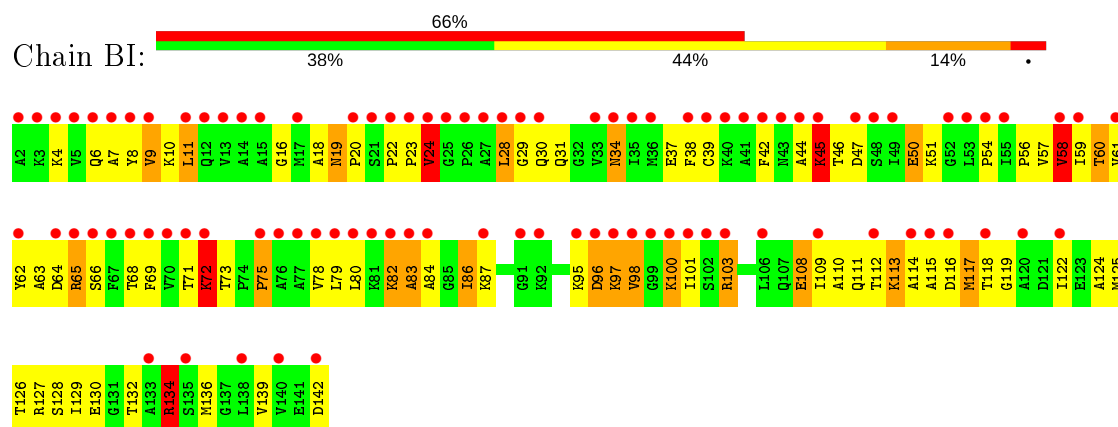
• Molecule 29: 50S ribosomal protein L9

Chain DH: 

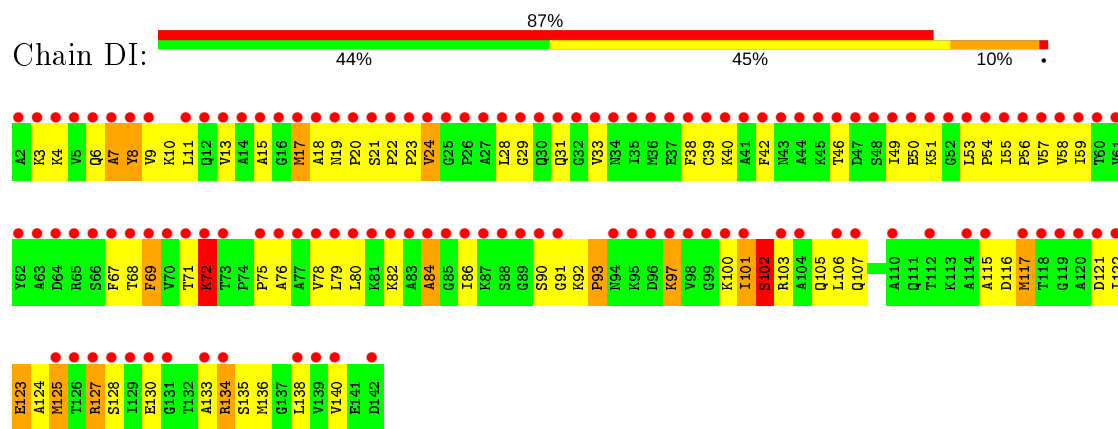




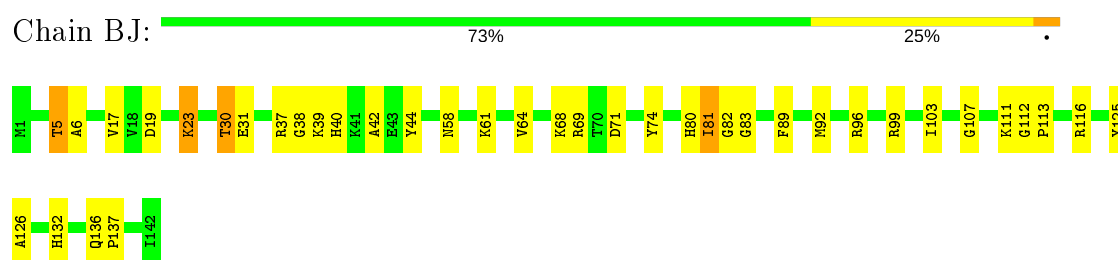
- Molecule 30: 50S ribosomal protein L11



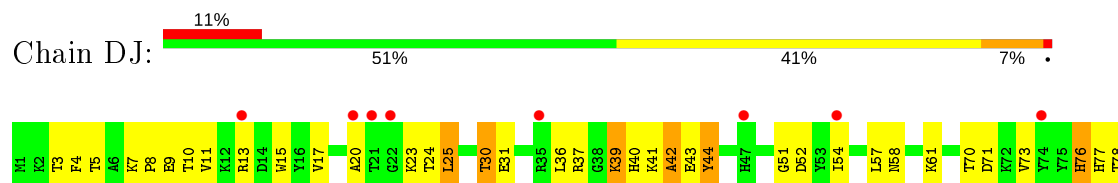
- Molecule 30: 50S ribosomal protein L11



- Molecule 31: 50S ribosomal protein L13

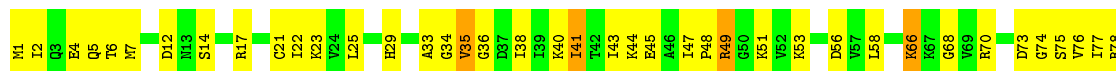


- Molecule 31: 50S ribosomal protein L13

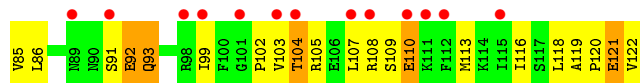
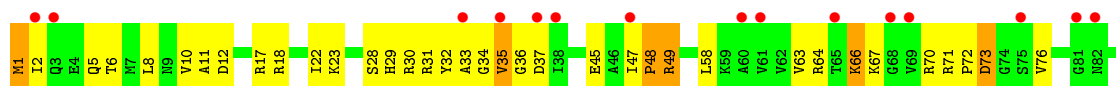




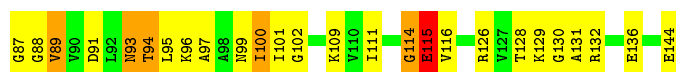
- Molecule 32: 50S ribosomal protein L14



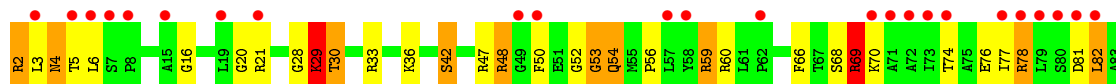
- Molecule 32: 50S ribosomal protein L14



- Molecule 33: 50S ribosomal protein L15

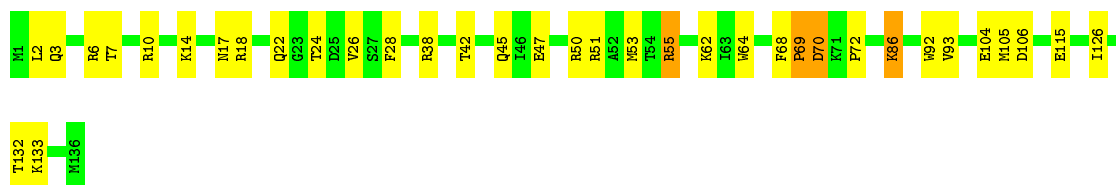


- Molecule 33: 50S ribosomal protein L15

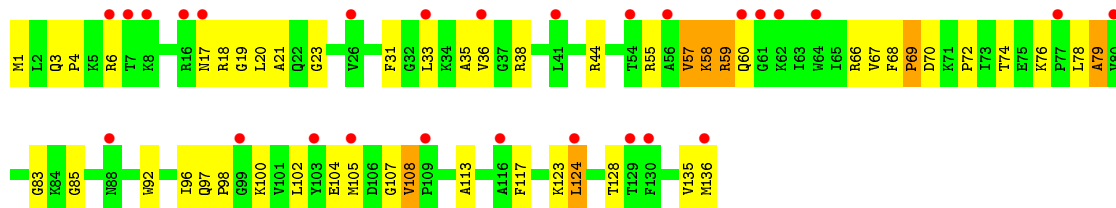


- Molecule 34: 50S ribosomal protein L16

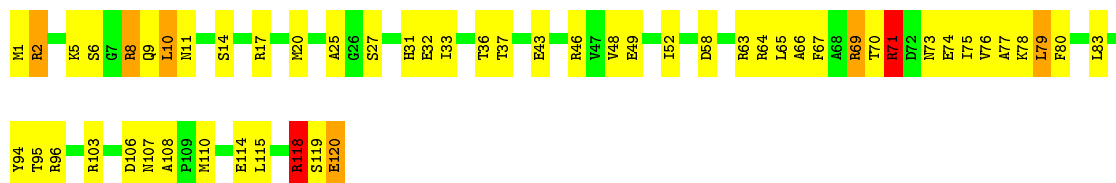




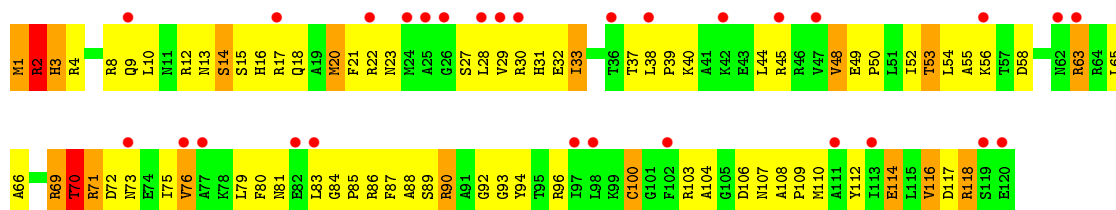
- Molecule 34: 50S ribosomal protein L16



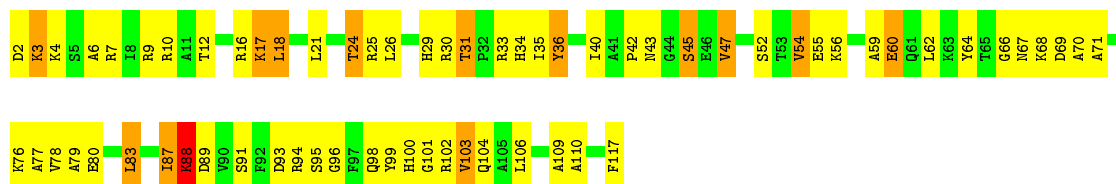
- Molecule 35: 50S ribosomal protein L17



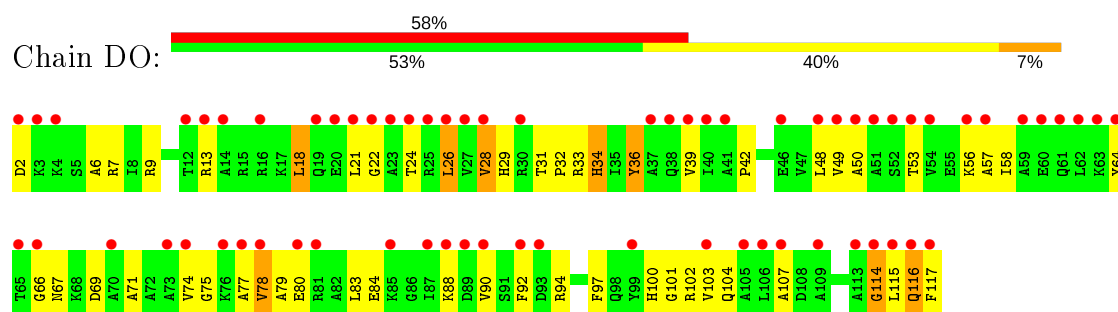
- Molecule 35: 50S ribosomal protein L17



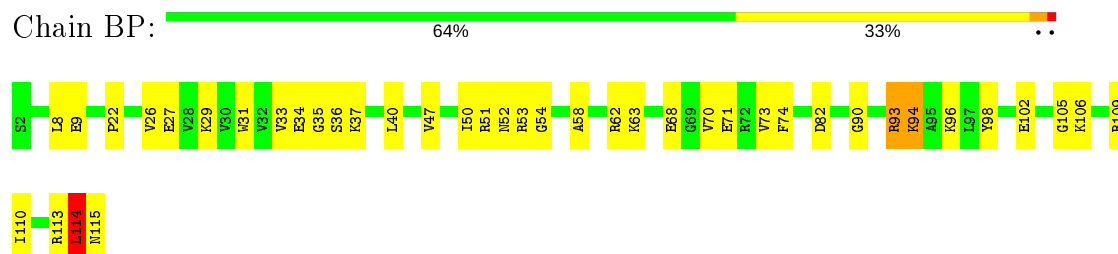
- Molecule 36: 50S ribosomal protein L18



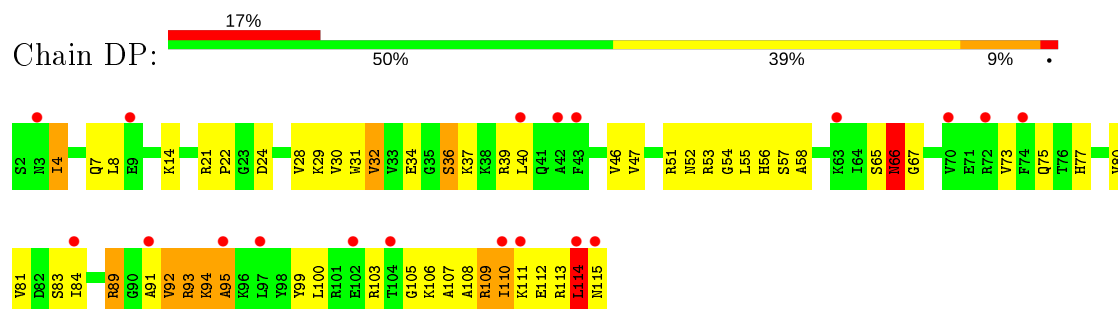
- Molecule 36: 50S ribosomal protein L18



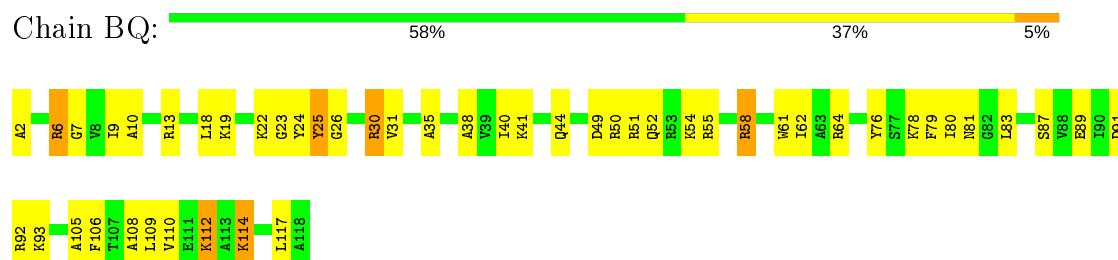
- Molecule 37: 50S ribosomal protein L19



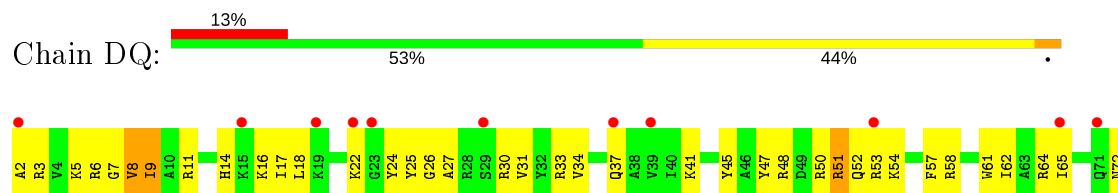
- Molecule 37: 50S ribosomal protein L19

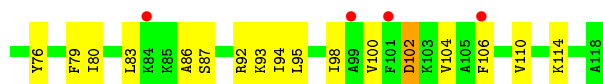


- Molecule 38: 50S ribosomal protein L20

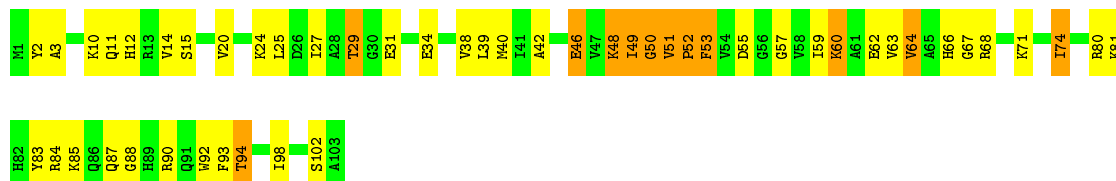


- Molecule 38: 50S ribosomal protein L20

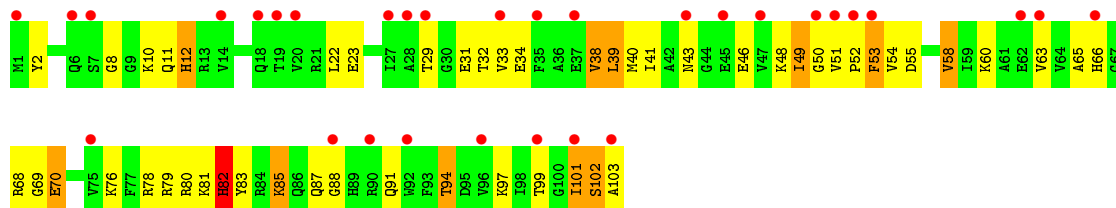




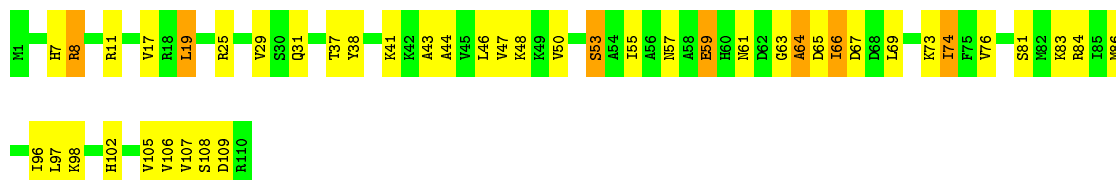
- Molecule 39: 50S ribosomal protein L21



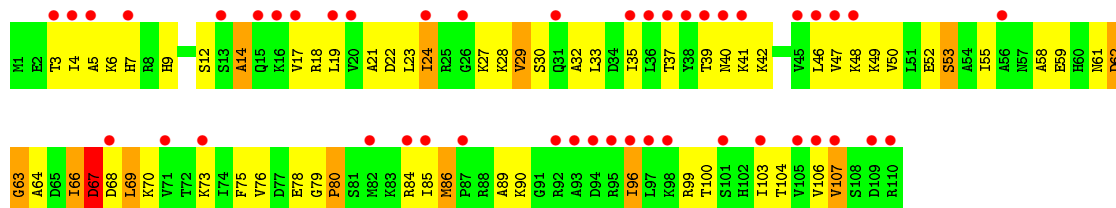
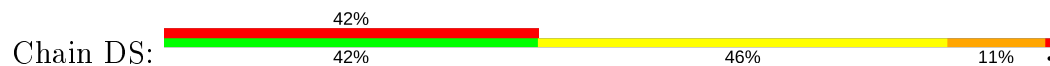
- Molecule 39: 50S ribosomal protein L21



- Molecule 40: 50S ribosomal protein L22

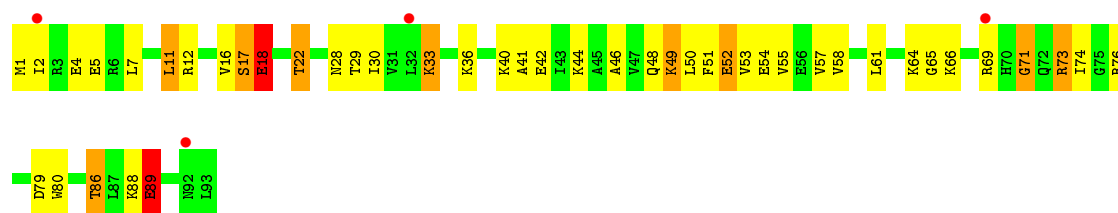


- Molecule 40: 50S ribosomal protein L22

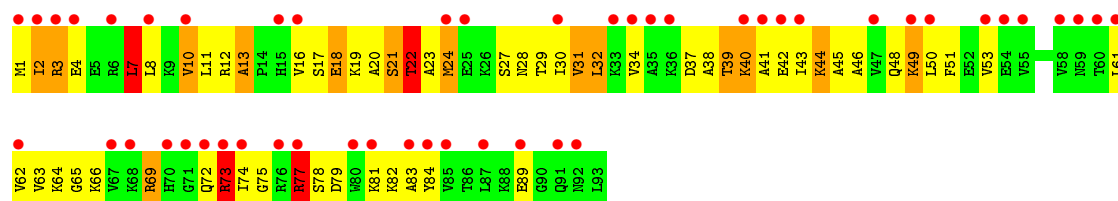


- Molecule 41: 50S ribosomal protein L23

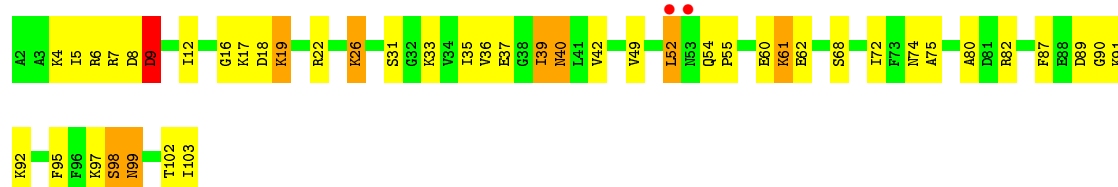




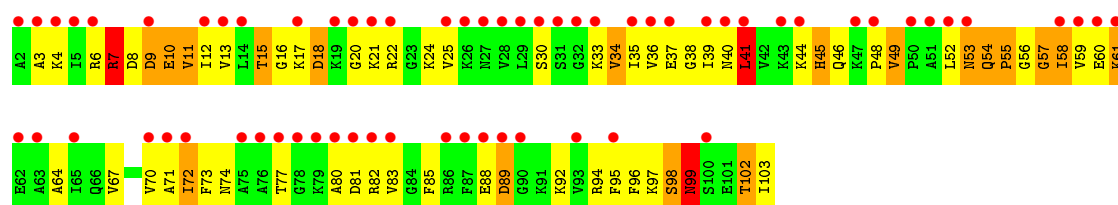
• Molecule 41: 50S ribosomal protein L23



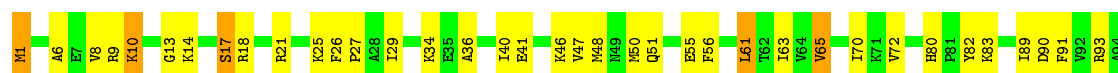
• Molecule 42: 50S ribosomal protein L24



• Molecule 42: 50S ribosomal protein L24

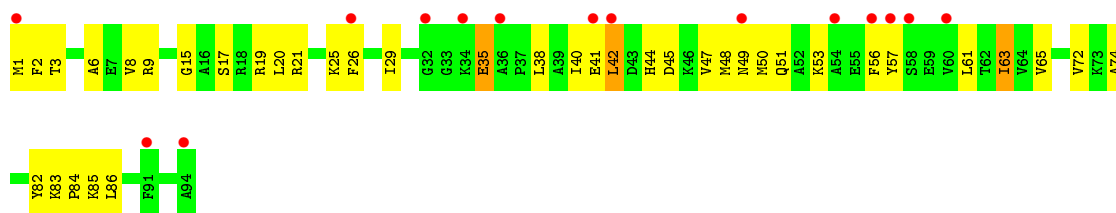


• Molecule 43: 50S ribosomal protein L25

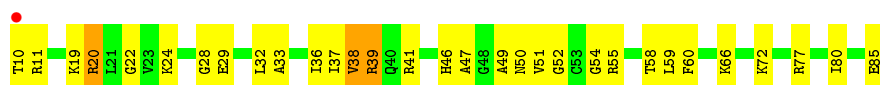


• Molecule 43: 50S ribosomal protein L25

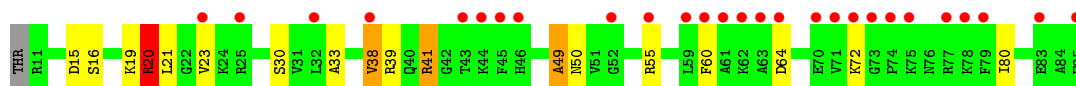
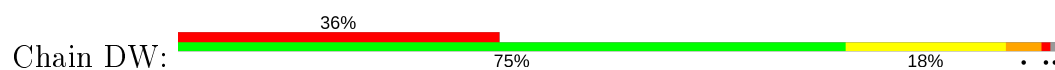




- Molecule 44: 50S ribosomal protein L27



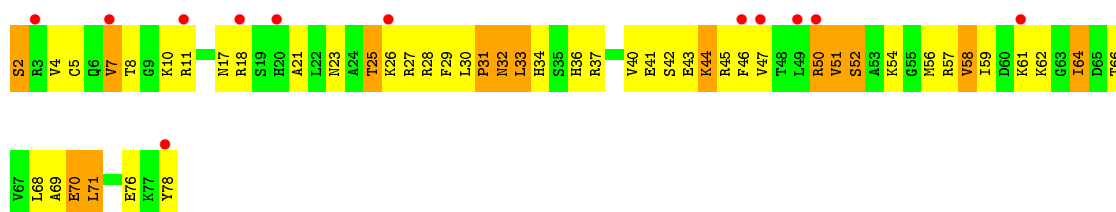
- Molecule 44: 50S ribosomal protein L27



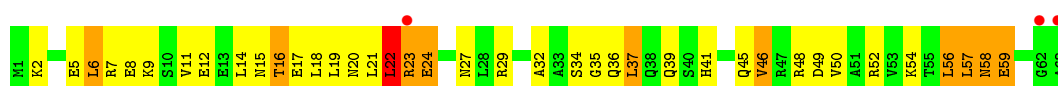
- Molecule 45: 50S ribosomal protein L28



- Molecule 45: 50S ribosomal protein L28

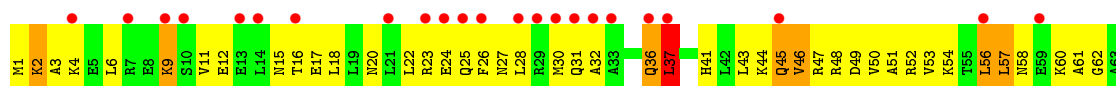


- Molecule 46: 50S ribosomal protein L29

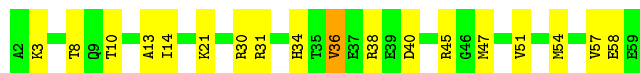


- Molecule 46: 50S ribosomal protein L29

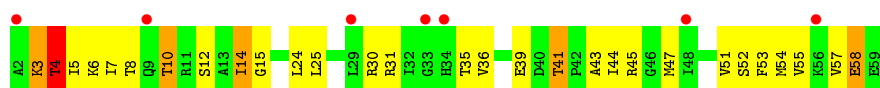




- Molecule 47: 50S ribosomal protein L30



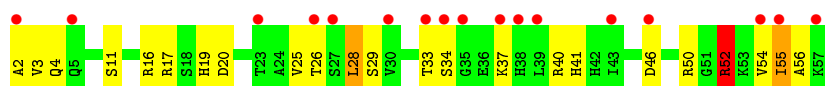
- Molecule 47: 50S ribosomal protein L30



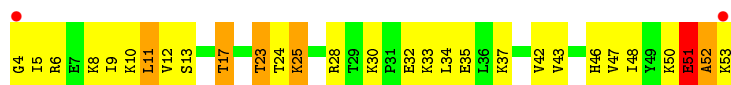
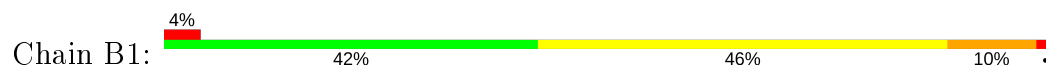
- Molecule 48: 50S ribosomal protein L32



- Molecule 48: 50S ribosomal protein L32



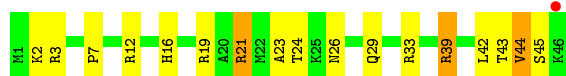
- Molecule 49: 50S ribosomal protein L33



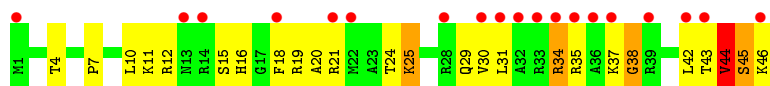
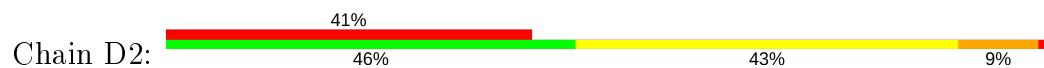
- Molecule 49: 50S ribosomal protein L33



- Molecule 50: 50S ribosomal protein L34



- Molecule 50: 50S ribosomal protein L34



- Molecule 51: 50S ribosomal protein L35



- Molecule 51: 50S ribosomal protein L35



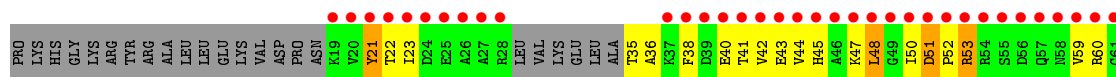
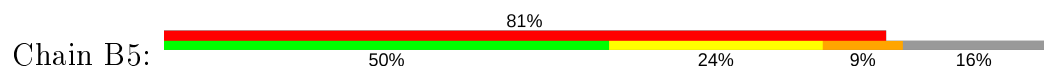
- Molecule 52: 50S ribosomal protein L36



- Molecule 52: 50S ribosomal protein L36



- Molecule 53: 50S ribosomal protein L1





4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.64Å 434.61Å 625.01Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	69.41 – 2.90 69.41 – 2.90	Depositor EDS
% Data completeness (in resolution range)	90.0 (69.41-2.90) 90.0 (69.41-2.90)	Depositor EDS
R_{merge}	0.15	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.39 (at 2.91Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.8.1_1168)	Depositor
R, R_{free}	0.223 , 0.265 0.229 , 0.269	Depositor DCC
R_{free} test set	4560 reflections (0.40%)	wwPDB-VP
Wilson B-factor (Å ²)	47.2	Xtriage
Anisotropy	0.436	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 54.1	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	288258	wwPDB-VP
Average B, all atoms (Å ²)	61.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.74% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	AA	0.48	0/36944	0.93	23/57632 (0.0%)
1	CA	0.41	0/36966	0.88	12/57666 (0.0%)
2	AB	0.34	0/1736	0.59	0/2338
2	CB	0.32	0/1736	0.55	0/2338
3	AC	0.35	0/1652	0.58	0/2225
3	CC	0.31	0/1652	0.51	0/2225
4	AD	0.36	0/1665	0.61	0/2227
4	CD	0.40	0/1665	0.63	0/2227
5	AE	0.38	0/1119	0.65	0/1504
5	CE	0.38	0/1119	0.69	0/1504
6	AF	0.40	0/836	0.66	1/1128 (0.1%)
6	CF	0.33	0/836	0.61	1/1128 (0.1%)
7	AG	0.34	0/1196	0.54	0/1602
7	CG	0.32	0/1196	0.51	0/1602
8	AH	0.40	0/989	0.59	0/1326
8	CH	0.31	0/989	0.54	0/1326
9	AI	0.32	0/1034	0.60	0/1375
9	CI	0.31	0/1034	0.56	0/1375
10	AJ	0.36	0/797	0.58	0/1077
10	CJ	0.32	0/797	0.55	0/1077
11	AK	0.33	0/893	0.58	0/1205
11	CK	0.35	0/893	0.60	0/1205
12	AL	0.40	0/969	0.68	0/1300
12	CL	0.37	0/969	0.66	0/1300
13	AM	0.33	0/893	0.61	0/1193
13	CM	0.32	0/893	0.56	0/1193
14	AN	0.37	0/785	0.59	0/1043
14	CN	0.30	0/785	0.49	0/1043
15	AO	0.33	0/718	0.60	0/959
15	CO	0.31	0/718	0.51	0/959
16	AP	0.38	0/659	0.62	0/884
16	CP	0.33	0/659	0.55	0/884

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.38	0/658	0.62	0/881
17	CQ	0.37	0/658	0.57	0/881
18	AR	0.33	0/463	0.54	0/621
18	CR	0.35	0/463	0.58	0/621
19	AS	0.35	0/653	0.60	0/877
19	CS	0.34	0/653	0.53	0/877
20	AT	0.39	0/671	0.60	0/888
20	CT	0.32	0/671	0.55	0/888
21	AU	0.43	0/431	0.65	0/570
21	CU	0.45	0/431	0.63	0/570
22	BA	0.82	19/69659 (0.0%)	1.28	469/108672 (0.4%)
22	DA	0.39	0/69659	0.88	19/108672 (0.0%)
23	BB	0.74	0/2850	1.25	7/4444 (0.2%)
23	DB	0.31	0/2828	0.81	0/4410
24	BC	0.52	0/2122	0.72	1/2852 (0.0%)
24	DC	0.35	0/2122	0.59	0/2852
25	BD	0.58	0/1586	0.75	1/2134 (0.0%)
25	DD	0.33	0/1586	0.55	0/2134
26	BE	0.51	0/1571	0.66	0/2113
26	DE	0.33	0/1571	0.54	0/2113
27	BF	0.41	0/1435	0.63	0/1926
27	DF	0.30	0/1435	0.48	0/1926
28	BG	0.41	0/1343	0.61	0/1816
28	DG	0.30	0/1343	0.48	0/1816
29	BH	0.36	0/1121	0.66	1/1515 (0.1%)
29	DH	0.35	0/1121	0.56	0/1515
30	BI	0.36	0/1046	0.57	0/1410
30	DI	0.36	0/1046	0.53	0/1410
31	BJ	0.61	0/1152	0.73	0/1551
31	DJ	0.32	0/1152	0.55	0/1551
32	BK	0.57	0/948	0.76	1/1268 (0.1%)
32	DK	0.36	0/948	0.55	0/1268
33	BL	0.55	0/1054	0.77	0/1403
33	DL	0.32	0/1054	0.58	0/1403
34	BM	0.58	0/1093	0.75	0/1460
34	DM	0.31	0/1093	0.50	0/1460
35	BN	0.57	0/974	0.77	2/1301 (0.2%)
35	DN	0.33	0/974	0.55	0/1301
36	BO	0.48	0/902	0.67	0/1209
36	DO	0.30	0/902	0.49	0/1209
37	BP	0.54	0/929	0.67	0/1242
37	DP	0.34	0/929	0.55	0/1242
38	BQ	0.67	0/960	0.76	0/1278

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DQ	0.33	0/960	0.51	0/1278
39	BR	0.63	0/829	0.83	0/1107
39	DR	0.32	0/829	0.57	0/1107
40	BS	0.66	0/864	0.83	1/1156 (0.1%)
40	DS	0.33	0/864	0.56	0/1156
41	BT	0.48	0/745	0.65	0/994
41	DT	0.32	0/745	0.56	0/994
42	BU	0.46	0/788	0.68	0/1051
42	DU	0.37	0/788	0.56	0/1051
43	BV	0.51	0/766	0.69	0/1025
43	DV	0.28	0/766	0.45	0/1025
44	BW	0.56	0/587	0.70	0/776
44	DW	0.31	0/576	0.50	0/762
45	BX	0.46	0/635	0.65	0/848
45	DX	0.32	0/635	0.55	0/848
46	BY	0.42	0/510	0.66	0/677
46	DY	0.33	0/510	0.55	0/677
47	BZ	0.63	0/453	0.68	0/605
47	DZ	0.30	0/453	0.53	0/605
48	B0	0.58	0/450	0.72	0/599
48	D0	0.34	0/450	0.57	0/599
49	B1	0.45	0/417	0.62	0/554
49	D1	0.33	0/417	0.52	0/554
50	B2	0.57	0/380	0.80	0/498
50	D2	0.36	0/380	0.60	0/498
51	B3	0.52	0/513	0.70	0/676
51	D3	0.32	0/513	0.52	0/676
52	B4	0.57	0/303	0.74	0/397
52	D4	0.30	0/303	0.54	0/397
53	B5	0.33	0/1145	0.50	0/1556
All	All	0.54	19/310626 (0.0%)	0.94	539/464366 (0.1%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
5	CE	0	1
6	CF	0	1
11	AK	0	1
12	CL	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
21	AU	0	1
21	CU	0	1
25	BD	0	1
All	All	0	7

All (19) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	BA	1142	A	N9-C4	-11.58	1.30	1.37
22	BA	984	A	N9-C4	-11.48	1.30	1.37
22	BA	1936	A	N9-C4	-9.61	1.32	1.37
22	BA	528	A	N7-C5	-6.85	1.35	1.39
22	BA	752	A	N9-C4	-6.64	1.33	1.37
22	BA	528	A	C5-C6	-6.52	1.35	1.41
22	BA	783	A	N9-C4	-6.38	1.34	1.37
22	BA	953	G	C2-N3	-6.35	1.27	1.32
22	BA	974	G	N9-C8	6.14	1.42	1.37
22	BA	2689	U	C2-N3	-6.10	1.33	1.37
22	BA	1278	C	N1-C6	-6.00	1.33	1.37
22	BA	2055	C	N1-C6	-5.92	1.33	1.37
22	BA	974	G	C5-C6	-5.31	1.37	1.42
22	BA	2286	G	N9-C4	-5.15	1.33	1.38
22	BA	675	A	N9-C4	-5.14	1.34	1.37
22	BA	2813	A	N9-C4	-5.14	1.34	1.37
22	BA	1661	G	N9-C4	-5.04	1.33	1.38
22	BA	2278	A	N9-C4	-5.01	1.34	1.37
22	BA	1936	A	N3-C4	-5.00	1.31	1.34

All (539) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	528	A	N1-C6-N6	15.09	127.66	118.60
22	BA	974	G	C4-C5-N7	14.38	116.55	110.80
22	BA	984	A	C2-N3-C4	-13.21	103.99	110.60
22	BA	984	A	N3-C4-C5	12.10	135.27	126.80
22	BA	1936	A	C2-N3-C4	-11.70	104.75	110.60
22	BA	974	G	C5-N7-C8	-11.55	98.52	104.30
22	BA	984	A	N3-C4-N9	-11.20	118.44	127.40
22	BA	528	A	C6-C5-N7	-10.86	124.70	132.30
22	BA	2286	G	N3-C4-C5	10.30	133.75	128.60
22	BA	727	A	N1-C6-N6	10.26	124.76	118.60
22	BA	1658	C	N3-C4-C5	10.22	125.99	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	586	A	O5'-P-OP1	-10.19	96.53	105.70
22	BA	1936	A	N3-C4-C5	10.16	133.91	126.80
22	BA	752	A	C5-N7-C8	-9.91	98.94	103.90
25	BD	151	THR	C-N-CD	-9.75	99.14	120.60
22	BA	2697	G	C8-N9-C4	-9.66	102.53	106.40
22	BA	752	A	N1-C6-N6	9.64	124.39	118.60
22	BA	528	A	C2-N3-C4	-9.59	105.80	110.60
22	BA	1936	A	N3-C4-N9	-9.54	119.77	127.40
22	BA	1142	A	C2-N3-C4	-9.51	105.85	110.60
22	BA	1142	A	N3-C4-N9	-9.47	119.82	127.40
22	BA	974	G	N3-C4-C5	9.21	133.20	128.60
22	BA	11	C	C6-N1-C2	9.11	123.94	120.30
22	BA	1900	A	O5'-P-OP1	-9.03	97.58	105.70
22	BA	1658	C	C6-N1-C2	8.99	123.89	120.30
22	BA	533	G	C5-C6-O6	-8.96	123.22	128.60
22	BA	528	A	C4-C5-N7	8.81	115.11	110.70
22	BA	1142	A	N3-C4-C5	8.76	132.93	126.80
22	BA	528	A	C5-N7-C8	-8.73	99.54	103.90
22	BA	1618	A	O5'-P-OP2	-8.66	97.91	105.70
22	BA	532	A	O5'-P-OP1	-8.63	97.93	105.70
22	BA	2286	G	C2-N3-C4	-8.56	107.62	111.90
22	BA	974	G	N1-C6-O6	8.52	125.01	119.90
22	BA	752	A	C4-C5-N7	8.42	114.91	110.70
22	BA	2621	G	C8-N9-C4	-8.35	103.06	106.40
22	BA	2276	G	O5'-P-OP1	-8.34	98.19	105.70
22	BA	783	A	C5-N7-C8	-8.23	99.78	103.90
22	BA	1428	C	C6-N1-C2	8.18	123.57	120.30
22	BA	2506	U	O5'-P-OP1	-8.17	98.35	105.70
22	BA	1187	G	N3-C4-N9	8.12	130.88	126.00
22	BA	974	G	C6-C5-N7	-8.03	125.58	130.40
22	BA	2626	C	C6-N1-C2	7.92	123.47	120.30
22	BA	727	A	C5-C6-N6	-7.83	117.43	123.70
22	BA	664	G	O5'-P-OP2	-7.83	98.66	105.70
22	BA	2286	G	N3-C4-N9	-7.82	121.31	126.00
22	BA	533	G	N1-C6-O6	7.77	124.56	119.90
22	BA	821	A	O5'-P-OP2	-7.68	98.78	105.70
23	BB	41	G	O5'-P-OP1	-7.67	98.80	105.70
22	BA	26	G	C5-C6-O6	-7.64	124.02	128.60
22	BA	1655	A	N1-C6-N6	7.63	123.18	118.60
22	BA	705	A	N1-C6-N6	7.59	123.15	118.60
22	BA	2448	A	N1-C6-N6	7.58	123.15	118.60
22	BA	2712	C	C6-N1-C2	7.56	123.32	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2505	G	N1-C6-O6	-7.52	115.39	119.90
22	BA	974	G	C5-C6-O6	-7.48	124.11	128.60
22	BA	528	A	O4'-C1'-N9	-7.47	102.22	108.20
22	BA	1658	C	C2-N3-C4	-7.47	116.16	119.90
22	BA	2538	C	C6-N1-C2	7.43	123.27	120.30
22	BA	990	A	O5'-P-OP1	-7.41	99.04	105.70
22	BA	2422	C	C6-N1-C2	7.37	123.25	120.30
22	BA	528	A	C5-C6-N1	-7.34	114.03	117.70
22	BA	783	A	C4-C5-N7	7.33	114.36	110.70
22	BA	801	G	N9-C4-C5	7.32	108.33	105.40
22	BA	502	A	O5'-P-OP1	-7.32	99.12	105.70
22	BA	1779	U	N3-C2-O2	-7.26	117.12	122.20
22	DA	691	C	C6-N1-C2	-7.25	117.40	120.30
22	BA	727	A	C6-C5-N7	-7.24	127.23	132.30
22	BA	533	G	C4-C5-N7	7.24	113.70	110.80
22	BA	727	A	N9-C4-C5	-7.24	102.91	105.80
22	BA	1681	G	N1-C6-O6	7.23	124.24	119.90
22	BA	698	C	C6-N1-C2	7.22	123.19	120.30
22	BA	533	G	C6-C5-N7	-7.18	126.09	130.40
22	BA	2606	C	N3-C4-C5	7.17	124.77	121.90
24	BC	182	ARG	NE-CZ-NH2	7.16	123.88	120.30
22	BA	2496	C	C6-N1-C2	-7.15	117.44	120.30
22	BA	2057	G	N3-C2-N2	-7.14	114.91	119.90
22	BA	2250	G	C2-N3-C4	-7.10	108.35	111.90
22	BA	2499	C	N1-C2-O2	-7.09	114.65	118.90
22	BA	2606	C	C6-N1-C2	7.09	123.13	120.30
1	CA	900	A	O5'-P-OP1	-7.08	99.33	105.70
22	BA	1192	G	N1-C6-O6	-7.04	115.68	119.90
22	BA	1187	G	C4-N9-C1'	7.03	135.64	126.50
22	BA	1187	G	N3-C4-C5	-7.02	125.09	128.60
22	BA	704	G	O4'-C1'-N9	6.98	113.79	108.20
22	BA	1452	G	C5-N7-C8	-6.98	100.81	104.30
22	BA	1278	C	C6-N1-C2	6.97	123.09	120.30
22	BA	1291	C	O5'-P-OP2	-6.95	99.45	105.70
22	BA	772	C	C6-N1-C2	6.93	123.07	120.30
22	BA	1784	A	N1-C6-N6	6.93	122.76	118.60
22	BA	2045	C	N3-C4-C5	6.92	124.67	121.90
22	BA	2889	C	N1-C2-O2	-6.91	114.75	118.90
22	BA	1478	G	N3-C2-N2	-6.90	115.07	119.90
22	BA	835	C	N3-C2-O2	6.88	126.72	121.90
22	BA	984	A	O4'-C1'-N9	6.86	113.69	108.20
22	BA	528	A	N7-C8-N9	6.85	117.23	113.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	1187	G	C8-N9-C1'	-6.84	118.11	127.00
22	BA	1658	C	C5-C4-N4	-6.84	115.42	120.20
22	BA	2045	C	C6-N1-C2	6.83	123.03	120.30
22	BA	2033	A	C5-C6-N1	6.82	121.11	117.70
22	BA	383	C	C6-N1-C2	6.75	123.00	120.30
22	BA	528	A	C5-C6-N6	-6.73	118.31	123.70
22	BA	943	A	C2-N3-C4	-6.72	107.24	110.60
22	BA	2250	G	C5-N7-C8	-6.72	100.94	104.30
22	BA	984	A	C4-N9-C1'	-6.72	114.20	126.30
22	BA	1164	C	O5'-P-OP2	-6.71	99.66	105.70
1	CA	35	G	O5'-P-OP1	-6.68	99.69	105.70
22	BA	531	C	C6-N1-C2	-6.67	117.63	120.30
22	BA	752	A	O4'-C1'-N9	6.65	113.52	108.20
22	BA	2714	G	C5-C6-O6	-6.63	124.62	128.60
22	BA	1251	C	C5-C4-N4	-6.62	115.57	120.20
22	BA	2505	G	C5-C6-O6	6.62	132.57	128.60
22	BA	1299	G	N3-C4-C5	-6.61	125.29	128.60
22	BA	1936	A	N1-C6-N6	6.61	122.57	118.60
22	BA	835	C	C6-N1-C2	6.61	122.94	120.30
22	BA	984	A	O5'-P-OP1	-6.60	99.76	105.70
1	AA	906	A	O5'-P-OP1	-6.59	99.77	105.70
1	AA	1484	C	N1-C2-O2	-6.58	114.95	118.90
22	BA	2000	C	N3-C4-C5	6.55	124.52	121.90
22	BA	684	G	C2-N3-C4	-6.54	108.63	111.90
22	BA	727	A	C4-C5-N7	6.54	113.97	110.70
22	BA	858	G	O5'-P-OP2	-6.54	99.81	105.70
22	BA	672	C	C6-N1-C2	6.54	122.91	120.30
22	BA	808	G	C5-C6-O6	-6.54	124.68	128.60
22	BA	954	G	OP2-P-O3'	6.53	119.57	105.20
22	DA	2427	C	C6-N1-C2	-6.52	117.69	120.30
22	BA	974	G	C2-N3-C4	-6.51	108.64	111.90
22	BA	2030	A	N9-C4-C5	6.51	108.40	105.80
22	BA	801	G	C4-C5-N7	-6.50	108.20	110.80
22	BA	783	A	N1-C6-N6	6.50	122.50	118.60
22	BA	560	C	N3-C4-C5	6.49	124.50	121.90
22	BA	752	A	N7-C8-N9	6.46	117.03	113.80
22	BA	836	G	C5-C6-O6	-6.45	124.73	128.60
23	BB	83	G	N1-C6-O6	-6.42	116.05	119.90
22	BA	801	G	N3-C2-N2	-6.41	115.41	119.90
22	BA	2490	G	N3-C4-N9	6.40	129.84	126.00
22	BA	528	A	C4-C5-C6	6.40	120.20	117.00
22	BA	1394	U	O5'-P-OP1	-6.39	99.95	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2813	A	C8-N9-C4	6.39	108.36	105.80
22	BA	490	C	C6-N1-C2	-6.39	117.75	120.30
22	BA	1299	G	N3-C4-N9	6.38	129.83	126.00
22	BA	1475	G	O4'-C1'-N9	6.37	113.29	108.20
22	BA	1663	G	O5'-P-OP2	-6.35	99.98	105.70
22	BA	525	U	OP2-P-O3'	6.35	119.17	105.20
22	BA	2354	C	C6-N1-C2	-6.32	117.77	120.30
22	BA	2490	G	N3-C4-C5	-6.31	125.44	128.60
22	BA	948	C	C6-N1-C2	-6.31	117.78	120.30
22	BA	1829	A	C8-N9-C4	6.31	108.32	105.80
22	BA	946	C	N3-C4-N4	6.30	122.41	118.00
22	BA	208	C	C6-N1-C2	6.29	122.82	120.30
22	BA	1605	C	N1-C2-O2	-6.29	115.13	118.90
22	BA	2030	A	C5-C6-N6	6.29	128.73	123.70
22	BA	678	C	N3-C4-C5	6.28	124.41	121.90
22	BA	2642	G	N1-C6-O6	-6.27	116.14	119.90
22	BA	2645	G	O4'-C1'-N9	6.26	113.21	108.20
22	BA	678	C	C5-C4-N4	-6.25	115.82	120.20
22	BA	2773	C	C6-N1-C2	6.25	122.80	120.30
22	BA	571	U	N1-C2-O2	-6.24	118.43	122.80
22	BA	1020	A	N1-C6-N6	6.24	122.34	118.60
6	CF	86	ARG	NE-CZ-NH1	6.24	123.42	120.30
22	BA	2444	G	OP2-P-O3'	6.22	118.88	105.20
22	BA	1428	C	C5-C6-N1	-6.21	117.90	121.00
22	BA	1681	G	N3-C2-N2	-6.21	115.55	119.90
1	AA	1286	U	C2-N1-C1'	6.20	125.14	117.70
22	BA	2588	G	O5'-P-OP2	-6.18	100.14	105.70
22	BA	752	A	C6-C5-N7	-6.17	127.98	132.30
22	BA	2581	G	O4'-C1'-N9	6.17	113.14	108.20
22	BA	1029	A	C8-N9-C4	-6.15	103.34	105.80
22	BA	2594	C	O5'-P-OP2	-6.14	100.17	105.70
1	CA	234	C	C6-N1-C2	6.14	122.75	120.30
22	BA	2354	C	N3-C2-O2	-6.12	117.61	121.90
22	BA	1760	C	C6-N1-C2	6.12	122.75	120.30
22	BA	2483	C	O5'-P-OP1	-6.09	100.22	105.70
22	BA	194	G	C6-C5-N7	-6.08	126.75	130.40
22	BA	197	A	O5'-P-OP1	-6.08	100.22	105.70
22	BA	2581	G	N1-C6-O6	-6.08	116.25	119.90
22	BA	2614	A	C8-N9-C4	6.07	108.23	105.80
22	BA	974	G	N7-C8-N9	6.07	116.13	113.10
22	BA	2054	A	OP2-P-O3'	6.06	118.53	105.20
22	BA	911	A	C5-C6-N6	-6.05	118.86	123.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2275	C	N3-C2-O2	-6.05	117.66	121.90
22	BA	1452	G	C4-C5-N7	6.04	113.22	110.80
1	AA	1484	C	N3-C2-O2	6.04	126.12	121.90
22	BA	675	A	C5-C6-N6	-6.03	118.88	123.70
22	BA	572	A	O5'-P-OP1	-6.03	100.28	105.70
1	CA	207	C	C6-N1-C2	-6.02	117.89	120.30
22	BA	15	G	C5-C6-O6	6.02	132.21	128.60
22	BA	2420	C	N3-C4-C5	6.01	124.31	121.90
22	BA	2700	A	C5-C6-N1	6.01	120.71	117.70
22	BA	675	A	C4-C5-N7	6.01	113.71	110.70
22	BA	2645	G	C6-C5-N7	-6.00	126.80	130.40
22	BA	829	A	C8-N9-C4	5.99	108.19	105.80
22	BA	1695	G	O5'-P-OP1	-5.98	100.32	105.70
22	BA	2782	G	C5-C6-O6	-5.98	125.02	128.60
22	DA	1313	U	C2-N1-C1'	5.97	124.87	117.70
1	AA	279	A	N1-C6-N6	5.97	122.18	118.60
22	BA	578	G	N3-C4-C5	-5.96	125.62	128.60
1	AA	578	C	O5'-P-OP1	-5.96	100.34	105.70
22	BA	2642	G	C5-C6-O6	5.95	132.17	128.60
22	DA	2447	G	C4-N9-C1'	-5.95	118.76	126.50
6	AF	54	LEU	CA-CB-CG	5.95	128.99	115.30
1	CA	575	G	N3-C4-C5	5.95	131.57	128.60
22	BA	1706	C	C6-N1-C2	5.94	122.68	120.30
22	BA	2621	G	N7-C8-N9	5.94	116.07	113.10
22	BA	1791	A	OP2-P-O3'	5.93	118.25	105.20
22	BA	835	C	N1-C2-O2	-5.93	115.34	118.90
22	BA	2773	C	N3-C4-C5	5.93	124.27	121.90
22	BA	2272	U	C5-C4-O4	-5.91	122.36	125.90
22	BA	2359	C	C6-N1-C2	-5.89	117.94	120.30
22	BA	1683	U	O5'-P-OP2	-5.88	100.41	105.70
22	BA	1934	C	C2-N1-C1'	-5.88	112.33	118.80
22	BA	2211	A	P-O3'-C3'	5.88	126.76	119.70
1	AA	333	U	O5'-P-OP2	-5.88	100.41	105.70
23	BB	80	U	O5'-P-OP1	-5.88	100.41	105.70
22	BA	1187	G	C6-C5-N7	-5.86	126.88	130.40
22	BA	752	A	C2-N3-C4	-5.86	107.67	110.60
1	AA	1279	G	C8-N9-C4	-5.86	104.06	106.40
22	BA	502	A	O5'-P-OP2	5.85	117.72	110.70
22	BA	1779	U	N3-C4-O4	-5.84	115.31	119.40
22	BA	1302	A	N1-C6-N6	5.84	122.10	118.60
22	BA	772	C	N3-C4-C5	5.83	124.23	121.90
22	BA	782	A	O5'-P-OP1	-5.83	100.45	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	1034	G	N1-C6-O6	5.83	123.40	119.90
22	BA	2697	G	N9-C4-C5	5.83	107.73	105.40
22	BA	2442	C	N3-C4-C5	5.83	124.23	121.90
22	BA	906	U	C2-N1-C1'	-5.83	110.71	117.70
22	BA	523	C	C6-N1-C2	5.82	122.63	120.30
22	BA	1651	G	C8-N9-C4	-5.82	104.07	106.40
22	BA	2502	G	O4'-C1'-N9	5.82	112.86	108.20
22	BA	2698	U	C5-C4-O4	-5.82	122.41	125.90
22	BA	2067	G	N1-C2-N2	-5.81	110.97	116.20
22	BA	2442	C	C5-C4-N4	-5.81	116.13	120.20
22	BA	984	A	C8-N9-C1'	5.81	138.16	127.70
22	BA	1002	G	N1-C6-O6	-5.81	116.42	119.90
22	BA	1779	U	C5-C6-N1	-5.79	119.80	122.70
22	BA	2276	G	N3-C4-C5	-5.79	125.70	128.60
22	BA	523	C	N3-C4-C5	5.78	124.21	121.90
22	BA	952	G	C4-C5-N7	5.78	113.11	110.80
22	BA	1649	G	O5'-P-OP2	-5.77	100.51	105.70
35	BN	71	ARG	NE-CZ-NH2	5.76	123.18	120.30
22	BA	705	A	C5-C6-N6	-5.75	119.10	123.70
22	BA	2819	G	N1-C6-O6	5.74	123.34	119.90
22	BA	760	G	N3-C2-N2	-5.73	115.89	119.90
22	BA	2248	C	N1-C2-O2	5.73	122.34	118.90
22	BA	2201	G	C8-N9-C4	-5.73	104.11	106.40
22	BA	572	A	OP2-P-O3'	5.72	117.78	105.20
22	BA	2887	A	C5-C6-N6	-5.71	119.13	123.70
22	BA	1147	A	O5'-P-OP2	-5.71	100.56	105.70
22	BA	974	G	N9-C4-C5	-5.71	103.11	105.40
22	BA	1428	C	C2-N1-C1'	-5.71	112.52	118.80
1	AA	1201	A	P-O3'-C3'	5.71	126.55	119.70
22	BA	2689	U	N3-C4-O4	-5.71	115.40	119.40
1	AA	819	A	O5'-P-OP1	-5.69	100.58	105.70
22	BA	783	A	N3-C4-C5	5.69	130.78	126.80
35	BN	71	ARG	NE-CZ-NH1	-5.69	117.46	120.30
22	BA	1250	G	O5'-P-OP1	-5.68	100.58	105.70
22	BA	254	G	N1-C6-O6	5.68	123.31	119.90
22	BA	1784	A	C5-C6-N1	-5.68	114.86	117.70
22	BA	953	G	N3-C4-N9	-5.68	122.59	126.00
22	BA	561	G	N3-C4-C5	5.67	131.44	128.60
22	BA	837	C	N1-C2-O2	-5.66	115.50	118.90
22	BA	2505	G	OP2-P-O3'	5.66	117.65	105.20
22	BA	2286	G	C4-N9-C1'	-5.66	119.15	126.50
22	BA	1681	G	C5-C6-O6	-5.65	125.21	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2578	G	C4-N9-C1'	-5.65	119.16	126.50
22	BA	1829	A	N7-C8-N9	-5.65	110.98	113.80
22	BA	1783	A	N1-C6-N6	5.64	121.99	118.60
1	AA	503	C	C6-N1-C2	-5.64	118.04	120.30
22	BA	764	A	O4'-C1'-N9	5.63	112.70	108.20
22	BA	2013	A	O5'-P-OP2	-5.63	100.63	105.70
22	BA	2331	G	N1-C6-O6	5.63	123.28	119.90
22	BA	1452	G	N3-C4-C5	5.63	131.41	128.60
22	BA	216	A	O5'-P-OP2	-5.62	100.64	105.70
22	BA	733	G	C5-C6-O6	-5.62	125.23	128.60
22	BA	2799	A	N1-C6-N6	5.62	121.97	118.60
23	BB	94	A	N1-C6-N6	5.62	121.97	118.60
22	BA	998	C	N3-C4-C5	-5.62	119.65	121.90
1	AA	890	G	O4'-C1'-N9	5.61	112.69	108.20
22	DA	757	G	N3-C4-C5	5.61	131.41	128.60
22	BA	1962	C	O5'-P-OP1	-5.61	100.65	105.70
22	BA	2890	G	C6-C5-N7	-5.61	127.03	130.40
22	BA	956	G	N3-C4-N9	-5.61	122.63	126.00
22	BA	794	A	N1-C6-N6	5.60	121.96	118.60
22	BA	1955	U	C6-N1-C2	5.60	124.36	121.00
22	BA	2873	A	C8-N9-C4	-5.59	103.56	105.80
22	BA	2057	G	N1-C6-O6	5.59	123.25	119.90
22	BA	801	G	C8-N9-C4	-5.58	104.17	106.40
22	BA	2479	U	N1-C2-O2	-5.57	118.90	122.80
22	BA	1192	G	C5-C6-O6	5.57	131.94	128.60
22	BA	974	G	N9-C1'-C2'	5.56	121.23	114.00
22	BA	1228	G	OP2-P-O3'	5.56	117.44	105.20
22	BA	946	C	C5-C4-N4	-5.56	116.31	120.20
22	BA	953	G	C5-C6-N1	-5.56	108.72	111.50
1	AA	332	G	C8-N9-C4	5.56	108.62	106.40
22	BA	1618	A	N1-C6-N6	5.56	121.93	118.60
22	BA	561	G	N3-C2-N2	-5.55	116.01	119.90
22	BA	2328	A	C8-N9-C4	-5.55	103.58	105.80
22	DA	740	C	C6-N1-C2	5.55	122.52	120.30
22	BA	748	G	C4-N9-C1'	-5.55	119.29	126.50
22	BA	533	G	N9-C4-C5	-5.54	103.18	105.40
22	BA	2763	G	N1-C6-O6	5.54	123.23	119.90
22	BA	1659	G	N1-C6-O6	-5.54	116.58	119.90
22	BA	2326	C	C6-N1-C2	-5.54	118.09	120.30
22	BA	142	A	N1-C6-N6	5.53	121.92	118.60
1	AA	4	U	C2-N1-C1'	5.53	124.34	117.70
22	BA	2495	G	C8-N9-C4	-5.53	104.19	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	209	U	C2-N1-C1'	5.53	124.33	117.70
22	BA	2782	G	N9-C4-C5	-5.52	103.19	105.40
22	BA	784	G	P-O3'-C3'	5.52	126.33	119.70
22	BA	941	A	N1-C6-N6	5.52	121.91	118.60
22	BA	2380	C	OP2-P-O3'	5.52	117.33	105.20
22	BA	189	G	C5-C6-O6	-5.51	125.29	128.60
22	BA	564	C	C5-C4-N4	5.51	124.06	120.20
22	BA	967	U	C5-C4-O4	5.51	129.21	125.90
22	BA	1790	C	O5'-P-OP2	-5.50	100.75	105.70
22	BA	2782	G	N1-C6-O6	5.50	123.20	119.90
22	BA	537	G	C6-C5-N7	-5.50	127.10	130.40
22	BA	564	C	C6-N1-C2	-5.50	118.10	120.30
22	BA	771	G	C5-C6-O6	-5.50	125.30	128.60
22	BA	256	A	N1-C6-N6	-5.49	115.31	118.60
22	BA	564	C	N3-C4-C5	-5.49	119.70	121.90
22	BA	198	C	N3-C4-C5	-5.48	119.71	121.90
22	BA	1996	C	C6-N1-C2	5.48	122.49	120.30
22	BA	2439	A	N1-C6-N6	5.48	121.89	118.60
22	BA	2000	C	C6-N1-C2	5.47	122.49	120.30
22	BA	1667	G	C4-C5-N7	5.47	112.99	110.80
22	BA	540	C	N3-C4-C5	5.47	124.09	121.90
22	BA	672	C	N3-C2-O2	5.46	125.72	121.90
22	BA	1330	C	OP2-P-O3'	5.46	117.22	105.20
22	BA	2496	C	C5-C4-N4	5.46	124.02	120.20
22	BA	757	G	N3-C2-N2	5.46	123.72	119.90
22	BA	981	A	C8-N9-C4	5.46	107.98	105.80
1	AA	25	C	N1-C2-O2	-5.45	115.63	118.90
22	BA	1134	A	OP1-P-OP2	5.45	127.77	119.60
22	BA	2766	A	N9-C4-C5	-5.45	103.62	105.80
22	BA	1288	G	O4'-C1'-N9	5.44	112.55	108.20
22	BA	537	G	C5-C6-O6	-5.43	125.34	128.60
22	BA	771	G	N1-C6-O6	5.43	123.16	119.90
22	BA	1349	C	O5'-P-OP2	-5.43	100.82	105.70
22	BA	1681	G	C6-C5-N7	-5.43	127.14	130.40
22	BA	873	C	C5-C4-N4	-5.42	116.40	120.20
22	BA	2720	U	C2-N1-C1'	-5.42	111.19	117.70
22	BA	2890	G	N9-C4-C5	-5.42	103.23	105.40
22	BA	2501	C	C2-N1-C1'	-5.40	112.86	118.80
22	BA	2055	C	N1-C2-O2	-5.39	115.66	118.90
22	BA	2863	C	C6-N1-C2	5.39	122.46	120.30
1	AA	115	G	P-O3'-C3'	5.39	126.17	119.70
22	BA	984	A	C5-C6-N1	-5.39	115.00	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	1759	A	C5-C6-N1	5.39	120.39	117.70
22	BA	1142	A	C5-N7-C8	-5.38	101.21	103.90
22	BA	2250	G	N3-C4-N9	-5.37	122.78	126.00
22	BA	745	G	N3-C4-C5	-5.37	125.91	128.60
22	BA	1929	G	N3-C4-N9	5.37	129.22	126.00
22	BA	2714	G	N1-C6-O6	5.37	123.12	119.90
22	DA	2591	C	C6-N1-C2	-5.37	118.15	120.30
22	BA	2813	A	N3-C4-C5	5.37	130.56	126.80
22	BA	1267	U	C6-N1-C2	-5.36	117.78	121.00
22	BA	675	A	N1-C6-N6	5.36	121.82	118.60
22	BA	1669	A	C5-C6-N1	5.36	120.38	117.70
22	BA	1305	C	N3-C4-C5	5.36	124.04	121.90
22	BA	2868	A	N1-C6-N6	5.35	121.81	118.60
22	DA	1606	C	C6-N1-C2	-5.34	118.16	120.30
22	BA	1620	G	C2-N3-C4	-5.34	109.23	111.90
22	BA	2697	G	N7-C8-N9	5.34	115.77	113.10
22	BA	2766	A	N1-C6-N6	5.34	121.80	118.60
22	BA	914	G	N1-C6-O6	5.33	123.10	119.90
22	BA	2519	U	O5'-P-OP1	-5.33	100.91	105.70
22	BA	1999	C	N1-C2-O2	-5.32	115.71	118.90
22	BA	1984	G	C5-C6-O6	-5.32	125.41	128.60
22	BA	2422	C	N3-C2-O2	5.32	125.62	121.90
22	BA	981	A	OP2-P-O3'	5.32	116.90	105.20
22	BA	808	G	C4-C5-N7	5.32	112.93	110.80
22	BA	658	U	O5'-P-OP1	-5.31	100.92	105.70
22	BA	1961	C	C6-N1-C2	5.31	122.42	120.30
22	BA	2035	G	N1-C6-O6	-5.31	116.71	119.90
22	BA	2276	G	N1-C6-O6	-5.31	116.71	119.90
22	BA	2731	G	N1-C2-N2	-5.31	111.42	116.20
22	BA	1245	G	C8-N9-C4	5.30	108.52	106.40
22	BA	1651	G	OP1-P-O3'	5.30	116.86	105.20
22	BA	2483	C	C5-C4-N4	-5.29	116.50	120.20
1	CA	770	C	C6-N1-C2	5.29	122.42	120.30
1	CA	575	G	C4-N9-C1'	-5.29	119.62	126.50
22	BA	560	C	C2-N3-C4	-5.28	117.26	119.90
1	CA	575	G	C8-N9-C4	5.28	108.51	106.40
22	BA	2071	A	OP1-P-O3'	5.28	116.82	105.20
22	DA	974	G	C4-C5-N7	5.28	112.91	110.80
22	BA	1034	G	C6-C5-N7	-5.28	127.23	130.40
22	BA	1134	A	O5'-P-OP1	-5.28	100.95	105.70
22	BA	2645	G	C4-N9-C1'	5.28	133.36	126.50
1	CA	553	A	O5'-P-OP2	-5.27	100.95	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	243	U	C5-C4-O4	-5.27	122.74	125.90
22	BA	1143	A	N1-C6-N6	-5.27	115.44	118.60
22	BA	2762	C	N1-C2-O2	-5.27	115.74	118.90
22	BA	2598	A	OP2-P-O3'	5.27	116.79	105.20
22	BA	1606	C	C6-N1-C2	-5.27	118.19	120.30
22	BA	2867	G	C8-N9-C4	5.26	108.51	106.40
22	BA	733	G	N1-C6-O6	5.26	123.06	119.90
22	BA	2731	G	N3-C2-N2	5.26	123.58	119.90
22	DA	2447	G	C8-N9-C1'	5.26	133.84	127.00
22	BA	565	C	C5-C4-N4	-5.26	116.52	120.20
22	BA	2063	C	C2-N1-C1'	5.25	124.58	118.80
1	AA	400	C	C6-N1-C2	5.25	122.40	120.30
1	CA	207	C	C2-N1-C1'	5.25	124.58	118.80
22	DA	444	C	C6-N1-C2	-5.25	118.20	120.30
22	BA	1830	C	C6-N1-C2	5.25	122.40	120.30
22	BA	2020	A	OP2-P-O3'	5.25	116.75	105.20
22	BA	198	C	C2-N1-C1'	5.25	124.57	118.80
22	BA	1266	G	O5'-P-OP1	-5.25	100.98	105.70
22	BA	1788	C	C5-C4-N4	-5.24	116.53	120.20
22	BA	1024	G	C2-N3-C4	-5.24	109.28	111.90
22	BA	520	G	N1-C6-O6	-5.24	116.76	119.90
22	DA	105	C	C6-N1-C2	-5.24	118.21	120.30
22	BA	309	A	N1-C6-N6	5.23	121.74	118.60
1	CA	402	G	N1-C6-O6	-5.23	116.76	119.90
22	BA	2534	A	N1-C6-N6	5.23	121.74	118.60
22	DA	974	G	C6-C5-N7	-5.23	127.26	130.40
22	BA	537	G	N1-C6-O6	5.23	123.04	119.90
22	BA	2890	G	C4-C5-N7	5.23	112.89	110.80
22	BA	1557	C	C6-N1-C2	5.22	122.39	120.30
22	BA	2887	A	N1-C6-N6	5.22	121.73	118.60
22	BA	1455	G	C8-N9-C4	-5.22	104.31	106.40
22	BA	938	G	C4-N9-C1'	-5.22	119.72	126.50
22	BA	1415	U	C2-N1-C1'	5.21	123.96	117.70
22	BA	483	A	C8-N9-C4	5.21	107.88	105.80
22	BA	783	A	C2-N3-C4	-5.21	108.00	110.60
22	BA	1990	C	C6-N1-C2	5.21	122.38	120.30
22	BA	2540	C	C2-N1-C1'	-5.21	113.07	118.80
22	BA	571	U	N3-C2-O2	5.20	125.84	122.20
22	BA	1760	C	N3-C2-O2	5.20	125.54	121.90
22	BA	1478	G	N1-C6-O6	5.20	123.02	119.90
22	BA	2558	C	OP2-P-O3'	5.20	116.64	105.20
22	BA	1377	G	N3-C4-C5	-5.19	126.00	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	1210	G	C5-C6-O6	-5.19	125.48	128.60
22	BA	689	A	N9-C4-C5	5.19	107.88	105.80
22	BA	2581	G	C5-C6-O6	5.19	131.71	128.60
22	BA	1284	A	N1-C6-N6	5.19	121.71	118.60
22	BA	2250	G	N3-C4-C5	5.19	131.19	128.60
1	AA	351	G	C4-C5-N7	5.18	112.87	110.80
22	BA	2447	G	C8-N9-C4	5.18	108.47	106.40
22	BA	911	A	N1-C6-N6	5.18	121.71	118.60
23	BB	94	A	C5-C6-N6	-5.18	119.56	123.70
22	BA	565	C	OP2-P-O3'	5.18	116.59	105.20
32	BK	76	VAL	CB-CA-C	-5.18	101.56	111.40
22	BA	2501	C	N3-C4-C5	5.17	123.97	121.90
22	DA	1313	U	C5-C6-N1	5.17	125.28	122.70
22	BA	1192	G	C6-C5-N7	5.17	133.50	130.40
22	BA	1297	C	N1-C2-O2	-5.16	115.80	118.90
22	BA	491	G	O5'-P-OP2	-5.16	101.06	105.70
22	BA	1358	G	N9-C4-C5	-5.16	103.34	105.40
22	BA	2726	A	N9-C4-C5	5.16	107.86	105.80
40	BS	8	ARG	NE-CZ-NH2	-5.16	117.72	120.30
22	BA	561	G	C5-C6-O6	-5.15	125.51	128.60
22	BA	783	A	O4'-C1'-N9	5.15	112.32	108.20
1	AA	299	G	C4-C5-N7	5.15	112.86	110.80
22	BA	2824	C	N3-C4-N4	5.15	121.61	118.00
22	BA	671	C	N3-C4-C5	5.15	123.96	121.90
22	BA	2782	G	C4-C5-N7	5.15	112.86	110.80
22	BA	2359	C	O5'-P-OP1	-5.15	101.07	105.70
22	BA	2496	C	N3-C4-C5	-5.15	119.84	121.90
22	DA	1257	C	C6-N1-C2	-5.15	118.24	120.30
29	BH	121	VAL	C-N-CA	5.15	134.56	121.70
22	BA	918	A	OP2-P-O3'	5.14	116.52	105.20
23	BB	108	A	N1-C6-N6	5.14	121.69	118.60
22	BA	395	U	O4'-C1'-N1	5.14	112.31	108.20
22	BA	2598	A	O5'-P-OP1	-5.14	101.07	105.70
22	BA	2250	G	N7-C8-N9	5.14	115.67	113.10
22	BA	1193	G	N3-C4-C5	-5.14	126.03	128.60
22	BA	2867	G	N3-C4-C5	5.14	131.17	128.60
22	BA	1343	G	C4-N9-C1'	5.13	133.17	126.50
22	BA	752	A	N3-C4-C5	5.13	130.39	126.80
22	BA	2438	U	C6-N1-C2	5.13	124.08	121.00
22	BA	2763	G	C2-N3-C4	-5.13	109.34	111.90
22	BA	753	A	N1-C6-N6	-5.12	115.53	118.60
22	BA	1683	U	O5'-P-OP1	5.12	116.85	110.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2518	A	O4'-C1'-N9	-5.12	104.10	108.20
22	BA	2822	G	C2-N3-C4	-5.12	109.34	111.90
22	BA	2548	U	C5-C4-O4	-5.12	122.83	125.90
22	BA	2269	G	O5'-P-OP1	-5.12	101.09	105.70
22	BA	1278	C	C5-C6-N1	-5.11	118.44	121.00
22	BA	2503	A	N1-C2-N3	-5.11	126.74	129.30
22	BA	922	C	C6-N1-C2	5.11	122.34	120.30
22	BA	2782	G	C6-C5-N7	-5.11	127.33	130.40
1	AA	1488	G	OP2-P-O3'	5.11	116.43	105.20
22	BA	241	A	O5'-P-OP1	-5.11	101.11	105.70
22	BA	692	C	OP2-P-O3'	5.10	116.42	105.20
22	BA	2359	C	N3-C4-C5	-5.10	119.86	121.90
22	DA	1677	A	N1-C6-N6	5.10	121.66	118.60
22	BA	1210	G	O5'-P-OP2	-5.10	101.11	105.70
22	BA	1936	A	C5-C6-N1	-5.10	115.15	117.70
1	AA	1502	A	O5'-P-OP2	-5.09	101.12	105.70
22	BA	1924	C	O4'-C1'-N1	5.09	112.27	108.20
22	DA	729	G	O4'-C1'-N9	5.09	112.27	108.20
22	BA	1663	G	N1-C6-O6	5.08	122.95	119.90
23	BB	75	G	C5-C6-O6	-5.08	125.55	128.60
1	AA	1529	G	N9-C4-C5	-5.08	103.37	105.40
22	BA	533	G	O5'-P-OP2	5.08	116.80	110.70
22	DA	1779	U	C5-C4-O4	5.08	128.95	125.90
22	BA	705	A	N9-C4-C5	-5.08	103.77	105.80
22	BA	1784	A	C4-C5-C6	5.08	119.54	117.00
1	AA	971	G	O4'-C1'-N9	5.08	112.26	108.20
22	BA	467	G	N3-C4-C5	-5.08	126.06	128.60
22	BA	942	G	N3-C4-C5	5.07	131.14	128.60
22	BA	1187	G	C4-C5-C6	5.07	121.84	118.80
22	BA	772	C	C5-C4-N4	-5.07	116.65	120.20
22	BA	2279	G	C2-N3-C4	-5.07	109.37	111.90
22	BA	939	G	N3-C2-N2	-5.07	116.35	119.90
22	BA	2001	C	O5'-P-OP2	-5.06	101.14	105.70
22	BA	921	C	N1-C2-O2	-5.06	115.86	118.90
22	BA	1584	U	C2-N1-C1'	5.06	123.77	117.70
22	BA	2624	G	N3-C4-C5	5.06	131.13	128.60
22	BA	2279	G	C4-C5-N7	5.05	112.82	110.80
22	BA	2765	A	N9-C4-C5	-5.05	103.78	105.80
22	BA	515	A	C8-N9-C4	-5.05	103.78	105.80
22	BA	2512	C	N3-C4-C5	5.05	123.92	121.90
22	BA	1266	G	C5-C6-O6	5.05	131.63	128.60
22	BA	1293	C	C6-N1-C2	5.05	122.32	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2558	C	N3-C4-N4	-5.05	114.47	118.00
22	BA	2890	G	N1-C6-O6	5.05	122.93	119.90
22	BA	1270	C	N3-C4-C5	-5.04	119.88	121.90
22	BA	2729	G	N3-C4-N9	5.04	129.02	126.00
22	BA	26	G	N1-C6-O6	5.03	122.92	119.90
22	BA	528	A	C8-N9-C4	-5.03	103.79	105.80
22	BA	735	A	C8-N9-C4	5.03	107.81	105.80
22	DA	2053	G	C4-N9-C1'	-5.03	119.96	126.50
22	BA	564	C	N3-C2-O2	-5.03	118.38	121.90
22	BA	2890	G	C5-C6-O6	-5.03	125.58	128.60
22	BA	1965	C	C2-N1-C1'	5.02	124.32	118.80
22	BA	11	C	N3-C4-C5	5.02	123.91	121.90
22	BA	1028	A	O5'-P-OP1	-5.02	101.19	105.70
22	BA	1225	G	N3-C4-C5	-5.01	126.09	128.60
22	BA	2825	G	N3-C4-C5	-5.01	126.09	128.60
22	BA	1245	G	N3-C4-C5	5.01	131.11	128.60
22	BA	1259	G	N3-C2-N2	5.01	123.41	119.90
22	BA	560	C	C6-N1-C2	5.01	122.30	120.30
22	BA	752	A	C5-C6-N6	-5.01	119.69	123.70
22	BA	2820	A	N1-C6-N6	5.01	121.61	118.60
22	BA	666	A	N1-C6-N6	-5.01	115.60	118.60
22	BA	2818	U	O5'-P-OP2	5.01	116.71	110.70
22	BA	1452	G	N3-C4-N9	-5.00	123.00	126.00
22	BA	2276	G	N1-C2-N2	-5.00	111.70	116.20

There are no chirality outliers.

All (7) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
11	AK	126	LYS	Peptide
21	AU	39	GLU	Peptide
25	BD	151	THR	Peptide
5	CE	102	GLY	Peptide
6	CF	54	LEU	Peptide
12	CL	24	LEU	Peptide
21	CU	39	GLU	Peptide

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen

atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32995	0	16607	1123	4
1	CA	33015	0	16617	1084	0
2	AB	1705	0	1732	191	0
2	CB	1705	0	1732	131	0
3	AC	1625	0	1696	83	0
3	CC	1625	0	1696	69	0
4	AD	1643	0	1707	149	0
4	CD	1643	0	1707	119	0
5	AE	1106	0	1148	74	0
5	CE	1106	0	1148	112	0
6	AF	818	0	808	67	0
6	CF	818	0	808	56	0
7	AG	1182	0	1238	55	0
7	CG	1182	0	1238	65	0
8	AH	979	0	1031	68	0
8	CH	979	0	1031	41	0
9	AI	1022	0	1070	79	0
9	CI	1022	0	1070	63	0
10	AJ	787	0	828	80	0
10	CJ	787	0	828	50	0
11	AK	877	0	887	66	0
11	CK	877	0	887	67	0
12	AL	955	0	1016	66	0
12	CL	955	0	1016	77	0
13	AM	884	0	941	66	0
13	CM	884	0	941	47	0
14	AN	774	0	824	65	0
14	CN	774	0	824	48	0
15	AO	710	0	728	31	0
15	CO	710	0	728	42	0
16	AP	649	0	666	61	0
16	CP	649	0	666	28	0
17	AQ	649	0	691	70	0
17	CQ	649	0	691	53	0
18	AR	456	0	478	21	0
18	CR	456	0	478	33	0
19	AS	638	0	665	54	0
19	CS	638	0	665	36	0
20	AT	665	0	714	56	0
20	CT	665	0	714	43	0
21	AU	426	0	449	58	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
21	CU	426	0	449	54	0
22	BA	62195	0	31280	1616	0
22	DA	62195	0	31280	2231	0
23	BB	2549	0	1291	52	0
23	DB	2529	0	1281	62	0
24	BC	2083	0	2154	122	0
24	DC	2083	0	2154	127	0
25	BD	1565	0	1616	66	0
25	DD	1565	0	1616	81	0
26	BE	1552	0	1619	69	0
26	DE	1552	0	1619	78	0
27	BF	1411	0	1444	94	0
27	DF	1411	0	1444	62	0
28	BG	1323	0	1371	50	0
28	DG	1323	0	1371	52	0
29	BH	1110	0	1147	154	0
29	DH	1110	0	1148	120	4
30	BI	1032	0	1085	70	0
30	DI	1032	0	1085	67	0
31	BJ	1129	0	1162	37	0
31	DJ	1129	0	1162	54	0
32	BK	939	0	1012	46	0
32	DK	939	0	1012	50	0
33	BL	1045	0	1117	61	0
33	DL	1045	0	1117	66	0
34	BM	1074	0	1157	27	0
34	DM	1074	0	1157	30	0
35	BN	961	0	1000	44	0
35	DN	961	0	1000	70	0
36	BO	892	0	923	55	0
36	DO	892	0	923	44	0
37	BP	917	0	962	31	0
37	DP	917	0	962	45	0
38	BQ	947	0	1019	49	0
38	DQ	947	0	1019	50	0
39	BR	816	0	839	71	0
39	DR	816	0	839	47	0
40	BS	857	0	922	36	0
40	DS	857	0	922	46	0
41	BT	739	0	807	41	0
41	DT	739	0	807	59	0
42	BU	780	0	831	28	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
42	DU	780	0	831	73	0
43	BV	753	0	780	27	0
43	DV	753	0	780	27	0
44	BW	580	0	594	17	0
44	DW	569	0	581	16	0
45	BX	625	0	652	24	0
45	DX	625	0	652	47	0
46	BY	509	0	543	33	0
46	DY	509	0	543	45	0
47	BZ	449	0	488	10	0
47	DZ	449	0	488	18	0
48	B0	444	0	458	24	0
48	D0	444	0	458	18	0
49	B1	410	0	440	25	0
49	D1	410	0	440	16	0
50	B2	377	0	418	15	0
50	D2	377	0	418	24	0
51	B3	504	0	572	27	0
51	D3	504	0	572	20	0
52	B4	302	0	340	14	0
52	D4	302	0	342	15	0
53	B5	1142	0	865	48	0
54	AA	71	0	0	0	0
54	AN	1	0	0	0	0
54	BA	193	0	0	0	0
54	BB	4	0	0	0	0
54	BD	1	0	0	0	0
54	BQ	1	0	0	0	0
54	CA	56	0	0	0	0
54	D2	1	0	0	0	0
54	DA	166	0	0	0	0
54	DB	3	0	0	0	0
54	DQ	1	0	0	0	0
55	BA	38	0	35	5	0
55	DA	38	0	35	15	0
56	B4	1	0	0	0	0
56	D4	1	0	0	0	0
57	AA	192	0	0	25	0
57	AL	2	0	0	0	0
57	AN	6	0	0	1	0
57	AT	2	0	0	0	0
57	AU	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	B2	1	0	0	0	0
57	B3	2	0	0	0	0
57	B4	2	0	0	0	0
57	BA	620	0	0	65	0
57	BB	13	0	0	0	0
57	BC	7	0	0	1	0
57	BD	3	0	0	2	0
57	BE	4	0	0	0	0
57	BF	1	0	0	1	0
57	BJ	1	0	0	0	0
57	BL	5	0	0	0	0
57	BN	3	0	0	0	0
57	BQ	1	0	0	0	0
57	BS	1	0	0	0	0
57	BT	1	0	0	0	0
57	BV	1	0	0	0	0
57	CA	191	0	0	26	0
57	CL	1	0	0	0	0
57	CN	2	0	0	0	0
57	CT	2	0	0	0	0
57	CU	2	0	0	1	0
57	D2	1	0	0	1	0
57	D3	2	0	0	0	0
57	D4	1	0	0	0	0
57	DA	607	0	0	105	0
57	DB	13	0	0	0	0
57	DC	12	0	0	2	0
57	DD	4	0	0	2	0
57	DE	6	0	0	2	0
57	DJ	1	0	0	0	0
57	DL	4	0	0	1	0
57	DN	2	0	0	0	0
57	DT	1	0	0	0	0
57	DU	1	0	0	0	0
57	DV	1	0	0	0	0
All	All	288258	0	192859	10766	4

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 23.

All (10766) 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)
22:BA:1153:C:OP2	57:BA:3360:HOH:O	1.56	1.23
22:BA:621:A:OP2	57:BA:3293:HOH:O	1.57	1.23
29:BH:117:LEU:O	29:BH:121:VAL:HG23	1.34	1.22
29:BH:123:ARG:HH22	1:CA:367:U:P	1.69	1.15
29:BH:117:LEU:O	29:BH:121:VAL:CG2	1.95	1.14
29:BH:123:ARG:NH2	1:CA:367:U:OP2	1.82	1.13
25:DD:151:THR:O	25:DD:153:GLY:N	1.80	1.12
22:DA:2199:A:O4'	29:DH:28:ASN:ND2	1.84	1.11
22:DA:2503:A:H8	55:DA:3001:VIR:H22	1.13	1.11
22:BA:2033:A:OP1	57:BA:3479:HOH:O	1.71	1.09
22:DA:2199:A:C1'	29:DH:28:ASN:ND2	2.14	1.09
29:BH:123:ARG:O	29:BH:124:THR:CG2	2.01	1.09
22:BA:842:U:O4	57:BA:3589:HOH:O	1.68	1.08
22:BA:797:G:O6	57:BA:3323:HOH:O	1.71	1.08
22:DA:2711:A:OP2	57:DA:3544:HOH:O	1.69	1.07
23:DB:28:C:OP1	36:DO:36:TYR:OH	1.72	1.07
22:BA:2728:U:O2'	22:BA:2729:G:OP2	1.73	1.05
22:BA:1916:A:C4	22:BA:1917:U:H1'	1.91	1.04
2:AB:21:ARG:O	2:AB:23:TRP:N	1.89	1.04
22:DA:2271:G:O6	57:DA:3506:HOH:O	1.76	1.04
22:DA:602:A:O2'	22:DA:604:G:O2'	1.77	1.03
22:BA:1439:A:OP2	57:BA:3638:HOH:O	1.75	1.02
22:DA:789:A:N1	57:DA:3308:HOH:O	1.93	1.01
22:DA:761:A:OP2	57:DA:3292:HOH:O	1.77	1.01
1:AA:1077:G:N7	57:AA:1788:HOH:O	1.92	1.01
22:DA:58:G:OP1	41:DT:78:SER:OG	1.79	1.00
29:BH:117:LEU:HD21	29:BH:121:VAL:H	1.23	1.00
25:BD:140:HIS:NE2	57:BD:402:HOH:O	1.93	0.99
29:BH:123:ARG:O	29:BH:124:THR:HG23	1.61	0.99
22:DA:2627:G:O2'	22:DA:2781:A:N1	1.96	0.99
22:DA:370:G:N7	57:DA:3555:HOH:O	1.93	0.99
22:DA:618:G:O6	57:DA:3288:HOH:O	1.80	0.99
1:CA:412:A:O2'	1:CA:413:G:O5'	1.81	0.98
22:BA:1342:A:OP2	57:BA:3719:HOH:O	1.79	0.98
22:DA:2056:G:OP1	57:DA:3664:HOH:O	1.82	0.98
22:BA:194:G:N7	57:BA:3764:HOH:O	1.97	0.98
13:AM:11:ASP:OD1	13:AM:12:HIS:N	1.97	0.97
5:AE:99:ALA:O	5:AE:101:GLU:N	1.96	0.97
1:AA:533:A:OP1	57:AA:1847:HOH:O	1.82	0.96
24:BC:70:ASN:O	24:BC:72:ASP:N	1.97	0.96
22:DA:1050:A:N6	22:DA:1109:C:O2	1.95	0.96
29:DH:40:THR:O	29:DH:42:LYS:N	1.98	0.96

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:25:ASP:O	18:CR:27:ALA:N	1.99	0.96
22:DA:2093:G:OP1	29:DH:23:ALA:HB3	1.63	0.96
24:DC:157:SER:O	24:DC:160:THR:OG1	1.84	0.95
22:BA:2498:C:OP2	57:BA:3689:HOH:O	1.82	0.95
29:BH:120:GLY:C	29:BH:122:LEU:HA	1.85	0.95
22:DA:2094:A:H5'	29:DH:25:TYR:CG	2.02	0.95
1:CA:858:G:N7	57:CA:1819:HOH:O	2.00	0.95
14:CN:41:ARG:NH1	14:CN:42:TRP:O	1.99	0.95
22:BA:198:C:OP2	57:BA:3766:HOH:O	1.83	0.94
1:AA:509:A:OP2	57:AA:1722:HOH:O	1.85	0.94
22:DA:2093:G:H4'	29:DH:25:TYR:N	1.81	0.94
2:AB:82:ASP:O	2:AB:85:LEU:N	2.00	0.94
24:BC:244:PRO:O	24:BC:251:GLN:NE2	2.01	0.94
27:DF:122:PHE:O	27:DF:124:GLY:N	2.02	0.93
3:AC:36:ASP:OD1	3:AC:59:ARG:NH1	2.02	0.93
22:BA:2017:U:OP2	57:BA:3271:HOH:O	1.84	0.93
1:AA:980:C:OP1	57:AA:1836:HOH:O	1.87	0.93
22:BA:1179:G:C5	22:BA:1180:U:H1'	2.03	0.93
22:BA:2278:A:OP1	34:BM:10:ARG:NH2	2.02	0.93
22:DA:514:A:N3	22:DA:581:C:O2'	2.02	0.93
22:BA:572:A:OP2	39:BR:80:ARG:NH2	2.02	0.92
22:DA:2507:C:OP1	57:DA:3707:HOH:O	1.87	0.92
6:CF:12:PRO:O	6:CF:15:SER:OG	1.87	0.92
22:DA:2199:A:H1'	29:DH:28:ASN:ND2	1.82	0.92
22:DA:2550:G:OP1	57:DA:3719:HOH:O	1.85	0.92
22:BA:2720:U:OP1	37:BP:53:ARG:NH2	2.03	0.92
22:DA:1395:A:OP2	57:DA:3400:HOH:O	1.86	0.92
1:CA:1500:A:OP2	57:CA:1883:HOH:O	1.88	0.91
1:AA:1317:C:OP1	14:AN:56:SER:OG	1.88	0.91
22:DA:621:A:OP2	57:DA:3289:HOH:O	1.87	0.91
22:DA:684:G:OP1	50:D2:16:HIS:ND1	2.03	0.91
22:DA:1010:A:OP2	57:DA:3776:HOH:O	1.88	0.91
29:DH:83:LYS:HG3	29:DH:149:GLU:CG	2.02	0.90
22:DA:2503:A:C8	55:DA:3001:VIR:H22	2.05	0.90
22:DA:1267:U:O3'	57:DA:3374:HOH:O	1.88	0.90
22:DA:1439:A:OP2	57:DA:3627:HOH:O	1.90	0.90
6:AF:91:ARG:O	6:AF:92:THR:OG1	1.89	0.90
12:CL:22:PRO:O	12:CL:24:LEU:N	2.04	0.89
22:DA:784:G:OP1	57:DA:3310:HOH:O	1.91	0.89
1:CA:1198:G:N7	57:CA:1852:HOH:O	2.04	0.89
1:CA:532:A:N6	3:CC:192:THR:OG1	2.04	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1009:A:OP2	31:BJ:39:LYS:NZ	2.05	0.89
22:DA:2005:A:OP1	57:DA:3379:HOH:O	1.91	0.89
22:DA:2588:G:OP1	57:DA:3310:HOH:O	1.89	0.89
22:DA:2094:A:OP1	29:DH:22:LYS:HG3	1.72	0.89
1:CA:537:G:OP1	12:CL:110:ARG:NH2	2.06	0.89
24:BC:182:ARG:NH2	24:BC:183:LYS:O	2.07	0.88
22:DA:2243:U:OP1	57:DA:3736:HOH:O	1.91	0.88
1:CA:1211:U:O2'	1:CA:1212:U:OP2	1.89	0.88
22:DA:1652:A:OP1	35:DN:8:ARG:NH2	2.07	0.88
22:DA:1154:G:OP2	38:DQ:58:ARG:NH1	2.05	0.88
35:DN:87:PHE:O	35:DN:89:SER:N	2.06	0.88
4:CD:192:SER:OG	4:CD:193:ALA:N	2.04	0.88
29:BH:123:ARG:O	29:BH:124:THR:HG22	1.74	0.88
2:CB:103:ASN:ND2	2:CB:106:THR:OG1	2.07	0.88
22:BA:627:A:OP1	33:BL:78:ARG:NH1	2.07	0.87
29:BH:117:LEU:C	29:BH:121:VAL:HG23	1.93	0.87
22:DA:2505:G:OP2	55:DA:3001:VIR:H17	1.74	0.87
1:AA:980:C:OP2	57:AA:1835:HOH:O	1.91	0.87
22:BA:1180:U:O2'	22:BA:1181:U:OP1	1.92	0.87
22:DA:2093:G:H4'	29:DH:25:TYR:H	1.38	0.87
22:DA:2506:U:C4	22:DA:2585:U:O4	2.28	0.87
14:AN:64:CYS:SG	14:AN:67:THR:OG1	2.28	0.87
1:AA:1222:G:O6	57:AA:1835:HOH:O	1.91	0.87
4:AD:100:ASN:OD1	4:AD:111:ARG:NH1	2.07	0.87
1:CA:684:U:O2'	11:CK:40:ASN:O	1.93	0.87
29:DH:83:LYS:HG3	29:DH:149:GLU:HG2	1.56	0.87
22:BA:2742:G:O6	57:BA:3796:HOH:O	1.92	0.86
22:BA:1309:G:H4'	50:B2:7:PRO:HB2	1.57	0.86
12:CL:25:GLU:O	12:CL:27:CYS:N	2.09	0.86
22:DA:784:G:OP2	57:DA:3309:HOH:O	1.94	0.86
22:DA:528:A:OP1	57:DA:3245:HOH:O	1.93	0.86
22:BA:1073:A:H3'	22:BA:1074:G:C5'	2.04	0.86
3:AC:14:ILE:O	3:AC:16:LYS:N	2.08	0.86
29:BH:147:VAL:HG12	29:BH:149:GLU:HG3	1.57	0.86
22:DA:2032:G:N7	57:DA:3529:HOH:O	2.07	0.86
22:DA:790:U:OP2	57:DA:3752:HOH:O	1.93	0.86
14:AN:90:ARG:NH1	14:AN:92:GLU:OE2	2.08	0.86
22:DA:1187:G:N7	57:DA:3574:HOH:O	2.07	0.86
22:DA:821:A:O3'	57:DA:3341:HOH:O	1.94	0.85
1:AA:79:G:N2	1:AA:91:U:O4	2.09	0.85
22:BA:481:G:C4	22:BA:507:A:C2	2.65	0.85

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1013:C:OP2	57:DA:3596:HOH:O	1.94	0.85
36:BO:31:THR:O	36:BO:102:ARG:NH1	2.10	0.85
22:DA:299:A:N3	22:DA:319:G:O2'	2.09	0.85
22:BA:2445:G:OP1	26:BE:69:ARG:NH2	2.10	0.85
22:DA:422:A:OP2	57:DA:3556:HOH:O	1.94	0.85
15:AO:64:ARG:NH2	15:AO:68:ASP:OD1	2.09	0.85
22:BA:2683:C:O2	32:BK:70:ARG:NH2	2.10	0.85
22:DA:2115:G:O2'	22:DA:2117:A:N6	2.09	0.85
20:CT:5:LYS:O	20:CT:7:ALA:N	2.09	0.85
22:DA:2199:A:H1'	29:DH:28:ASN:HD22	1.40	0.85
22:BA:1509:A:O2'	22:BA:1510:G:OP2	1.95	0.84
13:AM:31:LYS:NZ	13:AM:41:GLU:OE1	2.10	0.84
1:AA:1232:U:OP1	9:AI:126:GLN:NE2	2.11	0.84
1:CA:1124:G:O2'	1:CA:1145:A:N6	2.10	0.84
11:CK:125:LYS:O	21:CU:34:ARG:NE	2.08	0.84
12:CL:116:LYS:O	12:CL:117:TYR:CG	2.30	0.84
22:DA:1619:G:N7	57:DA:3640:HOH:O	2.09	0.84
1:CA:1097:C:OP1	2:CB:139:ARG:NH2	2.10	0.84
22:BA:1917:U:C4	22:BA:1918:A:C4	2.65	0.84
29:BH:117:LEU:O	29:BH:119:ASN:N	2.07	0.84
29:DH:82:SER:O	29:DH:84:ALA:N	2.10	0.84
29:BH:117:LEU:HD21	29:BH:121:VAL:N	1.93	0.84
1:AA:702:A:N6	22:BA:1846:G:O2'	2.11	0.84
12:AL:21:VAL:HG23	12:AL:95:TYR:CE2	2.13	0.84
22:DA:182:A:O2'	22:DA:433:C:O2'	1.95	0.84
22:DA:2144:G:N2	22:DA:2148:G:O6	2.11	0.84
14:AN:33:ASP:O	14:AN:35:ASN:N	2.11	0.83
22:BA:1973:G:OP1	57:BA:3467:HOH:O	1.95	0.83
17:CQ:21:ILE:N	17:CQ:48:ASP:OD2	2.11	0.83
1:CA:1001:C:H2'	1:CA:1002:G:C8	2.13	0.83
22:DA:1378:A:O2'	22:DA:1380:G:N7	2.11	0.83
1:AA:452:A:N6	1:AA:480:U:O2	2.12	0.83
11:AK:29:ASN:OD1	11:AK:30:THR:N	2.12	0.83
29:DH:94:ILE:HB	29:DH:122:LEU:HD12	1.60	0.83
1:AA:1500:A:OP2	57:AA:1870:HOH:O	1.95	0.83
22:BA:1070:A:O2'	22:BA:1097:U:OP1	1.96	0.83
22:DA:2579:C:OP1	57:DA:3536:HOH:O	1.95	0.83
22:DA:2162:G:H4'	22:DA:2163:A:OP1	1.79	0.83
22:BA:1779:U:H5	22:BA:1784:A:N7	1.76	0.83
22:BA:1917:U:C5	22:BA:1918:A:C5	2.66	0.83
29:BH:123:ARG:NH2	1:CA:367:U:O5'	2.12	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1031:C:O2'	1:AA:1032:G:OP2	1.97	0.82
5:CE:102:GLY:O	5:CE:104:GLY:N	2.12	0.82
1:AA:536:C:OP1	57:AA:1882:HOH:O	1.96	0.82
1:CA:1049:U:OP1	57:CA:1846:HOH:O	1.96	0.82
1:CA:484:G:H4'	1:CA:485:U:O5'	1.78	0.82
17:AQ:17:MET:N	17:AQ:17:MET:SD	2.52	0.82
22:BA:2005:A:OP1	57:BA:3384:HOH:O	1.98	0.82
5:CE:99:ALA:O	5:CE:101:GLU:N	2.12	0.82
22:DA:450:G:O6	57:DA:3241:HOH:O	1.96	0.82
22:BA:1275:A:N1	22:BA:1295:C:O2'	2.13	0.82
22:BA:2061:G:OP2	57:BA:3494:HOH:O	1.97	0.82
29:BH:120:GLY:C	29:BH:122:LEU:CA	2.47	0.82
32:BK:70:ARG:NH1	32:BK:74:GLY:O	2.12	0.82
5:CE:137:VAL:O	5:CE:138:ARG:CB	2.28	0.82
22:DA:18:U:O4	57:DA:3205:HOH:O	1.97	0.82
22:BA:576:U:OP1	57:BA:3674:HOH:O	1.97	0.82
3:CC:155:GLY:O	3:CC:157:LEU:N	2.12	0.82
22:BA:1916:A:N3	22:BA:1917:U:H1'	1.94	0.82
22:DA:118:A:C8	22:DA:119:A:C8	2.68	0.82
22:BA:999:U:P	57:BA:3363:HOH:O	2.38	0.81
1:CA:736:C:OP1	18:CR:61:ARG:NH1	2.13	0.81
22:DA:2057:G:OP2	57:DA:3483:HOH:O	1.97	0.81
22:DA:1377:G:OP2	57:DA:3391:HOH:O	1.97	0.81
1:CA:533:A:OP1	57:CA:1763:HOH:O	1.98	0.81
1:CA:558:G:OP1	57:CA:1729:HOH:O	1.97	0.81
2:CB:15:HIS:O	2:CB:17:GLY:N	2.13	0.81
1:AA:1145:A:O2'	1:AA:1146:A:O5'	1.98	0.81
1:CA:645:G:N7	57:CA:1790:HOH:O	2.13	0.81
4:CD:70:ARG:O	4:CD:74:ASN:ND2	2.12	0.81
25:DD:12:THR:OG1	25:DD:13:ARG:N	2.12	0.81
2:AB:73:LYS:O	2:AB:75:ALA:N	2.13	0.81
22:DA:1667:G:O2'	22:DA:1991:U:O4	1.97	0.81
22:DA:2006:C:OP1	57:DA:3375:HOH:O	1.98	0.81
22:BA:1845:G:OP1	24:BC:256:LYS:NZ	2.14	0.81
22:DA:185:G:C6	22:DA:212:G:C2	2.69	0.81
22:BA:500:G:N2	22:BA:502:A:H3'	1.96	0.81
22:BA:517:C:OP2	48:B0:10:ARG:NH2	2.14	0.81
1:AA:405:U:O4	4:AD:2:ALA:N	2.14	0.81
22:DA:2056:G:OP2	57:DA:3483:HOH:O	1.98	0.80
22:DA:2115:G:HO2'	22:DA:2117:A:N6	1.79	0.80
6:CF:91:ARG:O	6:CF:92:THR:OG1	1.97	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2843:G:N2	22:DA:2875:C:C2	2.49	0.80
22:DA:310:A:O2'	22:DA:311:A:OP2	1.99	0.80
22:DA:1995:U:OP1	57:DA:3804:HOH:O	1.98	0.80
40:DS:28:LYS:O	40:DS:30:SER:N	2.14	0.80
29:BH:123:ARG:NH2	1:CA:367:U:P	2.46	0.80
22:BA:1998:A:OP2	25:BD:141:ARG:NH2	2.15	0.80
22:DA:2714:G:OP2	57:DA:3544:HOH:O	1.99	0.80
50:D2:43:THR:OG1	50:D2:44:VAL:N	2.11	0.80
22:BA:999:U:OP2	57:BA:3363:HOH:O	2.00	0.80
22:BA:2728:U:HO2'	22:BA:2729:G:P	2.04	0.80
31:DJ:80:HIS:O	31:DJ:82:GLY:N	2.15	0.80
4:AD:163:GLU:OE2	4:AD:164:GLN:N	2.15	0.79
22:BA:1187:G:OP2	57:BA:3371:HOH:O	2.00	0.79
2:AB:115:LYS:O	2:AB:117:LEU:N	2.15	0.79
22:BA:783:A:O2'	22:BA:785:G:OP1	2.00	0.79
39:BR:24:LYS:HA	39:BR:94:THR:HG23	1.64	0.79
39:BR:49:ILE:HG22	39:BR:53:PHE:N	1.97	0.79
24:DC:2:ALA:N	24:DC:199:GLU:OE1	2.14	0.79
22:BA:2128:G:H2'	22:BA:2129:C:O4'	1.82	0.79
22:BA:1603:A:OP1	57:BA:3413:HOH:O	1.99	0.79
1:CA:978:A:OP2	1:CA:1362:A:N6	2.15	0.79
1:AA:263:A:OP2	20:AT:74:ARG:NH1	2.16	0.79
22:DA:1300:G:O6	22:DA:1626:A:O2'	2.01	0.79
25:DD:140:HIS:NE2	57:DD:303:HOH:O	2.13	0.79
1:AA:67:C:O2'	1:AA:171:A:N3	2.15	0.79
22:DA:732:C:OP2	57:DA:3295:HOH:O	2.00	0.79
22:BA:2800:A:H3'	22:BA:2801:G:H5'	1.64	0.79
11:AK:76:GLU:C	22:BA:2141:G:OP1	2.21	0.79
22:BA:1379:U:C6	22:BA:1379:U:OP1	2.36	0.79
22:BA:1277:G:H5'	35:BN:20:MET:CE	2.13	0.79
47:BZ:40:ASP:OD2	47:BZ:45:ARG:NH1	2.16	0.79
27:BF:40:VAL:O	27:BF:42:GLU:N	2.16	0.79
22:DA:2125:G:N1	22:DA:2171:A:OP1	2.16	0.79
21:AU:35:ARG:O	21:AU:37:PHE:N	2.16	0.78
1:CA:515:G:N7	57:CA:1765:HOH:O	2.15	0.78
22:DA:1509:A:O2'	22:DA:1510:G:OP2	2.01	0.78
22:DA:27:G:O2'	22:DA:28:A:OP2	2.01	0.78
25:DD:30:GLU:O	25:DD:52:THR:OG1	2.01	0.78
22:BA:118:A:C8	22:BA:119:A:C8	2.70	0.78
29:BH:83:LYS:HG3	1:CA:55:A:N3	1.98	0.78
24:DC:204:VAL:O	24:DC:206:GLY:N	2.15	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:36:GLU:O	21:AU:37:PHE:HB2	1.82	0.78
27:BF:52:ASN:ND2	27:BF:147:ASP:OD2	2.15	0.78
12:CL:34:CYS:HA	12:CL:55:VAL:HA	1.64	0.78
22:DA:1344:U:O2'	22:DA:1345:C:OP2	2.01	0.78
22:DA:1607:C:N4	22:DA:1622:G:N7	2.30	0.78
23:DB:34:A:N6	23:DB:44:G:O2'	2.16	0.78
24:DC:210:ALA:HA	24:DC:213:TRP:CE2	2.17	0.78
39:DR:8:GLY:O	39:DR:10:LYS:NZ	2.15	0.78
22:BA:2287:A:OP1	49:B1:30:LYS:NZ	2.17	0.78
22:BA:511:U:C5	22:BA:512:G:C5	2.70	0.78
22:DA:2504:U:C5	55:DA:3001:VIR:C16	2.67	0.78
32:DK:30:ARG:NH2	32:DK:37:ASP:OD1	2.17	0.78
29:BH:86:ASP:HB2	1:CA:359:G:O2'	1.82	0.78
1:CA:412:A:HO2'	1:CA:413:G:P	2.07	0.78
22:BA:563:A:C2	22:BA:564:C:C2	2.71	0.78
22:BA:572:A:H5''	22:BA:573:U:OP2	1.82	0.78
22:BA:571:U:C5	22:BA:575:A:C5	2.72	0.78
22:DA:381:G:OP1	45:DX:18:ARG:NH2	2.17	0.78
23:DB:29:A:O2'	23:DB:58:A:N1	2.15	0.77
6:AF:7:VAL:O	6:AF:7:VAL:HG22	1.83	0.77
28:BG:174:ALA:O	28:BG:175:LYS:HB3	1.83	0.77
1:CA:209:U:H4'	1:CA:210:C:OP2	1.85	0.77
4:CD:100:ASN:OD1	4:CD:111:ARG:NH1	2.17	0.77
22:BA:2448:A:OP2	57:BA:3689:HOH:O	2.01	0.77
22:BA:2728:U:O2'	22:BA:2729:G:P	2.42	0.77
1:CA:1007:U:O4	1:CA:1022:A:N6	2.17	0.77
49:D1:15:ALA:O	49:D1:17:THR:N	2.17	0.77
22:DA:2111:U:C5	22:DA:2145:C:H2'	2.19	0.77
1:AA:1322:C:OP1	19:AS:78:ARG:NH2	2.17	0.77
1:AA:1397:C:O2'	1:AA:1398:A:OP1	2.02	0.77
1:CA:706:A:C5	1:CA:707:U:C5	2.72	0.77
4:CD:62:ARG:NH1	4:CD:69:GLU:OE1	2.17	0.77
22:DA:2261:C:C2	22:DA:2280:G:N2	2.53	0.77
1:AA:1003:G:N2	1:AA:1037:C:O2	2.17	0.77
1:CA:249:U:HO2'	1:CA:252:U:HO2'	1.20	0.77
22:BA:1124:G:N7	57:BA:3609:HOH:O	2.17	0.77
22:DA:2286:G:H4'	22:DA:2287:A:O5'	1.85	0.77
1:AA:875:U:O2'	8:AH:15:ARG:NH1	2.17	0.77
29:DH:1:MET:SD	29:DH:27:ARG:NH1	2.58	0.77
9:AI:57:MET:SD	9:AI:58:VAL:N	2.58	0.77
22:BA:2291:U:H2'	22:BA:2292:U:C6	2.18	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:161:A:H3'	22:DA:162:U:H5''	1.67	0.77
22:DA:2091:C:H3'	22:DA:2092:U:H5''	1.67	0.77
6:CF:81:ASN:OD1	6:CF:83:ALA:N	2.19	0.76
22:DA:1464:G:N7	57:DA:3633:HOH:O	2.18	0.76
22:DA:2504:U:C5	55:DA:3001:VIR:H162	2.21	0.76
1:AA:1350:A:OP1	9:AI:123:ARG:NE	2.18	0.76
22:BA:2189:U:H2'	22:BA:2190:G:C1'	2.15	0.76
29:BH:89:LYS:HG2	1:CA:359:G:OP1	1.86	0.76
13:CM:13:LYS:O	13:CM:14:HIS:ND1	2.19	0.76
22:DA:1476:U:H1'	22:DA:1732:C:C2	2.21	0.76
22:DA:187:G:C2	22:DA:210:C:C2	2.73	0.76
22:BA:1916:A:O5'	22:BA:1917:U:OP2	2.02	0.76
12:CL:25:GLU:O	12:CL:26:ALA:C	2.24	0.76
29:DH:45:GLU:O	29:DH:49:ALA:N	2.19	0.76
22:DA:380:G:N2	22:DA:395:U:O2	2.19	0.76
29:DH:53:GLU:O	29:DH:55:GLU:N	2.19	0.76
1:AA:1109:C:OP2	3:AC:176:HIS:ND1	2.19	0.76
22:BA:744:U:OP1	57:BA:3656:HOH:O	2.03	0.76
22:DA:1091:G:O2'	22:DA:1092:C:OP2	2.03	0.76
4:AD:22:LYS:O	4:AD:24:GLY:N	2.19	0.76
22:DA:488:G:N2	22:DA:493:G:O6	2.18	0.76
1:AA:64:G:C8	1:AA:99:C:N4	2.54	0.76
22:BA:370:G:N7	57:BA:3563:HOH:O	2.19	0.76
22:BA:528:A:C8	22:BA:528:A:H3'	2.21	0.76
11:CK:17:SER:O	11:CK:80:LYS:N	2.19	0.76
22:DA:827:U:OP2	57:DA:3695:HOH:O	2.04	0.76
20:AT:69:LYS:O	20:AT:71:LYS:N	2.18	0.76
22:BA:1605:C:H2'	22:BA:1606:C:H5'	1.66	0.76
39:BR:49:ILE:HG22	39:BR:53:PHE:CA	2.16	0.76
1:CA:71:A:C2	1:CA:72:A:C8	2.74	0.76
1:AA:965:U:OP2	57:AA:1831:HOH:O	2.03	0.75
1:CA:966:G:O2'	9:CI:130:ARG:OXT	2.04	0.75
22:DA:2268:A:OP1	57:DA:3505:HOH:O	2.04	0.75
23:DB:31:C:O2'	23:DB:53:A:N1	2.18	0.75
41:DT:17:SER:O	41:DT:19:LYS:N	2.19	0.75
27:BF:2:ALA:O	27:BF:4:LEU:N	2.19	0.75
1:CA:32:A:C2	1:CA:33:A:C5	2.75	0.75
29:DH:124:THR:OG1	29:DH:125:THR:N	2.17	0.75
40:DS:66:ILE:O	40:DS:68:ASP:N	2.19	0.75
17:AQ:16:LYS:C	17:AQ:17:MET:SD	2.65	0.75
22:BA:1266:G:OP1	48:B0:16:ARG:NE	2.19	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:15:G:OP2	57:BA:3553:HOH:O	2.04	0.75
22:BA:1776:G:OP2	57:BA:3451:HOH:O	2.05	0.75
22:DA:1340:U:C4	22:DA:1603:A:C8	2.75	0.75
27:BF:36:LEU:HD21	27:BF:99:PHE:CE2	2.22	0.75
22:DA:2498:C:OP2	57:DA:3680:HOH:O	2.05	0.75
22:DA:1808:A:N1	45:DX:28:ARG:HD2	2.02	0.75
45:DX:33:LEU:O	45:DX:34:HIS:ND1	2.19	0.75
22:DA:668:A:N6	22:DA:670:A:O2'	2.18	0.75
22:BA:2057:G:OP2	57:BA:3490:HOH:O	2.04	0.75
22:BA:770:G:N7	57:BA:3724:HOH:O	2.19	0.75
24:BC:260:ASN:O	24:BC:262:ARG:N	2.19	0.75
25:BD:125:TRP:CE3	25:BD:160:LYS:HD3	2.21	0.75
22:DA:2057:G:OP1	57:DA:3667:HOH:O	2.04	0.75
22:BA:2886:A:C5	22:BA:2887:A:C8	2.74	0.75
22:BA:1450:G:C6	22:BA:1451:C:N4	2.55	0.74
22:BA:2321:U:H5'	22:BA:2322:A:OP2	1.85	0.74
39:DR:82:HIS:O	39:DR:82:HIS:ND1	2.20	0.74
4:AD:32:CYS:O	4:AD:33:LYS:HB2	1.87	0.74
16:AP:46:LYS:HD3	16:AP:47:GLU:N	2.03	0.74
22:BA:2048:G:O6	57:BA:3682:HOH:O	2.05	0.74
22:BA:528:A:H2'	22:BA:529:A:H5''	1.67	0.74
22:DA:1269:A:OP2	57:DA:3377:HOH:O	2.04	0.74
22:DA:1266:G:O2'	22:DA:2012:G:O6	2.02	0.74
1:CA:1004:A:O2'	1:CA:1036:A:N1	2.18	0.74
22:DA:822:G:OP2	57:DA:3343:HOH:O	2.05	0.74
29:BH:117:LEU:HD11	29:BH:122:LEU:HD12	1.69	0.74
29:BH:88:GLY:O	29:BH:125:THR:OG1	2.04	0.74
22:BA:1069:A:N1	22:BA:1073:A:N6	2.34	0.74
29:BH:123:ARG:C	29:BH:124:THR:HG23	2.06	0.74
22:DA:2004:G:OP2	57:DA:3797:HOH:O	2.04	0.74
36:BO:64:TYR:O	36:BO:67:ASN:ND2	2.21	0.74
14:AN:46:LEU:O	14:AN:48:LEU:N	2.20	0.74
22:BA:998:C:O3'	57:BA:3363:HOH:O	2.04	0.74
22:DA:1427:A:N6	22:DA:1571:A:OP2	2.20	0.74
22:DA:2551:C:OP2	57:DA:3718:HOH:O	2.06	0.74
22:DA:2592:G:OP1	57:DA:3458:HOH:O	2.04	0.74
22:DA:2094:A:C5'	29:DH:25:TYR:CG	2.70	0.74
46:DY:45:GLN:O	46:DY:47:ARG:N	2.21	0.74
1:AA:254:G:OP1	17:AQ:70:THR:HB	1.87	0.73
22:DA:587:C:OP2	33:DL:21:ARG:NH1	2.21	0.73
22:DA:2128:G:O6	22:DA:2160:C:N4	2.21	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:196:A:O2'	22:DA:805:G:O6	2.02	0.73
22:DA:842:U:O4	57:DA:3577:HOH:O	2.05	0.73
55:DA:3001:VIR:H352	55:DA:3001:VIR:H311	1.68	0.73
1:AA:516:U:O4	57:AA:1847:HOH:O	2.04	0.73
6:AF:47:LEU:HD13	6:AF:51:ILE:HG23	1.70	0.73
22:BA:1131:G:OP1	31:BJ:82:GLY:HA2	1.88	0.73
22:BA:1371:G:N7	57:BA:3403:HOH:O	2.21	0.73
22:BA:1925:C:H4'	22:BA:1926:U:C4	2.23	0.73
22:BA:585:G:N7	38:BQ:6:ARG:NH1	2.36	0.73
22:DA:334:C:OP1	22:DA:335:C:N4	2.22	0.73
1:CA:976:G:OP2	1:CA:1358:U:O2'	2.05	0.73
1:CA:152:A:N6	1:CA:170:U:C2	2.56	0.73
33:BL:79:LEU:HB2	33:BL:114:GLY:O	1.88	0.73
22:DA:108:G:O2'	22:DA:347:A:N3	2.20	0.73
22:DA:53:A:C8	22:DA:54:G:C8	2.77	0.73
33:DL:102:GLY:N	57:DL:202:HOH:O	2.21	0.73
41:DT:21:SER:O	41:DT:23:ALA:N	2.21	0.73
1:AA:455:G:C2	1:AA:478:A:C2	2.76	0.73
22:DA:466:A:N1	22:DA:795:C:O2'	2.22	0.73
22:BA:1071:G:C8	22:BA:1089:A:N6	2.57	0.73
17:AQ:16:LYS:N	17:AQ:17:MET:SD	2.62	0.73
22:BA:2757:A:N1	28:BG:67:THR:HG21	2.04	0.73
22:DA:826:U:O2'	33:DL:53:GLY:HA3	1.89	0.73
22:DA:978:G:N7	57:DA:3587:HOH:O	2.21	0.73
2:AB:167:ASP:OD1	2:AB:168:HIS:N	2.21	0.72
3:AC:139:GLN:O	3:AC:141:ALA:N	2.22	0.72
24:BC:91:ILE:HD12	24:BC:103:TYR:CD1	2.24	0.72
22:DA:910:A:N3	22:DA:2264:C:O2'	2.22	0.72
2:CB:193:PRO:O	2:CB:195:GLY:N	2.22	0.72
22:DA:616:A:H4'	26:DE:101:TYR:CZ	2.24	0.72
47:DZ:8:THR:OG1	47:DZ:35:THR:OG1	2.07	0.72
22:BA:1746:A:H2'	22:BA:1747:U:C6	2.24	0.72
22:DA:1530:G:N2	22:DA:1542:U:O2	2.22	0.72
22:DA:2821:A:OP2	25:DD:115:GLY:N	2.22	0.72
31:BJ:19:ASP:O	31:BJ:23:LYS:HE2	1.90	0.72
33:DL:93:ASN:O	33:DL:95:LEU:N	2.22	0.72
1:AA:1014:A:N3	19:AS:34:TRP:CH2	2.57	0.72
53:B5:50:ILE:C	53:B5:52:PRO:HD3	2.09	0.72
22:BA:1141:U:H4'	22:BA:1142:A:O4'	1.89	0.72
41:DT:27:SER:O	41:DT:29:THR:N	2.22	0.72
45:DX:54:LYS:O	45:DX:57:ARG:N	2.21	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:27:VAL:HG12	7:AG:43:VAL:HG21	1.71	0.72
38:BQ:24:TYR:O	38:BQ:25:TYR:CB	2.38	0.72
25:DD:151:THR:O	25:DD:152:PRO:C	2.23	0.72
1:AA:1406:U:C5	1:AA:1407:C:C5	2.77	0.72
22:DA:2594:C:N4	22:DA:2595:G:O6	2.23	0.72
31:DJ:41:LYS:O	31:DJ:43:GLU:N	2.22	0.72
4:AD:168:PRO:O	4:AD:169:THR:OG1	2.06	0.72
22:BA:2520:C:C6	22:BA:2567:G:H1'	2.24	0.72
40:BS:63:GLY:O	40:BS:64:ALA:HB3	1.89	0.72
22:DA:2199:A:C1'	29:DH:28:ASN:HD21	2.00	0.72
22:DA:2838:G:O2'	35:DN:45:ARG:NH1	2.22	0.72
1:AA:212:G:N2	1:AA:213:G:C4	2.58	0.72
22:BA:1385:A:H1'	22:BA:1386:C:C6	2.25	0.72
22:BA:783:A:C2'	22:BA:785:G:OP1	2.38	0.72
22:BA:783:A:H2'	22:BA:785:G:OP1	1.90	0.72
22:DA:608:A:H2'	22:DA:609:A:C8	2.25	0.72
1:AA:1299:A:H2'	1:AA:1299:A:N3	2.04	0.72
22:BA:1619:G:N7	57:BA:3649:HOH:O	2.22	0.72
22:BA:2428:G:H5''	22:BA:2429:G:OP1	1.90	0.72
28:BG:121:ILE:HD12	28:BG:141:ILE:HG22	1.72	0.72
32:BK:78:ARG:NH1	37:BP:71:GLU:OE2	2.22	0.72
26:DE:58:LYS:NZ	26:DE:70:SER:O	2.23	0.72
39:DR:49:ILE:HG22	39:DR:54:VAL:N	2.05	0.72
17:AQ:14:SER:HB3	17:AQ:22:VAL:CG1	2.19	0.71
22:BA:2839:G:OP1	35:BN:46:ARG:HD2	1.90	0.71
1:CA:412:A:HO2'	1:CA:413:G:C5'	2.03	0.71
22:DA:1088:A:N6	30:DI:135:SER:OG	2.23	0.71
22:DA:526:A:O5'	57:DA:3246:HOH:O	2.07	0.71
22:DA:820:A:N1	57:DA:3768:HOH:O	2.22	0.71
22:BA:2786:U:OP1	25:BD:70:LYS:NZ	2.20	0.71
22:DA:1359:A:C8	22:DA:1373:A:N1	2.58	0.71
22:DA:740:C:H5'	22:DA:1784:A:C2'	2.20	0.71
22:DA:733:G:OP2	57:DA:3293:HOH:O	2.06	0.71
1:AA:109:A:H2'	1:AA:326:G:N2	2.05	0.71
22:DA:449:A:OP2	57:DA:3242:HOH:O	2.08	0.71
22:DA:2757:A:N1	28:DG:67:THR:HG21	2.05	0.71
1:CA:939:G:OP1	7:CG:95:ARG:NH2	2.24	0.71
22:DA:1376:C:O5'	57:DA:3395:HOH:O	2.07	0.71
29:DH:31:VAL:HB	29:DH:32:PRO:CD	2.20	0.71
1:AA:154:U:C2	1:AA:168:G:N2	2.58	0.71
22:BA:571:U:C5	22:BA:575:A:C6	2.78	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:134:ALA:O	2:CB:138:THR:OG1	2.03	0.71
9:CI:102:GLY:O	9:CI:104:VAL:N	2.24	0.71
39:BR:49:ILE:HB	39:BR:52:PRO:C	2.11	0.71
37:DP:89:ARG:NH1	37:DP:115:ASN:OXT	2.23	0.71
22:DA:998:C:OP2	38:DQ:58:ARG:NH2	2.23	0.71
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.26	0.71
13:AM:29:ARG:CZ	13:AM:63:PHE:HB2	2.20	0.71
22:DA:116:C:HO2'	22:DA:126:A:HO2'	1.28	0.71
22:DA:1477:A:N6	22:DA:1514:G:O2'	2.24	0.71
22:DA:2171:A:O2'	22:DA:2173:A:OP1	2.09	0.71
31:DJ:99:ARG:NH1	31:DJ:102:GLU:OE1	2.23	0.71
22:BA:1360:G:OP2	57:BA:3620:HOH:O	2.09	0.71
22:BA:1921:G:C2	22:BA:1922:G:C8	2.79	0.71
1:CA:1266:G:N2	1:CA:1269:A:OP2	2.23	0.71
1:CA:182:A:C5	1:CA:184:G:N7	2.59	0.71
5:CE:155:ALA:HB1	8:CH:66:PHE:CD2	2.25	0.71
12:CL:66:TYR:O	12:CL:97:THR:OG1	2.09	0.71
22:DA:2093:G:O2'	29:DH:25:TYR:HA	1.91	0.71
22:DA:2198:A:C4	29:DH:29:PHE:HB2	2.26	0.71
5:AE:157:ARG:O	5:AE:159:LYS:N	2.23	0.71
16:CP:23:ASP:O	16:CP:25:ARG:N	2.23	0.71
1:AA:652:U:O4	1:AA:752:G:O2'	2.07	0.70
22:BA:509:C:O3'	57:BA:3777:HOH:O	2.09	0.70
1:CA:411:A:C6	1:CA:429:U:C5	2.79	0.70
22:DA:1638:C:O2	22:DA:2698:U:O2'	2.07	0.70
22:DA:671:C:O2'	22:DA:672:C:O5'	2.09	0.70
5:CE:137:VAL:O	5:CE:138:ARG:HB2	1.89	0.70
22:DA:1469:A:H2'	22:DA:1470:A:C8	2.26	0.70
1:AA:1236:A:H2'	1:AA:1237:C:C6	2.26	0.70
22:BA:1918:A:O2'	22:BA:1920:C:N4	2.24	0.70
22:BA:301:G:OP2	42:BU:82:ARG:NH1	2.23	0.70
4:AD:3:ARG:CZ	4:AD:115:ARG:HD3	2.21	0.70
33:BL:87:GLY:O	33:BL:89:VAL:N	2.22	0.70
1:CA:55:A:C6	1:CA:56:U:C2	2.80	0.70
1:CA:667:G:OP1	1:CA:732:C:O2'	2.08	0.70
22:DA:2407:A:OP2	57:DA:3558:HOH:O	2.09	0.70
32:DK:76:VAL:HG12	37:DP:73:VAL:HG22	1.73	0.70
27:BF:158:THR:O	57:BF:201:HOH:O	2.09	0.70
22:DA:1378:A:O2'	57:DA:3749:HOH:O	2.08	0.70
22:DA:362:A:C4	22:DA:363:G:C8	2.80	0.70
3:AC:205:GLY:O	3:AC:206:GLU:HG3	1.90	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:85:GLU:OE1	3:AC:88:ARG:NH1	2.24	0.70
17:AQ:4:LYS:O	17:AQ:4:LYS:HD2	1.91	0.70
22:BA:1922:G:N2	22:BA:1923:U:O4'	2.23	0.70
22:BA:797:G:N7	57:BA:3321:HOH:O	2.23	0.70
22:DA:1209:U:O2	22:DA:1210:G:N2	2.23	0.70
22:DA:2415:G:C6	22:DA:2416:C:C4	2.80	0.70
9:AI:45:ARG:HG2	9:AI:46:MET:SD	2.31	0.70
53:B5:48:LEU:HA	53:B5:208:THR:CB	2.22	0.70
22:BA:1508:A:O2'	22:BA:1509:A:O4'	2.09	0.70
22:DA:1651:G:N2	22:DA:2007:U:O2	2.25	0.70
22:DA:83:A:OP2	42:DU:92:LYS:NZ	2.20	0.70
1:AA:1225:A:H2'	1:AA:1226:C:C5	2.27	0.70
22:BA:250:G:C6	22:BA:251:A:C6	2.80	0.70
1:CA:495:A:C2	1:CA:496:A:C6	2.79	0.70
22:DA:593:U:H2'	22:DA:594:U:C6	2.27	0.70
1:AA:872:A:C4	1:AA:874:G:N7	2.60	0.70
4:AD:59:GLN:O	4:AD:63:ARG:HG2	1.92	0.70
53:B5:65:LEU:O	53:B5:67:HIS:N	2.25	0.70
29:BH:94:ILE:HG22	29:BH:99:ILE:HG13	1.72	0.70
39:BR:49:ILE:CG2	39:BR:53:PHE:N	2.54	0.70
1:CA:632:U:H2'	1:CA:632:U:O2	1.92	0.70
22:DA:2504:U:C5	55:DA:3001:VIR:H161	2.26	0.70
1:AA:799:G:O6	57:AA:1815:HOH:O	2.09	0.70
22:BA:2305:U:C2	27:BF:151:GLY:HA3	2.27	0.70
1:CA:728:A:H2'	1:CA:729:A:C8	2.27	0.70
5:CE:82:GLN:OE1	5:CE:150:PRO:HD3	1.91	0.70
22:DA:1251:C:OP2	38:DQ:6:ARG:NH2	2.24	0.70
28:DG:11:VAL:O	28:DG:48:ASN:ND2	2.25	0.70
31:DJ:41:LYS:O	31:DJ:44:TYR:N	2.23	0.70
4:AD:11:LEU:HD22	4:AD:63:ARG:HD3	1.72	0.69
29:BH:123:ARG:CZ	1:CA:367:U:OP2	2.40	0.69
5:CE:115:LEU:O	5:CE:120:VAL:HG23	1.91	0.69
22:DA:1776:G:N2	22:DA:1789:A:H1'	2.07	0.69
22:DA:2811:G:H2'	22:DA:2812:G:O4'	1.91	0.69
1:AA:1014:A:C2	19:AS:34:TRP:CH2	2.80	0.69
30:BI:122:ILE:O	30:BI:126:THR:OG1	2.10	0.69
12:CL:92:GLY:O	12:CL:94:ARG:N	2.24	0.69
22:DA:1006:C:OP2	57:DA:3777:HOH:O	2.09	0.69
20:AT:29:ARG:O	20:AT:33:LYS:HG2	1.92	0.69
22:DA:1153:C:P	57:DA:3356:HOH:O	2.49	0.69
22:DA:489:G:H4'	22:DA:490:C:OP1	1.92	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:48:U:H4'	36:DO:100:HIS:CD2	2.27	0.69
7:AG:55:GLY:O	7:AG:57:SER:N	2.25	0.69
22:BA:2063:C:O2	22:BA:2450:A:N1	2.26	0.69
22:BA:981:A:OP1	57:BA:3597:HOH:O	2.09	0.69
1:CA:1072:G:C6	1:CA:1073:U:C4	2.81	0.69
2:CB:54:LEU:HA	2:CB:57:LEU:HB3	1.74	0.69
35:DN:79:LEU:O	35:DN:81:ASN:N	2.26	0.69
1:AA:781:A:OP2	57:AA:1812:HOH:O	2.10	0.69
22:BA:1421:G:C2	22:BA:1422:G:C8	2.81	0.69
22:BA:990:A:H5'	22:BA:991:C:OP1	1.93	0.69
40:BS:84:ARG:HB2	40:BS:96:ILE:HG13	1.74	0.69
22:DA:1843:C:H4'	24:DC:251:GLN:CD	2.13	0.69
17:AQ:60:GLU:OE2	17:AQ:77:ARG:NH1	2.26	0.69
50:B2:43:THR:O	50:B2:44:VAL:CB	2.41	0.69
22:BA:2190:G:C2	22:BA:2191:A:C4	2.80	0.69
22:DA:2209:G:C2	22:DA:2216:G:C2	2.80	0.69
22:DA:526:A:N6	22:DA:2626:C:H4'	2.07	0.69
20:AT:6:SER:OG	20:AT:7:ALA:N	2.24	0.69
1:CA:980:C:N3	57:CA:1845:HOH:O	2.25	0.69
14:CN:61:ARG:O	14:CN:62:ASN:HB2	1.92	0.69
22:DA:1342:A:OP2	57:DA:3710:HOH:O	2.09	0.69
22:DA:1671:U:OP2	57:DA:3430:HOH:O	2.11	0.69
22:DA:301:G:C2	22:DA:302:C:C2	2.81	0.69
22:DA:990:A:N1	39:DR:78:ARG:NH1	2.41	0.69
22:BA:1180:U:HO2'	22:BA:1181:U:P	2.15	0.69
4:CD:148:LYS:O	4:CD:149:ALA:HB3	1.93	0.69
22:DA:2055:C:OP2	57:DA:3569:HOH:O	2.09	0.69
22:DA:764:A:N1	22:DA:1789:A:O2'	2.25	0.69
1:AA:131:A:H2'	1:AA:132:C:C6	2.27	0.69
33:BL:61:LEU:O	51:B3:13:ARG:HD3	1.92	0.69
22:DA:118:A:N3	22:DA:178:G:H1'	2.08	0.69
1:AA:1014:A:N7	1:AA:1015:G:C5	2.61	0.69
1:AA:90:C:C2	1:AA:91:U:C5	2.81	0.69
1:AA:979:C:OP1	57:AA:1835:HOH:O	2.10	0.69
2:CB:206:ALA:O	2:CB:208:ARG:N	2.26	0.69
6:CF:45:ARG:O	6:CF:56:LYS:HA	1.93	0.69
22:DA:1009:A:N3	22:DA:1153:C:O2'	2.24	0.69
22:DA:2136:G:N1	22:DA:2156:G:H1'	2.08	0.69
13:CM:40:ALA:O	13:CM:42:ASP:N	2.26	0.69
22:DA:289:G:C2	22:DA:352:A:C2	2.81	0.69
22:DA:813:U:H2'	22:DA:814:C:C6	2.29	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:995:C:O2	31:DJ:3:THR:OG1	2.10	0.69
1:AA:468:A:C2	1:AA:469:C:C4	2.80	0.68
2:AB:23:TRP:CH2	2:AB:25:PRO:HA	2.28	0.68
22:BA:2325:G:C6	22:BA:2326:C:N4	2.61	0.68
12:AL:44:LYS:CB	12:AL:45:PRO:CD	2.71	0.68
1:CA:1198:G:OP1	57:CA:1837:HOH:O	2.11	0.68
6:CF:97:THR:O	6:CF:98:GLU:HB3	1.93	0.68
22:DA:247:G:H4'	22:DA:386:G:C4	2.29	0.68
22:DA:2484:G:OP1	34:DM:44:ARG:NH2	2.25	0.68
35:DN:1:MET:O	35:DN:3:HIS:N	2.27	0.68
15:AO:63:ARG:HG2	15:AO:67:LEU:HD12	1.76	0.68
43:BV:14:LYS:HD2	43:BV:18:ARG:NH1	2.08	0.68
22:DA:1096:A:H2'	22:DA:1097:U:O4'	1.94	0.68
22:BA:2127:G:H4'	22:BA:2128:G:OP1	1.93	0.68
11:AK:69:ARG:HD2	22:BA:2146:C:N3	2.08	0.68
22:DA:1265:A:OP1	57:DA:3743:HOH:O	2.11	0.68
22:DA:1394:U:H4'	22:DA:1603:A:H4'	1.75	0.68
22:DA:2126:A:O2'	22:DA:2162:G:O6	2.11	0.68
24:DC:62:TYR:CE2	24:DC:63:ARG:O	2.47	0.68
1:AA:80:A:C2	1:AA:90:C:N3	2.62	0.68
48:B0:34:SER:OG	48:B0:36:GLU:HG3	1.93	0.68
22:BA:1936:A:H2	22:BA:1943:U:H3	1.39	0.68
1:CA:374:A:H5''	1:CA:452:A:N1	2.08	0.68
17:CQ:48:ASP:OD1	17:CQ:48:ASP:N	2.24	0.68
22:DA:2575:C:OP2	57:DA:3706:HOH:O	2.10	0.68
1:AA:91:U:H2'	1:AA:92:U:O4'	1.93	0.68
9:AI:25:ASN:N	9:AI:62:ASP:OD1	2.27	0.68
22:BA:451:U:OP2	57:BA:3238:HOH:O	2.12	0.68
22:BA:587:C:C6	22:BA:671:C:H1'	2.27	0.68
1:CA:552:U:C4	1:CA:553:A:N7	2.62	0.68
1:AA:466:A:H5'	1:AA:467:U:OP2	1.92	0.68
12:AL:86:ARG:CZ	12:AL:88:LYS:HB3	2.24	0.68
23:BB:33:G:O2'	23:BB:34:A:H5'	1.94	0.68
24:BC:117:GLN:N	24:BC:128:ASN:OD1	2.25	0.68
1:AA:1145:A:O2'	1:AA:1146:A:P	2.52	0.68
1:AA:1181:G:O2'	1:AA:1182:G:C5	2.45	0.68
4:AD:23:SER:O	4:AD:24:GLY:O	2.12	0.68
22:BA:2023:C:C2'	22:BA:2024:G:H5'	2.23	0.68
26:BE:7:ASP:O	26:BE:9:GLN:N	2.27	0.68
27:BF:105:THR:CG2	27:BF:106:ILE:HG23	2.23	0.68
29:BH:97:ARG:HD3	1:CA:370:C:H5'	1.76	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1509:A:C4	22:DA:1510:G:C8	2.81	0.68
1:AA:1053:G:H4'	1:AA:1054:C:H5'	1.74	0.68
49:B1:23:THR:OG1	49:B1:24:THR:N	2.26	0.68
31:BJ:17:VAL:HG23	31:BJ:137:PRO:HB2	1.76	0.68
1:AA:1422:G:O3'	32:BK:49:ARG:NH2	2.26	0.68
1:CA:527:G:C2	1:CA:528:C:C6	2.82	0.68
4:CD:145:ILE:HG21	4:CD:150:LYS:HA	1.74	0.68
25:DD:33:ARG:NH2	25:DD:74:GLU:O	2.27	0.68
1:AA:537:G:OP1	12:AL:110:ARG:NH2	2.26	0.68
22:DA:247:G:H4'	22:DA:386:G:C5	2.29	0.68
22:DA:912:C:N4	22:DA:913:U:O4	2.27	0.68
9:AI:30:ILE:HD11	9:AI:38:TYR:CD1	2.30	0.67
22:BA:1754:A:C6	22:BA:1755:A:C6	2.82	0.67
22:BA:1853:A:N1	22:BA:2087:G:H1'	2.09	0.67
6:CF:88:MET:HE1	18:CR:64:TYR:CD2	2.29	0.67
14:CN:91:GLY:O	14:CN:93:ILE:N	2.27	0.67
22:DA:1935:G:H1'	22:DA:1964:G:N2	2.08	0.67
44:DW:33:ALA:N	44:DW:64:ASP:OD1	2.27	0.67
11:AK:102:ALA:O	11:AK:104:GLY:N	2.27	0.67
53:B5:50:ILE:HG22	53:B5:51:ASP:N	2.09	0.67
28:BG:80:THR:HG22	28:BG:81:GLU:N	2.09	0.67
1:CA:1361:G:C3'	1:CA:1362:A:H5''	2.24	0.67
2:CB:16:PHE:CE2	2:CB:18:HIS:CE1	2.82	0.67
9:CI:41:ARG:O	9:CI:45:ARG:NH1	2.27	0.67
22:DA:856:G:N2	22:DA:922:C:C2	2.62	0.67
14:AN:61:ARG:O	14:AN:62:ASN:HB2	1.95	0.67
29:BH:122:LEU:HD23	29:BH:123:ARG:N	2.10	0.67
37:BP:31:TRP:CE2	37:BP:40:LEU:HD11	2.29	0.67
4:CD:29:ASP:O	4:CD:31:LYS:N	2.25	0.67
17:CQ:8:LEU:HB2	17:CQ:61:ILE:CG2	2.24	0.67
22:DA:250:G:OP2	51:D3:13:ARG:NH1	2.27	0.67
22:DA:2725:A:C4	22:DA:2727:A:C8	2.81	0.67
22:DA:320:A:H4'	22:DA:322:A:N7	2.09	0.67
24:DC:45:ASN:OD1	24:DC:46:ASN:N	2.27	0.67
13:AM:46:SER:O	13:AM:47:GLU:HB3	1.93	0.67
22:BA:1079:C:C5	22:BA:1088:A:C2	2.82	0.67
22:BA:1429:G:O2'	22:BA:1430:G:H5'	1.94	0.67
22:BA:1907:G:C5	22:BA:1908:C:C5	2.83	0.67
26:BE:119:ILE:HB	26:BE:187:VAL:CG2	2.25	0.67
29:BH:97:ARG:NH1	1:CA:370:C:O4'	2.26	0.67
32:BK:113:MET:O	32:BK:116:ILE:HG13	1.93	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1187:G:H5'	39:BR:83:TYR:CE2	2.29	0.67
46:BY:21:LEU:O	46:BY:22:LEU:O	2.11	0.67
22:DA:2504:U:C6	55:DA:3001:VIR:H161	2.29	0.67
5:AE:81:LEU:HD12	5:AE:147:MET:SD	2.35	0.67
22:BA:245:G:N7	51:B3:8:ARG:NH1	2.42	0.67
22:BA:1061:U:O2'	22:BA:1062:G:O5'	2.10	0.67
22:DA:2111:U:C4	22:DA:2145:C:H2'	2.29	0.67
22:DA:2834:G:O6	22:DA:2879:A:O2'	2.06	0.67
22:BA:1869:G:H3'	22:BA:1870:C:H5'	1.76	0.67
34:DM:66:ARG:NH1	34:DM:104:GLU:OE1	2.28	0.67
42:DU:96:PHE:CE1	42:DU:103:ILE:HG13	2.29	0.67
1:AA:315:A:C8	1:AA:330:C:H5'	2.29	0.67
2:AB:222:ARG:CZ	2:AB:222:ARG:HB3	2.24	0.67
22:DA:1050:A:C2	22:DA:2751:G:C4	2.83	0.67
22:DA:729:G:OP2	24:DC:207:LYS:NZ	2.25	0.67
32:DK:34:GLY:O	32:DK:36:GLY:N	2.27	0.67
1:AA:451:A:C8	1:AA:452:A:C2	2.83	0.67
1:AA:620:C:H1'	4:AD:132:ILE:HD11	1.75	0.67
50:B2:43:THR:O	50:B2:44:VAL:HB	1.94	0.67
22:BA:276:U:O2	22:BA:276:U:H2'	1.95	0.67
1:CA:992:U:C5	1:CA:1043:G:C8	2.83	0.67
22:DA:1855:U:C5	22:DA:1856:U:C5	2.83	0.67
22:BA:1776:G:OP2	57:BA:3449:HOH:O	2.12	0.67
29:BH:27:ARG:O	29:BH:28:ASN:HB2	1.95	0.67
35:BN:66:ALA:O	35:BN:69:ARG:O	2.13	0.67
47:BZ:10:THR:HG22	47:BZ:54:MET:C	2.15	0.67
1:CA:1181:G:O2'	1:CA:1182:G:N7	2.28	0.67
22:DA:631:A:N3	22:DA:2415:G:O2'	2.24	0.67
1:AA:1014:A:H2'	1:AA:1015:G:O4'	1.95	0.67
1:AA:1152:A:OP1	10:AJ:70:HIS:ND1	2.28	0.67
1:AA:201:G:C2	1:AA:217:C:O2	2.48	0.67
1:AA:1149:C:OP2	9:AI:11:ARG:NH2	2.28	0.67
22:BA:560:C:OP2	57:BA:3250:HOH:O	2.13	0.67
27:BF:132:VAL:HG22	27:BF:152:LEU:HB2	1.77	0.67
39:BR:51:VAL:HG23	39:BR:52:PRO:HD2	1.76	0.67
1:CA:1361:G:H3'	1:CA:1362:A:H5''	1.76	0.67
22:DA:1652:A:C2	22:DA:2006:C:N3	2.63	0.67
22:DA:82:U:N3	22:DA:83:A:N7	2.43	0.67
22:DA:996:A:C2	22:DA:997:G:C8	2.83	0.67
2:AB:50:PHE:HA	2:AB:213:TYR:OH	1.94	0.66
52:B4:36:ARG:HG2	52:B4:37:GLN:N	2.09	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1395:A:OP1	57:BA:3413:HOH:O	2.11	0.66
22:BA:395:U:O2'	22:BA:396:G:N7	2.28	0.66
25:BD:105:LYS:O	25:BD:177:VAL:HG13	1.95	0.66
47:BZ:36:VAL:HG21	47:BZ:38:ARG:NH2	2.09	0.66
2:CB:100:MET:HA	2:CB:107:VAL:HG21	1.77	0.66
22:DA:1651:G:C2	22:DA:2007:U:O2	2.49	0.66
14:AN:51:LEU:O	14:AN:53:ARG:N	2.29	0.66
22:BA:528:A:H3'	22:BA:528:A:H8	1.59	0.66
22:BA:653:U:OP2	22:BA:653:U:C6	2.48	0.66
25:BD:103:ASP:OD1	25:BD:104:VAL:N	2.28	0.66
33:BL:68:SER:O	33:BL:69:ARG:HB2	1.95	0.66
39:BR:68:ARG:HD3	39:BR:92:TRP:CZ2	2.31	0.66
20:CT:44:LYS:NZ	20:CT:86:LEU:O	2.26	0.66
50:D2:35:ARG:O	50:D2:38:GLY:N	2.27	0.66
22:DA:2199:A:C4'	29:DH:28:ASN:ND2	2.59	0.66
22:DA:297:G:H5''	42:DU:85:PHE:HB2	1.77	0.66
22:BA:528:A:C8	22:BA:528:A:C3'	2.78	0.66
29:BH:94:ILE:CG2	29:BH:99:ILE:HG13	2.26	0.66
41:BT:18:GLU:O	41:BT:22:THR:HG23	1.95	0.66
22:DA:1351:C:H2'	22:DA:1352:U:O4'	1.95	0.66
22:DA:2133:G:N2	22:DA:2158:A:C6	2.64	0.66
7:AG:15:ASP:OD1	7:AG:44:TYR:OH	2.14	0.66
10:AJ:54:SER:O	14:AN:81:ARG:NH2	2.28	0.66
11:AK:52:PHE:HB3	11:AK:56:ARG:HB3	1.77	0.66
22:BA:1073:A:H3'	22:BA:1074:G:H5''	1.74	0.66
22:BA:1265:A:OP1	57:BA:3753:HOH:O	2.12	0.66
1:CA:378:G:C2	1:CA:386:C:O2	2.49	0.66
2:CB:21:ARG:HA	2:CB:21:ARG:CZ	2.25	0.66
22:DA:1141:U:H4'	22:DA:1142:A:O4'	1.94	0.66
22:BA:1057:A:C2	22:BA:1086:A:C2	2.83	0.66
22:BA:1605:C:C2'	22:BA:1606:C:H5'	2.26	0.66
33:BL:35:HIS:O	33:BL:36:LYS:HB2	1.95	0.66
39:BR:49:ILE:CG2	39:BR:52:PRO:C	2.64	0.66
1:CA:475:C:H2'	1:CA:476:U:C6	2.30	0.66
1:CA:805:C:C2	1:CA:806:C:C5	2.84	0.66
5:CE:101:GLU:O	5:CE:103:THR:N	2.29	0.66
5:CE:105:ILE:HG23	5:CE:105:ILE:O	1.94	0.66
22:DA:450:G:N1	22:DA:454:A:OP2	2.26	0.66
1:AA:1353:G:C2	1:AA:1354:U:C5	2.84	0.66
8:AH:51:VAL:O	8:AH:51:VAL:HG22	1.94	0.66
1:AA:1313:U:P	19:AS:6:LYS:HB3	2.35	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1048:G:OP2	57:CA:1849:HOH:O	2.14	0.66
1:CA:1151:A:C2	1:CA:1152:A:C5	2.84	0.66
1:CA:1298:U:O2	1:CA:1298:U:H2'	1.94	0.66
1:CA:572:A:H5'	1:CA:573:A:OP2	1.96	0.66
1:CA:666:G:C6	1:CA:741:G:C6	2.84	0.66
2:CB:35:ARG:O	2:CB:38:VAL:HG12	1.96	0.66
4:CD:31:LYS:HD3	4:CD:31:LYS:N	2.10	0.66
14:CN:21:PHE:O	14:CN:23:LYS:N	2.28	0.66
22:DA:1973:G:C6	22:DA:1974:C:C4	2.83	0.66
22:BA:319:G:C4	22:BA:333:G:N2	2.63	0.66
25:BD:133:THR:HG23	25:BD:134:HIS:N	2.11	0.66
9:CI:95:ARG:O	9:CI:99:ARG:N	2.29	0.66
10:CJ:77:VAL:O	10:CJ:79:PRO:HD3	1.95	0.66
23:DB:14:U:O2	23:DB:14:U:H2'	1.95	0.66
22:BA:159:G:O2'	22:BA:167:A:N6	2.28	0.66
22:BA:1917:U:C4	22:BA:1918:A:C5	2.84	0.66
22:BA:48:G:N2	22:BA:49:A:N1	2.42	0.66
26:BE:119:ILE:HB	26:BE:187:VAL:HG23	1.78	0.66
31:BJ:81:ILE:HG23	31:BJ:82:GLY:N	2.10	0.66
34:BM:47:GLU:OE2	34:BM:51:ARG:NE	2.29	0.66
2:CB:119:THR:O	2:CB:120:GLN:CB	2.43	0.66
22:DA:1019:U:OP1	22:DA:1035:U:O2'	2.13	0.66
22:DA:1359:A:C2	22:DA:1360:G:H1'	2.31	0.66
4:AD:123:ILE:N	4:AD:123:ILE:HD13	2.11	0.66
20:AT:44:LYS:NZ	20:AT:86:LEU:O	2.28	0.66
22:BA:1073:A:H3'	22:BA:1074:G:H5'	1.78	0.66
22:BA:1428:C:C5	22:BA:1569:A:H5''	2.30	0.66
33:BL:85:VAL:HG11	33:BL:94:THR:HG22	1.78	0.66
4:CD:46:PRO:O	4:CD:47:ARG:C	2.35	0.66
22:DA:2128:G:N3	22:DA:2173:A:O2'	2.29	0.66
1:AA:269:C:H2'	1:AA:270:A:C8	2.31	0.66
49:B1:17:THR:HG21	49:B1:42:VAL:HB	1.78	0.66
22:BA:1585:C:C2'	22:BA:1586:A:H5'	2.26	0.66
6:CF:19:PRO:HA	6:CF:22:ILE:HB	1.78	0.66
22:DA:1097:U:C5	22:DA:1098:A:H1'	2.31	0.66
22:DA:39:G:C6	22:DA:40:U:C4	2.84	0.66
1:AA:1311:A:C2	1:AA:1327:C:N3	2.64	0.65
22:BA:1132:U:H3'	22:BA:1133:A:H5''	1.79	0.65
24:BC:182:ARG:HH21	24:BC:182:ARG:CG	2.09	0.65
1:CA:259:G:OP2	57:CA:1727:HOH:O	2.12	0.65
22:DA:2093:G:C6	22:DA:2225:A:C8	2.85	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2692:G:O4'	22:DA:2846:G:N2	2.29	0.65
35:DN:69:ARG:O	35:DN:71:ARG:N	2.26	0.65
1:AA:914:A:C4	1:AA:915:A:C8	2.84	0.65
2:AB:160:ALA:O	2:AB:161:LEU:HB2	1.97	0.65
20:AT:68:HIS:HB3	20:AT:69:LYS:HE3	1.77	0.65
22:DA:613:A:OP2	22:DA:614:A:N7	2.29	0.65
1:AA:21:G:N2	1:AA:22:G:C6	2.64	0.65
7:AG:99:LEU:O	7:AG:102:ARG:N	2.30	0.65
10:AJ:74:VAL:HG12	10:AJ:75:ASP:N	2.12	0.65
22:BA:1417:C:H2'	22:BA:1418:G:O4'	1.96	0.65
22:BA:1426:G:H1'	22:BA:1573:G:O6	1.96	0.65
24:BC:125:LYS:HG2	24:BC:128:ASN:ND2	2.11	0.65
29:BH:14:SER:O	29:BH:15:LEU:HB2	1.95	0.65
1:CA:1089:G:C5	1:CA:1090:U:C5	2.84	0.65
22:DA:563:A:C4	22:DA:2018:G:C2	2.84	0.65
23:DB:81:G:C5	23:DB:82:U:C5	2.84	0.65
32:DK:118:LEU:O	32:DK:119:ALA:HB3	1.97	0.65
45:DX:31:PRO:O	45:DX:33:LEU:N	2.29	0.65
1:AA:1006:G:OP1	1:AA:1037:C:O2'	2.14	0.65
1:AA:824:G:H1'	8:AH:2:SER:N	2.12	0.65
8:AH:42:GLU:N	8:AH:42:GLU:OE1	2.30	0.65
22:BA:819:A:C4	22:BA:1189:A:C2	2.84	0.65
27:BF:25:VAL:O	27:BF:28:VAL:HG12	1.97	0.65
1:CA:1317:C:OP1	14:CN:56:SER:OG	2.09	0.65
2:CB:85:LEU:HG	2:CB:85:LEU:O	1.94	0.65
24:DC:70:ASN:O	24:DC:72:ASP:N	2.29	0.65
25:DD:104:VAL:O	25:DD:105:LYS:CB	2.44	0.65
1:AA:208:U:C5	1:AA:210:C:C4	2.84	0.65
14:AN:91:GLY:O	14:AN:93:ILE:N	2.27	0.65
27:BF:14:LYS:O	27:BF:18:THR:CG2	2.44	0.65
46:BY:18:LEU:O	46:BY:22:LEU:HB2	1.96	0.65
1:CA:64:G:C8	1:CA:99:C:N4	2.64	0.65
17:CQ:19:LYS:O	17:CQ:71:LYS:NZ	2.23	0.65
22:DA:1715:G:O2'	22:DA:1743:G:O6	2.11	0.65
22:DA:783:A:O2'	22:DA:1779:U:O2	2.09	0.65
22:DA:740:C:H5'	22:DA:1784:A:C3'	2.26	0.65
22:DA:777:G:C2	22:DA:778:G:C8	2.84	0.65
1:AA:928:G:O2'	1:AA:1533:C:OP1	2.13	0.65
22:BA:2307:G:N3	22:BA:2308:G:O6	2.30	0.65
22:BA:580:U:H2'	22:BA:581:C:C6	2.30	0.65
29:BH:114:GLU:HB3	29:BH:133:GLN:O	1.97	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:139:PHE:O	29:BH:140:ALA:CB	2.44	0.65
1:CA:1162:C:C2	1:CA:1175:G:N2	2.65	0.65
1:CA:536:C:OP1	57:CA:1769:HOH:O	2.15	0.65
22:DA:447:A:OP2	57:DA:3210:HOH:O	2.15	0.65
22:DA:1253:A:OP1	38:DQ:33:ARG:NH1	2.29	0.65
10:AJ:63:ASP:HB3	10:AJ:65:TYR:CE1	2.31	0.65
51:B3:27:ALA:O	51:B3:28:ASN:HB2	1.96	0.65
26:BE:149:ILE:HD11	26:BE:172:ALA:HA	1.79	0.65
44:BW:10:THR:O	44:BW:11:ARG:HB2	1.97	0.65
1:CA:73:C:O2'	1:CA:74:A:O5'	2.14	0.65
2:CB:82:ASP:N	2:CB:82:ASP:OD1	2.28	0.65
4:CD:202:GLU:OE1	5:CE:105:ILE:CG2	2.44	0.65
5:CE:24:THR:HA	5:CE:29:ARG:HA	1.78	0.65
22:DA:1317:G:C2	22:DA:1336:A:C2	2.84	0.65
22:DA:1604:C:OP1	57:DA:3403:HOH:O	2.14	0.65
22:DA:2886:A:C2	22:DA:2887:A:H1'	2.32	0.65
30:DI:58:VAL:HG12	30:DI:59:ILE:N	2.12	0.65
39:BR:46:GLU:N	39:BR:46:GLU:OE1	2.30	0.65
42:BU:39:ILE:HG22	42:BU:40:ASN:H	1.61	0.65
8:CH:125:ILE:HD11	8:CH:128:TYR:CE1	2.31	0.65
22:DA:2612:C:H5''	22:DA:2613:U:OP1	1.97	0.65
30:DI:21:SER:HB3	30:DI:22:PRO:HD3	1.79	0.65
1:AA:104:G:C2	1:AA:105:G:C8	2.84	0.65
1:AA:983:A:C2'	1:AA:983:A:N3	2.59	0.65
22:BA:2211:A:O2'	22:BA:2212:A:OP1	2.13	0.65
24:BC:227:PRO:HA	24:BC:233:GLY:HA2	1.77	0.65
1:CA:604:G:H2'	1:CA:605:U:O4'	1.97	0.65
22:DA:1289:C:O2'	22:DA:1330:C:H4'	1.97	0.65
22:DA:142:A:C6	22:DA:143:C:N4	2.65	0.65
22:DA:1779:U:H5	22:DA:1784:A:N7	1.94	0.65
26:DE:98:LYS:NZ	57:DE:306:HOH:O	2.29	0.65
1:AA:988:G:C6	1:AA:989:U:C4	2.85	0.65
2:AB:33:GLY:O	2:AB:34:ALA:CB	2.45	0.65
9:AI:36:GLU:OE2	9:AI:36:GLU:N	2.30	0.65
1:AA:483:C:O2	16:AP:13:LYS:NZ	2.29	0.65
22:BA:1509:A:O2'	22:BA:1510:G:P	2.55	0.65
32:BK:113:MET:SD	32:BK:116:ILE:HD11	2.36	0.65
46:BY:56:LEU:O	46:BY:57:LEU:HB2	1.97	0.65
25:DD:112:THR:O	25:DD:195:GLY:HA2	1.96	0.65
1:AA:1353:G:C2	1:AA:1354:U:C6	2.85	0.64
1:AA:328:C:O2	1:AA:328:C:H2'	1.97	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:411:A:C5	1:AA:429:U:C5	2.86	0.64
1:AA:872:A:C5	1:AA:874:G:C8	2.84	0.64
22:BA:1340:U:H4'	22:BA:1341:G:OP2	1.96	0.64
22:BA:2189:U:H2'	22:BA:2190:G:H1'	1.78	0.64
22:BA:636:G:C6	33:BL:111:ILE:HD11	2.31	0.64
22:DA:398:C:OP1	45:DX:32:ASN:ND2	2.30	0.64
1:AA:859:G:H2'	1:AA:860:A:C8	2.32	0.64
10:AJ:44:THR:HG22	10:AJ:70:HIS:HA	1.78	0.64
29:BH:122:LEU:C	29:BH:123:ARG:HG2	2.17	0.64
12:CL:86:ARG:CZ	12:CL:88:LYS:HB3	2.27	0.64
1:AA:1410:A:C4	1:AA:1491:G:N2	2.66	0.64
1:AA:825:A:O2'	8:AH:13:ARG:NH1	2.30	0.64
1:AA:982:U:H4'	1:AA:983:A:H5'	1.77	0.64
11:AK:126:LYS:C	21:AU:34:ARG:NH2	2.51	0.64
22:BA:1917:U:O4	22:BA:1918:A:C2	2.50	0.64
1:CA:898:G:O2'	1:CA:900:A:N7	2.20	0.64
12:CL:116:LYS:O	12:CL:117:TYR:CD2	2.50	0.64
22:DA:1525:A:C2	22:DA:1526:C:C2	2.84	0.64
22:DA:2164:C:H2'	22:DA:2165:C:C6	2.31	0.64
22:DA:160:A:N3	22:DA:2208:C:O2'	2.30	0.64
22:DA:2407:A:OP1	57:DA:3560:HOH:O	2.15	0.64
22:DA:13:A:N1	22:DA:525:U:H2'	2.11	0.64
1:AA:705:G:C5	1:AA:706:A:C8	2.85	0.64
22:BA:1090:A:H2'	22:BA:1091:G:H5'	1.78	0.64
26:BE:106:LYS:HG3	26:BE:200:LEU:HG	1.80	0.64
7:CG:88:PRO:HD2	7:CG:151:PHE:O	1.97	0.64
22:DA:82:U:C2	22:DA:83:A:C8	2.85	0.64
22:DA:948:C:O2	22:DA:984:A:O2'	2.14	0.64
47:DZ:14:ILE:HG22	47:DZ:15:GLY:N	2.12	0.64
1:AA:1493:A:O2'	1:AA:1494:G:OP2	2.16	0.64
1:AA:507:C:C4	1:AA:508:U:C4	2.86	0.64
22:BA:1061:U:HO2'	22:BA:1062:G:P	2.19	0.64
22:BA:142:A:C5	22:BA:143:C:C4	2.85	0.64
22:BA:2377:A:C2'	22:BA:2378:A:H5'	2.28	0.64
2:CB:141:LEU:O	2:CB:144:LEU:N	2.30	0.64
39:DR:101:ILE:O	39:DR:103:ALA:N	2.30	0.64
2:AB:82:ASP:O	2:AB:84:ALA:N	2.30	0.64
50:B2:43:THR:O	50:B2:44:VAL:HG12	1.98	0.64
1:CA:689:C:OP2	11:CK:53:ARG:NH2	2.29	0.64
4:CD:35:GLU:HG3	4:CD:36:GLN:HG3	1.79	0.64
22:DA:352:A:H2'	22:DA:353:C:O4'	1.97	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:116:GLN:NE2	28:DG:117:LEU:O	2.31	0.64
46:DY:56:LEU:O	46:DY:57:LEU:CB	2.46	0.64
12:AL:24:LEU:O	12:AL:25:GLU:C	2.35	0.64
25:BD:16:THR:OG1	25:BD:18:ASP:OD1	2.11	0.64
35:BN:58:ASP:OD2	35:BN:63:ARG:NH2	2.31	0.64
22:BA:2707:U:O2	35:BN:71:ARG:NH1	2.30	0.64
46:BY:11:VAL:O	46:BY:15:ASN:ND2	2.30	0.64
1:CA:373:A:C2	1:CA:374:A:C8	2.86	0.64
12:CL:38:TYR:HB2	12:CL:52:VAL:HG13	1.80	0.64
22:DA:1060:U:O4'	22:DA:1062:G:H5'	1.98	0.64
22:DA:781:A:H2'	22:DA:1777:U:O2'	1.98	0.64
31:DJ:110:PRO:O	31:DJ:115:GLY:HA3	1.98	0.64
33:DL:77:ILE:O	33:DL:110:VAL:O	2.16	0.64
1:AA:1129:C:O2	1:AA:1130:A:N6	2.31	0.64
9:AI:43:THR:O	9:AI:44:ALA:CB	2.46	0.64
21:AU:14:VAL:HG13	21:AU:16:LEU:HG	1.78	0.64
22:BA:1914:C:C2	22:BA:1915:U:C6	2.86	0.64
22:BA:832:U:H2'	22:BA:833:A:C8	2.33	0.64
1:CA:1005:A:O3'	1:CA:1037:C:O2'	2.16	0.64
1:CA:72:A:N6	1:CA:73:C:N4	2.46	0.64
1:CA:811:C:N4	1:CA:812:G:C6	2.66	0.64
15:CO:35:GLN:NE2	15:CO:39:LEU:HD22	2.12	0.64
22:DA:1754:A:N6	22:DA:1755:A:C6	2.66	0.64
25:DD:140:HIS:CE1	57:DD:303:HOH:O	2.50	0.64
1:AA:832:G:C2	1:AA:833:G:C8	2.86	0.64
8:AH:2:SER:O	8:AH:4:GLN:N	2.31	0.64
22:BA:1667:G:O2'	22:BA:1991:U:O4	2.13	0.64
22:BA:2191:A:C6	22:BA:2192:U:O4	2.51	0.64
5:CE:136:VAL:O	5:CE:140:THR:OG1	2.15	0.64
22:DA:747:U:O2	22:DA:2014:A:H1'	1.98	0.64
22:DA:201:C:C4	22:DA:202:U:C5	2.86	0.64
22:DA:370:G:O2'	22:DA:424:G:OP1	2.14	0.64
6:AF:76:THR:O	6:AF:79:ARG:N	2.31	0.64
12:AL:76:GLU:O	12:AL:77:HIS:HB2	1.97	0.64
19:AS:64:ASP:O	19:AS:65:GLU:HB3	1.98	0.64
22:BA:1179:G:H3'	22:BA:1180:U:H4'	1.78	0.64
22:BA:1932:A:H5''	22:BA:1933:G:OP2	1.97	0.64
30:BI:113:LYS:HD3	30:BI:117:MET:HG2	1.80	0.64
30:BI:125:MET:O	30:BI:128:SER:OG	2.15	0.64
30:BI:97:LYS:HG3	30:BI:139:VAL:HG22	1.80	0.64
1:CA:72:A:C6	1:CA:73:C:C4	2.86	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:92:ARG:NE	7:CG:93:PRO:HD2	2.13	0.64
22:DA:1603:A:OP1	57:DA:3406:HOH:O	2.15	0.64
35:DN:1:MET:H1	35:DN:1:MET:HE2	1.62	0.64
1:AA:572:A:H5'	1:AA:573:A:OP2	1.97	0.63
1:AA:858:G:OP2	57:AA:1821:HOH:O	2.15	0.63
6:AF:14:GLN:OE1	6:AF:17:GLN:HB2	1.98	0.63
22:BA:1180:U:O2'	22:BA:1181:U:P	2.56	0.63
22:BA:1776:G:P	57:BA:3451:HOH:O	2.56	0.63
22:BA:2637:U:C2'	22:BA:2638:G:H5'	2.29	0.63
22:BA:278:A:C2	22:BA:362:A:C8	2.86	0.63
1:CA:1361:G:H3'	1:CA:1362:A:C5'	2.27	0.63
1:CA:115:G:C2	1:CA:289:G:N7	2.66	0.63
22:DA:2202:U:O2'	22:DA:2204:G:OP1	2.12	0.63
22:DA:2868:A:C2	22:DA:2869:G:C4	2.86	0.63
29:DH:117:LEU:CD1	29:DH:130:VAL:HG22	2.28	0.63
1:AA:663:A:N1	1:AA:743:A:C2	2.66	0.63
4:AD:143:VAL:O	4:AD:143:VAL:CG2	2.46	0.63
5:AE:137:VAL:O	5:AE:138:ARG:CB	2.46	0.63
1:CA:960:U:C5	1:CA:1225:A:C8	2.87	0.63
1:CA:686:U:O2'	1:CA:687:A:OP2	2.13	0.63
1:CA:427:U:OP1	4:CD:13:ARG:NH2	2.32	0.63
22:DA:1440:U:O4	57:DA:3628:HOH:O	2.13	0.63
1:CA:899:C:O2'	22:DA:1832:C:OP1	2.11	0.63
22:DA:2226:C:H2'	22:DA:2227:A:O4'	1.98	0.63
22:DA:846:U:HO2'	22:DA:847:U:P	2.21	0.63
20:AT:5:LYS:O	20:AT:7:ALA:N	2.31	0.63
22:BA:2190:G:C6	22:BA:2191:A:C6	2.87	0.63
24:BC:230:HIS:CD2	24:BC:247:PRO:HA	2.34	0.63
1:CA:791:G:C6	1:CA:792:A:N7	2.67	0.63
22:DA:1045:C:O2	22:DA:1047:G:N1	2.31	0.63
22:DA:1438:U:C5	22:DA:1552:A:C2	2.86	0.63
5:AE:82:GLN:NE2	5:AE:150:PRO:HD3	2.12	0.63
16:AP:39:PHE:CD2	16:AP:74:LEU:HD11	2.34	0.63
22:BA:1083:U:O2	22:BA:1086:A:N1	2.31	0.63
22:BA:947:A:O2'	22:BA:984:A:C2	2.50	0.63
27:BF:176:PRO:O	27:BF:177:PHE:HB2	1.98	0.63
1:CA:106:C:O2	1:CA:379:C:H4'	1.99	0.63
4:CD:145:ILE:CG2	4:CD:150:LYS:HA	2.29	0.63
22:DA:511:U:O3'	22:DA:1215:G:N2	2.31	0.63
22:DA:1469:A:C2	22:DA:1470:A:C5	2.85	0.63
22:DA:2454:G:H1'	57:DA:3529:HOH:O	1.97	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2550:G:O6	22:DA:2551:C:N4	2.32	0.63
22:DA:537:G:N1	22:DA:555:G:C2	2.67	0.63
42:DU:11:VAL:HG12	42:DU:72:ILE:HA	1.80	0.63
6:AF:3:HIS:O	6:AF:92:THR:OG1	2.16	0.63
12:AL:44:LYS:HB2	12:AL:45:PRO:CD	2.29	0.63
14:AN:83:LYS:NZ	14:AN:86:GLU:OE1	2.24	0.63
22:BA:2191:A:C2	22:BA:2192:U:N3	2.67	0.63
22:BA:2808:G:N2	22:BA:2891:U:C6	2.66	0.63
30:BI:117:MET:SD	30:BI:129:ILE:HD11	2.39	0.63
30:BI:28:LEU:HD12	30:BI:28:LEU:O	1.99	0.63
1:CA:1277:C:HO2'	1:CA:1279:G:H8	1.43	0.63
4:CD:174:ASP:O	4:CD:175:ALA:HB2	1.98	0.63
22:DA:1509:A:O2'	22:DA:1510:G:P	2.57	0.63
22:DA:1793:C:N4	57:DA:3780:HOH:O	2.31	0.63
22:DA:2143:C:H2'	22:DA:2144:G:O4'	1.97	0.63
22:DA:846:U:O2'	22:DA:847:U:O5'	2.15	0.63
24:DC:117:GLN:N	24:DC:128:ASN:OD1	2.31	0.63
29:DH:117:LEU:HG	29:DH:120:GLY:O	1.98	0.63
1:AA:1000:A:C2	1:AA:1041:G:C2	2.86	0.63
1:AA:157:U:O2'	1:AA:158:G:H5'	1.98	0.63
5:AE:104:GLY:O	5:AE:105:ILE:HG22	1.99	0.63
26:BE:25:GLU:O	26:BE:26:ALA:C	2.37	0.63
1:CA:1296:C:H4'	1:CA:1302:C:C4	2.33	0.63
1:CA:451:A:C8	1:CA:452:A:C6	2.86	0.63
4:CD:4:TYR:O	4:CD:5:LEU:HB2	1.99	0.63
15:CO:87:LEU:O	15:CO:88:ARG:HB3	1.98	0.63
19:CS:10:PHE:O	19:CS:39:THR:OG1	2.17	0.63
3:AC:16:LYS:HG3	3:AC:17:PRO:HD2	1.80	0.63
3:AC:7:PRO:HG2	3:AC:184:TYR:CG	2.34	0.63
21:AU:10:GLU:CG	21:AU:11:PRO:HD3	2.28	0.63
22:BA:1020:A:C2	22:BA:1141:U:C2	2.87	0.63
25:BD:103:ASP:O	25:BD:105:LYS:N	2.31	0.63
40:BS:25:ARG:NH2	40:BS:74:ILE:O	2.31	0.63
1:CA:31:G:O4'	1:CA:306:A:C2	2.52	0.63
1:CA:860:A:N6	1:CA:861:G:C2	2.67	0.63
2:CB:73:LYS:NZ	2:CB:204:ASP:O	2.28	0.63
1:CA:1147:C:O2	9:CI:18:ARG:NH2	2.31	0.63
1:CA:1308:U:OP1	13:CM:97:VAL:N	2.32	0.63
22:DA:2199:A:O4'	29:DH:28:ASN:CG	2.36	0.63
22:DA:47:C:HO2'	22:DA:52:A:HO2'	1.43	0.63
22:DA:776:G:C8	22:DA:793:A:C4	2.87	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:983:A:N6	22:DA:984:A:C2	2.67	0.63
1:AA:429:U:H1'	1:AA:430:A:H5''	1.81	0.63
22:BA:1317:G:C2	22:BA:1336:A:C2	2.86	0.63
22:BA:2646:C:OP2	22:BA:2732:G:O2'	2.17	0.63
1:CA:463:U:H5'	1:CA:464:U:OP2	1.99	0.63
22:DA:2586:U:C5	22:DA:2608:G:N2	2.67	0.63
22:DA:89:A:C2	22:DA:90:U:C2	2.87	0.63
1:AA:724:G:C2	1:AA:725:G:C8	2.87	0.63
4:AD:58:LYS:NZ	4:AD:69:GLU:OE2	2.32	0.63
12:AL:110:ARG:NH1	12:AL:112:GLN:O	2.31	0.63
22:BA:1442:U:H2'	22:BA:1443:U:C6	2.34	0.63
22:BA:1851:U:C4	22:BA:1852:U:C4	2.86	0.63
25:BD:125:TRP:CD2	25:BD:160:LYS:HD3	2.33	0.63
27:BF:14:LYS:O	27:BF:18:THR:HG23	1.98	0.63
28:BG:30:ASN:CG	28:BG:30:ASN:O	2.36	0.63
1:CA:1080:A:OP1	5:CE:52:LYS:HE2	1.98	0.63
1:CA:1386:G:C2	1:CA:1387:G:C8	2.86	0.63
22:DA:1826:G:O2'	22:DA:1971:U:OP2	2.16	0.63
22:DA:2788:C:H2'	22:DA:2789:C:C6	2.33	0.63
35:DN:55:ALA:HA	35:DN:80:PHE:CE1	2.34	0.63
1:AA:1417:G:C6	1:AA:1482:G:C6	2.87	0.62
1:AA:454:G:N2	1:AA:479:U:O2	2.31	0.62
16:AP:42:ILE:HG22	16:AP:42:ILE:O	1.99	0.62
22:BA:1876:A:C2	22:BA:1877:A:C4	2.87	0.62
39:BR:49:ILE:HB	39:BR:52:PRO:O	1.99	0.62
1:CA:1408:A:C2	1:CA:1494:G:C4	2.87	0.62
5:CE:56:VAL:N	5:CE:57:PRO:HD2	2.14	0.62
22:DA:1225:G:C6	22:DA:1226:A:N6	2.67	0.62
1:AA:71:A:H3'	1:AA:71:A:OP2	1.99	0.62
3:AC:83:ASP:O	3:AC:86:LYS:HG3	1.99	0.62
12:AL:63:VAL:HG21	12:AL:95:TYR:CE1	2.34	0.62
1:AA:1014:A:N3	19:AS:34:TRP:CZ3	2.67	0.62
22:BA:1528:A:H2'	22:BA:1529:G:O4'	1.99	0.62
22:BA:2548:U:C4	22:BA:2549:G:N7	2.67	0.62
22:BA:475:C:C4	22:BA:481:G:O6	2.52	0.62
1:CA:790:A:C6	1:CA:791:G:C6	2.87	0.62
1:CA:891:U:C5	1:CA:906:A:C2	2.87	0.62
1:CA:1377:A:C5	7:CG:7:ILE:HD12	2.35	0.62
9:CI:84:THR:HG21	9:CI:103:PHE:HB3	1.80	0.62
22:DA:1951:U:H2'	22:DA:1953:A:OP2	1.99	0.62
22:DA:24:G:C5	22:DA:25:U:C5	2.87	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:17:VAL:HB	24:DC:204:VAL:HG22	1.81	0.62
2:AB:49:MET:O	2:AB:53:ALA:HB2	1.98	0.62
19:AS:5:LEU:CD2	19:AS:9:PRO:HA	2.29	0.62
48:B0:55:ILE:HG22	48:B0:56:ALA:N	2.14	0.62
22:BA:948:C:O2	22:BA:984:A:O2'	2.17	0.62
24:BC:225:MET:HE3	24:BC:230:HIS:HB2	1.82	0.62
27:BF:73:SER:OG	27:BF:80:ARG:HA	1.99	0.62
5:CE:96:MET:HE3	5:CE:111:MET:CE	2.29	0.62
22:DA:1350:C:C2	22:DA:1382:G:C2	2.87	0.62
22:DA:1826:G:C5	22:DA:1827:U:C5	2.87	0.62
22:DA:2726:A:O2'	22:DA:2727:A:O5'	2.12	0.62
22:DA:306:U:O2	22:DA:312:G:N2	2.32	0.62
24:DC:124:ILE:HG22	24:DC:124:ILE:O	1.99	0.62
27:DF:106:ILE:HD11	27:DF:139:PRO:HG2	1.80	0.62
39:DR:82:HIS:CG	39:DR:82:HIS:O	2.52	0.62
1:AA:728:A:C6	1:AA:729:A:C6	2.86	0.62
1:AA:792:A:H4'	1:AA:793:U:O5'	1.98	0.62
13:AM:3:ARG:HA	13:AM:9:ILE:HA	1.81	0.62
22:BA:2554:U:C4	22:BA:2555:U:O4	2.52	0.62
22:BA:580:U:H2'	22:BA:581:C:H6	1.65	0.62
23:BB:54:G:H21	27:BF:26:MET:HE2	1.64	0.62
28:BG:124:GLU:OE1	28:BG:125:CYS:N	2.31	0.62
35:BN:73:ASN:HA	35:BN:76:VAL:HG12	1.81	0.62
9:CI:49:ARG:NH2	9:CI:52:LEU:O	2.33	0.62
22:DA:1206:G:C5	22:DA:1207:C:C5	2.87	0.62
25:DD:104:VAL:HG23	25:DD:177:VAL:HG11	1.81	0.62
30:DI:69:PHE:N	30:DI:69:PHE:CD1	2.68	0.62
1:AA:1304:G:N1	1:AA:1305:G:N2	2.47	0.62
4:AD:150:LYS:O	4:AD:152:GLN:NE2	2.32	0.62
10:AJ:53:ILE:HG22	10:AJ:61:ALA:HB1	1.81	0.62
26:BE:77:ILE:O	26:BE:77:ILE:HG22	2.00	0.62
1:CA:1521:C:C4	1:CA:1522:U:C5	2.87	0.62
1:CA:176:C:OP1	20:CT:20:HIS:NE2	2.33	0.62
1:CA:409:U:H2'	1:CA:410:G:O4'	2.00	0.62
1:CA:811:C:O2'	1:CA:901:A:N1	2.31	0.62
22:DA:307:G:N2	22:DA:310:A:C8	2.67	0.62
22:DA:663:G:O6	22:DA:664:G:C6	2.53	0.62
3:AC:25:ASN:O	3:AC:27:LYS:N	2.32	0.62
21:AU:25:LYS:O	21:AU:27:GLY:N	2.32	0.62
27:BF:79:ILE:HG21	27:BF:85:ILE:CD1	2.30	0.62
1:CA:207:C:O2	1:CA:207:C:H2'	2.00	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:890:G:O2'	1:CA:891:U:OP2	2.17	0.62
3:CC:179:ARG:O	3:CC:206:GLU:O	2.18	0.62
15:CO:56:LEU:O	15:CO:59:MET:N	2.33	0.62
22:DA:1316:U:C2	22:DA:1337:G:N2	2.67	0.62
22:DA:1333:G:C2	22:DA:1334:G:C8	2.87	0.62
22:DA:2502:G:H5'	22:DA:2503:A:H5''	1.81	0.62
22:DA:2752:C:C5	22:DA:2753:A:N7	2.68	0.62
22:DA:830:G:C2	22:DA:2448:A:N7	2.68	0.62
1:AA:131:A:C2	1:AA:132:C:C4	2.87	0.62
4:AD:191:LEU:O	4:AD:192:SER:HB2	1.99	0.62
4:AD:29:ASP:O	4:AD:31:LYS:HD3	1.99	0.62
13:AM:83:LEU:HD21	19:AS:65:GLU:HG2	1.82	0.62
22:BA:1073:A:C3'	22:BA:1074:G:H5''	2.29	0.62
22:BA:1179:G:C5	22:BA:1180:U:C1'	2.83	0.62
26:BE:91:ASP:OD1	26:BE:93:SER:OG	2.17	0.62
40:BS:29:VAL:CG1	40:BS:55:ILE:HD11	2.29	0.62
1:CA:372:C:O2	57:CA:1891:HOH:O	2.11	0.62
1:CA:409:U:OP1	4:CD:24:GLY:HA3	2.00	0.62
14:CN:33:ASP:O	14:CN:35:ASN:N	2.33	0.62
22:DA:1355:G:C6	22:DA:1377:G:N2	2.67	0.62
47:DZ:8:THR:HG1	47:DZ:35:THR:HG1	1.46	0.62
14:AN:52:PRO:O	14:AN:53:ARG:HB3	1.99	0.62
15:AO:19:ALA:O	15:AO:20:ASN:CB	2.48	0.62
22:BA:980:A:C6	22:BA:981:A:N1	2.68	0.62
24:BC:125:LYS:HB2	24:BC:126:PRO:HD2	1.82	0.62
5:CE:98:PRO:O	5:CE:99:ALA:HB3	2.00	0.62
19:CS:55:ARG:CZ	19:CS:79:THR:HG22	2.30	0.62
22:DA:1197:G:H2'	22:DA:1198:U:C6	2.35	0.62
22:DA:2520:C:HO2'	22:DA:2565:A:HO2'	1.44	0.62
22:DA:305:C:H1'	22:DA:313:G:N2	2.15	0.62
22:DA:740:C:N4	22:DA:758:C:O2	2.32	0.62
1:AA:96:U:O2'	1:AA:97:G:P	2.58	0.62
4:AD:98:LEU:O	4:AD:101:VAL:N	2.32	0.62
20:AT:81:ALA:O	20:AT:85:LYS:HG2	1.99	0.62
48:B0:15:MET:O	48:B0:18:SER:HB3	2.00	0.62
24:BC:107:PRO:HB3	24:BC:142:HIS:CE1	2.34	0.62
42:BU:12:ILE:HG21	42:BU:80:ALA:HB2	1.81	0.62
1:CA:263:A:P	20:CT:74:ARG:NH1	2.73	0.62
9:CI:120:LYS:HG3	9:CI:123:ARG:HB3	1.80	0.62
1:CA:1321:U:O3'	19:CS:78:ARG:NH2	2.33	0.62
21:CU:4:ILE:N	21:CU:19:PHE:CE2	2.68	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1444:G:C2	22:DA:1548:A:C2	2.87	0.62
22:DA:425:G:N2	22:DA:426:C:C2	2.68	0.62
37:DP:113:ARG:O	37:DP:114:LEU:C	2.38	0.62
14:AN:49:GLN:OE1	14:AN:49:GLN:HA	1.98	0.62
22:BA:1142:A:C4	22:BA:1144:A:C8	2.88	0.62
22:BA:819:A:OP2	22:BA:1187:G:N2	2.32	0.62
1:CA:765:G:C6	1:CA:812:G:C4	2.88	0.62
22:DA:1094:U:H2'	22:DA:1096:A:OP2	2.00	0.62
22:DA:1335:C:N4	57:DA:3389:HOH:O	2.27	0.62
22:DA:2511:U:C5	22:DA:2512:C:C5	2.88	0.62
22:DA:508:A:N6	40:DS:9:HIS:CE1	2.67	0.62
22:DA:590:A:C6	22:DA:591:U:C4	2.88	0.62
23:DB:2:G:N2	23:DB:3:C:C2	2.68	0.62
23:DB:62:C:H2'	23:DB:63:C:C6	2.33	0.62
35:DN:90:ARG:CZ	35:DN:116:VAL:HG11	2.29	0.62
3:AC:130:PHE:CZ	3:AC:131:ARG:HD2	2.34	0.61
5:AE:137:VAL:O	5:AE:138:ARG:HB2	1.99	0.61
9:AI:127:PHE:CD1	9:AI:127:PHE:O	2.52	0.61
22:BA:139:U:HO2'	22:BA:141:G:H1	1.45	0.61
22:BA:1911:U:H2'	22:BA:1918:A:C2	2.35	0.61
22:BA:2346:A:H4'	22:BA:2347:C:OP2	2.00	0.61
27:BF:105:THR:HG23	27:BF:106:ILE:HG23	1.82	0.61
1:CA:1124:G:N2	1:CA:1127:G:C2	2.68	0.61
1:CA:32:A:OP1	1:CA:398:U:H1'	2.00	0.61
3:CC:42:TYR:CE2	3:CC:90:VAL:HG21	2.35	0.61
7:CG:68:ASN:OD1	7:CG:130:ASN:ND2	2.32	0.61
29:DH:32:PRO:O	29:DH:33:GLN:CB	2.48	0.61
42:DU:7:ARG:O	42:DU:25:VAL:HB	2.00	0.61
4:AD:101:VAL:HG12	4:AD:101:VAL:O	1.99	0.61
4:AD:26:ARG:HD2	4:AD:31:LYS:HE3	1.82	0.61
22:BA:1078:U:H1'	22:BA:1088:A:C2	2.34	0.61
22:BA:2188:U:H2'	22:BA:2189:U:C6	2.35	0.61
22:BA:2292:U:H2'	22:BA:2293:G:C8	2.35	0.61
22:BA:2897:U:H2'	22:BA:2898:U:C6	2.35	0.61
1:CA:568:G:O6	12:CL:2:ALA:HB2	2.00	0.61
1:CA:577:G:C2	1:CA:578:C:C6	2.88	0.61
8:CH:59:LEU:HD12	8:CH:60:GLU:N	2.16	0.61
8:CH:88:ARG:O	8:CH:122:GLY:HA3	2.01	0.61
22:DA:1131:G:OP1	31:DJ:82:GLY:HA2	2.01	0.61
22:DA:1389:G:N2	22:DA:1398:C:N3	2.49	0.61
22:DA:2094:A:H5'	29:DH:25:TYR:CB	2.30	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:223:A:C5	22:DA:422:A:C8	2.88	0.61
30:DI:97:LYS:HD2	30:DI:97:LYS:N	2.15	0.61
1:AA:532:A:N6	3:AC:192:THR:OG1	2.32	0.61
1:AA:683:G:N2	11:AK:39:GLY:O	2.34	0.61
53:B5:213:VAL:O	53:B5:214:TYR:CB	2.49	0.61
22:BA:1916:A:H2'	22:BA:1917:U:C4'	2.30	0.61
22:BA:2339:C:H2'	22:BA:2340:A:C8	2.35	0.61
4:CD:168:PRO:CB	4:CD:171:LEU:HD12	2.31	0.61
22:DA:59:U:O2'	22:DA:74:A:OP2	2.09	0.61
22:DA:2360:G:H1'	33:DL:60:ARG:HD3	1.82	0.61
34:DM:19:GLY:O	34:DM:38:ARG:NH1	2.32	0.61
1:AA:1378:C:H2'	1:AA:1379:G:O5'	2.01	0.61
22:BA:2298:A:C6	22:BA:2321:U:O4	2.53	0.61
22:BA:528:A:C2'	22:BA:529:A:H5''	2.30	0.61
1:CA:862:C:C4	1:CA:863:U:C5	2.88	0.61
22:DA:1313:U:H2'	22:DA:1313:U:O2	1.99	0.61
22:DA:1395:A:O2'	22:DA:1397:U:C6	2.53	0.61
22:DA:192:C:P	57:DA:3738:HOH:O	2.57	0.61
28:DG:166:ASP:OD1	28:DG:166:ASP:N	2.33	0.61
1:AA:1306:A:C4	1:AA:1307:U:C6	2.88	0.61
1:AA:1477:U:H2'	1:AA:1478:U:C6	2.35	0.61
2:AB:75:ALA:O	2:AB:76:ALA:HB2	2.00	0.61
6:AF:92:THR:HG22	6:AF:93:LYS:N	2.15	0.61
9:AI:9:THR:HG22	9:AI:10:GLY:N	2.15	0.61
26:BE:31:VAL:HG21	26:BE:104:ALA:HB2	1.82	0.61
33:BL:93:ASN:O	33:BL:94:THR:CB	2.48	0.61
36:BO:79:ALA:HB2	36:BO:110:ALA:HA	1.82	0.61
46:BY:45:GLN:O	46:BY:46:VAL:HB	2.00	0.61
1:CA:1260:G:OP1	1:CA:1284:C:O2'	2.16	0.61
1:CA:268:U:H2'	1:CA:269:C:C6	2.35	0.61
6:CF:18:VAL:HG12	6:CF:19:PRO:N	2.15	0.61
1:CA:1359:C:OP2	14:CN:75:ARG:NH1	2.34	0.61
49:D1:10:LYS:O	49:D1:51:GLU:HG2	2.00	0.61
22:DA:1299:G:H5'	22:DA:1301:A:O4'	2.00	0.61
22:DA:43:G:N2	22:DA:437:U:C6	2.69	0.61
22:DA:777:G:N7	22:DA:793:A:H2	1.97	0.61
9:AI:52:LEU:HB3	9:AI:57:MET:HG3	1.81	0.61
13:AM:16:VAL:HG22	13:AM:41:GLU:O	2.00	0.61
22:BA:1695:G:H1'	24:BC:8:PRO:O	1.99	0.61
23:BB:37:C:C5	23:BB:38:C:C4	2.88	0.61
35:BN:75:ILE:O	35:BN:79:LEU:HD12	2.01	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:49:ILE:HB	39:BR:51:VAL:O	2.01	0.61
1:CA:21:G:H2'	1:CA:22:G:C8	2.36	0.61
1:CA:920:U:H2'	1:CA:921:U:C6	2.35	0.61
19:CS:19:VAL:HG21	19:CS:44:MET:HG2	1.83	0.61
50:D2:18:PHE:O	50:D2:19:ARG:C	2.39	0.61
22:DA:1266:G:OP1	48:D0:16:ARG:NE	2.34	0.61
22:DA:2032:G:H1'	25:DD:150:GLN:NE2	2.15	0.61
29:DH:83:LYS:H	29:DH:149:GLU:HG2	1.64	0.61
1:AA:1366:C:O2'	10:AJ:62:ARG:NH2	2.33	0.61
22:BA:1176:U:C4	22:BA:1177:G:O6	2.53	0.61
24:BC:141:VAL:HG11	24:BC:190:ALA:HB1	1.82	0.61
25:BD:151:THR:HG22	25:BD:152:PRO:CD	2.31	0.61
4:CD:168:PRO:HB2	4:CD:171:LEU:HD12	1.83	0.61
4:CD:202:GLU:OE1	5:CE:105:ILE:HG22	2.01	0.61
8:CH:30:SER:OG	8:CH:33:LYS:HG3	2.01	0.61
1:AA:173:U:C6	1:AA:197:A:C2	2.89	0.61
2:AB:75:ALA:O	2:AB:76:ALA:CB	2.48	0.61
7:AG:4:ARG:O	7:AG:6:VAL:N	2.33	0.61
7:AG:80:VAL:O	7:AG:82:GLY:N	2.34	0.61
21:AU:35:ARG:O	21:AU:36:GLU:C	2.39	0.61
37:BP:106:LYS:O	37:BP:109:ARG:HD3	2.01	0.61
40:BS:37:THR:OG1	40:BS:48:LYS:NZ	2.32	0.61
1:CA:1222:G:O6	57:CA:1864:HOH:O	2.14	0.61
1:CA:495:A:C2	1:CA:496:A:N6	2.69	0.61
19:CS:4:SER:O	19:CS:5:LEU:HB2	1.99	0.61
22:DA:1817:G:OP1	24:DC:62:TYR:OH	2.14	0.61
22:DA:2058:A:N6	22:DA:2059:A:N6	2.49	0.61
22:DA:295:G:C2	22:DA:296:U:C5	2.89	0.61
22:DA:586:A:H1'	22:DA:672:C:H1'	1.83	0.61
22:DA:674:G:H1'	26:DE:69:ARG:NE	2.16	0.61
17:AQ:12:VAL:HG12	17:AQ:13:VAL:N	2.15	0.61
17:AQ:52:GLU:N	17:AQ:52:GLU:OE1	2.33	0.61
22:BA:1188:U:C2'	22:BA:1189:A:H5'	2.31	0.61
22:BA:998:C:C3'	57:BA:3363:HOH:O	2.49	0.61
1:CA:1309:G:C6	1:CA:1329:A:C2	2.88	0.61
1:CA:76:G:N2	1:CA:95:C:C2	2.69	0.61
2:CB:53:ALA:O	2:CB:57:LEU:HB2	2.00	0.61
5:CE:131:THR:O	5:CE:132:ASN:C	2.39	0.61
12:CL:90:LEU:HB2	12:CL:93:VAL:HG21	1.83	0.61
17:CQ:47:HIS:HB2	17:CQ:67:LEU:CD1	2.31	0.61
22:DA:1814:G:C6	22:DA:1815:A:N6	2.69	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:749:A:C5	22:DA:750:A:N7	2.68	0.61
1:AA:1059:C:N3	1:AA:1060:U:C5	2.69	0.61
1:AA:1054:C:C5	1:AA:1196:A:H2'	2.35	0.61
1:AA:844:G:C6	1:AA:846:G:O2'	2.54	0.61
22:BA:2297:A:N1	22:BA:2321:U:C5	2.69	0.61
22:BA:495:G:H1'	40:BS:57:ASN:ND2	2.15	0.61
25:BD:104:VAL:O	25:BD:105:LYS:HB2	2.00	0.61
28:BG:174:ALA:O	28:BG:175:LYS:CB	2.49	0.61
50:D2:18:PHE:O	50:D2:21:ARG:N	2.34	0.61
22:DA:2028:U:O4	57:DA:3475:HOH:O	2.14	0.61
22:DA:2118:U:O4	22:DA:2149:U:H1'	2.00	0.61
22:DA:219:A:N3	22:DA:234:U:O2'	2.32	0.61
22:DA:1262:A:OP1	40:DS:99:ARG:NH2	2.34	0.61
1:AA:983:A:H2'	1:AA:983:A:N3	2.15	0.60
2:AB:63:ARG:O	2:AB:64:LYS:HB2	2.00	0.60
53:B5:212:SER:CB	53:B5:221:PRO:CB	2.79	0.60
22:BA:1653:G:H3'	35:BN:2:ARG:HG3	1.82	0.60
22:BA:630:G:H5''	22:BA:631:A:OP2	2.00	0.60
36:BO:10:ARG:NH2	36:BO:96:GLY:O	2.34	0.60
38:BQ:110:VAL:O	38:BQ:114:LYS:HG3	2.02	0.60
1:CA:577:G:C8	1:CA:816:A:C6	2.89	0.60
1:CA:724:G:OP2	1:CA:833:G:O2'	2.16	0.60
6:CF:86:ARG:CG	6:CF:86:ARG:HH11	2.14	0.60
9:CI:12:ARG:CD	9:CI:107:ASP:HB3	2.31	0.60
22:DA:1325:U:OP1	22:DA:1647:U:O2'	2.17	0.60
22:DA:543:G:C2	22:DA:551:G:C5	2.88	0.60
6:AF:68:GLN:HA	6:AF:71:ILE:CG2	2.32	0.60
20:AT:70:ASN:N	20:AT:70:ASN:OD1	2.32	0.60
22:BA:999:U:C5	22:BA:1154:G:C5	2.88	0.60
22:BA:1417:C:HO2'	22:BA:1587:G:HO2'	1.47	0.60
22:BA:2140:G:N3	22:BA:2140:G:H2'	2.16	0.60
29:BH:121:VAL:N	29:BH:122:LEU:HB2	2.16	0.60
43:BV:6:ALA:HB1	43:BV:40:ILE:HG23	1.81	0.60
22:DA:1196:C:H1'	22:DA:1226:A:C4	2.36	0.60
22:DA:1682:G:H2'	22:DA:1683:U:C6	2.36	0.60
22:DA:2345:G:C4	22:DA:2381:A:C2	2.90	0.60
22:DA:684:G:OP1	50:D2:16:HIS:CE1	2.54	0.60
27:BF:108:VAL:CG1	27:BF:114:PHE:CZ	2.84	0.60
23:BB:43:C:O2	27:BF:92:ARG:NH2	2.34	0.60
29:BH:117:LEU:O	29:BH:121:VAL:HG22	1.93	0.60
30:BI:127:ARG:HA	30:BI:130:GLU:HG3	1.82	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1041:G:H2'	1:CA:1042:A:C8	2.36	0.60
1:CA:280:C:N3	17:CQ:41:THR:OG1	2.34	0.60
1:CA:957:U:O3'	19:CS:79:THR:OG1	2.19	0.60
4:CD:19:LEU:HD22	4:CD:64:ILE:HG13	1.84	0.60
5:CE:98:PRO:O	5:CE:99:ALA:CB	2.49	0.60
22:DA:1274:A:N3	22:DA:1297:C:H1'	2.16	0.60
22:DA:1359:A:C8	22:DA:1373:A:C2	2.89	0.60
24:DC:9:THR:O	24:DC:10:SER:CB	2.49	0.60
3:AC:144:LEU:HD13	3:AC:144:LEU:N	2.16	0.60
9:AI:90:TYR:O	9:AI:91:ASP:CG	2.40	0.60
10:AJ:73:LEU:O	10:AJ:74:VAL:HB	2.02	0.60
13:AM:3:ARG:CG	13:AM:4:ILE:N	2.64	0.60
11:AK:126:LYS:O	21:AU:34:ARG:NE	2.34	0.60
22:BA:1915:U:H2'	22:BA:1916:A:C8	2.35	0.60
29:BH:100:ALA:HB1	29:BH:112:LYS:HA	1.83	0.60
4:CD:174:ASP:OD2	4:CD:175:ALA:N	2.34	0.60
7:CG:37:SER:O	7:CG:41:SER:OG	2.14	0.60
22:DA:2800:A:C2	22:DA:2895:G:H1'	2.35	0.60
23:DB:43:C:O2	27:DF:92:ARG:NH2	2.34	0.60
23:DB:7:G:H5'	36:DO:29:HIS:CE1	2.36	0.60
29:DH:126:GLY:O	29:DH:146:VAL:HG23	2.00	0.60
33:DL:29:LYS:HG3	33:DL:30:THR:HG23	1.82	0.60
36:DO:100:HIS:CD2	36:DO:101:GLY:N	2.70	0.60
11:AK:76:GLU:O	11:AK:77:TYR:CD1	2.55	0.60
53:B5:204:GLY:O	53:B5:205:ALA:CB	2.48	0.60
22:BA:1073:A:OP1	22:BA:1073:A:C8	2.55	0.60
22:BA:1106:G:N2	22:BA:1107:G:H1'	2.16	0.60
22:BA:2051:A:H8	22:BA:2051:A:OP2	1.83	0.60
22:BA:2503:A:H5'	22:BA:2503:A:N3	2.16	0.60
22:BA:287:G:C2	22:BA:354:A:C2	2.90	0.60
29:BH:117:LEU:CD2	29:BH:121:VAL:HA	2.31	0.60
1:CA:1255:G:C6	1:CA:1279:G:C8	2.90	0.60
1:CA:404:G:N7	4:CD:2:ALA:HB3	2.16	0.60
21:CU:53:VAL:HG13	21:CU:54:LYS:N	2.17	0.60
22:DA:2361:G:C5	22:DA:2362:C:C5	2.90	0.60
22:DA:526:A:P	57:DA:3246:HOH:O	2.59	0.60
32:DK:64:ARG:HD3	32:DK:102:PRO:O	2.02	0.60
1:AA:381:C:H2'	1:AA:382:A:O4'	2.01	0.60
22:BA:1731:G:C6	22:BA:1733:G:C5	2.89	0.60
22:BA:1922:G:N2	22:BA:1923:U:C1'	2.65	0.60
22:BA:2334:U:C4	36:BO:16:ARG:HD3	2.37	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:265:A:H4'	22:BA:266:G:OP1	2.01	0.60
39:BR:49:ILE:HG22	39:BR:52:PRO:C	2.21	0.60
1:CA:1225:A:H2'	1:CA:1226:C:C5	2.37	0.60
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.36	0.60
1:CA:66:A:C6	1:CA:67:C:C5	2.90	0.60
4:CD:174:ASP:O	4:CD:175:ALA:CB	2.49	0.60
4:CD:34:ILE:O	4:CD:35:GLU:HB3	2.00	0.60
22:DA:295:G:H2'	22:DA:295:G:N3	2.15	0.60
22:DA:931:U:OP1	47:DZ:30:ARG:NH1	2.34	0.60
41:DT:12:ARG:O	41:DT:13:ALA:HB2	2.02	0.60
10:AJ:33:GLY:O	10:AJ:34:ALA:HB3	2.00	0.60
17:AQ:69:LYS:O	17:AQ:70:THR:HB	2.01	0.60
22:BA:1416:G:HO2'	22:BA:1417:C:H6	1.50	0.60
22:BA:2110:G:N2	22:BA:2180:U:C2	2.70	0.60
22:BA:63:A:C2	22:BA:64:A:C5	2.90	0.60
24:BC:239:ASN:ND2	57:BC:304:HOH:O	2.34	0.60
31:BJ:17:VAL:CG2	31:BJ:137:PRO:HB2	2.31	0.60
33:BL:30:THR:O	33:BL:33:ARG:HG2	2.02	0.60
1:CA:1004:A:C6	1:CA:1005:A:C6	2.90	0.60
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.67	0.60
1:CA:1108:G:O6	57:CA:1857:HOH:O	2.16	0.60
5:CE:83:HIS:CD2	8:CH:96:MET:CE	2.85	0.60
12:CL:93:VAL:O	12:CL:93:VAL:HG23	2.01	0.60
22:DA:1179:G:C6	22:DA:1180:U:H1'	2.36	0.60
22:DA:834:G:H1'	22:DA:2358:A:N3	2.17	0.60
22:DA:2550:G:C6	22:DA:2551:C:N4	2.69	0.60
22:DA:630:G:H5''	22:DA:631:A:OP2	2.01	0.60
1:AA:1255:G:O2'	1:AA:1258:G:N3	2.32	0.60
1:AA:1462:C:C2	1:AA:1463:U:C6	2.90	0.60
1:AA:16:A:O2'	1:AA:17:U:H5'	2.01	0.60
3:AC:7:PRO:HG2	3:AC:184:TYR:CD2	2.36	0.60
11:AK:125:LYS:CG	11:AK:126:LYS:N	2.63	0.60
12:AL:25:GLU:O	12:AL:26:ALA:C	2.40	0.60
22:BA:1907:G:C6	22:BA:1908:C:C4	2.90	0.60
22:BA:1918:A:O2'	22:BA:1920:C:C4	2.54	0.60
22:BA:2615:U:C2	48:B0:4:GLN:HA	2.36	0.60
29:BH:86:ASP:H	1:CA:359:G:H4'	1.66	0.60
34:BM:42:THR:HG22	34:BM:93:VAL:HG12	1.83	0.60
13:CM:10:PRO:O	13:CM:11:ASP:HB2	2.02	0.60
17:CQ:14:SER:OG	17:CQ:22:VAL:HG12	2.02	0.60
20:CT:69:LYS:HB2	20:CT:70:ASN:OD1	2.02	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:D1:51:GLU:HG3	49:D1:52:ALA:N	2.16	0.60
22:DA:137:U:H2'	22:DA:140:C:C2	2.37	0.60
22:DA:2264:C:C2	22:DA:2277:G:N2	2.70	0.60
22:DA:2291:U:H2'	22:DA:2292:U:C6	2.37	0.60
22:DA:2415:G:C5	22:DA:2416:C:C4	2.90	0.60
24:DC:121:ASP:N	24:DC:121:ASP:OD1	2.33	0.60
26:DE:150:THR:OG1	26:DE:151:GLY:N	2.34	0.60
1:AA:1504:G:O3'	57:AA:1868:HOH:O	2.16	0.60
1:AA:89:U:O2'	1:AA:90:C:C5'	2.50	0.60
4:AD:122:ALA:O	4:AD:123:ILE:HG23	2.02	0.60
4:AD:174:ASP:O	4:AD:175:ALA:HB2	2.02	0.60
30:BI:72:LYS:CD	30:BI:72:LYS:N	2.65	0.60
45:BX:2:SER:O	45:BX:4:VAL:N	2.34	0.60
1:CA:1022:A:C5	1:CA:1023:U:C4	2.90	0.60
1:CA:1040:U:H2'	1:CA:1041:G:C8	2.37	0.60
1:CA:558:G:P	57:CA:1729:HOH:O	2.59	0.60
1:CA:955:U:H2'	1:CA:956:U:O4'	2.02	0.60
2:CB:210:VAL:CG2	2:CB:211:THR:N	2.65	0.60
22:DA:2056:G:C2	22:DA:2057:G:C8	2.90	0.60
22:DA:2074:U:H2'	22:DA:2075:U:C6	2.37	0.60
22:DA:2341:G:C5	22:DA:2342:C:C4	2.90	0.60
22:DA:46:G:C2	22:DA:47:C:C6	2.89	0.60
22:DA:471:A:OP1	26:DE:79:ARG:NH1	2.34	0.60
22:DA:684:G:C2	22:DA:794:A:C2	2.90	0.60
22:DA:982:C:H4'	22:DA:983:A:OP1	2.02	0.60
35:DN:12:ARG:CZ	35:DN:20:MET:CE	2.80	0.60
41:DT:61:LEU:HD12	41:DT:62:VAL:N	2.17	0.60
45:DX:5:CYS:SG	45:DX:52:SER:HB3	2.41	0.60
46:DY:11:VAL:O	46:DY:15:ASN:ND2	2.34	0.60
1:AA:205:A:H4'	1:AA:205:A:OP1	2.01	0.60
1:AA:207:C:O2	1:AA:213:G:N2	2.34	0.60
1:AA:283:U:C5	1:AA:284:C:C5	2.90	0.60
1:AA:47:C:O2	1:AA:49:U:C5	2.55	0.60
1:AA:736:C:H2'	1:AA:737:C:C6	2.36	0.60
1:AA:831:A:C2	1:AA:832:G:C8	2.90	0.60
2:AB:106:THR:O	2:AB:107:VAL:HB	2.02	0.60
8:AH:125:ILE:O	8:AH:125:ILE:CG1	2.49	0.60
53:B5:180:SER:CB	53:B5:188:ASP:CB	2.79	0.60
22:BA:1178:C:H2'	22:BA:1179:G:N7	2.17	0.60
22:BA:1435:G:O2'	22:BA:1436:G:H5'	2.01	0.60
22:BA:2061:G:C6	55:BA:3001:VIR:H19	2.37	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:74:TYR:CD1	31:BJ:92:MET:HG3	2.36	0.60
1:CA:1297:G:O2'	7:CG:114:LYS:NZ	2.27	0.60
1:CA:17:U:H2'	1:CA:18:C:C6	2.37	0.60
1:CA:862:C:N3	1:CA:863:U:C5	2.69	0.60
8:CH:55:THR:C	8:CH:57:PRO:HD3	2.23	0.60
11:CK:107:ILE:O	11:CK:107:ILE:HG23	2.02	0.60
22:DA:2854:G:C2	22:DA:2864:G:C2	2.90	0.60
22:DA:455:C:N3	22:DA:472:A:H2'	2.17	0.60
1:AA:1227:A:H2'	1:AA:1228:C:O5'	2.02	0.59
3:AC:206:GLU:O	3:AC:207:ILE:O	2.19	0.59
22:BA:1180:U:O2'	22:BA:1181:U:H5'	2.02	0.59
22:BA:12:U:O2	22:BA:12:U:H2'	2.00	0.59
22:BA:511:U:H5	22:BA:512:G:C5	2.17	0.59
41:BT:88:LYS:O	41:BT:89:GLU:CG	2.49	0.59
1:CA:1000:A:H2'	1:CA:1001:C:O4'	2.02	0.59
2:CB:203:ASN:OD1	2:CB:204:ASP:N	2.35	0.59
4:CD:148:LYS:O	4:CD:149:ALA:CB	2.49	0.59
22:DA:1304:A:C6	22:DA:1305:C:C4	2.89	0.59
22:DA:1450:G:C6	22:DA:1451:C:N4	2.70	0.59
22:DA:1567:G:H2'	24:DC:85:PRO:HG3	1.83	0.59
22:DA:1810:A:H2'	22:DA:1811:G:O4'	2.01	0.59
25:DD:48:ILE:HG23	25:DD:84:LEU:CD2	2.32	0.59
1:AA:645:G:C6	1:AA:646:G:N7	2.71	0.59
20:AT:44:LYS:CD	20:AT:87:ALA:HA	2.32	0.59
22:BA:2297:A:N1	22:BA:2321:U:H5	1.99	0.59
22:BA:619:G:O6	26:BE:98:LYS:NZ	2.34	0.59
22:BA:78:U:H2'	22:BA:79:C:C6	2.37	0.59
22:BA:973:A:O4'	22:BA:1188:U:C6	2.55	0.59
29:BH:99:ILE:HB	29:BH:115:VAL:HG11	1.84	0.59
40:BS:37:THR:HG22	40:BS:38:TYR:CD1	2.37	0.59
41:BT:54:GLU:HB3	41:BT:88:LYS:HG3	1.84	0.59
12:CL:90:LEU:O	12:CL:93:VAL:HG22	2.01	0.59
22:DA:197:A:H62	22:DA:2430:A:H2'	1.67	0.59
22:DA:287:G:C2	22:DA:354:A:C2	2.89	0.59
30:DI:6:GLN:O	30:DI:7:ALA:CB	2.50	0.59
4:AD:98:LEU:O	4:AD:100:ASN:N	2.35	0.59
16:AP:10:GLY:O	16:AP:11:ALA:HB2	2.02	0.59
22:BA:669:G:C5	22:BA:801:G:C6	2.90	0.59
24:BC:4:VAL:HG12	24:BC:5:LYS:O	2.02	0.59
22:BA:636:G:N7	33:BL:109:LYS:HE2	2.16	0.59
43:BV:13:GLY:O	43:BV:17:SER:OG	2.21	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:718:A:C5	11:CK:118:HIS:CD2	2.90	0.59
1:CA:429:U:O3'	4:CD:22:LYS:HE3	2.02	0.59
22:DA:1288:G:C4	22:DA:1327:A:C2	2.91	0.59
22:DA:1805:A:C2	22:DA:1813:G:C2	2.90	0.59
22:DA:1649:G:C6	22:DA:2009:A:C6	2.90	0.59
22:DA:2199:A:C4	22:DA:2225:A:C2	2.90	0.59
22:DA:300:A:N6	57:DA:3551:HOH:O	2.35	0.59
13:AM:6:GLY:O	13:AM:8:ASN:N	2.35	0.59
14:AN:46:LEU:HG	14:AN:47:LYS:N	2.17	0.59
50:B2:29:GLN:O	50:B2:33:ARG:HG3	2.03	0.59
53:B5:167:ASP:CB	53:B5:176:VAL:O	2.51	0.59
22:BA:1415:U:O2	22:BA:1415:U:H2'	2.02	0.59
29:BH:94:ILE:HG22	29:BH:99:ILE:CG1	2.32	0.59
1:CA:31:G:C5	1:CA:306:A:H1'	2.37	0.59
22:DA:1121:C:C2	22:DA:1122:G:C8	2.90	0.59
22:DA:1338:G:O2'	22:DA:1393:A:N1	2.22	0.59
22:DA:1789:A:H5''	24:DC:219:THR:O	2.02	0.59
22:DA:2144:G:C2	22:DA:2146:C:O2	2.55	0.59
22:DA:2420:C:OP1	51:D3:34:THR:HB	2.02	0.59
31:DJ:4:PHE:O	38:DQ:64:ARG:NH2	2.34	0.59
40:DS:80:PRO:HD2	40:DS:100:THR:OG1	2.01	0.59
1:AA:1142:G:C4	1:AA:1143:G:H1'	2.38	0.59
1:AA:1181:G:C2	1:AA:1182:G:N2	2.70	0.59
1:AA:144:G:C4	1:AA:179:A:C2	2.90	0.59
1:AA:68:G:C5	1:AA:69:G:H1'	2.38	0.59
13:AM:29:ARG:O	13:AM:33:ILE:HG12	2.02	0.59
22:BA:1917:U:H2'	22:BA:1917:U:O2	2.02	0.59
22:BA:273:G:N2	22:BA:365:U:C2	2.70	0.59
23:BB:2:G:C2	23:BB:119:A:C2	2.90	0.59
22:BA:1277:G:C5'	35:BN:20:MET:HE1	2.33	0.59
1:CA:38:G:C2	1:CA:397:A:C2	2.90	0.59
22:DA:1907:G:C2	22:DA:1924:C:C2	2.90	0.59
22:DA:2816:G:N3	22:DA:2883:A:O2'	2.34	0.59
22:DA:294:A:C2	22:DA:346:A:N6	2.70	0.59
42:DU:18:ASP:N	42:DU:18:ASP:OD1	2.35	0.59
1:AA:1257:A:H4'	1:AA:1258:G:OP2	2.02	0.59
1:AA:570:G:O6	1:AA:865:A:N6	2.35	0.59
4:AD:2:ALA:O	4:AD:68:LEU:HD21	2.02	0.59
22:BA:1087:G:N2	22:BA:1090:A:C8	2.71	0.59
22:BA:1654:A:OP2	35:BN:1:MET:HA	2.02	0.59
22:BA:1712:U:OP2	22:BA:1713:A:O2'	2.20	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:669:G:C6	22:BA:801:G:O6	2.56	0.59
31:BJ:42:ALA:O	38:BQ:64:ARG:HG2	2.01	0.59
1:CA:951:G:C6	1:CA:952:U:C4	2.91	0.59
11:CK:52:PHE:CZ	11:CK:62:ALA:HA	2.37	0.59
48:D0:54:VAL:O	48:D0:56:ALA:N	2.36	0.59
22:DA:1440:U:H2'	22:DA:1441:G:O4'	2.03	0.59
22:DA:1998:A:OP2	25:DD:141:ARG:NH2	2.35	0.59
28:DG:19:ILE:O	28:DG:21:GLY:N	2.35	0.59
1:AA:1277:C:O2'	1:AA:1279:G:HI'	2.03	0.59
1:AA:173:U:C2	1:AA:197:A:N1	2.71	0.59
8:AH:125:ILE:O	8:AH:125:ILE:HG13	2.02	0.59
22:BA:1073:A:C3'	22:BA:1074:G:C5'	2.80	0.59
22:BA:1916:A:C5	22:BA:1917:U:C6	2.91	0.59
22:BA:197:A:N6	22:BA:2430:A:H2'	2.17	0.59
23:BB:48:U:H2'	23:BB:49:C:C6	2.37	0.59
29:BH:1:MET:O	29:BH:20:ASN:ND2	2.35	0.59
1:CA:1074:G:H4'	2:CB:103:ASN:HB3	1.83	0.59
3:CC:3:GLN:OE1	3:CC:3:GLN:N	2.36	0.59
5:CE:101:GLU:CD	5:CE:101:GLU:O	2.41	0.59
22:DA:1230:A:H2'	22:DA:1231:U:C6	2.38	0.59
22:DA:1936:A:H2	22:DA:1943:U:H3	1.51	0.59
22:DA:2093:G:O2'	29:DH:25:TYR:CA	2.50	0.59
22:DA:2104:C:H2'	22:DA:2105:U:O4'	2.03	0.59
22:DA:388:G:N7	22:DA:390:U:H2'	2.17	0.59
22:DA:724:U:H2'	22:DA:725:G:O4'	2.02	0.59
22:DA:893:C:H2'	22:DA:894:U:O4'	2.02	0.59
29:DH:126:GLY:O	29:DH:146:VAL:N	2.35	0.59
38:DQ:72:ASN:HB3	38:DQ:110:VAL:HG11	1.85	0.59
2:AB:54:LEU:HD12	2:AB:220:THR:HG21	1.85	0.59
5:AE:137:VAL:O	5:AE:137:VAL:CG2	2.51	0.59
22:BA:1875:G:HO2'	22:BA:1876:A:H8	1.50	0.59
24:BC:167:ARG:O	24:BC:168:ASP:HB3	2.03	0.59
46:BY:15:ASN:O	46:BY:19:LEU:HG	2.02	0.59
1:CA:8:A:C6	4:CD:206:LYS:HB3	2.37	0.59
1:CA:1377:A:C5	7:CG:7:ILE:CD1	2.85	0.59
22:DA:2842:G:H2'	22:DA:2843:G:O4'	2.02	0.59
43:DV:51:GLN:OE1	43:DV:57:TYR:OH	2.21	0.59
1:AA:667:G:H4'	15:AO:51:HIS:ND1	2.18	0.59
2:AB:72:THR:O	2:AB:73:LYS:HB3	2.03	0.59
4:AD:174:ASP:OD2	4:AD:176:GLY:N	2.35	0.59
4:AD:32:CYS:SG	4:AD:33:LYS:N	2.76	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1209:U:O2'	22:BA:1237:A:N1	2.30	0.59
22:BA:1585:C:H2'	22:BA:1586:A:O4'	2.03	0.59
22:BA:564:C:O2	22:BA:578:G:N2	2.35	0.59
24:BC:30:PHE:CZ	24:BC:32:PRO:HG2	2.38	0.59
33:BL:93:ASN:O	33:BL:94:THR:HB	2.02	0.59
22:BA:1277:G:C5'	35:BN:20:MET:CE	2.81	0.59
36:BO:87:ILE:HG22	36:BO:88:LYS:N	2.17	0.59
5:CE:99:ALA:O	5:CE:122:ASN:ND2	2.35	0.59
22:DA:104:A:H2'	22:DA:105:C:O4'	2.03	0.59
22:DA:1783:A:C6	22:DA:2587:A:C2	2.91	0.59
22:DA:54:G:C2	22:DA:55:G:C8	2.90	0.59
1:AA:438:U:C2	1:AA:494:G:C6	2.90	0.59
37:BP:31:TRP:CE2	37:BP:40:LEU:CD1	2.86	0.59
1:CA:1302:C:C5	13:CM:17:ILE:HD13	2.38	0.59
22:DA:1179:G:C5	22:DA:1180:U:H1'	2.38	0.59
22:DA:479:A:H4'	22:DA:480:A:OP1	2.02	0.59
27:DF:147:ASP:O	27:DF:148:ARG:HB2	2.03	0.59
35:DN:76:VAL:HA	35:DN:79:LEU:HD12	1.84	0.59
1:AA:484:G:H4'	1:AA:485:U:OP1	2.02	0.58
1:AA:923:A:O4'	1:AA:1398:A:C2	2.56	0.58
2:AB:83:ALA:HA	2:AB:86:SER:OG	2.03	0.58
3:AC:10:ILE:HG13	3:AC:10:ILE:O	2.02	0.58
1:AA:657:U:O2	15:AO:22:THR:CG2	2.50	0.58
53:B5:40:GLU:HA	53:B5:181:PHE:HA	1.85	0.58
22:BA:1485:U:H2'	22:BA:1486:U:C6	2.37	0.58
22:BA:1494:A:C2	22:BA:1495:A:C4	2.91	0.58
22:BA:1467:U:C4	22:BA:1546:G:C2	2.91	0.58
22:BA:1824:G:N3	24:BC:252:THR:HG21	2.17	0.58
22:BA:2666:C:C5	22:BA:2667:C:C5	2.91	0.58
30:BI:39:CYS:HA	30:BI:42:PHE:HB3	1.84	0.58
32:BK:118:LEU:O	32:BK:119:ALA:HB3	2.03	0.58
29:BH:83:LYS:HD2	1:CA:55:A:O2'	2.02	0.58
4:CD:167:LYS:HE2	4:CD:173:VAL:HG11	1.85	0.58
1:CA:1125:U:C6	10:CJ:40:ILE:HD13	2.37	0.58
13:CM:114:LYS:HB2	13:CM:115:PRO:HD3	1.84	0.58
22:DA:1075:C:H2'	22:DA:1076:C:C6	2.38	0.58
22:DA:2134:A:OP2	22:DA:2157:G:N2	2.36	0.58
22:DA:2199:A:N7	22:DA:2225:A:C6	2.71	0.58
22:DA:82:U:C2	22:DA:83:A:N7	2.71	0.58
22:DA:936:A:C2	22:DA:937:C:C2	2.91	0.58
22:DA:1805:A:O2'	24:DC:50:THR:HA	2.03	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:30:THR:HG22	31:DJ:31:GLU:N	2.17	0.58
1:AA:645:G:N7	57:AA:1749:HOH:O	2.32	0.58
2:AB:9:MET:SD	2:AB:9:MET:N	2.76	0.58
4:AD:26:ARG:CD	4:AD:31:LYS:HE3	2.33	0.58
6:AF:97:THR:O	6:AF:98:GLU:HB3	2.02	0.58
7:AG:71:PRO:O	7:AG:96:ARG:CG	2.51	0.58
22:BA:1734:G:C4	22:BA:1735:A:C8	2.91	0.58
24:BC:182:ARG:HH21	24:BC:182:ARG:HG3	1.67	0.58
40:BS:59:GLU:HA	40:BS:64:ALA:HB2	1.84	0.58
1:CA:227:G:H2'	1:CA:228:A:O4'	2.02	0.58
4:CD:126:ASN:OD1	4:CD:142:VAL:HG23	2.02	0.58
52:D4:19:ARG:O	52:D4:20:ASP:HB2	2.03	0.58
22:DA:1640:A:H2'	22:DA:1641:A:C8	2.37	0.58
22:DA:2843:G:C2	22:DA:2875:C:N3	2.71	0.58
22:DA:7:G:H4'	31:DJ:15:TRP:CH2	2.39	0.58
24:DC:260:ASN:O	24:DC:261:LYS:HB2	2.03	0.58
35:DN:83:LEU:HD23	35:DN:86:ARG:CZ	2.33	0.58
1:AA:102:G:C2	1:AA:103:U:C6	2.91	0.58
1:AA:194:C:C2'	1:AA:195:A:H5'	2.33	0.58
1:AA:428:G:O4'	1:AA:430:A:C8	2.56	0.58
1:AA:408:A:C2	1:AA:435:A:C2	2.91	0.58
1:AA:982:U:H4'	1:AA:983:A:C5'	2.33	0.58
2:AB:67:ILE:O	2:AB:68:LEU:HB2	2.01	0.58
4:AD:62:ARG:HG3	4:AD:72:PHE:CD2	2.38	0.58
16:AP:43:ALA:O	16:AP:46:LYS:HD2	2.03	0.58
22:BA:1179:G:C6	22:BA:1180:U:H1'	2.37	0.58
22:BA:1914:C:H2'	22:BA:1914:C:O2	2.03	0.58
22:BA:31:C:O2'	22:BA:32:C:H5'	2.03	0.58
24:BC:86:ASN:N	24:BC:86:ASN:HD22	2.01	0.58
22:BA:2773:C:H5''	25:BD:169:ARG:HG2	1.85	0.58
1:CA:1133:G:C2	1:CA:1142:G:C2	2.91	0.58
1:CA:1211:U:C2'	1:CA:1212:U:OP2	2.51	0.58
1:CA:1490:U:H2'	1:CA:1491:G:O4'	2.03	0.58
1:CA:247:G:C6	1:CA:278:G:C2	2.92	0.58
4:CD:26:ARG:HG3	4:CD:27:ALA:N	2.18	0.58
11:CK:44:TRP:O	11:CK:44:TRP:CE3	2.57	0.58
22:DA:1034:G:C6	22:DA:1035:U:N3	2.71	0.58
22:DA:187:G:C2	22:DA:210:C:O2	2.54	0.58
22:DA:2094:A:H5'	29:DH:25:TYR:HB2	1.85	0.58
24:DC:148:PRO:CD	24:DC:185:GLU:OE2	2.51	0.58
24:DC:3:VAL:CG1	24:DC:202:LEU:HD23	2.33	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:48:ILE:HG23	25:DD:84:LEU:HD21	1.85	0.58
28:DG:159:GLY:O	28:DG:163:ARG:NH1	2.37	0.58
22:DA:533:G:H5'	38:DQ:24:TYR:CE1	2.38	0.58
22:DA:371:A:N3	45:DX:61:LYS:NZ	2.50	0.58
6:AF:98:GLU:O	6:AF:99:ALA:O	2.22	0.58
10:AJ:15:HIS:CG	10:AJ:16:ARG:N	2.72	0.58
22:BA:245:G:O6	51:B3:8:ARG:HD3	2.03	0.58
22:BA:2458:G:N3	22:BA:2490:G:N2	2.52	0.58
22:BA:2593:U:N3	22:BA:2594:C:C5	2.71	0.58
22:BA:878:A:H5'	22:BA:879:G:OP2	2.03	0.58
1:CA:1080:A:OP1	5:CE:52:LYS:CE	2.52	0.58
1:CA:858:G:O6	1:CA:869:G:H3'	2.03	0.58
1:CA:949:A:O2'	1:CA:971:G:O6	2.16	0.58
3:CC:150:LYS:HG2	3:CC:201:TRP:CE3	2.38	0.58
3:CC:40:ARG:HG2	3:CC:55:ILE:HD11	1.84	0.58
3:CC:59:ARG:HB2	3:CC:63:SER:O	2.03	0.58
17:CQ:12:VAL:HG23	17:CQ:57:ASP:O	2.03	0.58
22:DA:1973:G:C5	22:DA:1974:C:C4	2.92	0.58
22:DA:2196:C:O2'	22:DA:2197:U:H5'	2.03	0.58
22:DA:2343:U:O2'	22:DA:2373:G:O2'	2.14	0.58
22:DA:579:G:N2	22:DA:1262:A:C4	2.72	0.58
22:DA:696:G:C6	22:DA:767:U:C2	2.92	0.58
35:DN:1:MET:CE	35:DN:1:MET:H1	2.16	0.58
1:AA:373:A:C2	1:AA:374:A:C8	2.92	0.58
2:AB:126:PHE:N	2:AB:126:PHE:HD1	2.02	0.58
4:AD:37:ALA:HA	4:AD:42:GLY:HA3	1.84	0.58
22:BA:1246:A:C2'	22:BA:1247:A:O5'	2.51	0.58
22:BA:1915:U:O2'	22:BA:1916:A:H5'	2.02	0.58
22:BA:1924:C:O2	22:BA:1926:U:O4	2.21	0.58
27:BF:105:THR:HG23	27:BF:106:ILE:CG2	2.33	0.58
1:CA:555:U:H2'	1:CA:556:C:C6	2.38	0.58
1:CA:622:A:H5''	1:CA:623:C:OP2	2.04	0.58
13:CM:93:ARG:HB3	13:CM:93:ARG:CZ	2.31	0.58
22:DA:1436:G:N2	22:DA:1557:C:C2	2.72	0.58
22:DA:197:A:C8	22:DA:2430:A:C8	2.90	0.58
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.18	0.58
1:AA:11:G:C6	1:AA:12:U:C4	2.91	0.58
1:AA:767:A:H2'	1:AA:768:A:O4'	2.03	0.58
5:AE:157:ARG:HD2	8:AH:43:GLU:O	2.04	0.58
5:AE:90:THR:HG22	5:AE:91:GLY:N	2.17	0.58
22:BA:2684:U:C4	22:BA:2685:G:N7	2.72	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:65:U:H2'	22:BA:66:C:H6	1.68	0.58
23:BB:30:C:H2'	23:BB:31:C:H5'	1.86	0.58
26:BE:59:PRO:HD3	26:BE:71:GLY:O	2.04	0.58
29:BH:31:VAL:N	29:BH:32:PRO:HD2	2.19	0.58
38:BQ:50:ARG:O	38:BQ:54:LYS:HE2	2.04	0.58
1:CA:109:A:O2'	1:CA:326:G:N2	2.37	0.58
1:CA:1055:A:C6	1:CA:1206:G:C5	2.92	0.58
1:CA:16:A:C2'	1:CA:17:U:H5'	2.34	0.58
1:CA:861:G:C5	1:CA:862:C:C5	2.92	0.58
17:CQ:46:VAL:HG22	17:CQ:61:ILE:HD11	1.85	0.58
22:DA:1323:C:C4	22:DA:1324:G:N7	2.72	0.58
22:DA:2025:C:H2'	22:DA:2026:U:C6	2.38	0.58
22:DA:973:A:OP2	39:DR:81:LYS:NZ	2.27	0.58
29:DH:34:GLY:O	29:DH:35:LYS:CB	2.51	0.58
1:AA:316:C:C2	1:AA:317:U:C5	2.92	0.58
1:AA:468:A:C2	1:AA:469:C:C5	2.91	0.58
2:AB:213:TYR:O	2:AB:217:VAL:HG23	2.02	0.58
10:AJ:15:HIS:O	10:AJ:17:LEU:N	2.34	0.58
11:AK:13:ARG:N	22:BA:2141:G:H4'	2.19	0.58
22:BA:1842:G:H2'	22:BA:1843:C:O4'	2.03	0.58
25:BD:207:VAL:HG22	25:BD:207:VAL:O	2.04	0.58
27:BF:143:TYR:O	27:BF:146:VAL:HG22	2.04	0.58
22:BA:2531:A:OP2	28:BG:174:ALA:O	2.22	0.58
35:BN:2:ARG:HA	35:BN:5:LYS:HD2	1.85	0.58
22:BA:2846:G:OP1	37:BP:53:ARG:NH1	2.37	0.58
39:BR:49:ILE:CB	39:BR:52:PRO:C	2.72	0.58
41:BT:51:PHE:O	41:BT:52:GLU:C	2.42	0.58
5:CE:38:VAL:HG12	5:CE:117:VAL:HG21	1.86	0.58
14:CN:41:ARG:HG2	14:CN:42:TRP:N	2.19	0.58
22:DA:1064:C:N3	22:DA:1074:G:N2	2.51	0.58
22:DA:1181:U:H2'	22:DA:1182:G:C8	2.38	0.58
22:DA:2142:A:C2	22:DA:2150:C:N3	2.72	0.58
22:DA:2163:A:OP1	22:DA:2171:A:C8	2.56	0.58
22:DA:2330:G:N2	22:DA:2386:A:C2	2.70	0.58
22:DA:2842:G:C6	22:DA:2876:G:C6	2.92	0.58
22:DA:301:G:N3	22:DA:302:C:C2	2.72	0.58
23:DB:94:A:OP1	43:DV:19:ARG:HD3	2.03	0.58
22:DA:588:U:H1'	26:DE:85:PHE:CD1	2.38	0.58
36:DO:33:ARG:O	36:DO:34:HIS:CB	2.52	0.58
45:DX:30:LEU:HB3	45:DX:31:PRO:CD	2.34	0.58
1:AA:507:C:C2	1:AA:508:U:C5	2.92	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:79:SER:HA	8:AH:85:ILE:HG12	1.85	0.58
10:AJ:52:LEU:HD11	10:AJ:59:LYS:HA	1.84	0.58
22:BA:570:G:H2'	22:BA:2030:A:N7	2.19	0.58
25:BD:121:THR:HB	25:BD:127:PHE:CD2	2.39	0.58
32:BK:107:LEU:O	32:BK:109:SER:N	2.37	0.58
1:CA:518:C:H4'	1:CA:519:C:O5'	2.03	0.58
1:CA:609:A:N7	57:CA:1797:HOH:O	2.32	0.58
1:CA:846:G:C2	1:CA:847:G:C8	2.92	0.58
1:CA:981:U:H5	1:CA:982:U:HO2'	1.51	0.58
9:CI:30:ILE:HA	9:CI:65:ILE:HG13	1.86	0.58
17:CQ:19:LYS:HD3	17:CQ:49:GLU:HA	1.85	0.58
22:DA:1965:C:OP1	22:DA:1966:A:H2'	2.03	0.58
22:DA:27:G:N2	22:DA:512:G:H1'	2.19	0.58
22:DA:524:G:C5	22:DA:525:U:C5	2.91	0.58
22:DA:70:G:N2	22:DA:71:A:N1	2.51	0.58
22:DA:938:G:C2	22:DA:939:G:N7	2.72	0.58
32:DK:92:GLU:O	32:DK:93:GLN:HB2	2.03	0.58
22:DA:587:C:N3	33:DL:33:ARG:NH2	2.51	0.58
36:DO:18:LEU:O	36:DO:22:GLY:N	2.37	0.58
1:AA:554:A:H5'	12:AL:26:ALA:HB1	1.85	0.58
14:AN:20:TYR:CE1	14:AN:52:PRO:HG2	2.39	0.58
10:AJ:66:GLU:HB3	14:AN:99:ALA:CB	2.33	0.58
22:BA:357:C:H2'	22:BA:358:U:C6	2.39	0.58
30:BI:82:LYS:O	30:BI:83:ALA:HB2	2.02	0.58
1:CA:1092:A:C2	1:CA:1183:U:O2	2.57	0.58
10:CJ:35:GLN:HG2	10:CJ:77:VAL:HB	1.85	0.58
22:DA:607:U:O4	22:DA:619:G:H2'	2.03	0.58
22:DA:190:A:O2'	22:DA:679:C:O2'	2.16	0.58
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.38	0.58
2:AB:126:PHE:N	2:AB:126:PHE:CD1	2.72	0.58
4:AD:107:PHE:CG	4:AD:145:ILE:HD11	2.39	0.58
4:AD:191:LEU:O	4:AD:192:SER:CB	2.51	0.58
1:AA:406:G:O5'	4:AD:5:LEU:HD21	2.04	0.58
19:AS:5:LEU:HD22	19:AS:9:PRO:HA	1.86	0.58
22:BA:1925:C:C4'	22:BA:1926:U:C4	2.87	0.58
22:BA:2502:G:H5'	22:BA:2503:A:H5''	1.84	0.58
22:BA:2669:G:O2'	22:BA:2670:A:H5'	2.04	0.58
22:BA:2747:G:O2'	28:BG:67:THR:HB	2.04	0.58
24:BC:85:PRO:HG2	24:BC:86:ASN:ND2	2.19	0.58
32:BK:92:GLU:HG3	32:BK:111:LYS:NZ	2.19	0.58
35:BN:103:ARG:HB2	35:BN:110:MET:HE3	1.86	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BN:78:LYS:C	35:BN:79:LEU:O	2.41	0.58
39:BR:66:HIS:CE1	39:BR:94:THR:HB	2.38	0.58
1:CA:513:C:H2'	1:CA:514:C:C6	2.39	0.58
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.04	0.58
5:CE:57:PRO:O	5:CE:60:ILE:HG13	2.04	0.58
13:CM:20:THR:HG22	13:CM:26:GLY:C	2.24	0.58
14:CN:52:PRO:O	14:CN:53:ARG:HB3	2.03	0.58
19:CS:80:TYR:O	19:CS:81:ARG:CB	2.51	0.58
22:DA:279:A:C2	22:DA:362:A:H4'	2.38	0.58
22:DA:740:C:H5'	22:DA:1784:A:H3'	1.85	0.58
25:DD:133:THR:HG23	25:DD:134:HIS:N	2.19	0.58
37:DP:29:LYS:HB3	37:DP:40:LEU:HD21	1.86	0.58
22:DA:77:G:OP1	46:DY:52:ARG:HD3	2.03	0.58
1:AA:1288:A:C6	1:AA:1289:A:C5	2.91	0.57
1:AA:135:C:N3	16:AP:1:MET:N	2.52	0.57
10:AJ:33:GLY:O	10:AJ:34:ALA:CB	2.52	0.57
13:AM:11:ASP:CG	13:AM:12:HIS:N	2.57	0.57
22:BA:1439:A:C2	22:BA:1553:A:C4	2.92	0.57
22:BA:322:A:C5	22:BA:340:A:C2	2.92	0.57
22:BA:686:U:H2'	22:BA:788:A:N1	2.19	0.57
22:BA:989:G:C8	47:BZ:14:ILE:HD11	2.39	0.57
9:CI:57:MET:SD	9:CI:58:VAL:N	2.76	0.57
18:CR:72:ASP:C	18:CR:73:ARG:HG2	2.25	0.57
22:DA:1199:U:H2'	22:DA:1200:C:C6	2.39	0.57
22:DA:1823:G:N7	57:DA:3651:HOH:O	2.37	0.57
22:DA:2267:A:H5''	22:DA:2268:A:C5'	2.34	0.57
22:DA:945:A:C8	22:DA:2448:A:C2	2.91	0.57
22:DA:2822:G:H2'	22:DA:2823:A:H5''	1.86	0.57
29:DH:108:VAL:O	29:DH:110:VAL:N	2.36	0.57
35:DN:117:ASP:O	35:DN:118:ARG:HG3	2.04	0.57
36:DO:33:ARG:O	36:DO:34:HIS:CD2	2.57	0.57
41:DT:39:THR:O	41:DT:41:ALA:N	2.38	0.57
1:AA:1141:C:O2'	1:AA:1142:G:P	2.62	0.57
1:AA:1141:C:O2'	1:AA:1142:G:O5'	2.19	0.57
1:AA:1310:G:OP2	13:AM:87:ARG:NH2	2.37	0.57
2:AB:103:ASN:O	2:AB:106:THR:N	2.37	0.57
2:AB:88:ASP:C	2:AB:89:GLN:HG3	2.23	0.57
16:AP:79:ASN:O	16:AP:80:LYS:HB2	2.04	0.57
22:BA:700:G:O2'	22:BA:1632:A:N3	2.33	0.57
22:BA:2584:U:H2'	22:BA:2585:U:H2'	1.86	0.57
26:BE:21:ARG:HD3	26:BE:106:LYS:HB3	1.86	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:85:VAL:CG1	33:BL:94:THR:HG22	2.33	0.57
3:CC:42:TYR:CZ	3:CC:46:GLU:HG3	2.39	0.57
13:CM:10:PRO:O	13:CM:11:ASP:CB	2.52	0.57
22:DA:1401:G:C5	22:DA:1402:U:C5	2.92	0.57
22:DA:1847:A:O2'	22:DA:1848:A:C8	2.57	0.57
22:DA:2824:C:N4	22:DA:2825:G:N7	2.52	0.57
22:DA:864:G:C6	22:DA:865:C:N4	2.72	0.57
24:DC:251:GLN:HG2	24:DC:255:LYS:HB2	1.84	0.57
29:DH:62:LEU:C	29:DH:62:LEU:HD13	2.25	0.57
1:AA:208:U:C5	1:AA:210:C:N3	2.73	0.57
1:AA:596:A:C6	1:AA:645:G:C2	2.92	0.57
7:AG:79:ARG:NH1	7:AG:82:GLY:O	2.37	0.57
9:AI:35:LEU:HD11	9:AI:48:VAL:HG21	1.87	0.57
22:BA:1474:U:H2'	22:BA:1475:G:H5'	1.86	0.57
22:BA:2318:G:C6	22:BA:2319:G:N1	2.72	0.57
22:BA:877:A:O2'	22:BA:900:A:N6	2.35	0.57
24:BC:77:VAL:HG23	24:BC:114:ASP:O	2.03	0.57
32:BK:121:GLU:O	32:BK:122:VAL:OXT	2.21	0.57
36:BO:66:GLY:HA2	36:BO:102:ARG:NH2	2.19	0.57
36:BO:87:ILE:O	36:BO:88:LYS:O	2.23	0.57
39:BR:27:ILE:CG2	39:BR:63:VAL:HG21	2.34	0.57
39:BR:48:LYS:HG2	39:BR:48:LYS:O	2.02	0.57
1:CA:1181:G:O2'	1:CA:1182:G:C8	2.58	0.57
1:CA:994:A:N3	1:CA:994:A:H2'	2.19	0.57
2:CB:210:VAL:O	2:CB:214:LEU:HB2	2.05	0.57
7:CG:151:PHE:O	7:CG:152:ALA:HB2	2.04	0.57
22:DA:1774:C:O2	24:DC:11:PRO:HB2	2.03	0.57
22:DA:225:C:H2'	22:DA:226:A:O4'	2.03	0.57
22:DA:526:A:C6	22:DA:2626:C:H4'	2.39	0.57
22:DA:2683:C:OP1	37:DP:51:ARG:NH2	2.37	0.57
22:DA:2834:G:H2'	22:DA:2879:A:N6	2.20	0.57
24:DC:61:ALA:O	24:DC:63:ARG:NH2	2.37	0.57
33:DL:59:ARG:CZ	33:DL:59:ARG:HB3	2.34	0.57
35:DN:117:ASP:O	35:DN:118:ARG:CB	2.52	0.57
4:AD:65:TYR:CG	4:AD:94:LEU:HD22	2.38	0.57
16:AP:10:GLY:HA3	16:AP:15:PRO:HA	1.86	0.57
17:AQ:49:GLU:O	17:AQ:50:ASN:OD1	2.21	0.57
21:AU:12:PHE:N	21:AU:12:PHE:CD1	2.72	0.57
22:BA:186:G:O2'	22:BA:187:G:H5'	2.04	0.57
1:CA:1084:G:C5	1:CA:1085:U:C4	2.92	0.57
1:CA:1179:A:O3'	9:CI:105:THR:OG1	2.22	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:21:ARG:HA	2:CB:21:ARG:NH1	2.20	0.57
5:CE:104:GLY:O	5:CE:105:ILE:HG22	2.04	0.57
22:DA:192:C:O2'	22:DA:802:A:N3	2.36	0.57
22:DA:2262:U:H1'	22:DA:2328:A:H1'	1.86	0.57
24:DC:136:PRO:O	24:DC:139:SER:OG	2.18	0.57
24:DC:72:ASP:HA	24:DC:118:SER:O	2.04	0.57
29:DH:117:LEU:HB3	29:DH:120:GLY:O	2.05	0.57
1:AA:1145:A:O2'	1:AA:1146:A:C5'	2.51	0.57
1:AA:71:A:O2'	1:AA:72:A:P	2.63	0.57
2:AB:106:THR:O	2:AB:107:VAL:CB	2.52	0.57
3:AC:11:ARG:O	3:AC:14:ILE:N	2.37	0.57
23:BB:28:C:OP1	36:BO:31:THR:HG21	2.03	0.57
27:BF:67:ILE:HD12	27:BF:67:ILE:O	2.04	0.57
44:BW:38:VAL:HG23	44:BW:59:LEU:HB2	1.85	0.57
7:CG:145:ALA:O	7:CG:146:GLU:HB2	2.04	0.57
22:DA:1638:C:H4'	22:DA:2710:C:O2	2.05	0.57
22:DA:2125:G:H5'	22:DA:2126:A:OP2	2.04	0.57
22:DA:2474:U:H5''	22:DA:2475:C:OP2	2.04	0.57
22:DA:2683:C:H4'	25:DD:13:ARG:NH1	2.18	0.57
22:DA:484:C:N4	22:DA:497:A:C2	2.72	0.57
22:DA:836:G:C5	22:DA:837:C:C4	2.92	0.57
22:DA:2379:G:H4'	36:DO:21:LEU:HD11	1.85	0.57
41:DT:44:LYS:O	41:DT:48:GLN:HG2	2.04	0.57
42:DU:98:SER:O	42:DU:99:ASN:HB3	2.03	0.57
1:AA:1126:U:O4'	1:AA:1281:C:O2	2.23	0.57
1:AA:315:A:O2'	1:AA:330:C:H4'	2.04	0.57
2:AB:93:ASN:OD1	2:AB:94:HIS:ND1	2.38	0.57
9:AI:36:GLU:HA	9:AI:40:GLY:HA3	1.86	0.57
22:BA:1688:U:H1'	22:BA:1701:A:C6	2.40	0.57
22:BA:2694:G:C2	22:BA:2695:U:C2	2.93	0.57
22:BA:588:U:H2'	22:BA:589:U:C6	2.39	0.57
22:BA:947:A:O2'	22:BA:984:A:H2	1.86	0.57
27:BF:5:HIS:O	27:BF:8:TYR:HB3	2.05	0.57
27:BF:34:ILE:HD11	27:BF:96:MET:HG3	1.87	0.57
30:BI:16:GLY:CA	30:BI:51:LYS:HB3	2.35	0.57
39:BR:46:GLU:O	39:BR:46:GLU:OE1	2.22	0.57
39:BR:49:ILE:CB	39:BR:52:PRO:O	2.53	0.57
40:BS:63:GLY:O	40:BS:64:ALA:CB	2.53	0.57
51:D3:31:HIS:ND1	51:D3:32:ILE:HG13	2.19	0.57
22:DA:2272:U:H5''	22:DA:2273:A:OP1	2.04	0.57
22:DA:577:G:O2'	22:DA:1254:A:OP1	2.22	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:595:C:O2	22:DA:663:G:C2	2.58	0.57
1:AA:389:A:C6	1:AA:390:U:H1'	2.39	0.57
1:AA:89:U:O2'	1:AA:90:C:H5''	2.05	0.57
2:AB:187:VAL:HG23	2:AB:187:VAL:O	2.04	0.57
3:AC:6:HIS:CD2	3:AC:7:PRO:HD2	2.39	0.57
21:AU:10:GLU:HG3	21:AU:11:PRO:HD3	1.87	0.57
22:BA:1584:U:H2'	22:BA:1584:U:O2	2.04	0.57
22:BA:2636:C:H2'	22:BA:2637:U:C6	2.38	0.57
22:BA:372:G:O2'	22:BA:400:G:O6	2.19	0.57
23:BB:54:G:H21	27:BF:26:MET:CE	2.17	0.57
29:BH:95:GLY:HA2	29:BH:117:LEU:HD22	1.87	0.57
35:BN:49:GLU:OE2	35:BN:95:THR:HG22	2.04	0.57
46:BY:22:LEU:O	46:BY:23:ARG:C	2.43	0.57
1:CA:456:A:C6	1:CA:457:G:C5	2.92	0.57
1:CA:4:U:H5''	1:CA:5:U:OP1	2.05	0.57
1:CA:990:C:C4	1:CA:991:U:O4	2.57	0.57
12:CL:51:LYS:HD2	12:CL:51:LYS:N	2.19	0.57
15:CO:53:ARG:O	15:CO:56:LEU:HB3	2.05	0.57
22:DA:1171:G:C2	22:DA:1179:G:O6	2.58	0.57
22:DA:1272:A:C5	22:DA:1618:A:H1'	2.39	0.57
22:DA:1323:C:N4	22:DA:1324:G:O6	2.37	0.57
22:DA:161:A:C3'	22:DA:162:U:H5''	2.34	0.57
22:DA:1691:C:C4	22:DA:1692:U:C5	2.93	0.57
22:DA:1808:A:H3'	22:DA:1809:A:C8	2.39	0.57
22:DA:2511:U:C4	22:DA:2512:C:C4	2.93	0.57
22:DA:5:A:C2	22:DA:2899:A:C2	2.92	0.57
22:DA:38:A:C2	22:DA:442:G:C6	2.93	0.57
22:DA:649:G:H2'	22:DA:650:C:C6	2.40	0.57
29:DH:21:VAL:HG22	29:DH:22:LYS:N	2.19	0.57
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.05	0.57
1:AA:1160:G:O2'	1:AA:1161:C:P	2.63	0.57
1:AA:1441:A:H2'	1:AA:1442:G:O5'	2.04	0.57
3:AC:15:VAL:HG11	3:AC:179:ARG:O	2.05	0.57
4:AD:105:MET:HB2	4:AD:107:PHE:CE2	2.40	0.57
4:AD:123:ILE:CD1	4:AD:123:ILE:N	2.67	0.57
6:AF:93:LYS:O	6:AF:93:LYS:HG2	2.04	0.57
53:B5:64:SER:O	53:B5:65:LEU:CB	2.52	0.57
22:BA:1196:C:O4'	22:BA:1226:A:C2	2.58	0.57
22:BA:1866:A:N1	22:BA:1876:A:C8	2.72	0.57
22:BA:244:A:OP2	51:B3:8:ARG:NH2	2.30	0.57
1:CA:197:A:O2'	1:CA:220:G:N2	2.38	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:881:G:C6	1:CA:882:C:C4	2.93	0.57
2:CB:47:VAL:HB	2:CB:48:PRO:HD3	1.85	0.57
11:CK:89:PRO:HD3	21:CU:29:LEU:CD1	2.34	0.57
22:DA:2112:G:N3	22:DA:2112:G:H2'	2.20	0.57
22:DA:2199:A:C5	22:DA:2225:A:C6	2.93	0.57
22:DA:2216:G:H2'	22:DA:2217:G:C8	2.40	0.57
22:DA:583:G:C6	22:DA:584:C:C4	2.93	0.57
1:AA:901:A:N7	1:AA:902:G:H1'	2.18	0.57
1:AA:90:C:H1'	1:AA:91:U:H5'	1.86	0.57
1:AA:451:A:H5''	16:AP:70:ARG:NH2	2.20	0.57
1:AA:261:U:C5	20:AT:74:ARG:NH1	2.72	0.57
49:B1:32:GLU:OE2	49:B1:32:GLU:N	2.37	0.57
25:BD:62:LYS:N	25:BD:63:PRO:CD	2.68	0.57
29:BH:117:LEU:HD21	29:BH:121:VAL:CA	2.35	0.57
29:BH:132:PHE:CE2	29:BH:142:VAL:HG21	2.40	0.57
30:BI:19:ASN:N	30:BI:20:PRO:CD	2.68	0.57
32:BK:87:LEU:HD13	32:BK:92:GLU:HB3	1.87	0.57
1:CA:1463:U:H2'	1:CA:1464:U:C6	2.39	0.57
1:CA:607:A:C2	1:CA:608:A:C4	2.93	0.57
1:CA:679:C:O2	1:CA:712:A:C2	2.58	0.57
1:CA:728:A:C6	1:CA:729:A:C6	2.92	0.57
9:CI:54:LEU:O	9:CI:55:VAL:HG22	2.04	0.57
10:CJ:25:ILE:O	10:CJ:25:ILE:HD13	2.04	0.57
22:DA:2349:G:OP1	51:D3:45:ARG:NH2	2.37	0.57
22:DA:1080:A:N6	22:DA:1087:G:OP2	2.36	0.57
22:DA:1731:G:C6	22:DA:1733:G:C5	2.93	0.57
22:DA:564:C:H1'	38:DQ:37:GLN:NE2	2.20	0.57
22:DA:720:U:H2'	22:DA:721:A:C8	2.39	0.57
22:DA:1566:A:N1	24:DC:213:TRP:CE3	2.73	0.57
30:DI:58:VAL:O	30:DI:69:PHE:HB3	2.04	0.57
42:DU:33:LYS:HB3	42:DU:64:ALA:HB1	1.86	0.57
1:AA:108:G:C6	20:AT:10:ARG:HG2	2.40	0.57
1:AA:19:A:N3	1:AA:917:G:C2	2.72	0.57
1:AA:203:G:N2	1:AA:215:C:C2	2.73	0.57
1:AA:721:G:H4'	1:AA:722:G:O4'	2.05	0.57
2:AB:15:HIS:O	2:AB:16:PHE:C	2.42	0.57
6:AF:7:VAL:CG2	6:AF:7:VAL:O	2.50	0.57
9:AI:58:VAL:O	9:AI:59:GLU:CG	2.52	0.57
12:AL:122:PRO:O	12:AL:124:ALA:N	2.38	0.57
22:BA:1433:A:O2'	22:BA:1434:A:H5'	2.05	0.57
22:BA:1606:C:HO2'	22:BA:1607:C:P	2.27	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2452:C:C2	55:BA:3001:VIR:H131	2.39	0.57
22:BA:2520:C:O2'	22:BA:2521:C:H5'	2.05	0.57
22:BA:686:U:H4'	22:BA:687:C:OP2	2.05	0.57
22:BA:905:A:C6	22:BA:906:U:C5	2.93	0.57
29:BH:117:LEU:CD2	29:BH:121:VAL:H	2.08	0.57
36:BO:88:LYS:O	36:BO:89:ASP:HB2	2.05	0.57
1:CA:96:U:O2'	1:CA:97:G:P	2.63	0.57
4:CD:22:LYS:O	4:CD:23:SER:C	2.43	0.57
5:CE:141:ILE:O	5:CE:143:GLY:N	2.38	0.57
22:DA:1390:U:H2'	22:DA:1391:U:H5'	1.87	0.57
22:DA:1627:G:C2	22:DA:1628:G:N7	2.73	0.57
22:DA:2199:A:C6	22:DA:2200:C:C2	2.92	0.57
22:DA:24:G:C6	22:DA:25:U:C4	2.93	0.57
22:DA:449:A:C5	22:DA:450:G:C8	2.93	0.57
22:DA:749:A:C4	22:DA:750:A:C8	2.93	0.57
22:DA:945:A:C5	22:DA:2448:A:C2	2.93	0.57
31:DJ:105:VAL:HG12	31:DJ:109:LEU:HD12	1.87	0.57
1:AA:102:G:C2	1:AA:103:U:C5	2.93	0.56
1:AA:119:A:C2	1:AA:240:G:C8	2.93	0.56
1:AA:213:G:C8	1:AA:214:C:C5	2.93	0.56
1:AA:663:A:C2	1:AA:743:A:C2	2.93	0.56
1:AA:8:A:C6	4:AD:206:LYS:HB3	2.40	0.56
22:BA:2345:G:C4	22:BA:2381:A:C2	2.93	0.56
24:BC:76:ALA:HB2	24:BC:96:TYR:CD2	2.40	0.56
26:BE:108:ILE:HD11	26:BE:180:LEU:HB3	1.87	0.56
1:CA:1161:C:O2	1:CA:1176:A:C2	2.58	0.56
1:CA:256:U:H2'	1:CA:257:G:O4'	2.04	0.56
5:CE:106:ILE:HD11	5:CE:124:LEU:HD23	1.86	0.56
1:CA:35:G:O2'	12:CL:115:SER:O	2.20	0.56
22:DA:187:G:N2	22:DA:210:C:C2	2.73	0.56
22:DA:2308:G:C5'	22:DA:2309:A:OP2	2.53	0.56
22:DA:2297:A:N1	22:DA:2321:U:C5	2.73	0.56
22:DA:2345:G:C5	22:DA:2347:C:C5	2.93	0.56
22:DA:2624:G:H1'	48:D0:19:HIS:CE1	2.40	0.56
22:DA:532:A:N3	22:DA:532:A:H2'	2.20	0.56
27:DF:5:HIS:HB2	27:DF:97:TRP:CG	2.40	0.56
37:DP:103:ARG:HB3	37:DP:108:ALA:HB2	1.87	0.56
42:DU:45:HIS:HB3	42:DU:58:ILE:HG12	1.87	0.56
1:AA:1315:U:O4	1:AA:1316:G:C6	2.58	0.56
1:AA:402:G:C5	1:AA:403:C:C5	2.94	0.56
1:AA:843:U:OP1	1:AA:846:G:N2	2.38	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:874:G:C6	1:AA:875:U:C4	2.93	0.56
7:AG:97:ASN:HA	7:AG:100:ALA:HB3	1.87	0.56
9:AI:61:LEU:CD2	9:AI:61:LEU:N	2.68	0.56
22:BA:682:G:H5'	50:B2:26:ASN:OD1	2.05	0.56
22:BA:1730:C:O2'	22:BA:1731:G:C4	2.50	0.56
22:BA:1750:G:C6	22:BA:1751:U:C4	2.92	0.56
22:BA:2355:G:O3'	44:BW:24:LYS:NZ	2.38	0.56
22:BA:2452:C:C4	22:BA:2453:A:C6	2.93	0.56
22:BA:536:G:C6	22:BA:537:G:C4	2.94	0.56
39:BR:49:ILE:C	39:BR:51:VAL:O	2.44	0.56
1:CA:1095:U:P	57:CA:1855:HOH:O	2.62	0.56
1:CA:994:A:C8	1:CA:1216:A:H4'	2.40	0.56
1:CA:1299:A:O2'	1:CA:1301:U:O4'	2.21	0.56
29:BH:123:ARG:NH2	1:CA:367:U:C5'	2.68	0.56
2:CB:54:LEU:HD12	2:CB:220:THR:HG21	1.86	0.56
6:CF:22:ILE:O	6:CF:26:THR:OG1	2.23	0.56
17:CQ:69:LYS:O	17:CQ:70:THR:CB	2.53	0.56
18:CR:33:ILE:HA	18:CR:40:VAL:HG23	1.86	0.56
21:CU:36:GLU:OE1	21:CU:36:GLU:HA	2.05	0.56
22:DA:1020:A:C2	22:DA:1141:U:C2	2.93	0.56
22:DA:1773:A:N7	22:DA:1829:A:H1'	2.19	0.56
22:DA:2199:A:C1'	29:DH:28:ASN:HD22	2.00	0.56
22:DA:2261:C:C2	22:DA:2280:G:C2	2.92	0.56
22:DA:634:C:H2'	22:DA:635:C:C6	2.40	0.56
38:DQ:102:ASP:OD2	39:DR:2:TYR:OH	2.18	0.56
1:AA:990:C:N3	1:AA:991:U:C4	2.73	0.56
2:AB:21:ARG:HA	2:AB:21:ARG:CZ	2.35	0.56
4:AD:70:ARG:O	4:AD:74:ASN:OD1	2.23	0.56
6:AF:39:LEU:O	6:AF:40:GLU:HG3	2.05	0.56
13:AM:16:VAL:HG13	13:AM:41:GLU:HB2	1.88	0.56
17:AQ:12:VAL:O	17:AQ:13:VAL:HB	2.05	0.56
22:BA:120:U:P	57:BA:3216:HOH:O	2.64	0.56
22:BA:1923:U:O2'	22:BA:1924:C:H5'	2.06	0.56
22:BA:417:C:H2'	22:BA:418:C:H6	1.70	0.56
22:BA:2052:A:H4'	25:BD:148:GLN:O	2.03	0.56
36:BO:43:ASN:OD1	36:BO:45:SER:N	2.35	0.56
37:BP:52:ASN:O	37:BP:53:ARG:HD3	2.05	0.56
1:CA:369:G:OP2	1:CA:388:G:N1	2.34	0.56
5:CE:154:ALA:HA	5:CE:157:ARG:HB3	1.85	0.56
6:CF:88:MET:SD	6:CF:90:MET:SD	3.03	0.56
12:CL:40:THR:HG22	12:CL:41:THR:N	2.20	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:6:GLY:O	13:CM:8:ASN:N	2.38	0.56
17:CQ:14:SER:C	17:CQ:17:MET:HE1	2.25	0.56
22:DA:1091:G:N3	22:DA:1092:C:C5	2.74	0.56
22:DA:1594:U:H2'	22:DA:1595:C:C6	2.41	0.56
22:DA:301:G:H1'	22:DA:302:C:C6	2.40	0.56
22:DA:514:A:C2	22:DA:515:A:C4	2.93	0.56
22:DA:771:G:C2	22:DA:772:C:C6	2.93	0.56
27:DF:122:PHE:CE1	27:DF:166:GLY:HA3	2.40	0.56
27:DF:46:ASP:N	27:DF:46:ASP:OD1	2.39	0.56
46:DY:27:ASN:HA	46:DY:30:MET:HB2	1.87	0.56
1:AA:1126:U:C6	1:AA:1281:C:N3	2.74	0.56
4:AD:155:VAL:HG11	4:AD:178:MET:HE1	1.87	0.56
5:AE:137:VAL:O	5:AE:137:VAL:HG22	2.05	0.56
12:AL:21:VAL:CG2	12:AL:95:TYR:CE2	2.88	0.56
22:BA:102:U:C2	46:BY:2:LYS:HE3	2.40	0.56
22:BA:1106:G:C2	22:BA:1107:G:C8	2.94	0.56
22:BA:2192:U:C4	22:BA:2193:G:C8	2.94	0.56
22:BA:2444:G:OP2	26:BE:63:LYS:CD	2.53	0.56
22:BA:479:A:H4'	22:BA:480:A:OP1	2.04	0.56
22:BA:26:G:H1'	22:BA:514:A:N6	2.20	0.56
22:BA:958:U:OP2	34:BM:14:LYS:HE2	2.04	0.56
1:CA:355:C:H2'	1:CA:356:A:O4'	2.06	0.56
1:CA:436:C:C2	1:CA:437:U:C5	2.94	0.56
4:CD:29:ASP:C	4:CD:31:LYS:H	2.08	0.56
22:DA:2142:A:N6	22:DA:2143:C:N4	2.53	0.56
22:DA:2478:A:C8	22:DA:2529:G:C5	2.94	0.56
22:DA:247:G:OP2	22:DA:249:C:N4	2.37	0.56
22:DA:570:G:H2'	22:DA:571:U:H5'	1.86	0.56
30:DI:28:LEU:HD13	30:DI:38:PHE:CD2	2.40	0.56
42:DU:95:PHE:HA	42:DU:102:THR:HA	1.88	0.56
45:DX:78:TYR:OXT	45:DX:78:TYR:CD1	2.58	0.56
2:AB:104:TRP:CZ2	2:AB:154:MET:HB3	2.41	0.56
5:AE:108:GLY:O	5:AE:109:GLY:C	2.43	0.56
14:AN:52:PRO:O	14:AN:53:ARG:CB	2.53	0.56
19:AS:44:MET:HA	19:AS:47:LEU:HD12	1.86	0.56
24:BC:52:ARG:HB2	24:BC:53:HIS:CD2	2.39	0.56
27:BF:132:VAL:CG2	27:BF:152:LEU:HB2	2.34	0.56
30:BI:57:VAL:HG22	30:BI:58:VAL:N	2.21	0.56
33:BL:64:PHE:CD1	51:B3:47:LYS:HE2	2.39	0.56
1:CA:401:C:OP2	4:CD:70:ARG:HD3	2.05	0.56
2:CB:183:VAL:N	2:CB:197:ASP:OD1	2.38	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:14:GLU:O	15:CO:84:ARG:NH2	2.39	0.56
22:DA:1411:U:H2'	22:DA:1412:U:O4'	2.05	0.56
22:DA:1343:G:H1'	22:DA:1597:A:C4	2.40	0.56
22:DA:1676:A:H2'	22:DA:1677:A:O4'	2.05	0.56
22:DA:627:A:OP1	33:DL:78:ARG:NH1	2.38	0.56
26:DE:52:VAL:HG21	26:DE:81:GLY:HA2	1.86	0.56
29:DH:83:LYS:N	29:DH:149:GLU:HG2	2.20	0.56
36:DO:2:ASP:O	36:DO:6:ALA:HB2	2.06	0.56
46:DY:18:LEU:O	46:DY:22:LEU:CB	2.52	0.56
1:AA:157:U:C2'	1:AA:158:G:H5'	2.36	0.56
2:AB:166:ALA:HB2	2:AB:187:VAL:HG12	1.87	0.56
4:AD:150:LYS:O	4:AD:151:LYS:C	2.44	0.56
10:AJ:81:GLU:O	10:AJ:84:VAL:HG12	2.04	0.56
11:AK:23:ILE:O	11:AK:23:ILE:HG13	2.04	0.56
22:BA:1246:A:H2'	22:BA:1247:A:O5'	2.06	0.56
22:BA:1801:A:N7	24:BC:262:ARG:NH2	2.53	0.56
22:BA:2267:A:H5''	22:BA:2268:A:H5'	1.88	0.56
23:BB:91:C:OP2	34:BM:18:ARG:HG2	2.05	0.56
29:BH:89:LYS:CG	1:CA:359:G:OP1	2.53	0.56
40:BS:84:ARG:HB2	40:BS:96:ILE:CG1	2.36	0.56
41:BT:16:VAL:O	41:BT:17:SER:HB3	2.06	0.56
22:DA:1581:G:C6	22:DA:1582:C:C4	2.93	0.56
22:DA:2392:A:C8	22:DA:2429:G:C2	2.94	0.56
22:DA:289:G:N2	22:DA:352:A:C2	2.73	0.56
36:DO:26:LEU:HD23	36:DO:117:PHE:CE2	2.41	0.56
40:DS:29:VAL:CG1	40:DS:55:ILE:HD11	2.34	0.56
1:AA:587:G:C2	1:AA:755:G:C5	2.93	0.56
1:AA:913:A:OP1	12:AL:88:LYS:NZ	2.34	0.56
2:AB:41:ILE:HG21	2:AB:202:GLY:HA2	1.88	0.56
3:AC:155:GLY:HA2	3:AC:163:ALA:HB1	1.88	0.56
5:AE:109:GLY:O	5:AE:110:ALA:HB2	2.06	0.56
22:BA:2318:G:C6	22:BA:2319:G:C6	2.94	0.56
24:BC:40:SER:C	24:BC:42:GLY:H	2.08	0.56
27:BF:108:VAL:N	27:BF:109:PRO:HD2	2.21	0.56
27:BF:23:ASN:OD1	27:BF:23:ASN:N	2.39	0.56
28:BG:109:PHE:HE1	28:BG:152:ARG:CZ	2.17	0.56
36:BO:43:ASN:OD1	36:BO:45:SER:HB2	2.04	0.56
10:CJ:88:MET:O	10:CJ:89:ARG:CB	2.53	0.56
22:DA:1736:U:H2'	22:DA:1737:G:O4'	2.05	0.56
22:DA:1965:C:OP1	22:DA:1966:A:C2'	2.54	0.56
22:DA:2552:U:C2	22:DA:2554:U:H5'	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:26:G:C6	22:DA:27:G:N1	2.74	0.56
22:DA:2796:U:O4	22:DA:2798:U:C4	2.58	0.56
22:DA:2094:A:H5''	29:DH:25:TYR:CD2	2.41	0.56
33:DL:50:PHE:CZ	33:DL:52:GLY:O	2.59	0.56
1:AA:1378:C:C2'	1:AA:1379:G:O5'	2.54	0.56
1:AA:1493:A:OP2	1:AA:1493:A:C8	2.58	0.56
1:AA:64:G:C8	1:AA:99:C:C4	2.93	0.56
2:AB:67:ILE:HG21	2:AB:69:PHE:CE1	2.40	0.56
10:AJ:36:VAL:HG12	10:AJ:36:VAL:O	2.05	0.56
12:AL:44:LYS:CB	12:AL:45:PRO:HD3	2.35	0.56
20:AT:55:GLN:N	20:AT:56:PRO:HD2	2.21	0.56
22:BA:1157:G:N2	22:BA:1158:C:C2	2.74	0.56
22:BA:1452:G:C4	22:BA:2702:G:C6	2.93	0.56
22:BA:1796:U:H2'	22:BA:1797:G:H8	1.71	0.56
22:BA:2694:G:C6	22:BA:2695:U:N3	2.74	0.56
22:BA:455:C:N3	22:BA:472:A:H2'	2.20	0.56
29:BH:40:THR:OG1	29:BH:43:ASN:OD1	2.24	0.56
29:BH:97:ARG:HD2	1:CA:369:G:O2'	2.06	0.56
1:CA:995:C:N3	1:CA:1046:A:O2'	2.39	0.56
1:CA:477:C:H2'	1:CA:478:A:C8	2.41	0.56
1:CA:844:G:O4'	1:CA:844:G:P	2.64	0.56
2:CB:16:PHE:CZ	2:CB:18:HIS:CE1	2.94	0.56
6:CF:9:MET:HB2	6:CF:85:ILE:HG13	1.87	0.56
22:DA:1068:G:N3	22:DA:1068:G:H2'	2.20	0.56
22:DA:15:G:OP2	57:DA:3545:HOH:O	2.17	0.56
22:DA:1828:G:P	57:DA:3450:HOH:O	2.63	0.56
22:DA:2146:C:H5''	22:DA:2147:A:OP1	2.06	0.56
22:DA:271:G:H4'	22:DA:272:A:OP1	2.04	0.56
28:DG:27:LYS:O	28:DG:27:LYS:HG3	2.04	0.56
1:AA:39:G:C2	1:AA:40:C:C6	2.93	0.56
1:AA:896:C:O2'	1:AA:897:C:H5'	2.05	0.56
2:AB:21:ARG:NE	2:AB:21:ARG:HA	2.20	0.56
5:AE:82:GLN:H	5:AE:147:MET:HE1	1.71	0.56
22:BA:1061:U:H3'	22:BA:1062:G:H5'	1.87	0.56
22:BA:1095:A:H2'	22:BA:1096:A:C8	2.40	0.56
22:BA:1180:U:H2'	22:BA:1181:U:H5'	1.86	0.56
22:BA:198:C:P	57:BA:3766:HOH:O	2.60	0.56
31:BJ:30:THR:CG2	31:BJ:31:GLU:N	2.69	0.56
1:CA:552:U:C2	1:CA:553:A:C8	2.93	0.56
1:CA:938:A:N6	1:CA:939:G:C6	2.74	0.56
2:CB:163:VAL:HG23	2:CB:185:ALA:HB2	1.86	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:91:PHE:O	2:CB:150:GLY:HA3	2.05	0.56
52:D4:16:ILE:HD13	52:D4:25:VAL:HG22	1.87	0.56
22:DA:1361:G:C2	22:DA:1362:C:C6	2.94	0.56
22:DA:147:C:N4	22:DA:148:U:O4	2.39	0.56
22:DA:1826:G:C6	22:DA:1827:U:C4	2.93	0.56
22:DA:2164:C:H5''	22:DA:2165:C:C5	2.41	0.56
22:DA:2734:A:N6	22:DA:2770:G:O2'	2.37	0.56
23:DB:71:C:H2'	23:DB:72:G:H5'	1.87	0.56
30:DI:6:GLN:O	30:DI:7:ALA:HB3	2.06	0.56
41:DT:38:ALA:O	41:DT:39:THR:HB	2.06	0.56
42:DU:72:ILE:HD11	42:DU:83:VAL:HG23	1.87	0.56
1:AA:1023:U:H2'	1:AA:1024:G:C8	2.41	0.56
1:AA:1173:U:H2'	1:AA:1174:G:C8	2.41	0.56
1:AA:254:G:OP1	17:AQ:68:SER:OG	2.23	0.56
1:AA:340:U:H2'	1:AA:341:C:H6	1.71	0.56
1:AA:560:A:H5'	1:AA:566:G:N2	2.21	0.56
2:AB:111:ILE:N	2:AB:111:ILE:HD13	2.21	0.56
2:AB:203:ASN:OD1	2:AB:204:ASP:N	2.39	0.56
2:AB:28:LYS:N	2:AB:29:PRO:CD	2.69	0.56
4:AD:25:VAL:HG12	4:AD:26:ARG:N	2.21	0.56
4:AD:83:LYS:HD3	4:AD:84:GLY:N	2.20	0.56
1:AA:1130:A:O3'	9:AI:5:GLN:NE2	2.39	0.56
10:AJ:57:VAL:O	10:AJ:58:ASN:HB2	2.06	0.56
22:BA:1180:U:C2'	22:BA:1181:U:H5'	2.36	0.56
22:BA:137:U:H2'	22:BA:140:C:C2	2.40	0.56
22:BA:1747:U:H2'	22:BA:1748:C:C6	2.40	0.56
22:BA:511:U:O4	22:BA:512:G:N1	2.39	0.56
26:BE:18:THR:HA	26:BE:106:LYS:HG2	1.88	0.56
22:BA:2198:A:C2	29:BH:29:PHE:HB2	2.41	0.56
1:CA:328:C:H4'	1:CA:329:A:H5''	1.88	0.56
2:CB:15:HIS:ND1	2:CB:15:HIS:C	2.58	0.56
8:CH:86:TYR:O	8:CH:87:LYS:HD2	2.05	0.56
11:CK:64:GLN:O	11:CK:68:GLU:HG3	2.06	0.56
22:DA:2091:C:C3'	22:DA:2092:U:H5''	2.35	0.56
22:DA:341:C:H2'	22:DA:342:A:C8	2.41	0.56
22:DA:1993:U:H4'	25:DD:133:THR:CG2	2.36	0.56
5:AE:136:VAL:HG22	5:AE:137:VAL:N	2.20	0.56
9:AI:57:MET:N	9:AI:57:MET:SD	2.78	0.56
12:AL:3:THR:HG22	12:AL:4:VAL:N	2.21	0.56
13:AM:29:ARG:NH1	13:AM:63:PHE:HB2	2.20	0.56
16:AP:61:VAL:CG2	16:AP:67:ILE:HD11	2.36	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:126:LYS:HA	21:AU:34:ARG:NH2	2.20	0.56
53:B5:125:GLY:O	53:B5:126:SER:CB	2.53	0.56
22:BA:1198:U:H2'	22:BA:1199:U:C6	2.41	0.56
22:BA:1678:A:C2'	22:BA:1679:A:H5'	2.36	0.56
22:BA:2192:U:C4	22:BA:2193:G:N7	2.74	0.56
22:BA:2345:G:C5	22:BA:2381:A:C2	2.94	0.56
22:BA:2800:A:H3'	22:BA:2801:G:C5'	2.35	0.56
22:BA:388:G:N7	22:BA:390:U:H2'	2.21	0.56
25:BD:39:ASP:CG	25:BD:40:LEU:N	2.60	0.56
29:BH:123:ARG:NH1	1:CA:367:U:OP2	2.39	0.56
1:CA:1072:G:C5	1:CA:1073:U:C4	2.93	0.56
1:CA:411:A:C5	1:CA:429:U:C5	2.94	0.56
1:CA:519:C:OP2	12:CL:47:SER:OG	2.23	0.56
6:AF:16:GLU:OE2	4:CD:188:ARG:NH1	2.39	0.56
12:CL:29:GLN:O	12:CL:30:LYS:HG2	2.06	0.56
12:CL:74:LEU:HD21	12:CL:104:CYS:SG	2.46	0.56
17:CQ:16:LYS:C	17:CQ:17:MET:SD	2.84	0.56
17:CQ:52:GLU:HG2	17:CQ:53:CYS:H	1.71	0.56
22:DA:1313:U:H4'	22:DA:1332:G:H4'	1.88	0.56
22:DA:185:G:N1	22:DA:212:G:C2	2.73	0.56
22:DA:2250:G:H8	22:DA:2250:G:O5'	1.89	0.56
22:DA:2683:C:OP1	37:DP:56:HIS:HB3	2.05	0.56
22:DA:276:U:H2'	22:DA:276:U:O2	2.06	0.56
22:DA:2843:G:N2	22:DA:2875:C:N3	2.54	0.56
22:DA:457:A:N1	22:DA:470:A:H5''	2.21	0.56
28:DG:86:LYS:HB3	28:DG:165:ALA:HB3	1.86	0.56
30:DI:10:LYS:HB2	30:DI:56:PRO:HB3	1.88	0.56
42:DU:13:VAL:HG21	42:DU:39:ILE:CG2	2.36	0.56
47:DZ:52:SER:HA	47:DZ:55:VAL:HG22	1.88	0.56
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.35	0.55
1:AA:1264:U:O2	1:AA:1272:G:C2	2.59	0.55
1:AA:499:A:H4'	1:AA:500:G:OP1	2.06	0.55
1:AA:577:G:C8	1:AA:816:A:C6	2.94	0.55
2:AB:147:SER:O	2:AB:148:LEU:CB	2.54	0.55
3:AC:97:VAL:HB	3:AC:98:PRO:HD2	1.87	0.55
6:AF:18:VAL:N	6:AF:19:PRO:HD2	2.20	0.55
12:AL:21:VAL:O	12:AL:21:VAL:HG13	2.06	0.55
16:AP:78:VAL:HG13	16:AP:78:VAL:O	2.04	0.55
22:BA:1593:A:H2'	22:BA:1594:U:O4'	2.05	0.55
22:BA:2076:U:O4'	22:BA:2076:U:O2	2.23	0.55
35:BN:9:GLN:O	35:BN:11:ASN:N	2.39	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BO:33:ARG:HG2	36:BO:33:ARG:O	2.06	0.55
46:BY:18:LEU:O	46:BY:22:LEU:CB	2.54	0.55
1:CA:170:U:O2'	1:CA:171:A:H5'	2.05	0.55
11:CK:19:GLY:O	11:CK:82:LEU:HA	2.06	0.55
13:CM:14:HIS:HB2	13:CM:17:ILE:CD1	2.36	0.55
22:DA:1833:C:C4	22:DA:1834:U:C4	2.94	0.55
22:DA:2093:G:O2'	22:DA:2094:A:H5'	2.06	0.55
36:DO:100:HIS:CG	36:DO:101:GLY:N	2.74	0.55
1:AA:259:G:N2	1:AA:260:G:H1'	2.21	0.55
5:AE:144:LEU:O	5:AE:147:MET:HB3	2.06	0.55
7:AG:64:VAL:O	7:AG:68:ASN:ND2	2.39	0.55
50:B2:43:THR:O	50:B2:44:VAL:CG1	2.53	0.55
22:BA:1028:A:N6	22:BA:1125:G:H2'	2.21	0.55
22:BA:1720:U:H2'	22:BA:1721:G:O4'	2.06	0.55
22:BA:18:U:O3'	38:BQ:23:GLY:HA2	2.06	0.55
22:BA:1922:G:N3	22:BA:1922:G:H2'	2.21	0.55
22:BA:2328:A:H2'	22:BA:2329:U:C6	2.41	0.55
38:BQ:19:LYS:O	38:BQ:22:LYS:HG3	2.06	0.55
1:CA:121:U:H3'	1:CA:122:G:H5'	1.88	0.55
1:CA:1288:A:N6	1:CA:1289:A:N6	2.55	0.55
1:CA:1316:G:N2	1:CA:1318:A:H3'	2.22	0.55
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.05	0.55
1:CA:457:G:N2	1:CA:476:U:C2	2.74	0.55
4:CD:197:GLU:O	4:CD:201:VAL:HG23	2.06	0.55
1:CA:642:A:C5	8:CH:107:SER:HA	2.41	0.55
11:CK:23:ILE:HD11	11:CK:86:VAL:HG13	1.88	0.55
20:CT:48:GLN:O	20:CT:52:ASN:ND2	2.39	0.55
22:DA:1362:C:C2'	22:DA:1363:C:H5'	2.37	0.55
22:DA:247:G:N7	22:DA:249:C:C2	2.74	0.55
22:DA:2681:C:C2	22:DA:2724:U:O4	2.59	0.55
22:DA:40:U:H2'	22:DA:41:C:C6	2.41	0.55
22:DA:571:U:C4	22:DA:575:A:C5	2.94	0.55
22:DA:600:G:C5	22:DA:601:C:C4	2.94	0.55
38:DQ:79:PHE:CZ	38:DQ:83:LEU:HD11	2.41	0.55
39:DR:81:LYS:O	39:DR:82:HIS:C	2.44	0.55
10:AJ:6:ILE:HD12	10:AJ:76:ILE:O	2.05	0.55
22:BA:1022:G:N2	22:BA:1142:A:C2	2.75	0.55
22:BA:1084:A:C5	22:BA:1085:A:C6	2.95	0.55
22:BA:70:G:H4'	22:BA:71:A:OP1	2.05	0.55
25:BD:104:VAL:HG23	25:BD:105:LYS:N	2.21	0.55
27:BF:8:TYR:HA	27:BF:12:VAL:CG2	2.36	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:79:LEU:HD22	30:BI:109:ILE:HG22	1.88	0.55
38:BQ:49:ASP:HA	38:BQ:52:GLN:HB2	1.87	0.55
1:CA:1361:G:H2'	1:CA:1362:A:H5''	1.87	0.55
1:CA:130:A:C2	1:CA:264:C:N1	2.73	0.55
1:CA:32:A:H2'	1:CA:32:A:N3	2.20	0.55
1:CA:568:G:N2	1:CA:883:C:C2	2.75	0.55
1:CA:892:A:C5	1:CA:893:C:C5	2.95	0.55
4:CD:90:LEU:CD2	4:CD:200:ILE:HD11	2.37	0.55
8:CH:105:SER:O	8:CH:123:GLY:HA3	2.06	0.55
12:CL:90:LEU:HB2	12:CL:93:VAL:CG2	2.36	0.55
22:DA:2038:G:H2'	22:DA:2039:U:O4'	2.06	0.55
22:DA:2550:G:C6	22:DA:2551:C:C4	2.95	0.55
25:DD:150:GLN:O	25:DD:150:GLN:HG3	2.06	0.55
37:DP:106:LYS:HD2	37:DP:109:ARG:CZ	2.37	0.55
39:DR:49:ILE:CD1	39:DR:52:PRO:HA	2.36	0.55
1:AA:1182:G:H4'	1:AA:1183:U:H5'	1.88	0.55
5:AE:153:VAL:O	5:AE:156:LYS:HB2	2.05	0.55
11:AK:34:ILE:HB	11:AK:74:VAL:HG11	1.88	0.55
16:AP:36:VAL:HG13	16:AP:36:VAL:O	2.06	0.55
19:AS:3:ARG:O	19:AS:4:SER:CB	2.53	0.55
22:BA:1428:C:C5	22:BA:1569:A:C5'	2.89	0.55
22:BA:1926:U:O2	22:BA:1926:U:H2'	2.05	0.55
22:BA:2681:C:C2	22:BA:2724:U:O4	2.60	0.55
22:BA:851:C:H2'	22:BA:852:U:C6	2.41	0.55
22:BA:894:U:H2'	22:BA:895:U:C6	2.41	0.55
22:BA:998:C:H3'	57:BA:3363:HOH:O	2.05	0.55
23:BB:116:G:H4'	36:BO:54:VAL:HG13	1.89	0.55
32:BK:40:LYS:NZ	32:BK:89:ASN:OD1	2.37	0.55
39:BR:14:VAL:HG13	39:BR:15:SER:N	2.21	0.55
43:BV:63:ILE:HD12	43:BV:72:VAL:HG21	1.88	0.55
4:CD:36:GLN:O	4:CD:37:ALA:HB2	2.07	0.55
6:CF:81:ASN:OD1	6:CF:81:ASN:C	2.44	0.55
22:DA:52:A:N7	22:DA:117:G:N2	2.54	0.55
22:DA:1226:A:OP1	38:DQ:16:LYS:NZ	2.39	0.55
22:DA:1356:G:N2	22:DA:1357:C:H1'	2.20	0.55
22:DA:1651:G:C6	22:DA:1652:A:C5	2.95	0.55
22:DA:49:A:N6	22:DA:177:G:C4	2.74	0.55
22:DA:2712:C:OP1	22:DA:2714:G:H4'	2.06	0.55
22:DA:396:G:C1'	45:DX:29:PHE:HB3	2.36	0.55
22:DA:806:C:H2'	22:DA:807:U:C6	2.41	0.55
42:DU:4:LYS:O	42:DU:94:ARG:NH2	2.40	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.42	0.55
1:AA:152:A:N6	1:AA:170:U:C2	2.73	0.55
1:AA:1190:G:OP2	3:AC:5:VAL:HB	2.06	0.55
22:BA:2310:C:H2'	22:BA:2311:A:H5'	1.88	0.55
22:BA:2502:G:C5'	22:BA:2503:A:H5''	2.37	0.55
29:BH:86:ASP:O	29:BH:87:GLU:CB	2.53	0.55
35:BN:79:LEU:O	35:BN:80:PHE:HB2	2.07	0.55
1:CA:1006:G:H2'	1:CA:1007:U:C6	2.42	0.55
1:CA:968:A:C8	1:CA:1062:U:H4'	2.41	0.55
1:CA:1273:C:H2'	1:CA:1274:A:O4'	2.05	0.55
1:CA:1365:G:H2'	1:CA:1366:C:O4'	2.07	0.55
1:CA:501:C:H1'	1:CA:549:C:H1'	1.88	0.55
1:CA:563:A:H2'	1:CA:567:G:C8	2.41	0.55
1:CA:692:U:H1'	1:CA:695:A:N7	2.21	0.55
1:CA:833:G:C5	1:CA:834:U:C5	2.95	0.55
4:CD:32:CYS:O	4:CD:33:LYS:HB3	2.06	0.55
10:CJ:15:HIS:CE1	10:CJ:16:ARG:HD3	2.42	0.55
11:CK:101:ASN:C	11:CK:101:ASN:OD1	2.45	0.55
22:DA:2297:A:N1	22:DA:2321:U:H5	2.04	0.55
40:DS:41:LYS:O	40:DS:42:LYS:C	2.43	0.55
1:AA:1418:A:C2	1:AA:1483:A:C2	2.94	0.55
8:AH:10:MET:O	8:AH:12:THR:N	2.40	0.55
16:AP:56:ARG:O	16:AP:59:HIS:N	2.39	0.55
22:BA:1912:A:C2	22:BA:1919:A:C4	2.94	0.55
22:BA:2024:G:OP2	22:BA:2034:U:H4'	2.07	0.55
24:BC:136:PRO:O	24:BC:139:SER:OG	2.15	0.55
24:BC:15:HIS:O	24:BC:204:VAL:CG2	2.55	0.55
29:BH:98:ASP:O	29:BH:102:ALA:HB3	2.07	0.55
22:BA:587:C:N3	33:BL:33:ARG:NH2	2.54	0.55
35:BN:73:ASN:HA	35:BN:76:VAL:CG1	2.37	0.55
38:BQ:109:LEU:HD11	39:BR:40:MET:CE	2.36	0.55
38:BQ:89:GLU:H	39:BR:49:ILE:CD1	2.18	0.55
42:BU:72:ILE:HD12	42:BU:72:ILE:O	2.07	0.55
1:CA:1417:G:C6	1:CA:1482:G:C6	2.95	0.55
1:CA:154:U:C2	1:CA:168:G:N2	2.75	0.55
1:CA:184:G:N2	1:CA:185:U:C2	2.74	0.55
1:CA:455:G:N2	1:CA:478:A:C2	2.75	0.55
1:CA:829:G:C6	1:CA:858:G:N2	2.75	0.55
4:CD:179:GLU:O	4:CD:179:GLU:HG3	2.05	0.55
6:CF:97:THR:O	6:CF:98:GLU:CB	2.53	0.55
7:CG:83:SER:O	7:CG:85:TYR:N	2.40	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:89:LYS:HG3	8:CH:90:ASP:N	2.21	0.55
22:DA:1060:U:H4'	22:DA:1061:U:H5'	1.88	0.55
22:DA:1545:A:H2'	22:DA:1546:G:O4'	2.06	0.55
22:DA:1838:C:C6	22:DA:1899:A:C6	2.95	0.55
22:DA:690:G:H1'	22:DA:779:U:O3'	2.06	0.55
31:DJ:80:HIS:O	31:DJ:81:ILE:C	2.45	0.55
33:DL:92:LEU:HA	33:DL:125:LEU:HD11	1.89	0.55
38:DQ:98:ILE:HG22	38:DQ:106:PHE:HB2	1.89	0.55
42:DU:16:GLY:O	42:DU:17:LYS:HB2	2.06	0.55
1:AA:255:G:H4'	17:AQ:19:LYS:HD2	1.89	0.55
1:AA:72:A:C2'	1:AA:73:C:H5'	2.37	0.55
2:AB:119:THR:O	2:AB:120:GLN:CB	2.54	0.55
21:AU:37:PHE:HB3	21:AU:41:PRO:HG3	1.87	0.55
22:BA:1176:U:H2'	22:BA:1177:G:C4	2.42	0.55
22:BA:1169:A:N1	22:BA:1180:U:O4	2.39	0.55
22:BA:2887:A:H5'	22:BA:2888:C:OP2	2.06	0.55
26:BE:189:THR:O	26:BE:190:ALA:C	2.45	0.55
36:BO:76:LYS:HE3	36:BO:80:GLU:OE2	2.07	0.55
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.42	0.55
1:CA:1206:G:C6	1:CA:1207:G:C5	2.95	0.55
5:CE:65:GLU:OE2	5:CE:69:ARG:NH2	2.40	0.55
12:CL:110:ARG:NH1	12:CL:112:GLN:O	2.40	0.55
22:DA:2466:C:OP1	52:D4:4:ARG:HB3	2.07	0.55
22:DA:1109:C:H3'	22:DA:1110:G:C8	2.42	0.55
22:DA:1526:C:N4	22:DA:1527:G:C6	2.75	0.55
22:DA:1678:A:N7	22:DA:1679:A:N7	2.55	0.55
22:DA:1992:G:N2	22:DA:1996:C:O2'	2.40	0.55
22:DA:2214:C:C2	22:DA:2215:C:C6	2.95	0.55
22:DA:2365:G:H4'	44:DW:60:PHE:CE2	2.41	0.55
22:DA:235:U:C4	22:DA:236:C:C5	2.94	0.55
22:DA:2796:U:C4	22:DA:2798:U:C4	2.94	0.55
22:DA:45:G:O3'	22:DA:46:G:O4'	2.25	0.55
22:DA:503:A:C2	22:DA:506:G:C4	2.95	0.55
24:DC:9:THR:O	24:DC:10:SER:OG	2.24	0.55
25:DD:105:LYS:O	25:DD:177:VAL:HG12	2.07	0.55
1:AA:1363:A:O2'	1:AA:1365:G:N7	2.36	0.55
1:AA:338:A:N1	1:AA:351:G:O6	2.40	0.55
1:AA:919:A:O2'	1:AA:920:U:H5'	2.07	0.55
4:AD:30:THR:C	4:AD:31:LYS:HD3	2.27	0.55
8:AH:75:ILE:HD13	8:AH:129:VAL:HG22	1.89	0.55
14:AN:46:LEU:HD12	14:AN:46:LEU:C	2.27	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:4:ILE:HA	21:AU:20:LYS:HE3	1.88	0.55
22:BA:2191:A:C2	22:BA:2192:U:C4	2.93	0.55
29:BH:121:VAL:N	29:BH:122:LEU:CA	2.69	0.55
29:BH:120:GLY:CA	29:BH:122:LEU:HA	2.37	0.55
22:BA:18:U:OP1	38:BQ:30:ARG:NH2	2.39	0.55
29:BH:86:ASP:CB	1:CA:359:G:O2'	2.51	0.55
1:CA:679:C:C2	1:CA:712:A:C2	2.95	0.55
2:CB:87:CYS:O	2:CB:89:GLN:N	2.39	0.55
4:CD:33:LYS:O	4:CD:33:LYS:HG2	2.05	0.55
22:DA:1027:A:N7	22:DA:1126:A:C2	2.75	0.55
22:DA:1208:C:C4	22:DA:1209:U:C5	2.95	0.55
22:DA:1530:G:C2	22:DA:1542:U:O2	2.60	0.55
22:DA:445:C:O2'	22:DA:449:A:N3	2.38	0.55
26:DE:52:VAL:HG21	26:DE:81:GLY:CA	2.35	0.55
22:DA:2019:A:H4'	38:DQ:34:VAL:HG21	1.88	0.55
40:DS:46:LEU:O	40:DS:50:VAL:HG23	2.07	0.55
1:AA:382:A:C2	1:AA:383:A:C4	2.94	0.55
1:AA:760:G:N7	1:AA:761:G:C8	2.75	0.55
4:AD:60:LYS:NZ	4:AD:194:ASP:O	2.40	0.55
9:AI:86:ALA:C	9:AI:88:MET:N	2.61	0.55
11:AK:51:GLY:O	11:AK:52:PHE:O	2.25	0.55
1:AA:254:G:OP1	17:AQ:70:THR:CB	2.55	0.55
22:BA:1422:G:C4	22:BA:1423:G:C8	2.95	0.55
22:BA:861:A:C2	22:BA:917:A:C4	2.95	0.55
24:BC:78:VAL:HG21	24:BC:110:LEU:CD2	2.36	0.55
29:BH:121:VAL:N	29:BH:122:LEU:CB	2.70	0.55
1:CA:686:U:O2	1:CA:687:A:C8	2.59	0.55
12:CL:44:LYS:HB2	12:CL:45:PRO:HD3	1.89	0.55
22:DA:1532:A:C2	22:DA:1540:G:C6	2.95	0.55
22:DA:2720:U:OP1	37:DP:53:ARG:NH2	2.39	0.55
22:DA:488:G:H2'	22:DA:489:G:H2'	1.89	0.55
22:DA:753:A:H2'	22:DA:754:U:C6	2.42	0.55
22:DA:847:U:O2	22:DA:847:U:H2'	2.06	0.55
24:DC:68:LYS:HD3	24:DC:149:GLY:O	2.07	0.55
29:DH:31:VAL:HB	29:DH:32:PRO:HD3	1.89	0.55
35:DN:1:MET:CE	35:DN:1:MET:N	2.70	0.55
1:AA:844:G:N2	1:AA:846:G:H4'	2.21	0.55
2:AB:186:ILE:HA	2:AB:200:ILE:O	2.07	0.55
4:AD:147:GLU:HA	4:AD:150:LYS:CD	2.36	0.55
7:AG:40:GLU:HA	7:AG:43:VAL:HG23	1.89	0.55
13:AM:40:ALA:HB3	13:AM:43:VAL:HG13	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:17:MET:O	17:AQ:19:LYS:N	2.40	0.55
17:AQ:69:LYS:O	17:AQ:70:THR:CB	2.54	0.55
22:BA:1022:G:O6	31:BJ:68:LYS:NZ	2.39	0.55
22:BA:1094:U:N3	22:BA:1097:U:OP2	2.39	0.55
22:BA:1022:G:C5	22:BA:1140:C:C4	2.95	0.55
22:BA:1509:A:HO2'	22:BA:1510:G:P	2.28	0.55
22:BA:2884:U:O4'	22:BA:2884:U:O2	2.25	0.55
22:BA:735:A:H3'	22:BA:736:C:H6	1.72	0.55
23:BB:90:C:C2'	23:BB:91:C:O5'	2.55	0.55
29:BH:10:ALA:O	29:BH:12:LEU:N	2.40	0.55
29:BH:90:LEU:CD2	29:BH:93:SER:HA	2.36	0.55
33:BL:29:LYS:HG2	33:BL:30:THR:N	2.22	0.55
34:BM:69:PRO:O	34:BM:70:ASP:CG	2.45	0.55
36:BO:33:ARG:CG	36:BO:33:ARG:O	2.55	0.55
45:BX:7:VAL:HG23	45:BX:51:VAL:HG12	1.89	0.55
1:CA:130:A:C2	1:CA:264:C:C6	2.95	0.55
1:CA:313:A:H2'	1:CA:314:C:C6	2.41	0.55
1:CA:324:G:N2	1:CA:327:A:C8	2.75	0.55
1:CA:66:A:H4'	1:CA:173:U:C5	2.42	0.55
6:CF:8:PHE:CE1	6:CF:60:VAL:HB	2.42	0.55
11:CK:127:ARG:HB2	21:CU:34:ARG:NH1	2.22	0.55
22:DA:2111:U:OP1	22:DA:2118:U:O2'	2.24	0.55
22:DA:2339:C:H2'	22:DA:2340:A:C8	2.42	0.55
22:DA:2847:U:H2'	22:DA:2848:G:H5'	1.88	0.55
22:DA:449:A:N7	57:DA:3243:HOH:O	2.33	0.55
22:DA:308:G:C8	22:DA:501:A:H1'	2.42	0.55
23:DB:39:A:H2'	23:DB:40:U:C6	2.41	0.55
25:DD:151:THR:HG22	25:DD:152:PRO:N	2.22	0.55
32:DK:118:LEU:HD23	32:DK:118:LEU:N	2.22	0.55
36:DO:22:GLY:O	36:DO:42:PRO:HB3	2.07	0.55
1:AA:1002:G:C2	1:AA:1003:G:H1'	2.42	0.54
1:AA:126:G:H2'	1:AA:127:G:O4'	2.05	0.54
1:AA:1407:C:O2'	22:BA:1912:A:N6	2.40	0.54
1:AA:268:U:H2'	1:AA:269:C:C6	2.42	0.54
2:AB:16:PHE:O	2:AB:41:ILE:HD12	2.07	0.54
8:AH:30:SER:O	8:AH:31:LYS:C	2.45	0.54
11:AK:125:LYS:HG2	11:AK:126:LYS:N	2.22	0.54
13:AM:64:VAL:O	13:AM:69:LEU:HB2	2.07	0.54
22:BA:1343:G:C4	22:BA:1344:U:C5	2.95	0.54
22:BA:1394:U:H2'	22:BA:1395:A:O4'	2.06	0.54
22:BA:1925:C:C5'	22:BA:1926:U:O4	2.55	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1934:C:H4'	22:BA:1974:C:O3'	2.07	0.54
22:BA:2187:U:C5	22:BA:2188:U:C4	2.95	0.54
22:BA:2678:C:H2'	22:BA:2679:A:O4'	2.07	0.54
22:BA:465:G:H2'	22:BA:466:A:C8	2.42	0.54
22:BA:839:U:H2'	22:BA:840:C:C6	2.41	0.54
24:BC:143:ASN:OD1	24:BC:152:GLY:HA3	2.07	0.54
27:BF:33:LYS:HG3	27:BF:33:LYS:O	2.07	0.54
28:BG:11:VAL:CG2	28:BG:11:VAL:O	2.56	0.54
41:BT:61:LEU:C	41:BT:61:LEU:HD12	2.28	0.54
1:CA:106:C:O2	1:CA:379:C:H5'	2.07	0.54
1:CA:861:G:N7	1:CA:862:C:C5	2.75	0.54
4:CD:35:GLU:O	4:CD:38:PRO:HD3	2.06	0.54
5:CE:109:GLY:O	5:CE:110:ALA:HB3	2.07	0.54
5:CE:122:ASN:O	5:CE:123:VAL:O	2.25	0.54
5:CE:83:HIS:CD2	8:CH:96:MET:HE2	2.42	0.54
10:CJ:81:GLU:HA	10:CJ:84:VAL:HG12	1.89	0.54
11:CK:84:VAL:HG11	11:CK:97:ILE:HG22	1.89	0.54
19:CS:75:ALA:N	19:CS:76:PRO:CD	2.69	0.54
22:DA:2200:C:O2	22:DA:2226:C:N4	2.40	0.54
22:DA:2519:U:C6	22:DA:2542:A:N6	2.75	0.54
24:DC:160:THR:HG23	24:DC:177:ARG:HG2	1.88	0.54
44:DW:21:LEU:HA	44:DW:39:ARG:HB2	1.89	0.54
1:AA:1086:U:O2'	1:AA:1087:G:H5'	2.08	0.54
1:AA:1160:G:O6	1:AA:1181:G:C6	2.61	0.54
1:AA:1296:C:H4'	1:AA:1302:C:N4	2.23	0.54
1:AA:194:C:O2'	1:AA:195:A:H5'	2.06	0.54
4:AD:125:VAL:O	4:AD:127:GLY:N	2.32	0.54
11:AK:72:ASP:O	11:AK:73:ALA:HB2	2.06	0.54
22:BA:1316:U:C2	22:BA:1337:G:N2	2.76	0.54
22:BA:1439:A:C2	22:BA:1553:A:C5	2.95	0.54
22:BA:2128:G:H5'	53:B5:36:ALA:HA	1.88	0.54
22:BA:2258:C:O2'	22:BA:2427:C:OP2	2.21	0.54
29:BH:90:LEU:HA	29:BH:125:THR:HG23	1.89	0.54
41:BT:57:VAL:HG22	41:BT:58:VAL:N	2.22	0.54
42:BU:18:ASP:O	42:BU:19:LYS:C	2.45	0.54
22:BA:2271:G:OP1	44:BW:19:LYS:O	2.25	0.54
44:BW:52:GLY:HA3	44:BW:60:PHE:CE1	2.42	0.54
46:BY:49:ASP:O	46:BY:52:ARG:N	2.39	0.54
46:BY:54:LYS:O	46:BY:58:ASN:HB2	2.07	0.54
1:CA:1361:G:C2'	1:CA:1362:A:H5''	2.36	0.54
1:CA:976:G:N2	1:CA:1363:A:N3	2.55	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1379:G:N7	7:CG:2:PRO:HB2	2.22	0.54
1:CA:247:G:C6	1:CA:278:G:N1	2.75	0.54
1:CA:38:G:N2	1:CA:397:A:C4	2.76	0.54
1:CA:790:A:H2'	1:CA:791:G:C8	2.43	0.54
1:CA:818:G:O2'	1:CA:819:A:H5'	2.06	0.54
13:CM:72:GLU:O	13:CM:76:SER:OG	2.24	0.54
22:DA:1127:A:H2'	22:DA:1128:G:H5''	1.88	0.54
22:DA:152:A:C2	22:DA:175:G:C2	2.95	0.54
22:DA:1582:C:O2'	22:DA:1585:C:N3	2.32	0.54
22:DA:2511:U:C4	22:DA:2512:C:C5	2.96	0.54
22:DA:682:G:H2'	22:DA:682:G:N3	2.21	0.54
26:DE:48:THR:O	26:DE:52:VAL:HG23	2.07	0.54
28:DG:176:LYS:O	28:DG:177:LYS:HB2	2.07	0.54
22:DA:2684:U:O4'	32:DK:70:ARG:NH1	2.40	0.54
37:DP:91:ALA:HB2	37:DP:113:ARG:HA	1.89	0.54
1:AA:1161:C:H2'	1:AA:1162:C:H6	1.72	0.54
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.89	0.54
1:AA:197:A:N3	1:AA:198:G:H1'	2.22	0.54
1:AA:803:G:C6	1:AA:804:U:C4	2.96	0.54
2:AB:154:MET:CE	2:AB:158:PRO:HG3	2.37	0.54
22:BA:1754:A:N6	22:BA:1755:A:C6	2.76	0.54
22:BA:1916:A:H2'	22:BA:1917:U:C1'	2.38	0.54
22:BA:1912:A:C8	22:BA:1917:U:O4	2.60	0.54
33:BL:62:PRO:HG2	51:B3:25:LYS:HD3	1.90	0.54
1:CA:1201:A:H4'	1:CA:1202:U:O5'	2.07	0.54
1:CA:1521:C:N3	1:CA:1522:U:C5	2.75	0.54
1:CA:31:G:N7	1:CA:306:A:H1'	2.22	0.54
1:CA:509:A:P	57:CA:1758:HOH:O	2.64	0.54
2:CB:91:PHE:CD1	2:CB:150:GLY:HA3	2.42	0.54
2:CB:169:GLU:O	2:CB:171:ILE:N	2.40	0.54
6:CF:38:ARG:HG3	6:CF:63:ASN:HB2	1.89	0.54
16:CP:67:ILE:HG23	16:CP:71:VAL:CG1	2.38	0.54
21:CU:10:GLU:N	21:CU:12:PHE:CE2	2.75	0.54
22:DA:1032:A:H4'	52:D4:16:ILE:HD12	1.88	0.54
22:DA:1076:C:H2'	22:DA:1077:A:O4'	2.08	0.54
22:DA:186:G:C2	22:DA:211:C:C2	2.96	0.54
22:DA:204:A:H5'	22:DA:206:U:O4'	2.07	0.54
22:DA:2824:C:C4	22:DA:2825:G:C5	2.95	0.54
24:DC:17:VAL:HG23	24:DC:204:VAL:CG2	2.37	0.54
29:DH:79:THR:HA	29:DH:145:ASN:HB2	1.89	0.54
42:DU:74:ASN:HA	42:DU:96:PHE:CZ	2.42	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1286:U:H2'	1:AA:1286:U:O2	2.07	0.54
1:AA:51:A:C2	1:AA:353:A:N1	2.75	0.54
1:AA:90:C:C2	1:AA:91:U:C6	2.96	0.54
11:AK:76:GLU:HA	22:BA:2141:G:P	2.48	0.54
22:BA:1125:G:C6	22:BA:1126:A:N6	2.75	0.54
22:BA:956:G:OP2	34:BM:86:LYS:HE2	2.07	0.54
22:BA:96:C:H4'	46:BY:41:HIS:CD2	2.42	0.54
28:BG:84:THR:OG1	28:BG:134:LYS:HG2	2.08	0.54
33:BL:68:SER:O	33:BL:69:ARG:CB	2.56	0.54
1:CA:1077:G:N1	1:CA:1081:A:C6	2.76	0.54
1:CA:109:A:C6	1:CA:327:A:C6	2.95	0.54
1:CA:483:C:H2'	1:CA:484:G:C8	2.42	0.54
2:CB:99:GLY:HA2	2:CB:102:THR:HG22	1.90	0.54
6:CF:16:GLU:O	6:CF:18:VAL:N	2.40	0.54
9:CI:28:ILE:HB	9:CI:35:LEU:HB2	1.87	0.54
22:DA:1028:A:N6	22:DA:1125:G:H2'	2.22	0.54
22:DA:1213:A:O2'	22:DA:1239:G:O4'	2.24	0.54
22:DA:1321:A:N6	22:DA:1322:A:C2	2.76	0.54
22:DA:1581:G:C5	22:DA:1582:C:C4	2.96	0.54
22:DA:1681:G:O2'	22:DA:1762:A:N3	2.36	0.54
22:DA:1835:G:C5	22:DA:1836:C:C5	2.96	0.54
22:DA:2415:G:C6	22:DA:2416:C:N3	2.75	0.54
22:DA:475:C:N3	22:DA:481:G:C6	2.76	0.54
30:DI:29:GLY:HA2	30:DI:33:VAL:HB	1.88	0.54
35:DN:58:ASP:OD2	35:DN:63:ARG:NH2	2.41	0.54
46:DY:28:LEU:HD22	46:DY:37:LEU:HD11	1.89	0.54
1:AA:125:U:O2'	1:AA:126:G:H5'	2.07	0.54
1:AA:591:U:OP2	8:AH:31:LYS:HD2	2.07	0.54
1:AA:82:G:O6	1:AA:87:C:N4	2.40	0.54
12:AL:22:PRO:C	12:AL:24:LEU:N	2.61	0.54
22:BA:1379:U:OP1	22:BA:1379:U:C5	2.61	0.54
22:BA:1570:A:C6	22:BA:1571:A:C6	2.95	0.54
22:BA:1588:G:C2	22:BA:1589:U:C6	2.96	0.54
22:BA:2033:A:P	57:BA:3479:HOH:O	2.56	0.54
22:BA:45:G:C5'	22:BA:46:G:OP1	2.55	0.54
22:BA:877:A:C6	22:BA:899:A:C6	2.96	0.54
29:BH:103:VAL:HG21	29:BH:132:PHE:CE1	2.42	0.54
29:BH:14:SER:OG	29:BH:17:ASP:CG	2.46	0.54
29:BH:77:THR:O	29:BH:77:THR:CG2	2.56	0.54
30:BI:86:ILE:HD12	30:BI:86:ILE:N	2.23	0.54
1:CA:1022:A:C6	1:CA:1023:U:C4	2.95	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:104:G:C2	1:CA:105:G:C8	2.95	0.54
1:CA:1160:G:O2'	1:CA:1161:C:P	2.66	0.54
1:CA:577:G:C2	1:CA:578:C:C5	2.95	0.54
1:CA:690:G:H2'	1:CA:691:G:O4'	2.08	0.54
6:CF:37:HIS:O	6:CF:38:ARG:HB3	2.08	0.54
6:CF:86:ARG:HH11	6:CF:86:ARG:HG2	1.72	0.54
12:CL:102:LEU:HD12	12:CL:102:LEU:N	2.22	0.54
14:CN:21:PHE:CD2	14:CN:25:ALA:HB2	2.42	0.54
20:CT:36:TYR:CD1	20:CT:36:TYR:C	2.81	0.54
22:DA:1231:U:H2'	22:DA:1232:G:C8	2.43	0.54
22:DA:2134:A:C2	22:DA:2135:A:C8	2.96	0.54
22:DA:2134:A:N6	22:DA:2157:G:O2'	2.38	0.54
22:DA:2266:A:C2	22:DA:2272:U:C5	2.95	0.54
22:DA:2314:A:C2	22:DA:2315:G:C4	2.95	0.54
22:DA:875:G:N2	22:DA:903:C:C2	2.76	0.54
41:DT:37:ASP:OD1	41:DT:38:ALA:N	2.35	0.54
1:AA:450:G:C8	1:AA:481:G:O6	2.60	0.54
1:AA:503:C:OP1	57:AA:1881:HOH:O	2.18	0.54
4:AD:171:LEU:O	4:AD:171:LEU:HD12	2.07	0.54
10:AJ:19:ASP:N	10:AJ:19:ASP:OD1	2.41	0.54
12:AL:22:PRO:C	12:AL:24:LEU:H	2.11	0.54
48:B0:54:VAL:O	48:B0:56:ALA:N	2.40	0.54
22:BA:645:C:O2'	22:BA:646:U:H5''	2.08	0.54
24:BC:107:PRO:HB3	24:BC:142:HIS:HE1	1.73	0.54
32:BK:86:LEU:N	32:BK:86:LEU:HD23	2.22	0.54
1:CA:1077:G:N2	1:CA:1081:A:C4	2.75	0.54
1:CA:1244:G:C6	1:CA:1245:C:N4	2.76	0.54
1:CA:15:G:O4'	5:CE:29:ARG:NH2	2.40	0.54
1:CA:263:A:OP1	20:CT:74:ARG:NH1	2.40	0.54
1:CA:1072:G:OP1	5:CE:62:LYS:NZ	2.40	0.54
1:CA:728:A:C8	15:CO:54:ARG:CZ	2.91	0.54
51:D3:34:THR:HG22	51:D3:35:LYS:N	2.21	0.54
22:DA:1109:C:H5''	22:DA:1110:G:OP2	2.08	0.54
22:DA:192:C:C5	22:DA:193:U:C2	2.96	0.54
22:DA:2107:G:C2	22:DA:2183:A:C2	2.96	0.54
22:DA:2345:G:C5	22:DA:2381:A:C2	2.95	0.54
22:DA:847:U:O2	22:DA:934:U:H1'	2.07	0.54
22:DA:2094:A:H4'	29:DH:25:TYR:CZ	2.43	0.54
39:DR:39:LEU:HA	39:DR:49:ILE:HG21	1.88	0.54
5:AE:90:THR:HG22	5:AE:91:GLY:H	1.72	0.54
15:AO:19:ALA:O	15:AO:20:ASN:HB2	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1277:G:H5'	35:BN:20:MET:HE1	1.86	0.54
22:BA:1414:C:C4	22:BA:1415:U:H5	2.25	0.54
22:BA:1912:A:C2	22:BA:1919:A:C5	2.96	0.54
22:BA:244:A:C2	22:BA:255:A:C4	2.96	0.54
22:BA:570:G:H2'	22:BA:2030:A:C8	2.43	0.54
24:BC:225:MET:CE	24:BC:230:HIS:HB2	2.36	0.54
30:BI:124:ALA:O	30:BI:127:ARG:HG2	2.08	0.54
40:BS:29:VAL:HG13	40:BS:55:ILE:HD11	1.88	0.54
21:CU:9:ASN:N	21:CU:12:PHE:HE2	2.06	0.54
22:DA:136:G:N2	22:DA:144:A:C5	2.76	0.54
22:DA:1651:G:N2	22:DA:2007:U:C2	2.76	0.54
22:DA:2328:A:H2'	22:DA:2329:U:C6	2.43	0.54
22:DA:1844:C:H5'	24:DC:254:GLY:O	2.08	0.54
25:DD:104:VAL:O	25:DD:105:LYS:HB3	2.07	0.54
28:DG:158:LYS:O	28:DG:160:LYS:N	2.40	0.54
22:DA:189:G:P	45:DX:26:LYS:HE2	2.48	0.54
1:AA:596:A:C5	1:AA:645:G:C2	2.96	0.54
1:AA:663:A:H5'	1:AA:836:G:OP1	2.08	0.54
8:AH:105:SER:O	8:AH:123:GLY:HA3	2.07	0.54
8:AH:54:ASP:OD1	8:AH:55:THR:N	2.39	0.54
10:AJ:36:VAL:HG22	10:AJ:76:ILE:HG12	1.90	0.54
10:AJ:11:LYS:HG3	10:AJ:97:ASP:HB3	1.90	0.54
11:AK:112:ASP:OD1	11:AK:112:ASP:C	2.46	0.54
17:AQ:68:SER:O	17:AQ:70:THR:N	2.41	0.54
49:B1:17:THR:CG2	49:B1:42:VAL:HB	2.36	0.54
22:BA:1299:G:O2'	22:BA:1301:A:C5	2.60	0.54
22:BA:2243:U:H2'	22:BA:2244:U:C6	2.43	0.54
22:BA:2479:U:OP1	22:BA:2537:U:H1'	2.07	0.54
22:BA:622:G:OP2	57:BA:3291:HOH:O	2.18	0.54
22:BA:64:A:H2'	22:BA:65:U:C6	2.43	0.54
25:BD:62:LYS:HB2	25:BD:63:PRO:HD3	1.88	0.54
28:BG:89:LEU:CD1	28:BG:89:LEU:N	2.71	0.54
34:BM:132:THR:HG22	34:BM:133:LYS:N	2.23	0.54
23:BB:50:A:OP1	36:BO:68:LYS:HE2	2.07	0.54
43:BV:14:LYS:CD	43:BV:18:ARG:NH1	2.71	0.54
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.43	0.54
1:CA:246:A:N3	1:CA:279:A:N6	2.55	0.54
1:CA:328:C:O2	1:CA:328:C:C2'	2.55	0.54
1:CA:983:A:OP1	14:CN:9:ARG:NH2	2.41	0.54
1:CA:992:U:O4'	1:CA:993:G:N2	2.41	0.54
3:CC:16:LYS:NZ	3:CC:181:ASP:OD1	2.40	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:116:GLU:HG3	5:CE:117:VAL:N	2.23	0.54
8:CH:96:MET:HB2	8:CH:99:LEU:O	2.08	0.54
17:CQ:15:ASP:HA	17:CQ:21:ILE:HD12	1.90	0.54
21:CU:8:GLU:HB3	21:CU:12:PHE:CE2	2.43	0.54
22:DA:1304:A:C5	22:DA:1305:C:C5	2.96	0.54
22:DA:1371:G:N7	57:DA:3396:HOH:O	2.34	0.54
22:DA:1428:C:C4	22:DA:1569:A:H5''	2.43	0.54
22:DA:2037:A:C6	22:DA:2038:G:C6	2.96	0.54
22:DA:2079:U:H2'	22:DA:2080:A:O4'	2.06	0.54
22:DA:2127:G:H4'	22:DA:2128:G:OP1	2.08	0.54
22:DA:830:G:C4	22:DA:2448:A:C5	2.96	0.54
22:DA:547:A:N7	22:DA:548:G:N3	2.56	0.54
22:DA:627:A:C6	22:DA:637:A:C8	2.95	0.54
24:DC:160:THR:CG2	24:DC:177:ARG:HG2	2.38	0.54
41:DT:62:VAL:HG12	41:DT:63:VAL:N	2.22	0.54
22:DA:396:G:O4'	45:DX:29:PHE:HB3	2.07	0.54
1:AA:1367:C:OP2	9:AI:114:LYS:NZ	2.41	0.54
1:AA:340:U:H2'	1:AA:341:C:C6	2.43	0.54
10:AJ:52:LEU:HD22	10:AJ:62:ARG:HG2	1.89	0.54
10:AJ:67:ILE:HG22	10:AJ:67:ILE:O	2.08	0.54
1:AA:130:A:N7	17:AQ:65:ARG:HB2	2.23	0.54
22:BA:1008:A:N6	22:BA:1136:G:C6	2.76	0.54
22:BA:1098:A:C5	22:BA:1099:G:C6	2.95	0.54
22:BA:1436:G:N2	22:BA:1557:C:C2	2.75	0.54
22:BA:2309:A:N6	22:BA:2310:C:N4	2.56	0.54
22:BA:571:U:C4	22:BA:575:A:C5	2.96	0.54
23:BB:78:A:C2	23:BB:99:A:C4	2.96	0.54
42:BU:39:ILE:HG22	42:BU:40:ASN:N	2.22	0.54
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.23	0.54
1:CA:597:G:C8	1:CA:598:U:C5	2.95	0.54
1:CA:879:C:C2'	1:CA:880:C:O5'	2.56	0.54
1:CA:919:A:C2	1:CA:920:U:C5	2.96	0.54
6:CF:38:ARG:NH2	6:CF:98:GLU:O	2.40	0.54
21:CU:11:PRO:C	21:CU:12:PHE:CG	2.79	0.54
22:DA:1344:U:O2'	22:DA:1345:C:P	2.65	0.54
22:DA:2344:U:H4'	22:DA:2345:G:OP1	2.08	0.54
22:DA:2457:U:C4	22:DA:2458:G:C6	2.96	0.54
22:DA:2868:A:C6	22:DA:2869:G:C6	2.95	0.54
22:DA:489:G:HO2'	22:DA:491:G:H8	1.56	0.54
22:DA:844:A:C2	22:DA:845:A:N7	2.76	0.54
23:DB:29:A:H2'	23:DB:30:C:C6	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:560:C:O2	38:DQ:48:ARG:NH1	2.40	0.54
40:DS:67:ASP:N	40:DS:67:ASP:OD1	2.41	0.54
1:AA:100:G:N7	1:AA:101:A:N7	2.55	0.54
1:AA:1442:G:H2'	1:AA:1443:C:H6	1.73	0.54
1:AA:33:A:H2'	1:AA:34:C:C6	2.43	0.54
1:AA:92:U:H2'	1:AA:93:U:C6	2.43	0.54
1:AA:96:U:O2'	1:AA:97:G:O5'	2.23	0.54
11:AK:23:ILE:HG22	11:AK:32:VAL:HG22	1.90	0.54
17:AQ:12:VAL:O	17:AQ:13:VAL:CB	2.56	0.54
51:B3:31:HIS:CD2	51:B3:31:HIS:C	2.81	0.54
53:B5:50:ILE:CG2	53:B5:51:ASP:N	2.70	0.54
22:BA:1925:C:H4'	22:BA:1926:U:C5	2.42	0.54
22:BA:826:U:O2'	33:BL:53:GLY:HA3	2.07	0.54
25:BD:104:VAL:O	25:BD:105:LYS:CB	2.55	0.54
27:BF:124:GLY:C	27:BF:125:ARG:HG2	2.27	0.54
33:BL:115:GLU:N	33:BL:115:GLU:OE2	2.41	0.54
40:BS:37:THR:HG22	40:BS:38:TYR:CE1	2.42	0.54
1:CA:252:U:O4	1:CA:253:A:N6	2.40	0.54
1:CA:72:A:C6	1:CA:73:C:N4	2.77	0.54
1:CA:978:A:P	1:CA:1362:A:N6	2.81	0.54
51:D3:34:THR:CG2	51:D3:35:LYS:N	2.70	0.54
22:DA:1323:C:C5	22:DA:1324:G:N7	2.76	0.54
22:DA:1912:A:OP2	22:DA:1918:A:N6	2.39	0.54
22:DA:753:A:C2	22:DA:754:U:C2	2.96	0.54
23:DB:100:G:H2'	23:DB:101:A:O4'	2.08	0.54
24:DC:87:ARG:NH1	24:DC:87:ARG:HB3	2.22	0.54
23:DB:57:A:C2	27:DF:26:MET:SD	3.00	0.54
31:DJ:125:TYR:HH	31:DJ:132:HIS:CE1	2.26	0.54
36:DO:80:GLU:HA	36:DO:83:LEU:HD12	1.90	0.54
37:DP:53:ARG:N	37:DP:57:SER:OG	2.40	0.54
2:AB:164:ILE:O	2:AB:186:ILE:HG12	2.07	0.53
4:AD:157:ALA:O	4:AD:160:GLU:HB3	2.08	0.53
22:BA:2284:A:OP1	49:B1:4:GLY:O	2.25	0.53
22:BA:2345:G:C5	22:BA:2347:C:C5	2.96	0.53
22:BA:2587:A:OP1	57:BA:3547:HOH:O	2.18	0.53
26:BE:189:THR:O	26:BE:192:ALA:N	2.41	0.53
37:BP:22:PRO:HA	37:BP:47:VAL:HG12	1.89	0.53
37:BP:90:GLY:O	37:BP:113:ARG:NH1	2.41	0.53
39:BR:14:VAL:HG21	39:BR:20:VAL:HG21	1.89	0.53
1:CA:960:U:O2'	1:CA:1223:C:H4'	2.07	0.53
1:CA:1269:A:C2	1:CA:1313:U:O4'	2.61	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:757:U:OP1	1:CA:822:U:O2'	2.22	0.53
1:CA:803:G:C6	1:CA:804:U:N3	2.76	0.53
12:CL:110:ARG:NE	12:CL:117:TYR:CD2	2.76	0.53
17:CQ:12:VAL:HG21	17:CQ:54:GLY:O	2.08	0.53
19:CS:29:LYS:CB	19:CS:30:PRO:HD2	2.38	0.53
49:D1:4:GLY:O	49:D1:6:ARG:N	2.41	0.53
22:DA:1027:A:C6	22:DA:1126:A:C4	2.96	0.53
22:DA:1171:G:N2	22:DA:1178:C:O2	2.40	0.53
22:DA:1383:A:C2	22:DA:1384:A:C5	2.96	0.53
22:DA:1623:G:C6	22:DA:1624:U:C5	2.96	0.53
22:DA:249:C:O5'	22:DA:2394:C:O2'	2.26	0.53
22:DA:389:G:C8	22:DA:2413:G:H4'	2.43	0.53
22:DA:497:A:H2'	22:DA:498:G:O4'	2.07	0.53
22:DA:2658:C:OP1	28:DG:158:LYS:NZ	2.40	0.53
36:DO:33:ARG:O	36:DO:34:HIS:HB2	2.09	0.53
1:AA:1278:G:H4'	1:AA:1279:G:C8	2.42	0.53
1:AA:1320:C:O2	19:AS:36:ARG:NH1	2.41	0.53
1:AA:142:G:H2'	1:AA:142:G:N3	2.22	0.53
1:AA:202:G:C2	1:AA:216:U:O2	2.61	0.53
1:AA:411:A:C6	1:AA:429:U:C5	2.95	0.53
1:AA:76:G:H2'	1:AA:76:G:N3	2.22	0.53
4:AD:188:ARG:O	4:AD:190:ASP:O	2.26	0.53
8:AH:105:SER:HB2	8:AH:126:ILE:HD11	1.89	0.53
1:AA:1342:C:O2'	9:AI:126:GLN:HG3	2.08	0.53
11:AK:71:ALA:O	11:AK:73:ALA:N	2.42	0.53
12:AL:86:ARG:HA	12:AL:94:ARG:HA	1.90	0.53
15:AO:2:SER:O	15:AO:3:LEU:CB	2.55	0.53
22:BA:1269:A:H2'	22:BA:1270:C:C6	2.43	0.53
22:BA:1268:A:C2	22:BA:2013:A:C4	2.96	0.53
22:BA:229:C:N3	22:BA:230:G:H1'	2.24	0.53
22:BA:2564:A:OP1	22:BA:2648:G:H4'	2.09	0.53
22:BA:332:A:C2	22:BA:335:C:C5	2.96	0.53
26:BE:193:VAL:O	26:BE:197:GLU:HB2	2.08	0.53
27:BF:108:VAL:N	27:BF:109:PRO:CD	2.71	0.53
39:BR:25:LEU:H	39:BR:94:THR:HG23	1.73	0.53
43:BV:56:PHE:O	43:BV:61:LEU:HD11	2.08	0.53
46:BY:37:LEU:C	46:BY:37:LEU:HD12	2.29	0.53
1:CA:1082:A:C6	1:CA:1083:U:N3	2.77	0.53
1:CA:1296:C:H4'	1:CA:1302:C:N4	2.22	0.53
1:CA:19:A:C2	1:CA:20:U:C2	2.97	0.53
1:CA:211:G:N3	1:CA:211:G:H2'	2.24	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:862:C:C2	1:CA:863:U:C6	2.96	0.53
4:CD:48:LEU:HD23	4:CD:53:VAL:N	2.24	0.53
22:DA:2615:U:C4	48:D0:3:VAL:O	2.61	0.53
50:D2:15:SER:O	50:D2:16:HIS:ND1	2.41	0.53
22:DA:1407:G:N2	22:DA:1596:A:C4	2.76	0.53
22:DA:1682:G:N3	22:DA:1757:A:H1'	2.22	0.53
22:DA:1926:U:H2'	22:DA:1928:A:N7	2.24	0.53
22:DA:2693:G:N2	22:DA:2717:C:C2	2.76	0.53
25:DD:13:ARG:HD2	25:DD:15:PHE:CE2	2.43	0.53
22:DA:2094:A:C5'	29:DH:25:TYR:CD2	2.91	0.53
33:DL:68:SER:O	33:DL:69:ARG:CB	2.56	0.53
1:AA:1059:C:C4	1:AA:1060:U:C5	2.96	0.53
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.08	0.53
6:AF:85:ILE:O	6:AF:86:ARG:HG2	2.08	0.53
8:AH:51:VAL:CG2	8:AH:51:VAL:O	2.56	0.53
12:AL:23:ALA:O	12:AL:24:LEU:O	2.26	0.53
17:AQ:48:ASP:OD2	17:AQ:52:GLU:OE1	2.27	0.53
19:AS:64:ASP:HB3	27:BF:115:ARG:NH2	2.22	0.53
20:AT:44:LYS:HB3	20:AT:87:ALA:HB1	1.90	0.53
21:AU:12:PHE:HD1	21:AU:12:PHE:N	2.05	0.53
22:BA:1439:A:P	57:BA:3638:HOH:O	2.53	0.53
22:BA:2444:G:OP2	26:BE:63:LYS:HD3	2.08	0.53
22:BA:815:C:O2'	22:BA:816:C:H5'	2.08	0.53
22:BA:998:C:OP2	38:BQ:58:ARG:NH2	2.36	0.53
27:BF:171:ALA:O	27:BF:174:ASP:N	2.41	0.53
22:BA:1203:U:H1'	33:BL:4:ASN:HB3	1.90	0.53
38:BQ:108:ALA:HB1	39:BR:48:LYS:HZ1	1.74	0.53
42:BU:54:GLN:N	42:BU:55:PRO:CD	2.72	0.53
1:CA:1138:G:C2	1:CA:1140:C:C4	2.96	0.53
1:CA:1191:A:H5''	3:CC:4:LYS:HE3	1.89	0.53
1:CA:1511:G:C5	1:CA:1512:U:C5	2.96	0.53
1:CA:624:C:H2'	1:CA:625:U:O4'	2.08	0.53
7:CG:90:GLU:OE1	7:CG:90:GLU:N	2.41	0.53
20:CT:3:ASN:O	20:CT:5:LYS:N	2.41	0.53
22:DA:1087:G:N1	22:DA:1089:A:C2	2.76	0.53
22:DA:811:U:O2	22:DA:1251:C:C5	2.62	0.53
22:DA:1805:A:N3	22:DA:1813:G:C2	2.76	0.53
22:DA:1885:A:C6	22:DA:1886:U:C2	2.96	0.53
22:DA:1838:C:C5	22:DA:1899:A:C5	2.96	0.53
22:DA:2204:G:C5	22:DA:2221:G:C2	2.96	0.53
22:DA:2533:U:OP1	22:DA:2665:A:O2'	2.22	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:333:G:C5	22:DA:334:C:C5	2.97	0.53
22:DA:350:G:C2	22:DA:351:C:C2	2.96	0.53
22:DA:466:A:C2	22:DA:796:C:O4'	2.61	0.53
1:AA:102:G:N3	1:AA:103:U:C6	2.76	0.53
1:AA:1350:A:C5	1:AA:1351:U:C4	2.97	0.53
1:AA:199:A:C2	1:AA:200:G:C4	2.96	0.53
1:AA:408:A:OP1	4:AD:110:THR:HG21	2.08	0.53
1:AA:452:A:C8	1:AA:453:G:C8	2.96	0.53
1:AA:667:G:OP1	1:AA:732:C:O2'	2.13	0.53
2:AB:219:ALA:HA	2:AB:222:ARG:NH2	2.22	0.53
4:AD:109:ALA:N	4:AD:113:GLU:OE2	2.39	0.53
4:AD:11:LEU:CD2	4:AD:63:ARG:HD3	2.36	0.53
4:AD:68:LEU:HD22	4:AD:68:LEU:N	2.23	0.53
10:AJ:35:GLN:CG	10:AJ:77:VAL:HB	2.39	0.53
11:AK:34:ILE:HG12	11:AK:70:CYS:SG	2.49	0.53
53:B5:45:HIS:CD2	53:B5:176:VAL:HA	2.44	0.53
22:BA:1180:U:H2'	22:BA:1181:U:C5'	2.38	0.53
22:BA:2032:G:N7	57:BA:3535:HOH:O	2.33	0.53
22:BA:2061:G:C2	55:BA:3001:VIR:H22	2.44	0.53
22:BA:2243:U:O2	22:BA:2434:A:C2	2.61	0.53
22:BA:495:G:C1'	40:BS:57:ASN:ND2	2.71	0.53
22:BA:695:G:C2	22:BA:696:G:C8	2.96	0.53
38:BQ:24:TYR:O	38:BQ:25:TYR:HB2	2.07	0.53
1:CA:1535:C:O2'	1:CA:1536:C:C5	2.62	0.53
2:CB:141:LEU:O	2:CB:145:GLU:N	2.38	0.53
2:CB:85:LEU:CG	2:CB:85:LEU:O	2.57	0.53
3:CC:7:PRO:O	3:CC:11:ARG:HG3	2.08	0.53
10:CJ:22:THR:HA	10:CJ:25:ILE:HG22	1.90	0.53
11:CK:126:LYS:O	11:CK:127:ARG:HB2	2.09	0.53
18:CR:25:ASP:O	18:CR:28:THR:N	2.40	0.53
48:D0:50:ARG:O	48:D0:52:ARG:NH1	2.41	0.53
50:D2:44:VAL:HG13	50:D2:45:SER:N	2.23	0.53
22:DA:1916:A:H2'	22:DA:1917:U:O4'	2.08	0.53
22:DA:1998:A:H2'	22:DA:1999:C:O4'	2.09	0.53
24:DC:141:VAL:HG11	24:DC:190:ALA:HB1	1.89	0.53
28:DG:61:GLY:O	28:DG:64:GLN:N	2.41	0.53
29:DH:32:PRO:O	29:DH:33:GLN:HB2	2.08	0.53
22:DA:1012:U:O4	31:DJ:30:THR:HG21	2.08	0.53
22:DA:2882:A:H5'	35:DN:96:ARG:HB2	1.90	0.53
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.08	0.53
1:AA:720:C:H5''	18:AR:41:PRO:HA	1.89	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:71:A:O2'	1:AA:72:A:OP2	2.20	0.53
1:AA:872:A:C4	1:AA:874:G:C8	2.96	0.53
4:AD:190:ASP:O	4:AD:191:LEU:O	2.26	0.53
13:AM:66:GLU:O	13:AM:69:LEU:N	2.41	0.53
19:AS:51:VAL:HG22	19:AS:71:LEU:HD13	1.90	0.53
22:BA:1413:A:C6	22:BA:1414:C:N3	2.76	0.53
22:BA:1789:A:OP1	24:BC:221:ARG:HD3	2.07	0.53
22:BA:541:A:C6	22:BA:542:C:C4	2.96	0.53
30:BI:130:GLU:HB3	30:BI:134:ARG:HH21	1.74	0.53
32:BK:105:ARG:NH2	32:BK:122:VAL:O	2.41	0.53
22:BA:2685:G:OP1	32:BK:78:ARG:NH2	2.42	0.53
34:BM:62:LYS:HD3	34:BM:64:TRP:CZ2	2.44	0.53
34:BM:6:ARG:O	34:BM:7:THR:HG23	2.09	0.53
1:CA:1169:A:C2	1:CA:1170:A:C4	2.97	0.53
1:CA:369:G:OP2	1:CA:388:G:N2	2.41	0.53
1:CA:575:G:C6	1:CA:821:G:N7	2.76	0.53
9:CI:114:LYS:HG3	9:CI:120:LYS:HA	1.90	0.53
10:CJ:19:ASP:HA	10:CJ:22:THR:HB	1.90	0.53
20:CT:78:ASN:O	20:CT:82:GLN:HG2	2.08	0.53
22:DA:2886:A:C2	48:D0:29:SER:HB3	2.42	0.53
22:DA:219:A:N6	22:DA:220:G:C6	2.76	0.53
22:DA:2236:U:H2'	22:DA:2237:G:O4'	2.09	0.53
22:DA:250:G:H2'	22:DA:251:A:C8	2.44	0.53
22:DA:478:A:N6	22:DA:500:G:O2'	2.41	0.53
22:DA:602:A:N3	22:DA:655:A:C2	2.77	0.53
22:DA:668:A:C2	22:DA:670:A:C5	2.97	0.53
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.42	0.53
1:AA:1241:G:C2	1:AA:1242:G:C5	2.97	0.53
1:AA:16:A:C2'	1:AA:17:U:H5'	2.39	0.53
1:AA:262:A:C6	1:AA:263:A:C6	2.96	0.53
1:AA:9:G:N7	1:AA:558:G:O2'	2.41	0.53
2:AB:10:LEU:HD23	2:AB:11:LYS:N	2.24	0.53
3:AC:141:ALA:O	3:AC:146:ALA:HB3	2.09	0.53
22:BA:1794:A:H2'	22:BA:1795:C:C6	2.43	0.53
22:BA:2308:G:O6	22:BA:2311:A:N7	2.42	0.53
22:BA:2851:A:H2'	22:BA:2852:G:O4'	2.09	0.53
22:BA:945:A:H4'	22:BA:946:C:OP2	2.08	0.53
28:BG:38:ASN:O	28:BG:39:ASP:CB	2.57	0.53
29:BH:147:VAL:CG1	29:BH:149:GLU:HG3	2.36	0.53
43:BV:80:HIS:CE1	43:BV:83:LYS:HG2	2.44	0.53
1:CA:1089:G:C4	1:CA:1090:U:C6	2.97	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:485:U:H4'	1:CA:485:U:OP2	2.08	0.53
2:CB:117:LEU:HB3	2:CB:141:LEU:HD11	1.89	0.53
9:CI:49:ARG:C	9:CI:49:ARG:HD3	2.29	0.53
12:CL:58:THR:CG2	12:CL:59:ASN:N	2.71	0.53
12:CL:92:GLY:O	12:CL:93:VAL:C	2.47	0.53
22:DA:1263:U:C5	22:DA:1264:A:N6	2.77	0.53
22:DA:1993:U:H4'	25:DD:133:THR:HG21	1.90	0.53
22:DA:900:A:C2	22:DA:901:C:H1'	2.43	0.53
24:DC:224:ALA:O	57:DC:302:HOH:O	2.18	0.53
27:DF:122:PHE:CE1	27:DF:166:GLY:C	2.82	0.53
29:DH:103:VAL:HA	29:DH:106:ALA:HB3	1.89	0.53
30:DI:58:VAL:CG1	30:DI:59:ILE:N	2.72	0.53
33:DL:100:ILE:CG1	33:DL:100:ILE:O	2.57	0.53
1:AA:1211:U:HO2'	1:AA:1212:U:P	2.32	0.53
1:AA:946:A:O2'	1:AA:1333:A:N3	2.35	0.53
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.44	0.53
2:AB:85:LEU:HG	2:AB:86:SER:N	2.23	0.53
2:AB:91:PHE:CD1	2:AB:150:GLY:HA3	2.43	0.53
6:AF:3:HIS:HB2	6:AF:92:THR:HG23	1.89	0.53
8:AH:14:ILE:O	8:AH:15:ARG:C	2.47	0.53
9:AI:12:ARG:NH2	9:AI:107:ASP:OD2	2.42	0.53
9:AI:45:ARG:O	9:AI:48:VAL:HG23	2.09	0.53
13:AM:46:SER:O	13:AM:47:GLU:CB	2.57	0.53
22:BA:1045:C:C3'	22:BA:1046:A:H5'	2.39	0.53
22:BA:1223:G:C6	22:BA:1227:G:C6	2.97	0.53
22:BA:1876:A:N1	22:BA:1877:A:C4	2.77	0.53
22:BA:1924:C:H2'	22:BA:1925:C:C5'	2.38	0.53
22:BA:2352:A:C4	22:BA:2366:A:C2	2.96	0.53
22:BA:545:U:H3'	22:BA:546:U:H4'	1.89	0.53
22:BA:553:G:C5	22:BA:554:U:C5	2.97	0.53
22:BA:864:G:O2'	22:BA:865:C:H5'	2.09	0.53
22:BA:1800:C:H3'	24:BC:146:MET:HE1	1.91	0.53
25:BD:140:HIS:CE1	57:BD:402:HOH:O	2.50	0.53
40:BS:74:ILE:HG23	40:BS:74:ILE:O	2.08	0.53
45:BX:68:LEU:HD13	45:BX:78:TYR:CE1	2.44	0.53
1:CA:1337:G:H5''	1:CA:1338:G:OP1	2.08	0.53
1:CA:1521:C:C2	1:CA:1522:U:C6	2.97	0.53
5:CE:103:THR:O	5:CE:122:ASN:HA	2.09	0.53
5:CE:101:GLU:HA	5:CE:122:ASN:HB2	1.91	0.53
10:CJ:27:GLU:O	10:CJ:31:ARG:HB3	2.09	0.53
10:CJ:52:LEU:HB2	14:CN:81:ARG:HD2	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:58:ALA:O	18:CR:61:ARG:N	2.42	0.53
21:CU:12:PHE:O	21:CU:13:ASP:CB	2.56	0.53
22:DA:1255:U:C5	26:DE:68:ALA:HA	2.44	0.53
22:DA:1335:C:H2'	22:DA:1336:A:C8	2.44	0.53
22:DA:1679:A:N6	57:DA:3436:HOH:O	2.39	0.53
22:DA:2133:G:H2'	22:DA:2157:G:H22	1.73	0.53
22:DA:2874:C:H2'	22:DA:2875:C:C6	2.43	0.53
22:DA:307:G:N1	22:DA:310:A:OP2	2.42	0.53
22:DA:469:G:O6	50:D2:37:LYS:NZ	2.35	0.53
26:DE:75:SER:HB3	26:DE:78:TRP:CE3	2.43	0.53
29:DH:2:GLN:O	29:DH:3:VAL:HG22	2.09	0.53
22:DA:1082:U:OP1	30:DI:124:ALA:CB	2.56	0.53
32:DK:113:MET:O	32:DK:116:ILE:HG13	2.08	0.53
40:DS:5:ALA:O	40:DS:50:VAL:HG12	2.09	0.53
45:DX:25:THR:HG22	45:DX:25:THR:O	2.07	0.53
1:AA:999:C:H2'	1:AA:1000:A:C8	2.44	0.53
1:AA:1350:A:C6	1:AA:1351:U:C4	2.97	0.53
1:AA:1495:U:O2'	22:BA:1919:A:N1	2.42	0.53
2:AB:154:MET:HE3	2:AB:158:PRO:HG3	1.91	0.53
6:AF:38:ARG:HB3	6:AF:63:ASN:HB2	1.91	0.53
11:AK:126:LYS:C	21:AU:34:ARG:CZ	2.77	0.53
22:BA:1061:U:O2'	22:BA:1062:G:C5'	2.57	0.53
22:BA:1168:G:H2'	22:BA:1169:A:O4'	2.08	0.53
22:BA:1378:A:O2'	22:BA:1380:G:OP2	2.27	0.53
22:BA:2291:U:H2'	22:BA:2292:U:C5	2.42	0.53
22:BA:2794:C:H2'	22:BA:2795:C:H6	1.73	0.53
22:BA:684:G:OP1	50:B2:21:ARG:NH1	2.41	0.53
23:BB:110:C:C4	23:BB:111:U:C5	2.97	0.53
40:BS:43:ALA:O	40:BS:47:VAL:HG12	2.08	0.53
1:CA:129:A:H1'	1:CA:130:A:C8	2.44	0.53
1:CA:578:C:C2	1:CA:579:A:C8	2.97	0.53
3:CC:173:VAL:O	3:CC:175:LEU:N	2.40	0.53
18:CR:63:ARG:HB3	18:CR:70:TYR:CZ	2.43	0.53
20:CT:58:VAL:HG13	20:CT:72:ALA:CB	2.39	0.53
22:DA:2186:G:C5	22:DA:2187:U:C5	2.97	0.53
22:DA:2499:C:N4	22:DA:2500:U:O4	2.41	0.53
22:DA:2849:U:C6	22:DA:2867:G:N2	2.77	0.53
22:DA:696:G:N1	22:DA:767:U:C2	2.76	0.53
22:DA:749:A:C6	22:DA:750:A:N7	2.76	0.53
22:DA:972:A:N1	22:DA:973:A:N6	2.57	0.53
22:DA:1566:A:N3	24:DC:213:TRP:HB2	2.23	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2052:A:OP1	25:DD:146:ILE:HG12	2.09	0.53
26:DE:77:ILE:CG1	26:DE:77:ILE:O	2.57	0.53
27:DF:36:LEU:O	27:DF:88:LYS:HA	2.08	0.53
29:DH:37:VAL:CG2	29:DH:38:PRO:HD2	2.39	0.53
33:DL:95:LEU:O	33:DL:100:ILE:HG23	2.09	0.53
39:DR:34:GLU:HG2	39:DR:60:LYS:HG2	1.91	0.53
22:DA:1187:G:H5''	39:DR:83:TYR:CE2	2.43	0.53
46:DY:18:LEU:O	46:DY:22:LEU:HB3	2.08	0.53
1:AA:1466:C:H2'	1:AA:1467:C:O4'	2.08	0.53
1:AA:22:G:C5	1:AA:23:C:C5	2.97	0.53
1:AA:958:A:C6	1:AA:959:A:N1	2.76	0.53
2:AB:120:GLN:O	2:AB:120:GLN:HG2	2.08	0.53
2:AB:46:THR:O	2:AB:49:MET:HB2	2.08	0.53
2:AB:87:CYS:HB2	2:AB:89:GLN:CD	2.30	0.53
9:AI:61:LEU:N	9:AI:61:LEU:HD22	2.24	0.53
22:BA:1014:A:C2	22:BA:1149:G:N3	2.77	0.53
22:BA:1917:U:C5	22:BA:1918:A:C6	2.97	0.53
22:BA:281:C:H2'	22:BA:282:A:C8	2.44	0.53
30:BI:130:GLU:HB3	30:BI:134:ARG:NH2	2.24	0.53
1:CA:1092:A:N1	1:CA:1183:U:O2	2.42	0.53
1:CA:16:A:H2'	1:CA:17:U:H5'	1.90	0.53
1:CA:183:C:O2'	1:CA:184:G:O5'	2.27	0.53
1:CA:203:G:N2	1:CA:215:C:C2	2.77	0.53
1:CA:344:A:OP2	1:CA:345:C:N4	2.40	0.53
1:CA:374:A:H5''	1:CA:452:A:C2	2.44	0.53
1:CA:577:G:C8	1:CA:816:A:N1	2.77	0.53
1:CA:649:A:H2'	1:CA:650:G:O4'	2.08	0.53
10:CJ:87:LEU:HD13	10:CJ:88:MET:N	2.24	0.53
22:DA:1436:G:C2	22:DA:1437:C:H1'	2.44	0.53
22:DA:2857:G:N2	22:DA:2860:A:OP2	2.40	0.53
22:DA:478:A:C2	22:DA:480:A:C4	2.97	0.53
22:DA:481:G:C4	22:DA:507:A:C2	2.97	0.53
22:DA:532:A:N1	22:DA:2020:A:H1'	2.23	0.53
22:DA:776:G:N7	22:DA:793:A:C4	2.77	0.53
27:DF:16:LEU:HD11	27:DF:169:LEU:HD12	1.91	0.53
28:DG:91:GLY:O	28:DG:94:TYR:CD2	2.61	0.53
34:DM:76:LYS:NZ	34:DM:85:GLY:O	2.42	0.53
35:DN:117:ASP:O	35:DN:118:ARG:HB2	2.09	0.53
37:DP:65:SER:O	37:DP:66:ASN:C	2.47	0.53
45:DX:7:VAL:HG23	45:DX:51:VAL:HG12	1.91	0.53
1:AA:144:G:C5	1:AA:179:A:C2	2.97	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:562:U:OP2	12:AL:14:ARG:NH1	2.41	0.53
2:AB:119:THR:O	2:AB:120:GLN:HB2	2.08	0.53
18:AR:31:ASN:OD1	18:AR:31:ASN:N	2.42	0.53
20:AT:67:ILE:HG13	20:AT:71:LYS:CG	2.39	0.53
22:BA:250:G:OP2	51:B3:13:ARG:NH1	2.42	0.53
22:BA:1109:C:C5	22:BA:1110:G:C6	2.97	0.53
22:BA:1353:A:C8	22:BA:1378:A:N6	2.77	0.53
22:BA:1356:G:N2	22:BA:1357:C:H1'	2.24	0.53
22:BA:1386:C:H2'	22:BA:1387:A:C8	2.44	0.53
22:BA:770:G:O2'	22:BA:771:G:H5'	2.09	0.53
30:BI:108:GLU:HA	30:BI:111:GLN:HB3	1.90	0.53
22:BA:201:C:OP1	45:BX:18:ARG:NH1	2.41	0.53
46:BY:6:LEU:HD13	46:BY:56:LEU:HD22	1.91	0.53
1:CA:977:A:N3	1:CA:977:A:H3'	2.24	0.53
1:CA:1291:U:H4'	9:CI:42:GLU:HG2	1.90	0.53
10:CJ:35:GLN:O	10:CJ:36:VAL:HB	2.09	0.53
22:DA:1544:A:N6	22:DA:1545:A:N1	2.57	0.53
22:DA:1666:G:O3'	32:DK:6:THR:HG23	2.09	0.53
22:DA:1999:C:O2	22:DA:2687:U:O2'	2.25	0.53
22:DA:2312:U:OP1	27:DF:70:ALA:HA	2.09	0.53
25:DD:8:LYS:HD3	25:DD:196:ALA:O	2.08	0.53
26:DE:58:LYS:HD3	26:DE:60:TRP:O	2.09	0.53
1:AA:1157:A:C4	1:AA:1181:G:C6	2.97	0.52
3:AC:87:LEU:O	3:AC:88:ARG:C	2.47	0.52
7:AG:71:PRO:HD2	7:AG:96:ARG:O	2.08	0.52
8:AH:30:SER:OG	8:AH:33:LYS:HG3	2.09	0.52
11:AK:69:ARG:CD	22:BA:2146:C:N3	2.72	0.52
12:AL:38:TYR:O	12:AL:39:THR:HG22	2.08	0.52
22:BA:1565:C:OP1	24:BC:18:LYS:CE	2.57	0.52
22:BA:1779:U:C5	22:BA:1784:A:N7	2.67	0.52
22:BA:2023:C:H2'	22:BA:2024:G:H5'	1.89	0.52
22:BA:2097:A:C2	22:BA:2193:G:C6	2.97	0.52
22:BA:2344:U:H4'	22:BA:2345:G:OP1	2.08	0.52
40:BS:59:GLU:HA	40:BS:64:ALA:CB	2.39	0.52
1:CA:840:C:N3	1:CA:842:U:H4'	2.24	0.52
7:CG:4:ARG:HG3	7:CG:5:ARG:N	2.23	0.52
13:CM:4:ILE:HA	13:CM:57:ARG:CZ	2.39	0.52
22:DA:1327:A:H2'	22:DA:1328:A:O4'	2.10	0.52
22:DA:1754:A:C6	22:DA:1755:A:C6	2.97	0.52
22:DA:1786:A:H1'	22:DA:1938:A:N6	2.24	0.52
22:DA:195:A:C6	22:DA:198:C:C5	2.97	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2142:A:C6	22:DA:2143:C:C4	2.97	0.52
22:DA:305:C:C2	22:DA:313:G:N1	2.78	0.52
22:DA:575:A:C2	22:DA:576:U:C6	2.97	0.52
23:DB:32:U:C2	23:DB:51:G:N2	2.77	0.52
29:DH:40:THR:O	29:DH:41:LYS:C	2.48	0.52
30:DI:117:MET:SD	30:DI:125:MET:HG2	2.48	0.52
42:DU:74:ASN:HB2	42:DU:81:ASP:OD2	2.10	0.52
46:DY:17:GLU:HB2	46:DY:53:VAL:HG11	1.91	0.52
2:AB:80:VAL:N	2:AB:82:ASP:OD2	2.42	0.52
6:AF:51:ILE:HD12	6:AF:86:ARG:CZ	2.39	0.52
7:AG:49:THR:O	7:AG:53:ARG:HB3	2.09	0.52
22:BA:1300:G:H5''	22:BA:1301:A:H5'	1.92	0.52
22:BA:2553:G:H2'	22:BA:2554:U:O4'	2.09	0.52
22:BA:283:G:C5	22:BA:284:U:C5	2.98	0.52
22:BA:1842:G:O4'	24:BC:243:HIS:CE1	2.62	0.52
28:BG:121:ILE:HD12	28:BG:141:ILE:CG2	2.38	0.52
28:BG:38:ASN:O	28:BG:39:ASP:HB2	2.07	0.52
29:BH:77:THR:HA	29:BH:143:ILE:O	2.09	0.52
7:CG:74:GLU:O	7:CG:88:PRO:HA	2.08	0.52
11:CK:27:PHE:CZ	11:CK:89:PRO:HG2	2.44	0.52
14:CN:24:ARG:HG2	14:CN:27:LEU:HD12	1.91	0.52
22:DA:1430:G:H2'	22:DA:1431:A:O4'	2.09	0.52
22:DA:2815:C:H2'	22:DA:2816:G:O4'	2.10	0.52
22:DA:85:G:OP1	42:DU:7:ARG:N	2.42	0.52
23:DB:71:C:C2'	23:DB:72:G:H5'	2.40	0.52
29:DH:31:VAL:CB	29:DH:32:PRO:CD	2.86	0.52
39:DR:78:ARG:HB3	39:DR:83:TYR:CD1	2.44	0.52
40:DS:12:SER:O	40:DS:99:ARG:O	2.28	0.52
43:DV:51:GLN:HB3	43:DV:56:PHE:CG	2.43	0.52
1:AA:1237:C:C4	1:AA:1336:C:N3	2.77	0.52
1:AA:1269:A:C2	1:AA:1313:U:O4'	2.63	0.52
1:AA:71:A:N1	1:AA:99:C:O2'	2.43	0.52
1:AA:861:G:HO2'	1:AA:874:G:HO2'	1.54	0.52
2:AB:162:PHE:HA	2:AB:184:PHE:O	2.09	0.52
3:AC:7:PRO:HD2	3:AC:184:TYR:CD1	2.44	0.52
4:AD:58:LYS:HG3	4:AD:59:GLN:N	2.24	0.52
5:AE:149:SER:OG	5:AE:152:MET:HB2	2.10	0.52
6:AF:99:ALA:O	6:AF:100:SER:CB	2.57	0.52
21:AU:20:LYS:CE	21:AU:20:LYS:HA	2.40	0.52
51:B3:27:ALA:O	51:B3:28:ASN:CB	2.57	0.52
22:BA:1416:G:O2'	22:BA:1417:C:H6	1.93	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1442:U:H2'	22:BA:1443:U:H6	1.73	0.52
22:BA:164:C:H2'	22:BA:165:A:O4'	2.09	0.52
22:BA:1700:A:H5'	22:BA:1701:A:OP2	2.09	0.52
22:BA:2140:G:C2	22:BA:2152:G:N1	2.77	0.52
22:BA:572:A:C2	22:BA:2033:A:C2	2.97	0.52
22:BA:590:A:H2'	22:BA:591:U:C6	2.44	0.52
22:BA:1565:C:OP1	24:BC:18:LYS:HE2	2.09	0.52
30:BI:64:ASP:O	30:BI:66:SER:N	2.42	0.52
30:BI:72:LYS:N	30:BI:72:LYS:HD3	2.24	0.52
43:BV:14:LYS:HD2	43:BV:18:ARG:HH12	1.73	0.52
1:CA:134:G:H2'	1:CA:135:C:O4'	2.08	0.52
1:CA:154:U:C2'	1:CA:155:A:H5'	2.40	0.52
1:CA:833:G:C4	1:CA:834:U:C6	2.98	0.52
12:CL:65:SER:HB2	12:CL:82:ILE:HD11	1.91	0.52
1:CA:1302:C:C4	13:CM:17:ILE:CD1	2.93	0.52
19:CS:31:LEU:O	19:CS:33:THR:N	2.40	0.52
20:CT:79:LEU:O	20:CT:83:ILE:HG23	2.09	0.52
22:DA:116:C:C5	22:DA:117:G:N7	2.78	0.52
22:DA:1379:U:H2'	22:DA:1379:U:O2	2.09	0.52
22:DA:1509:A:N3	22:DA:1510:G:C8	2.77	0.52
22:DA:2469:A:H4'	34:DM:55:ARG:HD3	1.90	0.52
22:DA:2635:A:N6	22:DA:2636:C:C4	2.77	0.52
22:DA:2850:A:OP2	22:DA:2866:U:N3	2.36	0.52
22:DA:370:G:O2'	22:DA:423:A:H3'	2.10	0.52
22:DA:370:G:C6	22:DA:424:G:C5	2.97	0.52
24:DC:34:LEU:O	24:DC:35:GLU:HB3	2.09	0.52
25:DD:149:ASN:OD1	25:DD:150:GLN:N	2.42	0.52
29:DH:72:ILE:HG22	29:DH:72:ILE:O	2.09	0.52
34:DM:72:PRO:HB3	34:DM:92:TRP:CZ3	2.44	0.52
39:DR:83:TYR:C	39:DR:83:TYR:CD1	2.83	0.52
43:DV:21:ARG:HA	43:DV:25:LYS:O	2.09	0.52
46:DY:57:LEU:HA	46:DY:60:LYS:HB3	1.90	0.52
1:AA:1048:G:N3	1:AA:1050:G:C8	2.78	0.52
1:AA:1123:U:H4'	10:AJ:39:PRO:HD2	1.91	0.52
1:AA:4:U:O2	1:AA:4:U:H2'	2.09	0.52
1:AA:544:G:C5	1:AA:545:C:C5	2.97	0.52
4:AD:58:LYS:HG2	4:AD:203:LEU:HD22	1.92	0.52
9:AI:21:ILE:HG22	9:AI:22:LYS:N	2.25	0.52
10:AJ:63:ASP:OD2	14:AN:85:ARG:HD2	2.10	0.52
17:AQ:8:LEU:HD23	17:AQ:25:ILE:HD12	1.91	0.52
53:B5:52:PRO:O	53:B5:53:ARG:HB2	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1353:A:C6	22:BA:1354:A:C6	2.97	0.52
22:BA:1585:C:H2'	22:BA:1586:A:H5'	1.91	0.52
22:BA:1717:A:C2	22:BA:1718:G:H1'	2.45	0.52
22:BA:2747:G:C2	22:BA:2756:U:C5	2.97	0.52
22:BA:65:U:H2'	22:BA:66:C:C6	2.45	0.52
22:BA:736:C:C2	22:BA:737:C:C5	2.97	0.52
23:BB:109:A:C6	23:BB:110:C:N3	2.77	0.52
24:BC:141:VAL:HG13	24:BC:191:THR:C	2.30	0.52
43:BV:48:MET:O	43:BV:51:GLN:HG3	2.10	0.52
1:CA:149:A:C2	1:CA:150:U:C2	2.97	0.52
1:CA:706:A:C1'	11:CK:31:ILE:HD11	2.40	0.52
1:CA:1314:C:C5	19:CS:6:LYS:HE2	2.44	0.52
22:DA:1731:G:N1	22:DA:1733:G:C4	2.78	0.52
22:DA:186:G:N1	22:DA:211:C:C2	2.77	0.52
22:DA:190:A:C2'	22:DA:679:C:O2'	2.58	0.52
22:DA:2461:A:C2	22:DA:2490:G:N2	2.77	0.52
22:DA:2467:C:N4	22:DA:2468:A:C6	2.78	0.52
22:DA:271:G:H1'	22:DA:272:A:O5'	2.09	0.52
22:DA:2824:C:N4	22:DA:2825:G:C5	2.77	0.52
30:DI:51:LYS:N	30:DI:51:LYS:HD3	2.24	0.52
31:DJ:31:GLU:HG3	31:DJ:142:ILE:HD11	1.91	0.52
35:DN:72:ASP:CG	35:DN:75:ILE:HG12	2.30	0.52
22:DA:995:C:C5	38:DQ:57:PHE:CE2	2.98	0.52
40:DS:66:ILE:O	40:DS:67:ASP:C	2.47	0.52
4:AD:190:ASP:OD1	4:AD:190:ASP:N	2.42	0.52
7:AG:40:GLU:HA	7:AG:43:VAL:CG2	2.40	0.52
10:AJ:28:THR:HG22	10:AJ:86:ALA:HB1	1.91	0.52
16:AP:11:ALA:O	16:AP:12:LYS:C	2.47	0.52
49:B1:35:GLU:HG2	49:B1:50:LYS:HG3	1.91	0.52
22:BA:1244:A:OP1	33:BL:7:SER:OG	2.26	0.52
22:BA:139:U:O2'	22:BA:141:G:N1	2.36	0.52
22:BA:1423:G:O6	57:BA:3629:HOH:O	2.19	0.52
22:BA:1525:A:N7	22:BA:1526:C:C5	2.77	0.52
22:BA:2748:A:H1'	28:BG:67:THR:HG22	1.90	0.52
22:BA:595:C:H2'	22:BA:596:U:C6	2.44	0.52
25:BD:8:LYS:HB2	25:BD:201:LEU:HD11	1.92	0.52
27:BF:105:THR:HG22	27:BF:106:ILE:HG23	1.90	0.52
27:BF:2:ALA:O	27:BF:3:LYS:C	2.48	0.52
29:BH:51:ARG:NH1	29:BH:55:GLU:OE1	2.43	0.52
36:BO:12:THR:O	36:BO:12:THR:HG22	2.09	0.52
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.25	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:155:A:N1	1:CA:167:A:C6	2.78	0.52
1:CA:211:G:O2'	1:CA:212:G:H4'	2.10	0.52
1:CA:246:A:C4	1:CA:279:A:C6	2.98	0.52
1:CA:716:A:N3	11:CK:119:ASN:O	2.43	0.52
1:CA:731:G:H5'	1:CA:766:A:H4'	1.90	0.52
1:CA:960:U:C4	1:CA:1225:A:C8	2.97	0.52
5:CE:83:HIS:NE2	8:CH:96:MET:HE3	2.23	0.52
9:CI:50:GLN:N	9:CI:51:PRO:HD2	2.25	0.52
11:CK:51:GLY:O	11:CK:52:PHE:O	2.28	0.52
22:DA:1445:G:C2	22:DA:1547:C:N3	2.77	0.52
22:DA:1530:G:N2	22:DA:1542:U:C2	2.76	0.52
22:DA:1655:A:C2	22:DA:1656:C:H1'	2.44	0.52
22:DA:1695:G:H3'	22:DA:1695:G:N3	2.24	0.52
22:DA:16:C:O3'	48:D0:11:SER:OG	2.28	0.52
22:DA:2050:C:C4	22:DA:2051:A:C6	2.97	0.52
22:DA:2198:A:C2	29:DH:29:PHE:HB2	2.44	0.52
22:DA:1938:A:C6	22:DA:2590:A:H1'	2.45	0.52
22:DA:2765:A:H5'	22:DA:2766:A:OP2	2.09	0.52
22:DA:53:A:C8	22:DA:54:G:N7	2.77	0.52
22:DA:657:U:C2	22:DA:658:U:C5	2.97	0.52
22:DA:1820:U:O2	24:DC:200:HIS:HB3	2.09	0.52
33:DL:81:ASP:O	33:DL:82:LEU:HB3	2.09	0.52
35:DN:20:MET:HG3	35:DN:21:PHE:N	2.24	0.52
1:AA:1010:U:H2'	1:AA:1011:C:C6	2.44	0.52
1:AA:984:C:N3	1:AA:1222:G:C2	2.78	0.52
1:AA:188:C:N3	1:AA:189:A:C2	2.77	0.52
1:AA:209:U:H4'	1:AA:210:C:OP2	2.09	0.52
1:AA:233:C:H2'	1:AA:234:C:C6	2.45	0.52
1:AA:557:G:C6	1:AA:558:G:C6	2.98	0.52
1:AA:702:A:H3'	1:AA:703:G:C5'	2.39	0.52
1:AA:818:G:O2'	1:AA:819:A:H5'	2.09	0.52
2:AB:33:GLY:O	2:AB:34:ALA:HB2	2.09	0.52
4:AD:34:ILE:O	4:AD:35:GLU:CB	2.57	0.52
4:AD:36:GLN:O	4:AD:37:ALA:HB2	2.09	0.52
9:AI:84:THR:HG21	9:AI:103:PHE:CB	2.38	0.52
10:AJ:37:ARG:HB2	10:AJ:75:ASP:HB3	1.91	0.52
15:AO:45:GLU:HG2	15:AO:46:HIS:N	2.25	0.52
17:AQ:53:CYS:SG	17:AQ:75:LEU:HD23	2.50	0.52
13:AM:83:LEU:HD21	19:AS:65:GLU:CG	2.39	0.52
20:AT:48:GLN:OE1	20:AT:52:ASN:ND2	2.43	0.52
20:AT:79:LEU:O	20:AT:82:GLN:HB2	2.10	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1916:A:C4	22:BA:1917:U:C1'	2.79	0.52
22:BA:2812:G:H2'	22:BA:2813:A:O4'	2.09	0.52
22:BA:804:A:H5''	22:BA:805:G:OP1	2.10	0.52
24:BC:18:LYS:HB3	24:BC:18:LYS:HZ2	1.74	0.52
24:BC:235:GLY:O	24:BC:236:GLU:HB2	2.10	0.52
25:BD:99:GLU:HG2	25:BD:182:ALA:HB2	1.90	0.52
30:BI:11:LEU:HD12	30:BI:24:VAL:HG12	1.91	0.52
39:BR:68:ARG:HD3	39:BR:92:TRP:CE2	2.45	0.52
45:BX:56:MET:O	45:BX:59:ILE:N	2.42	0.52
46:BY:34:SER:O	46:BY:35:GLY:C	2.47	0.52
46:BY:45:GLN:O	46:BY:46:VAL:CB	2.57	0.52
1:CA:1226:C:H2'	13:CM:102:THR:HB	1.91	0.52
1:CA:238:A:O2'	1:CA:239:U:H5'	2.10	0.52
1:CA:50:A:N6	1:CA:361:G:H4'	2.25	0.52
4:CD:166:GLU:O	4:CD:167:LYS:HB2	2.07	0.52
1:CA:409:U:OP1	4:CD:24:GLY:CA	2.57	0.52
10:CJ:27:GLU:O	10:CJ:27:GLU:HG2	2.09	0.52
19:CS:58:VAL:HG11	19:CS:75:ALA:HA	1.92	0.52
22:DA:1011:G:C2	22:DA:1013:C:C2	2.97	0.52
22:DA:1343:G:C6	22:DA:1344:U:O4	2.63	0.52
22:DA:1465:G:C5	22:DA:1466:U:C4	2.98	0.52
22:DA:132:G:N2	22:DA:148:U:C2	2.78	0.52
22:DA:1623:G:C5	22:DA:1624:U:C5	2.97	0.52
22:DA:1827:U:H2'	22:DA:1828:G:O4'	2.09	0.52
22:DA:2145:C:H5''	22:DA:2146:C:OP1	2.08	0.52
22:DA:2506:U:C5	22:DA:2585:U:O4	2.62	0.52
22:DA:2707:U:O2	35:DN:71:ARG:NH1	2.42	0.52
22:DA:463:G:C2	22:DA:467:G:C6	2.97	0.52
22:DA:527:C:OP1	57:DA:3246:HOH:O	2.18	0.52
22:DA:53:A:C2	22:DA:179:C:H4'	2.44	0.52
23:DB:46:A:C5	23:DB:47:C:C5	2.98	0.52
29:DH:34:GLY:O	29:DH:35:LYS:HB2	2.08	0.52
29:DH:34:GLY:O	29:DH:35:LYS:HD2	2.10	0.52
42:DU:7:ARG:HD3	42:DU:7:ARG:C	2.29	0.52
1:AA:1160:G:HO2'	1:AA:1161:C:P	2.32	0.52
1:AA:64:G:C2	1:AA:67:C:N4	2.77	0.52
1:AA:662:U:H2'	1:AA:663:A:C8	2.45	0.52
2:AB:67:ILE:O	2:AB:68:LEU:CB	2.58	0.52
2:AB:68:LEU:HD21	2:AB:92:VAL:HG23	1.92	0.52
4:AD:95:GLU:OE2	4:AD:100:ASN:ND2	2.42	0.52
1:AA:8:A:H5'	5:AE:125:ALA:O	2.10	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:3:MET:O	8:AH:5:ASP:N	2.43	0.52
10:AJ:17:LEU:HD23	10:AJ:18:ILE:N	2.24	0.52
12:AL:38:TYR:HB2	12:AL:52:VAL:HG23	1.91	0.52
6:AF:90:MET:HG2	18:AR:61:ARG:NH2	2.25	0.52
22:BA:1064:C:O2	22:BA:1074:G:N2	2.43	0.52
22:BA:1179:G:C8	22:BA:1180:U:O4'	2.62	0.52
22:BA:12:U:O2	22:BA:12:U:C2'	2.58	0.52
22:BA:1754:A:N6	22:BA:1755:A:N6	2.57	0.52
22:BA:1925:C:H5''	22:BA:1926:U:O4	2.10	0.52
22:BA:2808:G:C2	22:BA:2891:U:C6	2.97	0.52
29:BH:94:ILE:HD12	29:BH:98:ASP:HB3	1.92	0.52
38:BQ:9:ILE:HG13	38:BQ:10:ALA:N	2.24	0.52
39:BR:46:GLU:CA	39:BR:46:GLU:OE1	2.58	0.52
22:BA:1365:A:O5'	45:BX:28:ARG:NH2	2.43	0.52
1:CA:1386:G:N3	1:CA:1387:G:C8	2.77	0.52
1:CA:1513:A:H2'	1:CA:1514:G:C8	2.45	0.52
1:CA:282:A:C8	1:CA:283:U:C5	2.98	0.52
1:CA:309:A:H1'	1:CA:608:A:C2	2.45	0.52
1:CA:62:U:O2'	1:CA:379:C:O2	2.25	0.52
1:CA:945:G:C2	1:CA:946:A:C8	2.97	0.52
7:CG:42:ILE:HG21	7:CG:116:MET:HG3	1.91	0.52
22:DA:1401:G:C6	22:DA:1402:U:C4	2.98	0.52
22:DA:2808:G:H4'	22:DA:2809:A:O5'	2.09	0.52
22:DA:2898:U:H2'	22:DA:2899:A:C8	2.45	0.52
22:DA:969:G:H2'	22:DA:970:U:C6	2.45	0.52
28:DG:41:VAL:HG12	28:DG:42:GLU:N	2.24	0.52
1:AA:109:A:H4'	1:AA:110:C:OP2	2.10	0.52
1:AA:1119:C:OP1	9:AI:85:ARG:NH2	2.41	0.52
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.45	0.52
1:AA:1299:A:C6	1:AA:1301:U:O2	2.63	0.52
4:AD:143:VAL:HG23	4:AD:143:VAL:O	2.09	0.52
4:AD:29:ASP:C	4:AD:30:THR:O	2.42	0.52
5:AE:45:ARG:HA	5:AE:72:ILE:O	2.10	0.52
6:AF:98:GLU:CG	6:AF:99:ALA:N	2.72	0.52
53:B5:83:LYS:HB3	53:B5:87:ALA:CB	2.40	0.52
22:BA:1857:G:N2	22:BA:1884:G:H1'	2.24	0.52
22:BA:1939:U:OP1	22:BA:2604:U:O2'	2.24	0.52
22:BA:2187:U:H2'	22:BA:2188:U:O4'	2.10	0.52
22:BA:468:G:N7	50:B2:39:ARG:NH2	2.55	0.52
29:BH:2:GLN:O	29:BH:3:VAL:HG22	2.10	0.52
41:BT:11:LEU:CD2	41:BT:11:LEU:N	2.73	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1364:U:O2	1:CA:1364:U:C2'	2.58	0.52
1:CA:774:G:C6	1:CA:775:G:C5	2.97	0.52
2:CB:21:ARG:HA	2:CB:21:ARG:NE	2.24	0.52
5:CE:126:LYS:HE3	5:CE:126:LYS:HA	1.91	0.52
20:CT:71:LYS:HE3	20:CT:75:HIS:CE1	2.45	0.52
22:DA:1515:A:O2'	22:DA:1556:C:O2'	2.18	0.52
22:DA:1817:G:C2'	22:DA:1818:U:H5'	2.40	0.52
22:DA:2184:A:H2'	22:DA:2185:U:C6	2.44	0.52
22:DA:249:C:P	22:DA:2394:C:HO2'	2.33	0.52
22:DA:972:A:C6	22:DA:973:A:C6	2.98	0.52
24:DC:267:ILE:O	24:DC:267:ILE:HG22	2.09	0.52
26:DE:146:VAL:HA	26:DE:185:LYS:O	2.10	0.52
26:DE:76:PRO:HA	26:DE:82:GLY:HA2	1.92	0.52
28:DG:176:LYS:O	28:DG:177:LYS:CB	2.58	0.52
29:DH:25:TYR:CZ	29:DH:30:LEU:HD21	2.45	0.52
30:DI:54:PRO:O	30:DI:75:PRO:HD2	2.10	0.52
2:AB:147:SER:O	2:AB:148:LEU:HG	2.09	0.52
7:AG:49:THR:O	7:AG:53:ARG:CB	2.58	0.52
13:AM:47:GLU:O	13:AM:49:SER:N	2.43	0.52
1:AA:1014:A:C2	19:AS:34:TRP:CZ2	2.98	0.52
22:BA:1605:C:C3'	22:BA:1606:C:H5'	2.40	0.52
22:BA:441:U:H2'	22:BA:442:G:C8	2.45	0.52
24:BC:146:MET:SD	24:BC:154:LEU:HD21	2.50	0.52
30:BI:44:ALA:O	30:BI:45:LYS:HD3	2.09	0.52
30:BI:59:ILE:HG22	30:BI:61:VAL:HG23	1.91	0.52
23:BB:112:G:N2	36:BO:45:SER:O	2.37	0.52
42:BU:49:VAL:O	42:BU:49:VAL:HG13	2.09	0.52
46:BY:16:THR:HA	46:BY:19:LEU:HB2	1.91	0.52
1:CA:978:A:C5	1:CA:1318:A:N6	2.78	0.52
1:CA:158:G:C5	1:CA:164:G:C6	2.98	0.52
1:CA:41:G:H2'	1:CA:42:G:C8	2.45	0.52
1:CA:570:G:H2'	1:CA:571:U:C6	2.45	0.52
12:CL:25:GLU:C	12:CL:27:CYS:N	2.59	0.52
13:CM:37:ALA:CB	13:CM:56:LEU:HG	2.40	0.52
17:CQ:29:VAL:CG2	17:CQ:29:VAL:O	2.56	0.52
22:DA:1120:G:C6	22:DA:1121:C:C4	2.98	0.52
22:DA:1154:G:OP1	38:DQ:58:ARG:HD3	2.10	0.52
22:DA:1203:U:O2'	33:DL:4:ASN:OD1	2.28	0.52
22:DA:811:U:O2	22:DA:1251:C:C6	2.63	0.52
22:DA:2223:G:C6	22:DA:2224:G:C4	2.98	0.52
22:DA:2428:G:H5''	22:DA:2429:G:OP1	2.10	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2663:G:H2'	22:DA:2664:G:O4'	2.10	0.52
22:DA:295:G:N2	22:DA:296:U:C6	2.77	0.52
24:DC:148:PRO:HD3	24:DC:185:GLU:OE2	2.10	0.52
24:DC:16:VAL:HG22	24:DC:206:GLY:HA3	1.92	0.52
27:DF:73:SER:HB2	27:DF:81:GLN:CB	2.40	0.52
31:DJ:30:THR:CG2	31:DJ:31:GLU:N	2.73	0.52
34:DM:107:GLY:C	34:DM:108:VAL:HG22	2.30	0.52
41:DT:64:LYS:HA	41:DT:79:ASP:OD2	2.10	0.52
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.42	0.52
1:AA:220:G:C5	1:AA:221:C:C5	2.98	0.52
1:AA:41:G:H2'	1:AA:42:G:H8	1.74	0.52
1:AA:587:G:N2	1:AA:755:G:C5	2.78	0.52
1:AA:724:G:N3	1:AA:725:G:C8	2.78	0.52
1:AA:815:A:H4'	1:AA:817:C:C4	2.45	0.52
1:AA:935:A:C2	1:AA:936:C:C2	2.97	0.52
2:AB:94:HIS:O	2:AB:95:ARG:C	2.47	0.52
5:AE:157:ARG:CD	8:AH:43:GLU:O	2.58	0.52
1:AA:933:G:N7	7:AG:3:ARG:NH1	2.58	0.52
11:AK:126:LYS:HA	21:AU:34:ARG:HH21	1.73	0.52
12:AL:3:THR:CG2	12:AL:4:VAL:N	2.72	0.52
13:AM:3:ARG:HG3	13:AM:4:ILE:N	2.24	0.52
14:AN:10:GLU:OE2	14:AN:61:ARG:HB3	2.10	0.52
14:AN:21:PHE:HA	14:AN:25:ALA:HB3	1.92	0.52
16:AP:77:GLU:C	16:AP:79:ASN:H	2.12	0.52
17:AQ:15:ASP:C	17:AQ:17:MET:SD	2.89	0.52
11:AK:126:LYS:CA	21:AU:34:ARG:HH21	2.23	0.52
22:BA:1454:C:H5'	35:BN:63:ARG:HD2	1.92	0.52
22:BA:2794:C:H2'	22:BA:2795:C:C6	2.44	0.52
22:BA:381:G:OP1	45:BX:18:ARG:NH2	2.42	0.52
22:BA:321:U:OP2	26:BE:131:THR:HG23	2.09	0.52
28:BG:86:LYS:HG2	28:BG:132:VAL:HG13	1.91	0.52
35:BN:70:THR:OG1	35:BN:71:ARG:N	2.42	0.52
1:CA:949:A:C2	1:CA:1233:G:N3	2.78	0.52
1:CA:1243:C:N4	1:CA:1244:G:O6	2.43	0.52
1:CA:520:A:OP1	12:CL:49:LEU:HB2	2.09	0.52
1:CA:774:G:C5	1:CA:775:G:C8	2.98	0.52
1:CA:809:G:OP2	15:CO:48:LYS:NZ	2.35	0.52
17:CQ:51:ASN:O	17:CQ:52:GLU:O	2.27	0.52
21:CU:14:VAL:O	21:CU:16:LEU:HG	2.09	0.52
22:DA:1355:G:O2'	22:DA:1356:G:H5'	2.09	0.52
22:DA:443:A:N7	26:DE:40:ARG:HG3	2.25	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:46:G:C2	22:DA:47:C:C5	2.97	0.52
22:DA:565:C:H4'	22:DA:1253:A:N6	2.24	0.52
26:DE:83:VAL:HG11	26:DE:86:ALA:HA	1.92	0.52
28:DG:123:ALA:HB2	28:DG:133:LEU:HA	1.92	0.52
29:DH:23:ALA:O	29:DH:27:ARG:N	2.38	0.52
41:DT:38:ALA:O	41:DT:39:THR:CB	2.58	0.52
1:AA:772:U:C2'	1:AA:773:G:O5'	2.58	0.51
4:AD:98:LEU:O	4:AD:99:ASP:C	2.46	0.51
9:AI:91:ASP:OD1	9:AI:93:SER:N	2.42	0.51
13:AM:16:VAL:CG1	13:AM:41:GLU:HB2	2.40	0.51
16:AP:38:PHE:CZ	16:AP:51:ARG:HB2	2.45	0.51
16:AP:61:VAL:HG22	16:AP:67:ILE:HD11	1.90	0.51
22:BA:1414:C:C4	22:BA:1415:U:C5	2.98	0.51
22:BA:1459:G:C5	22:BA:1461:C:C4	2.98	0.51
22:BA:1750:G:C5	22:BA:1751:U:C4	2.98	0.51
22:BA:2114:A:N3	22:BA:2114:A:H2'	2.24	0.51
22:BA:2196:C:O2'	22:BA:2197:U:H5'	2.09	0.51
22:BA:511:U:O4	22:BA:512:G:C2	2.63	0.51
22:BA:545:U:H2'	22:BA:546:U:O3'	2.10	0.51
26:BE:149:ILE:CD1	26:BE:172:ALA:HA	2.39	0.51
28:BG:54:PRO:HG3	28:BG:62:TRP:CE2	2.45	0.51
29:BH:110:VAL:HG22	29:BH:114:GLU:HB2	1.90	0.51
40:BS:83:LYS:O	40:BS:84:ARG:HD3	2.10	0.51
44:BW:47:ALA:HB1	44:BW:51:VAL:O	2.09	0.51
1:CA:130:A:O2'	1:CA:131:A:O5'	2.28	0.51
1:CA:4:U:H2'	1:CA:4:U:O2	2.08	0.51
1:CA:600:A:C2	1:CA:639:G:C2	2.97	0.51
2:CB:94:HIS:CD2	2:CB:146:ASN:HB2	2.44	0.51
2:CB:99:GLY:HA2	2:CB:175:GLU:OE1	2.11	0.51
5:CE:157:ARG:O	5:CE:159:LYS:N	2.40	0.51
7:CG:11:LYS:N	7:CG:11:LYS:HD2	2.25	0.51
7:CG:75:VAL:HG21	7:CG:144:MET:HG2	1.91	0.51
11:CK:124:PRO:HB2	11:CK:126:LYS:HE3	1.91	0.51
14:CN:3:LYS:HB3	14:CN:6:MET:HG2	1.92	0.51
20:CT:35:VAL:HG11	20:CT:79:LEU:HD13	1.92	0.51
22:DA:2372:U:O4'	49:D1:46:HIS:ND1	2.42	0.51
22:DA:1231:U:H2'	22:DA:1232:G:H8	1.74	0.51
22:DA:2135:A:C2	22:DA:2136:G:H1'	2.45	0.51
22:DA:2602:A:H4'	22:DA:2603:G:C5'	2.40	0.51
22:DA:2707:U:H2'	22:DA:2708:G:C8	2.45	0.51
22:DA:319:G:H2'	22:DA:320:A:O4'	2.10	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:445:C:H2'	22:DA:446:G:C8	2.45	0.51
23:DB:5:U:H2'	23:DB:6:G:C8	2.46	0.51
1:AA:108:G:C5'	1:AA:108:G:N3	2.74	0.51
1:AA:1270:G:O3'	1:AA:1314:C:H5'	2.10	0.51
1:AA:1478:U:H2'	1:AA:1479:C:C6	2.45	0.51
1:AA:411:A:C6	1:AA:429:U:C4	2.99	0.51
2:AB:27:MET:HG2	2:AB:189:THR:HA	1.92	0.51
5:AE:82:GLN:HG2	5:AE:150:PRO:HB3	1.91	0.51
8:AH:113:ASP:OD2	8:AH:117:ARG:NH2	2.44	0.51
16:AP:73:ALA:O	16:AP:77:GLU:HB2	2.10	0.51
17:AQ:54:GLY:N	17:AQ:57:ASP:OD2	2.40	0.51
49:B1:50:LYS:O	49:B1:51:GLU:HB3	2.09	0.51
22:BA:1122:G:N3	22:BA:1122:G:H2'	2.24	0.51
22:BA:1494:A:C2'	22:BA:1495:A:O5'	2.58	0.51
22:BA:2010:G:O2'	22:BA:2011:U:H5'	2.10	0.51
22:BA:2286:G:H4'	22:BA:2287:A:O5'	2.09	0.51
22:BA:2377:A:O2'	22:BA:2378:A:H5'	2.10	0.51
24:BC:235:GLY:HA3	24:BC:239:ASN:HB2	1.92	0.51
26:BE:79:ARG:O	26:BE:80:SER:CB	2.59	0.51
1:CA:39:G:N2	1:CA:40:C:C2	2.79	0.51
1:CA:515:G:H2'	1:CA:516:U:O4'	2.10	0.51
1:CA:695:A:H2'	1:CA:696:A:C8	2.45	0.51
4:CD:90:LEU:HD21	4:CD:200:ILE:HD11	1.91	0.51
5:CE:72:ILE:HD13	5:CE:145:GLU:HG3	1.93	0.51
12:CL:80:ILE:HD12	12:CL:97:THR:CG2	2.40	0.51
14:CN:2:ALA:O	14:CN:3:LYS:CB	2.57	0.51
16:CP:51:ARG:C	16:CP:51:ARG:HD3	2.31	0.51
6:CF:88:MET:CE	18:CR:64:TYR:CD2	2.93	0.51
19:CS:11:ILE:HG13	19:CS:12:ASP:N	2.25	0.51
21:CU:35:ARG:NH2	57:CU:102:HOH:O	2.43	0.51
22:DA:126:A:N7	22:DA:127:A:N1	2.58	0.51
22:DA:146:A:C2	22:DA:147:C:C2	2.98	0.51
22:DA:1483:G:C6	22:DA:1484:U:C4	2.97	0.51
22:DA:1563:U:H2'	22:DA:1564:C:C6	2.45	0.51
22:DA:159:G:O2'	22:DA:167:A:N6	2.38	0.51
22:DA:1668:A:O4'	22:DA:1669:A:C2	2.63	0.51
22:DA:425:G:C2	22:DA:426:C:C4	2.98	0.51
24:DC:144:VAL:HB	24:DC:154:LEU:HB2	1.92	0.51
22:DA:1566:A:C2	24:DC:213:TRP:CE3	2.98	0.51
39:DR:49:ILE:HD13	39:DR:52:PRO:HA	1.92	0.51
39:DR:58:VAL:HG13	39:DR:102:SER:HB2	1.91	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1277:C:HO2'	1:AA:1279:G:H8	1.52	0.51
1:AA:1315:U:C4	1:AA:1316:G:C6	2.99	0.51
1:AA:189:A:H2'	1:AA:190:A:O4'	2.10	0.51
1:AA:756:C:H2'	1:AA:757:U:O4'	2.10	0.51
1:AA:797:C:OP2	11:AK:126:LYS:HE2	2.11	0.51
1:AA:819:A:H4'	1:AA:820:U:OP2	2.11	0.51
10:AJ:11:LYS:HA	10:AJ:70:HIS:O	2.10	0.51
19:AS:4:SER:HB2	19:AS:5:LEU:HD12	1.93	0.51
22:BA:1356:G:C2	22:BA:1376:C:O2	2.63	0.51
22:BA:1922:G:C2	22:BA:1923:U:C6	2.97	0.51
22:BA:544:C:H5'	22:BA:545:U:OP2	2.10	0.51
34:BM:69:PRO:O	34:BM:70:ASP:OD2	2.28	0.51
36:BO:100:HIS:O	36:BO:104:GLN:HB3	2.10	0.51
1:CA:1166:G:O2'	1:CA:1169:A:N6	2.43	0.51
1:CA:121:U:H3'	1:CA:122:G:C5'	2.39	0.51
1:CA:1328:C:H5''	13:CM:28:THR:HG21	1.92	0.51
1:CA:237:G:C6	1:CA:238:A:C5	2.99	0.51
6:CF:38:ARG:HG3	6:CF:62:MET:O	2.10	0.51
11:CK:52:PHE:CE1	11:CK:62:ALA:HB1	2.45	0.51
18:CR:24:LYS:C	18:CR:26:ILE:H	2.14	0.51
21:CU:44:GLU:OE1	21:CU:45:ARG:NH1	2.43	0.51
22:DA:1248:G:C4	38:DQ:3:ARG:HG3	2.46	0.51
22:DA:1248:G:N7	26:DE:46:GLN:NE2	2.58	0.51
22:DA:2061:G:H5''	22:DA:2503:A:C2	2.45	0.51
22:DA:2731:G:C6	22:DA:2732:G:O6	2.64	0.51
22:DA:370:G:C6	22:DA:424:G:N7	2.79	0.51
22:DA:374:A:N6	22:DA:400:G:O2'	2.43	0.51
22:DA:40:U:C4	22:DA:41:C:N4	2.78	0.51
22:DA:422:A:C2	22:DA:423:A:C4	2.98	0.51
22:DA:680:C:H2'	22:DA:681:G:C8	2.45	0.51
22:DA:1790:C:O2'	24:DC:208:ALA:HB2	2.10	0.51
29:DH:121:VAL:O	29:DH:122:LEU:HB2	2.11	0.51
22:DA:1007:C:OP1	31:DJ:37:ARG:NH2	2.43	0.51
37:DP:53:ARG:O	37:DP:56:HIS:N	2.42	0.51
41:DT:34:VAL:HG21	41:DT:43:ILE:HD11	1.92	0.51
42:DU:38:GLY:HA2	42:DU:41:LEU:CD2	2.40	0.51
43:DV:9:ARG:CG	43:DV:41:GLU:HB3	2.40	0.51
1:AA:1211:U:O2'	1:AA:1212:U:P	2.68	0.51
7:AG:130:ASN:HA	7:AG:135:VAL:HG11	1.92	0.51
10:AJ:10:LEU:O	10:AJ:71:LEU:HA	2.11	0.51
13:AM:40:ALA:HB3	13:AM:43:VAL:CG1	2.41	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:76:LYS:HG3	16:AP:76:LYS:O	2.11	0.51
17:AQ:5:ILE:O	17:AQ:6:ARG:HB2	2.10	0.51
22:BA:811:U:C2	22:BA:1251:C:C5	2.98	0.51
22:BA:2040:G:H2'	22:BA:2041:U:O4'	2.09	0.51
22:BA:576:U:H2'	22:BA:577:G:C8	2.46	0.51
26:BE:196:VAL:O	26:BE:197:GLU:C	2.47	0.51
27:BF:108:VAL:HG11	27:BF:176:PRO:HG2	1.91	0.51
29:BH:99:ILE:O	29:BH:103:VAL:CG2	2.58	0.51
38:BQ:76:TYR:CZ	38:BQ:80:ILE:HG13	2.46	0.51
41:BT:17:SER:O	41:BT:18:GLU:C	2.49	0.51
1:CA:322:C:O2	1:CA:332:G:N2	2.43	0.51
1:CA:330:C:O2	1:CA:330:C:H2'	2.10	0.51
1:CA:811:C:N4	1:CA:812:G:O6	2.43	0.51
1:CA:811:C:H4'	1:CA:900:A:N6	2.26	0.51
2:CB:19:GLN:HB3	2:CB:189:THR:OG1	2.09	0.51
2:CB:206:ALA:O	2:CB:207:ILE:C	2.47	0.51
3:CC:155:GLY:O	3:CC:156:ARG:C	2.49	0.51
5:CE:82:GLN:OE1	5:CE:150:PRO:CD	2.58	0.51
12:CL:65:SER:OG	12:CL:97:THR:HG23	2.10	0.51
51:D3:52:LYS:O	51:D3:55:LEU:N	2.44	0.51
22:DA:1317:G:N2	22:DA:1336:A:C2	2.78	0.51
22:DA:1362:C:H2'	22:DA:1363:C:C5'	2.41	0.51
22:DA:1930:G:O2'	22:DA:1931:U:P	2.68	0.51
22:DA:2294:G:P	36:DO:94:ARG:HH12	2.33	0.51
22:DA:2657:A:C4	22:DA:2665:A:C6	2.98	0.51
22:DA:2679:A:C2	22:DA:2680:U:C2	2.98	0.51
22:DA:2845:U:H5''	37:DP:52:ASN:O	2.11	0.51
22:DA:301:G:O4'	22:DA:317:G:N2	2.44	0.51
22:DA:533:G:C5	22:DA:534:U:C4	2.99	0.51
22:DA:669:G:N2	22:DA:670:A:N1	2.59	0.51
32:DK:107:LEU:O	32:DK:109:SER:N	2.43	0.51
32:DK:6:THR:O	32:DK:8:LEU:HD12	2.11	0.51
1:AA:1157:A:C5	1:AA:1181:G:C6	2.98	0.51
1:AA:1157:A:C4	1:AA:1181:G:N1	2.78	0.51
1:AA:353:A:C2'	1:AA:354:G:OP2	2.59	0.51
1:AA:507:C:N3	1:AA:508:U:C4	2.79	0.51
1:AA:551:U:H2'	1:AA:552:U:O5'	2.10	0.51
2:AB:72:THR:O	2:AB:73:LYS:CB	2.57	0.51
2:AB:82:ASP:C	2:AB:84:ALA:N	2.62	0.51
17:AQ:5:ILE:O	17:AQ:6:ARG:CB	2.58	0.51
1:AA:1314:C:H41	19:AS:4:SER:HA	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.93	0.51
22:BA:1173:U:C2'	22:BA:1174:U:O5'	2.59	0.51
22:BA:1176:U:H2'	22:BA:1177:G:N9	2.25	0.51
22:BA:1668:A:H4'	22:BA:1669:A:O5'	2.11	0.51
22:BA:1916:A:H2'	22:BA:1917:U:O4'	2.10	0.51
22:BA:1923:U:C2	22:BA:1924:C:C6	2.99	0.51
22:BA:191:A:H2'	22:BA:192:C:C6	2.46	0.51
22:BA:2637:U:H2'	22:BA:2638:G:H5'	1.92	0.51
22:BA:2691:C:C4	22:BA:2719:G:N2	2.79	0.51
22:BA:627:A:C6	22:BA:637:A:C8	2.99	0.51
23:BB:37:C:C5	23:BB:38:C:C5	2.99	0.51
27:BF:132:VAL:HG22	27:BF:152:LEU:CB	2.40	0.51
29:BH:132:PHE:O	29:BH:139:PHE:HB3	2.11	0.51
29:BH:85:GLY:HA2	29:BH:91:PHE:CE2	2.46	0.51
29:BH:94:ILE:CG2	29:BH:99:ILE:CG1	2.88	0.51
30:BI:116:ASP:O	30:BI:117:MET:CB	2.58	0.51
57:BA:3291:HOH:O	33:BL:99:ASN:ND2	2.42	0.51
1:CA:1160:G:O6	1:CA:1181:G:C6	2.64	0.51
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.46	0.51
1:CA:1431:A:C6	1:CA:1432:G:C6	2.98	0.51
1:CA:527:G:N1	1:CA:528:C:C5	2.79	0.51
15:CO:53:ARG:O	15:CO:56:LEU:N	2.44	0.51
16:CP:44:SER:O	16:CP:46:LYS:HG3	2.09	0.51
21:CU:14:VAL:HG12	21:CU:16:LEU:HG	1.93	0.51
22:DA:1584:U:O2	22:DA:1584:U:H3'	2.11	0.51
22:DA:1843:C:H4'	24:DC:251:GLN:NE2	2.25	0.51
22:DA:1926:U:H1'	22:DA:1929:G:C6	2.46	0.51
22:DA:2325:G:C6	22:DA:2326:C:N4	2.78	0.51
22:DA:2345:G:C6	22:DA:2347:C:N4	2.79	0.51
22:DA:315:G:H2'	22:DA:316:C:O4'	2.10	0.51
22:DA:483:A:C8	42:DU:45:HIS:CD2	2.98	0.51
22:DA:55:G:C2	22:DA:56:A:C8	2.98	0.51
22:DA:609:A:H2'	22:DA:610:C:O4'	2.10	0.51
26:DE:47:LYS:O	26:DE:83:VAL:HB	2.10	0.51
26:DE:52:VAL:HB	26:DE:74:LYS:HD3	1.93	0.51
27:DF:163:ASP:N	27:DF:163:ASP:OD1	2.43	0.51
29:DH:26:ALA:HA	29:DH:30:LEU:HB2	1.92	0.51
29:DH:53:GLU:O	29:DH:54:LEU:C	2.49	0.51
31:DJ:140:LEU:HD12	31:DJ:141:ASP:N	2.24	0.51
1:AA:179:A:OP2	57:AA:1879:HOH:O	2.19	0.51
1:AA:452:A:H2'	1:AA:453:G:C5'	2.39	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:721:G:C6	1:AA:733:G:C2	2.98	0.51
1:AA:89:U:O2'	1:AA:90:C:H5'	2.10	0.51
2:AB:10:LEU:HD23	2:AB:10:LEU:C	2.30	0.51
2:AB:147:SER:O	2:AB:148:LEU:CG	2.59	0.51
22:BA:1114:C:O2'	22:BA:1115:G:H5'	2.10	0.51
22:BA:1582:C:O2'	22:BA:1585:C:N3	2.39	0.51
22:BA:1718:G:C2	22:BA:1719:G:C8	2.99	0.51
22:BA:1921:G:N3	22:BA:1922:G:C8	2.77	0.51
22:BA:2151:U:H2'	22:BA:2152:G:N7	2.26	0.51
22:BA:747:U:C5	22:BA:2613:U:C5	2.99	0.51
22:BA:26:G:H1'	22:BA:514:A:H61	1.76	0.51
22:BA:533:G:OP1	38:BQ:24:TYR:O	2.29	0.51
22:BA:735:A:H3'	22:BA:736:C:C6	2.46	0.51
22:BA:753:A:H2'	22:BA:754:U:H6	1.74	0.51
24:BC:212:ARG:HD2	24:BC:216:VAL:O	2.11	0.51
26:BE:31:VAL:HG21	26:BE:104:ALA:CB	2.40	0.51
29:BH:117:LEU:CD2	29:BH:121:VAL:N	2.70	0.51
30:BI:82:LYS:O	30:BI:83:ALA:CB	2.58	0.51
32:BK:116:ILE:O	32:BK:118:LEU:O	2.28	0.51
32:BK:43:ILE:HD12	32:BK:56:ASP:HB2	1.92	0.51
42:BU:42:VAL:O	42:BU:60:GLU:HA	2.11	0.51
43:BV:55:GLU:H	43:BV:55:GLU:CD	2.13	0.51
1:CA:1093:A:O2'	1:CA:1095:U:OP1	2.19	0.51
1:CA:1213:A:C5	1:CA:1215:G:C4	2.99	0.51
29:BH:91:PHE:HB3	1:CA:55:A:C4	2.45	0.51
1:CA:573:A:C2	1:CA:574:A:C2	2.99	0.51
1:CA:987:G:C6	1:CA:988:G:C5	2.98	0.51
5:CE:100:SER:O	5:CE:101:GLU:C	2.48	0.51
5:CE:133:PRO:HA	5:CE:136:VAL:CG1	2.41	0.51
5:CE:50:TYR:O	5:CE:51:GLY:O	2.28	0.51
9:CI:25:ASN:O	9:CI:27:LYS:N	2.42	0.51
10:CJ:40:ILE:HG22	10:CJ:42:LEU:HG	1.92	0.51
22:DA:1053:C:C2	22:DA:1107:G:C2	2.98	0.51
22:DA:1307:A:H2'	22:DA:1308:A:O4'	2.11	0.51
22:DA:1344:U:HO2'	22:DA:1345:C:P	2.30	0.51
22:DA:2267:A:H5''	22:DA:2268:A:H5'	1.92	0.51
22:DA:2743:U:OP1	52:D4:34:LYS:NZ	2.39	0.51
22:DA:286:U:H2'	22:DA:287:G:C8	2.46	0.51
22:DA:447:A:H5'	22:DA:449:A:C5	2.45	0.51
22:DA:914:G:H5'	22:DA:915:C:OP2	2.11	0.51
23:DB:94:A:H2'	23:DB:95:U:O4'	2.09	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:73:LYS:CB	40:DS:106:VAL:HB	2.40	0.51
42:DU:83:VAL:HG11	42:DU:94:ARG:CD	2.41	0.51
1:AA:1049:U:O2	1:AA:1201:A:C5	2.63	0.51
1:AA:198:G:C4	1:AA:199:A:C8	2.99	0.51
5:AE:77:ASN:O	5:AE:78:ASN:CB	2.59	0.51
8:AH:8:ALA:HB2	8:AH:77:ARG:CD	2.40	0.51
11:AK:38:GLN:O	11:AK:40:ASN:N	2.44	0.51
16:AP:20:VAL:HG21	16:AP:32:PHE:CG	2.46	0.51
53:B5:83:LYS:HB3	53:B5:87:ALA:HB3	1.92	0.51
22:BA:1786:A:C4	22:BA:1938:A:C6	2.99	0.51
22:BA:2564:A:C2	22:BA:2647:U:H4'	2.46	0.51
25:BD:101:PHE:O	25:BD:103:ASP:N	2.43	0.51
27:BF:40:VAL:HG12	27:BF:85:ILE:C	2.31	0.51
30:BI:16:GLY:HA3	30:BI:51:LYS:HB3	1.91	0.51
32:BK:21:CYS:HA	32:BK:41:ILE:HG22	1.93	0.51
36:BO:36:TYR:CD1	36:BO:36:TYR:N	2.78	0.51
23:BB:114:C:H1'	36:BO:47:VAL:HG11	1.91	0.51
38:BQ:50:ARG:O	38:BQ:54:LYS:CE	2.59	0.51
43:BV:21:ARG:HA	43:BV:25:LYS:O	2.11	0.51
1:CA:1042:A:H2'	1:CA:1043:G:C1'	2.41	0.51
1:CA:1211:U:O2'	1:CA:1212:U:P	2.69	0.51
1:CA:771:G:C4	1:CA:809:G:N2	2.79	0.51
3:CC:64:ILE:HG12	3:CC:66:VAL:HG23	1.92	0.51
3:CC:42:TYR:CZ	3:CC:90:VAL:HG21	2.46	0.51
7:CG:116:MET:HA	7:CG:119:ARG:HD3	1.92	0.51
14:CN:54:ASP:HA	14:CN:59:ARG:HD3	1.92	0.51
15:CO:10:LYS:O	15:CO:14:GLU:HG3	2.11	0.51
17:CQ:11:ARG:HB2	17:CQ:57:ASP:O	2.10	0.51
21:CU:40:LYS:N	21:CU:41:PRO:CD	2.74	0.51
22:DA:1056:G:N1	22:DA:1102:C:OP2	2.44	0.51
22:DA:1378:A:C2'	22:DA:1380:G:N7	2.74	0.51
22:DA:1401:G:C5	22:DA:1402:U:C4	2.99	0.51
22:DA:1691:C:N4	22:DA:1692:U:O4	2.44	0.51
22:DA:2136:G:C2	22:DA:2156:G:H1'	2.46	0.51
22:DA:200:U:C4	22:DA:248:G:C2	2.99	0.51
22:DA:570:G:C2'	22:DA:571:U:H5'	2.41	0.51
28:DG:174:ALA:O	28:DG:175:LYS:O	2.27	0.51
30:DI:28:LEU:C	30:DI:28:LEU:HD12	2.30	0.51
35:DN:12:ARG:CZ	35:DN:20:MET:HE1	2.41	0.51
36:DO:33:ARG:O	36:DO:34:HIS:CG	2.63	0.51
1:AA:1031:C:HO2'	1:AA:1032:G:P	2.30	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:29:U:H5'	1:AA:296:U:OP1	2.11	0.51
1:AA:457:G:C6	1:AA:458:U:C2	2.99	0.51
1:AA:900:A:N1	1:AA:901:A:C2	2.79	0.51
1:AA:957:U:C2	1:AA:959:A:OP2	2.64	0.51
2:AB:133:GLU:O	2:AB:137:ARG:N	2.44	0.51
2:AB:149:GLY:O	2:AB:151:ILE:N	2.43	0.51
1:AA:1057:G:O3'	3:AC:197:GLY:HA3	2.11	0.51
4:AD:124:MET:HE2	4:AD:146:ARG:HD2	1.93	0.51
4:AD:160:GLU:O	4:AD:162:ALA:N	2.44	0.51
6:AF:79:ARG:NE	6:AF:79:ARG:HA	2.26	0.51
22:BA:1115:G:N3	22:BA:1116:G:C8	2.78	0.51
22:BA:1441:G:H2'	22:BA:1442:U:H6	1.76	0.51
22:BA:1789:A:P	24:BC:221:ARG:HH11	2.34	0.51
22:BA:2012:G:OP1	40:BS:98:LYS:NZ	2.39	0.51
22:BA:593:U:H2'	22:BA:594:U:C6	2.46	0.51
29:BH:100:ALA:CB	29:BH:112:LYS:HA	2.41	0.51
29:BH:117:LEU:CD2	29:BH:121:VAL:CA	2.89	0.51
37:BP:22:PRO:HD3	37:BP:50:ILE:HD12	1.93	0.51
38:BQ:58:ARG:HA	38:BQ:61:TRP:CE3	2.46	0.51
40:BS:96:ILE:CD1	40:BS:98:LYS:CG	2.89	0.51
1:CA:1093:A:C5	1:CA:1095:U:O4'	2.63	0.51
1:CA:1190:G:H5'	3:CC:176:HIS:CE1	2.46	0.51
1:CA:1379:G:N2	1:CA:1381:U:O4	2.40	0.51
1:CA:927:G:O2'	1:CA:1503:A:N7	2.39	0.51
7:CG:118:LEU:O	7:CG:122:ASN:ND2	2.44	0.51
12:CL:61:PHE:CD1	12:CL:61:PHE:N	2.79	0.51
1:CA:254:G:OP1	17:CQ:69:LYS:O	2.28	0.51
22:DA:1029:A:N1	22:DA:2465:C:O2'	2.43	0.51
22:DA:1733:G:C5	22:DA:1734:G:C8	2.99	0.51
22:DA:204:A:O4'	22:DA:206:U:C6	2.63	0.51
22:DA:2058:A:C6	22:DA:2059:A:N6	2.79	0.51
22:DA:200:U:O4	22:DA:248:G:C2	2.63	0.51
22:DA:2636:C:H2'	22:DA:2637:U:C6	2.45	0.51
22:DA:297:G:H5''	42:DU:85:PHE:CB	2.41	0.51
22:DA:537:G:C6	22:DA:555:G:C2	2.98	0.51
22:DA:563:A:H1'	22:DA:2018:G:N2	2.26	0.51
22:DA:984:A:H5''	22:DA:985:C:OP2	2.11	0.51
23:DB:14:U:OP2	23:DB:70:C:O2'	2.29	0.51
29:DH:5:LEU:HA	29:DH:36:ALA:HA	1.93	0.51
39:DR:66:HIS:CG	39:DR:94:THR:HG23	2.46	0.51
42:DU:54:GLN:N	42:DU:55:PRO:HD3	2.26	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DY:1:MET:N	46:DY:4:LYS:HD3	2.26	0.51
1:AA:1151:A:C4	1:AA:1152:A:N7	2.79	0.51
1:AA:1277:C:H1'	1:AA:1282:C:O2	2.11	0.51
1:AA:1508:A:H2'	1:AA:1509:C:O4'	2.11	0.51
1:AA:920:U:H2'	1:AA:921:U:C6	2.46	0.51
2:AB:217:VAL:O	2:AB:220:THR:HG22	2.10	0.51
3:AC:88:ARG:HG3	3:AC:99:ALA:O	2.10	0.51
9:AI:63:LEU:N	9:AI:63:LEU:CD2	2.74	0.51
13:AM:64:VAL:HG12	13:AM:64:VAL:O	2.11	0.51
22:BA:1734:G:N3	22:BA:1735:A:C8	2.79	0.51
22:BA:2038:G:H2'	22:BA:2039:U:O4'	2.11	0.51
22:BA:2127:G:C4'	22:BA:2128:G:OP1	2.57	0.51
22:BA:2116:G:C6	22:BA:2171:A:N6	2.79	0.51
22:BA:2592:G:N7	57:BA:3793:HOH:O	2.35	0.51
22:BA:587:C:OP2	33:BL:21:ARG:NH1	2.44	0.51
22:BA:612:G:H2'	22:BA:614:A:C8	2.46	0.51
26:BE:46:GLN:O	26:BE:88:ARG:NH1	2.44	0.51
43:BV:36:ALA:O	43:BV:93:ARG:NH2	2.41	0.51
1:CA:1071:C:H2'	1:CA:1072:G:C8	2.46	0.51
1:CA:76:G:N2	1:CA:95:C:N3	2.59	0.51
2:CB:132:LYS:O	2:CB:136:MET:HB3	2.10	0.51
5:CE:137:VAL:O	5:CE:138:ARG:HB3	2.06	0.51
5:CE:155:ALA:HB1	8:CH:66:PHE:CE2	2.46	0.51
9:CI:91:ASP:OD1	9:CI:93:SER:N	2.42	0.51
1:CA:1317:C:O2'	14:CN:49:GLN:HG2	2.10	0.51
22:DA:102:U:C2	46:DY:2:LYS:HE2	2.46	0.51
22:DA:116:C:C4	22:DA:117:G:N7	2.78	0.51
22:DA:121:G:H1'	22:DA:131:A:N1	2.26	0.51
22:DA:2159:G:H2'	22:DA:2160:C:C6	2.46	0.51
22:DA:2291:U:OP1	22:DA:2380:C:O2'	2.25	0.51
22:DA:1662:U:O2	22:DA:2687:U:C5'	2.59	0.51
22:DA:2781:A:H5''	22:DA:2782:G:O5'	2.10	0.51
22:DA:2853:C:H2'	22:DA:2854:G:C8	2.46	0.51
22:DA:222:A:H3'	22:DA:421:C:H5'	1.93	0.51
22:DA:491:G:C6	22:DA:492:A:C6	2.99	0.51
23:DB:7:G:C5'	36:DO:29:HIS:CE1	2.94	0.51
25:DD:151:THR:HG22	25:DD:152:PRO:CD	2.41	0.51
22:DA:600:G:C5'	26:DE:27:LEU:HD22	2.41	0.51
22:DA:538:A:O2'	31:DJ:8:PRO:CG	2.58	0.51
32:DK:113:MET:SD	32:DK:116:ILE:HD11	2.51	0.51
40:DS:55:ILE:O	40:DS:58:ALA:HB3	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:188:C:O2	1:AA:188:C:H2'	2.10	0.51
1:AA:41:G:H2'	1:AA:42:G:C8	2.45	0.51
1:AA:702:A:H3'	1:AA:703:G:H5'	1.92	0.51
1:AA:8:A:C5	4:AD:206:LYS:HB3	2.45	0.51
3:AC:42:TYR:CZ	3:AC:90:VAL:HG21	2.46	0.51
4:AD:166:GLU:O	4:AD:167:LYS:HB2	2.10	0.51
11:AK:52:PHE:CB	11:AK:56:ARG:HB3	2.40	0.51
12:AL:43:LYS:O	12:AL:44:LYS:C	2.49	0.51
22:BA:1356:G:C2	22:BA:1357:C:C2	2.99	0.51
22:BA:1363:C:H2'	22:BA:1364:G:H8	1.76	0.51
22:BA:1909:C:H5'	22:BA:1910:G:OP2	2.10	0.51
22:BA:2071:A:H2'	22:BA:2072:C:C6	2.46	0.51
22:BA:2192:U:H2'	22:BA:2193:G:O4'	2.10	0.51
22:BA:2339:C:H2'	22:BA:2340:A:H8	1.74	0.51
23:BB:90:C:H2'	23:BB:91:C:O5'	2.11	0.51
24:BC:154:LEU:HD23	24:BC:154:LEU:N	2.26	0.51
29:BH:14:SER:OG	29:BH:17:ASP:OD1	2.29	0.51
31:BJ:38:GLY:O	31:BJ:44:TYR:HB2	2.10	0.51
35:BN:52:ILE:HG21	35:BN:94:TYR:CD2	2.46	0.51
37:BP:31:TRP:CD2	37:BP:40:LEU:HD12	2.46	0.51
39:BR:49:ILE:HB	39:BR:52:PRO:CA	2.41	0.51
45:BX:78:TYR:CG	45:BX:78:TYR:OXT	2.64	0.51
1:CA:1070:U:C2	1:CA:1071:C:C5	2.98	0.51
1:CA:1480:A:H2'	1:CA:1481:U:O4'	2.11	0.51
1:CA:158:G:C6	1:CA:159:G:C5	2.99	0.51
1:CA:495:A:N1	1:CA:496:A:N6	2.59	0.51
1:CA:547:A:P	57:CA:1775:HOH:O	2.69	0.51
1:CA:597:G:N7	1:CA:598:U:C5	2.79	0.51
1:CA:773:G:N3	1:CA:807:A:C2	2.78	0.51
2:CB:16:PHE:N	2:CB:16:PHE:CD1	2.79	0.51
4:CD:12:SER:HA	4:CD:19:LEU:HD12	1.92	0.51
12:CL:92:GLY:O	12:CL:94:ARG:HG2	2.11	0.51
15:CO:52:SER:O	15:CO:55:GLY:N	2.44	0.51
16:CP:5:ARG:O	16:CP:19:VAL:HA	2.11	0.51
22:DA:118:A:N7	22:DA:119:A:C8	2.78	0.51
22:DA:1355:G:C2	22:DA:1356:G:C8	2.98	0.51
22:DA:1576:U:O2'	22:DA:1577:C:H5'	2.11	0.51
22:DA:1734:G:H2'	22:DA:1735:A:C8	2.46	0.51
22:DA:1881:C:H2'	22:DA:1882:U:O4'	2.10	0.51
22:DA:2308:G:H5''	22:DA:2309:A:OP2	2.10	0.51
23:DB:64:G:H2'	23:DB:65:U:C6	2.46	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:147:LYS:HB2	24:DC:150:LYS:HB2	1.92	0.51
22:DA:2849:U:OP2	37:DP:93:ARG:NH2	2.44	0.51
1:AA:1227:A:C2'	1:AA:1228:C:O5'	2.58	0.50
1:AA:1461:G:C5	1:AA:1462:C:C5	2.99	0.50
1:AA:339:C:H2'	1:AA:340:U:H6	1.76	0.50
1:AA:375:U:C4	1:AA:376:G:N7	2.79	0.50
1:AA:694:A:N1	1:AA:787:A:O2'	2.44	0.50
2:AB:151:ILE:O	2:AB:152:LYS:C	2.50	0.50
2:AB:193:PRO:O	2:AB:195:GLY:N	2.39	0.50
4:AD:130:VAL:HG11	4:AD:135:TYR:CD2	2.46	0.50
7:AG:113:ASP:HB2	7:AG:119:ARG:HG3	1.93	0.50
9:AI:58:VAL:O	9:AI:59:GLU:HG2	2.11	0.50
12:AL:94:ARG:HB2	12:AL:95:TYR:CE1	2.45	0.50
22:BA:2020:A:H5'	48:B0:9:THR:CG2	2.42	0.50
49:B1:33:LYS:HA	49:B1:52:ALA:HB3	1.92	0.50
22:BA:1208:C:C4	22:BA:1209:U:C4	2.99	0.50
22:BA:1327:A:N6	22:BA:1328:A:C2	2.79	0.50
22:BA:1502:A:C2	22:BA:1503:A:C4	2.99	0.50
22:BA:1916:A:H2'	22:BA:1917:U:H4'	1.93	0.50
22:BA:2014:A:H2'	22:BA:2015:A:C8	2.47	0.50
22:BA:2341:G:H2'	22:BA:2342:C:C6	2.46	0.50
22:BA:870:U:C4	22:BA:871:U:C5	2.99	0.50
24:BC:40:SER:C	24:BC:42:GLY:N	2.64	0.50
27:BF:136:ILE:HD12	27:BF:136:ILE:N	2.26	0.50
29:BH:83:LYS:HA	29:BH:148:ALA:HA	1.93	0.50
35:BN:77:ALA:O	35:BN:79:LEU:O	2.29	0.50
39:BR:62:GLU:O	39:BR:64:VAL:CG1	2.58	0.50
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.11	0.50
1:CA:566:G:O6	57:CA:1730:HOH:O	2.19	0.50
1:CA:734:G:C2	1:CA:735:C:C6	2.99	0.50
2:CB:103:ASN:CG	2:CB:103:ASN:O	2.48	0.50
2:CB:68:LEU:HD13	2:CB:161:LEU:HD13	1.93	0.50
3:CC:77:ILE:HA	3:CC:84:VAL:HG23	1.92	0.50
4:CD:124:MET:HG3	4:CD:146:ARG:HG2	1.93	0.50
6:CF:29:ILE:HG22	6:CF:34:GLY:O	2.10	0.50
8:CH:21:ASN:O	8:CH:22:LYS:C	2.49	0.50
16:CP:36:VAL:O	16:CP:36:VAL:HG13	2.10	0.50
17:CQ:57:ASP:HB3	17:CQ:80:GLU:O	2.11	0.50
20:CT:54:MET:HE1	20:CT:58:VAL:HG21	1.93	0.50
22:DA:1288:G:C8	22:DA:1327:A:C6	2.99	0.50
22:DA:13:A:N3	22:DA:14:A:N6	2.58	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1607:C:O2	22:DA:1621:U:C5	2.64	0.50
22:DA:1645:G:H4'	22:DA:1646:C:C6	2.46	0.50
22:DA:2199:A:C4	22:DA:2225:A:N1	2.80	0.50
22:DA:2602:A:H4'	22:DA:2603:G:H5'	1.93	0.50
25:DD:125:TRP:CG	25:DD:160:LYS:HB3	2.46	0.50
25:DD:90:PHE:CE2	25:DD:96:ILE:HD11	2.46	0.50
33:DL:68:SER:O	33:DL:69:ARG:HB2	2.10	0.50
46:DY:60:LYS:O	46:DY:62:GLY:N	2.42	0.50
1:AA:1059:C:C2	1:AA:1060:U:C6	3.00	0.50
1:AA:1167:A:N7	1:AA:1169:A:C5	2.78	0.50
1:AA:1302:C:C4	13:AM:17:ILE:HD13	2.47	0.50
1:AA:1315:U:C5	1:AA:1316:G:C5	2.99	0.50
1:AA:212:G:C2	1:AA:213:G:C4	2.99	0.50
1:AA:453:G:H2'	1:AA:454:G:C8	2.47	0.50
4:AD:152:GLN:O	4:AD:153:SER:C	2.49	0.50
4:AD:3:ARG:NH2	4:AD:115:ARG:HD3	2.25	0.50
7:AG:50:LEU:O	7:AG:50:LEU:HD13	2.12	0.50
9:AI:30:ILE:HA	9:AI:65:ILE:O	2.11	0.50
33:BL:62:PRO:CG	51:B3:25:LYS:HD3	2.41	0.50
22:BA:1075:C:H2'	22:BA:1076:C:C6	2.46	0.50
22:BA:1083:U:O2	22:BA:1086:A:C2	2.64	0.50
22:BA:1090:A:C2'	22:BA:1091:G:H5'	2.41	0.50
22:BA:1936:A:C2	22:BA:1945:G:C8	2.99	0.50
22:BA:322:A:H4'	22:BA:323:C:OP2	2.12	0.50
22:BA:360:U:H3'	22:BA:361:G:C8	2.46	0.50
22:BA:796:C:H2'	22:BA:797:G:C8	2.47	0.50
27:BF:107:ALA:N	27:BF:109:PRO:HD2	2.26	0.50
27:BF:112:ARG:O	27:BF:113:ASP:HB2	2.12	0.50
27:BF:28:VAL:O	27:BF:28:VAL:HG13	2.11	0.50
41:BT:11:LEU:HD21	41:BT:46:ALA:HB3	1.93	0.50
45:BX:74:ARG:NH2	45:BX:76:GLU:HG3	2.26	0.50
1:CA:209:U:H2'	1:CA:209:U:O2	2.12	0.50
1:CA:375:U:C4	1:CA:376:G:N7	2.79	0.50
1:CA:502:A:H2'	1:CA:503:C:O4'	2.11	0.50
1:CA:736:C:H2'	1:CA:737:C:C6	2.46	0.50
1:CA:803:G:OP1	57:CA:1801:HOH:O	2.18	0.50
10:CJ:15:HIS:HB3	10:CJ:70:HIS:CD2	2.45	0.50
51:D3:52:LYS:O	51:D3:54:ASP:N	2.44	0.50
22:DA:1359:A:N7	22:DA:1373:A:C2	2.79	0.50
22:DA:2093:G:C5	22:DA:2225:A:C8	2.99	0.50
22:DA:2543:G:N3	22:DA:2765:A:H2'	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:572:A:OP2	39:DR:80:ARG:NH2	2.44	0.50
22:DA:933:A:H5'	22:DA:934:U:OP2	2.11	0.50
24:DC:158:ALA:HB1	24:DC:197:ASN:O	2.11	0.50
30:DI:90:SER:HB3	30:DI:93:PRO:HG3	1.93	0.50
39:DR:80:ARG:O	39:DR:82:HIS:N	2.41	0.50
41:DT:4:GLU:HA	41:DT:7:LEU:HB2	1.92	0.50
1:AA:1055:A:C6	1:AA:1206:G:C5	2.98	0.50
1:AA:142:G:H3'	1:AA:143:A:C8	2.46	0.50
1:AA:1405:G:H1'	1:AA:1519:A:O4'	2.11	0.50
1:AA:1525:G:OP1	11:AK:122:ARG:NH2	2.39	0.50
1:AA:32:A:OP1	1:AA:398:U:H1'	2.11	0.50
2:AB:118:GLU:HA	2:AB:121:SER:HB2	1.93	0.50
2:AB:208:ARG:O	2:AB:210:VAL:N	2.44	0.50
2:AB:35:ARG:HB3	2:AB:40:ILE:HD11	1.93	0.50
4:AD:130:VAL:HG11	4:AD:135:TYR:CG	2.46	0.50
4:AD:165:ARG:O	4:AD:167:LYS:N	2.45	0.50
10:AJ:52:LEU:CB	14:AN:81:ARG:HE	2.24	0.50
17:AQ:52:GLU:N	17:AQ:52:GLU:CD	2.64	0.50
17:AQ:46:VAL:HG13	17:AQ:73:TRP:O	2.10	0.50
21:AU:14:VAL:O	21:AU:16:LEU:HG	2.11	0.50
22:BA:1885:A:C5	22:BA:1886:U:C5	2.99	0.50
22:BA:2191:A:N1	22:BA:2192:U:C4	2.79	0.50
22:BA:608:A:C6	22:BA:609:A:C6	3.00	0.50
22:BA:784:G:H5'	22:BA:785:G:OP1	2.11	0.50
22:BA:669:G:C6	22:BA:801:G:C6	2.99	0.50
27:BF:36:LEU:HD11	27:BF:99:PHE:CZ	2.47	0.50
23:BB:30:C:OP1	36:BO:3:LYS:NZ	2.44	0.50
38:BQ:78:LYS:O	38:BQ:81:ASN:N	2.44	0.50
1:CA:991:U:C4	1:CA:1212:U:O4'	2.64	0.50
1:CA:207:C:C2'	1:CA:207:C:O2	2.59	0.50
1:CA:386:C:N4	1:CA:387:U:O4	2.43	0.50
1:CA:755:G:C2	1:CA:756:C:C5	3.00	0.50
1:CA:76:G:C2	1:CA:95:C:N3	2.79	0.50
1:CA:998:C:H2'	1:CA:999:C:C6	2.46	0.50
2:CB:128:LYS:O	2:CB:129:LEU:HB2	2.11	0.50
2:CB:67:ILE:HG22	2:CB:68:LEU:N	2.26	0.50
5:CE:147:MET:HG2	5:CE:147:MET:O	2.10	0.50
50:D2:18:PHE:O	50:D2:20:ALA:N	2.45	0.50
22:DA:1304:A:C6	22:DA:1305:C:C5	2.99	0.50
22:DA:1415:U:C2	22:DA:1588:G:C2	2.99	0.50
22:DA:1917:U:H2'	22:DA:1918:A:H5'	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2093:G:O2'	29:DH:25:TYR:CB	2.59	0.50
22:DA:222:A:C8	22:DA:224:U:C5	2.99	0.50
22:DA:2415:G:C2	22:DA:2416:C:C2	2.99	0.50
23:DB:96:G:C6	23:DB:97:C:C4	2.99	0.50
28:DG:45:HIS:O	28:DG:46:ALA:HB3	2.11	0.50
29:DH:44:ILE:O	29:DH:48:GLU:HB2	2.11	0.50
35:DN:114:GLU:OE2	35:DN:118:ARG:HD2	2.11	0.50
35:DN:12:ARG:O	35:DN:17:ARG:NH2	2.44	0.50
40:DS:37:THR:OG1	40:DS:48:LYS:NZ	2.41	0.50
45:DX:10:LYS:HE3	45:DX:54:LYS:CD	2.42	0.50
1:AA:1107:C:C4	1:AA:1108:G:N7	2.80	0.50
1:AA:39:G:N7	1:AA:547:A:H8	2.09	0.50
1:AA:579:A:O2'	15:AO:54:ARG:NH1	2.45	0.50
1:AA:701:U:H4'	1:AA:702:A:O5'	2.12	0.50
5:AE:115:LEU:HG	5:AE:120:VAL:HG21	1.94	0.50
14:AN:3:LYS:O	14:AN:4:GLN:C	2.50	0.50
22:BA:1842:G:C5	22:BA:1843:C:C5	2.99	0.50
22:BA:2018:G:O2'	22:BA:2019:A:H5'	2.11	0.50
22:BA:2514:U:H2'	22:BA:2515:C:C6	2.46	0.50
22:BA:669:G:C2'	22:BA:669:G:N3	2.73	0.50
24:BC:174:LEU:N	24:BC:174:LEU:HD13	2.27	0.50
29:BH:80:ILE:O	29:BH:147:VAL:N	2.44	0.50
30:BI:39:CYS:CA	30:BI:42:PHE:HB3	2.41	0.50
39:BR:29:THR:HG22	39:BR:29:THR:O	2.12	0.50
41:BT:64:LYS:HA	41:BT:79:ASP:OD1	2.10	0.50
1:CA:135:C:O2	16:CP:1:MET:HB2	2.11	0.50
1:CA:734:G:N3	1:CA:735:C:C6	2.79	0.50
2:CB:50:PHE:CD1	2:CB:54:LEU:HD23	2.46	0.50
2:CB:62:SER:C	2:CB:64:LYS:N	2.63	0.50
2:CB:83:ALA:O	2:CB:86:SER:OG	2.24	0.50
4:CD:119:SER:O	4:CD:131:ASN:OD1	2.30	0.50
5:CE:102:GLY:O	5:CE:104:GLY:CA	2.59	0.50
22:DA:1027:A:C6	22:DA:1126:A:N3	2.79	0.50
22:DA:1343:G:N2	22:DA:1405:U:C2	2.80	0.50
22:DA:158:U:O4	22:DA:159:G:C6	2.64	0.50
22:DA:1794:A:H1'	22:DA:1900:A:C2	2.46	0.50
22:DA:2037:A:N6	22:DA:2038:G:O6	2.45	0.50
22:DA:2415:G:C5	22:DA:2416:C:C5	3.00	0.50
22:DA:2469:A:O2'	34:DM:55:ARG:CZ	2.60	0.50
22:DA:510:C:OP1	57:DA:3765:HOH:O	2.19	0.50
22:DA:585:G:H2'	22:DA:586:A:N7	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:58:A:H2'	23:DB:59:A:O4'	2.12	0.50
24:DC:210:ALA:HA	24:DC:213:TRP:NE1	2.26	0.50
35:DN:28:LEU:O	35:DN:32:GLU:HA	2.12	0.50
22:DA:2019:A:H4'	38:DQ:34:VAL:CG2	2.41	0.50
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.11	0.50
1:AA:1478:U:H2'	1:AA:1479:C:H6	1.76	0.50
1:AA:212:G:C2	1:AA:213:G:C5	2.99	0.50
1:AA:485:U:O4'	1:AA:485:U:O2	2.29	0.50
1:AA:69:G:O6	1:AA:98:A:N6	2.45	0.50
1:AA:829:G:C6	1:AA:858:G:C2	2.99	0.50
1:AA:880:C:OP2	12:AL:3:THR:HG21	2.11	0.50
4:AD:147:GLU:O	4:AD:148:LYS:C	2.49	0.50
4:AD:161:LEU:HD22	4:AD:161:LEU:N	2.27	0.50
4:AD:35:GLU:O	4:AD:38:PRO:HD3	2.12	0.50
7:AG:57:SER:OG	7:AG:58:GLU:N	2.43	0.50
1:AA:1313:U:OP2	19:AS:6:LYS:HB3	2.12	0.50
21:AU:14:VAL:CG1	21:AU:16:LEU:CD2	2.90	0.50
1:AA:723:U:H5''	21:AU:49:LYS:HG2	1.93	0.50
48:B0:55:ILE:O	48:B0:56:ALA:HB3	2.12	0.50
22:BA:1525:A:C5	22:BA:1526:C:C5	2.99	0.50
1:AA:1407:C:O2'	22:BA:1912:A:C6	2.60	0.50
22:BA:2166:U:O4	22:BA:2170:A:N7	2.45	0.50
22:BA:2593:U:C2	22:BA:2594:C:C5	3.00	0.50
26:BE:149:ILE:HD11	26:BE:172:ALA:CA	2.41	0.50
29:BH:66:ASN:OD1	29:BH:138:VAL:HG21	2.11	0.50
39:BR:71:LYS:HA	39:BR:90:ARG:HG2	1.92	0.50
45:BX:78:TYR:CD1	45:BX:78:TYR:OXT	2.65	0.50
1:CA:1380:U:C5	7:CG:3:ARG:HA	2.47	0.50
4:CD:161:LEU:HD23	4:CD:162:ALA:N	2.26	0.50
1:CA:8:A:N6	4:CD:206:LYS:HB3	2.26	0.50
5:CE:125:ALA:O	5:CE:126:LYS:HB3	2.11	0.50
10:CJ:6:ILE:HD11	10:CJ:79:PRO:HA	1.93	0.50
12:CL:28:PRO:HB2	12:CL:29:GLN:OE1	2.12	0.50
20:CT:57:ILE:O	20:CT:61:GLN:HG2	2.12	0.50
22:DA:980:A:C4	22:DA:1136:G:O4'	2.63	0.50
22:DA:1323:C:N4	22:DA:1324:G:C6	2.78	0.50
22:DA:1544:A:C6	22:DA:1545:A:N1	2.79	0.50
22:DA:1677:A:H5''	57:DA:3433:HOH:O	2.11	0.50
22:DA:1726:C:H2'	22:DA:1727:C:H6	1.76	0.50
22:DA:740:C:H5'	22:DA:1784:A:O2'	2.11	0.50
22:DA:1363:C:O2'	22:DA:1809:A:N3	2.42	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1833:C:N4	22:DA:1834:U:O4	2.45	0.50
22:DA:2094:A:H5'	29:DH:25:TYR:CD1	2.45	0.50
22:DA:2373:G:C6	22:DA:2374:C:N4	2.80	0.50
22:DA:2440:C:C4	22:DA:2441:U:H1'	2.46	0.50
22:DA:269:C:N3	22:DA:270:A:C8	2.79	0.50
55:DA:3001:VIR:H352	55:DA:3001:VIR:C31	2.32	0.50
22:DA:619:G:O6	26:DE:98:LYS:NZ	2.31	0.50
22:DA:699:A:H2'	22:DA:700:G:O4'	2.11	0.50
22:DA:760:G:C6	22:DA:761:A:C4	3.00	0.50
42:DU:96:PHE:CZ	42:DU:103:ILE:CG1	2.95	0.50
1:AA:1008:U:H2'	1:AA:1009:U:C6	2.47	0.50
1:AA:1157:A:N6	1:AA:1180:A:N7	2.60	0.50
1:AA:1163:A:H2'	1:AA:1164:G:C8	2.46	0.50
1:AA:582:C:C4	1:AA:583:A:N7	2.80	0.50
1:AA:721:G:H4'	1:AA:722:G:C5'	2.42	0.50
1:AA:828:U:H2'	1:AA:829:G:O5'	2.11	0.50
1:AA:998:C:H2'	1:AA:999:C:C6	2.47	0.50
2:AB:132:LYS:O	2:AB:136:MET:HB2	2.12	0.50
9:AI:43:THR:O	9:AI:44:ALA:HB3	2.12	0.50
1:AA:1329:A:H5''	13:AM:26:GLY:N	2.26	0.50
17:AQ:50:ASN:O	17:AQ:51:ASN:C	2.49	0.50
19:AS:5:LEU:O	19:AS:6:LYS:HD2	2.11	0.50
21:AU:37:PHE:HA	21:AU:40:LYS:HE3	1.94	0.50
53:B5:65:LEU:HD11	53:B5:191:ARG:CA	2.41	0.50
22:BA:1022:G:N7	31:BJ:68:LYS:HE2	2.27	0.50
22:BA:1587:G:C4	22:BA:1588:G:C8	3.00	0.50
22:BA:1866:A:C2	22:BA:1876:A:C4	2.99	0.50
22:BA:1917:U:H2'	22:BA:1918:A:H5'	1.94	0.50
22:BA:2023:C:O2'	22:BA:2024:G:H5'	2.11	0.50
22:BA:2153:C:H2'	22:BA:2154:A:O4'	2.12	0.50
22:BA:2176:A:C6	22:BA:2177:C:N4	2.80	0.50
22:BA:487:C:O2	40:BS:53:SER:OG	2.29	0.50
22:BA:571:U:C4	22:BA:575:A:C4	3.00	0.50
22:BA:688:U:OP2	50:B2:2:LYS:NZ	2.44	0.50
22:BA:84:A:N1	22:BA:98:G:O2'	2.33	0.50
25:BD:28:GLU:OE2	25:BD:30:GLU:HG3	2.12	0.50
27:BF:119:ALA:HB2	27:BF:177:PHE:CD1	2.47	0.50
27:BF:8:TYR:HA	27:BF:12:VAL:HG23	1.92	0.50
36:BO:101:GLY:O	36:BO:103:VAL:N	2.45	0.50
1:CA:1162:C:C2	1:CA:1175:G:C2	3.00	0.50
1:CA:1317:C:N4	1:CA:1318:A:N3	2.60	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1422:G:C2	1:CA:1423:G:C8	2.99	0.50
1:CA:1437:A:C2	1:CA:1465:A:C2	3.00	0.50
1:CA:1478:U:H2'	1:CA:1479:C:C6	2.46	0.50
1:CA:1416:G:N2	1:CA:1485:U:H1'	2.25	0.50
2:CB:68:LEU:HD12	2:CB:158:PRO:HG2	1.92	0.50
4:CD:116:GLN:HG3	4:CD:120:HIS:CE1	2.46	0.50
8:CH:126:ILE:HD12	8:CH:126:ILE:N	2.26	0.50
20:CT:25:ARG:O	20:CT:29:ARG:HG3	2.10	0.50
50:D2:12:ARG:NH2	50:D2:44:VAL:CG1	2.75	0.50
22:DA:1305:C:N4	22:DA:1607:C:OP2	2.44	0.50
22:DA:2785:C:H2'	22:DA:2786:U:O4'	2.12	0.50
22:DA:2849:U:OP2	37:DP:93:ARG:NE	2.45	0.50
25:DD:84:LEU:HD13	25:DD:88:GLU:HB2	1.94	0.50
27:DF:126:GLY:O	27:DF:158:THR:CG2	2.60	0.50
28:DG:96:ALA:N	28:DG:128:GLN:O	2.45	0.50
28:DG:12:PRO:HD2	28:DG:15:VAL:HG21	1.94	0.50
28:DG:169:VAL:O	28:DG:169:VAL:HG12	2.11	0.50
29:DH:5:LEU:HD11	29:DH:13:GLY:HA2	1.93	0.50
30:DI:10:LYS:HB2	30:DI:56:PRO:CB	2.42	0.50
31:DJ:81:ILE:HG12	31:DJ:82:GLY:N	2.27	0.50
40:DS:49:LYS:O	40:DS:53:SER:HB2	2.12	0.50
43:DV:38:LEU:HD23	43:DV:40:ILE:CD1	2.42	0.50
43:DV:51:GLN:HA	43:DV:56:PHE:HB2	1.93	0.50
1:AA:1324:A:C6	1:AA:1325:C:C4	3.00	0.50
1:AA:937:A:C2	1:AA:1379:G:O6	2.65	0.50
1:AA:819:A:N7	1:AA:1529:G:C2	2.80	0.50
1:AA:211:G:N2	1:AA:212:G:C8	2.80	0.50
1:AA:686:U:O4	1:AA:703:G:O2'	2.21	0.50
4:AD:138:SER:N	4:AD:141:ASP:OD2	2.43	0.50
4:AD:17:THR:CG2	4:AD:18:ASP:N	2.73	0.50
5:AE:50:TYR:CE1	5:AE:134:ILE:HD11	2.47	0.50
8:AH:42:GLU:OE1	8:AH:42:GLU:CA	2.60	0.50
13:AM:6:GLY:C	13:AM:8:ASN:N	2.61	0.50
16:AP:67:ILE:HG23	16:AP:71:VAL:HG12	1.94	0.50
53:B5:174:ALA:O	53:B5:175:PRO:CB	2.59	0.50
22:BA:1746:A:H2'	22:BA:1747:U:H6	1.73	0.50
22:BA:545:U:H1'	22:BA:548:G:OP2	2.12	0.50
27:BF:80:ARG:HG2	27:BF:81:GLN:N	2.27	0.50
39:BR:51:VAL:HB	39:BR:52:PRO:CD	2.42	0.50
41:BT:57:VAL:CG2	41:BT:58:VAL:N	2.74	0.50
43:BV:50:MET:HE2	43:BV:56:PHE:HE1	1.77	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1027:C:N4	1:CA:1034:G:N1	2.59	0.50
1:CA:756:C:C2	1:CA:757:U:C6	3.00	0.50
1:CA:805:C:H2'	1:CA:806:C:H6	1.77	0.50
2:CB:102:THR:HG23	2:CB:102:THR:O	2.11	0.50
4:CD:31:LYS:O	4:CD:32:CYS:HB3	2.10	0.50
12:CL:74:LEU:HD11	12:CL:80:ILE:HG21	1.93	0.50
20:CT:69:LYS:CB	20:CT:70:ASN:OD1	2.59	0.50
22:DA:1224:U:C4	22:DA:1225:G:C6	2.99	0.50
22:DA:1308:A:H2'	22:DA:1309:G:O4'	2.10	0.50
22:DA:1464:G:C4	22:DA:1465:G:C8	3.00	0.50
22:DA:1471:G:H2'	22:DA:1472:C:C6	2.46	0.50
22:DA:1605:C:H2'	22:DA:1606:C:H5'	1.93	0.50
22:DA:1958:C:P	57:DA:3729:HOH:O	2.69	0.50
24:DC:30:PHE:CE2	24:DC:32:PRO:HG2	2.46	0.50
32:DK:31:ARG:HB3	32:DK:32:TYR:CE1	2.47	0.50
32:DK:99:ILE:HD13	32:DK:118:LEU:HD12	1.94	0.50
33:DL:101:ILE:O	33:DL:105:ILE:HG13	2.12	0.50
33:DL:117:THR:HG22	33:DL:118:THR:N	2.26	0.50
42:DU:12:ILE:HG13	42:DU:21:LYS:O	2.11	0.50
1:AA:1406:U:C6	1:AA:1407:C:C5	3.00	0.50
1:AA:582:C:C2	1:AA:583:A:C8	3.00	0.50
2:AB:51:ASN:O	2:AB:52:GLU:HB2	2.12	0.50
2:AB:95:ARG:NH1	2:AB:97:LEU:HA	2.27	0.50
6:AF:17:GLN:OE1	6:AF:24:ARG:NH2	2.45	0.50
12:AL:3:THR:HB	12:AL:6:GLN:HG3	1.93	0.50
12:AL:3:THR:HG22	12:AL:5:ASN:N	2.26	0.50
12:AL:24:LEU:HB2	12:AL:59:ASN:ND2	2.27	0.50
17:AQ:81:LYS:N	17:AQ:81:LYS:CD	2.75	0.50
19:AS:23:VAL:HG12	19:AS:24:GLU:N	2.27	0.50
19:AS:51:VAL:HG22	19:AS:71:LEU:CD1	2.41	0.50
22:BA:1176:U:H4'	22:BA:1176:U:OP1	2.11	0.50
22:BA:142:A:N7	22:BA:143:C:C4	2.80	0.50
22:BA:2419:U:OP1	51:B3:41:LYS:HE2	2.12	0.50
22:BA:480:A:H2'	22:BA:481:G:OP1	2.12	0.50
23:BB:13:G:H21	23:BB:16:G:H1'	1.76	0.50
24:BC:123:ALA:O	24:BC:125:LYS:N	2.45	0.50
24:BC:141:VAL:HG13	24:BC:191:THR:O	2.11	0.50
29:BH:43:ASN:O	29:BH:46:PHE:HB3	2.12	0.50
34:BM:55:ARG:CZ	34:BM:55:ARG:CB	2.90	0.50
46:BY:56:LEU:O	46:BY:57:LEU:CB	2.59	0.50
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.47	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:160:A:C6	1:CA:346:G:O6	2.65	0.50
1:CA:540:G:C6	1:CA:541:G:C5	2.99	0.50
1:CA:552:U:H4'	12:CL:83:ARG:CG	2.42	0.50
5:CE:15:LEU:HD12	5:CE:15:LEU:C	2.31	0.50
7:CG:93:PRO:O	7:CG:97:ASN:ND2	2.45	0.50
13:CM:91:HIS:HA	13:CM:109:ARG:HH21	1.77	0.50
16:CP:19:VAL:HG12	16:CP:37:GLY:C	2.31	0.50
17:CQ:47:HIS:HA	17:CQ:71:LYS:HE2	1.94	0.50
21:CU:24:GLU:HG3	21:CU:28:VAL:HG21	1.94	0.50
22:DA:1378:A:C4	22:DA:1380:G:N7	2.80	0.50
22:DA:1544:A:C6	22:DA:1545:A:C6	3.00	0.50
22:DA:1310:G:N2	22:DA:1605:C:C2	2.80	0.50
22:DA:1623:G:C2	22:DA:1624:U:C6	3.00	0.50
22:DA:218:A:C2	22:DA:219:A:C4	3.00	0.50
22:DA:2547:A:H2'	22:DA:2548:U:C6	2.47	0.50
22:DA:2734:A:C8	22:DA:2735:G:C8	3.00	0.50
22:DA:404:A:C4'	22:DA:405:U:OP2	2.60	0.50
22:DA:528:A:C2	22:DA:2043:C:H5'	2.46	0.50
22:DA:82:U:O2	22:DA:83:A:C8	2.65	0.50
22:DA:947:A:HO2'	22:DA:984:A:H2	1.60	0.50
30:DI:101:ILE:O	30:DI:102:SER:CB	2.59	0.50
39:DR:29:THR:O	39:DR:63:VAL:O	2.30	0.50
22:DA:396:G:H4'	45:DX:29:PHE:O	2.12	0.50
1:AA:1314:C:O2'	1:AA:1315:U:H5'	2.12	0.50
1:AA:206:C:H2'	1:AA:207:C:O4'	2.12	0.50
2:AB:18:HIS:O	2:AB:19:GLN:HB2	2.10	0.50
3:AC:97:VAL:HB	3:AC:98:PRO:CD	2.42	0.50
4:AD:3:ARG:CZ	4:AD:115:ARG:CD	2.89	0.50
9:AI:115:LYS:O	9:AI:116:VAL:C	2.50	0.50
12:AL:38:TYR:O	12:AL:39:THR:CG2	2.60	0.50
13:AM:95:LEU:HB3	13:AM:96:PRO:HD2	1.94	0.50
14:AN:75:ARG:O	14:AN:76:LYS:C	2.51	0.50
15:AO:46:HIS:O	15:AO:48:LYS:N	2.42	0.50
53:B5:65:LEU:HD11	53:B5:191:ARG:CB	2.42	0.50
22:BA:1372:U:O2'	22:BA:1373:A:H5'	2.12	0.50
22:BA:1376:C:H2'	22:BA:1377:G:O4'	2.11	0.50
22:BA:1429:G:N2	22:BA:1430:G:C4	2.80	0.50
22:BA:142:A:H2'	22:BA:143:C:O4'	2.12	0.50
22:BA:2825:G:H2'	22:BA:2826:A:H5'	1.93	0.50
22:BA:508:A:H4'	22:BA:509:C:OP2	2.12	0.50
22:BA:86:G:C2	22:BA:97:C:C2	2.99	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:85:G:O2'	23:BB:86:G:H5'	2.12	0.50
25:BD:38:LYS:O	25:BD:46:ARG:HA	2.11	0.50
26:BE:15:SER:N	26:BE:197:GLU:OE2	2.38	0.50
22:BA:2360:G:H1'	33:BL:60:ARG:HD3	1.93	0.50
37:BP:93:ARG:O	37:BP:94:LYS:HB2	2.11	0.50
1:CA:1240:U:OP2	7:CG:116:MET:HB3	2.12	0.50
1:CA:429:U:H4'	1:CA:430:A:OP1	2.11	0.50
1:CA:716:A:C2	1:CA:717:U:O2	2.65	0.50
1:CA:774:G:C5	1:CA:775:G:N7	2.79	0.50
4:CD:173:VAL:O	4:CD:174:ASP:HB3	2.11	0.50
6:CF:38:ARG:CG	6:CF:63:ASN:HB2	2.41	0.50
10:CJ:67:ILE:HG13	14:CN:96:LEU:HD13	1.94	0.50
1:CA:1279:G:OP1	10:CJ:9:ARG:NH2	2.45	0.50
11:CK:17:SER:OG	11:CK:18:ASP:N	2.45	0.50
15:CO:27:VAL:HG12	15:CO:28:GLN:N	2.26	0.50
22:DA:1924:C:H2'	22:DA:1925:C:O4'	2.12	0.50
22:DA:584:C:N4	22:DA:585:G:C6	2.80	0.50
28:DG:83:PHE:CE2	28:DG:138:LYS:HB2	2.46	0.50
22:DA:2199:A:C4'	29:DH:28:ASN:HD21	2.23	0.50
22:DA:1082:U:OP1	30:DI:124:ALA:HB2	2.11	0.50
34:DM:59:ARG:O	34:DM:59:ARG:CD	2.60	0.50
1:AA:1322:C:O2'	1:AA:1323:G:OP2	2.24	0.49
3:AC:71:ALA:O	3:AC:72:ARG:HG2	2.12	0.49
4:AD:170:TRP:CD2	4:AD:186:PRO:HG3	2.47	0.49
1:AA:545:C:H5'	4:AD:69:GLU:HG3	1.94	0.49
5:AE:104:GLY:HA3	5:AE:122:ASN:HA	1.94	0.49
6:AF:64:VAL:HG12	6:AF:65:GLU:N	2.27	0.49
8:AH:11:LEU:HD12	8:AH:77:ARG:HG2	1.94	0.49
13:AM:40:ALA:O	13:AM:43:VAL:HG22	2.12	0.49
15:AO:24:SER:O	15:AO:25:THR:C	2.49	0.49
20:AT:54:MET:HA	20:AT:57:ILE:HG22	1.94	0.49
48:B0:10:ARG:HB2	48:B0:13:ARG:NH2	2.26	0.49
22:BA:1474:U:C2'	22:BA:1475:G:H5'	2.42	0.49
22:BA:1842:G:C6	22:BA:1843:C:C4	3.00	0.49
22:BA:2391:G:O2'	22:BA:2424:C:N4	2.42	0.49
22:BA:2583:G:H2'	22:BA:2584:U:O5'	2.11	0.49
22:BA:2756:U:OP2	52:B4:19:ARG:NE	2.45	0.49
22:BA:567:U:C2'	22:BA:568:U:O5'	2.59	0.49
27:BF:108:VAL:HG13	27:BF:114:PHE:CZ	2.47	0.49
32:BK:2:ILE:HG23	32:BK:6:THR:HG21	1.92	0.49
38:BQ:109:LEU:HD11	39:BR:40:MET:HE1	1.93	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:66:HIS:CE1	39:BR:94:THR:CG2	2.95	0.49
44:BW:46:HIS:CE1	44:BW:77:ARG:HD3	2.47	0.49
1:CA:207:C:HO2'	1:CA:213:G:N2	2.10	0.49
1:CA:355:C:C4	1:CA:356:A:N7	2.79	0.49
1:CA:811:C:C4	1:CA:812:G:C6	3.00	0.49
2:CB:81:LYS:HG2	2:CB:85:LEU:HD23	1.93	0.49
8:CH:18:GLN:NE2	8:CH:70:ALA:HB1	2.27	0.49
17:CQ:49:GLU:O	17:CQ:50:ASN:CG	2.50	0.49
22:DA:1115:G:O2'	22:DA:1116:G:OP2	2.24	0.49
22:DA:1862:G:C2	22:DA:1881:C:C2	3.00	0.49
22:DA:479:A:H1'	22:DA:481:G:H5'	1.94	0.49
22:DA:53:A:N7	22:DA:54:G:C8	2.80	0.49
29:DH:127:GLU:HG3	29:DH:145:ASN:HA	1.93	0.49
36:DO:64:TYR:O	36:DO:67:ASN:ND2	2.45	0.49
36:DO:74:VAL:O	36:DO:78:VAL:HG23	2.12	0.49
39:DR:80:ARG:C	39:DR:82:HIS:H	2.15	0.49
41:DT:72:GLN:O	41:DT:73:ARG:C	2.51	0.49
1:AA:114:U:O2'	1:AA:115:G:H5'	2.12	0.49
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.94	0.49
1:AA:141:G:C2	1:AA:142:G:H1'	2.47	0.49
1:AA:202:G:N2	1:AA:216:U:O2	2.44	0.49
1:AA:258:G:C4	1:AA:259:G:C8	3.00	0.49
1:AA:792:A:H1'	1:AA:794:A:N7	2.27	0.49
3:AC:167:TRP:HE3	3:AC:167:TRP:C	2.15	0.49
4:AD:168:PRO:HG2	4:AD:171:LEU:HD11	1.95	0.49
4:AD:155:VAL:CG1	4:AD:178:MET:HE1	2.42	0.49
4:AD:190:ASP:O	4:AD:191:LEU:HD12	2.11	0.49
6:AF:68:GLN:HA	6:AF:71:ILE:HG22	1.94	0.49
10:AJ:8:ILE:O	10:AJ:73:LEU:O	2.30	0.49
11:AK:74:VAL:C	11:AK:76:GLU:N	2.62	0.49
14:AN:43:ASN:O	14:AN:45:VAL:N	2.45	0.49
20:AT:67:ILE:HG13	20:AT:71:LYS:HG2	1.94	0.49
22:BA:1026:G:H2'	22:BA:1027:A:C8	2.47	0.49
22:BA:2727:A:H2'	22:BA:2728:U:H5'	1.94	0.49
22:BA:304:U:H2'	22:BA:305:C:C6	2.46	0.49
22:BA:404:A:H1'	22:BA:405:U:OP2	2.12	0.49
24:BC:17:VAL:HB	24:BC:204:VAL:HG13	1.94	0.49
27:BF:119:ALA:HB1	27:BF:167:ARG:CD	2.43	0.49
29:BH:99:ILE:O	29:BH:99:ILE:HG22	2.12	0.49
30:BI:96:ASP:O	30:BI:98:VAL:HG23	2.12	0.49
44:BW:20:ARG:HD2	44:BW:20:ARG:N	2.26	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1213:A:C6	1:CA:1215:G:N3	2.81	0.49
1:CA:155:A:C2	1:CA:167:A:C5	3.00	0.49
1:CA:55:A:N7	1:CA:56:U:C5	2.80	0.49
1:CA:976:G:N2	1:CA:1363:A:C2	2.81	0.49
3:CC:145:GLY:O	3:CC:146:ALA:O	2.29	0.49
4:CD:196:ASN:HB3	4:CD:198:HIS:CD2	2.47	0.49
18:CR:67:LEU:HD23	18:CR:67:LEU:N	2.27	0.49
22:DA:2285:C:HO2'	22:DA:2288:A:HO2'	1.60	0.49
22:DA:379:G:C6	22:DA:396:G:C6	2.99	0.49
22:DA:602:A:H2'	22:DA:655:A:N1	2.26	0.49
22:DA:681:G:C2	22:DA:682:G:C8	3.00	0.49
22:DA:952:G:C2	22:DA:966:G:C2	3.00	0.49
28:DG:118:PRO:HG3	28:DG:144:VAL:CG2	2.41	0.49
28:DG:129:THR:C	28:DG:130:GLU:HG2	2.31	0.49
31:DJ:7:LYS:O	31:DJ:11:VAL:HG23	2.11	0.49
36:DO:53:THR:HG23	36:DO:74:VAL:HG21	1.94	0.49
1:AA:507:C:C4	1:AA:508:U:C5	3.00	0.49
1:AA:73:C:HO2'	1:AA:74:A:C5'	2.26	0.49
3:AC:150:LYS:HG3	3:AC:201:TRP:CE3	2.47	0.49
3:AC:40:ARG:NH1	3:AC:57:ILE:HD12	2.27	0.49
11:AK:25:ALA:HA	11:AK:30:THR:HG22	1.94	0.49
14:AN:43:ASN:C	14:AN:45:VAL:N	2.66	0.49
20:AT:69:LYS:NZ	20:AT:70:ASN:OD1	2.42	0.49
48:B0:27:SER:O	48:B0:28:LEU:C	2.50	0.49
22:BA:1014:A:C2	22:BA:1149:G:C2	3.00	0.49
22:BA:1142:A:C2	22:BA:1144:A:C1'	2.95	0.49
22:BA:1263:U:OP1	48:B0:13:ARG:NH1	2.45	0.49
22:BA:1588:G:N3	22:BA:1589:U:C6	2.80	0.49
22:BA:1791:A:O2'	24:BC:206:GLY:CA	2.61	0.49
22:BA:1911:U:H2'	22:BA:1918:A:N1	2.27	0.49
22:BA:1935:G:C6	22:BA:1962:C:C5	2.99	0.49
22:BA:2191:A:C6	22:BA:2192:U:C4	3.00	0.49
29:BH:86:ASP:O	29:BH:87:GLU:HB2	2.11	0.49
32:BK:34:GLY:O	32:BK:35:VAL:C	2.50	0.49
33:BL:64:PHE:CE1	51:B3:47:LYS:HE2	2.47	0.49
38:BQ:76:TYR:CE2	38:BQ:80:ILE:HG13	2.47	0.49
1:CA:1077:G:C2	1:CA:1081:A:C2	3.00	0.49
1:CA:1300:G:C6	1:CA:1335:U:C6	3.00	0.49
1:CA:976:G:C2	1:CA:1363:A:C2	3.00	0.49
1:CA:1386:G:C2	1:CA:1387:G:N7	2.80	0.49
1:CA:405:U:OP1	1:CA:406:G:O2'	2.21	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:930:C:C4	1:CA:931:C:C5	3.00	0.49
9:CI:26:GLY:N	9:CI:61:LEU:O	2.45	0.49
16:CP:70:ARG:O	16:CP:74:LEU:HD23	2.11	0.49
22:DA:1047:G:N2	22:DA:1110:G:O2'	2.45	0.49
22:DA:1194:A:H2'	22:DA:1195:G:O5'	2.12	0.49
22:DA:1462:C:C2	22:DA:1463:C:C5	3.00	0.49
22:DA:2093:G:N7	22:DA:2225:A:H2'	2.27	0.49
22:DA:2119:A:C2	22:DA:2170:A:C4	3.00	0.49
22:DA:362:A:C5	22:DA:363:G:C8	3.00	0.49
22:DA:377:G:C6	22:DA:378:C:C4	3.01	0.49
22:DA:49:A:C5	22:DA:177:G:C6	3.00	0.49
32:DK:63:VAL:O	32:DK:64:ARG:HG2	2.11	0.49
46:DY:20:ASN:O	46:DY:24:GLU:HB2	2.11	0.49
1:AA:1394:A:N1	1:AA:1500:A:O2'	2.33	0.49
1:AA:1426:G:H2'	1:AA:1427:C:O4'	2.11	0.49
1:AA:212:G:N2	1:AA:213:G:N3	2.61	0.49
1:AA:402:G:C6	1:AA:403:C:C4	3.00	0.49
1:AA:96:U:HO2'	1:AA:97:G:P	2.36	0.49
2:AB:104:TRP:CH2	2:AB:154:MET:HB3	2.48	0.49
2:AB:184:PHE:CZ	2:AB:198:PHE:CD2	3.00	0.49
2:AB:207:ILE:HD13	2:AB:207:ILE:N	2.27	0.49
4:AD:95:GLU:OE2	4:AD:104:ARG:NH1	2.46	0.49
8:AH:66:PHE:CD2	8:AH:67:GLN:HG2	2.47	0.49
12:AL:86:ARG:NH2	12:AL:88:LYS:HD2	2.28	0.49
1:AA:1048:G:OP1	14:AN:3:LYS:HA	2.11	0.49
22:BA:1796:U:H2'	22:BA:1797:G:C8	2.47	0.49
22:BA:1847:A:H2'	22:BA:1848:A:C8	2.47	0.49
22:BA:1899:A:O2'	22:BA:1900:A:H5''	2.11	0.49
1:AA:1407:C:O2'	22:BA:1912:A:N1	2.39	0.49
22:BA:2093:G:O2'	22:BA:2094:A:H5'	2.12	0.49
22:BA:231:A:C6	22:BA:232:G:C2	3.00	0.49
22:BA:278:A:N1	22:BA:362:A:C8	2.80	0.49
22:BA:852:U:H2'	22:BA:853:C:C6	2.48	0.49
31:BJ:136:GLN:N	31:BJ:137:PRO:CD	2.74	0.49
32:BK:25:LEU:HD12	32:BK:38:ILE:HG22	1.93	0.49
33:BL:91:ASP:O	33:BL:94:THR:HB	2.12	0.49
34:BM:51:ARG:O	34:BM:55:ARG:HG3	2.12	0.49
36:BO:67:ASN:HA	36:BO:102:ARG:HD3	1.95	0.49
39:BR:27:ILE:HG22	39:BR:63:VAL:HG21	1.94	0.49
40:BS:96:ILE:CD1	40:BS:98:LYS:HG3	2.42	0.49
43:BV:89:ILE:HG21	43:BV:91:PHE:CZ	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1061:G:N7	1:CA:1062:U:C5	2.80	0.49
1:CA:1417:G:N2	1:CA:1484:C:C4	2.81	0.49
1:CA:533:A:H2'	57:CA:1762:HOH:O	2.11	0.49
1:CA:662:U:H2'	1:CA:663:A:C8	2.47	0.49
1:CA:922:G:H4'	5:CE:25:VAL:HA	1.95	0.49
1:CA:96:U:O2'	1:CA:97:G:OP1	2.25	0.49
9:CI:97:GLU:OE2	9:CI:97:GLU:N	2.45	0.49
14:CN:80:SER:O	14:CN:83:LYS:N	2.46	0.49
15:CO:42:HIS:O	15:CO:45:GLU:O	2.30	0.49
1:CA:186:C:O4'	20:CT:76:LYS:HD2	2.12	0.49
22:DA:1280:G:C6	22:DA:1281:G:C5	3.00	0.49
22:DA:1688:U:C4	22:DA:1698:A:C2	3.01	0.49
22:DA:208:C:H2'	22:DA:209:C:C6	2.48	0.49
22:DA:2223:G:H2'	22:DA:2224:G:H5'	1.94	0.49
22:DA:2283:C:C2	22:DA:2389:G:C2	3.00	0.49
22:DA:2652:C:C4	22:DA:2653:U:C4	3.01	0.49
22:DA:223:A:C4	22:DA:408:G:H1'	2.47	0.49
22:DA:222:A:H3'	22:DA:421:C:C5'	2.43	0.49
22:DA:757:G:H2'	22:DA:757:G:N3	2.27	0.49
26:DE:149:ILE:HG23	26:DE:188:MET:HG2	1.95	0.49
27:DF:142:ASP:O	27:DF:145:LYS:N	2.43	0.49
29:DH:81:ALA:C	29:DH:149:GLU:HB3	2.33	0.49
30:DI:28:LEU:HD13	30:DI:38:PHE:CE2	2.48	0.49
38:DQ:25:TYR:CD2	38:DQ:26:GLY:N	2.80	0.49
1:AA:142:G:H3'	1:AA:143:A:H8	1.77	0.49
5:AE:81:LEU:HD22	5:AE:81:LEU:N	2.28	0.49
11:AK:19:GLY:O	11:AK:82:LEU:HA	2.13	0.49
12:AL:110:ARG:NH2	12:AL:117:TYR:CE2	2.80	0.49
17:AQ:7:THR:O	17:AQ:8:LEU:HD12	2.12	0.49
22:BA:1132:U:C3'	22:BA:1133:A:H5''	2.41	0.49
22:BA:1566:A:O2'	22:BA:1567:G:H5'	2.12	0.49
22:BA:1721:G:O2'	22:BA:1739:A:N6	2.45	0.49
22:BA:1917:U:C2	22:BA:1918:A:O4'	2.66	0.49
22:BA:2345:G:C4	22:BA:2347:C:C5	3.01	0.49
22:BA:826:U:OP1	22:BA:2428:G:H3'	2.13	0.49
25:BD:172:VAL:CG2	25:BD:194:PRO:HD3	2.42	0.49
32:BK:38:ILE:HD11	32:BK:112:PHE:HZ	1.77	0.49
40:BS:29:VAL:HG11	40:BS:55:ILE:HD11	1.93	0.49
43:BV:8:VAL:HG23	43:BV:9:ARG:N	2.27	0.49
1:CA:1491:G:H5''	12:CL:44:LYS:HD2	1.94	0.49
1:CA:206:C:H2'	1:CA:207:C:C5'	2.43	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:247:G:O6	1:CA:278:G:C6	2.65	0.49
2:CB:139:ARG:HD2	2:CB:139:ARG:C	2.33	0.49
2:CB:20:THR:O	2:CB:21:ARG:NH1	2.45	0.49
2:CB:221:VAL:O	2:CB:223:GLU:N	2.45	0.49
3:CC:117:ALA:HB1	3:CC:187:SER:CB	2.42	0.49
6:CF:32:ALA:O	6:CF:34:GLY:N	2.44	0.49
9:CI:13:LYS:HG2	9:CI:13:LYS:O	2.13	0.49
10:CJ:41:PRO:O	10:CJ:42:LEU:HB2	2.12	0.49
15:CO:37:ASN:O	15:CO:40:GLN:CB	2.61	0.49
15:CO:70:LEU:HD13	15:CO:78:TYR:HA	1.94	0.49
22:DA:136:G:N2	22:DA:144:A:N7	2.60	0.49
22:DA:2091:C:H1'	45:DX:34:HIS:CD2	2.47	0.49
22:DA:321:U:OP2	26:DE:130:LYS:HA	2.13	0.49
22:DA:535:G:C6	22:DA:559:G:C6	3.00	0.49
22:DA:547:A:H3'	22:DA:548:G:C5'	2.42	0.49
22:DA:696:G:C6	22:DA:767:U:O2	2.65	0.49
22:DA:732:C:H2'	22:DA:733:G:O4'	2.12	0.49
22:DA:769:U:C4	22:DA:770:G:N7	2.81	0.49
29:DH:112:LYS:CG	29:DH:113:SER:N	2.76	0.49
32:DK:2:ILE:N	32:DK:33:ALA:O	2.42	0.49
35:DN:1:MET:HE3	35:DN:1:MET:N	2.27	0.49
1:AA:926:G:C6	1:AA:1505:G:C5	3.01	0.49
1:AA:31:G:O2'	1:AA:48:C:N4	2.45	0.49
1:AA:340:U:C2	1:AA:341:C:C5	3.01	0.49
1:AA:448:A:C4	1:AA:487:A:C2	3.00	0.49
1:AA:593:U:O2'	1:AA:594:U:H5'	2.13	0.49
1:AA:792:A:N3	1:AA:794:A:C5	2.80	0.49
1:AA:824:G:H1'	8:AH:2:SER:CA	2.43	0.49
1:AA:757:U:O2'	1:AA:879:C:H1'	2.12	0.49
2:AB:91:PHE:CD1	2:AB:150:GLY:CA	2.95	0.49
3:AC:154:SER:OG	3:AC:165:THR:HG22	2.12	0.49
9:AI:28:ILE:HG13	9:AI:63:LEU:HD21	1.95	0.49
1:AA:684:U:O2	11:AK:41:ALA:HB3	2.13	0.49
14:AN:46:LEU:O	14:AN:47:LYS:C	2.50	0.49
16:AP:46:LYS:CD	16:AP:47:GLU:N	2.75	0.49
22:BA:1059:G:H3'	22:BA:1060:U:H2'	1.95	0.49
22:BA:2271:G:H2'	22:BA:2272:U:C6	2.47	0.49
22:BA:2469:A:C2	22:BA:2482:A:C4	3.01	0.49
22:BA:84:A:H4'	22:BA:85:G:O5'	2.11	0.49
24:BC:31:ALA:HB3	24:BC:32:PRO:HD3	1.94	0.49
24:BC:65:VAL:HG12	24:BC:67:PHE:CD2	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:89:LEU:HD12	28:BG:89:LEU:N	2.27	0.49
42:BU:95:PHE:C	42:BU:95:PHE:CD1	2.85	0.49
1:CA:439:U:H4'	4:CD:121:LYS:HG3	1.93	0.49
1:CA:570:G:C4	1:CA:571:U:C5	3.01	0.49
1:CA:728:A:N1	1:CA:729:A:C6	2.81	0.49
1:CA:803:G:C5	1:CA:804:U:C4	3.01	0.49
1:CA:86:G:H1'	1:CA:87:C:O4'	2.12	0.49
8:CH:78:VAL:N	8:CH:126:ILE:O	2.45	0.49
9:CI:13:LYS:O	9:CI:14:SER:HB3	2.13	0.49
1:CA:1125:U:H4'	10:CJ:7:ARG:NH1	2.27	0.49
22:DA:105:C:H2'	22:DA:106:C:C6	2.47	0.49
22:DA:1109:C:C4	22:DA:1110:G:O6	2.66	0.49
22:DA:1286:A:N6	22:DA:1329:U:C2	2.80	0.49
22:DA:134:G:C2	22:DA:146:A:C2	3.00	0.49
22:DA:1384:A:O2'	22:DA:1404:C:O2	2.30	0.49
22:DA:147:C:C4	22:DA:148:U:C4	3.01	0.49
22:DA:1869:G:C2	22:DA:1873:G:N1	2.80	0.49
22:DA:2179:C:H2'	22:DA:2180:U:C6	2.48	0.49
22:DA:247:G:C8	22:DA:249:C:C6	3.01	0.49
22:DA:2635:A:N1	22:DA:2636:C:C2	2.81	0.49
22:DA:2671:G:N2	22:DA:2672:U:O2	2.45	0.49
22:DA:310:A:H5''	42:DU:15:THR:CG2	2.42	0.49
22:DA:581:C:OP2	38:DQ:33:ARG:NE	2.46	0.49
22:DA:71:A:OP2	22:DA:113:U:H5'	2.12	0.49
33:DL:111:ILE:HD12	33:DL:111:ILE:N	2.27	0.49
35:DN:49:GLU:N	35:DN:50:PRO:CD	2.75	0.49
46:DY:24:GLU:HB3	46:DY:46:VAL:HG21	1.95	0.49
1:AA:1035:A:C2	1:AA:1036:A:C4	3.00	0.49
1:AA:1144:G:N1	1:AA:1145:A:C2	2.80	0.49
2:AB:27:MET:HE3	2:AB:193:PRO:HG3	1.95	0.49
4:AD:99:ASP:OD2	4:AD:115:ARG:NH2	2.46	0.49
8:AH:113:ASP:O	8:AH:117:ARG:HB2	2.12	0.49
13:AM:98:ARG:HB2	13:AM:100:GLN:OE1	2.13	0.49
14:AN:61:ARG:O	14:AN:62:ASN:CB	2.61	0.49
16:AP:39:PHE:O	16:AP:41:PRO:HD3	2.13	0.49
11:AK:127:ARG:N	21:AU:34:ARG:CZ	2.75	0.49
22:BA:1022:G:C6	22:BA:1140:C:C4	3.01	0.49
22:BA:1073:A:C2'	22:BA:1074:G:H5''	2.41	0.49
22:BA:1324:G:C4	22:BA:1328:A:N6	2.81	0.49
22:BA:1411:U:H2'	22:BA:1412:U:O4'	2.12	0.49
22:BA:1832:C:N4	22:BA:1833:C:C4	2.81	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1918:A:H4'	22:BA:1919:A:OP1	2.13	0.49
22:BA:2236:U:H2'	22:BA:2237:G:O4'	2.12	0.49
22:BA:2502:G:H5'	22:BA:2503:A:C5'	2.43	0.49
25:BD:103:ASP:O	25:BD:104:VAL:HG22	2.11	0.49
26:BE:29:HIS:CE1	33:BL:8:PRO:HB3	2.48	0.49
26:BE:44:ARG:HG2	26:BE:45:ALA:N	2.27	0.49
27:BF:61:SER:O	27:BF:63:GLN:N	2.42	0.49
35:BN:118:ARG:O	35:BN:120:GLU:N	2.46	0.49
38:BQ:87:SER:HB2	39:BR:51:VAL:HA	1.93	0.49
1:CA:1203:C:H4'	14:CN:67:THR:HB	1.94	0.49
1:CA:223:A:C6	1:CA:224:U:C4	3.01	0.49
1:CA:721:G:H4'	1:CA:722:G:O5'	2.12	0.49
1:CA:892:A:C6	1:CA:893:C:C4	3.00	0.49
5:CE:38:VAL:HG12	5:CE:39:VAL:N	2.28	0.49
10:CJ:85:ASP:HA	10:CJ:88:MET:HB2	1.95	0.49
22:DA:155:A:C2	22:DA:172:A:C2	3.00	0.49
22:DA:1831:G:C6	22:DA:1832:C:C4	3.00	0.49
22:DA:1917:U:C2'	22:DA:1918:A:H5'	2.42	0.49
22:DA:321:U:C6	26:DE:159:LEU:HD22	2.47	0.49
22:DA:374:A:C6	22:DA:401:A:C8	3.01	0.49
24:DC:108:LYS:HA	24:DC:196:GLY:HA2	1.94	0.49
24:DC:230:HIS:ND1	24:DC:231:PRO:HD2	2.28	0.49
24:DC:78:VAL:HG21	24:DC:110:LEU:HD21	1.95	0.49
22:DA:2531:A:C5'	28:DG:157:TYR:CZ	2.96	0.49
30:DI:20:PRO:HB2	30:DI:23:PRO:HD2	1.93	0.49
30:DI:53:LEU:HD21	30:DI:82:LYS:HE2	1.93	0.49
30:DI:33:VAL:HG22	30:DI:67:PHE:CE1	2.48	0.49
38:DQ:76:TYR:CZ	38:DQ:80:ILE:HG13	2.47	0.49
22:DA:1223:G:OP2	39:DR:68:ARG:NH1	2.45	0.49
45:DX:27:ARG:NE	45:DX:28:ARG:O	2.45	0.49
1:AA:1122:U:C4	1:AA:1123:U:C5	2.99	0.49
1:AA:1166:G:N1	1:AA:1169:A:OP2	2.45	0.49
1:AA:1181:G:H4'	1:AA:1182:G:OP1	2.11	0.49
1:AA:737:C:H2'	1:AA:738:C:H6	1.78	0.49
2:AB:131:LYS:HE2	2:AB:131:LYS:HA	1.94	0.49
2:AB:206:ALA:O	2:AB:208:ARG:N	2.45	0.49
4:AD:105:MET:CB	4:AD:107:PHE:CE2	2.96	0.49
6:AF:84:VAL:O	6:AF:84:VAL:CG2	2.60	0.49
19:AS:63:THR:O	19:AS:65:GLU:N	2.43	0.49
22:BA:1795:C:C4	22:BA:1796:U:C5	3.00	0.49
22:BA:481:G:O2'	22:BA:507:A:N1	2.35	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:589:U:H2'	22:BA:590:A:C8	2.48	0.49
23:BB:99:A:H2'	23:BB:99:A:N3	2.27	0.49
24:BC:21:ASN:OD1	24:BC:21:ASN:C	2.50	0.49
13:AM:71:ARG:NH2	27:BF:136:ILE:HG22	2.28	0.49
28:BG:127:THR:HG22	28:BG:128:GLN:N	2.28	0.49
30:BI:11:LEU:O	30:BI:24:VAL:HG11	2.13	0.49
22:BA:1190:G:OP1	33:BL:32:GLY:HA2	2.13	0.49
34:BM:2:LEU:HB3	34:BM:68:PHE:CE2	2.48	0.49
37:BP:53:ARG:O	37:BP:54:GLY:C	2.50	0.49
40:BS:41:LYS:O	40:BS:44:ALA:HB3	2.11	0.49
1:CA:1215:G:C5	1:CA:1216:A:N7	2.81	0.49
1:CA:64:G:C2	1:CA:67:C:N4	2.81	0.49
2:CB:103:ASN:O	2:CB:103:ASN:OD1	2.30	0.49
2:CB:184:PHE:CE2	2:CB:198:PHE:CD2	3.00	0.49
2:CB:64:LYS:HD3	2:CB:64:LYS:C	2.33	0.49
4:CD:146:ARG:O	4:CD:150:LYS:N	2.46	0.49
6:CF:93:LYS:O	6:CF:93:LYS:HG2	2.12	0.49
7:CG:78:ARG:HB2	7:CG:85:TYR:HB2	1.95	0.49
9:CI:45:ARG:HG2	9:CI:46:MET:N	2.28	0.49
14:CN:61:ARG:O	14:CN:62:ASN:CB	2.60	0.49
14:CN:3:LYS:HD3	14:CN:6:MET:HG2	1.94	0.49
15:CO:82:ILE:HG13	15:CO:83:GLU:N	2.26	0.49
22:DA:1057:A:C2	22:DA:1082:U:N3	2.81	0.49
22:DA:1447:C:H2'	22:DA:1448:G:C8	2.48	0.49
22:DA:1655:A:C6	22:DA:1656:C:C2	3.00	0.49
22:DA:1802:A:OP2	22:DA:1815:A:N6	2.41	0.49
22:DA:2244:U:H2'	22:DA:2245:U:O4'	2.12	0.49
22:DA:2563:U:H1'	22:DA:2566:A:C6	2.48	0.49
22:DA:2848:G:OP2	37:DP:95:ALA:N	2.45	0.49
22:DA:2896:C:C4	22:DA:2897:U:C5	3.01	0.49
22:DA:2062:A:C2	55:DA:3001:VIR:H313	2.48	0.49
22:DA:822:G:O6	22:DA:943:A:H2	1.96	0.49
26:DE:45:ALA:HA	26:DE:87:ALA:O	2.13	0.49
29:DH:72:ILE:O	29:DH:141:LYS:O	2.30	0.49
32:DK:31:ARG:CB	32:DK:32:TYR:CD1	2.96	0.49
40:DS:84:ARG:HB2	40:DS:96:ILE:CG1	2.43	0.49
42:DU:88:GLU:O	42:DU:89:ASP:CB	2.60	0.49
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.48	0.49
1:AA:1337:G:H5''	1:AA:1338:G:OP1	2.13	0.49
1:AA:451:A:H4'	1:AA:452:A:O5'	2.13	0.49
1:AA:452:A:N6	1:AA:480:U:C2	2.81	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:21:ARG:C	2:AB:23:TRP:N	2.64	0.49
2:AB:33:GLY:N	2:AB:40:ILE:O	2.45	0.49
4:AD:124:MET:CE	4:AD:146:ARG:HD2	2.43	0.49
5:AE:97:GLN:O	5:AE:123:VAL:HG12	2.13	0.49
7:AG:145:ALA:O	7:AG:147:ALA:N	2.44	0.49
12:AL:67:ILE:HG21	12:AL:72:HIS:CD2	2.47	0.49
22:BA:1179:G:N7	22:BA:1180:U:O4'	2.45	0.49
22:BA:1179:G:N7	22:BA:1180:U:C1'	2.76	0.49
22:BA:1914:C:H2'	22:BA:1915:U:O5'	2.13	0.49
22:BA:1918:A:HO2'	22:BA:1920:C:N4	2.10	0.49
22:BA:2469:A:O2'	34:BM:55:ARG:NH1	2.45	0.49
22:BA:368:A:C5	22:BA:369:U:C4	3.00	0.49
22:BA:577:G:C6	22:BA:578:G:O6	2.65	0.49
22:BA:686:U:O4	50:B2:12:ARG:HB2	2.13	0.49
24:BC:162:VAL:CG1	24:BC:163:GLN:N	2.75	0.49
22:BA:2572:A:H2'	25:BD:149:ASN:HD22	1.78	0.49
26:BE:149:ILE:C	26:BE:149:ILE:HD12	2.32	0.49
33:BL:77:ILE:HD11	33:BL:101:ILE:HG21	1.94	0.49
35:BN:114:GLU:OE2	35:BN:118:ARG:NH2	2.46	0.49
36:BO:101:GLY:O	36:BO:102:ARG:C	2.51	0.49
38:BQ:79:PHE:CZ	38:BQ:83:LEU:HD11	2.47	0.49
39:BR:51:VAL:CG2	39:BR:52:PRO:HD2	2.43	0.49
1:CA:158:G:C4	1:CA:159:G:C8	3.01	0.49
1:CA:15:G:OP1	1:CA:1396:A:O2'	2.26	0.49
1:CA:321:A:C8	1:CA:328:C:C2	3.00	0.49
1:CA:445:G:C2	1:CA:490:C:C2	3.00	0.49
1:CA:216:U:H5''	1:CA:464:U:H4'	1.95	0.49
2:CB:119:THR:O	2:CB:120:GLN:HB3	2.12	0.49
5:CE:99:ALA:HB2	5:CE:124:LEU:CD1	2.42	0.49
6:CF:25:TYR:N	6:CF:25:TYR:CD1	2.77	0.49
12:CL:80:ILE:HD12	12:CL:97:THR:HG21	1.93	0.49
21:CU:12:PHE:O	21:CU:13:ASP:HB2	2.13	0.49
21:CU:51:SER:O	21:CU:52:ALA:C	2.50	0.49
22:DA:1109:C:C4	22:DA:1110:G:C6	3.01	0.49
22:DA:1383:A:C2	22:DA:1384:A:C4	3.01	0.49
22:DA:1597:A:O3'	22:DA:1598:A:H8	1.96	0.49
22:DA:1670:C:C5	22:DA:1671:U:C4	3.01	0.49
22:DA:1730:C:O2'	22:DA:1731:G:C2	2.66	0.49
22:DA:226:A:N6	22:DA:227:A:N1	2.61	0.49
22:DA:374:A:C2	22:DA:401:A:C4	3.00	0.49
22:DA:892:A:N3	22:DA:892:A:H2'	2.28	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:87:U:O2'	23:DB:88:C:H5'	2.12	0.49
26:DE:42:GLY:HA3	26:DE:90:GLN:O	2.13	0.49
27:DF:142:ASP:O	27:DF:144:ASP:N	2.46	0.49
28:DG:118:PRO:O	28:DG:119:ALA:C	2.51	0.49
33:DL:77:ILE:HG23	33:DL:81:ASP:OD1	2.13	0.49
43:DV:44:HIS:CE1	43:DV:85:LYS:HB2	2.48	0.49
45:DX:58:VAL:HG12	45:DX:59:ILE:N	2.27	0.49
1:AA:1080:A:OP1	5:AE:52:LYS:CE	2.60	0.49
1:AA:1109:C:P	3:AC:176:HIS:CE1	3.05	0.49
1:AA:1293:C:H2'	1:AA:1294:G:O4'	2.13	0.49
1:AA:299:G:H2'	1:AA:300:A:C8	2.48	0.49
1:AA:316:C:C5	1:AA:351:G:C2	3.01	0.49
1:AA:673:A:H2'	1:AA:674:G:C8	2.48	0.49
1:AA:829:G:C6	1:AA:858:G:N2	2.81	0.49
1:AA:85:U:O4'	1:AA:86:G:N2	2.46	0.49
1:AA:1317:C:H4'	14:AN:49:GLN:HG2	1.94	0.49
10:AJ:66:GLU:HG2	14:AN:99:ALA:HB2	1.94	0.49
17:AQ:5:ILE:HG22	17:AQ:5:ILE:O	2.12	0.49
18:AR:48:ARG:N	18:AR:48:ARG:HD2	2.27	0.49
21:AU:22:SER:C	21:AU:23:CYS:SG	2.91	0.49
22:BA:1085:A:C6	22:BA:1086:A:N6	2.80	0.49
22:BA:1105:U:H2'	22:BA:1106:G:H8	1.78	0.49
22:BA:142:A:C6	22:BA:143:C:N3	2.81	0.49
22:BA:1736:U:H2'	22:BA:1737:G:O4'	2.12	0.49
22:BA:1916:A:C2	22:BA:1917:U:H1'	2.48	0.49
22:BA:1917:U:O2	22:BA:1918:A:O4'	2.30	0.49
22:BA:1917:U:C3'	22:BA:1918:A:H5'	2.42	0.49
22:BA:2305:U:C4	22:BA:2306:C:C4	3.01	0.49
22:BA:2327:A:H2'	22:BA:2328:A:C8	2.48	0.49
22:BA:2517:C:C6	22:BA:2542:A:N7	2.81	0.49
22:BA:1999:C:H5''	22:BA:2723:C:O2'	2.13	0.49
22:BA:936:A:H2'	22:BA:937:C:C6	2.48	0.49
24:BC:3:VAL:HG23	24:BC:3:VAL:O	2.13	0.49
26:BE:145:ASP:HB3	26:BE:184:ASP:OD2	2.13	0.49
28:BG:118:PRO:O	28:BG:119:ALA:C	2.51	0.49
37:BP:114:LEU:O	37:BP:115:ASN:HB3	2.12	0.49
1:CA:992:U:C6	1:CA:1043:G:N7	2.81	0.49
1:CA:1381:U:O2	7:CG:78:ARG:O	2.31	0.49
1:CA:162:A:H2'	1:CA:163:C:O4'	2.12	0.49
1:CA:211:G:O2'	1:CA:212:G:C4'	2.60	0.49
1:CA:109:A:C2	1:CA:327:A:N1	2.81	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:373:A:N3	1:CA:374:A:C8	2.81	0.49
1:CA:375:U:C2	1:CA:376:G:C8	3.00	0.49
1:CA:651:C:N4	1:CA:753:A:OP2	2.44	0.49
1:CA:748:G:H2'	1:CA:749:A:C8	2.48	0.49
1:CA:773:G:C2	1:CA:807:A:C2	3.01	0.49
2:CB:211:THR:HA	2:CB:214:LEU:HB2	1.94	0.49
9:CI:19:VAL:HG21	9:CI:82:GLY:HA3	1.94	0.49
19:CS:53:ASN:OD1	19:CS:55:ARG:HG3	2.13	0.49
19:CS:63:THR:HG22	19:CS:64:ASP:N	2.27	0.49
50:D2:34:ARG:HB2	50:D2:42:LEU:CD1	2.43	0.49
22:DA:1867:G:O6	22:DA:1875:G:C2	2.66	0.49
22:DA:2133:G:N3	22:DA:2158:A:N1	2.61	0.49
22:DA:2849:U:H4'	22:DA:2868:A:C2	2.48	0.49
22:DA:291:G:N1	22:DA:350:G:N7	2.61	0.49
26:DE:187:VAL:HG12	26:DE:187:VAL:O	2.13	0.49
35:DN:84:GLY:N	35:DN:85:PRO:HD2	2.28	0.49
39:DR:29:THR:O	39:DR:29:THR:HG22	2.13	0.49
1:AA:1176:A:H3'	1:AA:1177:G:C8	2.48	0.48
1:AA:1349:A:C2	1:AA:1374:A:C4	3.01	0.48
1:AA:1368:A:O2'	1:AA:1369:C:H5'	2.13	0.48
1:AA:1504:G:OP2	1:AA:1507:A:O2'	2.28	0.48
1:AA:545:C:C2'	1:AA:546:A:H5'	2.43	0.48
2:AB:188:ASP:HB2	2:AB:204:ASP:OD2	2.13	0.48
4:AD:165:ARG:O	4:AD:166:GLU:C	2.51	0.48
13:AM:11:ASP:O	13:AM:12:HIS:HB2	2.13	0.48
13:AM:66:GLU:HA	13:AM:66:GLU:OE1	2.12	0.48
16:AP:19:VAL:CG1	16:AP:37:GLY:C	2.82	0.48
19:AS:4:SER:O	19:AS:6:LYS:N	2.46	0.48
22:BA:1092:C:H2'	22:BA:1093:G:O4'	2.12	0.48
22:BA:1167:C:H2'	22:BA:1168:G:H5''	1.95	0.48
22:BA:1644:C:O2	22:BA:1644:C:H2'	2.11	0.48
22:BA:1735:A:C2	22:BA:1736:U:C1'	2.96	0.48
22:BA:2659:G:OP1	28:BG:158:LYS:HE3	2.13	0.48
25:BD:104:VAL:CG2	25:BD:105:LYS:N	2.76	0.48
25:BD:12:THR:HG23	37:BP:9:GLU:OE2	2.12	0.48
30:BI:122:ILE:HG22	30:BI:122:ILE:O	2.13	0.48
47:BZ:30:ARG:O	47:BZ:31:ARG:HB3	2.13	0.48
1:CA:1491:G:H2'	1:CA:1492:A:C8	2.48	0.48
1:CA:456:A:N6	1:CA:457:G:C6	2.81	0.48
1:CA:972:C:H4'	10:CJ:59:LYS:HG2	1.94	0.48
1:CA:1186:G:H5'	9:CI:112:GLU:OE1	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:57:MET:O	9:CI:60:LYS:HB2	2.13	0.48
1:CA:718:A:H5'	11:CK:119:ASN:ND2	2.28	0.48
13:CM:79:ARG:O	13:CM:83:LEU:HD23	2.12	0.48
18:CR:71:THR:OG1	18:CR:72:ASP:N	2.46	0.48
22:DA:1362:C:H2'	22:DA:1363:C:H5'	1.95	0.48
22:DA:1358:G:C8	22:DA:1371:G:O6	2.66	0.48
22:DA:1465:G:H2'	22:DA:1466:U:C6	2.48	0.48
22:DA:1953:A:O2'	22:DA:2559:C:O2'	2.26	0.48
22:DA:1936:A:N6	22:DA:1963:U:C4	2.81	0.48
22:DA:1973:G:C5	22:DA:1974:C:C5	3.01	0.48
22:DA:2298:A:C4	22:DA:2321:U:C5	3.00	0.48
22:DA:410:G:C2	22:DA:2407:A:C5	3.01	0.48
22:DA:265:A:H4'	22:DA:266:G:OP1	2.13	0.48
22:DA:2874:C:OP2	57:DA:3801:HOH:O	2.20	0.48
22:DA:306:U:O4	22:DA:307:G:C6	2.65	0.48
22:DA:329:G:O4'	22:DA:477:A:H1'	2.13	0.48
22:DA:661:A:H2'	22:DA:662:G:O4'	2.13	0.48
22:DA:748:G:C8	40:DS:89:ALA:HB1	2.48	0.48
22:DA:569:U:H5''	22:DA:821:A:C2	2.48	0.48
36:DO:115:LEU:O	36:DO:117:PHE:N	2.46	0.48
41:DT:7:LEU:CD2	41:DT:46:ALA:HA	2.43	0.48
41:DT:73:ARG:HA	41:DT:73:ARG:NH2	2.28	0.48
1:AA:1035:A:C2	1:AA:1036:A:C5	3.01	0.48
1:AA:976:G:OP2	1:AA:1358:U:O2'	2.31	0.48
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.48	0.48
1:AA:215:C:H2'	1:AA:216:U:O4'	2.13	0.48
1:AA:877:G:H21	8:AH:2:SER:N	2.11	0.48
7:AG:97:ASN:N	7:AG:97:ASN:OD1	2.45	0.48
13:AM:14:HIS:HB2	13:AM:17:ILE:HD12	1.94	0.48
20:AT:44:LYS:HD3	20:AT:87:ALA:HA	1.94	0.48
22:BA:1385:A:C2	22:BA:1386:C:C2	3.01	0.48
22:BA:250:G:C5	22:BA:251:A:C5	3.00	0.48
22:BA:2580:U:H5''	25:BD:135:GLY:O	2.13	0.48
22:BA:280:U:H2'	22:BA:281:C:O4'	2.13	0.48
22:BA:578:G:OP1	22:BA:1255:U:O2'	2.31	0.48
22:BA:644:A:H2'	22:BA:645:C:O4'	2.12	0.48
25:BD:103:ASP:C	25:BD:103:ASP:OD1	2.52	0.48
26:BE:108:ILE:CD1	26:BE:180:LEU:HB3	2.43	0.48
27:BF:38:MET:HG3	27:BF:152:LEU:CD1	2.43	0.48
28:BG:24:ILE:HG21	28:BG:72:LEU:HD21	1.95	0.48
29:BH:139:PHE:O	29:BH:140:ALA:HB2	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:66:LYS:HD3	32:BK:80:ASP:O	2.13	0.48
37:BP:58:ALA:HB1	37:BP:74:PHE:O	2.13	0.48
40:BS:17:VAL:HG12	40:BS:76:VAL:HG21	1.96	0.48
1:CA:1365:G:C6	1:CA:1366:C:N3	2.81	0.48
1:CA:1422:G:C6	1:CA:1423:G:N7	2.81	0.48
1:CA:158:G:C5	1:CA:159:G:N7	2.81	0.48
1:CA:173:U:C6	1:CA:197:A:C2	3.01	0.48
1:CA:216:U:H2'	1:CA:217:C:C6	2.47	0.48
1:CA:455:G:C2	1:CA:478:A:N1	2.81	0.48
1:CA:923:A:H2'	1:CA:924:C:O4'	2.13	0.48
2:CB:162:PHE:HA	2:CB:184:PHE:O	2.13	0.48
4:CD:150:LYS:O	4:CD:151:LYS:C	2.51	0.48
4:CD:35:GLU:HG3	4:CD:36:GLN:N	2.27	0.48
6:CF:13:ASP:O	6:CF:15:SER:N	2.39	0.48
12:CL:61:PHE:N	12:CL:61:PHE:HD1	2.11	0.48
22:DA:1520:U:O4	22:DA:1521:G:C6	2.66	0.48
22:DA:1783:A:N1	22:DA:2587:A:C2	2.81	0.48
22:DA:1858:A:C2	22:DA:1859:U:C2	3.01	0.48
22:DA:187:G:N1	22:DA:210:C:N3	2.60	0.48
22:DA:224:U:OP2	22:DA:408:G:N2	2.46	0.48
22:DA:2286:G:H5'	22:DA:2287:A:O4'	2.13	0.48
22:DA:465:G:C6	22:DA:466:A:N6	2.82	0.48
22:DA:604:G:N1	22:DA:605:G:C5	2.81	0.48
22:DA:728:G:C2	22:DA:730:A:C4	3.01	0.48
22:DA:664:G:H4'	22:DA:941:A:OP1	2.13	0.48
25:DD:35:THR:O	25:DD:36:GLN:HB2	2.13	0.48
29:DH:21:VAL:CG2	29:DH:22:LYS:N	2.76	0.48
30:DI:72:LYS:HG3	30:DI:116:ASP:CG	2.33	0.48
35:DN:108:ALA:HB3	35:DN:110:MET:CE	2.43	0.48
35:DN:30:ARG:HD2	35:DN:31:HIS:NE2	2.28	0.48
1:AA:135:C:H2'	1:AA:136:C:H5'	1.94	0.48
1:AA:1442:G:H2'	1:AA:1443:C:C6	2.48	0.48
1:AA:1446:A:C2'	1:AA:1447:A:H5'	2.43	0.48
1:AA:223:A:H2'	1:AA:224:U:C6	2.49	0.48
1:AA:233:C:H2'	1:AA:234:C:H6	1.78	0.48
1:AA:131:A:O2'	1:AA:262:A:N3	2.33	0.48
1:AA:645:G:C4	1:AA:646:G:C8	3.01	0.48
1:AA:90:C:O2'	1:AA:91:U:OP2	2.26	0.48
3:AC:77:ILE:HD11	3:AC:103:ILE:HG12	1.95	0.48
6:AF:9:MET:CE	18:AR:65:LEU:HD22	2.43	0.48
22:BA:1094:U:O4	22:BA:1097:U:OP2	2.31	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:586:A:C2	22:BA:1254:A:C2	3.01	0.48
22:BA:1482:G:C6	22:BA:1508:A:C6	3.00	0.48
22:BA:1802:A:N1	22:BA:1822:C:H1'	2.28	0.48
22:BA:2076:U:O5'	22:BA:2076:U:O2	2.30	0.48
22:BA:2326:C:H1'	22:BA:2327:A:OP1	2.13	0.48
22:BA:319:G:N9	22:BA:333:G:N2	2.61	0.48
22:BA:531:C:H4'	22:BA:532:A:H5''	1.95	0.48
24:BC:157:SER:O	24:BC:160:THR:HG23	2.12	0.48
26:BE:108:ILE:HD11	26:BE:180:LEU:HD13	1.96	0.48
29:BH:121:VAL:H	29:BH:122:LEU:HB2	1.77	0.48
34:BM:55:ARG:CZ	34:BM:55:ARG:HB3	2.43	0.48
43:BV:65:VAL:HG22	43:BV:65:VAL:O	2.12	0.48
1:CA:1041:G:C6	1:CA:1042:A:N6	2.82	0.48
1:CA:1126:U:C6	1:CA:1281:C:C4	3.01	0.48
1:CA:202:G:H2'	1:CA:203:G:O4'	2.14	0.48
1:CA:451:A:H61	1:CA:481:G:H5'	1.79	0.48
1:CA:577:G:C1'	1:CA:816:A:H2'	2.44	0.48
1:CA:881:G:C5	1:CA:882:C:C5	3.02	0.48
1:CA:963:G:O2'	1:CA:964:A:H5'	2.12	0.48
3:CC:130:PHE:CE1	3:CC:131:ARG:HD3	2.48	0.48
14:CN:51:LEU:O	14:CN:53:ARG:N	2.46	0.48
21:CU:34:ARG:CD	21:CU:35:ARG:HB2	2.43	0.48
22:DA:1272:A:C6	22:DA:1618:A:H1'	2.48	0.48
22:DA:12:U:O2	22:DA:12:U:H2'	2.12	0.48
22:DA:1555:G:N2	22:DA:1556:C:H1'	2.28	0.48
22:DA:2286:G:C4'	22:DA:2287:A:O5'	2.59	0.48
22:DA:2790:U:H5'	22:DA:2893:A:N7	2.28	0.48
22:DA:279:A:N6	22:DA:361:G:O2'	2.45	0.48
22:DA:686:U:H6	22:DA:788:A:N1	2.10	0.48
22:DA:845:A:N1	22:DA:847:U:C6	2.81	0.48
38:DQ:14:HIS:O	38:DQ:18:LEU:HD23	2.12	0.48
39:DR:52:PRO:O	39:DR:53:PHE:CB	2.61	0.48
40:DS:89:ALA:O	40:DS:90:LYS:HB2	2.13	0.48
41:DT:73:ARG:CZ	41:DT:73:ARG:HA	2.43	0.48
1:AA:1446:A:H2'	1:AA:1447:A:H5'	1.94	0.48
1:AA:65:A:C2	1:AA:381:C:C6	3.02	0.48
1:AA:38:G:C2	1:AA:397:A:C2	3.02	0.48
1:AA:828:U:O4	1:AA:859:G:C8	2.67	0.48
1:AA:829:G:C2	1:AA:830:G:C8	3.02	0.48
1:AA:831:A:C2	1:AA:832:G:N9	2.82	0.48
5:AE:77:ASN:O	5:AE:78:ASN:HB3	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:13:LEU:HD22	7:AG:13:LEU:N	2.29	0.48
7:AG:99:LEU:O	7:AG:100:ALA:C	2.52	0.48
20:AT:80:THR:O	20:AT:83:ILE:HG13	2.14	0.48
20:AT:83:ILE:O	20:AT:87:ALA:CB	2.61	0.48
21:AU:47:ARG:HA	21:AU:47:ARG:HE	1.77	0.48
22:BA:1124:G:H1'	52:B4:38:GLY:OXT	2.14	0.48
22:BA:1338:G:N7	41:BT:66:LYS:NZ	2.60	0.48
22:BA:1445:G:C6	22:BA:1446:C:C4	3.01	0.48
22:BA:2032:G:C8	57:BA:3535:HOH:O	2.66	0.48
22:BA:2694:G:N1	22:BA:2695:U:C2	2.82	0.48
22:BA:2839:G:C2'	22:BA:2840:C:O5'	2.62	0.48
22:BA:2886:A:C4	22:BA:2887:A:C8	3.01	0.48
22:BA:693:A:C5	22:BA:694:U:C4	3.01	0.48
24:BC:37:ASN:O	24:BC:38:SER:HB3	2.14	0.48
36:BO:69:ASP:O	36:BO:70:ALA:C	2.51	0.48
22:BA:973:A:H5''	39:BR:81:LYS:HG3	1.95	0.48
42:BU:16:GLY:O	42:BU:18:ASP:N	2.46	0.48
46:BY:37:LEU:HD11	46:BY:39:GLN:O	2.14	0.48
1:CA:1108:G:H5''	3:CC:176:HIS:CD2	2.48	0.48
1:CA:1144:G:C2	1:CA:1145:A:C2	3.01	0.48
1:CA:1149:C:N4	1:CA:1150:A:C6	2.80	0.48
1:CA:1279:G:H4'	1:CA:1280:A:OP1	2.13	0.48
1:CA:243:A:H4'	1:CA:244:U:H5''	1.95	0.48
1:CA:260:G:C6	1:CA:261:U:C4	3.01	0.48
1:CA:406:G:C2	1:CA:407:U:C6	3.02	0.48
1:CA:644:U:C2	1:CA:645:G:C8	3.01	0.48
2:CB:88:ASP:OD1	2:CB:88:ASP:N	2.46	0.48
5:CE:115:LEU:HG	5:CE:123:VAL:HG21	1.95	0.48
6:CF:6:ILE:HD12	6:CF:6:ILE:N	2.27	0.48
9:CI:87:LEU:C	9:CI:89:GLU:H	2.16	0.48
9:CI:90:TYR:O	9:CI:91:ASP:CG	2.52	0.48
16:CP:81:ALA:O	16:CP:82:ALA:HB2	2.14	0.48
22:DA:1285:A:N6	22:DA:1329:U:C6	2.82	0.48
22:DA:1358:G:H1'	22:DA:1374:G:N2	2.28	0.48
22:DA:1435:G:C2'	22:DA:1436:G:H5'	2.43	0.48
22:DA:1529:G:C6	22:DA:1543:G:N2	2.81	0.48
22:DA:2001:C:H4'	22:DA:2689:U:H2'	1.94	0.48
22:DA:2024:G:OP2	22:DA:2034:U:H4'	2.14	0.48
22:DA:2182:U:H2'	22:DA:2183:A:C8	2.48	0.48
22:DA:2244:U:C5	22:DA:2245:U:C5	3.01	0.48
22:DA:2438:U:O2'	22:DA:2440:C:OP1	2.25	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2736:A:C2	22:DA:2769:U:O2	2.66	0.48
22:DA:693:A:C5	22:DA:694:U:C4	3.02	0.48
24:DC:17:VAL:CB	24:DC:204:VAL:HG22	2.44	0.48
24:DC:3:VAL:HG11	24:DC:202:LEU:HD23	1.95	0.48
33:DL:135:ILE:HG22	33:DL:140:GLY:HA2	1.95	0.48
46:DY:50:VAL:O	46:DY:54:LYS:HG3	2.13	0.48
1:AA:1135:U:C2'	1:AA:1136:C:O5'	2.62	0.48
1:AA:1263:C:H2'	1:AA:1264:U:O4'	2.14	0.48
1:AA:463:U:H3'	1:AA:464:U:C6	2.47	0.48
1:AA:72:A:H2'	1:AA:73:C:H5'	1.95	0.48
1:AA:761:G:H2'	1:AA:762:U:C6	2.49	0.48
2:AB:164:ILE:HG23	2:AB:165:ASP:N	2.29	0.48
4:AD:147:GLU:HA	4:AD:150:LYS:HD3	1.94	0.48
7:AG:146:GLU:O	7:AG:149:LYS:CB	2.62	0.48
22:BA:1057:A:N1	22:BA:1081:U:O4	2.47	0.48
22:BA:1097:U:H3'	22:BA:1098:A:H4'	1.94	0.48
22:BA:1171:G:C5	22:BA:1172:C:C4	3.01	0.48
22:BA:1340:U:C5	22:BA:1603:A:C8	3.01	0.48
22:BA:1735:A:C4	22:BA:1736:U:C6	3.01	0.48
22:BA:1871:A:C8	22:BA:1872:A:C6	3.02	0.48
22:BA:2694:G:C6	22:BA:2695:U:C4	3.02	0.48
22:BA:2714:G:C2'	22:BA:2715:C:H5'	2.43	0.48
22:BA:577:G:C6	22:BA:578:G:C6	3.01	0.48
22:BA:1138:G:O2'	31:BJ:107:GLY:HA3	2.13	0.48
35:BN:103:ARG:HD3	35:BN:110:MET:HE3	1.95	0.48
36:BO:24:THR:HG22	36:BO:42:PRO:CG	2.44	0.48
36:BO:59:ALA:O	36:BO:60:GLU:C	2.51	0.48
22:BA:189:G:OP2	45:BX:26:LYS:HE3	2.13	0.48
1:CA:1105:A:C2	1:CA:1106:G:C5	3.01	0.48
1:CA:1201:A:H1'	1:CA:1202:U:OP2	2.14	0.48
1:CA:371:A:H1'	1:CA:482:A:H1'	1.94	0.48
1:CA:572:A:H5'	1:CA:573:A:P	2.54	0.48
1:CA:577:G:N3	1:CA:578:C:C6	2.82	0.48
1:CA:676:A:C2	1:CA:677:U:C4	3.02	0.48
1:CA:718:A:C8	1:CA:719:C:C5	3.01	0.48
1:CA:72:A:C5	1:CA:73:C:C5	3.02	0.48
1:CA:909:A:H2'	1:CA:910:C:O4'	2.13	0.48
2:CB:81:LYS:HG3	2:CB:91:PHE:CZ	2.48	0.48
4:CD:29:ASP:O	4:CD:31:LYS:NZ	2.44	0.48
5:CE:121:HIS:O	5:CE:122:ASN:HB3	2.13	0.48
7:CG:126:ASP:N	7:CG:126:ASP:OD1	2.45	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:36:ALA:HB2	14:CN:42:TRP:CH2	2.47	0.48
14:CN:52:PRO:O	14:CN:53:ARG:CB	2.60	0.48
21:CU:12:PHE:N	21:CU:12:PHE:CD1	2.80	0.48
50:D2:11:LYS:O	50:D2:15:SER:N	2.46	0.48
50:D2:43:THR:O	50:D2:44:VAL:HB	2.13	0.48
22:DA:1042:G:C6	22:DA:1043:C:C4	3.02	0.48
22:DA:1146:C:N4	22:DA:1147:A:N6	2.62	0.48
22:DA:158:U:O2	22:DA:169:G:C2	2.67	0.48
22:DA:1855:U:C4	22:DA:1856:U:C4	3.01	0.48
22:DA:186:G:C2	22:DA:211:C:O2	2.66	0.48
22:DA:21:A:C2	22:DA:520:G:C2	3.02	0.48
22:DA:2212:A:C2	22:DA:2214:C:N4	2.81	0.48
22:DA:2379:G:C6	22:DA:2380:C:C4	3.02	0.48
22:DA:2889:C:H2'	22:DA:2890:G:C8	2.48	0.48
55:DA:3001:VIR:C4	55:DA:3001:VIR:N9	2.77	0.48
22:DA:310:A:O2'	22:DA:311:A:P	2.72	0.48
22:DA:465:G:C6	22:DA:466:A:C6	3.01	0.48
22:DA:856:G:C2	22:DA:922:C:N3	2.82	0.48
24:DC:15:HIS:O	24:DC:204:VAL:HG21	2.13	0.48
25:DD:150:GLN:C	25:DD:151:THR:O	2.50	0.48
27:DF:8:TYR:OH	27:DF:29:PRO:O	2.32	0.48
29:DH:127:GLU:HG3	29:DH:144:VAL:O	2.13	0.48
32:DK:10:VAL:CG1	32:DK:12:ASP:OD1	2.61	0.48
34:DM:124:LEU:HD23	34:DM:124:LEU:N	2.28	0.48
22:DA:533:G:H5'	38:DQ:24:TYR:CD1	2.48	0.48
1:AA:1048:G:N3	1:AA:1050:G:N7	2.62	0.48
1:AA:146:G:C2	1:AA:177:G:N7	2.82	0.48
1:AA:652:U:C4	1:AA:752:G:N3	2.80	0.48
11:AK:127:ARG:N	21:AU:34:ARG:NH2	2.62	0.48
10:AJ:52:LEU:HB3	14:AN:81:ARG:HE	1.78	0.48
20:AT:67:ILE:CG1	20:AT:71:LYS:HG2	2.44	0.48
22:BA:1106:G:C2	22:BA:1107:G:N9	2.82	0.48
22:BA:1182:G:H2'	22:BA:1183:U:O4'	2.14	0.48
22:BA:1384:A:H1'	22:BA:1405:U:H1'	1.95	0.48
22:BA:1656:C:H6	22:BA:1656:C:O5'	1.97	0.48
22:BA:1880:U:H2'	22:BA:1881:C:C6	2.48	0.48
22:BA:2555:U:C5	22:BA:2556:C:C2	3.01	0.48
22:BA:2804:U:H2'	22:BA:2805:C:C6	2.48	0.48
22:BA:569:U:O2'	22:BA:983:A:N1	2.40	0.48
26:BE:125:SER:OG	26:BE:126:VAL:N	2.45	0.48
31:BJ:30:THR:HG22	31:BJ:31:GLU:N	2.28	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:29:THR:OG1	41:BT:86:THR:HG23	2.14	0.48
1:CA:1358:U:H5''	14:CN:73:PHE:O	2.13	0.48
1:CA:145:G:C2	1:CA:146:G:C8	3.01	0.48
1:CA:386:C:C4	1:CA:387:U:C5	3.02	0.48
5:CE:133:PRO:HA	5:CE:136:VAL:HG12	1.96	0.48
5:CE:77:ASN:HB2	5:CE:82:GLN:HG2	1.95	0.48
48:D0:28:LEU:O	48:D0:28:LEU:HD13	2.13	0.48
22:DA:1435:G:O2'	22:DA:1436:G:H5'	2.14	0.48
22:DA:1838:C:H4'	22:DA:1839:G:H8	1.79	0.48
22:DA:1906:G:C8	22:DA:1929:G:H2'	2.49	0.48
22:DA:2221:G:C2'	22:DA:2222:C:H5'	2.43	0.48
22:DA:2326:C:H1'	22:DA:2327:A:OP1	2.14	0.48
22:DA:233:A:C2	22:DA:234:U:H1'	2.48	0.48
22:DA:704:G:H1'	22:DA:726:G:N2	2.29	0.48
22:DA:78:U:OP2	46:DY:2:LYS:HD2	2.14	0.48
22:DA:868:U:C4	22:DA:869:G:N7	2.81	0.48
32:DK:10:VAL:HG12	32:DK:12:ASP:OD1	2.13	0.48
35:DN:53:THR:HA	35:DN:56:LYS:HG3	1.96	0.48
22:DA:396:G:H1'	45:DX:29:PHE:HB3	1.95	0.48
46:DY:48:ARG:O	46:DY:51:ALA:HB3	2.12	0.48
1:AA:469:C:H2'	1:AA:470:C:O4'	2.14	0.48
1:AA:557:G:C6	1:AA:558:G:N1	2.81	0.48
1:AA:685:G:N1	1:AA:686:U:O4	2.47	0.48
1:AA:895:G:C6	1:AA:896:C:C4	3.02	0.48
2:AB:210:VAL:O	2:AB:211:THR:C	2.51	0.48
4:AD:188:ARG:NH2	4:AD:197:GLU:OE2	2.46	0.48
9:AI:57:MET:HA	9:AI:60:LYS:HB2	1.94	0.48
9:AI:88:MET:CG	9:AI:89:GLU:N	2.76	0.48
11:AK:102:ALA:C	11:AK:104:GLY:N	2.67	0.48
13:AM:91:HIS:HA	13:AM:109:ARG:NH2	2.29	0.48
15:AO:37:ASN:O	15:AO:38:HIS:C	2.52	0.48
19:AS:15:LEU:HD13	19:AS:33:THR:HG21	1.96	0.48
49:B1:9:ILE:HG22	49:B1:53:LYS:HB2	1.96	0.48
22:BA:1688:U:N3	22:BA:1698:A:C2	2.82	0.48
22:BA:1816:C:C5	24:BC:62:TYR:CE2	3.02	0.48
22:BA:1954:G:O2'	22:BA:1956:U:O4	2.20	0.48
22:BA:2190:G:C6	22:BA:2191:A:C5	3.01	0.48
22:BA:2318:G:C5	22:BA:2319:G:C6	3.02	0.48
22:BA:2517:C:C5	22:BA:2542:A:C5	3.01	0.48
22:BA:2742:G:OP2	52:B4:24:ARG:NH1	2.47	0.48
22:BA:2888:C:O2	22:BA:2888:C:H2'	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:523:C:O2'	22:BA:524:G:H5'	2.13	0.48
22:BA:569:U:H1'	22:BA:947:A:O4'	2.14	0.48
23:BB:57:A:H2'	23:BB:58:A:O4'	2.14	0.48
24:BC:78:VAL:HG21	24:BC:110:LEU:HD21	1.95	0.48
26:BE:119:ILE:HB	26:BE:187:VAL:HG22	1.95	0.48
29:BH:135:HIS:CD2	29:BH:137:GLU:HG3	2.48	0.48
1:CA:1034:G:H2'	1:CA:1035:A:C8	2.48	0.48
1:CA:1169:A:C6	1:CA:1170:A:C6	3.02	0.48
1:CA:296:U:C4	1:CA:297:G:N7	2.81	0.48
1:CA:775:G:C2'	1:CA:776:G:H5'	2.43	0.48
1:CA:765:G:N1	1:CA:812:G:H1'	2.29	0.48
5:CE:101:GLU:C	5:CE:103:THR:N	2.66	0.48
7:CG:60:GLU:HA	7:CG:63:GLU:HB3	1.95	0.48
10:CJ:57:VAL:HG13	10:CJ:58:ASN:N	2.29	0.48
1:CA:1302:C:C4	13:CM:17:ILE:HD11	2.49	0.48
15:CO:15:PHE:CZ	15:CO:85:LEU:HD11	2.49	0.48
17:CQ:11:ARG:HA	17:CQ:58:VAL:HA	1.95	0.48
22:DA:1046:A:O2'	22:DA:1047:G:OP1	2.26	0.48
22:DA:1360:G:C2	22:DA:1361:G:H1'	2.48	0.48
22:DA:1360:G:H2'	22:DA:1361:G:H5'	1.94	0.48
22:DA:1390:U:C2'	22:DA:1391:U:H5'	2.43	0.48
22:DA:1716:U:C5	22:DA:1743:G:C2	3.01	0.48
22:DA:1783:A:N1	22:DA:2587:A:N3	2.61	0.48
22:DA:197:A:C8	22:DA:2430:A:N7	2.82	0.48
22:DA:2284:A:O2'	22:DA:2288:A:N1	2.32	0.48
22:DA:825:A:H4'	22:DA:2428:G:C5	2.48	0.48
22:DA:358:U:N3	22:DA:359:G:N7	2.62	0.48
22:DA:500:G:N2	22:DA:502:A:C8	2.82	0.48
22:DA:582:A:N7	57:DA:3283:HOH:O	2.35	0.48
22:DA:646:U:H3'	22:DA:647:G:C4'	2.44	0.48
22:DA:919:U:H2'	22:DA:920:A:O4'	2.13	0.48
25:DD:193:VAL:HB	25:DD:194:PRO:CD	2.44	0.48
25:DD:84:LEU:CD1	25:DD:88:GLU:HB2	2.44	0.48
30:DI:54:PRO:HG2	30:DI:78:VAL:HG21	1.95	0.48
33:DL:92:LEU:HD23	33:DL:125:LEU:HD12	1.95	0.48
40:DS:39:THR:O	40:DS:39:THR:HG22	2.13	0.48
46:DY:28:LEU:HB3	46:DY:43:LEU:HD23	1.95	0.48
1:AA:141:G:N2	1:AA:142:G:H1'	2.29	0.48
1:AA:233:C:C2	1:AA:234:C:C5	3.02	0.48
1:AA:316:C:O2	1:AA:316:C:H2'	2.13	0.48
1:AA:451:A:C5'	16:AP:70:ARG:NH2	2.77	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:979:C:H1'	1:AA:1317:C:N4	2.29	0.48
1:AA:992:U:C2	1:AA:1043:G:N7	2.82	0.48
2:AB:128:LYS:O	2:AB:129:LEU:C	2.51	0.48
2:AB:132:LYS:CG	2:AB:133:GLU:N	2.77	0.48
4:AD:62:ARG:NH2	4:AD:63:ARG:NH2	2.61	0.48
10:AJ:6:ILE:CD1	10:AJ:76:ILE:HB	2.43	0.48
12:AL:24:LEU:HG	12:AL:25:GLU:N	2.28	0.48
1:AA:974:A:OP1	14:AN:69:ARG:NH1	2.47	0.48
16:AP:50:THR:HG22	16:AP:50:THR:O	2.14	0.48
16:AP:60:TRP:O	16:AP:63:GLN:N	2.45	0.48
22:BA:1112:G:C5	22:BA:1113:U:C5	3.02	0.48
22:BA:1232:G:C5	22:BA:1233:C:C5	3.02	0.48
22:BA:1366:A:C2	22:BA:1367:A:H1'	2.48	0.48
22:BA:140:C:O4'	22:BA:140:C:O2	2.29	0.48
22:BA:1515:A:H2'	22:BA:1516:G:O4'	2.13	0.48
22:BA:1775:U:H2'	22:BA:1776:G:O5'	2.14	0.48
22:BA:1924:C:H2'	22:BA:1925:C:H5''	1.95	0.48
22:BA:657:U:H2'	22:BA:658:U:C6	2.49	0.48
22:BA:933:A:H5'	22:BA:934:U:OP2	2.14	0.48
23:BB:37:C:C6	23:BB:38:C:C5	3.02	0.48
22:BA:1675:C:N3	25:BD:133:THR:HG21	2.28	0.48
29:BH:103:VAL:HG21	29:BH:132:PHE:CZ	2.49	0.48
31:BJ:99:ARG:O	31:BJ:103:ILE:HD12	2.14	0.48
33:BL:77:ILE:CD1	33:BL:95:LEU:HD13	2.43	0.48
40:BS:47:VAL:O	40:BS:50:VAL:N	2.47	0.48
41:BT:73:ARG:NH2	41:BT:73:ARG:HB3	2.29	0.48
46:BY:59:GLU:HG2	46:BY:59:GLU:O	2.12	0.48
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.77	0.48
1:CA:182:A:C4	1:CA:184:G:N7	2.81	0.48
1:CA:618:C:H5''	1:CA:619:U:H5''	1.96	0.48
1:CA:857:C:H2'	1:CA:858:G:O4'	2.13	0.48
1:CA:890:G:O2'	1:CA:906:A:N6	2.45	0.48
5:CE:101:GLU:OE1	5:CE:101:GLU:O	2.32	0.48
5:CE:36:LEU:HD21	5:CE:137:VAL:HG11	1.95	0.48
6:CF:18:VAL:O	6:CF:21:MET:N	2.46	0.48
1:CA:1291:U:OP1	7:CG:37:SER:CB	2.62	0.48
12:CL:23:ALA:HA	12:CL:61:PHE:CD2	2.49	0.48
12:CL:82:ILE:HD11	12:CL:95:TYR:HB2	1.96	0.48
17:CQ:13:VAL:HG12	17:CQ:22:VAL:HG13	1.95	0.48
19:CS:6:LYS:HB2	19:CS:7:LYS:HE3	1.95	0.48
22:DA:125:A:H3'	50:D2:19:ARG:HG3	1.96	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1339:G:H5'	22:DA:1393:A:N6	2.28	0.48
22:DA:1494:A:H2'	22:DA:1495:A:C8	2.49	0.48
22:DA:2189:U:H2'	22:DA:2190:G:H5'	1.95	0.48
22:DA:224:U:C4	22:DA:225:C:C5	3.02	0.48
22:DA:2504:U:C4	55:DA:3001:VIR:H162	2.48	0.48
22:DA:2505:G:HO2'	22:DA:2506:U:H6	1.58	0.48
22:DA:2566:A:N1	32:DK:28:SER:OG	2.33	0.48
22:DA:489:G:C2	22:DA:491:G:H1'	2.49	0.48
22:DA:527:C:OP2	22:DA:2779:U:N3	2.46	0.48
22:DA:627:A:O2'	33:DL:76:GLU:OE1	2.29	0.48
22:DA:629:G:H4'	22:DA:650:C:O2	2.13	0.48
22:DA:67:U:C2	22:DA:68:G:C8	3.01	0.48
22:DA:748:G:O6	22:DA:751:A:H5'	2.13	0.48
22:DA:972:A:N1	22:DA:973:A:C6	2.82	0.48
23:DB:57:A:H1'	27:DF:27:GLN:HA	1.96	0.48
31:DJ:77:HIS:HA	31:DJ:83:GLY:O	2.14	0.48
31:DJ:94:ALA:O	31:DJ:96:ARG:N	2.47	0.48
33:DL:93:ASN:OD1	33:DL:94:THR:N	2.47	0.48
35:DN:75:ILE:O	35:DN:79:LEU:HD12	2.14	0.48
35:DN:80:PHE:O	35:DN:85:PRO:HD3	2.13	0.48
36:DO:104:GLN:O	36:DO:107:ALA:N	2.47	0.48
38:DQ:62:ILE:HG23	38:DQ:76:TYR:CE2	2.49	0.48
39:DR:81:LYS:N	39:DR:81:LYS:HD3	2.29	0.48
22:DA:851:C:O2'	47:DZ:43:ALA:O	2.29	0.48
1:AA:1000:A:C2	1:AA:1041:G:N2	2.81	0.48
1:AA:1138:G:C2	1:AA:1140:C:C5	3.01	0.48
1:AA:129:A:H1'	1:AA:130:A:C8	2.49	0.48
1:AA:1315:U:C4	1:AA:1316:G:C5	3.02	0.48
1:AA:1360:A:C8	14:AN:58:SER:HB3	2.48	0.48
1:AA:270:A:H2'	1:AA:271:C:C6	2.48	0.48
1:AA:328:C:C2'	1:AA:328:C:O2	2.61	0.48
1:AA:57:G:H2'	1:AA:58:C:C6	2.49	0.48
1:AA:958:A:N6	1:AA:959:A:N1	2.62	0.48
2:AB:31:ILE:HD13	2:AB:39:HIS:CD2	2.48	0.48
6:AF:5:GLU:O	6:AF:6:ILE:HB	2.13	0.48
18:AR:52:GLN:HA	18:AR:52:GLN:OE1	2.13	0.48
53:B5:100:ILE:CG2	53:B5:104:ILE:CB	2.92	0.48
53:B5:50:ILE:O	53:B5:52:PRO:HD3	2.14	0.48
22:BA:1860:G:C6	22:BA:1883:U:O2	2.67	0.48
22:BA:1869:G:O2'	22:BA:1872:A:N6	2.46	0.48
22:BA:996:A:C2	22:BA:997:G:C8	3.01	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:66:GLY:O	25:BD:69:ALA:HB3	2.14	0.48
22:BA:1009:A:P	31:BJ:39:LYS:HZ1	2.27	0.48
39:BR:74:ILE:CD1	39:BR:74:ILE:N	2.76	0.48
1:CA:1219:A:N6	1:CA:1220:G:O6	2.47	0.48
1:CA:117:G:O6	1:CA:289:G:H1'	2.14	0.48
1:CA:39:G:O2'	1:CA:40:C:H5'	2.14	0.48
1:CA:879:C:H2'	1:CA:880:C:O5'	2.13	0.48
2:CB:130:THR:HB	2:CB:132:LYS:HB3	1.95	0.48
9:CI:31:ASN:O	9:CI:32:GLN:C	2.51	0.48
11:CK:46:THR:O	11:CK:50:SER:OG	2.23	0.48
18:CR:20:GLU:O	18:CR:22:ASP:N	2.46	0.48
18:CR:25:ASP:O	18:CR:26:ILE:C	2.51	0.48
50:D2:11:LYS:NZ	57:D2:201:HOH:O	2.45	0.48
22:DA:1354:A:C8	22:DA:1355:G:C8	3.01	0.48
22:DA:1680:U:O2'	22:DA:1763:G:N7	2.40	0.48
22:DA:1785:A:N1	22:DA:1787:A:H1'	2.28	0.48
22:DA:185:G:N1	22:DA:212:G:N3	2.62	0.48
22:DA:2418:A:H2'	22:DA:2419:U:O4'	2.13	0.48
22:DA:2615:U:C2	48:D0:4:GLN:HA	2.48	0.48
22:DA:2700:A:C2	22:DA:2708:G:C2	3.02	0.48
22:DA:2690:U:O2'	22:DA:2872:A:H1'	2.13	0.48
22:DA:553:G:H2'	22:DA:554:U:O4'	2.13	0.48
22:DA:67:U:H2'	22:DA:68:G:O4'	2.14	0.48
22:DA:858:G:N2	22:DA:919:U:O4	2.45	0.48
22:DA:856:G:C2	22:DA:922:C:C2	3.02	0.48
24:DC:160:THR:N	24:DC:195:VAL:HG13	2.28	0.48
24:DC:247:PRO:HB2	24:DC:248:TRP:CZ3	2.49	0.48
31:DJ:76:HIS:CE1	31:DJ:85:LYS:HB2	2.48	0.48
26:DE:181:ILE:HG23	33:DL:2:ARG:HD3	1.95	0.48
46:DY:45:GLN:C	46:DY:47:ARG:N	2.67	0.48
1:AA:49:U:O4	1:AA:365:U:H5	1.97	0.48
1:AA:652:U:O2'	1:AA:653:U:OP2	2.25	0.48
1:AA:760:G:C5	1:AA:761:G:C8	3.02	0.48
1:AA:803:G:C5	1:AA:804:U:C4	3.02	0.48
4:AD:38:PRO:HD2	4:AD:42:GLY:HA3	1.95	0.48
6:AF:38:ARG:NH1	6:AF:99:ALA:HB3	2.29	0.48
7:AG:129:GLU:O	7:AG:130:ASN:C	2.51	0.48
1:AA:1173:U:OP1	7:AG:5:ARG:NH1	2.47	0.48
9:AI:84:THR:HG21	9:AI:103:PHE:HB3	1.96	0.48
19:AS:5:LEU:C	19:AS:6:LYS:HG3	2.32	0.48
19:AS:5:LEU:HD23	19:AS:9:PRO:HA	1.96	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1098:A:H5'	22:BA:1099:G:OP2	2.13	0.48
22:BA:1189:A:H2'	22:BA:1190:G:O4'	2.14	0.48
22:BA:1356:G:C6	22:BA:1357:C:C4	3.02	0.48
22:BA:1678:A:H2'	22:BA:1679:A:H5'	1.95	0.48
22:BA:167:A:H2'	22:BA:168:G:O4'	2.13	0.48
22:BA:2202:U:H5''	22:BA:2203:U:OP1	2.13	0.48
22:BA:2500:U:O2	22:BA:2504:U:C4	2.67	0.48
22:BA:2727:A:C2'	22:BA:2728:U:H5'	2.43	0.48
22:BA:451:U:C2	22:BA:453:A:N7	2.82	0.48
22:BA:871:U:H2'	22:BA:872:U:C6	2.49	0.48
28:BG:97:ALA:HA	28:BG:125:CYS:SG	2.54	0.48
30:BI:127:ARG:HA	30:BI:130:GLU:CG	2.43	0.48
38:BQ:108:ALA:HB1	39:BR:48:LYS:NZ	2.29	0.48
42:BU:95:PHE:O	42:BU:95:PHE:CD1	2.67	0.48
1:CA:1280:A:C8	10:CJ:42:LEU:HD23	2.49	0.48
1:CA:1426:G:H2'	1:CA:1427:C:O4'	2.14	0.48
1:CA:504:C:O4'	1:CA:510:A:C2	2.66	0.48
1:CA:552:U:N3	1:CA:553:A:N7	2.62	0.48
4:CD:105:MET:SD	4:CD:143:VAL:HG13	2.54	0.48
6:CF:99:ALA:O	6:CF:100:SER:HB3	2.13	0.48
7:CG:113:ASP:HB2	7:CG:119:ARG:HG3	1.96	0.48
1:CA:502:A:OP1	12:CL:115:SER:CB	2.62	0.48
13:CM:96:PRO:HB3	13:CM:100:GLN:NE2	2.29	0.48
22:DA:122:G:H2'	22:DA:123:G:O4'	2.13	0.48
22:DA:1404:C:O2'	22:DA:1405:U:H5'	2.14	0.48
22:DA:150:U:H2'	22:DA:151:C:C6	2.49	0.48
22:DA:1545:A:C8	22:DA:1546:G:C8	3.02	0.48
22:DA:2195:U:C2	22:DA:2196:C:C6	3.02	0.48
22:DA:2350:C:H2'	22:DA:2351:G:O4'	2.13	0.48
22:DA:389:G:N9	22:DA:2413:G:H4'	2.29	0.48
22:DA:2567:G:H2'	22:DA:2568:U:C6	2.48	0.48
22:DA:2706:A:C2	22:DA:2707:U:C2	3.02	0.48
22:DA:2747:G:O6	22:DA:2755:C:H5''	2.13	0.48
22:DA:572:A:H5''	22:DA:573:U:OP2	2.14	0.48
22:DA:586:A:N1	22:DA:809:G:O2'	2.28	0.48
24:DC:147:LYS:O	24:DC:150:LYS:HB3	2.13	0.48
27:DF:176:PRO:O	27:DF:177:PHE:HB2	2.14	0.48
42:DU:52:LEU:O	42:DU:53:ASN:CG	2.52	0.48
22:DA:2387:U:H1'	44:DW:41:ARG:CD	2.43	0.48
1:AA:105:G:H2'	1:AA:106:C:C6	2.49	0.47
1:AA:1167:A:N7	1:AA:1169:A:C6	2.81	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1191:A:OP2	3:AC:3:GLN:NE2	2.47	0.47
1:AA:1197:A:OP1	1:AA:1198:G:OP2	2.32	0.47
1:AA:1307:U:C2	1:AA:1308:U:C5	3.02	0.47
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.14	0.47
1:AA:350:G:O2'	1:AA:351:G:H5'	2.14	0.47
1:AA:373:A:N3	1:AA:374:A:C8	2.82	0.47
1:AA:409:U:OP1	4:AD:24:GLY:HA3	2.14	0.47
1:AA:451:A:C2	1:AA:480:U:C4	3.02	0.47
1:AA:645:G:C5	1:AA:646:G:N7	2.82	0.47
1:AA:781:A:C5	1:AA:802:A:C2	3.02	0.47
1:AA:842:U:H3'	1:AA:843:U:C5'	2.43	0.47
2:AB:151:ILE:HG23	2:AB:152:LYS:N	2.28	0.47
2:AB:96:TRP:CZ3	2:AB:175:GLU:OE2	2.67	0.47
2:AB:53:ALA:O	2:AB:57:LEU:HB2	2.13	0.47
3:AC:22:TRP:CZ2	3:AC:32:ASN:HB3	2.49	0.47
1:AA:1346:A:C8	7:AG:10:ARG:NH2	2.82	0.47
7:AG:75:VAL:HB	7:AG:86:GLN:HG3	1.95	0.47
1:AA:598:U:H4'	8:AH:86:TYR:CD2	2.49	0.47
10:AJ:49:PHE:CD2	14:AN:77:PHE:CE2	3.02	0.47
17:AQ:16:LYS:O	17:AQ:17:MET:HE3	2.14	0.47
1:AA:1539:C:O3'	21:AU:18:ARG:HB3	2.14	0.47
53:B5:44:VAL:HG23	53:B5:179:ALA:HB2	1.97	0.47
22:BA:1011:G:H1'	22:BA:1013:C:O4'	2.14	0.47
22:BA:1283:G:N2	22:BA:1285:A:H3'	2.29	0.47
22:BA:1487:U:C2	22:BA:1503:A:C2	3.01	0.47
22:BA:1680:U:H2'	22:BA:1681:G:O4'	2.14	0.47
22:BA:215:G:H4'	22:BA:216:A:H4'	1.96	0.47
22:BA:265:A:N1	22:BA:427:U:O2'	2.36	0.47
22:BA:468:G:C6	22:BA:469:G:C4	3.02	0.47
24:BC:75:PRO:HG2	24:BC:97:LYS:HD2	1.96	0.47
30:BI:116:ASP:O	30:BI:117:MET:HB2	2.13	0.47
35:BN:32:GLU:HA	35:BN:115:LEU:HD12	1.95	0.47
36:BO:103:VAL:O	36:BO:106:LEU:N	2.47	0.47
22:BA:2334:U:O4	36:BO:16:ARG:HD3	2.14	0.47
1:CA:412:A:O2'	1:CA:413:G:H4'	2.14	0.47
29:BH:91:PHE:O	1:CA:55:A:C6	2.67	0.47
1:CA:688:G:O2'	1:CA:704:A:N1	2.34	0.47
1:CA:790:A:N6	1:CA:791:G:C6	2.82	0.47
9:CI:31:ASN:HA	9:CI:66:THR:HG22	1.95	0.47
11:CK:97:ILE:HG13	11:CK:98:ARG:N	2.29	0.47
16:CP:56:ARG:O	16:CP:59:HIS:N	2.46	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:50:ASN:O	17:CQ:52:GLU:N	2.47	0.47
21:CU:39:GLU:CD	21:CU:42:THR:HG1	2.18	0.47
22:DA:56:A:C2	22:DA:115:C:C2	3.02	0.47
22:DA:1432:G:C2	22:DA:1433:A:C4	3.02	0.47
22:DA:161:A:P	22:DA:162:U:H3'	2.53	0.47
22:DA:1806:C:N4	22:DA:1807:G:C5	2.82	0.47
22:DA:2552:U:C2	22:DA:2554:U:C5'	2.97	0.47
22:DA:2823:A:C5	22:DA:2824:C:C5	3.01	0.47
22:DA:35:G:N2	22:DA:450:G:H1'	2.29	0.47
22:DA:35:G:C4	22:DA:454:A:C2	3.02	0.47
22:DA:511:U:O2'	22:DA:1215:G:N2	2.46	0.47
22:DA:513:A:C2	22:DA:514:A:C8	3.02	0.47
22:DA:671:C:C2'	22:DA:672:C:O5'	2.61	0.47
22:DA:694:U:C3'	22:DA:695:G:H5''	2.44	0.47
22:DA:845:A:N3	22:DA:845:A:H3'	2.30	0.47
26:DE:173:THR:HG23	26:DE:199:MET:SD	2.54	0.47
32:DK:73:ASP:O	37:DP:75:GLN:HG3	2.14	0.47
35:DN:58:ASP:OD1	35:DN:63:ARG:HD2	2.13	0.47
37:DP:29:LYS:HB3	37:DP:40:LEU:CD2	2.43	0.47
40:DS:7:HIS:HB2	40:DS:50:VAL:CG2	2.43	0.47
41:DT:51:PHE:O	41:DT:53:VAL:HG22	2.14	0.47
22:DA:189:G:OP1	45:DX:26:LYS:HE2	2.13	0.47
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.50	0.47
1:AA:365:U:H5''	1:AA:366:A:OP1	2.13	0.47
1:AA:39:G:N3	1:AA:40:C:C6	2.82	0.47
1:AA:444:G:C6	1:AA:445:G:N7	2.82	0.47
4:AD:123:ILE:H	4:AD:123:ILE:HD13	1.78	0.47
4:AD:153:SER:O	4:AD:155:VAL:N	2.47	0.47
5:AE:136:VAL:O	5:AE:140:THR:OG1	2.32	0.47
6:AF:15:SER:O	6:AF:18:VAL:HG23	2.14	0.47
22:BA:2249:U:H4'	22:BA:2250:G:OP2	2.14	0.47
22:BA:417:C:O2'	22:BA:418:C:H5'	2.14	0.47
22:BA:646:U:H5'	22:BA:647:G:H5''	1.96	0.47
22:BA:674:G:H1'	26:BE:69:ARG:HD3	1.96	0.47
22:BA:995:C:H5'	22:BA:995:C:H6	1.78	0.47
23:BB:22:U:H2'	23:BB:23:G:C8	2.48	0.47
24:BC:15:HIS:O	24:BC:204:VAL:HG21	2.14	0.47
22:BA:1789:A:OP2	24:BC:221:ARG:NH1	2.47	0.47
26:BE:128:ALA:HB1	26:BE:129:PRO:HD2	1.96	0.47
22:BA:2749:A:OP1	28:BG:2:SER:N	2.47	0.47
29:BH:116:ARG:O	29:BH:118:PRO:HD3	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BX:45:ARG:HG2	45:BX:46:PHE:N	2.30	0.47
1:CA:380:G:N2	1:CA:383:A:OP2	2.45	0.47
1:CA:406:G:C2	1:CA:407:U:C5	3.02	0.47
2:CB:164:ILE:HG23	2:CB:165:ASP:N	2.29	0.47
5:CE:151:GLU:O	5:CE:154:ALA:HB3	2.14	0.47
13:CM:54:ASP:HA	13:CM:57:ARG:HB3	1.95	0.47
14:CN:41:ARG:NH2	14:CN:43:ASN:OD1	2.47	0.47
22:DA:1060:U:OP2	30:DI:75:PRO:HA	2.14	0.47
22:DA:1360:G:C2'	22:DA:1361:G:H5'	2.44	0.47
22:DA:141:G:H3'	22:DA:142:A:C8	2.48	0.47
22:DA:228:C:C5'	22:DA:229:C:C6	2.97	0.47
22:DA:2599:G:N7	24:DC:235:GLY:O	2.47	0.47
22:DA:269:C:O2	22:DA:269:C:H2'	2.14	0.47
22:DA:38:A:H2'	22:DA:39:G:O4'	2.14	0.47
22:DA:451:U:H2'	22:DA:453:A:N7	2.30	0.47
22:DA:53:A:N7	22:DA:54:G:N7	2.61	0.47
22:DA:693:A:C6	22:DA:694:U:C4	3.03	0.47
22:DA:686:U:H2'	22:DA:788:A:N1	2.29	0.47
24:DC:147:LYS:HB2	24:DC:150:LYS:CB	2.44	0.47
29:DH:117:LEU:HD11	29:DH:130:VAL:HG22	1.95	0.47
30:DI:24:VAL:CG2	30:DI:28:LEU:HD23	2.45	0.47
30:DI:75:PRO:HG2	30:DI:78:VAL:HG21	1.96	0.47
31:DJ:15:TRP:O	31:DJ:137:PRO:HA	2.14	0.47
31:DJ:13:ARG:HG2	31:DJ:51:GLY:O	2.15	0.47
31:DJ:84:ILE:HG23	31:DJ:84:ILE:O	2.13	0.47
35:DN:31:HIS:O	35:DN:33:ILE:HG22	2.13	0.47
38:DQ:94:ILE:HD13	39:DR:11:GLN:HB2	1.96	0.47
42:DU:13:VAL:HG21	42:DU:39:ILE:HG23	1.95	0.47
22:DA:2262:U:OP2	44:DW:16:SER:HB2	2.14	0.47
1:AA:1452:C:O4'	1:AA:1453:G:C2	2.66	0.47
1:AA:181:A:N6	1:AA:195:A:C8	2.83	0.47
1:AA:503:C:H6	1:AA:503:C:O5'	1.97	0.47
1:AA:578:C:P	57:AA:1739:HOH:O	2.73	0.47
1:AA:57:G:H2'	1:AA:58:C:O4'	2.14	0.47
1:AA:986:U:C2	1:AA:987:G:C8	3.02	0.47
2:AB:111:ILE:CD1	2:AB:111:ILE:N	2.78	0.47
2:AB:95:ARG:HG2	2:AB:95:ARG:HH11	1.78	0.47
6:AF:90:MET:O	6:AF:91:ARG:O	2.32	0.47
1:AA:624:C:H4'	16:AP:11:ALA:HB2	1.96	0.47
16:AP:51:ARG:CZ	16:AP:51:ARG:HB3	2.44	0.47
17:AQ:53:CYS:SG	17:AQ:75:LEU:CD2	3.03	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1031:G:H4'	52:B4:6:SER:HB2	1.96	0.47
22:BA:1185:G:H5''	22:BA:1186:G:OP1	2.15	0.47
22:BA:1299:G:H8	22:BA:1299:G:O5'	1.98	0.47
22:BA:1374:G:C5	22:BA:1375:U:C5	3.02	0.47
22:BA:419:U:H2'	22:BA:420:C:C6	2.49	0.47
22:BA:55:G:C2	22:BA:56:A:C8	3.02	0.47
28:BG:52:PHE:CE1	28:BG:69:ARG:HA	2.49	0.47
40:BS:83:LYS:C	40:BS:84:ARG:HG2	2.32	0.47
41:BT:49:LYS:N	41:BT:49:LYS:HD3	2.29	0.47
41:BT:33:LYS:HG3	41:BT:80:TRP:CE3	2.49	0.47
46:BY:9:LYS:HE2	46:BY:11:VAL:CG2	2.44	0.47
1:CA:1028:C:C6	1:CA:1034:G:N2	2.83	0.47
1:CA:636:U:H2'	1:CA:637:C:C6	2.49	0.47
1:CA:913:A:H4'	1:CA:914:A:OP1	2.14	0.47
4:CD:202:GLU:CD	5:CE:105:ILE:CG2	2.83	0.47
9:CI:17:ALA:HB2	9:CI:67:VAL:HB	1.96	0.47
10:CJ:35:GLN:O	10:CJ:36:VAL:CB	2.61	0.47
11:CK:72:ASP:O	11:CK:73:ALA:HB3	2.14	0.47
17:CQ:45:HIS:O	17:CQ:71:LYS:HA	2.14	0.47
18:CR:45:THR:HG1	18:CR:47:THR:CG2	2.27	0.47
22:DA:1182:G:H2'	22:DA:1183:U:O4'	2.15	0.47
22:DA:1351:C:O2'	22:DA:1571:A:H1'	2.13	0.47
22:DA:1364:G:H1'	22:DA:1368:G:N2	2.30	0.47
22:DA:1469:A:C2	22:DA:1470:A:C4	3.03	0.47
22:DA:1813:G:H2'	22:DA:1814:G:O4'	2.14	0.47
22:DA:1799:G:N1	22:DA:1819:A:OP2	2.36	0.47
22:DA:1870:C:C3'	22:DA:1871:A:H5'	2.43	0.47
22:DA:2518:A:N3	22:DA:2518:A:H2'	2.29	0.47
22:DA:2571:U:C4	22:DA:2574:G:C8	3.02	0.47
22:DA:2861:U:C2	22:DA:2862:G:C8	3.02	0.47
22:DA:358:U:C2	22:DA:359:G:C8	3.02	0.47
22:DA:463:G:N2	22:DA:466:A:OP2	2.33	0.47
22:DA:45:G:H4'	22:DA:46:G:O4'	2.15	0.47
22:DA:547:A:H3'	22:DA:548:G:H5'	1.95	0.47
29:DH:62:LEU:O	29:DH:62:LEU:HD22	2.14	0.47
32:DK:92:GLU:O	32:DK:93:GLN:CB	2.62	0.47
33:DL:81:ASP:O	33:DL:82:LEU:CD2	2.63	0.47
37:DP:89:ARG:HD2	37:DP:113:ARG:CZ	2.44	0.47
37:DP:54:GLY:O	37:DP:77:HIS:NE2	2.46	0.47
1:AA:198:G:C5	1:AA:220:G:C2	3.02	0.47
1:AA:262:A:H2'	1:AA:263:A:C8	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:57:G:C5	1:AA:58:C:C4	3.02	0.47
1:AA:695:A:N1	1:AA:696:A:C2	2.82	0.47
1:AA:1073:U:O2'	2:AB:103:ASN:OD1	2.29	0.47
2:AB:56:GLU:HA	2:AB:59:LYS:HB3	1.96	0.47
2:AB:91:PHE:CE1	2:AB:150:GLY:CA	2.97	0.47
11:AK:88:GLY:N	11:AK:114:THR:HG22	2.29	0.47
11:AK:27:PHE:CE2	11:AK:89:PRO:HG2	2.49	0.47
12:AL:51:LYS:CD	12:AL:51:LYS:N	2.76	0.47
13:AM:51:GLY:O	13:AM:55:THR:HG23	2.14	0.47
14:AN:20:TYR:O	14:AN:23:LYS:HB3	2.14	0.47
18:AR:48:ARG:N	18:AR:48:ARG:CD	2.77	0.47
21:AU:37:PHE:HB3	21:AU:41:PRO:CG	2.44	0.47
48:B0:41:HIS:HA	48:B0:49:TYR:OH	2.14	0.47
49:B1:11:LEU:HD23	49:B1:11:LEU:N	2.29	0.47
22:BA:1064:C:H2'	22:BA:1064:C:O2	2.13	0.47
22:BA:1239:G:H2'	22:BA:1240:U:O4'	2.14	0.47
22:BA:2529:G:OP1	28:BG:172:LYS:NZ	2.48	0.47
22:BA:999:U:H5''	22:BA:1154:G:O6	2.14	0.47
23:BB:14:U:O2	23:BB:107:G:H4'	2.14	0.47
25:BD:4:LEU:HD22	25:BD:101:PHE:HE1	1.79	0.47
27:BF:14:LYS:O	27:BF:18:THR:HG22	2.15	0.47
29:BH:111:ALA:O	29:BH:114:GLU:HB2	2.13	0.47
41:BT:1:MET:HB2	41:BT:2:ILE:HD12	1.97	0.47
1:CA:1074:G:H4'	2:CB:103:ASN:CB	2.43	0.47
1:CA:1295:U:H2'	1:CA:1296:C:C6	2.49	0.47
1:CA:207:C:O2'	1:CA:213:G:N2	2.47	0.47
1:CA:377:G:O2'	1:CA:378:G:H5'	2.14	0.47
1:CA:604:G:C6	1:CA:605:U:N3	2.82	0.47
1:CA:600:A:C2	1:CA:639:G:C4	3.03	0.47
1:CA:756:C:C2'	1:CA:757:U:H5'	2.45	0.47
2:CB:99:GLY:O	2:CB:103:ASN:N	2.46	0.47
2:CB:102:THR:HB	2:CB:175:GLU:HG2	1.97	0.47
9:CI:127:PHE:CD1	9:CI:127:PHE:C	2.87	0.47
9:CI:51:PRO:HB3	9:CI:84:THR:HG23	1.96	0.47
12:CL:21:VAL:HG12	12:CL:95:TYR:CE1	2.49	0.47
14:CN:16:LEU:HB3	14:CN:55:SER:HA	1.96	0.47
14:CN:62:ASN:HB3	14:CN:73:PHE:CD2	2.49	0.47
19:CS:75:ALA:N	19:CS:76:PRO:HD3	2.28	0.47
22:DA:1525:A:H2'	22:DA:1526:C:O4'	2.14	0.47
22:DA:2110:G:C6	22:DA:2120:G:C8	3.02	0.47
22:DA:228:C:H4'	22:DA:229:C:H5''	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2300:C:C2	22:DA:2317:A:C2	3.03	0.47
22:DA:9:G:C6	22:DA:2629:U:C6	3.03	0.47
22:DA:2744:G:C6	22:DA:2761:A:C6	3.02	0.47
22:DA:301:G:C2	22:DA:302:C:N3	2.83	0.47
22:DA:319:G:O2'	22:DA:320:A:H5'	2.15	0.47
22:DA:454:A:H4'	22:DA:455:C:OP2	2.14	0.47
22:DA:56:A:C2	22:DA:57:C:C2	3.03	0.47
22:DA:590:A:C5	22:DA:591:U:C5	3.02	0.47
22:DA:600:G:OP1	26:DE:24:ASN:ND2	2.45	0.47
24:DC:176:LEU:HD12	24:DC:180:GLU:HB3	1.96	0.47
28:DG:111:HIS:O	28:DG:111:HIS:ND1	2.47	0.47
33:DL:85:VAL:O	33:DL:86:GLU:HB3	2.14	0.47
1:AA:1082:A:C2	1:AA:1083:U:C2	3.02	0.47
1:AA:1328:C:H2'	1:AA:1329:A:O4'	2.15	0.47
1:AA:178:C:H2'	1:AA:179:A:O4'	2.14	0.47
1:AA:19:A:C2	1:AA:917:G:C4	3.02	0.47
1:AA:200:G:C2	1:AA:218:U:O2	2.67	0.47
1:AA:392:C:C2	1:AA:393:A:C8	3.02	0.47
1:AA:810:C:H2'	1:AA:810:C:O2	2.14	0.47
1:AA:895:G:H2'	1:AA:896:C:C6	2.49	0.47
1:AA:965:U:C2	1:AA:969:A:C2	3.03	0.47
4:AD:157:ALA:O	4:AD:161:LEU:HD22	2.15	0.47
5:AE:108:GLY:O	5:AE:110:ALA:N	2.48	0.47
6:AF:40:GLU:HB2	6:AF:61:LEU:HB3	1.97	0.47
11:AK:126:LYS:CA	21:AU:34:ARG:NH2	2.76	0.47
11:AK:30:THR:HG21	11:AK:91:PRO:O	2.15	0.47
10:AJ:53:ILE:HD11	14:AN:85:ARG:NH1	2.29	0.47
15:AO:63:ARG:HG2	15:AO:67:LEU:CD1	2.43	0.47
17:AQ:81:LYS:HD3	17:AQ:81:LYS:N	2.29	0.47
19:AS:29:LYS:O	19:AS:30:PRO:O	2.32	0.47
19:AS:58:VAL:CG1	19:AS:75:ALA:HB1	2.44	0.47
1:AA:178:C:OP2	20:AT:60:ARG:NH2	2.48	0.47
20:AT:67:ILE:O	20:AT:68:HIS:C	2.52	0.47
21:AU:29:LEU:C	21:AU:29:LEU:HD23	2.34	0.47
53:B5:78:ILE:HG23	53:B5:78:ILE:O	2.14	0.47
22:BA:1000:A:C4	22:BA:1155:A:C6	3.02	0.47
22:BA:1188:U:H2'	22:BA:1189:A:H5'	1.95	0.47
22:BA:1359:A:C8	22:BA:1373:A:C2	3.02	0.47
22:BA:1414:C:C5	22:BA:1415:U:H5	2.33	0.47
22:BA:221:A:C8	22:BA:266:G:O6	2.66	0.47
22:BA:2259:U:C6	22:BA:2427:C:C4	3.02	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2531:A:C6	22:BA:2532:G:C5	3.03	0.47
22:BA:45:G:H5'	22:BA:46:G:OP1	2.15	0.47
22:BA:61:C:C2	22:BA:94:A:C2	3.03	0.47
22:BA:999:U:H5	22:BA:1154:G:C5	2.29	0.47
23:BB:15:A:C8	23:BB:109:A:C6	3.02	0.47
27:BF:107:ALA:C	27:BF:109:PRO:HD2	2.35	0.47
29:BH:117:LEU:HD23	29:BH:121:VAL:HA	1.95	0.47
1:CA:608:A:H2'	1:CA:609:A:O4'	2.14	0.47
1:CA:716:A:C6	1:CA:717:U:N3	2.82	0.47
1:CA:78:A:C2	1:CA:92:U:O2	2.67	0.47
2:CB:186:ILE:HA	2:CB:200:ILE:O	2.14	0.47
3:CC:181:ASP:OD2	3:CC:204:LYS:HB2	2.14	0.47
9:CI:28:ILE:CB	9:CI:35:LEU:HB2	2.45	0.47
1:CA:562:U:H1'	12:CL:12:ARG:HG3	1.96	0.47
1:CA:1226:C:C4	13:CM:103:LYS:HA	2.49	0.47
13:CM:68:ASP:O	13:CM:72:GLU:HG3	2.13	0.47
22:DA:134:G:N2	22:DA:146:A:N3	2.63	0.47
22:DA:1350:C:N3	22:DA:1382:G:C2	2.82	0.47
22:DA:1355:G:C2'	22:DA:1356:G:H5'	2.43	0.47
22:DA:2094:A:H4'	29:DH:25:TYR:CE1	2.49	0.47
22:DA:2371:G:C2	22:DA:2372:U:C5	3.02	0.47
22:DA:2624:G:C2'	22:DA:2625:G:H5'	2.45	0.47
22:DA:1638:C:H5''	22:DA:2710:C:O2'	2.14	0.47
22:DA:1754:A:N1	22:DA:2716:C:O2'	2.47	0.47
22:DA:751:A:C6	22:DA:789:A:C6	3.03	0.47
24:DC:67:PHE:CE2	24:DC:156:ARG:CZ	2.97	0.47
22:DA:1843:C:H4'	24:DC:251:GLN:OE1	2.15	0.47
24:DC:33:LEU:C	24:DC:64:ILE:HD12	2.34	0.47
26:DE:72:SER:O	26:DE:74:LYS:N	2.46	0.47
27:DF:31:VAL:CG1	27:DF:97:TRP:CH2	2.98	0.47
40:DS:7:HIS:HB2	40:DS:50:VAL:HG21	1.96	0.47
1:AA:1210:C:N4	1:AA:1211:U:C4	2.82	0.47
1:AA:1353:G:N3	1:AA:1354:U:C6	2.83	0.47
1:AA:223:A:C6	1:AA:224:U:C4	3.03	0.47
1:AA:557:G:H2'	1:AA:558:G:C8	2.49	0.47
1:AA:90:C:N3	1:AA:91:U:C5	2.82	0.47
1:AA:953:G:C2'	1:AA:954:G:H5'	2.45	0.47
1:AA:989:U:C2'	1:AA:990:C:O5'	2.63	0.47
3:AC:205:GLY:O	3:AC:206:GLU:CG	2.61	0.47
3:AC:36:ASP:O	3:AC:39:VAL:HG22	2.15	0.47
6:AF:18:VAL:N	6:AF:19:PRO:CD	2.77	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:5:ASP:OD2	8:AH:8:ALA:HB2	2.15	0.47
1:AA:1371:G:OP1	9:AI:13:LYS:HD3	2.14	0.47
10:AJ:19:ASP:HA	10:AJ:22:THR:HB	1.96	0.47
10:AJ:92:LEU:O	10:AJ:93:ALA:HB3	2.14	0.47
13:AM:16:VAL:HG13	13:AM:34:LEU:HD13	1.97	0.47
17:AQ:45:HIS:CB	17:AQ:70:THR:HG23	2.45	0.47
20:AT:44:LYS:HG2	20:AT:87:ALA:HA	1.97	0.47
22:BA:1047:G:N2	22:BA:1110:G:C4	2.82	0.47
22:BA:1171:G:C6	22:BA:1172:C:N3	2.83	0.47
22:BA:1548:A:H2'	22:BA:1549:A:C8	2.50	0.47
22:BA:1584:U:O2	22:BA:1584:U:C2'	2.62	0.47
22:BA:181:A:C2	22:BA:182:A:C4	3.02	0.47
22:BA:2298:A:N6	22:BA:2318:G:H1'	2.29	0.47
22:BA:2502:G:C5'	22:BA:2503:A:C5'	2.92	0.47
22:BA:651:G:C2'	22:BA:652:U:H5'	2.45	0.47
41:BT:41:ALA:O	41:BT:44:LYS:N	2.48	0.47
43:BV:47:VAL:O	43:BV:50:MET:HB2	2.15	0.47
44:BW:28:GLY:O	44:BW:66:LYS:HG2	2.14	0.47
47:BZ:47:MET:O	47:BZ:51:VAL:HG22	2.15	0.47
1:CA:1345:U:C2	1:CA:1377:A:N1	2.82	0.47
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.96	0.47
1:CA:519:C:H2'	1:CA:520:A:O4'	2.13	0.47
1:CA:607:A:N1	1:CA:608:A:C2	2.82	0.47
1:CA:892:A:C2	1:CA:907:A:C4	3.03	0.47
2:CB:217:VAL:HG12	2:CB:218:ALA:N	2.29	0.47
2:CB:17:GLY:O	2:CB:40:ILE:HA	2.14	0.47
7:CG:69:VAL:HG12	7:CG:134:ALA:O	2.15	0.47
13:CM:43:VAL:O	13:CM:43:VAL:HG23	2.15	0.47
17:CQ:19:LYS:CD	17:CQ:49:GLU:HA	2.45	0.47
17:CQ:47:HIS:HB2	17:CQ:67:LEU:HD13	1.95	0.47
22:DA:1034:G:C6	22:DA:1035:U:C4	3.02	0.47
22:DA:2119:A:N1	22:DA:2170:A:C5	2.83	0.47
22:DA:2186:G:C5	22:DA:2187:U:C4	3.03	0.47
22:DA:2817:U:O2	22:DA:2836:U:H1'	2.14	0.47
22:DA:669:G:N2	22:DA:670:A:C2	2.83	0.47
22:DA:802:A:C5	22:DA:803:U:C4	3.03	0.47
22:DA:822:G:H5''	57:DA:3341:HOH:O	2.14	0.47
22:DA:995:C:C6	38:DQ:57:PHE:CE2	3.02	0.47
27:DF:16:LEU:HD11	27:DF:169:LEU:CD1	2.44	0.47
30:DI:101:ILE:HG22	30:DI:102:SER:N	2.30	0.47
30:DI:8:TYR:CD1	30:DI:8:TYR:O	2.68	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:39:LYS:HE3	31:DJ:39:LYS:HA	1.95	0.47
39:DR:58:VAL:O	39:DR:58:VAL:HG22	2.15	0.47
1:AA:196:A:N3	1:AA:222:C:H1'	2.29	0.47
1:AA:655:A:C2	1:AA:656:G:C4	3.02	0.47
1:AA:774:G:C4	1:AA:775:G:C8	3.03	0.47
2:AB:103:ASN:O	2:AB:106:THR:O	2.33	0.47
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.15	0.47
3:AC:156:ARG:HD3	3:AC:193:TYR:O	2.15	0.47
3:AC:22:TRP:CB	3:AC:59:ARG:HG2	2.44	0.47
8:AH:20:ALA:O	8:AH:21:ASN:C	2.53	0.47
1:AA:1371:G:P	9:AI:13:LYS:HD3	2.55	0.47
12:AL:44:LYS:HB2	12:AL:45:PRO:HD3	1.93	0.47
20:AT:67:ILE:HD11	20:AT:71:LYS:CE	2.45	0.47
22:BA:1447:C:H2'	22:BA:1448:G:C8	2.50	0.47
22:BA:1601:G:OP1	41:BT:64:LYS:NZ	2.46	0.47
22:BA:1717:A:C5	22:BA:1718:G:C8	3.02	0.47
22:BA:1846:G:O3'	22:BA:1847:A:O4'	2.33	0.47
22:BA:1856:U:O4	22:BA:1857:G:C6	2.68	0.47
22:BA:1916:A:C2'	22:BA:1917:U:H4'	2.44	0.47
22:BA:2065:C:H2'	22:BA:2066:C:H6	1.80	0.47
22:BA:2180:U:H5''	22:BA:2181:U:OP2	2.14	0.47
22:BA:250:G:C6	22:BA:251:A:C5	3.02	0.47
22:BA:2636:C:H2'	22:BA:2637:U:H6	1.80	0.47
22:BA:26:G:C6	22:BA:27:G:N1	2.82	0.47
24:BC:144:VAL:HG12	24:BC:145:GLU:O	2.15	0.47
24:BC:171:TYR:CD1	24:BC:185:GLU:HA	2.49	0.47
39:BR:49:ILE:HB	39:BR:52:PRO:HA	1.97	0.47
42:BU:26:LYS:N	42:BU:35:ILE:O	2.47	0.47
1:CA:1073:U:H5'	1:CA:1074:G:OP2	2.15	0.47
1:CA:68:G:N2	1:CA:152:A:H1'	2.29	0.47
1:CA:157:U:O2'	1:CA:158:G:H5'	2.15	0.47
1:CA:604:G:N7	1:CA:605:U:C5	2.83	0.47
1:CA:664:G:H2'	1:CA:666:G:OP1	2.14	0.47
1:CA:667:G:C2	1:CA:740:U:O2	2.68	0.47
1:CA:821:G:H2'	1:CA:822:U:H6	1.79	0.47
7:CG:46:ALA:HB2	7:CG:117:ALA:HA	1.97	0.47
17:CQ:4:LYS:HG2	17:CQ:5:ILE:N	2.28	0.47
20:CT:60:ARG:O	20:CT:64:LYS:HB2	2.15	0.47
51:D3:7:VAL:O	51:D3:10:ALA:HB3	2.15	0.47
52:D4:36:ARG:HG2	52:D4:37:GLN:N	2.30	0.47
22:DA:1062:G:C5	22:DA:1088:A:H2'	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1177:G:H2'	22:DA:1178:C:O4'	2.14	0.47
22:DA:155:A:H2'	22:DA:156:A:C8	2.50	0.47
22:DA:1817:G:H2'	22:DA:1818:U:H5'	1.95	0.47
22:DA:1847:A:C2'	22:DA:1848:A:OP2	2.63	0.47
22:DA:1847:A:O2'	22:DA:1848:A:P	2.73	0.47
22:DA:1869:G:C3'	22:DA:1870:C:H5'	2.44	0.47
22:DA:2341:G:C6	22:DA:2342:C:C4	3.03	0.47
22:DA:2419:U:O4	57:DA:3661:HOH:O	2.20	0.47
22:DA:2443:C:H2'	22:DA:2444:G:O4'	2.14	0.47
22:DA:2799:A:O2'	22:DA:2800:A:H5''	2.15	0.47
22:DA:52:A:N3	22:DA:178:G:N2	2.51	0.47
22:DA:703:U:C5	22:DA:704:G:C5	3.03	0.47
22:DA:819:A:C8	22:DA:1188:U:O4	2.68	0.47
22:DA:867:C:C5	22:DA:868:U:C5	3.03	0.47
28:DG:133:LEU:CD1	28:DG:141:ILE:HB	2.44	0.47
37:DP:39:ARG:HG3	37:DP:40:LEU:N	2.29	0.47
46:DY:23:ARG:NH1	46:DY:27:ASN:OD1	2.48	0.47
1:AA:600:A:C2	1:AA:601:G:C4	3.03	0.47
6:AF:91:ARG:C	6:AF:92:THR:HG1	2.05	0.47
9:AI:88:MET:HG2	9:AI:89:GLU:N	2.30	0.47
11:AK:63:ALA:CB	11:AK:92:GLY:HA3	2.44	0.47
11:AK:97:ILE:HG13	11:AK:98:ARG:N	2.30	0.47
12:AL:88:LYS:O	12:AL:89:ASP:HB2	2.15	0.47
17:AQ:16:LYS:CG	17:AQ:16:LYS:O	2.63	0.47
17:AQ:34:TYR:O	17:AQ:36:LYS:N	2.48	0.47
19:AS:22:ALA:O	19:AS:26:GLY:N	2.39	0.47
20:AT:54:MET:HE1	20:AT:58:VAL:HG21	1.97	0.47
21:AU:6:VAL:O	21:AU:6:VAL:HG23	2.15	0.47
49:B1:17:THR:HG21	49:B1:43:VAL:HG13	1.96	0.47
22:BA:138:U:OP2	22:BA:139:U:H2'	2.14	0.47
22:BA:1450:G:N2	22:BA:1452:G:O6	2.47	0.47
22:BA:1499:C:C2'	22:BA:1500:G:H5'	2.45	0.47
22:BA:2286:G:C4'	22:BA:2287:A:O5'	2.63	0.47
22:BA:57:C:H2'	22:BA:58:G:O4'	2.15	0.47
22:BA:798:G:O6	57:BA:3323:HOH:O	2.20	0.47
22:BA:817:C:P	57:BA:3584:HOH:O	2.72	0.47
24:BC:184:VAL:CG1	24:BC:188:CYS:SG	3.02	0.47
29:BH:14:SER:O	29:BH:15:LEU:CB	2.61	0.47
35:BN:36:THR:HG23	35:BN:37:THR:O	2.15	0.47
35:BN:64:ARG:O	35:BN:67:PHE:N	2.48	0.47
36:BO:43:ASN:OD1	36:BO:45:SER:CB	2.62	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2009:A:OP1	40:BS:41:LYS:HE2	2.14	0.47
44:BW:22:GLY:N	44:BW:39:ARG:O	2.44	0.47
46:BY:7:ARG:HG3	46:BY:7:ARG:O	2.14	0.47
1:CA:1076:U:C2	1:CA:1082:A:C2	3.03	0.47
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.49	0.47
1:CA:264:C:H2'	1:CA:265:G:O4'	2.14	0.47
1:CA:49:U:O4	1:CA:365:U:H5	1.98	0.47
1:CA:706:A:H1'	11:CK:31:ILE:HD11	1.95	0.47
7:CG:151:PHE:O	7:CG:152:ALA:CB	2.63	0.47
7:CG:25:LYS:O	7:CG:29:ILE:HG12	2.13	0.47
8:CH:88:ARG:O	8:CH:89:LYS:HB3	2.15	0.47
9:CI:120:LYS:CG	9:CI:123:ARG:HB3	2.44	0.47
1:CA:36:C:OP1	12:CL:120:LYS:HE3	2.15	0.47
14:CN:49:GLN:C	14:CN:51:LEU:H	2.18	0.47
19:CS:55:ARG:CZ	19:CS:79:THR:CG2	2.92	0.47
22:DA:1006:C:P	57:DA:3777:HOH:O	2.72	0.47
22:DA:1208:C:C4	22:DA:1209:U:C4	3.03	0.47
22:DA:1306:C:C2	22:DA:1307:A:C8	3.03	0.47
22:DA:1494:A:C2	22:DA:1495:A:C4	3.03	0.47
22:DA:1526:C:C4	22:DA:1527:G:C5	3.03	0.47
22:DA:30:G:C6	22:DA:31:C:N3	2.83	0.47
22:DA:542:C:N3	22:DA:551:G:O6	2.48	0.47
22:DA:654:A:N3	22:DA:654:A:H3'	2.30	0.47
24:DC:130:LEU:CD1	24:DC:135:ILE:HG13	2.44	0.47
24:DC:130:LEU:HD12	24:DC:135:ILE:HG13	1.96	0.47
24:DC:2:ALA:CA	24:DC:199:GLU:OE1	2.62	0.47
25:DD:30:GLU:HG2	25:DD:185:ASN:ND2	2.30	0.47
29:DH:5:LEU:HD13	29:DH:13:GLY:HA3	1.96	0.47
32:DK:1:MET:HB2	32:DK:67:LYS:HG3	1.96	0.47
41:DT:17:SER:O	41:DT:20:ALA:N	2.47	0.47
41:DT:45:ALA:O	41:DT:49:LYS:HG2	2.15	0.47
44:DW:38:VAL:HG21	44:DW:80:ILE:CD1	2.45	0.47
1:AA:1250:A:H2'	1:AA:1251:A:O4'	2.15	0.47
1:AA:1319:A:C8	1:AA:1323:G:C6	3.02	0.47
1:AA:1461:G:H2'	1:AA:1462:C:H6	1.79	0.47
1:AA:205:A:N3	1:AA:205:A:H2'	2.29	0.47
1:AA:451:A:C5'	16:AP:70:ARG:HH22	2.28	0.47
1:AA:901:A:C5	1:AA:902:G:H1'	2.49	0.47
2:AB:161:LEU:HD12	2:AB:181:ILE:HG21	1.96	0.47
3:AC:103:ILE:O	3:AC:103:ILE:HD12	2.15	0.47
5:AE:16:ILE:HD13	5:AE:137:VAL:HG11	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:46:GLN:HA	6:AF:56:LYS:HG2	1.96	0.47
8:AH:125:ILE:HD11	8:AH:128:TYR:CE1	2.50	0.47
8:AH:39:VAL:CG1	8:AH:112:THR:HG22	2.44	0.47
10:AJ:61:ALA:O	10:AJ:62:ARG:HB2	2.14	0.47
1:AA:1492:A:OP1	12:AL:44:LYS:HA	2.14	0.47
12:AL:90:LEU:HB3	12:AL:93:VAL:CG2	2.45	0.47
13:AM:85:CYS:O	13:AM:89:LEU:HG	2.14	0.47
17:AQ:12:VAL:CG1	17:AQ:55:ILE:HA	2.45	0.47
17:AQ:55:ILE:HD13	17:AQ:56:GLY:N	2.29	0.47
21:AU:40:LYS:HB3	21:AU:41:PRO:HD3	1.96	0.47
22:BA:999:U:H5	22:BA:1154:G:N7	2.13	0.47
22:BA:141:G:H5''	22:BA:142:A:C6	2.49	0.47
22:BA:1503:A:C6	22:BA:1504:A:C5	3.02	0.47
22:BA:211:C:O2'	22:BA:212:G:H5'	2.15	0.47
22:BA:225:C:H2'	22:BA:226:A:O4'	2.15	0.47
22:BA:2357:G:C2	22:BA:2361:G:C5	3.03	0.47
22:BA:729:G:H4'	22:BA:763:G:C5'	2.44	0.47
24:BC:245:VAL:CB	24:BC:250:VAL:O	2.63	0.47
22:BA:1250:G:OP2	33:BL:21:ARG:NH2	2.47	0.47
34:BM:2:LEU:O	34:BM:3:GLN:HB3	2.14	0.47
42:BU:99:ASN:OD1	42:BU:99:ASN:C	2.52	0.47
22:BA:75:G:H4'	46:BY:48:ARG:NH2	2.30	0.47
1:CA:126:G:C2'	1:CA:127:G:O5'	2.63	0.47
1:CA:137:U:H1'	1:CA:227:G:N2	2.28	0.47
1:CA:1513:A:H2'	1:CA:1514:G:H8	1.79	0.47
1:CA:273:U:C2'	1:CA:274:A:H5'	2.44	0.47
1:CA:71:A:N1	1:CA:72:A:N7	2.63	0.47
1:CA:755:G:C2	1:CA:756:C:C6	3.03	0.47
1:CA:766:A:H2'	1:CA:767:A:O4'	2.15	0.47
1:CA:866:C:C4	1:CA:867:G:H1'	2.50	0.47
4:CD:203:LEU:HD12	4:CD:203:LEU:O	2.15	0.47
10:CJ:25:ILE:HD11	10:CJ:87:LEU:CD2	2.45	0.47
20:CT:24:ARG:HB2	20:CT:66:LEU:HD21	1.97	0.47
48:D0:55:ILE:O	48:D0:56:ALA:HB3	2.15	0.47
22:DA:1090:A:N1	22:DA:1091:G:C5	2.82	0.47
22:DA:1285:A:N6	22:DA:1329:U:C5	2.83	0.47
22:DA:1809:A:C6	22:DA:1810:A:C5	3.03	0.47
22:DA:185:G:C6	22:DA:212:G:N2	2.82	0.47
22:DA:2346:A:H3'	22:DA:2347:C:H5''	1.96	0.47
22:DA:197:A:N6	22:DA:2430:A:H2'	2.30	0.47
22:DA:2521:C:C2	22:DA:2545:G:N2	2.83	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2835:A:C2	22:DA:2879:A:N7	2.83	0.47
22:DA:593:U:N3	22:DA:594:U:C4	2.83	0.47
22:DA:630:G:C3'	22:DA:631:A:H5''	2.45	0.47
24:DC:267:ILE:CG2	24:DC:267:ILE:O	2.62	0.47
26:DE:149:ILE:CG2	26:DE:188:MET:HG2	2.45	0.47
26:DE:48:THR:HG22	26:DE:86:ALA:HB3	1.96	0.47
31:DJ:20:ALA:HA	31:DJ:23:LYS:HG3	1.95	0.47
33:DL:94:THR:O	33:DL:98:ALA:N	2.45	0.47
36:DO:39:VAL:HG23	36:DO:78:VAL:CG1	2.44	0.47
38:DQ:76:TYR:OH	38:DQ:92:ARG:NH1	2.47	0.47
41:DT:69:ARG:HB2	41:DT:74:ILE:CG2	2.45	0.47
1:AA:1225:A:O2'	1:AA:1225:A:N3	2.48	0.47
1:AA:22:G:C6	1:AA:23:C:C4	3.02	0.47
1:AA:504:C:H1'	1:AA:510:A:C4	2.50	0.47
1:AA:73:C:O2'	1:AA:74:A:H5''	2.15	0.47
4:AD:23:SER:HB2	4:AD:110:THR:HB	1.96	0.47
4:AD:4:TYR:CE2	4:AD:6:GLY:O	2.67	0.47
16:AP:67:ILE:HG23	16:AP:71:VAL:CG1	2.45	0.47
17:AQ:81:LYS:O	17:AQ:82:ALA:C	2.53	0.47
49:B1:10:LYS:C	49:B1:11:LEU:HD23	2.34	0.47
22:BA:38:A:N3	26:BE:43:THR:HB	2.30	0.47
22:BA:610:C:O2'	22:BA:611:C:H5'	2.14	0.47
25:BD:177:VAL:CG2	25:BD:177:VAL:O	2.61	0.47
30:BI:118:THR:O	30:BI:125:MET:HB3	2.15	0.47
40:BS:43:ALA:HA	40:BS:46:LEU:HD12	1.97	0.47
1:CA:1144:G:N2	1:CA:1145:A:C2	2.83	0.47
1:CA:143:A:H5'	1:CA:144:G:C5'	2.45	0.47
1:CA:632:U:O2	1:CA:632:U:C2'	2.63	0.47
1:CA:1074:G:O2'	2:CB:102:THR:CG2	2.63	0.47
4:CD:148:LYS:CD	4:CD:148:LYS:H	2.28	0.47
7:CG:65:ALA:O	7:CG:127:ALA:HB1	2.14	0.47
8:CH:126:ILE:CD1	8:CH:126:ILE:N	2.78	0.47
19:CS:73:GLU:HB2	19:CS:74:PHE:CD2	2.50	0.47
20:CT:55:GLN:N	20:CT:56:PRO:HD2	2.30	0.47
22:DA:210:C:OP1	50:D2:29:GLN:NE2	2.48	0.47
22:DA:1239:G:C6	22:DA:1240:U:C4	3.02	0.47
22:DA:1308:A:N6	22:DA:1309:G:C2	2.83	0.47
22:DA:160:A:C6	22:DA:161:A:C6	3.02	0.47
22:DA:1680:U:H2'	22:DA:1681:G:O4'	2.15	0.47
22:DA:1805:A:N3	22:DA:1813:G:N2	2.62	0.47
22:DA:2808:G:N2	22:DA:2891:U:C6	2.83	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:699:A:C2'	22:DA:700:G:H5'	2.45	0.47
22:DA:906:U:C2'	22:DA:907:G:O5'	2.63	0.47
23:DB:76:G:H2'	23:DB:77:U:O4'	2.15	0.47
22:DA:2599:G:C8	24:DC:236:GLU:HB2	2.50	0.47
24:DC:65:VAL:HG12	24:DC:67:PHE:CD1	2.50	0.47
27:DF:117:LEU:CD2	27:DF:176:PRO:HG2	2.45	0.47
31:DJ:58:ASN:OD1	31:DJ:127:GLY:O	2.33	0.47
32:DK:31:ARG:HB3	32:DK:32:TYR:CD1	2.49	0.47
34:DM:68:PHE:O	34:DM:69:PRO:O	2.32	0.47
22:DA:2846:G:OP1	37:DP:53:ARG:NH1	2.48	0.47
38:DQ:61:TRP:HB3	38:DQ:92:ARG:O	2.14	0.47
41:DT:2:ILE:HG23	41:DT:4:GLU:N	2.29	0.47
1:AA:1304:G:C2	1:AA:1305:G:N2	2.83	0.47
1:AA:1308:U:O2'	1:AA:1309:G:H5'	2.15	0.47
1:AA:1449:C:C2'	1:AA:1450:U:H5'	2.45	0.47
1:AA:1516:G:N2	1:AA:1519:A:OP2	2.46	0.47
1:AA:188:C:O2	1:AA:188:C:C2'	2.63	0.47
1:AA:370:C:O2'	1:AA:371:A:H5'	2.15	0.47
1:AA:202:G:O2'	1:AA:468:A:H2'	2.15	0.47
1:AA:474:G:C5	1:AA:475:C:C5	3.03	0.47
11:AK:17:SER:HA	11:AK:79:ILE:HA	1.96	0.47
11:AK:35:THR:OG1	11:AK:41:ALA:N	2.48	0.47
49:B1:6:ARG:HG2	49:B1:24:THR:HB	1.95	0.47
22:BA:84:A:H62	22:BA:101:A:H2	1.62	0.47
22:BA:1045:C:H3'	22:BA:1046:A:H5'	1.96	0.47
22:BA:1027:A:C6	22:BA:1126:A:N3	2.83	0.47
22:BA:1169:A:H2'	22:BA:1170:C:O4'	2.14	0.47
22:BA:2182:U:H2'	22:BA:2183:A:C8	2.50	0.47
22:BA:2821:A:OP2	25:BD:115:GLY:N	2.47	0.47
26:BE:17:THR:O	26:BE:106:LYS:HE3	2.15	0.47
28:BG:2:SER:C	28:BG:4:VAL:N	2.68	0.47
36:BO:31:THR:HG22	36:BO:34:HIS:N	2.30	0.47
37:BP:27:GLU:HG3	37:BP:27:GLU:O	2.15	0.47
39:BR:49:ILE:O	39:BR:51:VAL:O	2.33	0.47
1:CA:1163:A:C2	1:CA:1174:G:C2	3.03	0.47
1:CA:1298:U:O2	1:CA:1298:U:C2'	2.62	0.47
1:CA:39:G:H2'	1:CA:40:C:H6	1.80	0.47
1:CA:570:G:C5	1:CA:873:A:C6	3.03	0.47
3:CC:130:PHE:CE2	3:CC:157:LEU:HB3	2.49	0.47
3:CC:16:LYS:HG3	3:CC:17:PRO:HD2	1.97	0.47
3:CC:29:PHE:O	3:CC:33:LEU:HB2	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:107:PHE:CG	4:CD:145:ILE:HD11	2.49	0.47
5:CE:44:GLY:O	5:CE:45:ARG:C	2.52	0.47
6:CF:88:MET:HE1	18:CR:64:TYR:HD2	1.77	0.47
9:CI:28:ILE:CG2	9:CI:35:LEU:HB2	2.45	0.47
11:CK:36:ASP:OD2	11:CK:40:ASN:HB2	2.15	0.47
15:CO:37:ASN:O	15:CO:40:GLN:HB2	2.15	0.47
20:CT:6:SER:O	20:CT:8:LYS:N	2.48	0.47
20:CT:83:ILE:HD12	20:CT:84:ASN:N	2.30	0.47
11:CK:89:PRO:HD3	21:CU:29:LEU:HD11	1.96	0.47
22:DA:1097:U:O2	30:DI:9:VAL:HG11	2.15	0.47
22:DA:1285:A:C6	22:DA:1329:U:C5	3.03	0.47
22:DA:1529:G:O6	22:DA:1543:G:C2	2.68	0.47
22:DA:1627:G:C2	22:DA:1628:G:C8	3.02	0.47
22:DA:1636:U:H2'	22:DA:1637:A:C8	2.50	0.47
22:DA:158:U:O2	22:DA:169:G:N1	2.47	0.47
22:DA:1682:G:C2	22:DA:1757:A:O4'	2.68	0.47
22:DA:1866:A:N7	22:DA:1867:G:C8	2.83	0.47
22:DA:2209:G:C2	22:DA:2216:G:N3	2.82	0.47
22:DA:2356:U:O3'	44:DW:20:ARG:HD3	2.15	0.47
22:DA:410:G:H2'	22:DA:2407:A:C8	2.49	0.47
22:DA:2516:A:N6	22:DA:2517:C:N4	2.62	0.47
22:DA:301:G:N2	22:DA:302:C:O2	2.47	0.47
22:DA:727:A:H2'	22:DA:728:G:C8	2.50	0.47
22:DA:845:A:H5'	22:DA:846:U:OP2	2.15	0.47
23:DB:66:A:N6	23:DB:107:G:H2'	2.31	0.47
23:DB:23:G:C2	23:DB:24:G:O6	2.68	0.47
24:DC:124:ILE:CD1	24:DC:136:PRO:HD3	2.45	0.47
30:DI:127:ARG:HA	30:DI:130:GLU:HB2	1.95	0.47
31:DJ:36:LEU:HG	31:DJ:54:ILE:CD1	2.45	0.47
32:DK:104:THR:HA	32:DK:122:VAL:HB	1.97	0.47
32:DK:118:LEU:O	32:DK:119:ALA:CB	2.60	0.47
33:DL:74:THR:HG22	33:DL:107:PHE:HB2	1.96	0.47
33:DL:136:GLU:HA	33:DL:140:GLY:HA3	1.96	0.47
43:DV:63:ILE:HG13	43:DV:72:VAL:CG2	2.45	0.47
1:AA:1307:U:C2	1:AA:1308:U:C6	3.03	0.46
1:AA:151:A:H2'	1:AA:152:A:O4'	2.15	0.46
1:AA:168:G:C6	1:AA:169:C:N3	2.83	0.46
2:AB:148:LEU:HA	2:AB:151:ILE:HG22	1.96	0.46
3:AC:22:TRP:CD1	3:AC:59:ARG:CD	2.98	0.46
5:AE:100:SER:O	5:AE:101:GLU:C	2.53	0.46
11:AK:88:GLY:H	11:AK:114:THR:HG22	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B5:99:GLU:O	53:B5:103:LYS:CB	2.64	0.46
22:BA:1082:U:H5''	30:BI:119:GLY:HA2	1.97	0.46
22:BA:1098:A:N7	22:BA:1099:G:O6	2.48	0.46
22:BA:1923:U:N3	22:BA:1924:C:C6	2.82	0.46
22:BA:215:G:H4'	22:BA:216:A:OP1	2.14	0.46
22:BA:747:U:C4	22:BA:2613:U:C5	3.03	0.46
22:BA:2660:A:H2'	22:BA:2661:G:O4'	2.15	0.46
22:BA:337:C:H2'	22:BA:338:G:O4'	2.15	0.46
22:BA:634:C:H2'	22:BA:635:C:C6	2.50	0.46
22:BA:790:U:O2'	22:BA:791:C:P	2.73	0.46
22:BA:832:U:H2'	22:BA:833:A:H8	1.79	0.46
26:BE:23:PHE:CD1	26:BE:111:GLU:HG3	2.51	0.46
30:BI:57:VAL:CG2	30:BI:58:VAL:N	2.78	0.46
35:BN:106:ASP:O	35:BN:107:ASN:HB3	2.15	0.46
39:BR:25:LEU:H	39:BR:94:THR:CG2	2.28	0.46
1:CA:1072:G:C5	1:CA:1073:U:C5	3.03	0.46
1:CA:110:C:H2'	1:CA:111:G:O4'	2.16	0.46
1:CA:1181:G:O2'	1:CA:1182:G:C5	2.68	0.46
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.49	0.46
1:CA:312:C:H2'	1:CA:313:A:O4'	2.15	0.46
1:CA:375:U:N3	1:CA:376:G:N7	2.63	0.46
1:CA:451:A:H4'	1:CA:452:A:O5'	2.15	0.46
1:CA:951:G:C5	1:CA:952:U:C5	3.03	0.46
6:CF:15:SER:HB2	6:CF:44:ARG:NH1	2.30	0.46
10:CJ:34:ALA:O	10:CJ:78:GLU:HB3	2.15	0.46
18:CR:38:LYS:HD2	21:CU:24:GLU:OE1	2.14	0.46
21:CU:14:VAL:HG12	21:CU:16:LEU:HD23	1.98	0.46
21:CU:51:SER:O	21:CU:53:VAL:N	2.48	0.46
22:DA:1998:A:O3'	22:DA:2724:U:H4'	2.15	0.46
22:DA:288:U:H2'	22:DA:289:G:C8	2.50	0.46
22:DA:453:A:N3	22:DA:457:A:O2'	2.48	0.46
22:DA:821:A:H4'	57:DA:3341:HOH:O	2.14	0.46
22:DA:976:G:O6	22:DA:988:A:C2	2.67	0.46
35:DN:22:ARG:HG3	35:DN:70:THR:HA	1.97	0.46
35:DN:87:PHE:CD1	35:DN:90:ARG:HD2	2.50	0.46
41:DT:69:ARG:NH1	41:DT:69:ARG:HB3	2.30	0.46
41:DT:82:LYS:HG2	41:DT:83:ALA:N	2.30	0.46
46:DY:18:LEU:O	46:DY:22:LEU:HB2	2.15	0.46
1:AA:1387:G:C6	1:AA:1388:C:N4	2.83	0.46
1:AA:203:G:C2	1:AA:215:C:C2	3.03	0.46
1:AA:237:G:OP1	17:AQ:42:THR:OG1	2.33	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:559:A:H2'	1:AA:559:A:N3	2.30	0.46
1:AA:872:A:C2	1:AA:874:G:C6	3.03	0.46
1:AA:995:C:N3	1:AA:1046:A:O2'	2.45	0.46
5:AE:105:ILE:HG23	5:AE:105:ILE:O	2.15	0.46
8:AH:59:LEU:HD11	8:AH:61:LEU:HD21	1.98	0.46
10:AJ:91:ASP:OD2	10:AJ:91:ASP:N	2.47	0.46
15:AO:19:ALA:O	15:AO:20:ASN:CG	2.53	0.46
17:AQ:67:LEU:O	17:AQ:68:SER:HB3	2.15	0.46
21:AU:29:LEU:HD23	21:AU:29:LEU:O	2.15	0.46
22:BA:1228:G:H2'	22:BA:1229:C:C6	2.49	0.46
22:BA:1342:A:OP1	41:BT:40:LYS:NZ	2.47	0.46
22:BA:1923:U:N3	22:BA:1924:C:C5	2.83	0.46
24:BC:8:PRO:HB3	24:BC:14:ARG:HB2	1.97	0.46
22:BA:2729:G:O2'	25:BD:191:GLY:HA3	2.15	0.46
27:BF:41:GLY:HA2	27:BF:85:ILE:HG13	1.97	0.46
1:CA:115:G:H4'	1:CA:116:A:O5'	2.15	0.46
1:CA:1255:G:C6	1:CA:1279:G:N7	2.83	0.46
1:CA:793:U:O2'	1:CA:1516:G:H1'	2.15	0.46
1:CA:73:C:O2'	1:CA:74:A:P	2.73	0.46
1:CA:851:G:C2	1:CA:852:G:C8	3.03	0.46
2:CB:173:ILE:O	2:CB:177:ASN:ND2	2.49	0.46
4:CD:95:GLU:OE2	4:CD:100:ASN:ND2	2.47	0.46
10:CJ:35:GLN:HB2	10:CJ:78:GLU:HB2	1.98	0.46
3:CC:20:SER:HB2	14:CN:92:GLU:O	2.14	0.46
16:CP:29:ASN:OD1	16:CP:29:ASN:N	2.48	0.46
11:CK:126:LYS:C	21:CU:34:ARG:NH2	2.69	0.46
22:DA:1439:A:C8	22:DA:1440:U:C5	3.03	0.46
22:DA:1500:G:N1	22:DA:1501:G:C5	2.84	0.46
22:DA:1581:G:C5	22:DA:1582:C:N4	2.83	0.46
22:DA:2127:G:C2	22:DA:2162:G:C8	3.03	0.46
22:DA:2367:G:O2'	22:DA:2368:C:H5'	2.15	0.46
22:DA:2377:A:O2'	22:DA:2378:A:H5'	2.15	0.46
22:DA:291:G:N2	22:DA:350:G:C8	2.83	0.46
15:CO:89:ARG:NH1	22:DA:716:A:OP1	2.43	0.46
22:DA:883:G:N2	22:DA:894:U:O2	2.49	0.46
24:DC:231:PRO:O	24:DC:242:LYS:HD2	2.15	0.46
24:DC:51:THR:CG2	24:DC:54:ILE:HD11	2.45	0.46
25:DD:3:GLY:C	25:DD:82:PHE:CE1	2.89	0.46
28:DG:107:LEU:O	28:DG:152:ARG:NH2	2.48	0.46
1:AA:1035:A:H2'	1:AA:1036:A:C1'	2.45	0.46
1:AA:1407:C:HO2'	22:BA:1912:A:N6	2.13	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:524:G:C6	1:AA:525:C:N4	2.83	0.46
2:AB:167:ASP:O	2:AB:170:HIS:N	2.49	0.46
2:AB:63:ARG:O	2:AB:64:LYS:CB	2.64	0.46
4:AD:122:ALA:HA	4:AD:146:ARG:HG3	1.97	0.46
4:AD:91:LEU:HD21	4:AD:195:ILE:CD1	2.45	0.46
9:AI:80:ARG:NH1	9:AI:103:PHE:CD1	2.83	0.46
11:AK:25:ALA:O	11:AK:89:PRO:O	2.33	0.46
13:AM:10:PRO:O	13:AM:11:ASP:CB	2.63	0.46
16:AP:1:MET:O	16:AP:24:SER:OG	2.20	0.46
16:AP:4:ILE:HG13	16:AP:21:VAL:HG22	1.97	0.46
1:AA:376:G:H5''	16:AP:5:ARG:HB2	1.96	0.46
16:AP:61:VAL:HG22	16:AP:67:ILE:CD1	2.46	0.46
1:AA:196:A:OP1	20:AT:64:LYS:HE2	2.15	0.46
22:BA:2359:C:O2'	51:B3:54:ASP:OD2	2.29	0.46
22:BA:1073:A:H2'	22:BA:1074:G:H5''	1.96	0.46
22:BA:150:U:H2'	22:BA:151:C:C6	2.51	0.46
1:AA:1408:A:H5'	22:BA:1912:A:N6	2.30	0.46
22:BA:526:A:O2'	22:BA:2043:C:O2	2.32	0.46
22:BA:2847:U:C2'	22:BA:2848:G:H5'	2.45	0.46
55:BA:3001:VIR:H17	55:BA:3001:VIR:H213	1.69	0.46
22:BA:858:G:H3'	22:BA:859:G:C8	2.50	0.46
23:BB:41:G:H5''	27:BF:66:LEU:HD13	1.97	0.46
29:BH:132:PHE:CD2	29:BH:142:VAL:CG2	2.99	0.46
30:BI:103:ARG:HB3	30:BI:142:ASP:HA	1.98	0.46
30:BI:18:ALA:HB2	30:BI:42:PHE:CE2	2.50	0.46
33:BL:128:THR:O	33:BL:129:LYS:C	2.54	0.46
39:BR:39:LEU:HA	39:BR:49:ILE:CG2	2.45	0.46
46:BY:22:LEU:O	46:BY:23:ARG:O	2.34	0.46
1:CA:1296:C:C5'	1:CA:1302:C:N4	2.78	0.46
1:CA:64:G:N2	1:CA:67:C:N3	2.63	0.46
1:CA:841:C:H2'	1:CA:843:U:O4'	2.16	0.46
7:CG:103:TRP:CD2	7:CG:137:LYS:HG2	2.50	0.46
1:CA:1291:U:OP1	7:CG:37:SER:HB3	2.16	0.46
9:CI:84:THR:HB	9:CI:98:LEU:HD21	1.96	0.46
22:DA:1607:C:H4'	22:DA:1608:A:O5'	2.16	0.46
22:DA:1623:G:C6	22:DA:1624:U:C4	3.04	0.46
22:DA:1975:G:C6	22:DA:1976:U:C4	3.04	0.46
22:DA:2798:U:H4'	22:DA:2799:A:H5'	1.97	0.46
22:DA:454:A:H3'	22:DA:455:C:H5'	1.96	0.46
22:DA:49:A:N6	22:DA:177:G:C5	2.83	0.46
22:DA:740:C:C4	22:DA:758:C:O2	2.69	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:690:G:O2'	22:DA:780:G:OP1	2.26	0.46
29:DH:41:LYS:O	29:DH:44:ILE:HG12	2.15	0.46
35:DN:29:VAL:HG13	35:DN:83:LEU:CD1	2.45	0.46
37:DP:51:ARG:HB3	37:DP:58:ALA:O	2.16	0.46
42:DU:57:GLY:O	42:DU:59:VAL:N	2.48	0.46
1:AA:1251:A:C5	1:AA:1252:A:N7	2.84	0.46
1:AA:1370:G:C5'	9:AI:111:VAL:HG21	2.45	0.46
1:AA:364:A:C2	1:AA:365:U:O4	2.68	0.46
1:AA:370:C:C2	1:AA:371:A:C8	3.02	0.46
1:AA:457:G:H5'	1:AA:458:U:OP2	2.15	0.46
1:AA:500:G:H2'	1:AA:501:C:C6	2.51	0.46
1:AA:773:G:H2'	1:AA:774:G:O4'	2.14	0.46
2:AB:163:VAL:HG22	2:AB:185:ALA:HB1	1.96	0.46
7:AG:71:PRO:O	7:AG:96:ARG:HG3	2.15	0.46
10:AJ:56:HIS:O	10:AJ:57:VAL:HG12	2.14	0.46
15:AO:56:LEU:HD12	15:AO:56:LEU:O	2.14	0.46
19:AS:51:VAL:CG2	19:AS:71:LEU:HD13	2.45	0.46
20:AT:67:ILE:HD11	20:AT:71:LYS:HE3	1.97	0.46
22:BA:1206:G:C5	22:BA:1207:C:C5	3.03	0.46
22:BA:1384:A:H5''	22:BA:1385:A:OP2	2.15	0.46
22:BA:1916:A:C6	22:BA:1917:U:C6	3.02	0.46
22:BA:2489:U:O2	22:BA:2491:U:C4	2.68	0.46
22:BA:2655:G:O2'	22:BA:2664:G:O6	2.29	0.46
22:BA:2886:A:C2	22:BA:2887:A:H1'	2.50	0.46
22:BA:567:U:H2'	22:BA:568:U:O5'	2.16	0.46
22:BA:71:A:H5'	22:BA:73:A:C8	2.51	0.46
22:BA:909:A:C2	22:BA:912:C:H1'	2.51	0.46
22:BA:998:C:P	38:BQ:92:ARG:NH2	2.89	0.46
24:BC:11:PRO:C	24:BC:13:ARG:H	2.19	0.46
26:BE:65:THR:O	26:BE:67:ARG:N	2.48	0.46
29:BH:80:ILE:HG21	29:BH:94:ILE:CG1	2.45	0.46
1:CA:1499:A:H3'	57:CA:1883:HOH:O	2.16	0.46
1:CA:155:A:C2	1:CA:167:A:C6	3.03	0.46
1:CA:160:A:C2	1:CA:343:U:H1'	2.50	0.46
1:CA:161:A:H2'	1:CA:162:A:O4'	2.16	0.46
1:CA:144:G:C5	1:CA:179:A:C2	3.03	0.46
1:CA:269:C:H2'	1:CA:270:A:C8	2.51	0.46
1:CA:464:U:C2	1:CA:466:A:OP2	2.68	0.46
1:CA:716:A:C2'	1:CA:717:U:O5'	2.64	0.46
1:CA:862:C:C2	1:CA:863:U:C5	3.04	0.46
1:CA:920:U:C2	1:CA:921:U:C5	3.04	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:949:A:C2	1:CA:1233:G:C4	3.03	0.46
3:CC:43:LEU:HD21	3:CC:68:ILE:HD11	1.98	0.46
4:CD:188:ARG:O	4:CD:191:LEU:HD12	2.15	0.46
4:CD:192:SER:O	4:CD:193:ALA:HB3	2.16	0.46
6:CF:99:ALA:O	6:CF:100:SER:CB	2.63	0.46
7:CG:146:GLU:HA	7:CG:149:LYS:HE2	1.98	0.46
7:CG:8:GLY:O	7:CG:9:GLN:HB3	2.16	0.46
13:CM:39:ILE:HG13	13:CM:56:LEU:HD21	1.96	0.46
18:CR:25:ASP:C	18:CR:27:ALA:N	2.67	0.46
49:D1:5:ILE:CG2	49:D1:28:ARG:HD3	2.45	0.46
22:DA:1309:G:H4'	50:D2:7:PRO:HB2	1.97	0.46
22:DA:1676:A:N7	57:DA:3763:HOH:O	2.36	0.46
22:DA:1806:C:C4	22:DA:1807:G:N7	2.83	0.46
22:DA:1769:U:O2'	22:DA:1958:C:OP1	2.29	0.46
22:DA:21:A:N1	22:DA:520:G:C5	2.84	0.46
22:DA:2221:G:C5	22:DA:2222:C:C5	3.04	0.46
22:DA:571:U:N3	22:DA:575:A:N7	2.64	0.46
22:DA:962:G:C2'	22:DA:963:U:H5'	2.46	0.46
24:DC:141:VAL:CG1	24:DC:142:HIS:N	2.78	0.46
24:DC:145:GLU:OE2	24:DC:149:GLY:N	2.46	0.46
26:DE:83:VAL:CG1	26:DE:86:ALA:HA	2.46	0.46
27:DF:108:VAL:N	27:DF:109:PRO:HD2	2.31	0.46
28:DG:35:ARG:NE	28:DG:71:LEU:HD22	2.31	0.46
28:DG:24:ILE:HD11	28:DG:43:VAL:HG11	1.98	0.46
36:DO:49:VAL:HG12	36:DO:50:ALA:N	2.31	0.46
39:DR:101:ILE:O	39:DR:101:ILE:HG22	2.15	0.46
40:DS:32:ALA:O	40:DS:35:ILE:N	2.48	0.46
43:DV:9:ARG:NH2	43:DV:17:SER:OG	2.48	0.46
45:DX:40:VAL:HG22	45:DX:45:ARG:O	2.16	0.46
1:AA:1066:C:O2	1:AA:1066:C:H2'	2.15	0.46
1:AA:257:G:C2	1:AA:258:G:C8	3.03	0.46
1:AA:270:A:C5	1:AA:271:C:C4	3.04	0.46
1:AA:204:G:N3	1:AA:465:A:C2	2.83	0.46
1:AA:478:A:H2'	1:AA:479:U:O4'	2.16	0.46
1:AA:545:C:H2'	1:AA:546:A:H5'	1.98	0.46
1:AA:397:A:C6	1:AA:548:G:N7	2.84	0.46
1:AA:866:C:C4	1:AA:867:G:H1'	2.49	0.46
1:AA:927:G:N1	1:AA:1391:U:C2	2.84	0.46
2:AB:147:SER:O	2:AB:148:LEU:HB2	2.15	0.46
2:AB:211:THR:O	2:AB:215:GLY:N	2.44	0.46
2:AB:50:PHE:HA	2:AB:53:ALA:HB3	1.96	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1080:A:OP1	5:AE:52:LYS:HE3	2.16	0.46
6:AF:55:HIS:O	6:AF:56:LYS:O	2.33	0.46
8:AH:14:ILE:O	8:AH:16:ASN:N	2.48	0.46
8:AH:75:ILE:HD12	8:AH:128:TYR:O	2.16	0.46
11:AK:16:VAL:O	11:AK:17:SER:HB3	2.15	0.46
13:AM:12:HIS:HA	13:AM:44:LYS:HE3	1.97	0.46
16:AP:67:ILE:CG2	16:AP:68:SER:N	2.78	0.46
21:AU:44:GLU:OE2	21:AU:45:ARG:NH1	2.49	0.46
53:B5:212:SER:HA	53:B5:221:PRO:CB	2.46	0.46
22:BA:1469:A:C2	22:BA:1470:A:C4	3.03	0.46
22:BA:1575:C:H2'	22:BA:1576:U:O4'	2.15	0.46
22:BA:1770:G:C5	22:BA:1983:G:C6	3.04	0.46
22:BA:1795:C:C4	22:BA:1796:U:C4	3.03	0.46
22:BA:1866:A:C2	22:BA:1876:A:C5	3.03	0.46
22:BA:2394:C:OP2	51:B3:30:ARG:HD3	2.15	0.46
22:BA:2519:U:OP1	22:BA:2519:U:H3'	2.16	0.46
22:BA:2804:U:H2'	22:BA:2805:C:H6	1.80	0.46
22:BA:2897:U:H2'	22:BA:2898:U:H6	1.81	0.46
22:BA:687:C:H2'	22:BA:688:U:O4'	2.16	0.46
22:BA:736:C:N3	22:BA:737:C:C5	2.83	0.46
23:BB:109:A:C5	23:BB:110:C:C4	3.04	0.46
22:BA:1993:U:H4'	25:BD:133:THR:HG21	1.97	0.46
29:BH:37:VAL:CG2	29:BH:38:PRO:HD2	2.45	0.46
29:BH:94:ILE:HG23	29:BH:98:ASP:HB2	1.98	0.46
37:BP:31:TRP:CZ2	37:BP:40:LEU:CD1	2.99	0.46
39:BR:2:TYR:HA	39:BR:14:VAL:O	2.16	0.46
40:BS:55:ILE:HG23	40:BS:66:ILE:HG12	1.97	0.46
45:BX:33:LEU:O	45:BX:34:HIS:CG	2.68	0.46
1:CA:1460:C:N4	1:CA:1461:G:C6	2.84	0.46
1:CA:1533:C:H4'	1:CA:1534:A:OP1	2.16	0.46
1:CA:301:G:H2'	1:CA:302:G:C8	2.51	0.46
2:CB:123:ASP:O	2:CB:124:GLY:C	2.54	0.46
2:CB:181:ILE:N	2:CB:181:ILE:HD13	2.29	0.46
4:CD:192:SER:HB2	4:CD:195:ILE:CG1	2.46	0.46
16:CP:42:ILE:O	16:CP:43:ALA:HB3	2.16	0.46
52:D4:19:ARG:O	52:D4:20:ASP:CB	2.64	0.46
22:DA:1027:A:N6	22:DA:1126:A:N3	2.63	0.46
22:DA:1388:G:N2	22:DA:1389:G:H1'	2.31	0.46
22:DA:1476:U:H1'	22:DA:1732:C:O2	2.15	0.46
22:DA:1923:U:H2'	22:DA:1924:C:C6	2.50	0.46
22:DA:219:A:N7	22:DA:220:G:N7	2.64	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:297:G:H2'	22:DA:298:G:O4'	2.16	0.46
22:DA:950:G:H2'	22:DA:951:C:O4'	2.15	0.46
23:DB:27:C:OP1	36:DO:34:HIS:NE2	2.47	0.46
24:DC:212:ARG:NE	24:DC:216:VAL:O	2.49	0.46
26:DE:97:ASN:HB2	26:DE:100:MET:SD	2.55	0.46
32:DK:34:GLY:O	32:DK:35:VAL:C	2.53	0.46
32:DK:70:ARG:HG2	32:DK:76:VAL:HG23	1.97	0.46
37:DP:21:ARG:HD2	37:DP:22:PRO:HD2	1.97	0.46
41:DT:39:THR:HG23	41:DT:42:GLU:H	1.80	0.46
42:DU:4:LYS:HG2	42:DU:85:PHE:CZ	2.51	0.46
45:DX:68:LEU:HD22	45:DX:78:TYR:CE1	2.50	0.46
1:AA:1370:G:H5''	9:AI:111:VAL:CG2	2.46	0.46
1:AA:628:G:H2'	1:AA:629:A:O4'	2.16	0.46
1:AA:71:A:N3	1:AA:72:A:C8	2.83	0.46
2:AB:79:ALA:C	2:AB:82:ASP:OD2	2.54	0.46
8:AH:10:MET:CE	8:AH:33:LYS:HA	2.46	0.46
9:AI:120:LYS:HG3	9:AI:123:ARG:CB	2.45	0.46
10:AJ:65:TYR:CB	14:AN:96:LEU:HD11	2.45	0.46
11:AK:38:GLN:O	11:AK:40:ASN:ND2	2.49	0.46
16:AP:22:ALA:HA	16:AP:33:ILE:HG13	1.97	0.46
21:AU:11:PRO:O	21:AU:12:PHE:HB3	2.16	0.46
48:B0:30:VAL:CG1	48:B0:35:GLY:HA2	2.46	0.46
48:B0:49:TYR:O	48:B0:50:ARG:HB2	2.16	0.46
48:B0:52:ARG:NH2	48:B0:52:ARG:HB2	2.31	0.46
22:BA:1078:U:H5''	22:BA:1079:C:OP1	2.15	0.46
22:BA:1090:A:C6	22:BA:1091:G:N7	2.84	0.46
22:BA:1570:A:N6	22:BA:1571:A:N6	2.64	0.46
22:BA:1846:G:H2'	22:BA:1847:A:C1'	2.46	0.46
22:BA:2025:C:OP2	57:BA:3475:HOH:O	2.20	0.46
22:BA:2352:A:N3	22:BA:2366:A:C2	2.84	0.46
22:BA:2428:G:C5'	22:BA:2429:G:OP1	2.61	0.46
22:BA:2031:A:C6	22:BA:2498:C:H1'	2.50	0.46
22:BA:2808:G:C2	22:BA:2891:U:C5	3.04	0.46
22:BA:528:A:C2	22:BA:2043:C:H4'	2.51	0.46
22:BA:581:C:H2'	22:BA:582:A:C8	2.50	0.46
22:BA:729:G:H4'	22:BA:763:G:H5'	1.97	0.46
25:BD:1:MET:HG3	25:BD:205:PRO:HG2	1.96	0.46
27:BF:104:ILE:HG22	27:BF:176:PRO:HD2	1.98	0.46
27:BF:37:ASN:O	27:BF:153:ASP:HB2	2.16	0.46
29:BH:90:LEU:HD23	29:BH:93:SER:HA	1.97	0.46
37:BP:62:ARG:HB2	37:BP:71:GLU:HG2	1.96	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1101:A:H4'	1:CA:1102:A:O5'	2.16	0.46
1:CA:1481:U:H2'	1:CA:1482:G:C8	2.51	0.46
1:CA:151:A:H2'	1:CA:152:A:O4'	2.16	0.46
1:CA:437:U:C2'	1:CA:438:U:H5'	2.44	0.46
1:CA:743:A:C2	1:CA:744:C:C6	3.04	0.46
1:CA:945:G:N3	1:CA:945:G:H2'	2.31	0.46
1:CA:96:U:HO2'	1:CA:97:G:P	2.38	0.46
2:CB:119:THR:O	2:CB:120:GLN:HB2	2.15	0.46
4:CD:48:LEU:HD23	4:CD:52:GLY:C	2.35	0.46
12:CL:44:LYS:HB2	12:CL:45:PRO:CD	2.44	0.46
11:CK:89:PRO:HD3	21:CU:29:LEU:HD13	1.97	0.46
22:DA:70:G:H5''	22:DA:112:U:O2	2.14	0.46
22:DA:770:G:H1'	22:DA:1379:U:C4	2.50	0.46
22:DA:1878:G:H2'	22:DA:1879:C:O4'	2.16	0.46
22:DA:2093:G:C2	22:DA:2094:A:C5	3.04	0.46
22:DA:2563:U:H1'	22:DA:2566:A:N6	2.31	0.46
22:DA:323:C:O4'	22:DA:323:C:O2	2.32	0.46
22:DA:294:A:N6	22:DA:345:A:C4	2.84	0.46
22:DA:347:A:C2	22:DA:348:A:C4	3.03	0.46
22:DA:776:G:C8	22:DA:793:A:C2	3.04	0.46
24:DC:266:PHE:CD1	24:DC:266:PHE:N	2.82	0.46
22:DA:2787:C:O4'	25:DD:63:PRO:HA	2.16	0.46
35:DN:44:LEU:O	35:DN:48:VAL:HG23	2.15	0.46
40:DS:14:ALA:HB1	40:DS:18:ARG:CZ	2.46	0.46
40:DS:47:VAL:HG23	40:DS:103:ILE:HG21	1.98	0.46
22:DA:483:A:H1'	42:DU:45:HIS:HB2	1.97	0.46
43:DV:48:MET:SD	43:DV:86:LEU:HG	2.56	0.46
46:DY:28:LEU:CD1	46:DY:46:VAL:HG21	2.46	0.46
1:AA:103:U:C2	1:AA:104:G:C8	3.04	0.46
1:AA:1133:G:N2	1:AA:1142:G:C4	2.84	0.46
1:AA:1350:A:C5	1:AA:1351:U:C5	3.04	0.46
1:AA:1406:U:C5	1:AA:1407:C:C4	3.04	0.46
1:AA:1410:A:C2	1:AA:1491:G:C2	3.04	0.46
1:AA:71:A:HO2'	1:AA:72:A:P	2.35	0.46
1:AA:960:U:H2'	1:AA:1225:A:H62	1.81	0.46
3:AC:126:ARG:O	3:AC:127:ARG:CB	2.62	0.46
1:AA:531:U:H5''	3:AC:161:GLU:OE2	2.16	0.46
8:AH:78:VAL:HG11	8:AH:125:ILE:HD11	1.97	0.46
12:AL:101:ALA:O	12:AL:102:LEU:C	2.54	0.46
12:AL:44:LYS:HB2	12:AL:44:LYS:NZ	2.30	0.46
16:AP:38:PHE:C	16:AP:38:PHE:CD1	2.89	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:14:VAL:HG12	21:AU:16:LEU:HD21	1.96	0.46
49:B1:12:VAL:HG12	49:B1:13:SER:N	2.30	0.46
22:BA:1477:A:N6	22:BA:1514:G:O2'	2.46	0.46
22:BA:1688:U:C5'	22:BA:1689:A:OP1	2.64	0.46
22:BA:1820:U:OP1	24:BC:177:ARG:NH2	2.49	0.46
22:BA:2120:G:N2	22:BA:2179:C:C2	2.84	0.46
22:BA:2485:G:OP1	34:BM:45:GLN:NE2	2.48	0.46
24:BC:28:LYS:HB3	24:BC:29:PRO:HD2	1.97	0.46
30:BI:97:LYS:HB3	30:BI:139:VAL:CG2	2.46	0.46
47:BZ:40:ASP:CG	47:BZ:45:ARG:HH11	2.19	0.46
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.16	0.46
1:CA:158:G:C6	1:CA:164:G:C6	3.03	0.46
1:CA:252:U:H5'	1:CA:253:A:OP2	2.16	0.46
1:CA:50:A:H1'	1:CA:52:C:O4'	2.16	0.46
1:CA:842:U:O2'	1:CA:846:G:C6	2.69	0.46
4:CD:26:ARG:HD2	4:CD:31:LYS:CE	2.46	0.46
4:CD:38:PRO:HD2	4:CD:42:GLY:CA	2.45	0.46
7:CG:42:ILE:HG21	7:CG:116:MET:CG	2.45	0.46
10:CJ:48:ARG:NH1	10:CJ:66:GLU:OE1	2.49	0.46
16:CP:4:ILE:N	16:CP:4:ILE:HD12	2.31	0.46
16:CP:52:LEU:HD21	16:CP:57:ILE:CD1	2.46	0.46
20:CT:81:ALA:O	20:CT:85:LYS:HG2	2.14	0.46
21:CU:32:VAL:HG12	21:CU:32:VAL:O	2.15	0.46
22:DA:1196:C:O4'	22:DA:1226:A:C6	2.69	0.46
22:DA:1262:A:C6	22:DA:1263:U:N3	2.83	0.46
22:DA:1581:G:C6	22:DA:1582:C:N4	2.83	0.46
22:DA:1682:G:N2	22:DA:1757:A:O4'	2.48	0.46
22:DA:1709:U:H2'	22:DA:1710:G:C8	2.51	0.46
22:DA:1718:G:C6	22:DA:1743:G:N3	2.84	0.46
22:DA:1754:A:N6	22:DA:1755:A:N1	2.63	0.46
22:DA:1969:A:O2'	22:DA:1972:G:N3	2.40	0.46
22:DA:2131:U:H5'	22:DA:2132:U:H5''	1.97	0.46
22:DA:2264:C:O2	22:DA:2277:G:C2	2.69	0.46
22:DA:21:A:N1	22:DA:520:G:C6	2.83	0.46
22:DA:64:A:H2'	22:DA:65:U:O4'	2.16	0.46
24:DC:24:LEU:HD21	24:DC:90:ASN:ND2	2.30	0.46
25:DD:114:LYS:HE2	25:DD:196:ALA:HA	1.97	0.46
26:DE:23:PHE:CD1	26:DE:111:GLU:HG3	2.50	0.46
29:DH:34:GLY:O	29:DH:35:LYS:CG	2.64	0.46
22:DA:7:G:HO2'	31:DJ:15:TRP:HZ2	1.63	0.46
34:DM:38:ARG:HG3	34:DM:98:PRO:HD3	1.98	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1278:C:O2'	35:DN:27:SER:HB3	2.16	0.46
38:DQ:86:ALA:O	38:DQ:87:SER:CB	2.62	0.46
42:DU:34:VAL:HG13	42:DU:67:VAL:HG23	1.97	0.46
44:DW:19:LYS:O	44:DW:21:LEU:N	2.48	0.46
45:DX:7:VAL:HG12	45:DX:8:THR:N	2.29	0.46
46:DY:56:LEU:O	46:DY:57:LEU:HB3	2.16	0.46
1:AA:1005:A:H2'	1:AA:1006:G:O4'	2.15	0.46
1:AA:1024:G:C2'	1:AA:1025:U:O5'	2.64	0.46
1:AA:109:A:C6	1:AA:326:G:C6	3.04	0.46
1:AA:1130:A:H8	1:AA:1130:A:O5'	1.98	0.46
1:AA:219:U:H2'	1:AA:220:G:C8	2.50	0.46
1:AA:21:G:H2'	1:AA:22:G:C8	2.50	0.46
1:AA:913:A:H4'	1:AA:914:A:OP1	2.14	0.46
2:AB:21:ARG:NE	2:AB:21:ARG:CA	2.79	0.46
2:AB:32:PHE:O	2:AB:32:PHE:CG	2.68	0.46
13:AM:6:GLY:HA3	13:AM:66:GLU:HG3	1.98	0.46
14:AN:51:LEU:CB	14:AN:52:PRO:HD2	2.45	0.46
17:AQ:61:ILE:CG2	17:AQ:73:TRP:CE3	2.99	0.46
1:AA:1314:C:N4	19:AS:4:SER:HA	2.31	0.46
22:BA:1056:G:H5''	22:BA:1057:A:C4'	2.46	0.46
22:BA:1071:G:N7	22:BA:1089:A:N6	2.64	0.46
22:BA:1094:U:C4	22:BA:1097:U:OP2	2.68	0.46
22:BA:1014:A:C2	22:BA:1149:G:C4	3.03	0.46
22:BA:1686:C:H2'	22:BA:1687:G:O4'	2.15	0.46
22:BA:181:A:H2'	22:BA:182:A:C8	2.51	0.46
22:BA:2350:C:H2'	22:BA:2351:G:O4'	2.16	0.46
22:BA:2801:G:H2'	22:BA:2802:G:C8	2.51	0.46
22:BA:2810:A:H2'	22:BA:2811:G:O4'	2.16	0.46
22:BA:2834:G:O6	22:BA:2879:A:H2'	2.15	0.46
22:BA:370:G:O2'	22:BA:423:A:H3'	2.16	0.46
22:BA:483:A:C8	22:BA:484:C:C5	3.03	0.46
22:BA:744:U:C4	22:BA:745:G:C5	3.03	0.46
27:BF:38:MET:HE3	27:BF:152:LEU:HD11	1.98	0.46
30:BI:80:LEU:HD13	30:BI:136:MET:SD	2.56	0.46
30:BI:50:GLU:C	30:BI:51:LYS:HD3	2.37	0.46
36:BO:12:THR:O	36:BO:12:THR:CG2	2.63	0.46
40:BS:57:ASN:O	40:BS:61:ASN:HB2	2.16	0.46
41:BT:41:ALA:O	41:BT:42:GLU:C	2.54	0.46
1:CA:1426:G:C4	1:CA:1475:G:C2	3.03	0.46
1:CA:890:G:HO2'	1:CA:891:U:P	2.39	0.46
1:CA:8:A:N6	4:CD:54:GLN:OE1	2.49	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:22:TRP:CH2	3:CC:32:ASN:HB3	2.51	0.46
8:CH:92:LEU:CD2	8:CH:113:ASP:HB2	2.46	0.46
9:CI:47:VAL:O	9:CI:80:ARG:HG2	2.15	0.46
21:CU:34:ARG:HE	21:CU:35:ARG:HB2	1.80	0.46
22:DA:1223:G:N2	22:DA:1226:A:OP2	2.38	0.46
22:DA:1288:G:C5	22:DA:1327:A:C2	3.04	0.46
22:DA:1376:C:C5'	57:DA:3395:HOH:O	2.62	0.46
22:DA:1722:A:C2	22:DA:1739:A:H1'	2.50	0.46
22:DA:1739:A:C5	22:DA:1740:G:C5	3.03	0.46
22:DA:185:G:C5	22:DA:212:G:N2	2.84	0.46
22:DA:2199:A:C5	22:DA:2225:A:N1	2.83	0.46
22:DA:306:U:C5	22:DA:307:G:C5	3.04	0.46
22:DA:621:A:C5	22:DA:622:G:H1'	2.50	0.46
22:DA:642:U:O2'	22:DA:644:A:N7	2.38	0.46
22:DA:658:U:O2'	26:DE:95:LYS:NZ	2.34	0.46
22:DA:859:G:O2'	22:DA:916:G:O6	2.19	0.46
22:DA:782:A:O2'	24:DC:224:ALA:O	2.32	0.46
22:DA:2784:U:H4'	25:DD:42:ASN:O	2.15	0.46
26:DE:117:ARG:NH1	33:DL:2:ARG:HD2	2.30	0.46
27:DF:122:PHE:O	27:DF:123:ASP:C	2.54	0.46
28:DG:159:GLY:HA2	28:DG:169:VAL:HG11	1.98	0.46
31:DJ:41:LYS:NZ	31:DJ:52:ASP:OD1	2.46	0.46
36:DO:71:ALA:HB2	36:DO:102:ARG:HB2	1.98	0.46
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.16	0.46
1:AA:1135:U:C2	1:AA:1137:C:N3	2.84	0.46
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.51	0.46
1:AA:455:G:C2	1:AA:478:A:N1	2.84	0.46
1:AA:828:U:C5	1:AA:859:G:C4	3.04	0.46
2:AB:66:LYS:HG2	2:AB:156:GLY:O	2.16	0.46
2:AB:78:GLU:C	2:AB:80:VAL:H	2.19	0.46
5:AE:109:GLY:HA2	5:AE:112:ARG:HB3	1.97	0.46
6:AF:52:ASN:O	6:AF:53:LYS:CB	2.63	0.46
13:AM:4:ILE:HD11	13:AM:10:PRO:HG2	1.98	0.46
17:AQ:26:GLU:OE1	17:AQ:39:LYS:HB3	2.15	0.46
20:AT:3:ASN:O	20:AT:4:ILE:C	2.54	0.46
22:BA:1098:A:N7	22:BA:1099:G:C6	2.83	0.46
22:BA:1176:U:H2'	22:BA:1177:G:C8	2.50	0.46
22:BA:1242:U:H2'	22:BA:1243:C:C6	2.51	0.46
22:BA:1495:A:N3	22:BA:1578:U:O2'	2.43	0.46
22:BA:1876:A:C2	22:BA:1877:A:N9	2.84	0.46
22:BA:1883:U:O4	22:BA:1884:G:N1	2.49	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1946:U:H2'	22:BA:1947:C:C6	2.51	0.46
22:BA:2001:C:C2	22:BA:2002:G:C8	3.04	0.46
22:BA:2176:A:C5	22:BA:2177:C:N4	2.84	0.46
22:BA:2262:U:H4'	22:BA:2328:A:C2	2.50	0.46
22:BA:2547:A:C5'	32:BK:29:HIS:NE2	2.79	0.46
22:BA:574:A:H4'	22:BA:575:A:O5'	2.16	0.46
32:BK:6:THR:HG22	32:BK:7:MET:N	2.30	0.46
39:BR:49:ILE:HG22	39:BR:53:PHE:C	2.36	0.46
41:BT:61:LEU:HD12	41:BT:61:LEU:O	2.15	0.46
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.51	0.46
1:CA:278:G:OP2	17:CQ:43:LYS:NZ	2.48	0.46
1:CA:34:C:H2'	1:CA:35:G:C8	2.51	0.46
1:CA:499:A:C6	1:CA:547:A:C8	3.04	0.46
1:CA:55:A:C8	1:CA:56:U:C5	3.04	0.46
1:CA:844:G:N3	1:CA:844:G:H2'	2.31	0.46
1:CA:880:C:C2	1:CA:881:G:C8	3.04	0.46
2:CB:207:ILE:HG12	2:CB:208:ARG:N	2.30	0.46
2:CB:57:LEU:O	2:CB:60:ILE:CD1	2.64	0.46
7:CG:2:PRO:O	7:CG:3:ARG:C	2.54	0.46
17:CQ:70:THR:HG22	17:CQ:71:LYS:H	1.81	0.46
19:CS:55:ARG:NH2	19:CS:79:THR:HG22	2.31	0.46
22:DA:16:C:C3'	48:D0:11:SER:HG	2.29	0.46
22:DA:1096:A:H2'	22:DA:1097:U:H5''	1.97	0.46
22:DA:1403:A:C2	22:DA:1404:C:C2	3.04	0.46
22:DA:1577:C:H2'	22:DA:1578:U:O4'	2.15	0.46
22:DA:1598:A:C2'	22:DA:1599:U:H5'	2.46	0.46
22:DA:1830:C:C4'	24:DC:15:HIS:HE1	2.29	0.46
22:DA:2094:A:C4	22:DA:2095:A:C8	3.04	0.46
22:DA:2355:G:C6	22:DA:2356:U:N3	2.84	0.46
22:DA:2461:A:H1'	22:DA:2492:U:C2	2.51	0.46
22:DA:486:C:H1'	22:DA:495:G:N2	2.31	0.46
22:DA:529:A:H4'	22:DA:530:G:OP1	2.16	0.46
22:DA:667:U:C4	22:DA:668:A:N7	2.84	0.46
22:DA:2811:G:OP1	25:DD:61:THR:HB	2.16	0.46
27:DF:131:GLY:HA2	27:DF:153:ASP:HA	1.98	0.46
29:DH:60:GLU:HA	29:DH:60:GLU:OE2	2.15	0.46
30:DI:17:MET:HB3	30:DI:20:PRO:HB3	1.97	0.46
35:DN:12:ARG:NE	35:DN:20:MET:CE	2.79	0.46
40:DS:79:GLY:N	40:DS:100:THR:O	2.47	0.46
47:DZ:6:LYS:HB2	47:DZ:58:GLU:HG3	1.96	0.46
1:AA:1202:U:C5	1:AA:1203:C:C5	3.04	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1377:A:C5	7:AG:7:ILE:HD11	2.51	0.46
1:AA:167:A:H2'	1:AA:168:G:O4'	2.15	0.46
1:AA:595:A:C6	1:AA:641:U:C6	3.04	0.46
1:AA:914:A:C5	1:AA:915:A:N7	2.84	0.46
6:AF:4:TYR:CD2	6:AF:71:ILE:HD13	2.51	0.46
6:AF:81:ASN:OD1	6:AF:83:ALA:HB3	2.16	0.46
7:AG:127:ALA:O	7:AG:130:ASN:N	2.49	0.46
1:AA:824:G:H1'	8:AH:2:SER:HA	1.98	0.46
11:AK:53:ARG:N	11:AK:56:ARG:HB2	2.31	0.46
14:AN:61:ARG:HA	57:AN:301:HOH:O	2.16	0.46
15:AO:70:LEU:HD21	15:AO:77:ARG:CB	2.46	0.46
16:AP:10:GLY:O	16:AP:11:ALA:CB	2.64	0.46
19:AS:40:ILE:HG12	19:AS:71:LEU:HD23	1.98	0.46
22:BA:287:G:H2'	22:BA:288:U:C6	2.51	0.46
23:BB:28:C:H2'	23:BB:29:A:O4'	2.16	0.46
33:BL:85:VAL:CG1	33:BL:94:THR:CG2	2.93	0.46
34:BM:72:PRO:HB3	34:BM:92:TRP:CZ3	2.51	0.46
38:BQ:112:LYS:HD3	39:BR:48:LYS:HD2	1.98	0.46
41:BT:2:ILE:HG23	41:BT:4:GLU:HA	1.98	0.46
46:BY:5:GLU:HA	46:BY:8:GLU:HG3	1.98	0.46
1:CA:1388:C:C2	1:CA:1389:C:C5	3.03	0.46
1:CA:1426:G:C5	1:CA:1475:G:C2	3.04	0.46
1:CA:1467:C:H2'	1:CA:1468:A:C8	2.51	0.46
1:CA:1413:A:C2	1:CA:1488:G:C2	3.04	0.46
1:CA:289:G:C2	1:CA:290:C:C5	3.04	0.46
1:CA:683:G:H2'	1:CA:684:U:O4'	2.15	0.46
1:CA:711:G:N2	1:CA:712:A:C4	2.84	0.46
1:CA:741:G:OP2	15:CO:2:SER:OG	2.30	0.46
1:CA:774:G:C4	1:CA:775:G:C8	3.04	0.46
3:CC:19:ASN:OD1	3:CC:54:ARG:NE	2.49	0.46
3:CC:79:LYS:O	3:CC:81:GLY:N	2.49	0.46
4:CD:29:ASP:C	4:CD:31:LYS:N	2.66	0.46
4:CD:9:LEU:HD11	4:CD:29:ASP:OD2	2.16	0.46
5:CE:99:ALA:O	5:CE:100:SER:C	2.54	0.46
12:CL:44:LYS:CB	12:CL:45:PRO:CD	2.93	0.46
14:CN:53:ARG:O	14:CN:59:ARG:HD2	2.17	0.46
19:CS:15:LEU:HD13	19:CS:33:THR:HG21	1.97	0.46
22:DA:118:A:N7	22:DA:119:A:N7	2.64	0.46
22:DA:1428:C:C5	22:DA:1569:A:H5''	2.51	0.46
22:DA:1800:C:C2	22:DA:1802:A:C8	3.04	0.46
22:DA:200:U:C4	22:DA:248:G:N2	2.83	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2060:A:O4'	22:DA:2502:G:H1'	2.16	0.46
22:DA:2478:A:N7	22:DA:2529:G:C6	2.83	0.46
22:DA:2603:G:C6	22:DA:2604:U:C4	3.04	0.46
22:DA:2700:A:H2'	22:DA:2701:U:C6	2.51	0.46
22:DA:674:G:N2	22:DA:2445:G:OP1	2.49	0.46
26:DE:109:LEU:O	26:DE:112:LEU:N	2.49	0.46
22:DA:2473:U:O4	28:DG:176:LYS:NZ	2.49	0.46
30:DI:57:VAL:HG22	30:DI:58:VAL:N	2.31	0.46
31:DJ:94:ALA:O	31:DJ:95:ARG:C	2.54	0.46
32:DK:1:MET:HG2	32:DK:32:TYR:CD2	2.51	0.46
33:DL:77:ILE:HD11	33:DL:101:ILE:HG21	1.97	0.46
40:DS:29:VAL:HG21	40:DS:107:VAL:HG21	1.98	0.46
1:AA:1095:U:H2'	1:AA:1096:C:O4'	2.16	0.45
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.51	0.45
1:AA:1422:G:O2'	32:BK:49:ARG:NH2	2.49	0.45
1:AA:192:A:C6	1:AA:193:C:C4	3.04	0.45
1:AA:575:G:C6	1:AA:821:G:C8	3.04	0.45
1:AA:844:G:N3	1:AA:845:A:N7	2.64	0.45
1:AA:908:A:C2	1:AA:909:A:C4	3.04	0.45
11:AK:102:ALA:O	11:AK:103:ALA:C	2.54	0.45
12:AL:116:LYS:O	12:AL:117:TYR:HB2	2.16	0.45
13:AM:6:GLY:C	13:AM:8:ASN:H	2.20	0.45
14:AN:21:PHE:O	14:AN:22:ALA:HB3	2.17	0.45
17:AQ:41:THR:HG22	17:AQ:42:THR:N	2.30	0.45
22:BA:1014:A:C5	22:BA:1015:U:C5	3.04	0.45
22:BA:1106:G:C4	22:BA:1107:G:C8	3.03	0.45
22:BA:1142:A:N3	22:BA:1144:A:C8	2.84	0.45
22:BA:1616:A:H4'	22:BA:1617:C:OP2	2.16	0.45
22:BA:587:C:C5	22:BA:671:C:H1'	2.51	0.45
22:BA:813:U:H2'	22:BA:814:C:C6	2.51	0.45
28:BG:154:PRO:HD3	28:BG:162:VAL:O	2.15	0.45
29:BH:79:THR:HG23	29:BH:147:VAL:HB	1.98	0.45
29:BH:90:LEU:HD21	29:BH:93:SER:HA	1.97	0.45
30:BI:10:LYS:CB	30:BI:56:PRO:HB2	2.47	0.45
31:BJ:81:ILE:HG23	31:BJ:82:GLY:H	1.79	0.45
36:BO:31:THR:HG22	36:BO:34:HIS:H	1.82	0.45
37:BP:40:LEU:HD21	37:BP:82:ASP:OD2	2.16	0.45
39:BR:39:LEU:HA	39:BR:49:ILE:HG23	1.98	0.45
42:BU:87:PHE:CE1	42:BU:92:LYS:HB2	2.52	0.45
1:CA:1360:A:C2	1:CA:1361:G:H1'	2.51	0.45
1:CA:446:G:N3	1:CA:446:G:H2'	2.31	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:560:A:H5'	1:CA:566:G:N2	2.30	0.45
1:CA:577:G:C8	1:CA:816:A:C2	3.04	0.45
1:CA:743:A:C6	1:CA:744:C:C4	3.04	0.45
3:CC:9:GLY:HA2	3:CC:12:LEU:HG	1.96	0.45
9:CI:13:LYS:CG	9:CI:13:LYS:O	2.63	0.45
9:CI:49:ARG:NH2	9:CI:53:GLU:HA	2.30	0.45
11:CK:107:ILE:HD11	11:CK:110:ILE:HG12	1.98	0.45
1:CA:562:U:OP2	12:CL:14:ARG:NH2	2.49	0.45
12:CL:23:ALA:O	12:CL:24:LEU:O	2.33	0.45
16:CP:79:ASN:ND2	16:CP:82:ALA:OXT	2.48	0.45
20:CT:67:ILE:HA	20:CT:67:ILE:HD12	1.76	0.45
22:DA:1176:U:H2'	22:DA:1177:G:N9	2.31	0.45
22:DA:149:A:C5	22:DA:150:U:C4	3.04	0.45
22:DA:1529:G:O6	22:DA:1543:G:N2	2.49	0.45
22:DA:1806:C:N4	22:DA:1807:G:C6	2.84	0.45
22:DA:1835:G:C4	22:DA:1836:C:C6	3.04	0.45
22:DA:1838:C:C5	22:DA:1899:A:C6	3.04	0.45
22:DA:2307:G:H4'	22:DA:2308:G:O5'	2.16	0.45
22:DA:2307:G:N2	22:DA:2312:U:C2	2.84	0.45
22:DA:2314:A:C2	22:DA:2315:G:C5	3.04	0.45
22:DA:2324:U:O2	22:DA:2385:C:C5	2.69	0.45
22:DA:2902:C:OP1	22:DA:2903:U:C5	2.69	0.45
22:DA:404:A:C1'	22:DA:405:U:OP2	2.63	0.45
22:DA:699:A:H2'	22:DA:700:G:H5'	1.98	0.45
22:DA:871:U:OP1	34:DM:4:PRO:HA	2.16	0.45
24:DC:67:PHE:CE2	24:DC:156:ARG:NH2	2.84	0.45
24:DC:67:PHE:O	24:DC:151:GLY:O	2.34	0.45
29:DH:39:ALA:O	29:DH:41:LYS:N	2.47	0.45
31:DJ:4:PHE:CD2	38:DQ:100:VAL:HG11	2.51	0.45
42:DU:22:ARG:CZ	42:DU:73:PHE:CE2	2.99	0.45
45:DX:30:LEU:HB3	45:DX:31:PRO:HD2	1.97	0.45
45:DX:43:GLU:O	45:DX:44:LYS:C	2.54	0.45
1:AA:1012:A:N1	1:AA:1018:G:N7	2.64	0.45
1:AA:1004:A:OP1	1:AA:1024:G:O6	2.34	0.45
1:AA:110:C:H2'	1:AA:111:G:O4'	2.17	0.45
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.51	0.45
1:AA:1475:G:OP1	22:BA:1689:A:H1'	2.16	0.45
1:AA:509:A:P	57:AA:1722:HOH:O	2.62	0.45
1:AA:590:U:H2'	1:AA:591:U:C6	2.52	0.45
1:AA:618:C:H1'	16:AP:14:ARG:NH1	2.32	0.45
1:AA:620:C:H1'	4:AD:132:ILE:CD1	2.42	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:636:U:O2'	1:AA:637:C:H5'	2.16	0.45
1:AA:737:C:H2'	1:AA:738:C:C6	2.51	0.45
1:AA:914:A:C2	1:AA:915:A:C8	3.04	0.45
1:AA:927:G:C2	1:AA:1391:U:O2	2.69	0.45
2:AB:106:THR:O	2:AB:107:VAL:HG23	2.16	0.45
2:AB:54:LEU:HD22	2:AB:54:LEU:N	2.32	0.45
2:AB:58:ASN:O	2:AB:61:ALA:N	2.49	0.45
3:AC:59:ARG:HA	3:AC:63:SER:O	2.15	0.45
4:AD:107:PHE:CD1	4:AD:145:ILE:CD1	3.00	0.45
5:AE:98:PRO:O	5:AE:99:ALA:HB3	2.15	0.45
7:AG:27:VAL:HG23	7:AG:28:ASN:N	2.30	0.45
8:AH:96:MET:O	8:AH:97:ALA:HB3	2.16	0.45
20:AT:5:LYS:O	20:AT:6:SER:C	2.55	0.45
22:BA:1403:A:H2'	22:BA:1404:C:C6	2.51	0.45
22:BA:1559:U:H4'	22:BA:1560:G:OP2	2.16	0.45
22:BA:1577:C:H2'	22:BA:1578:U:C1'	2.45	0.45
22:BA:1809:A:N1	22:BA:1810:A:C2	2.84	0.45
22:BA:1854:A:C2'	22:BA:1855:U:H5'	2.45	0.45
22:BA:2177:C:N4	22:BA:2178:C:O2	2.49	0.45
22:BA:2259:U:C5	22:BA:2427:C:N4	2.84	0.45
22:BA:2267:A:H5''	22:BA:2268:A:C5'	2.47	0.45
22:BA:276:U:O2'	22:BA:278:A:N7	2.47	0.45
22:BA:301:G:C4	22:BA:302:C:C5	3.04	0.45
22:BA:591:U:HO2'	51:B3:2:PRO:N	2.13	0.45
22:BA:684:G:C6	22:BA:774:G:C4	3.04	0.45
24:BC:72:ASP:HA	24:BC:118:SER:O	2.16	0.45
22:BA:782:A:C2	24:BC:225:MET:SD	3.09	0.45
29:BH:94:ILE:HG23	29:BH:98:ASP:CB	2.47	0.45
37:BP:31:TRP:CD2	37:BP:40:LEU:CD1	2.99	0.45
38:BQ:62:ILE:HG23	38:BQ:76:TYR:CE1	2.51	0.45
45:BX:77:LYS:HE3	45:BX:78:TYR:N	2.32	0.45
1:CA:1089:G:C5	1:CA:1090:U:C6	3.04	0.45
1:CA:1318:A:O2'	19:CS:37:ARG:HD3	2.16	0.45
1:CA:1366:C:O2'	10:CJ:62:ARG:NH2	2.50	0.45
1:CA:1439:G:C2	1:CA:1463:U:O2	2.70	0.45
1:CA:1484:C:H2'	1:CA:1485:U:O4'	2.16	0.45
1:CA:516:U:O4	57:CA:1763:HOH:O	2.18	0.45
1:CA:517:G:H5'	1:CA:519:C:C2	2.51	0.45
1:CA:756:C:N3	1:CA:757:U:C6	2.84	0.45
1:CA:833:G:N2	1:CA:834:U:H1'	2.31	0.45
8:CH:95:VAL:HG12	8:CH:96:MET:N	2.31	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:126:LYS:O	21:CU:34:ARG:CZ	2.64	0.45
11:CK:35:THR:OG1	11:CK:40:ASN:N	2.48	0.45
13:CM:63:PHE:O	13:CM:65:VAL:HG13	2.16	0.45
17:CQ:46:VAL:CG2	17:CQ:61:ILE:HD11	2.46	0.45
20:CT:73:ALA:O	20:CT:77:ALA:CB	2.64	0.45
52:D4:36:ARG:HG2	52:D4:37:GLN:H	1.81	0.45
22:DA:71:A:OP2	22:DA:113:U:H4'	2.16	0.45
22:DA:1287:A:H2'	22:DA:1288:G:H5'	1.98	0.45
22:DA:1363:C:H2'	22:DA:1364:G:C8	2.51	0.45
22:DA:1694:C:H4'	22:DA:1695:G:O5'	2.14	0.45
22:DA:2056:G:N3	22:DA:2056:G:H2'	2.30	0.45
22:DA:2478:A:C8	22:DA:2529:G:C6	3.04	0.45
22:DA:2557:G:H2'	22:DA:2558:C:C6	2.51	0.45
22:DA:2637:U:O4	22:DA:2638:G:N1	2.49	0.45
22:DA:303:G:C6	22:DA:304:U:N3	2.84	0.45
22:DA:53:A:N7	22:DA:54:G:C5	2.84	0.45
22:DA:546:U:O2	22:DA:546:U:H3'	2.16	0.45
22:DA:982:C:H5''	22:DA:983:A:P	2.56	0.45
27:DF:126:GLY:O	27:DF:158:THR:HG23	2.16	0.45
29:DH:112:LYS:HG2	29:DH:113:SER:N	2.32	0.45
30:DI:80:LEU:HD11	30:DI:133:ALA:HB2	1.98	0.45
34:DM:17:ASN:O	34:DM:38:ARG:HD3	2.16	0.45
40:DS:61:ASN:O	40:DS:62:ASP:CB	2.64	0.45
42:DU:8:ASP:O	42:DU:9:ASP:HB2	2.16	0.45
43:DV:83:LYS:O	43:DV:85:LYS:N	2.49	0.45
1:AA:108:G:N3	1:AA:108:G:H5'	2.32	0.45
1:AA:1429:A:C4	1:AA:1430:A:C8	3.04	0.45
1:AA:193:C:O4'	20:AT:55:GLN:OE1	2.34	0.45
1:AA:260:G:H2'	1:AA:261:U:C6	2.52	0.45
1:AA:353:A:H2'	1:AA:354:G:OP2	2.17	0.45
1:AA:859:G:H2'	1:AA:860:A:H8	1.76	0.45
1:AA:908:A:O2'	1:AA:909:A:H5'	2.16	0.45
2:AB:113:ARG:O	2:AB:117:LEU:HB2	2.16	0.45
2:AB:186:ILE:HA	2:AB:200:ILE:HB	1.98	0.45
3:AC:11:ARG:O	3:AC:14:ILE:O	2.34	0.45
6:AF:3:HIS:CB	6:AF:92:THR:HG23	2.46	0.45
7:AG:17:LYS:HD3	7:AG:18:PHE:CE2	2.51	0.45
8:AH:10:MET:O	8:AH:11:LEU:C	2.54	0.45
11:AK:61:PHE:O	11:AK:64:GLN:N	2.50	0.45
18:AR:23:TYR:CE1	18:AR:24:LYS:HG2	2.52	0.45
20:AT:9:LYS:O	20:AT:13:GLN:HB2	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:261:U:C6	20:AT:74:ARG:NH1	2.84	0.45
21:AU:11:PRO:O	21:AU:12:PHE:CB	2.65	0.45
22:BA:1060:U:H4'	22:BA:1061:U:H3'	1.98	0.45
22:BA:1121:C:H2'	22:BA:1122:G:O4'	2.15	0.45
22:BA:1022:G:C5	22:BA:1140:C:N4	2.84	0.45
22:BA:1252:G:H5''	57:BA:3285:HOH:O	2.15	0.45
22:BA:1431:A:H2'	22:BA:1432:G:H8	1.81	0.45
22:BA:1754:A:N1	22:BA:2716:C:O2'	2.43	0.45
22:BA:1891:G:C6	22:BA:1892:C:C4	3.04	0.45
22:BA:1951:U:H2'	22:BA:1953:A:OP2	2.15	0.45
22:BA:1935:G:C6	22:BA:1962:C:C6	3.04	0.45
22:BA:2591:C:H2'	22:BA:2592:G:C8	2.51	0.45
22:BA:2727:A:C6	22:BA:2728:U:O4	2.69	0.45
22:BA:2742:G:P	52:B4:24:ARG:HH12	2.39	0.45
30:BI:100:LYS:HB3	30:BI:139:VAL:HB	1.97	0.45
36:BO:93:ASP:OD1	36:BO:95:SER:N	2.43	0.45
37:BP:31:TRP:CE3	37:BP:40:LEU:HD12	2.51	0.45
41:BT:71:GLY:O	41:BT:73:ARG:N	2.46	0.45
1:CA:1170:A:H3'	1:CA:1171:A:H8	1.81	0.45
1:CA:258:G:C2	1:CA:269:C:O2	2.69	0.45
1:CA:607:A:C2	1:CA:608:A:N3	2.84	0.45
1:CA:681:A:C2	1:CA:710:G:C4	3.04	0.45
1:CA:68:G:C6	1:CA:69:G:H1'	2.51	0.45
1:CA:73:C:HO2'	1:CA:74:A:C5'	2.27	0.45
4:CD:17:THR:CG2	4:CD:18:ASP:N	2.80	0.45
5:CE:133:PRO:O	5:CE:137:VAL:HG13	2.17	0.45
6:CF:86:ARG:CG	6:CF:86:ARG:NH1	2.77	0.45
7:CG:70:ARG:HG3	7:CG:96:ARG:HG2	1.97	0.45
9:CI:52:LEU:HD13	9:CI:57:MET:HG2	1.98	0.45
10:CJ:18:ILE:HG23	10:CJ:19:ASP:N	2.32	0.45
15:CO:11:ILE:HA	15:CO:14:GLU:OE1	2.17	0.45
51:D3:52:LYS:O	51:D3:53:GLY:C	2.55	0.45
22:DA:1127:A:C2'	22:DA:1128:G:H5''	2.46	0.45
22:DA:1353:A:C8	22:DA:1378:A:N6	2.83	0.45
22:DA:1845:G:OP1	24:DC:256:LYS:NZ	2.44	0.45
22:DA:1869:G:N2	22:DA:1871:A:O2'	2.50	0.45
22:DA:2164:C:H2'	22:DA:2165:C:C5	2.51	0.45
22:DA:2347:C:O2'	49:D1:39:PHE:HB3	2.15	0.45
22:DA:2716:C:H2'	22:DA:2717:C:C6	2.51	0.45
22:DA:452:G:N2	22:DA:457:A:H1'	2.32	0.45
22:DA:487:C:C2	22:DA:494:G:N2	2.84	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:696:G:C2	22:DA:767:U:O2	2.70	0.45
24:DC:160:THR:H	24:DC:195:VAL:HG13	1.82	0.45
25:DD:125:TRP:CE3	25:DD:160:LYS:HD3	2.50	0.45
42:DU:88:GLU:OE1	42:DU:102:THR:OG1	2.26	0.45
1:AA:1004:A:H2'	1:AA:1005:A:O4'	2.16	0.45
1:AA:1043:G:O6	1:AA:1044:A:N6	2.49	0.45
1:AA:1154:G:N3	1:AA:1154:G:H2'	2.31	0.45
1:AA:468:A:H5''	1:AA:468:A:N3	2.31	0.45
1:AA:652:U:C2	1:AA:752:G:N2	2.85	0.45
2:AB:206:ALA:O	2:AB:210:VAL:HG22	2.16	0.45
2:AB:61:ALA:HA	2:AB:65:GLY:CA	2.46	0.45
2:AB:94:HIS:ND1	2:AB:146:ASN:HB2	2.31	0.45
4:AD:4:TYR:CE2	4:AD:11:LEU:HD11	2.52	0.45
6:AF:52:ASN:O	6:AF:53:LYS:HB3	2.17	0.45
10:AJ:40:ILE:O	10:AJ:72:ARG:HA	2.16	0.45
13:AM:11:ASP:O	13:AM:12:HIS:CB	2.64	0.45
15:AO:20:ASN:O	15:AO:22:THR:N	2.50	0.45
20:AT:33:LYS:O	20:AT:34:LYS:C	2.54	0.45
22:BA:1059:G:C6	22:BA:1080:A:C2	3.05	0.45
22:BA:2467:C:OP1	52:B4:8:LYS:NZ	2.29	0.45
22:BA:324:A:N6	22:BA:338:G:O2'	2.40	0.45
22:BA:753:A:H2'	22:BA:754:U:C6	2.51	0.45
27:BF:119:ALA:HB1	27:BF:167:ARG:HD2	1.98	0.45
30:BI:110:ALA:O	30:BI:113:LYS:HG3	2.17	0.45
30:BI:10:LYS:HB3	30:BI:56:PRO:HB2	1.98	0.45
30:BI:83:ALA:HB1	30:BI:109:ILE:CD1	2.46	0.45
36:BO:66:GLY:HA2	36:BO:102:ARG:HH22	1.81	0.45
42:BU:61:LYS:HE3	42:BU:61:LYS:HA	1.99	0.45
1:CA:146:G:N2	1:CA:147:G:H1'	2.31	0.45
1:CA:160:A:H4'	1:CA:344:A:N1	2.32	0.45
1:CA:775:G:O2'	1:CA:776:G:H5'	2.16	0.45
1:CA:861:G:C6	1:CA:862:C:C4	3.05	0.45
2:CB:208:ARG:O	2:CB:210:VAL:N	2.49	0.45
5:CE:11:LEU:HG	5:CE:12:GLN:N	2.31	0.45
5:CE:13:GLU:HB2	5:CE:39:VAL:HG12	1.99	0.45
16:CP:79:ASN:O	16:CP:80:LYS:HB2	2.17	0.45
21:CU:15:ALA:O	21:CU:16:LEU:C	2.54	0.45
50:D2:30:VAL:O	50:D2:34:ARG:HG3	2.17	0.45
22:DA:1646:C:H5''	22:DA:1647:U:C5'	2.47	0.45
22:DA:2353:G:H2'	22:DA:2354:C:O4'	2.16	0.45
22:DA:2415:G:N1	22:DA:2416:C:C2	2.83	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2258:C:O2'	22:DA:2427:C:OP2	2.25	0.45
22:DA:2580:U:H5''	22:DA:2581:G:OP2	2.16	0.45
22:DA:2815:C:C4	22:DA:2816:G:N7	2.85	0.45
22:DA:308:G:N1	22:DA:309:A:C2	2.84	0.45
22:DA:327:G:H2'	22:DA:328:U:O4'	2.15	0.45
22:DA:324:A:N6	22:DA:338:G:O2'	2.47	0.45
22:DA:236:C:H4'	22:DA:431:U:O2'	2.17	0.45
22:DA:752:A:O2'	22:DA:753:A:P	2.74	0.45
24:DC:238:ARG:O	24:DC:239:ASN:O	2.35	0.45
25:DD:56:LYS:O	25:DD:58:ASN:N	2.50	0.45
26:DE:136:GLN:O	26:DE:138:LEU:N	2.49	0.45
29:DH:34:GLY:O	29:DH:35:LYS:CD	2.65	0.45
34:DM:135:VAL:O	34:DM:136:MET:CB	2.64	0.45
22:DA:1454:C:H5'	35:DN:63:ARG:HD3	1.98	0.45
36:DO:7:ARG:CD	36:DO:97:PHE:CZ	2.99	0.45
1:AA:39:G:C2	1:AA:40:C:C5	3.04	0.45
1:AA:626:G:C6	1:AA:627:G:C5	3.04	0.45
2:AB:103:ASN:O	2:AB:104:TRP:C	2.54	0.45
2:AB:128:LYS:HG3	2:AB:129:LEU:N	2.30	0.45
2:AB:151:ILE:O	2:AB:153:ASP:N	2.49	0.45
4:AD:83:LYS:HD3	4:AD:83:LYS:C	2.37	0.45
16:AP:19:VAL:HG13	16:AP:37:GLY:C	2.37	0.45
53:B5:65:LEU:HD11	53:B5:191:ARG:HA	1.97	0.45
22:BA:1344:U:O2'	22:BA:1345:C:P	2.74	0.45
22:BA:2131:U:H5'	22:BA:2132:U:H5''	1.98	0.45
22:BA:2189:U:H2'	22:BA:2190:G:O4'	2.16	0.45
22:BA:2223:G:OP1	24:BC:171:TYR:OH	2.23	0.45
22:BA:2292:U:H2'	22:BA:2293:G:H8	1.79	0.45
22:BA:2538:C:H2'	22:BA:2539:C:C6	2.52	0.45
22:BA:580:U:O3'	38:BQ:31:VAL:HG13	2.16	0.45
22:BA:651:G:OP1	51:B3:17:THR:OG1	2.34	0.45
22:BA:693:A:C5	22:BA:694:U:C5	3.04	0.45
22:BA:868:U:C4	22:BA:869:G:N7	2.85	0.45
24:BC:125:LYS:HG2	24:BC:128:ASN:HD22	1.80	0.45
25:BD:150:GLN:O	25:BD:153:GLY:N	2.50	0.45
29:BH:40:THR:O	29:BH:42:LYS:N	2.48	0.45
36:BO:7:ARG:HA	36:BO:10:ARG:CZ	2.47	0.45
36:BO:35:ILE:HG21	36:BO:71:ALA:HA	1.99	0.45
39:BR:50:GLY:C	39:BR:51:VAL:O	2.50	0.45
40:BS:50:VAL:CG1	40:BS:105:VAL:HG23	2.46	0.45
46:BY:14:LEU:HA	46:BY:17:GLU:HB3	1.97	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BY:23:ARG:HA	46:BY:27:ASN:OD1	2.17	0.45
1:CA:1527:U:H2'	1:CA:1528:U:C6	2.51	0.45
1:CA:182:A:C8	1:CA:184:G:N7	2.85	0.45
1:CA:546:A:P	4:CD:69:GLU:HB3	2.56	0.45
1:CA:782:A:C8	1:CA:783:C:C5	3.05	0.45
1:CA:791:G:C5	1:CA:792:A:N7	2.85	0.45
1:CA:970:C:OP1	10:CJ:59:LYS:NZ	2.40	0.45
3:CC:10:ILE:HD12	14:CN:98:LYS:HG3	1.99	0.45
5:CE:56:VAL:O	5:CE:60:ILE:HG23	2.17	0.45
6:CF:38:ARG:HB3	6:CF:97:THR:HG23	1.99	0.45
9:CI:28:ILE:HG21	9:CI:35:LEU:HB2	1.98	0.45
12:CL:64:THR:HG23	12:CL:93:VAL:HA	1.97	0.45
15:CO:37:ASN:O	15:CO:40:GLN:N	2.49	0.45
16:CP:4:ILE:HD11	16:CP:65:ALA:HB1	1.97	0.45
16:CP:52:LEU:HD23	16:CP:53:ASP:N	2.31	0.45
17:CQ:14:SER:OG	17:CQ:17:MET:CE	2.65	0.45
17:CQ:29:VAL:O	17:CQ:29:VAL:HG22	2.14	0.45
21:CU:15:ALA:O	21:CU:17:ARG:N	2.49	0.45
21:CU:18:ARG:O	21:CU:21:ARG:N	2.49	0.45
22:DA:1262:A:N1	22:DA:1263:U:C2	2.84	0.45
22:DA:1358:G:N2	22:DA:1374:G:C6	2.84	0.45
22:DA:2409:G:C6	22:DA:2410:G:C5	3.05	0.45
22:DA:2432:A:N1	45:DX:21:ALA:HA	2.31	0.45
22:DA:2637:U:C4	22:DA:2638:G:C6	3.05	0.45
22:DA:2685:G:C4	22:DA:2686:G:C8	3.04	0.45
22:DA:54:G:C6	22:DA:55:G:N7	2.85	0.45
22:DA:579:G:C2	22:DA:1262:A:C5	3.04	0.45
22:DA:734:A:C5	22:DA:735:A:C8	3.05	0.45
22:DA:861:A:H2'	22:DA:862:G:O4'	2.17	0.45
28:DG:123:ALA:CB	28:DG:133:LEU:HA	2.46	0.45
29:DH:147:VAL:HG12	29:DH:148:ALA:N	2.32	0.45
30:DI:133:ALA:C	30:DI:138:LEU:HD12	2.37	0.45
30:DI:57:VAL:HG23	30:DI:71:THR:N	2.32	0.45
33:DL:29:LYS:O	33:DL:30:THR:CB	2.64	0.45
45:DX:17:ASN:HB2	45:DX:25:THR:HB	1.97	0.45
1:AA:108:G:O6	20:AT:10:ARG:HG2	2.16	0.45
1:AA:1118:U:C5'	9:AI:106:ARG:HG3	2.47	0.45
1:AA:955:U:O4'	1:AA:1227:A:N6	2.49	0.45
1:AA:1299:A:C2	1:AA:1301:U:C2	3.04	0.45
1:AA:1319:A:C8	1:AA:1323:G:C5	3.05	0.45
1:AA:1324:A:C5	1:AA:1325:C:C4	3.04	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:971:G:H1'	1:AA:1365:G:O2'	2.17	0.45
1:AA:34:C:H2'	1:AA:35:G:C8	2.51	0.45
1:AA:429:U:H4'	1:AA:430:A:OP1	2.17	0.45
1:AA:451:A:C8	1:AA:452:A:N1	2.84	0.45
1:AA:761:G:H2'	1:AA:762:U:H6	1.81	0.45
2:AB:71:GLY:O	2:AB:93:ASN:HA	2.17	0.45
6:AF:53:LYS:O	6:AF:54:LEU:CD1	2.64	0.45
7:AG:80:VAL:O	7:AG:81:GLY:C	2.54	0.45
9:AI:120:LYS:HG3	9:AI:123:ARG:HB3	1.99	0.45
1:AA:1152:A:H5''	10:AJ:15:HIS:CD2	2.52	0.45
22:BA:1696:G:C6	22:BA:1697:G:C4	3.04	0.45
22:BA:1867:G:O2'	22:BA:1868:C:H5'	2.16	0.45
22:BA:1944:U:C5	22:BA:1955:U:C2	3.04	0.45
22:BA:1963:U:H6	22:BA:1963:U:O5'	2.00	0.45
22:BA:222:A:C6	22:BA:224:U:C2	3.05	0.45
22:BA:2311:A:N7	27:BF:77:PHE:CD1	2.85	0.45
22:BA:250:G:O6	22:BA:251:A:C6	2.69	0.45
22:BA:2648:G:H2'	22:BA:2649:C:C6	2.52	0.45
22:BA:2839:G:H2'	22:BA:2840:C:O5'	2.15	0.45
22:BA:616:A:C2	22:BA:617:G:H1'	2.52	0.45
22:BA:877:A:N6	22:BA:899:A:N6	2.64	0.45
23:BB:66:A:O5'	23:BB:108:A:N6	2.49	0.45
24:BC:142:HIS:O	24:BC:143:ASN:HB3	2.17	0.45
28:BG:176:LYS:O	28:BG:177:LYS:HB2	2.16	0.45
32:BK:2:ILE:N	32:BK:33:ALA:O	2.47	0.45
39:BR:14:VAL:CG1	39:BR:98:ILE:HG13	2.47	0.45
1:CA:403:C:O2'	1:CA:404:G:H5'	2.17	0.45
1:CA:728:A:C6	1:CA:729:A:N6	2.85	0.45
1:CA:872:A:C4	1:CA:874:G:C8	3.04	0.45
2:CB:206:ALA:C	2:CB:208:ARG:N	2.70	0.45
2:CB:30:PHE:CD1	2:CB:30:PHE:N	2.81	0.45
5:CE:80:THR:HA	5:CE:120:VAL:HG12	1.99	0.45
6:CF:32:ALA:O	6:CF:33:GLU:C	2.55	0.45
10:CJ:84:VAL:O	10:CJ:88:MET:HB2	2.17	0.45
11:CK:118:HIS:O	11:CK:119:ASN:HB2	2.17	0.45
12:CL:110:ARG:NE	12:CL:117:TYR:CE2	2.84	0.45
13:CM:54:ASP:HA	13:CM:57:ARG:CB	2.47	0.45
1:CA:974:A:OP1	14:CN:69:ARG:NH1	2.49	0.45
17:CQ:45:HIS:ND1	17:CQ:70:THR:HG21	2.32	0.45
18:CR:59:ILE:O	18:CR:63:ARG:HD2	2.16	0.45
49:D1:17:THR:HG21	49:D1:42:VAL:HB	1.97	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1304:A:C2	22:DA:1305:C:C6	3.05	0.45
22:DA:1328:A:H2'	22:DA:1330:C:C5	2.52	0.45
22:DA:143:C:O2	41:DT:1:MET:N	2.46	0.45
22:DA:1469:A:N1	22:DA:1470:A:C6	2.84	0.45
22:DA:1831:G:C5	22:DA:1832:C:C4	3.05	0.45
22:DA:189:G:C4	22:DA:205:G:N2	2.84	0.45
22:DA:2287:A:C8	22:DA:2289:G:C8	3.04	0.45
22:DA:2834:G:O6	22:DA:2879:A:C2'	2.64	0.45
22:DA:527:C:H4'	22:DA:528:A:O5'	2.17	0.45
22:DA:983:A:C6	22:DA:984:A:C2	3.04	0.45
23:DB:37:C:C5	23:DB:38:C:C4	3.05	0.45
25:DD:148:GLN:CD	25:DD:148:GLN:N	2.70	0.45
26:DE:128:ALA:O	26:DE:130:LYS:N	2.50	0.45
27:DF:103:LEU:O	27:DF:108:VAL:HG23	2.16	0.45
27:DF:58:ALA:O	27:DF:61:SER:O	2.34	0.45
30:DI:49:ILE:O	30:DI:50:GLU:HB2	2.16	0.45
22:DA:1287:A:O4'	35:DN:103:ARG:NH1	2.50	0.45
40:DS:84:ARG:HB2	40:DS:96:ILE:HG12	1.98	0.45
41:DT:61:LEU:CD1	41:DT:62:VAL:N	2.79	0.45
45:DX:41:GLU:O	45:DX:44:LYS:HD2	2.17	0.45
1:AA:1124:G:H3'	1:AA:1145:A:N6	2.32	0.45
1:AA:1306:A:C5	1:AA:1307:U:C5	3.04	0.45
1:AA:260:G:O6	57:AA:1702:HOH:O	2.20	0.45
1:AA:604:G:C6	1:AA:605:U:C4	3.05	0.45
1:AA:787:A:C5	1:AA:788:U:C5	3.03	0.45
2:AB:104:TRP:CZ2	2:AB:154:MET:CB	3.00	0.45
2:AB:80:VAL:CA	2:AB:82:ASP:OD2	2.65	0.45
3:AC:25:ASN:O	3:AC:26:THR:C	2.55	0.45
4:AD:153:SER:O	4:AD:154:ARG:C	2.55	0.45
6:AF:45:ARG:O	6:AF:56:LYS:HA	2.15	0.45
6:AF:63:ASN:ND2	6:AF:96:VAL:CG2	2.79	0.45
7:AG:145:ALA:O	7:AG:146:GLU:HB3	2.16	0.45
21:AU:41:PRO:O	21:AU:45:ARG:HD3	2.16	0.45
53:B5:43:GLU:HA	53:B5:178:LYS:HA	1.98	0.45
22:BA:1856:U:C4	22:BA:1857:G:C6	3.04	0.45
22:BA:2127:G:H5'	22:BA:2128:G:OP1	2.15	0.45
22:BA:2221:G:C6	22:BA:2222:C:C4	3.05	0.45
22:BA:2286:G:H5'	22:BA:2287:A:O4'	2.16	0.45
22:BA:2852:G:C6	22:BA:2853:C:N3	2.84	0.45
22:BA:500:G:H22	22:BA:502:A:H3'	1.77	0.45
22:BA:744:U:O4	22:BA:745:G:C6	2.70	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:863:A:O2'	22:BA:864:G:H5'	2.16	0.45
27:BF:81:GLN:HG3	27:BF:82:GLY:N	2.32	0.45
28:BG:127:THR:HG22	28:BG:128:GLN:H	1.81	0.45
28:BG:8:PRO:HB3	28:BG:51:THR:HG22	1.98	0.45
29:BH:72:ILE:HG23	29:BH:142:VAL:HG22	1.99	0.45
30:BI:16:GLY:HA2	30:BI:51:LYS:CG	2.46	0.45
22:BA:2360:G:C1'	33:BL:60:ARG:HD3	2.47	0.45
41:BT:69:ARG:HA	41:BT:74:ILE:HA	1.99	0.45
1:CA:1036:A:H2'	1:CA:1036:A:N3	2.31	0.45
1:CA:570:G:C6	1:CA:873:A:N1	2.85	0.45
1:CA:671:G:O2'	1:CA:672:U:H5'	2.16	0.45
1:CA:743:A:C6	1:CA:744:C:C5	3.05	0.45
1:CA:821:G:H2'	1:CA:822:U:C6	2.51	0.45
1:CA:991:U:H4'	1:CA:992:U:H5''	1.98	0.45
5:CE:104:GLY:O	5:CE:105:ILE:CB	2.65	0.45
19:CS:80:TYR:O	19:CS:81:ARG:HB2	2.16	0.45
21:CU:31:GLU:HG2	21:CU:32:VAL:N	2.32	0.45
22:DA:1153:C:H2'	22:DA:1154:G:O4'	2.16	0.45
22:DA:116:C:O2'	22:DA:126:A:O2'	2.03	0.45
22:DA:1409:U:H2'	22:DA:1410:G:O4'	2.15	0.45
22:DA:147:C:C4	22:DA:148:U:O4	2.69	0.45
22:DA:1486:U:C2	22:DA:1504:A:C2	3.04	0.45
22:DA:1332:G:C6	22:DA:1609:A:N7	2.85	0.45
22:DA:2009:A:N6	57:DA:3370:HOH:O	2.36	0.45
22:DA:2228:G:C5	22:DA:2229:U:C5	3.04	0.45
22:DA:2262:U:O2'	22:DA:2263:C:H5'	2.16	0.45
22:DA:2714:G:P	57:DA:3544:HOH:O	2.71	0.45
22:DA:2726:A:HO2'	22:DA:2727:A:C5'	2.25	0.45
22:DA:2734:A:N7	22:DA:2735:G:N7	2.65	0.45
55:DA:3001:VIR:O15	55:DA:3001:VIR:C19	2.64	0.45
22:DA:30:G:C5	22:DA:31:C:C4	3.05	0.45
22:DA:563:A:C2	22:DA:2018:G:H1'	2.51	0.45
23:DB:40:U:N3	23:DB:44:G:OP2	2.37	0.45
25:DD:33:ARG:HB3	25:DD:95:SER:OG	2.16	0.45
27:DF:36:LEU:HD11	27:DF:99:PHE:CZ	2.52	0.45
23:DB:42:C:C4	27:DF:88:LYS:HE3	2.52	0.45
29:DH:93:SER:HB3	29:DH:123:ARG:HG3	1.99	0.45
29:DH:31:VAL:CG1	29:DH:32:PRO:HD3	2.47	0.45
29:DH:83:LYS:HG3	29:DH:149:GLU:HG3	1.94	0.45
36:DO:117:PHE:CD1	36:DO:117:PHE:C	2.90	0.45
44:DW:38:VAL:CG2	44:DW:80:ILE:CD1	2.94	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1128:C:H4'	1:AA:1148:U:O2	2.16	0.45
1:AA:1481:U:H2'	1:AA:1482:G:C8	2.52	0.45
1:AA:1521:C:C2	1:AA:1522:U:C6	3.05	0.45
1:AA:65:A:C4	1:AA:381:C:C5	3.05	0.45
1:AA:665:A:C2	1:AA:732:C:C4	3.05	0.45
1:AA:828:U:O2	2:AB:25:PRO:HG2	2.17	0.45
2:AB:95:ARG:HG2	2:AB:95:ARG:NH1	2.32	0.45
3:AC:22:TRP:CD1	3:AC:59:ARG:HD3	2.52	0.45
9:AI:95:ARG:HA	9:AI:98:LEU:HB2	1.98	0.45
1:AA:660:C:OP1	15:AO:5:THR:HG21	2.17	0.45
16:AP:12:LYS:O	16:AP:13:LYS:HB2	2.17	0.45
16:AP:21:VAL:HG12	16:AP:33:ILE:HD12	1.99	0.45
17:AQ:67:LEU:O	17:AQ:68:SER:CB	2.65	0.45
52:B4:26:ILE:N	52:B4:26:ILE:CD1	2.79	0.45
22:BA:1024:G:N2	22:BA:1142:A:H2	2.15	0.45
22:BA:1185:G:H5'	22:BA:1186:G:P	2.56	0.45
22:BA:136:G:C6	22:BA:137:U:O4	2.69	0.45
22:BA:1501:G:O2'	22:BA:1502:A:H5'	2.17	0.45
22:BA:1809:A:C6	22:BA:1810:A:N1	2.85	0.45
22:BA:531:C:C5	22:BA:2035:G:C2	3.05	0.45
22:BA:2178:C:H2'	22:BA:2179:C:C5	2.52	0.45
22:BA:2315:G:H2'	22:BA:2316:G:H8	1.80	0.45
22:BA:503:A:H4'	22:BA:504:A:O5'	2.17	0.45
22:BA:693:A:C6	22:BA:694:U:C4	3.05	0.45
22:BA:812:C:H4'	38:BQ:13:ARG:HH22	1.81	0.45
22:BA:996:A:OP2	38:BQ:93:LYS:NZ	2.38	0.45
23:BB:83:G:C6	23:BB:84:G:C5	3.05	0.45
27:BF:40:VAL:CG1	27:BF:41:GLY:N	2.80	0.45
28:BG:150:ALA:C	28:BG:152:ARG:H	2.20	0.45
31:BJ:58:ASN:HA	31:BJ:126:ALA:O	2.16	0.45
40:BS:96:ILE:HD12	40:BS:98:LYS:HG3	1.99	0.45
1:CA:1408:A:N1	1:CA:1494:G:C5	2.85	0.45
1:CA:143:A:H5'	1:CA:144:G:H5'	1.98	0.45
1:CA:1408:A:N1	1:CA:1494:G:C6	2.85	0.45
1:CA:213:G:C5	1:CA:214:C:C2	3.04	0.45
1:CA:218:U:C4	1:CA:219:U:C5	3.04	0.45
1:CA:484:G:C5	1:CA:486:U:H1'	2.51	0.45
1:CA:620:C:C6	4:CD:132:ILE:HD13	2.51	0.45
1:CA:743:A:C5	1:CA:744:C:C5	3.05	0.45
1:CA:756:C:C4	1:CA:757:U:C5	3.05	0.45
2:CB:174:LYS:HG2	2:CB:175:GLU:N	2.31	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:31:LYS:CD	4:CD:31:LYS:N	2.78	0.45
6:CF:13:ASP:C	6:CF:15:SER:H	2.20	0.45
8:CH:27:MET:HB2	8:CH:28:PRO:HD2	1.99	0.45
9:CI:12:ARG:O	9:CI:12:ARG:HG3	2.17	0.45
13:CM:85:CYS:O	13:CM:89:LEU:HG	2.16	0.45
15:CO:17:ARG:O	15:CO:18:ASP:HB3	2.16	0.45
21:CU:10:GLU:CB	21:CU:11:PRO:HD3	2.47	0.45
52:D4:30:GLU:HG3	52:D4:32:LYS:HB2	1.99	0.45
22:DA:1211:C:H5''	22:DA:1212:G:C8	2.51	0.45
22:DA:1268:A:H2'	22:DA:1269:A:O4'	2.17	0.45
22:DA:1338:G:H4'	41:DT:18:GLU:OE2	2.17	0.45
22:DA:1754:A:H4'	37:DP:99:TYR:CE2	2.52	0.45
22:DA:1984:G:C6	22:DA:1985:C:C4	3.05	0.45
22:DA:2283:C:C4	22:DA:2389:G:C5	3.05	0.45
22:DA:230:G:C2	22:DA:231:A:C8	3.04	0.45
22:DA:2716:C:H2'	22:DA:2717:C:H6	1.81	0.45
22:DA:2773:C:H2'	22:DA:2774:C:C6	2.51	0.45
22:DA:352:A:C6	22:DA:353:C:N3	2.85	0.45
22:DA:38:A:C6	22:DA:39:G:C5	3.05	0.45
22:DA:53:A:N3	22:DA:179:C:H4'	2.32	0.45
22:DA:743:A:OP1	25:DD:135:GLY:HA2	2.17	0.45
27:DF:170:LEU:O	27:DF:175:PHE:HB3	2.17	0.45
32:DK:47:ILE:HB	32:DK:48:PRO:HD2	1.98	0.45
34:DM:78:LEU:O	34:DM:79:ALA:HB3	2.17	0.45
35:DN:100:CYS:CB	35:DN:112:TYR:HD1	2.30	0.45
35:DN:90:ARG:NH2	35:DN:116:VAL:HG21	2.32	0.45
23:DB:29:A:OP2	36:DO:32:PRO:HD2	2.17	0.45
22:DA:1248:G:C5	38:DQ:3:ARG:HB2	2.52	0.45
39:DR:29:THR:HG23	39:DR:65:ALA:HA	1.99	0.45
22:DA:480:A:O3'	42:DU:44:LYS:HG3	2.16	0.45
42:DU:4:LYS:HG2	42:DU:85:PHE:CE2	2.51	0.45
44:DW:49:ALA:O	44:DW:50:ASN:HB2	2.17	0.45
45:DX:33:LEU:O	45:DX:34:HIS:CG	2.69	0.45
1:AA:1042:A:H2'	1:AA:1043:G:C1'	2.47	0.45
1:AA:1118:U:O4'	1:AA:1179:A:H1'	2.16	0.45
1:AA:1306:A:C2	1:AA:1307:U:H1'	2.51	0.45
1:AA:1370:G:O5'	9:AI:111:VAL:HG21	2.16	0.45
1:AA:1446:A:N6	1:AA:1447:A:N6	2.65	0.45
1:AA:229:U:O2'	1:AA:230:G:H5'	2.17	0.45
1:AA:409:U:H2'	1:AA:410:G:C8	2.52	0.45
1:AA:455:G:N3	1:AA:478:A:C2	2.84	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:532:A:OP2	1:AA:532:A:O4'	2.35	0.45
1:AA:555:U:H2'	1:AA:556:C:C6	2.52	0.45
1:AA:581:G:C5	1:AA:758:C:C5	3.05	0.45
1:AA:622:A:C8	1:AA:623:C:C6	3.04	0.45
1:AA:772:U:H2'	1:AA:773:G:O5'	2.17	0.45
1:AA:858:G:O2'	1:AA:859:G:C5'	2.65	0.45
1:AA:19:A:C2	1:AA:917:G:C2	3.05	0.45
2:AB:144:LEU:HD23	2:AB:144:LEU:N	2.32	0.45
2:AB:33:GLY:HA3	2:AB:40:ILE:N	2.32	0.45
3:AC:154:SER:O	3:AC:196:ILE:HG23	2.16	0.45
4:AD:107:PHE:CD1	4:AD:145:ILE:HD11	2.52	0.45
10:AJ:25:ILE:HG22	10:AJ:26:VAL:N	2.31	0.45
1:AA:973:G:H1'	10:AJ:56:HIS:HD2	1.82	0.45
13:AM:20:THR:HA	13:AM:25:VAL:HG23	1.99	0.45
20:AT:28:MET:O	20:AT:32:ILE:HG13	2.17	0.45
22:BA:1071:G:H8	22:BA:1071:G:P	2.40	0.45
22:BA:1041:G:C6	22:BA:1115:G:O6	2.69	0.45
22:BA:1363:C:H2'	22:BA:1364:G:C8	2.52	0.45
22:BA:1735:A:C2	22:BA:1736:U:H1'	2.52	0.45
22:BA:1847:A:H2'	22:BA:1848:A:N7	2.31	0.45
22:BA:2187:U:H2'	22:BA:2188:U:C1'	2.47	0.45
22:BA:2694:G:C5	22:BA:2695:U:C4	3.05	0.45
22:BA:2714:G:O2'	22:BA:2715:C:H5'	2.17	0.45
22:BA:80:G:O5'	22:BA:346:A:H1'	2.17	0.45
22:BA:536:G:O6	22:BA:537:G:C2	2.69	0.45
24:BC:37:ASN:O	24:BC:38:SER:CB	2.64	0.45
24:BC:46:ASN:O	24:BC:48:ARG:HG2	2.16	0.45
26:BE:5:LEU:O	26:BE:6:LYS:HB3	2.17	0.45
26:BE:79:ARG:O	26:BE:80:SER:HB2	2.17	0.45
29:BH:12:LEU:HG	29:BH:13:GLY:N	2.31	0.45
29:BH:76:GLU:HA	29:BH:142:VAL:CG1	2.46	0.45
31:BJ:80:HIS:O	31:BJ:81:ILE:C	2.55	0.45
31:BJ:96:ARG:HD3	31:BJ:99:ARG:HG2	1.99	0.45
33:BL:9:ALA:HB3	33:BL:12:SER:OG	2.17	0.45
34:BM:6:ARG:O	34:BM:7:THR:CG2	2.65	0.45
43:BV:89:ILE:CG2	43:BV:90:ASP:N	2.80	0.45
1:CA:1004:A:N6	1:CA:1005:A:C6	2.85	0.45
1:CA:109:A:N1	1:CA:327:A:C6	2.85	0.45
1:CA:1133:G:H2'	1:CA:1133:G:N3	2.32	0.45
1:CA:1225:A:N3	1:CA:1225:A:C2'	2.80	0.45
1:CA:978:A:O2'	1:CA:1322:C:H5	2.00	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:282:A:N7	1:CA:283:U:C5	2.85	0.45
1:CA:938:A:C2	1:CA:1345:U:O4	2.70	0.45
4:CD:202:GLU:OE1	5:CE:105:ILE:HG21	2.17	0.45
8:CH:86:TYR:CD2	8:CH:124:GLU:HB2	2.52	0.45
9:CI:21:ILE:HG12	9:CI:62:ASP:O	2.16	0.45
17:CQ:47:HIS:N	17:CQ:73:TRP:O	2.47	0.45
19:CS:16:LEU:O	19:CS:20:GLU:HG2	2.17	0.45
20:CT:73:ALA:O	20:CT:77:ALA:HB2	2.17	0.45
21:CU:34:ARG:NE	21:CU:35:ARG:HB2	2.31	0.45
22:DA:1544:A:N1	22:DA:1545:A:C2	2.84	0.45
22:DA:2264:C:O2	22:DA:2277:G:N2	2.49	0.45
22:DA:2345:G:H4'	22:DA:2346:A:O5'	2.17	0.45
22:DA:2468:A:C2	22:DA:2481:G:C2	3.05	0.45
22:DA:2531:A:H5''	28:DG:157:TYR:CZ	2.52	0.45
22:DA:2651:C:O2'	22:DA:2652:C:H5'	2.17	0.45
22:DA:2834:G:O6	22:DA:2879:A:H2'	2.17	0.45
22:DA:574:A:H4'	22:DA:575:A:C5'	2.47	0.45
22:DA:696:G:O2'	22:DA:697:G:H5'	2.16	0.45
24:DC:125:LYS:HB2	24:DC:126:PRO:HD2	1.98	0.45
24:DC:17:VAL:CG2	24:DC:204:VAL:HG22	2.47	0.45
27:DF:3:LYS:HD3	27:DF:101:GLU:CD	2.37	0.45
27:DF:135:GLN:N	27:DF:135:GLN:OE1	2.48	0.45
29:DH:86:ASP:C	29:DH:88:GLY:H	2.19	0.45
32:DK:63:VAL:HB	32:DK:103:VAL:HG12	1.99	0.45
32:DK:91:SER:O	32:DK:92:GLU:O	2.35	0.45
35:DN:37:THR:OG1	35:DN:40:LYS:HB2	2.17	0.45
46:DY:36:GLN:O	46:DY:37:LEU:C	2.56	0.45
47:DZ:41:THR:HG23	47:DZ:44:ILE:HG12	1.99	0.45
1:AA:1145:A:O2'	1:AA:1146:A:H5''	2.15	0.45
1:AA:1299:A:C5	1:AA:1301:U:O2	2.70	0.45
1:AA:975:A:H8	1:AA:1357:A:HO2'	1.61	0.45
1:AA:47:C:O2	1:AA:49:U:C4	2.69	0.45
1:AA:695:A:C6	1:AA:696:A:N1	2.85	0.45
1:AA:7:A:N6	5:AE:97:GLN:OE1	2.50	0.45
2:AB:200:ILE:O	2:AB:201:PRO:O	2.35	0.45
2:AB:68:LEU:CD2	2:AB:92:VAL:HG23	2.46	0.45
4:AD:151:LYS:HB2	4:AD:156:LYS:HE3	1.99	0.45
7:AG:127:ALA:O	7:AG:128:ALA:C	2.55	0.45
9:AI:85:ARG:O	9:AI:88:MET:CB	2.65	0.45
20:AT:58:VAL:HG12	20:AT:72:ALA:CB	2.47	0.45
22:BA:1174:U:O2	22:BA:1174:U:O4'	2.35	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1431:A:H2'	22:BA:1432:G:C8	2.52	0.45
22:BA:1855:U:C5	22:BA:1856:U:C5	3.05	0.45
22:BA:1930:G:N2	22:BA:1968:G:H2'	2.32	0.45
22:BA:2345:G:H4'	22:BA:2346:A:O5'	2.17	0.45
24:BC:209:GLY:O	24:BC:210:ALA:C	2.55	0.45
24:BC:227:PRO:CA	24:BC:233:GLY:HA2	2.45	0.45
25:BD:13:ARG:HA	25:BD:22:ILE:O	2.17	0.45
25:BD:85:ALA:HB3	25:BD:88:GLU:HG3	1.99	0.45
26:BE:199:MET:HE2	26:BE:199:MET:HB3	1.91	0.45
26:BE:48:THR:HG22	26:BE:86:ALA:HB3	1.98	0.45
27:BF:158:THR:HG22	27:BF:160:ALA:HB3	1.99	0.45
27:BF:63:GLN:NE2	27:BF:90:THR:O	2.50	0.45
34:BM:17:ASN:O	34:BM:38:ARG:HD3	2.17	0.45
42:BU:6:ARG:O	42:BU:9:ASP:HB2	2.17	0.45
1:CA:1052:U:H5''	1:CA:1053:G:OP2	2.16	0.45
1:CA:1096:C:C2	1:CA:1097:C:C5	3.05	0.45
1:CA:1255:G:N1	1:CA:1279:G:C8	2.85	0.45
1:CA:33:A:H2'	1:CA:34:C:H6	1.81	0.45
1:CA:542:G:C2	1:CA:543:U:C5	3.04	0.45
1:CA:708:C:O2'	1:CA:709:U:H5'	2.17	0.45
1:CA:73:C:HO2'	1:CA:74:A:P	2.40	0.45
5:CE:157:ARG:C	5:CE:159:LYS:H	2.19	0.45
7:CG:11:LYS:CD	7:CG:11:LYS:N	2.80	0.45
12:CL:108:LYS:O	12:CL:109:ASP:HB2	2.17	0.45
1:CA:228:A:H4'	16:CP:63:GLN:HG2	1.98	0.45
22:DA:1342:A:C6	22:DA:1397:U:C5	3.05	0.45
22:DA:1432:G:H2'	22:DA:1433:A:C8	2.52	0.45
22:DA:1644:C:O2	22:DA:1644:C:H2'	2.17	0.45
22:DA:195:A:C5	22:DA:198:C:C5	3.05	0.45
22:DA:1651:G:C2	22:DA:2007:U:C2	3.04	0.45
22:DA:2208:C:O2	22:DA:2217:G:C2	2.70	0.45
22:DA:78:U:H2'	22:DA:79:C:O4'	2.17	0.45
24:DC:240:PHE:CE1	24:DC:242:LYS:O	2.69	0.45
25:DD:186:LEU:HD21	37:DP:4:ILE:CG2	2.47	0.45
27:DF:60:ILE:HG23	27:DF:138:PHE:CE2	2.52	0.45
27:DF:38:MET:HG3	27:DF:152:LEU:HB3	1.99	0.45
29:DH:15:LEU:N	29:DH:15:LEU:HD22	2.32	0.45
34:DM:97:GLN:N	34:DM:97:GLN:OE1	2.50	0.45
35:DN:38:LEU:HB3	35:DN:39:PRO:HD3	1.98	0.45
45:DX:10:LYS:HE3	45:DX:54:LYS:HD2	1.99	0.45
46:DY:28:LEU:CD2	46:DY:37:LEU:HD11	2.46	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1089:G:C2'	1:AA:1090:U:H5'	2.48	0.44
1:AA:1144:G:H5''	1:AA:1145:A:OP2	2.17	0.44
1:AA:1147:C:O2	9:AI:18:ARG:NH1	2.50	0.44
1:AA:960:U:O2'	1:AA:1223:C:C5'	2.64	0.44
1:AA:559:A:H4'	1:AA:560:A:O5'	2.17	0.44
1:AA:563:A:C8	1:AA:567:G:O4'	2.70	0.44
1:AA:614:C:H2'	1:AA:615:G:O4'	2.18	0.44
1:AA:736:C:H2'	1:AA:737:C:H6	1.81	0.44
1:AA:737:C:C2	1:AA:738:C:C5	3.04	0.44
3:AC:149:ILE:HG13	3:AC:201:TRP:O	2.18	0.44
7:AG:68:ASN:OD1	7:AG:130:ASN:HB3	2.18	0.44
7:AG:146:GLU:O	7:AG:149:LYS:HB3	2.17	0.44
8:AH:111:MET:SD	8:AH:116:ALA:HA	2.56	0.44
13:AM:16:VAL:HG13	13:AM:41:GLU:CB	2.47	0.44
16:AP:67:ILE:CG2	16:AP:71:VAL:HG12	2.47	0.44
21:AU:40:LYS:N	21:AU:41:PRO:CD	2.77	0.44
22:BA:1310:G:N7	22:BA:1311:G:C5	2.85	0.44
22:BA:1799:G:O6	24:BC:178:SER:HB3	2.17	0.44
22:BA:2064:C:H2'	22:BA:2065:C:C6	2.52	0.44
22:BA:2266:A:H4'	22:BA:2267:A:O5'	2.17	0.44
22:BA:2595:G:C6	22:BA:2599:G:O6	2.70	0.44
22:BA:360:U:C4	22:BA:361:G:O6	2.70	0.44
22:BA:389:G:C8	22:BA:2413:G:H4'	2.52	0.44
22:BA:983:A:C6	22:BA:984:A:C2	3.05	0.44
24:BC:24:LEU:HD12	24:BC:24:LEU:HA	1.74	0.44
24:BC:36:LYS:O	24:BC:37:ASN:HB2	2.17	0.44
27:BF:142:ASP:OD2	27:BF:145:LYS:HG2	2.17	0.44
28:BG:69:ARG:C	28:BG:69:ARG:HD3	2.38	0.44
34:BM:105:MET:CG	34:BM:106:ASP:N	2.80	0.44
36:BO:3:LYS:O	36:BO:6:ALA:HB3	2.17	0.44
38:BQ:89:GLU:H	39:BR:49:ILE:HD12	1.82	0.44
41:BT:51:PHE:O	41:BT:53:VAL:HG13	2.17	0.44
45:BX:11:ARG:HB2	45:BX:12:PRO:HD2	1.98	0.44
47:BZ:8:THR:HG23	47:BZ:34:HIS:O	2.17	0.44
1:CA:1416:G:C2	1:CA:1485:U:O2	2.70	0.44
2:CB:200:ILE:HG22	2:CB:200:ILE:O	2.17	0.44
2:CB:24:ASN:O	2:CB:26:LYS:N	2.51	0.44
2:CB:68:LEU:HD23	2:CB:91:PHE:HA	1.99	0.44
3:CC:130:PHE:CD1	3:CC:157:LEU:HD23	2.52	0.44
3:CC:141:ALA:O	3:CC:146:ALA:HB3	2.16	0.44
3:CC:111:LEU:HD21	3:CC:144:LEU:HB2	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:82:GLN:OE1	5:CE:149:SER:HA	2.17	0.44
5:CE:150:PRO:O	5:CE:153:VAL:HG22	2.18	0.44
7:CG:92:ARG:HB3	7:CG:93:PRO:HD2	1.99	0.44
11:CK:71:ALA:O	11:CK:75:LYS:HG3	2.16	0.44
13:CM:64:VAL:HG13	13:CM:68:ASP:OD2	2.17	0.44
17:CQ:52:GLU:CG	17:CQ:75:LEU:HD21	2.48	0.44
21:CU:12:PHE:CD1	21:CU:13:ASP:N	2.85	0.44
22:DA:1648:U:H2'	22:DA:1649:G:O4'	2.17	0.44
22:DA:1717:A:H2'	22:DA:1718:G:O4'	2.17	0.44
22:DA:1667:G:N2	22:DA:1992:G:OP2	2.43	0.44
22:DA:563:A:C2	22:DA:2018:G:N3	2.85	0.44
22:DA:2164:C:H2'	22:DA:2165:C:H6	1.79	0.44
22:DA:228:C:H4'	22:DA:229:C:C5'	2.47	0.44
22:DA:2504:U:C4	55:DA:3001:VIR:C16	2.99	0.44
55:DA:3001:VIR:HC42	55:DA:3001:VIR:N9	2.32	0.44
22:DA:1566:A:C6	24:DC:213:TRP:CE3	3.05	0.44
25:DD:142:VAL:HB	25:DD:143:PRO:CD	2.46	0.44
26:DE:24:ASN:O	26:DE:28:VAL:HG23	2.17	0.44
27:DF:18:THR:O	27:DF:19:GLU:HG3	2.17	0.44
28:DG:98:VAL:HG22	28:DG:125:CYS:SG	2.57	0.44
29:DH:5:LEU:CD1	29:DH:13:GLY:CA	2.95	0.44
30:DI:22:PRO:HB2	30:DI:23:PRO:HD3	1.99	0.44
33:DL:2:ARG:HB3	33:DL:5:THR:OG1	2.17	0.44
33:DL:56:PRO:HD2	33:DL:59:ARG:HB2	1.99	0.44
34:DM:33:LEU:HB2	34:DM:117:PHE:CD2	2.52	0.44
35:DN:117:ASP:O	35:DN:118:ARG:CG	2.65	0.44
35:DN:69:ARG:O	35:DN:70:THR:HG23	2.17	0.44
38:DQ:8:VAL:HG12	38:DQ:9:ILE:N	2.33	0.44
41:DT:12:ARG:O	41:DT:13:ALA:CB	2.64	0.44
43:DV:35:GLU:CD	43:DV:35:GLU:N	2.70	0.44
46:DY:28:LEU:HD12	46:DY:46:VAL:HG21	1.98	0.44
46:DY:45:GLN:O	46:DY:48:ARG:N	2.50	0.44
1:AA:1024:G:H2'	1:AA:1025:U:O5'	2.17	0.44
1:AA:1069:C:H4'	1:AA:1192:C:O2	2.17	0.44
1:AA:1157:A:C6	1:AA:1180:A:C5	3.06	0.44
1:AA:1307:U:N3	1:AA:1308:U:C5	2.85	0.44
1:AA:979:C:C6	1:AA:1318:A:N1	2.85	0.44
1:AA:1319:A:C5	1:AA:1323:G:C4	3.05	0.44
1:AA:207:C:H2'	1:AA:208:U:C2	2.52	0.44
1:AA:105:G:N2	1:AA:379:C:O3'	2.51	0.44
1:AA:551:U:C2'	1:AA:552:U:O5'	2.65	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:735:C:H2'	1:AA:736:C:C6	2.52	0.44
1:AA:946:A:H2'	1:AA:947:G:C8	2.52	0.44
2:AB:133:GLU:HG3	2:AB:137:ARG:HG3	1.99	0.44
3:AC:68:ILE:HD11	3:AC:101:ILE:HD11	1.99	0.44
5:AE:79:GLY:O	5:AE:121:HIS:N	2.45	0.44
10:AJ:48:ARG:CD	14:AN:101:TRP:CZ3	3.00	0.44
19:AS:44:MET:HE1	19:AS:49:ILE:HD13	1.99	0.44
53:B5:131:ILE:HA	53:B5:135:ARG:CB	2.47	0.44
22:BA:1108:U:H2'	22:BA:1109:C:O4'	2.17	0.44
22:BA:1288:G:C4	22:BA:1327:A:C2	3.04	0.44
22:BA:1377:G:OP2	57:BA:3398:HOH:O	2.21	0.44
22:BA:1429:G:H2'	22:BA:1430:G:H8	1.82	0.44
22:BA:1467:U:C4	22:BA:1546:G:N2	2.85	0.44
22:BA:1820:U:H4'	22:BA:1821:A:OP2	2.17	0.44
22:BA:1878:G:H2'	22:BA:1879:C:O4'	2.17	0.44
22:BA:2190:G:H8	22:BA:2190:G:OP2	2.00	0.44
22:BA:2228:G:H2'	22:BA:2229:U:C6	2.52	0.44
22:BA:2310:C:H2'	22:BA:2311:A:C5'	2.46	0.44
22:BA:740:C:O2	22:BA:740:C:H2'	2.17	0.44
24:BC:86:ASN:ND2	24:BC:86:ASN:N	2.65	0.44
29:BH:100:ALA:HB2	29:BH:115:VAL:HG21	1.98	0.44
29:BH:57:LYS:CG	29:BH:58:LEU:N	2.81	0.44
31:BJ:64:VAL:CG1	31:BJ:68:LYS:HB2	2.47	0.44
33:BL:91:ASP:HB3	33:BL:94:THR:HB	1.99	0.44
36:BO:109:ALA:O	36:BO:110:ALA:C	2.55	0.44
40:BS:73:LYS:HB2	40:BS:106:VAL:HB	1.99	0.44
1:CA:1158:C:N3	1:CA:1160:G:C8	2.85	0.44
1:CA:237:G:C4	1:CA:238:A:C8	3.05	0.44
1:CA:33:A:H2'	1:CA:34:C:C6	2.52	0.44
1:CA:435:A:C2'	1:CA:436:C:O5'	2.66	0.44
1:CA:517:G:C5'	1:CA:519:C:C2	2.99	0.44
1:CA:582:C:N3	1:CA:760:G:C6	2.85	0.44
2:CB:20:THR:O	2:CB:21:ARG:CZ	2.65	0.44
5:CE:156:LYS:CD	8:CH:71:VAL:HG13	2.47	0.44
5:CE:81:LEU:N	5:CE:81:LEU:CD1	2.80	0.44
9:CI:57:MET:O	9:CI:59:GLU:N	2.51	0.44
11:CK:127:ARG:N	21:CU:34:ARG:NH2	2.65	0.44
11:CK:45:ALA:HB3	11:CK:70:CYS:HB2	2.00	0.44
12:CL:58:THR:HG23	12:CL:59:ASN:N	2.32	0.44
1:CA:1302:C:C4	13:CM:17:ILE:HD13	2.52	0.44
1:CA:376:G:H5'	16:CP:5:ARG:HB2	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:36:ARG:NH2	19:CS:75:ALA:O	2.50	0.44
20:CT:62:ALA:HA	20:CT:67:ILE:HG22	1.99	0.44
51:D3:31:HIS:CE1	51:D3:32:ILE:CD1	3.00	0.44
22:DA:1083:U:O2	22:DA:1086:A:N1	2.50	0.44
22:DA:128:C:H2'	22:DA:129:C:C6	2.52	0.44
22:DA:1343:G:C5	22:DA:1344:U:O4	2.70	0.44
22:DA:1355:G:C6	22:DA:1377:G:C2	3.05	0.44
22:DA:1678:A:C5	22:DA:1679:A:C8	3.05	0.44
22:DA:1779:U:C5	22:DA:1784:A:N7	2.82	0.44
22:DA:2186:G:C6	22:DA:2187:U:C4	3.04	0.44
22:DA:2234:G:C6	22:DA:2235:G:N7	2.86	0.44
22:DA:2283:C:C4	22:DA:2389:G:C4	3.06	0.44
22:DA:2547:A:C8	22:DA:2566:A:C8	3.05	0.44
22:DA:2847:U:C2'	22:DA:2848:G:H5'	2.46	0.44
22:DA:2868:A:C6	22:DA:2869:G:C5	3.04	0.44
22:DA:79:C:O2'	22:DA:346:A:N3	2.34	0.44
22:DA:482:A:N6	22:DA:506:G:O2'	2.51	0.44
22:DA:655:A:H4'	22:DA:656:G:H5'	2.00	0.44
22:DA:70:G:HO2'	22:DA:71:A:P	2.40	0.44
22:DA:815:C:H2'	22:DA:816:C:C6	2.53	0.44
22:DA:846:U:O2'	22:DA:847:U:C5'	2.66	0.44
22:DA:906:U:H2'	22:DA:907:G:O5'	2.16	0.44
22:DA:963:U:H2'	22:DA:964:C:C6	2.52	0.44
24:DC:252:THR:HG22	24:DC:253:LYS:N	2.32	0.44
22:DA:2305:U:C4	27:DF:152:LEU:HA	2.53	0.44
29:DH:1:MET:CE	29:DH:27:ARG:NH1	2.80	0.44
30:DI:80:LEU:HD13	30:DI:136:MET:SD	2.58	0.44
32:DK:12:ASP:OD2	32:DK:85:VAL:HG13	2.18	0.44
33:DL:114:GLY:O	33:DL:115:GLU:C	2.56	0.44
22:DA:1275:A:O4'	35:DN:16:HIS:CE1	2.70	0.44
42:DU:71:ALA:HB1	42:DU:81:ASP:O	2.18	0.44
43:DV:63:ILE:HG13	43:DV:72:VAL:HG22	1.99	0.44
46:DY:56:LEU:O	46:DY:57:LEU:HB2	2.15	0.44
47:DZ:6:LYS:HE2	47:DZ:58:GLU:OE2	2.16	0.44
1:AA:1110:A:N6	1:AA:1111:A:C6	2.85	0.44
1:AA:1419:G:C5	1:AA:1420:U:C5	3.06	0.44
1:AA:209:U:C4'	1:AA:210:C:OP2	2.65	0.44
1:AA:557:G:C5	1:AA:558:G:C6	3.05	0.44
1:AA:860:A:C5'	1:AA:861:G:OP2	2.66	0.44
1:AA:872:A:C8	1:AA:874:G:C8	3.05	0.44
2:AB:210:VAL:O	2:AB:212:LEU:N	2.50	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:89:LYS:HG2	3:AC:90:VAL:N	2.32	0.44
4:AD:167:LYS:O	4:AD:168:PRO:O	2.35	0.44
6:AF:93:LYS:O	6:AF:94:HIS:HB2	2.18	0.44
9:AI:99:ARG:HA	9:AI:104:VAL:HG22	1.99	0.44
15:AO:57:LEU:O	15:AO:60:VAL:N	2.50	0.44
16:AP:46:LYS:CD	16:AP:47:GLU:H	2.30	0.44
21:AU:25:LYS:C	21:AU:27:GLY:H	2.20	0.44
49:B1:35:GLU:CG	49:B1:50:LYS:HG3	2.48	0.44
53:B5:21:TYR:O	53:B5:22:THR:HG23	2.17	0.44
22:BA:1070:A:C2'	22:BA:1097:U:OP1	2.65	0.44
22:BA:1171:G:N2	22:BA:1178:C:O2	2.48	0.44
22:BA:1266:G:O2'	22:BA:2012:G:O6	2.27	0.44
22:BA:250:G:H2'	22:BA:251:A:C8	2.53	0.44
22:BA:2553:G:H5''	22:BA:2554:U:OP2	2.17	0.44
22:BA:603:A:C8	22:BA:655:A:C6	3.05	0.44
22:BA:756:A:H2'	22:BA:757:G:O4'	2.17	0.44
22:BA:831:G:C6	22:BA:832:U:C4	3.05	0.44
27:BF:175:PHE:HD2	27:BF:177:PHE:CE2	2.35	0.44
33:BL:100:ILE:O	33:BL:100:ILE:HD12	2.17	0.44
35:BN:32:GLU:OE1	35:BN:118:ARG:HA	2.17	0.44
1:CA:1072:G:C6	1:CA:1073:U:O4	2.70	0.44
2:CB:187:VAL:CG2	2:CB:187:VAL:O	2.66	0.44
4:CD:173:VAL:O	4:CD:174:ASP:CB	2.65	0.44
8:CH:112:THR:HG23	8:CH:115:ALA:HB2	1.99	0.44
9:CI:129:LYS:O	9:CI:130:ARG:CD	2.65	0.44
11:CK:63:ALA:O	11:CK:66:ALA:N	2.50	0.44
11:CK:77:TYR:N	11:CK:77:TYR:CD1	2.85	0.44
1:CA:754:C:OP1	15:CO:72:ARG:NH2	2.50	0.44
22:DA:126:A:OP2	50:D2:19:ARG:HG3	2.17	0.44
22:DA:1036:G:C6	22:DA:1120:G:C5	3.05	0.44
22:DA:1121:C:N3	22:DA:1122:G:C8	2.86	0.44
22:DA:117:G:N1	22:DA:119:A:N6	2.65	0.44
22:DA:1364:G:N7	45:DX:2:SER:N	2.66	0.44
22:DA:1464:G:N1	22:DA:1465:G:C5	2.85	0.44
22:DA:1473:G:C2	22:DA:1519:G:N3	2.85	0.44
22:DA:2127:G:N3	22:DA:2162:G:N7	2.65	0.44
22:DA:2250:G:C8	22:DA:2250:G:O5'	2.70	0.44
22:DA:2326:C:C1'	22:DA:2327:A:OP1	2.66	0.44
22:DA:2814:A:C6	22:DA:2815:C:C4	3.05	0.44
26:DE:196:VAL:O	26:DE:196:VAL:HG12	2.17	0.44
23:DB:42:C:C6	27:DF:66:LEU:HD22	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:25:TYR:O	29:DH:29:PHE:HB3	2.18	0.44
29:DH:37:VAL:HG22	29:DH:38:PRO:HD2	1.98	0.44
32:DK:121:GLU:O	32:DK:122:VAL:C	2.56	0.44
22:DA:662:G:O3'	33:DL:16:GLY:HA2	2.18	0.44
33:DL:76:GLU:O	33:DL:76:GLU:HG3	2.16	0.44
33:DL:81:ASP:HA	33:DL:84:LYS:NZ	2.32	0.44
36:DO:67:ASN:OD1	36:DO:69:ASP:N	2.49	0.44
37:DP:28:VAL:HG12	37:DP:30:VAL:HG23	2.00	0.44
40:DS:4:ILE:HG12	40:DS:106:VAL:HG22	1.99	0.44
47:DZ:24:LEU:HD11	47:DZ:54:MET:CE	2.47	0.44
1:AA:1268:G:C6	1:AA:1269:A:N6	2.86	0.44
1:AA:1517:G:H1'	22:BA:1919:A:O3'	2.16	0.44
1:AA:186:C:H2'	1:AA:187:G:O4'	2.17	0.44
1:AA:257:G:N2	1:AA:258:G:C4	2.86	0.44
1:AA:44:A:C2	1:AA:399:G:C2	3.05	0.44
1:AA:425:G:O2'	1:AA:426:U:H5'	2.17	0.44
1:AA:592:G:C6	1:AA:648:A:C6	3.04	0.44
1:AA:683:G:N2	11:AK:40:ASN:HA	2.33	0.44
1:AA:685:G:C2	1:AA:686:U:C4	3.06	0.44
6:AF:98:GLU:HG2	6:AF:99:ALA:N	2.32	0.44
9:AI:80:ARG:HD2	9:AI:80:ARG:O	2.18	0.44
14:AN:51:LEU:HB3	14:AN:52:PRO:HD2	1.99	0.44
18:AR:28:THR:O	18:AR:31:ASN:OD1	2.36	0.44
1:AA:61:G:OP2	20:AT:5:LYS:HE3	2.17	0.44
21:AU:25:LYS:C	21:AU:27:GLY:N	2.69	0.44
40:BS:19:LEU:HB3	48:B0:22:LEU:HD11	1.99	0.44
49:B1:4:GLY:O	49:B1:5:ILE:HB	2.17	0.44
53:B5:73:VAL:CG2	53:B5:162:ILE:CB	2.95	0.44
22:BA:1128:G:O4'	22:BA:2516:A:O2'	2.35	0.44
22:BA:142:A:O2'	22:BA:143:C:H5'	2.17	0.44
22:BA:2131:U:OP1	22:BA:2132:U:H3'	2.17	0.44
22:BA:2233:U:H2'	22:BA:2234:G:C8	2.53	0.44
22:BA:2793:C:H2'	22:BA:2794:C:H6	1.83	0.44
22:BA:340:A:H2'	22:BA:341:C:C5'	2.48	0.44
22:BA:417:C:H2'	22:BA:418:C:C6	2.51	0.44
22:BA:513:A:O2'	22:BA:514:A:H5'	2.18	0.44
24:BC:19:VAL:O	24:BC:19:VAL:HG12	2.16	0.44
24:BC:84:ASP:OD2	24:BC:87:ARG:NE	2.45	0.44
25:BD:186:LEU:HD11	37:BP:8:LEU:HD11	1.99	0.44
26:BE:32:VAL:HG23	26:BE:33:VAL:N	2.33	0.44
27:BF:31:VAL:CG2	27:BF:31:VAL:O	2.65	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:31:VAL:N	29:BH:32:PRO:CD	2.80	0.44
29:BH:62:LEU:O	29:BH:62:LEU:HD12	2.17	0.44
30:BI:47:ASP:HA	30:BI:51:LYS:HD2	2.00	0.44
32:BK:35:VAL:HG12	32:BK:36:GLY:N	2.33	0.44
22:BA:666:A:H4'	33:BL:48:ARG:HD3	1.99	0.44
35:BN:71:ARG:HH21	35:BN:71:ARG:CG	2.30	0.44
36:BO:24:THR:HG22	36:BO:42:PRO:HG3	1.99	0.44
36:BO:52:SER:O	36:BO:55:GLU:HG2	2.16	0.44
38:BQ:89:GLU:H	39:BR:49:ILE:HD11	1.83	0.44
39:BR:25:LEU:N	39:BR:94:THR:HG23	2.32	0.44
1:CA:1286:U:O2	1:CA:1286:U:H2'	2.18	0.44
1:CA:1362:A:H4'	1:CA:1362:A:OP1	2.17	0.44
1:CA:1376:U:O2	1:CA:1377:A:C5	2.71	0.44
1:CA:1410:A:H2'	1:CA:1411:C:C6	2.52	0.44
1:CA:206:C:H2'	1:CA:207:C:C4'	2.48	0.44
1:CA:463:U:H3'	1:CA:464:U:C6	2.52	0.44
1:CA:510:A:H5''	1:CA:511:C:P	2.57	0.44
1:CA:939:G:P	7:CG:95:ARG:NH2	2.91	0.44
4:CD:26:ARG:CD	4:CD:31:LYS:HE3	2.48	0.44
4:CD:74:ASN:HA	4:CD:77:LYS:HB2	1.98	0.44
10:CJ:52:LEU:HD22	10:CJ:59:LYS:HA	1.98	0.44
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.98	0.44
22:DA:129:C:H2'	22:DA:130:C:C6	2.52	0.44
22:DA:1462:C:N3	22:DA:1463:C:C5	2.85	0.44
22:DA:1668:A:O2'	22:DA:1674:G:N7	2.38	0.44
22:DA:188:G:C2	22:DA:209:C:N3	2.86	0.44
22:DA:2074:U:C2	22:DA:2436:G:C2	3.05	0.44
22:DA:206:U:C2	22:DA:207:A:C8	3.06	0.44
22:DA:2111:U:O2	22:DA:2111:U:O4'	2.35	0.44
22:DA:2148:G:C2	22:DA:2149:U:C4	3.05	0.44
22:DA:2208:C:O2	22:DA:2217:G:N2	2.50	0.44
22:DA:2364:C:OP1	44:DW:55:ARG:HD3	2.18	0.44
22:DA:2665:A:N3	22:DA:2665:A:H2'	2.32	0.44
22:DA:2729:G:H2'	22:DA:2730:C:O4'	2.18	0.44
22:DA:39:G:C5	22:DA:40:U:C5	3.05	0.44
22:DA:477:A:H2'	22:DA:478:A:O5'	2.18	0.44
22:DA:480:A:N3	22:DA:480:A:H2'	2.32	0.44
24:DC:51:THR:O	24:DC:54:ILE:HG13	2.17	0.44
25:DD:110:THR:HG22	25:DD:111:GLY:N	2.33	0.44
22:DA:443:A:C8	26:DE:40:ARG:HD3	2.53	0.44
27:DF:85:ILE:HG13	27:DF:85:ILE:O	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2198:A:N3	29:DH:29:PHE:HB2	2.32	0.44
33:DL:20:GLY:HA2	33:DL:28:GLY:HA2	1.98	0.44
42:DU:96:PHE:CZ	42:DU:103:ILE:HG12	2.53	0.44
1:AA:1367:C:C4	1:AA:1368:A:N7	2.85	0.44
1:AA:1461:G:C4	1:AA:1462:C:C6	3.05	0.44
1:AA:257:G:C2	1:AA:258:G:C5	3.05	0.44
1:AA:437:U:C4	1:AA:438:U:C5	3.05	0.44
1:AA:724:G:C4	1:AA:725:G:C8	3.06	0.44
1:AA:757:U:O2'	1:AA:879:C:O2	2.29	0.44
4:AD:147:GLU:HA	4:AD:150:LYS:HD2	1.98	0.44
7:AG:137:LYS:O	7:AG:141:VAL:HG23	2.16	0.44
15:AO:89:ARG:NH1	22:BA:714:U:C5	2.85	0.44
17:AQ:13:VAL:CG1	17:AQ:14:SER:N	2.80	0.44
18:AR:22:ASP:OD1	18:AR:24:LYS:HG3	2.18	0.44
22:BA:1165:A:H2'	22:BA:1166:G:H8	1.82	0.44
22:BA:137:U:H2'	22:BA:140:C:N1	2.33	0.44
22:BA:1413:A:O2'	22:BA:1414:C:H5'	2.18	0.44
22:BA:142:A:H2'	22:BA:143:C:C6	2.53	0.44
22:BA:1922:G:N1	22:BA:1923:U:C6	2.85	0.44
22:BA:2116:G:O6	22:BA:2171:A:N6	2.49	0.44
22:BA:503:A:C6	22:BA:505:A:C6	3.06	0.44
22:BA:812:C:OP1	38:BQ:13:ARG:NH2	2.51	0.44
22:BA:996:A:OP2	38:BQ:93:LYS:HD3	2.16	0.44
25:BD:133:THR:CG2	25:BD:134:HIS:N	2.80	0.44
29:BH:57:LYS:HG3	29:BH:58:LEU:N	2.33	0.44
29:BH:89:LYS:HD3	1:CA:359:G:OP1	2.17	0.44
30:BI:112:THR:O	30:BI:113:LYS:C	2.55	0.44
30:BI:29:GLY:O	30:BI:30:GLN:HG3	2.17	0.44
30:BI:34:ASN:CB	30:BI:37:GLU:HB2	2.48	0.44
30:BI:9:VAL:HG23	30:BI:59:ILE:HG13	1.99	0.44
32:BK:79:PHE:CD1	37:BP:70:VAL:HG22	2.53	0.44
42:BU:97:LYS:O	42:BU:98:SER:CB	2.66	0.44
44:BW:49:ALA:O	44:BW:50:ASN:HB2	2.17	0.44
1:CA:1093:A:C4	1:CA:1095:U:O4'	2.71	0.44
1:CA:1279:G:O2'	1:CA:1281:C:OP2	2.29	0.44
1:CA:1431:A:C5	1:CA:1432:G:C6	3.04	0.44
1:CA:1450:U:O2'	1:CA:1451:U:H2'	2.16	0.44
1:CA:198:G:O2'	1:CA:199:A:H5'	2.17	0.44
1:CA:490:C:H2'	1:CA:491:G:C8	2.52	0.44
1:CA:604:G:C5	1:CA:605:U:C4	3.06	0.44
1:CA:983:A:C2'	1:CA:983:A:N3	2.80	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:10:LEU:HD21	2:CB:12:ALA:O	2.16	0.44
1:CA:429:U:H3'	4:CD:9:LEU:HD23	1.99	0.44
7:CG:148:ASN:C	7:CG:150:ALA:H	2.21	0.44
9:CI:13:LYS:O	9:CI:14:SER:CB	2.66	0.44
9:CI:22:LYS:O	9:CI:24:GLY:N	2.50	0.44
11:CK:72:ASP:OD2	11:CK:73:ALA:N	2.50	0.44
11:CK:82:LEU:O	11:CK:82:LEU:HD23	2.18	0.44
14:CN:54:ASP:OD1	14:CN:59:ARG:NH1	2.51	0.44
14:CN:65:ARG:HB2	14:CN:78:GLY:O	2.17	0.44
48:D0:40:ARG:O	48:D0:41:HIS:HB2	2.18	0.44
22:DA:1169:A:N1	22:DA:1180:U:O4	2.50	0.44
22:DA:1290:C:C2	22:DA:1291:C:C6	3.05	0.44
22:DA:1373:A:H2'	22:DA:1374:G:O4'	2.18	0.44
22:DA:144:A:N3	22:DA:144:A:H2'	2.32	0.44
22:DA:1584:U:C2'	22:DA:1584:U:O2	2.65	0.44
22:DA:1726:C:H2'	22:DA:1727:C:C6	2.51	0.44
22:DA:188:G:O2'	22:DA:1365:A:N6	2.50	0.44
22:DA:190:A:C6	22:DA:191:A:C2	3.06	0.44
22:DA:1926:U:C2'	22:DA:1928:A:N7	2.81	0.44
22:DA:193:U:C4	22:DA:194:G:N7	2.86	0.44
22:DA:1949:G:C6	22:DA:1950:G:C6	3.05	0.44
22:DA:2111:U:C4	22:DA:2147:A:C2	3.05	0.44
22:DA:2373:G:C6	22:DA:2374:C:C4	3.06	0.44
22:DA:2474:U:O2	22:DA:2474:U:H2'	2.17	0.44
22:DA:2549:G:C2	22:DA:2560:A:C2	3.06	0.44
22:DA:2688:G:C8	22:DA:2719:G:C6	3.06	0.44
22:DA:2747:G:O2'	28:DG:67:THR:HG22	2.17	0.44
22:DA:2842:G:C6	22:DA:2876:G:N1	2.85	0.44
22:DA:777:G:N7	22:DA:793:A:C2	2.83	0.44
22:DA:777:G:N2	22:DA:778:G:N9	2.66	0.44
22:DA:973:A:H5''	39:DR:81:LYS:HG3	1.99	0.44
25:DD:122:VAL:HG21	25:DD:141:ARG:HB3	1.99	0.44
30:DI:20:PRO:HG2	30:DI:24:VAL:CG2	2.47	0.44
30:DI:46:THR:HG22	30:DI:51:LYS:HG3	2.00	0.44
22:DA:1097:U:C2'	30:DI:9:VAL:HG11	2.47	0.44
31:DJ:25:LEU:CD1	31:DJ:100:VAL:HG12	2.47	0.44
22:DA:1669:A:O4'	32:DK:5:GLN:HG3	2.18	0.44
33:DL:110:VAL:C	33:DL:111:ILE:HD12	2.38	0.44
35:DN:13:ASN:O	35:DN:16:HIS:N	2.47	0.44
38:DQ:61:TRP:CD2	38:DQ:93:LYS:HA	2.53	0.44
39:DR:51:VAL:O	39:DR:52:PRO:C	2.53	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DX:54:LYS:HA	45:DX:57:ARG:HB2	1.99	0.44
1:AA:1027:C:N3	1:AA:1034:G:O6	2.51	0.44
1:AA:109:A:C4	1:AA:327:A:C2	3.05	0.44
1:AA:1210:C:C4	1:AA:1211:U:C4	3.06	0.44
1:AA:1313:U:C4	1:AA:1314:C:N4	2.86	0.44
1:AA:1386:G:H2'	1:AA:1387:G:C8	2.53	0.44
1:AA:1406:U:H2'	1:AA:1407:C:H5'	1.99	0.44
1:AA:174:A:C4	1:AA:175:C:C6	3.06	0.44
1:AA:554:A:H2'	1:AA:555:U:C6	2.53	0.44
1:AA:731:G:O2'	1:AA:732:C:H5'	2.18	0.44
1:AA:747:A:C5'	1:AA:748:G:OP2	2.66	0.44
1:AA:827:U:C4	1:AA:870:U:C2	3.06	0.44
3:AC:64:ILE:HG12	3:AC:66:VAL:HG23	1.99	0.44
3:AC:6:HIS:CD2	3:AC:7:PRO:CD	3.01	0.44
4:AD:3:ARG:NE	4:AD:115:ARG:HD3	2.31	0.44
4:AD:122:ALA:O	4:AD:123:ILE:CG2	2.65	0.44
6:AF:51:ILE:O	6:AF:52:ASN:CB	2.65	0.44
8:AH:7:ILE:O	8:AH:11:LEU:HG	2.18	0.44
8:AH:50:LYS:O	8:AH:60:GLU:N	2.51	0.44
11:AK:23:ILE:HD11	11:AK:86:VAL:HG13	1.99	0.44
13:AM:73:ILE:O	13:AM:77:ILE:HG13	2.17	0.44
16:AP:52:LEU:O	16:AP:54:LEU:N	2.51	0.44
51:B3:31:HIS:CD2	51:B3:32:ILE:HD12	2.52	0.44
22:BA:1088:A:H5''	22:BA:1088:A:N3	2.31	0.44
22:BA:1495:A:O2'	22:BA:1496:A:H5'	2.18	0.44
22:BA:1907:G:C5	22:BA:1908:C:C4	3.05	0.44
22:BA:1949:G:N2	22:BA:1958:C:C2	2.85	0.44
22:BA:2018:G:H2'	22:BA:2019:A:H8	1.82	0.44
22:BA:2058:A:N6	57:BA:3488:HOH:O	2.50	0.44
22:BA:2846:G:H2'	22:BA:2847:U:O4'	2.17	0.44
22:BA:500:G:N1	22:BA:503:A:OP2	2.50	0.44
22:BA:620:G:H4'	22:BA:621:A:O5'	2.17	0.44
22:BA:669:G:N2	22:BA:670:A:C2	2.85	0.44
22:BA:962:G:O2'	22:BA:963:U:H5'	2.18	0.44
24:BC:108:LYS:HD2	24:BC:194:GLU:OE1	2.17	0.44
26:BE:104:ALA:O	26:BE:108:ILE:HG23	2.18	0.44
28:BG:121:ILE:HD11	28:BG:140:VAL:HG12	2.00	0.44
29:BH:97:ARG:O	29:BH:101:ASP:HB2	2.17	0.44
32:BK:92:GLU:HG3	32:BK:111:LYS:HZ3	1.83	0.44
33:BL:101:ILE:HG13	33:BL:102:GLY:N	2.32	0.44
36:BO:18:LEU:HD11	36:BO:91:SER:HB3	1.98	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:67:GLY:C	39:BR:93:PHE:CE1	2.90	0.44
40:BS:8:ARG:HB3	40:BS:102:HIS:ND1	2.33	0.44
41:BT:11:LEU:HD23	41:BT:11:LEU:N	2.32	0.44
22:BA:301:G:P	42:BU:82:ARG:NH1	2.91	0.44
43:BV:10:LYS:H	43:BV:10:LYS:NZ	2.16	0.44
44:BW:37:ILE:HG21	44:BW:80:ILE:HG21	1.99	0.44
1:CA:1000:A:C2	1:CA:1041:G:N2	2.86	0.44
1:CA:440:C:H2'	1:CA:441:A:O5'	2.18	0.44
1:CA:676:A:N1	1:CA:677:U:C4	2.86	0.44
2:CB:205:ASP:OD1	2:CB:205:ASP:N	2.50	0.44
3:CC:184:TYR:CE1	3:CC:201:TRP:CE2	3.06	0.44
3:CC:64:ILE:HG23	3:CC:99:ALA:HB2	2.00	0.44
4:CD:102:VAL:HG13	4:CD:107:PHE:HB2	1.99	0.44
4:CD:37:ALA:HA	4:CD:42:GLY:HA3	2.00	0.44
5:CE:16:ILE:CD1	5:CE:38:VAL:HG23	2.48	0.44
8:CH:35:ALA:O	8:CH:39:VAL:HG23	2.16	0.44
11:CK:23:ILE:HG21	11:CK:96:THR:HG21	2.00	0.44
12:CL:25:GLU:CD	12:CL:27:CYS:SG	2.96	0.44
12:CL:83:ARG:N	12:CL:96:HIS:O	2.49	0.44
15:CO:19:ALA:O	15:CO:20:ASN:HB2	2.18	0.44
15:CO:62:GLN:O	15:CO:66:LEU:HD23	2.18	0.44
15:CO:67:LEU:HD23	15:CO:78:TYR:CE2	2.52	0.44
20:CT:68:HIS:HB3	20:CT:69:LYS:HG3	1.99	0.44
22:DA:1248:G:OP1	38:DQ:2:ALA:HB3	2.18	0.44
22:DA:1341:G:C2	41:DT:84:TYR:CD2	3.06	0.44
22:DA:1436:G:C2	22:DA:1557:C:C2	3.06	0.44
22:DA:1545:A:N7	22:DA:1546:G:C4	2.85	0.44
22:DA:1622:G:C2	22:DA:1623:G:C8	3.06	0.44
22:DA:1833:C:C4	22:DA:1834:U:C5	3.06	0.44
22:DA:1773:A:N3	22:DA:1978:A:C2	2.86	0.44
22:DA:2083:G:N7	22:DA:2084:C:C5	2.86	0.44
22:DA:2138:G:N2	22:DA:2154:A:H1'	2.33	0.44
22:DA:2147:A:H2'	22:DA:2148:G:O4'	2.17	0.44
22:DA:222:A:C8	22:DA:224:U:C6	3.05	0.44
22:DA:2286:G:C5'	22:DA:2287:A:O4'	2.66	0.44
22:DA:305:C:C2	22:DA:313:G:C2	3.06	0.44
22:DA:528:A:N1	22:DA:2042:A:H2'	2.33	0.44
22:DA:84:A:N1	22:DA:98:G:O2'	2.39	0.44
22:DA:1801:A:C5	24:DC:262:ARG:NH2	2.86	0.44
27:DF:3:LYS:HD3	27:DF:101:GLU:OE2	2.18	0.44
27:DF:55:ALA:HA	27:DF:58:ALA:HB3	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DK:18:ARG:HB2	32:DK:45:GLU:HB3	1.99	0.44
33:DL:53:GLY:O	33:DL:54:GLN:O	2.36	0.44
33:DL:56:PRO:O	33:DL:60:ARG:CB	2.65	0.44
34:DM:57:VAL:O	34:DM:58:LYS:O	2.35	0.44
35:DN:1:MET:HE3	35:DN:1:MET:H3	1.82	0.44
37:DP:92:VAL:HG13	37:DP:110:ILE:HG22	2.00	0.44
1:AA:102:G:C4	1:AA:103:U:C5	3.06	0.44
1:AA:1042:A:H2'	1:AA:1043:G:O4'	2.17	0.44
1:AA:119:A:C4	1:AA:240:G:N7	2.86	0.44
1:AA:1479:C:H2'	1:AA:1480:A:O4'	2.18	0.44
1:AA:251:G:N1	1:AA:266:G:C6	2.86	0.44
1:AA:462:G:N7	1:AA:463:U:C5	2.86	0.44
1:AA:695:A:C6	1:AA:696:A:C2	3.06	0.44
1:AA:844:G:N1	1:AA:846:G:O2'	2.47	0.44
1:AA:956:U:C2'	1:AA:957:U:H5'	2.47	0.44
1:AA:965:U:H5'	1:AA:969:A:O4'	2.17	0.44
2:AB:40:ILE:HD13	2:AB:40:ILE:N	2.33	0.44
2:AB:76:ALA:O	2:AB:80:VAL:HG23	2.17	0.44
4:AD:174:ASP:O	4:AD:175:ALA:CB	2.65	0.44
5:AE:41:ASP:OD1	5:AE:43:ASN:N	2.43	0.44
7:AG:125:SER:O	7:AG:128:ALA:HB3	2.17	0.44
9:AI:17:ALA:HB2	9:AI:67:VAL:CG2	2.48	0.44
9:AI:51:PRO:HB2	9:AI:83:ILE:CG2	2.48	0.44
15:AO:45:GLU:O	15:AO:46:HIS:HB2	2.17	0.44
19:AS:24:GLU:HG3	19:AS:24:GLU:O	2.16	0.44
52:B4:10:LEU:HD12	52:B4:33:HIS:CD2	2.53	0.44
53:B5:78:ILE:HG22	53:B5:123:ALA:HA	2.00	0.44
22:BA:1169:A:C2	22:BA:1181:U:O2	2.70	0.44
22:BA:1536:C:O4'	22:BA:1537:G:C2	2.71	0.44
22:BA:1588:G:C2	22:BA:1589:U:C5	3.06	0.44
22:BA:1721:G:HO2'	22:BA:1722:A:H8	1.62	0.44
22:BA:1850:G:C5	22:BA:1851:U:C4	3.06	0.44
22:BA:1996:C:H4'	22:BA:1997:C:OP1	2.17	0.44
22:BA:2173:A:C8	22:BA:2174:C:C5	3.06	0.44
22:BA:2538:C:H2'	22:BA:2539:C:H6	1.81	0.44
22:BA:1791:A:O2'	24:BC:206:GLY:HA2	2.17	0.44
25:BD:13:ARG:HD2	25:BD:15:PHE:CZ	2.53	0.44
27:BF:107:ALA:O	27:BF:110:ARG:N	2.50	0.44
29:BH:89:LYS:CE	29:BH:124:THR:HG22	2.48	0.44
22:BA:1007:C:OP1	31:BJ:37:ARG:NH2	2.51	0.44
32:BK:109:SER:O	32:BK:110:GLU:C	2.55	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:47:ILE:HB	32:BK:48:PRO:CD	2.46	0.44
36:BO:117:PHE:CD1	36:BO:117:PHE:C	2.90	0.44
43:BV:1:MET:SD	43:BV:1:MET:C	2.96	0.44
1:CA:1277:C:O2'	1:CA:1279:G:H1'	2.17	0.44
1:CA:1520:C:H2'	1:CA:1521:C:C6	2.53	0.44
1:CA:1540:U:H4'	21:CU:18:ARG:HG2	2.00	0.44
1:CA:154:U:H2'	1:CA:155:A:H5'	2.00	0.44
1:CA:123:U:O2'	1:CA:290:C:H1'	2.17	0.44
1:CA:291:U:H2'	1:CA:291:U:O2	2.18	0.44
1:CA:307:C:H5''	1:CA:308:C:OP2	2.17	0.44
1:CA:439:U:H4'	4:CD:121:LYS:CG	2.47	0.44
1:CA:442:G:C6	1:CA:443:C:C4	3.05	0.44
1:CA:842:U:O2	1:CA:845:A:OP1	2.36	0.44
1:CA:951:G:N3	1:CA:970:C:O2'	2.45	0.44
2:CB:173:ILE:HG22	2:CB:177:ASN:ND2	2.33	0.44
3:CC:179:ARG:O	3:CC:179:ARG:HD2	2.18	0.44
4:CD:129:VAL:O	4:CD:129:VAL:HG13	2.18	0.44
6:CF:3:HIS:ND1	6:CF:65:GLU:HG3	2.33	0.44
1:CA:878:A:OP1	8:CH:80:ARG:HB3	2.17	0.44
9:CI:128:SER:O	9:CI:129:LYS:C	2.56	0.44
9:CI:55:VAL:O	9:CI:55:VAL:CG2	2.65	0.44
10:CJ:34:ALA:O	10:CJ:35:GLN:CB	2.66	0.44
10:CJ:91:ASP:O	10:CJ:92:LEU:HG	2.18	0.44
12:CL:65:SER:HB2	12:CL:82:ILE:CD1	2.47	0.44
13:CM:11:ASP:HA	13:CM:45:ILE:HB	1.99	0.44
14:CN:87:ALA:HB1	14:CN:92:GLU:HB2	2.00	0.44
16:CP:37:GLY:HA2	16:CP:51:ARG:NH1	2.33	0.44
18:CR:24:LYS:O	18:CR:26:ILE:N	2.51	0.44
48:D0:28:LEU:HD12	48:D0:28:LEU:N	2.32	0.44
51:D3:15:LYS:HD3	51:D3:23:LYS:HE2	1.99	0.44
22:DA:1865:U:C5	22:DA:1875:G:C2	3.06	0.44
22:DA:2127:G:O2'	22:DA:2173:A:N3	2.51	0.44
22:DA:2253:G:C5	22:DA:2254:C:C5	3.06	0.44
22:DA:540:C:O2'	22:DA:541:A:H5'	2.17	0.44
22:DA:562:U:H2'	22:DA:572:A:O4'	2.18	0.44
22:DA:72:U:C6	46:DY:54:LYS:HD3	2.53	0.44
22:DA:760:G:C6	22:DA:761:A:C5	3.06	0.44
24:DC:221:ARG:NH2	57:DC:309:HOH:O	2.50	0.44
25:DD:124:ARG:HA	25:DD:165:MET:CE	2.47	0.44
27:DF:122:PHE:CE1	27:DF:166:GLY:CA	3.01	0.44
27:DF:31:VAL:HG11	27:DF:97:TRP:CH2	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:31:VAL:CB	29:DH:32:PRO:HD3	2.47	0.44
31:DJ:105:VAL:HG12	31:DJ:109:LEU:CD1	2.47	0.44
31:DJ:41:LYS:O	31:DJ:42:ALA:C	2.56	0.44
33:DL:111:ILE:C	33:DL:131:ALA:HB2	2.37	0.44
34:DM:31:PHE:CD2	34:DM:113:ALA:HB2	2.53	0.44
37:DP:4:ILE:O	37:DP:8:LEU:HB2	2.17	0.44
22:DA:533:G:C5'	38:DQ:24:TYR:CD1	3.01	0.44
41:DT:2:ILE:CG2	41:DT:4:GLU:HG3	2.48	0.44
41:DT:69:ARG:HA	41:DT:74:ILE:HG22	2.00	0.44
1:AA:1268:G:H2'	1:AA:1269:A:C8	2.53	0.44
1:AA:457:G:C6	1:AA:458:U:N3	2.86	0.44
1:AA:684:U:C4	1:AA:685:G:C5	3.06	0.44
1:AA:728:A:N6	1:AA:729:A:N6	2.66	0.44
1:AA:770:C:O2'	1:AA:771:G:H5'	2.18	0.44
2:AB:101:LEU:HD11	2:AB:158:PRO:HG2	2.00	0.44
2:AB:21:ARG:O	2:AB:23:TRP:HB3	2.17	0.44
5:AE:81:LEU:CD2	5:AE:81:LEU:N	2.81	0.44
7:AG:8:GLY:O	7:AG:9:GLN:HB3	2.18	0.44
8:AH:55:THR:C	8:AH:57:PRO:HD3	2.38	0.44
11:AK:110:ILE:HB	21:AU:6:VAL:CG2	2.48	0.44
14:AN:13:ARG:NE	14:AN:54:ASP:OD1	2.49	0.44
15:AO:88:ARG:HB2	15:AO:88:ARG:NH1	2.33	0.44
16:AP:78:VAL:O	16:AP:79:ASN:HB2	2.18	0.44
1:AA:263:A:P	20:AT:74:ARG:NH1	2.90	0.44
22:BA:1206:G:C6	22:BA:1207:C:C4	3.06	0.44
22:BA:1949:G:N2	22:BA:1958:C:O2	2.51	0.44
22:BA:528:A:H2	22:BA:2043:C:H5'	1.82	0.44
22:BA:204:A:O4'	22:BA:206:U:C6	2.71	0.44
22:BA:2070:A:H2'	22:BA:2071:A:O4'	2.18	0.44
22:BA:2250:G:H8	22:BA:2250:G:O5'	2.01	0.44
22:BA:2574:G:C6	22:BA:2575:C:C4	3.06	0.44
22:BA:38:A:C2	22:BA:442:G:C2	3.06	0.44
22:BA:735:A:N7	22:BA:761:A:H2	2.15	0.44
22:BA:999:U:C5	22:BA:1154:G:C6	3.05	0.44
27:BF:158:THR:CG2	27:BF:160:ALA:HB3	2.47	0.44
27:BF:64:LYS:HA	27:BF:65:PRO:HD3	1.89	0.44
27:BF:6:ASP:O	27:BF:7:TYR:C	2.54	0.44
29:BH:4:ILE:HG23	29:BH:17:ASP:O	2.17	0.44
31:BJ:71:ASP:N	31:BJ:71:ASP:OD1	2.51	0.44
22:BA:1665:A:O2'	32:BK:1:MET:HB3	2.18	0.44
32:BK:68:GLY:HA3	32:BK:77:ILE:O	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:116:VAL:HG13	33:BL:116:VAL:O	2.18	0.44
33:BL:89:VAL:O	33:BL:94:THR:HG21	2.18	0.44
42:BU:102:THR:CG2	42:BU:103:ILE:N	2.80	0.44
1:CA:115:G:C2	1:CA:289:G:C8	3.05	0.44
1:CA:1193:G:N2	1:CA:1194:U:C2	2.86	0.44
1:CA:1259:C:N4	1:CA:1260:G:C4	2.85	0.44
1:CA:815:A:C2	1:CA:1529:G:C4	3.06	0.44
1:CA:179:A:H2'	1:CA:180:U:C6	2.53	0.44
1:CA:756:C:O2'	1:CA:757:U:H5'	2.17	0.44
3:CC:134:MET:SD	3:CC:153:VAL:HG13	2.58	0.44
3:CC:64:ILE:HG22	3:CC:97:VAL:HG23	2.00	0.44
4:CD:89:ASN:O	4:CD:92:ALA:HB3	2.18	0.44
12:CL:38:TYR:HB2	12:CL:52:VAL:CG1	2.47	0.44
21:CU:24:GLU:HG3	21:CU:28:VAL:CG2	2.47	0.44
22:DA:1276:A:N1	22:DA:1295:C:C2	2.86	0.44
22:DA:1688:U:H1'	22:DA:1701:A:C6	2.53	0.44
22:DA:1744:A:C4	22:DA:1745:A:C8	3.06	0.44
22:DA:1809:A:N6	22:DA:1810:A:C6	2.86	0.44
22:DA:2874:C:P	57:DA:3801:HOH:O	2.76	0.44
22:DA:391:A:C5	22:DA:392:U:C5	3.06	0.44
22:DA:483:A:O2'	42:DU:56:GLY:HA3	2.18	0.44
22:DA:503:A:N3	22:DA:506:G:C8	2.86	0.44
22:DA:481:G:C2	22:DA:507:A:C4	3.06	0.44
22:DA:513:A:N3	22:DA:514:A:C8	2.86	0.44
22:DA:575:A:C2	22:DA:576:U:C5	3.05	0.44
22:DA:674:G:H1'	26:DE:69:ARG:CD	2.48	0.44
22:DA:677:A:O2'	22:DA:2071:A:H5'	2.18	0.44
22:DA:770:G:P	50:D2:11:LYS:HE2	2.57	0.44
22:DA:77:G:H5''	46:DY:2:LYS:HB3	1.99	0.44
22:DA:7:G:H2'	22:DA:8:C:O4'	2.18	0.44
22:DA:945:A:C4	22:DA:2448:A:C2	3.06	0.44
22:DA:947:A:H2'	22:DA:948:C:C6	2.53	0.44
24:DC:212:ARG:HA	24:DC:212:ARG:NE	2.33	0.44
22:DA:1842:G:O4'	24:DC:243:HIS:NE2	2.51	0.44
25:DD:92:VAL:CG1	25:DD:93:GLY:N	2.81	0.44
26:DE:22:ASP:OD1	26:DE:22:ASP:N	2.51	0.44
27:DF:8:TYR:O	27:DF:12:VAL:HB	2.18	0.44
22:DA:2198:A:C5	29:DH:29:PHE:HB2	2.53	0.44
32:DK:71:ARG:HB3	32:DK:72:PRO:HD2	2.00	0.44
35:DN:90:ARG:NH2	35:DN:116:VAL:HG11	2.32	0.44
40:DS:59:GLU:OE1	40:DS:66:ILE:HD11	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:34:VAL:HG13	42:DU:67:VAL:CG2	2.47	0.44
42:DU:38:GLY:HA2	42:DU:41:LEU:HD21	2.00	0.44
45:DX:40:VAL:CG2	45:DX:45:ARG:O	2.65	0.44
1:AA:1129:C:C2	1:AA:1139:G:C6	3.06	0.44
1:AA:1374:A:C2	1:AA:1375:A:C8	3.06	0.44
1:AA:1494:G:C5	1:AA:1495:U:C5	3.06	0.44
1:AA:149:A:C1'	1:AA:1446:A:C2	3.01	0.44
1:AA:174:A:C2'	1:AA:175:C:H5'	2.48	0.44
1:AA:198:G:C6	1:AA:199:A:C5	3.06	0.44
1:AA:133:U:H1'	1:AA:230:G:N2	2.33	0.44
1:AA:474:G:C4	1:AA:475:C:C5	3.06	0.44
1:AA:647:C:O2'	1:AA:648:A:H5'	2.17	0.44
1:AA:745:G:O2'	1:AA:746:A:H5'	2.18	0.44
1:AA:983:A:O2'	1:AA:983:A:N3	2.48	0.44
2:AB:111:ILE:O	2:AB:114:LEU:N	2.50	0.44
3:AC:14:ILE:N	3:AC:14:ILE:HD13	2.32	0.44
6:AF:12:PRO:O	6:AF:15:SER:N	2.51	0.44
6:AF:76:THR:O	6:AF:77:THR:C	2.56	0.44
6:AF:91:ARG:O	6:AF:92:THR:CB	2.66	0.44
8:AH:83:LEU:C	8:AH:83:LEU:CD2	2.86	0.44
12:AL:81:LEU:HB2	12:AL:102:LEU:HD22	1.99	0.44
13:AM:107:ARG:HH21	13:AM:113:ARG:HB3	1.83	0.44
19:AS:13:LEU:O	19:AS:15:LEU:N	2.50	0.44
21:AU:53:VAL:O	21:AU:54:LYS:HB2	2.18	0.44
48:B0:48:TYR:CE2	48:B0:53:LYS:HB2	2.53	0.44
49:B1:25:LYS:HE2	49:B1:30:LYS:O	2.17	0.44
22:BA:1031:G:C4'	52:B4:6:SER:HB2	2.48	0.44
22:BA:108:G:O2'	22:BA:109:C:H5'	2.17	0.44
22:BA:489:G:O4'	22:BA:1284:A:C8	2.71	0.44
22:BA:1499:C:O2'	22:BA:1500:G:H5'	2.17	0.44
22:BA:1910:G:H2'	22:BA:1911:U:O4'	2.18	0.44
22:BA:2306:C:OP2	22:BA:2307:G:O2'	2.20	0.44
22:BA:244:A:H2'	22:BA:245:G:O4'	2.18	0.44
22:BA:2547:A:C2	22:BA:2548:U:N3	2.86	0.44
22:BA:2714:G:C5	22:BA:2715:C:C5	3.06	0.44
22:BA:2856:A:N6	22:BA:2857:G:C6	2.86	0.44
22:BA:422:A:C2	22:BA:423:A:C4	3.06	0.44
22:BA:513:A:C2'	22:BA:514:A:H5'	2.48	0.44
22:BA:920:A:H2'	22:BA:921:C:O4'	2.17	0.44
27:BF:134:GLU:O	27:BF:137:ILE:HG23	2.18	0.44
29:BH:99:ILE:CD1	29:BH:117:LEU:HD13	2.48	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:124:ALA:C	30:BI:126:THR:N	2.72	0.44
38:BQ:105:ALA:O	38:BQ:106:PHE:C	2.57	0.44
41:BT:76:ARG:NH2	41:BT:79:ASP:OD1	2.51	0.44
1:CA:1160:G:HO2'	1:CA:1161:C:P	2.41	0.44
1:CA:295:C:C4	1:CA:296:U:C5	3.05	0.44
1:CA:518:C:H2'	1:CA:530:G:C8	2.53	0.44
1:CA:820:U:H4'	1:CA:821:G:OP2	2.17	0.44
1:CA:84:U:O2'	1:CA:85:U:H5'	2.17	0.44
4:CD:32:CYS:SG	4:CD:33:LYS:N	2.88	0.44
9:CI:40:GLY:O	9:CI:41:ARG:HB2	2.18	0.44
13:CM:20:THR:HG22	13:CM:26:GLY:O	2.18	0.44
18:CR:70:TYR:O	18:CR:71:THR:O	2.36	0.44
22:DA:1067:A:O5'	22:DA:1068:G:OP2	2.36	0.44
22:DA:1599:U:C4	22:DA:1600:C:N4	2.85	0.44
22:DA:167:A:C2	22:DA:168:G:H1'	2.52	0.44
22:DA:1866:A:C8	22:DA:1867:G:C8	3.05	0.44
22:DA:2033:A:H4'	22:DA:2034:U:OP1	2.18	0.44
22:DA:2040:G:H2'	22:DA:2041:U:O4'	2.17	0.44
22:DA:2109:U:H5''	22:DA:2110:G:OP2	2.17	0.44
22:DA:2371:G:C2	22:DA:2372:U:C6	3.05	0.44
22:DA:199:A:N6	22:DA:2434:A:C5	2.86	0.44
22:DA:2464:G:H2'	22:DA:2465:C:O4'	2.17	0.44
22:DA:523:C:H2'	22:DA:524:G:C8	2.53	0.44
24:DC:145:GLU:HA	24:DC:152:GLY:HA2	1.99	0.44
26:DE:149:ILE:CD1	26:DE:172:ALA:HA	2.47	0.44
26:DE:152:GLU:O	26:DE:154:ASP:N	2.51	0.44
26:DE:23:PHE:CG	26:DE:111:GLU:HG3	2.53	0.44
30:DI:123:GLU:HG3	30:DI:123:GLU:O	2.18	0.44
30:DI:20:PRO:HG2	30:DI:24:VAL:HG23	1.98	0.44
30:DI:75:PRO:HG2	30:DI:78:VAL:CG2	2.47	0.44
34:DM:36:VAL:HG13	43:DV:82:TYR:CD2	2.53	0.44
37:DP:21:ARG:HB3	37:DP:22:PRO:HD2	2.00	0.44
37:DP:39:ARG:HG3	37:DP:40:LEU:H	1.83	0.44
37:DP:55:LEU:HA	37:DP:77:HIS:CD2	2.53	0.44
38:DQ:50:ARG:O	38:DQ:54:LYS:HE3	2.18	0.44
42:DU:53:ASN:O	42:DU:53:ASN:ND2	2.51	0.44
1:AA:1072:G:C5	1:AA:1073:U:C4	3.06	0.43
1:AA:1182:G:C4'	1:AA:1183:U:H5'	2.48	0.43
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.52	0.43
1:AA:1306:A:C5	1:AA:1332:A:C2	3.06	0.43
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.82	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1463:U:C2	1:AA:1464:U:C5	3.06	0.43
1:AA:148:G:H2'	1:AA:149:A:O5'	2.17	0.43
1:AA:173:U:C5	1:AA:197:A:C2	3.06	0.43
1:AA:858:G:O2'	1:AA:859:G:H5'	2.18	0.43
1:AA:877:G:N2	8:AH:2:SER:N	2.66	0.43
2:AB:70:VAL:HG13	2:AB:70:VAL:O	2.18	0.43
4:AD:187:GLU:O	4:AD:188:ARG:C	2.57	0.43
4:AD:78:GLU:O	4:AD:79:ALA:C	2.56	0.43
9:AI:42:GLU:O	9:AI:45:ARG:NH1	2.51	0.43
11:AK:13:ARG:HG3	11:AK:77:TYR:HE1	1.82	0.43
13:AM:48:LEU:HD22	13:AM:53:ILE:CG1	2.47	0.43
15:AO:81:LEU:HD11	15:AO:85:LEU:HD23	2.00	0.43
19:AS:15:LEU:HB2	19:AS:33:THR:HG21	2.00	0.43
20:AT:35:VAL:CG1	20:AT:79:LEU:HD22	2.48	0.43
22:BA:103:A:H2'	22:BA:104:A:O4'	2.18	0.43
22:BA:108:G:C2'	22:BA:109:C:H5'	2.47	0.43
22:BA:1180:U:C2'	22:BA:1181:U:C5'	2.96	0.43
22:BA:1441:G:H2'	22:BA:1442:U:C6	2.52	0.43
22:BA:1747:U:O2'	22:BA:1748:C:H5'	2.17	0.43
22:BA:2302:U:O2'	22:BA:2303:G:H5'	2.18	0.43
22:BA:2507:C:H5''	22:BA:2573:C:N4	2.33	0.43
22:BA:2536:G:C6	22:BA:2537:U:C4	3.06	0.43
22:BA:2673:G:C2	22:BA:2674:G:C8	3.06	0.43
22:BA:2740:A:C6	22:BA:2741:A:C6	3.05	0.43
22:BA:2865:U:C4	22:BA:2866:U:C4	3.06	0.43
22:BA:414:C:H5''	22:BA:1879:C:O2'	2.18	0.43
25:BD:13:ARG:NH2	25:BD:15:PHE:CZ	2.87	0.43
29:BH:89:LYS:HE3	29:BH:124:THR:HG22	1.99	0.43
38:BQ:25:TYR:O	38:BQ:26:GLY:C	2.56	0.43
38:BQ:76:TYR:CD2	38:BQ:76:TYR:C	2.91	0.43
39:BR:11:GLN:C	39:BR:12:HIS:CG	2.92	0.43
41:BT:7:LEU:HD22	41:BT:46:ALA:HB2	2.00	0.43
1:CA:1010:U:C2	1:CA:1020:G:N1	2.86	0.43
1:CA:781:A:H4'	1:CA:1522:U:O2'	2.18	0.43
1:CA:1534:A:H5'	1:CA:1535:C:C5	2.53	0.43
1:CA:179:A:C5	1:CA:180:U:C4	3.06	0.43
1:CA:188:C:N4	1:CA:189:A:C6	2.86	0.43
1:CA:4:U:C2'	1:CA:4:U:O2	2.66	0.43
1:CA:499:A:H4'	1:CA:500:G:OP1	2.18	0.43
1:CA:772:U:O2'	1:CA:773:G:H5'	2.18	0.43
1:CA:790:A:C5	1:CA:791:G:C5	3.06	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:62:SER:O	2:CB:64:LYS:N	2.51	0.43
1:CA:426:U:OP1	4:CD:33:LYS:HE3	2.18	0.43
5:CE:149:SER:OG	5:CE:152:MET:HG3	2.17	0.43
12:CL:31:ARG:HD2	12:CL:79:VAL:HG11	2.00	0.43
15:CO:19:ALA:O	15:CO:20:ASN:CB	2.65	0.43
15:CO:74:ASP:OD2	15:CO:77:ARG:HG3	2.18	0.43
17:CQ:60:GLU:HB3	17:CQ:76:VAL:HG23	1.99	0.43
21:CU:4:ILE:HG23	21:CU:20:LYS:HZ1	1.83	0.43
22:DA:1483:G:C5	22:DA:1484:U:C5	3.06	0.43
22:DA:170:U:N3	22:DA:171:U:C5	2.87	0.43
22:DA:2066:C:H5''	57:DA:3502:HOH:O	2.18	0.43
22:DA:2196:C:N3	22:DA:2197:U:C4	2.86	0.43
22:DA:2234:G:C5	22:DA:2235:G:C8	3.06	0.43
22:DA:238:C:H2'	22:DA:239:C:O4'	2.18	0.43
22:DA:2622:U:O2'	22:DA:2825:G:N7	2.47	0.43
22:DA:2751:G:H2'	22:DA:2751:G:N3	2.33	0.43
22:DA:2812:G:N2	22:DA:2889:C:C2	2.86	0.43
22:DA:2831:G:N7	25:DD:59:ARG:NH1	2.66	0.43
22:DA:476:G:O4'	22:DA:505:A:C2	2.71	0.43
22:DA:527:C:H2'	22:DA:2779:U:O2	2.17	0.43
22:DA:533:G:C6	22:DA:534:U:C4	3.06	0.43
22:DA:579:G:C2	22:DA:1262:A:C6	3.06	0.43
22:DA:609:A:C5	22:DA:610:C:C2	3.06	0.43
22:DA:864:G:N2	22:DA:913:U:C2	2.86	0.43
30:DI:18:ALA:O	30:DI:19:ASN:HB3	2.17	0.43
22:DA:2898:U:O2'	31:DJ:134:ALA:O	2.34	0.43
40:DS:85:ILE:HG22	40:DS:86:MET:N	2.32	0.43
22:DA:484:C:OP1	42:DU:48:PRO:HG3	2.17	0.43
22:DA:2387:U:H1'	44:DW:41:ARG:NE	2.33	0.43
46:DY:1:MET:HA	46:DY:4:LYS:HB2	2.00	0.43
47:DZ:10:THR:HG22	47:DZ:54:MET:HA	1.99	0.43
1:AA:1144:G:N1	1:AA:1145:A:H2	2.15	0.43
1:AA:1216:A:H2'	1:AA:1217:C:H6	1.83	0.43
1:AA:1450:U:H2'	1:AA:1452:C:C5	2.53	0.43
1:AA:775:G:O2'	1:AA:776:G:H5'	2.18	0.43
1:AA:977:A:H1'	1:AA:982:U:O4	2.18	0.43
4:AD:78:GLU:OE2	4:AD:81:ARG:NH1	2.50	0.43
5:AE:13:GLU:CB	5:AE:39:VAL:HG12	2.48	0.43
6:AF:36:ILE:O	6:AF:36:ILE:HG23	2.18	0.43
8:AH:49:PHE:HB3	8:AH:61:LEU:CD2	2.49	0.43
8:AH:95:VAL:HG12	8:AH:96:MET:N	2.33	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:35:GLN:O	10:AJ:36:VAL:O	2.36	0.43
10:AJ:49:PHE:CD1	10:AJ:49:PHE:N	2.86	0.43
10:AJ:6:ILE:HD12	10:AJ:76:ILE:HB	1.99	0.43
11:AK:70:CYS:O	11:AK:74:VAL:HG22	2.19	0.43
12:AL:4:VAL:O	12:AL:8:VAL:HG23	2.18	0.43
17:AQ:60:GLU:OE2	17:AQ:77:ARG:HD3	2.18	0.43
1:AA:254:G:OP1	17:AQ:70:THR:CG2	2.66	0.43
17:AQ:83:VAL:HG13	17:AQ:83:VAL:OXT	2.17	0.43
18:AR:47:THR:OG1	18:AR:48:ARG:N	2.51	0.43
19:AS:65:GLU:OE2	19:AS:66:MET:N	2.51	0.43
22:BA:1421:G:C2	22:BA:1422:G:N7	2.85	0.43
22:BA:1820:U:OP1	24:BC:177:ARG:HG2	2.18	0.43
22:BA:2139:U:C2	22:BA:2140:G:C8	3.06	0.43
22:BA:423:A:H5'	22:BA:424:G:H5'	2.00	0.43
22:BA:518:G:H2'	22:BA:519:U:C6	2.53	0.43
22:BA:540:C:O2'	22:BA:541:A:H5'	2.18	0.43
24:BC:247:PRO:HD2	24:BC:248:TRP:CZ3	2.53	0.43
28:BG:141:ILE:C	28:BG:141:ILE:HD12	2.39	0.43
29:BH:80:ILE:HG21	29:BH:94:ILE:HG13	2.00	0.43
29:BH:89:LYS:CD	1:CA:359:G:OP1	2.66	0.43
30:BI:113:LYS:HD3	30:BI:117:MET:CG	2.46	0.43
30:BI:75:PRO:O	30:BI:79:LEU:CD1	2.66	0.43
36:BO:62:LEU:HD22	36:BO:70:ALA:HA	1.99	0.43
36:BO:94:ARG:O	36:BO:96:GLY:N	2.51	0.43
1:AA:346:G:C8	37:BP:37:LYS:HE2	2.53	0.43
22:BA:445:C:OP1	38:BQ:2:ALA:HA	2.18	0.43
39:BR:34:GLU:OE2	39:BR:60:LYS:NZ	2.47	0.43
1:CA:1317:C:O2'	14:CN:49:GLN:CG	2.66	0.43
1:CA:1534:A:H4'	1:CA:1535:C:H2'	2.00	0.43
1:CA:160:A:H2'	1:CA:161:A:O4'	2.18	0.43
1:CA:527:G:C6	1:CA:528:C:C5	3.06	0.43
1:CA:55:A:N6	1:CA:56:U:C2	2.87	0.43
1:CA:651:C:C4	1:CA:652:U:O4	2.70	0.43
1:CA:72:A:C5	1:CA:73:C:C4	3.06	0.43
1:CA:756:C:H2'	1:CA:757:U:H5'	2.01	0.43
2:CB:210:VAL:HG22	2:CB:211:THR:H	1.82	0.43
4:CD:78:GLU:OE2	4:CD:81:ARG:NH1	2.51	0.43
5:CE:41:ASP:O	5:CE:43:ASN:N	2.51	0.43
9:CI:46:MET:O	9:CI:49:ARG:HB3	2.18	0.43
9:CI:81:HIS:O	9:CI:85:ARG:HB2	2.18	0.43
17:CQ:60:GLU:HB3	17:CQ:76:VAL:CG2	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:59:TYR:HE2	18:CR:67:LEU:CD2	2.31	0.43
22:DA:1043:C:C4	22:DA:1044:C:C4	3.06	0.43
22:DA:1120:G:C5	22:DA:1121:C:C5	3.06	0.43
22:DA:12:U:O2	22:DA:12:U:C2'	2.66	0.43
22:DA:1378:A:C4'	22:DA:1379:U:OP1	2.66	0.43
22:DA:1707:G:H1'	22:DA:1756:G:C4	2.52	0.43
22:DA:2050:C:N4	22:DA:2051:A:C6	2.86	0.43
22:DA:2059:A:H2'	22:DA:2503:A:N1	2.33	0.43
22:DA:438:G:C6	22:DA:439:A:C6	3.05	0.43
22:DA:695:G:C6	22:DA:768:G:C5	3.06	0.43
22:DA:833:A:H2'	22:DA:834:G:C8	2.53	0.43
22:DA:993:G:N2	39:DR:23:GLU:OE1	2.50	0.43
23:DB:95:U:OP2	43:DV:19:ARG:NH1	2.51	0.43
26:DE:145:ASP:OD2	26:DE:166:LYS:HB3	2.18	0.43
29:DH:127:GLU:CG	29:DH:144:VAL:O	2.65	0.43
22:DA:2094:A:P	29:DH:22:LYS:HG3	2.56	0.43
34:DM:20:LEU:N	34:DM:20:LEU:HD22	2.33	0.43
40:DS:18:ARG:HA	40:DS:21:ALA:HB3	1.99	0.43
42:DU:13:VAL:HG21	42:DU:39:ILE:HG21	2.01	0.43
42:DU:10:GLU:OE2	42:DU:73:PHE:CD2	2.71	0.43
43:DV:48:MET:O	43:DV:51:GLN:NE2	2.50	0.43
1:AA:316:C:C2	1:AA:317:U:H5	2.36	0.43
1:AA:66:A:C6	1:AA:67:C:C5	3.06	0.43
1:AA:915:A:C2	1:AA:916:U:H1'	2.53	0.43
1:AA:987:G:C2	1:AA:988:G:C8	3.07	0.43
1:AA:993:G:O2'	1:AA:994:A:N7	2.51	0.43
2:AB:118:GLU:O	2:AB:121:SER:HB3	2.18	0.43
2:AB:95:ARG:HH12	2:AB:97:LEU:HA	1.83	0.43
3:AC:101:ILE:HG12	3:AC:101:ILE:O	2.18	0.43
5:AE:149:SER:CB	5:AE:152:MET:HB2	2.49	0.43
5:AE:95:PHE:CD1	5:AE:95:PHE:C	2.90	0.43
7:AG:102:ARG:O	7:AG:106:GLU:HB3	2.18	0.43
10:AJ:52:LEU:HD11	10:AJ:58:ASN:O	2.16	0.43
12:AL:56:ARG:NH1	12:AL:62:GLU:HG3	2.33	0.43
15:AO:39:LEU:O	15:AO:42:HIS:N	2.52	0.43
17:AQ:16:LYS:C	17:AQ:17:MET:CE	2.87	0.43
18:AR:62:ALA:CB	18:AR:68:LEU:HD12	2.47	0.43
19:AS:34:TRP:O	19:AS:36:ARG:N	2.48	0.43
19:AS:52:HIS:CD2	19:AS:54:GLY:H	2.36	0.43
53:B5:66:PRO:HG2	53:B5:194:ILE:CB	2.48	0.43
22:BA:1309:G:H4'	50:B2:7:PRO:CB	2.40	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1384:A:H1'	22:BA:1405:U:C1'	2.48	0.43
22:BA:1570:A:H2'	22:BA:1571:A:C8	2.53	0.43
22:BA:170:U:C2	22:BA:171:U:C6	3.06	0.43
22:BA:1637:A:H5'	22:BA:1760:C:O2'	2.18	0.43
22:BA:1915:U:H2'	22:BA:1916:A:H8	1.80	0.43
22:BA:1917:U:C6	22:BA:1918:A:N7	2.86	0.43
22:BA:2373:G:H2'	22:BA:2374:C:C6	2.53	0.43
22:BA:2502:G:H5''	22:BA:2503:A:O5'	2.19	0.43
22:BA:80:G:O2'	22:BA:294:A:N1	2.46	0.43
22:BA:458:G:N2	22:BA:469:G:H2'	2.33	0.43
22:BA:594:U:H2'	22:BA:595:C:C6	2.54	0.43
26:BE:145:ASP:CB	26:BE:184:ASP:OD2	2.66	0.43
29:BH:27:ARG:O	29:BH:28:ASN:CB	2.66	0.43
29:BH:41:LYS:HA	29:BH:44:ILE:HG12	2.01	0.43
29:BH:96:THR:O	29:BH:100:ALA:N	2.50	0.43
29:BH:9:VAL:O	29:BH:10:ALA:O	2.36	0.43
42:BU:5:ILE:CD1	42:BU:72:ILE:HG23	2.48	0.43
45:BX:43:GLU:OE2	45:BX:45:ARG:NH2	2.50	0.43
1:CA:1014:A:H5''	19:CS:14:HIS:CD2	2.53	0.43
1:CA:1073:U:C4	1:CA:1074:G:N7	2.87	0.43
1:CA:1158:C:O2	1:CA:1158:C:C2'	2.65	0.43
1:CA:1361:G:C3'	1:CA:1362:A:C5'	2.92	0.43
1:CA:1446:A:N6	1:CA:1447:A:H62	2.15	0.43
1:CA:1483:A:N1	22:DA:1959:G:O2'	2.45	0.43
1:CA:401:C:P	4:CD:70:ARG:HD3	2.58	0.43
1:CA:583:A:C8	1:CA:584:G:C8	3.06	0.43
1:CA:805:C:H2'	1:CA:806:C:C6	2.52	0.43
1:CA:899:C:H6	1:CA:899:C:OP1	2.01	0.43
2:CB:96:TRP:CZ3	2:CB:175:GLU:OE2	2.71	0.43
3:CC:50:ALA:O	3:CC:51:SER:HB2	2.19	0.43
4:CD:125:VAL:HA	4:CD:142:VAL:O	2.18	0.43
5:CE:38:VAL:CG1	5:CE:117:VAL:HG21	2.48	0.43
7:CG:50:LEU:O	7:CG:50:LEU:HD13	2.18	0.43
8:CH:78:VAL:HB	8:CH:126:ILE:O	2.17	0.43
9:CI:30:ILE:HA	9:CI:65:ILE:O	2.18	0.43
12:CL:24:LEU:HB2	12:CL:59:ASN:OD1	2.18	0.43
17:CQ:27:ARG:CG	17:CQ:40:ARG:HB3	2.49	0.43
22:DA:1287:A:C2'	22:DA:1288:G:H5'	2.48	0.43
22:DA:1745:A:C2	22:DA:1746:A:C8	3.07	0.43
22:DA:120:U:O4	22:DA:177:G:C8	2.71	0.43
22:DA:190:A:N6	22:DA:191:A:N1	2.66	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2023:C:O2'	22:DA:2024:G:H5'	2.18	0.43
22:DA:2157:G:O2'	22:DA:2158:A:O4'	2.36	0.43
22:DA:2230:G:C6	22:DA:2231:U:C4	3.07	0.43
22:DA:2294:G:OP1	36:DO:94:ARG:NH1	2.52	0.43
22:DA:2514:U:H2'	22:DA:2515:C:C6	2.54	0.43
22:DA:2531:A:C4	22:DA:2532:G:C8	3.06	0.43
22:DA:1953:A:H1'	22:DA:2560:A:O4'	2.17	0.43
22:DA:511:U:O4	22:DA:512:G:N1	2.50	0.43
22:DA:589:U:N3	22:DA:590:A:N7	2.67	0.43
22:DA:61:C:OP1	46:DY:44:LYS:HD3	2.18	0.43
22:DA:655:A:H4'	22:DA:656:G:OP1	2.17	0.43
24:DC:10:SER:O	24:DC:13:ARG:HB3	2.18	0.43
24:DC:31:ALA:HB3	24:DC:32:PRO:HD3	1.99	0.43
22:DA:2635:A:H5''	25:DD:79:LEU:O	2.19	0.43
26:DE:150:THR:C	26:DE:192:ALA:HB2	2.38	0.43
31:DJ:128:ASN:O	31:DJ:128:ASN:CG	2.57	0.43
32:DK:105:ARG:HG2	32:DK:122:VAL:HG12	2.00	0.43
22:DA:533:G:O5'	38:DQ:24:TYR:CD1	2.71	0.43
42:DU:98:SER:O	42:DU:99:ASN:CB	2.66	0.43
45:DX:54:LYS:C	45:DX:56:MET:N	2.71	0.43
47:DZ:3:LYS:CD	47:DZ:3:LYS:N	2.82	0.43
47:DZ:47:MET:O	47:DZ:51:VAL:HG22	2.19	0.43
1:AA:263:A:H2'	1:AA:264:C:C5	2.53	0.43
1:AA:316:C:N3	1:AA:317:U:C5	2.87	0.43
1:AA:655:A:C2'	1:AA:656:G:O5'	2.66	0.43
1:AA:863:U:H2'	1:AA:865:A:OP2	2.19	0.43
2:AB:17:GLY:O	2:AB:18:HIS:HB2	2.18	0.43
4:AD:53:VAL:HG23	4:AD:54:GLN:N	2.33	0.43
5:AE:119:GLY:O	5:AE:121:HIS:ND1	2.51	0.43
5:AE:101:GLU:CB	5:AE:122:ASN:HB2	2.48	0.43
12:AL:5:ASN:O	12:AL:8:VAL:HB	2.18	0.43
13:AM:65:VAL:HG23	13:AM:66:GLU:N	2.32	0.43
17:AQ:48:ASP:HB2	17:AQ:52:GLU:OE2	2.18	0.43
22:BA:1283:G:N1	22:BA:1286:A:OP2	2.50	0.43
22:BA:1850:G:C6	22:BA:1851:U:C4	3.06	0.43
22:BA:2377:A:H2'	22:BA:2378:A:H5'	1.99	0.43
22:BA:2458:G:C2	22:BA:2490:G:N2	2.86	0.43
22:BA:2536:G:C5	22:BA:2537:U:C4	3.06	0.43
22:BA:348:A:H2'	22:BA:349:U:O4'	2.19	0.43
22:BA:435:C:H2'	22:BA:436:C:H5'	1.99	0.43
22:BA:477:A:H2'	22:BA:478:A:C8	2.52	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:615:U:C4	26:BE:35:TYR:CZ	3.06	0.43
22:BA:792:A:N3	22:BA:2072:C:O2'	2.46	0.43
22:BA:815:C:H2'	22:BA:816:C:H6	1.83	0.43
23:BB:46:A:C5	23:BB:47:C:C5	3.06	0.43
29:BH:76:GLU:HA	29:BH:142:VAL:HG12	2.00	0.43
30:BI:19:ASN:OD1	30:BI:28:LEU:HD11	2.18	0.43
31:BJ:125:TYR:OH	31:BJ:132:HIS:NE2	2.45	0.43
31:BJ:64:VAL:HG13	31:BJ:68:LYS:HB2	1.99	0.43
31:BJ:69:ARG:O	31:BJ:89:PHE:HB3	2.18	0.43
45:BX:15:GLY:O	45:BX:27:ARG:HG2	2.19	0.43
1:CA:1069:C:H2'	1:CA:1070:U:O4'	2.18	0.43
1:CA:1150:A:N6	1:CA:1151:A:H62	2.17	0.43
1:CA:1172:C:H2'	1:CA:1173:U:C6	2.54	0.43
1:CA:1221:G:O3'	19:CS:77:THR:HG21	2.18	0.43
1:CA:570:G:H2'	1:CA:571:U:H6	1.82	0.43
2:CB:27:MET:HE3	2:CB:193:PRO:HG3	2.01	0.43
2:CB:55:ALA:O	2:CB:59:LYS:HB2	2.19	0.43
5:CE:25:VAL:N	5:CE:28:GLY:O	2.44	0.43
10:CJ:37:ARG:NE	10:CJ:77:VAL:HG21	2.32	0.43
12:CL:99:ARG:HD2	12:CL:104:CYS:SG	2.58	0.43
18:CR:20:GLU:HG3	18:CR:55:LEU:HD13	2.01	0.43
49:D1:45:GLN:HA	49:D1:45:GLN:OE1	2.18	0.43
22:DA:136:G:C2	22:DA:144:A:C5	3.06	0.43
22:DA:1544:A:N6	22:DA:1545:A:C6	2.86	0.43
22:DA:1691:C:C4	22:DA:1692:U:C4	3.06	0.43
22:DA:1817:G:O2'	22:DA:1818:U:H5'	2.18	0.43
22:DA:1823:G:C8	57:DA:3651:HOH:O	2.57	0.43
22:DA:1906:G:H5''	22:DA:1929:G:O2'	2.18	0.43
22:DA:2428:G:H5''	22:DA:2429:G:P	2.58	0.43
22:DA:1783:A:C2	22:DA:2587:A:C2	3.05	0.43
22:DA:2624:G:H2'	22:DA:2625:G:O4'	2.17	0.43
22:DA:697:G:C2	22:DA:766:U:O2	2.72	0.43
22:DA:931:U:O4	22:DA:1184:U:O4'	2.35	0.43
22:DA:996:A:C2	22:DA:997:G:N9	2.86	0.43
23:DB:35:C:C2'	23:DB:36:C:O5'	2.66	0.43
23:DB:85:G:N2	23:DB:92:C:C2	2.86	0.43
26:DE:12:LEU:HD23	26:DE:13:THR:N	2.34	0.43
26:DE:28:VAL:O	26:DE:32:VAL:HG23	2.18	0.43
33:DL:94:THR:CG2	33:DL:95:LEU:N	2.81	0.43
34:DM:1:MET:HE1	34:DM:44:ARG:HG3	2.00	0.43
35:DN:106:ASP:OD1	35:DN:107:ASN:N	2.51	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DO:18:LEU:HD13	36:DO:18:LEU:HA	1.89	0.43
36:DO:58:ILE:O	36:DO:58:ILE:HG22	2.18	0.43
38:DQ:58:ARG:NH2	38:DQ:92:ARG:CZ	2.82	0.43
39:DR:58:VAL:O	39:DR:102:SER:HB2	2.19	0.43
41:DT:2:ILE:HA	41:DT:3:ARG:CB	2.49	0.43
42:DU:7:ARG:CG	42:DU:8:ASP:H	2.31	0.43
22:DA:85:G:P	42:DU:7:ARG:HB2	2.59	0.43
42:DU:83:VAL:HG11	42:DU:94:ARG:HD2	1.99	0.43
45:DX:68:LEU:HD22	45:DX:78:TYR:CZ	2.54	0.43
47:DZ:7:ILE:O	47:DZ:35:THR:HA	2.18	0.43
1:AA:135:C:C2'	1:AA:136:C:H5'	2.49	0.43
1:AA:1462:C:H2'	1:AA:1463:U:O4'	2.18	0.43
1:AA:66:A:O4'	1:AA:173:U:C4	2.71	0.43
2:AB:144:LEU:O	2:AB:145:GLU:C	2.56	0.43
2:AB:21:ARG:C	2:AB:23:TRP:H	2.21	0.43
4:AD:100:ASN:O	4:AD:104:ARG:HB2	2.19	0.43
10:AJ:41:PRO:O	10:AJ:71:LEU:O	2.36	0.43
14:AN:13:ARG:O	14:AN:17:ALA:HB2	2.19	0.43
1:AA:1314:C:P	19:AS:6:LYS:HZ2	2.41	0.43
22:BA:2477:U:O2	52:B4:4:ARG:NH2	2.52	0.43
53:B5:50:ILE:CG2	53:B5:51:ASP:H	2.31	0.43
53:B5:94:TYR:O	53:B5:95:VAL:HG23	2.19	0.43
22:BA:1081:U:H2'	22:BA:1081:U:O2	2.18	0.43
22:BA:126:A:O5'	50:B2:19:ARG:HG3	2.19	0.43
22:BA:1501:G:C2'	22:BA:1502:A:H5'	2.48	0.43
22:BA:2074:U:H4'	22:BA:2598:A:O4'	2.18	0.43
22:BA:2683:C:OP1	37:BP:51:ARG:NH2	2.52	0.43
22:BA:1050:A:C2	22:BA:2751:G:C5	3.06	0.43
24:BC:204:VAL:O	24:BC:206:GLY:N	2.51	0.43
24:BC:31:ALA:N	24:BC:32:PRO:CD	2.81	0.43
26:BE:189:THR:HG22	26:BE:191:ASP:H	1.83	0.43
27:BF:31:VAL:HG23	27:BF:31:VAL:O	2.18	0.43
32:BK:12:ASP:OD1	32:BK:14:SER:HB3	2.19	0.43
41:BT:16:VAL:O	41:BT:17:SER:CB	2.66	0.43
43:BV:26:PHE:HB2	43:BV:27:PRO:HD2	2.00	0.43
1:CA:1028:C:C6	1:CA:1028:C:OP2	2.71	0.43
1:CA:1099:G:H2'	1:CA:1100:C:O4'	2.19	0.43
1:CA:1323:G:H4'	1:CA:1362:A:C2	2.54	0.43
1:CA:182:A:N7	1:CA:184:G:N7	2.66	0.43
1:CA:411:A:C6	1:CA:429:U:C4	3.07	0.43
1:CA:496:A:C2	1:CA:497:G:C5	3.06	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:801:U:H2'	1:CA:802:A:C8	2.54	0.43
2:CB:17:GLY:O	2:CB:39:HIS:O	2.37	0.43
1:CA:1112:C:N4	3:CC:178:LEU:HD23	2.34	0.43
10:CJ:50:THR:OG1	10:CJ:64:GLN:HG2	2.19	0.43
10:CJ:83:THR:O	10:CJ:83:THR:HG23	2.18	0.43
18:CR:33:ILE:CA	18:CR:40:VAL:HG23	2.49	0.43
19:CS:55:ARG:NE	19:CS:79:THR:CG2	2.82	0.43
22:DA:1194:A:C2'	22:DA:1195:G:O5'	2.67	0.43
22:DA:1320:C:N4	22:DA:1331:G:N7	2.65	0.43
22:DA:1360:G:C6	22:DA:1372:U:C2	3.06	0.43
22:DA:1352:U:C5	22:DA:1377:G:C6	3.07	0.43
22:DA:1581:G:C5	22:DA:1582:C:C5	3.07	0.43
22:DA:157:C:H2'	22:DA:158:U:O4'	2.18	0.43
22:DA:1599:U:O4	22:DA:1600:C:N4	2.52	0.43
22:DA:1307:A:N6	22:DA:1606:C:O2	2.52	0.43
22:DA:1651:G:H4'	35:DN:39:PRO:HG2	2.00	0.43
22:DA:1665:A:C6	22:DA:1666:G:C5	3.07	0.43
22:DA:183:C:C5	22:DA:184:C:C5	3.06	0.43
22:DA:579:G:H5'	22:DA:2018:G:OP2	2.17	0.43
22:DA:2127:G:O2'	22:DA:2173:A:C2	2.72	0.43
22:DA:2321:U:H5'	22:DA:2322:A:OP2	2.19	0.43
22:DA:303:G:C2	22:DA:304:U:C2	3.06	0.43
22:DA:402:A:H2'	22:DA:403:U:H5'	1.99	0.43
22:DA:593:U:C2	22:DA:594:U:C5	3.06	0.43
22:DA:674:G:H1'	26:DE:69:ARG:HD3	2.00	0.43
26:DE:170:ARG:NH2	26:DE:176:ASP:OD1	2.51	0.43
27:DF:122:PHE:CD1	27:DF:166:GLY:HA3	2.54	0.43
28:DG:118:PRO:HG3	28:DG:144:VAL:HG21	2.00	0.43
31:DJ:36:LEU:HD23	31:DJ:121:LYS:HB2	2.00	0.43
31:DJ:9:GLU:O	31:DJ:10:THR:CG2	2.66	0.43
22:DA:626:A:C2	33:DL:78:ARG:HD3	2.53	0.43
36:DO:33:ARG:HG2	36:DO:33:ARG:O	2.19	0.43
37:DP:89:ARG:O	37:DP:112:GLU:HA	2.19	0.43
39:DR:54:VAL:HG12	39:DR:55:ASP:N	2.34	0.43
42:DU:71:ALA:HB3	42:DU:80:ALA:HB1	2.01	0.43
44:DW:23:VAL:HG22	44:DW:38:VAL:HG13	2.01	0.43
1:AA:1082:A:C2	1:AA:1083:U:O2	2.72	0.43
1:AA:1140:C:O2'	1:AA:1141:C:P	2.76	0.43
1:AA:131:A:C2	1:AA:132:C:C5	3.07	0.43
1:AA:131:A:H2'	1:AA:132:C:H6	1.75	0.43
1:AA:306:A:H2'	1:AA:307:C:O4'	2.17	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:203:G:O2'	1:AA:465:A:N1	2.51	0.43
1:AA:61:G:C5	1:AA:62:U:C4	3.07	0.43
1:AA:716:A:C6	1:AA:717:U:N3	2.86	0.43
1:AA:81:A:O2'	1:AA:89:U:O2	2.20	0.43
1:AA:909:A:C2'	1:AA:910:C:O5'	2.67	0.43
1:AA:914:A:N3	1:AA:915:A:C8	2.87	0.43
2:AB:101:LEU:HD13	2:AB:101:LEU:HA	1.91	0.43
2:AB:65:GLY:C	2:AB:66:LYS:HD3	2.39	0.43
7:AG:146:GLU:HA	7:AG:149:LYS:HB2	2.01	0.43
12:AL:94:ARG:C	12:AL:95:TYR:CD1	2.92	0.43
14:AN:16:LEU:HD12	14:AN:54:ASP:HB2	2.01	0.43
17:AQ:16:LYS:O	17:AQ:16:LYS:HG3	2.18	0.43
17:AQ:50:ASN:O	17:AQ:51:ASN:O	2.36	0.43
21:AU:14:VAL:O	21:AU:16:LEU:CD1	2.66	0.43
21:AU:41:PRO:HA	21:AU:44:GLU:HB2	2.00	0.43
48:B0:25:VAL:HG13	48:B0:26:THR:N	2.32	0.43
49:B1:25:LYS:HD3	49:B1:52:ALA:O	2.18	0.43
22:BA:1079:C:C4	22:BA:1088:A:C2	3.06	0.43
22:BA:1355:G:C4	22:BA:1356:G:C8	3.06	0.43
22:BA:1457:U:H5''	22:BA:1458:U:OP1	2.18	0.43
22:BA:1854:A:H2	22:BA:2087:G:N3	2.17	0.43
22:BA:2226:C:H2'	22:BA:2226:C:O2	2.19	0.43
22:BA:934:U:H2'	22:BA:935:C:C6	2.54	0.43
24:BC:157:SER:O	24:BC:158:ALA:C	2.56	0.43
29:BH:94:ILE:CD1	29:BH:98:ASP:HB3	2.48	0.43
34:BM:28:PHE:HB2	34:BM:104:GLU:OE2	2.18	0.43
38:BQ:25:TYR:CD1	38:BQ:26:GLY:N	2.87	0.43
39:BR:25:LEU:N	39:BR:94:THR:CG2	2.81	0.43
39:BR:62:GLU:O	39:BR:64:VAL:HG13	2.18	0.43
46:BY:49:ASP:O	46:BY:50:VAL:C	2.57	0.43
1:CA:1086:U:H4'	1:CA:1086:U:OP1	2.18	0.43
1:CA:1092:A:C6	1:CA:1183:U:O2	2.72	0.43
1:CA:1417:G:N2	1:CA:1484:C:N4	2.67	0.43
1:CA:178:C:H2'	1:CA:179:A:O4'	2.18	0.43
1:CA:341:C:O2	1:CA:349:A:C2	2.71	0.43
1:CA:354:G:C2	1:CA:355:C:C5	3.07	0.43
1:CA:756:C:H2'	1:CA:757:U:C5'	2.49	0.43
1:CA:786:G:C2	1:CA:787:A:H1'	2.54	0.43
2:CB:71:GLY:O	2:CB:93:ASN:HA	2.19	0.43
4:CD:38:PRO:HD2	4:CD:42:GLY:HA3	2.01	0.43
5:CE:104:GLY:HA3	5:CE:122:ASN:HA	2.01	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:13:GLU:OE1	5:CE:68:ARG:NH1	2.52	0.43
8:CH:101:ILE:HD11	8:CH:129:VAL:CG2	2.49	0.43
8:CH:8:ALA:HB2	8:CH:77:ARG:HG3	2.01	0.43
15:CO:56:LEU:O	15:CO:59:MET:HB2	2.18	0.43
11:CK:126:LYS:C	21:CU:34:ARG:CZ	2.87	0.43
22:DA:1056:G:H5''	22:DA:1057:A:O4'	2.18	0.43
22:DA:1178:C:N4	22:DA:1180:U:N3	2.66	0.43
22:DA:1241:A:C2	22:DA:1242:U:H1'	2.54	0.43
22:DA:1277:G:C2	35:DN:23:ASN:OD1	2.71	0.43
22:DA:1314:C:O2	22:DA:1314:C:H2'	2.19	0.43
22:DA:1483:G:C4	22:DA:1484:U:C5	3.06	0.43
22:DA:1524:G:H2'	22:DA:1524:G:N3	2.34	0.43
22:DA:1608:A:C5	22:DA:1611:C:C5	3.07	0.43
22:DA:786:C:H4'	22:DA:1780:A:N7	2.33	0.43
22:DA:1809:A:C5	22:DA:1810:A:N7	2.86	0.43
22:DA:186:G:N2	22:DA:211:C:C2	2.87	0.43
22:DA:2100:G:C6	22:DA:2190:G:C5	3.07	0.43
22:DA:2546:U:O4'	22:DA:2565:A:C2	2.71	0.43
22:DA:2742:G:OP1	52:D4:36:ARG:HD3	2.19	0.43
22:DA:289:G:H2'	22:DA:290:U:O4'	2.19	0.43
22:DA:271:G:C2	22:DA:367:G:C2	3.07	0.43
22:DA:58:G:N3	22:DA:70:G:N2	2.67	0.43
23:DB:109:A:C6	23:DB:110:C:C4	3.06	0.43
27:DF:111:ILE:HB	27:DF:114:PHE:HB2	2.00	0.43
22:DA:1059:G:H4'	30:DI:117:MET:HE3	2.01	0.43
36:DO:79:ALA:O	36:DO:83:LEU:HG	2.19	0.43
37:DP:31:TRP:C	37:DP:32:VAL:HG12	2.39	0.43
42:DU:13:VAL:HG21	42:DU:39:ILE:HD12	2.00	0.43
42:DU:24:LYS:HE3	42:DU:24:LYS:HB3	1.88	0.43
42:DU:49:VAL:O	42:DU:54:GLN:HB3	2.18	0.43
43:DV:44:HIS:NE2	43:DV:85:LYS:HB2	2.34	0.43
22:DA:78:U:OP2	46:DY:2:LYS:CD	2.67	0.43
1:AA:100:G:O6	1:AA:101:A:C6	2.72	0.43
1:AA:100:G:C6	1:AA:101:A:C5	3.07	0.43
1:AA:1031:C:H4'	1:AA:1032:G:O5'	2.17	0.43
1:AA:1055:A:C5	1:AA:1206:G:C2	3.06	0.43
1:AA:1141:C:HO2'	1:AA:1142:G:C5'	2.31	0.43
1:AA:1202:U:C2	1:AA:1203:C:C6	3.07	0.43
1:AA:1442:G:OP2	1:AA:1442:G:H3'	2.18	0.43
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.18	0.43
1:AA:300:A:H2'	1:AA:301:G:O4'	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:465:A:H2'	1:AA:466:A:C1'	2.48	0.43
1:AA:472:U:C4	1:AA:473:U:O4	2.72	0.43
1:AA:616:G:N2	1:AA:617:G:C4	2.86	0.43
1:AA:66:A:H4'	1:AA:173:U:C5	2.54	0.43
1:AA:909:A:H2'	1:AA:910:C:O5'	2.19	0.43
3:AC:77:ILE:HA	3:AC:84:VAL:HG23	2.00	0.43
4:AD:132:ILE:O	4:AD:132:ILE:HG13	2.19	0.43
4:AD:147:GLU:OE1	4:AD:148:LYS:NZ	2.52	0.43
5:AE:81:LEU:HD23	5:AE:123:VAL:HG13	2.01	0.43
5:AE:83:HIS:HB2	5:AE:84:PRO:HD2	2.00	0.43
8:AH:6:PRO:O	8:AH:9:ASP:N	2.51	0.43
9:AI:80:ARG:NH1	9:AI:103:PHE:CE1	2.87	0.43
10:AJ:17:LEU:HD21	10:AJ:96:VAL:HG22	2.00	0.43
1:AA:310:G:H5''	16:AP:31:ARG:HB2	2.00	0.43
17:AQ:8:LEU:HD22	17:AQ:73:TRP:CH2	2.53	0.43
18:AR:37:GLY:O	18:AR:63:ARG:NH2	2.49	0.43
49:B1:48:ILE:H	49:B1:48:ILE:HD12	1.83	0.43
53:B5:214:TYR:O	53:B5:215:VAL:CB	2.66	0.43
22:BA:1344:U:H1'	22:BA:1384:A:H2'	2.00	0.43
22:BA:1505:A:H2'	22:BA:1506:U:O4'	2.18	0.43
22:BA:1908:C:H2'	22:BA:1909:C:C6	2.54	0.43
22:BA:2512:C:H2'	22:BA:2513:A:O4'	2.18	0.43
22:BA:2636:C:H4'	25:BD:81:GLU:CD	2.39	0.43
22:BA:2687:U:H2'	22:BA:2688:G:O4'	2.18	0.43
22:BA:2901:C:N4	22:BA:2902:C:C4	2.86	0.43
22:BA:368:A:C6	22:BA:369:U:C4	3.07	0.43
22:BA:686:U:H2'	22:BA:788:A:C2	2.54	0.43
22:BA:980:A:C6	22:BA:981:A:C2	3.06	0.43
25:BD:133:THR:O	25:BD:134:HIS:HB2	2.19	0.43
28:BG:150:ALA:C	28:BG:152:ARG:N	2.72	0.43
29:BH:103:VAL:O	29:BH:108:VAL:O	2.37	0.43
39:BR:42:ALA:HA	39:BR:46:GLU:HB2	2.00	0.43
1:CA:104:G:O2'	1:CA:105:G:H5'	2.18	0.43
1:CA:1140:C:O2'	1:CA:1141:C:P	2.76	0.43
1:CA:386:C:N4	1:CA:387:U:C4	2.86	0.43
1:CA:516:U:C4	1:CA:517:G:C6	3.07	0.43
1:CA:784:A:C2	1:CA:785:G:C4	3.06	0.43
2:CB:15:HIS:O	2:CB:15:HIS:CG	2.71	0.43
3:CC:66:VAL:O	3:CC:66:VAL:HG12	2.18	0.43
3:CC:83:ASP:O	3:CC:85:GLU:N	2.52	0.43
5:CE:107:ALA:HB2	5:CE:125:ALA:HB2	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:38:VAL:HG11	5:CE:114:VAL:HA	2.00	0.43
21:CU:35:ARG:HG2	21:CU:36:GLU:O	2.18	0.43
51:D3:4:ILE:HG21	51:D3:63:PRO:HG3	2.00	0.43
22:DA:1206:G:C6	22:DA:1207:C:C4	3.06	0.43
22:DA:1500:G:C6	22:DA:1501:G:C5	3.06	0.43
22:DA:1740:G:H2'	22:DA:1741:C:O4'	2.18	0.43
22:DA:965:C:H4'	22:DA:2273:A:H1'	2.00	0.43
22:DA:460:A:C2	22:DA:470:A:C4	3.07	0.43
22:DA:21:A:C6	22:DA:520:G:C6	3.07	0.43
22:DA:674:G:C1'	26:DE:69:ARG:HD3	2.48	0.43
22:DA:818:G:H5'	22:DA:839:U:OP1	2.18	0.43
24:DC:107:PRO:HB3	24:DC:142:HIS:CE1	2.54	0.43
28:DG:140:VAL:HG12	28:DG:140:VAL:O	2.17	0.43
32:DK:17:ARG:HG2	32:DK:47:ILE:HG23	2.00	0.43
32:DK:32:TYR:N	32:DK:32:TYR:CD1	2.86	0.43
22:DA:1665:A:H5''	32:DK:66:LYS:HG3	2.00	0.43
33:DL:95:LEU:O	33:DL:100:ILE:CG2	2.67	0.43
41:DT:74:ILE:HD12	41:DT:75:GLY:N	2.33	0.43
43:DV:38:LEU:HB3	43:DV:40:ILE:HD11	2.01	0.43
1:AA:1160:G:O2'	1:AA:1161:C:O5'	2.33	0.43
1:AA:174:A:C5	1:AA:175:C:C5	3.07	0.43
1:AA:19:A:C2	1:AA:917:G:C5	3.07	0.43
1:AA:977:A:O2'	1:AA:979:C:OP2	2.36	0.43
2:AB:146:ASN:O	2:AB:147:SER:OG	2.36	0.43
2:AB:167:ASP:C	2:AB:169:GLU:N	2.71	0.43
2:AB:59:LYS:O	2:AB:63:ARG:HG3	2.19	0.43
2:AB:60:ILE:O	2:AB:64:LYS:N	2.52	0.43
4:AD:68:LEU:N	4:AD:68:LEU:CD2	2.81	0.43
8:AH:93:PRO:HG3	8:AH:125:ILE:CD1	2.49	0.43
9:AI:90:TYR:O	9:AI:91:ASP:CB	2.67	0.43
13:AM:11:ASP:OD1	13:AM:45:ILE:HB	2.19	0.43
17:AQ:16:LYS:CA	17:AQ:17:MET:SD	3.07	0.43
22:BA:1047:G:N3	22:BA:1110:G:C2	2.87	0.43
22:BA:1661:G:H2'	22:BA:1662:U:H6	1.83	0.43
22:BA:1716:U:C2'	22:BA:1717:A:H5'	2.49	0.43
22:BA:687:C:O2'	22:BA:1780:A:N1	2.42	0.43
22:BA:2214:C:H2'	22:BA:2215:C:O4'	2.18	0.43
22:BA:2286:G:H5''	22:BA:2287:A:O5'	2.18	0.43
22:BA:2315:G:H2'	22:BA:2316:G:C8	2.54	0.43
22:BA:2329:U:H2'	22:BA:2330:G:C8	2.53	0.43
22:BA:2658:C:N4	22:BA:2664:G:N2	2.67	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:511:U:O4	22:BA:512:G:C6	2.72	0.43
22:BA:722:A:H2'	22:BA:723:C:O4'	2.18	0.43
22:BA:863:A:H2'	22:BA:864:G:C8	2.54	0.43
22:BA:995:C:H5'	22:BA:995:C:C6	2.53	0.43
27:BF:121:SER:HB2	27:BF:128:TYR:CE1	2.54	0.43
29:BH:45:GLU:HA	29:BH:48:GLU:HB2	2.01	0.43
30:BI:65:ARG:HG3	30:BI:66:SER:N	2.34	0.43
33:BL:131:ALA:O	33:BL:132:ARG:C	2.56	0.43
35:BN:8:ARG:HB2	35:BN:43:GLU:OE1	2.18	0.43
36:BO:17:LYS:HD2	36:BO:21:LEU:CD1	2.48	0.43
36:BO:83:LEU:HD23	36:BO:83:LEU:N	2.33	0.43
37:BP:33:VAL:HA	37:BP:37:LYS:O	2.18	0.43
38:BQ:52:GLN:HA	38:BQ:55:ARG:HD2	2.01	0.43
22:BA:1224:U:H4'	39:BR:88:GLY:O	2.19	0.43
1:CA:1133:G:C6	1:CA:1142:G:C6	3.07	0.43
1:CA:1195:C:H2'	1:CA:1197:A:O4'	2.19	0.43
1:CA:1343:G:C5	1:CA:1344:C:C4	3.06	0.43
1:CA:1422:G:O3'	32:DK:49:ARG:NH2	2.52	0.43
1:CA:1408:A:C2	1:CA:1494:G:C5	3.06	0.43
1:CA:173:U:H1'	1:CA:197:A:C5	2.54	0.43
1:CA:407:U:H2'	1:CA:408:A:C8	2.54	0.43
1:CA:666:G:C6	1:CA:741:G:C5	3.07	0.43
1:CA:6:G:H2'	5:CE:124:LEU:CD2	2.48	0.43
1:CA:771:G:C2	1:CA:809:G:C2	3.06	0.43
1:CA:891:U:C4	1:CA:906:A:C2	3.07	0.43
2:CB:16:PHE:CE2	2:CB:18:HIS:NE2	2.87	0.43
4:CD:198:HIS:CD2	4:CD:199:LEU:H	2.36	0.43
4:CD:203:LEU:HD12	4:CD:203:LEU:C	2.39	0.43
5:CE:25:VAL:HG22	5:CE:28:GLY:O	2.19	0.43
6:CF:3:HIS:O	6:CF:92:THR:HA	2.17	0.43
8:CH:49:PHE:C	8:CH:49:PHE:CD1	2.92	0.43
11:CK:67:ALA:HB1	11:CK:100:LEU:CD1	2.49	0.43
13:CM:19:LEU:HD11	13:CM:33:ILE:HG21	2.01	0.43
17:CQ:8:LEU:CD1	17:CQ:8:LEU:N	2.81	0.43
21:CU:29:LEU:C	21:CU:29:LEU:HD23	2.39	0.43
52:D4:16:ILE:HG22	52:D4:17:VAL:N	2.34	0.43
22:DA:1317:G:H2'	22:DA:1318:U:O4'	2.19	0.43
22:DA:1426:G:C8	22:DA:1427:A:H2'	2.54	0.43
22:DA:1785:A:O2'	22:DA:1786:A:H2'	2.18	0.43
22:DA:1818:U:H2'	24:DC:156:ARG:CD	2.49	0.43
22:DA:2195:U:O2'	22:DA:2196:C:H5'	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:830:G:C6	22:DA:2448:A:C8	3.07	0.43
22:DA:2654:A:C2	22:DA:2656:U:O4	2.72	0.43
22:DA:2660:A:H2'	22:DA:2661:G:O4'	2.19	0.43
22:DA:2744:G:C6	22:DA:2761:A:N6	2.86	0.43
22:DA:365:U:C4	22:DA:366:C:N4	2.87	0.43
22:DA:64:A:H2'	22:DA:65:U:C6	2.54	0.43
22:DA:666:A:H4'	33:DL:48:ARG:NE	2.34	0.43
22:DA:988:A:C8	47:DZ:14:ILE:HD12	2.53	0.43
27:DF:9:LYS:O	27:DF:13:VAL:HG23	2.19	0.43
28:DG:63:ALA:O	28:DG:67:THR:HG23	2.19	0.43
29:DH:62:LEU:HD13	29:DH:63:ALA:N	2.34	0.43
29:DH:82:SER:O	29:DH:83:LYS:C	2.57	0.43
30:DI:57:VAL:HG22	30:DI:58:VAL:H	1.84	0.43
33:DL:66:PHE:CE2	33:DL:68:SER:HA	2.53	0.43
38:DQ:27:ALA:HB1	38:DQ:31:VAL:CG2	2.49	0.43
40:DS:63:GLY:O	40:DS:64:ALA:HB3	2.18	0.43
41:DT:20:ALA:CB	41:DT:31:VAL:HG21	2.49	0.43
46:DY:9:LYS:HB3	46:DY:12:GLU:HG3	1.99	0.43
22:DA:96:C:H4'	46:DY:41:HIS:CD2	2.54	0.43
1:AA:1044:A:C5	1:AA:1045:C:H1'	2.54	0.43
1:AA:1157:A:C2	1:AA:1181:G:C4	3.06	0.43
1:AA:457:G:O6	1:AA:475:C:N3	2.51	0.43
1:AA:521:G:O2'	1:AA:522:C:H5'	2.19	0.43
1:AA:55:A:C6	1:AA:56:U:C2	3.07	0.43
1:AA:579:A:C4	1:AA:580:C:C5	3.07	0.43
1:AA:586:C:O3'	8:AH:81:PRO:HB3	2.19	0.43
1:AA:855:U:H2'	1:AA:856:C:C6	2.53	0.43
2:AB:21:ARG:O	2:AB:22:TYR:C	2.54	0.43
2:AB:33:GLY:CA	2:AB:40:ILE:H	2.32	0.43
4:AD:105:MET:SD	4:AD:143:VAL:HG22	2.59	0.43
4:AD:95:GLU:OE1	4:AD:191:LEU:HD22	2.19	0.43
13:AM:78:LYS:O	13:AM:81:MET:N	2.52	0.43
17:AQ:17:MET:CG	17:AQ:20:SER:HB3	2.49	0.43
20:AT:83:ILE:HD12	20:AT:84:ASN:N	2.33	0.43
21:AU:32:VAL:HG12	21:AU:32:VAL:O	2.18	0.43
22:BA:1056:G:C2	22:BA:1102:C:C5	3.07	0.43
22:BA:1023:U:O4	22:BA:1142:A:N1	2.52	0.43
22:BA:1408:G:C6	22:BA:1409:U:C4	3.07	0.43
22:BA:1478:G:H1	22:BA:1513:U:H3	1.66	0.43
22:BA:2443:C:O2'	22:BA:2444:G:H5'	2.19	0.43
22:BA:319:G:C5	22:BA:333:G:C2	3.06	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:480:A:C2'	22:BA:481:G:OP1	2.65	0.43
22:BA:493:G:H2'	22:BA:494:G:O4'	2.19	0.43
22:BA:565:C:H2'	22:BA:566:U:O4'	2.19	0.43
22:BA:607:U:C5	22:BA:620:G:C4	3.06	0.43
24:BC:14:ARG:O	24:BC:14:ARG:HG3	2.19	0.43
22:BA:2683:C:H4'	25:BD:13:ARG:NH1	2.34	0.43
25:BD:5:VAL:HG21	25:BD:80:TRP:CD2	2.54	0.43
27:BF:101:GLU:O	27:BF:105:THR:HB	2.19	0.43
27:BF:48:LYS:O	27:BF:51:ASP:HB2	2.19	0.43
28:BG:96:ALA:HB2	28:BG:105:LEU:HD23	1.99	0.43
31:BJ:81:ILE:HG12	31:BJ:82:GLY:H	1.83	0.43
32:BK:53:LYS:HG3	32:BK:56:ASP:OD1	2.18	0.43
39:BR:51:VAL:O	39:BR:52:PRO:O	2.37	0.43
1:CA:1069:C:C4	1:CA:1070:U:C5	3.06	0.43
1:CA:131:A:O2'	1:CA:262:A:N3	2.40	0.43
1:CA:438:U:C2	1:CA:494:G:C6	3.07	0.43
1:CA:55:A:N7	1:CA:56:U:C4	2.86	0.43
1:CA:81:A:H2'	1:CA:82:G:C8	2.53	0.43
4:CD:166:GLU:HG2	4:CD:166:GLU:O	2.19	0.43
5:CE:94:VAL:CG1	5:CE:111:MET:CE	2.96	0.43
6:CF:35:LYS:HG3	6:CF:37:HIS:NE2	2.33	0.43
7:CG:148:ASN:C	7:CG:150:ALA:N	2.72	0.43
7:CG:8:GLY:O	7:CG:9:GLN:CB	2.66	0.43
11:CK:100:LEU:C	11:CK:102:ALA:N	2.73	0.43
11:CK:67:ALA:HB1	11:CK:100:LEU:HD13	2.01	0.43
1:CA:718:A:H5'	11:CK:119:ASN:CG	2.39	0.43
15:CO:58:ARG:O	15:CO:62:GLN:HB2	2.19	0.43
15:CO:60:VAL:O	15:CO:63:ARG:N	2.51	0.43
17:CQ:10:GLY:HA3	17:CQ:25:ILE:HD13	2.01	0.43
18:CR:34:THR:HG22	18:CR:38:LYS:N	2.34	0.43
19:CS:51:VAL:O	19:CS:58:VAL:HG12	2.19	0.43
20:CT:5:LYS:O	20:CT:6:SER:C	2.57	0.43
51:D3:15:LYS:HB3	51:D3:23:LYS:HE2	2.00	0.43
22:DA:1219:U:H2'	22:DA:1220:G:C8	2.53	0.43
22:DA:1340:U:C5	22:DA:1603:A:C8	3.07	0.43
22:DA:1692:U:O2'	22:DA:1693:U:H2'	2.19	0.43
22:DA:2093:G:P	29:DH:24:GLY:H	2.42	0.43
22:DA:2852:G:C2	22:DA:2853:C:C2	3.07	0.43
22:DA:310:A:HO2'	22:DA:311:A:P	2.33	0.43
22:DA:570:G:C4	22:DA:2030:A:N7	2.87	0.43
22:DA:581:C:OP1	38:DQ:33:ARG:HG3	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:30:PHE:CE2	24:DC:32:PRO:CG	3.02	0.43
25:DD:51:THR:OG1	25:DD:76:GLY:HA3	2.17	0.43
30:DI:84:ALA:HB1	30:DI:101:ILE:CD1	2.49	0.43
30:DI:8:TYR:HB3	30:DI:59:ILE:O	2.18	0.43
26:DE:25:GLU:OE1	33:DL:6:LEU:HA	2.19	0.43
41:DT:20:ALA:O	41:DT:24:MET:HG3	2.18	0.43
43:DV:57:TYR:HA	43:DV:74:ALA:HB3	2.00	0.43
22:DA:102:U:O4	46:DY:3:ALA:HB3	2.19	0.43
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.19	0.43
1:AA:75:G:H2'	1:AA:75:G:N3	2.33	0.43
2:AB:219:ALA:O	2:AB:220:THR:HB	2.19	0.43
2:AB:87:CYS:SG	2:AB:89:GLN:OE1	2.77	0.43
4:AD:151:LYS:CB	4:AD:156:LYS:HE3	2.49	0.43
4:AD:190:ASP:C	4:AD:191:LEU:HG	2.38	0.43
6:AF:47:LEU:CD1	6:AF:51:ILE:HG23	2.47	0.43
6:AF:6:ILE:C	6:AF:7:VAL:HG12	2.39	0.43
9:AI:36:GLU:HA	9:AI:40:GLY:CA	2.48	0.43
10:AJ:51:VAL:O	10:AJ:62:ARG:HA	2.19	0.43
1:AA:684:U:O2'	11:AK:40:ASN:O	2.37	0.43
13:AM:34:LEU:HD23	13:AM:39:ILE:HB	2.01	0.43
14:AN:72:GLY:O	14:AN:80:SER:HA	2.19	0.43
18:AR:34:THR:OG1	18:AR:35:GLU:N	2.49	0.43
49:B1:34:LEU:HB3	49:B1:52:ALA:HB2	2.00	0.43
22:BA:1150:C:C2	22:BA:1151:A:C8	3.07	0.43
22:BA:1176:U:N3	22:BA:1177:G:C6	2.87	0.43
22:BA:1179:G:H3'	22:BA:1180:U:C4'	2.48	0.43
22:BA:1300:G:OP1	57:BA:3655:HOH:O	2.22	0.43
22:BA:1378:A:C4'	22:BA:1379:U:OP1	2.67	0.43
22:BA:1459:G:C6	22:BA:1461:C:N3	2.87	0.43
22:BA:1563:U:H2'	22:BA:1564:C:C6	2.53	0.43
22:BA:1594:U:H2'	22:BA:1595:C:C6	2.52	0.43
22:BA:1626:A:HO2'	22:BA:1627:G:P	2.41	0.43
22:BA:1860:G:C6	22:BA:1883:U:C2	3.07	0.43
22:BA:1930:G:HO2'	22:BA:1931:U:P	2.41	0.43
22:BA:2193:G:O2'	22:BA:2194:U:H5'	2.19	0.43
22:BA:2703:C:O5'	22:BA:2703:C:H6	2.02	0.43
22:BA:310:A:HO2'	22:BA:311:A:P	2.42	0.43
22:BA:359:G:H2'	22:BA:360:U:O4'	2.19	0.43
22:BA:846:U:O2'	22:BA:847:U:P	2.76	0.43
23:BB:14:U:OP2	23:BB:71:C:H5'	2.19	0.43
24:BC:174:LEU:N	24:BC:174:LEU:CD1	2.82	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:107:LEU:C	32:BK:109:SER:N	2.72	0.43
47:BZ:36:VAL:CG2	47:BZ:38:ARG:NH2	2.81	0.43
1:CA:1235:U:H2'	1:CA:1236:A:O4'	2.19	0.43
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.18	0.43
1:CA:302:G:O2'	1:CA:556:C:H5''	2.18	0.43
1:CA:370:C:C2	1:CA:371:A:C8	3.07	0.43
1:CA:748:G:H2'	1:CA:749:A:H8	1.84	0.43
6:CF:62:MET:O	6:CF:63:ASN:HB2	2.19	0.43
10:CJ:57:VAL:HG22	10:CJ:58:ASN:H	1.84	0.43
15:CO:39:LEU:O	15:CO:42:HIS:HB3	2.19	0.43
15:CO:3:LEU:HA	15:CO:3:LEU:HD12	1.95	0.43
19:CS:4:SER:O	19:CS:5:LEU:CB	2.66	0.43
49:D1:12:VAL:C	49:D1:49:TYR:CD2	2.92	0.43
22:DA:119:A:H4'	22:DA:120:U:O5'	2.19	0.43
22:DA:1351:C:H2'	22:DA:1352:U:C1'	2.48	0.43
22:DA:1488:C:N3	22:DA:1489:C:C5	2.86	0.43
22:DA:1675:C:N3	25:DD:133:THR:HG21	2.34	0.43
22:DA:1675:C:C5	22:DA:1676:A:C5	3.07	0.43
22:DA:1731:G:C6	22:DA:1733:G:N7	2.87	0.43
22:DA:2032:G:C8	57:DA:3529:HOH:O	2.63	0.43
22:DA:2229:U:H2'	22:DA:2230:G:H8	1.83	0.43
22:DA:2802:G:C2	22:DA:2803:G:C4	3.07	0.43
22:DA:353:C:H2'	22:DA:354:A:C8	2.54	0.43
22:DA:477:A:C2'	22:DA:478:A:O5'	2.67	0.43
22:DA:49:A:C8	22:DA:51:G:C2	3.07	0.43
22:DA:788:A:OP1	22:DA:790:U:O4	2.37	0.43
22:DA:672:C:C2	22:DA:809:G:N2	2.87	0.43
22:DA:818:G:O2'	22:DA:819:A:O4'	2.35	0.43
24:DC:31:ALA:N	24:DC:32:PRO:HD2	2.34	0.43
24:DC:34:LEU:O	24:DC:35:GLU:CB	2.66	0.43
38:DQ:110:VAL:HG12	38:DQ:114:LYS:HD2	2.00	0.43
41:DT:89:GLU:HA	41:DT:89:GLU:OE2	2.19	0.43
43:DV:42:LEU:HD12	43:DV:47:VAL:HG21	2.01	0.43
44:DW:15:ASP:OD1	44:DW:16:SER:N	2.52	0.43
1:AA:1002:G:N2	1:AA:1003:G:H1'	2.34	0.42
1:AA:1163:A:C2	1:AA:1174:G:C2	3.06	0.42
1:AA:1307:U:N3	1:AA:1308:U:C4	2.87	0.42
1:AA:1372:U:C4	1:AA:1373:G:C5	3.07	0.42
1:AA:1539:C:H5''	21:AU:18:ARG:CB	2.49	0.42
1:AA:43:C:H2'	1:AA:44:A:O4'	2.19	0.42
1:AA:495:A:C2	1:AA:496:A:N6	2.87	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:545:C:O2	1:AA:545:C:H2'	2.19	0.42
2:AB:109:GLN:N	2:AB:109:GLN:OE1	2.52	0.42
2:AB:22:TYR:N	2:AB:22:TYR:CD1	2.87	0.42
2:AB:24:ASN:HA	2:AB:25:PRO:HD2	1.85	0.42
2:AB:74:ARG:O	2:AB:75:ALA:HB2	2.19	0.42
3:AC:29:PHE:O	3:AC:29:PHE:HD1	2.02	0.42
7:AG:102:ARG:O	7:AG:106:GLU:CB	2.67	0.42
12:AL:46:ASN:ND2	12:AL:89:ASP:OD2	2.48	0.42
16:AP:20:VAL:HG23	16:AP:35:ARG:HA	2.00	0.42
52:B4:1:MET:CE	52:B4:34:LYS:HG2	2.49	0.42
22:BA:31:C:O2'	22:BA:1238:G:H5'	2.19	0.42
22:BA:1402:U:H2'	22:BA:1403:A:O5'	2.19	0.42
22:BA:1654:A:H1'	22:BA:2823:A:H5'	2.01	0.42
22:BA:1737:G:C6	22:BA:1738:G:N1	2.87	0.42
22:BA:1827:U:C2'	22:BA:1828:G:O5'	2.67	0.42
22:BA:1917:U:C2'	22:BA:1918:A:H5'	2.48	0.42
22:BA:2120:G:N2	22:BA:2179:C:O2	2.52	0.42
22:BA:2271:G:H2'	22:BA:2272:U:H6	1.83	0.42
22:BA:2738:A:C2	22:BA:2739:U:H1'	2.54	0.42
22:BA:2740:A:H2'	22:BA:2741:A:C8	2.53	0.42
22:BA:323:C:C4	22:BA:333:G:C8	3.06	0.42
22:BA:499:U:C4	22:BA:500:G:C6	3.07	0.42
22:BA:720:U:H2'	22:BA:721:A:C8	2.53	0.42
27:BF:80:ARG:NE	27:BF:81:GLN:O	2.52	0.42
29:BH:79:THR:CG2	29:BH:147:VAL:CG2	2.97	0.42
30:BI:42:PHE:CE2	30:BI:46:THR:HG21	2.53	0.42
37:BP:26:VAL:HG13	37:BP:47:VAL:HG23	2.00	0.42
37:BP:34:GLU:O	37:BP:36:SER:N	2.52	0.42
46:BY:32:ALA:HB2	46:BY:37:LEU:HD23	2.00	0.42
1:CA:1053:G:O5'	1:CA:1054:C:H3'	2.19	0.42
1:CA:110:C:N4	1:CA:111:G:C6	2.87	0.42
1:CA:1365:G:C5	1:CA:1366:C:C4	3.07	0.42
1:CA:793:U:O2	1:CA:1516:G:H4'	2.18	0.42
1:CA:505:G:C6	1:CA:535:A:C2	3.07	0.42
4:CD:26:ARG:HG3	4:CD:27:ALA:H	1.84	0.42
4:CD:62:ARG:HG3	4:CD:72:PHE:CG	2.54	0.42
5:CE:157:ARG:C	5:CE:159:LYS:N	2.72	0.42
7:CG:46:ALA:HA	7:CG:121:ALA:HB2	2.00	0.42
7:CG:5:ARG:HA	7:CG:5:ARG:NE	2.34	0.42
11:CK:126:LYS:O	11:CK:127:ARG:CB	2.66	0.42
17:CQ:14:SER:O	17:CQ:17:MET:HE1	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D3:31:HIS:ND1	51:D3:31:HIS:C	2.72	0.42
51:D3:45:ARG:N	51:D3:46:PRO:HD2	2.33	0.42
22:DA:1171:G:C2	22:DA:1179:G:C6	3.07	0.42
22:DA:1362:C:O2'	22:DA:1363:C:H5'	2.18	0.42
22:DA:1791:A:C8	22:DA:1792:G:C8	3.06	0.42
22:DA:2138:G:C2	22:DA:2154:A:N3	2.86	0.42
22:DA:2301:C:C2	22:DA:2316:G:N2	2.87	0.42
22:DA:2323:G:C6	22:DA:2324:U:C4	3.07	0.42
22:DA:2549:G:C2'	22:DA:2550:G:H5'	2.49	0.42
22:DA:2766:A:N3	22:DA:2766:A:H2'	2.34	0.42
22:DA:416:U:H2'	22:DA:417:C:O4'	2.18	0.42
22:DA:439:A:H2'	22:DA:440:C:O4'	2.18	0.42
22:DA:813:U:C2	22:DA:814:C:C5	3.07	0.42
22:DA:995:C:C4	38:DQ:57:PHE:CZ	3.07	0.42
23:DB:109:A:C6	23:DB:110:C:N3	2.87	0.42
24:DC:157:SER:O	24:DC:158:ALA:C	2.57	0.42
25:DD:148:GLN:HB2	25:DD:152:PRO:HG2	2.01	0.42
30:DI:39:CYS:HA	30:DI:42:PHE:HB3	2.00	0.42
37:DP:103:ARG:HG2	37:DP:107:ALA:CB	2.49	0.42
39:DR:52:PRO:O	39:DR:53:PHE:HB2	2.19	0.42
40:DS:17:VAL:HG12	40:DS:76:VAL:HG21	2.00	0.42
40:DS:85:ILE:CG2	40:DS:86:MET:N	2.82	0.42
22:DA:1599:U:P	41:DT:40:LYS:HD2	2.58	0.42
1:AA:104:G:N3	1:AA:105:G:C8	2.87	0.42
1:AA:1118:U:C1'	1:AA:1179:A:C4	3.02	0.42
1:AA:604:G:C6	1:AA:605:U:N3	2.87	0.42
1:AA:903:G:H2'	1:AA:904:U:H6	1.84	0.42
4:AD:75:TYR:OH	4:AD:97:ARG:NH1	2.50	0.42
6:AF:42:TRP:HZ2	6:AF:61:LEU:HD22	1.84	0.42
8:AH:30:SER:O	8:AH:32:LEU:N	2.53	0.42
8:AH:8:ALA:HB2	8:AH:77:ARG:HD2	2.00	0.42
10:AJ:17:LEU:HD23	10:AJ:17:LEU:C	2.38	0.42
10:AJ:53:ILE:HG22	10:AJ:61:ALA:CB	2.49	0.42
11:AK:53:ARG:O	11:AK:56:ARG:HG3	2.19	0.42
12:AL:23:ALA:C	12:AL:24:LEU:O	2.57	0.42
12:AL:51:LYS:N	12:AL:51:LYS:HD3	2.33	0.42
13:AM:69:LEU:HG	13:AM:73:ILE:HD11	2.01	0.42
13:AM:88:GLY:O	13:AM:89:LEU:C	2.57	0.42
16:AP:44:SER:O	16:AP:46:LYS:HD2	2.20	0.42
17:AQ:17:MET:HB2	17:AQ:20:SER:HB3	2.00	0.42
20:AT:5:LYS:HE2	20:AT:5:LYS:C	2.39	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B5:204:GLY:O	53:B5:205:ALA:HB2	2.18	0.42
22:BA:1016:G:C2	22:BA:1147:A:C2	3.07	0.42
22:BA:1439:A:N3	22:BA:1553:A:C6	2.87	0.42
22:BA:1692:U:H2'	22:BA:1694:C:C5	2.54	0.42
22:BA:1836:C:C2'	22:BA:1837:C:H5'	2.49	0.42
22:BA:1935:G:O2'	22:BA:1936:A:H5'	2.18	0.42
22:BA:207:A:O2'	22:BA:799:G:H4'	2.19	0.42
22:BA:2469:A:H4'	34:BM:55:ARG:HH12	1.83	0.42
22:BA:2685:G:O2'	22:BA:2686:G:H5'	2.19	0.42
22:BA:271:G:C4'	22:BA:272:A:OP1	2.67	0.42
22:BA:477:A:C6	22:BA:478:A:C6	3.07	0.42
22:BA:685:A:H1'	22:BA:688:U:O4	2.19	0.42
23:BB:96:G:C2'	23:BB:97:C:H5'	2.48	0.42
33:BL:109:LYS:HG2	33:BL:126:ARG:CB	2.50	0.42
41:BT:48:GLN:O	41:BT:52:GLU:HA	2.18	0.42
41:BT:69:ARG:HB3	41:BT:74:ILE:HG22	2.01	0.42
1:CA:1195:C:H5''	1:CA:1196:A:OP2	2.19	0.42
1:CA:1503:A:C2	1:CA:1531:A:H2	2.36	0.42
1:CA:167:A:C2'	1:CA:168:G:O5'	2.67	0.42
1:CA:68:G:O4'	1:CA:171:A:H1'	2.19	0.42
1:CA:205:A:N6	1:CA:213:G:O6	2.52	0.42
2:CB:151:ILE:HG23	2:CB:151:ILE:O	2.18	0.42
3:CC:101:ILE:CG2	3:CC:101:ILE:O	2.67	0.42
3:CC:126:ARG:O	3:CC:127:ARG:CB	2.66	0.42
7:CG:26:PHE:HB2	7:CG:101:MET:SD	2.58	0.42
1:CA:939:G:P	7:CG:95:ARG:HH22	2.43	0.42
5:CE:83:HIS:CG	8:CH:96:MET:HE2	2.55	0.42
10:CJ:27:GLU:O	10:CJ:27:GLU:CG	2.67	0.42
12:CL:87:VAL:HB	12:CL:93:VAL:HG21	1.99	0.42
48:D0:25:VAL:HG13	48:D0:26:THR:H	1.85	0.42
49:D1:5:ILE:HG22	49:D1:28:ARG:HD3	2.00	0.42
22:DA:1262:A:N3	22:DA:1262:A:H2'	2.35	0.42
22:DA:1403:A:H2'	22:DA:1404:C:C6	2.55	0.42
22:DA:1566:A:N3	24:DC:213:TRP:CB	2.81	0.42
22:DA:1596:A:C6	22:DA:1597:A:C6	3.07	0.42
22:DA:2563:U:C1'	22:DA:2566:A:N6	2.81	0.42
22:DA:2584:U:H3'	22:DA:2585:U:H5''	2.02	0.42
22:DA:308:G:C6	22:DA:309:A:C6	3.07	0.42
22:DA:532:A:H4'	22:DA:533:G:C8	2.54	0.42
22:DA:589:U:C2	22:DA:590:A:N7	2.88	0.42
22:DA:764:A:C2	22:DA:781:A:C2	3.07	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:61:G:C6	23:DB:62:C:C4	3.07	0.42
28:DG:41:VAL:HG22	28:DG:64:GLN:HB3	2.01	0.42
30:DI:101:ILE:O	30:DI:102:SER:HB3	2.18	0.42
30:DI:103:ARG:O	30:DI:107:GLN:N	2.49	0.42
33:DL:101:ILE:HD12	33:DL:105:ILE:HG21	2.01	0.42
37:DP:92:VAL:CG1	37:DP:110:ILE:HG22	2.49	0.42
39:DR:49:ILE:HG22	39:DR:53:PHE:C	2.37	0.42
1:AA:1329:A:OP1	13:AM:26:GLY:N	2.49	0.42
1:AA:1468:A:H2'	1:AA:1469:C:O4'	2.19	0.42
1:AA:1505:G:P	57:AA:1868:HOH:O	2.76	0.42
1:AA:192:A:H2'	1:AA:193:C:C6	2.54	0.42
1:AA:666:G:C5	1:AA:741:G:C6	3.07	0.42
1:AA:918:A:H2'	1:AA:919:A:C8	2.54	0.42
4:AD:150:LYS:O	4:AD:152:GLN:N	2.52	0.42
5:AE:101:GLU:O	5:AE:101:GLU:CD	2.58	0.42
5:AE:117:VAL:HG23	5:AE:118:ALA:N	2.34	0.42
8:AH:34:VAL:O	8:AH:36:ILE:N	2.52	0.42
9:AI:30:ILE:HB	9:AI:65:ILE:HD11	2.01	0.42
10:AJ:25:ILE:O	10:AJ:26:VAL:C	2.57	0.42
12:AL:35:THR:C	12:AL:36:ARG:HD2	2.40	0.42
1:AA:974:A:P	14:AN:69:ARG:HH12	2.42	0.42
19:AS:3:ARG:O	19:AS:4:SER:HB2	2.19	0.42
53:B5:100:ILE:HG22	53:B5:104:ILE:CB	2.49	0.42
22:BA:1022:G:O6	31:BJ:68:LYS:CE	2.67	0.42
22:BA:1098:A:C6	22:BA:1099:G:C6	3.07	0.42
22:BA:1361:G:C6	22:BA:1362:C:N4	2.87	0.42
22:BA:1915:U:H2'	22:BA:1916:A:O4'	2.19	0.42
22:BA:2298:A:C6	22:BA:2321:U:C4	3.08	0.42
22:BA:228:C:N4	22:BA:2407:A:N3	2.66	0.42
22:BA:2520:C:HO2'	22:BA:2565:A:HO2'	1.65	0.42
22:BA:2717:C:H2'	22:BA:2718:G:O4'	2.19	0.42
22:BA:2887:A:H2'	22:BA:2887:A:N3	2.34	0.42
22:BA:328:U:H2'	22:BA:329:G:OP1	2.19	0.42
22:BA:418:C:H2'	22:BA:419:U:O4'	2.19	0.42
22:BA:420:C:O2'	22:BA:421:C:H5'	2.20	0.42
22:BA:464:U:O2	22:BA:464:U:H2'	2.18	0.42
22:BA:475:C:N3	22:BA:481:G:C6	2.87	0.42
22:BA:820:A:H2'	22:BA:821:A:O4'	2.19	0.42
23:BB:50:A:H2'	23:BB:51:G:O5'	2.19	0.42
24:BC:161:TYR:CD1	24:BC:161:TYR:O	2.73	0.42
28:BG:54:PRO:HG3	28:BG:62:TRP:NE1	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:123:ARG:NH2	1:CA:367:U:H5'	2.33	0.42
35:BN:9:GLN:O	35:BN:10:LEU:C	2.58	0.42
46:BY:23:ARG:O	46:BY:24:GLU:C	2.57	0.42
46:BY:9:LYS:HB3	46:BY:12:GLU:HG3	2.01	0.42
1:CA:1002:G:H2'	1:CA:1003:G:O4'	2.19	0.42
1:CA:1031:C:H4'	1:CA:1032:G:C2	2.53	0.42
1:CA:1081:A:H2'	1:CA:1082:A:O4'	2.19	0.42
1:CA:1177:G:C5	1:CA:1178:G:C5	3.07	0.42
1:CA:1377:A:C4	7:CG:7:ILE:CD1	3.03	0.42
1:CA:797:C:O2'	1:CA:798:U:H5'	2.19	0.42
2:CB:120:GLN:O	2:CB:120:GLN:HG2	2.20	0.42
2:CB:34:ALA:O	2:CB:35:ARG:O	2.38	0.42
4:CD:26:ARG:HD2	4:CD:31:LYS:HE3	2.01	0.42
9:CI:83:ILE:O	9:CI:87:LEU:HG	2.20	0.42
11:CK:107:ILE:HD13	11:CK:107:ILE:C	2.40	0.42
13:CM:60:VAL:CG2	13:CM:65:VAL:HG21	2.50	0.42
15:CO:29:VAL:HG13	15:CO:63:ARG:HG3	2.00	0.42
17:CQ:15:ASP:N	17:CQ:17:MET:HE1	2.34	0.42
17:CQ:46:VAL:CG2	17:CQ:61:ILE:CD1	2.98	0.42
22:DA:1087:G:C2	22:DA:1089:A:C2	3.07	0.42
22:DA:1252:G:H5''	57:DA:3282:HOH:O	2.17	0.42
22:DA:1281:G:H2'	22:DA:1282:U:C6	2.54	0.42
22:DA:1855:U:C6	22:DA:1856:U:C5	3.08	0.42
22:DA:1857:G:C2	22:DA:1884:G:C4	3.08	0.42
22:DA:2201:G:H2'	22:DA:2202:U:C6	2.53	0.42
22:DA:2370:G:C6	22:DA:2371:G:C6	3.08	0.42
22:DA:251:A:H4'	33:DL:47:ARG:NH2	2.35	0.42
22:DA:2540:C:C2	22:DA:2541:A:C8	3.07	0.42
22:DA:2836:U:H2'	22:DA:2837:A:C8	2.55	0.42
22:DA:277:G:C2'	22:DA:361:G:O6	2.67	0.42
22:DA:404:A:H1'	22:DA:405:U:OP2	2.19	0.42
22:DA:513:A:C2	22:DA:514:A:N7	2.87	0.42
22:DA:568:U:H2'	22:DA:570:G:OP2	2.19	0.42
22:DA:56:A:C6	22:DA:57:C:N3	2.87	0.42
22:DA:988:A:P	47:DZ:12:SER:HB3	2.59	0.42
23:DB:68:C:H2'	23:DB:69:G:O4'	2.19	0.42
25:DD:28:GLU:HA	25:DD:185:ASN:O	2.20	0.42
26:DE:81:GLY:HA2	57:DE:301:HOH:O	2.18	0.42
27:DF:104:ILE:O	27:DF:109:PRO:HD3	2.18	0.42
33:DL:68:SER:O	33:DL:69:ARG:HG3	2.19	0.42
34:DM:67:VAL:HG11	34:DM:96:ILE:CD1	2.49	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:83:LEU:HD23	35:DN:86:ARG:NH2	2.35	0.42
35:DN:56:LYS:NZ	35:DN:87:PHE:HB3	2.34	0.42
37:DP:99:TYR:CE2	37:DP:100:LEU:HD21	2.54	0.42
41:DT:63:VAL:HG12	41:DT:64:LYS:N	2.34	0.42
42:DU:3:ALA:O	42:DU:6:ARG:NH1	2.52	0.42
45:DX:18:ARG:HA	45:DX:18:ARG:HD2	1.84	0.42
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.54	0.42
1:AA:1347:G:O2'	1:AA:1348:U:OP2	2.31	0.42
1:AA:219:U:H2'	1:AA:220:G:H8	1.85	0.42
1:AA:343:U:H2'	1:AA:345:C:C5	2.54	0.42
1:AA:35:G:H2'	1:AA:36:C:C6	2.54	0.42
1:AA:459:A:H2'	1:AA:460:A:C8	2.55	0.42
1:AA:601:G:H2'	1:AA:602:A:C8	2.54	0.42
1:AA:615:G:C2	1:AA:616:G:C8	3.08	0.42
1:AA:714:G:H2'	1:AA:715:A:C8	2.54	0.42
1:AA:828:U:C4	1:AA:859:G:C4	3.07	0.42
1:AA:947:G:C6	1:AA:948:C:N3	2.88	0.42
2:AB:27:MET:HE1	2:AB:193:PRO:HB3	2.01	0.42
2:AB:19:GLN:O	2:AB:38:VAL:HG23	2.20	0.42
4:AD:170:TRP:O	4:AD:183:LYS:HB3	2.19	0.42
10:AJ:28:THR:O	10:AJ:28:THR:HG22	2.20	0.42
12:AL:43:LYS:HG3	12:AL:44:LYS:HD3	2.02	0.42
14:AN:46:LEU:CG	14:AN:47:LYS:N	2.82	0.42
20:AT:19:LYS:O	20:AT:22:ALA:HB3	2.19	0.42
53:B5:73:VAL:HB	53:B5:75:VAL:HG23	2.00	0.42
53:B5:79:ALA:HB3	53:B5:95:VAL:HG11	2.00	0.42
22:BA:1007:C:OP1	31:BJ:39:LYS:HD2	2.20	0.42
22:BA:1100:C:H2'	22:BA:1101:U:C6	2.55	0.42
22:BA:1183:U:H2'	22:BA:1184:U:C6	2.54	0.42
22:BA:1738:G:HO2'	22:BA:1739:A:P	2.42	0.42
22:BA:1827:U:H2'	22:BA:1828:G:O5'	2.20	0.42
22:BA:1834:U:H4'	22:BA:1969:A:C6	2.54	0.42
22:BA:216:A:C8	22:BA:432:A:C6	3.07	0.42
22:BA:2590:A:C2	22:BA:2605:U:C2	3.08	0.42
22:BA:372:G:P	45:BX:62:LYS:NZ	2.93	0.42
22:BA:460:A:H2'	22:BA:461:C:O4'	2.19	0.42
22:BA:644:A:C2	22:BA:2369:A:H1'	2.54	0.42
22:BA:830:G:H4'	22:BA:831:G:OP2	2.20	0.42
22:BA:880:G:N2	22:BA:898:C:O2	2.52	0.42
22:BA:959:A:C6	22:BA:960:A:N1	2.87	0.42
24:BC:91:ILE:CD1	24:BC:103:TYR:CD1	3.00	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:77:ILE:CG2	26:BE:77:ILE:O	2.66	0.42
30:BI:75:PRO:HB2	30:BI:78:VAL:HG13	2.01	0.42
33:BL:97:ALA:C	33:BL:99:ASN:H	2.22	0.42
1:CA:976:G:P	1:CA:1358:U:O2'	2.77	0.42
1:CA:1397:C:O2'	1:CA:1398:A:OP1	2.29	0.42
1:CA:1479:C:C2	1:CA:1480:A:C8	3.06	0.42
1:CA:392:C:C2	1:CA:393:A:C8	3.07	0.42
1:CA:686:U:C2	1:CA:687:A:N7	2.87	0.42
1:CA:6:G:O2'	1:CA:298:A:H1'	2.19	0.42
1:CA:826:C:H2'	1:CA:827:U:C6	2.54	0.42
4:CD:58:LYS:NZ	4:CD:59:GLN:OE1	2.45	0.42
5:CE:56:VAL:N	5:CE:57:PRO:CD	2.82	0.42
5:CE:68:ARG:HA	5:CE:71:MET:HE2	2.01	0.42
11:CK:88:GLY:N	11:CK:114:THR:HG22	2.34	0.42
11:CK:59:THR:HA	11:CK:91:PRO:HB3	2.01	0.42
3:CC:30:ALA:HB1	14:CN:65:ARG:NH2	2.34	0.42
16:CP:6:LEU:CD1	16:CP:71:VAL:HG23	2.48	0.42
49:D1:9:ILE:HG13	49:D1:10:LYS:N	2.33	0.42
22:DA:1061:U:H3'	22:DA:1062:G:C5'	2.50	0.42
22:DA:1245:G:H4'	26:DE:33:VAL:HG11	2.02	0.42
22:DA:1358:G:O6	22:DA:1371:G:C8	2.72	0.42
22:DA:1360:G:N1	22:DA:1361:G:H1'	2.33	0.42
22:DA:1361:G:C5	22:DA:1371:G:N2	2.87	0.42
22:DA:1492:G:C5	22:DA:1496:A:N6	2.87	0.42
22:DA:1509:A:C4	22:DA:1510:G:N7	2.87	0.42
22:DA:1622:G:H2'	22:DA:1623:G:O4'	2.20	0.42
22:DA:2063:C:H2'	22:DA:2063:C:O2	2.18	0.42
22:DA:2209:G:C6	22:DA:2210:U:C4	3.08	0.42
22:DA:2285:C:O4'	22:DA:2288:A:C2	2.72	0.42
22:DA:575:A:H1'	22:DA:2500:U:OP1	2.19	0.42
22:DA:291:G:O2'	22:DA:292:U:H5'	2.19	0.42
22:DA:504:A:HO2'	22:DA:505:A:P	2.42	0.42
22:DA:605:G:N7	22:DA:606:U:C5	2.88	0.42
22:DA:621:A:H2'	22:DA:622:G:O4'	2.19	0.42
22:DA:629:G:O6	22:DA:630:G:C6	2.72	0.42
22:DA:783:A:C5	22:DA:785:G:H1'	2.53	0.42
24:DC:93:LEU:HD13	24:DC:103:TYR:CE1	2.54	0.42
22:DA:600:G:H5''	26:DE:27:LEU:HD22	2.02	0.42
22:DA:2444:G:OP2	26:DE:63:LYS:HE2	2.20	0.42
22:DA:2310:C:C4	27:DF:77:PHE:CZ	3.07	0.42
30:DI:103:ARG:O	30:DI:107:GLN:HB2	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2722:G:H4'	35:DN:4:ARG:HB2	2.01	0.42
40:DS:27:LYS:HB2	40:DS:32:ALA:HB2	2.02	0.42
40:DS:5:ALA:O	40:DS:50:VAL:CG1	2.67	0.42
41:DT:21:SER:O	41:DT:22:THR:C	2.57	0.42
42:DU:7:ARG:HD3	42:DU:8:ASP:N	2.34	0.42
42:DU:97:LYS:O	42:DU:98:SER:OG	2.34	0.42
43:DV:6:ALA:CB	43:DV:42:LEU:HD22	2.49	0.42
45:DX:58:VAL:CG1	45:DX:59:ILE:N	2.82	0.42
1:AA:102:G:N1	1:AA:103:U:C4	2.87	0.42
1:AA:1059:C:C2	1:AA:1060:U:C5	3.06	0.42
1:AA:1327:C:C2'	1:AA:1328:C:H5'	2.50	0.42
1:AA:157:U:O2	1:AA:165:G:C6	2.72	0.42
1:AA:232:G:H2'	1:AA:233:C:O4'	2.18	0.42
1:AA:558:G:C4	1:AA:559:A:C2	3.07	0.42
1:AA:64:G:N7	1:AA:99:C:C4	2.88	0.42
1:AA:678:U:H1'	1:AA:777:A:O3'	2.19	0.42
1:AA:760:G:C8	1:AA:761:G:C8	3.08	0.42
4:AD:150:LYS:O	4:AD:152:GLN:HG2	2.19	0.42
4:AD:153:SER:OG	4:AD:154:ARG:N	2.52	0.42
7:AG:40:GLU:O	7:AG:43:VAL:HG23	2.19	0.42
8:AH:59:LEU:HD13	8:AH:60:GLU:N	2.35	0.42
9:AI:50:GLN:C	9:AI:52:LEU:H	2.23	0.42
16:AP:19:VAL:HG13	16:AP:37:GLY:CA	2.49	0.42
16:AP:57:ILE:O	16:AP:61:VAL:HG23	2.20	0.42
20:AT:33:LYS:O	20:AT:35:VAL:N	2.52	0.42
20:AT:7:ALA:HB1	20:AT:10:ARG:HB2	2.02	0.42
51:B3:39:LYS:HA	51:B3:42:ARG:NH2	2.34	0.42
22:BA:1090:A:H2'	22:BA:1091:G:C5'	2.47	0.42
22:BA:1196:C:H1'	22:BA:1226:A:C4	2.54	0.42
22:BA:1385:A:C4	22:BA:1386:C:C5	3.08	0.42
22:BA:1881:C:H2'	22:BA:1882:U:O4'	2.19	0.42
22:BA:528:A:C2	22:BA:2042:A:H2'	2.54	0.42
22:BA:2346:A:H3'	22:BA:2347:C:H5''	2.01	0.42
22:BA:289:G:H2'	22:BA:290:U:O4'	2.20	0.42
22:BA:404:A:C8	22:BA:406:G:C6	3.07	0.42
22:BA:553:G:N7	22:BA:554:U:C5	2.87	0.42
22:BA:638:G:C5	22:BA:651:G:C2	3.07	0.42
22:BA:64:A:C5	22:BA:65:U:C4	3.08	0.42
25:BD:106:LYS:HA	25:BD:175:LEU:O	2.20	0.42
28:BG:37:LEU:HD13	28:BG:68:ALA:HB1	2.01	0.42
29:BH:45:GLU:C	29:BH:47:PHE:N	2.72	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:18:ALA:HB2	30:BI:42:PHE:CZ	2.54	0.42
22:BA:558:U:OP1	31:BJ:113:PRO:HD2	2.19	0.42
1:CA:1159:U:C4	1:CA:1182:G:C5	3.07	0.42
1:CA:1322:C:O4'	1:CA:1322:C:O2	2.36	0.42
1:CA:182:A:C5	1:CA:184:G:C5	3.07	0.42
1:CA:543:U:O2'	1:CA:544:G:H5'	2.19	0.42
1:CA:674:G:OP1	6:CF:86:ARG:NH2	2.39	0.42
1:CA:728:A:N6	1:CA:729:A:N6	2.67	0.42
1:CA:881:G:H2'	1:CA:882:C:O4'	2.18	0.42
1:CA:951:G:C5	1:CA:952:U:C4	3.08	0.42
1:CA:972:C:H4'	10:CJ:59:LYS:CG	2.50	0.42
3:CC:165:THR:O	3:CC:166:GLU:HB3	2.20	0.42
4:CD:150:LYS:O	4:CD:152:GLN:OE1	2.37	0.42
4:CD:173:VAL:HG13	4:CD:174:ASP:N	2.34	0.42
8:CH:92:LEU:HD22	8:CH:113:ASP:HB2	2.01	0.42
10:CJ:37:ARG:O	10:CJ:38:GLY:O	2.38	0.42
11:CK:31:ILE:HB	11:CK:46:THR:HG22	2.02	0.42
12:CL:3:THR:O	12:CL:4:VAL:C	2.57	0.42
13:CM:22:ILE:HG22	13:CM:23:TYR:N	2.34	0.42
20:CT:73:ALA:O	20:CT:77:ALA:N	2.49	0.42
22:DA:121:G:H1'	22:DA:131:A:C2	2.55	0.42
22:DA:1232:G:H2'	22:DA:1233:C:C6	2.55	0.42
22:DA:1248:G:C5	26:DE:46:GLN:NE2	2.88	0.42
22:DA:1258:U:H2'	22:DA:1259:G:C8	2.54	0.42
22:DA:1259:G:H2'	22:DA:1260:A:C8	2.55	0.42
22:DA:1490:A:N3	22:DA:1490:A:H2'	2.35	0.42
22:DA:1619:G:N2	22:DA:1620:G:H1'	2.34	0.42
22:DA:1665:A:N6	22:DA:1666:G:C6	2.87	0.42
22:DA:1838:C:H4'	22:DA:1839:G:C8	2.54	0.42
22:DA:2093:G:O2'	29:DH:25:TYR:HB2	2.19	0.42
22:DA:2128:G:O6	22:DA:2160:C:C4	2.72	0.42
22:DA:2195:U:N3	22:DA:2196:C:C5	2.88	0.42
22:DA:2208:C:C2	22:DA:2217:G:N2	2.87	0.42
22:DA:2209:G:N2	22:DA:2216:G:N3	2.67	0.42
22:DA:430:A:H2'	22:DA:431:U:H5'	2.00	0.42
22:DA:875:G:H2'	22:DA:876:C:O4'	2.19	0.42
22:DA:900:A:C5	22:DA:901:C:C6	3.07	0.42
22:DA:922:C:H2'	22:DA:923:G:C8	2.54	0.42
24:DC:158:ALA:HA	24:DC:195:VAL:HG22	2.02	0.42
24:DC:87:ARG:CZ	24:DC:87:ARG:HB3	2.48	0.42
25:DD:14:ILE:HG12	25:DD:24:VAL:HG21	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:52:VAL:CG2	26:DE:81:GLY:HA2	2.49	0.42
22:DA:2745:C:O2'	28:DG:139:GLN:O	2.37	0.42
32:DK:63:VAL:O	32:DK:64:ARG:CG	2.68	0.42
22:DA:636:G:C6	33:DL:111:ILE:HD11	2.55	0.42
33:DL:81:ASP:O	33:DL:82:LEU:CB	2.66	0.42
22:DA:621:A:OP2	33:DL:99:ASN:OD1	2.38	0.42
35:DN:2:ARG:O	35:DN:3:HIS:C	2.57	0.42
39:DR:39:LEU:O	39:DR:49:ILE:HG12	2.20	0.42
39:DR:69:GLY:O	39:DR:70:GLU:C	2.57	0.42
1:AA:992:U:O2	1:AA:1043:G:N7	2.52	0.42
1:AA:1160:G:N3	1:AA:1161:C:C6	2.87	0.42
1:AA:1277:C:O2'	1:AA:1279:G:C8	2.70	0.42
1:AA:1288:A:N6	1:AA:1289:A:C6	2.88	0.42
1:AA:1462:C:C4	1:AA:1463:U:C5	3.08	0.42
1:AA:155:A:N1	1:AA:167:A:C2	2.87	0.42
1:AA:292:G:N7	1:AA:293:G:H1'	2.34	0.42
1:AA:475:C:H2'	1:AA:476:U:O4'	2.19	0.42
1:AA:785:G:C2'	1:AA:786:G:H5'	2.50	0.42
2:AB:70:VAL:HG21	2:AB:96:TRP:CD1	2.54	0.42
3:AC:53:SER:O	3:AC:54:ARG:HB2	2.19	0.42
3:AC:60:PRO:O	3:AC:61:ALA:O	2.38	0.42
4:AD:38:PRO:HD2	4:AD:42:GLY:CA	2.50	0.42
5:AE:46:VAL:HG11	5:AE:118:ALA:HB2	2.01	0.42
6:AF:99:ALA:O	6:AF:100:SER:HB2	2.20	0.42
6:AF:35:LYS:HD3	6:AF:35:LYS:N	2.35	0.42
7:AG:120:LEU:O	7:AG:124:LEU:HD23	2.19	0.42
9:AI:12:ARG:O	9:AI:13:LYS:C	2.58	0.42
9:AI:11:ARG:HB2	9:AI:15:SER:O	2.20	0.42
11:AK:110:ILE:O	21:AU:6:VAL:HG22	2.18	0.42
11:AK:126:LYS:HD3	11:AK:126:LYS:H	1.83	0.42
11:AK:31:ILE:HB	11:AK:46:THR:HG22	2.00	0.42
11:AK:86:VAL:HG12	11:AK:93:ARG:NH1	2.35	0.42
1:AA:451:A:OP2	16:AP:70:ARG:NH2	2.51	0.42
48:B0:17:ARG:O	48:B0:19:HIS:N	2.53	0.42
53:B5:66:PRO:CG	53:B5:194:ILE:CB	2.97	0.42
22:BA:11:C:C2'	22:BA:12:U:H5'	2.49	0.42
22:BA:1301:A:C4	22:BA:1303:G:C8	3.08	0.42
22:BA:1315:C:C2	22:BA:1338:G:N2	2.88	0.42
22:BA:118:A:N3	22:BA:178:G:H1'	2.33	0.42
22:BA:1936:A:C6	22:BA:1945:G:C4	3.07	0.42
22:BA:2196:C:P	4:CD:151:LYS:HZ1	2.42	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2346:A:C5	22:BA:2383:G:C2	3.08	0.42
22:BA:2360:G:OP1	51:B3:51:SER:OG	2.35	0.42
22:BA:2415:G:C6	22:BA:2416:C:C4	3.07	0.42
22:BA:2458:G:C4	22:BA:2490:G:C2	3.07	0.42
22:BA:2468:A:C2	22:BA:2481:G:C2	3.07	0.42
22:BA:2582:G:O2'	22:BA:2583:G:H5'	2.20	0.42
22:BA:2598:A:OP1	24:BC:235:GLY:N	2.53	0.42
22:BA:4:U:O2	22:BA:2900:A:C2	2.72	0.42
22:BA:661:A:H2'	22:BA:662:G:O4'	2.20	0.42
23:BB:59:A:H2'	23:BB:60:C:O4'	2.20	0.42
24:BC:62:TYR:HD1	24:BC:86:ASN:OD1	2.01	0.42
25:BD:13:ARG:HD3	25:BD:21:SER:OG	2.19	0.42
25:BD:66:GLY:O	25:BD:69:ALA:N	2.52	0.42
25:BD:69:ALA:O	25:BD:72:GLY:N	2.51	0.42
27:BF:75:ALA:O	27:BF:76:GLY:C	2.56	0.42
22:BA:2311:A:C5	27:BF:77:PHE:HB3	2.54	0.42
29:BH:114:GLU:CB	29:BH:133:GLN:O	2.66	0.42
33:BL:23:ILE:HD13	39:BR:84:ARG:HG2	2.00	0.42
33:BL:37:GLY:O	33:BL:41:ARG:HG2	2.19	0.42
36:BO:30:ARG:HG2	36:BO:31:THR:N	2.35	0.42
41:BT:2:ILE:HG12	41:BT:7:LEU:HD11	2.01	0.42
1:CA:1004:A:C6	1:CA:1005:A:N1	2.88	0.42
1:CA:1007:U:H3'	1:CA:1008:U:H5''	2.02	0.42
1:CA:1299:A:N3	1:CA:1299:A:H2'	2.34	0.42
1:CA:237:G:C5	1:CA:238:A:N7	2.86	0.42
1:CA:29:U:H4'	1:CA:295:C:O3'	2.19	0.42
1:CA:302:G:C6	1:CA:303:A:C5	3.08	0.42
1:CA:32:A:N3	1:CA:33:A:C8	2.88	0.42
1:CA:441:A:H5''	1:CA:442:G:OP2	2.19	0.42
1:CA:485:U:O2	1:CA:485:U:O4'	2.37	0.42
1:CA:623:C:C4	1:CA:624:C:C5	3.07	0.42
1:CA:685:G:C2	1:CA:686:U:C4	3.07	0.42
1:CA:834:U:H2'	1:CA:835:U:C6	2.54	0.42
1:CA:997:U:H2'	1:CA:998:C:O4'	2.20	0.42
2:CB:199:VAL:C	2:CB:200:ILE:HD12	2.40	0.42
2:CB:23:TRP:O	2:CB:23:TRP:CD1	2.73	0.42
11:CK:28:ASN:O	11:CK:57:LYS:HE3	2.19	0.42
13:CM:33:ILE:HG23	13:CM:59:GLU:CB	2.50	0.42
14:CN:10:GLU:O	14:CN:14:VAL:HG23	2.19	0.42
14:CN:12:LYS:O	14:CN:14:VAL:N	2.53	0.42
14:CN:68:GLY:O	14:CN:69:ARG:C	2.57	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:57:ASP:N	17:CQ:57:ASP:OD1	2.51	0.42
22:DA:1127:A:C3'	22:DA:1128:G:H5''	2.50	0.42
22:DA:1135:C:H5'	22:DA:1136:G:OP2	2.20	0.42
22:DA:11:C:H2'	22:DA:12:U:H5'	2.01	0.42
22:DA:136:G:C2	22:DA:144:A:C6	3.07	0.42
22:DA:1858:A:C2	22:DA:1859:U:H1'	2.54	0.42
22:DA:187:G:N1	22:DA:210:C:C2	2.88	0.42
22:DA:2100:G:C5	22:DA:2190:G:C6	3.07	0.42
22:DA:2756:U:H4'	22:DA:2757:A:OP1	2.18	0.42
22:DA:2838:G:C6	22:DA:2839:G:C5	3.08	0.42
22:DA:46:G:N2	22:DA:47:C:C2	2.88	0.42
22:DA:677:A:C2	22:DA:802:A:C2	3.07	0.42
22:DA:955:U:O4	22:DA:956:G:O6	2.37	0.42
23:DB:39:A:H2'	23:DB:40:U:C5	2.55	0.42
24:DC:148:PRO:HD2	24:DC:185:GLU:OE2	2.19	0.42
25:DD:133:THR:HG23	25:DD:134:HIS:H	1.85	0.42
26:DE:130:LYS:HB2	26:DE:133:LEU:HB2	2.01	0.42
26:DE:149:ILE:HG13	26:DE:188:MET:HE3	2.01	0.42
27:DF:60:ILE:O	27:DF:102:ARG:NH2	2.52	0.42
27:DF:108:VAL:N	27:DF:109:PRO:CD	2.82	0.42
29:DH:31:VAL:HG12	29:DH:32:PRO:HD3	2.02	0.42
29:DH:69:ALA:HB2	29:DH:138:VAL:HG12	2.02	0.42
29:DH:72:ILE:O	29:DH:72:ILE:CG2	2.67	0.42
30:DI:80:LEU:HD23	30:DI:84:ALA:HB1	2.00	0.42
37:DP:65:SER:O	37:DP:67:GLY:N	2.53	0.42
45:DX:33:LEU:CD2	45:DX:50:ARG:CZ	2.98	0.42
46:DY:9:LYS:O	46:DY:12:GLU:HG3	2.20	0.42
1:AA:1463:U:H2'	1:AA:1464:U:C6	2.54	0.42
1:AA:438:U:C2	1:AA:494:G:N1	2.87	0.42
1:AA:705:G:N7	1:AA:706:A:N7	2.67	0.42
2:AB:28:LYS:HB3	2:AB:29:PRO:HD3	2.02	0.42
2:AB:82:ASP:O	2:AB:83:ALA:C	2.58	0.42
4:AD:150:LYS:HE2	4:AD:177:LYS:O	2.20	0.42
4:AD:48:LEU:HD21	4:AD:53:VAL:HG12	2.02	0.42
5:AE:81:LEU:HD23	5:AE:123:VAL:CG1	2.50	0.42
5:AE:75:ALA:O	5:AE:82:GLN:NE2	2.52	0.42
6:AF:3:HIS:O	6:AF:4:TYR:CG	2.73	0.42
10:AJ:29:ALA:HA	10:AJ:32:THR:CG2	2.49	0.42
10:AJ:80:THR:O	10:AJ:84:VAL:N	2.50	0.42
12:AL:55:VAL:HG21	12:AL:80:ILE:HD11	2.01	0.42
22:BA:1184:U:H2'	22:BA:1185:G:O5'	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1450:G:O6	22:BA:1451:C:N4	2.53	0.42
22:BA:1583:A:O2'	22:BA:1584:U:O5'	2.36	0.42
22:BA:2129:C:H2'	22:BA:2130:U:C6	2.54	0.42
22:BA:2136:G:H2'	22:BA:2137:U:C6	2.54	0.42
22:BA:2219:U:H2'	22:BA:2220:U:O5'	2.20	0.42
22:BA:222:A:C5	22:BA:224:U:C2	3.07	0.42
22:BA:2296:U:C2	22:BA:2333:A:C2	3.07	0.42
22:BA:2297:A:C2	22:BA:2321:U:H5	2.37	0.42
22:BA:236:C:O2'	22:BA:237:C:H5'	2.20	0.42
22:BA:2473:U:O2	22:BA:2473:U:H2'	2.19	0.42
22:BA:2880:C:C2	22:BA:2881:U:C5	3.08	0.42
22:BA:28:A:C5	22:BA:29:U:C5	3.07	0.42
22:BA:27:G:N2	22:BA:512:G:H1'	2.34	0.42
22:BA:735:A:C8	22:BA:736:C:C5	3.08	0.42
22:BA:851:C:C2'	22:BA:852:U:O5'	2.68	0.42
23:BB:24:G:N7	23:BB:56:G:H2'	2.34	0.42
23:BB:96:G:O2'	23:BB:97:C:H5'	2.19	0.42
25:BD:65:ALA:O	25:BD:66:GLY:C	2.57	0.42
27:BF:31:VAL:HG23	27:BF:96:MET:SD	2.60	0.42
29:BH:116:ARG:HB3	29:BH:131:SER:O	2.20	0.42
29:BH:118:PRO:O	29:BH:119:ASN:CB	2.68	0.42
29:BH:89:LYS:O	29:BH:90:LEU:C	2.58	0.42
31:BJ:112:GLY:O	31:BJ:116:ARG:HG3	2.20	0.42
31:BJ:80:HIS:O	31:BJ:83:GLY:N	2.50	0.42
38:BQ:105:ALA:O	38:BQ:108:ALA:HB3	2.20	0.42
39:BR:68:ARG:NH1	39:BR:90:ARG:HD3	2.35	0.42
1:CA:1186:G:H4'	9:CI:112:GLU:CD	2.40	0.42
1:CA:1394:A:H4'	1:CA:1395:C:OP2	2.19	0.42
1:CA:1435:G:O6	1:CA:1465:A:N6	2.53	0.42
1:CA:296:U:C2	1:CA:297:G:C8	3.07	0.42
1:CA:328:C:O2	1:CA:328:C:H2'	2.19	0.42
1:CA:402:G:H4'	1:CA:620:C:O2	2.20	0.42
2:CB:54:LEU:HA	2:CB:57:LEU:CB	2.47	0.42
3:CC:150:LYS:HB2	3:CC:169:ARG:CG	2.50	0.42
4:CD:187:GLU:O	4:CD:190:ASP:HB2	2.19	0.42
7:CG:78:ARG:O	7:CG:79:ARG:HB2	2.20	0.42
13:CM:45:ILE:O	13:CM:45:ILE:HG22	2.20	0.42
16:CP:43:ALA:O	16:CP:46:LYS:CG	2.68	0.42
17:CQ:52:GLU:HG2	17:CQ:53:CYS:N	2.35	0.42
20:CT:25:ARG:O	20:CT:26:SER:C	2.57	0.42
21:CU:14:VAL:HG13	21:CU:15:ALA:N	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1262:A:C2	22:DA:1263:U:C2	3.08	0.42
22:DA:1394:U:H3'	22:DA:1394:U:H6	1.85	0.42
22:DA:1422:G:N2	22:DA:1577:C:H1'	2.34	0.42
22:DA:158:U:C4	22:DA:159:G:C5	3.08	0.42
22:DA:1805:A:N3	24:DC:50:THR:HB	2.34	0.42
22:DA:1884:G:O2'	22:DA:1885:A:OP2	2.33	0.42
22:DA:1998:A:H4'	22:DA:2724:U:O2'	2.19	0.42
22:DA:1751:U:O4'	22:DA:2860:A:C2	2.73	0.42
22:DA:305:C:O2	22:DA:313:G:C2	2.73	0.42
22:DA:477:A:C4	22:DA:478:A:C8	3.08	0.42
22:DA:500:G:C2	22:DA:502:A:C8	3.08	0.42
22:DA:578:G:O2'	22:DA:580:U:OP2	2.31	0.42
22:DA:659:G:C5	22:DA:660:C:C5	3.08	0.42
22:DA:732:C:C5	22:DA:733:G:N7	2.88	0.42
22:DA:742:A:H2'	22:DA:743:A:C8	2.54	0.42
22:DA:846:U:O2'	22:DA:847:U:P	2.73	0.42
22:DA:965:C:H5''	57:DA:3336:HOH:O	2.20	0.42
23:DB:29:A:N1	23:DB:56:G:C6	2.88	0.42
22:DA:2820:A:O2'	25:DD:114:LYS:HD3	2.20	0.42
25:DD:125:TRP:HB3	25:DD:160:LYS:HD3	2.01	0.42
27:DF:154:ILE:HG22	27:DF:155:THR:N	2.34	0.42
27:DF:178:ARG:O	27:DF:178:ARG:CZ	2.68	0.42
28:DG:117:LEU:HB3	28:DG:121:ILE:O	2.20	0.42
29:DH:41:LYS:HE2	29:DH:44:ILE:CD1	2.50	0.42
33:DL:29:LYS:O	33:DL:30:THR:OG1	2.28	0.42
35:DN:106:ASP:C	35:DN:106:ASP:OD1	2.57	0.42
35:DN:55:ALA:HB1	35:DN:80:PHE:H	1.83	0.42
38:DQ:47:TYR:C	38:DQ:47:TYR:CD1	2.93	0.42
22:DA:993:G:H1'	39:DR:91:GLN:OE1	2.20	0.42
40:DS:33:LEU:HD21	40:DS:52:GLU:CG	2.49	0.42
22:DA:2013:A:OP1	40:DS:96:ILE:HA	2.20	0.42
41:DT:21:SER:O	41:DT:24:MET:N	2.50	0.42
42:DU:96:PHE:CE1	42:DU:103:ILE:CG1	3.02	0.42
46:DY:46:VAL:O	46:DY:50:VAL:HG23	2.19	0.42
1:AA:1000:A:N1	1:AA:1041:G:N1	2.67	0.42
1:AA:1074:G:O3'	2:AB:102:THR:CG2	2.67	0.42
1:AA:1419:G:C4	1:AA:1420:U:C5	3.07	0.42
1:AA:782:A:H4'	1:AA:1514:G:O2'	2.19	0.42
1:AA:172:A:C6	1:AA:174:A:C8	3.07	0.42
1:AA:284:C:H2'	1:AA:285:C:C6	2.54	0.42
1:AA:134:G:H1'	1:AA:325:A:C5	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:558:G:C5	1:AA:559:A:C2	3.08	0.42
1:AA:666:G:C6	1:AA:741:G:C6	3.08	0.42
1:AA:787:A:H2'	1:AA:788:U:O5'	2.19	0.42
3:AC:39:VAL:HG23	3:AC:40:ARG:N	2.35	0.42
4:AD:98:LEU:HD23	4:AD:118:VAL:CG2	2.50	0.42
4:AD:191:LEU:HD12	4:AD:192:SER:OG	2.20	0.42
5:AE:151:GLU:C	5:AE:153:VAL:N	2.73	0.42
9:AI:105:THR:HG22	9:AI:106:ARG:N	2.35	0.42
10:AJ:65:TYR:HH	14:AN:85:ARG:HD2	1.85	0.42
12:AL:41:THR:HG22	12:AL:49:LEU:HD12	2.01	0.42
14:AN:90:ARG:HB2	14:AN:92:GLU:HG3	2.01	0.42
16:AP:45:GLU:O	16:AP:46:LYS:O	2.37	0.42
16:AP:39:PHE:CG	16:AP:74:LEU:HD11	2.54	0.42
17:AQ:41:THR:CG2	17:AQ:42:THR:N	2.82	0.42
20:AT:54:MET:CE	20:AT:58:VAL:HG21	2.49	0.42
49:B1:4:GLY:C	49:B1:6:ARG:H	2.22	0.42
22:BA:1066:U:O2	22:BA:1069:A:C8	2.73	0.42
22:BA:1173:U:H2'	22:BA:1174:U:O5'	2.19	0.42
22:BA:123:G:H2'	22:BA:124:G:O4'	2.20	0.42
22:BA:1360:G:C6	22:BA:1372:U:C2	3.08	0.42
22:BA:1605:C:C3'	22:BA:1606:C:C5'	2.98	0.42
22:BA:1730:C:H4'	22:BA:1730:C:OP1	2.17	0.42
22:BA:2895:G:H2'	22:BA:2896:C:C6	2.55	0.42
22:BA:749:A:N3	22:BA:1618:A:H2'	2.34	0.42
22:BA:776:G:C8	22:BA:793:A:N3	2.88	0.42
26:BE:108:ILE:HG13	26:BE:109:LEU:N	2.35	0.42
30:BI:125:MET:HA	30:BI:128:SER:HB3	2.01	0.42
22:BA:1009:A:P	31:BJ:39:LYS:NZ	2.92	0.42
32:BK:4:GLU:O	32:BK:5:GLN:HB2	2.20	0.42
32:BK:73:ASP:OD1	32:BK:75:SER:OG	2.25	0.42
35:BN:69:ARG:O	35:BN:70:THR:HG23	2.19	0.42
42:BU:61:LYS:CE	42:BU:62:GLU:OE1	2.68	0.42
45:BX:66:THR:O	45:BX:69:ALA:HB3	2.20	0.42
1:CA:1431:A:C6	1:CA:1432:G:O6	2.72	0.42
1:CA:1483:A:H5''	1:CA:1484:C:OP2	2.20	0.42
1:CA:49:U:C4	1:CA:364:A:C6	3.08	0.42
1:CA:546:A:OP1	4:CD:69:GLU:HB3	2.20	0.42
1:CA:632:U:H3'	1:CA:633:G:H5'	2.02	0.42
1:CA:880:C:C2'	1:CA:881:G:H5'	2.50	0.42
1:CA:992:U:O4'	1:CA:993:G:C2	2.73	0.42
2:CB:152:LYS:HG3	2:CB:153:ASP:N	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:156:ARG:HD3	3:CC:160:ALA:O	2.18	0.42
4:CD:12:SER:HA	4:CD:19:LEU:CD1	2.50	0.42
4:CD:59:GLN:O	4:CD:63:ARG:HG3	2.20	0.42
8:CH:83:LEU:HD22	8:CH:83:LEU:C	2.39	0.42
9:CI:28:ILE:HG21	9:CI:35:LEU:HD13	2.02	0.42
14:CN:36:ALA:HB2	14:CN:41:ARG:HG3	2.02	0.42
17:CQ:49:GLU:C	17:CQ:50:ASN:CG	2.77	0.42
1:CA:264:C:O2'	17:CQ:66:PRO:O	2.33	0.42
18:CR:58:ALA:O	18:CR:59:ILE:C	2.58	0.42
19:CS:15:LEU:HD22	19:CS:35:SER:HB3	2.01	0.42
22:DA:2361:G:OP1	51:D3:26:HIS:HA	2.20	0.42
22:DA:2755:C:C4	52:D4:19:ARG:NH1	2.88	0.42
22:DA:1352:U:H5	57:DA:3392:HOH:O	2.03	0.42
22:DA:1364:G:N2	22:DA:1367:A:OP2	2.41	0.42
22:DA:1512:C:C4	22:DA:1513:U:C4	3.07	0.42
22:DA:1607:C:O2	22:DA:1621:U:C4	2.73	0.42
22:DA:1370:C:C4'	22:DA:1810:A:H2	2.33	0.42
22:DA:2201:G:H2'	22:DA:2202:U:H6	1.85	0.42
22:DA:2209:G:C5	22:DA:2210:U:C4	3.08	0.42
22:DA:222:A:C5	22:DA:224:U:C2	3.08	0.42
22:DA:228:C:O2	22:DA:418:C:H4'	2.20	0.42
22:DA:228:C:H5''	22:DA:229:C:C6	2.55	0.42
22:DA:2552:U:N3	22:DA:2554:U:H5'	2.35	0.42
22:DA:2732:G:H3'	22:DA:2733:A:O4'	2.19	0.42
22:DA:2840:C:H4'	35:DN:94:TYR:OH	2.20	0.42
22:DA:321:U:H4'	26:DE:159:LEU:O	2.20	0.42
22:DA:402:A:C2'	22:DA:403:U:H5'	2.50	0.42
22:DA:545:U:H3'	22:DA:545:U:O2	2.20	0.42
22:DA:569:U:C4	22:DA:570:G:C6	3.08	0.42
22:DA:681:G:C4	22:DA:682:G:C8	3.07	0.42
22:DA:777:G:H21	22:DA:778:G:H1'	1.85	0.42
23:DB:29:A:C2	23:DB:56:G:C2	3.07	0.42
23:DB:58:A:C8	23:DB:59:A:N7	2.88	0.42
23:DB:81:G:C4	23:DB:82:U:C6	3.07	0.42
22:DA:2820:A:C8	25:DD:196:ALA:HB1	2.55	0.42
25:DD:2:ILE:HD13	25:DD:90:PHE:CZ	2.55	0.42
30:DI:67:PHE:CD1	30:DI:67:PHE:N	2.88	0.42
31:DJ:31:GLU:HB3	31:DJ:142:ILE:HG12	2.02	0.42
31:DJ:41:LYS:CE	31:DJ:52:ASP:OD1	2.68	0.42
32:DK:22:ILE:O	32:DK:23:LYS:HB2	2.20	0.42
36:DO:36:TYR:N	36:DO:36:TYR:CD2	2.88	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:47:TYR:CZ	38:DQ:51:ARG:CZ	3.02	0.42
22:DA:64:A:H5''	41:DT:77:ARG:HA	2.02	0.42
43:DV:15:GLY:O	43:DV:19:ARG:HG3	2.20	0.42
45:DX:7:VAL:HG12	45:DX:8:THR:HG23	2.01	0.42
41:DT:8:LEU:HD22	46:DY:26:PHE:HB2	2.01	0.42
1:AA:4:U:O2	1:AA:4:U:C2'	2.67	0.42
1:AA:626:G:H2'	1:AA:627:G:O4'	2.19	0.42
1:AA:631:C:H3'	1:AA:632:U:H5'	2.02	0.42
1:AA:749:A:H2'	1:AA:750:C:H6	1.85	0.42
1:AA:771:G:O2'	1:AA:772:U:H5'	2.19	0.42
1:AA:790:A:C6	1:AA:791:G:C6	3.08	0.42
2:AB:148:LEU:C	2:AB:151:ILE:HG22	2.40	0.42
2:AB:161:LEU:HD13	2:AB:176:ALA:HB2	2.02	0.42
5:AE:34:THR:HG22	5:AE:52:LYS:HE2	2.01	0.42
7:AG:145:ALA:C	7:AG:147:ALA:H	2.23	0.42
12:AL:35:THR:O	12:AL:36:ARG:HD2	2.19	0.42
12:AL:44:LYS:HB3	12:AL:45:PRO:HD3	2.01	0.42
12:AL:72:HIS:ND1	12:AL:72:HIS:C	2.73	0.42
19:AS:15:LEU:O	19:AS:19:VAL:HG23	2.20	0.42
20:AT:57:ILE:HD12	20:AT:60:ARG:HD2	2.01	0.42
20:AT:69:LYS:HB2	20:AT:70:ASN:OD1	2.20	0.42
21:AU:40:LYS:HA	21:AU:43:THR:HG23	2.02	0.42
22:BA:120:U:H5''	22:BA:122:G:OP2	2.18	0.42
22:BA:1867:G:C2'	22:BA:1868:C:H5'	2.50	0.42
22:BA:1914:C:C2'	22:BA:1915:U:O5'	2.67	0.42
22:BA:2583:G:C2'	22:BA:2584:U:O5'	2.67	0.42
22:BA:43:G:C2'	22:BA:44:A:H5'	2.50	0.42
22:BA:468:G:O6	22:BA:469:G:C2	2.72	0.42
22:BA:548:G:H4'	22:BA:549:G:N2	2.34	0.42
22:BA:662:G:O3'	33:BL:16:GLY:HA2	2.19	0.42
22:BA:68:G:H2'	22:BA:69:C:O4'	2.20	0.42
22:BA:817:C:H2'	22:BA:818:G:O4'	2.20	0.42
22:BA:959:A:N1	22:BA:960:A:C2	2.88	0.42
22:BA:967:U:H2'	22:BA:968:C:C6	2.54	0.42
24:BC:245:VAL:CA	24:BC:250:VAL:O	2.68	0.42
26:BE:119:ILE:O	26:BE:187:VAL:HA	2.20	0.42
27:BF:27:GLN:O	27:BF:28:VAL:C	2.57	0.42
27:BF:79:ILE:HG21	27:BF:85:ILE:HD12	2.00	0.42
29:BH:82:SER:HG	29:BH:90:LEU:HG	1.85	0.42
30:BI:112:THR:O	30:BI:114:ALA:N	2.53	0.42
34:BM:50:ARG:O	34:BM:53:MET:HG2	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BN:108:ALA:O	35:BN:110:MET:HG2	2.20	0.42
43:BV:50:MET:HE2	43:BV:56:PHE:CE1	2.55	0.42
1:CA:112:G:C2'	1:CA:113:G:H5'	2.50	0.42
1:CA:1144:G:H5''	1:CA:1145:A:OP2	2.20	0.42
1:CA:257:G:C2	1:CA:270:A:N1	2.87	0.42
1:CA:109:A:H2'	1:CA:326:G:N2	2.35	0.42
1:CA:468:A:O4'	1:CA:468:A:N3	2.52	0.42
1:CA:620:C:H2'	1:CA:621:A:O4'	2.20	0.42
1:CA:705:G:N2	11:CK:31:ILE:HD12	2.35	0.42
1:CA:666:G:C5	1:CA:741:G:C6	3.08	0.42
2:CB:186:ILE:HA	2:CB:200:ILE:HB	2.00	0.42
4:CD:97:ARG:O	4:CD:98:LEU:C	2.57	0.42
11:CK:87:LYS:HA	11:CK:114:THR:HG22	2.02	0.42
11:CK:20:VAL:HB	11:CK:35:THR:CG2	2.50	0.42
1:CA:35:G:N2	12:CL:115:SER:OG	2.48	0.42
12:CL:75:GLN:O	12:CL:76:GLU:C	2.58	0.42
13:CM:18:ALA:HB2	13:CM:45:ILE:HD11	2.02	0.42
13:CM:77:ILE:O	13:CM:81:MET:HG3	2.19	0.42
15:CO:32:LEU:O	15:CO:36:ILE:HG13	2.20	0.42
22:DA:1095:A:H2'	22:DA:1096:A:C4	2.55	0.42
22:DA:1311:G:N2	22:DA:1604:C:N4	2.68	0.42
22:DA:1509:A:C5	22:DA:1510:G:N7	2.87	0.42
22:DA:1539:U:N3	22:DA:1540:G:N7	2.68	0.42
22:DA:1669:A:H3'	22:DA:1669:A:N3	2.35	0.42
1:CA:1494:G:O2'	22:DA:1912:A:O2'	2.21	0.42
22:DA:1831:G:O6	22:DA:1973:G:O6	2.38	0.42
22:DA:2148:G:C2	22:DA:2149:U:C5	3.08	0.42
22:DA:2199:A:C4'	29:DH:28:ASN:CG	2.88	0.42
22:DA:2199:A:N7	22:DA:2225:A:N6	2.68	0.42
22:DA:2540:C:H2'	22:DA:2541:A:O4'	2.20	0.42
22:DA:2638:G:O2'	22:DA:2775:G:N2	2.43	0.42
22:DA:2760:C:O2'	22:DA:2761:A:H5'	2.19	0.42
22:DA:2823:A:H2'	22:DA:2824:C:H5'	2.02	0.42
22:DA:454:A:C3'	22:DA:455:C:H5'	2.50	0.42
22:DA:590:A:H2'	22:DA:591:U:C6	2.54	0.42
22:DA:687:C:N3	22:DA:788:A:H5'	2.35	0.42
22:DA:792:A:H1'	22:DA:2072:C:O2'	2.19	0.42
23:DB:109:A:C5	23:DB:110:C:C4	3.08	0.42
29:DH:121:VAL:O	29:DH:122:LEU:CB	2.67	0.42
29:DH:127:GLU:HA	29:DH:144:VAL:O	2.19	0.42
36:DO:92:PHE:HB2	36:DO:117:PHE:CD1	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:92:VAL:C	37:DP:93:ARG:O	2.58	0.42
41:DT:65:GLY:HA3	41:DT:77:ARG:HB3	2.01	0.42
42:DU:9:ASP:OD1	42:DU:9:ASP:C	2.58	0.42
1:AA:1014:A:O4'	19:AS:34:TRP:CZ3	2.72	0.42
1:AA:1157:A:C5	1:AA:1180:A:C6	3.08	0.42
1:AA:1288:A:C2	1:AA:1289:A:C4	3.07	0.42
1:AA:1312:G:N2	1:AA:1313:U:C2	2.88	0.42
1:AA:1330:U:C4	1:AA:1331:G:C6	3.07	0.42
1:AA:1431:A:H8	1:AA:1431:A:O5'	2.03	0.42
1:AA:195:A:H1'	1:AA:222:C:O2'	2.20	0.42
1:AA:81:A:H2'	1:AA:82:G:H5"	2.02	0.42
1:AA:914:A:C6	1:AA:915:A:N7	2.88	0.42
10:AJ:52:LEU:CB	14:AN:81:ARG:NE	2.83	0.42
16:AP:44:SER:OG	16:AP:46:LYS:HG3	2.20	0.42
20:AT:82:GLN:O	20:AT:83:ILE:C	2.58	0.42
22:BA:1613:G:O2'	50:B2:3:ARG:HD2	2.19	0.42
52:B4:37:GLN:O	52:B4:37:GLN:NE2	2.44	0.42
22:BA:577:G:O2'	22:BA:1254:A:OP1	2.38	0.42
22:BA:189:G:P	45:BX:26:LYS:HE3	2.60	0.42
22:BA:1915:U:C2'	22:BA:1916:A:H5'	2.50	0.42
22:BA:1924:C:H2'	22:BA:1925:C:H5'	2.02	0.42
22:BA:207:A:O2'	22:BA:799:G:C4'	2.68	0.42
22:BA:2286:G:C5'	22:BA:2287:A:O5'	2.68	0.42
22:BA:2507:C:N4	22:BA:2508:G:C6	2.87	0.42
22:BA:2659:G:P	28:BG:158:LYS:HZ1	2.43	0.42
22:BA:2746:U:H2'	22:BA:2747:G:H5'	2.02	0.42
22:BA:2852:G:C6	22:BA:2853:C:C4	3.08	0.42
22:BA:457:A:O4'	22:BA:459:U:C6	2.73	0.42
22:BA:549:G:N3	22:BA:549:G:O4'	2.52	0.42
22:BA:713:G:C6	22:BA:714:U:C4	3.08	0.42
22:BA:86:G:N2	22:BA:97:C:C2	2.88	0.42
23:BB:18:G:C6	23:BB:19:C:C4	3.08	0.42
24:BC:146:MET:CG	24:BC:154:LEU:HD21	2.49	0.42
24:BC:252:THR:HG22	24:BC:253:LYS:H	1.84	0.42
26:BE:59:PRO:CD	26:BE:71:GLY:O	2.67	0.42
26:BE:7:ASP:OD1	26:BE:8:ALA:N	2.45	0.42
28:BG:125:CYS:HA	28:BG:130:GLU:O	2.20	0.42
29:BH:104:THR:CG2	29:BH:110:VAL:O	2.68	0.42
30:BI:34:ASN:HB2	30:BI:37:GLU:HB2	2.01	0.42
33:BL:129:LYS:O	33:BL:130:GLY:C	2.58	0.42
33:BL:29:LYS:CG	33:BL:30:THR:N	2.80	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:97:ALA:C	33:BL:99:ASN:N	2.73	0.42
42:BU:4:LYS:O	42:BU:5:ILE:HD13	2.20	0.42
42:BU:74:ASN:O	42:BU:75:ALA:C	2.56	0.42
1:CA:1002:G:C5	1:CA:1003:G:C8	3.08	0.42
1:CA:1195:C:C4	1:CA:1197:A:N7	2.88	0.42
1:CA:1239:A:H4'	1:CA:1240:U:H5''	2.00	0.42
1:CA:382:A:H2'	1:CA:383:A:C8	2.54	0.42
1:CA:38:G:N2	1:CA:397:A:N3	2.68	0.42
1:CA:309:A:O2'	1:CA:607:A:N1	2.37	0.42
1:CA:957:U:O2	1:CA:959:A:C8	2.72	0.42
2:CB:131:LYS:O	2:CB:135:LEU:N	2.47	0.42
2:CB:16:PHE:CZ	2:CB:18:HIS:NE2	2.87	0.42
3:CC:172:ARG:NH1	3:CC:174:PRO:HG3	2.34	0.42
3:CC:117:ALA:HB1	3:CC:187:SER:HB3	2.02	0.42
5:CE:132:ASN:O	5:CE:136:VAL:HG12	2.19	0.42
7:CG:111:ARG:CZ	7:CG:122:ASN:HB3	2.50	0.42
7:CG:38:THR:HG23	7:CG:38:THR:O	2.20	0.42
7:CG:51:ALA:HB2	7:CG:58:GLU:HA	2.01	0.42
9:CI:26:GLY:CA	9:CI:61:LEU:O	2.68	0.42
12:CL:82:ILE:CD1	12:CL:95:TYR:CB	2.98	0.42
20:CT:25:ARG:HD2	20:CT:29:ARG:NH1	2.34	0.42
21:CU:14:VAL:C	21:CU:16:LEU:HG	2.39	0.42
22:DA:1224:U:H4'	39:DR:88:GLY:O	2.20	0.42
22:DA:1338:G:O6	41:DT:66:LYS:NZ	2.45	0.42
22:DA:1352:U:C5	22:DA:1377:G:O6	2.73	0.42
22:DA:1441:G:H2'	22:DA:1442:U:C6	2.55	0.42
22:DA:1620:G:C6	22:DA:1621:U:C4	3.08	0.42
22:DA:1664:A:H1'	22:DA:2726:A:N1	2.35	0.42
22:DA:729:G:N3	22:DA:1775:U:H1'	2.35	0.42
22:DA:1874:C:H3'	22:DA:1875:G:C8	2.55	0.42
22:DA:249:C:P	22:DA:2394:C:O2'	2.78	0.42
22:DA:265:A:C8	22:DA:428:A:C2	3.08	0.42
22:DA:303:G:N1	22:DA:304:U:C2	2.88	0.42
22:DA:38:A:H4'	26:DE:45:ALA:HB2	2.02	0.42
22:DA:491:G:C6	22:DA:492:A:C5	3.08	0.42
22:DA:590:A:C5	22:DA:591:U:C4	3.08	0.42
22:DA:729:G:H2'	22:DA:1775:U:H1'	2.02	0.42
22:DA:848:C:H2'	22:DA:849:A:C8	2.55	0.42
22:DA:848:C:H2'	22:DA:849:A:H8	1.85	0.42
22:DA:912:C:C4	22:DA:913:U:O4	2.73	0.42
22:DA:981:A:H5''	22:DA:982:C:OP2	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:64:G:C6	23:DB:65:U:C4	3.08	0.42
23:DB:68:C:O2'	23:DB:69:G:H5'	2.20	0.42
27:DF:136:ILE:O	27:DF:136:ILE:HG22	2.20	0.42
29:DH:31:VAL:HB	29:DH:32:PRO:HD2	2.00	0.42
32:DK:28:SER:O	32:DK:29:HIS:HB2	2.19	0.42
22:DA:633:A:H5''	33:DL:70:LYS:HD2	2.01	0.42
34:DM:57:VAL:HG11	34:DM:105:MET:HE2	2.01	0.42
41:DT:10:VAL:HG12	41:DT:11:LEU:N	2.34	0.42
42:DU:67:VAL:CG1	42:DU:67:VAL:O	2.68	0.42
1:AA:1014:A:C4	19:AS:34:TRP:CZ3	3.08	0.41
1:AA:1049:U:O4'	1:AA:1201:A:C8	2.72	0.41
1:AA:1050:G:H2'	1:AA:1050:G:N3	2.34	0.41
1:AA:1055:A:C4	1:AA:1206:G:C2	3.08	0.41
1:AA:1100:C:O2'	1:AA:1102:A:OP1	2.33	0.41
1:AA:1213:A:C8	1:AA:1215:G:C6	3.08	0.41
1:AA:1313:U:C2	1:AA:1314:C:C5	3.08	0.41
1:AA:1313:U:N3	1:AA:1314:C:C5	2.88	0.41
1:AA:1347:G:HO2'	1:AA:1348:U:P	2.42	0.41
1:AA:976:G:H1'	1:AA:1363:A:N6	2.35	0.41
1:AA:1362:A:H5''	1:AA:1363:A:OP2	2.19	0.41
1:AA:1417:G:O6	1:AA:1482:G:C6	2.73	0.41
1:AA:168:G:H5'	1:AA:169:C:OP2	2.20	0.41
1:AA:232:G:C5	1:AA:233:C:C5	3.08	0.41
1:AA:258:G:C5	1:AA:259:G:C8	3.07	0.41
1:AA:410:G:H5''	1:AA:411:A:P	2.60	0.41
1:AA:543:U:O2'	1:AA:544:G:H5'	2.20	0.41
1:AA:545:C:H5'	4:AD:69:GLU:CG	2.50	0.41
2:AB:136:MET:N	2:AB:136:MET:SD	2.93	0.41
3:AC:53:SER:CB	3:AC:115:LEU:HG	2.50	0.41
3:AC:112:ASP:O	3:AC:116:VAL:HG23	2.20	0.41
3:AC:150:LYS:HA	3:AC:168:TYR:O	2.20	0.41
3:AC:114:LYS:HD3	3:AC:185:ASN:OD1	2.20	0.41
3:AC:27:LYS:H	3:AC:27:LYS:HD2	1.85	0.41
4:AD:23:SER:O	4:AD:24:GLY:C	2.58	0.41
5:AE:140:THR:H	5:AE:140:THR:HG1	1.54	0.41
5:AE:151:GLU:C	5:AE:153:VAL:H	2.23	0.41
7:AG:46:ALA:HB3	7:AG:120:LEU:HD12	2.02	0.41
8:AH:64:LYS:HE2	8:AH:64:LYS:HB3	1.87	0.41
17:AQ:18:GLU:O	17:AQ:19:LYS:HB2	2.20	0.41
19:AS:50:ALA:HB1	19:AS:57:HIS:CB	2.49	0.41
53:B5:52:PRO:HG3	53:B5:205:ALA:O	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1020:A:C2	22:BA:1141:U:O2	2.72	0.41
22:BA:1045:C:H3'	22:BA:1046:A:C5'	2.50	0.41
22:BA:1650:A:N6	57:BA:3803:HOH:O	2.53	0.41
22:BA:1686:C:C2'	22:BA:1687:G:H5'	2.50	0.41
22:BA:1708:C:H2'	22:BA:1709:U:C6	2.55	0.41
22:BA:194:G:H2'	22:BA:195:A:H5'	2.01	0.41
22:BA:1952:A:C5	32:BK:22:ILE:HG21	2.55	0.41
22:BA:2112:G:H2'	22:BA:2112:G:N3	2.35	0.41
22:BA:2492:U:H2'	22:BA:2493:U:O5'	2.20	0.41
22:BA:2695:U:O2'	22:BA:2696:U:H5'	2.20	0.41
22:BA:521:U:H2'	22:BA:522:A:C8	2.55	0.41
22:BA:563:A:N1	22:BA:564:C:N3	2.68	0.41
22:BA:2786:U:O2'	25:BD:63:PRO:O	2.35	0.41
26:BE:42:GLY:HA3	26:BE:90:GLN:O	2.19	0.41
26:BE:84:THR:HG22	26:BE:85:PHE:CD2	2.55	0.41
27:BF:8:TYR:OH	27:BF:30:ARG:HG2	2.21	0.41
28:BG:10:VAL:HG23	28:BG:48:ASN:O	2.20	0.41
29:BH:139:PHE:O	29:BH:140:ALA:HB3	2.20	0.41
29:BH:1:MET:HE3	29:BH:23:ALA:HA	2.02	0.41
35:BN:65:LEU:O	35:BN:65:LEU:HD12	2.20	0.41
23:BB:8:C:O2'	36:BO:40:ILE:HD13	2.20	0.41
39:BR:66:HIS:ND1	39:BR:94:THR:HB	2.34	0.41
1:CA:108:G:C6	20:CT:10:ARG:HG2	2.55	0.41
1:CA:1148:U:C5	1:CA:1149:C:C5	3.08	0.41
1:CA:1151:A:N3	1:CA:1152:A:C8	2.88	0.41
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.56	0.41
1:CA:1388:C:H2'	1:CA:1389:C:H6	1.85	0.41
1:CA:142:G:C2	1:CA:143:A:H1'	2.54	0.41
1:CA:247:G:C5	1:CA:278:G:C2	3.08	0.41
1:CA:309:A:H5''	16:CP:29:ASN:O	2.20	0.41
1:CA:425:G:H2'	1:CA:426:U:O4'	2.20	0.41
1:CA:68:G:C5	1:CA:69:G:H1'	2.54	0.41
1:CA:69:G:H3'	1:CA:70:U:C6	2.55	0.41
1:CA:914:A:C6	1:CA:915:A:C5	3.08	0.41
1:CA:940:C:H2'	1:CA:941:G:C8	2.55	0.41
2:CB:15:HIS:O	2:CB:16:PHE:C	2.57	0.41
3:CC:42:TYR:CE1	3:CC:46:GLU:CG	3.03	0.41
5:CE:69:ARG:HG3	5:CE:70:ASN:OD1	2.20	0.41
6:CF:3:HIS:CE1	6:CF:65:GLU:HG3	2.55	0.41
10:CJ:52:LEU:CD2	10:CJ:59:LYS:HA	2.50	0.41
13:CM:73:ILE:O	13:CM:77:ILE:HG13	2.19	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:58:VAL:HA	19:CS:59:PRO:HD3	1.93	0.41
21:CU:25:LYS:HD3	21:CU:26:ALA:H	1.85	0.41
22:DA:1045:C:H1'	22:DA:1047:G:C6	2.55	0.41
22:DA:1051:G:C5	22:DA:1052:C:C4	3.08	0.41
22:DA:1276:A:C2	22:DA:1295:C:O2	2.73	0.41
22:DA:1319:C:H2'	22:DA:1320:C:H5'	2.01	0.41
22:DA:1324:G:C2	22:DA:1328:A:C6	3.07	0.41
22:DA:1358:G:H2'	22:DA:1359:A:OP2	2.19	0.41
22:DA:1364:G:N3	22:DA:1368:G:C2	2.88	0.41
22:DA:1495:A:C6	22:DA:1496:A:C6	3.09	0.41
22:DA:1473:G:C4	22:DA:1519:G:C2	3.08	0.41
22:DA:1606:C:O2'	22:DA:1607:C:P	2.77	0.41
22:DA:2024:G:C4	22:DA:2040:G:N2	2.88	0.41
22:DA:2114:A:H2'	22:DA:2114:A:N3	2.34	0.41
22:DA:2467:C:O2	34:DM:123:LYS:NZ	2.52	0.41
22:DA:2632:A:O2'	22:DA:2633:G:H5'	2.19	0.41
22:DA:2671:G:C2	22:DA:2672:U:C2	3.08	0.41
22:DA:2714:G:C5	22:DA:2715:C:C5	3.08	0.41
22:DA:425:G:C2	22:DA:426:C:N3	2.88	0.41
22:DA:693:A:C5	22:DA:694:U:C5	3.07	0.41
22:DA:707:G:C2'	22:DA:708:G:H5'	2.49	0.41
25:DD:1:MET:HG2	25:DD:205:PRO:HG2	2.02	0.41
30:DI:76:ALA:O	30:DI:80:LEU:HD12	2.20	0.41
1:AA:1374:A:N3	1:AA:1375:A:C8	2.88	0.41
1:AA:283:U:C4	1:AA:284:C:C5	3.08	0.41
1:AA:71:A:C3'	1:AA:71:A:OP2	2.67	0.41
1:AA:785:G:N2	1:AA:798:U:C2	2.88	0.41
1:AA:880:C:OP1	12:AL:9:ARG:NH2	2.52	0.41
2:AB:35:ARG:CB	2:AB:40:ILE:HD11	2.49	0.41
4:AD:160:GLU:O	4:AD:163:GLU:OE1	2.38	0.41
4:AD:91:LEU:HD21	4:AD:195:ILE:HD12	2.01	0.41
5:AE:100:SER:O	5:AE:101:GLU:O	2.37	0.41
8:AH:75:ILE:HD13	8:AH:129:VAL:HG13	2.02	0.41
10:AJ:53:ILE:CG2	10:AJ:61:ALA:HB1	2.48	0.41
10:AJ:10:LEU:HG	10:AJ:98:VAL:HG12	2.01	0.41
13:AM:19:LEU:O	13:AM:25:VAL:HG21	2.19	0.41
19:AS:80:TYR:CD1	19:AS:81:ARG:N	2.88	0.41
21:AU:11:PRO:C	21:AU:12:PHE:CD1	2.94	0.41
48:B0:30:VAL:HG12	48:B0:35:GLY:HA2	2.02	0.41
53:B5:42:VAL:O	53:B5:179:ALA:N	2.53	0.41
22:BA:1734:G:C2	22:BA:1735:A:C8	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1825:U:H2'	22:BA:1826:G:C8	2.55	0.41
22:BA:1853:A:N6	22:BA:1889:A:C4	2.87	0.41
22:BA:1917:U:H5'	22:BA:1918:A:OP2	2.20	0.41
22:BA:1826:G:O2'	22:BA:1971:U:OP2	2.38	0.41
22:BA:2204:G:C4	22:BA:2205:A:C8	3.07	0.41
22:BA:2249:U:O2'	22:BA:2252:G:OP2	2.24	0.41
22:BA:2258:C:H4'	22:BA:2259:U:OP2	2.20	0.41
22:BA:310:A:O2'	22:BA:311:A:P	2.78	0.41
22:BA:435:C:C2'	22:BA:436:C:H5'	2.50	0.41
22:BA:511:U:C5	22:BA:512:G:C4	3.07	0.41
22:BA:584:C:P	38:BQ:6:ARG:HG3	2.61	0.41
22:BA:675:A:OP1	26:BE:58:LYS:NZ	2.35	0.41
22:BA:744:U:H2'	22:BA:745:G:O4'	2.19	0.41
24:BC:53:HIS:CE1	24:BC:219:THR:HA	2.55	0.41
24:BC:65:VAL:HG12	24:BC:67:PHE:CE2	2.55	0.41
22:BA:2733:A:C5	25:BD:208:LYS:HE2	2.56	0.41
27:BF:52:ASN:CG	27:BF:147:ASP:OD2	2.57	0.41
28:BG:24:ILE:HD11	28:BG:43:VAL:HG11	2.01	0.41
28:BG:62:TRP:O	28:BG:63:ALA:C	2.56	0.41
33:BL:49:GLY:O	33:BL:51:GLU:HG3	2.20	0.41
37:BP:96:LYS:HB3	37:BP:98:TYR:CE2	2.55	0.41
38:BQ:35:ALA:O	38:BQ:38:ALA:N	2.53	0.41
39:BR:62:GLU:O	39:BR:64:VAL:HG12	2.19	0.41
41:BT:40:LYS:HD3	41:BT:58:VAL:O	2.20	0.41
43:BV:61:LEU:HD13	43:BV:61:LEU:N	2.35	0.41
1:CA:116:A:C2	1:CA:117:G:H1'	2.54	0.41
1:CA:1197:A:C2	1:CA:1198:G:C8	3.08	0.41
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.54	0.41
1:CA:1413:A:N1	1:CA:1488:G:C2	2.88	0.41
1:CA:17:U:N3	1:CA:18:C:C4	2.88	0.41
1:CA:184:G:C2	1:CA:185:U:C2	3.08	0.41
1:CA:386:C:C4	1:CA:387:U:C4	3.08	0.41
1:CA:389:A:C6	1:CA:390:U:H1'	2.55	0.41
1:CA:40:C:H2'	1:CA:41:G:O4'	2.20	0.41
1:CA:414:A:C2	1:CA:415:A:C4	3.08	0.41
1:CA:563:A:N7	1:CA:567:G:H1'	2.35	0.41
1:CA:706:A:C4	1:CA:707:U:C5	3.09	0.41
1:CA:836:G:C6	1:CA:851:G:C5	3.08	0.41
1:CA:851:G:N3	1:CA:851:G:H2'	2.35	0.41
3:CC:72:ARG:HB3	3:CC:75:ILE:HG22	2.01	0.41
5:CE:154:ALA:C	5:CE:156:LYS:N	2.72	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:90:THR:HG22	5:CE:91:GLY:N	2.35	0.41
6:CF:38:ARG:HG3	6:CF:63:ASN:CB	2.49	0.41
6:CF:81:ASN:OD1	6:CF:82:ASP:N	2.53	0.41
7:CG:101:MET:HA	7:CG:104:ILE:HD12	2.02	0.41
7:CG:46:ALA:HB2	7:CG:117:ALA:CA	2.50	0.41
11:CK:74:VAL:HG23	11:CK:74:VAL:O	2.19	0.41
18:CR:23:TYR:HA	18:CR:29:LEU:HD21	2.02	0.41
22:DA:1355:G:O6	22:DA:1377:G:N2	2.53	0.41
22:DA:154:U:H2'	22:DA:155:A:C8	2.55	0.41
22:DA:1710:G:C6	22:DA:1749:A:C2	3.08	0.41
22:DA:1809:A:H2'	22:DA:1810:A:H8	1.85	0.41
22:DA:183:C:H1'	22:DA:433:C:H1'	2.01	0.41
22:DA:1930:G:O2'	22:DA:1931:U:OP2	2.38	0.41
22:DA:2345:G:C4	22:DA:2347:C:C5	3.08	0.41
22:DA:277:G:H3'	22:DA:277:G:N3	2.35	0.41
22:DA:2838:G:C6	22:DA:2839:G:C6	3.08	0.41
22:DA:2902:C:OP1	22:DA:2903:U:C6	2.73	0.41
22:DA:404:A:O4'	22:DA:405:U:OP2	2.38	0.41
22:DA:46:G:N2	22:DA:47:C:N1	2.68	0.41
22:DA:636:G:O2'	22:DA:638:G:O2'	2.34	0.41
25:DD:173:GLN:O	25:DD:175:LEU:N	2.53	0.41
26:DE:21:ARG:HD3	26:DE:106:LYS:HB3	2.01	0.41
27:DF:70:ALA:HB3	27:DF:80:ARG:O	2.20	0.41
28:DG:44:LYS:N	28:DG:44:LYS:HE3	2.35	0.41
28:DG:90:VAL:HG21	28:DG:163:ARG:NE	2.35	0.41
29:DH:40:THR:OG1	29:DH:43:ASN:ND2	2.53	0.41
30:DI:20:PRO:HB2	30:DI:23:PRO:HG2	2.02	0.41
38:DQ:65:ILE:HD11	38:DQ:95:LEU:HB2	2.01	0.41
41:DT:7:LEU:HD22	41:DT:46:ALA:HA	2.02	0.41
42:DU:59:VAL:CG1	42:DU:61:LYS:HD3	2.50	0.41
1:AA:1014:A:N7	1:AA:1015:G:C4	2.88	0.41
1:AA:1306:A:C2	1:AA:1307:U:C1'	3.04	0.41
1:AA:1504:G:H3'	57:AA:1802:HOH:O	2.19	0.41
1:AA:220:G:O2'	1:AA:221:C:H5'	2.21	0.41
1:AA:507:C:N3	1:AA:508:U:C5	2.89	0.41
1:AA:790:A:H2'	1:AA:791:G:C8	2.55	0.41
1:AA:803:G:C6	1:AA:804:U:N3	2.89	0.41
1:AA:934:C:H4'	1:AA:935:A:OP1	2.20	0.41
1:AA:963:G:C4	1:AA:964:A:C8	3.08	0.41
2:AB:132:LYS:HG3	2:AB:133:GLU:N	2.36	0.41
4:AD:15:GLU:HG3	4:AD:19:LEU:HD11	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:136:VAL:CG2	5:AE:137:VAL:N	2.83	0.41
5:AE:74:VAL:HG11	5:AE:144:LEU:HB3	2.02	0.41
5:AE:94:VAL:CG2	5:AE:95:PHE:N	2.83	0.41
7:AG:13:LEU:H	7:AG:13:LEU:HD22	1.84	0.41
7:AG:15:ASP:C	7:AG:15:ASP:OD1	2.58	0.41
9:AI:50:GLN:O	9:AI:52:LEU:N	2.54	0.41
9:AI:25:ASN:HB3	9:AI:59:GLU:OE1	2.20	0.41
9:AI:80:ARG:C	9:AI:80:ARG:HD2	2.41	0.41
10:AJ:48:ARG:HD3	14:AN:101:TRP:CZ3	2.55	0.41
14:AN:87:ALA:O	14:AN:92:GLU:HB2	2.20	0.41
15:AO:83:GLU:O	15:AO:86:GLY:N	2.53	0.41
16:AP:77:GLU:C	16:AP:79:ASN:N	2.74	0.41
17:AQ:12:VAL:HG11	17:AQ:55:ILE:HA	2.02	0.41
17:AQ:15:ASP:HA	17:AQ:21:ILE:HD11	2.01	0.41
17:AQ:79:VAL:HG12	17:AQ:80:GLU:HG3	2.02	0.41
21:AU:4:ILE:CA	21:AU:20:LYS:HE3	2.49	0.41
21:AU:53:VAL:CG1	21:AU:54:LYS:N	2.83	0.41
22:BA:1047:G:H1'	22:BA:1110:G:N2	2.35	0.41
22:BA:1157:G:H2'	22:BA:1157:G:N3	2.35	0.41
22:BA:1333:G:C2	22:BA:1334:G:C8	3.08	0.41
22:BA:1489:C:C2	22:BA:1501:G:N2	2.89	0.41
22:BA:1808:A:N1	45:BX:28:ARG:HD2	2.35	0.41
22:BA:1826:G:H2'	22:BA:1827:U:H6	1.84	0.41
22:BA:1939:U:O4'	22:BA:2591:C:O2'	2.30	0.41
22:BA:827:U:H2'	22:BA:2068:U:C2	2.55	0.41
22:BA:2557:G:H2'	22:BA:2558:C:C6	2.54	0.41
22:BA:2673:G:N3	22:BA:2674:G:C8	2.89	0.41
22:BA:2808:G:N1	22:BA:2891:U:C5	2.88	0.41
22:BA:2885:G:H2'	22:BA:2886:A:C5'	2.50	0.41
22:BA:320:A:H4'	22:BA:322:A:N7	2.35	0.41
22:BA:749:A:H4'	22:BA:1271:G:N3	2.35	0.41
22:BA:914:G:H3'	22:BA:914:G:C8	2.55	0.41
24:BC:3:VAL:HG12	24:BC:19:VAL:HG22	2.02	0.41
24:BC:212:ARG:HA	24:BC:212:ARG:HD2	1.82	0.41
22:BA:574:A:C2	25:BD:150:GLN:OE1	2.73	0.41
30:BI:54:PRO:O	30:BI:75:PRO:HD2	2.21	0.41
31:BJ:5:THR:HB	31:BJ:6:ALA:O	2.20	0.41
32:BK:118:LEU:O	32:BK:119:ALA:CB	2.68	0.41
33:BL:20:GLY:HA2	33:BL:28:GLY:HA2	2.01	0.41
37:BP:113:ARG:O	37:BP:114:LEU:O	2.39	0.41
42:BU:26:LYS:HA	42:BU:26:LYS:HD2	1.90	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1192:C:C5	1:CA:1193:G:C8	3.08	0.41
1:CA:1246:A:C2	1:CA:1247:U:C2	3.08	0.41
1:CA:1289:A:H2'	1:CA:1290:G:H5'	2.01	0.41
1:CA:1480:A:C2	1:CA:1481:U:C2	3.08	0.41
1:CA:173:U:C2	1:CA:197:A:N1	2.88	0.41
1:CA:436:C:H2'	1:CA:437:U:C6	2.55	0.41
1:CA:784:A:H2'	1:CA:785:G:O4'	2.20	0.41
1:CA:888:G:H4'	1:CA:1488:G:O2'	2.20	0.41
2:CB:184:PHE:CD2	2:CB:198:PHE:HB2	2.55	0.41
2:CB:90:PHE:HB3	2:CB:150:GLY:O	2.20	0.41
3:CC:174:PRO:O	3:CC:176:HIS:N	2.53	0.41
5:CE:16:ILE:HD12	5:CE:16:ILE:N	2.35	0.41
7:CG:116:MET:O	7:CG:120:LEU:N	2.52	0.41
7:CG:66:LEU:HD23	7:CG:70:ARG:NE	2.35	0.41
11:CK:25:ALA:O	11:CK:89:PRO:O	2.38	0.41
12:CL:47:SER:O	12:CL:48:ALA:HB2	2.20	0.41
17:CQ:31:HIS:CG	17:CQ:32:PRO:HD2	2.56	0.41
19:CS:55:ARG:NE	19:CS:79:THR:HG22	2.35	0.41
20:CT:51:PHE:CD2	20:CT:51:PHE:C	2.93	0.41
22:DA:1090:A:C6	22:DA:1102:C:O2	2.73	0.41
22:DA:1045:C:N4	22:DA:1111:A:H2'	2.35	0.41
22:DA:160:A:N6	22:DA:161:A:N6	2.69	0.41
22:DA:1635:A:C8	22:DA:1636:U:C5	3.08	0.41
22:DA:1819:A:H4'	22:DA:1820:U:H5''	2.03	0.41
22:DA:1833:C:N4	22:DA:1834:U:C4	2.88	0.41
22:DA:2131:U:O4'	22:DA:2133:G:H1'	2.19	0.41
22:DA:2127:G:N3	22:DA:2162:G:C8	2.89	0.41
22:DA:2225:A:H4'	22:DA:2226:C:O5'	2.20	0.41
22:DA:2341:G:H2'	22:DA:2342:C:C6	2.55	0.41
22:DA:2371:G:N1	22:DA:2372:U:C5	2.88	0.41
22:DA:2324:U:O2	22:DA:2385:C:N4	2.53	0.41
22:DA:247:G:N7	22:DA:249:C:N1	2.68	0.41
22:DA:2520:C:O2'	22:DA:2565:A:O2'	2.20	0.41
22:DA:2757:A:N1	28:DG:67:THR:CG2	2.78	0.41
22:DA:2691:C:HO2'	22:DA:2871:U:HO2'	1.68	0.41
22:DA:289:G:C2	22:DA:352:A:N1	2.88	0.41
22:DA:616:A:H4'	26:DE:101:TYR:CE2	2.54	0.41
22:DA:676:A:H2	22:DA:2069:G:N3	2.18	0.41
22:DA:703:U:C5	22:DA:704:G:C6	3.08	0.41
22:DA:712:G:C2	22:DA:720:U:O2	2.74	0.41
22:DA:861:A:N3	23:DB:79:G:O2'	2.49	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:221:ARG:NH1	24:DC:224:ALA:HB2	2.36	0.41
25:DD:121:THR:HG21	25:DD:143:PRO:HB3	2.03	0.41
26:DE:182:ALA:CB	33:DL:3:LEU:HD22	2.50	0.41
32:DK:99:ILE:HD12	32:DK:99:ILE:N	2.34	0.41
33:DL:110:VAL:CG2	33:DL:127:VAL:HG22	2.50	0.41
33:DL:29:LYS:O	33:DL:30:THR:HG23	2.20	0.41
33:DL:85:VAL:HG23	33:DL:86:GLU:N	2.35	0.41
39:DR:78:ARG:CB	39:DR:83:TYR:CD1	3.03	0.41
1:AA:1050:G:C2	1:AA:1209:C:O2	2.72	0.41
1:AA:1329:A:C2'	1:AA:1330:U:H5'	2.49	0.41
1:AA:149:A:H1'	1:AA:1446:A:C2	2.56	0.41
1:AA:145:G:N2	1:AA:178:C:C2	2.89	0.41
1:AA:191:G:H2'	1:AA:192:A:C8	2.55	0.41
1:AA:194:C:H2'	1:AA:195:A:H5'	2.03	0.41
1:AA:464:U:C2	1:AA:466:A:H5''	2.55	0.41
1:AA:592:G:C2	1:AA:593:U:C2	3.09	0.41
1:AA:724:G:N1	1:AA:725:G:C5	2.88	0.41
1:AA:825:A:O2'	1:AA:826:C:H5'	2.20	0.41
2:AB:161:LEU:HD12	2:AB:181:ILE:CG2	2.50	0.41
2:AB:47:VAL:C	2:AB:49:MET:N	2.73	0.41
4:AD:6:GLY:O	4:AD:7:PRO:C	2.58	0.41
6:AF:47:LEU:HD13	6:AF:51:ILE:CG2	2.47	0.41
8:AH:2:SER:O	8:AH:3:MET:C	2.58	0.41
9:AI:30:ILE:HB	9:AI:65:ILE:HG12	2.02	0.41
10:AJ:52:LEU:HD22	10:AJ:62:ARG:CG	2.49	0.41
11:AK:67:ALA:HB1	11:AK:100:LEU:HD13	2.03	0.41
10:AJ:65:TYR:HB3	14:AN:96:LEU:HD11	2.01	0.41
20:AT:82:GLN:O	20:AT:85:LYS:HB2	2.20	0.41
22:BA:1072:C:C2	22:BA:1093:G:O6	2.74	0.41
22:BA:1131:G:N2	22:BA:2024:G:H21	2.18	0.41
22:BA:142:A:C5	22:BA:143:C:N3	2.88	0.41
22:BA:1525:A:C5	22:BA:1526:C:C6	3.09	0.41
22:BA:1988:G:H2'	22:BA:1989:G:O4'	2.20	0.41
22:BA:2018:G:H2'	22:BA:2019:A:C8	2.56	0.41
22:BA:2298:A:N1	22:BA:2321:U:C4	2.88	0.41
22:BA:197:A:H62	22:BA:2430:A:H2'	1.84	0.41
22:BA:2519:U:C5	22:BA:2541:A:C6	3.09	0.41
22:BA:271:G:C2	22:BA:272:A:C4	3.09	0.41
22:BA:563:A:N1	22:BA:564:C:C2	2.88	0.41
22:BA:573:U:O2'	22:BA:574:A:H3'	2.21	0.41
22:BA:732:C:H2'	22:BA:733:G:O4'	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:826:U:O2'	33:BL:53:GLY:CA	2.68	0.41
23:BB:46:A:C5	23:BB:47:C:C4	3.08	0.41
23:BB:92:C:O2'	23:BB:93:C:H5'	2.20	0.41
23:BB:94:A:C6	23:BB:95:U:C4	3.09	0.41
24:BC:76:ALA:HB2	24:BC:96:TYR:CG	2.55	0.41
22:BA:320:A:H2'	26:BE:131:THR:HG21	2.02	0.41
27:BF:94:GLU:HG3	27:BF:98:GLU:OE1	2.20	0.41
29:BH:90:LEU:HD13	29:BH:125:THR:HA	2.03	0.41
32:BK:17:ARG:HA	32:BK:17:ARG:HD3	1.88	0.41
32:BK:23:LYS:HE2	32:BK:23:LYS:HB2	1.80	0.41
34:BM:42:THR:HG22	34:BM:93:VAL:CG1	2.49	0.41
36:BO:98:GLN:O	36:BO:100:HIS:N	2.53	0.41
39:BR:52:PRO:O	39:BR:53:PHE:O	2.38	0.41
41:BT:44:LYS:HG3	41:BT:55:VAL:HG11	2.02	0.41
43:BV:89:ILE:HG22	43:BV:90:ASP:N	2.33	0.41
1:CA:1097:C:C2	1:CA:1098:C:C6	3.09	0.41
1:CA:110:C:C4	1:CA:111:G:C5	3.08	0.41
1:CA:1306:A:C2	1:CA:1307:U:C2	3.08	0.41
1:CA:1349:A:C2	1:CA:1374:A:C4	3.09	0.41
1:CA:1371:G:H2'	1:CA:1372:U:O4'	2.21	0.41
1:CA:420:U:O2'	1:CA:421:U:H5''	2.20	0.41
1:CA:555:U:C2	1:CA:556:C:C5	3.09	0.41
1:CA:577:G:O2'	1:CA:578:C:H5'	2.20	0.41
1:CA:667:G:N1	1:CA:740:U:C2	2.88	0.41
1:CA:715:A:O2'	1:CA:716:A:H5'	2.20	0.41
1:CA:779:C:C2'	1:CA:780:A:H5'	2.51	0.41
1:CA:890:G:HO2'	1:CA:906:A:H61	1.68	0.41
1:CA:947:G:H2'	1:CA:948:C:O4'	2.20	0.41
2:CB:111:ILE:O	2:CB:114:LEU:HB3	2.21	0.41
11:CK:112:ASP:C	11:CK:112:ASP:OD1	2.58	0.41
11:CK:112:ASP:OD1	11:CK:114:THR:HG23	2.21	0.41
12:CL:25:GLU:CG	12:CL:27:CYS:SG	3.09	0.41
13:CM:19:LEU:O	13:CM:22:ILE:CD1	2.69	0.41
6:CF:50:PRO:CD	18:CR:74:HIS:HB3	2.50	0.41
48:D0:33:THR:HG22	48:D0:34:SER:N	2.35	0.41
22:DA:2526:G:O2'	52:D4:34:LYS:HE3	2.20	0.41
22:DA:1418:G:C2	22:DA:1579:A:N7	2.89	0.41
22:DA:1483:G:N3	22:DA:1483:G:H2'	2.34	0.41
22:DA:1746:A:H2'	22:DA:1747:U:C6	2.56	0.41
22:DA:740:C:C5'	22:DA:1784:A:H3'	2.49	0.41
22:DA:1799:G:OP2	24:DC:258:ARG:HD2	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1965:C:OP1	22:DA:1966:A:O2'	2.31	0.41
22:DA:2133:G:H2'	22:DA:2157:G:N2	2.34	0.41
22:DA:2212:A:C2	22:DA:2214:C:C4	3.08	0.41
22:DA:2782:G:OP2	22:DA:2782:G:C8	2.73	0.41
22:DA:279:A:H61	22:DA:361:G:C2'	2.34	0.41
22:DA:693:A:H2'	22:DA:694:U:C6	2.56	0.41
22:DA:777:G:N3	22:DA:778:G:C8	2.88	0.41
22:DA:875:G:N2	22:DA:903:C:O2	2.53	0.41
24:DC:212:ARG:C	24:DC:214:ARG:H	2.23	0.41
25:DD:30:GLU:O	25:DD:31:ALA:C	2.59	0.41
25:DD:46:ARG:O	25:DD:47:ALA:HB2	2.20	0.41
28:DG:94:TYR:HA	28:DG:106:SER:O	2.21	0.41
29:DH:135:HIS:CG	29:DH:136:SER:N	2.89	0.41
22:DA:538:A:O2'	31:DJ:8:PRO:CD	2.68	0.41
35:DN:54:LEU:CD2	35:DN:66:ALA:HB2	2.50	0.41
37:DP:39:ARG:HA	37:DP:39:ARG:HE	1.85	0.41
39:DR:38:VAL:CG2	39:DR:38:VAL:O	2.67	0.41
41:DT:8:LEU:HD23	41:DT:50:LEU:HD21	2.03	0.41
43:DV:20:LEU:HD22	43:DV:26:PHE:HA	2.02	0.41
45:DX:36:HIS:ND1	45:DX:37:ARG:O	2.53	0.41
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.55	0.41
1:AA:1075:U:OP1	2:AB:102:THR:HG21	2.20	0.41
1:AA:1242:G:C6	1:AA:1243:C:C4	3.09	0.41
1:AA:1273:C:H2'	1:AA:1274:A:O4'	2.21	0.41
1:AA:1441:A:C2'	1:AA:1442:G:O5'	2.65	0.41
1:AA:29:U:O2'	1:AA:30:U:H5'	2.20	0.41
1:AA:406:G:C2	1:AA:407:U:C6	3.08	0.41
1:AA:423:G:H2'	1:AA:424:G:O4'	2.21	0.41
1:AA:452:A:C8	1:AA:452:A:H3'	2.55	0.41
1:AA:49:U:O4	1:AA:365:U:C5	2.73	0.41
1:AA:596:A:C5	1:AA:645:G:N2	2.88	0.41
1:AA:74:A:H2'	1:AA:75:G:C1'	2.51	0.41
1:AA:953:G:H2'	1:AA:954:G:H5'	2.02	0.41
1:AA:989:U:H2'	1:AA:990:C:O5'	2.20	0.41
1:AA:1074:G:O3'	2:AB:102:THR:HG22	2.20	0.41
2:AB:145:GLU:O	2:AB:149:GLY:N	2.53	0.41
4:AD:161:LEU:HD23	4:AD:162:ALA:N	2.35	0.41
4:AD:4:TYR:O	4:AD:5:LEU:HB2	2.21	0.41
8:AH:43:GLU:OE2	8:AH:43:GLU:HA	2.20	0.41
1:AA:1342:C:O2'	9:AI:126:GLN:CG	2.68	0.41
9:AI:46:MET:N	9:AI:46:MET:SD	2.80	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:3:ARG:O	13:AM:4:ILE:O	2.38	0.41
15:AO:67:LEU:HD22	15:AO:88:ARG:NH2	2.35	0.41
15:AO:88:ARG:HB2	15:AO:88:ARG:CZ	2.50	0.41
22:BA:122:G:C2'	22:BA:123:G:H5'	2.50	0.41
22:BA:1406:U:C2'	22:BA:1407:G:O5'	2.68	0.41
22:BA:1413:A:H2'	22:BA:1414:C:O4'	2.21	0.41
22:BA:1445:G:C5	22:BA:1446:C:C4	3.08	0.41
22:BA:1588:G:C4	22:BA:1589:U:C5	3.09	0.41
22:BA:1971:U:H4'	22:BA:1971:U:OP2	2.20	0.41
22:BA:2130:U:OP2	22:BA:2132:U:O4	2.38	0.41
22:BA:2516:A:O2'	22:BA:2517:C:H5'	2.21	0.41
22:BA:29:U:H2'	22:BA:30:G:C8	2.55	0.41
22:BA:880:G:C2	22:BA:898:C:O2	2.73	0.41
24:BC:141:VAL:CG1	24:BC:190:ALA:HB1	2.50	0.41
24:BC:79:GLU:N	24:BC:93:LEU:O	2.51	0.41
27:BF:146:VAL:HG23	27:BF:146:VAL:O	2.20	0.41
29:BH:33:GLN:O	29:BH:35:LYS:N	2.53	0.41
31:BJ:81:ILE:CG2	31:BJ:82:GLY:N	2.78	0.41
35:BN:25:ALA:HB1	35:BN:48:VAL:HG22	2.03	0.41
41:BT:65:GLY:N	41:BT:79:ASP:OD1	2.41	0.41
42:BU:36:VAL:O	42:BU:37:GLU:C	2.58	0.41
46:BY:5:GLU:HG3	46:BY:56:LEU:HD11	2.01	0.41
1:CA:1062:U:O4	3:CC:3:GLN:HG3	2.21	0.41
1:CA:1309:G:C6	1:CA:1329:A:N1	2.88	0.41
1:CA:1478:U:C2	1:CA:1479:C:C5	3.09	0.41
1:CA:1503:A:C4	1:CA:1531:A:N3	2.89	0.41
1:CA:442:G:C6	1:CA:443:C:N4	2.89	0.41
1:CA:81:A:C2	1:CA:89:U:C2	3.08	0.41
2:CB:85:LEU:C	2:CB:85:LEU:HD12	2.41	0.41
3:CC:40:ARG:HA	3:CC:55:ILE:CD1	2.51	0.41
5:CE:36:LEU:HD21	5:CE:137:VAL:CG1	2.51	0.41
5:CE:76:LEU:HD12	5:CE:76:LEU:H	1.84	0.41
18:CR:59:ILE:HG22	18:CR:63:ARG:HD2	2.03	0.41
21:CU:40:LYS:HB3	21:CU:41:PRO:HD3	2.02	0.41
50:D2:31:LEU:HD21	50:D2:43:THR:CG2	2.50	0.41
22:DA:1176:U:C4	22:DA:1177:G:C6	3.08	0.41
22:DA:1177:G:H2'	22:DA:1178:C:C4'	2.50	0.41
22:DA:1253:A:O2'	22:DA:1254:A:H5'	2.21	0.41
22:DA:1298:C:N4	22:DA:1299:G:C6	2.88	0.41
22:DA:1362:C:C4	22:DA:1363:C:C5	3.08	0.41
22:DA:1526:C:H2'	22:DA:1527:G:O5'	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1444:G:N2	22:DA:1548:A:N3	2.68	0.41
22:DA:176:A:N7	22:DA:177:G:C6	2.88	0.41
22:DA:1775:U:P	57:DA:3444:HOH:O	2.78	0.41
22:DA:1936:A:H2	22:DA:1943:U:N3	2.16	0.41
22:DA:2024:G:C2	22:DA:2040:G:N3	2.88	0.41
22:DA:2134:A:C2	22:DA:2135:A:C4	3.09	0.41
22:DA:2235:G:C5	22:DA:2236:U:C5	3.08	0.41
22:DA:2330:G:N2	22:DA:2386:A:C4	2.88	0.41
22:DA:2378:A:N7	22:DA:2379:G:H1'	2.35	0.41
22:DA:2421:G:N7	51:D3:31:HIS:CD2	2.88	0.41
22:DA:2478:A:C8	22:DA:2529:G:N7	2.88	0.41
22:DA:2506:U:O4	22:DA:2585:U:O4	2.38	0.41
22:DA:2727:A:N1	22:DA:2728:U:C4	2.88	0.41
22:DA:277:G:H1'	22:DA:361:G:O6	2.20	0.41
22:DA:2839:G:C5	22:DA:2840:C:C5	3.08	0.41
22:DA:299:A:N7	22:DA:300:A:C6	2.89	0.41
22:DA:355:U:H2'	22:DA:356:G:C8	2.55	0.41
22:DA:491:G:C5	22:DA:492:A:C5	3.08	0.41
22:DA:673:C:H5''	26:DE:76:PRO:HD2	2.02	0.41
22:DA:771:G:C6	22:DA:772:C:C5	3.09	0.41
22:DA:836:G:C6	22:DA:837:C:C4	3.08	0.41
22:DA:900:A:C2'	22:DA:901:C:H5'	2.51	0.41
23:DB:56:G:H4'	23:DB:57:A:OP1	2.21	0.41
24:DC:68:LYS:CG	24:DC:151:GLY:HA2	2.50	0.41
26:DE:52:VAL:O	26:DE:74:LYS:HD3	2.21	0.41
30:DI:121:ASP:O	30:DI:124:ALA:HB3	2.20	0.41
30:DI:46:THR:CG2	30:DI:51:LYS:HG3	2.50	0.41
30:DI:91:GLY:O	30:DI:93:PRO:HD3	2.21	0.41
23:DB:90:C:H5'	34:DM:18:ARG:HG2	2.01	0.41
39:DR:12:HIS:CE1	39:DR:22:LEU:HD22	2.55	0.41
41:DT:34:VAL:HG22	41:DT:81:LYS:O	2.21	0.41
42:DU:96:PHE:CZ	42:DU:103:ILE:HG13	2.56	0.41
43:DV:42:LEU:N	43:DV:42:LEU:HD23	2.36	0.41
45:DX:69:ALA:O	45:DX:71:LEU:N	2.53	0.41
1:AA:946:A:C2	1:AA:1236:A:C2	3.09	0.41
1:AA:124:C:C2'	1:AA:125:U:H5'	2.51	0.41
1:AA:125:U:C2'	1:AA:126:G:H5'	2.50	0.41
1:AA:1313:U:O4	1:AA:1314:C:N4	2.53	0.41
1:AA:1379:G:C5	1:AA:1380:U:C5	3.09	0.41
1:AA:1497:G:HO2'	1:AA:1518:A:H2	1.63	0.41
1:AA:283:U:C4	1:AA:284:C:C4	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:418:C:N4	57:AA:1718:HOH:O	2.53	0.41
2:AB:165:ASP:C	2:AB:165:ASP:OD1	2.58	0.41
3:AC:7:PRO:O	3:AC:11:ARG:HG3	2.20	0.41
3:AC:167:TRP:CE3	3:AC:167:TRP:C	2.94	0.41
3:AC:83:ASP:O	3:AC:84:VAL:C	2.58	0.41
4:AD:2:ALA:O	4:AD:68:LEU:CD2	2.68	0.41
5:AE:99:ALA:C	5:AE:101:GLU:N	2.71	0.41
5:AE:151:GLU:O	5:AE:154:ALA:N	2.50	0.41
5:AE:45:ARG:HG2	5:AE:73:ASN:HB3	2.01	0.41
6:AF:49:TYR:O	6:AF:49:TYR:CD1	2.73	0.41
7:AG:24:ALA:HA	7:AG:27:VAL:HG22	2.02	0.41
8:AH:64:LYS:CB	8:AH:71:VAL:HG21	2.50	0.41
8:AH:89:LYS:HG3	8:AH:90:ASP:H	1.85	0.41
12:AL:42:PRO:HA	12:AL:89:ASP:O	2.21	0.41
53:B5:100:ILE:HG23	53:B5:104:ILE:CB	2.50	0.41
22:BA:1047:G:C2	22:BA:1110:G:C4	3.08	0.41
22:BA:1171:G:N2	22:BA:1179:G:C6	2.89	0.41
22:BA:1269:A:O5'	22:BA:1269:A:H8	2.04	0.41
22:BA:1444:G:H2'	22:BA:1445:G:C8	2.55	0.41
22:BA:1677:A:C2	22:BA:1678:A:C4	3.08	0.41
22:BA:1952:A:C6	22:BA:1953:A:C6	3.09	0.41
22:BA:2209:G:C2	22:BA:2216:G:C2	3.08	0.41
22:BA:226:A:C6	22:BA:227:A:C6	3.08	0.41
22:BA:2309:A:C6	22:BA:2310:C:C4	3.09	0.41
22:BA:2888:C:C2	22:BA:2889:C:C5	3.08	0.41
22:BA:31:C:C2'	22:BA:32:C:H5'	2.50	0.41
22:BA:528:A:C8	22:BA:528:A:C4'	3.03	0.41
22:BA:846:U:C2'	22:BA:847:U:OP2	2.68	0.41
22:BA:910:A:C6	22:BA:911:A:C6	3.09	0.41
22:BA:996:A:H4'	38:BQ:91:ASP:OD2	2.20	0.41
24:BC:199:GLU:O	24:BC:200:HIS:C	2.58	0.41
24:BC:97:LYS:HE3	24:BC:97:LYS:HA	2.03	0.41
26:BE:111:GLU:HG2	26:BE:114:ARG:NH1	2.36	0.41
26:BE:189:THR:HG22	26:BE:191:ASP:N	2.36	0.41
27:BF:122:PHE:CE2	27:BF:128:TYR:HB2	2.56	0.41
27:BF:123:ASP:CG	27:BF:127:ASN:HB2	2.40	0.41
27:BF:158:THR:HG22	27:BF:160:ALA:N	2.36	0.41
27:BF:28:VAL:O	27:BF:28:VAL:CG1	2.69	0.41
33:BL:95:LEU:O	33:BL:100:ILE:HG23	2.21	0.41
33:BL:14:LYS:HD3	33:BL:15:ALA:HB3	2.02	0.41
38:BQ:87:SER:CB	39:BR:51:VAL:HA	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1262:C:C2'	1:CA:1263:C:H5'	2.50	0.41
1:CA:978:A:O2'	1:CA:1322:C:C5	2.69	0.41
1:CA:428:G:C5	1:CA:430:A:C6	3.09	0.41
1:CA:64:G:C2	1:CA:67:C:C4	3.09	0.41
1:CA:702:A:C6	22:DA:1848:A:C6	3.09	0.41
3:CC:140:ASN:HA	3:CC:143:ARG:HB3	2.03	0.41
3:CC:80:LYS:HE3	3:CC:80:LYS:HA	2.02	0.41
3:CC:9:GLY:HA3	14:CN:89:MET:SD	2.59	0.41
4:CD:4:TYR:CE2	4:CD:11:LEU:HD11	2.55	0.41
4:CD:28:ILE:O	4:CD:31:LYS:NZ	2.53	0.41
4:CD:40:GLN:OE1	4:CD:41:HIS:NE2	2.53	0.41
5:CE:89:HIS:CD2	5:CE:90:THR:OG1	2.73	0.41
9:CI:33:ARG:HD3	9:CI:33:ARG:HA	1.84	0.41
21:CU:28:VAL:O	21:CU:32:VAL:HG23	2.21	0.41
22:DA:16:C:H4'	48:D0:11:SER:HG	1.86	0.41
22:DA:1022:G:C5	22:DA:1140:C:C4	3.09	0.41
22:DA:1169:A:C6	22:DA:1180:U:O4	2.74	0.41
22:DA:1343:G:C5	22:DA:1344:U:C4	3.09	0.41
22:DA:1370:C:H2'	22:DA:1371:G:C8	2.56	0.41
22:DA:1593:A:C2	22:DA:1594:U:C2	3.08	0.41
22:DA:167:A:H2'	22:DA:168:G:O4'	2.21	0.41
22:DA:785:G:O2'	22:DA:1779:U:C5'	2.69	0.41
22:DA:2094:A:C2	22:DA:2196:C:C2	3.08	0.41
22:DA:2095:A:H2'	22:DA:2096:C:C6	2.56	0.41
22:DA:2107:G:C6	22:DA:2183:A:N1	2.89	0.41
22:DA:2223:G:C2'	22:DA:2224:G:H5'	2.51	0.41
22:DA:2331:G:N2	22:DA:2385:C:C2	2.88	0.41
22:DA:2631:G:C6	22:DA:2632:A:N7	2.89	0.41
22:DA:391:A:C4	22:DA:392:U:C6	3.08	0.41
22:DA:55:G:C6	22:DA:116:C:N3	2.88	0.41
22:DA:614:A:H4'	22:DA:616:A:N7	2.35	0.41
22:DA:704:G:H1'	22:DA:726:G:H22	1.86	0.41
22:DA:708:G:N2	22:DA:724:U:H1'	2.35	0.41
22:DA:942:G:H2'	22:DA:943:A:H5'	2.03	0.41
29:DH:130:VAL:CG1	29:DH:131:SER:N	2.82	0.41
32:DK:31:ARG:HB2	32:DK:32:TYR:CD1	2.55	0.41
35:DN:90:ARG:HD3	35:DN:94:TYR:HA	2.01	0.41
1:AA:1186:G:N2	1:AA:1187:G:H1'	2.35	0.41
1:AA:1299:A:N3	1:AA:1299:A:C2'	2.78	0.41
1:AA:1436:U:H2'	1:AA:1437:A:C8	2.55	0.41
1:AA:251:G:C6	1:AA:266:G:O6	2.73	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:604:G:C5	1:AA:605:U:C4	3.09	0.41
1:AA:64:G:N2	1:AA:67:C:C4	2.88	0.41
1:AA:659:U:H2'	1:AA:660:C:C6	2.56	0.41
3:AC:73:PRO:CG	3:AC:105:GLU:HG3	2.51	0.41
1:AA:1191:A:OP1	3:AC:4:LYS:HD3	2.21	0.41
3:AC:97:VAL:CB	3:AC:98:PRO:HD2	2.51	0.41
9:AI:118:LEU:HD23	9:AI:122:ARG:O	2.20	0.41
10:AJ:17:LEU:HD21	10:AJ:96:VAL:CG2	2.51	0.41
15:AO:39:LEU:O	15:AO:41:GLY:N	2.54	0.41
18:AR:67:LEU:O	18:AR:68:LEU:HG	2.19	0.41
19:AS:45:ILE:HG23	19:AS:63:THR:HA	2.03	0.41
20:AT:44:LYS:CG	20:AT:87:ALA:HA	2.51	0.41
53:B5:68:GLY:O	53:B5:69:LEU:HB2	2.20	0.41
22:BA:1051:G:C6	22:BA:1052:C:C4	3.08	0.41
22:BA:1678:A:H2'	22:BA:1679:A:C5'	2.50	0.41
22:BA:1786:A:C5	22:BA:1938:A:C2	3.09	0.41
22:BA:1828:G:H5''	57:BA:3454:HOH:O	2.20	0.41
22:BA:1876:A:C6	22:BA:1877:A:C5	3.09	0.41
22:BA:1936:A:H2	22:BA:1943:U:N3	2.13	0.41
22:BA:2380:C:C2	22:BA:2381:A:C8	3.09	0.41
22:BA:2415:G:C5	22:BA:2416:C:C5	3.08	0.41
22:BA:2419:U:OP2	51:B3:33:LEU:HD13	2.20	0.41
22:BA:247:G:H4'	22:BA:386:G:C5	2.55	0.41
22:BA:2885:G:H2'	22:BA:2886:A:C4'	2.51	0.41
22:BA:2886:A:C5	22:BA:2887:A:N7	2.88	0.41
22:BA:528:A:C3'	22:BA:528:A:H8	2.25	0.41
22:BA:918:A:H4'	23:BB:97:C:O2	2.19	0.41
22:BA:973:A:H5'	22:BA:1188:U:H1'	2.03	0.41
24:BC:70:ASN:O	24:BC:71:LYS:C	2.53	0.41
26:BE:121:VAL:O	26:BE:122:GLU:C	2.58	0.41
22:BA:1248:G:OP1	26:BE:44:ARG:NH1	2.54	0.41
29:BH:30:LEU:C	29:BH:32:PRO:HD2	2.41	0.41
29:BH:82:SER:HB3	29:BH:146:VAL:HG12	2.03	0.41
30:BI:19:ASN:N	30:BI:20:PRO:HD3	2.36	0.41
33:BL:55:MET:HA	33:BL:56:PRO:HD3	1.95	0.41
35:BN:79:LEU:HA	35:BN:83:LEU:HB2	2.03	0.41
43:BV:46:LYS:O	43:BV:47:VAL:C	2.59	0.41
43:BV:80:HIS:CD2	43:BV:83:LYS:HG3	2.55	0.41
44:BW:36:ILE:HG23	44:BW:58:THR:HG23	2.02	0.41
1:CA:1130:A:C1'	1:CA:1146:A:C2	3.04	0.41
1:CA:1250:A:O3'	9:CI:69:GLY:HA2	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1272:G:O2'	1:CA:1273:C:H5'	2.21	0.41
1:CA:1434:A:N6	1:CA:1435:G:C6	2.88	0.41
1:CA:1408:A:C2	1:CA:1494:G:C2	3.08	0.41
1:CA:1505:G:C5'	1:CA:1506:U:O5'	2.68	0.41
1:CA:283:U:C4	1:CA:284:C:C4	3.08	0.41
1:CA:325:A:N6	1:CA:326:G:C6	2.89	0.41
1:CA:32:A:C2	1:CA:33:A:C4	3.08	0.41
1:CA:32:A:N1	1:CA:33:A:C6	2.89	0.41
1:CA:386:C:C5	1:CA:387:U:C5	3.08	0.41
1:CA:496:A:H2'	1:CA:497:G:N7	2.35	0.41
1:CA:806:C:O2'	1:CA:807:A:H5'	2.20	0.41
1:CA:82:G:N2	1:CA:88:U:O2	2.54	0.41
2:CB:154:MET:SD	2:CB:156:GLY:O	2.78	0.41
4:CD:151:LYS:O	4:CD:152:GLN:OE1	2.38	0.41
5:CE:105:ILE:O	5:CE:105:ILE:CG2	2.63	0.41
5:CE:137:VAL:HA	5:CE:140:THR:OG1	2.21	0.41
6:CF:25:TYR:O	6:CF:26:THR:C	2.59	0.41
6:CF:41:ASP:OD1	6:CF:43:GLY:N	2.54	0.41
11:CK:88:GLY:H	11:CK:114:THR:HG22	1.85	0.41
12:CL:116:LYS:O	12:CL:117:TYR:CB	2.68	0.41
15:CO:52:SER:O	15:CO:53:ARG:C	2.58	0.41
18:CR:33:ILE:O	18:CR:33:ILE:HG12	2.21	0.41
20:CT:67:ILE:CG1	20:CT:71:LYS:HE2	2.51	0.41
22:DA:145:C:H2'	22:DA:146:A:C8	2.56	0.41
22:DA:1744:A:C5	22:DA:1745:A:C5	3.09	0.41
22:DA:182:A:H2'	22:DA:183:C:C6	2.55	0.41
22:DA:193:U:H4'	22:DA:803:U:H5'	2.03	0.41
22:DA:2040:G:C2	22:DA:2041:U:C2	3.08	0.41
22:DA:2087:G:C2	22:DA:2233:U:O2	2.73	0.41
22:DA:2107:G:N1	22:DA:2183:A:C2	2.88	0.41
22:DA:2355:G:C6	22:DA:2356:U:C4	3.09	0.41
22:DA:2283:C:C5	22:DA:2389:G:C4	3.09	0.41
22:DA:2499:C:C4	22:DA:2500:U:O4	2.74	0.41
22:DA:2852:G:H2'	22:DA:2853:C:O4'	2.21	0.41
22:DA:1:G:C2	22:DA:2:G:C4	3.09	0.41
22:DA:304:U:H2'	22:DA:305:C:C6	2.55	0.41
22:DA:460:A:H2'	22:DA:461:C:O4'	2.21	0.41
22:DA:668:A:H3'	22:DA:669:G:H5''	2.02	0.41
22:DA:675:A:H4'	26:DE:62:GLN:OE1	2.21	0.41
22:DA:936:A:H2'	22:DA:937:C:C6	2.56	0.41
23:DB:58:A:N7	23:DB:59:A:C5	2.88	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:53:GLU:C	29:DH:55:GLU:N	2.72	0.41
22:DA:2335:A:OP1	36:DO:13:ARG:HD2	2.21	0.41
36:DO:28:VAL:HG11	36:DO:92:PHE:CZ	2.56	0.41
40:DS:70:LYS:N	40:DS:70:LYS:HD2	2.36	0.41
45:DX:64:ILE:HD11	45:DX:68:LEU:HD11	2.02	0.41
1:AA:1106:G:C6	1:AA:1107:C:C4	3.09	0.41
1:AA:1272:G:C5	1:AA:1273:C:C4	3.09	0.41
1:AA:1311:A:H2'	1:AA:1312:G:O5'	2.19	0.41
1:AA:132:C:H2'	1:AA:133:U:O4'	2.21	0.41
1:AA:40:C:O2	1:AA:40:C:H2'	2.20	0.41
1:AA:453:G:C2'	1:AA:454:G:O5'	2.69	0.41
1:AA:406:G:C4	1:AA:495:A:C5	3.09	0.41
1:AA:616:G:C2	1:AA:617:G:C8	3.09	0.41
1:AA:665:A:C2	1:AA:732:C:C5	3.09	0.41
1:AA:91:U:C5	1:AA:92:U:C5	3.08	0.41
1:AA:934:C:H5''	57:AA:1767:HOH:O	2.20	0.41
2:AB:208:ARG:C	2:AB:210:VAL:N	2.74	0.41
4:AD:29:ASP:O	4:AD:31:LYS:CD	2.66	0.41
9:AI:91:ASP:C	9:AI:91:ASP:OD1	2.59	0.41
10:AJ:66:GLU:HB3	14:AN:99:ALA:HB2	2.02	0.41
10:AJ:87:LEU:HD13	10:AJ:88:MET:N	2.35	0.41
12:AL:95:TYR:N	12:AL:95:TYR:CD1	2.88	0.41
13:AM:80:LEU:HD21	13:AM:87:ARG:NE	2.36	0.41
14:AN:64:CYS:HB2	14:AN:80:SER:HB3	2.02	0.41
49:B1:47:VAL:HG13	49:B1:48:ILE:N	2.36	0.41
22:BA:254:G:N7	51:B3:5:LYS:HE2	2.35	0.41
51:B3:63:PRO:HG2	51:B3:64:TYR:CD2	2.56	0.41
22:BA:1067:A:N3	22:BA:1067:A:H2'	2.35	0.41
22:BA:1057:A:N3	22:BA:1086:A:C2	2.88	0.41
22:BA:116:C:H2'	22:BA:117:G:O4'	2.21	0.41
22:BA:1366:A:C5	22:BA:1367:A:C8	3.08	0.41
22:BA:1536:C:H4'	22:BA:1537:G:H5''	2.03	0.41
22:BA:1719:G:N2	22:BA:1720:U:H1'	2.35	0.41
22:BA:1773:A:C2'	22:BA:1774:C:H5'	2.50	0.41
22:BA:2115:G:O2'	22:BA:2116:G:C8	2.72	0.41
22:BA:2218:G:O2'	22:BA:2219:U:H5'	2.21	0.41
22:BA:2253:G:C5	22:BA:2254:C:C5	3.08	0.41
22:BA:2488:G:O2'	22:BA:2489:U:H5'	2.21	0.41
22:BA:447:A:C4	22:BA:473:G:N7	2.89	0.41
22:BA:511:U:C5	22:BA:512:G:N7	2.89	0.41
22:BA:547:A:H3'	22:BA:548:G:C5'	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:563:A:C2	22:BA:564:C:N1	2.88	0.41
22:BA:974:G:H8	22:BA:990:A:H62	1.68	0.41
23:BB:7:G:H5'	36:BO:29:HIS:CE1	2.56	0.41
28:BG:86:LYS:HG2	28:BG:132:VAL:HG22	2.02	0.41
29:BH:100:ALA:HB2	29:BH:115:VAL:CG2	2.49	0.41
29:BH:95:GLY:HA2	29:BH:117:LEU:CD2	2.51	0.41
39:BR:48:LYS:HE2	39:BR:48:LYS:HB3	1.64	0.41
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.86	0.41
1:CA:1149:C:C4	1:CA:1150:A:C6	3.08	0.41
1:CA:1211:U:O4'	1:CA:1213:A:C2	2.74	0.41
1:CA:1397:C:O4'	1:CA:1397:C:O2	2.38	0.41
1:CA:461:A:H2'	1:CA:462:G:O4'	2.21	0.41
1:CA:597:G:H2'	1:CA:598:U:H5'	2.01	0.41
2:CB:140:GLU:O	2:CB:141:LEU:C	2.59	0.41
2:CB:210:VAL:HG22	2:CB:211:THR:N	2.33	0.41
2:CB:68:LEU:C	2:CB:68:LEU:CD2	2.89	0.41
8:CH:101:ILE:C	8:CH:101:ILE:HD12	2.41	0.41
15:CO:60:VAL:O	15:CO:63:ARG:HB3	2.21	0.41
15:CO:70:LEU:HD22	15:CO:78:TYR:HB2	2.01	0.41
20:CT:43:ASP:HB3	20:CT:46:ALA:HB3	2.02	0.41
20:CT:55:GLN:N	20:CT:56:PRO:CD	2.84	0.41
22:DA:1178:C:H2'	22:DA:1179:G:C8	2.55	0.41
22:DA:1312:U:N3	22:DA:1603:A:C6	2.88	0.41
22:DA:1838:C:C4	22:DA:1899:A:C4	3.09	0.41
22:DA:193:U:C5	22:DA:194:G:N7	2.89	0.41
22:DA:2229:U:H2'	22:DA:2230:G:C8	2.56	0.41
22:DA:2553:G:H2'	22:DA:2554:U:O4'	2.21	0.41
22:DA:2727:A:C6	22:DA:2728:U:C4	3.08	0.41
22:DA:2733:A:C2	22:DA:2734:A:C4	3.09	0.41
22:DA:2805:C:H2'	22:DA:2806:C:C6	2.55	0.41
22:DA:291:G:H2'	22:DA:292:U:C6	2.55	0.41
22:DA:503:A:C6	22:DA:506:G:C6	3.09	0.41
24:DC:129:THR:HG23	24:DC:190:ALA:O	2.20	0.41
24:DC:107:PRO:HB3	24:DC:142:HIS:NE2	2.36	0.41
29:DH:2:GLN:O	29:DH:3:VAL:O	2.38	0.41
30:DI:20:PRO:HB2	30:DI:23:PRO:CG	2.51	0.41
33:DL:29:LYS:CG	33:DL:29:LYS:O	2.68	0.41
34:DM:76:LYS:NZ	34:DM:83:GLY:O	2.52	0.41
22:DA:535:G:O2'	38:DQ:53:ARG:HG3	2.21	0.41
39:DR:87:GLN:HG2	39:DR:88:GLY:N	2.36	0.41
40:DS:7:HIS:CE1	40:DS:46:LEU:HD23	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:495:G:H4'	40:DS:4:ILE:O	2.21	0.41
41:DT:18:GLU:O	41:DT:22:THR:OG1	2.39	0.41
42:DU:36:VAL:O	42:DU:37:GLU:C	2.59	0.41
45:DX:28:ARG:O	45:DX:29:PHE:CD1	2.74	0.41
46:DY:31:GLN:O	46:DY:32:ALA:C	2.58	0.41
1:AA:1053:G:C6	1:AA:1199:U:C2	3.08	0.41
1:AA:209:U:C5'	1:AA:210:C:OP2	2.69	0.41
1:AA:411:A:OP2	4:AD:26:ARG:NH2	2.51	0.41
1:AA:437:U:N3	1:AA:438:U:C5	2.89	0.41
1:AA:469:C:C4	1:AA:470:C:C4	3.09	0.41
1:AA:587:G:N2	1:AA:755:G:C8	2.88	0.41
1:AA:672:U:O2'	1:AA:673:A:O5'	2.39	0.41
1:AA:575:G:C6	1:AA:821:G:N7	2.89	0.41
1:AA:875:U:C4	1:AA:876:C:C5	3.09	0.41
1:AA:945:G:H2'	1:AA:945:G:N3	2.36	0.41
1:AA:977:A:C8	1:AA:1223:C:C2	3.09	0.41
2:AB:207:ILE:CD1	2:AB:207:ILE:N	2.84	0.41
2:AB:210:VAL:HG23	2:AB:211:THR:N	2.36	0.41
4:AD:124:MET:HG3	4:AD:146:ARG:HG2	2.02	0.41
5:AE:109:GLY:O	5:AE:110:ALA:CB	2.67	0.41
5:AE:56:VAL:N	5:AE:57:PRO:HD2	2.36	0.41
5:AE:94:VAL:HG22	5:AE:95:PHE:N	2.35	0.41
8:AH:41:LYS:CD	8:AH:48:ASP:HA	2.51	0.41
9:AI:57:MET:O	9:AI:58:VAL:HB	2.20	0.41
10:AJ:10:LEU:O	10:AJ:71:LEU:HD13	2.20	0.41
1:AA:1124:G:P	10:AJ:38:GLY:HA3	2.60	0.41
12:AL:114:ARG:HB2	12:AL:114:ARG:CZ	2.51	0.41
13:AM:20:THR:HA	13:AM:25:VAL:CG2	2.50	0.41
15:AO:70:LEU:HD21	15:AO:77:ARG:HB2	2.03	0.41
19:AS:29:LYS:HB3	19:AS:30:PRO:HD2	2.03	0.41
1:AA:1539:C:H5''	21:AU:18:ARG:CG	2.50	0.41
22:BA:996:A:N6	22:BA:1160:G:C6	2.89	0.41
22:BA:1288:G:C5	22:BA:1327:A:C2	3.09	0.41
22:BA:1569:A:N6	22:BA:1570:A:C6	2.89	0.41
22:BA:1810:A:C8	22:BA:1811:G:C8	3.09	0.41
22:BA:1855:U:C4	22:BA:1856:U:C4	3.08	0.41
22:BA:1769:U:O4'	22:BA:1958:C:H5''	2.21	0.41
22:BA:2298:A:H61	22:BA:2318:G:H1'	1.85	0.41
22:BA:2489:U:C2'	22:BA:2490:G:O5'	2.69	0.41
22:BA:2525:G:C2	22:BA:2526:G:C8	3.09	0.41
22:BA:397:U:OP2	45:BX:10:LYS:HD3	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:601:C:O2	22:BA:605:G:H4'	2.21	0.41
22:BA:653:U:C2'	22:BA:654:A:OP1	2.69	0.41
22:BA:588:U:O4	22:BA:670:A:H1'	2.21	0.41
22:BA:77:G:H2'	22:BA:78:U:O4'	2.20	0.41
23:BB:63:C:O2'	23:BB:64:G:H5'	2.21	0.41
25:BD:37:VAL:HG12	25:BD:38:LYS:N	2.36	0.41
27:BF:133:ARG:O	27:BF:134:GLU:CB	2.67	0.41
22:BA:2311:A:C8	27:BF:77:PHE:CD2	3.08	0.41
29:BH:129:GLU:C	29:BH:130:VAL:HG23	2.41	0.41
22:BA:2092:U:H4'	29:BH:24:GLY:HA3	2.03	0.41
29:BH:89:LYS:HB3	1:CA:359:G:C5'	2.51	0.41
32:BK:92:GLU:HG3	32:BK:111:LYS:HZ2	1.85	0.41
34:BM:105:MET:HG2	34:BM:106:ASP:N	2.35	0.41
35:BN:14:SER:HA	35:BN:17:ARG:NH1	2.36	0.41
40:BS:65:ASP:OD1	40:BS:67:ASP:HB2	2.21	0.41
22:BA:1365:A:P	45:BX:28:ARG:HH22	2.44	0.41
1:CA:1220:G:H2'	1:CA:1221:G:O4'	2.20	0.41
1:CA:445:G:N3	1:CA:445:G:H2'	2.34	0.41
1:CA:542:G:C2	1:CA:543:U:C6	3.09	0.41
1:CA:762:U:O5'	1:CA:762:U:H6	2.04	0.41
2:CB:206:ALA:O	2:CB:210:VAL:HG13	2.21	0.41
2:CB:87:CYS:HB2	2:CB:89:GLN:CD	2.41	0.41
2:CB:89:GLN:OE1	2:CB:221:VAL:HB	2.19	0.41
2:CB:96:TRP:HZ3	2:CB:175:GLU:OE2	2.04	0.41
3:CC:36:ASP:O	3:CC:40:ARG:HG3	2.20	0.41
6:CF:42:TRP:N	6:CF:42:TRP:CD1	2.86	0.41
11:CK:59:THR:CA	11:CK:91:PRO:HB3	2.51	0.41
12:CL:3:THR:HB	12:CL:6:GLN:HG3	2.02	0.41
16:CP:53:ASP:OD1	16:CP:56:ARG:HG2	2.20	0.41
18:CR:24:LYS:O	18:CR:26:ILE:HG23	2.20	0.41
1:CA:1316:G:H1	19:CS:5:LEU:HD11	1.86	0.41
20:CT:51:PHE:HA	20:CT:54:MET:HG2	2.03	0.41
21:CU:4:ILE:HA	21:CU:20:LYS:HZ1	1.85	0.41
49:D1:25:LYS:CE	49:D1:30:LYS:O	2.68	0.41
22:DA:1083:U:H2'	22:DA:1085:A:OP2	2.21	0.41
22:DA:1095:A:C5	22:DA:1096:A:N1	2.89	0.41
22:DA:1867:G:O6	22:DA:1875:G:N2	2.53	0.41
22:DA:2093:G:H4'	29:DH:24:GLY:C	2.39	0.41
22:DA:2103:C:H2'	22:DA:2104:C:C6	2.55	0.41
22:DA:2230:G:C5	22:DA:2231:U:C4	3.09	0.41
22:DA:24:G:N2	22:DA:517:C:C2	2.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2613:U:H5''	57:DA:3478:HOH:O	2.21	0.41
22:DA:2873:A:H4'	57:DA:3801:HOH:O	2.21	0.41
22:DA:410:G:H2'	22:DA:2407:A:N7	2.36	0.41
22:DA:959:A:H2'	22:DA:960:A:C8	2.56	0.41
22:DA:974:G:O2'	22:DA:989:G:N2	2.52	0.41
28:DG:71:LEU:O	28:DG:75:MET:HG3	2.21	0.41
31:DJ:24:THR:O	31:DJ:25:LEU:C	2.59	0.41
35:DN:65:LEU:O	35:DN:65:LEU:HD12	2.21	0.41
41:DT:62:VAL:CG1	41:DT:63:VAL:N	2.84	0.41
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.55	0.41
1:AA:1476:A:H2'	1:AA:1477:U:O4'	2.21	0.41
1:AA:1501:C:C4	1:AA:1504:G:C5	3.08	0.41
1:AA:167:A:H2'	1:AA:168:G:C1'	2.51	0.41
1:AA:189:A:N6	1:AA:190:A:N1	2.68	0.41
1:AA:303:A:O2'	1:AA:304:U:H5'	2.21	0.41
1:AA:406:G:C2	1:AA:407:U:C5	3.08	0.41
1:AA:469:C:C5	1:AA:470:C:C5	3.09	0.41
1:AA:542:G:H2'	1:AA:543:U:H6	1.86	0.41
1:AA:832:G:N2	1:AA:833:G:H1'	2.36	0.41
1:AA:858:G:C2'	1:AA:859:G:H5'	2.50	0.41
3:AC:64:ILE:HG22	3:AC:98:PRO:O	2.20	0.41
5:AE:101:GLU:O	5:AE:101:GLU:CG	2.68	0.41
6:AF:8:PHE:CZ	6:AF:60:VAL:HG11	2.55	0.41
6:AF:90:MET:SD	18:AR:61:ARG:CZ	3.09	0.41
9:AI:85:ARG:O	9:AI:88:MET:HB2	2.21	0.41
10:AJ:7:ARG:HD3	10:AJ:73:LEU:HD21	2.03	0.41
13:AM:15:ALA:HB1	13:AM:34:LEU:HD21	2.03	0.41
13:AM:44:LYS:HE2	13:AM:44:LYS:HB3	1.91	0.41
15:AO:61:SER:O	15:AO:65:LYS:HG3	2.21	0.41
15:AO:32:LEU:HD13	15:AO:63:ARG:HB2	2.02	0.41
18:AR:22:ASP:OD1	18:AR:24:LYS:HB2	2.19	0.41
20:AT:84:ASN:HA	20:AT:87:ALA:HB3	2.03	0.41
53:B5:50:ILE:HG22	53:B5:51:ASP:H	1.83	0.41
22:BA:1429:G:C2	22:BA:1430:G:C5	3.09	0.41
22:BA:1583:A:HO2'	22:BA:1584:U:P	2.44	0.41
22:BA:1877:A:H2'	22:BA:1878:G:O4'	2.21	0.41
22:BA:2151:U:H2'	22:BA:2152:G:C8	2.56	0.41
22:BA:2210:U:H4'	22:BA:2211:A:H5'	2.02	0.41
22:BA:2296:U:C2	22:BA:2333:A:H2	2.38	0.41
22:BA:229:C:C2	22:BA:230:G:H1'	2.55	0.41
22:BA:2352:A:C2	22:BA:2366:A:C2	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:285:G:N2	22:BA:286:U:H1'	2.36	0.41
22:BA:2880:C:N3	22:BA:2881:U:C5	2.89	0.41
22:BA:458:G:O2'	22:BA:469:G:O6	2.25	0.41
22:BA:476:G:C2	22:BA:479:A:C8	3.08	0.41
22:BA:734:A:C5	22:BA:735:A:C8	3.09	0.41
22:BA:892:A:N3	22:BA:892:A:H2'	2.35	0.41
23:BB:106:G:H2'	23:BB:107:G:O4'	2.20	0.41
24:BC:56:GLY:O	24:BC:215:GLY:HA2	2.21	0.41
26:BE:106:LYS:HD2	26:BE:200:LEU:HB3	2.03	0.41
26:BE:7:ASP:C	26:BE:9:GLN:H	2.23	0.41
27:BF:57:LEU:HD21	27:BF:152:LEU:HD11	2.03	0.41
29:BH:129:GLU:C	29:BH:130:VAL:CG2	2.90	0.41
29:BH:90:LEU:HG	29:BH:92:GLY:C	2.41	0.41
38:BQ:24:TYR:O	38:BQ:25:TYR:HB3	2.17	0.41
39:BR:3:ALA:HB3	39:BR:59:ILE:HD11	2.01	0.41
1:CA:992:U:C6	1:CA:1043:G:C8	3.08	0.41
1:CA:1095:U:H2'	1:CA:1095:U:O2	2.20	0.41
1:CA:1244:G:C6	1:CA:1245:C:C4	3.09	0.41
1:CA:1381:U:C5	1:CA:1382:C:C5	3.09	0.41
1:CA:1423:G:O2'	1:CA:1424:U:H5'	2.21	0.41
1:CA:1415:G:C2	1:CA:1486:G:C4	3.08	0.41
1:CA:191:G:O6	1:CA:192:A:N6	2.54	0.41
1:CA:45:G:H5''	1:CA:307:C:O2'	2.21	0.41
1:CA:485:U:O2'	1:CA:486:U:OP1	2.37	0.41
1:CA:780:A:C2	1:CA:803:G:N1	2.89	0.41
2:CB:138:THR:C	2:CB:140:GLU:N	2.73	0.41
4:CD:160:GLU:O	4:CD:163:GLU:HB2	2.21	0.41
5:CE:30:ILE:HG23	5:CE:30:ILE:O	2.21	0.41
5:CE:96:MET:HE3	5:CE:111:MET:HE2	2.02	0.41
6:CF:14:GLN:C	6:CF:16:GLU:H	2.24	0.41
6:CF:1:MET:HG2	6:CF:65:GLU:HG2	2.03	0.41
6:CF:98:GLU:O	6:CF:99:ALA:HB3	2.19	0.41
8:CH:86:TYR:CE2	8:CH:124:GLU:HB2	2.56	0.41
5:CE:156:LYS:HD3	8:CH:71:VAL:HG22	2.02	0.41
11:CK:100:LEU:O	11:CK:102:ALA:N	2.54	0.41
13:CM:3:ARG:C	13:CM:4:ILE:HG12	2.40	0.41
13:CM:96:PRO:HA	13:CM:109:ARG:HG2	2.03	0.41
49:D1:47:VAL:HG12	49:D1:48:ILE:N	2.35	0.41
22:DA:1526:C:C2'	22:DA:1527:G:O5'	2.69	0.41
22:DA:1595:C:H2'	22:DA:1596:A:O4'	2.21	0.41
22:DA:1797:G:O2'	24:DC:257:THR:CG2	2.69	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1835:G:N3	22:DA:1836:C:C6	2.89	0.41
22:DA:2061:G:H2'	22:DA:2501:C:O2'	2.20	0.41
22:DA:2190:G:O2'	22:DA:2191:A:H5'	2.20	0.41
22:DA:2549:G:N3	22:DA:2560:A:C2	2.89	0.41
22:DA:37:C:H2'	22:DA:38:A:O4'	2.20	0.41
22:DA:458:G:O2'	22:DA:459:U:OP2	2.39	0.41
22:DA:675:A:N3	22:DA:2443:C:O2'	2.41	0.41
22:DA:88:G:C2	22:DA:89:A:C8	3.09	0.41
22:DA:961:C:C5	22:DA:2031:A:C2	3.08	0.41
24:DC:15:HIS:O	24:DC:204:VAL:CG2	2.69	0.41
24:DC:29:PRO:HG3	24:DC:63:ARG:CZ	2.51	0.41
24:DC:6:CYS:SG	24:DC:16:VAL:HB	2.61	0.41
25:DD:39:ASP:CG	25:DD:40:LEU:N	2.74	0.41
28:DG:38:ASN:HB3	28:DG:41:VAL:HG23	2.03	0.41
29:DH:1:MET:HB3	29:DH:21:VAL:O	2.20	0.41
31:DJ:71:ASP:O	31:DJ:73:VAL:CG2	2.69	0.41
36:DO:71:ALA:O	36:DO:75:GLY:N	2.49	0.41
36:DO:83:LEU:HD11	36:DO:114:GLY:O	2.21	0.41
42:DU:82:ARG:HB2	42:DU:97:LYS:HG3	2.03	0.41
1:AA:1063:C:H2'	1:AA:1064:G:C8	2.55	0.41
1:AA:1136:C:O2	1:AA:1136:C:O4'	2.38	0.41
1:AA:1213:A:C5	1:AA:1215:G:C4	3.09	0.41
1:AA:1329:A:H2'	1:AA:1330:U:H5'	2.03	0.41
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.21	0.41
1:AA:621:A:H2'	1:AA:622:A:C8	2.56	0.41
1:AA:833:G:C2'	1:AA:834:U:H5'	2.51	0.41
2:AB:96:TRP:HZ3	2:AB:175:GLU:OE2	2.04	0.41
3:AC:140:ASN:O	3:AC:141:ALA:HB2	2.21	0.41
4:AD:177:LYS:O	4:AD:178:MET:HB2	2.21	0.41
5:AE:132:ASN:O	5:AE:136:VAL:HG12	2.21	0.41
5:AE:65:GLU:OE2	5:AE:69:ARG:NH2	2.53	0.41
8:AH:18:GLN:NE2	8:AH:70:ALA:HB1	2.36	0.41
9:AI:105:THR:CG2	9:AI:106:ARG:N	2.84	0.41
10:AJ:26:VAL:O	10:AJ:29:ALA:HB3	2.20	0.41
10:AJ:32:THR:HG21	10:AJ:83:THR:HA	2.03	0.41
11:AK:74:VAL:C	11:AK:76:GLU:H	2.25	0.41
12:AL:86:ARG:NE	12:AL:88:LYS:HB3	2.35	0.41
14:AN:21:PHE:HA	14:AN:25:ALA:CB	2.50	0.41
16:AP:2:VAL:CG2	16:AP:65:ALA:HB2	2.51	0.41
16:AP:72:ALA:O	16:AP:75:ILE:HG13	2.21	0.41
17:AQ:13:VAL:HG12	17:AQ:22:VAL:O	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:61:ILE:HG22	17:AQ:73:TRP:CE3	2.56	0.41
19:AS:29:LYS:HG2	19:AS:30:PRO:HD2	2.03	0.41
20:AT:21:ASN:O	20:AT:25:ARG:CB	2.69	0.41
21:AU:16:LEU:H	21:AU:18:ARG:NH2	2.18	0.41
21:AU:36:GLU:OE2	21:AU:38:TYR:HD2	2.04	0.41
48:B0:54:VAL:O	48:B0:55:ILE:C	2.58	0.41
52:B4:3:VAL:HA	52:B4:36:ARG:O	2.20	0.41
22:BA:1076:C:H2'	22:BA:1077:A:N9	2.36	0.41
22:BA:1177:G:C2'	22:BA:1178:C:O5'	2.69	0.41
22:BA:1301:A:C2	22:BA:1303:G:C6	3.09	0.41
22:BA:1585:C:O2'	22:BA:1586:A:H5'	2.21	0.41
22:BA:2345:G:C5	22:BA:2381:A:N1	2.89	0.41
22:BA:2348:U:O2'	22:BA:2349:G:H5'	2.21	0.41
22:BA:825:A:H4'	22:BA:2428:G:C5	2.55	0.41
22:BA:247:G:N7	22:BA:249:C:C2	2.88	0.41
22:BA:2748:A:C2	22:BA:2757:A:C4	3.08	0.41
22:BA:303:G:C5	22:BA:304:U:C5	3.09	0.41
22:BA:453:A:H1'	22:BA:457:A:O2'	2.21	0.41
22:BA:481:G:N3	22:BA:507:A:C2	2.87	0.41
23:BB:94:A:C5	23:BB:95:U:C5	3.09	0.41
24:BC:57:GLY:HA2	24:BC:213:TRP:HA	2.03	0.41
24:BC:40:SER:O	24:BC:42:GLY:N	2.54	0.41
26:BE:128:ALA:O	26:BE:130:LYS:N	2.53	0.41
29:BH:132:PHE:CE2	29:BH:142:VAL:CG2	3.04	0.41
32:BK:51:LYS:NZ	32:BK:97:THR:HG23	2.36	0.41
33:BL:85:VAL:HG11	33:BL:94:THR:CG2	2.49	0.41
36:BO:93:ASP:C	36:BO:93:ASP:OD1	2.59	0.41
38:BQ:40:ILE:HG22	38:BQ:41:LYS:N	2.36	0.41
42:BU:89:ASP:CG	42:BU:90:GLY:H	2.24	0.41
22:BA:2080:A:C5'	45:BX:19:SER:HB2	2.51	0.41
1:CA:1160:G:O2'	1:CA:1161:C:O5'	2.39	0.41
1:CA:1213:A:C8	1:CA:1215:G:C6	3.09	0.41
1:CA:463:U:O2	1:CA:463:U:H2'	2.20	0.41
1:CA:793:U:HO2'	1:CA:1516:G:C1'	2.33	0.41
2:CB:142:GLU:O	2:CB:146:ASN:CG	2.60	0.41
2:CB:29:PRO:HB2	2:CB:30:PHE:CD1	2.56	0.41
3:CC:148:GLY:O	3:CC:203:PHE:N	2.45	0.41
3:CC:28:GLU:O	3:CC:32:ASN:HB2	2.21	0.41
3:CC:70:THR:HG21	3:CC:76:VAL:HG21	2.03	0.41
5:CE:109:GLY:O	5:CE:110:ALA:CB	2.69	0.41
5:CE:95:PHE:CG	5:CE:96:MET:N	2.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:71:PRO:HD2	7:CG:96:ARG:O	2.21	0.41
8:CH:51:VAL:O	8:CH:51:VAL:HG22	2.20	0.41
10:CJ:26:VAL:HG21	10:CJ:39:PRO:HG3	2.02	0.41
10:CJ:52:LEU:HD23	10:CJ:62:ARG:CG	2.51	0.41
17:CQ:15:ASP:HA	17:CQ:21:ILE:CD1	2.50	0.41
20:CT:58:VAL:HG12	20:CT:59:ASP:N	2.36	0.41
21:CU:14:VAL:HG12	21:CU:16:LEU:CG	2.51	0.41
21:CU:4:ILE:N	21:CU:4:ILE:HD13	2.36	0.41
22:DA:1197:G:H2'	22:DA:1198:U:H6	1.82	0.41
22:DA:1678:A:C8	22:DA:1679:A:C8	3.09	0.41
22:DA:1835:G:C2	22:DA:1836:C:C6	3.09	0.41
22:DA:579:G:C5'	22:DA:2018:G:OP2	2.69	0.41
22:DA:2253:G:C6	22:DA:2254:C:C4	3.09	0.41
22:DA:2327:A:C2	22:DA:2388:A:C2	3.10	0.41
22:DA:945:A:N7	22:DA:2448:A:C2	2.88	0.41
22:DA:2773:C:H2'	22:DA:2774:C:H6	1.86	0.41
22:DA:42:A:C2	22:DA:438:G:C2	3.09	0.41
22:DA:607:U:O4	22:DA:620:G:H5'	2.21	0.41
22:DA:635:C:O2'	22:DA:639:U:H5''	2.21	0.41
22:DA:599:A:N3	22:DA:659:G:C2	2.89	0.41
22:DA:75:G:H4'	46:DY:48:ARG:NH1	2.36	0.41
22:DA:942:G:H4'	22:DA:1190:G:H5'	2.02	0.41
23:DB:46:A:C4	23:DB:47:C:C6	3.09	0.41
25:DD:186:LEU:HD21	37:DP:4:ILE:HG21	2.03	0.41
25:DD:62:LYS:N	25:DD:63:PRO:CD	2.84	0.41
25:DD:78:GLY:CA	25:DD:80:TRP:CH2	3.04	0.41
26:DE:146:VAL:O	26:DE:167:VAL:HA	2.21	0.41
23:DB:31:C:H5'	27:DF:26:MET:CE	2.51	0.41
22:DA:1082:U:P	30:DI:124:ALA:HB1	2.61	0.41
31:DJ:126:ALA:O	31:DJ:127:GLY:O	2.39	0.41
39:DR:76:LYS:HB2	39:DR:85:LYS:HB3	2.03	0.41
41:DT:7:LEU:CD2	41:DT:46:ALA:CA	2.99	0.41
42:DU:39:ILE:HG22	42:DU:39:ILE:O	2.19	0.41
42:DU:61:LYS:HD2	42:DU:61:LYS:HA	1.97	0.41
22:DA:2262:U:OP1	44:DW:41:ARG:NH2	2.53	0.41
45:DX:66:THR:O	45:DX:70:GLU:HG3	2.21	0.41
1:AA:1322:C:O2	1:AA:1322:C:O4'	2.39	0.40
1:AA:1346:A:N7	7:AG:10:ARG:NH2	2.69	0.40
1:AA:115:G:C2	1:AA:289:G:N7	2.90	0.40
1:AA:342:C:C2	1:AA:348:G:C2	3.09	0.40
1:AA:412:A:H4'	1:AA:413:G:OP1	2.20	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:597:G:C2	1:AA:644:U:C2	3.09	0.40
1:AA:735:C:H2'	1:AA:736:C:H6	1.86	0.40
3:AC:97:VAL:CB	3:AC:98:PRO:CD	2.98	0.40
1:AA:1248:A:C2	9:AI:72:ILE:HD11	2.56	0.40
12:AL:59:ASN:OD1	12:AL:59:ASN:C	2.57	0.40
13:AM:88:GLY:C	13:AM:90:ARG:N	2.72	0.40
14:AN:30:ILE:HG22	14:AN:35:ASN:OD1	2.21	0.40
17:AQ:12:VAL:CG1	17:AQ:13:VAL:N	2.84	0.40
17:AQ:18:GLU:O	17:AQ:19:LYS:CB	2.69	0.40
19:AS:29:LYS:CB	19:AS:30:PRO:HD2	2.51	0.40
19:AS:51:VAL:HG13	19:AS:71:LEU:HD12	2.03	0.40
50:B2:23:ALA:C	50:B2:24:THR:HG23	2.41	0.40
22:BA:1151:A:C2	22:BA:1152:C:C2	3.09	0.40
22:BA:1332:G:C6	22:BA:1609:A:C5	3.09	0.40
22:BA:1351:C:O2'	22:BA:1571:A:H1'	2.20	0.40
22:BA:137:U:P	22:BA:140:C:C5	3.15	0.40
22:BA:1459:G:C6	22:BA:1461:C:C4	3.10	0.40
22:BA:163:C:H2'	22:BA:164:C:C6	2.56	0.40
22:BA:2192:U:C2'	22:BA:2193:G:H5'	2.51	0.40
22:BA:222:A:N6	22:BA:231:A:C2	2.89	0.40
22:BA:2334:U:H4'	22:BA:2335:A:OP2	2.20	0.40
22:BA:2593:U:C2	22:BA:2594:C:C6	3.09	0.40
22:BA:976:G:N3	22:BA:976:G:H2'	2.36	0.40
24:BC:107:PRO:HD2	24:BC:110:LEU:HD22	2.03	0.40
24:BC:124:ILE:HD12	24:BC:136:PRO:HD2	2.03	0.40
24:BC:17:VAL:N	24:BC:204:VAL:HG22	2.35	0.40
25:BD:13:ARG:O	25:BD:14:ILE:HD12	2.20	0.40
25:BD:28:GLU:OE2	25:BD:30:GLU:CG	2.68	0.40
29:BH:88:GLY:C	29:BH:125:THR:OG1	2.59	0.40
29:BH:91:PHE:HB3	1:CA:55:A:N3	2.36	0.40
30:BI:115:ALA:O	30:BI:116:ASP:HB2	2.20	0.40
30:BI:117:MET:HA	30:BI:117:MET:HE2	2.03	0.40
35:BN:103:ARG:NH1	35:BN:110:MET:HE1	2.36	0.40
36:BO:26:LEU:HD11	36:BO:78:VAL:HG21	2.02	0.40
41:BT:88:LYS:O	41:BT:89:GLU:CB	2.67	0.40
47:BZ:13:ALA:O	47:BZ:21:LYS:HE2	2.21	0.40
1:CA:152:A:C6	1:CA:170:U:C2	3.10	0.40
1:CA:174:A:C4	1:CA:175:C:C6	3.09	0.40
1:CA:355:C:C4	1:CA:356:A:C5	3.09	0.40
1:CA:437:U:O2'	1:CA:438:U:H5'	2.21	0.40
1:CA:474:G:C2	1:CA:475:C:C2	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:560:A:N7	1:CA:566:G:C4	2.89	0.40
1:CA:716:A:C2	1:CA:717:U:C2	3.09	0.40
1:CA:773:G:C4	1:CA:807:A:N1	2.89	0.40
2:CB:133:GLU:O	2:CB:137:ARG:HB3	2.21	0.40
2:CB:67:ILE:HD13	2:CB:160:ALA:HB3	2.03	0.40
2:CB:96:TRP:CE3	2:CB:97:LEU:O	2.73	0.40
3:CC:16:LYS:HE3	3:CC:16:LYS:HA	2.02	0.40
3:CC:5:VAL:HG21	3:CC:10:ILE:HD13	2.03	0.40
3:CC:92:ALA:O	3:CC:96:GLY:N	2.52	0.40
4:CD:31:LYS:O	4:CD:32:CYS:CB	2.69	0.40
7:CG:33:ASP:HB3	7:CG:35:LYS:HE3	2.03	0.40
11:CK:82:LEU:N	11:CK:82:LEU:CD2	2.84	0.40
12:CL:94:ARG:HG2	12:CL:94:ARG:H	1.79	0.40
13:CM:40:ALA:O	13:CM:41:GLU:C	2.59	0.40
14:CN:23:LYS:HG3	14:CN:24:ARG:N	2.36	0.40
14:CN:13:ARG:HG2	14:CN:54:ASP:CG	2.40	0.40
15:CO:15:PHE:CE2	15:CO:85:LEU:HD11	2.56	0.40
15:CO:45:GLU:O	15:CO:46:HIS:HB2	2.21	0.40
17:CQ:17:MET:CE	17:CQ:20:SER:O	2.68	0.40
20:CT:64:LYS:HE3	20:CT:64:LYS:HA	2.03	0.40
22:DA:2370:G:H4'	49:D1:44:ARG:NH1	2.35	0.40
22:DA:242:G:N7	51:D3:5:LYS:HG2	2.35	0.40
22:DA:1020:A:C2	22:DA:1141:U:O2	2.74	0.40
22:DA:1356:G:C2	22:DA:1357:C:H1'	2.57	0.40
22:DA:1394:U:H2'	22:DA:1395:A:O4'	2.21	0.40
22:DA:1567:G:N7	24:DC:83:TYR:CE1	2.89	0.40
22:DA:1603:A:P	22:DA:1604:C:OP2	2.79	0.40
22:DA:172:A:H2'	22:DA:173:A:C8	2.56	0.40
22:DA:1914:C:H3'	22:DA:1915:U:C6	2.57	0.40
22:DA:1922:G:H2'	22:DA:1923:U:O4'	2.21	0.40
22:DA:2053:G:N2	22:DA:2054:A:H1'	2.36	0.40
22:DA:189:G:C5	22:DA:205:G:N2	2.89	0.40
22:DA:2093:G:C5'	29:DH:24:GLY:HA3	2.50	0.40
22:DA:2533:U:H2'	22:DA:2534:A:O4'	2.21	0.40
22:DA:2547:A:C2	22:DA:2562:U:C2	3.09	0.40
22:DA:2612:C:H5''	22:DA:2613:U:P	2.61	0.40
22:DA:2892:G:H5''	22:DA:2894:G:N2	2.35	0.40
22:DA:514:A:C2	22:DA:515:A:N3	2.89	0.40
22:DA:558:U:H2'	22:DA:559:G:C8	2.56	0.40
24:DC:109:GLY:O	24:DC:111:LYS:HE3	2.22	0.40
22:DA:2636:C:H4'	25:DD:81:GLU:OE1	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:58:ASN:HA	31:DJ:126:ALA:O	2.20	0.40
33:DL:77:ILE:HD13	33:DL:108:ALA:HB1	2.03	0.40
34:DM:35:ALA:HB2	34:DM:102:LEU:HD11	2.02	0.40
35:DN:90:ARG:HG2	35:DN:92:GLY:O	2.22	0.40
40:DS:75:PHE:CZ	40:DS:104:THR:HG21	2.57	0.40
41:DT:17:SER:O	41:DT:18:GLU:C	2.59	0.40
41:DT:49:LYS:HD3	41:DT:49:LYS:N	2.36	0.40
42:DU:13:VAL:CG1	42:DU:18:ASP:O	2.69	0.40
43:DV:44:HIS:O	43:DV:45:ASP:C	2.59	0.40
45:DX:42:SER:OG	45:DX:43:GLU:N	2.54	0.40
47:DZ:4:THR:CG2	47:DZ:5:ILE:N	2.84	0.40
1:AA:1340:A:H2'	1:AA:1341:U:O4'	2.21	0.40
1:AA:1346:A:C5	7:AG:10:ARG:NH2	2.89	0.40
1:AA:198:G:C2	1:AA:199:A:C8	3.09	0.40
1:AA:257:G:O2'	1:AA:258:G:H5'	2.22	0.40
1:AA:389:A:N3	1:AA:389:A:H2'	2.36	0.40
2:AB:108:ARG:O	2:AB:111:ILE:HB	2.22	0.40
2:AB:17:GLY:HA2	2:AB:41:ILE:HG23	2.03	0.40
3:AC:113:ALA:O	3:AC:116:VAL:HB	2.20	0.40
5:AE:23:LYS:O	5:AE:24:THR:HB	2.20	0.40
6:AF:42:TRP:CZ2	6:AF:61:LEU:HD22	2.57	0.40
6:AF:64:VAL:CG1	6:AF:65:GLU:N	2.83	0.40
10:AJ:49:PHE:CE2	14:AN:77:PHE:CZ	3.09	0.40
11:AK:89:PRO:HA	21:AU:25:LYS:HE2	2.03	0.40
13:AM:6:GLY:O	13:AM:7:ILE:C	2.59	0.40
14:AN:79:LEU:HB2	14:AN:84:VAL:HG23	2.02	0.40
16:AP:3:THR:CG2	16:AP:4:ILE:N	2.85	0.40
19:AS:18:LYS:O	19:AS:31:LEU:HD21	2.22	0.40
51:B3:45:ARG:N	51:B3:46:PRO:HD2	2.36	0.40
51:B3:61:CYS:O	51:B3:62:LEU:HD23	2.21	0.40
53:B5:35:THR:O	53:B5:35:THR:OG1	2.32	0.40
22:BA:102:U:C4	46:BY:2:LYS:HD2	2.56	0.40
22:BA:1064:C:N4	22:BA:1070:A:OP2	2.54	0.40
22:BA:1100:C:H2'	22:BA:1101:U:C5	2.56	0.40
22:BA:1356:G:C2	22:BA:1357:C:N1	2.89	0.40
22:BA:1889:A:H1'	22:BA:2086:U:O2'	2.21	0.40
22:BA:2016:U:C4	22:BA:2017:U:C4	3.10	0.40
22:BA:2020:A:H5'	48:B0:9:THR:HG22	2.03	0.40
22:BA:2793:C:H2'	22:BA:2794:C:C6	2.56	0.40
22:BA:571:U:O4	22:BA:575:A:C4	2.74	0.40
22:BA:927:A:H2'	22:BA:928:A:O4'	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:978:G:C2'	22:BA:979:A:H5'	2.51	0.40
26:BE:7:ASP:C	26:BE:9:GLN:N	2.74	0.40
27:BF:111:ILE:O	27:BF:114:PHE:HB2	2.21	0.40
28:BG:101:ASN:CG	28:BG:101:ASN:O	2.59	0.40
30:BI:22:PRO:HB2	30:BI:23:PRO:HD3	2.03	0.40
32:BK:6:THR:CG2	32:BK:7:MET:N	2.85	0.40
1:CA:1061:G:C5	1:CA:1062:U:C5	3.10	0.40
1:CA:1087:G:C2'	1:CA:1088:G:H5'	2.51	0.40
1:CA:942:G:C2	1:CA:1342:C:C2	3.09	0.40
1:CA:440:C:C2'	1:CA:441:A:O5'	2.70	0.40
1:CA:502:A:OP1	12:CL:115:SER:HB2	2.20	0.40
1:CA:505:G:H4'	1:CA:534:U:N3	2.37	0.40
1:CA:552:U:N3	1:CA:553:A:C8	2.89	0.40
1:CA:600:A:C2	1:CA:639:G:N3	2.88	0.40
1:CA:781:A:H2'	1:CA:782:A:H5'	2.03	0.40
2:CB:112:LYS:C	2:CB:114:LEU:N	2.74	0.40
2:CB:35:ARG:O	2:CB:37:LYS:N	2.54	0.40
8:CH:10:MET:HE1	8:CH:36:ILE:HB	2.03	0.40
13:CM:74:SER:O	13:CM:78:LYS:HG3	2.20	0.40
16:CP:38:PHE:CE2	16:CP:51:ARG:HD2	2.56	0.40
52:D4:1:MET:HB3	52:D4:34:LYS:HE3	2.03	0.40
22:DA:187:G:O2'	22:DA:1365:A:C2	2.66	0.40
22:DA:1370:C:O4'	22:DA:1810:A:H2	2.04	0.40
22:DA:1466:U:O2'	22:DA:1546:G:O2'	2.16	0.40
22:DA:1792:G:O2'	22:DA:1793:C:H5'	2.21	0.40
22:DA:1914:C:O4'	22:DA:1914:C:O2	2.39	0.40
22:DA:192:C:H2'	22:DA:193:U:H5'	2.02	0.40
22:DA:570:G:C5	22:DA:2030:A:C5	3.10	0.40
22:DA:2105:U:C5	22:DA:2106:U:C4	3.09	0.40
22:DA:2235:G:C4	22:DA:2236:U:C6	3.09	0.40
22:DA:2539:C:H4'	52:D4:3:VAL:HG11	2.03	0.40
22:DA:2540:C:H2'	22:DA:2541:A:H8	1.85	0.40
22:DA:2641:G:H5''	31:DJ:78:THR:HB	2.03	0.40
22:DA:2650:U:C2	22:DA:2671:G:N2	2.89	0.40
22:DA:2834:G:H2'	22:DA:2879:A:H61	1.85	0.40
22:DA:517:C:H1'	40:DS:78:GLU:OE2	2.22	0.40
22:DA:563:A:C6	22:DA:2018:G:C4	3.09	0.40
22:DA:580:U:O2'	22:DA:581:C:H5'	2.20	0.40
22:DA:635:C:O2'	22:DA:639:U:OP1	2.39	0.40
22:DA:681:G:N3	22:DA:682:G:C8	2.89	0.40
22:DA:796:C:H2'	22:DA:797:G:C8	2.56	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:813:U:N3	22:DA:814:C:C4	2.89	0.40
22:DA:820:A:H2'	22:DA:821:A:O4'	2.21	0.40
22:DA:1824:G:OP1	24:DC:53:HIS:CE1	2.74	0.40
25:DD:101:PHE:O	25:DD:102:ALA:C	2.58	0.40
26:DE:170:ARG:CZ	26:DE:176:ASP:OD1	2.69	0.40
27:DF:142:ASP:O	27:DF:143:TYR:C	2.59	0.40
28:DG:22:GLN:OE1	28:DG:37:LEU:CB	2.69	0.40
29:DH:96:THR:O	29:DH:98:ASP:N	2.54	0.40
31:DJ:3:THR:HG22	31:DJ:4:PHE:N	2.36	0.40
32:DK:58:LEU:HD11	32:DK:86:LEU:HB3	2.02	0.40
35:DN:9:GLN:O	35:DN:10:LEU:C	2.60	0.40
36:DO:2:ASP:O	36:DO:6:ALA:CB	2.69	0.40
41:DT:61:LEU:C	41:DT:61:LEU:HD12	2.42	0.40
42:DU:25:VAL:HG22	42:DU:36:VAL:HG22	2.03	0.40
42:DU:13:VAL:CG2	42:DU:39:ILE:HG21	2.50	0.40
42:DU:74:ASN:ND2	42:DU:77:THR:HG23	2.36	0.40
46:DY:31:GLN:HG2	46:DY:36:GLN:HB2	2.03	0.40
1:AA:1001:C:H2'	1:AA:1002:G:C8	2.56	0.40
1:AA:1048:G:C4	1:AA:1050:G:N7	2.89	0.40
1:AA:1296:C:H4'	1:AA:1302:C:C4	2.56	0.40
1:AA:1527:U:C4	1:AA:1528:U:O4	2.74	0.40
1:AA:198:G:C5	1:AA:199:A:N7	2.89	0.40
1:AA:5:U:C2	1:AA:5:U:OP1	2.74	0.40
1:AA:807:A:C5	1:AA:808:C:C5	3.09	0.40
1:AA:965:U:O4'	1:AA:969:A:N9	2.54	0.40
2:AB:139:ARG:HG3	2:AB:140:GLU:N	2.36	0.40
2:AB:181:ILE:O	2:AB:183:VAL:HG23	2.20	0.40
4:AD:101:VAL:CG1	4:AD:101:VAL:O	2.68	0.40
6:AF:29:ILE:HG21	6:AF:64:VAL:CG1	2.51	0.40
6:AF:49:TYR:C	6:AF:49:TYR:CD1	2.94	0.40
12:AL:43:LYS:CG	12:AL:44:LYS:HD3	2.52	0.40
13:AM:111:GLY:O	13:AM:112:PRO:O	2.38	0.40
13:AM:7:ILE:HD12	13:AM:8:ASN:N	2.37	0.40
10:AJ:66:GLU:CG	14:AN:99:ALA:HB2	2.51	0.40
1:AA:719:C:H1'	18:AR:38:LYS:HG2	2.02	0.40
51:B3:31:HIS:CD2	51:B3:32:ILE:HG13	2.57	0.40
22:BA:1050:A:C2	22:BA:2751:G:C4	3.09	0.40
22:BA:1062:G:N2	22:BA:1077:A:C2	2.89	0.40
22:BA:1087:G:C2'	22:BA:1089:A:H1'	2.51	0.40
22:BA:1144:A:C6	22:BA:1145:C:C4	3.09	0.40
22:BA:1400:U:O2'	22:BA:1401:G:H5'	2.20	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:247:G:C8	22:BA:249:C:C6	3.09	0.40
22:BA:2592:G:C5	22:BA:2593:U:C5	3.10	0.40
55:BA:3001:VIR:H28	55:BA:3001:VIR:H313	1.73	0.40
22:BA:646:U:H3'	22:BA:647:G:C5'	2.52	0.40
22:BA:846:U:O2'	22:BA:847:U:OP2	2.38	0.40
25:BD:101:PHE:C	25:BD:103:ASP:N	2.74	0.40
28:BG:139:GLN:O	28:BG:139:GLN:HG2	2.20	0.40
57:BA:3254:HOH:O	31:BJ:111:LYS:HE2	2.21	0.40
35:BN:31:HIS:C	35:BN:33:ILE:H	2.24	0.40
42:BU:12:ILE:HG13	42:BU:22:ARG:HG3	2.03	0.40
44:BW:51:VAL:HG21	44:BW:80:ILE:O	2.22	0.40
44:BW:66:LYS:HD2	44:BW:85:GLU:HB3	2.03	0.40
1:CA:1158:C:N3	1:CA:1160:G:N7	2.69	0.40
1:CA:147:G:H2'	1:CA:148:G:C8	2.55	0.40
1:CA:216:U:H4'	1:CA:464:U:H4'	2.03	0.40
1:CA:330:C:O2	1:CA:330:C:C2'	2.70	0.40
1:CA:39:G:N3	1:CA:40:C:C6	2.89	0.40
1:CA:216:U:C5'	1:CA:464:U:H4'	2.51	0.40
1:CA:575:G:C5	1:CA:821:G:C8	3.09	0.40
3:CC:103:ILE:N	3:CC:103:ILE:HD12	2.36	0.40
4:CD:105:MET:SD	4:CD:143:VAL:CG1	3.09	0.40
4:CD:145:ILE:N	4:CD:145:ILE:HD12	2.37	0.40
5:CE:104:GLY:O	5:CE:105:ILE:HB	2.21	0.40
6:CF:18:VAL:HG12	6:CF:19:PRO:CD	2.52	0.40
7:CG:103:TRP:O	7:CG:134:ALA:HB2	2.21	0.40
9:CI:28:ILE:HG23	9:CI:63:LEU:HD11	2.03	0.40
10:CJ:7:ARG:HD2	10:CJ:73:LEU:HD21	2.04	0.40
10:CJ:89:ARG:O	10:CJ:90:LEU:HG	2.21	0.40
1:CA:1328:C:OP1	13:CM:28:THR:HG21	2.22	0.40
15:CO:56:LEU:O	15:CO:57:LEU:C	2.59	0.40
16:CP:19:VAL:CG1	16:CP:37:GLY:CA	3.00	0.40
18:CR:34:THR:CG2	18:CR:38:LYS:HB2	2.52	0.40
20:CT:30:THR:O	20:CT:34:LYS:HG2	2.20	0.40
48:D0:17:ARG:HA	48:D0:20:ASP:OD2	2.21	0.40
22:DA:105:C:H2'	22:DA:106:C:H6	1.87	0.40
22:DA:1068:G:N2	22:DA:1069:A:O4'	2.54	0.40
22:DA:1214:A:H4'	22:DA:1239:G:H4'	2.03	0.40
22:DA:1806:C:C4	22:DA:1807:G:C5	3.10	0.40
22:DA:1953:A:H1'	22:DA:2560:A:C1'	2.52	0.40
22:DA:201:C:C5	22:DA:202:U:C5	3.09	0.40
22:DA:2093:G:O5'	29:DH:24:GLY:N	2.52	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2201:G:N3	22:DA:2202:U:C6	2.89	0.40
22:DA:2204:G:C5	22:DA:2221:G:N2	2.90	0.40
22:DA:2309:A:C6	22:DA:2310:C:N3	2.89	0.40
22:DA:2330:G:C2	22:DA:2386:A:C2	3.09	0.40
22:DA:2345:G:H4'	22:DA:2346:A:C5'	2.51	0.40
22:DA:2054:A:C2	22:DA:2616:C:C2	3.09	0.40
22:DA:2625:G:H2'	22:DA:2626:C:O4'	2.21	0.40
22:DA:2704:C:H2'	22:DA:2705:A:O4'	2.21	0.40
22:DA:2728:U:O2'	22:DA:2729:G:H5''	2.21	0.40
22:DA:228:C:N3	22:DA:418:C:O4'	2.54	0.40
22:DA:449:A:C5	22:DA:450:G:N7	2.89	0.40
22:DA:455:C:N4	22:DA:473:G:OP2	2.50	0.40
22:DA:19:A:C2	22:DA:522:A:C2	3.09	0.40
22:DA:647:G:N7	22:DA:648:G:N7	2.70	0.40
22:DA:690:G:O4'	22:DA:780:G:H5'	2.20	0.40
22:DA:812:C:H1'	22:DA:1250:G:C2	2.56	0.40
22:DA:874:G:C2	22:DA:904:G:C2	3.10	0.40
22:DA:938:G:C2	22:DA:939:G:C8	3.09	0.40
23:DB:55:U:H4'	27:DF:25:VAL:HG12	2.03	0.40
25:DD:36:GLN:HA	25:DD:92:VAL:HG22	2.03	0.40
27:DF:38:MET:CG	27:DF:152:LEU:HB3	2.51	0.40
28:DG:141:ILE:HG13	28:DG:142:GLY:N	2.36	0.40
31:DJ:117:ALA:HA	31:DJ:120:ARG:HD2	2.04	0.40
22:DA:2880:C:O2	35:DN:93:GLY:HA3	2.22	0.40
36:DO:7:ARG:NH1	36:DO:97:PHE:CE2	2.89	0.40
37:DP:103:ARG:HG2	37:DP:107:ALA:HB1	2.03	0.40
37:DP:46:VAL:HG12	37:DP:47:VAL:N	2.36	0.40
22:DA:1154:G:P	38:DQ:58:ARG:HH11	2.44	0.40
22:DA:29:U:H5''	38:DQ:7:GLY:HA3	2.02	0.40
39:DR:32:THR:HG22	39:DR:33:VAL:N	2.37	0.40
40:DS:24:ILE:CG2	40:DS:32:ALA:HB1	2.51	0.40
41:DT:32:LEU:HD12	41:DT:32:LEU:O	2.21	0.40
41:DT:2:ILE:HG23	41:DT:3:ARG:C	2.41	0.40
42:DU:67:VAL:HA	42:DU:70:VAL:HG22	2.03	0.40
22:DA:61:C:H5'	46:DY:43:LEU:HD12	2.03	0.40
22:DA:1184:U:OP1	47:DZ:30:ARG:NH2	2.54	0.40
1:AA:1106:G:N1	1:AA:1107:C:C4	2.90	0.40
1:AA:1118:U:H5''	9:AI:106:ARG:HG3	2.03	0.40
1:AA:1190:G:P	3:AC:5:VAL:HB	2.61	0.40
1:AA:1126:U:O2	1:AA:1280:A:H5''	2.20	0.40
1:AA:1381:U:C4	1:AA:1382:C:C4	3.10	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1438:G:C4	1:AA:1439:G:C8	3.09	0.40
1:AA:184:G:N2	1:AA:194:C:C4	2.90	0.40
1:AA:39:G:H2'	1:AA:40:C:H6	1.86	0.40
1:AA:882:C:O2'	1:AA:883:C:H5'	2.22	0.40
1:AA:945:G:C2	1:AA:946:A:C8	3.09	0.40
2:AB:167:ASP:O	2:AB:168:HIS:C	2.59	0.40
2:AB:42:ASN:O	2:AB:43:LEU:C	2.58	0.40
2:AB:96:TRP:O	2:AB:97:LEU:C	2.59	0.40
4:AD:27:ALA:O	4:AD:28:ILE:C	2.60	0.40
6:AF:38:ARG:HD2	6:AF:40:GLU:OE2	2.21	0.40
7:AG:63:GLU:O	7:AG:67:GLU:N	2.53	0.40
8:AH:115:ALA:O	8:AH:118:GLN:N	2.55	0.40
9:AI:130:ARG:HB3	9:AI:130:ARG:NH1	2.36	0.40
14:AN:43:ASN:HA	14:AN:45:VAL:HG22	2.03	0.40
10:AJ:66:GLU:O	14:AN:96:LEU:HD12	2.21	0.40
17:AQ:5:ILE:N	17:AQ:5:ILE:HD12	2.37	0.40
21:AU:17:ARG:HH11	21:AU:20:LYS:HG2	1.86	0.40
21:AU:34:ARG:CZ	21:AU:35:ARG:HB2	2.50	0.40
48:B0:12:LYS:HD2	48:B0:12:LYS:HA	1.87	0.40
49:B1:34:LEU:H	49:B1:52:ALA:HB2	1.86	0.40
22:BA:1243:C:H2'	22:BA:1244:A:O4'	2.20	0.40
22:BA:141:G:H3'	22:BA:142:A:C8	2.56	0.40
22:BA:1854:A:H2'	22:BA:1855:U:H5'	2.02	0.40
22:BA:2001:C:H4'	22:BA:2689:U:H2'	2.03	0.40
22:BA:2211:A:O2'	22:BA:2212:A:P	2.79	0.40
22:BA:2069:G:C2	22:BA:2443:C:C2	3.09	0.40
22:BA:248:G:O5'	22:BA:249:C:H5''	2.22	0.40
22:BA:259:G:O2'	22:BA:260:G:H5'	2.21	0.40
22:BA:2681:C:C4	22:BA:2724:U:C5	3.10	0.40
22:BA:499:U:O4	22:BA:500:G:C6	2.75	0.40
22:BA:54:G:H2'	22:BA:55:G:O5'	2.21	0.40
23:BB:39:A:C2	23:BB:44:G:C4	3.09	0.40
28:BG:52:PHE:N	28:BG:52:PHE:CD1	2.89	0.40
30:BI:54:PRO:HB2	30:BI:78:VAL:HG11	2.03	0.40
33:BL:63:LYS:HA	51:B3:13:ARG:HG3	2.02	0.40
22:BA:1287:A:H5'	35:BN:103:ARG:HD2	2.03	0.40
35:BN:52:ILE:HG21	35:BN:94:TYR:CG	2.57	0.40
38:BQ:41:LYS:HA	38:BQ:44:GLN:HB2	2.03	0.40
41:BT:1:MET:O	41:BT:2:ILE:HG13	2.22	0.40
41:BT:44:LYS:O	41:BT:48:GLN:HG3	2.21	0.40
41:BT:50:LEU:N	41:BT:50:LEU:CD1	2.84	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BW:32:LEU:O	44:BW:33:ALA:C	2.59	0.40
1:CA:1140:C:HO2'	1:CA:1141:C:P	2.44	0.40
1:CA:1327:C:C4	1:CA:1328:C:N4	2.90	0.40
1:CA:220:G:C2'	1:CA:221:C:H5'	2.51	0.40
1:CA:36:C:H4'	12:CL:119:VAL:O	2.21	0.40
1:CA:430:A:OP1	4:CD:9:LEU:HB2	2.22	0.40
1:CA:486:U:C6	1:CA:486:U:OP2	2.75	0.40
1:CA:649:A:N3	1:CA:650:G:H1'	2.37	0.40
1:CA:66:A:C5	1:CA:67:C:C5	3.09	0.40
1:CA:983:A:H2'	1:CA:983:A:N3	2.36	0.40
4:CD:59:GLN:OE1	4:CD:59:GLN:HA	2.21	0.40
5:CE:46:VAL:HG22	5:CE:118:ALA:HB1	2.02	0.40
5:CE:122:ASN:O	5:CE:123:VAL:C	2.60	0.40
7:CG:146:GLU:CD	7:CG:149:LYS:HE3	2.42	0.40
10:CJ:51:VAL:HB	14:CN:81:ARG:HB2	2.03	0.40
12:CL:33:VAL:O	12:CL:34:CYS:CB	2.70	0.40
22:DA:2577:A:H2	48:D0:2:ALA:N	2.19	0.40
49:D1:25:LYS:HE2	49:D1:30:LYS:O	2.21	0.40
50:D2:43:THR:HG1	50:D2:44:VAL:N	2.15	0.40
22:DA:667:U:O2	51:D3:2:PRO:HG2	2.21	0.40
22:DA:1002:G:C2	22:DA:1003:G:H1'	2.56	0.40
22:DA:1206:G:C4	22:DA:1207:C:C6	3.10	0.40
22:DA:1195:G:O2'	22:DA:1226:A:N1	2.39	0.40
22:DA:1275:A:H4'	22:DA:1276:A:OP1	2.21	0.40
22:DA:1293:C:H2'	22:DA:1294:U:O4'	2.22	0.40
22:DA:1277:G:N1	22:DA:1294:U:C2	2.89	0.40
22:DA:1351:C:C2'	22:DA:1352:U:O4'	2.68	0.40
22:DA:187:G:O2'	22:DA:1365:A:N3	2.35	0.40
22:DA:1464:G:C5	22:DA:1465:G:N7	2.90	0.40
22:DA:1645:G:H5''	22:DA:1646:C:O4'	2.20	0.40
22:DA:1911:U:H2'	22:DA:1918:A:C2	2.57	0.40
22:DA:197:A:N3	22:DA:197:A:H2'	2.36	0.40
22:DA:2043:C:H1'	22:DA:2779:U:O4	2.21	0.40
22:DA:2119:A:C2	22:DA:2170:A:C5	3.09	0.40
22:DA:2185:U:H2'	22:DA:2186:G:C8	2.57	0.40
22:DA:2215:C:C2	22:DA:2216:G:C8	3.09	0.40
22:DA:2355:G:O2'	44:DW:39:ARG:HD2	2.21	0.40
22:DA:2893:A:O4'	22:DA:2894:G:C2	2.75	0.40
22:DA:301:G:N2	22:DA:302:C:C2	2.89	0.40
22:DA:659:G:C5	22:DA:660:C:C4	3.10	0.40
22:DA:663:G:C6	22:DA:664:G:C5	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:686:U:H2'	22:DA:788:A:C2	2.57	0.40
22:DA:776:G:C8	22:DA:793:A:C5	3.10	0.40
22:DA:900:A:H2'	22:DA:901:C:H5'	2.02	0.40
22:DA:915:C:C4	22:DA:916:G:C5	3.09	0.40
24:DC:232:HIS:NE2	24:DC:244:PRO:HA	2.36	0.40
24:DC:29:PRO:HA	24:DC:82:GLU:OE1	2.21	0.40
25:DD:4:LEU:CD1	25:DD:100:LEU:HD23	2.52	0.40
25:DD:90:PHE:CE2	25:DD:96:ILE:CD1	3.03	0.40
26:DE:7:ASP:N	26:DE:7:ASP:OD1	2.52	0.40
28:DG:149:ARG:HA	28:DG:162:VAL:CG1	2.51	0.40
30:DI:10:LYS:CB	30:DI:56:PRO:HB2	2.52	0.40
34:DM:59:ARG:HD3	34:DM:59:ARG:O	2.21	0.40
36:DO:80:GLU:O	36:DO:84:GLU:N	2.51	0.40
38:DQ:61:TRP:CH2	38:DQ:93:LYS:HB2	2.56	0.40
43:DV:9:ARG:HG3	43:DV:41:GLU:HB3	2.02	0.40
1:AA:1039:G:O2'	1:AA:1040:U:H5'	2.22	0.40
1:AA:1248:A:C5	1:AA:1249:C:C5	3.09	0.40
1:AA:125:U:H2'	1:AA:126:G:O4'	2.22	0.40
1:AA:1304:G:C6	1:AA:1305:G:N2	2.89	0.40
1:AA:1501:C:C6	1:AA:1504:G:C8	3.09	0.40
1:AA:199:A:C2	1:AA:200:G:N9	2.89	0.40
1:AA:427:U:C4	1:AA:428:G:C6	3.09	0.40
1:AA:444:G:C4	1:AA:445:G:C8	3.09	0.40
1:AA:520:A:N1	1:AA:536:C:H1'	2.37	0.40
1:AA:745:G:C2'	1:AA:746:A:H5'	2.51	0.40
1:AA:900:A:C6	1:AA:901:A:N1	2.90	0.40
1:AA:900:A:N6	1:AA:901:A:N1	2.69	0.40
1:AA:981:U:O2'	14:AN:61:ARG:NE	2.54	0.40
2:AB:157:LEU:O	2:AB:158:PRO:C	2.59	0.40
3:AC:3:GLN:OE1	3:AC:3:GLN:N	2.54	0.40
1:AA:1190:G:P	3:AC:5:VAL:H	2.44	0.40
3:AC:73:PRO:HG3	3:AC:105:GLU:HG3	2.03	0.40
4:AD:53:VAL:CG2	4:AD:54:GLN:N	2.84	0.40
1:AA:1079:G:C5'	5:AE:134:ILE:HD13	2.51	0.40
8:AH:106:THR:HG21	8:AH:121:LEU:HD13	2.04	0.40
9:AI:51:PRO:HB3	9:AI:84:THR:HG23	2.02	0.40
14:AN:17:ALA:HA	14:AN:55:SER:O	2.22	0.40
18:AR:20:GLU:O	18:AR:21:ILE:C	2.60	0.40
18:AR:43:ARG:HG2	18:AR:44:ILE:HD13	2.04	0.40
18:AR:68:LEU:HA	18:AR:69:PRO:HD3	1.97	0.40
49:B1:34:LEU:CB	49:B1:52:ALA:HB2	2.51	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1056:G:H5''	22:BA:1057:A:C5'	2.52	0.40
22:BA:1083:U:O2	22:BA:1085:A:C8	2.75	0.40
22:BA:1358:G:N2	22:BA:1374:G:C6	2.90	0.40
22:BA:1494:A:H2'	22:BA:1495:A:O5'	2.21	0.40
22:BA:1795:C:C5	22:BA:1796:U:C5	3.08	0.40
22:BA:2059:A:C2	22:BA:2503:A:C6	3.09	0.40
22:BA:2262:U:P	44:BW:19:LYS:HE2	2.62	0.40
22:BA:2331:G:O2'	22:BA:2336:A:N1	2.44	0.40
22:BA:2578:G:N3	22:BA:2578:G:H2'	2.36	0.40
22:BA:2720:U:C2	22:BA:2872:A:C5	3.09	0.40
22:BA:10:A:C5	22:BA:2800:A:C6	3.09	0.40
22:BA:28:A:C4	22:BA:29:U:C6	3.09	0.40
22:BA:2901:C:C4	22:BA:2902:C:C5	3.10	0.40
22:BA:428:A:H2'	22:BA:429:A:C8	2.56	0.40
22:BA:826:U:H2'	22:BA:828:U:O4'	2.21	0.40
22:BA:979:A:H2'	22:BA:982:C:H42	1.87	0.40
24:BC:118:SER:HA	24:BC:129:THR:O	2.22	0.40
25:BD:14:ILE:HD13	25:BD:24:VAL:HG21	2.03	0.40
22:BA:615:U:C4	26:BE:35:TYR:CE2	3.09	0.40
29:BH:120:GLY:HA2	29:BH:122:LEU:HA	2.04	0.40
30:BI:57:VAL:HG23	30:BI:71:THR:HA	2.02	0.40
33:BL:96:LYS:HG3	33:BL:101:ILE:HD11	2.03	0.40
43:BV:82:TYR:CD1	43:BV:82:TYR:N	2.89	0.40
1:CA:102:G:N2	1:CA:103:U:C2	2.89	0.40
1:CA:104:G:H4'	1:CA:174:A:O4'	2.20	0.40
1:CA:1105:A:C2	1:CA:1106:G:N7	2.90	0.40
1:CA:1140:C:O2'	1:CA:1141:C:H6	2.05	0.40
1:CA:1169:A:C2	1:CA:1170:A:N3	2.90	0.40
1:CA:1490:U:H2'	1:CA:1491:G:C8	2.56	0.40
1:CA:181:A:C5	1:CA:194:C:C5	3.10	0.40
1:CA:491:G:H2'	1:CA:492:C:H6	1.85	0.40
6:CF:43:GLY:HA2	6:CF:58:HIS:CD2	2.57	0.40
11:CK:85:MET:HA	11:CK:111:THR:O	2.21	0.40
12:CL:68:GLY:O	12:CL:99:ARG:NH1	2.54	0.40
12:CL:86:ARG:HD2	12:CL:88:LYS:N	2.36	0.40
14:CN:35:ASN:O	14:CN:42:TRP:CH2	2.74	0.40
15:CO:78:TYR:OH	15:CO:88:ARG:NE	2.54	0.40
18:CR:25:ASP:HB3	18:CR:28:THR:HB	2.02	0.40
19:CS:40:ILE:HD13	19:CS:66:MET:HB3	2.03	0.40
21:CU:47:ARG:HE	21:CU:47:ARG:HA	1.87	0.40
50:D2:25:LYS:O	50:D2:29:GLN:HG3	2.22	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1068:G:N3	22:DA:1096:A:C5'	2.85	0.40
22:DA:55:G:C2	22:DA:116:C:C2	3.09	0.40
22:DA:1566:A:C2	24:DC:213:TRP:CB	3.05	0.40
22:DA:1738:G:HO2'	22:DA:1739:A:P	2.45	0.40
22:DA:1835:G:C6	22:DA:1836:C:C5	3.10	0.40
22:DA:1965:C:H3'	22:DA:1966:A:C8	2.57	0.40
22:DA:228:C:H5'	22:DA:229:C:C6	2.57	0.40
22:DA:534:U:H1'	38:DQ:45:TYR:HB3	2.04	0.40
22:DA:618:G:N3	22:DA:618:G:H2'	2.35	0.40
22:DA:802:A:C5	22:DA:803:U:C5	3.10	0.40
23:DB:21:G:H2'	23:DB:22:U:O4'	2.22	0.40
23:DB:27:C:C5	23:DB:28:C:C4	3.09	0.40
25:DD:14:ILE:HG12	25:DD:24:VAL:CG2	2.52	0.40
25:DD:151:THR:HG22	25:DD:152:PRO:HD3	2.03	0.40
22:DA:2820:A:C8	25:DD:196:ALA:CB	3.04	0.40
27:DF:147:ASP:O	27:DF:148:ARG:CB	2.69	0.40
27:DF:83:TYR:CG	27:DF:84:PRO:HD2	2.56	0.40
31:DJ:116:ARG:NH1	31:DJ:116:ARG:HB2	2.36	0.40
31:DJ:44:TYR:C	31:DJ:44:TYR:CD2	2.95	0.40
32:DK:11:ALA:O	32:DK:12:ASP:HB3	2.22	0.40
37:DP:103:ARG:HD3	37:DP:108:ALA:HB2	2.03	0.40
42:DU:24:LYS:N	42:DU:37:GLU:HG2	2.36	0.40
46:DY:31:GLN:OE1	46:DY:37:LEU:HD12	2.21	0.40

All (4) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:368:U:OP1	29:DH:93:SER:OG[4_455]	1.70	0.50
1:AA:367:U:O5'	29:DH:123:ARG:NH2[4_455]	2.02	0.18
1:AA:368:U:O4	29:DH:83:LYS:CE[4_455]	2.03	0.17
1:AA:368:U:O4	29:DH:83:LYS:CB[4_455]	2.13	0.07

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 X-ray entries followed by that with respect to entries of similar resolution.

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	
2	AB	216/218 (99%)	126 (58%)	40 (18%)	50 (23%)	0	0
2	CB	216/218 (99%)	133 (62%)	52 (24%)	31 (14%)	0	0
3	AC	204/206 (99%)	149 (73%)	38 (19%)	17 (8%)	1	2
3	CC	204/206 (99%)	153 (75%)	40 (20%)	11 (5%)	2	6
4	AD	203/205 (99%)	139 (68%)	33 (16%)	31 (15%)	0	0
4	CD	203/205 (99%)	150 (74%)	31 (15%)	22 (11%)	0	1
5	AE	148/150 (99%)	104 (70%)	31 (21%)	13 (9%)	1	2
5	CE	148/150 (99%)	98 (66%)	28 (19%)	22 (15%)	0	0
6	AF	98/100 (98%)	66 (67%)	19 (19%)	13 (13%)	0	0
6	CF	98/100 (98%)	66 (67%)	16 (16%)	16 (16%)	0	0
7	AG	149/151 (99%)	111 (74%)	28 (19%)	10 (7%)	1	3
7	CG	149/151 (99%)	121 (81%)	20 (13%)	8 (5%)	2	6
8	AH	127/129 (98%)	91 (72%)	21 (16%)	15 (12%)	0	1
8	CH	127/129 (98%)	95 (75%)	24 (19%)	8 (6%)	1	4
9	AI	125/127 (98%)	91 (73%)	21 (17%)	13 (10%)	0	1
9	CI	125/127 (98%)	86 (69%)	28 (22%)	11 (9%)	1	2
10	AJ	96/98 (98%)	60 (62%)	15 (16%)	21 (22%)	0	0
10	CJ	96/98 (98%)	71 (74%)	13 (14%)	12 (12%)	0	0
11	AK	115/117 (98%)	84 (73%)	19 (16%)	12 (10%)	0	1
11	CK	115/117 (98%)	81 (70%)	24 (21%)	10 (9%)	1	2
12	AL	121/123 (98%)	92 (76%)	22 (18%)	7 (6%)	1	5
12	CL	121/123 (98%)	94 (78%)	12 (10%)	15 (12%)	0	1
13	AM	112/114 (98%)	81 (72%)	20 (18%)	11 (10%)	0	1
13	CM	112/114 (98%)	86 (77%)	17 (15%)	9 (8%)	1	2
14	AN	92/100 (92%)	62 (67%)	18 (20%)	12 (13%)	0	0
14	CN	92/100 (92%)	59 (64%)	18 (20%)	15 (16%)	0	0
15	AO	86/88 (98%)	65 (76%)	16 (19%)	5 (6%)	1	5
15	CO	86/88 (98%)	70 (81%)	12 (14%)	4 (5%)	2	8
16	AP	80/82 (98%)	53 (66%)	15 (19%)	12 (15%)	0	0
16	CP	80/82 (98%)	59 (74%)	16 (20%)	5 (6%)	1	4

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	AQ	78/80 (98%)	54 (69%)	15 (19%)	9 (12%)	0	1
17	CQ	78/80 (98%)	56 (72%)	11 (14%)	11 (14%)	0	0
18	AR	53/55 (96%)	43 (81%)	10 (19%)	0	100	100
18	CR	53/55 (96%)	34 (64%)	13 (24%)	6 (11%)	0	1
19	AS	77/79 (98%)	54 (70%)	12 (16%)	11 (14%)	0	0
19	CS	77/79 (98%)	60 (78%)	12 (16%)	5 (6%)	1	3
20	AT	83/85 (98%)	60 (72%)	15 (18%)	8 (10%)	0	1
20	CT	83/85 (98%)	64 (77%)	12 (14%)	7 (8%)	1	2
21	AU	49/51 (96%)	27 (55%)	9 (18%)	13 (26%)	0	0
21	CU	49/51 (96%)	26 (53%)	12 (24%)	11 (22%)	0	0
24	BC	269/271 (99%)	211 (78%)	47 (18%)	11 (4%)	3	11
24	DC	269/271 (99%)	204 (76%)	50 (19%)	15 (6%)	2	5
25	BD	207/209 (99%)	180 (87%)	20 (10%)	7 (3%)	3	15
25	DD	207/209 (99%)	168 (81%)	29 (14%)	10 (5%)	2	8
26	BE	199/201 (99%)	167 (84%)	26 (13%)	6 (3%)	4	17
26	DE	199/201 (99%)	160 (80%)	28 (14%)	11 (6%)	2	5
27	BF	175/177 (99%)	144 (82%)	24 (14%)	7 (4%)	3	11
27	DF	175/177 (99%)	137 (78%)	24 (14%)	14 (8%)	1	2
28	BG	174/176 (99%)	149 (86%)	20 (12%)	5 (3%)	4	18
28	DG	174/176 (99%)	136 (78%)	29 (17%)	9 (5%)	2	6
29	BH	147/149 (99%)	89 (60%)	37 (25%)	21 (14%)	0	0
29	DH	147/149 (99%)	100 (68%)	32 (22%)	15 (10%)	0	1
30	BI	139/141 (99%)	85 (61%)	36 (26%)	18 (13%)	0	0
30	DI	139/141 (99%)	82 (59%)	44 (32%)	13 (9%)	0	1
31	BJ	140/142 (99%)	129 (92%)	10 (7%)	1 (1%)	22	54
31	DJ	140/142 (99%)	118 (84%)	17 (12%)	5 (4%)	3	14
32	BK	120/122 (98%)	99 (82%)	15 (12%)	6 (5%)	2	7
32	DK	120/122 (98%)	100 (83%)	13 (11%)	7 (6%)	1	5
33	BL	141/143 (99%)	112 (79%)	22 (16%)	7 (5%)	2	7
33	DL	141/143 (99%)	99 (70%)	29 (21%)	13 (9%)	1	1
34	BM	134/136 (98%)	123 (92%)	9 (7%)	2 (2%)	10	34

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
34	DM	134/136 (98%)	111 (83%)	15 (11%)	8 (6%)	1	4
35	BN	118/120 (98%)	104 (88%)	10 (8%)	4 (3%)	3	15
35	DN	118/120 (98%)	94 (80%)	16 (14%)	8 (7%)	1	3
36	BO	114/116 (98%)	87 (76%)	21 (18%)	6 (5%)	2	6
36	DO	114/116 (98%)	85 (75%)	22 (19%)	7 (6%)	1	4
37	BP	112/114 (98%)	99 (88%)	9 (8%)	4 (4%)	3	14
37	DP	112/114 (98%)	84 (75%)	16 (14%)	12 (11%)	0	1
38	BQ	115/117 (98%)	109 (95%)	4 (4%)	2 (2%)	9	31
38	DQ	115/117 (98%)	101 (88%)	13 (11%)	1 (1%)	17	48
39	BR	101/103 (98%)	84 (83%)	9 (9%)	8 (8%)	1	2
39	DR	101/103 (98%)	76 (75%)	18 (18%)	7 (7%)	1	3
40	BS	108/110 (98%)	98 (91%)	7 (6%)	3 (3%)	5	19
40	DS	108/110 (98%)	88 (82%)	12 (11%)	8 (7%)	1	2
41	BT	91/93 (98%)	72 (79%)	13 (14%)	6 (7%)	1	3
41	DT	91/93 (98%)	52 (57%)	28 (31%)	11 (12%)	0	1
42	BU	100/102 (98%)	76 (76%)	16 (16%)	8 (8%)	1	2
42	DU	100/102 (98%)	71 (71%)	16 (16%)	13 (13%)	0	0
43	BV	92/94 (98%)	87 (95%)	5 (5%)	0	100	100
43	DV	92/94 (98%)	79 (86%)	12 (13%)	1 (1%)	14	42
44	BW	74/76 (97%)	68 (92%)	5 (7%)	1 (1%)	11	36
44	DW	73/76 (96%)	63 (86%)	8 (11%)	2 (3%)	5	19
45	BX	75/77 (97%)	68 (91%)	6 (8%)	1 (1%)	12	37
45	DX	75/77 (97%)	55 (73%)	12 (16%)	8 (11%)	0	1
46	BY	61/63 (97%)	47 (77%)	7 (12%)	7 (12%)	0	1
46	DY	61/63 (97%)	43 (70%)	13 (21%)	5 (8%)	1	2
47	BZ	56/58 (97%)	53 (95%)	3 (5%)	0	100	100
47	DZ	56/58 (97%)	47 (84%)	6 (11%)	3 (5%)	2	6
48	B0	54/56 (96%)	44 (82%)	8 (15%)	2 (4%)	3	13
48	D0	54/56 (96%)	39 (72%)	13 (24%)	2 (4%)	3	13
49	B1	48/50 (96%)	39 (81%)	5 (10%)	4 (8%)	1	2
49	D1	48/50 (96%)	37 (77%)	8 (17%)	3 (6%)	1	4

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
50	B2	44/46 (96%)	40 (91%)	3 (7%)	1 (2%)	6	23
50	D2	44/46 (96%)	33 (75%)	8 (18%)	3 (7%)	1	3
51	B3	62/64 (97%)	55 (89%)	6 (10%)	1 (2%)	9	32
51	D3	62/64 (97%)	46 (74%)	13 (21%)	3 (5%)	2	8
52	B4	36/38 (95%)	33 (92%)	3 (8%)	0	100	100
52	D4	36/38 (95%)	33 (92%)	2 (6%)	1 (3%)	5	19
53	B5	183/228 (80%)	97 (53%)	57 (31%)	29 (16%)	0	0
All	All	11418/11672 (98%)	8663 (76%)	1837 (16%)	918 (8%)	1	2

All (918) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	16	PHE
2	AB	21	ARG
2	AB	22	TYR
2	AB	34	ALA
2	AB	64	LYS
2	AB	73	LYS
2	AB	74	ARG
2	AB	75	ALA
2	AB	76	ALA
2	AB	107	VAL
2	AB	116	ASP
2	AB	120	GLN
2	AB	129	LEU
2	AB	134	ALA
2	AB	148	LEU
2	AB	152	LYS
2	AB	155	GLY
2	AB	201	PRO
2	AB	210	VAL
2	AB	211	THR
2	AB	220	THR
3	AC	15	VAL
3	AC	18	TRP
3	AC	26	THR
3	AC	61	ALA
3	AC	101	ILE
3	AC	127	ARG
3	AC	140	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AC	141	ALA
4	AD	23	SER
4	AD	24	GLY
4	AD	29	ASP
4	AD	33	LYS
4	AD	35	GLU
4	AD	125	VAL
4	AD	154	ARG
4	AD	160	GLU
4	AD	168	PRO
4	AD	174	ASP
4	AD	175	ALA
4	AD	191	LEU
4	AD	192	SER
5	AE	12	GLN
5	AE	100	SER
5	AE	158	GLY
6	AF	56	LYS
6	AF	91	ARG
6	AF	92	THR
6	AF	98	GLU
6	AF	99	ALA
7	AG	5	ARG
7	AG	15	ASP
7	AG	56	LYS
7	AG	81	GLY
7	AG	85	TYR
7	AG	130	ASN
8	AH	3	MET
8	AH	4	GLN
8	AH	67	GLN
9	AI	41	ARG
9	AI	44	ALA
9	AI	91	ASP
10	AJ	32	THR
10	AJ	34	ALA
10	AJ	36	VAL
10	AJ	57	VAL
10	AJ	61	ALA
10	AJ	101	SER
11	AK	39	GLY
11	AK	41	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	AK	52	PHE
11	AK	72	ASP
11	AK	73	ALA
11	AK	103	ALA
12	AL	24	LEU
12	AL	26	ALA
12	AL	44	LYS
12	AL	123	LYS
13	AM	4	ILE
13	AM	7	ILE
13	AM	12	HIS
13	AM	112	PRO
14	AN	28	LYS
14	AN	34	VAL
14	AN	45	VAL
14	AN	47	LYS
14	AN	52	PRO
14	AN	53	ARG
14	AN	62	ASN
14	AN	92	GLU
15	AO	20	ASN
15	AO	73	LYS
16	AP	11	ALA
16	AP	46	LYS
16	AP	48	GLU
16	AP	53	ASP
17	AQ	18	GLU
17	AQ	51	ASN
17	AQ	68	SER
19	AS	4	SER
19	AS	5	LEU
19	AS	29	LYS
19	AS	30	PRO
19	AS	65	GLU
20	AT	4	ILE
20	AT	6	SER
20	AT	70	ASN
21	AU	10	GLU
21	AU	24	GLU
21	AU	35	ARG
21	AU	36	GLU
21	AU	37	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	AU	40	LYS
24	BC	38	SER
24	BC	71	LYS
24	BC	124	ILE
24	BC	236	GLU
25	BD	105	LYS
25	BD	152	PRO
26	BE	86	ALA
27	BF	3	LYS
27	BF	41	GLY
27	BF	176	PRO
28	BG	119	ALA
29	BH	10	ALA
29	BH	34	GLY
29	BH	53	GLU
29	BH	87	GLU
29	BH	90	LEU
29	BH	118	PRO
29	BH	121	VAL
29	BH	140	ALA
30	BI	19	ASN
30	BI	45	LYS
30	BI	63	ALA
30	BI	75	PRO
30	BI	83	ALA
30	BI	113	LYS
30	BI	117	MET
33	BL	69	ARG
33	BL	94	THR
33	BL	115	GLU
34	BM	69	PRO
35	BN	10	LEU
35	BN	118	ARG
35	BN	119	SER
36	BO	88	LYS
37	BP	94	LYS
37	BP	114	LEU
38	BQ	25	TYR
39	BR	31	GLU
39	BR	49	ILE
39	BR	51	VAL
39	BR	53	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	BR	55	ASP
39	BR	57	GLY
41	BT	89	GLU
42	BU	40	ASN
45	BX	3	ARG
46	BY	22	LEU
46	BY	23	ARG
50	B2	44	VAL
53	B5	62	THR
53	B5	126	SER
53	B5	134	PRO
53	B5	154	ILE
53	B5	174	ALA
53	B5	175	PRO
53	B5	181	PHE
53	B5	183	PRO
53	B5	205	ALA
53	B5	214	TYR
53	B5	221	PRO
2	CB	16	PHE
2	CB	124	GLY
2	CB	193	PRO
2	CB	194	ASP
2	CB	203	ASN
2	CB	207	ILE
2	CB	220	THR
3	CC	146	ALA
3	CC	156	ARG
3	CC	192	THR
4	CD	29	ASP
4	CD	153	SER
5	CE	45	ARG
5	CE	98	PRO
5	CE	100	SER
5	CE	103	THR
5	CE	105	ILE
5	CE	123	VAL
5	CE	138	ARG
6	CF	55	HIS
6	CF	56	LYS
6	CF	86	ARG
6	CF	92	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	CF	93	LYS
6	CF	98	GLU
7	CG	9	GLN
7	CG	56	LYS
7	CG	130	ASN
9	CI	26	GLY
9	CI	41	ARG
9	CI	103	PHE
9	CI	120	LYS
10	CJ	35	GLN
10	CJ	38	GLY
10	CJ	89	ARG
10	CJ	92	LEU
11	CK	52	PHE
11	CK	127	ARG
12	CL	23	ALA
12	CL	24	LEU
12	CL	26	ALA
12	CL	44	LYS
12	CL	76	GLU
12	CL	77	HIS
12	CL	89	ASP
12	CL	93	VAL
12	CL	117	TYR
13	CM	11	ASP
13	CM	41	GLU
14	CN	29	ALA
14	CN	34	VAL
14	CN	52	PRO
14	CN	92	GLU
15	CO	73	LYS
16	CP	24	SER
17	CQ	13	VAL
17	CQ	51	ASN
17	CQ	52	GLU
18	CR	26	ILE
18	CR	47	THR
18	CR	71	THR
19	CS	5	LEU
19	CS	32	ARG
20	CT	4	ILE
20	CT	6	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	CU	9	ASN
21	CU	12	PHE
21	CU	24	GLU
21	CU	36	GLU
21	CU	40	LYS
21	CU	53	VAL
24	DC	10	SER
24	DC	35	GLU
24	DC	58	HIS
24	DC	71	LYS
24	DC	122	ALA
24	DC	239	ASN
25	DD	31	ALA
25	DD	105	LYS
25	DD	151	THR
25	DD	152	PRO
25	DD	174	SER
26	DE	83	VAL
26	DE	153	LEU
27	DF	9	LYS
27	DF	21	ASN
27	DF	31	VAL
27	DF	123	ASP
28	DG	20	ASN
28	DG	119	ALA
28	DG	175	LYS
29	DH	3	VAL
29	DH	10	ALA
29	DH	33	GLN
29	DH	35	LYS
29	DH	41	LYS
29	DH	53	GLU
29	DH	54	LEU
29	DH	83	LYS
29	DH	109	GLU
30	DI	7	ALA
30	DI	101	ILE
30	DI	102	SER
30	DI	106	LEU
30	DI	115	ALA
31	DJ	25	LEU
31	DJ	42	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
31	DJ	81	ILE
31	DJ	95	ARG
32	DK	35	VAL
32	DK	92	GLU
32	DK	108	ARG
33	DL	115	GLU
34	DM	69	PRO
35	DN	2	ARG
35	DN	70	THR
35	DN	88	ALA
35	DN	104	ALA
35	DN	118	ARG
36	DO	34	HIS
36	DO	116	GLN
37	DP	36	SER
37	DP	66	ASN
39	DR	102	SER
40	DS	29	VAL
40	DS	62	ASP
40	DS	67	ASP
41	DT	18	GLU
41	DT	21	SER
41	DT	22	THR
41	DT	28	ASN
41	DT	39	THR
41	DT	40	LYS
41	DT	77	ARG
42	DU	9	ASP
42	DU	41	LEU
42	DU	55	PRO
42	DU	89	ASP
44	DW	20	ARG
45	DX	32	ASN
45	DX	62	LYS
47	DZ	14	ILE
49	D1	16	GLY
50	D2	44	VAL
52	D4	20	ASP
2	AB	12	ALA
2	AB	68	LEU
2	AB	83	ALA
2	AB	117	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AB	124	GLY
2	AB	126	PHE
2	AB	128	LYS
2	AB	150	GLY
2	AB	194	ASP
2	AB	207	ILE
2	AB	212	LEU
3	AC	17	PRO
3	AC	139	GLN
4	AD	17	THR
4	AD	25	VAL
4	AD	34	ILE
4	AD	99	ASP
4	AD	151	LYS
4	AD	153	SER
4	AD	169	THR
5	AE	51	GLY
5	AE	78	ASN
5	AE	101	GLU
5	AE	109	GLY
5	AE	110	ALA
5	AE	138	ARG
5	AE	151	GLU
6	AF	7	VAL
6	AF	68	GLN
6	AF	69	GLU
6	AF	95	ALA
8	AH	11	LEU
8	AH	31	LYS
8	AH	96	MET
9	AI	13	LYS
9	AI	57	MET
9	AI	59	GLU
9	AI	116	VAL
10	AJ	17	LEU
10	AJ	74	VAL
10	AJ	92	LEU
11	AK	14	LYS
12	AL	25	GLU
12	AL	89	ASP
13	AM	11	ASP
13	AM	47	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	AN	48	LEU
16	AP	68	SER
16	AP	80	LYS
17	AQ	13	VAL
17	AQ	69	LYS
17	AQ	70	THR
19	AS	35	SER
20	AT	68	HIS
21	AU	12	PHE
21	AU	26	ALA
21	AU	27	GLY
21	AU	38	TYR
24	BC	122	ALA
24	BC	238	ARG
24	BC	261	LYS
26	BE	8	ALA
26	BE	62	GLN
26	BE	66	GLY
28	BG	39	ASP
28	BG	152	ARG
28	BG	175	LYS
29	BH	3	VAL
29	BH	11	ASN
29	BH	14	SER
29	BH	15	LEU
29	BH	66	ASN
29	BH	119	ASN
30	BI	4	LYS
30	BI	58	VAL
30	BI	60	THR
30	BI	65	ARG
30	BI	134	ARG
32	BK	35	VAL
32	BK	91	SER
32	BK	108	ARG
33	BL	88	GLY
36	BO	60	GLU
36	BO	99	TYR
37	BP	35	GLY
37	BP	105	GLY
38	BQ	7	GLY
40	BS	64	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
40	BS	66	ILE
41	BT	71	GLY
42	BU	9	ASP
42	BU	52	LEU
44	BW	54	GLY
46	BY	24	GLU
46	BY	36	GLN
46	BY	46	VAL
46	BY	57	LEU
48	B0	18	SER
48	B0	55	ILE
49	B1	17	THR
53	B5	51	ASP
53	B5	60	ARG
53	B5	86	GLU
53	B5	180	SER
53	B5	215	VAL
2	CB	35	ARG
2	CB	36	ASN
2	CB	51	ASN
2	CB	116	ASP
2	CB	120	GLN
2	CB	166	ALA
2	CB	170	HIS
2	CB	208	ARG
2	CB	222	ARG
3	CC	66	VAL
3	CC	127	ARG
3	CC	175	LEU
4	CD	23	SER
4	CD	28	ILE
4	CD	30	THR
4	CD	32	CYS
4	CD	33	LYS
4	CD	35	GLU
4	CD	174	ASP
4	CD	175	ALA
5	CE	12	GLN
5	CE	51	GLY
5	CE	99	ALA
5	CE	101	GLU
5	CE	122	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	CE	142	ASP
6	CF	13	ASP
6	CF	14	GLN
6	CF	17	GLN
6	CF	33	GLU
6	CF	91	ARG
7	CG	84	THR
7	CG	146	GLU
8	CH	89	LYS
10	CJ	36	VAL
10	CJ	41	PRO
10	CJ	57	VAL
10	CJ	95	GLY
11	CK	15	GLN
11	CK	78	GLY
11	CK	92	GLY
11	CK	126	LYS
12	CL	15	LYS
12	CL	17	ALA
12	CL	43	LYS
13	CM	7	ILE
13	CM	25	VAL
14	CN	22	ALA
14	CN	23	LYS
14	CN	53	ARG
14	CN	59	ARG
14	CN	62	ASN
15	CO	20	ASN
16	CP	80	LYS
17	CQ	5	ILE
17	CQ	12	VAL
17	CQ	20	SER
17	CQ	76	VAL
18	CR	21	ILE
20	CT	7	ALA
21	CU	13	ASP
21	CU	52	ALA
24	DC	205	LEU
24	DC	240	PHE
24	DC	251	GLN
25	DD	36	GLN
25	DD	195	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	DE	86	ALA
27	DF	79	ILE
27	DF	143	TYR
27	DF	148	ARG
27	DF	176	PRO
28	DG	8	PRO
28	DG	159	GLY
29	DH	31	VAL
29	DH	77	THR
29	DH	118	PRO
30	DI	72	LYS
30	DI	84	ALA
30	DI	93	PRO
31	DJ	127	GLY
33	DL	30	THR
33	DL	54	GLN
33	DL	69	ARG
33	DL	111	ILE
34	DM	58	LYS
35	DN	3	HIS
36	DO	57	ALA
37	DP	24	ASP
37	DP	80	VAL
37	DP	93	ARG
37	DP	114	LEU
39	DR	50	GLY
40	DS	63	GLY
40	DS	69	LEU
42	DU	7	ARG
42	DU	53	ASN
42	DU	57	GLY
42	DU	98	SER
42	DU	102	THR
44	DW	49	ALA
46	DY	46	VAL
46	DY	57	LEU
47	DZ	53	PHE
48	D0	55	ILE
49	D1	52	ALA
50	D2	45	SER
2	AB	13	GLY
2	AB	25	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AB	95	ARG
2	AB	183	VAL
2	AB	193	PRO
2	AB	209	ALA
3	AC	3	GLN
3	AC	166	GLU
3	AC	206	GLU
4	AD	32	CYS
4	AD	166	GLU
5	AE	45	ARG
6	AF	6	ILE
7	AG	9	GLN
7	AG	12	ILE
7	AG	78	ARG
8	AH	21	ASN
8	AH	100	GLY
8	AH	115	ALA
9	AI	88	MET
10	AJ	16	ARG
10	AJ	38	GLY
10	AJ	75	ASP
10	AJ	100	ILE
11	AK	108	THR
13	AM	114	LYS
14	AN	42	TRP
14	AN	44	ALA
15	AO	25	THR
16	AP	10	GLY
16	AP	12	LYS
16	AP	44	SER
17	AQ	12	VAL
17	AQ	82	ALA
19	AS	9	PRO
20	AT	5	LYS
21	AU	23	CYS
21	AU	52	ALA
24	BC	167	ARG
24	BC	210	ALA
26	BE	6	LYS
26	BE	200	LEU
29	BH	9	VAL
29	BH	30	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	BH	85	GLY
29	BH	93	SER
29	BH	105	ALA
30	BI	72	LYS
31	BJ	81	ILE
32	BK	93	GLN
33	BL	36	LYS
35	BN	79	LEU
39	BR	52	PRO
41	BT	17	SER
41	BT	52	GLU
42	BU	8	ASP
42	BU	17	LYS
49	B1	52	ALA
53	B5	65	LEU
53	B5	66	PRO
53	B5	67	HIS
2	CB	13	GLY
2	CB	17	GLY
2	CB	34	ALA
2	CB	41	ILE
2	CB	63	ARG
2	CB	88	ASP
2	CB	141	LEU
2	CB	209	ALA
3	CC	12	LEU
3	CC	80	LYS
3	CC	89	LYS
4	CD	4	TYR
4	CD	85	ASN
5	CE	24	THR
5	CE	147	MET
8	CH	54	ASP
8	CH	120	GLY
10	CJ	17	LEU
10	CJ	90	LEU
10	CJ	91	ASP
12	CL	4	VAL
13	CM	12	HIS
13	CM	24	GLY
13	CM	49	SER
13	CM	114	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	CN	13	ARG
16	CP	44	SER
16	CP	77	GLU
17	CQ	17	MET
17	CQ	53	CYS
18	CR	25	ASP
18	CR	34	THR
19	CS	6	LYS
20	CT	68	HIS
21	CU	10	GLU
21	CU	35	ARG
24	DC	143	ASN
25	DD	194	PRO
26	DE	129	PRO
27	DF	175	PHE
27	DF	177	PHE
28	DG	12	PRO
28	DG	28	GLY
29	DH	16	GLY
29	DH	40	THR
30	DI	100	LYS
33	DL	53	GLY
35	DN	14	SER
36	DO	114	GLY
37	DP	94	LYS
37	DP	95	ALA
37	DP	111	LYS
38	DQ	102	ASP
39	DR	31	GLU
39	DR	70	GLU
40	DS	107	VAL
41	DT	7	LEU
41	DT	73	ARG
42	DU	20	GLY
42	DU	60	GLU
42	DU	99	ASN
43	DV	84	PRO
45	DX	70	GLU
46	DY	61	ALA
2	AB	19	GLN
2	AB	20	THR
2	AB	33	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AB	43	LEU
2	AB	97	LEU
3	AC	146	ALA
4	AD	98	LEU
4	AD	109	ALA
4	AD	126	ASN
4	AD	161	LEU
4	AD	167	LYS
4	AD	182	PHE
6	AF	54	LEU
8	AH	50	LYS
8	AH	57	PRO
8	AH	69	LYS
9	AI	9	THR
9	AI	50	GLN
10	AJ	43	PRO
11	AK	126	LYS
11	AK	127	ARG
12	AL	102	LEU
13	AM	48	LEU
16	AP	43	ALA
16	AP	49	GLY
16	AP	50	THR
19	AS	6	LYS
20	AT	7	ALA
21	AU	25	LYS
25	BD	86	GLU
25	BD	114	LYS
25	BD	148	GLN
27	BF	21	ASN
27	BF	175	PHE
29	BH	83	LYS
30	BI	6	GLN
30	BI	7	ALA
32	BK	119	ALA
33	BL	114	GLY
36	BO	77	ALA
41	BT	18	GLU
49	B1	23	THR
51	B3	28	ASN
53	B5	176	VAL
2	CB	19	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	CB	126	PHE
4	CD	10	LYS
4	CD	36	GLN
4	CD	47	ARG
4	CD	149	ALA
4	CD	154	ARG
4	CD	192	SER
5	CE	155	ALA
6	CF	15	SER
6	CF	18	VAL
6	CF	54	LEU
6	CF	95	ALA
7	CG	3	ARG
8	CH	31	LYS
8	CH	67	GLN
9	CI	39	PHE
9	CI	55	VAL
9	CI	129	LYS
12	CL	34	CYS
13	CM	44	LYS
14	CN	3	LYS
14	CN	50	THR
15	CO	46	HIS
17	CQ	70	THR
19	CS	28	LYS
20	CT	41	ALA
20	CT	67	ILE
21	CU	11	PRO
24	DC	29	PRO
24	DC	158	ALA
24	DC	253	LYS
25	DD	57	ALA
26	DE	18	THR
26	DE	122	GLU
27	DF	103	LEU
28	DG	47	ASP
29	DH	9	VAL
30	DI	15	ALA
32	DK	48	PRO
32	DK	93	GLN
33	DL	29	LYS
33	DL	42	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	DL	138	ALA
34	DM	21	ALA
34	DM	59	ARG
34	DM	79	ALA
37	DP	105	GLY
42	DU	58	ILE
45	DX	7	VAL
45	DX	51	VAL
46	DY	37	LEU
48	D0	52	ARG
51	D3	52	LYS
2	AB	161	LEU
3	AC	54	ARG
3	AC	89	LYS
4	AD	26	ARG
4	AD	37	ALA
5	AE	88	VAL
5	AE	157	ARG
6	AF	93	LYS
9	AI	58	VAL
10	AJ	28	THR
10	AJ	35	GLN
10	AJ	41	PRO
10	AJ	42	LEU
10	AJ	62	ARG
10	AJ	93	ALA
11	AK	89	PRO
13	AM	10	PRO
13	AM	111	GLY
14	AN	49	GLN
19	AS	64	ASP
24	BC	161	TYR
25	BD	2	ILE
25	BD	104	VAL
27	BF	146	VAL
30	BI	24	VAL
30	BI	84	ALA
30	BI	98	VAL
32	BK	110	GLU
36	BO	87	ILE
41	BT	28	ASN
42	BU	19	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
46	BY	20	ASN
53	B5	53	ARG
53	B5	90	ALA
53	B5	141	PRO
53	B5	182	PRO
53	B5	207	GLY
53	B5	217	THR
2	CB	12	ALA
2	CB	127	ASP
4	CD	148	LYS
5	CE	102	GLY
5	CE	113	ALA
6	CF	94	HIS
7	CG	82	GLY
8	CH	57	PRO
8	CH	96	MET
9	CI	53	GLU
10	CJ	42	LEU
11	CK	93	ARG
12	CL	78	SER
14	CN	60	GLN
14	CN	64	CYS
15	CO	18	ASP
16	CP	42	ILE
17	CQ	80	GLU
25	DD	94	GLN
26	DE	61	ARG
26	DE	80	SER
27	DF	174	ASP
30	DI	134	ARG
33	DL	4	ASN
33	DL	36	LYS
33	DL	94	THR
36	DO	77	ALA
39	DR	82	HIS
40	DS	14	ALA
41	DT	10	VAL
45	DX	50	ARG
46	DY	36	GLN
47	DZ	4	THR
49	D1	5	ILE
51	D3	53	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AB	53	ALA
2	AB	79	ALA
2	AB	166	ALA
3	AC	66	VAL
7	AG	140	ASP
8	AH	14	ILE
8	AH	78	VAL
15	AO	21	ASP
15	AO	46	HIS
17	AQ	35	GLY
19	AS	13	LEU
19	AS	14	HIS
20	AT	67	ILE
20	AT	82	GLN
27	BF	78	LYS
29	BH	120	GLY
33	BL	86	GLU
39	BR	50	GLY
42	BU	98	SER
49	B1	51	GLU
53	B5	151	GLY
2	CB	86	SER
3	CC	174	PRO
4	CD	5	LEU
4	CD	37	ALA
4	CD	165	ARG
8	CH	75	ILE
24	DC	218	PRO
26	DE	62	GLN
30	DI	13	VAL
32	DK	110	GLU
32	DK	120	PRO
35	DN	109	PRO
36	DO	66	GLY
37	DP	14	LYS
37	DP	84	ILE
39	DR	53	PHE
40	DS	66	ILE
45	DX	44	LYS
4	AD	101	VAL
11	AK	16	VAL
13	AM	64	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	BG	79	VAL
53	B5	204	GLY
2	CB	149	GLY
5	CE	42	GLY
5	CE	57	PRO
8	AH	34	VAL
9	AI	51	PRO
9	AI	72	ILE
34	BM	26	VAL
2	CB	33	GLY
9	CI	58	VAL
9	CI	104	VAL
11	CK	89	PRO
11	CK	120	GLY
26	DE	82	GLY
30	DI	140	VAL
34	DM	57	VAL
2	AB	80	VAL
2	AB	182	PRO
6	AF	36	ILE
42	BU	39	ILE
53	B5	213	VAL
3	CC	84	VAL
7	CG	12	ILE
14	CN	11	VAL
19	CS	30	PRO
24	DC	85	PRO
26	DE	73	ILE
27	DF	149	VAL
33	DL	140	GLY
34	DM	3	GLN
36	DO	90	VAL
41	DT	13	ALA
45	DX	31	PRO
51	D3	20	GLY
2	AB	149	GLY
10	AJ	39	PRO
24	BC	234	GLY
40	BS	74	ILE
9	CI	23	PRO
11	CK	91	PRO
20	CT	42	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
34	DM	23	GLY
50	D2	38	GLY
36	BO	103	VAL
5	CE	143	GLY
5	CE	158	GLY
27	DF	85	ILE
28	DG	154	PRO
39	DR	101	ILE

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	
2	AB	180/180 (100%)	133 (74%)	47 (26%)	0	1
2	CB	180/180 (100%)	140 (78%)	40 (22%)	1	3
3	AC	170/170 (100%)	134 (79%)	36 (21%)	1	3
3	CC	170/170 (100%)	136 (80%)	34 (20%)	1	4
4	AD	172/172 (100%)	136 (79%)	36 (21%)	1	3
4	CD	172/172 (100%)	145 (84%)	27 (16%)	2	8
5	AE	113/113 (100%)	87 (77%)	26 (23%)	1	2
5	CE	113/113 (100%)	87 (77%)	26 (23%)	1	2
6	AF	87/87 (100%)	61 (70%)	26 (30%)	0	1
6	CF	87/87 (100%)	62 (71%)	25 (29%)	0	1
7	AG	124/124 (100%)	95 (77%)	29 (23%)	1	2
7	CG	124/124 (100%)	89 (72%)	35 (28%)	0	1
8	AH	104/104 (100%)	87 (84%)	17 (16%)	2	7
8	CH	104/104 (100%)	84 (81%)	20 (19%)	1	4
9	AI	105/105 (100%)	71 (68%)	34 (32%)	0	0
9	CI	105/105 (100%)	77 (73%)	28 (27%)	0	1
10	AJ	86/86 (100%)	69 (80%)	17 (20%)	1	4

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	CJ	86/86 (100%)	67 (78%)	19 (22%)	1	3
11	AK	90/90 (100%)	70 (78%)	20 (22%)	1	3
11	CK	90/90 (100%)	68 (76%)	22 (24%)	0	2
12	AL	103/103 (100%)	87 (84%)	16 (16%)	2	8
12	CL	103/103 (100%)	83 (81%)	20 (19%)	1	4
13	AM	92/92 (100%)	72 (78%)	20 (22%)	1	3
13	CM	92/92 (100%)	71 (77%)	21 (23%)	1	2
14	AN	79/83 (95%)	64 (81%)	15 (19%)	1	4
14	CN	79/83 (95%)	65 (82%)	14 (18%)	2	5
15	AO	75/76 (99%)	61 (81%)	14 (19%)	1	5
15	CO	75/76 (99%)	58 (77%)	17 (23%)	1	2
16	AP	65/65 (100%)	50 (77%)	15 (23%)	1	2
16	CP	65/65 (100%)	51 (78%)	14 (22%)	1	3
17	AQ	74/74 (100%)	52 (70%)	22 (30%)	0	1
17	CQ	74/74 (100%)	50 (68%)	24 (32%)	0	0
18	AR	48/48 (100%)	37 (77%)	11 (23%)	1	2
18	CR	48/48 (100%)	37 (77%)	11 (23%)	1	2
19	AS	70/70 (100%)	58 (83%)	12 (17%)	2	6
19	CS	70/70 (100%)	59 (84%)	11 (16%)	2	8
20	AT	65/65 (100%)	50 (77%)	15 (23%)	1	2
20	CT	65/65 (100%)	48 (74%)	17 (26%)	0	1
21	AU	44/44 (100%)	26 (59%)	18 (41%)	0	0
21	CU	44/44 (100%)	25 (57%)	19 (43%)	0	0
24	BC	216/216 (100%)	184 (85%)	32 (15%)	3	9
24	DC	216/216 (100%)	185 (86%)	31 (14%)	3	9
25	BD	164/164 (100%)	152 (93%)	12 (7%)	14	38
25	DD	164/164 (100%)	146 (89%)	18 (11%)	6	19
26	BE	165/165 (100%)	142 (86%)	23 (14%)	3	10
26	DE	165/165 (100%)	142 (86%)	23 (14%)	3	10
27	BF	148/148 (100%)	121 (82%)	27 (18%)	1	5
27	DF	148/148 (100%)	124 (84%)	24 (16%)	2	7

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
28	BG	137/137 (100%)	127 (93%)	10 (7%)	14	38
28	DG	137/137 (100%)	121 (88%)	16 (12%)	5	16
29	BH	114/114 (100%)	88 (77%)	26 (23%)	1	2
29	DH	114/114 (100%)	88 (77%)	26 (23%)	1	2
30	BI	109/109 (100%)	80 (73%)	29 (27%)	0	1
30	DI	109/109 (100%)	84 (77%)	25 (23%)	1	2
31	BJ	116/116 (100%)	111 (96%)	5 (4%)	29	62
31	DJ	116/116 (100%)	101 (87%)	15 (13%)	4	13
32	BK	103/103 (100%)	91 (88%)	12 (12%)	5	16
32	DK	103/103 (100%)	96 (93%)	7 (7%)	16	42
33	BL	102/102 (100%)	88 (86%)	14 (14%)	3	11
33	DL	102/102 (100%)	89 (87%)	13 (13%)	4	13
34	BM	109/109 (100%)	102 (94%)	7 (6%)	17	45
34	DM	109/109 (100%)	101 (93%)	8 (7%)	14	38
35	BN	100/100 (100%)	90 (90%)	10 (10%)	7	23
35	DN	100/100 (100%)	80 (80%)	20 (20%)	1	4
36	BO	86/86 (100%)	70 (81%)	16 (19%)	1	5
36	DO	86/86 (100%)	73 (85%)	13 (15%)	3	9
37	BP	99/99 (100%)	91 (92%)	8 (8%)	11	33
37	DP	99/99 (100%)	84 (85%)	15 (15%)	3	8
38	BQ	89/89 (100%)	81 (91%)	8 (9%)	9	29
38	DQ	89/89 (100%)	78 (88%)	11 (12%)	4	14
39	BR	84/84 (100%)	72 (86%)	12 (14%)	3	10
39	DR	84/84 (100%)	68 (81%)	16 (19%)	1	4
40	BS	93/93 (100%)	80 (86%)	13 (14%)	3	10
40	DS	93/93 (100%)	80 (86%)	13 (14%)	3	10
41	BT	80/80 (100%)	68 (85%)	12 (15%)	3	9
41	DT	80/80 (100%)	66 (82%)	14 (18%)	2	6
42	BU	83/83 (100%)	73 (88%)	10 (12%)	5	15
42	DU	83/83 (100%)	66 (80%)	17 (20%)	1	3
43	BV	78/78 (100%)	69 (88%)	9 (12%)	5	17

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
43	DV	78/78 (100%)	65 (83%)	13 (17%)	2	6
44	BW	57/58 (98%)	50 (88%)	7 (12%)	4	14
44	DW	56/58 (97%)	51 (91%)	5 (9%)	9	29
45	BX	67/67 (100%)	56 (84%)	11 (16%)	2	7
45	DX	67/67 (100%)	54 (81%)	13 (19%)	1	4
46	BY	55/55 (100%)	47 (86%)	8 (14%)	3	9
46	DY	55/55 (100%)	45 (82%)	10 (18%)	1	5
47	BZ	48/48 (100%)	44 (92%)	4 (8%)	11	32
47	DZ	48/48 (100%)	37 (77%)	11 (23%)	1	2
48	B0	47/47 (100%)	41 (87%)	6 (13%)	4	13
48	D0	47/47 (100%)	43 (92%)	4 (8%)	10	31
49	B1	45/45 (100%)	38 (84%)	7 (16%)	2	8
49	D1	45/45 (100%)	41 (91%)	4 (9%)	9	29
50	B2	38/38 (100%)	33 (87%)	5 (13%)	4	12
50	D2	38/38 (100%)	31 (82%)	7 (18%)	1	5
51	B3	51/51 (100%)	48 (94%)	3 (6%)	19	49
51	D3	51/51 (100%)	44 (86%)	7 (14%)	3	11
52	B4	34/34 (100%)	28 (82%)	6 (18%)	2	5
52	D4	34/34 (100%)	30 (88%)	4 (12%)	5	16
53	B5	61/180 (34%)	48 (79%)	13 (21%)	1	3
All	All	9386/9518 (99%)	7728 (82%)	1658 (18%)	2	5

All (1658) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	9	MET
2	AB	14	VAL
2	AB	15	HIS
2	AB	16	PHE
2	AB	21	ARG
2	AB	27	MET
2	AB	32	PHE
2	AB	41	ILE
2	AB	43	LEU
2	AB	50	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AB	54	LEU
2	AB	64	LYS
2	AB	66	LYS
2	AB	68	LEU
2	AB	85	LEU
2	AB	87	CYS
2	AB	88	ASP
2	AB	95	ARG
2	AB	100	MET
2	AB	101	LEU
2	AB	107	VAL
2	AB	111	ILE
2	AB	117	LEU
2	AB	122	GLN
2	AB	123	ASP
2	AB	126	PHE
2	AB	129	LEU
2	AB	132	LYS
2	AB	133	GLU
2	AB	135	LEU
2	AB	136	MET
2	AB	140	GLU
2	AB	143	LYS
2	AB	144	LEU
2	AB	148	LEU
2	AB	153	ASP
2	AB	161	LEU
2	AB	164	ILE
2	AB	186	ILE
2	AB	188	ASP
2	AB	199	VAL
2	AB	207	ILE
2	AB	208	ARG
2	AB	212	LEU
2	AB	213	TYR
2	AB	225	ARG
2	AB	226	SER
3	AC	3	GLN
3	AC	14	ILE
3	AC	16	LYS
3	AC	18	TRP
3	AC	20	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AC	21	THR
3	AC	26	THR
3	AC	27	LYS
3	AC	28	GLU
3	AC	29	PHE
3	AC	33	LEU
3	AC	37	PHE
3	AC	38	LYS
3	AC	41	GLN
3	AC	52	VAL
3	AC	55	ILE
3	AC	58	GLU
3	AC	59	ARG
3	AC	63	SER
3	AC	75	ILE
3	AC	88	ARG
3	AC	107	ARG
3	AC	122	SER
3	AC	127	ARG
3	AC	131	ARG
3	AC	139	GLN
3	AC	140	ASN
3	AC	143	ARG
3	AC	144	LEU
3	AC	151	VAL
3	AC	165	THR
3	AC	167	TRP
3	AC	168	TYR
3	AC	185	ASN
3	AC	191	THR
3	AC	207	ILE
4	AD	5	LEU
4	AD	13	ARG
4	AD	17	THR
4	AD	23	SER
4	AD	31	LYS
4	AD	32	CYS
4	AD	34	ILE
4	AD	35	GLU
4	AD	44	ARG
4	AD	45	LYS
4	AD	47	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	AD	58	LYS
4	AD	63	ARG
4	AD	69	GLU
4	AD	93	LEU
4	AD	104	ARG
4	AD	111	ARG
4	AD	116	GLN
4	AD	123	ILE
4	AD	132	ILE
4	AD	142	VAL
4	AD	143	VAL
4	AD	144	SER
4	AD	148	LYS
4	AD	150	LYS
4	AD	151	LYS
4	AD	161	LEU
4	AD	163	GLU
4	AD	164	GLN
4	AD	172	GLU
4	AD	173	VAL
4	AD	177	LYS
4	AD	190	ASP
4	AD	195	ILE
4	AD	198	HIS
4	AD	206	LYS
5	AE	10	GLU
5	AE	14	LYS
5	AE	15	LEU
5	AE	18	VAL
5	AE	19	ASN
5	AE	25	VAL
5	AE	26	LYS
5	AE	38	VAL
5	AE	46	VAL
5	AE	72	ILE
5	AE	73	ASN
5	AE	74	VAL
5	AE	83	HIS
5	AE	85	VAL
5	AE	114	VAL
5	AE	115	LEU
5	AE	123	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	AE	124	LEU
5	AE	126	LYS
5	AE	130	SER
5	AE	134	ILE
5	AE	136	VAL
5	AE	140	THR
5	AE	147	MET
5	AE	149	SER
5	AE	153	VAL
6	AF	5	GLU
6	AF	7	VAL
6	AF	9	MET
6	AF	14	GLN
6	AF	15	SER
6	AF	17	GLN
6	AF	24	ARG
6	AF	35	LYS
6	AF	39	LEU
6	AF	45	ARG
6	AF	51	ILE
6	AF	52	ASN
6	AF	53	LYS
6	AF	54	LEU
6	AF	55	HIS
6	AF	62	MET
6	AF	68	GLN
6	AF	72	ASP
6	AF	82	ASP
6	AF	84	VAL
6	AF	86	ARG
6	AF	87	SER
6	AF	89	VAL
6	AF	93	LYS
6	AF	96	VAL
6	AF	98	GLU
7	AG	4	ARG
7	AG	6	VAL
7	AG	10	ARG
7	AG	13	LEU
7	AG	22	LEU
7	AG	23	LEU
7	AG	32	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	AG	36	LYS
7	AG	43	VAL
7	AG	47	LEU
7	AG	48	GLU
7	AG	49	THR
7	AG	50	LEU
7	AG	59	LEU
7	AG	63	GLU
7	AG	70	ARG
7	AG	76	LYS
7	AG	78	ARG
7	AG	79	ARG
7	AG	80	VAL
7	AG	83	SER
7	AG	90	GLU
7	AG	91	VAL
7	AG	115	SER
7	AG	120	LEU
7	AG	125	SER
7	AG	136	LYS
7	AG	139	GLU
7	AG	142	HIS
8	AH	3	MET
8	AH	7	ILE
8	AH	22	LYS
8	AH	42	GLU
8	AH	46	ILE
8	AH	51	VAL
8	AH	59	LEU
8	AH	75	ILE
8	AH	77	ARG
8	AH	83	LEU
8	AH	89	LYS
8	AH	104	VAL
8	AH	108	LYS
8	AH	111	MET
8	AH	121	LEU
8	AH	125	ILE
8	AH	129	VAL
9	AI	14	SER
9	AI	22	LYS
9	AI	30	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	AI	36	GLU
9	AI	39	PHE
9	AI	43	THR
9	AI	46	MET
9	AI	47	VAL
9	AI	48	VAL
9	AI	49	ARG
9	AI	55	VAL
9	AI	57	MET
9	AI	60	LYS
9	AI	61	LEU
9	AI	63	LEU
9	AI	64	TYR
9	AI	65	ILE
9	AI	68	LYS
9	AI	85	ARG
9	AI	88	MET
9	AI	89	GLU
9	AI	90	TYR
9	AI	94	LEU
9	AI	97	GLU
9	AI	99	ARG
9	AI	106	ARG
9	AI	111	VAL
9	AI	114	LYS
9	AI	115	LYS
9	AI	116	VAL
9	AI	119	ARG
9	AI	127	PHE
9	AI	129	LYS
9	AI	130	ARG
10	AJ	6	ILE
10	AJ	8	ILE
10	AJ	11	LYS
10	AJ	19	ASP
10	AJ	27	GLU
10	AJ	44	THR
10	AJ	45	ARG
10	AJ	52	LEU
10	AJ	57	VAL
10	AJ	59	LYS
10	AJ	69	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	AJ	73	LEU
10	AJ	84	VAL
10	AJ	89	ARG
10	AJ	91	ASP
10	AJ	92	LEU
10	AJ	102	LEU
11	AK	16	VAL
11	AK	17	SER
11	AK	23	ILE
11	AK	31	ILE
11	AK	50	SER
11	AK	52	PHE
11	AK	58	SER
11	AK	65	VAL
11	AK	76	GLU
11	AK	81	ASN
11	AK	95	SER
11	AK	97	ILE
11	AK	100	LEU
11	AK	108	THR
11	AK	111	THR
11	AK	112	ASP
11	AK	126	LYS
11	AK	127	ARG
11	AK	128	ARG
11	AK	129	VAL
12	AL	10	LYS
12	AL	12	ARG
12	AL	15	LYS
12	AL	16	VAL
12	AL	29	GLN
12	AL	33	VAL
12	AL	36	ARG
12	AL	44	LYS
12	AL	54	ARG
12	AL	62	GLU
12	AL	88	LYS
12	AL	89	ASP
12	AL	102	LEU
12	AL	105	SER
12	AL	114	ARG
12	AL	121	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	AM	4	ILE
13	AM	11	ASP
13	AM	13	LYS
13	AM	16	VAL
13	AM	29	ARG
13	AM	42	ASP
13	AM	59	GLU
13	AM	63	PHE
13	AM	65	VAL
13	AM	71	ARG
13	AM	72	GLU
13	AM	75	MET
13	AM	79	ARG
13	AM	80	LEU
13	AM	87	ARG
13	AM	90	ARG
13	AM	93	ARG
13	AM	103	LYS
13	AM	107	ARG
13	AM	113	ARG
14	AN	4	GLN
14	AN	10	GLU
14	AN	24	ARG
14	AN	26	GLU
14	AN	28	LYS
14	AN	31	ILE
14	AN	46	LEU
14	AN	49	GLN
14	AN	51	LEU
14	AN	59	ARG
14	AN	69	ARG
14	AN	81	ARG
14	AN	85	ARG
14	AN	98	LYS
14	AN	100	SER
15	AO	6	GLU
15	AO	17	ARG
15	AO	22	THR
15	AO	31	LEU
15	AO	35	GLN
15	AO	38	HIS
15	AO	39	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
15	AO	40	GLN
15	AO	67	LEU
15	AO	83	GLU
15	AO	85	LEU
15	AO	87	LEU
15	AO	88	ARG
15	AO	89	ARG
16	AP	1	MET
16	AP	2	VAL
16	AP	6	LEU
16	AP	8	ARG
16	AP	18	GLN
16	AP	19	VAL
16	AP	20	VAL
16	AP	36	VAL
16	AP	46	LYS
16	AP	51	ARG
16	AP	63	GLN
16	AP	70	ARG
16	AP	75	ILE
16	AP	77	GLU
16	AP	78	VAL
17	AQ	4	LYS
17	AQ	13	VAL
17	AQ	17	MET
17	AQ	21	ILE
17	AQ	25	ILE
17	AQ	26	GLU
17	AQ	27	ARG
17	AQ	29	VAL
17	AQ	30	LYS
17	AQ	38	ILE
17	AQ	42	THR
17	AQ	51	ASN
17	AQ	52	GLU
17	AQ	55	ILE
17	AQ	59	VAL
17	AQ	61	ILE
17	AQ	64	CYS
17	AQ	68	SER
17	AQ	69	LYS
17	AQ	70	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	AQ	75	LEU
17	AQ	81	LYS
18	AR	25	ASP
18	AR	29	LEU
18	AR	30	LYS
18	AR	31	ASN
18	AR	33	ILE
18	AR	34	THR
18	AR	43	ARG
18	AR	48	ARG
18	AR	55	LEU
18	AR	61	ARG
18	AR	71	THR
19	AS	6	LYS
19	AS	13	LEU
19	AS	21	LYS
19	AS	24	GLU
19	AS	27	ASP
19	AS	29	LYS
19	AS	33	THR
19	AS	55	ARG
19	AS	58	VAL
19	AS	63	THR
19	AS	65	GLU
19	AS	71	LEU
20	AT	3	ASN
20	AT	5	LYS
20	AT	6	SER
20	AT	8	LYS
20	AT	12	ILE
20	AT	16	LYS
20	AT	24	ARG
20	AT	27	MET
20	AT	29	ARG
20	AT	34	LYS
20	AT	36	TYR
20	AT	54	MET
20	AT	69	LYS
20	AT	70	ASN
20	AT	74	ARG
21	AU	9	ASN
21	AU	10	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	AU	12	PHE
21	AU	13	ASP
21	AU	16	LEU
21	AU	18	ARG
21	AU	19	PHE
21	AU	20	LYS
21	AU	23	CYS
21	AU	25	LYS
21	AU	28	VAL
21	AU	33	ARG
21	AU	34	ARG
21	AU	36	GLU
21	AU	37	PHE
21	AU	38	TYR
21	AU	47	ARG
21	AU	54	LYS
24	BC	5	LYS
24	BC	13	ARG
24	BC	20	VAL
24	BC	24	LEU
24	BC	63	ARG
24	BC	64	ILE
24	BC	70	ASN
24	BC	86	ASN
24	BC	97	LYS
24	BC	105	LEU
24	BC	111	LYS
24	BC	121	ASP
24	BC	125	LYS
24	BC	130	LEU
24	BC	147	LYS
24	BC	154	LEU
24	BC	156	ARG
24	BC	164	ILE
24	BC	172	VAL
24	BC	174	LEU
24	BC	177	ARG
24	BC	182	ARG
24	BC	183	LYS
24	BC	187	ASP
24	BC	195	VAL
24	BC	203	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
24	BC	205	LEU
24	BC	213	TRP
24	BC	225	MET
24	BC	252	THR
24	BC	258	ARG
24	BC	265	LYS
25	BD	4	LEU
25	BD	12	THR
25	BD	14	ILE
25	BD	70	LYS
25	BD	89	GLU
25	BD	95	SER
25	BD	97	SER
25	BD	121	THR
25	BD	133	THR
25	BD	141	ARG
25	BD	183	GLU
25	BD	186	LEU
26	BE	9	GLN
26	BE	10	SER
26	BE	12	LEU
26	BE	44	ARG
26	BE	63	LYS
26	BE	88	ARG
26	BE	93	SER
26	BE	94	GLN
26	BE	107	SER
26	BE	108	ILE
26	BE	116	ASP
26	BE	120	VAL
26	BE	123	LYS
26	BE	126	VAL
26	BE	131	THR
26	BE	149	ILE
26	BE	159	LEU
26	BE	176	ASP
26	BE	180	LEU
26	BE	185	LYS
26	BE	194	LYS
26	BE	198	GLU
26	BE	200	LEU
27	BF	3	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
27	BF	18	THR
27	BF	21	ASN
27	BF	23	ASN
27	BF	33	LYS
27	BF	34	ILE
27	BF	35	THR
27	BF	36	LEU
27	BF	42	GLU
27	BF	44	ILE
27	BF	48	LYS
27	BF	49	LEU
27	BF	81	GLN
27	BF	83	TYR
27	BF	85	ILE
27	BF	89	VAL
27	BF	95	ARG
27	BF	100	PHE
27	BF	104	ILE
27	BF	105	THR
27	BF	106	ILE
27	BF	112	ARG
27	BF	133	ARG
27	BF	147	ASP
27	BF	152	LEU
27	BF	153	ASP
27	BF	164	GLU
28	BG	11	VAL
28	BG	27	LYS
28	BG	67	THR
28	BG	77	ILE
28	BG	87	LEU
28	BG	98	VAL
28	BG	124	GLU
28	BG	152	ARG
28	BG	155	GLU
28	BG	170	ARG
29	BH	1	MET
29	BH	3	VAL
29	BH	6	LEU
29	BH	12	LEU
29	BH	15	LEU
29	BH	27	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	BH	50	ARG
29	BH	60	GLU
29	BH	62	LEU
29	BH	66	ASN
29	BH	75	LEU
29	BH	77	THR
29	BH	79	THR
29	BH	86	ASP
29	BH	91	PHE
29	BH	112	LYS
29	BH	119	ASN
29	BH	122	LEU
29	BH	123	ARG
29	BH	125	THR
29	BH	129	GLU
29	BH	131	SER
29	BH	137	GLU
29	BH	142	VAL
29	BH	145	ASN
29	BH	146	VAL
30	BI	8	TYR
30	BI	9	VAL
30	BI	11	LEU
30	BI	24	VAL
30	BI	28	LEU
30	BI	31	GLN
30	BI	34	ASN
30	BI	38	PHE
30	BI	45	LYS
30	BI	50	GLU
30	BI	58	VAL
30	BI	60	THR
30	BI	62	TYR
30	BI	68	THR
30	BI	69	PHE
30	BI	72	LYS
30	BI	73	THR
30	BI	82	LYS
30	BI	86	ILE
30	BI	87	LYS
30	BI	95	LYS
30	BI	96	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	BI	97	LYS
30	BI	100	LYS
30	BI	101	ILE
30	BI	103	ARG
30	BI	108	GLU
30	BI	132	THR
30	BI	134	ARG
31	BJ	5	THR
31	BJ	23	LYS
31	BJ	30	THR
31	BJ	40	HIS
31	BJ	61	LYS
32	BK	41	ILE
32	BK	44	LYS
32	BK	45	GLU
32	BK	49	ARG
32	BK	58	LEU
32	BK	66	LYS
32	BK	86	LEU
32	BK	88	ASN
32	BK	92	GLU
32	BK	108	ARG
32	BK	117	SER
32	BK	121	GLU
33	BL	35	HIS
33	BL	40	SER
33	BL	60	ARG
33	BL	69	ARG
33	BL	78	ARG
33	BL	82	LEU
33	BL	85	VAL
33	BL	86	GLU
33	BL	89	VAL
33	BL	93	ASN
33	BL	100	ILE
33	BL	115	GLU
33	BL	136	GLU
33	BL	144	GLU
34	BM	22	GLN
34	BM	24	THR
34	BM	55	ARG
34	BM	70	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
34	BM	86	LYS
34	BM	115	GLU
34	BM	126	ILE
35	BN	2	ARG
35	BN	6	SER
35	BN	8	ARG
35	BN	27	SER
35	BN	69	ARG
35	BN	71	ARG
35	BN	74	GLU
35	BN	96	ARG
35	BN	118	ARG
35	BN	120	GLU
36	BO	2	ASP
36	BO	3	LYS
36	BO	4	LYS
36	BO	9	ARG
36	BO	17	LYS
36	BO	18	LEU
36	BO	24	THR
36	BO	25	ARG
36	BO	31	THR
36	BO	36	TYR
36	BO	45	SER
36	BO	47	VAL
36	BO	54	VAL
36	BO	56	LYS
36	BO	83	LEU
36	BO	88	LYS
37	BP	29	LYS
37	BP	63	LYS
37	BP	68	GLU
37	BP	73	VAL
37	BP	93	ARG
37	BP	102	GLU
37	BP	110	ILE
37	BP	114	LEU
38	BQ	6	ARG
38	BQ	18	LEU
38	BQ	30	ARG
38	BQ	51	ARG
38	BQ	58	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	BQ	112	LYS
38	BQ	114	LYS
38	BQ	117	LEU
39	BR	10	LYS
39	BR	29	THR
39	BR	38	VAL
39	BR	46	GLU
39	BR	48	LYS
39	BR	60	LYS
39	BR	64	VAL
39	BR	74	ILE
39	BR	85	LYS
39	BR	87	GLN
39	BR	94	THR
39	BR	102	SER
40	BS	7	HIS
40	BS	11	ARG
40	BS	19	LEU
40	BS	31	GLN
40	BS	53	SER
40	BS	59	GLU
40	BS	69	LEU
40	BS	81	SER
40	BS	86	MET
40	BS	97	LEU
40	BS	107	VAL
40	BS	108	SER
40	BS	109	ASP
41	BT	5	GLU
41	BT	11	LEU
41	BT	12	ARG
41	BT	18	GLU
41	BT	22	THR
41	BT	30	ILE
41	BT	33	LYS
41	BT	36	LYS
41	BT	49	LYS
41	BT	73	ARG
41	BT	86	THR
41	BT	89	GLU
42	BU	7	ARG
42	BU	9	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
42	BU	26	LYS
42	BU	31	SER
42	BU	33	LYS
42	BU	52	LEU
42	BU	61	LYS
42	BU	68	SER
42	BU	91	LYS
42	BU	99	ASN
43	BV	1	MET
43	BV	10	LYS
43	BV	17	SER
43	BV	29	ILE
43	BV	34	LYS
43	BV	41	GLU
43	BV	61	LEU
43	BV	65	VAL
43	BV	70	ILE
44	BW	20	ARG
44	BW	29	GLU
44	BW	38	VAL
44	BW	39	ARG
44	BW	41	ARG
44	BW	55	ARG
44	BW	72	LYS
45	BX	2	SER
45	BX	5	CYS
45	BX	18	ARG
45	BX	25	THR
45	BX	28	ARG
45	BX	45	ARG
45	BX	48	THR
45	BX	54	LYS
45	BX	64	ILE
45	BX	76	GLU
45	BX	77	LYS
46	BY	6	LEU
46	BY	16	THR
46	BY	22	LEU
46	BY	29	ARG
46	BY	37	LEU
46	BY	56	LEU
46	BY	58	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
46	BY	59	GLU
47	BZ	3	LYS
47	BZ	36	VAL
47	BZ	57	VAL
47	BZ	58	GLU
48	B0	6	ASN
48	B0	18	SER
48	B0	23	THR
48	B0	29	SER
48	B0	40	ARG
48	B0	53	LYS
49	B1	8	LYS
49	B1	11	LEU
49	B1	25	LYS
49	B1	28	ARG
49	B1	37	LYS
49	B1	46	HIS
49	B1	51	GLU
50	B2	16	HIS
50	B2	21	ARG
50	B2	39	ARG
50	B2	42	LEU
50	B2	45	SER
51	B3	15	LYS
51	B3	30	ARG
51	B3	31	HIS
52	B4	4	ARG
52	B4	6	SER
52	B4	9	LYS
52	B4	18	LYS
52	B4	26	ILE
52	B4	37	GLN
53	B5	21	TYR
53	B5	23	ILE
53	B5	38	PHE
53	B5	41	THR
53	B5	47	LYS
53	B5	48	LEU
53	B5	59	VAL
53	B5	64	SER
53	B5	65	LEU
53	B5	73	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	B5	76	LEU
53	B5	78	ILE
53	B5	88	GLU
2	CB	11	LYS
2	CB	15	HIS
2	CB	16	PHE
2	CB	20	THR
2	CB	21	ARG
2	CB	24	ASN
2	CB	27	MET
2	CB	40	ILE
2	CB	43	LEU
2	CB	49	MET
2	CB	50	PHE
2	CB	66	LYS
2	CB	67	ILE
2	CB	68	LEU
2	CB	78	GLU
2	CB	80	VAL
2	CB	85	LEU
2	CB	88	ASP
2	CB	94	HIS
2	CB	95	ARG
2	CB	96	TRP
2	CB	102	THR
2	CB	103	ASN
2	CB	106	THR
2	CB	116	ASP
2	CB	117	LEU
2	CB	126	PHE
2	CB	130	THR
2	CB	144	LEU
2	CB	145	GLU
2	CB	148	LEU
2	CB	163	VAL
2	CB	174	LYS
2	CB	187	VAL
2	CB	207	ILE
2	CB	210	VAL
2	CB	213	TYR
2	CB	220	THR
2	CB	222	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	CB	225	ARG
3	CC	3	GLN
3	CC	16	LYS
3	CC	18	TRP
3	CC	29	PHE
3	CC	32	ASN
3	CC	33	LEU
3	CC	36	ASP
3	CC	37	PHE
3	CC	38	LYS
3	CC	43	LEU
3	CC	45	LYS
3	CC	53	SER
3	CC	55	ILE
3	CC	70	THR
3	CC	80	LYS
3	CC	83	ASP
3	CC	103	ILE
3	CC	107	ARG
3	CC	110	GLU
3	CC	119	SER
3	CC	121	THR
3	CC	131	ARG
3	CC	140	ASN
3	CC	151	VAL
3	CC	153	VAL
3	CC	167	TRP
3	CC	168	TYR
3	CC	170	GLU
3	CC	172	ARG
3	CC	175	LEU
3	CC	179	ARG
3	CC	192	THR
3	CC	193	TYR
3	CC	206	GLU
4	CD	8	LYS
4	CD	9	LEU
4	CD	17	THR
4	CD	32	CYS
4	CD	48	LEU
4	CD	50	ASP
4	CD	54	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	CD	55	LEU
4	CD	56	ARG
4	CD	58	LYS
4	CD	59	GLN
4	CD	83	LYS
4	CD	104	ARG
4	CD	142	VAL
4	CD	148	LYS
4	CD	152	GLN
4	CD	155	VAL
4	CD	161	LEU
4	CD	177	LYS
4	CD	183	LYS
4	CD	191	LEU
4	CD	192	SER
4	CD	194	ASP
4	CD	198	HIS
4	CD	200	ILE
4	CD	203	LEU
4	CD	206	LYS
5	CE	15	LEU
5	CE	18	VAL
5	CE	26	LYS
5	CE	32	SER
5	CE	45	ARG
5	CE	52	LYS
5	CE	65	GLU
5	CE	66	LYS
5	CE	76	LEU
5	CE	81	LEU
5	CE	86	LYS
5	CE	96	MET
5	CE	97	GLN
5	CE	101	GLU
5	CE	105	ILE
5	CE	114	VAL
5	CE	115	LEU
5	CE	120	VAL
5	CE	124	LEU
5	CE	126	LYS
5	CE	131	THR
5	CE	137	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	CE	140	THR
5	CE	149	SER
5	CE	151	GLU
5	CE	156	LYS
6	CF	1	MET
6	CF	2	ARG
6	CF	7	VAL
6	CF	9	MET
6	CF	15	SER
6	CF	24	ARG
6	CF	26	THR
6	CF	30	THR
6	CF	35	LYS
6	CF	36	ILE
6	CF	38	ARG
6	CF	51	ILE
6	CF	53	LYS
6	CF	54	LEU
6	CF	55	HIS
6	CF	63	ASN
6	CF	64	VAL
6	CF	68	GLN
6	CF	79	ARG
6	CF	80	PHE
6	CF	85	ILE
6	CF	87	SER
6	CF	89	VAL
6	CF	93	LYS
6	CF	97	THR
7	CG	4	ARG
7	CG	6	VAL
7	CG	11	LYS
7	CG	12	ILE
7	CG	22	LEU
7	CG	23	LEU
7	CG	30	LEU
7	CG	38	THR
7	CG	45	SER
7	CG	47	LEU
7	CG	48	GLU
7	CG	53	ARG
7	CG	59	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	CG	62	PHE
7	CG	67	GLU
7	CG	69	VAL
7	CG	70	ARG
7	CG	72	THR
7	CG	73	VAL
7	CG	75	VAL
7	CG	78	ARG
7	CG	87	VAL
7	CG	91	VAL
7	CG	92	ARG
7	CG	97	ASN
7	CG	120	LEU
7	CG	123	GLU
7	CG	125	SER
7	CG	126	ASP
7	CG	129	GLU
7	CG	133	THR
7	CG	136	LYS
7	CG	140	ASP
7	CG	142	HIS
7	CG	146	GLU
8	CH	13	ARG
8	CH	22	LYS
8	CH	31	LYS
8	CH	47	GLU
8	CH	49	PHE
8	CH	54	ASP
8	CH	55	THR
8	CH	67	GLN
8	CH	73	GLU
8	CH	74	SER
8	CH	75	ILE
8	CH	77	ARG
8	CH	83	LEU
8	CH	87	LYS
8	CH	92	LEU
8	CH	104	VAL
8	CH	111	MET
8	CH	112	THR
8	CH	121	LEU
8	CH	125	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	CI	9	THR
9	CI	13	LYS
9	CI	18	ARG
9	CI	28	ILE
9	CI	32	GLN
9	CI	33	ARG
9	CI	39	PHE
9	CI	43	THR
9	CI	45	ARG
9	CI	49	ARG
9	CI	55	VAL
9	CI	57	MET
9	CI	61	LEU
9	CI	62	ASP
9	CI	68	LYS
9	CI	80	ARG
9	CI	85	ARG
9	CI	88	MET
9	CI	89	GLU
9	CI	90	TYR
9	CI	94	LEU
9	CI	97	GLU
9	CI	99	ARG
9	CI	100	LYS
9	CI	105	THR
9	CI	115	LYS
9	CI	127	PHE
9	CI	129	LYS
10	CJ	5	ARG
10	CJ	16	ARG
10	CJ	22	THR
10	CJ	25	ILE
10	CJ	26	VAL
10	CJ	27	GLU
10	CJ	32	THR
10	CJ	59	LYS
10	CJ	63	ASP
10	CJ	69	THR
10	CJ	77	VAL
10	CJ	80	THR
10	CJ	83	THR
10	CJ	84	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	CJ	87	LEU
10	CJ	89	ARG
10	CJ	91	ASP
10	CJ	92	LEU
10	CJ	102	LEU
11	CK	14	LYS
11	CK	15	GLN
11	CK	31	ILE
11	CK	64	GLN
11	CK	65	VAL
11	CK	74	VAL
11	CK	80	LYS
11	CK	81	ASN
11	CK	82	LEU
11	CK	83	GLU
11	CK	86	VAL
11	CK	93	ARG
11	CK	96	THR
11	CK	100	LEU
11	CK	101	ASN
11	CK	106	ARG
11	CK	107	ILE
11	CK	108	THR
11	CK	109	ASN
11	CK	126	LYS
11	CK	127	ARG
11	CK	128	ARG
12	CL	3	THR
12	CL	4	VAL
12	CL	5	ASN
12	CL	10	LYS
12	CL	12	ARG
12	CL	16	VAL
12	CL	18	LYS
12	CL	20	ASN
12	CL	29	GLN
12	CL	34	CYS
12	CL	44	LYS
12	CL	59	ASN
12	CL	63	VAL
12	CL	82	ILE
12	CL	86	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	CL	89	ASP
12	CL	94	ARG
12	CL	97	THR
12	CL	110	ARG
12	CL	121	ARG
13	CM	8	ASN
13	CM	14	HIS
13	CM	19	LEU
13	CM	29	ARG
13	CM	31	LYS
13	CM	41	GLU
13	CM	48	LEU
13	CM	53	ILE
13	CM	54	ASP
13	CM	59	GLU
13	CM	63	PHE
13	CM	66	GLU
13	CM	76	SER
13	CM	83	LEU
13	CM	90	ARG
13	CM	91	HIS
13	CM	92	ARG
13	CM	93	ARG
13	CM	100	GLN
13	CM	101	ARG
13	CM	102	THR
14	CN	4	GLN
14	CN	16	LEU
14	CN	18	ASP
14	CN	21	PHE
14	CN	23	LYS
14	CN	26	GLU
14	CN	28	LYS
14	CN	48	LEU
14	CN	49	GLN
14	CN	60	GLN
14	CN	67	THR
14	CN	75	ARG
14	CN	80	SER
14	CN	90	ARG
15	CO	4	SER
15	CO	6	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
15	CO	10	LYS
15	CO	13	SER
15	CO	17	ARG
15	CO	18	ASP
15	CO	26	GLU
15	CO	35	GLN
15	CO	38	HIS
15	CO	39	LEU
15	CO	62	GLN
15	CO	64	ARG
15	CO	67	LEU
15	CO	70	LEU
15	CO	85	LEU
15	CO	87	LEU
15	CO	88	ARG
16	CP	1	MET
16	CP	2	VAL
16	CP	18	GLN
16	CP	25	ARG
16	CP	29	ASN
16	CP	31	ARG
16	CP	36	VAL
16	CP	46	LYS
16	CP	51	ARG
16	CP	57	ILE
16	CP	69	ASP
16	CP	74	LEU
16	CP	77	GLU
16	CP	80	LYS
17	CQ	4	LYS
17	CQ	5	ILE
17	CQ	12	VAL
17	CQ	13	VAL
17	CQ	14	SER
17	CQ	17	MET
17	CQ	18	GLU
17	CQ	23	VAL
17	CQ	28	PHE
17	CQ	36	LYS
17	CQ	38	ILE
17	CQ	40	ARG
17	CQ	41	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	CQ	48	ASP
17	CQ	50	ASN
17	CQ	52	GLU
17	CQ	55	ILE
17	CQ	57	ASP
17	CQ	62	ARG
17	CQ	65	ARG
17	CQ	69	LYS
17	CQ	75	LEU
17	CQ	79	VAL
17	CQ	81	LYS
18	CR	20	GLU
18	CR	25	ASP
18	CR	26	ILE
18	CR	29	LEU
18	CR	33	ILE
18	CR	45	THR
18	CR	47	THR
18	CR	57	ARG
18	CR	61	ARG
18	CR	63	ARG
18	CR	67	LEU
19	CS	5	LEU
19	CS	6	LYS
19	CS	11	ILE
19	CS	19	VAL
19	CS	21	LYS
19	CS	23	VAL
19	CS	33	THR
19	CS	36	ARG
19	CS	43	ASN
19	CS	49	ILE
19	CS	56	GLN
20	CT	6	SER
20	CT	8	LYS
20	CT	12	ILE
20	CT	14	SER
20	CT	15	GLU
20	CT	24	ARG
20	CT	27	MET
20	CT	29	ARG
20	CT	36	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	CT	49	LYS
20	CT	54	MET
20	CT	58	VAL
20	CT	64	LYS
20	CT	67	ILE
20	CT	69	LYS
20	CT	70	ASN
20	CT	76	LYS
21	CU	5	LYS
21	CU	7	ARG
21	CU	10	GLU
21	CU	12	PHE
21	CU	14	VAL
21	CU	16	LEU
21	CU	19	PHE
21	CU	20	LYS
21	CU	24	GLU
21	CU	25	LYS
21	CU	28	VAL
21	CU	31	GLU
21	CU	34	ARG
21	CU	37	PHE
21	CU	38	TYR
21	CU	42	THR
21	CU	43	THR
21	CU	47	ARG
21	CU	53	VAL
24	DC	20	VAL
24	DC	36	LYS
24	DC	39	LYS
24	DC	46	ASN
24	DC	58	HIS
24	DC	80	ARG
24	DC	88	SER
24	DC	103	TYR
24	DC	110	LEU
24	DC	111	LYS
24	DC	130	LEU
24	DC	147	LYS
24	DC	153	GLN
24	DC	156	ARG
24	DC	160	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
24	DC	162	VAL
24	DC	167	ARG
24	DC	168	ASP
24	DC	174	LEU
24	DC	175	ARG
24	DC	178	SER
24	DC	182	ARG
24	DC	195	VAL
24	DC	202	LEU
24	DC	204	VAL
24	DC	229	ASP
24	DC	250	VAL
24	DC	255	LYS
24	DC	259	SER
24	DC	262	ARG
24	DC	267	ILE
25	DD	4	LEU
25	DD	12	THR
25	DD	18	ASP
25	DD	25	THR
25	DD	33	ARG
25	DD	39	ASP
25	DD	64	GLU
25	DD	73	VAL
25	DD	84	LEU
25	DD	86	GLU
25	DD	98	VAL
25	DD	103	ASP
25	DD	138	LEU
25	DD	139	SER
25	DD	150	GLN
25	DD	170	VAL
25	DD	183	GLU
25	DD	189	VAL
26	DE	22	ASP
26	DE	40	ARG
26	DE	44	ARG
26	DE	61	ARG
26	DE	69	ARG
26	DE	77	ILE
26	DE	90	GLN
26	DE	105	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	DE	107	SER
26	DE	108	ILE
26	DE	114	ARG
26	DE	118	LEU
26	DE	126	VAL
26	DE	133	LEU
26	DE	145	ASP
26	DE	149	ILE
26	DE	159	LEU
26	DE	163	ASN
26	DE	164	LEU
26	DE	170	ARG
26	DE	173	THR
26	DE	189	THR
26	DE	199	MET
27	DF	4	LEU
27	DF	14	LYS
27	DF	21	ASN
27	DF	26	MET
27	DF	28	VAL
27	DF	35	THR
27	DF	36	LEU
27	DF	44	ILE
27	DF	46	ASP
27	DF	52	ASN
27	DF	64	LYS
27	DF	67	ILE
27	DF	74	VAL
27	DF	81	GLN
27	DF	106	ILE
27	DF	110	ARG
27	DF	117	LEU
27	DF	125	ARG
27	DF	134	GLU
27	DF	149	VAL
27	DF	150	ARG
27	DF	152	LEU
27	DF	157	THR
27	DF	174	ASP
28	DG	11	VAL
28	DG	29	LYS
28	DG	30	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	DG	33	LEU
28	DG	34	THR
28	DG	44	LYS
28	DG	45	HIS
28	DG	72	LEU
28	DG	95	ARG
28	DG	117	LEU
28	DG	124	GLU
28	DG	127	THR
28	DG	130	GLU
28	DG	152	ARG
28	DG	155	GLU
28	DG	166	ASP
29	DH	7	ASP
29	DH	12	LEU
29	DH	41	LYS
29	DH	42	LYS
29	DH	48	GLU
29	DH	50	ARG
29	DH	53	GLU
29	DH	54	LEU
29	DH	57	LYS
29	DH	62	LEU
29	DH	77	THR
29	DH	78	VAL
29	DH	87	GLU
29	DH	89	LYS
29	DH	94	ILE
29	DH	109	GLU
29	DH	114	GLU
29	DH	116	ARG
29	DH	117	LEU
29	DH	119	ASN
29	DH	121	VAL
29	DH	124	THR
29	DH	125	THR
29	DH	129	GLU
29	DH	142	VAL
29	DH	149	GLU
30	DI	3	LYS
30	DI	4	LYS
30	DI	8	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	DI	11	LEU
30	DI	17	MET
30	DI	24	VAL
30	DI	31	GLN
30	DI	40	LYS
30	DI	55	ILE
30	DI	68	THR
30	DI	69	PHE
30	DI	72	LYS
30	DI	79	LEU
30	DI	86	ILE
30	DI	92	LYS
30	DI	97	LYS
30	DI	102	SER
30	DI	105	GLN
30	DI	117	MET
30	DI	122	ILE
30	DI	123	GLU
30	DI	125	MET
30	DI	127	ARG
30	DI	128	SER
30	DI	134	ARG
31	DJ	5	THR
31	DJ	17	VAL
31	DJ	30	THR
31	DJ	39	LYS
31	DJ	40	HIS
31	DJ	44	TYR
31	DJ	57	LEU
31	DJ	61	LYS
31	DJ	70	THR
31	DJ	76	HIS
31	DJ	81	ILE
31	DJ	85	LYS
31	DJ	86	GLN
31	DJ	109	LEU
31	DJ	118	MET
32	DK	1	MET
32	DK	49	ARG
32	DK	66	LYS
32	DK	73	ASP
32	DK	104	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	DK	110	GLU
32	DK	121	GLU
33	DL	2	ARG
33	DL	29	LYS
33	DL	42	SER
33	DL	48	ARG
33	DL	59	ARG
33	DL	69	ARG
33	DL	78	ARG
33	DL	82	LEU
33	DL	94	THR
33	DL	100	ILE
33	DL	118	THR
33	DL	120	VAL
33	DL	126	ARG
34	DM	6	ARG
34	DM	60	GLN
34	DM	70	ASP
34	DM	74	THR
34	DM	100	LYS
34	DM	108	VAL
34	DM	124	LEU
34	DM	128	THR
35	DN	1	MET
35	DN	2	ARG
35	DN	14	SER
35	DN	15	SER
35	DN	18	GLN
35	DN	20	MET
35	DN	33	ILE
35	DN	48	VAL
35	DN	52	ILE
35	DN	53	THR
35	DN	63	ARG
35	DN	69	ARG
35	DN	70	THR
35	DN	71	ARG
35	DN	73	ASN
35	DN	76	VAL
35	DN	90	ARG
35	DN	100	CYS
35	DN	114	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	DN	116	VAL
36	DO	9	ARG
36	DO	18	LEU
36	DO	24	THR
36	DO	26	LEU
36	DO	28	VAL
36	DO	31	THR
36	DO	36	TYR
36	DO	48	LEU
36	DO	56	LYS
36	DO	78	VAL
36	DO	88	LYS
36	DO	103	VAL
36	DO	116	GLN
37	DP	4	ILE
37	DP	7	GLN
37	DP	32	VAL
37	DP	34	GLU
37	DP	36	SER
37	DP	37	LYS
37	DP	66	ASN
37	DP	81	VAL
37	DP	83	SER
37	DP	89	ARG
37	DP	92	VAL
37	DP	94	LYS
37	DP	109	ARG
37	DP	110	ILE
37	DP	114	LEU
38	DQ	5	LYS
38	DQ	8	VAL
38	DQ	9	ILE
38	DQ	11	ARG
38	DQ	17	ILE
38	DQ	22	LYS
38	DQ	30	ARG
38	DQ	41	LYS
38	DQ	51	ARG
38	DQ	52	GLN
38	DQ	104	VAL
39	DR	12	HIS
39	DR	38	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	DR	39	LEU
39	DR	40	MET
39	DR	41	ILE
39	DR	43	ASN
39	DR	46	GLU
39	DR	48	LYS
39	DR	49	ILE
39	DR	58	VAL
39	DR	79	ARG
39	DR	82	HIS
39	DR	85	LYS
39	DR	94	THR
39	DR	97	LYS
39	DR	99	THR
40	DS	3	THR
40	DS	6	LYS
40	DS	19	LEU
40	DS	22	ASP
40	DS	23	LEU
40	DS	24	ILE
40	DS	40	ASN
40	DS	53	SER
40	DS	67	ASP
40	DS	69	LEU
40	DS	80	PRO
40	DS	86	MET
40	DS	96	ILE
41	DT	2	ILE
41	DT	3	ARG
41	DT	7	LEU
41	DT	16	VAL
41	DT	22	THR
41	DT	24	MET
41	DT	30	ILE
41	DT	31	VAL
41	DT	32	LEU
41	DT	44	LYS
41	DT	49	LYS
41	DT	69	ARG
41	DT	73	ARG
41	DT	77	ARG
42	DU	7	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
42	DU	10	GLU
42	DU	11	VAL
42	DU	15	THR
42	DU	18	ASP
42	DU	30	SER
42	DU	34	VAL
42	DU	35	ILE
42	DU	40	ASN
42	DU	41	LEU
42	DU	45	HIS
42	DU	46	GLN
42	DU	49	VAL
42	DU	54	GLN
42	DU	61	LYS
42	DU	72	ILE
42	DU	99	ASN
43	DV	1	MET
43	DV	2	PHE
43	DV	3	THR
43	DV	8	VAL
43	DV	29	ILE
43	DV	35	GLU
43	DV	42	LEU
43	DV	49	ASN
43	DV	50	MET
43	DV	53	LYS
43	DV	61	LEU
43	DV	63	ILE
43	DV	65	VAL
44	DW	20	ARG
44	DW	30	SER
44	DW	38	VAL
44	DW	41	ARG
44	DW	72	LYS
45	DX	2	SER
45	DX	4	VAL
45	DX	11	ARG
45	DX	23	ASN
45	DX	25	THR
45	DX	33	LEU
45	DX	46	PHE
45	DX	47	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
45	DX	52	SER
45	DX	58	VAL
45	DX	64	ILE
45	DX	71	LEU
45	DX	76	GLU
46	DY	2	LYS
46	DY	6	LEU
46	DY	9	LYS
46	DY	16	THR
46	DY	25	GLN
46	DY	37	LEU
46	DY	45	GLN
46	DY	49	ASP
46	DY	56	LEU
46	DY	58	ASN
47	DZ	3	LYS
47	DZ	4	THR
47	DZ	10	THR
47	DZ	25	LEU
47	DZ	31	ARG
47	DZ	36	VAL
47	DZ	39	GLU
47	DZ	41	THR
47	DZ	45	ARG
47	DZ	57	VAL
47	DZ	58	GLU
48	D0	28	LEU
48	D0	37	LYS
48	D0	46	ASP
48	D0	52	ARG
49	D1	12	VAL
49	D1	45	GLN
49	D1	46	HIS
49	D1	51	GLU
50	D2	4	THR
50	D2	10	LEU
50	D2	24	THR
50	D2	25	LYS
50	D2	34	ARG
50	D2	44	VAL
50	D2	46	LYS
51	D3	6	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
51	D3	23	LYS
51	D3	30	ARG
51	D3	31	HIS
51	D3	34	THR
51	D3	45	ARG
51	D3	47	LYS
52	D4	2	LYS
52	D4	11	CYS
52	D4	12	ARG
52	D4	26	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (37) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	39	HIS
3	AC	6	HIS
4	AD	74	ASN
6	AF	3	HIS
15	AO	46	HIS
19	AS	52	HIS
24	BC	53	HIS
24	BC	243	HIS
24	BC	251	GLN
29	BH	119	ASN
29	BH	135	HIS
36	BO	29	HIS
39	BR	89	HIS
48	B0	38	HIS
2	CB	15	HIS
2	CB	103	ASN
3	CC	176	HIS
4	CD	74	ASN
4	CD	198	HIS
7	CG	130	ASN
8	CH	18	GLN
10	CJ	70	HIS
15	CO	46	HIS
17	CQ	50	ASN
24	DC	15	HIS
25	DD	140	HIS
25	DD	150	GLN
28	DG	48	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	DH	28	ASN
29	DH	128	HIS
36	DO	29	HIS
40	DS	7	HIS
42	DU	74	ASN
46	DY	15	ASN
46	DY	41	HIS
48	D0	19	HIS
51	D3	31	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1537/1539 (99%)	321 (20%)	13 (0%)
1	CA	1538/1539 (99%)	312 (20%)	8 (0%)
22	BA	2895/2903 (99%)	513 (17%)	22 (0%)
22	DA	2895/2903 (99%)	635 (21%)	23 (0%)
23	BB	118/119 (99%)	18 (15%)	0
23	DB	117/119 (98%)	22 (18%)	0
All	All	9100/9122 (99%)	1821 (20%)	66 (0%)

All (1821) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	5	U
1	AA	6	G
1	AA	9	G
1	AA	13	U
1	AA	22	G
1	AA	28	A
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	70	U
1	AA	71	A
1	AA	72	A
1	AA	73	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	74	A
1	AA	75	G
1	AA	76	G
1	AA	81	A
1	AA	82	G
1	AA	83	C
1	AA	84	U
1	AA	85	U
1	AA	86	G
1	AA	89	U
1	AA	90	C
1	AA	91	U
1	AA	94	G
1	AA	95	C
1	AA	97	G
1	AA	108	G
1	AA	110	C
1	AA	116	A
1	AA	117	G
1	AA	121	U
1	AA	122	G
1	AA	130	A
1	AA	131	A
1	AA	136	C
1	AA	137	U
1	AA	141	G
1	AA	143	A
1	AA	144	G
1	AA	149	A
1	AA	158	G
1	AA	163	C
1	AA	168	G
1	AA	169	C
1	AA	181	A
1	AA	182	A
1	AA	183	C
1	AA	188	C
1	AA	195	A
1	AA	197	A
1	AA	205	A
1	AA	209	U
1	AA	210	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	226	G
1	AA	240	G
1	AA	245	U
1	AA	247	G
1	AA	251	G
1	AA	263	A
1	AA	266	G
1	AA	267	C
1	AA	289	G
1	AA	320	A
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	330	C
1	AA	332	G
1	AA	346	G
1	AA	347	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	365	U
1	AA	367	U
1	AA	372	C
1	AA	384	G
1	AA	398	U
1	AA	406	G
1	AA	408	A
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	421	U
1	AA	422	C
1	AA	429	U
1	AA	430	A
1	AA	435	A
1	AA	453	G
1	AA	454	G
1	AA	457	G
1	AA	458	U
1	AA	463	U
1	AA	465	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	466	A
1	AA	467	U
1	AA	468	A
1	AA	475	C
1	AA	479	U
1	AA	484	G
1	AA	485	U
1	AA	486	U
1	AA	492	C
1	AA	495	A
1	AA	498	A
1	AA	509	A
1	AA	511	C
1	AA	512	U
1	AA	518	C
1	AA	521	G
1	AA	527	G
1	AA	530	G
1	AA	532	A
1	AA	533	A
1	AA	545	C
1	AA	547	A
1	AA	562	U
1	AA	564	C
1	AA	572	A
1	AA	573	A
1	AA	576	C
1	AA	596	A
1	AA	615	G
1	AA	650	G
1	AA	653	U
1	AA	661	G
1	AA	665	A
1	AA	702	A
1	AA	721	G
1	AA	723	U
1	AA	724	G
1	AA	731	G
1	AA	733	G
1	AA	734	G
1	AA	746	A
1	AA	748	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	755	G
1	AA	772	U
1	AA	773	G
1	AA	774	G
1	AA	777	A
1	AA	788	U
1	AA	793	U
1	AA	794	A
1	AA	802	A
1	AA	810	C
1	AA	814	A
1	AA	815	A
1	AA	817	C
1	AA	821	G
1	AA	825	A
1	AA	828	U
1	AA	832	G
1	AA	835	U
1	AA	836	G
1	AA	841	C
1	AA	842	U
1	AA	843	U
1	AA	845	A
1	AA	846	G
1	AA	849	G
1	AA	859	G
1	AA	867	G
1	AA	902	G
1	AA	910	C
1	AA	914	A
1	AA	922	G
1	AA	926	G
1	AA	927	G
1	AA	932	C
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	964	A
1	AA	966	G
1	AA	969	A
1	AA	971	G
1	AA	972	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	983	A
1	AA	987	G
1	AA	992	U
1	AA	993	G
1	AA	1002	G
1	AA	1003	G
1	AA	1004	A
1	AA	1008	U
1	AA	1009	U
1	AA	1015	G
1	AA	1016	A
1	AA	1019	A
1	AA	1022	A
1	AA	1025	U
1	AA	1026	G
1	AA	1027	C
1	AA	1028	C
1	AA	1030	U
1	AA	1031	C
1	AA	1032	G
1	AA	1033	G
1	AA	1034	G
1	AA	1036	A
1	AA	1037	C
1	AA	1042	A
1	AA	1043	G
1	AA	1044	A
1	AA	1047	G
1	AA	1049	U
1	AA	1050	G
1	AA	1053	G
1	AA	1054	C
1	AA	1055	A
1	AA	1056	U
1	AA	1061	G
1	AA	1065	U
1	AA	1066	C
1	AA	1086	U
1	AA	1090	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1091	U
1	AA	1092	A
1	AA	1094	G
1	AA	1095	U
1	AA	1098	C
1	AA	1101	A
1	AA	1124	G
1	AA	1125	U
1	AA	1127	G
1	AA	1133	G
1	AA	1135	U
1	AA	1136	C
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1141	C
1	AA	1142	G
1	AA	1145	A
1	AA	1146	A
1	AA	1151	A
1	AA	1152	A
1	AA	1154	G
1	AA	1159	U
1	AA	1160	G
1	AA	1161	C
1	AA	1167	A
1	AA	1168	U
1	AA	1171	A
1	AA	1183	U
1	AA	1184	G
1	AA	1196	A
1	AA	1197	A
1	AA	1198	G
1	AA	1201	A
1	AA	1202	U
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1215	G
1	AA	1227	A
1	AA	1228	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1238	A
1	AA	1239	A
1	AA	1240	U
1	AA	1253	G
1	AA	1256	A
1	AA	1257	A
1	AA	1258	G
1	AA	1263	C
1	AA	1280	A
1	AA	1286	U
1	AA	1287	A
1	AA	1293	C
1	AA	1298	U
1	AA	1300	G
1	AA	1302	C
1	AA	1304	G
1	AA	1305	G
1	AA	1320	C
1	AA	1323	G
1	AA	1328	C
1	AA	1332	A
1	AA	1335	U
1	AA	1336	C
1	AA	1337	G
1	AA	1338	G
1	AA	1353	G
1	AA	1363	A
1	AA	1364	U
1	AA	1370	G
1	AA	1378	C
1	AA	1379	G
1	AA	1398	A
1	AA	1401	G
1	AA	1408	A
1	AA	1441	A
1	AA	1442	G
1	AA	1443	C
1	AA	1446	A
1	AA	1450	U
1	AA	1452	C
1	AA	1455	G
1	AA	1493	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1497	G
1	AA	1503	A
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1529	G
1	AA	1530	G
1	AA	1534	A
1	AA	1535	C
1	AA	1538	C
22	BA	10	A
22	BA	13	A
22	BA	34	U
22	BA	39	G
22	BA	45	G
22	BA	46	G
22	BA	61	C
22	BA	63	A
22	BA	71	A
22	BA	74	A
22	BA	75	G
22	BA	102	U
22	BA	103	A
22	BA	118	A
22	BA	119	A
22	BA	120	U
22	BA	131	A
22	BA	138	U
22	BA	139	U
22	BA	140	C
22	BA	141	G
22	BA	142	A
22	BA	166	U
22	BA	181	A
22	BA	196	A
22	BA	206	U
22	BA	207	A
22	BA	215	G
22	BA	216	A
22	BA	221	A
22	BA	222	A
22	BA	245	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	248	G
22	BA	255	A
22	BA	265	A
22	BA	266	G
22	BA	272	A
22	BA	276	U
22	BA	277	G
22	BA	278	A
22	BA	279	A
22	BA	302	C
22	BA	310	A
22	BA	311	A
22	BA	325	G
22	BA	329	G
22	BA	330	A
22	BA	331	C
22	BA	352	A
22	BA	353	C
22	BA	355	U
22	BA	361	G
22	BA	362	A
22	BA	371	A
22	BA	372	G
22	BA	386	G
22	BA	396	G
22	BA	404	A
22	BA	405	U
22	BA	411	G
22	BA	420	C
22	BA	424	G
22	BA	443	A
22	BA	455	C
22	BA	481	G
22	BA	491	G
22	BA	492	A
22	BA	497	A
22	BA	504	A
22	BA	505	A
22	BA	509	C
22	BA	510	C
22	BA	528	A
22	BA	531	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	532	A
22	BA	533	G
22	BA	546	U
22	BA	547	A
22	BA	548	G
22	BA	549	G
22	BA	550	C
22	BA	563	A
22	BA	573	U
22	BA	575	A
22	BA	586	A
22	BA	603	A
22	BA	613	A
22	BA	614	A
22	BA	615	U
22	BA	622	G
22	BA	627	A
22	BA	631	A
22	BA	637	A
22	BA	645	C
22	BA	647	G
22	BA	648	G
22	BA	653	U
22	BA	654	A
22	BA	655	A
22	BA	686	U
22	BA	729	G
22	BA	730	A
22	BA	738	G
22	BA	747	U
22	BA	764	A
22	BA	765	C
22	BA	775	G
22	BA	776	G
22	BA	781	A
22	BA	782	A
22	BA	784	G
22	BA	785	G
22	BA	789	A
22	BA	791	C
22	BA	792	A
22	BA	802	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	805	G
22	BA	812	C
22	BA	819	A
22	BA	826	U
22	BA	827	U
22	BA	828	U
22	BA	845	A
22	BA	846	U
22	BA	847	U
22	BA	852	U
22	BA	858	G
22	BA	859	G
22	BA	866	A
22	BA	877	A
22	BA	878	A
22	BA	879	G
22	BA	885	C
22	BA	896	A
22	BA	900	A
22	BA	905	A
22	BA	907	G
22	BA	908	C
22	BA	909	A
22	BA	910	A
22	BA	914	G
22	BA	915	C
22	BA	927	A
22	BA	932	U
22	BA	941	A
22	BA	946	C
22	BA	961	C
22	BA	974	G
22	BA	981	A
22	BA	982	C
22	BA	983	A
22	BA	984	A
22	BA	985	C
22	BA	995	C
22	BA	996	A
22	BA	999	U
22	BA	1012	U
22	BA	1013	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	1022	G
22	BA	1024	G
22	BA	1026	G
22	BA	1027	A
22	BA	1033	U
22	BA	1046	A
22	BA	1047	G
22	BA	1054	A
22	BA	1057	A
22	BA	1058	U
22	BA	1061	U
22	BA	1062	G
22	BA	1063	G
22	BA	1066	U
22	BA	1067	A
22	BA	1068	G
22	BA	1070	A
22	BA	1071	G
22	BA	1072	C
22	BA	1073	A
22	BA	1074	G
22	BA	1075	C
22	BA	1077	A
22	BA	1078	U
22	BA	1079	C
22	BA	1081	U
22	BA	1088	A
22	BA	1089	A
22	BA	1092	C
22	BA	1097	U
22	BA	1098	A
22	BA	1100	C
22	BA	1103	A
22	BA	1104	C
22	BA	1112	G
22	BA	1132	U
22	BA	1133	A
22	BA	1135	C
22	BA	1136	G
22	BA	1138	G
22	BA	1139	G
22	BA	1142	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	1155	A
22	BA	1168	G
22	BA	1171	G
22	BA	1172	C
22	BA	1173	U
22	BA	1174	U
22	BA	1175	A
22	BA	1176	U
22	BA	1178	C
22	BA	1179	G
22	BA	1180	U
22	BA	1181	U
22	BA	1182	G
22	BA	1185	G
22	BA	1189	A
22	BA	1238	G
22	BA	1250	G
22	BA	1253	A
22	BA	1256	G
22	BA	1266	G
22	BA	1271	G
22	BA	1272	A
22	BA	1273	U
22	BA	1280	G
22	BA	1286	A
22	BA	1293	C
22	BA	1300	G
22	BA	1301	A
22	BA	1303	G
22	BA	1305	C
22	BA	1325	U
22	BA	1345	C
22	BA	1352	U
22	BA	1359	A
22	BA	1365	A
22	BA	1368	G
22	BA	1379	U
22	BA	1383	A
22	BA	1384	A
22	BA	1386	C
22	BA	1406	U
22	BA	1407	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	1415	U
22	BA	1416	G
22	BA	1419	A
22	BA	1427	A
22	BA	1428	C
22	BA	1435	G
22	BA	1450	G
22	BA	1452	G
22	BA	1453	A
22	BA	1461	C
22	BA	1482	G
22	BA	1493	C
22	BA	1495	A
22	BA	1504	A
22	BA	1508	A
22	BA	1510	G
22	BA	1515	A
22	BA	1523	U
22	BA	1532	A
22	BA	1533	C
22	BA	1534	U
22	BA	1535	A
22	BA	1536	C
22	BA	1554	U
22	BA	1555	G
22	BA	1560	G
22	BA	1569	A
22	BA	1578	U
22	BA	1583	A
22	BA	1584	U
22	BA	1585	C
22	BA	1606	C
22	BA	1607	C
22	BA	1608	A
22	BA	1609	A
22	BA	1632	A
22	BA	1634	A
22	BA	1647	U
22	BA	1648	U
22	BA	1649	G
22	BA	1652	A
22	BA	1674	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	1688	U
22	BA	1703	G
22	BA	1715	G
22	BA	1717	A
22	BA	1718	G
22	BA	1729	U
22	BA	1730	C
22	BA	1732	C
22	BA	1738	G
22	BA	1739	A
22	BA	1744	A
22	BA	1764	C
22	BA	1766	G
22	BA	1773	A
22	BA	1774	C
22	BA	1776	G
22	BA	1800	C
22	BA	1801	A
22	BA	1808	A
22	BA	1816	C
22	BA	1828	G
22	BA	1829	A
22	BA	1859	U
22	BA	1865	U
22	BA	1866	A
22	BA	1870	C
22	BA	1871	A
22	BA	1872	A
22	BA	1873	G
22	BA	1885	A
22	BA	1890	A
22	BA	1900	A
22	BA	1906	G
22	BA	1909	C
22	BA	1912	A
22	BA	1913	A
22	BA	1914	C
22	BA	1915	U
22	BA	1916	A
22	BA	1917	U
22	BA	1923	U
22	BA	1925	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	1926	U
22	BA	1927	A
22	BA	1929	G
22	BA	1930	G
22	BA	1931	U
22	BA	1932	A
22	BA	1937	A
22	BA	1938	A
22	BA	1955	U
22	BA	1964	G
22	BA	1965	C
22	BA	1967	C
22	BA	1970	A
22	BA	1972	G
22	BA	1981	A
22	BA	1991	U
22	BA	1992	G
22	BA	1993	U
22	BA	1997	C
22	BA	2009	A
22	BA	2018	G
22	BA	2020	A
22	BA	2022	U
22	BA	2023	C
22	BA	2031	A
22	BA	2032	G
22	BA	2033	A
22	BA	2043	C
22	BA	2055	C
22	BA	2056	G
22	BA	2060	A
22	BA	2061	G
22	BA	2062	A
22	BA	2069	G
22	BA	2072	C
22	BA	2077	A
22	BA	2092	U
22	BA	2093	G
22	BA	2098	U
22	BA	2100	G
22	BA	2101	A
22	BA	2102	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	2110	G
22	BA	2111	U
22	BA	2112	G
22	BA	2113	U
22	BA	2115	G
22	BA	2116	G
22	BA	2117	A
22	BA	2118	U
22	BA	2119	A
22	BA	2122	U
22	BA	2123	G
22	BA	2126	A
22	BA	2127	G
22	BA	2128	G
22	BA	2132	U
22	BA	2133	G
22	BA	2134	A
22	BA	2136	G
22	BA	2140	G
22	BA	2145	C
22	BA	2147	A
22	BA	2148	G
22	BA	2149	U
22	BA	2157	G
22	BA	2162	G
22	BA	2164	C
22	BA	2165	C
22	BA	2167	U
22	BA	2169	A
22	BA	2170	A
22	BA	2171	A
22	BA	2172	U
22	BA	2173	A
22	BA	2176	A
22	BA	2178	C
22	BA	2179	C
22	BA	2181	U
22	BA	2187	U
22	BA	2190	G
22	BA	2198	A
22	BA	2203	U
22	BA	2204	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	2211	A
22	BA	2212	A
22	BA	2220	U
22	BA	2225	A
22	BA	2238	G
22	BA	2239	G
22	BA	2248	C
22	BA	2250	G
22	BA	2258	C
22	BA	2268	A
22	BA	2269	G
22	BA	2273	A
22	BA	2283	C
22	BA	2287	A
22	BA	2289	G
22	BA	2296	U
22	BA	2305	U
22	BA	2308	G
22	BA	2309	A
22	BA	2322	A
22	BA	2327	A
22	BA	2335	A
22	BA	2345	G
22	BA	2347	C
22	BA	2361	G
22	BA	2378	A
22	BA	2383	G
22	BA	2385	C
22	BA	2389	G
22	BA	2402	U
22	BA	2403	C
22	BA	2406	A
22	BA	2424	C
22	BA	2425	A
22	BA	2429	G
22	BA	2430	A
22	BA	2431	U
22	BA	2435	A
22	BA	2441	U
22	BA	2447	G
22	BA	2448	A
22	BA	2453	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	2476	A
22	BA	2478	A
22	BA	2490	G
22	BA	2491	U
22	BA	2502	G
22	BA	2503	A
22	BA	2504	U
22	BA	2505	G
22	BA	2506	U
22	BA	2518	A
22	BA	2525	G
22	BA	2529	G
22	BA	2554	U
22	BA	2555	U
22	BA	2566	A
22	BA	2567	G
22	BA	2573	C
22	BA	2578	G
22	BA	2582	G
22	BA	2584	U
22	BA	2602	A
22	BA	2603	G
22	BA	2609	U
22	BA	2613	U
22	BA	2615	U
22	BA	2621	G
22	BA	2629	U
22	BA	2663	G
22	BA	2682	A
22	BA	2689	U
22	BA	2690	U
22	BA	2726	A
22	BA	2729	G
22	BA	2744	G
22	BA	2748	A
22	BA	2757	A
22	BA	2765	A
22	BA	2778	A
22	BA	2791	G
22	BA	2798	U
22	BA	2799	A
22	BA	2800	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	2811	G
22	BA	2820	A
22	BA	2821	A
22	BA	2825	G
22	BA	2836	U
22	BA	2840	C
22	BA	2858	C
22	BA	2867	G
22	BA	2873	A
22	BA	2874	C
22	BA	2880	C
22	BA	2883	A
22	BA	2884	U
22	BA	2885	G
22	BA	2886	A
22	BA	2887	A
22	BA	2891	U
22	BA	2901	C
22	BA	2903	U
23	BB	2	G
23	BB	9	G
23	BB	13	G
23	BB	15	A
23	BB	16	G
23	BB	25	U
23	BB	35	C
23	BB	37	C
23	BB	41	G
23	BB	44	G
23	BB	45	A
23	BB	56	G
23	BB	66	A
23	BB	67	G
23	BB	84	G
23	BB	89	U
23	BB	109	A
23	BB	119	A
1	CA	5	U
1	CA	6	G
1	CA	9	G
1	CA	17	U
1	CA	19	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	56	U
1	CA	70	U
1	CA	71	A
1	CA	73	C
1	CA	74	A
1	CA	80	A
1	CA	83	C
1	CA	84	U
1	CA	85	U
1	CA	87	C
1	CA	88	U
1	CA	91	U
1	CA	93	U
1	CA	94	G
1	CA	95	C
1	CA	97	G
1	CA	108	G
1	CA	116	A
1	CA	117	G
1	CA	120	A
1	CA	121	U
1	CA	122	G
1	CA	124	C
1	CA	129	A
1	CA	130	A
1	CA	131	A
1	CA	143	A
1	CA	144	G
1	CA	154	U
1	CA	155	A
1	CA	156	C
1	CA	169	C
1	CA	173	U
1	CA	182	A
1	CA	183	C
1	CA	195	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	204	G
1	CA	207	C
1	CA	208	U
1	CA	210	C
1	CA	211	G
1	CA	212	G
1	CA	213	G
1	CA	240	G
1	CA	245	U
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	280	C
1	CA	289	G
1	CA	294	U
1	CA	298	A
1	CA	304	U
1	CA	316	C
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	330	C
1	CA	331	G
1	CA	332	G
1	CA	348	G
1	CA	351	G
1	CA	352	C
1	CA	354	G
1	CA	357	G
1	CA	367	U
1	CA	372	C
1	CA	376	G
1	CA	378	G
1	CA	379	C
1	CA	384	G
1	CA	398	U
1	CA	399	G
1	CA	406	G
1	CA	412	A
1	CA	413	G
1	CA	418	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	421	U
1	CA	422	C
1	CA	429	U
1	CA	430	A
1	CA	440	C
1	CA	441	A
1	CA	446	G
1	CA	459	A
1	CA	463	U
1	CA	466	A
1	CA	467	U
1	CA	468	A
1	CA	469	C
1	CA	478	A
1	CA	479	U
1	CA	481	G
1	CA	482	A
1	CA	484	G
1	CA	485	U
1	CA	486	U
1	CA	498	A
1	CA	505	G
1	CA	510	A
1	CA	511	C
1	CA	518	C
1	CA	519	C
1	CA	521	G
1	CA	527	G
1	CA	532	A
1	CA	533	A
1	CA	536	C
1	CA	545	C
1	CA	547	A
1	CA	550	G
1	CA	559	A
1	CA	564	C
1	CA	568	G
1	CA	571	U
1	CA	572	A
1	CA	573	A
1	CA	576	C
1	CA	577	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	581	G
1	CA	596	A
1	CA	622	A
1	CA	628	G
1	CA	650	G
1	CA	653	U
1	CA	665	A
1	CA	687	A
1	CA	702	A
1	CA	721	G
1	CA	723	U
1	CA	724	G
1	CA	733	G
1	CA	747	A
1	CA	755	G
1	CA	758	C
1	CA	760	G
1	CA	777	A
1	CA	785	G
1	CA	787	A
1	CA	792	A
1	CA	793	U
1	CA	794	A
1	CA	809	G
1	CA	812	G
1	CA	814	A
1	CA	815	A
1	CA	817	C
1	CA	819	A
1	CA	821	G
1	CA	828	U
1	CA	829	G
1	CA	832	G
1	CA	841	C
1	CA	842	U
1	CA	843	U
1	CA	844	G
1	CA	845	A
1	CA	846	G
1	CA	859	G
1	CA	874	G
1	CA	880	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	885	G
1	CA	902	G
1	CA	914	A
1	CA	919	A
1	CA	922	G
1	CA	926	G
1	CA	934	C
1	CA	960	U
1	CA	966	G
1	CA	967	C
1	CA	969	A
1	CA	971	G
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	983	A
1	CA	987	G
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	994	A
1	CA	995	C
1	CA	1004	A
1	CA	1008	U
1	CA	1009	U
1	CA	1018	G
1	CA	1022	A
1	CA	1025	U
1	CA	1026	G
1	CA	1027	C
1	CA	1028	C
1	CA	1030	U
1	CA	1031	C
1	CA	1032	G
1	CA	1033	G
1	CA	1034	G
1	CA	1037	C
1	CA	1039	G
1	CA	1043	G
1	CA	1044	A
1	CA	1050	G
1	CA	1054	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1065	U
1	CA	1066	C
1	CA	1070	U
1	CA	1072	G
1	CA	1073	U
1	CA	1086	U
1	CA	1088	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1104	G
1	CA	1124	G
1	CA	1125	U
1	CA	1129	C
1	CA	1133	G
1	CA	1134	G
1	CA	1136	C
1	CA	1137	C
1	CA	1139	G
1	CA	1140	C
1	CA	1141	C
1	CA	1142	G
1	CA	1145	A
1	CA	1155	A
1	CA	1157	A
1	CA	1159	U
1	CA	1160	G
1	CA	1161	C
1	CA	1168	U
1	CA	1184	G
1	CA	1186	G
1	CA	1196	A
1	CA	1202	U
1	CA	1212	U
1	CA	1213	A
1	CA	1227	A
1	CA	1230	C
1	CA	1236	A
1	CA	1238	A
1	CA	1240	U
1	CA	1246	A
1	CA	1253	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1257	A
1	CA	1260	G
1	CA	1269	A
1	CA	1275	A
1	CA	1280	A
1	CA	1285	A
1	CA	1286	U
1	CA	1287	A
1	CA	1292	G
1	CA	1293	C
1	CA	1297	G
1	CA	1299	A
1	CA	1304	G
1	CA	1305	G
1	CA	1317	C
1	CA	1318	A
1	CA	1320	C
1	CA	1322	C
1	CA	1336	C
1	CA	1337	G
1	CA	1338	G
1	CA	1346	A
1	CA	1353	G
1	CA	1362	A
1	CA	1363	A
1	CA	1364	U
1	CA	1370	G
1	CA	1379	G
1	CA	1382	C
1	CA	1398	A
1	CA	1418	A
1	CA	1429	A
1	CA	1440	U
1	CA	1441	A
1	CA	1442	G
1	CA	1446	A
1	CA	1448	C
1	CA	1452	C
1	CA	1454	G
1	CA	1455	G
1	CA	1475	G
1	CA	1492	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1493	A
1	CA	1497	G
1	CA	1499	A
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1509	C
1	CA	1517	G
1	CA	1529	G
1	CA	1530	G
1	CA	1533	C
1	CA	1535	C
1	CA	1536	C
22	DA	10	A
22	DA	15	G
22	DA	23	G
22	DA	34	U
22	DA	39	G
22	DA	42	A
22	DA	46	G
22	DA	47	C
22	DA	57	C
22	DA	58	G
22	DA	61	C
22	DA	71	A
22	DA	73	A
22	DA	74	A
22	DA	75	G
22	DA	80	G
22	DA	81	G
22	DA	82	U
22	DA	83	A
22	DA	84	A
22	DA	91	A
22	DA	96	C
22	DA	98	G
22	DA	101	A
22	DA	102	U
22	DA	118	A
22	DA	119	A
22	DA	120	U
22	DA	121	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	138	U
22	DA	139	U
22	DA	140	C
22	DA	141	G
22	DA	142	A
22	DA	145	C
22	DA	146	A
22	DA	149	A
22	DA	150	U
22	DA	155	A
22	DA	162	U
22	DA	163	C
22	DA	166	U
22	DA	181	A
22	DA	196	A
22	DA	199	A
22	DA	206	U
22	DA	215	G
22	DA	216	A
22	DA	222	A
22	DA	223	A
22	DA	225	C
22	DA	229	C
22	DA	233	A
22	DA	245	G
22	DA	248	G
22	DA	249	C
22	DA	253	C
22	DA	255	A
22	DA	256	A
22	DA	265	A
22	DA	266	G
22	DA	271	G
22	DA	272	A
22	DA	276	U
22	DA	279	A
22	DA	281	C
22	DA	282	A
22	DA	284	U
22	DA	285	G
22	DA	294	A
22	DA	299	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	311	A
22	DA	322	A
22	DA	329	G
22	DA	330	A
22	DA	331	C
22	DA	361	G
22	DA	362	A
22	DA	367	G
22	DA	371	A
22	DA	372	G
22	DA	374	A
22	DA	380	G
22	DA	383	C
22	DA	385	C
22	DA	386	G
22	DA	387	U
22	DA	392	U
22	DA	396	G
22	DA	405	U
22	DA	411	G
22	DA	412	A
22	DA	417	C
22	DA	424	G
22	DA	426	C
22	DA	430	A
22	DA	432	A
22	DA	435	C
22	DA	448	U
22	DA	451	U
22	DA	452	G
22	DA	455	C
22	DA	478	A
22	DA	479	A
22	DA	480	A
22	DA	481	G
22	DA	490	C
22	DA	491	G
22	DA	504	A
22	DA	505	A
22	DA	508	A
22	DA	510	C
22	DA	528	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	529	A
22	DA	531	C
22	DA	532	A
22	DA	533	G
22	DA	543	G
22	DA	544	C
22	DA	546	U
22	DA	547	A
22	DA	548	G
22	DA	549	G
22	DA	550	C
22	DA	563	A
22	DA	569	U
22	DA	573	U
22	DA	575	A
22	DA	586	A
22	DA	588	U
22	DA	603	A
22	DA	613	A
22	DA	614	A
22	DA	627	A
22	DA	630	G
22	DA	631	A
22	DA	637	A
22	DA	645	C
22	DA	646	U
22	DA	647	G
22	DA	648	G
22	DA	651	G
22	DA	654	A
22	DA	655	A
22	DA	662	G
22	DA	672	C
22	DA	685	A
22	DA	686	U
22	DA	695	G
22	DA	701	G
22	DA	702	U
22	DA	717	C
22	DA	726	G
22	DA	727	A
22	DA	728	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	729	G
22	DA	730	A
22	DA	740	C
22	DA	747	U
22	DA	748	G
22	DA	751	A
22	DA	752	A
22	DA	757	G
22	DA	758	C
22	DA	764	A
22	DA	771	G
22	DA	775	G
22	DA	776	G
22	DA	782	A
22	DA	784	G
22	DA	785	G
22	DA	798	G
22	DA	802	A
22	DA	805	G
22	DA	812	C
22	DA	819	A
22	DA	827	U
22	DA	828	U
22	DA	830	G
22	DA	844	A
22	DA	845	A
22	DA	846	U
22	DA	847	U
22	DA	858	G
22	DA	859	G
22	DA	865	C
22	DA	878	A
22	DA	881	G
22	DA	882	G
22	DA	885	C
22	DA	896	A
22	DA	897	C
22	DA	902	C
22	DA	910	A
22	DA	913	U
22	DA	914	G
22	DA	915	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	931	U
22	DA	932	U
22	DA	941	A
22	DA	946	C
22	DA	953	G
22	DA	958	U
22	DA	961	C
22	DA	963	U
22	DA	974	G
22	DA	983	A
22	DA	985	C
22	DA	995	C
22	DA	996	A
22	DA	1012	U
22	DA	1013	C
22	DA	1022	G
22	DA	1025	G
22	DA	1026	G
22	DA	1033	U
22	DA	1041	G
22	DA	1046	A
22	DA	1047	G
22	DA	1048	A
22	DA	1053	C
22	DA	1058	U
22	DA	1060	U
22	DA	1061	U
22	DA	1062	G
22	DA	1065	U
22	DA	1066	U
22	DA	1068	G
22	DA	1070	A
22	DA	1071	G
22	DA	1072	C
22	DA	1074	G
22	DA	1077	A
22	DA	1079	C
22	DA	1082	U
22	DA	1088	A
22	DA	1089	A
22	DA	1092	C
22	DA	1094	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	1097	U
22	DA	1098	A
22	DA	1100	C
22	DA	1101	U
22	DA	1104	C
22	DA	1110	G
22	DA	1111	A
22	DA	1112	G
22	DA	1115	G
22	DA	1116	G
22	DA	1119	U
22	DA	1122	G
22	DA	1128	G
22	DA	1132	U
22	DA	1133	A
22	DA	1135	C
22	DA	1136	G
22	DA	1139	G
22	DA	1142	A
22	DA	1153	C
22	DA	1155	A
22	DA	1156	A
22	DA	1171	G
22	DA	1172	C
22	DA	1175	A
22	DA	1176	U
22	DA	1179	G
22	DA	1180	U
22	DA	1186	G
22	DA	1187	G
22	DA	1195	G
22	DA	1204	A
22	DA	1211	C
22	DA	1212	G
22	DA	1221	C
22	DA	1227	G
22	DA	1230	A
22	DA	1231	U
22	DA	1236	G
22	DA	1238	G
22	DA	1246	A
22	DA	1250	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	1253	A
22	DA	1254	A
22	DA	1255	U
22	DA	1256	G
22	DA	1258	U
22	DA	1264	A
22	DA	1266	G
22	DA	1271	G
22	DA	1272	A
22	DA	1273	U
22	DA	1276	A
22	DA	1288	G
22	DA	1300	G
22	DA	1301	A
22	DA	1318	U
22	DA	1321	A
22	DA	1345	C
22	DA	1352	U
22	DA	1355	G
22	DA	1359	A
22	DA	1365	A
22	DA	1368	G
22	DA	1376	C
22	DA	1378	A
22	DA	1379	U
22	DA	1380	G
22	DA	1383	A
22	DA	1384	A
22	DA	1386	C
22	DA	1387	A
22	DA	1391	U
22	DA	1393	A
22	DA	1395	A
22	DA	1411	U
22	DA	1416	G
22	DA	1419	A
22	DA	1423	G
22	DA	1426	G
22	DA	1428	C
22	DA	1434	A
22	DA	1452	G
22	DA	1456	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	1458	U
22	DA	1462	C
22	DA	1471	G
22	DA	1478	G
22	DA	1482	G
22	DA	1493	C
22	DA	1504	A
22	DA	1509	A
22	DA	1510	G
22	DA	1511	G
22	DA	1515	A
22	DA	1523	U
22	DA	1527	G
22	DA	1530	G
22	DA	1531	C
22	DA	1533	C
22	DA	1534	U
22	DA	1535	A
22	DA	1536	C
22	DA	1537	G
22	DA	1538	G
22	DA	1540	G
22	DA	1542	U
22	DA	1560	G
22	DA	1564	C
22	DA	1566	A
22	DA	1569	A
22	DA	1576	U
22	DA	1578	U
22	DA	1581	G
22	DA	1582	C
22	DA	1583	A
22	DA	1584	U
22	DA	1585	C
22	DA	1587	G
22	DA	1591	A
22	DA	1599	U
22	DA	1603	A
22	DA	1606	C
22	DA	1607	C
22	DA	1608	A
22	DA	1610	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	1611	C
22	DA	1613	G
22	DA	1616	A
22	DA	1619	G
22	DA	1623	G
22	DA	1625	C
22	DA	1626	A
22	DA	1646	C
22	DA	1647	U
22	DA	1648	U
22	DA	1649	G
22	DA	1651	G
22	DA	1660	G
22	DA	1663	G
22	DA	1664	A
22	DA	1674	G
22	DA	1690	A
22	DA	1694	C
22	DA	1695	G
22	DA	1715	G
22	DA	1728	C
22	DA	1729	U
22	DA	1730	C
22	DA	1732	C
22	DA	1733	G
22	DA	1738	G
22	DA	1740	G
22	DA	1744	A
22	DA	1750	G
22	DA	1756	G
22	DA	1758	U
22	DA	1764	C
22	DA	1773	A
22	DA	1791	A
22	DA	1800	C
22	DA	1808	A
22	DA	1811	G
22	DA	1816	C
22	DA	1822	C
22	DA	1829	A
22	DA	1833	C
22	DA	1848	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	1858	A
22	DA	1869	G
22	DA	1870	C
22	DA	1871	A
22	DA	1872	A
22	DA	1873	G
22	DA	1874	C
22	DA	1876	A
22	DA	1880	U
22	DA	1889	A
22	DA	1903	G
22	DA	1906	G
22	DA	1913	A
22	DA	1914	C
22	DA	1920	C
22	DA	1924	C
22	DA	1927	A
22	DA	1929	G
22	DA	1930	G
22	DA	1934	C
22	DA	1937	A
22	DA	1938	A
22	DA	1945	G
22	DA	1955	U
22	DA	1965	C
22	DA	1966	A
22	DA	1967	C
22	DA	1970	A
22	DA	1971	U
22	DA	1972	G
22	DA	1991	U
22	DA	1993	U
22	DA	1997	C
22	DA	2004	G
22	DA	2009	A
22	DA	2018	G
22	DA	2020	A
22	DA	2022	U
22	DA	2023	C
22	DA	2030	A
22	DA	2031	A
22	DA	2033	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	2043	C
22	DA	2055	C
22	DA	2056	G
22	DA	2060	A
22	DA	2061	G
22	DA	2062	A
22	DA	2069	G
22	DA	2080	A
22	DA	2083	G
22	DA	2092	U
22	DA	2093	G
22	DA	2095	A
22	DA	2108	A
22	DA	2110	G
22	DA	2111	U
22	DA	2112	G
22	DA	2113	U
22	DA	2115	G
22	DA	2116	G
22	DA	2117	A
22	DA	2118	U
22	DA	2119	A
22	DA	2125	G
22	DA	2126	A
22	DA	2127	G
22	DA	2128	G
22	DA	2131	U
22	DA	2132	U
22	DA	2133	G
22	DA	2135	A
22	DA	2137	U
22	DA	2146	C
22	DA	2147	A
22	DA	2149	U
22	DA	2158	A
22	DA	2162	G
22	DA	2163	A
22	DA	2164	C
22	DA	2165	C
22	DA	2166	U
22	DA	2169	A
22	DA	2170	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	2171	A
22	DA	2172	U
22	DA	2173	A
22	DA	2178	C
22	DA	2179	C
22	DA	2184	A
22	DA	2189	U
22	DA	2190	G
22	DA	2194	U
22	DA	2198	A
22	DA	2203	U
22	DA	2204	G
22	DA	2212	A
22	DA	2214	C
22	DA	2225	A
22	DA	2226	C
22	DA	2230	G
22	DA	2238	G
22	DA	2241	A
22	DA	2243	U
22	DA	2246	G
22	DA	2250	G
22	DA	2268	A
22	DA	2273	A
22	DA	2278	A
22	DA	2280	G
22	DA	2283	C
22	DA	2287	A
22	DA	2293	G
22	DA	2305	U
22	DA	2307	G
22	DA	2308	G
22	DA	2309	A
22	DA	2310	C
22	DA	2311	A
22	DA	2312	U
22	DA	2316	G
22	DA	2321	U
22	DA	2322	A
22	DA	2324	U
22	DA	2325	G
22	DA	2327	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	2333	A
22	DA	2344	U
22	DA	2347	C
22	DA	2350	C
22	DA	2354	C
22	DA	2357	G
22	DA	2361	G
22	DA	2383	G
22	DA	2385	C
22	DA	2402	U
22	DA	2403	C
22	DA	2406	A
22	DA	2407	A
22	DA	2410	G
22	DA	2422	C
22	DA	2423	U
22	DA	2424	C
22	DA	2425	A
22	DA	2428	G
22	DA	2429	G
22	DA	2430	A
22	DA	2431	U
22	DA	2435	A
22	DA	2440	C
22	DA	2441	U
22	DA	2446	G
22	DA	2447	G
22	DA	2448	A
22	DA	2449	U
22	DA	2457	U
22	DA	2470	G
22	DA	2474	U
22	DA	2476	A
22	DA	2484	G
22	DA	2491	U
22	DA	2502	G
22	DA	2503	A
22	DA	2504	U
22	DA	2505	G
22	DA	2518	A
22	DA	2525	G
22	DA	2529	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	2535	G
22	DA	2547	A
22	DA	2550	G
22	DA	2554	U
22	DA	2566	A
22	DA	2567	G
22	DA	2572	A
22	DA	2573	C
22	DA	2578	G
22	DA	2579	C
22	DA	2581	G
22	DA	2582	G
22	DA	2585	U
22	DA	2586	U
22	DA	2602	A
22	DA	2603	G
22	DA	2609	U
22	DA	2610	C
22	DA	2613	U
22	DA	2629	U
22	DA	2630	G
22	DA	2646	C
22	DA	2663	G
22	DA	2682	A
22	DA	2689	U
22	DA	2690	U
22	DA	2714	G
22	DA	2716	C
22	DA	2726	A
22	DA	2727	A
22	DA	2733	A
22	DA	2748	A
22	DA	2751	G
22	DA	2757	A
22	DA	2765	A
22	DA	2776	A
22	DA	2778	A
22	DA	2781	A
22	DA	2782	G
22	DA	2791	G
22	DA	2794	C
22	DA	2798	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	2799	A
22	DA	2803	G
22	DA	2807	U
22	DA	2809	A
22	DA	2812	G
22	DA	2820	A
22	DA	2823	A
22	DA	2826	A
22	DA	2834	G
22	DA	2861	U
22	DA	2867	G
22	DA	2873	A
22	DA	2879	A
22	DA	2880	C
22	DA	2883	A
22	DA	2886	A
22	DA	2891	U
22	DA	2903	U
23	DB	13	G
23	DB	15	A
23	DB	22	U
23	DB	24	G
23	DB	31	C
23	DB	35	C
23	DB	36	C
23	DB	44	G
23	DB	51	G
23	DB	56	G
23	DB	64	G
23	DB	66	A
23	DB	73	A
23	DB	88	C
23	DB	89	U
23	DB	90	C
23	DB	91	C
23	DB	98	G
23	DB	99	A
23	DB	105	G
23	DB	109	A
23	DB	110	C

All (66) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	115	G
1	AA	209	U
1	AA	351	G
1	AA	429	U
1	AA	575	G
1	AA	793	U
1	AA	1031	C
1	AA	1049	U
1	AA	1145	A
1	AA	1201	A
1	AA	1211	U
1	AA	1378	C
1	AA	1533	C
22	BA	70	G
22	BA	199	A
22	BA	271	G
22	BA	404	A
22	BA	764	A
22	BA	784	G
22	BA	846	U
22	BA	984	A
22	BA	995	C
22	BA	1078	U
22	BA	1180	U
22	BA	1344	U
22	BA	1378	A
22	BA	1606	C
22	BA	1610	A
22	BA	2127	G
22	BA	2211	A
22	BA	2282	G
22	BA	2326	C
22	BA	2406	A
22	BA	2756	U
22	BA	2873	A
1	CA	96	U
1	CA	115	G
1	CA	209	U
1	CA	429	U
1	CA	1049	U
1	CA	1201	A
1	CA	1211	U
1	CA	1279	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	271	G
22	DA	404	A
22	DA	479	A
22	DA	613	A
22	DA	846	U
22	DA	982	C
22	DA	1275	A
22	DA	1344	U
22	DA	1378	A
22	DA	1606	C
22	DA	1847	A
22	DA	2109	U
22	DA	2127	G
22	DA	2146	C
22	DA	2162	G
22	DA	2211	A
22	DA	2225	A
22	DA	2286	G
22	DA	2308	G
22	DA	2326	C
22	DA	2602	A
22	DA	2756	U
22	DA	2873	A

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 502 ligands modelled in this entry, 500 are monoatomic - leaving 2 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
55	VIR	BA	3001	-	34,40,40	3.45	12 (35%)	36,55,55	3.55	19 (52%)
55	VIR	DA	3001	-	34,40,40	3.42	12 (35%)	36,55,55	3.29	14 (38%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	VIR	BA	3001	-	-	15/42/58/58	0/2/3/3
55	VIR	DA	3001	-	-	17/42/58/58	0/2/3/3

All (24) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	BA	3001	VIR	C28-C29	9.76	1.55	1.32
55	DA	3001	VIR	C28-C29	9.47	1.54	1.32
55	BA	3001	VIR	C22-C23	9.35	1.56	1.32
55	DA	3001	VIR	C22-C23	9.13	1.55	1.32
55	DA	3001	VIR	C26-N25	6.85	1.49	1.34
55	BA	3001	VIR	C26-N25	6.73	1.49	1.34
55	BA	3001	VIR	C19-C20	6.67	1.55	1.34
55	DA	3001	VIR	C19-C20	6.28	1.54	1.34
55	DA	3001	VIR	C1-N5	6.10	1.47	1.39
55	BA	3001	VIR	C1-N5	5.67	1.47	1.39
55	DA	3001	VIR	C13-C10	5.14	1.58	1.50
55	DA	3001	VIR	O36-C37	5.05	1.45	1.34
55	BA	3001	VIR	C13-C10	4.53	1.57	1.50
55	BA	3001	VIR	O36-C37	4.48	1.44	1.34
55	BA	3001	VIR	C4-N5	-3.26	1.42	1.47
55	DA	3001	VIR	C4-N5	-3.19	1.42	1.47
55	BA	3001	VIR	C8-C6	2.97	1.56	1.50
55	DA	3001	VIR	C1-C37	2.58	1.56	1.48
55	DA	3001	VIR	C28-C26	2.54	1.53	1.48
55	BA	3001	VIR	C28-C26	2.51	1.53	1.48
55	DA	3001	VIR	C16-C14	2.35	1.54	1.51
55	BA	3001	VIR	C16-C14	2.14	1.54	1.51
55	DA	3001	VIR	C8-C6	2.10	1.54	1.50
55	BA	3001	VIR	C22-C20	2.05	1.50	1.45

All (33) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	DA	3001	VIR	C23-C22-C20	-9.51	111.52	125.89
55	BA	3001	VIR	C23-C22-C20	-8.91	112.42	125.89
55	BA	3001	VIR	O36-C37-C1	7.69	119.90	110.53
55	BA	3001	VIR	C37-C1-N5	-7.46	113.59	123.15
55	DA	3001	VIR	O36-C37-C1	7.40	119.54	110.53
55	BA	3001	VIR	C29-C28-C26	-7.15	104.80	122.69
55	DA	3001	VIR	C37-C1-N5	-6.92	114.29	123.15
55	DA	3001	VIR	C21-C20-C22	-6.41	107.97	118.08
55	DA	3001	VIR	C30-C29-C28	-5.70	110.89	126.44
55	BA	3001	VIR	C30-C29-C28	-5.42	111.64	126.44
55	DA	3001	VIR	C29-C28-C26	-5.11	109.92	122.69
55	BA	3001	VIR	C28-C26-N25	5.05	124.49	114.97
55	BA	3001	VIR	C21-C20-C22	-4.81	110.50	118.08
55	BA	3001	VIR	C21-C20-C19	-4.68	108.47	123.07
55	BA	3001	VIR	C4-N5-C6	4.15	125.04	118.83
55	DA	3001	VIR	C4-N5-C6	3.86	124.60	118.83
55	DA	3001	VIR	C21-C20-C19	-3.86	111.03	123.07
55	BA	3001	VIR	C24-N25-C26	-3.63	116.16	122.03
55	DA	3001	VIR	C8-C6-N5	-3.50	113.97	118.48
55	BA	3001	VIR	C32-O36-C37	-3.28	111.33	117.68
55	DA	3001	VIR	C22-C20-C19	-3.15	109.06	119.42
55	BA	3001	VIR	O36-C37-O38	-3.02	117.56	123.32
55	DA	3001	VIR	C30-C32-C33	-2.85	108.98	115.98
55	BA	3001	VIR	O27-C26-C28	-2.82	116.60	123.03
55	BA	3001	VIR	C31-C30-C32	-2.71	106.10	111.11
55	DA	3001	VIR	C28-C26-N25	2.41	119.52	114.97
55	BA	3001	VIR	C22-C20-C19	-2.29	111.89	119.42
55	DA	3001	VIR	O36-C37-O38	-2.21	119.12	123.32
55	BA	3001	VIR	C30-C32-C33	-2.16	110.66	115.98
55	DA	3001	VIR	O7-C6-N5	2.10	123.60	120.19
55	BA	3001	VIR	O7-C6-C8	2.09	123.02	119.00
55	BA	3001	VIR	C31-C30-C29	-2.07	104.97	109.99
55	BA	3001	VIR	O27-C26-N25	-2.03	118.87	122.23

There are no chirality outliers.

All (32) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
55	BA	3001	VIR	C2-C1-C37-O36
55	BA	3001	VIR	C17-C19-C20-C21
55	BA	3001	VIR	C20-C22-C23-C24

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
55	BA	3001	VIR	O7-C6-N5-C4
55	DA	3001	VIR	C17-C19-C20-C21
55	DA	3001	VIR	C17-C19-C20-C22
55	DA	3001	VIR	C19-C20-C22-C23
55	DA	3001	VIR	C21-C20-C22-C23
55	DA	3001	VIR	O36-C32-C33-C34
55	DA	3001	VIR	O36-C32-C33-C35
55	DA	3001	VIR	O7-C6-N5-C4
55	BA	3001	VIR	C21-C20-C22-C23
55	BA	3001	VIR	C2-C1-C37-O38
55	DA	3001	VIR	C2-C1-C37-O36
55	BA	3001	VIR	N25-C26-C28-C29
55	BA	3001	VIR	C10-C13-C14-O15
55	BA	3001	VIR	C10-C13-C14-C16
55	DA	3001	VIR	C28-C29-C30-C31
55	BA	3001	VIR	N5-C1-C37-O36
55	DA	3001	VIR	C30-C32-C33-C35
55	BA	3001	VIR	C31-C30-C32-O36
55	BA	3001	VIR	C8-C6-N5-C1
55	DA	3001	VIR	C30-C32-C33-C34
55	DA	3001	VIR	C28-C29-C30-C32
55	DA	3001	VIR	C10-C13-C14-O15
55	BA	3001	VIR	O27-C26-C28-C29
55	DA	3001	VIR	C10-C13-C14-C16
55	DA	3001	VIR	C14-C16-C17-O18
55	DA	3001	VIR	C22-C23-C24-N25
55	BA	3001	VIR	C28-C29-C30-C31
55	BA	3001	VIR	C29-C30-C32-O36
55	DA	3001	VIR	C8-C6-N5-C1

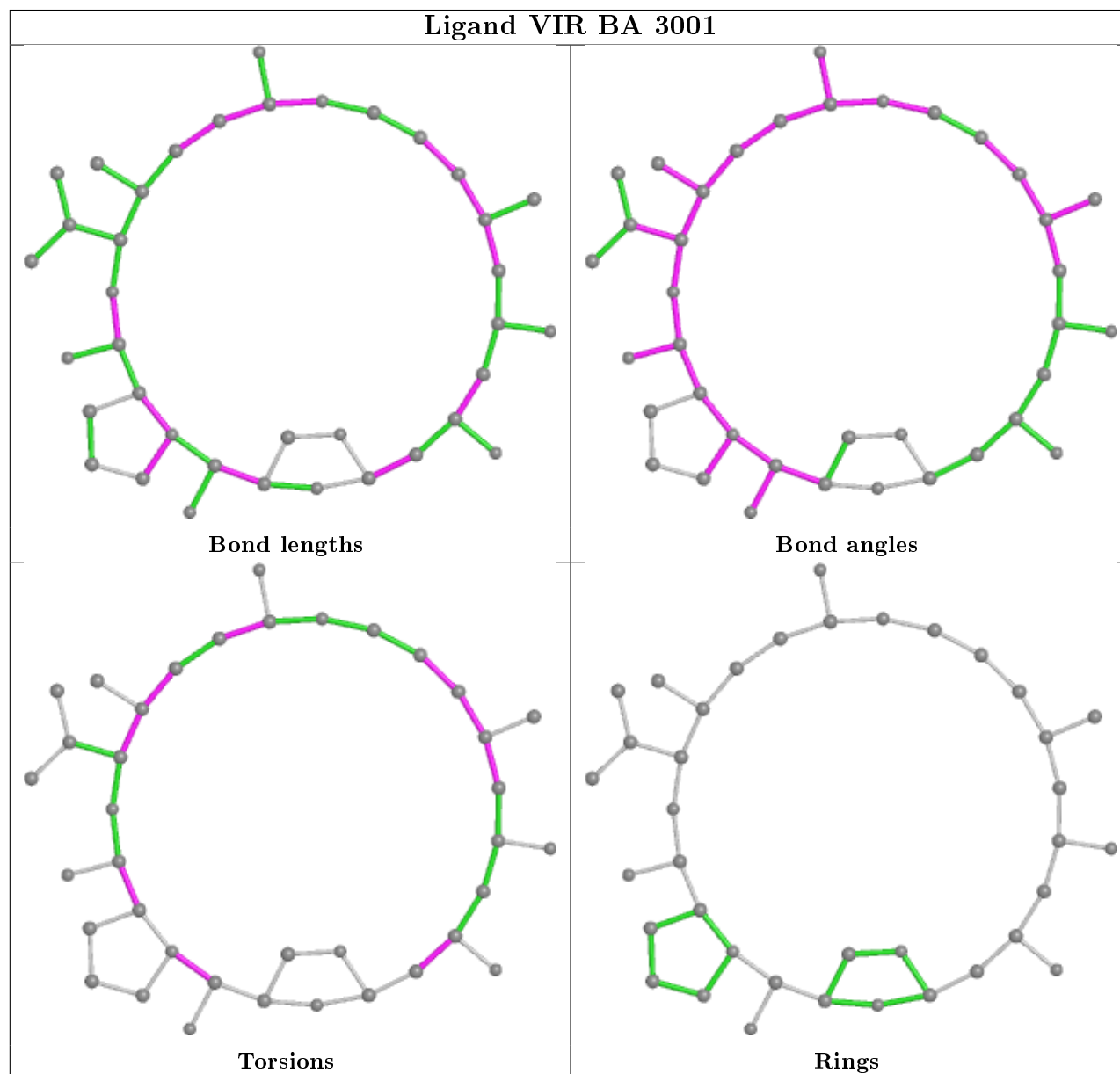
There are no ring outliers.

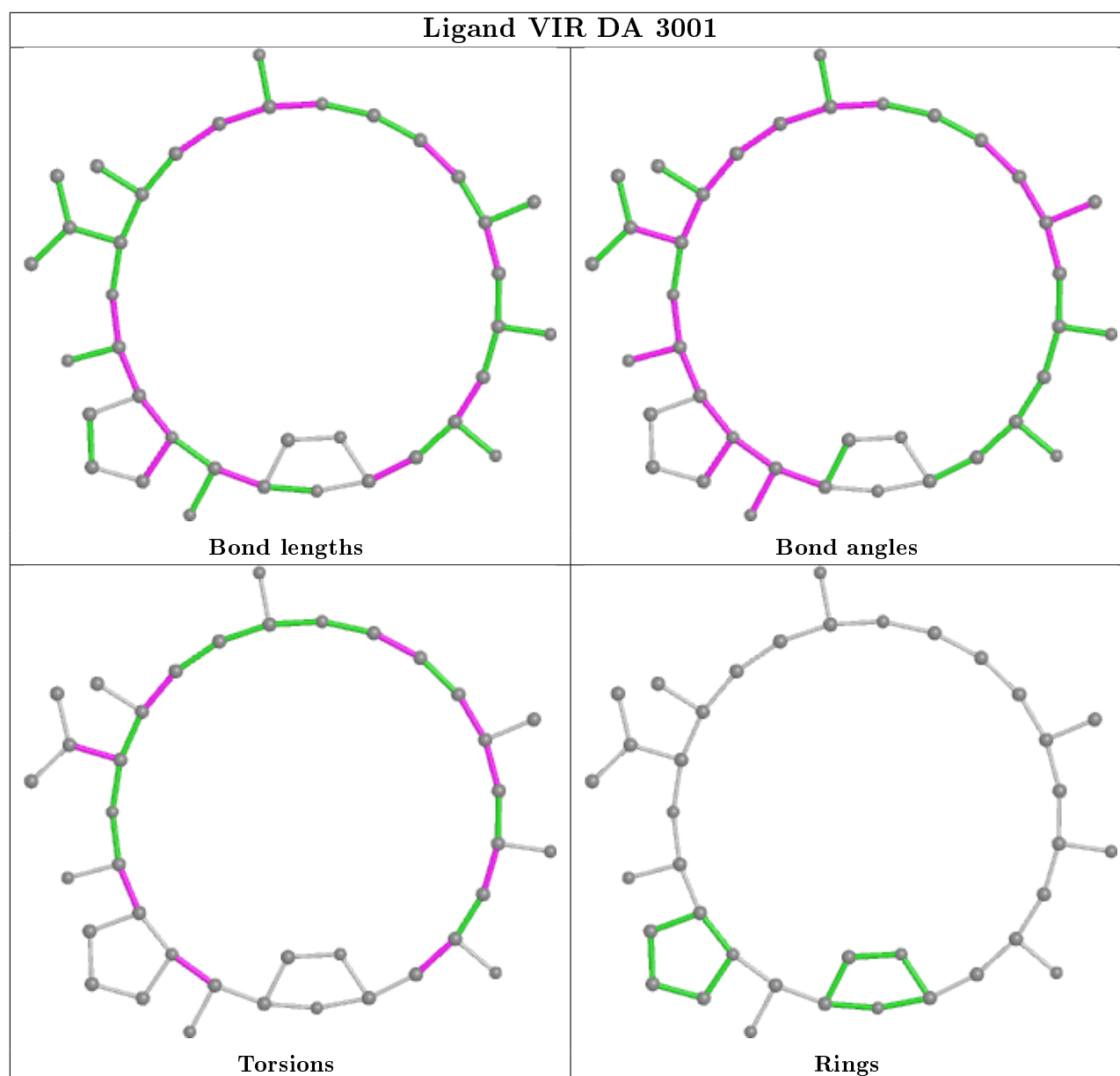
2 monomers are involved in 20 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	BA	3001	VIR	5	0
55	DA	3001	VIR	15	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier.

Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1538/1539 (99%)	-0.15	26 (1%) 70 69	12, 51, 134, 181	0
1	CA	1539/1539 (100%)	0.17	68 (4%) 34 30	25, 70, 145, 177	0
2	AB	218/218 (100%)	1.00	31 (14%) 2 2	38, 75, 100, 123	0
2	CB	218/218 (100%)	1.22	58 (26%) 0 0	61, 87, 107, 126	0
3	AC	206/206 (100%)	0.25	11 (5%) 26 22	35, 57, 78, 93	0
3	CC	206/206 (100%)	1.62	78 (37%) 0 0	51, 80, 95, 105	0
4	AD	205/205 (100%)	0.32	6 (2%) 51 47	33, 56, 78, 104	0
4	CD	205/205 (100%)	0.02	6 (2%) 51 47	17, 38, 63, 87	0
5	AE	150/150 (100%)	0.08	2 (1%) 77 77	32, 48, 79, 101	0
5	CE	150/150 (100%)	0.25	5 (3%) 46 41	30, 56, 82, 103	0
6	AF	100/100 (100%)	-0.11	1 (1%) 82 82	34, 57, 73, 87	0
6	CF	100/100 (100%)	0.30	6 (6%) 21 18	45, 74, 94, 105	0
7	AG	151/151 (100%)	0.63	15 (9%) 7 5	54, 77, 96, 103	0
7	CG	151/151 (100%)	2.65	85 (56%) 0 0	82, 101, 110, 115	0
8	AH	129/129 (100%)	0.19	1 (0%) 86 86	31, 49, 66, 75	0
8	CH	129/129 (100%)	0.45	7 (5%) 25 22	50, 65, 81, 92	0
9	AI	127/127 (100%)	0.99	23 (18%) 1 1	44, 74, 96, 110	0
9	CI	127/127 (100%)	2.15	55 (43%) 0 0	73, 94, 111, 122	0
10	AJ	98/98 (100%)	0.71	12 (12%) 4 3	39, 66, 92, 122	0
10	CJ	98/98 (100%)	2.91	58 (59%) 0 0	71, 95, 111, 126	0
11	AK	117/117 (100%)	0.62	11 (9%) 8 6	26, 65, 92, 117	0
11	CK	117/117 (100%)	0.43	6 (5%) 28 24	38, 67, 80, 92	0
12	AL	123/123 (100%)	0.18	5 (4%) 37 32	21, 35, 64, 98	0
12	CL	123/123 (100%)	0.42	5 (4%) 37 32	36, 52, 78, 99	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AM	114/114 (100%)	0.50	8 (7%) 16 12	48, 69, 94, 103	0
13	CM	114/114 (100%)	3.03	79 (69%) 0 0	97, 109, 118, 119	0
14	AN	96/100 (96%)	0.74	14 (14%) 2 1	41, 61, 94, 103	0
14	CN	96/100 (96%)	2.57	52 (54%) 0 0	70, 95, 113, 120	0
15	AO	88/88 (100%)	0.24	3 (3%) 45 40	28, 51, 65, 89	0
15	CO	88/88 (100%)	0.26	3 (3%) 45 40	40, 63, 81, 98	0
16	AP	82/82 (100%)	0.68	7 (8%) 10 8	33, 47, 85, 101	0
16	CP	82/82 (100%)	1.19	16 (19%) 1 0	44, 61, 89, 106	0
17	AQ	80/80 (100%)	0.28	4 (5%) 28 25	28, 52, 77, 122	0
17	CQ	80/80 (100%)	1.10	17 (21%) 0 0	44, 76, 98, 103	0
18	AR	55/55 (100%)	0.12	3 (5%) 25 21	39, 52, 79, 108	0
18	CR	55/55 (100%)	0.35	4 (7%) 15 11	39, 55, 79, 111	0
19	AS	79/79 (100%)	0.99	20 (25%) 0 0	54, 69, 89, 101	0
19	CS	79/79 (100%)	4.42	62 (78%) 0 0	90, 110, 119, 125	0
20	AT	85/85 (100%)	0.56	4 (4%) 31 28	35, 48, 71, 101	0
20	CT	85/85 (100%)	1.60	27 (31%) 0 0	55, 74, 92, 99	0
21	AU	51/51 (100%)	1.05	9 (17%) 1 1	46, 75, 97, 106	0
21	CU	51/51 (100%)	0.67	7 (13%) 3 2	45, 72, 97, 105	0
22	BA	2897/2903 (99%)	0.07	113 (3%) 39 35	1, 15, 131, 195	0
22	DA	2897/2903 (99%)	0.32	127 (4%) 34 30	40, 82, 146, 181	0
23	BB	119/119 (100%)	-0.36	0 100 100	3, 25, 52, 85	0
23	DB	118/119 (99%)	0.14	4 (3%) 45 40	67, 112, 133, 144	0
24	BC	271/271 (100%)	-0.16	3 (1%) 80 80	5, 21, 36, 54	0
24	DC	271/271 (100%)	0.70	27 (9%) 7 5	43, 62, 77, 90	0
25	BD	209/209 (100%)	-0.26	0 100 100	1, 11, 35, 68	0
25	DD	209/209 (100%)	1.00	41 (19%) 1 0	49, 68, 84, 96	0
26	BE	201/201 (100%)	-0.27	1 (0%) 91 91	1, 23, 53, 91	0
26	DE	201/201 (100%)	1.64	72 (35%) 0 0	46, 85, 102, 109	0
27	BF	177/177 (100%)	0.30	9 (5%) 28 24	24, 43, 77, 90	0
27	DF	177/177 (100%)	3.28	126 (71%) 0 0	91, 108, 120, 126	0
28	BG	176/176 (100%)	0.11	5 (2%) 53 49	17, 38, 62, 83	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	DG	176/176 (100%)	2.14	85 (48%) 0 0	72, 94, 106, 116	0
29	BH	149/149 (100%)	3.51	86 (57%) 0 0	25, 102, 121, 129	0
29	DH	149/149 (100%)	2.15	75 (50%) 0 0	25, 92, 107, 115	0
30	BI	141/141 (100%)	3.69	93 (65%) 0 0	90, 112, 122, 133	0
30	DI	141/141 (100%)	4.98	123 (87%) 0 0	102, 119, 129, 132	0
31	BJ	142/142 (100%)	-0.36	0 100 100	2, 7, 21, 37	0
31	DJ	142/142 (100%)	0.82	15 (10%) 6 4	50, 66, 79, 94	0
32	BK	122/122 (100%)	-0.36	0 100 100	4, 13, 32, 69	0
32	DK	122/122 (100%)	1.19	28 (22%) 0 0	47, 64, 83, 97	0
33	BL	143/143 (100%)	-0.20	0 100 100	1, 19, 44, 73	0
33	DL	143/143 (100%)	1.76	49 (34%) 0 0	46, 80, 95, 115	0
34	BM	136/136 (100%)	-0.31	0 100 100	2, 11, 31, 83	0
34	DM	136/136 (100%)	1.03	27 (19%) 1 0	42, 69, 82, 101	0
35	BN	120/120 (100%)	-0.34	0 100 100	3, 8, 19, 53	0
35	DN	120/120 (100%)	1.42	29 (24%) 0 0	56, 76, 89, 116	0
36	BO	116/116 (100%)	-0.18	0 100 100	12, 27, 45, 52	0
36	DO	116/116 (100%)	2.47	67 (57%) 0 0	81, 95, 105, 115	0
37	BP	114/114 (100%)	-0.30	0 100 100	7, 18, 43, 66	0
37	DP	114/114 (100%)	0.94	19 (16%) 1 1	58, 70, 85, 93	0
38	BQ	117/117 (100%)	-0.26	0 100 100	1, 4, 15, 30	0
38	DQ	117/117 (100%)	0.95	15 (12%) 3 2	54, 67, 79, 83	0
39	BR	103/103 (100%)	-0.35	0 100 100	1, 13, 33, 67	0
39	DR	103/103 (100%)	1.47	31 (30%) 0 0	52, 78, 88, 99	0
40	BS	110/110 (100%)	-0.29	0 100 100	1, 5, 24, 79	0
40	DS	110/110 (100%)	1.87	46 (41%) 0 0	57, 75, 89, 101	0
41	BT	93/93 (100%)	0.22	4 (4%) 35 31	8, 26, 75, 104	0
41	DT	93/93 (100%)	2.65	49 (52%) 0 0	68, 87, 103, 119	0
42	BU	102/102 (100%)	-0.20	2 (1%) 65 63	14, 29, 63, 92	0
42	DU	102/102 (100%)	3.29	64 (62%) 0 0	75, 92, 111, 120	0
43	BV	94/94 (100%)	-0.22	0 100 100	6, 20, 41, 55	0
43	DV	94/94 (100%)	0.88	15 (15%) 1 1	70, 85, 96, 104	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	BW	76/76 (100%)	-0.15	1 (1%) 77 77	7, 13, 29, 53	0
44	DW	75/76 (98%)	1.78	27 (36%) 0 0	61, 80, 90, 104	0
45	BX	77/77 (100%)	-0.27	0 100 100	7, 23, 51, 72	0
45	DX	77/77 (100%)	0.91	12 (15%) 2 1	52, 70, 84, 88	0
46	BY	63/63 (100%)	0.15	3 (4%) 30 27	21, 39, 72, 94	0
46	DY	63/63 (100%)	1.57	23 (36%) 0 0	78, 95, 102, 106	0
47	BZ	58/58 (100%)	-0.21	0 100 100	1, 8, 24, 41	0
47	DZ	58/58 (100%)	0.72	7 (12%) 4 3	58, 71, 82, 95	0
48	B0	56/56 (100%)	-0.30	0 100 100	1, 12, 36, 69	0
48	D0	56/56 (100%)	1.49	17 (30%) 0 0	58, 79, 92, 102	0
49	B1	50/50 (100%)	-0.05	2 (4%) 38 33	18, 29, 48, 76	0
49	D1	50/50 (100%)	1.43	13 (26%) 0 0	70, 86, 94, 105	0
50	B2	46/46 (100%)	-0.20	1 (2%) 62 59	4, 9, 15, 86	0
50	D2	46/46 (100%)	1.96	19 (41%) 0 0	55, 69, 80, 102	0
51	B3	64/64 (100%)	-0.18	0 100 100	5, 10, 20, 33	0
51	D3	64/64 (100%)	1.37	18 (28%) 0 0	58, 71, 79, 82	0
52	B4	38/38 (100%)	-0.05	0 100 100	9, 18, 37, 53	0
52	D4	38/38 (100%)	2.10	18 (47%) 0 0	59, 75, 87, 101	0
53	B5	191/228 (83%)	6.79	184 (96%) 0 0	101, 117, 128, 136	0
All	All	20734/20794 (99%)	0.63	2715 (13%) 3 2	1, 63, 121, 195	0

All (2715) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
30	DI	2	ALA	27.5
53	B5	208	THR	23.4
53	B5	207	GLY	21.7
53	B5	111	PHE	20.1
22	BA	2184	A	17.7
30	BI	53	LEU	17.7
53	B5	55	SER	17.2
53	B5	48	LEU	17.0
53	B5	204	GLY	16.6
22	BA	2103	C	16.5
9	CI	128	SER	16.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	BA	2100	G	15.5
7	CG	62	PHE	14.8
30	DI	68	THR	14.6
1	AA	1535	C	14.6
53	B5	66	PRO	14.6
22	BA	2102	G	14.5
22	BA	2158	A	14.4
29	BH	130	VAL	14.4
22	BA	2135	A	14.2
22	BA	2101	A	13.9
30	BI	2	ALA	13.9
53	B5	107	GLY	13.9
30	BI	3	LYS	13.8
2	AB	155	GLY	13.5
53	B5	203	GLU	13.4
53	B5	199	ALA	13.2
29	BH	96	THR	13.1
53	B5	212	SER	13.0
22	BA	2178	C	12.9
30	DI	6	GLN	12.8
22	BA	2099	U	12.6
53	B5	52	PRO	12.6
30	DI	67	PHE	12.5
53	B5	50	ILE	12.5
22	BA	2185	U	12.2
22	BA	2140	G	12.2
53	B5	174	ALA	12.0
53	B5	218	THR	12.0
29	BH	144	VAL	12.0
29	BH	146	VAL	12.0
29	BH	54	LEU	11.9
29	BH	148	ALA	11.9
53	B5	194	ILE	11.9
19	CS	24	GLU	11.6
22	BA	2104	C	11.6
29	BH	97	ARG	11.6
7	CG	66	LEU	11.6
53	B5	183	PRO	11.6
53	B5	225	ILE	11.5
53	B5	165	ARG	11.4
30	BI	11	LEU	11.3
22	BA	2144	G	11.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	BA	2183	A	11.3
29	BH	113	SER	11.3
22	BA	2177	C	11.3
42	DU	78	GLY	11.1
53	B5	182	PRO	11.0
22	BA	2139	U	11.0
22	BA	2145	C	10.9
53	B5	67	HIS	10.9
53	B5	69	LEU	10.9
10	AJ	102	LEU	10.8
22	BA	2182	U	10.8
30	BI	12	GLN	10.8
22	BA	2136	G	10.8
53	B5	70	GLY	10.8
22	BA	2107	G	10.7
30	DI	4	LYS	10.7
42	DU	26	LYS	10.7
1	CA	1535	C	10.6
22	BA	2148	G	10.6
30	BI	79	LEU	10.5
30	DI	58	VAL	10.5
53	B5	173	HIS	10.5
27	DF	130	MET	10.4
30	DI	3	LYS	10.4
22	BA	2174	C	10.4
19	CS	29	LYS	10.4
22	BA	2159	G	10.4
42	DU	20	GLY	10.3
42	DU	60	GLU	10.3
53	B5	179	ALA	10.2
1	CA	1536	C	10.1
30	DI	69	PHE	10.1
22	BA	2165	C	10.1
53	B5	46	ALA	10.1
42	DU	36	VAL	10.1
44	DW	52	GLY	10.1
30	DI	60	THR	10.0
13	CM	83	LEU	10.0
29	BH	58	LEU	10.0
22	BA	2150	C	9.9
53	B5	45	HIS	9.9
1	CA	1539	C	9.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
30	DI	66	SER	9.8
30	DI	61	VAL	9.8
29	BH	136	SER	9.8
29	BH	105	ALA	9.8
29	BH	102	ALA	9.8
53	B5	62	THR	9.7
22	DA	1175	A	9.7
22	BA	2117	A	9.6
53	B5	109	MET	9.5
30	DI	25	GLY	9.5
30	DI	32	GLY	9.4
53	B5	20	VAL	9.4
22	BA	2143	C	9.4
22	BA	2175	C	9.4
22	BA	2156	G	9.4
30	BI	115	ALA	9.4
53	B5	68	GLY	9.4
19	CS	42	PRO	9.3
27	DF	154	ILE	9.3
30	BI	13	VAL	9.3
53	B5	65	LEU	9.3
27	DF	156	ILE	9.3
14	CN	36	ALA	9.3
53	B5	161	ARG	9.2
1	AA	1536	C	9.1
16	CP	47	GLU	9.1
19	CS	13	LEU	9.1
30	BI	68	THR	9.1
53	B5	97	GLY	9.1
22	BA	2147	A	9.1
29	BH	115	VAL	9.1
53	B5	206	LYS	9.1
22	BA	2127	G	9.1
30	DI	34	ASN	9.0
53	B5	223	VAL	9.0
30	DI	59	ILE	9.0
22	BA	2149	U	9.0
14	CN	47	LYS	9.0
22	BA	2138	G	8.9
53	B5	54	ARG	8.9
33	DL	92	LEU	8.9
19	CS	41	PHE	8.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
30	DI	8	TYR	8.9
29	BH	68	ARG	8.8
53	B5	200	HIS	8.8
50	D2	42	LEU	8.8
29	BH	91	PHE	8.7
17	AQ	83	VAL	8.7
22	BA	2163	A	8.7
29	BH	120	GLY	8.6
53	B5	195	ARG	8.6
19	CS	60	VAL	8.6
30	BI	114	ALA	8.6
22	BA	2106	U	8.6
22	BA	2112	G	8.6
30	DI	31	GLN	8.6
53	B5	49	GLY	8.6
30	BI	69	PHE	8.6
22	BA	2155	U	8.5
19	CS	67	VAL	8.5
29	BH	69	ALA	8.5
29	BH	112	LYS	8.5
41	DT	34	VAL	8.5
53	B5	217	THR	8.4
53	B5	209	PHE	8.4
22	BA	2162	G	8.4
27	DF	117	LEU	8.4
53	B5	164	PHE	8.4
19	CS	37	ARG	8.4
27	DF	128	TYR	8.3
33	DL	144	GLU	8.3
12	AL	124	ALA	8.3
19	CS	30	PRO	8.3
40	DS	19	LEU	8.3
29	BH	124	THR	8.3
22	BA	2172	U	8.3
30	DI	5	VAL	8.2
53	B5	213	VAL	8.2
2	AB	157	LEU	8.2
20	CT	4	ILE	8.2
53	B5	59	VAL	8.2
53	B5	157	ILE	8.2
30	DI	70	VAL	8.2
53	B5	110	ASP	8.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	DH	142	VAL	8.1
29	BH	110	VAL	8.1
30	DI	63	ALA	8.1
26	DE	119	ILE	8.1
53	B5	86	GLU	8.1
53	B5	198	GLU	8.1
30	BI	4	LYS	8.0
22	BA	2114	A	8.0
30	DI	13	VAL	8.0
53	B5	122	GLY	8.0
53	B5	222	SER	8.0
52	D4	10	LEU	8.0
41	DT	43	ILE	8.0
30	BI	5	VAL	8.0
30	DI	7	ALA	8.0
22	BA	138	U	8.0
53	B5	108	TRP	8.0
2	AB	156	GLY	8.0
29	BH	85	GLY	8.0
19	CS	74	PHE	7.9
19	CS	66	MET	7.9
22	BA	2160	C	7.9
29	BH	106	ALA	7.9
30	DI	11	LEU	7.9
53	B5	210	LEU	7.9
53	B5	42	VAL	7.8
10	CJ	74	VAL	7.8
19	CS	31	LEU	7.8
19	CS	44	MET	7.8
9	AI	41	ARG	7.8
22	BA	2179	C	7.8
53	B5	172	ILE	7.8
1	AA	1534	A	7.7
27	DF	23	ASN	7.7
53	B5	156	GLU	7.7
53	B5	167	ASP	7.7
41	DT	71	GLY	7.7
29	BH	86	ASP	7.7
36	DO	24	THR	7.7
41	DT	15	HIS	7.7
36	DO	40	ILE	7.6
53	B5	79	ALA	7.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	B5	214	TYR	7.6
1	CA	1537	U	7.6
19	CS	64	ASP	7.6
53	B5	211	ARG	7.6
53	B5	132	LEU	7.6
22	BA	2123	G	7.6
30	BI	41	ALA	7.6
22	BA	2124	G	7.6
29	DH	47	PHE	7.5
41	DT	1	MET	7.5
27	DF	122	PHE	7.5
42	DU	52	LEU	7.5
53	B5	166	ASN	7.5
1	AA	1538	C	7.5
22	BA	2125	G	7.5
30	DI	53	LEU	7.5
42	DU	77	THR	7.4
53	B5	155	ARG	7.4
53	B5	220	GLY	7.4
27	DF	176	PRO	7.4
8	AH	2	SER	7.4
22	BA	2181	U	7.4
13	CM	84	GLY	7.4
53	B5	158	LYS	7.4
53	B5	77	ALA	7.4
53	B5	53	ARG	7.3
30	BI	14	ALA	7.3
1	CA	1032	G	7.3
19	CS	59	PRO	7.3
29	BH	67	ALA	7.3
53	B5	134	PRO	7.3
30	BI	22	PRO	7.3
3	CC	37	PHE	7.3
42	DU	80	ALA	7.2
22	BA	2171	A	7.2
19	CS	15	LEU	7.2
41	DT	2	ILE	7.2
22	BA	2142	A	7.2
30	BI	99	GLY	7.2
30	DI	47	ASP	7.2
12	CL	124	ALA	7.2
29	BH	116	ARG	7.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
30	DI	54	PRO	7.2
22	BA	2157	G	7.2
22	BA	2166	U	7.2
30	DI	15	ALA	7.2
13	CM	10	PRO	7.1
19	CS	48	THR	7.1
53	B5	95	VAL	7.1
22	BA	2176	A	7.1
53	B5	141	PRO	7.0
29	BH	87	GLU	7.0
53	B5	38	PHE	7.0
53	B5	147	GLY	7.0
13	CM	85	CYS	7.0
53	B5	73	VAL	7.0
1	AA	1539	C	7.0
22	BA	2152	G	7.0
29	BH	101	ASP	7.0
53	B5	202	PRO	7.0
14	CN	43	ASN	7.0
2	AB	9	MET	7.0
53	B5	94	TYR	7.0
29	BH	55	GLU	7.0
30	DI	78	VAL	6.9
42	DU	58	ILE	6.9
10	CJ	77	VAL	6.9
14	CN	20	TYR	6.9
7	CG	59	LEU	6.9
30	BI	67	PHE	6.9
53	B5	84	ILE	6.8
22	BA	2105	U	6.8
53	B5	197	LEU	6.8
19	CS	11	ILE	6.8
19	CS	12	ASP	6.8
29	BH	84	ALA	6.8
29	BH	119	ASN	6.8
29	BH	123	ARG	6.8
49	D1	53	LYS	6.8
29	BH	98	ASP	6.8
53	B5	224	ARG	6.8
53	B5	41	THR	6.8
7	CG	17	LYS	6.8
42	DU	79	LYS	6.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	1534	A	6.8
9	CI	68	LYS	6.7
22	DA	1537	G	6.7
27	DF	65	PRO	6.7
30	DI	36	MET	6.7
30	DI	133	ALA	6.7
27	DF	132	VAL	6.7
30	BI	23	PRO	6.7
27	DF	157	THR	6.7
53	B5	96	GLY	6.7
30	BI	133	ALA	6.7
22	BA	2121	G	6.7
53	B5	160	GLY	6.6
42	DU	27	ASN	6.6
22	BA	2161	C	6.6
27	DF	89	VAL	6.6
7	CG	18	PHE	6.6
53	B5	98	GLU	6.6
53	B5	151	GLY	6.6
4	CD	25	VAL	6.6
9	AI	130	ARG	6.6
22	BA	2134	A	6.6
22	BA	2120	G	6.6
30	BI	71	THR	6.6
10	CJ	73	LEU	6.6
53	B5	162	ILE	6.6
19	CS	51	VAL	6.6
2	CB	9	MET	6.6
53	B5	221	PRO	6.6
29	DH	119	ASN	6.5
53	B5	58	ASN	6.5
53	B5	47	LYS	6.5
27	DF	32	GLU	6.5
53	B5	154	ILE	6.5
53	B5	159	ALA	6.5
7	CG	88	PRO	6.5
42	DU	39	ILE	6.5
14	CN	27	LEU	6.5
53	B5	131	ILE	6.5
14	CN	24	ARG	6.4
1	AA	1030	U	6.4
22	BA	2153	C	6.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	43	THR	6.4
27	DF	35	THR	6.4
53	B5	78	ILE	6.4
41	DT	8	LEU	6.4
53	B5	61	GLY	6.4
22	BA	2115	G	6.4
30	DI	129	ILE	6.4
19	CS	71	LEU	6.4
22	DA	138	U	6.4
30	BI	82	LYS	6.4
1	CA	1540	U	6.4
13	CM	95	LEU	6.4
30	BI	54	PRO	6.4
19	CS	43	ASN	6.4
10	CJ	12	ALA	6.4
53	B5	63	VAL	6.4
53	B5	219	MET	6.4
14	AN	21	PHE	6.3
10	CJ	72	ARG	6.3
9	CI	108	ALA	6.3
28	DG	103	ILE	6.3
45	DX	49	LEU	6.3
1	AA	78	A	6.3
27	DF	21	ASN	6.3
29	BH	137	GLU	6.2
16	AP	80	LYS	6.2
27	DF	152	LEU	6.2
42	DU	51	ALA	6.2
13	CM	45	ILE	6.2
7	CG	103	TRP	6.2
30	DI	80	LEU	6.2
14	CN	44	ALA	6.2
28	DG	52	PHE	6.2
27	DF	106	ILE	6.2
30	DI	126	THR	6.2
36	DO	106	LEU	6.2
13	CM	40	ALA	6.1
30	DI	65	ARG	6.1
53	B5	170	GLY	6.1
30	DI	44	ALA	6.1
42	DU	12	ILE	6.1
19	CS	72	GLY	6.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
27	DF	170	LEU	6.1
53	B5	72	GLN	6.1
29	BH	121	VAL	6.1
27	DF	114	PHE	6.1
22	BA	2164	C	6.1
41	DT	76	ARG	6.1
53	B5	143	ALA	6.1
7	CG	41	SER	6.1
36	DO	19	GLN	6.1
9	CI	130	ARG	6.0
35	DN	25	ALA	6.0
19	CS	16	LEU	6.0
53	B5	76	LEU	6.0
22	BA	2111	U	6.0
22	BA	2110	G	6.0
22	BA	2154	A	6.0
36	DO	65	THR	6.0
22	BA	2108	A	6.0
53	B5	89	GLU	5.9
53	B5	205	ALA	5.9
22	BA	2169	A	5.9
42	DU	35	ILE	5.9
53	B5	121	MET	5.9
27	DF	155	THR	5.9
10	CJ	71	LEU	5.9
25	DD	97	SER	5.9
27	DF	175	PHE	5.9
33	DL	101	ILE	5.9
46	BY	63	ALA	5.9
13	CM	30	SER	5.9
30	DI	62	TYR	5.9
53	B5	201	LYS	5.9
28	DG	9	VAL	5.9
29	BH	72	ILE	5.9
30	BI	8	TYR	5.9
30	DI	28	LEU	5.9
40	DS	92	ARG	5.9
13	CM	63	PHE	5.8
30	DI	45	LYS	5.8
53	B5	148	PHE	5.8
53	B5	140	ASN	5.8
10	CJ	67	ILE	5.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
28	DG	148	LEU	5.8
27	DF	129	SER	5.8
16	CP	39	PHE	5.8
2	CB	132	LYS	5.8
53	B5	133	GLY	5.8
24	DC	27	GLY	5.8
30	BI	34	ASN	5.8
13	AM	114	LYS	5.8
53	B5	39	ASP	5.8
28	DG	57	GLY	5.8
53	B5	19	LYS	5.8
1	AA	1537	U	5.8
22	BA	2131	U	5.8
27	DF	164	GLU	5.7
30	BI	87	LYS	5.7
9	AI	43	THR	5.7
30	DI	120	ALA	5.7
19	CS	58	VAL	5.7
29	DH	136	SER	5.7
30	DI	46	THR	5.7
28	DG	105	LEU	5.7
19	CS	49	ILE	5.7
30	DI	64	ASP	5.7
19	CS	39	THR	5.7
53	B5	136	GLY	5.7
19	CS	23	VAL	5.7
30	DI	21	SER	5.7
1	CA	1538	C	5.6
30	BI	21	SER	5.6
30	DI	130	GLU	5.6
7	CG	72	THR	5.6
27	DF	105	THR	5.6
53	B5	106	ASP	5.6
9	CI	38	TYR	5.6
26	DE	103	GLY	5.6
38	DQ	29	SER	5.6
10	CJ	41	PRO	5.6
10	CJ	63	ASP	5.6
30	DI	17	MET	5.6
40	DS	84	ARG	5.6
7	CG	85	TYR	5.6
3	CC	144	LEU	5.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
14	CN	48	LEU	5.6
9	CI	67	VAL	5.6
21	AU	38	TYR	5.6
22	BA	2141	G	5.6
26	DE	175	ILE	5.6
40	DS	40	ASN	5.6
42	DU	89	ASP	5.6
19	CS	63	THR	5.6
53	B5	176	VAL	5.6
28	DG	102	VAL	5.6
14	CN	46	LEU	5.6
29	BH	109	GLU	5.6
53	B5	51	ASP	5.6
22	BA	2116	G	5.6
27	DF	34	ILE	5.6
30	DI	22	PRO	5.5
10	CJ	45	ARG	5.5
53	B5	188	ASP	5.5
7	CG	43	VAL	5.5
3	CC	39	VAL	5.5
21	CU	38	TYR	5.5
28	DG	10	VAL	5.5
27	DF	133	ARG	5.5
39	DR	35	PHE	5.5
9	CI	83	ILE	5.5
42	DU	87	PHE	5.5
30	DI	76	ALA	5.5
2	CB	129	LEU	5.5
53	B5	57	GLN	5.5
27	DF	113	ASP	5.5
53	B5	104	ILE	5.4
29	DH	19	VAL	5.4
30	DI	30	GLN	5.4
29	DH	72	ILE	5.4
22	BA	2173	A	5.4
7	CG	151	PHE	5.4
53	B5	169	THR	5.4
29	DH	11	ASN	5.4
29	DH	15	LEU	5.4
41	DT	36	LYS	5.4
3	CC	32	ASN	5.4
53	B5	187	ALA	5.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	CJ	10	LEU	5.4
36	DO	90	VAL	5.4
30	DI	55	ILE	5.4
53	B5	150	ILE	5.4
10	CJ	16	ARG	5.4
27	DF	36	LEU	5.4
53	B5	90	ALA	5.4
28	DG	45	HIS	5.3
42	DU	13	VAL	5.3
42	DU	71	ALA	5.3
22	BA	2113	U	5.3
30	BI	98	VAL	5.3
27	DF	100	PHE	5.3
42	DU	41	LEU	5.3
13	CM	64	VAL	5.3
42	DU	25	VAL	5.3
43	DV	94	ALA	5.3
13	CM	46	SER	5.3
32	DK	111	LYS	5.3
19	CS	50	ALA	5.3
27	DF	119	ALA	5.3
22	BA	2168	G	5.3
7	CG	13	LEU	5.3
7	CG	52	GLN	5.3
53	B5	93	ASP	5.3
7	CG	91	VAL	5.3
14	CN	51	LEU	5.3
53	B5	92	ALA	5.3
20	AT	68	HIS	5.3
33	DL	106	GLU	5.3
22	BA	2118	U	5.3
30	DI	35	ILE	5.2
46	DY	59	GLU	5.2
30	BI	17	MET	5.2
6	CF	39	LEU	5.2
30	DI	85	GLY	5.2
30	DI	142	ASP	5.2
53	B5	24	ASP	5.2
29	DH	78	VAL	5.2
20	CT	39	ILE	5.2
30	BI	52	GLY	5.2
53	B5	192	ALA	5.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	CB	164	ILE	5.2
27	DF	66	LEU	5.2
53	B5	83	LYS	5.2
22	DA	1536	C	5.2
42	DU	75	ALA	5.2
44	DW	83	GLU	5.2
7	AG	5	ARG	5.2
19	CS	38	SER	5.2
14	CN	30	ILE	5.2
40	DS	110	ARG	5.2
53	B5	168	LYS	5.2
30	DI	121	ASP	5.2
29	DH	92	GLY	5.2
30	BI	30	GLN	5.2
30	DI	89	GLY	5.2
2	CB	148	LEU	5.2
29	BH	129	GLU	5.2
22	BA	2130	U	5.2
30	BI	25	GLY	5.2
30	DI	12	GLN	5.2
39	DR	19	THR	5.2
53	B5	180	SER	5.2
7	CG	75	VAL	5.2
38	DQ	23	GLY	5.1
1	AA	86	G	5.1
1	CA	209	U	5.1
16	CP	80	LYS	5.1
29	DH	10	ALA	5.1
29	BH	83	LYS	5.1
53	B5	153	ILE	5.1
22	DA	2174	C	5.1
22	BA	2180	U	5.1
27	DF	173	PHE	5.1
30	DI	83	ALA	5.1
41	DT	16	VAL	5.1
30	DI	57	VAL	5.1
53	B5	149	ASN	5.1
53	B5	184	GLU	5.1
19	CS	47	LEU	5.1
39	DR	96	VAL	5.1
53	B5	56	ASP	5.1
35	DN	83	LEU	5.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
50	D2	46	LYS	5.1
14	CN	42	TRP	5.1
53	B5	181	PHE	5.1
14	CN	99	ALA	5.1
48	D0	57	LYS	5.1
20	CT	3	ASN	5.1
49	D1	36	LEU	5.1
53	B5	64	SER	5.1
29	DH	20	ASN	5.0
29	BH	122	LEU	5.0
25	DD	55	LYS	5.0
30	DI	99	GLY	5.0
53	B5	44	VAL	5.0
22	DA	2172	U	5.0
53	B5	196	ALA	5.0
3	AC	168	TYR	5.0
52	D4	9	LYS	5.0
13	CM	33	ILE	5.0
10	CJ	102	LEU	5.0
27	DF	109	PRO	5.0
33	DL	121	THR	5.0
1	CA	1302	C	5.0
26	DE	172	ALA	5.0
29	BH	59	ALA	5.0
53	B5	22	THR	5.0
13	CM	70	ARG	5.0
30	DI	18	ALA	5.0
42	DU	76	ALA	5.0
53	B5	23	ILE	5.0
39	DR	50	GLY	5.0
14	CN	45	VAL	5.0
36	DO	78	VAL	5.0
44	DW	63	ALA	5.0
50	D2	32	ALA	5.0
30	DI	37	GLU	5.0
2	CB	67	ILE	5.0
26	DE	127	GLU	5.0
39	DR	20	VAL	5.0
41	DT	55	VAL	5.0
42	DU	28	VAL	5.0
22	BA	2189	U	5.0
26	DE	134	LEU	5.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	B5	91	GLY	4.9
19	AS	39	THR	4.9
13	CM	29	ARG	4.9
52	D4	1	MET	4.9
48	D0	34	SER	4.9
7	CG	133	THR	4.9
16	AP	81	ALA	4.9
29	BH	95	GLY	4.9
53	B5	146	VAL	4.9
10	CJ	19	ASP	4.9
14	CN	29	ALA	4.9
14	CN	58	SER	4.9
13	CM	36	ALA	4.9
30	DI	52	GLY	4.9
22	DA	1093	G	4.9
30	DI	24	VAL	4.9
53	B5	87	ALA	4.9
27	DF	91	LEU	4.9
30	DI	33	VAL	4.9
29	BH	64	ALA	4.9
22	BA	2151	U	4.9
33	DL	3	LEU	4.9
42	DU	3	ALA	4.9
30	BI	38	PHE	4.9
1	CA	94	G	4.9
1	CA	1031	C	4.8
29	BH	147	VAL	4.8
49	D1	47	VAL	4.8
9	CI	129	LYS	4.8
36	DO	50	ALA	4.8
28	DG	87	LEU	4.8
35	DN	120	GLU	4.8
46	DY	24	GLU	4.8
29	BH	142	VAL	4.8
27	DF	43	ALA	4.8
50	D2	33	ARG	4.8
30	BI	58	VAL	4.8
30	BI	91	GLY	4.8
26	DE	104	ALA	4.8
33	DL	82	LEU	4.8
30	BI	83	ALA	4.8
19	CS	28	LYS	4.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	DO	64	TYR	4.8
42	DU	43	LYS	4.8
31	DJ	119	PHE	4.8
24	DC	49	ILE	4.8
26	DE	128	ALA	4.8
33	DL	77	ILE	4.8
53	B5	145	THR	4.8
1	CA	211	G	4.8
2	CB	32	PHE	4.8
36	DO	57	ALA	4.8
53	B5	99	GLU	4.8
15	AO	89	ARG	4.8
29	DH	43	ASN	4.8
17	CQ	53	CYS	4.8
26	DE	143	LEU	4.8
53	B5	71	LYS	4.8
9	CI	58	VAL	4.7
35	DN	119	SER	4.7
27	DF	120	LYS	4.7
40	DS	46	LEU	4.7
35	DN	38	LEU	4.7
1	CA	1030	U	4.7
26	DE	17	THR	4.7
22	BA	1925	C	4.7
29	BH	139	PHE	4.7
47	DZ	2	ALA	4.7
30	BI	116	ASP	4.7
19	CS	69	HIS	4.7
22	BA	2126	A	4.7
41	DT	80	TRP	4.7
1	AA	87	C	4.7
13	CM	79	ARG	4.7
36	DO	103	VAL	4.7
53	B5	74	ARG	4.7
10	CJ	47	GLU	4.7
13	CM	98	ARG	4.7
30	BI	78	VAL	4.7
30	DI	139	VAL	4.7
36	DO	117	PHE	4.7
22	BA	2186	G	4.7
25	DD	31	ALA	4.7
30	BI	55	ILE	4.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	CM	99	GLY	4.7
30	BI	48	SER	4.7
9	CI	64	TYR	4.7
29	BH	143	ILE	4.7
53	B5	216	THR	4.7
7	CG	148	ASN	4.7
22	DA	1067	A	4.7
42	DU	31	SER	4.7
29	BH	80	ILE	4.6
30	DI	114	ALA	4.6
2	AB	88	ASP	4.6
29	BH	89	LYS	4.6
30	DI	72	LYS	4.6
53	B5	103	LYS	4.6
37	DP	102	GLU	4.6
30	DI	140	VAL	4.6
53	B5	85	LYS	4.6
30	DI	49	ILE	4.6
13	CM	68	ASP	4.6
30	BI	142	ASP	4.6
25	DD	186	LEU	4.6
29	DH	130	VAL	4.6
33	DL	89	VAL	4.6
10	CJ	100	ILE	4.6
35	DN	111	ALA	4.6
42	DU	63	ALA	4.6
22	BA	2122	U	4.6
25	DD	185	ASN	4.6
48	D0	26	THR	4.6
29	DH	6	LEU	4.6
22	BA	2146	C	4.6
27	DF	116	GLY	4.6
29	DH	36	ALA	4.6
1	CA	1021	A	4.6
28	DG	62	TRP	4.6
33	DL	71	ALA	4.6
22	BA	2170	A	4.6
53	B5	193	PHE	4.6
13	CM	47	GLU	4.6
30	BI	36	MET	4.6
16	CP	17	TYR	4.6
19	CS	14	HIS	4.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	20	PHE	4.6
7	CG	16	PRO	4.6
29	BH	19	VAL	4.6
28	DG	2	SER	4.6
3	CC	193	TYR	4.6
28	DG	32	GLU	4.6
32	DK	68	GLY	4.6
30	DI	48	SER	4.5
48	D0	27	SER	4.5
19	CS	61	PHE	4.5
27	DF	14	LYS	4.5
22	DA	1174	U	4.5
30	BI	26	PRO	4.5
28	DG	80	THR	4.5
28	DG	106	SER	4.5
29	DH	82	SER	4.5
30	DI	82	LYS	4.5
30	DI	38	PHE	4.5
22	DA	1172	C	4.5
27	DF	62	GLY	4.5
44	DW	71	VAL	4.5
7	CG	60	GLU	4.5
22	BA	2137	U	4.5
30	BI	100	LYS	4.5
7	CG	12	ILE	4.5
51	D3	24	HIS	4.5
53	B5	120	VAL	4.5
16	AP	4	ILE	4.5
13	CM	2	ALA	4.5
33	DL	70	LYS	4.5
48	D0	35	GLY	4.5
35	DN	26	GLY	4.5
29	DH	12	LEU	4.5
7	CG	5	ARG	4.5
30	DI	110	ALA	4.5
53	B5	175	PRO	4.5
34	DM	17	ASN	4.5
42	DU	81	ASP	4.5
30	BI	7	ALA	4.4
14	CN	63	ARG	4.4
50	B2	46	LYS	4.4
22	DA	1171	G	4.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
28	DG	167	GLU	4.4
3	CC	79	LYS	4.4
19	CS	68	GLY	4.4
7	CG	68	ASN	4.4
26	DE	165	HIS	4.4
41	DT	30	ILE	4.4
7	CG	65	ALA	4.4
27	DF	151	GLY	4.4
28	DG	33	LEU	4.4
41	DT	42	GLU	4.4
13	CM	12	HIS	4.4
14	CN	35	ASN	4.4
22	BA	1926	U	4.4
30	BI	81	LYS	4.4
9	CI	98	LEU	4.4
41	DT	35	ALA	4.4
27	DF	174	ASP	4.4
30	DI	90	SER	4.4
33	DL	78	ARG	4.4
10	CJ	17	LEU	4.4
9	CI	103	PHE	4.3
27	DF	112	ARG	4.3
53	B5	130	ARG	4.3
19	CS	25	SER	4.3
28	DG	43	VAL	4.3
14	AN	36	ALA	4.3
45	DX	20	HIS	4.3
30	DI	79	LEU	4.3
1	CA	82	G	4.3
28	DG	4	VAL	4.3
30	BI	24	VAL	4.3
41	DT	85	VAL	4.3
12	CL	44	LYS	4.3
40	DS	3	THR	4.3
2	AB	69	PHE	4.3
40	DS	85	ILE	4.3
53	B5	152	GLU	4.3
13	CM	62	LYS	4.3
53	B5	27	ALA	4.3
27	DF	17	MET	4.3
13	CM	71	ARG	4.3
39	DR	75	VAL	4.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	39	PHE	4.3
30	BI	101	ILE	4.3
39	DR	27	ILE	4.3
50	D2	36	ALA	4.3
9	AI	129	LYS	4.3
13	CM	38	GLY	4.3
35	DN	24	MET	4.3
8	CH	2	SER	4.3
13	CM	39	ILE	4.3
27	DF	85	ILE	4.3
53	B5	191	ARG	4.3
44	DW	38	VAL	4.3
9	CI	11	ARG	4.3
7	CG	67	GLU	4.3
53	B5	82	GLU	4.3
53	B5	215	VAL	4.3
1	CA	999	C	4.3
6	CF	91	ARG	4.3
30	BI	66	SER	4.3
28	DG	20	ASN	4.2
53	B5	163	GLU	4.2
10	CJ	99	GLN	4.2
7	CG	53	ARG	4.2
10	CJ	8	ILE	4.2
3	CC	180	ALA	4.2
9	AI	20	PHE	4.2
30	BI	76	ALA	4.2
30	DI	94	ASN	4.2
27	DF	115	ARG	4.2
2	CB	213	TYR	4.2
36	DO	60	GLU	4.2
7	CG	49	THR	4.2
19	AS	3	ARG	4.2
13	CM	75	MET	4.2
21	AU	4	ILE	4.2
1	AA	412	A	4.2
7	CG	118	LEU	4.2
26	DE	164	LEU	4.2
30	DI	96	ASP	4.2
30	BI	59	ILE	4.2
41	DT	6	ARG	4.2
28	DG	56	ASP	4.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	CG	73	VAL	4.2
30	BI	61	VAL	4.2
36	DO	54	VAL	4.2
7	CG	4	ARG	4.2
28	DG	58	TYR	4.2
13	CM	48	LEU	4.2
29	BH	62	LEU	4.2
30	DI	106	LEU	4.2
53	B5	43	GLU	4.2
34	DM	129	THR	4.2
53	B5	101	ILE	4.2
22	DA	1094	U	4.2
32	DK	112	PHE	4.2
13	CM	109	ARG	4.2
20	CT	24	ARG	4.2
42	DU	40	ASN	4.2
53	B5	60	ARG	4.2
22	DA	2126	A	4.2
25	DD	27	ILE	4.2
7	CG	39	ALA	4.1
19	CS	21	LYS	4.2
26	DE	190	ALA	4.1
30	DI	77	ALA	4.1
41	DT	33	LYS	4.2
21	CU	45	ARG	4.1
7	CG	54	SER	4.1
52	D4	25	VAL	4.1
30	BI	35	ILE	4.1
48	D0	55	ILE	4.1
29	DH	79	THR	4.1
53	B5	126	SER	4.1
27	DF	131	GLY	4.1
1	CA	1312	G	4.1
36	DO	88	LYS	4.1
10	CJ	91	ASP	4.1
27	DF	153	ASP	4.1
28	DG	166	ASP	4.1
24	DC	172	VAL	4.1
10	CJ	40	ILE	4.1
40	DS	4	ILE	4.1
10	CJ	94	ALA	4.1
13	CM	32	ALA	4.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
14	CN	52	PRO	4.1
22	BA	2132	U	4.1
29	DH	58	LEU	4.1
30	BI	20	PRO	4.1
44	DW	79	PHE	4.1
1	AA	1492	A	4.1
4	AD	28	ILE	4.1
7	CG	57	SER	4.1
11	CK	126	LYS	4.1
7	CG	134	ALA	4.1
10	CJ	20	GLN	4.1
22	DA	546	U	4.1
30	DI	56	PRO	4.1
51	D3	14	PHE	4.1
9	AI	90	TYR	4.1
13	CM	51	GLY	4.1
30	DI	98	VAL	4.1
13	CM	31	LYS	4.1
13	CM	115	PRO	4.1
22	BA	2167	U	4.1
30	DI	42	PHE	4.1
28	DG	132	VAL	4.1
29	DH	100	ALA	4.1
7	CG	15	ASP	4.1
32	DK	104	THR	4.1
40	DS	39	THR	4.1
29	DH	1	MET	4.1
27	DF	110	ARG	4.0
33	DL	108	ALA	4.1
52	D4	8	LYS	4.1
9	CI	40	GLY	4.0
27	DF	8	TYR	4.0
28	DG	169	VAL	4.0
33	DL	142	ILE	4.0
22	DA	139	U	4.0
53	B5	88	GLU	4.0
27	DF	39	GLY	4.0
27	DF	177	PHE	4.0
10	CJ	26	VAL	4.0
38	DQ	101	PHE	4.0
22	BA	139	U	4.0
29	BH	11	ASN	4.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	AB	135	LEU	4.0
22	BA	2128	G	4.0
35	DN	28	LEU	4.0
42	DU	29	LEU	4.0
53	B5	142	LYS	4.0
2	CB	96	TRP	4.0
17	CQ	5	ILE	4.0
36	DO	21	LEU	4.0
2	AB	65	GLY	4.0
30	BI	47	ASP	4.0
37	DP	3	ASN	4.0
10	CJ	42	LEU	4.0
30	BI	40	LYS	4.0
1	CA	1441	A	4.0
7	CG	78	ARG	4.0
22	DA	1066	U	4.0
36	DO	25	ARG	4.0
1	CA	1020	G	4.0
32	DK	69	VAL	4.0
53	B5	37	LYS	4.0
41	DT	70	HIS	4.0
40	DS	97	LEU	4.0
44	DW	60	PHE	4.0
10	CJ	86	ALA	4.0
42	DU	90	GLY	4.0
10	CJ	49	PHE	4.0
28	DG	133	LEU	4.0
10	CJ	93	ALA	4.0
36	DO	107	ALA	4.0
14	CN	50	THR	3.9
22	DA	1073	A	3.9
9	CI	48	VAL	3.9
14	CN	11	VAL	3.9
43	DV	58	SER	3.9
13	CM	37	ALA	3.9
29	DH	22	LYS	3.9
14	CN	34	VAL	3.9
27	DF	40	VAL	3.9
30	BI	96	ASP	3.9
29	DH	90	LEU	3.9
4	AD	36	GLN	3.9
30	DI	88	SER	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	DU	88	GLU	3.9
27	DF	172	ALA	3.9
30	BI	62	TYR	3.9
21	AU	21	ARG	3.9
13	CM	43	VAL	3.9
30	DI	71	THR	3.9
18	CR	20	GLU	3.9
13	CM	86	TYR	3.9
21	CU	35	ARG	3.9
19	AS	49	ILE	3.9
27	DF	13	VAL	3.9
40	DS	68	ASP	3.9
24	DC	103	TYR	3.9
27	DF	87	CYS	3.9
41	DT	81	LYS	3.9
33	DL	90	VAL	3.9
40	DS	47	VAL	3.9
19	CS	46	GLY	3.9
29	BH	118	PRO	3.9
42	DU	32	GLY	3.9
10	CJ	89	ARG	3.9
20	CT	85	LYS	3.9
40	DS	95	ARG	3.9
36	DO	23	ALA	3.9
22	BA	546	U	3.9
10	CJ	25	ILE	3.9
42	DU	5	ILE	3.9
28	DG	53	GLY	3.9
7	CG	109	ARG	3.9
53	B5	28	ARG	3.9
30	DI	14	ALA	3.9
40	DS	5	ALA	3.9
2	CB	108	ARG	3.9
43	DV	56	PHE	3.9
10	CJ	15	HIS	3.9
26	DE	155	GLU	3.9
30	BI	135	SER	3.9
13	CM	60	VAL	3.8
41	BT	2	ILE	3.8
36	DO	26	LEU	3.8
9	CI	16	ALA	3.8
30	DI	27	ALA	3.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	CG	70	ARG	3.8
27	DF	38	MET	3.8
2	CB	163	VAL	3.8
17	CQ	82	ALA	3.8
10	CJ	90	LEU	3.8
46	DY	56	LEU	3.8
3	CC	27	LYS	3.8
29	DH	81	ALA	3.8
44	DW	25	ARG	3.8
30	DI	43	ASN	3.8
1	CA	208	U	3.8
10	CJ	76	ILE	3.8
42	DU	59	VAL	3.8
10	CJ	66	GLU	3.8
41	DT	41	ALA	3.8
3	CC	29	PHE	3.8
3	CC	120	ILE	3.8
9	CI	127	PHE	3.8
25	DD	96	ILE	3.8
26	DE	196	VAL	3.8
27	DF	79	ILE	3.8
29	DH	144	VAL	3.8
13	CM	80	LEU	3.8
35	DN	82	GLU	3.8
3	CC	173	VAL	3.8
28	DG	104	ASN	3.8
30	BI	112	THR	3.8
36	DO	39	VAL	3.8
41	DT	58	VAL	3.8
2	CB	133	GLU	3.8
53	B5	100	ILE	3.8
7	AG	4	ARG	3.8
2	CB	136	MET	3.8
19	CS	20	GLU	3.8
42	DU	95	PHE	3.8
46	DY	30	MET	3.8
16	AP	47	GLU	3.8
7	CG	27	VAL	3.8
7	CG	87	VAL	3.8
31	DJ	142	ILE	3.8
9	AI	63	LEU	3.8
26	DE	147	LEU	3.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
46	DY	14	LEU	3.8
13	CM	103	LYS	3.8
43	DV	57	TYR	3.8
27	DF	165	GLU	3.8
14	AN	30	ILE	3.8
20	CT	9	LYS	3.7
22	DA	2402	U	3.7
40	DS	36	LEU	3.7
35	DN	62	ASN	3.7
19	CS	26	GLY	3.7
20	CT	42	GLY	3.7
53	B5	144	GLY	3.7
27	DF	149	VAL	3.7
2	CB	74	ARG	3.7
30	DI	39	CYS	3.7
51	D3	48	ALA	3.7
7	CG	23	LEU	3.7
13	CM	89	LEU	3.7
50	D2	43	THR	3.7
9	CI	17	ALA	3.7
14	CN	57	PRO	3.7
7	CG	141	VAL	3.7
30	DI	101	ILE	3.7
35	DN	113	ILE	3.7
13	CM	58	ASP	3.7
22	BA	2109	U	3.7
34	DM	136	MET	3.7
35	DN	63	ARG	3.7
29	BH	141	LYS	3.7
29	DH	83	LYS	3.7
41	DT	49	LYS	3.7
53	B5	40	GLU	3.7
9	CI	66	THR	3.7
1	CA	1271	A	3.7
19	CS	27	ASP	3.7
34	DM	124	LEU	3.7
50	D2	1	MET	3.7
34	DM	99	GLY	3.7
13	CM	61	ALA	3.7
20	CT	87	ALA	3.7
19	CS	40	ILE	3.7
53	B5	135	ARG	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	DA	1176	U	3.7
46	DY	21	LEU	3.7
22	DA	1170	C	3.7
30	BI	39	CYS	3.7
30	BI	92	LYS	3.7
9	AI	23	PRO	3.7
13	CM	96	PRO	3.7
27	DF	7	TYR	3.7
42	DU	62	GLU	3.7
20	CT	67	ILE	3.7
32	DK	101	GLY	3.7
19	CS	17	LYS	3.7
33	DL	104	GLN	3.7
30	DI	75	PRO	3.7
29	BH	90	LEU	3.7
42	DU	61	LYS	3.6
2	CB	18	HIS	3.6
4	AD	37	ALA	3.6
7	CG	61	ALA	3.6
29	BH	73	ASN	3.6
28	BG	24	ILE	3.6
30	BI	140	VAL	3.6
33	DL	57	LEU	3.6
30	DI	87	LYS	3.6
36	DO	12	THR	3.6
22	DA	2168	G	3.6
26	DE	158	PHE	3.6
19	CS	76	PRO	3.6
27	DF	60	ILE	3.6
35	DN	47	VAL	3.6
46	DY	28	LEU	3.6
53	B5	105	LEU	3.6
42	DU	86	ARG	3.6
36	DO	52	SER	3.6
3	CC	146	ALA	3.6
2	CB	151	ILE	3.6
18	CR	74	HIS	3.6
17	CQ	78	VAL	3.6
29	DH	21	VAL	3.6
31	DJ	95	ARG	3.6
27	DF	76	GLY	3.6
22	DA	2173	A	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
27	DF	142	ASP	3.6
27	DF	96	MET	3.6
27	DF	118	SER	3.6
16	CP	60	TRP	3.6
30	BI	28	LEU	3.6
30	DI	19	ASN	3.6
27	DF	93	GLY	3.6
30	DI	16	GLY	3.6
14	CN	60	GLN	3.6
22	DA	613	A	3.6
10	CJ	22	THR	3.6
32	DK	65	THR	3.6
36	DO	16	ARG	3.6
1	CA	1320	C	3.6
30	DI	119	GLY	3.6
32	DK	89	ASN	3.6
1	AA	842	U	3.6
3	CC	62	LYS	3.6
27	DF	64	LYS	3.6
32	DK	2	ILE	3.6
36	DO	46	GLU	3.6
36	DO	63	LYS	3.6
26	DE	55	SER	3.6
28	DG	25	THR	3.6
16	CP	57	ILE	3.6
20	CT	86	LEU	3.6
26	DE	14	VAL	3.6
26	DE	129	PRO	3.6
27	DF	139	PRO	3.6
30	DI	20	PRO	3.6
42	DU	50	PRO	3.6
22	BA	2098	U	3.6
26	DE	102	ARG	3.6
41	DT	73	ARG	3.6
7	CG	26	PHE	3.6
22	DA	2124	G	3.6
51	D3	61	CYS	3.6
13	CM	67	GLY	3.6
2	AB	221	VAL	3.6
9	CI	72	ILE	3.6
16	CP	52	LEU	3.6
27	DF	63	GLN	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	206	C	3.5
2	AB	131	LYS	3.5
22	DA	2109	U	3.5
14	CN	2	ALA	3.5
27	DF	169	LEU	3.5
36	DO	51	ALA	3.5
10	AJ	89	ARG	3.5
26	DE	150	THR	3.5
22	DA	1077	A	3.5
22	DA	2158	A	3.5
26	DE	183	PHE	3.5
36	DO	92	PHE	3.5
29	DH	97	ARG	3.5
27	DF	31	VAL	3.5
27	DF	68	THR	3.5
24	DC	92	ALA	3.5
36	DO	74	VAL	3.5
4	CD	36	GLN	3.5
13	CM	108	THR	3.5
1	AA	1019	A	3.5
9	CI	41	ARG	3.5
29	DH	25	TYR	3.5
22	DA	1870	C	3.5
33	DL	132	ARG	3.5
2	CB	135	LEU	3.5
13	CM	19	LEU	3.5
36	DO	59	ALA	3.5
2	CB	40	ILE	3.5
10	CJ	80	THR	3.5
28	DG	48	ASN	3.5
22	DA	101	A	3.5
2	AB	67	ILE	3.5
3	CC	196	ILE	3.5
13	CM	113	ARG	3.5
27	DF	37	ASN	3.5
53	B5	129	GLY	3.5
22	DA	1095	A	3.5
28	DG	50	LEU	3.5
26	DE	152	GLU	3.5
24	DC	26	LYS	3.5
35	DN	102	PHE	3.5
22	DA	2903	U	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
30	BI	43	ASN	3.5
20	AT	36	TYR	3.5
12	CL	25	GLU	3.5
29	BH	63	ALA	3.5
30	DI	86	ILE	3.5
38	DQ	15	LYS	3.5
7	AG	79	ARG	3.5
30	DI	127	ARG	3.5
6	CF	8	PHE	3.5
30	DI	112	THR	3.5
17	CQ	44	LEU	3.5
19	CS	18	LYS	3.5
3	CC	107	ARG	3.5
38	DQ	2	ALA	3.5
22	DA	2150	C	3.5
33	DL	87	GLY	3.4
27	DF	97	TRP	3.4
29	BH	61	VAL	3.4
13	CM	54	ASP	3.4
30	BI	95	LYS	3.4
42	DU	47	LYS	3.4
10	CJ	87	LEU	3.4
29	DH	104	THR	3.4
36	DO	105	ALA	3.4
25	DD	166	GLY	3.4
53	B5	81	GLY	3.4
25	DD	60	VAL	3.4
32	DK	82	ASN	3.4
33	DL	122	VAL	3.4
50	D2	34	ARG	3.4
4	AD	151	LYS	3.4
20	CT	72	ALA	3.4
53	B5	171	ALA	3.4
26	DE	24	ASN	3.4
1	AA	1032	G	3.4
10	CJ	46	LYS	3.4
3	CC	71	ALA	3.4
16	CP	81	ALA	3.4
2	CB	90	PHE	3.4
13	CM	78	LYS	3.4
1	CA	4	U	3.4
10	CJ	39	PRO	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	AG	80	VAL	3.4
7	CG	111	ARG	3.4
33	DL	100	ILE	3.4
35	DN	73	ASN	3.4
30	BI	80	LEU	3.4
36	DO	62	LEU	3.4
36	DO	115	LEU	3.4
27	DF	67	ILE	3.4
46	DY	10	SER	3.4
28	DG	86	LYS	3.4
10	CJ	97	ASP	3.4
32	DK	98	ARG	3.4
46	BY	23	ARG	3.4
49	D1	34	LEU	3.4
53	B5	137	LEU	3.4
10	CJ	27	GLU	3.4
13	CM	4	ILE	3.4
30	DI	81	LYS	3.4
26	DE	191	ASP	3.4
40	DS	109	ASP	3.4
52	D4	12	ARG	3.3
13	CM	72	GLU	3.3
14	CN	26	GLU	3.3
33	DL	6	LEU	3.3
53	B5	102	GLN	3.3
41	DT	53	VAL	3.3
9	AI	33	ARG	3.3
26	DE	168	ASP	3.3
52	D4	15	LYS	3.3
14	CN	79	LEU	3.3
41	DT	87	LEU	3.3
36	DO	14	ALA	3.3
10	CJ	9	ARG	3.3
45	DX	50	ARG	3.3
16	CP	82	ALA	3.3
17	CQ	21	ILE	3.3
27	DF	86	GLY	3.3
25	DD	104	VAL	3.3
14	CN	53	ARG	3.3
27	DF	80	ARG	3.3
32	DK	108	ARG	3.3
28	DG	74	SER	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	DO	2	ASP	3.3
7	CG	30	LEU	3.3
41	DT	60	THR	3.3
3	AC	101	ILE	3.3
13	CM	77	ILE	3.3
24	DC	64	ILE	3.3
19	AS	74	PHE	3.3
27	DF	140	GLU	3.3
31	DJ	74	TYR	3.3
29	DH	13	GLY	3.3
7	CG	152	ALA	3.3
41	DT	83	ALA	3.3
25	DD	187	LEU	3.3
2	AB	139	ARG	3.3
2	CB	139	ARG	3.3
44	DW	62	LYS	3.3
53	B5	178	LYS	3.3
24	BC	240	PHE	3.3
33	DL	62	PRO	3.3
46	DY	13	GLU	3.3
28	DG	111	HIS	3.3
34	DM	41	LEU	3.3
51	D3	57	LEU	3.3
28	DG	24	ILE	3.3
44	BW	10	THR	3.3
29	DH	35	LYS	3.3
40	DS	73	LYS	3.3
2	AB	18	HIS	3.3
19	CS	80	TYR	3.3
22	DA	1535	A	3.3
30	DI	29	GLY	3.3
19	CS	19	VAL	3.3
25	DD	209	ALA	3.3
27	DF	12	VAL	3.3
7	CG	144	MET	3.3
26	DE	1	MET	3.3
41	DT	3	ARG	3.3
27	DF	4	LEU	3.3
30	BI	138	LEU	3.3
7	CG	20	SER	3.2
1	CA	1321	U	3.2
36	DO	38	GLN	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	CC	9	GLY	3.2
19	AS	71	LEU	3.2
36	DO	66	GLY	3.2
36	DO	3	LYS	3.2
22	DA	1087	G	3.2
22	DA	2125	G	3.2
27	DF	138	PHE	3.2
29	BH	132	PHE	3.2
37	DP	110	ILE	3.2
5	CE	110	ALA	3.2
19	CS	62	VAL	3.2
20	AT	87	ALA	3.2
29	DH	146	VAL	3.2
30	BI	15	ALA	3.2
10	CJ	82	LYS	3.2
16	CP	45	GLU	3.2
41	DT	40	LYS	3.2
14	CN	31	ILE	3.2
22	DA	280	U	3.2
29	DH	139	PHE	3.2
6	CF	10	VAL	3.2
10	CJ	98	VAL	3.2
36	DO	77	ALA	3.2
2	CB	161	LEU	3.2
13	AM	19	LEU	3.2
7	AG	78	ARG	3.2
42	DU	83	VAL	3.2
25	DD	8	LYS	3.2
1	AA	1031	C	3.2
1	CA	1270	G	3.2
3	CC	109	PRO	3.2
26	DE	144	GLU	3.2
39	DR	18	GLN	3.2
14	CN	95	GLY	3.2
22	BA	1175	A	3.2
22	DA	896	A	3.2
24	DC	47	GLY	3.2
30	DI	131	GLY	3.2
19	CS	32	ARG	3.2
6	CF	80	PHE	3.2
2	CB	152	LYS	3.2
36	DO	85	LYS	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	B5	26	ALA	3.2
53	B5	75	VAL	3.2
37	DP	115	ASN	3.2
25	DD	74	GLU	3.2
22	DA	2313	C	3.2
27	DF	136	ILE	3.2
53	B5	80	LYS	3.2
25	DD	73	VAL	3.2
2	CB	191	SER	3.2
36	DO	20	GLU	3.2
7	CG	8	GLY	3.2
14	CN	74	LEU	3.2
20	CT	43	ASP	3.2
26	DE	124	PHE	3.2
25	DD	14	ILE	3.2
28	DG	84	THR	3.2
7	CG	129	GLU	3.2
29	DH	3	VAL	3.2
30	BI	84	ALA	3.2
10	CJ	101	SER	3.2
27	DF	95	ARG	3.2
27	DF	143	TYR	3.2
51	D3	64	TYR	3.2
41	DT	50	LEU	3.2
50	D2	37	LYS	3.2
14	CN	21	PHE	3.2
22	DA	1049	C	3.2
2	CB	206	ALA	3.2
17	CQ	23	VAL	3.2
27	DF	107	ALA	3.2
34	DM	54	THR	3.2
22	BA	1847	A	3.2
40	DS	105	VAL	3.2
41	BT	69	ARG	3.2
14	CN	16	LEU	3.2
26	DE	138	LEU	3.2
26	DE	116	ASP	3.2
14	CN	10	GLU	3.2
29	DH	80	ILE	3.1
8	CH	25	VAL	3.1
21	AU	7	ARG	3.1
7	CG	110	LYS	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
16	AP	22	ALA	3.1
30	DI	118	THR	3.1
2	AB	57	LEU	3.1
27	DF	92	ARG	3.1
11	AK	14	LYS	3.1
13	CM	114	LYS	3.1
1	AA	88	U	3.1
26	DE	11	ALA	3.1
29	DH	135	HIS	3.1
31	DJ	47	HIS	3.1
36	DO	61	GLN	3.1
3	CC	154	SER	3.1
7	AG	151	PHE	3.1
28	DG	12	PRO	3.1
33	DL	50	PHE	3.1
46	DY	7	ARG	3.1
36	DO	87	ILE	3.1
1	CA	210	C	3.1
27	DF	25	VAL	3.1
28	DG	92	VAL	3.1
32	DK	35	VAL	3.1
7	CG	19	GLY	3.1
2	CB	114	LEU	3.1
7	CG	44	TYR	3.1
5	AE	159	LYS	3.1
9	CI	125	PRO	3.1
25	DD	90	PHE	3.1
28	DG	112	PRO	3.1
37	DP	84	ILE	3.1
28	DG	40	ALA	3.1
32	DK	61	VAL	3.1
33	DL	102	GLY	3.1
2	AB	85	LEU	3.1
9	AI	22	LYS	3.1
26	DE	118	LEU	3.1
30	DI	95	LYS	3.1
42	DU	21	LYS	3.1
10	CJ	65	TYR	3.1
22	DA	1103	A	3.1
27	DF	104	ILE	3.1
49	D1	48	ILE	3.1
9	AI	19	VAL	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
26	DE	28	VAL	3.1
28	DG	65	ALA	3.1
42	DU	70	VAL	3.1
25	DD	154	LYS	3.1
27	DF	102	ARG	3.1
44	DW	46	HIS	3.1
35	DN	36	THR	3.1
51	D3	49	MET	3.1
9	CI	79	ILE	3.1
41	DT	74	ILE	3.1
27	DF	69	LYS	3.1
21	AU	35	ARG	3.1
49	D1	52	ALA	3.1
29	DH	91	PHE	3.1
11	AK	111	THR	3.1
13	CM	23	TYR	3.1
25	DD	75	ALA	3.1
46	DY	33	ALA	3.1
2	AB	90	PHE	3.1
11	CK	42	LEU	3.1
44	DW	45	PHE	3.1
45	DX	78	TYR	3.1
3	CC	197	GLY	3.1
3	CC	91	VAL	3.1
12	AL	25	GLU	3.1
14	CN	100	SER	3.1
30	BI	122	ILE	3.1
33	DL	126	ARG	3.1
39	DR	7	SER	3.1
36	DO	28	VAL	3.1
3	CC	43	LEU	3.1
25	DD	101	PHE	3.1
26	DE	154	ASP	3.1
33	DL	81	ASP	3.1
1	CA	1247	U	3.0
25	DD	132	ALA	3.0
27	DF	54	ALA	3.0
40	DS	20	VAL	3.0
9	AI	39	PHE	3.0
10	CJ	11	LYS	3.0
26	DE	120	VAL	3.0
27	DF	28	VAL	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
35	DN	76	VAL	3.0
39	DR	14	VAL	3.0
44	DW	23	VAL	3.0
32	DK	33	ALA	3.0
42	DU	14	LEU	3.0
18	AR	20	GLU	3.0
7	CG	38	THR	3.0
8	CH	110	VAL	3.0
17	CQ	50	ASN	3.0
41	DT	59	ASN	3.0
7	CG	79	ARG	3.0
14	AN	48	LEU	3.0
15	CO	89	ARG	3.0
27	BF	80	ARG	3.0
2	CB	104	TRP	3.0
22	DA	1044	C	3.0
25	DD	26	VAL	3.0
31	DJ	97	PRO	3.0
39	DR	52	PRO	3.0
19	CS	75	ALA	3.0
7	CG	83	SER	3.0
22	BA	1094	U	3.0
39	DR	29	THR	3.0
26	DE	200	LEU	3.0
34	DM	61	GLY	3.0
9	AI	21	ILE	3.0
9	CI	126	GLN	3.0
19	CS	45	ILE	3.0
29	BH	128	HIS	3.0
30	BI	103	ARG	3.0
1	CA	1313	U	3.0
26	DE	180	LEU	3.0
27	DF	121	SER	3.0
31	DJ	140	LEU	3.0
38	DQ	106	PHE	3.0
9	CI	37	GLN	3.0
32	DK	3	GLN	3.0
29	DH	123	ARG	3.0
2	AB	152	LYS	3.0
30	BI	120	ALA	3.0
36	DO	70	ALA	3.0
50	D2	18	PHE	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	DU	30	SER	3.0
25	DD	77	ARG	3.0
31	DJ	13	ARG	3.0
1	CA	1454	G	3.0
14	AN	52	PRO	3.0
21	AU	24	GLU	3.0
22	DA	1068	G	3.0
32	DK	110	GLU	3.0
24	DC	154	LEU	3.0
22	BA	1100	C	3.0
50	D2	35	ARG	3.0
28	BG	26	ILE	3.0
40	DS	71	VAL	3.0
41	DT	10	VAL	3.0
30	DI	41	ALA	3.0
1	AA	121	U	3.0
21	CU	37	PHE	3.0
22	DA	1065	U	3.0
44	DW	59	LEU	3.0
28	DG	69	ARG	3.0
29	BH	13	GLY	3.0
36	DO	114	GLY	3.0
7	CG	77	SER	3.0
7	CG	84	THR	3.0
17	AQ	20	SER	3.0
40	DS	24	ILE	3.0
29	DH	140	ALA	2.9
8	CH	61	LEU	2.9
13	CM	69	LEU	2.9
22	BA	1065	U	2.9
22	DA	1173	U	2.9
24	DC	249	GLY	2.9
22	DA	228	C	2.9
29	DH	14	SER	2.9
7	CG	69	VAL	2.9
26	DE	169	VAL	2.9
48	D0	38	HIS	2.9
51	D3	65	ALA	2.9
13	CM	56	LEU	2.9
2	AB	136	MET	2.9
20	CT	34	LYS	2.9
22	BA	613	A	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	DA	1046	A	2.9
30	BI	70	VAL	2.9
35	DN	42	LYS	2.9
27	DF	171	ALA	2.9
27	DF	41	GLY	2.9
29	BH	12	LEU	2.9
52	D4	38	GLY	2.9
9	CI	31	ASN	2.9
7	CG	37	SER	2.9
20	CT	71	LYS	2.9
22	BA	885	C	2.9
32	DK	115	ILE	2.9
40	DS	37	THR	2.9
51	D3	52	LYS	2.9
22	DA	2110	G	2.9
7	CG	112	GLY	2.9
13	CM	88	GLY	2.9
26	DE	153	LEU	2.9
39	DR	45	GLU	2.9
34	DM	88	ASN	2.9
41	DT	92	ASN	2.9
29	DH	89	LYS	2.9
44	DW	44	LYS	2.9
36	DO	30	ARG	2.9
10	CJ	96	VAL	2.9
34	DM	33	LEU	2.9
39	DR	88	GLY	2.9
42	DU	2	ALA	2.9
13	CM	52	GLN	2.9
28	DG	99	LYS	2.9
9	CI	12	ARG	2.9
22	DA	2175	C	2.9
33	DL	107	PHE	2.9
27	DF	103	LEU	2.9
33	DL	86	GLU	2.9
33	DL	124	GLY	2.9
36	DO	37	ALA	2.9
36	DO	109	ALA	2.9
42	DU	37	GLU	2.9
22	DA	2106	U	2.9
27	DF	29	PRO	2.9
10	AJ	35	GLN	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	CJ	31	ARG	2.9
33	DL	58	TYR	2.9
2	AB	30	PHE	2.9
11	AK	19	GLY	2.9
14	AN	23	LYS	2.9
29	DH	149	GLU	2.9
22	BA	2129	C	2.9
25	DD	25	THR	2.9
26	DE	131	THR	2.9
29	DH	65	ALA	2.9
32	DK	60	ALA	2.9
37	DP	63	LYS	2.9
3	CC	36	ASP	2.9
44	DW	64	ASP	2.9
33	DL	114	GLY	2.9
40	DS	106	VAL	2.9
29	BH	51	ARG	2.9
35	DN	98	LEU	2.9
44	DW	32	LEU	2.9
3	CC	167	TRP	2.9
22	DA	2165	C	2.9
35	DN	9	GLN	2.9
3	AC	193	TYR	2.9
34	DM	103	TYR	2.9
3	CC	102	ASN	2.9
9	CI	4	ASN	2.9
2	CB	107	VAL	2.9
19	CS	10	PHE	2.9
34	DM	36	VAL	2.9
28	DG	72	LEU	2.9
29	DH	54	LEU	2.9
1	CA	1028	C	2.8
22	DA	12	U	2.8
22	DA	846	U	2.8
30	DI	73	THR	2.8
30	DI	26	PRO	2.8
9	CI	7	TYR	2.8
29	BH	94	ILE	2.8
48	D0	46	ASP	2.8
2	AB	35	ARG	2.8
11	AK	53	ARG	2.8
11	AK	129	VAL	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
16	CP	38	PHE	2.8
30	BI	9	VAL	2.8
42	DU	22	ARG	2.8
9	CI	63	LEU	2.8
22	DA	1084	A	2.8
32	DK	107	LEU	2.8
7	CG	45	SER	2.8
22	DA	2127	G	2.8
22	DA	2797	U	2.8
28	DG	126	PRO	2.8
29	DH	96	THR	2.8
2	CB	23	TRP	2.8
7	CG	74	GLU	2.8
8	CH	60	GLU	2.8
9	CI	21	ILE	2.8
26	DE	21	ARG	2.8
2	CB	92	VAL	2.8
27	DF	20	PHE	2.8
29	BH	93	SER	2.8
1	AA	844	G	2.8
3	CC	192	THR	2.8
10	CJ	70	HIS	2.8
22	DA	356	G	2.8
22	DA	549	G	2.8
25	DD	133	THR	2.8
26	DE	148	ILE	2.8
28	DG	77	ILE	2.8
30	DI	122	ILE	2.8
27	DF	51	ASP	2.8
2	AB	187	VAL	2.8
38	DQ	39	VAL	2.8
48	D0	30	VAL	2.8
2	CB	34	ALA	2.8
28	DG	96	ALA	2.8
39	DR	28	ALA	2.8
38	DQ	71	GLN	2.8
9	CI	53	GLU	2.8
14	AN	24	ARG	2.8
21	CU	47	ARG	2.8
22	DA	1057	A	2.8
3	CC	69	HIS	2.8
13	CM	55	THR	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
28	DG	127	THR	2.8
27	DF	147	ASP	2.8
29	BH	92	GLY	2.8
30	BI	49	ILE	2.8
47	DZ	48	ILE	2.8
22	DA	914	G	2.8
32	DK	37	ASP	2.8
10	CJ	51	VAL	2.8
28	DG	164	TYR	2.8
39	DR	92	TRP	2.8
19	AS	13	LEU	2.8
26	DE	157	LEU	2.8
33	DL	79	LEU	2.8
7	CG	63	GLU	2.8
9	CI	32	GLN	2.8
29	DH	133	GLN	2.8
30	DI	23	PRO	2.8
52	D4	6	SER	2.8
22	BA	1067	A	2.8
2	CB	88	ASP	2.8
27	DF	18	THR	2.8
29	BH	44	ILE	2.8
1	CA	79	G	2.8
20	CT	38	ALA	2.8
22	DA	2157	G	2.8
7	AG	109	ARG	2.8
29	BH	76	GLU	2.8
43	DV	54	ALA	2.8
17	CQ	17	MET	2.8
3	CC	77	ILE	2.8
42	DU	100	SER	2.8
9	CI	19	VAL	2.8
51	D3	6	THR	2.8
12	CL	14	ARG	2.8
30	DI	138	LEU	2.8
45	DX	3	ARG	2.8
40	DS	16	LYS	2.8
48	D0	2	ALA	2.8
7	CG	81	GLY	2.8
9	AI	83	ILE	2.8
24	DC	104	ILE	2.8
33	DL	8	PRO	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	DH	51	ARG	2.8
29	DH	86	ASP	2.8
3	CC	124	LEU	2.8
29	DH	137	GLU	2.8
42	DU	93	VAL	2.8
48	D0	54	VAL	2.8
1	CA	1022	A	2.8
1	CA	1314	C	2.8
30	DI	51	LYS	2.8
46	DY	25	GLN	2.8
10	CJ	43	PRO	2.8
21	AU	11	PRO	2.8
27	DF	111	ILE	2.8
40	DS	103	ILE	2.8
42	DU	72	ILE	2.8
26	DE	10	SER	2.8
28	DG	130	GLU	2.8
31	DJ	35	ARG	2.8
41	DT	4	GLU	2.8
45	DX	11	ARG	2.8
50	D2	30	VAL	2.8
1	CA	207	C	2.8
24	DC	112	ALA	2.8
29	BH	81	ALA	2.8
41	DT	72	GLN	2.8
41	BT	92	ASN	2.7
3	CC	86	LYS	2.7
24	DC	18	LYS	2.7
44	DW	75	LYS	2.7
47	DZ	56	LYS	2.7
24	DC	244	PRO	2.7
51	D3	22	PHE	2.7
29	DH	147	VAL	2.7
32	DK	103	VAL	2.7
33	DL	85	VAL	2.7
14	AN	20	TYR	2.7
26	DE	13	THR	2.7
36	DO	113	ALA	2.7
9	CI	57	MET	2.7
3	CC	171	GLY	2.7
22	DA	1217	U	2.7
13	AM	4	ILE	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	CM	11	ASP	2.7
3	AC	100	GLN	2.7
27	DF	24	SER	2.7
3	CC	45	LYS	2.7
19	CS	3	ARG	2.7
20	CT	60	ARG	2.7
30	DI	125	MET	2.7
28	DG	26	ILE	2.7
33	DL	73	ILE	2.7
35	DN	97	ILE	2.7
43	DV	91	PHE	2.7
27	DF	50	LEU	2.7
2	CB	147	SER	2.7
3	CC	92	ALA	2.7
40	DS	98	LYS	2.7
42	DU	19	LYS	2.7
3	CC	156	ARG	2.7
2	AB	213	TYR	2.7
22	BA	549	G	2.7
22	BA	2133	G	2.7
31	DJ	21	THR	2.7
37	DP	104	THR	2.7
49	D1	21	TYR	2.7
22	BA	2187	U	2.7
22	DA	2167	U	2.7
25	DD	180	VAL	2.7
43	DV	42	LEU	2.7
25	DD	95	SER	2.7
28	DG	170	ARG	2.7
35	DN	77	ALA	2.7
52	D4	33	HIS	2.7
2	CB	189	THR	2.7
44	DW	43	THR	2.7
42	DU	65	ILE	2.7
19	AS	21	LYS	2.7
3	CC	127	ARG	2.7
27	BF	176	PRO	2.7
27	DF	16	LEU	2.7
29	BH	75	LEU	2.7
45	DX	47	VAL	2.7
14	CN	32	SER	2.7
26	DE	8	ALA	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	DK	81	GLY	2.7
53	B5	125	GLY	2.7
10	CJ	6	ILE	2.7
22	BA	846	U	2.7
33	DL	5	THR	2.7
1	CA	1317	C	2.7
22	BA	277	G	2.7
26	DE	126	VAL	2.7
26	DE	133	LEU	2.7
46	DY	31	GLN	2.7
48	D0	39	LEU	2.7
36	DO	80	GLU	2.7
44	DW	73	GLY	2.7
2	AB	81	LYS	2.7
30	DI	100	LYS	2.7
38	DQ	22	LYS	2.7
24	DC	240	PHE	2.7
1	CA	843	U	2.7
7	CG	143	ARG	2.7
28	DG	107	LEU	2.7
37	DP	114	LEU	2.7
22	DA	1099	G	2.7
34	DM	109	PRO	2.7
11	CK	19	GLY	2.7
37	DP	42	ALA	2.7
52	D4	2	LYS	2.7
1	CA	85	U	2.7
20	CT	36	TYR	2.7
39	DR	1	MET	2.7
31	DJ	54	ILE	2.7
53	B5	124	VAL	2.7
3	CC	174	PRO	2.7
13	AM	10	PRO	2.7
44	DW	74	PRO	2.7
13	CM	76	SER	2.6
30	BI	42	PHE	2.6
1	CA	1269	A	2.6
1	AA	85	U	2.6
22	DA	2796	U	2.6
26	DE	122	GLU	2.6
3	CC	33	LEU	2.6
14	AN	51	LEU	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
28	DG	30	ASN	2.6
39	DR	6	GLN	2.6
48	D0	5	GLN	2.6
3	CC	153	VAL	2.6
52	D4	13	ASN	2.6
2	CB	182	PRO	2.6
3	CC	72	ARG	2.6
7	AG	143	ARG	2.6
12	AL	14	ARG	2.6
3	CC	182	ILE	2.6
9	CI	14	SER	2.6
13	AM	33	ILE	2.6
17	CQ	4	LYS	2.6
32	DK	38	ILE	2.6
22	DA	345	A	2.6
27	BF	113	ASP	2.6
30	BI	33	VAL	2.6
9	CI	9	THR	2.6
25	DD	87	GLY	2.6
3	CC	136	ARG	2.6
1	CA	90	C	2.6
9	AI	27	LYS	2.6
11	AK	126	LYS	2.6
26	DE	23	PHE	2.6
39	DR	53	PHE	2.6
45	DX	46	PHE	2.6
52	D4	16	ILE	2.6
7	CG	120	LEU	2.6
10	AJ	10	LEU	2.6
10	CJ	92	LEU	2.6
46	DY	45	GLN	2.6
22	DA	279	A	2.6
28	DG	41	VAL	2.6
34	DM	80	VAL	2.6
29	BH	20	ASN	2.6
49	B1	4	GLY	2.6
29	DH	40	THR	2.6
7	CG	108	ALA	2.6
30	DI	97	LYS	2.6
1	CA	1017	U	2.6
25	DD	84	LEU	2.6
2	CB	71	GLY	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	AS	68	GLY	2.6
29	DH	9	VAL	2.6
29	DH	95	GLY	2.6
24	DC	28	LYS	2.6
20	CT	45	ALA	2.6
30	BI	44	ALA	2.6
37	DP	43	PHE	2.6
22	DA	1100	C	2.6
8	CH	75	ILE	2.6
26	DE	149	ILE	2.6
36	DO	81	ARG	2.6
47	DZ	33	GLY	2.6
49	D1	13	SER	2.6
3	CC	195	VAL	2.6
41	DT	47	VAL	2.6
42	DU	9	ASP	2.6
29	BH	149	GLU	2.6
30	DI	115	ALA	2.6
36	DO	41	ALA	2.6
51	D3	28	ASN	2.6
1	CA	204	G	2.6
1	CA	1455	G	2.6
2	AB	74	ARG	2.6
13	CM	44	LYS	2.6
27	DF	135	GLN	2.6
33	DL	80	SER	2.6
27	DF	101	GLU	2.6
28	DG	83	PHE	2.6
29	DH	148	ALA	2.6
46	DY	32	ALA	2.6
2	CB	35	ARG	2.6
46	DY	29	ARG	2.6
50	D2	28	ARG	2.6
23	DB	119	A	2.6
3	CC	155	GLY	2.6
10	AJ	90	LEU	2.6
24	DC	232	HIS	2.6
25	DD	1	MET	2.6
27	BF	83	TYR	2.6
29	DH	61	VAL	2.6
40	DS	38	TYR	2.6
26	DE	173	THR	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
38	DQ	37	GLN	2.6
41	DT	91	GLN	2.6
19	CS	52	HIS	2.6
24	DC	93	LEU	2.6
10	CJ	81	GLU	2.6
26	BE	7	ASP	2.6
27	DF	22	TYR	2.6
27	DF	83	TYR	2.6
4	CD	37	ALA	2.6
27	BF	72	LYS	2.6
29	BH	47	PHE	2.6
38	DQ	65	ILE	2.5
13	CM	50	GLU	2.5
22	BA	2192	U	2.5
22	DA	2118	U	2.5
29	DH	128	HIS	2.5
12	AL	123	LYS	2.5
13	CM	3	ARG	2.5
24	DC	242	LYS	2.5
28	DG	134	LYS	2.5
29	DH	141	LYS	2.5
36	DO	56	LYS	2.5
41	DT	62	VAL	2.5
50	D2	21	ARG	2.5
27	DF	162	SER	2.5
27	DF	75	ALA	2.5
28	DG	174	ALA	2.5
30	DI	107	GLN	2.5
2	CB	101	LEU	2.5
7	CG	139	GLU	2.5
21	CU	44	GLU	2.5
46	DY	37	LEU	2.5
3	AC	62	LYS	2.5
24	DC	48	ARG	2.5
30	DI	9	VAL	2.5
35	DN	30	ARG	2.5
14	CN	33	ASP	2.5
28	BG	166	ASP	2.5
40	DS	45	VAL	2.5
9	AI	34	SER	2.5
9	CI	51	PRO	2.5
9	CI	42	GLU	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
26	DE	151	GLY	2.5
48	D0	37	LYS	2.5
2	CB	225	ARG	2.5
27	DF	26	MET	2.5
22	DA	1048	A	2.5
40	DS	101	SER	2.5
3	CC	75	ILE	2.5
22	BA	2193	G	2.5
22	DA	1407	G	2.5
33	DL	130	GLY	2.5
7	AG	75	VAL	2.5
7	CG	89	VAL	2.5
9	CI	47	VAL	2.5
22	DA	2132	U	2.5
26	DE	178	VAL	2.5
2	CB	91	PHE	2.5
3	CC	168	TYR	2.5
7	CG	128	ALA	2.5
14	CN	92	GLU	2.5
28	DG	85	LYS	2.5
37	DP	9	GLU	2.5
43	DV	34	LYS	2.5
3	CC	65	ARG	2.5
16	CP	35	ARG	2.5
22	DA	2169	A	2.5
29	DH	93	SER	2.5
34	DM	6	ARG	2.5
47	DZ	9	GLN	2.5
3	CC	207	ILE	2.5
10	AJ	8	ILE	2.5
11	AK	110	ILE	2.5
28	DG	73	ASN	2.5
28	DG	131	ILE	2.5
39	DR	43	ASN	2.5
27	DF	108	VAL	2.5
41	DT	67	VAL	2.5
52	D4	7	VAL	2.5
30	DI	40	LYS	2.5
35	DN	56	LYS	2.5
44	DW	61	ALA	2.5
19	AS	56	GLN	2.5
1	AA	81	A	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	61	LEU	2.5
22	DA	2181	U	2.5
31	DJ	118	MET	2.5
34	DM	26	VAL	2.5
1	AA	79	G	2.5
22	BA	2885	G	2.5
22	DA	75	G	2.5
28	DG	172	LYS	2.5
29	BH	145	ASN	2.5
44	DW	72	LYS	2.5
22	DA	1085	A	2.5
22	DA	884	U	2.5
10	CJ	75	ASP	2.5
14	CN	65	ARG	2.5
31	DJ	98	GLU	2.5
33	DL	21	ARG	2.5
50	D2	39	ARG	2.5
27	DF	159	THR	2.5
29	BH	125	THR	2.5
30	DI	84	ALA	2.5
49	D1	17	THR	2.5
28	DG	6	LYS	2.5
42	DU	33	LYS	2.5
18	AR	68	LEU	2.5
24	BC	272	SER	2.5
42	BU	53	ASN	2.5
13	CM	81	MET	2.5
29	DH	132	PHE	2.5
7	CG	46	ALA	2.5
33	DL	139	GLY	2.5
37	DP	111	LYS	2.5
9	CI	30	ILE	2.5
22	DA	2116	G	2.5
49	D1	5	ILE	2.5
9	CI	89	GLU	2.4
2	CB	154	MET	2.4
21	AU	32	VAL	2.4
1	CA	80	A	2.4
20	AT	64	LYS	2.4
25	DD	144	GLY	2.4
2	CB	186	ILE	2.4
3	CC	10	ILE	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	AJ	7	ARG	2.4
16	AP	6	LEU	2.4
17	CQ	8	LEU	2.4
21	CU	24	GLU	2.4
34	DM	77	PRO	2.4
44	DW	70	GLU	2.4
22	DA	2121	G	2.4
2	AB	217	VAL	2.4
3	CC	5	VAL	2.4
7	CG	130	ASN	2.4
13	CM	65	VAL	2.4
19	CS	6	LYS	2.4
19	CS	70	LYS	2.4
22	DA	1045	C	2.4
26	DE	193	VAL	2.4
28	DG	11	VAL	2.4
29	DH	29	PHE	2.4
43	DV	26	PHE	2.4
45	DX	61	LYS	2.4
1	CA	1248	A	2.4
22	BA	2119	A	2.4
22	DA	2176	A	2.4
9	AI	89	GLU	2.4
17	CQ	75	LEU	2.4
41	DT	25	GLU	2.4
48	D0	43	ILE	2.4
28	DG	151	TYR	2.4
2	AB	66	LYS	2.4
14	CN	76	LYS	2.4
26	DE	98	LYS	2.4
30	BI	45	LYS	2.4
51	D3	23	LYS	2.4
6	CF	89	VAL	2.4
1	CA	86	G	2.4
9	CI	33	ARG	2.4
9	CI	44	ALA	2.4
14	CN	41	ARG	2.4
30	DI	104	ALA	2.4
1	CA	1274	A	2.4
3	CC	55	ILE	2.4
6	AF	61	LEU	2.4
36	DO	76	LYS	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	DS	96	ILE	2.4
50	D2	31	LEU	2.4
3	CC	78	GLY	2.4
3	CC	145	GLY	2.4
21	AU	13	ASP	2.4
22	DA	357	C	2.4
26	DE	9	GLN	2.4
30	BI	65	ARG	2.4
41	DT	77	ARG	2.4
7	CG	42	ILE	2.4
20	CT	57	ILE	2.4
20	CT	66	LEU	2.4
20	CT	79	LEU	2.4
32	DK	99	ILE	2.4
1	CA	1492	A	2.4
2	CB	30	PHE	2.4
13	CM	16	VAL	2.4
39	DR	47	VAL	2.4
24	BC	235	GLY	2.4
27	DF	61	SER	2.4
28	DG	161	GLY	2.4
30	DI	117	MET	2.4
50	D2	22	MET	2.4
5	CE	151	GLU	2.4
7	CG	137	LYS	2.4
14	CN	98	LYS	2.4
27	BF	42	GLU	2.4
30	DI	50	GLU	2.4
22	DA	1606	C	2.4
31	DJ	20	ALA	2.4
25	DD	4	LEU	2.4
28	DG	71	LEU	2.4
3	CC	179	ARG	2.4
13	AM	92	ARG	2.4
14	CN	61	ARG	2.4
27	BF	74	VAL	2.4
30	DI	134	ARG	2.4
39	DR	51	VAL	2.4
40	DS	17	VAL	2.4
7	CG	131	LYS	2.4
13	CM	82	ASP	2.4
27	DF	48	LYS	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	DM	60	GLN	2.4
36	DO	93	ASP	2.4
27	DF	52	ASN	2.4
10	AJ	34	ALA	2.4
5	CE	124	LEU	2.4
19	AS	15	LEU	2.4
28	BG	107	LEU	2.4
2	CB	162	PHE	2.4
22	DA	277	G	2.4
24	DC	101	ARG	2.4
3	CC	159	GLY	2.4
9	CI	10	GLY	2.4
11	CK	43	GLY	2.4
16	CP	20	VAL	2.4
19	AS	9	PRO	2.4
19	CS	65	GLU	2.4
28	DG	124	GLU	2.4
39	DR	33	VAL	2.4
39	DR	63	VAL	2.4
29	DH	131	SER	2.4
34	DM	116	ALA	2.4
22	DA	1117	C	2.4
33	DL	19	LEU	2.4
30	BI	97	LYS	2.4
13	CM	41	GLU	2.4
43	DV	60	VAL	2.4
1	AA	82	G	2.4
9	AI	32	GLN	2.4
22	DA	1179	G	2.4
28	DG	49	THR	2.4
7	CG	51	ALA	2.4
36	DO	73	ALA	2.4
19	AS	5	LEU	2.4
42	DU	17	LYS	2.4
42	DU	82	ARG	2.4
1	AA	1027	C	2.4
22	DA	885	C	2.4
41	DT	89	GLU	2.3
2	CB	210	VAL	2.3
28	DG	8	PRO	2.3
25	DD	200	ASP	2.3
27	DF	10	ASP	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	CC	70	THR	2.3
26	DE	189	THR	2.3
46	DY	16	THR	2.3
22	DA	1530	G	2.3
22	DA	2107	G	2.3
53	B5	123	ALA	2.3
32	DK	91	SER	2.3
2	AB	151	ILE	2.3
22	DA	344	A	2.3
10	CJ	33	GLY	2.3
11	AK	43	GLY	2.3
28	DG	82	GLY	2.3
40	DS	26	GLY	2.3
28	DG	22	GLN	2.3
15	AO	17	ARG	2.3
43	DV	1	MET	2.3
13	CM	8	ASN	2.3
14	AN	26	GLU	2.3
19	AS	40	ILE	2.3
29	DH	117	LEU	2.3
15	CO	15	PHE	2.3
26	DE	33	VAL	2.3
34	DM	8	LYS	2.3
1	AA	1017	U	2.3
30	BI	64	ASP	2.3
7	AG	65	ALA	2.3
34	DM	56	ALA	2.3
40	DS	82	MET	2.3
3	CC	87	LEU	2.3
17	CQ	74	THR	2.3
41	DT	54	GLU	2.3
7	CG	76	LYS	2.3
28	DG	78	GLY	2.3
49	D1	18	GLY	2.3
1	CA	1362	A	2.3
22	DA	883	G	2.3
22	DA	1063	G	2.3
40	DS	7	HIS	2.3
52	D4	35	GLN	2.3
36	DO	89	ASP	2.3
10	CJ	61	ALA	2.3
39	DR	99	THR	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	DS	35	ILE	2.3
14	AN	55	SER	2.3
30	DI	91	GLY	2.3
29	DH	116	ARG	2.3
4	CD	143	VAL	2.3
36	DO	116	GLN	2.3
3	CC	85	GLU	2.3
3	CC	206	GLU	2.3
29	BH	17	ASP	2.3
36	DO	99	TYR	2.3
9	AI	54	LEU	2.3
49	B1	53	LYS	2.3
28	DG	141	ILE	2.3
39	DR	101	ILE	2.3
4	AD	128	ARG	2.3
20	CT	51	PHE	2.3
26	DE	170	ARG	2.3
28	DG	95	ARG	2.3
36	DO	53	THR	2.3
2	CB	110	SER	2.3
26	DE	125	SER	2.3
42	DU	53	ASN	2.3
2	CB	122	GLN	2.3
3	CC	138	VAL	2.3
10	AJ	98	VAL	2.3
9	CI	100	LYS	2.3
22	DA	2120	G	2.3
22	DA	2163	A	2.3
40	DS	48	LYS	2.3
46	DY	9	LYS	2.3
33	DL	49	GLY	2.3
36	DO	13	ARG	2.3
2	CB	69	PHE	2.3
34	DM	130	PHE	2.3
30	BI	102	SER	2.3
40	DS	13	SER	2.3
14	CN	101	TRP	2.3
1	CA	1025	U	2.3
20	CT	68	HIS	2.3
47	DZ	34	HIS	2.3
28	DG	7	ALA	2.3
27	DF	90	THR	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	DU	4	LYS	2.3
26	DE	186	VAL	2.3
36	DO	27	VAL	2.3
40	DS	107	VAL	2.3
3	CC	54	ARG	2.3
8	CH	130	ALA	2.3
13	CM	5	ALA	2.3
29	BH	111	ALA	2.3
7	AG	18	PHE	2.3
22	DA	143	C	2.3
22	DA	2177	C	2.3
12	AL	15	LYS	2.3
41	DT	68	LYS	2.3
1	CA	1305	G	2.3
22	DA	1228	G	2.3
29	DH	68	ARG	2.2
13	CM	34	LEU	2.2
3	CC	103	ILE	2.2
4	CD	24	GLY	2.2
15	AO	31	LEU	2.2
25	DD	38	LYS	2.2
33	DL	72	ALA	2.2
29	BH	4	ILE	2.2
34	DM	62	LYS	2.2
38	DQ	99	ALA	2.2
45	DX	26	LYS	2.2
37	DP	74	PHE	2.2
3	CC	106	VAL	2.2
22	BA	2191	A	2.2
19	AS	32	ARG	2.2
27	BF	149	VAL	2.2
29	BH	78	VAL	2.2
52	D4	36	ARG	2.2
22	BA	1171	G	2.2
22	BA	2190	G	2.2
22	DA	1248	G	2.2
51	D3	51	SER	2.2
27	DF	33	LYS	2.2
27	DF	46	ASP	2.2
51	D3	47	LYS	2.2
7	CG	50	LEU	2.2
24	DC	205	LEU	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	DH	5	LEU	2.2
33	DL	15	ALA	2.2
5	AE	31	PHE	2.2
10	AJ	100	ILE	2.2
53	B5	25	GLU	2.2
3	AC	136	ARG	2.2
13	CM	87	ARG	2.2
15	CO	17	ARG	2.2
20	CT	25	ARG	2.2
45	DX	7	VAL	2.2
14	AN	43	ASN	2.2
22	DA	2376	A	2.2
44	DW	78	LYS	2.2
10	AJ	75	ASP	2.2
30	BI	118	THR	2.2
33	DL	7	SER	2.2
2	AB	83	ALA	2.2
13	AM	80	LEU	2.2
29	BH	39	ALA	2.2
27	DF	99	PHE	2.2
22	DA	544	C	2.2
28	DG	79	VAL	2.2
28	DG	168	VAL	2.2
38	DQ	19	LYS	2.2
29	BH	82	SER	2.2
2	CB	31	ILE	2.2
3	CC	104	ALA	2.2
1	CA	1033	G	2.2
24	DC	238	ARG	2.2
18	AR	32	TYR	2.2
2	CB	187	VAL	2.2
2	CB	217	VAL	2.2
22	DA	795	C	2.2
22	DA	1064	C	2.2
9	AI	40	GLY	2.2
30	BI	29	GLY	2.2
14	AN	16	LEU	2.2
41	DT	61	LEU	2.2
7	CG	107	ALA	2.2
19	AS	41	PHE	2.2
30	BI	77	ALA	2.2
35	DN	45	ARG	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
39	DR	66	HIS	2.2
22	DA	214	G	2.2
22	DA	361	G	2.2
22	DA	2112	G	2.2
3	CC	52	VAL	2.2
25	DD	125	TRP	2.2
1	CA	1136	C	2.2
5	CE	10	GLU	2.2
39	DR	37	GLU	2.2
3	CC	169	ARG	2.2
3	CC	183	ASP	2.2
50	D2	13	ASN	2.2
50	D2	14	ARG	2.2
2	CB	226	SER	2.2
3	CC	61	ALA	2.2
3	CC	134	MET	2.2
7	CG	86	GLN	2.2
9	AI	51	PRO	2.2
9	AI	79	ILE	2.2
9	CI	84	THR	2.2
30	BI	27	ALA	2.2
40	DS	56	ALA	2.2
46	DY	36	GLN	2.2
51	D3	43	HIS	2.2
10	AJ	74	VAL	2.2
17	CQ	77	ARG	2.2
26	DE	54	GLY	2.2
28	DG	27	LYS	2.2
3	CC	130	PHE	2.2
14	CN	22	ALA	2.2
19	CS	22	ALA	2.2
22	DA	1460	U	2.2
41	BT	32	LEU	2.2
47	DZ	29	LEU	2.2
2	AB	226	SER	2.2
13	CM	22	ILE	2.2
37	DP	91	ALA	2.2
14	CN	56	SER	2.2
29	DH	113	SER	2.2
1	CA	1324	A	2.2
25	DD	10	GLY	2.2
27	DF	150	ARG	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	DH	24	GLY	2.2
44	DW	55	ARG	2.2
1	CA	83	C	2.2
9	CI	94	LEU	2.2
18	CR	29	LEU	2.2
34	DM	105	MET	2.2
19	AS	24	GLU	2.2
2	CB	149	GLY	2.1
22	DA	2602	A	2.2
24	DC	99	GLY	2.1
43	DV	32	GLY	2.1
7	AG	23	LEU	2.1
11	AK	52	PHE	2.1
7	AG	7	ILE	2.1
22	DA	1078	U	2.1
22	DA	1450	G	2.1
23	DB	18	G	2.1
2	CB	95	ARG	2.1
41	DT	24	MET	2.1
34	DM	7	THR	2.1
48	D0	33	THR	2.1
5	CE	114	VAL	2.1
28	DG	31	GLY	2.1
31	DJ	22	GLY	2.1
33	DL	88	GLY	2.1
22	DA	213	A	2.1
2	AB	161	LEU	2.1
27	DF	49	LEU	2.1
40	DS	94	ASP	2.1
13	CM	35	ALA	2.1
32	DK	47	ILE	2.1
42	DU	6	ARG	2.1
29	DH	38	PRO	2.1
1	CA	1024	G	2.1
2	CB	70	VAL	2.1
16	CP	3	THR	2.1
48	D0	23	THR	2.1
3	AC	178	LEU	2.1
9	CI	62	ASP	2.1
11	AK	82	LEU	2.1
22	DA	1169	A	2.1
46	DY	26	PHE	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
14	AN	22	ALA	2.1
14	CN	69	ARG	2.1
22	DA	2305	U	2.1
29	BH	99	ILE	2.1
30	BI	109	ILE	2.1
37	DP	95	ALA	2.1
38	DQ	53	ARG	2.1
40	DS	31	GLN	2.1
43	DV	36	ALA	2.1
44	DW	77	ARG	2.1
49	D1	45	GLN	2.1
22	DA	275	C	2.1
30	BI	75	PRO	2.1
2	CB	65	GLY	2.1
24	DC	94	VAL	2.1
26	DE	15	SER	2.1
32	DK	75	SER	2.1
11	AK	96	THR	2.1
38	DQ	84	LYS	2.1
18	CR	51	TYR	2.1
24	DC	33	LEU	2.1
30	BI	106	LEU	2.1
42	BU	52	LEU	2.1
13	CM	57	ARG	2.1
14	CN	49	GLN	2.1
52	D4	26	ILE	2.1
1	CA	1132	C	2.1
14	CN	94	PRO	2.1
3	CC	204	LYS	2.1
17	AQ	16	LYS	2.1
22	DA	2129	C	2.1
20	CT	58	VAL	2.1
25	DD	6	GLY	2.1
28	DG	17	VAL	2.1
28	DG	108	GLY	2.1
7	AG	83	SER	2.1
35	DN	29	VAL	2.1
3	CC	42	TYR	2.1
34	DM	16	ARG	2.1
22	DA	1225	G	2.1
27	DF	56	ASP	2.1
30	BI	6	GLN	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
33	DL	91	ASP	2.1
3	CC	50	ALA	2.1
22	DA	2130	U	2.1
22	DA	2149	U	2.1
25	DD	54	ALA	2.1
1	CA	101	A	2.1
16	CP	76	LYS	2.1
40	DS	41	LYS	2.1
2	CB	202	GLY	2.1
43	DV	49	ASN	2.1
29	DH	32	PRO	2.1
1	CA	87	C	2.1
1	CA	985	C	2.1
7	CG	105	VAL	2.1
17	CQ	73	TRP	2.1
17	CQ	65	ARG	2.1
28	DG	35	ARG	2.1
26	DE	25	GLU	2.1
53	B5	186	LEU	2.1
28	DG	16	ASP	2.1
40	DS	15	GLN	2.1
12	CL	2	ALA	2.1
1	CA	1018	G	2.1
22	DA	2304	G	2.1
29	DH	8	LYS	2.1
29	DH	112	LYS	2.1
3	AC	155	GLY	2.1
3	CC	128	VAL	2.1
29	BH	9	VAL	2.1
3	CC	22	TRP	2.1
19	CS	57	HIS	2.1
17	AQ	8	LEU	2.1
25	DD	139	SER	2.1
34	DM	64	TRP	2.1
39	DR	62	GLU	2.1
27	DF	57	LEU	2.1
36	DO	48	LEU	2.1
19	AS	64	ASP	2.1
26	DE	30	GLN	2.1
3	CC	131	ARG	2.1
22	DA	141	G	2.1
22	DA	1408	G	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
23	DB	20	G	2.1
25	DD	128	ARG	2.1
37	DP	72	ARG	2.1
9	AI	104	VAL	2.1
37	DP	70	VAL	2.1
43	DV	41	GLU	2.1
3	AC	22	TRP	2.1
16	AP	16	PHE	2.1
19	AS	10	PHE	2.1
20	CT	8	LYS	2.1
22	DA	268	C	2.1
29	BH	117	LEU	2.1
51	D3	55	LEU	2.1
19	AS	48	THR	2.1
17	CQ	6	ARG	2.1
29	DH	85	GLY	2.1
45	DX	18	ARG	2.1
29	DH	55	GLU	2.1
44	DW	85	GLU	2.1
2	CB	66	LYS	2.1
20	CT	64	LYS	2.1
28	BG	12	PRO	2.1
40	DS	87	PRO	2.1
19	AS	47	LEU	2.0
1	CA	1257	A	2.0
2	AB	186	ILE	2.0
4	CD	28	ILE	2.0
11	CK	13	ARG	2.0
11	CK	45	ALA	2.0
13	CM	73	ILE	2.0
26	DE	88	ARG	2.0
35	DN	17	ARG	2.0
39	DR	103	ALA	2.0
46	DY	23	ARG	2.0
52	D4	19	ARG	2.0
29	BH	88	GLY	2.0
4	AD	22	LYS	2.0
24	DC	250	VAL	2.0
36	DO	49	VAL	2.0
42	DU	48	PRO	2.0
37	DP	40	LEU	2.0
1	CA	203	G	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	CC	88	ARG	2.0
9	CI	80	ARG	2.0
22	DA	329	G	2.0
22	DA	2123	G	2.0
27	BF	178	ARG	2.0
29	BH	131	SER	2.0
1	CA	1493	A	2.0
13	AM	51	GLY	2.0
26	DE	142	ALA	2.0
14	CN	19	LYS	2.0
29	BH	25	TYR	2.0
41	DT	84	TYR	2.0
53	B5	21	TYR	2.0
33	DL	74	THR	2.0
3	AC	134	MET	2.0
7	CG	71	PRO	2.0
7	CG	101	MET	2.0
49	D1	39	PHE	2.0
35	DN	22	ARG	2.0
39	DR	90	ARG	2.0
2	CB	37	LYS	2.0
3	CC	14	ILE	2.0
13	CM	27	LYS	2.0
14	CN	7	LYS	2.0
30	BI	72	LYS	2.0
30	DI	128	SER	2.0
36	DO	4	LYS	2.0
46	DY	4	LYS	2.0
1	CA	1453	G	2.0
22	DA	343	C	2.0
22	DA	1076	C	2.0
28	DG	42	GLU	2.0
46	BY	62	GLY	2.0
22	DA	1112	G	2.0
22	DA	1116	G	2.0
3	AC	91	VAL	2.0
13	CM	25	VAL	2.0
9	CI	75	GLN	2.0
30	DI	103	ARG	2.0
26	DE	171	ASP	2.0
3	CC	117	ALA	2.0
36	DO	22	GLY	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	DS	93	ALA	2.0
53	B5	177	GLY	2.0
16	CP	44	SER	2.0
19	CS	4	SER	2.0
1	CA	1209	C	2.0
23	DB	118	C	2.0
1	AA	1020	G	2.0
1	CA	1242	G	2.0
22	DA	878	A	2.0
14	CN	13	ARG	2.0
26	DE	18	THR	2.0
7	AG	2	PRO	2.0
37	DP	97	LEU	2.0
42	DU	44	LYS	2.0
51	D3	41	LYS	2.0
25	DD	126	ASN	2.0

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

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

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	DA	3134	1/1	-0.06	1.03	105,105,105,105	0
54	MG	DA	3045	1/1	0.12	0.40	102,102,102,102	0
54	MG	DA	3027	1/1	0.24	1.06	98,98,98,98	0
54	MG	DA	3136	1/1	0.25	0.50	90,90,90,90	0
54	MG	CA	1611	1/1	0.26	0.21	85,85,85,85	0
54	MG	DA	3078	1/1	0.30	0.37	89,89,89,89	0
54	MG	CA	1630	1/1	0.32	0.49	111,111,111,111	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	AA	1659	1/1	0.33	2.11	77,77,77,77	0
54	MG	DA	3114	1/1	0.34	0.79	85,85,85,85	0
54	MG	CA	1636	1/1	0.36	0.23	118,118,118,118	0
54	MG	DA	3093	1/1	0.36	0.60	108,108,108,108	0
54	MG	DA	3005	1/1	0.38	0.36	96,96,96,96	0
54	MG	AA	1667	1/1	0.39	1.40	66,66,66,66	0
54	MG	DA	3057	1/1	0.41	0.31	87,87,87,87	0
54	MG	CA	1656	1/1	0.43	0.55	55,55,55,55	0
54	MG	CA	1646	1/1	0.43	0.35	66,66,66,66	0
54	MG	DA	3148	1/1	0.47	0.45	58,58,58,58	0
54	MG	AA	1614	1/1	0.47	0.14	66,66,66,66	0
54	MG	DA	3061	1/1	0.48	0.54	85,85,85,85	0
54	MG	DA	3062	1/1	0.49	2.55	110,110,110,110	0
54	MG	DA	3096	1/1	0.51	0.33	86,86,86,86	0
54	MG	BA	3048	1/1	0.55	0.15	50,50,50,50	0
54	MG	DA	3017	1/1	0.57	0.49	90,90,90,90	0
54	MG	DA	3149	1/1	0.57	0.24	63,63,63,63	0
54	MG	DA	3101	1/1	0.58	0.21	81,81,81,81	0
54	MG	CA	1641	1/1	0.59	0.38	69,69,69,69	0
54	MG	BA	3077	1/1	0.59	0.64	74,74,74,74	0
54	MG	DA	3063	1/1	0.62	0.61	95,95,95,95	0
54	MG	DA	3094	1/1	0.63	0.51	101,101,101,101	0
54	MG	CA	1633	1/1	0.65	0.30	81,81,81,81	0
54	MG	CA	1638	1/1	0.65	0.21	83,83,83,83	0
54	MG	DA	3071	1/1	0.66	0.11	97,97,97,97	0
54	MG	DQ	201	1/1	0.67	0.33	53,53,53,53	0
54	MG	DA	3128	1/1	0.67	0.11	67,67,67,67	0
54	MG	DA	3159	1/1	0.68	0.14	68,68,68,68	0
54	MG	CA	1605	1/1	0.68	0.30	91,91,91,91	0
54	MG	DA	3059	1/1	0.68	0.41	79,79,79,79	0
54	MG	DA	3014	1/1	0.69	0.19	80,80,80,80	0
54	MG	DA	3072	1/1	0.70	0.27	81,81,81,81	0
54	MG	CA	1621	1/1	0.70	0.09	69,69,69,69	0
54	MG	CA	1635	1/1	0.71	0.20	123,123,123,123	0
54	MG	CA	1602	1/1	0.71	0.08	79,79,79,79	0
54	MG	DA	3132	1/1	0.71	0.86	93,93,93,93	0
54	MG	DA	3008	1/1	0.71	0.42	104,104,104,104	0
54	MG	AA	1644	1/1	0.72	0.23	50,50,50,50	0
54	MG	DA	3121	1/1	0.72	0.16	83,83,83,83	0
54	MG	CA	1644	1/1	0.72	0.38	54,54,54,54	0
54	MG	DA	3041	1/1	0.72	0.15	89,89,89,89	0
54	MG	AA	1634	1/1	0.73	0.38	74,74,74,74	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BA	3058	1/1	0.73	0.50	50,50,50,50	0
54	MG	AA	1657	1/1	0.74	0.49	68,68,68,68	0
54	MG	DA	3099	1/1	0.74	0.12	62,62,62,62	0
54	MG	CA	1628	1/1	0.74	0.17	99,99,99,99	0
54	MG	AA	1637	1/1	0.74	0.08	79,79,79,79	0
54	MG	CA	1629	1/1	0.74	0.12	85,85,85,85	0
54	MG	DA	3030	1/1	0.75	0.13	70,70,70,70	0
54	MG	DA	3100	1/1	0.75	0.41	83,83,83,83	0
54	MG	DA	3042	1/1	0.75	0.39	64,64,64,64	0
54	MG	DA	3080	1/1	0.75	0.07	99,99,99,99	0
54	MG	BA	3081	1/1	0.75	0.11	19,19,19,19	0
54	MG	CA	1650	1/1	0.75	0.19	46,46,46,46	0
54	MG	DA	3043	1/1	0.76	0.18	84,84,84,84	0
54	MG	DA	3046	1/1	0.76	0.12	78,78,78,78	0
54	MG	CA	1615	1/1	0.76	0.14	57,57,57,57	0
54	MG	AA	1671	1/1	0.76	0.90	56,56,56,56	0
54	MG	DA	3113	1/1	0.76	0.28	74,74,74,74	0
54	MG	DA	3028	1/1	0.76	0.15	87,87,87,87	0
54	MG	CA	1609	1/1	0.76	0.13	82,82,82,82	0
54	MG	DA	3120	1/1	0.76	0.58	102,102,102,102	0
54	MG	DA	3025	1/1	0.77	0.18	54,54,54,54	0
54	MG	BA	3026	1/1	0.77	0.22	35,35,35,35	0
54	MG	DA	3070	1/1	0.77	0.13	82,82,82,82	0
54	MG	BA	3037	1/1	0.77	0.13	26,26,26,26	0
54	MG	DA	3016	1/1	0.77	0.34	75,75,75,75	0
54	MG	DA	3036	1/1	0.77	0.15	78,78,78,78	0
54	MG	CA	1622	1/1	0.77	0.10	50,50,50,50	0
54	MG	DA	3125	1/1	0.77	0.58	92,92,92,92	0
54	MG	DA	3075	1/1	0.77	0.13	64,64,64,64	0
54	MG	DA	3047	1/1	0.78	0.14	78,78,78,78	0
54	MG	CA	1631	1/1	0.78	0.22	97,97,97,97	0
54	MG	DA	3009	1/1	0.78	0.40	82,82,82,82	0
54	MG	DA	3089	1/1	0.78	0.10	77,77,77,77	0
54	MG	BA	3016	1/1	0.78	0.53	65,65,65,65	0
54	MG	DA	3087	1/1	0.78	0.12	70,70,70,70	0
54	MG	DA	3049	1/1	0.78	0.21	108,108,108,108	0
54	MG	DA	3097	1/1	0.78	0.07	62,62,62,62	0
54	MG	AA	1635	1/1	0.78	0.27	53,53,53,53	0
54	MG	DA	3104	1/1	0.79	0.15	67,67,67,67	0
54	MG	AA	1629	1/1	0.79	0.11	65,65,65,65	0
54	MG	AA	1643	1/1	0.79	1.29	61,61,61,61	0
54	MG	DA	3110	1/1	0.79	0.29	46,46,46,46	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	DA	3020	1/1	0.79	0.26	87,87,87,87	0
54	MG	DA	3012	1/1	0.79	0.14	74,74,74,74	0
54	MG	DA	3127	1/1	0.80	0.24	81,81,81,81	0
54	MG	BA	3099	1/1	0.80	0.28	55,55,55,55	0
54	MG	DA	3018	1/1	0.80	0.11	59,59,59,59	0
54	MG	AA	1648	1/1	0.80	0.38	49,49,49,49	0
54	MG	DA	3141	1/1	0.80	0.37	40,40,40,40	0
54	MG	DA	3076	1/1	0.80	0.10	65,65,65,65	0
54	MG	DA	3137	1/1	0.80	0.11	88,88,88,88	0
54	MG	D2	101	1/1	0.80	0.22	78,78,78,78	0
54	MG	DA	3029	1/1	0.81	0.37	74,74,74,74	0
54	MG	BA	3041	1/1	0.81	0.37	2,2,2,2	0
54	MG	CA	1637	1/1	0.81	0.15	66,66,66,66	0
54	MG	DA	3158	1/1	0.81	0.25	56,56,56,56	0
54	MG	AA	1623	1/1	0.81	0.11	39,39,39,39	0
54	MG	DB	201	1/1	0.81	0.12	101,101,101,101	0
54	MG	BA	3085	1/1	0.81	0.21	30,30,30,30	0
54	MG	BA	3134	1/1	0.82	0.34	47,47,47,47	0
54	MG	DA	3164	1/1	0.82	0.67	67,67,67,67	0
54	MG	DA	3084	1/1	0.82	0.11	68,68,68,68	0
54	MG	DA	3162	1/1	0.82	0.26	67,67,67,67	0
54	MG	DA	3074	1/1	0.82	0.29	66,66,66,66	0
54	MG	CA	1624	1/1	0.82	0.08	49,49,49,49	0
54	MG	DA	3103	1/1	0.82	0.14	77,77,77,77	0
54	MG	CA	1649	1/1	0.82	0.11	68,68,68,68	0
54	MG	BA	3053	1/1	0.83	0.12	8,8,8,8	0
54	MG	DA	3146	1/1	0.83	0.21	62,62,62,62	0
54	MG	BA	3083	1/1	0.83	0.14	23,23,23,23	0
54	MG	DA	3153	1/1	0.83	0.34	61,61,61,61	0
54	MG	DA	3024	1/1	0.83	0.07	65,65,65,65	0
54	MG	DA	3033	1/1	0.83	0.25	76,76,76,76	0
54	MG	AA	1661	1/1	0.83	0.44	43,43,43,43	0
54	MG	DA	3007	1/1	0.83	0.20	104,104,104,104	0
54	MG	DA	3161	1/1	0.83	0.21	35,35,35,35	0
54	MG	DA	3133	1/1	0.83	0.34	72,72,72,72	0
54	MG	AA	1651	1/1	0.83	0.36	52,52,52,52	0
54	MG	BA	3124	1/1	0.83	0.15	18,18,18,18	0
54	MG	BA	3154	1/1	0.83	0.63	33,33,33,33	0
54	MG	BA	3063	1/1	0.83	0.17	9,9,9,9	0
54	MG	BA	3089	1/1	0.84	0.15	28,28,28,28	0
54	MG	DA	3003	1/1	0.84	0.49	95,95,95,95	0
54	MG	BA	3167	1/1	0.84	0.20	35,35,35,35	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	DA	3073	1/1	0.84	0.20	74,74,74,74	0
54	MG	AA	1646	1/1	0.84	0.28	53,53,53,53	0
54	MG	BA	3084	1/1	0.84	0.23	41,41,41,41	0
54	MG	BA	3074	1/1	0.84	0.17	22,22,22,22	0
54	MG	CA	1608	1/1	0.84	0.11	61,61,61,61	0
54	MG	AA	1619	1/1	0.84	0.07	61,61,61,61	0
54	MG	DA	3054	1/1	0.84	0.12	36,36,36,36	0
54	MG	DA	3157	1/1	0.84	0.22	49,49,49,49	0
54	MG	DB	202	1/1	0.85	0.13	61,61,61,61	0
54	MG	BA	3174	1/1	0.85	0.17	21,21,21,21	0
54	MG	DA	3048	1/1	0.85	0.13	61,61,61,61	0
54	MG	CA	1655	1/1	0.85	0.12	44,44,44,44	0
54	MG	CA	1606	1/1	0.85	0.09	68,68,68,68	0
54	MG	BA	3120	1/1	0.85	0.19	39,39,39,39	0
54	MG	AA	1602	1/1	0.85	0.31	55,55,55,55	0
54	MG	AA	1605	1/1	0.85	0.15	28,28,28,28	0
54	MG	DA	3050	1/1	0.85	0.31	89,89,89,89	0
54	MG	CA	1618	1/1	0.86	0.15	38,38,38,38	0
54	MG	BA	3043	1/1	0.86	0.15	2,2,2,2	0
54	MG	AA	1610	1/1	0.86	0.29	69,69,69,69	0
54	MG	CA	1619	1/1	0.86	0.11	41,41,41,41	0
54	MG	DA	3085	1/1	0.86	0.16	83,83,83,83	0
54	MG	BA	3088	1/1	0.86	0.12	35,35,35,35	0
54	MG	DA	3107	1/1	0.86	0.11	51,51,51,51	0
54	MG	BA	3059	1/1	0.86	0.06	17,17,17,17	0
54	MG	DA	3160	1/1	0.86	0.19	44,44,44,44	0
54	MG	DA	3112	1/1	0.86	0.13	73,73,73,73	0
54	MG	BA	3056	1/1	0.86	0.40	53,53,53,53	0
54	MG	CA	1617	1/1	0.86	0.11	36,36,36,36	0
54	MG	DA	3109	1/1	0.86	0.17	48,48,48,48	0
54	MG	DA	3156	1/1	0.87	0.25	64,64,64,64	0
54	MG	CA	1614	1/1	0.87	0.09	48,48,48,48	0
54	MG	DA	3064	1/1	0.87	0.12	47,47,47,47	0
54	MG	AA	1660	1/1	0.87	0.14	51,51,51,51	0
54	MG	BA	3166	1/1	0.87	0.25	40,40,40,40	0
54	MG	DA	3142	1/1	0.87	0.24	41,41,41,41	0
54	MG	BA	3055	1/1	0.87	0.13	13,13,13,13	0
54	MG	BA	3125	1/1	0.87	0.39	36,36,36,36	0
54	MG	DA	3129	1/1	0.87	0.11	81,81,81,81	0
54	MG	DA	3163	1/1	0.87	0.27	59,59,59,59	0
54	MG	DA	3111	1/1	0.87	0.19	41,41,41,41	0
54	MG	BA	3095	1/1	0.88	0.12	30,30,30,30	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	DA	3106	1/1	0.88	0.19	73,73,73,73	0
54	MG	DA	3138	1/1	0.88	0.61	46,46,46,46	0
54	MG	AN	201	1/1	0.88	0.18	60,60,60,60	0
54	MG	DA	3002	1/1	0.88	0.19	64,64,64,64	0
54	MG	DA	3117	1/1	0.88	0.46	73,73,73,73	0
54	MG	DA	3058	1/1	0.88	0.13	75,75,75,75	0
54	MG	AA	1639	1/1	0.88	0.09	53,53,53,53	0
54	MG	DA	3004	1/1	0.88	0.09	69,69,69,69	0
54	MG	CA	1627	1/1	0.88	0.18	80,80,80,80	0
54	MG	AA	1665	1/1	0.88	0.24	37,37,37,37	0
54	MG	BA	3024	1/1	0.88	0.15	1,1,1,1	0
54	MG	CA	1642	1/1	0.89	0.20	26,26,26,26	0
54	MG	DA	3006	1/1	0.89	0.07	99,99,99,99	0
54	MG	DA	3092	1/1	0.89	0.09	79,79,79,79	0
54	MG	DA	3086	1/1	0.89	0.18	83,83,83,83	0
54	MG	AA	1652	1/1	0.89	0.15	55,55,55,55	0
54	MG	AA	1618	1/1	0.89	0.40	54,54,54,54	0
54	MG	AA	1620	1/1	0.89	0.07	37,37,37,37	0
54	MG	DA	3152	1/1	0.89	0.27	60,60,60,60	0
54	MG	DA	3150	1/1	0.89	0.23	42,42,42,42	0
54	MG	BA	3080	1/1	0.89	0.13	22,22,22,22	0
54	MG	AA	1638	1/1	0.89	0.08	61,61,61,61	0
54	MG	AA	1631	1/1	0.89	0.12	47,47,47,47	0
54	MG	BA	3017	1/1	0.89	0.18	24,24,24,24	0
54	MG	BA	3015	1/1	0.89	0.08	14,14,14,14	0
54	MG	DA	3091	1/1	0.89	0.08	78,78,78,78	0
54	MG	DA	3167	1/1	0.89	0.14	47,47,47,47	0
54	MG	AA	1601	1/1	0.89	0.14	56,56,56,56	0
54	MG	BA	3045	1/1	0.89	0.12	20,20,20,20	0
54	MG	DA	3037	1/1	0.89	0.14	59,59,59,59	0
54	MG	BA	3160	1/1	0.89	0.19	21,21,21,21	0
54	MG	BA	3114	1/1	0.89	0.17	0,0,0,0	0
54	MG	DA	3026	1/1	0.89	0.20	67,67,67,67	0
54	MG	BA	3020	1/1	0.89	0.21	2,2,2,2	0
54	MG	BA	3150	1/1	0.89	0.22	41,41,41,41	0
54	MG	AA	1666	1/1	0.89	0.27	43,43,43,43	0
54	MG	DA	3145	1/1	0.90	0.09	80,80,80,80	0
54	MG	DA	3135	1/1	0.90	0.12	54,54,54,54	0
54	MG	DA	3039	1/1	0.90	0.12	65,65,65,65	0
54	MG	DA	3116	1/1	0.90	0.20	95,95,95,95	0
54	MG	DA	3124	1/1	0.90	0.11	54,54,54,54	0
54	MG	DA	3011	1/1	0.90	0.13	57,57,57,57	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BA	3060	1/1	0.90	0.13	19,19,19,19	0
54	MG	BA	3190	1/1	0.90	0.21	43,43,43,43	0
54	MG	DA	3079	1/1	0.90	0.07	96,96,96,96	0
54	MG	CA	1651	1/1	0.90	0.38	50,50,50,50	0
54	MG	AA	1632	1/1	0.90	0.10	39,39,39,39	0
54	MG	BA	3136	1/1	0.90	0.13	39,39,39,39	0
54	MG	BA	3159	1/1	0.90	0.15	21,21,21,21	0
54	MG	CA	1626	1/1	0.90	0.11	52,52,52,52	0
54	MG	CA	1654	1/1	0.90	0.15	56,56,56,56	0
54	MG	BA	3092	1/1	0.90	0.06	53,53,53,53	0
54	MG	DA	3055	1/1	0.90	0.10	50,50,50,50	0
54	MG	BA	3003	1/1	0.90	0.09	23,23,23,23	0
54	MG	CA	1623	1/1	0.90	0.14	45,45,45,45	0
54	MG	BA	3032	1/1	0.90	0.09	6,6,6,6	0
54	MG	BA	3189	1/1	0.90	0.26	38,38,38,38	0
54	MG	AA	1640	1/1	0.90	0.14	21,21,21,21	0
54	MG	BA	3187	1/1	0.90	0.11	30,30,30,30	0
54	MG	AA	1670	1/1	0.90	0.39	40,40,40,40	0
54	MG	AA	1626	1/1	0.90	0.28	56,56,56,56	0
54	MG	CA	1639	1/1	0.90	0.11	52,52,52,52	0
54	MG	DA	3034	1/1	0.90	0.06	64,64,64,64	0
54	MG	BA	3062	1/1	0.91	0.55	52,52,52,52	0
54	MG	CA	1648	1/1	0.91	0.20	25,25,25,25	0
54	MG	DA	3082	1/1	0.91	0.09	62,62,62,62	0
54	MG	DA	3013	1/1	0.91	0.13	45,45,45,45	0
54	MG	AA	1668	1/1	0.91	0.07	36,36,36,36	0
54	MG	BA	3103	1/1	0.91	0.11	8,8,8,8	0
54	MG	AA	1604	1/1	0.91	0.05	55,55,55,55	0
54	MG	BA	3157	1/1	0.91	0.20	20,20,20,20	0
54	MG	BA	3005	1/1	0.91	0.06	45,45,45,45	0
54	MG	DA	3066	1/1	0.91	0.10	32,32,32,32	0
54	MG	DA	3065	1/1	0.91	0.19	49,49,49,49	0
54	MG	DA	3139	1/1	0.91	0.42	49,49,49,49	0
54	MG	DA	3032	1/1	0.91	0.12	61,61,61,61	0
54	MG	CA	1645	1/1	0.91	0.16	42,42,42,42	0
54	MG	DA	3095	1/1	0.91	0.26	84,84,84,84	0
54	MG	BA	3008	1/1	0.91	0.11	32,32,32,32	0
54	MG	BA	3079	1/1	0.91	0.05	41,41,41,41	0
54	MG	BA	3191	1/1	0.91	0.25	22,22,22,22	0
54	MG	DA	3165	1/1	0.91	0.21	56,56,56,56	0
54	MG	AA	1669	1/1	0.91	0.20	56,56,56,56	0
54	MG	BA	3104	1/1	0.91	0.09	12,12,12,12	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BA	3004	1/1	0.91	0.13	27,27,27,27	0
54	MG	CA	1601	1/1	0.91	0.12	35,35,35,35	0
54	MG	BA	3171	1/1	0.91	0.14	16,16,16,16	0
54	MG	AA	1616	1/1	0.91	0.12	47,47,47,47	0
54	MG	BA	3145	1/1	0.91	0.61	37,37,37,37	0
54	MG	CA	1625	1/1	0.91	0.14	22,22,22,22	0
54	MG	BB	201	1/1	0.92	0.09	36,36,36,36	0
54	MG	AA	1663	1/1	0.92	0.25	33,33,33,33	0
54	MG	DA	3108	1/1	0.92	0.08	74,74,74,74	0
54	MG	DA	3060	1/1	0.92	0.12	41,41,41,41	0
54	MG	AA	1664	1/1	0.92	0.15	51,51,51,51	0
54	MG	AA	1628	1/1	0.92	0.12	53,53,53,53	0
54	MG	CA	1604	1/1	0.92	0.12	88,88,88,88	0
54	MG	BA	3137	1/1	0.92	0.28	60,60,60,60	0
54	MG	BA	3141	1/1	0.92	0.13	22,22,22,22	0
54	MG	DA	3069	1/1	0.92	0.17	53,53,53,53	0
54	MG	BA	3028	1/1	0.92	0.11	16,16,16,16	0
54	MG	BA	3116	1/1	0.92	0.15	48,48,48,48	0
54	MG	DA	3044	1/1	0.92	0.08	57,57,57,57	0
54	MG	DA	3131	1/1	0.92	0.13	69,69,69,69	0
54	MG	DA	3038	1/1	0.92	0.04	77,77,77,77	0
54	MG	DA	3115	1/1	0.92	0.11	48,48,48,48	0
54	MG	DA	3118	1/1	0.92	0.07	71,71,71,71	0
54	MG	DB	203	1/1	0.92	0.08	79,79,79,79	0
54	MG	DA	3105	1/1	0.92	0.07	67,67,67,67	0
54	MG	DA	3102	1/1	0.92	0.07	64,64,64,64	0
54	MG	DA	3088	1/1	0.92	0.03	61,61,61,61	0
54	MG	BA	3168	1/1	0.92	0.22	19,19,19,19	0
54	MG	DA	3068	1/1	0.92	0.08	51,51,51,51	0
54	MG	AA	1607	1/1	0.92	0.07	51,51,51,51	0
54	MG	DA	3119	1/1	0.92	0.07	50,50,50,50	0
55	VIR	DA	3001	38/38	0.92	0.28	27,39,47,53	0
54	MG	BA	3193	1/1	0.93	0.18	34,34,34,34	0
54	MG	DA	3051	1/1	0.93	0.07	60,60,60,60	0
54	MG	BA	3132	1/1	0.93	0.20	44,44,44,44	0
54	MG	BA	3155	1/1	0.93	0.30	18,18,18,18	0
54	MG	BA	3031	1/1	0.93	0.14	3,3,3,3	0
54	MG	BA	3135	1/1	0.93	0.13	1,1,1,1	0
54	MG	BB	203	1/1	0.93	0.07	11,11,11,11	0
54	MG	DA	3031	1/1	0.93	0.24	65,65,65,65	0
54	MG	BA	3044	1/1	0.93	0.07	21,21,21,21	0
54	MG	CA	1632	1/1	0.93	0.24	77,77,77,77	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	DA	3081	1/1	0.93	0.11	83,83,83,83	0
54	MG	BA	3173	1/1	0.93	0.14	33,33,33,33	0
54	MG	DA	3019	1/1	0.93	0.20	84,84,84,84	0
54	MG	AA	1658	1/1	0.93	0.67	65,65,65,65	0
54	MG	DA	3040	1/1	0.93	0.21	57,57,57,57	0
54	MG	BA	3123	1/1	0.93	0.19	0,0,0,0	0
54	MG	BA	3122	1/1	0.93	0.09	26,26,26,26	0
54	MG	BA	3119	1/1	0.93	0.07	12,12,12,12	0
54	MG	BA	3133	1/1	0.93	0.13	27,27,27,27	0
54	MG	CA	1653	1/1	0.93	0.06	40,40,40,40	0
54	MG	AA	1612	1/1	0.93	0.12	43,43,43,43	0
54	MG	DA	3126	1/1	0.93	0.15	57,57,57,57	0
54	MG	AA	1650	1/1	0.93	0.20	42,42,42,42	0
54	MG	AA	1630	1/1	0.93	0.17	53,53,53,53	0
54	MG	BA	3115	1/1	0.94	0.14	21,21,21,21	0
54	MG	BA	3151	1/1	0.94	0.27	33,33,33,33	0
54	MG	BA	3093	1/1	0.94	0.08	33,33,33,33	0
54	MG	AA	1649	1/1	0.94	0.13	26,26,26,26	0
54	MG	DA	3010	1/1	0.94	0.09	71,71,71,71	0
54	MG	DA	3154	1/1	0.94	0.23	42,42,42,42	0
54	MG	BA	3018	1/1	0.94	0.12	0,0,0,0	0
54	MG	AA	1622	1/1	0.94	0.20	51,51,51,51	0
54	MG	BA	3178	1/1	0.94	0.23	12,12,12,12	0
54	MG	DA	3067	1/1	0.94	0.07	48,48,48,48	0
54	MG	DA	3147	1/1	0.94	0.08	51,51,51,51	0
54	MG	DA	3056	1/1	0.94	0.09	61,61,61,61	0
54	MG	BA	3102	1/1	0.94	0.10	9,9,9,9	0
54	MG	BA	3002	1/1	0.94	0.06	15,15,15,15	0
54	MG	BA	3076	1/1	0.94	0.14	12,12,12,12	0
54	MG	DA	3053	1/1	0.94	0.05	53,53,53,53	0
54	MG	AA	1609	1/1	0.94	0.07	46,46,46,46	0
54	MG	DA	3144	1/1	0.94	0.15	63,63,63,63	0
54	MG	BA	3147	1/1	0.94	0.19	42,42,42,42	0
54	MG	DA	3122	1/1	0.94	0.10	39,39,39,39	0
54	MG	BD	301	1/1	0.94	0.11	34,34,34,34	0
54	MG	BA	3109	1/1	0.94	0.19	1,1,1,1	0
54	MG	BA	3111	1/1	0.94	0.08	24,24,24,24	0
54	MG	BA	3127	1/1	0.94	0.16	9,9,9,9	0
54	MG	BA	3075	1/1	0.94	0.09	19,19,19,19	0
54	MG	CA	1610	1/1	0.94	0.10	63,63,63,63	0
54	MG	BA	3047	1/1	0.94	0.13	4,4,4,4	0
54	MG	BA	3009	1/1	0.94	0.16	3,3,3,3	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BA	3100	1/1	0.94	0.08	8,8,8,8	0
54	MG	BA	3177	1/1	0.94	0.52	37,37,37,37	0
54	MG	DA	3083	1/1	0.94	0.07	54,54,54,54	0
54	MG	BA	3014	1/1	0.94	0.17	0,0,0,0	0
54	MG	DA	3090	1/1	0.94	0.31	81,81,81,81	0
54	MG	CA	1603	1/1	0.95	0.14	36,36,36,36	0
54	MG	BA	3096	1/1	0.95	0.08	5,5,5,5	0
54	MG	BA	3101	1/1	0.95	0.10	5,5,5,5	0
54	MG	DA	3155	1/1	0.95	0.12	42,42,42,42	0
54	MG	CA	1647	1/1	0.95	0.10	42,42,42,42	0
54	MG	BA	3176	1/1	0.95	0.07	17,17,17,17	0
54	MG	BA	3086	1/1	0.95	0.14	10,10,10,10	0
54	MG	DA	3015	1/1	0.95	0.08	46,46,46,46	0
54	MG	CA	1634	1/1	0.95	0.10	50,50,50,50	0
54	MG	BA	3078	1/1	0.95	0.10	21,21,21,21	0
54	MG	CA	1640	1/1	0.95	0.11	31,31,31,31	0
54	MG	CA	1607	1/1	0.95	0.09	56,56,56,56	0
54	MG	BA	3049	1/1	0.95	0.07	11,11,11,11	0
54	MG	AA	1655	1/1	0.95	0.15	37,37,37,37	0
54	MG	BA	3090	1/1	0.95	0.07	3,3,3,3	0
54	MG	BA	3131	1/1	0.95	0.18	2,2,2,2	0
54	MG	BA	3182	1/1	0.95	0.15	21,21,21,21	0
54	MG	BA	3164	1/1	0.95	0.29	15,15,15,15	0
54	MG	DA	3140	1/1	0.95	0.34	34,34,34,34	0
54	MG	BA	3169	1/1	0.95	0.10	24,24,24,24	0
54	MG	DA	3098	1/1	0.95	0.19	71,71,71,71	0
54	MG	BA	3163	1/1	0.95	0.16	29,29,29,29	0
54	MG	BA	3113	1/1	0.95	0.13	14,14,14,14	0
54	MG	AA	1603	1/1	0.95	0.16	49,49,49,49	0
54	MG	AA	1625	1/1	0.95	0.16	19,19,19,19	0
54	MG	BA	3188	1/1	0.95	0.12	6,6,6,6	0
54	MG	BA	3162	1/1	0.95	0.12	32,32,32,32	0
54	MG	BB	202	1/1	0.95	0.07	8,8,8,8	0
54	MG	CA	1643	1/1	0.96	0.19	56,56,56,56	0
54	MG	DA	3166	1/1	0.96	0.33	37,37,37,37	0
54	MG	CA	1652	1/1	0.96	0.07	65,65,65,65	0
54	MG	DA	3022	1/1	0.96	0.19	56,56,56,56	0
54	MG	DA	3021	1/1	0.96	0.19	56,56,56,56	0
54	MG	DA	3023	1/1	0.96	0.08	50,50,50,50	0
54	MG	DA	3151	1/1	0.96	0.08	45,45,45,45	0
54	MG	AA	1627	1/1	0.96	0.07	39,39,39,39	0
54	MG	BA	3061	1/1	0.96	0.41	48,48,48,48	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BA	3143	1/1	0.96	0.33	15,15,15,15	0
54	MG	BA	3069	1/1	0.96	0.15	7,7,7,7	0
54	MG	BA	3180	1/1	0.96	0.13	31,31,31,31	0
54	MG	BA	3040	1/1	0.96	0.15	0,0,0,0	0
54	MG	AA	1653	1/1	0.96	0.18	21,21,21,21	0
54	MG	AA	1621	1/1	0.96	0.21	16,16,16,16	0
54	MG	BA	3146	1/1	0.96	0.19	6,6,6,6	0
54	MG	CA	1620	1/1	0.96	0.05	59,59,59,59	0
54	MG	BA	3022	1/1	0.96	0.17	1,1,1,1	0
54	MG	BA	3042	1/1	0.96	0.16	11,11,11,11	0
54	MG	BA	3033	1/1	0.96	0.15	6,6,6,6	0
54	MG	BA	3098	1/1	0.96	0.10	3,3,3,3	0
54	MG	CA	1613	1/1	0.96	0.16	15,15,15,15	0
54	MG	BA	3153	1/1	0.96	0.25	6,6,6,6	0
54	MG	BA	3158	1/1	0.96	0.15	16,16,16,16	0
54	MG	BA	3006	1/1	0.96	0.08	47,47,47,47	0
54	MG	BA	3108	1/1	0.96	0.15	9,9,9,9	0
54	MG	BA	3172	1/1	0.96	0.09	26,26,26,26	0
54	MG	BA	3121	1/1	0.96	0.09	4,4,4,4	0
54	MG	BA	3181	1/1	0.96	0.20	31,31,31,31	0
54	MG	BA	3152	1/1	0.96	0.10	14,14,14,14	0
54	MG	CA	1616	1/1	0.96	0.14	34,34,34,34	0
54	MG	BA	3021	1/1	0.96	0.07	9,9,9,9	0
54	MG	BA	3106	1/1	0.96	0.18	0,0,0,0	0
54	MG	BA	3140	1/1	0.96	0.35	1,1,1,1	0
54	MG	BA	3051	1/1	0.96	0.12	4,4,4,4	0
54	MG	BA	3072	1/1	0.96	0.06	13,13,13,13	0
54	MG	DA	3052	1/1	0.96	0.07	35,35,35,35	0
54	MG	AA	1654	1/1	0.96	0.21	42,42,42,42	0
54	MG	BA	3091	1/1	0.96	0.11	21,21,21,21	0
54	MG	BA	3156	1/1	0.96	0.17	21,21,21,21	0
54	MG	BA	3070	1/1	0.96	0.15	59,59,59,59	0
54	MG	BA	3110	1/1	0.96	0.20	2,2,2,2	0
54	MG	BA	3025	1/1	0.96	0.12	3,3,3,3	0
55	VIR	BA	3001	38/38	0.97	0.23	3,15,28,31	0
54	MG	AA	1642	1/1	0.97	0.06	23,23,23,23	0
54	MG	BA	3066	1/1	0.97	0.08	3,3,3,3	0
54	MG	BA	3161	1/1	0.97	0.09	11,11,11,11	0
54	MG	BA	3065	1/1	0.97	0.14	0,0,0,0	0
54	MG	DA	3130	1/1	0.97	0.18	37,37,37,37	0
54	MG	AA	1662	1/1	0.97	0.25	51,51,51,51	0
54	MG	BA	3175	1/1	0.97	0.11	20,20,20,20	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BA	3007	1/1	0.97	0.08	17,17,17,17	0
54	MG	BA	3057	1/1	0.97	0.12	6,6,6,6	0
54	MG	CA	1612	1/1	0.97	0.07	43,43,43,43	0
54	MG	BA	3023	1/1	0.97	0.14	2,2,2,2	0
54	MG	AA	1615	1/1	0.97	0.04	63,63,63,63	0
54	MG	BA	3186	1/1	0.97	0.09	23,23,23,23	0
54	MG	BA	3030	1/1	0.97	0.12	14,14,14,14	0
54	MG	DA	3077	1/1	0.97	0.11	62,62,62,62	0
54	MG	BA	3126	1/1	0.97	0.16	1,1,1,1	0
54	MG	BA	3117	1/1	0.97	0.14	2,2,2,2	0
54	MG	AA	1617	1/1	0.97	0.09	33,33,33,33	0
54	MG	BA	3128	1/1	0.97	0.07	9,9,9,9	0
54	MG	BA	3112	1/1	0.97	0.10	7,7,7,7	0
54	MG	BA	3142	1/1	0.97	0.35	0,0,0,0	0
54	MG	AA	1624	1/1	0.97	0.07	32,32,32,32	0
54	MG	DA	3143	1/1	0.97	0.10	32,32,32,32	0
54	MG	BA	3094	1/1	0.97	0.08	21,21,21,21	0
54	MG	AA	1608	1/1	0.97	0.13	18,18,18,18	0
54	MG	BA	3170	1/1	0.97	0.07	23,23,23,23	0
54	MG	BA	3067	1/1	0.97	0.13	1,1,1,1	0
54	MG	AA	1641	1/1	0.97	0.15	22,22,22,22	0
54	MG	AA	1606	1/1	0.97	0.12	35,35,35,35	0
54	MG	BA	3046	1/1	0.97	0.08	5,5,5,5	0
54	MG	BA	3165	1/1	0.97	0.17	2,2,2,2	0
54	MG	AA	1633	1/1	0.97	0.14	38,38,38,38	0
54	MG	BA	3129	1/1	0.98	0.16	3,3,3,3	0
54	MG	BA	3179	1/1	0.98	0.10	37,37,37,37	0
54	MG	BA	3010	1/1	0.98	0.10	0,0,0,0	0
54	MG	BA	3039	1/1	0.98	0.15	0,0,0,0	0
54	MG	BA	3050	1/1	0.98	0.18	4,4,4,4	0
54	MG	DA	3035	1/1	0.98	0.06	43,43,43,43	0
54	MG	AA	1613	1/1	0.98	0.06	26,26,26,26	0
54	MG	BA	3068	1/1	0.98	0.21	0,0,0,0	0
54	MG	DA	3123	1/1	0.98	0.17	38,38,38,38	0
54	MG	BA	3138	1/1	0.98	0.43	7,7,7,7	0
54	MG	BA	3027	1/1	0.98	0.10	3,3,3,3	0
54	MG	BA	3013	1/1	0.98	0.16	0,0,0,0	0
54	MG	BA	3184	1/1	0.98	0.21	11,11,11,11	0
54	MG	BA	3130	1/1	0.98	0.14	0,0,0,0	0
54	MG	BA	3183	1/1	0.98	0.18	26,26,26,26	0
54	MG	AA	1645	1/1	0.98	0.19	58,58,58,58	0
54	MG	BB	204	1/1	0.98	0.33	6,6,6,6	0

Continued on next page...

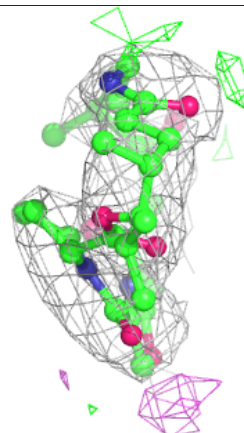
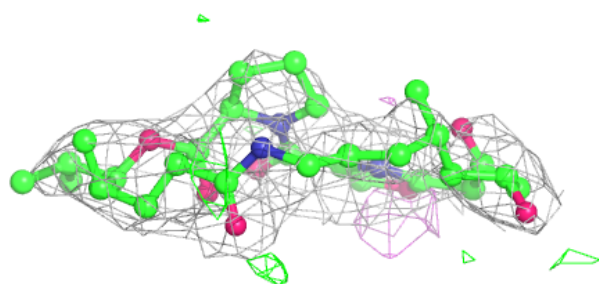
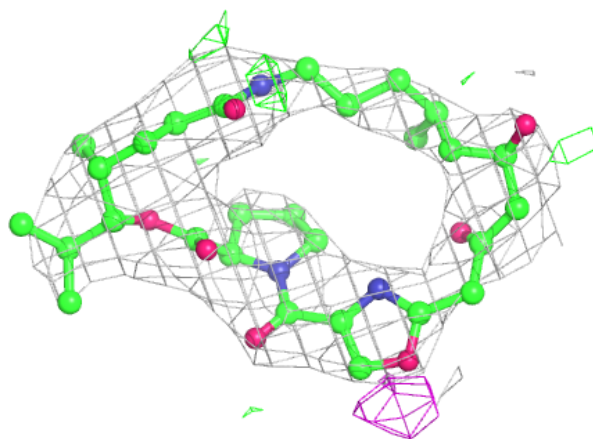
Continued from previous page...

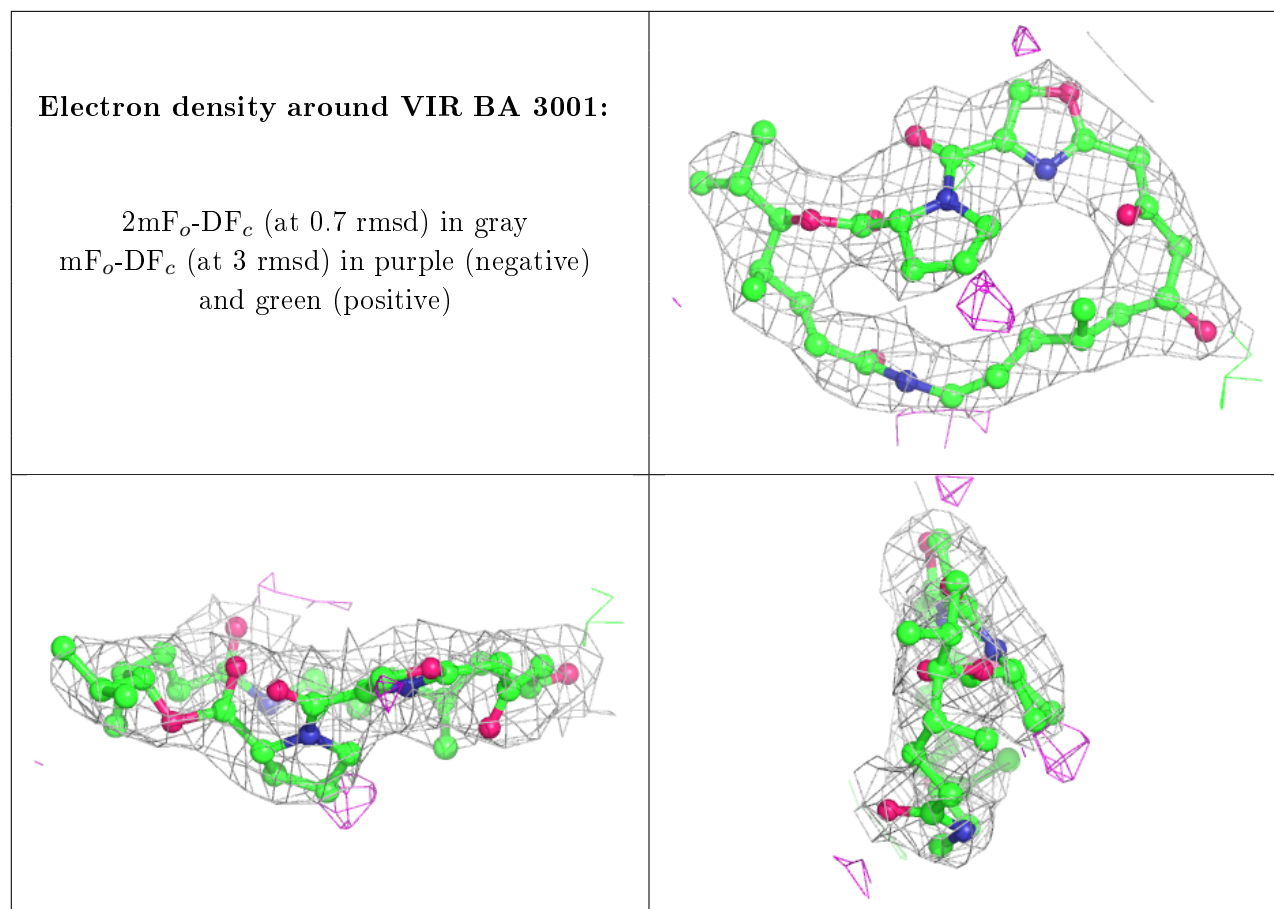
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BA	3073	1/1	0.98	0.12	2,2,2,2	0
54	MG	BA	3149	1/1	0.98	0.11	26,26,26,26	0
54	MG	BQ	201	1/1	0.98	0.17	0,0,0,0	0
54	MG	BA	3082	1/1	0.98	0.17	0,0,0,0	0
54	MG	BA	3118	1/1	0.98	0.10	5,5,5,5	0
54	MG	BA	3034	1/1	0.98	0.20	0,0,0,0	0
54	MG	BA	3097	1/1	0.98	0.12	2,2,2,2	0
54	MG	BA	3029	1/1	0.98	0.16	0,0,0,0	0
54	MG	BA	3194	1/1	0.98	0.06	28,28,28,28	0
54	MG	BA	3012	1/1	0.98	0.09	9,9,9,9	0
54	MG	BA	3035	1/1	0.98	0.34	44,44,44,44	0
54	MG	BA	3054	1/1	0.98	0.12	2,2,2,2	0
54	MG	BA	3139	1/1	0.98	0.41	3,3,3,3	0
54	MG	BA	3148	1/1	0.98	0.48	28,28,28,28	0
54	MG	BA	3019	1/1	0.98	0.11	15,15,15,15	0
54	MG	BA	3107	1/1	0.98	0.23	1,1,1,1	0
54	MG	BA	3087	1/1	0.98	0.17	2,2,2,2	0
54	MG	AA	1656	1/1	0.99	0.11	37,37,37,37	0
54	MG	BA	3144	1/1	0.99	0.18	12,12,12,12	0
54	MG	AA	1636	1/1	0.99	0.12	11,11,11,11	0
54	MG	BA	3064	1/1	0.99	0.16	1,1,1,1	0
54	MG	BA	3192	1/1	0.99	0.15	17,17,17,17	0
54	MG	BA	3036	1/1	0.99	0.11	2,2,2,2	0
54	MG	BA	3071	1/1	0.99	0.08	6,6,6,6	0
54	MG	AA	1647	1/1	0.99	0.08	54,54,54,54	0
54	MG	BA	3011	1/1	0.99	0.12	0,0,0,0	0
54	MG	BA	3052	1/1	0.99	0.12	8,8,8,8	0
54	MG	BA	3185	1/1	0.99	0.20	13,13,13,13	0
54	MG	AA	1611	1/1	0.99	0.11	12,12,12,12	0
56	ZN	B4	101	1/1	0.99	0.12	29,29,29,29	0
56	ZN	D4	101	1/1	0.99	0.10	84,84,84,84	0
54	MG	BA	3105	1/1	0.99	0.21	0,0,0,0	0
54	MG	BA	3038	1/1	0.99	0.19	0,0,0,0	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around VIR DA 3001:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





6.5 Other polymers ⓘ

There are no such residues in this entry.