



Full wwPDB X-ray Structure Validation Report ⓘ

May 21, 2020 – 11:55 pm BST

PDB ID : 4U20
Title : Crystal structure of the E. coli ribosome bound to flopristin.
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

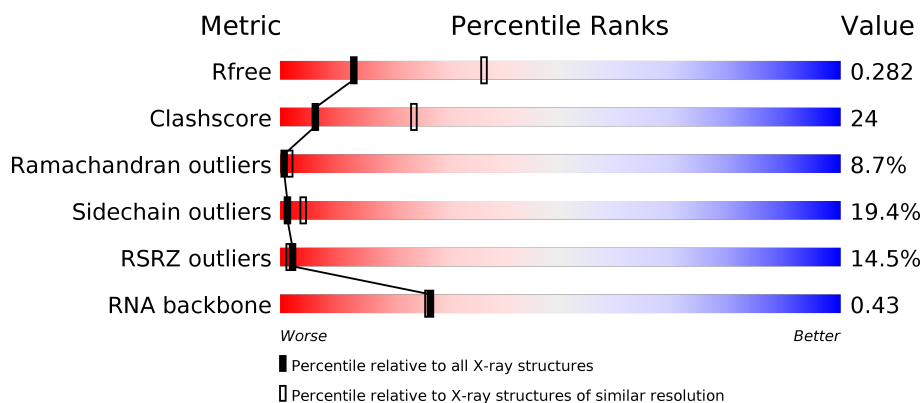
1 Overall quality at a glance

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>3%</div> <div>30% 52% 17%</div> </div>
1	CA	1539	<div> <div>5%</div> <div>31% 53% 16%</div> </div>
2	AB	218	<div> <div>19%</div> <div>16% 46% 30% 7%</div> </div>
2	CB	218	<div> <div>29%</div> <div>24% 48% 25%</div> </div>

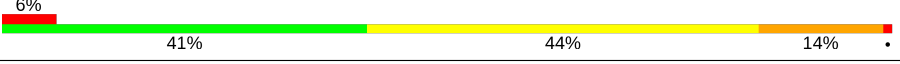
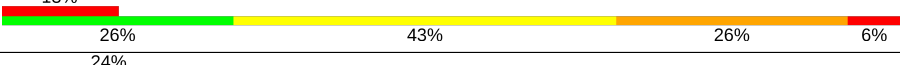

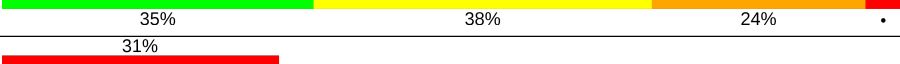
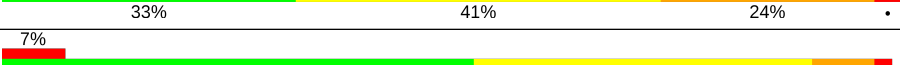
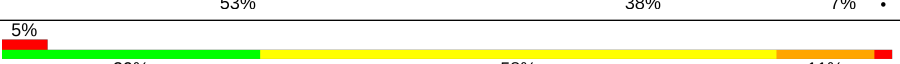



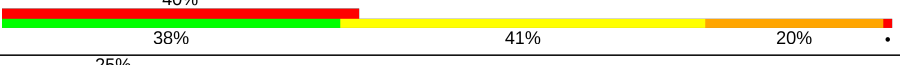
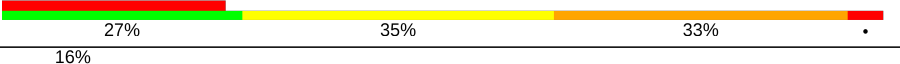
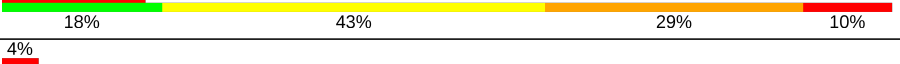
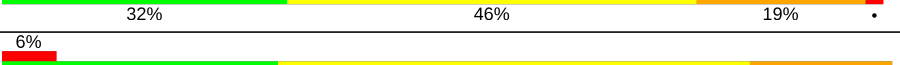

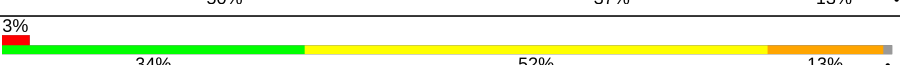










Continued on next page...

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	<div> <div>82%</div> <div> <div></div> <div>45%</div> <div>29%</div> <div>9%</div> <div>16%</div> </div> </div>

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	1645	-	-	-	X
54	MG	AA	1658	-	-	-	X
54	MG	BA	3193	-	-	-	X
54	MG	CA	1641	-	-	-	X
54	MG	DA	3005	-	-	-	X
54	MG	DA	3008	-	-	-	X
54	MG	DA	3027	-	-	-	X
54	MG	DA	3073	-	-	-	X
54	MG	DA	3093	-	-	-	X
54	MG	DA	3100	-	-	-	X
54	MG	DA	3120	-	-	-	X
54	MG	DA	3125	-	-	-	X
54	MG	DA	3132	-	-	-	X
54	MG	DA	3134	-	-	-	X
54	MG	DA	3144	-	-	-	X
54	MG	DA	3154	-	-	-	X
56	ZN	B4	101	-	-	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			

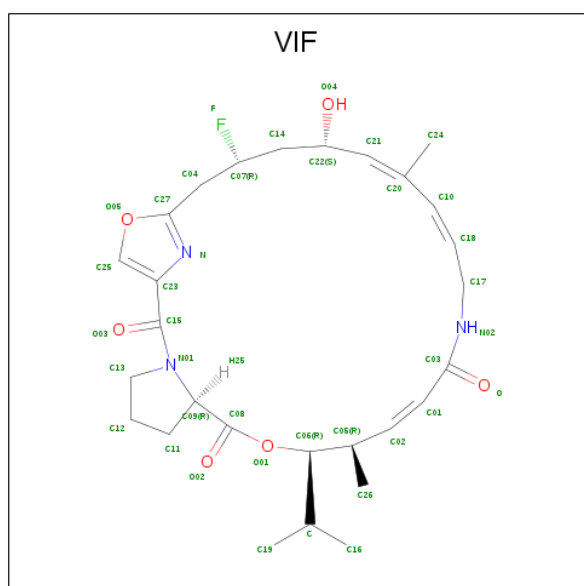
- Molecule 53 is a protein called 50S ribosomal protein L1.

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	194	Total	Mg	0	0
			194	194		
54	BN	1	Total	Mg	0	0
			1	1		
54	DQ	1	Total	Mg	0	0
			1	1		
54	CM	1	Total	Mg	0	0
			1	1		
54	D2	1	Total	Mg	0	0
			1	1		
54	AA	72	Total	Mg	0	0
			72	72		
54	DA	166	Total	Mg	0	0
			166	166		
54	DB	3	Total	Mg	0	0
			3	3		
54	CA	55	Total	Mg	0	0
			55	55		

- Molecule 55 is Flopristin (three-letter code: VIF) (formula: C₂₈H₃₈FN₃O₆).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
55	BA	1	Total	C	F	N	O	0	0
			38	28	1	3	6		
55	DA	1	Total	C	F	N	O	0	0
			38	28	1	3	6		

- 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	195	Total	O	0	0
			195	195		
57	AL	1	Total	O	0	0
			1	1		
57	AN	5	Total	O	0	0
			5	5		
57	AT	1	Total	O	0	0
			1	1		
57	AU	1	Total	O	0	0
			1	1		
57	BA	620	Total	O	0	0
			620	620		
57	BB	13	Total	O	0	0
			13	13		
57	BC	6	Total	O	0	0
			6	6		
57	BD	3	Total	O	0	0
			3	3		
57	BE	4	Total	O	0	0
			4	4		
57	BF	1	Total	O	0	0
			1	1		
57	BG	1	Total	O	0	0
			1	1		
57	BL	8	Total	O	0	0
			8	8		
57	BN	4	Total	O	0	0
			4	4		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	BS	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	1	Total 1	O 1	0	0
57	CA	189	Total 189	O 189	0	0
57	CL	1	Total 1	O 1	0	0
57	CN	3	Total 3	O 3	0	0
57	CT	4	Total 4	O 4	0	0
57	CU	1	Total 1	O 1	0	0
57	DA	613	Total 613	O 613	0	0
57	DB	13	Total 13	O 13	0	0
57	DC	9	Total 9	O 9	0	0
57	DD	4	Total 4	O 4	0	0
57	DE	2	Total 2	O 2	0	0
57	DJ	1	Total 1	O 1	0	0
57	DL	3	Total 3	O 3	0	0
57	DN	1	Total 1	O 1	0	0
57	DT	2	Total 2	O 2	0	0
57	DV	1	Total 1	O 1	0	0
57	D0	1	Total 1	O 1	0	0

Continued on next page...

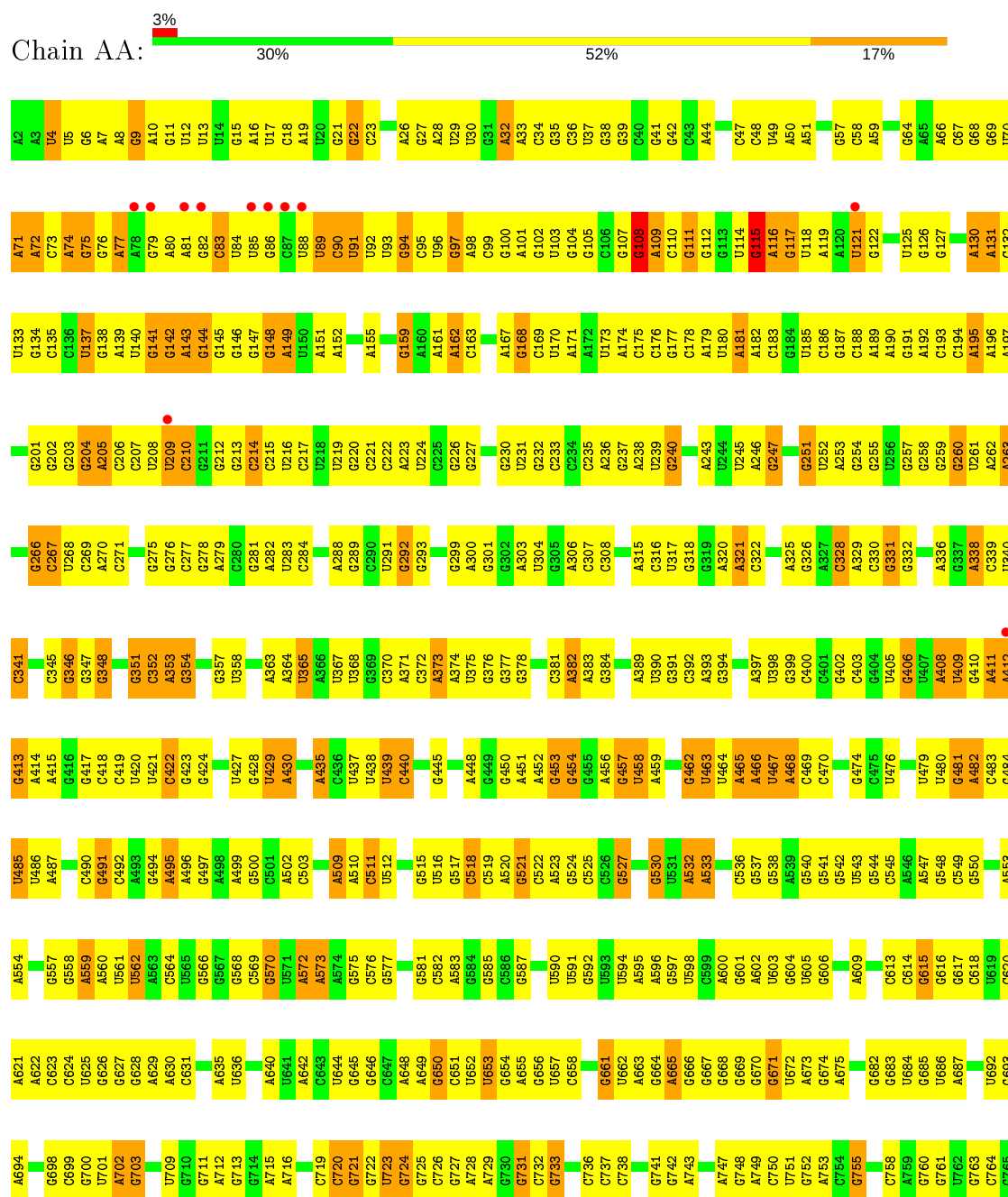
Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	D2	3	Total 3	O 3	0	0
57	D3	2	Total 2	O 2	0	0
57	D4	1	Total 1	O 1	0	0

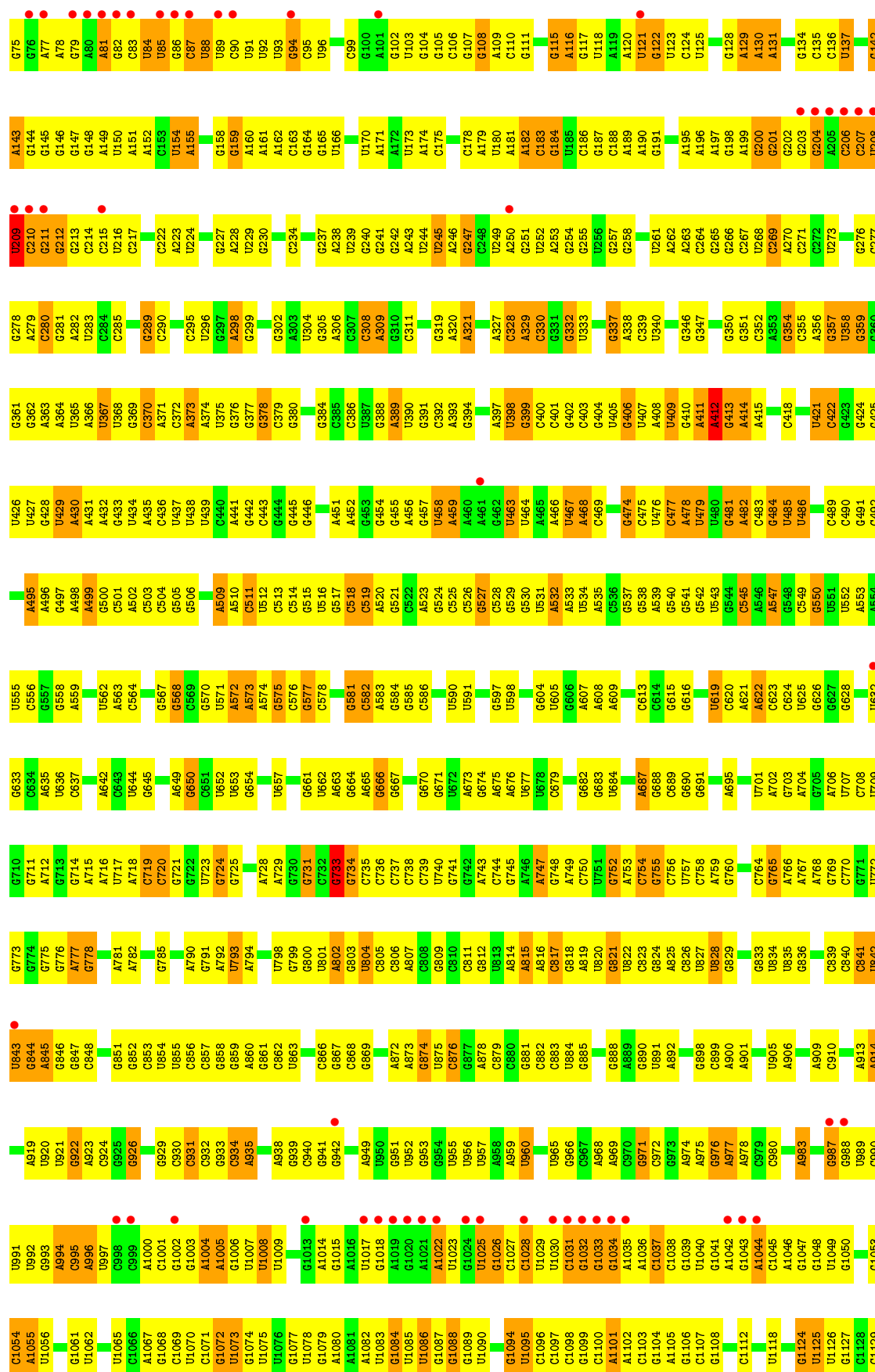
3 Residue-property plots

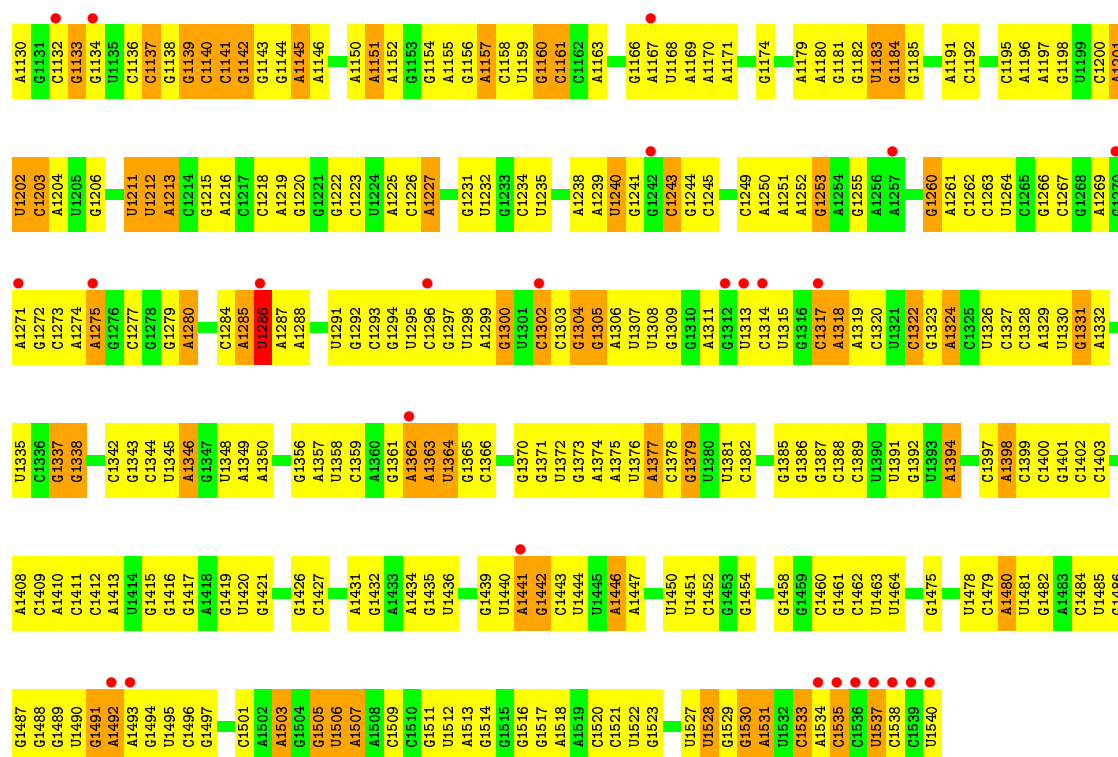
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are 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

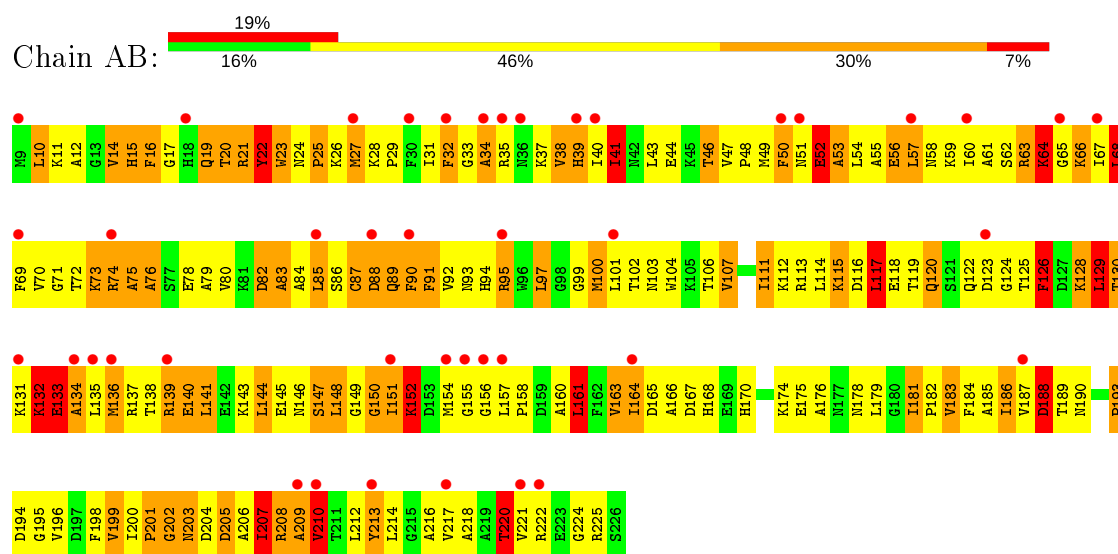


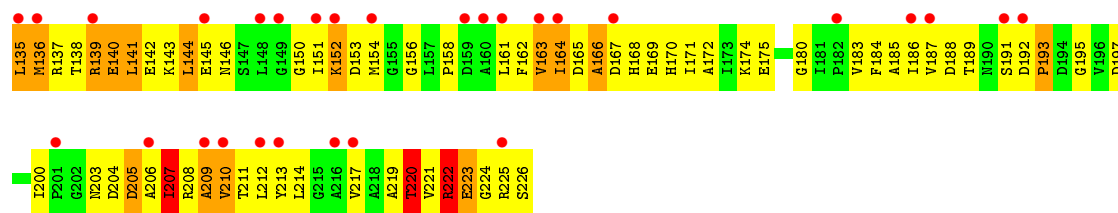




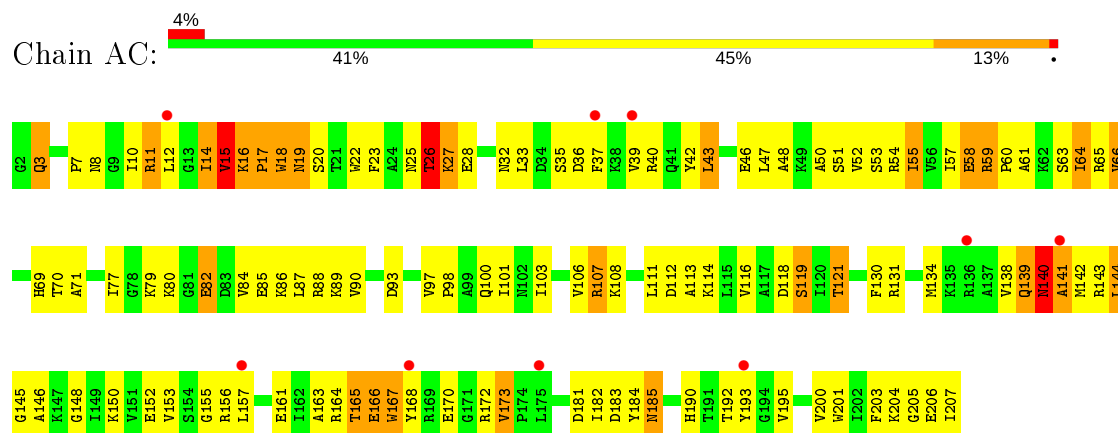


• Molecule 2: 30S ribosomal protein S2

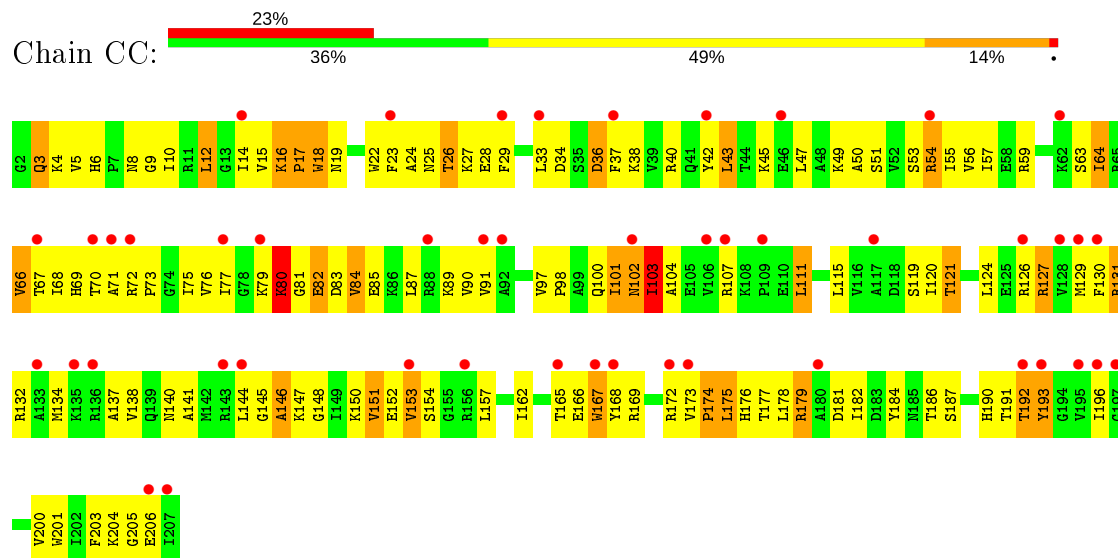




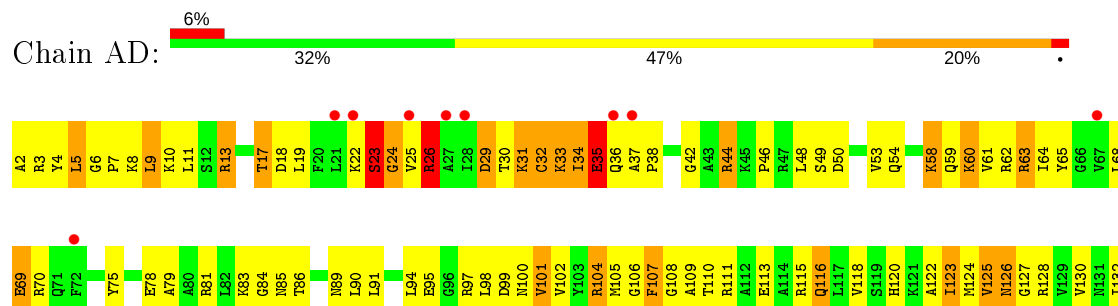
• Molecule 3: 30S ribosomal protein S3

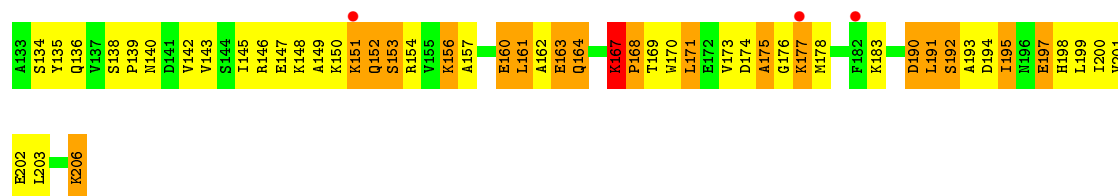


• Molecule 3: 30S ribosomal protein S3

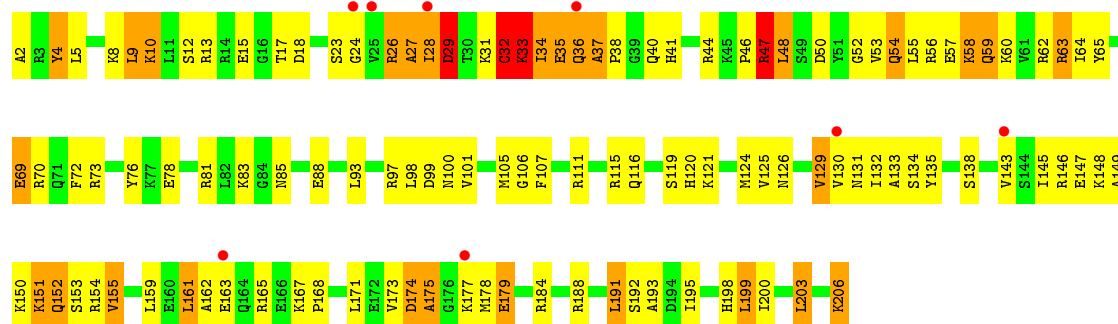
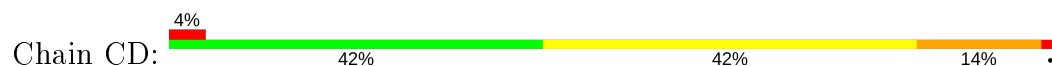


• Molecule 4: 30S ribosomal protein S4

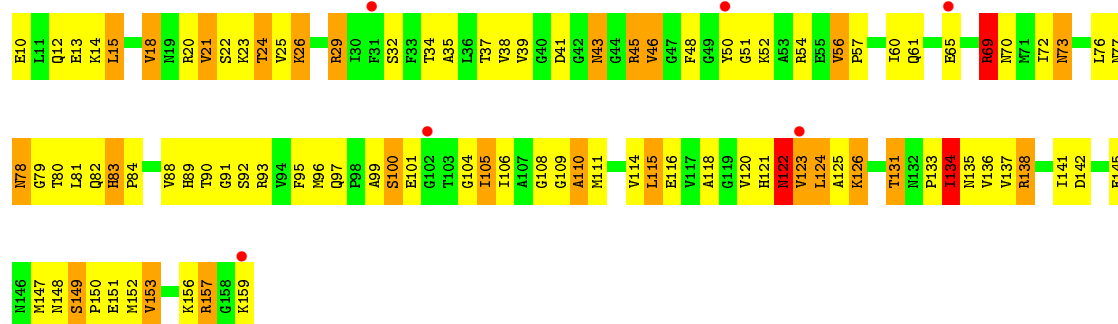




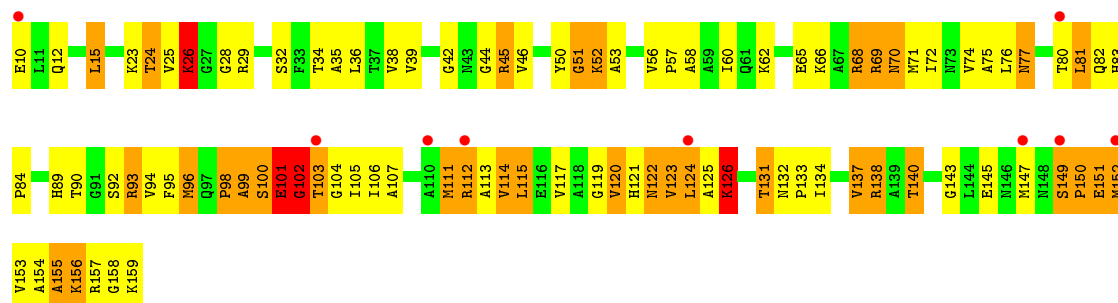
• Molecule 4: 30S ribosomal protein S4



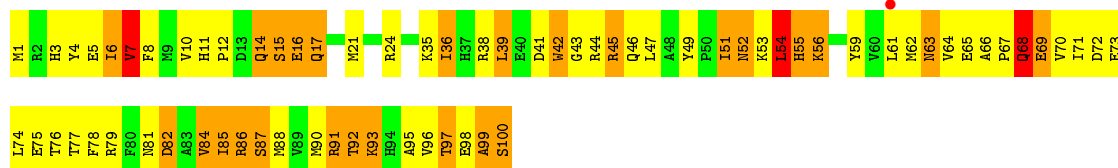
• Molecule 5: 30S ribosomal protein S5



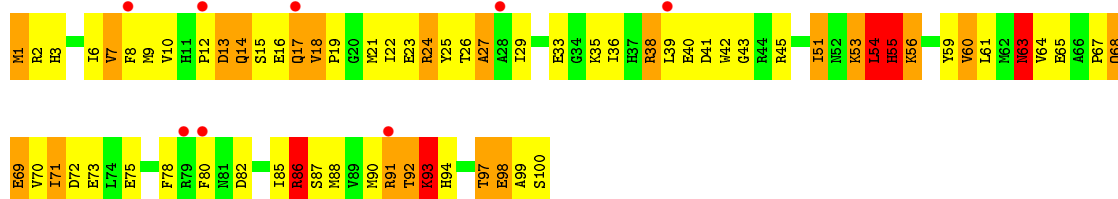
• Molecule 5: 30S ribosomal protein S5



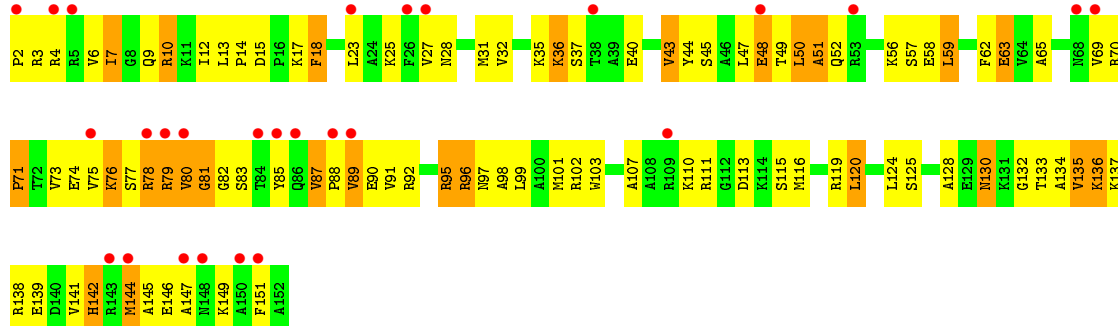
• Molecule 6: 30S ribosomal protein S6



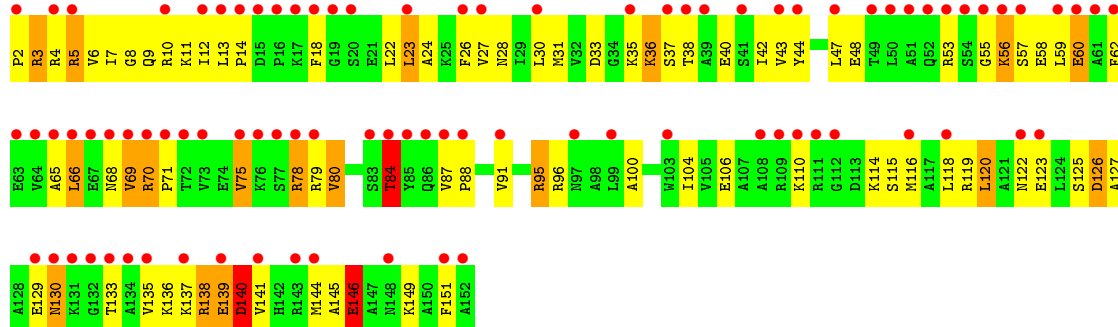
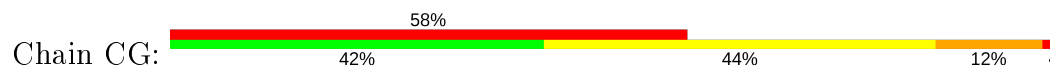
• Molecule 6: 30S ribosomal protein S6



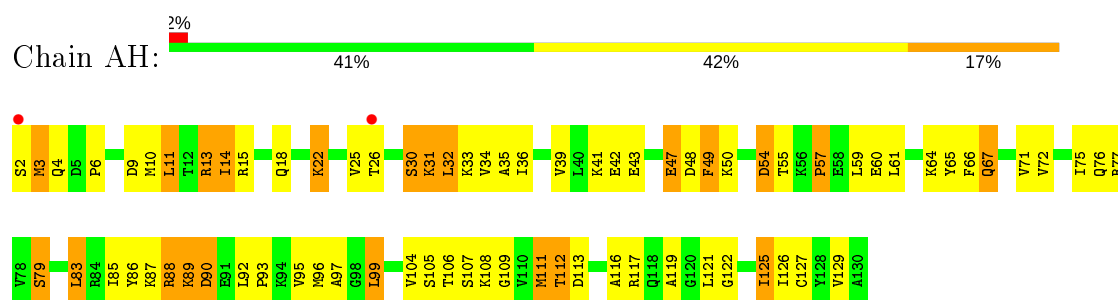
• Molecule 7: 30S ribosomal protein S7



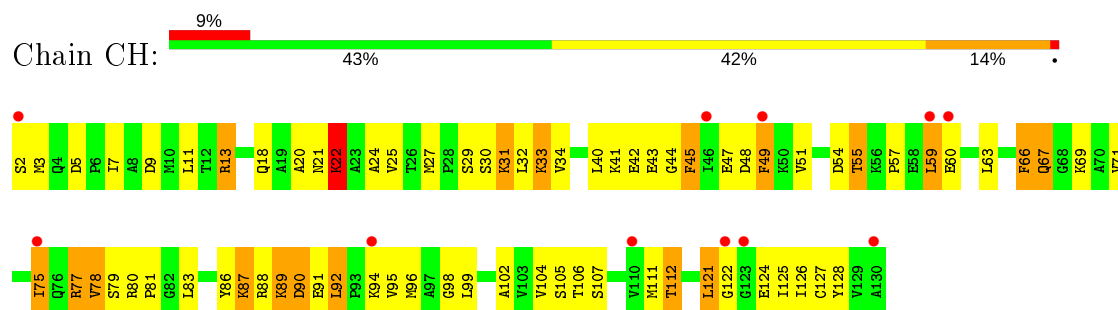
• Molecule 7: 30S ribosomal protein S7



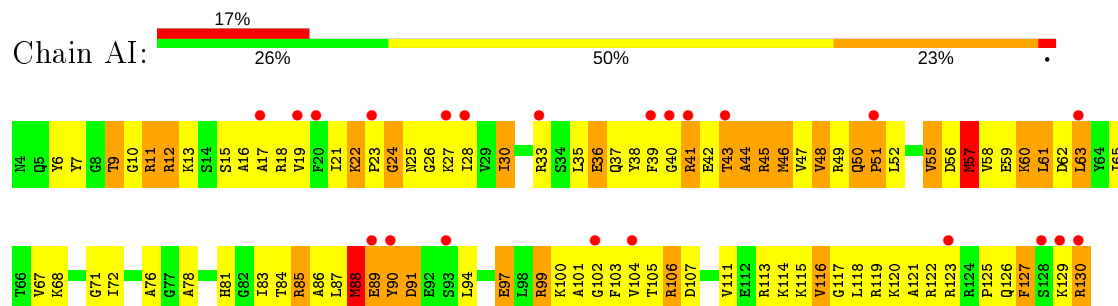
• Molecule 8: 30S ribosomal protein S8



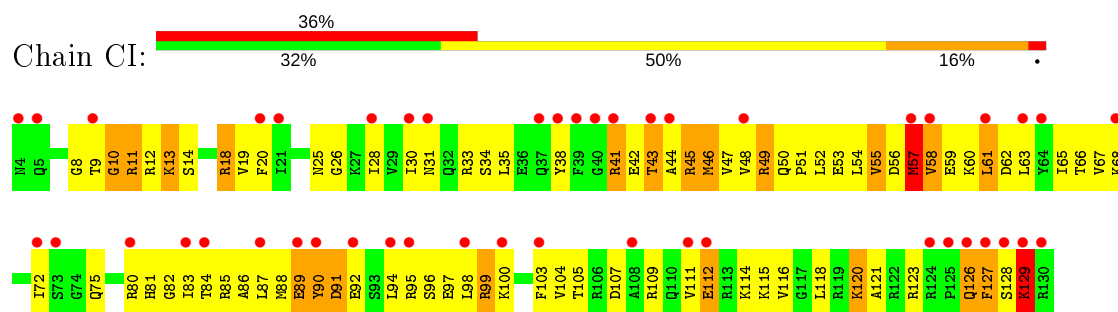
- Molecule 8: 30S ribosomal protein S8



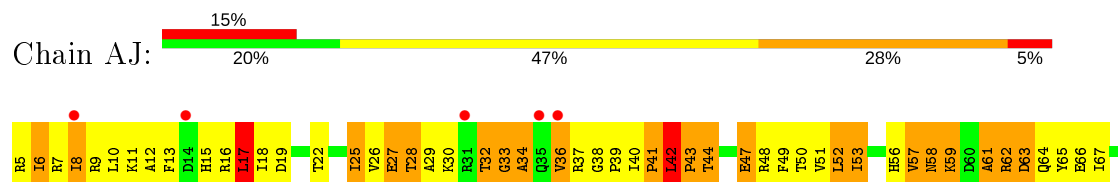
- Molecule 9: 30S ribosomal protein S9

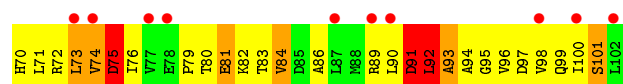


- Molecule 9: 30S ribosomal protein S9

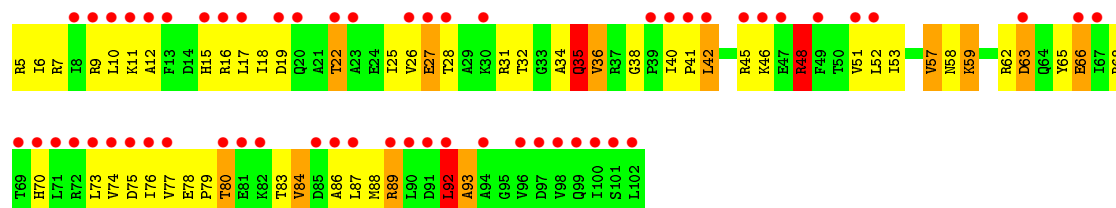


- Molecule 10: 30S ribosomal protein S10

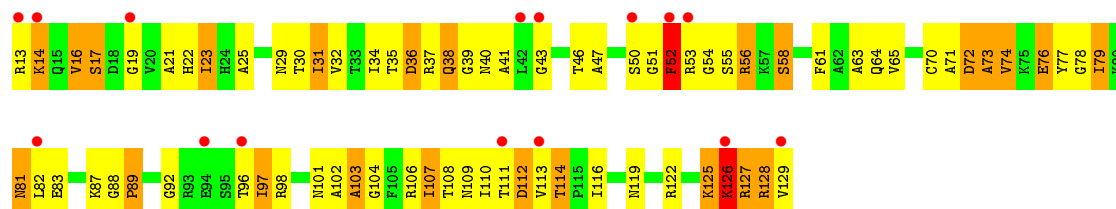




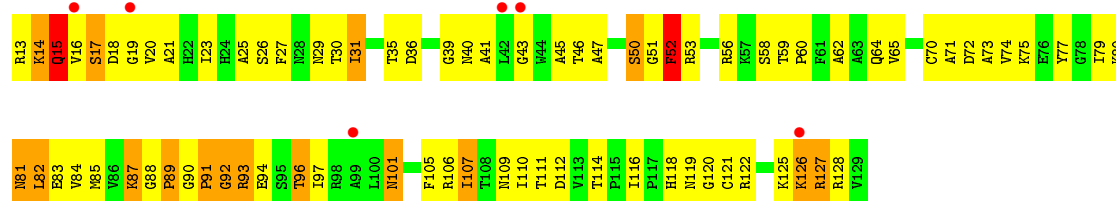
- Molecule 10: 30S ribosomal protein S10



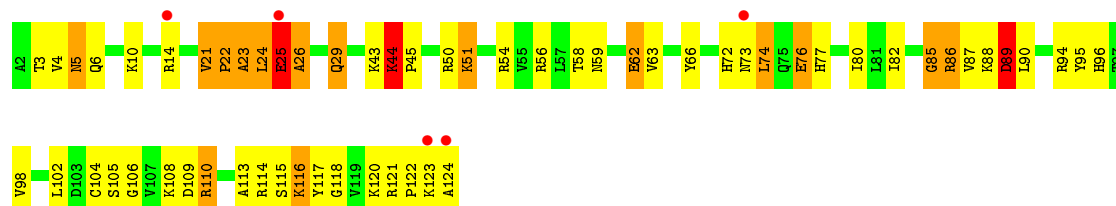
- Molecule 11: 30S ribosomal protein S11



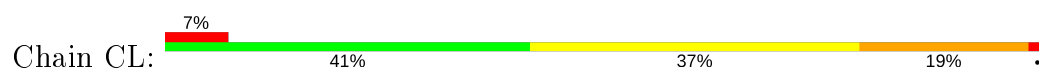
- Molecule 11: 30S ribosomal protein S11

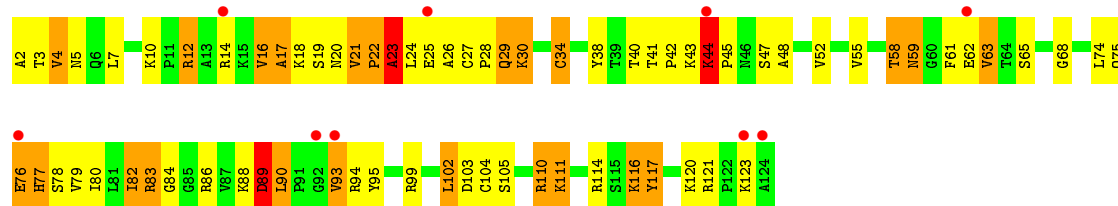


- Molecule 12: 30S ribosomal protein S12

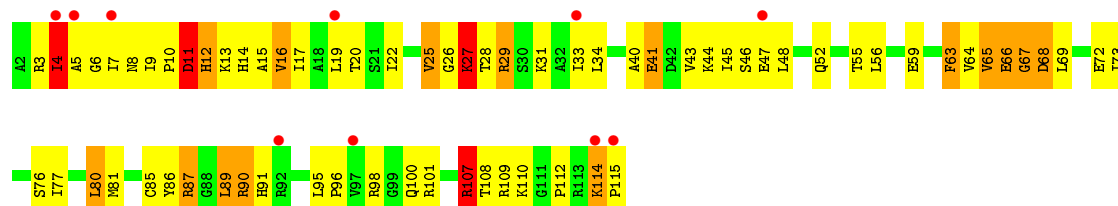


- Molecule 12: 30S ribosomal protein S12

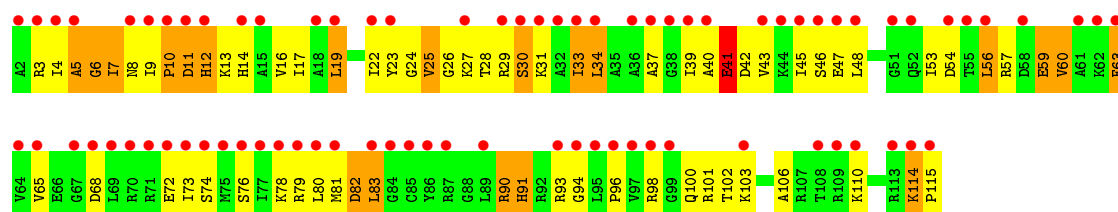
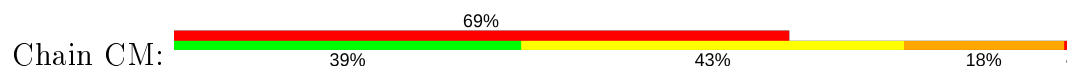




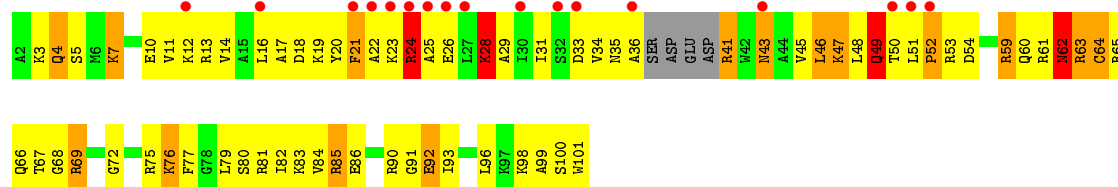
• Molecule 13: 30S ribosomal protein S13



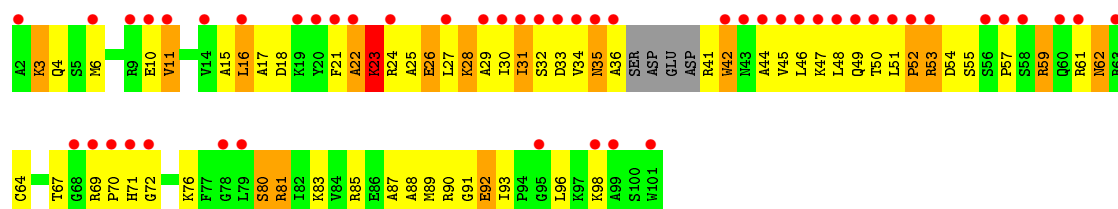
• Molecule 13: 30S ribosomal protein S13



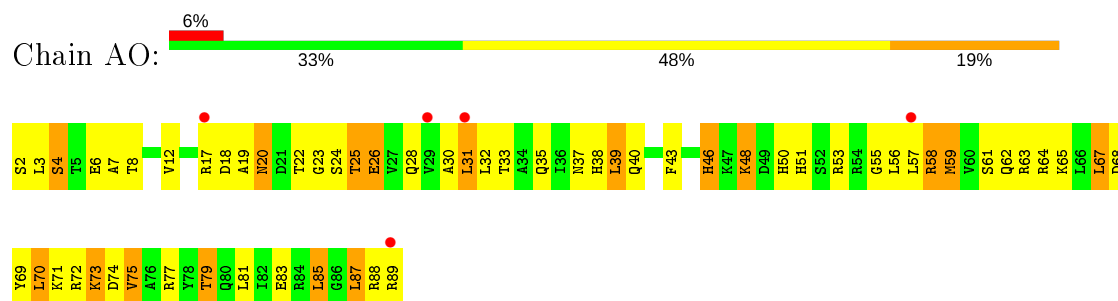
• Molecule 14: 30S ribosomal protein S14



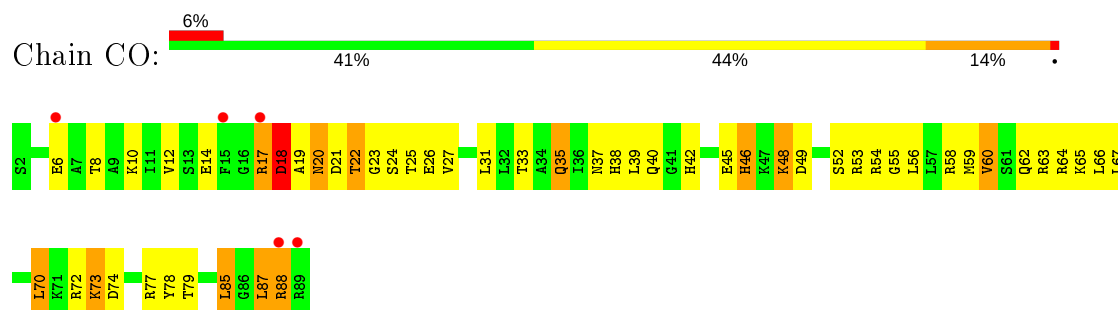
• Molecule 14: 30S ribosomal protein S14



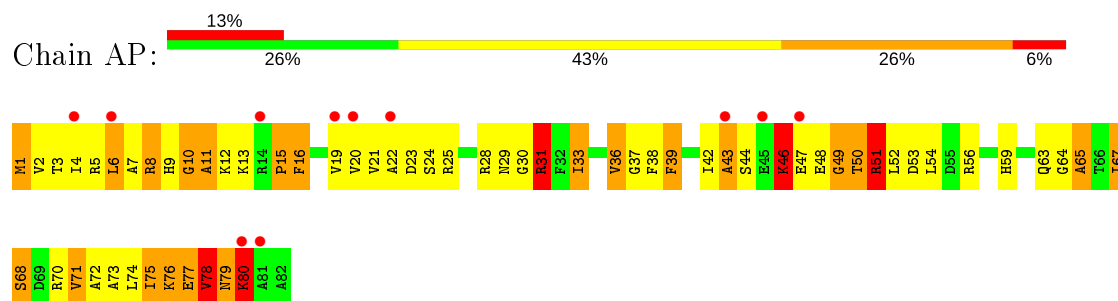
- Molecule 15: 30S ribosomal protein S15



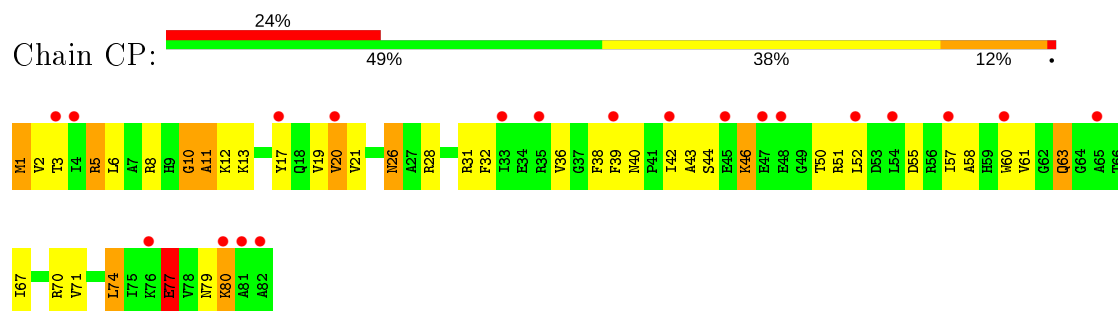
- Molecule 15: 30S ribosomal protein S15



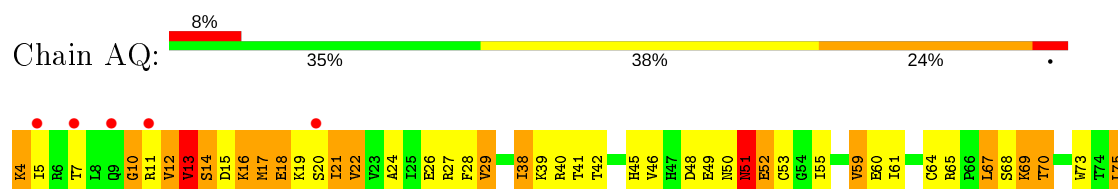
- Molecule 16: 30S ribosomal protein S16

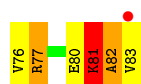


- Molecule 16: 30S ribosomal protein S16

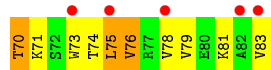
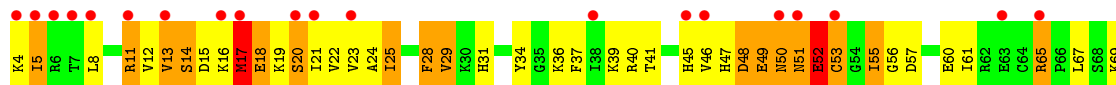


- Molecule 17: 30S ribosomal protein S17

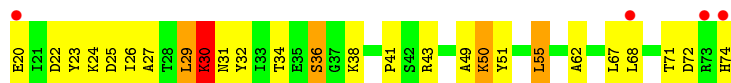




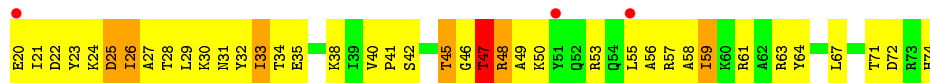
- Molecule 17: 30S ribosomal protein S17



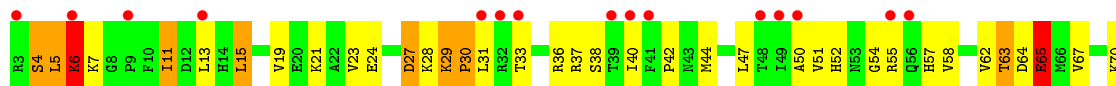
- Molecule 18: 30S ribosomal protein S18



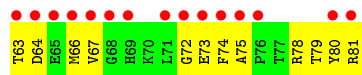
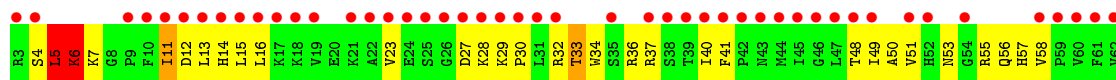
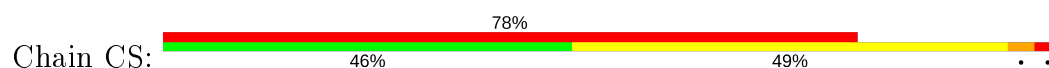
- Molecule 18: 30S ribosomal protein S18



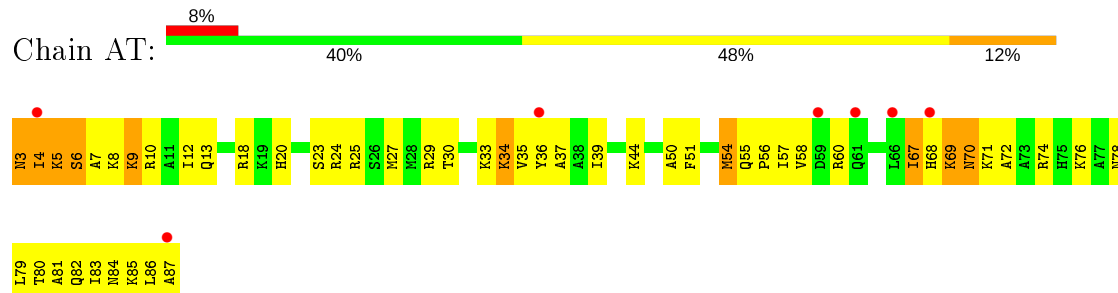
- Molecule 19: 30S ribosomal protein S19



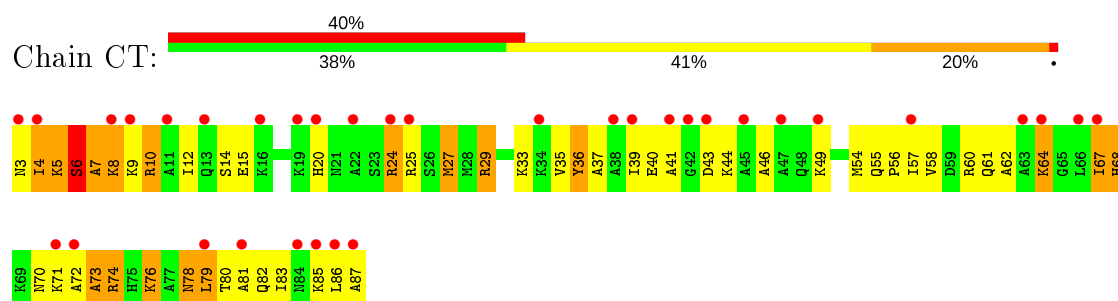
- Molecule 19: 30S ribosomal protein S19



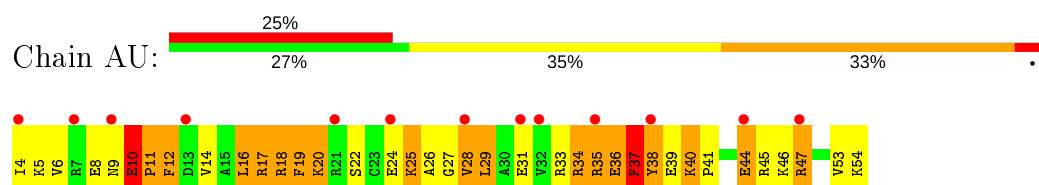
- Molecule 20: 30S ribosomal protein S20



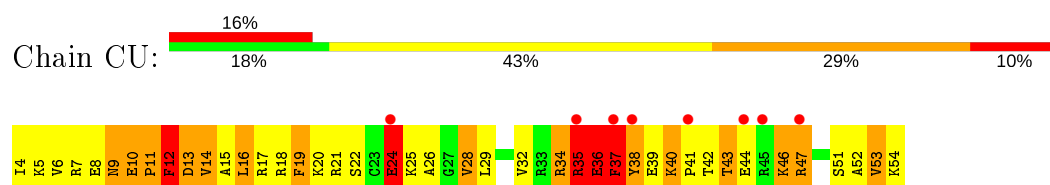
- Molecule 20: 30S ribosomal protein S20



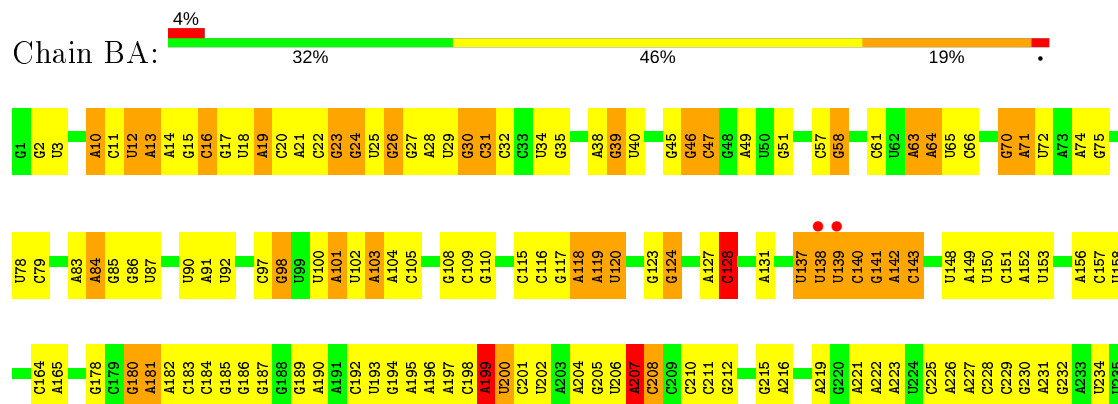
- Molecule 21: 30S ribosomal protein S21



- Molecule 21: 30S ribosomal protein S21

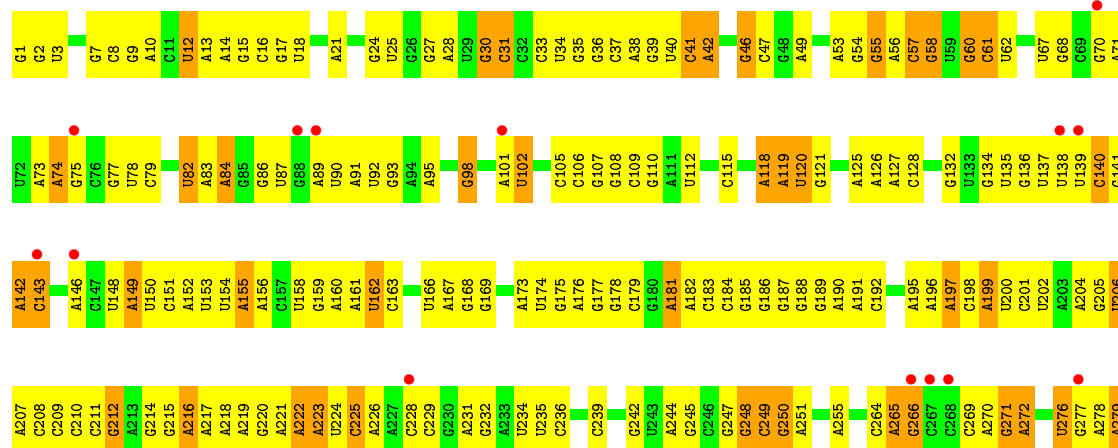
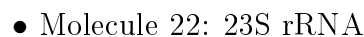


- Molecule 22: 23S rRNA



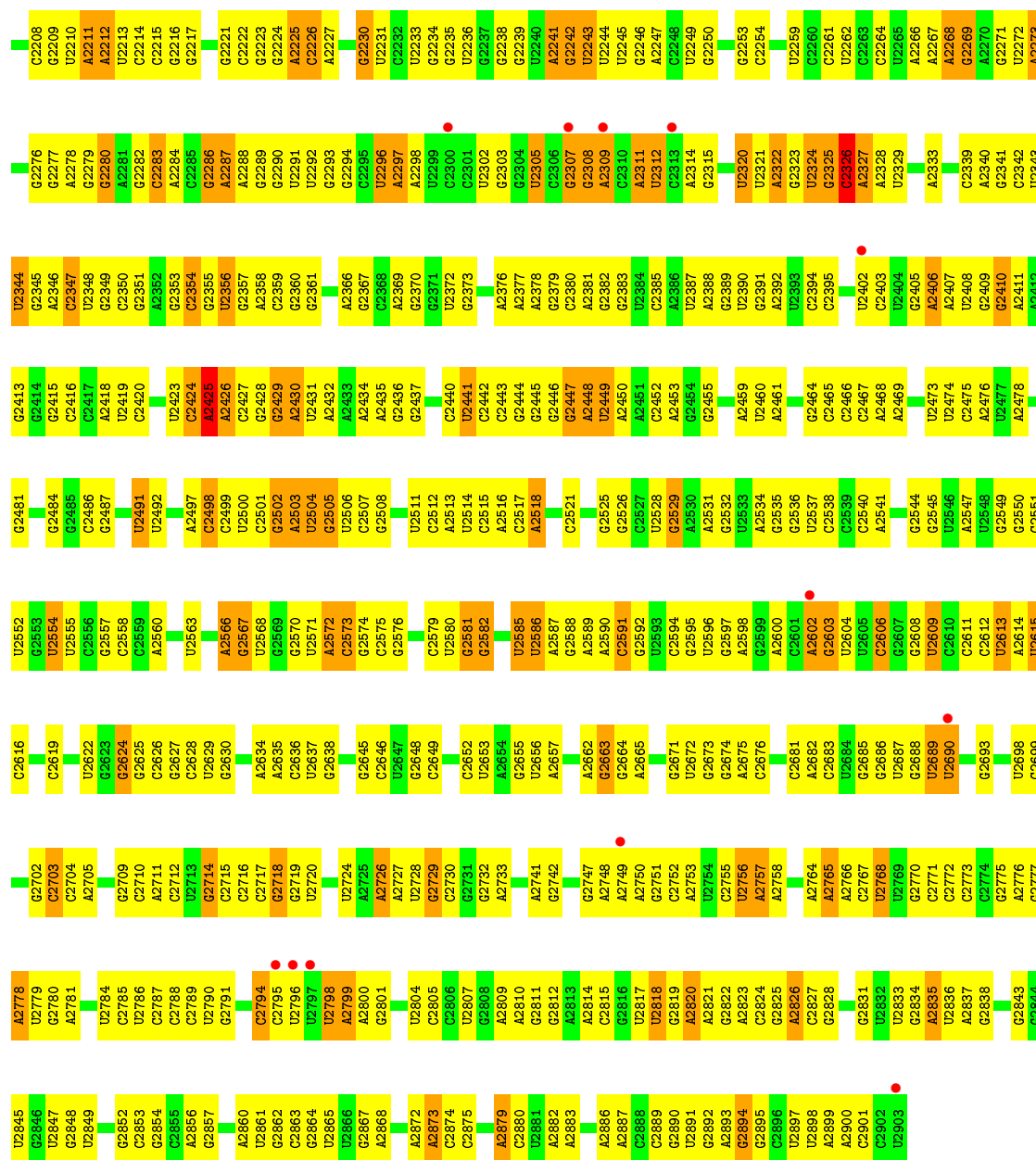


G2221	U2155	A2095	G2027	C1961	A1899	C1830	G1763	U1680	A1614	C1533	U1460	A1383	G1317
A2225	G2156	C2096	U2028	C1962	A1900	G1831	C1764	G1681	A1615	U1534	U1461	A1384	U1318
C2226	A2158	A2097	G2029	U1963	A1901	C1832	G1767	U1682	C1616	A1535	C1461	A1385	C1319
A2227	U2098	G1964	A2030	G1965	A1902	C1833	G1768	U1683	A1617	C1536	U1466	A1386	C1320
G2228	G2159	C2097	A2031	C1966	G1903	C1837	U1769	C1686	C1618	G1537	G1464	A1387	A1321
U2229	G2160	G2100	G2032	C1967	G1904	C1838	C1770	U1687	G1619	G1538	U1466	A1392	A1322
	C2161	A2101	A2033	C1968	C1905	C1839	C1771	U1688	G1622	G1546	U1467	A1393	G1323
	G2162	G2102	G2034	A1969	G1906	G1840	A1772	U1689	G1623	C1547	U1468	U1394	G1324
	A2163	C2103	U2035	G1970	G1907	U1841	A1773	U1692	A1624	A1548	A1469	U1395	U1325
	U2164	C2104	G2036	U1970	C1908	U1842	C1774	U1693	U1624	A1549	A1470	A1395	A1326
	C2165	U2105	A2037	U1971	C1909	C1843	U1775	U1694	G1625	C1550	U1474	A1403	U1328
	U2166	G2106	G2038	G1972	G1910	C1844	G1776	C1694	A1626	A1404	U1474	A1404	U1329
	G2167	U2107	U2039	G1973	U1911	C1845	U1777	U1695	G1627	U1405	U1475	U1405	G1330
	G2168	A2108	G2040	C1974	A1912	G1846	U1778	U1696	G1628	A1406	U1476	G1407	G1331
	A2169	U2109	A2041	A1977	A1913	G1847	U1779	U1697		G1332	A1477		G1332
	G2242	G2110	A2042		A1914	U1847	U1780	U1698		G1333	G1478		G1333
U2243	U2111	U2112	C2043		U1915	A1848	A1781	A1699	A1632	U1558	U1411	U1411	G1334
	G2112	A1916		U1982	U1917	G1850	U1782	A1700	A1633	U1559	U1412	U1412	G1335
	U2113	G1983	G2046	G1984	A1918	U1851	A1783	A1701	A1634	G1560	G1482	A1413	C1336
	A2114	G1985	G2047	G1986	A1919	U1852	A1784	U1712	A1635	G1561	G1483	A1414	A1337
	G2115	C1986	G2048	U1853	G1920	A1854	A1786	U1713	U1637	U1563	U1487	U1415	
	G2116	C1987	G2049	A1854	G1921			A1713	A1637	G1564	C1488	G1416	G1416
	A2117	G1989	G2050		G1922			U1714	A1641	C1565	C1489	G1417	U1340
	U2118	G1990	A2051	C1989	U1923	G1857	A1789	G1715	G1642	U1566	U1487	G1418	G1341
	G2119	U1980	A2052	U1991	C1924	A1858	C1790	U1716	G1643	A1569	C1488	A1419	A1342
	U2120	G1983	G2053	U1992	G1925	U1859	A1791	G1718	U1644	U1577	G1491	A1420	G1343
	A2121	G1984	G2054	U1993	U1926	G1860	G1792	G1719	G1645	A1570	G1492	A1421	C1344
	G2122	C1985	C2055	U1994	A1927	G1861	C1793	U1720	A1646	G1493	C1493	G1422	C1345
	C2123	C1986	G2056	C1994	G1928	G1862	A1794	U1721	U1647	A1572	U1494	G1423	G1346
	G2124	G1987	G2057		U1929	G1863	C1795	G1721	U1648	A1495	A1495	G1424	A1347
	A2125	C1988	A2058	C1988	G1930	U1864	U1796	A1722	U1649	C1575	U1496	G1425	C1348
	G2126	A1988	A2059	U1988	U1931	G1865		U1729	G1650	U1576	U1499	G1426	C1349
	A2127	C2000	A2060	C2000	A1932	U1866	G1799	G1730	A1651	U1577	C1500	A1427	C1350
	G2128	C2001	A2061	G1993	G1933	G1867	A1801	G1731	G1652	U1578	G1501	C1428	C1351
	U2129	G2002	A2062	C1934	C1934	C1868	C1806	G1732	G1653	G1502	A1502	G1430	U1352
	G2130	G2003	C2063	G1935	G1935	G1869	A1802	C1733	A1654	U1583	A1503	G1431	G1355
	U2131	A2003	C2064	A1936	A1936	C1870	A1803	G1733		U1584	A1504	G1432	G1356
	G2132	G2004	C2065	C2004			C1804	G1734	C1658	U1585	U1505	G1433	G1357
	G2133	A2005	C2066	C2005	A1937	G1873	A1805	U1735		U1586	U1506	A1434	G1358
	A2134	C2006	G2067	U2007	U1939	C1874	C1806	G1736	G1661	G1587	C1507	G1435	A1359
	G2135	G2007	U2068	U2008	U1940	G1875	G1807	G1737	G1662	U1588	A1508	G1436	G1364
	U2137	A2009	A2070	C2009	C1941	A1876	A1808	G1738	G1663	U1589	A1509	G1437	A1365
	G2138	G2010	C2071	C2010	C1942	A1877		A1739	A1664	U1590	G1510	U1438	A1366
	U2139	U2011	C2072	U2011	U1943	G1878	G1813		G1665	A1591	C1511	A1439	A1367
	G2140	G2012	C2073	G2012	U1944	C1879		A1744	G1666	C1592	G1512	U1440	G1368
	A2141	A2013	U2074	A2013	G1945	U1880	C1816	A1745	G1667	U1592	C1513	G1441	G1369
	G2142	A2014	U2075	A2014	U1946	U1881	G1817	A1746	G1668	U1593	G1514	U1442	C1370
	C2143	A2015	U2076	A2015	C1947	U1882	U1818	U1747	A1669	U1594	A1515	U1443	G1371
	G2144	U2016	A2077	U2016	G1948	U1883	A1819	C1748	C1670			G1444	U1372
	A2145	U2017	C2078	U2017	G1949	G1884	U1820		A1671	A1597	C1518	G1445	A1373
	C2146	G2018	U2079	G2018	U1950	A1885	A1821	A1754	A1672	U1602	G1519	C1446	G1374
	U2147	A2019	A2080	A2019	U1951	A1889		A1755	G1673	C1605	U1523	C1447	U1375
	G2148	A2020		A1889			G1823	G1756	G1674	G1606		G1448	G1376
	U2149	C2021	U2086	C2021	U1955	C1894	U1825	U1758	C1675	C1607	A1528	G1449	G1377
	C2150	G2022	G2087	C2022	U1956	C1895	G1826	A1759	A1676	A1608	U1529	G1450	A1378
	U2151	C2023		C2023	C1957	G1896	U1827	C1760	A1677	A1609	G1451	G1451	U1379
	G2152	C2024	U2092	C2024	G1958	G1897	A1829	A1762		A1610		G1452	G1380
	C2153	G2025	A2094	U2026	A1960	U1998						A1453	



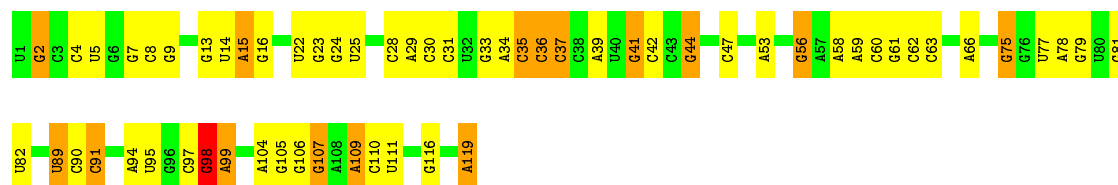






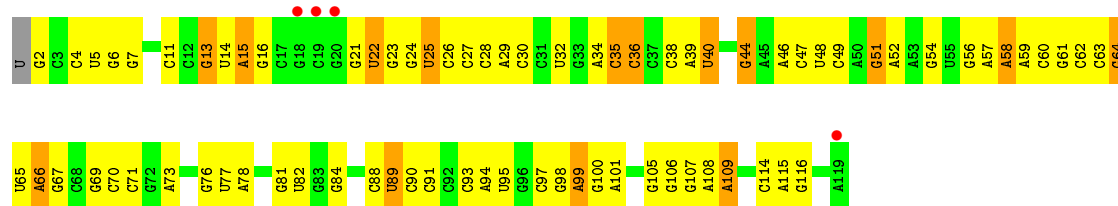
• Molecule 23: 5S rRNA

Chain BB: 50% 37% 13%



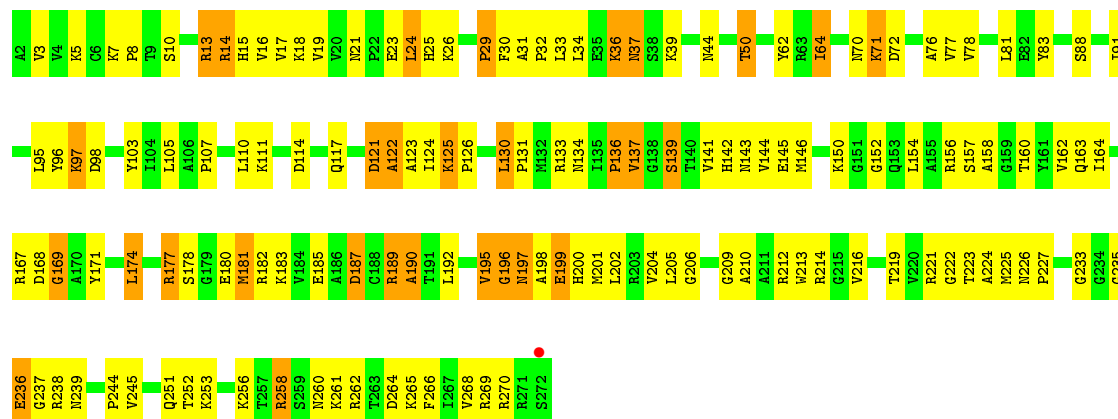
• Molecule 23: 5S rRNA

Chain DB: 34% 52% 13%



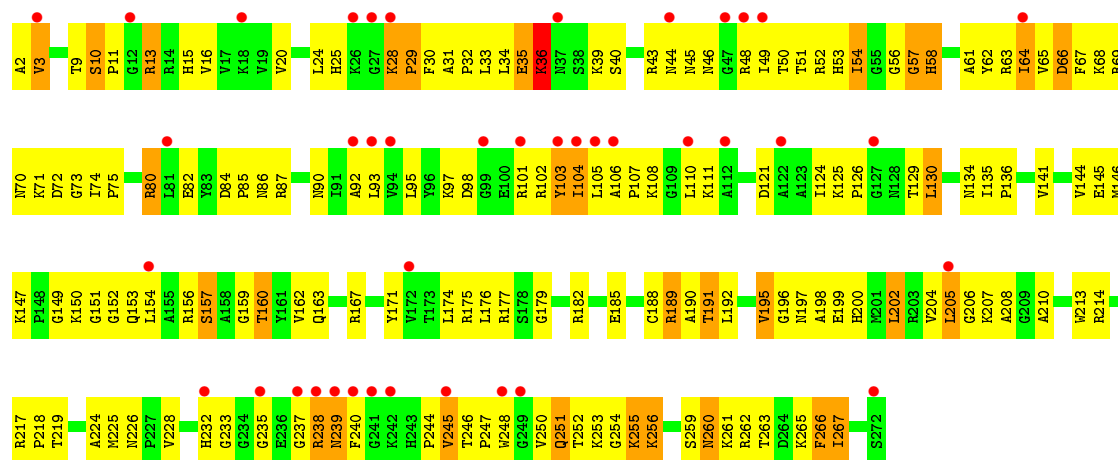
• Molecule 24: 50S ribosomal protein L2

Chain BC: 47% 42% 11%



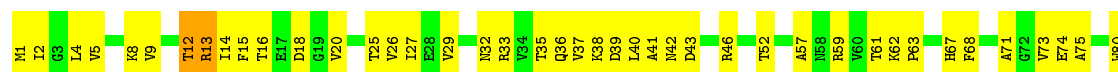
• Molecule 24: 50S ribosomal protein L2

Chain DC: 15% 40% 48% 11%



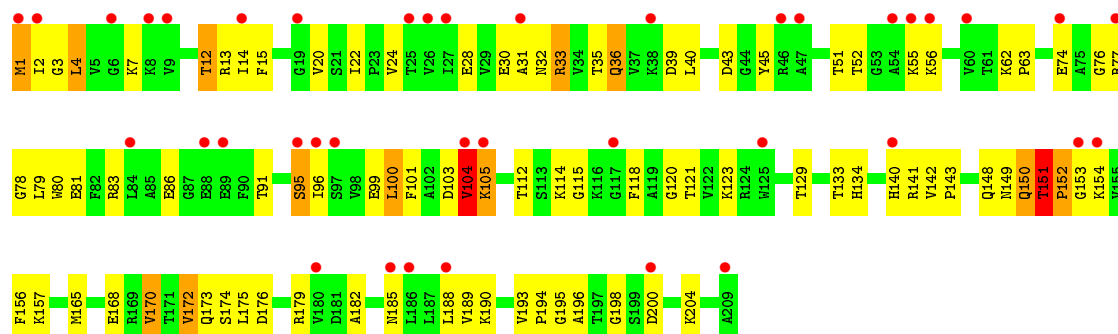
• Molecule 25: 50S ribosomal protein L3

Chain BD: 47% 46% 6%

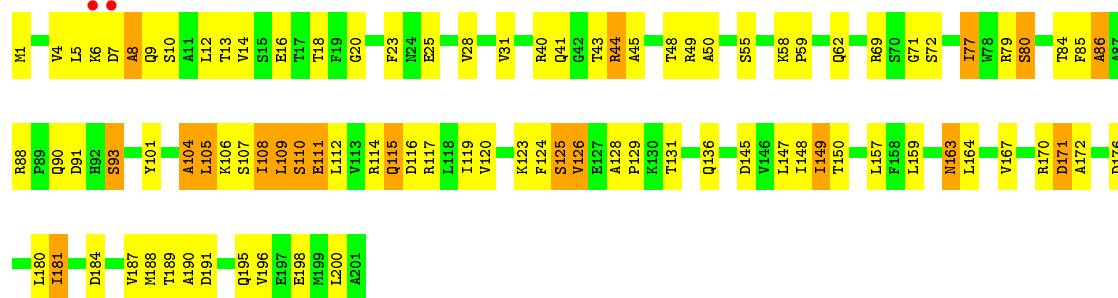




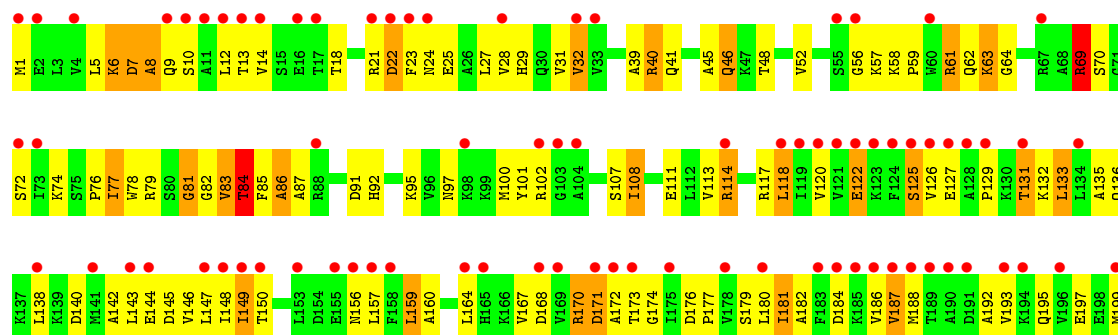
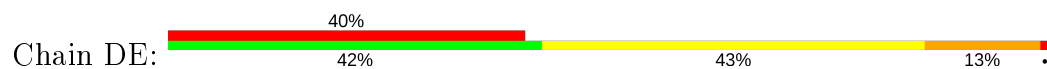
• Molecule 25: 50S ribosomal protein L3

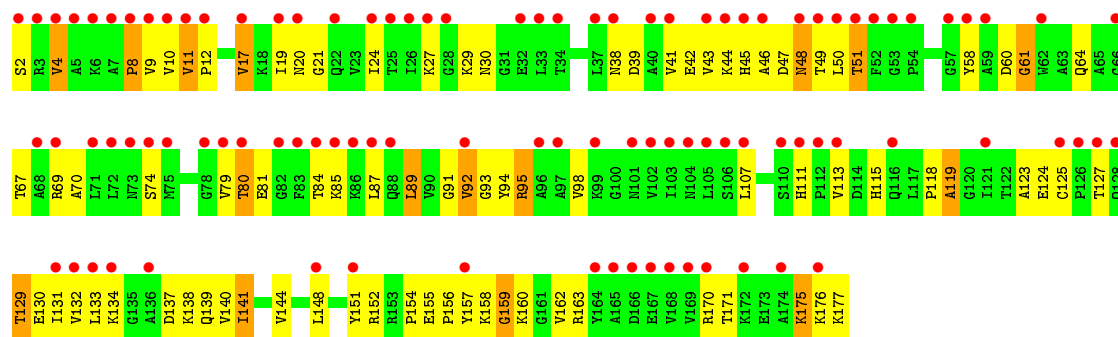


• Molecule 26: 50S ribosomal protein L4

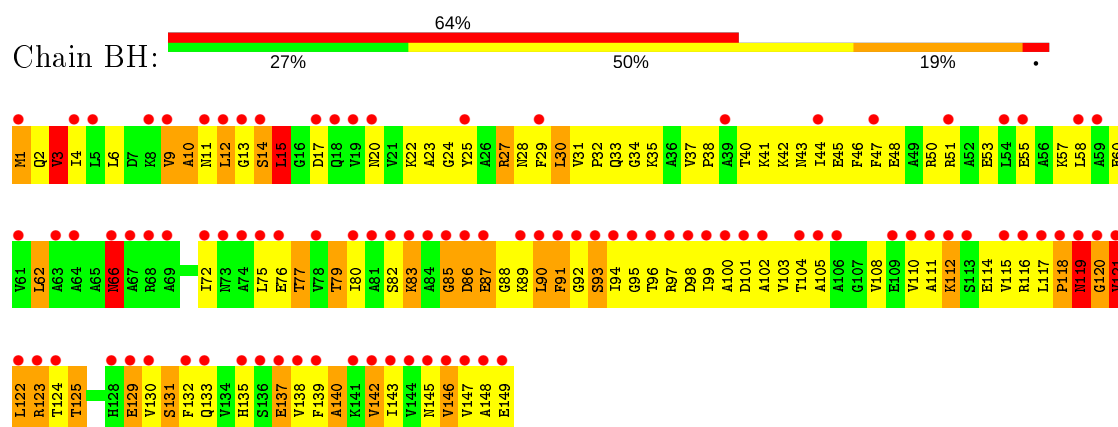


• Molecule 26: 50S ribosomal protein L4

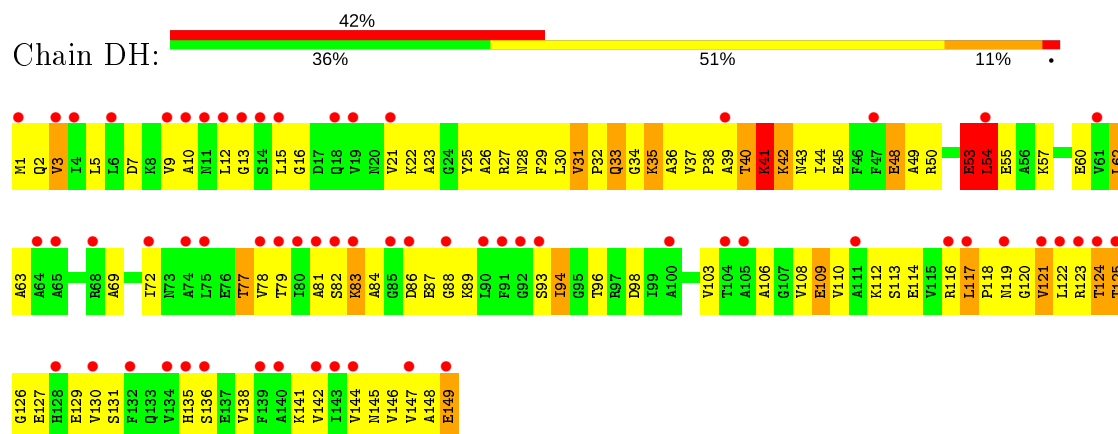




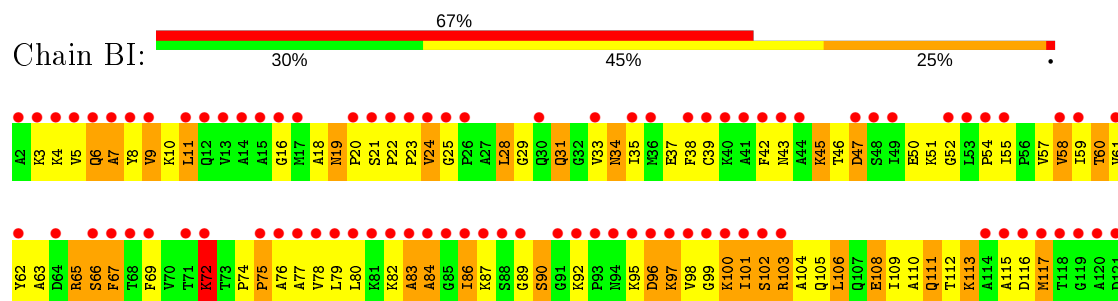
• Molecule 29: 50S ribosomal protein L9

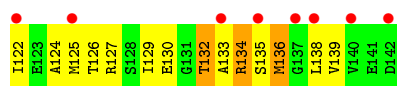


• Molecule 29: 50S ribosomal protein L9

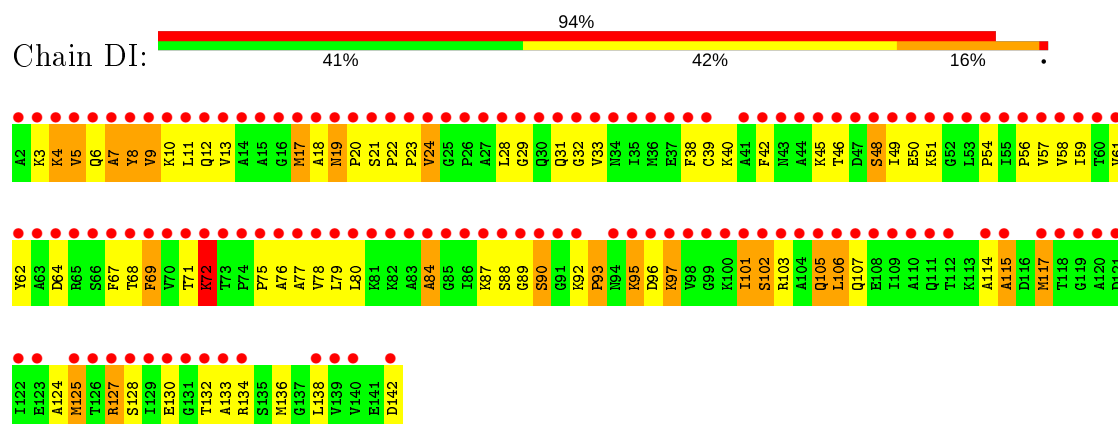


• Molecule 30: 50S ribosomal protein L11

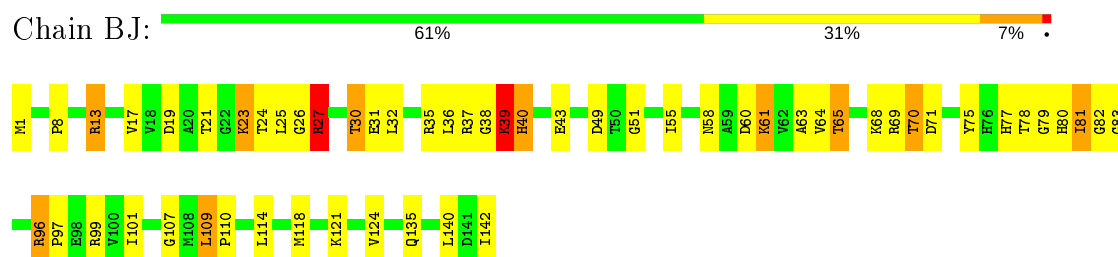




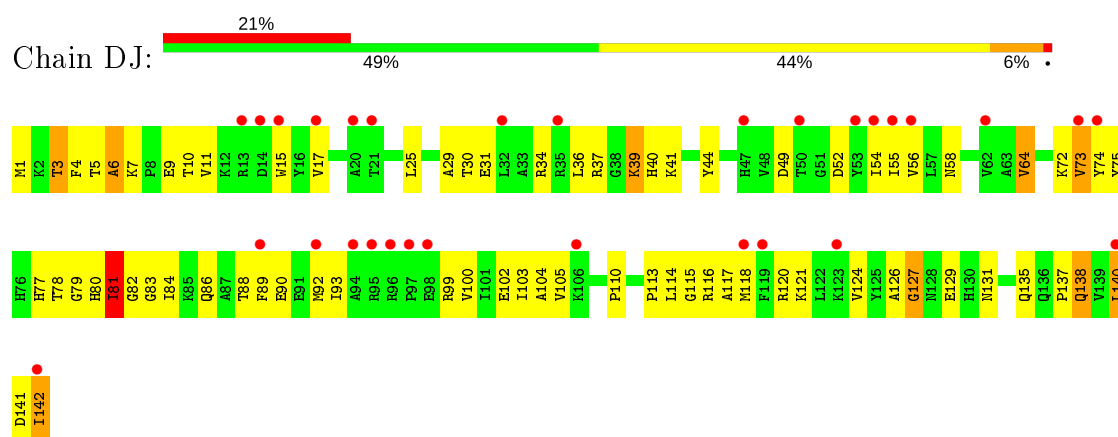
- Molecule 30: 50S ribosomal protein L11



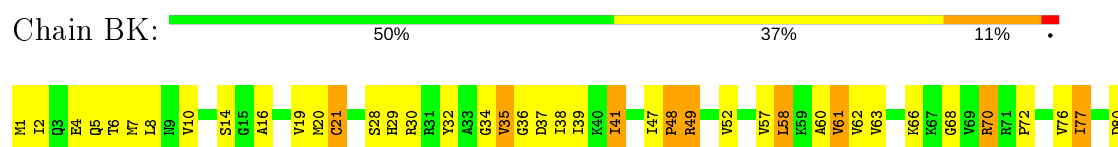
- Molecule 31: 50S ribosomal protein L13



- Molecule 31: 50S ribosomal protein L13

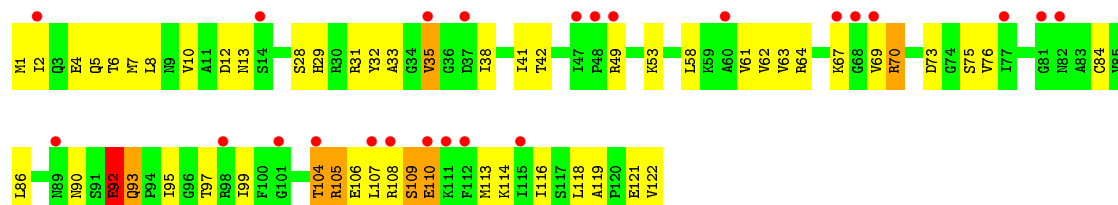


- Molecule 32: 50S ribosomal protein L14

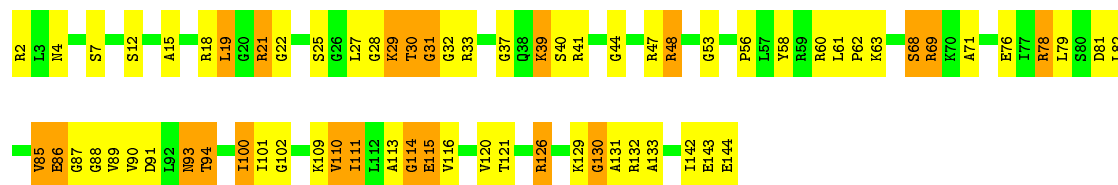




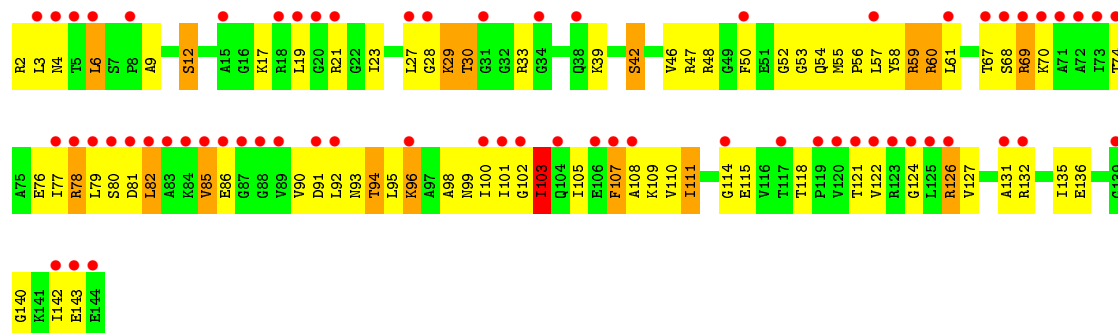
- Molecule 32: 50S ribosomal protein L14



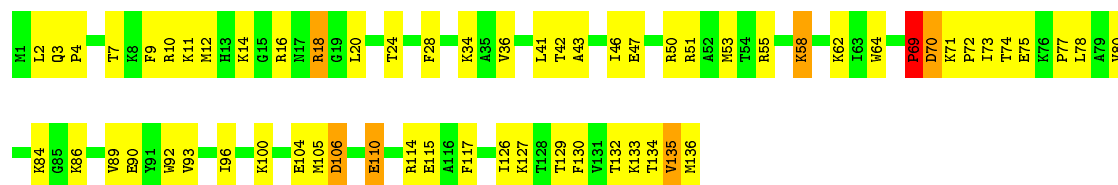
- Molecule 33: 50S ribosomal protein L15



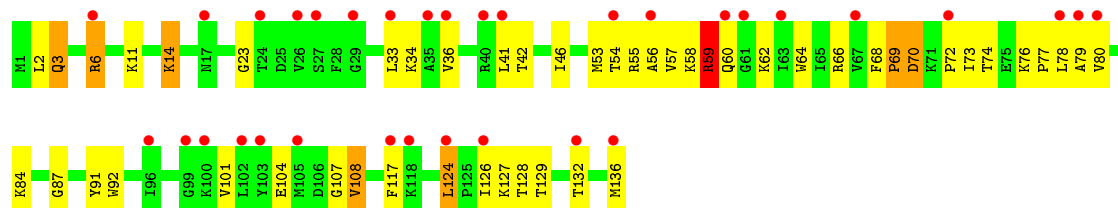
- Molecule 33: 50S ribosomal protein L15



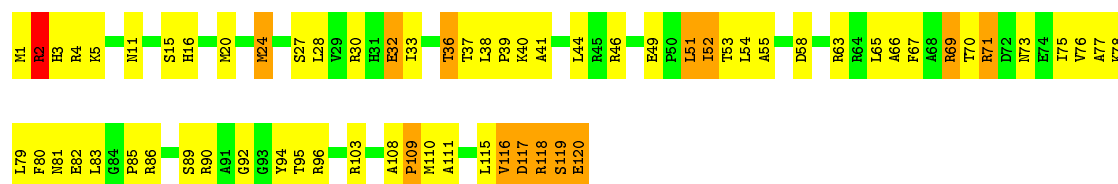
- Molecule 34: 50S ribosomal protein L16



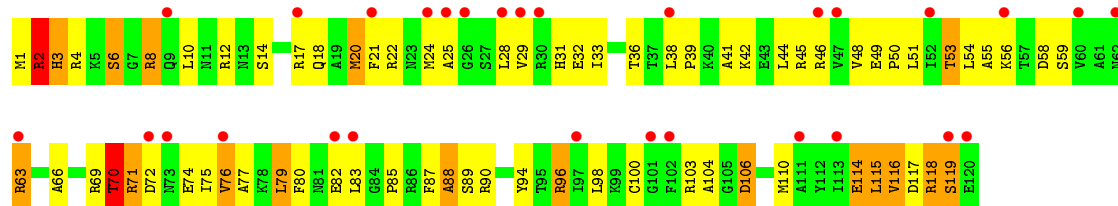
- Molecule 34: 50S ribosomal protein L16



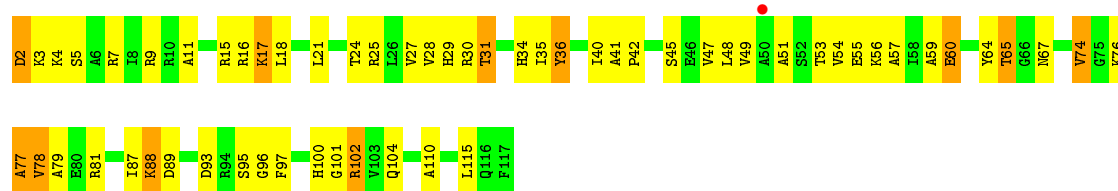
- Molecule 35: 50S ribosomal protein L17



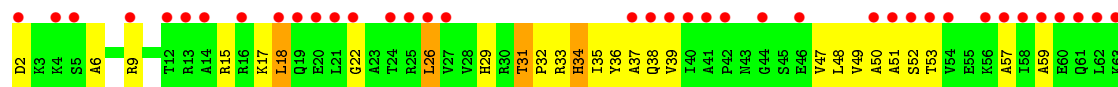
- Molecule 35: 50S ribosomal protein L17

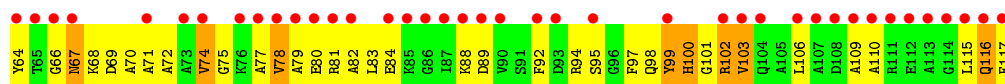


- Molecule 36: 50S ribosomal protein L18

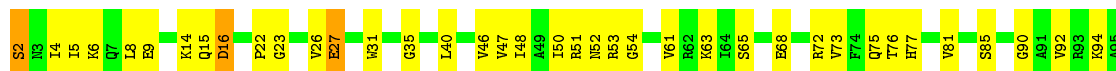


- Molecule 36: 50S ribosomal protein L18

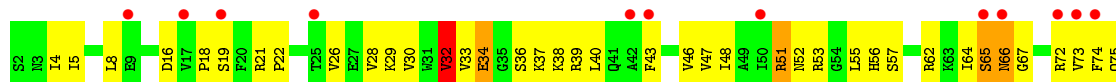




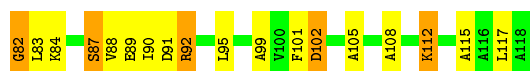
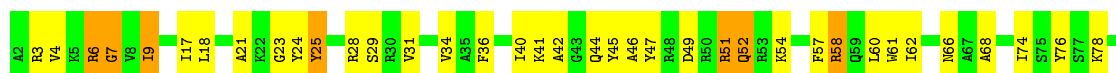
- Molecule 37: 50S ribosomal protein L19



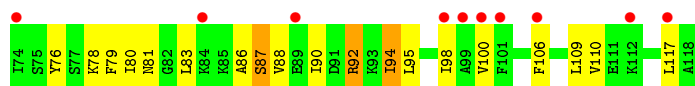
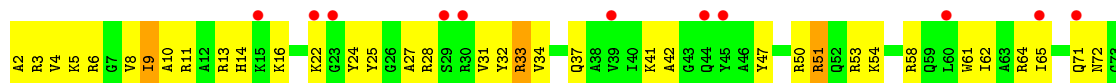
- Molecule 37: 50S ribosomal protein L19



- Molecule 38: 50S ribosomal protein L20

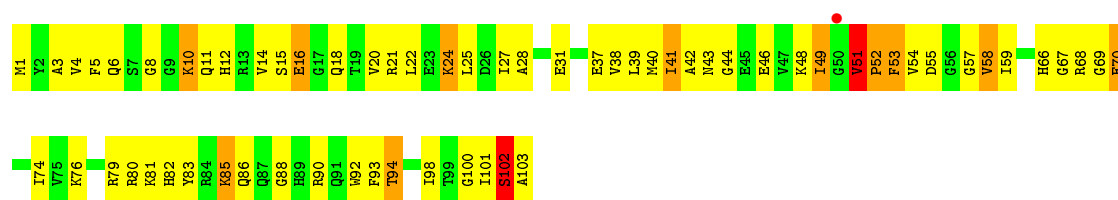


- Molecule 38: 50S ribosomal protein L20

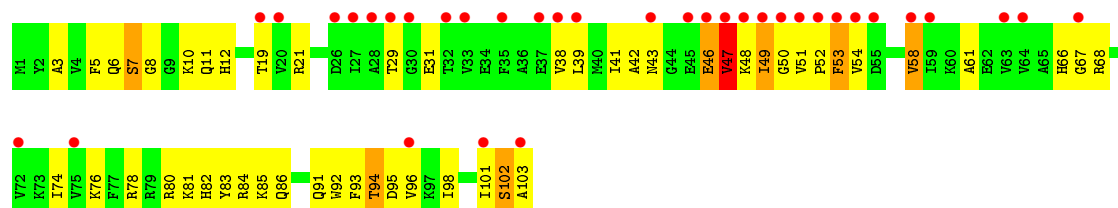


- Molecule 39: 50S ribosomal protein L21

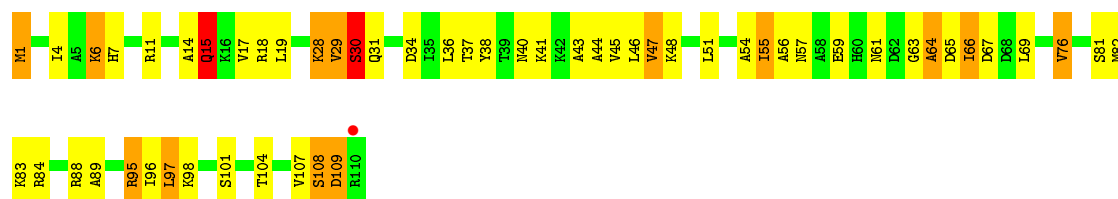




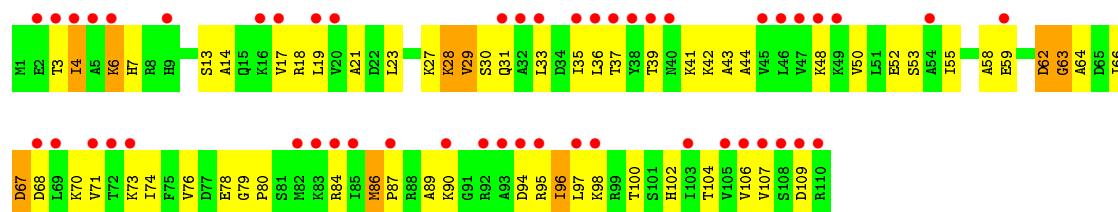
• Molecule 39: 50S ribosomal protein L21



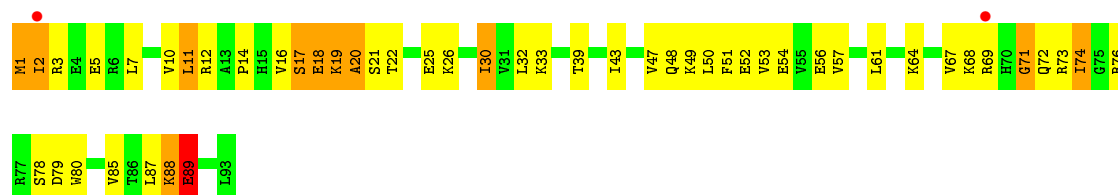
• Molecule 40: 50S ribosomal protein L22



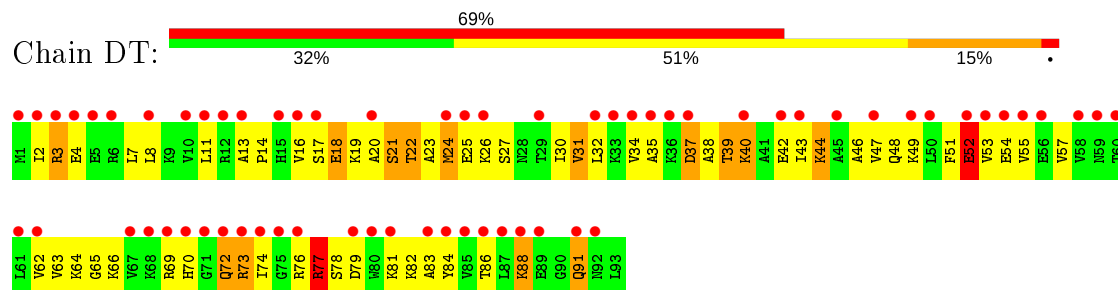
• Molecule 40: 50S ribosomal protein L22



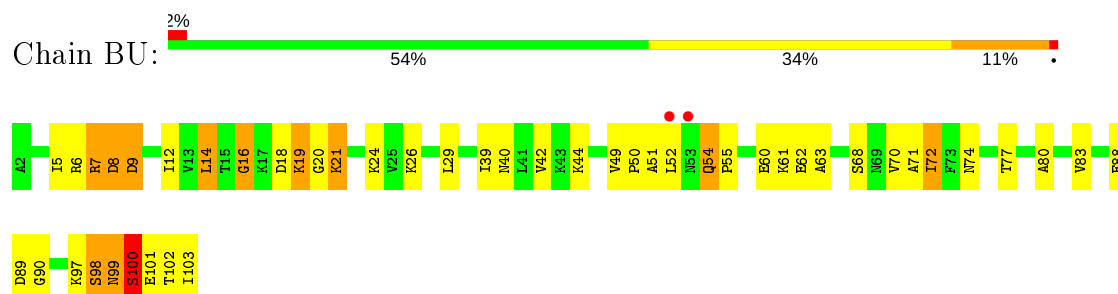
• Molecule 41: 50S ribosomal protein L23



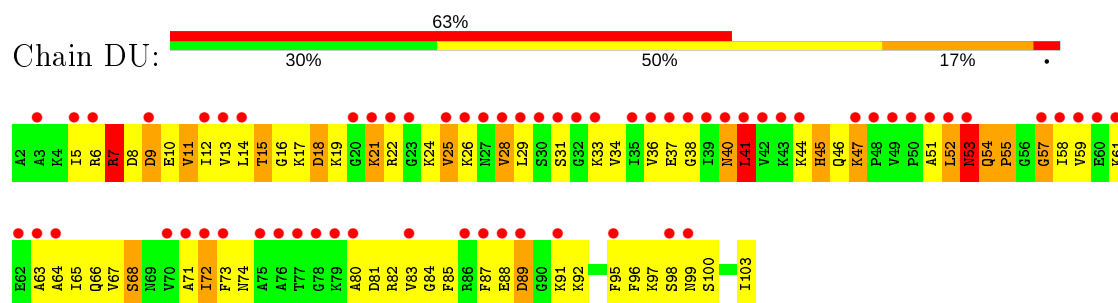
- Molecule 41: 50S ribosomal protein L23



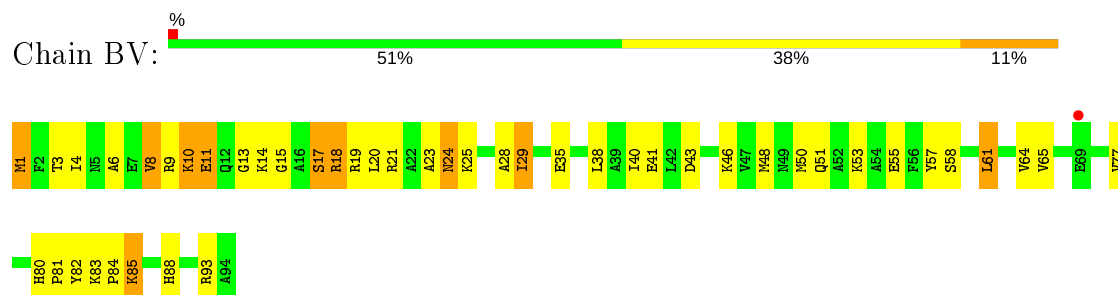
- Molecule 42: 50S ribosomal protein L24



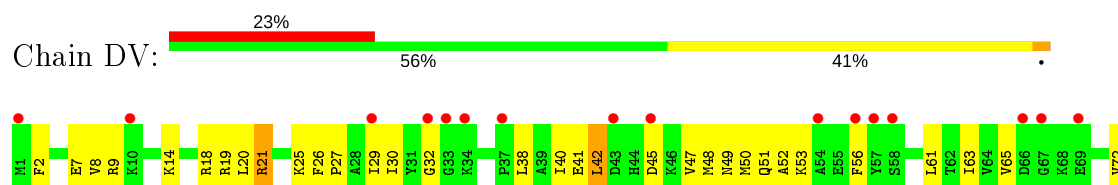
- Molecule 42: 50S ribosomal protein L24

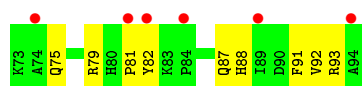


- Molecule 43: 50S ribosomal protein L25



- Molecule 43: 50S ribosomal protein L25

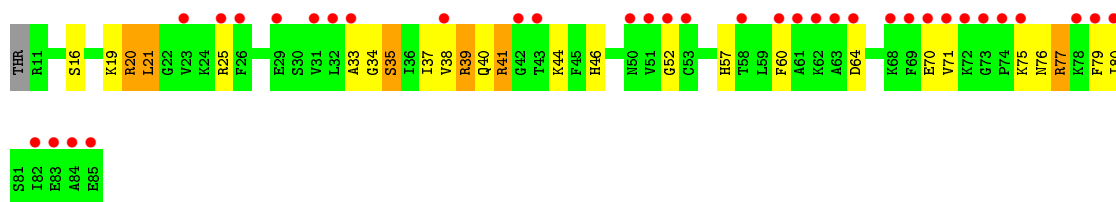




- Molecule 44: 50S ribosomal protein L27



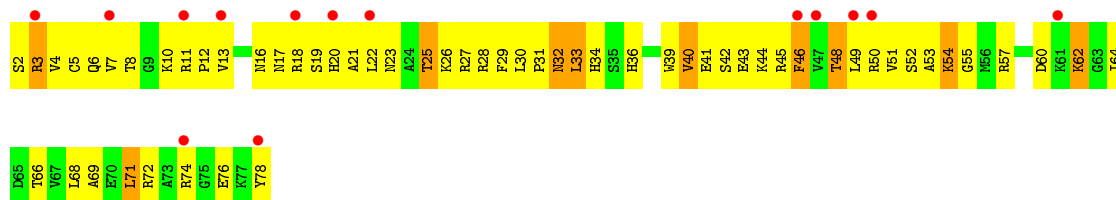
- Molecule 44: 50S ribosomal protein L27



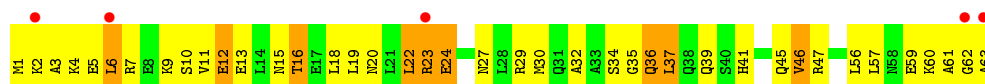
- Molecule 45: 50S ribosomal protein L28



- Molecule 45: 50S ribosomal protein L28



- Molecule 46: 50S ribosomal protein L29



- Molecule 46: 50S ribosomal protein L29





-

C



-



-

C



-



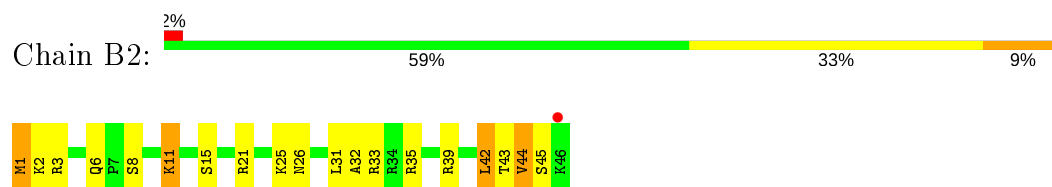
-



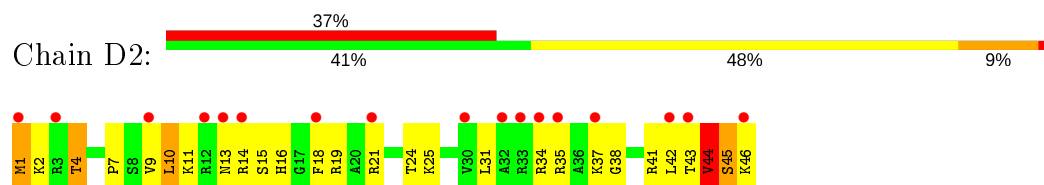
-



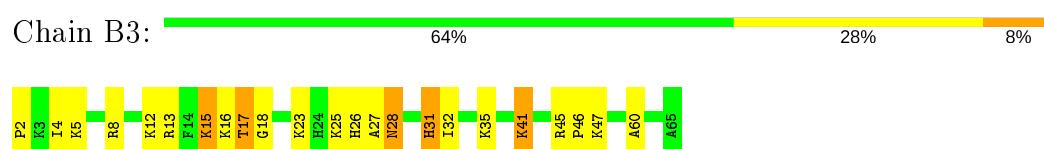
- Molecule 50: 50S ribosomal protein L34



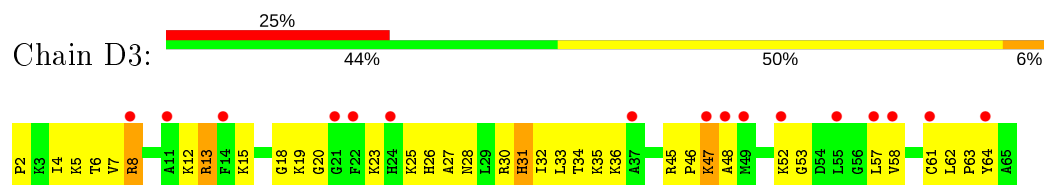
- Molecule 50: 50S ribosomal protein L34



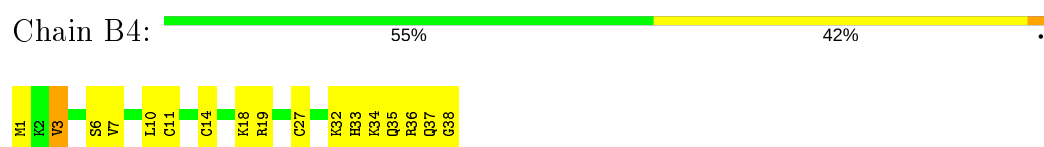
- Molecule 51: 50S ribosomal protein L35



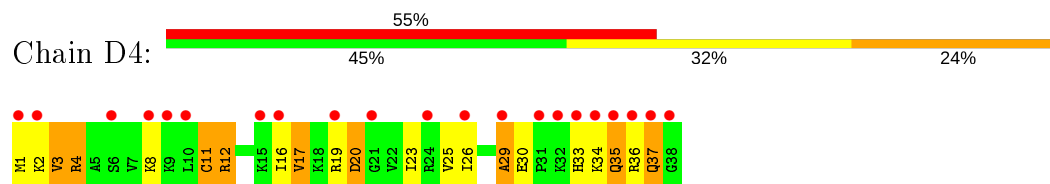
- Molecule 51: 50S ribosomal protein L35



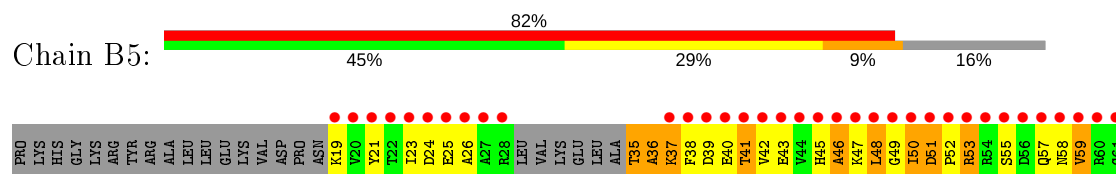
- Molecule 52: 50S ribosomal protein L36



- Molecule 52: 50S ribosomal protein L36



- Molecule 53: 50S ribosomal protein L1



P182	G122	T62
P183	A123	V63
E184	V124	S64
K185	G125	I65
L186	S126	P66
A187	K127	H67
D188	L128	G68
M189	G129	L69
I190	R130	G70
R191	I131	F71
A192	L132	G72
F193	G133	V73
I194	P134	R74
R195	R135	V75
A196	G136	L76
L197	L137	A77
E198	LEU	I78
A199	PRO	A79
R200	N140	R80
K201	P141	G81
P202	K142	E82
E203	K143	R83
G204	G144	I84
A205	L145	R85
K206	V146	E86
G207	G147	A87
T208	F148	E88
P209	N149	E89
L210	L150	A90
R211	G151	G91
S212	E152	A92
V213	L153	D93
Y214	L154	Y94
V215	R155	V95
T216	E156	G96
T217	L157	G97
M219	K158	E98
P220	A159	E99
P221	G160	I100
S222	R161	I101
V223	L162	Q102
R224	E163	K103
L225	R165	L104
ASN	N166	D106
PRO	P167	G107
HIS	K168	M108
SER	T169	M109
	G170	D110
	A171	F111
	L172	ASP
	H173	ALA
	A174	VAL
	P175	VAL
	V176	ALA
	G177	THR
	K178	PRO
	A179	ASP
	S180	V120
	E181	M121

4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	211.79Å 433.06Å 623.86Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	69.33 – 2.90 69.33 – 2.90	Depositor EDS
% Data completeness (in resolution range)	87.4 (69.33-2.90) 87.4 (69.33-2.90)	Depositor EDS
R_{merge}	0.12	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.50 (at 2.91Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.8.1_1168)	Depositor
R, R_{free}	0.235 , 0.279 0.240 , 0.282	Depositor DCC
R_{free} test set	4412 reflections (0.40%)	wwPDB-VP
Wilson B-factor (Å ²)	48.9	Xtriage
Anisotropy	0.742	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , 56.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.45$, $\langle L^2 \rangle = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.90	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 1.85% 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: ZN, VIF, 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	0.47	0/36944	0.95	29/57632 (0.1%)
1	CA	0.40	0/36966	0.90	9/57666 (0.0%)
2	AB	0.36	0/1736	0.64	0/2338
2	CB	0.33	0/1736	0.60	0/2338
3	AC	0.35	0/1652	0.61	0/2225
3	CC	0.31	0/1652	0.57	0/2225
4	AD	0.35	0/1665	0.63	0/2227
4	CD	0.40	0/1665	0.66	0/2227
5	AE	0.39	0/1119	0.70	0/1504
5	CE	0.36	0/1119	0.70	0/1504
6	AF	0.39	0/836	0.65	0/1128
6	CF	0.33	0/836	0.63	1/1128 (0.1%)
7	AG	0.34	0/1196	0.59	0/1602
7	CG	0.32	0/1196	0.55	0/1602
8	AH	0.34	0/989	0.58	0/1326
8	CH	0.32	0/989	0.59	0/1326
9	AI	0.33	0/1034	0.62	0/1375
9	CI	0.32	0/1034	0.62	0/1375
10	AJ	0.34	0/797	0.61	0/1077
10	CJ	0.31	0/797	0.62	1/1077 (0.1%)
11	AK	0.35	0/893	0.60	0/1205
11	CK	0.34	0/893	0.60	0/1205
12	AL	0.39	0/969	0.65	0/1300
12	CL	0.36	0/969	0.70	0/1300
13	AM	0.33	0/893	0.71	1/1193 (0.1%)
13	CM	0.34	0/893	0.59	0/1193
14	AN	0.34	0/785	0.63	0/1043
14	CN	0.30	0/785	0.54	0/1043
15	AO	0.33	0/718	0.60	0/959
15	CO	0.32	0/718	0.56	0/959
16	AP	0.36	0/659	0.70	1/884 (0.1%)
16	CP	0.35	0/659	0.58	0/884

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.37	0/658	0.66	1/881 (0.1%)
17	CQ	0.36	0/658	0.61	0/881
18	AR	0.33	0/463	0.57	0/621
18	CR	0.32	0/463	0.58	0/621
19	AS	0.34	0/653	0.63	0/877
19	CS	0.33	0/653	0.54	0/877
20	AT	0.34	0/671	0.60	0/888
20	CT	0.32	0/671	0.57	0/888
21	AU	0.45	0/431	0.72	0/570
21	CU	0.45	0/431	0.73	0/570
22	BA	0.80	22/69659 (0.0%)	1.31	570/108672 (0.5%)
22	DA	0.40	0/69659	0.90	13/108672 (0.0%)
23	BB	0.68	0/2850	1.17	9/4444 (0.2%)
23	DB	0.35	0/2828	0.85	0/4410
24	BC	0.48	0/2122	0.72	0/2852
24	DC	0.34	0/2122	0.60	0/2852
25	BD	0.54	0/1586	0.78	1/2134 (0.0%)
25	DD	0.33	0/1586	0.57	0/2134
26	BE	0.46	0/1571	0.66	0/2113
26	DE	0.35	0/1571	0.59	0/2113
27	BF	0.37	0/1435	0.59	0/1926
27	DF	0.32	0/1435	0.52	0/1926
28	BG	0.37	0/1343	0.65	0/1816
28	DG	0.32	0/1343	0.53	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	0.37	0/1046	0.59	0/1410
30	DI	0.37	0/1046	0.61	0/1410
31	BJ	0.53	0/1152	0.74	1/1551 (0.1%)
31	DJ	0.32	0/1152	0.59	0/1551
32	BK	0.52	0/948	0.77	0/1268
32	DK	0.34	0/948	0.56	0/1268
33	BL	0.50	0/1054	0.81	1/1403 (0.1%)
33	DL	0.34	0/1054	0.61	0/1403
34	BM	0.53	0/1093	0.72	0/1460
34	DM	0.31	0/1093	0.54	0/1460
35	BN	0.54	0/974	0.75	0/1301
35	DN	0.35	0/974	0.58	0/1301
36	BO	0.40	0/902	0.64	0/1209
36	DO	0.30	0/902	0.51	0/1209
37	BP	0.49	0/929	0.72	1/1242 (0.1%)
37	DP	0.35	0/929	0.58	0/1242
38	BQ	0.65	0/960	0.83	0/1278

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DQ	0.33	0/960	0.53	0/1278
39	BR	0.60	0/829	0.79	1/1107 (0.1%)
39	DR	0.34	0/829	0.58	0/1107
40	BS	0.63	0/864	0.82	0/1156
40	DS	0.34	0/864	0.59	0/1156
41	BT	0.43	0/745	0.62	0/994
41	DT	0.35	0/745	0.60	0/994
42	BU	0.43	0/788	0.66	0/1051
42	DU	0.37	0/788	0.59	0/1051
43	BV	0.44	0/766	0.65	0/1025
43	DV	0.30	0/766	0.50	0/1025
44	BW	0.55	0/587	0.73	0/776
44	DW	0.31	0/576	0.49	0/762
45	BX	0.43	0/635	0.72	0/848
45	DX	0.34	0/635	0.60	0/848
46	BY	0.40	0/510	0.69	0/677
46	DY	0.34	0/510	0.58	0/677
47	BZ	0.55	0/453	0.82	0/605
47	DZ	0.31	0/453	0.55	0/605
48	B0	0.55	0/450	0.76	0/599
48	D0	0.35	0/450	0.61	0/599
49	B1	0.40	0/417	0.62	0/554
49	D1	0.34	0/417	0.56	0/554
50	B2	0.50	0/380	0.77	0/498
50	D2	0.36	0/380	0.59	0/498
51	B3	0.48	0/513	0.67	0/676
51	D3	0.31	0/513	0.54	0/676
52	B4	0.56	0/303	0.68	0/397
52	D4	0.46	0/303	0.64	0/397
53	B5	0.33	0/1145	0.55	0/1556
All	All	0.52	22/310626 (0.0%)	0.97	641/464366 (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
2	CB	0	1
5	CE	0	1
6	CF	0	1
11	AK	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
11	CK	0	1
12	CL	0	1
21	AU	0	2
21	CU	0	1
25	BD	0	1
25	DD	0	1
33	BL	0	1
47	BZ	0	1
All	All	0	13

All (22) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	BA	984	A	N9-C4	-9.47	1.32	1.37
22	BA	1977	A	N9-C4	-7.26	1.33	1.37
22	BA	1142	A	N9-C4	-7.11	1.33	1.37
22	BA	528	A	N7-C5	-7.06	1.35	1.39
22	BA	2071	A	N9-C4	-6.99	1.33	1.37
22	BA	783	A	N9-C4	-6.85	1.33	1.37
22	BA	528	A	N9-C4	-6.62	1.33	1.37
22	BA	1679	A	N7-C5	-6.49	1.35	1.39
22	BA	2266	A	N9-C4	-6.16	1.34	1.37
22	BA	1032	A	N3-C4	-5.74	1.31	1.34
22	BA	997	G	C2-N3	-5.68	1.28	1.32
22	BA	2273	A	N7-C5	-5.61	1.35	1.39
22	BA	1020	A	N9-C4	-5.57	1.34	1.37
22	BA	571	U	C2-N3	-5.43	1.33	1.37
22	BA	1253	A	N9-C4	-5.42	1.34	1.37
22	BA	529	A	N9-C4	-5.38	1.34	1.37
22	BA	941	A	N3-C4	-5.34	1.31	1.34
22	BA	2278	A	N9-C4	-5.34	1.34	1.37
22	BA	1677	A	C5-C6	-5.29	1.36	1.41
22	BA	685	A	N9-C4	-5.17	1.34	1.37
22	BA	984	A	N3-C4	-5.14	1.31	1.34
22	BA	2452	C	N1-C6	-5.06	1.34	1.37

All (641) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	528	A	N1-C6-N6	13.66	126.80	118.60
25	BD	151	THR	C-N-CD	-12.30	93.53	120.60
22	BA	984	A	C2-N3-C4	-11.24	104.98	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	532	A	O5'-P-OP1	-10.12	96.59	105.70
22	BA	528	A	C6-C5-N7	-9.92	125.36	132.30
22	BA	2017	U	O5'-P-OP1	-9.80	96.88	105.70
22	BA	752	A	N1-C6-N6	9.65	124.39	118.60
31	BJ	27	ARG	NE-CZ-NH1	9.57	125.09	120.30
22	BA	1677	A	N1-C6-N6	9.52	124.31	118.60
22	BA	1255	U	O5'-P-OP2	-9.50	97.15	105.70
22	BA	1977	A	C2-N3-C4	-9.45	105.87	110.60
22	BA	979	A	O5'-P-OP2	-9.29	97.34	105.70
23	BB	75	G	C5-C6-O6	-9.28	123.03	128.60
22	BA	752	A	C4-C5-N7	9.25	115.33	110.70
22	BA	2605	U	O5'-P-OP2	-9.07	97.53	105.70
22	BA	528	A	C5-N7-C8	-9.01	99.39	103.90
22	BA	946	C	O5'-P-OP2	-9.01	97.59	105.70
22	BA	974	G	C4-C5-N7	9.00	114.40	110.80
22	BA	752	A	C5-N7-C8	-8.79	99.50	103.90
22	BA	704	G	O4'-C1'-N9	8.75	115.20	108.20
22	BA	1153	C	O5'-P-OP1	-8.73	97.84	105.70
22	BA	984	A	N3-C4-C5	8.65	132.85	126.80
22	BA	564	C	O5'-P-OP1	-8.62	97.94	105.70
22	BA	1761	C	N1-C2-O2	8.62	124.07	118.90
23	BB	75	G	N1-C6-O6	8.59	125.05	119.90
22	BA	1779	U	O5'-P-OP1	-8.45	98.09	105.70
22	BA	2872	A	C8-N9-C4	-8.39	102.44	105.80
22	BA	572	A	O5'-P-OP1	-8.27	98.26	105.70
22	BA	783	A	C5-N7-C8	-8.10	99.85	103.90
22	BA	1676	A	O5'-P-OP2	-8.06	98.45	105.70
22	BA	1762	A	N1-C6-N6	8.00	123.40	118.60
22	BA	2450	A	O5'-P-OP2	-7.99	98.51	105.70
22	BA	2498	C	C6-N1-C2	7.93	123.47	120.30
22	BA	984	A	N3-C4-N9	-7.92	121.07	127.40
22	BA	1760	C	N3-C2-O2	7.91	127.43	121.90
16	AP	51	ARG	NE-CZ-NH1	7.88	124.24	120.30
22	BA	2022	U	N3-C2-O2	-7.87	116.69	122.20
22	BA	784	G	N1-C6-O6	-7.79	115.23	119.90
22	BA	1007	C	O5'-P-OP1	-7.76	98.71	105.70
22	BA	974	G	C5-N7-C8	-7.76	100.42	104.30
22	BA	528	A	C4-C5-N7	7.76	114.58	110.70
22	BA	2005	A	N1-C6-N6	7.75	123.25	118.60
22	BA	2286	G	N3-C4-C5	7.75	132.47	128.60
22	BA	1779	U	C5-C4-O4	7.73	130.54	125.90
22	BA	752	A	C6-C5-N7	-7.73	126.89	132.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2030	A	C5-C6-N6	7.66	129.83	123.70
22	BA	2021	C	O5'-P-OP2	-7.63	98.84	105.70
22	BA	1260	A	O5'-P-OP2	-7.58	98.87	105.70
22	BA	528	A	N7-C8-N9	7.56	117.58	113.80
22	BA	784	G	O4'-C1'-N9	-7.54	102.17	108.20
22	BA	531	C	N3-C2-O2	-7.51	116.64	121.90
1	AA	279	A	N1-C6-N6	7.51	123.11	118.60
22	BA	1760	C	N1-C2-O2	-7.48	114.41	118.90
22	BA	780	G	N1-C2-N2	-7.47	109.48	116.20
22	BA	729	G	O4'-C1'-N9	7.46	114.17	108.20
22	BA	1157	G	O5'-P-OP2	-7.45	98.99	105.70
22	BA	942	G	C5-C6-O6	-7.42	124.15	128.60
22	BA	705	A	N1-C6-N6	7.40	123.04	118.60
22	BA	1677	A	C5-C6-N6	-7.36	117.82	123.70
22	BA	2871	U	N1-C2-O2	7.35	127.94	122.80
22	BA	1768	C	C6-N1-C2	-7.32	117.37	120.30
22	BA	2705	A	N1-C6-N6	7.31	122.98	118.60
22	BA	2024	G	N1-C6-O6	-7.30	115.52	119.90
22	BA	2574	G	O5'-P-OP2	-7.26	99.17	105.70
22	BA	984	A	C5-C6-N1	-7.21	114.09	117.70
22	BA	2689	U	N3-C4-O4	-7.20	114.36	119.40
22	BA	806	C	N3-C4-C5	7.19	124.78	121.90
22	BA	1774	C	N1-C2-O2	-7.19	114.58	118.90
22	BA	2002	G	N1-C6-O6	7.19	124.22	119.90
1	CA	575	G	N3-C4-C5	7.17	132.19	128.60
22	BA	967	U	C5-C4-O4	7.13	130.18	125.90
22	BA	2633	G	N3-C4-C5	7.12	132.16	128.60
22	BA	2884	U	C5-C4-O4	7.12	130.17	125.90
22	BA	780	G	N3-C2-N2	7.10	124.87	119.90
1	AA	1286	U	C2-N1-C1'	7.08	126.19	117.70
22	BA	180	G	N3-C4-C5	7.07	132.14	128.60
22	BA	1784	A	C2-N3-C4	-7.06	107.07	110.60
22	BA	2495	G	C5-C6-O6	-7.05	124.37	128.60
22	BA	456	C	O5'-P-OP2	-7.04	99.36	105.70
22	BA	1286	A	N1-C6-N6	7.04	122.82	118.60
22	BA	980	A	C5-C6-N6	-7.03	118.08	123.70
22	BA	2871	U	N3-C2-O2	-7.02	117.29	122.20
22	BA	248	G	N1-C6-O6	6.99	124.09	119.90
22	BA	2447	G	N1-C6-O6	-6.99	115.71	119.90
22	BA	2055	C	O5'-P-OP2	-6.97	99.43	105.70
22	BA	760	G	N1-C6-O6	6.96	124.08	119.90
22	BA	2716	C	N3-C4-C5	6.94	124.68	121.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	769	U	N3-C2-O2	-6.94	117.34	122.20
22	BA	1658	C	C6-N1-C2	6.94	123.07	120.30
22	BA	2510	C	N1-C2-O2	-6.92	114.75	118.90
22	BA	450	G	N1-C6-O6	-6.91	115.75	119.90
22	BA	1274	A	N1-C6-N6	6.91	122.75	118.60
22	BA	1677	A	N9-C4-C5	-6.88	103.05	105.80
22	BA	672	C	N3-C4-C5	6.87	124.65	121.90
22	BA	980	A	N1-C6-N6	6.85	122.71	118.60
22	BA	1269	A	C4-C5-C6	6.85	120.42	117.00
1	AA	819	A	O5'-P-OP1	-6.84	99.55	105.70
22	BA	1780	A	O5'-P-OP2	-6.83	99.55	105.70
22	BA	1678	A	O5'-P-OP2	6.83	118.90	110.70
22	BA	2450	A	N1-C6-N6	6.82	122.69	118.60
22	BA	2824	C	OP2-P-O3'	6.82	120.19	105.20
22	BA	1189	A	O5'-P-OP2	-6.79	99.58	105.70
22	BA	2873	A	C8-N9-C4	-6.79	103.08	105.80
22	BA	780	G	N3-C4-N9	6.79	130.07	126.00
22	BA	2813	A	N1-C6-N6	6.79	122.67	118.60
22	BA	581	C	O5'-P-OP2	-6.78	99.60	105.70
22	BA	528	A	C2-N3-C4	-6.77	107.22	110.60
22	BA	2814	A	N1-C6-N6	6.76	122.66	118.60
22	BA	528	A	C5-C6-N1	-6.75	114.33	117.70
22	BA	1679	A	C4-C5-C6	6.75	120.37	117.00
22	BA	450	G	N3-C4-C5	-6.71	125.25	128.60
22	BA	980	A	C6-C5-N7	-6.70	127.61	132.30
22	BA	836	G	C4-C5-N7	6.70	113.48	110.80
1	CA	575	G	C4-N9-C1'	-6.69	117.81	126.50
1	CA	412	A	O4'-C1'-N9	6.63	113.51	108.20
22	DA	783	A	N1-C6-N6	6.63	122.58	118.60
22	BA	745	G	N3-C4-C5	-6.61	125.29	128.60
22	BA	2257	U	C5-C4-O4	6.61	129.86	125.90
22	BA	2002	G	C5-C6-O6	-6.60	124.64	128.60
22	BA	1654	A	N1-C6-N6	6.60	122.56	118.60
22	BA	1675	C	N1-C2-O2	-6.58	114.95	118.90
22	BA	461	C	N1-C2-O2	-6.54	114.97	118.90
22	BA	2565	A	N1-C6-N6	6.53	122.52	118.60
22	BA	1197	G	C4-N9-C1'	-6.53	118.02	126.50
22	BA	1019	U	O5'-P-OP1	-6.51	99.84	105.70
22	BA	783	A	N7-C8-N9	6.51	117.05	113.80
22	BA	2610	C	N3-C4-N4	-6.50	113.45	118.00
22	BA	1681	G	C5-C6-O6	-6.49	124.70	128.60
22	BA	1926	U	N1-C2-O2	6.48	127.33	122.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	533	G	C2-N3-C4	-6.47	108.66	111.90
22	BA	2037	A	N1-C6-N6	-6.47	114.72	118.60
22	BA	1321	A	C8-N9-C4	-6.47	103.21	105.80
22	BA	2592	G	O5'-P-OP1	-6.46	99.88	105.70
22	BA	1299	G	C6-C5-N7	-6.46	126.52	130.40
22	BA	1681	G	N1-C6-O6	6.44	123.77	119.90
22	BA	570	G	C5-C6-O6	-6.44	124.73	128.60
22	BA	2686	G	N1-C6-O6	6.43	123.76	119.90
13	AM	107	ARG	NE-CZ-NH1	6.42	123.51	120.30
22	BA	1677	A	C4-C5-N7	6.42	113.91	110.70
22	BA	2286	G	N3-C4-N9	-6.42	122.15	126.00
22	BA	977	G	O5'-P-OP2	-6.41	99.93	105.70
22	BA	2576	G	O5'-P-OP1	-6.40	99.94	105.70
22	BA	533	G	O5'-P-OP1	-6.40	99.94	105.70
22	BA	531	C	N1-C2-O2	6.38	122.73	118.90
22	BA	1779	U	N3-C4-O4	-6.38	114.94	119.40
1	AA	857	C	O5'-P-OP2	-6.37	99.97	105.70
22	BA	1677	A	C6-C5-N7	-6.37	127.84	132.30
22	BA	2498	C	C2-N1-C1'	-6.37	111.79	118.80
22	BA	32	C	N3-C2-O2	6.36	126.35	121.90
1	CA	575	G	N3-C4-N9	-6.35	122.19	126.00
22	BA	2439	A	N1-C6-N6	6.35	122.41	118.60
22	BA	2438	U	C5-C6-N1	-6.34	119.53	122.70
1	AA	1514	G	C5-C6-O6	-6.33	124.80	128.60
22	BA	2794	C	N1-C2-O2	-6.33	115.10	118.90
22	BA	942	G	N3-C2-N2	-6.33	115.47	119.90
22	BA	1032	A	N9-C4-C5	6.32	108.33	105.80
22	BA	2257	U	N3-C4-O4	-6.32	114.98	119.40
22	BA	1615	C	C6-N1-C2	-6.31	117.78	120.30
22	BA	1790	C	N1-C2-O2	-6.31	115.11	118.90
22	BA	488	G	N1-C6-O6	-6.31	116.11	119.90
1	AA	378	G	O5'-P-OP2	-6.30	100.03	105.70
22	BA	2674	G	N1-C6-O6	6.29	123.67	119.90
22	BA	802	A	O5'-P-OP1	-6.29	100.04	105.70
22	BA	737	C	OP1-P-OP2	6.28	129.02	119.60
22	BA	836	G	C5-C6-O6	-6.28	124.83	128.60
22	BA	2243	U	N1-C2-O2	-6.26	118.42	122.80
22	BA	2025	C	N3-C4-N4	-6.25	113.62	118.00
22	BA	2071	A	N3-C4-C5	6.25	131.18	126.80
22	BA	1260	A	O5'-P-OP1	6.25	118.20	110.70
22	BA	977	G	N1-C6-O6	6.25	123.65	119.90
22	BA	521	U	N3-C2-O2	-6.25	117.83	122.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	997	G	OP1-P-O3'	6.24	118.92	105.20
22	BA	2005	A	C5-C6-N6	-6.23	118.72	123.70
22	BA	961	C	O5'-P-OP2	-6.22	100.10	105.70
22	BA	1229	C	O5'-P-OP2	-6.21	100.11	105.70
22	BA	768	G	O5'-P-OP2	-6.20	100.12	105.70
22	BA	686	U	N1-C2-O2	-6.20	118.46	122.80
22	BA	2453	A	C4-C5-C6	6.18	120.09	117.00
22	BA	581	C	N3-C2-O2	-6.18	117.58	121.90
22	BA	2030	A	C5-C6-N1	-6.17	114.61	117.70
22	BA	2461	A	N1-C6-N6	6.17	122.30	118.60
22	BA	994	C	OP1-P-O3'	6.17	118.77	105.20
22	BA	2425	A	P-O3'-C3'	6.16	127.10	119.70
22	BA	2633	G	N3-C4-N9	-6.16	122.30	126.00
22	BA	2840	C	O5'-P-OP2	-6.16	100.16	105.70
22	BA	2263	C	C6-N1-C2	6.16	122.76	120.30
22	BA	1989	G	C6-C5-N7	-6.16	126.71	130.40
22	BA	1153	C	O5'-P-OP2	6.15	118.08	110.70
22	BA	1254	A	C6-N1-C2	-6.14	114.91	118.60
22	BA	2332	C	N1-C2-O2	-6.14	115.21	118.90
22	BA	752	A	N9-C4-C5	-6.14	103.34	105.80
22	BA	1909	C	C2-N1-C1'	6.14	125.55	118.80
22	BA	943	A	N1-C6-N6	6.13	122.28	118.60
22	BA	528	A	C4-C5-C6	6.13	120.06	117.00
22	BA	945	A	O5'-P-OP2	-6.12	100.19	105.70
22	BA	810	U	C5-C4-O4	-6.12	122.23	125.90
22	BA	1654	A	C4-C5-N7	6.11	113.76	110.70
22	BA	1761	C	C2-N1-C1'	6.10	125.51	118.80
22	BA	1277	G	N1-C6-O6	6.10	123.56	119.90
22	BA	1989	G	N1-C6-O6	6.10	123.56	119.90
22	BA	2388	A	N1-C6-N6	-6.09	114.95	118.60
22	BA	489	G	N9-C4-C5	6.08	107.83	105.40
22	BA	502	A	O5'-P-OP2	6.08	118.00	110.70
22	BA	973	A	OP2-P-O3'	6.08	118.58	105.20
22	BA	984	A	O4'-C1'-N9	6.08	113.06	108.20
22	BA	1754	A	OP1-P-OP2	-6.07	110.49	119.60
22	BA	2438	U	C2-N1-C1'	-6.07	110.42	117.70
22	BA	2689	U	C5-C4-O4	6.06	129.54	125.90
22	BA	2444	G	OP2-P-O3'	6.06	118.53	105.20
22	BA	1027	A	N1-C6-N6	6.05	122.23	118.60
22	BA	2250	G	N3-C4-C5	6.04	131.62	128.60
22	BA	528	A	C5-C6-N6	-6.04	118.87	123.70
22	BA	2448	A	N1-C6-N6	6.04	122.22	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2679	A	N1-C6-N6	6.04	122.22	118.60
22	BA	2588	G	O5'-P-OP2	-6.03	100.27	105.70
22	BA	2633	G	C2-N3-C4	-6.03	108.89	111.90
22	BA	528	A	C8-N9-C4	-6.01	103.39	105.80
22	BA	1265	A	OP1-P-O3'	6.01	118.42	105.20
22	BA	2452	C	C6-N1-C2	6.01	122.70	120.30
22	BA	2560	A	C8-N9-C4	-6.01	103.40	105.80
22	BA	2598	A	O5'-P-OP1	-6.01	100.29	105.70
22	BA	579	G	O5'-P-OP1	-6.00	100.30	105.70
22	BA	1132	U	N1-C2-N3	6.00	118.50	114.90
22	BA	1936	A	C2-N3-C4	-6.00	107.60	110.60
22	BA	1991	U	N3-C2-O2	-5.98	118.01	122.20
22	BA	778	G	N3-C4-N9	5.98	129.59	126.00
22	BA	970	U	OP2-P-O3'	5.98	118.35	105.20
22	BA	2238	G	N3-C2-N2	5.98	124.08	119.90
22	BA	590	A	N1-C6-N6	5.97	122.19	118.60
22	BA	686	U	N3-C2-O2	5.97	126.38	122.20
22	BA	2487	G	OP2-P-O3'	5.97	118.34	105.20
22	BA	752	A	N7-C8-N9	5.97	116.78	113.80
22	BA	855	G	N1-C6-O6	-5.95	116.33	119.90
22	BA	2250	G	O5'-P-OP1	-5.95	100.34	105.70
22	BA	727	A	N1-C6-N6	5.95	122.17	118.60
22	BA	664	G	O5'-P-OP2	-5.95	100.35	105.70
22	BA	2078	C	N3-C2-O2	-5.95	117.74	121.90
1	AA	503	C	C6-N1-C2	-5.95	117.92	120.30
22	BA	1644	C	C6-N1-C2	5.95	122.68	120.30
22	BA	1776	G	N1-C6-O6	5.93	123.46	119.90
22	BA	2037	A	N9-C4-C5	5.93	108.17	105.80
1	AA	971	G	O4'-C1'-N9	5.92	112.94	108.20
22	BA	912	C	OP1-P-O3'	5.92	118.22	105.20
22	BA	782	A	O5'-P-OP1	-5.91	100.38	105.70
22	BA	2054	A	OP2-P-O3'	5.91	118.21	105.20
22	BA	998	C	C6-N1-C2	-5.91	117.94	120.30
22	BA	1982	U	N3-C2-O2	-5.90	118.07	122.20
22	BA	942	G	N1-C6-O6	5.90	123.44	119.90
22	BA	672	C	C6-N1-C2	5.89	122.66	120.30
22	BA	740	C	C2-N3-C4	-5.89	116.95	119.90
22	BA	977	G	C5-C6-O6	-5.89	125.06	128.60
22	BA	1672	A	OP2-P-O3'	5.89	118.16	105.20
22	BA	583	G	N3-C4-N9	-5.89	122.47	126.00
22	BA	752	A	C5-C6-N6	-5.88	118.99	123.70
22	BA	481	G	C5-C6-O6	-5.88	125.07	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	790	U	O5'-P-OP2	-5.88	100.41	105.70
22	BA	1977	A	C5-C6-N1	-5.88	114.76	117.70
1	AA	1514	G	N1-C6-O6	5.88	123.43	119.90
22	BA	1977	A	C8-N9-C4	5.87	108.15	105.80
22	BA	571	U	O4'-C1'-N1	5.87	112.89	108.20
22	BA	1197	G	C8-N9-C1'	5.87	134.63	127.00
22	DA	729	G	O4'-C1'-N9	5.87	112.89	108.20
22	BA	2076	U	C5-C4-O4	5.86	129.42	125.90
22	BA	2059	A	OP1-P-OP2	5.86	128.39	119.60
22	BA	836	G	N1-C6-O6	5.85	123.41	119.90
22	BA	2578	G	C4-N9-C1'	-5.85	118.89	126.50
22	BA	2046	G	N1-C6-O6	5.84	123.41	119.90
22	BA	1250	G	OP1-P-OP2	5.83	128.35	119.60
22	DA	2447	G	C4-N9-C1'	-5.83	118.92	126.50
22	BA	536	G	C8-N9-C4	5.83	108.73	106.40
22	BA	1681	G	C4-C5-N7	5.83	113.13	110.80
22	BA	580	U	OP2-P-O3'	5.81	117.99	105.20
22	BA	2452	C	C2-N3-C4	-5.81	117.00	119.90
22	BA	783	A	C2-N3-C4	-5.81	107.70	110.60
1	AA	279	A	C5-C6-N6	-5.80	119.06	123.70
22	BA	461	C	N3-C2-O2	5.79	125.96	121.90
22	BA	16	C	O5'-P-OP2	-5.79	100.49	105.70
22	BA	2022	U	N1-C2-O2	5.79	126.85	122.80
22	BA	982	C	N1-C2-O2	5.79	122.37	118.90
22	BA	1311	G	C4-C5-N7	5.79	113.11	110.80
1	CA	209	U	C2-N1-C1'	5.78	124.64	117.70
22	BA	128	C	N1-C2-O2	-5.78	115.43	118.90
22	BA	1333	G	C5-C6-O6	5.78	132.06	128.60
22	BA	1779	U	O4'-C1'-N1	5.78	112.82	108.20
22	BA	1762	A	C5-C6-N6	-5.77	119.08	123.70
23	BB	107	G	C6-C5-N7	-5.77	126.94	130.40
22	BA	837	C	N1-C2-O2	-5.76	115.44	118.90
22	BA	752	A	C2-N3-C4	-5.76	107.72	110.60
22	BA	586	A	C8-N9-C4	-5.75	103.50	105.80
22	BA	2257	U	N3-C2-O2	-5.75	118.17	122.20
22	BA	1671	U	O5'-P-OP2	5.75	117.59	110.70
22	BA	952	G	C4-C5-N7	5.74	113.10	110.80
22	DA	481	G	O4'-C1'-N9	5.74	112.79	108.20
22	BA	2392	A	N1-C6-N6	5.73	122.04	118.60
22	BA	2718	G	O5'-P-OP1	-5.73	100.55	105.70
22	BA	514	A	OP1-P-O3'	5.72	117.79	105.20
22	BA	2029	G	C5-C6-N1	-5.72	108.64	111.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2799	A	N1-C6-N6	5.72	122.03	118.60
22	BA	2456	C	OP1-P-OP2	-5.72	111.02	119.60
23	BB	75	G	C6-C5-N7	-5.72	126.97	130.40
22	BA	2606	C	N1-C2-O2	-5.71	115.47	118.90
22	BA	1651	G	C4-N9-C1'	5.71	133.92	126.50
1	AA	664	G	N3-C4-N9	-5.71	122.58	126.00
22	BA	124	G	N3-C4-N9	-5.71	122.58	126.00
22	BA	1763	G	O5'-P-OP2	-5.68	100.58	105.70
22	BA	2004	G	OP1-P-OP2	5.68	128.12	119.60
22	BA	2350	C	OP2-P-O3'	5.68	117.69	105.20
22	BA	24	G	OP2-P-O3'	5.68	117.69	105.20
22	BA	532	A	N1-C6-N6	5.67	122.00	118.60
22	BA	32	C	N1-C2-O2	-5.67	115.50	118.90
22	BA	1299	G	N1-C6-O6	5.67	123.30	119.90
22	BA	1443	U	OP1-P-OP2	5.67	128.10	119.60
22	BA	2722	G	C6-C5-N7	-5.67	127.00	130.40
22	BA	1675	C	N1-C2-N3	5.66	123.16	119.20
22	BA	1131	G	OP1-P-O3'	5.65	117.64	105.20
22	BA	2606	C	C2-N3-C4	-5.65	117.07	119.90
22	BA	1784	A	C8-N9-C4	5.65	108.06	105.80
22	BA	200	U	N3-C2-O2	5.64	126.15	122.20
22	BA	47	C	N1-C2-O2	-5.63	115.52	118.90
22	BA	2592	G	C8-N9-C4	-5.63	104.15	106.40
22	BA	2581	G	C4-C5-N7	5.63	113.05	110.80
22	BA	563	A	N9-C4-C5	5.63	108.05	105.80
22	BA	962	G	C4-C5-N7	-5.63	108.55	110.80
22	BA	1550	C	N1-C2-O2	-5.63	115.52	118.90
22	BA	739	A	N1-C6-N6	5.62	121.97	118.60
22	BA	2815	C	C2-N3-C4	-5.62	117.09	119.90
1	AA	1504	G	O4'-C1'-N9	5.62	112.69	108.20
22	BA	655	A	N1-C6-N6	-5.61	115.23	118.60
22	BA	1266	G	C4-N9-C1'	-5.61	119.20	126.50
22	BA	748	G	O4'-C1'-N9	5.61	112.69	108.20
22	BA	855	G	C5-C6-O6	5.60	131.96	128.60
22	BA	1164	C	N1-C2-O2	-5.60	115.54	118.90
22	BA	2047	C	C6-N1-C2	5.60	122.54	120.30
22	BA	1022	G	N1-C6-O6	-5.60	116.54	119.90
22	BA	2076	U	N3-C4-O4	-5.60	115.48	119.40
1	AA	1279	G	N7-C8-N9	5.59	115.90	113.10
22	BA	1645	G	N3-C4-N9	5.59	129.35	126.00
22	BA	1125	G	C5-C6-O6	-5.59	125.25	128.60
22	BA	1142	A	C2-N3-C4	-5.59	107.81	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	1926	U	N3-C2-O2	-5.58	118.29	122.20
22	BA	2076	U	N1-C2-N3	5.58	118.25	114.90
1	CA	1286	U	C2-N1-C1'	5.58	124.39	117.70
22	DA	2425	A	P-O3'-C3'	5.58	126.39	119.70
22	BA	207	A	C8-N9-C4	-5.58	103.57	105.80
22	BA	2640	G	N1-C6-O6	5.58	123.25	119.90
22	BA	2577	A	O5'-P-OP2	-5.57	100.69	105.70
23	BB	98	G	C5-C6-O6	-5.57	125.26	128.60
22	BA	962	G	N9-C4-C5	5.57	107.63	105.40
22	BA	1651	G	N3-C4-C5	-5.57	125.81	128.60
22	BA	1771	C	N1-C2-N3	5.57	123.09	119.20
22	BA	2073	C	N1-C2-O2	-5.57	115.56	118.90
22	BA	1250	G	O5'-P-OP1	-5.56	100.70	105.70
22	BA	1430	G	OP1-P-OP2	-5.55	111.27	119.60
22	DA	2447	G	C8-N9-C1'	5.55	134.21	127.00
22	BA	1248	G	C5-C6-O6	-5.55	125.27	128.60
22	BA	979	A	OP1-P-OP2	5.54	127.92	119.60
22	BA	973	A	N1-C6-N6	-5.54	115.28	118.60
22	BA	1673	G	O4'-C1'-N9	5.54	112.63	108.20
22	BA	2813	A	C8-N9-C4	5.54	108.01	105.80
22	BA	2250	G	C2-N3-C4	-5.53	109.13	111.90
22	BA	2375	G	N3-C4-N9	-5.53	122.68	126.00
22	BA	1760	C	C6-N1-C2	5.53	122.51	120.30
22	BA	2447	G	C4-C5-N7	-5.53	108.59	110.80
22	BA	531	C	C6-N1-C2	-5.53	118.09	120.30
1	AA	1279	G	C8-N9-C4	-5.52	104.19	106.40
22	BA	1761	C	C6-N1-C1'	-5.52	114.17	120.80
22	BA	2450	A	C5-C6-N6	-5.52	119.28	123.70
22	BA	1475	G	O4'-C1'-N9	5.52	112.61	108.20
22	BA	1277	G	C5-C6-O6	-5.51	125.30	128.60
22	BA	2260	C	C6-N1-C2	5.51	122.50	120.30
22	BA	967	U	N3-C4-O4	-5.50	115.55	119.40
22	BA	1671	U	C5-C6-N1	5.50	125.45	122.70
22	BA	962	G	C8-N9-C1'	5.50	134.15	127.00
22	BA	2630	G	N1-C6-O6	5.50	123.20	119.90
1	CA	575	G	C8-N9-C1'	5.50	134.15	127.00
22	BA	2715	C	O5'-P-OP2	-5.50	100.75	105.70
22	BA	1993	U	N3-C4-O4	-5.50	115.55	119.40
22	BA	585	G	O5'-P-OP2	-5.49	100.76	105.70
22	BA	2708	G	N1-C6-O6	-5.49	116.61	119.90
22	BA	1197	G	N3-C2-N2	-5.49	116.06	119.90
22	BA	1771	C	C2-N3-C4	-5.49	117.16	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BB	104	A	N1-C6-N6	5.48	121.89	118.60
22	BA	820	A	OP2-P-O3'	5.47	117.24	105.20
22	BA	2011	U	N1-C2-O2	-5.47	118.97	122.80
22	BA	2018	G	N1-C6-O6	-5.47	116.62	119.90
22	BA	2705	A	N9-C4-C5	-5.47	103.61	105.80
22	BA	84	A	N1-C6-N6	-5.46	115.33	118.60
37	BP	103	ARG	NE-CZ-NH1	5.46	123.03	120.30
22	BA	1784	A	N1-C6-N6	5.45	121.87	118.60
22	BA	1784	A	N9-C4-C5	-5.45	103.62	105.80
22	BA	2452	C	C5-C6-N1	-5.45	118.28	121.00
22	BA	2037	A	C8-N9-C4	-5.45	103.62	105.80
22	BA	2872	A	N9-C4-C5	5.45	107.98	105.80
22	BA	572	A	OP2-P-O3'	5.44	117.18	105.20
22	BA	200	U	N1-C2-O2	-5.44	118.99	122.80
22	BA	1248	G	N1-C6-O6	5.44	123.17	119.90
22	BA	2046	G	C5-C6-O6	-5.44	125.33	128.60
22	BA	1286	A	O5'-P-OP2	-5.44	100.81	105.70
22	BA	1147	A	O5'-P-OP2	-5.43	100.81	105.70
22	BA	1645	G	C6-C5-N7	-5.43	127.14	130.40
22	BA	2002	G	C6-C5-N7	-5.43	127.14	130.40
22	BA	2071	A	C2-N3-C4	-5.43	107.89	110.60
22	BA	1638	C	C5-C4-N4	-5.42	116.40	120.20
22	BA	2610	C	C5-C4-N4	5.42	124.00	120.20
22	BA	2685	G	N3-C2-N2	-5.42	116.11	119.90
22	BA	2437	G	C2-N3-C4	-5.42	109.19	111.90
22	BA	571	U	C2-N1-C1'	-5.41	111.20	117.70
22	BA	1452	G	C8-N9-C4	-5.41	104.24	106.40
22	DA	143	C	N3-C4-C5	5.41	124.06	121.90
22	BA	1197	G	C6-C5-N7	5.40	133.64	130.40
1	AA	115	G	P-O3'-C3'	5.40	126.18	119.70
22	BA	254	G	N1-C6-O6	5.40	123.14	119.90
22	BA	974	G	N3-C4-C5	5.40	131.30	128.60
22	BA	1789	A	N1-C6-N6	5.40	121.84	118.60
22	BA	1955	U	N3-C2-O2	5.40	125.98	122.20
22	BA	1651	G	C8-N9-C4	-5.39	104.24	106.40
22	BA	25	U	N1-C2-O2	-5.39	119.03	122.80
23	BB	107	G	N3-C4-N9	5.38	129.23	126.00
22	BA	913	U	OP1-P-OP2	-5.38	111.53	119.60
22	BA	834	G	N1-C2-N3	5.38	127.12	123.90
1	AA	1286	U	C6-N1-C1'	-5.37	113.68	121.20
22	BA	783	A	OP1-P-O3'	5.37	117.02	105.20
22	DA	1314	C	C2-N1-C1'	5.37	124.71	118.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2686	G	C8-N9-C4	-5.37	104.25	106.40
22	DA	2591	C	C6-N1-C2	-5.37	118.15	120.30
22	DA	776	G	C4-N9-C1'	5.36	133.47	126.50
22	BA	2498	C	N3-C2-O2	5.36	125.65	121.90
22	BA	804	A	N1-C6-N6	5.36	121.82	118.60
22	BA	2634	A	N1-C6-N6	5.36	121.82	118.60
22	BA	760	G	C5-C6-O6	-5.36	125.39	128.60
22	BA	1994	C	N1-C2-O2	5.36	122.11	118.90
22	BA	668	A	C4-C5-N7	5.35	113.38	110.70
22	BA	975	A	C8-N9-C4	-5.35	103.66	105.80
22	BA	1779	U	N3-C2-O2	-5.34	118.47	122.20
22	BA	2461	A	N9-C4-C5	-5.34	103.67	105.80
22	BA	1230	A	O5'-P-OP2	-5.33	100.90	105.70
22	BA	443	A	C8-N9-C4	-5.33	103.67	105.80
22	BA	1248	G	C6-C5-N7	-5.33	127.20	130.40
22	BA	1645	G	N9-C4-C5	-5.33	103.27	105.40
22	BA	2570	G	N1-C6-O6	-5.33	116.70	119.90
22	BA	837	C	N3-C4-C5	5.33	124.03	121.90
22	BA	979	A	N1-C6-N6	-5.33	115.40	118.60
22	BA	826	U	OP2-P-O3'	5.32	116.91	105.20
22	BA	2258	C	C6-N1-C2	5.32	122.43	120.30
22	BA	2687	U	N1-C2-O2	-5.31	119.08	122.80
22	BA	2286	G	C4-N9-C1'	-5.31	119.59	126.50
1	AA	108	G	C8-N9-C4	-5.31	104.28	106.40
22	BA	450	G	C5-C6-O6	5.31	131.78	128.60
22	DA	776	G	C8-N9-C1'	-5.31	120.10	127.00
22	BA	2630	G	C5-C6-O6	-5.30	125.42	128.60
22	BA	1269	A	C6-C5-N7	-5.30	128.59	132.30
22	BA	2592	G	N3-C2-N2	-5.30	116.19	119.90
22	BA	574	A	O5'-P-OP2	5.30	117.06	110.70
22	BA	2075	U	N3-C2-O2	-5.30	118.49	122.20
22	BA	200	U	N3-C4-O4	5.30	123.11	119.40
22	BA	533	G	N3-C4-C5	5.29	131.25	128.60
22	BA	2817	U	N3-C2-O2	5.29	125.91	122.20
22	BA	1229	C	N1-C2-O2	-5.29	115.73	118.90
22	BA	2004	G	C8-N9-C4	5.29	108.52	106.40
22	BA	938	G	C8-N9-C1'	5.29	133.87	127.00
22	BA	2633	G	N3-C2-N2	-5.29	116.20	119.90
22	BA	1326	U	N3-C2-O2	5.28	125.90	122.20
22	BA	953	G	C8-N9-C4	5.28	108.51	106.40
22	BA	957	C	C6-N1-C2	5.28	122.41	120.30
22	BA	2323	G	C6-C5-N7	-5.28	127.23	130.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	276	U	N1-C2-O2	5.28	126.49	122.80
22	BA	1614	A	O5'-P-OP1	-5.28	100.95	105.70
22	BA	2080	A	N1-C6-N6	5.27	121.76	118.60
22	BA	529	A	C8-N9-C4	5.27	107.91	105.80
22	BA	2252	G	C6-C5-N7	-5.27	127.24	130.40
22	BA	2627	G	C5-C6-O6	-5.27	125.44	128.60
22	BA	1464	G	N3-C4-N9	-5.26	122.84	126.00
22	BA	765	C	O5'-P-OP2	-5.26	100.96	105.70
1	CA	1151	A	O4'-C1'-N9	5.26	112.41	108.20
22	BA	747	U	C5-C4-O4	5.26	129.06	125.90
1	AA	279	A	C4-C5-N7	5.25	113.33	110.70
22	BA	2451	A	OP1-P-OP2	-5.25	111.72	119.60
22	BA	1651	G	OP1-P-O3'	5.25	116.75	105.20
22	BA	1989	G	N9-C4-C5	-5.25	103.30	105.40
22	BA	1649	G	OP1-P-OP2	5.25	127.47	119.60
22	BA	1128	G	C5-C6-O6	-5.24	125.45	128.60
22	BA	1756	G	O4'-C1'-N9	-5.24	104.01	108.20
22	BA	30	G	O5'-P-OP1	-5.24	100.98	105.70
22	BA	2456	C	OP1-P-O3'	5.24	116.73	105.20
22	BA	1255	U	OP1-P-OP2	5.24	127.46	119.60
22	BA	243	U	C5-C4-O4	-5.24	122.76	125.90
22	BA	1193	G	OP1-P-OP2	-5.23	111.75	119.60
22	BA	1977	A	N3-C4-C5	5.23	130.46	126.80
22	BA	2036	C	C6-N1-C2	-5.23	118.21	120.30
22	BA	1827	U	OP1-P-OP2	5.23	127.44	119.60
22	BA	2581	G	N9-C4-C5	-5.23	103.31	105.40
22	BA	2587	A	OP2-P-O3'	5.23	116.70	105.20
22	BA	578	G	C6-C5-N7	-5.22	127.27	130.40
22	BA	674	G	C8-N9-C4	-5.22	104.31	106.40
22	BA	2055	C	C5-C6-N1	-5.22	118.39	121.00
6	CF	86	ARG	NE-CZ-NH1	5.22	122.91	120.30
22	BA	1185	G	N1-C6-O6	-5.22	116.77	119.90
22	BA	2391	G	O4'-C1'-N9	5.21	112.37	108.20
22	BA	2434	A	C8-N9-C4	-5.21	103.72	105.80
33	BL	44	GLY	N-CA-C	-5.21	100.07	113.10
22	BA	276	U	C2-N1-C1'	5.21	123.95	117.70
22	BA	2694	G	C5-C6-O6	-5.21	125.47	128.60
22	BA	553	G	OP2-P-O3'	5.21	116.65	105.20
22	BA	2513	A	OP2-P-O3'	5.21	116.65	105.20
1	CA	733	G	P-O3'-C3'	5.21	125.95	119.70
22	BA	1286	A	C5-C6-N6	-5.20	119.54	123.70
22	BA	456	C	OP1-P-OP2	5.20	127.40	119.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	686	U	C2-N1-C1'	-5.20	111.46	117.70
22	BA	745	G	C6-N1-C2	-5.20	121.98	125.10
39	BR	51	VAL	C-N-CD	5.20	139.32	128.40
22	BA	772	C	C5-C4-N4	-5.20	116.56	120.20
22	BA	1153	C	OP2-P-O3'	5.20	116.63	105.20
22	BA	2612	C	C2-N1-C1'	-5.20	113.09	118.80
23	BB	5	U	N1-C2-O2	-5.20	119.16	122.80
22	BA	1123	C	C2-N3-C4	-5.19	117.30	119.90
22	BA	1790	C	C2-N3-C4	-5.19	117.30	119.90
22	BA	825	A	OP2-P-O3'	5.19	116.62	105.20
22	BA	2630	G	C6-C5-N7	-5.19	127.28	130.40
22	BA	2684	U	OP2-P-O3'	5.19	116.62	105.20
1	AA	365	U	C2-N1-C1'	-5.19	111.47	117.70
22	BA	249	C	N1-C2-O2	-5.19	115.79	118.90
22	BA	1762	A	C6-C5-N7	-5.18	128.67	132.30
22	BA	2553	G	N3-C4-C5	-5.18	126.01	128.60
22	BA	783	A	P-O3'-C3'	-5.18	113.48	119.70
22	BA	1216	G	C8-N9-C4	5.18	108.47	106.40
22	BA	488	G	C5-C6-O6	5.18	131.71	128.60
22	BA	1151	A	OP1-P-O3'	5.18	116.59	105.20
23	BB	5	U	N3-C2-O2	5.18	125.82	122.20
22	DA	1666	G	C4-N9-C1'	-5.18	119.77	126.50
22	BA	2330	G	N1-C6-O6	5.17	123.00	119.90
22	BA	576	U	N1-C2-O2	-5.17	119.18	122.80
22	BA	726	G	C2-N3-C4	-5.17	109.31	111.90
22	BA	2071	A	O5'-P-OP2	-5.17	101.05	105.70
22	BA	2428	G	C5-C6-N1	5.16	114.08	111.50
1	AA	348	G	C5-C6-O6	-5.16	125.50	128.60
22	BA	1127	A	C8-N9-C4	5.16	107.86	105.80
22	BA	2251	G	OP1-P-O3'	5.16	116.55	105.20
22	BA	962	G	C4-N9-C1'	-5.15	119.80	126.50
22	BA	1645	G	N3-C2-N2	5.15	123.51	119.90
22	BA	1426	G	C6-C5-N7	-5.15	127.31	130.40
22	BA	2645	G	C8-N9-C1'	-5.15	120.31	127.00
22	BA	1509	A	N1-C6-N6	5.14	121.69	118.60
22	BA	2024	G	C5-C6-O6	5.14	131.69	128.60
22	BA	2510	C	N3-C4-N4	5.14	121.60	118.00
22	BA	2719	G	N1-C6-O6	5.14	122.98	119.90
22	BA	1126	A	C4-C5-C6	5.14	119.57	117.00
22	BA	532	A	C4-C5-N7	5.14	113.27	110.70
22	BA	938	G	C4-N9-C1'	-5.14	119.82	126.50
22	BA	2030	A	C4-C5-N7	-5.14	108.13	110.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2838	G	N1-C6-O6	5.14	122.98	119.90
22	BA	2036	C	C2-N1-C1'	5.13	124.45	118.80
22	BA	2510	C	N3-C2-O2	5.13	125.49	121.90
22	BA	64	A	C8-N9-C4	-5.13	103.75	105.80
1	AA	348	G	N1-C6-O6	5.13	122.98	119.90
22	BA	1164	C	O5'-P-OP2	-5.13	101.08	105.70
1	AA	365	U	C6-N1-C1'	5.13	128.38	121.20
1	AA	742	G	C4-N9-C1'	-5.12	119.84	126.50
22	BA	583	G	N3-C4-C5	5.12	131.16	128.60
29	BH	121	VAL	C-N-CA	5.12	134.50	121.70
1	AA	1513	A	C8-N9-C4	5.12	107.85	105.80
22	BA	1326	U	N1-C2-O2	-5.12	119.22	122.80
22	BA	1658	C	C5-C6-N1	-5.11	118.44	121.00
22	BA	2625	G	C8-N9-C4	5.11	108.44	106.40
22	BA	2326	C	C3'-C2'-C1'	5.11	105.59	101.50
22	BA	1909	C	C5-C6-N1	5.11	123.56	121.00
22	BA	806	C	C5-C4-N4	-5.11	116.62	120.20
22	BA	1654	A	N9-C4-C5	-5.11	103.76	105.80
22	BA	677	A	O5'-P-OP1	5.10	116.82	110.70
22	BA	971	G	N3-C4-C5	-5.10	126.05	128.60
22	BA	946	C	C5-C4-N4	-5.10	116.63	120.20
22	BA	1346	G	C8-N9-C1'	5.09	133.62	127.00
22	BA	1768	C	N3-C2-O2	-5.09	118.33	121.90
1	AA	1524	C	N1-C2-O2	-5.09	115.85	118.90
22	BA	1270	C	OP1-P-OP2	-5.09	111.97	119.60
22	BA	586	A	N9-C4-C5	5.09	107.83	105.80
22	BA	2645	G	N3-C4-N9	5.09	129.05	126.00
22	BA	461	C	C6-N1-C2	5.09	122.33	120.30
22	BA	1394	U	O4'-C1'-N1	-5.09	104.13	108.20
22	BA	1637	A	N1-C6-N6	5.08	121.65	118.60
22	BA	2257	U	N1-C2-O2	5.08	126.36	122.80
22	BA	2685	G	N3-C4-N9	-5.08	122.95	126.00
22	BA	2705	A	C5-C6-N6	-5.08	119.63	123.70
22	DA	2326	C	C6-N1-C2	-5.08	118.27	120.30
22	BA	2715	C	N1-C2-O2	5.08	121.95	118.90
22	BA	705	A	C6-C5-N7	-5.08	128.75	132.30
22	BA	2030	A	N1-C6-N6	-5.08	115.56	118.60
22	BA	727	A	C6-C5-N7	-5.07	128.75	132.30
22	BA	1966	A	O4'-C1'-N9	-5.07	104.14	108.20
22	BA	975	A	N7-C8-N9	5.07	116.33	113.80
1	AA	279	A	N9-C4-C5	-5.07	103.77	105.80
22	BA	2246	G	C8-N9-C4	5.07	108.43	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	1989	G	C4-C5-N7	5.06	112.83	110.80
22	BA	2076	U	C5-C6-N1	-5.06	120.17	122.70
22	BA	1926	U	P-O3'-C3'	-5.06	113.63	119.70
22	BA	969	G	N1-C6-O6	5.06	122.93	119.90
22	BA	809	G	O5'-P-OP1	5.05	116.76	110.70
22	BA	2645	G	C4-N9-C1'	5.05	133.07	126.50
1	AA	664	G	C8-N9-C1'	5.05	133.57	127.00
22	BA	796	C	N1-C2-O2	5.05	121.93	118.90
22	BA	1269	A	N1-C6-N6	5.05	121.63	118.60
22	BA	914	G	N3-C4-C5	5.04	131.12	128.60
22	BA	2517	C	N3-C4-C5	5.04	123.92	121.90
22	BA	199	A	N1-C6-N6	-5.04	115.58	118.60
22	BA	2722	G	C4-C5-N7	5.04	112.82	110.80
22	BA	784	G	C5-C6-O6	5.04	131.62	128.60
22	BA	670	A	O5'-P-OP1	-5.04	101.17	105.70
22	BA	1618	A	N1-C6-N6	-5.03	115.58	118.60
22	BA	770	G	C6-C5-N7	-5.03	127.38	130.40
22	BA	1244	A	N1-C6-N6	5.03	121.62	118.60
22	BA	2486	C	N1-C2-O2	-5.03	115.88	118.90
22	BA	699	A	N1-C6-N6	-5.03	115.58	118.60
22	BA	1253	A	C8-N9-C4	5.03	107.81	105.80
22	BA	2069	G	C4-C5-N7	5.03	112.81	110.80
22	BA	2613	U	O5'-P-OP2	-5.03	101.17	105.70
22	BA	906	U	O4'-C1'-N1	5.03	112.22	108.20
22	BA	980	A	C4-C5-N7	5.03	113.21	110.70
22	BA	39	G	N1-C6-O6	-5.02	116.89	119.90
22	BA	737	C	C2-N3-C4	-5.02	117.39	119.90
10	CJ	48	ARG	NE-CZ-NH1	5.02	122.81	120.30
22	BA	687	C	C5-C6-N1	-5.02	118.49	121.00
22	BA	1191	G	N1-C6-O6	-5.02	116.89	119.90
22	BA	2076	U	N3-C2-O2	-5.02	118.69	122.20
22	BA	2623	G	N3-C4-N9	5.02	129.01	126.00
22	BA	2723	C	OP2-P-O3'	5.02	116.24	105.20
1	AA	890	G	O4'-C1'-N9	5.01	112.21	108.20
22	BA	242	G	C8-N9-C1'	5.01	133.52	127.00
22	BA	1340	U	O4'-C1'-N1	5.01	112.21	108.20
22	BA	2375	G	C8-N9-C1'	5.01	133.52	127.00
22	BA	1212	G	O4'-C1'-N9	5.01	112.21	108.20
22	BA	2243	U	O5'-P-OP1	-5.01	101.19	105.70
22	BA	747	U	N3-C4-O4	-5.01	115.89	119.40
22	BA	783	A	C4-C5-N7	5.01	113.20	110.70
1	AA	742	G	N3-C4-C5	5.01	131.10	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AQ	75	LEU	CA-CB-CG	5.01	126.82	115.30
22	BA	2719	G	C5-C6-O6	-5.01	125.60	128.60
22	BA	847	U	N3-C2-O2	-5.00	118.70	122.20
22	BA	977	G	OP1-P-O3'	5.00	116.21	105.20
22	BA	2724	U	OP2-P-O3'	5.00	116.21	105.20
22	BA	2889	C	C2-N3-C4	-5.00	117.40	119.90
22	BA	1945	G	C4-N9-C1'	5.00	133.00	126.50
22	BA	2581	G	N1-C6-O6	5.00	122.90	119.90

There are no chirality outliers.

All (13) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
11	AK	126	LYS	Peptide
21	AU	39	GLU	Peptide
21	AU	8	GLU	Peptide
25	BD	151	THR	Peptide
33	BL	110	VAL	Peptide
47	BZ	15	GLY	Peptide
2	CB	84	ALA	Peptide
5	CE	102	GLY	Peptide
6	CF	54	LEU	Peptide
11	CK	126	LYS	Peptide
12	CL	23	ALA	Peptide
21	CU	35	ARG	Peptide
25	DD	151	THR	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	1173	4
1	CA	33015	0	16617	1168	1
2	AB	1705	0	1732	198	0
2	CB	1705	0	1732	149	0
3	AC	1625	0	1696	88	0
3	CC	1625	0	1696	94	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	AD	1643	0	1707	143	0
4	CD	1643	0	1707	130	0
5	AE	1106	0	1148	82	0
5	CE	1106	0	1148	115	0
6	AF	818	0	808	60	0
6	CF	818	0	808	65	0
7	AG	1182	0	1238	78	0
7	CG	1182	0	1238	57	0
8	AH	979	0	1031	64	0
8	CH	979	0	1031	54	0
9	AI	1022	0	1070	91	0
9	CI	1022	0	1070	67	0
10	AJ	787	0	828	97	0
10	CJ	787	0	828	48	0
11	AK	877	0	887	87	0
11	CK	877	0	887	74	0
12	AL	955	0	1016	54	0
12	CL	955	0	1016	61	0
13	AM	884	0	941	70	0
13	CM	884	0	941	56	0
14	AN	774	0	824	74	0
14	CN	774	0	824	55	0
15	AO	710	0	728	45	0
15	CO	710	0	728	46	0
16	AP	649	0	666	64	0
16	CP	649	0	666	30	0
17	AQ	649	0	691	59	0
17	CQ	649	0	691	55	0
18	AR	456	0	478	22	0
18	CR	456	0	478	39	0
19	AS	638	0	665	40	0
19	CS	638	0	665	30	0
20	AT	665	0	714	53	0
20	CT	665	0	714	48	0
21	AU	426	0	449	57	0
21	CU	426	0	449	54	0
22	BA	62195	0	31280	1960	0
22	DA	62195	0	31280	2094	1
23	BB	2549	0	1291	47	0
23	DB	2529	0	1281	64	0
24	BC	2083	0	2154	131	0
24	DC	2083	0	2154	140	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	BD	1565	0	1616	108	0
25	DD	1565	0	1616	85	0
26	BE	1552	0	1619	71	0
26	DE	1552	0	1619	108	0
27	BF	1411	0	1444	84	0
27	DF	1411	0	1444	53	0
28	BG	1323	0	1371	62	0
28	DG	1323	0	1371	62	0
29	BH	1110	0	1147	167	0
29	DH	1110	0	1148	93	4
30	BI	1032	0	1085	89	0
30	DI	1032	0	1085	76	0
31	BJ	1129	0	1162	45	0
31	DJ	1129	0	1162	55	0
32	BK	939	0	1012	48	0
32	DK	939	0	1012	35	0
33	BL	1045	0	1117	54	0
33	DL	1045	0	1117	71	0
34	BM	1074	0	1157	49	0
34	DM	1074	0	1157	31	0
35	BN	961	0	1000	68	0
35	DN	961	0	1000	69	0
36	BO	892	0	923	41	0
36	DO	892	0	923	48	0
37	BP	917	0	962	43	0
37	DP	917	0	962	49	0
38	BQ	947	0	1019	62	0
38	DQ	947	0	1019	56	0
39	BR	816	0	839	84	0
39	DR	816	0	839	52	0
40	BS	857	0	922	58	0
40	DS	857	0	922	43	0
41	BT	739	0	807	34	0
41	DT	739	0	807	54	0
42	BU	780	0	831	35	0
42	DU	780	0	831	71	0
43	BV	753	0	780	35	0
43	DV	753	0	780	24	0
44	BW	580	0	594	21	0
44	DW	569	0	581	20	0
45	BX	625	0	652	26	0
45	DX	625	0	652	67	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
46	BY	509	0	543	36	0
46	DY	509	0	543	45	0
47	BZ	449	0	488	20	0
47	DZ	449	0	488	16	0
48	B0	444	0	458	35	0
48	D0	444	0	458	26	0
49	B1	410	0	440	17	0
49	D1	410	0	440	19	0
50	B2	377	0	418	14	0
50	D2	377	0	418	28	0
51	B3	504	0	572	25	0
51	D3	504	0	572	31	0
52	B4	302	0	340	18	0
52	D4	302	0	342	21	0
53	B5	1142	0	865	58	0
54	AA	72	0	0	0	0
54	BA	194	0	0	0	0
54	BB	4	0	0	0	0
54	BN	1	0	0	0	0
54	CA	55	0	0	0	0
54	CM	1	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	38	5	0
55	DA	38	0	37	11	0
56	B4	1	0	0	2	0
56	D4	1	0	0	0	0
57	AA	195	0	0	29	0
57	AL	1	0	0	0	0
57	AN	5	0	0	0	0
57	AT	1	0	0	0	0
57	AU	1	0	0	1	0
57	B2	1	0	0	1	0
57	B3	2	0	0	0	0
57	B4	1	0	0	0	0
57	BA	620	0	0	101	0
57	BB	13	0	0	0	0
57	BC	6	0	0	4	0
57	BD	3	0	0	3	0
57	BE	4	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	BF	1	0	0	1	0
57	BG	1	0	0	0	0
57	BL	8	0	0	0	0
57	BN	4	0	0	0	0
57	BS	1	0	0	0	0
57	BV	1	0	0	0	0
57	CA	189	0	0	19	0
57	CL	1	0	0	0	0
57	CN	3	0	0	0	0
57	CT	4	0	0	0	0
57	CU	1	0	0	0	0
57	D0	1	0	0	0	0
57	D2	3	0	0	0	0
57	D3	2	0	0	0	0
57	D4	1	0	0	0	0
57	DA	613	0	0	87	0
57	DB	13	0	0	1	0
57	DC	9	0	0	1	0
57	DD	4	0	0	2	0
57	DE	2	0	0	0	0
57	DJ	1	0	0	0	0
57	DL	3	0	0	1	0
57	DN	1	0	0	0	0
57	DT	2	0	0	0	0
57	DV	1	0	0	0	0
All	All	288258	0	192864	11506	5

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 24.

All (11506) 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)
29:BH:123:ARG:NH2	1:CA:367:U:OP2	1.64	1.27
29:BH:117:LEU:O	29:BH:121:VAL:HG23	1.34	1.22
22:BA:1153:C:OP2	57:BA:3357:HOH:O	1.59	1.19
15:AO:89:ARG:NH1	22:BA:716:A:OP2	1.75	1.19
22:BA:2574:G:OP1	57:BA:3713:HOH:O	1.61	1.18
22:BA:1342:A:OP2	57:BA:3717:HOH:O	1.63	1.16
22:BA:2005:A:OP1	57:BA:3383:HOH:O	1.63	1.15
1:AA:684:U:O2'	11:AK:40:ASN:O	1.63	1.14

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:117:LEU:O	29:BH:121:VAL:CG2	1.95	1.14
25:BD:140:HIS:NE2	57:BD:302:HOH:O	1.81	1.13
1:CA:1385:G:N7	57:CA:1870:HOH:O	1.81	1.12
1:AA:516:U:O4	57:AA:1849:HOH:O	1.68	1.11
22:DA:2711:A:OP2	57:DA:3548:HOH:O	1.68	1.11
29:BH:123:ARG:O	29:BH:124:THR:CG2	2.01	1.09
22:DA:192:C:OP1	57:DA:3738:HOH:O	1.69	1.08
22:BA:2579:C:OP1	57:BA:3541:HOH:O	1.71	1.08
1:AA:702:A:N6	22:BA:1846:G:O2'	1.87	1.08
22:DA:1395:A:OP2	57:DA:3403:HOH:O	1.72	1.07
22:BA:731:C:OP2	57:BA:3695:HOH:O	1.72	1.07
25:DD:151:THR:O	25:DD:153:GLY:N	1.88	1.06
22:BA:2498:C:OP2	57:BA:3687:HOH:O	1.72	1.04
22:BA:2453:A:N7	57:BA:3524:HOH:O	1.91	1.04
22:BA:842:U:O4	57:BA:3588:HOH:O	1.74	1.04
22:DA:756:A:N7	57:DA:3301:HOH:O	1.90	1.04
22:BA:2499:C:OP2	57:BA:3687:HOH:O	1.77	1.03
22:DA:2588:G:OP1	57:DA:3314:HOH:O	1.77	1.03
22:BA:978:G:N7	57:BA:3590:HOH:O	1.89	1.03
22:BA:2575:C:OP2	57:BA:3713:HOH:O	1.76	1.02
29:BH:97:ARG:HD2	1:CA:369:G:O2'	1.57	1.01
29:BH:117:LEU:HD21	29:BH:121:VAL:H	1.23	1.00
22:DA:2262:U:OP1	44:DW:41:ARG:NH2	1.95	1.00
1:AA:965:U:OP2	57:AA:1832:HOH:O	1.79	1.00
22:DA:370:G:N7	57:DA:3560:HOH:O	1.92	0.99
29:BH:123:ARG:O	29:BH:124:THR:HG23	1.61	0.99
22:DA:1371:G:N7	57:DA:3399:HOH:O	1.95	0.99
5:CE:157:ARG:O	5:CE:159:LYS:N	1.95	0.99
22:BA:2757:A:N1	28:BG:67:THR:HG21	1.78	0.99
22:BA:1179:G:C5	22:BA:1180:U:H1'	1.96	0.99
22:BA:2728:U:O2'	22:BA:2729:G:OP2	1.79	0.99
22:DA:973:A:OP2	39:DR:81:LYS:NZ	1.95	0.98
4:AD:125:VAL:O	4:AD:127:GLY:N	1.97	0.98
14:CN:41:ARG:NH1	14:CN:42:TRP:O	1.97	0.97
22:DA:1010:A:OP2	57:DA:3780:HOH:O	1.81	0.97
22:DA:1006:C:OP2	57:DA:3781:HOH:O	1.83	0.97
22:DA:1823:G:N7	57:DA:3654:HOH:O	1.96	0.97
2:AB:82:ASP:O	2:AB:85:LEU:N	1.97	0.96
29:DH:40:THR:O	29:DH:42:LYS:N	1.98	0.96
1:AA:1077:G:N7	57:AA:1789:HOH:O	1.98	0.96
22:DA:58:G:OP1	41:DT:78:SER:OG	1.82	0.96

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:123:ARG:HH22	1:CA:367:U:P	1.88	0.96
2:CB:206:ALA:O	2:CB:208:ARG:N	1.98	0.96
39:BR:24:LYS:HA	39:BR:94:THR:HG23	1.47	0.96
22:BA:2291:U:H2'	22:BA:2292:U:C6	2.01	0.95
22:BA:747:U:C5	22:BA:2613:U:C5	2.54	0.95
5:AE:14:LYS:NZ	5:AE:116:GLU:OE1	1.99	0.95
2:AB:21:ARG:O	2:AB:23:TRP:N	2.00	0.95
29:BH:120:GLY:C	29:BH:122:LEU:HA	1.85	0.95
22:BA:1602:U:O4	57:BA:3717:HOH:O	1.83	0.94
29:BH:83:LYS:HD2	1:CA:55:A:O2'	1.67	0.94
27:DF:122:PHE:O	27:DF:124:GLY:N	2.01	0.94
22:DA:2004:G:OP2	57:DA:3803:HOH:O	1.85	0.94
22:BA:14:A:OP2	57:BA:3553:HOH:O	1.84	0.94
22:DA:602:A:O2'	22:DA:604:G:O2'	1.83	0.94
22:BA:2025:C:OP2	57:BA:3473:HOH:O	1.84	0.94
22:BA:2057:G:OP2	57:BA:3488:HOH:O	1.85	0.93
1:AA:533:A:OP1	57:AA:1849:HOH:O	1.86	0.93
22:BA:944:C:O3'	57:BA:3345:HOH:O	1.86	0.93
22:BA:1669:A:OP2	57:BA:3726:HOH:O	1.86	0.92
4:AD:22:LYS:O	4:AD:24:GLY:N	2.03	0.92
1:CA:1198:G:N7	57:CA:1849:HOH:O	2.01	0.92
22:DA:450:G:O6	57:DA:3240:HOH:O	1.86	0.92
22:DA:528:A:OP1	57:DA:3244:HOH:O	1.87	0.91
22:BA:58:G:OP1	41:BT:78:SER:HB2	1.70	0.91
1:CA:257:G:N7	57:CA:1718:HOH:O	2.03	0.90
29:DH:83:LYS:HG3	29:DH:149:GLU:CG	2.02	0.90
5:CE:101:GLU:O	5:CE:103:THR:N	2.04	0.90
22:BA:1965:C:OP1	22:BA:1966:A:O2'	1.90	0.89
22:BA:2478:A:H5'	52:B4:32:LYS:HD3	1.52	0.89
22:DA:527:C:OP1	57:DA:3245:HOH:O	1.90	0.89
1:AA:405:U:O4	4:AD:2:ALA:N	2.05	0.89
22:DA:2134:A:N6	22:DA:2157:G:O2'	2.04	0.89
1:AA:1407:C:O2'	22:BA:1912:A:N6	2.05	0.89
22:DA:1602:U:O4	57:DA:3713:HOH:O	1.88	0.89
6:CF:12:PRO:O	6:CF:15:SER:OG	1.91	0.89
21:AU:35:ARG:O	21:AU:37:PHE:N	2.06	0.89
5:AE:159:LYS:O	8:AH:64:LYS:NZ	2.05	0.89
22:BA:1780:A:OP1	57:BA:3694:HOH:O	1.91	0.89
22:BA:826:U:O2'	33:BL:53:GLY:HA3	1.73	0.89
1:CA:858:G:N7	57:CA:1817:HOH:O	2.05	0.89
6:CF:91:ARG:O	6:CF:92:THR:OG1	1.89	0.88

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:116:LYS:O	12:CL:117:TYR:CG	2.26	0.88
22:BA:2615:U:OP2	57:BA:3753:HOH:O	1.89	0.88
22:BA:2497:A:O3'	57:BA:3688:HOH:O	1.91	0.88
22:BA:2573:C:OP1	57:BA:3713:HOH:O	1.89	0.88
1:CA:1097:C:OP1	2:CB:139:ARG:NH2	2.07	0.88
1:AA:1500:A:OP2	57:AA:1872:HOH:O	1.91	0.88
29:BH:123:ARG:O	29:BH:124:THR:HG22	1.74	0.88
22:DA:2627:G:O2'	22:DA:2781:A:N1	2.07	0.88
1:CA:484:G:H4'	1:CA:485:U:O5'	1.74	0.88
2:CB:103:ASN:ND2	2:CB:106:THR:OG1	2.07	0.87
29:BH:117:LEU:C	29:BH:121:VAL:HG23	1.93	0.87
22:DA:761:A:OP2	57:DA:3295:HOH:O	1.92	0.87
1:CA:687:A:O2'	1:CA:701:U:O4	1.92	0.87
1:AA:1166:G:N1	1:AA:1169:A:OP2	2.08	0.87
22:BA:1070:A:O2'	22:BA:1097:U:OP1	1.91	0.87
29:DH:83:LYS:HG3	29:DH:149:GLU:HG2	1.56	0.86
22:BA:273:G:N2	22:BA:365:U:O2	2.08	0.86
1:CA:412:A:O2'	1:CA:413:G:H4'	1.75	0.86
17:CQ:19:LYS:O	17:CQ:71:LYS:NZ	2.08	0.86
22:DA:161:A:H3'	22:DA:162:U:H5''	1.57	0.86
14:AN:46:LEU:O	14:AN:48:LEU:N	2.08	0.86
22:DA:1378:A:O2'	22:DA:1380:G:N7	2.07	0.86
22:DA:2006:C:OP1	57:DA:3379:HOH:O	1.92	0.86
35:DN:90:ARG:CZ	35:DN:116:VAL:HG11	2.06	0.86
22:BA:2458:G:N3	22:BA:2490:G:N2	2.24	0.85
29:BH:147:VAL:HG12	29:BH:149:GLU:HG3	1.57	0.85
22:DA:249:C:O5'	22:DA:2394:C:O2'	1.94	0.85
22:BA:1073:A:H3'	22:BA:1074:G:C5'	2.05	0.85
23:DB:28:C:OP1	36:DO:36:TYR:OH	1.94	0.85
21:CU:10:GLU:HG3	21:CU:11:PRO:HD3	1.56	0.85
22:BA:997:G:OP1	38:BQ:92:ARG:HG2	1.77	0.85
22:DA:2271:G:O6	57:DA:3509:HOH:O	1.94	0.85
22:DA:310:A:O2'	22:DA:311:A:OP2	1.94	0.85
14:AN:64:CYS:SG	14:AN:67:THR:OG1	2.30	0.85
25:BD:125:TRP:CE3	25:BD:160:LYS:HD3	2.11	0.85
22:DA:1817:G:OP1	24:DC:62:TYR:OH	1.92	0.85
22:DA:2164:C:H2'	22:DA:2165:C:C6	2.12	0.85
22:DA:1266:G:O2'	22:DA:2012:G:O6	1.95	0.85
4:AD:37:ALA:HA	4:AD:42:GLY:HA3	1.58	0.84
22:BA:2258:C:O2'	22:BA:2427:C:OP2	1.95	0.84
2:CB:221:VAL:O	2:CB:223:GLU:N	2.10	0.84

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:91:ARG:O	6:AF:92:THR:OG1	1.96	0.84
50:D2:43:THR:O	50:D2:44:VAL:HB	1.77	0.84
29:BH:117:LEU:HD21	29:BH:121:VAL:N	1.93	0.84
31:BJ:49:ASP:OD1	31:BJ:121:LYS:HE3	1.77	0.84
39:BR:49:ILE:HG22	39:BR:53:PHE:N	1.92	0.84
22:BA:819:A:C4	22:BA:1189:A:C2	2.66	0.84
35:DN:87:PHE:O	35:DN:89:SER:N	2.11	0.84
29:BH:117:LEU:O	29:BH:119:ASN:N	2.07	0.84
5:CE:102:GLY:O	5:CE:104:GLY:N	2.11	0.84
29:DH:82:SER:O	29:DH:84:ALA:N	2.10	0.83
17:AQ:68:SER:O	17:AQ:70:THR:N	2.11	0.83
22:BA:1141:U:H4'	22:BA:1142:A:O4'	1.79	0.83
22:BA:2305:U:C2	27:BF:151:GLY:HA3	2.12	0.83
22:DA:618:G:O6	57:DA:3291:HOH:O	1.96	0.83
5:CE:99:ALA:O	5:CE:122:ASN:ND2	2.12	0.83
22:DA:2010:G:N7	57:DA:3371:HOH:O	2.10	0.83
2:AB:136:MET:N	2:AB:136:MET:SD	2.52	0.83
22:BA:756:A:N7	57:BA:3300:HOH:O	2.12	0.83
22:DA:1827:U:O2'	22:DA:1970:A:N3	2.11	0.83
1:AA:536:C:OP1	57:AA:1885:HOH:O	1.97	0.83
22:BA:1179:G:H3'	22:BA:1180:U:H4'	1.61	0.82
29:BH:83:LYS:CD	1:CA:55:A:O2'	2.26	0.82
22:DA:732:C:OP2	57:DA:3298:HOH:O	1.95	0.82
22:BA:1823:G:N7	57:BA:3658:HOH:O	2.11	0.82
2:AB:23:TRP:CH2	2:AB:25:PRO:HA	2.14	0.82
22:BA:2448:A:OP2	57:BA:3686:HOH:O	1.95	0.82
29:BH:120:GLY:C	29:BH:122:LEU:CA	2.47	0.82
33:BL:87:GLY:O	33:BL:89:VAL:N	2.12	0.82
29:DH:94:ILE:HB	29:DH:122:LEU:HD12	1.60	0.82
22:BA:2211:A:O2'	22:BA:2212:A:OP1	1.98	0.82
1:AA:976:G:OP2	1:AA:1358:U:O2'	1.98	0.82
22:BA:2243:U:OP1	57:BA:3743:HOH:O	1.98	0.82
22:BA:826:U:OP2	57:BA:3702:HOH:O	1.97	0.82
34:DM:66:ARG:NH1	34:DM:104:GLU:OE1	2.11	0.82
22:DA:866:A:O4'	22:DA:914:G:N2	2.13	0.82
22:BA:1509:A:O2'	22:BA:1510:G:OP2	1.96	0.81
22:BA:1693:U:O2'	24:BC:14:ARG:NH2	2.13	0.81
22:DA:250:G:OP2	51:D3:13:ARG:NH1	2.13	0.81
22:BA:250:G:OP2	51:B3:13:ARG:NH1	2.13	0.81
22:BA:2800:A:H3'	22:BA:2801:G:H5'	1.62	0.81
22:BA:2825:G:H2'	22:BA:2826:A:H5'	1.63	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:614:A:O2'	22:BA:615:U:OP2	1.97	0.81
7:CG:145:ALA:O	7:CG:146:GLU:HB2	1.78	0.81
22:BA:2321:U:H5'	22:BA:2322:A:OP2	1.80	0.81
22:DA:1325:U:OP1	22:DA:1647:U:O2'	1.99	0.81
18:CR:25:ASP:O	18:CR:27:ALA:N	2.13	0.81
22:DA:1847:A:HO2'	22:DA:1848:A:H8	1.29	0.81
22:DA:587:C:N3	33:DL:33:ARG:NH2	2.28	0.81
28:DG:170:ARG:NH1	52:D4:29:ALA:O	2.14	0.81
22:BA:1494:A:O2'	22:BA:1495:A:O5'	1.98	0.81
22:DA:822:G:OP2	57:DA:3347:HOH:O	1.98	0.81
26:DE:58:LYS:NZ	26:DE:70:SER:O	2.12	0.81
13:AM:11:ASP:OD1	13:AM:12:HIS:N	2.14	0.80
22:BA:572:A:OP2	39:BR:80:ARG:NH2	2.13	0.80
1:CA:527:G:C2	1:CA:528:C:C6	2.68	0.80
1:AA:1232:U:OP1	9:AI:126:GLN:NE2	2.13	0.80
22:BA:481:G:C4	22:BA:507:A:C2	2.70	0.80
26:BE:1:MET:N	26:BE:14:VAL:O	2.14	0.80
1:CA:798:U:O4	57:CA:1805:HOH:O	1.99	0.80
1:AA:254:G:OP1	17:AQ:70:THR:HB	1.82	0.80
22:DA:1340:U:C5	22:DA:1603:A:C8	2.69	0.80
39:DR:8:GLY:O	39:DR:10:LYS:NZ	2.15	0.80
24:BC:71:LYS:NZ	24:BC:98:ASP:OD2	2.15	0.80
19:AS:29:LYS:HB3	19:AS:30:PRO:HD2	1.64	0.80
22:BA:195:A:C6	22:BA:198:C:C5	2.70	0.80
22:BA:2445:G:OP1	26:BE:69:ARG:NH2	2.14	0.80
28:DG:158:LYS:O	28:DG:160:LYS:N	2.15	0.80
14:AN:91:GLY:O	14:AN:93:ILE:N	2.15	0.80
22:BA:2324:U:H3'	22:BA:2325:G:C5'	2.11	0.80
31:BJ:80:HIS:HB3	31:BJ:81:ILE:HG22	1.62	0.80
1:CA:581:G:OP1	15:CO:65:LYS:NZ	2.14	0.80
26:DE:76:PRO:HA	26:DE:82:GLY:HA2	1.63	0.80
22:BA:1917:U:C4	22:BA:1918:A:C5	2.70	0.79
22:BA:2550:G:OP2	57:BA:3725:HOH:O	1.99	0.79
1:CA:1001:C:H2'	1:CA:1002:G:C8	2.17	0.79
22:DA:422:A:OP2	57:DA:3561:HOH:O	1.98	0.79
22:BA:819:A:OP2	22:BA:1187:G:N2	2.15	0.79
29:BH:123:ARG:NH2	1:CA:367:U:P	2.49	0.79
1:CA:582:C:N3	1:CA:760:G:C6	2.50	0.79
1:CA:840:C:N3	1:CA:842:U:H4'	1.97	0.79
22:DA:2243:U:OP1	57:DA:3738:HOH:O	1.99	0.79
22:BA:1738:G:O2'	22:BA:1739:A:O5'	2.00	0.79

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2748:A:N1	57:BA:3815:HOH:O	2.15	0.79
22:DA:1001:A:OP2	57:DA:3732:HOH:O	2.01	0.79
6:AF:7:VAL:O	6:AF:7:VAL:HG22	1.81	0.79
22:BA:2579:C:OP1	57:BA:3543:HOH:O	2.01	0.79
24:DC:157:SER:O	24:DC:160:THR:OG1	1.99	0.79
1:CA:32:A:C2	1:CA:33:A:C5	2.71	0.79
22:DA:2162:G:H4'	22:DA:2163:A:OP1	1.83	0.79
22:DA:668:A:N6	22:DA:670:A:O2'	2.16	0.79
1:AA:792:A:H4'	1:AA:793:U:O5'	1.82	0.78
22:BA:1083:U:O2	22:BA:1086:A:N1	2.16	0.78
22:BA:2269:G:OP1	57:BA:3512:HOH:O	2.01	0.78
22:BA:2820:A:OP2	35:BN:2:ARG:NH1	2.16	0.78
22:DA:1315:C:O2'	22:DA:1392:A:N3	2.16	0.78
22:DA:1619:G:N7	57:DA:3644:HOH:O	2.17	0.78
24:BC:133:ARG:NH2	4:CD:174:ASP:OD2	2.17	0.78
35:BN:103:ARG:HD3	35:BN:110:MET:CE	2.13	0.78
52:B4:11:CYS:SG	56:B4:101:ZN:ZN	1.70	0.78
22:DA:1342:A:OP2	57:DA:3713:HOH:O	1.99	0.78
22:DA:1823:G:C8	57:DA:3654:HOH:O	2.34	0.78
1:AA:1504:G:O3'	57:AA:1870:HOH:O	2.02	0.78
2:AB:115:LYS:O	2:AB:117:LEU:N	2.16	0.78
22:BA:2495:G:C2'	22:BA:2496:C:H5'	2.13	0.78
22:DA:1009:A:N3	22:DA:1153:C:O2'	2.15	0.78
22:DA:613:A:OP2	22:DA:614:A:N7	2.17	0.78
22:DA:444:C:OP1	26:DE:40:ARG:NH1	2.17	0.78
26:BE:149:ILE:HD11	26:BE:172:ALA:HA	1.66	0.78
22:DA:53:A:C8	22:DA:54:G:C8	2.71	0.78
22:BA:2550:G:P	57:BA:3725:HOH:O	2.42	0.77
22:DA:1607:C:N4	22:DA:1622:G:N7	2.32	0.77
9:AI:40:GLY:O	9:AI:41:ARG:HB2	1.82	0.77
22:BA:731:C:P	57:BA:3695:HOH:O	2.39	0.77
22:DA:1019:U:O2	22:DA:1142:A:N6	2.17	0.77
22:DA:2504:U:C5	55:DA:3001:VIF:H30	2.19	0.77
1:AA:1074:G:C4	1:AA:1102:A:C2	2.73	0.77
11:AK:76:GLU:C	22:BA:2141:G:OP1	2.22	0.77
22:BA:733:G:OP2	57:BA:3295:HOH:O	2.01	0.77
22:DA:1265:A:OP1	57:DA:3747:HOH:O	2.00	0.77
35:BN:2:ARG:HA	35:BN:5:LYS:HD2	1.64	0.77
29:DH:124:THR:OG1	29:DH:125:THR:N	2.17	0.77
22:BA:2714:G:OP2	57:BA:3549:HOH:O	2.01	0.77
15:CO:19:ALA:O	15:CO:20:ASN:HB2	1.85	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:61:ARG:O	14:AN:62:ASN:HB2	1.83	0.77
22:BA:1061:U:O2'	22:BA:1062:G:O5'	2.01	0.77
22:BA:555:G:O2'	22:BA:556:A:OP2	2.02	0.77
22:DA:582:A:OP2	57:DA:3283:HOH:O	2.02	0.77
1:AA:1299:A:H2'	1:AA:1299:A:N3	2.00	0.77
22:BA:2720:U:OP1	37:BP:53:ARG:NH2	2.17	0.77
22:DA:2551:C:OP2	57:DA:3720:HOH:O	2.02	0.77
22:DA:27:G:O2'	22:DA:28:A:OP2	2.03	0.77
22:BA:245:G:O6	51:B3:8:ARG:HD3	1.85	0.77
22:BA:747:U:C4	22:BA:2613:U:C5	2.73	0.77
24:BC:236:GLU:OE2	57:BC:303:HOH:O	2.02	0.77
1:CA:1095:U:OP2	57:CA:1852:HOH:O	2.03	0.77
1:AA:995:C:N3	1:AA:1046:A:O2'	2.17	0.77
2:AB:167:ASP:OD1	2:AB:168:HIS:N	2.18	0.77
51:B3:27:ALA:O	51:B3:28:ASN:HB2	1.83	0.77
32:BK:121:GLU:OE2	37:BP:65:SER:OG	2.00	0.77
22:DA:1335:C:N4	57:DA:3392:HOH:O	2.17	0.77
22:DA:1359:A:C8	22:DA:1373:A:C2	2.73	0.77
28:DG:11:VAL:O	28:DG:48:ASN:ND2	2.18	0.77
22:DA:2575:C:OP2	57:DA:3709:HOH:O	2.03	0.76
22:DA:46:G:C2	22:DA:47:C:C5	2.73	0.76
22:BA:850:U:HO2'	47:BZ:23:THR:HG1	1.25	0.76
22:DA:1258:U:H2'	22:DA:1259:G:C8	2.20	0.76
29:DH:1:MET:SD	29:DH:27:ARG:NH1	2.58	0.76
22:BA:1494:A:C2'	22:BA:1495:A:O5'	2.33	0.76
22:BA:2847:U:OP1	37:BP:96:LYS:NZ	2.17	0.76
22:BA:475:C:C4	22:BA:481:G:O6	2.38	0.76
22:BA:500:G:N2	22:BA:502:A:H3'	2.01	0.76
22:DA:1344:U:O2'	22:DA:1345:C:OP2	2.03	0.76
1:AA:1406:U:C5	1:AA:1407:C:C5	2.74	0.76
29:BH:90:LEU:O	1:CA:358:U:H4'	1.86	0.76
22:DA:2171:A:O2'	22:DA:2173:A:OP1	2.02	0.76
22:DA:618:G:N7	57:DA:3289:HOH:O	2.18	0.76
29:DH:53:GLU:O	29:DH:55:GLU:N	2.19	0.76
2:AB:73:LYS:O	2:AB:75:ALA:N	2.19	0.76
22:BA:1668:A:O2'	22:BA:1674:G:N7	2.18	0.76
1:AA:1129:C:O2	1:AA:1130:A:N6	2.18	0.76
24:BC:204:VAL:O	24:BC:205:LEU:HB2	1.86	0.76
22:DA:1377:G:OP2	57:DA:3394:HOH:O	2.04	0.76
22:DA:2057:G:OP2	57:DA:3486:HOH:O	2.03	0.76
12:AL:24:LEU:O	12:AL:26:ALA:N	2.19	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:686:U:H2'	22:BA:788:A:C2	2.21	0.76
22:BA:495:G:O4'	40:BS:57:ASN:ND2	2.18	0.76
1:CA:1124:G:O2'	1:CA:1145:A:N6	2.19	0.76
5:CE:137:VAL:O	5:CE:138:ARG:CB	2.33	0.76
17:CQ:21:ILE:N	17:CQ:48:ASP:OD1	2.17	0.76
29:DH:45:GLU:O	29:DH:49:ALA:N	2.19	0.76
22:BA:2199:A:C1'	29:BH:28:ASN:ND2	2.48	0.76
35:BN:65:LEU:HD11	35:BN:69:ARG:NH2	2.01	0.76
22:BA:1869:G:H3'	22:BA:1870:C:H5'	1.67	0.75
22:BA:627:A:C6	22:BA:637:A:C8	2.75	0.75
22:BA:64:A:H2'	22:BA:65:U:C6	2.20	0.75
1:CA:209:U:H4'	1:CA:210:C:OP2	1.85	0.75
1:CA:55:A:N7	1:CA:56:U:C4	2.54	0.75
4:CD:26:ARG:HG3	4:CD:27:ALA:N	2.00	0.75
22:DA:1248:G:C4	38:DQ:3:ARG:HG3	2.20	0.75
30:BI:122:ILE:O	30:BI:126:THR:OG1	2.05	0.75
41:BT:1:MET:HB2	41:BT:2:ILE:HD12	1.65	0.75
1:CA:378:G:C2	1:CA:386:C:O2	2.39	0.75
22:DA:1154:G:OP2	38:DQ:58:ARG:NH1	2.19	0.75
2:AB:160:ALA:O	2:AB:161:LEU:HB2	1.86	0.75
22:BA:1474:U:O4	22:BA:1475:G:N2	2.20	0.75
22:BA:2291:U:H2'	22:BA:2292:U:H6	1.48	0.75
22:BA:927:A:H2'	22:BA:928:A:C8	2.21	0.75
39:BR:24:LYS:HA	39:BR:94:THR:CG2	2.16	0.75
22:DA:118:A:C8	22:DA:119:A:C8	2.73	0.75
22:DA:2209:G:C2	22:DA:2216:G:C2	2.73	0.75
35:DN:20:MET:HG3	35:DN:21:PHE:N	2.02	0.75
2:AB:26:LYS:NZ	2:AB:194:ASP:OD2	2.13	0.75
38:BQ:41:LYS:HD3	38:BQ:45:TYR:CZ	2.21	0.75
43:BV:6:ALA:HB1	43:BV:40:ILE:CG2	2.17	0.75
1:CA:537:G:OP1	12:CL:110:ARG:NH2	2.19	0.75
9:AI:45:ARG:HG2	9:AI:46:MET:SD	2.27	0.75
22:BA:1779:U:H5	22:BA:1784:A:N7	1.84	0.75
30:BI:16:GLY:HA2	30:BI:51:LYS:HB3	1.68	0.75
13:CM:6:GLY:O	13:CM:8:ASN:N	2.20	0.75
22:BA:2097:A:C2	22:BA:2193:G:C6	2.74	0.75
28:BG:104:ASN:ND2	28:BG:114:ASP:OD1	2.18	0.75
22:DA:447:A:H5'	22:DA:449:A:C5	2.21	0.75
4:AD:151:LYS:HA	4:AD:178:MET:HE1	1.69	0.75
17:CQ:48:ASP:N	17:CQ:48:ASP:OD2	2.17	0.75
22:DA:1289:C:O2'	22:DA:1330:C:H4'	1.87	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1073:A:H3'	22:BA:1074:G:H5''	1.67	0.75
22:BA:1779:U:C5	22:BA:1784:A:N7	2.55	0.74
38:BQ:87:SER:HB3	39:BR:51:VAL:HA	1.69	0.74
22:DA:1091:G:O2'	22:DA:1092:C:OP2	2.04	0.74
1:AA:533:A:OP1	57:AA:1848:HOH:O	2.05	0.74
1:CA:1101:A:H61	2:CB:102:THR:HG21	1.51	0.74
1:CA:1266:G:N2	1:CA:1269:A:OP2	2.20	0.74
1:CA:978:A:OP2	1:CA:1362:A:N6	2.20	0.74
22:DA:1476:U:H1'	22:DA:1732:C:C2	2.20	0.74
3:AC:205:GLY:O	3:AC:206:GLU:HG2	1.87	0.74
4:AD:26:ARG:HD2	4:AD:31:LYS:HE3	1.70	0.74
22:BA:1203:U:O4	22:BA:1204:A:C6	2.40	0.74
29:BH:117:LEU:HD11	29:BH:122:LEU:HD12	1.69	0.74
23:DB:29:A:O2'	23:DB:58:A:N1	2.19	0.74
22:BA:2516:A:C2	22:BA:2569:G:C2	2.75	0.74
22:BA:278:A:C2	22:BA:362:A:C8	2.75	0.74
25:BD:125:TRP:CD2	25:BD:160:LYS:HD3	2.22	0.74
29:BH:88:GLY:O	29:BH:125:THR:OG1	2.04	0.74
22:DA:2286:G:H4'	22:DA:2287:A:O5'	1.87	0.74
22:BA:2516:A:C2	22:BA:2569:G:N3	2.55	0.74
29:BH:123:ARG:C	29:BH:124:THR:HG23	2.06	0.74
1:CA:1362:A:H4'	1:CA:1362:A:OP1	1.86	0.74
2:CB:210:VAL:O	2:CB:214:LEU:HB2	1.88	0.74
23:DB:48:U:H4'	36:DO:100:HIS:CD2	2.22	0.74
25:DD:33:ARG:NH2	25:DD:74:GLU:O	2.21	0.74
1:AA:1151:A:O2'	1:AA:1152:A:O5'	2.05	0.74
1:CA:919:A:C2	1:CA:920:U:C5	2.76	0.74
3:CC:175:LEU:O	3:CC:175:LEU:HD12	1.88	0.74
38:BQ:36:PHE:CE1	38:BQ:40:ILE:HD11	2.23	0.74
5:CE:69:ARG:O	5:CE:70:ASN:HB2	1.87	0.74
22:DA:1315:C:OP2	57:DA:3762:HOH:O	2.06	0.74
27:BF:41:GLY:O	27:BF:43:ALA:N	2.20	0.74
2:CB:169:GLU:O	2:CB:171:ILE:N	2.21	0.74
1:AA:108:G:N3	1:AA:108:G:H5'	2.03	0.74
22:BA:1171:G:N2	22:BA:1178:C:O2	2.20	0.74
4:AD:95:GLU:OE2	4:AD:104:ARG:NH1	2.21	0.73
22:BA:1253:A:N7	57:BA:3336:HOH:O	2.20	0.73
22:BA:1910:G:H2'	22:BA:1911:U:O4'	1.88	0.73
22:BA:1838:C:C5	22:BA:1899:A:C6	2.77	0.73
46:BY:56:LEU:O	46:BY:57:LEU:CB	2.37	0.73
1:CA:66:A:C6	1:CA:67:C:C5	2.76	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2125:G:N1	22:DA:2171:A:OP1	2.20	0.73
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.24	0.73
13:AM:10:PRO:O	13:AM:11:ASP:HB3	1.87	0.73
22:BA:2127:G:H4'	22:BA:2128:G:OP1	1.87	0.73
25:BD:13:ARG:HD2	25:BD:15:PHE:CZ	2.23	0.73
29:BH:86:ASP:HB2	1:CA:359:G:O2'	1.88	0.73
34:BM:110:GLU:OE2	34:BM:114:ARG:NH2	2.21	0.73
42:BU:14:LEU:HD11	42:BU:71:ALA:HB2	1.70	0.73
10:CJ:63:ASP:OD1	14:CN:85:ARG:NH1	2.22	0.73
22:DA:1060:U:H4'	22:DA:1061:U:H5'	1.70	0.73
22:DA:1378:A:O2'	57:DA:3753:HOH:O	2.06	0.73
22:DA:1428:C:O2'	22:DA:1569:A:OP2	2.02	0.73
1:AA:131:A:H2'	1:AA:132:C:C6	2.23	0.73
5:AE:41:ASP:OD1	5:AE:43:ASN:N	2.22	0.73
1:CA:1225:A:H2'	1:CA:1226:C:C5	2.22	0.73
1:CA:552:U:O2'	12:CL:83:ARG:O	2.05	0.73
4:CD:145:ILE:HG21	4:CD:150:LYS:HA	1.70	0.73
22:BA:1838:C:C5	22:BA:1899:A:C5	2.77	0.73
22:DA:2284:A:O2'	22:DA:2288:A:N1	2.19	0.73
32:DK:70:ARG:HD3	32:DK:76:VAL:HB	1.69	0.73
22:BA:563:A:C2	22:BA:564:C:C2	2.77	0.73
2:CB:54:LEU:HA	2:CB:57:LEU:HB3	1.69	0.73
22:DA:2269:G:OP1	57:DA:3508:HOH:O	2.06	0.73
22:BA:30:G:O3'	57:BA:3705:HOH:O	2.05	0.73
1:CA:495:A:C2	1:CA:496:A:C6	2.77	0.73
29:DH:32:PRO:HB3	45:DX:39:TRP:HB3	1.71	0.73
22:BA:1916:A:H2'	22:BA:1917:U:O4'	1.88	0.73
22:BA:1789:A:OP2	24:BC:221:ARG:NH1	2.22	0.73
22:BA:626:A:H2'	33:BL:78:ARG:NH1	2.04	0.73
45:BX:2:SER:O	45:BX:4:VAL:N	2.22	0.73
1:CA:542:G:C2	1:CA:543:U:C5	2.76	0.73
12:CL:38:TYR:HB2	12:CL:52:VAL:HG13	1.70	0.73
1:AA:1505:G:P	57:AA:1870:HOH:O	2.46	0.73
2:AB:82:ASP:O	2:AB:84:ALA:N	2.22	0.73
16:AP:4:ILE:HG12	16:AP:21:VAL:HG22	1.71	0.73
19:AS:51:VAL:HG22	19:AS:71:LEU:HD13	1.71	0.73
22:BA:1746:A:H2'	22:BA:1747:U:C6	2.24	0.73
22:BA:2311:A:N3	27:BF:85:ILE:HD11	2.04	0.73
22:BA:1993:U:H4'	25:BD:133:THR:HG21	1.69	0.73
22:DA:2720:U:OP1	37:DP:53:ARG:NH2	2.22	0.73
41:DT:17:SER:O	41:DT:19:LYS:N	2.22	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:587:C:N3	33:BL:33:ARG:NH2	2.37	0.72
22:DA:1450:G:C6	22:DA:1451:C:N4	2.57	0.72
22:DA:488:G:N2	22:DA:493:G:O6	2.22	0.72
1:AA:515:G:N7	57:AA:1847:HOH:O	2.22	0.72
1:CA:268:U:H2'	1:CA:269:C:C6	2.24	0.72
2:CB:86:SER:O	2:CB:87:CYS:O	2.07	0.72
7:AG:146:GLU:HA	7:AG:149:LYS:HB2	1.70	0.72
22:BA:2199:A:H1'	29:BH:28:ASN:ND2	2.04	0.72
1:AA:1014:A:N7	1:AA:1015:G:C5	2.57	0.72
23:BB:8:C:O3'	36:BO:25:ARG:NH1	2.22	0.72
28:BG:80:THR:HG22	28:BG:81:GLU:N	2.05	0.72
22:BA:1061:U:HO2'	22:BA:1062:G:P	2.13	0.72
42:BU:72:ILE:HD13	42:BU:83:VAL:HG23	1.70	0.72
22:DA:1435:G:C2'	22:DA:1436:G:H5'	2.19	0.72
22:BA:2839:G:O2'	35:BN:49:GLU:OE1	2.08	0.72
1:AA:144:G:C4	1:AA:179:A:C2	2.78	0.72
5:AE:149:SER:O	5:AE:153:VAL:HG12	1.89	0.72
22:BA:587:C:OP2	33:BL:21:ARG:NH1	2.23	0.72
35:BN:32:GLU:OE1	35:BN:86:ARG:NH2	2.23	0.72
22:DA:826:U:O2'	33:DL:53:GLY:HA3	1.89	0.72
1:AA:64:G:C8	1:AA:99:C:N4	2.58	0.72
22:BA:1274:A:N1	22:BA:1644:C:O2'	2.19	0.72
4:CD:100:ASN:OD1	4:CD:111:ARG:NH1	2.23	0.72
22:DA:1167:C:H2'	22:DA:1168:G:H5'	1.70	0.72
22:DA:2268:A:OP1	57:DA:3508:HOH:O	2.07	0.72
25:DD:148:GLN:N	25:DD:148:GLN:OE1	2.23	0.72
1:AA:1197:A:OP2	57:AA:1784:HOH:O	2.07	0.72
1:AA:951:G:OP2	13:AM:101:ARG:NH2	2.23	0.72
22:BA:1182:G:H2'	22:BA:1183:U:O4'	1.90	0.72
22:BA:1925:C:H5''	22:BA:1926:U:O4	1.89	0.72
22:BA:572:A:H5''	22:BA:573:U:OP2	1.90	0.72
40:BS:37:THR:HG22	40:BS:38:TYR:CD1	2.25	0.72
1:CA:55:A:C6	1:CA:56:U:C2	2.77	0.72
29:DH:31:VAL:HB	29:DH:32:PRO:CD	2.20	0.72
41:DT:54:GLU:HB3	41:DT:88:LYS:HG3	1.72	0.72
4:AD:163:GLU:OE2	4:AD:164:GLN:N	2.23	0.71
22:BA:508:A:H4'	22:BA:509:C:OP2	1.89	0.71
22:DA:1097:U:C5	22:DA:1098:A:H1'	2.25	0.71
4:AD:32:CYS:O	4:AD:33:LYS:HB2	1.90	0.71
22:BA:253:C:OP2	51:B3:5:LYS:HE3	1.89	0.71
22:BA:2897:U:H2'	22:BA:2898:U:C6	2.26	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:109:PHE:HE2	28:BG:152:ARG:CZ	2.03	0.71
35:BN:103:ARG:HD3	35:BN:110:MET:HE3	1.71	0.71
39:DR:58:VAL:HG13	39:DR:102:SER:HB2	1.72	0.71
6:AF:92:THR:HG22	6:AF:93:LYS:N	2.05	0.71
26:BE:108:ILE:HD11	26:BE:180:LEU:HB3	1.72	0.71
12:CL:34:CYS:HA	12:CL:55:VAL:HA	1.71	0.71
16:CP:43:ALA:O	16:CP:44:SER:OG	2.04	0.71
42:DU:38:GLY:HA2	42:DU:41:LEU:HD21	1.71	0.71
1:AA:1048:G:N3	1:AA:1050:G:C8	2.59	0.71
1:AA:1074:G:C2	1:AA:1075:U:C2	2.79	0.71
1:AA:1377:A:N3	7:AG:2:PRO:HG3	2.06	0.71
22:BA:1838:C:C2	22:BA:1898:U:C5	2.79	0.71
24:DC:70:ASN:O	24:DC:72:ASP:N	2.23	0.71
1:AA:145:G:N2	1:AA:178:C:C2	2.59	0.71
9:AI:30:ILE:HD11	9:AI:38:TYR:CD2	2.24	0.71
14:CN:91:GLY:O	14:CN:93:ILE:N	2.24	0.71
22:DA:2843:G:N2	22:DA:2875:C:C2	2.58	0.71
23:DB:7:G:H5'	36:DO:29:HIS:CE1	2.25	0.71
23:BB:78:A:N6	23:BB:98:G:O2'	2.23	0.71
29:BH:89:LYS:HB3	1:CA:359:G:H5''	1.72	0.71
1:CA:978:A:HO2'	1:CA:1322:C:H5	1.38	0.71
22:DA:846:U:O2'	22:DA:847:U:O5'	2.08	0.71
1:CA:499:A:C6	1:CA:547:A:C8	2.78	0.71
1:CA:689:C:OP2	11:CK:53:ARG:NH2	2.24	0.71
4:CD:168:PRO:HB2	4:CD:171:LEU:CD1	2.21	0.71
22:DA:564:C:O4'	38:DQ:37:GLN:NE2	2.23	0.71
13:AM:29:ARG:CZ	13:AM:63:PHE:HB2	2.21	0.71
29:BH:123:ARG:CZ	1:CA:367:U:OP2	2.39	0.71
1:CA:679:C:O2	1:CA:712:A:C2	2.43	0.71
4:CD:173:VAL:O	4:CD:179:GLU:O	2.07	0.71
1:CA:405:U:O4	4:CD:2:ALA:N	2.23	0.71
22:DA:2750:A:O2'	22:DA:2752:C:N4	2.24	0.71
19:AS:29:LYS:HB3	19:AS:30:PRO:CD	2.21	0.70
50:B2:43:THR:O	50:B2:44:VAL:HG12	1.90	0.70
22:BA:2856:A:N6	22:BA:2857:G:C6	2.59	0.70
22:BA:70:G:H4'	22:BA:71:A:OP1	1.90	0.70
1:CA:1040:U:H2'	1:CA:1041:G:C8	2.25	0.70
1:CA:374:A:H5''	1:CA:452:A:N1	2.06	0.70
22:DA:1153:C:P	57:DA:3360:HOH:O	2.48	0.70
1:AA:1461:G:C5	1:AA:1462:C:C5	2.78	0.70
22:BA:1417:C:H2'	22:BA:1418:G:O4'	1.90	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:455:C:N3	22:BA:472:A:H2'	2.06	0.70
1:CA:1006:G:H2'	1:CA:1007:U:C6	2.26	0.70
1:AA:1145:A:O2'	1:AA:1146:A:O5'	2.08	0.70
1:AA:322:C:O2'	20:AT:18:ARG:HG3	1.90	0.70
22:BA:1085:A:C6	22:BA:1086:A:N6	2.59	0.70
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.25	0.70
48:D0:55:ILE:HG22	48:D0:56:ALA:N	2.06	0.70
22:DA:1935:G:H1'	22:DA:1964:G:N2	2.06	0.70
22:DA:488:G:C2	22:DA:493:G:O6	2.45	0.70
22:BA:1435:G:O2'	22:BA:1436:G:H5'	1.91	0.70
38:BQ:41:LYS:HA	38:BQ:44:GLN:HG3	1.71	0.70
1:CA:86:G:H1'	1:CA:87:C:O4'	1.90	0.70
42:DU:7:ARG:O	42:DU:25:VAL:HB	1.92	0.70
1:AA:537:G:OP1	12:AL:110:ARG:NH2	2.23	0.70
13:AM:11:ASP:CG	13:AM:12:HIS:N	2.44	0.70
1:CA:319:G:O6	57:CA:1734:HOH:O	2.06	0.70
1:CA:933:G:N7	7:CG:3:ARG:NH2	2.39	0.70
2:CB:54:LEU:HD12	2:CB:220:THR:HG21	1.74	0.70
22:DA:2143:C:H2'	22:DA:2144:G:O4'	1.92	0.70
1:AA:1313:U:OP2	19:AS:6:LYS:HB3	1.91	0.70
21:AU:36:GLU:O	21:AU:37:PHE:HB2	1.90	0.70
24:BC:78:VAL:HG21	24:BC:110:LEU:HD21	1.74	0.70
8:CH:96:MET:HB2	8:CH:99:LEU:O	1.92	0.70
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.27	0.70
2:AB:104:TRP:CZ2	2:AB:154:MET:HG2	2.26	0.70
11:AK:76:GLU:O	22:BA:2141:G:H5''	1.92	0.70
48:B0:55:ILE:HG22	48:B0:56:ALA:N	2.07	0.70
22:BA:195:A:N7	57:BA:3763:HOH:O	2.23	0.70
24:DC:45:ASN:OD1	24:DC:46:ASN:N	2.25	0.70
31:DJ:80:HIS:O	31:DJ:82:GLY:N	2.25	0.70
5:AE:104:GLY:O	5:AE:105:ILE:HG22	1.92	0.70
22:BA:1073:A:OP1	22:BA:1073:A:C8	2.45	0.70
22:BA:1925:C:H4'	22:BA:1926:U:C5	2.26	0.70
4:CD:44:ARG:NE	4:CD:44:ARG:HA	2.06	0.70
22:DA:1187:G:N7	57:DA:3578:HOH:O	2.24	0.70
22:DA:1738:G:O2'	22:DA:1739:A:O5'	2.09	0.70
1:AA:657:U:O2	15:AO:22:THR:HG23	1.92	0.70
13:AM:114:LYS:CB	13:AM:115:PRO:HD3	2.21	0.70
22:BA:1002:G:N7	57:BA:3742:HOH:O	2.23	0.70
22:BA:1086:A:O2'	22:BA:1087:G:N7	2.24	0.70
22:BA:1379:U:C6	22:BA:1379:U:OP1	2.44	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:94:ILE:HG22	29:BH:99:ILE:HG13	1.72	0.70
4:CD:151:LYS:O	4:CD:152:GLN:NE2	2.24	0.70
9:CI:84:THR:HG21	9:CI:103:PHE:HB3	1.74	0.70
10:CJ:65:TYR:HB3	14:CN:96:LEU:HD11	1.74	0.70
1:CA:728:A:C8	15:CO:54:ARG:CZ	2.75	0.70
22:DA:2226:C:H2'	22:DA:2227:A:O4'	1.90	0.70
14:AN:54:ASP:OD1	14:AN:59:ARG:NH1	2.25	0.70
22:BA:1179:G:N7	22:BA:1180:U:H1'	2.07	0.70
22:BA:1344:U:H4'	22:BA:1345:C:OP2	1.90	0.70
22:BA:1794:A:H2'	22:BA:1795:C:H6	1.56	0.70
22:BA:2066:C:OP1	57:BA:3509:HOH:O	2.10	0.70
22:BA:2502:G:C5'	22:BA:2503:A:H5''	2.22	0.70
24:BC:222:GLY:HA2	24:BC:225:MET:HE3	1.71	0.70
1:CA:728:A:H2'	1:CA:729:A:C8	2.27	0.70
22:DA:1317:G:H2'	22:DA:1318:U:O4'	1.91	0.70
1:AA:1125:U:C5	1:AA:1127:G:C6	2.80	0.69
22:BA:2516:A:N6	22:BA:2517:C:N4	2.39	0.69
35:BN:65:LEU:HD11	35:BN:69:ARG:HH21	1.56	0.69
1:CA:568:G:O6	12:CL:2:ALA:HB2	1.92	0.69
14:CN:54:ASP:OD1	14:CN:59:ARG:NH1	2.25	0.69
22:DA:469:G:O6	50:D2:37:LYS:HE2	1.92	0.69
22:DA:197:A:H62	22:DA:2430:A:H2'	1.56	0.69
22:DA:2507:C:OP1	57:DA:3710:HOH:O	2.08	0.69
30:DI:69:PHE:N	30:DI:69:PHE:CD1	2.60	0.69
2:AB:85:LEU:HG	2:AB:86:SER:N	2.05	0.69
22:BA:2151:U:H2'	22:BA:2152:G:C8	2.26	0.69
40:BS:66:ILE:HA	40:BS:69:LEU:CD2	2.23	0.69
5:CE:24:THR:HA	5:CE:29:ARG:HA	1.72	0.69
22:DA:2575:C:OP1	57:DA:3711:HOH:O	2.10	0.69
26:DE:21:ARG:O	26:DE:114:ARG:NH2	2.24	0.69
53:B5:59:VAL:HG21	53:B5:167:ASP:C	2.12	0.69
22:BA:2825:G:C2'	22:BA:2826:A:H5'	2.23	0.69
22:BA:686:U:OP2	57:BA:3723:HOH:O	2.10	0.69
1:AA:1368:A:OP1	10:AJ:64:GLN:NE2	2.26	0.69
22:BA:1115:G:N3	22:BA:1116:G:C8	2.61	0.69
45:DX:27:ARG:NE	45:DX:28:ARG:O	2.25	0.69
1:AA:1014:A:N7	1:AA:1015:G:C6	2.61	0.69
1:AA:562:U:OP2	12:AL:14:ARG:NH1	2.25	0.69
1:CA:1408:A:C2	1:CA:1494:G:C4	2.81	0.69
10:CJ:5:ARG:HG3	10:CJ:6:ILE:HG13	1.74	0.69
1:AA:568:G:C2	1:AA:569:C:C5	2.81	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:3:ARG:CZ	4:AD:115:ARG:HD3	2.22	0.69
13:AM:3:ARG:CG	13:AM:4:ILE:N	2.56	0.69
22:BA:1154:G:OP2	38:BQ:58:ARG:NH1	2.25	0.69
22:BA:1936:A:C8	22:BA:1945:G:O6	2.46	0.69
1:CA:154:U:O4	1:CA:155:A:N6	2.26	0.69
25:DD:151:THR:HG22	25:DD:152:PRO:CD	2.22	0.69
1:AA:96:U:O2'	1:AA:97:G:P	2.50	0.69
17:AQ:69:LYS:O	17:AQ:70:THR:CB	2.40	0.69
22:BA:1186:G:OP2	57:BA:3601:HOH:O	2.10	0.69
22:BA:2564:A:C6	22:BA:2565:A:N1	2.60	0.69
24:BC:13:ARG:HA	24:BC:16:VAL:HG23	1.75	0.69
1:CA:1513:A:H2'	1:CA:1514:G:H8	1.58	0.69
22:DA:1682:G:H2'	22:DA:1683:U:C6	2.28	0.69
1:AA:452:A:N6	1:AA:480:U:O2	2.26	0.69
4:AD:168:PRO:HG2	4:AD:171:LEU:HD11	1.75	0.69
22:BA:1073:A:C3'	22:BA:1074:G:H5''	2.23	0.69
22:BA:465:G:H2'	22:BA:466:A:C8	2.28	0.69
22:BA:2305:U:O2'	27:BF:133:ARG:NE	2.25	0.69
11:CK:17:SER:O	11:CK:80:LYS:N	2.26	0.69
22:DA:1638:C:H4'	22:DA:2710:C:O2	1.93	0.69
22:DA:733:G:OP2	57:DA:3296:HOH:O	2.10	0.69
22:DA:777:G:C2	22:DA:778:G:C8	2.81	0.69
1:AA:1062:U:H2'	1:AA:1063:C:C5	2.28	0.69
1:AA:1322:C:OP1	19:AS:78:ARG:NH2	2.25	0.69
4:CD:198:HIS:CE1	4:CD:199:LEU:HD23	2.28	0.69
1:CA:429:U:H3'	4:CD:9:LEU:HD23	1.74	0.69
29:DH:27:ARG:HE	45:DX:60:ASP:CG	1.96	0.69
1:AA:68:G:C5	1:AA:69:G:H1'	2.28	0.69
10:AJ:52:LEU:HB3	14:AN:81:ARG:NE	2.08	0.69
22:BA:2595:G:N2	22:BA:2598:A:OP2	2.25	0.69
22:BA:370:G:N7	57:BA:3562:HOH:O	2.26	0.69
34:BM:136:MET:HE2	43:BV:57:TYR:CD2	2.28	0.69
17:CQ:46:VAL:HG21	17:CQ:61:ILE:HD11	1.75	0.69
18:CR:22:ASP:OD1	18:CR:23:TYR:N	2.26	0.69
2:AB:63:ARG:O	2:AB:64:LYS:HB2	1.93	0.68
3:AC:77:ILE:HA	3:AC:84:VAL:HG23	1.75	0.68
52:B4:11:CYS:SG	52:B4:33:HIS:ND1	2.66	0.68
22:BA:2061:G:O5'	57:BA:3491:HOH:O	2.10	0.68
36:BO:24:THR:HG22	36:BO:42:PRO:HD3	1.74	0.68
39:BR:49:ILE:HB	39:BR:52:PRO:HA	1.74	0.68
22:DA:1010:A:N7	57:DA:3778:HOH:O	2.26	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:123:ILE:N	4:AD:123:ILE:HD13	2.08	0.68
9:AI:99:ARG:O	9:AI:102:GLY:N	2.25	0.68
48:B0:55:ILE:O	48:B0:56:ALA:CB	2.40	0.68
22:BA:18:U:O3'	38:BQ:23:GLY:HA2	1.93	0.68
22:BA:2502:G:H5''	22:BA:2503:A:H5''	1.75	0.68
1:CA:527:G:N1	1:CA:528:C:C5	2.61	0.68
22:DA:21:A:C2	22:DA:520:G:C2	2.80	0.68
22:DA:479:A:H4'	22:DA:480:A:OP1	1.93	0.68
33:DL:77:ILE:HG23	33:DL:81:ASP:OD2	1.93	0.68
5:AE:82:GLN:NE2	5:AE:150:PRO:HD3	2.08	0.68
22:BA:137:U:H2'	22:BA:140:C:C2	2.28	0.68
22:BA:1738:G:HO2'	22:BA:1739:A:P	2.15	0.68
22:BA:2086:U:H2'	22:BA:2087:G:C8	2.28	0.68
22:BA:2140:G:N3	22:BA:2140:G:H2'	2.08	0.68
22:BA:818:G:N7	57:BA:3580:HOH:O	2.25	0.68
38:BQ:36:PHE:CZ	38:BQ:40:ILE:HD11	2.28	0.68
22:DA:2261:C:C2	22:DA:2280:G:N2	2.62	0.68
1:AA:328:C:O2	1:AA:328:C:H2'	1.92	0.68
2:AB:83:ALA:HA	2:AB:86:SER:OG	1.94	0.68
4:AD:78:GLU:OE2	4:AD:81:ARG:NH1	2.26	0.68
22:BA:2515:C:O2	22:BA:2570:G:C2	2.47	0.68
22:BA:819:A:N3	22:BA:1189:A:C2	2.61	0.68
23:DB:57:A:H1'	27:DF:27:GLN:HA	1.75	0.68
25:DD:12:THR:OG1	25:DD:13:ARG:N	2.23	0.68
1:AA:11:G:C5	1:AA:12:U:C5	2.81	0.68
28:BG:155:GLU:OE2	28:BG:158:LYS:N	2.27	0.68
46:BY:9:LYS:HB3	46:BY:12:GLU:HG3	1.75	0.68
22:DA:834:G:H1'	22:DA:2358:A:N3	2.08	0.68
35:DN:76:VAL:HA	35:DN:79:LEU:HD12	1.76	0.68
10:AJ:28:THR:HG22	10:AJ:86:ALA:HB1	1.75	0.68
16:AP:39:PHE:CD2	16:AP:74:LEU:HD11	2.28	0.68
52:B4:27:CYS:SG	56:B4:101:ZN:ZN	1.81	0.68
53:B5:42:VAL:O	53:B5:179:ALA:N	2.26	0.68
22:BA:1265:A:OP1	57:BA:3752:HOH:O	2.11	0.68
22:BA:619:G:O6	57:BA:3291:HOH:O	2.10	0.68
40:BS:83:LYS:O	40:BS:84:ARG:HD3	1.94	0.68
1:CA:1244:G:C6	1:CA:1245:C:N4	2.62	0.68
10:AJ:48:ARG:NH1	14:AN:101:TRP:CE3	2.62	0.68
22:BA:1414:C:C4	22:BA:1415:U:C5	2.81	0.68
22:BA:2578:G:N7	25:BD:145:SER:HB2	2.09	0.68
32:BK:107:LEU:O	32:BK:109:SER:N	2.27	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BO:100:HIS:O	36:BO:104:GLN:HB3	1.94	0.68
1:CA:31:G:N7	1:CA:306:A:H1'	2.09	0.68
1:CA:505:G:C6	1:CA:535:A:C2	2.82	0.68
1:CA:718:A:H5'	11:CK:119:ASN:ND2	2.08	0.68
38:DQ:79:PHE:CZ	38:DQ:83:LEU:HD11	2.28	0.68
21:AU:37:PHE:HA	21:AU:40:LYS:HE3	1.75	0.68
22:BA:2078:C:O2'	22:BA:2079:U:H5'	1.94	0.68
22:BA:2385:C:O2'	22:BA:2386:A:H5'	1.93	0.68
23:BB:30:C:H2'	23:BB:31:C:H5'	1.75	0.68
14:CN:61:ARG:O	14:CN:62:ASN:HB2	1.94	0.68
22:DA:764:A:N1	22:DA:1789:A:O2'	2.27	0.68
2:AB:41:ILE:HG21	2:AB:202:GLY:HA2	1.76	0.68
22:BA:588:U:H2'	22:BA:589:U:C6	2.29	0.68
22:DA:485:C:C2	22:DA:496:G:N2	2.62	0.68
25:DD:140:HIS:NE2	57:DD:302:HOH:O	2.13	0.68
37:BP:15:GLN:O	37:BP:16:ASP:HB3	1.94	0.68
22:DA:1411:U:H2'	22:DA:1412:U:O4'	1.93	0.68
22:BA:973:A:C8	22:BA:1188:U:N3	2.62	0.67
22:BA:2636:C:H2'	22:BA:2637:U:H6	1.58	0.67
22:BA:2683:C:OP1	37:BP:51:ARG:NH2	2.27	0.67
11:CK:101:ASN:C	11:CK:101:ASN:OD1	2.32	0.67
12:CL:21:VAL:O	12:CL:23:ALA:N	2.27	0.67
22:DA:1060:U:O4'	22:DA:1062:G:H5'	1.94	0.67
1:AA:71:A:H3'	1:AA:71:A:OP2	1.93	0.67
1:AA:983:A:H2'	1:AA:983:A:N3	2.08	0.67
5:AE:90:THR:HG22	5:AE:91:GLY:N	2.09	0.67
7:AG:146:GLU:HA	7:AG:149:LYS:CB	2.24	0.67
16:AP:46:LYS:HD3	16:AP:47:GLU:N	2.10	0.67
21:AU:4:ILE:HA	21:AU:20:LYS:HE3	1.75	0.67
22:BA:2310:C:C4	27:BF:77:PHE:CZ	2.81	0.67
24:BC:107:PRO:HB3	24:BC:142:HIS:CE1	2.29	0.67
33:BL:109:LYS:HG2	33:BL:126:ARG:HB2	1.75	0.67
1:CA:976:G:OP2	1:CA:1358:U:O2'	2.12	0.67
1:CA:683:G:N2	11:CK:39:GLY:O	2.27	0.67
14:CN:21:PHE:O	14:CN:23:LYS:N	2.27	0.67
22:DA:686:U:OP2	57:DA:3718:HOH:O	2.11	0.67
22:DA:724:U:H2'	22:DA:725:G:O4'	1.94	0.67
22:DA:948:C:O2	22:DA:984:A:O2'	2.11	0.67
1:AA:1225:A:H2'	1:AA:1226:C:C5	2.29	0.67
1:AA:91:U:H2'	1:AA:92:U:O4'	1.95	0.67
12:AL:85:GLY:O	12:AL:96:HIS:ND1	2.28	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B4:33:HIS:O	52:B4:35:GLN:HG3	1.94	0.67
22:BA:1178:C:H2'	22:BA:1179:G:N7	2.08	0.67
22:BA:2728:U:O2'	22:BA:2729:G:P	2.53	0.67
22:BA:622:G:P	57:BA:3293:HOH:O	2.51	0.67
24:BC:70:ASN:O	24:BC:72:ASP:N	2.27	0.67
1:CA:518:C:H2'	1:CA:530:G:C8	2.29	0.67
1:CA:72:A:C6	1:CA:73:C:N4	2.62	0.67
4:CD:174:ASP:O	4:CD:175:ALA:CB	2.43	0.67
20:CT:6:SER:OG	20:CT:7:ALA:N	2.23	0.67
22:BA:1582:C:O2'	22:BA:1585:C:N3	2.26	0.67
22:BA:2128:G:H2'	22:BA:2129:C:O4'	1.92	0.67
26:BE:7:ASP:O	26:BE:9:GLN:N	2.27	0.67
29:BH:122:LEU:HD23	29:BH:123:ARG:N	2.10	0.67
24:DC:16:VAL:HG22	24:DC:206:GLY:HA3	1.76	0.67
39:DR:81:LYS:N	39:DR:81:LYS:HD3	2.10	0.67
1:AA:1079:G:OP1	57:AA:1791:HOH:O	2.12	0.67
5:AE:95:PHE:CZ	5:AE:97:GLN:HG3	2.29	0.67
21:AU:4:ILE:N	21:AU:20:LYS:HE3	2.09	0.67
22:BA:2061:G:O6	55:BA:3001:VIF:H29	1.94	0.67
25:BD:133:THR:O	25:BD:134:HIS:HB2	1.94	0.67
22:BA:2392:A:O2'	33:BL:60:ARG:O	2.12	0.67
34:BM:28:PHE:HB2	34:BM:104:GLU:OE2	1.94	0.67
35:DN:117:ASP:O	35:DN:118:ARG:HB2	1.94	0.67
1:AA:1504:G:H3'	57:AA:1803:HOH:O	1.93	0.67
1:AA:1525:G:O6	57:AA:1869:HOH:O	2.08	0.67
2:AB:103:ASN:O	2:AB:106:THR:N	2.27	0.67
22:BA:18:U:O4	57:BA:3205:HOH:O	2.10	0.67
22:BA:197:A:N6	22:BA:2430:A:H2'	2.09	0.67
22:BA:747:U:C4	22:BA:2613:U:C4	2.82	0.67
1:CA:404:G:O6	4:CD:2:ALA:N	2.28	0.67
5:CE:101:GLU:CD	5:CE:101:GLU:O	2.32	0.67
22:BA:2554:U:C4	22:BA:2555:U:O4	2.47	0.67
22:BA:276:U:O2	22:BA:276:U:H2'	1.95	0.67
30:BI:97:LYS:HG3	30:BI:139:VAL:HG22	1.77	0.67
37:BP:90:GLY:O	37:BP:113:ARG:NH1	2.28	0.67
1:CA:111:G:O6	1:CA:330:C:N4	2.27	0.67
22:DA:1469:A:H2'	22:DA:1470:A:C8	2.30	0.67
1:AA:992:U:C2	1:AA:1043:G:N7	2.63	0.67
8:AH:2:SER:C	8:AH:4:GLN:H	1.98	0.67
22:BA:1142:A:N3	22:BA:1144:A:C8	2.63	0.67
39:BR:46:GLU:N	39:BR:46:GLU:OE1	2.26	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1055:A:C6	1:CA:1206:G:C5	2.83	0.67
1:CA:1298:U:O2	1:CA:1298:U:H2'	1.94	0.67
13:CM:13:LYS:O	13:CM:14:HIS:ND1	2.28	0.67
13:CM:40:ALA:O	13:CM:42:ASP:N	2.28	0.67
16:CP:42:ILE:O	16:CP:44:SER:N	2.23	0.67
22:DA:1380:G:OP2	57:DA:3753:HOH:O	2.12	0.67
5:AE:99:ALA:O	5:AE:101:GLU:N	2.28	0.67
22:BA:1422:G:C4	22:BA:1423:G:C8	2.83	0.67
28:BG:174:ALA:O	28:BG:175:LYS:HB3	1.95	0.67
22:DA:1809:A:C6	22:DA:1810:A:C6	2.83	0.67
22:DA:1826:G:C5	22:DA:1827:U:C5	2.82	0.67
24:DC:69:ARG:HD3	24:DC:104:ILE:HG21	1.74	0.67
24:DC:30:PHE:CE2	24:DC:32:PRO:HG2	2.29	0.67
10:AJ:47:GLU:OE2	14:AN:76:LYS:NZ	2.21	0.67
21:AU:10:GLU:CG	21:AU:11:PRO:HD3	2.25	0.67
27:BF:67:ILE:HD12	27:BF:67:ILE:O	1.94	0.67
31:BJ:81:ILE:HG12	31:BJ:82:GLY:N	2.09	0.67
40:BS:1:MET:N	40:BS:109:ASP:OD1	2.28	0.67
1:CA:1388:C:C2	1:CA:1389:C:C5	2.83	0.67
22:DA:1645:G:OP1	22:DA:1646:C:H5'	1.95	0.67
27:DF:32:GLU:OE1	27:DF:92:ARG:NH1	2.28	0.67
1:AA:173:U:C2	1:AA:197:A:N1	2.63	0.66
21:AU:35:ARG:NH2	57:AU:101:HOH:O	2.22	0.66
22:BA:714:U:O2'	22:BA:716:A:N7	2.28	0.66
29:BH:27:ARG:O	29:BH:28:ASN:HB2	1.95	0.66
36:BO:55:GLU:OE1	36:BO:81:ARG:NH1	2.27	0.66
39:BR:49:ILE:HG22	39:BR:52:PRO:C	2.15	0.66
21:CU:51:SER:O	21:CU:53:VAL:N	2.28	0.66
22:DA:1096:A:H2'	22:DA:1097:U:O4'	1.95	0.66
22:DA:2838:G:OP1	57:DA:3806:HOH:O	2.13	0.66
41:DT:14:PRO:HD2	46:DY:33:ALA:HB1	1.76	0.66
1:AA:598:U:H4'	8:AH:86:TYR:CD1	2.30	0.66
3:AC:36:ASP:OD1	3:AC:59:ARG:NH1	2.28	0.66
13:AM:46:SER:O	13:AM:47:GLU:HB3	1.96	0.66
39:BR:49:ILE:HB	39:BR:51:VAL:O	1.95	0.66
2:CB:73:LYS:O	2:CB:75:ALA:N	2.28	0.66
3:CC:77:ILE:HA	3:CC:84:VAL:HG23	1.76	0.66
22:DA:1395:A:O2'	22:DA:1397:U:C6	2.48	0.66
22:DA:2757:A:N1	28:DG:67:THR:HG21	2.10	0.66
44:DW:21:LEU:HA	44:DW:39:ARG:HB2	1.77	0.66
11:AK:29:ASN:OD1	11:AK:47:ALA:HB3	1.93	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:14:VAL:HG13	21:AU:16:LEU:CD2	2.25	0.66
22:BA:357:C:H2'	22:BA:358:U:C6	2.30	0.66
22:BA:826:U:P	57:BA:3702:HOH:O	2.53	0.66
22:BA:945:A:C8	57:BA:3263:HOH:O	2.48	0.66
1:CA:532:A:N6	3:CC:192:THR:OG1	2.27	0.66
7:CG:12:ILE:HD12	7:CG:24:ALA:HB1	1.75	0.66
22:DA:1139:G:N2	22:DA:1140:C:C2	2.63	0.66
39:DR:49:ILE:HG22	39:DR:54:VAL:N	2.10	0.66
1:AA:144:G:C5	1:AA:179:A:C2	2.82	0.66
1:AA:663:A:N1	1:AA:743:A:C2	2.63	0.66
22:BA:1180:U:H2'	22:BA:1181:U:H5'	1.77	0.66
22:BA:1385:A:H1'	22:BA:1386:C:C6	2.31	0.66
22:BA:1936:A:C8	22:BA:1945:G:C6	2.83	0.66
22:BA:2516:A:N6	22:BA:2517:C:H42	1.93	0.66
22:BA:974:G:C8	22:BA:989:G:C2	2.84	0.66
29:BH:94:ILE:CG2	29:BH:99:ILE:HG13	2.26	0.66
34:BM:136:MET:CE	43:BV:57:TYR:CD2	2.78	0.66
2:CB:99:GLY:O	2:CB:101:LEU:N	2.28	0.66
22:DA:46:G:C2	22:DA:47:C:C6	2.84	0.66
1:AA:1033:G:H2'	1:AA:1034:G:H5'	1.77	0.66
3:AC:139:GLN:O	3:AC:141:ALA:N	2.29	0.66
10:AJ:6:ILE:CD1	10:AJ:76:ILE:HB	2.26	0.66
10:AJ:12:ALA:HB2	10:AJ:96:VAL:HA	1.78	0.66
1:AA:1228:C:OP2	13:AM:107:ARG:NH2	2.29	0.66
22:BA:1794:A:H2'	22:BA:1795:C:C6	2.31	0.66
22:BA:2291:U:H2'	22:BA:2292:U:C5	2.31	0.66
22:BA:2674:G:H4'	32:BK:30:ARG:HD2	1.77	0.66
22:BA:933:A:H5'	22:BA:934:U:OP2	1.95	0.66
24:BC:71:LYS:HE3	24:BC:96:TYR:CD2	2.30	0.66
39:BR:76:LYS:HD2	39:BR:85:LYS:HD2	1.76	0.66
41:BT:19:LYS:O	41:BT:21:SER:N	2.29	0.66
43:BV:80:HIS:CE1	43:BV:83:LYS:HG3	2.30	0.66
5:CE:149:SER:HB2	5:CE:152:MET:CG	2.26	0.66
13:CM:11:ASP:OD1	13:CM:12:HIS:N	2.27	0.66
22:DA:187:G:C2	22:DA:210:C:C2	2.83	0.66
22:DA:2163:A:OP1	22:DA:2171:A:C8	2.49	0.66
22:BA:1917:U:H2'	22:BA:1918:A:H5'	1.78	0.66
1:CA:1296:C:H4'	1:CA:1302:C:N4	2.10	0.66
29:BH:93:SER:OG	1:CA:357:G:H4'	1.96	0.66
22:DA:2690:U:C4	22:DA:2873:A:N1	2.63	0.66
22:DA:617:G:O6	57:DA:3286:HOH:O	2.09	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:186:ILE:HA	2:AB:200:ILE:HB	1.78	0.66
1:AA:1149:C:OP2	9:AI:11:ARG:NH2	2.29	0.66
22:BA:1439:A:OP2	57:BA:3634:HOH:O	2.14	0.66
22:BA:2819:G:OP1	57:BA:3807:HOH:O	2.13	0.66
35:BN:73:ASN:HA	35:BN:76:VAL:HG12	1.77	0.66
22:BA:2012:G:OP1	40:BS:98:LYS:HG2	1.95	0.66
46:BY:56:LEU:O	46:BY:57:LEU:HB3	1.95	0.66
4:CD:50:ASP:O	4:CD:53:VAL:HG22	1.95	0.66
12:AL:24:LEU:HG	12:AL:25:GLU:H	1.61	0.66
12:AL:44:LYS:HB2	12:AL:45:PRO:CD	2.25	0.66
22:BA:608:A:C6	22:BA:609:A:C6	2.84	0.66
28:BG:10:VAL:CG1	28:BG:10:VAL:O	2.44	0.66
40:BS:63:GLY:O	40:BS:64:ALA:HB3	1.96	0.66
1:CA:72:A:N6	1:CA:73:C:N4	2.43	0.66
9:CI:54:LEU:O	9:CI:55:VAL:HG22	1.95	0.66
1:AA:702:A:H3'	1:AA:703:G:C5'	2.26	0.66
2:AB:49:MET:O	2:AB:53:ALA:HB2	1.94	0.66
5:AE:137:VAL:O	5:AE:138:ARG:CB	2.44	0.66
22:BA:206:U:C2'	22:BA:207:A:H5'	2.26	0.66
29:BH:14:SER:O	29:BH:15:LEU:HB2	1.95	0.66
22:DA:1973:G:C6	22:DA:1974:C:C4	2.84	0.66
27:DF:111:ILE:HB	27:DF:114:PHE:HB2	1.78	0.66
1:AA:872:A:C4	1:AA:874:G:N7	2.64	0.66
22:BA:1143:A:N7	31:BJ:27:ARG:NH1	2.44	0.66
22:BA:1730:C:H4'	22:BA:1730:C:OP1	1.96	0.66
7:CG:75:VAL:HG21	7:CG:144:MET:HG2	1.77	0.66
22:DA:1871:A:O2'	22:DA:1872:A:N7	2.29	0.66
22:DA:2125:G:H5'	22:DA:2126:A:OP2	1.96	0.66
23:DB:84:G:N2	23:DB:93:C:C2	2.64	0.66
4:AD:59:GLN:O	4:AD:63:ARG:HG2	1.95	0.65
22:BA:1745:A:C2	22:BA:1746:A:C8	2.84	0.65
22:BA:2346:A:H4'	22:BA:2347:C:OP2	1.94	0.65
25:BD:12:THR:CG2	37:BP:9:GLU:OE2	2.44	0.65
25:BD:84:LEU:HD22	25:BD:88:GLU:HB3	1.79	0.65
14:CN:51:LEU:O	14:CN:53:ARG:N	2.29	0.65
22:DA:1429:G:N7	24:DC:28:LYS:NZ	2.44	0.65
22:DA:269:C:N3	22:DA:270:A:C8	2.63	0.65
22:DA:748:G:C8	40:DS:89:ALA:HB1	2.31	0.65
37:DP:29:LYS:HB3	37:DP:40:LEU:HD21	1.78	0.65
38:DQ:47:TYR:CZ	38:DQ:51:ARG:CZ	2.79	0.65
1:AA:483:C:O2	16:AP:13:LYS:NZ	2.29	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:78:VAL:HG13	16:AP:78:VAL:O	1.96	0.65
17:AQ:16:LYS:N	17:AQ:17:MET:SD	2.68	0.65
22:BA:265:A:H4'	22:BA:266:G:OP1	1.96	0.65
22:BA:575:A:H2'	22:BA:576:U:H5'	1.78	0.65
1:CA:495:A:C2	1:CA:496:A:N6	2.64	0.65
2:CB:83:ALA:O	2:CB:86:SER:OG	2.15	0.65
18:CR:20:GLU:O	18:CR:22:ASP:N	2.29	0.65
22:DA:1274:A:N3	22:DA:1297:C:H1'	2.11	0.65
22:DA:2346:A:H3'	22:DA:2347:C:C5'	2.26	0.65
22:DA:247:G:H4'	22:DA:386:G:C5	2.31	0.65
22:DA:24:G:C5	22:DA:25:U:C5	2.85	0.65
22:DA:2504:U:C4	55:DA:3001:VIF:H30	2.31	0.65
22:DA:996:A:C2	22:DA:997:G:C8	2.83	0.65
24:DC:210:ALA:HA	24:DC:213:TRP:CE2	2.30	0.65
36:DO:92:PHE:HB2	36:DO:117:PHE:CD1	2.31	0.65
1:AA:1289:A:O3'	7:AG:35:LYS:NZ	2.29	0.65
2:AB:168:HIS:ND1	2:AB:168:HIS:O	2.28	0.65
9:AI:81:HIS:NE2	9:AI:104:VAL:O	2.29	0.65
13:AM:26:GLY:O	13:AM:28:THR:N	2.29	0.65
17:AQ:12:VAL:HG12	17:AQ:13:VAL:N	2.11	0.65
53:B5:50:ILE:CG2	53:B5:51:ASP:N	2.59	0.65
22:BA:1027:A:C6	22:BA:1126:A:N3	2.64	0.65
24:BC:226:ASN:ND2	57:BC:302:HOH:O	2.28	0.65
38:BQ:36:PHE:CE1	38:BQ:40:ILE:CD1	2.78	0.65
12:CL:74:LEU:HD11	12:CL:80:ILE:HG21	1.78	0.65
52:D4:30:GLU:HB3	52:D4:33:HIS:CD2	2.31	0.65
22:DA:2344:U:H4'	22:DA:2345:G:OP1	1.96	0.65
24:DC:62:TYR:CE1	24:DC:63:ARG:O	2.49	0.65
22:DA:990:A:N1	39:DR:78:ARG:NH1	2.44	0.65
22:BA:996:A:C2	22:BA:997:G:C8	2.85	0.65
22:DA:2225:A:H4'	22:DA:2226:C:O5'	1.96	0.65
22:DA:514:A:N3	22:DA:581:C:O2'	2.23	0.65
2:AB:15:HIS:CD2	2:AB:15:HIS:C	2.69	0.65
4:AD:191:LEU:HD12	4:AD:192:SER:HB2	1.78	0.65
9:AI:56:ASP:O	9:AI:60:LYS:NZ	2.18	0.65
22:BA:1258:U:C4	22:BA:1259:G:N7	2.65	0.65
26:BE:171:ASP:C	26:BE:171:ASP:OD1	2.34	0.65
23:DB:34:A:N6	23:DB:44:G:O2'	2.30	0.65
1:AA:872:A:C5	1:AA:874:G:C8	2.85	0.65
2:AB:51:ASN:O	2:AB:52:GLU:HB2	1.96	0.65
3:AC:11:ARG:O	3:AC:14:ILE:O	2.15	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:25:ASN:O	3:AC:27:LYS:N	2.29	0.65
4:AD:106:GLY:O	4:AD:108:GLY:N	2.29	0.65
4:AD:151:LYS:HB2	4:AD:156:LYS:HE3	1.79	0.65
22:BA:576:U:H2'	22:BA:577:G:C8	2.31	0.65
24:BC:8:PRO:HB3	24:BC:14:ARG:HB2	1.79	0.65
24:BC:244:PRO:O	24:BC:251:GLN:NE2	2.29	0.65
29:BH:114:GLU:HB3	29:BH:133:GLN:O	1.97	0.65
22:DA:1693:U:O4	22:DA:1976:U:O2'	2.12	0.65
22:DA:352:A:H2'	22:DA:353:C:O4'	1.96	0.65
1:AA:800:G:O6	57:AA:1813:HOH:O	2.11	0.65
16:AP:42:ILE:O	16:AP:44:SER:N	2.30	0.65
20:AT:6:SER:OG	20:AT:7:ALA:N	2.30	0.65
22:BA:1925:C:H4'	22:BA:1926:U:C4	2.31	0.65
22:BA:2555:U:C5	22:BA:2556:C:C2	2.84	0.65
22:BA:1816:C:C5	24:BC:62:TYR:CE1	2.85	0.65
26:BE:31:VAL:HG21	26:BE:104:ALA:HB2	1.78	0.65
31:BJ:13:ARG:HB3	31:BJ:51:GLY:O	1.97	0.65
35:BN:77:ALA:O	35:BN:81:ASN:HB2	1.97	0.65
37:BP:103:ARG:HG3	37:BP:103:ARG:HH11	1.61	0.65
44:BW:52:GLY:HA3	44:BW:60:PHE:CE2	2.31	0.65
24:DC:61:ALA:O	24:DC:63:ARG:NH2	2.30	0.65
30:DI:69:PHE:N	30:DI:69:PHE:HD1	1.94	0.65
33:DL:29:LYS:O	33:DL:30:THR:OG1	2.12	0.65
12:AL:21:VAL:HG23	12:AL:95:TYR:CE1	2.30	0.65
20:AT:29:ARG:O	20:AT:33:LYS:HG2	1.97	0.65
22:BA:1509:A:O2'	22:BA:1510:G:P	2.54	0.65
22:BA:2264:C:N4	44:BW:15:ASP:OD1	2.29	0.65
29:BH:139:PHE:O	29:BH:140:ALA:CB	2.44	0.65
45:BX:12:PRO:HB3	45:BX:30:LEU:HD23	1.79	0.65
1:CA:152:A:N6	1:CA:170:U:C2	2.65	0.65
5:CE:56:VAL:N	5:CE:57:PRO:HD2	2.12	0.65
12:CL:116:LYS:O	12:CL:117:TYR:CD2	2.49	0.65
13:CM:33:ILE:HD13	13:CM:59:GLU:HB3	1.79	0.65
22:DA:2136:G:N1	22:DA:2156:G:H1'	2.12	0.65
1:AA:1054:C:OP2	57:AA:1784:HOH:O	2.14	0.65
1:AA:721:G:H4'	1:AA:722:G:O4'	1.97	0.65
2:AB:23:TRP:CZ3	2:AB:25:PRO:HA	2.31	0.65
22:BA:1508:A:O2'	22:BA:1509:A:O4'	2.13	0.65
22:BA:2034:U:O4	57:BA:3579:HOH:O	2.12	0.65
22:BA:528:A:C8	22:BA:528:A:H3'	2.32	0.65
27:BF:108:VAL:HG13	27:BF:114:PHE:CZ	2.32	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:790:A:C6	1:CA:791:G:C6	2.85	0.65
12:CL:68:GLY:O	12:CL:99:ARG:NH1	2.30	0.65
1:CA:736:C:OP1	18:CR:61:ARG:NH1	2.30	0.65
22:DA:1477:A:N6	22:DA:1514:G:O2'	2.30	0.65
22:DA:1427:A:N6	22:DA:1571:A:OP2	2.29	0.65
22:DA:2291:U:H2'	22:DA:2292:U:C6	2.32	0.65
32:DK:76:VAL:HG12	37:DP:73:VAL:CG2	2.26	0.65
1:AA:652:U:O2'	1:AA:653:U:OP2	2.13	0.65
2:AB:33:GLY:O	2:AB:34:ALA:HB2	1.97	0.65
21:AU:20:LYS:CE	21:AU:20:LYS:HA	2.27	0.65
29:BH:122:LEU:C	29:BH:123:ARG:HG2	2.17	0.65
30:BI:47:ASP:HA	30:BI:51:LYS:CD	2.26	0.65
1:CA:718:A:C8	1:CA:719:C:C5	2.84	0.65
1:AA:920:U:O4'	1:AA:1080:A:C2	2.49	0.64
3:AC:206:GLU:O	3:AC:207:ILE:O	2.15	0.64
10:AJ:33:GLY:O	10:AJ:34:ALA:HB2	1.97	0.64
22:BA:2020:A:C2	22:BA:2035:G:N1	2.65	0.64
22:BA:517:C:OP2	48:B0:10:ARG:NH2	2.30	0.64
27:BF:36:LEU:HD22	27:BF:91:LEU:HD11	1.78	0.64
38:BQ:40:ILE:O	38:BQ:44:GLN:HG3	1.97	0.64
2:CB:141:LEU:O	2:CB:145:GLU:N	2.30	0.64
22:DA:1809:A:H2'	22:DA:1810:A:C8	2.32	0.64
22:DA:204:A:H5'	22:DA:206:U:O4'	1.96	0.64
22:DA:2681:C:C2	22:DA:2724:U:O4	2.50	0.64
40:DS:41:LYS:O	40:DS:44:ALA:N	2.30	0.64
40:DS:73:LYS:HB2	40:DS:106:VAL:HB	1.80	0.64
1:AA:174:A:C5	1:AA:175:C:C5	2.85	0.64
22:BA:118:A:C8	22:BA:119:A:C8	2.84	0.64
22:BA:1926:U:H2'	22:BA:1926:U:O2	1.96	0.64
26:BE:108:ILE:HD13	26:BE:181:ILE:HG12	1.78	0.64
1:CA:1181:G:O2'	1:CA:1182:G:C8	2.50	0.64
22:DA:1992:G:N2	22:DA:1996:C:O2'	2.30	0.64
22:DA:2346:A:H3'	22:DA:2347:C:H5'	1.77	0.64
22:DA:247:G:H4'	22:DA:386:G:C4	2.33	0.64
1:AA:232:G:H2'	1:AA:233:C:O4'	1.97	0.64
1:AA:731:G:OP1	1:AA:766:A:H1'	1.97	0.64
4:AD:150:LYS:O	4:AD:152:GLN:NE2	2.30	0.64
4:AD:17:THR:HG23	4:AD:18:ASP:N	2.12	0.64
1:AA:624:C:H4'	16:AP:11:ALA:HB2	1.79	0.64
53:B5:50:ILE:C	53:B5:52:PRO:HD3	2.17	0.64
22:BA:2176:A:C6	22:BA:2177:C:N4	2.65	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:4:U:H5''	1:CA:5:U:OP1	1.97	0.64
6:CF:9:MET:HG3	6:CF:86:ARG:HB2	1.78	0.64
22:DA:1251:C:OP2	38:DQ:6:ARG:NH2	2.30	0.64
22:DA:2063:C:H2'	22:DA:2063:C:O2	1.97	0.64
22:DA:2127:G:H4'	22:DA:2128:G:OP1	1.96	0.64
44:DW:52:GLY:HA3	44:DW:60:PHE:CZ	2.32	0.64
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.79	0.64
1:AA:663:A:C2	1:AA:743:A:C2	2.86	0.64
33:BL:68:SER:O	33:BL:69:ARG:HB2	1.97	0.64
1:CA:866:C:C5	1:CA:867:G:H1'	2.32	0.64
9:CI:90:TYR:O	9:CI:91:ASP:CG	2.36	0.64
22:DA:1127:A:C2'	22:DA:1128:G:H5''	2.27	0.64
22:DA:2436:G:C2	22:DA:2437:G:C8	2.85	0.64
28:DG:159:GLY:O	28:DG:163:ARG:NH1	2.30	0.64
1:AA:1374:A:C2	1:AA:1375:A:C8	2.85	0.64
22:BA:991:C:C4	22:BA:1185:G:C6	2.86	0.64
22:BA:2458:G:C2	22:BA:2490:G:N2	2.66	0.64
1:CA:1211:U:C2'	1:CA:1212:U:OP2	2.46	0.64
22:DA:1530:G:N2	22:DA:1542:U:O2	2.31	0.64
22:DA:118:A:N3	22:DA:178:G:H1'	2.13	0.64
22:DA:370:G:C6	22:DA:424:G:N7	2.66	0.64
1:AA:544:G:C5	1:AA:545:C:C5	2.86	0.64
4:AD:75:TYR:OH	4:AD:97:ARG:NH1	2.30	0.64
15:AO:8:THR:O	15:AO:12:VAL:HG23	1.97	0.64
22:BA:447:A:OP2	57:BA:3210:HOH:O	2.14	0.64
22:BA:572:A:C2	22:BA:2033:A:C2	2.86	0.64
22:BA:983:A:C6	22:BA:984:A:C2	2.86	0.64
30:BI:58:VAL:HG12	30:BI:59:ILE:N	2.12	0.64
8:CH:77:ARG:NE	8:CH:79:SER:O	2.30	0.64
8:CH:94:LYS:HD3	8:CH:98:GLY:HA2	1.79	0.64
15:CO:62:GLN:O	15:CO:66:LEU:HD23	1.97	0.64
20:CT:78:ASN:O	20:CT:82:GLN:HG2	1.98	0.64
22:DA:1359:A:C8	22:DA:1373:A:N1	2.66	0.64
22:DA:151:C:H2'	22:DA:152:A:C8	2.32	0.64
22:DA:1570:A:H2'	22:DA:1571:A:C8	2.32	0.64
22:DA:192:C:O2'	22:DA:802:A:N3	2.29	0.64
22:DA:2282:G:N3	22:DA:2425:A:N6	2.46	0.64
42:DU:9:ASP:OD2	42:DU:10:GLU:N	2.31	0.64
1:AA:1236:A:H2'	1:AA:1237:C:C6	2.32	0.64
1:AA:91:U:C2	1:AA:92:U:H1'	2.33	0.64
22:BA:211:C:OP1	50:B2:25:LYS:NZ	2.30	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2282:G:H5''	22:BA:2283:C:O4'	1.98	0.64
22:BA:2520:C:C6	22:BA:2567:G:H1'	2.32	0.64
22:BA:2839:G:C5	22:BA:2840:C:C5	2.85	0.64
35:BN:2:ARG:HA	35:BN:5:LYS:CD	2.26	0.64
22:DA:1339:G:O4'	22:DA:1393:A:C2	2.51	0.64
22:DA:1774:C:O2	24:DC:11:PRO:HB2	1.97	0.64
31:DJ:142:ILE:OXT	31:DJ:142:ILE:HG23	1.96	0.64
46:DY:56:LEU:O	46:DY:57:LEU:CB	2.46	0.64
1:AA:1304:G:N1	1:AA:1305:G:N2	2.45	0.64
1:AA:468:A:C2	1:AA:469:C:C4	2.85	0.64
1:AA:673:A:H2'	1:AA:674:G:C8	2.32	0.64
2:AB:95:ARG:HH12	2:AB:97:LEU:HA	1.63	0.64
22:BA:1176:U:H2'	22:BA:1177:G:C8	2.32	0.64
22:BA:206:U:H2'	22:BA:207:A:H5'	1.79	0.64
22:BA:2474:U:H5''	22:BA:2475:C:OP2	1.98	0.64
22:BA:2828:G:C2	22:BA:2829:A:C8	2.85	0.64
2:CB:23:TRP:O	2:CB:23:TRP:CG	2.51	0.64
2:CB:35:ARG:O	2:CB:37:LYS:N	2.31	0.64
9:CI:120:LYS:HG2	9:CI:123:ARG:HB3	1.79	0.64
17:CQ:8:LEU:HD22	17:CQ:73:TRP:CH2	2.32	0.64
22:DA:1141:U:H4'	22:DA:1142:A:O4'	1.97	0.64
22:DA:1181:U:H2'	22:DA:1182:G:C8	2.33	0.64
1:AA:532:A:N6	3:AC:192:THR:OG1	2.31	0.64
1:AA:566:G:O6	57:AA:1840:HOH:O	2.10	0.64
2:AB:213:TYR:O	2:AB:217:VAL:HG23	1.97	0.64
3:AC:7:PRO:HG2	3:AC:184:TYR:CG	2.33	0.64
5:AE:115:LEU:HG	5:AE:120:VAL:HG21	1.80	0.64
22:BA:1100:C:H2'	22:BA:1101:U:C6	2.32	0.64
22:BA:1140:C:OP2	31:BJ:68:LYS:NZ	2.31	0.64
22:BA:947:A:O2'	22:BA:984:A:H2	1.79	0.64
38:BQ:21:ALA:HA	38:BQ:24:TYR:CE1	2.33	0.64
1:CA:1029:U:O2	1:CA:1029:U:H2'	1.96	0.64
24:DC:147:LYS:HB2	24:DC:150:LYS:HB2	1.80	0.64
29:DH:117:LEU:CD1	29:DH:130:VAL:HG22	2.28	0.64
45:DX:33:LEU:O	45:DX:34:HIS:CG	2.51	0.64
1:AA:1031:C:O2'	1:AA:1032:G:OP2	2.16	0.64
1:AA:208:U:C5	1:AA:210:C:C4	2.86	0.64
1:AA:657:U:O2	15:AO:22:THR:CG2	2.46	0.64
15:AO:89:ARG:NH1	22:BA:714:U:C5	2.66	0.64
22:BA:2516:A:C6	22:BA:2517:C:N4	2.65	0.64
29:BH:89:LYS:HB3	1:CA:359:G:C5'	2.28	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:16:GLU:OE1	39:BR:100:GLY:HA2	1.98	0.64
43:BV:13:GLY:O	43:BV:17:SER:OG	2.15	0.64
1:CA:980:C:OP2	57:CA:1861:HOH:O	2.15	0.64
2:CB:135:LEU:O	2:CB:137:ARG:N	2.31	0.64
22:DA:526:A:N6	22:DA:2626:C:H4'	2.13	0.64
1:AA:262:A:C6	1:AA:263:A:C6	2.85	0.63
7:AG:27:VAL:HG12	7:AG:43:VAL:HG21	1.79	0.63
24:BC:136:PRO:O	24:BC:139:SER:OG	2.16	0.63
24:BC:143:ASN:OD1	24:BC:152:GLY:HA3	1.99	0.63
1:CA:289:G:C2	1:CA:290:C:C5	2.85	0.63
1:CA:463:U:H5'	1:CA:464:U:OP2	1.98	0.63
22:DA:1300:G:O6	22:DA:1626:A:O2'	2.11	0.63
22:DA:1651:G:C6	22:DA:1652:A:C5	2.87	0.63
22:DA:2788:C:H2'	22:DA:2789:C:C6	2.33	0.63
3:AC:130:PHE:CZ	3:AC:131:ARG:HD2	2.33	0.63
53:B5:50:ILE:O	53:B5:52:PRO:HD3	1.98	0.63
22:BA:2325:G:C6	22:BA:2326:C:N4	2.66	0.63
41:BT:2:ILE:HA	41:BT:3:ARG:C	2.18	0.63
1:CA:949:A:O2'	1:CA:971:G:O6	2.08	0.63
20:CT:80:THR:O	20:CT:83:ILE:HG13	1.99	0.63
22:DA:1178:C:H2'	22:DA:1179:G:C8	2.33	0.63
22:DA:563:A:C4	22:DA:2018:G:C2	2.86	0.63
22:DA:717:C:N4	22:DA:718:A:C2	2.67	0.63
22:DA:1187:G:H5''	39:DR:83:TYR:CE2	2.33	0.63
21:AU:44:GLU:OE2	21:AU:45:ARG:NH1	2.31	0.63
22:BA:250:G:OP1	57:BA:3818:HOH:O	2.15	0.63
22:BA:2571:U:H2'	22:BA:2572:A:OP1	1.99	0.63
22:BA:321:U:H5''	26:BE:131:THR:HG23	1.80	0.63
40:BS:59:GLU:HA	40:BS:64:ALA:HB2	1.80	0.63
1:CA:1181:G:O2'	1:CA:1182:G:N7	2.32	0.63
1:CA:64:G:C8	1:CA:99:C:N4	2.65	0.63
19:CS:40:ILE:HB	19:CS:66:MET:O	1.98	0.63
20:CT:81:ALA:O	20:CT:85:LYS:HG2	1.98	0.63
22:DA:2328:A:H2'	22:DA:2329:U:C6	2.33	0.63
22:DA:197:A:N6	22:DA:2430:A:H2'	2.12	0.63
22:DA:616:A:H4'	26:DE:101:TYR:CZ	2.34	0.63
37:DP:39:ARG:HG3	37:DP:40:LEU:H	1.64	0.63
1:AA:373:A:C2	1:AA:374:A:C8	2.85	0.63
22:BA:2015:A:C6	48:B0:3:VAL:HG23	2.33	0.63
22:BA:1838:C:C4	22:BA:1899:A:C4	2.86	0.63
22:BA:790:U:O2'	22:BA:791:C:P	2.57	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:91:SER:O	32:BK:92:GLU:C	2.36	0.63
39:BR:102:SER:O	39:BR:103:ALA:O	2.16	0.63
40:BS:63:GLY:O	40:BS:64:ALA:CB	2.46	0.63
1:CA:624:C:H2'	1:CA:625:U:O4'	1.99	0.63
1:CA:909:A:H2'	1:CA:910:C:O4'	1.98	0.63
5:CE:38:VAL:HG12	5:CE:117:VAL:HG21	1.79	0.63
16:CP:20:VAL:CG2	16:CP:32:PHE:HB2	2.29	0.63
22:DA:12:U:O2	22:DA:12:U:H2'	1.98	0.63
22:DA:2211:A:H1'	22:DA:2212:A:OP1	1.99	0.63
22:DA:2311:A:O2'	22:DA:2312:U:P	2.56	0.63
22:DA:310:A:H5''	42:DU:15:THR:HG22	1.80	0.63
1:AA:1064:G:O2'	1:AA:1190:G:N2	2.32	0.63
1:AA:1182:G:H4'	1:AA:1183:U:H5'	1.79	0.63
1:AA:206:C:H2'	1:AA:207:C:O4'	1.98	0.63
22:BA:1020:A:C2	22:BA:1141:U:C2	2.86	0.63
22:BA:2495:G:H2'	22:BA:2496:C:H5'	1.80	0.63
32:BK:113:MET:SD	32:BK:116:ILE:HD11	2.39	0.63
22:BA:58:G:OP1	41:BT:78:SER:CB	2.45	0.63
1:CA:216:U:H4'	1:CA:464:U:H4'	1.80	0.63
1:CA:858:G:O6	1:CA:869:G:H3'	1.98	0.63
1:CA:811:C:O2'	1:CA:901:A:N1	2.30	0.63
5:CE:155:ALA:HB1	8:CH:66:PHE:CD2	2.34	0.63
19:CS:4:SER:O	19:CS:5:LEU:HB2	1.97	0.63
49:D1:10:LYS:O	49:D1:51:GLU:HG2	1.98	0.63
22:DA:420:C:H2'	22:DA:421:C:H6	1.64	0.63
22:DA:753:A:C2	22:DA:754:U:C2	2.86	0.63
24:DC:93:LEU:HD13	24:DC:103:TYR:CE1	2.34	0.63
46:DY:9:LYS:HB3	46:DY:12:GLU:HG2	1.80	0.63
10:AJ:10:LEU:HB2	10:AJ:72:ARG:HB2	1.79	0.63
22:BA:1838:C:N4	22:BA:1899:A:C4	2.67	0.63
22:BA:2808:G:N2	22:BA:2891:U:C6	2.67	0.63
22:BA:936:A:H2'	22:BA:937:C:C6	2.34	0.63
30:BI:28:LEU:HD12	30:BI:28:LEU:O	1.96	0.63
1:CA:66:A:H4'	1:CA:173:U:C5	2.34	0.63
13:CM:114:LYS:HB2	13:CM:115:PRO:HD3	1.80	0.63
4:AD:107:PHE:CG	4:AD:145:ILE:HD11	2.33	0.63
11:AK:102:ALA:O	11:AK:104:GLY:N	2.31	0.63
22:BA:1266:G:OP1	48:B0:16:ARG:NE	2.31	0.63
22:BA:12:U:O2	22:BA:12:U:H2'	1.99	0.63
22:BA:742:A:H2'	22:BA:743:A:C8	2.34	0.63
36:BO:31:THR:O	36:BO:102:ARG:NH1	2.31	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BP:31:TRP:CE2	37:BP:40:LEU:HD11	2.34	0.63
1:CA:373:A:C2	1:CA:374:A:C8	2.87	0.63
22:DA:1789:A:H5''	24:DC:219:THR:O	1.99	0.63
22:DA:2135:A:C2	22:DA:2136:G:H1'	2.34	0.63
22:DA:2308:G:H5''	22:DA:2309:A:OP2	1.98	0.63
22:DA:2428:G:H5''	22:DA:2429:G:OP1	1.99	0.63
22:DA:528:A:C2	22:DA:2043:C:H4'	2.33	0.63
1:AA:983:A:C2'	1:AA:983:A:N3	2.61	0.63
22:BA:474:G:O6	57:BA:3208:HOH:O	2.14	0.63
22:BA:674:G:H1'	26:BE:69:ARG:HD3	1.79	0.63
25:BD:39:ASP:OD2	25:BD:40:LEU:N	2.31	0.63
1:CA:1048:G:OP1	57:CA:1846:HOH:O	2.16	0.63
11:CK:15:GLN:HA	11:CK:77:TYR:HA	1.81	0.63
29:DH:117:LEU:HG	29:DH:120:GLY:O	1.98	0.63
36:DO:100:HIS:CD2	36:DO:101:GLY:N	2.66	0.63
1:AA:466:A:H5'	1:AA:467:U:OP2	1.98	0.63
2:AB:187:VAL:HG23	2:AB:187:VAL:O	1.99	0.63
12:AL:24:LEU:HG	12:AL:25:GLU:N	2.14	0.63
52:B4:3:VAL:HG13	52:B4:36:ARG:HB3	1.79	0.63
22:BA:1922:G:C2	22:BA:1923:U:C6	2.86	0.63
26:BE:91:ASP:OD1	26:BE:93:SER:OG	2.15	0.63
22:DA:152:A:C2	22:DA:175:G:C2	2.87	0.63
22:DA:945:A:C8	22:DA:2448:A:C2	2.86	0.63
22:DA:306:U:O2	22:DA:312:G:N2	2.31	0.63
37:DP:22:PRO:HA	37:DP:47:VAL:HG12	1.79	0.63
1:AA:1198:G:N7	57:AA:1786:HOH:O	2.31	0.62
1:AA:205:A:H4'	1:AA:205:A:OP1	1.99	0.62
1:AA:484:G:H4'	1:AA:485:U:OP1	1.99	0.62
51:B3:31:HIS:CD2	51:B3:32:ILE:HG13	2.34	0.62
22:BA:1179:G:N7	22:BA:1180:U:C1'	2.62	0.62
22:BA:1216:G:C5	22:BA:1217:U:C5	2.87	0.62
22:BA:1907:G:C5	22:BA:1908:C:C4	2.87	0.62
22:BA:947:A:H2'	22:BA:948:C:C6	2.33	0.62
1:CA:1182:G:H4'	1:CA:1183:U:H5''	1.79	0.62
1:CA:1215:G:C5	1:CA:1216:A:N7	2.67	0.62
1:CA:1273:C:H2'	1:CA:1274:A:O4'	1.99	0.62
1:CA:374:A:H5''	1:CA:452:A:C2	2.34	0.62
22:DA:1320:C:N4	22:DA:1333:G:C6	2.67	0.62
22:DA:2499:C:N4	22:DA:2500:U:O4	2.32	0.62
22:DA:305:C:H1'	22:DA:313:G:N2	2.14	0.62
22:DA:594:U:H2'	22:DA:595:C:C6	2.34	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:213:G:C8	1:AA:214:C:C5	2.87	0.62
1:AA:375:U:C4	1:AA:376:G:N7	2.67	0.62
17:AQ:16:LYS:C	17:AQ:17:MET:SD	2.78	0.62
51:B3:17:THR:OG1	51:B3:18:GLY:N	2.31	0.62
22:BA:1153:C:OP1	38:BQ:92:ARG:NH1	2.32	0.62
22:BA:1794:A:O4'	22:BA:1900:A:C2	2.52	0.62
25:BD:140:HIS:CD2	57:BD:302:HOH:O	2.37	0.62
1:CA:257:G:C5	57:CA:1718:HOH:O	2.49	0.62
3:CC:6:HIS:CD2	14:CN:89:MET:HB3	2.34	0.62
12:CL:90:LEU:HB2	12:CL:93:VAL:HG21	1.80	0.62
20:CT:29:ARG:O	20:CT:33:LYS:HG2	1.98	0.62
22:DA:2349:G:OP1	51:D3:45:ARG:NH2	2.32	0.62
22:DA:1805:A:C2	22:DA:1813:G:C2	2.87	0.62
22:DA:1805:A:N3	22:DA:1813:G:C2	2.67	0.62
22:DA:1649:G:C6	22:DA:2009:A:C6	2.86	0.62
22:BA:1087:G:N2	22:BA:1090:A:C8	2.67	0.62
1:CA:1263:C:H2'	1:CA:1264:U:C6	2.34	0.62
1:CA:16:A:C2'	1:CA:17:U:H5'	2.29	0.62
1:CA:32:A:OP1	1:CA:398:U:H1'	1.99	0.62
1:CA:562:U:H4'	1:CA:563:A:O5'	2.00	0.62
2:CB:186:ILE:HA	2:CB:200:ILE:HB	1.79	0.62
2:CB:23:TRP:O	2:CB:23:TRP:CD1	2.51	0.62
16:CP:20:VAL:HG21	16:CP:32:PHE:HB2	1.81	0.62
22:DA:1153:C:H5'	38:DQ:62:ILE:HD13	1.80	0.62
23:DB:81:G:C5	23:DB:82:U:C5	2.88	0.62
33:DL:81:ASP:O	33:DL:82:LEU:HB3	1.98	0.62
1:AA:727:G:N2	1:AA:731:G:C4	2.67	0.62
2:AB:50:PHE:HA	2:AB:213:TYR:OH	2.00	0.62
9:AI:57:MET:SD	9:AI:58:VAL:N	2.69	0.62
1:AA:451:A:H5''	16:AP:70:ARG:NH2	2.14	0.62
22:BA:1421:G:C2	22:BA:1422:G:C8	2.87	0.62
22:BA:1686:C:H2'	22:BA:1687:G:O4'	1.99	0.62
22:BA:1915:U:C2'	22:BA:1916:A:H5'	2.30	0.62
22:BA:1998:A:OP2	25:BD:141:ARG:NH2	2.32	0.62
38:BQ:24:TYR:O	38:BQ:25:TYR:HB2	1.99	0.62
40:BS:6:LYS:HB3	40:BS:104:THR:HA	1.80	0.62
1:CA:1041:G:H2'	1:CA:1042:A:C8	2.35	0.62
1:CA:55:A:C8	1:CA:56:U:C5	2.88	0.62
1:CA:866:C:C4	1:CA:867:G:H1'	2.35	0.62
4:CD:35:GLU:O	4:CD:37:ALA:N	2.31	0.62
22:DA:811:U:O2	22:DA:1251:C:C5	2.52	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2061:G:O6	55:DA:3001:VIF:H29	1.98	0.62
22:DA:2689:U:H4'	22:DA:2690:U:OP2	1.99	0.62
24:DC:24:LEU:HD21	24:DC:90:ASN:ND2	2.13	0.62
28:DG:70:ALA:O	28:DG:74:SER:OG	2.10	0.62
1:AA:259:G:C2	1:AA:260:G:H1'	2.34	0.62
2:AB:163:VAL:HG13	2:AB:185:ALA:HB2	1.81	0.62
11:AK:76:GLU:HA	22:BA:2141:G:P	2.40	0.62
20:AT:67:ILE:HG13	20:AT:71:LYS:HG2	1.80	0.62
22:BA:1450:G:C6	22:BA:1451:C:N4	2.68	0.62
27:BF:4:LEU:HD11	27:BF:104:ILE:HD11	1.81	0.62
22:BA:2199:A:O4'	29:BH:28:ASN:ND2	2.33	0.62
1:CA:435:A:H2'	1:CA:436:C:O5'	1.99	0.62
1:CA:555:U:H2'	1:CA:556:C:C6	2.34	0.62
11:CK:27:PHE:CZ	11:CK:89:PRO:HG2	2.33	0.62
22:DA:228:C:H4'	22:DA:229:C:H5''	1.82	0.62
22:DA:2899:A:H2'	22:DA:2900:A:C8	2.34	0.62
38:DQ:58:ARG:NH2	38:DQ:92:ARG:CZ	2.62	0.62
40:DS:28:LYS:O	40:DS:30:SER:N	2.33	0.62
1:AA:1477:U:H2'	1:AA:1478:U:C6	2.35	0.62
1:AA:914:A:C4	1:AA:915:A:C8	2.88	0.62
1:AA:998:C:H2'	1:AA:999:C:C6	2.34	0.62
2:AB:15:HIS:CD2	2:AB:16:PHE:O	2.53	0.62
4:AD:122:ALA:O	4:AD:123:ILE:HG23	2.00	0.62
21:AU:37:PHE:HB3	21:AU:41:PRO:HG3	1.80	0.62
22:BA:2478:A:C5'	52:B4:32:LYS:HD3	2.28	0.62
30:BI:127:ARG:HA	30:BI:130:GLU:HG3	1.81	0.62
4:CD:59:GLN:O	4:CD:63:ARG:HG3	1.99	0.62
22:DA:1182:G:H2'	22:DA:1183:U:O4'	1.99	0.62
22:DA:503:A:C4	22:DA:506:G:N7	2.68	0.62
22:DA:642:U:O2'	22:DA:644:A:N7	2.25	0.62
22:DA:674:G:H1'	26:DE:69:ARG:HD3	1.82	0.62
33:DL:85:VAL:O	33:DL:86:GLU:HB3	1.98	0.62
1:AA:1004:A:H2'	1:AA:1005:A:O4'	1.99	0.62
1:AA:373:A:N3	1:AA:374:A:C8	2.67	0.62
22:BA:1425:G:O2'	22:BA:1426:G:H5'	2.00	0.62
22:BA:1474:U:H2'	22:BA:1475:G:H5'	1.82	0.62
22:BA:2630:G:H2'	22:BA:2631:G:O4'	1.99	0.62
1:CA:407:U:C2	1:CA:408:A:C8	2.87	0.62
1:CA:552:U:C4	1:CA:553:A:N7	2.68	0.62
22:DA:1064:C:N3	22:DA:1074:G:N2	2.48	0.62
22:DA:1027:A:C6	22:DA:1126:A:N3	2.67	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:301:G:H1'	22:DA:302:C:C6	2.35	0.62
1:AA:212:G:N2	1:AA:213:G:C4	2.68	0.62
22:BA:682:G:H5'	50:B2:26:ASN:OD1	1.99	0.62
22:BA:1018:U:O3'	22:BA:1120:G:N2	2.32	0.62
4:CD:188:ARG:NH1	4:CD:191:LEU:CD1	2.63	0.62
22:DA:983:A:N6	22:DA:984:A:C2	2.68	0.62
41:DT:64:LYS:HD2	41:DT:79:ASP:OD1	2.00	0.62
8:AH:125:ILE:O	8:AH:125:ILE:HG13	1.99	0.62
22:BA:1142:A:C2	22:BA:1144:A:N9	2.67	0.62
22:BA:1936:A:N7	22:BA:1945:G:C6	2.68	0.62
22:BA:2820:A:C2'	22:BA:2821:A:OP1	2.48	0.62
1:CA:55:A:N7	1:CA:56:U:C5	2.68	0.62
1:CA:427:U:OP1	4:CD:13:ARG:NH2	2.33	0.62
4:CD:32:CYS:SG	4:CD:33:LYS:N	2.73	0.62
6:CF:41:ASP:OD2	6:CF:43:GLY:N	2.33	0.62
11:CK:125:LYS:O	21:CU:34:ARG:NE	2.30	0.62
22:DA:1197:G:H2'	22:DA:1198:U:C6	2.35	0.62
22:DA:2164:C:H2'	22:DA:2165:C:H6	1.59	0.62
3:AC:7:PRO:HD2	3:AC:184:TYR:CD2	2.35	0.62
22:BA:1808:A:O2'	45:BX:3:ARG:NH1	2.32	0.62
22:BA:1911:U:H2'	22:BA:1918:A:N1	2.15	0.62
22:BA:2591:C:H2'	22:BA:2592:G:C8	2.35	0.62
22:BA:988:A:P	47:BZ:12:SER:HB2	2.40	0.62
6:CF:45:ARG:O	6:CF:56:LYS:HA	2.00	0.62
22:DA:1045:C:H1'	22:DA:1047:G:C6	2.35	0.62
22:DA:1515:A:O2'	22:DA:1556:C:O2'	2.09	0.62
22:DA:2093:G:O2'	22:DA:2094:A:H5'	2.00	0.62
22:DA:185:G:C6	22:DA:212:G:C2	2.88	0.62
22:DA:910:A:N3	22:DA:2264:C:O2'	2.32	0.62
25:DD:104:VAL:O	25:DD:105:LYS:CB	2.47	0.62
38:DQ:27:ALA:HB1	38:DQ:31:VAL:HB	1.82	0.62
22:DA:1187:G:OP1	39:DR:85:LYS:HE3	2.00	0.62
1:AA:19:A:N3	1:AA:917:G:C2	2.68	0.61
4:AD:11:LEU:HD22	4:AD:63:ARG:HD3	1.82	0.61
22:BA:1061:U:O4	30:BI:11:LEU:HA	2.00	0.61
22:BA:1100:C:H2'	22:BA:1101:U:C5	2.35	0.61
24:BC:25:HIS:CE1	24:BC:26:LYS:O	2.53	0.61
31:BJ:17:VAL:HG22	31:BJ:55:ILE:HB	1.80	0.61
4:CD:26:ARG:O	4:CD:27:ALA:HB2	2.00	0.61
22:DA:2091:C:H3'	22:DA:2092:U:H5''	1.82	0.61
22:DA:377:G:C6	22:DA:378:C:C4	2.88	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:67:U:C2	22:DA:68:G:C8	2.88	0.61
23:DB:22:U:O4	57:DB:302:HOH:O	2.12	0.61
13:AM:66:GLU:O	13:AM:69:LEU:N	2.33	0.61
22:BA:1322:A:O3'	40:BS:84:ARG:NH1	2.32	0.61
22:BA:1939:U:OP1	22:BA:2604:U:O2'	2.16	0.61
31:BJ:27:ARG:CG	31:BJ:27:ARG:HH11	2.13	0.61
35:BN:38:LEU:HB3	35:BN:39:PRO:HD3	1.80	0.61
39:BR:21:ARG:NE	39:BR:93:PHE:CD1	2.67	0.61
12:CL:86:ARG:CZ	12:CL:88:LYS:HB3	2.30	0.61
22:DA:2636:C:H2'	22:DA:2637:U:C6	2.36	0.61
1:AA:771:G:C2'	1:AA:772:U:H5'	2.30	0.61
6:AF:98:GLU:HG3	6:AF:99:ALA:H	1.65	0.61
22:BA:1098:A:C5	22:BA:1099:G:C6	2.88	0.61
22:BA:2516:A:C4	22:BA:2569:G:N2	2.68	0.61
22:BA:495:G:C1'	40:BS:57:ASN:ND2	2.63	0.61
22:BA:714:U:C2'	22:BA:716:A:N7	2.62	0.61
25:BD:129:THR:HG22	25:BD:130:GLN:O	2.00	0.61
30:BI:6:GLN:O	30:BI:7:ALA:HB3	2.00	0.61
36:BO:2:ASP:OD1	36:BO:3:LYS:N	2.33	0.61
22:BA:2262:U:OP1	44:BW:41:ARG:NH2	2.33	0.61
1:CA:1080:A:OP1	5:CE:52:LYS:CE	2.48	0.61
1:CA:632:U:H2'	1:CA:632:U:O2	1.99	0.61
1:CA:955:U:H2'	1:CA:956:U:O4'	2.01	0.61
6:CF:64:VAL:HG12	6:CF:65:GLU:N	2.15	0.61
50:D2:15:SER:OG	50:D2:16:HIS:CE1	2.53	0.61
22:DA:1094:U:H2'	22:DA:1096:A:OP2	1.99	0.61
22:DA:1607:C:O2	22:DA:1621:U:C5	2.52	0.61
22:DA:2005:A:OP1	57:DA:3383:HOH:O	2.16	0.61
22:DA:2812:G:N2	22:DA:2889:C:C2	2.69	0.61
22:DA:2889:C:H2'	22:DA:2890:G:C8	2.35	0.61
22:DA:297:G:H5''	42:DU:85:PHE:HB2	1.82	0.61
23:DB:25:U:C4	23:DB:26:C:C4	2.88	0.61
29:DH:32:PRO:O	29:DH:33:GLN:CB	2.48	0.61
22:DA:2250:G:OP1	34:DM:84:LYS:NZ	2.33	0.61
22:DA:400:G:N7	45:DX:57:ARG:NH1	2.47	0.61
47:DZ:14:ILE:HG22	47:DZ:15:GLY:N	2.16	0.61
1:AA:393:A:C2	1:AA:394:G:C8	2.89	0.61
2:AB:93:ASN:OD1	2:AB:94:HIS:ND1	2.34	0.61
11:AK:127:ARG:N	21:AU:34:ARG:CZ	2.63	0.61
53:B5:43:GLU:HA	53:B5:178:LYS:HA	1.83	0.61
53:B5:64:SER:O	53:B5:65:LEU:HB2	2.00	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1496:A:N3	22:BA:1577:C:O2'	2.28	0.61
22:BA:555:G:HO2'	22:BA:556:A:P	2.23	0.61
29:BH:86:ASP:CB	1:CA:359:G:O2'	2.47	0.61
1:CA:978:A:P	1:CA:1362:A:N6	2.73	0.61
1:CA:990:C:C4	1:CA:991:U:O4	2.54	0.61
22:DA:1394:U:H4'	22:DA:1603:A:H4'	1.82	0.61
22:DA:2112:G:N3	22:DA:2112:G:H2'	2.16	0.61
22:DA:2283:C:C2	22:DA:2389:G:C2	2.88	0.61
22:DA:2874:C:H2'	22:DA:2875:C:C6	2.36	0.61
35:DN:98:LEU:HD13	48:D0:54:VAL:HG21	1.82	0.61
1:AA:428:G:O4'	1:AA:430:A:C8	2.54	0.61
1:AA:701:U:H4'	1:AA:702:A:H5''	1.82	0.61
16:AP:52:LEU:O	16:AP:54:LEU:N	2.34	0.61
22:BA:1142:A:C2	22:BA:1144:A:C1'	2.83	0.61
22:BA:228:C:H4'	22:BA:229:C:H5''	1.81	0.61
22:BA:1672:A:C2	22:BA:2582:G:H5'	2.35	0.61
27:BF:40:VAL:O	27:BF:42:GLU:N	2.33	0.61
1:CA:115:G:H4'	1:CA:116:A:O5'	2.01	0.61
1:CA:18:C:C2	1:CA:19:A:C8	2.88	0.61
1:CA:328:C:H4'	1:CA:329:A:H5''	1.83	0.61
22:DA:1355:G:C2	22:DA:1356:G:C8	2.88	0.61
22:DA:1435:G:H2'	22:DA:1436:G:H5'	1.82	0.61
22:DA:2343:U:O2'	22:DA:2373:G:O2'	2.11	0.61
22:DA:593:U:H2'	22:DA:594:U:C6	2.36	0.61
36:DO:33:ARG:O	36:DO:34:HIS:HB2	2.01	0.61
39:DR:42:ALA:HA	39:DR:46:GLU:HA	1.83	0.61
46:DY:28:LEU:CD1	46:DY:46:VAL:HG21	2.31	0.61
4:AD:174:ASP:O	4:AD:175:ALA:HB2	1.99	0.61
20:AT:67:ILE:CG1	20:AT:71:LYS:HG2	2.30	0.61
20:AT:81:ALA:O	20:AT:85:LYS:HG2	2.00	0.61
22:BA:2076:U:O4'	22:BA:2076:U:O2	2.18	0.61
22:BA:2114:A:N3	22:BA:2114:A:H2'	2.14	0.61
22:BA:2636:C:H2'	22:BA:2637:U:C6	2.35	0.61
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.35	0.61
1:CA:435:A:C2'	1:CA:436:C:O5'	2.48	0.61
4:CD:48:LEU:HD23	4:CD:53:VAL:N	2.16	0.61
49:D1:4:GLY:O	49:D1:6:ARG:N	2.25	0.61
22:DA:2537:U:H2'	22:DA:2538:C:C6	2.36	0.61
22:DA:30:G:C6	22:DA:31:C:N3	2.69	0.61
5:AE:109:GLY:O	5:AE:110:ALA:CB	2.49	0.61
9:AI:84:THR:HG21	9:AI:103:PHE:CB	2.31	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:4:ILE:O	13:AM:6:GLY:N	2.33	0.61
22:BA:11:C:H2'	22:BA:12:U:H5'	1.81	0.61
22:BA:998:C:H2'	22:BA:999:U:O5'	2.00	0.61
42:BU:99:ASN:O	42:BU:101:GLU:N	2.33	0.61
1:CA:378:G:N2	1:CA:386:C:O2	2.34	0.61
1:CA:790:A:N6	1:CA:791:G:C6	2.69	0.61
4:CD:4:TYR:O	4:CD:5:LEU:HB2	2.00	0.61
1:CA:1125:U:H4'	10:CJ:7:ARG:NH1	2.16	0.61
20:CT:25:ARG:O	20:CT:29:ARG:HG2	2.01	0.61
22:DA:783:A:O2'	22:DA:1779:U:O2	2.16	0.61
22:DA:485:C:N3	22:DA:496:G:C2	2.68	0.61
22:DA:536:G:N2	22:DA:558:U:C2	2.68	0.61
24:DC:2:ALA:HA	24:DC:199:GLU:OE2	2.00	0.61
1:AA:1089:G:H2'	1:AA:1090:U:O4'	2.01	0.61
1:AA:315:A:O2'	1:AA:330:C:H4'	2.00	0.61
1:AA:667:G:H4'	15:AO:51:HIS:ND1	2.16	0.61
2:AB:132:LYS:O	2:AB:134:ALA:N	2.33	0.61
4:AD:3:ARG:NH2	4:AD:115:ARG:HD3	2.16	0.61
5:AE:137:VAL:O	5:AE:138:ARG:HB2	2.00	0.61
6:AF:53:LYS:O	6:AF:54:LEU:HB3	1.99	0.61
13:AM:114:LYS:HB2	13:AM:115:PRO:HD3	1.80	0.61
22:BA:2673:G:C2	22:BA:2674:G:C8	2.89	0.61
22:DA:1027:A:N7	22:DA:1126:A:C2	2.67	0.61
22:DA:1599:U:C4	22:DA:1600:C:N4	2.68	0.61
22:DA:373:U:C2	22:DA:374:A:C8	2.88	0.61
22:DA:1801:A:C5	24:DC:262:ARG:NH2	2.68	0.61
1:AA:1008:U:H2'	1:AA:1009:U:C6	2.36	0.61
1:AA:277:C:H2'	1:AA:278:G:H5'	1.82	0.61
4:AD:84:GLY:O	4:AD:89:ASN:ND2	2.34	0.61
8:AH:113:ASP:OD2	8:AH:117:ARG:NH2	2.34	0.61
10:AJ:90:LEU:N	10:AJ:91:ASP:OD1	2.34	0.61
22:BA:1278:C:OP1	35:BN:36:THR:OG1	2.18	0.61
22:BA:195:A:C5	22:BA:198:C:C5	2.89	0.61
27:BF:158:THR:O	57:BF:201:HOH:O	2.16	0.61
43:BV:64:VAL:O	43:BV:64:VAL:HG12	2.01	0.61
1:CA:1169:A:C6	1:CA:1170:A:C6	2.89	0.61
1:CA:706:A:C5	1:CA:707:U:C5	2.89	0.61
22:DA:1599:U:O4	22:DA:1600:C:N4	2.34	0.61
22:DA:482:A:N6	22:DA:506:G:O2'	2.33	0.61
22:DA:565:C:H4'	22:DA:1253:A:N6	2.16	0.61
29:DH:83:LYS:H	29:DH:149:GLU:HG2	1.64	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:620:C:H2'	1:AA:621:A:O4'	2.01	0.61
2:AB:21:ARG:C	2:AB:23:TRP:H	2.01	0.61
1:AA:1348:U:H4'	9:AI:122:ARG:HG3	1.82	0.61
20:AT:5:LYS:O	20:AT:7:ALA:N	2.34	0.61
22:BA:1897:G:C2	22:BA:1898:U:O2	2.54	0.61
1:CA:369:G:OP2	1:CA:388:G:N1	2.33	0.61
1:CA:388:G:O2'	1:CA:389:A:OP1	2.14	0.61
2:CB:16:PHE:CE1	2:CB:18:HIS:CE1	2.89	0.61
3:CC:59:ARG:HB2	3:CC:63:SER:O	2.00	0.61
6:CF:18:VAL:HG12	6:CF:19:PRO:N	2.16	0.61
12:CL:58:THR:HG22	12:CL:59:ASN:N	2.15	0.61
22:DA:2209:G:N2	22:DA:2216:G:N3	2.48	0.61
26:DE:131:THR:HA	26:DE:160:ALA:HB1	1.83	0.61
26:DE:52:VAL:HG21	26:DE:81:GLY:HA2	1.83	0.61
1:AA:1040:U:H2'	1:AA:1041:G:C8	2.36	0.60
13:AM:15:ALA:CB	13:AM:34:LEU:HD21	2.31	0.60
21:AU:4:ILE:CA	21:AU:20:LYS:HE3	2.31	0.60
22:BA:1924:C:O2	22:BA:1926:U:O4	2.19	0.60
22:BA:2559:C:O2'	22:BA:2560:A:H5'	2.00	0.60
25:BD:4:LEU:CD2	25:BD:100:LEU:HD23	2.31	0.60
29:BH:117:LEU:O	29:BH:121:VAL:HG22	1.93	0.60
30:BI:47:ASP:HA	30:BI:51:LYS:HD2	1.83	0.60
1:CA:1211:U:O2'	1:CA:1212:U:OP2	2.19	0.60
1:CA:805:C:C2	1:CA:806:C:C5	2.89	0.60
1:CA:995:C:N3	1:CA:1046:A:O2'	2.31	0.60
1:CA:409:U:OP1	4:CD:24:GLY:HA3	2.01	0.60
9:CI:52:LEU:HD13	9:CI:57:MET:HG2	1.82	0.60
13:CM:4:ILE:HA	13:CM:57:ARG:CZ	2.31	0.60
22:DA:1806:C:C5	22:DA:1807:G:C8	2.89	0.60
22:DA:2038:G:H2'	22:DA:2039:U:O4'	1.99	0.60
22:DA:235:U:C4	22:DA:236:C:C5	2.89	0.60
25:DD:78:GLY:HA3	25:DD:80:TRP:CH2	2.35	0.60
1:AA:71:A:O2'	1:AA:72:A:P	2.60	0.60
1:AA:927:G:C2	1:AA:1391:U:O2	2.54	0.60
22:BA:1378:A:O2'	22:BA:1380:G:OP2	2.19	0.60
1:CA:577:G:C8	1:CA:816:A:C6	2.89	0.60
22:DA:2817:U:O2	22:DA:2836:U:H1'	2.00	0.60
1:AA:604:G:C2	1:AA:635:A:C2	2.89	0.60
4:AD:29:ASP:O	4:AD:31:LYS:HD3	2.01	0.60
12:AL:50:ARG:HG3	12:AL:90:LEU:HD11	1.83	0.60
19:AS:29:LYS:CB	19:AS:30:PRO:HD2	2.31	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1867:G:O2'	22:BA:1868:C:H5'	2.01	0.60
26:BE:125:SER:OG	26:BE:126:VAL:N	2.31	0.60
29:BH:100:ALA:HB1	29:BH:112:LYS:HA	1.83	0.60
32:BK:8:LEU:HD12	32:BK:8:LEU:N	2.17	0.60
38:BQ:47:TYR:C	38:BQ:47:TYR:CD2	2.74	0.60
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.37	0.60
5:CE:137:VAL:O	5:CE:138:ARG:HB2	2.01	0.60
13:CM:26:GLY:O	13:CM:30:SER:HB2	2.00	0.60
17:CQ:8:LEU:HB2	17:CQ:61:ILE:CG2	2.30	0.60
49:D1:38:LYS:HB2	49:D1:49:TYR:CD2	2.36	0.60
22:DA:1317:G:C2	22:DA:1336:A:C2	2.88	0.60
22:DA:1663:G:C6	22:DA:1992:G:N7	2.68	0.60
22:DA:1779:U:H5	22:DA:1784:A:N7	1.99	0.60
22:DA:195:A:C6	22:DA:198:C:C5	2.89	0.60
24:DC:237:GLY:O	24:DC:239:ASN:N	2.34	0.60
35:DN:1:MET:O	35:DN:3:HIS:N	2.34	0.60
40:DS:7:HIS:HB2	40:DS:50:VAL:HG21	1.81	0.60
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.37	0.60
4:AD:191:LEU:O	4:AD:192:SER:CB	2.49	0.60
29:BH:121:VAL:N	29:BH:122:LEU:HB2	2.16	0.60
30:BI:18:ALA:O	30:BI:19:ASN:CB	2.49	0.60
33:BL:48:ARG:HG2	51:B3:60:ALA:HB1	1.83	0.60
43:BV:8:VAL:HG23	43:BV:9:ARG:N	2.16	0.60
1:CA:1534:A:H5''	1:CA:1535:C:OP1	2.01	0.60
1:CA:525:C:N4	1:CA:526:C:N4	2.49	0.60
2:CB:166:ALA:HB2	2:CB:187:VAL:HG12	1.82	0.60
22:DA:2138:G:N2	22:DA:2154:A:H1'	2.16	0.60
22:DA:2212:A:C2	22:DA:2214:C:C4	2.89	0.60
22:DA:749:A:C5	22:DA:750:A:N7	2.70	0.60
22:DA:938:G:C2	22:DA:939:G:N7	2.69	0.60
1:AA:1145:A:HO2'	1:AA:1146:A:P	2.23	0.60
8:AH:2:SER:O	8:AH:4:GLN:N	2.34	0.60
9:AI:43:THR:O	9:AI:44:ALA:CB	2.49	0.60
22:BA:245:G:N7	51:B3:8:ARG:NH1	2.48	0.60
22:BA:1073:A:N7	22:BA:1074:G:H8	1.99	0.60
22:BA:1494:A:HO2'	22:BA:1495:A:P	2.24	0.60
22:BA:1714:U:H5''	22:BA:1715:G:H5'	1.82	0.60
22:BA:244:A:C2	22:BA:255:A:C4	2.89	0.60
1:CA:568:G:N2	1:CA:883:C:C2	2.70	0.60
2:CB:66:LYS:NZ	2:CB:154:MET:O	2.33	0.60
4:CD:173:VAL:HG13	4:CD:174:ASP:N	2.17	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:17:ARG:O	15:CO:18:ASP:HB3	2.02	0.60
22:DA:1199:U:H2'	22:DA:1200:C:C6	2.37	0.60
22:DA:2199:A:C6	22:DA:2200:C:C2	2.89	0.60
22:DA:2815:C:HO2'	48:D0:41:HIS:HD1	1.47	0.60
22:DA:2819:G:OP1	57:DA:3808:HOH:O	2.16	0.60
22:DA:856:G:N2	22:DA:922:C:C2	2.70	0.60
22:DA:2019:A:H4'	38:DQ:34:VAL:HG21	1.83	0.60
1:AA:1359:C:O3'	57:AA:1777:HOH:O	2.16	0.60
15:AO:19:ALA:O	15:AO:20:ASN:HB2	2.01	0.60
22:BA:877:A:N6	22:BA:899:A:N6	2.49	0.60
24:BC:160:THR:O	24:BC:195:VAL:HG12	2.02	0.60
30:BI:34:ASN:OD1	30:BI:65:ARG:NH2	2.34	0.60
32:BK:34:GLY:O	32:BK:36:GLY:N	2.34	0.60
1:CA:1239:A:H2'	1:CA:1298:U:O4	2.01	0.60
1:CA:411:A:C6	1:CA:429:U:C5	2.89	0.60
22:DA:2033:A:OP2	57:DA:3476:HOH:O	2.16	0.60
22:DA:2420:C:OP1	51:D3:34:THR:HB	2.01	0.60
22:DA:2474:U:H5''	22:DA:2475:C:OP2	2.02	0.60
22:DA:247:G:N7	22:DA:249:C:C2	2.69	0.60
22:DA:1993:U:H4'	25:DD:133:THR:CG2	2.32	0.60
1:AA:1048:G:N3	1:AA:1050:G:N7	2.50	0.60
6:AF:7:VAL:CG2	6:AF:7:VAL:O	2.50	0.60
22:BA:1009:A:OP2	31:BJ:39:LYS:NZ	2.29	0.60
22:BA:1348:C:C5	22:BA:1349:C:C5	2.90	0.60
22:BA:2339:C:H2'	22:BA:2340:A:C8	2.36	0.60
29:BH:117:LEU:CD2	29:BH:121:VAL:HA	2.31	0.60
40:BS:30:SER:OG	40:BS:31:GLN:N	2.34	0.60
1:CA:515:G:H2'	1:CA:516:U:O4'	2.02	0.60
1:CA:778:G:O2'	11:CK:121:CYS:HB3	2.01	0.60
5:CE:106:ILE:HD11	5:CE:124:LEU:HD23	1.83	0.60
1:CA:642:A:C5	8:CH:107:SER:HA	2.37	0.60
22:DA:1995:U:OP1	57:DA:3810:HOH:O	2.17	0.60
22:DA:60:G:O2'	22:DA:62:U:OP2	2.14	0.60
41:DT:34:VAL:HG21	41:DT:43:ILE:HD11	1.84	0.60
1:AA:1014:A:H2'	1:AA:1015:G:O4'	2.02	0.60
13:AM:29:ARG:O	13:AM:33:ILE:HG12	2.02	0.60
51:B3:15:LYS:HD2	51:B3:23:LYS:HE2	1.84	0.60
22:BA:17:G:C4	22:BA:524:G:N2	2.69	0.60
22:BA:2142:A:H2'	22:BA:2143:C:C6	2.36	0.60
22:BA:2309:A:C6	22:BA:2310:C:N4	2.69	0.60
22:BA:983:A:N6	22:BA:984:A:N1	2.50	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:495:A:N1	1:CA:496:A:N6	2.49	0.60
12:CL:28:PRO:HB2	12:CL:29:GLN:OE1	2.02	0.60
22:DA:1847:A:O2'	22:DA:1848:A:H8	1.84	0.60
39:DR:39:LEU:HA	39:DR:49:ILE:HG21	1.83	0.60
42:DU:11:VAL:HG12	42:DU:72:ILE:HA	1.82	0.60
46:DY:11:VAL:O	46:DY:15:ASN:ND2	2.34	0.60
1:AA:251:G:C6	1:AA:266:G:C6	2.89	0.60
2:AB:75:ALA:O	2:AB:76:ALA:HB2	2.02	0.60
10:AJ:44:THR:HG22	10:AJ:70:HIS:HA	1.83	0.60
22:BA:2334:U:C4	36:BO:16:ARG:HD3	2.37	0.60
22:BA:2345:G:N3	22:BA:2381:A:H2'	2.17	0.60
25:BD:172:VAL:HG21	25:BD:194:PRO:HD3	1.84	0.60
43:BV:21:ARG:HA	43:BV:25:LYS:O	2.02	0.60
1:CA:736:C:H2'	1:CA:737:C:C6	2.37	0.60
5:CE:98:PRO:O	5:CE:99:ALA:HB3	2.01	0.60
10:CJ:6:ILE:HD12	10:CJ:76:ILE:HB	1.84	0.60
12:CL:30:LYS:HA	12:CL:30:LYS:HE3	1.83	0.60
48:D0:55:ILE:O	48:D0:56:ALA:HB3	2.01	0.60
22:DA:2004:G:P	57:DA:3803:HOH:O	2.55	0.60
22:DA:2502:G:H5'	22:DA:2503:A:H5''	1.83	0.60
22:DA:2552:U:C2	22:DA:2554:U:H5'	2.37	0.60
24:DC:247:PRO:HG2	24:DC:248:TRP:CZ3	2.36	0.60
42:DU:44:LYS:O	42:DU:58:ILE:HA	2.01	0.60
4:AD:160:GLU:O	4:AD:162:ALA:N	2.35	0.60
11:AK:52:PHE:CB	11:AK:56:ARG:HB3	2.32	0.60
14:AN:33:ASP:O	14:AN:35:ASN:N	2.34	0.60
53:B5:35:THR:O	53:B5:35:THR:OG1	2.17	0.60
22:BA:1680:U:H2'	22:BA:1681:G:O4'	2.02	0.60
22:BA:1736:U:H2'	22:BA:1737:G:O4'	2.02	0.60
22:BA:2458:G:C4	22:BA:2490:G:C2	2.90	0.60
1:CA:502:A:H2'	1:CA:503:C:O4'	2.00	0.60
2:CB:206:ALA:C	2:CB:208:ARG:N	2.55	0.60
3:CC:42:TYR:CE1	3:CC:90:VAL:HG21	2.37	0.60
6:CF:19:PRO:HA	6:CF:22:ILE:HB	1.84	0.60
6:CF:64:VAL:HG12	6:CF:65:GLU:H	1.67	0.60
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.83	0.60
48:D0:55:ILE:O	48:D0:56:ALA:CB	2.50	0.60
22:DA:13:A:N1	22:DA:525:U:H2'	2.17	0.60
1:AA:7:A:N6	5:AE:97:GLN:OE1	2.35	0.59
1:AA:9:G:OP2	5:AE:126:LYS:NZ	2.28	0.59
8:AH:2:SER:C	8:AH:4:GLN:N	2.55	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:3:ARG:HG3	13:AM:4:ILE:N	2.16	0.59
1:AA:1216:A:OP1	14:AN:3:LYS:HE2	2.01	0.59
10:AJ:51:VAL:HB	14:AN:81:ARG:HB2	1.83	0.59
16:AP:42:ILE:HG22	16:AP:42:ILE:O	2.02	0.59
22:BA:780:G:H2'	22:BA:782:A:N7	2.17	0.59
27:BF:108:VAL:HG11	27:BF:176:PRO:HG2	1.84	0.59
27:BF:25:VAL:O	27:BF:28:VAL:HG12	2.02	0.59
22:BA:1250:G:C5'	38:BQ:6:ARG:HD3	2.32	0.59
41:BT:73:ARG:NH2	41:BT:73:ARG:HB3	2.17	0.59
1:CA:1124:G:C2	1:CA:1127:G:N2	2.70	0.59
1:CA:203:G:N2	1:CA:215:C:C2	2.70	0.59
1:CA:38:G:N2	1:CA:397:A:C4	2.70	0.59
1:CA:406:G:C2	1:CA:407:U:C6	2.90	0.59
1:CA:583:A:C2	1:CA:759:A:C5	2.90	0.59
3:CC:36:ASP:O	3:CC:40:ARG:HG3	2.02	0.59
16:CP:8:ARG:HB3	16:CP:28:ARG:NH1	2.17	0.59
22:DA:1373:A:H2'	22:DA:1374:G:O4'	2.01	0.59
22:DA:1856:U:O4	22:DA:1857:G:C6	2.55	0.59
22:DA:2262:U:N3	22:DA:2279:G:C2	2.70	0.59
22:DA:2845:U:H5''	37:DP:52:ASN:O	2.02	0.59
29:DH:126:GLY:O	29:DH:146:VAL:HG23	2.00	0.59
29:DH:126:GLY:O	29:DH:146:VAL:N	2.35	0.59
1:AA:64:G:C2	1:AA:67:C:N4	2.71	0.59
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.02	0.59
9:AI:84:THR:HG21	9:AI:103:PHE:HB2	1.84	0.59
22:BA:1045:C:C3'	22:BA:1046:A:H5'	2.32	0.59
22:BA:1142:A:C2	22:BA:1144:A:C8	2.91	0.59
22:BA:190:A:C4	22:BA:207:A:C2	2.90	0.59
22:BA:576:U:OP1	57:BA:3672:HOH:O	2.17	0.59
22:BA:813:U:H2'	22:BA:814:C:C6	2.37	0.59
29:BH:99:ILE:HB	29:BH:115:VAL:HG11	1.84	0.59
44:BW:68:LYS:HE2	44:BW:83:GLU:OE2	2.01	0.59
29:BH:83:LYS:CE	1:CA:55:A:O2'	2.49	0.59
2:CB:123:ASP:O	2:CB:124:GLY:C	2.40	0.59
4:CD:168:PRO:HB2	4:CD:171:LEU:HD12	1.84	0.59
19:CS:66:MET:SD	19:CS:74:PHE:CZ	2.95	0.59
21:CU:12:PHE:O	21:CU:13:ASP:HB2	2.02	0.59
22:DA:1805:A:N3	22:DA:1813:G:N2	2.50	0.59
22:DA:2311:A:C2	27:DF:79:ILE:HG21	2.37	0.59
41:DT:44:LYS:HE3	41:DT:55:VAL:HB	1.84	0.59
2:AB:151:ILE:O	2:AB:152:LYS:C	2.40	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:56:VAL:N	5:AE:57:PRO:HD2	2.18	0.59
12:AL:22:PRO:C	12:AL:24:LEU:N	2.56	0.59
22:BA:2390:U:OP2	51:B3:35:LYS:NZ	2.35	0.59
22:BA:1168:G:H2'	22:BA:1169:A:O4'	2.02	0.59
22:BA:1731:G:C6	22:BA:1733:G:C5	2.90	0.59
22:BA:2032:G:N7	57:BA:3534:HOH:O	2.31	0.59
22:BA:528:A:C2	22:BA:2043:C:H5'	2.37	0.59
22:BA:265:A:N1	22:BA:427:U:O2'	2.31	0.59
22:BA:1791:A:O2'	24:BC:206:GLY:HA2	2.02	0.59
1:CA:1286:U:O2	1:CA:1286:U:H2'	2.01	0.59
1:CA:527:G:C2	1:CA:528:C:C5	2.90	0.59
1:CA:906:A:N6	57:CA:1823:HOH:O	2.35	0.59
3:CC:130:PHE:CE2	3:CC:131:ARG:HD3	2.37	0.59
14:CN:64:CYS:SG	14:CN:83:LYS:HG3	2.42	0.59
22:DA:1019:U:OP1	22:DA:1035:U:O2'	2.10	0.59
22:DA:1584:U:O2	22:DA:1584:U:H3'	2.03	0.59
22:DA:2415:G:C6	22:DA:2416:C:C4	2.90	0.59
22:DA:753:A:H2'	22:DA:754:U:C6	2.37	0.59
31:DJ:110:PRO:O	31:DJ:115:GLY:HA3	2.02	0.59
38:DQ:47:TYR:OH	38:DQ:51:ARG:NH1	2.34	0.59
40:DS:33:LEU:HD21	40:DS:52:GLU:CG	2.32	0.59
2:AB:184:PHE:CE2	2:AB:198:PHE:CD2	2.90	0.59
2:AB:218:ALA:O	2:AB:222:ARG:HB2	2.02	0.59
1:AA:1346:A:C8	7:AG:10:ARG:NH2	2.70	0.59
22:BA:1027:A:C6	22:BA:1126:A:C4	2.90	0.59
22:BA:1838:C:C6	22:BA:1899:A:C6	2.90	0.59
22:BA:2256:G:O2'	22:BA:2257:U:H5'	2.02	0.59
22:BA:2517:C:C5	22:BA:2542:A:C5	2.91	0.59
22:BA:543:G:C2	22:BA:544:C:H1'	2.38	0.59
22:BA:761:A:N7	57:BA:3294:HOH:O	2.35	0.59
30:BI:97:LYS:HB3	30:BI:139:VAL:CG2	2.32	0.59
35:BN:36:THR:HG23	35:BN:37:THR:N	2.17	0.59
1:CA:1028:C:H2'	1:CA:1028:C:O2	2.01	0.59
1:CA:295:C:C4	1:CA:296:U:C4	2.91	0.59
2:CB:94:HIS:CD2	2:CB:146:ASN:HB2	2.38	0.59
22:DA:186:G:C2	22:DA:211:C:C2	2.90	0.59
22:DA:219:A:N6	22:DA:220:G:C6	2.70	0.59
39:DR:47:VAL:O	39:DR:47:VAL:CG1	2.49	0.59
1:AA:1048:G:C2	1:AA:1050:G:C5	2.91	0.59
1:AA:1417:G:C6	1:AA:1482:G:C6	2.90	0.59
1:AA:148:G:H2'	1:AA:149:A:O5'	2.03	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:43:GLY:HA3	11:AK:74:VAL:HG13	1.85	0.59
13:AM:73:ILE:O	13:AM:76:SER:OG	2.17	0.59
13:AM:95:LEU:HB3	13:AM:96:PRO:CD	2.32	0.59
22:BA:2001:C:C2	22:BA:2002:G:C8	2.90	0.59
22:BA:2502:G:H5''	22:BA:2503:A:C5'	2.33	0.59
22:BA:78:U:H2'	22:BA:79:C:C6	2.38	0.59
29:BH:94:ILE:HG22	29:BH:99:ILE:CG1	2.32	0.59
31:BJ:19:ASP:OD2	31:BJ:58:ASN:ND2	2.35	0.59
46:BY:37:LEU:HD11	46:BY:39:GLN:O	2.02	0.59
1:CA:269:C:H2'	1:CA:270:A:C8	2.38	0.59
1:CA:542:G:C2	1:CA:543:U:C6	2.91	0.59
1:CA:570:G:C4	1:CA:571:U:C5	2.91	0.59
17:CQ:52:GLU:HG2	17:CQ:53:CYS:SG	2.42	0.59
22:DA:132:G:N2	22:DA:148:U:C2	2.70	0.59
22:DA:1529:G:C6	22:DA:1543:G:N2	2.70	0.59
22:DA:2272:U:H5''	22:DA:2273:A:OP1	2.03	0.59
22:DA:2873:A:H4'	57:DA:3807:HOH:O	2.03	0.59
27:DF:10:ASP:OD2	27:DF:11:GLU:HG3	2.02	0.59
1:AA:1316:G:N1	1:AA:1319:A:OP2	2.35	0.59
22:BA:319:G:C4	22:BA:333:G:N2	2.70	0.59
29:BH:1:MET:O	29:BH:20:ASN:ND2	2.34	0.59
46:BY:61:ALA:O	46:BY:63:ALA:N	2.36	0.59
1:CA:1513:A:H2'	1:CA:1514:G:C8	2.38	0.59
4:CD:31:LYS:HD3	4:CD:31:LYS:N	2.17	0.59
22:DA:1109:C:C4	22:DA:1110:G:C6	2.90	0.59
22:DA:1173:U:O2'	22:DA:1176:U:O2	2.12	0.59
22:DA:142:A:H2'	22:DA:143:C:C6	2.37	0.59
24:DC:67:PHE:HB3	24:DC:151:GLY:O	2.02	0.59
27:DF:131:GLY:HA2	27:DF:153:ASP:HA	1.84	0.59
10:AJ:9:ARG:HB2	10:AJ:99:GLN:HB2	1.83	0.59
20:AT:83:ILE:O	20:AT:87:ALA:HB3	2.03	0.59
48:B0:54:VAL:O	48:B0:55:ILE:C	2.41	0.59
22:BA:415:A:N1	22:BA:2409:G:C6	2.71	0.59
22:BA:585:G:H5''	22:BA:586:A:P	2.42	0.59
25:BD:133:THR:HG23	25:BD:134:HIS:CD2	2.38	0.59
39:BR:42:ALA:HA	39:BR:46:GLU:CB	2.33	0.59
1:CA:1219:A:N6	1:CA:1220:G:O6	2.36	0.59
1:CA:791:G:C6	1:CA:792:A:N7	2.71	0.59
6:CF:97:THR:O	6:CF:98:GLU:HB3	2.02	0.59
22:DA:2079:U:H2'	22:DA:2080:A:O4'	2.03	0.59
22:DA:2146:C:H5''	22:DA:2147:A:OP1	2.02	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2464:G:H2'	22:DA:2465:C:O4'	2.02	0.59
30:DI:39:CYS:HA	30:DI:42:PHE:HB3	1.83	0.59
30:DI:6:GLN:O	30:DI:7:ALA:CB	2.51	0.59
33:DL:77:ILE:O	33:DL:110:VAL:O	2.20	0.59
1:AA:673:A:H5''	6:AF:86:ARG:NH1	2.17	0.59
1:AA:92:U:H2'	1:AA:93:U:C6	2.37	0.59
2:AB:164:ILE:O	2:AB:186:ILE:HG12	2.03	0.59
11:AK:23:ILE:O	11:AK:23:ILE:HG13	2.02	0.59
53:B5:52:PRO:O	53:B5:53:ARG:HB2	2.03	0.59
22:BA:1563:U:H2'	22:BA:1564:C:C6	2.38	0.59
22:BA:2029:G:N1	22:BA:2033:A:OP2	2.32	0.59
22:BA:2721:A:C2	22:BA:2873:A:C5	2.91	0.59
1:CA:160:A:H2'	1:CA:161:A:O4'	2.02	0.59
1:CA:202:G:O2'	1:CA:468:A:C8	2.56	0.59
2:CB:99:GLY:O	2:CB:103:ASN:N	2.35	0.59
12:CL:74:LEU:HD21	12:CL:104:CYS:SG	2.43	0.59
14:CN:30:ILE:HG22	14:CN:35:ASN:OD1	2.03	0.59
16:CP:20:VAL:HG21	16:CP:32:PHE:CB	2.32	0.59
22:DA:1432:G:H2'	22:DA:1433:A:C8	2.38	0.59
22:DA:2199:A:C4	22:DA:2225:A:C2	2.90	0.59
22:DA:2415:G:C2	22:DA:2416:C:C2	2.91	0.59
22:DA:279:A:C2	22:DA:362:A:H4'	2.38	0.59
25:DD:151:THR:O	25:DD:152:PRO:C	2.39	0.59
37:DP:65:SER:O	37:DP:67:GLY:N	2.36	0.59
2:AB:106:THR:O	2:AB:107:VAL:CB	2.51	0.59
2:AB:111:ILE:CG1	2:AB:151:ILE:HG12	2.32	0.59
16:AP:38:PHE:CZ	16:AP:51:ARG:HB2	2.38	0.59
22:BA:1219:U:H2'	22:BA:1220:G:H8	1.68	0.59
22:BA:2714:G:P	57:BA:3549:HOH:O	2.60	0.59
24:BC:237:GLY:O	57:BC:305:HOH:O	2.17	0.59
41:BT:56:GLU:HB2	41:BT:88:LYS:HA	1.85	0.59
1:CA:1511:G:C5	1:CA:1512:U:C5	2.91	0.59
1:CA:441:A:C2	1:CA:497:G:C6	2.91	0.59
3:CC:173:VAL:O	3:CC:175:LEU:N	2.36	0.59
22:DA:1638:C:O2	22:DA:2698:U:O2'	2.08	0.59
22:DA:2345:G:C6	22:DA:2347:C:N4	2.71	0.59
22:DA:2585:U:HO2'	22:DA:2586:U:P	2.26	0.59
23:DB:58:A:H2'	23:DB:59:A:O4'	2.03	0.59
1:AA:554:A:H5'	12:AL:26:ALA:HB1	1.84	0.59
11:AK:23:ILE:HG22	11:AK:32:VAL:HG22	1.84	0.59
11:AK:126:LYS:C	21:AU:34:ARG:CZ	2.71	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1180:U:C2'	22:BA:1181:U:H5'	2.32	0.59
4:CD:46:PRO:O	4:CD:47:ARG:C	2.41	0.59
5:CE:115:LEU:O	5:CE:120:VAL:HG23	2.02	0.59
5:CE:74:VAL:HB	5:CE:76:LEU:HD11	1.85	0.59
12:CL:90:LEU:CB	12:CL:93:VAL:HG21	2.33	0.59
17:CQ:12:VAL:HG23	17:CQ:57:ASP:O	2.03	0.59
1:CA:1458:G:H5'	20:CT:27:MET:HB3	1.85	0.59
22:DA:1823:G:O6	57:DA:3658:HOH:O	2.16	0.59
22:DA:2819:G:H2'	22:DA:2821:A:N7	2.18	0.59
22:DA:590:A:C6	22:DA:591:U:C4	2.90	0.59
22:DA:608:A:H2'	22:DA:609:A:C8	2.37	0.59
24:DC:226:ASN:ND2	57:DC:304:HOH:O	2.24	0.59
24:DC:43:ARG:NH2	24:DC:49:ILE:HD11	2.18	0.59
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.33	0.58
1:AA:152:A:N6	1:AA:170:U:C2	2.71	0.58
1:AA:8:A:C6	4:AD:206:LYS:HB3	2.38	0.58
2:AB:47:VAL:HB	2:AB:48:PRO:HD3	1.85	0.58
3:AC:150:LYS:HG3	3:AC:201:TRP:CE3	2.38	0.58
1:AA:451:A:OP2	16:AP:70:ARG:NH2	2.36	0.58
22:BA:1057:A:C2	22:BA:1086:A:C2	2.91	0.58
22:BA:2309:A:N6	22:BA:2310:C:N4	2.51	0.58
22:BA:2430:A:H5'	22:BA:2431:U:OP2	2.02	0.58
35:BN:117:ASP:O	35:BN:119:SER:N	2.36	0.58
1:CA:216:U:H2'	1:CA:217:C:C6	2.38	0.58
1:CA:32:A:N3	1:CA:32:A:H2'	2.18	0.58
7:CG:115:SER:HB3	7:CG:118:LEU:HG	1.85	0.58
1:CA:657:U:O2	15:CO:22:THR:CG2	2.51	0.58
22:DA:2032:G:H1'	25:DD:150:GLN:NE2	2.18	0.58
22:DA:248:G:H5'	22:DA:250:G:N7	2.18	0.58
22:DA:2531:A:H5'	28:DG:157:TYR:CZ	2.38	0.58
22:DA:720:U:H2'	22:DA:721:A:C8	2.38	0.58
33:DL:59:ARG:CZ	33:DL:59:ARG:HB3	2.33	0.58
1:AA:259:G:H2'	1:AA:260:G:O4'	2.03	0.58
2:AB:188:ASP:HB2	2:AB:204:ASP:OD1	2.03	0.58
4:AD:147:GLU:OE1	4:AD:148:LYS:NZ	2.35	0.58
4:AD:17:THR:CG2	4:AD:18:ASP:N	2.65	0.58
5:AE:25:VAL:O	5:AE:26:LYS:C	2.41	0.58
48:B0:55:ILE:O	48:B0:56:ALA:HB3	2.03	0.58
52:B4:10:LEU:HB2	52:B4:33:HIS:CE1	2.38	0.58
22:BA:608:A:N1	22:BA:609:A:C2	2.71	0.58
37:BP:26:VAL:HG23	37:BP:85:SER:O	2.03	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BU:18:ASP:O	42:BU:20:GLY:N	2.36	0.58
4:CD:124:MET:HG3	4:CD:146:ARG:HG2	1.84	0.58
15:CO:87:LEU:O	15:CO:88:ARG:HB3	2.04	0.58
1:CA:228:A:H4'	16:CP:63:GLN:HG2	1.85	0.58
20:CT:3:ASN:O	20:CT:5:LYS:N	2.35	0.58
22:DA:1911:U:H2'	22:DA:1918:A:C2	2.39	0.58
22:DA:297:G:H5''	42:DU:85:PHE:CB	2.34	0.58
22:DA:771:G:C2	22:DA:772:C:C6	2.91	0.58
29:DH:34:GLY:O	29:DH:35:LYS:CB	2.51	0.58
31:DJ:31:GLU:HG3	31:DJ:142:ILE:HD11	1.85	0.58
1:AA:1095:U:H2'	1:AA:1096:C:O4'	2.03	0.58
1:AA:1181:G:C2	1:AA:1182:G:N2	2.70	0.58
1:AA:96:U:O2'	1:AA:97:G:OP2	2.20	0.58
4:AD:152:GLN:O	4:AD:153:SER:C	2.41	0.58
8:AH:55:THR:C	8:AH:57:PRO:HD3	2.23	0.58
17:AQ:4:LYS:HG3	17:AQ:7:THR:CG2	2.33	0.58
22:BA:1000:A:C6	22:BA:1001:A:C6	2.91	0.58
22:BA:1006:C:C2	22:BA:1138:G:N2	2.70	0.58
22:BA:1259:G:O2'	22:BA:1260:A:H5'	2.03	0.58
22:BA:181:A:C2	22:BA:182:A:C4	2.92	0.58
22:BA:2021:C:OP1	48:B0:9:THR:HG21	2.03	0.58
27:BF:73:SER:OG	27:BF:80:ARG:HA	2.03	0.58
31:BJ:49:ASP:OD1	31:BJ:121:LYS:CE	2.49	0.58
38:BQ:101:PHE:O	38:BQ:102:ASP:HB2	2.03	0.58
39:BR:42:ALA:HA	39:BR:46:GLU:HB2	1.85	0.58
40:BS:43:ALA:O	40:BS:47:VAL:HG12	2.04	0.58
2:CB:208:ARG:O	2:CB:212:LEU:N	2.35	0.58
22:DA:2031:A:C6	22:DA:2498:C:H1'	2.38	0.58
22:DA:388:G:N7	22:DA:390:U:H2'	2.18	0.58
22:DA:792:A:H1'	22:DA:2072:C:O2'	2.03	0.58
24:DC:15:HIS:O	24:DC:204:VAL:HG21	2.03	0.58
39:DR:61:ALA:HB2	39:DR:98:ILE:HD13	1.85	0.58
1:AA:1125:U:C5	1:AA:1127:G:C5	2.92	0.58
1:AA:188:C:O2	1:AA:188:C:C2'	2.52	0.58
1:AA:32:A:OP1	1:AA:398:U:H1'	2.04	0.58
1:AA:338:A:N1	1:AA:351:G:O6	2.36	0.58
1:AA:572:A:H5'	1:AA:573:A:OP2	2.02	0.58
1:AA:913:A:H4'	1:AA:914:A:OP1	2.04	0.58
2:AB:10:LEU:HG	2:AB:11:LYS:N	2.19	0.58
2:AB:15:HIS:O	2:AB:16:PHE:C	2.41	0.58
6:AF:17:GLN:O	6:AF:17:GLN:NE2	2.37	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:15:ASP:C	17:AQ:17:MET:SD	2.82	0.58
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.85	0.58
22:BA:1153:C:N4	22:BA:1154:G:N1	2.51	0.58
22:BA:1324:G:C2	22:BA:1328:A:N1	2.70	0.58
22:BA:2571:U:C2'	22:BA:2572:A:OP1	2.50	0.58
22:BA:991:C:C2'	22:BA:992:C:O5'	2.50	0.58
22:BA:998:C:C2'	22:BA:999:U:O5'	2.52	0.58
24:BC:258:ARG:NH1	24:BC:264:ASP:OD2	2.36	0.58
27:BF:175:PHE:HD1	27:BF:177:PHE:CE1	2.21	0.58
22:BA:2360:G:H1'	33:BL:60:ARG:HD3	1.84	0.58
9:CI:95:ARG:O	9:CI:99:ARG:N	2.32	0.58
18:CR:25:ASP:O	18:CR:28:THR:N	2.36	0.58
22:DA:1366:A:C4	22:DA:1367:A:C8	2.91	0.58
22:DA:2234:G:C6	22:DA:2235:G:N7	2.72	0.58
22:DA:533:G:H5'	38:DQ:24:TYR:CE2	2.39	0.58
22:DA:655:A:H4'	22:DA:656:G:OP1	2.03	0.58
40:DS:84:ARG:HB2	40:DS:96:ILE:HG12	1.85	0.58
16:AP:71:VAL:O	16:AP:75:ILE:HG13	2.03	0.58
22:BA:1356:G:N2	22:BA:1357:C:H1'	2.19	0.58
22:BA:2192:U:C2	22:BA:2193:G:C8	2.91	0.58
22:BA:2298:A:C4	22:BA:2321:U:C5	2.90	0.58
22:BA:2327:A:H2'	22:BA:2328:A:C8	2.38	0.58
6:CF:39:LEU:HD12	6:CF:40:GLU:N	2.18	0.58
8:CH:59:LEU:HD12	8:CH:60:GLU:N	2.18	0.58
22:DA:1439:A:N7	22:DA:1552:A:H2	2.01	0.58
22:DA:35:G:H1'	22:DA:454:A:C4	2.39	0.58
22:DA:607:U:O4	22:DA:619:G:H2'	2.03	0.58
24:DC:34:LEU:O	24:DC:35:GLU:HB3	2.04	0.58
25:DD:14:ILE:HG12	25:DD:24:VAL:HG21	1.86	0.58
26:DE:108:ILE:HD13	26:DE:181:ILE:HG12	1.86	0.58
37:DP:92:VAL:HG21	37:DP:97:LEU:HD11	1.84	0.58
1:AA:1349:A:C2	1:AA:1374:A:C5	2.91	0.58
22:BA:528:A:C8	22:BA:528:A:C3'	2.86	0.58
29:BH:31:VAL:N	29:BH:32:PRO:HD2	2.19	0.58
1:CA:8:A:C6	4:CD:206:LYS:HB3	2.39	0.58
3:CC:145:GLY:O	3:CC:146:ALA:O	2.20	0.58
15:CO:46:HIS:O	15:CO:48:LYS:N	2.36	0.58
22:DA:2683:C:OP1	37:DP:56:HIS:HB3	2.03	0.58
25:DD:151:THR:HG22	25:DD:152:PRO:N	2.18	0.58
46:DY:9:LYS:N	46:DY:12:GLU:HG3	2.19	0.58
19:AS:40:ILE:HG12	19:AS:71:LEU:HD23	1.84	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2517:C:C6	22:BA:2542:A:C5	2.92	0.58
24:BC:189:ARG:O	24:BC:190:ALA:HB2	2.03	0.58
22:BA:2052:A:O4'	25:BD:147:GLY:HA3	2.03	0.58
27:BF:52:ASN:HB3	27:BF:147:ASP:OD1	2.04	0.58
29:BH:93:SER:HG	1:CA:357:G:H4'	1.68	0.58
20:CT:7:ALA:HB1	20:CT:10:ARG:HB2	1.86	0.58
22:DA:1056:G:N1	22:DA:1102:C:OP2	2.36	0.58
22:DA:1809:A:N6	22:DA:1810:A:C6	2.72	0.58
22:DA:186:G:N2	22:DA:211:C:C2	2.71	0.58
22:DA:301:G:C2	22:DA:302:C:C2	2.91	0.58
22:DA:21:A:C2	22:DA:520:G:N3	2.71	0.58
22:DA:776:G:C8	22:DA:793:A:C4	2.91	0.58
1:AA:1210:C:O4'	1:AA:1214:C:C5	2.57	0.58
1:AA:1371:G:C6	1:AA:1372:U:C4	2.91	0.58
1:AA:188:C:O2	1:AA:188:C:H2'	2.04	0.58
1:AA:223:A:H2'	1:AA:224:U:C6	2.39	0.58
17:AQ:68:SER:O	17:AQ:69:LYS:C	2.42	0.58
22:BA:1180:U:H2'	22:BA:1181:U:C5'	2.33	0.58
22:BA:2038:G:H2'	22:BA:2039:U:O4'	2.04	0.58
22:BA:2462:C:H2'	22:BA:2463:C:C6	2.38	0.58
22:BA:575:A:C2'	22:BA:576:U:H5'	2.34	0.58
40:BS:84:ARG:HB2	40:BS:96:ILE:CG1	2.33	0.58
1:CA:227:G:H2'	1:CA:228:A:O4'	2.03	0.58
29:BH:97:ARG:CD	1:CA:369:G:O2'	2.44	0.58
1:CA:829:G:C6	1:CA:858:G:N2	2.72	0.58
22:DA:575:A:C2	22:DA:576:U:C6	2.92	0.58
31:DJ:34:ARG:O	31:DJ:39:LYS:HB2	2.02	0.58
35:DN:118:ARG:O	35:DN:119:SER:CB	2.52	0.58
22:BA:1260:A:N6	57:BA:3276:HOH:O	2.36	0.58
22:BA:1499:C:C4	22:BA:1500:G:N7	2.71	0.58
22:BA:997:G:OP1	38:BQ:92:ARG:CG	2.51	0.58
23:BB:94:A:O2'	23:BB:95:U:H5'	2.03	0.58
25:BD:149:ASN:OD1	25:BD:150:GLN:N	2.36	0.58
1:CA:511:C:C2	1:CA:512:U:C6	2.92	0.58
1:CA:841:C:H3'	1:CA:843:U:H5''	1.84	0.58
2:CB:96:TRP:CE2	2:CB:172:ALA:HB2	2.39	0.58
22:DA:1682:G:C2	22:DA:1757:A:O4'	2.57	0.58
22:DA:24:G:C6	22:DA:25:U:C4	2.92	0.58
25:DD:30:GLU:HG2	25:DD:185:ASN:ND2	2.19	0.58
2:AB:99:GLY:O	2:AB:103:ASN:N	2.36	0.58
6:AF:10:VAL:CG1	6:AF:11:HIS:N	2.67	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:59:LEU:HD13	8:AH:60:GLU:N	2.18	0.58
16:AP:51:ARG:HH11	16:AP:51:ARG:HG2	1.69	0.58
53:B5:48:LEU:HA	53:B5:208:THR:CB	2.34	0.58
22:BA:1433:A:O2'	22:BA:1434:A:H5'	2.04	0.58
22:BA:2780:G:H4'	22:BA:2781:A:OP2	2.03	0.58
26:BE:149:ILE:HG23	26:BE:188:MET:HG2	1.86	0.58
30:BI:92:LYS:HB3	30:BI:95:LYS:HG2	1.84	0.58
1:CA:1036:A:H3'	1:CA:1037:C:C6	2.39	0.58
1:CA:1201:A:H4'	1:CA:1202:U:O5'	2.04	0.58
2:CB:163:VAL:HG23	2:CB:185:ALA:HB2	1.85	0.58
9:CI:25:ASN:O	9:CI:62:ASP:HA	2.03	0.58
22:DA:1606:C:C2'	22:DA:1607:C:OP2	2.51	0.58
22:DA:1809:A:C5	22:DA:1810:A:C5	2.92	0.58
22:DA:2468:A:C2	22:DA:2481:G:C2	2.92	0.58
28:DG:24:ILE:HD11	28:DG:43:VAL:HG11	1.85	0.58
31:DJ:84:ILE:HG13	31:DJ:84:ILE:O	2.04	0.58
38:DQ:47:TYR:CZ	38:DQ:51:ARG:NH1	2.72	0.58
22:DA:328:U:O3'	42:DU:66:GLN:HG3	2.04	0.58
45:DX:41:GLU:O	45:DX:44:LYS:HD2	2.04	0.58
1:AA:1375:A:C6	1:AA:1376:U:C4	2.92	0.57
1:AA:186:C:H2'	1:AA:187:G:O4'	2.04	0.57
1:AA:80:A:C2	1:AA:90:C:N3	2.72	0.57
2:AB:106:THR:O	2:AB:107:VAL:HB	2.03	0.57
7:AG:149:LYS:O	7:AG:151:PHE:O	2.21	0.57
7:AG:43:VAL:O	7:AG:47:LEU:HB2	2.04	0.57
22:BA:1070:A:C2	22:BA:1097:U:H4'	2.39	0.57
22:BA:1355:G:O2'	22:BA:1356:G:H5'	2.03	0.57
22:BA:2180:U:H5''	22:BA:2181:U:OP2	2.03	0.57
22:BA:264:C:O2'	22:BA:265:A:H2'	2.03	0.57
22:BA:404:A:H1'	22:BA:405:U:OP2	2.04	0.57
34:BM:2:LEU:O	34:BM:3:GLN:HB3	2.03	0.57
1:CA:206:C:H2'	1:CA:207:C:C4'	2.34	0.57
2:CB:35:ARG:O	2:CB:38:VAL:N	2.35	0.57
5:CE:149:SER:O	5:CE:153:VAL:HG13	2.03	0.57
22:DA:1776:G:N2	22:DA:1789:A:H1'	2.19	0.57
22:DA:2297:A:N1	22:DA:2321:U:C5	2.71	0.57
22:DA:503:A:N3	22:DA:506:G:C8	2.72	0.57
22:DA:574:A:P	57:DA:3263:HOH:O	2.62	0.57
38:DQ:76:TYR:CZ	38:DQ:80:ILE:HG13	2.39	0.57
22:DA:1808:A:N1	45:DX:28:ARG:HD2	2.19	0.57
1:AA:763:G:C2	1:AA:764:C:C2	2.92	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:148:LEU:HA	2:AB:151:ILE:HG22	1.86	0.57
2:AB:20:THR:OG1	2:AB:21:ARG:N	2.35	0.57
11:AK:71:ALA:O	11:AK:73:ALA:N	2.37	0.57
53:B5:191:ARG:O	53:B5:195:ARG:CB	2.52	0.57
22:BA:1917:U:C2'	22:BA:1918:A:H5'	2.34	0.57
22:BA:2507:C:P	57:BA:3714:HOH:O	2.61	0.57
22:BA:761:A:C8	57:BA:3294:HOH:O	2.52	0.57
24:BC:13:ARG:HA	24:BC:16:VAL:CG2	2.34	0.57
22:BA:1249:U:C2	33:BL:18:ARG:NH1	2.72	0.57
34:BM:132:THR:CG2	34:BM:133:LYS:N	2.68	0.57
35:BN:58:ASP:OD1	35:BN:63:ARG:NH2	2.37	0.57
1:CA:1133:G:C2	1:CA:1142:G:C2	2.92	0.57
1:CA:475:C:H2'	1:CA:476:U:C6	2.39	0.57
10:CJ:77:VAL:O	10:CJ:79:PRO:HD3	2.04	0.57
11:CK:89:PRO:HD3	21:CU:29:LEU:HD11	1.84	0.57
22:DA:1692:U:O2'	22:DA:1693:U:H2'	2.03	0.57
22:DA:563:A:C6	22:DA:2018:G:C4	2.92	0.57
22:DA:2594:C:N4	22:DA:2595:G:O6	2.37	0.57
22:DA:649:G:H2'	22:DA:650:C:C6	2.39	0.57
22:DA:813:U:H1'	22:DA:1226:A:N3	2.18	0.57
38:DQ:86:ALA:O	38:DQ:87:SER:CB	2.52	0.57
41:DT:73:ARG:NH1	41:DT:74:ILE:O	2.36	0.57
22:DA:78:U:OP2	46:DY:2:LYS:CD	2.52	0.57
1:AA:1053:G:H4'	1:AA:1054:C:H5'	1.86	0.57
1:AA:990:C:N3	1:AA:991:U:C4	2.72	0.57
22:BA:2292:U:H2'	22:BA:2293:G:C8	2.40	0.57
22:BA:2779:U:C5	22:BA:2781:A:C2	2.92	0.57
23:BB:41:G:H5''	27:BF:66:LEU:HD13	1.86	0.57
32:BK:34:GLY:O	32:BK:35:VAL:C	2.42	0.57
1:CA:1330:U:H4'	13:CM:23:TYR:CE1	2.39	0.57
1:CA:147:G:H2'	1:CA:148:G:C8	2.40	0.57
3:CC:63:SER:OG	3:CC:64:ILE:N	2.36	0.57
11:CK:91:PRO:O	11:CK:92:GLY:C	2.43	0.57
22:DA:102:U:C2	46:DY:2:LYS:HE2	2.39	0.57
22:DA:1445:G:N2	22:DA:1547:C:C2	2.73	0.57
29:DH:108:VAL:O	29:DH:110:VAL:N	2.36	0.57
22:DA:1654:A:P	35:DN:1:MET:HA	2.43	0.57
42:DU:34:VAL:HG22	42:DU:65:ILE:O	2.04	0.57
1:AA:1168:U:C2'	1:AA:1168:U:O2	2.52	0.57
1:AA:202:G:N2	1:AA:216:U:O2	2.37	0.57
4:AD:109:ALA:N	4:AD:113:GLU:OE2	2.35	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:88:ARG:O	8:AH:122:GLY:HA3	2.04	0.57
8:AH:22:LYS:N	8:AH:65:TYR:OH	2.37	0.57
9:AI:90:TYR:O	9:AI:91:ASP:CG	2.43	0.57
14:AN:48:LEU:O	14:AN:50:THR:N	2.37	0.57
52:B4:11:CYS:SG	52:B4:33:HIS:CE1	2.97	0.57
53:B5:204:GLY:O	53:B5:205:ALA:CB	2.52	0.57
22:BA:1385:A:C4	22:BA:1386:C:C5	2.91	0.57
31:BJ:30:THR:HG22	31:BJ:31:GLU:N	2.20	0.57
23:BB:47:C:OP2	36:BO:3:LYS:HE3	2.04	0.57
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.69	0.57
1:CA:366:A:O2'	1:CA:394:G:N2	2.38	0.57
1:CA:667:G:C2	1:CA:740:U:O2	2.57	0.57
2:CB:67:ILE:HG22	2:CB:68:LEU:N	2.19	0.57
4:CD:32:CYS:O	4:CD:33:LYS:CB	2.52	0.57
1:CA:1291:U:OP1	7:CG:37:SER:HB3	2.04	0.57
19:CS:11:ILE:HG13	19:CS:12:ASP:N	2.19	0.57
19:CS:58:VAL:HG11	19:CS:75:ALA:HA	1.86	0.57
22:DA:1167:C:C2'	22:DA:1168:G:H5'	2.34	0.57
22:DA:1177:G:H2'	22:DA:1178:C:O4'	2.03	0.57
22:DA:1854:A:O4'	22:DA:2233:U:H4'	2.05	0.57
22:DA:537:G:N1	22:DA:555:G:C2	2.72	0.57
32:DK:105:ARG:NH1	37:DP:34:GLU:HG3	2.19	0.57
35:DN:103:ARG:HB2	35:DN:110:MET:HE3	1.85	0.57
45:DX:2:SER:O	45:DX:4:VAL:N	2.37	0.57
1:AA:1031:C:C2'	1:AA:1032:G:OP2	2.51	0.57
1:AA:438:U:C2	1:AA:494:G:C6	2.92	0.57
2:AB:200:ILE:O	2:AB:201:PRO:O	2.23	0.57
6:AF:3:HIS:H	6:AF:92:THR:HG23	1.69	0.57
12:AL:86:ARG:CZ	12:AL:88:LYS:HB3	2.34	0.57
22:BA:1091:G:O2'	22:BA:1092:C:OP2	2.22	0.57
22:BA:1721:G:O2'	22:BA:1739:A:N6	2.37	0.57
22:BA:1971:U:OP2	22:BA:1971:U:H4'	2.04	0.57
22:BA:2611:C:OP2	57:BA:3540:HOH:O	2.17	0.57
22:BA:277:G:O2'	22:BA:361:G:N1	2.37	0.57
22:BA:1845:G:OP1	24:BC:256:LYS:NZ	2.37	0.57
22:BA:2683:C:O2	32:BK:70:ARG:NH2	2.38	0.57
1:CA:1072:G:C5	1:CA:1073:U:C4	2.93	0.57
3:CC:83:ASP:O	3:CC:85:GLU:N	2.38	0.57
7:CG:136:LYS:O	7:CG:140:ASP:HB2	2.04	0.57
12:CL:65:SER:HB2	12:CL:82:ILE:HD11	1.85	0.57
22:DA:1773:A:N3	22:DA:1978:A:C2	2.73	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2296:U:H4'	22:DA:2297:A:OP1	2.02	0.57
23:DB:106:G:H2'	23:DB:107:G:O4'	2.04	0.57
29:DH:62:LEU:C	29:DH:62:LEU:HD13	2.25	0.57
46:DY:11:VAL:HA	46:DY:14:LEU:HB2	1.87	0.57
1:AA:108:G:O6	20:AT:10:ARG:HG2	2.04	0.57
1:AA:11:G:C6	1:AA:12:U:C4	2.92	0.57
1:AA:496:A:C2	1:AA:497:G:C5	2.92	0.57
1:AA:596:A:C6	1:AA:645:G:C2	2.92	0.57
22:BA:1917:U:O2	22:BA:1918:A:O4'	2.22	0.57
22:BA:2191:A:C6	22:BA:2192:U:C4	2.92	0.57
22:BA:2324:U:H3'	22:BA:2325:G:H5'	1.84	0.57
22:BA:2495:G:O2'	22:BA:2496:C:H5'	2.05	0.57
22:BA:2564:A:C6	22:BA:2565:A:C6	2.92	0.57
29:BH:117:LEU:CD2	29:BH:121:VAL:H	2.08	0.57
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.39	0.57
1:CA:406:G:C2	1:CA:407:U:C5	2.92	0.57
1:CA:412:A:HO2'	1:CA:413:G:H4'	1.68	0.57
18:CR:35:GLU:HB2	21:CU:19:PHE:CZ	2.40	0.57
22:DA:118:A:H1'	22:DA:178:G:O4'	2.05	0.57
22:DA:1676:A:H2'	22:DA:1677:A:O4'	2.04	0.57
22:DA:2004:G:C5	22:DA:2005:A:C8	2.92	0.57
22:DA:2056:G:C2	22:DA:2057:G:C8	2.92	0.57
22:DA:2790:U:H5'	22:DA:2893:A:N7	2.20	0.57
22:DA:2836:U:H2'	22:DA:2837:A:C8	2.39	0.57
22:DA:301:G:C6	22:DA:317:G:C6	2.93	0.57
25:DD:12:THR:HG21	37:DP:5:ILE:HG23	1.86	0.57
1:AA:872:A:C8	1:AA:874:G:C8	2.93	0.57
1:AA:79:G:N2	1:AA:91:U:O4	2.36	0.57
1:AA:1313:U:O4	19:AS:4:SER:HA	2.05	0.57
22:BA:116:C:N4	22:BA:117:G:C6	2.72	0.57
22:BA:1853:A:N1	22:BA:2087:G:H1'	2.20	0.57
22:BA:539:G:C5	22:BA:540:C:C5	2.93	0.57
29:BH:95:GLY:HA2	29:BH:117:LEU:HD22	1.87	0.57
29:BH:132:PHE:CE2	29:BH:142:VAL:HG21	2.40	0.57
41:BT:64:LYS:HA	41:BT:79:ASP:OD1	2.04	0.57
42:BU:12:ILE:HG21	42:BU:80:ALA:HB2	1.87	0.57
1:CA:518:C:H4'	1:CA:519:C:O5'	2.03	0.57
1:CA:822:U:C2	1:CA:823:C:C5	2.93	0.57
1:CA:890:G:O2'	1:CA:891:U:OP2	2.21	0.57
1:CA:957:U:O2	1:CA:959:A:C8	2.58	0.57
17:CQ:12:VAL:HG12	17:CQ:13:VAL:H	1.67	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:80:TYR:O	19:CS:81:ARG:CB	2.52	0.57
21:CU:37:PHE:HA	21:CU:40:LYS:HE3	1.85	0.57
22:DA:224:U:C4	22:DA:225:C:C5	2.93	0.57
22:DA:2585:U:O2'	22:DA:2586:U:O5'	2.21	0.57
25:DD:35:THR:O	25:DD:36:GLN:HB2	2.05	0.57
28:DG:89:LEU:HB2	28:DG:129:THR:HG22	1.85	0.57
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.40	0.57
2:AB:32:PHE:O	2:AB:32:PHE:CG	2.57	0.57
11:AK:126:LYS:C	21:AU:34:ARG:NH2	2.58	0.57
12:AL:44:LYS:HB2	12:AL:45:PRO:HD3	1.86	0.57
15:AO:64:ARG:NH2	15:AO:68:ASP:OD2	2.38	0.57
17:AQ:14:SER:HB3	17:AQ:22:VAL:CG1	2.35	0.57
22:BA:2189:U:H2'	22:BA:2190:G:O4'	2.04	0.57
22:BA:2794:C:H2'	22:BA:2795:C:H6	1.70	0.57
28:BG:74:SER:HA	28:BG:77:ILE:HG13	1.85	0.57
29:BH:117:LEU:HD21	29:BH:121:VAL:CA	2.35	0.57
22:BA:1190:G:OP1	33:BL:32:GLY:HA2	2.04	0.57
1:CA:1343:G:O2'	9:CI:123:ARG:HD2	2.04	0.57
1:CA:577:G:C8	1:CA:816:A:N1	2.73	0.57
5:CE:57:PRO:O	5:CE:60:ILE:HG13	2.04	0.57
12:CL:44:LYS:HB2	12:CL:45:PRO:HD3	1.87	0.57
18:CR:33:ILE:HA	18:CR:40:VAL:HG23	1.86	0.57
22:DA:1231:U:H2'	22:DA:1232:G:C8	2.40	0.57
22:DA:1308:A:N6	22:DA:1309:G:C2	2.73	0.57
22:DA:320:A:H2'	26:DE:131:THR:HG21	1.87	0.57
29:DH:117:LEU:HB3	29:DH:120:GLY:O	2.05	0.57
30:DI:5:VAL:HA	30:DI:8:TYR:CE1	2.40	0.57
36:DO:79:ALA:HA	36:DO:115:LEU:HD22	1.86	0.57
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.20	0.57
1:AA:921:U:H2'	1:AA:922:G:O4'	2.04	0.57
15:AO:61:SER:O	15:AO:65:LYS:HG3	2.05	0.57
53:B5:50:ILE:HG22	53:B5:51:ASP:N	2.19	0.57
22:BA:1429:G:O2'	22:BA:1430:G:H5'	2.05	0.57
22:BA:1467:U:C4	22:BA:1546:G:C2	2.93	0.57
22:BA:892:A:N3	22:BA:892:A:H2'	2.20	0.57
24:BC:15:HIS:O	24:BC:204:VAL:HG21	2.04	0.57
26:BE:12:LEU:HD23	26:BE:13:THR:N	2.20	0.57
33:BL:68:SER:O	33:BL:69:ARG:CB	2.52	0.57
1:CA:484:G:C5	1:CA:486:U:H1'	2.39	0.57
20:CT:43:ASP:HB3	20:CT:46:ALA:HB3	1.86	0.57
21:CU:24:GLU:HA	21:CU:28:VAL:HG22	1.87	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1428:C:C4	22:DA:1569:A:H5''	2.40	0.57
22:DA:161:A:C3'	22:DA:162:U:H5''	2.34	0.57
22:DA:2308:G:C5'	22:DA:2309:A:OP2	2.53	0.57
22:DA:697:G:C2	22:DA:766:U:O2	2.58	0.57
23:DB:81:G:C6	23:DB:82:U:C4	2.93	0.57
37:DP:91:ALA:HB2	37:DP:113:ARG:HA	1.87	0.57
46:DY:41:HIS:O	46:DY:45:GLN:HG2	2.04	0.57
1:AA:1425:U:O2'	1:AA:1426:G:H5'	2.04	0.57
1:AA:568:G:N3	1:AA:569:C:C5	2.73	0.57
1:AA:820:U:H4'	1:AA:821:G:OP2	2.05	0.57
1:AA:8:A:N6	4:AD:202:GLU:O	2.38	0.57
17:AQ:17:MET:N	17:AQ:17:MET:SD	2.77	0.57
22:BA:1405:U:H2'	22:BA:1406:U:C6	2.40	0.57
22:BA:2771:C:H2'	22:BA:2772:C:H6	1.69	0.57
27:BF:2:ALA:O	27:BF:3:LYS:C	2.43	0.57
28:BG:11:VAL:CG2	28:BG:11:VAL:O	2.53	0.57
30:BI:18:ALA:O	30:BI:19:ASN:HB3	2.05	0.57
1:CA:1072:G:C6	1:CA:1073:U:C4	2.93	0.57
7:CG:88:PRO:HD2	7:CG:151:PHE:O	2.05	0.57
1:CA:562:U:OP2	12:CL:14:ARG:NH2	2.38	0.57
15:CO:19:ALA:O	15:CO:20:ASN:CB	2.52	0.57
22:DA:1606:C:O2'	22:DA:1607:C:OP2	2.23	0.57
22:DA:2115:G:O2'	22:DA:2117:A:N6	2.38	0.57
22:DA:2093:G:C6	22:DA:2225:A:C8	2.93	0.57
22:DA:2615:U:C2	48:D0:4:GLN:HA	2.40	0.57
22:DA:897:C:H2'	22:DA:898:C:C6	2.40	0.57
22:DA:981:A:N1	22:DA:2027:G:O2'	2.32	0.57
31:DJ:64:VAL:HG11	31:DJ:89:PHE:CZ	2.40	0.57
1:AA:1418:A:N1	22:BA:1948:G:O2'	2.38	0.56
1:AA:1520:C:C2	1:AA:1521:C:C5	2.93	0.56
19:AS:36:ARG:NH2	19:AS:75:ALA:O	2.38	0.56
11:AK:126:LYS:O	21:AU:34:ARG:NE	2.38	0.56
22:BA:1840:G:C2	22:BA:1841:U:C2	2.92	0.56
22:BA:197:A:C6	22:BA:198:C:C2	2.93	0.56
22:BA:2051:A:H4'	22:BA:2052:A:OP1	2.05	0.56
22:BA:2318:G:C6	22:BA:2319:G:N1	2.72	0.56
22:BA:2564:A:C5	22:BA:2565:A:C6	2.93	0.56
22:BA:2638:G:O2'	22:BA:2775:G:N2	2.36	0.56
23:BB:91:C:OP2	34:BM:18:ARG:HG2	2.04	0.56
24:BC:7:LYS:HB3	24:BC:8:PRO:CD	2.35	0.56
35:BN:49:GLU:OE2	35:BN:95:THR:HG22	2.05	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BY:6:LEU:HD13	46:BY:56:LEU:HD22	1.86	0.56
1:CA:1198:G:OP1	57:CA:1835:HOH:O	2.17	0.56
5:CE:81:LEU:CD1	5:CE:120:VAL:HG11	2.35	0.56
7:CG:5:ARG:HA	7:CG:5:ARG:NE	2.20	0.56
17:CQ:19:LYS:HD3	17:CQ:49:GLU:HA	1.86	0.56
22:DA:2704:C:H2'	22:DA:2705:A:O4'	2.04	0.56
22:DA:341:C:H2'	22:DA:342:A:C8	2.40	0.56
22:DA:55:G:C2	22:DA:56:A:C8	2.93	0.56
22:DA:674:G:H1'	26:DE:69:ARG:CD	2.35	0.56
24:DC:68:LYS:HG2	24:DC:151:GLY:HA2	1.86	0.56
30:DI:20:PRO:HB2	30:DI:23:PRO:HD2	1.86	0.56
22:DA:2469:A:O2'	34:DM:55:ARG:NH2	2.38	0.56
1:AA:109:A:C6	1:AA:326:G:C6	2.93	0.56
1:AA:960:U:O2'	1:AA:1223:C:C5'	2.52	0.56
1:AA:1277:C:HO2'	1:AA:1279:G:H8	1.52	0.56
1:AA:1319:A:C8	1:AA:1323:G:C5	2.92	0.56
1:AA:194:C:OP1	57:AA:1880:HOH:O	2.18	0.56
1:AA:600:A:H2'	1:AA:601:G:C8	2.39	0.56
1:AA:665:A:H2'	1:AA:732:C:O2	2.05	0.56
4:AD:150:LYS:O	4:AD:151:LYS:C	2.43	0.56
13:AM:25:VAL:HG12	13:AM:29:ARG:HB3	1.87	0.56
15:AO:89:ARG:NH1	22:BA:714:U:C6	2.73	0.56
22:BA:1078:U:H1'	22:BA:1088:A:C2	2.40	0.56
22:BA:1142:A:C4	22:BA:1144:A:C8	2.93	0.56
22:BA:1334:G:C6	22:BA:1335:C:C4	2.93	0.56
22:BA:1510:G:H2'	22:BA:1511:G:O4'	2.05	0.56
22:BA:2800:A:H3'	22:BA:2801:G:C5'	2.33	0.56
30:BI:116:ASP:O	30:BI:117:MET:HB2	2.05	0.56
1:CA:1431:A:C6	1:CA:1432:G:C6	2.92	0.56
1:CA:552:U:C2	1:CA:553:A:C8	2.92	0.56
20:CT:67:ILE:HD11	20:CT:71:LYS:HD3	1.87	0.56
22:DA:1428:C:C5	22:DA:1569:A:H5''	2.40	0.56
22:DA:1581:G:C5	22:DA:1582:C:C4	2.93	0.56
22:DA:2345:G:H5'	22:DA:2347:C:O4'	2.05	0.56
22:DA:584:C:N4	57:DA:3282:HOH:O	2.38	0.56
22:DA:729:G:OP2	24:DC:207:LYS:NZ	2.36	0.56
22:DA:956:G:O6	34:DM:14:LYS:NZ	2.38	0.56
1:AA:1226:C:O2'	13:AM:110:LYS:NZ	2.38	0.56
1:AA:196:A:N3	1:AA:222:C:H1'	2.20	0.56
2:AB:15:HIS:HB2	2:AB:209:ALA:HB2	1.87	0.56
1:AA:430:A:OP1	4:AD:9:LEU:HB2	2.05	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:36:VAL:HG23	10:AJ:76:ILE:HG23	1.86	0.56
22:BA:1014:A:C4	22:BA:1149:G:N2	2.73	0.56
22:BA:1156:A:C8	38:BQ:51:ARG:HG2	2.40	0.56
22:BA:2267:A:H5''	22:BA:2268:A:H5'	1.87	0.56
22:BA:2888:C:O2	22:BA:2888:C:H2'	2.05	0.56
22:BA:585:G:C5'	22:BA:586:A:OP1	2.53	0.56
24:BC:121:ASP:O	24:BC:122:ALA:O	2.23	0.56
32:BK:116:ILE:HD12	32:BK:117:SER:N	2.19	0.56
39:BR:49:ILE:CG2	39:BR:53:PHE:N	2.65	0.56
15:CO:25:THR:HG23	15:CO:66:LEU:HD12	1.86	0.56
18:CR:58:ALA:O	18:CR:61:ARG:N	2.38	0.56
22:DA:1666:G:O3'	32:DK:6:THR:HG23	2.04	0.56
22:DA:2131:U:H5'	22:DA:2132:U:H5''	1.88	0.56
22:DA:377:G:C5	22:DA:378:C:C5	2.94	0.56
22:DA:420:C:H2'	22:DA:421:C:C6	2.40	0.56
24:DC:31:ALA:HB3	24:DC:32:PRO:HD3	1.87	0.56
24:DC:87:ARG:NH1	24:DC:87:ARG:HB3	2.20	0.56
27:DF:126:GLY:HA2	27:DF:163:ASP:HA	1.87	0.56
33:DL:77:ILE:HD11	33:DL:101:ILE:HG21	1.86	0.56
36:DO:53:THR:O	36:DO:59:ALA:HB2	2.05	0.56
22:DA:483:A:H1'	42:DU:45:HIS:HB2	1.87	0.56
43:DV:14:LYS:HD3	43:DV:18:ARG:NH2	2.20	0.56
1:AA:946:A:C2	1:AA:1236:A:C2	2.93	0.56
1:AA:1517:G:H1'	22:BA:1919:A:O3'	2.04	0.56
4:AD:197:GLU:OE2	4:AD:197:GLU:N	2.38	0.56
5:AE:83:HIS:HB2	5:AE:84:PRO:HD2	1.87	0.56
7:AG:47:LEU:O	7:AG:51:ALA:HB2	2.05	0.56
9:AI:19:VAL:HA	9:AI:65:ILE:HG22	1.88	0.56
22:BA:1073:A:H3'	22:BA:1074:G:H5'	1.85	0.56
22:BA:1176:U:H2'	22:BA:1177:G:N9	2.20	0.56
22:BA:1426:G:H1'	22:BA:1572:A:N6	2.19	0.56
22:BA:195:A:C5	22:BA:198:C:H5	2.23	0.56
22:BA:1266:G:O2'	22:BA:2012:G:O6	2.15	0.56
22:BA:205:G:O2'	22:BA:206:U:P	2.63	0.56
22:BA:2502:G:C5'	22:BA:2503:A:C5'	2.84	0.56
34:BM:4:PRO:HG3	34:BM:70:ASP:HA	1.87	0.56
1:CA:1202:U:H2'	1:CA:1203:C:O4'	2.04	0.56
1:CA:1337:G:H5''	1:CA:1338:G:OP1	2.05	0.56
2:CB:15:HIS:ND1	2:CB:15:HIS:C	2.57	0.56
2:CB:91:PHE:O	2:CB:150:GLY:HA3	2.05	0.56
22:DA:1682:G:N3	22:DA:1757:A:H1'	2.20	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1826:G:C6	22:DA:1827:U:C4	2.94	0.56
22:DA:1831:G:N2	22:DA:1975:G:C4	2.74	0.56
22:DA:1973:G:C5	22:DA:1974:C:C4	2.94	0.56
22:DA:2514:U:H2'	22:DA:2515:C:C6	2.40	0.56
22:DA:987:C:H2'	22:DA:988:A:O4'	2.05	0.56
26:DE:48:THR:O	26:DE:52:VAL:HG23	2.05	0.56
1:AA:100:G:N7	1:AA:101:A:N7	2.53	0.56
1:AA:107:G:H2'	1:AA:108:G:H5''	1.87	0.56
1:AA:1182:G:C4'	1:AA:1183:U:H5'	2.34	0.56
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.41	0.56
4:AD:198:HIS:CE1	4:AD:199:LEU:HD23	2.41	0.56
6:AF:81:ASN:O	6:AF:84:VAL:HG12	2.05	0.56
10:AJ:11:LYS:HG3	10:AJ:97:ASP:HB3	1.85	0.56
15:AO:4:SER:O	15:AO:8:THR:HG23	2.05	0.56
19:AS:44:MET:HA	19:AS:47:LEU:HD12	1.88	0.56
35:BN:78:LYS:C	35:BN:79:LEU:O	2.41	0.56
38:BQ:57:PHE:O	38:BQ:60:LEU:N	2.38	0.56
43:BV:1:MET:SD	43:BV:1:MET:C	2.83	0.56
1:CA:1309:G:C6	1:CA:1329:A:C2	2.94	0.56
8:CH:9:ASP:OD2	8:CH:13:ARG:NH1	2.38	0.56
9:CI:120:LYS:CG	9:CI:123:ARG:HB3	2.35	0.56
13:CM:10:PRO:O	13:CM:11:ASP:CB	2.53	0.56
22:DA:1206:G:C6	22:DA:1207:C:C4	2.93	0.56
22:DA:781:A:H2'	22:DA:1777:U:O2'	2.06	0.56
22:DA:2571:U:C4	22:DA:2574:G:C8	2.93	0.56
22:DA:2898:U:H2'	22:DA:2899:A:C8	2.41	0.56
22:DA:2503:A:H8	55:DA:3001:VIF:C10	2.18	0.56
22:DA:893:C:H2'	22:DA:894:U:O4'	2.04	0.56
22:DA:1654:A:O2'	25:DD:118:PHE:O	2.20	0.56
29:DH:21:VAL:HG22	29:DH:22:LYS:N	2.19	0.56
1:AA:935:A:C2	1:AA:936:C:C2	2.92	0.56
1:AA:982:U:H4'	1:AA:983:A:H5'	1.88	0.56
13:AM:66:GLU:O	13:AM:68:ASP:N	2.39	0.56
14:AN:68:GLY:O	14:AN:69:ARG:C	2.43	0.56
17:AQ:69:LYS:O	17:AQ:70:THR:HB	2.05	0.56
21:AU:12:PHE:CD2	21:AU:12:PHE:N	2.74	0.56
22:BA:322:A:C5	22:BA:340:A:C2	2.94	0.56
24:BC:3:VAL:HG12	24:BC:19:VAL:HG22	1.88	0.56
45:BX:7:VAL:HG23	45:BX:51:VAL:HG12	1.87	0.56
1:CA:1361:G:C2	1:CA:1362:A:N7	2.73	0.56
1:CA:159:G:N2	1:CA:162:A:OP2	2.39	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:716:A:N3	11:CK:119:ASN:O	2.39	0.56
2:CB:210:VAL:CG2	2:CB:211:THR:N	2.68	0.56
3:CC:40:ARG:HG2	3:CC:55:ILE:HD11	1.88	0.56
1:CA:1118:U:OP1	9:CI:11:ARG:NH1	2.39	0.56
19:CS:63:THR:HG22	19:CS:64:ASP:N	2.20	0.56
51:D3:4:ILE:HG21	51:D3:63:PRO:HG3	1.88	0.56
22:DA:1855:U:C5	22:DA:1856:U:C5	2.93	0.56
28:DG:19:ILE:O	28:DG:21:GLY:N	2.39	0.56
29:DH:83:LYS:N	29:DH:149:GLU:HG2	2.20	0.56
30:DI:6:GLN:O	30:DI:7:ALA:HB2	2.06	0.56
39:DR:81:LYS:CD	39:DR:81:LYS:N	2.69	0.56
47:DZ:3:LYS:O	47:DZ:4:THR:O	2.23	0.56
1:AA:1374:A:N3	1:AA:1375:A:C8	2.74	0.56
12:AL:86:ARG:NE	12:AL:88:LYS:HB3	2.20	0.56
51:B3:45:ARG:N	51:B3:46:PRO:HD2	2.20	0.56
22:BA:1536:C:H4'	22:BA:1537:G:H5''	1.87	0.56
22:BA:1720:U:H2'	22:BA:1721:G:O4'	2.05	0.56
22:BA:2800:A:C2	22:BA:2895:G:H1'	2.41	0.56
22:BA:404:A:C8	22:BA:406:G:C6	2.93	0.56
25:BD:38:LYS:O	25:BD:46:ARG:HA	2.05	0.56
37:BP:113:ARG:O	37:BP:114:LEU:HG	2.05	0.56
1:CA:1302:C:C5	13:CM:17:ILE:HD13	2.41	0.56
5:CE:82:GLN:OE1	5:CE:150:PRO:HD3	2.05	0.56
17:CQ:14:SER:C	17:CQ:17:MET:HE1	2.26	0.56
22:DA:2311:A:O2'	22:DA:2312:U:OP1	2.21	0.56
24:DC:10:SER:O	24:DC:13:ARG:HB3	2.05	0.56
24:DC:121:ASP:N	24:DC:121:ASP:OD1	2.35	0.56
1:AA:1141:C:O2'	1:AA:1142:G:P	2.63	0.56
1:AA:1375:A:C5	1:AA:1376:U:C5	2.93	0.56
1:AA:923:A:O4'	1:AA:1398:A:C2	2.58	0.56
2:AB:126:PHE:N	2:AB:126:PHE:CD2	2.73	0.56
4:AD:58:LYS:HG2	4:AD:203:LEU:HD22	1.86	0.56
1:AA:1377:A:O2'	7:AG:2:PRO:HB3	2.04	0.56
12:AL:51:LYS:N	12:AL:51:LYS:HD3	2.21	0.56
22:BA:1056:G:H4'	22:BA:1086:A:C8	2.41	0.56
22:BA:1219:U:H2'	22:BA:1220:G:C8	2.41	0.56
22:BA:1301:A:C4	22:BA:1303:G:C8	2.94	0.56
22:BA:2311:A:C2	27:BF:85:ILE:HD11	2.41	0.56
23:BB:42:C:C5	27:BF:66:LEU:HD22	2.40	0.56
30:BI:67:PHE:N	30:BI:67:PHE:CD2	2.74	0.56
39:BR:68:ARG:NH1	39:BR:90:ARG:HD3	2.20	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BW:41:ARG:HG3	44:BW:41:ARG:HH11	1.70	0.56
1:CA:1077:G:N2	1:CA:1080:A:OP2	2.37	0.56
1:CA:804:U:H5''	1:CA:805:C:OP2	2.05	0.56
2:CB:119:THR:O	2:CB:120:GLN:CB	2.54	0.56
2:CB:206:ALA:O	2:CB:207:ILE:C	2.42	0.56
3:CC:72:ARG:HB3	3:CC:75:ILE:HG22	1.88	0.56
15:CO:18:ASP:OD1	15:CO:18:ASP:C	2.44	0.56
20:CT:74:ARG:O	20:CT:78:ASN:OD1	2.24	0.56
22:DA:1820:U:OP1	24:DC:177:ARG:HG2	2.06	0.56
22:DA:1965:C:OP1	22:DA:1966:A:C2'	2.54	0.56
22:DA:2550:G:O6	22:DA:2551:C:N4	2.38	0.56
22:DA:777:G:N7	22:DA:793:A:H2	2.02	0.56
27:DF:5:HIS:HB2	27:DF:97:TRP:CG	2.41	0.56
31:DJ:64:VAL:CG1	31:DJ:89:PHE:CZ	2.89	0.56
43:DV:41:GLU:C	43:DV:42:LEU:HD23	2.26	0.56
3:AC:97:VAL:HB	3:AC:98:PRO:CD	2.36	0.56
21:AU:25:LYS:HD2	21:AU:26:ALA:N	2.21	0.56
53:B5:213:VAL:O	53:B5:214:TYR:CB	2.53	0.56
22:BA:1139:G:O2'	22:BA:1140:C:H5'	2.06	0.56
22:BA:1171:G:C5	22:BA:1172:C:C4	2.94	0.56
22:BA:1356:G:C2	22:BA:1357:C:C2	2.94	0.56
22:BA:1916:A:N3	22:BA:1917:U:H1'	2.21	0.56
22:BA:2296:U:H4'	22:BA:2297:A:OP1	2.06	0.56
22:BA:2452:C:C4	22:BA:2453:A:C6	2.94	0.56
22:BA:587:C:C6	22:BA:671:C:H1'	2.41	0.56
22:BA:2204:G:O5'	24:BC:150:LYS:HE3	2.05	0.56
28:BG:96:ALA:HB2	28:BG:105:LEU:HD23	1.88	0.56
30:BI:22:PRO:HB2	30:BI:23:PRO:HD3	1.87	0.56
30:BI:72:LYS:CD	30:BI:72:LYS:N	2.69	0.56
37:BP:31:TRP:CD2	37:BP:40:LEU:CD1	2.89	0.56
41:BT:2:ILE:HG12	41:BT:7:LEU:HD11	1.88	0.56
1:CA:211:G:O2'	1:CA:212:G:C4'	2.53	0.56
1:CA:371:A:H1'	1:CA:482:A:H1'	1.86	0.56
1:CA:511:C:C2	1:CA:512:U:C5	2.94	0.56
8:CH:78:VAL:N	8:CH:126:ILE:O	2.38	0.56
22:DA:1009:A:O2'	22:DA:1153:C:H4'	2.06	0.56
22:DA:1773:A:N7	22:DA:1829:A:H1'	2.21	0.56
22:DA:197:A:N3	22:DA:197:A:H2'	2.21	0.56
22:DA:2521:C:C2	22:DA:2545:G:N2	2.74	0.56
22:DA:2552:U:C2	22:DA:2554:U:C5'	2.89	0.56
22:DA:411:G:OP2	22:DA:2406:A:O2'	2.19	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:747:U:C5	22:DA:2613:U:C5	2.93	0.56
26:DE:5:LEU:O	26:DE:7:ASP:N	2.38	0.56
30:DI:57:VAL:HG22	30:DI:58:VAL:N	2.21	0.56
1:AA:1032:G:H3'	1:AA:1033:G:O4'	2.06	0.56
1:AA:108:G:C6	20:AT:10:ARG:HG2	2.41	0.56
1:AA:1311:A:C2	1:AA:1327:C:N3	2.74	0.56
1:AA:775:G:O2'	1:AA:776:G:H5'	2.06	0.56
2:AB:126:PHE:N	2:AB:126:PHE:HD2	2.04	0.56
6:AF:38:ARG:HB3	6:AF:63:ASN:HB2	1.88	0.56
10:AJ:51:VAL:O	10:AJ:62:ARG:HA	2.06	0.56
10:AJ:65:TYR:CB	14:AN:96:LEU:HD11	2.36	0.56
17:AQ:10:GLY:HA3	17:AQ:24:ALA:O	2.06	0.56
1:AA:276:G:OP1	17:AQ:17:MET:HE2	2.06	0.56
22:BA:1073:A:C3'	22:BA:1074:G:C5'	2.79	0.56
22:BA:1494:A:C2	22:BA:1495:A:C4	2.94	0.56
22:BA:1651:G:OP1	35:BN:40:LYS:HE3	2.06	0.56
22:BA:1941:C:C4	22:BA:1942:C:C4	2.94	0.56
22:BA:2032:G:C8	57:BA:3534:HOH:O	2.58	0.56
22:BA:528:A:H2	22:BA:2043:C:H5'	1.69	0.56
25:BD:4:LEU:HD23	25:BD:101:PHE:CE1	2.41	0.56
28:BG:69:ARG:C	28:BG:69:ARG:HD3	2.27	0.56
29:BH:40:THR:OG1	29:BH:43:ASN:OD1	2.24	0.56
30:BI:100:LYS:HB3	30:BI:139:VAL:HB	1.88	0.56
1:CA:242:G:N2	1:CA:285:C:C2	2.74	0.56
1:CA:302:G:O2'	1:CA:556:C:H5''	2.05	0.56
1:CA:337:G:H2'	1:CA:338:A:C8	2.41	0.56
5:CE:36:LEU:HD21	5:CE:137:VAL:HG11	1.87	0.56
12:CL:21:VAL:N	12:CL:22:PRO:HD3	2.21	0.56
52:D4:16:ILE:HD13	52:D4:25:VAL:HG22	1.86	0.56
22:DA:1152:C:H3'	57:DA:3360:HOH:O	2.05	0.56
22:DA:1206:G:C5	22:DA:1207:C:C5	2.94	0.56
22:DA:1297:C:O2'	22:DA:1302:A:N1	2.36	0.56
22:DA:1359:A:C2	22:DA:1360:G:H1'	2.41	0.56
22:DA:607:U:H5	22:DA:619:G:C4	2.24	0.56
22:DA:569:U:H5''	22:DA:821:A:C2	2.41	0.56
38:DQ:94:ILE:HD13	39:DR:11:GLN:HB2	1.87	0.56
1:AA:1168:U:H2'	1:AA:1168:U:O2	2.06	0.56
1:AA:137:U:H1'	1:AA:227:G:N2	2.21	0.56
4:AD:123:ILE:CD1	4:AD:123:ILE:N	2.68	0.56
5:AE:50:TYR:CE2	5:AE:134:ILE:HD11	2.40	0.56
7:AG:146:GLU:O	7:AG:149:LYS:HB3	2.05	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:73:VAL:HG12	7:AG:90:GLU:HG3	1.87	0.56
13:AM:107:ARG:HH11	13:AM:107:ARG:HG2	1.70	0.56
16:AP:51:ARG:HH11	16:AP:51:ARG:CG	2.19	0.56
21:AU:25:LYS:HD2	21:AU:26:ALA:H	1.70	0.56
53:B5:204:GLY:O	53:B5:205:ALA:HB3	2.04	0.56
22:BA:1452:G:C4	22:BA:2702:G:C6	2.94	0.56
28:BG:10:VAL:HG13	28:BG:10:VAL:O	2.06	0.56
30:BI:122:ILE:HG22	30:BI:122:ILE:O	2.06	0.56
37:BP:14:LYS:HE3	37:BP:77:HIS:HA	1.88	0.56
1:CA:1074:G:H4'	2:CB:103:ASN:CB	2.35	0.56
1:CA:1295:U:H2'	1:CA:1296:C:C6	2.41	0.56
2:CB:134:ALA:O	2:CB:138:THR:N	2.38	0.56
6:CF:86:ARG:CG	6:CF:86:ARG:HH11	2.19	0.56
6:CF:97:THR:O	6:CF:98:GLU:CB	2.54	0.56
12:CL:25:GLU:O	12:CL:26:ALA:C	2.41	0.56
50:D2:16:HIS:HB3	50:D2:21:ARG:NH1	2.21	0.56
22:DA:242:G:H5''	51:D3:64:TYR:CZ	2.40	0.56
22:DA:1312:U:C2	22:DA:1603:A:C2	2.94	0.56
22:DA:2831:G:OP1	25:DD:56:LYS:NZ	2.35	0.56
22:DA:491:G:C6	22:DA:492:A:C6	2.93	0.56
22:DA:547:A:H3'	22:DA:548:G:H5'	1.88	0.56
22:DA:635:C:O2'	22:DA:639:U:H5''	2.05	0.56
28:DG:133:LEU:HD12	28:DG:133:LEU:O	2.05	0.56
32:DK:118:LEU:O	32:DK:119:ALA:HB3	2.05	0.56
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.05	0.55
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.41	0.55
1:AA:381:C:H2'	1:AA:382:A:O4'	2.06	0.55
2:AB:50:PHE:HA	2:AB:53:ALA:HB3	1.87	0.55
3:AC:140:ASN:HA	3:AC:143:ARG:CB	2.35	0.55
8:AH:10:MET:HE1	8:AH:33:LYS:HA	1.88	0.55
7:AG:147:ALA:O	11:AK:61:PHE:CD1	2.59	0.55
12:AL:59:ASN:OD1	12:AL:59:ASN:C	2.44	0.55
10:AJ:53:ILE:HD11	14:AN:85:ARG:NH1	2.21	0.55
22:BA:1808:A:N1	45:BX:28:ARG:HD2	2.22	0.55
22:BA:2673:G:N3	22:BA:2674:G:C8	2.74	0.55
22:BA:545:U:H2'	22:BA:546:U:O3'	2.06	0.55
22:BA:894:U:H2'	22:BA:895:U:C6	2.41	0.55
25:BD:151:THR:HG22	25:BD:152:PRO:CD	2.36	0.55
28:BG:40:ALA:HB2	28:BG:58:TYR:CG	2.41	0.55
1:CA:1481:U:H2'	1:CA:1482:G:C8	2.40	0.55
1:CA:411:A:C5	1:CA:429:U:C5	2.94	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1377:A:C5	7:CG:7:ILE:HD12	2.41	0.55
10:CJ:80:THR:O	10:CJ:84:VAL:HB	2.06	0.55
50:D2:18:PHE:O	50:D2:19:ARG:C	2.44	0.55
22:DA:1179:G:C5	22:DA:1180:U:H1'	2.40	0.55
22:DA:1272:A:C5	22:DA:1618:A:H1'	2.42	0.55
22:DA:511:U:O4	22:DA:512:G:N1	2.38	0.55
23:DB:14:U:C2'	23:DB:14:U:O2	2.54	0.55
28:DG:27:LYS:O	28:DG:27:LYS:HG3	2.06	0.55
1:AA:1145:A:O2'	1:AA:1146:A:P	2.65	0.55
2:AB:61:ALA:HA	2:AB:65:GLY:CA	2.37	0.55
2:AB:67:ILE:O	2:AB:68:LEU:HB2	2.07	0.55
4:AD:32:CYS:SG	4:AD:33:LYS:N	2.79	0.55
6:AF:68:GLN:HA	6:AF:71:ILE:CG2	2.36	0.55
22:BA:1008:A:N6	22:BA:1136:G:C6	2.74	0.55
22:BA:1528:A:H2'	22:BA:1529:G:O4'	2.06	0.55
22:BA:1467:U:C4	22:BA:1546:G:N2	2.74	0.55
22:BA:1587:G:C4	22:BA:1588:G:C8	2.95	0.55
22:BA:2566:A:N1	32:BK:28:SER:OG	2.36	0.55
22:BA:26:G:C6	22:BA:27:G:N1	2.75	0.55
22:BA:593:U:H2'	22:BA:594:U:C6	2.40	0.55
22:BA:614:A:HO2'	22:BA:615:U:P	2.25	0.55
26:BE:44:ARG:HG2	26:BE:45:ALA:N	2.21	0.55
22:BA:1131:G:C8	31:BJ:77:HIS:CE1	2.94	0.55
33:BL:109:LYS:HG2	33:BL:126:ARG:CB	2.35	0.55
39:BR:68:ARG:CZ	39:BR:90:ARG:HD3	2.37	0.55
1:CA:68:G:C6	1:CA:69:G:H1'	2.41	0.55
1:CA:833:G:C5	1:CA:834:U:C5	2.94	0.55
1:CA:987:G:C6	1:CA:988:G:C5	2.94	0.55
2:CB:102:THR:O	2:CB:103:ASN:HB3	2.06	0.55
5:CE:25:VAL:O	5:CE:28:GLY:N	2.39	0.55
22:DA:1826:G:O2'	22:DA:1971:U:OP2	2.24	0.55
22:DA:1651:G:N2	22:DA:2007:U:O2	2.39	0.55
32:DK:92:GLU:O	32:DK:93:GLN:HB2	2.05	0.55
1:AA:1201:A:H1'	1:AA:1202:U:OP2	2.06	0.55
1:AA:1286:U:H2'	1:AA:1286:U:O2	2.05	0.55
1:AA:15:G:H4'	5:AE:29:ARG:NH1	2.22	0.55
10:AJ:73:LEU:O	10:AJ:74:VAL:HB	2.06	0.55
21:AU:14:VAL:HG13	21:AU:16:LEU:HD21	1.88	0.55
22:BA:1141:U:OP2	31:BJ:65:THR:HG21	2.06	0.55
22:BA:1508:A:OP1	22:BA:1508:A:H4'	2.06	0.55
22:BA:1905:C:H2'	22:BA:1930:G:C8	2.42	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1911:U:H2'	22:BA:1918:A:C2	2.42	0.55
22:BA:2478:A:H5'	52:B4:32:LYS:CD	2.32	0.55
22:BA:2688:G:C8	22:BA:2719:G:C6	2.94	0.55
35:BN:24:MET:SD	35:BN:44:LEU:HD22	2.46	0.55
36:BO:30:ARG:HG2	36:BO:31:THR:N	2.21	0.55
47:BZ:35:THR:HG22	47:BZ:36:VAL:N	2.21	0.55
1:CA:158:G:H2'	1:CA:159:G:H5''	1.87	0.55
1:CA:200:G:C3'	1:CA:201:G:H5''	2.36	0.55
29:BH:91:PHE:HB3	1:CA:55:A:N3	2.21	0.55
2:CB:27:MET:SD	2:CB:193:PRO:HD3	2.47	0.55
5:CE:75:ALA:O	5:CE:147:MET:HE2	2.06	0.55
20:CT:5:LYS:O	20:CT:7:ALA:N	2.39	0.55
22:DA:1415:U:H2'	22:DA:1416:G:H4'	1.89	0.55
22:DA:153:U:H2'	22:DA:154:U:C6	2.42	0.55
22:DA:188:G:C6	22:DA:189:G:C4	2.95	0.55
22:DA:2164:C:H2'	22:DA:2165:C:C5	2.42	0.55
22:DA:2611:C:OP2	57:DA:3538:HOH:O	2.17	0.55
22:DA:279:A:N6	22:DA:361:G:O2'	2.38	0.55
22:DA:42:A:C2	22:DA:438:G:C2	2.94	0.55
22:DA:547:A:H3'	22:DA:548:G:C5'	2.34	0.55
22:DA:674:G:C1'	26:DE:69:ARG:HD3	2.37	0.55
40:DS:33:LEU:HD21	40:DS:52:GLU:HG3	1.88	0.55
1:AA:1072:G:C5	1:AA:1073:U:C4	2.94	0.55
1:AA:316:C:C2	1:AA:317:U:C5	2.94	0.55
1:AA:609:A:N7	57:AA:1852:HOH:O	2.33	0.55
2:AB:140:GLU:O	2:AB:144:LEU:HG	2.07	0.55
2:AB:147:SER:O	2:AB:148:LEU:HB2	2.06	0.55
2:AB:71:GLY:HA2	2:AB:164:ILE:HG22	1.88	0.55
11:AK:102:ALA:O	11:AK:103:ALA:C	2.44	0.55
11:AK:76:GLU:N	11:AK:76:GLU:CD	2.59	0.55
1:AA:1491:G:H5''	12:AL:43:LYS:HG3	1.88	0.55
12:AL:74:LEU:HD21	12:AL:104:CYS:HA	1.87	0.55
13:AM:90:ARG:NH1	13:AM:95:LEU:HB2	2.21	0.55
22:BA:1169:A:H2'	22:BA:1170:C:O4'	2.07	0.55
22:BA:1607:C:N4	22:BA:1622:G:C8	2.74	0.55
11:AK:76:GLU:CA	22:BA:2141:G:OP1	2.54	0.55
22:BA:2193:G:O2'	22:BA:2194:U:H5'	2.06	0.55
22:BA:2412:A:H5''	22:BA:2413:G:OP2	2.07	0.55
25:BD:101:PHE:HE2	25:BD:203:VAL:CG1	2.20	0.55
29:BH:86:ASP:O	29:BH:87:GLU:CB	2.53	0.55
42:BU:72:ILE:HD13	42:BU:83:VAL:CG2	2.36	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:179:ARG:O	3:CC:206:GLU:O	2.24	0.55
14:CN:41:ARG:HG2	14:CN:42:TRP:N	2.20	0.55
51:D3:31:HIS:ND1	51:D3:32:ILE:HG13	2.20	0.55
24:DC:145:GLU:HG2	24:DC:152:GLY:N	2.22	0.55
26:DE:149:ILE:HG23	26:DE:188:MET:HG2	1.89	0.55
1:AA:1508:A:H2'	1:AA:1509:C:O4'	2.06	0.55
3:AC:7:PRO:HG2	3:AC:184:TYR:CD1	2.42	0.55
5:AE:72:ILE:HD13	5:AE:145:GLU:CD	2.27	0.55
9:AI:22:LYS:NZ	9:AI:62:ASP:OD2	2.39	0.55
9:AI:90:TYR:O	9:AI:91:ASP:CB	2.55	0.55
18:AR:22:ASP:OD2	18:AR:24:LYS:N	2.38	0.55
21:AU:34:ARG:CZ	21:AU:35:ARG:HB2	2.36	0.55
22:BA:1056:G:HO2'	22:BA:1086:A:H8	1.52	0.55
22:BA:1317:G:C2	22:BA:1336:A:C2	2.95	0.55
22:BA:2582:G:OP2	22:BA:2583:G:OP2	2.24	0.55
22:BA:2648:G:N2	22:BA:2673:G:H1'	2.22	0.55
22:BA:29:U:H2'	22:BA:30:G:C8	2.41	0.55
22:BA:591:U:HO2'	51:B3:2:PRO:N	2.05	0.55
22:BA:608:A:C2	22:BA:609:A:C4	2.95	0.55
24:BC:260:ASN:O	24:BC:262:ARG:N	2.38	0.55
29:BH:121:VAL:N	29:BH:122:LEU:CA	2.69	0.55
22:BA:1277:G:H5'	35:BN:20:MET:CE	2.37	0.55
1:CA:542:G:N3	1:CA:543:U:C6	2.75	0.55
1:CA:585:G:C6	1:CA:586:C:C4	2.95	0.55
2:CB:134:ALA:O	2:CB:138:THR:HG23	2.07	0.55
2:CB:135:LEU:O	2:CB:138:THR:N	2.40	0.55
6:CF:88:MET:HE1	18:CR:64:TYR:CD2	2.42	0.55
22:DA:1087:G:N1	22:DA:1089:A:C2	2.75	0.55
22:DA:1644:C:O2	22:DA:1644:C:H2'	2.06	0.55
22:DA:1670:C:C5	22:DA:1671:U:C4	2.94	0.55
22:DA:847:U:O2	22:DA:934:U:H1'	2.06	0.55
34:DM:70:ASP:OD1	34:DM:70:ASP:C	2.44	0.55
42:DU:14:LEU:HD11	42:DU:71:ALA:HB2	1.89	0.55
47:DZ:52:SER:HA	47:DZ:55:VAL:HG22	1.89	0.55
1:AA:17:U:H2'	1:AA:18:C:C6	2.42	0.55
1:AA:736:C:H2'	1:AA:737:C:C6	2.42	0.55
4:AD:34:ILE:O	4:AD:35:GLU:CB	2.55	0.55
5:AE:131:THR:O	5:AE:131:THR:OG1	2.25	0.55
14:AN:10:GLU:OE2	14:AN:61:ARG:HB3	2.07	0.55
14:AN:83:LYS:NZ	14:AN:86:GLU:OE1	2.35	0.55
48:B0:55:ILE:HG22	48:B0:56:ALA:H	1.72	0.55

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:H1'	1.87	0.55
22:BA:1866:A:N1	22:BA:1876:A:C8	2.74	0.55
22:BA:2131:U:H5'	22:BA:2132:U:H5''	1.89	0.55
22:BA:219:A:N3	22:BA:234:U:O2'	2.32	0.55
55:BA:3001:VIF:N	55:BA:3001:VIF:C13	2.70	0.55
28:BG:19:ILE:HG12	28:BG:24:ILE:HD13	1.88	0.55
29:BH:98:ASP:O	29:BH:102:ALA:HB3	2.07	0.55
22:BA:1070:A:C2	30:BI:10:LYS:HG3	2.42	0.55
35:BN:32:GLU:HG3	35:BN:120:GLU:HG2	1.89	0.55
1:CA:1068:G:C2'	1:CA:1069:C:H5'	2.36	0.55
1:CA:1097:C:H2'	1:CA:1098:C:C6	2.41	0.55
1:CA:991:U:C4	1:CA:1212:U:H1'	2.40	0.55
1:CA:1387:G:H2'	1:CA:1388:C:H6	1.72	0.55
1:CA:243:A:H4'	1:CA:244:U:H5''	1.89	0.55
1:CA:519:C:OP2	12:CL:47:SER:OG	2.24	0.55
1:CA:572:A:H5'	1:CA:573:A:OP2	2.07	0.55
1:CA:661:G:C2	1:CA:662:U:C6	2.95	0.55
2:CB:203:ASN:OD1	2:CB:204:ASP:N	2.39	0.55
2:CB:52:GLU:HG3	2:CB:56:GLU:HG2	1.89	0.55
5:CE:101:GLU:HA	5:CE:122:ASN:HB2	1.88	0.55
10:CJ:48:ARG:CG	10:CJ:48:ARG:HH11	2.20	0.55
22:DA:1469:A:C2	22:DA:1470:A:C5	2.94	0.55
22:DA:1649:G:N1	22:DA:2009:A:C6	2.75	0.55
22:DA:2184:A:H2'	22:DA:2185:U:C6	2.42	0.55
41:DT:44:LYS:O	41:DT:48:GLN:HG2	2.07	0.55
1:AA:204:G:H2'	1:AA:205:A:O4'	2.06	0.55
1:AA:209:U:H4'	1:AA:210:C:OP2	2.06	0.55
1:AA:408:A:C2	1:AA:435:A:C2	2.95	0.55
1:AA:810:C:H2'	1:AA:810:C:O2	2.06	0.55
1:AA:992:U:H4'	1:AA:993:G:O5'	2.06	0.55
2:AB:20:THR:O	2:AB:21:ARG:NH1	2.39	0.55
4:AD:190:ASP:OD2	4:AD:190:ASP:N	2.36	0.55
5:AE:109:GLY:O	5:AE:110:ALA:HB3	2.07	0.55
1:AA:1367:C:H5'	10:AJ:62:ARG:NH1	2.22	0.55
22:BA:1061:U:O2'	22:BA:1062:G:C5'	2.54	0.55
22:BA:1086:A:H5''	22:BA:1087:G:OP1	2.07	0.55
22:BA:477:A:H2'	22:BA:478:A:C8	2.41	0.55
22:BA:969:G:C6	22:BA:970:U:C4	2.95	0.55
29:BH:121:VAL:N	29:BH:122:LEU:CB	2.70	0.55
29:BH:120:GLY:CA	29:BH:122:LEU:HA	2.37	0.55
31:BJ:27:ARG:HH11	31:BJ:27:ARG:HG2	1.71	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BM:36:VAL:HG12	34:BM:36:VAL:O	2.07	0.55
36:BO:15:ARG:HG2	36:BO:93:ASP:OD1	2.07	0.55
39:BR:21:ARG:CZ	39:BR:93:PHE:CE1	2.90	0.55
1:CA:1003:G:C2	1:CA:1038:C:C2	2.95	0.55
5:CE:137:VAL:O	5:CE:138:ARG:HB3	2.06	0.55
22:DA:1083:U:O2	22:DA:1086:A:N1	2.40	0.55
22:DA:1943:U:H4'	22:DA:1944:U:OP1	2.07	0.55
22:DA:2043:C:OP1	22:DA:2777:G:O2'	2.21	0.55
22:DA:2195:U:C2	22:DA:2196:C:C6	2.95	0.55
22:DA:2249:U:N3	22:DA:2253:G:OP2	2.39	0.55
22:DA:2571:U:N3	22:DA:2574:G:C8	2.74	0.55
22:DA:450:G:N1	22:DA:454:A:OP2	2.31	0.55
22:DA:728:G:C2	22:DA:730:A:C4	2.95	0.55
24:DC:33:LEU:HA	24:DC:64:ILE:HD12	1.89	0.55
46:DY:1:MET:O	46:DY:5:GLU:HG3	2.07	0.55
1:AA:1450:U:H2'	1:AA:1452:C:C5	2.41	0.55
1:AA:145:G:N2	1:AA:178:C:N3	2.54	0.55
1:AA:203:G:N2	1:AA:215:C:C2	2.75	0.55
1:AA:772:U:H2'	1:AA:773:G:O5'	2.07	0.55
1:AA:929:G:C6	1:AA:930:C:C4	2.95	0.55
1:AA:956:U:C4	1:AA:957:U:C5	2.95	0.55
40:BS:38:TYR:CE1	48:B0:28:LEU:HD21	2.42	0.55
53:B5:99:GLU:O	53:B5:103:LYS:CB	2.55	0.55
22:BA:381:G:OP1	45:BX:18:ARG:NH2	2.40	0.55
22:BA:388:G:C8	22:BA:390:U:C6	2.95	0.55
29:BH:10:ALA:O	29:BH:12:LEU:N	2.40	0.55
40:BS:84:ARG:HB2	40:BS:96:ILE:HG13	1.88	0.55
1:CA:261:U:OP2	20:CT:71:LYS:HD2	2.07	0.55
1:CA:295:C:C4	1:CA:296:U:C5	2.95	0.55
1:CA:77:A:H2'	1:CA:78:A:O4'	2.05	0.55
9:CI:57:MET:SD	9:CI:58:VAL:N	2.78	0.55
51:D3:34:THR:HG23	51:D3:35:LYS:N	2.22	0.55
22:DA:1344:U:O2'	22:DA:1345:C:P	2.65	0.55
22:DA:1607:C:H4'	22:DA:1608:A:O5'	2.06	0.55
22:DA:2346:A:H4'	22:DA:2347:C:OP2	2.07	0.55
22:DA:689:A:H2'	22:DA:690:G:C8	2.42	0.55
1:AA:992:U:O2	1:AA:1043:G:N7	2.39	0.55
1:AA:825:A:O2'	8:AH:13:ARG:NH1	2.40	0.55
1:AA:74:A:C2	1:AA:97:G:C4	2.94	0.55
11:AK:63:ALA:CB	11:AK:92:GLY:HA3	2.37	0.55
20:AT:83:ILE:O	20:AT:87:ALA:CB	2.55	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1246:A:H2'	22:BA:1247:A:O5'	2.07	0.55
22:BA:1403:A:H2'	22:BA:1404:C:C6	2.42	0.55
22:BA:1820:U:O4	24:BC:198:ALA:HB1	2.06	0.55
22:BA:1919:A:H2'	22:BA:1919:A:N3	2.22	0.55
22:BA:1918:A:H1'	22:BA:1919:A:N7	2.22	0.55
22:BA:2139:U:C2	22:BA:2140:G:C8	2.95	0.55
22:BA:714:U:H2'	22:BA:716:A:N7	2.22	0.55
23:BB:29:A:C2	23:BB:56:G:C2	2.95	0.55
23:BB:77:U:C2'	23:BB:78:A:H5'	2.36	0.55
43:BV:40:ILE:HG22	43:BV:41:GLU:N	2.21	0.55
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.42	0.55
1:CA:16:A:H2'	1:CA:17:U:H5'	1.88	0.55
1:CA:545:C:H5'	4:CD:69:GLU:HG2	1.88	0.55
12:CL:22:PRO:O	12:CL:24:LEU:N	2.39	0.55
33:DL:61:LEU:O	51:D3:13:ARG:HD3	2.07	0.55
1:CA:702:A:N6	22:DA:1848:A:C6	2.75	0.55
22:DA:2796:U:C4	22:DA:2798:U:C4	2.95	0.55
24:DC:92:ALA:HB3	24:DC:104:ILE:HD12	1.88	0.55
31:DJ:41:LYS:NZ	31:DJ:52:ASP:OD2	2.39	0.55
22:DA:636:G:N1	33:DL:76:GLU:OE2	2.38	0.55
35:DN:75:ILE:O	35:DN:79:LEU:HD12	2.06	0.55
35:DN:83:LEU:CD2	35:DN:115:LEU:HD13	2.37	0.55
38:DQ:98:ILE:HG22	38:DQ:106:PHE:HB2	1.89	0.55
3:AC:26:THR:HG23	14:AN:76:LYS:HZ2	1.71	0.55
4:AD:30:THR:O	4:AD:31:LYS:C	2.46	0.55
9:AI:22:LYS:HZ2	9:AI:24:GLY:HA3	1.71	0.55
11:AK:34:ILE:HG13	11:AK:74:VAL:HG21	1.89	0.55
14:AN:31:ILE:HG23	14:AN:45:VAL:HB	1.87	0.55
22:BA:1081:U:O2	22:BA:1081:U:H2'	2.07	0.55
22:BA:1482:G:C2	22:BA:1483:G:C8	2.95	0.55
22:BA:204:A:O4'	22:BA:206:U:C6	2.60	0.55
22:BA:2857:G:N2	22:BA:2860:A:OP2	2.40	0.55
22:BA:590:A:H2'	22:BA:591:U:C6	2.42	0.55
22:BA:84:A:N1	22:BA:98:G:O2'	2.26	0.55
22:BA:991:C:H2'	22:BA:992:C:O5'	2.07	0.55
25:BD:142:VAL:HB	25:BD:143:PRO:CD	2.37	0.55
27:BF:28:VAL:O	27:BF:28:VAL:HG13	2.07	0.55
30:BI:117:MET:SD	30:BI:129:ILE:HD11	2.47	0.55
25:BD:12:THR:HG21	37:BP:9:GLU:CG	2.37	0.55
40:BS:59:GLU:HA	40:BS:64:ALA:CB	2.37	0.55
1:CA:1170:A:H2'	1:CA:1171:A:O4'	2.07	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1522:U:H2'	1:CA:1523:G:H8	1.72	0.55
1:CA:477:C:H2'	1:CA:478:A:C8	2.41	0.55
1:CA:666:G:C6	1:CA:741:G:C6	2.95	0.55
1:CA:891:U:C5	1:CA:906:A:C2	2.95	0.55
4:CD:32:CYS:O	4:CD:33:LYS:HB2	2.07	0.55
22:DA:1409:U:C5	57:DA:3622:HOH:O	2.54	0.55
22:DA:1343:G:H1'	22:DA:1597:A:C4	2.42	0.55
22:DA:1783:A:C6	22:DA:2587:A:C2	2.95	0.55
22:DA:219:A:C6	22:DA:220:G:C6	2.95	0.55
22:DA:53:A:C2	22:DA:179:C:H4'	2.42	0.55
22:DA:92:U:H2'	22:DA:93:G:O4'	2.06	0.55
23:DB:48:U:H4'	36:DO:100:HIS:NE2	2.21	0.55
23:DB:62:C:H2'	23:DB:63:C:C6	2.41	0.55
26:DE:143:LEU:HB3	26:DE:146:VAL:HG11	1.90	0.55
31:DJ:140:LEU:HD12	31:DJ:141:ASP:N	2.22	0.55
40:DS:95:ARG:CG	40:DS:95:ARG:O	2.54	0.55
41:DT:21:SER:O	41:DT:24:MET:N	2.40	0.55
1:AA:1161:C:H2'	1:AA:1162:C:H6	1.71	0.54
1:AA:168:G:C6	1:AA:169:C:N3	2.75	0.54
3:AC:97:VAL:HB	3:AC:98:PRO:HD2	1.89	0.54
4:AD:91:LEU:HD11	4:AD:195:ILE:HD11	1.88	0.54
48:B0:15:MET:O	48:B0:18:SER:HB3	2.07	0.54
22:BA:15:G:C6	22:BA:16:C:C4	2.95	0.54
22:BA:2297:A:N1	22:BA:2321:U:C5	2.75	0.54
22:BA:236:C:O2'	22:BA:237:C:H5'	2.07	0.54
22:BA:636:G:O2'	22:BA:638:G:O2'	2.20	0.54
22:BA:990:A:H5''	22:BA:991:C:OP1	2.07	0.54
29:BH:83:LYS:HD2	1:CA:55:A:HO2'	1.67	0.54
38:BQ:62:ILE:HG23	38:BQ:76:TYR:CE1	2.42	0.54
1:CA:1166:G:C6	1:CA:1168:U:H5''	2.43	0.54
1:CA:18:C:N3	1:CA:19:A:C8	2.75	0.54
1:CA:756:C:O2'	1:CA:757:U:H5'	2.06	0.54
11:CK:40:ASN:O	11:CK:41:ALA:HB3	2.07	0.54
22:DA:183:C:H1'	22:DA:433:C:H1'	1.89	0.54
22:DA:2133:G:C2	22:DA:2158:A:N6	2.75	0.54
22:DA:537:G:OP1	22:DA:995:C:N4	2.41	0.54
23:DB:29:A:OP2	36:DO:32:PRO:HD2	2.07	0.54
39:DR:68:ARG:HD3	39:DR:92:TRP:CE2	2.43	0.54
41:DT:47:VAL:HG12	41:DT:47:VAL:O	2.07	0.54
1:AA:1288:A:N3	1:AA:1352:C:O2'	2.35	0.54
2:AB:67:ILE:O	2:AB:68:LEU:CB	2.55	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:53:SER:HB2	3:AC:112:ASP:OD2	2.08	0.54
3:AC:140:ASN:HA	3:AC:143:ARG:HB3	1.88	0.54
4:AD:130:VAL:HG11	4:AD:135:TYR:CD1	2.42	0.54
5:AE:18:VAL:HA	5:AE:34:THR:O	2.07	0.54
14:AN:63:ARG:HG2	14:AN:68:GLY:O	2.07	0.54
16:AP:77:GLU:C	16:AP:79:ASN:N	2.60	0.54
22:BA:1746:A:H2'	22:BA:1747:U:H6	1.72	0.54
22:BA:1754:A:C6	22:BA:1755:A:C6	2.96	0.54
22:BA:1869:G:C2	22:BA:1873:G:C6	2.95	0.54
22:BA:1917:U:O4	22:BA:1918:A:C6	2.60	0.54
22:BA:2187:U:C4	22:BA:2188:U:C4	2.96	0.54
22:BA:2297:A:C2	22:BA:2298:A:C8	2.95	0.54
22:BA:2344:U:H4'	22:BA:2345:G:OP1	2.07	0.54
24:BC:162:VAL:HG12	24:BC:163:GLN:N	2.21	0.54
24:BC:252:THR:O	24:BC:253:LYS:C	2.45	0.54
43:BV:38:LEU:HD23	43:BV:40:ILE:HD11	1.88	0.54
46:BY:1:MET:HA	46:BY:4:LYS:HB2	1.88	0.54
1:CA:403:C:OP1	4:CD:134:SER:HB3	2.06	0.54
6:CF:6:ILE:HD12	6:CF:6:ILE:N	2.22	0.54
1:CA:824:G:H1'	8:CH:2:SER:N	2.21	0.54
8:CH:18:GLN:HG2	8:CH:63:LEU:HD13	1.88	0.54
9:CI:54:LEU:O	9:CI:55:VAL:HG13	2.06	0.54
22:DA:1319:C:O2'	22:DA:1320:C:H5'	2.07	0.54
22:DA:1965:C:OP1	22:DA:1966:A:H2'	2.06	0.54
22:DA:2810:A:C8	22:DA:2811:G:C8	2.95	0.54
40:DS:107:VAL:HG13	40:DS:107:VAL:O	2.06	0.54
42:DU:96:PHE:CZ	42:DU:103:ILE:HG12	2.43	0.54
1:AA:448:A:C4	1:AA:487:A:C2	2.95	0.54
2:AB:71:GLY:O	2:AB:93:ASN:HA	2.07	0.54
2:AB:94:HIS:CE1	2:AB:146:ASN:HB2	2.42	0.54
16:AP:23:ASP:O	16:AP:25:ARG:N	2.40	0.54
22:BA:586:A:C2	22:BA:1254:A:C2	2.96	0.54
22:BA:1730:C:O2'	22:BA:1731:G:C4	2.59	0.54
22:BA:1877:A:N6	22:BA:1878:G:C6	2.75	0.54
22:BA:192:C:H2'	22:BA:193:U:H5'	1.89	0.54
22:BA:2496:C:C2'	22:BA:2497:A:O5'	2.55	0.54
22:BA:2687:U:O4	22:BA:2688:G:N1	2.40	0.54
22:BA:2838:G:H2'	22:BA:2839:G:O4'	2.08	0.54
22:BA:712:G:C2'	22:BA:713:G:H5'	2.38	0.54
22:BA:744:U:H2'	22:BA:745:G:O4'	2.07	0.54
22:BA:776:G:H4'	22:BA:777:G:O5'	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:90:LEU:HA	29:BH:125:THR:HG23	1.90	0.54
40:BS:18:ARG:HG2	40:BS:76:VAL:HG23	1.88	0.54
1:CA:109:A:C6	1:CA:327:A:C6	2.95	0.54
1:CA:1439:G:C2	1:CA:1463:U:O2	2.60	0.54
1:CA:374:A:C5	1:CA:375:U:C5	2.95	0.54
15:CO:49:ASP:OD1	15:CO:52:SER:OG	2.25	0.54
15:CO:53:ARG:O	15:CO:56:LEU:HB3	2.07	0.54
15:CO:70:LEU:HD22	15:CO:78:TYR:HB2	1.89	0.54
1:CA:186:C:O4'	20:CT:76:LYS:HD2	2.08	0.54
22:DA:1716:U:C5	22:DA:1743:G:C2	2.95	0.54
22:DA:1838:C:H4'	22:DA:1839:G:C8	2.42	0.54
22:DA:2133:G:N2	22:DA:2158:A:C6	2.75	0.54
22:DA:699:A:H2'	22:DA:700:G:H5'	1.89	0.54
31:DJ:7:LYS:O	31:DJ:11:VAL:CG2	2.55	0.54
1:AA:1461:G:C6	1:AA:1462:C:C4	2.95	0.54
1:AA:1503:A:C8	1:AA:1531:A:O2'	2.60	0.54
1:AA:1539:C:H5''	21:AU:18:ARG:CB	2.37	0.54
1:AA:429:U:H4'	1:AA:430:A:OP1	2.04	0.54
5:AE:133:PRO:O	5:AE:135:ASN:N	2.40	0.54
5:AE:149:SER:HB2	5:AE:152:MET:HB2	1.88	0.54
9:AI:57:MET:HA	9:AI:60:LYS:HB2	1.89	0.54
22:BA:1197:G:H5'	22:BA:1227:G:O2'	2.08	0.54
22:BA:1230:A:H2'	22:BA:1231:U:O4'	2.07	0.54
22:BA:1372:U:O2'	22:BA:1373:A:H5'	2.07	0.54
22:BA:1912:A:C2	22:BA:1919:A:C4	2.95	0.54
22:BA:2458:G:C4	22:BA:2490:G:N2	2.76	0.54
22:BA:570:G:H2'	22:BA:2030:A:C8	2.43	0.54
25:BD:1:MET:HG3	25:BD:205:PRO:HG2	1.89	0.54
29:BH:77:THR:O	29:BH:77:THR:CG2	2.56	0.54
29:BH:90:LEU:CD2	29:BH:93:SER:HA	2.37	0.54
40:BS:37:THR:CG2	40:BS:38:TYR:CE1	2.89	0.54
1:CA:1022:A:C6	1:CA:1023:U:C4	2.96	0.54
1:CA:209:U:H2'	1:CA:209:U:O2	2.06	0.54
1:CA:451:A:H61	1:CA:481:G:H5'	1.73	0.54
2:CB:131:LYS:O	2:CB:135:LEU:N	2.40	0.54
11:CK:25:ALA:N	11:CK:87:LYS:O	2.40	0.54
13:CM:27:LYS:HD3	13:CM:27:LYS:O	2.06	0.54
22:DA:1240:U:O2'	22:DA:1241:A:O5'	2.26	0.54
22:DA:2359:C:N4	22:DA:2360:G:C6	2.75	0.54
22:DA:324:A:N6	22:DA:338:G:O2'	2.40	0.54
22:DA:491:G:C6	22:DA:492:A:C5	2.96	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:740:C:H5'	22:DA:1784:A:H3'	1.88	0.54
22:DA:983:A:C6	22:DA:984:A:C2	2.95	0.54
23:DB:64:G:H2'	23:DB:65:U:C6	2.42	0.54
26:DE:179:SER:HA	26:DE:182:ALA:HB3	1.88	0.54
30:DI:101:ILE:O	30:DI:102:SER:HB3	2.08	0.54
38:DQ:72:ASN:HB3	38:DQ:110:VAL:HG11	1.89	0.54
39:DR:39:LEU:O	39:DR:49:ILE:HG23	2.07	0.54
42:DU:12:ILE:HG13	42:DU:21:LYS:O	2.08	0.54
1:AA:209:U:C5'	1:AA:210:C:OP2	2.55	0.54
1:AA:687:A:C2	1:AA:700:G:N3	2.76	0.54
1:AA:963:G:H2'	1:AA:963:G:N3	2.22	0.54
1:AA:96:U:O2'	1:AA:97:G:O5'	2.26	0.54
2:AB:206:ALA:O	2:AB:208:ARG:N	2.40	0.54
3:AC:70:THR:O	3:AC:106:VAL:N	2.40	0.54
11:AK:53:ARG:O	11:AK:56:ARG:HG3	2.07	0.54
12:AL:25:GLU:O	12:AL:26:ALA:C	2.46	0.54
21:AU:35:ARG:O	21:AU:36:GLU:C	2.45	0.54
22:BA:1355:G:C4	22:BA:1356:G:C8	2.95	0.54
27:BF:133:ARG:O	27:BF:134:GLU:HB2	2.07	0.54
29:BH:14:SER:OG	29:BH:17:ASP:CG	2.46	0.54
39:BR:51:VAL:HG23	39:BR:52:PRO:HD2	1.88	0.54
1:CA:115:G:C2	1:CA:289:G:N7	2.75	0.54
1:CA:577:G:C2	1:CA:578:C:C6	2.95	0.54
1:CA:620:C:H2'	1:CA:621:A:O4'	2.07	0.54
3:CC:121:THR:HB	3:CC:187:SER:OG	2.07	0.54
4:CD:146:ARG:O	4:CD:150:LYS:HB2	2.08	0.54
22:DA:126:A:N7	22:DA:127:A:N1	2.55	0.54
22:DA:1581:G:C6	22:DA:1582:C:C4	2.95	0.54
22:DA:187:G:C2	22:DA:210:C:O2	2.61	0.54
22:DA:2676:C:OP1	32:DK:31:ARG:NH2	2.41	0.54
25:DD:133:THR:HG23	25:DD:134:HIS:N	2.23	0.54
27:DF:34:ILE:HA	27:DF:155:THR:O	2.07	0.54
36:DO:33:ARG:O	36:DO:34:HIS:CB	2.55	0.54
39:DR:21:ARG:CZ	39:DR:93:PHE:CE1	2.90	0.54
1:AA:1181:G:O2'	1:AA:1182:G:C5	2.61	0.54
1:AA:1481:U:O2'	1:AA:1482:G:H5'	2.08	0.54
1:AA:686:U:O4	1:AA:703:G:O2'	2.15	0.54
2:AB:119:THR:O	2:AB:120:GLN:HB2	2.06	0.54
2:AB:120:GLN:O	2:AB:120:GLN:HG2	2.07	0.54
2:AB:88:ASP:HB2	2:AB:221:VAL:HG12	1.88	0.54
5:AE:153:VAL:HG11	8:AH:99:LEU:HD13	1.88	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:981:U:O2'	14:AN:61:ARG:NE	2.41	0.54
53:B5:122:GLY:HA3	53:B5:146:VAL:CB	2.38	0.54
22:BA:1355:G:C6	22:BA:1356:G:N7	2.75	0.54
22:BA:1438:U:H3'	57:BA:3634:HOH:O	2.07	0.54
22:BA:1731:G:N1	22:BA:1733:G:C4	2.75	0.54
22:BA:2052:A:C2	22:BA:2053:G:C8	2.95	0.54
22:BA:2820:A:OP1	57:BA:3811:HOH:O	2.19	0.54
22:BA:2887:A:H5'	22:BA:2888:C:OP2	2.08	0.54
24:BC:31:ALA:HB3	24:BC:32:PRO:HD3	1.90	0.54
26:BE:84:THR:HG22	26:BE:85:PHE:CD2	2.43	0.54
29:BH:103:VAL:HG21	29:BH:132:PHE:CE1	2.42	0.54
4:CD:105:MET:SD	4:CD:143:VAL:CG1	2.95	0.54
8:CH:7:ILE:HB	8:CH:77:ARG:NH1	2.22	0.54
15:CO:10:LYS:O	15:CO:14:GLU:HG3	2.08	0.54
50:D2:44:VAL:O	50:D2:45:SER:OG	2.20	0.54
22:DA:1248:G:N7	26:DE:46:GLN:NE2	2.55	0.54
22:DA:1544:A:N6	22:DA:1545:A:C6	2.75	0.54
22:DA:1833:C:C4	22:DA:1834:U:C4	2.96	0.54
22:DA:1827:U:O4'	22:DA:1970:A:O2'	2.25	0.54
22:DA:2293:G:H2'	22:DA:2294:G:O4'	2.07	0.54
22:DA:2449:U:H4'	22:DA:2450:A:OP1	2.08	0.54
22:DA:297:G:OP1	42:DU:92:LYS:HD3	2.07	0.54
22:DA:327:G:H2'	22:DA:328:U:O4'	2.08	0.54
22:DA:108:G:O2'	22:DA:347:A:N3	2.37	0.54
24:DC:82:GLU:OE1	24:DC:103:TYR:OH	2.24	0.54
27:DF:43:ALA:O	27:DF:47:LYS:HD2	2.08	0.54
30:DI:90:SER:HB3	30:DI:93:PRO:HG3	1.90	0.54
43:DV:21:ARG:HA	43:DV:25:LYS:O	2.06	0.54
1:AA:1204:A:OP1	57:AA:1780:HOH:O	2.18	0.54
1:AA:1307:U:H2'	1:AA:1308:U:C6	2.43	0.54
1:AA:622:A:C8	1:AA:623:C:C6	2.96	0.54
2:AB:187:VAL:O	2:AB:187:VAL:CG2	2.56	0.54
4:AD:50:ASP:O	4:AD:54:GLN:HB2	2.07	0.54
5:AE:50:TYR:CZ	5:AE:134:ILE:HD11	2.42	0.54
10:AJ:32:THR:O	10:AJ:33:GLY:O	2.25	0.54
53:B5:43:GLU:O	53:B5:213:VAL:HA	2.08	0.54
22:BA:1061:U:H3'	22:BA:1062:G:H5'	1.90	0.54
22:BA:1829:A:C8	22:BA:1830:C:C6	2.95	0.54
22:BA:2076:U:O5'	22:BA:2076:U:O2	2.26	0.54
22:BA:2392:A:C2	22:BA:2393:U:C2	2.96	0.54
22:BA:2675:A:C2'	22:BA:2676:C:H5'	2.38	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:492:A:H2'	22:BA:493:G:O4'	2.08	0.54
22:BA:842:U:C2	22:BA:843:G:C8	2.96	0.54
22:BA:2305:U:N3	27:BF:151:GLY:HA3	2.22	0.54
33:BL:81:ASP:CG	33:BL:100:ILE:HD13	2.28	0.54
36:BO:51:ALA:HB3	36:BO:78:VAL:HG13	1.90	0.54
3:CC:181:ASP:O	3:CC:203:PHE:HA	2.08	0.54
5:CE:38:VAL:HG11	5:CE:114:VAL:HA	1.88	0.54
17:CQ:16:LYS:C	17:CQ:17:MET:SD	2.86	0.54
21:CU:34:ARG:NE	21:CU:35:ARG:HB2	2.23	0.54
22:DA:224:U:OP2	22:DA:408:G:N2	2.40	0.54
22:DA:14:A:C6	22:DA:526:A:C2	2.95	0.54
22:DA:572:A:H5''	22:DA:573:U:OP2	2.07	0.54
28:DG:140:VAL:O	28:DG:144:VAL:HG23	2.06	0.54
36:DO:97:PHE:CB	36:DO:103:VAL:HG11	2.37	0.54
39:DR:101:ILE:O	39:DR:103:ALA:N	2.41	0.54
1:AA:1032:G:H5'	1:AA:1033:G:OP2	2.07	0.54
1:AA:1367:C:C4	1:AA:1368:A:N7	2.76	0.54
1:AA:147:G:N2	1:AA:176:C:C2	2.76	0.54
1:AA:277:C:C2'	1:AA:278:G:H5'	2.38	0.54
1:AA:453:G:H2'	1:AA:454:G:C8	2.43	0.54
1:AA:760:G:C5	1:AA:761:G:C8	2.96	0.54
11:AK:25:ALA:HA	11:AK:30:THR:HG22	1.90	0.54
13:AM:11:ASP:O	13:AM:12:HIS:HB2	2.08	0.54
16:AP:51:ARG:HB3	16:AP:51:ARG:NH1	2.23	0.54
19:AS:5:LEU:C	19:AS:6:LYS:HG3	2.28	0.54
53:B5:42:VAL:HG12	53:B5:214:TYR:HA	1.90	0.54
22:BA:1355:G:C2	22:BA:1356:G:C8	2.96	0.54
22:BA:1413:A:C6	22:BA:1414:C:N3	2.75	0.54
22:BA:1606:C:HO2'	22:BA:1607:C:P	2.30	0.54
22:BA:752:A:C2	22:BA:1781:U:C2	2.96	0.54
22:BA:2112:G:H2'	22:BA:2112:G:N3	2.23	0.54
22:BA:2771:C:H2'	22:BA:2772:C:C6	2.43	0.54
22:BA:990:A:H5''	22:BA:991:C:P	2.48	0.54
24:BC:36:LYS:O	24:BC:37:ASN:CB	2.54	0.54
28:BG:63:ALA:O	28:BG:67:THR:HG22	2.08	0.54
22:BA:1224:U:H4'	39:BR:88:GLY:O	2.07	0.54
43:BV:35:GLU:HB2	43:BV:93:ARG:CZ	2.37	0.54
44:BW:41:ARG:NH1	44:BW:41:ARG:HG3	2.22	0.54
1:CA:517:G:O6	57:CA:1761:HOH:O	2.18	0.54
2:CB:102:THR:HG22	2:CB:175:GLU:OE1	2.06	0.54
8:CH:32:LEU:HD12	8:CH:32:LEU:O	2.08	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:14:LYS:HD2	11:CK:14:LYS:C	2.29	0.54
12:CL:19:SER:OG	12:CL:21:VAL:HG23	2.07	0.54
21:CU:39:GLU:HA	21:CU:42:THR:OG1	2.08	0.54
22:DA:1032:A:H4'	52:D4:16:ILE:HD12	1.89	0.54
22:DA:105:C:H2'	22:DA:106:C:C6	2.43	0.54
22:DA:1027:A:C6	22:DA:1126:A:C4	2.96	0.54
22:DA:2200:C:O2	22:DA:2226:C:N4	2.41	0.54
22:DA:846:U:HO2'	22:DA:847:U:P	2.31	0.54
22:DA:847:U:O2	22:DA:847:U:H2'	2.06	0.54
22:DA:936:A:C2	22:DA:937:C:C2	2.96	0.54
36:DO:50:ALA:O	36:DO:81:ARG:NH2	2.41	0.54
1:AA:521:G:OP2	12:AL:51:LYS:NZ	2.20	0.54
1:AA:842:U:H3'	1:AA:843:U:C5'	2.38	0.54
3:AC:153:VAL:HG23	3:AC:157:LEU:HD22	1.90	0.54
7:AG:146:GLU:HG3	7:AG:149:LYS:HE2	1.90	0.54
17:AQ:52:GLU:N	17:AQ:52:GLU:OE1	2.38	0.54
19:AS:64:ASP:HB3	27:BF:115:ARG:NH2	2.23	0.54
22:BA:1074:G:C2'	22:BA:1075:C:H5'	2.38	0.54
22:BA:1179:G:C6	22:BA:1180:U:H1'	2.42	0.54
22:BA:2502:G:H5'	22:BA:2503:A:H5''	1.89	0.54
1:CA:1150:A:N6	1:CA:1151:A:H62	2.06	0.54
1:CA:1317:C:OP1	14:CN:57:PRO:HD2	2.07	0.54
1:CA:1361:G:H2'	1:CA:1362:A:H5''	1.90	0.54
29:BH:95:GLY:CA	1:CA:368:U:OP1	2.56	0.54
1:CA:518:C:H2'	1:CA:530:G:H8	1.72	0.54
1:CA:773:G:C2	1:CA:807:A:C2	2.96	0.54
1:CA:920:U:H2'	1:CA:921:U:C6	2.43	0.54
3:CC:177:THR:HG22	3:CC:179:ARG:HG3	1.90	0.54
11:CK:16:VAL:O	11:CK:17:SER:OG	2.16	0.54
1:CA:1227:A:OP2	13:CM:110:LYS:HE3	2.08	0.54
1:CA:254:G:OP1	17:CQ:69:LYS:O	2.26	0.54
21:CU:10:GLU:CG	21:CU:11:PRO:HD3	2.33	0.54
22:DA:218:A:N7	57:DA:3223:HOH:O	2.33	0.54
22:DA:247:G:C8	22:DA:249:C:C6	2.96	0.54
22:DA:776:G:N7	22:DA:793:A:C4	2.76	0.54
28:DG:98:VAL:CG2	28:DG:125:CYS:SG	2.96	0.54
30:DI:22:PRO:HB2	30:DI:23:PRO:HD3	1.89	0.54
34:DM:42:THR:O	34:DM:46:ILE:HG13	2.08	0.54
1:AA:1395:C:O2'	1:AA:1401:G:O2'	2.25	0.54
1:AA:415:A:OP2	57:AA:1720:HOH:O	2.19	0.54
1:AA:73:C:O2'	1:AA:74:A:H5''	2.08	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:792:A:H1'	1:AA:794:A:N7	2.23	0.54
1:AA:880:C:C2'	1:AA:881:G:H5'	2.37	0.54
4:AD:174:ASP:O	4:AD:175:ALA:CB	2.56	0.54
4:AD:99:ASP:OD1	4:AD:99:ASP:N	2.41	0.54
9:AI:36:GLU:HA	9:AI:40:GLY:HA3	1.90	0.54
9:AI:26:GLY:N	9:AI:59:GLU:HA	2.23	0.54
20:AT:58:VAL:HG12	20:AT:72:ALA:CB	2.38	0.54
22:BA:2286:G:OP2	49:B1:6:ARG:NH2	2.41	0.54
22:BA:1084:A:H2'	22:BA:1085:A:C8	2.43	0.54
22:BA:1115:G:C4	22:BA:1116:G:C8	2.96	0.54
22:BA:1916:A:C2	22:BA:1917:U:H1'	2.42	0.54
22:BA:22:C:H2'	22:BA:23:G:O5'	2.08	0.54
22:BA:2469:A:C6	22:BA:2482:A:C8	2.96	0.54
22:BA:2757:A:N1	28:BG:67:THR:CG2	2.62	0.54
22:BA:370:G:C8	57:BA:3562:HOH:O	2.60	0.54
22:BA:415:A:C2	22:BA:2409:G:C2	2.96	0.54
22:BA:585:G:H4'	22:BA:586:A:OP1	2.07	0.54
22:BA:721:A:H2'	22:BA:722:A:C8	2.42	0.54
22:BA:743:A:O3'	57:BA:3656:HOH:O	2.19	0.54
23:BB:78:A:C2	23:BB:99:A:C4	2.95	0.54
22:BA:674:G:H5''	26:BE:71:GLY:N	2.23	0.54
27:BF:80:ARG:HG2	27:BF:81:GLN:N	2.23	0.54
28:BG:124:GLU:CD	28:BG:125:CYS:H	2.10	0.54
31:BJ:114:LEU:HG	31:BJ:118:MET:CE	2.38	0.54
57:BA:3805:HOH:O	35:BN:11:ASN:ND2	2.41	0.54
41:BT:54:GLU:HB3	41:BT:88:LYS:HG3	1.89	0.54
1:CA:1034:G:H2'	1:CA:1035:A:C8	2.43	0.54
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.42	0.54
9:CI:31:ASN:ND2	9:CI:38:TYR:OH	2.41	0.54
22:DA:1069:A:N1	22:DA:1073:A:N7	2.56	0.54
22:DA:1087:G:C4	22:DA:1089:A:H1'	2.43	0.54
22:DA:276:U:O2'	22:DA:278:A:N7	2.41	0.54
22:DA:607:U:O4	22:DA:620:G:H5'	2.08	0.54
26:DE:52:VAL:HG11	26:DE:81:GLY:HA3	1.88	0.54
29:DH:79:THR:HA	29:DH:145:ASN:HB2	1.89	0.54
37:DP:22:PRO:HA	37:DP:47:VAL:CG1	2.37	0.54
1:AA:338:A:C5	1:AA:339:C:C5	2.96	0.53
2:AB:62:SER:C	2:AB:64:LYS:N	2.59	0.53
5:AE:80:THR:OG1	5:AE:81:LEU:N	2.41	0.53
6:AF:47:LEU:HD13	6:AF:51:ILE:HG23	1.90	0.53
7:AG:146:GLU:CG	7:AG:149:LYS:HE2	2.38	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:70:ARG:HG3	7:AG:96:ARG:HG2	1.90	0.53
13:AM:10:PRO:O	13:AM:11:ASP:CB	2.54	0.53
17:AQ:50:ASN:O	17:AQ:51:ASN:C	2.46	0.53
40:BS:34:ASP:OD2	48:B0:37:LYS:NZ	2.41	0.53
22:BA:1056:G:H5''	22:BA:1057:A:H5'	1.90	0.53
22:BA:1357:C:H2'	22:BA:1358:G:O4'	2.08	0.53
22:BA:332:A:C2	22:BA:335:C:C5	2.96	0.53
28:BG:40:ALA:HA	28:BG:58:TYR:CD1	2.43	0.53
22:BA:2094:A:OP1	29:BH:22:LYS:HE3	2.08	0.53
33:BL:61:LEU:HB3	33:BL:62:PRO:HD2	1.90	0.53
34:BM:20:LEU:HD12	43:BV:81:PRO:HG2	1.88	0.53
39:BR:49:ILE:C	39:BR:51:VAL:O	2.46	0.53
42:BU:99:ASN:OD1	42:BU:99:ASN:C	2.47	0.53
1:CA:104:G:C2	1:CA:105:G:C8	2.96	0.53
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.72	0.53
1:CA:1309:G:C6	1:CA:1329:A:N1	2.77	0.53
5:CE:104:GLY:HA3	5:CE:122:ASN:HA	1.90	0.53
5:CE:122:ASN:O	5:CE:123:VAL:O	2.26	0.53
6:CF:9:MET:HB2	6:CF:85:ILE:HG13	1.89	0.53
9:CI:13:LYS:O	9:CI:14:SER:HB3	2.07	0.53
1:CA:1279:G:OP2	10:CJ:11:LYS:NZ	2.41	0.53
10:CJ:26:VAL:HG22	10:CJ:36:VAL:HG11	1.89	0.53
16:CP:44:SER:O	16:CP:46:LYS:HG3	2.07	0.53
22:DA:1356:G:N2	22:DA:1357:C:H1'	2.23	0.53
22:DA:187:G:O2'	22:DA:1365:A:N3	2.34	0.53
22:DA:228:C:C5'	22:DA:229:C:C6	2.91	0.53
22:DA:2259:U:H1'	22:DA:2427:C:C2	2.43	0.53
29:DH:32:PRO:O	29:DH:33:GLN:HB2	2.08	0.53
46:DY:21:LEU:HA	46:DY:25:GLN:HB3	1.90	0.53
1:AA:1211:U:O2'	1:AA:1212:U:P	2.66	0.53
1:AA:1346:A:N7	7:AG:10:ARG:NH2	2.57	0.53
1:AA:872:A:C4	1:AA:874:G:C8	2.97	0.53
1:AA:989:U:H2'	1:AA:990:C:H6	1.72	0.53
13:AM:15:ALA:HB3	13:AM:34:LEU:HD21	1.90	0.53
13:AM:29:ARG:NH2	13:AM:63:PHE:HB2	2.23	0.53
17:AQ:4:LYS:O	17:AQ:4:LYS:HD2	2.08	0.53
19:AS:5:LEU:O	19:AS:6:LYS:HD2	2.07	0.53
20:AT:70:ASN:N	20:AT:70:ASN:OD1	2.40	0.53
22:BA:1046:A:H3'	22:BA:1047:G:H5'	1.90	0.53
22:BA:1122:G:N3	22:BA:1122:G:H2'	2.22	0.53
22:BA:1167:C:H2'	22:BA:1168:G:H5''	1.89	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1225:G:C2	22:BA:1226:A:C2	2.96	0.53
22:BA:1712:U:OP2	22:BA:1713:A:O2'	2.17	0.53
22:BA:1789:A:H5''	24:BC:219:THR:O	2.08	0.53
28:BG:124:GLU:CD	28:BG:125:CYS:N	2.61	0.53
30:BI:57:VAL:HG22	30:BI:58:VAL:N	2.23	0.53
34:BM:78:LEU:O	34:BM:80:VAL:HG23	2.08	0.53
23:BB:116:G:H4'	36:BO:54:VAL:O	2.08	0.53
38:BQ:49:ASP:HA	38:BQ:52:GLN:HB2	1.89	0.53
42:BU:97:LYS:O	42:BU:98:SER:OG	2.22	0.53
1:CA:1074:G:H4'	2:CB:103:ASN:HB3	1.90	0.53
1:CA:1416:G:N2	1:CA:1485:U:H1'	2.22	0.53
5:CE:81:LEU:N	5:CE:81:LEU:CD1	2.70	0.53
9:CI:120:LYS:O	9:CI:121:ALA:HB3	2.09	0.53
22:DA:1075:C:H2'	22:DA:1076:C:C6	2.43	0.53
22:DA:2189:U:H2'	22:DA:2190:G:H5''	1.90	0.53
22:DA:2467:C:N4	22:DA:2468:A:C6	2.76	0.53
22:DA:2491:U:H5''	22:DA:2570:G:H5''	1.89	0.53
22:DA:78:U:OP2	46:DY:2:LYS:HD2	2.09	0.53
22:DA:396:G:H1'	45:DX:29:PHE:HB3	1.89	0.53
1:AA:102:G:N2	1:AA:103:U:C2	2.77	0.53
1:AA:151:A:H2'	1:AA:152:A:O4'	2.08	0.53
1:AA:237:G:H2'	1:AA:238:A:O4'	2.09	0.53
2:AB:106:THR:O	2:AB:107:VAL:HG23	2.08	0.53
5:AE:13:GLU:HB3	5:AE:39:VAL:HG12	1.91	0.53
10:AJ:91:ASP:C	10:AJ:92:LEU:HG	2.29	0.53
49:B1:47:VAL:HG13	49:B1:48:ILE:N	2.22	0.53
1:AA:1407:C:O2'	22:BA:1912:A:C6	2.51	0.53
22:BA:1917:U:H2'	22:BA:1917:U:O2	2.09	0.53
22:BA:2317:A:H2'	22:BA:2318:G:H5'	1.90	0.53
27:BF:63:GLN:NE2	27:BF:90:THR:O	2.41	0.53
30:BI:106:LEU:HA	30:BI:109:ILE:HB	1.91	0.53
34:BM:69:PRO:O	34:BM:70:ASP:CG	2.47	0.53
38:BQ:105:ALA:O	38:BQ:108:ALA:HB3	2.07	0.53
42:BU:49:VAL:O	42:BU:51:ALA:N	2.41	0.53
1:CA:1007:U:H2'	1:CA:1008:U:H5''	1.89	0.53
1:CA:1055:A:N6	1:CA:1206:G:C5	2.76	0.53
1:CA:399:G:C6	1:CA:400:C:C4	2.97	0.53
1:CA:485:U:O2'	1:CA:486:U:OP1	2.22	0.53
2:CB:53:ALA:C	2:CB:54:LEU:HD22	2.29	0.53
7:CG:125:SER:C	7:CG:127:ALA:H	2.11	0.53
11:CK:21:ALA:HB3	11:CK:84:VAL:HG13	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:6:LEU:HD23	16:CP:17:TYR:CG	2.43	0.53
22:DA:1045:C:O2	22:DA:1047:G:N1	2.41	0.53
22:DA:1525:A:C6	22:DA:1526:C:C4	2.97	0.53
22:DA:1796:U:H2'	22:DA:1797:G:C8	2.43	0.53
22:DA:1993:U:H4'	25:DD:133:THR:HG21	1.91	0.53
22:DA:2550:G:C6	22:DA:2551:C:C4	2.97	0.53
24:DC:51:THR:CG2	24:DC:54:ILE:HD11	2.38	0.53
26:DE:52:VAL:HG21	26:DE:81:GLY:CA	2.37	0.53
27:DF:135:GLN:N	27:DF:135:GLN:OE1	2.41	0.53
28:DG:176:LYS:O	28:DG:177:LYS:HB2	2.09	0.53
30:DI:21:SER:HB3	30:DI:22:PRO:HD3	1.89	0.53
35:DN:54:LEU:HD23	35:DN:66:ALA:HB2	1.90	0.53
22:DA:2019:A:H4'	38:DQ:34:VAL:CG2	2.37	0.53
42:DU:16:GLY:O	42:DU:17:LYS:HB2	2.07	0.53
46:DY:45:GLN:O	46:DY:47:ARG:N	2.41	0.53
1:AA:1374:A:C2	1:AA:1375:A:C4	2.96	0.53
1:AA:1378:C:H2'	1:AA:1379:G:O5'	2.08	0.53
1:AA:205:A:H2'	1:AA:205:A:N3	2.22	0.53
1:AA:533:A:P	57:AA:1848:HOH:O	2.66	0.53
1:AA:728:A:C6	1:AA:729:A:C6	2.96	0.53
2:AB:35:ARG:HE	2:AB:35:ARG:HA	1.74	0.53
3:AC:25:ASN:O	3:AC:26:THR:C	2.46	0.53
13:AM:80:LEU:HD21	13:AM:87:ARG:HE	1.74	0.53
10:AJ:65:TYR:HB3	14:AN:96:LEU:HD11	1.90	0.53
50:B2:43:THR:O	50:B2:44:VAL:CG1	2.56	0.53
22:BA:1268:A:C2	22:BA:2013:A:C4	2.96	0.53
22:BA:2211:A:O2'	22:BA:2212:A:P	2.67	0.53
22:BA:2884:U:O4'	22:BA:2884:U:O2	2.22	0.53
22:BA:996:A:C2	22:BA:997:G:N9	2.77	0.53
23:BB:34:A:O2'	23:BB:35:C:H5''	2.08	0.53
25:BD:61:THR:OG1	25:BD:63:PRO:HD2	2.08	0.53
30:BI:105:GLN:O	30:BI:106:LEU:HB2	2.08	0.53
34:BM:72:PRO:O	34:BM:73:ILE:HD13	2.07	0.53
39:BR:39:LEU:O	39:BR:40:MET:HB2	2.09	0.53
39:BR:49:ILE:CG2	39:BR:52:PRO:C	2.77	0.53
1:CA:123:U:OP1	1:CA:311:C:O2'	2.22	0.53
1:CA:1277:C:O2'	1:CA:1279:G:H1'	2.07	0.53
1:CA:57:G:C6	1:CA:58:C:C4	2.96	0.53
1:CA:78:A:N6	1:CA:79:G:C6	2.76	0.53
21:CU:28:VAL:O	21:CU:32:VAL:HG23	2.09	0.53
22:DA:1422:G:C6	22:DA:1423:G:C5	2.96	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2043:C:H1'	22:DA:2779:U:O4	2.08	0.53
22:DA:2581:G:H1'	22:DA:2582:G:N7	2.23	0.53
22:DA:1783:A:H5'	22:DA:2608:G:H4'	1.90	0.53
22:DA:2652:C:C4	22:DA:2653:U:C4	2.97	0.53
22:DA:329:G:O4'	22:DA:477:A:H1'	2.08	0.53
22:DA:995:C:N3	31:DJ:3:THR:N	2.55	0.53
29:DH:27:ARG:HE	45:DX:60:ASP:CB	2.20	0.53
31:DJ:5:THR:HG22	31:DJ:6:ALA:O	2.09	0.53
31:DJ:78:THR:OG1	31:DJ:80:HIS:HB2	2.08	0.53
36:DO:15:ARG:O	36:DO:18:LEU:HB2	2.09	0.53
39:DR:19:THR:CG2	39:DR:95:ASP:HB3	2.39	0.53
41:DT:62:VAL:HG12	41:DT:63:VAL:N	2.24	0.53
5:AE:96:MET:HB3	5:AE:125:ALA:HB2	1.89	0.53
17:AQ:15:ASP:HA	17:AQ:21:ILE:CD1	2.37	0.53
22:BA:1584:U:H2'	22:BA:1584:U:O2	2.07	0.53
22:BA:700:G:O2'	22:BA:1632:A:N3	2.29	0.53
22:BA:2020:A:C2	22:BA:2035:G:C6	2.97	0.53
23:BB:78:A:H2'	23:BB:79:G:O4'	2.08	0.53
28:BG:60:ASP:O	28:BG:61:GLY:C	2.47	0.53
1:CA:1201:A:H1'	1:CA:1202:U:OP2	2.09	0.53
1:CA:818:G:O2'	1:CA:819:A:H5'	2.09	0.53
4:CD:145:ILE:N	4:CD:145:ILE:HD12	2.23	0.53
4:CD:29:ASP:C	4:CD:31:LYS:H	2.12	0.53
11:CK:25:ALA:HA	11:CK:30:THR:HG22	1.88	0.53
15:CO:70:LEU:HD13	15:CO:78:TYR:HA	1.89	0.53
49:D1:50:LYS:O	49:D1:51:GLU:HB3	2.07	0.53
22:DA:1028:A:N6	22:DA:1125:G:H2'	2.24	0.53
22:DA:1866:A:N7	22:DA:1867:G:C8	2.76	0.53
22:DA:2321:U:H5'	22:DA:2322:A:OP2	2.07	0.53
22:DA:451:U:H2'	22:DA:453:A:N7	2.24	0.53
25:DD:7:LYS:HD3	25:DD:198:GLY:HA2	1.91	0.53
29:DH:103:VAL:HA	29:DH:106:ALA:HB3	1.89	0.53
39:DR:47:VAL:HG12	39:DR:47:VAL:O	2.09	0.53
1:AA:1066:C:H2'	1:AA:1066:C:O2	2.08	0.53
1:AA:190:A:C8	1:AA:191:G:C8	2.97	0.53
1:AA:275:G:C2	1:AA:276:G:C8	2.97	0.53
2:AB:147:SER:O	2:AB:148:LEU:CB	2.56	0.53
7:AG:120:LEU:HD22	7:AG:124:LEU:HD23	1.90	0.53
7:AG:27:VAL:HG23	7:AG:28:ASN:N	2.24	0.53
11:AK:110:ILE:HB	21:AU:6:VAL:HG22	1.91	0.53
14:AN:25:ALA:O	14:AN:28:LYS:HG2	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1131:G:OP1	31:BJ:82:GLY:HA2	2.08	0.53
22:BA:137:U:H2'	22:BA:140:C:N1	2.23	0.53
22:BA:1435:G:HO2'	22:BA:1436:G:H5'	1.74	0.53
22:BA:749:A:C6	22:BA:1618:A:C2	2.97	0.53
22:BA:2665:A:C2	22:BA:2666:C:C6	2.96	0.53
32:BK:70:ARG:HD3	32:BK:76:VAL:HG22	1.91	0.53
38:BQ:76:TYR:CD2	38:BQ:76:TYR:C	2.81	0.53
46:BY:5:GLU:C	46:BY:7:ARG:N	2.61	0.53
1:CA:1124:G:N2	1:CA:1127:G:C2	2.76	0.53
1:CA:1250:A:C6	1:CA:1251:A:C6	2.96	0.53
1:CA:354:G:C2	1:CA:355:C:C5	2.96	0.53
2:CB:128:LYS:O	2:CB:129:LEU:HB2	2.09	0.53
2:CB:20:THR:OG1	2:CB:21:ARG:N	2.41	0.53
1:CA:1373:G:H5''	7:CG:36:LYS:HB2	1.90	0.53
1:CA:1125:U:C6	10:CJ:40:ILE:HD13	2.44	0.53
21:CU:11:PRO:C	21:CU:12:PHE:CG	2.80	0.53
22:DA:770:G:H1'	22:DA:1379:U:C4	2.44	0.53
22:DA:160:A:C6	22:DA:161:A:C6	2.96	0.53
22:DA:18:U:O4	57:DA:3205:HOH:O	2.14	0.53
22:DA:2133:G:N3	22:DA:2158:A:N1	2.57	0.53
22:DA:2244:U:C5	22:DA:2245:U:C4	2.97	0.53
22:DA:35:G:N2	22:DA:450:G:H1'	2.23	0.53
24:DC:262:ARG:HG2	24:DC:263:THR:HG23	1.90	0.53
26:DE:181:ILE:HD13	33:DL:2:ARG:NH2	2.24	0.53
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.09	0.53
1:AA:1533:C:H5'	1:AA:1534:A:OP1	2.09	0.53
1:AA:561:U:O2'	1:AA:562:U:P	2.66	0.53
1:AA:74:A:N3	1:AA:97:G:C2	2.77	0.53
1:AA:946:A:H2'	1:AA:947:G:C8	2.44	0.53
3:AC:55:ILE:HG13	3:AC:55:ILE:O	2.08	0.53
4:AD:97:ARG:HB3	4:AD:99:ASP:OD1	2.09	0.53
12:AL:88:LYS:HG3	12:AL:88:LYS:O	2.08	0.53
15:AO:55:GLY:O	15:AO:58:ARG:HB3	2.09	0.53
16:AP:77:GLU:C	16:AP:79:ASN:H	2.11	0.53
16:AP:78:VAL:O	16:AP:80:LYS:N	2.41	0.53
50:B2:43:THR:O	50:B2:44:VAL:CB	2.57	0.53
22:BA:102:U:H4'	22:BA:103:A:OP1	2.08	0.53
22:BA:1779:U:H2'	57:BA:3694:HOH:O	2.07	0.53
22:BA:2153:C:H2'	22:BA:2154:A:O4'	2.07	0.53
22:BA:2347:C:H2'	22:BA:2348:U:C6	2.44	0.53
22:BA:2591:C:H2'	22:BA:2592:G:H8	1.72	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:782:A:C2	24:BC:225:MET:SD	3.02	0.53
26:BE:23:PHE:CD1	26:BE:111:GLU:HG3	2.44	0.53
26:BE:7:ASP:OD2	26:BE:8:ALA:N	2.39	0.53
33:BL:85:VAL:HG11	33:BL:94:THR:HG22	1.91	0.53
41:BT:71:GLY:O	41:BT:73:ARG:N	2.42	0.53
1:CA:1441:A:C8	1:CA:1442:G:C8	2.97	0.53
1:CA:1417:G:C6	1:CA:1482:G:C6	2.97	0.53
1:CA:247:G:C6	1:CA:278:G:C2	2.97	0.53
1:CA:435:A:C2	1:CA:436:C:H1'	2.44	0.53
1:CA:657:U:O2	15:CO:22:THR:HG23	2.09	0.53
1:CA:743:A:C6	1:CA:744:C:C4	2.97	0.53
1:CA:1101:A:H61	2:CB:102:THR:CG2	2.20	0.53
2:CB:103:ASN:O	2:CB:103:ASN:OD1	2.27	0.53
3:CC:64:ILE:HG12	3:CC:66:VAL:HG23	1.90	0.53
4:CD:48:LEU:HD21	4:CD:52:GLY:C	2.29	0.53
5:CE:126:LYS:HE2	5:CE:126:LYS:HA	1.91	0.53
6:CF:88:MET:SD	6:CF:90:MET:SD	3.07	0.53
10:CJ:26:VAL:HG12	10:CJ:27:GLU:N	2.23	0.53
12:CL:16:VAL:O	12:CL:17:ALA:O	2.27	0.53
22:DA:1031:G:H5''	52:D4:8:LYS:HE3	1.89	0.53
22:DA:1073:A:O2'	22:DA:2474:U:H5'	2.08	0.53
22:DA:1258:U:H2'	22:DA:1259:G:H8	1.68	0.53
22:DA:2070:A:C2	22:DA:2442:C:C2	2.97	0.53
22:DA:2648:G:C4	22:DA:2673:G:C2	2.97	0.53
22:DA:56:A:C2	22:DA:57:C:C2	2.96	0.53
29:DH:37:VAL:CG2	29:DH:38:PRO:HD2	2.39	0.53
30:DI:29:GLY:HA2	30:DI:33:VAL:HB	1.91	0.53
33:DL:77:ILE:CD1	33:DL:108:ALA:HB1	2.38	0.53
22:DA:1364:G:H5''	45:DX:3:ARG:NH1	2.23	0.53
1:AA:485:U:O4'	1:AA:485:U:O2	2.26	0.53
1:AA:581:G:C5	1:AA:758:C:C5	2.97	0.53
2:AB:154:MET:CE	2:AB:158:PRO:HG3	2.39	0.53
2:AB:222:ARG:HB3	2:AB:222:ARG:CZ	2.38	0.53
2:AB:56:GLU:HA	2:AB:59:LYS:HB3	1.90	0.53
7:AG:71:PRO:O	7:AG:96:ARG:HG3	2.08	0.53
9:AI:36:GLU:N	9:AI:36:GLU:OE2	2.42	0.53
10:AJ:15:HIS:CG	10:AJ:16:ARG:N	2.76	0.53
11:AK:81:ASN:HB3	11:AK:106:ARG:HB3	1.90	0.53
1:AA:261:U:C5	20:AT:74:ARG:NH1	2.77	0.53
22:BA:1066:U:O2	22:BA:1069:A:N7	2.42	0.53
22:BA:1106:G:N2	22:BA:1107:G:H1'	2.22	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1714:U:H5''	22:BA:1715:G:C5'	2.38	0.53
22:BA:2783:U:H2'	22:BA:2784:U:C6	2.44	0.53
25:BD:16:THR:HG23	25:BD:20:VAL:O	2.09	0.53
29:BH:147:VAL:CG1	29:BH:149:GLU:HG3	2.36	0.53
30:BI:130:GLU:HB3	30:BI:134:ARG:NH2	2.24	0.53
34:BM:135:VAL:O	34:BM:136:MET:O	2.27	0.53
34:BM:74:THR:O	34:BM:75:GLU:HG2	2.09	0.53
35:BN:103:ARG:NE	35:BN:110:MET:HE2	2.24	0.53
41:BT:33:LYS:HG3	41:BT:80:TRP:CE3	2.44	0.53
42:BU:89:ASP:OD1	42:BU:90:GLY:N	2.42	0.53
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.09	0.53
1:CA:247:G:C6	1:CA:278:G:N1	2.76	0.53
1:CA:527:G:C6	1:CA:528:C:C5	2.97	0.53
4:CD:145:ILE:HG22	4:CD:146:ARG:O	2.08	0.53
5:CE:122:ASN:CG	5:CE:123:VAL:N	2.62	0.53
11:CK:51:GLY:O	11:CK:52:PHE:O	2.26	0.53
13:CM:14:HIS:HB2	13:CM:17:ILE:HD12	1.91	0.53
33:DL:58:TYR:O	51:D3:13:ARG:HD3	2.08	0.53
22:DA:811:U:C2	22:DA:1251:C:C5	2.96	0.53
22:DA:1544:A:C6	22:DA:1545:A:C6	2.97	0.53
22:DA:1831:G:C5	22:DA:1832:C:C4	2.97	0.53
22:DA:2001:C:H4'	22:DA:2689:U:H2'	1.91	0.53
22:DA:2196:C:O2'	22:DA:2197:U:H5'	2.09	0.53
22:DA:242:G:H5''	51:D3:64:TYR:CE2	2.44	0.53
22:DA:2503:A:C8	55:DA:3001:VIF:H1	2.44	0.53
29:DH:2:GLN:O	29:DH:3:VAL:HG22	2.09	0.53
29:DH:31:VAL:HB	29:DH:32:PRO:HD3	1.89	0.53
35:DN:87:PHE:CZ	35:DN:94:TYR:HB3	2.44	0.53
37:DP:39:ARG:CG	37:DP:40:LEU:H	2.21	0.53
2:AB:181:ILE:O	2:AB:183:VAL:HG23	2.09	0.53
3:AC:7:PRO:O	3:AC:11:ARG:HG3	2.08	0.53
10:AJ:57:VAL:O	10:AJ:58:ASN:HB2	2.09	0.53
16:AP:4:ILE:HD12	16:AP:67:ILE:HD11	1.91	0.53
19:AS:29:LYS:CB	19:AS:30:PRO:CD	2.87	0.53
49:B1:11:LEU:N	49:B1:11:LEU:HD23	2.23	0.53
22:BA:1090:A:H2'	22:BA:1091:G:H5'	1.90	0.53
22:BA:1358:G:H1'	22:BA:1374:G:N2	2.23	0.53
22:BA:2073:C:O2	22:BA:2437:G:C2	2.62	0.53
22:BA:2191:A:C2	22:BA:2192:U:C2	2.96	0.53
22:BA:991:C:C4	22:BA:1185:G:O6	2.62	0.53
25:BD:99:GLU:HG2	25:BD:182:ALA:HB2	1.91	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1080:A:OP1	5:CE:52:LYS:HE3	2.09	0.53
1:CA:976:G:P	1:CA:1358:U:O2'	2.67	0.53
1:CA:1364:U:O2	1:CA:1364:U:H2'	2.08	0.53
1:CA:1388:C:H2'	1:CA:1389:C:H6	1.74	0.53
2:CB:53:ALA:O	2:CB:57:LEU:HB2	2.09	0.53
6:CF:18:VAL:HA	6:CF:21:MET:HE2	1.90	0.53
9:CI:49:ARG:NH2	9:CI:53:GLU:HA	2.24	0.53
12:CL:7:LEU:HD22	12:CL:12:ARG:CD	2.38	0.53
22:DA:1068:G:N3	22:DA:1068:G:H2'	2.24	0.53
22:DA:2127:G:C2	22:DA:2162:G:C8	2.97	0.53
22:DA:532:A:N3	22:DA:532:A:H2'	2.24	0.53
24:DC:57:GLY:O	24:DC:58:HIS:O	2.26	0.53
44:DW:21:LEU:HD22	44:DW:39:ARG:HB3	1.90	0.53
1:AA:1374:A:C2	1:AA:1375:A:N9	2.77	0.53
1:AA:142:G:H3'	1:AA:143:A:H8	1.74	0.53
1:AA:268:U:H2'	1:AA:269:C:C6	2.44	0.53
1:AA:321:A:N7	1:AA:328:C:O2'	2.34	0.53
1:AA:464:U:C2	1:AA:466:A:H5''	2.45	0.53
1:AA:890:G:O2'	1:AA:906:A:N6	2.42	0.53
3:AC:114:LYS:HD3	3:AC:185:ASN:OD1	2.08	0.53
3:AC:40:ARG:NH1	3:AC:55:ILE:O	2.41	0.53
10:AJ:59:LYS:HD2	10:AJ:59:LYS:C	2.29	0.53
10:AJ:11:LYS:HA	10:AJ:70:HIS:O	2.09	0.53
11:AK:17:SER:HA	11:AK:79:ILE:HA	1.90	0.53
18:AR:29:LEU:O	18:AR:31:ASN:N	2.42	0.53
22:BA:1084:A:C5	22:BA:1085:A:C6	2.97	0.53
22:BA:1984:G:O2'	22:BA:1985:C:H5'	2.09	0.53
22:BA:2127:G:H2'	22:BA:2128:G:C8	2.44	0.53
22:BA:468:G:N7	50:B2:39:ARG:NH2	2.55	0.53
22:BA:45:G:C5'	22:BA:46:G:OP1	2.57	0.53
22:BA:499:U:C4	22:BA:500:G:C6	2.97	0.53
22:BA:580:U:O3'	38:BQ:31:VAL:HG13	2.08	0.53
22:BA:695:G:C2	22:BA:696:G:C8	2.97	0.53
22:BA:841:G:H2'	22:BA:842:U:H6	1.73	0.53
27:BF:38:MET:HE3	27:BF:152:LEU:HD13	1.90	0.53
37:BP:2:SER:O	37:BP:6:LYS:HG2	2.09	0.53
41:BT:48:GLN:OE1	41:BT:54:GLU:HA	2.09	0.53
43:BV:61:LEU:HD13	43:BV:61:LEU:N	2.24	0.53
1:CA:485:U:OP2	1:CA:485:U:H4'	2.09	0.53
1:CA:608:A:H2'	1:CA:609:A:O4'	2.09	0.53
4:CD:35:GLU:O	4:CD:38:PRO:HD3	2.09	0.53

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	2.44	0.53
22:DA:1125:G:C6	22:DA:1126:A:N6	2.76	0.53
22:DA:1855:U:C5	22:DA:1856:U:C4	2.97	0.53
24:DC:145:GLU:HA	24:DC:152:GLY:HA2	1.90	0.53
26:DE:193:VAL:O	26:DE:197:GLU:HB2	2.09	0.53
29:DH:31:VAL:CB	29:DH:32:PRO:CD	2.86	0.53
29:DH:40:THR:O	29:DH:41:LYS:C	2.48	0.53
41:DT:54:GLU:CB	41:DT:88:LYS:HG3	2.39	0.53
42:DU:88:GLU:O	42:DU:89:ASP:CB	2.56	0.53
1:AA:1160:G:O2'	1:AA:1161:C:P	2.67	0.52
1:AA:257:G:C2	1:AA:258:G:C5	2.96	0.52
1:AA:345:C:N3	32:BK:117:SER:OG	2.42	0.52
1:AA:495:A:C2	1:AA:496:A:N6	2.76	0.52
52:B4:36:ARG:HG2	52:B4:37:GLN:N	2.24	0.52
22:BA:1073:A:C2'	22:BA:1074:G:H5''	2.39	0.52
22:BA:156:A:H2'	22:BA:157:C:O4'	2.09	0.52
22:BA:1717:A:C5	22:BA:1718:G:C8	2.97	0.52
22:BA:1842:G:N3	22:BA:1901:A:C2	2.77	0.52
22:BA:1848:A:H2'	22:BA:1849:G:O4'	2.09	0.52
22:BA:2339:C:H2'	22:BA:2340:A:H8	1.72	0.52
28:BG:121:ILE:HD12	28:BG:141:ILE:HG22	1.91	0.52
1:CA:134:G:H2'	1:CA:135:C:O4'	2.09	0.52
9:CI:30:ILE:HA	9:CI:65:ILE:O	2.08	0.52
12:CL:25:GLU:CB	12:CL:27:CYS:SG	2.97	0.52
20:CT:6:SER:O	20:CT:8:LYS:N	2.42	0.52
22:DA:811:U:O2	22:DA:1251:C:C6	2.61	0.52
22:DA:1782:U:O4'	22:DA:2609:U:C2	2.62	0.52
22:DA:2013:A:N1	22:DA:2014:A:C2	2.78	0.52
22:DA:40:U:H2'	22:DA:41:C:C6	2.45	0.52
22:DA:500:G:N2	22:DA:502:A:C8	2.77	0.52
22:DA:734:A:C8	22:DA:735:A:C8	2.98	0.52
24:DC:68:LYS:HD3	24:DC:149:GLY:O	2.09	0.52
25:DD:13:ARG:HD2	25:DD:15:PHE:CE1	2.44	0.52
25:DD:78:GLY:C	25:DD:80:TRP:CZ3	2.82	0.52
26:DE:143:LEU:HB3	26:DE:146:VAL:CG1	2.39	0.52
29:DH:34:GLY:O	29:DH:35:LYS:HB2	2.09	0.52
30:DI:42:PHE:O	30:DI:46:THR:OG1	2.27	0.52
30:DI:97:LYS:HD2	30:DI:97:LYS:N	2.24	0.52
31:DJ:17:VAL:HG22	31:DJ:55:ILE:HB	1.91	0.52
36:DO:39:VAL:N	36:DO:49:VAL:O	2.41	0.52
39:DR:49:ILE:HD12	39:DR:52:PRO:HA	1.91	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:13:ALA:O	41:DT:32:LEU:HB2	2.08	0.52
1:AA:1135:U:C2	1:AA:1137:C:N3	2.77	0.52
1:AA:568:G:C4	1:AA:569:C:H5	2.28	0.52
1:AA:702:A:H3'	1:AA:703:G:H5'	1.90	0.52
7:AG:40:GLU:HB2	7:AG:44:TYR:CE2	2.44	0.52
10:AJ:67:ILE:HG22	10:AJ:67:ILE:O	2.10	0.52
16:AP:50:THR:O	16:AP:50:THR:HG22	2.09	0.52
21:AU:25:LYS:O	21:AU:29:LEU:HB2	2.09	0.52
22:BA:1064:C:H2'	22:BA:1064:C:O2	2.08	0.52
22:BA:1083:U:O2	22:BA:1086:A:C2	2.61	0.52
22:BA:1494:A:H2'	22:BA:1495:A:O5'	2.09	0.52
22:BA:1912:A:N1	22:BA:1919:A:C4	2.76	0.52
22:BA:583:G:H2'	22:BA:584:C:O5'	2.10	0.52
24:BC:10:SER:O	24:BC:13:ARG:HB3	2.09	0.52
26:BE:85:PHE:O	26:BE:86:ALA:O	2.27	0.52
35:BN:67:PHE:CE2	35:BN:71:ARG:NH1	2.77	0.52
36:BO:79:ALA:HB2	36:BO:110:ALA:HA	1.91	0.52
40:BS:29:VAL:HG13	40:BS:55:ILE:HD11	1.90	0.52
40:BS:59:GLU:HG3	40:BS:66:ILE:CD1	2.39	0.52
1:CA:1490:U:H2'	1:CA:1491:G:C8	2.44	0.52
1:CA:238:A:C5	1:CA:239:U:C5	2.97	0.52
1:CA:847:G:H2'	1:CA:848:C:O4'	2.08	0.52
7:CG:146:GLU:HA	7:CG:149:LYS:HB2	1.91	0.52
16:CP:61:VAL:HG21	16:CP:67:ILE:HD11	1.89	0.52
18:CR:49:ALA:O	18:CR:50:LYS:C	2.48	0.52
21:CU:12:PHE:O	21:CU:13:ASP:CB	2.56	0.52
50:D2:11:LYS:O	50:D2:15:SER:N	2.42	0.52
52:D4:19:ARG:O	52:D4:20:ASP:HB2	2.08	0.52
22:DA:119:A:H4'	22:DA:120:U:O5'	2.09	0.52
22:DA:1605:C:O2	22:DA:1610:A:O2'	2.25	0.52
22:DA:2341:G:C5	22:DA:2342:C:C4	2.98	0.52
22:DA:277:G:H1'	22:DA:361:G:O6	2.10	0.52
22:DA:370:G:O2'	22:DA:423:A:H3'	2.10	0.52
24:DC:171:TYR:CD2	24:DC:185:GLU:HA	2.44	0.52
34:DM:56:ALA:C	34:DM:58:LYS:H	2.11	0.52
39:DR:68:ARG:HD3	39:DR:92:TRP:CZ2	2.44	0.52
1:AA:100:G:O6	1:AA:101:A:C6	2.62	0.52
1:AA:1000:A:C2	1:AA:1041:G:C2	2.97	0.52
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.44	0.52
1:AA:518:C:H5	1:AA:530:G:OP2	1.91	0.52
4:AD:99:ASP:OD2	4:AD:115:ARG:NH2	2.42	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:62:ARG:NH1	4:AD:69:GLU:HG2	2.25	0.52
6:AF:51:ILE:HD12	6:AF:86:ARG:CZ	2.39	0.52
9:AI:50:GLN:C	9:AI:52:LEU:H	2.13	0.52
22:BA:1414:C:C4	22:BA:1415:U:H5	2.26	0.52
22:BA:2094:A:C2	22:BA:2196:C:C2	2.98	0.52
22:BA:744:U:O4	22:BA:745:G:C6	2.62	0.52
25:BD:131:ASP:HB3	25:BD:133:THR:O	2.09	0.52
29:BH:77:THR:HA	29:BH:143:ILE:O	2.09	0.52
41:BT:69:ARG:HB2	41:BT:74:ILE:HG22	1.90	0.52
1:CA:1067:A:H4'	1:CA:1068:G:O5'	2.09	0.52
1:CA:108:G:C6	20:CT:10:ARG:HG2	2.45	0.52
1:CA:1144:G:C2	1:CA:1145:A:C2	2.97	0.52
3:CC:50:ALA:HB1	3:CC:76:VAL:CG2	2.40	0.52
8:CH:51:VAL:HG22	8:CH:51:VAL:O	2.09	0.52
12:CL:25:GLU:HB2	12:CL:27:CYS:SG	2.49	0.52
18:CR:24:LYS:O	18:CR:26:ILE:N	2.39	0.52
22:DA:651:G:P	51:D3:19:LYS:HG3	2.49	0.52
22:DA:987:C:O2'	22:DA:1000:A:N3	2.41	0.52
22:DA:1984:G:C6	22:DA:1985:C:C4	2.97	0.52
22:DA:2110:G:C6	22:DA:2120:G:C8	2.98	0.52
22:DA:624:C:O2'	22:DA:657:U:H5''	2.09	0.52
22:DA:873:C:N3	22:DA:905:A:C2	2.78	0.52
24:DC:80:ARG:NE	24:DC:82:GLU:OE2	2.41	0.52
32:DK:58:LEU:HD11	32:DK:86:LEU:HB3	1.91	0.52
34:DM:54:THR:HA	34:DM:57:VAL:HG22	1.91	0.52
35:DN:55:ALA:HA	35:DN:80:PHE:CE1	2.44	0.52
1:AA:1014:A:C8	1:AA:1015:G:C5	2.97	0.52
1:AA:1144:G:H5''	1:AA:1145:A:OP2	2.09	0.52
1:AA:520:A:N1	1:AA:536:C:H1'	2.24	0.52
1:AA:602:A:C2	1:AA:603:U:C2	2.97	0.52
2:AB:65:GLY:C	2:AB:66:LYS:HD3	2.29	0.52
2:AB:72:THR:O	2:AB:73:LYS:HB3	2.08	0.52
6:AF:70:VAL:HA	6:AF:73:GLU:HG2	1.90	0.52
1:AA:502:A:OP1	12:AL:115:SER:HB3	2.10	0.52
14:AN:7:LYS:O	14:AN:10:GLU:N	2.42	0.52
15:AO:74:ASP:OD1	15:AO:77:ARG:HD3	2.09	0.52
16:AP:72:ALA:HA	16:AP:75:ILE:HD11	1.92	0.52
1:AA:1313:U:P	19:AS:6:LYS:HB3	2.50	0.52
48:B0:17:ARG:HB3	48:B0:20:ASP:OD1	2.08	0.52
53:B5:102:GLN:HA	53:B5:105:LEU:CB	2.40	0.52
22:BA:2462:C:N4	22:BA:2463:C:N4	2.57	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2783:U:H2'	22:BA:2784:U:H6	1.74	0.52
22:BA:811:U:C4	33:BL:21:ARG:NH2	2.77	0.52
24:BC:13:ARG:CA	24:BC:16:VAL:HG23	2.38	0.52
32:BK:36:GLY:HA2	32:BK:62:VAL:O	2.09	0.52
39:BR:51:VAL:HB	39:BR:52:PRO:CD	2.40	0.52
40:BS:51:LEU:O	40:BS:54:ALA:HB3	2.09	0.52
46:BY:7:ARG:HG3	46:BY:7:ARG:O	2.09	0.52
1:CA:1379:G:N2	1:CA:1381:U:O4	2.38	0.52
1:CA:206:C:H2'	1:CA:207:C:H4'	1.90	0.52
1:CA:8:A:C2	5:CE:112:ARG:NH2	2.78	0.52
1:CA:920:U:C2	1:CA:921:U:C5	2.97	0.52
1:CA:922:G:H4'	5:CE:25:VAL:HA	1.92	0.52
1:CA:972:C:H4'	10:CJ:59:LYS:CG	2.39	0.52
5:CE:98:PRO:O	5:CE:99:ALA:CB	2.58	0.52
6:CF:99:ALA:O	6:CF:100:SER:HB3	2.10	0.52
10:CJ:52:LEU:HD22	10:CJ:59:LYS:HA	1.91	0.52
22:DA:1917:U:H2'	22:DA:1918:A:H5'	1.92	0.52
22:DA:489:G:C2	22:DA:491:G:H1'	2.45	0.52
22:DA:973:A:O4'	22:DA:1188:U:C6	2.62	0.52
23:DB:71:C:C2	23:DB:106:G:C2	2.97	0.52
25:DD:78:GLY:CA	25:DD:80:TRP:CH2	2.92	0.52
28:DG:91:GLY:O	28:DG:92:VAL:O	2.27	0.52
25:DD:157:LYS:HD2	31:DJ:79:GLY:O	2.10	0.52
38:DQ:72:ASN:CB	38:DQ:110:VAL:HG11	2.40	0.52
45:DX:40:VAL:CG2	45:DX:43:GLU:HB2	2.39	0.52
1:AA:1053:G:O5'	1:AA:1054:C:H5'	2.09	0.52
1:AA:841:C:O2	1:AA:843:U:N3	2.43	0.52
21:AU:16:LEU:C	21:AU:18:ARG:HD2	2.30	0.52
48:B0:46:ASP:O	48:B0:53:LYS:HE3	2.10	0.52
22:BA:816:C:C2	22:BA:1192:G:N2	2.77	0.52
22:BA:1392:A:C6	22:BA:1393:A:N1	2.78	0.52
23:BB:75:G:H1'	43:BV:29:ILE:HG13	1.91	0.52
22:BA:2572:A:N7	25:BD:150:GLN:HB2	2.24	0.52
29:BH:51:ARG:NH1	29:BH:55:GLU:OE1	2.43	0.52
32:BK:47:ILE:HB	32:BK:48:PRO:HD3	1.92	0.52
1:AA:1422:G:O3'	32:BK:49:ARG:NH2	2.42	0.52
35:BN:67:PHE:HE2	35:BN:71:ARG:NH1	2.08	0.52
37:BP:114:LEU:O	37:BP:115:ASN:HB3	2.09	0.52
39:BR:21:ARG:NH1	39:BR:93:PHE:CE1	2.78	0.52
44:BW:47:ALA:HB2	44:BW:59:LEU:HD22	1.91	0.52
1:CA:1410:A:H2'	1:CA:1411:C:C6	2.45	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:131:A:O2'	1:CA:262:A:N3	2.37	0.52
1:CA:401:C:OP2	4:CD:70:ARG:HD3	2.09	0.52
1:CA:909:A:C8	1:CA:910:C:C5	2.97	0.52
3:CC:43:LEU:HD21	3:CC:68:ILE:HD11	1.92	0.52
4:CD:168:PRO:HB2	4:CD:171:LEU:HD13	1.91	0.52
7:CG:71:PRO:HD2	7:CG:96:ARG:O	2.09	0.52
20:CT:9:LYS:O	20:CT:12:ILE:HG12	2.10	0.52
22:DA:957:C:C4	22:DA:2459:A:H1'	2.45	0.52
24:DC:141:VAL:HG11	24:DC:190:ALA:HB1	1.91	0.52
28:DG:80:THR:HG22	28:DG:81:GLU:N	2.24	0.52
29:DH:72:ILE:HG22	29:DH:72:ILE:O	2.09	0.52
41:DT:51:PHE:O	41:DT:53:VAL:N	2.43	0.52
1:AA:1074:G:N1	1:AA:1075:U:C2	2.78	0.52
1:AA:1140:C:O2'	1:AA:1141:C:P	2.67	0.52
1:AA:121:U:H4'	1:AA:121:U:OP2	2.09	0.52
1:AA:1286:U:C6	1:AA:1286:U:OP1	2.63	0.52
1:AA:338:A:N6	1:AA:339:C:C4	2.77	0.52
2:AB:94:HIS:ND1	2:AB:146:ASN:HB2	2.23	0.52
5:AE:122:ASN:N	5:AE:122:ASN:ND2	2.57	0.52
20:AT:58:VAL:CG1	20:AT:72:ALA:HA	2.40	0.52
22:BA:1588:G:C2	22:BA:1589:U:C6	2.98	0.52
22:BA:1734:G:H2'	22:BA:1735:A:H8	1.74	0.52
22:BA:2462:C:C4	22:BA:2463:C:N4	2.77	0.52
22:BA:975:A:C2	22:BA:990:A:C8	2.97	0.52
23:BB:24:G:N2	23:BB:28:C:C2	2.77	0.52
25:BD:104:VAL:O	25:BD:105:LYS:HB2	2.10	0.52
28:BG:67:THR:O	28:BG:71:LEU:HG	2.10	0.52
28:BG:24:ILE:HD12	28:BG:72:LEU:HD21	1.91	0.52
31:BJ:30:THR:CG2	31:BJ:31:GLU:N	2.72	0.52
34:BM:70:ASP:C	34:BM:70:ASP:OD2	2.48	0.52
38:BQ:74:ILE:HG23	38:BQ:74:ILE:O	2.10	0.52
1:CA:123:U:H2'	1:CA:124:C:H6	1.74	0.52
1:CA:1521:C:C2	1:CA:1522:U:C6	2.98	0.52
1:CA:18:C:C4	1:CA:19:A:N7	2.77	0.52
1:CA:801:U:H2'	1:CA:802:A:H8	1.73	0.52
2:CB:80:VAL:HG13	2:CB:214:LEU:HD11	1.91	0.52
5:CE:76:LEU:HD23	5:CE:120:VAL:HG13	1.91	0.52
16:CP:38:PHE:CZ	16:CP:51:ARG:HB3	2.45	0.52
21:CU:53:VAL:HG13	21:CU:54:LYS:N	2.25	0.52
22:DA:1856:U:C4	22:DA:1857:G:C6	2.98	0.52
22:DA:2326:C:H1'	22:DA:2327:A:OP1	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1638:C:H5''	22:DA:2710:C:O2'	2.10	0.52
22:DA:2852:G:H2'	22:DA:2853:C:O4'	2.10	0.52
28:DG:84:THR:OG1	28:DG:134:LYS:HG2	2.08	0.52
29:DH:23:ALA:O	29:DH:27:ARG:N	2.38	0.52
29:DH:34:GLY:O	29:DH:35:LYS:HD2	2.10	0.52
33:DL:29:LYS:HG3	33:DL:30:THR:HG23	1.92	0.52
33:DL:50:PHE:CZ	33:DL:52:GLY:O	2.63	0.52
46:DY:18:LEU:O	46:DY:22:LEU:CB	2.56	0.52
47:DZ:41:THR:HG23	47:DZ:44:ILE:HG12	1.92	0.52
1:AA:994:A:N1	1:AA:1047:G:H4'	2.25	0.52
1:AA:1107:C:C4	1:AA:1108:G:N7	2.78	0.52
1:AA:1224:U:O2'	1:AA:1322:C:OP1	2.27	0.52
1:AA:1253:G:H2'	1:AA:1254:A:H8	1.75	0.52
1:AA:207:C:O2	1:AA:213:G:N2	2.43	0.52
1:AA:924:C:O2'	1:AA:925:G:H5'	2.08	0.52
3:AC:165:THR:O	3:AC:166:GLU:HB2	2.09	0.52
4:AD:150:LYS:O	4:AD:152:GLN:N	2.43	0.52
7:AG:63:GLU:O	7:AG:63:GLU:OE1	2.27	0.52
9:AI:99:ARG:O	9:AI:101:ALA:N	2.42	0.52
19:AS:51:VAL:HG22	19:AS:71:LEU:CD1	2.39	0.52
22:BA:1095:A:H2'	22:BA:1096:A:C8	2.45	0.52
22:BA:1269:A:H2'	22:BA:1270:C:C6	2.44	0.52
22:BA:1316:U:C2	22:BA:1337:G:N2	2.78	0.52
22:BA:2226:C:H2'	22:BA:2226:C:O2	2.09	0.52
22:BA:515:A:H1'	22:BA:581:C:H1'	1.90	0.52
22:BA:812:C:C5	22:BA:1250:G:C6	2.97	0.52
24:BC:107:PRO:HB3	24:BC:142:HIS:HE1	1.73	0.52
24:BC:130:LEU:N	24:BC:130:LEU:HD23	2.25	0.52
25:BD:103:ASP:O	25:BD:105:LYS:N	2.39	0.52
30:BI:57:VAL:CG2	30:BI:58:VAL:N	2.71	0.52
35:BN:1:MET:O	35:BN:2:ARG:CB	2.57	0.52
1:CA:1022:A:C5	1:CA:1023:U:C4	2.98	0.52
1:CA:1215:G:C6	1:CA:1216:A:C5	2.98	0.52
1:CA:1326:U:H2'	1:CA:1327:C:C6	2.45	0.52
1:CA:1311:A:C2	1:CA:1327:C:N3	2.78	0.52
1:CA:1300:G:C6	1:CA:1335:U:C6	2.97	0.52
1:CA:295:C:N4	1:CA:296:U:O4	2.43	0.52
1:CA:545:C:H5'	4:CD:69:GLU:CG	2.39	0.52
5:CE:52:LYS:O	5:CE:53:ALA:HB2	2.09	0.52
17:CQ:47:HIS:HB2	17:CQ:67:LEU:CD1	2.40	0.52
49:D1:15:ALA:O	49:D1:17:THR:N	2.43	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D3:32:ILE:HG22	51:D3:32:ILE:O	2.10	0.52
22:DA:2473:U:O2	22:DA:2473:U:H2'	2.09	0.52
22:DA:686:U:H2'	22:DA:788:A:C2	2.43	0.52
22:DA:704:G:H1'	22:DA:726:G:H22	1.75	0.52
22:DA:830:G:C2	22:DA:2448:A:N7	2.78	0.52
24:DC:101:ARG:O	24:DC:102:ARG:HG3	2.10	0.52
1:AA:1060:U:O2	1:AA:1061:G:C8	2.63	0.52
1:AA:669:G:H2'	1:AA:670:G:H8	1.74	0.52
1:AA:796:C:OP1	11:AK:126:LYS:HB2	2.10	0.52
1:AA:815:A:H4'	1:AA:817:C:C4	2.45	0.52
2:AB:117:LEU:HB3	2:AB:141:LEU:HD11	1.92	0.52
2:AB:82:ASP:C	2:AB:84:ALA:N	2.63	0.52
10:AJ:18:ILE:CG2	10:AJ:19:ASP:N	2.73	0.52
1:AA:973:G:H1'	10:AJ:56:HIS:HD2	1.74	0.52
18:AR:25:ASP:O	18:AR:27:ALA:N	2.42	0.52
20:AT:25:ARG:O	20:AT:29:ARG:HG3	2.10	0.52
21:AU:12:PHE:HD2	21:AU:12:PHE:N	2.07	0.52
21:AU:16:LEU:O	21:AU:18:ARG:HD2	2.10	0.52
22:BA:110:G:H2'	22:BA:110:G:N3	2.25	0.52
22:BA:2075:U:H2'	22:BA:2077:A:OP2	2.09	0.52
22:BA:2513:A:N3	22:BA:2513:A:H2'	2.25	0.52
22:BA:503:A:C2	22:BA:505:A:C4	2.98	0.52
22:BA:585:G:C4'	22:BA:586:A:OP1	2.57	0.52
22:BA:616:A:OP2	57:BA:3290:HOH:O	2.19	0.52
22:BA:84:A:H4'	22:BA:85:G:O5'	2.10	0.52
25:BD:1:MET:HA	25:BD:88:GLU:OE2	2.10	0.52
34:BM:34:LYS:O	34:BM:129:THR:N	2.43	0.52
35:BN:49:GLU:OE2	35:BN:95:THR:CG2	2.58	0.52
39:BR:41:ILE:O	39:BR:46:GLU:HB2	2.09	0.52
22:BA:1187:G:H5'	39:BR:83:TYR:CZ	2.44	0.52
1:CA:273:U:H1'	17:CQ:18:GLU:OE2	2.10	0.52
1:CA:407:U:H2'	1:CA:408:A:C8	2.45	0.52
1:CA:73:C:HO2'	1:CA:74:A:C5'	2.23	0.52
1:CA:855:U:H2'	1:CA:856:C:C6	2.44	0.52
7:CG:42:ILE:HD13	7:CG:116:MET:HB3	1.91	0.52
13:CM:33:ILE:HG23	13:CM:59:GLU:HB3	1.91	0.52
22:DA:107:G:O3'	22:DA:293:U:O2'	2.12	0.52
22:DA:1231:U:H2'	22:DA:1232:G:H8	1.75	0.52
22:DA:1355:G:C6	22:DA:1356:G:N7	2.78	0.52
22:DA:1738:G:HO2'	22:DA:1739:A:P	2.32	0.52
22:DA:2499:C:C4	22:DA:2500:U:O4	2.63	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2549:G:C2	22:DA:2560:A:C2	2.98	0.52
22:DA:2557:G:H2'	22:DA:2558:C:C6	2.45	0.52
22:DA:2747:G:O6	22:DA:2755:C:H5''	2.10	0.52
22:DA:39:G:C6	22:DA:40:U:C4	2.98	0.52
22:DA:661:A:H1'	33:DL:12:SER:O	2.09	0.52
22:DA:696:G:C2	22:DA:767:U:O2	2.63	0.52
22:DA:748:G:O6	22:DA:751:A:H5'	2.09	0.52
22:DA:833:A:H2'	22:DA:834:G:C8	2.44	0.52
24:DC:107:PRO:HD2	24:DC:110:LEU:HD22	1.92	0.52
27:DF:5:HIS:O	27:DF:9:LYS:HG3	2.10	0.52
22:DA:993:G:H1'	39:DR:91:GLN:OE1	2.10	0.52
42:DU:74:ASN:HA	42:DU:96:PHE:CZ	2.45	0.52
1:AA:1001:C:H2'	1:AA:1002:G:C8	2.45	0.52
1:AA:1306:A:C5	1:AA:1307:U:C5	2.97	0.52
7:AG:130:ASN:HA	7:AG:135:VAL:HG11	1.92	0.52
9:AI:46:MET:N	9:AI:46:MET:SD	2.83	0.52
22:BA:1002:G:C2	22:BA:1003:G:H1'	2.44	0.52
22:BA:1045:C:H3'	22:BA:1046:A:H5'	1.91	0.52
22:BA:1121:C:H2'	22:BA:1122:G:O4'	2.10	0.52
22:BA:1374:G:C2'	22:BA:1375:U:H5'	2.40	0.52
22:BA:1584:U:C2'	22:BA:1584:U:O2	2.57	0.52
22:BA:1271:G:O2'	22:BA:1618:A:OP1	2.20	0.52
22:BA:1829:A:O2'	24:BC:15:HIS:CD2	2.63	0.52
22:BA:2116:G:C6	22:BA:2171:A:N6	2.77	0.52
22:BA:2331:G:C6	22:BA:2332:C:C4	2.97	0.52
22:BA:238:C:H2'	22:BA:239:C:O5'	2.09	0.52
22:BA:613:A:H2'	22:BA:614:A:H5''	1.91	0.52
22:BA:893:C:H2'	22:BA:894:U:O4'	2.10	0.52
26:BE:196:VAL:HG13	26:BE:200:LEU:CD2	2.40	0.52
22:BA:674:G:O2'	26:BE:69:ARG:HD3	2.10	0.52
29:BH:94:ILE:HD12	29:BH:98:ASP:HB3	1.92	0.52
30:BI:116:ASP:O	30:BI:117:MET:CB	2.57	0.52
32:BK:116:ILE:O	32:BK:118:LEU:O	2.27	0.52
29:BH:123:ARG:NH2	1:CA:367:U:O5'	2.43	0.52
1:CA:369:G:OP2	1:CA:388:G:N2	2.39	0.52
1:CA:604:G:H2'	1:CA:605:U:O4'	2.09	0.52
1:CA:632:U:O2	1:CA:632:U:C2'	2.58	0.52
1:CA:926:G:C6	1:CA:1505:G:C5	2.98	0.52
1:CA:976:G:N2	1:CA:1363:A:C4	2.78	0.52
5:CE:101:GLU:HA	5:CE:122:ASN:CB	2.40	0.52
5:CE:25:VAL:N	5:CE:28:GLY:O	2.37	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:89:LYS:HA	8:CH:92:LEU:HD12	1.92	0.52
11:CK:27:PHE:CE1	11:CK:89:PRO:HG2	2.45	0.52
17:CQ:61:ILE:HA	17:CQ:75:LEU:HA	1.92	0.52
20:CT:39:ILE:HD11	20:CT:83:ILE:HG22	1.90	0.52
22:DA:1020:A:C2	22:DA:1141:U:C2	2.98	0.52
22:DA:289:G:C2	22:DA:352:A:C2	2.98	0.52
25:DD:123:LYS:HD3	25:DD:165:MET:SD	2.49	0.52
27:DF:106:ILE:HG12	27:DF:107:ALA:N	2.25	0.52
29:DH:25:TYR:CZ	29:DH:30:LEU:HD21	2.45	0.52
37:DP:48:ILE:HD13	37:DP:62:ARG:HB2	1.92	0.52
41:DT:72:GLN:O	41:DT:73:ARG:O	2.28	0.52
1:AA:347:G:H2'	1:AA:348:G:O5'	2.10	0.52
1:AA:715:A:OP1	1:AA:805:C:H1'	2.10	0.52
4:AD:151:LYS:CA	4:AD:178:MET:HE1	2.38	0.52
5:AE:60:ILE:HG13	5:AE:61:GLN:N	2.24	0.52
6:AF:84:VAL:O	6:AF:84:VAL:HG22	2.10	0.52
14:AN:64:CYS:HB2	14:AN:80:SER:HB2	1.91	0.52
14:AN:64:CYS:O	14:AN:66:GLN:N	2.43	0.52
15:AO:88:ARG:O	15:AO:89:ARG:OXT	2.28	0.52
16:AP:12:LYS:O	16:AP:13:LYS:HB2	2.10	0.52
22:BA:1073:A:N7	22:BA:1074:G:C8	2.78	0.52
22:BA:2547:A:H2'	22:BA:2548:U:C6	2.44	0.52
22:BA:2619:C:H5'	25:BD:155:VAL:O	2.10	0.52
22:BA:574:A:H4'	22:BA:575:A:O5'	2.10	0.52
22:BA:699:A:N7	22:BA:734:A:C5	2.78	0.52
22:BA:877:A:C6	22:BA:899:A:C6	2.98	0.52
25:BD:139:SER:HA	25:BD:142:VAL:HG13	1.91	0.52
29:BH:2:GLN:O	29:BH:3:VAL:HG22	2.10	0.52
38:BQ:76:TYR:OH	38:BQ:92:ARG:NH1	2.43	0.52
39:BR:79:ARG:O	39:BR:80:ARG:CB	2.58	0.52
39:BR:25:LEU:N	39:BR:94:THR:HG21	2.25	0.52
45:BX:17:ASN:OD1	45:BX:27:ARG:HD2	2.10	0.52
1:CA:1082:A:C6	1:CA:1083:U:N3	2.78	0.52
1:CA:142:G:C2	1:CA:143:A:H1'	2.44	0.52
1:CA:72:A:C5	1:CA:73:C:C5	2.98	0.52
2:CB:59:LYS:HA	2:CB:62:SER:HB2	1.92	0.52
2:CB:82:ASP:N	2:CB:82:ASP:OD1	2.43	0.52
5:CE:105:ILE:N	5:CE:122:ASN:O	2.44	0.52
5:CE:131:THR:O	5:CE:132:ASN:C	2.48	0.52
5:CE:155:ALA:HB1	8:CH:66:PHE:CE2	2.44	0.52
11:CK:116:ILE:O	11:CK:116:ILE:HG22	2.08	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:19:LEU:CB	13:CM:30:SER:OG	2.58	0.52
14:CN:23:LYS:HG3	14:CN:24:ARG:N	2.24	0.52
15:CO:56:LEU:O	15:CO:59:MET:N	2.43	0.52
15:CO:73:LYS:HA	15:CO:73:LYS:HE2	1.91	0.52
19:CS:29:LYS:CB	19:CS:30:PRO:HD2	2.40	0.52
20:CT:80:THR:O	20:CT:83:ILE:N	2.42	0.52
50:D2:18:PHE:O	50:D2:21:ARG:N	2.43	0.52
51:D3:27:ALA:O	51:D3:28:ASN:HB2	2.10	0.52
22:DA:1340:U:H4'	22:DA:1341:G:OP2	2.09	0.52
22:DA:1881:C:H2'	22:DA:1882:U:O4'	2.10	0.52
22:DA:2111:U:C5	22:DA:2145:C:H2'	2.45	0.52
22:DA:2133:G:C2	22:DA:2158:A:C6	2.98	0.52
22:DA:2311:A:HO2'	22:DA:2312:U:P	2.30	0.52
22:DA:2297:A:C8	22:DA:2320:U:C4	2.98	0.52
22:DA:2554:U:H2'	22:DA:2555:U:C6	2.45	0.52
22:DA:271:G:H4'	22:DA:272:A:OP1	2.09	0.52
22:DA:36:G:C2'	22:DA:450:G:HO2'	2.23	0.52
22:DA:729:G:H2'	22:DA:1775:U:H1'	1.92	0.52
22:DA:1566:A:N1	24:DC:213:TRP:CE3	2.78	0.52
26:DE:83:VAL:CG1	26:DE:86:ALA:HA	2.40	0.52
35:DN:46:ARG:O	35:DN:50:PRO:HG2	2.10	0.52
36:DO:97:PHE:HB2	36:DO:103:VAL:HG11	1.92	0.52
39:DR:29:THR:O	39:DR:29:THR:HG22	2.09	0.52
40:DS:41:LYS:O	40:DS:42:LYS:C	2.48	0.52
46:DY:1:MET:HA	46:DY:4:LYS:HD3	1.92	0.52
1:AA:1349:A:C6	1:AA:1374:A:C8	2.98	0.51
1:AA:1353:G:C2	1:AA:1354:U:C6	2.99	0.51
1:AA:209:U:C4'	1:AA:210:C:OP2	2.58	0.51
1:AA:27:G:C5	1:AA:557:G:C2	2.97	0.51
1:AA:568:G:C4	1:AA:569:C:C5	2.97	0.51
1:AA:620:C:H1'	4:AD:132:ILE:HD11	1.91	0.51
1:AA:701:U:H4'	1:AA:702:A:C5'	2.40	0.51
11:AK:74:VAL:C	11:AK:76:GLU:H	2.11	0.51
40:BS:41:LYS:HE3	48:B0:22:LEU:HD21	1.92	0.51
22:BA:1080:A:H2'	22:BA:1080:A:N3	2.25	0.51
22:BA:2498:C:P	57:BA:3688:HOH:O	2.64	0.51
22:BA:2821:A:OP2	25:BD:115:GLY:HA3	2.10	0.51
22:BA:418:C:H2'	22:BA:419:U:O4'	2.10	0.51
22:BA:584:C:OP2	38:BQ:6:ARG:HG3	2.10	0.51
22:BA:784:G:H5''	24:BC:226:ASN:OD1	2.10	0.51
28:BG:149:ARG:HH11	28:BG:149:ARG:CG	2.22	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:117:LEU:CD2	29:BH:121:VAL:N	2.70	0.51
36:BO:53:THR:HB	36:BO:65:THR:HG22	1.91	0.51
1:CA:1084:G:C5	1:CA:1085:U:C4	2.98	0.51
1:CA:1087:G:N2	1:CA:1099:G:H1'	2.25	0.51
1:CA:1202:U:C2'	1:CA:1203:C:H5'	2.40	0.51
1:CA:102:G:O2'	1:CA:151:A:N3	2.34	0.51
1:CA:19:A:C2	1:CA:20:U:C2	2.98	0.51
1:CA:505:G:H2'	1:CA:506:G:C8	2.45	0.51
1:CA:844:G:N3	1:CA:844:G:H2'	2.25	0.51
2:CB:206:ALA:O	2:CB:209:ALA:N	2.43	0.51
4:CD:36:GLN:O	4:CD:37:ALA:HB2	2.10	0.51
5:CE:149:SER:HB2	5:CE:152:MET:HG3	1.92	0.51
22:DA:1551:A:N6	57:DA:3632:HOH:O	2.42	0.51
22:DA:158:U:H2'	22:DA:159:G:H5'	1.92	0.51
22:DA:1647:U:H3'	22:DA:1647:U:OP2	2.10	0.51
22:DA:2712:C:OP1	22:DA:2714:G:H4'	2.10	0.51
22:DA:2:G:C6	22:DA:3:U:C4	2.97	0.51
22:DA:270:A:C2	22:DA:369:U:H4'	2.45	0.51
22:DA:621:A:OP2	33:DL:99:ASN:ND2	2.41	0.51
27:DF:73:SER:HB2	27:DF:81:GLN:HB3	1.92	0.51
30:DI:8:TYR:CD1	30:DI:8:TYR:O	2.63	0.51
31:DJ:5:THR:C	31:DJ:6:ALA:O	2.48	0.51
40:DS:7:HIS:HB2	40:DS:50:VAL:CG2	2.39	0.51
45:DX:28:ARG:NH1	45:DX:30:LEU:HD21	2.25	0.51
45:DX:54:LYS:O	45:DX:57:ARG:N	2.43	0.51
1:AA:100:G:C5	1:AA:101:A:C5	2.99	0.51
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.09	0.51
1:AA:131:A:H2'	1:AA:132:C:H6	1.75	0.51
1:AA:1442:G:H2'	1:AA:1443:C:H6	1.75	0.51
5:AE:82:GLN:H	5:AE:147:MET:CE	2.23	0.51
11:AK:31:ILE:HB	11:AK:46:THR:HG22	1.93	0.51
13:AM:114:LYS:CB	13:AM:115:PRO:CD	2.89	0.51
17:AQ:16:LYS:O	17:AQ:16:LYS:HE3	2.10	0.51
17:AQ:81:LYS:CD	17:AQ:81:LYS:N	2.73	0.51
22:BA:1301:A:C4	22:BA:1303:G:N7	2.79	0.51
22:BA:1392:A:C6	22:BA:1393:A:C6	2.97	0.51
22:BA:1644:C:O2	22:BA:1644:C:H2'	2.10	0.51
22:BA:2056:G:N2	22:BA:2057:G:C4	2.79	0.51
22:BA:2180:U:C5'	22:BA:2181:U:OP2	2.58	0.51
22:BA:2681:C:OP2	25:BD:114:LYS:HE2	2.09	0.51
22:BA:361:G:HO2'	22:BA:362:A:P	2.32	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:623:C:H2'	22:BA:624:C:C6	2.45	0.51
25:BD:146:ILE:HG22	25:BD:159:LYS:HE3	1.91	0.51
32:BK:10:VAL:HG21	32:BK:16:ALA:HB3	1.92	0.51
45:BX:8:THR:OG1	45:BX:10:LYS:HG3	2.10	0.51
1:CA:1028:C:OP2	1:CA:1028:C:C6	2.63	0.51
1:CA:844:G:C8	1:CA:844:G:OP2	2.64	0.51
2:CB:183:VAL:N	2:CB:197:ASP:OD1	2.43	0.51
11:CK:52:PHE:CZ	11:CK:62:ALA:HA	2.45	0.51
14:CN:64:CYS:SG	14:CN:80:SER:HB2	2.51	0.51
50:D2:44:VAL:O	50:D2:45:SER:CB	2.58	0.51
22:DA:1351:C:H2'	22:DA:1352:U:C1'	2.41	0.51
22:DA:214:G:H1'	22:DA:217:A:H5'	1.92	0.51
22:DA:2199:A:C5	22:DA:2225:A:C6	2.98	0.51
22:DA:228:C:H5''	22:DA:229:C:C6	2.46	0.51
22:DA:200:U:C4	22:DA:248:G:C2	2.98	0.51
22:DA:2518:A:P	57:DA:3533:HOH:O	2.67	0.51
22:DA:30:G:C5	22:DA:31:C:C4	2.99	0.51
22:DA:792:A:N3	22:DA:2072:C:O2'	2.32	0.51
28:DG:113:VAL:HG11	28:DG:151:TYR:CE2	2.46	0.51
33:DL:90:VAL:HB	33:DL:122:VAL:HA	1.92	0.51
34:DM:59:ARG:HD3	34:DM:59:ARG:O	2.10	0.51
41:DT:38:ALA:O	41:DT:39:THR:HB	2.11	0.51
41:DT:64:LYS:HA	41:DT:79:ASP:OD1	2.11	0.51
1:AA:999:C:H2'	1:AA:1000:A:C8	2.45	0.51
1:AA:102:G:C2	1:AA:103:U:C5	2.99	0.51
1:AA:111:G:H5''	1:AA:112:G:OP2	2.10	0.51
1:AA:1538:C:C2'	1:AA:1539:C:H5'	2.41	0.51
1:AA:502:A:C2	1:AA:544:G:C2	2.98	0.51
1:AA:972:C:H4'	10:AJ:59:LYS:HE3	1.92	0.51
4:AD:174:ASP:OD2	4:AD:176:GLY:N	2.42	0.51
15:AO:32:LEU:O	15:AO:33:THR:C	2.49	0.51
21:AU:14:VAL:HG13	21:AU:16:LEU:HG	1.92	0.51
22:BA:1423:G:C2	22:BA:1424:G:C4	2.98	0.51
22:BA:1504:A:C2	22:BA:1505:A:C4	2.98	0.51
22:BA:1791:A:OP2	57:BA:3787:HOH:O	2.19	0.51
22:BA:2480:C:C2'	22:BA:2481:G:H5'	2.40	0.51
22:BA:340:A:H2'	22:BA:341:C:H5'	1.92	0.51
29:BH:99:ILE:O	29:BH:103:VAL:CG2	2.58	0.51
22:BA:585:G:N7	38:BQ:6:ARG:NH1	2.58	0.51
1:CA:476:U:O2'	1:CA:477:C:H5'	2.10	0.51
1:CA:528:C:O2	1:CA:528:C:H2'	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:73:C:C2	1:CA:74:A:C8	2.98	0.51
1:CA:878:A:C6	1:CA:879:C:C4	2.99	0.51
2:CB:47:VAL:HB	2:CB:48:PRO:HD3	1.91	0.51
2:CB:81:LYS:HG2	2:CB:85:LEU:HD23	1.93	0.51
4:CD:161:LEU:HD23	4:CD:162:ALA:N	2.24	0.51
16:CP:10:GLY:O	16:CP:11:ALA:HB2	2.11	0.51
22:DA:1335:C:H2'	22:DA:1336:A:C8	2.45	0.51
22:DA:1709:U:H2'	22:DA:1710:G:C8	2.45	0.51
22:DA:1998:A:OP2	25:DD:141:ARG:NH2	2.43	0.51
22:DA:2013:A:N6	22:DA:2014:A:N1	2.58	0.51
22:DA:2061:G:H5''	22:DA:2503:A:C2	2.46	0.51
22:DA:2074:U:H2'	22:DA:2075:U:C6	2.46	0.51
22:DA:2148:G:C2	22:DA:2149:U:C4	2.99	0.51
22:DA:2134:A:OP2	22:DA:2157:G:N2	2.41	0.51
22:DA:2622:U:O2'	22:DA:2825:G:N7	2.43	0.51
22:DA:570:G:C4	22:DA:2030:A:N7	2.79	0.51
33:DL:55:MET:SD	33:DL:59:ARG:NH2	2.84	0.51
36:DO:35:ILE:HG23	36:DO:35:ILE:O	2.11	0.51
1:AA:1197:A:OP1	1:AA:1198:G:OP2	2.28	0.51
1:AA:1219:A:H2'	1:AA:1220:G:C8	2.45	0.51
1:AA:429:U:H1'	1:AA:430:A:H5''	1.91	0.51
1:AA:616:G:N2	1:AA:617:G:C4	2.79	0.51
1:AA:859:G:H2'	1:AA:860:A:C8	2.45	0.51
3:AC:70:THR:OG1	3:AC:71:ALA:N	2.43	0.51
1:AA:1081:A:H5'	5:AE:23:LYS:HG3	1.92	0.51
6:AF:10:VAL:HG12	6:AF:11:HIS:N	2.25	0.51
12:AL:22:PRO:O	12:AL:24:LEU:N	2.41	0.51
1:AA:375:U:OP1	16:AP:70:ARG:NH1	2.44	0.51
50:B2:1:MET:O	50:B2:2:LYS:C	2.48	0.51
22:BA:1358:G:C8	22:BA:1371:G:O6	2.63	0.51
22:BA:1936:A:N3	22:BA:1940:U:O2	2.43	0.51
22:BA:2064:C:H2'	22:BA:2065:C:C6	2.46	0.51
22:BA:2298:A:C4	22:BA:2321:U:H5	2.29	0.51
22:BA:2341:G:H2'	22:BA:2342:C:C6	2.45	0.51
22:BA:2747:G:O2'	28:BG:67:THR:HB	2.09	0.51
22:BA:2451:A:C2	55:BA:3001:VIF:C23	2.94	0.51
22:BA:841:G:H2'	22:BA:842:U:C6	2.45	0.51
26:BE:147:LEU:CD2	26:BE:180:LEU:HD23	2.39	0.51
29:BH:110:VAL:HG22	29:BH:114:GLU:HB2	1.90	0.51
30:BI:43:ASN:OD1	30:BI:46:THR:HB	2.10	0.51
31:BJ:81:ILE:HG23	31:BJ:82:GLY:H	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:24:TYR:O	38:BQ:25:TYR:CB	2.58	0.51
39:BR:5:PHE:HA	39:BR:39:LEU:HD12	1.92	0.51
1:CA:987:G:N2	1:CA:1218:C:O2	2.44	0.51
1:CA:1434:A:N6	1:CA:1435:G:C6	2.79	0.51
1:CA:1450:U:O2'	1:CA:1451:U:H2'	2.11	0.51
1:CA:673:A:H2'	1:CA:674:G:C8	2.45	0.51
2:CB:102:THR:CG2	2:CB:175:GLU:HG2	2.40	0.51
2:CB:50:PHE:HB2	2:CB:213:TYR:OH	2.10	0.51
3:CC:77:ILE:HA	3:CC:84:VAL:CG2	2.39	0.51
22:DA:1316:U:C2	22:DA:1337:G:N2	2.78	0.51
22:DA:579:G:N2	22:DA:1262:A:C4	2.78	0.51
22:DA:756:A:H2'	22:DA:757:G:O4'	2.10	0.51
23:DB:115:A:H2'	23:DB:116:G:C8	2.45	0.51
24:DC:35:GLU:O	24:DC:36:LYS:O	2.29	0.51
26:DE:52:VAL:HB	26:DE:74:LYS:HD3	1.92	0.51
29:DH:121:VAL:O	29:DH:122:LEU:HB2	2.11	0.51
22:DA:2882:A:H5'	35:DN:96:ARG:HB2	1.92	0.51
22:DA:77:G:OP1	46:DY:52:ARG:HD3	2.11	0.51
1:AA:1157:A:H1'	1:AA:1181:G:N2	2.25	0.51
1:AA:596:A:N6	1:AA:645:G:C6	2.79	0.51
2:AB:91:PHE:O	2:AB:150:GLY:HA3	2.10	0.51
5:AE:77:ASN:O	5:AE:78:ASN:CB	2.59	0.51
7:AG:137:LYS:O	7:AG:141:VAL:HG23	2.11	0.51
1:AA:1150:A:O2'	10:AJ:43:PRO:HD3	2.10	0.51
22:BA:1107:G:C6	22:BA:1108:U:C4	2.98	0.51
22:BA:1275:A:C8	35:BN:16:HIS:ND1	2.79	0.51
22:BA:2077:A:O2'	22:BA:2078:C:H5'	2.10	0.51
22:BA:229:C:H2'	22:BA:230:G:O5'	2.11	0.51
22:BA:2486:C:C2'	22:BA:2487:G:O5'	2.58	0.51
22:BA:45:G:H5'	22:BA:46:G:OP1	2.10	0.51
25:BD:40:LEU:O	25:BD:41:ALA:C	2.49	0.51
46:BY:45:GLN:O	46:BY:46:VAL:HG23	2.10	0.51
1:CA:1130:A:N9	1:CA:1146:A:C2	2.78	0.51
1:CA:31:G:O4'	1:CA:306:A:C2	2.63	0.51
1:CA:756:C:C2'	1:CA:757:U:H5'	2.41	0.51
2:CB:119:THR:O	2:CB:120:GLN:HB3	2.10	0.51
2:CB:126:PHE:N	2:CB:126:PHE:CD2	2.78	0.51
2:CB:225:ARG:O	2:CB:226:SER:HB2	2.11	0.51
12:CL:90:LEU:CB	12:CL:93:VAL:CG2	2.89	0.51
22:DA:1376:C:H3'	57:DA:3398:HOH:O	2.10	0.51
22:DA:1668:A:O4'	22:DA:1669:A:C2	2.64	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1680:U:H2'	22:DA:1681:G:O4'	2.11	0.51
22:DA:1869:G:N2	22:DA:1871:A:O2'	2.43	0.51
22:DA:1965:C:OP1	22:DA:1966:A:O2'	2.28	0.51
22:DA:2058:A:N6	22:DA:2059:A:N6	2.58	0.51
22:DA:571:U:C4	22:DA:2030:A:C6	2.99	0.51
22:DA:675:A:C6	22:DA:676:A:C6	2.99	0.51
22:DA:706:A:C2	22:DA:707:G:H1'	2.45	0.51
22:DA:931:U:H4'	22:DA:932:U:OP2	2.10	0.51
27:DF:134:GLU:HG3	27:DF:136:ILE:HD12	1.91	0.51
22:DA:1082:U:OP1	30:DI:124:ALA:HB2	2.10	0.51
30:DI:76:ALA:HB3	30:DI:132:THR:HG21	1.91	0.51
30:DI:58:VAL:HG12	30:DI:59:ILE:N	2.26	0.51
31:DJ:15:TRP:O	31:DJ:137:PRO:HA	2.10	0.51
26:DE:181:ILE:HG23	33:DL:2:ARG:CZ	2.41	0.51
37:DP:113:ARG:O	37:DP:114:LEU:HD23	2.11	0.51
1:AA:1489:G:C6	1:AA:1490:U:C4	2.98	0.51
1:AA:339:C:H2'	1:AA:340:U:H6	1.75	0.51
1:AA:682:G:N2	1:AA:709:U:C2	2.78	0.51
1:AA:832:G:C4	1:AA:833:G:C8	2.98	0.51
2:AB:23:TRP:HB3	2:AB:39:HIS:CE1	2.45	0.51
2:AB:72:THR:O	2:AB:73:LYS:CB	2.58	0.51
4:AD:174:ASP:OD2	4:AD:177:LYS:N	2.37	0.51
15:AO:43:PHE:CE1	15:AO:56:LEU:HD22	2.46	0.51
22:BA:164:C:C2'	22:BA:165:A:H5'	2.41	0.51
22:BA:2056:G:H2'	22:BA:2056:G:N3	2.25	0.51
22:BA:2371:G:C2	22:BA:2372:U:C6	2.99	0.51
22:BA:2742:G:O2'	22:BA:2743:U:H5'	2.10	0.51
29:BH:100:ALA:CB	29:BH:112:LYS:HA	2.41	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
36:BO:100:HIS:CG	36:BO:101:GLY:N	2.77	0.51
40:BS:28:LYS:O	40:BS:29:VAL:C	2.49	0.51
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.73	0.51
1:CA:1491:G:H2'	1:CA:1492:A:C8	2.45	0.51
1:CA:17:U:C2	1:CA:18:C:C6	2.99	0.51
1:CA:304:U:H2'	1:CA:305:G:C8	2.46	0.51
2:CB:57:LEU:HD13	2:CB:58:ASN:N	2.26	0.51
10:CJ:27:GLU:O	10:CJ:27:GLU:HG2	2.09	0.51
11:CK:26:SER:OG	11:CK:29:ASN:O	2.17	0.51
12:CL:43:LYS:O	12:CL:44:LYS:C	2.49	0.51
17:CQ:69:LYS:O	17:CQ:70:THR:CB	2.58	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CT:67:ILE:O	20:CT:68:HIS:O	2.29	0.51
22:DA:155:A:H2'	22:DA:156:A:C8	2.45	0.51
22:DA:1677:A:H5''	57:DA:3436:HOH:O	2.11	0.51
22:DA:1914:C:C5	22:DA:1915:U:C2	2.99	0.51
22:DA:1936:A:H2	22:DA:1943:U:H3	1.56	0.51
22:DA:2354:C:O2'	44:DW:35:SER:HA	2.10	0.51
35:DN:72:ASP:HB3	35:DN:75:ILE:HB	1.92	0.51
41:DT:14:PRO:HA	41:DT:32:LEU:HB3	1.93	0.51
41:DT:17:SER:O	41:DT:18:GLU:C	2.49	0.51
41:DT:72:GLN:O	41:DT:73:ARG:C	2.48	0.51
1:AA:220:G:C5	1:AA:221:C:C5	2.99	0.51
2:AB:21:ARG:NH1	2:AB:21:ARG:HA	2.25	0.51
4:AD:36:GLN:O	4:AD:37:ALA:HB2	2.11	0.51
6:AF:14:GLN:OE1	6:AF:17:GLN:HB2	2.10	0.51
10:AJ:63:ASP:HB3	10:AJ:65:TYR:CE2	2.45	0.51
11:AK:125:LYS:HG2	11:AK:126:LYS:N	2.26	0.51
11:AK:36:ASP:OD1	11:AK:40:ASN:HB2	2.10	0.51
1:AA:1539:C:H5''	21:AU:18:ARG:HG3	1.93	0.51
53:B5:64:SER:O	53:B5:65:LEU:CB	2.58	0.51
22:BA:1846:G:C2	22:BA:1895:C:C2	2.98	0.51
22:BA:2211:A:HO2'	22:BA:2212:A:P	2.29	0.51
22:BA:2380:C:C2	22:BA:2381:A:C8	2.98	0.51
22:BA:2547:A:H5''	32:BK:29:HIS:NE2	2.25	0.51
22:BA:2708:G:H1'	35:BN:71:ARG:CZ	2.41	0.51
22:BA:2737:G:C6	22:BA:2738:A:C6	2.99	0.51
26:BE:171:ASP:OD1	26:BE:172:ALA:N	2.43	0.51
33:BL:142:ILE:CG2	33:BL:143:GLU:N	2.73	0.51
22:BA:1277:G:H5'	35:BN:20:MET:HE1	1.93	0.51
36:BO:78:VAL:O	36:BO:79:ALA:C	2.49	0.51
40:BS:37:THR:HG22	40:BS:38:TYR:CE1	2.45	0.51
1:CA:1053:G:H4'	1:CA:1054:C:H5'	1.93	0.51
1:CA:769:G:O2'	1:CA:770:C:H5'	2.11	0.51
8:CH:5:ASP:OD1	8:CH:81:PRO:HD3	2.11	0.51
52:D4:11:CYS:SG	52:D4:12:ARG:N	2.83	0.51
22:DA:1097:U:O2	30:DI:9:VAL:HG11	2.11	0.51
22:DA:1917:U:C2'	22:DA:1918:A:H5'	2.40	0.51
22:DA:2142:A:C6	22:DA:2143:C:C4	2.98	0.51
22:DA:2478:A:C8	22:DA:2529:G:C5	2.99	0.51
22:DA:2794:C:H2'	22:DA:2795:C:O4'	2.11	0.51
22:DA:478:A:C6	22:DA:480:A:C6	2.99	0.51
22:DA:868:U:C4	22:DA:869:G:N7	2.79	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:9:GLU:O	31:DJ:10:THR:CG2	2.59	0.51
36:DO:33:ARG:HG2	36:DO:34:HIS:CD2	2.45	0.51
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.11	0.51
3:AC:118:ASP:HA	3:AC:121:THR:HB	1.93	0.51
4:AD:23:SER:O	4:AD:24:GLY:C	2.49	0.51
6:AF:67:PRO:O	6:AF:69:GLU:N	2.44	0.51
7:AG:144:MET:CE	7:AG:144:MET:HA	2.41	0.51
9:AI:103:PHE:N	9:AI:103:PHE:CD1	2.77	0.51
11:AK:21:ALA:HA	11:AK:34:ILE:HD13	1.93	0.51
17:AQ:42:THR:O	17:AQ:42:THR:HG22	2.09	0.51
22:BA:1759:A:C2	22:BA:1760:C:C2	2.99	0.51
22:BA:1801:A:C8	22:BA:2203:U:H2'	2.46	0.51
22:BA:2510:C:C2'	22:BA:2511:U:H5'	2.41	0.51
22:BA:479:A:N3	22:BA:481:G:H5''	2.26	0.51
22:BA:841:G:C2	22:BA:938:G:C2	2.99	0.51
22:BA:998:C:OP2	38:BQ:58:ARG:NH2	2.41	0.51
25:BD:103:ASP:O	25:BD:104:VAL:HG22	2.11	0.51
29:BH:117:LEU:CD2	29:BH:121:VAL:CA	2.89	0.51
29:BH:94:ILE:CG2	29:BH:99:ILE:CG1	2.88	0.51
30:BI:19:ASN:N	30:BI:20:PRO:CD	2.74	0.51
32:BK:91:SER:O	32:BK:91:SER:OG	2.28	0.51
22:BA:2275:C:O2	34:BM:84:LYS:HD2	2.10	0.51
36:BO:31:THR:HG22	36:BO:34:HIS:H	1.74	0.51
39:BR:25:LEU:N	39:BR:94:THR:CG2	2.74	0.51
39:BR:66:HIS:CE1	39:BR:94:THR:HB	2.46	0.51
1:CA:1503:A:C8	1:CA:1531:A:H1'	2.46	0.51
1:CA:1540:U:O3'	21:CU:18:ARG:NE	2.43	0.51
1:CA:258:G:C2	1:CA:269:C:O2	2.64	0.51
1:CA:439:U:H5''	4:CD:121:LYS:HD2	1.93	0.51
1:CA:56:U:H2'	1:CA:57:G:C8	2.46	0.51
20:CT:57:ILE:O	20:CT:61:GLN:HG2	2.11	0.51
20:CT:73:ALA:O	20:CT:74:ARG:C	2.49	0.51
22:DA:1483:G:C6	22:DA:1484:U:C4	2.98	0.51
22:DA:1567:G:H2'	24:DC:85:PRO:HG3	1.93	0.51
22:DA:2282:G:C2	22:DA:2425:A:C6	2.98	0.51
22:DA:404:A:C1'	22:DA:405:U:OP2	2.59	0.51
22:DA:587:C:OP2	33:DL:21:ARG:NH1	2.44	0.51
22:DA:769:U:N3	22:DA:770:G:N7	2.59	0.51
22:DA:674:G:H1'	26:DE:69:ARG:NE	2.25	0.51
29:DH:53:GLU:O	29:DH:54:LEU:C	2.49	0.51
34:DM:11:LYS:HE3	34:DM:87:GLY:O	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:51:ARG:O	37:DP:57:SER:HA	2.11	0.51
1:AA:1306:A:C4	1:AA:1307:U:C6	2.99	0.51
1:AA:79:G:N2	1:AA:91:U:C4	2.78	0.51
1:AA:901:A:N7	1:AA:902:G:H1'	2.26	0.51
16:AP:48:GLU:HG3	16:AP:49:GLY:N	2.26	0.51
20:AT:3:ASN:O	20:AT:5:LYS:N	2.43	0.51
21:AU:19:PHE:O	21:AU:22:SER:HB3	2.11	0.51
22:BA:582:A:N1	22:BA:1259:G:C6	2.79	0.51
22:BA:1333:G:C2	22:BA:1334:G:C8	2.98	0.51
22:BA:2697:G:C5	22:BA:2698:U:C5	2.99	0.51
22:BA:545:U:H3'	22:BA:546:U:H4'	1.93	0.51
25:BD:2:ILE:HD13	25:BD:90:PHE:CZ	2.46	0.51
29:BH:83:LYS:HA	29:BH:148:ALA:HA	1.93	0.51
37:BP:22:PRO:HD3	37:BP:50:ILE:HD12	1.93	0.51
40:BS:66:ILE:HA	40:BS:69:LEU:HD23	1.93	0.51
46:BY:9:LYS:O	46:BY:11:VAL:N	2.43	0.51
1:CA:1104:G:H2'	1:CA:1105:A:O4'	2.10	0.51
4:CD:150:LYS:O	4:CD:151:LYS:HG2	2.11	0.51
6:AF:16:GLU:OE2	4:CD:188:ARG:NH1	2.44	0.51
4:CD:64:ILE:HG22	4:CD:65:TYR:CD1	2.46	0.51
13:CM:54:ASP:HA	13:CM:57:ARG:HB3	1.93	0.51
14:CN:16:LEU:HB3	14:CN:55:SER:HA	1.93	0.51
18:CR:34:THR:CG2	18:CR:38:LYS:HB2	2.41	0.51
21:CU:34:ARG:HE	21:CU:35:ARG:HB2	1.75	0.51
22:DA:1439:A:N7	22:DA:1552:A:C2	2.79	0.51
22:DA:1651:G:C2	22:DA:2007:U:O2	2.63	0.51
22:DA:1997:C:P	25:DD:129:THR:HG1	2.34	0.51
37:DP:32:VAL:O	37:DP:38:LYS:HA	2.11	0.51
40:DS:37:THR:OG1	40:DS:48:LYS:NZ	2.32	0.51
1:AA:258:G:C6	1:AA:259:G:C5	2.99	0.51
1:AA:34:C:O2'	1:AA:35:G:H5'	2.11	0.51
1:AA:451:A:C8	1:AA:452:A:C2	2.99	0.51
1:AA:71:A:O2'	1:AA:72:A:OP2	2.24	0.51
1:AA:577:G:C1'	1:AA:816:A:H2'	2.41	0.51
1:AA:914:A:C5	1:AA:915:A:N7	2.79	0.51
1:AA:960:U:H2'	1:AA:1225:A:H62	1.76	0.51
2:AB:87:CYS:HB2	2:AB:89:GLN:NE2	2.25	0.51
4:AD:170:TRP:O	4:AD:183:LYS:HB3	2.11	0.51
4:AD:90:LEU:HD12	4:AD:90:LEU:O	2.10	0.51
15:AO:39:LEU:HD23	15:AO:56:LEU:HD13	1.92	0.51
22:BA:1079:C:C5	22:BA:1088:A:C2	2.99	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1185:G:H5''	22:BA:1186:G:P	2.50	0.51
22:BA:1384:A:H1'	22:BA:1405:U:C1'	2.41	0.51
22:BA:2198:A:C4	29:BH:29:PHE:HB2	2.46	0.51
22:BA:388:G:N7	22:BA:390:U:H2'	2.26	0.51
22:BA:223:A:C6	22:BA:422:A:C5	2.99	0.51
22:BA:686:U:H2'	22:BA:788:A:N1	2.26	0.51
22:BA:817:C:P	57:BA:3583:HOH:O	2.68	0.51
27:BF:108:VAL:HG13	27:BF:114:PHE:CE2	2.46	0.51
34:BM:41:LEU:O	34:BM:93:VAL:HA	2.11	0.51
22:BA:2708:G:O2'	35:BN:71:ARG:HD3	2.11	0.51
42:BU:97:LYS:O	42:BU:98:SER:CB	2.59	0.51
45:BX:11:ARG:HB2	45:BX:12:PRO:CD	2.41	0.51
1:CA:1084:G:OP1	1:CA:1086:U:C6	2.64	0.51
1:CA:1520:C:H2'	1:CA:1521:C:C6	2.46	0.51
1:CA:724:G:C2	1:CA:725:G:C8	2.98	0.51
5:CE:150:PRO:O	5:CE:153:VAL:HG22	2.11	0.51
5:CE:23:LYS:O	5:CE:24:THR:CB	2.59	0.51
6:CF:70:VAL:HG23	6:CF:71:ILE:N	2.26	0.51
10:CJ:59:LYS:O	10:CJ:62:ARG:HD2	2.11	0.51
20:CT:70:ASN:O	20:CT:74:ARG:N	2.43	0.51
22:DA:1027:A:C5	22:DA:1126:A:C2	2.99	0.51
22:DA:1073:A:H2'	22:DA:1074:G:H5'	1.93	0.51
22:DA:1323:C:N4	22:DA:1324:G:O6	2.44	0.51
22:DA:1737:G:C6	22:DA:1738:G:N1	2.79	0.51
22:DA:752:A:N1	22:DA:1781:U:H1'	2.26	0.51
22:DA:2056:G:OP1	57:DA:3667:HOH:O	2.19	0.51
22:DA:686:U:H6	22:DA:788:A:N1	2.09	0.51
22:DA:818:G:O2'	22:DA:819:A:O4'	2.28	0.51
24:DC:129:THR:C	24:DC:130:LEU:HD23	2.32	0.51
24:DC:260:ASN:OD1	24:DC:263:THR:N	2.42	0.51
24:DC:266:PHE:CD1	24:DC:266:PHE:N	2.78	0.51
27:DF:117:LEU:O	27:DF:177:PHE:HA	2.11	0.51
29:DH:26:ALA:HA	29:DH:30:LEU:HB2	1.92	0.51
30:DI:18:ALA:O	30:DI:19:ASN:CB	2.59	0.51
32:DK:2:ILE:HB	32:DK:33:ALA:O	2.11	0.51
22:DA:582:A:OP1	38:DQ:14:HIS:ND1	2.43	0.51
39:DR:3:ALA:HB2	39:DR:101:ILE:HG23	1.93	0.51
1:AA:1222:G:C6	1:AA:1223:C:C4	2.99	0.50
1:AA:668:G:O2'	1:AA:669:G:H5'	2.11	0.50
2:AB:203:ASN:OD1	2:AB:204:ASP:N	2.44	0.50
7:AG:95:ARG:O	7:AG:98:ALA:N	2.44	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:16:ALA:O	9:AI:67:VAL:HA	2.11	0.50
12:AL:110:ARG:NH2	12:AL:117:TYR:CE2	2.79	0.50
10:AJ:48:ARG:HD3	14:AN:101:TRP:CH2	2.46	0.50
16:AP:22:ALA:HA	16:AP:33:ILE:HG13	1.91	0.50
53:B5:65:LEU:C	53:B5:67:HIS:H	2.14	0.50
22:BA:1394:U:P	57:BA:3407:HOH:O	2.69	0.50
22:BA:1668:A:H4'	22:BA:1669:A:O5'	2.11	0.50
22:BA:1687:G:C2	22:BA:1688:U:C4	2.98	0.50
22:BA:1832:C:N4	22:BA:1833:C:C4	2.79	0.50
22:BA:194:G:N7	57:BA:3763:HOH:O	2.35	0.50
22:BA:2004:G:OP1	57:BA:3804:HOH:O	2.19	0.50
22:BA:211:C:O2'	22:BA:212:G:H5'	2.11	0.50
22:BA:2574:G:O2'	22:BA:2575:C:H5'	2.11	0.50
22:BA:2748:A:C2	22:BA:2757:A:C4	2.99	0.50
22:BA:528:A:H3'	22:BA:528:A:H8	1.73	0.50
29:BH:66:ASN:OD1	29:BH:138:VAL:HG21	2.11	0.50
29:BH:14:SER:OG	29:BH:17:ASP:OD1	2.29	0.50
39:BR:49:ILE:HB	39:BR:52:PRO:CA	2.42	0.50
38:BQ:88:VAL:HG13	39:BR:49:ILE:HD11	1.92	0.50
1:CA:1160:G:O2'	1:CA:1161:C:P	2.70	0.50
1:CA:425:G:H2'	1:CA:426:U:O4'	2.11	0.50
1:CA:833:G:C4	1:CA:834:U:C6	3.00	0.50
1:CA:898:G:O2'	1:CA:900:A:N7	2.37	0.50
3:CC:97:VAL:HB	3:CC:98:PRO:HD2	1.93	0.50
4:CD:150:LYS:O	4:CD:151:LYS:C	2.47	0.50
8:CH:11:LEU:HD22	8:CH:75:ILE:HD11	1.93	0.50
11:CK:31:ILE:O	11:CK:31:ILE:HG12	2.11	0.50
12:CL:90:LEU:HB2	12:CL:93:VAL:CG2	2.41	0.50
22:DA:1636:U:H2'	22:DA:1637:A:C8	2.45	0.50
22:DA:1682:G:N2	22:DA:1757:A:O4'	2.44	0.50
22:DA:1739:A:H2'	22:DA:1740:G:O5'	2.11	0.50
22:DA:1951:U:H2'	22:DA:1953:A:OP2	2.11	0.50
22:DA:2024:G:OP2	22:DA:2034:U:H4'	2.11	0.50
22:DA:2223:G:H2'	22:DA:2224:G:H5'	1.93	0.50
22:DA:1938:A:C6	22:DA:2590:A:H1'	2.45	0.50
22:DA:483:A:C8	22:DA:484:C:C5	2.99	0.50
23:DB:14:U:O2'	23:DB:14:U:O2	2.27	0.50
26:DE:170:ARG:HG3	26:DE:174:GLY:O	2.10	0.50
28:DG:89:LEU:HD12	28:DG:162:VAL:HG22	1.93	0.50
38:DQ:32:TYR:CD2	38:DQ:32:TYR:C	2.84	0.50
38:DQ:65:ILE:HD11	38:DQ:95:LEU:HB2	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:49:ILE:HG13	39:DR:49:ILE:O	2.11	0.50
1:AA:652:U:O2'	1:AA:653:U:P	2.68	0.50
1:AA:824:G:C2	1:AA:877:G:C2	3.00	0.50
1:AA:900:A:N1	1:AA:901:A:C2	2.78	0.50
1:AA:93:U:H2'	1:AA:94:G:H5''	1.93	0.50
2:AB:216:ALA:O	2:AB:220:THR:HG22	2.12	0.50
4:AD:145:ILE:HD12	4:AD:145:ILE:N	2.25	0.50
4:AD:98:LEU:HD23	4:AD:118:VAL:CG1	2.41	0.50
6:AF:8:PHE:HA	6:AF:87:SER:HA	1.93	0.50
17:AQ:69:LYS:O	17:AQ:70:THR:OG1	2.28	0.50
21:AU:4:ILE:N	21:AU:20:LYS:CE	2.75	0.50
49:B1:26:ASN:OD1	49:B1:28:ARG:HB2	2.10	0.50
22:BA:1421:G:C2	22:BA:1422:G:N7	2.79	0.50
22:BA:2016:U:H2'	22:BA:2017:U:C6	2.46	0.50
22:BA:2186:G:H2'	22:BA:2187:U:C6	2.46	0.50
22:BA:2496:C:H2'	22:BA:2497:A:O5'	2.11	0.50
22:BA:611:C:C2'	22:BA:612:G:H5'	2.41	0.50
22:BA:989:G:C8	47:BZ:14:ILE:HD11	2.46	0.50
30:BI:43:ASN:HB3	30:BI:47:ASP:OD1	2.11	0.50
30:BI:78:VAL:HG23	30:BI:79:LEU:HG	1.92	0.50
32:BK:2:ILE:HG23	32:BK:6:THR:HG21	1.93	0.50
40:BS:59:GLU:HG3	40:BS:66:ILE:HG13	1.92	0.50
47:BZ:37:GLU:O	47:BZ:38:ARG:HD3	2.12	0.50
1:CA:1505:G:H4'	1:CA:1506:U:H5''	1.93	0.50
1:CA:1521:C:C4	1:CA:1522:U:C5	3.00	0.50
1:CA:174:A:C4	1:CA:175:C:C6	2.99	0.50
1:CA:252:U:H5'	1:CA:253:A:OP2	2.10	0.50
1:CA:68:G:C5	1:CA:69:G:H1'	2.46	0.50
1:CA:940:C:N4	1:CA:941:G:O6	2.45	0.50
9:CI:12:ARG:HD2	9:CI:107:ASP:HB3	1.92	0.50
13:CM:81:MET:O	13:CM:83:LEU:N	2.45	0.50
19:CS:36:ARG:HB3	19:CS:72:GLY:CA	2.41	0.50
49:D1:47:VAL:HG12	49:D1:48:ILE:N	2.26	0.50
22:DA:1062:G:C2	22:DA:1063:G:N1	2.80	0.50
22:DA:1799:G:N2	22:DA:1818:U:O2'	2.42	0.50
22:DA:2341:G:C2	22:DA:2342:C:C2	2.99	0.50
22:DA:2351:G:H1'	22:DA:2367:G:N2	2.26	0.50
22:DA:2822:G:H2'	22:DA:2823:A:H5''	1.93	0.50
22:DA:2857:G:N2	22:DA:2860:A:OP2	2.36	0.50
22:DA:699:A:C2'	22:DA:700:G:H5'	2.40	0.50
29:DH:5:LEU:HA	29:DH:36:ALA:HA	1.92	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DI:71:THR:C	30:DI:72:LYS:HD3	2.31	0.50
22:DA:1063:G:O2'	30:DI:89:GLY:HA3	2.12	0.50
33:DL:79:LEU:HB3	33:DL:114:GLY:O	2.11	0.50
43:DV:9:ARG:HG3	43:DV:41:GLU:HB3	1.93	0.50
1:AA:1157:A:N7	1:AA:1180:A:N6	2.60	0.50
1:AA:1351:U:H2'	1:AA:1352:C:C6	2.47	0.50
1:AA:74:A:C2	1:AA:97:G:C2	2.99	0.50
1:AA:771:G:O2'	1:AA:772:U:H5'	2.10	0.50
1:AA:89:U:O2'	1:AA:90:C:C5'	2.59	0.50
2:AB:103:ASN:CG	2:AB:106:THR:HB	2.31	0.50
5:AE:15:LEU:HB3	5:AE:37:THR:HG22	1.93	0.50
6:AF:74:LEU:HD23	6:AF:78:PHE:CE1	2.46	0.50
7:AG:17:LYS:O	7:AG:18:PHE:CD1	2.64	0.50
9:AI:118:LEU:HA	9:AI:125:PRO:HD3	1.94	0.50
10:AJ:81:GLU:HA	10:AJ:84:VAL:HG12	1.93	0.50
12:AL:76:GLU:O	12:AL:77:HIS:HB2	2.11	0.50
16:AP:56:ARG:O	16:AP:59:HIS:HB3	2.12	0.50
19:AS:15:LEU:HD13	19:AS:33:THR:HG21	1.94	0.50
22:BA:1098:A:H5'	22:BA:1099:G:OP2	2.11	0.50
22:BA:182:A:H2'	22:BA:183:C:C6	2.46	0.50
22:BA:2025:C:H2'	22:BA:2026:U:C6	2.46	0.50
22:BA:657:U:H2'	22:BA:658:U:C6	2.47	0.50
22:BA:864:G:C6	22:BA:865:C:N4	2.79	0.50
24:BC:162:VAL:CG1	24:BC:163:GLN:N	2.75	0.50
22:BA:1061:U:C4	30:BI:10:LYS:O	2.64	0.50
33:BL:29:LYS:HG2	33:BL:30:THR:HG23	1.93	0.50
42:BU:42:VAL:O	42:BU:60:GLU:HA	2.11	0.50
43:BV:15:GLY:O	43:BV:19:ARG:HG3	2.11	0.50
1:CA:211:G:O2'	1:CA:212:G:H4'	2.12	0.50
1:CA:321:A:C8	1:CA:328:C:C2	2.99	0.50
1:CA:577:G:N3	1:CA:578:C:C6	2.80	0.50
1:CA:701:U:H4'	1:CA:703:G:C8	2.46	0.50
1:CA:711:G:O2'	1:CA:712:A:H5'	2.11	0.50
1:CA:957:U:O2	1:CA:959:A:H8	1.94	0.50
1:CA:972:C:H4'	10:CJ:59:LYS:HG2	1.93	0.50
2:CB:18:HIS:CD2	2:CB:203:ASN:ND2	2.80	0.50
3:CC:47:LEU:HB3	3:CC:50:ALA:HB3	1.93	0.50
4:CD:116:GLN:NE2	4:CD:120:HIS:CE1	2.80	0.50
4:CD:145:ILE:CG2	4:CD:150:LYS:HA	2.41	0.50
11:CK:82:LEU:O	11:CK:82:LEU:HD23	2.11	0.50
22:DA:1417:C:N4	22:DA:1418:G:C6	2.79	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1866:A:C8	22:DA:1867:G:C8	2.99	0.50
22:DA:2080:A:OP1	45:DX:20:HIS:HB2	2.11	0.50
22:DA:2244:U:C5	22:DA:2245:U:C5	2.98	0.50
22:DA:2382:G:H3'	22:DA:2382:G:OP1	2.11	0.50
22:DA:2767:C:C2'	22:DA:2768:U:H5'	2.41	0.50
22:DA:2823:A:C5	22:DA:2824:C:C5	3.00	0.50
22:DA:2886:A:C2	22:DA:2887:A:H1'	2.46	0.50
22:DA:335:C:O5'	22:DA:335:C:H6	1.94	0.50
22:DA:447:A:H5'	22:DA:449:A:C4	2.46	0.50
22:DA:453:A:H4'	22:DA:472:A:N6	2.26	0.50
22:DA:690:G:H1'	22:DA:779:U:O3'	2.12	0.50
24:DC:147:LYS:HG3	24:DC:150:LYS:HD2	1.93	0.50
27:DF:58:ALA:HB2	27:DF:65:PRO:HD3	1.93	0.50
29:DH:127:GLU:HG3	29:DH:145:ASN:HA	1.93	0.50
31:DJ:56:VAL:HB	31:DJ:124:VAL:HG12	1.94	0.50
43:DV:63:ILE:HD12	43:DV:72:VAL:HG21	1.93	0.50
1:AA:1329:A:C2'	1:AA:1330:U:H5'	2.40	0.50
1:AA:1353:G:C2	1:AA:1354:U:C5	3.00	0.50
1:AA:620:C:H1'	4:AD:132:ILE:CD1	2.41	0.50
1:AA:880:C:O2'	1:AA:881:G:H5'	2.11	0.50
9:AI:36:GLU:HA	9:AI:40:GLY:CA	2.42	0.50
22:BA:1107:G:C5	22:BA:1108:U:C5	2.99	0.50
22:BA:1258:U:N3	22:BA:1259:G:N7	2.59	0.50
22:BA:2313:C:H5"	27:BF:88:LYS:HD3	1.94	0.50
22:BA:430:A:H5"	22:BA:431:U:OP2	2.12	0.50
24:BC:91:ILE:HD12	24:BC:103:TYR:CD1	2.46	0.50
25:BD:136:ASN:ND2	25:BD:140:HIS:CD2	2.80	0.50
25:BD:166:GLY:O	25:BD:167:ASN:HB3	2.11	0.50
28:BG:12:PRO:HD2	28:BG:15:VAL:HG21	1.93	0.50
33:BL:91:ASP:HB3	33:BL:94:THR:HB	1.92	0.50
39:BR:59:ILE:HG23	39:BR:101:ILE:CD1	2.41	0.50
42:BU:88:GLU:O	42:BU:89:ASP:HB3	2.12	0.50
43:BV:23:ALA:O	43:BV:25:LYS:N	2.44	0.50
1:CA:1089:G:C4	1:CA:1090:U:C6	2.99	0.50
1:CA:18:C:N3	1:CA:19:A:N7	2.59	0.50
2:CB:81:LYS:HG3	2:CB:91:PHE:CZ	2.46	0.50
4:CD:34:ILE:O	4:CD:35:GLU:CB	2.59	0.50
7:CG:75:VAL:HG11	7:CG:144:MET:HG3	1.94	0.50
9:CI:57:MET:O	9:CI:59:GLU:N	2.45	0.50
15:CO:46:HIS:C	15:CO:48:LYS:H	2.14	0.50
18:CR:34:THR:HG22	18:CR:38:LYS:HB2	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:112:ASP:HB3	21:CU:20:LYS:HE3	1.93	0.50
21:CU:4:ILE:O	21:CU:4:ILE:HG22	2.11	0.50
22:DA:2466:C:OP1	52:D4:4:ARG:HB2	2.12	0.50
22:DA:1127:A:H2'	22:DA:1128:G:H5''	1.94	0.50
22:DA:310:A:C5	22:DA:330:A:C6	2.99	0.50
22:DA:396:G:C1'	45:DX:29:PHE:HB3	2.42	0.50
22:DA:591:U:C2	22:DA:592:A:C8	2.99	0.50
24:DC:31:ALA:HB3	24:DC:32:PRO:CD	2.41	0.50
26:DE:12:LEU:HD23	26:DE:13:THR:N	2.26	0.50
28:DG:115:HIS:HE1	28:DG:144:VAL:HG13	1.77	0.50
22:DA:636:G:C6	33:DL:111:ILE:HD11	2.46	0.50
42:DU:13:VAL:HB	42:DU:18:ASP:O	2.11	0.50
22:DA:851:C:O2'	47:DZ:43:ALA:O	2.28	0.50
47:DZ:6:LYS:HB2	47:DZ:58:GLU:HG3	1.93	0.50
1:AA:116:A:C4	1:AA:117:G:C8	3.00	0.50
1:AA:1446:A:N6	1:AA:1447:A:H62	2.09	0.50
2:AB:176:ALA:O	2:AB:179:LEU:N	2.45	0.50
4:AD:101:VAL:HG12	4:AD:101:VAL:O	2.12	0.50
4:AD:30:THR:O	4:AD:31:LYS:HE2	2.11	0.50
5:AE:81:LEU:HD12	5:AE:147:MET:SD	2.52	0.50
6:AF:99:ALA:O	6:AF:100:SER:CB	2.59	0.50
7:AG:56:LYS:O	7:AG:57:SER:HB3	2.11	0.50
48:B0:4:GLN:NE2	48:B0:7:LYS:HA	2.27	0.50
22:BA:1424:G:H2'	22:BA:1425:G:O4'	2.12	0.50
22:BA:1585:C:C2'	22:BA:1586:A:H5'	2.42	0.50
22:BA:1846:G:N2	22:BA:1895:C:C2	2.79	0.50
22:BA:2839:G:C4	22:BA:2840:C:C6	3.00	0.50
22:BA:368:A:N6	22:BA:369:U:O4	2.45	0.50
22:BA:468:G:O6	22:BA:469:G:C2	2.64	0.50
22:BA:495:G:H1'	40:BS:57:ASN:ND2	2.26	0.50
25:BD:136:ASN:HD21	25:BD:140:HIS:CD2	2.30	0.50
25:BD:186:LEU:HD21	37:BP:4:ILE:HG21	1.94	0.50
29:BH:80:ILE:O	29:BH:147:VAL:N	2.44	0.50
1:CA:1203:C:H4'	14:CN:67:THR:HB	1.93	0.50
1:CA:237:G:C6	1:CA:238:A:C5	3.00	0.50
1:CA:649:A:H2'	1:CA:650:G:O4'	2.11	0.50
1:CA:679:C:C2	1:CA:712:A:C2	2.98	0.50
1:CA:84:U:O2'	1:CA:85:U:H5'	2.12	0.50
4:CD:88:GLU:HG2	4:CD:188:ARG:HD3	1.93	0.50
22:DA:1179:G:C6	22:DA:1180:U:H1'	2.47	0.50
22:DA:786:C:H5''	22:DA:1780:A:N7	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1856:U:O4	22:DA:1857:G:N1	2.44	0.50
22:DA:1073:A:H4'	22:DA:2474:U:H4'	1.94	0.50
22:DA:2853:C:H2'	22:DA:2854:G:C8	2.46	0.50
22:DA:310:A:HO2'	22:DA:311:A:P	2.28	0.50
22:DA:222:A:H3'	22:DA:421:C:H5'	1.93	0.50
23:DB:5:U:C2	23:DB:116:G:N2	2.79	0.50
24:DC:238:ARG:O	24:DC:239:ASN:O	2.30	0.50
33:DL:102:GLY:N	57:DL:202:HOH:O	2.43	0.50
33:DL:111:ILE:HD12	33:DL:111:ILE:N	2.26	0.50
33:DL:93:ASN:OD1	33:DL:94:THR:N	2.44	0.50
37:DP:18:PRO:HG3	37:DP:84:ILE:O	2.12	0.50
25:DD:12:THR:CG2	37:DP:5:ILE:HG23	2.41	0.50
22:DA:1248:G:N3	38:DQ:3:ARG:HG3	2.26	0.50
42:DU:54:GLN:N	42:DU:55:PRO:HD3	2.27	0.50
44:DW:38:VAL:HG21	44:DW:80:ILE:CD1	2.42	0.50
45:DX:12:PRO:HB3	45:DX:28:ARG:NH2	2.27	0.50
1:AA:203:G:O2'	1:AA:465:A:N1	2.42	0.50
1:AA:490:C:C2	1:AA:491:G:C8	2.99	0.50
1:AA:553:A:O2'	1:AA:554:A:H5'	2.11	0.50
1:AA:582:C:C2	1:AA:583:A:C8	3.00	0.50
1:AA:618:C:H2'	1:AA:618:C:O2	2.10	0.50
1:AA:642:A:C4	8:AH:106:THR:O	2.64	0.50
1:AA:737:C:C2	1:AA:738:C:C5	2.99	0.50
2:AB:47:VAL:C	2:AB:49:MET:H	2.15	0.50
4:AD:118:VAL:HA	4:AD:123:ILE:CD1	2.41	0.50
1:AA:1374:A:O3'	7:AG:28:ASN:ND2	2.45	0.50
8:AH:89:LYS:HA	8:AH:92:LEU:HG	1.92	0.50
1:AA:973:G:H1'	10:AJ:56:HIS:CD2	2.45	0.50
10:AJ:52:LEU:HD21	10:AJ:59:LYS:HA	1.94	0.50
11:AK:76:GLU:HA	22:BA:2141:G:OP1	2.12	0.50
21:AU:10:GLU:HG3	21:AU:11:PRO:HD3	1.93	0.50
22:BA:1189:A:C8	22:BA:1190:G:C8	2.99	0.50
22:BA:1783:A:N1	22:BA:2587:A:H2'	2.27	0.50
22:BA:362:A:C8	22:BA:362:A:OP2	2.64	0.50
22:BA:511:U:C5	22:BA:512:G:C5	3.00	0.50
22:BA:665:U:O2'	22:BA:666:A:H5'	2.12	0.50
22:BA:684:G:OP1	50:B2:21:ARG:NH1	2.45	0.50
22:BA:983:A:C6	22:BA:984:A:N1	2.79	0.50
27:BF:132:VAL:CG2	27:BF:152:LEU:HB3	2.42	0.50
30:BI:59:ILE:HG22	30:BI:61:VAL:HG23	1.93	0.50
30:BI:75:PRO:HB2	30:BI:78:VAL:HG13	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BM:132:THR:HG22	34:BM:133:LYS:N	2.27	0.50
38:BQ:41:LYS:O	38:BQ:42:ALA:C	2.50	0.50
39:BR:25:LEU:H	39:BR:94:THR:CG2	2.24	0.50
1:CA:1226:C:H2'	13:CM:102:THR:HB	1.94	0.50
1:CA:123:U:H2'	1:CA:124:C:C6	2.47	0.50
1:CA:124:C:N3	1:CA:125:U:C4	2.80	0.50
1:CA:1267:C:N3	1:CA:1327:C:H4'	2.27	0.50
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.27	0.50
1:CA:505:G:H2'	1:CA:506:G:H8	1.76	0.50
2:CB:142:GLU:HA	2:CB:145:GLU:HB2	1.94	0.50
4:CD:59:GLN:OE1	4:CD:59:GLN:HA	2.11	0.50
6:CF:67:PRO:O	6:CF:69:GLU:N	2.45	0.50
21:CU:14:VAL:O	21:CU:16:LEU:HG	2.12	0.50
22:DA:1525:A:H2'	22:DA:1526:C:O4'	2.12	0.50
22:DA:1906:G:OP1	22:DA:1930:G:C8	2.65	0.50
22:DA:2103:C:H2'	22:DA:2104:C:C6	2.46	0.50
22:DA:2147:A:N7	22:DA:2148:G:C5	2.79	0.50
22:DA:2209:G:N2	22:DA:2216:G:C4	2.79	0.50
22:DA:2216:G:H2'	22:DA:2217:G:C8	2.47	0.50
22:DA:2326:C:C1'	22:DA:2327:A:OP1	2.59	0.50
22:DA:2506:U:O2	22:DA:2506:U:H2'	2.10	0.50
25:DD:176:ASP:HB2	25:DD:190:LYS:HB3	1.92	0.50
28:DG:138:LYS:O	28:DG:141:ILE:HG13	2.12	0.50
31:DJ:77:HIS:HA	31:DJ:83:GLY:O	2.12	0.50
35:DN:29:VAL:HG13	35:DN:83:LEU:HD11	1.94	0.50
35:DN:66:ALA:O	35:DN:70:THR:HG23	2.12	0.50
40:DS:73:LYS:CB	40:DS:106:VAL:HB	2.41	0.50
43:DV:20:LEU:HD22	43:DV:27:PRO:HD3	1.93	0.50
44:DW:34:GLY:O	44:DW:35:SER:C	2.50	0.50
1:AA:920:U:C1'	1:AA:1080:A:C2	2.95	0.50
1:AA:946:A:O2'	1:AA:1333:A:N3	2.34	0.50
1:AA:357:G:C2	1:AA:358:U:C6	3.00	0.50
1:AA:468:A:H5'	1:AA:469:C:OP2	2.12	0.50
2:AB:41:ILE:HD13	2:AB:41:ILE:C	2.32	0.50
4:AD:130:VAL:HG11	4:AD:135:TYR:CG	2.47	0.50
6:AF:64:VAL:HG12	6:AF:65:GLU:N	2.27	0.50
6:AF:3:HIS:HB2	6:AF:92:THR:HG23	1.93	0.50
8:AH:64:LYS:HB2	8:AH:71:VAL:HG21	1.92	0.50
10:AJ:57:VAL:HG22	10:AJ:58:ASN:H	1.77	0.50
14:AN:46:LEU:HG	14:AN:47:LYS:N	2.27	0.50
20:AT:44:LYS:CD	20:AT:87:ALA:HA	2.41	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1179:G:C3'	22:BA:1180:U:H4'	2.37	0.50
22:BA:819:A:N3	22:BA:1189:A:H2	2.10	0.50
22:BA:1411:U:H2'	22:BA:1412:U:O4'	2.12	0.50
22:BA:1428:C:C5	22:BA:1569:A:H5''	2.46	0.50
22:BA:1947:C:C2	22:BA:1960:A:C2	2.99	0.50
22:BA:2118:U:O4	22:BA:2148:G:O2'	2.29	0.50
22:BA:2320:U:O2	22:BA:2333:A:N6	2.43	0.50
22:BA:2467:C:N4	22:BA:2468:A:C6	2.80	0.50
22:BA:2883:A:OP2	48:B0:50:ARG:NH1	2.45	0.50
24:BC:210:ALA:O	24:BC:214:ARG:HG3	2.11	0.50
25:BD:62:LYS:N	25:BD:63:PRO:CD	2.75	0.50
27:BF:127:ASN:OD1	27:BF:157:THR:HA	2.12	0.50
29:BH:93:SER:O	1:CA:368:U:C6	2.64	0.50
46:BY:32:ALA:HB2	46:BY:37:LEU:HD23	1.92	0.50
46:BY:45:GLN:O	46:BY:46:VAL:CB	2.59	0.50
1:CA:183:C:O2'	1:CA:184:G:O5'	2.30	0.50
1:CA:33:A:H2'	1:CA:34:C:C6	2.47	0.50
1:CA:421:U:O5'	1:CA:422:C:C5	2.65	0.50
1:CA:687:A:N3	1:CA:688:G:H1'	2.26	0.50
1:CA:756:C:H2'	1:CA:757:U:C5'	2.42	0.50
1:CA:938:A:N6	1:CA:939:G:C6	2.80	0.50
5:CE:72:ILE:HD13	5:CE:145:GLU:CD	2.32	0.50
11:CK:107:ILE:O	11:CK:107:ILE:HG23	2.11	0.50
20:CT:64:LYS:HE3	20:CT:64:LYS:HA	1.94	0.50
22:DA:1240:U:HO2'	22:DA:1241:A:P	2.34	0.50
22:DA:2053:G:H2'	22:DA:2054:A:O4'	2.11	0.50
22:DA:844:A:C2	22:DA:845:A:N7	2.80	0.50
26:DE:1:MET:CG	26:DE:14:VAL:HG23	2.42	0.50
26:DE:28:VAL:O	26:DE:32:VAL:HG23	2.12	0.50
26:DE:5:LEU:O	26:DE:6:LYS:C	2.49	0.50
33:DL:92:LEU:CD2	33:DL:124:GLY:HA3	2.42	0.50
42:DU:74:ASN:ND2	42:DU:96:PHE:CG	2.79	0.50
1:AA:1023:U:H2'	1:AA:1024:G:O4'	2.12	0.50
1:AA:1140:C:O2'	1:AA:1141:C:OP2	2.28	0.50
1:AA:1346:A:C5	7:AG:10:ARG:CZ	2.95	0.50
1:AA:15:G:C5	1:AA:1396:A:C2	2.99	0.50
1:AA:131:A:O2'	1:AA:262:A:N3	2.37	0.50
1:AA:792:A:N3	1:AA:794:A:C5	2.80	0.50
1:AA:951:G:C2	1:AA:952:U:C2	3.00	0.50
1:AA:957:U:H1'	1:AA:960:U:N3	2.27	0.50
1:AA:1123:U:O2'	10:AJ:39:PRO:O	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:56:ARG:O	16:AP:59:HIS:N	2.45	0.50
18:AR:49:ALA:O	18:AR:51:TYR:N	2.45	0.50
49:B1:11:LEU:O	49:B1:20:PHE:HB2	2.12	0.50
22:BA:1176:U:C4	22:BA:1177:G:O6	2.65	0.50
22:BA:118:A:N3	22:BA:178:G:H1'	2.26	0.50
22:BA:1792:G:OP1	24:BC:204:VAL:O	2.30	0.50
22:BA:1924:C:C2'	22:BA:1924:C:O2	2.59	0.50
22:BA:2001:C:N3	22:BA:2002:G:N7	2.60	0.50
22:BA:2557:G:C6	22:BA:2558:C:N4	2.80	0.50
22:BA:27:G:N2	22:BA:512:G:H1'	2.26	0.50
22:BA:790:U:O2'	22:BA:791:C:O5'	2.29	0.50
24:BC:205:LEU:HG	24:BC:210:ALA:HB1	1.93	0.50
24:BC:252:THR:HG22	24:BC:253:LYS:H	1.76	0.50
28:BG:6:LYS:HG2	28:BG:62:TRP:CZ3	2.47	0.50
22:BA:1364:G:OP2	45:BX:2:SER:N	2.45	0.50
1:CA:213:G:C8	1:CA:214:C:C5	2.99	0.50
1:CA:485:U:HO2'	1:CA:486:U:P	2.34	0.50
3:CC:153:VAL:O	3:CC:165:THR:O	2.30	0.50
4:CD:192:SER:O	4:CD:193:ALA:HB3	2.11	0.50
4:CD:78:GLU:OE2	4:CD:81:ARG:NH1	2.44	0.50
12:CL:7:LEU:HD22	12:CL:12:ARG:HD2	1.93	0.50
22:DA:1109:C:H5''	22:DA:1110:G:OP2	2.12	0.50
22:DA:2104:C:H2'	22:DA:2105:U:O4'	2.12	0.50
22:DA:2261:C:H5''	44:DW:19:LYS:HZ3	1.76	0.50
22:DA:2323:G:C6	22:DA:2324:U:C4	3.00	0.50
22:DA:2391:G:OP2	51:D3:35:LYS:NZ	2.35	0.50
22:DA:307:G:N2	22:DA:310:A:C8	2.80	0.50
22:DA:362:A:C4	22:DA:363:G:C8	3.00	0.50
22:DA:396:G:OP1	45:DX:13:VAL:HG11	2.11	0.50
22:DA:457:A:N1	22:DA:470:A:H5''	2.26	0.50
22:DA:555:G:O2'	22:DA:556:A:OP2	2.29	0.50
22:DA:699:A:N6	22:DA:733:G:O2'	2.44	0.50
24:DC:260:ASN:O	24:DC:261:LYS:HB2	2.12	0.50
26:DE:148:ILE:HG12	26:DE:168:ASP:O	2.12	0.50
28:DG:98:VAL:HG22	28:DG:125:CYS:SG	2.52	0.50
29:DH:44:ILE:O	29:DH:48:GLU:HB2	2.12	0.50
37:DP:46:VAL:HG12	37:DP:47:VAL:N	2.26	0.50
22:DA:1247:A:O3'	38:DQ:2:ALA:HB3	2.11	0.50
22:DA:2012:G:OP1	40:DS:98:LYS:HG2	2.11	0.50
1:AA:1405:G:H1'	1:AA:1519:A:O4'	2.11	0.50
1:AA:219:U:C2	1:AA:220:G:C8	2.99	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:41:LYS:NZ	8:AH:48:ASP:OD2	2.43	0.50
9:AI:13:LYS:HG2	9:AI:13:LYS:O	2.12	0.50
10:AJ:26:VAL:HG12	10:AJ:30:LYS:HD3	1.94	0.50
10:AJ:7:ARG:HB2	10:AJ:75:ASP:OD1	2.12	0.50
11:AK:37:ARG:C	11:AK:39:GLY:H	2.15	0.50
12:AL:24:LEU:HB2	12:AL:59:ASN:ND2	2.26	0.50
17:AQ:16:LYS:O	17:AQ:17:MET:HE3	2.11	0.50
53:B5:49:GLY:N	53:B5:208:THR:CB	2.75	0.50
53:B5:24:ASP:CB	53:B5:185:LYS:O	2.60	0.50
53:B5:52:PRO:O	53:B5:53:ARG:CB	2.60	0.50
22:BA:1131:G:O2'	22:BA:2025:C:O2'	2.27	0.50
22:BA:1169:A:N1	22:BA:1180:U:O4	2.44	0.50
22:BA:1495:A:O2'	22:BA:1496:A:H5'	2.12	0.50
22:BA:1487:U:O2	22:BA:1503:A:C2	2.64	0.50
22:BA:2409:G:H2'	22:BA:2410:G:O4'	2.11	0.50
22:BA:563:A:C2	22:BA:564:C:N1	2.80	0.50
22:BA:861:A:C2	22:BA:917:A:C4	2.99	0.50
24:BC:17:VAL:H	24:BC:204:VAL:HG22	1.76	0.50
28:BG:20:ASN:ND2	28:BG:20:ASN:O	2.40	0.50
42:BU:6:ARG:O	42:BU:9:ASP:HB2	2.12	0.50
44:BW:38:VAL:HG12	44:BW:39:ARG:N	2.26	0.50
1:CA:1105:A:C2	1:CA:1106:G:C8	3.00	0.50
1:CA:214:C:H2'	1:CA:215:C:C6	2.47	0.50
1:CA:934:C:H5''	57:CA:1825:HOH:O	2.11	0.50
2:CB:100:MET:HA	2:CB:107:VAL:HG21	1.93	0.50
2:CB:36:ASN:O	2:CB:37:LYS:HB2	2.12	0.50
5:CE:105:ILE:H	5:CE:122:ASN:CA	2.25	0.50
5:CE:89:HIS:CE1	5:CE:90:THR:OG1	2.65	0.50
6:CF:99:ALA:O	6:CF:100:SER:CB	2.59	0.50
18:CR:25:ASP:C	18:CR:27:ALA:N	2.63	0.50
18:CR:50:LYS:HA	18:CR:53:ARG:NH1	2.27	0.50
22:DA:1491:G:C6	22:DA:1500:G:C2	3.00	0.50
22:DA:1593:A:H2'	22:DA:1594:U:O4'	2.12	0.50
22:DA:2165:C:O2	22:DA:2165:C:H2'	2.11	0.50
22:DA:654:A:N3	22:DA:654:A:H3'	2.27	0.50
22:DA:715:A:N6	22:DA:716:A:C6	2.79	0.50
22:DA:810:U:C4	33:DL:30:THR:HA	2.46	0.50
22:DA:2637:U:H5''	25:DD:83:ARG:NH2	2.26	0.50
22:DA:443:A:C8	26:DE:40:ARG:HD3	2.47	0.50
39:DR:82:HIS:CG	39:DR:82:HIS:O	2.65	0.50
41:DT:82:LYS:HG2	41:DT:83:ALA:N	2.27	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DY:35:GLY:C	46:DY:36:GLN:HG3	2.33	0.50
1:AA:1136:C:O4'	1:AA:1136:C:O2	2.29	0.49
1:AA:1461:G:C4	1:AA:1462:C:C6	3.00	0.49
1:AA:277:C:H2'	1:AA:278:G:C5'	2.42	0.49
1:AA:316:C:C5	1:AA:351:G:C2	3.00	0.49
1:AA:68:G:C6	1:AA:69:G:H1'	2.47	0.49
3:AC:87:LEU:O	3:AC:88:ARG:C	2.50	0.49
11:AK:21:ALA:CB	11:AK:34:ILE:HD13	2.42	0.49
11:AK:72:ASP:O	11:AK:73:ALA:HB2	2.12	0.49
16:AP:79:ASN:O	16:AP:80:LYS:HB2	2.12	0.49
22:BA:1824:G:N3	24:BC:252:THR:HG21	2.26	0.49
22:BA:1857:G:H1'	22:BA:1884:G:N2	2.27	0.49
22:BA:2214:C:C5	22:BA:2215:C:C5	3.00	0.49
22:BA:2309:A:C6	22:BA:2310:C:C4	2.99	0.49
22:BA:2500:U:H5''	22:BA:2501:C:OP2	2.12	0.49
22:BA:2549:G:N2	22:BA:2560:A:C4	2.80	0.49
22:BA:2598:A:C8	22:BA:2599:G:H1'	2.47	0.49
33:BL:111:ILE:H	33:BL:111:ILE:HD12	1.77	0.49
38:BQ:41:LYS:HD3	38:BQ:45:TYR:CE1	2.47	0.49
39:BR:11:GLN:O	39:BR:12:HIS:CG	2.65	0.49
1:CA:1211:U:O2'	1:CA:1212:U:P	2.70	0.49
1:CA:1255:G:C6	1:CA:1279:G:C8	3.00	0.49
1:CA:1372:U:OP2	9:CI:13:LYS:NZ	2.41	0.49
1:CA:363:A:O2'	1:CA:364:A:H5'	2.12	0.49
1:CA:728:A:H2'	1:CA:729:A:H8	1.75	0.49
4:CD:151:LYS:O	4:CD:151:LYS:HG3	2.12	0.49
5:CE:156:LYS:HD2	8:CH:71:VAL:HG13	1.93	0.49
9:CI:45:ARG:HG3	9:CI:46:MET:SD	2.51	0.49
19:CS:80:TYR:O	19:CS:81:ARG:HB3	2.11	0.49
21:CU:29:LEU:O	21:CU:29:LEU:HD23	2.12	0.49
22:DA:1045:C:C3'	22:DA:1046:A:H5'	2.41	0.49
22:DA:1323:C:C4	22:DA:1324:G:N7	2.80	0.49
22:DA:1581:G:C5	22:DA:1582:C:C5	3.00	0.49
22:DA:1738:G:O2'	22:DA:1739:A:P	2.69	0.49
22:DA:1651:G:N2	22:DA:2007:U:C2	2.80	0.49
22:DA:223:A:N1	22:DA:407:G:O2'	2.36	0.49
22:DA:2847:U:H2'	22:DA:2848:G:H5'	1.94	0.49
22:DA:406:G:H2'	22:DA:407:G:O4'	2.11	0.49
22:DA:222:A:H3'	22:DA:421:C:C5'	2.41	0.49
22:DA:734:A:C5	22:DA:735:A:C8	3.00	0.49
24:DC:51:THR:O	24:DC:54:ILE:HG13	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:113:VAL:HG23	26:DE:118:LEU:HD23	1.93	0.49
32:DK:10:VAL:CG1	32:DK:12:ASP:OD1	2.59	0.49
35:DN:74:GLU:O	35:DN:77:ALA:HB3	2.12	0.49
41:DT:51:PHE:O	41:DT:53:VAL:HG22	2.12	0.49
1:AA:1001:C:H6	1:AA:1001:C:H3'	1.77	0.49
1:AA:126:G:C2'	1:AA:127:G:O5'	2.60	0.49
1:AA:427:U:C4	1:AA:428:G:C6	2.99	0.49
2:AB:95:ARG:HG2	2:AB:95:ARG:HH11	1.77	0.49
3:AC:16:LYS:HE3	3:AC:181:ASP:OD1	2.12	0.49
10:AJ:33:GLY:O	10:AJ:34:ALA:CB	2.60	0.49
14:AN:21:PHE:O	14:AN:22:ALA:HB3	2.12	0.49
19:AS:5:LEU:O	19:AS:6:LYS:CD	2.60	0.49
22:BA:1178:C:C2'	22:BA:1179:G:N7	2.75	0.49
22:BA:1820:U:OP1	24:BC:177:ARG:NH2	2.44	0.49
22:BA:1908:C:H2'	22:BA:1909:C:C6	2.47	0.49
22:BA:2001:C:C4	22:BA:2002:G:N7	2.80	0.49
22:BA:187:G:C2	22:BA:210:C:C2	3.00	0.49
22:BA:2127:G:C4'	22:BA:2128:G:OP1	2.59	0.49
22:BA:2808:G:C2	22:BA:2891:U:C6	3.00	0.49
22:BA:859:G:O2'	22:BA:860:U:P	2.70	0.49
22:BA:981:A:OP1	57:BA:3596:HOH:O	2.19	0.49
22:BA:2531:A:H4'	28:BG:157:TYR:CD1	2.47	0.49
29:BH:43:ASN:O	29:BH:46:PHE:HB3	2.12	0.49
43:BV:14:LYS:CD	43:BV:18:ARG:NH1	2.75	0.49
1:CA:1408:A:C2	1:CA:1494:G:C5	3.00	0.49
1:CA:577:G:C2	1:CA:578:C:C5	3.00	0.49
1:CA:951:G:N3	1:CA:1231:G:C2	2.79	0.49
2:CB:167:ASP:OD2	2:CB:191:SER:HA	2.11	0.49
2:CB:35:ARG:O	2:CB:38:VAL:HG12	2.12	0.49
6:CF:14:GLN:C	6:CF:16:GLU:H	2.14	0.49
10:CJ:48:ARG:HG3	10:CJ:48:ARG:HH11	1.76	0.49
10:CJ:57:VAL:HG13	10:CJ:58:ASN:N	2.27	0.49
11:CK:90:GLY:O	11:CK:91:PRO:O	2.29	0.49
22:DA:1016:G:C2	22:DA:1147:A:C2	3.00	0.49
22:DA:1438:U:O2	22:DA:1555:G:N2	2.45	0.49
22:DA:2128:G:N3	22:DA:2173:A:O2'	2.46	0.49
22:DA:2199:A:C4	22:DA:2225:A:N1	2.81	0.49
22:DA:769:U:C4	22:DA:770:G:N7	2.81	0.49
23:DB:48:U:H2'	23:DB:49:C:C6	2.47	0.49
22:DA:1566:A:C2	24:DC:213:TRP:CE3	3.00	0.49
24:DC:53:HIS:NE2	24:DC:219:THR:HG23	2.27	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:81:ALA:C	29:DH:149:GLU:HB3	2.33	0.49
41:DT:2:ILE:HG23	41:DT:3:ARG:C	2.32	0.49
42:DU:33:LYS:HE2	42:DU:66:GLN:CD	2.32	0.49
23:DB:76:G:OP1	43:DV:9:ARG:NH2	2.45	0.49
44:DW:71:VAL:HG13	44:DW:76:ASN:O	2.12	0.49
45:DX:3:ARG:HG2	45:DX:33:LEU:HD22	1.94	0.49
47:DZ:10:THR:HG22	47:DZ:54:MET:C	2.33	0.49
1:AA:10:A:O2'	1:AA:11:G:H5'	2.12	0.49
1:AA:1430:A:C2	1:AA:1471:U:C2	3.00	0.49
1:AA:21:G:N2	1:AA:22:G:C6	2.81	0.49
5:AE:157:ARG:HD2	8:AH:43:GLU:O	2.12	0.49
8:AH:49:PHE:O	8:AH:50:LYS:HG3	2.12	0.49
9:AI:28:ILE:HG12	9:AI:63:LEU:HD21	1.94	0.49
9:AI:52:LEU:HD13	9:AI:57:MET:HG2	1.95	0.49
22:BA:1056:G:C2	22:BA:1102:C:C5	3.01	0.49
22:BA:1392:A:C5	22:BA:1393:A:C6	2.99	0.49
22:BA:749:A:C5	22:BA:1618:A:C2	3.00	0.49
22:BA:2190:G:C6	22:BA:2191:A:C5	3.00	0.49
22:BA:2262:U:OP2	44:BW:19:LYS:HE2	2.12	0.49
22:BA:2307:G:O4'	22:BA:2308:G:C2	2.66	0.49
22:BA:2318:G:C6	22:BA:2319:G:C6	3.01	0.49
22:BA:2642:G:C2	22:BA:2773:C:C2	3.00	0.49
22:BA:967:U:H2'	22:BA:968:C:C6	2.47	0.49
29:BH:99:ILE:O	29:BH:99:ILE:HG22	2.12	0.49
37:BP:75:GLN:O	37:BP:77:HIS:N	2.46	0.49
44:BW:12:ASN:O	44:BW:14:ARG:NH1	2.45	0.49
47:BZ:2:ALA:HB1	47:BZ:3:LYS:HE3	1.95	0.49
1:CA:17:U:C2	1:CA:18:C:C5	3.00	0.49
1:CA:407:U:H2'	1:CA:408:A:H8	1.76	0.49
1:CA:748:G:H2'	1:CA:749:A:C8	2.47	0.49
1:CA:582:C:C4	1:CA:760:G:C6	3.00	0.49
2:CB:103:ASN:O	2:CB:103:ASN:CG	2.50	0.49
2:CB:19:GLN:HB3	2:CB:189:THR:OG1	2.12	0.49
3:CC:141:ALA:O	3:CC:146:ALA:HB3	2.11	0.49
3:CC:19:ASN:HA	3:CC:56:VAL:HG13	1.94	0.49
3:CC:57:ILE:HG13	3:CC:66:VAL:HG22	1.94	0.49
4:CD:124:MET:HE2	4:CD:146:ARG:HD2	1.94	0.49
5:CE:101:GLU:C	5:CE:103:THR:N	2.66	0.49
6:CF:85:ILE:O	6:CF:86:ARG:O	2.29	0.49
7:CG:145:ALA:O	7:CG:146:GLU:CB	2.56	0.49
10:CJ:35:GLN:O	10:CJ:36:VAL:HB	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:38:TYR:N	12:CL:52:VAL:O	2.42	0.49
14:CN:72:GLY:O	14:CN:80:SER:HA	2.12	0.49
50:D2:44:VAL:HG13	50:D2:45:SER:N	2.28	0.49
22:DA:1140:C:O4'	22:DA:1143:A:C2	2.65	0.49
22:DA:1196:C:H1'	22:DA:1226:A:C4	2.47	0.49
22:DA:1370:C:H2'	22:DA:1371:G:O4'	2.12	0.49
22:DA:1456:G:C5	22:DA:1457:U:C5	3.00	0.49
22:DA:1479:G:H2'	22:DA:1480:C:O4'	2.12	0.49
22:DA:1998:A:H2'	22:DA:1999:C:O4'	2.11	0.49
22:DA:2757:A:N1	28:DG:67:THR:CG2	2.74	0.49
22:DA:289:G:H2'	22:DA:290:U:O4'	2.12	0.49
22:DA:82:U:H5'	22:DA:296:U:H5''	1.94	0.49
22:DA:308:G:C6	22:DA:309:A:C6	3.01	0.49
22:DA:445:C:O2'	22:DA:449:A:N3	2.45	0.49
22:DA:549:G:O4'	22:DA:549:G:N3	2.44	0.49
22:DA:771:G:C6	22:DA:772:C:C5	3.01	0.49
22:DA:982:C:H5''	22:DA:983:A:P	2.52	0.49
24:DC:159:GLY:N	24:DC:195:VAL:HG22	2.28	0.49
26:DE:97:ASN:HB2	26:DE:100:MET:HB2	1.92	0.49
26:DE:149:ILE:CG2	26:DE:188:MET:HG2	2.42	0.49
26:DE:22:ASP:OD2	26:DE:22:ASP:N	2.45	0.49
29:DH:5:LEU:HD11	29:DH:13:GLY:HA2	1.93	0.49
32:DK:38:ILE:HD13	32:DK:61:VAL:HB	1.93	0.49
41:DT:35:ALA:HB3	41:DT:38:ALA:HB2	1.94	0.49
1:AA:135:C:O2	16:AP:1:MET:N	2.41	0.49
1:AA:15:G:N7	1:AA:1396:A:C2	2.80	0.49
1:AA:208:U:C5	1:AA:210:C:N3	2.81	0.49
1:AA:575:G:C6	1:AA:821:G:C8	3.00	0.49
1:AA:723:U:H5'	1:AA:724:G:OP1	2.12	0.49
1:AA:903:G:H2'	1:AA:904:U:H6	1.77	0.49
2:AB:186:ILE:HA	2:AB:200:ILE:O	2.12	0.49
4:AD:91:LEU:HD21	4:AD:195:ILE:HD11	1.93	0.49
11:AK:70:CYS:O	11:AK:74:VAL:HG22	2.13	0.49
15:AO:19:ALA:O	15:AO:20:ASN:CB	2.60	0.49
16:AP:73:ALA:O	16:AP:77:GLU:HB2	2.12	0.49
17:AQ:14:SER:OG	17:AQ:17:MET:HE2	2.12	0.49
11:AK:89:PRO:HD3	21:AU:29:LEU:HD11	1.94	0.49
22:BA:1932:A:H5''	22:BA:1933:G:OP2	2.13	0.49
22:BA:2075:U:C2'	22:BA:2077:A:OP2	2.61	0.49
22:BA:581:C:H2'	22:BA:582:A:C8	2.47	0.49
22:BA:927:A:H2'	22:BA:928:A:H8	1.76	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:954:G:C5	22:BA:955:U:C5	3.00	0.49
24:BC:44:ASN:HB3	24:BC:50:THR:HG21	1.94	0.49
27:BF:173:PHE:O	27:BF:174:ASP:HB3	2.11	0.49
32:BK:47:ILE:HB	32:BK:48:PRO:CD	2.43	0.49
39:BR:66:HIS:CE1	39:BR:94:THR:CG2	2.95	0.49
47:BZ:35:THR:CG2	47:BZ:36:VAL:N	2.75	0.49
1:CA:1005:A:N7	1:CA:1006:G:C4	2.80	0.49
1:CA:951:G:C2	1:CA:1231:G:C2	3.01	0.49
1:CA:263:A:OP1	20:CT:74:ARG:HD3	2.12	0.49
1:CA:106:C:O2	1:CA:379:C:H4'	2.12	0.49
1:CA:552:U:N3	1:CA:553:A:N7	2.60	0.49
5:CE:80:THR:HA	5:CE:120:VAL:HG12	1.94	0.49
8:CH:75:ILE:HA	8:CH:128:TYR:O	2.13	0.49
10:CJ:84:VAL:O	10:CJ:88:MET:HG2	2.11	0.49
11:CK:16:VAL:HG12	11:CK:79:ILE:HG12	1.94	0.49
12:CL:77:HIS:O	12:CL:78:SER:CB	2.60	0.49
14:CN:31:ILE:HG22	14:CN:32:SER:N	2.27	0.49
15:CO:33:THR:HA	15:CO:63:ARG:NH1	2.26	0.49
15:CO:37:ASN:O	15:CO:40:GLN:HB2	2.13	0.49
17:CQ:46:VAL:CG2	17:CQ:61:ILE:HD11	2.42	0.49
21:CU:43:THR:O	21:CU:44:GLU:C	2.51	0.49
22:DA:1476:U:H1'	22:DA:1732:C:O2	2.12	0.49
22:DA:1663:G:C6	22:DA:1992:G:C8	3.00	0.49
22:DA:2037:A:N6	22:DA:2038:G:O6	2.46	0.49
22:DA:2066:C:H5''	57:DA:3505:HOH:O	2.13	0.49
22:DA:2131:U:H5'	22:DA:2132:U:C5'	2.42	0.49
22:DA:2376:A:H2'	22:DA:2377:A:O4'	2.12	0.49
22:DA:2612:C:H5''	22:DA:2613:U:OP1	2.13	0.49
22:DA:347:A:C2	22:DA:348:A:C4	3.01	0.49
22:DA:404:A:C4'	22:DA:405:U:OP2	2.61	0.49
22:DA:604:G:N1	22:DA:605:G:C5	2.80	0.49
22:DA:2094:A:OP1	29:DH:22:LYS:HG3	2.12	0.49
1:AA:1080:A:OP1	5:AE:52:LYS:CE	2.60	0.49
1:AA:590:U:H2'	1:AA:591:U:C6	2.47	0.49
2:AB:119:THR:O	2:AB:120:GLN:CB	2.60	0.49
2:AB:47:VAL:O	2:AB:49:MET:N	2.45	0.49
2:AB:74:ARG:O	2:AB:75:ALA:HB2	2.12	0.49
4:AD:58:LYS:HG3	4:AD:59:GLN:N	2.28	0.49
4:AD:11:LEU:CD2	4:AD:63:ARG:HD3	2.41	0.49
6:AF:6:ILE:HA	6:AF:88:MET:O	2.12	0.49
9:AI:40:GLY:O	9:AI:41:ARG:CB	2.54	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:17:LEU:HD23	10:AJ:18:ILE:N	2.26	0.49
10:AJ:6:ILE:HD12	10:AJ:76:ILE:HB	1.94	0.49
10:AJ:8:ILE:O	10:AJ:73:LEU:O	2.31	0.49
15:AO:43:PHE:CD1	15:AO:56:LEU:HD22	2.48	0.49
22:BA:1203:U:C4	22:BA:1204:A:C5	3.00	0.49
22:BA:1386:C:H2'	22:BA:1387:A:C8	2.47	0.49
22:BA:1415:U:O2	22:BA:1415:U:H3'	2.12	0.49
22:BA:1794:A:H1'	22:BA:1900:A:N3	2.27	0.49
22:BA:1853:A:C2	22:BA:1854:A:C2	3.00	0.49
22:BA:2308:G:O6	22:BA:2311:A:C8	2.66	0.49
22:BA:2648:G:H2'	22:BA:2649:C:C6	2.48	0.49
22:BA:2880:C:N3	22:BA:2881:U:C5	2.80	0.49
22:BA:699:A:C8	22:BA:734:A:C2	3.00	0.49
23:BB:33:G:O2'	23:BB:34:A:H5'	2.13	0.49
24:BC:171:TYR:CD2	24:BC:185:GLU:HA	2.47	0.49
24:BC:212:ARG:HD2	24:BC:216:VAL:O	2.13	0.49
29:BH:86:ASP:O	29:BH:87:GLU:HB2	2.11	0.49
41:BT:2:ILE:CG1	41:BT:7:LEU:HD11	2.42	0.49
45:BX:37:ARG:HG3	45:BX:48:THR:HB	1.94	0.49
1:CA:1460:C:N4	1:CA:1461:G:C6	2.80	0.49
1:CA:523:A:N1	12:CL:89:ASP:HB2	2.27	0.49
1:CA:583:A:C8	1:CA:584:G:C8	3.00	0.49
2:CB:210:VAL:HG22	2:CB:211:THR:N	2.28	0.49
8:CH:11:LEU:HD11	8:CH:127:CYS:HB3	1.94	0.49
10:CJ:92:LEU:O	10:CJ:93:ALA:HB2	2.12	0.49
15:CO:45:GLU:O	15:CO:46:HIS:HB2	2.12	0.49
22:DA:1530:G:N2	22:DA:1542:U:C2	2.80	0.49
22:DA:1688:U:C4	22:DA:1698:A:C2	3.00	0.49
22:DA:2372:U:H2'	22:DA:2373:G:C8	2.48	0.49
22:DA:2627:G:N2	22:DA:2777:G:OP2	2.45	0.49
22:DA:585:G:H2'	22:DA:586:A:N7	2.27	0.49
22:DA:813:U:H2'	22:DA:814:C:C6	2.46	0.49
22:DA:945:A:C5	22:DA:2448:A:C2	3.00	0.49
23:DB:38:C:H2'	23:DB:39:A:O4'	2.12	0.49
24:DC:146:MET:SD	24:DC:154:LEU:HD21	2.53	0.49
25:DD:104:VAL:O	25:DD:105:LYS:HB3	2.12	0.49
25:DD:3:GLY:HA3	25:DD:204:LYS:HG2	1.93	0.49
1:AA:1251:A:H2'	1:AA:1252:A:O4'	2.13	0.49
1:AA:125:U:H2'	1:AA:126:G:O4'	2.12	0.49
1:AA:167:A:H2'	1:AA:168:G:O4'	2.11	0.49
1:AA:316:C:N3	1:AA:317:U:C5	2.81	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:685:G:N1	1:AA:686:U:O4	2.46	0.49
2:AB:133:GLU:O	2:AB:137:ARG:N	2.46	0.49
3:AC:39:VAL:O	3:AC:43:LEU:HB2	2.13	0.49
3:AC:54:ARG:HB3	3:AC:69:HIS:HB2	1.94	0.49
6:AF:46:GLN:HA	6:AF:56:LYS:HG2	1.93	0.49
9:AI:120:LYS:O	9:AI:121:ALA:HB3	2.12	0.49
12:AL:3:THR:HB	12:AL:6:GLN:HG3	1.94	0.49
13:AM:56:LEU:O	13:AM:59:GLU:N	2.46	0.49
49:B1:34:LEU:H	49:B1:52:ALA:CB	2.25	0.49
22:BA:102:U:C2	46:BY:2:LYS:HE3	2.47	0.49
22:BA:1419:A:C5	22:BA:1421:G:C5	3.00	0.49
22:BA:1860:G:C2	22:BA:1883:U:H1'	2.47	0.49
22:BA:2489:U:O2	22:BA:2491:U:C4	2.66	0.49
22:BA:2618:G:C6	22:BA:2619:C:C4	3.01	0.49
22:BA:645:C:O2'	22:BA:646:U:H5''	2.13	0.49
27:BF:121:SER:HB2	27:BF:128:TYR:CE1	2.48	0.49
33:BL:90:VAL:HG23	33:BL:120:VAL:HG21	1.93	0.49
36:BO:59:ALA:O	36:BO:60:GLU:C	2.50	0.49
1:CA:182:A:C5	1:CA:184:G:N7	2.80	0.49
1:CA:635:A:C6	1:CA:636:U:C4	3.00	0.49
1:CA:793:U:HO2'	1:CA:1516:G:C1'	2.26	0.49
2:CB:43:LEU:HG	2:CB:44:GLU:CG	2.43	0.49
2:CB:72:THR:HG23	2:CB:94:HIS:O	2.11	0.49
3:CC:16:LYS:HG3	3:CC:17:PRO:HD2	1.95	0.49
4:CD:98:LEU:O	4:CD:99:ASP:C	2.51	0.49
1:CA:1342:C:H1'	9:CI:126:GLN:HG3	1.94	0.49
9:CI:30:ILE:HA	9:CI:65:ILE:HG13	1.95	0.49
10:CJ:18:ILE:HG23	10:CJ:19:ASP:N	2.28	0.49
14:CN:33:ASP:O	14:CN:35:ASN:N	2.42	0.49
14:CN:80:SER:O	14:CN:83:LYS:N	2.45	0.49
6:CF:88:MET:CE	18:CR:64:TYR:CD2	2.95	0.49
22:DA:121:G:H8	22:DA:121:G:O5'	1.95	0.49
22:DA:1408:G:N2	22:DA:1595:C:H1'	2.27	0.49
22:DA:1645:G:H4'	22:DA:1646:C:C6	2.48	0.49
22:DA:2144:G:C2	22:DA:2146:C:O2	2.65	0.49
22:DA:2415:G:C5	22:DA:2416:C:C4	3.01	0.49
22:DA:2511:U:C5	22:DA:2512:C:C5	3.01	0.49
22:DA:1638:C:O2'	22:DA:2698:U:O2	2.30	0.49
22:DA:2834:G:H2'	22:DA:2879:A:N6	2.27	0.49
22:DA:749:A:C4	22:DA:750:A:C8	3.01	0.49
22:DA:798:G:H2'	22:DA:799:G:C8	2.47	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DB:25:U:H2'	23:DB:26:C:O4'	2.12	0.49
22:DA:2314:A:O4'	27:DF:155:THR:HG21	2.13	0.49
38:DQ:47:TYR:CE1	38:DQ:51:ARG:NH2	2.80	0.49
1:AA:1181:G:O2'	1:AA:1182:G:C8	2.66	0.49
1:AA:1293:C:H5'	1:AA:1294:G:OP2	2.12	0.49
1:AA:328:C:C2'	1:AA:328:C:O2	2.60	0.49
1:AA:338:A:C6	1:AA:339:C:C4	3.01	0.49
2:AB:68:LEU:HD21	2:AB:92:VAL:HG23	1.94	0.49
4:AD:65:TYR:CG	4:AD:94:LEU:HD22	2.47	0.49
5:AE:45:ARG:HG2	5:AE:73:ASN:HB3	1.93	0.49
7:AG:139:GLU:HA	7:AG:139:GLU:OE1	2.12	0.49
12:AL:72:HIS:ND1	12:AL:72:HIS:O	2.46	0.49
22:BA:100:U:H4'	22:BA:101:A:O5'	2.11	0.49
22:BA:1063:G:N2	30:BI:90:SER:HG	2.11	0.49
22:BA:1355:G:N3	22:BA:1356:G:C8	2.81	0.49
22:BA:2275:C:O2	34:BM:84:LYS:CD	2.60	0.49
22:BA:2415:G:C2	22:BA:2416:C:C2	3.00	0.49
22:BA:2456:C:C2'	22:BA:2457:U:H5'	2.43	0.49
22:BA:2555:U:H5''	22:BA:2556:C:OP2	2.12	0.49
22:BA:449:A:C6	22:BA:450:G:C5	3.01	0.49
22:BA:948:C:H1'	22:BA:984:A:O2'	2.12	0.49
22:BA:2094:A:H5'	29:BH:25:TYR:CG	2.47	0.49
25:BD:12:THR:HG21	37:BP:9:GLU:HG3	1.95	0.49
42:BU:12:ILE:HG13	42:BU:21:LYS:O	2.13	0.49
46:BY:20:ASN:O	46:BY:24:GLU:HB2	2.12	0.49
47:BZ:21:LYS:O	47:BZ:23:THR:N	2.46	0.49
1:CA:1144:G:H5''	1:CA:1145:A:OP2	2.12	0.49
1:CA:978:A:O2'	1:CA:1322:C:H5	1.94	0.49
1:CA:207:C:O2	1:CA:207:C:H2'	2.11	0.49
1:CA:32:A:N1	1:CA:33:A:C6	2.80	0.49
1:CA:509:A:N3	1:CA:543:U:O2'	2.41	0.49
1:CA:706:A:C1'	11:CK:31:ILE:HD11	2.42	0.49
1:CA:757:U:OP1	1:CA:822:U:O2'	2.24	0.49
4:CD:26:ARG:O	4:CD:27:ALA:CB	2.61	0.49
4:CD:34:ILE:O	4:CD:35:GLU:HB3	2.12	0.49
22:DA:1534:U:O2'	22:DA:1537:G:O6	2.29	0.49
22:DA:200:U:C4	22:DA:248:G:N2	2.81	0.49
22:DA:2020:A:C2	22:DA:2022:U:O4'	2.65	0.49
22:DA:2134:A:H62	22:DA:2157:G:H1'	1.77	0.49
22:DA:2351:G:O2'	22:DA:2366:A:N6	2.39	0.49
22:DA:833:A:P	33:DL:39:LYS:HE2	2.53	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:953:G:O2'	22:DA:954:G:H5'	2.13	0.49
28:DG:11:VAL:O	28:DG:48:ASN:CG	2.51	0.49
29:DH:112:LYS:CG	29:DH:113:SER:N	2.76	0.49
30:DI:33:VAL:HG22	30:DI:67:PHE:CE2	2.48	0.49
32:DK:63:VAL:O	32:DK:64:ARG:HG2	2.12	0.49
32:DK:63:VAL:O	32:DK:64:ARG:CG	2.61	0.49
1:AA:102:G:C2	1:AA:103:U:C6	3.00	0.49
1:AA:1123:U:H4'	10:AJ:39:PRO:HD2	1.94	0.49
1:AA:1243:C:H2'	1:AA:1244:G:C8	2.47	0.49
1:AA:126:G:H2'	1:AA:127:G:O5'	2.13	0.49
1:AA:292:G:N7	1:AA:293:G:H1'	2.28	0.49
1:AA:382:A:H2'	1:AA:383:A:C8	2.48	0.49
2:AB:207:ILE:HD13	2:AB:207:ILE:N	2.28	0.49
3:AC:60:PRO:HB3	10:AJ:94:ALA:HB1	1.94	0.49
5:AE:153:VAL:O	5:AE:156:LYS:HB2	2.12	0.49
5:AE:90:THR:HG22	5:AE:91:GLY:H	1.74	0.49
6:AF:17:GLN:OE1	6:AF:21:MET:HG3	2.13	0.49
7:AG:50:LEU:O	7:AG:51:ALA:C	2.50	0.49
8:AH:125:ILE:O	8:AH:125:ILE:CG1	2.60	0.49
10:AJ:36:VAL:HA	10:AJ:75:ASP:O	2.11	0.49
11:AK:112:ASP:OD2	11:AK:114:THR:HG23	2.13	0.49
1:AA:683:G:N2	11:AK:39:GLY:O	2.46	0.49
20:AT:58:VAL:HG12	20:AT:72:ALA:HB1	1.95	0.49
49:B1:23:THR:OG1	49:B1:24:THR:N	2.44	0.49
22:BA:1063:G:H4'	30:BI:77:ALA:HB1	1.93	0.49
22:BA:1649:G:C6	22:BA:2009:A:C6	3.01	0.49
22:BA:2331:G:O4'	44:BW:42:GLY:HA3	2.13	0.49
22:BA:2665:A:C2	22:BA:2666:C:C2	3.01	0.49
22:BA:947:A:O2'	22:BA:984:A:C2	2.58	0.49
26:BE:119:ILE:CG2	26:BE:187:VAL:HG22	2.42	0.49
34:BM:51:ARG:O	34:BM:55:ARG:HG2	2.13	0.49
1:AA:1432:G:P	37:BP:106:LYS:HG2	2.52	0.49
39:BR:51:VAL:CG2	39:BR:52:PRO:HD2	2.43	0.49
40:BS:55:ILE:O	40:BS:56:ALA:C	2.51	0.49
41:BT:10:VAL:HG12	41:BT:11:LEU:HD23	1.95	0.49
46:BY:45:GLN:O	46:BY:46:VAL:HB	2.13	0.49
1:CA:862:C:H2'	1:CA:863:U:H6	1.78	0.49
1:CA:890:G:HO2'	1:CA:891:U:P	2.36	0.49
1:CA:92:U:C4	1:CA:93:U:O4	2.66	0.49
3:CC:49:LYS:O	3:CC:72:ARG:NH1	2.45	0.49
8:CH:87:LYS:HG3	8:CH:91:GLU:HB3	1.95	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:18:ASP:HA	14:CN:22:ALA:HB3	1.95	0.49
22:DA:1060:U:H5	30:DI:132:THR:HG23	1.78	0.49
22:DA:70:G:H5''	22:DA:112:U:O2	2.13	0.49
22:DA:2211:A:C1'	22:DA:2212:A:OP1	2.61	0.49
22:DA:2341:G:C6	22:DA:2342:C:C4	3.01	0.49
22:DA:2811:G:OP1	25:DD:62:LYS:N	2.45	0.49
22:DA:319:G:OP2	26:DE:132:LYS:HE2	2.12	0.49
22:DA:469:G:O6	50:D2:37:LYS:CE	2.60	0.49
42:DU:18:ASP:HB3	42:DU:21:LYS:HG3	1.94	0.49
1:AA:1005:A:H2'	1:AA:1006:G:O4'	2.13	0.49
1:AA:1026:G:C6	1:AA:1027:C:N3	2.81	0.49
1:AA:1060:U:H2'	1:AA:1061:G:H8	1.77	0.49
1:AA:1211:U:HO2'	1:AA:1212:U:P	2.36	0.49
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.95	0.49
1:AA:1503:A:C8	1:AA:1531:A:H1'	2.47	0.49
1:AA:201:G:C2	1:AA:217:C:O2	2.66	0.49
1:AA:231:U:O2'	1:AA:232:G:H5'	2.12	0.49
1:AA:452:A:C8	1:AA:452:A:H3'	2.47	0.49
8:AH:49:PHE:CB	8:AH:61:LEU:HD23	2.43	0.49
1:AA:1302:C:C4	13:AM:17:ILE:CD1	2.96	0.49
14:AN:21:PHE:HA	14:AN:25:ALA:HB3	1.95	0.49
14:AN:43:ASN:HA	14:AN:45:VAL:HG22	1.95	0.49
14:AN:63:ARG:CG	14:AN:68:GLY:O	2.61	0.49
22:BA:1088:A:N3	22:BA:1088:A:H3'	2.28	0.49
22:BA:1132:U:H3'	22:BA:1133:A:H5''	1.94	0.49
22:BA:1922:G:C6	22:BA:1923:U:C5	3.00	0.49
22:BA:2287:A:C8	22:BA:2289:G:C8	3.00	0.49
22:BA:2572:A:OP1	22:BA:2574:G:H4'	2.13	0.49
22:BA:2580:U:C5	22:BA:2581:G:C6	3.00	0.49
22:BA:2600:A:C6	22:BA:2601:C:N4	2.80	0.49
22:BA:2620:C:C2	22:BA:2621:G:C8	3.01	0.49
22:BA:627:A:C5	22:BA:637:A:N7	2.81	0.49
22:BA:58:G:N2	22:BA:70:G:C4	2.81	0.49
25:BD:124:ARG:HA	25:BD:165:MET:SD	2.53	0.49
30:BI:99:GLY:O	30:BI:139:VAL:HG23	2.13	0.49
35:BN:2:ARG:CA	35:BN:5:LYS:HD2	2.39	0.49
46:BY:36:GLN:O	46:BY:37:LEU:HB3	2.13	0.49
1:CA:106:C:C2'	1:CA:107:G:H5'	2.42	0.49
1:CA:247:G:C5	1:CA:278:G:N2	2.81	0.49
1:CA:743:A:C6	1:CA:744:C:C5	3.01	0.49
1:AA:843:U:H3	2:CB:115:LYS:HD3	1.78	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:151:LYS:O	4:CD:151:LYS:CG	2.61	0.49
4:CD:203:LEU:HD12	4:CD:203:LEU:O	2.11	0.49
22:DA:242:G:N7	51:D3:5:LYS:HG2	2.28	0.49
22:DA:2702:G:C6	22:DA:2703:C:C4	3.01	0.49
22:DA:574:A:H4'	22:DA:575:A:C5'	2.43	0.49
24:DC:130:LEU:HD12	24:DC:134:ASN:HB2	1.95	0.49
25:DD:101:PHE:O	25:DD:104:VAL:HG22	2.12	0.49
29:DH:21:VAL:CG2	29:DH:22:LYS:N	2.76	0.49
30:DI:51:LYS:N	30:DI:51:LYS:HD3	2.28	0.49
22:DA:2780:G:O6	31:DJ:102:GLU:OE2	2.31	0.49
35:DN:116:VAL:HG13	35:DN:116:VAL:O	2.12	0.49
1:AA:1072:G:C6	1:AA:1073:U:C4	3.01	0.49
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.48	0.49
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.47	0.49
1:AA:626:G:O2'	1:AA:627:G:H5'	2.13	0.49
1:AA:914:A:C6	1:AA:915:A:N7	2.81	0.49
4:AD:124:MET:SD	4:AD:127:GLY:O	2.71	0.49
4:AD:22:LYS:O	4:AD:23:SER:C	2.51	0.49
8:AH:30:SER:O	8:AH:31:LYS:C	2.51	0.49
11:AK:22:HIS:CD2	11:AK:35:THR:HG22	2.48	0.49
13:AM:6:GLY:C	13:AM:8:ASN:N	2.63	0.49
16:AP:39:PHE:CG	16:AP:74:LEU:HD11	2.48	0.49
1:AA:130:A:N7	17:AQ:65:ARG:HB2	2.28	0.49
18:AR:27:ALA:O	18:AR:30:LYS:HE3	2.12	0.49
20:AT:55:GLN:N	20:AT:56:PRO:HD2	2.28	0.49
21:AU:29:LEU:HD23	21:AU:29:LEU:O	2.13	0.49
49:B1:8:LYS:HA	49:B1:24:THR:HG22	1.95	0.49
22:BA:108:G:C6	22:BA:109:C:C4	3.01	0.49
22:BA:1283:G:N2	22:BA:1285:A:H3'	2.27	0.49
22:BA:1342:A:C2	22:BA:1345:C:C6	3.01	0.49
22:BA:207:A:C2'	22:BA:208:C:O5'	2.61	0.49
22:BA:2154:A:H2'	22:BA:2155:U:C6	2.47	0.49
22:BA:2190:G:C2	22:BA:2191:A:C4	3.01	0.49
22:BA:2415:G:H2'	22:BA:2416:C:C6	2.48	0.49
22:BA:714:U:O2	22:BA:717:C:H5	1.96	0.49
22:BA:977:G:C5	57:BA:3590:HOH:O	2.64	0.49
24:BC:157:SER:O	24:BC:158:ALA:C	2.50	0.49
25:BD:57:ALA:O	25:BD:59:ARG:N	2.46	0.49
28:BG:94:TYR:HA	28:BG:106:SER:O	2.13	0.49
33:BL:110:VAL:O	33:BL:131:ALA:CB	2.61	0.49
35:BN:118:ARG:O	35:BN:120:GLU:N	2.42	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BY:39:GLN:HB2	46:BY:41:HIS:CE1	2.48	0.49
1:CA:15:G:C4	1:CA:16:A:C8	3.01	0.49
1:CA:243:A:C2	1:CA:246:A:C8	3.01	0.49
1:CA:254:G:C4	1:CA:255:G:C8	3.00	0.49
1:CA:247:G:C5	1:CA:278:G:C2	3.00	0.49
1:CA:41:G:H2'	1:CA:42:G:C8	2.48	0.49
1:CA:433:G:C5	1:CA:434:U:C5	3.01	0.49
1:CA:834:U:H2'	1:CA:835:U:C6	2.48	0.49
2:CB:90:PHE:CD2	2:CB:150:GLY:O	2.66	0.49
6:CF:86:ARG:HH11	6:CF:86:ARG:HG2	1.77	0.49
9:CI:18:ARG:O	9:CI:65:ILE:HA	2.12	0.49
1:CA:562:U:H1'	12:CL:12:ARG:HG3	1.95	0.49
18:CR:71:THR:OG1	18:CR:72:ASP:N	2.45	0.49
48:D0:53:LYS:HE3	48:D0:56:ALA:HA	1.95	0.49
51:D3:33:LEU:HA	51:D3:36:LYS:HD2	1.93	0.49
22:DA:1095:A:H2'	22:DA:1096:A:N9	2.27	0.49
22:DA:1053:C:C2	22:DA:1107:G:C2	3.01	0.49
22:DA:1379:U:OP1	22:DA:1379:U:C6	2.65	0.49
22:DA:1677:A:N6	22:DA:1678:A:C6	2.81	0.49
22:DA:1739:A:C2'	22:DA:1740:G:O5'	2.61	0.49
22:DA:2060:A:O4'	22:DA:2502:G:H1'	2.13	0.49
22:DA:2282:G:C4	22:DA:2425:A:N6	2.81	0.49
22:DA:2540:C:H2'	22:DA:2541:A:H8	1.77	0.49
22:DA:2054:A:C2	22:DA:2616:C:C2	3.01	0.49
22:DA:2784:U:O4	22:DA:2785:C:N4	2.46	0.49
24:DC:160:THR:O	24:DC:195:VAL:HG13	2.12	0.49
22:DA:1805:A:H5''	24:DC:248:TRP:CE2	2.48	0.49
29:DH:72:ILE:O	29:DH:141:LYS:O	2.30	0.49
30:DI:33:VAL:HG22	30:DI:67:PHE:CD2	2.47	0.49
37:DP:39:ARG:HG3	37:DP:40:LEU:N	2.27	0.49
42:DU:96:PHE:CE1	42:DU:103:ILE:CG1	2.96	0.49
1:AA:1107:C:C4	1:AA:1108:G:C8	3.01	0.48
1:AA:1504:G:H4'	1:AA:1505:G:C4	2.48	0.48
1:AA:254:G:O2'	1:AA:255:G:H5'	2.13	0.48
1:AA:363:A:O2'	1:AA:364:A:H5'	2.12	0.48
1:AA:202:G:O2'	1:AA:468:A:C8	2.55	0.48
1:AA:559:A:C8	1:AA:561:U:C6	3.00	0.48
1:AA:712:A:C2	1:AA:713:G:C4	3.01	0.48
1:AA:77:A:N1	1:AA:91:U:O4	2.46	0.48
7:AG:76:LYS:HB3	7:AG:89:VAL:HG11	1.94	0.48
17:AQ:41:THR:HG22	17:AQ:42:THR:N	2.28	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B5:122:GLY:CA	53:B5:146:VAL:CB	2.90	0.48
53:B5:53:ARG:HD3	53:B5:204:GLY:HA3	1.94	0.48
22:BA:1026:G:O4'	22:BA:1026:G:P	2.71	0.48
22:BA:1562:U:H2'	22:BA:1563:U:O4'	2.13	0.48
22:BA:1695:G:C8	24:BC:8:PRO:HG2	2.47	0.48
22:BA:207:A:H2'	22:BA:208:C:O5'	2.13	0.48
22:BA:2405:G:O2'	22:BA:2406:A:OP1	2.29	0.48
22:BA:2564:A:C2	22:BA:2647:U:H4'	2.47	0.48
22:BA:973:A:OP2	39:BR:81:LYS:NZ	2.39	0.48
24:BC:180:GLU:HG3	24:BC:269:ARG:O	2.12	0.48
29:BH:121:VAL:H	29:BH:122:LEU:HB2	1.77	0.48
29:BH:139:PHE:O	29:BH:140:ALA:HB2	2.13	0.48
32:BK:121:GLU:O	32:BK:122:VAL:C	2.50	0.48
39:BR:11:GLN:C	39:BR:12:HIS:CG	2.86	0.48
39:BR:4:VAL:HA	39:BR:12:HIS:O	2.12	0.48
42:BU:98:SER:O	42:BU:99:ASN:CB	2.61	0.48
44:BW:82:ILE:O	44:BW:82:ILE:HG22	2.12	0.48
1:CA:1068:G:H2'	1:CA:1069:C:H5'	1.94	0.48
1:CA:165:G:C2	1:CA:166:U:C2	3.01	0.48
1:CA:200:G:H2'	1:CA:201:G:H5''	1.94	0.48
1:CA:421:U:OP1	1:CA:421:U:C4'	2.61	0.48
1:CA:755:G:C2	1:CA:756:C:C5	3.01	0.48
6:CF:3:HIS:CD2	6:CF:94:HIS:HA	2.48	0.48
7:CG:42:ILE:O	7:CG:42:ILE:HG22	2.13	0.48
11:CK:127:ARG:N	21:CU:34:ARG:NH2	2.60	0.48
21:CU:8:GLU:HB3	21:CU:12:PHE:CE2	2.47	0.48
22:DA:1180:U:H5'	22:DA:1181:U:OP2	2.14	0.48
22:DA:1265:A:C8	22:DA:1267:U:N3	2.81	0.48
22:DA:1343:G:N2	22:DA:1405:U:C2	2.81	0.48
22:DA:1601:G:C5	22:DA:1602:U:C4	3.00	0.48
22:DA:1753:G:N1	22:DA:1756:G:C2	2.81	0.48
22:DA:1760:C:H3'	22:DA:1761:C:H6	1.77	0.48
22:DA:2061:G:C6	55:DA:3001:VIF:H29	2.48	0.48
22:DA:2392:A:OP2	51:D3:31:HIS:CE1	2.66	0.48
22:DA:2469:A:H4'	34:DM:55:ARG:HD3	1.95	0.48
22:DA:2573:C:OP1	22:DA:2574:G:H5''	2.13	0.48
22:DA:2693:G:N2	22:DA:2717:C:C2	2.81	0.48
22:DA:2732:G:O2'	22:DA:2733:A:H5'	2.13	0.48
22:DA:276:U:H2'	22:DA:276:U:O2	2.12	0.48
22:DA:279:A:H61	22:DA:361:G:H1'	1.78	0.48
22:DA:362:A:H2'	22:DA:362:A:N3	2.28	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:415:A:C2	22:DA:2409:G:C2	3.01	0.48
22:DA:599:A:N3	22:DA:659:G:C2	2.81	0.48
22:DA:682:G:H2'	22:DA:682:G:N3	2.27	0.48
22:DA:704:G:H1'	22:DA:726:G:N2	2.28	0.48
22:DA:782:A:O2'	24:DC:224:ALA:O	2.28	0.48
24:DC:9:THR:O	24:DC:10:SER:CB	2.60	0.48
25:DD:52:THR:O	25:DD:77:ARG:HG2	2.13	0.48
30:DI:28:LEU:HD13	30:DI:38:PHE:CD2	2.47	0.48
30:DI:10:LYS:HB2	30:DI:56:PRO:HB3	1.95	0.48
33:DL:28:GLY:O	33:DL:29:LYS:HB3	2.12	0.48
34:DM:76:LYS:HE3	34:DM:80:VAL:HG12	1.95	0.48
36:DO:92:PHE:HB2	36:DO:117:PHE:CE1	2.47	0.48
1:AA:1182:G:C3'	1:AA:1183:U:H5'	2.43	0.48
1:AA:1242:G:C6	1:AA:1243:C:N3	2.81	0.48
1:AA:406:G:C6	1:AA:495:A:C8	3.01	0.48
1:AA:623:C:C4	1:AA:624:C:C5	3.01	0.48
1:AA:596:A:N6	1:AA:645:G:N1	2.61	0.48
1:AA:661:G:N2	1:AA:662:U:C2	2.82	0.48
1:AA:958:A:C6	1:AA:959:A:N1	2.82	0.48
2:AB:208:ARG:O	2:AB:210:VAL:N	2.46	0.48
2:AB:75:ALA:O	2:AB:76:ALA:CB	2.61	0.48
3:AC:155:GLY:HA2	3:AC:163:ALA:HB1	1.96	0.48
6:AF:45:ARG:HB3	6:AF:59:TYR:CD1	2.48	0.48
6:AF:47:LEU:HD12	6:AF:55:HIS:HA	1.95	0.48
6:AF:75:GLU:HA	6:AF:78:PHE:HB2	1.95	0.48
7:AG:147:ALA:HA	11:AK:61:PHE:CE1	2.48	0.48
11:AK:128:ARG:HG2	11:AK:128:ARG:HH11	1.78	0.48
11:AK:13:ARG:O	11:AK:14:LYS:O	2.31	0.48
21:AU:10:GLU:CB	21:AU:11:PRO:HD3	2.42	0.48
21:AU:18:ARG:HD2	21:AU:18:ARG:N	2.28	0.48
22:BA:1058:U:N3	22:BA:1059:G:N7	2.61	0.48
22:BA:1190:G:OP1	33:BL:32:GLY:CA	2.62	0.48
22:BA:1474:U:C2'	22:BA:1475:G:H5'	2.43	0.48
22:BA:184:C:H2'	22:BA:185:G:H8	1.78	0.48
22:BA:2428:G:H5''	22:BA:2429:G:OP1	2.12	0.48
22:BA:2462:C:H2'	22:BA:2463:C:H6	1.78	0.48
22:BA:2721:A:H2'	22:BA:2722:G:O4'	2.13	0.48
22:BA:630:G:H5''	22:BA:631:A:OP2	2.13	0.48
22:BA:719:C:H2'	22:BA:720:U:O4'	2.13	0.48
22:BA:699:A:N7	22:BA:734:A:C4	2.82	0.48
22:BA:783:A:C8	22:BA:784:G:H4'	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2599:G:C8	24:BC:236:GLU:HB2	2.48	0.48
32:BK:41:ILE:HD11	32:BK:86:LEU:HD22	1.95	0.48
37:BP:52:ASN:O	37:BP:53:ARG:HD3	2.13	0.48
38:BQ:74:ILE:O	38:BQ:74:ILE:CG2	2.60	0.48
46:BY:3:ALA:HA	46:BY:6:LEU:HB2	1.95	0.48
1:CA:1141:C:C2	1:CA:1142:G:C8	3.01	0.48
1:CA:1127:G:H5'	1:CA:1280:A:O2'	2.12	0.48
1:CA:1507:A:C5	1:CA:1530:G:C6	3.01	0.48
1:CA:263:A:P	20:CT:74:ARG:NH1	2.86	0.48
1:CA:636:U:H2'	1:CA:637:C:C6	2.47	0.48
1:CA:939:G:C2	1:CA:940:C:C2	3.01	0.48
1:CA:952:U:H2'	1:CA:953:G:C8	2.48	0.48
2:CB:15:HIS:O	2:CB:17:GLY:N	2.46	0.48
3:CC:102:ASN:N	3:CC:102:ASN:OD1	2.46	0.48
1:CA:620:C:C1'	4:CD:132:ILE:HD13	2.44	0.48
9:CI:127:PHE:CD2	9:CI:127:PHE:C	2.87	0.48
10:CJ:46:LYS:HB3	10:CJ:66:GLU:OE1	2.13	0.48
12:CL:16:VAL:O	12:CL:17:ALA:C	2.51	0.48
13:CM:106:ALA:O	13:CM:110:LYS:HB3	2.13	0.48
18:CR:46:GLY:O	18:CR:47:THR:O	2.32	0.48
50:D2:35:ARG:O	50:D2:38:GLY:N	2.45	0.48
22:DA:158:U:C2'	22:DA:159:G:H5'	2.43	0.48
22:DA:2185:U:H2'	22:DA:2186:G:C8	2.48	0.48
22:DA:382:A:N1	22:DA:383:C:C2	2.81	0.48
22:DA:479:A:N3	22:DA:481:G:H5''	2.27	0.48
22:DA:537:G:C6	22:DA:555:G:C2	3.00	0.48
22:DA:705:A:C2	22:DA:727:A:O4'	2.67	0.48
26:DE:45:ALA:HA	26:DE:87:ALA:O	2.12	0.48
26:DE:5:LEU:HD23	26:DE:122:GLU:HG2	1.94	0.48
22:DA:1060:U:C5	30:DI:132:THR:HG23	2.48	0.48
32:DK:99:ILE:HD13	32:DK:118:LEU:HD12	1.94	0.48
36:DO:72:ALA:HA	36:DO:109:ALA:CB	2.43	0.48
32:DK:76:VAL:CG1	37:DP:73:VAL:HG22	2.43	0.48
45:DX:17:ASN:HB2	45:DX:25:THR:HB	1.95	0.48
1:AA:116:A:H2'	1:AA:117:G:H8	1.78	0.48
1:AA:1270:G:C2	1:AA:1271:A:C8	3.00	0.48
1:AA:1483:A:H2'	1:AA:1484:C:O4'	2.13	0.48
1:AA:437:U:C2'	1:AA:438:U:H5'	2.43	0.48
1:AA:577:G:C8	1:AA:816:A:C6	3.01	0.48
1:AA:601:G:H2'	1:AA:602:A:C8	2.48	0.48
2:AB:27:MET:HG2	2:AB:189:THR:HA	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:11:ARG:O	3:AC:12:LEU:C	2.51	0.48
6:AF:36:ILE:O	6:AF:36:ILE:HG23	2.13	0.48
16:AP:43:ALA:O	16:AP:46:LYS:HD2	2.13	0.48
17:AQ:59:VAL:HG23	17:AQ:77:ARG:O	2.13	0.48
40:BS:38:TYR:CD1	48:B0:28:LEU:HD21	2.48	0.48
22:BA:1027:A:N1	22:BA:1126:A:C4	2.82	0.48
22:BA:1085:A:C5	22:BA:1086:A:N6	2.82	0.48
22:BA:1224:U:C4	22:BA:1225:G:C6	3.00	0.48
22:BA:1372:U:C2'	22:BA:1373:A:H5'	2.43	0.48
22:BA:1383:A:N3	22:BA:1405:U:O2'	2.37	0.48
22:BA:2292:U:H2'	22:BA:2293:G:H8	1.77	0.48
22:BA:2429:G:OP2	57:BA:3343:HOH:O	2.20	0.48
22:BA:2779:U:C6	22:BA:2781:A:C2	3.01	0.48
22:BA:513:A:C2	22:BA:514:A:C4	3.00	0.48
34:BM:43:ALA:O	34:BM:47:GLU:HB2	2.13	0.48
22:BA:2820:A:P	35:BN:2:ARG:HH12	2.36	0.48
42:BU:39:ILE:HG22	42:BU:40:ASN:N	2.27	0.48
1:CA:1089:G:N2	1:CA:1090:U:H1'	2.28	0.48
1:CA:1512:U:O2	1:CA:1513:A:C8	2.67	0.48
1:CA:66:A:O4'	1:CA:173:U:C4	2.66	0.48
1:CA:445:G:C2	1:CA:490:C:C2	3.00	0.48
1:CA:890:G:O2'	1:CA:906:A:N6	2.47	0.48
1:CA:919:A:N1	1:CA:920:U:C5	2.82	0.48
2:CB:165:ASP:O	2:CB:169:GLU:HG2	2.13	0.48
3:CC:64:ILE:CG1	3:CC:66:VAL:HG23	2.43	0.48
7:CG:57:SER:HB3	7:CG:60:GLU:HG3	1.94	0.48
21:CU:14:VAL:HG12	21:CU:16:LEU:CD2	2.44	0.48
11:CK:122:ARG:NH1	21:CU:36:GLU:HG2	2.27	0.48
22:DA:1317:G:N2	22:DA:1336:A:N3	2.61	0.48
22:DA:1525:A:C5	22:DA:1526:C:C4	3.01	0.48
22:DA:1813:G:H2'	22:DA:1814:G:O4'	2.12	0.48
22:DA:2267:A:H5''	22:DA:2268:A:H5'	1.95	0.48
22:DA:2683:C:H4'	25:DD:13:ARG:NH1	2.28	0.48
22:DA:582:A:N7	57:DA:3285:HOH:O	2.35	0.48
22:DA:583:G:C5	22:DA:584:C:C5	3.01	0.48
22:DA:7:G:H4'	31:DJ:15:TRP:CH2	2.48	0.48
23:DB:35:C:C2'	23:DB:36:C:O5'	2.61	0.48
22:DA:319:G:OP2	26:DE:132:LYS:CE	2.61	0.48
27:DF:122:PHE:O	27:DF:123:ASP:C	2.50	0.48
22:DA:1138:G:O2'	31:DJ:104:ALA:O	2.30	0.48
32:DK:28:SER:O	32:DK:29:HIS:HB2	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:114:GLU:OE2	35:DN:118:ARG:CD	2.61	0.48
38:DQ:58:ARG:NH2	38:DQ:92:ARG:NH1	2.61	0.48
40:DS:66:ILE:N	40:DS:66:ILE:HD13	2.28	0.48
42:DU:47:LYS:HB2	42:DU:47:LYS:HE2	1.52	0.48
42:DU:6:ARG:O	42:DU:7:ARG:O	2.30	0.48
45:DX:31:PRO:HB2	45:DX:33:LEU:HD13	1.94	0.48
1:AA:1068:G:O2'	1:AA:1191:A:N1	2.40	0.48
1:AA:376:G:H2'	1:AA:377:G:H8	1.78	0.48
1:AA:44:A:C2	1:AA:399:G:C2	3.01	0.48
1:AA:558:G:C5	1:AA:559:A:C2	3.01	0.48
1:AA:592:G:C6	1:AA:648:A:C6	3.01	0.48
4:AD:197:GLU:O	4:AD:200:ILE:N	2.46	0.48
7:AG:132:GLY:O	7:AG:135:VAL:HG22	2.14	0.48
10:AJ:52:LEU:HB3	14:AN:81:ARG:HE	1.76	0.48
13:AM:107:ARG:NH1	13:AM:107:ARG:HG2	2.28	0.48
22:BA:1940:U:C2	22:BA:1965:C:OP2	2.66	0.48
22:BA:2543:G:H2'	22:BA:2544:G:C8	2.48	0.48
22:BA:2598:A:OP1	24:BC:235:GLY:HA2	2.13	0.48
22:BA:2847:U:C2'	22:BA:2848:G:H5'	2.43	0.48
22:BA:735:A:C8	22:BA:736:C:C5	3.01	0.48
22:BA:847:U:O2	22:BA:934:U:H1'	2.13	0.48
26:BE:109:LEU:O	26:BE:111:GLU:N	2.47	0.48
27:BF:119:ALA:HB2	27:BF:177:PHE:CD2	2.48	0.48
32:BK:19:VAL:HG11	32:BK:41:ILE:HD13	1.95	0.48
40:BS:57:ASN:O	40:BS:61:ASN:HB2	2.12	0.48
1:CA:244:U:H4'	1:CA:245:U:C5'	2.44	0.48
1:CA:375:U:N3	1:CA:376:G:N7	2.61	0.48
1:CA:49:U:O4	1:CA:365:U:H5	1.96	0.48
1:CA:510:A:H5''	1:CA:511:C:P	2.53	0.48
1:CA:609:A:N7	57:CA:1795:HOH:O	2.35	0.48
1:CA:747:A:N6	1:CA:748:G:C6	2.81	0.48
8:CH:67:GLN:C	8:CH:69:LYS:N	2.65	0.48
15:CO:42:HIS:O	15:CO:45:GLU:O	2.31	0.48
15:CO:8:THR:O	15:CO:12:VAL:HG23	2.13	0.48
22:DA:1058:U:H2'	22:DA:1059:G:C8	2.48	0.48
22:DA:1090:A:N6	22:DA:1091:G:O6	2.46	0.48
22:DA:1586:A:N6	22:DA:1587:G:C2	2.81	0.48
22:DA:1846:G:H5''	22:DA:1847:A:OP2	2.12	0.48
22:DA:2037:A:C6	22:DA:2038:G:C6	3.01	0.48
22:DA:2405:G:N2	22:DA:2411:A:C8	2.81	0.48
22:DA:784:G:N1	24:DC:228:VAL:HG21	2.28	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:141:VAL:O	24:DC:162:VAL:N	2.43	0.48
22:DA:1277:G:H5'	35:DN:20:MET:CE	2.43	0.48
35:DN:51:LEU:N	35:DN:51:LEU:HD23	2.27	0.48
22:DA:2873:A:O4'	35:DN:6:SER:HB2	2.13	0.48
44:DW:33:ALA:N	44:DW:64:ASP:OD2	2.46	0.48
47:DZ:7:ILE:HD11	47:DZ:48:ILE:HD11	1.96	0.48
1:AA:1042:A:H2'	1:AA:1043:G:C1'	2.43	0.48
1:AA:1058:G:C6	1:AA:1059:C:C4	3.01	0.48
1:AA:110:C:N4	1:AA:111:G:C6	2.81	0.48
1:AA:1133:G:N1	1:AA:1142:G:C6	2.81	0.48
1:AA:193:C:O4'	20:AT:55:GLN:OE1	2.31	0.48
1:AA:34:C:H2'	1:AA:35:G:C8	2.48	0.48
1:AA:402:G:C5	1:AA:403:C:C5	3.01	0.48
1:AA:495:A:O4'	1:AA:496:A:C8	2.67	0.48
1:AA:499:A:H4'	1:AA:500:G:OP1	2.14	0.48
1:AA:772:U:C2'	1:AA:773:G:O5'	2.61	0.48
1:AA:785:G:N2	1:AA:798:U:C2	2.81	0.48
1:AA:575:G:C6	1:AA:821:G:N7	2.81	0.48
3:AC:107:ARG:O	3:AC:108:LYS:C	2.52	0.48
3:AC:19:ASN:OD1	3:AC:19:ASN:N	2.46	0.48
4:AD:3:ARG:NE	4:AD:115:ARG:HD3	2.29	0.48
1:AA:933:G:OP2	7:AG:3:ARG:HB3	2.12	0.48
10:AJ:44:THR:CG2	10:AJ:70:HIS:HA	2.43	0.48
10:AJ:81:GLU:O	10:AJ:84:VAL:HG12	2.14	0.48
11:AK:125:LYS:CG	11:AK:126:LYS:N	2.76	0.48
13:AM:11:ASP:O	13:AM:12:HIS:CB	2.62	0.48
13:AM:95:LEU:HB3	13:AM:96:PRO:HD2	1.94	0.48
14:AN:66:GLN:HG3	14:AN:79:LEU:HD21	1.94	0.48
20:AT:23:SER:OG	20:AT:24:ARG:N	2.46	0.48
53:B5:59:VAL:HG12	53:B5:63:VAL:CG2	2.43	0.48
22:BA:1074:G:H2'	22:BA:1075:C:H5'	1.96	0.48
22:BA:1176:U:N3	22:BA:1177:G:C6	2.81	0.48
22:BA:1319:C:O2'	22:BA:1320:C:H5'	2.14	0.48
22:BA:1593:A:H2'	22:BA:1594:U:O4'	2.14	0.48
22:BA:164:C:H2'	22:BA:165:A:H5'	1.94	0.48
22:BA:1876:A:C2	22:BA:1877:A:C4	3.02	0.48
22:BA:1917:U:C2	22:BA:1918:A:C8	3.01	0.48
22:BA:2020:A:H5'	48:B0:9:THR:HG22	1.95	0.48
22:BA:2027:G:N2	22:BA:2037:A:C4	2.81	0.48
22:BA:2371:G:N2	22:BA:2372:U:C2	2.81	0.48
22:BA:22:C:C2'	22:BA:23:G:O5'	2.61	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:247:G:H4'	22:BA:386:G:C5	2.49	0.48
22:BA:842:U:N3	22:BA:843:G:N7	2.62	0.48
23:BB:30:C:C2'	23:BB:31:C:H5'	2.40	0.48
22:BA:2093:G:O5'	29:BH:24:GLY:HA3	2.14	0.48
30:BI:6:GLN:O	30:BI:7:ALA:CB	2.62	0.48
33:BL:28:GLY:C	33:BL:29:LYS:O	2.52	0.48
1:CA:501:C:H1'	1:CA:549:C:H1'	1.96	0.48
2:CB:139:ARG:C	2:CB:139:ARG:CD	2.82	0.48
3:CC:148:GLY:O	3:CC:203:PHE:N	2.38	0.48
3:CC:152:GLU:OE2	3:CC:154:SER:HB3	2.14	0.48
6:CF:88:MET:HE1	18:CR:64:TYR:HD2	1.78	0.48
8:CH:86:TYR:CE2	8:CH:124:GLU:HB2	2.48	0.48
11:CK:93:ARG:NH2	21:CU:20:LYS:HD2	2.29	0.48
15:CO:35:GLN:NE2	15:CO:39:LEU:HD22	2.28	0.48
16:CP:50:THR:O	16:CP:50:THR:HG22	2.14	0.48
17:CQ:45:HIS:ND1	17:CQ:70:THR:HG21	2.27	0.48
22:DA:1351:C:H2'	22:DA:1352:U:O4'	2.13	0.48
22:DA:1338:G:O2'	22:DA:1393:A:N1	2.37	0.48
22:DA:1567:G:OP1	24:DC:85:PRO:HB3	2.13	0.48
22:DA:1647:U:H3'	22:DA:1647:U:P	2.54	0.48
22:DA:1864:U:H2'	22:DA:1865:U:H5'	1.94	0.48
22:DA:1983:G:O2'	22:DA:2606:C:H5'	2.13	0.48
22:DA:532:A:N7	22:DA:2021:C:H2'	2.28	0.48
22:DA:2353:G:H2'	22:DA:2354:C:O4'	2.13	0.48
22:DA:471:A:OP1	26:DE:79:ARG:NH1	2.46	0.48
22:DA:27:G:N2	22:DA:512:G:H1'	2.29	0.48
22:DA:546:U:O2	22:DA:546:U:H3'	2.13	0.48
22:DA:737:C:C2	22:DA:738:G:C8	3.02	0.48
22:DA:664:G:H4'	22:DA:941:A:OP1	2.13	0.48
25:DD:179:ARG:NH1	37:DP:8:LEU:HD21	2.29	0.48
26:DE:145:ASP:HB3	26:DE:184:ASP:HB2	1.96	0.48
22:DA:2305:U:C4	27:DF:152:LEU:HA	2.48	0.48
32:DK:113:MET:SD	32:DK:116:ILE:HD11	2.54	0.48
36:DO:2:ASP:O	36:DO:6:ALA:HB2	2.14	0.48
36:DO:80:GLU:HA	36:DO:83:LEU:HD12	1.96	0.48
41:DT:39:THR:HG23	41:DT:42:GLU:H	1.78	0.48
46:DY:18:LEU:O	46:DY:22:LEU:HB2	2.13	0.48
46:DY:23:ARG:NE	46:DY:23:ARG:HA	2.27	0.48
1:AA:1036:A:H3'	1:AA:1037:C:C5	2.49	0.48
1:AA:108:G:C5'	1:AA:108:G:N3	2.74	0.48
1:AA:1211:U:H1'	1:AA:1213:A:C2	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1288:A:C6	1:AA:1289:A:C5	3.01	0.48
1:AA:1446:A:O2'	1:AA:1447:A:H5'	2.14	0.48
1:AA:602:A:C6	1:AA:603:U:N3	2.82	0.48
1:AA:654:G:H2'	1:AA:655:A:H5'	1.94	0.48
3:AC:46:GLU:C	3:AC:48:ALA:H	2.16	0.48
4:AD:192:SER:O	4:AD:193:ALA:HB3	2.14	0.48
5:AE:101:GLU:HB3	5:AE:122:ASN:CB	2.43	0.48
7:AG:97:ASN:O	7:AG:101:MET:HG3	2.14	0.48
9:AI:25:ASN:HB2	9:AI:27:LYS:HG2	1.94	0.48
12:AL:56:ARG:NH1	12:AL:62:GLU:HG3	2.29	0.48
21:AU:6:VAL:O	21:AU:6:VAL:HG23	2.12	0.48
22:BA:1115:G:C4	22:BA:1116:G:N7	2.82	0.48
22:BA:1344:U:HO2'	22:BA:1345:C:P	2.37	0.48
22:BA:1917:U:C4	22:BA:1918:A:C4	3.02	0.48
22:BA:194:G:C8	57:BA:3763:HOH:O	2.65	0.48
22:BA:2317:A:C2'	22:BA:2318:G:H5'	2.44	0.48
22:BA:2665:A:C2	22:BA:2666:C:N1	2.82	0.48
22:BA:2687:U:H2'	22:BA:2688:G:O4'	2.13	0.48
22:BA:301:G:H4'	22:BA:301:G:OP1	2.14	0.48
22:BA:612:G:H4'	22:BA:613:A:C2	2.48	0.48
22:BA:602:A:N3	22:BA:655:A:C2	2.82	0.48
22:BA:1789:A:OP1	24:BC:221:ARG:HG3	2.13	0.48
27:BF:46:ASP:OD2	27:BF:49:LEU:HD13	2.13	0.48
27:BF:36:LEU:HB3	27:BF:57:LEU:HD21	1.94	0.48
28:BG:96:ALA:CB	28:BG:105:LEU:HD23	2.44	0.48
30:BI:102:SER:OG	30:BI:103:ARG:N	2.47	0.48
30:BI:5:VAL:O	30:BI:6:GLN:HB2	2.12	0.48
30:BI:92:LYS:HB3	30:BI:95:LYS:CG	2.43	0.48
37:BP:53:ARG:O	37:BP:54:GLY:C	2.51	0.48
1:CA:1000:A:H2'	1:CA:1001:C:O4'	2.13	0.48
1:CA:1088:G:C4	1:CA:1089:G:C8	3.02	0.48
1:CA:960:U:C5	1:CA:1225:A:C8	3.01	0.48
1:CA:1303:C:N4	1:CA:1304:G:C6	2.82	0.48
1:CA:207:C:C2'	1:CA:207:C:O2	2.61	0.48
1:CA:55:A:N6	1:CA:56:U:N3	2.61	0.48
3:CC:22:TRP:CD1	3:CC:57:ILE:HG22	2.49	0.48
4:CD:147:GLU:O	4:CD:148:LYS:C	2.51	0.48
8:CH:88:ARG:O	8:CH:122:GLY:HA3	2.13	0.48
14:CN:93:ILE:HG21	14:CN:96:LEU:HD22	1.95	0.48
11:CK:110:ILE:O	21:CU:6:VAL:HG22	2.12	0.48
49:D1:26:ASN:HB3	49:D1:29:THR:OG1	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1062:G:H2'	22:DA:1063:G:C4	2.49	0.48
22:DA:1076:C:H1'	30:DI:93:PRO:HG2	1.95	0.48
22:DA:1027:A:N6	22:DA:1126:A:N3	2.61	0.48
22:DA:2131:U:C4'	22:DA:2133:G:H1'	2.44	0.48
22:DA:2563:U:H1'	22:DA:2566:A:C6	2.49	0.48
22:DA:532:A:N1	22:DA:2020:A:H1'	2.29	0.48
22:DA:703:U:C5	22:DA:704:G:C6	3.01	0.48
22:DA:769:U:C2	22:DA:770:G:C8	3.01	0.48
22:DA:783:A:H8	22:DA:784:G:H4'	1.78	0.48
22:DA:1820:U:OP1	24:DC:177:ARG:CG	2.60	0.48
24:DC:84:ASP:OD1	24:DC:86:ASN:ND2	2.44	0.48
25:DD:150:GLN:C	25:DD:151:THR:O	2.50	0.48
26:DE:5:LEU:HD13	26:DE:10:SER:O	2.14	0.48
28:DG:4:VAL:HG12	28:DG:69:ARG:HG2	1.94	0.48
29:DH:127:GLU:HG3	29:DH:144:VAL:O	2.13	0.48
33:DL:110:VAL:HG21	33:DL:127:VAL:HG22	1.95	0.48
41:DT:39:THR:HA	41:DT:81:LYS:HZ3	1.79	0.48
43:DV:30:ILE:HD11	43:DV:63:ILE:CD1	2.44	0.48
47:DZ:47:MET:O	47:DZ:51:VAL:HG22	2.14	0.48
1:AA:1048:G:N2	1:AA:1050:G:C4	2.81	0.48
1:AA:1077:G:N1	1:AA:1081:A:C6	2.82	0.48
1:AA:1160:G:O2'	1:AA:1161:C:O5'	2.26	0.48
1:AA:1216:A:H2'	1:AA:1217:C:H6	1.78	0.48
1:AA:469:C:C4	1:AA:470:C:C4	3.02	0.48
1:AA:852:G:C5	1:AA:853:C:C5	3.02	0.48
1:AA:90:C:C2	1:AA:91:U:C5	3.02	0.48
4:AD:197:GLU:O	4:AD:199:LEU:N	2.46	0.48
5:AE:97:GLN:HB2	5:AE:124:LEU:HD12	1.95	0.48
11:AK:76:GLU:O	22:BA:2141:G:OP1	2.30	0.48
13:AM:15:ALA:HB1	13:AM:34:LEU:HD21	1.94	0.48
18:AR:36:SER:HA	18:AR:72:ASP:HB3	1.94	0.48
21:AU:17:ARG:NH1	21:AU:20:LYS:HG2	2.29	0.48
22:BA:83:A:C2	22:BA:101:A:C2	3.01	0.48
22:BA:1662:U:H2'	22:BA:1662:U:O2	2.12	0.48
22:BA:1695:G:H1'	24:BC:8:PRO:O	2.13	0.48
22:BA:1799:G:O6	24:BC:178:SER:HB3	2.14	0.48
22:BA:2063:C:O2	22:BA:2450:A:N1	2.46	0.48
22:BA:2146:C:H5''	22:BA:2147:A:OP1	2.13	0.48
22:BA:2345:G:C5	22:BA:2381:A:C2	3.02	0.48
22:BA:238:C:C2'	22:BA:239:C:O5'	2.61	0.48
22:BA:2675:A:H2'	22:BA:2676:C:H5'	1.93	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:380:G:H2'	22:BA:381:G:O4'	2.14	0.48
22:BA:848:C:H2'	22:BA:849:A:C8	2.48	0.48
25:BD:29:VAL:HG11	25:BD:98:VAL:HG23	1.96	0.48
27:BF:80:ARG:O	27:BF:83:TYR:HB2	2.14	0.48
29:BH:103:VAL:HG21	29:BH:132:PHE:CZ	2.49	0.48
30:BI:77:ALA:HA	30:BI:80:LEU:HD12	1.95	0.48
38:BQ:9:ILE:O	38:BQ:9:ILE:HG13	2.12	0.48
39:BR:52:PRO:O	39:BR:53:PHE:O	2.31	0.48
39:BR:66:HIS:ND1	39:BR:94:THR:HG22	2.29	0.48
1:CA:202:G:H2'	1:CA:203:G:O4'	2.13	0.48
1:CA:463:U:H2'	1:CA:463:U:O2	2.12	0.48
2:CB:62:SER:HA	2:CB:224:GLY:HA2	1.96	0.48
3:CC:83:ASP:O	3:CC:84:VAL:C	2.51	0.48
5:CE:77:ASN:HB2	5:CE:82:GLN:HG2	1.95	0.48
9:CI:41:ARG:O	9:CI:45:ARG:NH1	2.47	0.48
17:CQ:11:ARG:NH2	17:CQ:12:VAL:O	2.47	0.48
51:D3:52:LYS:O	51:D3:53:GLY:C	2.51	0.48
52:D4:12:ARG:NH1	52:D4:12:ARG:HB2	2.28	0.48
22:DA:1087:G:H2'	22:DA:1088:A:H5'	1.96	0.48
22:DA:1544:A:N6	22:DA:1545:A:N1	2.61	0.48
22:DA:1821:A:H2'	22:DA:1822:C:O4'	2.14	0.48
22:DA:204:A:O4'	22:DA:206:U:C6	2.67	0.48
22:DA:2766:A:N3	22:DA:2766:A:H2'	2.29	0.48
22:DA:327:G:N2	42:DU:68:SER:HB2	2.29	0.48
22:DA:374:A:C2	22:DA:401:A:C4	3.01	0.48
22:DA:681:G:C4	22:DA:682:G:C8	3.02	0.48
29:DH:117:LEU:HD11	29:DH:130:VAL:HG22	1.95	0.48
31:DJ:9:GLU:O	31:DJ:10:THR:HG22	2.13	0.48
32:DK:121:GLU:O	32:DK:122:VAL:O	2.32	0.48
35:DN:117:ASP:O	35:DN:118:ARG:CB	2.60	0.48
22:DA:300:A:O5'	42:DU:82:ARG:NH1	2.46	0.48
1:AA:1379:G:C5	1:AA:1380:U:C5	3.02	0.48
1:AA:41:G:H2'	1:AA:42:G:C8	2.49	0.48
1:AA:702:A:H61	22:BA:1846:G:C2'	2.27	0.48
1:AA:989:U:H2'	1:AA:990:C:C6	2.49	0.48
2:AB:46:THR:HG23	2:AB:201:PRO:HB2	1.96	0.48
2:AB:35:ARG:NE	2:AB:35:ARG:HA	2.28	0.48
7:AG:92:ARG:O	7:AG:96:ARG:HB2	2.14	0.48
9:AI:115:LYS:O	9:AI:116:VAL:C	2.52	0.48
12:AL:44:LYS:CB	12:AL:45:PRO:CD	2.92	0.48
49:B1:32:GLU:HG2	49:B1:32:GLU:O	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:811:U:C2	22:BA:1251:C:C5	3.02	0.48
22:BA:1564:C:H2'	22:BA:1565:C:C6	2.49	0.48
22:BA:1646:C:H5''	22:BA:1647:U:C5'	2.44	0.48
22:BA:2210:U:C2	22:BA:2212:A:N7	2.82	0.48
22:BA:2674:G:H2'	22:BA:2675:A:C8	2.48	0.48
22:BA:2714:G:C2'	22:BA:2715:C:H5'	2.43	0.48
22:BA:627:A:C5	22:BA:637:A:C8	3.01	0.48
23:BB:30:C:C5	23:BB:31:C:C6	3.02	0.48
29:BH:135:HIS:CD2	29:BH:137:GLU:HG3	2.48	0.48
30:BI:25:GLY:O	30:BI:28:LEU:HD23	2.13	0.48
30:BI:7:ALA:HB2	30:BI:61:VAL:HB	1.96	0.48
36:BO:2:ASP:C	36:BO:2:ASP:OD1	2.52	0.48
36:BO:93:ASP:OD2	36:BO:95:SER:N	2.40	0.48
38:BQ:89:GLU:H	39:BR:49:ILE:HD12	1.79	0.48
22:BA:748:G:OP2	40:BS:88:ARG:HB3	2.14	0.48
44:BW:10:THR:O	44:BW:11:ARG:CB	2.60	0.48
1:CA:644:U:C2	1:CA:645:G:C8	3.01	0.48
1:CA:756:C:N3	1:CA:757:U:C6	2.81	0.48
1:CA:767:A:H2'	1:CA:768:A:O4'	2.14	0.48
1:CA:799:G:C6	1:CA:800:G:C4	3.02	0.48
2:CB:126:PHE:HD2	2:CB:126:PHE:N	2.11	0.48
3:CC:184:TYR:CE1	3:CC:201:TRP:CE2	3.01	0.48
5:CE:153:VAL:O	5:CE:157:ARG:N	2.43	0.48
5:CE:93:ARG:HB3	5:CE:93:ARG:NH1	2.27	0.48
9:CI:116:VAL:HG21	10:CJ:62:ARG:HB2	1.95	0.48
17:CQ:17:MET:HE2	17:CQ:20:SER:O	2.14	0.48
48:D0:44:THR:C	48:D0:46:ASP:H	2.17	0.48
22:DA:1313:U:H4'	22:DA:1332:G:H4'	1.96	0.48
22:DA:1470:A:H2'	22:DA:1471:G:O5'	2.13	0.48
22:DA:1708:C:H2'	22:DA:1709:U:C6	2.49	0.48
22:DA:830:G:C4	22:DA:2448:A:C5	3.02	0.48
22:DA:448:U:H4'	22:DA:449:A:OP2	2.13	0.48
22:DA:24:G:N2	22:DA:517:C:C2	2.82	0.48
22:DA:14:A:N1	22:DA:526:A:C2	2.81	0.48
22:DA:629:G:O6	22:DA:630:G:C6	2.66	0.48
24:DC:162:VAL:HG12	24:DC:163:GLN:N	2.27	0.48
24:DC:141:VAL:HG13	24:DC:191:THR:O	2.14	0.48
25:DD:112:THR:O	25:DD:195:GLY:HA2	2.14	0.48
27:DF:6:ASP:HA	27:DF:9:LYS:HD2	1.96	0.48
28:DG:17:VAL:HG12	28:DG:19:ILE:HD11	1.95	0.48
35:DN:69:ARG:O	35:DN:71:ARG:N	2.38	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:58:ALA:O	40:DS:62:ASP:O	2.31	0.48
42:DU:96:PHE:CE1	42:DU:103:ILE:HG13	2.48	0.48
1:AA:1074:G:O3'	2:AB:102:THR:CG2	2.62	0.48
1:AA:1322:C:O4'	1:AA:1322:C:O2	2.27	0.48
2:AB:149:GLY:O	2:AB:151:ILE:N	2.46	0.48
2:AB:196:VAL:HG11	2:AB:199:VAL:HA	1.96	0.48
4:AD:78:GLU:OE1	4:AD:81:ARG:NH1	2.47	0.48
10:AJ:8:ILE:HA	10:AJ:99:GLN:O	2.13	0.48
11:AK:13:ARG:N	22:BA:2141:G:H4'	2.29	0.48
22:BA:1098:A:C6	22:BA:1099:G:C6	3.01	0.48
22:BA:1415:U:C2'	22:BA:1415:U:O2	2.62	0.48
22:BA:142:A:C5	22:BA:143:C:C4	3.02	0.48
22:BA:1693:U:O4	22:BA:1977:A:C5	2.67	0.48
22:BA:2329:U:H2'	22:BA:2330:G:C8	2.49	0.48
22:BA:2619:C:OP1	25:BD:157:LYS:HE2	2.14	0.48
22:BA:784:G:O2'	22:BA:785:G:H5''	2.13	0.48
23:BB:22:U:H2'	23:BB:23:G:C8	2.49	0.48
25:BD:181:ASP:OD1	25:BD:183:GLU:OE1	2.32	0.48
26:BE:105:LEU:O	26:BE:106:LYS:C	2.51	0.48
27:BF:122:PHE:HB3	27:BF:163:ASP:CG	2.34	0.48
31:BJ:114:LEU:HG	31:BJ:118:MET:HE3	1.95	0.48
31:BJ:96:ARG:NH2	31:BJ:99:ARG:HD3	2.29	0.48
35:BN:82:GLU:O	35:BN:85:PRO:HG2	2.14	0.48
1:CA:1346:A:N6	1:CA:1374:A:C8	2.81	0.48
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.95	0.48
1:CA:509:A:C2	1:CA:510:A:C2	3.02	0.48
1:CA:562:U:OP2	12:CL:14:ARG:CZ	2.62	0.48
1:CA:666:G:O2'	1:CA:667:G:H5'	2.14	0.48
1:CA:740:U:O2'	1:CA:741:G:H5'	2.13	0.48
3:CC:5:VAL:HG21	3:CC:10:ILE:HD13	1.94	0.48
7:CG:126:ASP:O	7:CG:130:ASN:HA	2.13	0.48
7:CG:23:LEU:HD23	7:CG:26:PHE:HB3	1.96	0.48
11:CK:23:ILE:HG13	11:CK:23:ILE:O	2.14	0.48
12:CL:22:PRO:C	12:CL:24:LEU:H	2.16	0.48
18:CR:58:ALA:HA	18:CR:61:ARG:HD3	1.96	0.48
21:CU:14:VAL:HG12	21:CU:16:LEU:HD23	1.94	0.48
22:DA:1070:A:H2'	22:DA:1097:U:OP1	2.14	0.48
22:DA:1341:G:C2	41:DT:84:TYR:CD2	3.01	0.48
22:DA:536:G:H2'	22:DA:537:G:O4'	2.14	0.48
22:DA:627:A:O2'	33:DL:76:GLU:OE1	2.32	0.48
22:DA:947:A:HO2'	22:DA:984:A:H2	1.59	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:3:VAL:HG11	24:DC:202:LEU:HD23	1.95	0.48
26:DE:23:PHE:CD1	26:DE:111:GLU:HG3	2.49	0.48
28:DG:39:ASP:HB3	28:DG:58:TYR:OH	2.14	0.48
28:DG:38:ASN:HB3	28:DG:41:VAL:HG23	1.96	0.48
30:DI:7:ALA:O	30:DI:59:ILE:HB	2.14	0.48
32:DK:105:ARG:HG2	32:DK:122:VAL:HG12	1.96	0.48
22:DA:1198:U:O2	38:DQ:4:VAL:HG11	2.13	0.48
22:DA:2080:A:O5'	45:DX:19:SER:HB2	2.14	0.48
1:AA:1091:U:O2	1:AA:1095:U:C2	2.66	0.48
1:AA:374:A:C6	1:AA:375:U:C4	3.01	0.48
1:AA:927:G:N1	1:AA:1391:U:C2	2.82	0.48
2:AB:47:VAL:C	2:AB:49:MET:N	2.68	0.48
2:AB:56:GLU:HA	2:AB:59:LYS:CB	2.44	0.48
5:AE:20:ARG:O	5:AE:21:VAL:HG12	2.14	0.48
8:AH:66:PHE:CD2	8:AH:67:GLN:HG2	2.48	0.48
9:AI:47:VAL:O	9:AI:50:GLN:HB2	2.14	0.48
9:AI:57:MET:N	9:AI:57:MET:SD	2.85	0.48
13:AM:64:VAL:O	13:AM:69:LEU:HB2	2.13	0.48
17:AQ:52:GLU:N	17:AQ:52:GLU:CD	2.66	0.48
20:AT:67:ILE:HG23	20:AT:67:ILE:O	2.14	0.48
22:BA:10:A:C5	22:BA:11:C:C5	3.02	0.48
22:BA:1170:C:H2'	22:BA:1171:G:C8	2.49	0.48
22:BA:1877:A:H2'	22:BA:1878:G:O4'	2.14	0.48
22:BA:1894:C:O2'	22:BA:1895:C:H5'	2.14	0.48
22:BA:2557:G:H2'	22:BA:2558:C:C6	2.48	0.48
22:BA:2747:G:C2	22:BA:2756:U:C5	3.02	0.48
22:BA:2825:G:C3'	22:BA:2826:A:H5'	2.44	0.48
22:BA:340:A:C2'	22:BA:341:C:H5'	2.44	0.48
24:BC:88:SER:HB2	24:BC:200:HIS:CD2	2.49	0.48
32:BK:114:LYS:O	32:BK:118:LEU:HG	2.14	0.48
32:BK:57:VAL:C	32:BK:58:LEU:HD13	2.34	0.48
1:CA:1512:U:C2	1:CA:1513:A:C8	3.02	0.48
1:CA:17:U:N3	1:CA:18:C:C5	2.82	0.48
1:CA:238:A:O2'	1:CA:239:U:H5'	2.14	0.48
1:CA:505:G:H5'	1:CA:534:U:C2	2.48	0.48
1:CA:652:U:C4	1:CA:752:G:N3	2.81	0.48
3:CC:130:PHE:CE1	3:CC:157:LEU:HB3	2.48	0.48
3:CC:79:LYS:O	3:CC:81:GLY:N	2.47	0.48
3:CC:87:LEU:O	3:CC:91:VAL:HG23	2.13	0.48
17:CQ:52:GLU:HG2	17:CQ:53:CYS:H	1.79	0.48
19:CS:63:THR:CG2	19:CS:64:ASP:N	2.77	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1062:G:N1	22:DA:1077:A:C2	2.82	0.48
22:DA:1308:A:H2'	22:DA:1309:G:O4'	2.13	0.48
22:DA:1361:G:C2	22:DA:1362:C:C6	3.02	0.48
22:DA:1775:U:H2'	22:DA:1776:G:O5'	2.13	0.48
22:DA:225:C:H2'	22:DA:226:A:O4'	2.13	0.48
22:DA:2491:U:C5'	22:DA:2570:G:H5''	2.43	0.48
22:DA:2615:U:H1'	48:D0:4:GLN:HB3	1.96	0.48
22:DA:937:C:C4	22:DA:938:G:N7	2.82	0.48
23:DB:84:G:C2	23:DB:93:C:C2	3.02	0.48
25:DD:142:VAL:HB	25:DD:143:PRO:HD2	1.96	0.48
25:DD:39:ASP:OD1	25:DD:40:LEU:N	2.47	0.48
26:DE:146:VAL:HG22	26:DE:167:VAL:HG22	1.94	0.48
35:DN:38:LEU:HB3	35:DN:39:PRO:HD3	1.96	0.48
35:DN:85:PRO:HA	35:DN:88:ALA:HB2	1.95	0.48
22:DA:2387:U:H1'	44:DW:41:ARG:CD	2.44	0.48
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.49	0.47
1:AA:1213:A:C5	1:AA:1215:G:C4	3.02	0.47
1:AA:960:U:O2'	1:AA:1223:C:H5''	2.14	0.47
1:AA:146:G:C2	1:AA:177:G:N7	2.82	0.47
1:AA:188:C:N3	1:AA:189:A:C2	2.82	0.47
1:AA:465:A:H2'	1:AA:466:A:C8	2.49	0.47
1:AA:683:G:N2	11:AK:40:ASN:HA	2.29	0.47
1:AA:737:C:N3	1:AA:738:C:C5	2.82	0.47
2:AB:138:THR:HA	2:AB:141:LEU:HB2	1.96	0.47
2:AB:54:LEU:HD12	2:AB:220:THR:HG21	1.95	0.47
4:AD:147:GLU:HA	4:AD:150:LYS:HD2	1.96	0.47
4:AD:177:LYS:HD3	4:AD:177:LYS:N	2.29	0.47
8:AH:11:LEU:HD23	8:AH:11:LEU:N	2.28	0.47
17:AQ:14:SER:OG	17:AQ:17:MET:CE	2.62	0.47
22:BA:11:C:C2'	22:BA:12:U:H5'	2.44	0.47
22:BA:2486:C:H2'	22:BA:2487:G:O5'	2.13	0.47
22:BA:2:G:H2'	22:BA:3:U:C6	2.49	0.47
22:BA:528:A:C2	22:BA:2043:C:H4'	2.49	0.47
22:BA:705:A:N6	22:BA:726:G:H1'	2.29	0.47
22:BA:991:C:C5	22:BA:1185:G:C6	3.02	0.47
24:BC:77:VAL:HA	24:BC:114:ASP:O	2.14	0.47
25:BD:149:ASN:CG	25:BD:150:GLN:H	2.16	0.47
30:BI:34:ASN:HB2	30:BI:37:GLU:HG3	1.96	0.47
32:BK:21:CYS:HB2	32:BK:39:ILE:HD12	1.95	0.47
1:CA:1255:G:N1	1:CA:1279:G:C8	2.82	0.47
1:CA:1388:C:N3	1:CA:1389:C:C5	2.82	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1431:A:C6	1:CA:1432:G:O6	2.66	0.47
1:CA:664:G:N2	1:CA:666:G:C8	2.82	0.47
1:CA:829:G:C5	1:CA:858:G:N2	2.82	0.47
1:CA:881:G:C6	1:CA:882:C:C4	3.02	0.47
1:CA:1101:A:N6	2:CB:102:THR:HG21	2.23	0.47
3:CC:69:HIS:HA	3:CC:104:ALA:HB3	1.95	0.47
3:CC:10:ILE:HD12	14:CN:98:LYS:HG3	1.96	0.47
6:CF:6:ILE:HG22	6:CF:7:VAL:N	2.28	0.47
10:CJ:35:GLN:O	10:CJ:36:VAL:CB	2.61	0.47
50:D2:10:LEU:O	50:D2:14:ARG:HG3	2.14	0.47
22:DA:1229:C:C2	22:DA:1230:A:C8	3.02	0.47
22:DA:1285:A:N6	22:DA:1329:U:C6	2.82	0.47
22:DA:121:G:H4'	22:DA:149:A:H5'	1.95	0.47
22:DA:1826:G:C4	22:DA:1827:U:C6	3.02	0.47
22:DA:1870:C:C3'	22:DA:1871:A:H5'	2.44	0.47
22:DA:1893:C:C5	22:DA:1894:C:C5	3.02	0.47
22:DA:2142:A:C2	22:DA:2150:C:N3	2.82	0.47
22:DA:883:G:N2	22:DA:894:U:O2	2.47	0.47
33:DL:68:SER:O	33:DL:69:ARG:CB	2.61	0.47
34:DM:62:LYS:HD3	34:DM:64:TRP:CZ2	2.49	0.47
41:DT:2:ILE:HG23	41:DT:4:GLU:N	2.29	0.47
41:DT:20:ALA:HA	41:DT:31:VAL:HG21	1.96	0.47
46:DY:60:LYS:O	46:DY:61:ALA:C	2.52	0.47
1:AA:19:A:C2	1:AA:917:G:C4	3.02	0.47
2:AB:120:GLN:N	2:AB:123:ASP:HB2	2.29	0.47
2:AB:28:LYS:N	2:AB:29:PRO:CD	2.77	0.47
4:AD:113:GLU:CD	4:AD:154:ARG:HD2	2.34	0.47
5:AE:141:ILE:HG22	5:AE:142:ASP:N	2.29	0.47
9:AI:114:LYS:HG2	9:AI:120:LYS:HA	1.95	0.47
1:AA:1367:C:C5'	10:AJ:62:ARG:NH1	2.76	0.47
49:B1:17:THR:HG21	49:B1:42:VAL:HB	1.96	0.47
53:B5:41:THR:HG21	53:B5:216:THR:CB	2.45	0.47
22:BA:1228:G:C6	22:BA:1229:C:C4	3.02	0.47
22:BA:1911:U:O2	22:BA:1920:C:O2	2.31	0.47
22:BA:2790:U:H5'	22:BA:2893:A:N7	2.29	0.47
22:BA:478:A:C6	22:BA:480:A:C6	3.02	0.47
22:BA:581:C:H2'	22:BA:582:A:H8	1.79	0.47
22:BA:596:U:O2'	22:BA:597:G:H5'	2.14	0.47
23:BB:109:A:C5	23:BB:110:C:C4	3.02	0.47
24:BC:107:PRO:HD2	24:BC:110:LEU:HB2	1.96	0.47
25:BD:13:ARG:HD2	25:BD:15:PHE:CE2	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:111:ALA:O	29:BH:114:GLU:HB2	2.13	0.47
31:BJ:35:ARG:HG2	31:BJ:40:HIS:CD2	2.49	0.47
33:BL:132:ARG:NH1	33:BL:142:ILE:HG21	2.29	0.47
22:BA:1029:A:OP1	34:BM:127:LYS:NZ	2.47	0.47
35:BN:73:ASN:HA	35:BN:76:VAL:CG1	2.44	0.47
40:BS:83:LYS:HD2	40:BS:97:LEU:CD1	2.44	0.47
42:BU:14:LEU:HD12	42:BU:70:VAL:C	2.34	0.47
1:CA:1080:A:OP1	5:CE:52:LYS:HE2	2.13	0.47
1:CA:211:G:N3	1:CA:211:G:H2'	2.29	0.47
1:CA:57:G:C6	1:CA:58:C:N4	2.82	0.47
1:CA:661:G:N3	1:CA:662:U:C6	2.82	0.47
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.14	0.47
2:CB:85:LEU:O	2:CB:85:LEU:HG	2.12	0.47
3:CC:81:GLY:O	3:CC:82:GLU:C	2.52	0.47
4:CD:151:LYS:C	4:CD:152:GLN:HE21	2.17	0.47
1:CA:8:A:N6	4:CD:206:LYS:HB3	2.29	0.47
4:CD:78:GLU:HG3	4:CD:93:LEU:HD11	1.96	0.47
9:CI:19:VAL:HG21	9:CI:82:GLY:C	2.34	0.47
12:CL:111:LYS:O	12:CL:114:ARG:HG3	2.14	0.47
13:CM:43:VAL:O	13:CM:43:VAL:HG23	2.14	0.47
14:CN:22:ALA:N	14:CN:25:ALA:HB2	2.29	0.47
19:CS:15:LEU:HD13	19:CS:33:THR:HG21	1.96	0.47
22:DA:2886:A:C2	48:D0:29:SER:HB3	2.49	0.47
51:D3:7:VAL:HB	51:D3:61:CYS:HB3	1.95	0.47
22:DA:1014:A:C2	22:DA:1149:G:C2	3.02	0.47
22:DA:1515:A:H5'	22:DA:1516:G:OP2	2.15	0.47
22:DA:1662:U:O2	22:DA:2687:U:H4'	2.13	0.47
22:DA:1754:A:C6	22:DA:1755:A:C6	3.02	0.47
22:DA:2111:U:H5	22:DA:2145:C:H2'	1.78	0.47
22:DA:2114:A:H2'	22:DA:2114:A:N3	2.29	0.47
22:DA:2491:U:H5'	22:DA:2570:G:H5'	1.96	0.47
22:DA:67:U:H2'	22:DA:68:G:O4'	2.14	0.47
22:DA:742:A:H2'	22:DA:743:A:C8	2.49	0.47
24:DC:39:LYS:HE3	24:DC:56:GLY:O	2.14	0.47
24:DC:29:PRO:HG3	24:DC:63:ARG:CZ	2.43	0.47
25:DD:172:VAL:CG2	25:DD:194:PRO:HD3	2.44	0.47
29:DH:83:LYS:CG	29:DH:149:GLU:CG	2.86	0.47
34:DM:107:GLY:C	34:DM:108:VAL:HG22	2.35	0.47
34:DM:78:LEU:O	34:DM:79:ALA:HB3	2.14	0.47
36:DO:99:TYR:O	36:DO:99:TYR:CD1	2.67	0.47
37:DP:52:ASN:O	37:DP:53:ARG:HD3	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:52:PRO:O	39:DR:53:PHE:CB	2.62	0.47
46:DY:56:LEU:O	46:DY:57:LEU:HB3	2.14	0.47
1:AA:1202:U:C2	14:AN:82:ILE:HG21	2.50	0.47
1:AA:254:G:O2'	17:AQ:18:GLU:O	2.32	0.47
1:AA:352:C:OP2	57:AA:1891:HOH:O	2.19	0.47
8:AH:49:PHE:HB3	8:AH:61:LEU:HD23	1.97	0.47
10:AJ:18:ILE:HG23	10:AJ:19:ASP:N	2.29	0.47
17:AQ:12:VAL:O	17:AQ:13:VAL:CB	2.61	0.47
18:AR:34:THR:CG2	18:AR:38:LYS:HB2	2.45	0.47
20:AT:54:MET:HA	20:AT:57:ILE:HG22	1.96	0.47
20:AT:54:MET:HE3	20:AT:58:VAL:CG2	2.44	0.47
20:AT:69:LYS:HB2	20:AT:70:ASN:OD1	2.14	0.47
22:BA:1014:A:C6	22:BA:1015:U:C4	3.02	0.47
22:BA:1026:G:H2'	22:BA:1027:A:H8	1.79	0.47
22:BA:1135:C:N4	22:BA:1139:G:C6	2.82	0.47
22:BA:1169:A:C6	22:BA:1180:U:O4	2.68	0.47
22:BA:149:A:C5	22:BA:150:U:C5	3.02	0.47
22:BA:1924:C:O2	22:BA:1924:C:H2'	2.13	0.47
22:BA:2281:A:C2	22:BA:2282:G:C5	3.03	0.47
22:BA:242:G:C8	51:B3:5:LYS:HG2	2.49	0.47
22:BA:2729:G:C5	22:BA:2730:C:C5	3.02	0.47
24:BC:31:ALA:HA	24:BC:34:LEU:HD12	1.96	0.47
27:BF:108:VAL:N	27:BF:109:PRO:CD	2.78	0.47
28:BG:118:PRO:O	28:BG:119:ALA:C	2.52	0.47
28:BG:127:THR:HG22	28:BG:128:GLN:N	2.29	0.47
28:BG:63:ALA:O	28:BG:67:THR:CG2	2.62	0.47
29:BH:116:ARG:O	29:BH:118:PRO:HD3	2.14	0.47
30:BI:80:LEU:HA	30:BI:84:ALA:HB3	1.95	0.47
22:BA:1242:U:O2	33:BL:4:ASN:ND2	2.47	0.47
37:BP:14:LYS:NZ	37:BP:81:VAL:O	2.48	0.47
22:BA:973:A:H5''	39:BR:81:LYS:HG3	1.96	0.47
39:BR:24:LYS:CA	39:BR:94:THR:HG23	2.33	0.47
42:BU:54:GLN:N	42:BU:55:PRO:CD	2.77	0.47
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.29	0.47
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.14	0.47
1:CA:1537:U:H5''	1:CA:1538:C:OP2	2.14	0.47
1:CA:781:A:H2'	1:CA:782:A:H5'	1.96	0.47
3:CC:138:VAL:O	3:CC:141:ALA:HB3	2.14	0.47
5:CE:104:GLY:O	5:CE:105:ILE:HG22	2.15	0.47
6:CF:38:ARG:HG2	6:CF:63:ASN:HB3	1.96	0.47
1:CA:1377:A:C5	7:CG:7:ILE:CD1	2.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:110:ARG:NE	12:CL:117:TYR:CD2	2.82	0.47
15:CO:60:VAL:O	15:CO:63:ARG:HB3	2.15	0.47
17:CQ:14:SER:OG	17:CQ:17:MET:CE	2.63	0.47
22:DA:1475:G:HO2'	22:DA:1476:U:P	2.38	0.47
22:DA:1833:C:C4	22:DA:1834:U:C5	3.02	0.47
22:DA:961:C:C4	22:DA:2031:A:C4	3.01	0.47
22:DA:2160:C:H2'	22:DA:2161:C:O4'	2.14	0.47
22:DA:2253:G:C5	22:DA:2254:C:C5	3.02	0.47
22:DA:510:C:C4	22:DA:511:U:C4	3.02	0.47
22:DA:79:C:O2	22:DA:108:G:C2	2.68	0.47
24:DC:34:LEU:O	24:DC:35:GLU:CB	2.62	0.47
26:DE:197:GLU:O	26:DE:201:ALA:HB2	2.15	0.47
28:DG:10:VAL:HG13	28:DG:10:VAL:O	2.14	0.47
22:DA:17:G:H4'	38:DQ:25:TYR:CE1	2.48	0.47
46:DY:9:LYS:H	46:DY:12:GLU:HG3	1.78	0.47
1:AA:1418:A:C2	1:AA:1483:A:C2	3.03	0.47
1:AA:148:G:C2'	1:AA:149:A:O5'	2.62	0.47
1:AA:903:G:H2'	1:AA:904:U:C6	2.50	0.47
2:AB:113:ARG:O	2:AB:117:LEU:HB2	2.15	0.47
2:AB:184:PHE:CE2	2:AB:198:PHE:HD2	2.31	0.47
2:AB:82:ASP:N	2:AB:85:LEU:HB3	2.29	0.47
4:AD:171:LEU:O	4:AD:171:LEU:HD12	2.14	0.47
1:AA:8:A:H5'	5:AE:125:ALA:O	2.14	0.47
12:AL:43:LYS:HG2	12:AL:44:LYS:HD3	1.96	0.47
16:AP:68:SER:HB2	16:AP:71:VAL:HB	1.96	0.47
20:AT:23:SER:OG	20:AT:24:ARG:HD2	2.14	0.47
53:B5:180:SER:CB	53:B5:188:ASP:CB	2.91	0.47
22:BA:1446:C:H2'	22:BA:1447:C:C6	2.49	0.47
22:BA:1717:A:H2'	22:BA:1718:G:O4'	2.14	0.47
22:BA:1851:U:C4	22:BA:1852:U:C4	3.03	0.47
22:BA:1907:G:C8	22:BA:1908:C:C5	3.02	0.47
22:BA:205:G:O2'	22:BA:206:U:OP2	2.32	0.47
22:BA:2267:A:H2	57:BA:3511:HOH:O	1.96	0.47
22:BA:2321:U:C5'	22:BA:2322:A:OP2	2.57	0.47
22:BA:2642:G:N2	22:BA:2773:C:C2	2.81	0.47
22:BA:26:G:C6	22:BA:27:G:C6	3.03	0.47
22:BA:2839:G:OP1	35:BN:46:ARG:HD2	2.14	0.47
22:BA:566:U:OP1	33:BL:29:LYS:HE3	2.15	0.47
24:BC:7:LYS:HB3	24:BC:8:PRO:HD2	1.95	0.47
28:BG:121:ILE:HD12	28:BG:141:ILE:CG2	2.44	0.47
29:BH:86:ASP:H	1:CA:359:G:H4'	1.80	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BO:36:TYR:CD2	36:BO:36:TYR:N	2.82	0.47
40:BS:43:ALA:HA	40:BS:46:LEU:HD12	1.95	0.47
1:CA:1098:C:C2	1:CA:1099:G:C8	3.02	0.47
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.15	0.47
1:CA:1296:C:H5''	1:CA:1297:G:OP2	2.14	0.47
1:CA:161:A:H2'	1:CA:162:A:C8	2.49	0.47
1:CA:439:U:H4'	4:CD:121:LYS:HD2	1.96	0.47
1:CA:756:C:C2	1:CA:757:U:C6	3.02	0.47
1:CA:821:G:H2'	1:CA:822:U:H6	1.79	0.47
1:CA:881:G:C5	1:CA:882:C:C5	3.03	0.47
6:CF:24:ARG:O	6:CF:27:ALA:HB3	2.15	0.47
13:CM:45:ILE:O	13:CM:45:ILE:HG22	2.14	0.47
14:CN:36:ALA:HB2	14:CN:41:ARG:HG3	1.95	0.47
22:DA:1437:C:C4	22:DA:1438:U:C4	3.03	0.47
22:DA:1609:A:H5''	57:DA:3645:HOH:O	2.13	0.47
22:DA:1668:A:H4'	22:DA:1669:A:O5'	2.14	0.47
22:DA:1649:G:O6	22:DA:2009:A:N6	2.47	0.47
22:DA:221:A:C8	22:DA:266:G:O6	2.68	0.47
22:DA:2799:A:C6	22:DA:2801:G:C5	3.03	0.47
22:DA:612:G:O2'	22:DA:613:A:C8	2.67	0.47
22:DA:659:G:H4'	26:DE:95:LYS:HD3	1.95	0.47
23:DB:66:A:N6	23:DB:107:G:H2'	2.30	0.47
28:DG:93:GLY:HA2	28:DG:95:ARG:NH2	2.29	0.47
29:DH:32:PRO:HB3	45:DX:39:TRP:CB	2.43	0.47
29:DH:5:LEU:HD13	29:DH:13:GLY:HA3	1.96	0.47
29:DH:62:LEU:HD22	29:DH:62:LEU:O	2.14	0.47
38:DQ:61:TRP:HB3	38:DQ:92:ARG:O	2.15	0.47
45:DX:33:LEU:O	45:DX:34:HIS:ND1	2.47	0.47
46:DY:28:LEU:HD23	46:DY:37:LEU:HD11	1.96	0.47
1:AA:109:A:H2'	1:AA:326:G:N2	2.29	0.47
1:AA:1403:C:H1'	1:AA:1500:A:N1	2.29	0.47
1:AA:276:G:O3'	17:AQ:45:HIS:CE1	2.67	0.47
1:AA:557:G:C6	1:AA:558:G:N1	2.82	0.47
1:AA:994:A:N3	1:AA:994:A:H2'	2.29	0.47
3:AC:113:ALA:HB2	3:AC:183:ASP:O	2.14	0.47
4:AD:116:GLN:NE2	4:AD:120:HIS:CE1	2.82	0.47
4:AD:63:ARG:HA	4:AD:63:ARG:HE	1.79	0.47
6:AF:81:ASN:O	6:AF:84:VAL:CG1	2.62	0.47
12:AL:23:ALA:O	12:AL:24:LEU:C	2.52	0.47
17:AQ:12:VAL:O	17:AQ:13:VAL:HB	2.13	0.47
20:AT:3:ASN:O	20:AT:4:ILE:C	2.52	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:80:THR:O	20:AT:83:ILE:HG13	2.14	0.47
48:B0:40:ARG:O	48:B0:41:HIS:HB2	2.13	0.47
22:BA:1042:G:C5	22:BA:1043:C:C5	3.03	0.47
22:BA:1060:U:H4'	22:BA:1061:U:H3'	1.94	0.47
22:BA:1078:U:H5''	22:BA:1079:C:OP1	2.15	0.47
22:BA:1098:A:N7	22:BA:1099:G:O6	2.47	0.47
22:BA:1259:G:N2	22:BA:1260:A:C4	2.83	0.47
22:BA:1926:U:O2	22:BA:1927:A:OP2	2.32	0.47
22:BA:2674:G:C2	22:BA:2675:A:C4	3.03	0.47
22:BA:2820:A:O2'	22:BA:2821:A:OP1	2.32	0.47
22:BA:303:G:C5	22:BA:304:U:C5	3.02	0.47
22:BA:465:G:C6	22:BA:466:A:N6	2.82	0.47
23:BB:110:C:C4	23:BB:111:U:C5	3.02	0.47
25:BD:98:VAL:HG22	25:BD:98:VAL:O	2.15	0.47
26:BE:109:LEU:O	26:BE:112:LEU:N	2.47	0.47
28:BG:9:VAL:HG21	28:BG:73:ASN:HA	1.97	0.47
35:BN:36:THR:HG22	35:BN:41:ALA:HB2	1.95	0.47
36:BO:54:VAL:O	36:BO:54:VAL:HG22	2.15	0.47
37:BP:92:VAL:HG21	37:BP:97:LEU:HD11	1.96	0.47
41:BT:43:ILE:O	41:BT:47:VAL:HG23	2.15	0.47
1:CA:66:A:C4'	1:CA:173:U:C4	2.98	0.47
1:CA:582:C:C2	1:CA:760:G:N1	2.83	0.47
1:CA:706:A:C5	1:CA:707:U:C4	3.02	0.47
1:CA:81:A:H2'	1:CA:82:G:C8	2.49	0.47
2:CB:104:TRP:CZ2	2:CB:156:GLY:N	2.83	0.47
3:CC:103:ILE:N	3:CC:103:ILE:HD12	2.29	0.47
5:CE:81:LEU:O	5:CE:98:PRO:HB3	2.15	0.47
1:CA:935:A:N1	7:CG:3:ARG:NH1	2.62	0.47
17:CQ:28:PHE:CE2	17:CQ:39:LYS:HG3	2.49	0.47
1:CA:332:G:OP2	20:CT:5:LYS:HB3	2.14	0.47
49:D1:8:LYS:HG3	49:D1:24:THR:HG22	1.95	0.47
22:DA:1351:C:O2'	22:DA:1571:A:H1'	2.14	0.47
22:DA:135:U:H2'	22:DA:136:G:C8	2.49	0.47
22:DA:1469:A:N1	22:DA:1470:A:C6	2.82	0.47
22:DA:2061:G:H2'	22:DA:2501:C:O2'	2.15	0.47
22:DA:2084:C:C4	22:DA:2085:U:C4	3.02	0.47
22:DA:2109:U:H1'	22:DA:2181:U:O2	2.15	0.47
22:DA:2280:G:O2'	22:DA:2388:A:N1	2.42	0.47
22:DA:301:G:C5	22:DA:317:G:C6	3.02	0.47
22:DA:389:G:C8	22:DA:2413:G:H4'	2.48	0.47
22:DA:216:A:C8	22:DA:432:A:C6	3.02	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:548:G:H4'	22:DA:549:G:C2	2.50	0.47
22:DA:597:G:C2	22:DA:661:A:C2	3.03	0.47
22:DA:1254:A:C6	26:DE:77:ILE:HD12	2.49	0.47
34:DM:72:PRO:HB3	34:DM:92:TRP:CZ3	2.49	0.47
38:DQ:50:ARG:NH2	39:DR:74:ILE:HG13	2.29	0.47
40:DS:84:ARG:HB2	40:DS:96:ILE:CG1	2.44	0.47
22:DA:309:A:H4'	42:DU:16:GLY:HA2	1.97	0.47
42:DU:7:ARG:HG3	42:DU:8:ASP:H	1.79	0.47
45:DX:71:LEU:HA	45:DX:74:ARG:HG2	1.96	0.47
1:AA:10:A:OP2	5:AE:131:THR:OG1	2.24	0.47
1:AA:1167:A:N7	1:AA:1169:A:C5	2.82	0.47
1:AA:1270:G:N3	1:AA:1271:A:C8	2.82	0.47
1:AA:1419:G:C6	1:AA:1420:U:C4	3.03	0.47
1:AA:159:G:N1	1:AA:163:C:N4	2.62	0.47
1:AA:409:U:OP1	4:AD:22:LYS:O	2.33	0.47
1:AA:49:U:O4	1:AA:365:U:C5	2.68	0.47
1:AA:616:G:C2	1:AA:617:G:C8	3.03	0.47
1:AA:790:A:C6	1:AA:791:G:C6	3.03	0.47
6:AF:41:ASP:O	6:AF:43:GLY:N	2.47	0.47
7:AG:134:ALA:O	7:AG:137:LYS:HB3	2.14	0.47
13:AM:86:TYR:HA	13:AM:89:LEU:HD12	1.97	0.47
14:AN:46:LEU:C	14:AN:48:LEU:N	2.68	0.47
15:AO:24:SER:O	15:AO:25:THR:C	2.53	0.47
52:B4:1:MET:HB3	52:B4:34:LYS:HB3	1.97	0.47
22:BA:1007:C:C4	22:BA:1008:A:C5	3.03	0.47
22:BA:1078:U:H1'	22:BA:1088:A:N1	2.30	0.47
22:BA:1084:A:C5	22:BA:1085:A:N6	2.82	0.47
22:BA:1379:U:H2'	22:BA:1379:U:O2	2.15	0.47
22:BA:1494:A:H2'	22:BA:1495:A:C8	2.50	0.47
22:BA:1767:G:C2	22:BA:1768:C:C6	3.02	0.47
22:BA:2043:C:OP1	22:BA:2777:G:O2'	2.23	0.47
22:BA:2056:G:C4	22:BA:2577:A:C2	3.02	0.47
22:BA:2516:A:C2	22:BA:2569:G:C4	3.03	0.47
22:BA:2553:G:H5''	22:BA:2554:U:OP2	2.15	0.47
22:BA:2761:A:H1'	28:BG:143:GLN:NE2	2.29	0.47
22:BA:2865:U:C4	22:BA:2866:U:C4	3.02	0.47
22:BA:747:U:C2	22:BA:2613:U:O4	2.67	0.47
26:BE:104:ALA:O	26:BE:105:LEU:C	2.52	0.47
26:BE:109:LEU:O	26:BE:110:SER:C	2.52	0.47
26:BE:115:GLN:OE1	26:BE:115:GLN:HA	2.12	0.47
28:BG:9:VAL:CG1	28:BG:50:LEU:HB2	2.45	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:117:LEU:HD23	29:BH:121:VAL:HA	1.95	0.47
30:BI:83:ALA:HB1	30:BI:109:ILE:HD13	1.96	0.47
31:BJ:23:LYS:O	31:BJ:63:ALA:HB3	2.15	0.47
46:BY:18:LEU:O	46:BY:22:LEU:HB2	2.14	0.47
1:CA:1033:G:H3'	1:CA:1034:G:H5''	1.97	0.47
1:CA:1137:C:H1'	1:CA:1138:G:N2	2.29	0.47
1:CA:1061:G:C2	1:CA:1197:A:C2	3.03	0.47
1:CA:1320:C:N3	19:CS:36:ARG:NH1	2.63	0.47
1:CA:1337:G:C5'	1:CA:1338:G:OP1	2.62	0.47
1:CA:1365:G:H2'	1:CA:1366:C:O4'	2.15	0.47
1:CA:1492:A:H3'	1:CA:1493:A:C8	2.50	0.47
1:CA:198:G:O2'	1:CA:199:A:H5'	2.15	0.47
1:CA:340:U:C2	1:CA:350:G:N2	2.82	0.47
1:CA:33:A:H2'	1:CA:34:C:H6	1.78	0.47
1:CA:50:A:H1'	1:CA:52:C:O4'	2.15	0.47
2:CB:33:GLY:HA2	2:CB:40:ILE:H	1.79	0.47
5:CE:122:ASN:CG	5:CE:123:VAL:H	2.18	0.47
6:CF:16:GLU:C	6:CF:18:VAL:H	2.17	0.47
12:CL:40:THR:HG22	12:CL:41:THR:N	2.30	0.47
21:CU:19:PHE:HA	21:CU:22:SER:HB3	1.96	0.47
22:DA:1468:U:H2'	22:DA:1522:A:N6	2.30	0.47
22:DA:1652:A:OP1	35:DN:8:ARG:NH2	2.43	0.47
22:DA:195:A:C5	22:DA:198:C:C5	3.03	0.47
22:DA:2013:A:N1	22:DA:2014:A:N3	2.63	0.47
22:DA:2033:A:P	57:DA:3476:HOH:O	2.73	0.47
22:DA:2131:U:H4'	22:DA:2133:G:C1'	2.45	0.47
22:DA:2131:U:O4'	22:DA:2133:G:H1'	2.15	0.47
22:DA:2214:C:C2	22:DA:2215:C:C6	3.03	0.47
22:DA:404:A:H1'	22:DA:405:U:OP2	2.15	0.47
39:DR:29:THR:O	39:DR:29:THR:CG2	2.63	0.47
39:DR:66:HIS:CD2	39:DR:94:THR:CG2	2.97	0.47
45:DX:71:LEU:HB2	45:DX:76:GLU:HB2	1.95	0.47
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.49	0.47
1:AA:251:G:H4'	1:AA:252:U:O5'	2.15	0.47
1:AA:318:G:C2	1:AA:336:A:C2	3.03	0.47
1:AA:19:A:C2	1:AA:917:G:C2	3.03	0.47
3:AC:181:ASP:OD2	3:AC:204:LYS:HB2	2.13	0.47
3:AC:8:ASN:OD1	3:AC:8:ASN:C	2.53	0.47
4:AD:35:GLU:O	4:AD:38:PRO:HD3	2.15	0.47
6:AF:46:GLN:HB2	6:AF:56:LYS:HE2	1.96	0.47
11:AK:34:ILE:HB	11:AK:74:VAL:HG11	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B3:4:ILE:HG22	51:B3:5:LYS:N	2.29	0.47
22:BA:1101:U:H6	22:BA:1101:U:O5'	1.97	0.47
22:BA:1673:G:C2'	22:BA:1674:G:H5'	2.44	0.47
22:BA:1919:A:C2	22:BA:1920:C:O4'	2.68	0.47
22:BA:2512:C:H2'	22:BA:2513:A:O4'	2.15	0.47
22:BA:2675:A:C6	22:BA:2676:C:C4	3.02	0.47
22:BA:2681:C:OP2	25:BD:114:LYS:CE	2.63	0.47
22:BA:2880:C:C2	22:BA:2881:U:C5	3.03	0.47
22:BA:768:G:H2'	22:BA:769:U:O5'	2.15	0.47
22:BA:2579:C:O2'	25:BD:136:ASN:HA	2.15	0.47
26:BE:18:THR:HA	26:BE:106:LYS:HG2	1.96	0.47
27:BF:43:ALA:HB1	27:BF:46:ASP:O	2.14	0.47
27:BF:2:ALA:O	27:BF:4:LEU:N	2.48	0.47
29:BH:14:SER:O	29:BH:15:LEU:CB	2.61	0.47
32:BK:77:ILE:CD1	32:BK:77:ILE:N	2.78	0.47
1:CA:1184:G:C4	1:CA:1185:G:C8	3.01	0.47
1:CA:135:C:O2	16:CP:1:MET:HB2	2.14	0.47
1:CA:1431:A:N6	1:CA:1432:G:O6	2.48	0.47
1:CA:280:C:H4'	1:CA:281:G:OP2	2.15	0.47
1:CA:905:U:C5	1:CA:906:A:N7	2.82	0.47
3:CC:12:LEU:HD13	3:CC:18:TRP:CE2	2.49	0.47
3:CC:50:ALA:HB1	3:CC:76:VAL:HG22	1.97	0.47
1:CA:619:U:H3	4:CD:131:ASN:HB3	1.79	0.47
4:CD:48:LEU:CD2	4:CD:53:VAL:N	2.77	0.47
5:CE:15:LEU:HD12	5:CE:15:LEU:C	2.34	0.47
8:CH:30:SER:O	8:CH:34:VAL:HG23	2.14	0.47
9:CI:92:GLU:HG3	9:CI:95:ARG:NH1	2.30	0.47
17:CQ:15:ASP:N	17:CQ:17:MET:HE1	2.30	0.47
17:CQ:52:GLU:HG2	17:CQ:53:CYS:N	2.30	0.47
21:CU:40:LYS:H	21:CU:41:PRO:CD	2.27	0.47
22:DA:1304:A:C6	22:DA:1305:C:C4	3.02	0.47
22:DA:1529:G:O6	22:DA:1543:G:C2	2.68	0.47
22:DA:1993:U:H4'	25:DD:133:THR:HG22	1.95	0.47
22:DA:207:A:C2	22:DA:208:C:H1'	2.50	0.47
22:DA:2282:G:C2	22:DA:2425:A:N6	2.83	0.47
22:DA:2843:G:C2	22:DA:2875:C:N3	2.82	0.47
22:DA:974:G:H1'	22:DA:975:A:C8	2.50	0.47
23:DB:94:A:H2'	23:DB:95:U:O4'	2.15	0.47
24:DC:160:THR:N	24:DC:195:VAL:HG13	2.30	0.47
33:DL:92:LEU:HD21	33:DL:124:GLY:HA3	1.96	0.47
38:DQ:47:TYR:CE2	38:DQ:51:ARG:CZ	2.98	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:39:THR:O	40:DS:39:THR:HG22	2.15	0.47
42:DU:34:VAL:O	42:DU:64:ALA:HA	2.14	0.47
42:DU:83:VAL:HG12	42:DU:84:GLY:N	2.30	0.47
43:DV:87:GLN:O	43:DV:88:HIS:HB2	2.14	0.47
1:AA:1151:A:O2'	1:AA:1152:A:P	2.73	0.47
1:AA:1157:A:C5	1:AA:1180:A:C6	3.03	0.47
1:AA:125:U:C2'	1:AA:126:G:H5'	2.45	0.47
1:AA:127:G:N2	1:AA:235:C:C2	2.83	0.47
1:AA:270:A:H2'	1:AA:271:C:O4'	2.15	0.47
1:AA:390:U:H2'	1:AA:391:G:H8	1.79	0.47
1:AA:858:G:C2'	1:AA:859:G:H5'	2.44	0.47
2:AB:128:LYS:O	2:AB:129:LEU:C	2.52	0.47
2:AB:128:LYS:O	2:AB:129:LEU:O	2.33	0.47
2:AB:33:GLY:HA3	2:AB:40:ILE:N	2.29	0.47
3:AC:22:TRP:CB	3:AC:59:ARG:HG2	2.45	0.47
9:AI:9:THR:HG22	9:AI:10:GLY:N	2.28	0.47
1:AA:1314:C:H41	19:AS:4:SER:HA	1.80	0.47
21:AU:25:LYS:CD	21:AU:26:ALA:N	2.77	0.47
22:BA:1356:G:C6	22:BA:1357:C:C4	3.02	0.47
22:BA:1846:G:N1	22:BA:1847:A:C2	2.82	0.47
22:BA:2305:U:O2'	27:BF:133:ARG:CD	2.63	0.47
22:BA:2824:C:C4	22:BA:2825:G:C5	3.03	0.47
22:BA:858:G:C4	22:BA:2268:A:C2	3.02	0.47
22:BA:988:A:P	47:BZ:12:SER:CB	3.03	0.47
22:BA:975:A:N1	22:BA:990:A:C8	2.82	0.47
25:BD:158:GLY:O	25:BD:159:LYS:C	2.53	0.47
26:BE:12:LEU:CD1	26:BE:190:ALA:HB1	2.44	0.47
35:BN:79:LEU:HA	35:BN:83:LEU:HB2	1.95	0.47
41:BT:87:LEU:O	41:BT:89:GLU:N	2.47	0.47
45:BX:43:GLU:O	45:BX:44:LYS:C	2.52	0.47
1:CA:1071:C:H2'	1:CA:1072:G:C8	2.50	0.47
1:CA:1417:G:N2	1:CA:1484:C:C4	2.83	0.47
1:CA:158:G:C4	1:CA:159:G:C8	3.02	0.47
1:CA:289:G:N1	1:CA:290:C:C4	2.82	0.47
1:CA:512:U:H2'	1:CA:513:C:C6	2.50	0.47
1:CA:859:G:C8	1:CA:869:G:N2	2.83	0.47
2:CB:152:LYS:HG3	2:CB:153:ASP:N	2.30	0.47
2:CB:72:THR:HG22	2:CB:73:LYS:N	2.29	0.47
3:CC:111:LEU:N	3:CC:111:LEU:CD2	2.77	0.47
3:CC:150:LYS:HB3	3:CC:169:ARG:HG2	1.96	0.47
4:CD:134:SER:O	4:CD:135:TYR:C	2.53	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:148:LYS:O	4:CD:150:LYS:N	2.48	0.47
8:CH:89:LYS:HG3	8:CH:90:ASP:N	2.29	0.47
16:CP:5:ARG:O	16:CP:19:VAL:HA	2.15	0.47
20:CT:62:ALA:HA	20:CT:68:HIS:N	2.30	0.47
20:CT:79:LEU:O	20:CT:82:GLN:HB2	2.15	0.47
22:DA:190:A:H2'	22:DA:191:A:O4'	2.15	0.47
22:DA:2195:U:N3	22:DA:2196:C:C5	2.82	0.47
22:DA:2729:G:H2'	22:DA:2730:C:O4'	2.15	0.47
22:DA:352:A:H2'	22:DA:353:C:C6	2.50	0.47
22:DA:228:C:N4	22:DA:417:C:O2	2.44	0.47
22:DA:53:A:N7	22:DA:54:G:C8	2.82	0.47
22:DA:848:C:H2'	22:DA:849:A:H8	1.79	0.47
33:DL:105:ILE:CG2	33:DL:107:PHE:O	2.63	0.47
33:DL:110:VAL:HG12	33:DL:131:ALA:HB1	1.97	0.47
41:DT:11:LEU:HG	41:DT:46:ALA:HB1	1.97	0.47
45:DX:13:VAL:O	45:DX:13:VAL:HG23	2.14	0.47
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.50	0.47
1:AA:1414:U:H2'	1:AA:1415:G:C8	2.49	0.47
1:AA:1421:G:C2	1:AA:1422:G:C8	3.03	0.47
1:AA:1521:C:C2	1:AA:1522:U:C5	3.03	0.47
1:AA:16:A:O2'	1:AA:17:U:H5'	2.15	0.47
1:AA:370:C:C2	1:AA:371:A:C8	3.03	0.47
1:AA:496:A:C2	1:AA:497:G:C6	3.03	0.47
1:AA:922:G:H1'	5:AE:24:THR:HG22	1.97	0.47
2:AB:128:LYS:HG3	2:AB:129:LEU:N	2.30	0.47
2:AB:19:GLN:HG2	2:AB:190:ASN:OD1	2.14	0.47
2:AB:24:ASN:OD1	2:AB:24:ASN:C	2.53	0.47
3:AC:16:LYS:HG3	3:AC:17:PRO:HD2	1.96	0.47
1:AA:36:C:OP1	12:AL:120:LYS:HE3	2.15	0.47
12:AL:3:THR:HG22	12:AL:5:ASN:N	2.30	0.47
14:AN:14:VAL:HA	14:AN:60:GLN:OE1	2.14	0.47
16:AP:6:LEU:HD13	16:AP:71:VAL:HG23	1.96	0.47
20:AT:35:VAL:HG22	20:AT:50:ALA:CB	2.44	0.47
53:B5:167:ASP:CB	53:B5:176:VAL:O	2.63	0.47
22:BA:2229:U:O2	45:BX:34:HIS:HE1	1.98	0.47
22:BA:288:U:C2	22:BA:289:G:C8	3.02	0.47
22:BA:38:A:C2	22:BA:442:G:C2	3.03	0.47
25:BD:84:LEU:HD22	25:BD:88:GLU:CB	2.45	0.47
30:BI:39:CYS:O	30:BI:43:ASN:HB2	2.15	0.47
22:BA:1132:U:H4'	31:BJ:75:TYR:CE1	2.50	0.47
32:BK:6:THR:HG22	32:BK:7:MET:N	2.30	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BP:27:GLU:HG2	37:BP:27:GLU:O	2.15	0.47
39:BR:39:LEU:HA	39:BR:49:ILE:CG2	2.44	0.47
39:BR:68:ARG:HD3	39:BR:92:TRP:CZ2	2.50	0.47
40:BS:14:ALA:O	40:BS:15:GLN:C	2.53	0.47
42:BU:18:ASP:O	42:BU:19:LYS:C	2.52	0.47
1:CA:1280:A:C8	10:CJ:42:LEU:HD23	2.49	0.47
1:CA:339:C:O2	1:CA:351:G:N2	2.47	0.47
1:CA:407:U:O2	1:CA:408:A:C8	2.68	0.47
1:CA:439:U:H1'	4:CD:119:SER:O	2.14	0.47
1:CA:675:A:OP1	18:CR:74:HIS:CE1	2.67	0.47
1:CA:822:U:H2'	1:CA:823:C:H6	1.79	0.47
5:CE:155:ALA:HB3	5:CE:156:LYS:HE3	1.97	0.47
11:CK:16:VAL:O	11:CK:17:SER:CB	2.62	0.47
11:CK:46:THR:O	11:CK:50:SER:OG	2.33	0.47
1:CA:36:C:OP1	12:CL:120:LYS:HE3	2.15	0.47
22:DA:1462:C:N3	22:DA:1463:C:C5	2.83	0.47
22:DA:1605:C:H2'	22:DA:1606:C:H5'	1.96	0.47
22:DA:1791:A:C8	22:DA:1792:G:C8	3.03	0.47
22:DA:806:C:O2'	22:DA:2445:G:H4'	2.15	0.47
22:DA:2540:C:H2'	22:DA:2541:A:C8	2.50	0.47
22:DA:2596:U:C5	22:DA:2597:G:C5	3.03	0.47
22:DA:2798:U:H4'	22:DA:2799:A:H5'	1.96	0.47
22:DA:46:G:N1	22:DA:47:C:C4	2.83	0.47
22:DA:46:G:N1	22:DA:47:C:C5	2.83	0.47
22:DA:630:G:C3'	22:DA:631:A:H5''	2.45	0.47
22:DA:836:G:H2'	22:DA:837:C:C6	2.50	0.47
23:DB:71:C:C2	23:DB:106:G:N2	2.83	0.47
41:DT:2:ILE:HA	41:DT:3:ARG:CB	2.45	0.47
46:DY:31:GLN:HG2	46:DY:37:LEU:HB2	1.97	0.47
1:AA:1118:U:C5'	9:AI:106:ARG:HG3	2.44	0.47
1:AA:1272:G:H2'	1:AA:1273:C:O4'	2.15	0.47
1:AA:559:A:C8	1:AA:561:U:C5	3.03	0.47
1:AA:760:G:N7	1:AA:761:G:C8	2.83	0.47
1:AA:922:G:N1	1:AA:923:A:C2	2.83	0.47
3:AC:203:PHE:CE1	3:AC:205:GLY:O	2.67	0.47
5:AE:108:GLY:O	5:AE:109:GLY:C	2.52	0.47
8:AH:89:LYS:HG3	8:AH:90:ASP:H	1.80	0.47
8:AH:93:PRO:HG3	8:AH:125:ILE:CD1	2.45	0.47
9:AI:84:THR:HG21	9:AI:103:PHE:HB3	1.96	0.47
1:AA:554:A:C5'	12:AL:26:ALA:HB1	2.44	0.47
13:AM:45:ILE:O	13:AM:45:ILE:CG2	2.63	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:71:LYS:O	15:AO:75:VAL:HG13	2.14	0.47
51:B3:25:LYS:HG2	51:B3:26:HIS:N	2.28	0.47
22:BA:1002:G:N2	22:BA:1003:G:H1'	2.30	0.47
22:BA:181:A:H2'	22:BA:182:A:C8	2.50	0.47
22:BA:2293:G:C4	22:BA:2294:G:C8	3.03	0.47
22:BA:2328:A:H2'	22:BA:2329:U:C6	2.50	0.47
22:BA:410:G:N2	22:BA:2407:A:C4	2.82	0.47
22:BA:538:A:O2'	31:BJ:8:PRO:HD2	2.15	0.47
22:BA:683:U:C2	22:BA:684:G:C8	3.03	0.47
22:BA:729:G:H4'	22:BA:763:G:C5'	2.45	0.47
22:BA:876:C:H2'	22:BA:877:A:O4'	2.15	0.47
27:BF:8:TYR:HA	27:BF:12:VAL:CG2	2.45	0.47
30:BI:33:VAL:HG21	30:BI:59:ILE:HG23	1.95	0.47
22:BA:1141:U:OP2	31:BJ:65:THR:CG2	2.63	0.47
34:BM:12:MET:HE3	34:BM:71:LYS:HG3	1.95	0.47
38:BQ:82:GLY:O	38:BQ:84:LYS:N	2.48	0.47
39:BR:37:GLU:HG2	39:BR:53:PHE:CD2	2.50	0.47
44:BW:49:ALA:O	44:BW:50:ASN:HB2	2.14	0.47
1:CA:1521:C:C4	1:CA:1522:U:C4	3.03	0.47
2:CB:45:LYS:O	2:CB:45:LYS:HG3	2.15	0.47
7:CG:35:LYS:HB2	7:CG:38:THR:HG22	1.97	0.47
9:CI:87:LEU:C	9:CI:89:GLU:H	2.18	0.47
14:CN:24:ARG:HG2	14:CN:27:LEU:HD12	1.97	0.47
20:CT:79:LEU:O	20:CT:83:ILE:HG23	2.15	0.47
22:DA:1050:A:C2	22:DA:2751:G:C4	3.03	0.47
22:DA:1178:C:H2'	22:DA:1179:G:N7	2.30	0.47
22:DA:1255:U:C2'	22:DA:1256:G:OP1	2.63	0.47
22:DA:137:U:H2'	22:DA:140:C:C2	2.49	0.47
22:DA:1422:G:N2	22:DA:1577:C:H1'	2.30	0.47
22:DA:167:A:C2	22:DA:168:G:H1'	2.50	0.47
22:DA:17:G:H4'	38:DQ:25:TYR:HE1	1.80	0.47
22:DA:1934:C:H4'	22:DA:1974:C:O3'	2.15	0.47
22:DA:2000:C:O2'	22:DA:2688:G:H5''	2.14	0.47
22:DA:2408:U:H2'	22:DA:2409:G:C8	2.50	0.47
22:DA:2392:A:C8	22:DA:2429:G:C2	3.03	0.47
22:DA:2821:A:OP2	25:DD:115:GLY:N	2.48	0.47
22:DA:508:A:C3'	22:DA:509:C:H5'	2.45	0.47
22:DA:607:U:H5	22:DA:619:G:C5	2.32	0.47
22:DA:669:G:N3	22:DA:669:G:C2'	2.78	0.47
22:DA:672:C:N4	22:DA:673:C:N4	2.63	0.47
22:DA:749:A:C6	22:DA:750:A:N7	2.83	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:818:G:C2'	22:DA:819:A:H5''	2.44	0.47
22:DA:2053:G:H5'	25:DD:149:ASN:O	2.15	0.47
26:DE:195:GLN:O	26:DE:199:MET:HB2	2.15	0.47
26:DE:61:ARG:HD2	26:DE:63:LYS:O	2.15	0.47
22:DA:588:U:H1'	26:DE:85:PHE:CD1	2.49	0.47
26:DE:97:ASN:HB2	26:DE:100:MET:SD	2.55	0.47
32:DK:4:GLU:C	32:DK:5:GLN:HG2	2.35	0.47
32:DK:35:VAL:HG22	32:DK:69:VAL:HG12	1.96	0.47
1:AA:988:G:N2	1:AA:1217:C:O2	2.48	0.47
1:AA:791:G:N2	1:AA:1497:G:O3'	2.45	0.47
1:AA:173:U:C6	1:AA:197:A:C2	3.03	0.47
1:AA:353:A:C2'	1:AA:354:G:OP2	2.63	0.47
1:AA:391:G:C6	1:AA:392:C:C4	3.03	0.47
1:AA:645:G:C6	1:AA:646:G:N7	2.83	0.47
2:AB:58:ASN:HA	2:AB:61:ALA:HB3	1.97	0.47
2:AB:95:ARG:HG2	2:AB:95:ARG:NH1	2.29	0.47
7:AG:107:ALA:O	7:AG:110:LYS:N	2.48	0.47
7:AG:89:VAL:CG2	7:AG:90:GLU:N	2.77	0.47
11:AK:55:SER:O	11:AK:56:ARG:C	2.53	0.47
11:AK:83:GLU:HG3	11:AK:109:ASN:HB2	1.97	0.47
14:AN:11:VAL:O	14:AN:14:VAL:HG12	2.15	0.47
1:AA:451:A:C5'	16:AP:70:ARG:NH2	2.78	0.47
20:AT:5:LYS:O	20:AT:6:SER:C	2.52	0.47
22:BA:996:A:N6	22:BA:1160:G:C6	2.83	0.47
22:BA:142:A:C6	22:BA:143:C:N3	2.83	0.47
22:BA:1469:A:C2	22:BA:1470:A:C4	3.03	0.47
22:BA:150:U:H2'	22:BA:151:C:C6	2.50	0.47
22:BA:1853:A:N6	22:BA:1889:A:C4	2.83	0.47
22:BA:1917:U:N3	22:BA:1918:A:C4	2.83	0.47
22:BA:1918:A:H4'	22:BA:1919:A:OP1	2.15	0.47
22:BA:2008:C:C2'	22:BA:2009:A:O5'	2.63	0.47
22:BA:2531:A:C6	22:BA:2532:G:C5	3.02	0.47
22:BA:668:A:C2'	22:BA:669:G:OP1	2.63	0.47
24:BC:222:GLY:O	24:BC:224:ALA:N	2.48	0.47
25:BD:139:SER:HA	25:BD:142:VAL:CG1	2.45	0.47
30:BI:58:VAL:CG1	30:BI:59:ILE:N	2.78	0.47
22:BA:1190:G:P	33:BL:32:GLY:HA2	2.55	0.47
39:BR:11:GLN:O	39:BR:12:HIS:CD2	2.67	0.47
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.81	0.47
1:CA:1138:G:C2	1:CA:1140:C:C5	3.03	0.47
1:CA:1163:A:C2	1:CA:1174:G:C2	3.04	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1182:G:H4'	1:CA:1183:U:C5'	2.43	0.47
1:CA:53:A:C2	1:CA:359:G:C2	3.03	0.47
1:CA:468:A:N3	1:CA:468:A:O4'	2.48	0.47
1:CA:542:G:C4	1:CA:543:U:C5	3.03	0.47
1:CA:575:G:C6	1:CA:821:G:C5	3.03	0.47
1:CA:866:C:C5	1:CA:867:G:C1'	2.98	0.47
1:CA:994:A:N3	1:CA:994:A:H2'	2.30	0.47
2:CB:30:PHE:CD1	2:CB:30:PHE:N	2.82	0.47
4:CD:174:ASP:O	4:CD:175:ALA:HB2	2.14	0.47
1:CA:938:A:O3'	7:CG:95:ARG:NH2	2.48	0.47
8:CH:59:LEU:CD1	8:CH:60:GLU:N	2.78	0.47
12:CL:79:VAL:O	12:CL:103:ASP:HB2	2.15	0.47
13:CM:11:ASP:HA	13:CM:45:ILE:HD13	1.97	0.47
13:CM:19:LEU:HB3	13:CM:30:SER:OG	2.15	0.47
13:CM:5:ALA:HB2	13:CM:57:ARG:CG	2.45	0.47
15:CO:17:ARG:O	15:CO:18:ASP:CB	2.62	0.47
22:DA:1029:A:N7	22:DA:1030:C:C2	2.83	0.47
22:DA:1060:U:O4'	22:DA:1062:G:C5'	2.61	0.47
22:DA:1154:G:P	38:DQ:58:ARG:HH11	2.38	0.47
22:DA:1364:G:C8	45:DX:2:SER:CA	2.98	0.47
22:DA:1603:A:OP2	22:DA:1604:C:OP2	2.33	0.47
22:DA:1736:U:H2'	22:DA:1737:G:O4'	2.15	0.47
22:DA:2024:G:N2	22:DA:2040:G:H1'	2.29	0.47
22:DA:208:C:H2'	22:DA:209:C:C6	2.50	0.47
22:DA:2389:G:H5''	22:DA:2390:U:H5'	1.97	0.47
22:DA:2849:U:H4'	22:DA:2868:A:C2	2.50	0.47
22:DA:2800:A:C2	22:DA:2895:G:H1'	2.49	0.47
22:DA:300:A:HO2'	22:DA:318:C:HO2'	1.55	0.47
22:DA:392:U:H2'	22:DA:393:C:C6	2.50	0.47
22:DA:642:U:H5'	22:DA:2349:G:O3'	2.15	0.47
25:DD:121:THR:HG21	25:DD:143:PRO:HB3	1.96	0.47
42:DU:28:VAL:HB	42:DU:34:VAL:HG12	1.97	0.47
1:AA:1299:A:N3	1:AA:1299:A:C2'	2.76	0.46
1:AA:1329:A:H2'	1:AA:1330:U:H5'	1.97	0.46
1:AA:1478:U:H2'	1:AA:1479:C:C6	2.49	0.46
1:AA:409:U:H2'	1:AA:410:G:C8	2.50	0.46
1:AA:671:G:H2'	1:AA:672:U:O4'	2.14	0.46
1:AA:781:A:C5	1:AA:802:A:C2	3.03	0.46
1:AA:842:U:O2	1:AA:842:U:H2'	2.15	0.46
3:AC:190:HIS:ND1	3:AC:195:VAL:HG22	2.30	0.46
3:AC:22:TRP:CG	3:AC:59:ARG:HG2	2.49	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:42:TRP:HZ2	6:AF:61:LEU:HD22	1.80	0.46
10:AJ:32:THR:OG1	10:AJ:33:GLY:N	2.48	0.46
10:AJ:92:LEU:O	10:AJ:93:ALA:HB3	2.14	0.46
22:BA:2020:A:H5'	48:B0:9:THR:CG2	2.46	0.46
22:BA:1045:C:H3'	22:BA:1046:A:C5'	2.45	0.46
22:BA:1021:A:O2'	22:BA:1123:C:OP1	2.24	0.46
22:BA:1695:G:H8	24:BC:8:PRO:HB2	1.80	0.46
22:BA:1754:A:H2'	22:BA:1755:A:C8	2.50	0.46
22:BA:1915:U:O2'	22:BA:1916:A:H5'	2.15	0.46
22:BA:1935:G:C6	22:BA:1962:C:C5	3.03	0.46
22:BA:2688:G:N7	22:BA:2719:G:C6	2.83	0.46
22:BA:281:C:H2'	22:BA:282:A:C8	2.50	0.46
22:BA:2856:A:C6	22:BA:2857:G:C6	3.03	0.46
22:BA:360:U:H3'	22:BA:361:G:C8	2.49	0.46
22:BA:364:C:H2'	22:BA:365:U:C6	2.50	0.46
22:BA:420:C:O2'	22:BA:421:C:H5'	2.16	0.46
22:BA:944:C:H2'	57:BA:3351:HOH:O	2.14	0.46
27:BF:158:THR:CG2	27:BF:160:ALA:H	2.27	0.46
28:BG:121:ILE:HD11	28:BG:140:VAL:HG12	1.97	0.46
30:BI:115:ALA:O	30:BI:116:ASP:HB2	2.15	0.46
30:BI:122:ILE:HG23	30:BI:125:MET:SD	2.55	0.46
35:BN:3:HIS:O	35:BN:4:ARG:HB2	2.14	0.46
39:BR:37:GLU:HB3	39:BR:53:PHE:CE1	2.50	0.46
40:BS:55:ILE:HG23	40:BS:66:ILE:HG12	1.96	0.46
43:BV:10:LYS:HG2	43:BV:11:GLU:HG2	1.98	0.46
44:BW:34:GLY:N	44:BW:61:ALA:O	2.37	0.46
1:CA:1385:G:C6	1:CA:1386:G:C5	3.03	0.46
1:CA:1443:C:H2'	1:CA:1444:U:O4'	2.15	0.46
1:CA:158:G:C5	1:CA:159:G:N7	2.83	0.46
1:CA:828:U:H2'	1:CA:829:G:O5'	2.15	0.46
1:CA:923:A:H2'	1:CA:924:C:O4'	2.15	0.46
3:CC:19:ASN:OD1	3:CC:54:ARG:NE	2.48	0.46
4:CD:107:PHE:CD1	4:CD:107:PHE:N	2.81	0.46
14:CN:15:ALA:O	14:CN:17:ALA:N	2.48	0.46
19:CS:55:ARG:NE	19:CS:79:THR:CG2	2.78	0.46
22:DA:1366:A:C2	22:DA:1367:A:H1'	2.50	0.46
22:DA:1599:U:C4	22:DA:1600:C:C4	3.03	0.46
22:DA:1665:A:C6	22:DA:1666:G:C5	3.03	0.46
22:DA:1831:G:C2	22:DA:1975:G:C4	3.03	0.46
22:DA:2058:A:C6	22:DA:2059:A:N6	2.83	0.46
22:DA:2267:A:H5''	22:DA:2268:A:C5'	2.46	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2339:C:H2'	22:DA:2340:A:C8	2.51	0.46
22:DA:249:C:P	22:DA:2394:C:HO2'	2.37	0.46
22:DA:2772:C:H5'	25:DD:173:GLN:NE2	2.30	0.46
22:DA:323:C:H6	22:DA:1205:A:N1	2.13	0.46
22:DA:512:G:OP1	22:DA:1234:U:O2'	2.31	0.46
22:DA:53:A:C8	22:DA:54:G:N7	2.82	0.46
22:DA:822:G:C6	22:DA:836:G:C2	3.02	0.46
22:DA:866:A:O4'	22:DA:914:G:C2	2.68	0.46
25:DD:62:LYS:HB2	25:DD:63:PRO:HD3	1.97	0.46
33:DL:56:PRO:HD2	33:DL:59:ARG:HB2	1.97	0.46
36:DO:51:ALA:HB3	36:DO:78:VAL:HG22	1.97	0.46
1:AA:1253:G:N1	1:AA:1285:A:N6	2.62	0.46
1:AA:1426:G:H2'	1:AA:1427:C:O4'	2.16	0.46
1:AA:204:G:H1'	1:AA:465:A:C2	2.50	0.46
1:AA:347:G:C2'	1:AA:348:G:O5'	2.63	0.46
2:AB:132:LYS:CG	2:AB:133:GLU:N	2.78	0.46
2:AB:111:ILE:HD11	2:AB:151:ILE:HG12	1.96	0.46
2:AB:70:VAL:O	2:AB:70:VAL:HG12	2.15	0.46
4:AD:19:LEU:HD13	4:AD:63:ARG:HB2	1.98	0.46
7:AG:87:VAL:HG12	7:AG:87:VAL:O	2.14	0.46
8:AH:113:ASP:O	8:AH:117:ARG:HB2	2.14	0.46
9:AI:51:PRO:HB3	9:AI:84:THR:HG23	1.97	0.46
15:AO:46:HIS:C	15:AO:48:LYS:H	2.18	0.46
16:AP:38:PHE:CE2	16:AP:51:ARG:HB2	2.50	0.46
16:AP:7:ALA:O	16:AP:9:HIS:N	2.48	0.46
19:AS:11:ILE:HG13	19:AS:38:SER:HB3	1.96	0.46
21:AU:14:VAL:HG13	21:AU:16:LEU:CG	2.45	0.46
22:BA:1195:G:O2'	22:BA:1196:C:H5'	2.15	0.46
22:BA:1248:G:OP1	26:BE:44:ARG:NH1	2.48	0.46
22:BA:141:G:H3'	22:BA:142:A:C8	2.51	0.46
22:BA:1501:G:O2'	22:BA:1502:A:H5'	2.16	0.46
22:BA:1428:C:N4	22:BA:1570:A:OP2	2.37	0.46
22:BA:1794:A:C1'	22:BA:1900:A:C2	2.98	0.46
22:BA:1917:U:C4	22:BA:1918:A:C6	3.02	0.46
22:BA:2421:G:H5''	22:BA:2422:C:OP2	2.15	0.46
22:BA:255:A:H2'	22:BA:256:A:O4'	2.15	0.46
22:BA:422:A:N1	22:BA:423:A:C2	2.83	0.46
22:BA:597:G:C2	22:BA:661:A:C2	3.03	0.46
22:BA:608:A:N6	22:BA:609:A:C6	2.83	0.46
22:BA:744:U:C4	22:BA:745:G:C5	3.03	0.46
22:BA:909:A:H2'	22:BA:912:C:C5	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:115:GLN:HB3	26:BE:117:ARG:HD3	1.98	0.46
26:BE:145:ASP:HB3	26:BE:184:ASP:OD2	2.15	0.46
33:BL:29:LYS:O	33:BL:31:GLY:N	2.48	0.46
35:BN:51:LEU:O	35:BN:54:LEU:HB3	2.15	0.46
36:BO:56:LYS:O	36:BO:57:ALA:C	2.54	0.46
1:CA:1244:G:C6	1:CA:1245:C:C4	3.04	0.46
1:CA:158:G:C5	1:CA:164:G:C6	3.04	0.46
1:CA:37:U:O2'	1:CA:500:G:H4'	2.15	0.46
1:CA:613:C:C2	1:CA:628:G:N2	2.83	0.46
1:CA:624:C:H4'	16:CP:10:GLY:O	2.14	0.46
1:CA:644:U:H2'	1:CA:645:G:O4'	2.15	0.46
2:CB:71:GLY:HA3	2:CB:164:ILE:CG2	2.45	0.46
2:CB:187:VAL:HB	2:CB:191:SER:CB	2.45	0.46
3:CC:130:PHE:CD2	3:CC:157:LEU:HD23	2.49	0.46
7:CG:13:LEU:CD1	7:CG:14:PRO:HD2	2.46	0.46
13:CM:37:ALA:CB	13:CM:56:LEU:HG	2.45	0.46
13:CM:74:SER:O	13:CM:78:LYS:HG3	2.16	0.46
6:CF:86:ARG:HD3	18:CR:64:TYR:CE1	2.50	0.46
22:DA:1197:G:H2'	22:DA:1198:U:H6	1.78	0.46
22:DA:1364:G:N3	22:DA:1368:G:C2	2.83	0.46
22:DA:1370:C:H2'	22:DA:1371:G:C8	2.50	0.46
22:DA:1607:C:O2	22:DA:1621:U:C6	2.68	0.46
22:DA:1801:A:C4	22:DA:2203:U:C5	3.03	0.46
22:DA:1766:G:C6	22:DA:1987:A:C6	3.03	0.46
22:DA:204:A:C8	22:DA:206:U:C2	3.03	0.46
22:DA:2087:G:C2	22:DA:2233:U:O2	2.68	0.46
22:DA:2499:C:C4	22:DA:2500:U:C4	3.04	0.46
22:DA:2528:U:O2'	22:DA:2529:G:H3'	2.14	0.46
22:DA:2784:U:C4	22:DA:2785:C:N4	2.83	0.46
22:DA:2505:G:OP2	55:DA:3001:VIF:H6	2.15	0.46
22:DA:630:G:N2	22:DA:633:A:OP2	2.38	0.46
22:DA:783:A:C8	22:DA:784:G:H4'	2.50	0.46
22:DA:789:A:N1	57:DA:3312:HOH:O	2.36	0.46
22:DA:933:A:H5'	22:DA:934:U:OP2	2.14	0.46
24:DC:254:GLY:O	24:DC:255:LYS:CB	2.62	0.46
27:DF:15:LYS:O	27:DF:19:GLU:HG3	2.15	0.46
31:DJ:39:LYS:NZ	31:DJ:44:TYR:CZ	2.84	0.46
31:DJ:73:VAL:HB	31:DJ:75:TYR:CE2	2.50	0.46
32:DK:107:LEU:O	32:DK:109:SER:N	2.48	0.46
37:DP:16:ASP:OD2	37:DP:16:ASP:N	2.48	0.46
40:DS:14:ALA:HB1	40:DS:18:ARG:CZ	2.45	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:5:ILE:HG22	42:DU:6:ARG:N	2.30	0.46
42:DU:7:ARG:CG	42:DU:8:ASP:N	2.78	0.46
43:DV:42:LEU:HD12	43:DV:47:VAL:HG21	1.97	0.46
46:DY:51:ALA:O	46:DY:55:THR:OG1	2.32	0.46
1:AA:1349:A:C2	1:AA:1374:A:C4	3.03	0.46
1:AA:223:A:C6	1:AA:224:U:C4	3.03	0.46
1:AA:412:A:H4'	1:AA:413:G:OP1	2.14	0.46
1:AA:518:C:H5''	1:AA:519:C:C6	2.50	0.46
1:AA:397:A:N6	1:AA:548:G:C5	2.84	0.46
1:AA:585:G:OP1	17:AQ:39:LYS:HE3	2.15	0.46
1:AA:587:G:H4'	8:AH:4:GLN:HA	1.96	0.46
1:AA:737:C:C2	1:AA:738:C:C6	3.03	0.46
4:AD:167:LYS:HA	4:AD:168:PRO:HD3	1.75	0.46
1:AA:824:G:H1'	8:AH:2:SER:HA	1.97	0.46
10:AJ:17:LEU:HD23	10:AJ:17:LEU:C	2.35	0.46
11:AK:127:ARG:N	21:AU:34:ARG:NH2	2.63	0.46
14:AN:46:LEU:O	14:AN:47:LYS:C	2.52	0.46
14:AN:82:ILE:O	14:AN:86:GLU:HG3	2.16	0.46
20:AT:34:LYS:O	20:AT:37:ALA:HB3	2.15	0.46
48:B0:10:ARG:HB2	48:B0:13:ARG:HH21	1.80	0.46
51:B3:27:ALA:O	51:B3:28:ASN:CB	2.56	0.46
51:B3:31:HIS:CD2	51:B3:31:HIS:C	2.88	0.46
53:B5:48:LEU:HD12	53:B5:57:GLN:HG2	1.97	0.46
22:BA:1063:G:C8	22:BA:1064:C:C6	3.03	0.46
22:BA:1366:A:C2	22:BA:1367:A:H1'	2.50	0.46
22:BA:1429:G:H2'	22:BA:1430:G:H8	1.80	0.46
22:BA:2055:C:H5'	22:BA:2056:G:H5''	1.95	0.46
22:BA:2182:U:H2'	22:BA:2183:A:C8	2.49	0.46
22:BA:2619:C:O2'	22:BA:2620:C:H5'	2.14	0.46
22:BA:2697:G:C6	22:BA:2711:A:N1	2.84	0.46
22:BA:38:A:H2'	22:BA:39:G:O4'	2.15	0.46
22:BA:488:G:C2	22:BA:493:G:O6	2.68	0.46
24:BC:209:GLY:O	24:BC:212:ARG:HB2	2.16	0.46
25:BD:39:ASP:CG	25:BD:40:LEU:N	2.68	0.46
27:BF:36:LEU:HD21	27:BF:99:PHE:CE1	2.50	0.46
29:BH:132:PHE:CD2	29:BH:142:VAL:CG2	2.99	0.46
29:BH:37:VAL:CG2	29:BH:38:PRO:HD2	2.45	0.46
29:BH:80:ILE:HG21	29:BH:94:ILE:CG1	2.45	0.46
31:BJ:23:LYS:CE	31:BJ:142:ILE:OXT	2.63	0.46
34:BM:7:THR:OG1	34:BM:9:PHE:O	2.25	0.46
35:BN:66:ALA:O	35:BN:69:ARG:O	2.33	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BS:84:ARG:HB2	40:BS:96:ILE:HD11	1.97	0.46
1:CA:1053:G:C4'	1:CA:1054:C:H5'	2.45	0.46
1:CA:328:C:O2	1:CA:328:C:C2'	2.64	0.46
4:CD:48:LEU:CD2	4:CD:52:GLY:C	2.84	0.46
14:CN:44:ALA:HA	14:CN:47:LYS:HG3	1.98	0.46
20:CT:33:LYS:O	20:CT:36:TYR:CD2	2.69	0.46
50:D2:34:ARG:HB2	50:D2:42:LEU:CD1	2.45	0.46
22:DA:1061:U:H2'	22:DA:1061:U:O2	2.15	0.46
22:DA:1331:G:O2'	22:DA:1332:G:H5'	2.16	0.46
22:DA:1835:G:N7	57:DA:3468:HOH:O	2.35	0.46
22:DA:235:U:C2	22:DA:236:C:C6	3.03	0.46
22:DA:2531:A:C4	22:DA:2532:G:C8	3.03	0.46
22:DA:600:G:C5	22:DA:601:C:C4	3.04	0.46
22:DA:699:A:H2'	22:DA:700:G:O4'	2.14	0.46
26:DE:148:ILE:HG21	26:DE:157:LEU:HD21	1.98	0.46
29:DH:41:LYS:O	29:DH:44:ILE:HG12	2.15	0.46
30:DI:89:GLY:HA2	30:DI:136:MET:HE3	1.96	0.46
42:DU:34:VAL:HG13	42:DU:67:VAL:HG23	1.98	0.46
1:AA:1160:G:HO2'	1:AA:1161:C:P	2.38	0.46
1:AA:1409:C:H2'	1:AA:1410:A:H8	1.79	0.46
1:AA:147:G:H2'	1:AA:148:G:C8	2.50	0.46
1:AA:450:G:C8	1:AA:481:G:O6	2.69	0.46
1:AA:640:A:O3'	8:AH:108:LYS:NZ	2.48	0.46
4:AD:29:ASP:C	4:AD:30:THR:O	2.47	0.46
12:AL:23:ALA:O	12:AL:24:LEU:O	2.33	0.46
16:AP:72:ALA:HA	16:AP:75:ILE:CD1	2.45	0.46
17:AQ:17:MET:HB2	17:AQ:20:SER:HB3	1.97	0.46
19:AS:23:VAL:HG12	19:AS:24:GLU:N	2.31	0.46
21:AU:25:LYS:O	21:AU:29:LEU:CB	2.63	0.46
48:B0:41:HIS:HA	48:B0:49:TYR:OH	2.16	0.46
22:BA:1171:G:C6	22:BA:1172:C:N3	2.84	0.46
22:BA:1869:G:C3'	22:BA:1870:C:H5'	2.39	0.46
22:BA:2498:C:C2'	22:BA:2499:C:H5'	2.46	0.46
22:BA:2500:U:O2	22:BA:2504:U:C4	2.68	0.46
22:BA:2821:A:OP2	25:BD:115:GLY:CA	2.64	0.46
22:BA:39:G:H2'	22:BA:40:U:C6	2.50	0.46
22:BA:991:C:H5'	22:BA:1185:G:H2'	1.96	0.46
23:BB:109:A:C6	23:BB:110:C:C4	3.03	0.46
24:BC:17:VAL:N	24:BC:204:VAL:HG22	2.31	0.46
43:BV:14:LYS:HD3	43:BV:18:ARG:NH1	2.30	0.46
46:BY:5:GLU:HG3	46:BY:56:LEU:CD1	2.45	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:128:G:C2	1:CA:234:C:C2	3.03	0.46
1:CA:670:G:N2	1:CA:737:C:O2	2.49	0.46
4:CD:54:GLN:HG2	4:CD:203:LEU:HB2	1.97	0.46
7:CG:116:MET:HA	7:CG:119:ARG:HD3	1.97	0.46
7:CG:55:GLY:O	7:CG:56:LYS:O	2.33	0.46
11:CK:29:ASN:OD1	11:CK:47:ALA:HB3	2.15	0.46
22:DA:1364:G:N7	45:DX:2:SER:N	2.64	0.46
22:DA:1494:A:H2'	22:DA:1495:A:C8	2.50	0.46
22:DA:2057:G:H2'	22:DA:2058:A:O4'	2.15	0.46
22:DA:2063:C:H4'	55:DA:3001:VIF:H37	1.96	0.46
22:DA:2250:G:H8	22:DA:2250:G:O5'	1.98	0.46
22:DA:2297:A:N1	22:DA:2321:U:H5	2.11	0.46
22:DA:2516:A:O2'	22:DA:2517:C:H5'	2.16	0.46
22:DA:2862:G:N2	22:DA:2863:C:C2	2.83	0.46
22:DA:454:A:H4'	22:DA:455:C:OP2	2.15	0.46
22:DA:750:A:H5''	22:DA:751:A:OP2	2.15	0.46
22:DA:845:A:H5'	22:DA:846:U:OP2	2.15	0.46
22:DA:874:G:C2	22:DA:904:G:C2	3.03	0.46
22:DA:972:A:N1	22:DA:973:A:N6	2.63	0.46
23:DB:89:U:O2	23:DB:89:U:O4'	2.34	0.46
24:DC:159:GLY:H	24:DC:195:VAL:HG22	1.81	0.46
24:DC:176:LEU:O	24:DC:179:GLY:N	2.45	0.46
28:DG:45:HIS:HA	28:DG:50:LEU:HD23	1.97	0.46
30:DI:10:LYS:HB3	30:DI:56:PRO:HB2	1.96	0.46
46:DY:17:GLU:OE1	46:DY:53:VAL:HB	2.15	0.46
1:AA:1124:G:H3'	1:AA:1145:A:N6	2.30	0.46
1:AA:1181:G:O2'	1:AA:1182:G:N7	2.48	0.46
1:AA:605:U:O2'	1:AA:606:G:H5'	2.16	0.46
2:AB:33:GLY:O	2:AB:34:ALA:CB	2.60	0.46
2:AB:63:ARG:O	2:AB:64:LYS:CB	2.62	0.46
2:AB:94:HIS:O	2:AB:95:ARG:C	2.53	0.46
4:AD:91:LEU:HD21	4:AD:195:ILE:CD1	2.46	0.46
4:AD:98:LEU:O	4:AD:99:ASP:C	2.53	0.46
1:AA:937:A:N1	7:AG:2:PRO:HG2	2.30	0.46
14:AN:72:GLY:O	14:AN:80:SER:HA	2.15	0.46
14:AN:93:ILE:HG21	14:AN:96:LEU:HD22	1.98	0.46
22:BA:1113:U:H2'	22:BA:1114:C:C6	2.50	0.46
22:BA:1575:C:H2'	22:BA:1576:U:O5'	2.15	0.46
22:BA:747:U:C6	22:BA:2613:U:C5	3.03	0.46
22:BA:2703:C:H2'	22:BA:2704:C:H6	1.80	0.46
22:BA:700:G:C6	22:BA:733:G:C2	3.03	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:796:C:H2'	22:BA:797:G:C8	2.51	0.46
24:BC:143:ASN:OD1	24:BC:143:ASN:O	2.34	0.46
24:BC:141:VAL:HG11	24:BC:190:ALA:HB1	1.97	0.46
24:BC:222:GLY:HA2	24:BC:225:MET:CE	2.43	0.46
27:BF:132:VAL:HG22	27:BF:152:LEU:HB3	1.98	0.46
28:BG:38:ASN:O	28:BG:39:ASP:HB2	2.16	0.46
29:BH:83:LYS:HG3	1:CA:55:A:N3	2.31	0.46
33:BL:30:THR:O	33:BL:32:GLY:N	2.48	0.46
36:BO:7:ARG:HG3	36:BO:96:GLY:HA3	1.97	0.46
38:BQ:58:ARG:HA	38:BQ:61:TRP:CE3	2.51	0.46
40:BS:37:THR:CG2	40:BS:38:TYR:CD1	2.96	0.46
42:BU:49:VAL:O	42:BU:49:VAL:HG13	2.15	0.46
1:CA:136:C:H2'	1:CA:137:U:C6	2.50	0.46
1:CA:1521:C:N3	1:CA:1522:U:C5	2.83	0.46
1:CA:354:G:C2	1:CA:355:C:C6	3.03	0.46
1:CA:373:A:O2'	1:CA:374:A:H5'	2.15	0.46
1:CA:496:A:C2	1:CA:497:G:C5	3.03	0.46
1:CA:841:C:H2'	1:CA:843:U:O4'	2.15	0.46
2:CB:64:LYS:HD3	2:CB:64:LYS:C	2.36	0.46
1:CA:8:A:O4'	5:CE:107:ALA:C	2.54	0.46
8:CH:43:GLU:OE1	8:CH:112:THR:HG21	2.15	0.46
18:CR:33:ILE:O	18:CR:33:ILE:HG12	2.14	0.46
20:CT:37:ALA:O	20:CT:40:GLU:HB3	2.15	0.46
22:DA:1767:G:C2	22:DA:1986:C:C2	3.04	0.46
22:DA:1802:A:C6	22:DA:1803:A:C6	3.04	0.46
22:DA:181:A:H1'	22:DA:435:C:O4'	2.15	0.46
22:DA:1916:A:H2'	22:DA:1917:U:O4'	2.16	0.46
22:DA:205:G:O2'	22:DA:206:U:P	2.73	0.46
22:DA:185:G:N1	22:DA:212:G:C2	2.84	0.46
22:DA:2204:G:C2	22:DA:2205:A:C8	3.03	0.46
22:DA:1662:U:O2'	22:DA:2687:U:H5''	2.16	0.46
22:DA:627:A:C6	22:DA:637:A:C8	3.03	0.46
22:DA:909:A:C6	22:DA:912:C:C2	3.03	0.46
29:DH:34:GLY:O	29:DH:35:LYS:CG	2.64	0.46
34:DM:2:LEU:O	34:DM:3:GLN:CB	2.63	0.46
39:DR:102:SER:O	39:DR:103:ALA:O	2.34	0.46
43:DV:51:GLN:HA	43:DV:56:PHE:CB	2.46	0.46
1:AA:1099:G:C5	1:AA:1100:C:C5	3.03	0.46
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.50	0.46
1:AA:207:C:H2'	1:AA:208:U:C2	2.49	0.46
1:AA:357:G:C2	1:AA:358:U:C5	3.04	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:22:TYR:CD1	2:AB:22:TYR:N	2.84	0.46
2:AB:69:PHE:N	2:AB:90:PHE:O	2.40	0.46
5:AE:151:GLU:C	5:AE:153:VAL:H	2.19	0.46
6:AF:49:TYR:CE2	6:AF:51:ILE:HG22	2.50	0.46
8:AH:49:PHE:C	8:AH:49:PHE:CD1	2.89	0.46
9:AI:11:ARG:HB2	9:AI:15:SER:O	2.15	0.46
9:AI:86:ALA:C	9:AI:88:MET:N	2.69	0.46
22:BA:1300:G:H4'	22:BA:1301:A:H5'	1.97	0.46
22:BA:1324:G:H1'	22:BA:1616:A:N6	2.31	0.46
22:BA:1806:C:H2'	22:BA:1807:G:O5'	2.15	0.46
22:BA:2499:C:C4	22:BA:2500:U:C4	3.04	0.46
22:BA:2515:C:N3	22:BA:2570:G:C6	2.84	0.46
22:BA:2516:A:C6	22:BA:2517:C:C4	3.03	0.46
22:BA:280:U:H2'	22:BA:281:C:O4'	2.15	0.46
55:BA:3001:VIF:H6	55:BA:3001:VIF:H7	1.58	0.46
22:BA:340:A:H2'	22:BA:341:C:C5'	2.46	0.46
22:BA:910:A:C6	22:BA:911:A:C6	3.04	0.46
22:BA:988:A:C2'	22:BA:989:G:O5'	2.63	0.46
25:BD:163:GLY:O	25:BD:164:GLN:C	2.53	0.46
26:BE:59:PRO:HD3	26:BE:71:GLY:O	2.16	0.46
27:BF:105:THR:CG2	27:BF:106:ILE:HG23	2.45	0.46
28:BG:11:VAL:HG23	28:BG:11:VAL:O	2.16	0.46
36:BO:64:TYR:HB3	36:BO:67:ASN:ND2	2.30	0.46
40:BS:95:ARG:NE	40:BS:97:LEU:HD22	2.29	0.46
1:CA:223:A:C6	1:CA:224:U:C4	3.03	0.46
1:CA:445:G:N1	1:CA:446:G:C5	2.84	0.46
1:CA:484:G:N7	1:CA:486:U:H1'	2.31	0.46
1:CA:511:C:O2	1:CA:512:U:C6	2.69	0.46
3:CC:9:GLY:HA2	3:CC:12:LEU:HG	1.97	0.46
4:CD:9:LEU:O	4:CD:10:LYS:C	2.54	0.46
9:CI:10:GLY:HA2	9:CI:81:HIS:ND1	2.31	0.46
9:CI:26:GLY:H	9:CI:59:GLU:HA	1.80	0.46
9:CI:46:MET:O	9:CI:49:ARG:HB3	2.16	0.46
10:CJ:65:TYR:HB3	14:CN:96:LEU:CD1	2.44	0.46
48:D0:10:ARG:HG2	48:D0:11:SER:N	2.30	0.46
22:DA:1019:U:O2'	22:DA:1021:A:N7	2.37	0.46
22:DA:1097:U:H3'	22:DA:1098:A:O4'	2.16	0.46
22:DA:1027:A:C5	22:DA:1126:A:N3	2.84	0.46
22:DA:1293:C:H2'	22:DA:1294:U:O5'	2.15	0.46
22:DA:1309:G:H4'	50:D2:7:PRO:HB2	1.96	0.46
22:DA:1529:G:C6	22:DA:1543:G:C2	3.03	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1428:C:C5	22:DA:1569:A:C5'	2.98	0.46
22:DA:1682:G:C2	22:DA:1757:A:C1'	2.98	0.46
22:DA:1831:G:C6	22:DA:1832:C:C4	3.03	0.46
22:DA:2113:U:C2	22:DA:2114:A:C8	3.03	0.46
22:DA:2244:U:H2'	22:DA:2245:U:O4'	2.15	0.46
22:DA:364:C:H2'	22:DA:365:U:O4'	2.15	0.46
22:DA:487:C:C2	22:DA:494:G:N2	2.83	0.46
22:DA:621:A:H2'	22:DA:622:G:O4'	2.16	0.46
22:DA:657:U:C2	22:DA:658:U:C5	3.03	0.46
22:DA:673:C:OP1	26:DE:76:PRO:HG3	2.15	0.46
22:DA:7:G:H2'	22:DA:8:C:O4'	2.15	0.46
24:DC:135:ILE:O	24:DC:167:ARG:NH2	2.49	0.46
27:DF:13:VAL:O	27:DF:17:MET:HG2	2.16	0.46
27:DF:58:ALA:O	27:DF:61:SER:O	2.34	0.46
33:DL:96:LYS:HD3	33:DL:103:ILE:HA	1.98	0.46
33:DL:82:LEU:HD23	33:DL:82:LEU:C	2.35	0.46
37:DP:103:ARG:HB3	37:DP:108:ALA:HB2	1.98	0.46
39:DR:19:THR:HA	39:DR:96:VAL:O	2.16	0.46
42:DU:26:LYS:HG2	42:DU:37:GLU:HB3	1.98	0.46
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.51	0.46
1:AA:1100:C:O2'	1:AA:1102:A:OP1	2.30	0.46
1:AA:1204:A:P	57:AA:1780:HOH:O	2.74	0.46
1:AA:1442:G:H2'	1:AA:1443:C:C6	2.51	0.46
1:AA:235:C:H2'	1:AA:236:A:H8	1.80	0.46
1:AA:878:A:H2'	1:AA:879:C:O4'	2.16	0.46
2:AB:106:THR:O	2:AB:107:VAL:CG2	2.64	0.46
3:AC:42:TYR:CZ	3:AC:90:VAL:HG21	2.51	0.46
4:AD:122:ALA:O	4:AD:123:ILE:CG2	2.62	0.46
4:AD:168:PRO:CG	4:AD:171:LEU:HD11	2.43	0.46
5:AE:115:LEU:HG	5:AE:123:VAL:HG21	1.98	0.46
9:AI:58:VAL:O	9:AI:59:GLU:HG2	2.15	0.46
13:AM:91:HIS:HA	13:AM:109:ARG:NH2	2.30	0.46
1:AA:625:U:H4'	16:AP:16:PHE:CZ	2.50	0.46
22:BA:1106:G:C2	22:BA:1107:G:N9	2.83	0.46
22:BA:1588:G:C2	22:BA:1589:U:C5	3.03	0.46
22:BA:1605:C:H2'	22:BA:1606:C:H5'	1.97	0.46
22:BA:1747:U:H2'	22:BA:1748:C:C6	2.50	0.46
22:BA:1786:A:C4	22:BA:1938:A:C6	3.03	0.46
22:BA:2109:U:H2'	22:BA:2110:G:C8	2.51	0.46
22:BA:226:A:C6	22:BA:227:A:C6	3.04	0.46
22:BA:199:A:C8	22:BA:2433:A:N6	2.83	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:475:C:N3	22:BA:481:G:C6	2.84	0.46
22:BA:481:G:C2	22:BA:507:A:C4	3.04	0.46
25:BD:177:VAL:HG22	25:BD:177:VAL:O	2.14	0.46
29:BH:94:ILE:HG23	29:BH:98:ASP:HB2	1.98	0.46
31:BJ:77:HIS:HA	31:BJ:83:GLY:O	2.16	0.46
32:BK:14:SER:O	32:BK:52:VAL:HG22	2.16	0.46
34:BM:36:VAL:CG1	34:BM:36:VAL:O	2.63	0.46
35:BN:52:ILE:HG21	35:BN:94:TYR:CD2	2.51	0.46
39:BR:39:LEU:O	39:BR:49:ILE:HG23	2.15	0.46
39:BR:67:GLY:C	39:BR:93:PHE:CE2	2.89	0.46
1:CA:1260:G:OP1	1:CA:1284:C:O2'	2.29	0.46
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.50	0.46
1:CA:414:A:C2	1:CA:415:A:H1'	2.51	0.46
1:CA:582:C:C2	1:CA:760:G:C6	3.04	0.46
1:CA:862:C:H2'	1:CA:863:U:C6	2.50	0.46
3:CC:53:SER:O	3:CC:54:ARG:HB2	2.15	0.46
12:CL:75:GLN:O	12:CL:76:GLU:C	2.53	0.46
15:CO:88:ARG:HG3	15:CO:88:ARG:O	2.15	0.46
17:CQ:21:ILE:HB	17:CQ:48:ASP:OD1	2.16	0.46
48:D0:13:ARG:HD2	48:D0:17:ARG:NH2	2.30	0.46
50:D2:10:LEU:HD11	50:D2:14:ARG:CZ	2.46	0.46
22:DA:1288:G:C4	22:DA:1327:A:C2	3.04	0.46
22:DA:1502:A:C2	22:DA:1503:A:C4	3.03	0.46
22:DA:1649:G:C6	22:DA:2009:A:N6	2.84	0.46
22:DA:1753:G:C2	22:DA:1756:G:C2	3.04	0.46
22:DA:206:U:H2'	22:DA:207:A:H8	1.80	0.46
22:DA:2125:G:C5'	22:DA:2126:A:OP2	2.62	0.46
22:DA:2377:A:O2'	22:DA:2378:A:H5'	2.15	0.46
22:DA:2603:G:C6	22:DA:2604:U:C4	3.03	0.46
22:DA:2718:G:C6	22:DA:2719:G:C4	3.04	0.46
22:DA:2854:G:C2	22:DA:2864:G:C2	3.04	0.46
22:DA:749:A:C5	22:DA:750:A:C8	3.04	0.46
22:DA:961:C:C2	22:DA:2031:A:C6	3.04	0.46
23:DB:114:C:C2	23:DB:115:A:C8	3.04	0.46
29:DH:60:GLU:HA	29:DH:60:GLU:OE2	2.15	0.46
23:DB:49:C:OP1	36:DO:101:GLY:HA3	2.16	0.46
37:DP:28:VAL:HG12	37:DP:30:VAL:HG23	1.97	0.46
40:DS:70:LYS:O	40:DS:107:VAL:HG23	2.16	0.46
42:DU:7:ARG:HD2	42:DU:8:ASP:OD2	2.16	0.46
1:AA:1254:A:H2'	1:AA:1255:G:C8	2.51	0.46
1:AA:1363:A:C4	1:AA:1365:G:C6	3.04	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:175:C:O2'	1:AA:176:C:H5'	2.15	0.46
1:AA:451:A:C2	1:AA:480:U:C4	3.03	0.46
1:AA:958:A:N3	1:AA:985:C:O2'	2.39	0.46
2:AB:161:LEU:HD12	2:AB:181:ILE:HG21	1.97	0.46
5:AE:101:GLU:HB3	5:AE:122:ASN:HB3	1.97	0.46
9:AI:43:THR:O	9:AI:44:ALA:HB3	2.16	0.46
10:AJ:8:ILE:HG13	10:AJ:74:VAL:HB	1.97	0.46
11:AK:87:LYS:HA	11:AK:114:THR:HG22	1.97	0.46
18:AR:62:ALA:HB3	18:AR:68:LEU:HD12	1.97	0.46
19:AS:64:ASP:O	19:AS:65:GLU:HB3	2.16	0.46
21:AU:40:LYS:N	21:AU:41:PRO:CD	2.79	0.46
53:B5:65:LEU:HD11	53:B5:191:ARG:CA	2.45	0.46
22:BA:1059:G:H5''	22:BA:1060:U:H3'	1.98	0.46
22:BA:1199:U:H2'	22:BA:1200:C:C6	2.51	0.46
22:BA:2196:C:O2'	22:BA:2197:U:H5'	2.16	0.46
22:BA:229:C:C2'	22:BA:230:G:O5'	2.64	0.46
22:BA:2299:U:O2'	22:BA:2300:C:H5'	2.16	0.46
22:BA:2340:A:H2'	22:BA:2341:G:C8	2.50	0.46
22:BA:2743:U:OP1	52:B4:34:LYS:NZ	2.33	0.46
22:BA:584:C:N4	57:BA:3282:HOH:O	2.44	0.46
22:BA:734:A:C4	22:BA:735:A:C8	3.04	0.46
24:BC:17:VAL:HB	24:BC:204:VAL:HG13	1.98	0.46
38:BQ:21:ALA:HB1	38:BQ:24:TYR:CD1	2.51	0.46
38:BQ:66:ASN:CG	38:BQ:76:TYR:HB2	2.36	0.46
41:BT:87:LEU:O	41:BT:88:LYS:C	2.54	0.46
45:BX:68:LEU:HD13	45:BX:78:TYR:CE1	2.51	0.46
1:CA:110:C:H2'	1:CA:111:G:O4'	2.16	0.46
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.16	0.46
1:CA:263:A:OP2	20:CT:74:ARG:NH1	2.49	0.46
1:CA:289:G:C2	1:CA:290:C:C6	3.03	0.46
1:CA:563:A:N7	1:CA:567:G:H1'	2.31	0.46
1:CA:706:A:C6	1:CA:707:U:C4	3.04	0.46
1:CA:791:G:C5	1:CA:792:A:N7	2.84	0.46
1:CA:991:U:C4	1:CA:1212:U:C1'	2.99	0.46
4:CD:62:ARG:HG3	4:CD:72:PHE:CD2	2.51	0.46
6:CF:18:VAL:O	6:CF:21:MET:HB2	2.16	0.46
6:CF:93:LYS:C	6:CF:94:HIS:CG	2.90	0.46
7:CG:42:ILE:CG2	7:CG:42:ILE:O	2.64	0.46
14:CN:53:ARG:C	14:CN:55:SER:H	2.19	0.46
14:CN:61:ARG:O	14:CN:62:ASN:CB	2.62	0.46
21:CU:14:VAL:HG12	21:CU:16:LEU:HG	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1095:A:C6	22:DA:1096:A:C2	3.04	0.46
22:DA:1285:A:C6	22:DA:1329:U:C5	3.04	0.46
1:CA:899:C:O2'	22:DA:1832:C:OP1	2.22	0.46
22:DA:2061:G:C8	22:DA:2501:C:H4'	2.50	0.46
22:DA:2096:C:H2'	22:DA:2097:A:C8	2.51	0.46
22:DA:445:C:H2'	22:DA:446:G:C8	2.51	0.46
24:DC:210:ALA:HA	24:DC:213:TRP:NE1	2.29	0.46
25:DD:114:LYS:HE2	25:DD:196:ALA:HA	1.96	0.46
26:DE:170:ARG:HG3	26:DE:174:GLY:C	2.35	0.46
38:DQ:47:TYR:CD2	38:DQ:47:TYR:C	2.89	0.46
38:DQ:76:TYR:CE2	38:DQ:80:ILE:HG13	2.51	0.46
39:DR:80:ARG:HB3	39:DR:81:LYS:HD3	1.98	0.46
41:DT:62:VAL:CG1	41:DT:63:VAL:N	2.79	0.46
42:DU:74:ASN:ND2	42:DU:96:PHE:CD1	2.84	0.46
1:AA:1016:A:N7	1:AA:1017:U:O2	2.49	0.46
1:AA:1060:U:OP1	14:AN:85:ARG:NH2	2.47	0.46
1:AA:1379:G:C6	1:AA:1380:U:C4	3.03	0.46
1:AA:1406:U:C5	1:AA:1407:C:C4	3.03	0.46
1:AA:1525:G:OP1	11:AK:122:ARG:NH2	2.44	0.46
1:AA:392:C:C2	1:AA:393:A:C8	3.04	0.46
1:AA:645:G:C2	1:AA:646:G:C8	3.04	0.46
1:AA:69:G:H2'	1:AA:69:G:N3	2.31	0.46
1:AA:581:G:C6	1:AA:758:C:C5	3.04	0.46
1:AA:949:A:N1	1:AA:950:U:C2	2.84	0.46
2:AB:33:GLY:HA3	2:AB:39:HIS:CB	2.46	0.46
3:AC:10:ILE:HG13	3:AC:10:ILE:O	2.16	0.46
3:AC:116:VAL:O	3:AC:119:SER:HB3	2.16	0.46
3:AC:47:LEU:HB3	3:AC:50:ALA:HB3	1.97	0.46
7:AG:40:GLU:HA	7:AG:43:VAL:HG23	1.97	0.46
8:AH:75:ILE:HD13	8:AH:129:VAL:HG22	1.97	0.46
8:AH:79:SER:HA	8:AH:85:ILE:HG12	1.98	0.46
9:AI:30:ILE:HA	9:AI:65:ILE:O	2.14	0.46
10:AJ:36:VAL:HG12	10:AJ:36:VAL:O	2.16	0.46
11:AK:74:VAL:C	11:AK:76:GLU:N	2.68	0.46
11:AK:81:ASN:HB3	11:AK:106:ARG:CG	2.45	0.46
13:AM:77:ILE:HG22	13:AM:81:MET:CE	2.46	0.46
17:AQ:50:ASN:O	17:AQ:51:ASN:O	2.33	0.46
17:AQ:49:GLU:O	17:AQ:52:GLU:OE2	2.33	0.46
53:B5:45:HIS:CD2	53:B5:176:VAL:HA	2.50	0.46
53:B5:24:ASP:HB2	53:B5:185:LYS:O	2.15	0.46
53:B5:84:ILE:HG22	53:B5:84:ILE:O	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1005:C:N3	22:BA:1143:A:C2	2.84	0.46
22:BA:1696:G:C6	22:BA:1697:G:C4	3.04	0.46
22:BA:1867:G:C2'	22:BA:1868:C:H5'	2.46	0.46
22:BA:2839:G:C6	22:BA:2840:C:C4	3.03	0.46
22:BA:773:U:O2	22:BA:778:G:O2'	2.33	0.46
24:BC:97:LYS:HD2	24:BC:97:LYS:N	2.31	0.46
25:BD:5:VAL:HG21	25:BD:80:TRP:CD2	2.51	0.46
25:BD:68:PHE:CE1	25:BD:75:ALA:HA	2.51	0.46
30:BI:102:SER:HB3	30:BI:105:GLN:NE2	2.31	0.46
32:BK:118:LEU:O	32:BK:119:ALA:HB3	2.16	0.46
36:BO:7:ARG:HD2	36:BO:97:PHE:CE2	2.51	0.46
45:BX:11:ARG:HB2	45:BX:12:PRO:HD2	1.98	0.46
1:CA:35:G:C2	1:CA:550:G:C2	3.04	0.46
4:CD:62:ARG:CG	4:CD:72:PHE:CD2	2.99	0.46
5:CE:38:VAL:CG1	5:CE:117:VAL:HG21	2.46	0.46
15:CO:45:GLU:HG2	15:CO:46:HIS:N	2.31	0.46
22:DA:1269:A:C6	22:DA:1270:C:N4	2.83	0.46
22:DA:1351:C:O3'	22:DA:1571:A:O2'	2.30	0.46
22:DA:2004:G:C4	22:DA:2005:A:C8	3.04	0.46
22:DA:2563:U:C2	22:DA:2566:A:N7	2.84	0.46
22:DA:2648:G:H2'	22:DA:2649:C:O4'	2.16	0.46
22:DA:2834:G:H2'	22:DA:2879:A:H61	1.80	0.46
22:DA:33:C:O2	22:DA:447:A:N6	2.49	0.46
22:DA:532:A:H2'	38:DQ:28:ARG:NH1	2.31	0.46
22:DA:589:U:H2'	22:DA:590:A:C8	2.51	0.46
22:DA:777:G:N3	22:DA:778:G:C8	2.84	0.46
24:DC:53:HIS:O	24:DC:217:ARG:N	2.35	0.46
26:DE:29:HIS:HA	26:DE:32:VAL:HG23	1.98	0.46
33:DL:94:THR:O	33:DL:98:ALA:N	2.48	0.46
42:DU:82:ARG:O	42:DU:97:LYS:HG2	2.16	0.46
45:DX:69:ALA:O	45:DX:72:ARG:HB3	2.16	0.46
1:AA:1069:C:H4'	1:AA:1192:C:O2	2.16	0.46
1:AA:1160:G:O6	1:AA:1181:G:C6	2.69	0.46
1:AA:1302:C:C5	13:AM:17:ILE:HD13	2.51	0.46
1:AA:1387:G:H2'	1:AA:1388:C:H6	1.81	0.46
1:AA:181:A:N6	1:AA:195:A:C8	2.84	0.46
1:AA:213:G:N7	1:AA:214:C:C4	2.84	0.46
1:AA:29:U:C2'	1:AA:30:U:H5'	2.46	0.46
1:AA:41:G:H2'	1:AA:42:G:H8	1.81	0.46
1:AA:522:C:N4	1:AA:523:A:C6	2.84	0.46
1:AA:557:G:C6	1:AA:558:G:C6	3.04	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:89:U:O2'	1:AA:90:C:H5'	2.16	0.46
1:AA:532:A:N7	3:AC:193:TYR:HB3	2.31	0.46
8:AH:99:LEU:N	8:AH:99:LEU:HD23	2.31	0.46
1:AA:1152:A:OP1	10:AJ:15:HIS:HB2	2.15	0.46
15:AO:63:ARG:HG3	15:AO:67:LEU:HD12	1.97	0.46
49:B1:48:ILE:N	49:B1:48:ILE:HD12	2.32	0.46
50:B2:3:ARG:O	50:B2:6:GLN:NE2	2.43	0.46
22:BA:1139:G:N2	22:BA:1140:C:C2	2.84	0.46
22:BA:1174:U:O2	22:BA:1174:U:O4'	2.32	0.46
22:BA:1268:A:H2'	22:BA:1269:A:O4'	2.16	0.46
22:BA:1422:G:C5	22:BA:1423:G:N7	2.84	0.46
22:BA:1722:A:C2	22:BA:1739:A:H1'	2.51	0.46
22:BA:2181:U:H2'	22:BA:2182:U:O4'	2.16	0.46
22:BA:2232:C:C4	22:BA:2233:U:C4	3.04	0.46
22:BA:253:C:OP2	51:B3:5:LYS:CE	2.61	0.46
25:BD:104:VAL:HG23	25:BD:177:VAL:HG11	1.97	0.46
29:BH:90:LEU:HD21	29:BH:93:SER:HA	1.97	0.46
30:BI:65:ARG:HG3	30:BI:66:SER:N	2.30	0.46
32:BK:19:VAL:HG21	32:BK:84:CYS:SG	2.55	0.46
41:BT:17:SER:O	41:BT:18:GLU:C	2.54	0.46
45:BX:18:ARG:CZ	45:BX:24:ALA:HB2	2.45	0.46
1:CA:1053:G:O5'	1:CA:1054:C:H3'	2.16	0.46
1:CA:1151:A:C2	1:CA:1152:A:C5	3.04	0.46
1:CA:1298:U:O2	1:CA:1298:U:C2'	2.62	0.46
1:CA:137:U:H1'	1:CA:227:G:N2	2.30	0.46
1:CA:1426:G:H2'	1:CA:1427:C:O4'	2.16	0.46
1:CA:1491:G:C6	1:CA:1492:A:C6	3.03	0.46
1:CA:158:G:C6	1:CA:164:G:C6	3.04	0.46
1:CA:457:G:N2	1:CA:476:U:C2	2.84	0.46
1:CA:485:U:O2	1:CA:485:U:O4'	2.32	0.46
1:CA:545:C:O2'	1:CA:549:C:H5''	2.16	0.46
1:CA:570:G:N3	1:CA:571:U:C5	2.84	0.46
1:CA:623:C:C4	1:CA:624:C:C5	3.03	0.46
1:CA:853:C:C4	1:CA:854:U:C5	3.04	0.46
2:CB:141:LEU:O	2:CB:144:LEU:N	2.48	0.46
2:CB:15:HIS:ND1	2:CB:15:HIS:O	2.49	0.46
4:CD:29:ASP:C	4:CD:31:LYS:N	2.70	0.46
7:CG:116:MET:O	7:CG:120:LEU:HB2	2.16	0.46
8:CH:49:PHE:CD1	8:CH:49:PHE:C	2.87	0.46
8:CH:95:VAL:HG21	8:CH:128:TYR:HB3	1.98	0.46
11:CK:58:SER:O	11:CK:91:PRO:HG3	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:79:ARG:O	13:CM:83:LEU:HD23	2.16	0.46
48:D0:13:ARG:HG2	48:D0:17:ARG:NE	2.31	0.46
49:D1:15:ALA:C	49:D1:17:THR:H	2.19	0.46
22:DA:1345:C:H5'	22:DA:1396:U:C5	2.51	0.46
22:DA:1437:C:N4	22:DA:1438:U:O4	2.49	0.46
22:DA:184:C:H2'	22:DA:185:G:C8	2.50	0.46
22:DA:2516:A:C6	22:DA:2517:C:N4	2.84	0.46
22:DA:2585:U:O2'	22:DA:2586:U:C5'	2.64	0.46
22:DA:279:A:N6	22:DA:361:G:C2'	2.79	0.46
22:DA:2824:C:N4	22:DA:2825:G:C5	2.84	0.46
22:DA:310:A:C6	22:DA:330:A:C6	3.03	0.46
22:DA:734:A:N7	22:DA:735:A:N7	2.63	0.46
22:DA:86:G:C2	22:DA:87:U:C5	3.04	0.46
22:DA:1829:A:O2'	24:DC:15:HIS:CD2	2.69	0.46
24:DC:232:HIS:NE2	24:DC:244:PRO:HA	2.31	0.46
25:DD:148:GLN:HB2	25:DD:152:PRO:HG2	1.98	0.46
26:DE:171:ASP:CG	26:DE:172:ALA:N	2.69	0.46
30:DI:61:VAL:HG22	30:DI:67:PHE:HB3	1.98	0.46
31:DJ:74:TYR:CD1	31:DJ:92:MET:HG3	2.50	0.46
32:DK:6:THR:O	32:DK:8:LEU:HD12	2.15	0.46
33:DL:23:ILE:HD12	39:DR:84:ARG:NE	2.31	0.46
36:DO:98:GLN:O	36:DO:100:HIS:N	2.47	0.46
43:DV:7:GLU:HB2	43:DV:41:GLU:OE2	2.16	0.46
1:AA:1061:G:H5''	1:AA:1062:U:OP2	2.16	0.45
1:AA:1180:A:H5''	1:AA:1181:G:OP2	2.16	0.45
1:AA:1319:A:C5	1:AA:1323:G:C4	3.05	0.45
1:AA:174:A:C6	1:AA:175:C:C4	3.04	0.45
1:AA:451:A:C5'	16:AP:70:ARG:HH22	2.29	0.45
1:AA:495:A:C2	1:AA:496:A:C6	3.05	0.45
1:AA:83:C:H4'	1:AA:83:C:OP1	2.16	0.45
1:AA:866:C:H2'	1:AA:867:G:O4'	2.16	0.45
10:AJ:10:LEU:HG	10:AJ:98:VAL:HG12	1.98	0.45
11:AK:125:LYS:O	21:AU:34:ARG:NE	2.44	0.45
13:AM:48:LEU:HD23	13:AM:52:GLN:HB2	1.98	0.45
14:AN:16:LEU:HD23	14:AN:16:LEU:N	2.31	0.45
17:AQ:21:ILE:HB	17:AQ:48:ASP:OD2	2.16	0.45
20:AT:54:MET:O	20:AT:57:ILE:HG22	2.17	0.45
22:BA:1536:C:H4'	22:BA:1537:G:C5'	2.45	0.45
22:BA:1767:G:O2'	22:BA:1768:C:H5'	2.16	0.45
22:BA:184:C:H2'	22:BA:185:G:C8	2.50	0.45
22:BA:1964:G:C2	22:BA:1967:C:C5	3.03	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2211:A:C2'	22:BA:2212:A:OP1	2.64	0.45
22:BA:288:U:N3	22:BA:289:G:N7	2.65	0.45
22:BA:847:U:C2'	22:BA:848:C:H5'	2.47	0.45
22:BA:852:U:H2'	22:BA:853:C:C6	2.51	0.45
22:BA:979:A:H2'	22:BA:982:C:H42	1.81	0.45
23:BB:14:U:O2	23:BB:107:G:H4'	2.16	0.45
23:BB:59:A:H2'	23:BB:60:C:O4'	2.16	0.45
24:BC:204:VAL:O	24:BC:205:LEU:CB	2.57	0.45
25:BD:4:LEU:HD21	25:BD:100:LEU:HD23	1.96	0.45
25:BD:101:PHE:HE2	25:BD:203:VAL:HG12	1.81	0.45
26:BE:119:ILE:O	26:BE:187:VAL:HA	2.16	0.45
29:BH:90:LEU:HD23	29:BH:93:SER:HA	1.97	0.45
29:BH:94:ILE:HG23	29:BH:98:ASP:CB	2.47	0.45
33:BL:19:LEU:HD22	33:BL:31:GLY:O	2.16	0.45
37:BP:23:GLY:O	37:BP:90:GLY:HA3	2.16	0.45
1:CA:1095:U:P	57:CA:1852:HOH:O	2.73	0.45
1:CA:1150:A:H1'	1:CA:1280:A:N6	2.31	0.45
1:CA:137:U:O2	1:CA:227:G:C2	2.69	0.45
1:CA:485:U:O2	1:CA:485:U:C5'	2.65	0.45
29:BH:91:PHE:HB3	1:CA:55:A:C4	2.49	0.45
1:CA:577:G:C8	1:CA:816:A:C2	3.03	0.45
1:CA:666:G:C2	1:CA:667:G:C8	3.03	0.45
1:CA:790:A:C5	1:CA:791:G:C5	3.04	0.45
2:CB:135:LEU:C	2:CB:137:ARG:H	2.19	0.45
3:CC:153:VAL:CG2	3:CC:157:LEU:HD21	2.46	0.45
3:CC:186:THR:HG22	3:CC:187:SER:N	2.31	0.45
10:CJ:28:THR:HG22	10:CJ:28:THR:O	2.16	0.45
12:CL:88:LYS:O	12:CL:88:LYS:HG3	2.16	0.45
13:CM:10:PRO:O	13:CM:11:ASP:HB2	2.14	0.45
14:CN:10:GLU:O	14:CN:11:VAL:C	2.54	0.45
17:CQ:70:THR:HG22	17:CQ:71:LYS:H	1.82	0.45
50:D2:31:LEU:HD21	50:D2:43:THR:CG2	2.46	0.45
22:DA:2466:C:OP1	52:D4:4:ARG:CB	2.64	0.45
22:DA:1675:C:N3	25:DD:133:THR:HG21	2.31	0.45
22:DA:1679:A:N6	57:DA:3439:HOH:O	2.49	0.45
22:DA:188:G:O6	22:DA:189:G:C2	2.69	0.45
22:DA:1953:A:N1	22:DA:2550:G:H5'	2.31	0.45
22:DA:1944:U:C2	22:DA:1955:U:O4'	2.70	0.45
22:DA:2100:G:C6	22:DA:2190:G:C5	3.05	0.45
22:DA:219:A:N6	22:DA:220:G:N1	2.63	0.45
22:DA:2468:A:N3	22:DA:2481:G:C2	2.84	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2506:U:O2	22:DA:2506:U:C2'	2.64	0.45
22:DA:2615:U:O2	22:DA:2615:U:H2'	2.16	0.45
22:DA:2765:A:N3	22:DA:2765:A:H3'	2.32	0.45
22:DA:627:A:OP1	33:DL:78:ARG:NH1	2.44	0.45
22:DA:751:A:C6	22:DA:789:A:C6	3.04	0.45
22:DA:871:U:C2	22:DA:907:G:C6	3.04	0.45
24:DC:66:ASP:OD2	24:DC:102:ARG:HD3	2.15	0.45
22:DA:600:G:C5'	26:DE:27:LEU:HD22	2.45	0.45
28:DG:94:TYR:CD2	28:DG:107:LEU:HA	2.50	0.45
22:DA:2199:A:O4'	29:DH:28:ASN:ND2	2.49	0.45
31:DJ:30:THR:HG22	31:DJ:31:GLU:N	2.30	0.45
33:DL:77:ILE:HD13	33:DL:108:ALA:HB1	1.98	0.45
41:DT:69:ARG:HA	41:DT:74:ILE:HG22	1.98	0.45
45:DX:39:TRP:HB2	45:DX:46:PHE:CE2	2.51	0.45
1:AA:194:C:O2'	1:AA:195:A:H5'	2.16	0.45
1:AA:900:A:C6	1:AA:901:A:N1	2.85	0.45
4:AD:190:ASP:O	4:AD:191:LEU:HG	2.16	0.45
4:AD:60:LYS:NZ	4:AD:194:ASP:O	2.46	0.45
5:AE:24:THR:HA	5:AE:29:ARG:HA	1.98	0.45
5:AE:84:PRO:HB3	5:AE:97:GLN:HG2	1.98	0.45
8:AH:49:PHE:HB3	8:AH:61:LEU:CD2	2.46	0.45
9:AI:39:PHE:HA	9:AI:42:GLU:OE1	2.16	0.45
11:AK:19:GLY:O	11:AK:82:LEU:HA	2.17	0.45
14:AN:36:ALA:HB2	14:AN:41:ARG:HE	1.81	0.45
14:AN:75:ARG:O	14:AN:76:LYS:C	2.55	0.45
20:AT:44:LYS:HB3	20:AT:87:ALA:HB1	1.97	0.45
20:AT:71:LYS:HD2	20:AT:74:ARG:HH21	1.82	0.45
53:B5:75:VAL:HA	53:B5:120:VAL:O	2.16	0.45
22:BA:1069:A:N1	22:BA:1073:A:N6	2.64	0.45
22:BA:1104:C:H2'	22:BA:1105:U:C6	2.51	0.45
22:BA:1179:G:C8	22:BA:1180:U:O4'	2.69	0.45
22:BA:1246:A:C2'	22:BA:1247:A:O5'	2.64	0.45
22:BA:1406:U:H2'	22:BA:1407:G:H8	1.80	0.45
22:BA:1489:C:C2	22:BA:1501:G:C2	3.04	0.45
22:BA:1482:G:H1'	22:BA:1509:A:H61	1.82	0.45
22:BA:1676:A:H2'	22:BA:1677:A:O4'	2.16	0.45
22:BA:1688:U:C4	22:BA:1698:A:C2	3.04	0.45
22:BA:1912:A:N1	22:BA:1919:A:N9	2.64	0.45
22:BA:2061:G:H5''	22:BA:2503:A:C2	2.51	0.45
22:BA:2170:A:OP2	22:BA:2170:A:C8	2.68	0.45
22:BA:2480:C:H2'	22:BA:2481:G:H5'	1.97	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2446:G:C2	22:BA:2501:C:C5	3.04	0.45
22:BA:2551:C:H2'	22:BA:2552:U:C6	2.51	0.45
22:BA:2715:C:C4	22:BA:2716:C:C5	3.05	0.45
22:BA:272:A:H2'	22:BA:273:G:O4'	2.16	0.45
22:BA:309:A:O3'	42:BU:16:GLY:HA2	2.17	0.45
22:BA:545:U:H1'	22:BA:548:G:OP2	2.16	0.45
22:BA:842:U:N3	22:BA:843:G:C8	2.84	0.45
22:BA:848:C:H2'	22:BA:849:A:H8	1.81	0.45
23:BB:24:G:N2	23:BB:28:C:O2	2.49	0.45
24:BC:197:ASN:C	24:BC:197:ASN:OD1	2.54	0.45
25:BD:186:LEU:HD13	37:BP:8:LEU:HD11	1.98	0.45
26:BE:25:GLU:O	26:BE:28:VAL:N	2.49	0.45
26:BE:48:THR:C	26:BE:50:ALA:H	2.19	0.45
27:BF:106:ILE:C	27:BF:109:PRO:HD2	2.37	0.45
29:BH:79:THR:HG23	29:BH:147:VAL:HB	1.98	0.45
37:BP:31:TRP:CE2	37:BP:40:LEU:CD1	2.97	0.45
1:CA:1480:A:H2'	1:CA:1481:U:O4'	2.16	0.45
1:CA:413:G:O2'	1:CA:428:G:N2	2.49	0.45
1:CA:542:G:N3	1:CA:543:U:C5	2.83	0.45
1:CA:682:G:N2	1:CA:709:U:C2	2.84	0.45
2:CB:140:GLU:O	2:CB:141:LEU:C	2.54	0.45
5:CE:149:SER:HB2	5:CE:152:MET:HG2	1.97	0.45
8:CH:24:ALA:O	8:CH:25:VAL:HG23	2.17	0.45
13:CM:34:LEU:HD23	13:CM:34:LEU:N	2.31	0.45
16:CP:12:LYS:O	16:CP:13:LYS:HB2	2.16	0.45
17:CQ:8:LEU:HD23	17:CQ:25:ILE:HD12	1.98	0.45
20:CT:36:TYR:C	20:CT:36:TYR:CD1	2.90	0.45
22:DA:1225:G:C6	22:DA:1226:A:N6	2.84	0.45
22:DA:1333:G:C2	22:DA:1334:G:C8	3.04	0.45
22:DA:1731:G:C5	22:DA:1733:G:C8	3.04	0.45
22:DA:1760:C:H2'	22:DA:1761:C:O4'	2.15	0.45
22:DA:1855:U:C4	22:DA:1856:U:C4	3.05	0.45
22:DA:2209:G:N2	22:DA:2216:G:C2	2.85	0.45
22:DA:966:G:H4'	22:DA:2272:U:O2	2.15	0.45
22:DA:969:G:H2'	22:DA:970:U:C6	2.51	0.45
22:DA:729:G:C6	24:DC:207:LYS:HB2	2.51	0.45
26:DE:149:ILE:CG1	26:DE:188:MET:HE3	2.47	0.45
26:DE:24:ASN:O	26:DE:28:VAL:HG23	2.16	0.45
27:DF:9:LYS:O	27:DF:13:VAL:CG2	2.64	0.45
28:DG:61:GLY:O	28:DG:64:GLN:HB2	2.16	0.45
29:DH:83:LYS:HG3	29:DH:149:GLU:HG3	1.94	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:86:ASP:C	29:DH:88:GLY:H	2.19	0.45
30:DI:45:LYS:HA	30:DI:48:SER:HB3	1.99	0.45
30:DI:46:THR:HG22	30:DI:51:LYS:HG3	1.99	0.45
31:DJ:88:THR:O	31:DJ:92:MET:N	2.45	0.45
1:AA:1066:C:O2	1:AA:1066:C:C2'	2.64	0.45
1:AA:1216:A:H2'	1:AA:1217:C:C6	2.51	0.45
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.52	0.45
1:AA:1296:C:H4'	1:AA:1302:C:N4	2.32	0.45
1:AA:389:A:N3	1:AA:389:A:H2'	2.31	0.45
1:AA:828:U:H2'	1:AA:829:G:O5'	2.16	0.45
7:AG:116:MET:O	7:AG:120:LEU:HB2	2.17	0.45
7:AG:146:GLU:HA	7:AG:149:LYS:HB3	1.99	0.45
8:AH:105:SER:HB2	8:AH:126:ILE:HD11	1.99	0.45
8:AH:83:LEU:C	8:AH:83:LEU:CD2	2.85	0.45
12:AL:88:LYS:O	12:AL:89:ASP:HB2	2.16	0.45
1:AA:911:U:OP2	12:AL:94:ARG:NH1	2.49	0.45
13:AM:3:ARG:HA	13:AM:9:ILE:HG12	1.98	0.45
16:AP:75:ILE:HG22	16:AP:80:LYS:HE2	1.99	0.45
53:B5:174:ALA:O	53:B5:175:PRO:CB	2.65	0.45
53:B5:88:GLU:HG3	53:B5:95:VAL:HG23	1.99	0.45
22:BA:974:G:C4	22:BA:1186:G:C2	3.04	0.45
22:BA:1344:U:O2'	22:BA:1345:C:P	2.75	0.45
22:BA:1680:U:O2'	22:BA:1681:G:H5'	2.16	0.45
22:BA:1802:A:N1	22:BA:1822:C:H1'	2.31	0.45
22:BA:1826:G:C5	22:BA:1827:U:C5	3.04	0.45
22:BA:2013:A:N3	22:BA:2013:A:H2'	2.32	0.45
22:BA:2192:U:N3	22:BA:2193:G:N7	2.64	0.45
22:BA:2250:G:H8	22:BA:2250:G:O5'	2.00	0.45
22:BA:2298:A:C5	22:BA:2321:U:C5	3.03	0.45
22:BA:2507:C:OP2	57:BA:3714:HOH:O	2.21	0.45
22:BA:49:A:H5''	22:BA:51:G:O4'	2.17	0.45
22:BA:684:G:C6	22:BA:774:G:C4	3.03	0.45
23:BB:97:C:C5	23:BB:98:G:C8	3.04	0.45
35:BN:65:LEU:O	35:BN:65:LEU:HD12	2.16	0.45
33:BL:28:GLY:O	39:BR:82:HIS:CE1	2.70	0.45
44:BW:69:PHE:CE1	44:BW:80:ILE:HD11	2.51	0.45
1:CA:106:C:H2'	1:CA:107:G:H5'	1.98	0.45
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.52	0.45
1:CA:1387:G:C4	1:CA:1388:C:C5	3.04	0.45
1:CA:1397:C:O4'	1:CA:1397:C:O2	2.32	0.45
1:CA:211:G:H21	1:CA:212:G:H1'	1.81	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:28:A:C5	1:CA:29:U:C5	3.04	0.45
1:CA:407:U:C2	1:CA:408:A:N7	2.85	0.45
1:CA:573:A:C2	1:CA:574:A:C2	3.04	0.45
1:CA:64:G:C2	1:CA:67:C:N4	2.84	0.45
1:CA:652:U:C5	1:CA:752:G:N3	2.84	0.45
1:CA:718:A:H1'	11:CK:118:HIS:HA	1.98	0.45
1:CA:913:A:H4'	1:CA:914:A:OP1	2.17	0.45
2:CB:47:VAL:O	2:CB:50:PHE:CD2	2.70	0.45
9:CI:99:ARG:HA	9:CI:104:VAL:CG2	2.46	0.45
15:CO:18:ASP:CG	15:CO:19:ALA:O	2.54	0.45
22:DA:1045:C:H4'	22:DA:1046:A:H5'	1.98	0.45
22:DA:2127:G:N3	22:DA:2162:G:N7	2.64	0.45
22:DA:2418:A:H2'	22:DA:2419:U:O4'	2.16	0.45
22:DA:242:G:C5'	51:D3:64:TYR:CZ	2.99	0.45
22:DA:2576:G:O2'	22:DA:2579:C:OP2	2.20	0.45
22:DA:1452:G:C6	22:DA:2702:G:N2	2.84	0.45
22:DA:352:A:C5	22:DA:353:C:C4	3.04	0.45
22:DA:370:G:C6	22:DA:424:G:C5	3.03	0.45
22:DA:715:A:C6	22:DA:716:A:C5	3.04	0.45
22:DA:60:G:C4	22:DA:74:A:C2	3.04	0.45
22:DA:78:U:H2'	22:DA:79:C:O4'	2.16	0.45
28:DG:118:PRO:O	28:DG:119:ALA:C	2.54	0.45
37:DP:33:VAL:HG12	37:DP:33:VAL:O	2.15	0.45
39:DR:76:LYS:HB2	39:DR:85:LYS:HB2	1.97	0.45
40:DS:89:ALA:O	40:DS:90:LYS:HB2	2.15	0.45
22:DA:189:G:P	45:DX:26:LYS:HE2	2.56	0.45
45:DX:68:LEU:HD22	45:DX:78:TYR:CZ	2.52	0.45
1:AA:1350:A:C8	1:AA:1351:U:C5	3.05	0.45
1:AA:1481:U:C2'	1:AA:1482:G:H5'	2.46	0.45
1:AA:29:U:O2'	1:AA:30:U:H5'	2.16	0.45
1:AA:594:U:C4	1:AA:595:A:C6	3.05	0.45
1:AA:828:U:C5	1:AA:859:G:C4	3.05	0.45
1:AA:851:G:C2'	1:AA:852:G:H5'	2.47	0.45
1:AA:64:G:C8	1:AA:99:C:C4	3.05	0.45
2:AB:141:LEU:O	2:AB:145:GLU:N	2.46	0.45
4:AD:86:THR:HG22	4:AD:201:VAL:HG22	1.99	0.45
5:AE:34:THR:HB	5:AE:50:TYR:CE2	2.51	0.45
9:AI:39:PHE:HA	9:AI:42:GLU:CD	2.37	0.45
10:AJ:27:GLU:C	10:AJ:29:ALA:H	2.20	0.45
15:AO:70:LEU:O	15:AO:73:LYS:N	2.49	0.45
22:BA:1075:C:H2'	22:BA:1076:C:C6	2.52	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1488:C:O2	22:BA:1502:A:C2	2.69	0.45
22:BA:1478:G:H1	22:BA:1513:U:H3	1.63	0.45
22:BA:2074:U:H1'	22:BA:2598:A:N3	2.32	0.45
22:BA:2296:U:C4'	22:BA:2297:A:OP1	2.65	0.45
22:BA:2310:C:C2	27:BF:77:PHE:CE1	3.04	0.45
22:BA:2519:U:OP1	22:BA:2519:U:H3'	2.16	0.45
22:BA:2525:G:C2	22:BA:2539:C:C2	3.04	0.45
22:BA:2838:G:C6	22:BA:2839:G:C5	3.04	0.45
22:BA:533:G:OP1	38:BQ:24:TYR:O	2.35	0.45
22:BA:583:G:O2'	22:BA:584:C:H5'	2.17	0.45
22:BA:611:C:H2'	22:BA:612:G:H5'	1.98	0.45
32:BK:103:VAL:HB	32:BK:107:LEU:CD1	2.46	0.45
35:BN:75:ILE:O	35:BN:79:LEU:HD12	2.16	0.45
36:BO:41:ALA:HB2	36:BO:48:LEU:HD21	1.98	0.45
39:BR:3:ALA:HB3	39:BR:59:ILE:HD11	1.99	0.45
43:BV:43:ASP:OD1	43:BV:46:LYS:CG	2.65	0.45
44:BW:29:GLU:O	44:BW:66:LYS:HA	2.16	0.45
45:BX:33:LEU:O	45:BX:34:HIS:CG	2.69	0.45
47:BZ:3:LYS:H	47:BZ:3:LYS:HE3	1.82	0.45
1:CA:1232:U:H5''	9:CI:126:GLN:O	2.16	0.45
1:CA:1533:C:OP1	1:CA:1533:C:H4'	2.16	0.45
1:CA:268:U:H2'	1:CA:269:C:H6	1.74	0.45
1:CA:819:A:H4'	1:CA:820:U:OP2	2.17	0.45
1:CA:919:A:C6	1:CA:920:U:C5	3.04	0.45
2:CB:193:PRO:O	2:CB:195:GLY:N	2.47	0.45
5:CE:115:LEU:HD12	5:CE:120:VAL:HG21	1.99	0.45
5:CE:150:PRO:C	5:CE:152:MET:H	2.20	0.45
5:CE:50:TYR:O	5:CE:51:GLY:O	2.35	0.45
11:CK:110:ILE:HG22	21:CU:17:ARG:NH1	2.29	0.45
11:CK:35:THR:OG1	11:CK:40:ASN:N	2.49	0.45
12:CL:84:GLY:HA2	12:CL:95:TYR:HA	1.99	0.45
18:CR:28:THR:O	18:CR:31:ASN:HB2	2.15	0.45
20:CT:55:GLN:N	20:CT:56:PRO:CD	2.80	0.45
22:DA:1351:C:C2	22:DA:1381:G:C2	3.04	0.45
22:DA:1596:A:C6	22:DA:1597:A:C6	3.04	0.45
22:DA:1663:G:O6	22:DA:1992:G:C8	2.69	0.45
22:DA:1809:A:N6	22:DA:1810:A:N1	2.65	0.45
22:DA:2144:G:N3	22:DA:2146:C:O2	2.50	0.45
22:DA:2835:A:C2	22:DA:2879:A:N7	2.85	0.45
22:DA:38:A:C2	22:DA:442:G:C6	3.04	0.45
22:DA:479:A:H1'	22:DA:481:G:H5'	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:527:C:H2'	22:DA:2779:U:O2	2.16	0.45
22:DA:622:G:H2'	22:DA:623:C:C6	2.50	0.45
22:DA:675:A:C6	22:DA:676:A:N1	2.85	0.45
22:DA:914:G:H5'	22:DA:915:C:OP2	2.16	0.45
24:DC:267:ILE:O	24:DC:267:ILE:HG22	2.16	0.45
25:DD:33:ARG:HB3	25:DD:95:SER:OG	2.15	0.45
26:DE:125:SER:OG	26:DE:126:VAL:N	2.48	0.45
27:DF:108:VAL:HG11	27:DF:176:PRO:HG2	1.99	0.45
27:DF:136:ILE:O	27:DF:136:ILE:HG22	2.16	0.45
29:DH:112:LYS:HG2	29:DH:113:SER:N	2.32	0.45
33:DL:132:ARG:O	33:DL:136:GLU:HG3	2.17	0.45
33:DL:70:LYS:O	33:DL:74:THR:HG23	2.17	0.45
36:DO:33:ARG:O	36:DO:34:HIS:CD2	2.70	0.45
36:DO:49:VAL:HG21	36:DO:82:ALA:HA	1.98	0.45
41:DT:26:LYS:HG2	41:DT:26:LYS:O	2.16	0.45
45:DX:13:VAL:HG22	45:DX:29:PHE:HB2	1.98	0.45
45:DX:25:THR:HG22	45:DX:25:THR:O	2.15	0.45
1:AA:1452:C:O4'	1:AA:1453:G:C2	2.70	0.45
1:AA:266:G:H4'	1:AA:267:C:OP1	2.16	0.45
1:AA:275:G:H4'	17:AQ:17:MET:HB3	1.97	0.45
1:AA:570:G:C6	1:AA:873:A:C2	3.05	0.45
1:AA:675:A:OP1	18:AR:74:HIS:NE2	2.47	0.45
1:AA:723:U:H5'	1:AA:724:G:P	2.57	0.45
1:AA:737:C:H2'	1:AA:738:C:H6	1.80	0.45
1:AA:841:C:O2	1:AA:843:U:C2	2.69	0.45
3:AC:152:GLU:HA	3:AC:166:GLU:O	2.16	0.45
4:AD:105:MET:HG2	4:AD:171:LEU:HD22	1.97	0.45
5:AE:101:GLU:CB	5:AE:122:ASN:HB3	2.47	0.45
7:AG:145:ALA:O	7:AG:146:GLU:CB	2.63	0.45
19:AS:27:ASP:OD2	19:AS:28:LYS:O	2.34	0.45
22:BA:1299:G:O5'	22:BA:1299:G:H8	2.00	0.45
22:BA:1376:C:N4	22:BA:1377:G:N1	2.65	0.45
22:BA:1406:U:C2	22:BA:1407:G:C8	3.05	0.45
22:BA:141:G:H5''	22:BA:142:A:C5	2.51	0.45
22:BA:2128:G:H5'	53:B5:36:ALA:HA	1.98	0.45
22:BA:2199:A:C1'	29:BH:28:ASN:HD21	2.27	0.45
22:BA:2259:U:C6	22:BA:2427:C:C4	3.04	0.45
22:BA:2419:U:OP1	51:B3:41:LYS:HE2	2.17	0.45
22:BA:2649:C:H2'	22:BA:2650:U:C6	2.51	0.45
22:BA:417:C:H2'	22:BA:418:C:C6	2.52	0.45
22:BA:747:U:N3	22:BA:2613:U:C4	2.85	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:838:C:O2'	22:BA:839:U:H5'	2.17	0.45
23:BB:105:G:C2	23:BB:106:G:C8	3.04	0.45
25:BD:91:THR:O	25:BD:94:GLN:HB2	2.16	0.45
29:BH:72:ILE:HG23	29:BH:142:VAL:HG22	1.99	0.45
29:BH:83:LYS:HE2	1:CA:55:A:H2'	1.98	0.45
33:BL:120:VAL:HG22	33:BL:121:THR:N	2.31	0.45
33:BL:22:GLY:O	33:BL:25:SER:OG	2.35	0.45
36:BO:31:THR:HG22	36:BO:34:HIS:N	2.32	0.45
36:BO:7:ARG:CG	36:BO:96:GLY:HA3	2.46	0.45
38:BQ:36:PHE:CE1	38:BQ:40:ILE:HD12	2.51	0.45
22:BA:988:A:O5'	47:BZ:12:SER:HB2	2.17	0.45
1:CA:1198:G:H5''	57:CA:1835:HOH:O	2.17	0.45
1:CA:145:G:C2	1:CA:146:G:C8	3.05	0.45
1:CA:1512:U:O2'	1:CA:1513:A:H5'	2.16	0.45
1:CA:21:G:H2'	1:CA:22:G:C8	2.51	0.45
1:CA:451:A:C8	1:CA:452:A:C6	3.04	0.45
2:CB:50:PHE:CD1	2:CB:50:PHE:C	2.89	0.45
2:CB:72:THR:HG22	2:CB:95:ARG:NH1	2.31	0.45
3:CC:151:VAL:HG12	3:CC:200:VAL:HB	1.98	0.45
5:CE:58:ALA:O	5:CE:62:LYS:HB2	2.16	0.45
12:CL:25:GLU:HB3	12:CL:27:CYS:SG	2.57	0.45
13:CM:114:LYS:CB	13:CM:115:PRO:HD3	2.47	0.45
17:CQ:14:SER:OG	17:CQ:17:MET:HE1	2.16	0.45
17:CQ:50:ASN:O	17:CQ:51:ASN:C	2.55	0.45
22:DA:1252:G:N3	38:DQ:33:ARG:HG2	2.32	0.45
22:DA:1343:G:C6	22:DA:1344:U:O4	2.69	0.45
22:DA:140:C:O2	22:DA:140:C:O4'	2.34	0.45
22:DA:1709:U:H2'	22:DA:1710:G:H8	1.82	0.45
22:DA:1806:C:C5	22:DA:1807:G:N7	2.84	0.45
22:DA:231:A:N6	22:DA:232:G:C2	2.84	0.45
22:DA:511:U:C2'	22:DA:512:G:H5'	2.46	0.45
22:DA:538:A:C2	22:DA:556:A:C4	3.04	0.45
22:DA:681:G:C2	22:DA:682:G:C8	3.04	0.45
22:DA:864:G:C6	22:DA:865:C:N4	2.85	0.45
23:DB:78:A:C6	23:DB:99:A:C8	3.05	0.45
24:DC:87:ARG:HB3	24:DC:87:ARG:CZ	2.47	0.45
30:DI:57:VAL:CG2	30:DI:71:THR:HB	2.46	0.45
31:DJ:7:LYS:O	31:DJ:11:VAL:HG23	2.15	0.45
32:DK:13:ASN:OD1	32:DK:97:THR:N	2.45	0.45
32:DK:7:MET:C	32:DK:8:LEU:HD12	2.37	0.45
38:DQ:65:ILE:HD11	38:DQ:92:ARG:HA	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:27:LYS:O	40:DS:71:VAL:HG23	2.17	0.45
44:DW:21:LEU:HD11	44:DW:41:ARG:HG2	1.97	0.45
45:DX:7:VAL:HG12	45:DX:8:THR:N	2.31	0.45
1:AA:102:G:N1	1:AA:103:U:C4	2.84	0.45
1:AA:115:G:H4'	1:AA:116:A:O5'	2.16	0.45
1:AA:1160:G:OP1	2:AB:132:LYS:NZ	2.42	0.45
1:AA:1173:U:H2'	1:AA:1174:G:C8	2.51	0.45
1:AA:1242:G:N1	1:AA:1243:C:C2	2.85	0.45
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.52	0.45
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.16	0.45
1:AA:1518:A:H2'	1:AA:1519:A:C8	2.52	0.45
1:AA:67:C:O2'	1:AA:171:A:N3	2.39	0.45
1:AA:174:A:C4	1:AA:175:C:C6	3.05	0.45
1:AA:306:A:H2'	1:AA:307:C:O4'	2.17	0.45
1:AA:417:G:C5	1:AA:418:C:C5	3.04	0.45
1:AA:711:G:H2'	1:AA:712:A:H8	1.82	0.45
1:AA:807:A:C5	1:AA:808:C:C5	3.05	0.45
1:AA:864:A:H3'	1:AA:865:A:C8	2.52	0.45
1:AA:89:U:O2'	1:AA:90:C:H5''	2.16	0.45
2:AB:111:ILE:HG13	2:AB:151:ILE:HG12	1.98	0.45
2:AB:154:MET:O	2:AB:156:GLY:N	2.49	0.45
4:AD:78:GLU:CD	4:AD:81:ARG:NH1	2.70	0.45
4:AD:98:LEU:HD23	4:AD:118:VAL:HG11	1.99	0.45
7:AG:135:VAL:O	7:AG:139:GLU:HG2	2.16	0.45
9:AI:21:ILE:HG22	9:AI:22:LYS:N	2.32	0.45
9:AI:63:LEU:N	9:AI:63:LEU:CD2	2.79	0.45
10:AJ:56:HIS:O	10:AJ:57:VAL:O	2.35	0.45
11:AK:76:GLU:O	22:BA:2141:G:C5'	2.64	0.45
13:AM:95:LEU:CB	13:AM:96:PRO:CD	2.94	0.45
22:BA:102:U:O4	46:BY:2:LYS:HB2	2.17	0.45
22:BA:1131:G:C4	31:BJ:77:HIS:ND1	2.84	0.45
22:BA:1148:U:O2'	22:BA:1149:G:H5'	2.17	0.45
22:BA:1348:C:C5	22:BA:1349:C:C6	3.05	0.45
22:BA:142:A:C2'	22:BA:143:C:O5'	2.65	0.45
22:BA:1549:A:C6	22:BA:1550:C:C4	3.05	0.45
22:BA:1428:C:O2'	22:BA:1569:A:OP2	2.21	0.45
22:BA:2259:U:C5	22:BA:2427:C:N4	2.85	0.45
22:BA:2784:U:C2	22:BA:2785:C:C5	3.04	0.45
22:BA:410:G:C2	22:BA:2407:A:C5	3.05	0.45
22:BA:613:A:C8	22:BA:616:A:N1	2.85	0.45
22:BA:713:G:C6	22:BA:714:U:C4	3.05	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:846:U:C2'	22:BA:847:U:OP2	2.64	0.45
22:BA:946:C:OP2	57:BA:3347:HOH:O	2.21	0.45
24:BC:83:TYR:CE2	57:BC:306:HOH:O	2.69	0.45
30:BI:113:LYS:HE2	30:BI:116:ASP:OD1	2.17	0.45
33:BL:100:ILE:HG13	33:BL:100:ILE:O	2.17	0.45
34:BM:77:PRO:HD2	34:BM:80:VAL:HG21	1.99	0.45
1:CA:1031:C:H4'	1:CA:1032:G:C2	2.52	0.45
1:CA:1053:G:O5'	1:CA:1054:C:H5'	2.17	0.45
1:CA:1160:G:O6	1:CA:1181:G:C6	2.70	0.45
1:CA:1261:A:C6	1:CA:1275:A:C4	3.05	0.45
1:CA:195:A:C6	1:CA:196:A:N1	2.84	0.45
1:CA:200:G:C2'	1:CA:201:G:H5''	2.47	0.45
1:CA:282:A:C8	1:CA:283:U:C5	3.04	0.45
1:CA:392:C:H2'	1:CA:393:A:C8	2.50	0.45
1:CA:431:A:H2'	1:CA:432:A:O4'	2.16	0.45
1:CA:597:G:H2'	1:CA:598:U:H5'	1.98	0.45
1:CA:691:G:H4'	1:CA:798:U:OP1	2.17	0.45
1:CA:891:U:C4	1:CA:906:A:C2	3.05	0.45
1:CA:938:A:C2	1:CA:1345:U:O4	2.69	0.45
2:CB:17:GLY:O	2:CB:39:HIS:O	2.34	0.45
5:CE:155:ALA:C	5:CE:156:LYS:HG3	2.37	0.45
5:CE:68:ARG:O	5:CE:71:MET:HE3	2.16	0.45
14:CN:52:PRO:O	14:CN:53:ARG:HB3	2.16	0.45
22:DA:1276:A:N1	22:DA:1295:C:C2	2.85	0.45
22:DA:1332:G:C6	22:DA:1609:A:C5	3.05	0.45
22:DA:173:A:H2'	22:DA:174:U:C6	2.51	0.45
22:DA:2056:G:H2'	22:DA:2056:G:N3	2.31	0.45
22:DA:2091:C:C3'	22:DA:2092:U:H5''	2.45	0.45
22:DA:2291:U:H2'	22:DA:2292:U:H6	1.80	0.45
22:DA:2298:A:C2	22:DA:2321:U:C5	3.05	0.45
22:DA:2728:U:O2'	22:DA:2729:G:C5'	2.65	0.45
22:DA:2814:A:C6	22:DA:2815:C:C4	3.05	0.45
22:DA:308:G:H2'	22:DA:309:A:O4'	2.17	0.45
22:DA:37:C:H2'	22:DA:38:A:C8	2.51	0.45
22:DA:600:G:H2'	22:DA:601:C:C6	2.52	0.45
24:DC:144:VAL:HB	24:DC:154:LEU:HB2	1.98	0.45
26:DE:56:GLY:O	26:DE:57:LYS:C	2.54	0.45
27:DF:28:VAL:HG22	27:DF:29:PRO:HD2	1.98	0.45
28:DG:111:HIS:O	28:DG:111:HIS:ND1	2.49	0.45
29:DH:93:SER:HB3	29:DH:123:ARG:HG3	1.99	0.45
29:DH:34:GLY:O	29:DH:35:LYS:CD	2.65	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DM:66:ARG:HB2	34:DM:101:VAL:O	2.15	0.45
22:DA:494:G:H4'	40:DS:6:LYS:HG3	1.99	0.45
40:DS:17:VAL:HG12	40:DS:76:VAL:HG21	1.97	0.45
42:DU:72:ILE:HD11	42:DU:83:VAL:HG23	1.98	0.45
1:AA:15:G:C4	1:AA:16:A:C8	3.05	0.45
1:AA:34:C:H2'	1:AA:35:G:H8	1.81	0.45
1:AA:438:U:N3	1:AA:494:G:C6	2.85	0.45
1:AA:587:G:C2	1:AA:755:G:C5	3.05	0.45
1:AA:624:C:C2	1:AA:625:U:C6	3.05	0.45
1:AA:747:A:H5'	1:AA:748:G:OP2	2.16	0.45
1:AA:995:C:C2	1:AA:1046:A:O2'	2.66	0.45
3:AC:205:GLY:O	3:AC:206:GLU:CG	2.63	0.45
6:AF:1:MET:HG2	6:AF:65:GLU:HG2	1.99	0.45
6:AF:79:ARG:NE	6:AF:79:ARG:HA	2.32	0.45
7:AG:57:SER:OG	7:AG:58:GLU:N	2.49	0.45
9:AI:24:GLY:H	9:AI:61:LEU:HA	1.82	0.45
12:AL:29:GLN:HB2	12:AL:82:ILE:O	2.16	0.45
12:AL:86:ARG:HA	12:AL:94:ARG:HA	1.98	0.45
16:AP:23:ASP:C	16:AP:23:ASP:OD1	2.55	0.45
49:B1:51:GLU:O	49:B1:52:ALA:HB2	2.16	0.45
52:B4:27:CYS:SG	52:B4:33:HIS:ND1	2.90	0.45
22:BA:1085:A:C5	22:BA:1086:A:C6	3.05	0.45
22:BA:973:A:C8	22:BA:1188:U:C2	3.05	0.45
22:BA:1588:G:N1	22:BA:1589:U:C4	2.84	0.45
22:BA:164:C:H2'	22:BA:165:A:O4'	2.16	0.45
22:BA:1838:C:C4	22:BA:1899:A:C2	3.05	0.45
22:BA:1880:U:H2'	22:BA:1881:C:C6	2.51	0.45
22:BA:1956:U:H2'	22:BA:1957:C:H5'	1.98	0.45
22:BA:2001:C:N3	22:BA:2002:G:C8	2.85	0.45
22:BA:2128:G:OP2	53:B5:37:LYS:HE3	2.16	0.45
22:BA:2171:A:O2'	22:BA:2172:U:H5'	2.17	0.45
22:BA:877:A:N6	22:BA:899:A:C6	2.85	0.45
22:BA:962:G:N2	22:BA:2250:G:H1	2.14	0.45
26:BE:44:ARG:O	26:BE:45:ALA:HB2	2.16	0.45
27:BF:129:SER:OG	27:BF:155:THR:OG1	2.31	0.45
29:BH:40:THR:O	29:BH:42:LYS:N	2.48	0.45
41:BT:2:ILE:CA	41:BT:3:ARG:HB2	2.47	0.45
43:BV:48:MET:O	43:BV:51:GLN:HG3	2.17	0.45
1:CA:968:A:C8	1:CA:1062:U:H4'	2.51	0.45
1:CA:1098:C:H2'	1:CA:1099:G:O4'	2.17	0.45
29:BH:95:GLY:HA3	1:CA:368:U:OP1	2.15	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:435:A:C2	1:CA:436:C:N1	2.85	0.45
1:CA:607:A:C2	1:CA:608:A:C4	3.05	0.45
1:CA:72:A:C5	1:CA:73:C:N4	2.84	0.45
4:CD:177:LYS:O	4:CD:178:MET:HB2	2.16	0.45
11:CK:107:ILE:HD13	11:CK:107:ILE:C	2.37	0.45
11:CK:87:LYS:HA	11:CK:114:THR:HG22	1.99	0.45
51:D3:26:HIS:NE2	51:D3:48:ALA:HB2	2.32	0.45
52:D4:25:VAL:HB	52:D4:35:GLN:HG3	1.98	0.45
22:DA:106:C:H2'	22:DA:106:C:O2	2.15	0.45
22:DA:132:G:N2	22:DA:148:U:O2	2.50	0.45
22:DA:1532:A:C2	22:DA:1540:G:C6	3.05	0.45
22:DA:1814:G:C6	22:DA:1815:A:N6	2.84	0.45
22:DA:1973:G:C6	22:DA:1974:C:N4	2.84	0.45
22:DA:185:G:C6	22:DA:212:G:N1	2.85	0.45
22:DA:500:G:C2	22:DA:502:A:C8	3.04	0.45
22:DA:818:G:H2'	22:DA:819:A:H5''	1.98	0.45
22:DA:993:G:C6	22:DA:1162:G:C6	3.04	0.45
24:DC:204:VAL:O	24:DC:206:GLY:N	2.49	0.45
29:DH:147:VAL:HG12	29:DH:148:ALA:N	2.32	0.45
30:DI:80:LEU:HD11	30:DI:133:ALA:CB	2.46	0.45
26:DE:182:ALA:HB2	33:DL:3:LEU:HD22	1.99	0.45
37:DP:106:LYS:HA	37:DP:109:ARG:CD	2.46	0.45
39:DR:5:PHE:O	39:DR:11:GLN:HA	2.16	0.45
1:AA:201:G:H2'	1:AA:202:G:O4'	2.17	0.45
1:AA:283:U:C5	1:AA:284:C:C5	3.05	0.45
1:AA:947:G:C2	1:AA:948:C:C2	3.05	0.45
3:AC:42:TYR:OH	3:AC:90:VAL:HG21	2.16	0.45
7:AG:17:LYS:O	7:AG:17:LYS:HG2	2.16	0.45
9:AI:44:ALA:O	9:AI:47:VAL:HG22	2.17	0.45
10:AJ:36:VAL:HG22	10:AJ:76:ILE:HG12	1.98	0.45
12:AL:21:VAL:O	12:AL:21:VAL:HG22	2.16	0.45
9:AI:113:ARG:NH2	14:AN:101:TRP:CZ2	2.85	0.45
14:AN:12:LYS:O	14:AN:16:LEU:HG	2.17	0.45
14:AN:83:LYS:CD	14:AN:86:GLU:OE1	2.65	0.45
16:AP:39:PHE:CD1	16:AP:39:PHE:C	2.90	0.45
16:AP:70:ARG:O	16:AP:74:LEU:HG	2.17	0.45
18:AR:32:TYR:CG	18:AR:55:LEU:HD11	2.52	0.45
21:AU:20:LYS:NZ	21:AU:20:LYS:HA	2.32	0.45
22:BA:1754:A:N1	22:BA:2716:C:O2'	2.41	0.45
22:BA:2380:C:H5'	36:BO:17:LYS:NZ	2.31	0.45
22:BA:250:G:P	51:B3:13:ARG:NH1	2.89	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2550:G:C2	22:BA:2559:C:O2	2.69	0.45
22:BA:2680:U:H3	22:BA:2681:C:N4	2.15	0.45
22:BA:493:G:H2'	22:BA:494:G:O4'	2.17	0.45
22:BA:563:A:O2'	22:BA:564:C:H5'	2.17	0.45
22:BA:693:A:O2'	22:BA:694:U:H5'	2.16	0.45
22:BA:713:G:C5	22:BA:714:U:C5	3.05	0.45
22:BA:950:G:H2'	22:BA:951:C:C6	2.51	0.45
22:BA:2310:C:C4	27:BF:77:PHE:CE1	3.04	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
29:BH:97:ARG:NH1	1:CA:370:C:O4'	2.49	0.45
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.51	0.45
1:CA:121:U:H3'	1:CA:122:G:H5'	1.98	0.45
1:CA:1314:C:H2'	1:CA:1315:U:C6	2.52	0.45
1:CA:414:A:C2	1:CA:415:A:C4	3.04	0.45
1:CA:519:C:H2'	1:CA:520:A:O4'	2.17	0.45
1:CA:743:A:C5	1:CA:744:C:C5	3.05	0.45
1:CA:754:C:H3'	1:CA:754:C:O2	2.16	0.45
2:CB:60:ILE:HD12	2:CB:61:ALA:N	2.31	0.45
5:CE:102:GLY:C	5:CE:104:GLY:N	2.70	0.45
5:CE:95:PHE:O	5:CE:125:ALA:O	2.35	0.45
6:CF:54:LEU:C	6:CF:55:HIS:O	2.54	0.45
9:CI:50:GLN:N	9:CI:51:PRO:HD2	2.32	0.45
9:CI:57:MET:O	9:CI:60:LYS:HB2	2.16	0.45
13:CM:19:LEU:HB2	13:CM:30:SER:OG	2.16	0.45
15:CO:73:LYS:CE	15:CO:73:LYS:HA	2.47	0.45
48:D0:40:ARG:O	48:D0:41:HIS:HB2	2.15	0.45
50:D2:31:LEU:HD21	50:D2:43:THR:HG22	1.99	0.45
51:D3:15:LYS:HD3	51:D3:23:LYS:HE2	1.99	0.45
22:DA:1309:G:OP1	50:D2:9:VAL:N	2.47	0.45
22:DA:1565:C:C5	22:DA:1567:G:C6	3.05	0.45
22:DA:1604:C:O2'	22:DA:1610:A:N1	2.43	0.45
22:DA:1907:G:C6	22:DA:1924:C:N3	2.85	0.45
22:DA:2069:G:N2	22:DA:2443:C:C2	2.85	0.45
22:DA:2156:G:C6	22:DA:2157:G:C2	3.05	0.45
22:DA:2302:U:O2'	27:DF:123:ASP:O	2.35	0.45
22:DA:2627:G:C6	22:DA:2628:C:C4	3.05	0.45
22:DA:269:C:O2	22:DA:269:C:H2'	2.17	0.45
22:DA:2824:C:C4	22:DA:2825:G:C5	3.05	0.45
22:DA:320:A:H4'	22:DA:322:A:N7	2.30	0.45
22:DA:592:A:C2	22:DA:593:U:C2	3.05	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:7:G:H4'	31:DJ:15:TRP:CZ2	2.52	0.45
22:DA:875:G:N2	22:DA:903:C:C2	2.85	0.45
22:DA:949:G:C6	22:DA:950:G:N7	2.85	0.45
22:DA:959:A:H2'	22:DA:960:A:C8	2.51	0.45
23:DB:32:U:C2	23:DB:51:G:N2	2.84	0.45
22:DA:1568:G:N7	24:DC:28:LYS:HE3	2.32	0.45
26:DE:1:MET:HG2	26:DE:14:VAL:HG23	1.99	0.45
29:DH:5:LEU:CD1	29:DH:13:GLY:CA	2.95	0.45
29:DH:15:LEU:N	29:DH:15:LEU:HD22	2.32	0.45
29:DH:39:ALA:O	29:DH:41:LYS:N	2.47	0.45
30:DI:101:ILE:O	30:DI:102:SER:CB	2.64	0.45
35:DN:83:LEU:HD22	35:DN:115:LEU:HD13	1.98	0.45
35:DN:118:ARG:O	35:DN:119:SER:HB2	2.17	0.45
1:AA:1237:C:C4	1:AA:1336:C:N3	2.85	0.45
1:AA:1308:U:OP2	13:AM:98:ARG:CG	2.65	0.45
1:AA:243:A:C2	1:AA:246:A:C8	3.05	0.45
1:AA:451:A:C2	1:AA:480:U:N3	2.85	0.45
1:AA:725:G:C2	1:AA:726:C:C5	3.04	0.45
2:AB:175:GLU:O	2:AB:178:ASN:HB3	2.17	0.45
3:AC:11:ARG:NH1	3:AC:182:ILE:HG13	2.32	0.45
3:AC:23:PHE:CE1	10:AJ:13:PHE:CE2	3.05	0.45
7:AG:103:TRP:CD2	7:AG:137:LYS:HG2	2.52	0.45
8:AH:39:VAL:HG13	8:AH:112:THR:HG22	1.99	0.45
8:AH:83:LEU:HD22	8:AH:85:ILE:HD13	1.99	0.45
15:AO:4:SER:O	15:AO:7:ALA:N	2.50	0.45
19:AS:15:LEU:O	19:AS:19:VAL:HG23	2.16	0.45
21:AU:37:PHE:O	21:AU:38:TYR:CB	2.64	0.45
51:B3:32:ILE:O	51:B3:32:ILE:HG22	2.15	0.45
51:B3:45:ARG:N	51:B3:46:PRO:CD	2.79	0.45
53:B5:50:ILE:HG23	53:B5:51:ASP:H	1.82	0.45
22:BA:1073:A:H2'	22:BA:1074:G:H5''	1.98	0.45
22:BA:1366:A:C5	22:BA:1367:A:C8	3.05	0.45
22:BA:189:G:OP1	45:BX:26:LYS:HD2	2.17	0.45
22:BA:1937:A:C2	22:BA:1939:U:C4	3.05	0.45
22:BA:2498:C:O2'	22:BA:2499:C:H5'	2.16	0.45
22:BA:2754:U:H2'	22:BA:2756:U:OP1	2.16	0.45
22:BA:570:G:H8	22:BA:570:G:O5'	2.00	0.45
22:BA:572:A:P	57:BA:3570:HOH:O	2.74	0.45
22:BA:706:A:H2'	22:BA:707:G:O4'	2.16	0.45
22:BA:90:U:H2'	22:BA:91:A:C8	2.52	0.45
23:BB:2:G:C6	23:BB:119:A:C2	3.04	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:125:LYS:HB2	24:BC:126:PRO:HD2	1.99	0.45
22:BA:1791:A:O3'	24:BC:204:VAL:O	2.35	0.45
24:BC:209:GLY:O	24:BC:212:ARG:N	2.50	0.45
25:BD:57:ALA:C	25:BD:59:ARG:H	2.21	0.45
26:BE:104:ALA:O	26:BE:108:ILE:HG23	2.17	0.45
26:BE:106:LYS:HG3	26:BE:200:LEU:HG	1.99	0.45
26:BE:124:PHE:O	26:BE:125:SER:CB	2.65	0.45
27:BF:133:ARG:O	27:BF:134:GLU:CB	2.65	0.45
22:BA:2310:C:C5	27:BF:77:PHE:CZ	3.04	0.45
30:BI:67:PHE:N	30:BI:67:PHE:HD2	2.14	0.45
31:BJ:38:GLY:O	31:BJ:40:HIS:N	2.50	0.45
32:BK:1:MET:HE3	32:BK:32:TYR:CZ	2.51	0.45
36:BO:76:LYS:O	36:BO:77:ALA:C	2.56	0.45
38:BQ:24:TYR:HB3	38:BQ:28:ARG:HB3	1.99	0.45
39:BR:68:ARG:HD3	39:BR:92:TRP:CE2	2.52	0.45
46:BY:16:THR:HA	46:BY:19:LEU:HD12	1.98	0.45
47:BZ:45:ARG:HD3	47:BZ:45:ARG:HA	1.76	0.45
1:CA:1103:C:C4	1:CA:1104:G:N7	2.85	0.45
1:CA:1118:U:H1'	1:CA:1179:A:C5	2.52	0.45
1:CA:117:G:H2'	1:CA:118:U:O4'	2.17	0.45
1:CA:1204:A:P	57:CA:1845:HOH:O	2.74	0.45
1:CA:158:G:C6	1:CA:164:G:C5	3.05	0.45
1:CA:501:C:H2'	1:CA:502:A:C8	2.52	0.45
1:CA:563:A:H2'	1:CA:567:G:C8	2.52	0.45
1:CA:64:G:N2	1:CA:67:C:C4	2.85	0.45
4:CD:129:VAL:CG1	4:CD:129:VAL:O	2.64	0.45
5:CE:156:LYS:HA	5:CE:159:LYS:NZ	2.31	0.45
5:CE:66:LYS:O	5:CE:69:ARG:O	2.35	0.45
6:CF:1:MET:HG2	6:CF:65:GLU:HG2	1.98	0.45
6:CF:38:ARG:HG2	6:CF:63:ASN:CB	2.46	0.45
6:CF:51:ILE:O	6:CF:51:ILE:HG12	2.17	0.45
1:CA:376:G:H5''	16:CP:5:ARG:HB2	1.98	0.45
52:D4:3:VAL:CG2	52:D4:3:VAL:O	2.65	0.45
22:DA:1114:C:H2'	22:DA:1115:G:C8	2.52	0.45
22:DA:1287:A:C2'	22:DA:1288:G:H5'	2.47	0.45
22:DA:1740:G:H2'	22:DA:1741:C:C6	2.52	0.45
22:DA:1773:A:C2	22:DA:1978:A:C2	3.05	0.45
22:DA:1809:A:C6	22:DA:1810:A:C5	3.05	0.45
22:DA:1817:G:O2'	22:DA:1818:U:H5'	2.16	0.45
22:DA:1833:C:N4	22:DA:1834:U:O4	2.50	0.45
22:DA:1858:A:C2	22:DA:1859:U:C2	3.05	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2199:A:C5	22:DA:2225:A:N1	2.84	0.45
22:DA:2699:C:O2	22:DA:2709:G:C2	2.70	0.45
22:DA:2771:C:H2'	22:DA:2772:C:C6	2.52	0.45
22:DA:2784:U:C4	22:DA:2785:C:C4	3.05	0.45
22:DA:2804:U:H2'	22:DA:2805:C:C6	2.52	0.45
22:DA:319:G:H2'	22:DA:320:A:O4'	2.17	0.45
22:DA:482:A:O2'	22:DA:497:A:N1	2.39	0.45
27:DF:70:ALA:O	27:DF:72:LYS:N	2.50	0.45
29:DH:31:VAL:CG1	29:DH:32:PRO:HD3	2.47	0.45
31:DJ:36:LEU:HG	31:DJ:54:ILE:HD12	1.99	0.45
22:DA:538:A:H5''	31:DJ:7:LYS:HE3	1.97	0.45
22:DA:1669:A:O4'	32:DK:5:GLN:HG3	2.17	0.45
33:DL:110:VAL:CG2	33:DL:127:VAL:HG22	2.47	0.45
35:DN:18:GLN:HG2	35:DN:18:GLN:O	2.17	0.45
35:DN:45:ARG:O	35:DN:49:GLU:HG3	2.16	0.45
36:DO:26:LEU:HD23	36:DO:117:PHE:CE2	2.51	0.45
38:DQ:88:VAL:CG1	38:DQ:90:ILE:HG13	2.47	0.45
40:DS:66:ILE:O	40:DS:68:ASP:N	2.49	0.45
1:AA:1043:G:H3'	1:AA:1044:A:H5''	1.99	0.45
1:AA:1277:C:O2'	1:AA:1279:G:H8	2.00	0.45
1:AA:1378:C:C2'	1:AA:1379:G:O5'	2.64	0.45
1:AA:409:U:OP1	4:AD:24:GLY:HA3	2.17	0.45
1:AA:591:U:H2'	1:AA:592:G:C8	2.52	0.45
2:AB:79:ALA:C	2:AB:82:ASP:OD2	2.56	0.45
4:AD:62:ARG:NH2	4:AD:68:LEU:HD13	2.32	0.45
11:AK:35:THR:HG23	11:AK:36:ASP:O	2.16	0.45
13:AM:12:HIS:HA	13:AM:44:LYS:NZ	2.32	0.45
10:AJ:66:GLU:HB3	14:AN:99:ALA:CB	2.47	0.45
22:BA:1080:A:C2	22:BA:1081:U:C5	3.05	0.45
22:BA:1153:C:N4	22:BA:1154:G:C6	2.85	0.45
22:BA:1482:G:C6	22:BA:1508:A:C6	3.04	0.45
22:BA:2365:G:H4'	44:BW:60:PHE:CE1	2.52	0.45
22:BA:2520:C:C6	22:BA:2567:G:C1'	3.00	0.45
22:BA:2579:C:C2'	22:BA:2580:U:H5'	2.47	0.45
22:BA:2583:G:C5	22:BA:2584:U:C5	3.04	0.45
22:BA:2622:U:O2'	22:BA:2825:G:N7	2.50	0.45
22:BA:412:A:H2'	22:BA:413:C:H5'	1.99	0.45
22:BA:475:C:C4	22:BA:481:G:C6	3.05	0.45
24:BC:266:PHE:CD1	24:BC:266:PHE:N	2.84	0.45
24:BC:30:PHE:O	24:BC:31:ALA:C	2.54	0.45
26:BE:180:LEU:HD23	26:BE:180:LEU:HA	1.83	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:10:VAL:O	28:BG:12:PRO:HD3	2.17	0.45
38:BQ:40:ILE:HG22	38:BQ:44:GLN:OE1	2.16	0.45
40:BS:17:VAL:HG12	40:BS:76:VAL:HG21	1.97	0.45
43:BV:4:ILE:HD11	43:BV:50:MET:HE1	1.99	0.45
1:CA:1004:A:C2	1:CA:1026:G:N3	2.85	0.45
1:CA:1169:A:N6	1:CA:1170:A:N6	2.65	0.45
1:CA:1215:G:C4	1:CA:1216:A:C8	3.05	0.45
1:CA:165:G:N2	1:CA:166:U:O2	2.50	0.45
1:CA:209:U:C4'	1:CA:210:C:OP2	2.62	0.45
1:CA:295:C:N3	1:CA:296:U:C5	2.85	0.45
1:CA:575:G:C6	1:CA:821:G:N7	2.85	0.45
2:CB:111:ILE:O	2:CB:114:LEU:HB3	2.17	0.45
3:CC:147:LYS:HG3	3:CC:204:LYS:O	2.17	0.45
3:CC:67:THR:OG1	3:CC:102:ASN:ND2	2.50	0.45
7:CG:69:VAL:HG21	7:CG:104:ILE:HD11	1.98	0.45
9:CI:55:VAL:HG23	9:CI:55:VAL:O	2.16	0.45
10:CJ:46:LYS:HG2	10:CJ:68:ARG:HG2	1.99	0.45
1:CA:1126:U:O4	10:CJ:73:LEU:HD12	2.16	0.45
14:CN:88:ALA:N	14:CN:93:ILE:HD12	2.32	0.45
16:CP:6:LEU:CD1	16:CP:71:VAL:HG23	2.47	0.45
17:CQ:47:HIS:HB3	17:CQ:74:THR:OG1	2.16	0.45
22:DA:134:G:C2	22:DA:146:A:C2	3.05	0.45
22:DA:1430:G:H2'	22:DA:1431:A:O4'	2.17	0.45
22:DA:1604:C:C5'	57:DA:3404:HOH:O	2.64	0.45
22:DA:1654:A:OP2	35:DN:1:MET:HA	2.17	0.45
22:DA:168:G:C2	22:DA:169:G:C8	3.06	0.45
22:DA:2114:A:C5	22:DA:2167:U:H4'	2.52	0.45
22:DA:2264:C:O2	22:DA:2277:G:C2	2.69	0.45
22:DA:235:U:N3	22:DA:236:C:C5	2.85	0.45
22:DA:2624:G:H1'	48:D0:19:HIS:HE1	1.82	0.45
22:DA:27:G:HO2'	22:DA:28:A:P	2.34	0.45
22:DA:310:A:O2'	22:DA:311:A:P	2.72	0.45
22:DA:372:G:P	45:DX:62:LYS:HZ2	2.40	0.45
22:DA:498:G:C6	22:DA:499:U:C4	3.05	0.45
24:DC:125:LYS:HB2	24:DC:126:PRO:HD2	1.99	0.45
26:DE:187:VAL:CG1	26:DE:187:VAL:O	2.65	0.45
28:DG:98:VAL:HG21	28:DG:124:GLU:HA	1.99	0.45
28:DG:158:LYS:O	28:DG:159:GLY:C	2.56	0.45
33:DL:54:GLN:HG2	33:DL:55:MET:N	2.32	0.45
32:DK:76:VAL:HG12	37:DP:73:VAL:HG22	1.98	0.45
37:DP:75:GLN:O	37:DP:78:SER:HB3	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DS:33:LEU:HD21	40:DS:52:GLU:HG2	1.99	0.45
41:DT:51:PHE:C	41:DT:52:GLU:HG2	2.37	0.45
1:AA:102:G:N3	1:AA:103:U:C6	2.85	0.44
1:AA:118:U:O4	1:AA:288:A:H2'	2.17	0.44
1:AA:961:U:OP2	1:AA:1223:C:H1'	2.18	0.44
1:AA:1503:A:H8	1:AA:1531:A:HO2'	1.56	0.44
1:AA:195:A:C5	1:AA:196:A:C6	3.05	0.44
1:AA:162:A:H1'	1:AA:348:G:O2'	2.17	0.44
1:AA:463:U:H5'	1:AA:464:U:OP2	2.16	0.44
1:AA:957:U:H1'	1:AA:960:U:C4	2.52	0.44
2:AB:10:LEU:HD23	2:AB:10:LEU:C	2.37	0.44
4:AD:4:TYR:CE2	4:AD:6:GLY:O	2.70	0.44
7:AG:71:PRO:HD2	7:AG:96:ARG:O	2.17	0.44
7:AG:99:LEU:O	7:AG:102:ARG:N	2.50	0.44
9:AI:50:GLN:O	9:AI:52:LEU:N	2.51	0.44
1:AA:948:C:OP2	13:AM:107:ARG:HB2	2.17	0.44
48:B0:48:TYR:CE2	48:B0:53:LYS:HB2	2.51	0.44
53:B5:25:GLU:HG2	53:B5:25:GLU:O	2.17	0.44
22:BA:1288:G:C4	22:BA:1327:A:C2	3.05	0.44
22:BA:1324:G:C4	22:BA:1328:A:N6	2.85	0.44
22:BA:1441:G:H2'	22:BA:1442:U:C6	2.52	0.44
22:BA:1846:G:H2'	22:BA:1847:A:C8	2.53	0.44
22:BA:1925:C:H5''	22:BA:1926:U:C4	2.53	0.44
22:BA:2261:C:O2'	22:BA:2262:U:H5'	2.17	0.44
22:BA:2443:C:H2'	22:BA:2444:G:H8	1.82	0.44
22:BA:479:A:H4'	22:BA:480:A:OP1	2.16	0.44
22:BA:49:A:C8	22:BA:51:G:N2	2.84	0.44
22:BA:547:A:H8	22:BA:548:G:N3	2.15	0.44
26:BE:119:ILE:HB	26:BE:187:VAL:HG22	2.00	0.44
28:BG:2:SER:C	28:BG:4:VAL:N	2.70	0.44
22:BA:2880:C:H1'	35:BN:92:GLY:O	2.16	0.44
41:BT:12:ARG:N	41:BT:12:ARG:HD2	2.32	0.44
43:BV:23:ALA:O	43:BV:24:ASN:C	2.54	0.44
45:BX:18:ARG:NE	45:BX:24:ALA:HB2	2.32	0.44
1:CA:1099:G:H2'	1:CA:1100:C:O4'	2.17	0.44
1:CA:1195:C:H2'	1:CA:1197:A:O4'	2.18	0.44
1:CA:1426:G:C4	1:CA:1475:G:C2	3.05	0.44
1:CA:399:G:C6	1:CA:400:C:N4	2.85	0.44
1:CA:839:C:C2'	1:CA:840:C:H5'	2.47	0.44
1:CA:921:U:H2'	1:CA:922:G:O4'	2.16	0.44
1:CA:939:G:C6	1:CA:940:C:C4	3.05	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:403:C:H5'	4:CD:132:ILE:HG23	2.00	0.44
4:CD:173:VAL:O	4:CD:174:ASP:CB	2.65	0.44
8:CH:30:SER:O	8:CH:33:LYS:HB2	2.17	0.44
11:CK:19:GLY:O	11:CK:82:LEU:HA	2.17	0.44
13:CM:14:HIS:HB2	13:CM:17:ILE:CD1	2.46	0.44
13:CM:39:ILE:HG13	13:CM:56:LEU:HD21	1.99	0.44
18:CR:48:ARG:N	18:CR:48:ARG:HD2	2.31	0.44
19:CS:51:VAL:O	19:CS:58:VAL:HG12	2.17	0.44
22:DA:1248:G:O2'	38:DQ:3:ARG:HA	2.17	0.44
22:DA:1358:G:H1'	22:DA:1374:G:N2	2.31	0.44
22:DA:1607:C:N4	22:DA:1622:G:C5	2.85	0.44
22:DA:1644:C:O2	22:DA:1644:C:C2'	2.65	0.44
22:DA:1805:A:C4	22:DA:1813:G:N2	2.85	0.44
22:DA:2029:G:C2	22:DA:2033:A:N7	2.85	0.44
22:DA:2111:U:O2	22:DA:2118:U:H1'	2.17	0.44
22:DA:2453:A:H8	22:DA:2453:A:O5'	2.00	0.44
22:DA:265:A:H4'	22:DA:266:G:OP1	2.17	0.44
22:DA:468:G:H2'	22:DA:469:G:O4'	2.16	0.44
22:DA:483:A:C8	42:DU:45:HIS:CD2	3.05	0.44
22:DA:522:A:H2'	22:DA:523:C:O4'	2.17	0.44
22:DA:609:A:H2'	22:DA:610:C:O4'	2.17	0.44
29:DH:1:MET:CE	29:DH:27:ARG:NH1	2.80	0.44
31:DJ:6:ALA:O	31:DJ:7:LYS:HG3	2.17	0.44
33:DL:68:SER:O	33:DL:69:ARG:HB2	2.17	0.44
22:DA:973:A:P	39:DR:81:LYS:NZ	2.88	0.44
40:DS:79:GLY:HA2	40:DS:102:HIS:NE2	2.32	0.44
41:DT:38:ALA:O	41:DT:39:THR:CB	2.65	0.44
44:DW:19:LYS:O	44:DW:21:LEU:HD23	2.17	0.44
45:DX:52:SER:OG	45:DX:55:GLY:N	2.44	0.44
1:AA:1061:G:C5	1:AA:1197:A:C2	3.06	0.44
1:AA:119:A:C4	1:AA:240:G:N7	2.85	0.44
1:AA:1438:G:C6	1:AA:1439:G:C5	3.06	0.44
1:AA:119:A:C5	1:AA:240:G:N7	2.85	0.44
1:AA:346:G:P	32:BK:105:ARG:NH1	2.90	0.44
1:AA:410:G:H5''	1:AA:411:A:P	2.57	0.44
1:AA:452:A:C8	1:AA:452:A:C3'	3.01	0.44
1:AA:509:A:C2'	1:AA:543:U:O2'	2.65	0.44
1:AA:650:G:C2'	1:AA:651:C:H5'	2.47	0.44
1:AA:652:U:C2	1:AA:752:G:N2	2.86	0.44
1:AA:987:G:N2	1:AA:988:G:C4	2.85	0.44
4:AD:153:SER:O	4:AD:154:ARG:C	2.56	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:168:PRO:HB2	4:AD:171:LEU:CD1	2.47	0.44
4:AD:35:GLU:C	4:AD:35:GLU:CD	2.76	0.44
4:AD:3:ARG:CZ	4:AD:115:ARG:CD	2.93	0.44
5:AE:100:SER:O	5:AE:101:GLU:C	2.55	0.44
5:AE:104:GLY:O	5:AE:105:ILE:CG2	2.63	0.44
7:AG:80:VAL:O	7:AG:81:GLY:C	2.56	0.44
1:AA:1118:U:H5''	9:AI:106:ARG:HG3	1.98	0.44
15:AO:37:ASN:O	15:AO:38:HIS:C	2.54	0.44
16:AP:15:PRO:O	16:AP:16:PHE:HB2	2.17	0.44
53:B5:50:ILE:CG2	53:B5:51:ASP:H	2.31	0.44
22:BA:1405:U:C2	22:BA:1406:U:C5	3.05	0.44
22:BA:1439:A:C2	22:BA:1553:A:C4	3.04	0.44
22:BA:142:A:H2'	22:BA:143:C:O5'	2.17	0.44
22:BA:1700:A:H5'	22:BA:1701:A:OP2	2.18	0.44
22:BA:1840:G:N1	22:BA:1841:U:C2	2.86	0.44
22:BA:1925:C:C4'	22:BA:1926:U:C4	2.99	0.44
22:BA:1949:G:N2	22:BA:1958:C:C2	2.86	0.44
22:BA:2683:C:O2'	22:BA:2684:U:H5'	2.17	0.44
22:BA:2706:A:N1	22:BA:2707:U:C2	2.85	0.44
22:BA:2847:U:H2'	22:BA:2848:G:H5'	1.99	0.44
22:BA:2886:A:C5	22:BA:2887:A:C8	3.06	0.44
22:BA:946:C:P	57:BA:3347:HOH:O	2.75	0.44
29:BH:57:LYS:CG	29:BH:58:LEU:N	2.81	0.44
41:BT:16:VAL:O	41:BT:17:SER:HB3	2.17	0.44
41:BT:1:MET:O	41:BT:2:ILE:HG13	2.17	0.44
42:BU:89:ASP:CG	42:BU:90:GLY:N	2.70	0.44
43:BV:28:ALA:HA	43:BV:88:HIS:CD2	2.52	0.44
1:CA:1071:C:O2	1:CA:1072:G:C8	2.69	0.44
1:CA:1346:A:C8	1:CA:1348:U:C2	3.05	0.44
1:CA:32:A:C2	1:CA:33:A:C4	3.05	0.44
1:CA:361:G:O6	1:CA:362:G:N1	2.50	0.44
1:CA:49:U:C5	1:CA:364:A:C6	3.05	0.44
1:CA:402:G:H4'	1:CA:620:C:O2	2.18	0.44
1:CA:714:G:H21	1:CA:777:A:H1'	1.82	0.44
1:CA:840:C:C4	1:CA:842:U:C5'	3.01	0.44
1:CA:949:A:C2'	1:CA:971:G:O6	2.65	0.44
7:CG:18:PHE:CZ	7:CG:58:GLU:HG2	2.52	0.44
7:CG:68:ASN:HB3	7:CG:130:ASN:HB3	1.99	0.44
7:CG:78:ARG:HD3	7:CG:80:VAL:CG2	2.48	0.44
9:CI:107:ASP:OD2	9:CI:109:ARG:HG3	2.18	0.44
22:DA:1338:G:H4'	41:DT:18:GLU:OE2	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1343:G:C5	22:DA:1344:U:O4	2.70	0.44
22:DA:1355:G:O2'	22:DA:1356:G:H5'	2.17	0.44
22:DA:1462:C:C2	22:DA:1463:C:C5	3.05	0.44
22:DA:1668:A:C2	22:DA:1670:C:N3	2.85	0.44
22:DA:1773:A:C2'	22:DA:1774:C:H5'	2.48	0.44
22:DA:1889:A:N3	22:DA:2086:U:O2'	2.44	0.44
22:DA:2093:G:C2	22:DA:2094:A:C5	3.05	0.44
22:DA:2014:A:H2	22:DA:2613:U:C2	2.36	0.44
23:DB:52:A:C5	36:DO:33:ARG:NH2	2.85	0.44
23:DB:76:G:H2'	23:DB:77:U:O4'	2.17	0.44
24:DC:108:LYS:HA	24:DC:196:GLY:HA2	1.99	0.44
25:DD:112:THR:O	25:DD:112:THR:HG22	2.17	0.44
22:DA:2636:C:H4'	25:DD:81:GLU:CD	2.37	0.44
30:DI:75:PRO:HG2	30:DI:78:VAL:HG22	2.00	0.44
32:DK:62:VAL:HA	32:DK:84:CYS:HB3	1.98	0.44
40:DS:80:PRO:HD2	40:DS:100:THR:OG1	2.17	0.44
44:DW:70:GLU:O	44:DW:79:PHE:N	2.45	0.44
47:DZ:10:THR:HG22	47:DZ:54:MET:HA	1.99	0.44
1:AA:1337:G:C5'	1:AA:1338:G:OP1	2.65	0.44
1:AA:658:C:O4'	15:AO:22:THR:OG1	2.30	0.44
1:AA:666:G:C5	1:AA:741:G:C6	3.05	0.44
2:AB:120:GLN:HG2	2:AB:125:THR:O	2.17	0.44
3:AC:27:LYS:H	3:AC:27:LYS:HD2	1.82	0.44
4:AD:132:ILE:HD12	4:AD:135:TYR:N	2.32	0.44
4:AD:157:ALA:HA	4:AD:160:GLU:HB3	1.99	0.44
6:AF:64:VAL:CG1	6:AF:65:GLU:N	2.80	0.44
6:AF:97:THR:O	6:AF:98:GLU:HG2	2.16	0.44
15:AO:3:LEU:HD13	15:AO:35:GLN:HG2	2.00	0.44
16:AP:78:VAL:CG1	16:AP:78:VAL:O	2.65	0.44
22:BA:1056:G:O2'	22:BA:1086:A:H8	2.00	0.44
22:BA:1116:G:H2'	22:BA:1116:G:N3	2.31	0.44
22:BA:1805:A:O2'	24:BC:50:THR:HA	2.17	0.44
22:BA:1910:G:H2'	22:BA:1911:U:C6	2.53	0.44
22:BA:1935:G:N2	22:BA:1964:G:C8	2.85	0.44
22:BA:201:C:C2'	22:BA:202:U:H5'	2.47	0.44
22:BA:231:A:C6	22:BA:232:G:C2	3.06	0.44
22:BA:2490:G:H4'	22:BA:2491:U:OP1	2.17	0.44
22:BA:2627:G:C5	22:BA:2628:C:C4	3.05	0.44
22:BA:536:G:C6	22:BA:537:G:C4	3.06	0.44
22:BA:595:C:H2'	22:BA:596:U:C6	2.52	0.44
22:BA:988:A:H2'	22:BA:989:G:O5'	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:975:A:C6	22:BA:990:A:N7	2.85	0.44
23:BB:39:A:C2	23:BB:44:G:C4	3.05	0.44
26:BE:119:ILE:HB	26:BE:187:VAL:CG2	2.47	0.44
28:BG:86:LYS:HG2	28:BG:132:VAL:HG13	1.99	0.44
30:BI:58:VAL:HG12	30:BI:59:ILE:H	1.81	0.44
30:BI:89:GLY:O	30:BI:90:SER:C	2.54	0.44
36:BO:79:ALA:HA	36:BO:115:LEU:HD13	1.99	0.44
37:BP:48:ILE:HG22	37:BP:100:LEU:HD12	2.00	0.44
39:BR:16:GLU:HA	39:BR:98:ILE:HG22	2.00	0.44
44:BW:10:THR:O	44:BW:11:ARG:HB2	2.18	0.44
1:CA:1409:C:H4'	22:DA:1915:U:O4	2.18	0.44
1:CA:1434:A:N6	1:CA:1435:G:N1	2.65	0.44
1:CA:53:A:N3	1:CA:359:G:C2	2.86	0.44
1:CA:458:U:H2'	1:CA:459:A:C8	2.52	0.44
1:CA:708:C:H2'	1:CA:709:U:C6	2.53	0.44
3:CC:203:PHE:CE1	3:CC:205:GLY:O	2.71	0.44
5:CE:107:ALA:HA	5:CE:125:ALA:HB3	1.98	0.44
5:CE:133:PRO:O	5:CE:137:VAL:CG1	2.65	0.44
5:CE:153:VAL:HG23	5:CE:157:ARG:CB	2.47	0.44
1:CA:1078:U:O2	5:CE:90:THR:HG21	2.17	0.44
7:CG:37:SER:OG	9:CI:43:THR:HG23	2.16	0.44
10:CJ:12:ALA:HB3	10:CJ:18:ILE:HB	1.99	0.44
1:CA:1328:C:H5''	13:CM:28:THR:CG2	2.47	0.44
13:CM:83:LEU:CD2	13:CM:83:LEU:N	2.79	0.44
20:CT:55:GLN:N	20:CT:56:PRO:HD2	2.32	0.44
22:DA:1269:A:H2'	22:DA:1270:C:C6	2.52	0.44
22:DA:1366:A:C2	22:DA:1367:A:N9	2.85	0.44
22:DA:1671:U:O2	22:DA:1673:G:C8	2.70	0.44
22:DA:176:A:C5	22:DA:177:G:C6	3.05	0.44
22:DA:2038:G:N7	22:DA:2039:U:C5	2.86	0.44
22:DA:2235:G:C5	22:DA:2236:U:C5	3.06	0.44
22:DA:2443:C:H2'	22:DA:2444:G:O4'	2.17	0.44
22:DA:2591:C:P	24:DC:238:ARG:HG3	2.56	0.44
22:DA:2597:G:O2'	22:DA:2598:A:H5'	2.18	0.44
22:DA:2718:G:O2'	37:DP:96:LYS:HG3	2.18	0.44
22:DA:2747:G:O2'	28:DG:67:THR:HG22	2.16	0.44
22:DA:775:G:O6	22:DA:787:C:H2'	2.17	0.44
23:DB:60:C:N3	23:DB:61:G:N7	2.65	0.44
24:DC:72:ASP:O	24:DC:74:ILE:N	2.45	0.44
25:DD:149:ASN:OD1	25:DD:150:GLN:N	2.50	0.44
26:DE:52:VAL:CG2	26:DE:81:GLY:HA2	2.47	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DF:36:LEU:HD13	27:DF:36:LEU:N	2.32	0.44
30:DI:80:LEU:HD23	30:DI:84:ALA:HB2	2.00	0.44
37:DP:21:ARG:HB3	37:DP:22:PRO:HD2	1.99	0.44
39:DR:81:LYS:O	39:DR:82:HIS:C	2.54	0.44
45:DX:49:LEU:O	45:DX:51:VAL:HG13	2.17	0.44
1:AA:1242:G:C2	1:AA:1243:C:C2	3.06	0.44
1:AA:11:G:C4	1:AA:12:U:C5	3.04	0.44
1:AA:1368:A:OP2	9:AI:114:LYS:O	2.35	0.44
1:AA:119:A:C5	1:AA:240:G:C8	3.05	0.44
1:AA:339:C:O2'	1:AA:340:U:H5'	2.18	0.44
1:AA:682:G:C2	1:AA:709:U:C2	3.06	0.44
1:AA:977:A:H1'	1:AA:982:U:O4	2.17	0.44
2:AB:73:LYS:HE3	2:AB:205:ASP:HB2	1.99	0.44
4:AD:136:GLN:HA	4:AD:136:GLN:OE1	2.17	0.44
4:AD:9:LEU:CD2	4:AD:22:LYS:HB2	2.47	0.44
8:AH:126:ILE:HG22	8:AH:127:CYS:N	2.32	0.44
8:AH:14:ILE:O	8:AH:15:ARG:C	2.54	0.44
14:AN:18:ASP:O	14:AN:19:LYS:C	2.55	0.44
20:AT:35:VAL:HG11	20:AT:79:LEU:HD13	1.99	0.44
22:BA:1177:G:C2'	22:BA:1178:C:O5'	2.66	0.44
22:BA:1180:U:O2'	22:BA:1181:U:H5'	2.17	0.44
22:BA:1587:G:C5	22:BA:1588:G:N7	2.86	0.44
22:BA:1674:G:N2	22:BA:1677:A:N1	2.59	0.44
22:BA:1972:G:H2'	22:BA:1973:G:H8	1.81	0.44
22:BA:2040:G:H2'	22:BA:2041:U:O4'	2.16	0.44
22:BA:2191:A:N1	22:BA:2192:U:N3	2.65	0.44
22:BA:2262:U:H4'	22:BA:2328:A:C2	2.53	0.44
22:BA:2856:A:C6	22:BA:2857:G:C5	3.05	0.44
22:BA:736:C:N3	22:BA:737:C:C5	2.85	0.44
24:BC:71:LYS:HB2	24:BC:96:TYR:CE2	2.52	0.44
25:BD:9:VAL:HB	25:BD:26:VAL:O	2.17	0.44
27:BF:108:VAL:CG1	27:BF:114:PHE:CE2	3.01	0.44
27:BF:36:LEU:HD22	27:BF:91:LEU:CD1	2.44	0.44
27:BF:94:GLU:HG3	27:BF:98:GLU:OE1	2.18	0.44
29:BH:100:ALA:HB2	29:BH:115:VAL:HG21	1.98	0.44
34:BM:4:PRO:CG	34:BM:70:ASP:HA	2.46	0.44
25:BD:12:THR:HG21	37:BP:9:GLU:OE2	2.17	0.44
41:BT:19:LYS:C	41:BT:21:SER:N	2.70	0.44
41:BT:30:ILE:HD11	41:BT:32:LEU:HD11	2.00	0.44
46:BY:30:MET:O	46:BY:34:SER:OG	2.21	0.44
1:CA:1098:C:C4	1:CA:1099:G:N7	2.85	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1124:G:N2	1:CA:1127:G:N2	2.66	0.44
2:CB:131:LYS:HE2	2:CB:131:LYS:HA	1.98	0.44
3:CC:172:ARG:O	3:CC:174:PRO:HD3	2.17	0.44
5:CE:103:THR:O	5:CE:122:ASN:HA	2.18	0.44
5:CE:125:ALA:O	5:CE:126:LYS:HB3	2.18	0.44
6:CF:21:MET:O	6:CF:25:TYR:CG	2.70	0.44
9:CI:91:ASP:OD2	9:CI:91:ASP:C	2.55	0.44
11:CK:27:PHE:CZ	11:CK:89:PRO:CG	3.00	0.44
11:CK:60:PRO:N	11:CK:91:PRO:HB3	2.32	0.44
15:CO:87:LEU:C	15:CO:87:LEU:HD23	2.37	0.44
19:CS:67:VAL:O	19:CS:67:VAL:HG12	2.16	0.44
11:CK:122:ARG:CZ	21:CU:36:GLU:HG2	2.48	0.44
50:D2:34:ARG:CB	50:D2:42:LEU:HD13	2.48	0.44
22:DA:1095:A:C5	22:DA:1096:A:C2	3.05	0.44
22:DA:109:C:C2	22:DA:110:G:C8	3.06	0.44
22:DA:1248:G:C5	26:DE:46:GLN:NE2	2.86	0.44
22:DA:1797:G:O3'	24:DC:256:LYS:HA	2.18	0.44
22:DA:2015:A:C5	48:D0:3:VAL:HG21	2.52	0.44
22:DA:563:A:C2	22:DA:2018:G:N3	2.85	0.44
22:DA:2059:A:H4'	26:DE:64:GLY:O	2.18	0.44
22:DA:2440:C:N3	22:DA:2441:U:H1'	2.32	0.44
22:DA:2544:G:H2'	22:DA:2545:G:C8	2.52	0.44
22:DA:2554:U:H2'	22:DA:2555:U:H6	1.82	0.44
22:DA:2563:U:H1'	22:DA:2566:A:N6	2.33	0.44
22:DA:2776:A:C6	22:DA:2778:A:C6	3.05	0.44
22:DA:2807:U:O2	22:DA:2892:G:C2	2.70	0.44
22:DA:543:G:C2	22:DA:551:G:C5	3.06	0.44
22:DA:934:U:H2'	22:DA:935:C:C6	2.52	0.44
22:DA:982:C:H5''	22:DA:983:A:OP2	2.17	0.44
23:DB:13:G:H1	23:DB:69:G:HO2'	1.64	0.44
23:DB:70:C:H2'	23:DB:71:C:C6	2.52	0.44
22:DA:1790:C:O2'	24:DC:208:ALA:HB2	2.18	0.44
26:DE:25:GLU:CD	33:DL:6:LEU:HA	2.38	0.44
27:DF:38:MET:HB2	27:DF:57:LEU:HD11	1.99	0.44
27:DF:60:ILE:HG23	27:DF:138:PHE:CE1	2.53	0.44
22:DA:1082:U:OP1	30:DI:124:ALA:CB	2.65	0.44
30:DI:103:ARG:HB3	30:DI:142:ASP:OD2	2.18	0.44
26:DE:117:ARG:NH1	33:DL:2:ARG:HD3	2.33	0.44
35:DN:2:ARG:O	35:DN:3:HIS:C	2.56	0.44
36:DO:18:LEU:O	36:DO:22:GLY:N	2.50	0.44
36:DO:67:ASN:O	36:DO:69:ASP:N	2.50	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DW:46:HIS:NE2	44:DW:77:ARG:HD3	2.32	0.44
22:DA:380:G:O3'	45:DX:16:ASN:HB2	2.17	0.44
22:DA:1364:G:C8	45:DX:2:SER:N	2.86	0.44
47:DZ:5:ILE:HD11	47:DZ:57:VAL:HG21	1.99	0.44
1:AA:978:A:C5	1:AA:1319:A:C2	3.06	0.44
1:AA:537:G:H2'	1:AA:538:G:C8	2.52	0.44
1:AA:542:G:C2	1:AA:543:U:C6	3.06	0.44
1:AA:828:U:C5	1:AA:859:G:C5	3.06	0.44
1:AA:881:G:H2'	1:AA:882:C:O4'	2.17	0.44
1:AA:8:A:H1'	5:AE:108:GLY:HA2	1.99	0.44
2:AB:117:LEU:HG	2:AB:141:LEU:CD1	2.47	0.44
3:AC:112:ASP:O	3:AC:116:VAL:HG23	2.17	0.44
8:AH:93:PRO:HG3	8:AH:125:ILE:HD12	1.97	0.44
8:AH:11:LEU:HD11	8:AH:127:CYS:CB	2.48	0.44
8:AH:34:VAL:O	8:AH:36:ILE:N	2.51	0.44
11:AK:52:PHE:HB3	11:AK:56:ARG:HB3	1.99	0.44
14:AN:13:ARG:O	14:AN:17:ALA:HB2	2.17	0.44
14:AN:3:LYS:O	14:AN:4:GLN:C	2.56	0.44
14:AN:90:ARG:HB2	14:AN:92:GLU:HG3	1.99	0.44
1:AA:110:C:O2'	16:AP:25:ARG:O	2.34	0.44
22:BA:1369:G:C2'	22:BA:1370:C:O5'	2.66	0.44
22:BA:1731:G:C2	22:BA:1733:G:C4	3.05	0.44
22:BA:1791:A:O2'	24:BC:206:GLY:CA	2.65	0.44
22:BA:1799:G:OP2	24:BC:270:ARG:NH2	2.46	0.44
22:BA:2204:G:C5	22:BA:2221:G:C2	3.06	0.44
22:BA:2312:U:OP1	27:BF:71:ARG:N	2.51	0.44
22:BA:2513:A:C6	22:BA:2514:U:C4	3.05	0.44
22:BA:2808:G:C2	22:BA:2891:U:C5	3.06	0.44
22:BA:610:C:H2'	22:BA:611:C:H6	1.82	0.44
22:BA:2512:C:H1'	25:BD:145:SER:O	2.17	0.44
26:BE:148:ILE:N	26:BE:148:ILE:HD13	2.33	0.44
27:BF:58:ALA:O	27:BF:61:SER:O	2.36	0.44
29:BH:97:ARG:O	29:BH:101:ASP:HB2	2.17	0.44
29:BH:89:LYS:CE	29:BH:124:THR:HG22	2.48	0.44
29:BH:31:VAL:N	29:BH:32:PRO:CD	2.80	0.44
22:BA:102:U:C4	46:BY:2:LYS:HB2	2.52	0.44
1:CA:1000:A:C2	1:CA:1041:G:C2	3.05	0.44
1:CA:1244:G:C2	1:CA:1294:G:C2	3.05	0.44
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.52	0.44
1:CA:391:G:H2'	1:CA:392:C:O4'	2.17	0.44
1:CA:436:C:C2	1:CA:437:U:C5	3.05	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:53:A:C2	1:CA:359:G:C6	3.05	0.44
1:CA:748:G:H2'	1:CA:749:A:H8	1.83	0.44
2:CB:213:TYR:O	2:CB:217:VAL:HG23	2.18	0.44
4:CD:150:LYS:HG2	4:CD:151:LYS:N	2.32	0.44
4:CD:57:GLU:O	4:CD:58:LYS:C	2.55	0.44
5:CE:101:GLU:OE2	5:CE:101:GLU:O	2.36	0.44
8:CH:67:GLN:C	8:CH:69:LYS:H	2.19	0.44
10:CJ:10:LEU:HD12	10:CJ:10:LEU:N	2.32	0.44
11:CK:25:ALA:O	11:CK:88:GLY:HA3	2.17	0.44
12:CL:61:PHE:CD1	12:CL:61:PHE:N	2.85	0.44
18:CR:32:TYR:CD2	18:CR:55:LEU:HD21	2.52	0.44
19:CS:11:ILE:HG21	19:CS:41:PHE:CE2	2.52	0.44
20:CT:58:VAL:HG13	20:CT:72:ALA:HA	2.00	0.44
49:D1:23:THR:OG1	49:D1:24:THR:N	2.50	0.44
49:D1:9:ILE:HB	49:D1:52:ALA:HA	1.99	0.44
52:D4:36:ARG:O	52:D4:37:GLN:C	2.56	0.44
22:DA:1596:A:N6	22:DA:1597:A:C6	2.86	0.44
22:DA:1726:C:H2'	22:DA:1727:C:H6	1.82	0.44
22:DA:1806:C:N4	22:DA:1807:G:C5	2.86	0.44
22:DA:2117:A:N1	22:DA:2171:A:N1	2.65	0.44
22:DA:2264:C:C2	22:DA:2277:G:N2	2.86	0.44
22:DA:2799:A:N6	22:DA:2801:G:C6	2.86	0.44
22:DA:2854:G:N2	22:DA:2864:G:C4	2.86	0.44
22:DA:822:G:C6	22:DA:836:G:N1	2.85	0.44
24:DC:197:ASN:OD1	24:DC:200:HIS:HB2	2.17	0.44
22:DA:2303:G:O4'	27:DF:123:ASP:HA	2.18	0.44
29:DH:25:TYR:O	29:DH:29:PHE:HB3	2.18	0.44
40:DS:29:VAL:CG1	40:DS:55:ILE:HD11	2.47	0.44
45:DX:21:ALA:O	45:DX:22:LEU:HB2	2.17	0.44
1:AA:118:U:H2'	1:AA:119:A:H5''	1.99	0.44
1:AA:1351:U:H2'	1:AA:1352:C:H6	1.83	0.44
1:AA:819:A:N7	1:AA:1529:G:C2	2.85	0.44
1:AA:215:C:H2'	1:AA:216:U:O4'	2.17	0.44
1:AA:402:G:H4'	1:AA:620:C:O2	2.18	0.44
1:AA:64:G:N2	1:AA:67:C:C4	2.86	0.44
1:AA:832:G:C6	1:AA:833:G:N7	2.86	0.44
1:AA:908:A:C2	1:AA:909:A:C4	3.05	0.44
2:AB:20:THR:HA	2:AB:38:VAL:HA	1.98	0.44
2:AB:28:LYS:HB3	2:AB:29:PRO:HD3	1.99	0.44
3:AC:25:ASN:O	3:AC:27:LYS:HG2	2.17	0.44
4:AD:147:GLU:HA	4:AD:150:LYS:CD	2.48	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:46:PRO:O	4:AD:48:LEU:HD22	2.17	0.44
7:AG:83:SER:HB2	7:AG:85:TYR:CD2	2.52	0.44
9:AI:25:ASN:C	9:AI:59:GLU:HA	2.37	0.44
10:AJ:53:ILE:HG22	10:AJ:61:ALA:HB1	1.99	0.44
10:AJ:56:HIS:O	10:AJ:57:VAL:HG12	2.17	0.44
11:AK:23:ILE:HD13	11:AK:96:THR:HG21	1.99	0.44
11:AK:97:ILE:HG13	11:AK:98:ARG:N	2.32	0.44
13:AM:11:ASP:OD1	13:AM:45:ILE:HB	2.17	0.44
17:AQ:5:ILE:N	17:AQ:5:ILE:HD12	2.33	0.44
17:AQ:67:LEU:N	17:AQ:67:LEU:HD12	2.33	0.44
17:AQ:81:LYS:O	17:AQ:82:ALA:C	2.56	0.44
22:BA:1079:C:H2'	22:BA:1080:A:O4'	2.17	0.44
22:BA:1190:G:N2	22:BA:1191:G:C4	2.86	0.44
22:BA:1356:G:C2	22:BA:1357:C:N1	2.85	0.44
22:BA:1784:A:OP1	57:BA:3698:HOH:O	2.21	0.44
22:BA:190:A:C5	22:BA:207:A:C2	3.06	0.44
22:BA:18:U:O2'	22:BA:19:A:H5'	2.16	0.44
22:BA:2190:G:H3'	22:BA:2191:A:H8	1.83	0.44
22:BA:2218:G:O2'	22:BA:2219:U:H5'	2.16	0.44
22:BA:2093:G:C6	22:BA:2225:A:C8	3.05	0.44
22:BA:2569:G:C2	22:BA:2570:G:C8	3.06	0.44
22:BA:2684:U:O5'	22:BA:2684:U:H6	2.00	0.44
22:BA:2688:G:N7	22:BA:2719:G:C5	2.86	0.44
22:BA:2844:G:H2'	22:BA:2845:U:O4'	2.18	0.44
22:BA:573:U:O2'	22:BA:574:A:H3'	2.18	0.44
22:BA:583:G:C2'	22:BA:584:C:O5'	2.65	0.44
24:BC:157:SER:O	24:BC:160:THR:HG23	2.16	0.44
25:BD:137:SER:O	25:BD:138:LEU:CB	2.64	0.44
25:BD:39:ASP:OD2	25:BD:41:ALA:N	2.43	0.44
27:BF:41:GLY:C	27:BF:43:ALA:N	2.71	0.44
29:BH:62:LEU:O	29:BH:62:LEU:HD12	2.17	0.44
31:BJ:37:ARG:HG2	31:BJ:37:ARG:O	2.17	0.44
31:BJ:21:THR:HA	31:BJ:61:LYS:HB3	1.99	0.44
33:BL:93:ASN:O	33:BL:94:THR:CB	2.65	0.44
35:BN:33:ILE:CG2	35:BN:118:ARG:HD2	2.47	0.44
23:BB:8:C:O2'	36:BO:40:ILE:HD13	2.18	0.44
38:BQ:68:ALA:CB	38:BQ:99:ALA:HB1	2.48	0.44
42:BU:99:ASN:O	42:BU:100:SER:C	2.56	0.44
43:BV:43:ASP:OD1	43:BV:46:LYS:HG2	2.17	0.44
46:BY:9:LYS:HB3	46:BY:12:GLU:CG	2.45	0.44
1:CA:1070:U:C2	1:CA:1071:C:C5	3.06	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1074:G:N2	1:CA:1075:U:H1'	2.33	0.44
1:CA:1329:A:H5''	13:CM:25:VAL:HA	2.00	0.44
1:CA:179:A:H2'	1:CA:180:U:C6	2.53	0.44
1:CA:29:U:N3	1:CA:30:U:C5	2.86	0.44
1:CA:28:A:H2'	1:CA:29:U:O4'	2.17	0.44
1:CA:476:U:C2'	1:CA:477:C:H5'	2.48	0.44
1:CA:738:C:H2'	1:CA:739:C:H6	1.81	0.44
1:CA:777:A:C2	1:CA:778:G:H1'	2.52	0.44
1:CA:745:G:H5''	1:CA:851:G:O2'	2.17	0.44
1:CA:874:G:C6	1:CA:875:U:C4	3.05	0.44
2:CB:91:PHE:O	2:CB:91:PHE:CD2	2.71	0.44
4:CD:177:LYS:HB2	4:CD:177:LYS:HE2	1.82	0.44
7:CG:27:VAL:HG12	7:CG:43:VAL:HG21	1.99	0.44
8:CH:86:TYR:C	8:CH:87:LYS:HD2	2.38	0.44
11:CK:89:PRO:HD3	21:CU:29:LEU:CD1	2.48	0.44
15:CO:74:ASP:CG	15:CO:77:ARG:HG3	2.38	0.44
1:CA:720:C:O2'	18:CR:56:ALA:HB2	2.18	0.44
20:CT:60:ARG:O	20:CT:64:LYS:HB2	2.18	0.44
49:D1:25:LYS:HE2	49:D1:30:LYS:O	2.17	0.44
22:DA:1052:C:C2'	22:DA:1053:C:H5'	2.48	0.44
22:DA:980:A:C4	22:DA:1136:G:O4'	2.71	0.44
22:DA:1152:C:C3'	57:DA:3360:HOH:O	2.63	0.44
22:DA:1290:C:N3	22:DA:1291:C:C5	2.85	0.44
22:DA:1277:G:N1	22:DA:1294:U:C2	2.85	0.44
22:DA:1422:G:H2'	22:DA:1423:G:O4'	2.17	0.44
22:DA:13:A:H4'	22:DA:14:A:OP1	2.16	0.44
22:DA:1862:G:C2	22:DA:1881:C:C2	3.05	0.44
22:DA:2014:A:H5'	40:DS:94:ASP:OD1	2.18	0.44
22:DA:2025:C:H2'	22:DA:2026:U:C6	2.52	0.44
22:DA:2345:G:H4'	22:DA:2346:A:H5''	1.99	0.44
22:DA:2820:A:C8	25:DD:196:ALA:CB	3.01	0.44
22:DA:301:G:C2	22:DA:302:C:N3	2.86	0.44
22:DA:466:A:N1	22:DA:795:C:O2'	2.48	0.44
22:DA:609:A:N7	22:DA:610:C:C2	2.85	0.44
22:DA:8:C:O2'	22:DA:9:G:H5'	2.17	0.44
22:DA:977:G:N7	57:DA:3586:HOH:O	2.36	0.44
24:DC:75:PRO:HB2	24:DC:97:LYS:CG	2.48	0.44
22:DA:2619:C:H4'	25:DD:156:PHE:O	2.17	0.44
22:DA:319:G:P	26:DE:132:LYS:HE3	2.58	0.44
26:DE:129:PRO:HG3	26:DE:156:ASN:OD1	2.18	0.44
29:DH:37:VAL:HG22	29:DH:38:PRO:HD2	1.98	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DM:68:PHE:O	34:DM:69:PRO:O	2.36	0.44
22:DA:1651:G:H5''	35:DN:10:LEU:HD23	1.99	0.44
35:DN:2:ARG:HG3	35:DN:3:HIS:N	2.33	0.44
35:DN:54:LEU:CD2	35:DN:66:ALA:HB2	2.48	0.44
42:DU:36:VAL:O	42:DU:37:GLU:C	2.56	0.44
42:DU:44:LYS:O	42:DU:59:VAL:N	2.51	0.44
45:DX:31:PRO:O	45:DX:33:LEU:N	2.51	0.44
1:AA:1157:A:C6	1:AA:1180:A:C5	3.06	0.44
1:AA:1307:U:H2'	1:AA:1308:U:H6	1.82	0.44
1:AA:1333:A:C2	1:AA:1334:G:H1'	2.53	0.44
1:AA:330:C:O2'	1:AA:331:G:H5'	2.18	0.44
1:AA:457:G:C6	1:AA:458:U:N3	2.85	0.44
1:AA:457:G:N2	1:AA:476:U:C2	2.85	0.44
1:AA:602:A:C2	1:AA:603:U:O2	2.71	0.44
1:AA:834:U:C4	1:AA:835:U:C4	3.05	0.44
1:AA:843:U:OP1	1:AA:846:G:N2	2.48	0.44
1:AA:858:G:O2'	1:AA:859:G:C5'	2.66	0.44
2:AB:51:ASN:O	2:AB:52:GLU:CB	2.66	0.44
3:AC:155:GLY:N	3:AC:164:ARG:O	2.51	0.44
3:AC:85:GLU:OE1	3:AC:88:ARG:CZ	2.66	0.44
1:AA:1124:G:OP1	10:AJ:37:ARG:C	2.56	0.44
13:AM:85:CYS:SG	13:AM:87:ARG:HG3	2.57	0.44
15:AO:2:SER:O	15:AO:3:LEU:CB	2.65	0.44
15:AO:62:GLN:O	15:AO:65:LYS:N	2.51	0.44
16:AP:42:ILE:CG2	16:AP:42:ILE:O	2.66	0.44
19:AS:51:VAL:HB	19:AS:58:VAL:HG22	1.99	0.44
22:BA:1047:G:N2	22:BA:1110:G:C4	2.86	0.44
22:BA:1605:C:C2'	22:BA:1606:C:H5'	2.48	0.44
22:BA:1718:G:C2	22:BA:1719:G:C8	3.05	0.44
22:BA:563:A:N7	22:BA:2018:G:C6	2.85	0.44
22:BA:2518:A:H2'	22:BA:2518:A:N3	2.31	0.44
22:BA:513:A:C2'	22:BA:514:A:H5'	2.48	0.44
22:BA:597:G:C5	22:BA:598:U:C4	3.05	0.44
22:BA:609:A:H2'	22:BA:610:C:O4'	2.17	0.44
24:BC:187:ASP:OD1	24:BC:187:ASP:N	2.50	0.44
32:BK:4:GLU:O	32:BK:5:GLN:HB2	2.18	0.44
1:CA:1269:A:C2	1:CA:1313:U:O4'	2.71	0.44
1:CA:1397:C:H3'	1:CA:1398:A:H5''	2.00	0.44
1:CA:149:A:C2	1:CA:150:U:C2	3.06	0.44
1:CA:1516:G:C2	1:CA:1518:A:OP2	2.71	0.44
1:CA:179:A:C5	1:CA:180:U:C4	3.06	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:246:A:N3	1:CA:279:A:N6	2.66	0.44
1:CA:441:A:C2	1:CA:497:G:C5	3.06	0.44
3:CC:162:ILE:O	3:CC:162:ILE:HD12	2.18	0.44
5:CE:154:ALA:HA	5:CE:157:ARG:HB3	1.99	0.44
6:CF:38:ARG:NH1	6:CF:63:ASN:HB2	2.33	0.44
6:CF:54:LEU:O	6:CF:55:HIS:O	2.36	0.44
13:CM:22:ILE:HB	13:CM:25:VAL:CG1	2.48	0.44
15:CO:33:THR:HA	15:CO:63:ARG:HH11	1.82	0.44
18:CR:35:GLU:HB2	21:CU:19:PHE:HZ	1.80	0.44
22:DA:1045:C:C4'	22:DA:1046:A:H5'	2.48	0.44
22:DA:1045:C:H41	22:DA:1111:A:H2'	1.81	0.44
22:DA:1096:A:C6	22:DA:1097:U:C5	3.06	0.44
22:DA:1470:A:C2'	22:DA:1471:G:O5'	2.66	0.44
22:DA:1480:C:C4	22:DA:1481:U:C4	3.06	0.44
22:DA:1588:G:H3'	22:DA:1589:U:C6	2.53	0.44
22:DA:1702:G:C6	22:DA:1703:G:C5	3.05	0.44
22:DA:2054:A:OP1	22:DA:2055:C:O2'	2.30	0.44
22:DA:2213:U:H4'	22:DA:2214:C:OP2	2.17	0.44
22:DA:2230:G:H2'	22:DA:2231:U:C6	2.51	0.44
22:DA:2325:G:C6	22:DA:2326:C:N4	2.86	0.44
22:DA:2425:A:H4'	22:DA:2426:A:O5'	2.18	0.44
22:DA:2430:A:P	57:DA:3344:HOH:O	2.76	0.44
22:DA:2749:A:OP1	28:DG:2:SER:HB3	2.18	0.44
22:DA:2835:A:H4'	22:DA:2836:U:OP1	2.18	0.44
22:DA:2897:U:H2'	22:DA:2898:U:C6	2.52	0.44
22:DA:543:G:C2	22:DA:551:G:C4	3.06	0.44
22:DA:54:G:C6	22:DA:55:G:N7	2.86	0.44
22:DA:630:G:H3'	22:DA:631:A:C5'	2.48	0.44
22:DA:633:A:H5''	33:DL:70:LYS:HD3	1.99	0.44
25:DD:168:GLU:O	25:DD:170:VAL:HG22	2.18	0.44
27:DF:108:VAL:N	27:DF:109:PRO:CD	2.81	0.44
27:DF:143:TYR:O	27:DF:146:VAL:HG22	2.18	0.44
29:DH:127:GLU:CG	29:DH:144:VAL:O	2.65	0.44
31:DJ:29:ALA:HA	31:DJ:105:VAL:HG22	1.98	0.44
31:DJ:80:HIS:O	31:DJ:81:ILE:C	2.56	0.44
35:DN:24:MET:HE3	35:DN:44:LEU:HD22	2.00	0.44
37:DP:43:PHE:CD2	37:DP:72:ARG:HD3	2.53	0.44
39:DR:61:ALA:HB2	39:DR:98:ILE:HA	2.00	0.44
42:DU:53:ASN:OD1	42:DU:53:ASN:N	2.50	0.44
43:DV:30:ILE:HD11	43:DV:63:ILE:HD12	1.99	0.44
22:DA:78:U:OP2	46:DY:2:LYS:HD3	2.16	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:104:G:O2'	1:AA:105:G:H5'	2.18	0.44
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.53	0.44
1:AA:511:C:C2	1:AA:512:U:C5	3.06	0.44
1:AA:945:G:C2	1:AA:946:A:C8	3.05	0.44
1:AA:956:U:C5	1:AA:957:U:C5	3.05	0.44
2:AB:67:ILE:HG21	2:AB:69:PHE:CE2	2.53	0.44
2:AB:90:PHE:CD2	2:AB:90:PHE:N	2.85	0.44
5:AE:41:ASP:C	5:AE:41:ASP:OD1	2.56	0.44
7:AG:133:THR:O	7:AG:136:LYS:HB3	2.18	0.44
8:AH:32:LEU:CD1	8:AH:32:LEU:C	2.86	0.44
9:AI:83:ILE:O	9:AI:87:LEU:HD13	2.17	0.44
10:AJ:80:THR:O	10:AJ:82:LYS:N	2.51	0.44
11:AK:21:ALA:HB2	11:AK:82:LEU:HD12	2.00	0.44
11:AK:16:VAL:HG12	11:AK:77:TYR:HB3	1.99	0.44
15:AO:30:ALA:HA	15:AO:85:LEU:HD21	1.99	0.44
16:AP:19:VAL:HG13	16:AP:37:GLY:C	2.38	0.44
19:AS:37:ARG:O	19:AS:70:LYS:HD2	2.17	0.44
22:BA:109:C:H2'	22:BA:110:G:O4'	2.18	0.44
22:BA:1040:A:C2	22:BA:1116:G:N1	2.86	0.44
22:BA:991:C:N4	22:BA:1185:G:O6	2.51	0.44
22:BA:1229:C:H2'	22:BA:1230:A:C8	2.53	0.44
22:BA:1661:G:H2'	22:BA:1662:U:H6	1.82	0.44
22:BA:2267:A:C2	57:BA:3511:HOH:O	2.56	0.44
22:BA:962:G:O2'	22:BA:963:U:H5'	2.17	0.44
22:BA:974:G:O4'	22:BA:1186:G:N2	2.51	0.44
25:BD:37:VAL:HG12	25:BD:38:LYS:N	2.33	0.44
29:BH:4:ILE:HG23	29:BH:17:ASP:O	2.17	0.44
29:BH:57:LYS:HG3	29:BH:58:LEU:N	2.33	0.44
29:BH:99:ILE:CD1	29:BH:117:LEU:HD13	2.48	0.44
30:BI:80:LEU:HD13	30:BI:136:MET:SD	2.57	0.44
32:BK:113:MET:O	32:BK:116:ILE:HG13	2.16	0.44
32:BK:60:ALA:HB1	32:BK:84:CYS:HB2	2.00	0.44
42:BU:7:ARG:O	42:BU:8:ASP:O	2.36	0.44
22:BA:372:G:OP2	45:BX:61:LYS:HD3	2.18	0.44
1:CA:1130:A:C1'	1:CA:1146:A:C2	3.01	0.44
1:CA:1220:G:H4'	19:CS:34:TRP:O	2.17	0.44
1:CA:309:A:H1'	1:CA:608:A:C2	2.53	0.44
1:CA:375:U:C2	1:CA:376:G:C8	3.06	0.44
1:CA:429:U:H4'	1:CA:430:A:OP1	2.14	0.44
1:CA:663:A:H2'	1:CA:664:G:O4'	2.17	0.44
3:CC:121:THR:CB	3:CC:187:SER:OG	2.65	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:150:PRO:C	5:CE:152:MET:N	2.71	0.44
8:CH:40:LEU:O	8:CH:45:PHE:HB2	2.18	0.44
8:CH:55:THR:C	8:CH:57:PRO:HD3	2.38	0.44
9:CI:8:GLY:N	9:CI:86:ALA:HB2	2.33	0.44
14:CN:30:ILE:O	14:CN:33:ASP:HB3	2.16	0.44
17:CQ:12:VAL:HG12	17:CQ:13:VAL:N	2.32	0.44
18:CR:45:THR:OG1	18:CR:45:THR:O	2.31	0.44
19:CS:53:ASN:HB3	19:CS:75:ALA:HB1	1.99	0.44
22:DA:1056:G:C6	22:DA:1102:C:OP2	2.71	0.44
22:DA:1128:G:C4	22:DA:1129:A:C2	3.06	0.44
22:DA:118:A:C8	22:DA:119:A:N7	2.85	0.44
22:DA:1257:C:N4	22:DA:1258:U:O4	2.51	0.44
22:DA:1286:A:N6	22:DA:1329:U:O2'	2.40	0.44
22:DA:1437:C:N3	22:DA:1438:U:C4	2.86	0.44
22:DA:1691:C:C4	22:DA:1692:U:C4	3.06	0.44
22:DA:758:C:O2'	22:DA:1981:A:N3	2.38	0.44
22:DA:747:U:O2	22:DA:2014:A:H1'	2.18	0.44
22:DA:2024:G:C2	22:DA:2040:G:N3	2.86	0.44
22:DA:244:A:H5''	33:DL:67:THR:HG21	1.99	0.44
22:DA:2602:A:H4'	22:DA:2603:G:H5'	1.99	0.44
22:DA:481:G:C4	22:DA:507:A:C2	3.06	0.44
22:DA:693:A:H2'	22:DA:694:U:O4'	2.17	0.44
22:DA:696:G:N1	22:DA:767:U:C2	2.86	0.44
22:DA:798:G:C2	22:DA:799:G:C5	3.06	0.44
26:DE:40:ARG:NH2	26:DE:92:HIS:CD2	2.86	0.44
27:DF:42:GLU:HB2	27:DF:49:LEU:HD23	1.99	0.44
28:DG:89:LEU:N	28:DG:89:LEU:HD13	2.32	0.44
34:DM:58:LYS:O	34:DM:60:GLN:N	2.46	0.44
36:DO:70:ALA:O	36:DO:74:VAL:HB	2.17	0.44
36:DO:80:GLU:O	36:DO:84:GLU:HG3	2.17	0.44
41:DT:37:ASP:OD2	41:DT:38:ALA:N	2.51	0.44
41:DT:91:GLN:O	41:DT:91:GLN:NE2	2.48	0.44
42:DU:72:ILE:HG12	42:DU:83:VAL:HG23	2.00	0.44
1:AA:1093:A:H2'	1:AA:1095:U:OP1	2.18	0.44
1:AA:1050:G:C2	1:AA:1209:C:O2	2.71	0.44
1:AA:221:C:C2	1:AA:222:C:C5	3.06	0.44
1:AA:239:U:H5''	1:AA:240:G:OP2	2.17	0.44
1:AA:307:C:H5''	1:AA:308:C:OP2	2.18	0.44
1:AA:375:U:C2	1:AA:376:G:C8	3.06	0.44
1:AA:417:G:C6	1:AA:418:C:C4	3.06	0.44
1:AA:560:A:H5'	1:AA:566:G:N2	2.33	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:569:C:H2'	1:AA:569:C:O2	2.17	0.44
1:AA:69:G:O6	1:AA:98:A:N6	2.51	0.44
1:AA:773:G:H2'	1:AA:774:G:O4'	2.18	0.44
1:AA:830:G:H2'	1:AA:831:A:H8	1.83	0.44
2:AB:193:PRO:O	2:AB:195:GLY:N	2.44	0.44
3:AC:14:ILE:O	3:AC:16:LYS:N	2.51	0.44
7:AG:73:VAL:HG12	7:AG:90:GLU:CG	2.48	0.44
8:AH:111:MET:HE2	8:AH:116:ALA:N	2.33	0.44
11:AK:108:THR:HG22	11:AK:109:ASN:ND2	2.32	0.44
1:AA:1302:C:N3	13:AM:17:ILE:HD11	2.33	0.44
13:AM:85:CYS:O	13:AM:89:LEU:HD12	2.17	0.44
14:AN:46:LEU:HD12	14:AN:46:LEU:C	2.38	0.44
15:AO:25:THR:HG22	15:AO:26:GLU:N	2.33	0.44
17:AQ:12:VAL:O	17:AQ:13:VAL:HG12	2.18	0.44
20:AT:57:ILE:HD12	20:AT:60:ARG:HD2	1.98	0.44
48:B0:13:ARG:O	48:B0:17:ARG:HG3	2.18	0.44
48:B0:48:TYR:CZ	48:B0:53:LYS:HD2	2.53	0.44
50:B2:11:LYS:HE2	57:B2:101:HOH:O	2.17	0.44
22:BA:973:A:H5'	22:BA:1188:U:C1'	2.48	0.44
22:BA:819:A:H1'	22:BA:1189:A:N1	2.33	0.44
22:BA:1420:A:O2'	22:BA:1421:G:H5'	2.18	0.44
22:BA:1465:G:C6	22:BA:1466:U:N3	2.86	0.44
22:BA:1590:A:C2	22:BA:1591:A:C5	3.05	0.44
22:BA:1627:G:C2	22:BA:1628:G:C8	3.06	0.44
22:BA:1649:G:C6	22:BA:2009:A:N1	2.86	0.44
22:BA:1876:A:N1	22:BA:1877:A:C4	2.86	0.44
22:BA:1915:U:H2'	22:BA:1916:A:O4'	2.18	0.44
22:BA:2403:C:C4	22:BA:2415:G:N1	2.86	0.44
22:BA:2756:U:H5''	52:B4:19:ARG:HG2	2.00	0.44
22:BA:478:A:C6	22:BA:480:A:N6	2.86	0.44
22:BA:973:A:H5'	22:BA:1188:U:H1'	2.00	0.44
24:BC:78:VAL:HG21	24:BC:110:LEU:CD2	2.47	0.44
25:BD:100:LEU:O	25:BD:100:LEU:HD12	2.18	0.44
25:BD:4:LEU:HD12	25:BD:32:ASN:CG	2.38	0.44
27:BF:108:VAL:N	27:BF:109:PRO:HD2	2.33	0.44
27:BF:17:MET:O	27:BF:21:ASN:HA	2.18	0.44
28:BG:52:PHE:N	28:BG:52:PHE:CD2	2.86	0.44
29:BH:89:LYS:HE3	29:BH:124:THR:HG22	1.98	0.44
33:BL:29:LYS:CG	33:BL:30:THR:HG23	2.47	0.44
43:BV:14:LYS:HD2	43:BV:18:ARG:NH1	2.32	0.44
1:CA:1386:G:C2	1:CA:1387:G:C8	3.05	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:517:G:C8	1:CA:531:U:C5	3.06	0.44
1:CA:77:A:C2	1:CA:93:U:N3	2.86	0.44
1:CA:75:G:C2	1:CA:96:U:C2	3.06	0.44
3:CC:167:TRP:HE3	3:CC:167:TRP:C	2.21	0.44
6:CF:40:GLU:HB2	6:CF:42:TRP:HE1	1.83	0.44
6:CF:71:ILE:HG22	6:CF:72:ASP:N	2.33	0.44
1:CA:673:A:O3'	6:CF:86:ARG:NH2	2.51	0.44
9:CI:49:ARG:C	9:CI:51:PRO:HD2	2.38	0.44
1:CA:728:A:OP1	15:CO:54:ARG:NH2	2.51	0.44
17:CQ:50:ASN:O	17:CQ:52:GLU:N	2.51	0.44
19:CS:30:PRO:HA	19:CS:48:THR:O	2.18	0.44
22:DA:1034:G:C6	22:DA:1035:U:N3	2.86	0.44
22:DA:1262:A:H2'	22:DA:1262:A:N3	2.33	0.44
22:DA:1435:G:O2'	22:DA:1436:G:H5'	2.18	0.44
22:DA:1490:A:H2'	22:DA:1490:A:N3	2.32	0.44
22:DA:1668:A:C4	22:DA:1674:G:N7	2.86	0.44
22:DA:1721:G:H2'	22:DA:1738:G:H22	1.83	0.44
22:DA:1651:G:C2	22:DA:2007:U:C2	3.06	0.44
22:DA:2043:C:C2	22:DA:2044:C:C5	3.06	0.44
22:DA:2247:A:H3'	57:DA:3504:HOH:O	2.17	0.44
22:DA:2491:U:H5'	22:DA:2570:G:C5'	2.48	0.44
22:DA:279:A:N6	22:DA:361:G:H1'	2.33	0.44
22:DA:301:G:N3	22:DA:302:C:C2	2.86	0.44
22:DA:450:G:H2'	22:DA:451:U:H5''	2.00	0.44
22:DA:478:A:C2	22:DA:480:A:C4	3.06	0.44
22:DA:545:U:O5'	22:DA:545:U:O2	2.35	0.44
22:DA:568:U:H2'	22:DA:570:G:OP2	2.18	0.44
22:DA:630:G:H5''	22:DA:631:A:OP2	2.17	0.44
22:DA:945:A:N7	22:DA:2448:A:C2	2.86	0.44
24:DC:35:GLU:HG3	24:DC:35:GLU:O	2.18	0.44
24:DC:74:ILE:HG22	24:DC:75:PRO:O	2.18	0.44
30:DI:57:VAL:HG21	30:DI:69:PHE:HB2	2.00	0.44
37:DP:4:ILE:O	37:DP:8:LEU:HB2	2.17	0.44
22:DA:534:U:H5'	38:DQ:42:ALA:HB1	1.99	0.44
41:DT:65:GLY:O	41:DT:66:LYS:C	2.56	0.44
42:DU:57:GLY:O	42:DU:59:VAL:HG23	2.18	0.44
42:DU:7:ARG:CG	42:DU:8:ASP:H	2.29	0.44
46:DY:9:LYS:HG2	46:DY:10:SER:N	2.33	0.44
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.47	0.43
1:AA:1249:C:H5''	9:AI:38:TYR:OH	2.17	0.43
1:AA:1322:C:O2'	1:AA:1323:G:OP2	2.27	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:223:A:C6	1:AA:224:U:O4	2.71	0.43
1:AA:439:U:H2'	1:AA:440:C:O5'	2.17	0.43
1:AA:464:U:N3	1:AA:466:A:H5''	2.33	0.43
1:AA:582:C:C4	1:AA:583:A:N7	2.86	0.43
1:AA:818:G:O2'	1:AA:819:A:H5'	2.18	0.43
3:AC:143:ARG:CG	3:AC:144:LEU:HD13	2.48	0.43
7:AG:103:TRP:CH2	7:AG:141:VAL:HG21	2.53	0.43
10:AJ:53:ILE:CG2	10:AJ:61:ALA:HB1	2.47	0.43
13:AM:107:ARG:HH11	13:AM:107:ARG:CG	2.29	0.43
1:AA:1202:U:H1'	14:AN:69:ARG:HD2	1.99	0.43
10:AJ:49:PHE:CD2	14:AN:77:PHE:CE1	3.05	0.43
15:AO:69:TYR:O	15:AO:72:ARG:HB3	2.18	0.43
17:AQ:46:VAL:HG11	17:AQ:61:ILE:HG13	2.00	0.43
18:AR:72:ASP:OD2	21:AU:4:ILE:HG13	2.18	0.43
22:BA:1072:C:OP2	22:BA:1075:C:N4	2.51	0.43
22:BA:1047:G:C2	22:BA:1110:G:C4	3.06	0.43
22:BA:1483:G:C2	22:BA:1484:U:C2	3.06	0.43
22:BA:1492:G:C6	22:BA:1499:C:N3	2.86	0.43
22:BA:1538:G:OP2	22:BA:1538:G:H8	2.00	0.43
22:BA:2392:A:C8	22:BA:2429:G:C6	3.06	0.43
22:BA:2607:G:H2'	22:BA:2608:G:O4'	2.18	0.43
22:BA:2619:C:H2'	22:BA:2620:C:H6	1.82	0.43
22:BA:278:A:N1	22:BA:362:A:C8	2.86	0.43
22:BA:2892:G:H5''	22:BA:2894:G:N2	2.33	0.43
22:BA:587:C:H3'	22:BA:588:U:H5'	2.00	0.43
22:BA:669:G:C2'	22:BA:669:G:N3	2.80	0.43
22:BA:695:G:C6	22:BA:696:G:N7	2.86	0.43
22:BA:813:U:C2	22:BA:1195:G:N2	2.86	0.43
22:BA:864:G:O2'	22:BA:865:C:H5'	2.18	0.43
22:BA:878:A:H5'	22:BA:879:G:OP2	2.18	0.43
24:BC:146:MET:SD	24:BC:154:LEU:HD21	2.57	0.43
24:BC:174:LEU:O	24:BC:181:MET:HA	2.17	0.43
25:BD:101:PHE:CE2	25:BD:203:VAL:CG1	3.00	0.43
28:BG:38:ASN:O	28:BG:39:ASP:CB	2.66	0.43
30:BI:39:CYS:HA	30:BI:42:PHE:HB3	1.99	0.43
31:BJ:70:THR:C	31:BJ:71:ASP:OD2	2.56	0.43
37:BP:46:VAL:O	37:BP:61:VAL:HA	2.18	0.43
22:BA:1250:G:H5'	38:BQ:6:ARG:HD3	2.00	0.43
39:BR:53:PHE:N	39:BR:53:PHE:CD1	2.83	0.43
45:BX:64:ILE:CD1	45:BX:68:LEU:HG	2.48	0.43
1:CA:1463:U:H2'	1:CA:1464:U:C6	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1489:G:C2'	1:CA:1490:U:H5'	2.48	0.43
1:CA:15:G:C2	1:CA:16:A:C4	3.06	0.43
1:CA:222:C:C2	1:CA:223:A:C8	3.06	0.43
1:CA:373:A:N3	1:CA:374:A:C8	2.86	0.43
1:CA:688:G:O2'	1:CA:704:A:N1	2.46	0.43
1:CA:772:U:O2'	1:CA:773:G:H5'	2.17	0.43
2:CB:135:LEU:C	2:CB:137:ARG:N	2.71	0.43
2:CB:71:GLY:O	2:CB:93:ASN:HA	2.17	0.43
4:CD:105:MET:SD	4:CD:143:VAL:HG13	2.57	0.43
4:CD:124:MET:CE	4:CD:146:ARG:HD2	2.47	0.43
4:CD:188:ARG:O	4:CD:191:LEU:HD12	2.18	0.43
5:CE:35:ALA:O	5:CE:50:TYR:O	2.37	0.43
8:CH:88:ARG:O	8:CH:89:LYS:HB3	2.18	0.43
17:CQ:28:PHE:CE1	17:CQ:37:PHE:O	2.71	0.43
17:CQ:55:ILE:HG12	17:CQ:56:GLY:N	2.33	0.43
22:DA:1361:G:C5	22:DA:1362:C:C5	3.06	0.43
22:DA:1361:G:C6	22:DA:1362:C:C5	3.06	0.43
22:DA:1581:G:C4	22:DA:1582:C:C5	3.06	0.43
22:DA:1655:A:C6	22:DA:1656:C:C2	3.05	0.43
22:DA:2222:C:H2'	22:DA:2223:G:O5'	2.18	0.43
22:DA:2298:A:C4	22:DA:2321:U:C5	3.06	0.43
22:DA:2323:G:C5	22:DA:2324:U:C5	3.06	0.43
22:DA:2741:A:H2'	22:DA:2742:G:O4'	2.18	0.43
22:DA:562:U:H2'	22:DA:572:A:O4'	2.18	0.43
22:DA:563:A:C6	22:DA:564:C:N3	2.85	0.43
22:DA:630:G:C5'	22:DA:631:A:OP2	2.66	0.43
22:DA:699:A:H2'	22:DA:700:G:C5'	2.47	0.43
25:DD:172:VAL:HG23	25:DD:194:PRO:HD3	1.99	0.43
26:DE:131:THR:O	26:DE:135:ALA:N	2.50	0.43
26:DE:140:ASP:C	26:DE:142:ALA:H	2.21	0.43
26:DE:147:LEU:HB3	26:DE:186:VAL:HG22	2.00	0.43
22:DA:1064:C:O4'	30:DI:90:SER:HB2	2.18	0.43
37:DP:53:ARG:CB	37:DP:56:HIS:HB2	2.48	0.43
38:DQ:27:ALA:HB1	38:DQ:31:VAL:CG2	2.48	0.43
38:DQ:71:GLN:OE1	38:DQ:71:GLN:HA	2.17	0.43
44:DW:40:GLN:OE1	44:DW:44:LYS:N	2.51	0.43
1:AA:116:A:H2'	1:AA:117:G:C8	2.53	0.43
1:AA:246:A:N3	1:AA:247:G:H1'	2.32	0.43
1:AA:33:A:H2'	1:AA:34:C:C6	2.53	0.43
1:AA:591:U:H2'	1:AA:592:G:H8	1.83	0.43
1:AA:922:G:C6	1:AA:923:A:C6	3.06	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:62:SER:O	2:AB:64:LYS:N	2.51	0.43
4:AD:78:GLU:O	4:AD:79:ALA:C	2.56	0.43
5:AE:111:MET:HE1	5:AE:125:ALA:HB1	2.00	0.43
5:AE:46:VAL:HG11	5:AE:118:ALA:HB2	1.99	0.43
7:AG:65:ALA:HA	7:AG:128:ALA:HA	2.00	0.43
8:AH:49:PHE:C	8:AH:49:PHE:HD1	2.21	0.43
1:AA:1367:C:P	9:AI:114:LYS:HZ1	2.40	0.43
20:AT:54:MET:CE	20:AT:58:VAL:HG21	2.48	0.43
22:BA:1845:G:C6	22:BA:1896:G:C6	3.05	0.43
22:BA:1926:U:C2'	22:BA:1926:U:O2	2.66	0.43
22:BA:2343:U:O2	22:BA:2343:U:H2'	2.17	0.43
22:BA:2377:A:O2'	22:BA:2378:A:H5'	2.18	0.43
22:BA:2519:U:C5	22:BA:2541:A:C6	3.06	0.43
22:BA:2718:G:O3'	37:BP:96:LYS:HG3	2.18	0.43
22:BA:547:A:C8	22:BA:548:G:N3	2.86	0.43
22:BA:815:C:C2	22:BA:1193:G:C2	3.05	0.43
22:BA:816:C:C2	22:BA:1192:G:C2	3.06	0.43
24:BC:144:VAL:HG12	24:BC:145:GLU:O	2.17	0.43
24:BC:141:VAL:CG1	24:BC:190:ALA:HB1	2.47	0.43
24:BC:195:VAL:CG2	24:BC:196:GLY:N	2.81	0.43
24:BC:222:GLY:C	24:BC:224:ALA:H	2.22	0.43
25:BD:71:ALA:HA	25:BD:92:VAL:HG11	2.00	0.43
28:BG:173:GLU:OE1	28:BG:173:GLU:HA	2.17	0.43
22:BA:2379:G:H4'	36:BO:21:LEU:HD11	2.00	0.43
40:BS:83:LYS:HD2	40:BS:97:LEU:HD11	2.00	0.43
1:CA:1055:A:C6	1:CA:1206:G:C4	3.06	0.43
1:CA:1211:U:H1'	1:CA:1213:A:C2	2.52	0.43
1:CA:190:A:H2'	1:CA:191:G:O4'	2.17	0.43
1:CA:211:G:O2'	1:CA:212:G:O4'	2.36	0.43
1:CA:451:A:H4'	1:CA:452:A:O5'	2.17	0.43
1:CA:575:G:N2	1:CA:881:G:H1'	2.33	0.43
1:CA:802:A:C2	1:CA:803:G:H1'	2.53	0.43
1:CA:823:C:O2'	1:CA:824:G:H5'	2.18	0.43
1:CA:841:C:N3	1:CA:843:U:C5	2.86	0.43
1:CA:844:G:H3'	1:CA:844:G:OP1	2.18	0.43
1:CA:926:G:C6	1:CA:1505:G:C6	3.05	0.43
1:CA:996:A:H2'	1:CA:997:U:C6	2.53	0.43
2:CB:186:ILE:HA	2:CB:200:ILE:O	2.18	0.43
3:CC:34:ASP:O	3:CC:38:LYS:HB2	2.17	0.43
4:CD:73:ARG:O	4:CD:76:TYR:N	2.51	0.43
9:CI:12:ARG:O	9:CI:12:ARG:HG3	2.16	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:109:ASN:HB3	21:CU:6:VAL:O	2.18	0.43
11:CK:92:GLY:O	11:CK:94:GLU:N	2.51	0.43
12:CL:63:VAL:HG21	12:CL:95:TYR:CD2	2.54	0.43
1:CA:1048:G:H4'	14:CN:3:LYS:CE	2.49	0.43
18:CR:23:TYR:HA	18:CR:58:ALA:HB1	2.00	0.43
19:CS:58:VAL:CG1	19:CS:75:ALA:HB2	2.48	0.43
21:CU:43:THR:O	21:CU:46:LYS:HB3	2.17	0.43
21:CU:53:VAL:HG13	21:CU:54:LYS:H	1.83	0.43
22:DA:1070:A:C2	22:DA:1097:U:O2'	2.70	0.43
22:DA:1801:A:C4	24:DC:262:ARG:NH2	2.85	0.43
22:DA:1936:A:OP1	22:DA:1937:A:H5'	2.18	0.43
22:DA:2100:G:C5	22:DA:2190:G:C6	3.06	0.43
22:DA:2298:A:C4	22:DA:2321:U:H5	2.36	0.43
22:DA:199:A:N6	22:DA:2434:A:C5	2.87	0.43
22:DA:2497:A:N3	22:DA:2498:C:N4	2.66	0.43
22:DA:2551:C:H2'	22:DA:2552:U:C6	2.52	0.43
22:DA:2602:A:H4'	22:DA:2603:G:C5'	2.48	0.43
22:DA:2718:G:O3'	37:DP:96:LYS:HG3	2.18	0.43
22:DA:2893:A:O4'	22:DA:2894:G:C2	2.71	0.43
22:DA:293:U:C5'	22:DA:294:A:OP2	2.66	0.43
22:DA:303:G:H2'	22:DA:304:U:C6	2.53	0.43
22:DA:334:C:OP1	22:DA:335:C:N4	2.51	0.43
22:DA:232:G:N1	22:DA:420:C:OP1	2.46	0.43
22:DA:971:G:H2'	22:DA:972:A:O4'	2.18	0.43
26:DE:8:ALA:O	26:DE:9:GLN:HB2	2.17	0.43
30:DI:127:ARG:HA	30:DI:130:GLU:HB2	1.98	0.43
30:DI:80:LEU:HD23	30:DI:84:ALA:CB	2.48	0.43
31:DJ:7:LYS:O	31:DJ:11:VAL:HG22	2.18	0.43
33:DL:56:PRO:O	33:DL:60:ARG:HB3	2.18	0.43
26:DE:25:GLU:HG2	33:DL:6:LEU:HD23	2.00	0.43
35:DN:103:ARG:CB	35:DN:110:MET:HE3	2.48	0.43
35:DN:31:HIS:O	35:DN:33:ILE:HG22	2.18	0.43
22:DA:2873:A:H1'	35:DN:4:ARG:O	2.18	0.43
36:DO:110:ALA:HB3	36:DO:117:PHE:HE2	1.84	0.43
33:DL:23:ILE:HG12	39:DR:82:HIS:CD2	2.53	0.43
1:AA:1035:A:H2'	1:AA:1036:A:C1'	2.49	0.43
1:AA:1077:G:N2	1:AA:1081:A:C4	2.87	0.43
1:AA:107:G:C2'	1:AA:108:G:H5''	2.48	0.43
1:AA:1098:C:H2'	1:AA:1099:G:O4'	2.18	0.43
1:AA:1140:C:O2	1:AA:1141:C:C5	2.70	0.43
1:AA:1406:U:H2'	1:AA:1407:C:H5'	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:259:G:N2	1:AA:260:G:H1'	2.33	0.43
1:AA:655:A:C2	1:AA:656:G:C4	3.06	0.43
1:AA:698:G:C6	1:AA:699:C:C4	3.06	0.43
1:AA:663:A:C6	1:AA:743:A:N1	2.86	0.43
2:AB:184:PHE:CD2	2:AB:184:PHE:N	2.86	0.43
2:AB:57:LEU:O	2:AB:60:ILE:HG13	2.18	0.43
4:AD:124:MET:HG3	4:AD:146:ARG:HG2	2.00	0.43
1:AA:1342:C:O2'	9:AI:126:GLN:CG	2.66	0.43
9:AI:50:GLN:NE2	9:AI:103:PHE:CZ	2.86	0.43
10:AJ:65:TYR:HB2	14:AN:96:LEU:HD11	2.00	0.43
14:AN:43:ASN:C	14:AN:45:VAL:N	2.71	0.43
15:AO:2:SER:O	15:AO:3:LEU:HB2	2.18	0.43
17:AQ:61:ILE:CG2	17:AQ:73:TRP:CE3	3.02	0.43
18:AR:25:ASP:O	18:AR:26:ILE:C	2.54	0.43
22:BA:1097:U:H3'	22:BA:1098:A:H4'	2.00	0.43
22:BA:1225:G:C2	22:BA:1226:A:N1	2.86	0.43
22:BA:1358:G:N2	22:BA:1374:G:C6	2.87	0.43
22:BA:1374:G:C5	22:BA:1375:U:C5	3.06	0.43
22:BA:1505:A:H2'	22:BA:1506:U:O4'	2.18	0.43
22:BA:1665:A:H2'	22:BA:1666:G:O4'	2.18	0.43
22:BA:1915:U:C2	22:BA:1916:A:C8	3.06	0.43
22:BA:2048:G:H2'	22:BA:2049:G:O5'	2.18	0.43
22:BA:2409:G:C6	22:BA:2410:G:C5	3.06	0.43
22:BA:416:U:H2'	22:BA:417:C:O4'	2.18	0.43
22:BA:13:A:N6	22:BA:525:U:C5	2.86	0.43
22:BA:554:U:C2'	22:BA:555:G:H5'	2.48	0.43
22:BA:768:G:C2'	22:BA:769:U:O5'	2.66	0.43
22:BA:790:U:O2'	22:BA:791:C:OP2	2.31	0.43
22:BA:812:C:O2	22:BA:812:C:H2'	2.19	0.43
25:BD:8:LYS:HE2	25:BD:193:VAL:HG22	2.00	0.43
27:BF:38:MET:CE	27:BF:152:LEU:HD13	2.48	0.43
27:BF:158:THR:HG22	27:BF:160:ALA:H	1.83	0.43
29:BH:27:ARG:O	29:BH:28:ASN:CB	2.66	0.43
29:BH:76:GLU:HA	29:BH:142:VAL:HG12	2.00	0.43
29:BH:80:ILE:HG21	29:BH:94:ILE:HG13	2.00	0.43
30:BI:112:THR:O	30:BI:113:LYS:C	2.56	0.43
40:BS:54:ALA:O	40:BS:55:ILE:C	2.57	0.43
41:BT:61:LEU:C	41:BT:61:LEU:HD12	2.38	0.43
46:BY:46:VAL:O	46:BY:47:ARG:C	2.55	0.43
47:BZ:3:LYS:N	47:BZ:3:LYS:HE3	2.33	0.43
1:CA:1078:U:C2	5:CE:90:THR:HG21	2.53	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1078:U:C5	1:CA:1079:G:C5	3.05	0.43
1:CA:111:G:C6	1:CA:330:C:N4	2.84	0.43
1:CA:1169:A:C2	1:CA:1170:A:C4	3.06	0.43
1:CA:1349:A:C2	1:CA:1374:A:C4	3.06	0.43
1:CA:976:G:C2	1:CA:1363:A:C2	3.06	0.43
1:CA:198:G:H2'	1:CA:199:A:C5'	2.48	0.43
1:CA:198:G:N2	1:CA:199:A:H1'	2.33	0.43
1:CA:541:G:H2'	1:CA:542:G:O4'	2.17	0.43
1:CA:57:G:C5	1:CA:58:C:C4	3.06	0.43
1:CA:81:A:C2	1:CA:89:U:C2	3.06	0.43
1:CA:575:G:O2'	1:CA:821:G:OP2	2.13	0.43
1:CA:867:G:H2'	1:CA:868:C:C6	2.54	0.43
2:CB:133:GLU:O	2:CB:137:ARG:HB3	2.18	0.43
4:CD:97:ARG:O	4:CD:101:VAL:HG23	2.19	0.43
4:CD:26:ARG:CG	4:CD:27:ALA:N	2.67	0.43
5:CE:56:VAL:N	5:CE:57:PRO:CD	2.80	0.43
7:CG:137:LYS:O	7:CG:141:VAL:HG23	2.18	0.43
8:CH:66:PHE:CD1	8:CH:66:PHE:C	2.89	0.43
9:CI:28:ILE:HB	9:CI:35:LEU:HB2	1.99	0.43
9:CI:44:ALA:HB1	9:CI:47:VAL:HG21	2.00	0.43
14:CN:53:ARG:C	14:CN:55:SER:N	2.72	0.43
15:CO:27:VAL:O	15:CO:31:LEU:HD12	2.18	0.43
17:CQ:36:LYS:HG3	17:CQ:37:PHE:N	2.33	0.43
18:CR:25:ASP:C	18:CR:27:ALA:H	2.21	0.43
19:CS:80:TYR:CG	19:CS:81:ARG:N	2.87	0.43
22:DA:1208:C:C4	22:DA:1209:U:C5	3.06	0.43
22:DA:1224:U:C4	22:DA:1225:G:C6	3.07	0.43
22:DA:1309:G:H2'	22:DA:1310:G:O4'	2.19	0.43
22:DA:1362:C:C2'	22:DA:1363:C:H5'	2.48	0.43
22:DA:1361:G:C5	22:DA:1371:G:N2	2.86	0.43
22:DA:150:U:H2'	22:DA:151:C:C6	2.54	0.43
22:DA:1562:U:H2'	22:DA:1563:U:O4'	2.19	0.43
22:DA:1303:G:H1'	22:DA:1641:A:N1	2.33	0.43
22:DA:2024:G:C4	22:DA:2040:G:N2	2.87	0.43
22:DA:2118:U:H5'	22:DA:2119:A:OP1	2.18	0.43
22:DA:223:A:C5	22:DA:422:A:C8	3.05	0.43
22:DA:2514:U:H2'	22:DA:2515:C:H6	1.83	0.43
22:DA:2581:G:C1'	22:DA:2582:G:N7	2.81	0.43
22:DA:510:C:C2'	22:DA:511:U:H5'	2.48	0.43
22:DA:952:G:C6	22:DA:966:G:N1	2.87	0.43
22:DA:947:A:O2'	22:DA:984:A:H2	2.01	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DI:49:ILE:O	30:DI:50:GLU:HB2	2.18	0.43
34:DM:56:ALA:C	34:DM:58:LYS:N	2.70	0.43
35:DN:103:ARG:NE	35:DN:110:MET:CE	2.81	0.43
35:DN:38:LEU:HD11	35:DN:42:LYS:HE3	2.00	0.43
36:DO:31:THR:HG22	36:DO:33:ARG:O	2.18	0.43
22:DA:495:G:H4'	40:DS:4:ILE:O	2.18	0.43
1:AA:971:G:C8	1:AA:1365:G:H4'	2.53	0.43
1:AA:452:A:N7	1:AA:453:G:C4	2.86	0.43
1:AA:64:G:N7	1:AA:99:C:C4	2.86	0.43
6:AF:46:GLN:HB2	6:AF:56:LYS:CE	2.48	0.43
9:AI:117:GLY:C	9:AI:118:LEU:HD12	2.38	0.43
17:AQ:59:VAL:CG2	17:AQ:60:GLU:N	2.81	0.43
48:B0:12:LYS:HD2	48:B0:12:LYS:HA	1.82	0.43
22:BA:1063:G:N3	30:BI:136:MET:HA	2.33	0.43
22:BA:1106:G:C2	22:BA:1107:G:C4	3.06	0.43
22:BA:1132:U:C3'	22:BA:1133:A:H5''	2.48	0.43
22:BA:1237:A:H4'	22:BA:1238:G:OP1	2.19	0.43
22:BA:1429:G:H2'	22:BA:1430:G:C8	2.52	0.43
22:BA:13:A:N3	22:BA:15:G:C6	2.86	0.43
22:BA:1829:A:C8	22:BA:1830:C:C5	3.07	0.43
22:BA:1863:G:N2	22:BA:1880:U:H1'	2.34	0.43
22:BA:1972:G:H2'	22:BA:1973:G:C8	2.52	0.43
22:BA:201:C:H2'	22:BA:202:U:H5'	2.00	0.43
22:BA:2056:G:C5	22:BA:2577:A:C4	3.07	0.43
22:BA:2093:G:H4'	29:BH:25:TYR:N	2.33	0.43
22:BA:632:A:H2'	22:BA:633:A:C8	2.53	0.43
23:BB:81:G:C2'	23:BB:82:U:H5'	2.48	0.43
24:BC:76:ALA:HA	24:BC:95:LEU:O	2.19	0.43
29:BH:96:THR:O	29:BH:100:ALA:N	2.50	0.43
35:BN:103:ARG:CZ	35:BN:110:MET:HE2	2.48	0.43
35:BN:51:LEU:O	35:BN:52:ILE:C	2.57	0.43
36:BO:27:VAL:CG2	36:BO:27:VAL:O	2.65	0.43
39:BR:49:ILE:HG22	39:BR:53:PHE:CA	2.48	0.43
47:BZ:21:LYS:O	47:BZ:24:LEU:N	2.51	0.43
1:CA:1137:C:O2	1:CA:1137:C:O4'	2.36	0.43
1:CA:1222:G:H5''	19:CS:78:ARG:NH1	2.34	0.43
1:CA:1359:C:O2'	1:CA:1361:G:N7	2.50	0.43
1:CA:978:A:P	1:CA:1362:A:H61	2.41	0.43
1:CA:130:A:C2	1:CA:264:C:C2	3.06	0.43
1:CA:327:A:N1	1:CA:329:A:C2	2.86	0.43
1:CA:55:A:N6	1:CA:56:U:C2	2.86	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:756:C:H2'	1:CA:757:U:H5'	2.01	0.43
1:CA:731:G:H5'	1:CA:766:A:H4'	2.00	0.43
1:CA:745:G:H1'	1:CA:836:G:O2'	2.18	0.43
1:CA:884:U:H4'	1:CA:885:G:H5''	2.01	0.43
2:CB:139:ARG:HD2	2:CB:140:GLU:N	2.32	0.43
4:CD:24:GLY:O	4:CD:161:LEU:HD11	2.18	0.43
4:CD:206:LYS:O	4:CD:206:LYS:CD	2.66	0.43
4:CD:98:LEU:O	4:CD:101:VAL:N	2.51	0.43
7:CG:65:ALA:HB1	7:CG:127:ALA:HB3	2.01	0.43
9:CI:19:VAL:HG21	9:CI:83:ILE:N	2.33	0.43
13:CM:3:ARG:HA	13:CM:9:ILE:HG12	2.00	0.43
19:CS:6:LYS:HB2	19:CS:7:LYS:HG2	2.00	0.43
22:DA:1338:G:O2'	22:DA:1392:A:N6	2.51	0.43
22:DA:1645:G:H5''	22:DA:1646:C:O4'	2.17	0.43
22:DA:1679:A:H2'	22:DA:1680:U:C6	2.53	0.43
22:DA:2011:U:H2'	22:DA:2012:G:O4'	2.18	0.43
22:DA:2283:C:H2'	22:DA:2284:A:O4'	2.19	0.43
22:DA:2307:G:N2	22:DA:2312:U:C2	2.86	0.43
22:DA:533:G:H2'	22:DA:534:U:C6	2.53	0.43
22:DA:784:G:C6	22:DA:792:A:C4	3.07	0.43
22:DA:89:A:C2	22:DA:90:U:C2	3.06	0.43
24:DC:207:LYS:HE2	24:DC:213:TRP:CH2	2.54	0.43
25:DD:140:HIS:CD2	57:DD:302:HOH:O	2.66	0.43
22:DA:2787:C:O4'	25:DD:63:PRO:HA	2.19	0.43
26:DE:1:MET:HG3	26:DE:14:VAL:CG2	2.49	0.43
29:DH:31:VAL:CB	29:DH:32:PRO:HD3	2.47	0.43
33:DL:122:VAL:HB	33:DL:142:ILE:HG12	2.00	0.43
35:DN:59:SER:O	35:DN:63:ARG:HB2	2.19	0.43
38:DQ:78:LYS:HE2	38:DQ:117:LEU:HD21	1.99	0.43
39:DR:41:ILE:HD13	39:DR:103:ALA:HA	1.99	0.43
42:DU:44:LYS:CG	42:DU:45:HIS:N	2.81	0.43
42:DU:53:ASN:C	42:DU:55:PRO:HD3	2.39	0.43
42:DU:40:ASN:HB3	42:DU:63:ALA:HB3	2.00	0.43
42:DU:5:ILE:HD13	42:DU:67:VAL:HG13	2.01	0.43
1:AA:1280:A:C3'	1:AA:1281:C:H5'	2.47	0.43
1:AA:212:G:C2	1:AA:213:G:C5	3.07	0.43
1:AA:373:A:C8	1:AA:482:A:C8	3.06	0.43
1:AA:515:G:N2	1:AA:537:G:C4	2.86	0.43
1:AA:616:G:C2	1:AA:617:G:C5	3.06	0.43
2:AB:33:GLY:HA3	2:AB:39:HIS:HB3	2.00	0.43
3:AC:167:TRP:O	3:AC:168:TYR:CD1	2.71	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1078:U:O4'	5:AE:89:HIS:HE1	2.02	0.43
9:AI:17:ALA:HB2	9:AI:67:VAL:CG2	2.48	0.43
10:AJ:27:GLU:HA	10:AJ:30:LYS:HE2	2.01	0.43
14:AN:23:LYS:O	14:AN:25:ALA:N	2.52	0.43
14:AN:47:LYS:HD3	19:AS:13:LEU:HD21	2.00	0.43
16:AP:3:THR:HG22	16:AP:4:ILE:N	2.34	0.43
17:AQ:21:ILE:HD13	17:AQ:48:ASP:OD1	2.18	0.43
20:AT:44:LYS:HD3	20:AT:87:ALA:HA	2.00	0.43
21:AU:47:ARG:HG3	21:AU:47:ARG:O	2.18	0.43
22:BA:1022:G:C5	22:BA:1140:C:C4	3.05	0.43
22:BA:1171:G:C2	22:BA:1172:C:C2	3.07	0.43
22:BA:1366:A:C6	22:BA:1367:A:C4	3.06	0.43
22:BA:1606:C:O2'	22:BA:1607:C:O5'	2.36	0.43
22:BA:2352:A:H2'	22:BA:2353:G:H5'	2.00	0.43
22:BA:2469:A:H4'	34:BM:55:ARG:HH12	1.83	0.43
22:BA:2526:G:C2	22:BA:2538:C:O2	2.72	0.43
22:BA:2006:C:O2'	22:BA:2823:A:C2'	2.67	0.43
22:BA:2901:C:C4	22:BA:2902:C:C5	3.06	0.43
22:BA:2901:C:N4	22:BA:2902:C:C4	2.87	0.43
22:BA:807:U:H2'	22:BA:808:G:O4'	2.18	0.43
22:BA:945:A:P	57:BA:3345:HOH:O	2.68	0.43
28:BG:174:ALA:O	28:BG:175:LYS:CB	2.63	0.43
29:BH:9:VAL:O	29:BH:10:ALA:O	2.36	0.43
32:BK:34:GLY:N	32:BK:37:ASP:OD2	2.50	0.43
33:BL:56:PRO:HB2	33:BL:58:TYR:CD2	2.53	0.43
42:BU:74:ASN:O	42:BU:77:THR:N	2.48	0.43
43:BV:84:PRO:O	43:BV:85:LYS:HG2	2.18	0.43
45:BX:37:ARG:NH2	45:BX:46:PHE:CD1	2.86	0.43
1:CA:1261:A:C2	1:CA:1262:C:C5	3.06	0.43
1:CA:1397:C:C3'	1:CA:1398:A:H5''	2.48	0.43
1:CA:407:U:N3	1:CA:408:A:N7	2.66	0.43
1:CA:552:U:C4'	12:CL:83:ARG:HD2	2.49	0.43
1:CA:590:U:H2'	1:CA:591:U:C6	2.54	0.43
1:CA:939:G:N1	1:CA:940:C:N3	2.67	0.43
1:CA:93:U:C2'	1:CA:94:G:H5''	2.49	0.43
5:CE:157:ARG:C	5:CE:159:LYS:N	2.66	0.43
6:CF:88:MET:HE3	18:CR:64:TYR:CE2	2.54	0.43
6:CF:90:MET:O	6:CF:91:ARG:O	2.37	0.43
11:CK:118:HIS:O	11:CK:119:ASN:HB2	2.17	0.43
11:CK:52:PHE:CE2	11:CK:62:ALA:HB1	2.53	0.43
13:CM:73:ILE:HA	13:CM:76:SER:OG	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:70:LEU:CD1	15:CO:78:TYR:HA	2.48	0.43
22:DA:1142:A:C2	22:DA:1144:A:C1'	3.01	0.43
22:DA:1310:G:N2	22:DA:1605:C:C2	2.87	0.43
22:DA:1606:C:O2'	22:DA:1607:C:P	2.76	0.43
22:DA:2201:G:H2'	22:DA:2202:U:C6	2.54	0.43
22:DA:2726:A:HO2'	22:DA:2727:A:C5'	2.31	0.43
22:DA:622:G:OP2	57:DA:3294:HOH:O	2.21	0.43
23:DB:46:A:C5	23:DB:47:C:C5	3.07	0.43
28:DG:129:THR:O	28:DG:130:GLU:HG2	2.19	0.43
31:DJ:142:ILE:CG2	31:DJ:142:ILE:OXT	2.66	0.43
42:DU:82:ARG:O	42:DU:97:LYS:CG	2.66	0.43
1:AA:1079:G:C2	1:AA:1080:A:C6	3.06	0.43
1:AA:1149:C:N4	1:AA:1150:A:N6	2.65	0.43
1:AA:1269:A:H2	1:AA:1312:G:N3	2.16	0.43
1:AA:1370:G:O5'	9:AI:111:VAL:HG21	2.18	0.43
1:AA:1452:C:H4'	1:AA:1453:G:H5''	2.00	0.43
1:AA:1505:G:C5'	1:AA:1506:U:O5'	2.67	0.43
1:AA:299:G:H2'	1:AA:300:A:C8	2.53	0.43
1:AA:340:U:C2	1:AA:341:C:C5	3.06	0.43
1:AA:437:U:C4	1:AA:438:U:C5	3.06	0.43
1:AA:821:G:C6	1:AA:822:U:C4	3.06	0.43
2:AB:140:GLU:O	2:AB:144:LEU:CD2	2.66	0.43
2:AB:24:ASN:HA	2:AB:25:PRO:HD2	1.91	0.43
2:AB:68:LEU:HD22	2:AB:70:VAL:HG23	2.00	0.43
4:AD:174:ASP:OD1	4:AD:177:LYS:HE2	2.18	0.43
8:AH:95:VAL:O	8:AH:96:MET:C	2.57	0.43
10:AJ:81:GLU:C	10:AJ:84:VAL:HG12	2.39	0.43
13:AM:15:ALA:O	13:AM:19:LEU:HD23	2.19	0.43
16:AP:10:GLY:O	16:AP:11:ALA:HB2	2.18	0.43
16:AP:43:ALA:O	16:AP:44:SER:OG	2.32	0.43
18:AR:22:ASP:OD2	18:AR:24:LYS:HB2	2.19	0.43
19:AS:42:PRO:HD3	19:AS:67:VAL:HG13	2.00	0.43
20:AT:35:VAL:HG12	20:AT:39:ILE:CD1	2.49	0.43
53:B5:212:SER:HA	53:B5:221:PRO:CB	2.48	0.43
53:B5:46:ALA:HA	53:B5:211:ARG:HA	2.01	0.43
22:BA:1661:G:C4	22:BA:1662:U:C6	3.07	0.43
22:BA:1837:C:C2	22:BA:1899:A:N6	2.87	0.43
22:BA:1868:C:H2'	22:BA:1869:G:O4'	2.18	0.43
22:BA:1920:C:C6	22:BA:1920:C:H3'	2.54	0.43
22:BA:243:U:C2'	22:BA:244:A:H5'	2.49	0.43
22:BA:2456:C:H2'	22:BA:2457:U:H5'	2.01	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:338:G:N2	22:BA:339:U:H1'	2.33	0.43
22:BA:956:G:OP1	34:BM:86:LYS:HG3	2.18	0.43
29:BH:103:VAL:O	29:BH:108:VAL:O	2.37	0.43
30:BI:72:LYS:N	30:BI:72:LYS:HD3	2.33	0.43
35:BN:92:GLY:HA2	35:BN:94:TYR:CZ	2.53	0.43
40:BS:40:ASN:O	40:BS:41:LYS:HG2	2.19	0.43
40:BS:69:LEU:HA	40:BS:108:SER:O	2.18	0.43
46:BY:18:LEU:O	46:BY:22:LEU:CB	2.66	0.43
1:CA:1151:A:C2	1:CA:1152:A:C4	3.07	0.43
1:CA:1211:U:H2'	1:CA:1212:U:OP2	2.18	0.43
1:CA:1495:U:H2'	1:CA:1496:C:O4'	2.18	0.43
1:CA:454:G:N2	1:CA:479:U:O2	2.50	0.43
1:CA:821:G:H2'	1:CA:822:U:C6	2.54	0.43
5:CE:96:MET:HE3	5:CE:111:MET:CE	2.49	0.43
11:CK:15:GLN:O	11:CK:15:GLN:HG3	2.18	0.43
14:CN:17:ALA:HA	14:CN:21:PHE:HB2	2.01	0.43
18:CR:24:LYS:C	18:CR:26:ILE:H	2.20	0.43
21:CU:25:LYS:HD3	21:CU:26:ALA:H	1.84	0.43
51:D3:34:THR:CG2	51:D3:35:LYS:N	2.81	0.43
22:DA:1062:G:C5	22:DA:1088:A:H2'	2.54	0.43
22:DA:1262:A:C6	22:DA:1263:U:N3	2.86	0.43
22:DA:1264:A:N7	22:DA:1265:A:C5	2.86	0.43
22:DA:1356:G:C2	22:DA:1357:C:C2	3.07	0.43
22:DA:1492:G:C2	22:DA:1499:C:O2	2.72	0.43
22:DA:1497:U:C2	22:DA:1578:U:OP1	2.71	0.43
22:DA:49:A:N6	22:DA:177:G:C4	2.86	0.43
22:DA:1973:G:C5	22:DA:1974:C:C5	3.06	0.43
22:DA:1999:C:O2	22:DA:2687:U:O2'	2.31	0.43
22:DA:528:A:N1	22:DA:2043:C:O5'	2.51	0.43
22:DA:2078:C:N4	22:DA:2079:U:O4	2.51	0.43
22:DA:2127:G:O2'	22:DA:2173:A:C2	2.71	0.43
22:DA:223:A:H2'	22:DA:408:G:N3	2.33	0.43
22:DA:374:A:N6	22:DA:400:G:O2'	2.48	0.43
22:DA:266:G:N2	22:DA:427:U:H1'	2.34	0.43
22:DA:982:C:H4'	22:DA:983:A:OP1	2.19	0.43
23:DB:78:A:C5	23:DB:99:A:C8	3.06	0.43
24:DC:265:LYS:O	24:DC:265:LYS:HD3	2.19	0.43
25:DD:151:THR:HG22	25:DD:152:PRO:HD3	1.99	0.43
25:DD:55:LYS:NZ	25:DD:77:ARG:O	2.51	0.43
33:DL:81:ASP:O	33:DL:82:LEU:CB	2.66	0.43
46:DY:1:MET:N	46:DY:4:LYS:HD3	2.33	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1050:G:H2'	1:AA:1050:G:N3	2.34	0.43
1:AA:107:G:C3'	1:AA:108:G:H5''	2.48	0.43
1:AA:920:U:H1'	1:AA:1080:A:C2	2.54	0.43
1:AA:1167:A:N7	1:AA:1169:A:C6	2.87	0.43
1:AA:1054:C:C5	1:AA:1196:A:H2'	2.53	0.43
1:AA:1277:C:O2'	1:AA:1279:G:H1'	2.18	0.43
1:AA:1278:G:H4'	1:AA:1279:G:C8	2.52	0.43
1:AA:1299:A:C6	1:AA:1301:U:O2	2.72	0.43
1:AA:357:G:N3	1:AA:358:U:C6	2.87	0.43
1:AA:38:G:N1	1:AA:397:A:C2	2.87	0.43
1:AA:403:C:OP1	4:AD:134:SER:OG	2.27	0.43
1:AA:453:G:H2'	1:AA:454:G:O4'	2.18	0.43
1:AA:397:A:C6	1:AA:548:G:N7	2.87	0.43
1:AA:858:G:O6	1:AA:869:G:C8	2.71	0.43
2:AB:146:ASN:O	2:AB:147:SER:OG	2.31	0.43
2:AB:186:ILE:HD11	2:AB:204:ASP:HA	2.00	0.43
4:AD:10:LYS:HA	4:AD:13:ARG:HG3	2.01	0.43
1:AA:1080:A:OP1	5:AE:52:LYS:HE3	2.18	0.43
5:AE:65:GLU:HG2	5:AE:69:ARG:NH2	2.33	0.43
7:AG:31:MET:SD	7:AG:36:LYS:HD3	2.58	0.43
9:AI:9:THR:O	9:AI:17:ALA:O	2.36	0.43
11:AK:35:THR:OG1	11:AK:40:ASN:N	2.51	0.43
13:AM:20:THR:HA	13:AM:25:VAL:HG23	2.01	0.43
13:AM:65:VAL:HG23	13:AM:66:GLU:HB2	2.00	0.43
13:AM:66:GLU:O	13:AM:67:GLY:C	2.57	0.43
53:B5:55:SER:OG	53:B5:203:GLU:CB	2.67	0.43
22:BA:1142:A:C2	22:BA:1144:A:O4'	2.72	0.43
22:BA:1171:G:N2	22:BA:1179:G:C6	2.86	0.43
22:BA:116:C:C4	22:BA:117:G:C5	3.07	0.43
22:BA:1430:G:C6	22:BA:1431:A:C5	3.06	0.43
22:BA:1687:G:N1	22:BA:1688:U:C4	2.87	0.43
22:BA:1773:A:N7	22:BA:1829:A:H1'	2.33	0.43
22:BA:244:A:OP2	51:B3:8:ARG:NH2	2.47	0.43
22:BA:2575:C:O2'	22:BA:2578:G:N7	2.40	0.43
22:BA:2627:G:N3	22:BA:2781:A:H2	2.15	0.43
22:BA:2684:U:C2'	22:BA:2685:G:O5'	2.67	0.43
22:BA:653:U:H2'	22:BA:654:A:OP1	2.18	0.43
22:BA:685:A:H1'	22:BA:688:U:O4	2.19	0.43
22:BA:975:A:C4	22:BA:990:A:C5	3.07	0.43
23:BB:61:G:H2'	23:BB:62:C:C6	2.54	0.43
24:BC:8:PRO:CB	24:BC:14:ARG:HB2	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:105:LYS:O	25:BD:177:VAL:HG12	2.18	0.43
26:BE:145:ASP:HB3	26:BE:184:ASP:HB2	2.01	0.43
26:BE:16:GLU:O	26:BE:20:GLY:N	2.52	0.43
28:BG:5:ALA:HB2	28:BG:66:GLY:CA	2.48	0.43
29:BH:41:LYS:HA	29:BH:44:ILE:HG12	2.01	0.43
22:BA:1138:G:O2'	31:BJ:107:GLY:HA3	2.19	0.43
33:BL:87:GLY:O	33:BL:89:VAL:HG12	2.18	0.43
35:BN:116:VAL:O	35:BN:116:VAL:HG13	2.18	0.43
35:BN:52:ILE:O	35:BN:53:THR:C	2.56	0.43
35:BN:2:ARG:NH2	35:BN:5:LYS:O	2.52	0.43
38:BQ:41:LYS:HA	38:BQ:44:GLN:CG	2.45	0.43
22:BA:994:C:H3'	38:BQ:54:LYS:HE3	1.99	0.43
38:BQ:68:ALA:HB2	38:BQ:99:ALA:HB1	2.01	0.43
38:BQ:91:ASP:O	38:BQ:95:LEU:HD12	2.18	0.43
39:BR:15:SER:O	39:BR:18:GLN:HB2	2.18	0.43
42:BU:98:SER:OG	42:BU:98:SER:O	2.37	0.43
46:BY:35:GLY:O	46:BY:36:GLN:O	2.37	0.43
1:CA:102:G:H2'	1:CA:103:U:H6	1.84	0.43
1:CA:1381:U:C5	1:CA:1382:C:H5	2.37	0.43
1:CA:1484:C:H2'	1:CA:1485:U:O4'	2.18	0.43
1:CA:1534:A:H4'	1:CA:1535:C:H2'	2.01	0.43
1:CA:356:A:C2'	1:CA:357:G:H5'	2.47	0.43
1:CA:875:U:C4	1:CA:876:C:C5	3.06	0.43
1:CA:878:A:N6	1:CA:879:C:N4	2.67	0.43
2:CB:208:ARG:O	2:CB:211:THR:N	2.52	0.43
2:CB:50:PHE:HD1	2:CB:54:LEU:HD23	1.84	0.43
5:CE:105:ILE:H	5:CE:122:ASN:HA	1.84	0.43
1:CA:1072:G:OP1	5:CE:62:LYS:NZ	2.52	0.43
7:CG:114:LYS:HB2	7:CG:118:LEU:HD12	2.00	0.43
10:CJ:18:ILE:CG2	10:CJ:19:ASP:N	2.82	0.43
17:CQ:19:LYS:CD	17:CQ:49:GLU:HA	2.47	0.43
20:CT:24:ARG:O	20:CT:27:MET:HG3	2.17	0.43
11:CK:122:ARG:NH1	21:CU:36:GLU:CG	2.81	0.43
49:D1:26:ASN:O	49:D1:27:LYS:C	2.57	0.43
22:DA:1047:G:N2	22:DA:1110:G:O2'	2.52	0.43
22:DA:1290:C:C2	22:DA:1291:C:C6	3.06	0.43
22:DA:1350:C:N3	22:DA:1382:G:C2	2.86	0.43
22:DA:136:G:H1	22:DA:143:C:H42	1.67	0.43
22:DA:1802:A:C2	22:DA:1803:A:C2	3.06	0.43
22:DA:1801:A:C5	22:DA:2203:U:C5	3.06	0.43
22:DA:2286:G:H5''	22:DA:2287:A:OP1	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2345:G:C4	22:DA:2347:C:C5	3.06	0.43
22:DA:2550:G:C5	22:DA:2551:C:C5	3.06	0.43
22:DA:269:C:N4	22:DA:270:A:N7	2.67	0.43
22:DA:503:A:C2	22:DA:506:G:C4	3.07	0.43
22:DA:717:C:N4	22:DA:718:A:N3	2.67	0.43
22:DA:738:G:C6	22:DA:739:A:C6	3.07	0.43
33:DL:90:VAL:N	33:DL:121:THR:O	2.51	0.43
23:DB:27:C:OP1	36:DO:34:HIS:NE2	2.51	0.43
36:DO:38:GLN:HA	36:DO:50:ALA:HA	2.01	0.43
36:DO:71:ALA:O	36:DO:75:GLY:N	2.51	0.43
42:DU:61:LYS:HD2	42:DU:61:LYS:HA	1.87	0.43
22:DA:1364:G:C8	45:DX:2:SER:HA	2.54	0.43
46:DY:48:ARG:O	46:DY:51:ALA:HB3	2.19	0.43
1:AA:1130:A:O5'	1:AA:1130:A:H8	2.01	0.43
1:AA:1372:U:C5	1:AA:1373:G:N7	2.87	0.43
1:AA:628:G:H2'	1:AA:629:A:O4'	2.19	0.43
1:AA:692:U:O4	11:AK:54:GLY:HA2	2.19	0.43
3:AC:58:GLU:HG3	3:AC:65:ARG:HB3	2.01	0.43
3:AC:65:ARG:O	3:AC:100:GLN:O	2.36	0.43
6:AF:90:MET:O	6:AF:91:ARG:O	2.36	0.43
6:AF:92:THR:HG22	6:AF:93:LYS:H	1.78	0.43
7:AG:12:ILE:HD11	7:AG:25:LYS:HG3	2.01	0.43
7:AG:138:ARG:O	7:AG:142:HIS:HB2	2.19	0.43
7:AG:27:VAL:O	7:AG:31:MET:N	2.51	0.43
7:AG:91:VAL:HG23	7:AG:95:ARG:HD3	2.01	0.43
8:AH:95:VAL:HG12	8:AH:96:MET:N	2.34	0.43
12:AL:122:PRO:O	12:AL:124:ALA:N	2.52	0.43
13:AM:22:ILE:HB	13:AM:25:VAL:HG22	2.01	0.43
17:AQ:4:LYS:HG3	17:AQ:7:THR:HG23	2.01	0.43
18:AR:27:ALA:O	18:AR:30:LYS:HG3	2.19	0.43
19:AS:52:HIS:CD2	19:AS:54:GLY:H	2.37	0.43
48:B0:20:ASP:O	48:B0:21:ALA:C	2.57	0.43
22:BA:1054:A:C6	22:BA:1055:G:C5	3.07	0.43
22:BA:1087:G:N2	22:BA:1090:A:N7	2.67	0.43
22:BA:1182:G:C6	22:BA:1183:U:C2	3.07	0.43
22:BA:1394:U:H2'	22:BA:1395:A:O4'	2.18	0.43
22:BA:1419:A:C4	22:BA:1421:G:C8	3.06	0.43
22:BA:1929:G:H5''	22:BA:1929:G:N3	2.33	0.43
22:BA:1967:C:H2'	22:BA:1968:G:H5'	2.01	0.43
22:BA:78:U:H2'	22:BA:79:C:H6	1.81	0.43
22:BA:569:U:O2'	22:BA:983:A:N1	2.43	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:160:THR:H	24:BC:195:VAL:HG13	1.84	0.43
24:BC:269:ARG:HG2	24:BC:269:ARG:HH11	1.84	0.43
29:BH:94:ILE:CD1	29:BH:98:ASP:HB3	2.48	0.43
30:BI:101:ILE:HG22	30:BI:105:GLN:HB2	2.00	0.43
31:BJ:77:HIS:HD2	31:BJ:79:GLY:N	2.16	0.43
38:BQ:115:ALA:C	38:BQ:117:LEU:H	2.22	0.43
1:CA:1101:A:H4'	1:CA:1102:A:O5'	2.18	0.43
1:CA:1144:G:N1	1:CA:1145:A:C2	2.87	0.43
1:CA:1191:A:H5''	3:CC:4:LYS:HE3	2.01	0.43
1:CA:1399:C:H4'	1:CA:1400:C:O5'	2.19	0.43
1:CA:158:G:C2'	1:CA:159:G:H5''	2.48	0.43
1:CA:229:U:H2'	1:CA:230:G:O4'	2.19	0.43
1:CA:753:A:H4'	1:CA:754:C:O5'	2.18	0.43
1:CA:764:C:C4	1:CA:765:G:C5	3.06	0.43
1:CA:867:G:H2'	1:CA:868:C:H6	1.83	0.43
1:CA:9:G:OP2	5:CE:126:LYS:CE	2.67	0.43
2:CB:125:THR:O	2:CB:126:PHE:HB3	2.19	0.43
2:CB:69:PHE:O	2:CB:91:PHE:HA	2.19	0.43
3:CC:121:THR:CB	3:CC:187:SER:HG	2.32	0.43
4:CD:40:GLN:OE1	4:CD:41:HIS:NE2	2.51	0.43
6:CF:17:GLN:O	6:CF:21:MET:HG3	2.19	0.43
7:CG:100:ALA:O	7:CG:104:ILE:HG13	2.18	0.43
8:CH:29:SER:HB2	8:CH:59:LEU:HB2	2.00	0.43
9:CI:99:ARG:HA	9:CI:104:VAL:HG21	2.01	0.43
22:DA:2015:A:C6	48:D0:3:VAL:HG23	2.54	0.43
22:DA:1034:G:C6	22:DA:1035:U:C4	3.06	0.43
22:DA:1651:G:H4'	35:DN:39:PRO:HG2	1.99	0.43
22:DA:1659:G:C6	22:DA:1660:G:C5	3.07	0.43
22:DA:1869:G:C3'	22:DA:1870:C:H5'	2.49	0.43
22:DA:1998:A:H4'	22:DA:2724:U:O2'	2.19	0.43
22:DA:2147:A:H2'	22:DA:2148:G:O4'	2.19	0.43
22:DA:2262:U:C2	22:DA:2279:G:N2	2.86	0.43
22:DA:2298:A:N3	22:DA:2321:U:C5	2.87	0.43
22:DA:2591:C:C2	22:DA:2592:G:C8	3.07	0.43
22:DA:2638:G:O2'	22:DA:2775:G:N2	2.38	0.43
22:DA:2544:G:H5'	22:DA:2645:G:C2	2.53	0.43
22:DA:1662:U:O2	22:DA:2687:U:C5'	2.67	0.43
22:DA:2772:C:H2'	22:DA:2773:C:H6	1.84	0.43
22:DA:396:G:O3'	45:DX:30:LEU:O	2.35	0.43
22:DA:60:G:C5	22:DA:62:U:C4	3.07	0.43
22:DA:740:C:N4	22:DA:758:C:O2	2.52	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:792:A:C3'	22:DA:793:A:H5'	2.47	0.43
22:DA:684:G:C2	22:DA:794:A:C2	3.07	0.43
22:DA:815:C:H2'	22:DA:816:C:C6	2.53	0.43
24:DC:225:MET:O	24:DC:233:GLY:HA2	2.19	0.43
24:DC:36:LYS:O	24:DC:36:LYS:CG	2.66	0.43
25:DD:13:ARG:HD2	25:DD:15:PHE:CZ	2.54	0.43
28:DG:158:LYS:C	28:DG:160:LYS:N	2.72	0.43
30:DI:28:LEU:C	30:DI:28:LEU:HD12	2.38	0.43
30:DI:8:TYR:HD2	30:DI:58:VAL:HG13	1.84	0.43
31:DJ:117:ALA:HA	31:DJ:120:ARG:HD2	2.00	0.43
22:DA:1153:C:OP1	38:DQ:92:ARG:NH1	2.52	0.43
39:DR:66:HIS:CD2	39:DR:94:THR:HG22	2.53	0.43
22:DA:1338:G:H4'	41:DT:18:GLU:OE1	2.18	0.43
22:DA:1599:U:P	41:DT:40:LYS:HD2	2.59	0.43
1:AA:114:U:H2'	1:AA:115:G:C8	2.53	0.43
1:AA:126:G:O2'	1:AA:635:A:H4'	2.18	0.43
1:AA:173:U:C2	1:AA:197:A:C6	3.07	0.43
1:AA:47:C:O4'	1:AA:365:U:C5	2.72	0.43
1:AA:829:G:C6	1:AA:858:G:C2	3.07	0.43
1:AA:858:G:O2'	1:AA:859:G:H5'	2.18	0.43
2:AB:82:ASP:O	2:AB:83:ALA:C	2.55	0.43
3:AC:113:ALA:O	3:AC:116:VAL:HB	2.19	0.43
9:AI:35:LEU:HD11	9:AI:48:VAL:HG21	1.99	0.43
10:AJ:25:ILE:HG22	10:AJ:26:VAL:N	2.33	0.43
11:AK:61:PHE:O	11:AK:64:GLN:HB3	2.19	0.43
12:AL:95:TYR:N	12:AL:95:TYR:CD2	2.86	0.43
13:AM:77:ILE:HD13	13:AM:91:HIS:CD2	2.54	0.43
10:AJ:65:TYR:HB3	14:AN:96:LEU:CD1	2.49	0.43
15:AO:26:GLU:HG3	15:AO:81:LEU:HD22	2.01	0.43
15:AO:69:TYR:CZ	15:AO:73:LYS:HG3	2.54	0.43
17:AQ:45:HIS:ND1	17:AQ:70:THR:CG2	2.82	0.43
48:B0:34:SER:OG	48:B0:36:GLU:CG	2.67	0.43
22:BA:1011:G:C5	22:BA:1013:C:C4	3.07	0.43
22:BA:1331:G:C5	22:BA:1333:G:N7	2.87	0.43
22:BA:1670:C:C5	22:BA:1671:U:C4	3.07	0.43
22:BA:1767:G:C2	22:BA:1768:C:C5	3.07	0.43
22:BA:1866:A:C2	22:BA:1876:A:C4	3.06	0.43
22:BA:2510:C:H2'	22:BA:2511:U:H5'	2.01	0.43
22:BA:2690:U:C4	22:BA:2873:A:N1	2.87	0.43
22:BA:2801:G:H2'	22:BA:2802:G:C8	2.54	0.43
22:BA:28:A:C5	22:BA:29:U:C5	3.07	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:517:C:OP1	48:B0:13:ARG:NH2	2.52	0.43
23:BB:62:C:H2'	23:BB:63:C:H6	1.82	0.43
24:BC:133:ARG:HG3	24:BC:134:ASN:OD1	2.18	0.43
24:BC:189:ARG:O	24:BC:190:ALA:CB	2.65	0.43
38:BQ:41:LYS:HB2	38:BQ:41:LYS:HE3	1.86	0.43
33:BL:28:GLY:O	39:BR:82:HIS:HE1	2.01	0.43
41:BT:67:VAL:CG1	41:BT:68:LYS:N	2.82	0.43
44:BW:56:ASP:O	44:BW:57:HIS:HB2	2.19	0.43
46:BY:6:LEU:O	46:BY:60:LYS:NZ	2.49	0.43
47:BZ:3:LYS:CE	47:BZ:3:LYS:H	2.31	0.43
1:CA:976:G:N2	1:CA:1363:A:N3	2.67	0.43
1:CA:489:C:O2'	1:CA:490:C:H5'	2.19	0.43
1:CA:869:G:H4'	1:CA:872:A:C8	2.54	0.43
1:CA:87:C:H2'	1:CA:88:U:C6	2.54	0.43
1:CA:940:C:H2'	1:CA:941:G:C8	2.54	0.43
1:CA:1074:G:H4'	2:CB:103:ASN:HB2	1.99	0.43
3:CC:102:ASN:C	3:CC:103:ILE:HG13	2.39	0.43
4:CD:173:VAL:HG13	4:CD:174:ASP:H	1.82	0.43
4:CD:174:ASP:O	4:CD:175:ALA:HB3	2.18	0.43
4:CD:17:THR:HG22	4:CD:18:ASP:N	2.34	0.43
6:CF:22:ILE:HG22	6:CF:22:ILE:O	2.18	0.43
9:CI:67:VAL:HG13	9:CI:67:VAL:O	2.18	0.43
1:CA:1308:U:O3'	13:CM:91:HIS:HE1	2.01	0.43
14:CN:53:ARG:O	14:CN:59:ARG:HD2	2.19	0.43
17:CQ:29:VAL:O	17:CQ:29:VAL:HG22	2.19	0.43
17:CQ:47:HIS:HB2	17:CQ:67:LEU:HD13	2.01	0.43
22:DA:1659:G:C6	22:DA:1660:G:N7	2.87	0.43
22:DA:1794:A:H2'	22:DA:1795:C:C6	2.54	0.43
22:DA:2104:C:C2	22:DA:2186:G:N2	2.87	0.43
22:DA:200:U:O4	22:DA:248:G:C2	2.72	0.43
22:DA:2799:A:O2'	22:DA:2800:A:H5''	2.19	0.43
22:DA:321:U:C1'	26:DE:159:LEU:HD23	2.49	0.43
22:DA:399:U:C4	22:DA:400:G:C6	3.07	0.43
22:DA:53:A:N7	22:DA:54:G:N7	2.67	0.43
22:DA:593:U:C2	22:DA:594:U:C5	3.06	0.43
22:DA:673:C:OP1	26:DE:76:PRO:CG	2.67	0.43
22:DA:985:C:C2	22:DA:986:C:C5	3.07	0.43
23:DB:15:A:H1'	23:DB:109:A:N7	2.33	0.43
24:DC:124:ILE:HD13	24:DC:136:PRO:HD3	2.00	0.43
26:DE:83:VAL:HG11	26:DE:86:ALA:HA	2.00	0.43
27:DF:40:VAL:O	27:DF:42:GLU:N	2.51	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:82:SER:O	29:DH:83:LYS:C	2.57	0.43
30:DI:8:TYR:HB3	30:DI:59:ILE:O	2.18	0.43
31:DJ:114:LEU:O	31:DJ:118:MET:HG2	2.19	0.43
31:DJ:4:PHE:HB3	38:DQ:64:ARG:NH1	2.34	0.43
39:DR:41:ILE:O	39:DR:47:VAL:N	2.52	0.43
41:DT:23:ALA:O	41:DT:27:SER:HB3	2.19	0.43
43:DV:20:LEU:O	43:DV:25:LYS:HB2	2.18	0.43
46:DY:28:LEU:CD2	46:DY:37:LEU:HD11	2.49	0.43
1:AA:1082:A:H2'	1:AA:1083:U:O4'	2.18	0.43
1:AA:1449:C:H2'	1:AA:1450:U:O4'	2.19	0.43
1:AA:208:U:H5	1:AA:210:C:C4	2.37	0.43
1:AA:252:U:O4	1:AA:253:A:N6	2.52	0.43
1:AA:768:A:N3	1:AA:1512:U:O2'	2.49	0.43
3:AC:40:ARG:CZ	3:AC:57:ILE:HD12	2.49	0.43
4:AD:4:TYR:O	4:AD:5:LEU:HB2	2.18	0.43
4:AD:58:LYS:HG2	4:AD:203:LEU:CD2	2.49	0.43
5:AE:45:ARG:CG	5:AE:73:ASN:HB3	2.49	0.43
6:AF:3:HIS:O	6:AF:4:TYR:CD1	2.72	0.43
7:AG:74:GLU:O	7:AG:89:VAL:HG13	2.19	0.43
9:AI:114:LYS:NZ	9:AI:118:LEU:O	2.52	0.43
9:AI:26:GLY:CA	9:AI:59:GLU:HA	2.49	0.43
14:AN:23:LYS:O	14:AN:24:ARG:C	2.57	0.43
14:AN:47:LYS:HD3	19:AS:13:LEU:CD2	2.48	0.43
1:AA:1202:U:H4'	14:AN:69:ARG:HG3	1.99	0.43
15:AO:87:LEU:CD2	15:AO:87:LEU:N	2.82	0.43
16:AP:64:GLY:O	16:AP:65:ALA:O	2.37	0.43
18:AR:20:GLU:HA	18:AR:55:LEU:CD2	2.48	0.43
20:AT:69:LYS:NZ	20:AT:69:LYS:HB2	2.33	0.43
22:BA:1090:A:C2'	22:BA:1091:G:H5'	2.49	0.43
22:BA:1148:U:C2'	22:BA:1149:G:H5'	2.49	0.43
22:BA:1203:U:C4	22:BA:1204:A:C6	3.06	0.43
22:BA:582:A:C6	22:BA:1259:G:C6	3.07	0.43
22:BA:1301:A:C2	22:BA:1303:G:C6	3.07	0.43
22:BA:1355:G:C2'	22:BA:1356:G:H5'	2.48	0.43
22:BA:1575:C:C2'	22:BA:1576:U:O5'	2.66	0.43
22:BA:2093:G:O2'	29:BH:25:TYR:HB2	2.19	0.43
22:BA:2387:U:H5''	22:BA:2388:A:OP2	2.18	0.43
22:BA:2455:G:C6	22:BA:2456:C:N4	2.87	0.43
22:BA:2577:A:C2'	22:BA:2578:G:OP1	2.67	0.43
22:BA:372:G:C4	45:BX:61:LYS:HE3	2.54	0.43
22:BA:463:G:N1	22:BA:467:G:C6	2.87	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:616:A:H2'	22:BA:617:G:O4'	2.19	0.43
22:BA:920:A:C6	22:BA:921:C:C4	3.07	0.43
22:BA:947:A:H2'	22:BA:948:C:H6	1.82	0.43
26:BE:7:ASP:C	26:BE:9:GLN:H	2.23	0.43
27:BF:112:ARG:O	27:BF:113:ASP:HB2	2.18	0.43
27:BF:63:GLN:OE1	27:BF:95:ARG:HD3	2.18	0.43
22:BA:2093:G:O2'	29:BH:25:TYR:CB	2.67	0.43
29:BH:45:GLU:HA	29:BH:48:GLU:HB2	2.01	0.43
31:BJ:31:GLU:OE2	31:BJ:35:ARG:NH1	2.51	0.43
31:BJ:37:ARG:HG3	31:BJ:118:MET:SD	2.58	0.43
33:BL:37:GLY:O	33:BL:41:ARG:HG2	2.19	0.43
34:BM:89:VAL:HG12	34:BM:90:GLU:N	2.34	0.43
36:BO:53:THR:HG23	36:BO:74:VAL:HG21	2.01	0.43
37:BP:14:LYS:H	37:BP:77:HIS:CE1	2.37	0.43
38:BQ:21:ALA:HB1	38:BQ:24:TYR:HD1	1.83	0.43
43:BV:82:TYR:N	43:BV:82:TYR:CD2	2.87	0.43
47:BZ:10:THR:HG22	47:BZ:11:ARG:HG3	2.01	0.43
1:CA:1140:C:O2'	1:CA:1141:C:P	2.76	0.43
1:CA:1420:U:H2'	1:CA:1421:G:O4'	2.19	0.43
1:CA:793:U:O2	1:CA:1516:G:H4'	2.19	0.43
1:CA:282:A:H3'	1:CA:283:U:H6	1.84	0.43
1:CA:409:U:H2'	1:CA:410:G:O4'	2.18	0.43
1:CA:585:G:OP1	17:CQ:39:LYS:HE3	2.18	0.43
1:CA:718:A:N7	1:CA:719:C:C5	2.87	0.43
1:CA:733:G:H4'	1:CA:734:G:OP1	2.19	0.43
1:CA:78:A:C6	1:CA:79:G:C6	3.06	0.43
5:CE:133:PRO:O	5:CE:137:VAL:HG13	2.18	0.43
8:CH:106:THR:HG21	8:CH:121:LEU:HD13	2.00	0.43
8:CH:126:ILE:HD12	8:CH:126:ILE:N	2.34	0.43
10:CJ:36:VAL:HG12	10:CJ:38:GLY:H	1.84	0.43
10:CJ:48:ARG:CG	10:CJ:48:ARG:NH1	2.80	0.43
12:CL:42:PRO:HA	12:CL:89:ASP:O	2.19	0.43
12:CL:90:LEU:HB3	12:CL:93:VAL:CG2	2.49	0.43
16:CP:52:LEU:HD21	16:CP:57:ILE:CD1	2.48	0.43
16:CP:21:VAL:HG21	16:CP:60:TRP:CD1	2.54	0.43
48:D0:17:ARG:HA	48:D0:20:ASP:OD1	2.19	0.43
22:DA:1113:U:H2'	22:DA:1114:C:C6	2.54	0.43
22:DA:1223:G:N2	22:DA:1226:A:OP2	2.47	0.43
22:DA:1452:G:C6	22:DA:2702:G:C2	3.07	0.43
22:DA:1705:A:C5	22:DA:1706:C:C4	3.07	0.43
22:DA:120:U:O4	22:DA:177:G:C8	2.72	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1798:U:O2'	22:DA:1802:A:N3	2.45	0.43
22:DA:182:A:H2'	22:DA:183:C:C6	2.54	0.43
22:DA:188:G:C2	22:DA:209:C:N3	2.87	0.43
22:DA:571:U:C4	22:DA:2030:A:N1	2.87	0.43
22:DA:2597:G:C2	22:DA:2598:A:C2	3.07	0.43
22:DA:2662:A:H2'	22:DA:2663:G:O4'	2.19	0.43
22:DA:2663:G:H2'	22:DA:2664:G:O4'	2.18	0.43
22:DA:2796:U:O4	22:DA:2798:U:C4	2.72	0.43
22:DA:740:C:C5	22:DA:1981:A:C2	3.07	0.43
22:DA:1566:A:C2	24:DC:213:TRP:CD2	3.07	0.43
26:DE:150:THR:C	26:DE:192:ALA:HB2	2.39	0.43
29:DH:62:LEU:HD13	29:DH:63:ALA:N	2.34	0.43
35:DN:12:ARG:O	35:DN:17:ARG:NH2	2.47	0.43
35:DN:28:LEU:O	35:DN:32:GLU:HA	2.19	0.43
37:DP:106:LYS:HA	37:DP:109:ARG:HD3	2.00	0.43
37:DP:43:PHE:CE2	37:DP:72:ARG:HD3	2.54	0.43
38:DQ:106:PHE:HA	38:DQ:109:LEU:HD12	2.01	0.43
39:DR:67:GLY:C	39:DR:93:PHE:CE2	2.92	0.43
22:DA:327:G:H21	42:DU:68:SER:HB2	1.84	0.43
42:DU:95:PHE:O	42:DU:95:PHE:CG	2.72	0.43
43:DV:38:LEU:HB3	43:DV:40:ILE:HD11	2.01	0.43
1:AA:104:G:C2	1:AA:105:G:C8	3.07	0.42
1:AA:1068:G:H2'	1:AA:1069:C:H5'	2.01	0.42
1:AA:1410:A:C2	1:AA:1411:C:C2	3.07	0.42
1:AA:1503:A:H8	1:AA:1531:A:O2'	1.99	0.42
1:AA:451:A:H2	1:AA:480:U:C4	2.37	0.42
1:AA:452:A:N7	1:AA:453:G:N9	2.66	0.42
1:AA:751:U:C5	1:AA:752:G:C5	3.07	0.42
1:AA:844:G:N3	1:AA:845:A:N7	2.67	0.42
6:AF:12:PRO:O	6:AF:15:SER:N	2.51	0.42
1:AA:1377:A:C4	7:AG:7:ILE:HD11	2.53	0.42
1:AA:1371:G:P	9:AI:13:LYS:HD3	2.59	0.42
10:AJ:10:LEU:O	10:AJ:71:LEU:HA	2.19	0.42
1:AA:972:C:H4'	10:AJ:59:LYS:CE	2.49	0.42
11:AK:55:SER:O	11:AK:58:SER:N	2.52	0.42
21:AU:34:ARG:O	21:AU:36:GLU:N	2.52	0.42
53:B5:40:GLU:HA	53:B5:181:PHE:HA	2.01	0.42
22:BA:1054:A:C5	22:BA:1055:G:N7	2.86	0.42
22:BA:839:U:H1'	22:BA:1191:G:H1'	2.00	0.42
22:BA:1301:A:C5	22:BA:1303:G:C8	3.06	0.42
22:BA:152:A:H2'	22:BA:153:U:C6	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1838:C:C4	22:BA:1899:A:N3	2.87	0.42
22:BA:1946:U:C2	22:BA:1947:C:C6	3.07	0.42
22:BA:2217:G:O2'	22:BA:2218:G:H5'	2.19	0.42
22:BA:2345:G:H4'	22:BA:2346:A:O5'	2.19	0.42
22:BA:262:A:C2	22:BA:430:A:N3	2.87	0.42
22:BA:2637:U:OP1	25:BD:83:ARG:NH2	2.50	0.42
22:BA:46:G:N2	22:BA:47:C:C2	2.86	0.42
22:BA:661:A:H2'	22:BA:662:G:O4'	2.19	0.42
22:BA:819:A:OP2	22:BA:1187:G:N1	2.52	0.42
24:BC:260:ASN:O	24:BC:261:LYS:HB2	2.19	0.42
25:BD:142:VAL:CB	25:BD:143:PRO:CD	2.96	0.42
29:BH:79:THR:CG2	29:BH:147:VAL:CG2	2.97	0.42
42:BU:102:THR:CG2	42:BU:103:ILE:N	2.81	0.42
46:BY:23:ARG:O	46:BY:27:ASN:HB2	2.19	0.42
1:CA:1184:G:C2	1:CA:1185:G:C8	3.06	0.42
1:CA:1182:G:H5'	1:CA:1184:G:H5''	2.00	0.42
1:CA:1491:G:C5	1:CA:1492:A:C5	3.07	0.42
1:CA:17:U:O2	1:CA:18:C:C6	2.72	0.42
1:CA:410:G:H5''	1:CA:411:A:OP1	2.19	0.42
1:CA:504:C:H1'	1:CA:510:A:C4	2.53	0.42
1:CA:81:A:H61	1:CA:87:C:N4	2.17	0.42
1:CA:89:U:H2'	1:CA:90:C:C6	2.54	0.42
3:CC:100:GLN:O	3:CC:101:ILE:HB	2.18	0.42
6:CF:13:ASP:O	6:CF:15:SER:N	2.48	0.42
7:CG:146:GLU:OE1	7:CG:149:LYS:HE2	2.19	0.42
7:CG:31:MET:O	7:CG:31:MET:HG2	2.19	0.42
5:CE:156:LYS:HG2	8:CH:71:VAL:HG22	2.00	0.42
20:CT:83:ILE:O	20:CT:87:ALA:HB3	2.19	0.42
21:CU:6:VAL:HG11	21:CU:17:ARG:HG3	2.01	0.42
21:CU:53:VAL:HG22	21:CU:54:LYS:H	1.83	0.42
51:D3:8:ARG:O	51:D3:12:LYS:HG3	2.19	0.42
52:D4:16:ILE:HG22	52:D4:17:VAL:N	2.34	0.42
22:DA:1009:A:C6	22:DA:1010:A:N1	2.87	0.42
22:DA:1081:U:O3'	30:DI:124:ALA:HB1	2.19	0.42
22:DA:1494:A:H2'	22:DA:1495:A:O4'	2.19	0.42
22:DA:1351:C:O2'	22:DA:1571:A:N3	2.43	0.42
22:DA:1594:U:H2'	22:DA:1595:C:C6	2.53	0.42
22:DA:1751:U:H2'	22:DA:1752:C:C6	2.54	0.42
22:DA:1819:A:H4'	22:DA:1820:U:H5''	2.01	0.42
22:DA:1858:A:C2	22:DA:1859:U:H1'	2.54	0.42
22:DA:186:G:C2	22:DA:211:C:O2	2.72	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1936:A:C8	22:DA:1945:G:C6	3.07	0.42
22:DA:1984:G:C5	22:DA:1985:C:C5	3.07	0.42
22:DA:858:G:C4	22:DA:2268:A:C2	3.07	0.42
22:DA:2378:A:N7	22:DA:2379:G:H1'	2.34	0.42
22:DA:2478:A:C8	22:DA:2529:G:N7	2.87	0.42
22:DA:2552:U:O2	22:DA:2554:U:H5'	2.18	0.42
22:DA:1:G:C2	22:DA:2:G:C4	3.07	0.42
22:DA:56:A:C2	22:DA:57:C:O2	2.72	0.42
22:DA:579:G:C2	22:DA:1262:A:C5	3.07	0.42
22:DA:798:G:H2'	22:DA:799:G:H8	1.83	0.42
24:DC:159:GLY:HA3	24:DC:198:ALA:HA	2.00	0.42
22:DA:1997:C:P	25:DD:129:THR:OG1	2.77	0.42
27:DF:17:MET:O	27:DF:21:ASN:HA	2.19	0.42
28:DG:129:THR:C	28:DG:130:GLU:HG2	2.40	0.42
30:DI:103:ARG:O	30:DI:107:GLN:HB2	2.19	0.42
30:DI:76:ALA:HA	30:DI:79:LEU:HB2	2.01	0.42
32:DK:105:ARG:CZ	37:DP:34:GLU:HG3	2.49	0.42
33:DL:77:ILE:CG2	33:DL:81:ASP:OD2	2.66	0.42
34:DM:34:LYS:HD3	43:DV:82:TYR:HA	2.01	0.42
34:DM:73:ILE:HG13	34:DM:91:TYR:CE2	2.54	0.42
35:DN:103:ARG:CD	35:DN:110:MET:HE3	2.48	0.42
1:AA:1406:U:C2'	1:AA:1407:C:H5'	2.49	0.42
1:AA:1503:A:C5	1:AA:1531:A:N3	2.87	0.42
1:AA:212:G:C2	1:AA:213:G:C4	3.07	0.42
1:AA:220:G:C2'	1:AA:221:C:H5'	2.49	0.42
1:AA:411:A:C5	1:AA:429:U:C5	3.07	0.42
1:AA:481:G:O2'	1:AA:483:C:N4	2.52	0.42
1:AA:516:U:C4	1:AA:517:G:C6	3.08	0.42
1:AA:540:G:C6	1:AA:541:G:C5	3.07	0.42
1:AA:75:G:N3	1:AA:75:G:H2'	2.34	0.42
1:AA:810:C:C2'	1:AA:810:C:O2	2.64	0.42
1:AA:575:G:C5	1:AA:821:G:C8	3.07	0.42
1:AA:851:G:H2'	1:AA:852:G:H5'	2.01	0.42
1:AA:991:U:C4	1:AA:1212:U:H1'	2.54	0.42
5:AE:45:ARG:HA	5:AE:73:ASN:HB3	2.00	0.42
7:AG:71:PRO:HD2	7:AG:96:ARG:HG2	2.01	0.42
1:AA:1060:U:H5''	10:AJ:53:ILE:HG23	2.02	0.42
10:AJ:74:VAL:HG12	10:AJ:75:ASP:N	2.33	0.42
13:AM:45:ILE:HG13	13:AM:48:LEU:HD13	2.01	0.42
15:AO:32:LEU:HD23	15:AO:32:LEU:HA	1.82	0.42
15:AO:87:LEU:O	15:AO:88:ARG:HB3	2.18	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:80:THR:O	20:AT:81:ALA:C	2.58	0.42
49:B1:17:THR:HG22	49:B1:42:VAL:HG11	2.00	0.42
53:B5:59:VAL:HG12	53:B5:63:VAL:HG21	2.01	0.42
22:BA:1046:A:H3'	22:BA:1047:G:C5'	2.48	0.42
22:BA:1902:C:N4	22:BA:1903:G:C4	2.87	0.42
22:BA:2281:A:N1	22:BA:2282:G:C6	2.86	0.42
22:BA:2297:A:N1	22:BA:2321:U:H5	2.17	0.42
22:BA:2345:G:C4	22:BA:2381:A:C2	3.07	0.42
22:BA:2352:A:C2'	22:BA:2353:G:H5'	2.49	0.42
22:BA:2728:U:O2	22:BA:2729:G:C8	2.72	0.42
22:BA:518:G:H4'	40:BS:18:ARG:CZ	2.48	0.42
22:BA:559:G:H2'	22:BA:560:C:O4'	2.19	0.42
22:BA:716:A:C6	22:BA:717:C:C5	3.08	0.42
22:BA:846:U:O2'	22:BA:847:U:OP2	2.37	0.42
24:BC:71:LYS:CB	24:BC:96:TYR:CE2	3.02	0.42
26:BE:41:GLN:NE2	26:BE:43:THR:HG21	2.34	0.42
22:BA:2308:G:C5	27:BF:77:PHE:CZ	3.07	0.42
30:BI:96:ASP:OD1	30:BI:97:LYS:N	2.52	0.42
31:BJ:97:PRO:O	31:BJ:99:ARG:N	2.52	0.42
34:BM:18:ARG:CG	34:BM:18:ARG:HH21	2.31	0.42
35:BN:28:LEU:O	35:BN:32:GLU:N	2.52	0.42
37:BP:75:GLN:O	37:BP:76:THR:C	2.58	0.42
1:CA:327:A:C2	1:CA:329:A:N3	2.87	0.42
1:CA:620:C:C6	4:CD:132:ILE:HD13	2.54	0.42
1:CA:707:U:H2'	1:CA:708:C:C6	2.54	0.42
1:CA:671:G:N2	1:CA:736:C:C2	2.87	0.42
1:CA:822:U:N3	1:CA:823:C:C5	2.87	0.42
1:CA:996:A:H2'	1:CA:997:U:C5	2.53	0.42
2:CB:102:THR:O	2:CB:103:ASN:CB	2.67	0.42
2:CB:192:ASP:O	2:CB:193:PRO:O	2.36	0.42
2:CB:54:LEU:HA	2:CB:57:LEU:CB	2.42	0.42
4:CD:29:ASP:O	4:CD:31:LYS:N	2.46	0.42
5:CE:94:VAL:CG1	5:CE:111:MET:HE3	2.49	0.42
5:CE:42:GLY:O	5:CE:119:GLY:HA3	2.19	0.42
6:CF:92:THR:O	6:CF:93:LYS:C	2.57	0.42
7:CG:125:SER:C	7:CG:127:ALA:N	2.72	0.42
8:CH:11:LEU:HD11	8:CH:127:CYS:CB	2.50	0.42
8:CH:126:ILE:HG22	8:CH:127:CYS:SG	2.59	0.42
11:CK:85:MET:HA	11:CK:111:THR:O	2.19	0.42
14:CN:69:ARG:HA	14:CN:70:PRO:HD3	1.90	0.42
17:CQ:16:LYS:O	17:CQ:17:MET:SD	2.77	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D3:58:VAL:HG12	51:D3:62:LEU:HD12	2.01	0.42
52:D4:33:HIS:CD2	52:D4:33:HIS:N	2.87	0.42
22:DA:125:A:H3'	50:D2:19:ARG:HG3	2.01	0.42
22:DA:1469:A:C2	22:DA:1470:A:C6	3.07	0.42
22:DA:1604:C:H5''	57:DA:3404:HOH:O	2.19	0.42
22:DA:1695:G:H3'	22:DA:1695:G:N3	2.33	0.42
22:DA:404:A:O4'	22:DA:405:U:OP2	2.37	0.42
22:DA:413:C:N4	57:DA:3564:HOH:O	2.52	0.42
22:DA:567:U:H2'	22:DA:568:U:O5'	2.19	0.42
22:DA:580:U:O2'	22:DA:581:C:H5'	2.19	0.42
22:DA:669:G:H2'	22:DA:670:A:N7	2.34	0.42
22:DA:756:A:C5	22:DA:757:G:C8	3.08	0.42
23:DB:2:G:N3	23:DB:2:G:H2'	2.33	0.42
24:DC:160:THR:H	24:DC:195:VAL:HG13	1.84	0.42
24:DC:202:LEU:HD12	24:DC:202:LEU:HA	1.80	0.42
25:DD:45:TYR:HB2	25:DD:83:ARG:NH1	2.34	0.42
31:DJ:64:VAL:HG11	31:DJ:89:PHE:CE2	2.55	0.42
35:DN:90:ARG:NH1	35:DN:116:VAL:HG11	2.34	0.42
40:DS:59:GLU:OE1	40:DS:66:ILE:HD11	2.18	0.42
42:DU:22:ARG:CZ	42:DU:73:PHE:CE2	3.02	0.42
42:DU:44:LYS:HG2	42:DU:45:HIS:N	2.34	0.42
42:DU:72:ILE:HD13	42:DU:96:PHE:CE2	2.54	0.42
42:DU:82:ARG:HB2	42:DU:97:LYS:HG3	2.01	0.42
45:DX:32:ASN:ND2	45:DX:53:ALA:HB2	2.34	0.42
45:DX:33:LEU:HD23	45:DX:50:ARG:CZ	2.48	0.42
1:AA:1062:U:C2'	1:AA:1063:C:C6	2.98	0.42
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.84	0.42
1:AA:1061:G:C6	1:AA:1197:A:C2	3.08	0.42
1:AA:230:G:C6	1:AA:231:U:C4	3.06	0.42
1:AA:235:C:H2'	1:AA:236:A:C8	2.54	0.42
1:AA:270:A:C6	1:AA:271:C:N3	2.87	0.42
1:AA:448:A:C5	1:AA:487:A:C2	3.08	0.42
1:AA:522:C:H2'	1:AA:523:A:O4'	2.20	0.42
1:AA:532:A:OP2	1:AA:532:A:O4'	2.38	0.42
1:AA:559:A:N3	1:AA:559:A:H2'	2.33	0.42
1:AA:71:A:H3'	1:AA:71:A:P	2.59	0.42
1:AA:832:G:C2	1:AA:833:G:C8	3.07	0.42
1:AA:923:A:C6	1:AA:924:C:C4	3.07	0.42
1:AA:93:U:C2'	1:AA:94:G:H5''	2.49	0.42
2:AB:206:ALA:O	2:AB:210:VAL:HG22	2.19	0.42
3:AC:20:SER:OG	3:AC:40:ARG:NH2	2.50	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:173:VAL:HG22	4:AD:174:ASP:N	2.34	0.42
5:AE:35:ALA:CB	5:AE:60:ILE:HA	2.49	0.42
7:AG:130:ASN:OD1	7:AG:130:ASN:O	2.36	0.42
7:AG:45:SER:HA	7:AG:48:GLU:HB2	2.01	0.42
12:AL:110:ARG:NH1	12:AL:113:ALA:HB3	2.35	0.42
13:AM:40:ALA:O	13:AM:43:VAL:HG22	2.19	0.42
17:AQ:81:LYS:CA	17:AQ:81:LYS:HE2	2.48	0.42
53:B5:19:LYS:HG2	53:B5:23:ILE:HD11	2.01	0.42
22:BA:1239:G:H2'	22:BA:1240:U:O4'	2.18	0.42
22:BA:1826:G:H2'	22:BA:1827:U:H6	1.85	0.42
22:BA:2243:U:O2	22:BA:2434:A:C2	2.72	0.42
22:BA:2376:A:H2'	22:BA:2377:A:O4'	2.19	0.42
22:BA:2684:U:H2'	22:BA:2685:G:O5'	2.20	0.42
22:BA:2761:A:N1	22:BA:2762:C:C2	2.87	0.42
22:BA:2543:G:H5'	22:BA:2766:A:O3'	2.20	0.42
22:BA:2812:G:C2	22:BA:2813:A:H1'	2.55	0.42
22:BA:460:A:H2'	22:BA:461:C:O4'	2.19	0.42
22:BA:585:G:C5'	22:BA:586:A:P	3.05	0.42
22:BA:608:A:C2	22:BA:609:A:N3	2.87	0.42
24:BC:199:GLU:O	24:BC:200:HIS:C	2.56	0.42
25:BD:35:THR:O	25:BD:36:GLN:HB2	2.19	0.42
27:BF:105:THR:HG23	27:BF:106:ILE:HG23	2.00	0.42
22:BA:2749:A:OP1	28:BG:2:SER:N	2.52	0.42
29:BH:114:GLU:CB	29:BH:133:GLN:O	2.66	0.42
22:BA:2094:A:H4'	29:BH:25:TYR:CZ	2.55	0.42
30:BI:103:ARG:HE	30:BI:104:ALA:N	2.17	0.42
33:BL:110:VAL:O	33:BL:131:ALA:HB2	2.18	0.42
34:BM:72:PRO:HB3	34:BM:92:TRP:CZ3	2.54	0.42
36:BO:35:ILE:HG23	36:BO:35:ILE:O	2.20	0.42
39:BR:25:LEU:H	39:BR:94:THR:HG23	1.84	0.42
1:CA:1108:G:H5''	3:CC:176:HIS:CD2	2.55	0.42
1:CA:264:C:H2'	1:CA:265:G:O4'	2.18	0.42
1:CA:34:C:H2'	1:CA:35:G:C8	2.54	0.42
1:CA:437:U:C4	1:CA:438:U:C5	3.06	0.42
1:CA:442:G:C6	1:CA:443:C:C4	3.07	0.42
1:CA:486:U:OP2	1:CA:486:U:C6	2.73	0.42
1:CA:73:C:O2'	1:CA:74:A:P	2.77	0.42
1:CA:769:G:C2'	1:CA:770:C:H5'	2.49	0.42
1:CA:811:C:H4'	1:CA:900:A:N6	2.35	0.42
1:CA:983:A:N3	1:CA:983:A:C2'	2.81	0.42
1:CA:990:C:N3	1:CA:991:U:O4	2.52	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:100:SER:O	5:CE:101:GLU:C	2.57	0.42
6:CF:18:VAL:HG12	6:CF:19:PRO:CD	2.50	0.42
8:CH:27:MET:HG2	8:CH:59:LEU:HB3	2.01	0.42
9:CI:115:LYS:HB2	9:CI:118:LEU:HD22	2.01	0.42
11:CK:110:ILE:HG22	21:CU:17:ARG:CZ	2.50	0.42
11:CK:71:ALA:O	11:CK:75:LYS:HG3	2.18	0.42
11:CK:97:ILE:HD13	11:CK:110:ILE:HD11	2.00	0.42
17:CQ:60:GLU:HB3	17:CQ:76:VAL:HG23	2.00	0.42
51:D3:45:ARG:N	51:D3:46:PRO:HD2	2.33	0.42
22:DA:1115:G:C2	22:DA:1116:G:C5	3.08	0.42
22:DA:1265:A:C8	22:DA:1267:U:C2	3.06	0.42
22:DA:1464:G:C4	22:DA:1465:G:C8	3.07	0.42
22:DA:2033:A:H4'	22:DA:2034:U:OP1	2.18	0.42
22:DA:2047:C:O2'	22:DA:2048:G:H5'	2.19	0.42
22:DA:2147:A:C8	22:DA:2148:G:C8	3.07	0.42
22:DA:2221:G:C2'	22:DA:2222:C:H5'	2.49	0.42
22:DA:2266:A:C2	22:DA:2272:U:C5	3.07	0.42
22:DA:2322:A:C5	22:DA:2323:G:C8	3.07	0.42
22:DA:446:G:H4'	22:DA:447:A:OP1	2.19	0.42
22:DA:95:A:H4'	46:DY:38:GLN:O	2.19	0.42
24:DC:145:GLU:HB2	24:DC:188:CYS:HB3	2.01	0.42
25:DD:99:GLU:HG2	25:DD:182:ALA:HB2	2.01	0.42
28:DG:87:LEU:CD2	28:DG:148:LEU:HB2	2.48	0.42
29:DH:127:GLU:HA	29:DH:144:VAL:O	2.19	0.42
30:DI:77:ALA:HA	30:DI:80:LEU:HD12	2.01	0.42
31:DJ:81:ILE:HG12	31:DJ:82:GLY:N	2.34	0.42
22:DA:958:U:OP2	34:DM:14:LYS:HD2	2.20	0.42
35:DN:49:GLU:N	35:DN:50:PRO:HD2	2.35	0.42
37:DP:8:LEU:O	37:DP:8:LEU:HD23	2.19	0.42
39:DR:3:ALA:HB2	39:DR:101:ILE:CG2	2.49	0.42
39:DR:47:VAL:CG1	39:DR:54:VAL:HG21	2.50	0.42
46:DY:56:LEU:O	46:DY:57:LEU:HB2	2.16	0.42
1:AA:1031:C:H4'	1:AA:1032:G:H5''	2.01	0.42
1:AA:1134:G:C2	1:AA:1141:C:N4	2.87	0.42
1:AA:1171:A:H2'	1:AA:1172:C:C6	2.55	0.42
1:AA:1288:A:C2	1:AA:1289:A:C4	3.06	0.42
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.84	0.42
1:AA:4:U:O2	1:AA:4:U:C2'	2.68	0.42
1:AA:749:A:H2'	1:AA:750:C:H6	1.84	0.42
2:AB:164:ILE:HG23	2:AB:165:ASP:H	1.83	0.42
2:AB:78:GLU:C	2:AB:80:VAL:H	2.22	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:100:ASN:C	4:AD:102:VAL:H	2.22	0.42
5:AE:82:GLN:OE1	5:AE:148:ASN:O	2.37	0.42
5:AE:79:GLY:O	5:AE:121:HIS:N	2.48	0.42
5:AE:77:ASN:HB2	5:AE:82:GLN:CG	2.48	0.42
9:AI:85:ARG:O	9:AI:88:MET:HB2	2.20	0.42
10:AJ:7:ARG:O	10:AJ:100:ILE:O	2.37	0.42
16:AP:30:GLY:O	16:AP:31:ARG:C	2.58	0.42
21:AU:14:VAL:CG1	21:AU:16:LEU:HD21	2.50	0.42
53:B5:52:PRO:HB2	53:B5:205:ALA:HB3	2.01	0.42
22:BA:120:U:OP2	57:BA:3214:HOH:O	2.21	0.42
22:BA:1934:C:H4'	22:BA:1974:C:O3'	2.20	0.42
22:BA:2021:C:OP1	48:B0:9:THR:CG2	2.66	0.42
22:BA:2242:G:H2'	22:BA:2243:U:O4'	2.18	0.42
22:BA:2636:C:H4'	25:BD:81:GLU:CD	2.40	0.42
22:BA:2733:A:C2	22:BA:2734:A:C4	3.07	0.42
22:BA:2732:G:H3'	22:BA:2733:A:C5'	2.49	0.42
22:BA:2759:G:C5	22:BA:2760:C:C5	3.08	0.42
22:BA:361:G:O2'	22:BA:362:A:O5'	2.33	0.42
22:BA:476:G:O4'	22:BA:505:A:C2	2.73	0.42
22:BA:57:C:H2'	22:BA:58:G:O4'	2.20	0.42
22:BA:629:G:N3	22:BA:639:U:O2'	2.48	0.42
22:BA:760:G:H2'	22:BA:761:A:O4'	2.20	0.42
22:BA:975:A:H2'	22:BA:976:G:H5'	2.01	0.42
24:BC:168:ASP:CG	24:BC:169:GLY:N	2.73	0.42
24:BC:182:ARG:NH2	24:BC:183:LYS:O	2.53	0.42
24:BC:33:LEU:O	24:BC:64:ILE:HG13	2.19	0.42
26:BE:108:ILE:HG13	26:BE:109:LEU:N	2.34	0.42
26:BE:128:ALA:HB1	26:BE:129:PRO:HD2	2.02	0.42
26:BE:1:MET:HG3	26:BE:14:VAL:HG23	2.01	0.42
30:BI:54:PRO:O	30:BI:75:PRO:HD2	2.18	0.42
34:BM:136:MET:CE	43:BV:57:TYR:HD2	2.29	0.42
34:BM:16:ARG:HA	34:BM:16:ARG:HD3	1.87	0.42
35:BN:103:ARG:CD	35:BN:110:MET:CE	2.91	0.42
35:BN:32:GLU:HB3	35:BN:115:LEU:HD12	2.00	0.42
36:BO:24:THR:HG22	36:BO:42:PRO:CD	2.45	0.42
22:BA:1187:G:H5'	39:BR:83:TYR:CE2	2.54	0.42
40:BS:84:ARG:HB2	40:BS:96:ILE:CD1	2.49	0.42
41:BT:67:VAL:CG2	41:BT:76:ARG:HG3	2.49	0.42
46:BY:23:ARG:O	46:BY:24:GLU:C	2.58	0.42
1:CA:1072:G:C6	1:CA:1104:G:C2	3.07	0.42
1:CA:108:G:N3	1:CA:108:G:C5'	2.83	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1139:G:N2	1:CA:1143:G:C6	2.87	0.42
1:CA:151:A:H2'	1:CA:152:A:O4'	2.20	0.42
1:CA:252:U:O4	1:CA:253:A:N6	2.52	0.42
1:CA:282:A:H3'	1:CA:283:U:C6	2.55	0.42
1:CA:408:A:H2'	1:CA:409:U:O4'	2.18	0.42
1:CA:583:A:N7	1:CA:584:G:N7	2.67	0.42
1:CA:676:A:C2	1:CA:677:U:C4	3.08	0.42
2:CB:43:LEU:HG	2:CB:44:GLU:HG3	2.01	0.42
6:CF:9:MET:HE2	6:CF:59:TYR:CD1	2.54	0.42
10:CJ:74:VAL:HG12	10:CJ:75:ASP:N	2.34	0.42
3:CC:26:THR:OG1	14:CN:76:LYS:HE3	2.20	0.42
14:CN:87:ALA:HA	14:CN:92:GLU:HG3	2.00	0.42
51:D3:47:LYS:HA	51:D3:47:LYS:HD3	1.79	0.42
22:DA:1050:A:O2'	22:DA:2752:C:H1'	2.18	0.42
22:DA:1230:A:H2'	22:DA:1231:U:C6	2.55	0.42
22:DA:1362:C:H2'	22:DA:1363:C:C5'	2.50	0.42
22:DA:2045:C:C2'	22:DA:2046:G:O5'	2.68	0.42
22:DA:2204:G:N3	22:DA:2205:A:C8	2.88	0.42
22:DA:2341:G:C6	22:DA:2342:C:N4	2.88	0.42
22:DA:2712:C:C2	22:DA:2715:C:OP1	2.73	0.42
22:DA:301:G:N2	22:DA:302:C:O2	2.53	0.42
22:DA:305:C:C2	22:DA:313:G:N1	2.87	0.42
22:DA:848:C:H2'	22:DA:849:A:C8	2.54	0.42
24:DC:246:THR:C	24:DC:248:TRP:H	2.22	0.42
26:DE:177:PRO:O	26:DE:181:ILE:HG13	2.20	0.42
26:DE:83:VAL:HG12	26:DE:86:ALA:HA	2.02	0.42
29:DH:72:ILE:O	29:DH:72:ILE:CG2	2.67	0.42
22:DA:1669:A:C1'	32:DK:5:GLN:HG3	2.50	0.42
35:DN:36:THR:HG23	35:DN:41:ALA:HB2	2.02	0.42
22:DA:2294:G:OP2	36:DO:94:ARG:NH1	2.52	0.42
45:DX:54:LYS:O	45:DX:57:ARG:HB2	2.19	0.42
46:DY:46:VAL:O	46:DY:50:VAL:HG23	2.19	0.42
1:AA:1160:G:O6	1:AA:1181:G:O6	2.37	0.42
1:AA:1216:A:H5''	14:AN:5:SER:HB3	2.01	0.42
1:AA:1296:C:H4'	1:AA:1302:C:H41	1.84	0.42
1:AA:1319:A:C8	1:AA:1323:G:C6	3.07	0.42
1:AA:132:C:H2'	1:AA:133:U:O4'	2.20	0.42
1:AA:1350:A:N7	1:AA:1351:U:C5	2.87	0.42
1:AA:1367:C:P	9:AI:114:LYS:NZ	2.93	0.42
1:AA:1446:A:C2'	1:AA:1447:A:H5'	2.48	0.42
1:AA:1505:G:H5'	1:AA:1506:U:O5'	2.18	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:144:G:C5	1:AA:179:A:N1	2.87	0.42
1:AA:201:G:H2'	1:AA:202:G:C8	2.55	0.42
1:AA:4:U:O2	1:AA:4:U:H2'	2.18	0.42
1:AA:58:C:O2'	1:AA:59:A:H5'	2.19	0.42
1:AA:624:C:C4	1:AA:625:U:C4	3.07	0.42
1:AA:630:A:C2	1:AA:631:C:C2	3.07	0.42
1:AA:683:G:H21	11:AK:40:ASN:HA	1.85	0.42
1:AA:736:C:H2'	1:AA:737:C:H6	1.83	0.42
2:AB:122:GLN:H	2:AB:122:GLN:CD	2.23	0.42
3:AC:11:ARG:NH1	3:AC:182:ILE:HB	2.33	0.42
4:AD:160:GLU:C	4:AD:162:ALA:H	2.22	0.42
4:AD:6:GLY:O	4:AD:8:LYS:N	2.51	0.42
5:AE:81:LEU:HD22	5:AE:81:LEU:N	2.34	0.42
6:AF:16:GLU:OE2	4:CD:192:SER:HB3	2.19	0.42
6:AF:92:THR:CG2	6:AF:93:LYS:H	2.32	0.42
12:AL:73:ASN:O	12:AL:74:LEU:HD22	2.19	0.42
10:AJ:49:PHE:CD2	14:AN:77:PHE:HE1	2.37	0.42
17:AQ:4:LYS:HG3	17:AQ:7:THR:HG22	2.01	0.42
20:AT:67:ILE:HG12	20:AT:71:LYS:HG2	2.00	0.42
22:BA:1000:A:N6	22:BA:1001:A:C6	2.88	0.42
22:BA:1045:C:O5'	22:BA:1046:A:H5'	2.20	0.42
22:BA:1343:G:C4	22:BA:1344:U:C5	3.08	0.42
22:BA:1359:A:C5	22:BA:1373:A:C2	3.08	0.42
22:BA:1444:G:C2	22:BA:1548:A:C2	3.08	0.42
22:BA:1671:U:O2	22:BA:1673:G:C8	2.73	0.42
22:BA:1688:U:H2'	22:BA:1698:A:N6	2.34	0.42
22:BA:1920:C:O5'	22:BA:1920:C:H6	2.02	0.42
22:BA:2291:U:H5''	22:BA:2380:C:O2'	2.19	0.42
22:BA:2318:G:H2'	22:BA:2319:G:O4'	2.20	0.42
22:BA:2511:U:C4	22:BA:2512:C:C4	3.08	0.42
22:BA:2579:C:H2'	22:BA:2580:U:O4'	2.19	0.42
22:BA:2720:U:C2'	22:BA:2721:A:O5'	2.68	0.42
22:BA:2766:A:N3	22:BA:2766:A:H2'	2.35	0.42
22:BA:303:G:C4	22:BA:304:U:C6	3.08	0.42
22:BA:451:U:H5'	57:BA:3238:HOH:O	2.18	0.42
22:BA:496:G:C2	22:BA:497:A:H1'	2.55	0.42
22:BA:687:C:H2'	22:BA:688:U:O4'	2.19	0.42
22:BA:729:G:N3	22:BA:729:G:H2'	2.34	0.42
23:BB:109:A:C5	23:BB:110:C:C5	3.07	0.42
27:BF:28:VAL:O	27:BF:28:VAL:CG1	2.68	0.42
27:BF:73:SER:HB2	27:BF:81:GLN:H	1.84	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:45:GLU:C	29:BH:47:PHE:N	2.72	0.42
30:BI:108:GLU:HA	30:BI:111:GLN:HB3	2.02	0.42
32:BK:108:ARG:O	32:BK:109:SER:C	2.56	0.42
22:BA:929:U:H1'	47:BZ:26:GLY:O	2.20	0.42
1:CA:1157:A:H5'	1:CA:1158:C:C6	2.55	0.42
1:CA:1305:G:C6	1:CA:1331:G:C2	3.07	0.42
1:CA:1308:U:H2'	1:CA:1309:G:C8	2.54	0.42
1:CA:1446:A:N6	1:CA:1447:A:N6	2.68	0.42
1:CA:1462:C:H2'	1:CA:1463:U:C6	2.54	0.42
1:CA:298:A:H2'	1:CA:299:G:O4'	2.20	0.42
1:CA:328:C:O2	1:CA:328:C:H2'	2.20	0.42
1:CA:463:U:H3'	1:CA:464:U:C6	2.54	0.42
1:CA:775:G:C6	1:CA:776:G:C5	3.07	0.42
1:CA:890:G:N2	1:CA:906:A:H2'	2.35	0.42
1:CA:929:G:C5	1:CA:930:C:C5	3.07	0.42
6:CF:19:PRO:HA	6:CF:22:ILE:HD12	2.01	0.42
8:CH:94:LYS:HD3	8:CH:98:GLY:CA	2.49	0.42
10:CJ:35:GLN:C	10:CJ:36:VAL:HG23	2.40	0.42
12:CL:21:VAL:N	12:CL:22:PRO:CD	2.82	0.42
13:CM:16:VAL:HG13	13:CM:41:GLU:HA	2.02	0.42
15:CO:85:LEU:HD12	15:CO:85:LEU:HA	1.92	0.42
16:CP:52:LEU:HD21	16:CP:57:ILE:HD12	2.01	0.42
17:CQ:31:HIS:CD2	17:CQ:34:TYR:CD1	3.07	0.42
17:CQ:47:HIS:HA	17:CQ:71:LYS:HE2	2.01	0.42
18:CR:59:ILE:O	18:CR:63:ARG:HD2	2.19	0.42
19:CS:58:VAL:HG11	19:CS:75:ALA:CA	2.50	0.42
22:DA:1120:G:C6	22:DA:1121:C:C4	3.07	0.42
22:DA:126:A:C5	22:DA:127:A:C2	3.07	0.42
22:DA:1669:A:H3'	22:DA:1669:A:N3	2.35	0.42
22:DA:2127:G:H2'	22:DA:2128:G:C8	2.54	0.42
22:DA:2136:G:C2	22:DA:2156:G:H1'	2.54	0.42
22:DA:2297:A:C2	22:DA:2298:A:C8	3.07	0.42
22:DA:2563:U:C1'	22:DA:2566:A:N6	2.82	0.42
22:DA:2581:G:H8	22:DA:2582:G:O6	2.02	0.42
22:DA:2655:G:O2'	22:DA:2656:U:P	2.78	0.42
22:DA:2741:A:H2'	22:DA:2742:G:H5'	2.02	0.42
22:DA:2776:A:C5	22:DA:2778:A:C6	3.07	0.42
22:DA:2819:G:H5''	57:DA:3808:HOH:O	2.19	0.42
22:DA:1750:G:O2'	22:DA:2860:A:N1	2.45	0.42
22:DA:2864:G:H2'	22:DA:2865:U:O4'	2.19	0.42
22:DA:377:G:C6	22:DA:378:C:C5	3.07	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:371:A:N6	22:DA:402:A:OP2	2.45	0.42
22:DA:693:A:C5	22:DA:694:U:C5	3.07	0.42
22:DA:816:C:C2	22:DA:1192:G:C2	3.08	0.42
22:DA:832:U:H2'	22:DA:833:A:C8	2.55	0.42
22:DA:971:G:OP2	22:DA:974:G:N2	2.52	0.42
23:DB:29:A:H2'	23:DB:30:C:C6	2.55	0.42
26:DE:77:ILE:CG1	26:DE:77:ILE:O	2.67	0.42
29:DH:121:VAL:O	29:DH:122:LEU:CB	2.67	0.42
34:DM:58:LYS:C	34:DM:60:GLN:H	2.23	0.42
35:DN:46:ARG:O	35:DN:50:PRO:CG	2.68	0.42
38:DQ:9:ILE:HD12	38:DQ:9:ILE:O	2.20	0.42
43:DV:63:ILE:HD11	43:DV:91:PHE:CD1	2.54	0.42
34:DM:136:MET:O	43:DV:79:ARG:NH2	2.53	0.42
45:DX:36:HIS:O	45:DX:48:THR:HA	2.20	0.42
46:DY:11:VAL:O	46:DY:15:ASN:CG	2.58	0.42
1:AA:1086:U:O2'	1:AA:1087:G:H5'	2.19	0.42
1:AA:1149:C:O5'	1:AA:1149:C:H6	2.03	0.42
1:AA:1322:C:P	19:AS:78:ARG:NH2	2.93	0.42
1:AA:142:G:C6	1:AA:143:A:C5	3.07	0.42
1:AA:1446:A:N6	1:AA:1447:A:N6	2.68	0.42
1:AA:1394:A:C6	1:AA:1501:C:H4'	2.53	0.42
1:AA:1539:C:H5''	21:AU:18:ARG:CG	2.50	0.42
1:AA:524:G:C6	1:AA:525:C:N4	2.87	0.42
4:AD:174:ASP:OD1	4:AD:177:LYS:NZ	2.50	0.42
4:AD:23:SER:O	4:AD:24:GLY:O	2.36	0.42
6:AF:52:ASN:C	6:AF:53:LYS:O	2.56	0.42
11:AK:22:HIS:HD2	11:AK:35:THR:HG22	1.84	0.42
13:AM:64:VAL:O	13:AM:64:VAL:HG12	2.19	0.42
16:AP:76:LYS:O	16:AP:76:LYS:HG3	2.19	0.42
18:AR:23:TYR:CE1	18:AR:24:LYS:HG3	2.54	0.42
49:B1:10:LYS:O	49:B1:51:GLU:HG3	2.20	0.42
53:B5:131:ILE:HA	53:B5:135:ARG:CB	2.50	0.42
22:BA:1165:A:H2'	22:BA:1166:G:H8	1.83	0.42
22:BA:1351:C:C4	22:BA:1352:U:C4	3.08	0.42
22:BA:1747:U:O2'	22:BA:1748:C:H5'	2.20	0.42
22:BA:1789:A:H2'	22:BA:1790:C:O4'	2.20	0.42
22:BA:1922:G:C5	22:BA:1923:U:C5	3.06	0.42
22:BA:1947:C:N3	22:BA:1960:A:C2	2.87	0.42
22:BA:2127:G:O2'	22:BA:2128:G:O4'	2.28	0.42
22:BA:2590:A:H2'	22:BA:2591:C:C6	2.55	0.42
22:BA:2591:C:P	24:BC:238:ARG:HG3	2.60	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2657:A:C2	22:BA:2665:A:C4	3.07	0.42
22:BA:2888:C:O2	22:BA:2888:C:C2'	2.67	0.42
22:BA:440:C:O2'	22:BA:441:U:H5'	2.18	0.42
22:BA:567:U:C2'	22:BA:568:U:O5'	2.67	0.42
22:BA:598:U:H2'	22:BA:599:A:C8	2.54	0.42
22:BA:65:U:H2'	22:BA:66:C:H6	1.84	0.42
22:BA:693:A:C2'	22:BA:694:U:H5'	2.49	0.42
22:BA:742:A:C2	22:BA:756:A:C2	3.08	0.42
22:BA:819:A:OP2	22:BA:1187:G:C2	2.72	0.42
22:BA:969:G:C5	22:BA:970:U:C5	3.08	0.42
25:BD:122:VAL:HB	25:BD:141:ARG:NH1	2.35	0.42
25:BD:67:HIS:O	25:BD:67:HIS:CD2	2.73	0.42
26:BE:10:SER:OG	26:BE:10:SER:O	2.34	0.42
31:BJ:24:THR:HG21	31:BJ:27:ARG:HD2	2.00	0.42
34:BM:96:ILE:HG21	34:BM:126:ILE:CD1	2.49	0.42
35:BN:103:ARG:CD	35:BN:110:MET:HE2	2.49	0.42
1:CA:1048:G:P	57:CA:1846:HOH:O	2.75	0.42
1:CA:1105:A:C2	1:CA:1106:G:N7	2.87	0.42
1:CA:1343:G:C6	1:CA:1344:C:N4	2.87	0.42
1:CA:1348:U:OP1	9:CI:112:GLU:N	2.45	0.42
1:CA:1364:U:O2	1:CA:1364:U:C2'	2.68	0.42
1:CA:1478:U:H2'	1:CA:1479:C:C6	2.55	0.42
1:CA:68:G:O4'	1:CA:171:A:H1'	2.19	0.42
1:CA:66:A:H5'	1:CA:173:U:O4	2.20	0.42
1:CA:104:G:H4'	1:CA:174:A:O4'	2.19	0.42
1:CA:208:U:C5	1:CA:210:C:H6	2.38	0.42
1:CA:728:A:C6	1:CA:729:A:C6	3.08	0.42
2:CB:222:ARG:NE	2:CB:223:GLU:HB2	2.35	0.42
4:CD:115:ARG:HG3	4:CD:133:ALA:CB	2.49	0.42
4:CD:206:LYS:O	4:CD:206:LYS:CG	2.64	0.42
4:CD:98:LEU:HB2	4:CD:135:TYR:HB3	2.02	0.42
5:CE:96:MET:HE1	5:CE:140:THR:HG22	2.02	0.42
5:CE:25:VAL:O	5:CE:26:LYS:C	2.58	0.42
6:CF:25:TYR:CD2	6:CF:25:TYR:N	2.88	0.42
7:CG:33:ASP:CB	7:CG:35:LYS:HE3	2.50	0.42
9:CI:95:ARG:HA	9:CI:98:LEU:HB3	2.00	0.42
13:CM:46:SER:O	13:CM:47:GLU:HB3	2.19	0.42
1:CA:375:U:OP1	16:CP:70:ARG:HD3	2.20	0.42
18:CR:24:LYS:C	18:CR:26:ILE:N	2.73	0.42
22:DA:16:C:O3'	48:D0:11:SER:OG	2.38	0.42
22:DA:1230:A:C2	22:DA:1231:U:C2	3.07	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1584:U:O2	22:DA:1584:U:C3'	2.68	0.42
22:DA:201:C:C4	22:DA:202:U:C5	3.08	0.42
22:DA:187:G:N2	22:DA:210:C:C2	2.88	0.42
22:DA:2208:C:C2	22:DA:2217:G:N2	2.88	0.42
22:DA:2448:A:HO2'	22:DA:2449:U:H5	1.67	0.42
22:DA:2461:A:H1'	22:DA:2492:U:C2	2.53	0.42
22:DA:2504:U:C5	55:DA:3001:VIF:C14	2.99	0.42
22:DA:2671:G:C2	22:DA:2672:U:C2	3.08	0.42
22:DA:2685:G:C4	22:DA:2686:G:C8	3.07	0.42
22:DA:353:C:H3'	22:DA:354:A:C8	2.55	0.42
22:DA:485:C:C2	22:DA:496:G:C2	3.08	0.42
22:DA:792:A:H3'	22:DA:793:A:H5'	1.99	0.42
22:DA:845:A:N3	22:DA:845:A:H3'	2.33	0.42
23:DB:84:G:N2	23:DB:93:C:O2	2.52	0.42
25:DD:179:ARG:HB2	25:DD:188:LEU:HD12	2.02	0.42
28:DG:8:PRO:HG3	28:DG:51:THR:HG22	2.02	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
30:DI:62:TYR:C	30:DI:64:ASP:H	2.23	0.42
31:DJ:135:GLN:CD	31:DJ:135:GLN:N	2.73	0.42
33:DL:122:VAL:HG11	33:DL:127:VAL:HG21	2.00	0.42
37:DP:53:ARG:HB2	37:DP:56:HIS:HB2	2.02	0.42
40:DS:43:ALA:O	40:DS:44:ALA:C	2.57	0.42
43:DV:48:MET:O	43:DV:51:GLN:NE2	2.50	0.42
45:DX:13:VAL:O	45:DX:13:VAL:CG2	2.67	0.42
29:DH:32:PRO:CB	45:DX:39:TRP:HB3	2.46	0.42
1:AA:1225:A:H2'	1:AA:1226:C:C6	2.53	0.42
1:AA:1241:G:C2	1:AA:1242:G:C5	3.08	0.42
1:AA:1253:G:H2'	1:AA:1254:A:C8	2.55	0.42
1:AA:141:G:H2'	1:AA:142:G:O4'	2.19	0.42
1:AA:1462:C:H2'	1:AA:1463:U:O4'	2.19	0.42
1:AA:1503:A:C4	1:AA:1531:A:N3	2.87	0.42
1:AA:38:G:N2	1:AA:397:A:C4	2.88	0.42
1:AA:399:G:H2'	1:AA:400:C:C6	2.54	0.42
1:AA:463:U:O2	1:AA:463:U:H2'	2.18	0.42
1:AA:545:C:O2	1:AA:545:C:H2'	2.20	0.42
1:AA:575:G:O2'	1:AA:821:G:H5'	2.19	0.42
1:AA:923:A:N6	1:AA:924:C:N4	2.68	0.42
2:AB:62:SER:C	2:AB:64:LYS:H	2.23	0.42
3:AC:130:PHE:CE1	3:AC:131:ARG:HD2	2.54	0.42
4:AD:199:LEU:O	4:AD:202:GLU:HB2	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:111:ARG:HB3	7:AG:119:ARG:HG2	2.02	0.42
17:AQ:80:GLU:C	17:AQ:81:LYS:HD3	2.40	0.42
1:AA:719:C:O2'	18:AR:38:LYS:HB3	2.19	0.42
21:AU:41:PRO:HA	21:AU:45:ARG:NH1	2.34	0.42
52:B4:11:CYS:SG	52:B4:14:CYS:SG	3.17	0.42
53:B5:48:LEU:HD11	53:B5:174:ALA:HB3	2.01	0.42
22:BA:1060:U:OP1	30:BI:132:THR:HG21	2.20	0.42
22:BA:1090:A:H2'	22:BA:1091:G:C5'	2.49	0.42
22:BA:1374:G:H2'	22:BA:1375:U:O4'	2.20	0.42
22:BA:1505:A:C2	22:BA:1506:U:O2	2.73	0.42
22:BA:1585:C:H2'	22:BA:1586:A:H5'	2.02	0.42
22:BA:2211:A:H1'	22:BA:2212:A:OP1	2.19	0.42
22:BA:583:G:OP1	38:BQ:7:GLY:HA2	2.20	0.42
23:BB:94:A:H2'	23:BB:95:U:H6	1.85	0.42
24:BC:30:PHE:CE2	24:BC:32:PRO:HB2	2.55	0.42
25:BD:103:ASP:O	25:BD:104:VAL:CG2	2.68	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
30:BI:86:ILE:HD12	30:BI:86:ILE:N	2.35	0.42
34:BM:62:LYS:HD3	34:BM:64:TRP:CZ2	2.54	0.42
34:BM:42:THR:HG22	34:BM:93:VAL:HG12	2.02	0.42
40:BS:45:VAL:HG12	40:BS:46:LEU:N	2.34	0.42
41:BT:2:ILE:CA	41:BT:3:ARG:C	2.87	0.42
41:BT:51:PHE:O	41:BT:53:VAL:HG13	2.20	0.42
45:BX:66:THR:O	45:BX:69:ALA:HB3	2.20	0.42
46:BY:37:LEU:C	46:BY:37:LEU:HD12	2.40	0.42
1:CA:1112:C:C4	3:CC:178:LEU:HD23	2.54	0.42
1:CA:1130:A:C8	1:CA:1146:A:N1	2.88	0.42
1:CA:1426:G:C5	1:CA:1475:G:C2	3.07	0.42
1:CA:1394:A:C5	1:CA:1501:C:H4'	2.55	0.42
1:CA:295:C:C2	1:CA:296:U:C6	3.07	0.42
1:CA:304:U:O2'	1:CA:305:G:H5'	2.19	0.42
1:CA:346:G:N3	1:CA:346:G:H3'	2.34	0.42
1:CA:456:A:C6	1:CA:457:G:C5	3.07	0.42
1:CA:532:A:N6	3:CC:193:TYR:HD2	2.17	0.42
1:CA:615:G:C2	1:CA:616:G:C8	3.07	0.42
1:CA:728:A:C6	1:CA:729:A:N6	2.87	0.42
6:CF:82:ASP:OD2	6:CF:82:ASP:N	2.52	0.42
1:CA:684:U:O2'	11:CK:40:ASN:O	2.32	0.42
11:CK:56:ARG:O	11:CK:59:THR:HG23	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:42:PRO:HD3	12:CL:48:ALA:O	2.19	0.42
1:CA:952:U:O4	13:CM:103:LYS:HD3	2.19	0.42
20:CT:83:ILE:O	20:CT:87:ALA:CB	2.67	0.42
21:CU:12:PHE:CD1	21:CU:13:ASP:N	2.88	0.42
52:D4:30:GLU:CB	52:D4:33:HIS:CD2	3.02	0.42
22:DA:1096:A:H2'	22:DA:1097:U:H5''	2.01	0.42
22:DA:56:A:C2	22:DA:115:C:C2	3.07	0.42
22:DA:1239:G:C6	22:DA:1240:U:C4	3.07	0.42
22:DA:1344:U:HO2'	22:DA:1345:C:P	2.37	0.42
22:DA:1526:C:N4	22:DA:1527:G:C6	2.87	0.42
22:DA:1566:A:H5'	24:DC:214:ARG:CZ	2.50	0.42
22:DA:1651:G:O6	22:DA:1652:A:C6	2.72	0.42
22:DA:1370:C:O4'	22:DA:1810:A:H2	2.02	0.42
22:DA:2037:A:C6	22:DA:2038:G:C5	3.08	0.42
22:DA:2091:C:O2	45:DX:34:HIS:CE1	2.73	0.42
22:DA:2287:A:C8	22:DA:2289:G:C8	3.08	0.42
22:DA:2436:G:N3	22:DA:2437:G:C8	2.88	0.42
22:DA:250:G:H2'	22:DA:251:A:C8	2.55	0.42
22:DA:306:U:C5	22:DA:307:G:C5	3.08	0.42
22:DA:310:A:C6	22:DA:330:A:C5	3.08	0.42
22:DA:629:G:H4'	22:DA:650:C:O2	2.19	0.42
22:DA:687:C:C2	22:DA:788:A:O4'	2.73	0.42
22:DA:706:A:C4	22:DA:707:G:C8	3.07	0.42
22:DA:734:A:C4	22:DA:735:A:C8	3.08	0.42
24:DC:65:VAL:HB	24:DC:67:PHE:CE1	2.54	0.42
26:DE:108:ILE:HD12	26:DE:108:ILE:O	2.19	0.42
27:DF:12:VAL:O	27:DF:16:LEU:HG	2.18	0.42
22:DA:2531:A:C5'	28:DG:157:TYR:CZ	3.03	0.42
31:DJ:126:ALA:O	31:DJ:127:GLY:O	2.37	0.42
35:DN:103:ARG:NE	35:DN:110:MET:HE3	2.35	0.42
42:DU:51:ALA:O	42:DU:52:LEU:HB2	2.20	0.42
45:DX:68:LEU:HD22	45:DX:78:TYR:CE1	2.54	0.42
45:DX:5:CYS:O	45:DX:7:VAL:N	2.53	0.42
1:AA:1308:U:OP2	13:AM:98:ARG:HG2	2.19	0.42
1:AA:202:G:C2	1:AA:216:U:O2	2.73	0.42
1:AA:389:A:C6	1:AA:390:U:H1'	2.54	0.42
1:AA:666:G:C6	1:AA:741:G:C6	3.08	0.42
1:AA:920:U:H2'	1:AA:921:U:C6	2.54	0.42
2:AB:164:ILE:HG23	2:AB:165:ASP:N	2.34	0.42
2:AB:17:GLY:HA2	2:AB:41:ILE:HG23	2.02	0.42
2:AB:207:ILE:CD1	2:AB:207:ILE:N	2.83	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:97:LEU:O	2:AB:100:MET:HB3	2.20	0.42
5:AE:81:LEU:HD21	5:AE:123:VAL:CG1	2.50	0.42
5:AE:133:PRO:C	5:AE:135:ASN:N	2.73	0.42
7:AG:95:ARG:O	7:AG:97:ASN:N	2.52	0.42
8:AH:109:GLY:O	8:AH:111:MET:HG3	2.19	0.42
8:AH:64:LYS:HB2	8:AH:71:VAL:CG2	2.49	0.42
11:AK:53:ARG:O	11:AK:56:ARG:CG	2.67	0.42
12:AL:72:HIS:ND1	12:AL:74:LEU:HB2	2.35	0.42
13:AM:4:ILE:HD11	13:AM:10:PRO:CG	2.49	0.42
14:AN:81:ARG:HA	14:AN:84:VAL:HB	2.01	0.42
15:AO:79:THR:O	15:AO:83:GLU:OE1	2.37	0.42
19:AS:19:VAL:O	19:AS:23:VAL:HG23	2.18	0.42
22:BA:104:A:C5	22:BA:105:C:C5	3.07	0.42
22:BA:1422:G:C6	22:BA:1423:G:N7	2.88	0.42
22:BA:1477:A:N6	22:BA:1514:G:O2'	2.52	0.42
22:BA:1794:A:C4	22:BA:1795:C:C5	3.07	0.42
22:BA:1795:C:C2	22:BA:1796:U:C6	3.08	0.42
22:BA:1897:G:N2	22:BA:1898:U:O2	2.53	0.42
22:BA:1916:A:P	22:BA:1917:U:OP2	2.78	0.42
22:BA:1926:U:H2'	22:BA:1927:A:OP2	2.20	0.42
22:BA:961:C:C4	22:BA:2031:A:C4	3.07	0.42
22:BA:2127:G:N1	22:BA:2161:C:O2	2.53	0.42
22:BA:2517:C:C6	22:BA:2542:A:N7	2.87	0.42
22:BA:2577:A:H2'	22:BA:2578:G:OP1	2.20	0.42
22:BA:2633:G:H2'	22:BA:2634:A:O4'	2.20	0.42
22:BA:634:C:H2'	22:BA:635:C:C6	2.54	0.42
23:BB:28:C:OP1	36:BO:31:THR:HG21	2.20	0.42
25:BD:140:HIS:CE1	57:BD:302:HOH:O	2.52	0.42
28:BG:55:ARG:O	28:BG:56:ASP:C	2.58	0.42
22:BA:2198:A:C2	29:BH:29:PHE:HB2	2.55	0.42
30:BI:110:ALA:HB1	30:BI:129:ILE:HG13	2.02	0.42
30:BI:80:LEU:HD11	30:BI:133:ALA:HA	2.01	0.42
30:BI:55:ILE:HG12	30:BI:74:PRO:CA	2.50	0.42
31:BJ:109:LEU:HB3	31:BJ:110:PRO:CD	2.50	0.42
35:BN:24:MET:HG2	35:BN:44:LEU:CD2	2.50	0.42
35:BN:24:MET:HG2	35:BN:44:LEU:HD22	2.02	0.42
35:BN:52:ILE:HG21	35:BN:94:TYR:CG	2.55	0.42
36:BO:11:ALA:HB2	36:BO:96:GLY:CA	2.50	0.42
37:BP:15:GLN:O	37:BP:16:ASP:CB	2.65	0.42
38:BQ:41:LYS:HG2	38:BQ:45:TYR:CE1	2.55	0.42
39:BR:27:ILE:HG22	39:BR:28:ALA:N	2.33	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BX:59:ILE:HA	45:BX:67:VAL:HG21	2.01	0.42
1:CA:1014:A:N7	1:CA:1015:G:C6	2.88	0.42
1:CA:1130:A:C4	1:CA:1146:A:C2	3.07	0.42
1:CA:1306:A:H1'	1:CA:1332:A:C5	2.55	0.42
1:CA:146:G:N2	1:CA:147:G:H1'	2.35	0.42
1:CA:418:C:H1'	1:CA:540:G:O2'	2.19	0.42
1:CA:577:G:C1'	1:CA:816:A:H2'	2.49	0.42
1:CA:81:A:H2'	1:CA:82:G:H8	1.84	0.42
2:CB:187:VAL:HB	2:CB:191:SER:HB2	2.02	0.42
2:CB:222:ARG:HG2	2:CB:223:GLU:N	2.35	0.42
2:CB:24:ASN:O	2:CB:26:LYS:N	2.52	0.42
4:CD:206:LYS:HD3	4:CD:206:LYS:O	2.20	0.42
5:CE:105:ILE:CG1	5:CE:112:ARG:HG3	2.50	0.42
8:CH:83:LEU:HD13	8:CH:83:LEU:O	2.20	0.42
10:CJ:12:ALA:CB	10:CJ:18:ILE:HB	2.50	0.42
11:CK:18:ASP:HA	11:CK:81:ASN:O	2.19	0.42
13:CM:57:ARG:O	13:CM:60:VAL:HG13	2.20	0.42
13:CM:63:PHE:O	13:CM:65:VAL:HG13	2.20	0.42
1:CA:974:A:OP1	14:CN:69:ARG:NH1	2.51	0.42
14:CN:87:ALA:HB1	14:CN:92:GLU:HB2	2.01	0.42
16:CP:38:PHE:CE2	16:CP:51:ARG:HD3	2.54	0.42
21:CU:47:ARG:HE	21:CU:47:ARG:HA	1.85	0.42
22:DA:126:A:OP2	50:D2:19:ARG:HG3	2.20	0.42
52:D4:30:GLU:CG	52:D4:33:HIS:CD2	3.03	0.42
22:DA:1087:G:C6	22:DA:1089:A:C2	3.07	0.42
22:DA:1384:A:O2'	22:DA:1404:C:O2	2.35	0.42
22:DA:2193:G:H2'	22:DA:2194:U:C6	2.55	0.42
22:DA:2657:A:H1'	22:DA:2665:A:N6	2.35	0.42
22:DA:2452:C:C2	55:DA:3001:VIF:O05	2.73	0.42
22:DA:309:A:H5'	42:DU:17:LYS:HG2	2.00	0.42
22:DA:511:U:H2'	22:DA:512:G:H5'	2.01	0.42
22:DA:581:C:OP1	38:DQ:33:ARG:HB2	2.20	0.42
22:DA:60:G:H1'	22:DA:61:C:OP1	2.19	0.42
22:DA:681:G:C2	22:DA:682:G:N9	2.88	0.42
23:DB:51:G:N7	36:DO:64:TYR:HE2	2.18	0.42
24:DC:126:PRO:HA	24:DC:192:LEU:O	2.20	0.42
28:DG:64:GLN:O	28:DG:67:THR:OG1	2.37	0.42
29:DH:31:VAL:HB	29:DH:32:PRO:HD2	2.00	0.42
30:DI:133:ALA:C	30:DI:138:LEU:HD12	2.40	0.42
31:DJ:49:ASP:OD1	31:DJ:121:LYS:HD3	2.20	0.42
33:DL:135:ILE:HG22	33:DL:140:GLY:HA2	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:181:ILE:HG23	33:DL:2:ARG:NH1	2.35	0.42
35:DN:17:ARG:O	35:DN:21:PHE:HB2	2.19	0.42
40:DS:62:ASP:O	40:DS:63:GLY:C	2.57	0.42
29:DH:27:ARG:NE	45:DX:60:ASP:CG	2.71	0.42
1:AA:1234:C:H2'	1:AA:1235:U:H6	1.85	0.42
1:AA:1308:U:O2'	1:AA:1309:G:H5'	2.19	0.42
1:AA:457:G:C6	1:AA:458:U:C4	3.08	0.42
1:AA:725:G:C2	1:AA:726:C:C6	3.08	0.42
2:AB:128:LYS:CG	2:AB:129:LEU:N	2.83	0.42
2:AB:210:VAL:O	2:AB:214:LEU:CB	2.68	0.42
3:AC:145:GLY:O	3:AC:146:ALA:HB3	2.20	0.42
5:AE:106:ILE:HD11	5:AE:124:LEU:HB3	2.02	0.42
6:AF:68:GLN:O	6:AF:69:GLU:HB2	2.20	0.42
10:AJ:48:ARG:NH1	14:AN:101:TRP:CZ3	2.87	0.42
12:AL:106:GLY:HA3	12:AL:118:GLY:O	2.19	0.42
12:AL:114:ARG:O	12:AL:116:LYS:O	2.37	0.42
1:AA:1329:A:OP1	13:AM:26:GLY:O	2.38	0.42
13:AM:16:VAL:HG22	13:AM:41:GLU:O	2.19	0.42
19:AS:62:VAL:HG12	19:AS:63:THR:N	2.34	0.42
22:BA:1013:C:H2'	22:BA:1014:A:C8	2.55	0.42
22:BA:102:U:N1	46:BY:2:LYS:HE3	2.35	0.42
22:BA:1204:A:O4'	22:BA:1206:G:C8	2.73	0.42
22:BA:1644:C:C2'	22:BA:1644:C:O2	2.64	0.42
22:BA:1682:G:H2'	22:BA:1683:U:C6	2.55	0.42
22:BA:2097:A:C2	22:BA:2193:G:C5	3.08	0.42
22:BA:2118:U:O4	22:BA:2149:U:H5'	2.19	0.42
22:BA:2520:C:C5	22:BA:2567:G:C4	3.07	0.42
22:BA:1999:C:H5''	22:BA:2723:C:O2'	2.19	0.42
24:BC:23:GLU:OE1	24:BC:81:LEU:HD12	2.19	0.42
29:BH:1:MET:HE3	29:BH:23:ALA:HA	2.02	0.42
30:BI:29:GLY:O	30:BI:35:ILE:HD11	2.20	0.42
32:BK:105:ARG:C	32:BK:107:LEU:N	2.72	0.42
32:BK:41:ILE:HD11	32:BK:86:LEU:CD2	2.49	0.42
35:BN:79:LEU:O	35:BN:80:PHE:HB2	2.20	0.42
1:CA:1377:A:N3	7:CG:2:PRO:HG3	2.35	0.42
1:CA:15:G:O4'	5:CE:29:ARG:NH2	2.52	0.42
1:CA:295:C:N4	1:CA:296:U:C4	2.88	0.42
1:CA:63:C:O2'	1:CA:380:G:H4'	2.19	0.42
1:CA:538:G:H2'	1:CA:539:A:O4'	2.20	0.42
1:CA:919:A:C2	1:CA:920:U:C6	3.08	0.42
2:CB:165:ASP:O	2:CB:168:HIS:HB3	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:91:PHE:CD2	2:CB:150:GLY:HA3	2.54	0.42
3:CC:101:ILE:HG23	3:CC:101:ILE:O	2.20	0.42
4:CD:33:LYS:O	4:CD:34:ILE:C	2.59	0.42
6:CF:78:PHE:N	6:CF:78:PHE:CD2	2.87	0.42
9:CI:57:MET:HA	9:CI:60:LYS:HB3	2.02	0.42
10:CJ:27:GLU:O	10:CJ:31:ARG:HB3	2.20	0.42
12:CL:76:GLU:O	12:CL:77:HIS:O	2.37	0.42
13:CM:93:ARG:CZ	13:CM:93:ARG:HB3	2.50	0.42
16:CP:40:ASN:HB3	16:CP:43:ALA:HB2	2.02	0.42
22:DA:1121:C:N3	22:DA:1122:G:C8	2.87	0.42
22:DA:1250:G:C5'	38:DQ:6:ARG:HD2	2.50	0.42
22:DA:1438:U:C2	22:DA:1555:G:N2	2.87	0.42
22:DA:160:A:H2'	22:DA:161:A:C8	2.55	0.42
22:DA:1713:A:C5	22:DA:1716:U:H1'	2.55	0.42
22:DA:1874:C:H3'	22:DA:1875:G:C8	2.55	0.42
22:DA:189:G:C5	22:DA:205:G:C2	3.08	0.42
22:DA:2055:C:H5'	22:DA:2056:G:OP1	2.20	0.42
22:DA:2142:A:N6	22:DA:2143:C:N4	2.68	0.42
22:DA:2291:U:H5''	22:DA:2380:C:O2	2.20	0.42
22:DA:244:A:H2'	22:DA:245:G:O4'	2.20	0.42
22:DA:2634:A:C2	22:DA:2635:A:C4	3.08	0.42
22:DA:1998:A:O3'	22:DA:2724:U:H4'	2.19	0.42
22:DA:2826:A:C5	22:DA:2827:C:C5	3.07	0.42
22:DA:2503:A:C8	55:DA:3001:VIF:C10	2.99	0.42
22:DA:319:G:C4	22:DA:333:G:N2	2.88	0.42
22:DA:370:G:C8	57:DA:3559:HOH:O	2.69	0.42
22:DA:468:G:C2'	22:DA:469:G:H5'	2.50	0.42
22:DA:503:A:C2	22:DA:506:G:C5	3.08	0.42
22:DA:677:A:O2'	22:DA:2071:A:H5'	2.19	0.42
22:DA:787:C:C5	22:DA:791:C:C4	3.08	0.42
22:DA:1791:A:H5'	24:DC:207:LYS:O	2.20	0.42
24:DC:36:LYS:O	24:DC:36:LYS:HG3	2.19	0.42
25:DD:4:LEU:HG	25:DD:32:ASN:OD1	2.20	0.42
25:DD:51:THR:OG1	25:DD:76:GLY:HA3	2.20	0.42
26:DE:23:PHE:CE1	26:DE:28:VAL:HG21	2.55	0.42
27:DF:64:LYS:O	27:DF:64:LYS:HG2	2.19	0.42
31:DJ:89:PHE:CE2	31:DJ:100:VAL:HG11	2.55	0.42
36:DO:36:TYR:HD2	36:DO:52:SER:HB2	1.85	0.42
40:DS:18:ARG:HA	40:DS:21:ALA:HB3	2.01	0.42
1:AA:1034:G:H2'	1:AA:1035:A:O4'	2.20	0.42
1:AA:1118:U:O4'	1:AA:1179:A:H1'	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1304:G:C2	1:AA:1305:G:N2	2.87	0.42
1:AA:1356:G:C2	1:AA:1367:C:O2	2.73	0.42
1:AA:179:A:C6	1:AA:180:U:N3	2.88	0.42
1:AA:877:G:H21	8:AH:2:SER:N	2.18	0.42
1:AA:945:G:C6	1:AA:1337:G:C5	3.08	0.42
1:AA:974:A:H4'	1:AA:975:A:O5'	2.20	0.42
2:AB:99:GLY:O	2:AB:103:ASN:CB	2.68	0.42
4:AD:139:PRO:O	4:AD:140:ASN:HB2	2.20	0.42
4:AD:25:VAL:HG12	4:AD:26:ARG:N	2.34	0.42
10:AJ:61:ALA:O	10:AJ:62:ARG:HB2	2.20	0.42
14:AN:49:GLN:OE1	14:AN:49:GLN:HA	2.19	0.42
20:AT:79:LEU:O	20:AT:82:GLN:HB2	2.20	0.42
50:B2:32:ALA:O	50:B2:33:ARG:C	2.58	0.42
22:BA:1062:G:OP1	22:BA:1070:A:H4'	2.19	0.42
22:BA:1422:G:N3	22:BA:1423:G:C8	2.88	0.42
22:BA:1512:C:C2'	22:BA:1513:U:H5'	2.50	0.42
22:BA:1536:C:O4'	22:BA:1537:G:C2	2.72	0.42
22:BA:1607:C:N3	22:BA:1622:G:OP2	2.53	0.42
22:BA:1300:G:N9	22:BA:1626:A:C2	2.87	0.42
22:BA:1673:G:H2'	22:BA:1674:G:H5'	2.02	0.42
22:BA:1985:C:H2'	22:BA:1986:C:O5'	2.19	0.42
22:BA:2370:G:C6	22:BA:2371:G:C5	3.08	0.42
22:BA:393:C:C2	22:BA:394:C:C5	3.08	0.42
22:BA:406:G:C6	22:BA:407:G:N7	2.88	0.42
22:BA:567:U:H2'	22:BA:568:U:O5'	2.19	0.42
22:BA:644:A:H2'	22:BA:645:C:O4'	2.20	0.42
22:BA:723:C:H2'	22:BA:724:U:C6	2.55	0.42
22:BA:976:G:C2	22:BA:977:G:N7	2.88	0.42
26:BE:148:ILE:HG21	26:BE:157:LEU:HD21	2.02	0.42
28:BG:159:GLY:O	28:BG:160:LYS:C	2.57	0.42
29:BH:104:THR:CG2	29:BH:110:VAL:O	2.68	0.42
30:BI:21:SER:N	30:BI:22:PRO:CD	2.82	0.42
31:BJ:32:LEU:O	31:BJ:36:LEU:HG	2.20	0.42
34:BM:105:MET:CG	34:BM:106:ASP:N	2.83	0.42
34:BM:114:ARG:HA	34:BM:130:PHE:CE1	2.55	0.42
34:BM:14:LYS:HB2	34:BM:14:LYS:HE3	1.94	0.42
34:BM:2:LEU:N	34:BM:2:LEU:HD22	2.35	0.42
37:BP:73:VAL:HG22	37:BP:73:VAL:O	2.18	0.42
39:BR:21:ARG:O	39:BR:22:LEU:HD23	2.20	0.42
40:BS:65:ASP:OD1	40:BS:67:ASP:HB2	2.19	0.42
42:BU:12:ILE:CG2	42:BU:80:ALA:HB2	2.50	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:12:U:H4'	1:CA:526:C:H4'	2.02	0.42
1:CA:210:C:H5''	1:CA:211:G:OP1	2.19	0.42
1:CA:436:C:N3	1:CA:437:U:C4	2.88	0.42
1:CA:582:C:C4	1:CA:760:G:O6	2.72	0.42
1:CA:615:G:C2	1:CA:626:G:C5	3.08	0.42
1:CA:73:C:O2'	1:CA:74:A:O5'	2.31	0.42
1:CA:878:A:C5	1:CA:879:C:C5	3.08	0.42
1:CA:971:G:OP1	1:CA:972:C:H5''	2.19	0.42
2:CB:100:MET:CA	2:CB:107:VAL:HG21	2.50	0.42
2:CB:96:TRP:CZ3	2:CB:175:GLU:OE2	2.72	0.42
2:CB:208:ARG:O	2:CB:210:VAL:N	2.53	0.42
3:CC:84:VAL:HA	3:CC:87:LEU:HD12	2.01	0.42
4:CD:129:VAL:HG23	4:CD:146:ARG:HD3	2.01	0.42
4:CD:35:GLU:HG3	4:CD:36:GLN:N	2.34	0.42
4:CD:59:GLN:OE1	4:CD:59:GLN:CA	2.67	0.42
6:CF:16:GLU:O	6:CF:18:VAL:N	2.52	0.42
6:CF:59:TYR:C	6:CF:60:VAL:HG23	2.40	0.42
8:CH:102:ALA:O	8:CH:112:THR:HA	2.19	0.42
9:CI:51:PRO:HD3	9:CI:80:ARG:HG2	2.02	0.42
11:CK:43:GLY:HA3	11:CK:74:VAL:HG12	2.02	0.42
13:CM:81:MET:O	13:CM:82:ASP:C	2.57	0.42
14:CN:45:VAL:HG23	14:CN:46:LEU:H	1.85	0.42
15:CO:46:HIS:C	15:CO:48:LYS:N	2.72	0.42
1:CA:254:G:O2'	17:CQ:18:GLU:O	2.36	0.42
20:CT:80:THR:O	20:CT:81:ALA:C	2.56	0.42
21:CU:9:ASN:N	21:CU:12:PHE:HE2	2.18	0.42
22:DA:2815:C:O2'	48:D0:41:HIS:ND1	2.41	0.42
49:D1:10:LYS:O	49:D1:51:GLU:CG	2.66	0.42
22:DA:1071:G:O2'	22:DA:1072:C:C5'	2.68	0.42
22:DA:1379:U:H2'	22:DA:1379:U:O2	2.20	0.42
22:DA:1581:G:C5	22:DA:1582:C:N4	2.88	0.42
22:DA:1640:A:H2'	22:DA:1641:A:C8	2.54	0.42
22:DA:1665:A:H2'	22:DA:1666:G:O4'	2.20	0.42
22:DA:1745:A:C4	22:DA:1746:A:C8	3.08	0.42
22:DA:2212:A:C2	22:DA:2214:C:N4	2.88	0.42
22:DA:2536:G:C6	22:DA:2537:U:N3	2.88	0.42
22:DA:2624:G:H1'	48:D0:19:HIS:CE1	2.55	0.42
22:DA:2683:C:OP1	37:DP:56:HIS:CB	2.68	0.42
22:DA:363:G:H2'	22:DA:364:C:C6	2.55	0.42
22:DA:503:A:H4'	22:DA:504:A:O5'	2.20	0.42
22:DA:60:G:HO2'	22:DA:62:U:P	2.38	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:609:A:C6	22:DA:610:C:O2	2.73	0.42
22:DA:957:C:C4	22:DA:2459:A:C1'	3.03	0.42
24:DC:244:PRO:O	24:DC:245:VAL:HG13	2.20	0.42
24:DC:72:ASP:O	24:DC:74:ILE:HD12	2.19	0.42
26:DE:181:ILE:HB	33:DL:3:LEU:HD13	2.01	0.42
27:DF:85:ILE:HG23	27:DF:85:ILE:O	2.18	0.42
29:DH:53:GLU:C	29:DH:55:GLU:N	2.72	0.42
22:DA:2428:G:C2	33:DL:54:GLN:OE1	2.73	0.42
35:DN:58:ASP:O	35:DN:59:SER:HB3	2.18	0.42
35:DN:71:ARG:CG	35:DN:71:ARG:HH21	2.32	0.42
37:DP:28:VAL:HG21	37:DP:74:PHE:CE2	2.55	0.42
41:DT:21:SER:O	41:DT:23:ALA:N	2.52	0.42
41:DT:64:LYS:HB3	41:DT:76:ARG:NH2	2.35	0.42
22:DA:328:U:H4'	42:DU:66:GLN:NE2	2.35	0.42
1:AA:1048:G:C2	1:AA:1050:G:N7	2.87	0.41
1:AA:1537:U:C4	1:AA:1538:C:C4	3.07	0.41
1:AA:161:A:C2'	1:AA:162:A:O5'	2.68	0.41
1:AA:212:G:N2	1:AA:213:G:N3	2.67	0.41
1:AA:262:A:N1	1:AA:263:A:C2	2.88	0.41
1:AA:451:A:H4'	1:AA:452:A:O4'	2.19	0.41
1:AA:462:G:H3'	1:AA:463:U:H6	1.85	0.41
2:AB:154:MET:HE3	2:AB:158:PRO:HG3	2.01	0.41
2:AB:16:PHE:O	2:AB:41:ILE:HD12	2.20	0.41
2:AB:33:GLY:HA3	2:AB:40:ILE:H	1.85	0.41
2:AB:40:ILE:HD13	2:AB:40:ILE:N	2.35	0.41
6:AF:8:PHE:CD1	6:AF:8:PHE:C	2.94	0.41
6:AF:3:HIS:CB	6:AF:92:THR:HG23	2.50	0.41
12:AL:108:LYS:O	12:AL:109:ASP:HB2	2.19	0.41
12:AL:21:VAL:N	12:AL:22:PRO:CD	2.83	0.41
12:AL:21:VAL:C	12:AL:23:ALA:H	2.23	0.41
14:AN:63:ARG:O	14:AN:65:ARG:N	2.53	0.41
18:AR:49:ALA:O	18:AR:50:LYS:C	2.58	0.41
20:AT:9:LYS:O	20:AT:13:GLN:HB2	2.19	0.41
53:B5:42:VAL:O	53:B5:179:ALA:HB3	2.19	0.41
22:BA:1097:U:H1'	30:BI:9:VAL:HG12	2.02	0.41
22:BA:123:G:H2'	22:BA:124:G:O4'	2.19	0.41
22:BA:1769:U:C2'	22:BA:1770:G:O5'	2.67	0.41
22:BA:1961:C:C5	22:BA:1962:C:C4	3.08	0.41
22:BA:2070:A:C2	22:BA:2442:C:C2	3.08	0.41
22:BA:2074:U:H2'	22:BA:2075:U:C6	2.55	0.41
22:BA:2152:G:C5	22:BA:2153:C:C5	3.08	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2267:A:H5''	22:BA:2268:A:C5'	2.50	0.41
22:BA:2340:A:H2'	22:BA:2341:G:H8	1.84	0.41
22:BA:2502:G:H5'	22:BA:2503:A:C5'	2.50	0.41
22:BA:2573:C:H6	22:BA:2573:C:O5'	2.03	0.41
22:BA:480:A:OP2	42:BU:44:LYS:NZ	2.43	0.41
22:BA:569:U:OP1	22:BA:945:A:O2'	2.19	0.41
22:BA:928:A:C2	47:BZ:47:MET:HE1	2.54	0.41
25:BD:84:LEU:HD23	25:BD:84:LEU:HA	1.80	0.41
26:BE:191:ASP:O	26:BE:195:GLN:HG3	2.20	0.41
26:BE:48:THR:C	26:BE:50:ALA:N	2.72	0.41
28:BG:155:GLU:HG2	28:BG:156:PRO:HD2	2.01	0.41
29:BH:139:PHE:O	29:BH:140:ALA:HB3	2.20	0.41
35:BN:36:THR:O	35:BN:111:ALA:N	2.51	0.41
38:BQ:90:ILE:HG22	38:BQ:95:LEU:HG	2.00	0.41
39:BR:3:ALA:CB	39:BR:59:ILE:HD11	2.50	0.41
39:BR:74:ILE:O	39:BR:86:GLN:HA	2.20	0.41
47:BZ:21:LYS:C	47:BZ:23:THR:N	2.73	0.41
1:CA:1105:A:N3	1:CA:1106:G:C8	2.88	0.41
1:CA:1179:A:C2'	1:CA:1180:A:H5'	2.50	0.41
1:CA:1296:C:H4'	1:CA:1302:C:C4	2.54	0.41
1:CA:128:G:N1	1:CA:129:A:C6	2.88	0.41
1:CA:1342:C:H2'	1:CA:1343:G:C8	2.55	0.41
1:CA:270:A:H2'	1:CA:271:C:C6	2.54	0.41
1:CA:276:G:H2'	1:CA:277:C:O4'	2.19	0.41
1:CA:406:G:N3	1:CA:407:U:C6	2.88	0.41
1:CA:502:A:C2	1:CA:503:C:C2	3.07	0.41
1:CA:716:A:C2'	1:CA:717:U:O5'	2.68	0.41
1:CA:825:A:O2'	1:CA:826:C:H5'	2.19	0.41
1:CA:978:A:H4'	1:CA:1322:C:C5	2.55	0.41
3:CC:134:MET:SD	3:CC:153:VAL:HG13	2.60	0.41
4:CD:106:GLY:O	4:CD:159:LEU:N	2.53	0.41
4:CD:34:ILE:HG23	4:CD:34:ILE:O	2.19	0.41
5:CE:89:HIS:CE1	5:CE:138:ARG:HD3	2.55	0.41
7:CG:122:ASN:O	7:CG:125:SER:HB2	2.19	0.41
9:CI:47:VAL:O	9:CI:80:ARG:HG2	2.19	0.41
11:CK:23:ILE:HG21	11:CK:96:THR:HG21	2.02	0.41
1:CA:706:A:O2'	11:CK:31:ILE:HD11	2.20	0.41
13:CM:39:ILE:HG13	13:CM:56:LEU:HD11	2.01	0.41
51:D3:31:HIS:O	51:D3:36:LYS:NZ	2.52	0.41
22:DA:1002:G:C5	22:DA:1003:G:C8	3.08	0.41
22:DA:1324:G:H1'	22:DA:1616:A:N6	2.35	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1623:G:C2	22:DA:1624:U:C6	3.08	0.41
22:DA:1940:U:C2	22:DA:1965:C:OP2	2.73	0.41
22:DA:201:C:C5	22:DA:202:U:C5	3.08	0.41
22:DA:2091:C:H1'	45:DX:34:HIS:CD2	2.54	0.41
22:DA:2314:A:C2	22:DA:2315:G:C5	3.08	0.41
22:DA:2321:U:H3'	22:DA:2322:A:H5'	2.01	0.41
22:DA:2549:G:N3	22:DA:2560:A:C2	2.87	0.41
22:DA:2767:C:H2'	22:DA:2768:U:H5'	2.01	0.41
22:DA:2819:G:N3	22:DA:2828:G:C2	2.88	0.41
22:DA:335:C:H2'	22:DA:336:C:H6	1.83	0.41
22:DA:360:U:C4	22:DA:361:G:C6	3.08	0.41
22:DA:529:A:H4'	22:DA:530:G:OP1	2.19	0.41
22:DA:604:G:C6	22:DA:605:G:C6	3.08	0.41
22:DA:668:A:H3'	22:DA:669:G:H5''	2.02	0.41
22:DA:192:C:H5'	22:DA:678:C:H1'	2.02	0.41
22:DA:776:G:C8	22:DA:793:A:C5	3.08	0.41
22:DA:788:A:OP1	22:DA:791:C:N4	2.47	0.41
22:DA:846:U:O2'	22:DA:847:U:P	2.77	0.41
23:DB:60:C:C2	23:DB:61:G:C8	3.08	0.41
23:DB:97:C:C4	23:DB:98:G:C8	3.08	0.41
24:DC:147:LYS:HB2	24:DC:150:LYS:CB	2.47	0.41
24:DC:75:PRO:HB2	24:DC:97:LYS:HG3	2.02	0.41
27:DF:8:TYR:OH	27:DF:30:ARG:HB3	2.19	0.41
30:DI:4:LYS:HD2	30:DI:5:VAL:H	1.85	0.41
31:DJ:138:GLN:HG3	31:DJ:138:GLN:O	2.20	0.41
33:DL:121:THR:O	33:DL:121:THR:HG22	2.19	0.41
33:DL:68:SER:O	33:DL:69:ARG:HG3	2.19	0.41
34:DM:2:LEU:N	34:DM:2:LEU:HD12	2.35	0.41
40:DS:63:GLY:O	40:DS:64:ALA:HB3	2.20	0.41
41:DT:2:ILE:HA	41:DT:3:ARG:HB2	2.02	0.41
46:DY:9:LYS:O	46:DY:12:GLU:HB2	2.19	0.41
1:AA:1124:G:H2'	1:AA:1145:A:C6	2.55	0.41
1:AA:1223:C:P	19:AS:78:ARG:NH1	2.93	0.41
1:AA:1367:C:OP2	9:AI:114:LYS:NZ	2.43	0.41
1:AA:1385:G:O2'	1:AA:1386:G:H5'	2.20	0.41
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.18	0.41
1:AA:1538:C:H2'	1:AA:1539:C:H5'	2.02	0.41
1:AA:209:U:H5''	1:AA:210:C:OP2	2.20	0.41
1:AA:258:G:C4	1:AA:259:G:C8	3.08	0.41
1:AA:35:G:H2'	1:AA:36:C:H6	1.84	0.41
1:AA:57:G:H2'	1:AA:58:C:C6	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:603:U:H2'	1:AA:604:G:C8	2.55	0.41
1:AA:693:G:O2'	1:AA:694:A:H5'	2.20	0.41
1:AA:767:A:H2'	1:AA:768:A:O4'	2.20	0.41
1:AA:923:A:C5	1:AA:924:C:C5	3.07	0.41
2:AB:167:ASP:OD1	2:AB:167:ASP:C	2.59	0.41
6:AF:76:THR:O	6:AF:79:ARG:N	2.49	0.41
7:AG:47:LEU:HD12	7:AG:47:LEU:HA	1.92	0.41
10:AJ:19:ASP:HA	10:AJ:22:THR:HB	2.02	0.41
13:AM:114:LYS:O	13:AM:115:PRO:OXT	2.38	0.41
18:AR:34:THR:HG22	18:AR:38:LYS:HB2	2.01	0.41
19:AS:31:LEU:HD12	19:AS:31:LEU:HA	1.95	0.41
19:AS:4:SER:O	19:AS:6:LYS:N	2.54	0.41
20:AT:54:MET:HE3	20:AT:58:VAL:HG21	2.02	0.41
20:AT:69:LYS:HZ3	20:AT:69:LYS:HB2	1.84	0.41
22:BA:1041:G:O2'	22:BA:1042:G:H5'	2.19	0.41
22:BA:1107:G:C4	22:BA:1108:U:C6	3.08	0.41
22:BA:1179:G:N7	22:BA:1180:U:O4'	2.52	0.41
22:BA:1301:A:C2	22:BA:1303:G:C5	3.08	0.41
22:BA:1324:G:N2	22:BA:1328:A:N1	2.69	0.41
22:BA:1559:U:H4'	22:BA:1560:G:OP2	2.19	0.41
22:BA:1585:C:H2'	22:BA:1586:A:O4'	2.20	0.41
22:BA:1617:C:OP1	57:BA:3644:HOH:O	2.22	0.41
22:BA:1623:G:C2'	22:BA:1624:U:H5'	2.50	0.41
22:BA:2055:C:H5'	22:BA:2056:G:OP1	2.20	0.41
22:BA:2125:G:N2	22:BA:2171:A:O5'	2.48	0.41
22:BA:2346:A:H3'	22:BA:2347:C:H5''	2.02	0.41
22:BA:2418:A:C5	22:BA:2419:U:C5	3.07	0.41
22:BA:1669:A:H5''	22:BA:2550:G:OP1	2.20	0.41
22:BA:532:A:N3	22:BA:532:A:H2'	2.35	0.41
22:BA:92:U:O2	22:BA:92:U:H2'	2.19	0.41
22:BA:974:G:C8	22:BA:989:G:N3	2.89	0.41
23:BB:58:A:H2'	23:BB:59:A:O4'	2.20	0.41
22:BA:1800:C:H3'	24:BC:146:MET:HE1	2.01	0.41
24:BC:167:ARG:O	24:BC:168:ASP:HB3	2.19	0.41
25:BD:14:ILE:N	25:BD:14:ILE:HD13	2.35	0.41
25:BD:25:THR:HG22	25:BD:27:ILE:HG13	2.02	0.41
26:BE:58:LYS:HZ2	26:BE:62:GLN:N	2.18	0.41
27:BF:175:PHE:HA	27:BF:176:PRO:HD2	1.84	0.41
35:BN:55:ALA:CB	35:BN:79:LEU:HB3	2.50	0.41
22:BA:2846:G:OP2	37:BP:52:ASN:HB2	2.20	0.41
39:BR:69:GLY:C	39:BR:70:GLU:O	2.58	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BS:30:SER:O	40:BS:31:GLN:C	2.57	0.41
43:BV:85:LYS:HE3	43:BV:85:LYS:HB3	1.83	0.41
47:BZ:23:THR:HG21	47:BZ:51:VAL:HG13	2.02	0.41
1:CA:1025:U:H5''	1:CA:1026:G:OP1	2.20	0.41
1:CA:1166:G:H2'	1:CA:1168:U:OP2	2.20	0.41
1:CA:1319:A:OP2	19:CS:5:LEU:HD21	2.21	0.41
1:CA:435:A:C2	1:CA:436:C:C1'	3.03	0.41
1:CA:690:G:H2'	1:CA:691:G:O4'	2.19	0.41
1:CA:683:G:C6	1:CA:708:C:N3	2.88	0.41
3:CC:124:LEU:HD13	3:CC:196:ILE:HG21	2.01	0.41
3:CC:120:ILE:HD11	3:CC:137:ALA:CB	2.49	0.41
3:CC:184:TYR:CD1	3:CC:201:TRP:CD1	3.07	0.41
3:CC:50:ALA:O	3:CC:51:SER:HB2	2.20	0.41
3:CC:53:SER:HB2	3:CC:115:LEU:HG	2.01	0.41
7:CG:13:LEU:HD13	7:CG:14:PRO:HD2	2.02	0.41
9:CI:26:GLY:HA2	9:CI:61:LEU:O	2.19	0.41
12:CL:24:LEU:HD22	12:CL:59:ASN:OD1	2.20	0.41
15:CO:67:LEU:HD23	15:CO:78:TYR:CE1	2.55	0.41
16:CP:74:LEU:N	16:CP:74:LEU:HD23	2.35	0.41
20:CT:5:LYS:O	20:CT:6:SER:C	2.57	0.41
22:DA:1076:C:H2'	22:DA:1077:A:O4'	2.19	0.41
22:DA:1083:U:H2'	22:DA:1085:A:OP2	2.20	0.41
22:DA:1091:G:N3	22:DA:1092:C:C5	2.88	0.41
22:DA:1299:G:H5'	22:DA:1301:A:O4'	2.20	0.41
22:DA:1360:G:C2	22:DA:1361:G:H1'	2.55	0.41
22:DA:1364:G:OP2	45:DX:50:ARG:NH2	2.52	0.41
22:DA:1475:G:O2'	22:DA:1476:U:P	2.78	0.41
22:DA:529:A:C6	22:DA:2023:C:C2	3.08	0.41
22:DA:2078:C:H1'	22:DA:2434:A:H1'	2.03	0.41
22:DA:2103:C:C2	22:DA:2104:C:C5	3.08	0.41
22:DA:228:C:O2	22:DA:418:C:H4'	2.19	0.41
22:DA:2323:G:H2'	22:DA:2324:U:C6	2.54	0.41
22:DA:239:C:O2	22:DA:239:C:H2'	2.21	0.41
22:DA:2788:C:H2'	22:DA:2789:C:H6	1.84	0.41
22:DA:467:G:H4'	22:DA:796:C:O2'	2.19	0.41
23:DB:100:G:H2'	23:DB:101:A:O4'	2.19	0.41
23:DB:65:U:C4	23:DB:108:A:C4	3.08	0.41
25:DD:104:VAL:O	25:DD:105:LYS:HB2	2.20	0.41
25:DD:32:ASN:N	25:DD:96:ILE:O	2.52	0.41
27:DF:100:PHE:O	27:DF:104:ILE:HG12	2.20	0.41
29:DH:135:HIS:CG	29:DH:136:SER:N	2.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:41:LYS:HE2	29:DH:44:ILE:CD1	2.50	0.41
30:DI:101:ILE:HG22	30:DI:102:SER:N	2.35	0.41
30:DI:75:PRO:HG2	30:DI:78:VAL:CG2	2.50	0.41
30:DI:92:LYS:HB3	30:DI:95:LYS:HE3	2.01	0.41
35:DN:106:ASP:OD1	35:DN:106:ASP:C	2.59	0.41
37:DP:51:ARG:HG2	37:DP:51:ARG:O	2.19	0.41
44:DW:75:LYS:HD2	44:DW:77:ARG:CZ	2.51	0.41
22:DA:2230:G:O3'	45:DX:30:LEU:HB2	2.20	0.41
45:DX:40:VAL:CG2	45:DX:45:ARG:O	2.68	0.41
46:DY:28:LEU:HD12	46:DY:46:VAL:HG21	2.03	0.41
1:AA:1128:C:H4'	1:AA:1148:U:O2	2.20	0.41
1:AA:1143:G:C4	1:AA:1144:G:C8	3.08	0.41
1:AA:1296:C:H5''	1:AA:1297:G:OP2	2.20	0.41
1:AA:1335:U:H5''	1:AA:1336:C:H5'	2.03	0.41
1:AA:1355:G:O2'	1:AA:1356:G:H5'	2.20	0.41
1:AA:1408:A:H2'	1:AA:1409:C:C6	2.55	0.41
1:AA:452:A:N6	1:AA:480:U:C2	2.88	0.41
1:AA:523:A:C2	1:AA:527:G:O6	2.73	0.41
1:AA:549:C:C4	1:AA:550:G:N7	2.89	0.41
1:AA:559:A:H4'	1:AA:560:A:O5'	2.21	0.41
1:AA:594:U:O4	1:AA:595:A:N6	2.53	0.41
1:AA:654:G:C2'	1:AA:655:A:H5'	2.50	0.41
1:AA:982:U:H4'	1:AA:983:A:C5'	2.51	0.41
2:AB:55:ALA:O	2:AB:59:LYS:HB2	2.20	0.41
3:AC:108:LYS:O	3:AC:111:LEU:HB2	2.21	0.41
3:AC:156:ARG:NH2	3:AC:161:GLU:HA	2.35	0.41
4:AD:123:ILE:H	4:AD:123:ILE:HD13	1.83	0.41
4:AD:44:ARG:O	4:AD:46:PRO:HD3	2.19	0.41
4:AD:4:TYR:O	4:AD:5:LEU:CB	2.67	0.41
9:AI:120:LYS:HG3	9:AI:123:ARG:HB3	2.02	0.41
9:AI:127:PHE:CD2	9:AI:127:PHE:C	2.93	0.41
10:AJ:42:LEU:HB3	10:AJ:71:LEU:HB3	2.00	0.41
13:AM:22:ILE:HB	13:AM:25:VAL:CG2	2.50	0.41
16:AP:10:GLY:HA3	16:AP:15:PRO:HA	2.01	0.41
17:AQ:29:VAL:O	17:AQ:38:ILE:HD12	2.19	0.41
48:B0:13:ARG:HD2	48:B0:17:ARG:CZ	2.50	0.41
22:BA:1000:A:N6	22:BA:1001:A:N6	2.68	0.41
22:BA:1434:A:C2	22:BA:1435:G:C5	3.08	0.41
22:BA:1449:G:H2'	22:BA:1450:G:O5'	2.20	0.41
22:BA:1474:U:C4	22:BA:1475:G:N2	2.87	0.41
22:BA:1490:A:N3	22:BA:1490:A:H2'	2.35	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1813:G:N3	24:BC:50:THR:OG1	2.46	0.41
22:BA:1919:A:N1	22:BA:1920:C:O4'	2.54	0.41
22:BA:2174:C:O2'	22:BA:2175:C:H5'	2.20	0.41
22:BA:2508:G:C2	22:BA:2582:G:C6	3.09	0.41
22:BA:24:G:C2	22:BA:517:C:C2	3.07	0.41
22:BA:616:A:H4'	26:BE:101:TYR:CE2	2.55	0.41
22:BA:818:G:H5'	22:BA:839:U:OP1	2.20	0.41
23:BB:53:A:N3	23:BB:53:A:H2'	2.34	0.41
23:BB:77:U:H2'	23:BB:78:A:H5'	2.01	0.41
25:BD:142:VAL:HB	25:BD:143:PRO:HD3	2.02	0.41
25:BD:39:ASP:O	25:BD:43:ASP:N	2.51	0.41
22:BA:323:C:O2	26:BE:163:ASN:ND2	2.53	0.41
26:BE:91:ASP:OD1	26:BE:91:ASP:C	2.58	0.41
27:BF:99:PHE:O	27:BF:102:ARG:N	2.53	0.41
30:BI:11:LEU:O	30:BI:24:VAL:HG11	2.20	0.41
39:BR:1:MET:HG3	39:BR:42:ALA:O	2.20	0.41
40:BS:28:LYS:O	40:BS:30:SER:N	2.53	0.41
40:BS:37:THR:HG21	40:BS:38:TYR:CE1	2.54	0.41
41:BT:47:VAL:HG11	41:BT:85:VAL:HG11	2.02	0.41
45:BX:12:PRO:HB3	45:BX:30:LEU:CD2	2.47	0.41
1:CA:1022:A:C5	1:CA:1023:U:C5	3.09	0.41
1:CA:1240:U:H3'	1:CA:1241:G:H5'	2.02	0.41
1:CA:39:G:N2	1:CA:40:C:C2	2.88	0.41
1:CA:790:A:N6	1:CA:791:G:N1	2.68	0.41
1:CA:965:U:OP1	1:CA:1198:G:H5''	2.20	0.41
1:CA:991:U:H4'	1:CA:992:U:OP1	2.21	0.41
2:CB:130:THR:HB	2:CB:132:LYS:HB3	2.02	0.41
2:CB:154:MET:CE	2:CB:158:PRO:HG3	2.51	0.41
2:CB:211:THR:HA	2:CB:214:LEU:HB2	2.02	0.41
3:CC:6:HIS:C	3:CC:8:ASN:H	2.23	0.41
4:CD:15:GLU:HA	4:CD:15:GLU:OE1	2.20	0.41
4:CD:195:ILE:CG1	4:CD:195:ILE:O	2.68	0.41
9:CI:128:SER:O	9:CI:129:LYS:C	2.59	0.41
13:CM:54:ASP:HA	13:CM:57:ARG:CB	2.50	0.41
15:CO:45:GLU:O	15:CO:46:HIS:CB	2.67	0.41
17:CQ:11:ARG:CZ	17:CQ:12:VAL:O	2.68	0.41
22:DA:1096:A:N1	22:DA:1097:U:C5	2.88	0.41
22:DA:1211:C:H5''	22:DA:1212:G:C8	2.55	0.41
22:DA:1365:A:C5	22:DA:1366:A:N7	2.88	0.41
22:DA:770:G:O4'	22:DA:1379:U:C5	2.73	0.41
22:DA:1456:G:C4	22:DA:1457:U:C6	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1664:A:C8	22:DA:1664:A:OP2	2.73	0.41
22:DA:2133:G:N3	22:DA:2158:A:C6	2.88	0.41
22:DA:2346:A:C3'	22:DA:2347:C:C5'	2.97	0.41
22:DA:2512:C:H2'	22:DA:2513:A:O4'	2.20	0.41
22:DA:2563:U:O4'	22:DA:2566:A:N6	2.53	0.41
22:DA:2645:G:N2	22:DA:2645:G:OP2	2.46	0.41
22:DA:371:A:H61	22:DA:401:A:H3'	1.85	0.41
22:DA:404:A:H1'	22:DA:405:U:P	2.60	0.41
22:DA:788:A:H1'	50:D2:4:THR:CG2	2.50	0.41
22:DA:870:U:H5''	34:DM:6:ARG:O	2.20	0.41
24:DC:189:ARG:O	24:DC:190:ALA:HB2	2.21	0.41
25:DD:15:PHE:HA	25:DD:20:VAL:O	2.21	0.41
22:DA:2786:U:O2'	25:DD:63:PRO:O	2.34	0.41
26:DE:108:ILE:HD11	26:DE:180:LEU:CB	2.50	0.41
28:DG:41:VAL:HG23	28:DG:64:GLN:HB3	2.02	0.41
30:DI:57:VAL:CG2	30:DI:58:VAL:N	2.83	0.41
34:DM:36:VAL:HG22	34:DM:129:THR:HB	2.02	0.41
35:DN:12:ARG:CZ	35:DN:20:MET:HE3	2.51	0.41
35:DN:25:ALA:HA	35:DN:48:VAL:HG22	2.02	0.41
42:DU:33:LYS:HB3	42:DU:64:ALA:HB1	2.03	0.41
42:DU:83:VAL:CG1	42:DU:84:GLY:N	2.83	0.41
47:DZ:13:ALA:HB2	47:DZ:24:LEU:CD1	2.50	0.41
1:AA:1160:G:C6	1:AA:1181:G:O6	2.73	0.41
1:AA:1461:G:H2'	1:AA:1462:C:H6	1.85	0.41
1:AA:192:A:C6	1:AA:193:C:C4	3.08	0.41
1:AA:269:C:N4	1:AA:270:A:N6	2.69	0.41
1:AA:422:C:OP1	1:AA:422:C:O4'	2.38	0.41
1:AA:568:G:H2'	1:AA:569:C:H6	1.84	0.41
1:AA:663:A:H5'	1:AA:836:G:OP1	2.20	0.41
1:AA:670:G:C2'	1:AA:671:G:O5'	2.67	0.41
1:AA:821:G:H4'	57:AA:1741:HOH:O	2.19	0.41
2:AB:68:LEU:CD2	2:AB:92:VAL:HG23	2.51	0.41
3:AC:130:PHE:O	3:AC:134:MET:HG3	2.19	0.41
4:AD:90:LEU:HD23	4:AD:200:ILE:HD11	2.01	0.41
6:AF:38:ARG:HG3	6:AF:39:LEU:H	1.85	0.41
9:AI:22:LYS:HB3	9:AI:22:LYS:HE3	1.90	0.41
10:AJ:49:PHE:CD1	10:AJ:49:PHE:N	2.88	0.41
10:AJ:5:ARG:HG2	10:AJ:79:PRO:HG3	2.03	0.41
11:AK:37:ARG:O	11:AK:39:GLY:N	2.52	0.41
18:AR:67:LEU:O	18:AR:68:LEU:HG	2.20	0.41
19:AS:11:ILE:HG13	19:AS:15:LEU:HD23	2.01	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:3:ASN:OD1	20:AT:3:ASN:C	2.59	0.41
50:B2:31:LEU:HD22	50:B2:42:LEU:HG	2.03	0.41
50:B2:43:THR:O	50:B2:44:VAL:HB	2.20	0.41
53:B5:192:ALA:O	53:B5:196:ALA:HB3	2.20	0.41
22:BA:1027:A:N1	22:BA:1126:A:N9	2.68	0.41
22:BA:1489:C:C2	22:BA:1501:G:N2	2.88	0.41
22:BA:1649:G:C2	22:BA:1650:A:C8	3.08	0.41
22:BA:1784:A:P	57:BA:3698:HOH:O	2.77	0.41
22:BA:1842:G:C4	22:BA:1901:A:C2	3.08	0.41
22:BA:1838:C:N4	22:BA:1899:A:O4'	2.53	0.41
22:BA:1914:C:C4	22:BA:1915:U:C4	3.08	0.41
22:BA:563:A:C8	22:BA:2018:G:N1	2.88	0.41
22:BA:2599:G:OP2	24:BC:235:GLY:O	2.39	0.41
22:BA:2648:G:H2'	22:BA:2649:C:O4'	2.21	0.41
22:BA:2714:G:O2'	22:BA:2715:C:H5'	2.20	0.41
27:BF:174:ASP:O	27:BF:175:PHE:C	2.59	0.41
27:BF:17:MET:HE1	27:BF:22:TYR:O	2.21	0.41
29:BH:33:GLN:O	29:BH:35:LYS:N	2.53	0.41
29:BH:90:LEU:HD13	29:BH:125:THR:HA	2.03	0.41
30:BI:43:ASN:HA	30:BI:46:THR:HB	2.01	0.41
33:BL:116:VAL:HG13	33:BL:116:VAL:O	2.21	0.41
40:BS:36:LEU:HD13	40:BS:48:LYS:HB2	2.03	0.41
1:CA:1036:A:H5'	1:CA:1037:C:OP2	2.20	0.41
1:CA:558:G:H8	1:CA:558:G:O5'	2.03	0.41
1:CA:632:U:H3'	1:CA:633:G:H5'	2.03	0.41
1:CA:851:G:C2	1:CA:852:G:C8	3.08	0.41
1:CA:920:U:H2'	1:CA:921:U:H6	1.85	0.41
2:CB:68:LEU:HD13	2:CB:161:LEU:HD11	2.02	0.41
3:CC:172:ARG:C	3:CC:174:PRO:HD3	2.40	0.41
3:CC:64:ILE:HG22	3:CC:97:VAL:HG23	2.02	0.41
7:CG:106:GLU:O	7:CG:110:LYS:HG2	2.20	0.41
8:CH:41:LYS:HD2	8:CH:48:ASP:HA	2.03	0.41
9:CI:114:LYS:HG2	9:CI:115:LYS:N	2.35	0.41
9:CI:118:LEU:HD12	9:CI:118:LEU:N	2.36	0.41
1:CA:1232:U:OP1	9:CI:126:GLN:NE2	2.53	0.41
9:CI:57:MET:N	9:CI:57:MET:SD	2.94	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:CD1	2.73	0.41
13:CM:4:ILE:O	13:CM:6:GLY:N	2.53	0.41
1:CA:1308:U:OP2	13:CM:98:ARG:HG3	2.20	0.41
16:CP:39:PHE:CD1	16:CP:39:PHE:C	2.92	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:55:ASP:O	16:CP:58:ALA:HB3	2.20	0.41
18:CR:27:ALA:O	18:CR:30:LYS:HG2	2.21	0.41
20:CT:44:LYS:HD3	20:CT:87:ALA:HA	2.03	0.41
21:CU:11:PRO:O	21:CU:12:PHE:CB	2.68	0.41
22:DA:1313:U:H2'	22:DA:1313:U:O2	2.20	0.41
22:DA:1350:C:C2	22:DA:1382:G:C2	3.08	0.41
22:DA:1364:G:H2'	22:DA:1365:A:H5'	2.02	0.41
22:DA:1366:A:C2	22:DA:1367:A:C1'	3.03	0.41
22:DA:1384:A:H1'	22:DA:1405:U:H1'	2.03	0.41
22:DA:1567:G:O2'	24:DC:63:ARG:NH1	2.54	0.41
22:DA:1577:C:H2'	22:DA:1578:U:O4'	2.20	0.41
22:DA:16:C:H4'	48:D0:11:SER:OG	2.20	0.41
22:DA:1786:A:H1'	22:DA:1938:A:N6	2.35	0.41
22:DA:1831:G:H2'	22:DA:1832:C:C6	2.55	0.41
22:DA:1926:U:H1'	22:DA:1929:G:C6	2.56	0.41
22:DA:2246:G:H2'	22:DA:2247:A:O4'	2.20	0.41
22:DA:2276:G:C2'	22:DA:2277:G:O5'	2.68	0.41
22:DA:2286:G:H5'	22:DA:2287:A:O4'	2.20	0.41
22:DA:2290:G:H4'	22:DA:2381:A:O2'	2.20	0.41
22:DA:2355:G:OP1	44:DW:25:ARG:NH2	2.53	0.41
22:DA:2444:G:P	26:DE:63:LYS:HD2	2.60	0.41
22:DA:247:G:N7	22:DA:249:C:N1	2.67	0.41
22:DA:2572:A:N7	25:DD:150:GLN:HB3	2.36	0.41
22:DA:2586:U:O2	22:DA:2586:U:H2'	2.20	0.41
22:DA:475:C:N3	22:DA:481:G:C6	2.89	0.41
22:DA:937:C:H2'	22:DA:938:G:O4'	2.21	0.41
22:DA:976:G:O6	22:DA:988:A:C2	2.73	0.41
23:DB:40:U:N3	23:DB:44:G:OP2	2.46	0.41
24:DC:154:LEU:HD13	24:DC:176:LEU:HD21	2.03	0.41
24:DC:252:THR:HG22	24:DC:253:LYS:N	2.36	0.41
27:DF:40:VAL:HG11	27:DF:50:LEU:HD13	2.01	0.41
28:DG:176:LYS:O	28:DG:177:LYS:CB	2.68	0.41
29:DH:2:GLN:O	29:DH:3:VAL:O	2.38	0.41
35:DN:69:ARG:C	35:DN:70:THR:HG23	2.40	0.41
41:DT:22:THR:HA	41:DT:25:GLU:CG	2.51	0.41
1:AA:1133:G:N2	1:AA:1142:G:C4	2.88	0.41
1:AA:1164:G:C2	1:AA:1173:U:O2	2.74	0.41
1:AA:1299:A:C5	1:AA:1301:U:O2	2.73	0.41
1:AA:1425:U:O2	1:AA:1476:A:C2	2.74	0.41
1:AA:1501:C:N3	1:AA:1504:G:C6	2.89	0.41
1:AA:119:A:C4	1:AA:240:G:C8	3.08	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:457:G:N7	1:AA:458:U:C5	2.89	0.41
1:AA:615:G:C2	1:AA:616:G:C8	3.09	0.41
1:AA:838:G:H2'	1:AA:839:C:C6	2.55	0.41
1:AA:872:A:N7	1:AA:874:G:C8	2.87	0.41
1:AA:953:G:H2'	1:AA:954:G:O4'	2.21	0.41
3:AC:155:GLY:CA	3:AC:163:ALA:HB1	2.50	0.41
8:AH:111:MET:HE1	8:AH:119:ALA:HB2	2.02	0.41
10:AJ:7:ARG:CB	10:AJ:75:ASP:OD1	2.69	0.41
10:AJ:8:ILE:HD11	10:AJ:74:VAL:HG11	2.02	0.41
11:AK:63:ALA:HB2	11:AK:92:GLY:HA3	2.03	0.41
14:AN:28:LYS:HG3	14:AN:29:ALA:N	2.35	0.41
1:AA:263:A:P	20:AT:74:ARG:HH12	2.42	0.41
21:AU:40:LYS:N	21:AU:41:PRO:HD2	2.36	0.41
48:B0:13:ARG:HD2	48:B0:17:ARG:NH1	2.36	0.41
52:B4:7:VAL:HG22	52:B4:38:GLY:HA3	2.02	0.41
22:BA:1056:G:C4'	22:BA:1086:A:C8	3.03	0.41
22:BA:1153:C:N4	22:BA:1154:G:C2	2.88	0.41
22:BA:1244:A:C2'	22:BA:1245:G:H5'	2.51	0.41
22:BA:1300:G:O4'	22:BA:1626:A:H2	2.03	0.41
22:BA:1518:C:C2	22:BA:1519:G:C8	3.08	0.41
22:BA:1983:G:H2'	22:BA:1984:G:O5'	2.21	0.41
22:BA:1983:G:C6	22:BA:1984:G:N7	2.88	0.41
22:BA:2509:G:N2	22:BA:2510:C:H1'	2.36	0.41
22:BA:2687:U:O4	22:BA:2688:G:C2	2.74	0.41
22:BA:64:A:H2'	22:BA:65:U:H6	1.77	0.41
22:BA:735:A:H3'	22:BA:736:C:H6	1.85	0.41
22:BA:966:G:C6	22:BA:967:U:C4	3.08	0.41
22:BA:86:G:C2	22:BA:97:C:C2	3.09	0.41
24:BC:122:ALA:O	24:BC:123:ALA:C	2.58	0.41
26:BE:7:ASP:C	26:BE:9:GLN:N	2.74	0.41
30:BI:33:VAL:CG1	30:BI:34:ASN:N	2.83	0.41
32:BK:107:LEU:C	32:BK:109:SER:N	2.74	0.41
39:BR:46:GLU:CA	39:BR:46:GLU:OE1	2.67	0.41
41:BT:19:LYS:O	41:BT:20:ALA:C	2.59	0.41
41:BT:73:ARG:HB3	41:BT:73:ARG:CZ	2.50	0.41
42:BU:16:GLY:C	42:BU:18:ASP:H	2.24	0.41
1:CA:1036:A:H2'	1:CA:1036:A:N3	2.35	0.41
1:CA:1089:G:C5	1:CA:1090:U:C5	3.09	0.41
1:CA:1262:C:C4	1:CA:1263:C:C4	3.09	0.41
1:CA:1516:G:C2	1:CA:1520:C:O2	2.74	0.41
1:CA:213:G:C8	1:CA:214:C:C6	3.08	0.41

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	2.74	0.41
1:CA:491:G:O2'	1:CA:492:C:H5'	2.20	0.41
1:CA:728:A:N1	1:CA:729:A:C6	2.88	0.41
2:CB:10:LEU:HB2	2:CB:43:LEU:HD22	2.03	0.41
3:CC:126:ARG:O	3:CC:127:ARG:CB	2.67	0.41
3:CC:181:ASP:OD2	3:CC:204:LYS:HB2	2.19	0.41
3:CC:71:ALA:O	3:CC:73:PRO:HD3	2.20	0.41
5:CE:15:LEU:C	5:CE:15:LEU:CD1	2.88	0.41
7:CG:40:GLU:HB2	7:CG:44:TYR:CE2	2.56	0.41
9:CI:18:ARG:HG3	9:CI:66:THR:OG1	2.21	0.41
10:CJ:34:ALA:O	10:CJ:78:GLU:HB3	2.20	0.41
13:CM:96:PRO:HB2	13:CM:100:GLN:OE1	2.20	0.41
14:CN:36:ALA:CB	14:CN:41:ARG:HG3	2.50	0.41
18:CR:23:TYR:O	18:CR:23:TYR:CD1	2.74	0.41
1:CA:1318:A:O2'	19:CS:37:ARG:HD3	2.20	0.41
19:CS:6:LYS:CB	19:CS:7:LYS:HE3	2.50	0.41
22:DA:2347:C:O2'	49:D1:39:PHE:HB3	2.20	0.41
52:D4:1:MET:HB2	52:D4:34:LYS:O	2.21	0.41
22:DA:1231:U:H6	22:DA:1231:U:O5'	2.04	0.41
22:DA:1257:C:C4	22:DA:1258:U:C4	3.08	0.41
22:DA:1332:G:N3	22:DA:1332:G:H2'	2.36	0.41
22:DA:1336:A:H2'	22:DA:1337:G:C8	2.54	0.41
22:DA:1362:C:H2'	22:DA:1363:C:H5'	2.02	0.41
22:DA:1475:G:H4'	22:DA:1732:C:C5	2.55	0.41
22:DA:1562:U:C4	22:DA:1563:U:C4	3.09	0.41
22:DA:1570:A:C6	22:DA:1571:A:C6	3.08	0.41
22:DA:1731:G:C6	22:DA:1733:G:C5	3.08	0.41
22:DA:2241:A:H2'	22:DA:2242:G:C8	2.55	0.41
22:DA:2410:G:C6	22:DA:2411:A:C4	3.09	0.41
22:DA:2432:A:N1	45:DX:21:ALA:HA	2.35	0.41
22:DA:526:A:C6	22:DA:2626:C:H4'	2.55	0.41
22:DA:2752:C:C5	22:DA:2753:A:N7	2.89	0.41
23:DB:4:C:H2'	23:DB:5:U:O4'	2.21	0.41
23:DB:94:A:OP1	43:DV:19:ARG:HD3	2.20	0.41
24:DC:95:LEU:HD13	24:DC:101:ARG:CZ	2.51	0.41
26:DE:59:PRO:HB2	26:DE:70:SER:OG	2.20	0.41
27:DF:121:SER:O	27:DF:128:TYR:HA	2.21	0.41
27:DF:42:GLU:O	27:DF:44:ILE:N	2.53	0.41
30:DI:117:MET:SD	30:DI:125:MET:HG2	2.60	0.41
30:DI:46:THR:CG2	30:DI:51:LYS:HG3	2.51	0.41
30:DI:80:LEU:HD22	30:DI:138:LEU:HD11	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:79:LEU:O	35:DN:80:PHE:HB2	2.20	0.41
36:DO:66:GLY:HA2	36:DO:102:ARG:NH2	2.36	0.41
36:DO:37:ALA:HB2	36:DO:106:LEU:HD11	2.02	0.41
1:AA:1058:G:C5	1:AA:1059:C:C5	3.09	0.41
1:AA:1309:G:C6	1:AA:1329:A:C6	3.09	0.41
1:AA:1448:C:H2'	1:AA:1448:C:O2	2.21	0.41
1:AA:159:G:N2	1:AA:163:C:C4	2.89	0.41
1:AA:64:G:C2	1:AA:67:C:C4	3.09	0.41
1:AA:883:C:N3	1:AA:884:U:C4	2.88	0.41
2:AB:49:MET:O	2:AB:53:ALA:CB	2.65	0.41
2:AB:54:LEU:HA	2:AB:57:LEU:HB3	2.02	0.41
3:AC:172:ARG:HB3	3:AC:203:PHE:CD2	2.55	0.41
7:AG:125:SER:O	7:AG:128:ALA:HB3	2.21	0.41
7:AG:79:ARG:NH1	7:AG:82:GLY:O	2.53	0.41
8:AH:83:LEU:HD22	8:AH:83:LEU:C	2.40	0.41
11:AK:32:VAL:O	11:AK:32:VAL:HG12	2.20	0.41
14:AN:10:GLU:OE2	14:AN:61:ARG:N	2.51	0.41
16:AP:46:LYS:HD3	16:AP:46:LYS:C	2.41	0.41
22:BA:250:G:P	51:B3:13:ARG:HH12	2.44	0.41
22:BA:1047:G:N3	22:BA:1110:G:C2	2.89	0.41
22:BA:140:C:O2	22:BA:140:C:O4'	2.37	0.41
22:BA:1881:C:H2'	22:BA:1882:U:O4'	2.21	0.41
22:BA:2192:U:H2'	22:BA:2193:G:O4'	2.21	0.41
22:BA:2443:C:H2'	22:BA:2444:G:C8	2.56	0.41
22:BA:659:G:C6	22:BA:660:C:C4	3.09	0.41
22:BA:784:G:O2'	22:BA:785:G:C5'	2.68	0.41
23:BB:94:A:H2'	23:BB:95:U:O5'	2.20	0.41
24:BC:201:MET:HG3	24:BC:202:LEU:HD13	2.03	0.41
25:BD:87:GLY:O	25:BD:88:GLU:C	2.58	0.41
26:BE:164:LEU:HB3	26:BE:167:VAL:HB	2.03	0.41
27:BF:36:LEU:HD11	27:BF:99:PHE:CZ	2.55	0.41
28:BG:124:GLU:HA	28:BG:124:GLU:OE1	2.20	0.41
30:BI:105:GLN:O	30:BI:106:LEU:CB	2.68	0.41
31:BJ:140:LEU:HG	31:BJ:142:ILE:HB	2.02	0.41
33:BL:101:ILE:HG13	33:BL:102:GLY:N	2.35	0.41
39:BR:51:VAL:O	39:BR:52:PRO:O	2.38	0.41
39:BR:51:VAL:CB	39:BR:52:PRO:CD	2.99	0.41
42:BU:5:ILE:CD1	42:BU:72:ILE:HG23	2.50	0.41
43:BV:9:ARG:HD2	43:BV:40:ILE:O	2.21	0.41
1:CA:1002:G:H2'	1:CA:1003:G:O4'	2.20	0.41
1:CA:1271:A:H2'	1:CA:1272:G:C8	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:942:G:C2	1:CA:1342:C:C2	3.09	0.41
1:CA:1375:A:C5	1:CA:1376:U:C5	3.08	0.41
1:CA:188:C:O2	1:CA:188:C:H2'	2.18	0.41
1:CA:216:U:C4	1:CA:217:C:N4	2.88	0.41
1:CA:31:G:C5	1:CA:306:A:H1'	2.55	0.41
1:CA:439:U:H4'	4:CD:121:LYS:HG3	2.02	0.41
1:CA:652:U:C5	1:CA:752:G:C2	3.08	0.41
3:CC:23:PHE:CD2	3:CC:24:ALA:N	2.88	0.41
4:CD:130:VAL:HG11	4:CD:135:TYR:CG	2.55	0.41
5:CE:103:THR:O	5:CE:121:HIS:O	2.39	0.41
5:CE:153:VAL:HG23	5:CE:157:ARG:HB2	2.02	0.41
6:CF:10:VAL:HG21	6:CF:18:VAL:CG2	2.50	0.41
6:CF:18:VAL:CG1	6:CF:19:PRO:N	2.80	0.41
8:CH:21:ASN:O	8:CH:22:LYS:C	2.59	0.41
10:CJ:53:ILE:HG13	14:CN:85:ARG:HD2	2.02	0.41
11:CK:45:ALA:HB3	11:CK:70:CYS:HB2	2.03	0.41
11:CK:77:TYR:CD1	11:CK:77:TYR:N	2.88	0.41
13:CM:5:ALA:O	13:CM:7:ILE:N	2.54	0.41
22:DA:2284:A:OP1	49:D1:4:GLY:O	2.39	0.41
22:DA:1234:U:H2'	22:DA:1235:G:O4'	2.21	0.41
22:DA:1240:U:HO2'	22:DA:1241:A:C5'	2.33	0.41
22:DA:1359:A:N7	22:DA:1373:A:C2	2.89	0.41
22:DA:1585:C:C5	22:DA:1586:A:C5	3.08	0.41
22:DA:1707:G:C5	22:DA:1708:C:C4	3.09	0.41
22:DA:1790:C:C5	22:DA:1828:G:C2	3.08	0.41
22:DA:2118:U:O4	22:DA:2149:U:H1'	2.20	0.41
22:DA:2235:G:C4	22:DA:2236:U:C6	3.08	0.41
22:DA:2242:G:C5	22:DA:2243:U:C5	3.08	0.41
22:DA:2323:G:H2'	22:DA:2324:U:O4'	2.21	0.41
22:DA:333:G:C5	22:DA:334:C:C5	3.09	0.41
22:DA:425:G:C2	22:DA:426:C:C2	3.09	0.41
22:DA:491:G:O6	22:DA:492:A:C6	2.74	0.41
22:DA:60:G:H3'	22:DA:60:G:P	2.61	0.41
22:DA:995:C:O2	31:DJ:3:THR:OG1	2.27	0.41
23:DB:6:G:C2	23:DB:115:A:C2	3.09	0.41
22:DA:1843:C:H4'	24:DC:251:GLN:OE1	2.21	0.41
26:DE:126:VAL:HG22	26:DE:133:LEU:HD22	2.03	0.41
22:DA:672:C:H4'	26:DE:84:THR:CG2	2.51	0.41
27:DF:134:GLU:HB3	27:DF:137:ILE:HG23	2.02	0.41
27:DF:31:VAL:HG22	27:DF:96:MET:SD	2.60	0.41
28:DG:60:ASP:O	28:DG:61:GLY:C	2.59	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:40:THR:OG1	29:DH:43:ASN:ND2	2.53	0.41
30:DI:105:GLN:O	30:DI:106:LEU:CB	2.68	0.41
30:DI:105:GLN:O	30:DI:106:LEU:HG	2.21	0.41
30:DI:80:LEU:HD11	30:DI:133:ALA:HB2	2.03	0.41
33:DL:57:LEU:HD12	33:DL:60:ARG:HD2	2.03	0.41
35:DN:8:ARG:HB3	35:DN:10:LEU:HG	2.03	0.41
45:DX:13:VAL:CG2	45:DX:29:PHE:HB2	2.50	0.41
1:AA:1141:C:O2'	1:AA:1142:G:O5'	2.39	0.41
1:AA:978:A:C5	1:AA:1318:A:C6	3.09	0.41
1:AA:1521:C:H2'	1:AA:1522:U:C6	2.56	0.41
1:AA:195:A:H1'	1:AA:222:C:O2'	2.20	0.41
1:AA:411:A:C6	1:AA:429:U:C5	3.09	0.41
1:AA:419:C:C5	1:AA:420:U:C5	3.08	0.41
1:AA:771:G:H2'	1:AA:772:U:H5'	2.00	0.41
1:AA:880:C:H2'	1:AA:881:G:H5'	2.03	0.41
1:AA:968:A:H4'	1:AA:969:A:OP2	2.21	0.41
1:AA:980:C:H2'	1:AA:981:U:H5'	2.03	0.41
2:AB:117:LEU:HA	2:AB:120:GLN:OE1	2.20	0.41
2:AB:139:ARG:HG3	2:AB:140:GLU:N	2.36	0.41
2:AB:99:GLY:O	2:AB:103:ASN:HB2	2.20	0.41
5:AE:82:GLN:HG2	5:AE:150:PRO:HB3	2.01	0.41
11:AK:102:ALA:C	11:AK:104:GLY:N	2.72	0.41
1:AA:675:A:O2'	11:AK:116:ILE:O	2.39	0.41
13:AM:3:ARG:HG2	13:AM:4:ILE:N	2.33	0.41
15:AO:50:HIS:O	15:AO:53:ARG:HB3	2.21	0.41
19:AS:7:LYS:HD2	19:AS:7:LYS:HA	1.93	0.41
21:AU:41:PRO:HA	21:AU:45:ARG:HH11	1.85	0.41
21:AU:4:ILE:HD13	21:AU:20:LYS:NZ	2.35	0.41
48:B0:20:ASP:N	48:B0:20:ASP:OD2	2.53	0.41
53:B5:23:ILE:O	53:B5:26:ALA:HB3	2.21	0.41
22:BA:1006:C:C2	22:BA:1138:G:C2	3.08	0.41
22:BA:1258:U:C2	22:BA:1259:G:C8	3.08	0.41
22:BA:1414:C:N3	22:BA:1415:U:H5	2.17	0.41
22:BA:1482:G:C6	22:BA:1508:A:N1	2.89	0.41
22:BA:1607:C:C4	22:BA:1622:G:N7	2.89	0.41
22:BA:1687:G:C6	22:BA:1688:U:O4	2.73	0.41
22:BA:1826:G:C6	22:BA:1827:U:C4	3.09	0.41
22:BA:1832:C:C4	22:BA:1833:C:C5	3.09	0.41
22:BA:1922:G:N2	22:BA:1923:U:H1'	2.35	0.41
22:BA:1961:C:H5	22:BA:1962:C:C4	2.38	0.41
22:BA:387:U:H4'	22:BA:388:G:O5'	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:499:U:O4	22:BA:500:G:C6	2.74	0.41
22:BA:481:G:N3	22:BA:507:A:C2	2.88	0.41
22:BA:589:U:H2'	22:BA:590:A:H8	1.86	0.41
22:BA:65:U:H2'	22:BA:66:C:C6	2.55	0.41
24:BC:201:MET:HG3	24:BC:202:LEU:CD1	2.50	0.41
25:BD:42:ASN:CG	25:BD:42:ASN:O	2.59	0.41
25:BD:57:ALA:C	25:BD:59:ARG:N	2.74	0.41
25:BD:85:ALA:HB3	25:BD:88:GLU:HG3	2.03	0.41
22:BA:585:G:O2'	26:BE:77:ILE:HG23	2.21	0.41
27:BF:99:PHE:O	27:BF:100:PHE:C	2.59	0.41
28:BG:105:LEU:HD13	28:BG:107:LEU:HD11	2.02	0.41
29:BH:100:ALA:HB2	29:BH:115:VAL:CG2	2.50	0.41
29:BH:95:GLY:HA2	29:BH:117:LEU:CD2	2.51	0.41
33:BL:4:ASN:ND2	33:BL:4:ASN:O	2.54	0.41
37:BP:22:PRO:HA	37:BP:47:VAL:HG12	2.01	0.41
37:BP:52:ASN:C	37:BP:53:ARG:HG2	2.40	0.41
44:BW:66:LYS:HG3	44:BW:85:GLU:HB3	2.02	0.41
1:CA:1107:C:C4	1:CA:1108:G:N7	2.89	0.41
1:CA:1202:U:H2'	1:CA:1203:C:H5'	2.03	0.41
1:CA:106:C:O2	1:CA:379:C:C5'	2.68	0.41
1:CA:483:C:H2'	1:CA:484:G:C8	2.56	0.41
1:CA:509:A:C6	1:CA:510:A:C6	3.09	0.41
1:CA:755:G:C2	1:CA:756:C:C6	3.09	0.41
1:CA:853:C:C2	1:CA:854:U:C6	3.08	0.41
1:CA:860:A:N6	1:CA:861:G:C2	2.89	0.41
8:CH:20:ALA:O	8:CH:21:ASN:HB2	2.21	0.41
10:CJ:15:HIS:HB3	10:CJ:70:HIS:CD2	2.55	0.41
14:CN:22:ALA:N	14:CN:25:ALA:CB	2.83	0.41
14:CN:3:LYS:HB3	14:CN:6:MET:HG2	2.01	0.41
15:CO:23:GLY:O	15:CO:24:SER:C	2.59	0.41
17:CQ:24:ALA:HB1	17:CQ:41:THR:CG2	2.51	0.41
20:CT:35:VAL:HG21	20:CT:54:MET:HG2	2.02	0.41
21:CU:21:ARG:NH1	21:CU:25:LYS:HG3	2.36	0.41
22:DA:1290:C:C4	22:DA:1291:C:C5	3.09	0.41
22:DA:1352:U:H5	57:DA:3395:HOH:O	2.04	0.41
22:DA:1525:A:C6	22:DA:1526:C:N3	2.88	0.41
22:DA:1581:G:C6	22:DA:1582:C:N4	2.89	0.41
22:DA:1410:G:C2	22:DA:1593:A:C6	3.09	0.41
22:DA:1652:A:C2	22:DA:2006:C:O2	2.74	0.41
22:DA:2044:C:N3	22:DA:2045:C:C5	2.88	0.41
22:DA:2199:A:N7	22:DA:2225:A:C6	2.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2215:C:H2'	22:DA:2216:G:C8	2.56	0.41
22:DA:2789:C:H5'	22:DA:2809:A:H1'	2.01	0.41
22:DA:352:A:C6	22:DA:353:C:N3	2.89	0.41
22:DA:475:C:H6	22:DA:475:C:O5'	2.04	0.41
22:DA:527:C:OP2	22:DA:2779:U:N3	2.51	0.41
22:DA:833:A:H2'	22:DA:834:G:H8	1.86	0.41
22:DA:892:A:H2'	22:DA:892:A:N3	2.35	0.41
22:DA:942:G:C2'	22:DA:943:A:H5'	2.51	0.41
26:DE:136:GLN:O	26:DE:138:LEU:N	2.53	0.41
27:DF:166:GLY:O	27:DF:167:ARG:C	2.59	0.41
28:DG:123:ALA:HB2	28:DG:133:LEU:HB3	2.03	0.41
30:DI:54:PRO:O	30:DI:75:PRO:HD2	2.19	0.41
39:DR:6:GLN:O	39:DR:7:SER:HB2	2.20	0.41
47:DZ:38:ARG:HD3	47:DZ:38:ARG:HA	1.86	0.41
1:AA:1079:G:P	57:AA:1791:HOH:O	2.78	0.41
1:AA:1157:A:H5'	1:AA:1158:C:C6	2.55	0.41
1:AA:1163:A:H2'	1:AA:1164:G:C8	2.55	0.41
1:AA:1277:C:C2'	1:AA:1279:G:H8	2.33	0.41
1:AA:1524:C:OP2	11:AK:125:LYS:NZ	2.41	0.41
2:AB:87:CYS:HB2	2:AB:89:GLN:CD	2.41	0.41
3:AC:14:ILE:O	3:AC:15:VAL:HG22	2.21	0.41
3:AC:172:ARG:O	3:AC:173:VAL:HG22	2.20	0.41
3:AC:79:LYS:O	3:AC:82:GLU:HG3	2.20	0.41
3:AC:89:LYS:HG2	3:AC:90:VAL:N	2.36	0.41
4:AD:160:GLU:C	4:AD:162:ALA:N	2.74	0.41
8:AH:47:GLU:HG2	8:AH:64:LYS:HG2	2.03	0.41
9:AI:130:ARG:NH1	9:AI:130:ARG:HB3	2.35	0.41
9:AI:6:TYR:HB3	9:AI:89:GLU:HG2	2.01	0.41
9:AI:97:GLU:OE2	9:AI:97:GLU:N	2.54	0.41
11:AK:25:ALA:O	11:AK:88:GLY:HA3	2.21	0.41
12:AL:43:LYS:O	12:AL:44:LYS:C	2.59	0.41
48:B0:53:LYS:HE2	48:B0:56:ALA:HA	2.01	0.41
49:B1:52:ALA:O	49:B1:53:LYS:OXT	2.38	0.41
50:B2:42:LEU:HD12	50:B2:42:LEU:HA	1.87	0.41
53:B5:65:LEU:HD11	53:B5:191:ARG:HA	2.03	0.41
22:BA:1105:U:H2'	22:BA:1106:G:H8	1.85	0.41
22:BA:1139:G:O3'	31:BJ:26:GLY:HA3	2.21	0.41
22:BA:1189:A:N7	22:BA:1190:G:C8	2.88	0.41
22:BA:1206:G:C6	22:BA:1207:C:C4	3.09	0.41
22:BA:1637:A:H5'	22:BA:1760:C:O2'	2.20	0.41
22:BA:1907:G:H3'	22:BA:1908:C:H6	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:190:A:C8	22:BA:207:A:C6	3.09	0.41
22:BA:195:A:C4	22:BA:198:C:N4	2.89	0.41
22:BA:225:C:H2'	22:BA:226:A:O4'	2.21	0.41
22:BA:2541:A:H4'	22:BA:2764:A:N1	2.35	0.41
22:BA:2620:C:N3	22:BA:2621:G:C8	2.88	0.41
22:BA:463:G:N2	22:BA:467:G:C4	2.89	0.41
22:BA:679:C:H2'	22:BA:680:C:C6	2.56	0.41
22:BA:958:U:H2'	23:BB:89:U:C2	2.55	0.41
24:BC:24:LEU:HD12	24:BC:24:LEU:HA	1.89	0.41
30:BI:45:LYS:HE2	30:BI:45:LYS:HB2	1.90	0.41
35:BN:36:THR:CG2	35:BN:37:THR:N	2.84	0.41
1:AA:1441:A:H2	37:BP:114:LEU:HD22	1.86	0.41
39:BR:74:ILE:HD12	39:BR:74:ILE:N	2.36	0.41
42:BU:40:ASN:HB3	42:BU:63:ALA:O	2.21	0.41
43:BV:55:GLU:N	43:BV:55:GLU:OE2	2.54	0.41
46:BY:56:LEU:O	46:BY:57:LEU:HB2	2.18	0.41
1:CA:174:A:C2	1:CA:175:C:H1'	2.56	0.41
1:CA:250:A:N3	1:CA:250:A:H5'	2.36	0.41
1:CA:355:C:C2	1:CA:356:A:C8	3.08	0.41
1:CA:429:U:H3'	4:CD:9:LEU:CD2	2.47	0.41
1:CA:496:A:N3	1:CA:496:A:H2'	2.34	0.41
1:CA:509:A:N1	1:CA:510:A:N1	2.68	0.41
1:CA:622:A:H5''	1:CA:623:C:OP2	2.21	0.41
1:CA:670:G:N2	1:CA:737:C:C2	2.88	0.41
1:CA:735:C:H2'	1:CA:736:C:C6	2.56	0.41
1:CA:73:C:O2	1:CA:74:A:C8	2.73	0.41
1:CA:899:C:OP1	1:CA:899:C:H6	2.04	0.41
2:CB:68:LEU:HD12	2:CB:158:PRO:CG	2.50	0.41
4:CD:124:MET:O	4:CD:143:VAL:HA	2.20	0.41
4:CD:155:VAL:CG2	4:CD:155:VAL:O	2.68	0.41
4:CD:173:VAL:CG1	4:CD:174:ASP:N	2.83	0.41
6:CF:6:ILE:O	6:CF:61:LEU:HD12	2.21	0.41
7:CG:138:ARG:HE	7:CG:138:ARG:HB3	1.69	0.41
7:CG:65:ALA:O	7:CG:127:ALA:HB1	2.20	0.41
7:CG:70:ARG:HG3	7:CG:96:ARG:HG2	2.03	0.41
10:CJ:52:LEU:HB2	14:CN:81:ARG:HD2	2.03	0.41
15:CO:55:GLY:O	15:CO:59:MET:HG3	2.21	0.41
16:CP:77:GLU:C	16:CP:79:ASN:H	2.24	0.41
20:CT:44:LYS:NZ	20:CT:86:LEU:O	2.47	0.41
21:CU:12:PHE:HD1	21:CU:13:ASP:N	2.19	0.41
21:CU:18:ARG:O	21:CU:21:ARG:N	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D3:25:LYS:HG2	51:D3:26:HIS:N	2.36	0.41
22:DA:1109:C:C4	22:DA:1110:G:O6	2.74	0.41
22:DA:1273:U:H4'	22:DA:1275:A:P	2.60	0.41
22:DA:1434:A:H2'	22:DA:1435:G:C8	2.56	0.41
22:DA:1519:G:H2'	22:DA:1519:G:N3	2.36	0.41
22:DA:167:A:H2'	22:DA:168:G:O4'	2.21	0.41
22:DA:1683:U:H6	22:DA:1683:U:O5'	2.02	0.41
22:DA:1746:A:H2'	22:DA:1747:U:C6	2.56	0.41
22:DA:197:A:H62	22:DA:2430:A:C2'	2.28	0.41
22:DA:2038:G:C5	22:DA:2039:U:C5	3.09	0.41
22:DA:2039:U:H2'	22:DA:2040:G:C8	2.56	0.41
22:DA:2045:C:H2'	22:DA:2046:G:O5'	2.20	0.41
22:DA:2051:A:C2	22:DA:2052:A:N6	2.89	0.41
22:DA:2131:U:H1'	22:DA:2158:A:H61	1.86	0.41
22:DA:2222:C:N3	22:DA:2223:G:C8	2.89	0.41
22:DA:2345:G:C5	22:DA:2347:C:C4	3.09	0.41
22:DA:2624:G:H2'	22:DA:2625:G:O4'	2.21	0.41
22:DA:279:A:H61	22:DA:361:G:C2'	2.33	0.41
22:DA:618:G:C2	22:DA:619:G:H1'	2.55	0.41
22:DA:67:U:C4	22:DA:68:G:N7	2.89	0.41
22:DA:783:A:C4	22:DA:785:G:H1'	2.56	0.41
22:DA:83:A:H5''	22:DA:84:A:OP1	2.21	0.41
22:DA:950:G:C2	22:DA:951:C:C2	3.08	0.41
22:DA:995:C:N3	31:DJ:3:THR:HB	2.36	0.41
22:DA:691:C:H5'	24:DC:217:ARG:HD2	2.03	0.41
25:DD:22:ILE:HG22	25:DD:24:VAL:HG13	2.02	0.41
26:DE:170:ARG:NH1	26:DE:176:ASP:OD1	2.53	0.41
26:DE:59:PRO:HG2	26:DE:70:SER:HB2	2.02	0.41
27:DF:106:ILE:HD11	27:DF:139:PRO:HG2	2.02	0.41
28:DG:139:GLN:CD	28:DG:139:GLN:C	2.80	0.41
28:DG:91:GLY:HA3	28:DG:160:LYS:CG	2.50	0.41
28:DG:9:VAL:O	28:DG:49:THR:HA	2.21	0.41
35:DN:55:ALA:CB	35:DN:79:LEU:HB3	2.50	0.41
36:DO:31:THR:HG23	36:DO:32:PRO:HD2	2.02	0.41
37:DP:89:ARG:NH1	37:DP:115:ASN:OXT	2.53	0.41
38:DQ:9:ILE:HG13	38:DQ:10:ALA:N	2.33	0.41
40:DS:44:ALA:O	40:DS:48:LYS:HB3	2.21	0.41
22:DA:487:C:H1'	40:DS:53:SER:OG	2.21	0.41
43:DV:75:GLN:HB2	43:DV:92:VAL:HG23	2.03	0.41
47:DZ:52:SER:HA	47:DZ:55:VAL:CG2	2.51	0.41
1:AA:1074:G:N2	1:AA:1075:U:H1'	2.36	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1211:U:O2'	1:AA:1212:U:O5'	2.34	0.41
1:AA:1270:G:C2	1:AA:1271:A:C4	3.08	0.41
1:AA:1317:C:H2'	1:AA:1318:A:C5'	2.51	0.41
1:AA:923:A:N6	1:AA:1392:G:O6	2.53	0.41
1:AA:155:A:C2	1:AA:167:A:C2	3.09	0.41
1:AA:22:G:C6	1:AA:23:C:C4	3.08	0.41
1:AA:251:G:O6	1:AA:266:G:O6	2.39	0.41
1:AA:662:U:H2'	1:AA:663:A:C8	2.55	0.41
1:AA:66:A:H4'	1:AA:173:U:C5	2.56	0.41
1:AA:723:U:O2'	1:AA:855:U:H4'	2.21	0.41
2:AB:130:THR:HB	2:AB:132:LYS:HB3	2.01	0.41
4:AD:147:GLU:O	4:AD:150:LYS:HB2	2.20	0.41
5:AE:151:GLU:O	5:AE:153:VAL:N	2.54	0.41
5:AE:57:PRO:O	5:AE:61:GLN:HB2	2.20	0.41
6:AF:16:GLU:OE1	4:CD:188:ARG:NH2	2.54	0.41
7:AG:135:VAL:HB	7:AG:138:ARG:HH21	1.84	0.41
9:AI:39:PHE:CZ	9:AI:76:ALA:HB2	2.56	0.41
11:AK:89:PRO:HB3	21:AU:29:LEU:HD13	2.01	0.41
15:AO:33:THR:HG21	15:AO:85:LEU:HG	2.02	0.41
16:AP:36:VAL:HG22	16:AP:36:VAL:O	2.21	0.41
22:BA:1062:G:N2	22:BA:1077:A:C2	2.89	0.41
22:BA:115:C:O2'	22:BA:127:A:O2'	2.36	0.41
22:BA:12:U:C2'	22:BA:12:U:O2	2.65	0.41
22:BA:1680:U:C2'	22:BA:1681:G:H5'	2.51	0.41
22:BA:1794:A:H1'	22:BA:1900:A:C2	2.56	0.41
22:BA:2343:U:O2	22:BA:2343:U:C2'	2.67	0.41
22:BA:2414:G:O2'	22:BA:2415:G:H5'	2.21	0.41
22:BA:2451:A:C2	55:BA:3001:VIF:C15	3.03	0.41
22:BA:600:G:H2'	22:BA:601:C:C6	2.56	0.41
22:BA:825:A:H4'	22:BA:2428:G:C5	2.56	0.41
22:BA:854:C:C2'	22:BA:855:G:H5'	2.51	0.41
23:BB:36:C:H5''	23:BB:37:C:OP2	2.21	0.41
25:BD:103:ASP:CG	25:BD:104:VAL:N	2.74	0.41
26:BE:79:ARG:O	26:BE:80:SER:CB	2.69	0.41
27:BF:126:GLY:O	27:BF:158:THR:HG22	2.21	0.41
29:BH:129:GLU:C	29:BH:130:VAL:HG23	2.41	0.41
33:BL:130:GLY:O	33:BL:133:ALA:N	2.53	0.41
34:BM:11:LYS:HD3	34:BM:86:LYS:HG2	2.03	0.41
35:BN:38:LEU:N	35:BN:109:PRO:O	2.51	0.41
22:BA:1275:A:C1'	35:BN:16:HIS:CE1	3.04	0.41
23:BB:7:G:H5'	36:BO:29:HIS:CE1	2.56	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BR:40:MET:HG2	39:BR:41:ILE:N	2.36	0.41
39:BR:8:GLY:O	39:BR:10:LYS:NZ	2.40	0.41
1:CA:1007:U:C2'	1:CA:1008:U:H5''	2.51	0.41
1:CA:1061:G:C2	1:CA:1197:A:N3	2.89	0.41
1:CA:1085:U:C2	1:CA:1094:G:O6	2.74	0.41
1:CA:1157:A:C5	1:CA:1181:G:C6	3.08	0.41
1:CA:1181:G:O2'	1:CA:1182:G:C5	2.74	0.41
1:CA:1399:C:C2	1:CA:1401:G:C5	3.09	0.41
1:CA:1492:A:H3'	1:CA:1493:A:H8	1.86	0.41
1:CA:182:A:C8	1:CA:184:G:N7	2.89	0.41
1:CA:421:U:OP1	1:CA:421:U:H4'	2.21	0.41
1:CA:503:C:H2'	1:CA:504:C:H6	1.86	0.41
1:CA:756:C:C4	1:CA:757:U:C5	3.08	0.41
1:CA:913:A:H4'	1:CA:914:A:H4'	2.03	0.41
1:CA:977:A:O2'	1:CA:1223:C:N4	2.53	0.41
2:CB:117:LEU:HB3	2:CB:141:LEU:HD11	2.03	0.41
3:CC:182:ILE:HD11	3:CC:203:PHE:HB2	2.03	0.41
9:CI:44:ALA:HB1	9:CI:47:VAL:CG2	2.51	0.41
10:CJ:89:ARG:HB2	10:CJ:89:ARG:NH1	2.36	0.41
11:CK:20:VAL:HB	11:CK:35:THR:CG2	2.49	0.41
11:CK:72:ASP:O	11:CK:73:ALA:HB3	2.21	0.41
12:CL:24:LEU:CD2	12:CL:59:ASN:OD1	2.68	0.41
13:CM:90:ARG:HD2	13:CM:96:PRO:O	2.21	0.41
1:CA:754:C:OP1	15:CO:72:ARG:NH2	2.54	0.41
17:CQ:31:HIS:CD2	17:CQ:34:TYR:HD1	2.38	0.41
17:CQ:51:ASN:ND2	17:CQ:51:ASN:O	2.54	0.41
1:CA:130:A:OP1	17:CQ:65:ARG:HD2	2.21	0.41
18:CR:40:VAL:HA	18:CR:41:PRO:HD2	1.91	0.41
22:DA:2286:G:OP1	49:D1:30:LYS:HE3	2.20	0.41
22:DA:684:G:P	50:D2:16:HIS:HD1	2.40	0.41
50:D2:43:THR:OG1	50:D2:44:VAL:N	2.54	0.41
22:DA:1125:G:H4'	52:D4:37:GLN:NE2	2.36	0.41
22:DA:1301:A:H2'	22:DA:1301:A:N3	2.36	0.41
22:DA:1500:G:C6	22:DA:1501:G:C5	3.08	0.41
22:DA:1838:C:C5	22:DA:1899:A:C5	3.09	0.41
22:DA:1906:G:C2	22:DA:1907:G:C8	3.09	0.41
22:DA:1926:U:H2'	22:DA:1928:A:N7	2.35	0.41
22:DA:2199:A:C6	22:DA:2200:C:N3	2.89	0.41
22:DA:2261:C:C2	22:DA:2280:G:C2	3.09	0.41
22:DA:2297:A:N7	22:DA:2320:U:C4	2.89	0.41
22:DA:648:G:H1'	22:DA:2351:G:OP1	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2391:G:H1'	22:DA:2424:C:H41	1.86	0.41
22:DA:2460:U:H2'	22:DA:2461:A:O4'	2.21	0.41
22:DA:2540:C:C2	22:DA:2541:A:C8	3.09	0.41
22:DA:2567:G:H2'	22:DA:2568:U:C6	2.56	0.41
22:DA:2648:G:H2'	22:DA:2649:C:C6	2.56	0.41
22:DA:2688:G:C8	22:DA:2719:G:C6	3.08	0.41
22:DA:2794:C:O2	22:DA:2794:C:H2'	2.21	0.41
22:DA:2899:A:H2'	22:DA:2900:A:H8	1.85	0.41
22:DA:295:G:C2	22:DA:296:U:C6	3.09	0.41
22:DA:308:G:H4'	42:DU:17:LYS:NZ	2.36	0.41
22:DA:697:G:C6	22:DA:698:C:N4	2.89	0.41
22:DA:952:G:C2	22:DA:966:G:C2	3.09	0.41
22:DA:976:G:H5'	22:DA:1156:A:C6	2.56	0.41
24:DC:25:HIS:HB2	24:DC:80:ARG:HG3	2.02	0.41
22:DA:1805:A:O2'	24:DC:50:THR:HA	2.21	0.41
27:DF:136:ILE:HA	27:DF:141:ILE:HG21	2.03	0.41
28:DG:85:LYS:HG3	28:DG:141:ILE:HD12	2.02	0.41
28:DG:156:PRO:O	28:DG:171:THR:HG22	2.20	0.41
29:DH:130:VAL:CG1	29:DH:131:SER:N	2.82	0.41
30:DI:32:GLY:HA3	30:DI:61:VAL:HG11	2.02	0.41
35:DN:55:ALA:HB1	35:DN:80:PHE:N	2.36	0.41
38:DQ:81:ASN:ND2	38:DQ:117:LEU:HD11	2.35	0.41
22:DA:566:U:O4	39:DR:80:ARG:HD3	2.20	0.41
41:DT:23:ALA:O	41:DT:27:SER:N	2.50	0.41
42:DU:71:ALA:HB3	42:DU:80:ALA:HB1	2.03	0.41
46:DY:50:VAL:O	46:DY:54:LYS:HG3	2.21	0.41
47:DZ:7:ILE:CG2	47:DZ:8:THR:N	2.83	0.41
1:AA:100:G:C6	1:AA:101:A:C6	3.09	0.41
1:AA:100:G:C8	1:AA:101:A:N7	2.89	0.41
1:AA:1107:C:N3	1:AA:1108:G:C8	2.89	0.41
1:AA:141:G:C4	1:AA:142:G:C8	3.09	0.41
1:AA:300:A:H2'	1:AA:301:G:O4'	2.21	0.41
1:AA:134:G:H1'	1:AA:325:A:C5	2.56	0.41
1:AA:338:A:N6	1:AA:339:C:N4	2.69	0.41
1:AA:353:A:H2'	1:AA:354:G:OP2	2.21	0.41
1:AA:624:C:N3	1:AA:625:U:C4	2.89	0.41
1:AA:692:U:O2	1:AA:694:A:C8	2.74	0.41
1:AA:925:G:C2	1:AA:927:G:C8	3.09	0.41
2:AB:132:LYS:O	2:AB:133:GLU:C	2.59	0.41
3:AC:59:ARG:HA	3:AC:63:SER:O	2.21	0.41
4:AD:126:ASN:HA	4:AD:142:VAL:CG2	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:145:ILE:N	4:AD:145:ILE:CD1	2.84	0.41
4:AD:61:VAL:HA	4:AD:64:ILE:HD12	2.03	0.41
7:AG:88:PRO:HG3	7:AG:145:ALA:HA	2.03	0.41
1:AA:1350:A:P	9:AI:123:ARG:HD3	2.60	0.41
1:AA:1280:A:H5''	10:AJ:42:LEU:HD21	2.03	0.41
11:AK:51:GLY:O	11:AK:52:PHE:CD2	2.74	0.41
12:AL:24:LEU:CG	12:AL:25:GLU:H	2.27	0.41
17:AQ:48:ASP:N	17:AQ:48:ASP:OD2	2.54	0.41
22:BA:1178:C:O3'	22:BA:1179:G:C8	2.74	0.41
22:BA:1641:A:H2'	22:BA:1642:G:O4'	2.21	0.41
22:BA:1769:U:O4'	22:BA:1958:C:H5''	2.21	0.41
22:BA:1817:G:H2'	22:BA:1818:U:H5'	2.02	0.41
22:BA:1840:G:C6	22:BA:1841:U:C4	3.09	0.41
22:BA:1875:G:HO2'	22:BA:1876:A:P	2.43	0.41
22:BA:1897:G:C2	22:BA:1898:U:C2	3.09	0.41
22:BA:1964:G:H4'	22:BA:1965:C:OP2	2.21	0.41
22:BA:2233:U:H2'	22:BA:2234:G:C8	2.56	0.41
22:BA:2284:A:C6	22:BA:2285:C:C4	3.09	0.41
22:BA:2397:G:C6	22:BA:2398:U:C4	3.09	0.41
22:BA:2869:G:H2'	22:BA:2870:C:O4'	2.21	0.41
22:BA:31:C:O3'	22:BA:1238:G:H5'	2.20	0.41
22:BA:709:U:H2'	22:BA:710:U:C6	2.55	0.41
22:BA:854:C:O2	22:BA:924:G:C2	2.73	0.41
23:BB:62:C:H2'	23:BB:63:C:C6	2.56	0.41
22:BA:2810:A:O3'	25:BD:62:LYS:HB2	2.20	0.41
25:BD:62:LYS:CB	25:BD:63:PRO:HD3	2.51	0.41
26:BE:149:ILE:HD12	26:BE:150:THR:N	2.36	0.41
29:BH:88:GLY:C	29:BH:125:THR:OG1	2.59	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
29:BH:82:SER:HG	29:BH:90:LEU:HG	1.86	0.41
29:BH:90:LEU:HG	29:BH:92:GLY:C	2.41	0.41
32:BK:68:GLY:HA3	32:BK:77:ILE:O	2.21	0.41
34:BM:50:ARG:O	34:BM:53:MET:HG3	2.20	0.41
34:BM:72:PRO:C	34:BM:73:ILE:HD13	2.41	0.41
39:BR:51:VAL:HB	39:BR:52:PRO:HD2	2.02	0.41
39:BR:76:LYS:CD	39:BR:85:LYS:HD2	2.48	0.41
40:BS:41:LYS:O	40:BS:44:ALA:HB3	2.21	0.41
40:BS:48:LYS:O	40:BS:48:LYS:HG2	2.21	0.41
43:BV:35:GLU:HB2	43:BV:93:ARG:NH1	2.36	0.41
1:CA:1213:A:C5	1:CA:1215:G:C4	3.08	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1361:G:C2'	1:CA:1362:A:H5''	2.50	0.41
1:CA:358:U:H2'	1:CA:359:G:C8	2.56	0.41
1:CA:374:A:OP1	1:CA:452:A:N1	2.54	0.41
1:CA:464:U:N3	1:CA:467:U:OP2	2.47	0.41
1:CA:619:U:C2	4:CD:132:ILE:HD11	2.56	0.41
1:CA:642:A:N3	8:CH:105:SER:OG	2.50	0.41
1:CA:715:A:N6	1:CA:716:A:N6	2.69	0.41
2:CB:219:ALA:O	2:CB:220:THR:HB	2.21	0.41
8:CH:43:GLU:OE2	8:CH:43:GLU:HA	2.21	0.41
14:CN:26:GLU:C	14:CN:28:LYS:H	2.23	0.41
14:CN:46:LEU:HD12	14:CN:49:GLN:HB2	2.03	0.41
16:CP:20:VAL:HG21	16:CP:32:PHE:CG	2.56	0.41
49:D1:9:ILE:HD11	49:D1:11:LEU:HD21	2.02	0.41
22:DA:1187:G:OP1	39:DR:85:LYS:CE	2.66	0.41
22:DA:1193:G:C2	22:DA:1194:A:C4	3.09	0.41
22:DA:1582:C:H2'	22:DA:1583:A:H1'	2.03	0.41
22:DA:2134:A:C8	22:DA:2158:A:N3	2.89	0.41
22:DA:2223:G:C2'	22:DA:2224:G:H5'	2.51	0.41
22:DA:2355:G:C6	22:DA:2356:U:N3	2.89	0.41
22:DA:2283:C:C4	22:DA:2389:G:C4	3.09	0.41
22:DA:2395:C:H6	22:DA:2395:C:O5'	2.03	0.41
22:DA:2508:G:N2	22:DA:2582:G:C6	2.89	0.41
22:DA:2526:G:O2'	52:D4:34:LYS:HE2	2.20	0.41
22:DA:2818:U:H2'	22:DA:2819:G:C8	2.55	0.41
22:DA:340:A:H2'	22:DA:341:C:O4'	2.20	0.41
22:DA:460:A:H2'	22:DA:461:C:O4'	2.21	0.41
22:DA:567:U:C2'	22:DA:568:U:O5'	2.68	0.41
22:DA:595:C:O2	22:DA:663:G:C2	2.74	0.41
22:DA:905:A:H2'	22:DA:906:U:H5'	2.01	0.41
24:DC:182:ARG:NH1	24:DC:266:PHE:HB2	2.36	0.41
24:DC:92:ALA:HB2	24:DC:106:ALA:HB2	2.02	0.41
25:DD:1:MET:SD	25:DD:100:LEU:HD11	2.61	0.41
26:DE:31:VAL:O	26:DE:31:VAL:HG12	2.21	0.41
28:DG:137:ASP:HB3	28:DG:140:VAL:HG23	2.03	0.41
28:DG:148:LEU:HA	28:DG:151:TYR:HD1	1.86	0.41
29:DH:1:MET:HB3	29:DH:21:VAL:O	2.20	0.41
30:DI:57:VAL:HB	30:DI:71:THR:HB	2.03	0.41
31:DJ:140:LEU:C	31:DJ:140:LEU:HD12	2.41	0.41
38:DQ:79:PHE:CE2	38:DQ:110:VAL:HG22	2.56	0.41
40:DS:28:LYS:HD3	40:DS:31:GLN:OE1	2.20	0.41
42:DU:72:ILE:HG13	42:DU:72:ILE:H	1.75	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DX:69:ALA:O	45:DX:72:ARG:N	2.54	0.41
45:DX:69:ALA:HA	45:DX:72:ARG:HB3	2.03	0.41
46:DY:45:GLN:O	46:DY:46:VAL:C	2.59	0.41
1:AA:1211:U:HO2'	1:AA:1212:U:C5'	2.33	0.41
1:AA:1370:G:C2	1:AA:1371:G:C8	3.09	0.41
1:AA:139:A:O2'	1:AA:140:U:H5'	2.21	0.41
1:AA:1489:G:C2'	1:AA:1490:U:H5'	2.51	0.41
1:AA:481:G:H4'	1:AA:481:G:OP1	2.20	0.41
1:AA:594:U:C4	1:AA:595:A:N6	2.89	0.41
1:AA:66:A:C6	1:AA:67:C:C5	3.09	0.41
1:AA:721:G:C6	1:AA:733:G:C2	3.09	0.41
1:AA:19:A:C2	1:AA:917:G:C5	3.09	0.41
2:AB:148:LEU:CA	2:AB:151:ILE:HG22	2.51	0.41
2:AB:151:ILE:HG23	2:AB:152:LYS:H	1.85	0.41
2:AB:64:LYS:HD3	2:AB:65:GLY:N	2.36	0.41
3:AC:138:VAL:CG1	3:AC:170:GLU:HB3	2.51	0.41
4:AD:34:ILE:HG12	4:AD:35:GLU:N	2.35	0.41
7:AG:27:VAL:CG2	7:AG:28:ASN:N	2.84	0.41
9:AI:104:VAL:HG23	9:AI:105:THR:N	2.36	0.41
9:AI:12:ARG:O	9:AI:15:SER:HB2	2.21	0.41
9:AI:52:LEU:HA	9:AI:55:VAL:HG23	2.02	0.41
9:AI:57:MET:HB3	9:AI:61:LEU:CD2	2.51	0.41
10:AJ:41:PRO:O	10:AJ:42:LEU:CB	2.68	0.41
10:AJ:86:ALA:O	10:AJ:90:LEU:HB2	2.20	0.41
11:AK:87:LYS:HE2	11:AK:113:VAL:HG23	2.02	0.41
15:AO:35:GLN:HB3	15:AO:59:MET:HE1	2.02	0.41
16:AP:75:ILE:HG13	16:AP:75:ILE:H	1.66	0.41
17:AQ:81:LYS:N	17:AQ:81:LYS:HD3	2.36	0.41
18:AR:20:GLU:HA	18:AR:55:LEU:HD23	2.02	0.41
1:AA:720:C:H5'	18:AR:41:PRO:HA	2.02	0.41
20:AT:44:LYS:HE2	20:AT:86:LEU:O	2.21	0.41
49:B1:34:LEU:H	49:B1:52:ALA:HB3	1.85	0.41
22:BA:1026:G:H2'	22:BA:1027:A:C8	2.54	0.41
22:BA:1067:A:H2'	22:BA:1067:A:N3	2.34	0.41
22:BA:1254:A:N6	26:BE:77:ILE:CG2	2.84	0.41
22:BA:1351:C:H2'	22:BA:1352:U:C1'	2.51	0.41
22:BA:1467:U:C5	22:BA:1546:G:N3	2.89	0.41
22:BA:1846:G:H2'	22:BA:1847:A:N9	2.35	0.41
22:BA:1936:A:C5	22:BA:1945:G:C5	3.09	0.41
22:BA:1985:C:C2'	22:BA:1986:C:O5'	2.69	0.41
22:BA:2176:A:C5	22:BA:2177:C:N4	2.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2459:A:C5	22:BA:2460:U:C5	3.09	0.41
22:BA:2627:G:C6	22:BA:2628:C:C4	3.09	0.41
22:BA:361:G:H8	22:BA:361:G:OP2	2.04	0.41
22:BA:478:A:N1	22:BA:500:G:H4'	2.36	0.41
22:BA:540:C:C2	22:BA:541:A:C8	3.08	0.41
22:BA:747:U:C5	22:BA:2613:U:C6	3.07	0.41
22:BA:753:A:H2'	22:BA:754:U:H6	1.85	0.41
22:BA:783:A:H8	22:BA:784:G:H4'	1.86	0.41
22:BA:812:C:O2	22:BA:812:C:C2'	2.68	0.41
22:BA:832:U:H2'	22:BA:833:A:C8	2.56	0.41
24:BC:107:PRO:HD2	24:BC:110:LEU:HD22	2.02	0.41
24:BC:21:ASN:HB3	24:BC:24:LEU:HD22	2.02	0.41
25:BD:4:LEU:HD22	25:BD:100:LEU:HD23	1.99	0.41
25:BD:101:PHE:HE2	25:BD:203:VAL:HG11	1.86	0.41
26:BE:147:LEU:HD23	26:BE:180:LEU:HD23	2.03	0.41
28:BG:154:PRO:HD3	28:BG:162:VAL:O	2.20	0.41
29:BH:129:GLU:C	29:BH:130:VAL:CG2	2.90	0.41
30:BI:76:ALA:HB1	30:BI:129:ILE:HG23	2.03	0.41
30:BI:136:MET:SD	30:BI:138:LEU:HD11	2.61	0.41
31:BJ:30:THR:HG22	31:BJ:31:GLU:H	1.86	0.41
32:BK:61:VAL:HG12	32:BK:87:LEU:HD11	2.03	0.41
32:BK:63:VAL:HG12	32:BK:107:LEU:HD21	2.02	0.41
33:BL:63:LYS:HA	51:B3:12:LYS:O	2.21	0.41
39:BR:57:GLY:C	39:BR:58:VAL:HG12	2.42	0.41
22:BA:493:G:O2'	40:BS:7:HIS:HA	2.21	0.41
1:CA:1240:U:H5'	1:CA:1241:G:C8	2.56	0.41
1:CA:978:A:C5	1:CA:1318:A:N6	2.89	0.41
1:CA:1431:A:C5	1:CA:1432:G:C6	3.09	0.41
1:CA:1479:C:C2	1:CA:1480:A:C8	3.09	0.41
1:CA:1493:A:H8	1:CA:1493:A:OP2	2.04	0.41
1:CA:49:U:C6	1:CA:364:A:N6	2.89	0.41
1:CA:513:C:H2'	1:CA:514:C:C6	2.56	0.41
1:CA:55:A:C5	1:CA:56:U:C4	3.09	0.41
1:CA:570:G:N3	1:CA:571:U:C6	2.89	0.41
1:CA:57:G:H2'	1:CA:58:C:C6	2.56	0.41
1:CA:662:U:H2'	1:CA:662:U:O2	2.21	0.41
1:CA:676:A:N1	1:CA:677:U:C4	2.89	0.41
1:CA:731:G:OP1	1:CA:766:A:H1'	2.21	0.41
1:CA:815:A:H4'	1:CA:817:C:C5	2.57	0.41
1:CA:842:U:O2	1:CA:845:A:OP1	2.38	0.41
1:CA:857:C:H2'	1:CA:858:G:O4'	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:71:GLY:CA	2:CB:164:ILE:CG2	2.99	0.41
2:CB:47:VAL:O	2:CB:50:PHE:HD2	2.04	0.41
5:CE:44:GLY:O	5:CE:45:ARG:C	2.59	0.41
7:CG:66:LEU:O	7:CG:66:LEU:HG	2.20	0.41
10:CJ:15:HIS:CG	10:CJ:16:ARG:N	2.88	0.41
10:CJ:7:ARG:HD3	10:CJ:75:ASP:OD1	2.21	0.41
1:CA:1308:U:O3'	13:CM:91:HIS:CE1	2.74	0.41
14:CN:51:LEU:HB3	14:CN:52:PRO:HD2	2.01	0.41
17:CQ:13:VAL:HG12	17:CQ:22:VAL:O	2.21	0.41
22:DA:1308:A:C6	22:DA:1309:G:C2	3.09	0.41
22:DA:1464:G:H2'	22:DA:1465:G:C8	2.56	0.41
22:DA:1270:C:O2'	22:DA:1648:U:OP2	2.37	0.41
22:DA:1659:G:C5	22:DA:1660:G:C8	3.09	0.41
22:DA:1667:G:H5''	32:DK:5:GLN:O	2.21	0.41
22:DA:1782:U:O2	22:DA:2608:G:O2'	2.19	0.41
22:DA:2210:U:H4'	22:DA:2211:A:H5'	2.02	0.41
22:DA:2674:G:H2'	22:DA:2675:A:C8	2.56	0.41
22:DA:2784:U:C4	22:DA:2785:C:C5	3.09	0.41
22:DA:449:A:C5	22:DA:450:G:C8	3.09	0.41
23:DB:11:C:O5'	23:DB:11:C:H6	2.03	0.41
24:DC:141:VAL:CG1	24:DC:190:ALA:HB1	2.51	0.41
25:DD:173:GLN:O	25:DD:175:LEU:N	2.54	0.41
26:DE:61:ARG:O	26:DE:62:GLN:C	2.60	0.41
22:DA:2531:A:H4'	28:DG:157:TYR:CD1	2.56	0.41
30:DI:17:MET:SD	30:DI:23:PRO:HG2	2.61	0.41
36:DO:17:LYS:HA	36:DO:17:LYS:HD3	1.88	0.41
38:DQ:47:TYR:CZ	38:DQ:51:ARG:NH2	2.89	0.41
40:DS:59:GLU:HA	40:DS:64:ALA:HA	2.03	0.41
40:DS:86:MET:HA	40:DS:87:PRO:HD3	1.93	0.41
41:DT:21:SER:O	41:DT:22:THR:C	2.59	0.41
41:DT:8:LEU:HD21	46:DY:22:LEU:HA	2.03	0.41
42:DU:24:LYS:N	42:DU:37:GLU:HG2	2.35	0.41
43:DV:32:GLY:O	43:DV:93:ARG:HD3	2.21	0.41
44:DW:37:ILE:HG21	44:DW:80:ILE:HG21	2.03	0.41
1:AA:1359:C:H4'	1:AA:1362:A:N6	2.36	0.40
1:AA:1371:G:C5	1:AA:1372:U:C4	3.10	0.40
1:AA:1394:A:N1	1:AA:1500:A:O2'	2.36	0.40
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.21	0.40
1:AA:1417:G:N2	1:AA:1482:G:H2'	2.36	0.40
1:AA:170:U:O2'	1:AA:171:A:H5'	2.21	0.40
1:AA:510:A:H5''	1:AA:511:C:P	2.61	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:590:U:N3	1:AA:591:U:C4	2.90	0.40
1:AA:604:G:C6	1:AA:635:A:N1	2.89	0.40
1:AA:957:U:H4'	19:AS:79:THR:O	2.21	0.40
4:AD:191:LEU:O	4:AD:192:SER:HB2	2.20	0.40
6:AF:38:ARG:CG	6:AF:39:LEU:N	2.84	0.40
1:AA:1249:C:O2'	9:AI:71:GLY:HA2	2.20	0.40
1:AA:750:C:O2	15:AO:23:GLY:HA3	2.22	0.40
15:AO:28:GLN:O	15:AO:31:LEU:HD12	2.21	0.40
16:AP:28:ARG:HG2	16:AP:29:ASN:OD1	2.21	0.40
16:AP:78:VAL:O	16:AP:79:ASN:C	2.60	0.40
17:AQ:27:ARG:HG2	17:AQ:40:ARG:O	2.21	0.40
22:BA:1223:G:N2	22:BA:1227:G:C4	2.90	0.40
22:BA:1241:A:H2'	22:BA:1242:U:H5'	2.02	0.40
22:BA:1248:G:O2'	38:BQ:3:ARG:HA	2.21	0.40
22:BA:1334:G:C2	22:BA:1335:C:C2	3.09	0.40
22:BA:1842:G:N2	22:BA:1901:A:C4	2.89	0.40
22:BA:1860:G:O2'	22:BA:1861:G:H5'	2.22	0.40
22:BA:1925:C:C5'	22:BA:1926:U:C4	3.05	0.40
22:BA:2051:A:OP2	57:BA:3484:HOH:O	2.22	0.40
22:BA:271:G:C4'	22:BA:272:A:OP1	2.69	0.40
22:BA:2796:U:C4	22:BA:2798:U:C5	3.08	0.40
22:BA:553:G:C5	22:BA:554:U:C5	3.09	0.40
22:BA:669:G:H2'	22:BA:669:G:N3	2.34	0.40
22:BA:945:A:N7	57:BA:3263:HOH:O	2.50	0.40
22:BA:976:G:C2	22:BA:977:G:C8	3.09	0.40
22:BA:1820:U:O2'	24:BC:158:ALA:O	2.16	0.40
24:BC:29:PRO:HG2	24:BC:34:LEU:HD11	2.02	0.40
25:BD:33:ARG:NH2	25:BD:74:GLU:O	2.54	0.40
29:BH:132:PHE:CE2	29:BH:142:VAL:CG2	3.04	0.40
22:BA:832:U:OP1	33:BL:39:LYS:HG2	2.21	0.40
46:BY:12:GLU:O	46:BY:15:ASN:HB2	2.21	0.40
1:CA:951:G:C4	1:CA:1231:G:C2	3.09	0.40
1:CA:1249:C:O3'	9:CI:75:GLN:NE2	2.51	0.40
1:CA:1313:U:P	19:CS:6:LYS:HB3	2.62	0.40
1:CA:22:G:H4'	1:CA:885:G:C8	2.56	0.40
1:CA:268:U:C4	1:CA:269:C:N4	2.89	0.40
1:CA:246:A:C4	1:CA:279:A:C6	3.08	0.40
1:CA:289:G:C2	1:CA:290:C:C4	3.09	0.40
1:CA:38:G:C2	1:CA:397:A:C2	3.09	0.40
1:CA:455:G:C2	1:CA:478:A:C2	3.09	0.40
1:CA:505:G:C2	1:CA:506:G:C5	3.10	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:55:A:C6	1:CA:56:U:N3	2.89	0.40
1:CA:570:G:C2	1:CA:571:U:C5	3.09	0.40
1:CA:775:G:C2'	1:CA:776:G:H5'	2.51	0.40
2:CB:211:THR:HA	2:CB:214:LEU:CB	2.52	0.40
3:CC:80:LYS:HA	3:CC:80:LYS:HE3	2.02	0.40
1:CA:15:G:H4'	5:CE:29:ARG:NH1	2.36	0.40
5:CE:34:THR:HB	5:CE:50:TYR:CZ	2.56	0.40
7:CG:28:ASN:O	7:CG:31:MET:HB3	2.21	0.40
7:CG:79:ARG:HG2	7:CG:84:THR:HG23	2.03	0.40
9:CI:20:PHE:O	9:CI:63:LEU:HA	2.21	0.40
11:CK:35:THR:HG23	11:CK:36:ASP:O	2.21	0.40
1:CA:750:C:H4'	15:CO:21:ASP:HA	2.02	0.40
17:CQ:48:ASP:O	17:CQ:49:GLU:C	2.59	0.40
22:DA:1549:A:C6	22:DA:1550:C:N3	2.89	0.40
22:DA:1668:A:N3	22:DA:1674:G:C8	2.89	0.40
22:DA:1801:A:OP2	24:DC:153:GLN:NE2	2.48	0.40
22:DA:2109:U:H4'	22:DA:2110:G:OP1	2.19	0.40
22:DA:218:A:C2	22:DA:219:A:C4	3.09	0.40
22:DA:219:A:N3	22:DA:234:U:O2'	2.47	0.40
22:DA:2211:A:H5''	22:DA:2211:A:N3	2.36	0.40
22:DA:2340:A:H2'	22:DA:2341:G:C8	2.56	0.40
22:DA:2370:G:H4'	49:D1:44:ARG:NH1	2.36	0.40
22:DA:286:U:H2'	22:DA:287:G:C8	2.56	0.40
22:DA:353:C:H3'	22:DA:354:A:H8	1.86	0.40
22:DA:223:A:C4	22:DA:422:A:C8	3.09	0.40
22:DA:615:U:O4	26:DE:39:ALA:HB2	2.21	0.40
22:DA:679:C:H2'	22:DA:680:C:H6	1.85	0.40
23:DB:66:A:H61	23:DB:107:G:H2'	1.86	0.40
23:DB:15:A:H1'	23:DB:109:A:C5	2.57	0.40
23:DB:23:G:N2	23:DB:61:G:C4	2.89	0.40
25:DD:193:VAL:HB	25:DD:194:PRO:CD	2.51	0.40
26:DE:48:THR:HG22	26:DE:86:ALA:HB3	2.02	0.40
28:DG:131:ILE:HG22	28:DG:132:VAL:N	2.36	0.40
31:DJ:99:ARG:HB3	31:DJ:103:ILE:HD12	2.03	0.40
34:DM:41:LEU:HD21	34:DM:124:LEU:HD13	2.02	0.40
36:DO:100:HIS:CG	36:DO:101:GLY:N	2.87	0.40
38:DQ:90:ILE:HG22	38:DQ:95:LEU:HG	2.04	0.40
41:DT:48:GLN:O	41:DT:52:GLU:HA	2.22	0.40
1:AA:1101:A:N3	1:AA:1102:A:H1'	2.37	0.40
1:AA:125:U:O2'	1:AA:126:G:H5'	2.21	0.40
1:AA:246:A:C6	1:AA:282:A:N7	2.89	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:291:U:H2'	1:AA:292:G:O4'	2.22	0.40
1:AA:457:G:H5'	1:AA:458:U:OP2	2.20	0.40
1:AA:635:A:H2'	1:AA:636:U:C6	2.56	0.40
1:AA:648:A:H2'	1:AA:649:A:C8	2.56	0.40
1:AA:74:A:C2	1:AA:97:G:C5	3.09	0.40
1:AA:934:C:OP1	57:AA:1769:HOH:O	2.22	0.40
2:AB:88:ASP:C	2:AB:89:GLN:HG3	2.42	0.40
5:AE:111:MET:O	5:AE:115:LEU:HB2	2.21	0.40
6:AF:72:ASP:C	6:AF:74:LEU:H	2.24	0.40
7:AG:83:SER:HB2	7:AG:85:TYR:CE2	2.56	0.40
8:AH:76:GLN:O	8:AH:127:CYS:HB2	2.21	0.40
10:AJ:80:THR:C	10:AJ:82:LYS:N	2.74	0.40
11:AK:107:ILE:O	11:AK:107:ILE:HG23	2.21	0.40
11:AK:77:TYR:O	11:AK:78:GLY:C	2.59	0.40
12:AL:66:TYR:CD2	12:AL:87:VAL:HG21	2.56	0.40
13:AM:27:LYS:O	13:AM:31:LYS:HG3	2.22	0.40
14:AN:20:TYR:CE1	14:AN:52:PRO:HG2	2.56	0.40
17:AQ:81:LYS:HE2	17:AQ:81:LYS:N	2.36	0.40
53:B5:63:VAL:O	53:B5:164:PHE:CB	2.69	0.40
22:BA:1054:A:H3'	22:BA:1055:G:H8	1.87	0.40
22:BA:1113:U:H2'	22:BA:1114:C:H6	1.86	0.40
22:BA:1180:U:C2'	22:BA:1181:U:C5'	2.96	0.40
22:BA:138:U:OP2	22:BA:139:U:H5''	2.21	0.40
22:BA:1434:A:C2	22:BA:1435:G:C4	3.09	0.40
22:BA:1692:U:H2'	22:BA:1694:C:C5	2.57	0.40
22:BA:1778:U:H2'	22:BA:1784:A:N6	2.36	0.40
1:AA:1407:C:HO2'	22:BA:1912:A:N6	1.95	0.40
22:BA:2114:A:N3	22:BA:2114:A:C2'	2.81	0.40
22:BA:2306:C:C4	22:BA:2307:G:C5	3.09	0.40
22:BA:2318:G:C5	22:BA:2319:G:C6	3.10	0.40
22:BA:2564:A:OP1	22:BA:2648:G:H4'	2.21	0.40
22:BA:2820:A:H2'	22:BA:2821:A:OP1	2.21	0.40
22:BA:304:U:H2'	22:BA:305:C:C6	2.56	0.40
22:BA:324:A:N6	22:BA:338:G:O2'	2.48	0.40
22:BA:499:U:C4	22:BA:500:G:C5	3.09	0.40
22:BA:576:U:H2'	22:BA:577:G:H8	1.80	0.40
22:BA:796:C:H2'	22:BA:797:G:H8	1.87	0.40
22:BA:966:G:C6	22:BA:967:U:N3	2.89	0.40
24:BC:124:ILE:HG22	24:BC:124:ILE:O	2.21	0.40
27:BF:38:MET:HE3	27:BF:57:LEU:HG	2.04	0.40
27:BF:41:GLY:O	27:BF:42:GLU:C	2.58	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:42:C:OP1	27:BF:64:LYS:HE3	2.21	0.40
27:BF:88:LYS:HG3	27:BF:89:VAL:N	2.36	0.40
28:BG:6:LYS:HD3	28:BG:62:TRP:CH2	2.57	0.40
30:BI:124:ALA:C	30:BI:126:THR:N	2.73	0.40
57:BA:3784:HOH:O	31:BJ:39:LYS:HE3	2.20	0.40
33:BL:78:ARG:HB3	33:BL:113:ALA:HB3	2.04	0.40
34:BM:92:TRP:N	34:BM:92:TRP:CD1	2.89	0.40
38:BQ:31:VAL:HB	38:BQ:34:VAL:HG23	2.03	0.40
22:BA:1250:G:H5''	38:BQ:6:ARG:HD3	2.03	0.40
39:BR:79:ARG:O	39:BR:80:ARG:HB2	2.22	0.40
42:BU:102:THR:HG22	42:BU:103:ILE:N	2.35	0.40
1:CA:1243:C:N4	1:CA:1244:G:O6	2.54	0.40
1:CA:1262:C:H2'	1:CA:1263:C:O4'	2.22	0.40
1:CA:1253:G:C2	1:CA:1285:A:N6	2.89	0.40
1:CA:1343:G:C5	1:CA:1344:C:C4	3.09	0.40
1:CA:781:A:H4'	1:CA:1522:U:O2'	2.21	0.40
1:CA:1527:U:H2'	1:CA:1528:U:C6	2.57	0.40
1:CA:117:G:O6	1:CA:289:G:H1'	2.21	0.40
1:CA:805:C:N3	1:CA:806:C:C5	2.89	0.40
1:CA:888:G:H4'	1:CA:1488:G:O2'	2.21	0.40
1:CA:931:C:H2'	1:CA:932:C:H6	1.87	0.40
2:CB:151:ILE:O	2:CB:152:LYS:C	2.59	0.40
3:CC:12:LEU:HD23	3:CC:12:LEU:HA	1.84	0.40
3:CC:3:GLN:N	3:CC:3:GLN:OE1	2.54	0.40
3:CC:56:VAL:O	3:CC:66:VAL:HA	2.21	0.40
4:CD:58:LYS:HG3	4:CD:59:GLN:N	2.33	0.40
5:CE:105:ILE:H	5:CE:122:ASN:C	2.24	0.40
7:CG:125:SER:O	7:CG:127:ALA:N	2.54	0.40
17:CQ:57:ASP:OD2	17:CQ:57:ASP:N	2.55	0.40
48:D0:26:THR:O	48:D0:28:LEU:HD12	2.21	0.40
50:D2:1:MET:O	50:D2:2:LYS:C	2.60	0.40
50:D2:9:VAL:O	50:D2:13:ASN:ND2	2.43	0.40
22:DA:591:U:HO2'	51:D3:2:PRO:N	2.19	0.40
52:D4:12:ARG:CZ	52:D4:12:ARG:HB2	2.51	0.40
22:DA:1087:G:N9	22:DA:1089:A:H1'	2.36	0.40
22:DA:1121:C:C2	22:DA:1122:G:C8	3.09	0.40
22:DA:1280:G:C6	22:DA:1281:G:C5	3.09	0.40
22:DA:1353:A:C4	22:DA:1378:A:C6	3.10	0.40
22:DA:1439:A:C2	22:DA:1553:A:C5	3.08	0.40
22:DA:1601:G:C6	22:DA:1602:U:C4	3.09	0.40
22:DA:1838:C:C5	22:DA:1899:A:C6	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2290:G:N2	22:DA:2343:U:H1'	2.36	0.40
22:DA:2444:G:OP2	26:DE:63:LYS:HD2	2.20	0.40
22:DA:2571:U:C4	22:DA:2574:G:H8	2.37	0.40
22:DA:722:A:H2'	22:DA:723:C:O4'	2.20	0.40
26:DE:118:LEU:HD11	26:DE:188:MET:HG3	2.03	0.40
29:DH:96:THR:O	29:DH:98:ASP:N	2.54	0.40
31:DJ:58:ASN:HA	31:DJ:126:ALA:O	2.21	0.40
33:DL:58:TYR:O	51:D3:13:ARG:CD	2.69	0.40
34:DM:33:LEU:HB2	34:DM:117:PHE:CD2	2.57	0.40
41:DT:76:ARG:O	41:DT:77:ARG:O	2.40	0.40
45:DX:41:GLU:O	45:DX:42:SER:C	2.58	0.40
1:AA:1032:G:C2	1:AA:1033:G:H1'	2.57	0.40
1:AA:1033:G:N3	1:AA:1033:G:H2'	2.36	0.40
1:AA:26:A:H5''	1:AA:27:G:OP2	2.21	0.40
1:AA:303:A:C5	1:AA:304:U:C5	3.10	0.40
1:AA:36:C:H2'	1:AA:37:U:O4'	2.22	0.40
1:AA:390:U:H2'	1:AA:391:G:C8	2.56	0.40
1:AA:712:A:O2'	1:AA:713:G:H5'	2.22	0.40
1:AA:763:G:N2	1:AA:764:C:C2	2.90	0.40
1:AA:895:G:H2'	1:AA:896:C:C6	2.56	0.40
1:AA:97:G:H2'	1:AA:98:A:O5'	2.22	0.40
2:AB:132:LYS:O	2:AB:136:MET:SD	2.79	0.40
2:AB:184:PHE:N	2:AB:184:PHE:HD2	2.18	0.40
2:AB:23:TRP:HB3	2:AB:39:HIS:HE1	1.87	0.40
4:AD:125:VAL:HG11	4:AD:135:TYR:CE2	2.56	0.40
5:AE:48:PHE:O	5:AE:70:ASN:ND2	2.55	0.40
1:AA:1152:A:H5'	10:AJ:15:HIS:CD2	2.57	0.40
20:AT:51:PHE:O	20:AT:54:MET:HG3	2.21	0.40
22:BA:2742:G:OP1	52:B4:36:ARG:HD3	2.22	0.40
22:BA:1283:G:N1	22:BA:1286:A:OP2	2.52	0.40
22:BA:1355:G:N2	22:BA:1377:G:H1'	2.36	0.40
22:BA:1635:A:H2'	22:BA:1635:A:N3	2.35	0.40
22:BA:1638:C:O3'	22:BA:2709:G:N2	2.54	0.40
22:BA:1735:A:C2	22:BA:1736:U:N1	2.89	0.40
22:BA:1769:U:H2'	22:BA:1770:G:O5'	2.22	0.40
22:BA:1844:C:C2	22:BA:1897:G:N2	2.89	0.40
22:BA:1963:U:O5'	22:BA:1963:U:H6	2.04	0.40
22:BA:1964:G:N2	22:BA:1967:C:C6	2.89	0.40
22:BA:20:C:H2'	22:BA:21:A:H8	1.86	0.40
22:BA:2227:A:H2'	22:BA:2228:G:O4'	2.21	0.40
22:BA:2544:G:H2'	22:BA:2545:G: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:2603:G:C5	22:BA:2604:U:C5	3.10	0.40
22:BA:278:A:H2'	22:BA:278:A:N3	2.36	0.40
22:BA:370:G:O2'	22:BA:424:G:OP1	2.26	0.40
22:BA:580:U:H2'	22:BA:581:C:C6	2.56	0.40
22:BA:622:G:C6	22:BA:623:C:C4	3.09	0.40
22:BA:747:U:C4	22:BA:2613:U:C6	3.10	0.40
22:BA:987:C:C2'	22:BA:988:A:H5'	2.51	0.40
24:BC:141:VAL:CG2	24:BC:192:LEU:HD13	2.52	0.40
24:BC:235:GLY:HA3	24:BC:239:ASN:HB2	2.02	0.40
27:BF:114:PHE:CZ	27:BF:116:GLY:HA2	2.56	0.40
27:BF:31:VAL:CG2	27:BF:31:VAL:O	2.69	0.40
30:BI:113:LYS:HE3	30:BI:116:ASP:HB3	2.04	0.40
33:BL:79:LEU:HB2	33:BL:114:GLY:O	2.22	0.40
34:BM:117:PHE:HD2	34:BM:130:PHE:CE1	2.39	0.40
34:BM:47:GLU:OE2	34:BM:51:ARG:NE	2.55	0.40
37:BP:5:ILE:HG22	37:BP:6:LYS:N	2.36	0.40
38:BQ:105:ALA:HA	39:BR:46:GLU:OE2	2.21	0.40
22:BA:1199:U:H1'	38:BQ:4:VAL:HG22	2.04	0.40
39:BR:43:ASN:HB3	39:BR:44:GLY:H	1.73	0.40
40:BS:59:GLU:HG3	40:BS:66:ILE:HD11	2.03	0.40
1:CA:1044:A:N7	1:CA:1045:C:H1'	2.37	0.40
1:CA:1234:C:O2'	1:CA:1235:U:H5'	2.21	0.40
1:CA:1416:G:C2	1:CA:1485:U:O2	2.73	0.40
1:CA:1520:C:H2'	1:CA:1521:C:H6	1.86	0.40
1:CA:178:C:H2'	1:CA:179:A:O4'	2.21	0.40
1:CA:28:A:N7	1:CA:29:U:C5	2.90	0.40
1:CA:389:A:C6	1:CA:390:U:H1'	2.56	0.40
1:CA:409:U:C4	1:CA:410:G:C5	3.10	0.40
1:CA:652:U:C5	1:CA:752:G:C4	3.09	0.40
1:CA:805:C:H2'	1:CA:806:C:H6	1.87	0.40
2:CB:58:ASN:HA	2:CB:61:ALA:HB3	2.03	0.40
4:CD:99:ASP:OD1	4:CD:100:ASN:N	2.53	0.40
5:CE:12:GLN:HG3	5:CE:12:GLN:O	2.20	0.40
5:CE:134:ILE:HD12	5:CE:134:ILE:H	1.86	0.40
5:CE:25:VAL:HG22	5:CE:28:GLY:O	2.22	0.40
5:CE:83:HIS:HB2	5:CE:84:PRO:HD2	2.02	0.40
6:CF:70:VAL:CG2	6:CF:71:ILE:N	2.84	0.40
7:CG:138:ARG:CZ	7:CG:139:GLU:HG2	2.52	0.40
1:CA:1291:U:H4'	9:CI:42:GLU:HG2	2.04	0.40
11:CK:112:ASP:OD1	11:CK:114:THR:HG23	2.21	0.40
22:DA:105:C:H2'	22:DA:106:C:H6	1.84	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1127:A:C3'	22:DA:1128:G:H5''	2.50	0.40
22:DA:1306:C:C2	22:DA:1307:A:C8	3.09	0.40
22:DA:1385:A:H1'	22:DA:1386:C:C6	2.56	0.40
22:DA:1509:A:HO2'	22:DA:1510:G:P	2.44	0.40
22:DA:2135:A:H4'	22:DA:2160:C:H4'	2.04	0.40
22:DA:2196:C:N3	22:DA:2197:U:C4	2.89	0.40
22:DA:2261:C:N3	22:DA:2280:G:C2	2.90	0.40
22:DA:2369:A:H2'	22:DA:2370:G:O4'	2.21	0.40
22:DA:2054:A:C2	22:DA:2616:C:O2	2.74	0.40
22:DA:2685:G:C2	22:DA:2686:G:C8	3.10	0.40
22:DA:2688:G:N7	22:DA:2719:G:C6	2.89	0.40
22:DA:2756:U:H1'	22:DA:2757:A:H5''	2.02	0.40
22:DA:2862:G:C2	22:DA:2863:C:C2	3.09	0.40
22:DA:319:G:C5	22:DA:333:G:C2	3.09	0.40
22:DA:371:A:N6	22:DA:401:A:H3'	2.36	0.40
22:DA:46:G:N3	22:DA:47:C:C6	2.90	0.40
22:DA:681:G:N3	22:DA:682:G:C8	2.89	0.40
22:DA:777:G:N7	22:DA:793:A:C2	2.86	0.40
22:DA:948:C:H2'	22:DA:949:G:C8	2.57	0.40
22:DA:950:G:H2'	22:DA:951:C:O4'	2.22	0.40
24:DC:29:PRO:HB2	24:DC:30:PHE:H	1.78	0.40
25:DD:133:THR:HG23	25:DD:134:HIS:H	1.84	0.40
25:DD:31:ALA:HB1	25:DD:96:ILE:O	2.21	0.40
32:DK:1:MET:HG2	32:DK:32:TYR:CD1	2.56	0.40
32:DK:73:ASP:OD2	32:DK:75:SER:OG	2.38	0.40
35:DN:53:THR:HA	35:DN:56:LYS:CG	2.52	0.40
22:DA:1453:A:C2	35:DN:77:ALA:HB2	2.56	0.40
32:DK:76:VAL:CG1	37:DP:73:VAL:CG2	2.97	0.40
39:DR:52:PRO:O	39:DR:53:PHE:CG	2.74	0.40
43:DV:9:ARG:CG	43:DV:41:GLU:HB3	2.51	0.40
45:DX:12:PRO:HB3	45:DX:28:ARG:HH21	1.85	0.40
1:AA:1225:A:O2'	1:AA:1225:A:N3	2.53	0.40
1:AA:1238:A:C2	1:AA:1303:C:H4'	2.55	0.40
1:AA:155:A:N1	1:AA:167:A:C2	2.90	0.40
1:AA:363:A:C2	1:AA:364:A:C4	3.10	0.40
1:AA:381:C:H2'	1:AA:382:A:O5'	2.22	0.40
1:AA:469:C:N4	1:AA:470:C:N4	2.69	0.40
1:AA:600:A:OP1	8:AH:89:LYS:HG2	2.22	0.40
2:AB:166:ALA:HB2	2:AB:187:VAL:HG12	2.03	0.40
3:AC:167:TRP:HE3	3:AC:167:TRP:C	2.25	0.40
4:AD:198:HIS:HA	4:AD:201:VAL:HB	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:66:ALA:HB1	6:AF:67:PRO:HD2	2.04	0.40
8:AH:18:GLN:NE2	8:AH:72:VAL:HG23	2.37	0.40
8:AH:59:LEU:HD11	8:AH:61:LEU:HD21	2.03	0.40
9:AI:11:ARG:HA	9:AI:78:ALA:CB	2.52	0.40
9:AI:91:ASP:C	9:AI:91:ASP:OD2	2.59	0.40
11:AK:87:LYS:HG3	11:AK:114:THR:HA	2.02	0.40
11:AK:21:ALA:HB2	11:AK:34:ILE:CD1	2.50	0.40
16:AP:42:ILE:O	16:AP:43:ALA:C	2.58	0.40
17:AQ:14:SER:HB3	17:AQ:22:VAL:HG12	2.02	0.40
22:BA:1199:U:H5''	57:BA:3707:HOH:O	2.21	0.40
22:BA:1422:G:C2	22:BA:1423:G:C8	3.10	0.40
22:BA:1663:G:H5'	22:BA:2687:U:OP1	2.22	0.40
22:BA:1689:A:C6	22:BA:1700:A:C2	3.10	0.40
22:BA:1744:A:H2'	22:BA:1745:A:O4'	2.20	0.40
22:BA:186:G:O2'	22:BA:187:G:H5'	2.21	0.40
22:BA:1946:U:C2	22:BA:1947:C:C5	3.10	0.40
22:BA:2380:C:H2'	22:BA:2381:A:C8	2.56	0.40
22:BA:2544:G:H5'	22:BA:2645:G:C2	2.56	0.40
22:BA:2747:G:P	28:BG:138:LYS:HE2	2.61	0.40
22:BA:2849:U:N3	22:BA:2867:G:O4'	2.50	0.40
22:BA:950:G:H2'	22:BA:951:C:H6	1.86	0.40
23:BB:14:U:H3'	23:BB:15:A:H5'	2.04	0.40
27:BF:12:VAL:HG13	27:BF:172:ALA:CB	2.52	0.40
28:BG:62:TRP:O	28:BG:65:ALA:HB3	2.21	0.40
33:BL:129:LYS:O	33:BL:130:GLY:C	2.59	0.40
35:BN:108:ALA:O	35:BN:110:MET:N	2.54	0.40
37:BP:27:GLU:CG	37:BP:27:GLU:O	2.70	0.40
38:BQ:112:LYS:O	38:BQ:115:ALA:HB3	2.21	0.40
42:BU:6:ARG:O	42:BU:7:ARG:C	2.58	0.40
43:BV:14:LYS:CD	43:BV:18:ARG:HH11	2.34	0.40
1:CA:1071:C:C2	1:CA:1072:G:C8	3.09	0.40
1:CA:1350:A:N6	1:CA:1373:G:N2	2.70	0.40
1:CA:1443:C:C2	1:CA:1444:U:C6	3.09	0.40
1:CA:1415:G:C6	1:CA:1486:G:C6	3.09	0.40
1:CA:1408:A:N1	1:CA:1494:G:C5	2.89	0.40
1:CA:521:G:O6	1:CA:529:G:C6	2.75	0.40
1:CA:64:G:C8	1:CA:99:C:C4	3.09	0.40
1:CA:728:A:N6	1:CA:729:A:N6	2.68	0.40
1:CA:765:G:C6	1:CA:812:G:C4	3.10	0.40
1:CA:840:C:C2	1:CA:842:U:H4'	2.57	0.40
1:CA:931:C:H2'	1:CA:932:C:C6	2.56	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:162:PHE:HA	2:CB:184:PHE:O	2.22	0.40
2:CB:21:ARG:C	2:CB:22:TYR:CD1	2.95	0.40
3:CC:43:LEU:CD2	3:CC:68:ILE:HD11	2.51	0.40
4:CD:147:GLU:O	4:CD:150:LYS:HB3	2.21	0.40
4:CD:57:GLU:OE1	4:CD:57:GLU:HA	2.21	0.40
5:CE:149:SER:CB	5:CE:152:MET:HG3	2.50	0.40
1:CA:1348:U:OP1	9:CI:111:VAL:HA	2.21	0.40
10:CJ:22:THR:HG23	10:CJ:22:THR:O	2.20	0.40
11:CK:122:ARG:CZ	21:CU:36:GLU:CG	3.00	0.40
12:CL:102:LEU:HB3	12:CL:103:ASP:H	1.77	0.40
17:CQ:14:SER:HB3	17:CQ:22:VAL:CG1	2.52	0.40
18:CR:25:ASP:O	18:CR:26:ILE:C	2.60	0.40
21:CU:15:ALA:O	21:CU:16:LEU:C	2.59	0.40
1:CA:1540:U:H4'	21:CU:18:ARG:HG2	2.04	0.40
48:D0:12:LYS:HA	48:D0:12:LYS:HD2	1.94	0.40
48:D0:55:ILE:CG2	48:D0:56:ALA:N	2.76	0.40
50:D2:25:LYS:O	50:D2:25:LYS:HG3	2.21	0.40
22:DA:1057:A:C2	22:DA:1082:U:N3	2.90	0.40
22:DA:1463:C:H2'	22:DA:1464:G:O4'	2.21	0.40
22:DA:1483:G:H2'	22:DA:1483:G:N3	2.37	0.40
22:DA:1520:U:O4	22:DA:1521:G:C6	2.74	0.40
22:DA:1609:A:O2'	22:DA:1610:A:H5'	2.22	0.40
22:DA:1773:A:H2'	22:DA:1774:C:H5'	2.03	0.40
22:DA:1980:G:O2'	22:DA:1982:U:OP2	2.35	0.40
22:DA:2088:A:C6	22:DA:2089:C:N4	2.90	0.40
22:DA:2189:U:C2'	22:DA:2190:G:H5''	2.51	0.40
22:DA:231:A:N6	22:DA:232:G:N1	2.70	0.40
22:DA:2347:C:H2'	22:DA:2348:U:C6	2.56	0.40
22:DA:2389:G:C5'	22:DA:2390:U:H5'	2.50	0.40
22:DA:2066:C:C2	22:DA:2445:G:N2	2.90	0.40
22:DA:2486:C:N3	22:DA:2487:G:C8	2.90	0.40
22:DA:2856:A:C6	22:DA:2857:G:C5	3.09	0.40
22:DA:295:G:H2'	22:DA:295:G:N3	2.37	0.40
22:DA:647:G:C5	22:DA:648:G:C5	3.09	0.40
22:DA:686:U:H2'	22:DA:788:A:N1	2.36	0.40
22:DA:775:G:C2	22:DA:794:A:C8	3.10	0.40
22:DA:84:A:C2	22:DA:98:G:N3	2.89	0.40
22:DA:942:G:H2'	22:DA:943:A:H5'	2.03	0.40
23:DB:34:A:H2'	23:DB:35:C:OP2	2.21	0.40
22:DA:1806:C:O2	24:DC:44:ASN:ND2	2.55	0.40
25:DD:103:ASP:O	25:DD:104:VAL:C	2.59	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:52:VAL:O	26:DE:74:LYS:HD3	2.21	0.40
22:DA:2529:G:H4'	28:DG:175:LYS:HG3	2.02	0.40
30:DI:114:ALA:O	30:DI:115:ALA:HB2	2.22	0.40
30:DI:80:LEU:HD13	30:DI:136:MET:SD	2.62	0.40
30:DI:54:PRO:O	30:DI:75:PRO:CD	2.69	0.40
33:DL:109:LYS:CG	33:DL:126:ARG:HB3	2.51	0.40
39:DR:46:GLU:CD	39:DR:46:GLU:C	2.79	0.40
42:DU:87:PHE:HA	42:DU:91:LYS:O	2.21	0.40
43:DV:49:ASN:O	43:DV:52:ALA:HB3	2.21	0.40
45:DX:10:LYS:HE3	45:DX:54:LYS:HD2	2.02	0.40
45:DX:42:SER:OG	45:DX:43:GLU:N	2.54	0.40
46:DY:1:MET:CA	46:DY:4:LYS:HD3	2.52	0.40
46:DY:7:ARG:O	46:DY:7:ARG:HG3	2.21	0.40
47:DZ:31:ARG:HG2	47:DZ:34:HIS:HB2	2.03	0.40
1:AA:1074:G:C6	1:AA:1075:U:C4	3.10	0.40
1:AA:587:G:H4'	8:AH:4:GLN:CA	2.51	0.40
1:AA:613:C:N4	1:AA:614:C:N4	2.70	0.40
1:AA:597:G:C2	1:AA:644:U:C2	3.09	0.40
1:AA:715:A:H2'	1:AA:716:A:C8	2.57	0.40
1:AA:809:G:C6	1:AA:810:C:C5	3.10	0.40
2:AB:114:LEU:O	2:AB:118:GLU:HG2	2.22	0.40
2:AB:20:THR:HB	2:AB:37:LYS:O	2.22	0.40
3:AC:22:TRP:CZ2	3:AC:32:ASN:HB3	2.56	0.40
3:AC:64:ILE:HG12	3:AC:66:VAL:HG23	2.03	0.40
6:AF:52:ASN:OD1	6:AF:85:ILE:HG22	2.22	0.40
8:AH:54:ASP:CG	8:AH:55:THR:H	2.24	0.40
8:AH:6:PRO:O	8:AH:9:ASP:HB3	2.21	0.40
9:AI:12:ARG:NH2	9:AI:107:ASP:OD1	2.54	0.40
10:AJ:74:VAL:O	10:AJ:75:ASP:HB2	2.21	0.40
17:AQ:61:ILE:HG23	17:AQ:73:TRP:HE3	1.86	0.40
20:AT:44:LYS:HD3	20:AT:87:ALA:OXT	2.22	0.40
20:AT:74:ARG:O	20:AT:78:ASN:OD1	2.39	0.40
49:B1:33:LYS:HA	49:B1:52:ALA:HB3	2.03	0.40
22:BA:127:A:H5''	22:BA:128:C:O4'	2.22	0.40
22:BA:1738:G:O2'	22:BA:1739:A:H8	2.05	0.40
22:BA:1907:G:C6	22:BA:1908:C:C4	3.09	0.40
22:BA:2076:U:C4'	22:BA:2076:U:O2	2.70	0.40
22:BA:2186:G:C5	22:BA:2187:U:C4	3.09	0.40
22:BA:2252:G:H2'	22:BA:2253:G:O4'	2.22	0.40
22:BA:2392:A:C8	22:BA:2429:G:N1	2.90	0.40
22:BA:277:G:H1'	22:BA:361:G:O6	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:354:A:C6	22:BA:355:U:C4	3.10	0.40
22:BA:441:U:H2'	22:BA:442:G:C8	2.56	0.40
22:BA:511:U:O4	22:BA:512:G:N1	2.54	0.40
22:BA:521:U:H2'	22:BA:522:A:C8	2.56	0.40
22:BA:636:G:C6	33:BL:111:ILE:HD11	2.57	0.40
22:BA:63:A:C2	22:BA:64:A:C5	3.10	0.40
24:BC:137:VAL:O	24:BC:137:VAL:HG12	2.22	0.40
25:BD:13:ARG:CD	25:BD:15:PHE:CZ	3.01	0.40
26:BE:5:LEU:HD11	26:BE:12:LEU:HB2	2.03	0.40
27:BF:38:MET:CE	27:BF:57:LEU:HG	2.51	0.40
28:BG:30:ASN:CG	28:BG:30:ASN:O	2.60	0.40
28:BG:5:ALA:HB2	28:BG:66:GLY:HA2	2.04	0.40
28:BG:24:ILE:CD1	28:BG:72:LEU:HD21	2.51	0.40
30:BI:101:ILE:HD11	30:BI:138:LEU:HD13	2.02	0.40
30:BI:11:LEU:HD12	30:BI:24:VAL:HG12	2.04	0.40
32:BK:107:LEU:O	32:BK:108:ARG:C	2.58	0.40
39:BR:42:ALA:CA	39:BR:46:GLU:HB2	2.48	0.40
1:CA:1255:G:C6	1:CA:1279:G:N7	2.89	0.40
1:CA:1306:A:H2'	1:CA:1307:U:O4'	2.21	0.40
1:CA:1306:A:H1'	1:CA:1332:A:N7	2.36	0.40
1:CA:308:C:H2'	1:CA:309:A:C8	2.56	0.40
1:CA:354:G:C4	1:CA:355:C:C5	3.10	0.40
1:CA:474:G:C6	1:CA:475:C:C4	3.10	0.40
1:CA:496:A:H2'	1:CA:497:G:N7	2.36	0.40
1:CA:572:A:H5'	1:CA:573:A:P	2.61	0.40
1:CA:570:G:C5	1:CA:873:A:C6	3.09	0.40
2:CB:117:LEU:O	2:CB:118:GLU:C	2.59	0.40
5:CE:66:LYS:O	5:CE:70:ASN:HB2	2.21	0.40
6:CF:55:HIS:O	6:CF:56:LYS:O	2.40	0.40
6:CF:64:VAL:CG1	6:CF:65:GLU:N	2.83	0.40
8:CH:77:ARG:CZ	8:CH:79:SER:O	2.69	0.40
20:CT:3:ASN:O	20:CT:4:ILE:C	2.59	0.40
22:DA:1034:G:C5	22:DA:1035:U:C5	3.10	0.40
22:DA:1063:G:H2'	22:DA:1064:C:O4'	2.21	0.40
22:DA:1067:A:C2	22:DA:1068:G:N7	2.89	0.40
22:DA:1082:U:H5''	22:DA:1083:U:OP2	2.22	0.40
22:DA:1344:U:O5'	22:DA:1344:U:H6	2.04	0.40
22:DA:1526:C:H2'	22:DA:1527:G:O4'	2.22	0.40
22:DA:1922:G:H2'	22:DA:1923:U:O4'	2.21	0.40
22:DA:1997:C:OP2	25:DD:129:THR:OG1	2.36	0.40
22:DA:2046:G:OP1	48:D0:12:LYS:NZ	2.54	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2728:U:O2'	22:DA:2729:G:H5'	2.22	0.40
22:DA:301:G:N2	22:DA:302:C:C2	2.89	0.40
22:DA:478:A:C2	22:DA:480:A:C5	3.10	0.40
22:DA:491:G:C2	22:DA:492:A:C4	3.10	0.40
22:DA:927:A:H2'	22:DA:928:A:C8	2.56	0.40
23:DB:21:G:N2	23:DB:63:C:C2	2.89	0.40
24:DC:31:ALA:O	24:DC:33:LEU:N	2.53	0.40
25:DD:51:THR:HB	25:DD:79:LEU:HD23	2.04	0.40
26:DE:147:LEU:HB3	26:DE:186:VAL:HG13	2.02	0.40
31:DJ:113:PRO:HA	31:DJ:116:ARG:NH2	2.36	0.40
32:DK:104:THR:HB	32:DK:106:GLU:OE1	2.21	0.40
23:DB:51:G:C8	36:DO:64:TYR:HE2	2.39	0.40
37:DP:55:LEU:HA	37:DP:77:HIS:CD2	2.56	0.40
40:DS:36:LEU:HD13	40:DS:48:LYS:HB2	2.04	0.40
41:DT:22:THR:HA	41:DT:25:GLU:HG2	2.03	0.40
44:DW:57:HIS:N	44:DW:57:HIS:CD2	2.90	0.40
46:DY:45:GLN:O	46:DY:48:ARG:N	2.54	0.40
46:DY:20:ASN:CB	46:DY:50:VAL:HG22	2.51	0.40

All (5) 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:OP2	29:DH:123:ARG:NE[4_455]	1.71	0.49
1:AA:368:U:OP2	29:DH:123:ARG:CZ[4_455]	1.89	0.31
1:AA:368:U:OP2	29:DH:123:ARG:NH2[4_455]	2.04	0.16
1:AA:368:U:OP1	29:DH:93:SER:OG[4_455]	2.10	0.10
1:CA:204:G:OP1	22:DA:289:G:O2'[3_545]	2.12	0.08

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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%)	125 (58%)	36 (17%)	55 (26%)	0	0
2	CB	216/218 (99%)	126 (58%)	54 (25%)	36 (17%)	0	0
3	AC	204/206 (99%)	144 (71%)	48 (24%)	12 (6%)	1	5
3	CC	204/206 (99%)	146 (72%)	41 (20%)	17 (8%)	1	2
4	AD	203/205 (99%)	140 (69%)	38 (19%)	25 (12%)	0	1
4	CD	203/205 (99%)	148 (73%)	35 (17%)	20 (10%)	0	1
5	AE	148/150 (99%)	107 (72%)	24 (16%)	17 (12%)	0	1
5	CE	148/150 (99%)	100 (68%)	25 (17%)	23 (16%)	0	0
6	AF	98/100 (98%)	67 (68%)	17 (17%)	14 (14%)	0	0
6	CF	98/100 (98%)	65 (66%)	16 (16%)	17 (17%)	0	0
7	AG	149/151 (99%)	101 (68%)	33 (22%)	15 (10%)	0	1
7	CG	149/151 (99%)	120 (80%)	19 (13%)	10 (7%)	1	3
8	AH	127/129 (98%)	88 (69%)	29 (23%)	10 (8%)	1	2
8	CH	127/129 (98%)	101 (80%)	19 (15%)	7 (6%)	2	5
9	AI	125/127 (98%)	87 (70%)	23 (18%)	15 (12%)	0	1
9	CI	125/127 (98%)	91 (73%)	25 (20%)	9 (7%)	1	3
10	AJ	96/98 (98%)	63 (66%)	12 (12%)	21 (22%)	0	0
10	CJ	96/98 (98%)	72 (75%)	15 (16%)	9 (9%)	0	1
11	AK	115/117 (98%)	85 (74%)	17 (15%)	13 (11%)	0	1
11	CK	115/117 (98%)	83 (72%)	23 (20%)	9 (8%)	1	2
12	AL	121/123 (98%)	96 (79%)	15 (12%)	10 (8%)	1	2
12	CL	121/123 (98%)	92 (76%)	17 (14%)	12 (10%)	0	1
13	AM	112/114 (98%)	83 (74%)	17 (15%)	12 (11%)	0	1
13	CM	112/114 (98%)	80 (71%)	21 (19%)	11 (10%)	0	1
14	AN	92/100 (92%)	55 (60%)	25 (27%)	12 (13%)	0	0
14	CN	92/100 (92%)	57 (62%)	20 (22%)	15 (16%)	0	0
15	AO	86/88 (98%)	63 (73%)	18 (21%)	5 (6%)	1	5
15	CO	86/88 (98%)	63 (73%)	19 (22%)	4 (5%)	2	8
16	AP	80/82 (98%)	44 (55%)	17 (21%)	19 (24%)	0	0
16	CP	80/82 (98%)	57 (71%)	18 (22%)	5 (6%)	1	4
17	AQ	78/80 (98%)	53 (68%)	16 (20%)	9 (12%)	0	1
17	CQ	78/80 (98%)	55 (70%)	14 (18%)	9 (12%)	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
18	AR	53/55 (96%)	44 (83%)	7 (13%)	2 (4%)	3	13
18	CR	53/55 (96%)	42 (79%)	7 (13%)	4 (8%)	1	2
19	AS	77/79 (98%)	53 (69%)	16 (21%)	8 (10%)	0	1
19	CS	77/79 (98%)	61 (79%)	13 (17%)	3 (4%)	3	12
20	AT	83/85 (98%)	57 (69%)	20 (24%)	6 (7%)	1	3
20	CT	83/85 (98%)	62 (75%)	13 (16%)	8 (10%)	0	1
21	AU	49/51 (96%)	27 (55%)	10 (20%)	12 (24%)	0	0
21	CU	49/51 (96%)	24 (49%)	12 (24%)	13 (26%)	0	0
24	BC	269/271 (99%)	213 (79%)	39 (14%)	17 (6%)	1	4
24	DC	269/271 (99%)	200 (74%)	49 (18%)	20 (7%)	1	2
25	BD	207/209 (99%)	167 (81%)	33 (16%)	7 (3%)	3	15
25	DD	207/209 (99%)	165 (80%)	33 (16%)	9 (4%)	2	10
26	BE	199/201 (99%)	153 (77%)	39 (20%)	7 (4%)	3	14
26	DE	199/201 (99%)	146 (73%)	40 (20%)	13 (6%)	1	3
27	BF	175/177 (99%)	136 (78%)	30 (17%)	9 (5%)	2	7
27	DF	175/177 (99%)	136 (78%)	26 (15%)	13 (7%)	1	2
28	BG	174/176 (99%)	145 (83%)	19 (11%)	10 (6%)	1	5
28	DG	174/176 (99%)	129 (74%)	30 (17%)	15 (9%)	1	2
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%)	71 (51%)	44 (32%)	24 (17%)	0	0
30	DI	139/141 (99%)	75 (54%)	49 (35%)	15 (11%)	0	1
31	BJ	140/142 (99%)	124 (89%)	12 (9%)	4 (3%)	4	18
31	DJ	140/142 (99%)	123 (88%)	12 (9%)	5 (4%)	3	14
32	BK	120/122 (98%)	96 (80%)	16 (13%)	8 (7%)	1	3
32	DK	120/122 (98%)	97 (81%)	16 (13%)	7 (6%)	1	5
33	BL	141/143 (99%)	106 (75%)	20 (14%)	15 (11%)	0	1
33	DL	141/143 (99%)	104 (74%)	27 (19%)	10 (7%)	1	3
34	BM	134/136 (98%)	117 (87%)	15 (11%)	2 (2%)	10	34
34	DM	134/136 (98%)	111 (83%)	17 (13%)	6 (4%)	2	9
35	BN	118/120 (98%)	92 (78%)	19 (16%)	7 (6%)	1	5

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	DN	118/120 (98%)	91 (77%)	19 (16%)	8 (7%)	1	3
36	BO	114/116 (98%)	91 (80%)	19 (17%)	4 (4%)	3	14
36	DO	114/116 (98%)	97 (85%)	11 (10%)	6 (5%)	2	6
37	BP	112/114 (98%)	101 (90%)	6 (5%)	5 (4%)	2	9
37	DP	112/114 (98%)	89 (80%)	16 (14%)	7 (6%)	1	4
38	BQ	115/117 (98%)	93 (81%)	16 (14%)	6 (5%)	2	6
38	DQ	115/117 (98%)	104 (90%)	10 (9%)	1 (1%)	17	48
39	BR	101/103 (98%)	83 (82%)	9 (9%)	9 (9%)	1	1
39	DR	101/103 (98%)	80 (79%)	14 (14%)	7 (7%)	1	3
40	BS	108/110 (98%)	83 (77%)	18 (17%)	7 (6%)	1	3
40	DS	108/110 (98%)	88 (82%)	13 (12%)	7 (6%)	1	3
41	BT	91/93 (98%)	69 (76%)	8 (9%)	14 (15%)	0	0
41	DT	91/93 (98%)	65 (71%)	14 (15%)	12 (13%)	0	0
42	BU	100/102 (98%)	75 (75%)	16 (16%)	9 (9%)	1	1
42	DU	100/102 (98%)	70 (70%)	19 (19%)	11 (11%)	0	1
43	BV	92/94 (98%)	85 (92%)	6 (6%)	1 (1%)	14	42
43	DV	92/94 (98%)	76 (83%)	14 (15%)	2 (2%)	6	24
44	BW	74/76 (97%)	70 (95%)	4 (5%)	0	100	100
44	DW	73/76 (96%)	59 (81%)	11 (15%)	3 (4%)	3	11
45	BX	75/77 (97%)	66 (88%)	6 (8%)	3 (4%)	3	11
45	DX	75/77 (97%)	57 (76%)	14 (19%)	4 (5%)	2	6
46	BY	61/63 (97%)	35 (57%)	19 (31%)	7 (12%)	0	1
46	DY	61/63 (97%)	42 (69%)	14 (23%)	5 (8%)	1	2
47	BZ	56/58 (97%)	47 (84%)	9 (16%)	0	100	100
47	DZ	56/58 (97%)	53 (95%)	1 (2%)	2 (4%)	3	14
48	B0	54/56 (96%)	44 (82%)	7 (13%)	3 (6%)	2	5
48	D0	54/56 (96%)	38 (70%)	12 (22%)	4 (7%)	1	2
49	B1	48/50 (96%)	39 (81%)	5 (10%)	4 (8%)	1	2
49	D1	48/50 (96%)	40 (83%)	5 (10%)	3 (6%)	1	4
50	B2	44/46 (96%)	36 (82%)	7 (16%)	1 (2%)	6	23
50	D2	44/46 (96%)	36 (82%)	6 (14%)	2 (4%)	2	9

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
51	B3	62/64 (97%)	54 (87%)	7 (11%)	1 (2%)	9	32
51	D3	62/64 (97%)	49 (79%)	10 (16%)	3 (5%)	2	8
52	B4	36/38 (95%)	31 (86%)	5 (14%)	0	100	100
52	D4	36/38 (95%)	28 (78%)	4 (11%)	4 (11%)	0	1
53	B5	183/228 (80%)	100 (55%)	49 (27%)	34 (19%)	0	0
All	All	11418/11672 (98%)	8486 (74%)	1941 (17%)	991 (9%)	1	2

All (991) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	12	ALA
2	AB	16	PHE
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	83	ALA
2	AB	87	CYS
2	AB	107	VAL
2	AB	116	ASP
2	AB	120	GLN
2	AB	129	LEU
2	AB	133	GLU
2	AB	134	ALA
2	AB	148	LEU
2	AB	152	LYS
2	AB	201	PRO
2	AB	207	ILE
2	AB	212	LEU
2	AB	220	THR
3	AC	3	GLN
3	AC	17	PRO
3	AC	18	TRP
3	AC	26	THR
3	AC	139	GLN
3	AC	140	ASN
4	AD	7	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	AD	23	SER
4	AD	29	ASP
4	AD	33	LYS
4	AD	35	GLU
4	AD	49	SER
4	AD	126	ASN
4	AD	151	LYS
4	AD	153	SER
4	AD	160	GLU
4	AD	168	PRO
4	AD	191	LEU
4	AD	192	SER
5	AE	26	LYS
5	AE	43	ASN
5	AE	100	SER
5	AE	105	ILE
5	AE	122	ASN
5	AE	138	ARG
6	AF	68	GLN
6	AF	91	ARG
6	AF	92	THR
6	AF	99	ALA
7	AG	51	ALA
7	AG	130	ASN
8	AH	3	MET
8	AH	67	GLN
8	AH	88	ARG
9	AI	41	ARG
9	AI	44	ALA
9	AI	91	ASP
10	AJ	33	GLY
10	AJ	34	ALA
10	AJ	57	VAL
10	AJ	101	SER
11	AK	14	LYS
11	AK	52	PHE
11	AK	73	ALA
12	AL	23	ALA
12	AL	24	LEU
12	AL	44	LYS
13	AM	4	ILE
13	AM	5	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	AM	11	ASP
13	AM	12	HIS
13	AM	27	LYS
13	AM	100	GLN
13	AM	114	LYS
14	AN	21	PHE
14	AN	28	LYS
14	AN	47	LYS
14	AN	49	GLN
14	AN	52	PRO
14	AN	62	ASN
14	AN	64	CYS
14	AN	92	GLU
16	AP	8	ARG
16	AP	43	ALA
16	AP	46	LYS
16	AP	53	ASP
16	AP	65	ALA
16	AP	79	ASN
17	AQ	13	VAL
17	AQ	51	ASN
17	AQ	69	LYS
18	AR	50	LYS
19	AS	5	LEU
19	AS	29	LYS
19	AS	65	GLU
20	AT	4	ILE
20	AT	6	SER
21	AU	11	PRO
21	AU	24	GLU
21	AU	36	GLU
21	AU	38	TYR
21	AU	40	LYS
24	BC	71	LYS
24	BC	122	ALA
24	BC	196	GLY
25	BD	152	PRO
26	BE	86	ALA
27	BF	41	GLY
27	BF	42	GLU
27	BF	73	SER
27	BF	176	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
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	6	GLN
30	BI	19	ASN
30	BI	45	LYS
30	BI	60	THR
30	BI	63	ALA
30	BI	90	SER
30	BI	117	MET
30	BI	134	ARG
31	BJ	81	ILE
32	BK	35	VAL
32	BK	91	SER
32	BK	108	ARG
33	BL	15	ALA
33	BL	29	LYS
33	BL	30	THR
33	BL	31	GLY
33	BL	88	GLY
33	BL	94	THR
33	BL	111	ILE
33	BL	115	GLU
34	BM	69	PRO
36	BO	77	ALA
36	BO	87	ILE
36	BO	88	LYS
37	BP	16	ASP
37	BP	94	LYS
37	BP	105	GLY
38	BQ	25	TYR
38	BQ	83	LEU
38	BQ	102	ASP
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
40	BS	29	VAL
40	BS	64	ALA
41	BT	25	GLU
41	BT	72	GLN
41	BT	88	LYS
41	BT	89	GLU
42	BU	8	ASP
42	BU	100	SER
43	BV	24	ASN
45	BX	3	ARG
46	BY	22	LEU
46	BY	24	GLU
46	BY	36	GLN
46	BY	46	VAL
48	B0	56	ALA
49	B1	17	THR
49	B1	52	ALA
53	B5	41	THR
53	B5	53	ARG
53	B5	62	THR
53	B5	134	PRO
53	B5	141	PRO
53	B5	154	ILE
53	B5	174	ALA
53	B5	175	PRO
53	B5	205	ALA
53	B5	210	LEU
53	B5	221	PRO
2	CB	16	PHE
2	CB	36	ASN
2	CB	73	LYS
2	CB	74	ARG
2	CB	86	SER
2	CB	87	CYS
2	CB	100	MET
2	CB	126	PHE
2	CB	136	MET
2	CB	170	HIS
2	CB	193	PRO
2	CB	207	ILE
2	CB	220	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	CB	222	ARG
3	CC	17	PRO
3	CC	146	ALA
4	CD	29	ASP
4	CD	33	LYS
4	CD	35	GLU
4	CD	36	GLN
5	CE	45	ARG
5	CE	98	PRO
5	CE	101	GLU
5	CE	103	THR
5	CE	111	MET
5	CE	123	VAL
5	CE	158	GLY
6	CF	27	ALA
6	CF	55	HIS
6	CF	56	LYS
6	CF	86	ARG
6	CF	91	ARG
6	CF	92	THR
6	CF	93	LYS
6	CF	98	GLU
7	CG	56	LYS
7	CG	130	ASN
7	CG	146	GLU
8	CH	66	PHE
9	CI	41	ARG
9	CI	120	LYS
9	CI	129	LYS
10	CJ	57	VAL
10	CJ	86	ALA
10	CJ	93	ALA
11	CK	52	PHE
11	CK	91	PRO
11	CK	127	ARG
12	CL	4	VAL
12	CL	17	ALA
12	CL	34	CYS
12	CL	44	LYS
12	CL	76	GLU
12	CL	77	HIS
12	CL	89	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	CL	117	TYR
13	CM	7	ILE
13	CM	11	ASP
13	CM	41	GLU
13	CM	114	LYS
14	CN	22	ALA
14	CN	52	PRO
14	CN	59	ARG
14	CN	92	GLU
17	CQ	5	ILE
17	CQ	51	ASN
17	CQ	52	GLU
17	CQ	53	CYS
18	CR	21	ILE
18	CR	47	THR
19	CS	5	LEU
20	CT	4	ILE
20	CT	6	SER
20	CT	41	ALA
20	CT	68	HIS
21	CU	9	ASN
21	CU	12	PHE
21	CU	24	GLU
21	CU	36	GLU
21	CU	37	PHE
21	CU	40	LYS
21	CU	46	LYS
21	CU	52	ALA
24	DC	10	SER
24	DC	29	PRO
24	DC	35	GLU
24	DC	36	LYS
24	DC	58	HIS
24	DC	71	LYS
24	DC	239	ASN
24	DC	255	LYS
25	DD	104	VAL
25	DD	151	THR
25	DD	152	PRO
25	DD	174	SER
26	DE	6	LYS
26	DE	86	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	DE	122	GLU
27	DF	9	LYS
27	DF	123	ASP
27	DF	176	PRO
28	DG	61	GLY
28	DG	92	VAL
28	DG	119	ALA
28	DG	159	GLY
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	19	ASN
30	DI	93	PRO
30	DI	102	SER
31	DJ	81	ILE
32	DK	92	GLU
32	DK	108	ARG
34	DM	3	GLN
34	DM	69	PRO
35	DN	2	ARG
35	DN	88	ALA
35	DN	104	ALA
35	DN	119	SER
36	DO	34	HIS
36	DO	116	GLN
37	DP	66	ASN
39	DR	31	GLU
39	DR	102	SER
40	DS	28	LYS
40	DS	29	VAL
40	DS	62	ASP
41	DT	18	GLU
41	DT	39	THR
41	DT	52	GLU
41	DT	73	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
41	DT	77	ARG
41	DT	88	LYS
42	DU	7	ARG
42	DU	19	LYS
42	DU	53	ASN
42	DU	55	PRO
42	DU	89	ASP
45	DX	3	ARG
45	DX	62	LYS
46	DY	61	ALA
47	DZ	4	THR
47	DZ	14	ILE
48	D0	56	ALA
49	D1	5	ILE
50	D2	44	VAL
50	D2	45	SER
2	AB	14	VAL
2	AB	52	GLU
2	AB	68	LEU
2	AB	97	LEU
2	AB	117	LEU
2	AB	126	PHE
2	AB	143	LYS
2	AB	150	GLY
2	AB	170	HIS
2	AB	183	VAL
2	AB	203	ASN
2	AB	210	VAL
3	AC	15	VAL
3	AC	80	LYS
3	AC	141	ALA
4	AD	24	GLY
4	AD	101	VAL
4	AD	107	PHE
4	AD	175	ALA
5	AE	12	GLN
5	AE	45	ARG
5	AE	51	GLY
5	AE	78	ASN
5	AE	88	VAL
5	AE	110	ALA
6	AF	6	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	AF	7	VAL
6	AF	69	GLU
6	AF	95	ALA
7	AG	15	ASP
7	AG	59	LEU
7	AG	69	VAL
7	AG	81	GLY
7	AG	96	ARG
8	AH	35	ALA
9	AI	72	ILE
9	AI	116	VAL
10	AJ	17	LEU
10	AJ	38	GLY
10	AJ	41	PRO
10	AJ	61	ALA
10	AJ	74	VAL
10	AJ	81	GLU
11	AK	72	ASP
11	AK	103	ALA
11	AK	125	LYS
11	AK	126	LYS
12	AL	25	GLU
12	AL	89	ASP
12	AL	98	VAL
12	AL	123	LYS
13	AM	67	GLY
14	AN	4	GLN
14	AN	34	VAL
14	AN	53	ARG
15	AO	25	THR
16	AP	16	PHE
16	AP	31	ARG
16	AP	68	SER
16	AP	78	VAL
16	AP	80	LYS
17	AQ	10	GLY
17	AQ	18	GLU
17	AQ	70	THR
19	AS	4	SER
20	AT	68	HIS
21	AU	35	ARG
21	AU	37	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
24	BC	13	ARG
24	BC	190	ALA
24	BC	223	THR
24	BC	233	GLY
25	BD	114	LYS
26	BE	8	ALA
26	BE	110	SER
27	BF	3	LYS
27	BF	21	ASN
28	BG	32	GLU
28	BG	39	ASP
28	BG	61	GLY
28	BG	80	THR
28	BG	82	GLY
28	BG	173	GLU
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	24	VAL
30	BI	65	ARG
30	BI	75	PRO
30	BI	83	ALA
30	BI	98	VAL
30	BI	106	LEU
33	BL	69	ARG
33	BL	86	GLU
35	BN	52	ILE
38	BQ	7	GLY
38	BQ	46	ALA
39	BR	31	GLU
39	BR	102	SER
40	BS	89	ALA
41	BT	20	ALA
41	BT	71	GLY
42	BU	19	LYS
42	BU	99	ASN
46	BY	10	SER
46	BY	62	GLY
50	B2	44	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
51	B3	28	ASN
53	B5	36	ALA
53	B5	51	ASP
53	B5	90	ALA
53	B5	136	GLY
53	B5	144	GLY
53	B5	146	VAL
53	B5	171	ALA
53	B5	180	SER
53	B5	185	LYS
2	CB	33	GLY
2	CB	34	ALA
2	CB	51	ASN
2	CB	82	ASP
2	CB	103	ASN
2	CB	120	GLN
2	CB	124	GLY
2	CB	141	LEU
3	CC	80	LYS
3	CC	82	GLU
3	CC	84	VAL
3	CC	101	ILE
3	CC	127	ARG
4	CD	4	TYR
4	CD	27	ALA
4	CD	32	CYS
4	CD	34	ILE
4	CD	47	ARG
4	CD	85	ASN
4	CD	174	ASP
4	CD	175	ALA
5	CE	51	GLY
5	CE	70	ASN
5	CE	99	ALA
5	CE	102	GLY
5	CE	138	ARG
5	CE	150	PRO
6	CF	14	GLN
6	CF	68	GLN
7	CG	9	GLN
7	CG	140	ASP
8	CH	89	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	CI	55	VAL
9	CI	72	ILE
10	CJ	17	LEU
10	CJ	35	GLN
10	CJ	36	VAL
11	CK	17	SER
11	CK	92	GLY
11	CK	93	ARG
12	CL	102	LEU
12	CL	123	LYS
13	CM	6	GLY
13	CM	82	ASP
14	CN	11	VAL
14	CN	16	LEU
14	CN	23	LYS
14	CN	29	ALA
14	CN	31	ILE
14	CN	62	ASN
16	CP	77	GLU
16	CP	80	LYS
18	CR	25	ASP
18	CR	26	ILE
19	CS	6	LYS
20	CT	7	ALA
21	CU	13	ASP
24	DC	218	PRO
24	DC	240	PHE
24	DC	251	GLN
25	DD	105	LYS
26	DE	7	ASP
26	DE	8	ALA
26	DE	61	ARG
26	DE	69	ARG
26	DE	81	GLY
26	DE	84	THR
26	DE	144	GLU
27	DF	21	ASN
27	DF	71	ARG
27	DF	103	LEU
27	DF	150	ARG
28	DG	20	ASN
29	DH	31	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	DH	77	THR
29	DH	118	PRO
30	DI	72	LYS
30	DI	88	SER
30	DI	90	SER
30	DI	106	LEU
30	DI	115	ALA
31	DJ	6	ALA
31	DJ	25	LEU
31	DJ	127	GLY
32	DK	35	VAL
32	DK	105	ARG
33	DL	9	ALA
33	DL	17	LYS
33	DL	111	ILE
35	DN	3	HIS
35	DN	106	ASP
37	DP	80	VAL
37	DP	94	LYS
37	DP	105	GLY
38	DQ	87	SER
39	DR	7	SER
39	DR	50	GLY
40	DS	63	GLY
41	DT	21	SER
41	DT	72	GLN
42	DU	57	GLY
43	DV	65	VAL
46	DY	57	LEU
49	D1	16	GLY
52	D4	20	ASP
2	AB	115	LYS
2	AB	128	LYS
2	AB	147	SER
2	AB	182	PRO
2	AB	188	ASP
2	AB	209	ALA
3	AC	61	ALA
4	AD	161	LEU
4	AD	167	LYS
4	AD	169	THR
5	AE	24	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	AE	76	LEU
5	AE	134	ILE
5	AE	157	ARG
6	AF	56	LYS
7	AG	14	PRO
7	AG	50	LEU
8	AH	54	ASP
9	AI	88	MET
9	AI	99	ARG
9	AI	100	LYS
10	AJ	32	THR
10	AJ	36	VAL
10	AJ	91	ASP
10	AJ	92	LEU
10	AJ	93	ALA
11	AK	36	ASP
11	AK	38	GLN
11	AK	56	ARG
11	AK	127	ARG
12	AL	22	PRO
12	AL	26	ALA
13	AM	112	PRO
15	AO	20	ASN
15	AO	46	HIS
15	AO	73	LYS
16	AP	10	GLY
16	AP	24	SER
16	AP	49	GLY
17	AQ	82	ALA
18	AR	30	LYS
19	AS	30	PRO
21	AU	10	GLU
21	AU	25	LYS
21	AU	31	GLU
24	BC	131	PRO
24	BC	137	VAL
24	BC	189	ARG
25	BD	86	GLU
25	BD	159	LYS
26	BE	125	SER
28	BG	12	PRO
28	BG	79	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	BH	9	VAL
29	BH	30	LEU
29	BH	85	GLY
29	BH	93	SER
29	BH	105	ALA
30	BI	4	LYS
30	BI	7	ALA
30	BI	31	GLN
30	BI	113	LYS
32	BK	93	GLN
33	BL	68	SER
34	BM	58	LYS
35	BN	109	PRO
35	BN	118	ARG
36	BO	60	GLU
37	BP	111	LYS
38	BQ	82	GLY
39	BR	24	LYS
39	BR	52	PRO
39	BR	70	GLU
41	BT	26	LYS
41	BT	52	GLU
42	BU	7	ARG
42	BU	98	SER
46	BY	23	ARG
48	B0	55	ILE
53	B5	46	ALA
53	B5	86	GLU
53	B5	133	GLY
53	B5	183	PRO
53	B5	203	GLU
53	B5	214	TYR
2	CB	21	ARG
2	CB	75	ALA
2	CB	102	THR
2	CB	129	LEU
2	CB	135	LEU
3	CC	54	ARG
3	CC	89	LYS
3	CC	166	GLU
4	CD	10	LYS
4	CD	26	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	CD	154	ARG
4	CD	165	ARG
5	CE	24	THR
5	CE	26	LYS
5	CE	68	ARG
5	CE	100	SER
5	CE	155	ALA
6	CF	13	ASP
6	CF	17	GLN
6	CF	53	LYS
6	CF	54	LEU
6	CF	63	ASN
7	CG	10	ARG
7	CG	84	THR
8	CH	22	LYS
8	CH	31	LYS
9	CI	91	ASP
10	CJ	92	LEU
11	CK	15	GLN
12	CL	22	PRO
12	CL	23	ALA
13	CM	24	GLY
14	CN	34	VAL
14	CN	42	TRP
15	CO	18	ASP
15	CO	20	ASN
15	CO	46	HIS
15	CO	60	VAL
16	CP	10	GLY
16	CP	26	ASN
17	CQ	13	VAL
19	CS	32	ARG
20	CT	20	HIS
21	CU	11	PRO
24	DC	13	ARG
24	DC	205	LEU
24	DC	238	ARG
25	DD	36	GLN
25	DD	43	ASP
26	DE	18	THR
27	DF	27	GLN
27	DF	43	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
27	DF	174	ASP
28	DG	8	PRO
28	DG	46	ALA
28	DG	175	LYS
29	DH	16	GLY
29	DH	40	THR
30	DI	101	ILE
32	DK	109	SER
33	DL	4	ASN
33	DL	115	GLU
34	DM	59	ARG
35	DN	70	THR
35	DN	118	ARG
36	DO	68	LYS
36	DO	99	TYR
37	DP	111	LYS
37	DP	114	LEU
41	DT	22	THR
41	DT	37	ASP
41	DT	40	LYS
42	DU	9	ASP
42	DU	98	SER
44	DW	21	LEU
44	DW	35	SER
45	DX	6	GLN
45	DX	32	ASN
46	DY	37	LEU
48	D0	55	ILE
52	D4	29	ALA
2	AB	25	PRO
2	AB	53	ALA
2	AB	88	ASP
2	AB	95	ARG
2	AB	132	LYS
2	AB	161	LEU
2	AB	224	GLY
4	AD	26	ARG
4	AD	85	ASN
4	AD	149	ALA
5	AE	69	ARG
7	AG	18	PHE
7	AG	77	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	AG	78	ARG
7	AG	113	ASP
8	AH	97	ALA
9	AI	57	MET
10	AJ	42	LEU
10	AJ	58	ASN
10	AJ	62	ARG
10	AJ	95	GLY
11	AK	41	ALA
11	AK	89	PRO
13	AM	41	GLU
14	AN	24	ARG
15	AO	26	GLU
16	AP	11	ALA
16	AP	50	THR
17	AQ	12	VAL
17	AQ	81	LYS
19	AS	6	LYS
20	AT	20	HIS
21	AU	27	GLY
24	BC	36	LYS
24	BC	37	ASN
24	BC	236	GLU
25	BD	104	VAL
26	BE	104	ALA
29	BH	83	LYS
30	BI	58	VAL
30	BI	66	SER
30	BI	72	LYS
30	BI	84	ALA
32	BK	72	PRO
32	BK	119	ALA
33	BL	12	SER
35	BN	2	ARG
35	BN	119	SER
37	BP	35	GLY
40	BS	55	ILE
41	BT	17	SER
41	BT	19	LYS
49	B1	23	THR
53	B5	65	LEU
53	B5	202	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	CB	88	ASP
2	CB	152	LYS
2	CB	166	ALA
2	CB	205	ASP
3	CC	12	LEU
3	CC	191	THR
5	CE	151	GLU
6	CF	60	VAL
9	CI	57	MET
9	CI	58	VAL
10	CJ	41	PRO
13	CM	12	HIS
14	CN	3	LYS
17	CQ	20	SER
17	CQ	49	GLU
20	CT	73	ALA
20	CT	74	ARG
21	CU	35	ARG
21	CU	53	VAL
26	DE	200	LEU
27	DF	116	GLY
28	DG	17	VAL
28	DG	47	ASP
28	DG	80	THR
29	DH	9	VAL
30	DI	9	VAL
30	DI	84	ALA
32	DK	93	GLN
32	DK	110	GLU
36	DO	57	ALA
40	DS	67	ASP
41	DT	24	MET
44	DW	20	ARG
48	D0	26	THR
51	D3	18	GLY
2	AB	63	ARG
2	AB	124	GLY
2	AB	157	LEU
2	AB	193	PRO
3	AC	66	VAL
6	AF	16	GLU
6	AF	42	TRP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	AF	54	LEU
6	AF	82	ASP
9	AI	9	THR
9	AI	37	GLN
10	AJ	43	PRO
10	AJ	75	ASP
12	AL	85	GLY
13	AM	66	GLU
16	AP	15	PRO
16	AP	77	GLU
19	AS	76	PRO
20	AT	9	LYS
24	BC	29	PRO
25	BD	18	ASP
25	BD	88	GLU
26	BE	6	LYS
26	BE	105	LEU
27	BF	134	GLU
27	BF	146	VAL
27	BF	175	PHE
29	BH	120	GLY
30	BI	101	ILE
31	BJ	25	LEU
31	BJ	39	LYS
31	BJ	60	ASP
32	BK	48	PRO
35	BN	30	ARG
35	BN	51	LEU
40	BS	15	GLN
40	BS	30	SER
45	BX	60	ASP
53	B5	104	ILE
53	B5	126	SER
2	CB	134	ALA
2	CB	209	ALA
3	CC	14	ILE
4	CD	149	ALA
5	CE	113	ALA
5	CE	122	ASN
5	CE	126	LYS
5	CE	143	GLY
7	CG	126	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	CH	67	GLN
11	CK	89	PRO
13	CM	5	ALA
13	CM	94	GLY
14	CN	50	THR
14	CN	81	ARG
16	CP	11	ALA
17	CQ	17	MET
17	CQ	70	THR
21	CU	38	TYR
24	DC	66	ASP
24	DC	260	ASN
26	DE	72	SER
31	DJ	93	ILE
33	DL	30	THR
33	DL	42	SER
33	DL	69	ARG
36	DO	77	ALA
39	DR	53	PHE
46	DY	55	THR
51	D3	57	LEU
52	D4	23	ILE
52	D4	37	GLN
4	AD	156	LYS
7	AG	87	VAL
8	AH	31	LYS
8	AH	57	PRO
9	AI	24	GLY
16	AP	36	VAL
20	AT	67	ILE
32	BK	92	GLU
33	BL	71	ALA
40	BS	66	ILE
41	BT	14	PRO
41	BT	18	GLU
41	BT	57	VAL
42	BU	50	PRO
53	B5	50	ILE
53	B5	66	PRO
53	B5	215	VAL
2	CB	17	GLY
2	CB	19	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	CF	33	GLU
7	CG	8	GLY
7	CG	80	VAL
8	CH	44	GLY
13	CM	10	PRO
24	DC	57	GLY
27	DF	41	GLY
27	DF	175	PHE
28	DG	154	PRO
30	DI	5	VAL
30	DI	13	VAL
33	DL	29	LYS
34	DM	53	MET
42	DU	41	LEU
42	DU	52	LEU
46	DY	36	GLN
49	D1	27	LYS
2	AB	202	GLY
7	AG	71	PRO
8	AH	14	ILE
9	AI	51	PRO
24	BC	136	PRO
24	BC	169	GLY
49	B1	47	VAL
3	CC	66	VAL
3	CC	103	ILE
9	CI	10	GLY
11	CK	120	GLY
34	DM	23	GLY
34	DM	77	PRO
40	DS	35	ILE
40	DS	74	ILE
2	AB	41	ILE
4	AD	125	VAL
6	AF	36	ILE
21	AU	28	VAL
24	BC	227	PRO
28	BG	54	PRO
41	BT	2	ILE
2	CB	180	GLY
24	DC	73	GLY
24	DC	245	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DD	120	GLY
28	DG	4	VAL
33	DL	103	ILE
39	DR	47	VAL
48	D0	43	ILE
2	AB	155	GLY
3	AC	101	ILE
9	AI	50	GLN
19	AS	11	ILE
30	BI	52	GLY
33	BL	114	GLY
42	BU	16	GLY
42	BU	54	GLN
4	CD	37	ALA
4	CD	167	LYS
8	CH	78	VAL
10	CJ	42	LEU
24	DC	235	GLY
30	DI	24	VAL
42	DU	25	VAL
8	AH	25	VAL
9	AI	23	PRO
33	BL	130	GLY
48	B0	54	VAL
53	B5	181	PHE
3	CC	64	ILE
3	CC	174	PRO
4	CD	28	ILE
28	DG	12	PRO
28	DG	79	VAL
37	DP	32	VAL
39	DR	49	ILE
43	DV	81	PRO
51	D3	20	GLY
13	AM	65	VAL
45	BX	64	ILE
25	DD	2	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%)	117 (65%)	63 (35%)	0	0
2	CB	180/180 (100%)	130 (72%)	50 (28%)	0	1
3	AC	170/170 (100%)	134 (79%)	36 (21%)	1	3
3	CC	170/170 (100%)	134 (79%)	36 (21%)	1	3
4	AD	172/172 (100%)	135 (78%)	37 (22%)	1	3
4	CD	172/172 (100%)	136 (79%)	36 (21%)	1	3
5	AE	113/113 (100%)	86 (76%)	27 (24%)	0	2
5	CE	113/113 (100%)	85 (75%)	28 (25%)	0	2
6	AF	87/87 (100%)	60 (69%)	27 (31%)	0	1
6	CF	87/87 (100%)	61 (70%)	26 (30%)	0	1
7	AG	124/124 (100%)	94 (76%)	30 (24%)	0	2
7	CG	124/124 (100%)	91 (73%)	33 (27%)	0	1
8	AH	104/104 (100%)	81 (78%)	23 (22%)	1	3
8	CH	104/104 (100%)	81 (78%)	23 (22%)	1	3
9	AI	105/105 (100%)	75 (71%)	30 (29%)	0	1
9	CI	105/105 (100%)	76 (72%)	29 (28%)	0	1
10	AJ	86/86 (100%)	63 (73%)	23 (27%)	0	1
10	CJ	86/86 (100%)	68 (79%)	18 (21%)	1	3
11	AK	90/90 (100%)	67 (74%)	23 (26%)	0	1
11	CK	90/90 (100%)	71 (79%)	19 (21%)	1	3
12	AL	103/103 (100%)	81 (79%)	22 (21%)	1	3
12	CL	103/103 (100%)	76 (74%)	27 (26%)	0	1
13	AM	92/92 (100%)	73 (79%)	19 (21%)	1	3
13	CM	92/92 (100%)	71 (77%)	21 (23%)	1	2
14	AN	79/83 (95%)	62 (78%)	17 (22%)	1	3
14	CN	79/83 (95%)	69 (87%)	10 (13%)	4	13
15	AO	75/76 (99%)	58 (77%)	17 (23%)	1	2
15	CO	75/76 (99%)	59 (79%)	16 (21%)	1	3
16	AP	65/65 (100%)	47 (72%)	18 (28%)	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	CP	65/65 (100%)	52 (80%)	13 (20%)	1	4
17	AQ	74/74 (100%)	49 (66%)	25 (34%)	0	0
17	CQ	74/74 (100%)	52 (70%)	22 (30%)	0	1
18	AR	48/48 (100%)	42 (88%)	6 (12%)	4	14
18	CR	48/48 (100%)	39 (81%)	9 (19%)	1	4
19	AS	70/70 (100%)	61 (87%)	9 (13%)	4	13
19	CS	70/70 (100%)	57 (81%)	13 (19%)	1	5
20	AT	65/65 (100%)	52 (80%)	13 (20%)	1	4
20	CT	65/65 (100%)	49 (75%)	16 (25%)	0	2
21	AU	44/44 (100%)	25 (57%)	19 (43%)	0	0
21	CU	44/44 (100%)	29 (66%)	15 (34%)	0	0
24	BC	216/216 (100%)	187 (87%)	29 (13%)	4	11
24	DC	216/216 (100%)	185 (86%)	31 (14%)	3	9
25	BD	164/164 (100%)	150 (92%)	14 (8%)	10	31
25	DD	164/164 (100%)	148 (90%)	16 (10%)	8	24
26	BE	165/165 (100%)	134 (81%)	31 (19%)	1	4
26	DE	165/165 (100%)	134 (81%)	31 (19%)	1	4
27	BF	148/148 (100%)	122 (82%)	26 (18%)	2	5
27	DF	148/148 (100%)	120 (81%)	28 (19%)	1	4
28	BG	137/137 (100%)	120 (88%)	17 (12%)	4	14
28	DG	137/137 (100%)	123 (90%)	14 (10%)	7	22
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%)	81 (74%)	28 (26%)	0	1
30	DI	109/109 (100%)	86 (79%)	23 (21%)	1	3
31	BJ	116/116 (100%)	97 (84%)	19 (16%)	2	7
31	DJ	116/116 (100%)	100 (86%)	16 (14%)	3	10
32	BK	103/103 (100%)	86 (84%)	17 (16%)	2	7
32	DK	103/103 (100%)	91 (88%)	12 (12%)	5	16
33	BL	102/102 (100%)	83 (81%)	19 (19%)	1	5
33	DL	102/102 (100%)	78 (76%)	24 (24%)	1	2

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	BM	109/109 (100%)	96 (88%)	13 (12%)	5	15
34	DM	109/109 (100%)	98 (90%)	11 (10%)	7	23
35	BN	100/100 (100%)	85 (85%)	15 (15%)	3	9
35	DN	100/100 (100%)	82 (82%)	18 (18%)	1	5
36	BO	86/86 (100%)	68 (79%)	18 (21%)	1	3
36	DO	86/86 (100%)	70 (81%)	16 (19%)	1	5
37	BP	99/99 (100%)	91 (92%)	8 (8%)	11	33
37	DP	99/99 (100%)	82 (83%)	17 (17%)	2	6
38	BQ	89/89 (100%)	77 (86%)	12 (14%)	4	11
38	DQ	89/89 (100%)	74 (83%)	15 (17%)	2	6
39	BR	84/84 (100%)	71 (84%)	13 (16%)	2	8
39	DR	84/84 (100%)	74 (88%)	10 (12%)	5	15
40	BS	93/93 (100%)	75 (81%)	18 (19%)	1	4
40	DS	93/93 (100%)	80 (86%)	13 (14%)	3	10
41	BT	80/80 (100%)	70 (88%)	10 (12%)	4	14
41	DT	80/80 (100%)	67 (84%)	13 (16%)	2	7
42	BU	83/83 (100%)	71 (86%)	12 (14%)	3	9
42	DU	83/83 (100%)	63 (76%)	20 (24%)	0	2
43	BV	78/78 (100%)	63 (81%)	15 (19%)	1	4
43	DV	78/78 (100%)	68 (87%)	10 (13%)	4	13
44	BW	57/58 (98%)	49 (86%)	8 (14%)	3	10
44	DW	56/58 (97%)	51 (91%)	5 (9%)	9	29
45	BX	67/67 (100%)	57 (85%)	10 (15%)	3	9
45	DX	67/67 (100%)	55 (82%)	12 (18%)	2	5
46	BY	55/55 (100%)	48 (87%)	7 (13%)	4	13
46	DY	55/55 (100%)	43 (78%)	12 (22%)	1	3
47	BZ	48/48 (100%)	38 (79%)	10 (21%)	1	3
47	DZ	48/48 (100%)	37 (77%)	11 (23%)	1	2
48	B0	47/47 (100%)	40 (85%)	7 (15%)	3	9
48	D0	47/47 (100%)	41 (87%)	6 (13%)	4	13
49	B1	45/45 (100%)	41 (91%)	4 (9%)	9	29

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	D1	45/45 (100%)	37 (82%)	8 (18%)	2	5
50	B2	38/38 (100%)	31 (82%)	7 (18%)	1	5
50	D2	38/38 (100%)	31 (82%)	7 (18%)	1	5
51	B3	51/51 (100%)	45 (88%)	6 (12%)	5	16
51	D3	51/51 (100%)	45 (88%)	6 (12%)	5	16
52	B4	34/34 (100%)	31 (91%)	3 (9%)	10	30
52	D4	34/34 (100%)	26 (76%)	8 (24%)	1	2
53	B5	61/180 (34%)	48 (79%)	13 (21%)	1	3
All	All	9386/9518 (99%)	7568 (81%)	1818 (19%)	1	4

All (1818) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	10	LEU
2	AB	14	VAL
2	AB	15	HIS
2	AB	19	GLN
2	AB	20	THR
2	AB	21	ARG
2	AB	22	TYR
2	AB	23	TRP
2	AB	27	MET
2	AB	31	ILE
2	AB	32	PHE
2	AB	38	VAL
2	AB	39	HIS
2	AB	41	ILE
2	AB	43	LEU
2	AB	44	GLU
2	AB	46	THR
2	AB	50	PHE
2	AB	52	GLU
2	AB	56	GLU
2	AB	57	LEU
2	AB	64	LYS
2	AB	66	LYS
2	AB	68	LEU
2	AB	82	ASP
2	AB	85	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AB	89	GLN
2	AB	90	PHE
2	AB	91	PHE
2	AB	100	MET
2	AB	101	LEU
2	AB	111	ILE
2	AB	112	LYS
2	AB	117	LEU
2	AB	126	PHE
2	AB	129	LEU
2	AB	130	THR
2	AB	131	LYS
2	AB	132	LYS
2	AB	133	GLU
2	AB	135	LEU
2	AB	136	MET
2	AB	139	ARG
2	AB	140	GLU
2	AB	141	LEU
2	AB	144	LEU
2	AB	151	ILE
2	AB	152	LYS
2	AB	161	LEU
2	AB	163	VAL
2	AB	164	ILE
2	AB	174	LYS
2	AB	181	ILE
2	AB	186	ILE
2	AB	188	ASP
2	AB	199	VAL
2	AB	205	ASP
2	AB	207	ILE
2	AB	208	ARG
2	AB	210	VAL
2	AB	213	TYR
2	AB	220	THR
2	AB	225	ARG
3	AC	3	GLN
3	AC	11	ARG
3	AC	14	ILE
3	AC	15	VAL
3	AC	16	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AC	18	TRP
3	AC	19	ASN
3	AC	26	THR
3	AC	27	LYS
3	AC	28	GLU
3	AC	33	LEU
3	AC	35	SER
3	AC	37	PHE
3	AC	43	LEU
3	AC	51	SER
3	AC	52	VAL
3	AC	55	ILE
3	AC	58	GLU
3	AC	59	ARG
3	AC	64	ILE
3	AC	82	GLU
3	AC	86	LYS
3	AC	93	ASP
3	AC	103	ILE
3	AC	107	ARG
3	AC	119	SER
3	AC	121	THR
3	AC	140	ASN
3	AC	142	MET
3	AC	144	LEU
3	AC	165	THR
3	AC	166	GLU
3	AC	167	TRP
3	AC	173	VAL
3	AC	185	ASN
3	AC	200	VAL
4	AD	5	LEU
4	AD	9	LEU
4	AD	13	ARG
4	AD	17	THR
4	AD	23	SER
4	AD	26	ARG
4	AD	31	LYS
4	AD	32	CYS
4	AD	34	ILE
4	AD	35	GLU
4	AD	44	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	AD	53	VAL
4	AD	58	LYS
4	AD	60	LYS
4	AD	63	ARG
4	AD	69	GLU
4	AD	70	ARG
4	AD	83	LYS
4	AD	104	ARG
4	AD	110	THR
4	AD	111	ARG
4	AD	116	GLN
4	AD	123	ILE
4	AD	128	ARG
4	AD	138	SER
4	AD	143	VAL
4	AD	152	GLN
4	AD	161	LEU
4	AD	163	GLU
4	AD	164	GLN
4	AD	167	LYS
4	AD	171	LEU
4	AD	177	LYS
4	AD	190	ASP
4	AD	195	ILE
4	AD	197	GLU
4	AD	206	LYS
5	AE	10	GLU
5	AE	15	LEU
5	AE	18	VAL
5	AE	21	VAL
5	AE	22	SER
5	AE	29	ARG
5	AE	32	SER
5	AE	38	VAL
5	AE	46	VAL
5	AE	54	ARG
5	AE	56	VAL
5	AE	69	ARG
5	AE	73	ASN
5	AE	83	HIS
5	AE	92	SER
5	AE	93	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	AE	114	VAL
5	AE	115	LEU
5	AE	122	ASN
5	AE	123	VAL
5	AE	124	LEU
5	AE	126	LYS
5	AE	131	THR
5	AE	134	ILE
5	AE	136	VAL
5	AE	149	SER
5	AE	153	VAL
6	AF	5	GLU
6	AF	7	VAL
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	44	ARG
6	AF	45	ARG
6	AF	51	ILE
6	AF	52	ASN
6	AF	54	LEU
6	AF	55	HIS
6	AF	62	MET
6	AF	63	ASN
6	AF	68	GLN
6	AF	77	THR
6	AF	82	ASP
6	AF	84	VAL
6	AF	85	ILE
6	AF	86	ARG
6	AF	87	SER
6	AF	93	LYS
6	AF	96	VAL
6	AF	97	THR
6	AF	100	SER
7	AG	4	ARG
7	AG	6	VAL
7	AG	7	ILE
7	AG	9	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	AG	10	ARG
7	AG	13	LEU
7	AG	23	LEU
7	AG	32	VAL
7	AG	36	LYS
7	AG	37	SER
7	AG	43	VAL
7	AG	48	GLU
7	AG	49	THR
7	AG	52	GLN
7	AG	59	LEU
7	AG	62	PHE
7	AG	63	GLU
7	AG	75	VAL
7	AG	76	LYS
7	AG	78	ARG
7	AG	79	ARG
7	AG	80	VAL
7	AG	89	VAL
7	AG	95	ARG
7	AG	115	SER
7	AG	120	LEU
7	AG	135	VAL
7	AG	136	LYS
7	AG	142	HIS
7	AG	144	MET
8	AH	3	MET
8	AH	11	LEU
8	AH	13	ARG
8	AH	22	LYS
8	AH	26	THR
8	AH	30	SER
8	AH	32	LEU
8	AH	42	GLU
8	AH	47	GLU
8	AH	49	PHE
8	AH	77	ARG
8	AH	79	SER
8	AH	83	LEU
8	AH	87	LYS
8	AH	89	LYS
8	AH	90	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	AH	99	LEU
8	AH	104	VAL
8	AH	107	SER
8	AH	111	MET
8	AH	112	THR
8	AH	121	LEU
8	AH	125	ILE
9	AI	7	TYR
9	AI	11	ARG
9	AI	12	ARG
9	AI	18	ARG
9	AI	22	LYS
9	AI	30	ILE
9	AI	33	ARG
9	AI	36	GLU
9	AI	43	THR
9	AI	45	ARG
9	AI	46	MET
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	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	106	ARG
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	17	LEU
10	AJ	25	ILE
10	AJ	27	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	AJ	28	THR
10	AJ	40	ILE
10	AJ	42	LEU
10	AJ	44	THR
10	AJ	47	GLU
10	AJ	50	THR
10	AJ	52	LEU
10	AJ	53	ILE
10	AJ	59	LYS
10	AJ	63	ASP
10	AJ	73	LEU
10	AJ	75	ASP
10	AJ	83	THR
10	AJ	84	VAL
10	AJ	89	ARG
10	AJ	91	ASP
10	AJ	92	LEU
10	AJ	101	SER
11	AK	16	VAL
11	AK	17	SER
11	AK	23	ILE
11	AK	31	ILE
11	AK	38	GLN
11	AK	50	SER
11	AK	52	PHE
11	AK	58	SER
11	AK	65	VAL
11	AK	74	VAL
11	AK	76	GLU
11	AK	79	ILE
11	AK	81	ASN
11	AK	97	ILE
11	AK	101	ASN
11	AK	107	ILE
11	AK	111	THR
11	AK	112	ASP
11	AK	114	THR
11	AK	119	ASN
11	AK	126	LYS
11	AK	128	ARG
11	AK	129	VAL
12	AL	4	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	AL	5	ASN
12	AL	10	LYS
12	AL	21	VAL
12	AL	25	GLU
12	AL	29	GLN
12	AL	44	LYS
12	AL	51	LYS
12	AL	54	ARG
12	AL	58	THR
12	AL	62	GLU
12	AL	63	VAL
12	AL	74	LEU
12	AL	76	GLU
12	AL	80	ILE
12	AL	86	ARG
12	AL	89	ASP
12	AL	102	LEU
12	AL	105	SER
12	AL	110	ARG
12	AL	116	LYS
12	AL	121	ARG
13	AM	4	ILE
13	AM	7	ILE
13	AM	11	ASP
13	AM	13	LYS
13	AM	14	HIS
13	AM	16	VAL
13	AM	25	VAL
13	AM	27	LYS
13	AM	29	ARG
13	AM	55	THR
13	AM	63	PHE
13	AM	68	ASP
13	AM	72	GLU
13	AM	80	LEU
13	AM	87	ARG
13	AM	89	LEU
13	AM	90	ARG
13	AM	107	ARG
13	AM	108	THR
14	AN	7	LYS
14	AN	24	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	AN	26	GLU
14	AN	28	LYS
14	AN	41	ARG
14	AN	43	ASN
14	AN	46	LEU
14	AN	49	GLN
14	AN	51	LEU
14	AN	59	ARG
14	AN	62	ASN
14	AN	63	ARG
14	AN	69	ARG
14	AN	76	LYS
14	AN	85	ARG
14	AN	98	LYS
14	AN	100	SER
15	AO	4	SER
15	AO	6	GLU
15	AO	17	ARG
15	AO	18	ASP
15	AO	31	LEU
15	AO	39	LEU
15	AO	40	GLN
15	AO	48	LYS
15	AO	57	LEU
15	AO	58	ARG
15	AO	59	MET
15	AO	67	LEU
15	AO	70	LEU
15	AO	75	VAL
15	AO	79	THR
15	AO	85	LEU
15	AO	87	LEU
16	AP	1	MET
16	AP	2	VAL
16	AP	5	ARG
16	AP	6	LEU
16	AP	8	ARG
16	AP	20	VAL
16	AP	31	ARG
16	AP	33	ILE
16	AP	39	PHE
16	AP	46	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	AP	51	ARG
16	AP	63	GLN
16	AP	67	ILE
16	AP	71	VAL
16	AP	75	ILE
16	AP	76	LYS
16	AP	78	VAL
16	AP	80	LYS
17	AQ	4	LYS
17	AQ	11	ARG
17	AQ	13	VAL
17	AQ	14	SER
17	AQ	16	LYS
17	AQ	17	MET
17	AQ	19	LYS
17	AQ	21	ILE
17	AQ	22	VAL
17	AQ	26	GLU
17	AQ	28	PHE
17	AQ	29	VAL
17	AQ	38	ILE
17	AQ	51	ASN
17	AQ	52	GLU
17	AQ	53	CYS
17	AQ	55	ILE
17	AQ	59	VAL
17	AQ	64	CYS
17	AQ	67	LEU
17	AQ	75	LEU
17	AQ	76	VAL
17	AQ	77	ARG
17	AQ	81	LYS
17	AQ	83	VAL
18	AR	29	LEU
18	AR	30	LYS
18	AR	36	SER
18	AR	43	ARG
18	AR	55	LEU
18	AR	71	THR
19	AS	6	LYS
19	AS	15	LEU
19	AS	21	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
19	AS	27	ASP
19	AS	55	ARG
19	AS	63	THR
19	AS	65	GLU
19	AS	71	LEU
19	AS	79	THR
20	AT	3	ASN
20	AT	5	LYS
20	AT	8	LYS
20	AT	12	ILE
20	AT	27	MET
20	AT	30	THR
20	AT	34	LYS
20	AT	36	TYR
20	AT	54	MET
20	AT	69	LYS
20	AT	70	ASN
20	AT	76	LYS
20	AT	84	ASN
21	AU	5	LYS
21	AU	9	ASN
21	AU	10	GLU
21	AU	12	PHE
21	AU	16	LEU
21	AU	17	ARG
21	AU	18	ARG
21	AU	19	PHE
21	AU	20	LYS
21	AU	28	VAL
21	AU	29	LEU
21	AU	33	ARG
21	AU	34	ARG
21	AU	37	PHE
21	AU	44	GLU
21	AU	46	LYS
21	AU	47	ARG
21	AU	53	VAL
21	AU	54	LYS
24	BC	5	LYS
24	BC	14	ARG
24	BC	18	LYS
24	BC	24	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
24	BC	39	LYS
24	BC	50	THR
24	BC	64	ILE
24	BC	97	LYS
24	BC	105	LEU
24	BC	111	LYS
24	BC	117	GLN
24	BC	121	ASP
24	BC	125	LYS
24	BC	130	LEU
24	BC	139	SER
24	BC	156	ARG
24	BC	164	ILE
24	BC	174	LEU
24	BC	177	ARG
24	BC	181	MET
24	BC	187	ASP
24	BC	195	VAL
24	BC	197	ASN
24	BC	199	GLU
24	BC	213	TRP
24	BC	245	VAL
24	BC	258	ARG
24	BC	265	LYS
24	BC	268	VAL
25	BD	12	THR
25	BD	13	ARG
25	BD	52	THR
25	BD	73	VAL
25	BD	83	ARG
25	BD	89	GLU
25	BD	95	SER
25	BD	116	LYS
25	BD	121	THR
25	BD	136	ASN
25	BD	150	GLN
25	BD	157	LYS
25	BD	177	VAL
25	BD	204	LYS
26	BE	4	VAL
26	BE	40	ARG
26	BE	44	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	BE	49	ARG
26	BE	55	SER
26	BE	72	SER
26	BE	77	ILE
26	BE	80	SER
26	BE	88	ARG
26	BE	90	GLN
26	BE	93	SER
26	BE	107	SER
26	BE	108	ILE
26	BE	109	LEU
26	BE	111	GLU
26	BE	114	ARG
26	BE	115	GLN
26	BE	116	ASP
26	BE	120	VAL
26	BE	123	LYS
26	BE	126	VAL
26	BE	136	GLN
26	BE	149	ILE
26	BE	159	LEU
26	BE	163	ASN
26	BE	170	ARG
26	BE	171	ASP
26	BE	176	ASP
26	BE	181	ILE
26	BE	189	THR
26	BE	198	GLU
27	BF	3	LYS
27	BF	14	LYS
27	BF	17	MET
27	BF	25	VAL
27	BF	27	GLN
27	BF	31	VAL
27	BF	35	THR
27	BF	36	LEU
27	BF	42	GLU
27	BF	44	ILE
27	BF	48	LYS
27	BF	51	ASP
27	BF	57	LEU
27	BF	61	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
27	BF	78	LYS
27	BF	83	TYR
27	BF	95	ARG
27	BF	105	THR
27	BF	108	VAL
27	BF	113	ASP
27	BF	141	ILE
27	BF	142	ASP
27	BF	147	ASP
27	BF	155	THR
27	BF	158	THR
27	BF	176	PRO
28	BG	10	VAL
28	BG	11	VAL
28	BG	20	ASN
28	BG	27	LYS
28	BG	39	ASP
28	BG	67	THR
28	BG	77	ILE
28	BG	80	THR
28	BG	87	LEU
28	BG	92	VAL
28	BG	124	GLU
28	BG	139	GLN
28	BG	149	ARG
28	BG	152	ARG
28	BG	155	GLU
28	BG	166	ASP
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
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

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
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	3	LYS
30	BI	8	TYR
30	BI	9	VAL
30	BI	11	LEU
30	BI	28	LEU
30	BI	31	GLN
30	BI	34	ASN
30	BI	38	PHE
30	BI	47	ASP
30	BI	50	GLU
30	BI	60	THR
30	BI	62	TYR
30	BI	67	PHE
30	BI	69	PHE
30	BI	72	LYS
30	BI	82	LYS
30	BI	86	ILE
30	BI	87	LYS
30	BI	96	ASP
30	BI	97	LYS
30	BI	100	LYS
30	BI	102	SER
30	BI	103	ARG
30	BI	108	GLU
30	BI	111	GLN
30	BI	132	THR
30	BI	135	SER
30	BI	136	MET
31	BJ	1	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
31	BJ	13	ARG
31	BJ	23	LYS
31	BJ	27	ARG
31	BJ	30	THR
31	BJ	39	LYS
31	BJ	40	HIS
31	BJ	43	GLU
31	BJ	61	LYS
31	BJ	64	VAL
31	BJ	65	THR
31	BJ	69	ARG
31	BJ	70	THR
31	BJ	78	THR
31	BJ	96	ARG
31	BJ	101	ILE
31	BJ	109	LEU
31	BJ	124	VAL
31	BJ	135	GLN
32	BK	20	MET
32	BK	21	CYS
32	BK	38	ILE
32	BK	41	ILE
32	BK	49	ARG
32	BK	58	LEU
32	BK	61	VAL
32	BK	66	LYS
32	BK	70	ARG
32	BK	77	ILE
32	BK	80	ASP
32	BK	84	CYS
32	BK	88	ASN
32	BK	91	SER
32	BK	92	GLU
32	BK	107	LEU
32	BK	117	SER
33	BL	2	ARG
33	BL	7	SER
33	BL	19	LEU
33	BL	21	ARG
33	BL	27	LEU
33	BL	39	LYS
33	BL	40	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	BL	47	ARG
33	BL	48	ARG
33	BL	76	GLU
33	BL	78	ARG
33	BL	82	LEU
33	BL	85	VAL
33	BL	86	GLU
33	BL	93	ASN
33	BL	100	ILE
33	BL	115	GLU
33	BL	126	ARG
33	BL	144	GLU
34	BM	10	ARG
34	BM	18	ARG
34	BM	24	THR
34	BM	46	ILE
34	BM	58	LYS
34	BM	69	PRO
34	BM	70	ASP
34	BM	100	LYS
34	BM	106	ASP
34	BM	110	GLU
34	BM	115	GLU
34	BM	134	THR
34	BM	135	VAL
35	BN	2	ARG
35	BN	15	SER
35	BN	24	MET
35	BN	27	SER
35	BN	32	GLU
35	BN	36	THR
35	BN	69	ARG
35	BN	70	THR
35	BN	71	ARG
35	BN	89	SER
35	BN	90	ARG
35	BN	96	ARG
35	BN	116	VAL
35	BN	117	ASP
35	BN	120	GLU
36	BO	2	ASP
36	BO	4	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
36	BO	5	SER
36	BO	9	ARG
36	BO	17	LYS
36	BO	18	LEU
36	BO	28	VAL
36	BO	31	THR
36	BO	36	TYR
36	BO	45	SER
36	BO	47	VAL
36	BO	49	VAL
36	BO	65	THR
36	BO	74	VAL
36	BO	78	VAL
36	BO	88	LYS
36	BO	89	ASP
36	BO	102	ARG
37	BP	2	SER
37	BP	27	GLU
37	BP	63	LYS
37	BP	68	GLU
37	BP	72	ARG
37	BP	109	ARG
37	BP	110	ILE
37	BP	114	LEU
38	BQ	6	ARG
38	BQ	9	ILE
38	BQ	17	ILE
38	BQ	18	LEU
38	BQ	29	SER
38	BQ	51	ARG
38	BQ	52	GLN
38	BQ	58	ARG
38	BQ	78	LYS
38	BQ	87	SER
38	BQ	92	ARG
38	BQ	112	LYS
39	BR	6	GLN
39	BR	10	LYS
39	BR	14	VAL
39	BR	16	GLU
39	BR	20	VAL
39	BR	38	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	BR	41	ILE
39	BR	48	LYS
39	BR	54	VAL
39	BR	58	VAL
39	BR	85	LYS
39	BR	94	THR
39	BR	102	SER
40	BS	1	MET
40	BS	4	ILE
40	BS	6	LYS
40	BS	11	ARG
40	BS	15	GLN
40	BS	19	LEU
40	BS	28	LYS
40	BS	30	SER
40	BS	47	VAL
40	BS	76	VAL
40	BS	81	SER
40	BS	82	MET
40	BS	95	ARG
40	BS	97	LEU
40	BS	101	SER
40	BS	107	VAL
40	BS	108	SER
40	BS	109	ASP
41	BT	1	MET
41	BT	5	GLU
41	BT	11	LEU
41	BT	22	THR
41	BT	30	ILE
41	BT	39	THR
41	BT	49	LYS
41	BT	50	LEU
41	BT	74	ILE
41	BT	89	GLU
42	BU	9	ASP
42	BU	14	LEU
42	BU	21	LYS
42	BU	24	LYS
42	BU	26	LYS
42	BU	29	LEU
42	BU	52	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
42	BU	61	LYS
42	BU	62	GLU
42	BU	68	SER
42	BU	72	ILE
42	BU	100	SER
43	BV	1	MET
43	BV	3	THR
43	BV	8	VAL
43	BV	10	LYS
43	BV	11	GLU
43	BV	17	SER
43	BV	18	ARG
43	BV	20	LEU
43	BV	29	ILE
43	BV	53	LYS
43	BV	58	SER
43	BV	61	LEU
43	BV	65	VAL
43	BV	77	VAL
43	BV	85	LYS
44	BW	20	ARG
44	BW	44	LYS
44	BW	60	PHE
44	BW	64	ASP
44	BW	66	LYS
44	BW	72	LYS
44	BW	77	ARG
44	BW	81	SER
45	BX	2	SER
45	BX	5	CYS
45	BX	18	ARG
45	BX	25	THR
45	BX	28	ARG
45	BX	37	ARG
45	BX	40	VAL
45	BX	48	THR
45	BX	51	VAL
45	BX	77	LYS
46	BY	6	LEU
46	BY	12	GLU
46	BY	13	GLU
46	BY	16	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
46	BY	29	ARG
46	BY	37	LEU
46	BY	59	GLU
47	BZ	3	LYS
47	BZ	8	THR
47	BZ	10	THR
47	BZ	23	THR
47	BZ	25	LEU
47	BZ	31	ARG
47	BZ	32	ILE
47	BZ	45	ARG
47	BZ	57	VAL
47	BZ	59	GLU
48	B0	15	MET
48	B0	17	ARG
48	B0	23	THR
48	B0	29	SER
48	B0	36	GLU
48	B0	40	ARG
48	B0	57	LYS
49	B1	43	VAL
49	B1	46	HIS
49	B1	47	VAL
49	B1	51	GLU
50	B2	1	MET
50	B2	8	SER
50	B2	11	LYS
50	B2	15	SER
50	B2	35	ARG
50	B2	42	LEU
50	B2	45	SER
51	B3	15	LYS
51	B3	16	LYS
51	B3	17	THR
51	B3	31	HIS
51	B3	41	LYS
51	B3	47	LYS
52	B4	3	VAL
52	B4	6	SER
52	B4	18	LYS
53	B5	21	TYR
53	B5	35	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	B5	37	LYS
53	B5	38	PHE
53	B5	39	ASP
53	B5	47	LYS
53	B5	48	LEU
53	B5	58	ASN
53	B5	59	VAL
53	B5	65	LEU
53	B5	73	VAL
53	B5	78	ILE
53	B5	86	GLU
2	CB	9	MET
2	CB	14	VAL
2	CB	15	HIS
2	CB	16	PHE
2	CB	18	HIS
2	CB	19	GLN
2	CB	20	THR
2	CB	23	TRP
2	CB	24	ASN
2	CB	27	MET
2	CB	28	LYS
2	CB	35	ARG
2	CB	40	ILE
2	CB	43	LEU
2	CB	49	MET
2	CB	50	PHE
2	CB	62	SER
2	CB	66	LYS
2	CB	67	ILE
2	CB	68	LEU
2	CB	77	SER
2	CB	88	ASP
2	CB	89	GLN
2	CB	91	PHE
2	CB	94	HIS
2	CB	95	ARG
2	CB	96	TRP
2	CB	103	ASN
2	CB	106	THR
2	CB	117	LEU
2	CB	122	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	CB	125	THR
2	CB	126	PHE
2	CB	130	THR
2	CB	133	GLU
2	CB	136	MET
2	CB	139	ARG
2	CB	140	GLU
2	CB	143	LYS
2	CB	144	LEU
2	CB	163	VAL
2	CB	164	ILE
2	CB	174	LYS
2	CB	188	ASP
2	CB	205	ASP
2	CB	207	ILE
2	CB	210	VAL
2	CB	220	THR
2	CB	222	ARG
2	CB	223	GLU
3	CC	3	GLN
3	CC	15	VAL
3	CC	16	LYS
3	CC	18	TRP
3	CC	25	ASN
3	CC	26	THR
3	CC	27	LYS
3	CC	28	GLU
3	CC	29	PHE
3	CC	33	LEU
3	CC	36	ASP
3	CC	37	PHE
3	CC	43	LEU
3	CC	45	LYS
3	CC	70	THR
3	CC	80	LYS
3	CC	102	ASN
3	CC	103	ILE
3	CC	107	ARG
3	CC	111	LEU
3	CC	119	SER
3	CC	121	THR
3	CC	129	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CC	131	ARG
3	CC	132	ARG
3	CC	140	ASN
3	CC	144	LEU
3	CC	151	VAL
3	CC	153	VAL
3	CC	167	TRP
3	CC	168	TYR
3	CC	175	LEU
3	CC	179	ARG
3	CC	190	HIS
3	CC	192	THR
3	CC	193	TYR
4	CD	8	LYS
4	CD	9	LEU
4	CD	12	SER
4	CD	23	SER
4	CD	28	ILE
4	CD	29	ASP
4	CD	32	CYS
4	CD	33	LYS
4	CD	47	ARG
4	CD	48	LEU
4	CD	54	GLN
4	CD	55	LEU
4	CD	56	ARG
4	CD	58	LYS
4	CD	59	GLN
4	CD	60	LYS
4	CD	63	ARG
4	CD	69	GLU
4	CD	83	LYS
4	CD	125	VAL
4	CD	126	ASN
4	CD	129	VAL
4	CD	138	SER
4	CD	151	LYS
4	CD	152	GLN
4	CD	153	SER
4	CD	155	VAL
4	CD	161	LEU
4	CD	163	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	CD	179	GLU
4	CD	184	ARG
4	CD	191	LEU
4	CD	199	LEU
4	CD	200	ILE
4	CD	203	LEU
4	CD	206	LYS
5	CE	10	GLU
5	CE	15	LEU
5	CE	26	LYS
5	CE	32	SER
5	CE	39	VAL
5	CE	46	VAL
5	CE	52	LYS
5	CE	65	GLU
5	CE	69	ARG
5	CE	77	ASN
5	CE	81	LEU
5	CE	92	SER
5	CE	93	ARG
5	CE	96	MET
5	CE	101	GLU
5	CE	112	ARG
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
5	CE	140	THR
5	CE	149	SER
5	CE	151	GLU
5	CE	152	MET
5	CE	156	LYS
6	CF	1	MET
6	CF	2	ARG
6	CF	7	VAL
6	CF	8	PHE
6	CF	18	VAL
6	CF	23	GLU
6	CF	24	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	CF	26	THR
6	CF	29	ILE
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	68	GLN
6	CF	69	GLU
6	CF	71	ILE
6	CF	73	GLU
6	CF	75	GLU
6	CF	80	PHE
6	CF	87	SER
6	CF	93	LYS
6	CF	97	THR
7	CG	3	ARG
7	CG	4	ARG
7	CG	5	ARG
7	CG	6	VAL
7	CG	11	LYS
7	CG	22	LEU
7	CG	23	LEU
7	CG	30	LEU
7	CG	36	LYS
7	CG	47	LEU
7	CG	48	GLU
7	CG	53	ARG
7	CG	59	LEU
7	CG	60	GLU
7	CG	62	PHE
7	CG	66	LEU
7	CG	69	VAL
7	CG	70	ARG
7	CG	75	VAL
7	CG	78	ARG
7	CG	84	THR
7	CG	87	VAL
7	CG	91	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	CG	95	ARG
7	CG	120	LEU
7	CG	123	GLU
7	CG	129	GLU
7	CG	133	THR
7	CG	135	VAL
7	CG	138	ARG
7	CG	139	GLU
7	CG	140	ASP
7	CG	146	GLU
8	CH	3	MET
8	CH	13	ARG
8	CH	22	LYS
8	CH	31	LYS
8	CH	33	LYS
8	CH	42	GLU
8	CH	45	PHE
8	CH	47	GLU
8	CH	49	PHE
8	CH	54	ASP
8	CH	55	THR
8	CH	59	LEU
8	CH	75	ILE
8	CH	77	ARG
8	CH	80	ARG
8	CH	87	LYS
8	CH	90	ASP
8	CH	92	LEU
8	CH	104	VAL
8	CH	111	MET
8	CH	112	THR
8	CH	121	LEU
8	CH	125	ILE
9	CI	9	THR
9	CI	11	ARG
9	CI	13	LYS
9	CI	18	ARG
9	CI	33	ARG
9	CI	34	SER
9	CI	43	THR
9	CI	45	ARG
9	CI	46	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	CI	48	VAL
9	CI	49	ARG
9	CI	56	ASP
9	CI	57	MET
9	CI	61	LEU
9	CI	68	LYS
9	CI	85	ARG
9	CI	88	MET
9	CI	89	GLU
9	CI	90	TYR
9	CI	94	LEU
9	CI	96	SER
9	CI	97	GLU
9	CI	99	ARG
9	CI	100	LYS
9	CI	105	THR
9	CI	112	GLU
9	CI	126	GLN
9	CI	127	PHE
9	CI	129	LYS
10	CJ	9	ARG
10	CJ	22	THR
10	CJ	25	ILE
10	CJ	27	GLU
10	CJ	32	THR
10	CJ	35	GLN
10	CJ	45	ARG
10	CJ	48	ARG
10	CJ	51	VAL
10	CJ	59	LYS
10	CJ	63	ASP
10	CJ	66	GLU
10	CJ	80	THR
10	CJ	83	THR
10	CJ	84	VAL
10	CJ	87	LEU
10	CJ	89	ARG
10	CJ	92	LEU
11	CK	13	ARG
11	CK	14	LYS
11	CK	15	GLN
11	CK	31	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	CK	50	SER
11	CK	52	PHE
11	CK	64	GLN
11	CK	65	VAL
11	CK	81	ASN
11	CK	82	LEU
11	CK	83	GLU
11	CK	87	LYS
11	CK	96	THR
11	CK	101	ASN
11	CK	105	PHE
11	CK	106	ARG
11	CK	107	ILE
11	CK	126	LYS
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	21	VAL
12	CL	29	GLN
12	CL	30	LYS
12	CL	44	LYS
12	CL	58	THR
12	CL	59	ASN
12	CL	62	GLU
12	CL	63	VAL
12	CL	82	ILE
12	CL	83	ARG
12	CL	89	ASP
12	CL	90	LEU
12	CL	93	VAL
12	CL	94	ARG
12	CL	105	SER
12	CL	110	ARG
12	CL	111	LYS
12	CL	116	LYS
12	CL	121	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	CM	19	LEU
13	CM	25	VAL
13	CM	29	ARG
13	CM	30	SER
13	CM	31	LYS
13	CM	33	ILE
13	CM	34	LEU
13	CM	41	GLU
13	CM	48	LEU
13	CM	53	ILE
13	CM	56	LEU
13	CM	59	GLU
13	CM	60	VAL
13	CM	63	PHE
13	CM	68	ASP
13	CM	72	GLU
13	CM	80	LEU
13	CM	83	LEU
13	CM	90	ARG
13	CM	91	HIS
13	CM	101	ARG
14	CN	4	GLN
14	CN	23	LYS
14	CN	26	GLU
14	CN	28	LYS
14	CN	35	ASN
14	CN	48	LEU
14	CN	53	ARG
14	CN	71	HIS
14	CN	80	SER
14	CN	90	ARG
15	CO	6	GLU
15	CO	17	ARG
15	CO	18	ASP
15	CO	22	THR
15	CO	26	GLU
15	CO	35	GLN
15	CO	38	HIS
15	CO	48	LYS
15	CO	58	ARG
15	CO	64	ARG
15	CO	70	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
15	CO	73	LYS
15	CO	79	THR
15	CO	85	LEU
15	CO	87	LEU
15	CO	88	ARG
16	CP	1	MET
16	CP	2	VAL
16	CP	3	THR
16	CP	5	ARG
16	CP	20	VAL
16	CP	26	ASN
16	CP	31	ARG
16	CP	36	VAL
16	CP	46	LYS
16	CP	63	GLN
16	CP	74	LEU
16	CP	77	GLU
16	CP	80	LYS
17	CQ	4	LYS
17	CQ	5	ILE
17	CQ	11	ARG
17	CQ	14	SER
17	CQ	17	MET
17	CQ	18	GLU
17	CQ	23	VAL
17	CQ	25	ILE
17	CQ	28	PHE
17	CQ	29	VAL
17	CQ	40	ARG
17	CQ	48	ASP
17	CQ	50	ASN
17	CQ	52	GLU
17	CQ	55	ILE
17	CQ	65	ARG
17	CQ	75	LEU
17	CQ	76	VAL
17	CQ	78	VAL
17	CQ	79	VAL
17	CQ	81	LYS
17	CQ	83	VAL
18	CR	29	LEU
18	CR	33	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
18	CR	42	SER
18	CR	45	THR
18	CR	47	THR
18	CR	48	ARG
18	CR	57	ARG
18	CR	59	ILE
18	CR	67	LEU
19	CS	5	LEU
19	CS	6	LYS
19	CS	11	ILE
19	CS	13	LEU
19	CS	14	HIS
19	CS	16	LEU
19	CS	23	VAL
19	CS	27	ASP
19	CS	28	LYS
19	CS	33	THR
19	CS	49	ILE
19	CS	56	GLN
19	CS	73	GLU
20	CT	5	LYS
20	CT	6	SER
20	CT	8	LYS
20	CT	10	ARG
20	CT	14	SER
20	CT	15	GLU
20	CT	24	ARG
20	CT	27	MET
20	CT	29	ARG
20	CT	36	TYR
20	CT	49	LYS
20	CT	64	LYS
20	CT	67	ILE
20	CT	76	LYS
20	CT	78	ASN
20	CT	79	LEU
21	CU	5	LYS
21	CU	7	ARG
21	CU	10	GLU
21	CU	12	PHE
21	CU	14	VAL
21	CU	16	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	CU	19	PHE
21	CU	24	GLU
21	CU	28	VAL
21	CU	34	ARG
21	CU	36	GLU
21	CU	37	PHE
21	CU	38	TYR
21	CU	43	THR
21	CU	47	ARG
24	DC	3	VAL
24	DC	20	VAL
24	DC	28	LYS
24	DC	36	LYS
24	DC	40	SER
24	DC	48	ARG
24	DC	52	ARG
24	DC	54	ILE
24	DC	64	ILE
24	DC	80	ARG
24	DC	98	ASP
24	DC	103	TYR
24	DC	104	ILE
24	DC	105	LEU
24	DC	111	LYS
24	DC	130	LEU
24	DC	156	ARG
24	DC	157	SER
24	DC	160	THR
24	DC	174	LEU
24	DC	175	ARG
24	DC	189	ARG
24	DC	191	THR
24	DC	195	VAL
24	DC	202	LEU
24	DC	205	LEU
24	DC	250	VAL
24	DC	256	LYS
24	DC	259	SER
24	DC	266	PHE
24	DC	267	ILE
25	DD	1	MET
25	DD	4	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DD	12	THR
25	DD	28	GLU
25	DD	33	ARG
25	DD	86	GLU
25	DD	91	THR
25	DD	95	SER
25	DD	100	LEU
25	DD	104	VAL
25	DD	150	GLN
25	DD	154	LYS
25	DD	170	VAL
25	DD	172	VAL
25	DD	189	VAL
25	DD	200	ASP
26	DE	22	ASP
26	DE	32	VAL
26	DE	40	ARG
26	DE	41	GLN
26	DE	46	GLN
26	DE	63	LYS
26	DE	69	ARG
26	DE	77	ILE
26	DE	78	TRP
26	DE	83	VAL
26	DE	84	THR
26	DE	91	ASP
26	DE	102	ARG
26	DE	107	SER
26	DE	108	ILE
26	DE	114	ARG
26	DE	118	LEU
26	DE	120	VAL
26	DE	125	SER
26	DE	127	GLU
26	DE	131	THR
26	DE	133	LEU
26	DE	149	ILE
26	DE	159	LEU
26	DE	164	LEU
26	DE	170	ARG
26	DE	171	ASP
26	DE	173	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	DE	181	ILE
26	DE	187	VAL
26	DE	200	LEU
27	DF	4	LEU
27	DF	6	ASP
27	DF	10	ASP
27	DF	14	LYS
27	DF	21	ASN
27	DF	26	MET
27	DF	28	VAL
27	DF	32	GLU
27	DF	35	THR
27	DF	36	LEU
27	DF	52	ASN
27	DF	64	LYS
27	DF	67	ILE
27	DF	74	VAL
27	DF	81	GLN
27	DF	83	TYR
27	DF	87	CYS
27	DF	92	ARG
27	DF	95	ARG
27	DF	106	ILE
27	DF	125	ARG
27	DF	133	ARG
27	DF	147	ASP
27	DF	149	VAL
27	DF	157	THR
27	DF	162	SER
27	DF	174	ASP
27	DF	178	ARG
28	DG	11	VAL
28	DG	29	LYS
28	DG	30	ASN
28	DG	42	GLU
28	DG	44	LYS
28	DG	48	ASN
28	DG	51	THR
28	DG	89	LEU
28	DG	95	ARG
28	DG	127	THR
28	DG	129	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	DG	141	ILE
28	DG	152	ARG
28	DG	155	GLU
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
30	DI	11	LEU
30	DI	12	GLN
30	DI	17	MET
30	DI	24	VAL
30	DI	31	GLN
30	DI	40	LYS
30	DI	48	SER
30	DI	68	THR
30	DI	69	PHE
30	DI	72	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	DI	87	LYS
30	DI	95	LYS
30	DI	96	ASP
30	DI	97	LYS
30	DI	105	GLN
30	DI	117	MET
30	DI	125	MET
30	DI	127	ARG
30	DI	128	SER
30	DI	134	ARG
31	DJ	1	MET
31	DJ	3	THR
31	DJ	37	ARG
31	DJ	39	LYS
31	DJ	40	HIS
31	DJ	64	VAL
31	DJ	72	LYS
31	DJ	73	VAL
31	DJ	81	ILE
31	DJ	86	GLN
31	DJ	90	GLU
31	DJ	129	GLU
31	DJ	131	ASN
31	DJ	138	GLN
31	DJ	140	LEU
31	DJ	142	ILE
32	DK	41	ILE
32	DK	42	THR
32	DK	49	ARG
32	DK	53	LYS
32	DK	67	LYS
32	DK	70	ARG
32	DK	90	ASN
32	DK	92	GLU
32	DK	95	ILE
32	DK	104	THR
32	DK	110	GLU
32	DK	114	LYS
33	DL	6	LEU
33	DL	12	SER
33	DL	19	LEU
33	DL	27	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	DL	42	SER
33	DL	46	VAL
33	DL	47	ARG
33	DL	48	ARG
33	DL	59	ARG
33	DL	60	ARG
33	DL	78	ARG
33	DL	80	SER
33	DL	82	LEU
33	DL	85	VAL
33	DL	91	ASP
33	DL	94	THR
33	DL	95	LEU
33	DL	96	LYS
33	DL	100	ILE
33	DL	103	ILE
33	DL	107	PHE
33	DL	118	THR
33	DL	126	ARG
33	DL	143	GLU
34	DM	6	ARG
34	DM	14	LYS
34	DM	59	ARG
34	DM	70	ASP
34	DM	74	THR
34	DM	108	VAL
34	DM	124	LEU
34	DM	126	ILE
34	DM	127	LYS
34	DM	128	THR
34	DM	132	THR
35	DN	2	ARG
35	DN	6	SER
35	DN	8	ARG
35	DN	14	SER
35	DN	20	MET
35	DN	22	ARG
35	DN	53	THR
35	DN	63	ARG
35	DN	70	THR
35	DN	71	ARG
35	DN	76	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	DN	79	LEU
35	DN	82	GLU
35	DN	96	ARG
35	DN	100	CYS
35	DN	114	GLU
35	DN	115	LEU
35	DN	116	VAL
36	DO	9	ARG
36	DO	18	LEU
36	DO	26	LEU
36	DO	31	THR
36	DO	47	VAL
36	DO	48	LEU
36	DO	67	ASN
36	DO	74	VAL
36	DO	78	VAL
36	DO	88	LYS
36	DO	89	ASP
36	DO	95	SER
36	DO	100	HIS
36	DO	102	ARG
36	DO	103	VAL
36	DO	116	GLN
37	DP	19	SER
37	DP	26	VAL
37	DP	32	VAL
37	DP	34	GLU
37	DP	36	SER
37	DP	37	LYS
37	DP	51	ARG
37	DP	64	ILE
37	DP	65	SER
37	DP	66	ASN
37	DP	80	VAL
37	DP	81	VAL
37	DP	85	SER
37	DP	93	ARG
37	DP	109	ARG
37	DP	110	ILE
37	DP	114	LEU
38	DQ	5	LYS
38	DQ	8	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	DQ	9	ILE
38	DQ	11	ARG
38	DQ	13	ARG
38	DQ	16	LYS
38	DQ	22	LYS
38	DQ	33	ARG
38	DQ	41	LYS
38	DQ	51	ARG
38	DQ	53	ARG
38	DQ	54	LYS
38	DQ	92	ARG
38	DQ	94	ILE
38	DQ	100	VAL
39	DR	12	HIS
39	DR	38	VAL
39	DR	43	ASN
39	DR	46	GLU
39	DR	47	VAL
39	DR	48	LYS
39	DR	51	VAL
39	DR	58	VAL
39	DR	86	GLN
39	DR	94	THR
40	DS	3	THR
40	DS	4	ILE
40	DS	6	LYS
40	DS	13	SER
40	DS	19	LEU
40	DS	23	LEU
40	DS	67	ASP
40	DS	78	GLU
40	DS	86	MET
40	DS	96	ILE
40	DS	97	LEU
40	DS	104	THR
40	DS	109	ASP
41	DT	3	ARG
41	DT	7	LEU
41	DT	16	VAL
41	DT	30	ILE
41	DT	31	VAL
41	DT	44	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
41	DT	49	LYS
41	DT	52	GLU
41	DT	57	VAL
41	DT	70	HIS
41	DT	77	ARG
41	DT	86	THR
41	DT	91	GLN
42	DU	7	ARG
42	DU	11	VAL
42	DU	15	THR
42	DU	18	ASP
42	DU	21	LYS
42	DU	28	VAL
42	DU	29	LEU
42	DU	31	SER
42	DU	40	ASN
42	DU	41	LEU
42	DU	45	HIS
42	DU	46	GLN
42	DU	47	LYS
42	DU	53	ASN
42	DU	54	GLN
42	DU	68	SER
42	DU	72	ILE
42	DU	81	ASP
42	DU	99	ASN
42	DU	100	SER
43	DV	2	PHE
43	DV	8	VAL
43	DV	21	ARG
43	DV	26	PHE
43	DV	29	ILE
43	DV	42	LEU
43	DV	45	ASP
43	DV	50	MET
43	DV	53	LYS
43	DV	61	LEU
44	DW	16	SER
44	DW	20	ARG
44	DW	39	ARG
44	DW	41	ARG
44	DW	77	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
45	DX	11	ARG
45	DX	18	ARG
45	DX	23	ASN
45	DX	25	THR
45	DX	33	LEU
45	DX	40	VAL
45	DX	46	PHE
45	DX	48	THR
45	DX	54	LYS
45	DX	64	ILE
45	DX	66	THR
45	DX	71	LEU
46	DY	2	LYS
46	DY	6	LEU
46	DY	8	GLU
46	DY	13	GLU
46	DY	16	THR
46	DY	29	ARG
46	DY	37	LEU
46	DY	38	GLN
46	DY	39	GLN
46	DY	49	ASP
46	DY	56	LEU
46	DY	58	ASN
47	DZ	3	LYS
47	DZ	10	THR
47	DZ	11	ARG
47	DZ	16	ARG
47	DZ	25	LEU
47	DZ	31	ARG
47	DZ	36	VAL
47	DZ	41	THR
47	DZ	45	ARG
47	DZ	57	VAL
47	DZ	58	GLU
48	D0	23	THR
48	D0	25	VAL
48	D0	28	LEU
48	D0	37	LYS
48	D0	46	ASP
48	D0	52	ARG
49	D1	6	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
49	D1	9	ILE
49	D1	10	LYS
49	D1	12	VAL
49	D1	25	LYS
49	D1	26	ASN
49	D1	30	LYS
49	D1	38	LYS
50	D2	1	MET
50	D2	4	THR
50	D2	10	LEU
50	D2	24	THR
50	D2	41	ARG
50	D2	44	VAL
50	D2	46	LYS
51	D3	6	THR
51	D3	8	ARG
51	D3	13	ARG
51	D3	30	ARG
51	D3	31	HIS
51	D3	47	LYS
52	D4	2	LYS
52	D4	3	VAL
52	D4	4	ARG
52	D4	11	CYS
52	D4	12	ARG
52	D4	17	VAL
52	D4	26	ILE
52	D4	35	GLN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (40) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	15	HIS
3	AC	6	HIS
5	AE	82	GLN
5	AE	122	ASN
8	AH	18	GLN
10	AJ	56	HIS
10	AJ	70	HIS
11	AK	22	HIS
15	AO	46	HIS
24	BC	142	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BD	136	ASN
29	BH	119	ASN
29	BH	135	HIS
49	B1	19	HIS
2	CB	18	HIS
2	CB	103	ASN
2	CB	177	ASN
3	CC	6	HIS
3	CC	176	HIS
4	CD	152	GLN
5	CE	89	HIS
10	CJ	70	HIS
13	CM	91	HIS
13	CM	105	ASN
24	DC	134	ASN
25	DD	150	GLN
27	DF	63	GLN
28	DG	115	HIS
28	DG	139	GLN
28	DG	143	GLN
29	DH	128	HIS
33	DL	35	HIS
38	DQ	37	GLN
39	DR	89	HIS
40	DS	7	HIS
42	DU	74	ASN
46	DY	41	HIS
49	D1	19	HIS
49	D1	26	ASN
51	D3	31	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1537/1539 (99%)	349 (22%)	15 (0%)
1	CA	1538/1539 (99%)	331 (21%)	9 (0%)
22	BA	2895/2903 (99%)	643 (22%)	30 (1%)
22	DA	2895/2903 (99%)	637 (22%)	29 (1%)
23	BB	118/119 (99%)	21 (17%)	0
23	DB	117/119 (98%)	25 (21%)	0
All	All	9100/9122 (99%)	2006 (22%)	83 (0%)

All (2006) 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	48	C
1	AA	50	A
1	AA	51	A
1	AA	70	U
1	AA	71	A
1	AA	72	A
1	AA	74	A
1	AA	75	G
1	AA	76	G
1	AA	77	A
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	88	U
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	109	A
1	AA	111	G
1	AA	115	G
1	AA	116	A
1	AA	117	G
1	AA	121	U
1	AA	122	G
1	AA	130	A
1	AA	131	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	137	U
1	AA	138	G
1	AA	141	G
1	AA	142	G
1	AA	143	A
1	AA	144	G
1	AA	149	A
1	AA	159	G
1	AA	162	A
1	AA	168	G
1	AA	181	A
1	AA	182	A
1	AA	183	C
1	AA	185	U
1	AA	195	A
1	AA	204	G
1	AA	205	A
1	AA	209	U
1	AA	210	C
1	AA	214	C
1	AA	226	G
1	AA	240	G
1	AA	245	U
1	AA	247	G
1	AA	251	G
1	AA	260	G
1	AA	263	A
1	AA	266	G
1	AA	267	C
1	AA	281	G
1	AA	289	G
1	AA	292	G
1	AA	320	A
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	331	G
1	AA	332	G
1	AA	338	A
1	AA	341	C
1	AA	346	G
1	AA	352	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	382	A
1	AA	384	G
1	AA	406	G
1	AA	408	A
1	AA	409	U
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	423	G
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	435	A
1	AA	439	U
1	AA	440	C
1	AA	445	G
1	AA	453	G
1	AA	454	G
1	AA	456	A
1	AA	457	G
1	AA	458	U
1	AA	459	A
1	AA	462	G
1	AA	463	U
1	AA	465	A
1	AA	466	A
1	AA	467	U
1	AA	468	A
1	AA	474	G
1	AA	479	U
1	AA	481	G
1	AA	482	A
1	AA	485	U
1	AA	486	U
1	AA	491	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	492	C
1	AA	495	A
1	AA	509	A
1	AA	511	C
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	547	A
1	AA	559	A
1	AA	562	U
1	AA	564	C
1	AA	570	G
1	AA	572	A
1	AA	573	A
1	AA	576	C
1	AA	615	G
1	AA	650	G
1	AA	653	U
1	AA	661	G
1	AA	665	A
1	AA	671	G
1	AA	702	A
1	AA	703	G
1	AA	720	C
1	AA	721	G
1	AA	723	U
1	AA	724	G
1	AA	731	G
1	AA	733	G
1	AA	753	A
1	AA	755	G
1	AA	766	A
1	AA	772	U
1	AA	773	G
1	AA	777	A
1	AA	778	G
1	AA	792	A
1	AA	793	U
1	AA	794	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	815	A
1	AA	817	C
1	AA	828	U
1	AA	829	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	860	A
1	AA	870	U
1	AA	910	C
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	932	C
1	AA	934	C
1	AA	935	A
1	AA	938	A
1	AA	960	U
1	AA	963	G
1	AA	964	A
1	AA	966	G
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	983	A
1	AA	986	U
1	AA	987	G
1	AA	988	G
1	AA	989	U
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	995	C
1	AA	1002	G
1	AA	1004	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1007	U
1	AA	1008	U
1	AA	1009	U
1	AA	1016	A
1	AA	1017	U
1	AA	1024	G
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	1035	A
1	AA	1036	A
1	AA	1037	C
1	AA	1039	G
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	1054	C
1	AA	1055	A
1	AA	1056	U
1	AA	1061	G
1	AA	1065	U
1	AA	1066	C
1	AA	1069	C
1	AA	1086	U
1	AA	1089	G
1	AA	1094	G
1	AA	1098	C
1	AA	1101	A
1	AA	1103	C
1	AA	1104	G
1	AA	1124	G
1	AA	1125	U
1	AA	1127	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1133	G
1	AA	1135	U
1	AA	1136	C
1	AA	1137	C
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	1152	A
1	AA	1154	G
1	AA	1159	U
1	AA	1160	G
1	AA	1161	C
1	AA	1168	U
1	AA	1169	A
1	AA	1171	A
1	AA	1181	G
1	AA	1182	G
1	AA	1183	U
1	AA	1184	G
1	AA	1188	A
1	AA	1196	A
1	AA	1197	A
1	AA	1202	U
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1227	A
1	AA	1228	C
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	1260	G
1	AA	1280	A
1	AA	1281	C
1	AA	1286	U
1	AA	1287	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1293	C
1	AA	1299	A
1	AA	1300	G
1	AA	1302	C
1	AA	1304	G
1	AA	1305	G
1	AA	1317	C
1	AA	1318	A
1	AA	1319	A
1	AA	1320	C
1	AA	1321	U
1	AA	1322	C
1	AA	1323	G
1	AA	1325	C
1	AA	1328	C
1	AA	1329	A
1	AA	1332	A
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	1368	A
1	AA	1370	G
1	AA	1378	C
1	AA	1379	G
1	AA	1398	A
1	AA	1401	G
1	AA	1418	A
1	AA	1419	G
1	AA	1425	U
1	AA	1426	G
1	AA	1429	A
1	AA	1430	A
1	AA	1441	A
1	AA	1442	G
1	AA	1446	A
1	AA	1452	C
1	AA	1453	G
1	AA	1454	G
1	AA	1493	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1497	G
1	AA	1499	A
1	AA	1503	A
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1526	G
1	AA	1529	G
1	AA	1530	G
1	AA	1533	C
1	AA	1534	A
1	AA	1535	C
1	AA	1539	C
22	BA	10	A
22	BA	12	U
22	BA	13	A
22	BA	19	A
22	BA	23	G
22	BA	26	G
22	BA	31	C
22	BA	34	U
22	BA	35	G
22	BA	46	G
22	BA	58	G
22	BA	61	C
22	BA	63	A
22	BA	71	A
22	BA	72	U
22	BA	74	A
22	BA	75	G
22	BA	87	U
22	BA	98	G
22	BA	101	A
22	BA	103	A
22	BA	118	A
22	BA	119	A
22	BA	120	U
22	BA	128	C
22	BA	131	A
22	BA	137	U
22	BA	138	U
22	BA	139	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	140	C
22	BA	141	G
22	BA	142	A
22	BA	143	C
22	BA	148	U
22	BA	158	U
22	BA	180	G
22	BA	181	A
22	BA	196	A
22	BA	200	U
22	BA	207	A
22	BA	208	C
22	BA	215	G
22	BA	216	A
22	BA	221	A
22	BA	222	A
22	BA	248	G
22	BA	255	A
22	BA	265	A
22	BA	266	G
22	BA	267	C
22	BA	272	A
22	BA	273	G
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	329	G
22	BA	330	A
22	BA	331	C
22	BA	339	U
22	BA	343	C
22	BA	353	C
22	BA	359	G
22	BA	361	G
22	BA	362	A
22	BA	371	A
22	BA	372	G
22	BA	386	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	389	G
22	BA	404	A
22	BA	405	U
22	BA	406	G
22	BA	411	G
22	BA	424	G
22	BA	429	A
22	BA	443	A
22	BA	451	U
22	BA	455	C
22	BA	457	A
22	BA	479	A
22	BA	480	A
22	BA	481	G
22	BA	489	G
22	BA	491	G
22	BA	504	A
22	BA	505	A
22	BA	508	A
22	BA	509	C
22	BA	514	A
22	BA	528	A
22	BA	531	C
22	BA	532	A
22	BA	533	G
22	BA	538	A
22	BA	543	G
22	BA	544	C
22	BA	546	U
22	BA	547	A
22	BA	548	G
22	BA	549	G
22	BA	550	C
22	BA	557	C
22	BA	560	C
22	BA	563	A
22	BA	571	U
22	BA	573	U
22	BA	575	A
22	BA	576	U
22	BA	581	C
22	BA	585	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	586	A
22	BA	603	A
22	BA	613	A
22	BA	614	A
22	BA	615	U
22	BA	618	G
22	BA	622	G
22	BA	627	A
22	BA	631	A
22	BA	637	A
22	BA	644	A
22	BA	645	C
22	BA	647	G
22	BA	648	G
22	BA	654	A
22	BA	655	A
22	BA	668	A
22	BA	670	A
22	BA	671	C
22	BA	686	U
22	BA	702	U
22	BA	713	G
22	BA	716	A
22	BA	730	A
22	BA	731	C
22	BA	738	G
22	BA	740	C
22	BA	744	U
22	BA	747	U
22	BA	756	A
22	BA	757	G
22	BA	762	U
22	BA	765	C
22	BA	769	U
22	BA	775	G
22	BA	776	G
22	BA	778	G
22	BA	782	A
22	BA	784	G
22	BA	785	G
22	BA	791	C
22	BA	792	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	801	G
22	BA	805	G
22	BA	806	C
22	BA	812	C
22	BA	819	A
22	BA	827	U
22	BA	828	U
22	BA	831	G
22	BA	845	A
22	BA	846	U
22	BA	847	U
22	BA	855	G
22	BA	858	G
22	BA	859	G
22	BA	861	A
22	BA	866	A
22	BA	869	G
22	BA	878	A
22	BA	879	G
22	BA	885	C
22	BA	896	A
22	BA	900	A
22	BA	910	A
22	BA	913	U
22	BA	914	G
22	BA	915	C
22	BA	919	U
22	BA	932	U
22	BA	941	A
22	BA	946	C
22	BA	961	C
22	BA	974	G
22	BA	983	A
22	BA	984	A
22	BA	985	C
22	BA	990	A
22	BA	991	C
22	BA	992	C
22	BA	995	C
22	BA	996	A
22	BA	997	G
22	BA	999	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	1005	C
22	BA	1012	U
22	BA	1013	C
22	BA	1023	U
22	BA	1024	G
22	BA	1026	G
22	BA	1033	U
22	BA	1046	A
22	BA	1047	G
22	BA	1051	G
22	BA	1057	A
22	BA	1061	U
22	BA	1062	G
22	BA	1066	U
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	1081	U
22	BA	1087	G
22	BA	1088	A
22	BA	1089	A
22	BA	1092	C
22	BA	1098	A
22	BA	1099	G
22	BA	1100	C
22	BA	1101	U
22	BA	1104	C
22	BA	1106	G
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	1141	U
22	BA	1142	A
22	BA	1145	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	1150	C
22	BA	1168	G
22	BA	1170	C
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	1185	G
22	BA	1186	G
22	BA	1187	G
22	BA	1205	A
22	BA	1211	C
22	BA	1212	G
22	BA	1222	U
22	BA	1238	G
22	BA	1247	A
22	BA	1249	U
22	BA	1252	G
22	BA	1253	A
22	BA	1255	U
22	BA	1256	G
22	BA	1258	U
22	BA	1265	A
22	BA	1266	G
22	BA	1271	G
22	BA	1272	A
22	BA	1273	U
22	BA	1300	G
22	BA	1301	A
22	BA	1303	G
22	BA	1305	C
22	BA	1311	G
22	BA	1321	A
22	BA	1325	U
22	BA	1329	U
22	BA	1332	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	1345	C
22	BA	1352	U
22	BA	1359	A
22	BA	1365	A
22	BA	1367	A
22	BA	1368	G
22	BA	1370	C
22	BA	1374	G
22	BA	1378	A
22	BA	1379	U
22	BA	1380	G
22	BA	1383	A
22	BA	1386	C
22	BA	1407	G
22	BA	1416	G
22	BA	1419	A
22	BA	1420	A
22	BA	1428	C
22	BA	1435	G
22	BA	1450	G
22	BA	1452	G
22	BA	1453	A
22	BA	1460	U
22	BA	1461	C
22	BA	1482	G
22	BA	1483	G
22	BA	1493	C
22	BA	1494	A
22	BA	1495	A
22	BA	1504	A
22	BA	1508	A
22	BA	1509	A
22	BA	1510	G
22	BA	1515	A
22	BA	1523	U
22	BA	1528	A
22	BA	1529	G
22	BA	1532	A
22	BA	1533	C
22	BA	1534	U
22	BA	1535	A
22	BA	1536	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	1554	U
22	BA	1558	C
22	BA	1561	C
22	BA	1566	A
22	BA	1569	A
22	BA	1575	C
22	BA	1576	U
22	BA	1578	U
22	BA	1582	C
22	BA	1583	A
22	BA	1584	U
22	BA	1585	C
22	BA	1597	A
22	BA	1607	C
22	BA	1608	A
22	BA	1609	A
22	BA	1610	A
22	BA	1616	A
22	BA	1619	G
22	BA	1632	A
22	BA	1634	A
22	BA	1646	C
22	BA	1647	U
22	BA	1648	U
22	BA	1649	G
22	BA	1651	G
22	BA	1652	A
22	BA	1674	G
22	BA	1677	A
22	BA	1695	G
22	BA	1714	U
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	1755	A
22	BA	1758	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	1764	C
22	BA	1773	A
22	BA	1782	U
22	BA	1786	A
22	BA	1800	C
22	BA	1801	A
22	BA	1802	A
22	BA	1804	C
22	BA	1806	C
22	BA	1808	A
22	BA	1813	G
22	BA	1816	C
22	BA	1828	G
22	BA	1829	A
22	BA	1842	G
22	BA	1844	C
22	BA	1859	U
22	BA	1865	U
22	BA	1870	C
22	BA	1873	G
22	BA	1876	A
22	BA	1884	G
22	BA	1885	A
22	BA	1897	G
22	BA	1902	C
22	BA	1906	G
22	BA	1909	C
22	BA	1910	G
22	BA	1911	U
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	1920	C
22	BA	1921	G
22	BA	1923	U
22	BA	1925	C
22	BA	1926	U
22	BA	1927	A
22	BA	1929	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	1930	G
22	BA	1931	U
22	BA	1932	A
22	BA	1935	G
22	BA	1936	A
22	BA	1937	A
22	BA	1938	A
22	BA	1944	U
22	BA	1951	U
22	BA	1955	U
22	BA	1960	A
22	BA	1965	C
22	BA	1967	C
22	BA	1970	A
22	BA	1972	G
22	BA	1983	G
22	BA	1986	C
22	BA	1991	U
22	BA	1993	U
22	BA	1997	C
22	BA	2001	C
22	BA	2008	C
22	BA	2009	A
22	BA	2021	C
22	BA	2022	U
22	BA	2023	C
22	BA	2031	A
22	BA	2032	G
22	BA	2033	A
22	BA	2035	G
22	BA	2043	C
22	BA	2051	A
22	BA	2053	G
22	BA	2054	A
22	BA	2055	C
22	BA	2056	G
22	BA	2059	A
22	BA	2060	A
22	BA	2061	G
22	BA	2062	A
22	BA	2063	C
22	BA	2064	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	2066	C
22	BA	2067	G
22	BA	2069	G
22	BA	2072	C
22	BA	2077	A
22	BA	2092	U
22	BA	2093	G
22	BA	2096	C
22	BA	2101	A
22	BA	2102	G
22	BA	2107	G
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	2128	G
22	BA	2132	U
22	BA	2133	G
22	BA	2136	G
22	BA	2145	C
22	BA	2147	A
22	BA	2148	G
22	BA	2149	U
22	BA	2157	G
22	BA	2158	A
22	BA	2159	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

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	2173	A
22	BA	2178	C
22	BA	2179	C
22	BA	2183	A
22	BA	2187	U
22	BA	2188	U
22	BA	2190	G
22	BA	2195	U
22	BA	2198	A
22	BA	2203	U
22	BA	2204	G
22	BA	2211	A
22	BA	2212	A
22	BA	2214	C
22	BA	2220	U
22	BA	2225	A
22	BA	2226	C
22	BA	2238	G
22	BA	2239	G
22	BA	2242	G
22	BA	2243	U
22	BA	2258	C
22	BA	2267	A
22	BA	2268	A
22	BA	2278	A
22	BA	2280	G
22	BA	2283	C
22	BA	2286	G
22	BA	2287	A
22	BA	2296	U
22	BA	2297	A
22	BA	2305	U
22	BA	2308	G
22	BA	2311	A
22	BA	2312	U
22	BA	2322	A
22	BA	2325	G
22	BA	2326	C
22	BA	2327	A
22	BA	2331	G
22	BA	2333	A
22	BA	2335	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	2340	A
22	BA	2345	G
22	BA	2347	C
22	BA	2350	C
22	BA	2354	C
22	BA	2357	G
22	BA	2361	G
22	BA	2376	A
22	BA	2383	G
22	BA	2385	C
22	BA	2389	G
22	BA	2391	G
22	BA	2392	A
22	BA	2393	U
22	BA	2396	G
22	BA	2402	U
22	BA	2403	C
22	BA	2406	A
22	BA	2410	G
22	BA	2412	A
22	BA	2421	G
22	BA	2422	C
22	BA	2424	C
22	BA	2425	A
22	BA	2426	A
22	BA	2429	G
22	BA	2430	A
22	BA	2431	U
22	BA	2435	A
22	BA	2441	U
22	BA	2443	C
22	BA	2448	A
22	BA	2465	C
22	BA	2474	U
22	BA	2476	A
22	BA	2478	A
22	BA	2491	U
22	BA	2496	C
22	BA	2497	A
22	BA	2498	C
22	BA	2499	C
22	BA	2500	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	2502	G
22	BA	2503	A
22	BA	2504	U
22	BA	2505	G
22	BA	2506	U
22	BA	2516	A
22	BA	2518	A
22	BA	2520	C
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	2572	A
22	BA	2573	C
22	BA	2574	G
22	BA	2578	G
22	BA	2584	U
22	BA	2599	G
22	BA	2601	C
22	BA	2602	A
22	BA	2603	G
22	BA	2609	U
22	BA	2613	U
22	BA	2627	G
22	BA	2629	U
22	BA	2662	A
22	BA	2685	G
22	BA	2689	U
22	BA	2690	U
22	BA	2700	A
22	BA	2702	G
22	BA	2714	G
22	BA	2721	A
22	BA	2725	A
22	BA	2726	A
22	BA	2729	G
22	BA	2733	A
22	BA	2748	A
22	BA	2751	G
22	BA	2752	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	BA	2756	U
22	BA	2757	A
22	BA	2778	A
22	BA	2791	G
22	BA	2792	A
22	BA	2798	U
22	BA	2799	A
22	BA	2800	A
22	BA	2811	G
22	BA	2818	U
22	BA	2820	A
22	BA	2821	A
22	BA	2827	C
22	BA	2836	U
22	BA	2837	A
22	BA	2858	C
22	BA	2862	G
22	BA	2867	G
22	BA	2873	A
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	2903	U
23	BB	2	G
23	BB	4	C
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	36	C
23	BB	37	C
23	BB	41	G
23	BB	44	G
23	BB	56	G
23	BB	66	A
23	BB	89	U
23	BB	90	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	BB	91	C
23	BB	98	G
23	BB	99	A
23	BB	109	A
23	BB	119	A
1	CA	5	U
1	CA	9	G
1	CA	17	U
1	CA	19	A
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	67	C
1	CA	68	G
1	CA	70	U
1	CA	71	A
1	CA	74	A
1	CA	81	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	94	G
1	CA	95	C
1	CA	108	G
1	CA	116	A
1	CA	120	A
1	CA	121	U
1	CA	122	G
1	CA	129	A
1	CA	130	A
1	CA	131	A
1	CA	137	U
1	CA	142	G
1	CA	143	A
1	CA	144	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	154	U
1	CA	155	A
1	CA	159	G
1	CA	163	C
1	CA	181	A
1	CA	182	A
1	CA	183	C
1	CA	184	G
1	CA	187	G
1	CA	189	A
1	CA	197	A
1	CA	200	G
1	CA	201	G
1	CA	204	G
1	CA	206	C
1	CA	207	C
1	CA	208	U
1	CA	210	C
1	CA	211	G
1	CA	212	G
1	CA	240	G
1	CA	241	G
1	CA	245	U
1	CA	247	G
1	CA	249	U
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	269	C
1	CA	280	C
1	CA	289	G
1	CA	298	A
1	CA	308	C
1	CA	309	A
1	CA	320	A
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	330	C
1	CA	332	G
1	CA	333	U
1	CA	337	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	347	G
1	CA	352	C
1	CA	354	G
1	CA	357	G
1	CA	358	U
1	CA	359	G
1	CA	367	U
1	CA	370	C
1	CA	372	C
1	CA	373	A
1	CA	377	G
1	CA	378	G
1	CA	384	G
1	CA	389	A
1	CA	398	U
1	CA	399	G
1	CA	406	G
1	CA	409	U
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	421	U
1	CA	422	C
1	CA	424	G
1	CA	429	U
1	CA	430	A
1	CA	458	U
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	474	G
1	CA	477	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

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	486	U
1	CA	495	A
1	CA	498	A
1	CA	499	A
1	CA	509	A
1	CA	511	C
1	CA	518	C
1	CA	519	C
1	CA	524	G
1	CA	527	G
1	CA	532	A
1	CA	533	A
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	572	A
1	CA	573	A
1	CA	576	C
1	CA	577	G
1	CA	581	G
1	CA	582	C
1	CA	619	U
1	CA	622	A
1	CA	650	G
1	CA	653	U
1	CA	654	G
1	CA	665	A
1	CA	666	G
1	CA	687	A
1	CA	695	A
1	CA	719	C
1	CA	720	C
1	CA	721	G
1	CA	723	U
1	CA	724	G
1	CA	731	G
1	CA	734	G
1	CA	747	A
1	CA	752	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	754	C
1	CA	755	G
1	CA	758	C
1	CA	765	G
1	CA	777	A
1	CA	778	G
1	CA	785	G
1	CA	793	U
1	CA	794	A
1	CA	802	A
1	CA	804	U
1	CA	809	G
1	CA	814	A
1	CA	815	A
1	CA	817	C
1	CA	821	G
1	CA	827	U
1	CA	828	U
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	874	G
1	CA	876	C
1	CA	914	A
1	CA	922	G
1	CA	926	G
1	CA	931	C
1	CA	934	C
1	CA	935	A
1	CA	960	U
1	CA	966	G
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	989	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	993	G
1	CA	994	A
1	CA	995	C
1	CA	996	A
1	CA	1004	A
1	CA	1005	A
1	CA	1008	U
1	CA	1009	U
1	CA	1017	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	1047	G
1	CA	1050	G
1	CA	1054	C
1	CA	1055	A
1	CA	1056	U
1	CA	1065	U
1	CA	1072	G
1	CA	1073	U
1	CA	1084	G
1	CA	1086	U
1	CA	1088	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1124	G
1	CA	1125	U
1	CA	1129	C
1	CA	1132	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
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	1154	G
1	CA	1155	A
1	CA	1156	G
1	CA	1157	A
1	CA	1159	U
1	CA	1160	G
1	CA	1161	C
1	CA	1167	A
1	CA	1183	U
1	CA	1184	G
1	CA	1192	C
1	CA	1196	A
1	CA	1202	U
1	CA	1203	C
1	CA	1212	U
1	CA	1213	A
1	CA	1227	A
1	CA	1238	A
1	CA	1240	U
1	CA	1243	C
1	CA	1253	G
1	CA	1260	G
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	1299	A
1	CA	1300	G
1	CA	1302	C
1	CA	1304	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1305	G
1	CA	1317	C
1	CA	1318	A
1	CA	1322	C
1	CA	1324	A
1	CA	1331	G
1	CA	1337	G
1	CA	1338	G
1	CA	1346	A
1	CA	1362	A
1	CA	1363	A
1	CA	1364	U
1	CA	1370	G
1	CA	1377	A
1	CA	1378	C
1	CA	1379	G
1	CA	1394	A
1	CA	1398	A
1	CA	1419	G
1	CA	1440	U
1	CA	1441	A
1	CA	1442	G
1	CA	1446	A
1	CA	1452	C
1	CA	1454	G
1	CA	1480	A
1	CA	1491	G
1	CA	1492	A
1	CA	1497	G
1	CA	1503	A
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1509	C
1	CA	1517	G
1	CA	1528	U
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
1	CA	1533	C
1	CA	1535	C
1	CA	1537	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	10	A
22	DA	12	U
22	DA	15	G
22	DA	30	G
22	DA	31	C
22	DA	34	U
22	DA	41	C
22	DA	42	A
22	DA	46	G
22	DA	55	G
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	82	U
22	DA	84	A
22	DA	91	A
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	128	C
22	DA	138	U
22	DA	139	U
22	DA	140	C
22	DA	141	G
22	DA	142	A
22	DA	149	A
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	197	A
22	DA	199	A
22	DA	206	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	212	G
22	DA	215	G
22	DA	216	A
22	DA	222	A
22	DA	223	A
22	DA	225	C
22	DA	248	G
22	DA	249	C
22	DA	250	G
22	DA	255	A
22	DA	264	C
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	280	U
22	DA	281	C
22	DA	285	G
22	DA	294	A
22	DA	299	A
22	DA	311	A
22	DA	329	G
22	DA	330	A
22	DA	350	G
22	DA	353	C
22	DA	354	A
22	DA	361	G
22	DA	362	A
22	DA	367	G
22	DA	371	A
22	DA	372	G
22	DA	385	C
22	DA	386	G
22	DA	396	G
22	DA	399	U
22	DA	405	U
22	DA	411	G
22	DA	412	A
22	DA	417	C
22	DA	424	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	447	A
22	DA	449	A
22	DA	451	U
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	509	C
22	DA	510	C
22	DA	511	U
22	DA	526	A
22	DA	529	A
22	DA	531	C
22	DA	532	A
22	DA	533	G
22	DA	538	A
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	573	U
22	DA	575	A
22	DA	586	A
22	DA	587	C
22	DA	593	U
22	DA	603	A
22	DA	613	A
22	DA	615	U
22	DA	622	G
22	DA	627	A
22	DA	630	G
22	DA	631	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	637	A
22	DA	641	U
22	DA	642	U
22	DA	645	C
22	DA	646	U
22	DA	647	G
22	DA	648	G
22	DA	654	A
22	DA	655	A
22	DA	656	G
22	DA	663	G
22	DA	664	G
22	DA	676	A
22	DA	686	U
22	DA	695	G
22	DA	702	U
22	DA	715	A
22	DA	717	C
22	DA	726	G
22	DA	727	A
22	DA	728	G
22	DA	729	G
22	DA	730	A
22	DA	740	C
22	DA	746	U
22	DA	747	U
22	DA	749	A
22	DA	751	A
22	DA	752	A
22	DA	755	U
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	802	A
22	DA	805	G
22	DA	812	C
22	DA	819	A
22	DA	820	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	827	U
22	DA	828	U
22	DA	829	A
22	DA	830	G
22	DA	845	A
22	DA	846	U
22	DA	847	U
22	DA	858	G
22	DA	859	G
22	DA	878	A
22	DA	880	G
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	914	G
22	DA	915	C
22	DA	931	U
22	DA	932	U
22	DA	934	U
22	DA	941	A
22	DA	946	C
22	DA	953	G
22	DA	961	C
22	DA	974	G
22	DA	982	C
22	DA	983	A
22	DA	995	C
22	DA	996	A
22	DA	997	G
22	DA	998	C
22	DA	1005	C
22	DA	1012	U
22	DA	1013	C
22	DA	1022	G
22	DA	1023	U
22	DA	1025	G
22	DA	1026	G
22	DA	1033	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	1041	G
22	DA	1046	A
22	DA	1047	G
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	1067	A
22	DA	1068	G
22	DA	1070	A
22	DA	1071	G
22	DA	1072	C
22	DA	1074	G
22	DA	1075	C
22	DA	1077	A
22	DA	1079	C
22	DA	1082	U
22	DA	1088	A
22	DA	1089	A
22	DA	1090	A
22	DA	1092	C
22	DA	1094	U
22	DA	1097	U
22	DA	1098	A
22	DA	1100	C
22	DA	1104	C
22	DA	1105	U
22	DA	1110	G
22	DA	1111	A
22	DA	1112	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	1141	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	1142	A
22	DA	1153	C
22	DA	1155	A
22	DA	1156	A
22	DA	1168	G
22	DA	1171	G
22	DA	1172	C
22	DA	1173	U
22	DA	1175	A
22	DA	1176	U
22	DA	1178	C
22	DA	1179	G
22	DA	1180	U
22	DA	1186	G
22	DA	1197	G
22	DA	1205	A
22	DA	1208	C
22	DA	1212	G
22	DA	1221	C
22	DA	1230	A
22	DA	1231	U
22	DA	1232	G
22	DA	1236	G
22	DA	1238	G
22	DA	1241	A
22	DA	1253	A
22	DA	1255	U
22	DA	1256	G
22	DA	1257	C
22	DA	1262	A
22	DA	1264	A
22	DA	1266	G
22	DA	1269	A
22	DA	1271	G
22	DA	1272	A
22	DA	1275	A
22	DA	1276	A
22	DA	1300	G
22	DA	1301	A
22	DA	1305	C
22	DA	1318	U
22	DA	1325	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	1345	C
22	DA	1352	U
22	DA	1355	G
22	DA	1359	A
22	DA	1365	A
22	DA	1376	C
22	DA	1378	A
22	DA	1379	U
22	DA	1380	G
22	DA	1383	A
22	DA	1386	C
22	DA	1387	A
22	DA	1390	U
22	DA	1391	U
22	DA	1395	A
22	DA	1411	U
22	DA	1414	C
22	DA	1416	G
22	DA	1419	A
22	DA	1420	A
22	DA	1423	G
22	DA	1426	G
22	DA	1428	C
22	DA	1434	A
22	DA	1436	G
22	DA	1452	G
22	DA	1455	G
22	DA	1456	G
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	1495	A
22	DA	1504	A
22	DA	1509	A
22	DA	1510	G
22	DA	1515	A
22	DA	1523	U
22	DA	1527	G
22	DA	1530	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
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	1565	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	1603	A
22	DA	1604	C
22	DA	1606	C
22	DA	1607	C
22	DA	1608	A
22	DA	1610	A
22	DA	1613	G
22	DA	1616	A
22	DA	1623	G
22	DA	1625	C
22	DA	1639	C
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	1664	A
22	DA	1665	A
22	DA	1674	G
22	DA	1690	A
22	DA	1694	C
22	DA	1705	A
22	DA	1714	U
22	DA	1715	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	1728	C
22	DA	1729	U
22	DA	1730	C
22	DA	1731	G
22	DA	1732	C
22	DA	1735	A
22	DA	1738	G
22	DA	1739	A
22	DA	1740	G
22	DA	1744	A
22	DA	1756	G
22	DA	1758	U
22	DA	1764	C
22	DA	1773	A
22	DA	1774	C
22	DA	1776	G
22	DA	1782	U
22	DA	1800	C
22	DA	1801	A
22	DA	1802	A
22	DA	1808	A
22	DA	1811	G
22	DA	1816	C
22	DA	1823	G
22	DA	1829	A
22	DA	1847	A
22	DA	1848	A
22	DA	1858	A
22	DA	1859	U
22	DA	1869	G
22	DA	1870	C
22	DA	1871	A
22	DA	1874	C
22	DA	1876	A
22	DA	1880	U
22	DA	1884	G
22	DA	1893	C
22	DA	1903	G
22	DA	1906	G
22	DA	1907	G
22	DA	1913	A
22	DA	1914	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	1927	A
22	DA	1929	G
22	DA	1930	G
22	DA	1935	G
22	DA	1937	A
22	DA	1947	C
22	DA	1955	U
22	DA	1961	C
22	DA	1964	G
22	DA	1965	C
22	DA	1967	C
22	DA	1970	A
22	DA	1971	U
22	DA	1972	G
22	DA	1975	G
22	DA	1991	U
22	DA	1992	G
22	DA	1993	U
22	DA	1997	C
22	DA	2020	A
22	DA	2021	C
22	DA	2022	U
22	DA	2023	C
22	DA	2030	A
22	DA	2031	A
22	DA	2033	A
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	2072	C
22	DA	2073	C
22	DA	2080	A
22	DA	2083	G
22	DA	2092	U
22	DA	2093	G
22	DA	2095	A
22	DA	2102	G
22	DA	2103	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	2107	G
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	2169	A
22	DA	2170	A
22	DA	2171	A
22	DA	2172	U
22	DA	2173	A
22	DA	2177	C
22	DA	2178	C
22	DA	2181	U
22	DA	2184	A
22	DA	2189	U
22	DA	2190	G
22	DA	2194	U
22	DA	2198	A
22	DA	2203	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	2204	G
22	DA	2211	A
22	DA	2212	A
22	DA	2225	A
22	DA	2226	C
22	DA	2230	G
22	DA	2238	G
22	DA	2239	G
22	DA	2241	A
22	DA	2242	G
22	DA	2243	U
22	DA	2268	A
22	DA	2269	G
22	DA	2273	A
22	DA	2278	A
22	DA	2280	G
22	DA	2283	C
22	DA	2287	A
22	DA	2297	A
22	DA	2305	U
22	DA	2307	G
22	DA	2308	G
22	DA	2309	A
22	DA	2311	A
22	DA	2312	U
22	DA	2320	U
22	DA	2322	A
22	DA	2324	U
22	DA	2325	G
22	DA	2327	A
22	DA	2333	A
22	DA	2344	U
22	DA	2347	C
22	DA	2350	C
22	DA	2354	C
22	DA	2356	U
22	DA	2357	G
22	DA	2361	G
22	DA	2383	G
22	DA	2385	C
22	DA	2402	U
22	DA	2403	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	2406	A
22	DA	2407	A
22	DA	2410	G
22	DA	2423	U
22	DA	2424	C
22	DA	2425	A
22	DA	2426	A
22	DA	2429	G
22	DA	2430	A
22	DA	2431	U
22	DA	2435	A
22	DA	2441	U
22	DA	2446	G
22	DA	2447	G
22	DA	2448	A
22	DA	2449	U
22	DA	2455	G
22	DA	2476	A
22	DA	2484	G
22	DA	2491	U
22	DA	2498	C
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
22	DA	2534	A
22	DA	2535	G
22	DA	2547	A
22	DA	2554	U
22	DA	2566	A
22	DA	2567	G
22	DA	2572	A
22	DA	2573	C
22	DA	2580	U
22	DA	2581	G
22	DA	2582	G
22	DA	2585	U
22	DA	2586	U
22	DA	2589	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	2600	A
22	DA	2602	A
22	DA	2603	G
22	DA	2606	C
22	DA	2609	U
22	DA	2613	U
22	DA	2614	A
22	DA	2615	U
22	DA	2624	G
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	2703	C
22	DA	2714	G
22	DA	2716	C
22	DA	2718	G
22	DA	2726	A
22	DA	2729	G
22	DA	2748	A
22	DA	2757	A
22	DA	2758	A
22	DA	2764	A
22	DA	2765	A
22	DA	2768	U
22	DA	2770	G
22	DA	2778	A
22	DA	2791	G
22	DA	2794	C
22	DA	2798	U
22	DA	2799	A
22	DA	2818	U
22	DA	2820	A
22	DA	2826	A
22	DA	2833	U
22	DA	2835	A
22	DA	2861	U
22	DA	2867	G
22	DA	2872	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	DA	2873	A
22	DA	2879	A
22	DA	2880	C
22	DA	2883	A
22	DA	2891	U
22	DA	2894	G
22	DA	2901	C
23	DB	13	G
23	DB	15	A
23	DB	16	G
23	DB	22	U
23	DB	24	G
23	DB	25	U
23	DB	35	C
23	DB	36	C
23	DB	40	U
23	DB	44	G
23	DB	51	G
23	DB	54	G
23	DB	56	G
23	DB	58	A
23	DB	64	G
23	DB	66	A
23	DB	67	G
23	DB	73	A
23	DB	88	C
23	DB	89	U
23	DB	90	C
23	DB	91	C
23	DB	99	A
23	DB	105	G
23	DB	109	A

All (83) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	115	G
1	AA	148	G
1	AA	209	U
1	AA	351	G
1	AA	353	A
1	AA	429	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	653	U
1	AA	772	U
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	1533	C
22	BA	70	G
22	BA	196	A
22	BA	199	A
22	BA	271	G
22	BA	310	A
22	BA	404	A
22	BA	479	A
22	BA	585	G
22	BA	764	A
22	BA	800	A
22	BA	960	A
22	BA	984	A
22	BA	1185	G
22	BA	1344	U
22	BA	1378	A
22	BA	1494	A
22	BA	1606	C
22	BA	1610	A
22	BA	1738	G
22	BA	1757	A
22	BA	1875	G
22	BA	2062	A
22	BA	2127	G
22	BA	2211	A
22	BA	2282	G
22	BA	2286	G
22	BA	2324	U
22	BA	2326	C
22	BA	2425	A
22	BA	2873	A
1	CA	115	G
1	CA	209	U
1	CA	429	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	559	A
1	CA	733	G
1	CA	793	U
1	CA	1049	U
1	CA	1201	A
1	CA	1211	U
22	DA	60	G
22	DA	271	G
22	DA	404	A
22	DA	479	A
22	DA	503	A
22	DA	614	A
22	DA	846	U
22	DA	982	C
22	DA	1240	U
22	DA	1275	A
22	DA	1344	U
22	DA	1378	A
22	DA	1606	C
22	DA	1738	G
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	2296	U
22	DA	2308	G
22	DA	2311	A
22	DA	2326	C
22	DA	2425	A
22	DA	2585	U
22	DA	2602	A
22	DA	2756	U

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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	VIF	DA	3001	-	35,40,40	2.26	12 (34%)	43,55,55	2.24	15 (34%)
55	VIF	BA	3001	-	35,40,40	2.30	13 (37%)	43,55,55	1.99	11 (25%)

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	VIF	DA	3001	-	-	9/42/58/58	0/2/3/3
55	VIF	BA	3001	-	-	9/42/58/58	0/2/3/3

All (25) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	BA	3001	VIF	O01-C06	-4.92	1.37	1.44
55	BA	3001	VIF	C11-C09	-4.46	1.43	1.53
55	DA	3001	VIF	C15-N01	4.39	1.44	1.34
55	BA	3001	VIF	O01-C08	-4.38	1.24	1.34
55	DA	3001	VIF	O01-C06	-4.29	1.38	1.44
55	DA	3001	VIF	O04-C22	-4.28	1.35	1.43
55	BA	3001	VIF	C15-N01	4.18	1.44	1.34
55	DA	3001	VIF	C11-C09	-4.12	1.43	1.53
55	DA	3001	VIF	O01-C08	-4.01	1.25	1.34
55	DA	3001	VIF	F-C07	-3.81	1.25	1.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	BA	3001	VIF	C09-N01	-3.76	1.39	1.47
55	BA	3001	VIF	F-C07	-3.57	1.26	1.40
55	BA	3001	VIF	C03-N02	3.54	1.41	1.34
55	BA	3001	VIF	C09-C08	-3.04	1.46	1.52
55	DA	3001	VIF	C03-N02	3.01	1.40	1.34
55	DA	3001	VIF	C09-N01	-3.00	1.40	1.47
55	BA	3001	VIF	O04-C22	-2.73	1.38	1.43
55	DA	3001	VIF	C26-C05	-2.61	1.46	1.53
55	BA	3001	VIF	C26-C05	-2.50	1.46	1.53
55	BA	3001	VIF	C13-N01	-2.43	1.42	1.47
55	DA	3001	VIF	C23-N	-2.35	1.30	1.37
55	DA	3001	VIF	C13-N01	-2.26	1.43	1.47
55	BA	3001	VIF	C23-N	-2.24	1.30	1.37
55	BA	3001	VIF	O-C03	-2.11	1.20	1.24
55	DA	3001	VIF	C14-C22	-2.02	1.48	1.52

All (26) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	DA	3001	VIF	C02-C01-C03	-7.56	103.77	122.69
55	BA	3001	VIF	C02-C01-C03	-5.72	108.38	122.69
55	BA	3001	VIF	C18-C10-C20	-4.96	118.40	125.89
55	DA	3001	VIF	C06-O01-C08	4.67	125.80	117.78
55	DA	3001	VIF	C18-C10-C20	-4.50	119.09	125.89
55	BA	3001	VIF	C06-O01-C08	4.43	125.39	117.78
55	DA	3001	VIF	C17-N02-C03	-4.05	115.49	122.03
55	DA	3001	VIF	O01-C08-C09	3.68	118.88	110.78
55	BA	3001	VIF	O01-C08-C09	3.47	118.43	110.78
55	BA	3001	VIF	O04-C22-C21	3.41	115.89	109.17
55	BA	3001	VIF	C18-C17-N02	-3.04	100.43	111.93
55	DA	3001	VIF	C01-C03-N02	3.01	120.64	114.97
55	DA	3001	VIF	O-C03-N02	-2.98	117.31	122.23
55	DA	3001	VIF	C26-C05-C02	-2.85	103.11	109.99
55	BA	3001	VIF	C26-C05-C02	-2.73	103.38	109.99
55	DA	3001	VIF	C19-C-C16	-2.73	102.97	110.59
55	BA	3001	VIF	C14-C22-C21	-2.62	106.66	111.94
55	DA	3001	VIF	C10-C20-C21	-2.58	110.95	119.42
55	DA	3001	VIF	C26-C05-C06	2.41	115.56	111.11
55	DA	3001	VIF	O01-C08-O02	-2.36	119.53	123.94
55	DA	3001	VIF	C24-C20-C10	2.32	121.72	118.08
55	DA	3001	VIF	O01-C06-C05	2.24	110.83	107.09
55	DA	3001	VIF	F-C07-C14	-2.24	104.82	108.63

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	BA	3001	VIF	C11-C09-N01	2.19	106.28	103.03
55	BA	3001	VIF	C17-N02-C03	2.17	125.53	122.03
55	BA	3001	VIF	C24-C20-C10	2.03	121.28	118.08

There are no chirality outliers.

All (18) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
55	BA	3001	VIF	C19-C-C06-O01
55	BA	3001	VIF	C27-C04-C07-C14
55	BA	3001	VIF	C27-C04-C07-F
55	DA	3001	VIF	C18-C10-C20-C24
55	DA	3001	VIF	C27-C04-C07-F
55	DA	3001	VIF	F-C07-C14-C22
55	DA	3001	VIF	C02-C01-C03-N02
55	BA	3001	VIF	C16-C-C06-O01
55	DA	3001	VIF	C02-C01-C03-O
55	BA	3001	VIF	C07-C14-C22-O04
55	DA	3001	VIF	C18-C10-C20-C21
55	DA	3001	VIF	C05-C06-O01-C08
55	BA	3001	VIF	C19-C-C06-C05
55	DA	3001	VIF	C-C06-O01-C08
55	BA	3001	VIF	N02-C17-C18-C10
55	BA	3001	VIF	C01-C02-C05-C26
55	BA	3001	VIF	C16-C-C06-C05
55	DA	3001	VIF	C01-C02-C05-C26

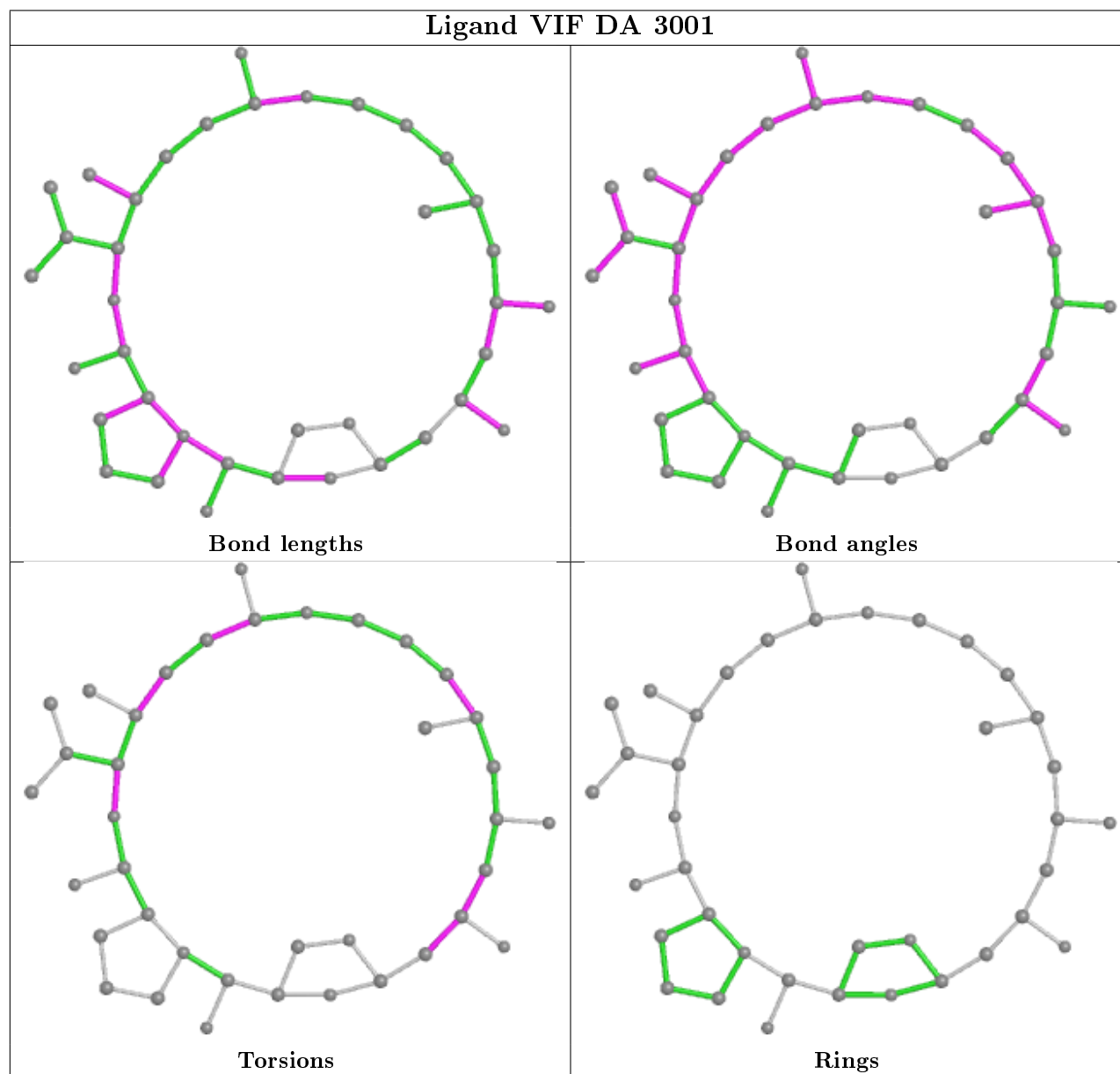
There are no ring outliers.

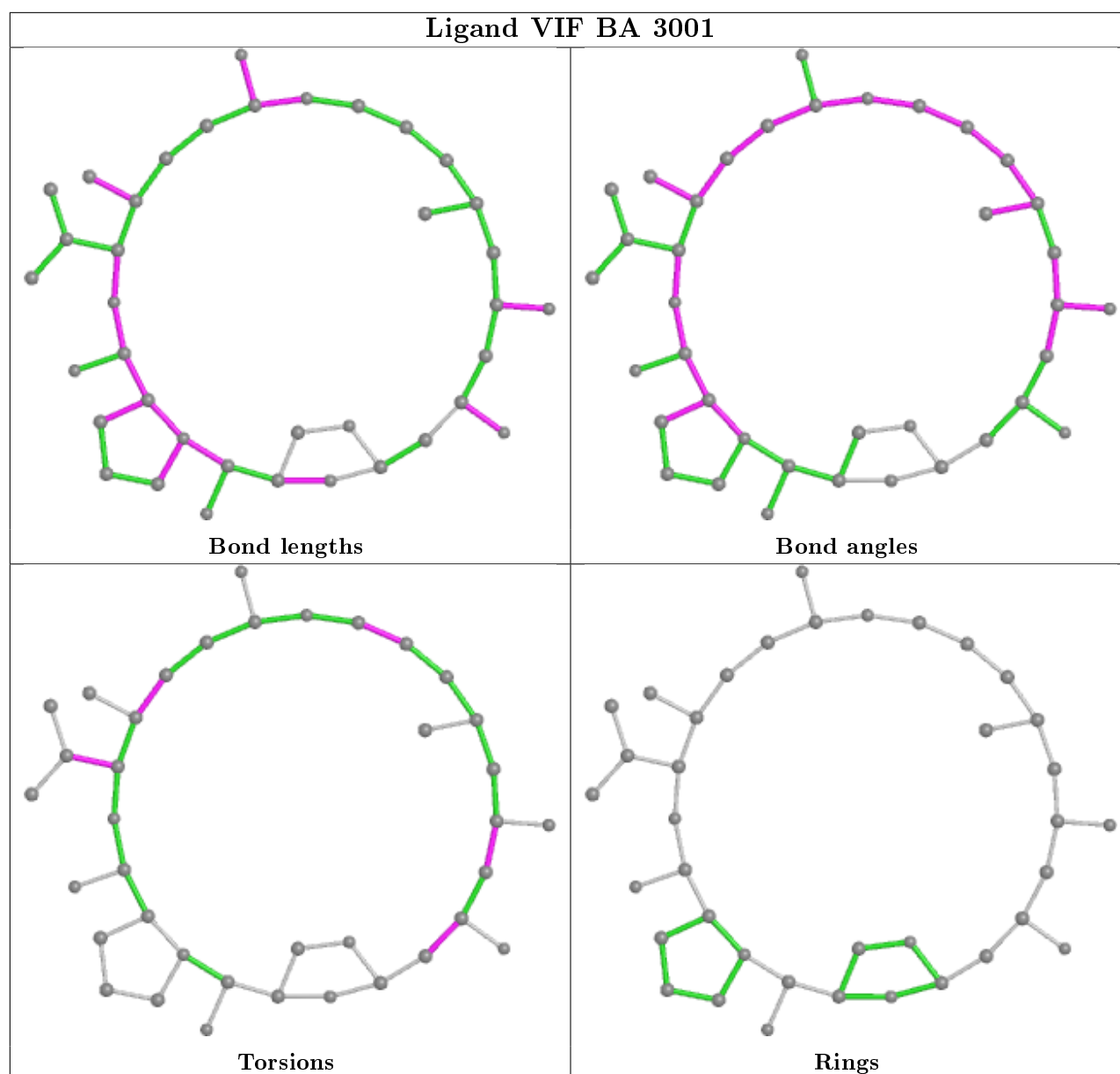
2 monomers are involved in 16 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	DA	3001	VIF	11	0
55	BA	3001	VIF	5	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 [i](#)

6.1 Protein, DNA and RNA chains [i](#)

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%)	-0.04	39 (2%) 57 55	13, 51, 135, 177	0
1	CA	1539/1539 (100%)	0.25	82 (5%) 26 22	27, 71, 143, 176	0
2	AB	218/218 (100%)	1.03	42 (19%) 1 0	40, 71, 99, 129	0
2	CB	218/218 (100%)	1.42	64 (29%) 0 0	57, 81, 107, 126	0
3	AC	206/206 (100%)	0.22	9 (4%) 34 30	36, 57, 81, 94	0
3	CC	206/206 (100%)	1.34	47 (22%) 0 0	53, 75, 93, 113	0
4	AD	205/205 (100%)	0.36	12 (5%) 22 18	33, 55, 79, 108	0
4	CD	205/205 (100%)	0.17	8 (3%) 39 35	21, 40, 74, 90	0
5	AE	150/150 (100%)	0.24	6 (4%) 38 33	28, 50, 82, 111	0
5	CE	150/150 (100%)	0.49	9 (6%) 21 18	33, 57, 84, 105	0
6	AF	100/100 (100%)	0.02	1 (1%) 82 82	33, 56, 75, 84	0
6	CF	100/100 (100%)	0.53	8 (8%) 12 9	47, 72, 95, 105	0
7	AG	151/151 (100%)	0.84	27 (17%) 1 1	49, 74, 98, 107	0
7	CG	151/151 (100%)	2.55	88 (58%) 0 0	77, 94, 106, 113	0
8	AH	129/129 (100%)	0.20	2 (1%) 72 71	29, 48, 71, 80	0
8	CH	129/129 (100%)	0.60	11 (8%) 10 8	47, 63, 82, 88	0
9	AI	127/127 (100%)	1.00	22 (17%) 1 1	45, 70, 95, 115	0
9	CI	127/127 (100%)	1.74	46 (36%) 0 0	68, 88, 106, 130	0
10	AJ	98/98 (100%)	0.88	15 (15%) 2 1	44, 64, 93, 121	0
10	CJ	98/98 (100%)	2.65	57 (58%) 0 0	68, 90, 109, 123	0
11	AK	117/117 (100%)	0.68	15 (12%) 3 2	27, 61, 87, 107	0
11	CK	117/117 (100%)	0.44	6 (5%) 28 24	37, 65, 83, 90	0
12	AL	123/123 (100%)	0.28	5 (4%) 37 32	24, 37, 71, 101	0
12	CL	123/123 (100%)	0.53	9 (7%) 15 11	38, 51, 79, 102	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%)	0.51	10 (8%) 10 7	46, 67, 90, 104	0
13	CM	114/114 (100%)	3.11	79 (69%) 0 0	84, 100, 114, 118	0
14	AN	96/100 (96%)	0.79	17 (17%) 1 1	41, 58, 92, 107	0
14	CN	96/100 (96%)	2.30	50 (52%) 0 0	64, 88, 107, 118	0
15	AO	88/88 (100%)	0.16	5 (5%) 23 19	31, 50, 66, 98	0
15	CO	88/88 (100%)	0.39	5 (5%) 23 19	39, 62, 84, 105	0
16	AP	82/82 (100%)	0.78	11 (13%) 3 2	33, 45, 80, 103	0
16	CP	82/82 (100%)	1.34	20 (24%) 0 0	44, 62, 89, 105	0
17	AQ	80/80 (100%)	0.54	6 (7%) 14 11	29, 54, 83, 123	0
17	CQ	80/80 (100%)	1.43	25 (31%) 0 0	41, 70, 96, 108	0
18	AR	55/55 (100%)	0.03	4 (7%) 15 11	37, 51, 76, 113	0
18	CR	55/55 (100%)	0.46	3 (5%) 25 21	39, 54, 82, 112	0
19	AS	79/79 (100%)	1.07	17 (21%) 0 0	46, 67, 92, 97	0
19	CS	79/79 (100%)	4.26	62 (78%) 0 0	82, 100, 113, 125	0
20	AT	85/85 (100%)	0.69	7 (8%) 11 9	33, 48, 72, 115	0
20	CT	85/85 (100%)	1.99	34 (40%) 0 0	53, 69, 91, 97	0
21	AU	51/51 (100%)	1.27	13 (25%) 0 0	45, 71, 92, 105	0
21	CU	51/51 (100%)	0.70	8 (15%) 2 1	42, 69, 92, 107	0
22	BA	2897/2903 (99%)	0.23	123 (4%) 36 32	2, 18, 128, 195	0
22	DA	2897/2903 (99%)	0.43	162 (5%) 24 20	44, 82, 142, 183	0
23	BB	119/119 (100%)	-0.30	0 100 100	5, 27, 53, 94	0
23	DB	118/119 (99%)	0.22	4 (3%) 45 40	68, 110, 132, 142	0
24	BC	271/271 (100%)	-0.04	1 (0%) 92 93	6, 24, 44, 62	0
24	DC	271/271 (100%)	0.93	41 (15%) 2 1	40, 61, 75, 83	0
25	BD	209/209 (100%)	-0.15	0 100 100	2, 14, 42, 69	0
25	DD	209/209 (100%)	1.04	39 (18%) 1 0	47, 65, 84, 98	0
26	BE	201/201 (100%)	-0.15	2 (0%) 82 82	4, 27, 55, 94	0
26	DE	201/201 (100%)	1.89	80 (39%) 0 0	38, 78, 97, 108	0
27	BF	177/177 (100%)	0.31	11 (6%) 20 16	23, 45, 85, 101	0
27	DF	177/177 (100%)	3.49	138 (77%) 0 0	80, 99, 114, 125	0
28	BG	176/176 (100%)	0.16	5 (2%) 53 49	21, 40, 66, 93	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%)	2.40	99 (56%) 0 0	68, 87, 103, 118	0
29	BH	149/149 (100%)	3.55	95 (63%) 0 0	25, 102, 121, 129	0
29	DH	149/149 (100%)	1.82	62 (41%) 0 0	25, 92, 107, 115	0
30	BI	141/141 (100%)	3.64	95 (67%) 0 0	82, 105, 120, 135	0
30	DI	141/141 (100%)	5.32	132 (93%) 0 0	95, 111, 121, 124	0
31	BJ	142/142 (100%)	-0.19	0 100 100	2, 11, 33, 52	0
31	DJ	142/142 (100%)	1.06	30 (21%) 1 0	50, 65, 81, 97	0
32	BK	122/122 (100%)	-0.27	0 100 100	6, 18, 37, 68	0
32	DK	122/122 (100%)	1.02	24 (19%) 1 0	46, 61, 80, 94	0
33	BL	143/143 (100%)	-0.07	0 100 100	3, 24, 50, 81	0
33	DL	143/143 (100%)	2.10	65 (45%) 0 0	45, 74, 91, 111	0
34	BM	136/136 (100%)	-0.23	0 100 100	3, 14, 33, 93	0
34	DM	136/136 (100%)	1.19	33 (24%) 0 0	44, 66, 82, 109	0
35	BN	120/120 (100%)	-0.23	0 100 100	6, 13, 25, 68	0
35	DN	120/120 (100%)	1.42	29 (24%) 0 0	53, 71, 88, 111	0
36	BO	116/116 (100%)	-0.03	1 (0%) 84 84	19, 29, 51, 57	0
36	DO	116/116 (100%)	3.08	78 (67%) 0 0	70, 88, 102, 113	0
37	BP	114/114 (100%)	-0.10	0 100 100	11, 21, 49, 73	0
37	DP	114/114 (100%)	1.06	21 (18%) 1 0	54, 67, 84, 91	0
38	BQ	117/117 (100%)	-0.18	0 100 100	3, 8, 19, 51	0
38	DQ	117/117 (100%)	0.91	21 (17%) 1 1	51, 65, 79, 82	0
39	BR	103/103 (100%)	-0.14	1 (0%) 82 82	3, 17, 36, 65	0
39	DR	103/103 (100%)	1.67	35 (33%) 0 0	52, 73, 87, 96	0
40	BS	110/110 (100%)	-0.12	1 (0%) 84 84	3, 8, 28, 88	0
40	DS	110/110 (100%)	2.03	50 (45%) 0 0	56, 70, 88, 96	0
41	BT	93/93 (100%)	0.32	2 (2%) 62 59	13, 30, 83, 101	0
41	DT	93/93 (100%)	2.96	64 (68%) 0 0	62, 81, 103, 109	0
42	BU	102/102 (100%)	-0.09	2 (1%) 65 63	13, 31, 60, 95	0
42	DU	102/102 (100%)	3.54	64 (62%) 0 0	66, 84, 105, 111	0
43	BV	94/94 (100%)	-0.13	1 (1%) 80 80	10, 24, 47, 58	0
43	DV	94/94 (100%)	1.12	22 (23%) 0 0	65, 79, 94, 97	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%)	-0.08	1 (1%) 77 77	9, 17, 38, 57	0
44	DW	75/76 (98%)	2.17	35 (46%) 0 0	51, 77, 88, 108	0
45	BX	77/77 (100%)	-0.20	1 (1%) 77 77	10, 26, 52, 79	0
45	DX	77/77 (100%)	0.99	14 (18%) 1 1	47, 67, 84, 89	0
46	BY	63/63 (100%)	0.40	5 (7%) 12 10	20, 44, 71, 96	0
46	DY	63/63 (100%)	2.07	30 (47%) 0 0	68, 88, 96, 103	0
47	BZ	58/58 (100%)	-0.14	0 100 100	6, 11, 36, 41	0
47	DZ	58/58 (100%)	0.97	12 (20%) 1 0	52, 70, 83, 88	0
48	B0	56/56 (100%)	-0.19	0 100 100	3, 14, 40, 75	0
48	D0	56/56 (100%)	1.38	17 (30%) 0 0	51, 71, 91, 105	0
49	B1	50/50 (100%)	-0.08	1 (2%) 65 63	20, 32, 58, 92	0
49	D1	50/50 (100%)	1.67	13 (26%) 0 0	64, 80, 92, 104	0
50	B2	46/46 (100%)	0.01	1 (2%) 62 59	7, 13, 20, 95	0
50	D2	46/46 (100%)	1.83	17 (36%) 0 0	51, 66, 79, 99	0
51	B3	64/64 (100%)	-0.09	0 100 100	9, 15, 25, 33	0
51	D3	64/64 (100%)	1.48	16 (25%) 0 0	54, 68, 79, 83	0
52	B4	38/38 (100%)	0.06	0 100 100	15, 22, 37, 55	0
52	D4	38/38 (100%)	2.21	21 (55%) 0 0	59, 72, 84, 97	0
53	B5	191/228 (83%)	6.51	186 (97%) 0 0	78, 108, 120, 133	0
All	All	20734/20794 (99%)	0.73	3009 (14%) 2 1	2, 62, 117, 195	0

All (3009) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
30	DI	2	ALA	21.5
30	DI	3	LYS	18.8
22	BA	2184	A	18.5
22	BA	2104	C	17.8
30	BI	53	LEU	17.4
22	BA	2100	G	17.3
53	B5	111	PHE	17.2
10	AJ	102	LEU	17.1
22	BA	2103	C	16.9
22	BA	2185	U	16.4
53	B5	55	SER	16.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	BH	96	THR	16.0
30	DI	67	PHE	15.9
53	B5	110	ASP	15.2
1	AA	1535	C	15.1
30	BI	3	LYS	14.0
30	DI	68	THR	13.9
53	B5	218	THR	13.9
29	BH	110	VAL	13.8
29	BH	97	ARG	13.8
22	BA	2102	G	13.5
29	BH	115	VAL	13.3
22	BA	2101	A	13.2
53	B5	157	ILE	13.1
53	B5	203	GLU	12.9
1	AA	1536	C	12.9
1	AA	1534	A	12.8
53	B5	156	GLU	12.8
22	BA	2158	A	12.8
30	BI	2	ALA	12.6
22	BA	2135	A	12.6
53	B5	109	MET	12.4
22	BA	2189	U	12.4
53	B5	97	GLY	12.3
30	DI	69	PHE	12.1
19	CS	74	PHE	12.1
42	DU	26	LYS	12.0
30	DI	6	GLN	12.0
27	DF	128	TYR	11.7
53	B5	48	LEU	11.5
7	CG	62	PHE	11.5
30	DI	63	ALA	11.5
29	BH	146	VAL	11.4
53	B5	207	GLY	11.3
30	DI	7	ALA	11.3
2	AB	155	GLY	11.3
22	BA	2140	G	11.3
22	BA	2159	G	11.3
13	CM	84	GLY	11.2
29	BH	113	SER	11.2
22	BA	2178	C	11.1
1	CA	1536	C	11.0
53	B5	52	PRO	11.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	B5	60	ARG	10.8
36	DO	24	THR	10.7
53	B5	208	THR	10.7
22	BA	2136	G	10.6
22	BA	2144	G	10.6
30	BI	13	VAL	10.6
29	BH	130	VAL	10.6
53	B5	217	THR	10.6
30	DI	61	VAL	10.6
42	DU	77	THR	10.6
53	B5	204	GLY	10.6
42	DU	78	GLY	10.5
53	B5	20	VAL	10.5
22	BA	2145	C	10.4
33	DL	92	LEU	10.4
17	AQ	83	VAL	10.4
30	BI	4	LYS	10.4
53	B5	54	ARG	10.3
22	BA	2099	U	10.3
30	DI	34	ASN	10.2
30	DI	5	VAL	10.2
30	DI	4	LYS	10.1
7	CG	39	ALA	10.1
53	B5	122	GLY	10.1
19	CS	66	MET	10.0
53	B5	224	ARG	9.9
10	CJ	74	VAL	9.9
53	B5	143	ALA	9.9
22	BA	2117	A	9.8
22	BA	2138	G	9.8
29	BH	68	ARG	9.8
19	CS	37	ARG	9.8
22	BA	2139	U	9.8
22	BA	2165	C	9.7
2	AB	157	LEU	9.7
53	B5	132	LEU	9.7
22	BA	2163	A	9.6
1	CA	1539	C	9.6
22	BA	2142	A	9.6
22	BA	2183	A	9.6
53	B5	141	PRO	9.6
53	B5	173	HIS	9.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	128	SER	9.6
22	DA	1175	A	9.5
53	B5	66	PRO	9.5
53	B5	223	VAL	9.5
29	BH	144	VAL	9.5
30	DI	66	SER	9.5
30	DI	60	THR	9.5
41	DT	15	HIS	9.5
30	DI	58	VAL	9.4
46	BY	63	ALA	9.4
1	CA	1535	C	9.4
22	BA	2177	C	9.4
53	B5	183	PRO	9.4
42	DU	25	VAL	9.3
30	DI	8	TYR	9.3
27	DF	156	ILE	9.3
42	DU	60	GLU	9.3
42	DU	79	LYS	9.3
30	BI	14	ALA	9.2
42	DU	58	ILE	9.2
29	BH	148	ALA	9.1
53	B5	59	VAL	9.1
28	DG	52	PHE	9.1
29	BH	91	PHE	9.0
29	BH	136	SER	9.0
19	CS	29	LYS	9.0
22	BA	2148	G	9.0
53	B5	202	PRO	9.0
19	CS	39	THR	8.9
9	AI	43	THR	8.9
30	DI	31	GLN	8.9
30	BI	39	CYS	8.9
53	B5	67	HIS	8.9
30	DI	59	ILE	8.9
29	BH	106	ALA	8.8
29	BH	123	ARG	8.8
19	CS	12	ASP	8.8
42	DU	36	VAL	8.7
27	DF	130	MET	8.7
53	B5	182	PRO	8.7
53	B5	96	GLY	8.7
22	BA	2182	U	8.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
30	BI	22	PRO	8.7
53	B5	221	PRO	8.7
13	CM	85	CYS	8.7
42	DU	52	LEU	8.7
22	BA	2176	A	8.6
29	BH	98	ASP	8.6
53	B5	53	ARG	8.6
27	DF	176	PRO	8.6
22	BA	2150	C	8.6
30	BI	41	ALA	8.5
36	DO	117	PHE	8.5
2	CB	32	PHE	8.5
53	B5	45	HIS	8.4
30	DI	30	GLN	8.4
53	B5	107	GLY	8.4
29	DH	142	VAL	8.4
53	B5	62	THR	8.4
53	B5	200	HIS	8.4
53	B5	65	LEU	8.4
42	DU	12	ILE	8.4
30	DI	53	LEU	8.4
53	B5	50	ILE	8.4
22	BA	2152	G	8.4
30	DI	47	ASP	8.3
22	BA	2115	G	8.3
30	BI	11	LEU	8.3
42	DU	13	VAL	8.3
22	BA	2127	G	8.3
7	AG	88	PRO	8.3
36	DO	40	ILE	8.3
30	DI	70	VAL	8.3
53	B5	184	GLU	8.2
22	BA	2162	G	8.2
22	BA	2114	A	8.2
53	B5	106	ASP	8.2
27	DF	155	THR	8.1
22	BA	2106	U	8.1
53	B5	108	TRP	8.1
26	DE	119	ILE	8.1
53	B5	94	TYR	8.1
22	BA	2143	C	8.1
22	BA	2175	C	8.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	BH	69	ALA	8.1
1	CA	1534	A	8.1
30	BI	12	GLN	8.1
42	DU	80	ALA	8.0
53	B5	146	VAL	8.0
9	CI	129	LYS	8.0
30	DI	35	ILE	8.0
22	BA	2147	A	8.0
30	DI	112	THR	8.0
29	BH	55	GLU	7.9
1	CA	1032	G	7.9
20	CT	3	ASN	7.9
53	B5	133	GLY	7.9
30	BI	23	PRO	7.9
30	DI	11	LEU	7.9
27	DF	120	LYS	7.9
2	CB	151	ILE	7.9
22	BA	2161	C	7.9
36	DO	19	GLN	7.9
53	B5	105	LEU	7.8
53	B5	216	THR	7.8
7	CG	66	LEU	7.8
53	B5	149	ASN	7.8
19	CS	30	PRO	7.8
27	DF	117	LEU	7.8
46	DY	10	SER	7.7
53	B5	49	GLY	7.7
5	AE	159	LYS	7.7
33	DL	144	GLU	7.7
30	BI	79	LEU	7.7
27	DF	118	SER	7.7
30	BI	87	LYS	7.7
53	B5	199	ALA	7.7
30	DI	48	SER	7.7
22	BA	2153	C	7.7
53	B5	76	LEU	7.7
41	DT	2	ILE	7.7
22	BA	2188	U	7.7
29	BH	120	GLY	7.7
49	D1	36	LEU	7.6
1	AA	1538	C	7.6
9	CI	43	THR	7.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	BH	112	LYS	7.6
22	BA	2160	C	7.6
7	CG	18	PHE	7.6
53	B5	95	VAL	7.6
22	BA	2174	C	7.6
30	DI	32	GLY	7.6
30	BI	83	ALA	7.6
48	D0	27	SER	7.5
27	DF	113	ASP	7.5
20	AT	68	HIS	7.5
19	CS	42	PRO	7.5
19	CS	60	VAL	7.5
53	B5	89	GLU	7.5
33	DL	101	ILE	7.5
53	B5	159	ALA	7.5
53	B5	38	PHE	7.5
27	DF	67	ILE	7.5
30	BI	114	ALA	7.5
22	BA	2179	C	7.4
1	AA	1030	U	7.4
22	BA	2113	U	7.4
20	CT	4	ILE	7.4
19	CS	24	GLU	7.4
22	BA	138	U	7.4
22	BA	2172	U	7.4
19	CS	49	ILE	7.4
2	AB	156	GLY	7.3
27	DF	65	PRO	7.3
53	B5	68	GLY	7.3
28	DG	45	HIS	7.3
22	DA	1536	C	7.2
19	CS	71	LEU	7.2
46	DY	13	GLU	7.2
40	DS	84	ARG	7.2
14	CN	44	ALA	7.2
13	CM	98	ARG	7.2
36	DO	64	TYR	7.2
53	B5	206	LYS	7.2
27	DF	106	ILE	7.2
30	DI	64	ASP	7.2
30	BI	5	VAL	7.2
2	CB	164	ILE	7.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	CM	64	VAL	7.2
53	B5	152	GLU	7.2
30	BI	120	ALA	7.1
19	CS	41	PHE	7.1
53	B5	194	ILE	7.1
22	BA	2112	G	7.1
53	B5	169	THR	7.1
10	CJ	16	ARG	7.1
53	B5	69	LEU	7.1
30	DI	133	ALA	7.1
44	DW	63	ALA	7.1
53	B5	147	GLY	7.1
53	B5	39	ASP	7.1
30	DI	13	VAL	7.1
30	BI	69	PHE	7.1
29	BH	54	LEU	7.1
41	DT	10	VAL	7.1
27	DF	175	PHE	7.1
30	DI	21	SER	7.1
44	DW	83	GLU	7.1
4	CD	25	VAL	7.0
53	B5	150	ILE	7.0
53	B5	213	VAL	7.0
53	B5	148	PHE	7.0
22	BA	2149	U	7.0
53	B5	77	ALA	7.0
53	B5	123	ALA	7.0
22	DA	613	A	7.0
10	CJ	77	VAL	7.0
30	DI	52	GLY	7.0
20	CT	38	ALA	7.0
53	B5	41	THR	7.0
50	D2	46	LYS	7.0
22	BA	2164	C	7.0
29	BH	58	LEU	7.0
53	B5	140	ASN	6.9
40	DS	92	ARG	6.9
22	BA	2154	A	6.9
42	DU	43	LYS	6.9
29	DH	12	LEU	6.9
35	DN	28	LEU	6.9
29	BH	72	ILE	6.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	B5	214	TYR	6.9
30	BI	67	PHE	6.9
27	DF	114	PHE	6.9
53	B5	174	ALA	6.8
33	DL	3	LEU	6.8
22	BA	2123	G	6.8
53	B5	98	GLU	6.8
28	DG	105	LEU	6.8
9	AI	130	ARG	6.8
53	B5	73	VAL	6.8
30	DI	54	PRO	6.8
19	CS	43	ASN	6.8
24	DC	27	GLY	6.8
27	DF	115	ARG	6.8
30	BI	115	ALA	6.8
53	B5	179	ALA	6.8
36	DO	92	PHE	6.8
13	CM	63	PHE	6.8
53	B5	104	ILE	6.7
30	DI	43	ASN	6.7
1	CA	1538	C	6.7
14	CN	36	ALA	6.7
29	DH	15	LEU	6.7
42	DU	63	ALA	6.7
22	BA	2156	G	6.7
22	BA	2186	G	6.7
53	B5	165	ARG	6.7
41	DT	83	ALA	6.7
53	B5	84	ILE	6.7
2	AB	9	MET	6.6
30	DI	62	TYR	6.6
33	DL	106	GLU	6.6
1	CA	1537	U	6.6
30	BI	101	ILE	6.6
13	CM	45	ILE	6.6
49	D1	53	LYS	6.6
53	B5	222	SER	6.6
29	DH	18	GLN	6.6
53	B5	225	ILE	6.6
53	B5	42	VAL	6.6
1	AA	1537	U	6.6
19	CS	76	PRO	6.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	DU	62	GLU	6.6
53	B5	70	GLY	6.6
22	BA	2107	G	6.6
36	DO	25	ARG	6.6
27	DF	121	SER	6.5
27	DF	154	ILE	6.5
10	CJ	76	ILE	6.5
53	B5	28	ARG	6.5
53	B5	57	GLN	6.5
39	DR	50	GLY	6.5
14	CN	48	LEU	6.5
30	BI	17	MET	6.5
30	DI	15	ALA	6.5
19	CS	75	ALA	6.5
22	BA	885	C	6.5
1	AA	1539	C	6.5
30	DI	106	LEU	6.5
7	AG	147	ALA	6.5
7	CG	85	TYR	6.5
14	CN	21	PHE	6.5
19	CS	11	ILE	6.5
29	BH	101	ASP	6.5
30	BI	20	PRO	6.5
52	D4	10	LEU	6.5
3	CC	144	LEU	6.4
26	DE	55	SER	6.4
34	DM	56	ALA	6.4
22	BA	2125	G	6.4
53	B5	170	GLY	6.4
22	BA	2116	G	6.4
53	B5	212	SER	6.4
19	CS	44	MET	6.4
28	DG	9	VAL	6.4
19	CS	15	LEU	6.4
42	DU	50	PRO	6.4
22	DA	1537	G	6.4
53	B5	64	SER	6.4
19	CS	67	VAL	6.4
53	B5	134	PRO	6.4
30	DI	20	PRO	6.4
22	BA	2166	U	6.3
34	DM	136	MET	6.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
41	DT	60	THR	6.3
46	DY	16	THR	6.3
53	B5	209	PHE	6.3
53	B5	126	SER	6.3
29	BH	129	GLU	6.3
19	AS	3	ARG	6.3
22	BA	2121	G	6.3
22	BA	2105	U	6.3
53	B5	161	ARG	6.3
41	DT	34	VAL	6.3
8	CH	122	GLY	6.3
53	B5	85	LYS	6.3
19	CS	10	PHE	6.3
22	BA	2120	G	6.3
27	DF	122	PHE	6.3
29	BH	102	ALA	6.3
30	BI	54	PRO	6.3
1	CA	1030	U	6.3
10	CJ	87	LEU	6.2
51	D3	61	CYS	6.2
27	DF	79	ILE	6.2
9	CI	130	ARG	6.2
27	DF	35	THR	6.2
41	DT	1	MET	6.2
53	B5	79	ALA	6.2
29	DH	117	LEU	6.2
30	DI	89	GLY	6.2
41	DT	43	ILE	6.2
27	DF	54	ALA	6.2
8	CH	123	GLY	6.2
10	CJ	100	ILE	6.2
29	BH	118	PRO	6.2
53	B5	160	GLY	6.2
27	DF	13	VAL	6.2
53	B5	187	ALA	6.2
22	BA	2122	U	6.2
22	BA	2124	G	6.2
30	DI	46	THR	6.2
29	BH	119	ASN	6.2
30	DI	78	VAL	6.2
1	AA	78	A	6.2
30	BI	99	GLY	6.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
21	AU	38	TYR	6.2
28	DG	2	SER	6.1
53	B5	61	GLY	6.1
28	DG	148	LEU	6.1
53	B5	92	ALA	6.1
29	DH	79	THR	6.1
27	DF	129	SER	6.1
53	B5	193	PHE	6.1
53	B5	211	ARG	6.1
30	BI	68	THR	6.1
53	B5	46	ALA	6.1
10	CJ	8	ILE	6.1
14	CN	51	LEU	6.1
36	DO	87	ILE	6.0
41	DT	6	ARG	6.0
30	DI	55	ILE	6.0
53	B5	93	ASP	6.0
29	BH	89	LYS	6.0
30	BI	71	THR	6.0
53	B5	198	GLU	6.0
27	DF	177	PHE	6.0
19	CS	51	VAL	6.0
19	CS	64	ASP	6.0
22	DA	345	A	6.0
36	DO	58	ILE	6.0
28	DG	33	LEU	6.0
53	B5	121	MET	6.0
20	AT	36	TYR	6.0
9	AI	41	ARG	5.9
1	AA	1017	U	5.9
9	CI	58	VAL	5.9
22	BA	2108	A	5.9
36	DO	88	LYS	5.9
53	B5	145	THR	5.9
53	B5	27	ALA	5.9
17	CQ	4	LYS	5.9
53	B5	88	GLU	5.9
3	CC	37	PHE	5.9
27	DF	149	VAL	5.9
30	DI	139	VAL	5.9
16	AP	80	LYS	5.9
9	CI	38	TYR	5.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
30	BI	52	GLY	5.9
22	DA	1174	U	5.9
43	DV	94	ALA	5.9
53	B5	78	ILE	5.9
22	DA	1535	A	5.8
19	CS	18	LYS	5.8
22	BA	2131	U	5.8
30	DI	45	LYS	5.8
31	DJ	97	PRO	5.8
42	DU	48	PRO	5.8
17	CQ	50	ASN	5.8
52	D4	8	LYS	5.8
53	B5	87	ALA	5.8
22	DA	1073	A	5.8
2	CB	9	MET	5.8
27	DF	133	ARG	5.8
35	DN	76	VAL	5.8
2	CB	139	ARG	5.8
39	DR	37	GLU	5.8
30	DI	25	GLY	5.8
22	BA	139	U	5.8
22	BA	2181	U	5.8
34	DM	124	LEU	5.8
49	D1	52	ALA	5.7
53	B5	100	ILE	5.7
36	DO	90	VAL	5.7
22	BA	2098	U	5.7
22	BA	2155	U	5.7
13	CM	80	LEU	5.7
53	B5	142	LYS	5.7
30	DI	22	PRO	5.7
53	B5	166	ASN	5.7
13	CM	95	LEU	5.7
42	DU	20	GLY	5.7
29	DH	6	LEU	5.7
13	CM	99	GLY	5.7
20	CT	24	ARG	5.7
1	AA	1018	G	5.7
16	CP	47	GLU	5.7
13	CM	12	HIS	5.7
30	BI	8	TYR	5.7
29	BH	132	PHE	5.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	CS	13	LEU	5.6
53	B5	82	GLU	5.6
13	CM	46	SER	5.6
29	DH	123	ARG	5.6
53	B5	63	VAL	5.6
22	BA	2134	A	5.6
29	BH	67	ALA	5.6
2	AB	131	LYS	5.6
41	DT	55	VAL	5.6
30	BI	80	LEU	5.6
22	BA	2130	U	5.6
35	DN	63	ARG	5.6
50	B2	46	LYS	5.6
13	CM	115	PRO	5.6
16	AP	81	ALA	5.6
29	BH	149	GLU	5.6
14	CN	95	GLY	5.6
13	CM	113	ARG	5.6
13	CM	10	PRO	5.6
19	CS	52	HIS	5.6
53	B5	192	ALA	5.6
33	DL	89	VAL	5.5
29	BH	105	ALA	5.5
27	DF	152	LEU	5.5
42	DU	28	VAL	5.5
28	DG	6	LYS	5.5
30	BI	100	LYS	5.5
12	CL	124	ALA	5.5
30	DI	14	ALA	5.5
30	DI	120	ALA	5.5
51	D3	14	PHE	5.5
29	BH	83	LYS	5.5
53	B5	103	LYS	5.5
33	DL	80	SER	5.5
41	DT	3	ARG	5.5
30	BI	55	ILE	5.5
33	DL	121	THR	5.5
30	BI	24	VAL	5.5
1	CA	1540	U	5.5
29	BH	86	ASP	5.5
13	CM	40	ALA	5.5
53	B5	22	THR	5.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	CB	191	SER	5.5
32	DK	111	LYS	5.4
30	DI	29	GLY	5.4
53	B5	74	ARG	5.4
10	CJ	86	ALA	5.4
53	B5	215	VAL	5.4
27	DF	21	ASN	5.4
18	AR	20	GLU	5.4
46	DY	59	GLU	5.4
1	AA	1020	G	5.4
9	CI	90	TYR	5.4
20	CT	42	GLY	5.4
22	BA	2118	U	5.4
22	BA	1175	A	5.4
22	BA	2173	A	5.4
30	DI	17	MET	5.4
42	DU	35	ILE	5.4
7	CG	134	ALA	5.4
28	DG	32	GLU	5.4
1	CA	1021	A	5.4
53	B5	81	GLY	5.4
22	DA	138	U	5.4
30	DI	28	LEU	5.4
36	DO	26	LEU	5.4
40	DS	19	LEU	5.4
27	DF	116	GLY	5.4
30	DI	16	GLY	5.4
26	DE	175	ILE	5.4
27	DF	111	ILE	5.4
19	CS	63	THR	5.4
7	CG	118	LEU	5.4
30	DI	77	ALA	5.4
42	DU	70	VAL	5.4
22	BA	2157	G	5.4
29	DH	82	SER	5.4
30	DI	36	MET	5.4
10	CJ	41	PRO	5.4
13	CM	83	LEU	5.4
28	DG	4	VAL	5.3
29	BH	121	VAL	5.3
24	DC	26	LYS	5.3
22	BA	2141	G	5.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	DA	1067	A	5.3
27	DF	23	ASN	5.3
29	BH	122	LEU	5.3
30	DI	76	ALA	5.3
42	DU	61	LYS	5.3
53	B5	125	GLY	5.3
27	DF	34	ILE	5.3
17	CQ	8	LEU	5.3
53	B5	26	ALA	5.3
30	DI	96	ASP	5.3
2	CB	161	LEU	5.3
28	DG	50	LEU	5.3
28	DG	57	GLY	5.3
53	B5	220	GLY	5.3
19	CS	40	ILE	5.3
42	DU	39	ILE	5.3
27	DF	142	ASP	5.3
33	DL	108	ALA	5.3
29	DH	144	VAL	5.3
22	BA	2146	C	5.3
30	DI	126	THR	5.3
36	DO	61	GLN	5.3
41	DT	36	LYS	5.3
47	DZ	2	ALA	5.2
7	CG	151	PHE	5.2
53	B5	47	LYS	5.2
28	DG	131	ILE	5.2
26	DE	172	ALA	5.2
39	DR	27	ILE	5.2
29	BH	84	ALA	5.2
13	CM	97	VAL	5.2
36	DO	51	ALA	5.2
30	DI	38	PHE	5.2
29	BH	142	VAL	5.2
30	DI	75	PRO	5.2
27	DF	170	LEU	5.2
10	AJ	89	ARG	5.2
40	DS	110	ARG	5.2
28	DG	80	THR	5.1
30	DI	86	ILE	5.1
22	DA	546	U	5.1
41	DT	37	ASP	5.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	B5	51	ASP	5.1
27	DF	164	GLU	5.1
29	BH	109	GLU	5.1
30	BI	40	LYS	5.1
30	DI	49	ILE	5.1
21	CU	38	TYR	5.1
7	CG	27	VAL	5.1
42	DU	27	ASN	5.1
46	DY	33	ALA	5.1
2	AB	221	VAL	5.1
28	DG	10	VAL	5.1
53	B5	154	ILE	5.1
7	CG	72	THR	5.1
22	DA	1172	C	5.1
1	AA	1492	A	5.1
45	DX	49	LEU	5.1
7	CG	16	PRO	5.1
53	B5	131	ILE	5.1
26	DE	143	LEU	5.1
2	CB	136	MET	5.1
21	AU	32	VAL	5.1
27	DF	25	VAL	5.1
27	DF	26	MET	5.1
2	CB	186	ILE	5.1
19	CS	38	SER	5.1
22	DA	2174	C	5.1
13	CM	77	ILE	5.0
45	DX	11	ARG	5.0
22	BA	2171	A	5.0
26	DE	148	ILE	5.0
53	B5	201	LYS	5.0
53	B5	210	LEU	5.0
30	DI	99	GLY	5.0
30	DI	12	GLN	5.0
7	CG	17	LYS	5.0
33	DL	73	ILE	5.0
10	CJ	102	LEU	5.0
27	DF	112	ARG	5.0
36	DO	85	LYS	5.0
40	DS	20	VAL	5.0
22	BA	2109	U	5.0
7	AG	79	ARG	5.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	B5	43	GLU	5.0
52	D4	1	MET	5.0
28	DG	62	TRP	5.0
2	CB	213	TYR	5.0
53	B5	180	SER	5.0
52	D4	9	LYS	5.0
35	DN	73	ASN	5.0
53	B5	130	ARG	5.0
30	BI	142	ASP	5.0
30	DI	39	CYS	5.0
2	CB	40	ILE	5.0
44	DW	32	LEU	5.0
53	B5	58	ASN	5.0
30	DI	98	VAL	5.0
39	DR	20	VAL	5.0
53	B5	196	ALA	5.0
10	CJ	71	LEU	5.0
27	DF	66	LEU	5.0
1	CA	82	G	5.0
22	BA	2168	G	5.0
22	DA	2126	A	5.0
53	B5	124	VAL	5.0
13	AM	114	LYS	5.0
22	DA	1100	C	5.0
42	DU	51	ALA	5.0
10	CJ	72	ARG	5.0
50	D2	33	ARG	5.0
25	DD	25	THR	4.9
27	DF	10	ASP	4.9
30	BI	47	ASP	4.9
53	B5	136	GLY	4.9
42	DU	31	SER	4.9
7	CG	38	THR	4.9
27	DF	153	ASP	4.9
29	DH	13	GLY	4.9
40	DS	46	LEU	4.9
53	B5	191	ARG	4.9
2	CB	148	LEU	4.9
53	B5	19	LYS	4.9
53	B5	83	LYS	4.9
22	BA	2190	G	4.9
44	DW	38	VAL	4.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
26	DE	104	ALA	4.9
22	BA	1926	U	4.9
26	DE	120	VAL	4.9
33	DL	71	ALA	4.9
1	CA	209	U	4.9
16	CP	80	LYS	4.9
39	DR	38	VAL	4.9
26	DE	124	PHE	4.9
53	B5	153	ILE	4.9
30	DI	65	ARG	4.9
11	AK	19	GLY	4.9
29	BH	85	GLY	4.9
42	DU	71	ALA	4.9
28	DG	166	ASP	4.8
42	DU	29	LEU	4.8
53	B5	75	VAL	4.8
27	DF	100	PHE	4.8
42	DU	72	ILE	4.8
8	AH	2	SER	4.8
7	CG	49	THR	4.8
29	BH	61	VAL	4.8
16	CP	54	LEU	4.8
36	DO	60	GLU	4.8
22	DA	139	U	4.8
42	DU	59	VAL	4.8
4	AD	28	ILE	4.8
40	DS	85	ILE	4.8
51	D3	57	LEU	4.8
53	B5	219	MET	4.8
30	DI	80	LEU	4.8
30	DI	83	ALA	4.8
39	DR	29	THR	4.8
27	DF	85	ILE	4.8
22	DA	1093	G	4.8
30	DI	130	GLU	4.8
7	CG	13	LEU	4.8
30	DI	79	LEU	4.8
41	DT	87	LEU	4.8
27	DF	8	TYR	4.8
27	DF	76	GLY	4.8
29	BH	116	ARG	4.8
30	BI	88	SER	4.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	CM	61	ALA	4.8
22	BA	2169	A	4.8
53	B5	24	ASP	4.8
27	DF	32	GLU	4.8
27	DF	38	MET	4.8
49	D1	47	VAL	4.8
50	D2	42	LEU	4.8
13	AM	115	PRO	4.8
40	DS	5	ALA	4.7
18	CR	20	GLU	4.7
30	BI	118	THR	4.7
10	AJ	74	VAL	4.7
19	CS	28	LYS	4.7
29	DH	130	VAL	4.7
26	DE	118	LEU	4.7
26	DE	128	ALA	4.7
27	DF	93	GLY	4.7
53	B5	158	LYS	4.7
28	DG	151	TYR	4.7
41	BT	69	ARG	4.7
53	B5	164	PHE	4.7
19	CS	31	LEU	4.7
20	CT	79	LEU	4.7
22	BA	2126	A	4.7
22	DA	2150	C	4.7
24	DC	49	ILE	4.7
14	CN	34	VAL	4.7
2	AB	57	LEU	4.7
26	DE	147	LEU	4.7
20	CT	67	ILE	4.7
28	DG	82	GLY	4.7
6	CF	39	LEU	4.7
53	B5	151	GLY	4.7
22	BA	2132	U	4.7
26	DE	121	VAL	4.7
30	DI	24	VAL	4.7
53	B5	102	GLN	4.7
36	DO	65	THR	4.7
53	B5	144	GLY	4.7
28	DG	168	VAL	4.6
30	DI	57	VAL	4.6
44	DW	52	GLY	4.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
30	DI	27	ALA	4.6
30	BI	96	ASP	4.6
26	DE	23	PHE	4.6
29	DH	47	PHE	4.6
30	BI	26	PRO	4.6
7	CG	53	ARG	4.6
7	CG	139	GLU	4.6
28	DG	103	ILE	4.6
10	CJ	39	PRO	4.6
22	DA	2172	U	4.6
30	DI	42	PHE	4.6
9	CI	64	TYR	4.6
27	DF	83	TYR	4.6
53	B5	101	ILE	4.6
32	DK	68	GLY	4.6
1	AA	1019	A	4.6
22	BA	2110	G	4.6
41	DT	16	VAL	4.6
48	D0	57	LYS	4.6
7	CG	88	PRO	4.6
14	CN	11	VAL	4.6
19	CS	68	GLY	4.6
27	DF	40	VAL	4.6
31	DJ	55	ILE	4.6
53	B5	72	GLN	4.6
53	B5	86	GLU	4.6
7	CG	69	VAL	4.6
44	DW	68	LYS	4.6
30	DI	41	ALA	4.6
38	DQ	29	SER	4.6
53	B5	195	ARG	4.6
9	CI	20	PHE	4.6
11	AK	14	LYS	4.6
27	DF	103	LEU	4.5
30	DI	82	LYS	4.5
36	DO	78	VAL	4.5
2	CB	132	LYS	4.5
33	DL	122	VAL	4.5
36	DO	103	VAL	4.5
14	CN	43	ASN	4.5
40	DS	54	ALA	4.5
29	BH	95	GLY	4.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
26	DE	186	VAL	4.5
46	DY	28	LEU	4.5
51	D3	58	VAL	4.5
27	DF	17	MET	4.5
14	CN	27	LEU	4.5
33	DL	143	GLU	4.5
1	CA	211	G	4.5
7	CG	148	ASN	4.5
53	B5	162	ILE	4.5
7	CG	15	ASP	4.5
7	CG	131	LYS	4.5
19	CS	72	GLY	4.5
19	CS	58	VAL	4.5
22	BA	1094	U	4.5
2	CB	206	ALA	4.5
7	CG	111	ARG	4.5
13	CM	33	ILE	4.5
25	DD	27	ILE	4.5
35	DN	111	ALA	4.5
30	BI	95	LYS	4.5
44	DW	26	PHE	4.5
49	D1	45	GLN	4.5
7	CG	30	LEU	4.5
10	CJ	96	VAL	4.5
22	DA	280	U	4.5
28	DG	102	VAL	4.5
29	BH	19	VAL	4.5
1	CA	1020	G	4.5
22	DA	2168	G	4.5
19	CS	16	LEU	4.5
52	D4	33	HIS	4.5
7	AG	75	VAL	4.5
27	DF	12	VAL	4.5
41	DT	53	VAL	4.5
2	CB	34	ALA	4.5
7	CG	152	ALA	4.5
28	DG	20	ASN	4.5
35	DN	24	MET	4.5
20	CT	86	LEU	4.5
7	CG	20	SER	4.5
13	CM	86	TYR	4.5
16	CP	17	TYR	4.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	DO	52	SER	4.5
42	DU	33	LYS	4.5
17	CQ	5	ILE	4.4
20	CT	39	ILE	4.4
30	BI	82	LYS	4.4
36	DO	76	LYS	4.4
24	DC	93	LEU	4.4
36	DO	106	LEU	4.4
30	DI	9	VAL	4.4
4	AD	36	GLN	4.4
21	CU	37	PHE	4.4
1	CA	1031	C	4.4
4	AD	151	LYS	4.4
13	CM	47	GLU	4.4
24	DC	237	GLY	4.4
27	DF	119	ALA	4.4
33	DL	107	PHE	4.4
1	CA	94	G	4.4
14	CN	46	LEU	4.4
22	BA	1847	A	4.4
10	CJ	9	ARG	4.4
24	DC	249	GLY	4.4
41	DT	76	ARG	4.4
44	DW	42	GLY	4.4
29	DH	21	VAL	4.4
36	DO	16	ARG	4.4
53	B5	155	ARG	4.4
53	B5	171	ALA	4.4
26	DE	168	ASP	4.4
29	BH	137	GLU	4.4
3	CC	192	THR	4.4
26	DE	13	THR	4.4
28	DG	58	TYR	4.4
30	BI	21	SER	4.4
19	AS	9	PRO	4.4
13	CM	69	LEU	4.4
36	DO	54	VAL	4.4
13	CM	108	THR	4.4
35	DN	119	SER	4.4
53	B5	40	GLU	4.4
30	DI	85	GLY	4.4
20	CT	85	LYS	4.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	CS	3	ARG	4.4
41	DT	73	ARG	4.4
41	DT	49	LYS	4.4
35	DN	25	ALA	4.3
53	B5	25	GLU	4.3
10	CJ	89	ARG	4.3
33	DL	132	ARG	4.3
29	BH	147	VAL	4.3
7	AG	151	PHE	4.3
36	DO	57	ALA	4.3
42	DU	21	LYS	4.3
19	CS	59	PRO	4.3
30	DI	88	SER	4.3
30	BI	140	VAL	4.3
28	DG	104	ASN	4.3
24	DC	242	LYS	4.3
29	DH	81	ALA	4.3
2	CB	212	LEU	4.3
10	CJ	10	LEU	4.3
3	CC	173	VAL	4.3
19	CS	25	SER	4.3
19	CS	48	THR	4.3
19	AS	41	PHE	4.3
1	CA	1314	C	4.3
12	CL	25	GLU	4.3
41	DT	58	VAL	4.3
42	DU	49	VAL	4.3
13	CM	39	ILE	4.3
29	DH	132	PHE	4.3
10	CJ	45	ARG	4.3
13	CM	71	ARG	4.3
36	DO	2	ASP	4.3
42	DU	87	PHE	4.3
7	CG	103	TRP	4.3
25	DD	31	ALA	4.3
13	CM	48	LEU	4.3
22	DA	1171	G	4.3
30	BI	78	VAL	4.3
2	CB	135	LEU	4.3
3	CC	167	TRP	4.2
33	DL	114	GLY	4.2
30	DI	72	LYS	4.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
46	DY	29	ARG	4.2
1	AA	87	C	4.2
53	B5	90	ALA	4.2
22	BA	2193	G	4.2
25	DD	6	GLY	4.2
30	BI	119	GLY	4.2
2	CB	104	TRP	4.2
7	CG	57	SER	4.2
1	AA	86	G	4.2
1	CA	79	G	4.2
29	DH	19	VAL	4.2
31	DJ	119	PHE	4.2
22	BA	2111	U	4.2
20	CT	71	LYS	4.2
36	DO	63	LYS	4.2
51	D3	37	ALA	4.2
27	DF	68	THR	4.2
29	BH	11	ASN	4.2
19	CS	19	VAL	4.2
27	DF	22	TYR	4.2
42	DU	37	GLU	4.2
22	DA	2903	U	4.2
36	DO	107	ALA	4.2
10	CJ	90	LEU	4.2
30	BI	135	SER	4.2
40	DS	36	LEU	4.2
41	DT	50	LEU	4.2
7	CG	68	ASN	4.2
28	DG	43	VAL	4.2
35	DN	120	GLU	4.2
44	DW	62	LYS	4.2
24	DC	172	VAL	4.2
41	DT	24	MET	4.2
14	CN	20	TYR	4.2
40	DS	97	LEU	4.2
42	DU	41	LEU	4.2
48	D0	39	LEU	4.2
16	AP	22	ALA	4.2
26	DE	190	ALA	4.2
30	DI	44	ALA	4.2
53	B5	197	LEU	4.2
53	B5	205	ALA	4.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	BA	2133	G	4.2
53	B5	99	GLU	4.2
7	AG	5	ARG	4.2
40	DS	3	THR	4.2
29	DH	90	LEU	4.1
14	CN	32	SER	4.1
53	B5	120	VAL	4.1
4	CD	28	ILE	4.1
16	CP	57	ILE	4.1
12	AL	25	GLU	4.1
36	DO	116	GLN	4.1
42	DU	42	VAL	4.1
42	DU	40	ASN	4.1
30	DI	23	PRO	4.1
22	BA	1065	U	4.1
35	DN	83	LEU	4.1
30	DI	87	LYS	4.1
48	D0	55	ILE	4.1
24	DC	112	ALA	4.1
41	DT	8	LEU	4.1
10	CJ	99	GLN	4.1
30	BI	30	GLN	4.1
39	DR	96	VAL	4.1
16	CP	4	ILE	4.1
36	DO	112	GLU	4.1
28	DG	133	LEU	4.1
22	DA	1095	A	4.1
28	DG	132	VAL	4.1
13	CM	79	ARG	4.1
52	D4	16	ILE	4.1
25	DD	105	LYS	4.1
25	DD	96	ILE	4.1
28	DG	44	LYS	4.1
29	BH	80	ILE	4.1
30	BI	98	VAL	4.1
2	CB	129	LEU	4.1
26	DE	164	LEU	4.1
27	DF	91	LEU	4.1
53	B5	137	LEU	4.1
26	DE	144	GLU	4.1
27	DF	110	ARG	4.1
29	BH	17	ASP	4.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	CM	38	GLY	4.1
9	CI	39	PHE	4.1
16	CP	39	PHE	4.1
22	BA	2192	U	4.1
28	DG	83	PHE	4.1
30	DI	81	LYS	4.1
36	DO	82	ALA	4.1
51	D3	52	LYS	4.1
27	DF	157	THR	4.0
35	DN	29	VAL	4.0
30	BI	92	LYS	4.0
33	DL	70	LYS	4.0
28	DG	106	SER	4.0
13	CM	68	ASP	4.0
33	DL	28	GLY	4.0
40	DS	68	ASP	4.0
9	AI	90	TYR	4.0
30	DI	118	THR	4.0
40	DS	95	ARG	4.0
47	DZ	29	LEU	4.0
22	BA	884	U	4.0
22	DA	2402	U	4.0
44	DW	78	LYS	4.0
53	B5	80	LYS	4.0
13	CM	74	SER	4.0
14	CN	58	SER	4.0
30	BI	48	SER	4.0
32	DK	89	ASN	4.0
7	CG	73	VAL	4.0
13	CM	29	ARG	4.0
31	DJ	54	ILE	4.0
22	DA	2112	G	4.0
36	DO	77	ALA	4.0
4	CD	24	GLY	4.0
22	DA	2797	U	4.0
29	BH	92	GLY	4.0
53	B5	56	ASP	4.0
29	DH	4	ILE	4.0
29	DH	143	ILE	4.0
4	CD	36	GLN	4.0
19	CS	61	PHE	4.0
49	D1	24	THR	4.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	CC	180	ALA	4.0
22	BA	2128	G	4.0
1	CA	1313	U	4.0
11	AK	82	LEU	4.0
2	CB	71	GLY	4.0
27	DF	107	ALA	4.0
28	DG	40	ALA	4.0
30	BI	76	ALA	4.0
48	D0	23	THR	4.0
43	DV	84	PRO	4.0
30	DI	129	ILE	4.0
3	CC	42	TYR	4.0
4	AD	21	LEU	4.0
28	DG	72	LEU	4.0
2	CB	83	ALA	4.0
36	DO	46	GLU	4.0
27	DF	136	ILE	4.0
14	AN	24	ARG	4.0
30	BI	38	PHE	4.0
28	DG	174	ALA	4.0
7	CG	35	LYS	3.9
40	DS	16	LYS	3.9
44	DW	85	GLU	4.0
53	B5	44	VAL	3.9
29	BH	93	SER	3.9
29	BH	87	GLU	3.9
27	DF	108	VAL	3.9
30	DI	121	ASP	3.9
53	B5	167	ASP	3.9
22	DA	2158	A	3.9
15	AO	89	ARG	3.9
30	DI	127	ARG	3.9
26	DE	24	ASN	3.9
2	AB	90	PHE	3.9
27	DF	78	LYS	3.9
3	CC	193	TYR	3.9
22	DA	2124	G	3.9
30	BI	15	ALA	3.9
1	AA	88	U	3.9
4	CD	177	LYS	3.9
25	DD	97	SER	3.9
31	DJ	74	TYR	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	DU	64	ALA	3.9
10	CJ	82	LYS	3.9
13	CM	43	VAL	3.9
35	DN	47	VAL	3.9
13	CM	96	PRO	3.9
22	DA	1870	C	3.9
7	CG	26	PHE	3.9
29	BH	82	SER	3.9
10	CJ	46	LYS	3.9
25	DD	26	VAL	3.9
7	CG	23	LEU	3.9
22	BA	2119	A	3.9
27	DF	95	ARG	3.9
27	DF	33	LYS	3.9
22	BA	2137	U	3.9
7	CG	91	VAL	3.9
14	AN	30	ILE	3.9
42	DU	89	ASP	3.9
47	DZ	48	ILE	3.9
7	CG	71	PRO	3.9
16	CP	60	TRP	3.9
30	BI	16	GLY	3.9
36	DO	86	GLY	3.9
40	DS	37	THR	3.9
40	BS	110	ARG	3.9
25	DD	185	ASN	3.9
29	BH	73	ASN	3.9
9	CI	108	ALA	3.9
27	DF	165	GLU	3.9
10	CJ	67	ILE	3.9
34	DM	80	VAL	3.9
44	DW	60	PHE	3.9
36	DO	111	ARG	3.9
53	B5	168	LYS	3.9
30	DI	114	ALA	3.9
35	DN	62	ASN	3.9
26	DE	72	SER	3.9
29	DH	78	VAL	3.9
13	AM	92	ARG	3.9
32	DK	112	PHE	3.9
33	DL	123	ARG	3.9
53	B5	37	LYS	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	AS	49	ILE	3.8
14	AN	21	PHE	3.8
42	DU	73	PHE	3.8
43	DV	74	ALA	3.8
13	CM	109	ARG	3.8
2	CB	67	ILE	3.8
2	CB	107	VAL	3.8
14	CN	47	LYS	3.8
49	B1	53	LYS	3.8
9	AI	17	ALA	3.8
13	CM	2	ALA	3.8
29	DH	74	ALA	3.8
40	DS	40	ASN	3.8
13	CM	52	GLN	3.8
1	CA	1033	G	3.8
7	CG	14	PRO	3.8
9	AI	129	LYS	3.8
36	DO	109	ALA	3.8
10	CJ	15	HIS	3.8
22	DA	2106	U	3.8
7	CG	59	LEU	3.8
30	DI	18	ALA	3.8
3	CC	102	ASN	3.8
41	DT	71	GLY	3.8
46	DY	9	LYS	3.8
51	D3	49	MET	3.8
53	B5	172	ILE	3.8
51	D3	48	ALA	3.8
19	AS	56	GLN	3.8
30	BI	97	LYS	3.8
42	DU	47	LYS	3.8
7	CG	67	GLU	3.8
17	CQ	21	ILE	3.8
48	D0	38	HIS	3.8
6	CF	91	ARG	3.8
16	CP	81	ALA	3.8
28	DG	125	CYS	3.8
36	DO	56	LYS	3.8
36	DO	38	GLN	3.8
17	CQ	65	ARG	3.8
28	DG	164	TYR	3.8
37	DP	9	GLU	3.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	CS	23	VAL	3.8
2	AB	88	ASP	3.8
29	BH	94	ILE	3.8
30	BI	94	ASN	3.8
39	DR	32	THR	3.8
2	AB	134	ALA	3.8
14	CN	53	ARG	3.8
31	DJ	95	ARG	3.8
22	DA	1094	U	3.7
30	DI	122	ILE	3.8
36	DO	93	ASP	3.7
36	DO	108	ASP	3.7
46	DY	21	LEU	3.7
22	BA	2191	A	3.7
1	CA	999	C	3.7
29	DH	92	GLY	3.7
33	DL	142	ILE	3.7
20	CT	84	ASN	3.7
30	DI	97	LYS	3.7
41	DT	88	LYS	3.7
22	DA	1068	G	3.7
27	DF	77	PHE	3.7
3	CC	79	LYS	3.7
36	DO	41	ALA	3.7
22	BA	715	A	3.7
40	DS	47	VAL	3.7
1	CA	1312	G	3.7
8	CH	59	LEU	3.7
22	DA	1066	U	3.7
26	DE	157	LEU	3.7
53	B5	23	ILE	3.7
27	DF	174	ASP	3.7
41	DT	5	GLU	3.7
35	DN	21	PHE	3.7
7	CG	12	ILE	3.7
16	AP	4	ILE	3.7
22	DA	143	C	3.7
22	DA	2173	A	3.7
27	DF	9	LYS	3.7
34	DM	99	GLY	3.7
41	DT	91	GLN	3.7
3	CC	23	PHE	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	DO	37	ALA	3.7
36	DO	115	LEU	3.7
1	CA	1017	U	3.7
22	DA	549	G	3.7
2	CB	108	ARG	3.7
37	DP	84	ILE	3.7
36	DO	89	ASP	3.7
38	DQ	23	GLY	3.7
53	B5	91	GLY	3.7
26	DE	88	ARG	3.7
30	BI	103	ARG	3.7
7	CG	65	ALA	3.7
14	AN	52	PRO	3.7
36	DO	99	TYR	3.7
7	CG	41	SER	3.7
16	CP	52	LEU	3.7
26	DE	173	THR	3.7
41	BT	2	ILE	3.7
26	DE	165	HIS	3.7
2	CB	92	VAL	3.7
27	DF	60	ILE	3.7
46	DY	14	LEU	3.7
13	CM	78	LYS	3.6
22	BA	1925	C	3.6
42	DU	76	ALA	3.6
28	DG	87	LEU	3.6
10	CJ	19	ASP	3.6
45	DX	50	ARG	3.6
36	DO	80	GLU	3.6
7	CG	61	ALA	3.6
30	DI	84	ALA	3.6
43	DV	82	TYR	3.6
53	B5	129	GLY	3.6
19	AS	39	THR	3.6
41	DT	62	VAL	3.6
28	DG	53	GLY	3.6
7	CG	137	LYS	3.6
20	CT	81	ALA	3.6
3	CC	109	PRO	3.6
26	DE	155	GLU	3.6
40	DS	94	ASP	3.6
26	DE	17	THR	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	B5	135	ARG	3.6
36	DO	59	ALA	3.6
13	CM	4	ILE	3.6
17	CQ	46	VAL	3.6
25	DD	186	LEU	3.6
39	DR	59	ILE	3.6
40	DS	4	ILE	3.6
14	CN	52	PRO	3.6
29	BH	76	GLU	3.6
13	CM	76	SER	3.6
21	CU	47	ARG	3.6
27	DF	99	PHE	3.6
28	DG	84	THR	3.6
13	CM	32	ALA	3.6
14	CN	22	ALA	3.6
33	DL	83	ALA	3.6
20	CT	9	LYS	3.6
37	DP	110	ILE	3.6
50	D2	1	MET	3.6
30	BI	66	SER	3.6
7	AG	84	THR	3.6
28	DG	25	THR	3.6
41	DT	45	ALA	3.6
40	DS	107	VAL	3.6
53	B5	190	ILE	3.6
11	AK	126	LYS	3.6
27	DF	87	CYS	3.6
53	B5	181	PHE	3.6
50	D2	37	LYS	3.6
32	DK	2	ILE	3.6
7	CG	5	ARG	3.6
7	CG	143	ARG	3.6
44	DW	70	GLU	3.5
1	AA	844	G	3.5
27	DF	86	GLY	3.5
28	DG	107	LEU	3.5
39	DR	54	VAL	3.5
10	CJ	75	ASP	3.5
13	CM	58	ASP	3.5
14	CN	68	GLY	3.5
3	CC	196	ILE	3.5
11	CK	42	LEU	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
14	CN	24	ARG	3.5
7	CG	87	VAL	3.5
28	DG	92	VAL	3.5
37	DP	50	ILE	3.5
28	DG	12	PRO	3.5
30	DI	56	PRO	3.5
13	CM	75	MET	3.5
13	CM	51	GLY	3.5
50	D2	32	ALA	3.5
42	DU	5	ILE	3.5
27	DF	90	THR	3.5
22	BA	2151	U	3.5
7	CG	109	ARG	3.5
22	DA	228	C	3.5
24	DC	241	GLY	3.5
28	DG	78	GLY	3.5
42	DU	86	ARG	3.5
44	DW	25	ARG	3.5
41	DT	61	LEU	3.5
29	BH	44	ILE	3.5
44	DW	80	ILE	3.5
14	CN	56	SER	3.5
36	DO	104	GLN	3.5
13	CM	8	ASN	3.5
26	DE	102	ARG	3.5
30	DI	95	LYS	3.5
2	CB	154	MET	3.5
25	DD	74	GLU	3.5
2	AB	74	ARG	3.5
6	CF	79	ARG	3.5
19	CS	27	ASP	3.5
27	DF	138	PHE	3.5
30	BI	116	ASP	3.5
43	DV	56	PHE	3.5
14	AN	43	ASN	3.5
9	AI	89	GLU	3.5
31	DJ	56	VAL	3.5
30	BI	33	VAL	3.5
45	DX	61	LYS	3.5
1	AA	1016	A	3.5
11	AK	43	GLY	3.5
22	BA	546	U	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	CS	80	TYR	3.5
25	DD	1	MET	3.5
30	DI	37	GLU	3.5
53	B5	185	LYS	3.5
30	DI	101	ILE	3.5
30	BI	42	PHE	3.5
21	AU	35	ARG	3.4
27	DF	55	ALA	3.4
29	BH	39	ALA	3.4
30	BI	122	ILE	3.4
39	DR	53	PHE	3.4
12	CL	44	LYS	3.4
20	CT	43	ASP	3.4
24	DC	28	LYS	3.4
22	BA	2167	U	3.4
22	BA	2180	U	3.4
2	CB	55	ALA	3.4
12	AL	124	ALA	3.4
28	DG	96	ALA	3.4
30	BI	133	ALA	3.4
36	DO	113	ALA	3.4
46	DY	32	ALA	3.4
28	DG	79	VAL	3.4
37	DP	43	PHE	3.4
52	D4	15	LYS	3.4
33	DL	81	ASP	3.4
29	BH	14	SER	3.4
13	CM	22	ILE	3.4
14	AN	36	ALA	3.4
24	DC	245	VAL	3.4
30	BI	43	ASN	3.4
40	DS	73	LYS	3.4
12	CL	14	ARG	3.4
42	DU	32	GLY	3.4
1	AA	1031	C	3.4
1	CA	207	C	3.4
48	D0	34	SER	3.4
1	CA	1271	A	3.4
24	DC	18	LYS	3.4
30	BI	84	ALA	3.4
38	DQ	99	ALA	3.4
51	D3	24	HIS	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	CG	44	TYR	3.4
27	DF	37	ASN	3.4
29	DH	124	THR	3.4
53	B5	176	VAL	3.4
7	CG	79	ARG	3.4
9	AI	20	PHE	3.4
13	CM	70	ARG	3.4
42	DU	38	GLY	3.4
1	CA	85	U	3.4
13	CM	114	LYS	3.4
20	CT	34	LYS	3.4
22	DA	1065	U	3.4
27	DF	64	LYS	3.4
28	DG	126	PRO	3.4
2	AB	34	ALA	3.4
3	CC	92	ALA	3.4
30	BI	7	ALA	3.4
30	DI	109	ILE	3.4
38	DQ	65	ILE	3.4
1	AA	412	A	3.4
10	CJ	26	VAL	3.4
2	CB	133	GLU	3.4
43	DV	57	TYR	3.4
49	D1	21	TYR	3.4
1	AA	1032	G	3.4
37	DP	111	LYS	3.4
1	CA	206	C	3.4
7	CG	52	GLN	3.4
27	DF	171	ALA	3.4
33	DL	100	ILE	3.4
2	AB	30	PHE	3.4
5	AE	65	GLU	3.4
10	CJ	27	GLU	3.4
24	DC	94	VAL	3.4
26	DE	33	VAL	3.4
36	DO	39	VAL	3.4
19	AS	74	PHE	3.4
22	BA	2170	A	3.4
27	DF	20	PHE	3.4
30	DI	91	GLY	3.4
27	DF	47	LYS	3.4
42	DU	44	LYS	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	CC	156	ARG	3.4
7	CG	86	GLN	3.4
31	DJ	13	ARG	3.4
42	DU	95	PHE	3.4
32	DK	82	ASN	3.4
44	DW	50	ASN	3.4
10	CJ	80	THR	3.4
14	AN	50	THR	3.4
22	DA	2169	A	3.4
1	CA	1028	C	3.4
10	CJ	94	ALA	3.4
13	CM	62	LYS	3.4
29	BH	111	ALA	3.4
34	DM	79	ALA	3.4
41	DT	68	LYS	3.4
32	DK	101	GLY	3.4
44	DW	23	VAL	3.4
7	AG	143	ARG	3.3
33	DL	78	ARG	3.3
41	DT	12	ARG	3.3
22	DA	2796	U	3.3
26	DE	134	LEU	3.3
3	CC	71	ALA	3.3
7	AG	69	VAL	3.3
31	DJ	62	VAL	3.3
39	DR	47	VAL	3.3
42	DU	75	ALA	3.3
9	CI	103	PHE	3.3
22	DA	2300	C	3.3
22	DA	2313	C	3.3
16	CP	35	ARG	3.3
28	BG	166	ASP	3.3
22	BA	613	A	3.3
26	DE	129	PRO	3.3
9	CI	127	PHE	3.3
7	CG	83	SER	3.3
10	CJ	101	SER	3.3
46	DY	47	ARG	3.3
41	DT	33	LYS	3.3
1	CA	1257	A	3.3
2	CB	225	ARG	3.3
40	DS	9	HIS	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	DH	86	ASP	3.3
45	DX	78	TYR	3.3
9	AI	19	VAL	3.3
17	CQ	78	VAL	3.3
29	BH	139	PHE	3.3
27	DF	96	MET	3.3
34	DM	33	LEU	3.3
47	DZ	56	LYS	3.3
27	DF	132	VAL	3.3
17	CQ	53	CYS	3.3
27	DF	51	ASP	3.3
40	DS	31	GLN	3.3
2	AB	139	ARG	3.3
21	CU	45	ARG	3.3
24	DC	12	GLY	3.3
33	DL	20	GLY	3.3
33	DL	126	ARG	3.3
13	CM	37	ALA	3.3
19	CS	69	HIS	3.3
25	DD	55	LYS	3.3
3	CC	72	ARG	3.3
30	DI	105	GLN	3.3
46	DY	40	SER	3.3
1	CA	83	C	3.3
27	DF	7	TYR	3.3
26	DE	199	MET	3.3
30	DI	51	LYS	3.3
22	DA	101	A	3.3
22	DA	896	A	3.3
30	DI	140	VAL	3.3
13	CM	103	LYS	3.3
13	CM	55	THR	3.3
21	CU	35	ARG	3.3
2	CB	88	ASP	3.3
30	BI	6	GLN	3.3
13	CM	30	SER	3.2
30	DI	102	SER	3.2
26	DE	183	PHE	3.2
28	BG	24	ILE	3.2
2	CB	217	VAL	3.2
29	BH	74	ALA	3.2
3	CC	67	THR	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
16	CP	3	THR	3.2
28	DG	51	THR	3.2
35	DN	38	LEU	3.2
26	DE	127	GLU	3.2
19	CS	4	SER	3.2
30	BI	81	LYS	3.2
22	DA	2109	U	3.2
31	DJ	142	ILE	3.2
2	CB	216	ALA	3.2
7	CG	64	VAL	3.2
44	DW	84	ALA	3.2
13	CM	89	LEU	3.2
14	CN	10	GLU	3.2
14	CN	33	ASP	3.2
19	CS	17	LYS	3.2
27	DF	39	GLY	3.2
40	DS	98	LYS	3.2
53	B5	186	LEU	3.2
27	DF	24	SER	3.2
29	DH	100	ALA	3.2
1	CA	90	C	3.2
22	BA	1067	A	3.2
30	DI	74	PRO	3.2
40	DS	82	MET	3.2
10	CJ	52	LEU	3.2
12	CL	92	GLY	3.2
27	DF	57	LEU	3.2
27	DF	147	ASP	3.2
41	DT	75	GLY	3.2
19	CS	14	HIS	3.2
45	DX	3	ARG	3.2
9	CI	44	ALA	3.2
9	CI	63	LEU	3.2
20	CT	66	LEU	3.2
33	DL	19	LEU	3.2
31	DJ	96	ARG	3.2
44	DW	43	THR	3.2
33	DL	72	ALA	3.2
34	DM	103	TYR	3.2
27	DF	41	GLY	3.2
33	DL	102	GLY	3.2
10	CJ	49	PHE	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
30	DI	71	THR	3.2
1	CA	4	U	3.2
13	CM	73	ILE	3.2
19	CS	22	ALA	3.2
20	CT	87	ALA	3.2
7	CG	4	ARG	3.2
33	DL	124	GLY	3.2
36	DO	9	ARG	3.2
1	AA	990	C	3.2
1	CA	1132	C	3.2
26	DE	153	LEU	3.2
36	DO	62	LEU	3.2
45	DX	46	PHE	3.2
7	CG	133	THR	3.2
39	DR	101	ILE	3.2
19	CS	65	GLU	3.2
24	DC	92	ALA	3.2
28	BG	111	HIS	3.2
29	BH	59	ALA	3.2
36	DO	50	ALA	3.2
41	DT	4	GLU	3.2
53	B5	21	TYR	3.2
14	CN	57	PRO	3.2
10	CJ	85	ASP	3.2
27	DF	173	PHE	3.2
9	CI	21	ILE	3.2
31	DJ	98	GLU	3.2
1	CA	81	A	3.2
39	DR	28	ALA	3.2
1	CA	204	G	3.2
27	BF	116	GLY	3.2
33	DL	88	GLY	3.2
42	BU	52	LEU	3.2
21	AU	31	GLU	3.2
21	CU	44	GLU	3.2
26	DE	14	VAL	3.1
33	DL	18	ARG	3.1
27	DF	43	ALA	3.1
40	DS	105	VAL	3.1
28	DG	88	GLN	3.1
13	CM	23	TYR	3.1
17	AQ	20	SER	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	DA	2157	G	3.1
16	AP	47	GLU	3.1
50	D2	18	PHE	3.1
27	DF	102	ARG	3.1
30	BI	49	ILE	3.1
2	AB	187	VAL	3.1
22	DA	2149	U	3.1
29	DH	140	ALA	3.1
27	DF	36	LEU	3.1
22	DA	2120	G	3.1
28	DG	176	LYS	3.1
35	DN	46	ARG	3.1
34	DM	126	ILE	3.1
49	D1	48	ILE	3.1
7	CG	43	VAL	3.1
10	CJ	51	VAL	3.1
22	BA	2402	U	3.1
3	CC	70	THR	3.1
19	CS	47	LEU	3.1
30	BI	62	TYR	3.1
33	DL	79	LEU	3.1
9	CI	124	ARG	3.1
1	AA	81	A	3.1
14	CN	19	LYS	3.1
9	AI	51	PRO	3.1
1	AA	79	G	3.1
1	CA	1018	G	3.1
28	DG	169	VAL	3.1
36	DO	66	GLY	3.1
37	DP	42	ALA	3.1
14	CN	9	ARG	3.1
15	CO	89	ARG	3.1
50	D2	43	THR	3.1
7	CG	130	ASN	3.1
40	DS	108	SER	3.1
44	DW	74	PRO	3.1
1	AA	1003	G	3.1
1	CA	208	U	3.1
33	DL	85	VAL	3.1
13	CM	44	LYS	3.1
22	DA	289	G	3.1
41	DT	35	ALA	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	DS	49	LYS	3.1
22	DA	1092	C	3.1
45	DX	20	HIS	3.1
28	DG	127	THR	3.1
31	DJ	21	THR	3.1
17	CQ	17	MET	3.1
30	BI	59	ILE	3.1
35	DN	97	ILE	3.1
6	CF	17	GLN	3.1
14	CN	61	ARG	3.1
20	CT	13	GLN	3.1
22	DA	2181	U	3.1
24	DC	101	ARG	3.1
32	DK	108	ARG	3.1
5	AE	31	PHE	3.1
9	CI	4	ASN	3.1
24	DC	239	ASN	3.1
26	DE	191	ASP	3.1
27	BF	72	LYS	3.1
14	CN	49	GLN	3.1
14	CN	63	ARG	3.1
24	DC	3	VAL	3.1
22	DA	653	U	3.1
22	DA	846	U	3.1
41	DT	56	GLU	3.1
9	CI	98	LEU	3.1
46	DY	41	HIS	3.1
2	CB	22	TYR	3.1
28	DG	27	LYS	3.1
29	BH	124	THR	3.1
34	DM	132	THR	3.1
43	DV	34	LYS	3.1
51	D3	47	LYS	3.1
27	DF	45	ALA	3.1
39	DR	103	ALA	3.1
33	DL	6	LEU	3.1
33	DL	82	LEU	3.1
41	DT	40	LYS	3.1
22	DA	268	C	3.1
22	DA	1076	C	3.1
22	DA	2125	G	3.1
32	DK	35	VAL	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
25	DD	38	LYS	3.0
35	DN	102	PHE	3.0
22	DA	344	A	3.0
50	D2	34	ARG	3.0
3	CC	14	ILE	3.0
46	DY	36	GLN	3.0
3	CC	195	VAL	3.0
26	DE	10	SER	3.0
50	D2	30	VAL	3.0
11	AK	53	ARG	3.0
21	AU	21	ARG	3.0
24	DC	238	ARG	3.0
37	DP	74	PHE	3.0
39	DR	35	PHE	3.0
2	CB	167	ASP	3.0
22	DA	2163	A	3.0
27	DF	28	VAL	3.0
28	DG	41	VAL	3.0
30	BI	61	VAL	3.0
13	CM	56	LEU	3.0
5	CE	10	GLU	3.0
30	DI	117	MET	3.0
22	DA	2309	A	3.0
30	DI	33	VAL	3.0
39	DR	63	VAL	3.0
13	CM	15	ALA	3.0
26	DE	11	ALA	3.0
26	DE	150	THR	3.0
42	DU	99	ASN	3.0
10	AJ	87	LEU	3.0
22	DA	2110	G	3.0
30	DI	119	GLY	3.0
13	AM	4	ILE	3.0
18	AR	73	ARG	3.0
24	DC	103	TYR	3.0
36	DO	13	ARG	3.0
14	CN	29	ALA	3.0
22	DA	1103	A	3.0
22	DA	2602	A	3.0
29	DH	65	ALA	3.0
41	DT	20	ALA	3.0
7	CG	60	GLU	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
16	CP	45	GLU	3.0
22	BA	2187	U	3.0
29	DH	125	THR	3.0
38	DQ	112	LYS	3.0
41	DT	32	LEU	3.0
43	DV	58	SER	3.0
21	AU	7	ARG	3.0
22	DA	356	G	3.0
30	BI	86	ILE	3.0
40	DS	71	VAL	3.0
43	DV	81	PRO	3.0
13	CM	27	LYS	3.0
1	CA	1302	C	3.0
22	DA	1176	U	3.0
29	BH	20	ASN	3.0
24	DC	110	LEU	3.0
26	DE	131	THR	3.0
2	AB	35	ARG	3.0
3	CC	88	ARG	3.0
9	CI	30	ILE	3.0
14	AN	33	ASP	3.0
20	CT	72	ALA	3.0
14	CN	35	ASN	3.0
42	DU	22	ARG	3.0
10	CJ	11	LYS	3.0
26	DE	149	ILE	3.0
40	DS	35	ILE	3.0
43	DV	43	ASP	3.0
2	CB	209	ALA	3.0
7	CG	97	ASN	3.0
10	AJ	90	LEU	3.0
10	CJ	73	LEU	3.0
1	CA	210	C	3.0
17	CQ	7	THR	3.0
22	DA	1117	C	3.0
27	BF	80	ARG	3.0
12	CL	123	LYS	3.0
22	DA	654	A	3.0
10	CJ	81	GLU	3.0
34	DM	96	ILE	3.0
3	CC	153	VAL	3.0
9	AI	23	PRO	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
48	D0	24	ALA	2.9
38	DQ	117	LEU	2.9
30	DI	128	SER	2.9
19	AS	40	ILE	2.9
44	DW	64	ASP	2.9
46	DY	24	GLU	2.9
2	AB	217	VAL	2.9
17	CQ	83	VAL	2.9
26	DE	4	VAL	2.9
26	DE	193	VAL	2.9
2	AB	18	HIS	2.9
24	DC	232	HIS	2.9
48	D0	42	HIS	2.9
29	BH	12	LEU	2.9
40	DS	83	LYS	2.9
46	DY	37	LEU	2.9
7	AG	48	GLU	2.9
21	AU	44	GLU	2.9
1	AA	82	G	2.9
44	DW	53	CYS	2.9
1	CA	1044	A	2.9
2	AB	210	VAL	2.9
4	AD	27	ALA	2.9
6	CF	28	ALA	2.9
8	CH	130	ALA	2.9
11	AK	42	LEU	2.9
24	DC	99	GLY	2.9
29	DH	75	LEU	2.9
29	BH	143	ILE	2.9
34	DM	63	ILE	2.9
20	CT	64	LYS	2.9
26	DE	141	MET	2.9
39	DR	51	VAL	2.9
1	CA	1270	G	2.9
51	D3	11	ALA	2.9
35	DN	26	GLY	2.9
11	AK	96	THR	2.9
27	DF	74	VAL	2.9
40	DS	106	VAL	2.9
25	DD	47	ALA	2.9
28	DG	71	LEU	2.9
27	DF	42	GLU	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	BA	1063	G	2.9
27	DF	109	PRO	2.9
21	AU	4	ILE	2.9
1	AA	1027	C	2.9
2	AB	27	MET	2.9
29	BH	138	VAL	2.9
38	DQ	39	VAL	2.9
39	DR	75	VAL	2.9
24	DC	106	ALA	2.9
27	DF	172	ALA	2.9
18	AR	74	HIS	2.9
22	BA	846	U	2.9
22	DA	2690	U	2.9
28	DG	111	HIS	2.9
34	DM	6	ARG	2.9
9	AI	28	ILE	2.9
53	B5	188	ASP	2.9
7	CG	37	SER	2.9
14	AN	26	GLU	2.9
31	DJ	73	VAL	2.9
19	AS	71	LEU	2.9
28	DG	28	GLY	2.9
29	BH	63	ALA	2.9
39	DR	39	LEU	2.9
40	DS	48	LYS	2.9
46	DY	30	MET	2.9
14	CN	101	TRP	2.9
14	CN	69	ARG	2.9
33	DL	8	PRO	2.9
3	AC	168	TYR	2.9
29	DH	119	ASN	2.9
26	DE	1	MET	2.9
26	DE	56	GLY	2.9
29	BH	117	LEU	2.9
37	DP	97	LEU	2.9
37	DP	108	ALA	2.9
42	DU	14	LEU	2.9
45	DX	22	LEU	2.9
19	CS	9	PRO	2.9
22	DA	2118	U	2.9
12	AL	123	LYS	2.9
9	CI	112	GLU	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
39	DR	43	ASN	2.9
41	DT	52	GLU	2.9
2	CB	163	VAL	2.9
14	CN	45	VAL	2.9
20	CT	25	ARG	2.9
23	DB	119	A	2.9
24	DC	235	GLY	2.9
25	DD	104	VAL	2.9
26	DE	32	VAL	2.9
29	BH	47	PHE	2.9
30	BI	9	VAL	2.9
30	BI	58	VAL	2.9
39	DR	33	VAL	2.9
41	DT	67	VAL	2.9
22	DA	1715	G	2.9
29	BH	64	ALA	2.9
36	DO	21	LEU	2.9
7	CG	54	SER	2.8
7	CG	2	PRO	2.8
52	D4	32	LYS	2.8
2	CB	74	ARG	2.8
9	AI	39	PHE	2.8
15	CO	15	PHE	2.8
26	DE	187	VAL	2.8
42	DU	53	ASN	2.8
44	DW	79	PHE	2.8
7	AG	150	ALA	2.8
22	DA	2119	A	2.8
36	DO	110	ALA	2.8
48	D0	28	LEU	2.8
1	CA	1025	U	2.8
22	DA	1112	G	2.8
25	DD	154	LYS	2.8
42	DU	30	SER	2.8
17	CQ	45	HIS	2.8
22	DA	267	C	2.8
41	DT	80	TRP	2.8
2	AB	222	ARG	2.8
3	CC	126	ARG	2.8
19	CS	46	GLY	2.8
24	DC	240	PHE	2.8
30	BI	25	GLY	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
25	DD	180	VAL	2.8
38	DQ	106	PHE	2.8
29	BH	75	LEU	2.8
31	DJ	140	LEU	2.8
9	CI	57	MET	2.8
22	DA	1468	U	2.8
28	DG	167	GLU	2.8
30	DI	50	GLU	2.8
1	CA	1043	G	2.8
7	CG	78	ARG	2.8
17	CQ	11	ARG	2.8
22	DA	1170	C	2.8
36	DO	53	THR	2.8
47	DZ	8	THR	2.8
47	DZ	34	HIS	2.8
33	DL	120	VAL	2.8
16	CP	82	ALA	2.8
1	AA	842	U	2.8
22	DA	884	U	2.8
37	DP	65	SER	2.8
22	DA	2143	C	2.8
22	DA	2165	C	2.8
31	DJ	106	LYS	2.8
25	DD	54	ALA	2.8
28	DG	38	ASN	2.8
30	DI	94	ASN	2.8
41	DT	59	ASN	2.8
10	CJ	66	GLU	2.8
28	DG	75	MET	2.8
50	D2	35	ARG	2.8
7	CG	110	LYS	2.8
9	AI	27	LYS	2.8
1	AA	1493	A	2.8
29	BH	128	HIS	2.8
33	DL	31	GLY	2.8
30	DI	142	ASP	2.8
33	DL	74	THR	2.8
33	DL	77	ILE	2.8
34	DM	29	GLY	2.8
44	DW	82	ILE	2.8
26	DE	158	PHE	2.8
4	AD	25	VAL	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	BH	5	LEU	2.8
13	CM	36	ALA	2.8
27	DF	92	ARG	2.8
30	DI	104	ALA	2.8
30	DI	110	ALA	2.8
13	AM	7	ILE	2.8
13	CM	94	GLY	2.8
17	CQ	20	SER	2.8
10	CJ	91	ASP	2.8
22	DA	357	C	2.8
22	DA	2795	C	2.8
25	DD	84	LEU	2.8
26	DE	28	VAL	2.8
51	D3	64	TYR	2.8
2	CB	23	TRP	2.8
52	D4	2	LYS	2.8
2	AB	151	ILE	2.8
6	CF	8	PHE	2.8
9	CI	73	SER	2.8
24	DC	64	ILE	2.8
30	DI	131	GLY	2.8
43	DV	32	GLY	2.8
30	BI	102	SER	2.8
21	AU	13	ASP	2.8
31	DJ	47	HIS	2.8
9	CI	100	LYS	2.8
10	CJ	22	THR	2.8
14	AN	51	LEU	2.8
41	DT	54	GLU	2.8
22	DA	281	C	2.8
26	DE	98	LYS	2.8
30	DI	10	LYS	2.8
31	DJ	92	MET	2.8
22	DA	2131	U	2.8
3	CC	107	ARG	2.8
3	CC	130	PHE	2.8
12	CL	76	GLU	2.8
13	CM	72	GLU	2.8
29	BH	51	ARG	2.8
38	DQ	89	GLU	2.8
11	AK	129	VAL	2.8
26	DE	169	VAL	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
27	DF	143	TYR	2.8
34	DM	35	ALA	2.8
36	DO	14	ALA	2.8
3	CC	197	GLY	2.7
2	CB	90	PHE	2.7
10	CJ	30	LYS	2.7
20	AT	4	ILE	2.7
20	CT	16	LYS	2.7
28	BG	26	ILE	2.7
28	DG	3	ARG	2.7
29	BH	8	LYS	2.7
33	DL	86	GLU	2.7
27	BF	113	ASP	2.7
35	DN	72	ASP	2.7
32	DK	107	LEU	2.7
1	AA	1001	C	2.7
13	CM	31	LYS	2.7
17	CQ	51	ASN	2.7
21	AU	9	ASN	2.7
35	DN	56	LYS	2.7
38	DQ	30	ARG	2.7
42	BU	53	ASN	2.7
52	D4	38	GLY	2.7
7	CG	123	GLU	2.7
22	DA	2180	U	2.7
10	CJ	97	ASP	2.7
33	DL	61	LEU	2.7
44	DW	61	ALA	2.7
3	CC	62	LYS	2.7
16	CP	76	LYS	2.7
25	DD	8	LYS	2.7
44	DW	75	LYS	2.7
1	CA	1296	C	2.7
7	AG	148	ASN	2.7
13	CM	67	GLY	2.7
24	DC	127	GLY	2.7
29	BH	145	ASN	2.7
30	BI	137	GLY	2.7
46	BY	23	ARG	2.7
25	DD	88	GLU	2.7
46	DY	58	ASN	2.7
22	DA	547	A	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
11	CK	16	VAL	2.7
40	DS	45	VAL	2.7
41	DT	85	VAL	2.7
36	DO	5	SER	2.7
9	AI	123	ARG	2.7
14	CN	2	ALA	2.7
28	DG	170	ARG	2.7
30	DI	103	ARG	2.7
26	DE	2	GLU	2.7
7	CG	56	LYS	2.7
20	CT	19	LYS	2.7
27	DF	89	VAL	2.7
10	CJ	23	ALA	2.7
29	DH	93	SER	2.7
2	AB	65	GLY	2.7
30	DI	132	THR	2.7
27	DF	52	ASN	2.7
7	AG	53	ARG	2.7
7	CG	141	VAL	2.7
9	CI	126	GLN	2.7
13	CM	3	ARG	2.7
32	DK	37	ASP	2.7
22	DA	1057	A	2.7
22	DA	1111	A	2.7
8	CH	60	GLU	2.7
44	DW	33	ALA	2.7
26	DE	188	MET	2.7
28	DG	157	TYR	2.7
22	DA	290	U	2.7
31	DJ	123	LYS	2.7
7	CG	70	ARG	2.7
23	DB	18	G	2.7
29	BH	133	GLN	2.7
48	D0	54	VAL	2.7
20	CT	47	ALA	2.7
37	DP	95	ALA	2.7
37	DP	19	SER	2.7
45	BX	77	LYS	2.7
8	CH	49	PHE	2.7
14	CN	6	MET	2.7
9	CI	41	ARG	2.7
22	DA	1217	U	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	BH	4	ILE	2.7
1	CA	1317	C	2.7
3	AC	157	LEU	2.7
22	DA	436	C	2.7
22	DA	1064	C	2.7
26	BE	7	ASP	2.7
26	DE	196	VAL	2.7
33	DL	57	LEU	2.7
36	DO	20	GLU	2.7
41	DT	42	GLU	2.7
22	DA	1530	G	2.7
22	DA	2156	G	2.7
20	CT	8	LYS	2.7
49	D1	18	GLY	2.7
19	CS	81	ARG	2.7
24	DC	105	LEU	2.7
26	DE	12	LEU	2.7
27	DF	159	THR	2.7
32	DK	110	GLU	2.7
46	DY	62	GLY	2.7
25	DD	209	ALA	2.7
28	DG	165	ALA	2.7
31	DJ	94	ALA	2.7
7	AG	78	ARG	2.7
22	BA	549	G	2.7
22	DA	2116	G	2.7
41	DT	70	HIS	2.7
30	DI	90	SER	2.6
32	DK	14	SER	2.6
10	CJ	47	GLU	2.6
15	CO	6	GLU	2.6
2	CB	101	LEU	2.6
7	CG	76	LYS	2.6
48	D0	37	LYS	2.6
3	CC	91	VAL	2.6
26	DE	178	VAL	2.6
28	DG	49	THR	2.6
44	DW	51	VAL	2.6
48	D0	26	THR	2.6
29	BH	13	GLY	2.6
22	DA	1044	C	2.6
27	DF	75	ALA	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	DS	93	ALA	2.6
2	AB	136	MET	2.6
7	CG	144	MET	2.6
9	CI	83	ILE	2.6
22	DA	880	G	2.6
40	DS	6	LYS	2.6
42	DU	98	SER	2.6
1	CA	1441	A	2.6
18	CR	51	TYR	2.6
22	DA	2749	A	2.6
29	DH	147	VAL	2.6
48	D0	30	VAL	2.6
7	CG	84	THR	2.6
42	DU	6	ARG	2.6
17	CQ	63	GLU	2.6
39	DR	49	ILE	2.6
27	BF	83	TYR	2.6
5	AE	102	GLY	2.6
7	AG	68	ASN	2.6
21	AU	47	ARG	2.6
22	DA	1046	A	2.6
28	DG	59	ALA	2.6
28	DG	85	LYS	2.6
28	DG	24	ILE	2.6
26	DE	114	ARG	2.6
27	DF	169	LEU	2.6
53	B5	128	LEU	2.6
13	CM	65	VAL	2.6
19	CS	26	GLY	2.6
36	DO	114	GLY	2.6
2	CB	37	LYS	2.6
9	CI	31	ASN	2.6
22	BA	1171	G	2.6
22	DA	291	G	2.6
22	DA	1529	G	2.6
14	AN	22	ALA	2.6
36	BO	50	ALA	2.6
1	CA	87	C	2.6
22	DA	646	U	2.6
29	BH	1	MET	2.6
30	BI	125	MET	2.6
24	BC	272	SER	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	CC	106	VAL	2.6
30	BI	121	ASP	2.6
36	DO	74	VAL	2.6
1	AA	1042	A	2.6
9	CI	84	THR	2.6
36	DO	12	THR	2.6
41	DT	29	THR	2.6
26	DE	21	ARG	2.6
22	DA	1173	U	2.6
34	DM	41	LEU	2.6
36	DO	4	LYS	2.6
8	CH	2	SER	2.6
28	DG	74	SER	2.6
41	DT	47	VAL	2.6
50	D2	9	VAL	2.6
41	DT	25	GLU	2.6
17	CQ	82	ALA	2.6
30	DI	115	ALA	2.6
52	D4	31	PRO	2.6
19	AS	32	ARG	2.6
36	DO	102	ARG	2.6
51	D3	8	ARG	2.6
3	CC	77	ILE	2.6
22	DA	2128	G	2.6
14	CN	71	HIS	2.6
3	AC	193	TYR	2.6
7	AG	80	VAL	2.6
16	AP	20	VAL	2.6
44	DW	31	VAL	2.6
31	DJ	15	TRP	2.6
37	DP	72	ARG	2.6
49	D1	27	LYS	2.6
10	AJ	8	ILE	2.6
19	CS	45	ILE	2.6
46	DY	45	GLN	2.6
1	AA	85	U	2.6
2	AB	154	MET	2.6
31	DJ	118	MET	2.6
22	DA	75	G	2.6
22	DA	1087	G	2.6
30	BI	64	ASP	2.6
34	DM	26	VAL	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	AS	55	ARG	2.6
36	DO	81	ARG	2.6
2	CB	69	PHE	2.6
7	AG	86	GLN	2.5
40	DS	72	THR	2.5
40	DS	103	ILE	2.5
10	CJ	17	LEU	2.5
24	DC	47	GLY	2.5
27	DF	101	GLU	2.5
36	DO	84	GLU	2.5
9	AI	104	VAL	2.5
10	AJ	77	VAL	2.5
16	CP	20	VAL	2.5
22	BA	1100	C	2.5
22	BA	2885	G	2.5
22	DA	88	G	2.5
25	DD	46	ARG	2.5
36	DO	27	VAL	2.5
2	CB	110	SER	2.5
2	AB	209	ALA	2.5
17	CQ	73	TRP	2.5
26	DE	156	ASN	2.5
28	DG	112	PRO	2.5
8	CH	46	ILE	2.5
11	CK	43	GLY	2.5
16	CP	33	ILE	2.5
46	BY	6	LEU	2.5
46	DY	17	GLU	2.5
9	CI	68	LYS	2.5
17	CQ	6	ARG	2.5
38	DQ	15	LYS	2.5
10	CJ	63	ASP	2.5
17	CQ	13	VAL	2.5
17	CQ	23	VAL	2.5
20	AT	87	ALA	2.5
28	DG	46	ALA	2.5
29	BH	25	TYR	2.5
29	DH	136	SER	2.5
30	BI	77	ALA	2.5
38	DQ	101	PHE	2.5
44	DW	69	PHE	2.5
22	DA	70	G	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
33	DL	38	GLN	2.5
14	CN	30	ILE	2.5
28	DG	26	ILE	2.5
28	DG	99	LYS	2.5
30	BI	91	GLY	2.5
38	DQ	22	LYS	2.5
3	CC	54	ARG	2.5
13	CM	34	LEU	2.5
24	DC	48	ARG	2.5
34	DM	78	LEU	2.5
7	AG	144	MET	2.5
26	DE	189	THR	2.5
30	DI	73	THR	2.5
48	D0	3	VAL	2.5
13	AM	5	ALA	2.5
20	CT	11	ALA	2.5
22	BA	654	A	2.5
42	DU	3	ALA	2.5
44	DW	72	LYS	2.5
53	B5	163	GLU	2.5
1	AA	993	G	2.5
15	CO	17	ARG	2.5
24	DC	104	ILE	2.5
41	DT	69	ARG	2.5
2	CB	210	VAL	2.5
26	DE	126	VAL	2.5
13	CM	11	ASP	2.5
26	DE	22	ASP	2.5
42	DU	88	GLU	2.5
1	CA	1022	A	2.5
7	CG	19	GLY	2.5
27	DF	27	GLN	2.5
9	CI	125	PRO	2.5
26	DE	180	LEU	2.5
47	DZ	24	LEU	2.5
50	D2	13	ASN	2.5
15	AO	29	VAL	2.5
30	DI	125	MET	2.5
44	DW	71	VAL	2.5
13	CM	54	ASP	2.5
29	DH	104	THR	2.5
33	DL	67	THR	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
5	AE	50	TYR	2.5
11	AK	13	ARG	2.5
20	CT	41	ALA	2.5
34	DM	40	ARG	2.5
43	DV	33	GLY	2.5
52	D4	21	GLY	2.5
2	AB	67	ILE	2.5
28	DG	101	ASN	2.5
7	AG	27	VAL	2.5
7	CG	116	MET	2.5
14	AN	12	LYS	2.5
22	DA	1083	U	2.5
34	DM	105	MET	2.5
53	B5	178	LYS	2.5
2	CB	96	TRP	2.5
5	CE	112	ARG	2.5
7	CG	129	GLU	2.5
41	DT	79	ASP	2.5
12	AL	14	ARG	2.5
25	DD	77	ARG	2.5
27	DF	150	ARG	2.5
28	DG	69	ARG	2.5
50	D2	3	ARG	2.5
10	AJ	35	GLN	2.5
10	CJ	20	GLN	2.5
38	DQ	71	GLN	2.5
13	AM	19	LEU	2.5
17	AQ	5	ILE	2.5
22	DA	1043	C	2.5
36	DO	18	LEU	2.5
22	DA	1048	A	2.5
22	DA	1085	A	2.5
29	BH	66	ASN	2.5
8	CH	110	VAL	2.5
19	CS	73	GLU	2.5
39	DR	55	ASP	2.5
13	CM	18	ALA	2.5
14	CN	99	ALA	2.5
19	AS	33	THR	2.5
19	AS	48	THR	2.5
41	DT	13	ALA	2.5
14	CN	98	LYS	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
41	DT	81	LYS	2.5
25	DD	95	SER	2.5
1	CA	843	U	2.5
3	AC	39	VAL	2.5
11	AK	113	VAL	2.5
35	DN	30	ARG	2.5
34	DM	117	PHE	2.5
43	DV	66	ASP	2.5
2	AB	39	HIS	2.5
2	CB	15	HIS	2.5
2	AB	101	LEU	2.5
10	CJ	92	LEU	2.5
35	DN	52	ILE	2.5
43	DV	89	ILE	2.5
22	DA	343	C	2.4
33	DL	68	SER	2.4
29	DH	9	VAL	2.4
34	DM	67	VAL	2.4
45	DX	47	VAL	2.4
3	CC	135	LYS	2.4
19	CS	21	LYS	2.4
43	DV	45	ASP	2.4
28	DG	5	ALA	2.4
29	DH	128	HIS	2.4
33	DL	15	ALA	2.4
24	DC	81	LEU	2.4
25	DD	188	LEU	2.4
27	DF	4	LEU	2.4
27	DF	44	ILE	2.4
27	DF	137	ILE	2.4
26	DE	122	GLU	2.4
32	DK	49	ARG	2.4
33	DL	27	LEU	2.4
33	DL	69	ARG	2.4
27	DF	139	PRO	2.4
44	DW	29	GLU	2.4
22	DA	1450	G	2.4
28	DG	110	SER	2.4
7	CG	122	ASN	2.4
19	CS	62	VAL	2.4
23	DB	19	C	2.4
29	DH	61	VAL	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
30	DI	100	LYS	2.4
39	DR	58	VAL	2.4
33	DL	34	GLY	2.4
34	DM	61	GLY	2.4
1	CA	80	A	2.4
22	DA	1596	A	2.4
24	DC	248	TRP	2.4
25	DD	125	TRP	2.4
30	BI	35	ILE	2.4
41	DT	74	ILE	2.4
52	D4	26	ILE	2.4
26	BE	6	LYS	2.4
9	AI	93	SER	2.4
11	AK	52	PHE	2.4
22	DA	931	U	2.4
2	CB	192	ASP	2.4
22	DA	2164	C	2.4
36	DO	44	GLY	2.4
38	DQ	44	GLN	2.4
7	AG	4	ARG	2.4
1	CA	77	A	2.4
1	CA	205	A	2.4
1	CA	1019	A	2.4
16	AP	6	LEU	2.4
27	BF	79	ILE	2.4
33	DL	125	LEU	2.4
49	D1	37	LYS	2.4
1	CA	632	U	2.4
34	DM	27	SER	2.4
39	DR	67	GLY	2.4
22	DA	1606	C	2.4
29	BH	18	GLN	2.4
2	AB	85	LEU	2.4
3	CC	165	THR	2.4
22	DA	1532	A	2.4
28	DG	8	PRO	2.4
39	DR	19	THR	2.4
9	CI	48	VAL	2.4
40	DS	17	VAL	2.4
22	DA	1534	U	2.4
27	DF	144	ASP	2.4
33	DL	139	GLY	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	92	GLU	2.4
26	DE	16	GLU	2.4
28	DG	86	LYS	2.4
33	DL	84	LYS	2.4
37	DP	102	GLU	2.4
1	AA	998	C	2.4
22	DA	1045	C	2.4
9	CI	87	LEU	2.4
13	CM	19	LEU	2.4
22	DA	1168	G	2.4
22	DA	1407	G	2.4
22	DA	2121	G	2.4
31	DJ	32	LEU	2.4
2	AB	50	PHE	2.4
27	DF	80	ARG	2.4
32	DK	69	VAL	2.4
37	DP	25	THR	2.4
8	CH	94	LYS	2.4
5	CE	149	SER	2.4
36	DO	95	SER	2.4
29	DH	105	ALA	2.4
9	CI	61	LEU	2.4
13	AM	33	ILE	2.4
14	AN	16	LEU	2.4
1	CA	86	G	2.4
16	AP	45	GLU	2.4
21	AU	24	GLU	2.4
30	BI	75	PRO	2.4
27	DF	158	THR	2.4
28	DG	66	GLY	2.4
43	DV	37	PRO	2.4
51	D3	21	GLY	2.4
1	CA	1035	A	2.4
22	BA	1098	A	2.4
22	DA	89	A	2.4
33	DL	91	ASP	2.4
39	DR	26	ASP	2.4
30	DI	19	ASN	2.4
7	CG	99	LEU	2.4
35	DN	113	ILE	2.4
49	D1	34	LEU	2.4
50	D2	14	ARG	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	AB	213	TYR	2.4
14	CN	14	VAL	2.4
14	CN	70	PRO	2.4
27	DF	11	GLU	2.4
51	D3	22	PHE	2.4
45	DX	13	VAL	2.4
10	CJ	28	THR	2.4
22	DA	266	G	2.4
27	DF	63	GLN	2.4
33	DL	104	GLN	2.4
28	DG	68	ALA	2.4
52	D4	6	SER	2.4
52	D4	29	ALA	2.4
20	CT	57	ILE	2.4
29	DH	80	ILE	2.4
32	DK	67	LYS	2.4
33	DL	21	ARG	2.4
35	DN	17	ARG	2.4
22	DA	544	C	2.4
22	DA	885	C	2.4
22	DA	2129	C	2.4
27	DF	124	GLY	2.3
27	DF	134	GLU	2.3
43	BV	69	GLU	2.3
10	CJ	98	VAL	2.3
37	DP	17	VAL	2.3
45	DX	7	VAL	2.3
30	BI	93	PRO	2.3
2	CB	152	LYS	2.3
22	DA	2307	G	2.3
29	DH	83	LYS	2.3
53	B5	71	LYS	2.3
53	B5	127	LYS	2.3
20	AT	66	LEU	2.3
24	DC	272	SER	2.3
10	CJ	40	ILE	2.3
22	BA	1918	A	2.3
40	DS	33	LEU	2.3
27	DF	140	GLU	2.3
2	CB	18	HIS	2.3
31	DJ	89	PHE	2.3
33	DL	50	PHE	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
35	DN	101	GLY	2.3
1	AA	209	U	2.3
22	DA	1078	U	2.3
3	CC	172	ARG	2.3
2	CB	102	THR	2.3
7	CG	51	ALA	2.3
11	AK	111	THR	2.3
31	DJ	20	ALA	2.3
3	CC	206	GLU	2.3
22	DA	277	G	2.3
40	DS	59	GLU	2.3
43	DV	29	ILE	2.3
1	CA	1362	A	2.3
1	CA	1493	A	2.3
3	AC	37	PHE	2.3
7	CG	112	GLY	2.3
22	DA	1205	A	2.3
2	CB	187	VAL	2.3
13	CM	14	HIS	2.3
25	DD	140	HIS	2.3
28	DG	172	LYS	2.3
38	DQ	100	VAL	2.3
52	D4	35	GLN	2.3
1	AA	121	U	2.3
22	DA	2111	U	2.3
5	CE	152	MET	2.3
28	DG	97	ALA	2.3
30	BI	36	MET	2.3
30	BI	44	ALA	2.3
14	CN	79	LEU	2.3
38	DQ	98	ILE	2.3
26	DE	103	GLY	2.3
33	DL	96	LYS	2.3
46	DY	54	LYS	2.3
4	AD	67	VAL	2.3
9	AI	33	ARG	2.3
29	BH	135	HIS	2.3
29	DH	135	HIS	2.3
34	DM	36	VAL	2.3
22	DA	1075	C	2.3
1	CA	1286	U	2.3
25	DD	200	ASP	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	DS	38	TYR	2.3
20	CT	45	ALA	2.3
10	CJ	42	LEU	2.3
27	DF	50	LEU	2.3
27	DF	162	SER	2.3
41	DT	17	SER	2.3
13	CM	87	ARG	2.3
29	DH	134	VAL	2.3
30	DI	107	GLN	2.3
1	CA	1002	G	2.3
22	DA	146	A	2.3
4	CD	163	GLU	2.3
36	DO	42	PRO	2.3
2	CB	160	ALA	2.3
28	DG	7	ALA	2.3
31	DJ	53	TYR	2.3
34	DM	100	LYS	2.3
2	CB	35	ARG	2.3
6	CF	80	PHE	2.3
14	CN	72	GLY	2.3
33	DL	87	GLY	2.3
47	DZ	4	THR	2.3
35	DN	9	GLN	2.3
28	DG	54	PRO	2.3
3	CC	133	ALA	2.3
20	CT	22	ALA	2.3
22	DA	2148	G	2.3
2	AB	40	ILE	2.3
2	AB	135	LEU	2.3
36	DO	73	ALA	2.3
9	CI	80	ARG	2.3
27	DF	82	GLY	2.3
32	DK	115	ILE	2.3
45	DX	18	ARG	2.3
10	AJ	36	VAL	2.3
27	BF	78	LYS	2.3
29	DH	149	GLU	2.3
42	DU	91	LYS	2.3
46	BY	2	LYS	2.3
22	DA	2167	U	2.3
1	CA	998	C	2.3
9	AI	63	LEU	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
14	CN	16	LEU	2.3
15	AO	31	LEU	2.3
16	CP	65	ALA	2.3
29	BH	90	LEU	2.3
29	DH	68	ARG	2.3
32	DK	98	ARG	2.3
1	CA	988	G	2.3
20	AT	61	GLN	2.3
4	CD	143	VAL	2.3
29	DH	11	ASN	2.3
3	AC	136	ARG	2.3
30	DI	134	ARG	2.3
40	DS	109	ASP	2.3
32	DK	48	PRO	2.3
2	CB	84	ALA	2.3
7	CG	47	LEU	2.3
29	DH	39	ALA	2.3
2	AB	60	ILE	2.3
13	CM	9	ILE	2.3
17	CQ	16	LYS	2.3
46	DY	60	LYS	2.3
1	CA	1024	G	2.3
22	BA	1068	G	2.3
41	DT	89	GLU	2.3
24	DC	44	ASN	2.2
29	DH	3	VAL	2.2
29	DH	14	SER	2.2
22	DA	2130	U	2.2
9	AI	40	GLY	2.2
24	DC	154	LEU	2.2
30	DI	138	LEU	2.2
33	DL	131	ALA	2.2
39	DR	52	PRO	2.2
41	DT	84	TYR	2.2
13	AM	47	GLU	2.2
22	DA	1077	A	2.2
22	DA	1084	A	2.2
3	CC	136	ARG	2.2
5	CE	80	THR	2.2
5	CE	103	THR	2.2
2	CB	159	ASP	2.2
11	CK	126	LYS	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	DA	790	U	2.2
27	DF	69	LYS	2.2
41	DT	11	LEU	2.2
43	DV	54	ALA	2.2
12	CL	62	GLU	2.2
28	DG	17	VAL	2.2
9	CI	9	THR	2.2
1	CA	987	G	2.2
23	DB	20	G	2.2
24	DC	205	LEU	2.2
42	DU	57	GLY	2.2
2	AB	69	PHE	2.2
7	AG	26	PHE	2.2
25	DD	89	GLU	2.2
29	BH	29	PHE	2.2
50	D2	21	ARG	2.2
4	AD	177	LYS	2.2
1	CA	1167	A	2.2
22	DA	892	A	2.2
25	DD	153	GLY	2.2
19	AS	50	ALA	2.2
21	CU	41	PRO	2.2
25	DD	14	ILE	2.2
28	DG	121	ILE	2.2
29	BH	100	ALA	2.2
30	BI	117	MET	2.2
32	DK	77	ILE	2.2
38	DQ	74	ILE	2.2
46	DY	3	ALA	2.2
46	DY	26	PHE	2.2
1	CA	1013	G	2.2
10	AJ	31	ARG	2.2
15	AO	17	ARG	2.2
22	DA	882	G	2.2
20	CT	49	LYS	2.2
26	DE	60	TRP	2.2
38	DQ	45	TYR	2.2
35	DN	60	VAL	2.2
29	DH	88	GLY	2.2
30	BI	85	GLY	2.2
46	BY	62	GLY	2.2
1	CA	89	U	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	121	U	2.2
1	AA	1036	A	2.2
1	CA	1275	A	2.2
14	AN	27	LEU	2.2
47	DZ	39	GLU	2.2
27	DF	178	ARG	2.2
29	DH	72	ILE	2.2
33	DL	117	THR	2.2
47	DZ	12	SER	2.2
5	CE	147	MET	2.2
13	CM	81	MET	2.2
19	AS	6	LYS	2.2
30	BI	72	LYS	2.2
33	DL	119	PRO	2.2
38	DQ	84	LYS	2.2
43	DV	10	LYS	2.2
52	D4	34	LYS	2.2
22	DA	1026	G	2.2
5	AE	123	VAL	2.2
21	AU	28	VAL	2.2
21	CU	24	GLU	2.2
7	AG	23	LEU	2.2
15	AO	57	LEU	2.2
22	DA	405	U	2.2
26	DE	138	LEU	2.2
28	DG	48	ASN	2.2
50	D2	12	ARG	2.2
7	AG	38	THR	2.2
9	AI	128	SER	2.2
14	CN	31	ILE	2.2
14	CN	50	THR	2.2
29	DH	10	ALA	2.2
26	DE	9	GLN	2.2
27	DF	81	GLN	2.2
7	CG	135	VAL	2.2
28	DG	11	VAL	2.2
39	DR	72	VAL	2.2
13	CM	110	LYS	2.2
25	DD	117	GLY	2.2
29	DH	85	GLY	2.2
45	DX	74	ARG	2.2
2	AB	123	ASP	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
18	CR	55	LEU	2.2
42	DU	9	ASP	2.2
46	DY	56	LEU	2.2
3	CC	207	ILE	2.2
10	CJ	12	ALA	2.2
26	DE	73	ILE	2.2
29	BH	81	ALA	2.2
26	DE	125	SER	2.2
29	BH	104	THR	2.2
44	DW	58	THR	2.2
1	CA	71	A	2.2
25	DD	9	VAL	2.2
42	DU	83	VAL	2.2
2	CB	149	GLY	2.2
13	CM	93	ARG	2.2
46	DY	4	LYS	2.2
36	DO	22	GLY	2.2
5	CE	124	LEU	2.2
2	AB	51	ASN	2.2
22	BA	2129	C	2.2
17	CQ	38	ILE	2.2
41	DT	72	GLN	2.2
19	CS	35	SER	2.2
20	CT	20	HIS	2.2
32	DK	104	THR	2.2
34	DM	24	THR	2.2
44	BW	10	THR	2.2
7	CG	63	GLU	2.2
39	DR	46	GLU	2.2
22	DA	1614	A	2.2
29	BH	78	VAL	2.2
31	DJ	17	VAL	2.2
30	BI	89	GLY	2.1
43	DV	67	GLY	2.1
44	DW	73	GLY	2.1
10	AJ	14	ASP	2.1
17	CQ	75	LEU	2.1
26	DE	171	ASP	2.1
28	DG	37	LEU	2.1
34	DM	102	LEU	2.1
8	CH	75	ILE	2.1
9	CI	72	ILE	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
12	AL	73	ASN	2.1
25	DD	2	ILE	2.1
29	DH	111	ALA	2.1
30	DI	111	GLN	2.1
34	DM	17	ASN	2.1
48	D0	2	ALA	2.1
22	DA	2123	G	2.1
29	BH	141	LYS	2.1
11	AK	50	SER	2.1
30	DI	26	PRO	2.1
17	AQ	7	THR	2.1
37	DP	101	ARG	2.1
27	DF	31	VAL	2.1
39	DR	30	GLY	2.1
22	DA	1383	A	2.1
31	DJ	14	ASP	2.1
4	AD	37	ALA	2.1
16	CP	42	ILE	2.1
28	DG	136	ALA	2.1
17	AQ	11	ARG	2.1
24	DC	37	ASN	2.1
31	DJ	35	ARG	2.1
40	DS	2	GLU	2.1
10	CJ	70	HIS	2.1
22	DA	1435	G	2.1
28	DG	113	VAL	2.1
33	DL	5	THR	2.1
40	DS	39	THR	2.1
1	CA	101	A	2.1
14	CN	60	GLN	2.1
22	DA	1551	A	2.1
14	AN	25	ALA	2.1
22	DA	2151	U	2.1
24	DC	122	ALA	2.1
26	DE	67	ARG	2.1
30	DI	123	GLU	2.1
37	DP	66	ASN	2.1
1	CA	215	C	2.1
3	CC	128	VAL	2.1
4	CD	130	VAL	2.1
9	CI	40	GLY	2.1
11	CK	19	GLY	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	CS	54	GLY	2.1
27	DF	131	GLY	2.1
29	BH	9	VAL	2.1
1	CA	203	G	2.1
1	CA	942	G	2.1
41	DT	86	THR	2.1
2	CB	16	PHE	2.1
10	AJ	73	LEU	2.1
30	BI	138	LEU	2.1
2	CB	145	GLU	2.1
28	DG	116	GLN	2.1
28	DG	128	GLN	2.1
29	BH	99	ILE	2.1
32	DK	47	ILE	2.1
35	DN	82	GLU	2.1
37	DP	109	ARG	2.1
46	DY	7	ARG	2.1
20	CT	63	ALA	2.1
22	DA	288	U	2.1
28	DG	73	ASN	2.1
36	DO	67	ASN	2.1
41	DT	92	ASN	2.1
14	AN	23	LYS	2.1
22	DA	318	C	2.1
25	DD	60	VAL	2.1
34	DM	118	LYS	2.1
39	BR	50	GLY	2.1
2	AB	32	PHE	2.1
3	AC	175	LEU	2.1
3	CC	29	PHE	2.1
9	CI	95	ARG	2.1
31	DJ	50	THR	2.1
10	AJ	78	GLU	2.1
27	DF	94	GLU	2.1
38	DQ	60	LEU	2.1
22	DA	1228	G	2.1
39	DR	45	GLU	2.1
3	CC	117	ALA	2.1
10	AJ	100	ILE	2.1
52	D4	37	GLN	2.1
40	DS	32	ALA	2.1
4	AD	22	LYS	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
26	DE	123	LYS	2.1
3	CC	129	MET	2.1
7	CG	132	GLY	2.1
14	CN	78	GLY	2.1
10	AJ	98	VAL	2.1
39	DR	64	VAL	2.1
29	DH	122	LEU	2.1
40	DS	69	LEU	2.1
3	CC	168	TYR	2.1
34	DM	60	GLN	2.1
5	CE	110	ALA	2.1
9	CI	28	ILE	2.1
22	BA	1729	U	2.1
22	DA	361	G	2.1
27	DF	14	LYS	2.1
39	DR	48	LYS	2.1
9	AI	102	GLY	2.1
7	CG	75	VAL	2.1
22	DA	1420	A	2.1
27	BF	74	VAL	2.1
43	DV	1	MET	2.1
52	D4	36	ARG	2.1
9	CI	89	GLU	2.1
14	CN	42	TRP	2.1
22	DA	2177	C	2.1
4	AD	182	PHE	2.1
10	CJ	13	PHE	2.1
18	AR	68	LEU	2.1
9	CI	37	GLN	2.1
10	CJ	69	THR	2.1
25	DD	56	LYS	2.1
26	DE	185	LYS	2.1
28	DG	22	GLN	2.1
30	DI	92	LYS	2.1
34	DM	54	THR	2.1
11	CK	99	ALA	2.1
32	DK	60	ALA	2.1
36	DO	79	ALA	2.1
46	DY	61	ALA	2.1
32	DK	81	GLY	2.1
1	CA	1134	G	2.1
7	AG	109	ARG	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	DA	1074	G	2.1
27	BF	71	ARG	2.1
52	D4	19	ARG	2.1
2	CB	182	PRO	2.1
2	CB	201	PRO	2.1
3	CC	46	GLU	2.1
6	CF	12	PRO	2.1
30	DI	108	GLU	2.1
40	DS	87	PRO	2.1
2	CB	91	PHE	2.1
6	AF	61	LEU	2.1
26	DE	194	LYS	2.1
48	D0	5	GLN	2.1
8	AH	26	THR	2.1
28	DG	34	THR	2.1
36	DO	71	ALA	2.1
7	CG	10	ARG	2.1
16	AP	14	ARG	2.1
25	DD	19	GLY	2.1
42	DU	23	GLY	2.1
11	AK	94	GLU	2.1
43	DV	69	GLU	2.1
2	AB	36	ASN	2.1
33	DL	4	ASN	2.1
47	DZ	3	LYS	2.1
3	AC	12	LEU	2.0
4	AD	72	PHE	2.1
19	AS	13	LEU	2.0
29	DH	139	PHE	2.1
51	D3	55	LEU	2.0
1	CA	461	A	2.0
1	CA	1492	A	2.0
14	AN	32	SER	2.0
22	DA	2103	C	2.0
22	DA	2175	C	2.0
3	CC	143	ARG	2.0
15	CO	88	ARG	2.0
27	DF	53	ALA	2.0
28	DG	19	ILE	2.0
27	DF	105	THR	2.0
29	DH	64	ALA	2.0
2	CB	33	GLY	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	CG	55	GLY	2.0
40	DS	90	LYS	2.0
9	CI	111	VAL	2.0
16	AP	19	VAL	2.0
7	CG	50	LEU	2.0
29	DH	54	LEU	2.0
49	D1	19	HIS	2.0
1	CA	76	G	2.0
19	CS	32	ARG	2.0
22	BA	883	G	2.0
1	AA	1441	A	2.0
1	CA	1042	A	2.0
2	AB	164	ILE	2.0
3	AC	141	ALA	2.0
7	CG	108	ALA	2.0
22	DA	501	A	2.0
47	DZ	44	ILE	2.0
16	CP	48	GLU	2.0
27	DF	161	LYS	2.0
28	BG	177	LYS	2.0
12	CL	93	VAL	2.0
29	DH	121	VAL	2.0
29	DH	91	PHE	2.0
34	DM	72	PRO	2.0
9	CI	94	LEU	2.0
19	AS	31	LEU	2.0
2	AB	95	ARG	2.0
27	BF	115	ARG	2.0
29	DH	116	ARG	2.0
2	CB	26	LYS	2.0
20	AT	59	ASP	2.0
26	DE	184	ASP	2.0
1	AA	999	C	2.0
16	AP	43	ALA	2.0
27	BF	73	SER	2.0
27	DF	61	SER	2.0
1	CA	1034	G	2.0
22	DA	1071	G	2.0
7	AG	89	VAL	2.0
29	DH	1	MET	2.0
37	DP	73	VAL	2.0
7	AG	2	PRO	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	5	GLN	2.0
41	DT	26	LYS	2.0
2	CB	65	GLY	2.0
7	CG	77	SER	2.0
13	CM	5	ALA	2.0
7	AG	85	TYR	2.0
1	CA	250	A	2.0
1	CA	1242	G	2.0
13	AM	97	VAL	2.0
22	DA	1413	A	2.0
52	D4	24	ARG	2.0
3	CC	33	LEU	2.0
17	AQ	9	GLN	2.0
27	DF	29	PRO	2.0
27	DF	135	GLN	2.0
28	DG	134	LYS	2.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

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(Å ²)	Q<0.9
54	MG	DA	3134	1/1	0.12	0.63	75,75,75,75	0
54	MG	CA	1611	1/1	0.21	0.21	68,68,68,68	0
54	MG	CA	1635	1/1	0.23	0.15	91,91,91,91	0
54	MG	DA	3136	1/1	0.30	0.25	67,67,67,67	0
54	MG	DA	3132	1/1	0.34	0.91	83,83,83,83	0
54	MG	DA	3137	1/1	0.34	0.14	69,69,69,69	0
54	MG	DA	3007	1/1	0.36	0.20	84,84,84,84	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	3029	1/1	0.39	0.32	63,63,63,63	0
54	MG	DA	3094	1/1	0.48	0.40	78,78,78,78	0
54	MG	DA	3093	1/1	0.49	0.46	79,79,79,79	0
54	MG	AA	1627	1/1	0.49	0.22	50,50,50,50	0
54	MG	DA	3049	1/1	0.56	0.35	84,84,84,84	0
54	MG	DA	3006	1/1	0.57	0.12	76,76,76,76	0
54	MG	DA	3035	1/1	0.58	0.20	52,52,52,52	0
54	MG	DA	3014	1/1	0.58	0.16	59,59,59,59	0
54	MG	DA	3042	1/1	0.58	0.27	67,67,67,67	0
54	MG	DA	3125	1/1	0.58	0.43	76,76,76,76	0
54	MG	DA	3073	1/1	0.61	0.46	76,76,76,76	0
54	MG	DA	3072	1/1	0.61	0.23	63,63,63,63	0
54	MG	CA	1604	1/1	0.62	0.22	80,80,80,80	0
54	MG	DA	3105	1/1	0.63	0.09	57,57,57,57	0
54	MG	DA	3043	1/1	0.63	0.34	68,68,68,68	0
54	MG	DA	3025	1/1	0.64	0.10	40,40,40,40	0
54	MG	DA	3015	1/1	0.65	0.12	57,57,57,57	0
54	MG	DA	3017	1/1	0.65	0.35	65,65,65,65	0
54	MG	DA	3047	1/1	0.66	0.12	60,60,60,60	0
54	MG	DA	3120	1/1	0.66	0.56	80,80,80,80	0
54	MG	DA	3089	1/1	0.66	0.10	57,57,57,57	0
54	MG	DA	3135	1/1	0.69	0.12	41,41,41,41	0
54	MG	DA	3048	1/1	0.69	0.17	59,59,59,59	0
54	MG	CA	1631	1/1	0.70	0.17	76,76,76,76	0
54	MG	AA	1658	1/1	0.70	0.49	47,47,47,47	0
54	MG	D2	101	1/1	0.70	0.15	63,63,63,63	0
54	MG	DA	3085	1/1	0.70	0.20	72,72,72,72	0
54	MG	DA	3129	1/1	0.70	0.10	65,65,65,65	0
54	MG	DA	3027	1/1	0.70	0.44	60,60,60,60	0
54	MG	BA	3169	1/1	0.71	0.33	25,25,25,25	0
54	MG	DA	3045	1/1	0.71	0.19	68,68,68,68	0
54	MG	AA	1638	1/1	0.71	0.13	57,57,57,57	0
54	MG	CA	1615	1/1	0.72	0.19	38,38,38,38	0
54	MG	CA	1628	1/1	0.72	0.29	70,70,70,70	0
54	MG	BA	3015	1/1	0.72	0.15	22,22,22,22	0
54	MG	AA	1645	1/1	0.73	0.48	41,41,41,41	0
54	MG	DA	3058	1/1	0.73	0.31	65,65,65,65	0
54	MG	CA	1602	1/1	0.73	0.10	69,69,69,69	0
54	MG	BA	3171	1/1	0.74	0.32	34,34,34,34	0
54	MG	CA	1636	1/1	0.74	0.27	92,92,92,92	0
54	MG	BA	3193	1/1	0.74	0.51	10,10,10,10	0
54	MG	DA	3095	1/1	0.74	0.13	75,75,75,75	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	3102	1/1	0.75	0.08	49,49,49,49	0
54	MG	DA	3041	1/1	0.75	0.13	62,62,62,62	0
54	MG	CA	1630	1/1	0.75	0.36	81,81,81,81	0
54	MG	DA	3148	1/1	0.75	0.20	47,47,47,47	0
54	MG	CA	1626	1/1	0.76	0.08	48,48,48,48	0
54	MG	AA	1672	1/1	0.76	0.33	40,40,40,40	0
54	MG	BA	3154	1/1	0.76	0.28	11,11,11,11	0
54	MG	DA	3154	1/1	0.76	0.58	63,63,63,63	0
54	MG	DA	3019	1/1	0.76	0.20	66,66,66,66	0
54	MG	DA	3144	1/1	0.76	1.42	57,57,57,57	0
54	MG	DA	3028	1/1	0.76	0.08	62,62,62,62	0
54	MG	DA	3005	1/1	0.76	0.43	76,76,76,76	0
54	MG	DA	3100	1/1	0.77	0.53	68,68,68,68	0
54	MG	BA	3031	1/1	0.77	0.13	10,10,10,10	0
54	MG	CA	1605	1/1	0.77	0.16	57,57,57,57	0
54	MG	DA	3163	1/1	0.77	0.35	49,49,49,49	0
54	MG	CA	1641	1/1	0.77	0.49	59,59,59,59	0
54	MG	DA	3079	1/1	0.78	0.12	74,74,74,74	0
54	MG	DA	3104	1/1	0.78	0.34	59,59,59,59	0
54	MG	BA	3050	1/1	0.78	0.08	15,15,15,15	0
54	MG	BA	3016	1/1	0.78	0.38	67,67,67,67	0
54	MG	DA	3046	1/1	0.78	0.12	72,72,72,72	0
54	MG	BA	3191	1/1	0.78	0.23	43,43,43,43	0
54	MG	DA	3080	1/1	0.78	0.11	79,79,79,79	0
54	MG	CA	1638	1/1	0.78	0.10	54,54,54,54	0
54	MG	DA	3088	1/1	0.78	0.07	53,53,53,53	0
54	MG	DA	3011	1/1	0.79	0.08	65,65,65,65	0
54	MG	DA	3092	1/1	0.79	0.09	60,60,60,60	0
54	MG	DA	3070	1/1	0.79	0.27	69,69,69,69	0
54	MG	AA	1617	1/1	0.79	0.18	55,55,55,55	0
54	MG	AA	1623	1/1	0.79	0.06	42,42,42,42	0
54	MG	DA	3008	1/1	0.79	0.46	70,70,70,70	0
54	MG	DA	3106	1/1	0.79	0.21	61,61,61,61	0
54	MG	CA	1649	1/1	0.79	0.28	48,48,48,48	0
54	MG	AA	1614	1/1	0.80	0.18	52,52,52,52	0
54	MG	DA	3030	1/1	0.80	0.26	61,61,61,61	0
54	MG	DA	3038	1/1	0.80	0.16	74,74,74,74	0
54	MG	CA	1650	1/1	0.80	0.31	45,45,45,45	0
54	MG	CA	1653	1/1	0.80	0.25	48,48,48,48	0
54	MG	AA	1647	1/1	0.80	0.30	40,40,40,40	0
54	MG	CA	1627	1/1	0.80	0.29	69,69,69,69	0
54	MG	DA	3145	1/1	0.81	0.07	60,60,60,60	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	3039	1/1	0.81	0.13	54,54,54,54	0
54	MG	CA	1617	1/1	0.81	0.08	33,33,33,33	0
54	MG	DA	3078	1/1	0.81	0.17	64,64,64,64	0
54	MG	DA	3003	1/1	0.81	0.40	65,65,65,65	0
54	MG	CA	1621	1/1	0.81	0.12	63,63,63,63	0
54	MG	BA	3047	1/1	0.81	0.15	19,19,19,19	0
54	MG	AA	1631	1/1	0.81	0.08	39,39,39,39	0
54	MG	BA	3195	1/1	0.81	0.16	31,31,31,31	0
54	MG	AA	1604	1/1	0.82	0.07	43,43,43,43	0
54	MG	BA	3049	1/1	0.82	0.10	37,37,37,37	0
54	MG	DA	3107	1/1	0.82	0.12	47,47,47,47	0
54	MG	DA	3012	1/1	0.82	0.24	54,54,54,54	0
54	MG	DA	3059	1/1	0.82	0.48	63,63,63,63	0
54	MG	BA	3107	1/1	0.82	0.15	1,1,1,1	0
54	MG	BA	3104	1/1	0.82	0.14	16,16,16,16	0
54	MG	CA	1618	1/1	0.82	0.16	38,38,38,38	0
54	MG	BA	3145	1/1	0.82	0.37	37,37,37,37	0
54	MG	DA	3152	1/1	0.82	0.36	54,54,54,54	0
54	MG	DA	3022	1/1	0.83	0.18	50,50,50,50	0
54	MG	BA	3100	1/1	0.83	0.18	52,52,52,52	0
54	MG	DA	3127	1/1	0.83	0.13	59,59,59,59	0
54	MG	DA	3147	1/1	0.83	0.17	45,45,45,45	0
54	MG	DA	3020	1/1	0.83	0.24	75,75,75,75	0
54	MG	BA	3174	1/1	0.83	0.22	24,24,24,24	0
54	MG	CA	1633	1/1	0.83	0.48	61,61,61,61	0
54	MG	CA	1644	1/1	0.83	0.17	38,38,38,38	0
54	MG	BA	3027	1/1	0.83	0.15	47,47,47,47	0
54	MG	DA	3157	1/1	0.83	0.21	42,42,42,42	0
54	MG	DA	3033	1/1	0.83	0.15	53,53,53,53	0
54	MG	BA	3035	1/1	0.83	0.14	4,4,4,4	0
54	MG	DA	3114	1/1	0.83	0.13	57,57,57,57	0
54	MG	DA	3009	1/1	0.83	0.19	62,62,62,62	0
54	MG	BA	3075	1/1	0.83	0.19	3,3,3,3	0
54	MG	AA	1612	1/1	0.84	0.13	33,33,33,33	0
54	MG	AA	1663	1/1	0.84	0.15	51,51,51,51	0
54	MG	BA	3116	1/1	0.84	0.17	29,29,29,29	0
54	MG	DA	3002	1/1	0.84	0.09	52,52,52,52	0
54	MG	BA	3057	1/1	0.84	0.39	37,37,37,37	0
54	MG	BA	3092	1/1	0.84	0.11	20,20,20,20	0
54	MG	BA	3080	1/1	0.84	0.06	50,50,50,50	0
54	MG	DB	201	1/1	0.84	0.12	83,83,83,83	0
54	MG	DA	3119	1/1	0.85	0.09	52,52,52,52	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	CA	1654	1/1	0.85	0.23	40,40,40,40	0
54	MG	BA	3135	1/1	0.85	0.21	46,46,46,46	0
54	MG	AA	1601	1/1	0.85	0.15	53,53,53,53	0
54	MG	AA	1602	1/1	0.85	0.14	40,40,40,40	0
54	MG	DA	3149	1/1	0.85	0.22	53,53,53,53	0
54	MG	DA	3146	1/1	0.85	0.17	54,54,54,54	0
54	MG	DA	3061	1/1	0.85	0.34	69,69,69,69	0
54	MG	BA	3127	1/1	0.85	0.17	7,7,7,7	0
54	MG	AA	1628	1/1	0.85	0.10	45,45,45,45	0
54	MG	DA	3153	1/1	0.85	0.11	56,56,56,56	0
54	MG	BA	3085	1/1	0.85	0.17	29,29,29,29	0
54	MG	BA	3167	1/1	0.85	0.27	35,35,35,35	0
54	MG	DA	3090	1/1	0.85	0.42	66,66,66,66	0
54	MG	DA	3074	1/1	0.85	0.11	49,49,49,49	0
54	MG	BA	3134	1/1	0.85	0.11	32,32,32,32	0
54	MG	AA	1656	1/1	0.85	0.26	43,43,43,43	0
54	MG	CA	1614	1/1	0.85	0.08	45,45,45,45	0
54	MG	BA	3101	1/1	0.86	0.10	8,8,8,8	0
54	MG	DA	3050	1/1	0.86	0.23	58,58,58,58	0
54	MG	DB	203	1/1	0.86	0.05	70,70,70,70	0
54	MG	CA	1655	1/1	0.86	0.31	53,53,53,53	0
54	MG	CA	1622	1/1	0.86	0.06	53,53,53,53	0
54	MG	AA	1670	1/1	0.86	0.31	50,50,50,50	0
54	MG	BA	3173	1/1	0.86	0.27	24,24,24,24	0
54	MG	BA	3126	1/1	0.86	0.26	25,25,25,25	0
54	MG	DA	3062	1/1	0.86	1.27	73,73,73,73	0
54	MG	BA	3082	1/1	0.86	0.10	12,12,12,12	0
54	MG	AA	1616	1/1	0.86	0.10	57,57,57,57	0
54	MG	DA	3116	1/1	0.86	0.24	64,64,64,64	0
54	MG	AA	1667	1/1	0.86	0.27	47,47,47,47	0
54	MG	DA	3056	1/1	0.86	0.10	52,52,52,52	0
54	MG	BA	3181	1/1	0.87	0.24	8,8,8,8	0
54	MG	BA	3018	1/1	0.87	0.15	4,4,4,4	0
54	MG	CA	1652	1/1	0.87	0.10	45,45,45,45	0
54	MG	BA	3079	1/1	0.87	0.06	30,30,30,30	0
54	MG	CA	1616	1/1	0.87	0.12	31,31,31,31	0
54	MG	BA	3137	1/1	0.87	0.14	44,44,44,44	0
54	MG	DA	3115	1/1	0.87	0.14	45,45,45,45	0
54	MG	AA	1630	1/1	0.87	0.11	53,53,53,53	0
54	MG	CA	1646	1/1	0.87	0.17	40,40,40,40	0
54	MG	AA	1660	1/1	0.87	0.54	38,38,38,38	0
54	MG	DA	3016	1/1	0.88	0.76	65,65,65,65	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	BB	204	1/1	0.88	0.35	15,15,15,15	0
54	MG	BA	3120	1/1	0.88	0.08	24,24,24,24	0
54	MG	CA	1624	1/1	0.88	0.11	33,33,33,33	0
54	MG	DA	3091	1/1	0.88	0.07	55,55,55,55	0
54	MG	AA	1626	1/1	0.88	0.11	24,24,24,24	0
54	MG	DA	3086	1/1	0.88	0.12	61,61,61,61	0
54	MG	AA	1668	1/1	0.88	0.20	41,41,41,41	0
54	MG	DA	3004	1/1	0.88	0.08	58,58,58,58	0
54	MG	BA	3163	1/1	0.88	0.18	31,31,31,31	0
54	MG	DA	3161	1/1	0.88	0.22	39,39,39,39	0
54	MG	DA	3076	1/1	0.88	0.10	55,55,55,55	0
54	MG	BA	3073	1/1	0.88	0.16	30,30,30,30	0
54	MG	DA	3156	1/1	0.88	0.31	44,44,44,44	0
54	MG	DA	3109	1/1	0.88	0.11	54,54,54,54	0
54	MG	DA	3133	1/1	0.89	0.13	51,51,51,51	0
54	MG	DA	3083	1/1	0.89	0.11	52,52,52,52	0
54	MG	AA	1618	1/1	0.89	0.08	41,41,41,41	0
54	MG	BA	3025	1/1	0.89	0.11	4,4,4,4	0
54	MG	DA	3067	1/1	0.89	0.08	48,48,48,48	0
54	MG	BB	203	1/1	0.89	0.07	6,6,6,6	0
54	MG	BA	3046	1/1	0.89	0.13	13,13,13,13	0
54	MG	BA	3170	1/1	0.89	0.16	29,29,29,29	0
54	MG	DA	3036	1/1	0.89	0.18	65,65,65,65	0
54	MG	DA	3111	1/1	0.89	0.23	45,45,45,45	0
54	MG	DA	3150	1/1	0.89	0.27	41,41,41,41	0
54	MG	DA	3024	1/1	0.89	0.08	63,63,63,63	0
54	MG	CA	1610	1/1	0.89	0.10	57,57,57,57	0
54	MG	CA	1639	1/1	0.89	0.12	32,32,32,32	0
54	MG	DA	3026	1/1	0.90	0.09	43,43,43,43	0
54	MG	BA	3093	1/1	0.90	0.06	43,43,43,43	0
54	MG	DA	3075	1/1	0.90	0.05	47,47,47,47	0
54	MG	AA	1661	1/1	0.90	0.16	49,49,49,49	0
54	MG	DA	3101	1/1	0.90	0.18	54,54,54,54	0
54	MG	BA	3038	1/1	0.90	0.13	30,30,30,30	0
54	MG	AA	1625	1/1	0.90	0.06	35,35,35,35	0
54	MG	AA	1603	1/1	0.90	0.18	48,48,48,48	0
54	MG	BA	3042	1/1	0.90	0.35	7,7,7,7	0
54	MG	BA	3074	1/1	0.90	0.14	3,3,3,3	0
54	MG	AA	1641	1/1	0.90	0.11	16,16,16,16	0
54	MG	DA	3164	1/1	0.90	0.23	50,50,50,50	0
54	MG	DA	3103	1/1	0.90	0.09	45,45,45,45	0
54	MG	BA	3029	1/1	0.90	0.26	38,38,38,38	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	3151	1/1	0.90	0.33	53,53,53,53	0
54	MG	BA	3129	1/1	0.90	0.09	7,7,7,7	0
54	MG	AA	1655	1/1	0.90	0.22	50,50,50,50	0
54	MG	CA	1613	1/1	0.90	0.14	16,16,16,16	0
54	MG	DA	3138	1/1	0.90	0.29	42,42,42,42	0
54	MG	AA	1653	1/1	0.90	0.15	40,40,40,40	0
54	MG	BA	3062	1/1	0.90	0.43	36,36,36,36	0
54	MG	BA	3065	1/1	0.90	0.19	2,2,2,2	0
54	MG	BA	3009	1/1	0.90	0.16	10,10,10,10	0
54	MG	BA	3068	1/1	0.90	0.14	8,8,8,8	0
54	MG	DA	3044	1/1	0.90	0.10	54,54,54,54	0
54	MG	BA	3059	1/1	0.91	0.30	23,23,23,23	0
54	MG	AA	1605	1/1	0.91	0.19	36,36,36,36	0
54	MG	DA	3031	1/1	0.91	0.26	49,49,49,49	0
54	MG	BA	3161	1/1	0.91	0.18	19,19,19,19	0
54	MG	DA	3113	1/1	0.91	0.27	56,56,56,56	0
54	MG	DA	3118	1/1	0.91	0.06	56,56,56,56	0
54	MG	AA	1650	1/1	0.91	0.15	31,31,31,31	0
54	MG	BA	3110	1/1	0.91	0.24	4,4,4,4	0
54	MG	AA	1664	1/1	0.91	0.19	30,30,30,30	0
54	MG	CA	1625	1/1	0.91	0.15	26,26,26,26	0
54	MG	BA	3172	1/1	0.91	0.14	22,22,22,22	0
54	MG	DA	3066	1/1	0.91	0.11	40,40,40,40	0
54	MG	BA	3121	1/1	0.91	0.23	50,50,50,50	0
54	MG	BA	3155	1/1	0.91	0.18	37,37,37,37	0
54	MG	DA	3142	1/1	0.91	0.19	30,30,30,30	0
54	MG	CA	1642	1/1	0.91	0.19	31,31,31,31	0
54	MG	DA	3126	1/1	0.91	0.17	51,51,51,51	0
54	MG	BA	3151	1/1	0.91	0.32	44,44,44,44	0
54	MG	BA	3146	1/1	0.91	0.23	12,12,12,12	0
54	MG	DA	3065	1/1	0.91	0.23	46,46,46,46	0
54	MG	BA	3113	1/1	0.91	0.14	30,30,30,30	0
54	MG	CA	1640	1/1	0.92	0.17	22,22,22,22	0
54	MG	BA	3072	1/1	0.92	0.08	6,6,6,6	0
54	MG	BA	3021	1/1	0.92	0.21	0,0,0,0	0
54	MG	BA	3067	1/1	0.92	0.11	4,4,4,4	0
54	MG	AA	1608	1/1	0.92	0.15	20,20,20,20	0
54	MG	AA	1624	1/1	0.92	0.05	30,30,30,30	0
54	MG	BA	3048	1/1	0.92	0.09	25,25,25,25	0
54	MG	DA	3032	1/1	0.92	0.12	46,46,46,46	0
54	MG	DA	3155	1/1	0.92	0.17	43,43,43,43	0
54	MG	DA	3159	1/1	0.92	0.14	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	3139	1/1	0.92	0.34	0,0,0,0	0
55	VIF	DA	3001	38/38	0.92	0.26	40,51,59,60	0
54	MG	DA	3167	1/1	0.92	0.12	39,39,39,39	0
54	MG	DA	3040	1/1	0.92	0.16	39,39,39,39	0
54	MG	AA	1669	1/1	0.92	0.15	28,28,28,28	0
54	MG	AA	1635	1/1	0.92	0.14	49,49,49,49	0
54	MG	DA	3128	1/1	0.92	0.10	61,61,61,61	0
54	MG	DA	3021	1/1	0.92	0.16	50,50,50,50	0
54	MG	BA	3078	1/1	0.92	0.21	26,26,26,26	0
54	MG	CA	1619	1/1	0.92	0.07	30,30,30,30	0
54	MG	BA	3180	1/1	0.92	0.17	10,10,10,10	0
54	MG	DA	3124	1/1	0.92	0.12	52,52,52,52	0
54	MG	AA	1620	1/1	0.92	0.04	51,51,51,51	0
54	MG	CA	1648	1/1	0.92	0.20	45,45,45,45	0
54	MG	BA	3007	1/1	0.92	0.15	17,17,17,17	0
54	MG	BA	3188	1/1	0.92	0.21	19,19,19,19	0
54	MG	CA	1643	1/1	0.92	0.39	54,54,54,54	0
54	MG	BA	3177	1/1	0.92	0.14	13,13,13,13	0
54	MG	BA	3004	1/1	0.92	0.11	24,24,24,24	0
54	MG	CA	1632	1/1	0.93	0.14	66,66,66,66	0
54	MG	BA	3076	1/1	0.93	0.06	29,29,29,29	0
54	MG	BA	3102	1/1	0.93	0.12	10,10,10,10	0
54	MG	AA	1629	1/1	0.93	0.12	42,42,42,42	0
54	MG	AA	1621	1/1	0.93	0.06	30,30,30,30	0
54	MG	CM	201	1/1	0.93	0.30	50,50,50,50	0
54	MG	AA	1636	1/1	0.93	0.12	31,31,31,31	0
54	MG	AA	1665	1/1	0.93	0.14	48,48,48,48	0
54	MG	CA	1608	1/1	0.93	0.26	56,56,56,56	0
54	MG	BA	3087	1/1	0.93	0.14	0,0,0,0	0
54	MG	BA	3143	1/1	0.93	0.21	7,7,7,7	0
54	MG	AA	1659	1/1	0.93	0.15	43,43,43,43	0
54	MG	AA	1640	1/1	0.93	0.08	41,41,41,41	0
54	MG	BA	3152	1/1	0.93	0.15	27,27,27,27	0
54	MG	BA	3186	1/1	0.93	0.15	10,10,10,10	0
54	MG	BA	3190	1/1	0.93	0.20	19,19,19,19	0
54	MG	CA	1634	1/1	0.93	0.12	55,55,55,55	0
54	MG	AA	1606	1/1	0.93	0.08	36,36,36,36	0
54	MG	DA	3108	1/1	0.93	0.07	60,60,60,60	0
54	MG	CA	1637	1/1	0.93	0.26	52,52,52,52	0
54	MG	BA	3187	1/1	0.93	0.27	16,16,16,16	0
54	MG	BA	3168	1/1	0.93	0.17	32,32,32,32	0
54	MG	DA	3099	1/1	0.93	0.09	37,37,37,37	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	3131	1/1	0.93	0.12	58,58,58,58	0
54	MG	DA	3082	1/1	0.93	0.09	42,42,42,42	0
54	MG	BA	3133	1/1	0.93	0.30	48,48,48,48	0
54	MG	BA	3088	1/1	0.93	0.21	8,8,8,8	0
54	MG	BA	3002	1/1	0.93	0.08	15,15,15,15	0
54	MG	BA	3064	1/1	0.93	0.17	0,0,0,0	0
54	MG	DA	3097	1/1	0.93	0.06	49,49,49,49	0
54	MG	DA	3034	1/1	0.93	0.06	54,54,54,54	0
54	MG	DA	3121	1/1	0.93	0.07	54,54,54,54	0
54	MG	DA	3018	1/1	0.93	0.14	53,53,53,53	0
54	MG	DA	3081	1/1	0.93	0.09	67,67,67,67	0
54	MG	AA	1639	1/1	0.94	0.06	56,56,56,56	0
54	MG	BA	3144	1/1	0.94	0.27	14,14,14,14	0
54	MG	DA	3112	1/1	0.94	0.18	67,67,67,67	0
54	MG	BA	3192	1/1	0.94	0.17	22,22,22,22	0
54	MG	DA	3158	1/1	0.94	0.22	46,46,46,46	0
54	MG	BA	3014	1/1	0.94	0.18	0,0,0,0	0
54	MG	BA	3012	1/1	0.94	0.06	17,17,17,17	0
54	MG	BA	3030	1/1	0.94	0.11	4,4,4,4	0
54	MG	BA	3117	1/1	0.94	0.28	40,40,40,40	0
54	MG	AA	1634	1/1	0.94	0.11	40,40,40,40	0
54	MG	CA	1612	1/1	0.94	0.12	43,43,43,43	0
54	MG	CA	1645	1/1	0.94	0.12	50,50,50,50	0
54	MG	BA	3017	1/1	0.94	0.10	9,9,9,9	0
54	MG	AA	1615	1/1	0.94	0.07	43,43,43,43	0
54	MG	DA	3139	1/1	0.94	0.46	35,35,35,35	0
54	MG	CA	1607	1/1	0.94	0.10	46,46,46,46	0
54	MG	BA	3184	1/1	0.94	0.20	21,21,21,21	0
54	MG	BA	3081	1/1	0.94	0.14	28,28,28,28	0
54	MG	BA	3061	1/1	0.94	0.20	22,22,22,22	0
54	MG	BA	3097	1/1	0.94	0.06	18,18,18,18	0
54	MG	BA	3162	1/1	0.94	0.23	17,17,17,17	0
54	MG	BA	3008	1/1	0.94	0.09	29,29,29,29	0
54	MG	BA	3141	1/1	0.94	0.17	8,8,8,8	0
54	MG	AA	1632	1/1	0.94	0.11	41,41,41,41	0
54	MG	BA	3166	1/1	0.94	0.09	6,6,6,6	0
54	MG	DA	3087	1/1	0.94	0.13	48,48,48,48	0
54	MG	DA	3096	1/1	0.94	0.22	62,62,62,62	0
54	MG	BA	3066	1/1	0.94	0.12	6,6,6,6	0
54	MG	DA	3071	1/1	0.94	0.13	75,75,75,75	0
54	MG	DA	3010	1/1	0.94	0.13	57,57,57,57	0
54	MG	AA	1671	1/1	0.94	0.32	37,37,37,37	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	3034	1/1	0.94	0.14	20,20,20,20	0
54	MG	DA	3060	1/1	0.94	0.10	43,43,43,43	0
54	MG	AA	1662	1/1	0.94	0.14	25,25,25,25	0
54	MG	DA	3068	1/1	0.94	0.10	43,43,43,43	0
54	MG	BA	3069	1/1	0.94	0.17	2,2,2,2	0
54	MG	AA	1644	1/1	0.94	0.29	41,41,41,41	0
54	MG	DA	3122	1/1	0.94	0.07	42,42,42,42	0
54	MG	BA	3036	1/1	0.94	0.18	9,9,9,9	0
54	MG	AA	1607	1/1	0.94	0.10	47,47,47,47	0
54	MG	CA	1606	1/1	0.94	0.08	49,49,49,49	0
54	MG	AA	1642	1/1	0.94	0.10	21,21,21,21	0
54	MG	DB	202	1/1	0.94	0.08	49,49,49,49	0
54	MG	BA	3164	1/1	0.95	0.14	27,27,27,27	0
54	MG	CA	1629	1/1	0.95	0.07	67,67,67,67	0
54	MG	DA	3141	1/1	0.95	0.40	39,39,39,39	0
54	MG	CA	1603	1/1	0.95	0.12	43,43,43,43	0
54	MG	DA	3053	1/1	0.95	0.07	44,44,44,44	0
54	MG	AA	1613	1/1	0.95	0.08	25,25,25,25	0
54	MG	BA	3147	1/1	0.95	0.23	25,25,25,25	0
54	MG	DA	3023	1/1	0.95	0.14	36,36,36,36	0
54	MG	CA	1651	1/1	0.95	0.05	54,54,54,54	0
54	MG	DA	3051	1/1	0.95	0.19	43,43,43,43	0
54	MG	BA	3182	1/1	0.95	0.12	26,26,26,26	0
54	MG	DA	3037	1/1	0.95	0.12	46,46,46,46	0
54	MG	BA	3178	1/1	0.95	0.09	27,27,27,27	0
54	MG	BA	3112	1/1	0.95	0.08	16,16,16,16	0
54	MG	BA	3044	1/1	0.95	0.14	4,4,4,4	0
54	MG	BA	3054	1/1	0.95	0.15	6,6,6,6	0
54	MG	BA	3058	1/1	0.95	0.11	11,11,11,11	0
54	MG	DA	3117	1/1	0.95	0.14	54,54,54,54	0
54	MG	BA	3040	1/1	0.95	0.14	3,3,3,3	0
54	MG	BA	3122	1/1	0.95	0.11	10,10,10,10	0
54	MG	BA	3124	1/1	0.95	0.22	0,0,0,0	0
54	MG	BA	3115	1/1	0.95	0.16	11,11,11,11	0
54	MG	BA	3020	1/1	0.95	0.09	24,24,24,24	0
54	MG	BA	3189	1/1	0.95	0.09	25,25,25,25	0
54	MG	CA	1620	1/1	0.95	0.07	49,49,49,49	0
54	MG	DA	3160	1/1	0.95	0.15	47,47,47,47	0
54	MG	DA	3052	1/1	0.95	0.08	32,32,32,32	0
54	MG	DA	3166	1/1	0.95	0.32	41,41,41,41	0
54	MG	DA	3084	1/1	0.95	0.06	50,50,50,50	0
54	MG	BA	3089	1/1	0.95	0.07	13,13,13,13	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	1649	1/1	0.95	0.12	34,34,34,34	0
54	MG	DA	3054	1/1	0.95	0.16	40,40,40,40	0
54	MG	DA	3013	1/1	0.95	0.20	40,40,40,40	0
54	MG	CA	1601	1/1	0.95	0.09	34,34,34,34	0
54	MG	BA	3119	1/1	0.95	0.07	9,9,9,9	0
54	MG	BB	202	1/1	0.95	0.09	12,12,12,12	0
54	MG	BA	3132	1/1	0.95	0.18	2,2,2,2	0
54	MG	CA	1647	1/1	0.95	0.20	19,19,19,19	0
54	MG	BA	3140	1/1	0.96	0.27	0,0,0,0	0
54	MG	BA	3077	1/1	0.96	0.18	11,11,11,11	0
54	MG	BA	3094	1/1	0.96	0.23	23,23,23,23	0
54	MG	BA	3026	1/1	0.96	0.11	9,9,9,9	0
54	MG	BA	3106	1/1	0.96	0.18	3,3,3,3	0
54	MG	BA	3185	1/1	0.96	0.14	16,16,16,16	0
54	MG	BA	3039	1/1	0.96	0.20	2,2,2,2	0
54	MG	BA	3105	1/1	0.96	0.11	9,9,9,9	0
54	MG	BA	3138	1/1	0.96	0.39	8,8,8,8	0
54	MG	BA	3033	1/1	0.96	0.10	15,15,15,15	0
54	MG	DA	3098	1/1	0.96	0.08	46,46,46,46	0
54	MG	AA	1651	1/1	0.96	0.44	36,36,36,36	0
54	MG	BB	201	1/1	0.96	0.09	20,20,20,20	0
54	MG	DA	3064	1/1	0.96	0.15	43,43,43,43	0
54	MG	BA	3111	1/1	0.96	0.13	0,0,0,0	0
54	MG	DA	3162	1/1	0.96	0.09	56,56,56,56	0
54	MG	AA	1611	1/1	0.96	0.09	25,25,25,25	0
54	MG	BA	3176	1/1	0.96	0.30	15,15,15,15	0
54	MG	BA	3118	1/1	0.96	0.19	7,7,7,7	0
54	MG	BA	3103	1/1	0.96	0.15	0,0,0,0	0
54	MG	BA	3136	1/1	0.96	0.14	1,1,1,1	0
54	MG	DQ	201	1/1	0.96	0.34	36,36,36,36	0
54	MG	DA	3130	1/1	0.96	0.18	35,35,35,35	0
54	MG	BA	3052	1/1	0.96	0.07	8,8,8,8	0
54	MG	BA	3084	1/1	0.96	0.06	10,10,10,10	0
54	MG	AA	1652	1/1	0.96	0.24	28,28,28,28	0
55	VIF	BA	3001	38/38	0.96	0.21	3,9,14,18	0
54	MG	AA	1610	1/1	0.96	0.18	53,53,53,53	0
54	MG	AA	1654	1/1	0.96	0.21	25,25,25,25	0
54	MG	BA	3157	1/1	0.96	0.14	7,7,7,7	0
54	MG	DA	3143	1/1	0.96	0.18	28,28,28,28	0
54	MG	CA	1609	1/1	0.96	0.04	57,57,57,57	0
54	MG	DA	3063	1/1	0.96	0.46	52,52,52,52	0
54	MG	BA	3095	1/1	0.96	0.07	26,26,26,26	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	3063	1/1	0.96	0.20	41,41,41,41	0
54	MG	BA	3086	1/1	0.96	0.10	10,10,10,10	0
54	MG	BA	3006	1/1	0.96	0.13	46,46,46,46	0
54	MG	AA	1609	1/1	0.96	0.06	28,28,28,28	0
54	MG	BA	3194	1/1	0.96	0.15	4,4,4,4	0
54	MG	BA	3148	1/1	0.96	0.23	0,0,0,0	0
54	MG	BA	3005	1/1	0.96	0.05	32,32,32,32	0
54	MG	BA	3175	1/1	0.96	0.12	11,11,11,11	0
54	MG	BA	3156	1/1	0.96	0.10	17,17,17,17	0
54	MG	BA	3128	1/1	0.97	0.15	5,5,5,5	0
54	MG	BA	3022	1/1	0.97	0.12	3,3,3,3	0
54	MG	BA	3153	1/1	0.97	0.13	15,15,15,15	0
54	MG	BA	3142	1/1	0.97	0.30	1,1,1,1	0
54	MG	BA	3159	1/1	0.97	0.15	25,25,25,25	0
54	MG	BA	3149	1/1	0.97	0.15	26,26,26,26	0
54	MG	BA	3060	1/1	0.97	0.06	16,16,16,16	0
54	MG	AA	1619	1/1	0.97	0.19	44,44,44,44	0
54	MG	BA	3090	1/1	0.97	0.12	28,28,28,28	0
54	MG	BA	3125	1/1	0.97	0.21	6,6,6,6	0
54	MG	BA	3010	1/1	0.97	0.12	3,3,3,3	0
54	MG	BA	3108	1/1	0.97	0.16	0,0,0,0	0
54	MG	AA	1622	1/1	0.97	0.22	17,17,17,17	0
54	MG	BA	3013	1/1	0.97	0.16	3,3,3,3	0
54	MG	BA	3098	1/1	0.97	0.15	5,5,5,5	0
54	MG	BA	3165	1/1	0.97	0.23	9,9,9,9	0
54	MG	BA	3091	1/1	0.97	0.10	4,4,4,4	0
54	MG	BA	3051	1/1	0.97	0.22	11,11,11,11	0
54	MG	AA	1633	1/1	0.97	0.14	29,29,29,29	0
54	MG	BN	201	1/1	0.97	0.06	6,6,6,6	0
54	MG	BA	3123	1/1	0.97	0.10	17,17,17,17	0
54	MG	DA	3165	1/1	0.97	0.05	46,46,46,46	0
54	MG	DA	3057	1/1	0.97	0.31	62,62,62,62	0
54	MG	BA	3023	1/1	0.97	0.15	0,0,0,0	0
54	MG	DA	3055	1/1	0.97	0.10	48,48,48,48	0
54	MG	BA	3099	1/1	0.97	0.15	5,5,5,5	0
54	MG	BA	3131	1/1	0.97	0.14	0,0,0,0	0
54	MG	BA	3183	1/1	0.97	0.13	20,20,20,20	0
54	MG	BA	3028	1/1	0.97	0.11	4,4,4,4	0
54	MG	BA	3130	1/1	0.97	0.20	4,4,4,4	0
54	MG	BA	3043	1/1	0.97	0.14	11,11,11,11	0
54	MG	BA	3070	1/1	0.97	0.16	0,0,0,0	0
54	MG	BA	3056	1/1	0.97	0.12	7,7,7,7	0

Continued on next page...

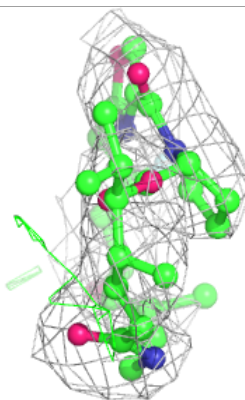
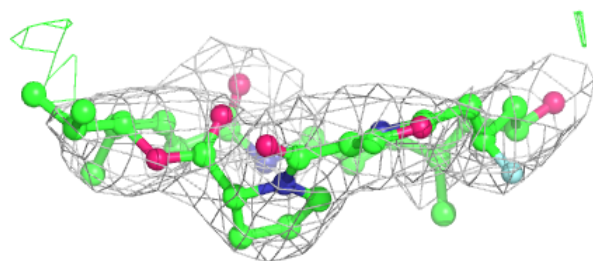
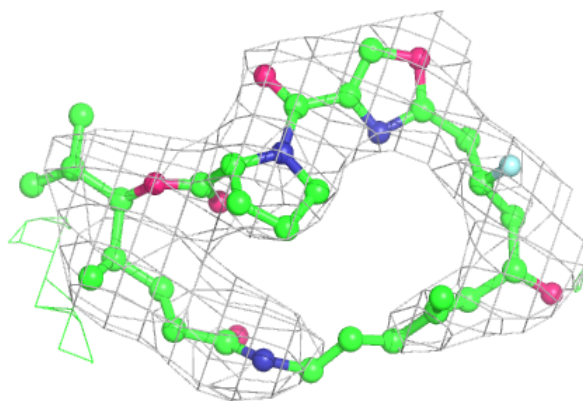
Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	CA	1623	1/1	0.97	0.15	42,42,42,42	0
54	MG	AA	1643	1/1	0.98	0.13	12,12,12,12	0
54	MG	BA	3071	1/1	0.98	0.11	45,45,45,45	0
54	MG	AA	1637	1/1	0.98	0.10	17,17,17,17	0
54	MG	DA	3077	1/1	0.98	0.13	56,56,56,56	0
56	ZN	B4	101	1/1	0.98	0.14	102,102,102,102	0
54	MG	AA	1666	1/1	0.98	0.37	25,25,25,25	0
54	MG	BA	3083	1/1	0.98	0.15	0,0,0,0	0
54	MG	BA	3150	1/1	0.98	0.27	0,0,0,0	0
56	ZN	D4	101	1/1	0.98	0.10	78,78,78,78	0
54	MG	BA	3024	1/1	0.98	0.13	5,5,5,5	0
54	MG	AA	1648	1/1	0.98	0.16	54,54,54,54	0
54	MG	BA	3032	1/1	0.98	0.25	6,6,6,6	0
54	MG	DA	3140	1/1	0.98	0.30	36,36,36,36	0
54	MG	BA	3055	1/1	0.98	0.14	5,5,5,5	0
54	MG	BA	3158	1/1	0.98	0.25	17,17,17,17	0
54	MG	DA	3110	1/1	0.98	0.19	36,36,36,36	0
54	MG	BA	3003	1/1	0.98	0.04	19,19,19,19	0
54	MG	BA	3019	1/1	0.98	0.10	17,17,17,17	0
54	MG	BA	3053	1/1	0.98	0.15	6,6,6,6	0
54	MG	BA	3041	1/1	0.98	0.16	7,7,7,7	0
54	MG	BA	3160	1/1	0.98	0.18	16,16,16,16	0
54	MG	BA	3037	1/1	0.98	0.14	1,1,1,1	0
54	MG	BA	3179	1/1	0.98	0.21	7,7,7,7	0
54	MG	DA	3069	1/1	0.98	0.08	56,56,56,56	0
54	MG	DA	3123	1/1	0.98	0.16	35,35,35,35	0
54	MG	AA	1646	1/1	0.99	0.10	39,39,39,39	0
54	MG	BA	3109	1/1	0.99	0.12	20,20,20,20	0
54	MG	BA	3096	1/1	0.99	0.06	17,17,17,17	0
54	MG	AA	1657	1/1	0.99	0.07	28,28,28,28	0
54	MG	BA	3045	1/1	0.99	0.07	14,14,14,14	0
54	MG	BA	3011	1/1	0.99	0.11	3,3,3,3	0
54	MG	BA	3114	1/1	0.99	0.06	18,18,18,18	0

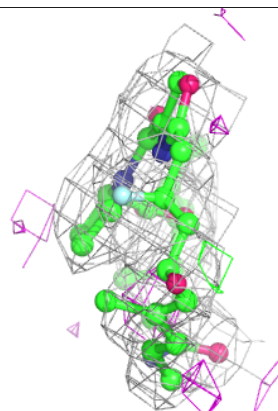
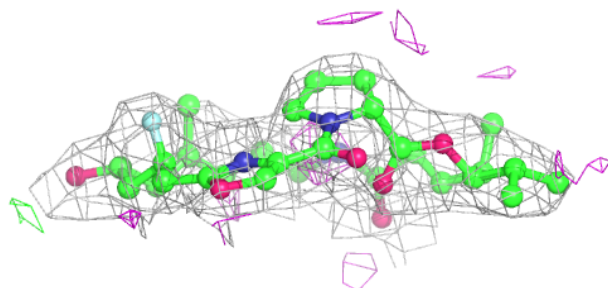
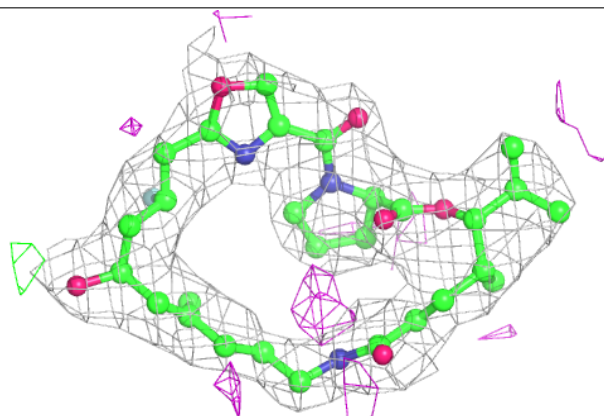
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around VIF 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)

**Electron density around VIF BA 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 [i](#)

There are no such residues in this entry.