



Full wwPDB X-ray Structure Validation Report ⓘ

Dec 16, 2023 – 06:36 PM EST

PDB ID : 4P70
Title : Crystal Structure of Unmodified tRNA Proline (CGG) Bound to Codon CCG on the Ribosome
Authors : Maehigashi, T.; Dunkle, J.A.; Dunham, C.M.
Deposited on : 2014-03-25
Resolution : 3.68 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 types of validation reports are described at

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

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
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) : 2.36

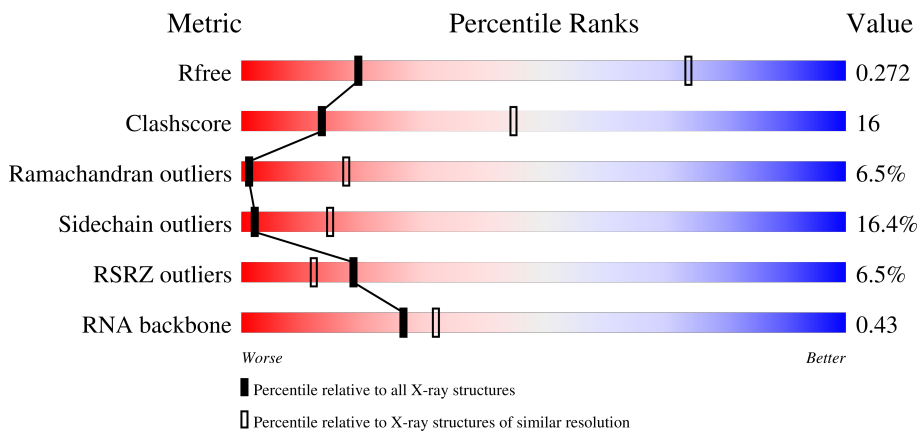
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.68 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	1013 (3.84-3.52)
Clashscore	141614	1070 (3.84-3.52)
Ramachandran outliers	138981	1036 (3.84-3.52)
Sidechain outliers	138945	1033 (3.84-3.52)
RSRZ outliers	127900	1471 (3.86-3.50)
RNA backbone	3102	1024 (4.30-3.00)

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 of 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	QA	1522	
1	XA	1522	
2	QB	256	
2	XB	256	

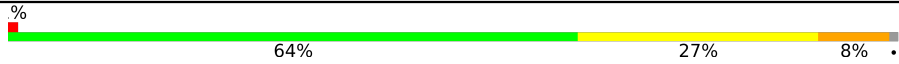



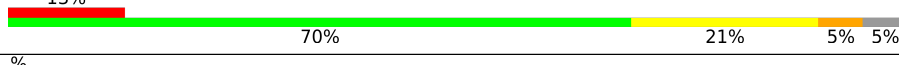
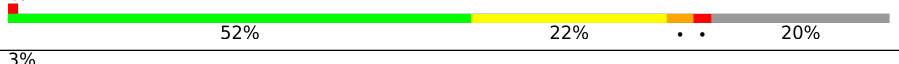
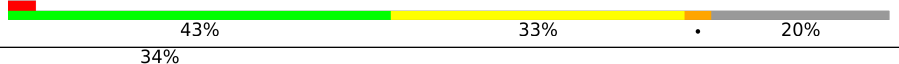
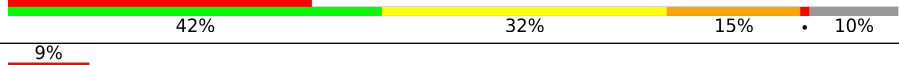
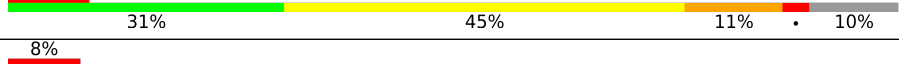



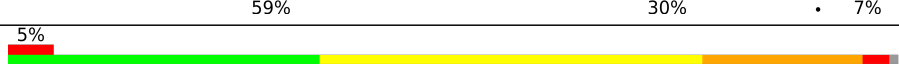
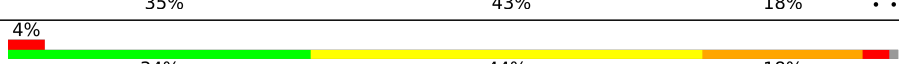
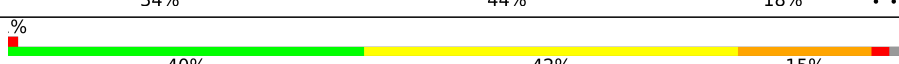
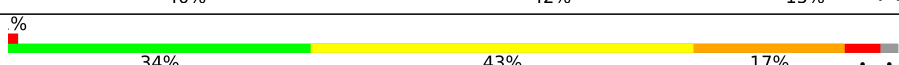

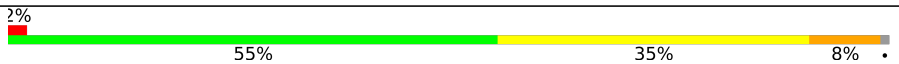
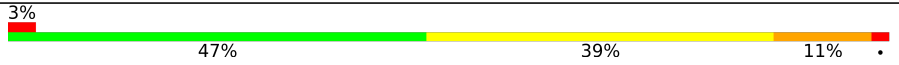


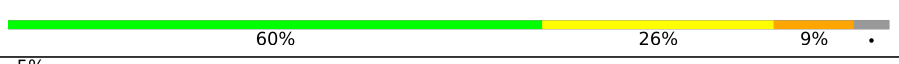
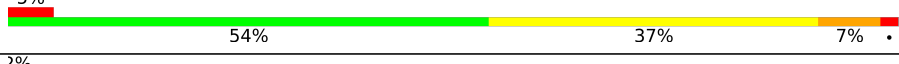


Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
3	QC	239	4% 54% 28% 14%
3	XC	239	2% 54% 28% 14%
4	QD	209	5% 52% 41% 6%
4	XD	209	2% 66% 27% 5%
5	QE	162	4% 59% 31% 7%
5	XE	162	2% 56% 33% 5% 7%
6	QF	101	2% 66% 29% 5%
6	XF	101	63% 34%
7	QG	156	14% 64% 32% 2% 2%
7	XG	156	6% 71% 26% 2% 2%
8	QH	138	2% 59% 37%
8	XH	138	2% 64% 30% 6%
9	QI	128	27% 52% 42% 5% 2%
9	XI	128	12% 52% 38% 9% 2%
10	QJ	105	15% 43% 43% 9% 6%
10	XJ	105	15% 45% 41% 9% 6%
11	QK	129	5% 58% 29% 5% 8%
11	XK	129	5% 60% 30% 8% 2%
12	QL	132	11% 48% 37% 8% 5%
12	XL	132	17% 51% 36% 7% 5%
13	QM	126	24% 47% 40% 8% 2%
13	XM	126	9% 48% 38% 10% 2%
14	QN	61	49% 49% 38% 11% 2%
14	XN	61	15% 51% 38% 10% 2%
15	QO	89	65% 27% 7%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
15	XO	89	
16	QP	88	
16	XP	88	
17	QQ	105	
17	XQ	105	
18	QR	88	
18	XR	88	
19	QS	93	
19	XS	93	
20	QT	106	
20	XT	106	
21	QU	27	
21	XU	27	
22	RA	2916	
22	YA	2916	
23	RB	122	
23	YB	122	
24	RD	276	
24	YD	276	
25	RE	206	
25	YE	206	
26	RF	210	
26	YF	210	
27	RG	182	
27	YG	182	


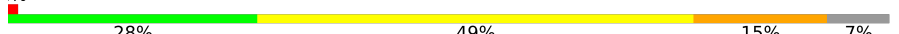

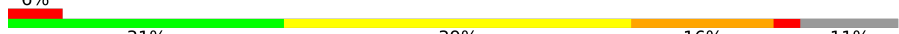




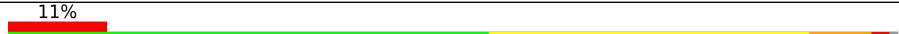

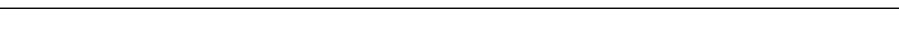
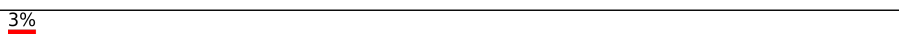
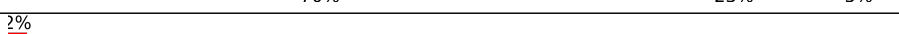



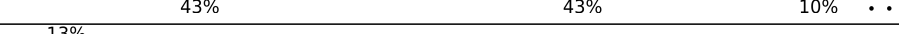


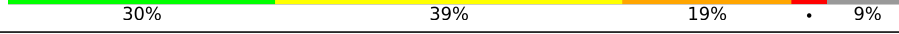





Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
28	RH	180	
28	YH	180	
29	RI	148	
29	YI	148	
30	RN	140	
30	YN	140	
31	RO	122	
31	YO	122	
32	RP	150	
32	YP	150	
33	RQ	141	
33	YQ	141	
34	RR	118	
34	YR	118	
35	RS	112	
35	YS	112	
36	RT	146	
36	YT	146	
37	RU	118	
37	YU	118	
38	RV	101	
38	YV	101	
39	RW	113	
39	YW	113	
40	RX	96	

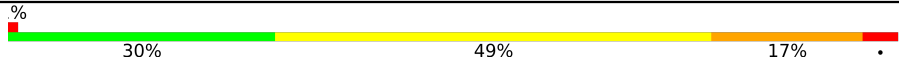
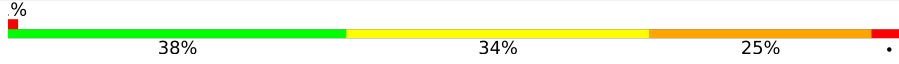


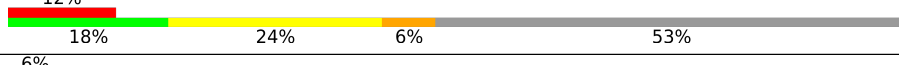

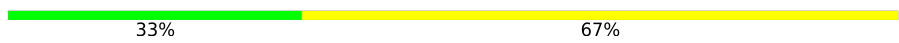

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
40	YX	96	
41	RY	110	
41	YY	110	
42	RZ	206	
42	YZ	206	
43	R0	85	
43	Y0	85	
44	R1	98	
44	Y1	98	
45	R2	72	
45	Y2	72	
46	R3	60	
46	Y3	60	
47	R4	71	
47	Y4	71	
48	R5	60	
48	Y5	60	
49	R6	54	
49	Y6	54	
50	R7	49	
50	Y7	49	
51	R8	65	
51	Y8	65	
52	R9	37	
52	Y9	37	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
53	QV	77	
53	XV	77	
54	QX	25	
54	XX	25	
55	QY	17	
55	XY	17	
56	Z6	3	
56	Z8	3	

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
58	MG	RA	3002	-	-	-	X
58	MG	RA	3067	-	-	-	X
58	MG	RA	3212	-	-	-	X
58	MG	RA	3227	-	-	-	X
58	MG	Y0	101	-	-	-	X
58	MG	YA	3018	-	-	-	X
58	MG	YA	3214	-	-	-	X

2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 291730 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
			Total	C	N	O	P			
1	QA	1500	Total 32247	C 14353	N 5981	O 10414	P 1499	0	0	0
1	XA	1500	Total 32249	C 14354	N 5984	O 10412	P 1499	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	QB	237	Total 1924	C 1228	N 344	O 347	S 5	0	0	0
2	XB	237	Total 1924	C 1228	N 344	O 347	S 5	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	QC	205	Total 1605	C 1011	N 313	O 280	S 1	0	0	0
3	XC	205	Total 1605	C 1011	N 313	O 280	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	QD	208	Total 1703	C 1066	N 339	O 291	S 7	0	0	0
4	XD	208	Total 1703	C 1066	N 339	O 291	S 7	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	QE	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
5	XE	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	QF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	XF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	QG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	XG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	QH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	XH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	QI	127	Total	C	N	O	0	0	0
			1010	639	197	174			
9	XI	127	Total	C	N	O	0	0	0
			1010	639	197	174			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	QJ	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
10	XJ	99	801	504	157	139	1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
11	QK	119	885	549	168	165	3	0	0	0
11	XK	119	885	549	168	165	3	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
12	QL	125	975	614	196	164	1	0	0	0
12	XL	125	975	614	196	164	1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
13	QM	121	964	597	199	166	2	0	0	0
13	XM	121	964	597	199	166	2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
14	QN	60	492	312	104	72	4	0	0	0
14	XN	60	492	312	104	72	4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
15	QO	88	734	459	147	126	2	0	0	0
15	XO	88	734	459	147	126	2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	QP	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
16	XP	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	QQ	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	XQ	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	QR	70	Total	C	N	O	0	0	0
			574	367	112	95			
18	XR	70	Total	C	N	O	0	0	0
			574	367	112	95			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	QS	84	Total	C	N	O	S	0	0	0
			674	430	126	116	2			
19	XS	84	Total	C	N	O	S	0	0	0
			674	430	126	116	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	QT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
20	XT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	QU	25	Total	C	N	O	0	0	0
			217	134	52	31			
21	XU	25	Total	C	N	O	0	0	0
			217	134	52	31			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	RA	2882	Total	C	N	O	P	0	0	0
			62071	27627	11611	19952	2881			
22	YA	2883	Total	C	N	O	P	0	0	0
			62091	27636	11613	19960	2882			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	RB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			
23	YB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	RD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			
24	YD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	RE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
25	YE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	RF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
26	YF	202	1585	1011	297	275	2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
27	RG	181	1474	942	268	260	4	0	0	0
27	YG	181	1474	942	268	260	4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
28	RH	170	1307	829	245	232	1	0	0	0
28	YH	170	1307	829	245	232	1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
29	RI	146	1136	726	201	208	1	0	0	0
29	YI	146	1136	726	201	208	1	0	0	0

- Molecule 30 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
30	RN	138	1104	712	206	182	4	0	0	0
30	YN	138	1104	712	206	182	4	0	0	0

- Molecule 31 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
31	RO	122	933	588	171	170	4	0	0	0
31	YO	122	933	588	171	170	4	0	0	0

- Molecule 32 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
32	RP	150	Total 1145	C 712	N 232	O 198	S 3	0	0	0
32	YP	150	Total 1145	C 712	N 232	O 198	S 3	0	0	0

- Molecule 33 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
33	RQ	141	Total 1122	C 715	N 212	O 188	S 7	0	0	0
33	YQ	141	Total 1122	C 715	N 212	O 188	S 7	0	0	0

- Molecule 34 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
34	RR	118	Total 968	C 604	N 203	O 160	S 1	0	0	0
34	YR	118	Total 968	C 604	N 203	O 160	S 1	0	0	0

- Molecule 35 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
35	RS	111	Total 882	C 556	N 176	O 150	0	0	0
35	YS	111	Total 882	C 556	N 176	O 150	0	0	0

- Molecule 36 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
36	RT	137	Total 1141	C 710	N 234	O 196	S 1	0	0	0
36	YT	137	Total 1141	C 710	N 234	O 196	S 1	0	0	0

- Molecule 37 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	RU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
37	YU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 38 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	RV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
38	YV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 39 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	RW	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			
39	YW	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			

- Molecule 40 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	RX	92	Total	C	N	O	0	0	0
			725	471	131	123			
40	YX	92	Total	C	N	O	0	0	0
			725	471	131	123			

- Molecule 41 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	RY	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			
41	YY	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			

- Molecule 42 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	RZ	183	Total	C	N	O	S	0	0	0
			1461	933	260	265	3			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
42	YZ	183	1461	933	260	265	3	0	0	0

- Molecule 43 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
43	R0	82	648	401	138	108	1	0	0	0
43	Y0	82	648	401	138	108	1	0	0	0

- Molecule 44 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
44	R1	97	763	481	150	131	1	0	0	0
44	Y1	97	763	481	150	131	1	0	0	0

- Molecule 45 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
45	R2	69	581	358	118	104	1	0	0	0
45	Y2	69	581	358	118	104	1	0	0	0

- Molecule 46 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
46	R3	59	469	298	90	81	0	0	0
46	Y3	59	469	298	90	81	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
47	R4	71	581	364	108	104	5	0	0	0
47	Y4	71	581	364	108	104	5	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
48	R5	59	Total 459	C 288	N 90	O 76	S 5	0	0	0
48	Y5	59	Total 459	C 288	N 90	O 76	S 5	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
49	R6	49	Total 424	C 264	N 87	O 69	S 4	0	0	0
49	Y6	49	Total 424	C 264	N 87	O 69	S 4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
50	R7	49	Total 430	C 263	N 108	O 57	S 2	0	0	0
50	Y7	49	Total 430	C 263	N 108	O 57	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
51	R8	64	Total 517	C 331	N 102	O 82	S 2	0	0	0
51	Y8	64	Total 517	C 331	N 102	O 82	S 2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
52	R9	37	Total 307	C 188	N 68	O 47	S 4	0	0	0
52	Y9	37	Total 307	C 188	N 68	O 47	S 4	0	0	0

- Molecule 53 is a RNA chain called P-site tRNA fMET.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	QV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
53	XV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			

- Molecule 54 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	QX	8	Total	C	N	O	P	0	0	0
			173	77	33	55	8			
54	XX	8	Total	C	N	O	P	0	0	0
			173	77	33	55	8			

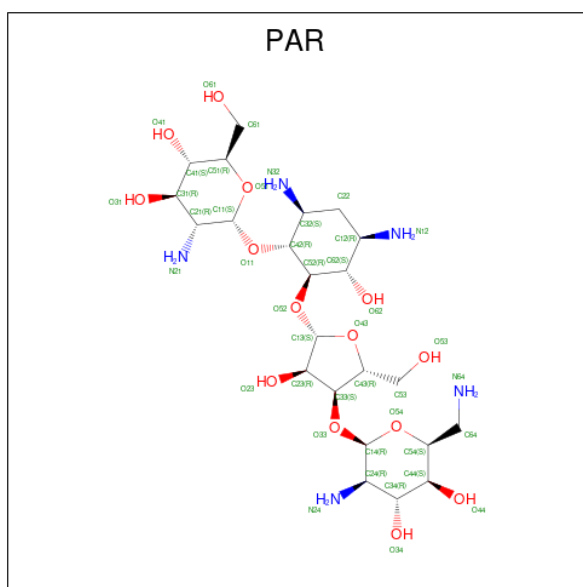
- Molecule 55 is a RNA chain called A site ASL of tRNA-Proline CGG (unmodified).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	QY	8	Total	C	N	O	P	0	0	0
			174	77	33	56	8			
55	XY	8	Total	C	N	O	P	0	0	0
			174	77	33	56	8			

- Molecule 56 is a RNA chain called tRNA acceptor end mimic.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	Z6	3	Total	C	N	O	P	0	0	0
			74	40	13	19	2			
56	Z8	3	Total	C	N	O	P	0	0	0
			74	40	13	19	2			

- Molecule 57 is PAROMOMYCIN (three-letter code: PAR) (formula: C₂₃H₄₅N₅O₁₄).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
57	QA	1	Total	C	N	O	0	0
			42	23	5	14		
57	XA	1	Total	C	N	O	0	0
			42	23	5	14		

- Molecule 58 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	QA	76	Total	Mg	0	0
			76	76		
58	QF	1	Total	Mg	0	0
			1	1		
58	QM	1	Total	Mg	0	0
			1	1		
58	RA	247	Total	Mg	0	0
			247	247		
58	RB	2	Total	Mg	0	0
			2	2		
58	RD	1	Total	Mg	0	0
			1	1		
58	RE	2	Total	Mg	0	0
			2	2		
58	RF	1	Total	Mg	0	0
			1	1		
58	RP	2	Total	Mg	0	0
			2	2		
58	R0	1	Total	Mg	0	0
			1	1		

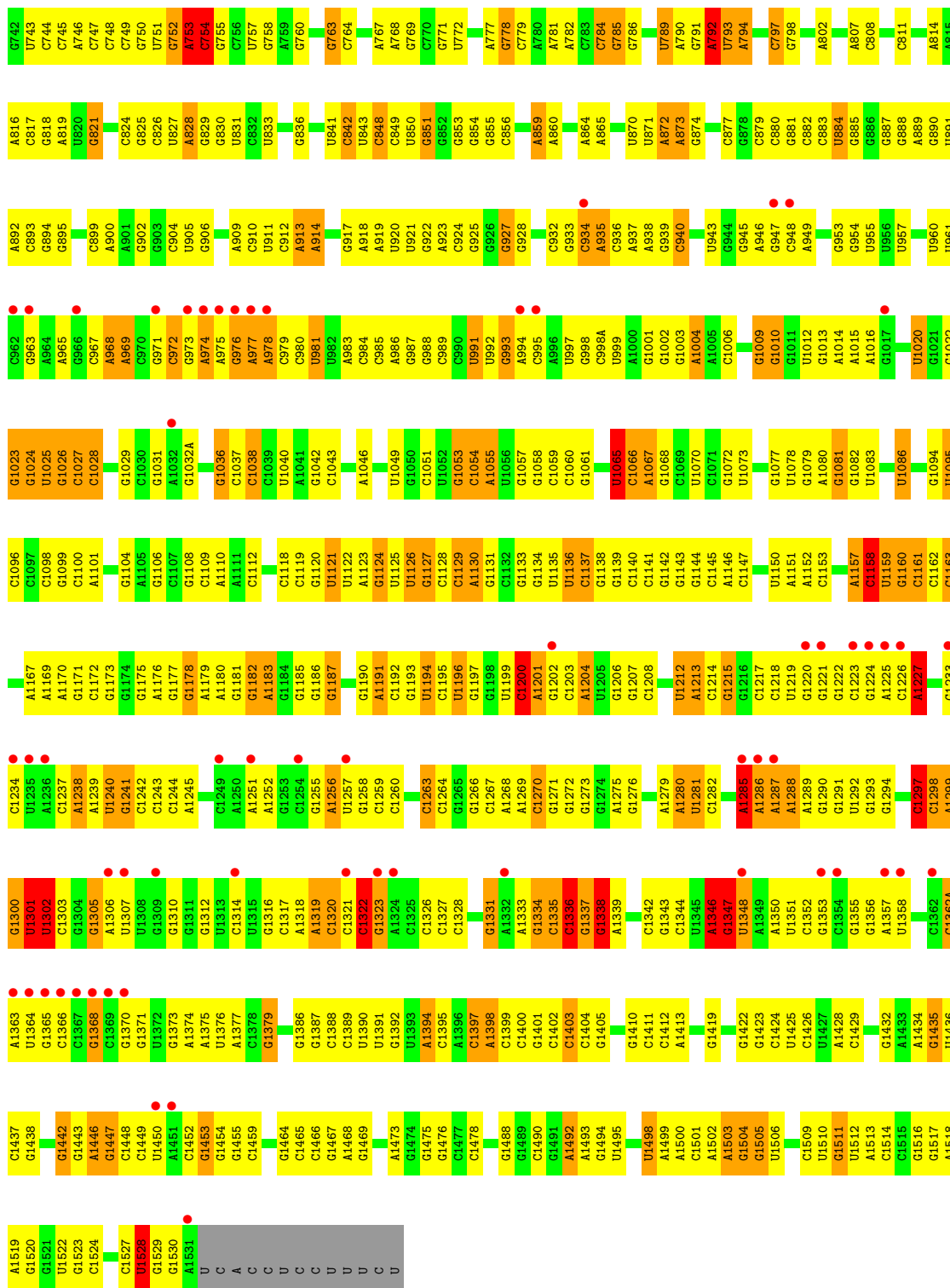
Continued on next page...

Continued from previous page...

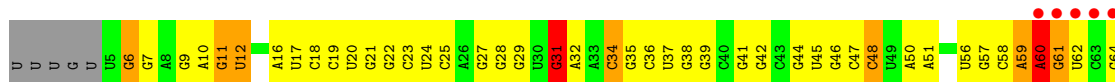
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	R5	1	Total Mg 1 1	0	0
58	R8	2	Total Mg 2 2	0	0
58	XA	82	Total Mg 82 82	0	0
58	XB	1	Total Mg 1 1	0	0
58	XM	1	Total Mg 1 1	0	0
58	YA	265	Total Mg 265 265	0	0
58	YB	3	Total Mg 3 3	0	0
58	YD	2	Total Mg 2 2	0	0
58	YP	2	Total Mg 2 2	0	0
58	YQ	1	Total Mg 1 1	0	0
58	YX	1	Total Mg 1 1	0	0
58	Y0	1	Total Mg 1 1	0	0
58	Y5	1	Total Mg 1 1	0	0
58	QV	1	Total Mg 1 1	0	0
58	XV	2	Total Mg 2 2	0	0

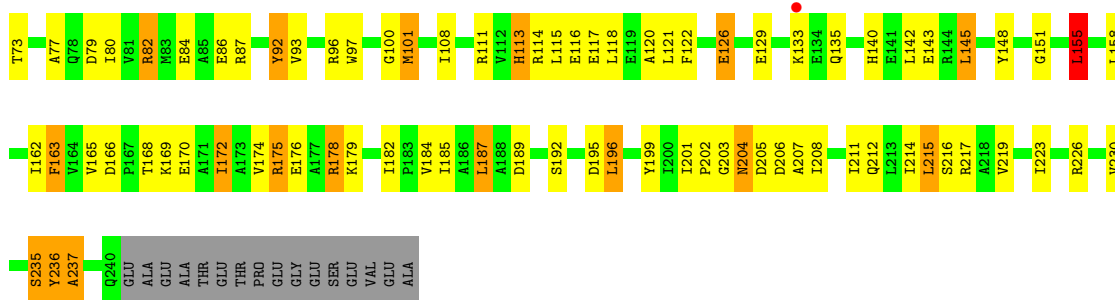
- Molecule 59 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	QD	1	Total Zn 1 1	0	0
59	QN	1	Total Zn 1 1	0	0
59	XD	1	Total Zn 1 1	0	0
59	XN	1	Total Zn 1 1	0	0

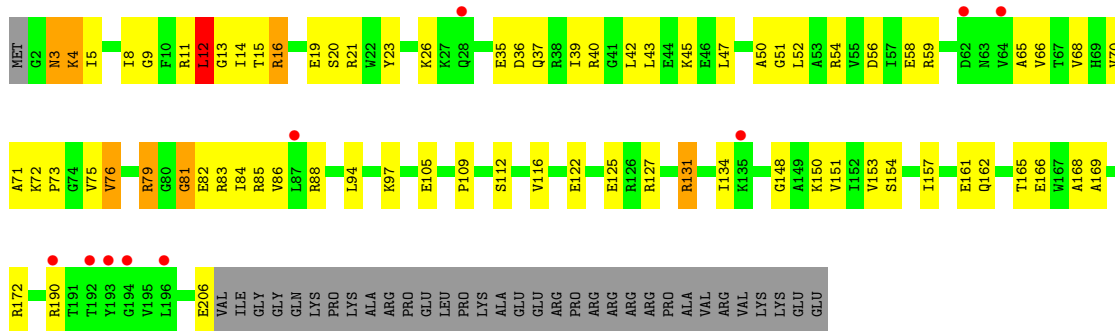


• Molecule 1: 16S rRNA

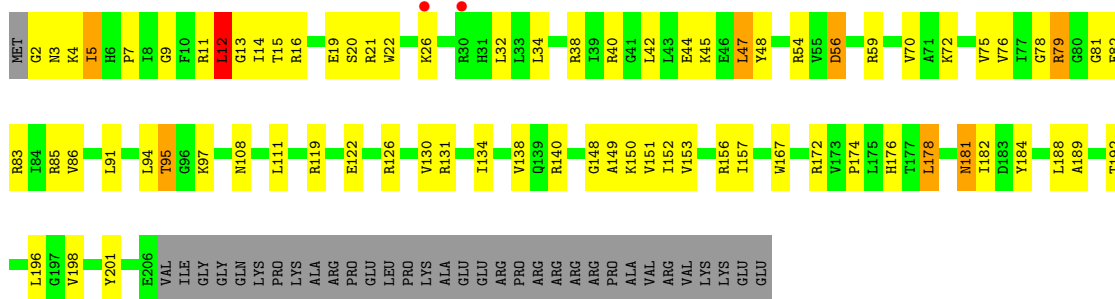




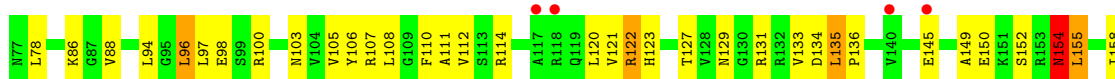
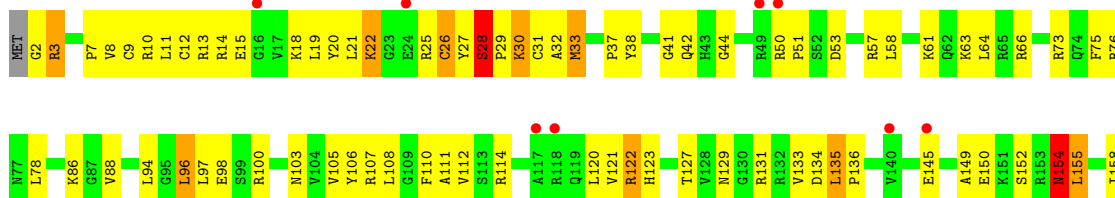
• Molecule 3: 30S ribosomal protein S3



• Molecule 3: 30S ribosomal protein S3

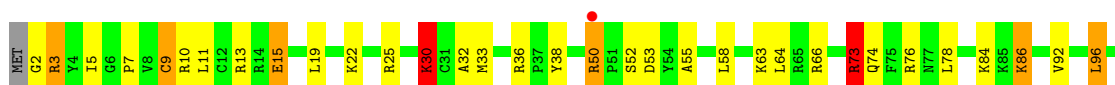


• Molecule 4: 30S ribosomal protein S4

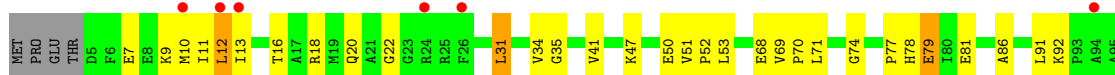




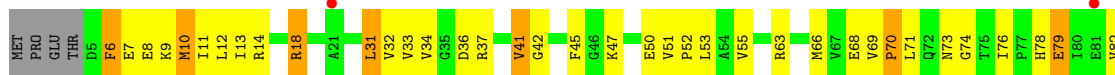
- Molecule 4: 30S ribosomal protein S4



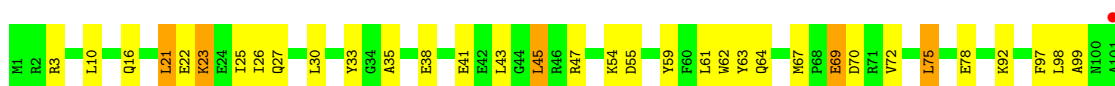
- Molecule 5: 30S ribosomal protein S5



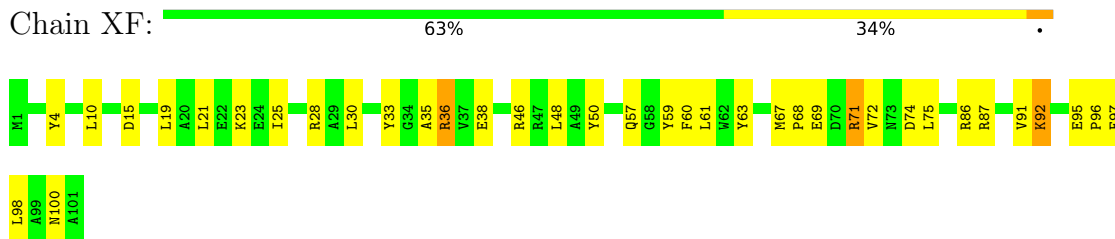
- Molecule 5: 30S ribosomal protein S5



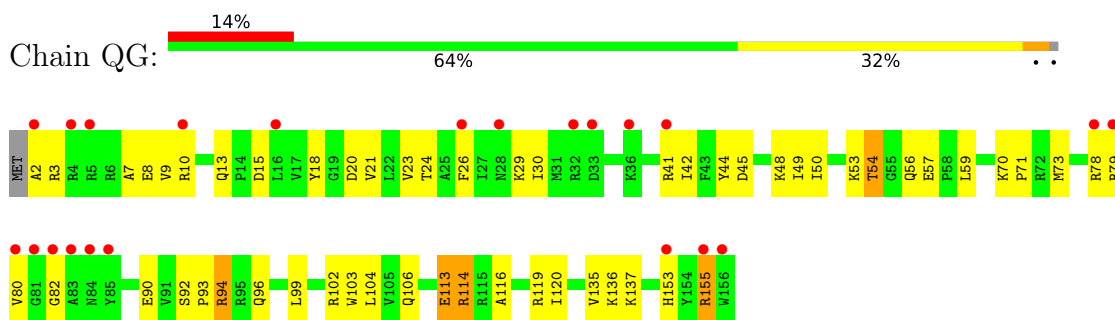
- Molecule 6: 30S ribosomal protein S6



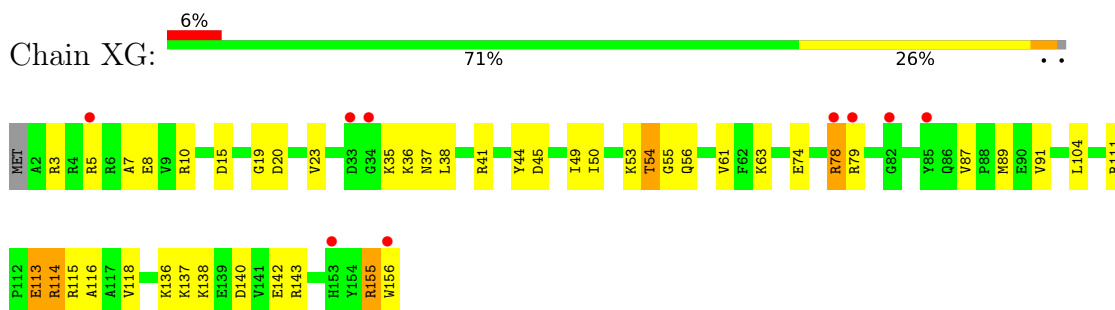
- Molecule 6: 30S ribosomal protein S6



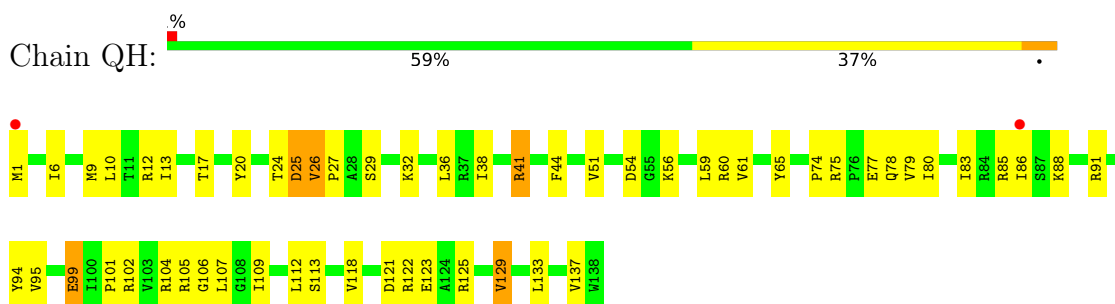
• Molecule 7: 30S ribosomal protein S7



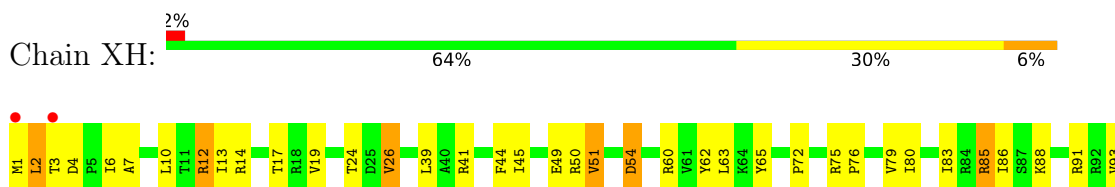
• Molecule 7: 30S ribosomal protein S7



• Molecule 8: 30S ribosomal protein S8

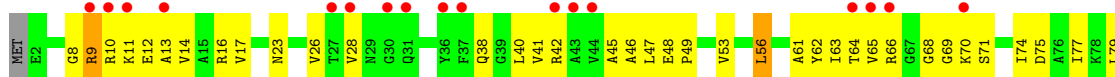


• Molecule 8: 30S ribosomal protein S8

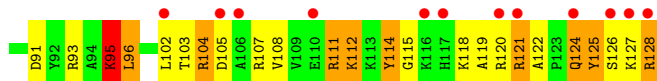
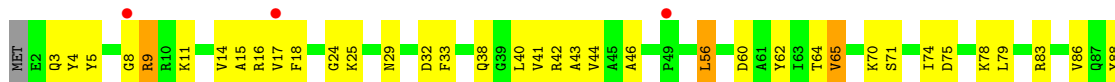




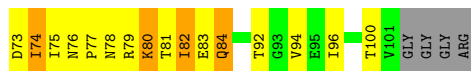
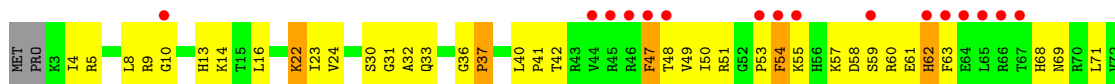
- Molecule 9: 30S ribosomal protein S9



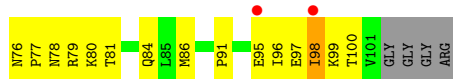
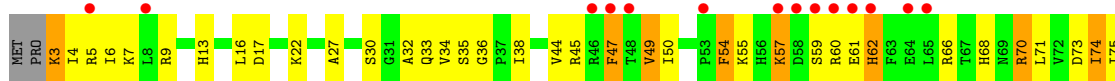
- Molecule 9: 30S ribosomal protein S9



- Molecule 10: 30S ribosomal protein S10

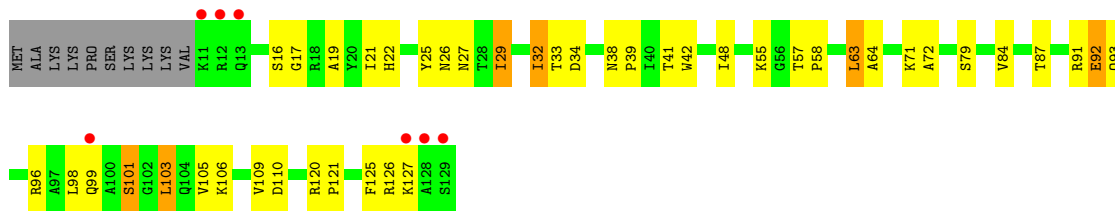


- Molecule 10: 30S ribosomal protein S10



- Molecule 11: 30S ribosomal protein S11

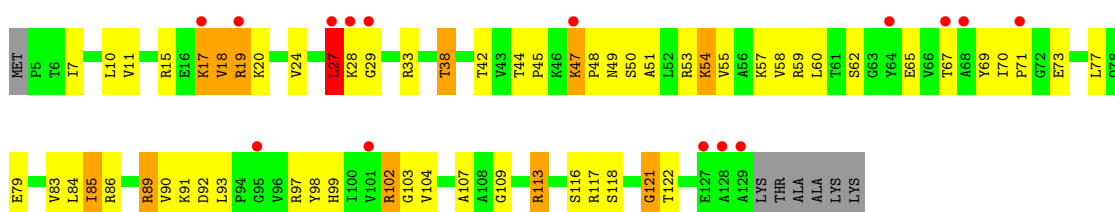




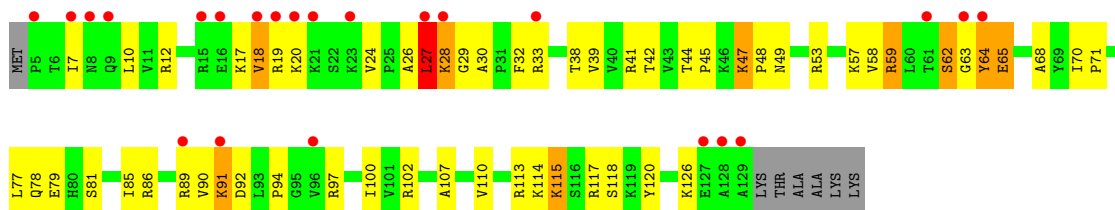
• Molecule 11: 30S ribosomal protein S11



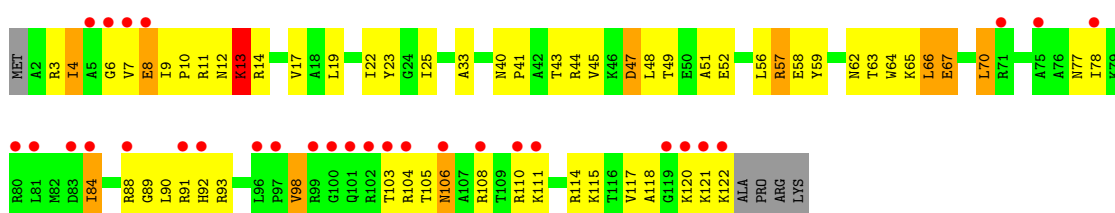
• Molecule 12: 30S ribosomal protein S12



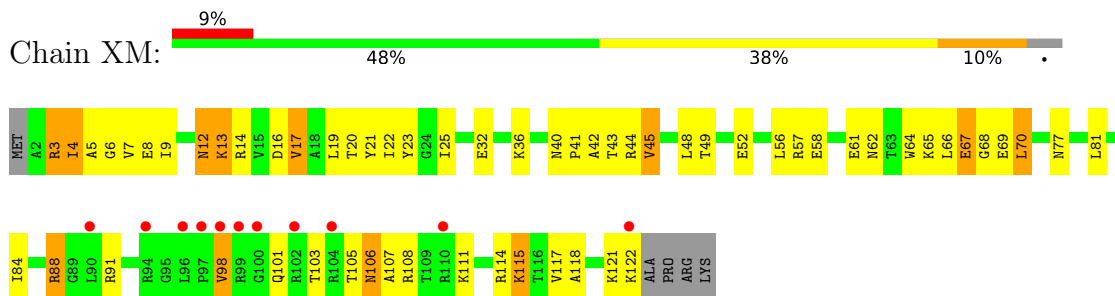
• Molecule 12: 30S ribosomal protein S12



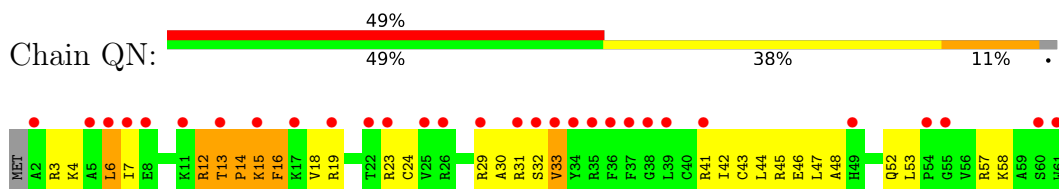
• Molecule 13: 30S ribosomal protein S13



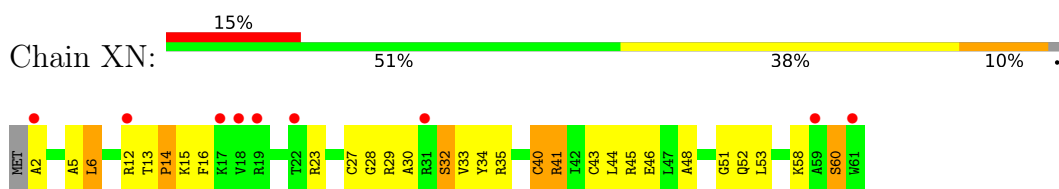
- Molecule 13: 30S ribosomal protein S13



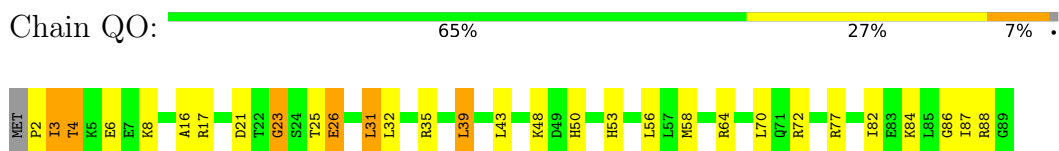
- Molecule 14: 30S ribosomal protein S14 type Z



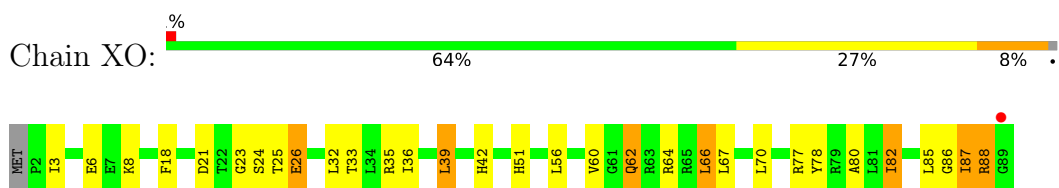
- Molecule 14: 30S ribosomal protein S14 type Z



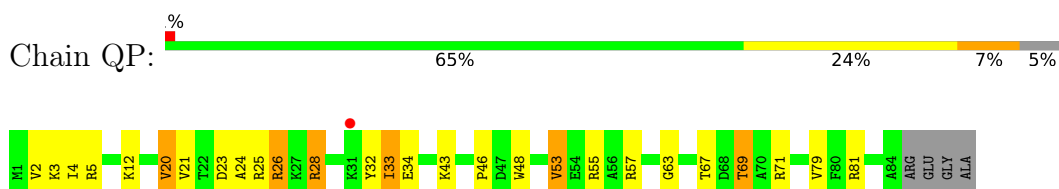
- Molecule 15: 30S ribosomal protein S15



- Molecule 15: 30S ribosomal protein S15

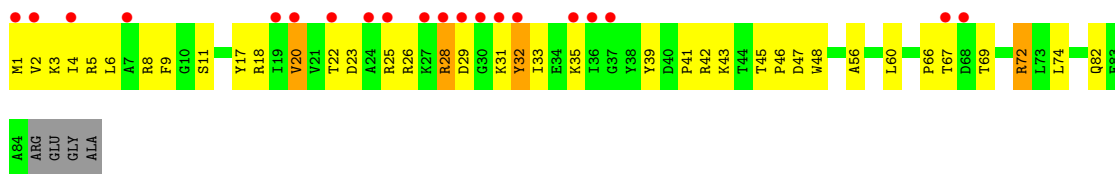


- Molecule 16: 30S ribosomal protein S16



- Molecule 16: 30S ribosomal protein S16

Chain XP: 23% 52% 39% 5% 5%



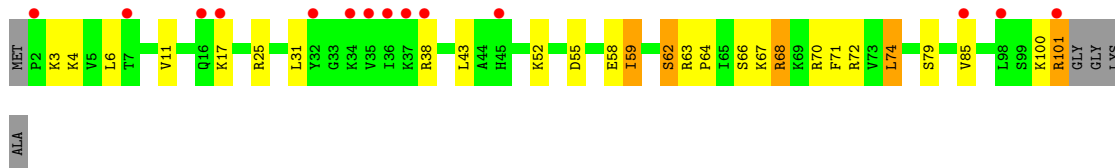
- Molecule 17: 30S ribosomal protein S17

Chain QQ: 13% 59% 32% 5% 5%



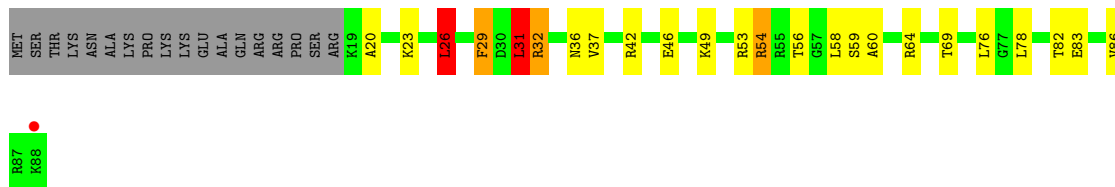
- Molecule 17: 30S ribosomal protein S17

Chain XQ: 13% 70% 21% 5% 5%



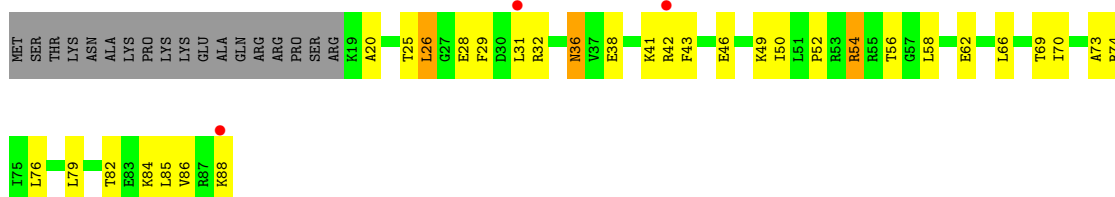
- Molecule 18: 30S ribosomal protein S18

Chain QR: 52% 22% 20%

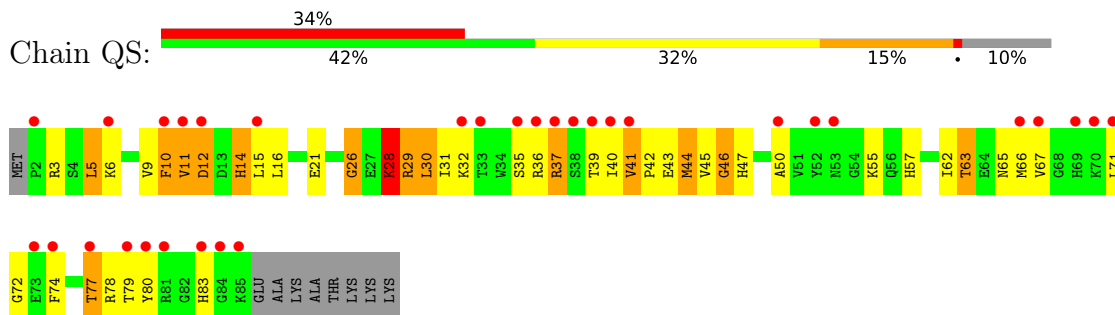


- Molecule 18: 30S ribosomal protein S18

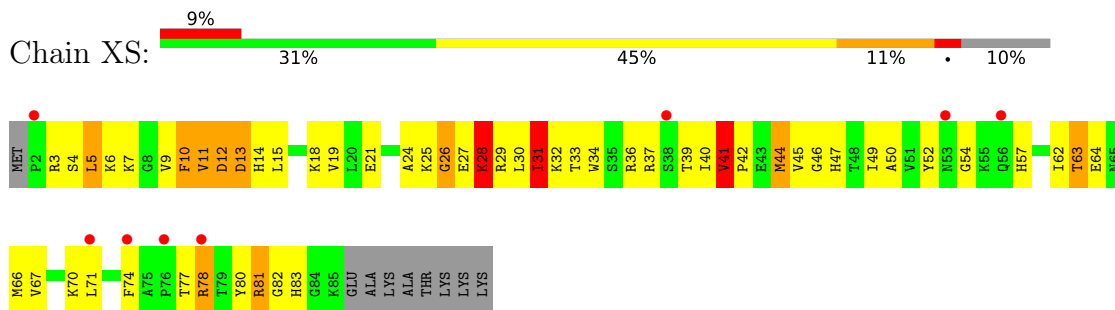
Chain XR: 3% 43% 33% 20%



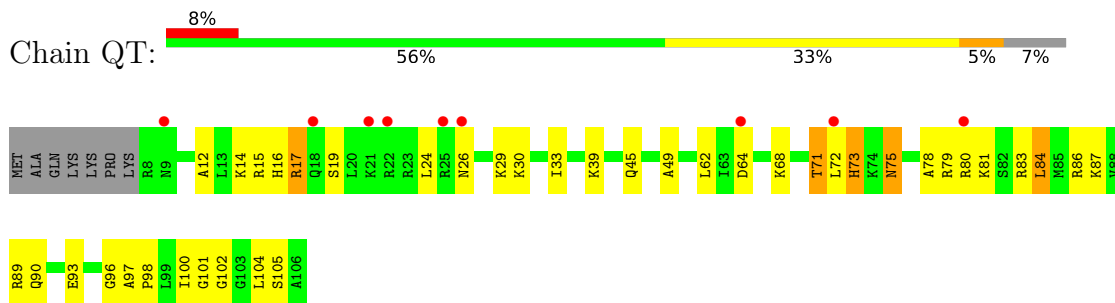
• Molecule 19: 30S ribosomal protein S19



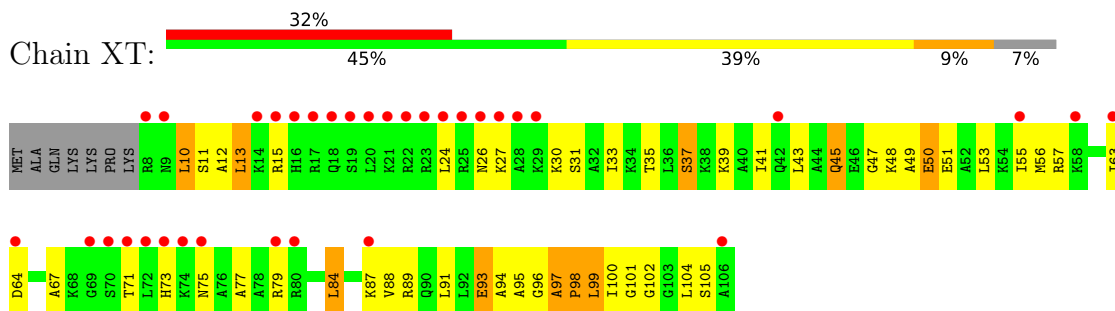
• Molecule 19: 30S ribosomal protein S19



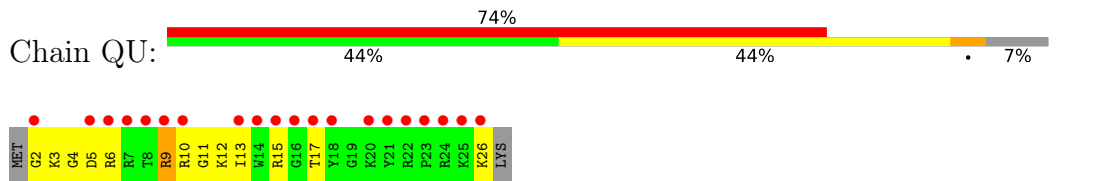
• Molecule 20: 30S ribosomal protein S20



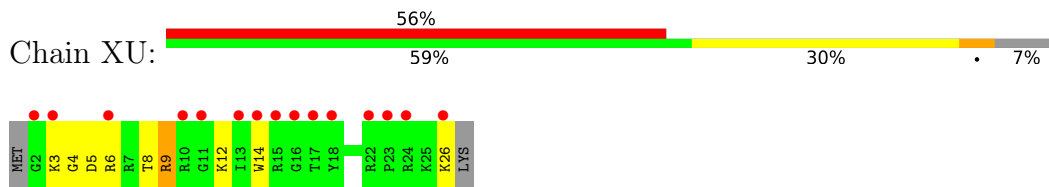
• Molecule 20: 30S ribosomal protein S20



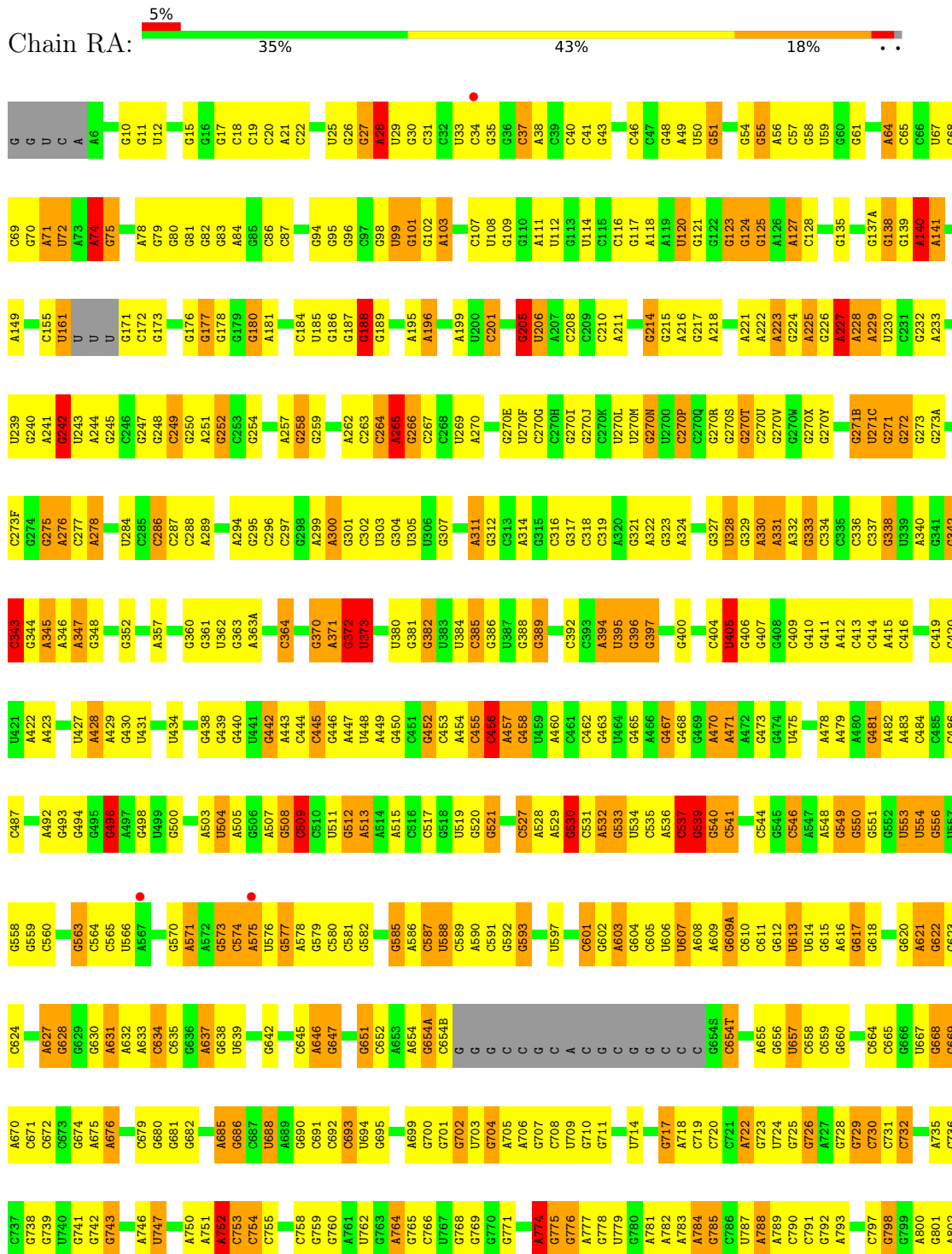
• Molecule 21: 30S ribosomal protein Thx



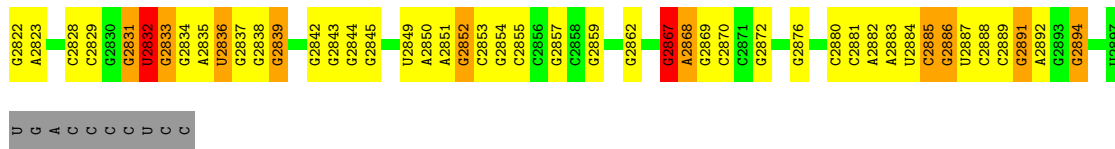
● Molecule 21: 30S ribosomal protein Thx



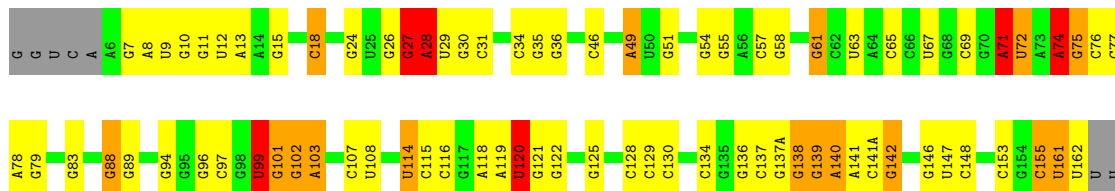
● Molecule 22: 23S rRNA



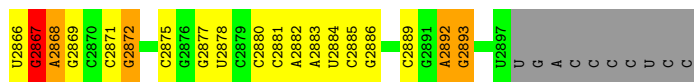
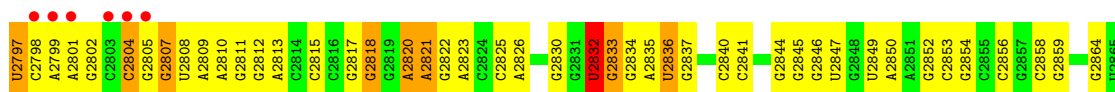
G1801	G1802	G1803	G1804	G1805	G1806	G1810	G1811	G1814	G1815	G1816	G1817	G1818	G1819	G1820	G1821	G1822	A1825	G1826	C1827	G1828	A1829	A1833	G1834	G1835	C1836	C1837	G1838	G1839	G1840	C1843	G1846	A1847	G1848	G1849	G1850	A1853	G1854	G1855	G1856	G1857	G1858	G1859	G1860	U1864	G1865	C1870	G1871	A1872	G1878	C1882							
G1883	A1884	A1885	C1886	G1887	G1888	A1889	A1890	C1894	G1895	G1899	C1902	G1903	G1904	C1905	G1906	A1913	C1914	A1918	G1919	G1920	A1918	A1919	C1920	C1924	G1925	A1927	A1928	G1929	G1930	G1931	A1932	G1933	C1934	G1935	A1936	A1937	A1938	U1939	U1940	U1944	G1945	U1946	C1947	G1948	G1949	G1950	U1951	A1952	A1953	G1954	U1955	C1958	G1959				
U1963	G1964	C1967	C1968	U1969	A1970	A1971	A1972	G1973	C1974	A1977	A1978	C1979	G1980	A1981	C1982	G1989	C1990	U1991	G1992	U1993	G1996	C1999	G2002	G2003	G2004	G2005	C2006	A2007	G2010	U2011	G2012	A2013	A2014	U2015	U2016	A2019	A2020	C2021	U2022	G2023	G2024	C2025	C2026	G2029	A2030	A2031	U2031	G2032	A2033	U2034	G2035						
C2036	G2037	C2038	C2039	U2040	A2041	C2042	C2043	C2044	C2045	G2046	U2047	G2048	G2049	C2050	A2051	A2054	C2055	G2056	A2057	A2058	A2059	A2060	G2061	A2062	C2063	C2064	C2065	C2066	G2067	U2074	U2075	U2076	A2077	C2078	U2079	G2080	C2081	A2082	G2083	G2087	G2088	U2089	G2093	U2099	G2100	G2101	U2102	C2103	G2104	C2105							
G2106	C2107	C2108	U2109	G2110	C2111	G2112	U2113	A2114	G2115	G2116	A2117	U2118	A2119	G2120	G2121	U2122	G2123	C2124	G2125	A2126	G2127	C2128	G2129	U2130	G2131	U2132	G2133	C2134	A2135	C2136	C2137	C2138	C2139	C2140	G2141	C2142	C2143	U2144	C2145	C2146	U2147	G2148	G2149	U2150	G2154	G2155	G2156	G2157	A2158	G2159	G2160	C2161	G2162	G2165	G2166	U2167	G2168
A2169	A2170	A2171	U2172	A2173	C2174	C2175	A2176	C2177	C2178	C2179	U2180	G2181	G2182	G2184	A2189	G2190	G2191	G2192	C2196	U2197	A2198	A2199	C2200	C2201	C2202	U2202	C2203	C2204	G2210	G2211	G2212	A2213	U2214	U2215	G2216	G2219	A2225	C2226	A2227	G2228	C2229	G2230	C2231	U2232	U2233	G2234	G2238	C2239	C2240	A2241	A2242	U2243	U2244	G2245	G2246	A2247	
C2248	U2249	G2250	G2251	C2254	U2257	C2258	G2259	C2260	C2261	U2262	G2263	A2266	A2267	A2268	A2269	A2273	A2274	C2275	G2276	G2277	A2278	G2279	G2280	C2281	C2282	C2283	C2284	C2285	C2286	A2287	A2288	U2291	C2292	C2293	C2297	A2298	G2299	G2300	C2301	G2302	G2303	C2306	G2307	G2308	A2309	A2310	A2311	G2318	G2319	A2320	G2321	C2403					
G2325	C2326	A2327	A2328	C2329	G2330	U2332	A2333	G2334	A2335	A2336	C2343	U2344	U2345	U2346	U2347	C2350	G2351	A2352	G2353	G2354	C2355	G2429	A2430	U2431	A2432	C2441	C2442	C2443	G2444	G2445	G2446	G2447	A2448	U2449	C2452	A2453	G2454	G2455	C2456	U2457	G2458	A2459	U2460	C2461	U2462	C2463	C2464	C2465	C2466	U2467	C2468	U2469	G2470	C2403			
C2404	G2405	U2406	G2407	G2410	A2411	G2415	G2416	C2417	A2418	U2419	C2420	G2421	U2422	U2423	C2424	A2425	C2429	U2430	A2431	A2432	C2441	C2442	C2443	G2444	G2445	G2446	G2447	A2448	U2449	C2452	A2453	G2454	G2455	C2456	U2457	G2458	A2459	U2460	C2461	U2462	C2463	C2464	C2465	C2466	U2467	C2468	U2469	G2470	C2403								
C2474	C2475	A2476	C2477	G2481	G2482	G2485	G2486	G2487	A2488	U2489	C2490	U2491	U2492	U2493	G2494	G2495	C2496	C2499	U2500	C2501	G2502	A2503	U2504	C2505	U2506	G2509	C2510	U2511	G2512	G2513	G2516	C2517	U2519	C2520	G2525	G2526	U2528	G2529	A2530	U2531	G2532	A2533	U2537	C2538	U2539	C2540	A2541	A2542	G2543	G2544							
G2545	U2546	G2549	U2552	G2553	U2554	U2555	C2556	G2557	A2558	C2559	C2560	A2561	U2562	U2563	U2564	A2565	A2566	G2567	C2568	G2569	G2570	C2571	A2572	C2573	G2574	C2575	G2576	A2577	C2578	C2579	U2580	G2581	G2582	G2583	U2584	U2585	A2587	G2588	A2589	C2591	U2592	U2593	C2594	A2602	G2603	U2604	U2605	C2606	G2607	G2608	U2609	U2610	C2612				
U2613	A2614	U2615	C2616	C2617	C2620	A2621	C2622	G2623	A2629	G2630	G2631	A2632	G2633	G2634	C2635	U2636	U2637	G2638	A2639	G2640	G2641	G2642	C2646	U2647	C2648	U2649	U2653	A2654	G2655	A2662	G2663	G2664	C2665	C2666	C2667	G2668	G2669	G2673	G2674	A2675	C2676	G2677	C2678	A2679	C2680	U2681	U2682	C2683	G2686	U2687	U2688	U2689					
C2690	A2693	G2694	C2695	U2696	C2697	U2698	C2699	C2700	C2701	U2702	C2703	C2704	A2705	G2706	G2707	C2710	U2711	U2712	A2712A	A2713	A2714	C2715	U2716	G2717	G2718	G2719	U2720	A2721	C2722	A2723	C2724	U2725	U2726	G2729	G2732	A2733	A2734	A2801	G2802	A2740	A2741	C2742	C2743	G2744	C2745	U2746	G2747	A2748	A2749	U2750	G2751	C2752	A2753	U2754	U2755		
U2756	A2757	G2758	G2759	C2760	C2761	A2764	A2765	G2766	C2767	G2770	C2771	C2772	C2773	G2774	A2775	A2776	C2777	A2778	U2779	G2780	A2781	G2782	G2783	C2784	C2785	U2786	C2787	C2788	C2789	A2790	C2791	U2792	C2793	C2794	C2795	U2797	C2798	A2799	A2801	C2802	C2803	C2804	G2805	A2810	G2811	G2812	C2813	C2814	C2815	C2816	G2817	C2818	C2819	A2820	A2821		



• Molecule 22: 23S rRNA



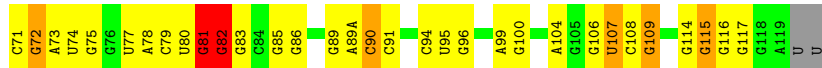
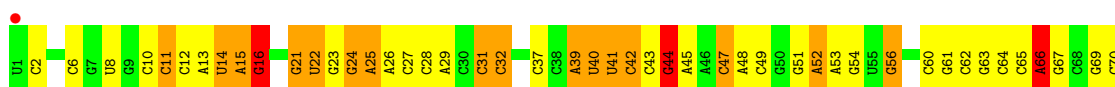
A2733	A2665	C2527	C2452	G2318	C2254	C2179	A2119	G2049	A1977	C1908	G1824
A2734	C2666	U2528	A2453	G2319	G2255	U2180	G2120	C2050	G1980	A1913	A1825
G2735	C2667	A2530	G2454	A2320	G2256	G2181	G2121	A2051	A1981	A1826	C1827
A2738	G2673	A2531	G2455	G2321	U2257	G2182	G2122	G2052	C1982	C1914	A1828
U2739	G2674	G2532	G2456	G2322	G2258	C2183	G2123	A2053	A1829	A1915	A1829
A2740	A2675	A2533	C2461	G2323	G2261	C2184	G2124	C2054	A1830	U1917	C1830
A2741	G2676	G2534	U2462	G2324	U2262	C2185	G2125	C2055	G1985	A1831	G1831
A2742	G2677	C2540	A2463	G2325	U2263	C2186	A2126	G2056	A1986	A1918	G1832
C2743	G2678	A2541	C2464	G2326	U2264	G2187	G2127	A2057	G1987	A1919	C1833
G2744	C2679	A2542	C2465	C2327	C2265	U2188	C2128	A2058	A1988	C1920	U1834
G2745	C2680	G2543	C2466	C2328	A2267	U2189	U2130	A2059	U1991	G1921	U1834
A2746	C2681	G2544	G2467	C2329	A2268	U2190	U2131	G1992	G1992	G1922	G1835
A2747	U2682	G2545	G2468	G2330	A2269	G2191	U2132	A2060	U1993	U1923	C1836
A2748	U2683	G2546	U2469	U2331	A2270	G2192	U2133	A2061	C1996	C1924	C1837
A2749	U2684	U2547	C2470	U2332	G2271	G2193	G2133	C2063	G1997	C1925	G1838
A2750	U2685	U2548	C2471	G2333	G2272	G2194	G2134	C2064	G1997	G1939	G1839
A2751	G2686	G2549	G2472	G2334	G2273	A2195	A2135	C2065	G1998	G1932	C1844
C2752	U2687	G2550	U2473	G2335	U2274	C2196	C2136	C2066	G1999	G1933	C1844
A2753	U2688	C2551	C2474	A2336	A2275	U2197	C2137	U2068	G2000	U1931	G1842
U2754	U2689	G2552	C2475	C2337	A2276	A2198	C2138	G2069	G2000	A1932	G1843
C2755	C2690	U2553	A2476	C2338	G2275	A2199	C2139	G2070	G2003	A1932	C1843
U2756	A2691	U2554	A2477	C2339	G2276	C2205	C2139	G2071	G2003	G1933	C1844
U2757	A2692	U2555	G2481	U2340	G2277	C2206	C2140	A2071	G2006	G1934	C1844
A2758	C2692	C2556	G2482	U2341	A2278	C2207	G2141	G2072	C2006	G1935	G1846
A2759	A2693	G2557	U2483	G2342	G2279	U2208	C2142	C2073	C2007	A1936	G1846
G2760	C2694	C2558	C2484	C2343	G2280	G2209	C2143	U2074	C2008	A1937	A1847
G2761	C2695	G2559	G2485	U2344	C2281	G2210	U2144	U2075	G2009	A1938	A1848
G2762	C2696	U2560	G2486	G2345	C2282	G2211	C2145	C2078	G2010	A1939	A1853
U2763	A2697	U2561	G2487	C2346	C2283	A2212	C2146	C2079	G2010	U1940	A1854
U2764	C2698	U2562	G2488	G2347	C2284	U2213	G2147	U2079	A2015	C1941	G1858
U2765	A2699	U2563	U2489	U2348	C2285	G2214	G2148	A2082	G2018	C1942	G1858
U2766	C2699	C2564	C2490	G2349	C2286	G2215	G2149	U2086	G2019	G1945	G1863
U2767	A2700	U2565	G2491	G2350	A2287	G2216	U2150	G2087	A2020	U1946	U1864
U2768	C2701	G2566	U2492	C2351	A2288	G2217	G2151	G2088	G2021	U1947	G1869
U2769	C2702	G2567	U2493	G2352	A2289	G2218	G2152	G2089	U2028	C1948	C1870
U2770	C2703	G2568	U2494	C2353	U2291	G2219	G2153	U2090	U2029	G1949	A1871
U2771	C2704	U2569	G2495	G2354	C2292	G2220	G2154	U2091	G2030	G1950	A1872
U2772	C2705	C2570	U2496	C2355	C2293	A2221	G2155	G2094	C2035	U1951	G1878
U2773	C2706	U2571	C2497	G2356	C2294	G2222	G2156	G2095	C2026	A1952	C1879
U2774	C2707	G2572	C2498	U2357	C2295	G2223	G2157	U2096	G2027	A1953	C1880
U2775	C2708	U2573	U2499	G2358	A2298	U2232	A2158	U2097	U2028	G1954	C1881
U2776	C2709	G2574	U2500	C2359	G2299	U2233	G2159	U2098	U2029	U1955	C1882
U2777	C2710	U2575	U2501	G2360	C2300	G2234	G2160	U2099	U1956	G1883	A1884
U2778	C2711	C2576	U2502	A2361	G2301	G2235	G2161	U2100	A2031	C1957	A1884
U2779	C2712	U2577	G2503	G2362	G2302	G2236	G2162	C2103	G2032	C1958	G1888
U2780	C2713	G2578	U2504	C2363	G2303	G2237	G2163	G2104	A2033	U1963	G1888
U2781	C2714	U2579	U2505	G2364	G2304	G2238	G2164	C2105	U2034	A1889	A1889
U2782	C2715	C2580	U2506	C2365	G2305	G2239	G2165	G2106	G2035	A1890	A1890
U2783	C2716	U2581	U2507	G2366	C2306	G2240	G2166	G2107	C2036	C1965	G1896
U2784	C2717	G2582	G2508	G2367	G2307	U2241	G2167	C2108	G2037	A1966	G1896
U2785	C2718	U2583	U2509	G2368	G2308	U2242	G2168	U2109	G2038	C1967	G1896
U2786	C2719	C2584	G2510	C2369	G2309	U2243	A2169	U2110	G2038	G1968	G1899
U2787	C2720	U2585	U2511	G2370	A2309	U2244	A2170	G2111	C2039	G1968	G1899
U2788	C2721	G2586	U2512	C2371	A2310	U2245	A2171	C2112	C2040	A1969	A1900
U2789	C2722	U2587	G2513	G2372	A2311	U2246	U2172	G2113	U2041	A1970	A1901
U2790	C2723	C2588	U2514	U2373	A2312	G2247	C2173	U2114	A2042	A1971	G1902
U2791	C2724	U2589	G2515	G2374	U2313	U2248	C2174	U2115	C2043	A1972	C1903
U2792	C2725	G2590	U2516	C2375	U2314	U2249	C2175	G2116	G2044	G1973	G1904
U2793	C2726	U2591	G2517	G2376	C2315	G2250	C2176	G2117	G2045	C1974	C1905
U2794	C2727	C2592	U2518	C2377	C2316	G2251	A2177	U2118	U2046	G1975	G1906
U2795	C2728	U2593	U2519	G2378	C2317	G2252	C2178	U2119	U2047	G1976	G1907
U2796	C2729	G2594	G2520	C2379	C2318	G2253	C2179	U2120	G2048	U1976	G1907
U2797	C2730	U2595	U2521	G2380	C2319	G2254	C2180	U2121	G2049	U1976	G1907
U2798	C2731	C2596	G2522	C2381	G2255	G2255	C2181	U2122	C2050	U1976	G1907
U2799	C2732	U2597	G2523	C2382	G2256	G2256	C2182	U2123	G2051	U1976	G1907
U2800	C2733	G2598	U2524	G2383	G2257	G2257	C2183	U2124	G2052	U1976	G1907
U2801	C2734	U2599	G2525	C2384	G2258	G2258	C2184	U2125	G2053	U1976	G1907
U2802	C2735	C2600	U2526	G2385	G2259	G2259	C2185	U2126	G2054	U1976	G1907
U2803	C2736	U2601	G2527	C2386	G2260	G2260	C2186	U2127	G2055	U1976	G1907
U2804	C2737	G2602	U2528	C2387	G2261	G2261	C2187	U2128	G2056	U1976	G1907
U2805	C2738	U2603	G2529	C2388	G2262	G2262	C2188	U2129	G2057	U1976	G1907
U2806	C2739	C2604	U2530	C2389	G2263	G2263	C2189	U2130	G2058	U1976	G1907
U2807	C2740	U2605	G2531	C2390	G2264	G2264	C2190	U2131	G2059	U1976	G1907
U2808	C2741	G2606	U2532	C2391	G2265	G2265	C2191	U2132	G2060	U1976	G1907
U2809	C2742	C2607	U2533	U2392	G2266	G2266	C2192	U2133	G2061	U1976	G1907
U2810	C2743	U2608	G2534	C2393	G2267	G2267	C2193	U2134	G2062	U1976	G1907
U2811	C2744	C2609	U2535	G2394	G2268	G2268	C2194	U2135	G2063	U1976	G1907
U2812	C2745	U2610	G2536	C2395	G2269	G2269	C2195	U2136	G2064	U1976	G1907
U2813	C2746	C2611	U2537	C2396	G2270	G2270	C2196	U2137	G2065	U1976	G1907
U2814	C2747	U2612	U2538	G2397	G2271	G2271	C2197	U2138	G2066	U1976	G1907
U2815	C2748	U2613	G2539	U2398	G2272	G2272	C2198	U2139	G2067	U1976	G1907
U2816	C2749	U2614	U2540	G2399	G2273	G2273	C2199	U2140	G2068	U1976	G1907
U2817	C2750	C2615	G2541	G2400	G2274	G2274	C2200	U2141	G2069	U1976	G1907
U2818	C2751	U2616	U2542	G2401	G2275	G2275	C2201	U2142	G2070	U1976	G1907
U2819	C2752	C2617	G2543	U2402	U2276	G2276	C2202	U2143	G2071	U1976	G1907
U2820	C2753	U2618	U2544	C2403	A2277	G2277	C2203	U2144	G2072	U1976	G1907
U2821	C2754	G2619	G2545	G2404	A2278	G2278	C2204	U2145	G2073	U1976	G1907
U2822	C2755	U2620	U2546	C2405	A2279	G2279	C2205	U2146	G2074	U1976	G1907
U2823	C2756	C2621	G2547	G2406	A2280	G2280	C2206	U2147	G2075	U1976	G1907
U2824	C2757	U2622	U2548	U2407	A2281	G2281	C2207	U2148	G2076	U1976	G1907
U2825	C2758	C2623	G2549	G2408	A2282	G2282	C2208	U2149	G2077	U1976	G1907
U2826	C2759	U2624	U2550	C2409	A2283	G2283	C2209	U2150	G2078	U1976	G1907
U2827	C2760	C2625	G2551	G2410	A2284	G2284	C2210	U2151	G2079	U1976	G1907
U2828	C2761	U2626	U2552	G2411	A2285	G2285	C2211	U2152	G2080	U1976	G1907
U2829	C2762	C2627	G2553	G2412	A2286	G2286	C2212	U2153	G2081	U1976	G1907
U2830	C2763	U2628	U2554	U2413	A2287	G2287	C2213	U2154	G2082	U1976	G1907
U2831	C2764	C2629	G2555	G2414	A2288	G2288	C2214	U2155	G2083	U1976	G1907
U2832	C2765	U2629	U2556	U2415	A2289	G2289	C2215	U2156	G2084	U1976	G1907
U2833	C2766	C2630	G2557	G2416	A2290	G2290	C2216	U2157	G2085	U1976	G1907
U2834	C2767	U2631	U2558	U2417	A2291	G2291	C2217	U2158	G2086	U1976	G1907
U2835	C2768	C2632	G2559	G2418	A2292	G2292	C2218	U2159	G2087	U1976	G1907
U2836	C2769	U2633	U2560	U2419	A2293	G2293	C2219	U2160	G2088	U1976	G1907
U2837	C2770	C2634	G2561	G2420	A2294	G2294	C2220	U2161	G2089	U1976	G1907
U2838	C2771	U2635	U2562	U2421	A2295	G2295	C2221	U2162	G2090	U1976	G1907
U2839	C2772	C2636	G2563	G2422	A2296	G2296	C2222	U2163	G2091	U1976	G1907
U28											



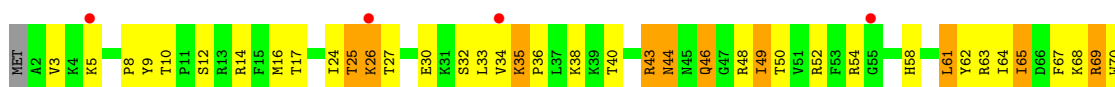
• Molecule 23: 5S rRNA



• Molecule 23: 5S rRNA

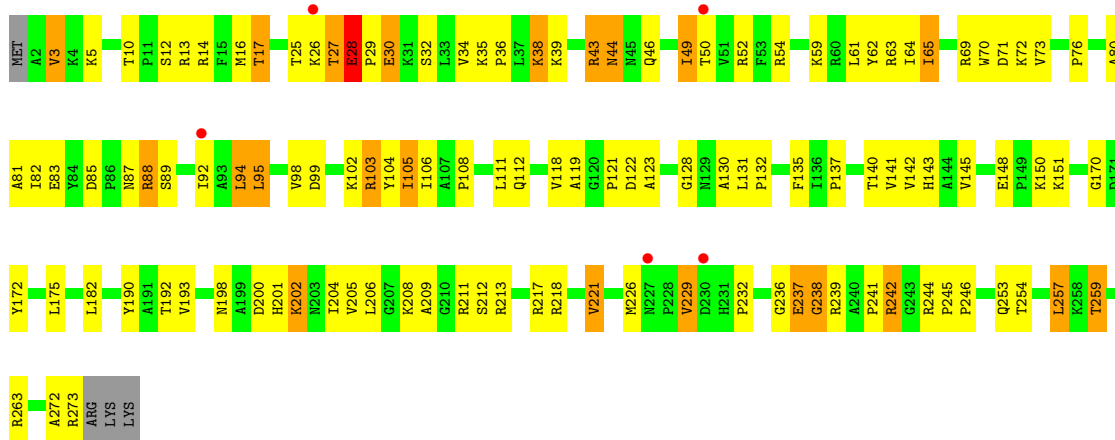


• Molecule 24: 50S ribosomal protein L2

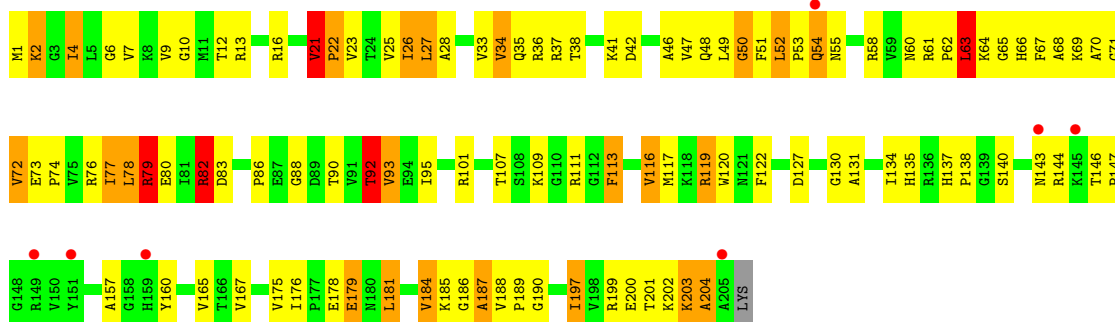


• Molecule 24: 50S ribosomal protein L2

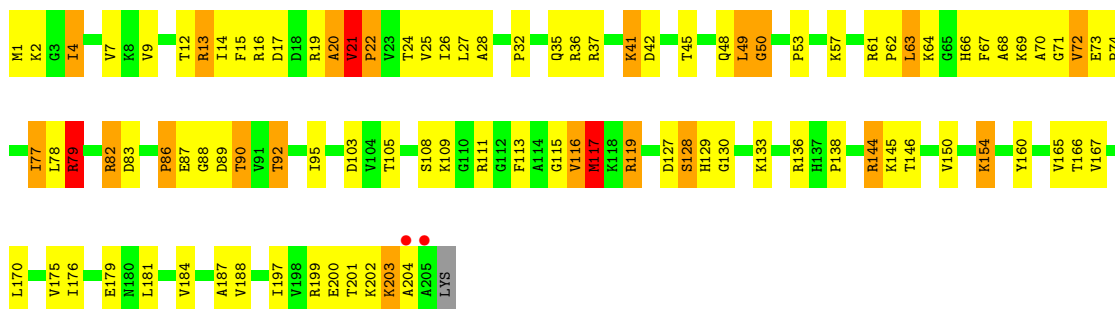




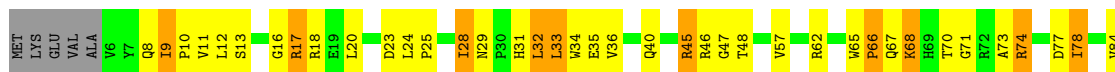
- Molecule 25: 50S ribosomal protein L3

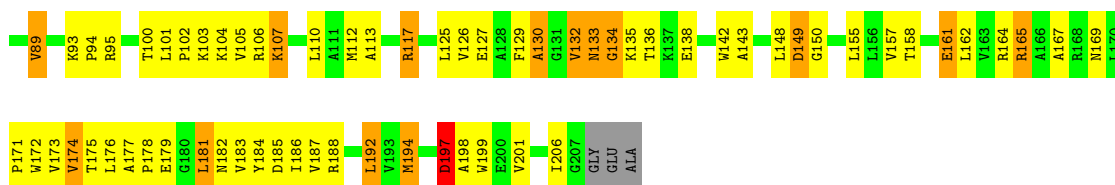


- Molecule 25: 50S ribosomal protein L3

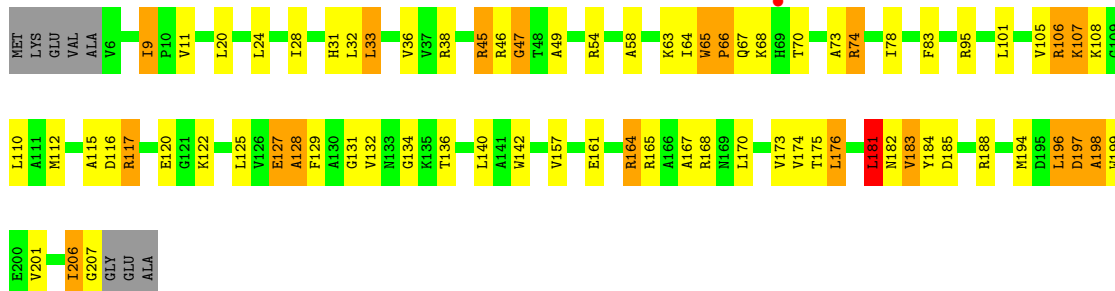


- Molecule 26: 50S ribosomal protein L4

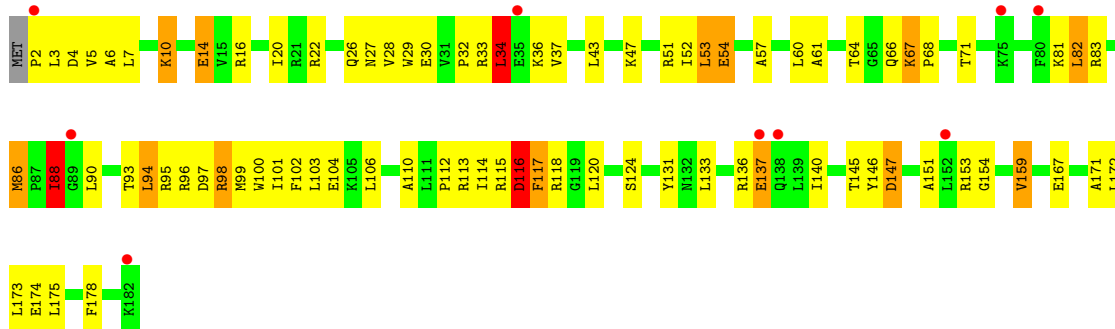




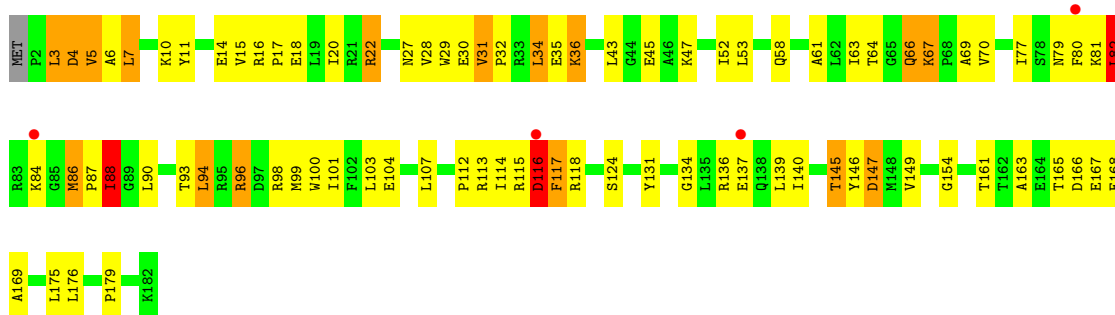
- Molecule 26: 50S ribosomal protein L4



- Molecule 27: 50S ribosomal protein L5



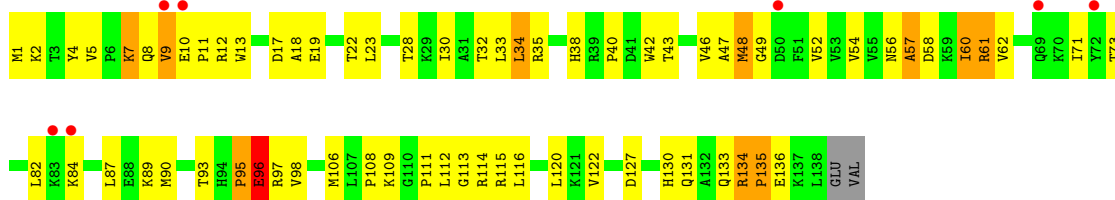
- Molecule 27: 50S ribosomal protein L5



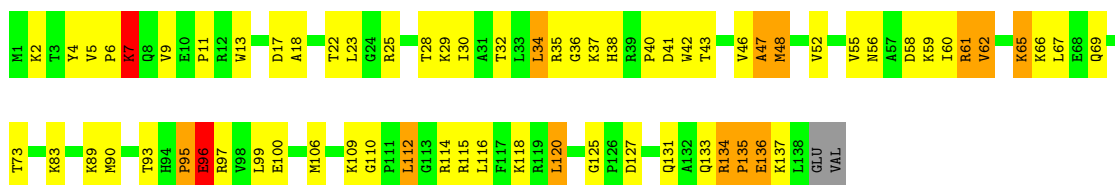
- Molecule 28: 50S ribosomal protein L6



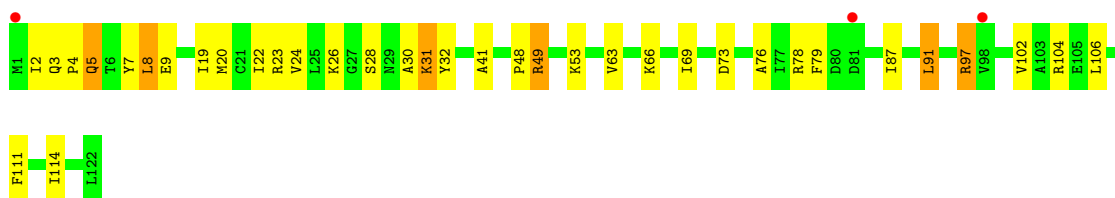
- Molecule 30: 50S ribosomal protein L13



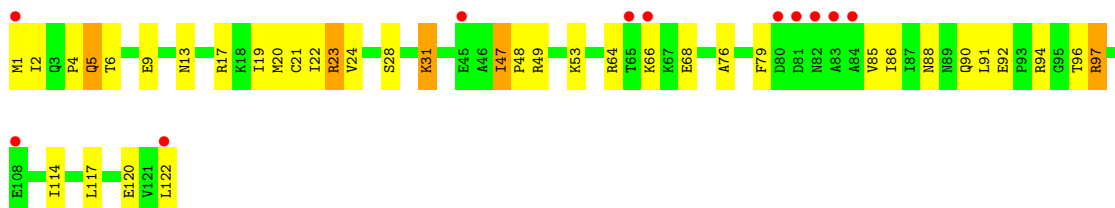
- Molecule 30: 50S ribosomal protein L13



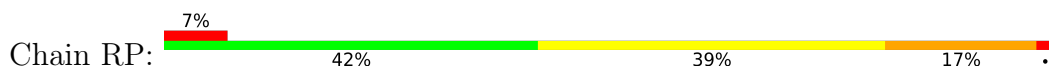
- Molecule 31: 50S ribosomal protein L14

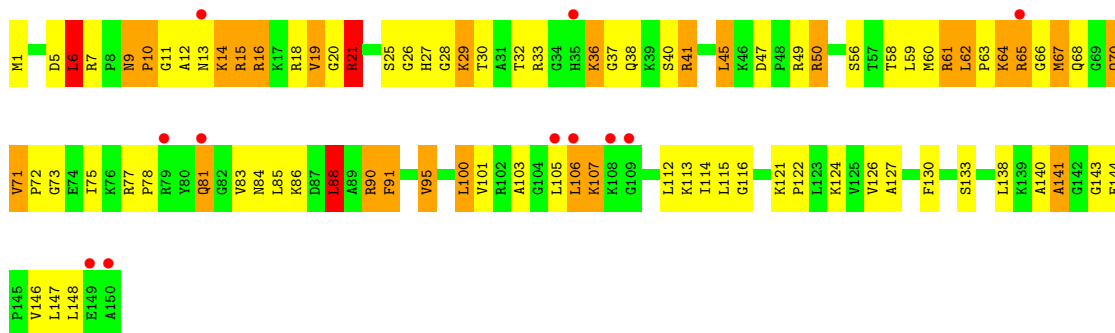


- Molecule 31: 50S ribosomal protein L14

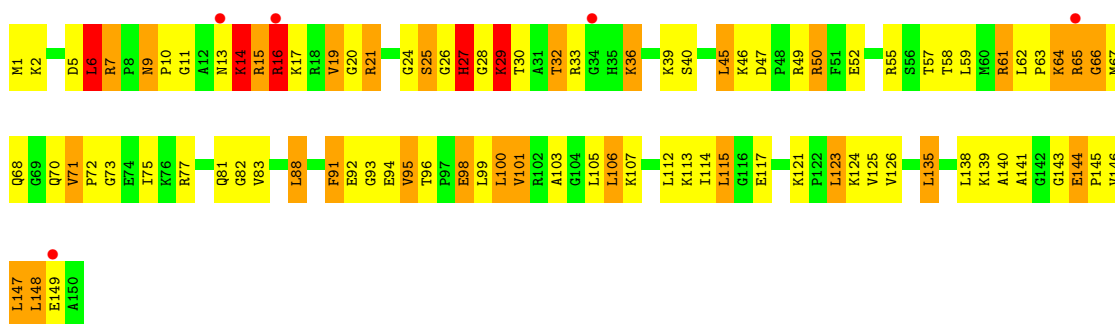
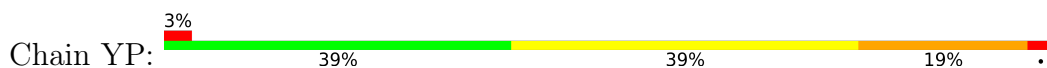


- Molecule 32: 50S ribosomal protein L15

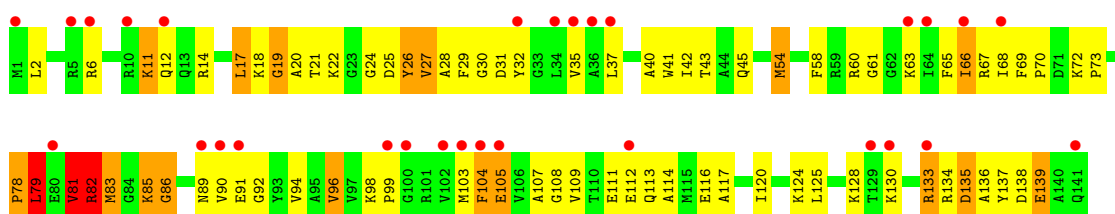




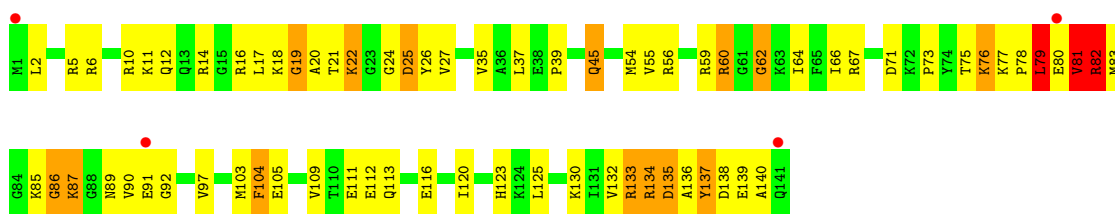
• Molecule 32: 50S ribosomal protein L15



• Molecule 33: 50S ribosomal protein L16



• Molecule 33: 50S ribosomal protein L16

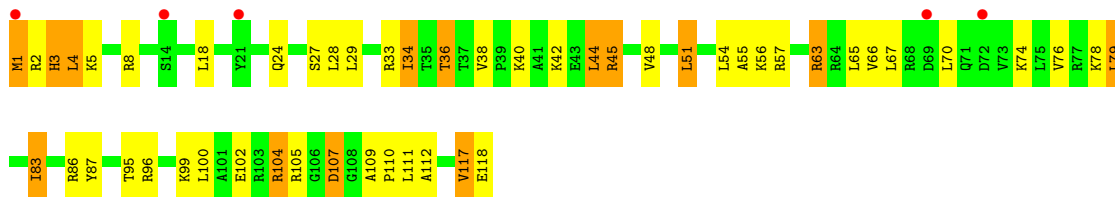


• Molecule 34: 50S ribosomal protein L17

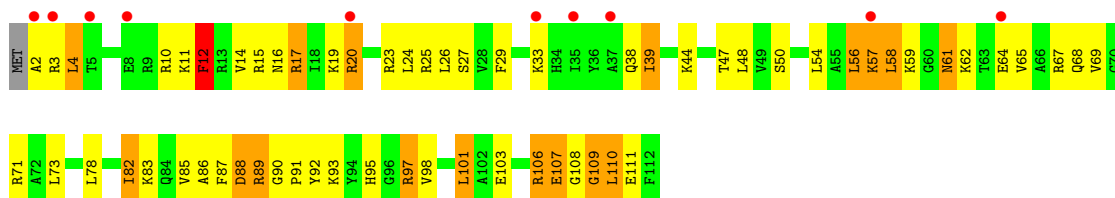
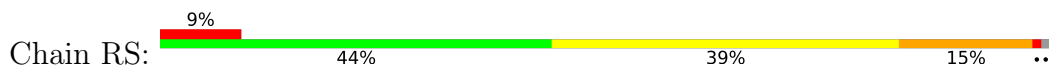




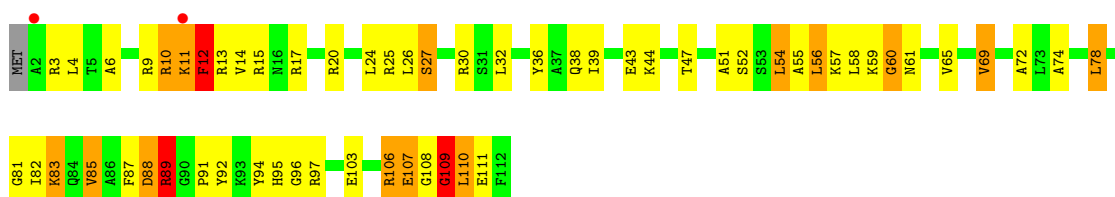
• Molecule 34: 50S ribosomal protein L17



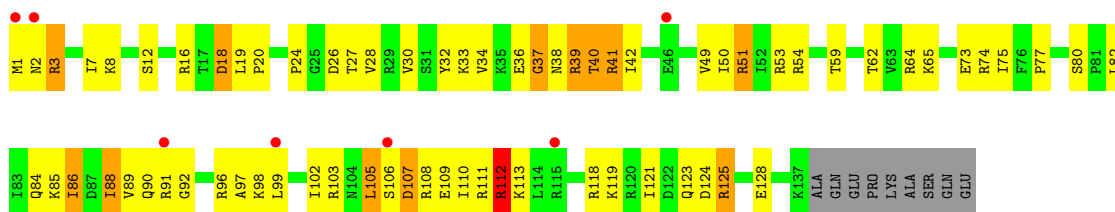
• Molecule 35: 50S ribosomal protein L18



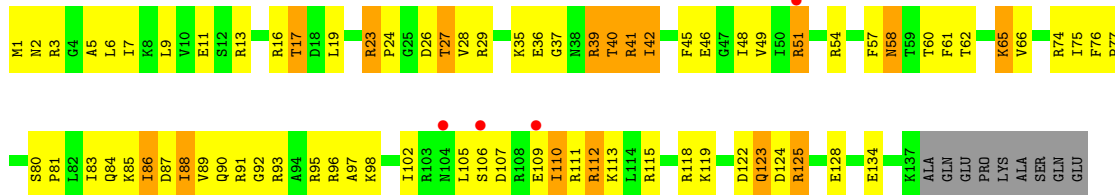
• Molecule 35: 50S ribosomal protein L18



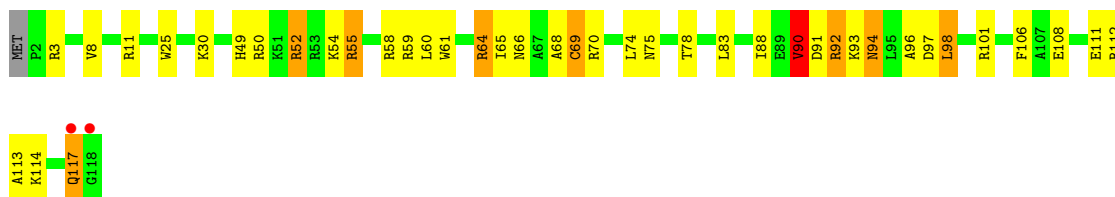
• Molecule 36: 50S ribosomal protein L19



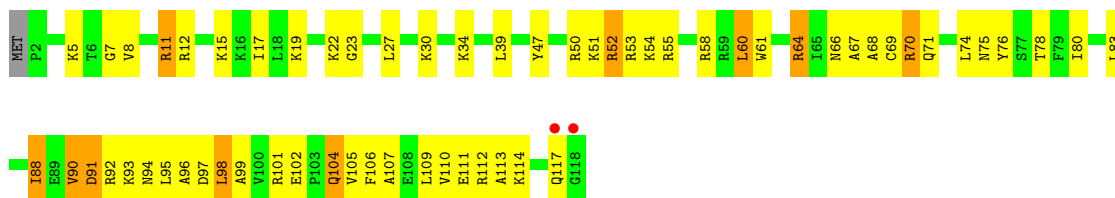
• Molecule 36: 50S ribosomal protein L19



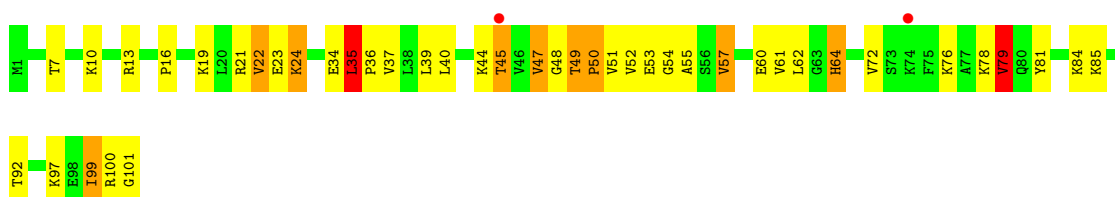
- Molecule 37: 50S ribosomal protein L20



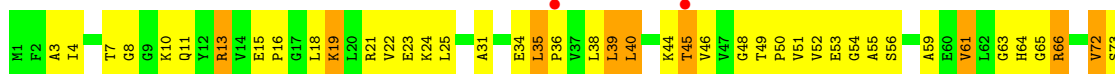
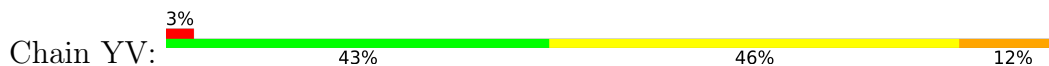
- Molecule 37: 50S ribosomal protein L20



- Molecule 38: 50S ribosomal protein L21

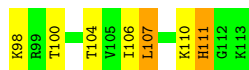


- Molecule 38: 50S ribosomal protein L21





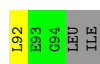
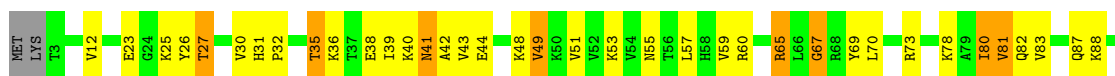
- Molecule 39: 50S ribosomal protein L22



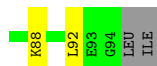
- Molecule 39: 50S ribosomal protein L22



- Molecule 40: 50S ribosomal protein L23

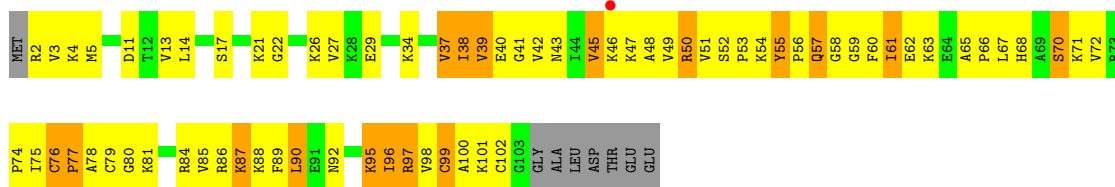


- Molecule 40: 50S ribosomal protein L23

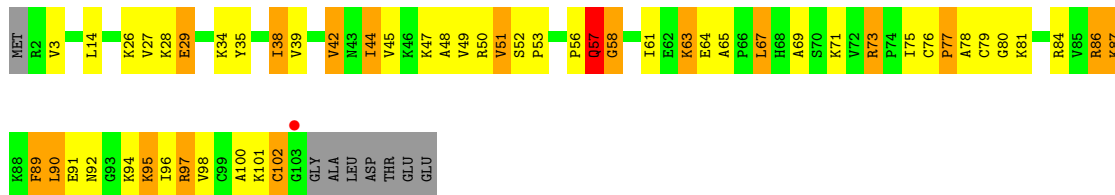


- Molecule 41: 50S ribosomal protein L24

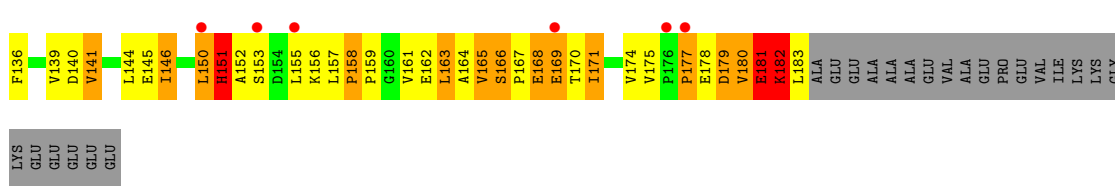
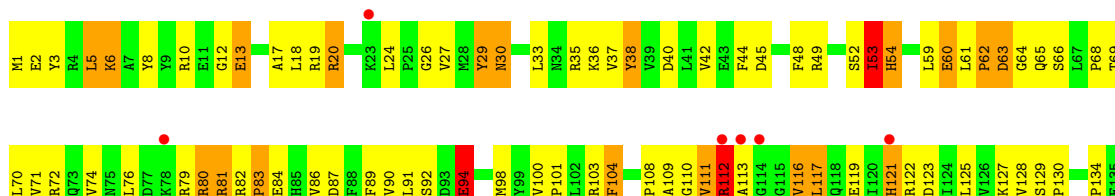




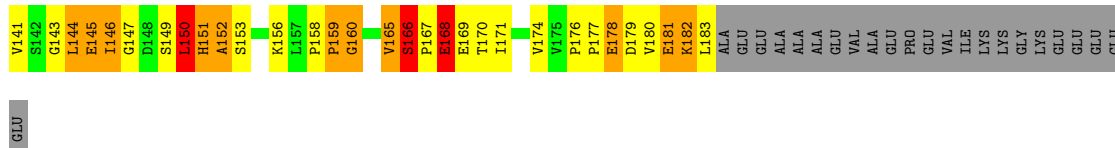
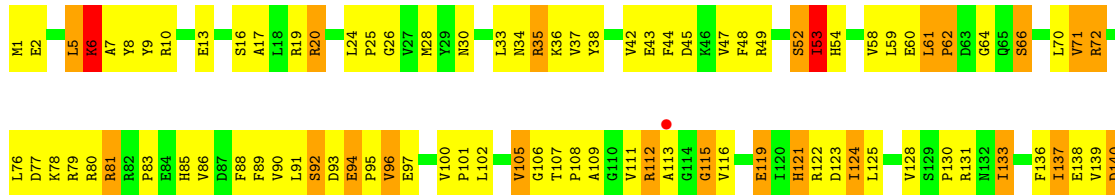
• Molecule 41: 50S ribosomal protein L24



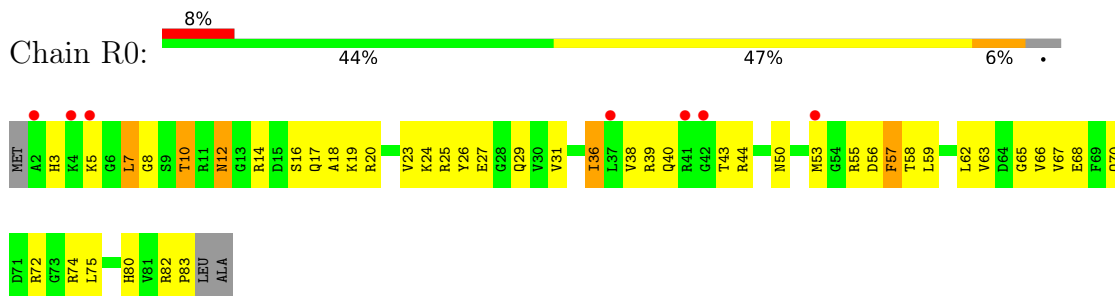
• Molecule 42: 50S ribosomal protein L25



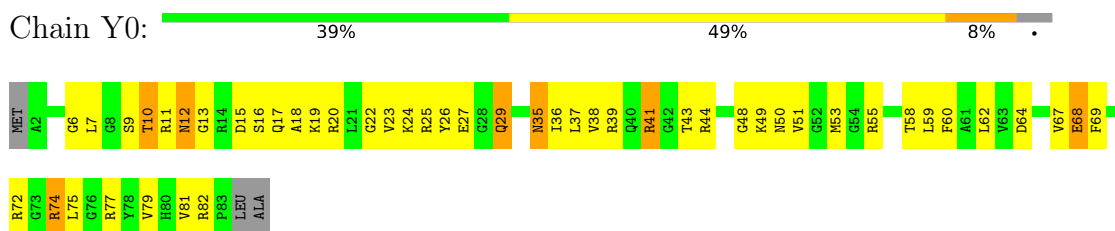
• Molecule 42: 50S ribosomal protein L25



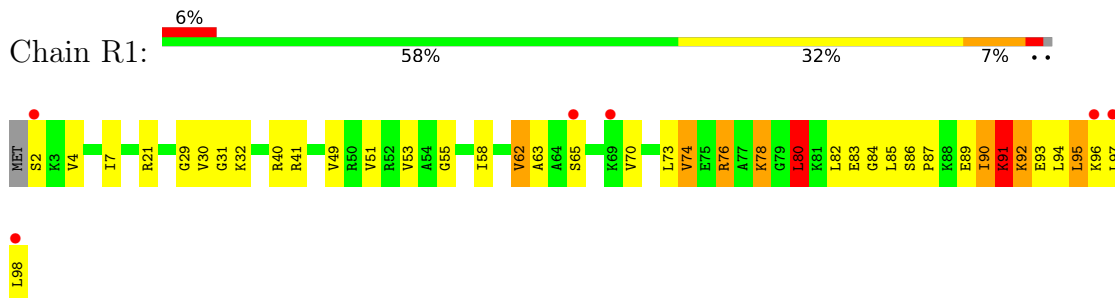
- Molecule 43: 50S ribosomal protein L27



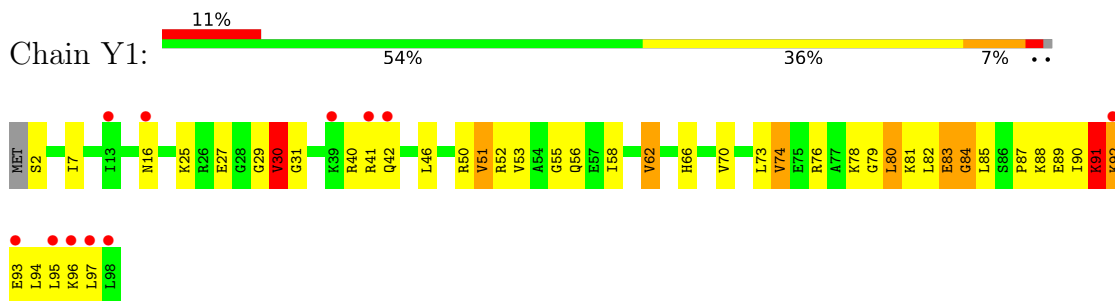
- Molecule 43: 50S ribosomal protein L27



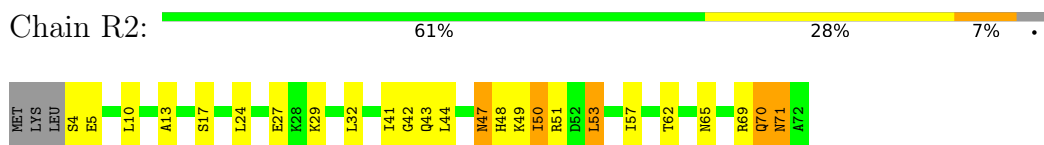
- Molecule 44: 50S ribosomal protein L28



- Molecule 44: 50S ribosomal protein L28

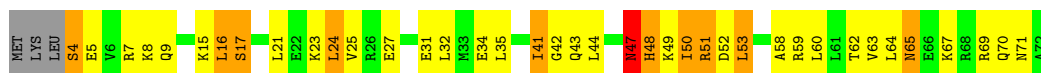


- Molecule 45: 50S ribosomal protein L29



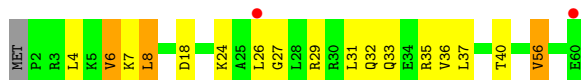
- Molecule 45: 50S ribosomal protein L29

Chain Y2: 



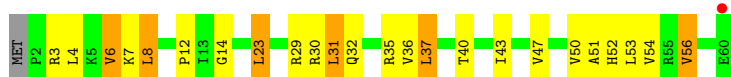
• Molecule 46: 50S ribosomal protein L30

Chain R3: 



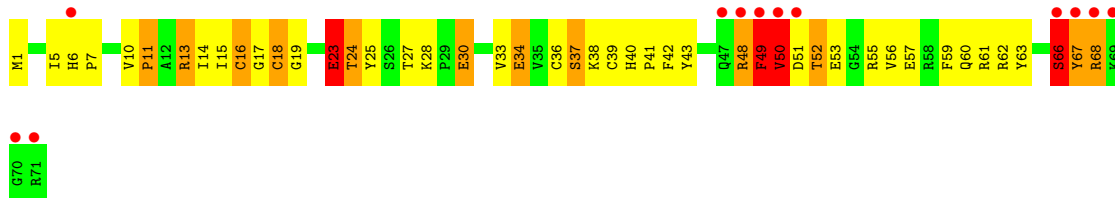
• Molecule 46: 50S ribosomal protein L30

Chain Y3: 



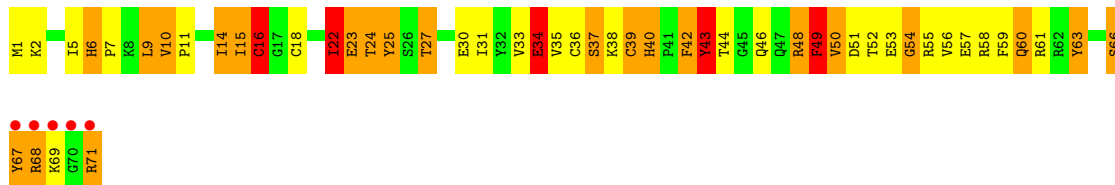
• Molecule 47: 50S ribosomal protein L31

Chain R4: 



• Molecule 47: 50S ribosomal protein L31

Chain Y4: 

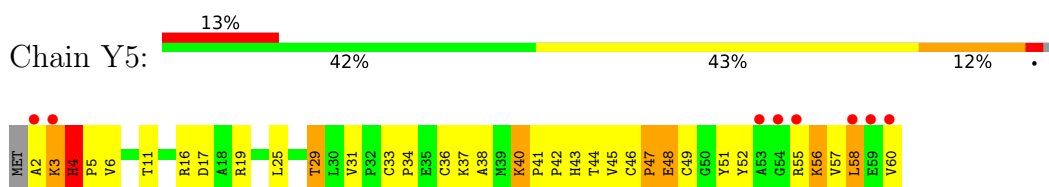


• Molecule 48: 50S ribosomal protein L32

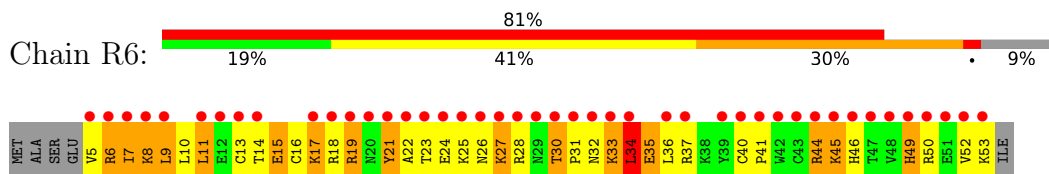
Chain R5: 



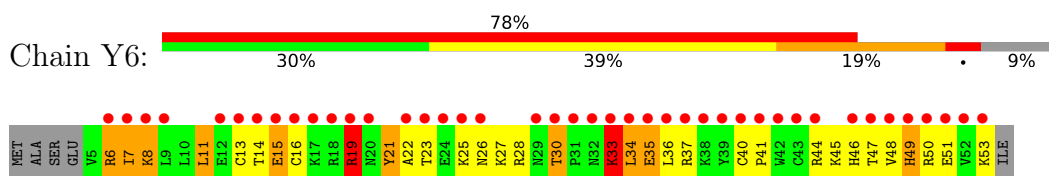
• Molecule 48: 50S ribosomal protein L32



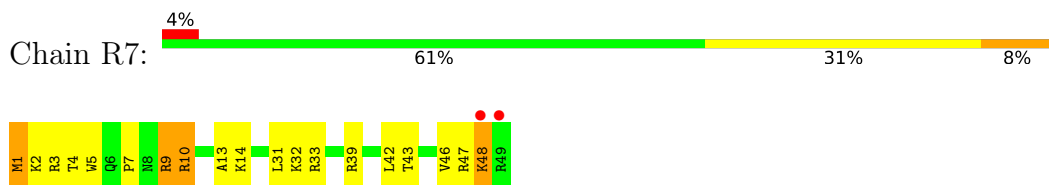
• Molecule 49: 50S ribosomal protein L33



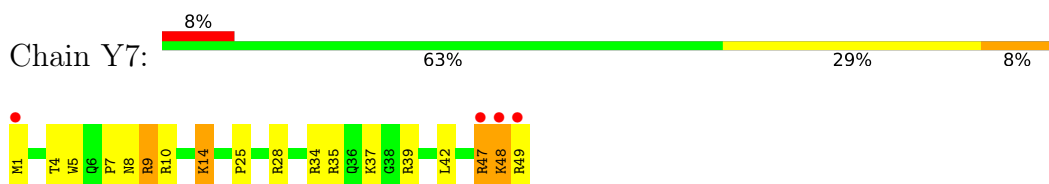
• Molecule 49: 50S ribosomal protein L33



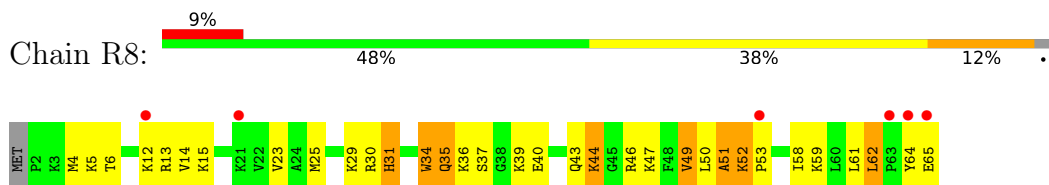
• Molecule 50: 50S ribosomal protein L34



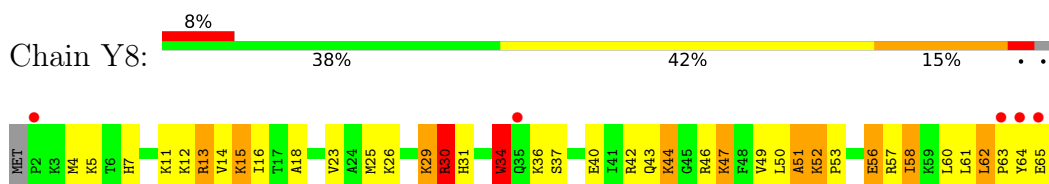
• Molecule 50: 50S ribosomal protein L34



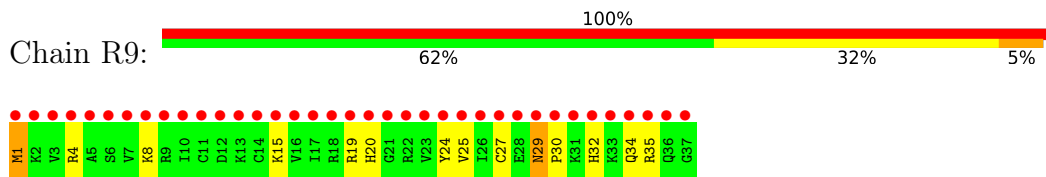
• Molecule 51: 50S ribosomal protein L35



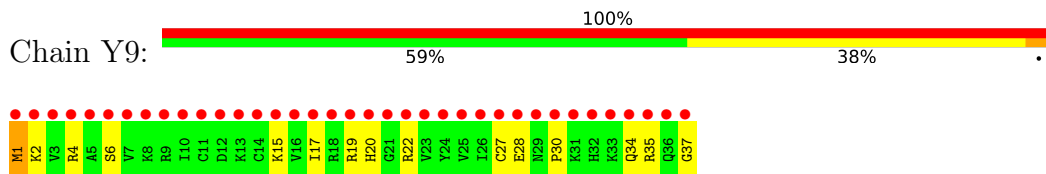
• Molecule 51: 50S ribosomal protein L35



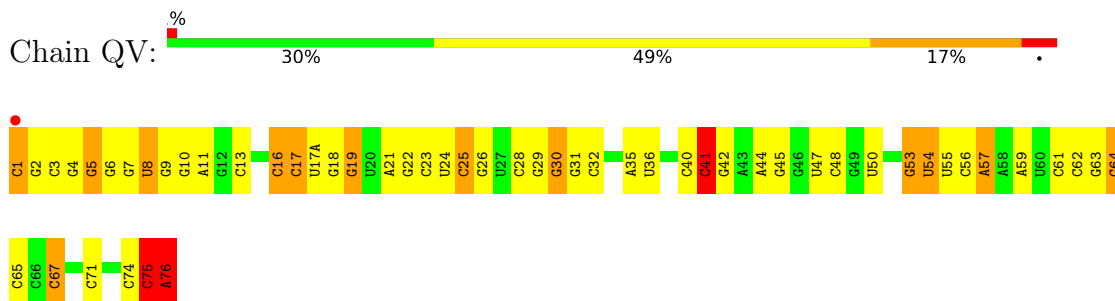
- Molecule 52: 50S ribosomal protein L36



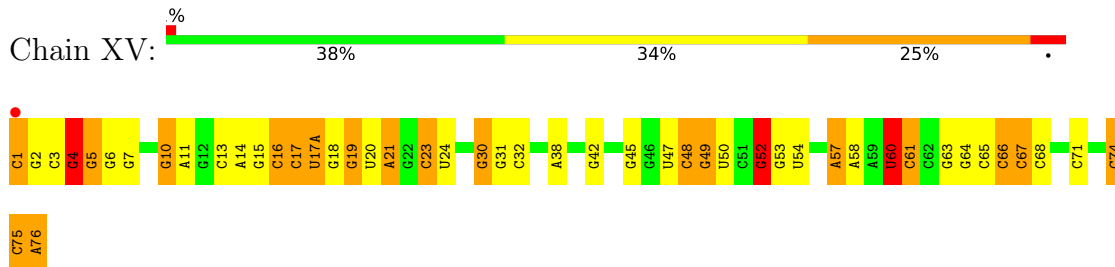
- Molecule 52: 50S ribosomal protein L36



- Molecule 53: P-site tRNA fMET



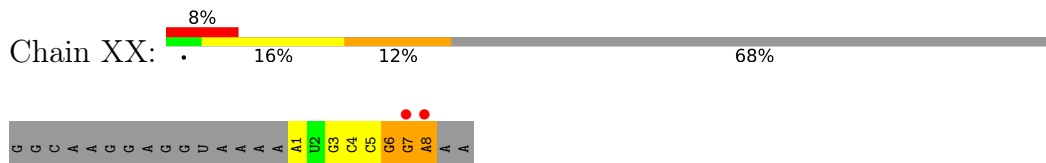
- Molecule 53: P-site tRNA fMET



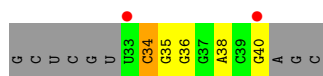
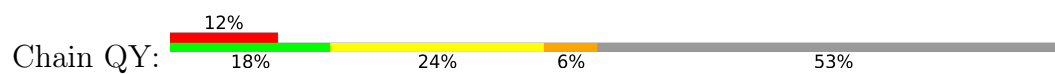
- Molecule 54: mRNA



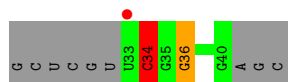
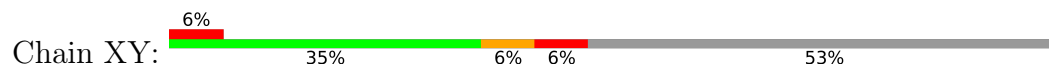
- Molecule 54: mRNA



- Molecule 55: A site ASL of tRNA-Proline CGG (unmodified)



- Molecule 55: A site ASL of tRNA-Proline CGG (unmodified)



- Molecule 56: tRNA acceptor end mimic



- Molecule 56: tRNA acceptor end mimic



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	209.82Å 447.39Å 619.86Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	187.58 – 3.68 189.96 – 3.54	Depositor EDS
% Data completeness (in resolution range)	99.1 (187.58-3.68) 99.2 (189.96-3.54)	Depositor EDS
R_{merge}	0.34	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.37 (at 3.58Å)	Xtrriage
Refinement program	PHENIX (phenix.refine: 1.8.3_1479)	Depositor
R, R_{free}	0.212 , 0.272 0.214 , 0.272	Depositor DCC
R_{free} test set	31728 reflections (4.55%)	wwPDB-VP
Wilson B-factor (Å ²)	83.8	Xtrriage
Anisotropy	0.184	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 77.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.40$, $\langle L^2 \rangle = 0.23$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.84	EDS
Total number of atoms	291730	wwPDB-VP
Average B, all atoms (Å ²)	71.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.79% 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 [i](#)

5.1 Standard geometry [i](#)

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

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	QA	0.59	3/36098 (0.0%)	1.21	155/56341 (0.3%)
1	XA	0.65	1/36101 (0.0%)	1.27	208/56346 (0.4%)
2	QB	0.31	0/1959	0.52	0/2642
2	XB	0.32	0/1959	0.54	0/2642
3	QC	0.31	0/1629	0.53	0/2195
3	XC	0.37	0/1629	0.56	0/2195
4	QD	0.38	0/1733	0.58	1/2318 (0.0%)
4	XD	0.40	0/1733	0.60	0/2318
5	QE	0.35	0/1171	0.56	0/1576
5	XE	0.39	0/1171	0.59	0/1576
6	QF	0.38	0/856	0.54	0/1154
6	XF	0.38	0/856	0.58	0/1154
7	QG	0.33	0/1276	0.50	0/1709
7	XG	0.34	0/1276	0.50	0/1709
8	QH	0.33	0/1136	0.55	0/1527
8	XH	0.38	0/1136	0.58	0/1527
9	QI	0.31	0/1029	0.55	0/1379
9	XI	0.34	0/1029	0.58	0/1379
10	QJ	0.33	0/814	0.54	0/1095
10	XJ	0.35	0/814	0.60	0/1095
11	QK	0.36	0/900	0.57	0/1213
11	XK	0.39	0/900	0.58	0/1213
12	QL	0.37	0/991	0.61	0/1327
12	XL	0.45	0/991	0.74	1/1327 (0.1%)
13	QM	0.32	0/974	0.59	0/1303
13	XM	0.37	0/974	0.63	0/1303
14	QN	0.41	0/501	0.60	0/664
14	XN	0.42	0/501	0.66	0/664
15	QO	0.35	0/745	0.54	0/992
15	XO	0.39	0/745	0.54	0/992
16	QP	0.36	0/721	0.57	0/970
16	XP	0.35	0/721	0.57	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	QQ	0.35	0/847	0.54	0/1131
17	XQ	0.35	0/847	0.54	0/1131
18	QR	0.35	0/579	0.64	1/768 (0.1%)
18	XR	0.37	0/579	0.59	0/768
19	QS	0.33	0/689	0.61	0/926
19	XS	0.38	0/689	0.69	1/926 (0.1%)
20	QT	0.36	0/765	0.64	0/1007
20	XT	0.31	0/765	0.59	0/1007
21	QU	0.31	0/221	0.54	0/288
21	XU	0.31	0/221	0.62	0/288
22	RA	0.72	8/69521 (0.0%)	1.34	555/108529 (0.5%)
22	YA	0.80	28/69543 (0.0%)	1.43	823/108563 (0.8%)
23	RB	0.58	0/2878	1.22	15/4490 (0.3%)
23	YB	0.63	0/2878	1.28	17/4490 (0.4%)
24	RD	0.51	0/2165	0.70	0/2919
24	YD	0.58	0/2165	0.78	1/2919 (0.0%)
25	RE	0.43	0/1601	0.73	3/2160 (0.1%)
25	YE	0.46	0/1601	0.75	2/2160 (0.1%)
26	RF	0.42	0/1620	0.62	0/2194
26	YF	0.48	0/1620	0.71	1/2194 (0.0%)
27	RG	0.31	0/1499	0.57	1/2016 (0.0%)
27	YG	0.40	0/1499	0.60	0/2016
28	RH	0.29	0/1332	0.58	0/1802
28	YH	0.45	0/1332	0.73	0/1802
29	RI	0.52	0/1151	0.79	1/1558 (0.1%)
29	YI	0.55	0/1151	0.80	0/1558
30	RN	0.41	0/1131	0.62	0/1525
30	YN	0.43	0/1131	0.64	0/1525
31	RO	0.41	0/943	0.62	1/1269 (0.1%)
31	YO	0.50	0/943	0.65	0/1269
32	RP	0.44	0/1162	0.81	1/1544 (0.1%)
32	YP	0.49	0/1162	0.90	2/1544 (0.1%)
33	RQ	0.47	0/1143	0.74	2/1527 (0.1%)
33	YQ	0.57	0/1143	0.80	1/1527 (0.1%)
34	RR	0.42	0/982	0.69	0/1312
34	YR	0.44	0/982	0.73	0/1312
35	RS	0.36	0/892	0.65	0/1187
35	YS	0.40	0/892	0.75	1/1187 (0.1%)
36	RT	0.42	0/1155	0.63	0/1542
36	YT	0.44	0/1155	0.67	0/1542
37	RU	0.40	0/982	0.65	0/1306
37	YU	0.50	0/982	0.68	0/1306
38	RV	0.38	0/790	0.61	1/1057 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	YV	0.45	0/790	0.73	1/1057 (0.1%)
39	RW	0.49	0/911	0.67	0/1220
39	YW	0.45	0/911	0.68	0/1220
40	RX	0.47	0/739	0.62	0/993
40	YX	0.49	0/739	0.66	0/993
41	RY	0.44	0/798	0.68	0/1064
41	YY	0.46	0/798	0.70	0/1064
42	RZ	0.58	1/1493 (0.1%)	0.77	0/2026
42	YZ	0.56	0/1493	0.79	1/2026 (0.0%)
43	R0	0.65	0/657	0.80	0/874
43	Y0	0.74	1/657 (0.2%)	0.90	1/874 (0.1%)
44	R1	0.44	0/770	0.66	0/1022
44	Y1	0.46	0/770	0.69	0/1022
45	R2	0.39	0/583	0.65	0/771
45	Y2	0.52	0/583	0.73	0/771
46	R3	0.35	0/474	0.57	0/635
46	Y3	0.41	0/474	0.59	0/635
47	R4	0.33	0/594	0.68	0/795
47	Y4	0.37	0/594	0.68	0/795
48	R5	0.44	0/473	0.73	0/639
48	Y5	0.43	0/473	0.77	1/639 (0.2%)
49	R6	0.35	0/431	0.69	0/575
49	Y6	0.37	0/431	0.67	0/575
50	R7	0.49	0/438	0.68	0/575
50	Y7	0.57	0/438	0.71	0/575
51	R8	0.55	0/525	0.79	0/691
51	Y8	0.58	0/525	0.82	0/691
52	R9	0.26	0/310	0.45	0/407
52	Y9	0.32	0/310	0.48	0/407
53	QV	0.85	1/1836 (0.1%)	1.45	24/2859 (0.8%)
53	XV	0.89	1/1836 (0.1%)	1.54	25/2859 (0.9%)
54	QX	0.95	0/193	1.91	7/299 (2.3%)
54	XX	1.12	0/193	1.83	4/299 (1.3%)
55	QY	0.68	0/194	1.53	0/301
55	XY	0.72	0/194	1.25	1/301 (0.3%)
56	Z6	0.74	0/40	1.58	1/60 (1.7%)
56	Z8	0.92	0/40	1.50	0/60
All	All	0.64	44/316105 (0.0%)	1.20	1861/472575 (0.4%)

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
12	QL	0	1
12	XL	0	1
25	RE	0	1
25	YE	0	1
26	YF	0	1
28	RH	0	2
28	YH	0	2
29	RI	0	1
35	YS	0	1
42	YZ	0	2
45	Y2	0	1
47	R4	0	1
51	R8	0	2
51	Y8	0	2
All	All	0	19

All (44) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	QV	1	C	OP3-P	-10.81	1.48	1.61
53	XV	1	C	OP3-P	-10.09	1.49	1.61
22	YA	783	A	N9-C4	-8.12	1.32	1.37
22	YA	2542	A	N9-C4	-7.43	1.33	1.37
22	YA	1966	A	N9-C4	-7.42	1.33	1.37
22	RA	1918	A	N9-C4	-6.88	1.33	1.37
1	QA	1227	A	N9-C4	-6.86	1.33	1.37
22	YA	1938	A	N9-C4	-6.62	1.33	1.37
22	YA	2082	A	N9-C4	-6.52	1.33	1.37
22	YA	1142(A)	A	N9-C4	-6.52	1.33	1.37
22	RA	471	A	N9-C4	-6.35	1.34	1.37
22	YA	774	A	N9-C4	-6.31	1.34	1.37
22	YA	783	A	C5-C6	-6.04	1.35	1.41
22	YA	783	A	N7-C5	-6.04	1.35	1.39
22	YA	783	A	N3-C4	-5.83	1.31	1.34
22	YA	2712(A)	A	N7-C5	-5.81	1.35	1.39
22	RA	2589	A	N9-C4	-5.73	1.34	1.37
22	YA	2764	A	N9-C4	-5.67	1.34	1.37
1	QA	1434	A	N9-C4	-5.66	1.34	1.37
22	YA	2518	A	N9-C4	-5.65	1.34	1.37
22	RA	1677	A	N9-C4	-5.56	1.34	1.37
43	Y0	68	GLU	CG-CD	5.51	1.60	1.51
22	YA	917	A	N9-C4	-5.50	1.34	1.37
22	YA	528	A	N9-C4	-5.46	1.34	1.37

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	YA	793	A	N7-C5	-5.44	1.35	1.39
1	QA	32	A	N9-C4	5.42	1.41	1.37
22	YA	2251	G	N3-C4	-5.39	1.31	1.35
22	YA	2060	A	N9-C4	-5.33	1.34	1.37
22	YA	2032	G	N9-C4	-5.30	1.33	1.38
22	YA	917	A	N3-C4	-5.28	1.31	1.34
42	RZ	54	HIS	CG-ND1	-5.27	1.27	1.38
22	YA	2251	G	C6-N1	-5.26	1.35	1.39
22	RA	2062	A	N9-C4	5.18	1.41	1.37
22	YA	2826	A	N9-C4	-5.15	1.34	1.37
1	XA	1468	A	N9-C4	-5.15	1.34	1.37
22	RA	397	G	N9-C4	-5.13	1.33	1.38
22	YA	71	A	N9-C4	-5.11	1.34	1.37
22	RA	1931	U	N3-C4	-5.09	1.33	1.38
22	YA	676	A	N9-C4	-5.09	1.34	1.37
22	YA	957	A	N9-C4	-5.05	1.34	1.37
22	YA	140	A	N7-C5	-5.03	1.36	1.39
22	YA	2430	A	N3-C4	-5.02	1.31	1.34
22	YA	142	G	N9-C4	-5.01	1.33	1.38
22	RA	74	A	N7-C5	-5.01	1.36	1.39

All (1861) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	QV	75	C	O5'-P-OP2	-13.28	93.75	105.70
22	YA	774	A	C2-N3-C4	-12.25	104.47	110.60
22	RA	1931	U	N3-C2-O2	-12.05	113.77	122.20
22	YA	1332	G	C6-C5-N7	-11.94	123.24	130.40
22	YA	450	G	C5-C6-N1	-11.37	105.81	111.50
22	YA	783	A	C2-N3-C4	-11.03	105.08	110.60
22	RA	28	A	C8-N9-C4	-10.75	101.50	105.80
22	YA	783	A	N1-C6-N6	10.53	124.92	118.60
22	YA	2573	C	N1-C2-O2	10.33	125.10	118.90
22	YA	917	A	C2-N3-C4	-10.11	105.55	110.60
22	YA	570	G	C5-C6-N1	-10.10	106.45	111.50
22	YA	140	A	N7-C8-N9	9.96	118.78	113.80
22	RA	140	A	C8-N9-C4	-9.94	101.82	105.80
22	RA	1931	U	C5-C4-O4	9.85	131.81	125.90
22	YA	783	A	C5-N7-C8	-9.85	98.98	103.90
22	YA	805	G	N3-C4-N9	9.81	131.89	126.00
22	RA	774	A	C2-N3-C4	-9.80	105.70	110.60
22	RA	28	A	N7-C8-N9	9.79	118.69	113.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	1054	C	C2-N1-C1'	9.70	129.47	118.80
22	YA	189	G	C6-C5-N7	-9.69	124.59	130.40
1	XA	812	C	N1-C2-O2	9.58	124.65	118.90
53	XV	67	C	C6-N1-C2	-9.58	116.47	120.30
22	YA	2573	C	N3-C2-O2	-9.58	115.19	121.90
22	YA	140	A	C8-N9-C4	-9.56	101.97	105.80
22	YA	1332	G	C4-N9-C1'	9.56	138.92	126.50
1	QA	1301	U	N3-C2-O2	-9.51	115.54	122.20
53	QV	17	C	N1-C2-O2	9.47	124.58	118.90
22	RA	791	C	C6-N1-C2	9.40	124.06	120.30
22	YA	783	A	C6-C5-N7	-9.32	125.77	132.30
22	RA	828	U	C5-C4-O4	9.32	131.49	125.90
22	YA	2712(A)	A	N7-C8-N9	9.31	118.45	113.80
1	XA	328	C	C6-N1-C2	-9.30	116.58	120.30
53	XV	17	C	N1-C2-O2	9.26	124.45	118.90
22	YA	1216	G	N1-C6-O6	9.21	125.42	119.90
22	YA	1899	G	C2-N3-C4	-9.16	107.32	111.90
53	XV	74	C	C5-C4-N4	-9.13	113.81	120.20
22	YA	2542	A	C2-N3-C4	-9.10	106.05	110.60
1	XA	1054	C	C6-N1-C1'	-9.08	109.91	120.80
22	YA	528	A	N1-C2-N3	9.05	133.82	129.30
22	RA	140	A	N7-C8-N9	9.04	118.32	113.80
22	YA	671	C	N3-C2-O2	-8.99	115.61	121.90
22	YA	1662	C	C6-N1-C2	8.89	123.86	120.30
22	RA	2544	G	N1-C6-O6	8.86	125.21	119.90
22	RA	2519	U	O5'-P-OP1	-8.85	97.73	105.70
22	RA	1931	U	N1-C2-N3	8.82	120.19	114.90
22	YA	1786	A	N1-C6-N6	8.82	123.89	118.60
1	XA	812	C	N3-C2-O2	-8.79	115.75	121.90
1	XA	963	G	N3-C4-N9	8.78	131.27	126.00
22	YA	1929	G	C4-C5-N7	8.77	114.31	110.80
22	YA	2681	C	C6-N1-C2	-8.77	116.79	120.30
22	YA	450	G	C4-C5-C6	8.75	124.05	118.80
1	XA	1108	G	C5-C6-N1	-8.74	107.13	111.50
22	YA	1942	C	C6-N1-C2	-8.69	116.83	120.30
1	XA	518	C	C6-N1-C2	-8.68	116.83	120.30
53	XV	17	C	C2-N1-C1'	8.61	128.27	118.80
22	YA	2681	C	P-O3'-C3'	8.55	129.97	119.70
22	YA	679	C	C5-C4-N4	-8.55	114.22	120.20
22	YA	2712(A)	A	C8-N9-C4	-8.55	102.38	105.80
23	YB	47	C	C6-N1-C2	8.54	123.72	120.30
22	YA	2058	A	N1-C6-N6	8.53	123.72	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	2036	C	O5'-P-OP2	-8.52	98.03	105.70
22	RA	2712	U	O4'-C1'-N1	8.52	115.01	108.20
22	YA	1942	C	N1-C2-O2	8.52	124.01	118.90
22	RA	449	A	O5'-P-OP1	-8.51	98.04	105.70
1	QA	1200	C	N1-C2-O2	8.49	123.99	118.90
22	YA	1970	A	O5'-P-OP2	-8.48	98.07	105.70
1	QA	1301	U	N1-C2-O2	8.40	128.68	122.80
22	YA	1950	G	N7-C8-N9	8.40	117.30	113.10
1	XA	963	G	C4-N9-C1'	8.37	137.37	126.50
1	QA	1336	C	C6-N1-C2	-8.33	116.97	120.30
22	YA	783	A	C4-C5-N7	8.33	114.87	110.70
22	RA	1786	A	C5-N7-C8	-8.31	99.75	103.90
22	YA	528	A	C2-N3-C4	-8.31	106.44	110.60
22	YA	1332	G	C8-N9-C1'	-8.31	116.20	127.00
53	QV	8	U	C6-N1-C2	-8.31	116.01	121.00
22	RA	2612	C	N1-C2-O2	8.30	123.88	118.90
22	RA	1204	A	O4'-C1'-N9	8.29	114.83	108.20
22	RA	2611	U	O5'-P-OP2	-8.29	98.24	105.70
22	YA	1786	A	C5-C6-N1	-8.28	113.56	117.70
22	YA	2612	C	N1-C2-O2	8.28	123.87	118.90
1	XA	963	G	N3-C4-C5	-8.28	124.46	128.60
22	YA	142	G	N3-C4-C5	8.26	132.73	128.60
1	XA	789	U	C6-N1-C2	-8.21	116.08	121.00
22	YA	2513	G	N1-C6-O6	8.18	124.81	119.90
1	QA	1322	C	C2-N1-C1'	8.15	127.76	118.80
53	QV	17	C	C2-N1-C1'	8.14	127.76	118.80
22	YA	1198	U	N3-C2-O2	-8.14	116.50	122.20
22	YA	1130	U	P-O3'-C3'	8.13	129.45	119.70
22	RA	828	U	N3-C2-O2	-8.10	116.53	122.20
1	XA	963	G	C8-N9-C1'	-8.10	116.47	127.00
22	YA	2430	A	C2-N3-C4	-8.07	106.56	110.60
22	RA	1130	U	P-O3'-C3'	8.07	129.39	119.70
22	RA	1653	G	N3-C4-C5	-8.05	124.57	128.60
22	RA	1377	G	N3-C4-C5	-8.03	124.58	128.60
22	RA	791	C	N3-C4-C5	8.01	125.10	121.90
22	YA	783	A	C5-C6-N1	-8.00	113.70	117.70
22	YA	2430	A	C5-C6-N1	-7.99	113.70	117.70
22	YA	792	G	C5-C6-O6	7.98	133.39	128.60
22	YA	2388	A	C8-N9-C4	7.97	108.99	105.80
22	RA	1786	A	C6-C5-N7	-7.96	126.73	132.30
22	RA	2439	A	C8-N9-C4	-7.95	102.62	105.80
22	RA	74	A	N1-C6-N6	7.94	123.36	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	1397	C	C6-N1-C2	-7.93	117.13	120.30
1	XA	299	G	C5-C6-N1	-7.93	107.54	111.50
1	XA	1197	G	O5'-P-OP2	-7.92	98.57	105.70
22	YA	774	A	C5-C6-N1	-7.91	113.74	117.70
22	YA	2036	C	C6-N1-C2	-7.89	117.14	120.30
22	YA	265	A	O4'-C1'-N9	7.89	114.51	108.20
22	YA	828	U	C2-N1-C1'	7.88	127.16	117.70
22	YA	2430	A	N1-C2-N3	7.84	133.22	129.30
22	RA	1786	A	N1-C6-N6	7.84	123.30	118.60
22	YA	1992	G	P-O3'-C3'	7.83	129.09	119.70
22	YA	1786	A	C6-C5-N7	-7.83	126.82	132.30
22	YA	1786	A	C2-N3-C4	-7.82	106.69	110.60
1	QA	932	C	N1-C2-O2	7.79	123.58	118.90
1	QA	1302	U	C2-N1-C1'	7.78	127.04	117.70
22	YA	982	C	C6-N1-C2	-7.78	117.19	120.30
1	QA	401	C	C6-N1-C2	-7.77	117.19	120.30
54	QX	6	G	N1-C6-O6	7.77	124.56	119.90
1	QA	1336	C	N1-C2-O2	7.75	123.55	118.90
22	YA	1942	C	N3-C2-O2	-7.74	116.48	121.90
1	QA	1336	C	C2-N1-C1'	7.73	127.31	118.80
22	YA	1786	A	C5-N7-C8	-7.72	100.04	103.90
22	YA	676	A	C5-N7-C8	-7.70	100.05	103.90
22	YA	582	G	N1-C6-O6	7.68	124.51	119.90
22	YA	676	A	C2-N3-C4	-7.67	106.76	110.60
22	RA	1627	G	N1-C6-O6	7.66	124.49	119.90
22	YA	1332	G	C4-C5-N7	7.65	113.86	110.80
22	YA	2518	A	N1-C6-N6	7.64	123.19	118.60
22	YA	1906	G	C5-C6-N1	-7.62	107.69	111.50
22	RA	860	U	C4-C5-C6	7.61	124.27	119.70
22	RA	1647	G	N3-C4-C5	7.60	132.40	128.60
1	XA	1336	C	C6-N1-C2	-7.60	117.26	120.30
22	RA	783	A	C5-N7-C8	-7.58	100.11	103.90
22	RA	1930	G	N7-C8-N9	-7.58	109.31	113.10
22	RA	2782	G	C8-N9-C4	-7.58	103.37	106.40
22	YA	2595	G	C6-C5-N7	-7.57	125.86	130.40
22	RA	382	G	N1-C6-O6	7.57	124.44	119.90
22	RA	74	A	C6-C5-N7	-7.57	127.00	132.30
22	YA	372	G	C8-N9-C4	7.57	109.43	106.40
1	XA	1301	U	C2-N1-C1'	7.56	126.78	117.70
53	XV	67	C	N3-C2-O2	-7.56	116.61	121.90
22	RA	385	C	N1-C2-O2	7.55	123.43	118.90
22	RA	2318	G	O4'-C1'-N9	7.55	114.24	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	205	G	P-O3'-C3'	7.55	128.76	119.70
1	XA	812	C	C2-N1-C1'	7.54	127.09	118.80
22	RA	2063	C	O5'-P-OP2	-7.54	98.92	105.70
22	RA	406	G	O5'-P-OP1	-7.54	98.92	105.70
22	RA	1899	G	N1-C2-N2	-7.54	109.42	116.20
1	QA	932	C	C2-N1-C1'	7.53	127.08	118.80
22	RA	2577	A	N1-C6-N6	7.52	123.11	118.60
1	XA	1108	G	C4-C5-N7	-7.50	107.80	110.80
22	YA	805	G	C6-C5-N7	-7.50	125.90	130.40
22	RA	1644	C	C2-N1-C1'	7.50	127.05	118.80
22	RA	2782	G	N3-C4-C5	-7.49	124.85	128.60
22	YA	1598	C	C6-N1-C2	-7.49	117.30	120.30
1	XA	690	G	C5-N7-C8	-7.47	100.56	104.30
22	YA	828	U	N3-C2-O2	-7.46	116.98	122.20
22	RA	1930	G	C8-N9-C4	7.45	109.38	106.40
54	QX	6	G	C4-C5-N7	7.45	113.78	110.80
22	RA	1786	A	N7-C8-N9	7.43	117.52	113.80
22	RA	2506	U	N1-C2-O2	7.43	128.00	122.80
22	YA	2062	A	N9-C4-C5	-7.43	102.83	105.80
1	XA	812	C	C6-N1-C2	-7.42	117.33	120.30
22	YA	752	A	C8-N9-C4	7.41	108.76	105.80
22	YA	1950	G	C5-N7-C8	-7.40	100.60	104.30
22	RA	1496	A	N7-C8-N9	7.39	117.50	113.80
22	YA	2542	A	N3-C4-C5	7.39	131.97	126.80
22	RA	1786	A	C4-C5-N7	7.39	114.39	110.70
1	QA	337	C	C6-N1-C2	-7.38	117.35	120.30
53	QV	17	C	N3-C2-O2	-7.37	116.74	121.90
22	RA	2712(A)	A	C8-N9-C4	-7.37	102.85	105.80
22	RA	1840	G	N1-C6-O6	7.37	124.32	119.90
22	YA	1377	G	N1-C6-O6	7.37	124.32	119.90
54	QX	6	G	C6-C5-N7	-7.37	125.98	130.40
22	YA	1332	G	N7-C8-N9	7.36	116.78	113.10
22	RA	2544	G	C5-C6-N1	-7.36	107.82	111.50
22	YA	1358	G	N3-C4-C5	-7.36	124.92	128.60
22	YA	142	G	N3-C4-N9	-7.35	121.59	126.00
1	QA	789	U	C6-N1-C2	-7.35	116.59	121.00
22	YA	1786	A	C4-C5-N7	7.35	114.37	110.70
22	YA	2311	A	C2-N3-C4	-7.34	106.93	110.60
53	QV	74	C	C6-N1-C2	-7.32	117.37	120.30
22	YA	1929	G	N1-C6-O6	7.31	124.28	119.90
22	YA	1950	G	O4'-C1'-N9	7.29	114.03	108.20
22	RA	2032	G	C4-C5-N7	7.29	113.72	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	2573	C	C6-N1-C2	-7.26	117.39	120.30
1	XA	558	G	C6-C5-N7	-7.26	126.05	130.40
22	YA	2439	A	P-O3'-C3'	7.26	128.41	119.70
22	RA	2083	G	C8-N9-C4	7.25	109.30	106.40
22	YA	1929	G	C5-N7-C8	-7.24	100.68	104.30
22	YA	2682	U	OP1-P-OP2	-7.24	108.74	119.60
22	RA	2779	U	O4'-C1'-N1	7.24	113.99	108.20
22	YA	1187	G	C5-C6-N1	-7.24	107.88	111.50
22	YA	1425	G	C8-N9-C4	-7.24	103.51	106.40
22	RA	2490	G	C8-N9-C4	-7.23	103.51	106.40
22	YA	508	G	C8-N9-C4	-7.22	103.51	106.40
22	RA	676	A	N7-C8-N9	7.22	117.41	113.80
1	XA	1195	C	C6-N1-C2	-7.22	117.41	120.30
22	YA	1799	G	P-O3'-C3'	7.21	128.35	119.70
22	YA	1829	A	O5'-P-OP1	-7.21	99.21	105.70
22	RA	2490	G	N7-C8-N9	7.21	116.70	113.10
22	YA	2250	G	O5'-P-OP2	-7.21	99.21	105.70
22	RA	783	A	N7-C8-N9	7.21	117.40	113.80
22	YA	140	A	C6-C5-N7	-7.21	127.25	132.30
22	RA	1931	U	N3-C4-O4	-7.20	114.36	119.40
1	QA	894	G	N3-C4-N9	-7.20	121.68	126.00
25	YE	21	VAL	C-N-CD	-7.20	104.76	120.60
22	RA	1142	U	N1-C2-O2	7.20	127.84	122.80
22	YA	1820	U	C5-C6-N1	-7.19	119.10	122.70
1	QA	1158	C	N1-C2-O2	7.19	123.22	118.90
22	RA	2583	G	N3-C4-C5	-7.19	125.01	128.60
22	YA	1262	A	C5-C6-N1	7.18	121.29	117.70
22	YA	2032	G	N3-C4-C5	7.18	132.19	128.60
22	YA	1678	G	C4-C5-N7	7.17	113.67	110.80
1	XA	766	A	C8-N9-C4	7.17	108.67	105.80
22	YA	572	A	C8-N9-C4	-7.15	102.94	105.80
12	XL	47	LYS	C-N-CD	-7.15	104.88	120.60
22	YA	1358	G	N3-C4-N9	7.13	130.28	126.00
1	XA	1108	G	C5-C6-O6	7.13	132.88	128.60
22	RA	74	A	N7-C8-N9	7.12	117.36	113.80
22	RA	1606	G	N1-C6-O6	7.12	124.17	119.90
1	XA	1128	C	C6-N1-C2	-7.12	117.45	120.30
22	RA	1950	G	O4'-C1'-N9	7.11	113.89	108.20
1	QA	449	C	C6-N1-C2	-7.10	117.46	120.30
1	QA	1322	C	C6-N1-C1'	-7.09	112.29	120.80
22	YA	674	G	C5-C6-O6	-7.08	124.35	128.60
22	RA	2448	A	N1-C6-N6	-7.08	114.36	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	917	A	N1-C6-N6	7.08	122.84	118.60
22	YA	140	A	C5-N7-C8	-7.07	100.36	103.90
22	YA	1332	G	N1-C6-O6	7.07	124.14	119.90
22	RA	1688	U	C6-N1-C2	-7.07	116.76	121.00
1	QA	1297	C	P-O3'-C3'	7.06	128.18	119.70
22	RA	124	G	C5-C6-N1	-7.06	107.97	111.50
22	RA	1992	G	P-O3'-C3'	7.06	128.17	119.70
22	YA	958	U	N3-C2-O2	-7.05	117.26	122.20
1	QA	117	G	N9-C4-C5	-7.05	102.58	105.40
22	RA	1930	G	C4-N9-C1'	-7.04	117.34	126.50
22	RA	2011	U	N3-C2-O2	7.04	127.13	122.20
1	XA	186(A)	C	C6-N1-C2	-7.04	117.48	120.30
22	YA	945	A	N1-C6-N6	7.04	122.83	118.60
22	YA	813	U	N3-C2-O2	-7.04	117.27	122.20
22	YA	1544	C	N1-C2-O2	7.02	123.11	118.90
22	YA	2713	A	C2-N3-C4	-7.02	107.09	110.60
22	YA	2032	G	N1-C6-O6	7.02	124.11	119.90
22	YA	298	G	C4-C5-C6	-7.01	114.59	118.80
22	YA	1662	C	C5-C6-N1	-7.00	117.50	121.00
1	QA	328	C	C2-N1-C1'	7.00	126.50	118.80
22	RA	530	G	O4'-C1'-N9	7.00	113.80	108.20
22	YA	2430	A	C4-C5-C6	7.00	120.50	117.00
22	YA	2318	G	O4'-C1'-N9	7.00	113.80	108.20
22	YA	2271	G	C6-C5-N7	-6.99	126.20	130.40
22	YA	783	A	N7-C8-N9	6.99	117.30	113.80
1	QA	634	C	N1-C2-O2	-6.99	114.71	118.90
22	YA	2218	G	N1-C6-O6	6.99	124.09	119.90
1	XA	690	G	N7-C8-N9	6.99	116.59	113.10
22	RA	2287	A	C2-N3-C4	-6.97	107.11	110.60
22	YA	572	A	N1-C6-N6	-6.96	114.42	118.60
22	RA	265	A	O4'-C1'-N9	6.96	113.77	108.20
22	YA	1678	G	C6-C5-N7	-6.96	126.22	130.40
23	RB	44	G	C4-N9-C1'	-6.95	117.47	126.50
22	YA	828	U	C6-N1-C2	-6.95	116.83	121.00
22	RA	1528	A	N7-C8-N9	6.94	117.27	113.80
22	YA	2532	G	C6-C5-N7	-6.94	126.24	130.40
22	YA	2388	A	N7-C8-N9	-6.94	110.33	113.80
1	XA	1054	C	N1-C2-O2	6.92	123.06	118.90
1	XA	117	G	N1-C6-O6	6.92	124.05	119.90
22	YA	74	A	C2-N3-C4	-6.92	107.14	110.60
22	RA	1528	A	O4'-C1'-N9	6.92	113.73	108.20
22	YA	28	A	N7-C8-N9	6.92	117.26	113.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	1204	A	O4'-C1'-N9	6.92	113.73	108.20
1	XA	254	G	O5'-P-OP1	-6.92	99.48	105.70
22	YA	576	U	N3-C2-O2	6.91	127.04	122.20
22	RA	774	A	N1-C6-N6	6.91	122.74	118.60
22	YA	1814	G	C5-C6-N1	-6.91	108.05	111.50
22	YA	1635	G	OP2-P-O3'	6.90	120.39	105.20
22	YA	912	C	C2-N1-C1'	6.90	126.39	118.80
22	YA	508	G	N3-C4-C5	-6.89	125.15	128.60
22	YA	1977	A	C8-N9-C4	6.89	108.56	105.80
22	YA	1184	G	N3-C4-C5	-6.88	125.16	128.60
22	YA	1626	G	C8-N9-C4	-6.88	103.65	106.40
22	RA	1930	G	C6-C5-N7	6.87	134.52	130.40
1	XA	749	C	C6-N1-C2	-6.87	117.55	120.30
22	YA	2518	A	C2-N3-C4	-6.87	107.17	110.60
1	XA	731	G	N1-C6-O6	6.87	124.02	119.90
22	YA	2439	A	N7-C8-N9	6.86	117.23	113.80
1	QA	754	C	N1-C2-O2	6.86	123.02	118.90
22	YA	1842	G	C5-C6-N1	-6.86	108.07	111.50
22	RA	1811	G	C8-N9-C4	6.85	109.14	106.40
22	YA	2249	U	N3-C4-C5	-6.85	110.49	114.60
22	RA	1989	G	N3-C2-N2	-6.85	115.10	119.90
1	QA	1322	C	N1-C2-O2	6.85	123.01	118.90
22	YA	189	G	N1-C6-O6	6.84	124.01	119.90
22	YA	805	G	N9-C4-C5	-6.84	102.66	105.40
22	YA	2258	C	C2-N1-C1'	6.84	126.33	118.80
1	QA	328	C	N1-C2-O2	6.84	123.00	118.90
22	YA	1332	G	C4-C5-C6	6.84	122.90	118.80
22	RA	205	G	OP2-P-O3'	6.84	120.25	105.20
53	QV	71	C	C6-N1-C2	-6.83	117.57	120.30
22	RA	1979	C	C6-N1-C2	-6.83	117.57	120.30
22	YA	2242	G	C5-C6-O6	-6.83	124.50	128.60
22	YA	2392	A	C8-N9-C4	-6.83	103.07	105.80
22	RA	54	G	N1-C6-O6	6.82	123.99	119.90
1	XA	529	G	C5-C6-O6	-6.82	124.51	128.60
22	YA	1198	U	N1-C2-N3	6.82	118.99	114.90
22	YA	2058	A	C6-C5-N7	-6.82	127.53	132.30
1	QA	786	G	C8-N9-C4	6.82	109.13	106.40
22	RA	395	U	O4'-C1'-N1	6.81	113.65	108.20
1	QA	1158	C	N3-C2-O2	-6.80	117.14	121.90
1	XA	481	G	C4-C5-N7	-6.80	108.08	110.80
22	RA	1624	G	C8-N9-C4	6.80	109.12	106.40
22	YA	2837	G	N1-C6-O6	6.79	123.98	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	856	C	C6-N1-C2	-6.79	117.58	120.30
1	QA	1336	C	C5-C6-N1	6.79	124.40	121.00
22	RA	2067	G	N1-C6-O6	6.79	123.97	119.90
1	XA	518	C	N1-C2-N3	6.79	123.95	119.20
22	RA	1790	C	C2-N1-C1'	-6.79	111.33	118.80
1	XA	353	A	O5'-P-OP1	-6.78	99.60	105.70
22	RA	1950	G	C4-N9-C1'	6.76	135.29	126.50
1	XA	1336	C	N3-C2-O2	-6.76	117.17	121.90
22	YA	1022	G	P-O3'-C3'	6.76	127.81	119.70
22	YA	140	A	N1-C6-N6	6.76	122.65	118.60
22	YA	621	A	C2-N3-C4	-6.75	107.22	110.60
22	RA	2430	A	N1-C2-N3	6.75	132.68	129.30
22	YA	592	G	N3-C4-N9	6.74	130.04	126.00
22	YA	2250	G	C8-N9-C4	-6.74	103.70	106.40
22	YA	2392	A	N7-C8-N9	6.74	117.17	113.80
22	RA	385	C	C2-N1-C1'	6.74	126.21	118.80
22	RA	1314	C	N1-C2-O2	6.74	122.94	118.90
22	RA	1602	U	N3-C4-C5	-6.74	110.56	114.60
22	YA	508	G	P-O3'-C3'	6.74	127.79	119.70
22	RA	676	A	C5-N7-C8	-6.74	100.53	103.90
22	YA	654	A	O5'-P-OP2	-6.73	99.65	105.70
1	QA	328	C	N3-C2-O2	-6.72	117.19	121.90
1	QA	1322	C	C5-C6-N1	6.72	124.36	121.00
22	YA	1950	G	C4-N9-C1'	6.71	135.23	126.50
22	YA	1568	G	C4-N9-C1'	-6.71	117.78	126.50
22	RA	664	C	N3-C2-O2	-6.71	117.20	121.90
22	RA	1980	G	P-O3'-C3'	6.71	127.75	119.70
53	QV	41	C	N3-C2-O2	-6.70	117.21	121.90
22	YA	621	A	C6-C5-N7	-6.70	127.61	132.30
22	RA	2542	A	C8-N9-C4	6.70	108.48	105.80
23	YB	44	G	C8-N9-C4	6.70	109.08	106.40
22	YA	471	A	C2-N3-C4	-6.70	107.25	110.60
22	YA	1214	A	N7-C8-N9	-6.70	110.45	113.80
22	YA	1698	A	N1-C2-N3	6.70	132.65	129.30
22	YA	1698	A	C4-C5-C6	6.69	120.35	117.00
1	QA	913	A	P-O3'-C3'	6.69	127.73	119.70
1	QA	1528	U	P-O3'-C3'	6.69	127.73	119.70
22	RA	2083	G	N3-C4-C5	6.69	131.94	128.60
22	RA	2452	C	C6-N1-C2	-6.68	117.63	120.30
22	RA	2755	C	C5-C6-N1	6.68	124.34	121.00
1	XA	529	G	C4-C5-N7	6.68	113.47	110.80
1	XA	558	G	N1-C6-O6	6.68	123.91	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	1901	A	N1-C6-N6	-6.68	114.59	118.60
22	YA	1708	C	C6-N1-C2	6.67	122.97	120.30
22	YA	1607	C	C5-C6-N1	6.67	124.33	121.00
22	YA	450	G	C4-N9-C1'	6.67	135.17	126.50
22	YA	556	G	N3-C4-C5	-6.67	125.27	128.60
22	RA	1811	G	N3-C4-C5	6.67	131.93	128.60
53	XV	74	C	N3-C4-N4	6.67	122.67	118.00
1	QA	117	G	C4-C5-N7	6.67	113.47	110.80
22	YA	2532	G	N1-C6-O6	6.66	123.90	119.90
1	XA	792	A	O4'-C1'-N9	6.66	113.53	108.20
53	XV	23	C	C6-N1-C2	6.66	122.96	120.30
1	QA	117	G	N1-C6-O6	6.65	123.89	119.90
22	RA	396	G	C6-C5-N7	-6.65	126.41	130.40
22	YA	2573	C	C2-N1-C1'	6.65	126.11	118.80
1	XA	558	G	N9-C4-C5	-6.64	102.74	105.40
1	XA	913	A	P-O3'-C3'	6.64	127.67	119.70
22	YA	446	G	N3-C4-N9	6.64	129.98	126.00
22	YA	848	G	N9-C4-C5	-6.64	102.74	105.40
22	YA	1671	U	C5-C6-N1	6.64	126.02	122.70
53	QV	11	A	C8-N9-C4	6.64	108.45	105.80
22	RA	2439	A	N7-C8-N9	6.63	117.12	113.80
22	RA	2032	G	N9-C4-C5	-6.63	102.75	105.40
22	YA	1358	G	C6-C5-N7	-6.62	126.43	130.40
1	XA	652	U	C2-N1-C1'	6.62	125.64	117.70
22	RA	1258	C	C6-N1-C2	6.62	122.95	120.30
22	RA	2392	A	N7-C8-N9	6.62	117.11	113.80
53	QV	74	C	C2-N1-C1'	6.62	126.08	118.80
1	XA	789	U	N1-C2-N3	6.62	118.87	114.90
53	XV	61	C	C6-N1-C2	-6.62	117.65	120.30
22	YA	1678	G	N1-C6-O6	6.61	123.87	119.90
22	YA	2281	C	O5'-P-OP2	-6.61	99.75	105.70
1	QA	785	G	N1-C6-O6	6.61	123.87	119.90
1	XA	690	G	N3-C4-N9	-6.61	122.03	126.00
22	YA	2335	A	O4'-C1'-N9	6.61	113.49	108.20
22	RA	258	G	C6-C5-N7	-6.61	126.44	130.40
22	YA	974	G	N3-C4-C5	-6.61	125.30	128.60
22	RA	1377	G	N3-C4-N9	6.60	129.96	126.00
1	QA	792	A	O4'-C1'-N9	6.60	113.48	108.20
22	YA	298	G	N3-C4-C5	6.60	131.90	128.60
22	YA	1835	G	N3-C4-C5	-6.60	125.30	128.60
22	YA	2713	A	C5-C6-N1	-6.59	114.41	117.70
22	YA	1950	G	C6-C5-N7	-6.59	126.45	130.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	298	G	C4-N9-C1'	-6.58	117.94	126.50
22	RA	1543	A	O4'-C1'-N9	6.58	113.47	108.20
53	XV	57	A	N1-C2-N3	6.58	132.59	129.30
22	RA	372	G	O4'-C1'-N9	6.58	113.46	108.20
22	RA	2722	G	C4-N9-C1'	6.57	135.04	126.50
22	YA	140	A	O4'-C1'-N9	6.57	113.45	108.20
22	YA	2702	U	C2-N1-C1'	6.56	125.58	117.70
53	XV	61	C	N3-C2-O2	-6.56	117.31	121.90
22	RA	389	G	N9-C4-C5	-6.56	102.78	105.40
22	RA	1319	G	N1-C6-O6	6.56	123.83	119.90
22	YA	1358	G	C4-N9-C1'	6.56	135.02	126.50
1	QA	1301	U	C2-N1-C1'	6.55	125.56	117.70
22	RA	1627	G	C5-C6-N1	-6.55	108.22	111.50
22	YA	945	A	C6-C5-N7	-6.55	127.71	132.30
35	YS	56	LEU	CA-CB-CG	6.55	130.37	115.30
22	YA	2495	G	C8-N9-C4	-6.55	103.78	106.40
1	QA	690	G	N3-C4-N9	-6.55	122.07	126.00
1	XA	1370	G	C5-C6-N1	-6.55	108.23	111.50
1	XA	812	C	P-O3'-C3'	6.54	127.55	119.70
1	QA	1302	U	N1-C2-O2	6.54	127.38	122.80
22	RA	527	C	N1-C2-O2	6.54	122.82	118.90
22	YA	958	U	C6-N1-C2	-6.54	117.08	121.00
1	XA	619	U	C2-N1-C1'	6.53	125.54	117.70
22	YA	1616	A	O4'-C1'-N9	6.53	113.42	108.20
1	XA	1498	U	P-O3'-C3'	6.53	127.53	119.70
22	YA	1992	G	N3-C4-C5	-6.53	125.34	128.60
22	YA	2271	G	N1-C6-O6	6.53	123.82	119.90
25	RE	21	VAL	C-N-CD	-6.53	106.25	120.60
22	RA	664	C	N1-C2-O2	6.52	122.81	118.90
1	XA	1204	A	N1-C6-N6	6.52	122.51	118.60
1	QA	117	G	C6-C5-N7	-6.52	126.49	130.40
22	RA	676	A	O4'-C1'-N9	6.51	113.41	108.20
22	RA	1930	G	C4-C5-N7	-6.51	108.19	110.80
22	YA	860	U	N3-C2-O2	-6.51	117.64	122.20
22	RA	2506	U	N3-C2-O2	-6.51	117.64	122.20
22	YA	530	G	O4'-C1'-N9	6.51	113.41	108.20
22	YA	2058	A	C5-C6-N6	-6.51	118.49	123.70
22	YA	805	G	C8-N9-C1'	-6.50	118.55	127.00
53	QV	25	C	C6-N1-C2	-6.50	117.70	120.30
22	YA	69	C	C6-N1-C2	-6.50	117.70	120.30
22	YA	83	G	N3-C4-C5	6.49	131.85	128.60
22	YA	382	G	C2-N3-C4	-6.49	108.66	111.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	685	G	N3-C4-C5	6.49	131.84	128.60
22	RA	2490	G	C4-N9-C1'	6.48	134.92	126.50
22	YA	1950	G	C8-N9-C4	-6.48	103.81	106.40
1	XA	690	G	C8-N9-C4	-6.48	103.81	106.40
22	RA	2499	C	C6-N1-C2	-6.48	117.71	120.30
1	XA	1301	U	N1-C2-O2	6.47	127.33	122.80
22	RA	2067	G	C6-C5-N7	-6.46	126.52	130.40
1	QA	496	A	N1-C6-N6	-6.46	114.72	118.60
22	RA	1786	A	C2-N3-C4	-6.46	107.37	110.60
22	YA	1698	A	O4'-C1'-N9	6.46	113.37	108.20
22	YA	621	A	N7-C8-N9	6.46	117.03	113.80
22	RA	242	G	P-O3'-C3'	6.46	127.45	119.70
22	YA	582	G	C5-C6-O6	-6.45	124.73	128.60
22	YA	2046	G	N3-C4-C5	-6.44	125.38	128.60
1	QA	701	C	P-O3'-C3'	6.44	127.42	119.70
1	QA	785	G	C5-C6-N1	-6.44	108.28	111.50
22	RA	2686	G	C6-C5-N7	-6.44	126.54	130.40
22	YA	2584	U	C6-N1-C2	-6.43	117.14	121.00
22	YA	1607	C	C2-N3-C4	6.43	123.11	119.90
22	YA	2070	G	N1-C6-O6	-6.43	116.04	119.90
22	RA	2688	U	N3-C2-O2	-6.43	117.70	122.20
22	YA	51	G	N1-C6-O6	-6.43	116.05	119.90
22	RA	613	U	N3-C2-O2	-6.42	117.70	122.20
22	RA	676	A	C8-N9-C4	-6.42	103.23	105.80
1	XA	1297	C	P-O3'-C3'	6.41	127.40	119.70
1	QA	690	G	C8-N9-C4	-6.41	103.84	106.40
22	YA	1568	G	C8-N9-C1'	6.41	135.33	127.00
22	YA	142	G	C4-N9-C1'	-6.41	118.17	126.50
1	XA	960	U	C2-N1-C1'	6.40	125.38	117.70
22	RA	465	G	C5-C6-N1	-6.40	108.30	111.50
22	RA	1840	G	C6-C5-N7	-6.40	126.56	130.40
1	XA	1503	A	P-O3'-C3'	6.40	127.38	119.70
1	XA	1484	C	C6-N1-C2	6.39	122.86	120.30
22	YA	1966	A	N3-C4-C5	6.39	131.28	126.80
22	YA	1790	C	C6-N1-C2	6.39	122.86	120.30
22	YA	792	G	N1-C6-O6	-6.39	116.07	119.90
22	YA	1620	G	C6-C5-N7	-6.39	126.57	130.40
22	RA	1698	A	C6-C5-N7	-6.38	127.83	132.30
22	RA	2251	G	C4-N9-C1'	6.38	134.80	126.50
22	YA	1314	C	N1-C2-O2	6.38	122.73	118.90
22	YA	114	U	C2-N1-C1'	6.38	125.36	117.70
22	RA	1377	G	C4-N9-C1'	6.38	134.79	126.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	1370	G	N1-C6-O6	6.38	123.73	119.90
22	RA	74	A	P-O3'-C3'	6.38	127.36	119.70
22	YA	74	A	C5-C6-N1	-6.38	114.51	117.70
22	YA	1183	G	N1-C6-O6	6.38	123.73	119.90
22	RA	1192	G	N1-C6-O6	6.38	123.72	119.90
22	YA	1287	A	O5'-P-OP2	-6.38	99.96	105.70
1	QA	932	C	N3-C2-O2	-6.37	117.44	121.90
22	YA	1781	C	C2-N1-C1'	6.37	125.81	118.80
22	YA	2010	G	N1-C6-O6	6.37	123.72	119.90
22	YA	1258	C	C6-N1-C2	6.37	122.85	120.30
22	RA	1142	U	C2-N1-C1'	6.37	125.34	117.70
22	YA	179	G	C5-C6-N1	-6.37	108.32	111.50
22	YA	1858	G	C8-N9-C4	-6.37	103.85	106.40
22	YA	1781	C	O4'-C1'-N1	6.37	113.29	108.20
22	YA	1425	G	C4-N9-C1'	6.36	134.77	126.50
22	YA	2698	U	O5'-P-OP2	-6.36	99.98	105.70
22	YA	446	G	C6-C5-N7	-6.35	126.59	130.40
1	QA	1435	G	C5-C6-N1	-6.35	108.32	111.50
22	YA	1311	G	N9-C4-C5	-6.35	102.86	105.40
22	YA	270(Y)	G	C5-C6-N1	-6.34	108.33	111.50
22	YA	1781	C	C6-N1-C1'	-6.34	113.19	120.80
22	RA	860	U	N3-C2-O2	-6.34	117.76	122.20
1	XA	749	C	C5-C6-N1	6.34	124.17	121.00
22	YA	1425	G	C4-C5-C6	6.34	122.61	118.80
22	RA	338	G	C6-C5-N7	-6.34	126.60	130.40
22	YA	1929	G	N9-C4-C5	-6.34	102.86	105.40
1	XA	1128	C	C5-C6-N1	6.34	124.17	121.00
22	RA	1762	A	N1-C6-N6	-6.33	114.80	118.60
22	YA	2242	G	N1-C6-O6	6.33	123.70	119.90
1	QA	244	U	P-O3'-C3'	6.33	127.30	119.70
22	YA	222	A	P-O3'-C3'	6.32	127.29	119.70
22	RA	848	G	N3-C4-C5	-6.32	125.44	128.60
22	RA	1310	G	C6-C5-N7	-6.32	126.61	130.40
22	YA	1332	G	C5-N7-C8	-6.32	101.14	104.30
22	RA	1568	G	N1-C6-O6	-6.32	116.11	119.90
22	YA	2712	U	C5-C4-O4	6.32	129.69	125.90
22	YA	676	A	N7-C8-N9	6.32	116.96	113.80
1	QA	401	C	C5-C6-N1	6.31	124.16	121.00
22	YA	760	G	N1-C6-O6	6.31	123.69	119.90
22	YA	2439	A	C8-N9-C4	-6.31	103.28	105.80
1	XA	449	C	C6-N1-C2	-6.31	117.78	120.30
22	YA	674	G	C4-C5-N7	6.31	113.32	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	1510	A	C2-N3-C4	6.31	113.75	110.60
22	YA	572	A	N9-C4-C5	6.30	108.32	105.80
22	YA	805	G	N3-C4-C5	-6.30	125.45	128.60
22	YA	1786	A	N7-C8-N9	6.30	116.95	113.80
22	YA	1830	C	N3-C4-C5	6.30	124.42	121.90
1	QA	337	C	C5-C6-N1	6.30	124.15	121.00
1	QA	818	G	N3-C4-N9	-6.30	122.22	126.00
22	YA	2318	G	C4-C5-N7	6.29	113.32	110.80
1	QA	1227	A	C2-N3-C4	-6.29	107.46	110.60
1	XA	1195	C	C2-N1-C1'	6.29	125.72	118.80
22	YA	2234	G	N1-C6-O6	6.29	123.67	119.90
22	RA	783	A	N1-C6-N6	6.28	122.37	118.60
1	XA	690	G	N3-C4-C5	6.28	131.74	128.60
22	RA	2439	A	P-O3'-C3'	6.28	127.24	119.70
22	YA	1950	G	C4-C5-N7	6.28	113.31	110.80
1	XA	328	C	C2-N1-C1'	6.28	125.71	118.80
1	QA	701	C	N3-C2-O2	-6.28	117.51	121.90
22	RA	2311	A	N7-C8-N9	6.28	116.94	113.80
1	XA	890	G	O4'-C1'-N9	6.27	113.22	108.20
22	YA	2832	U	P-O3'-C3'	6.27	127.23	119.70
22	YA	2702	U	O4'-C1'-N1	6.27	113.21	108.20
22	YA	2712(A)	A	C5-N7-C8	-6.26	100.77	103.90
22	YA	88	G	N3-C4-N9	6.26	129.76	126.00
22	RA	783	A	C8-N9-C4	-6.26	103.30	105.80
22	RA	1799	G	P-O3'-C3'	6.26	127.21	119.70
22	YA	1905	C	C2-N1-C1'	6.26	125.68	118.80
1	QA	1158	C	C2-N1-C1'	6.25	125.68	118.80
22	RA	1496	A	C5-N7-C8	-6.25	100.77	103.90
1	QA	422	C	C6-N1-C2	-6.25	117.80	120.30
22	RA	1319	G	C6-C5-N7	-6.25	126.65	130.40
22	YA	811	U	N1-C2-N3	6.25	118.65	114.90
22	YA	1493	C	C6-N1-C2	6.25	122.80	120.30
22	YA	811	U	C5-C4-O4	6.24	129.65	125.90
22	YA	910	A	C8-N9-C4	6.24	108.30	105.80
22	YA	2032	G	C2-N3-C4	-6.24	108.78	111.90
22	RA	2782	G	C4-N9-C1'	6.24	134.61	126.50
22	RA	2401	U	N3-C2-O2	-6.24	117.83	122.20
22	RA	2251	G	C8-N9-C1'	-6.23	118.90	127.00
53	XV	67	C	C2-N1-C1'	6.23	125.66	118.80
1	XA	1397	C	C6-N1-C2	-6.23	117.81	120.30
22	YA	83	G	N3-C4-N9	-6.23	122.26	126.00
22	YA	1407	C	N1-C2-O2	6.23	122.64	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	285	C	C6-N1-C2	6.22	122.79	120.30
22	YA	566	U	C5-C6-N1	-6.22	119.59	122.70
1	QA	328	C	C6-N1-C2	-6.22	117.81	120.30
1	QA	44	G	C4-N9-C1'	6.22	134.58	126.50
22	YA	1929	G	N3-C4-C5	6.21	131.71	128.60
1	XA	102	G	N3-C4-C5	-6.21	125.50	128.60
22	YA	142	G	C2-N3-C4	-6.21	108.80	111.90
22	RA	74	A	C5-N7-C8	-6.21	100.80	103.90
22	YA	1130	U	N3-C2-O2	-6.21	117.86	122.20
1	XA	413	G	O4'-C1'-N9	6.20	113.16	108.20
22	RA	809	G	C4-N9-C1'	6.20	134.56	126.50
22	RA	1049	C	C6-N1-C2	-6.20	117.82	120.30
22	YA	1201	C	N3-C2-O2	6.20	126.24	121.90
22	RA	2345	G	C4-C5-N7	-6.20	108.32	110.80
22	YA	671	C	C6-N1-C2	-6.20	117.82	120.30
53	QV	32	C	N1-C2-O2	6.19	122.61	118.90
22	RA	28	A	C4-C5-C6	6.18	120.09	117.00
22	YA	1675	C	N1-C2-O2	-6.18	115.19	118.90
22	YA	1906	G	N1-C6-O6	6.18	123.61	119.90
1	XA	1501	C	C6-N1-C2	6.18	122.77	120.30
22	YA	446	G	N9-C4-C5	-6.18	102.93	105.40
1	XA	1406	U	N3-C2-O2	-6.18	117.88	122.20
22	YA	397	G	C2-N3-C4	-6.17	108.81	111.90
22	YA	729	G	C4-N9-C1'	6.17	134.52	126.50
23	YB	82	G	C5-C6-N1	-6.17	108.42	111.50
22	YA	679	C	N3-C4-C5	6.17	124.37	121.90
22	YA	2056	G	C4-C5-N7	6.17	113.27	110.80
26	YF	74	ARG	NE-CZ-NH1	6.17	123.38	120.30
1	QA	328	C	P-O3'-C3'	6.17	127.10	119.70
22	RA	2062	A	C2-N3-C4	6.17	113.68	110.60
22	RA	1792	G	C2-N3-C4	6.16	114.98	111.90
22	YA	270(X)	G	C8-N9-C4	-6.16	103.94	106.40
22	RA	1653	G	N3-C4-N9	6.16	129.70	126.00
22	YA	1021	A	C2-N3-C4	-6.16	107.52	110.60
22	RA	1890	A	C4-C5-C6	-6.16	113.92	117.00
22	YA	570	G	C6-N1-C2	6.16	128.79	125.10
22	YA	1427	A	P-O3'-C3'	6.16	127.09	119.70
22	RA	1982	C	C6-N1-C2	6.15	122.76	120.30
22	YA	774	A	N3-C4-C5	6.15	131.10	126.80
22	YA	2516	G	C5-C6-O6	-6.15	124.91	128.60
22	RA	776	G	C4-N9-C1'	6.15	134.49	126.50
1	XA	299	G	C5-C6-O6	6.15	132.29	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	1516	G	C5-C6-N1	-6.15	108.43	111.50
1	QA	444	C	C6-N1-C2	6.15	122.76	120.30
22	YA	537	C	C2-N1-C1'	6.15	125.56	118.80
22	YA	621	A	O4'-C1'-N9	6.14	113.11	108.20
22	RA	1142(A)	A	C2-N3-C4	-6.14	107.53	110.60
22	YA	556	G	N3-C4-N9	6.14	129.69	126.00
22	YA	2468	G	O4'-C1'-N9	6.14	113.11	108.20
54	QX	1	A	C2-N3-C4	-6.14	107.53	110.60
1	QA	1511	G	C5-C6-N1	-6.14	108.43	111.50
22	YA	1028	A	N1-C6-N6	-6.14	114.92	118.60
1	QA	119	A	P-O3'-C3'	6.14	127.07	119.70
22	RA	570	G	N3-C4-C5	-6.14	125.53	128.60
22	YA	2558	C	C6-N1-C2	6.14	122.75	120.30
22	RA	601	C	C6-N1-C2	-6.14	117.84	120.30
22	YA	1764	G	N1-C6-O6	-6.14	116.22	119.90
22	YA	554	U	O5'-P-OP1	-6.13	100.18	105.70
22	RA	271(B)	G	P-O3'-C3'	6.13	127.06	119.70
22	RA	2777	G	N1-C6-O6	6.13	123.58	119.90
1	XA	956	U	C6-N1-C2	-6.13	117.32	121.00
1	XA	299	G	C4-C5-N7	-6.13	108.35	110.80
22	YA	792	G	N9-C4-C5	6.13	107.85	105.40
22	YA	788	A	N1-C6-N6	6.13	122.28	118.60
53	QV	32	C	N3-C2-O2	-6.12	117.61	121.90
22	YA	944	G	C4-N9-C1'	6.12	134.46	126.50
23	YB	25	A	C8-N9-C4	-6.12	103.35	105.80
22	RA	915	C	C6-N1-C2	-6.12	117.85	120.30
1	XA	1114	C	C6-N1-C2	-6.12	117.85	120.30
22	RA	1762	A	N9-C4-C5	6.12	108.25	105.80
22	YA	265	A	N1-C6-N6	-6.12	114.93	118.60
22	YA	298	G	C6-C5-N7	6.12	134.07	130.40
22	YA	1763	G	O5'-P-OP2	-6.12	100.20	105.70
22	YA	1834	U	N3-C2-O2	-6.11	117.92	122.20
53	XV	17	C	C6-N1-C1'	-6.11	113.46	120.80
22	RA	848	G	C4-N9-C1'	6.11	134.44	126.50
22	RA	1653	G	P-O3'-C3'	6.11	127.03	119.70
22	YA	805	G	C4-N9-C1'	6.11	134.44	126.50
22	YA	2383	G	C4-N9-C1'	6.11	134.44	126.50
22	YA	2725	A	C8-N9-C4	-6.11	103.36	105.80
1	XA	1481	U	C6-N1-C2	-6.10	117.34	121.00
53	XV	17	C	N3-C2-O2	-6.10	117.63	121.90
22	RA	2726	U	C2-N1-C1'	6.10	125.02	117.70
22	YA	2544	G	C6-C5-N7	-6.10	126.74	130.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	QV	25	C	N3-C4-C5	-6.10	119.46	121.90
22	RA	2581	G	C8-N9-C4	-6.09	103.96	106.40
22	YA	1437	C	C6-N1-C2	-6.09	117.86	120.30
53	XV	71	C	O5'-P-OP1	-6.09	100.22	105.70
22	RA	2499	C	N3-C2-O2	-6.09	117.64	121.90
22	YA	912	C	N1-C2-O2	6.09	122.55	118.90
22	YA	676	A	C4-C5-N7	6.08	113.74	110.70
22	YA	856	C	N1-C2-O2	6.08	122.55	118.90
22	YA	917	A	N1-C2-N3	6.08	132.34	129.30
1	QA	1473	A	C8-N9-C4	6.08	108.23	105.80
22	YA	2441	C	C6-N1-C2	6.08	122.73	120.30
22	YA	2518	A	C5-N7-C8	-6.08	100.86	103.90
1	XA	687	A	P-O3'-C3'	6.07	126.99	119.70
1	XA	518	C	N3-C2-O2	-6.07	117.65	121.90
22	YA	856	C	C5-C6-N1	6.07	124.03	121.00
22	YA	517	C	C6-N1-C2	-6.07	117.87	120.30
22	RA	2035	G	N3-C4-N9	-6.07	122.36	126.00
22	YA	537	C	N1-C2-O2	6.07	122.54	118.90
22	RA	2722	G	C8-N9-C1'	-6.07	119.11	127.00
22	YA	74	A	O4'-C1'-N9	-6.07	103.35	108.20
22	YA	2471	C	C6-N1-C2	-6.07	117.87	120.30
22	RA	809	G	N3-C4-C5	-6.06	125.57	128.60
22	YA	527	C	N1-C2-O2	6.06	122.54	118.90
22	YA	1012	U	OP2-P-O3'	6.06	118.53	105.20
22	YA	2321	G	N1-C6-O6	-6.06	116.27	119.90
22	YA	2429	G	OP2-P-O3'	6.05	118.52	105.20
1	XA	131	C	N1-C2-O2	6.05	122.53	118.90
22	YA	576	U	N1-C2-N3	-6.05	111.27	114.90
22	YA	1528	A	N7-C8-N9	6.05	116.83	113.80
22	YA	1653	G	P-O3'-C3'	6.05	126.96	119.70
1	XA	326	G	C5-C6-N1	-6.05	108.48	111.50
22	RA	743	G	C8-N9-C4	6.05	108.82	106.40
1	XA	1301	U	C6-N1-C1'	-6.05	112.73	121.20
22	YA	912	C	C6-N1-C2	-6.05	117.88	120.30
1	QA	243	A	P-O3'-C3'	6.04	126.95	119.70
22	RA	537	C	C5-C6-N1	6.04	124.02	121.00
22	RA	1204	A	C2-N3-C4	-6.04	107.58	110.60
22	RA	2251	G	N3-C4-N9	6.04	129.63	126.00
1	XA	1145	C	P-O3'-C3'	6.04	126.95	119.70
22	RA	1890	A	C8-N9-C4	6.04	108.22	105.80
22	YA	1247	A	N7-C8-N9	-6.04	110.78	113.80
22	YA	1328	G	N1-C2-N3	6.04	127.52	123.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	1686	C	C5-C6-N1	6.03	124.02	121.00
22	RA	798	G	N1-C6-O6	6.03	123.52	119.90
22	RA	2275	C	C5-C6-N1	-6.03	117.98	121.00
1	QA	754	C	N3-C2-O2	-6.03	117.68	121.90
1	QA	685	G	C4-N9-C1'	-6.02	118.67	126.50
1	QA	754	C	C2-N1-C1'	6.02	125.43	118.80
33	RQ	79	LEU	CA-CB-CG	6.02	129.16	115.30
22	YA	2371	G	C5-C6-N1	-6.02	108.49	111.50
22	RA	2518	A	N1-C6-N6	6.02	122.21	118.60
22	YA	1204	A	N1-C2-N3	6.02	132.31	129.30
23	RB	83	G	C4-C5-C6	6.02	122.41	118.80
22	YA	977	G	N3-C4-N9	6.02	129.61	126.00
22	YA	2776	A	P-O3'-C3'	6.02	126.92	119.70
22	YA	621	A	C5-C6-N1	-6.01	114.69	117.70
53	QV	71	C	N3-C2-O2	-6.01	117.69	121.90
22	RA	2605	U	C6-N1-C2	-6.01	117.39	121.00
22	YA	2550	G	N1-C6-O6	6.01	123.51	119.90
22	RA	1947	C	C5-C6-N1	6.01	124.01	121.00
22	YA	1190	G	C4-C5-N7	6.01	113.20	110.80
22	RA	1795	C	N1-C2-O2	-6.01	115.29	118.90
22	YA	830	G	C8-N9-C4	-6.01	104.00	106.40
22	YA	1005	C	N3-C2-O2	-6.01	117.69	121.90
23	YB	81	G	C4-C5-N7	6.01	113.20	110.80
53	XV	17	C	C5-C6-N1	6.01	124.00	121.00
22	RA	962	G	C8-N9-C4	-6.00	104.00	106.40
27	RG	34	LEU	CA-CB-CG	6.00	129.10	115.30
1	XA	1053	G	C4-N9-C1'	-6.00	118.70	126.50
22	YA	2413	G	N3-C4-N9	-6.00	122.40	126.00
1	QA	1285	A	P-O3'-C3'	6.00	126.90	119.70
1	QA	1498	U	P-O3'-C3'	6.00	126.90	119.70
1	XA	633	G	N1-C6-O6	6.00	123.50	119.90
22	YA	88	G	N3-C4-C5	-6.00	125.60	128.60
1	QA	797	C	C5-C6-N1	6.00	124.00	121.00
22	RA	1819	A	C2-N3-C4	-6.00	107.60	110.60
22	YA	2392	A	C5-N7-C8	-5.99	100.90	103.90
22	RA	974(A)	C	P-O3'-C3'	5.99	126.89	119.70
22	YA	273(F)	C	N1-C2-O2	5.99	122.49	118.90
22	RA	2585	U	C2-N1-C1'	5.99	124.89	117.70
1	QA	587	G	C6-C5-N7	-5.99	126.81	130.40
22	YA	1835	G	C8-N9-C4	-5.99	104.00	106.40
22	RA	343	C	N1-C2-O2	5.99	122.49	118.90
1	XA	1385	G	N1-C6-O6	5.99	123.49	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	1342	A	O5'-P-OP1	-5.98	100.31	105.70
22	YA	130	C	C6-N1-C2	5.98	122.69	120.30
22	YA	567	A	O5'-P-OP2	-5.98	100.32	105.70
1	XA	320	C	C6-N1-C2	5.98	122.69	120.30
22	YA	1493	C	C5-C6-N1	-5.98	118.01	121.00
53	QV	30	G	N1-C6-O6	5.98	123.49	119.90
22	RA	2444	G	O5'-P-OP2	-5.97	100.32	105.70
23	RB	44	G	N3-C4-N9	-5.97	122.42	126.00
1	XA	1506	U	N3-C2-O2	5.97	126.38	122.20
22	YA	789	A	N1-C6-N6	-5.97	115.02	118.60
22	YA	793	A	N1-C6-N6	5.97	122.18	118.60
22	RA	966	G	O5'-P-OP2	-5.97	100.33	105.70
22	RA	1792	G	C5-C6-N1	5.97	114.48	111.50
22	YA	1313	U	C2-N1-C1'	5.97	124.86	117.70
1	XA	511	C	C5-C6-N1	-5.97	118.02	121.00
53	XV	32	C	N3-C4-C5	-5.96	119.51	121.90
22	RA	141	A	N7-C8-N9	5.96	116.78	113.80
54	QX	6	G	C5-N7-C8	-5.96	101.32	104.30
22	YA	210	C	C6-N1-C2	5.96	122.69	120.30
22	YA	1313	U	N3-C2-O2	-5.96	118.03	122.20
22	RA	915	C	N3-C2-O2	-5.96	117.73	121.90
22	RA	803	U	C5-C4-O4	-5.96	122.33	125.90
22	RA	2506	U	C2-N1-C1'	5.96	124.85	117.70
22	YA	1685	C	C6-N1-C2	5.96	122.68	120.30
22	RA	389	G	N1-C6-O6	5.96	123.47	119.90
22	RA	577	G	O5'-P-OP1	-5.96	100.34	105.70
22	YA	621	A	C5-N7-C8	-5.96	100.92	103.90
22	YA	1434	A	C8-N9-C4	5.96	108.18	105.80
22	YA	1992	G	O4'-C1'-N9	-5.95	103.44	108.20
22	RA	2552	U	N1-C2-O2	-5.95	118.64	122.80
1	QA	1157	A	P-O3'-C3'	5.95	126.83	119.70
38	YV	35	LEU	CA-CB-CG	5.95	128.97	115.30
22	YA	1800	C	C6-N1-C2	5.94	122.68	120.30
22	YA	1313	U	O4'-C1'-N1	5.94	112.95	108.20
1	QA	117	G	N3-C4-N9	5.94	129.56	126.00
54	QX	6	G	C5-C6-O6	-5.94	125.04	128.60
22	YA	404	C	P-O3'-C3'	5.94	126.83	119.70
22	RA	406	G	C6-C5-N7	-5.93	126.84	130.40
1	QA	44	G	C8-N9-C1'	-5.93	119.29	127.00
22	RA	1496	A	C8-N9-C4	-5.93	103.43	105.80
53	QV	17	C	C6-N1-C1'	-5.93	113.69	120.80
22	YA	1425	G	N7-C8-N9	5.93	116.06	113.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	989	G	N3-C4-C5	-5.93	125.64	128.60
23	RB	22	U	C2-N1-C1'	5.93	124.81	117.70
22	RA	1606	G	C4-C5-N7	5.92	113.17	110.80
22	RA	2689	U	P-O3'-C3'	5.92	126.81	119.70
22	YA	917	A	C5-C6-N1	-5.92	114.74	117.70
22	RA	859	G	C8-N9-C4	-5.92	104.03	106.40
22	YA	760	G	C6-C5-N7	-5.92	126.85	130.40
1	QA	701	C	N1-C2-O2	5.92	122.45	118.90
54	XX	8	A	C8-N9-C4	-5.92	103.43	105.80
22	RA	2509	G	C4-N9-C1'	5.92	134.19	126.50
22	YA	845	G	N3-C4-C5	5.92	131.56	128.60
22	YA	1955	U	P-O3'-C3'	5.92	126.80	119.70
22	YA	2358	G	N9-C4-C5	5.92	107.77	105.40
22	YA	189	G	N3-C4-N9	5.91	129.55	126.00
22	YA	2700	C	C5-C6-N1	-5.91	118.04	121.00
1	QA	1346	A	P-O3'-C3'	5.91	126.79	119.70
22	RA	180	G	O5'-P-OP1	-5.91	100.39	105.70
22	RA	1602	U	C6-N1-C2	-5.91	117.46	121.00
22	RA	2499	C	N1-C2-O2	5.90	122.44	118.90
22	YA	929	G	C5-C6-N1	-5.90	108.55	111.50
22	YA	1395	A	O4'-C1'-N9	5.90	112.92	108.20
22	YA	1612	C	C6-N1-C2	5.90	122.66	120.30
22	YA	285	C	C5-C6-N1	-5.90	118.05	121.00
22	YA	448	U	N3-C2-O2	-5.90	118.07	122.20
22	RA	2688	U	C5-C4-O4	5.90	129.44	125.90
22	YA	2025	C	C6-N1-C2	-5.90	117.94	120.30
1	XA	320	C	C2-N1-C1'	-5.90	112.31	118.80
22	YA	1968	G	C6-C5-N7	-5.90	126.86	130.40
22	YA	2830	G	C6-C5-N7	-5.90	126.86	130.40
22	RA	1624	G	N9-C4-C5	-5.89	103.04	105.40
22	YA	189	G	C4-C5-C6	5.89	122.34	118.80
22	RA	1204	A	N1-C2-N3	5.89	132.25	129.30
22	YA	2010	G	C5-C6-O6	-5.89	125.06	128.60
22	YA	2031	A	O4'-C1'-N9	5.89	112.91	108.20
22	RA	917	A	C2-N3-C4	-5.89	107.66	110.60
22	YA	1314	C	C2-N1-C1'	5.89	125.28	118.80
22	YA	2406	U	O4'-C1'-N1	-5.89	103.49	108.20
22	YA	2558	C	N3-C4-C5	5.89	124.25	121.90
22	RA	1450	C	C6-N1-C2	-5.89	117.94	120.30
22	RA	2590	A	C8-N9-C4	5.89	108.16	105.80
22	RA	695	G	C8-N9-C4	5.88	108.75	106.40
1	XA	789	U	N3-C4-C5	-5.88	111.07	114.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	1698	A	C2-N3-C4	-5.88	107.66	110.60
1	XA	1053	G	O4'-C1'-N9	5.88	112.91	108.20
22	YA	573	G	C4-C5-N7	5.88	113.15	110.80
22	YA	1383	C	C2-N1-C1'	5.88	125.27	118.80
22	YA	1386	C	N1-C2-O2	-5.88	115.37	118.90
22	RA	729	G	C8-N9-C4	-5.88	104.05	106.40
1	XA	1397	C	C2-N1-C1'	5.88	125.27	118.80
22	YA	1842	G	C2-N3-C4	-5.88	108.96	111.90
22	YA	102	G	P-O3'-C3'	5.88	126.75	119.70
22	RA	754	C	C6-N1-C2	5.88	122.65	120.30
1	XA	1455	G	C8-N9-C4	5.87	108.75	106.40
22	YA	326	G	N1-C6-O6	5.87	123.42	119.90
1	XA	833	U	C2-N1-C1'	-5.87	110.66	117.70
22	RA	385	C	C6-N1-C1'	-5.87	113.76	120.80
22	RA	2867	G	C8-N9-C4	5.87	108.75	106.40
22	YA	582	G	C6-C5-N7	-5.86	126.88	130.40
22	YA	2499	C	C5-C4-N4	-5.86	116.10	120.20
1	QA	1403	C	C6-N1-C2	-5.86	117.96	120.30
1	QA	666	G	C8-N9-C4	-5.86	104.06	106.40
22	YA	801	G	N3-C4-C5	-5.86	125.67	128.60
22	YA	1349	A	N1-C6-N6	5.86	122.11	118.60
22	YA	1776	G	O5'-P-OP2	5.85	117.72	110.70
22	YA	1210	A	N7-C8-N9	5.85	116.72	113.80
22	RA	828	U	N1-C2-N3	5.85	118.41	114.90
22	YA	1602	U	N3-C4-C5	-5.84	111.09	114.60
22	YA	2282	G	N3-C4-C5	-5.84	125.68	128.60
22	RA	2712	U	P-O3'-C3'	5.84	126.71	119.70
23	RB	44	G	C6-C5-N7	5.84	133.91	130.40
22	YA	944	G	C8-N9-C1'	-5.84	119.41	127.00
54	QX	6	G	N7-C8-N9	5.84	116.02	113.10
1	QA	777	A	O4'-C1'-N9	5.84	112.87	108.20
1	XA	1091	U	N3-C2-O2	-5.84	118.11	122.20
22	RA	741	G	C5-C6-O6	-5.83	125.10	128.60
23	RB	44	G	C8-N9-C1'	5.83	134.58	127.00
23	YB	94	C	C6-N1-C2	-5.83	117.97	120.30
22	YA	503	A	P-O3'-C3'	5.83	126.69	119.70
1	QA	718	G	N3-C4-C5	5.83	131.51	128.60
22	YA	1425	G	C5-C6-N1	-5.83	108.59	111.50
1	XA	1432	G	O5'-P-OP1	-5.83	100.46	105.70
22	YA	1653	G	N3-C4-C5	-5.83	125.69	128.60
1	QA	99	C	C6-N1-C2	-5.82	117.97	120.30
22	RA	2241	A	O5'-P-OP1	-5.82	100.46	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	974(A)	C	P-O3'-C3'	5.82	126.69	119.70
22	RA	1528	A	C8-N9-C4	-5.82	103.47	105.80
22	RA	2062	A	N1-C6-N6	-5.82	115.11	118.60
22	RA	2852	G	C6-C5-N7	-5.82	126.91	130.40
22	YA	512	G	C4-N9-C1'	-5.82	118.93	126.50
22	YA	1471	A	C8-N9-C4	-5.82	103.47	105.80
22	RA	1310	G	N1-C6-O6	5.82	123.39	119.90
22	YA	2310	A	C4-C5-C6	5.82	119.91	117.00
22	RA	1502	C	C2-N1-C1'	5.82	125.20	118.80
1	XA	117	G	C4-C5-N7	5.82	113.13	110.80
25	RE	63	LEU	CA-CB-CG	5.81	128.67	115.30
22	YA	2505	G	N1-C6-O6	5.81	123.39	119.90
22	RA	1694	C	P-O3'-C3'	5.81	126.68	119.70
22	YA	1773	A	N3-C4-C5	-5.81	122.73	126.80
22	RA	1319	G	N9-C4-C5	-5.81	103.08	105.40
22	YA	570	G	N3-C4-N9	-5.81	122.51	126.00
22	RA	2526	G	N3-C4-N9	-5.81	122.51	126.00
22	YA	729	G	C6-C5-N7	-5.81	126.91	130.40
22	RA	856	C	C5-C6-N1	5.81	123.90	121.00
1	XA	6	G	C6-C5-N7	-5.81	126.92	130.40
22	YA	450	G	C2-N3-C4	-5.81	109.00	111.90
22	YA	1614	A	C5-C6-N6	-5.81	119.05	123.70
22	RA	2251	G	N3-C4-C5	-5.81	125.70	128.60
22	RA	752	A	C8-N9-C4	-5.80	103.48	105.80
22	YA	382	G	C6-C5-N7	-5.80	126.92	130.40
1	QA	1336	C	N3-C2-O2	-5.79	117.84	121.90
22	RA	2401	U	C2-N1-C1'	5.79	124.65	117.70
1	XA	703	G	N3-C4-N9	5.79	129.47	126.00
22	RA	1672	C	C5-C6-N1	5.79	123.89	121.00
22	YA	2544	G	N1-C6-O6	5.78	123.37	119.90
53	XV	67	C	N1-C2-O2	5.78	122.37	118.90
22	YA	1929	G	C6-C5-N7	-5.78	126.94	130.40
1	XA	345	C	P-O3'-C3'	5.77	126.62	119.70
22	RA	2814	C	C5-C6-N1	-5.77	118.12	121.00
22	RA	1840	G	C4-C5-N7	5.77	113.11	110.80
54	XX	6	G	C6-C5-N7	-5.77	126.94	130.40
22	YA	18	C	C6-N1-C2	-5.76	118.00	120.30
22	RA	395	U	C2-N1-C1'	-5.76	110.79	117.70
22	RA	1672	C	C2-N3-C4	5.75	122.78	119.90
1	XA	775	G	C6-C5-N7	-5.75	126.95	130.40
22	YA	1193	G	N3-C4-N9	-5.75	122.55	126.00
22	YA	2033	A	N1-C6-N6	-5.75	115.15	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	2550	G	C5-C6-O6	-5.75	125.15	128.60
22	RA	1695	G	C6-C5-N7	-5.75	126.95	130.40
22	YA	2542	A	C8-N9-C4	5.75	108.10	105.80
22	YA	772	C	O5'-P-OP2	-5.75	100.53	105.70
22	YA	1686	C	C6-N1-C2	-5.75	118.00	120.30
22	RA	74	A	C4-C5-C6	5.75	119.87	117.00
23	YB	66	A	P-O3'-C3'	5.75	126.60	119.70
22	RA	848	G	N3-C4-N9	5.75	129.45	126.00
22	RA	2722	G	C6-C5-N7	-5.75	126.95	130.40
22	YA	2008	C	O5'-P-OP2	-5.75	100.53	105.70
22	RA	227	A	P-O3'-C3'	5.75	126.59	119.70
22	RA	688	U	C5-C6-N1	5.74	125.57	122.70
22	RA	688	U	N3-C4-O4	5.74	123.42	119.40
22	RA	450	G	C8-N9-C4	-5.74	104.10	106.40
1	XA	229	U	C5-C6-N1	5.74	125.57	122.70
22	RA	2043	C	N1-C2-O2	5.74	122.34	118.90
22	RA	1902	C	N3-C4-C5	5.73	124.19	121.90
33	YQ	82	ARG	N-CA-C	5.73	126.47	111.00
1	QA	1302	U	N3-C2-O2	-5.73	118.19	122.20
22	YA	1386	C	C6-N1-C1'	5.73	127.67	120.80
22	YA	2062	A	N1-C6-N6	5.73	122.04	118.60
22	YA	2500	U	N3-C2-O2	-5.73	118.19	122.20
22	YA	2713	A	N7-C8-N9	5.73	116.66	113.80
22	YA	2856	C	C6-N1-C2	-5.73	118.01	120.30
22	YA	1698	A	C5-C6-N1	-5.72	114.84	117.70
22	YA	2498	C	C6-N1-C2	-5.72	118.01	120.30
22	RA	2346	A	C2-N3-C4	-5.72	107.74	110.60
22	RA	2776	A	P-O3'-C3'	5.72	126.57	119.70
22	RA	1627	G	C6-C5-N7	-5.72	126.97	130.40
1	XA	558	G	C4-C5-N7	5.72	113.09	110.80
22	RA	1684	C	C6-N1-C2	-5.72	118.01	120.30
22	YA	1022	G	N1-C6-O6	-5.71	116.47	119.90
22	YA	2591	C	C6-N1-C2	-5.71	118.01	120.30
1	QA	266	G	P-O3'-C3'	5.71	126.56	119.70
22	RA	2520	C	C6-N1-C2	5.71	122.58	120.30
22	RA	227	A	C8-N9-C4	-5.71	103.52	105.80
1	QA	932	C	C6-N1-C1'	-5.71	113.95	120.80
22	RA	1781	C	N3-C2-O2	-5.71	117.90	121.90
22	RA	2584	U	N3-C2-O2	-5.71	118.20	122.20
22	YA	1987	G	N3-C4-C5	-5.71	125.75	128.60
22	YA	446	G	C8-N9-C1'	-5.71	119.58	127.00
1	QA	117	G	C5-C6-O6	-5.71	125.18	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	243	A	P-O3'-C3'	5.70	126.54	119.70
1	XA	1524	C	N1-C2-O2	-5.70	115.48	118.90
22	YA	2597	G	C5-C6-N1	-5.70	108.65	111.50
1	XA	328	C	P-O3'-C3'	5.70	126.54	119.70
1	XA	544	G	C6-C5-N7	-5.70	126.98	130.40
22	YA	1437	C	C5-C6-N1	5.70	123.85	121.00
22	YA	1332	G	N3-C4-N9	5.69	129.41	126.00
22	RA	1789	A	C8-N9-C4	-5.69	103.52	105.80
22	YA	298	G	C8-N9-C1'	5.69	134.40	127.00
22	YA	1905	C	C5-C6-N1	5.69	123.84	121.00
22	YA	2046	G	C4-N9-C1'	5.69	133.90	126.50
1	QA	1200	C	N3-C2-O2	-5.69	117.92	121.90
22	YA	189	G	C4-C5-N7	5.68	113.07	110.80
22	RA	1501	C	C6-N1-C2	-5.68	118.03	120.30
1	XA	703	G	C4-N9-C1'	5.68	133.89	126.50
32	YP	59	LEU	CA-CB-CG	5.68	128.37	115.30
22	RA	1967	C	C6-N1-C2	5.68	122.57	120.30
22	RA	2401	U	C6-N1-C2	-5.68	117.59	121.00
22	RA	2420	C	O5'-P-OP1	-5.68	100.59	105.70
22	YA	298	G	N3-C4-N9	-5.68	122.59	126.00
53	XV	42	G	C6-C5-N7	-5.68	126.99	130.40
22	RA	810	U	N1-C2-N3	5.67	118.30	114.90
22	YA	676	A	O4'-C1'-N9	5.67	112.74	108.20
22	YA	1729	A	O4'-C1'-N9	5.67	112.74	108.20
22	YA	1568	G	N3-C4-N9	-5.67	122.60	126.00
22	RA	1992	G	N3-C4-C5	-5.67	125.77	128.60
22	YA	2712	U	O4'-C1'-N1	5.67	112.74	108.20
22	YA	2053	G	N3-C4-C5	5.67	131.43	128.60
1	XA	1504	G	O5'-P-OP1	-5.67	100.60	105.70
22	YA	88	G	C4-N9-C1'	5.67	133.87	126.50
1	XA	792	A	C3'-C2'-C1'	-5.66	96.97	101.50
22	YA	138	G	O4'-C1'-N9	5.66	112.73	108.20
22	YA	2310	A	N1-C6-N6	5.66	122.00	118.60
22	RA	1012	U	P-O3'-C3'	5.66	126.49	119.70
43	Y0	44	ARG	NE-CZ-NH1	-5.66	117.47	120.30
22	YA	1942	C	C2-N1-C1'	5.65	125.02	118.80
22	RA	776	G	C8-N9-C1'	-5.65	119.65	127.00
22	YA	2760	C	C6-N1-C2	5.65	122.56	120.30
22	YA	2053	G	N1-C6-O6	5.65	123.29	119.90
22	YA	2234	G	C5-C6-O6	-5.65	125.21	128.60
22	YA	2513	G	C5-C6-N1	-5.65	108.68	111.50
22	YA	251	A	O5'-P-OP1	-5.65	100.62	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	1214	A	C8-N9-C4	5.65	108.06	105.80
22	YA	1797	C	O5'-P-OP1	-5.65	100.62	105.70
1	QA	703	G	N3-C4-C5	-5.65	125.78	128.60
22	YA	621	A	C8-N9-C4	-5.65	103.54	105.80
22	RA	2544	G	C6-C5-N7	-5.64	127.01	130.40
1	XA	539	A	O5'-P-OP1	-5.64	100.62	105.70
22	YA	2689	U	P-O3'-C3'	5.64	126.47	119.70
22	RA	1786	A	N9-C1'-C2'	5.64	121.33	114.00
22	YA	676	A	C5-C6-N1	-5.64	114.88	117.70
22	YA	2595	G	N9-C4-C5	-5.64	103.14	105.40
22	YA	592	G	N3-C4-C5	-5.64	125.78	128.60
22	YA	1214	A	N1-C6-N6	-5.64	115.22	118.60
22	RA	496	G	C8-N9-C1'	-5.63	119.68	127.00
22	RA	2401	U	N1-C2-O2	5.63	126.74	122.80
22	YA	1311	G	N3-C4-N9	5.63	129.38	126.00
22	RA	860	U	N1-C2-N3	5.63	118.28	114.90
22	YA	1136	G	N1-C6-O6	5.63	123.28	119.90
22	RA	1379	A	C4-C5-C6	-5.63	114.19	117.00
1	XA	328	C	N3-C2-O2	-5.63	117.96	121.90
1	XA	1084	G	N3-C4-C5	-5.63	125.78	128.60
22	YA	729	G	C8-N9-C1'	-5.63	119.68	127.00
22	YA	1770	G	C2-N3-C4	-5.63	109.08	111.90
22	YA	827	U	O4'-C1'-N1	5.63	112.70	108.20
22	RA	2306	C	N1-C2-O2	5.63	122.28	118.90
22	RA	271(C)	U	P-O3'-C3'	5.63	126.45	119.70
22	RA	1534	G	N3-C4-C5	-5.62	125.79	128.60
22	YA	621	A	N1-C6-N6	5.62	121.97	118.60
22	YA	1559	G	N3-C4-C5	5.62	131.41	128.60
1	QA	44	G	C6-C5-N7	-5.62	127.03	130.40
1	XA	731	G	N3-C4-C5	5.62	131.41	128.60
1	XA	775	G	N1-C6-O6	5.62	123.27	119.90
22	YA	99	U	P-O3'-C3'	5.62	126.45	119.70
53	XV	4	G	N9-C1'-C2'	-5.62	105.82	112.00
22	YA	141	A	N7-C8-N9	5.62	116.61	113.80
22	YA	448	U	OP1-P-O3'	5.62	117.56	105.20
22	RA	2311	A	C8-N9-C4	-5.62	103.55	105.80
22	YA	1187	G	C4-C5-C6	5.62	122.17	118.80
24	YD	229	VAL	CB-CA-C	-5.61	100.73	111.40
1	QA	252	U	N3-C2-O2	-5.61	118.27	122.20
1	QA	1200	C	OP2-P-O3'	5.61	117.54	105.20
22	RA	1786	A	O4'-C1'-N9	5.61	112.69	108.20
22	YA	842	G	N1-C6-O6	5.61	123.26	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	1698	A	C6-C5-N7	-5.61	128.38	132.30
22	YA	2700	C	C2-N3-C4	-5.61	117.10	119.90
22	YA	848	G	C4-C5-N7	5.60	113.04	110.80
22	YA	2234	G	C4-C5-N7	5.60	113.04	110.80
1	QA	611	A	C8-N9-C4	5.60	108.04	105.80
22	RA	2642	G	C5-C6-O6	-5.59	125.25	128.60
22	YA	679	C	C6-N1-C1'	-5.59	114.09	120.80
22	YA	1558	A	P-O3'-C3'	5.59	126.41	119.70
22	YA	2731	G	O5'-P-OP1	-5.59	100.67	105.70
22	YA	801	G	C8-N9-C4	-5.59	104.16	106.40
22	RA	2555	U	N1-C2-O2	-5.59	118.89	122.80
1	XA	1159	U	O4'-C1'-N1	5.59	112.67	108.20
22	YA	774	A	N3-C4-N9	-5.59	122.93	127.40
22	YA	2071	A	N1-C6-N6	5.59	121.95	118.60
22	YA	1128	A	C8-N9-C4	-5.58	103.57	105.80
1	QA	753	A	P-O3'-C3'	5.58	126.40	119.70
32	YP	25	SER	N-CA-C	-5.58	95.93	111.00
22	RA	1790	C	O5'-P-OP1	-5.58	100.68	105.70
1	XA	1235	U	C5-C6-N1	5.58	125.49	122.70
22	YA	2686	G	N3-C4-N9	5.58	129.35	126.00
22	RA	1771	C	C5-C6-N1	-5.58	118.21	121.00
1	XA	652	U	N1-C2-O2	5.58	126.70	122.80
22	YA	2028	U	N3-C4-O4	5.58	123.30	119.40
1	QA	1435	G	N3-C4-C5	5.57	131.39	128.60
1	XA	115	G	P-O3'-C3'	5.57	126.39	119.70
22	YA	845	G	C8-N9-C4	5.57	108.63	106.40
22	YA	2612	C	N3-C2-O2	-5.57	118.00	121.90
22	RA	2430	A	C2-N3-C4	-5.57	107.81	110.60
22	YA	1782	C	N3-C4-N4	5.57	121.90	118.00
22	RA	300	A	N1-C6-N6	5.57	121.94	118.60
22	RA	1882	C	C5-C6-N1	5.57	123.79	121.00
1	XA	122	G	C8-N9-C4	5.57	108.63	106.40
22	YA	1216	G	C5-C6-N1	-5.57	108.72	111.50
22	YA	1930	G	C4-N9-C1'	-5.57	119.26	126.50
22	YA	2032	G	C4-C5-N7	5.57	113.03	110.80
22	RA	373	U	C2-N1-C1'	5.57	124.38	117.70
22	YA	141	A	C8-N9-C4	-5.57	103.57	105.80
53	XV	52	G	C4-C5-N7	5.57	113.03	110.80
22	RA	2573	C	C6-N1-C2	-5.57	118.07	120.30
22	YA	1942	C	C5-C6-N1	5.57	123.78	121.00
1	QA	1302	U	C6-N1-C1'	-5.57	113.41	121.20
22	RA	1548	C	C6-N1-C2	5.57	122.53	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	828	U	C6-N1-C2	-5.56	117.66	121.00
1	XA	893	C	C6-N1-C2	5.56	122.53	120.30
22	YA	1776	G	C4-N9-C1'	5.56	133.73	126.50
22	RA	2456	C	N3-C4-C5	-5.56	119.68	121.90
23	RB	83	G	C6-C5-N7	-5.56	127.06	130.40
22	RA	2035	G	N3-C4-C5	5.56	131.38	128.60
22	RA	2581	G	N1-C6-O6	-5.55	116.57	119.90
22	YA	637	A	P-O3'-C3'	5.55	126.36	119.70
22	YA	966	G	O5'-P-OP2	-5.55	100.70	105.70
22	YA	2418	A	N1-C6-N6	5.55	121.93	118.60
23	YB	16	G	N1-C6-O6	5.55	123.23	119.90
22	RA	1696	G	N1-C6-O6	-5.55	116.57	119.90
23	RB	83	G	C4-N9-C1'	5.55	133.72	126.50
22	YA	1568	G	C6-C5-N7	5.55	133.73	130.40
53	QV	76	A	C8-N9-C4	5.55	108.02	105.80
22	YA	2468	G	C4-N9-C1'	5.55	133.72	126.50
22	YA	792	G	C4-C5-N7	-5.55	108.58	110.80
22	YA	1938	A	O4'-C1'-N9	5.55	112.64	108.20
22	RA	1313	U	C2-N1-C1'	5.55	124.36	117.70
22	YA	1269	A	OP2-P-O3'	5.55	117.40	105.20
22	RA	1506	C	C2-N1-C1'	5.54	124.90	118.80
22	YA	1807	G	N9-C1'-C2'	-5.54	105.90	112.00
22	RA	2002	G	N3-C4-N9	5.54	129.33	126.00
22	YA	69	C	N3-C2-O2	-5.54	118.02	121.90
22	YA	296	C	C6-N1-C2	5.54	122.52	120.30
22	YA	793	A	C4-C5-N7	5.54	113.47	110.70
22	YA	1665	A	N1-C6-N6	5.54	121.93	118.60
22	RA	972	G	N1-C6-O6	-5.54	116.58	119.90
22	RA	1899	G	N3-C2-N2	5.54	123.78	119.90
22	RA	693	C	C5-C6-N1	-5.54	118.23	121.00
22	YA	1070	A	O4'-C1'-N9	5.54	112.63	108.20
22	RA	2573	C	C5-C6-N1	5.54	123.77	121.00
1	XA	1094	G	P-O3'-C3'	5.54	126.35	119.70
22	YA	1613	G	N3-C4-N9	5.54	129.32	126.00
22	RA	2583	G	N3-C4-N9	5.54	129.32	126.00
22	RA	1771	C	C2-N3-C4	-5.54	117.13	119.90
22	YA	2711	A	C2-N3-C4	-5.54	107.83	110.60
23	YB	94	C	C5-C6-N1	5.54	123.77	121.00
22	RA	1558	A	P-O3'-C3'	5.53	126.34	119.70
22	RA	2712(A)	A	N9-C4-C5	5.53	108.01	105.80
22	RA	1929	G	C5-N7-C8	-5.53	101.53	104.30
1	XA	1094	G	OP2-P-O3'	5.53	117.37	105.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	603	U	C6-N1-C2	-5.53	117.68	121.00
22	RA	685	A	N1-C6-N6	-5.53	115.28	118.60
22	YA	1333	C	C5-C6-N1	5.53	123.77	121.00
22	YA	2310	A	C6-C5-N7	-5.53	128.43	132.30
1	XA	1195	C	C5-C6-N1	5.53	123.77	121.00
1	QA	894	G	N3-C4-C5	5.53	131.36	128.60
22	YA	2032	G	C5-N7-C8	-5.53	101.54	104.30
22	YA	2299	G	N1-C6-O6	5.52	123.21	119.90
22	RA	2832	U	P-O3'-C3'	5.52	126.33	119.70
22	YA	146	G	C5-C6-N1	-5.52	108.74	111.50
22	YA	2702	U	O5'-P-OP2	-5.52	100.73	105.70
23	YB	25	A	N7-C8-N9	5.52	116.56	113.80
22	RA	2581	G	N3-C4-C5	-5.52	125.84	128.60
22	YA	1542	G	N3-C4-C5	-5.52	125.84	128.60
22	YA	146	G	N1-C6-O6	5.52	123.21	119.90
1	QA	691	G	N1-C6-O6	5.51	123.21	119.90
22	YA	1506	C	C5-C6-N1	5.51	123.76	121.00
22	YA	1678	G	C5-N7-C8	-5.51	101.55	104.30
22	YA	326	G	C5-C6-N1	-5.50	108.75	111.50
22	YA	2453	A	C2-N3-C4	5.50	113.35	110.60
22	YA	796	C	C6-N1-C2	5.50	122.50	120.30
22	YA	945	A	P-O3'-C3'	5.50	126.30	119.70
22	YA	2484	G	C6-C5-N7	-5.50	127.10	130.40
22	YA	2595	G	N3-C4-N9	5.50	129.30	126.00
22	RA	1557	C	C6-N1-C2	5.50	122.50	120.30
29	RI	77	LEU	CA-CB-CG	5.50	127.94	115.30
22	YA	537	C	C5-C6-N1	5.50	123.75	121.00
22	RA	2060	A	P-O3'-C3'	5.49	126.29	119.70
22	RA	2593	U	OP2-P-O3'	5.49	117.29	105.20
22	YA	239	U	C5-C6-N1	-5.49	119.95	122.70
22	YA	991	C	C6-N1-C2	5.49	122.50	120.30
22	YA	1528	A	C8-N9-C4	-5.49	103.60	105.80
22	YA	2681	C	N3-C2-O2	-5.49	118.05	121.90
22	RA	965	C	C6-N1-C2	-5.49	118.10	120.30
22	RA	2440	C	C2-N1-C1'	-5.49	112.76	118.80
22	YA	2207	C	C6-N1-C2	-5.49	118.10	120.30
1	QA	291	C	C6-N1-C2	-5.49	118.10	120.30
1	QA	690	G	O4'-C1'-N9	5.49	112.59	108.20
1	QA	894	G	C8-N9-C1'	5.49	134.14	127.00
22	RA	1684	C	N3-C4-C5	-5.49	119.70	121.90
22	RA	2448	A	N9-C4-C5	5.49	108.00	105.80
25	RE	27	LEU	CA-CB-CG	5.49	127.93	115.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	1773	A	C8-N9-C4	-5.49	103.61	105.80
1	XA	793	U	C6-N1-C2	-5.49	117.71	121.00
22	RA	1623	G	N1-C6-O6	5.49	123.19	119.90
22	RA	1904	G	C8-N9-C4	5.49	108.59	106.40
1	XA	775	G	N9-C4-C5	-5.49	103.21	105.40
22	YA	1838	C	C6-N1-C2	5.49	122.49	120.30
22	RA	537	C	C6-N1-C2	-5.48	118.11	120.30
22	RA	1310	G	N3-C4-N9	5.48	129.29	126.00
1	XA	775	G	C4-C5-N7	5.48	112.99	110.80
22	YA	530	G	N3-C4-C5	5.48	131.34	128.60
22	YA	2713	A	C5-N7-C8	-5.48	101.16	103.90
22	RA	622	G	N3-C4-C5	5.48	131.34	128.60
22	YA	189	G	N9-C4-C5	-5.48	103.21	105.40
22	RA	1929	G	N7-C8-N9	5.48	115.84	113.10
22	RA	140	A	O4'-C1'-N9	5.48	112.58	108.20
22	YA	974(A)	C	N3-C2-O2	-5.47	118.07	121.90
22	YA	1528	A	O4'-C1'-N9	5.47	112.58	108.20
22	RA	227	A	C4-C5-C6	5.47	119.74	117.00
22	YA	450	G	N1-C2-N3	5.47	127.18	123.90
22	YA	784	A	N1-C6-N6	-5.47	115.32	118.60
22	YA	1214	A	C5-N7-C8	5.47	106.64	103.90
1	QA	1027	C	P-O3'-C3'	5.47	126.26	119.70
22	RA	553	U	N1-C2-N3	5.47	118.18	114.90
22	RA	1377	G	C8-N9-C4	-5.47	104.21	106.40
22	RA	1525	G	N9-C4-C5	-5.47	103.21	105.40
22	YA	99	U	OP2-P-O3'	5.47	117.23	105.20
22	YA	194	G	C4-N9-C1'	-5.47	119.39	126.50
22	YA	1012	U	P-O3'-C3'	5.46	126.26	119.70
22	RA	948	G	N3-C4-C5	5.46	131.33	128.60
22	YA	1343	G	C4-N9-C1'	5.46	133.60	126.50
22	YA	483	A	C6-C5-N7	-5.46	128.48	132.30
22	YA	1786	A	N9-C4-C5	-5.46	103.62	105.80
22	YA	2318	G	C5-N7-C8	-5.46	101.57	104.30
22	YA	2447	G	OP1-P-O3'	5.46	117.20	105.20
54	XX	7	G	N3-C2-N2	-5.46	116.08	119.90
1	QA	703	G	C4-N9-C1'	5.46	133.59	126.50
22	RA	1698	A	N1-C6-N6	5.46	121.87	118.60
1	XA	487	A	N1-C2-N3	5.46	132.03	129.30
23	YB	49	C	C5-C6-N1	5.46	123.73	121.00
22	RA	2318	G	N7-C8-N9	5.45	115.83	113.10
22	YA	945	A	OP2-P-O3'	5.45	117.19	105.20
22	YA	2254	C	N1-C2-O2	-5.45	115.63	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	2846	G	C5-C6-N1	-5.45	108.77	111.50
22	RA	1215	G	N1-C6-O6	5.45	123.17	119.90
22	RA	1534	G	C2-N3-C4	5.45	114.62	111.90
1	QA	410	G	P-O3'-C3'	5.45	126.24	119.70
32	RP	88	LEU	CA-CB-CG	5.45	127.83	115.30
1	QA	330	C	N1-C2-O2	5.45	122.17	118.90
22	RA	2067	G	C5-C6-N1	-5.45	108.78	111.50
22	YA	2234	G	N3-C4-C5	5.45	131.32	128.60
1	QA	934	C	P-O3'-C3'	5.44	126.23	119.70
22	YA	1968	G	C4-C5-N7	5.44	112.98	110.80
1	XA	1323	G	N1-C6-O6	5.44	123.17	119.90
22	YA	1773	A	C6-N1-C2	-5.44	115.33	118.60
22	RA	1757	U	N3-C2-O2	-5.44	118.39	122.20
22	YA	2383	G	C8-N9-C1'	-5.44	119.93	127.00
22	YA	2487	G	C4-C5-C6	5.44	122.06	118.80
22	RA	141	A	O4'-C1'-N9	5.44	112.55	108.20
22	RA	467	G	O5'-P-OP2	-5.44	100.81	105.70
22	RA	2456	C	C6-N1-C2	-5.44	118.12	120.30
22	YA	783	A	N3-C4-C5	5.44	130.61	126.80
22	YA	1284	A	N1-C6-N6	5.44	121.86	118.60
22	YA	1814	G	C4-C5-C6	5.44	122.06	118.80
23	YB	11	C	C6-N1-C2	-5.44	118.13	120.30
1	QA	1157	A	O4'-C1'-N9	5.43	112.55	108.20
22	YA	1987	G	N3-C4-N9	5.43	129.26	126.00
1	QA	410	G	N9-C1'-C2'	-5.43	106.03	112.00
22	RA	450	G	C6-C5-N7	-5.43	127.14	130.40
1	XA	117	G	C6-C5-N7	-5.43	127.14	130.40
22	RA	1608	A	N1-C6-N6	-5.43	115.34	118.60
22	YA	307	G	C4-C5-N7	5.43	112.97	110.80
1	QA	682	G	N1-C6-O6	5.43	123.16	119.90
22	RA	396	G	N1-C6-O6	5.43	123.16	119.90
22	RA	1024	G	C4-N9-C1'	5.43	133.56	126.50
22	YA	1957	C	C2-N3-C4	-5.43	117.19	119.90
22	YA	2439	A	N1-C6-N6	5.43	121.86	118.60
22	YA	2466	C	C6-N1-C2	5.43	122.47	120.30
22	YA	2518	A	C5-C6-N1	-5.43	114.99	117.70
1	QA	428	G	N3-C4-C5	5.42	131.31	128.60
22	RA	271(C)	U	OP2-P-O3'	5.42	117.13	105.20
22	YA	1243	G	C5-C6-N1	-5.42	108.79	111.50
22	YA	1624	G	N3-C4-C5	5.42	131.31	128.60
22	YA	2474	C	N1-C2-O2	5.42	122.15	118.90
22	RA	2782	G	N7-C8-N9	5.42	115.81	113.10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	517	C	C5-C6-N1	5.42	123.71	121.00
22	YA	2495	G	O5'-P-OP2	-5.42	100.82	105.70
22	RA	1781	C	N3-C4-N4	-5.42	114.21	118.00
22	YA	593	G	O5'-P-OP2	-5.42	100.83	105.70
1	QA	685	G	N3-C4-N9	-5.42	122.75	126.00
22	RA	688	U	C6-N1-C2	-5.42	117.75	121.00
22	YA	1880	C	C6-N1-C2	-5.42	118.13	120.30
22	RA	860	U	C6-N1-C2	-5.41	117.75	121.00
22	YA	2358	G	C8-N9-C4	-5.41	104.23	106.40
22	YA	2595	G	N1-C6-O6	5.41	123.15	119.90
1	XA	481	G	P-O3'-C3'	5.41	126.19	119.70
22	YA	27	G	N3-C2-N2	-5.41	116.11	119.90
22	YA	1835	G	C4-N9-C1'	5.41	133.53	126.50
22	YA	2441	C	C2-N1-C1'	-5.41	112.85	118.80
22	RA	2509	G	C8-N9-C1'	-5.41	119.97	127.00
22	RA	2814	C	C6-N1-C2	5.41	122.46	120.30
22	YA	945	A	C5-C6-N1	-5.41	115.00	117.70
22	RA	2261	C	N1-C2-O2	-5.40	115.66	118.90
1	XA	781	A	C5-C6-N1	5.40	120.40	117.70
22	YA	966	G	C8-N9-C4	5.40	108.56	106.40
22	YA	1976	U	N1-C2-N3	5.40	118.14	114.90
22	YA	2595	G	C4-C5-N7	5.40	112.96	110.80
22	YA	2867	G	P-O3'-C3'	5.40	126.18	119.70
1	XA	789	U	C4-C5-C6	5.40	122.94	119.70
22	YA	1240	U	C2-N1-C1'	5.39	124.17	117.70
22	RA	1931	U	C6-N1-C2	-5.39	117.76	121.00
22	RA	2391	G	O4'-C1'-N9	5.39	112.51	108.20
22	RA	2505	G	N3-C4-N9	5.39	129.24	126.00
22	YA	330	A	C2-N3-C4	-5.39	107.90	110.60
22	RA	2487	G	C6-C5-N7	-5.39	127.17	130.40
1	XA	1285	A	P-O3'-C3'	5.39	126.17	119.70
22	RA	1021	A	N7-C8-N9	5.39	116.49	113.80
1	XA	114	U	C5-C6-N1	-5.39	120.01	122.70
22	YA	788	A	N9-C4-C5	-5.39	103.64	105.80
22	YA	2439	A	C6-C5-N7	-5.39	128.53	132.30
22	YA	862	G	N1-C2-N3	5.38	127.13	123.90
22	YA	2499	C	N3-C4-N4	5.38	121.77	118.00
22	RA	1790	C	C6-N1-C1'	5.38	127.25	120.80
23	RB	24	G	P-O3'-C3'	5.38	126.16	119.70
22	YA	142	G	C8-N9-C1'	5.38	133.99	127.00
22	YA	1642	G	C5-C6-O6	-5.38	125.37	128.60
22	YA	2336	A	O4'-C1'-N9	-5.38	103.90	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	783	A	C6-C5-N7	-5.38	128.54	132.30
22	RA	1950	G	C8-N9-C1'	-5.38	120.01	127.00
22	YA	1391	U	N3-C2-O2	-5.37	118.44	122.20
22	RA	1332	G	C8-N9-C4	-5.37	104.25	106.40
22	RA	2318	G	C4-N9-C1'	5.37	133.48	126.50
1	XA	440	A	C8-N9-C4	-5.37	103.65	105.80
22	YA	2518	A	C6-C5-N7	-5.37	128.54	132.30
22	RA	1506	C	N1-C2-O2	5.36	122.12	118.90
22	YA	774	A	C5-N7-C8	-5.36	101.22	103.90
22	RA	1558	A	C2-N3-C4	-5.36	107.92	110.60
22	RA	1653	G	C4-N9-C1'	5.36	133.47	126.50
22	YA	1535	U	N1-C2-O2	5.36	126.55	122.80
53	XV	17	C	C6-N1-C2	-5.36	118.16	120.30
1	XA	1498	U	O4'-C1'-N1	-5.36	103.91	108.20
22	YA	1184	G	N3-C4-N9	5.36	129.21	126.00
22	RA	328	U	C5-C6-N1	-5.36	120.02	122.70
22	YA	621	A	C4-C5-C6	5.36	119.68	117.00
23	YB	117	G	C8-N9-C4	5.36	108.54	106.40
22	RA	450	G	N7-C8-N9	5.35	115.78	113.10
22	YA	1922	G	C8-N9-C4	5.35	108.54	106.40
22	RA	37	C	C6-N1-C2	-5.35	118.16	120.30
22	YA	489	G	C8-N9-C4	-5.35	104.26	106.40
22	YA	1228	G	N1-C6-O6	5.35	123.11	119.90
22	YA	1863	G	N3-C4-C5	5.35	131.28	128.60
22	YA	51	G	C5-C6-O6	5.35	131.81	128.60
22	YA	1377	G	C6-C5-N7	-5.35	127.19	130.40
22	RA	2401	U	C5-C6-N1	5.35	125.37	122.70
22	RA	1142	U	C6-N1-C1'	-5.34	113.72	121.20
22	YA	1256	G	C4-N9-C1'	5.34	133.44	126.50
1	QA	1053	G	O4'-C1'-N9	5.34	112.47	108.20
22	RA	1621	U	N1-C2-N3	5.34	118.10	114.90
22	RA	2392	A	C8-N9-C4	-5.34	103.66	105.80
22	YA	125	G	N1-C6-O6	-5.34	116.70	119.90
22	YA	1687	G	C6-C5-N7	-5.34	127.20	130.40
22	YA	2352	A	C8-N9-C4	-5.34	103.66	105.80
1	XA	1397	C	N3-C2-O2	-5.34	118.16	121.90
22	YA	676	A	C6-C5-N7	-5.34	128.56	132.30
22	YA	2713	A	C6-C5-N7	-5.33	128.57	132.30
1	QA	353	A	OP2-P-O3'	5.33	116.93	105.20
1	XA	1432	G	N7-C8-N9	5.33	115.77	113.10
22	YA	1535	U	C2-N1-C1'	5.33	124.10	117.70
22	YA	1544	C	C2-N1-C1'	5.33	124.66	118.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	11	G	N1-C6-O6	5.33	123.10	119.90
22	RA	452	G	C4-N9-C1'	5.33	133.43	126.50
1	XA	633	G	C6-C5-N7	-5.33	127.20	130.40
22	YA	1930	G	C6-C5-N7	5.33	133.60	130.40
22	YA	860	U	C5-C6-N1	-5.33	120.04	122.70
22	YA	1425	G	C6-C5-N7	-5.33	127.20	130.40
22	RA	509	C	C5-C6-N1	-5.33	118.34	121.00
22	YA	1824	G	C2-N3-C4	5.33	114.56	111.90
22	RA	382	G	C6-C5-N7	-5.32	127.21	130.40
22	RA	2755	C	C6-N1-C2	-5.32	118.17	120.30
22	YA	1916	A	C5-C6-N1	-5.32	115.04	117.70
22	RA	2036	C	C6-N1-C2	-5.32	118.17	120.30
1	XA	498	A	O4'-C1'-N9	5.32	112.46	108.20
1	QA	1397	C	C5-C6-N1	5.32	123.66	121.00
22	YA	857	C	C5-C6-N1	5.32	123.66	121.00
1	XA	792	A	P-O3'-C3'	5.32	126.08	119.70
22	YA	446	G	C4-N9-C1'	5.32	133.41	126.50
22	YA	473	G	C2-N3-C4	-5.32	109.24	111.90
22	RA	1974	C	C6-N1-C2	5.32	122.43	120.30
22	RA	2432	A	C2-N3-C4	-5.32	107.94	110.60
22	YA	1138	G	N3-C4-N9	5.32	129.19	126.00
22	YA	1667	G	N9-C4-C5	-5.32	103.27	105.40
22	YA	1471	A	C4-C5-C6	5.31	119.66	117.00
1	QA	1336	C	C2-N3-C4	5.31	122.56	119.90
22	YA	1966	A	C8-N9-C4	5.31	107.92	105.80
22	YA	2310	A	C5-C6-N1	-5.31	115.04	117.70
1	XA	576	G	C4-N9-C1'	5.31	133.40	126.50
1	QA	309	G	C5-C6-O6	-5.31	125.41	128.60
1	QA	1065	U	OP2-P-O3'	5.31	116.88	105.20
22	RA	1528	A	C5-N7-C8	-5.31	101.25	103.90
22	YA	945	A	C4-C5-N7	5.31	113.36	110.70
22	YA	1514	U	C5-C6-N1	5.31	125.35	122.70
22	RA	732	C	C6-N1-C2	5.31	122.42	120.30
22	YA	645	C	C5-C6-N1	5.31	123.65	121.00
22	YA	771	G	O5'-P-OP2	5.31	117.07	110.70
22	RA	139	G	N1-C6-O6	-5.31	116.72	119.90
22	RA	774	A	N3-C4-C5	5.31	130.51	126.80
22	RA	1220	A	O4'-C1'-N9	5.31	112.44	108.20
1	QA	31	G	P-O3'-C3'	5.30	126.07	119.70
1	QA	685	G	C8-N9-C4	5.30	108.52	106.40
22	RA	1078	U	P-O3'-C3'	5.30	126.06	119.70
22	YA	450	G	C5-C6-O6	5.30	131.78	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	780	G	C4-N9-C1'	5.30	133.40	126.50
53	QV	28	C	C6-N1-C2	-5.30	118.18	120.30
22	YA	860	U	C5-C4-O4	5.30	129.08	125.90
22	YA	1598	C	C5-C6-N1	5.30	123.65	121.00
22	RA	1653	G	N1-C6-O6	-5.30	116.72	119.90
22	RA	2772	C	C5-C4-N4	-5.30	116.49	120.20
22	RA	2468	G	C4-N9-C1'	5.30	133.39	126.50
22	YA	573	G	O4'-C1'-N9	-5.30	103.96	108.20
22	YA	2311	A	C5-N7-C8	-5.30	101.25	103.90
22	YA	2557	G	N1-C6-O6	-5.30	116.72	119.90
18	QR	31	LEU	CA-CB-CG	5.29	127.48	115.30
22	RA	1625	C	C6-N1-C2	5.29	122.42	120.30
22	RA	271(B)	G	OP2-P-O3'	5.29	116.84	105.20
22	RA	1535	U	N3-C2-O2	-5.29	118.50	122.20
22	RA	1678	G	C5-N7-C8	-5.29	101.65	104.30
22	RA	1899	G	C2-N3-C4	-5.29	109.25	111.90
22	YA	1964	G	C4-C5-N7	5.29	112.92	110.80
22	YA	450	G	C4-C5-N7	-5.29	108.68	110.80
22	YA	1241	A	C2-N3-C4	-5.29	107.95	110.60
56	Z6	74	C	N1-C2-O2	5.29	122.08	118.90
22	YA	2056	G	C5-C6-O6	-5.29	125.43	128.60
54	XX	1	A	O5'-P-OP1	-5.29	100.94	105.70
22	YA	140	A	C4-C5-C6	5.29	119.64	117.00
22	RA	1312	U	P-O3'-C3'	5.29	126.04	119.70
22	RA	1606	G	C5-N7-C8	-5.29	101.66	104.30
22	RA	1947	C	C6-N1-C2	-5.29	118.19	120.30
1	XA	1108	G	C4-C5-C6	5.29	121.97	118.80
22	YA	813	U	N1-C2-N3	5.29	118.07	114.90
22	YA	2082	A	C8-N9-C4	5.29	107.91	105.80
22	RA	2423	U	C5-C4-O4	-5.28	122.73	125.90
22	RA	2686	G	N1-C6-O6	5.28	123.07	119.90
1	XA	1452	C	C2-N1-C1'	5.28	124.61	118.80
22	YA	1263	U	N1-C2-N3	5.28	118.07	114.90
22	RA	2585	U	C6-N1-C1'	-5.28	113.81	121.20
1	QA	1206	G	N3-C4-C5	-5.28	125.96	128.60
22	RA	825	C	OP1-P-O3'	5.28	116.81	105.20
22	RA	846	C	P-O3'-C3'	5.28	126.04	119.70
22	RA	1651	G	C6-C5-N7	-5.28	127.23	130.40
22	RA	2392	A	C5-N7-C8	-5.28	101.26	103.90
22	RA	2779	U	N3-C4-O4	-5.28	115.70	119.40
1	XA	111	G	N3-C4-C5	5.28	131.24	128.60
1	XA	1397	C	N1-C2-O2	5.28	122.07	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	2494	G	C8-N9-C4	5.28	108.51	106.40
22	YA	1183	G	C4-C5-N7	5.28	112.91	110.80
22	RA	496	G	C4-N9-C1'	5.28	133.36	126.50
1	XA	1113	C	C6-N1-C2	-5.28	118.19	120.30
1	XA	1516	G	N3-C4-N9	-5.28	122.83	126.00
22	RA	553	U	C5-C4-O4	5.28	129.07	125.90
22	YA	1671	U	N3-C4-O4	5.28	123.09	119.40
22	YA	1858	G	C4-N9-C1'	5.28	133.36	126.50
23	YB	56	G	N3-C4-C5	-5.27	125.96	128.60
22	RA	921	G	C5-C6-N1	-5.27	108.86	111.50
22	RA	2779	U	N3-C2-O2	-5.27	118.51	122.20
22	YA	120	U	C5-C4-O4	5.27	129.06	125.90
22	YA	528	A	C5-N7-C8	-5.27	101.26	103.90
23	YB	14	U	N3-C2-O2	-5.27	118.51	122.20
1	QA	851	G	C4-N9-C1'	5.27	133.35	126.50
1	XA	1354	C	C6-N1-C2	-5.27	118.19	120.30
1	QA	1297	C	OP2-P-O3'	5.27	116.79	105.20
22	RA	405	U	C5-C6-N1	5.27	125.33	122.70
1	XA	625	G	C8-N9-C4	-5.27	104.29	106.40
22	RA	2330	G	O5'-P-OP1	-5.27	100.96	105.70
22	RA	1606	G	N3-C4-C5	5.26	131.23	128.60
22	RA	1644	C	C6-N1-C2	-5.26	118.19	120.30
22	RA	2702	U	N3-C2-O2	-5.26	118.52	122.20
22	YA	805	G	C4-C5-N7	5.26	112.91	110.80
22	YA	2010	G	C4-C5-N7	5.26	112.91	110.80
22	RA	2089	U	C5-C6-N1	5.26	125.33	122.70
22	YA	945	A	C5-N7-C8	-5.26	101.27	103.90
22	YA	1130	U	C2-N1-C1'	5.26	124.02	117.70
22	YA	1922	G	N3-C4-C5	5.26	131.23	128.60
22	RA	622	G	C4-N9-C1'	-5.26	119.66	126.50
22	RA	857	C	C6-N1-C2	-5.26	118.19	120.30
22	RA	1790	C	N1-C2-O2	-5.26	115.74	118.90
22	RA	2665	A	O4'-C1'-N9	5.26	112.41	108.20
22	YA	752	A	N7-C8-N9	-5.26	111.17	113.80
22	YA	2217	G	N1-C6-O6	5.26	123.06	119.90
48	Y5	4	HIS	C-N-CD	5.26	139.45	128.40
22	RA	1950	G	C6-C5-N7	-5.26	127.24	130.40
1	XA	1053	G	C8-N9-C4	5.26	108.50	106.40
22	YA	1968	G	N1-C6-O6	5.26	123.06	119.90
1	QA	177	C	C6-N1-C2	-5.26	118.20	120.30
1	XA	481	G	C5-C6-O6	5.26	131.75	128.60
22	YA	739	G	O5'-P-OP1	5.26	117.01	110.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	314	C	C2-N1-C1'	5.25	124.58	118.80
22	RA	396	G	C4-C5-C6	5.25	121.95	118.80
22	YA	1084	A	O4'-C1'-N9	5.25	112.40	108.20
22	RA	1816	G	N1-C6-O6	5.25	123.05	119.90
1	XA	320	C	C5-C6-N1	-5.25	118.37	121.00
22	YA	1807	G	N1-C6-O6	5.25	123.05	119.90
22	YA	1899	G	N1-C2-N3	5.25	127.05	123.90
1	XA	227	G	C8-N9-C4	5.25	108.50	106.40
1	XA	653	A	C8-N9-C4	-5.25	103.70	105.80
22	YA	2505	G	C5-C6-N1	-5.25	108.88	111.50
1	XA	365	U	O4'-C1'-N1	5.25	112.40	108.20
22	YA	2430	A	C8-N9-C4	-5.25	103.70	105.80
53	QV	10	G	O5'-P-OP1	-5.25	100.98	105.70
22	RA	783	A	C5-C6-N1	-5.25	115.08	117.70
1	XA	781	A	C4-C5-C6	-5.25	114.38	117.00
22	RA	809	G	N3-C4-N9	5.24	129.15	126.00
22	RA	2302	G	C8-N9-C4	-5.24	104.30	106.40
1	QA	1435	G	C2-N3-C4	-5.24	109.28	111.90
22	YA	1612	C	C2-N1-C1'	-5.24	113.03	118.80
1	QA	244	U	C5-C6-N1	5.24	125.32	122.70
22	YA	511	U	C2-N1-C1'	5.24	123.99	117.70
22	YA	2503	A	C5-C6-N1	5.24	120.32	117.70
22	YA	2587	A	N1-C6-N6	-5.24	115.46	118.60
1	XA	1502	A	C6-C5-N7	-5.24	128.63	132.30
22	YA	1138	G	N3-C4-C5	-5.24	125.98	128.60
22	RA	205	G	N3-C4-C5	-5.24	125.98	128.60
1	XA	821	G	C8-N9-C4	5.24	108.49	106.40
22	YA	1332	G	O4'-C1'-N9	-5.23	104.01	108.20
22	RA	986	C	N3-C2-O2	-5.23	118.24	121.90
22	YA	420	C	N1-C2-O2	5.23	122.04	118.90
22	YA	774	A	N1-C2-N3	5.23	131.92	129.30
22	YA	1406	U	C5-C6-N1	5.23	125.31	122.70
22	YA	2318	G	N7-C8-N9	5.23	115.72	113.10
1	QA	894	G	C4-N9-C1'	-5.23	119.70	126.50
22	RA	2333	A	C8-N9-C4	5.22	107.89	105.80
22	RA	2385	C	N3-C2-O2	-5.22	118.24	121.90
1	XA	1432	G	C5-C6-N1	-5.22	108.89	111.50
22	YA	2025	C	N3-C4-C5	-5.22	119.81	121.90
22	YA	2766	G	C4-C5-N7	5.22	112.89	110.80
1	QA	718	G	N3-C4-N9	-5.22	122.87	126.00
22	YA	450	G	C6-C5-N7	-5.22	127.27	130.40
22	YA	1668	A	N1-C6-N6	-5.22	115.47	118.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	1021	A	C8-N9-C4	-5.22	103.71	105.80
22	RA	385	C	C2-N3-C4	5.22	122.51	119.90
22	RA	1332	G	C6-C5-N7	-5.22	127.27	130.40
22	YA	848	G	C5-C6-O6	-5.22	125.47	128.60
1	QA	181	G	P-O3'-C3'	5.22	125.96	119.70
1	QA	1159	U	O4'-C1'-N1	5.22	112.37	108.20
22	YA	372	G	N9-C4-C5	-5.22	103.31	105.40
22	YA	1647	G	O4'-C1'-N9	-5.22	104.03	108.20
1	QA	1347	G	P-O3'-C3'	5.21	125.96	119.70
22	RA	859	G	P-O3'-C3'	5.21	125.96	119.70
22	YA	300	A	N1-C6-N6	5.21	121.73	118.60
1	XA	1513	A	N1-C6-N6	5.21	121.73	118.60
55	XY	34	C	C5-C6-N1	5.21	123.61	121.00
22	RA	2594	C	C6-N1-C2	5.21	122.39	120.30
1	XA	511	C	C2-N3-C4	-5.21	117.30	119.90
22	YA	679	C	C6-N1-C2	5.21	122.38	120.30
22	YA	1699	G	C5-C6-O6	5.21	131.73	128.60
22	YA	2593	U	N3-C4-C5	-5.21	111.47	114.60
1	QA	244	U	C2-N1-C1'	5.21	123.95	117.70
22	RA	397	G	N3-C4-C5	5.21	131.21	128.60
22	YA	2253	G	C4-C5-N7	-5.21	108.72	110.80
22	YA	2776	A	C8-N9-C4	-5.21	103.72	105.80
22	RA	1264	G	N3-C4-C5	-5.21	126.00	128.60
1	XA	513	C	C5-C6-N1	5.21	123.60	121.00
22	RA	22	C	N3-C4-C5	5.21	123.98	121.90
22	RA	2025	C	N3-C4-C5	-5.21	119.82	121.90
22	YA	138	G	C5-C6-N1	5.21	114.10	111.50
22	YA	2377	A	C8-N9-C4	5.21	107.88	105.80
22	RA	929	G	C4-N9-C1'	5.20	133.26	126.50
22	YA	1426	G	C8-N9-C4	-5.20	104.32	106.40
1	QA	938	A	C8-N9-C4	-5.20	103.72	105.80
22	YA	848	G	N3-C4-N9	5.20	129.12	126.00
22	RA	124	G	N1-C6-O6	5.20	123.02	119.90
22	RA	140	A	C5-N7-C8	-5.20	101.30	103.90
22	RA	2307	G	C8-N9-C4	-5.20	104.32	106.40
22	RA	2713	A	O4'-C1'-N9	-5.20	104.04	108.20
22	YA	1383	C	N1-C2-O2	5.20	122.02	118.90
23	RB	41	U	C2-N1-C1'	-5.20	111.46	117.70
1	XA	1509	C	N3-C4-C5	-5.20	119.82	121.90
1	QA	1065	U	P-O3'-C3'	5.20	125.94	119.70
22	RA	1801	G	C5-C6-N1	5.20	114.10	111.50
22	RA	2711	A	C2-N3-C4	-5.20	108.00	110.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	XA	576	G	C8-N9-C4	-5.20	104.32	106.40
22	RA	2563	U	C5-C4-O4	5.20	129.02	125.90
1	XA	529	G	N1-C6-O6	5.20	123.02	119.90
22	YA	754	C	C5-C6-N1	-5.20	118.40	121.00
22	YA	1753	G	C8-N9-C4	-5.20	104.32	106.40
22	YA	2439	A	C5-C6-N6	-5.20	119.54	123.70
1	QA	573	A	N1-C6-N6	-5.19	115.48	118.60
1	XA	664	G	C5-C6-O6	5.19	131.72	128.60
22	YA	1205	U	N3-C4-C5	-5.19	111.48	114.60
1	XA	792	A	C4-C5-N7	5.19	113.30	110.70
22	YA	1667	G	N1-C6-O6	5.19	123.02	119.90
1	XA	60	A	P-O3'-C3'	5.19	125.93	119.70
1	XA	690	G	O4'-C1'-N9	5.19	112.35	108.20
22	RA	546	C	C6-N1-C2	-5.19	118.22	120.30
22	RA	1980	G	OP1-P-O3'	5.19	116.61	105.20
22	RA	2306	C	N3-C2-O2	-5.19	118.27	121.90
1	XA	1506	U	C6-N1-C2	5.19	124.11	121.00
19	XS	41	VAL	C-N-CD	-5.19	109.19	120.60
22	YA	114	U	C6-N1-C1'	-5.19	113.94	121.20
22	YA	582	G	C4-C5-N7	5.19	112.88	110.80
22	YA	1662	C	C2-N3-C4	-5.18	117.31	119.90
22	RA	828	U	N3-C4-O4	-5.18	115.77	119.40
22	RA	1428	C	C6-N1-C2	5.18	122.37	120.30
22	RA	2511	U	N3-C2-O2	-5.18	118.57	122.20
31	RO	8	LEU	CA-CB-CG	5.18	127.22	115.30
53	QV	75	C	N3-C2-O2	-5.18	118.27	121.90
1	XA	703	G	C8-N9-C1'	-5.18	120.26	127.00
22	YA	792	G	N3-C4-N9	-5.18	122.89	126.00
1	XA	1219	U	N1-C2-O2	-5.18	119.17	122.80
22	YA	1965	C	N3-C4-C5	5.18	123.97	121.90
22	YA	2050	C	N3-C2-O2	-5.18	118.28	121.90
53	QV	57	A	N1-C6-N6	-5.18	115.49	118.60
22	YA	2430	A	N7-C8-N9	5.18	116.39	113.80
22	RA	1525	G	C5-C6-O6	-5.17	125.50	128.60
22	YA	551	G	C4-N9-C1'	-5.17	119.77	126.50
22	YA	1425	G	N3-C4-C5	-5.17	126.01	128.60
22	YA	570	G	N3-C4-C5	5.17	131.19	128.60
22	YA	620	G	N3-C4-N9	-5.17	122.90	126.00
22	RA	1022	G	C8-N9-C4	-5.17	104.33	106.40
22	RA	2032	G	C5-C6-O6	-5.17	125.50	128.60
22	RA	2587	A	C8-N9-C4	5.17	107.87	105.80
22	YA	28	A	O5'-P-OP1	-5.17	101.05	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	YA	917	A	C6-C5-N7	-5.17	128.68	132.30
1	QA	1509	C	C6-N1-C2	5.17	122.37	120.30
1	QA	818	G	C5-C6-N1	-5.17	108.92	111.50
22	RA	783	A	C2-N3-C4	-5.17	108.02	110.60
1	QA	317	G	N3-C4-C5	-5.17	126.02	128.60
22	YA	2271	G	C8-N9-C1'	-5.16	120.29	127.00
22	RA	2415	G	N3-C4-N9	5.16	129.10	126.00
22	YA	1915	U	N1-C2-O2	5.16	126.41	122.80
53	QV	30	G	C6-C5-N7	-5.16	127.30	130.40
22	RA	1806	C	C6-N1-C2	5.16	122.36	120.30
1	XA	652	U	C5-C6-N1	5.16	125.28	122.70
1	XA	1113	C	C5-C6-N1	5.16	123.58	121.00
22	YA	2430	A	C6-C5-N7	-5.16	128.69	132.30
53	XV	23	C	C5-C6-N1	-5.16	118.42	121.00
22	RA	848	G	C6-C5-N7	-5.16	127.30	130.40
22	RA	1627	G	C2-N3-C4	-5.16	109.32	111.90
22	YA	1216	G	C6-C5-N7	-5.16	127.31	130.40
22	YA	1657	C	C5-C6-N1	-5.16	118.42	121.00
53	XV	68	C	N3-C4-C5	5.16	123.96	121.90
1	XA	346	G	N3-C4-N9	5.16	129.09	126.00
22	YA	1502	C	C6-N1-C2	-5.16	118.24	120.30
1	QA	785	G	C2-N3-C4	-5.15	109.32	111.90
4	QD	28	SER	C-N-CD	5.15	139.22	128.40
22	RA	270(X)	G	C5-C6-N1	-5.15	108.92	111.50
22	RA	754	C	N1-C2-N3	-5.15	115.59	119.20
22	RA	1989	G	N1-C6-O6	5.15	122.99	119.90
22	RA	2071	A	C8-N9-C4	-5.15	103.74	105.80
22	YA	450	G	C8-N9-C1'	-5.15	120.30	127.00
22	RA	860	U	N3-C4-C5	-5.15	111.51	114.60
22	RA	1805	U	C2-N1-C1'	5.15	123.88	117.70
22	RA	2061	G	N9-C4-C5	5.15	107.46	105.40
22	RA	2423	U	C6-N1-C1'	-5.15	113.99	121.20
1	XA	792	A	N9-C1'-C2'	5.15	120.70	114.00
22	YA	1142(A)	A	C2-N3-C4	-5.15	108.03	110.60
22	YA	1332	G	C5-C6-N1	-5.15	108.93	111.50
22	RA	1894	C	O5'-P-OP2	-5.15	101.07	105.70
22	RA	1651	G	N1-C6-O6	5.14	122.99	119.90
22	RA	2612	C	C6-N1-C1'	-5.14	114.63	120.80
22	RA	966	G	C8-N9-C4	5.14	108.46	106.40
1	XA	1091	U	C6-N1-C2	-5.14	117.92	121.00
1	QA	266	G	C5-N7-C8	-5.14	101.73	104.30
22	RA	1678	G	N3-C4-C5	5.14	131.17	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	2392	A	C6-C5-N7	-5.14	128.70	132.30
22	RA	2455	G	C4-N9-C1'	5.14	133.18	126.50
1	XA	1432	G	C6-C5-N7	-5.14	127.32	130.40
22	YA	2048	G	N9-C4-C5	5.14	107.46	105.40
22	RA	693	C	C2-N3-C4	-5.14	117.33	119.90
22	YA	1773	A	C2-N3-C4	5.14	113.17	110.60
22	YA	1908	C	C6-N1-C2	-5.14	118.25	120.30
22	YA	2095	C	N3-C2-O2	-5.14	118.30	121.90
22	RA	809	G	C8-N9-C1'	-5.13	120.33	127.00
53	XV	60	U	N3-C4-O4	5.13	122.99	119.40
1	QA	1478	C	N1-C2-O2	5.13	121.98	118.90
22	RA	1390	U	C5-C6-N1	5.13	125.27	122.70
23	RB	94	C	C6-N1-C2	-5.13	118.25	120.30
22	RA	1022	G	P-O3'-C3'	5.13	125.86	119.70
22	RA	2511	U	C2-N1-C1'	5.13	123.86	117.70
22	RA	2779	U	N1-C2-O2	5.13	126.39	122.80
22	YA	452	G	C8-N9-C4	-5.13	104.35	106.40
22	YA	780	G	C6-C5-N7	-5.13	127.32	130.40
22	YA	1888	G	C2-N3-C4	5.13	114.47	111.90
1	QA	356	A	O4'-C1'-N9	5.13	112.30	108.20
22	RA	74	A	C2-N3-C4	-5.13	108.04	110.60
22	YA	974(A)	C	OP2-P-O3'	5.13	116.48	105.20
22	RA	284	U	C5-C6-N1	5.13	125.26	122.70
22	RA	1215	G	C6-C5-N7	-5.13	127.32	130.40
1	QA	1190	G	N3-C4-C5	-5.12	126.04	128.60
1	QA	1435	G	N1-C6-O6	5.12	122.97	119.90
22	RA	1319	G	C4-C5-N7	5.12	112.85	110.80
22	RA	2782	G	N3-C4-N9	5.12	129.07	126.00
22	RA	1895	C	C6-N1-C2	-5.12	118.25	120.30
22	YA	940	G	C8-N9-C4	-5.12	104.35	106.40
22	YA	1612	C	N3-C2-O2	5.12	125.48	121.90
22	RA	1789	A	N9-C4-C5	5.12	107.85	105.80
38	RV	35	LEU	CA-CB-CG	5.12	127.07	115.30
1	XA	749	C	C2-N3-C4	5.12	122.46	119.90
1	XA	1158	C	C2-N1-C1'	5.12	124.43	118.80
22	YA	2070	G	C4-C5-N7	-5.12	108.75	110.80
22	YA	2299	G	N7-C8-N9	5.12	115.66	113.10
22	YA	2048	G	C8-N9-C4	-5.12	104.35	106.40
1	XA	1158	C	N1-C2-O2	5.12	121.97	118.90
22	YA	929	G	C4-C5-N7	-5.12	108.75	110.80
22	YA	1614	A	C5-C6-N1	5.12	120.26	117.70
1	QA	634	C	C2-N1-C1'	-5.11	113.17	118.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	1613	G	N3-C4-N9	5.11	129.07	126.00
22	YA	197	A	C6-C5-N7	-5.11	128.72	132.30
22	YA	912	C	N3-C2-O2	-5.11	118.32	121.90
22	YA	385	C	N1-C2-O2	-5.11	115.83	118.90
22	YA	1358	G	C8-N9-C4	-5.11	104.36	106.40
22	YA	1888	G	N3-C4-C5	-5.11	126.04	128.60
22	RA	1799	G	N3-C4-C5	-5.11	126.04	128.60
1	XA	108	G	C4-C5-N7	5.11	112.84	110.80
22	YA	814	C	C2-N1-C1'	-5.11	113.18	118.80
22	YA	2070	G	C6-C5-N7	5.11	133.47	130.40
22	RA	188	G	C8-N9-C4	5.11	108.44	106.40
22	RA	2311	A	N1-C2-N3	5.11	131.85	129.30
22	RA	2455	G	N3-C4-N9	5.11	129.06	126.00
23	RB	60	C	C6-N1-C2	-5.11	118.26	120.30
22	YA	1022	G	N3-C4-C5	-5.11	126.05	128.60
22	YA	1835	G	N7-C8-N9	5.11	115.65	113.10
22	RA	456	C	C2-N1-C1'	5.11	124.42	118.80
22	RA	783	A	C4-C5-N7	5.11	113.25	110.70
22	RA	2584	U	C6-N1-C2	-5.11	117.94	121.00
1	XA	328	C	C5-C6-N1	5.11	123.55	121.00
22	YA	2779	U	N3-C2-O2	-5.11	118.63	122.20
22	RA	1021	A	C2-N3-C4	-5.10	108.05	110.60
22	RA	1559	G	C4-C5-N7	5.10	112.84	110.80
22	RA	2820	A	P-O3'-C3'	5.10	125.83	119.70
22	YA	860	U	C4-C5-C6	5.10	122.76	119.70
22	RA	1337	G	C8-N9-C4	-5.10	104.36	106.40
22	RA	1817	G	C6-C5-N7	-5.10	127.34	130.40
22	YA	1790	C	N3-C4-C5	5.10	123.94	121.90
22	RA	1184	G	N9-C4-C5	-5.10	103.36	105.40
22	YA	197	A	N1-C6-N6	5.10	121.66	118.60
22	YA	974	G	C6-N1-C2	-5.10	122.04	125.10
22	YA	2582	G	N3-C4-C5	-5.10	126.05	128.60
22	RA	2494	G	N3-C4-N9	5.10	129.06	126.00
22	YA	2271	G	C4-N9-C1'	5.10	133.13	126.50
22	YA	2362	G	C4-N9-C1'	5.10	133.13	126.50
22	RA	1658	C	C5-C6-N1	5.10	123.55	121.00
22	RA	1806	C	N3-C2-O2	5.10	125.47	121.90
1	XA	899	C	C6-N1-C2	5.10	122.34	120.30
22	YA	509	C	O5'-P-OP1	-5.10	101.11	105.70
22	RA	2307	G	N7-C8-N9	5.10	115.65	113.10
22	YA	1187	G	C4-N9-C1'	5.10	133.12	126.50
23	YB	117	G	N3-C4-C5	5.10	131.15	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	YE	117	MET	CA-CB-CG	5.10	121.96	113.30
22	YA	1699	G	C4-C5-N7	-5.09	108.76	110.80
22	YA	1782	C	C6-N1-C2	-5.09	118.26	120.30
22	YA	2686	G	N3-C4-C5	-5.09	126.05	128.60
22	RA	622	G	C8-N9-C4	5.09	108.44	106.40
1	XA	692	U	N3-C4-O4	5.09	122.97	119.40
1	QA	938	A	N7-C8-N9	5.09	116.34	113.80
22	YA	530	G	C4-N9-C1'	-5.09	119.88	126.50
22	YA	539	G	N3-C4-C5	-5.09	126.05	128.60
22	YA	1247	A	C8-N9-C4	5.09	107.84	105.80
22	YA	1701	A	C8-N9-C4	-5.09	103.77	105.80
22	RA	752	A	P-O3'-C3'	5.09	125.81	119.70
22	RA	762	U	N3-C2-O2	5.09	125.76	122.20
22	RA	1792	G	N3-C4-C5	-5.09	126.06	128.60
22	RA	2392	A	C2-N3-C4	-5.09	108.06	110.60
22	YA	1343	G	N3-C4-C5	-5.09	126.06	128.60
1	QA	1403	C	C5-C6-N1	5.09	123.54	121.00
22	YA	846	C	C6-N1-C2	-5.09	118.27	120.30
22	YA	1386	C	C2-N1-C1'	-5.09	113.20	118.80
23	YB	81	G	C6-C5-N7	-5.09	127.35	130.40
1	QA	700	G	N1-C6-O6	-5.08	116.85	119.90
22	RA	593	G	N3-C4-C5	5.08	131.14	128.60
1	XA	1516	G	N3-C4-C5	5.08	131.14	128.60
22	RA	445	C	OP2-P-O3'	5.08	116.38	105.20
22	RA	2087	G	C8-N9-C1'	-5.08	120.39	127.00
22	RA	2642	G	C4-C5-N7	5.08	112.83	110.80
22	YA	253	C	O5'-P-OP1	-5.08	101.13	105.70
22	YA	621	A	N1-C2-N3	5.08	131.84	129.30
22	YA	699	A	C8-N9-C4	-5.08	103.77	105.80
22	YA	1187	G	C8-N9-C4	-5.08	104.37	106.40
22	RA	389	G	N3-C4-N9	5.08	129.05	126.00
22	RA	2230	G	N3-C4-N9	5.08	129.05	126.00
1	XA	827	U	N3-C2-O2	-5.08	118.64	122.20
22	YA	556	G	C4-N9-C1'	5.08	133.10	126.50
53	XV	52	G	C5-C6-O6	-5.08	125.55	128.60
22	YA	2073	C	OP1-P-O3'	5.08	116.37	105.20
22	RA	2702	U	N1-C2-O2	5.08	126.35	122.80
22	YA	282	A	C8-N9-C4	5.08	107.83	105.80
22	YA	333	G	C8-N9-C4	-5.08	104.37	106.40
22	YA	1655	A	N1-C6-N6	5.08	121.64	118.60
22	YA	2062	A	C4-C5-N7	5.08	113.24	110.70
1	QA	593	G	N1-C6-O6	5.07	122.94	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	585	G	OP2-P-O3'	5.07	116.36	105.20
22	RA	854	G	C5-C6-N1	-5.07	108.96	111.50
22	RA	1644	C	C6-N1-C1'	-5.07	114.72	120.80
23	RB	103	U	C5-C6-N1	-5.07	120.16	122.70
22	YA	2487	G	C5-C6-N1	-5.07	108.97	111.50
1	QA	266	G	C4-C5-N7	5.07	112.83	110.80
22	RA	576	U	C5-C6-N1	5.07	125.23	122.70
1	QA	230	G	C5-C6-N1	-5.07	108.97	111.50
22	YA	88	G	C8-N9-C1'	-5.07	120.41	127.00
22	YA	573	G	C5-N7-C8	-5.07	101.77	104.30
22	YA	1998	G	C8-N9-C4	5.07	108.43	106.40
22	YA	1193	G	N3-C4-C5	5.06	131.13	128.60
22	RA	1568	G	C6-C5-N7	5.06	133.44	130.40
22	YA	971	C	N1-C2-O2	-5.06	115.86	118.90
1	XA	809	G	N1-C6-O6	5.06	122.94	119.90
22	YA	530	G	N3-C4-N9	-5.06	122.97	126.00
22	YA	2830	G	C4-N9-C1'	5.06	133.08	126.50
22	YA	338	G	N3-C4-N9	5.06	129.03	126.00
22	YA	551	G	O5'-P-OP2	-5.06	101.15	105.70
22	RA	270(Y)	G	C4-C5-N7	-5.06	108.78	110.80
22	RA	1930	G	C5-N7-C8	5.06	106.83	104.30
1	QA	220	G	C4-C5-N7	5.05	112.82	110.80
1	XA	1211	U	C5-C4-O4	5.05	128.93	125.90
22	YA	744	G	C8-N9-C4	-5.05	104.38	106.40
22	YA	1240	U	N3-C2-O2	-5.05	118.66	122.20
22	RA	1733	G	C6-C5-N7	-5.05	127.37	130.40
1	XA	819	A	N1-C6-N6	5.05	121.63	118.60
22	YA	790	C	N3-C2-O2	5.05	125.44	121.90
22	RA	539	G	C6-C5-N7	-5.05	127.37	130.40
22	RA	1525	G	N1-C6-O6	5.05	122.93	119.90
22	YA	373	U	C2-N1-C1'	5.05	123.76	117.70
22	RA	2419	U	C6-N1-C2	-5.05	117.97	121.00
22	YA	1689	A	N1-C6-N6	-5.05	115.57	118.60
22	YA	2566	A	P-O3'-C3'	5.05	125.76	119.70
1	QA	1338	G	N1-C6-O6	-5.04	116.87	119.90
22	RA	475	U	C2-N1-C1'	5.04	123.75	117.70
22	RA	2254	C	OP2-P-O3'	5.04	116.30	105.20
1	XA	1027	C	OP1-P-O3'	5.04	116.30	105.20
22	YA	114	U	C5-C4-O4	-5.04	122.87	125.90
22	YA	1835	G	N3-C4-N9	5.04	129.03	126.00
22	YA	1974	C	N3-C4-N4	-5.04	114.47	118.00
1	XA	811	C	C6-N1-C2	5.04	122.32	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	123	G	C8-N9-C4	5.04	108.42	106.40
23	RB	89	G	C8-N9-C4	-5.04	104.39	106.40
1	XA	297	G	C6-C5-N7	-5.04	127.38	130.40
1	XA	456	C	C5-C6-N1	5.04	123.52	121.00
22	YA	2869	G	C5-C6-N1	-5.04	108.98	111.50
22	YA	1403	C	N3-C2-O2	-5.04	118.38	121.90
22	RA	1024	G	C6-C5-N7	-5.03	127.38	130.40
22	RA	2345	G	C5-C6-O6	5.03	131.62	128.60
22	RA	2499	C	C2-N1-C1'	5.03	124.34	118.80
22	YA	663	G	C6-C5-N7	-5.03	127.38	130.40
22	YA	845	G	N9-C4-C5	-5.03	103.39	105.40
22	YA	1614	A	C2-N3-C4	5.03	113.12	110.60
22	YA	116	C	C4-C5-C6	5.03	119.92	117.40
1	QA	561	U	P-O3'-C3'	5.03	125.74	119.70
22	RA	2307	G	C4-N9-C1'	5.03	133.04	126.50
22	RA	2430	A	C5-C6-N1	-5.03	115.19	117.70
22	RA	2767	C	C6-N1-C2	-5.03	118.29	120.30
22	YA	1614	A	C6-N1-C2	-5.03	115.58	118.60
22	YA	1834	U	C4-C5-C6	5.03	122.72	119.70
22	YA	2318	G	C6-C5-N7	-5.03	127.38	130.40
22	YA	1148	A	C8-N9-C4	5.03	107.81	105.80
22	YA	2453	A	C5-C6-N1	5.03	120.21	117.70
22	RA	2307	G	O4'-C1'-N9	5.03	112.22	108.20
1	XA	968	A	C8-N9-C4	5.03	107.81	105.80
22	YA	487	C	C6-N1-C2	-5.03	118.29	120.30
22	YA	2283	C	N1-C2-O2	-5.03	115.89	118.90
22	YA	2301	C	C6-N1-C2	-5.03	118.29	120.30
1	QA	244	U	N1-C2-O2	5.02	126.32	122.80
1	QA	252	U	N1-C2-O2	5.02	126.32	122.80
22	RA	475	U	N3-C2-O2	-5.02	118.68	122.20
1	XA	509	A	C8-N9-C4	-5.02	103.79	105.80
22	YA	2497	A	C2-N3-C4	5.02	113.11	110.60
22	YA	2500	U	N1-C2-O2	5.02	126.32	122.80
22	RA	917	A	C5-C6-N1	-5.02	115.19	117.70
22	RA	1613	G	N3-C4-C5	-5.02	126.09	128.60
22	RA	1930	G	O4'-C1'-N9	5.02	112.22	108.20
1	XA	690	G	C4-C5-N7	5.02	112.81	110.80
1	XA	1279	A	C8-N9-C4	-5.02	103.79	105.80
22	YA	773	U	C5-C6-N1	-5.02	120.19	122.70
22	YA	846	C	C4-C5-C6	5.02	119.91	117.40
22	YA	1900	A	O5'-P-OP1	-5.02	101.18	105.70
22	YA	2345	G	N9-C4-C5	5.02	107.41	105.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	RA	2490	G	O4'-C1'-N9	5.02	112.22	108.20
22	RA	2505	G	N3-C4-C5	-5.02	126.09	128.60
22	YA	659	C	C6-N1-C2	5.02	122.31	120.30
22	YA	1155	A	C5-C6-N6	-5.02	119.68	123.70
1	XA	136	C	C5-C6-N1	-5.02	118.49	121.00
22	YA	465	G	N3-C4-N9	5.02	129.01	126.00
53	QV	41	C	N1-C2-O2	5.02	121.91	118.90
22	YA	1247	A	C5-N7-C8	5.02	106.41	103.90
22	RA	2509	G	C6-C5-N7	-5.01	127.39	130.40
22	YA	139	G	N3-C4-C5	-5.01	126.09	128.60
22	YA	2035	G	O5'-P-OP2	-5.01	101.19	105.70
22	YA	2592	G	C8-N9-C4	-5.01	104.39	106.40
22	RA	2371	G	N3-C4-N9	-5.01	122.99	126.00
23	RB	44	G	N3-C4-C5	5.01	131.11	128.60
22	YA	512	G	O4'-C1'-N9	5.01	112.21	108.20
22	YA	1314	C	C5-C6-N1	5.01	123.51	121.00
22	YA	1620	G	C4-N9-C1'	5.01	133.02	126.50
22	YA	2468	G	N7-C8-N9	5.01	115.61	113.10
22	RA	2126	A	P-O3'-C3'	5.01	125.71	119.70
22	YA	201	C	C6-N1-C2	5.01	122.30	120.30
22	YA	551	G	C8-N9-C4	5.01	108.40	106.40
22	YA	2228	G	O5'-P-OP2	-5.01	101.19	105.70
1	XA	420	U	C2-N1-C1'	5.01	123.71	117.70
42	YZ	150	LEU	CA-CB-CG	5.01	126.82	115.30
22	RA	1786	A	C5-C6-N1	-5.01	115.20	117.70
22	RA	1819	A	P-O3'-C3'	5.01	125.71	119.70
1	XA	545	C	N3-C2-O2	-5.01	118.39	121.90
1	XA	619	U	C5-C6-N1	5.01	125.20	122.70
22	YA	512	G	C8-N9-C1'	5.01	133.51	127.00
22	RA	1398	C	C5-C4-N4	-5.00	116.70	120.20
22	RA	2422	A	P-O3'-C3'	5.00	125.70	119.70
33	RQ	82	ARG	N-CA-C	5.00	124.51	111.00
1	XA	31	G	P-O3'-C3'	5.00	125.70	119.70
1	XA	799	G	N3-C4-C5	-5.00	126.10	128.60
1	XA	557	G	C6-C5-N7	-5.00	127.40	130.40
1	XA	557	G	C8-N9-C1'	-5.00	120.50	127.00
22	YA	1948	G	C5-C6-N1	5.00	114.00	111.50

There are no chirality outliers.

All (19) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
12	QL	47	LYS	Peptide
47	R4	38	LYS	Peptide
51	R8	30	ARG	Peptide
51	R8	35	GLN	Peptide
25	RE	21	VAL	Peptide
28	RH	127	GLU	Peptide
28	RH	153	LYS	Peptide
29	RI	134	PRO	Peptide
12	XL	47	LYS	Peptide
45	Y2	17	SER	Peptide
51	Y8	30	ARG	Peptide
51	Y8	51	ALA	Peptide
25	YE	21	VAL	Peptide
26	YF	47	GLY	Peptide
28	YH	127	GLU	Peptide
28	YH	153	LYS	Peptide
35	YS	109	GLY	Peptide
42	YZ	181	GLU	Peptide
42	YZ	61	LEU	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	QA	32247	0	16277	775	0
1	XA	32249	0	16279	824	0
2	QB	1924	0	1975	64	0
2	XB	1924	0	1975	83	0
3	QC	1605	0	1668	50	0
3	XC	1605	0	1668	63	0
4	QD	1703	0	1763	68	0
4	XD	1703	0	1764	48	0
5	QE	1155	0	1213	36	0
5	XE	1155	0	1213	43	0
6	QF	843	0	857	20	0
6	XF	843	0	857	23	0
7	QG	1257	0	1296	41	0
7	XG	1257	0	1296	30	0
8	QH	1116	0	1177	40	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	XH	1116	0	1177	32	0
9	QI	1010	0	1037	43	0
9	XI	1010	0	1037	60	0
10	QJ	801	0	849	50	0
10	XJ	801	0	849	40	0
11	QK	885	0	904	29	0
11	XK	885	0	904	33	0
12	QL	975	0	1062	43	0
12	XL	975	0	1062	47	0
13	QM	964	0	1034	46	0
13	XM	964	0	1034	62	0
14	QN	492	0	529	27	0
14	XN	492	0	529	23	0
15	QO	734	0	771	23	0
15	XO	734	0	771	22	0
16	QP	705	0	725	21	0
16	XP	705	0	725	29	0
17	QQ	834	0	904	26	0
17	XQ	834	0	904	20	0
18	QR	574	0	644	13	0
18	XR	574	0	644	21	0
19	QS	674	0	699	39	0
19	XS	674	0	699	55	0
20	QT	763	0	861	25	0
20	XT	763	0	861	40	0
21	QU	217	0	234	12	0
21	XU	217	0	234	8	0
22	RA	62071	0	31292	1370	0
22	YA	62091	0	31301	1336	1
23	RB	2573	0	1306	57	0
23	YB	2573	0	1306	64	1
24	RD	2115	0	2195	107	0
24	YD	2115	0	2195	106	0
25	RE	1568	0	1634	67	0
25	YE	1568	0	1634	68	0
26	RF	1585	0	1632	76	0
26	YF	1585	0	1632	64	0
27	RG	1474	0	1535	62	0
27	YG	1474	0	1535	69	0
28	RH	1307	0	1382	67	0
28	YH	1307	0	1382	62	0
29	RI	1136	0	1223	84	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	YI	1136	0	1223	73	0
30	RN	1104	0	1180	38	0
30	YN	1104	0	1180	51	0
31	RO	933	0	996	23	0
31	YO	933	0	996	25	0
32	RP	1145	0	1227	79	0
32	YP	1145	0	1228	95	0
33	RQ	1122	0	1179	58	0
33	YQ	1122	0	1179	49	0
34	RR	968	0	1033	48	0
34	YR	968	0	1033	37	0
35	RS	882	0	943	45	0
35	YS	882	0	943	43	0
36	RT	1141	0	1202	51	0
36	YT	1141	0	1202	56	0
37	RU	964	0	1022	36	0
37	YU	964	0	1022	54	0
38	RV	779	0	852	24	0
38	YV	779	0	852	43	0
39	RW	900	0	964	28	0
39	YW	900	0	964	26	0
40	RX	725	0	778	31	0
40	YX	725	0	778	24	0
41	RY	785	0	878	52	0
41	YY	785	0	878	43	0
42	RZ	1461	0	1493	96	0
42	YZ	1461	0	1493	104	0
43	R0	648	0	671	37	0
43	Y0	648	0	672	41	0
44	R1	763	0	848	32	0
44	Y1	763	0	848	36	0
45	R2	581	0	629	14	0
45	Y2	581	0	629	23	0
46	R3	469	0	518	7	0
46	Y3	469	0	518	15	0
47	R4	581	0	574	30	0
47	Y4	581	0	574	76	0
48	R5	459	0	480	30	0
48	Y5	459	0	480	31	0
49	R6	424	0	450	30	0
49	Y6	424	0	450	29	0
50	R7	430	0	480	17	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
50	Y7	430	0	480	19	0
51	R8	517	0	582	36	0
51	Y8	517	0	582	43	0
52	R9	307	0	338	14	0
52	Y9	307	0	338	17	0
53	QV	1644	0	836	29	0
53	XV	1644	0	836	36	0
54	QX	173	0	88	3	0
54	XX	173	0	88	3	0
55	QY	174	0	88	4	0
55	XY	174	0	88	2	0
56	Z6	74	0	51	0	0
56	Z8	74	0	51	4	0
57	QA	42	0	45	1	0
57	XA	42	0	45	2	0
58	QA	76	0	0	0	0
58	QF	1	0	0	0	0
58	QM	1	0	0	0	0
58	QV	1	0	0	0	0
58	R0	1	0	0	0	0
58	R5	1	0	0	0	0
58	R8	2	0	0	0	0
58	RA	247	0	0	0	0
58	RB	2	0	0	0	0
58	RD	1	0	0	0	0
58	RE	2	0	0	0	0
58	RF	1	0	0	0	0
58	RP	2	0	0	0	0
58	XA	82	0	0	0	0
58	XB	1	0	0	0	0
58	XM	1	0	0	0	0
58	XV	2	0	0	0	0
58	Y0	1	0	0	0	0
58	Y5	1	0	0	0	0
58	YA	265	0	0	0	0
58	YB	3	0	0	0	0
58	YD	2	0	0	0	0
58	YP	2	0	0	0	0
58	YQ	1	0	0	0	0
58	YX	1	0	0	0	0
59	QD	1	0	0	0	0
59	QN	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	XD	1	0	0	0	0
59	XN	1	0	0	0	0
All	All	291730	0	198220	7613	1

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 16.

All (7613) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:2701:C:H3'	22:RA:2702:U:H5''	1.27	1.07
1:XA:963:G:N3	10:XJ:55:LYS:NZ	2.02	1.07
24:YD:43:ARG:NH1	24:YD:44:ASN:OD1	1.86	1.06
22:YA:2701:C:H3'	22:YA:2702:U:H5''	1.38	1.05
22:YA:1138:G:H21	30:YN:106:MET:HE3	1.22	1.04
22:RA:1310:G:OP2	50:R7:9:ARG:NH1	1.91	1.01
13:XM:3:ARG:HB3	47:Y4:34:GLU:HB3	1.42	1.01
22:YA:498:G:N3	41:YY:47:LYS:NZ	2.07	1.01
22:YA:571:A:H5'	22:YA:2030:A:H62	1.26	1.00
1:XA:1298:C:OP2	7:XG:114:ARG:NH2	1.93	0.99
1:QA:1244:C:H42	1:QA:1293:G:H1	1.10	0.98
22:RA:617:G:OP1	26:RF:40:GLN:NE2	1.95	0.98
22:YA:140:A:H8	22:YA:1408:C:HO2'	1.00	0.97
4:QD:9:CYS:SG	4:QD:22:LYS:CE	2.52	0.97
13:XM:7:VAL:HG21	27:YG:113:ARG:O	1.64	0.97
4:QD:9:CYS:SG	4:QD:31:CYS:O	2.23	0.96
1:XA:1298:C:H2'	7:XG:114:ARG:HH12	1.29	0.96
22:RA:768:G:O2'	22:RA:1379:A:N6	1.99	0.96
22:RA:2392:A:H8	32:RP:60:MET:HG2	1.25	0.96
22:RA:1019:U:H3	22:RA:1142(A):A:H62	1.11	0.95
1:XA:1305:G:HO2'	1:XA:1306:A:H8	1.09	0.95
22:YA:631:A:OP2	51:Y8:46:ARG:NH2	1.99	0.95
4:QD:9:CYS:SG	4:QD:22:LYS:HE3	2.07	0.95
22:RA:2068:U:H3	22:RA:2430:A:H2	1.06	0.94
1:XA:1299:A:H2'	1:XA:1301:U:H1'	1.48	0.94
22:YA:483:A:H4'	41:YY:49:VAL:HA	1.48	0.94
42:YZ:9:TYR:HE2	42:YZ:35:ARG:HD3	1.33	0.94
1:QA:559:A:H4'	1:QA:560:U:H3'	1.49	0.93
2:QB:185:ILE:HG22	2:QB:199:TYR:HB2	1.48	0.93
1:XA:1002:G:H1	1:XA:1038:C:H42	1.16	0.93
22:YA:2580:U:H4'	25:YE:130:GLY:HA3	1.51	0.93

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2287:A:H62	22:YA:2344:U:H3	1.14	0.92
22:RA:900:A:H3'	22:RA:901:A:H8	1.35	0.92
22:RA:242:G:H5''	51:R8:62:LEU:HD13	1.50	0.92
32:RP:58:THR:O	32:RP:61:ARG:NE	2.03	0.92
13:QM:3:ARG:HB3	47:R4:34:GLU:HB3	1.52	0.91
25:YE:24:THR:HG21	25:YE:188:VAL:HG11	1.52	0.91
22:YA:993:G:OP1	37:YU:50:ARG:NH2	2.04	0.91
23:RB:22:U:H3	23:RB:61:G:H1	1.16	0.91
22:YA:674:G:H1'	26:YF:74:ARG:HD3	1.51	0.90
22:YA:1496:A:H8	22:YA:1577:C:HO2'	1.18	0.90
22:YA:2470:G:H5'	33:YQ:56:ARG:HH22	1.35	0.90
1:XA:1094:G:O2'	1:XA:1095:U:OP2	1.88	0.90
22:RA:442:G:H1'	26:RF:48:THR:HG21	1.51	0.90
48:R5:55:ARG:HG3	48:R5:57:VAL:H	1.37	0.89
13:XM:3:ARG:HG2	47:Y4:34:GLU:HG2	1.55	0.89
25:YE:50:GLY:HA2	25:YE:77:ILE:HA	1.53	0.89
29:YI:29:TYR:HD2	29:YI:30:LEU:HD23	1.39	0.89
41:YY:79:CYS:SG	41:YY:80:GLY:N	2.45	0.88
1:QA:963:G:N3	10:QJ:55:LYS:NZ	2.21	0.88
22:YA:2820:A:C8	25:YE:109:LYS:HE2	2.08	0.88
36:RT:26:ASP:HB3	36:RT:92:GLY:H	1.36	0.88
42:YZ:151:HIS:HB3	42:YZ:170:THR:HA	1.53	0.88
33:YQ:134:ARG:NH2	42:YZ:119:GLU:OE2	2.05	0.88
53:XV:6:G:H1	53:XV:67:C:H42	1.17	0.88
32:RP:64:LYS:O	32:RP:66:GLY:N	2.07	0.87
22:YA:1728:G:N1	22:YA:1730:U:OP2	2.07	0.87
22:RA:1464:C:HO2'	22:RA:1528:A:H8	1.23	0.87
29:YI:71:ILE:HG23	29:YI:72:LEU:HD13	1.54	0.87
22:YA:910:A:H62	33:YQ:12:GLN:HA	1.39	0.87
32:YP:58:THR:O	32:YP:61:ARG:NE	2.08	0.87
22:YA:122:G:N2	22:YA:129:C:O2	2.08	0.87
41:YY:76:CYS:HB3	41:YY:96:ILE:HD13	1.57	0.87
1:QA:1410:G:H1	1:QA:1490:C:H42	1.23	0.87
48:Y5:40:LYS:HG2	48:Y5:47:PRO:HD2	1.56	0.86
32:RP:19:VAL:HG13	32:RP:21:ARG:H	1.40	0.86
4:XD:157:LEU:O	4:XD:161:ASN:ND2	2.07	0.86
1:QA:1124:G:H3'	1:QA:1145:C:N4	1.89	0.86
22:RA:708:C:H42	22:RA:723:G:H1	1.20	0.86
1:QA:448:A:OP2	1:QA:485:G:N2	2.08	0.86
22:YA:1844:C:H2'	22:YA:1845:G:H8	1.41	0.86
1:QA:1243:C:OP2	21:QU:10:ARG:NH2	2.09	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:674:G:H1'	26:RF:74:ARG:HD3	1.57	0.86
22:RA:2502:G:H5''	22:RA:2503:A:H5''	1.57	0.86
24:RD:43:ARG:NH1	24:RD:44:ASN:OD1	2.08	0.86
22:RA:1061:U:H5'	22:RA:1070:A:H1'	1.56	0.86
22:YA:265:A:N6	22:YA:427:U:O2'	2.07	0.86
5:QE:50:GLU:HB3	5:QE:53:LEU:HD13	1.59	0.85
22:YA:2015:A:H1'	48:Y5:2:ALA:HA	1.57	0.85
22:YA:2593:U:H2'	22:YA:2594:C:H6	1.39	0.85
22:RA:2701:C:H3'	22:RA:2702:U:C5'	2.04	0.85
1:XA:58:C:O2'	1:XA:388:G:N7	2.09	0.85
1:XA:1346:A:OP1	9:XI:120:ARG:NH1	2.09	0.85
23:RB:83:G:H1	23:RB:93:C:H42	1.24	0.85
1:QA:1127:G:N1	1:QA:1145:C:O2	2.08	0.84
22:RA:2839:G:H5'	34:RR:46:GLY:HA2	1.59	0.84
41:RY:79:CYS:SG	41:RY:80:GLY:N	2.45	0.84
39:YW:18:ARG:HG3	39:YW:76:VAL:HG13	1.58	0.84
22:RA:2106:G:H1	22:RA:2183:C:H42	1.21	0.84
1:QA:1298:C:OP2	7:QG:114:ARG:NH2	2.10	0.84
22:YA:67:U:H3	22:YA:74:A:H2	1.25	0.84
22:YA:270(T):G:H5''	44:Y1:97:LEU:HD22	1.59	0.84
36:YT:26:ASP:HB3	36:YT:92:GLY:H	1.42	0.84
22:RA:1187:G:H5''	38:RV:81:TYR:CE2	2.13	0.83
30:YN:4:TYR:O	37:YU:64:ARG:NH1	2.10	0.83
22:RA:2107:C:H42	22:RA:2182:G:H1	1.26	0.83
1:XA:448:A:OP2	1:XA:485:G:N2	2.08	0.83
2:QB:80:ILE:HD11	2:QB:208:ILE:HG23	1.58	0.83
27:YG:27:ASN:HB3	27:YG:30:GLU:HG3	1.60	0.83
1:QA:346:G:H1'	1:QA:347:G:H5'	1.58	0.83
22:YA:2849:U:H5	36:YT:93:ARG:HH12	1.26	0.83
32:YP:19:VAL:HG13	32:YP:21:ARG:H	1.41	0.83
48:R5:4:HIS:HB3	48:R5:5:PRO:HD3	1.61	0.82
37:YU:90:VAL:O	37:YU:92:ARG:N	2.11	0.82
22:RA:1285:G:N2	22:RA:1329:U:OP1	2.10	0.82
22:YA:462:C:H42	22:YA:467:G:H1	1.26	0.82
22:YA:1063:G:H22	22:YA:1076:C:H1'	1.44	0.82
1:QA:677:U:H3	1:QA:713:G:H22	1.28	0.82
1:XA:1342:C:H4'	9:XI:125:TYR:HB3	1.60	0.82
26:RF:197:ASP:O	26:RF:199:TRP:N	2.12	0.82
29:RI:4:ILE:HD11	29:RI:44:LEU:HD12	1.62	0.82
22:YA:994:C:H3'	37:YU:54:LYS:HE3	1.61	0.82
48:R5:16:ARG:NH1	48:R5:17:ASP:OD1	2.13	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2115:G:N2	22:YA:2165:G:N7	2.27	0.82
44:Y1:7:ILE:HD12	44:Y1:62:VAL:HG11	1.62	0.82
22:RA:676:A:H8	22:RA:2069:G:H21	1.28	0.82
41:RY:29:GLU:HB3	41:RY:38:ILE:HG12	1.62	0.82
22:YA:2099:U:H3	22:YA:2190:G:H1	1.25	0.82
22:RA:1053:C:H42	22:RA:1106:G:H1	1.28	0.81
29:RI:81:VAL:HG21	29:RI:142:VAL:HG12	1.62	0.81
32:RP:62:LEU:HD21	51:R8:25:MET:HB2	1.61	0.81
22:YA:286:C:H2'	22:YA:287:C:H6	1.43	0.81
48:Y5:16:ARG:NH1	48:Y5:17:ASP:OD1	2.13	0.81
42:YZ:94:GLU:HB2	42:YZ:130:PRO:HD2	1.63	0.81
45:Y2:47:ASN:O	45:Y2:49:LYS:N	2.12	0.81
22:RA:270(R):G:N3	44:R1:78:LYS:NZ	2.26	0.81
2:XB:69:LEU:HB3	2:XB:162:ILE:HG22	1.61	0.81
22:YA:250:G:OP2	51:Y8:13:ARG:NH2	2.13	0.81
30:YN:4:TYR:OH	30:YN:7:LYS:NZ	2.14	0.81
26:RF:103:LYS:HA	26:RF:106:ARG:HG3	1.63	0.81
22:RA:2107:C:N3	22:RA:2182:G:N2	2.26	0.81
45:R2:47:ASN:O	45:R2:49:LYS:N	2.13	0.81
1:XA:1192:C:OP2	3:XC:4:LYS:NZ	2.14	0.81
53:QV:6:G:H1	53:QV:67:C:H42	1.25	0.81
22:RA:249:C:O2	51:R8:12:LYS:NZ	2.13	0.81
22:RA:631:A:OP2	51:R8:46:ARG:NH2	2.13	0.81
1:XA:1281:U:OP2	1:XA:1282:C:N4	2.14	0.81
13:XM:3:ARG:HG2	47:Y4:34:GLU:CG	2.11	0.81
22:YA:138:G:N2	40:YX:44:GLU:OE2	2.14	0.81
22:YA:237:C:N4	22:YA:260:G:O6	2.14	0.81
22:RA:685:A:H5''	22:RA:788:A:H62	1.46	0.80
13:QM:14:ARG:H	13:QM:44:ARG:HD3	1.45	0.80
25:RE:201:THR:HG22	25:RE:203:LYS:H	1.45	0.80
36:RT:24:PRO:HA	36:RT:49:VAL:HG13	1.61	0.80
22:YA:984:A:H5''	22:YA:985:C:H5	1.46	0.80
22:RA:2712:U:O2'	22:RA:2712(A):A:O5'	1.97	0.80
30:RN:42:TRP:O	37:RU:64:ARG:NH2	2.15	0.80
25:RE:50:GLY:HA2	25:RE:77:ILE:HA	1.64	0.80
43:R0:53:MET:HG3	43:R0:59:LEU:HD23	1.62	0.80
22:YA:581:C:H2'	22:YA:582:G:H8	1.46	0.80
22:YA:1310:G:OP2	50:Y7:9:ARG:NH1	2.14	0.80
41:YY:76:CYS:SG	41:YY:77:PRO:HD2	2.22	0.80
1:QA:1346:A:H5''	9:QI:120:ARG:HH12	1.47	0.80
13:QM:3:ARG:HA	13:QM:9:ILE:HG21	1.62	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:27:G:HO2'	22:RA:28:A:H8	1.30	0.80
22:RA:1667:G:O2'	22:RA:1991:U:O4	2.00	0.80
1:QA:1129:C:N4	1:QA:1133:G:O6	2.15	0.80
42:RZ:182:LYS:H	42:RZ:182:LYS:HD3	1.45	0.80
22:YA:869:G:N2	22:YA:908:C:O2	2.15	0.80
1:XA:257:G:H1	1:XA:269:C:H42	1.28	0.79
13:XM:65:LYS:HD3	13:XM:69:GLU:HG3	1.63	0.79
22:YA:620:G:H4'	22:YA:621:A:H5'	1.63	0.79
22:YA:819:A:OP2	22:YA:1187:G:N2	2.15	0.79
22:YA:879:G:O6	22:YA:898:C:N4	2.14	0.79
42:YZ:60:GLU:HA	42:YZ:66:SER:HA	1.63	0.79
1:QA:337:C:H2'	1:QA:338:A:H8	1.47	0.79
22:RA:468:G:H4'	26:RF:62:ARG:HH12	1.46	0.79
22:YA:1479:G:N7	22:YA:1510:A:N6	2.30	0.79
29:YI:82:ARG:HD3	29:YI:146:ALA:HB3	1.62	0.79
40:YX:67:GLY:O	40:YX:69:TYR:N	2.15	0.79
22:RA:996:A:H4'	37:RU:92:ARG:HE	1.45	0.79
34:RR:104:ARG:HD2	34:RR:111:LEU:HD21	1.63	0.79
3:XC:32:LEU:HD13	3:XC:59:ARG:HD3	1.64	0.79
20:XT:33:ILE:O	20:XT:37:SER:OG	2.00	0.79
29:RI:41:GLU:HA	29:RI:44:LEU:HB2	1.64	0.79
15:QO:26:GLU:OE2	15:QO:77:ARG:NH1	2.16	0.79
22:RA:301:G:N2	22:RA:316:C:O2	2.14	0.79
22:YA:1422:G:N2	22:YA:1498:C:O2	2.14	0.79
11:QK:21:ILE:HB	11:QK:84:VAL:HG12	1.65	0.79
22:YA:1798:U:H5'	24:YD:259:THR:HG22	1.64	0.79
22:YA:2233:U:H2'	22:YA:2234:G:C8	2.18	0.79
22:RA:507:A:H5''	22:RA:508:G:H5'	1.64	0.79
2:XB:77:ALA:HB2	2:XB:211:ILE:HD13	1.64	0.79
3:XC:59:ARG:HH12	3:XC:97:LYS:HE3	1.47	0.79
22:YA:271:G:H2'	22:YA:272:G:H8	1.46	0.79
1:XA:134:A:H61	16:XP:25:ARG:NH1	1.82	0.78
1:XA:1298:C:H2'	7:XG:114:ARG:NH1	1.96	0.78
3:QC:79:ARG:CZ	11:XK:99:GLN:HB2	2.12	0.78
22:RA:2580:U:H4'	25:RE:130:GLY:HA3	1.63	0.78
22:YA:2015:A:N3	48:Y5:2:ALA:N	2.30	0.78
4:QD:27:TYR:OH	6:XF:15:ASP:OD2	2.01	0.78
4:XD:9:CYS:SG	4:XD:22:LYS:NZ	2.52	0.78
22:YA:2292:C:P	35:YS:17:ARG:HH22	2.06	0.78
53:QV:40:C:H2'	53:QV:41:C:H6	1.49	0.78
30:RN:95:PRO:O	30:RN:97:ARG:N	2.15	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:YQ:60:ARG:HH11	42:YZ:113:ALA:HB3	1.47	0.78
47:Y4:1:MET:SD	47:Y4:6:HIS:NE2	2.56	0.78
1:QA:191:G:H1'	20:QT:105:SER:HB3	1.66	0.78
1:QA:191:G:O2'	20:QT:101:GLY:O	2.01	0.78
1:QA:976:G:N2	1:QA:1362(A):C:OP2	2.15	0.78
32:RP:126:VAL:HG12	32:RP:147:LEU:HD21	1.63	0.78
22:YA:1055:G:H1	22:YA:1104:C:H42	1.32	0.78
22:YA:1568:G:H4'	24:YD:59:LYS:HB3	1.65	0.78
1:QA:792:A:H4'	1:QA:793:U:O5'	1.84	0.78
20:QT:100:ILE:HG13	20:QT:102:GLY:H	1.48	0.78
22:RA:1542:G:O6	22:RA:1543:A:N6	2.17	0.78
24:RD:69:ARG:NH2	24:RD:128:GLY:O	2.17	0.78
22:YA:630:G:OP1	51:Y8:46:ARG:NH1	2.16	0.78
31:YO:88:ASN:HD21	31:YO:92:GLU:HB2	1.47	0.78
1:QA:542:G:OP1	4:QD:10:ARG:NH2	2.17	0.78
1:QA:885:G:O2'	1:QA:914:A:N1	2.16	0.78
1:QA:1292:U:OP1	7:QG:41:ARG:NH2	2.17	0.78
10:QJ:50:ILE:HA	10:QJ:60:ARG:HG2	1.66	0.78
1:XA:1263:C:N4	1:XA:1272:G:O6	2.15	0.78
22:YA:1434:A:H61	22:YA:1558:A:H62	1.29	0.78
13:XM:14:ARG:H	13:XM:44:ARG:HD3	1.49	0.77
1:QA:244:U:H6	1:QA:244:U:H5'	1.48	0.77
22:YA:1021:A:OP2	30:YN:65:LYS:NZ	2.17	0.77
1:QA:1196:U:O2	3:QC:162:GLN:NE2	2.17	0.77
3:XC:20:SER:HB2	3:XC:40:ARG:HH22	1.50	0.77
22:RA:2011:U:OP2	39:RW:16:LYS:NZ	2.15	0.77
24:YD:69:ARG:NH2	24:YD:128:GLY:O	2.18	0.77
42:RZ:94:GLU:HB2	42:RZ:130:PRO:HD2	1.65	0.77
26:RF:66:PRO:O	26:RF:68:LYS:N	2.18	0.77
1:XA:1130:A:O2'	9:XI:3:GLN:NE2	2.16	0.77
30:YN:95:PRO:O	30:YN:97:ARG:N	2.18	0.77
1:QA:1127:G:H22	1:QA:1145:C:H1'	1.47	0.77
22:RA:484:C:O2	22:RA:496:G:N2	2.17	0.77
43:R0:26:TYR:N	43:R0:29:GLN:OE1	2.18	0.77
1:XA:388:G:O2'	1:XA:389:A:OP2	2.01	0.77
32:YP:47:ASP:OD1	32:YP:50:ARG:NH2	2.17	0.77
22:RA:1454:U:OP1	34:RR:77:ARG:NH1	2.18	0.76
22:YA:180:G:N2	22:YA:215:G:O6	2.19	0.76
22:RA:483:A:H4'	41:RY:49:VAL:HA	1.67	0.76
22:RA:2293:C:H5''	35:RS:89:ARG:HH12	1.51	0.76
1:XA:1077:G:N2	1:XA:1080:A:OP2	2.17	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:RI:92:VAL:HG13	29:RI:120:ILE:HG23	1.67	0.76
22:RA:2392:A:C8	32:RP:60:MET:HG2	2.16	0.76
13:XM:62:ASN:HA	47:Y4:49:PHE:CD2	2.21	0.76
25:RE:9:VAL:HB	25:RE:25:VAL:HG23	1.66	0.76
1:XA:1094:G:HO2'	1:XA:1095:U:P	2.08	0.76
22:YA:443:A:N7	26:YF:45:ARG:HD2	2.00	0.76
1:QA:662:G:O2'	1:QA:836:G:OP1	2.04	0.76
34:RR:3:HIS:O	34:RR:5:LYS:N	2.19	0.76
42:RZ:79:ARG:HB3	42:RZ:80:ARG:HD3	1.66	0.76
16:XP:45:THR:HG22	16:XP:47:ASP:H	1.51	0.76
22:YA:2134:A:OP2	22:YA:2157:G:N2	2.19	0.76
35:RS:62:LYS:HB3	35:RS:97:ARG:HD3	1.67	0.76
19:XS:5:LEU:HD21	47:Y4:66:SER:HB2	1.68	0.76
22:YA:2415:G:H4'	32:YP:67:MET:N	2.00	0.76
22:RA:2818:G:OP2	34:RR:42:LYS:NZ	2.18	0.76
13:XM:61:GLU:O	47:Y4:49:PHE:CE2	2.38	0.76
34:YR:74:LYS:O	34:YR:76:VAL:N	2.18	0.76
1:QA:1002:G:H2'	1:QA:1003:G:H8	1.51	0.76
26:YF:197:ASP:O	26:YF:199:TRP:N	2.19	0.76
28:YH:153:LYS:HG2	28:YH:162:ILE:HG13	1.67	0.76
1:XA:523:A:H61	12:XL:92:ASP:HB2	1.51	0.75
22:RA:1059:G:O6	22:RA:1079:C:N4	2.18	0.75
41:RY:95:LYS:HB3	41:RY:100:ALA:HA	1.69	0.75
13:XM:3:ARG:CB	47:Y4:34:GLU:HB3	2.15	0.75
22:YA:581:C:H2'	22:YA:582:G:C8	2.22	0.75
42:RZ:150:LEU:HD23	42:RZ:171:ILE:HG13	1.68	0.75
1:XA:451:A:OP1	1:XA:481:G:N2	2.17	0.75
22:RA:2439:A:H5'	22:RA:2439:A:C8	2.21	0.75
36:YT:57:PHE:O	36:YT:58:ASN:ND2	2.19	0.75
1:QA:689:C:OP1	11:QK:27:ASN:ND2	2.19	0.75
41:RY:87:LYS:HD3	41:RY:92:ASN:HB3	1.69	0.75
1:XA:564:C:O2'	8:XH:91:ARG:NH2	2.20	0.75
1:XA:1352:C:H42	1:XA:1370:G:H1	1.35	0.75
36:YT:27:THR:HG23	36:YT:90:GLN:HB3	1.67	0.75
1:QA:979:C:OP1	1:QA:1223:C:N4	2.19	0.75
1:QA:1316:G:H22	1:QA:1319:A:H5''	1.52	0.75
22:RA:2572:A:H5''	22:RA:2574:G:H4'	1.68	0.75
32:RP:14:LYS:O	32:RP:16:ARG:N	2.20	0.75
42:RZ:156:LYS:HG2	42:RZ:158:PRO:HD3	1.66	0.75
49:R6:41:PRO:HG2	49:R6:45:LYS:H	1.52	0.75
1:XA:559:A:OP1	5:XE:126:ARG:NH2	2.19	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:YU:92:ARG:O	37:YU:94:ASN:N	2.20	0.75
42:YZ:97:GLU:HB3	42:YZ:125:LEU:HD11	1.68	0.75
4:QD:57:ARG:HH22	5:QE:107:ARG:HD3	1.50	0.75
5:QE:102:ALA:HB1	5:QE:106:PRO:HG2	1.69	0.75
38:YV:24:LYS:HA	38:YV:92:THR:HG23	1.68	0.75
22:RA:984:A:H5''	22:RA:985:C:H5	1.52	0.74
22:RA:2298:A:H62	22:RA:2318:G:H8	1.32	0.74
34:RR:56:LYS:NZ	34:RR:90:ARG:O	2.20	0.74
41:RY:86:ARG:HB2	41:RY:95:LYS:HD2	1.69	0.74
50:R7:9:ARG:HH21	50:R7:48:LYS:HD2	1.52	0.74
30:YN:13:TRP:HB2	30:YN:133:GLN:HG3	1.69	0.74
1:QA:1305:G:HO2'	1:QA:1306:A:H8	1.35	0.74
5:QE:7:GLU:HG2	5:QE:112:LEU:HD22	1.69	0.74
34:RR:74:LYS:O	34:RR:76:VAL:N	2.18	0.74
1:XA:793:U:O2	1:XA:1516:G:H4'	1.87	0.74
22:RA:1614:A:H62	39:RW:93:ALA:HB2	1.52	0.74
29:RI:8:PRO:HD3	29:RI:15:VAL:HG13	1.68	0.74
1:XA:581:G:N2	1:XA:760:G:N7	2.35	0.74
17:XQ:66:SER:O	17:XQ:70:ARG:NH1	2.21	0.74
29:YI:64:GLU:O	29:YI:67:ARG:NH2	2.20	0.74
35:YS:78:LEU:HD21	35:YS:108:GLY:HA3	1.68	0.74
1:XA:931:C:O2	1:XA:1386:G:N2	2.18	0.74
22:YA:1209:G:H21	22:YA:1210:A:H62	1.32	0.74
22:YA:1630(A):C:N4	22:YA:1635:G:O6	2.16	0.74
42:YZ:101:PRO:HA	42:YZ:123:ASP:HB3	1.70	0.74
27:RG:34:LEU:HB2	27:RG:172:LEU:HD21	1.69	0.74
2:XB:178:ARG:HG3	8:XH:72:PRO:HA	1.69	0.74
22:YA:1996:C:OP1	31:YO:31:LYS:NZ	2.20	0.74
1:QA:1204:A:OP1	14:QN:3:ARG:NH2	2.20	0.74
22:RA:620:G:H4'	22:RA:621:A:H5''	1.68	0.74
1:XA:356:A:H2'	1:XA:357:G:H8	1.51	0.74
1:XA:606:G:H1	1:XA:631:G:H5''	1.51	0.74
1:XA:1279:A:O2'	1:XA:1282:C:N4	2.20	0.74
1:QA:147:G:H1	1:QA:175:C:H42	1.34	0.74
8:QH:29:SER:HB3	8:QH:32:LYS:HG3	1.69	0.74
22:YA:2444:G:OP2	26:YF:68:LYS:HE3	1.88	0.74
36:YT:51:ARG:HG2	36:YT:98:LYS:HG3	1.70	0.74
22:YA:2701:C:H3'	22:YA:2702:U:C5'	2.17	0.74
27:YG:161:THR:HG22	27:YG:163:ALA:H	1.53	0.74
43:Y0:53:MET:HB3	43:Y0:59:LEU:HD23	1.70	0.74
1:QA:411:A:C5	1:QA:413:G:H1'	2.23	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1023:G:H3'	1:QA:1024:G:H5''	1.70	0.74
25:RE:62:PRO:O	25:RE:64:LYS:N	2.20	0.74
22:YA:1688:U:O2	22:YA:1700:A:H5''	1.88	0.74
23:YB:28:C:OP1	35:YS:36:TYR:OH	2.06	0.74
42:YZ:144:LEU:HD12	42:YZ:174:VAL:HG23	1.70	0.74
22:RA:602:G:O2'	22:RA:604:G:O2'	2.05	0.74
22:RA:140:A:H8	22:RA:1408:C:HO2'	1.35	0.73
5:QE:100:VAL:O	5:QE:107:ARG:NH2	2.20	0.73
22:RA:2115:G:N2	22:RA:2165:G:N7	2.34	0.73
43:R0:65:GLY:HA3	43:R0:83:PRO:HA	1.70	0.73
22:RA:259:G:O2'	22:RA:621:A:O2'	2.04	0.73
22:RA:1080:C:N4	22:RA:1088:A:OP2	2.16	0.73
1:XA:1286:A:H5''	21:XU:26:LYS:HD2	1.70	0.73
47:Y4:9:LEU:H	47:Y4:27:THR:HG23	1.53	0.73
53:XV:23:C:H2'	53:XV:24:U:H6	1.51	0.73
22:YA:776:G:H4'	22:YA:777:A:H5''	1.70	0.73
23:YB:15:A:H5'	23:YB:16:G:C8	2.22	0.73
40:YX:27:THR:HB	40:YX:80:ILE:HB	1.69	0.73
22:RA:2509:G:H1	22:RA:2579:C:H42	1.35	0.73
22:YA:1190:G:OP1	32:YP:30:THR:OG1	2.05	0.73
32:YP:14:LYS:O	32:YP:16:ARG:N	2.22	0.73
22:RA:2112:G:O6	22:RA:2169:A:N6	2.20	0.73
29:RI:29:TYR:O	29:RI:33:ARG:HB2	1.88	0.73
1:XA:396:G:O2'	1:XA:398:C:OP1	2.07	0.73
22:YA:1359:A:N6	22:YA:1372:U:H3	1.86	0.73
22:RA:2245:U:H5'	22:RA:2246:G:H5'	1.71	0.73
23:RB:28:C:N4	23:RB:56:G:O6	2.17	0.73
4:XD:7:PRO:HB2	4:XD:10:ARG:HD2	1.69	0.73
1:QA:1244:C:N4	1:QA:1293:G:H1	1.83	0.73
22:RA:2074:U:H2'	22:RA:2075:U:C6	2.24	0.73
28:YH:86:GLU:HG3	28:YH:165:ALA:H	1.53	0.73
33:YQ:104:PHE:HE1	33:YQ:125:LEU:HD11	1.53	0.73
22:YA:1754:C:OP1	36:YT:96:ARG:NH1	2.21	0.73
33:YQ:111:GLU:OE1	33:YQ:133:ARG:NH2	2.22	0.73
22:RA:1086:A:O2'	22:RA:1087:G:N7	2.22	0.73
22:YA:273(C):C:H42	22:YA:363(C):G:H1	1.34	0.73
33:YQ:24:GLY:O	33:YQ:26:TYR:N	2.19	0.73
4:QD:175:SER:HB3	4:QD:186:LEU:HD21	1.69	0.72
22:RA:530:G:O2'	22:RA:532:A:N7	2.22	0.72
1:XA:674:G:H2'	1:XA:675:A:H8	1.54	0.72
7:QG:9:VAL:HG13	7:QG:94:ARG:HH21	1.54	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:273:G:H1	22:RA:364:C:H42	1.38	0.72
22:YA:1509:C:N3	22:YA:1511:A:N6	2.37	0.72
53:QV:40:C:H2'	53:QV:41:C:C6	2.24	0.72
1:QA:1055:A:O2'	3:QC:161:GLU:OE2	2.07	0.72
3:QC:58:GLU:HB2	3:QC:65:ALA:HB3	1.70	0.72
22:RA:155:C:H42	22:RA:171:G:H1	1.37	0.72
22:RA:774:A:O2'	22:RA:775:G:O5'	2.08	0.72
3:QC:20:SER:HB2	3:QC:40:ARG:HH22	1.54	0.72
22:RA:239:U:H3	22:RA:258:G:H1	1.37	0.72
22:RA:1449:A:O2'	22:RA:1530:G:N2	2.22	0.72
22:RA:1754:C:OP1	36:RT:96:ARG:NH1	2.18	0.72
22:RA:2328:A:H2'	22:RA:2329:G:C8	2.25	0.72
43:R0:72:ARG:HB2	43:R0:75:LEU:HB2	1.70	0.72
22:RA:2540:C:O2'	22:RA:2740:A:N3	2.23	0.72
23:RB:65:C:H41	23:RB:108:C:H2'	1.53	0.72
29:YI:68:LEU:HA	29:YI:71:ILE:HG22	1.71	0.72
47:Y4:48:ARG:HH12	47:Y4:52:THR:HG22	1.54	0.72
1:QA:957:U:H4'	19:QS:79:THR:HB	1.72	0.72
22:RA:1474:C:H42	22:RA:1519:G:H1	1.38	0.72
22:YA:530:G:O2'	22:YA:532:A:N7	2.23	0.72
22:YA:2287:A:N6	22:YA:2344:U:H3	1.87	0.72
24:YD:35:LYS:HD2	24:YD:104:TYR:CE1	2.25	0.72
27:YG:6:ALA:H	47:Y4:23:GLU:HG2	1.54	0.72
45:Y2:42:GLY:O	45:Y2:44:LEU:N	2.20	0.72
22:RA:1856:G:H1	22:RA:1886:C:H42	1.37	0.72
29:RI:88:ILE:HG12	29:RI:122:GLU:H	1.54	0.72
23:YB:60:C:H2'	23:YB:61:G:H8	1.55	0.72
27:YG:64:THR:HG23	27:YG:66:GLN:H	1.55	0.72
28:YH:129:THR:OG1	28:YH:129:THR:O	2.08	0.72
17:QQ:4:LYS:HE3	17:QQ:6:LEU:HD21	1.72	0.72
31:YO:47:ILE:HG13	31:YO:48:PRO:HD2	1.72	0.72
41:YY:51:VAL:HG13	41:YY:52:SER:H	1.54	0.72
42:YZ:53:ILE:HG22	42:YZ:71:VAL:HG13	1.72	0.72
1:QA:1286:A:H5''	21:QU:26:LYS:HD2	1.72	0.71
1:XA:1455:G:H5''	20:XT:31:SER:HB2	1.72	0.71
22:YA:242:G:H5''	51:Y8:62:LEU:HD13	1.72	0.71
22:YA:1403:C:H5''	22:YA:1471:A:H1'	1.73	0.71
42:YZ:151:HIS:HA	42:YZ:171:ILE:HG13	1.72	0.71
1:QA:1502:A:H2	1:QA:1505:G:H1	1.35	0.71
22:RA:27:G:N2	22:RA:513:A:OP2	2.23	0.71
22:RA:1063:G:N2	22:RA:1076:C:O2'	2.23	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:2364:C:OP1	43:R0:55:ARG:NH1	2.23	0.71
42:RZ:76:LEU:HA	42:RZ:83:PRO:HA	1.71	0.71
5:XE:10:MET:HB3	5:XE:32:VAL:HG22	1.70	0.71
6:XF:50:TYR:OH	18:XR:74:ARG:O	2.06	0.71
22:YA:286:C:H2'	22:YA:287:C:C6	2.24	0.71
22:RA:2319:G:N1	22:RA:2334:G:OP2	2.22	0.71
9:XI:114:TYR:HE1	10:XJ:60:ARG:H	1.38	0.71
2:QB:115:LEU:HB2	2:QB:145:LEU:HD12	1.73	0.71
22:RA:997:G:OP1	37:RU:93:LYS:HD3	1.88	0.71
29:RI:2:LYS:HA	29:RI:20:ASP:HA	1.70	0.71
22:RA:259:G:H21	22:RA:621:A:H8	1.35	0.71
46:R3:8:LEU:HD13	46:R3:31:LEU:HD23	1.71	0.71
49:R6:17:LYS:HB3	49:R6:44:ARG:HH22	1.55	0.71
22:YA:1062:G:H2'	22:YA:1063:G:C8	2.25	0.71
30:YN:89:LYS:O	30:YN:93:THR:HG22	1.90	0.71
1:QA:404:U:H2'	1:QA:405:U:H6	1.53	0.71
25:YE:170:LEU:HD21	25:YE:187:ALA:HB3	1.72	0.71
4:QD:28:SER:HB3	4:QD:29:PRO:HD3	1.72	0.71
27:RG:61:ALA:HB2	27:RG:68:PRO:HD3	1.72	0.71
32:RP:38:GLN:HG2	32:RP:45:LEU:HD12	1.72	0.71
22:YA:443:A:H3'	26:YF:45:ARG:HH12	1.56	0.71
41:YY:29:GLU:HB3	41:YY:38:ILE:HG23	1.70	0.71
42:YZ:45:ASP:OD1	42:YZ:49:ARG:NE	2.22	0.71
42:RZ:63:ASP:HB3	42:RZ:65:GLN:HG3	1.73	0.71
1:XA:1123:A:H4'	10:XJ:36:GLY:HA3	1.72	0.71
8:XH:10:LEU:HD22	8:XH:83:ILE:HD11	1.72	0.71
13:XM:62:ASN:OD1	47:Y4:49:PHE:HD2	1.74	0.71
1:QA:1435:G:H2'	1:QA:1436:U:C6	2.26	0.71
10:QJ:61:GLU:OE2	14:QN:45:ARG:NH1	2.23	0.71
22:RA:27:G:H22	22:RA:512:G:H1'	1.56	0.71
22:YA:24:G:O2'	39:YW:78:GLU:O	2.09	0.71
41:YY:42:VAL:HG12	41:YY:65:ALA:HB3	1.71	0.71
22:RA:597:U:O2	22:RA:660:G:N1	2.19	0.71
22:RA:2287:A:N6	22:RA:2344:U:H3	1.89	0.71
33:RQ:81:VAL:O	33:RQ:82:ARG:NE	2.22	0.71
20:XT:45:GLN:HB2	20:XT:91:LEU:HD13	1.73	0.71
22:YA:1338:G:N7	40:YX:62:LYS:NZ	2.39	0.71
22:YA:1434:A:H61	22:YA:1558:A:N6	1.88	0.71
22:YA:2245:U:H5'	22:YA:2246:G:H5'	1.71	0.71
22:YA:2681:C:O2'	22:YA:2682:U:OP2	2.09	0.71
31:YO:2:ILE:HD12	31:YO:6:THR:HG21	1.72	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:YS:24:LEU:HB2	35:YS:85:VAL:HG12	1.71	0.71
35:YS:106:ARG:HA	35:YS:110:LEU:HD21	1.73	0.71
36:YT:77:PRO:HB2	36:YT:80:SER:HB2	1.72	0.71
1:QA:1321:C:H3'	1:QA:1322:C:H5''	1.73	0.70
22:RA:1693:U:O2'	24:RD:14:ARG:NH2	2.23	0.70
22:RA:2377:A:H2'	22:RA:2378:A:C8	2.25	0.70
22:YA:1264:G:H3'	22:YA:1265:A:H5''	1.72	0.70
22:YA:1586:A:H3'	22:YA:1587:A:H8	1.56	0.70
42:YZ:152:ALA:HB2	42:YZ:168:GLU:HA	1.72	0.70
51:Y8:58:ILE:HD13	51:Y8:61:LEU:HD21	1.73	0.70
45:R2:29:LYS:HE3	45:R2:57:ILE:HG21	1.73	0.70
22:YA:2610:C:H4'	22:YA:2611:U:OP2	1.91	0.70
19:QS:41:VAL:HB	19:QS:42:PRO:HA	1.73	0.70
22:RA:1860:G:H1	22:RA:1882:C:H42	1.40	0.70
36:RT:18:ASP:OD1	36:RT:18:ASP:N	2.19	0.70
22:YA:1649:G:O2'	34:YR:107:ASP:OD1	2.08	0.70
19:QS:40:ILE:HD11	19:QS:62:ILE:HD12	1.74	0.70
22:RA:503:A:H4'	22:RA:504:U:H5'	1.73	0.70
39:RW:29:LEU:HD22	39:RW:69:LEU:HD11	1.72	0.70
10:XJ:50:ILE:HA	10:XJ:60:ARG:HG2	1.72	0.70
27:YG:47:LYS:HD3	27:YG:81:LYS:HB2	1.73	0.70
1:XA:501:C:OP1	12:XL:117:ARG:NH2	2.24	0.70
1:XA:1239:A:H62	1:XA:1299:A:H62	1.40	0.70
13:XM:57:ARG:NH2	47:Y4:34:GLU:O	2.24	0.70
10:XJ:61:GLU:OE2	14:YN:45:ARG:NH1	2.25	0.70
13:XM:65:LYS:HE2	47:Y4:50:VAL:HG11	1.72	0.70
22:YA:2712:U:H1'	22:YA:2712(A):A:C8	2.27	0.70
1:QA:1002:G:H2'	1:QA:1003:G:C8	2.26	0.70
13:QM:59:TYR:O	13:QM:63:THR:OG1	2.07	0.70
22:RA:1496:A:H8	22:RA:1577:C:HO2'	1.39	0.70
22:RA:2355:C:H1'	43:R0:39:ARG:HH21	1.56	0.70
28:RH:106:THR:HG22	28:RH:112:PRO:HB3	1.72	0.70
1:XA:962:C:H2'	1:XA:963:G:H8	1.55	0.70
1:XA:1315:U:H2'	1:XA:1316:G:O4'	1.92	0.70
18:XR:58:LEU:HD23	18:XR:62:GLU:HB3	1.74	0.70
22:YA:1184:G:OP1	46:Y3:29:ARG:NH1	2.24	0.70
39:YW:17:VAL:HG12	39:YW:76:VAL:HG11	1.72	0.70
22:RA:141:A:H8	22:RA:1595:G:H21	1.38	0.70
22:RA:923:C:H2'	22:RA:924:C:H6	1.56	0.70
22:RA:2287:A:H62	22:RA:2344:U:H3	1.39	0.70
1:XA:113:G:H1	1:XA:314:C:H42	1.37	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:XM:8:GLU:OE2	27:YG:115:ARG:NH1	2.24	0.70
22:YA:1446:C:H42	22:YA:1465:G:H1	1.38	0.70
24:YD:43:ARG:HB3	24:YD:54:ARG:HB2	1.74	0.70
1:QA:337:C:H2'	1:QA:338:A:C8	2.25	0.70
1:QA:1226:C:H4'	19:QS:80:TYR:CZ	2.25	0.70
22:RA:2444:G:OP2	26:RF:68:LYS:HE3	1.91	0.70
1:XA:686:U:H1'	11:XK:42:TRP:HE1	1.55	0.70
14:YN:48:ALA:HB2	14:YN:53:LEU:HD12	1.73	0.70
22:RA:694:U:N3	22:RA:768:G:O6	2.17	0.70
22:RA:1899:G:H21	22:RA:1902:C:N4	1.90	0.70
22:RA:2418:A:OP2	51:R8:29:LYS:HE2	1.92	0.70
24:RD:93:ALA:HB3	24:RD:105:ILE:HG22	1.74	0.70
25:RE:119:ARG:HB3	25:RE:120:TRP:CD1	2.27	0.70
1:XA:339:C:OP2	31:YO:97:ARG:NH1	2.25	0.70
2:XB:185:ILE:HG22	2:XB:199:TYR:HB2	1.74	0.70
22:YA:1794:U:H2'	22:YA:1795:C:H6	1.56	0.70
22:YA:2470:G:H5'	33:YQ:56:ARG:NH2	2.05	0.70
26:YF:185:ASP:HA	26:YF:188:ARG:HD3	1.72	0.70
22:RA:1769:G:O2'	22:RA:1958:C:OP1	2.10	0.69
43:R0:23:VAL:HG13	43:R0:38:VAL:HG22	1.74	0.69
29:YI:77:LEU:HD22	29:YI:101:LEU:HG	1.74	0.69
1:QA:1051:C:O2	1:QA:1207:G:N2	2.19	0.69
22:RA:1310:G:H1	22:RA:1604:C:H42	1.39	0.69
4:XD:105:VAL:HG13	4:XD:110:PHE:HB2	1.74	0.69
47:R4:18:CYS:SG	47:R4:19:GLY:N	2.66	0.69
1:XA:474:G:H2'	1:XA:475:G:H8	1.57	0.69
1:XA:976:G:N2	1:XA:1362(A):C:OP2	2.25	0.69
13:XM:7:VAL:CG2	27:YG:113:ARG:O	2.40	0.69
29:YI:9:LEU:HD21	29:YI:12:LEU:HB2	1.74	0.69
10:QJ:48:THR:HA	10:QJ:62:HIS:HB3	1.73	0.69
1:XA:971:G:N2	1:XA:1363:A:OP2	2.24	0.69
19:XS:10:PHE:HB2	19:XS:39:THR:H	1.54	0.69
22:YA:2308:G:H22	22:YA:2311:A:H2	1.41	0.69
26:YF:182:ASN:ND2	26:YF:185:ASP:OD2	2.19	0.69
22:RA:1543:A:H1'	22:RA:1545:A:O4'	1.91	0.69
22:RA:2392:A:OP2	22:RA:2422:A:N6	2.26	0.69
42:RZ:69:THR:HG22	42:RZ:90:VAL:HA	1.73	0.69
42:RZ:74:VAL:HG13	42:RZ:86:VAL:HG22	1.75	0.69
1:XA:1132:C:H2'	1:XA:1133:G:H8	1.56	0.69
6:XF:68:PRO:HG2	6:XF:71:ARG:HG3	1.75	0.69
24:YD:182:LEU:H	24:YD:272:ALA:HB3	1.56	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:YI:93:THR:HG22	29:YI:119:PRO:HB3	1.75	0.69
1:QA:1322:C:O2'	1:QA:1323:G:H5'	1.93	0.69
47:R4:7:PRO:HB2	47:R4:27:THR:HG21	1.74	0.69
20:XT:100:ILE:HG13	20:XT:102:GLY:H	1.56	0.69
24:YD:71:ASP:HB2	24:YD:103:ARG:HH22	1.58	0.69
26:YF:110:LEU:HD11	26:YF:181:LEU:HD13	1.74	0.69
22:RA:265:A:N6	22:RA:427:U:O2'	2.25	0.69
48:R5:41:PRO:O	48:R5:44:THR:OG1	2.11	0.69
1:XA:136:C:H42	1:XA:227:G:H1	1.39	0.69
1:XA:243:A:H4'	1:XA:244:U:O5'	1.93	0.69
1:XA:601:C:H2'	1:XA:602:A:C8	2.27	0.69
22:YA:2331:G:H4'	43:Y0:43:THR:H	1.58	0.69
26:YF:184:TYR:O	26:YF:188:ARG:HG3	1.93	0.69
29:YI:128:LEU:HD23	29:YI:140:LEU:HD21	1.75	0.69
49:Y6:11:LEU:HD11	49:Y6:51:GLU:HG3	1.75	0.69
22:RA:392:C:H5''	22:RA:409:C:H5''	1.75	0.69
23:RB:5:C:OP1	23:RB:61:G:O2'	2.10	0.69
43:R0:56:ASP:OD2	43:R0:58:THR:N	2.20	0.69
25:YE:128:SER:OG	25:YE:129:HIS:N	2.24	0.69
22:RA:2093:G:N2	22:RA:2196:C:O2	2.24	0.69
33:RQ:37:LEU:HD21	33:RQ:130:LYS:HE3	1.74	0.69
39:RW:29:LEU:HG	39:RW:33:ARG:HD2	1.74	0.69
42:RZ:60:GLU:HA	42:RZ:66:SER:HA	1.75	0.69
22:YA:443:A:H3'	26:YF:45:ARG:NH1	2.08	0.69
26:YF:157:VAL:HB	26:YF:194:MET:HB3	1.75	0.69
22:RA:2445:G:OP1	26:RF:74:ARG:NH2	2.26	0.68
24:RD:25:THR:O	24:RD:27:THR:N	2.26	0.68
25:RE:2:LYS:HD3	25:RE:95:ILE:HG22	1.75	0.68
28:RH:86:GLU:HG3	28:RH:165:ALA:H	1.56	0.68
1:XA:601:C:H2'	1:XA:602:A:H8	1.57	0.68
22:YA:521:G:H2'	22:YA:522:G:H8	1.58	0.68
22:YA:2781:A:H5''	22:YA:2782:G:H5'	1.75	0.68
32:YP:64:LYS:C	32:YP:66:GLY:H	1.96	0.68
22:RA:1403:C:H5''	22:RA:1471:A:H1'	1.75	0.68
22:RA:2889:C:H3'	22:RA:2891:G:H8	1.58	0.68
1:XA:978:A:OP2	1:XA:1362(A):C:N4	2.25	0.68
44:Y1:73:LEU:HD13	44:Y1:90:ILE:HG22	1.76	0.68
22:RA:1266:G:O5'	39:RW:15:ARG:NH2	2.26	0.68
53:XV:4:G:O2'	53:XV:5:G:H8	1.76	0.68
3:QC:3:ASN:N	3:QC:3:ASN:OD1	2.27	0.68
1:XA:977:A:H8	1:XA:1223:C:N3	1.91	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1065:U:O2'	1:QA:1066:C:OP2	2.11	0.68
22:RA:1048:A:H2	22:RA:1112:G:H21	1.40	0.68
27:RG:47:LYS:HD3	27:RG:81:LYS:HB2	1.76	0.68
27:RG:66:GLN:NE2	27:RG:93:THR:O	2.26	0.68
1:XA:501:C:H2'	1:XA:502:G:H8	1.56	0.68
1:XA:547:A:OP1	4:XD:73:ARG:NH2	2.25	0.68
22:YA:458:G:O2'	22:YA:469:G:O6	2.11	0.68
22:YA:1689:A:H62	22:YA:1698:A:H2	1.41	0.68
36:YT:123:GLN:O	36:YT:125:ARG:N	2.26	0.68
1:QA:108:G:H5''	1:QA:109:A:H5''	1.74	0.68
5:QE:11:ILE:HG13	5:QE:31:LEU:HB3	1.76	0.68
13:QM:8:GLU:OE2	27:RG:115:ARG:HD3	1.93	0.68
1:XA:1129:C:O2'	1:XA:1131:G:N7	2.27	0.68
2:XB:235:SER:OG	2:XB:236:TYR:N	2.25	0.68
22:YA:2698:U:H2'	22:YA:2699:C:C6	2.29	0.68
24:YD:25:THR:O	24:YD:27:THR:N	2.26	0.68
16:QP:4:ILE:HG12	16:QP:21:VAL:HG12	1.75	0.68
34:RR:38:VAL:HG22	34:RR:112:ALA:HB2	1.75	0.68
1:XA:24:U:H2'	1:XA:25:C:H6	1.59	0.68
14:YN:13:THR:N	14:YN:14:PRO:HD2	2.09	0.68
25:YE:95:ILE:H	25:YE:95:ILE:HD12	1.59	0.68
11:QK:58:PRO:HB2	11:QK:93:GLN:HG3	1.75	0.68
22:RA:819:A:OP2	22:RA:1187:G:N2	2.27	0.68
22:RA:2602:A:N6	53:QV:76:A:H2'	2.09	0.68
33:RQ:12:GLN:HG2	33:RQ:73:PRO:HD2	1.75	0.68
22:YA:2753:A:O2'	52:Y9:15:LYS:NZ	2.27	0.68
24:YD:142:VAL:HG23	24:YD:193:VAL:HA	1.75	0.68
32:YP:64:LYS:C	32:YP:66:GLY:N	2.48	0.68
33:YQ:37:LEU:HD21	33:YQ:130:LYS:HE3	1.74	0.68
22:RA:2120:G:H2'	22:RA:2121:G:C8	2.29	0.68
30:YN:133:GLN:HB2	30:YN:135:PRO:HD3	1.76	0.68
1:QA:552:U:O2'	12:QL:86:ARG:O	2.11	0.68
22:RA:754:C:H2'	22:RA:755:C:H6	1.59	0.68
22:RA:2331:G:O2'	43:R0:43:THR:HG22	1.93	0.68
32:YP:39:LYS:HG3	32:YP:45:LEU:HD22	1.75	0.68
22:RA:185:U:H2'	22:RA:186:G:C8	2.30	0.67
22:RA:923:C:H2'	22:RA:924:C:C6	2.28	0.67
22:RA:2438:U:O3'	22:RA:2439:A:H3'	1.94	0.67
27:RG:83:ARG:H	27:RG:86:MET:HG3	1.59	0.67
1:QA:346:G:OP1	36:RT:41:ARG:NH2	2.27	0.67
2:QB:27:LYS:HD2	2:QB:193:ASP:HB2	1.75	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:1649:G:O2'	34:RR:107:ASP:OD1	2.07	0.67
22:YA:2582:G:N2	22:YA:2583:G:H1'	2.10	0.67
1:QA:297:G:N2	1:QA:300:A:OP2	2.28	0.67
1:QA:376:G:H1	1:QA:387:U:H3	1.41	0.67
1:QA:1356:G:H2'	1:QA:1357:A:C8	2.28	0.67
22:RA:1696:G:H21	22:RA:1978:A:H5'	1.58	0.67
28:RH:152:ARG:HG3	28:RH:153:LYS:HD2	1.77	0.67
22:YA:607:U:H3	22:YA:621:A:H2	1.43	0.67
51:Y8:29:LYS:O	51:Y8:31:HIS:N	2.27	0.67
1:QA:1053:G:H5'	1:QA:1054:C:H5'	1.75	0.67
4:QD:154:ASN:N	4:QD:154:ASN:OD1	2.26	0.67
19:QS:29:ARG:HD3	19:QS:30:LEU:HD13	1.77	0.67
22:RA:300:A:H2'	22:RA:334:C:H1'	1.75	0.67
8:XH:120:THR:H	8:XH:123:GLU:HB2	1.59	0.67
19:XS:40:ILE:HG12	19:XS:41:VAL:HG13	1.76	0.67
22:YA:1048:A:P	22:YA:1110:G:H22	2.17	0.67
22:YA:1270:C:H5''	22:YA:1271:G:H5'	1.77	0.67
22:YA:2757:A:OP1	52:Y9:19:ARG:HA	1.94	0.67
42:YZ:72:ARG:NH2	42:YZ:97:GLU:O	2.26	0.67
1:QA:983:A:N1	1:QA:1222:G:N2	2.43	0.67
24:RD:182:LEU:H	24:RD:272:ALA:HB3	1.59	0.67
28:RH:41:MET:HE1	28:RH:64:LEU:HD22	1.76	0.67
5:XE:31:LEU:HD23	5:XE:45:PHE:CD1	2.30	0.67
28:YH:137:ASP:OD1	28:YH:138:LYS:N	2.27	0.67
33:YQ:89:ASN:O	33:YQ:92:GLY:N	2.18	0.67
22:RA:270(I):G:H2'	22:RA:270(J):G:H8	1.60	0.67
23:RB:28:C:N3	23:RB:56:G:N1	2.29	0.67
38:RV:72:VAL:HG13	38:RV:85:LYS:HB3	1.75	0.67
1:XA:353:A:H5'	1:XA:353:A:H8	1.60	0.67
22:YA:2393:A:H5'	32:YP:62:LEU:HB3	1.77	0.67
25:YE:1:MET:N	25:YE:83:ASP:O	2.28	0.67
42:YZ:182:LYS:HG3	42:YZ:183:LEU:HA	1.76	0.67
1:XA:322:C:O2	1:XA:332:G:N2	2.28	0.67
1:XA:973:G:OP1	10:XJ:57:LYS:NZ	2.27	0.67
2:XB:168:THR:HB	2:XB:192:SER:HB2	1.77	0.67
22:YA:1665:A:H1'	31:YO:1:MET:HG3	1.76	0.67
36:YT:16:ARG:NH2	36:YT:83:ILE:O	2.27	0.67
22:RA:138:G:N2	40:RX:44:GLU:OE2	2.24	0.67
24:RD:49:ILE:HD11	24:RD:52:ARG:HA	1.77	0.67
36:RT:84:GLN:HG2	36:RT:85:LYS:HG2	1.76	0.67
2:XB:174:VAL:HG13	2:XB:184:VAL:HG11	1.76	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:27:G:N2	22:YA:512:G:O2'	2.28	0.67
22:YA:712:G:H1	22:YA:719:C:H42	1.43	0.67
34:YR:78:LYS:HE2	34:YR:83:ILE:HD11	1.77	0.67
38:YV:52:VAL:HG21	38:YV:55:ALA:HB3	1.76	0.67
22:RA:252:G:OP2	32:RP:50:ARG:NH1	2.28	0.67
22:RA:969:U:H2'	22:RA:970:C:C6	2.29	0.67
22:RA:1139:G:O2'	22:RA:1143:A:N1	2.22	0.67
22:RA:1859:A:N6	22:RA:1883:G:O2'	2.28	0.67
26:RF:143:ALA:HB1	26:RF:148:LEU:HB2	1.75	0.67
33:RQ:30:GLY:HA2	33:RQ:107:ALA:HB2	1.77	0.67
42:RZ:62:PRO:O	42:RZ:64:GLY:N	2.27	0.67
1:XA:266:G:H5''	1:XA:267:C:C5	2.29	0.67
5:XE:37:ARG:HA	5:XE:114:GLY:H	1.59	0.67
22:YA:27:G:O2'	22:YA:28:A:H8	1.76	0.67
22:YA:2294:C:OP2	35:YS:13:ARG:NH1	2.28	0.67
48:Y5:4:HIS:HB3	48:Y5:5:PRO:HD3	1.77	0.67
1:QA:757:U:O2'	1:QA:879:C:O2	2.12	0.66
1:QA:1104:G:H4'	2:QB:111:ARG:NH1	2.09	0.66
22:YA:2263:C:H2'	22:YA:2264:C:H6	1.59	0.66
24:YD:35:LYS:HG2	24:YD:64:ILE:H	1.59	0.66
22:RA:1041:C:H42	22:RA:1114:G:H1	1.43	0.66
22:RA:2404:C:H1'	32:RP:67:MET:HE1	1.77	0.66
22:RA:2655:G:N2	22:RA:2665:A:OP2	2.28	0.66
22:YA:1061:U:H3'	22:YA:1062:G:H5''	1.77	0.66
33:YQ:62:GLY:HA2	42:YZ:116:VAL:HG21	1.78	0.66
1:QA:405:U:O4	4:QD:2:GLY:N	2.28	0.66
1:QA:946:A:O2'	1:QA:1333:A:N3	2.24	0.66
22:YA:589:C:H2'	22:YA:590:A:C8	2.30	0.66
22:RA:1019:U:H3	22:RA:1142(A):A:N6	1.90	0.66
44:R1:7:ILE:HG12	44:R1:91:LYS:NZ	2.11	0.66
52:R9:27:CYS:SG	52:R9:29:ASN:ND2	2.69	0.66
1:XA:1008:C:H42	1:XA:1021:G:H1	1.41	0.66
10:XJ:7:LYS:HB2	10:XJ:97:GLU:HB2	1.76	0.66
22:YA:31:C:O3'	22:YA:1238:G:H5''	1.94	0.66
22:YA:1798:U:C5'	24:YD:259:THR:HG22	2.25	0.66
28:YH:86:GLU:HG3	28:YH:165:ALA:N	2.10	0.66
39:YW:45:TYR:CZ	39:YW:49:LYS:HD2	2.30	0.66
1:QA:411:A:H62	1:QA:413:G:H21	1.41	0.66
3:QC:70:VAL:HG12	3:QC:72:LYS:H	1.60	0.66
22:RA:848:G:H2'	22:RA:849:A:C8	2.31	0.66
1:XA:250:A:H4'	1:XA:251:G:O5'	1.95	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:XM:105:THR:O	13:XM:107:ALA:N	2.29	0.66
41:YY:49:VAL:O	41:YY:51:VAL:N	2.29	0.66
42:YZ:33:LEU:HD21	42:YZ:35:ARG:HD2	1.75	0.66
22:RA:1309:G:H4'	50:R7:7:PRO:HB2	1.78	0.66
1:XA:321:A:N6	1:XA:329:A:OP2	2.29	0.66
1:XA:651:C:H2'	1:XA:652:U:H6	1.60	0.66
41:YY:97:ARG:HE	41:YY:98:VAL:HB	1.61	0.66
19:QS:39:THR:HG22	19:QS:40:ILE:H	1.61	0.66
22:RA:2781:A:H5''	22:RA:2782:G:H5'	1.76	0.66
27:RG:6:ALA:H	47:R4:23:GLU:HG2	1.60	0.66
1:XA:940:C:H2'	1:XA:941:G:C8	2.31	0.66
22:YA:1167:U:H2'	22:YA:1168:G:H8	1.60	0.66
22:YA:1407:C:H42	22:YA:1595:G:H1	1.44	0.66
23:RB:8:U:H5'	35:RS:15:ARG:HH12	1.61	0.66
22:YA:758:C:O2'	22:YA:1981:A:N3	2.23	0.66
25:RE:63:LEU:HD13	25:RE:65:GLY:H	1.60	0.66
41:RY:49:VAL:O	41:RY:51:VAL:N	2.29	0.66
1:XA:880:C:OP1	12:XL:12:ARG:NH1	2.28	0.66
23:YB:15:A:H5'	23:YB:16:G:H8	1.61	0.66
30:YN:35:ARG:O	30:YN:37:LYS:N	2.29	0.66
32:YP:105:LEU:O	32:YP:106:LEU:HB2	1.95	0.66
1:QA:975:A:H4'	1:QA:976:G:H5''	1.79	0.66
1:QA:1128:C:OP1	9:QI:66:ARG:NH2	2.27	0.66
22:RA:414:C:O2	22:RA:1864:U:O2'	2.13	0.66
22:RA:2065:C:H1'	22:RA:2449:U:H3	1.61	0.66
33:RQ:135:ASP:OD1	33:RQ:135:ASP:N	2.23	0.66
36:RT:102:ILE:HB	36:RT:110:ILE:HD13	1.78	0.66
1:XA:403:C:OP1	4:XD:137:SER:OG	2.13	0.66
1:XA:1060:C:C4	3:XC:2:GLY:HA2	2.31	0.66
19:XS:50:ALA:HB1	19:XS:57:HIS:HB3	1.77	0.66
22:YA:2612:C:H2'	22:YA:2613:U:H5'	1.77	0.66
1:XA:1356:G:H2'	1:XA:1357:A:C8	2.31	0.65
22:YA:1061:U:H4'	22:YA:1070:A:H1'	1.76	0.65
38:YV:21:ARG:HD2	38:YV:91:TYR:CD1	2.31	0.65
1:QA:35:G:O2'	12:QL:118:SER:O	2.14	0.65
22:RA:1409:C:H42	22:RA:1593:G:H1	1.44	0.65
22:RA:1444(A):A:H4'	22:RA:1460:A:O2'	1.95	0.65
22:RA:1657:C:H2'	22:RA:1658:C:C6	2.30	0.65
1:XA:1218:C:H2'	1:XA:1219:U:C6	2.31	0.65
1:QA:501:C:H2'	1:QA:502:G:H8	1.60	0.65
1:QA:1286:A:H8	1:QA:1287:A:H4'	1.61	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:QB:82:ARG:HA	2:QB:92:TYR:CE2	2.31	0.65
22:RA:1854:A:H62	22:RA:1888:G:H8	1.42	0.65
24:RD:27:THR:HG21	24:RD:81:ALA:HB1	1.78	0.65
24:RD:108:PRO:HG2	24:RD:111:LEU:HG	1.78	0.65
29:RI:77:LEU:HD21	29:RI:97:ILE:HG22	1.78	0.65
1:XA:1366:C:H2'	1:XA:1367:C:H6	1.61	0.65
36:YT:16:ARG:HD3	36:YT:19:LEU:HD11	1.77	0.65
44:Y1:29:GLY:O	44:Y1:31:GLY:N	2.30	0.65
1:QA:1318:A:H4'	19:QS:11:VAL:HG11	1.77	0.65
22:RA:1939:U:OP1	22:RA:2604:U:O2'	2.14	0.65
32:RP:59:LEU:HA	32:RP:61:ARG:NE	2.12	0.65
42:YZ:30:ASN:HD22	42:YZ:90:VAL:HB	1.61	0.65
48:Y5:40:LYS:HZ1	48:Y5:48:GLU:HB2	1.61	0.65
1:QA:1175:G:H2'	1:QA:1176:A:H8	1.60	0.65
29:RI:109:ILE:HB	29:RI:130:TYR:OH	1.96	0.65
47:R4:1:MET:SD	47:R4:6:HIS:NE2	2.69	0.65
49:R6:11:LEU:HD23	49:R6:26:ASN:HB3	1.78	0.65
1:XA:392:G:H2'	1:XA:393:A:C8	2.31	0.65
1:XA:1280:A:O2'	1:XA:1281:U:OP1	2.14	0.65
22:YA:1952:A:C2	31:YO:22:ILE:HG23	2.31	0.65
37:YU:8:VAL:HG23	37:YU:11:ARG:HH21	1.62	0.65
19:QS:28:LYS:HB2	19:QS:47:HIS:CE1	2.32	0.65
22:RA:1681:G:O2'	22:RA:1762:A:O2'	2.13	0.65
1:XA:412:A:H4'	1:XA:413:G:O5'	1.95	0.65
11:XK:21:ILE:HB	11:XK:84:VAL:HG12	1.77	0.65
22:YA:2227:A:H5''	24:YD:263:ARG:NH1	2.11	0.65
45:Y2:50:ILE:HD12	45:Y2:51:ARG:H	1.62	0.65
1:QA:1513:A:H2'	1:QA:1514:C:C6	2.32	0.65
16:QP:53:VAL:HG12	16:QP:79:VAL:HG22	1.77	0.65
22:RA:1833:U:O2'	22:RA:1969:A:N1	2.26	0.65
41:RY:38:ILE:HG22	41:RY:66:PRO:HA	1.79	0.65
2:XB:178:ARG:NH1	2:XB:196:LEU:O	2.28	0.65
22:YA:2023:G:H5'	22:YA:2617:C:H4'	1.78	0.65
28:YH:20:ALA:HB3	28:YH:23:ARG:HG2	1.77	0.65
22:RA:404:C:O2'	22:RA:405:U:OP2	2.15	0.65
22:RA:1204:A:H2	22:RA:1241:A:N1	1.93	0.65
22:RA:1278:A:H2'	22:RA:1279:G:C8	2.31	0.65
29:RI:73:GLU:HG3	29:RI:136:VAL:HG23	1.78	0.65
1:XA:1125:U:OP2	1:XA:1145:C:N4	2.29	0.65
20:XT:97:ALA:O	20:XT:99:LEU:N	2.30	0.65
22:YA:1049:C:H2'	22:YA:1050:A:H5''	1.79	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QC:9:GLY:HA2	3:QC:12:LEU:HD23	1.78	0.65
32:RP:71:VAL:HG13	32:RP:72:PRO:HD3	1.78	0.65
22:YA:589:C:H2'	22:YA:590:A:H8	1.62	0.65
29:YI:113:ARG:HB3	29:YI:131:LYS:HD3	1.78	0.65
1:QA:1395:C:O2'	1:QA:1401:G:O2'	2.15	0.65
23:RB:33:G:H5'	27:RG:2:PRO:HG3	1.78	0.65
32:RP:47:ASP:OD1	32:RP:50:ARG:NH2	2.30	0.65
32:RP:85:LEU:HA	32:RP:88:LEU:HD22	1.79	0.65
48:R5:58:LEU:HD13	48:R5:60:VAL:HG12	1.77	0.65
19:XS:5:LEU:CD1	47:Y4:66:SER:HA	2.27	0.65
22:YA:2133:G:H1'	22:YA:2158:A:H61	1.62	0.65
22:YA:2787:C:HO2'	22:YA:2810:A:HO2'	1.42	0.65
22:YA:2818:G:HO2'	22:YA:2836:U:HO2'	1.44	0.65
24:YD:80:ALA:HB3	24:YD:94:LEU:HD13	1.79	0.65
13:QM:3:ARG:HD2	13:QM:9:ILE:HG12	1.79	0.64
22:RA:592:G:H1	22:RA:665:C:H42	1.45	0.64
43:R0:36:ILE:HD11	43:R0:39:ARG:HG2	1.79	0.64
1:XA:1023:G:H3'	1:XA:1024:G:H5''	1.78	0.64
13:XM:77:ASN:OD1	47:Y4:71:ARG:NH1	2.30	0.64
22:YA:1485:G:O6	22:YA:1504:C:N4	2.20	0.64
22:YA:1535:U:H5''	22:YA:1537:C:C4	2.31	0.64
22:YA:1930:G:H2'	22:YA:1968:G:C6	2.32	0.64
23:YB:56:G:H5'	27:YG:27:ASN:HD21	1.62	0.64
24:YD:44:ASN:HB3	24:YD:49:ILE:HA	1.78	0.64
26:YF:107:LYS:HD2	26:YF:207:GLY:H	1.62	0.64
28:YH:153:LYS:HG3	28:YH:161:GLY:HA2	1.79	0.64
48:Y5:56:LYS:H	48:Y5:56:LYS:HD2	1.60	0.64
22:RA:630:G:N2	22:RA:633:A:OP2	2.30	0.64
22:RA:2355:C:H4'	43:R0:24:LYS:HG3	1.79	0.64
31:RO:4:PRO:O	31:RO:5:GLN:HB2	1.96	0.64
1:XA:1221:G:O3'	19:XS:77:THR:HG21	1.98	0.64
3:XC:122:GLU:OE1	3:XC:126:ARG:NH2	2.29	0.64
22:YA:995:C:H5''	37:YU:54:LYS:HG2	1.79	0.64
22:YA:1048:A:OP2	22:YA:1110:G:N2	2.30	0.64
1:QA:1123:A:H4'	10:QJ:36:GLY:HA3	1.79	0.64
22:RA:587:C:OP2	32:RP:21:ARG:NH2	2.29	0.64
42:RZ:17:ALA:HA	42:RZ:20:ARG:HB2	1.78	0.64
22:YA:2068:U:H3	22:YA:2430:A:H2	1.43	0.64
22:YA:2115:G:N2	22:YA:2164:C:OP2	2.30	0.64
22:YA:2494:G:H2'	22:YA:2495:G:H8	1.62	0.64
29:YI:92:VAL:HG13	29:YI:120:ILE:HG23	1.79	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:YU:88:ILE:HG22	37:YU:90:VAL:HG23	1.79	0.64
10:QJ:77:PRO:O	10:QJ:79:ARG:NH1	2.30	0.64
22:RA:1370:C:O2'	22:RA:1811:G:O2'	2.14	0.64
24:RD:35:LYS:HG2	24:RD:64:ILE:N	2.12	0.64
22:YA:128:C:H4'	50:Y7:49:ARG:HH12	1.62	0.64
22:YA:2145:C:O2	22:YA:2147:G:N2	2.29	0.64
22:YA:2343:C:O2'	22:YA:2373:G:O2'	2.16	0.64
28:YH:153:LYS:HB3	28:YH:162:ILE:H	1.63	0.64
1:QA:405:U:OP1	1:QA:406:G:O2'	2.12	0.64
1:QA:1179:A:O3'	9:QI:103:THR:HG23	1.97	0.64
22:RA:345:A:H2'	22:RA:347:A:H62	1.60	0.64
22:RA:1020:A:N6	22:RA:1141:U:O2'	2.29	0.64
22:RA:1138:G:H21	30:RN:106:MET:HE3	1.61	0.64
1:XA:910:C:P	12:XL:97:ARG:HH22	2.21	0.64
15:XO:26:GLU:OE2	15:XO:77:ARG:NH1	2.31	0.64
22:YA:1499:C:H2'	22:YA:1500:G:C8	2.33	0.64
22:YA:2693:A:H2'	22:YA:2694:G:H8	1.62	0.64
24:YD:30:GLU:HG3	24:YD:63:ARG:NH2	2.12	0.64
33:YQ:78:PRO:O	33:YQ:79:LEU:HB2	1.97	0.64
10:QJ:53:PRO:HA	14:QN:42:ILE:HD12	1.79	0.64
24:RD:8:PRO:HB3	24:RD:14:ARG:HB2	1.79	0.64
24:RD:65:ILE:HD11	24:RD:67:PHE:CE1	2.31	0.64
1:XA:129(A):G:H1'	1:XA:190:G:H5''	1.80	0.64
1:XA:1004:A:H1'	1:XA:1036:G:H1	1.62	0.64
1:XA:1129:C:H4'	1:XA:1130:A:H5'	1.80	0.64
19:XS:5:LEU:HD11	47:Y4:66:SER:C	2.18	0.64
22:YA:593:G:O4'	51:Y8:4:MET:HE1	1.97	0.64
22:YA:1020:A:N6	22:YA:1141:U:O2'	2.29	0.64
25:YE:9:VAL:HB	25:YE:25:VAL:HG23	1.80	0.64
42:YZ:17:ALA:HA	42:YZ:20:ARG:HB2	1.79	0.64
53:XV:23:C:H2'	53:XV:24:U:C6	2.32	0.64
1:QA:370:C:H2'	1:QA:371:G:C8	2.33	0.64
1:QA:738:C:OP2	6:QF:92:LYS:NZ	2.29	0.64
22:RA:1043:C:H42	22:RA:1112:G:H1	1.43	0.64
22:RA:1728:G:H3'	22:RA:1729:A:H5''	1.78	0.64
26:RF:192:LEU:HD22	26:RF:194:MET:HG2	1.80	0.64
29:RI:98:ALA:HB2	29:RI:111:PRO:HB3	1.79	0.64
1:XA:191:G:O2'	20:XT:101:GLY:O	2.16	0.64
42:YZ:182:LYS:H	42:YZ:183:LEU:HB2	1.62	0.64
1:QA:750:G:N2	15:QO:23:GLY:O	2.30	0.64
1:QA:1238:A:H62	1:QA:1299:A:N6	1.96	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:QE:11:ILE:HD11	5:QE:31:LEU:HD12	1.80	0.64
22:RA:2306:C:H3'	22:RA:2307:G:H5''	1.80	0.64
24:RD:35:LYS:HG2	24:RD:64:ILE:H	1.63	0.64
34:RR:104:ARG:HD3	34:RR:109:ALA:HB3	1.79	0.64
37:RU:90:VAL:O	37:RU:92:ARG:N	2.30	0.64
22:YA:1069:A:H4'	22:YA:1070:A:H5''	1.80	0.64
34:YR:51:LEU:HD13	34:YR:66:VAL:HG13	1.79	0.64
1:QA:1122:U:O4	1:QA:1123:A:N6	2.30	0.64
2:QB:5:ILE:HG21	2:QB:221:LEU:HD23	1.78	0.64
22:RA:2734:A:H2'	22:RA:2735:G:O4'	1.97	0.64
33:RQ:17:LEU:HD21	33:RQ:41:TRP:CD1	2.33	0.64
8:XH:7:ALA:HB2	8:XH:85:ARG:HD3	1.80	0.64
22:YA:602:G:O2'	22:YA:604:G:O2'	2.15	0.64
22:YA:1129:A:N6	22:YA:2491:U:OP1	2.31	0.64
22:YA:2599:G:OP2	24:YD:236:GLY:HA2	1.98	0.64
1:QA:1443:G:N2	36:RT:119:LYS:HB2	2.13	0.64
22:RA:137(A):G:H1'	40:RX:41:ASN:ND2	2.13	0.64
22:RA:300:A:H1'	22:RA:319:C:H1'	1.80	0.64
22:RA:984:A:H5''	22:RA:985:C:C5	2.33	0.64
29:RI:77:LEU:HB2	29:RI:104:GLN:HE22	1.62	0.64
47:R4:48:ARG:O	47:R4:50:VAL:N	2.31	0.64
1:XA:501:C:H2'	1:XA:502:G:C8	2.31	0.64
1:XA:561:U:O2'	1:XA:562:C:OP2	2.16	0.64
1:XA:881:G:P	12:XL:12:ARG:HH22	2.20	0.64
1:XA:1029:G:O2'	1:XA:1032(A):G:N2	2.31	0.64
2:XB:187:LEU:HA	2:XB:201:ILE:HB	1.78	0.64
3:XC:19:GLU:O	3:XC:40:ARG:NH2	2.30	0.64
22:YA:309:G:N3	22:YA:329:G:O2'	2.31	0.64
22:YA:577:G:O2'	22:YA:1254:A:OP1	2.15	0.64
36:YT:36:GLU:HG3	36:YT:41:ARG:HE	1.62	0.64
22:RA:270(R):G:H2'	22:RA:270(S):G:C8	2.33	0.63
28:RH:88:LEU:HD11	28:RH:165:ALA:HB2	1.80	0.63
40:RX:43:VAL:HG13	40:RX:51:VAL:HG21	1.79	0.63
44:R1:29:GLY:O	44:R1:31:GLY:N	2.29	0.63
1:XA:686:U:O4	1:XA:703:G:H1'	1.97	0.63
3:XC:11:ARG:O	3:XC:13:GLY:N	2.30	0.63
24:YD:35:LYS:NZ	24:YD:64:ILE:O	2.31	0.63
27:YG:112:PRO:HB3	47:Y4:37:SER:HB2	1.80	0.63
10:QJ:4:ILE:HB	10:QJ:74:ILE:HG13	1.81	0.63
22:RA:1022:G:O2'	22:RA:1023:U:OP2	2.16	0.63
19:XS:42:PRO:HB3	47:Y4:60:GLN:OE1	1.98	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2025:C:H2'	22:YA:2026:C:H6	1.62	0.63
32:YP:58:THR:HG22	32:YP:61:ARG:HG3	1.80	0.63
35:YS:59:LYS:HD3	35:YS:60:GLY:H	1.62	0.63
42:YZ:102:LEU:HD21	42:YZ:124:ILE:HG13	1.80	0.63
45:Y2:41:ILE:HD11	45:Y2:44:LEU:HG	1.80	0.63
1:QA:438:G:N2	1:QA:495:A:OP2	2.27	0.63
1:QA:718:G:OP2	1:QA:720:C:N4	2.31	0.63
2:QB:24:TRP:H	2:QB:24:TRP:HD1	1.46	0.63
12:QL:7:ILE:HG21	17:QQ:34:LYS:HB2	1.80	0.63
22:RA:873:G:H1	22:RA:904:C:H42	1.44	0.63
22:RA:1378:A:HO2'	22:RA:1379:A:P	2.19	0.63
29:RI:94:ALA:H	29:RI:116:LEU:HD13	1.63	0.63
1:XA:258:G:H2'	1:XA:259:G:H8	1.63	0.63
1:XA:777:A:H2'	1:XA:778:G:C8	2.34	0.63
1:XA:1305:G:H5'	21:XU:4:GLY:HA3	1.80	0.63
22:YA:1437:C:HO2'	22:YA:1518:C:HO2'	1.44	0.63
22:YA:1674:G:N2	22:YA:1677:A:N1	2.46	0.63
51:Y8:16:ILE:HD13	51:Y8:57:ARG:HG2	1.80	0.63
1:QA:165:C:H2'	1:QA:166:G:H8	1.63	0.63
1:QA:1141:C:H2'	1:QA:1142:G:H8	1.63	0.63
4:QD:7:PRO:HB2	4:QD:10:ARG:HD2	1.81	0.63
22:RA:1474:C:N4	22:RA:1519:G:H1	1.95	0.63
35:RS:26:LEU:HB3	35:RS:87:PHE:HA	1.81	0.63
45:R2:65:ASN:HB3	45:R2:69:ARG:HH22	1.61	0.63
19:QS:40:ILE:HG23	19:QS:41:VAL:HG22	1.79	0.63
22:RA:1467:C:H42	22:RA:1525:G:H1	1.46	0.63
22:RA:1999:C:O2	22:RA:2687:U:O2'	2.16	0.63
34:RR:33:ARG:HG3	34:RR:115:GLU:HB3	1.79	0.63
37:RU:66:ASN:O	37:RU:70:ARG:HB2	1.98	0.63
42:RZ:52:SER:O	42:RZ:52:SER:OG	2.15	0.63
1:XA:67:C:H2'	1:XA:68:G:H8	1.63	0.63
5:XE:98:THR:HB	5:XE:117:ASP:HB3	1.79	0.63
22:YA:404:C:O2'	22:YA:405:U:OP2	2.13	0.63
22:YA:2632:A:O2'	22:YA:2811:G:O2'	2.09	0.63
39:YW:41:LYS:HE3	48:Y5:25:LEU:HD21	1.80	0.63
41:YY:91:GLU:HG3	41:YY:92:ASN:H	1.63	0.63
47:Y4:23:GLU:O	47:Y4:25:TYR:N	2.31	0.63
47:Y4:48:ARG:O	47:Y4:50:VAL:N	2.31	0.63
1:QA:1053:G:H2'	1:QA:1199:U:H5	1.64	0.63
22:RA:27:G:O2'	22:RA:28:A:H8	1.79	0.63
22:RA:1245:G:OP1	32:RP:13:ASN:ND2	2.32	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:406:G:H5'	4:XD:5:ILE:HD13	1.81	0.63
1:XA:429:U:H1'	1:XA:430:A:H5''	1.80	0.63
1:XA:1321:C:H3'	1:XA:1322:C:H5''	1.79	0.63
2:XB:79:ASP:HA	2:XB:82:ARG:HB2	1.81	0.63
5:XE:147:ASP:O	5:XE:151:LEU:HG	1.97	0.63
13:XM:91:ARG:HB2	13:XM:98:VAL:HG13	1.80	0.63
22:YA:774:A:H2	22:YA:787:U:HO2'	1.45	0.63
22:YA:1899:G:N2	22:YA:1902:C:H41	1.97	0.63
22:YA:2151:G:H2'	22:YA:2152:G:C8	2.33	0.63
23:YB:116:G:H4'	35:YS:54:LEU:HD13	1.81	0.63
24:YD:25:THR:HG23	24:YD:27:THR:HB	1.80	0.63
24:YD:35:LYS:HG2	24:YD:64:ILE:N	2.13	0.63
28:YH:83:TYR:CZ	28:YH:138:LYS:HD2	2.34	0.63
32:YP:13:ASN:O	32:YP:15:ARG:N	2.32	0.63
37:YU:83:LEU:HD12	37:YU:113:ALA:HB2	1.79	0.63
50:Y7:9:ARG:HH21	50:Y7:48:LYS:HD2	1.63	0.63
22:RA:676:A:H2	22:RA:802:A:H61	1.45	0.63
22:RA:1839:G:C8	22:RA:1927:A:H1'	2.34	0.63
32:RP:95:VAL:HG13	32:RP:100:LEU:HD21	1.80	0.63
1:XA:1152:A:H2'	1:XA:1153:C:H6	1.63	0.63
22:YA:2502:G:H5''	22:YA:2503:A:H5''	1.79	0.63
22:RA:815:C:H2'	22:RA:816:C:H6	1.63	0.63
22:RA:861:A:H62	22:RA:916:G:H21	1.46	0.63
22:RA:1980:G:O2'	22:RA:1982:C:OP2	2.15	0.63
13:XM:23:TYR:HB3	13:XM:67:GLU:HA	1.81	0.63
31:YO:13:ASN:ND2	31:YO:96:THR:O	2.30	0.63
49:Y6:41:PRO:HG2	49:Y6:45:LYS:H	1.63	0.63
53:QV:16:C:O2'	53:QV:61:C:OP1	2.17	0.63
1:QA:196:A:OP1	20:QT:68:LYS:NZ	2.30	0.63
1:QA:620:C:C2	4:QD:135:LEU:HG	2.34	0.63
1:QA:1068:G:N3	1:QA:1191:A:H2	1.95	0.63
22:RA:141:A:N6	22:RA:1595:G:O2'	2.32	0.63
30:RN:133:GLN:HB2	30:RN:135:PRO:HD3	1.79	0.63
41:RY:51:VAL:HG13	41:RY:52:SER:H	1.64	0.63
1:XA:826:C:H2'	1:XA:827:U:O2	1.99	0.63
22:YA:620:G:H4'	22:YA:621:A:C5'	2.28	0.63
22:YA:1882:C:H5'	22:YA:1883:G:OP2	1.99	0.63
28:YH:152:ARG:HG3	28:YH:153:LYS:HD2	1.81	0.63
1:QA:1133:G:H2'	1:QA:1134:G:H8	1.63	0.62
8:QH:10:LEU:HD22	8:QH:83:ILE:HD11	1.80	0.62
22:RA:993:G:OP1	37:RU:50:ARG:NH2	2.32	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:2870:C:H5''	34:RR:65:LEU:HD21	1.81	0.62
30:RN:13:TRP:HB2	30:RN:133:GLN:HG3	1.81	0.62
1:XA:346:G:H1'	1:XA:347:G:H5'	1.81	0.62
9:XI:24:GLY:N	9:XI:60:ASP:OD1	2.29	0.62
13:XM:68:GLY:HA3	27:YG:116:ASP:OD2	1.98	0.62
22:YA:571:A:H5'	22:YA:2030:A:N6	2.07	0.62
22:YA:2469:A:H2	22:YA:2481:G:H21	1.47	0.62
28:YH:26:VAL:HG11	28:YH:75:ALA:HB1	1.81	0.62
42:YZ:45:ASP:CG	42:YZ:49:ARG:HE	2.02	0.62
1:QA:619:U:N3	4:QD:134:ASP:OD2	2.32	0.62
22:RA:185:U:H2'	22:RA:186:G:H8	1.62	0.62
22:RA:2327:A:H2'	22:RA:2328:A:C8	2.33	0.62
35:RS:15:ARG:HH11	35:RS:25:ARG:HH21	1.44	0.62
1:XA:1126:U:H1'	1:XA:1280:A:C5	2.34	0.62
10:XJ:32:ALA:HB3	10:XJ:76:ASN:HB2	1.79	0.62
22:YA:1441:G:H2'	22:YA:1442:G:H8	1.64	0.62
22:YA:2822:G:H2'	22:YA:2823:A:H5''	1.80	0.62
42:YZ:9:TYR:CE2	42:YZ:35:ARG:HD3	2.25	0.62
7:QG:155:ARG:HD3	7:QG:155:ARG:H	1.65	0.62
22:RA:2610:C:H4'	22:RA:2611:U:OP2	1.98	0.62
25:RE:119:ARG:HG2	25:RE:160:TYR:HB2	1.80	0.62
26:RF:12:LEU:HD12	26:RF:17:ARG:HG2	1.80	0.62
2:XB:212:GLN:NE2	2:XB:235:SER:HB2	2.15	0.62
22:YA:229:A:OP1	22:YA:229:A:H4'	2.00	0.62
22:RA:670:A:H4'	22:RA:671:C:H5''	1.80	0.62
22:RA:805:G:N2	22:RA:829:A:OP1	2.33	0.62
22:RA:2537:U:H2'	22:RA:2538:C:C6	2.35	0.62
22:RA:2680:C:H5'	25:RE:189:PRO:HA	1.80	0.62
22:RA:2760:C:H2'	22:RA:2761:G:H5''	1.81	0.62
43:R0:56:ASP:OD2	43:R0:57:PHE:N	2.32	0.62
44:R1:7:ILE:HG12	44:R1:91:LYS:HZ1	1.61	0.62
1:XA:735:C:H2'	1:XA:736:C:H6	1.64	0.62
1:XA:1502:A:H2	1:XA:1505:G:H22	1.45	0.62
2:XB:12:GLU:O	2:XB:16:HIS:ND1	2.21	0.62
2:XB:92:TYR:CE1	2:XB:151:GLY:HA3	2.35	0.62
22:YA:1423:G:H2'	22:YA:1424:G:H8	1.65	0.62
27:YG:3:LEU:HD12	27:YG:4:ASP:H	1.64	0.62
27:YG:115:ARG:NH2	27:YG:137:GLU:OE1	2.33	0.62
1:QA:10:A:H2'	1:QA:11:G:H8	1.63	0.62
1:QA:1142:G:H3'	1:QA:1143:G:H8	1.65	0.62
1:QA:1448:C:H2'	1:QA:1449:C:H6	1.63	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:1058:G:N2	22:RA:1080:C:O2	2.32	0.62
22:RA:2015:A:H1'	48:R5:2:ALA:HA	1.82	0.62
40:RX:53:LYS:HB2	40:RX:82:GLN:HB3	1.80	0.62
10:XJ:5:ARG:HH21	10:XJ:99:LYS:HD2	1.63	0.62
19:XS:13:ASP:OD1	19:XS:13:ASP:N	2.32	0.62
22:YA:273(C):C:N3	22:YA:363(C):G:N2	2.44	0.62
22:YA:2817:G:H21	22:YA:2836:U:H1'	1.65	0.62
26:YF:46:ARG:HH11	26:YF:46:ARG:HG2	1.65	0.62
36:YT:1:MET:O	36:YT:3:ARG:N	2.29	0.62
1:QA:1237:C:O2'	1:QA:1300:G:N2	2.23	0.62
11:QK:98:LEU:O	11:QK:101:SER:OG	2.13	0.62
22:RA:1181:C:H2'	22:RA:1182:A:C8	2.34	0.62
22:RA:2831:G:H1'	22:RA:2883:A:H2'	1.80	0.62
36:RT:54:ARG:HA	36:RT:59:THR:HG23	1.82	0.62
2:XB:54:THR:HG21	2:XB:201:ILE:HD11	1.82	0.62
7:XG:111:ARG:NH1	7:XG:113:GLU:OE2	2.32	0.62
22:YA:72:U:N3	45:Y2:62:THR:HG22	2.14	0.62
22:YA:153:C:OP1	44:Y1:88:LYS:HE2	2.00	0.62
22:YA:2065:C:O2	22:YA:2449:U:N3	2.28	0.62
22:YA:2820:A:O5'	34:YR:4:LEU:HD23	1.99	0.62
12:QL:57:LYS:HG2	12:QL:67:THR:HG22	1.81	0.62
13:QM:3:ARG:HG2	47:R4:34:GLU:HG2	1.81	0.62
22:RA:140:A:H8	22:RA:1408:C:O2'	1.82	0.62
22:RA:852:G:H2'	22:RA:853:G:C8	2.35	0.62
22:RA:2753:A:O2'	52:R9:15:LYS:NZ	2.31	0.62
1:QA:1446:A:O2'	1:QA:1447:G:O5'	2.18	0.62
22:RA:2354:G:O2'	43:R0:36:ILE:HG22	2.00	0.62
1:XA:894:G:H2'	1:XA:895:G:C8	2.35	0.62
22:YA:1237:A:H4'	22:YA:1238:G:H5'	1.80	0.62
8:QH:6:ILE:HB	8:QH:85:ARG:NH1	2.15	0.62
17:QQ:66:SER:O	17:QQ:70:ARG:NH1	2.33	0.62
22:RA:717:G:H2'	22:RA:718:A:O4'	2.00	0.62
22:RA:1899:G:H21	22:RA:1902:C:H41	1.45	0.62
22:RA:2704:C:H2'	22:RA:2705:A:O4'	2.00	0.62
4:XD:111:ALA:HB2	4:XD:120:LEU:HD12	1.82	0.62
22:YA:729:G:H2'	22:YA:1775:U:H1'	1.80	0.62
22:YA:1113:U:H2'	22:YA:1114:G:C8	2.33	0.62
22:YA:1470:G:N2	22:YA:1522:G:OP2	2.32	0.62
22:YA:2154:G:H2'	22:YA:2155:G:H8	1.65	0.62
22:YA:2439:A:H5'	22:YA:2439:A:H8	1.64	0.62
22:YA:2840:C:H2'	22:YA:2841:C:C6	2.35	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:Y4:37:SER:HB3	47:Y4:42:PHE:CD1	2.35	0.62
1:QA:444:C:H2'	1:QA:445:G:H8	1.65	0.62
1:QA:658:G:OP1	15:QO:8:LYS:NZ	2.32	0.62
1:QA:690:G:H2'	1:QA:691:G:O4'	2.00	0.62
24:RD:35:LYS:HD2	24:RD:104:TYR:CD1	2.35	0.62
42:RZ:27:VAL:HG23	42:RZ:36:LYS:HA	1.81	0.62
1:XA:449:C:H5	16:XP:42:ARG:HH11	1.46	0.62
9:XI:29:ASN:OD1	9:XI:65:VAL:N	2.29	0.62
22:YA:298:G:O2'	22:YA:340:A:N6	2.33	0.62
22:YA:443:A:C5	26:YF:45:ARG:HD2	2.33	0.62
22:YA:1359:A:H2'	22:YA:1360:A:H5'	1.82	0.62
22:YA:1382:G:H2'	22:YA:1383:C:H6	1.65	0.62
22:YA:2159:G:H2'	22:YA:2160:G:H8	1.63	0.62
22:YA:2461:C:H2'	22:YA:2462:U:C6	2.35	0.62
22:RA:817:C:H2'	22:RA:818:G:O4'	2.00	0.61
25:RE:51:PHE:CD1	25:RE:52:LEU:HG	2.34	0.61
29:RI:8:PRO:HG3	29:RI:14:ASP:HB2	1.82	0.61
1:XA:1414:U:H2'	1:XA:1415:G:H8	1.64	0.61
1:XA:1525:G:OP1	11:XK:120:ARG:NH2	2.33	0.61
5:XE:42:GLY:HA3	5:XE:66:MET:HG2	1.82	0.61
19:XS:5:LEU:HG	47:Y4:66:SER:CB	2.30	0.61
22:YA:252:G:OP2	32:YP:50:ARG:NH1	2.32	0.61
22:YA:1789:A:H2'	22:YA:1790:C:O4'	2.00	0.61
22:YA:2306:C:H3'	22:YA:2307:G:H5''	1.81	0.61
22:YA:2882:A:OP1	34:YR:96:ARG:NH1	2.33	0.61
51:Y8:23:VAL:HG11	51:Y8:46:ARG:HD3	1.81	0.61
1:QA:304:U:H2'	1:QA:305:G:C8	2.35	0.61
1:QA:508:C:O2	1:QA:509:A:N6	2.28	0.61
1:QA:561:U:O2'	1:QA:562:C:OP2	2.15	0.61
1:QA:853:G:H2'	1:QA:854:G:H8	1.64	0.61
10:QJ:40:LEU:HB2	10:QJ:69:ASN:HB3	1.82	0.61
11:QK:121:PRO:HD2	11:QK:126:ARG:HD3	1.80	0.61
22:RA:270:A:OP1	44:R1:98:LEU:HB3	1.98	0.61
22:RA:270(N):G:OP1	29:RI:57:ARG:NH2	2.31	0.61
22:RA:1047:G:H2'	22:RA:1110:G:N1	2.15	0.61
22:RA:1449:A:HO2'	22:RA:1530:G:H21	1.43	0.61
25:RE:67:PHE:O	25:RE:69:LYS:N	2.32	0.61
26:RF:28:ILE:HG22	26:RF:112:MET:HB3	1.80	0.61
22:YA:413:C:H2'	22:YA:414:C:H6	1.66	0.61
22:YA:1454:U:H5'	34:YR:63:ARG:HE	1.66	0.61
14:QN:13:THR:N	14:QN:14:PRO:HD2	2.15	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:1869:G:N2	22:RA:1872:A:OP2	2.33	0.61
22:RA:2198:A:C2	29:RI:29:TYR:HB2	2.34	0.61
1:XA:991:U:O2'	1:XA:992:U:O5'	2.17	0.61
22:YA:918:A:N3	23:YB:80:U:O2'	2.33	0.61
35:YS:83:LYS:C	35:YS:109:GLY:HA3	2.21	0.61
37:YU:92:ARG:HD2	38:YV:11:GLN:HB2	1.82	0.61
22:RA:1069:A:H2'	22:RA:1073:A:N7	2.15	0.61
22:RA:1359:A:N6	22:RA:1372:U:H3	1.99	0.61
22:RA:2820:A:C6	34:RR:4:LEU:HD11	2.35	0.61
20:XT:100:ILE:HG13	20:XT:102:GLY:N	2.15	0.61
22:YA:2632:A:HO2'	22:YA:2811:G:HO2'	1.36	0.61
26:YF:197:ASP:OD2	26:YF:197:ASP:N	2.33	0.61
1:QA:45:U:H2'	1:QA:46:G:C8	2.36	0.61
1:QA:791:G:H2'	1:QA:792:A:H5'	1.82	0.61
22:RA:620:G:H4'	22:RA:621:A:C5'	2.30	0.61
52:R9:25:VAL:HB	52:R9:34:GLN:HB2	1.82	0.61
1:XA:737:A:H2'	1:XA:738:C:C6	2.35	0.61
1:XA:973:G:H3'	1:XA:974:A:H5''	1.82	0.61
1:XA:1336:C:H1'	1:XA:1337:G:C2	2.36	0.61
22:YA:27:G:HO2'	22:YA:28:A:H8	1.46	0.61
22:YA:330:A:HO2'	22:YA:331:A:H8	1.49	0.61
22:YA:1055:G:O2'	22:YA:1085:A:N1	2.27	0.61
22:YA:2302:G:N2	22:YA:2314:C:O2	2.30	0.61
23:YB:15:A:H1'	23:YB:109:G:C4	2.36	0.61
53:XV:15:G:N2	53:XV:21:A:N3	2.49	0.61
3:QC:14:ILE:O	3:QC:16:ARG:N	2.33	0.61
11:QK:22:HIS:HB3	11:QK:29:ILE:HG23	1.83	0.61
22:RA:1856:G:H1	22:RA:1886:C:N4	1.97	0.61
44:R1:53:VAL:HG22	44:R1:74:VAL:HG13	1.83	0.61
1:XA:894:G:H2'	1:XA:895:G:H8	1.66	0.61
22:YA:2123:G:H2'	22:YA:2124:G:H8	1.66	0.61
53:XV:74:C:O2'	53:XV:75:C:H5'	2.00	0.61
1:QA:250:A:O2'	1:QA:251:G:OP2	2.18	0.61
4:QD:30:LYS:C	4:QD:32:ALA:H	2.03	0.61
15:QO:82:ILE:O	15:QO:86:GLY:N	2.32	0.61
22:RA:1026:U:H4'	22:RA:1027:A:OP1	2.01	0.61
32:RP:84:ASN:HB3	32:RP:86:LYS:HG2	1.83	0.61
1:XA:1292:U:OP2	7:XG:41:ARG:NH2	2.34	0.61
19:XS:5:LEU:CD2	47:Y4:66:SER:HB2	2.30	0.61
22:YA:1364:G:C8	44:Y1:2:SER:N	2.68	0.61
22:YA:2832:U:H4'	22:YA:2833:G:H5''	1.83	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1437:C:H2'	1:QA:1438:G:C8	2.36	0.61
14:QN:6:LEU:HD23	14:QN:23:ARG:HH22	1.64	0.61
22:RA:2751:G:N7	28:RH:2:SER:HB3	2.16	0.61
29:RI:133:HIS:HB2	29:RI:134:PRO:CD	2.31	0.61
33:RQ:65:PHE:O	33:RQ:67:ARG:N	2.34	0.61
22:YA:2756:U:OP2	52:Y9:19:ARG:NH2	2.33	0.61
1:QA:328:C:O2	1:QA:328:C:H2'	2.01	0.61
1:QA:573:A:N3	1:QA:883:C:O2'	2.33	0.61
1:QA:664:G:H22	1:QA:741:G:H1	1.49	0.61
21:QU:6:ARG:HE	21:QU:15:ARG:NH2	1.99	0.61
22:RA:669:G:H2'	22:RA:669:G:N3	2.14	0.61
22:RA:1210:A:H5''	22:RA:1210:A:C8	2.35	0.61
39:RW:25:ARG:NH2	39:RW:74:ALA:O	2.33	0.61
2:XB:67:THR:HG21	2:XB:155:LEU:HG	1.81	0.61
8:XH:4:ASP:OD1	8:XH:85:ARG:NH1	2.34	0.61
15:XO:87:ILE:HG22	15:XO:88:ARG:H	1.65	0.61
37:YU:52:ARG:HA	37:YU:55:ARG:HG3	1.83	0.61
1:QA:864:A:H5'	5:QE:86:ALA:HB2	1.83	0.61
1:QA:1152:A:OP1	10:QJ:68:HIS:NE2	2.33	0.61
1:QA:1251:A:H2'	1:QA:1252:A:C8	2.35	0.61
22:RA:1060:U:H3	22:RA:1088:A:H1'	1.66	0.61
29:RI:65:ALA:O	29:RI:68:LEU:N	2.33	0.61
35:RS:88:ASP:O	35:RS:89:ARG:HB3	2.01	0.61
1:XA:67:C:H2'	1:XA:68:G:C8	2.35	0.61
1:XA:266:G:H5''	1:XA:267:C:H5	1.65	0.61
44:Y1:83:GLU:O	44:Y1:85:LEU:N	2.34	0.61
1:QA:147:G:H2'	1:QA:148:G:H8	1.66	0.60
1:QA:192:U:H2'	1:QA:193:C:H6	1.66	0.60
1:QA:980:C:H5''	1:QA:981:U:C5	2.36	0.60
23:RB:3:C:H2'	23:RB:4:C:C6	2.35	0.60
36:RT:77:PRO:HB2	36:RT:80:SER:HB2	1.83	0.60
37:RU:90:VAL:HG11	38:RV:40:LEU:HD12	1.82	0.60
24:YD:72:LYS:NZ	24:YD:99:ASP:OD1	2.33	0.60
48:Y5:16:ARG:HG2	48:Y5:16:ARG:HH11	1.66	0.60
1:QA:17:U:H2'	1:QA:18:C:C6	2.36	0.60
3:QC:8:ILE:HG23	3:QC:16:ARG:HG2	1.83	0.60
3:QC:11:ARG:O	3:QC:13:GLY:N	2.34	0.60
1:XA:24:U:H2'	1:XA:25:C:C6	2.36	0.60
1:XA:145:G:H1	1:XA:177:C:H42	1.48	0.60
1:XA:538:G:H5''	12:XL:114:LYS:HB2	1.81	0.60
22:YA:444:C:H4'	26:YF:49:ALA:HB2	1.82	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1878:G:H2'	22:YA:1879:C:C6	2.35	0.60
22:YA:1930:G:H2'	22:YA:1968:G:O6	2.00	0.60
23:YB:15:A:OP1	23:YB:15:A:H4'	2.00	0.60
29:YI:79:ILE:HB	29:YI:142:VAL:HA	1.83	0.60
33:YQ:35:VAL:HG13	33:YQ:130:LYS:HB3	1.83	0.60
1:QA:1280:A:O2'	1:QA:1281:U:OP1	2.17	0.60
9:QI:13:ALA:HB2	9:QI:68:GLY:HA3	1.82	0.60
14:QN:24:CYS:HB3	14:QN:29:ARG:H	1.66	0.60
22:RA:155:C:N4	22:RA:161:U:O4	2.34	0.60
23:RB:82:G:H2'	23:RB:83:G:H8	1.66	0.60
1:XA:677:U:H3	1:XA:713:G:H22	1.47	0.60
22:YA:691:C:H2'	22:YA:692:C:H6	1.66	0.60
22:YA:1803:A:O2'	24:YD:259:THR:HG21	2.01	0.60
22:YA:2030:A:H5''	22:YA:2031:A:OP1	2.00	0.60
24:YD:108:PRO:HB3	24:YD:143:HIS:CE1	2.35	0.60
28:YH:113:VAL:HG11	28:YH:151:ILE:HD12	1.83	0.60
47:Y4:56:VAL:HA	47:Y4:60:GLN:HB2	1.84	0.60
53:XV:49:G:O6	53:XV:65:C:N4	2.33	0.60
1:QA:229:U:H2'	1:QA:230:G:H8	1.66	0.60
1:QA:1422:G:H5''	31:RO:48:PRO:HB3	1.83	0.60
22:RA:2745:C:H42	22:RA:2759:G:H1	1.47	0.60
28:RH:8:PRO:HG2	28:RH:69:ARG:HE	1.66	0.60
1:XA:332:G:H2'	1:XA:333:G:H8	1.65	0.60
1:XA:1070:U:OP1	5:XE:18:ARG:NH1	2.34	0.60
13:XM:8:GLU:OE2	27:YG:115:ARG:HD3	2.01	0.60
17:XQ:11:VAL:HG12	17:XQ:85:VAL:HG13	1.83	0.60
22:YA:573:G:O2'	22:YA:574:C:H3'	2.01	0.60
22:YA:2257:U:H2'	22:YA:2258:C:C6	2.36	0.60
22:YA:2451:A:C6	56:Z8:76:PPU:HE2	2.36	0.60
29:YI:79:ILE:O	29:YI:143:SER:N	2.34	0.60
32:YP:95:VAL:HG13	32:YP:100:LEU:HD21	1.83	0.60
1:QA:709:G:H2'	1:QA:710:G:H8	1.66	0.60
22:RA:1689:A:H62	22:RA:1698:A:H2	1.49	0.60
34:RR:70:LEU:O	34:RR:72:ASP:N	2.31	0.60
41:RY:87:LYS:O	41:RY:88:LYS:NZ	2.33	0.60
22:YA:2119:A:H61	22:YA:2168:G:H22	1.50	0.60
24:YD:35:LYS:HD2	24:YD:104:TYR:CD1	2.35	0.60
31:YO:96:THR:O	31:YO:97:ARG:HB3	2.01	0.60
36:YT:84:GLN:OE1	36:YT:85:LYS:NZ	2.34	0.60
7:QG:26:PHE:O	7:QG:30:ILE:HG12	2.01	0.60
15:QO:39:LEU:HD13	15:QO:56:LEU:HB2	1.82	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:27:G:N2	22:RA:512:G:H1'	2.16	0.60
24:RD:44:ASN:HB3	24:RD:49:ILE:HA	1.83	0.60
34:RR:33:ARG:NH2	48:R5:55:ARG:HG2	2.15	0.60
47:R4:23:GLU:O	47:R4:25:TYR:N	2.34	0.60
1:XA:690:G:H22	11:XK:55:LYS:HZ1	1.48	0.60
1:XA:1062:U:H2'	1:XA:1063:C:C6	2.36	0.60
1:XA:1453:G:H2'	20:XT:39:LYS:HE2	1.83	0.60
22:YA:325:G:H2'	22:YA:326:G:H8	1.66	0.60
22:YA:363:G:H2'	22:YA:363(A):A:H8	1.66	0.60
22:YA:2477:C:H2'	52:Y9:1:MET:HG3	1.82	0.60
28:YH:4:ILE:HB	28:YH:6:ARG:HG2	1.82	0.60
29:YI:10:GLU:OE2	29:YI:11:ASN:N	2.35	0.60
1:QA:833:U:H3	1:QA:853:G:H1	1.49	0.60
2:QB:15:VAL:H	2:QB:16:HIS:CE1	2.20	0.60
4:QD:105:VAL:HG13	4:QD:110:PHE:HB2	1.83	0.60
10:QJ:42:THR:HG23	10:QJ:68:HIS:HA	1.83	0.60
22:RA:438:G:H2'	22:RA:439:G:H8	1.67	0.60
22:RA:1068:G:N2	22:RA:1095:A:O2'	2.35	0.60
28:RH:154:PRO:HD3	28:RH:162:ILE:N	2.16	0.60
42:RZ:94:GLU:HB2	42:RZ:130:PRO:CD	2.31	0.60
48:R5:16:ARG:HH11	48:R5:16:ARG:HG2	1.65	0.60
1:XA:131:C:H2'	1:XA:132:C:C6	2.37	0.60
1:XA:1292:U:H2'	1:XA:1293:G:C8	2.36	0.60
5:XE:152:ARG:NH1	8:XH:44:PHE:CZ	2.70	0.60
22:YA:61:G:O6	22:YA:94:G:N2	2.35	0.60
27:YG:28:VAL:HG23	27:YG:29:TRP:CD1	2.36	0.60
32:YP:147:LEU:O	32:YP:148:LEU:HB2	2.02	0.60
43:Y0:23:VAL:HB	43:Y0:26:TYR:HE2	1.66	0.60
1:QA:1129:C:H4'	1:QA:1130:A:H5'	1.84	0.60
22:RA:125:G:H1'	50:R7:13:ALA:HB1	1.84	0.60
22:RA:127:A:H5''	22:RA:128:C:C6	2.36	0.60
22:RA:996:A:H4'	37:RU:92:ARG:NE	2.15	0.60
22:RA:1803:A:O2'	24:RD:259:THR:HG21	2.02	0.60
1:XA:556:C:H2'	1:XA:557:G:H8	1.67	0.60
1:XA:1410:G:H2'	1:XA:1411:C:H6	1.67	0.60
1:XA:1422:G:H5''	31:YO:48:PRO:HB3	1.82	0.60
22:YA:1064:C:N4	22:YA:1070:A:OP1	2.35	0.60
22:YA:1872:A:H5'	22:YA:1878:G:OP2	2.02	0.60
22:YA:2439:A:H5'	22:YA:2439:A:C8	2.36	0.60
52:Y9:35:ARG:HH21	52:Y9:37:GLY:HA3	1.67	0.60
1:QA:1172:C:H2'	1:QA:1173:G:C8	2.36	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1292:U:H2'	1:QA:1293:G:H8	1.65	0.60
22:RA:479:A:N3	22:RA:481:G:H5''	2.17	0.60
22:RA:631:A:OP1	32:RP:64:LYS:HE2	2.02	0.60
22:RA:954:G:O2'	22:RA:2274:A:N1	2.30	0.60
22:RA:1464:C:O2'	22:RA:1528:A:H8	1.83	0.60
27:RG:64:THR:HG23	27:RG:66:GLN:H	1.65	0.60
1:XA:267:C:OP2	17:XQ:67:LYS:HD2	2.01	0.60
22:YA:1530:G:O6	22:YA:1542:G:N2	2.34	0.60
22:YA:2468:G:H5''	33:YQ:120:ILE:HD12	1.83	0.60
1:QA:191:G:C1'	20:QT:105:SER:HB3	2.31	0.60
12:QL:84:LEU:HD22	12:QL:104:VAL:HG11	1.84	0.60
22:RA:1796:U:H2'	22:RA:1797:C:C6	2.37	0.60
22:RA:2620:C:O2'	25:RE:157:ALA:O	2.18	0.60
22:RA:2629:A:H4'	22:RA:2629:A:OP1	2.00	0.60
24:RD:70:TRP:CH2	24:RD:150:LYS:HA	2.36	0.60
27:RG:114:ILE:HD13	27:RG:140:ILE:HG21	1.83	0.60
1:XA:401:C:H2'	1:XA:402:G:H8	1.67	0.60
22:YA:1790:C:O2'	24:YD:209:ALA:HB2	2.02	0.60
51:Y8:50:LEU:HD12	51:Y8:51:ALA:H	1.67	0.60
1:QA:1152:A:H5''	10:QJ:13:HIS:HD2	1.66	0.59
1:QA:1219:U:OP1	14:QN:19:ARG:NH2	2.24	0.59
22:RA:1423:G:H2'	22:RA:1424:G:H8	1.67	0.59
22:RA:2509:G:H1	22:RA:2579:C:N4	2.00	0.59
1:XA:1256:A:OP2	3:XC:26:LYS:NZ	2.30	0.59
2:XB:235:SER:O	2:XB:237:ALA:N	2.35	0.59
22:YA:419:C:H2'	22:YA:420:C:O4'	2.02	0.59
22:YA:1652:A:OP1	34:YR:8:ARG:NH1	2.34	0.59
22:YA:1728:G:H3'	22:YA:1729:A:H5''	1.84	0.59
34:YR:42:LYS:HA	34:YR:45:ARG:HD2	1.84	0.59
1:QA:1437:C:H2'	1:QA:1438:G:H8	1.66	0.59
22:RA:1576:U:H2'	22:RA:1577:C:H6	1.67	0.59
42:RZ:166:SER:HB3	42:RZ:168:GLU:H	1.67	0.59
1:XA:1130:A:N6	1:XA:1144:G:H21	1.99	0.59
13:XM:3:ARG:HA	13:XM:9:ILE:HG21	1.83	0.59
22:YA:270(R):G:H2'	22:YA:270(S):G:H8	1.66	0.59
23:YB:82:G:H2'	23:YB:83:G:H8	1.67	0.59
42:YZ:94:GLU:HB2	42:YZ:130:PRO:CD	2.31	0.59
1:QA:1298:C:H4'	1:QA:1299:A:C4	2.36	0.59
35:RS:38:GLN:OE1	35:RS:47:THR:OG1	2.18	0.59
36:RT:105:LEU:O	36:RT:107:ASP:N	2.36	0.59
1:XA:1298:C:H4'	1:XA:1299:A:O4'	2.03	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1453:G:N7	20:XT:55:ILE:HD11	2.16	0.59
22:YA:1204:A:H2	22:YA:1241:A:N1	2.00	0.59
39:YW:86:LEU:HD12	39:YW:87:PRO:HD2	1.83	0.59
42:YZ:158:PRO:O	42:YZ:160:GLY:N	2.36	0.59
1:QA:301:G:H2'	1:QA:302:G:H8	1.67	0.59
1:QA:618:C:H5'	1:QA:619:U:H5''	1.83	0.59
1:QA:696:A:N1	1:QA:797:C:O2'	2.35	0.59
1:QA:811:C:H4'	1:QA:900:A:N6	2.18	0.59
9:QI:9:ARG:HB3	9:QI:14:VAL:HG13	1.84	0.59
42:RZ:103:ARG:HD3	42:RZ:136:PHE:CG	2.38	0.59
51:R8:29:LYS:HB2	51:R8:44:LYS:HG2	1.84	0.59
1:XA:1226:C:O2'	13:XM:111:LYS:NZ	2.36	0.59
6:XF:61:LEU:HB3	6:XF:63:TYR:HE2	1.66	0.59
22:YA:2154:G:H2'	22:YA:2155:G:C8	2.38	0.59
23:YB:95:U:H2'	23:YB:96:G:C8	2.37	0.59
34:YR:33:ARG:NH2	48:Y5:55:ARG:HG2	2.17	0.59
1:QA:565:U:H5''	1:QA:566:G:H2'	1.83	0.59
1:QA:828:A:H2'	1:QA:829:G:O4'	2.02	0.59
3:QC:50:ALA:HB2	3:QC:75:VAL:HB	1.85	0.59
4:QD:64:LEU:HB2	4:QD:198:VAL:HG11	1.83	0.59
22:RA:70:G:H21	22:RA:71:A:N6	2.00	0.59
22:RA:1101:U:H2'	22:RA:1102:C:H6	1.65	0.59
23:RB:80:U:H2'	23:RB:81:G:H21	1.67	0.59
1:XA:1002:G:H2'	1:XA:1003:G:H8	1.68	0.59
2:XB:92:TYR:HE1	2:XB:151:GLY:HA3	1.65	0.59
22:YA:1337:G:H2'	22:YA:1338:G:H8	1.68	0.59
22:YA:2471:C:H5'	22:YA:2472:G:OP2	2.02	0.59
25:YE:36:ARG:HH21	25:YE:88:GLY:HA2	1.68	0.59
28:YH:98:LEU:HD22	28:YH:125:VAL:HB	1.83	0.59
22:RA:385:C:O2'	22:RA:388:G:N2	2.36	0.59
22:RA:1337:G:OP2	40:RX:73:ARG:NH2	2.35	0.59
27:RG:67:LYS:HE2	47:R4:6:HIS:CE1	2.38	0.59
1:XA:191:G:N3	20:XT:105:SER:HB3	2.18	0.59
5:XE:45:PHE:CE2	5:XE:47:LYS:HD2	2.38	0.59
22:YA:943:U:OP2	32:YP:36:LYS:NZ	2.35	0.59
22:YA:1274:A:N3	22:YA:1297:C:H1'	2.17	0.59
22:YA:1429:G:H2'	22:YA:1430:C:C6	2.38	0.59
22:YA:1434:A:H2'	22:YA:1435:G:C8	2.36	0.59
39:YW:111:HIS:CD2	39:YW:112:GLY:H	2.20	0.59
42:YZ:77:ASP:OD2	42:YZ:80:ARG:HD3	2.02	0.59
50:Y7:35:ARG:HG3	50:Y7:42:LEU:HD11	1.85	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:110:C:O2'	16:QP:25:ARG:O	2.17	0.59
1:QA:1163:C:H42	1:QA:1173:G:H1	1.50	0.59
13:QM:49:THR:HB	13:QM:52:GLU:HG3	1.85	0.59
22:RA:84:A:N1	22:RA:98:G:O2'	2.31	0.59
22:RA:94:G:H21	45:R2:47:ASN:HD22	1.51	0.59
22:RA:1663:C:HO2'	22:RA:1664:A:H8	1.49	0.59
22:RA:1918:A:O2'	22:RA:1920:C:N4	2.36	0.59
22:RA:2563:U:H4'	31:RO:28:SER:HA	1.84	0.59
28:RH:105:LEU:HD13	28:RH:105:LEU:H	1.68	0.59
39:RW:86:LEU:HD12	39:RW:87:PRO:HD2	1.85	0.59
47:R4:16:CYS:SG	47:R4:17:GLY:N	2.75	0.59
49:R6:52:VAL:HG22	49:R6:53:LYS:HG3	1.84	0.59
1:XA:148:G:H2'	1:XA:149:A:H8	1.68	0.59
1:XA:376:G:OP1	16:XP:5:ARG:HB2	2.03	0.59
1:XA:1288:A:N3	1:XA:1352:C:O2'	2.25	0.59
1:XA:1443:G:N2	22:YA:2864:G:OP1	2.28	0.59
42:YZ:140:ASP:OD2	42:YZ:140:ASP:N	2.35	0.59
46:Y3:6:VAL:HG13	46:Y3:56:VAL:HG13	1.84	0.59
1:QA:452:A:O2'	1:QA:453:A:O5'	2.20	0.59
1:QA:1221:G:OP1	1:QA:1320:C:N4	2.35	0.59
3:QC:131:ARG:HH11	5:QE:50:GLU:HG2	1.68	0.59
22:RA:806:C:P	32:RP:41:ARG:HH11	2.26	0.59
33:RQ:109:VAL:HG12	33:RQ:114:ALA:HB2	1.83	0.59
22:YA:2334:G:H5'	35:YS:9:ARG:HG2	1.85	0.59
22:YA:2789:C:H1'	22:YA:2892:A:C2	2.37	0.59
32:YP:26:GLY:O	32:YP:28:GLY:N	2.35	0.59
42:YZ:48:PHE:HE2	42:YZ:71:VAL:HG11	1.66	0.59
42:YZ:52:SER:O	42:YZ:54:HIS:N	2.35	0.59
1:QA:164:U:H2'	1:QA:165:C:C6	2.37	0.59
1:QA:1326:C:OP1	21:QU:17:THR:OG1	2.18	0.59
7:QG:73:MET:HG2	7:QG:90:GLU:HA	1.83	0.59
22:RA:507:A:C5'	22:RA:508:G:H5'	2.31	0.59
22:RA:1534:G:H2'	22:RA:1535:U:H4'	1.84	0.59
22:RA:1795:C:O2	24:RD:255:LYS:HE2	2.02	0.59
22:RA:2749:A:H4'	28:RH:62:LYS:HB3	1.84	0.59
24:RD:85:ASP:HB2	24:RD:92:ILE:HD13	1.84	0.59
1:XA:376:G:H1	1:XA:387:U:H3	1.51	0.59
22:YA:142:G:H1'	40:YX:37:THR:HG21	1.84	0.59
22:YA:1778:U:H2'	22:YA:1784:A:N6	2.18	0.59
22:YA:2636:U:H1'	22:YA:2783:G:H22	1.67	0.59
22:YA:2729:G:H1'	25:YE:187:ALA:HB2	1.85	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:YH:6:ARG:NH2	28:YH:54:ARG:HH22	2.01	0.59
1:QA:1465:C:H2'	1:QA:1466:C:O4'	2.02	0.59
22:RA:49:A:H61	22:RA:177:G:H2'	1.66	0.59
22:RA:389:G:H1	32:RP:70:GLN:HB3	1.67	0.59
22:RA:2392:A:H2	22:RA:2424:C:H42	1.49	0.59
28:RH:121:ILE:HG13	28:RH:140:LYS:HD2	1.84	0.59
42:RZ:117:LEU:HD12	42:RZ:141:VAL:HG21	1.84	0.59
44:R1:92:LYS:HG3	44:R1:96:LYS:HB2	1.84	0.59
4:XD:9:CYS:SG	4:XD:22:LYS:HE2	2.39	0.59
10:XJ:76:ASN:O	10:XJ:78:ASN:ND2	2.36	0.59
13:XM:13:LYS:HA	13:XM:44:ARG:HD2	1.83	0.59
14:YN:23:ARG:HD2	14:YN:28:GLY:O	2.03	0.59
15:XO:56:LEU:HD21	22:YA:715:G:C4	2.38	0.59
20:XT:10:LEU:HG	20:XT:12:ALA:H	1.67	0.59
22:YA:1918:A:O2'	22:YA:1920:C:N4	2.35	0.59
23:YB:14:U:O3'	23:YB:107:U:O2'	2.20	0.59
30:YN:40:PRO:HB3	37:YU:68:ALA:HB2	1.85	0.59
1:QA:1348:U:H4'	9:QI:120:ARG:HD2	1.85	0.58
22:RA:439:G:H2'	22:RA:440:G:H8	1.68	0.58
22:RA:439:G:H2'	22:RA:440:G:C8	2.38	0.58
22:RA:1534:G:H2'	22:RA:1534:G:N3	2.17	0.58
1:XA:933:G:O6	7:XG:3:ARG:NH2	2.36	0.58
1:XA:1239:A:H62	1:XA:1299:A:N6	1.99	0.58
12:XL:38:THR:HG23	12:XL:57:LYS:HB3	1.84	0.58
22:YA:2146:C:H4'	22:YA:2147:G:C8	2.38	0.58
22:YA:2712:U:H1'	22:YA:2712(A):A:N7	2.17	0.58
29:YI:4:ILE:HG12	29:YI:18:VAL:HG22	1.85	0.58
35:YS:26:LEU:HB3	35:YS:87:PHE:HA	1.85	0.58
35:YS:106:ARG:HA	35:YS:110:LEU:HD11	1.85	0.58
48:Y5:4:HIS:HB3	48:Y5:5:PRO:CD	2.32	0.58
1:QA:523:A:H61	12:QL:53:ARG:HH12	1.51	0.58
22:RA:823:G:H2'	22:RA:824:A:C8	2.38	0.58
22:RA:2146:C:H4'	22:RA:2147:G:C8	2.38	0.58
22:RA:2689:U:OP1	22:RA:2719:G:N2	2.23	0.58
24:RD:44:ASN:CB	24:RD:49:ILE:HA	2.33	0.58
1:XA:606:G:O2'	1:XA:632:A:N6	2.34	0.58
3:XC:14:ILE:HG12	3:XC:15:THR:H	1.67	0.58
22:YA:1678:G:H8	22:YA:1678:G:O5'	1.86	0.58
22:YA:1680:U:O2'	22:YA:1763:G:N7	2.32	0.58
24:YD:28:GLU:OE1	24:YD:29:PRO:HD2	2.03	0.58
1:QA:243:A:H4'	1:QA:244:U:O5'	2.03	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:997:U:H2'	1:QA:998:G:C8	2.38	0.58
22:RA:702:G:N2	22:RA:730:C:O2	2.36	0.58
22:RA:774:A:H2	22:RA:787:U:HO2'	1.51	0.58
22:RA:900:A:H3'	22:RA:901:A:C8	2.27	0.58
22:RA:1533:C:H42	22:RA:1538:G:H1	1.51	0.58
24:RD:71:ASP:OD2	24:RD:103:ARG:NH2	2.36	0.58
1:XA:390:C:O3'	16:XP:28:ARG:NH2	2.36	0.58
22:YA:746:A:C5	22:YA:2611:U:H5''	2.39	0.58
22:YA:1069:A:H2'	22:YA:1073:A:N7	2.18	0.58
27:YG:136:ARG:O	27:YG:154:GLY:HA2	2.02	0.58
34:YR:67:LEU:HD13	34:YR:76:VAL:HG21	1.85	0.58
1:QA:429:U:H1'	1:QA:430:A:H5''	1.86	0.58
1:QA:685:G:H5'	11:QK:39:PRO:O	2.03	0.58
10:QJ:49:VAL:HG13	14:QN:41:ARG:HB2	1.85	0.58
16:QP:21:VAL:O	16:QP:33:ILE:HG12	2.02	0.58
22:RA:1006:C:H5'	30:RN:28:THR:HG23	1.85	0.58
1:XA:675:A:H2'	1:XA:676:A:H8	1.68	0.58
13:XM:57:ARG:HE	47:Y4:35:VAL:HG22	1.68	0.58
28:YH:153:LYS:HB3	28:YH:154:PRO:HD3	1.85	0.58
29:YI:110:ASP:N	29:YI:130:TYR:OH	2.36	0.58
40:YX:61:GLY:N	40:YX:75:ASP:OD2	2.36	0.58
1:QA:745:C:H2'	1:QA:746:A:C8	2.38	0.58
4:QD:111:ALA:HB2	4:QD:120:LEU:HD12	1.85	0.58
13:QM:121:LYS:NZ	55:QY:40:G:O2'	2.33	0.58
22:RA:738:G:H3'	22:RA:739:G:C8	2.38	0.58
24:RD:35:LYS:HD2	24:RD:104:TYR:CE1	2.39	0.58
20:XT:56:MET:HG3	20:XT:88:VAL:HG21	1.86	0.58
20:XT:63:ILE:HG22	20:XT:77:ALA:HB1	1.86	0.58
22:YA:574:C:N3	25:YE:145:LYS:NZ	2.46	0.58
22:YA:1203:G:O6	22:YA:1204:A:N6	2.37	0.58
38:YV:44:LYS:O	38:YV:46:VAL:N	2.36	0.58
44:Y1:51:VAL:HG11	44:Y1:74:VAL:HG21	1.84	0.58
1:QA:446:G:H2'	1:QA:447:G:O4'	2.04	0.58
2:QB:77:ALA:HB2	2:QB:211:ILE:HD13	1.86	0.58
12:QL:10:LEU:HB3	17:QQ:32:TYR:CE1	2.39	0.58
22:RA:630:G:OP1	51:R8:46:ARG:NH1	2.37	0.58
23:RB:15:A:H5'	23:RB:16:G:C8	2.38	0.58
24:RD:182:LEU:N	24:RD:272:ALA:HB3	2.17	0.58
27:RG:136:ARG:O	27:RG:154:GLY:HA2	2.03	0.58
1:XA:1305:G:N2	1:XA:1331:G:H2'	2.19	0.58
1:XA:1358:U:H3	1:XA:1363:A:H61	1.49	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:XF:36:ARG:NH1	6:XF:38:GLU:OE2	2.36	0.58
9:XI:43:ALA:HA	9:XI:74:ILE:HD13	1.85	0.58
22:YA:270(Q):C:OP1	29:YI:45:LYS:NZ	2.37	0.58
22:YA:957:A:N1	22:YA:2458:G:H4'	2.18	0.58
29:YI:93:THR:N	29:YI:96:ASP:OD1	2.35	0.58
43:Y0:35:ASN:OD1	43:Y0:35:ASN:N	2.34	0.58
47:Y4:42:PHE:O	47:Y4:44:THR:N	2.36	0.58
1:QA:165:C:H2'	1:QA:166:G:C8	2.38	0.58
22:RA:534:U:O2'	37:RU:49:HIS:ND1	2.27	0.58
22:RA:1278:A:H2'	22:RA:1279:G:H8	1.68	0.58
22:RA:2582:G:N2	22:RA:2583:G:H1'	2.18	0.58
28:RH:89:ILE:O	28:RH:89:ILE:HG12	2.04	0.58
1:XA:1029:G:H1'	1:XA:1032(A):G:H1	1.68	0.58
1:XA:1070:U:H2'	1:XA:1071:C:H6	1.68	0.58
1:XA:1320:C:C4	19:XS:36:ARG:HG3	2.38	0.58
5:XE:91:LEU:HD12	5:XE:120:THR:HG22	1.85	0.58
8:XH:39:LEU:HB3	8:XH:45:ILE:HG12	1.86	0.58
29:YI:72:LEU:HD21	29:YI:107:VAL:HG11	1.86	0.58
8:QH:121:ASP:N	8:QH:121:ASP:OD1	2.34	0.58
22:RA:270(T):G:H5''	44:R1:97:LEU:HD22	1.86	0.58
22:RA:685:A:H5''	22:RA:788:A:N6	2.16	0.58
22:RA:2067:G:H1	22:RA:2443:C:H42	1.51	0.58
22:RA:2439:A:H5'	22:RA:2439:A:H8	1.67	0.58
27:RG:112:PRO:HB3	47:R4:37:SER:HB2	1.85	0.58
28:RH:87:LEU:HD22	28:RH:162:ILE:HG22	1.85	0.58
29:RI:133:HIS:HB2	29:RI:134:PRO:HD2	1.85	0.58
30:RN:13:TRP:O	30:RN:135:PRO:HD2	2.03	0.58
32:RP:47:ASP:OD1	32:RP:49:ARG:NH1	2.37	0.58
42:RZ:110:GLY:HA2	42:RZ:111:VAL:C	2.24	0.58
2:XB:15:VAL:H	2:XB:16:HIS:CE1	2.22	0.58
2:XB:72:GLY:HA2	2:XB:165:VAL:HG22	1.86	0.58
2:XB:96:ARG:H	2:XB:96:ARG:HD2	1.67	0.58
22:YA:834:C:H2'	22:YA:835:A:C8	2.38	0.58
22:YA:1278:A:H4'	34:YR:34:ILE:HD12	1.84	0.58
22:YA:2359:C:H2'	22:YA:2360:A:O4'	2.04	0.58
31:YO:64:ARG:HG2	31:YO:79:PHE:CG	2.38	0.58
34:YR:27:SER:HB3	34:YR:34:ILE:HD11	1.84	0.58
43:Y0:72:ARG:HB2	43:Y0:75:LEU:HB2	1.85	0.58
1:QA:517:G:O2'	1:QA:531:U:OP2	2.21	0.58
1:QA:715:A:H2'	1:QA:716:A:C8	2.38	0.58
7:QG:26:PHE:CE2	7:QG:30:ILE:HD11	2.38	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:QL:53:ARG:HD3	12:QL:93:LEU:HD21	1.86	0.58
22:RA:586:A:H5'	26:RF:89:VAL:HG21	1.86	0.58
22:RA:1226:G:H4'	38:RV:84:LYS:HG2	1.85	0.58
22:RA:1309:G:HO2'	22:RA:1611:C:HO2'	1.51	0.58
22:RA:2022:U:O2'	22:RA:2617:C:H5'	2.04	0.58
22:RA:2041:U:H2'	22:RA:2042:A:C8	2.38	0.58
22:RA:2227:A:H5''	24:RD:263:ARG:NH1	2.19	0.58
29:RI:14:ASP:H	29:RI:17:GLN:HB2	1.68	0.58
30:RN:54:VAL:HB	30:RN:122:VAL:HG22	1.85	0.58
1:XA:486:U:H2'	1:XA:487:A:C8	2.39	0.58
1:XA:673:G:H2'	1:XA:674:G:C8	2.39	0.58
1:XA:877:C:H5''	8:XH:88:LYS:HD3	1.85	0.58
1:XA:1157:A:H62	1:XA:1178:G:N2	2.02	0.58
1:XA:1298:C:P	7:XG:114:ARG:HH22	2.27	0.58
1:XA:1486:G:H2'	1:XA:1487:G:O4'	2.04	0.58
3:XC:95:THR:HG22	3:XC:97:LYS:HG3	1.84	0.58
19:XS:80:TYR:O	19:XS:82:GLY:N	2.36	0.58
22:YA:768:G:O2'	22:YA:1379:A:N6	2.32	0.58
22:YA:1109:C:O2'	22:YA:1110:G:OP1	2.21	0.58
22:YA:1520:U:H2'	22:YA:1521:G:O4'	2.04	0.58
22:YA:1614:A:N6	39:YW:88:ARG:H	2.02	0.58
22:YA:2232:U:P	44:Y1:40:ARG:HH12	2.26	0.58
22:YA:2593:U:H2'	22:YA:2594:C:C6	2.30	0.58
22:YA:2693:A:H2'	22:YA:2694:G:C8	2.39	0.58
36:YT:24:PRO:HA	36:YT:49:VAL:HG13	1.85	0.58
1:QA:973:G:H3'	1:QA:974:A:C5'	2.34	0.58
1:QA:1059:C:O3'	14:QN:45:ARG:NH2	2.37	0.58
1:QA:1226:C:H4'	19:QS:80:TYR:OH	2.04	0.58
22:RA:443:A:N7	26:RF:45:ARG:HD2	2.19	0.58
22:RA:1427:A:H4'	22:RA:1428:C:O5'	2.02	0.58
22:RA:2415:G:H4'	32:RP:66:GLY:HA3	1.84	0.58
23:RB:31:C:H4'	27:RG:29:TRP:HH2	1.69	0.58
24:RD:24:ILE:HD11	24:RD:91:ARG:HD2	1.85	0.58
29:RI:110:ASP:N	29:RI:130:TYR:OH	2.36	0.58
1:XA:328:C:H4'	1:XA:329:A:H5'	1.86	0.58
22:YA:1167:U:H2'	22:YA:1168:G:C8	2.39	0.58
22:YA:1490:A:O2'	24:YD:99:ASP:OD2	2.20	0.58
22:YA:2112:G:O6	22:YA:2169:A:N6	2.37	0.58
22:YA:2712:U:O2'	22:YA:2712(A):A:H8	1.87	0.58
22:YA:2738:A:H2	22:YA:2766:G:H22	1.52	0.58
23:YB:44:G:H1'	23:YB:47:C:N4	2.18	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YR:24:GLN:OE1	34:YR:36:THR:HG21	2.04	0.58
34:YR:117:VAL:HG22	34:YR:118:GLU:H	1.68	0.58
35:YS:59:LYS:HD3	35:YS:60:GLY:N	2.19	0.58
1:QA:365:U:H5''	1:QA:366:C:OP1	2.04	0.57
22:RA:609(A):G:H2'	22:RA:610:C:H6	1.69	0.57
22:RA:1012:U:OP1	37:RU:75:ASN:ND2	2.36	0.57
22:RA:2757:A:P	52:R9:20:HIS:H	2.27	0.57
42:RZ:141:VAL:HG23	42:RZ:144:LEU:HG	1.86	0.57
1:XA:405:U:O4	4:XD:2:GLY:N	2.37	0.57
1:XA:1020:U:H2'	1:XA:1021:G:C8	2.39	0.57
7:XG:89:MET:HE1	7:XG:156:TRP:H	1.69	0.57
22:YA:625:G:O6	32:YP:107:LYS:HE2	2.04	0.57
22:YA:2074:U:H2'	22:YA:2075:U:C6	2.39	0.57
26:YF:127:GLU:O	26:YF:129:PHE:N	2.32	0.57
33:YQ:66:ILE:HA	33:YQ:104:PHE:HA	1.85	0.57
37:YU:92:ARG:HD3	37:YU:94:ASN:HB3	1.85	0.57
39:YW:73:ALA:HB3	39:YW:106:ILE:HD13	1.84	0.57
13:QM:14:ARG:N	13:QM:44:ARG:HD3	2.18	0.57
13:QM:58:GLU:O	13:QM:62:ASN:ND2	2.31	0.57
22:RA:251:A:C5	22:RA:252:G:H1'	2.39	0.57
22:RA:1389:G:H2'	22:RA:1390:U:C6	2.40	0.57
39:RW:71:VAL:HA	39:RW:107:LEU:HD12	1.86	0.57
41:RY:95:LYS:NZ	41:RY:99:CYS:O	2.37	0.57
51:R8:36:LYS:HB3	51:R8:40:GLU:HG2	1.85	0.57
1:XA:560:U:O2'	1:XA:561:U:OP2	2.19	0.57
2:XB:93:VAL:HG11	2:XB:97:TRP:HD1	1.69	0.57
22:YA:846:C:O2'	22:YA:847:U:OP2	2.10	0.57
22:YA:956:G:H5''	33:YQ:77:LYS:HE2	1.85	0.57
27:YG:67:LYS:HE2	47:Y4:6:HIS:CE1	2.38	0.57
3:QC:134:ILE:HG23	3:QC:151:VAL:HB	1.85	0.57
7:QG:15:ASP:OD2	7:QG:44:TYR:OH	2.22	0.57
22:RA:225:A:H5'	22:RA:226:G:OP2	2.04	0.57
22:RA:642:G:H21	22:RA:646:A:H2	1.50	0.57
22:RA:1378:A:OP1	50:R7:10:ARG:NH2	2.36	0.57
22:RA:2506:U:O2	22:RA:2506:U:H2'	2.04	0.57
25:RE:131:ALA:HB1	25:RE:135:HIS:HE1	1.69	0.57
42:RZ:121:HIS:CD2	42:RZ:169:GLU:HG2	2.38	0.57
1:XA:518:C:H2'	1:XA:530:G:C2	2.39	0.57
1:XA:1124:G:H3'	1:XA:1145:C:H41	1.69	0.57
3:XC:70:VAL:HG21	3:XC:76:VAL:HG11	1.85	0.57
4:XD:9:CYS:HB3	4:XD:32:ALA:HB2	1.87	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:898:C:H3'	22:YA:899:A:H8	1.70	0.57
22:YA:2741:A:OP1	52:Y9:22:ARG:NH1	2.36	0.57
24:YD:65:ILE:H	24:YD:65:ILE:HD13	1.68	0.57
25:YE:35:GLN:HB3	25:YE:48:GLN:HB2	1.87	0.57
26:YF:28:ILE:HG22	26:YF:112:MET:HB3	1.85	0.57
27:YG:98:ARG:NH1	47:Y4:1:MET:SD	2.77	0.57
3:QC:134:ILE:HG22	3:QC:168:ALA:HB3	1.86	0.57
27:RG:68:PRO:HB2	27:RG:90:LEU:HD12	1.86	0.57
28:RH:153:LYS:HB3	28:RH:154:PRO:CD	2.34	0.57
34:RR:117:VAL:O	34:RR:118:GLU:HB2	2.04	0.57
1:XA:388:G:HO2'	1:XA:389:A:P	2.27	0.57
11:XK:21:ILE:HG13	11:XK:30:VAL:HG12	1.86	0.57
22:YA:1187:G:H5''	38:YV:81:TYR:CE2	2.38	0.57
22:YA:1820:U:C2	24:YD:202:LYS:HB3	2.38	0.57
22:YA:2193:G:H2'	22:YA:2194:G:H8	1.69	0.57
22:YA:2292:C:OP2	35:YS:17:ARG:NH2	2.30	0.57
33:YQ:116:GLU:O	33:YQ:120:ILE:HG12	2.05	0.57
42:YZ:25:PRO:O	42:YZ:85:HIS:HA	2.04	0.57
1:QA:1446:A:H4'	36:RT:125:ARG:HH22	1.69	0.57
22:RA:223:A:O2'	22:RA:420:C:O2	2.22	0.57
22:RA:587:C:N3	32:RP:33:ARG:NH1	2.53	0.57
1:XA:27:G:H4'	4:XD:209:ARG:HG3	1.86	0.57
1:XA:244:U:H4'	1:XA:245:C:O5'	2.03	0.57
1:XA:1114:C:H1'	14:YN:60:SER:HB2	1.86	0.57
1:XA:1305:G:O2'	1:XA:1306:A:H8	1.83	0.57
1:XA:1525:G:P	11:XK:120:ARG:HH22	2.28	0.57
22:YA:1967:C:H2'	22:YA:1968:G:H5'	1.86	0.57
22:YA:2438:U:O3'	22:YA:2439:A:H3'	2.04	0.57
22:YA:2469:A:H5'	22:YA:2470:G:OP2	2.04	0.57
22:YA:2712:U:OP1	22:YA:2714:G:H4'	2.05	0.57
35:YS:10:ARG:NH2	35:YS:91:PRO:O	2.36	0.57
54:XX:5:C:C2	55:XY:36:G:N2	2.73	0.57
1:QA:1175:G:H2'	1:QA:1176:A:C8	2.39	0.57
1:QA:1466:C:H2'	1:QA:1467:G:O4'	2.05	0.57
22:RA:1385:G:O2'	22:RA:1396:U:O2	2.13	0.57
42:RZ:104:PHE:HB3	42:RZ:141:VAL:CG1	2.35	0.57
1:XA:107:G:O6	20:XT:15:ARG:HD3	2.05	0.57
1:XA:123:C:OP1	1:XA:311:C:O2'	2.13	0.57
1:XA:914:A:H2'	1:XA:915:A:H8	1.70	0.57
16:XP:20:VAL:HG23	16:XP:35:LYS:HA	1.86	0.57
17:XQ:55:ASP:HA	17:XQ:79:SER:HA	1.85	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:YG:98:ARG:HH12	47:Y4:1:MET:HB3	1.69	0.57
1:QA:166:G:H2'	1:QA:167:G:C8	2.39	0.57
22:RA:884:C:C2	22:RA:885:C:H5	2.23	0.57
22:RA:2712:U:OP1	22:RA:2714:G:H4'	2.05	0.57
27:RG:22:ARG:HH21	27:RG:171:ALA:HB1	1.69	0.57
41:RY:76:CYS:SG	41:RY:77:PRO:HD2	2.45	0.57
1:XA:1491:G:N7	57:XA:1601:PAR:O53	2.30	0.57
2:XB:96:ARG:HD3	2:XB:148:TYR:HE1	1.70	0.57
4:XD:154:ASN:OD1	4:XD:154:ASN:N	2.37	0.57
22:YA:99:U:H4'	22:YA:101:G:H5''	1.85	0.57
22:YA:2281:C:O2'	22:YA:2282:G:H5'	2.05	0.57
1:QA:452:A:O2'	1:QA:453:A:O4'	2.12	0.57
7:QG:79:ARG:HH12	7:QG:82:GLY:HA2	1.69	0.57
22:RA:443:A:C5	26:RF:45:ARG:HD2	2.40	0.57
24:RD:145:VAL:HG13	24:RD:191:ALA:HB2	1.87	0.57
24:RD:241:PRO:O	24:RD:242:ARG:HB2	2.04	0.57
32:RP:58:THR:C	32:RP:61:ARG:HE	2.05	0.57
1:XA:272:C:H2'	1:XA:273:A:H8	1.69	0.57
1:XA:591:U:H2'	1:XA:592:G:H8	1.70	0.57
1:XA:903:G:H2'	1:XA:904:C:C6	2.39	0.57
1:XA:1243:C:H42	1:XA:1294:G:H1	1.52	0.57
19:XS:32:LYS:HA	19:XS:50:ALA:HB3	1.86	0.57
22:YA:1210:A:H5'	22:YA:1210:A:H8	1.70	0.57
28:YH:149:ARG:HG3	28:YH:162:ILE:O	2.05	0.57
32:YP:135:LEU:O	32:YP:139:LYS:HB2	2.04	0.57
1:QA:1152:A:H2'	1:QA:1153:C:H6	1.69	0.57
13:QM:23:TYR:HB3	13:QM:67:GLU:HG2	1.87	0.57
19:QS:41:VAL:HB	19:QS:42:PRO:CA	2.34	0.57
22:RA:515:A:H1'	22:RA:581:C:H1'	1.87	0.57
22:RA:823:G:H2'	22:RA:824:A:H8	1.70	0.57
22:RA:1328:G:H2'	22:RA:1330:C:C4	2.40	0.57
43:R0:68:GLU:OE2	43:R0:82:ARG:NH1	2.33	0.57
1:XA:1327:C:OP2	21:XU:12:LYS:NZ	2.36	0.57
1:XA:1459:C:OP1	20:XT:27:LYS:NZ	2.37	0.57
22:YA:863:A:H2'	22:YA:864:G:C8	2.40	0.57
22:YA:950:G:H1	22:YA:967:C:H42	1.51	0.57
24:YD:71:ASP:CB	24:YD:103:ARG:HH22	2.18	0.57
2:QB:51:LEU:HD23	2:QB:201:ILE:HD12	1.86	0.57
6:QF:3:ARG:NH1	6:QF:38:GLU:OE2	2.37	0.57
22:RA:483:A:H5'	41:RY:49:VAL:HG22	1.86	0.57
22:RA:1341:U:OP1	22:RA:1397:U:N3	2.37	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:2197:U:H1'	22:RA:2198:A:C8	2.40	0.57
24:RD:44:ASN:HB2	24:RD:48:ARG:O	2.05	0.57
40:RX:60:ARG:NH1	50:R7:47:ARG:HH22	2.03	0.57
1:XA:345:C:OP2	36:YT:41:ARG:HD2	2.05	0.57
1:XA:690:G:H2'	1:XA:691:G:O4'	2.04	0.57
9:XI:15:ALA:HB2	9:XI:65:VAL:HG23	1.86	0.57
22:YA:54:G:O2'	50:Y7:35:ARG:HD3	2.05	0.57
22:YA:1301:A:C8	22:YA:1303:G:C8	2.93	0.57
22:YA:1444(A):A:H4'	22:YA:1460:A:H2'	1.87	0.57
22:YA:2123:G:H2'	22:YA:2124:G:C8	2.40	0.57
22:YA:2695:C:H2'	22:YA:2696:U:C6	2.39	0.57
22:YA:2811:G:O6	22:YA:2889:C:N4	2.37	0.57
3:QC:73:PRO:HG3	3:QC:105:GLU:HG3	1.88	0.56
12:QL:117:ARG:HB3	12:QL:122:THR:HB	1.87	0.56
22:RA:520:G:H2'	22:RA:521:G:H8	1.70	0.56
22:RA:550:G:O2'	22:RA:1220:A:O2'	2.11	0.56
22:RA:2556:C:H2'	22:RA:2557:G:O4'	2.05	0.56
33:RQ:32:TYR:HE1	33:RQ:133:ARG:HG3	1.69	0.56
38:RV:52:VAL:HG21	38:RV:55:ALA:HB3	1.87	0.56
1:XA:1158:C:H4'	2:XB:133:LYS:NZ	2.20	0.56
22:YA:26:G:O2'	22:YA:514:A:N6	2.31	0.56
22:YA:764:A:N3	24:YD:213:ARG:NH1	2.52	0.56
22:YA:1138:G:N2	30:YN:106:MET:HE3	2.06	0.56
22:YA:1222:C:H2'	22:YA:1223:C:H6	1.69	0.56
22:YA:2277:G:OP2	43:Y0:12:ASN:ND2	2.27	0.56
22:YA:2395:C:O2'	44:Y1:30:VAL:HG12	2.05	0.56
22:YA:2688:U:H5	22:YA:2720:U:OP2	1.88	0.56
33:YQ:85:LYS:O	33:YQ:87:LYS:N	2.38	0.56
47:Y4:71:ARG:HB2	47:Y4:71:ARG:HH11	1.68	0.56
1:QA:407:G:OP1	4:QD:3:ARG:NH1	2.37	0.56
8:QH:102:ARG:NH1	8:QH:105:ARG:NH2	2.53	0.56
22:RA:307:G:H21	22:RA:330:A:H62	1.51	0.56
22:RA:1053:C:N4	22:RA:1106:G:H1	2.00	0.56
22:RA:1717:G:H1	22:RA:1742:C:H42	1.53	0.56
22:RA:2749:A:H1'	28:RH:63:SER:OG	2.05	0.56
24:RD:108:PRO:HB3	24:RD:143:HIS:CE1	2.40	0.56
33:RQ:43:THR:HA	33:RQ:94:VAL:HG12	1.87	0.56
1:XA:284:G:H2'	1:XA:285:G:C8	2.39	0.56
1:XA:712:A:H2'	1:XA:713:G:C8	2.40	0.56
1:XA:1126:U:H1'	1:XA:1280:A:N7	2.20	0.56
1:XA:1389:C:H2'	1:XA:1390:U:O4'	2.04	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:675:A:C8	22:YA:804:A:C6	2.93	0.56
22:YA:852:G:H2'	22:YA:853:G:C8	2.40	0.56
22:YA:1210:A:H8	22:YA:1210:A:C5'	2.18	0.56
22:YA:1790:C:H5''	22:YA:1791:A:OP1	2.05	0.56
26:YF:107:LYS:HD2	26:YF:206:ILE:HA	1.86	0.56
27:YG:81:LYS:O	27:YG:82:LEU:HB2	2.04	0.56
29:YI:5:LEU:HD13	29:YI:17:GLN:HB3	1.87	0.56
1:QA:474:G:H5'	16:QP:81:ARG:HG3	1.87	0.56
1:QA:1095:U:P	1:QA:1108:G:H1	2.28	0.56
22:RA:262:A:H2'	22:RA:263:C:O4'	2.05	0.56
22:RA:372:G:H8	44:R1:65:SER:O	1.87	0.56
22:RA:631:A:H2'	22:RA:632:A:O4'	2.05	0.56
22:RA:974(A):C:H4'	22:RA:975:G:O5'	2.05	0.56
22:RA:1043:C:N3	22:RA:1112:G:N2	2.46	0.56
24:RD:148:GLU:HB2	24:RD:151:LYS:HD2	1.87	0.56
25:RE:10:GLY:HA3	36:RT:8:LYS:HD2	1.85	0.56
26:RF:11:VAL:HG12	26:RF:12:LEU:H	1.69	0.56
29:RI:144:VAL:HG22	29:RI:145:VAL:H	1.70	0.56
32:RP:106:LEU:O	32:RP:107:LYS:HB2	2.05	0.56
34:RR:67:LEU:HD13	34:RR:76:VAL:HG21	1.86	0.56
38:RV:44:LYS:HE2	38:RV:45:THR:H	1.70	0.56
42:RZ:153:SER:HA	42:RZ:155:LEU:HD12	1.88	0.56
1:XA:382:A:H2'	1:XA:383:A:H8	1.70	0.56
1:XA:1321:C:H5''	1:XA:1322:C:C5'	2.36	0.56
10:XJ:50:ILE:HD11	10:XJ:57:LYS:HD3	1.86	0.56
22:YA:10:G:N2	22:YA:2802:G:OP1	2.39	0.56
22:YA:630:G:N2	22:YA:633:A:OP2	2.33	0.56
22:YA:937:U:H2'	22:YA:938:G:O4'	2.05	0.56
22:YA:1053:C:H42	22:YA:1106:G:H1	1.51	0.56
22:YA:1467:C:C5	22:YA:1546:C:H2'	2.40	0.56
22:YA:1833:U:H2'	22:YA:1834:U:H6	1.69	0.56
22:YA:2277:G:OP2	43:Y0:10:THR:OG1	2.23	0.56
22:YA:2306:C:H2'	22:YA:2307:G:N2	2.20	0.56
31:YO:85:VAL:HG11	31:YO:114:ILE:HD11	1.87	0.56
32:YP:101:VAL:HG23	32:YP:106:LEU:HB3	1.88	0.56
36:YT:60:THR:HG22	36:YT:77:PRO:HA	1.86	0.56
38:YV:59:ALA:HB2	38:YV:96:ILE:HD13	1.88	0.56
42:YZ:105:VAL:HG13	42:YZ:140:ASP:HA	1.86	0.56
1:QA:476:G:H2'	1:QA:477:G:H8	1.69	0.56
1:QA:690:G:H22	11:QK:55:LYS:HZ1	1.53	0.56
17:QQ:90:ILE:O	17:QQ:94:ASN:ND2	2.38	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:822:U:H2'	22:RA:823:G:C8	2.40	0.56
22:RA:1282:U:H2'	22:RA:1283:G:O4'	2.05	0.56
22:RA:2576:G:O2'	22:RA:2579:C:OP2	2.15	0.56
41:RY:81:LYS:HZ3	41:RY:98:VAL:HG11	1.69	0.56
42:RZ:157:LEU:HB3	42:RZ:161:VAL:O	2.06	0.56
1:XA:1005:A:H5''	1:XA:1038:C:H1'	1.87	0.56
22:YA:732:C:H2'	22:YA:733:G:O4'	2.05	0.56
22:YA:2086:U:H2'	22:YA:2087:G:C8	2.41	0.56
22:YA:2540:C:H2'	22:YA:2541:A:O4'	2.05	0.56
22:YA:2864:G:OP1	36:YT:119:LYS:HD2	2.05	0.56
39:YW:71:VAL:HA	39:YW:107:LEU:HD12	1.87	0.56
22:RA:50:U:H3'	22:RA:51:G:H5'	1.87	0.56
22:RA:486:C:N4	22:RA:487:C:H41	2.04	0.56
22:RA:1021:A:H2'	22:RA:1023:U:H5'	1.88	0.56
22:RA:1473:G:H2'	22:RA:1474:C:O4'	2.06	0.56
22:RA:2311:A:H8	27:RG:82:LEU:HD11	1.70	0.56
22:RA:2784:C:H2'	22:RA:2785:C:C6	2.41	0.56
23:RB:13:A:H2'	23:RB:70:C:O2'	2.06	0.56
33:RQ:66:ILE:HA	33:RQ:104:PHE:HA	1.87	0.56
1:XA:316:G:OP2	1:XA:351:G:O2'	2.22	0.56
1:XA:503:C:H2'	1:XA:504:C:H6	1.69	0.56
2:XB:84:GLU:HB3	2:XB:219:VAL:HG21	1.86	0.56
16:XP:20:VAL:HG21	16:XP:32:TYR:CD1	2.40	0.56
22:YA:1138:G:H2'	22:YA:1139:G:O4'	2.06	0.56
22:YA:2299:G:N2	22:YA:2318:G:H1'	2.20	0.56
22:YA:2354:G:N2	22:YA:2363:C:O2	2.39	0.56
38:YV:66:ARG:HH11	38:YV:88:ARG:HD3	1.71	0.56
2:QB:82:ARG:HA	2:QB:92:TYR:HE2	1.71	0.56
22:RA:108:U:H2'	22:RA:109:G:H8	1.69	0.56
33:RQ:24:GLY:O	33:RQ:26:TYR:N	2.36	0.56
35:RS:106:ARG:HA	35:RS:110:LEU:HD11	1.87	0.56
7:XG:54:THR:O	7:XG:56:GLN:N	2.39	0.56
22:YA:2532:G:H1'	22:YA:2663:G:H22	1.70	0.56
22:YA:2877:G:H2'	22:YA:2878:U:O4'	2.06	0.56
49:Y6:25:LYS:HE2	49:Y6:27:LYS:HE3	1.87	0.56
1:QA:501:C:H2'	1:QA:502:G:C8	2.39	0.56
1:QA:977:A:H2'	1:QA:978:A:H5''	1.88	0.56
1:QA:1152:A:H5''	10:QJ:13:HIS:CD2	2.40	0.56
1:QA:1220:G:O3'	19:QS:36:ARG:HD3	2.06	0.56
22:RA:987:G:O2'	22:RA:1000:A:N3	2.35	0.56
25:RE:4:ILE:HD12	25:RE:28:ALA:HB1	1.88	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:RI:115:ALA:O	29:RI:117:GLU:N	2.32	0.56
32:RP:68:GLN:HG2	51:R8:12:LYS:HD3	1.88	0.56
40:RX:31:HIS:CD2	40:RX:32:PRO:HD2	2.40	0.56
42:RZ:128:VAL:HG22	42:RZ:129:SER:H	1.71	0.56
1:XA:210:U:O2'	1:XA:216:G:N7	2.38	0.56
2:XB:21:ARG:O	2:XB:23:ARG:HD3	2.05	0.56
19:XS:5:LEU:HD11	47:Y4:66:SER:CA	2.35	0.56
22:YA:481:G:OP2	41:YY:47:LYS:HG3	2.06	0.56
22:YA:654(A):G:H8	22:YA:654(A):G:OP2	1.89	0.56
31:YO:97:ARG:HA	31:YO:117:LEU:HD22	1.88	0.56
1:QA:1167:A:H2'	1:QA:1169:A:O4'	2.06	0.56
12:QL:45:PRO:HB3	12:QL:92:ASP:HB3	1.87	0.56
12:QL:89:ARG:HB3	12:QL:97:ARG:HA	1.87	0.56
13:QM:7:VAL:HG21	27:RG:113:ARG:O	2.06	0.56
22:RA:74:A:H4'	22:RA:75:G:O5'	2.06	0.56
22:RA:108:U:H2'	22:RA:109:G:C8	2.41	0.56
42:RZ:178:GLU:O	42:RZ:179:ASP:HB2	2.06	0.56
1:XA:320:C:H2'	1:XA:321:A:C8	2.41	0.56
1:XA:1213:A:N6	1:XA:1215:G:N3	2.54	0.56
3:XC:174:PRO:HD2	3:XC:182:ILE:HD11	1.88	0.56
22:YA:307:G:H21	22:YA:330:A:N6	2.04	0.56
22:YA:462:C:N4	22:YA:467:G:H1	1.99	0.56
22:YA:1899:G:H21	22:YA:1902:C:H41	1.52	0.56
22:YA:2801:A:C5	22:YA:2802:G:H1'	2.41	0.56
1:QA:790:A:C6	1:QA:791:G:C6	2.94	0.56
22:RA:934:G:H2'	22:RA:935:C:C6	2.41	0.56
22:RA:1259:G:H2'	22:RA:1260:G:C8	2.41	0.56
26:RF:110:LEU:HD11	26:RF:181:LEU:HD12	1.88	0.56
1:XA:1347:G:N2	1:XA:1374:A:O5'	2.38	0.56
22:YA:1754:C:P	36:YT:96:ARG:HH12	2.29	0.56
22:YA:1854:A:H2	22:YA:2087:G:N3	2.03	0.56
22:YA:2205:C:H2'	22:YA:2206:C:H6	1.70	0.56
23:YB:41:U:C4	27:YG:70:VAL:HG23	2.41	0.56
28:YH:92:ILE:H	28:YH:92:ILE:HD12	1.71	0.56
33:YQ:81:VAL:C	33:YQ:82:ARG:HG2	2.25	0.56
41:YY:95:LYS:HB3	41:YY:100:ALA:HA	1.87	0.56
1:QA:339:C:OP2	31:RO:97:ARG:NH1	2.39	0.56
1:QA:579:G:H2'	1:QA:580:U:C6	2.40	0.56
1:QA:754:C:H5'	15:QO:72:ARG:HH22	1.70	0.56
1:QA:811:C:H4'	1:QA:900:A:H61	1.71	0.56
1:QA:1333:A:H2'	1:QA:1334:G:O4'	2.06	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:QD:187:ARG:NH2	4:QD:193:ASP:OD2	2.38	0.56
8:QH:106:GLY:O	8:QH:122:ARG:NH2	2.36	0.56
10:QJ:5:ARG:HG3	10:QJ:71:LEU:HD11	1.87	0.56
32:RP:121:LYS:HD3	32:RP:122:PRO:HD2	1.88	0.56
37:RU:94:ASN:HD22	37:RU:94:ASN:C	2.09	0.56
1:XA:1333:A:H2'	1:XA:1334:G:O4'	2.05	0.56
1:XA:1349:A:OP2	9:XI:118:LYS:NZ	2.29	0.56
2:XB:158:LEU:HD13	2:XB:182:ILE:HD11	1.89	0.56
4:XD:122:ARG:NH1	4:XD:134:ASP:O	2.39	0.56
22:YA:601:C:O2	22:YA:605:C:H4'	2.06	0.56
24:YD:232:PRO:HB3	24:YD:244:ARG:NH1	2.21	0.56
30:YN:40:PRO:O	37:YU:64:ARG:HD2	2.06	0.56
1:QA:107:G:C2	1:QA:108:G:H1'	2.41	0.55
1:QA:1128:C:H4'	9:QI:16:ARG:HH12	1.71	0.55
2:QB:71:VAL:HG12	2:QB:93:VAL:HB	1.88	0.55
22:RA:1337:G:H2'	22:RA:1338:G:H8	1.72	0.55
22:RA:1801:G:OP2	24:RD:154:LYS:HE2	2.05	0.55
29:RI:5:LEU:HB2	29:RI:16:GLY:H	1.69	0.55
39:RW:86:LEU:HD22	39:RW:96:ILE:HD11	1.88	0.55
48:R5:4:HIS:HB3	48:R5:5:PRO:CD	2.32	0.55
49:R6:36:LEU:HB2	49:R6:50:ARG:HA	1.88	0.55
1:XA:690:G:H1	11:XK:55:LYS:HZ1	1.54	0.55
3:XC:9:GLY:HA2	3:XC:12:LEU:HD23	1.88	0.55
4:XD:11:LEU:HD13	4:XD:66:ARG:HG2	1.88	0.55
22:YA:1068:G:O2'	22:YA:1096:A:N3	2.39	0.55
22:YA:1093:G:H5'	28:YH:170:ARG:NH1	2.21	0.55
22:YA:1203:G:H3'	22:YA:1204:A:H5''	1.89	0.55
36:YT:29:ARG:HB2	36:YT:46:GLU:HG3	1.88	0.55
1:QA:1317:C:N3	19:QS:37:ARG:NH2	2.53	0.55
10:QJ:16:LEU:HD23	10:QJ:94:VAL:HG13	1.88	0.55
10:QJ:78:ASN:O	10:QJ:81:THR:OG1	2.24	0.55
22:RA:1803:A:H2	22:RA:1822:G:N3	2.05	0.55
22:RA:1825:A:OP2	24:RD:220:HIS:NE2	2.38	0.55
23:RB:75:G:H4'	42:RZ:36:LYS:HG3	1.88	0.55
25:RE:63:LEU:CD1	25:RE:65:GLY:H	2.19	0.55
31:RO:78:ARG:HH21	36:RT:103:ARG:NH2	2.03	0.55
36:RT:26:ASP:O	36:RT:49:VAL:HG12	2.07	0.55
1:XA:674:G:H2'	1:XA:675:A:C8	2.39	0.55
1:XA:807:A:H2'	1:XA:808:C:C6	2.42	0.55
3:XC:130:VAL:O	3:XC:134:ILE:HG12	2.06	0.55
5:XE:37:ARG:HA	5:XE:114:GLY:N	2.21	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:448:U:C4	22:YA:583:G:H1'	2.41	0.55
22:YA:956:G:OP2	33:YQ:14:ARG:NH2	2.39	0.55
22:YA:1545(A):A:H2'	22:YA:1546:C:O4'	2.05	0.55
22:YA:1614:A:H61	39:YW:88:ARG:H	1.52	0.55
22:YA:2584:U:H2'	22:YA:2585:U:H2'	1.87	0.55
22:YA:2712:U:HO2'	22:YA:2712(A):A:P	2.28	0.55
29:YI:13:GLY:HA3	29:YI:17:GLN:HB2	1.86	0.55
30:YN:56:ASN:N	30:YN:125:GLY:O	2.22	0.55
1:QA:570:G:H2'	1:QA:571:U:C6	2.41	0.55
1:QA:585:G:O3'	17:QQ:34:LYS:NZ	2.39	0.55
1:QA:701:C:H1'	1:QA:703:G:C6	2.40	0.55
1:QA:1161:C:H2'	1:QA:1162:C:H6	1.71	0.55
1:QA:1399:C:C2	1:QA:1502:A:N6	2.74	0.55
9:QI:77:ILE:O	9:QI:81:ILE:HG12	2.06	0.55
22:RA:445:C:H5''	37:RU:3:ARG:HB3	1.89	0.55
22:RA:2250:G:C4	33:RQ:82:ARG:HG3	2.41	0.55
42:RZ:182:LYS:HD3	42:RZ:182:LYS:N	2.17	0.55
47:R4:24:THR:OG1	47:R4:25:TYR:N	2.38	0.55
1:XA:95:G:H3'	1:XA:96:G:H8	1.71	0.55
6:XF:97:PHE:HD2	18:XR:31:LEU:HD21	1.70	0.55
10:XJ:34:VAL:HG22	10:XJ:74:ILE:HG22	1.89	0.55
22:YA:1204:A:H1'	22:YA:1206:G:C8	2.42	0.55
22:YA:2263:C:H2'	22:YA:2264:C:C6	2.42	0.55
26:YF:101:LEU:O	26:YF:106:ARG:NH1	2.40	0.55
29:YI:129:THR:HA	29:YI:137:PRO:HA	1.88	0.55
36:YT:39:ARG:HG2	36:YT:40:THR:H	1.72	0.55
43:Y0:27:GLU:HG3	43:Y0:68:GLU:HA	1.89	0.55
22:RA:195:A:H5''	22:RA:196:A:O5'	2.07	0.55
22:RA:1846:G:H5'	22:RA:1847:A:OP2	2.05	0.55
38:RV:7:THR:HG23	38:RV:22:VAL:HG11	1.88	0.55
43:R0:56:ASP:OD1	43:R0:58:THR:OG1	2.24	0.55
1:XA:963:G:C2	10:XJ:55:LYS:NZ	2.75	0.55
1:XA:1004:A:N1	1:XA:1024:G:H2'	2.20	0.55
1:XA:1053:G:H2'	1:XA:1199:U:H5	1.71	0.55
1:XA:1226:C:OP2	13:XM:103:THR:OG1	2.15	0.55
5:XE:50:GLU:HB3	5:XE:53:LEU:HD13	1.88	0.55
15:XO:18:PHE:CE1	15:XO:21:ASP:HB2	2.41	0.55
22:YA:699:A:H2'	22:YA:700:G:O4'	2.07	0.55
22:YA:1459:G:H2'	22:YA:1460:A:H5'	1.89	0.55
22:YA:2159:G:H2'	22:YA:2160:G:C8	2.40	0.55
42:YZ:1:MET:HG2	42:YZ:2:GLU:H	1.71	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:Y6:28:ARG:HB3	49:Y6:30:THR:H	1.71	0.55
51:Y8:50:LEU:HD12	51:Y8:51:ALA:N	2.21	0.55
1:QA:909:A:O2'	1:QA:1413:A:O2'	2.21	0.55
1:QA:953:G:N7	13:QM:104:ARG:NH2	2.55	0.55
1:QA:963:G:H21	10:QJ:55:LYS:HD3	1.71	0.55
2:QB:178:ARG:HH21	8:QH:74:PRO:HG3	1.71	0.55
14:QN:48:ALA:HB2	14:QN:53:LEU:HD12	1.88	0.55
22:RA:78:A:H2'	22:RA:79:G:C8	2.42	0.55
22:RA:1418:G:N1	22:RA:1579:A:OP2	2.36	0.55
22:RA:1753:G:N1	22:RA:1756:G:OP2	2.38	0.55
29:RI:116:LEU:O	29:RI:118:LYS:N	2.40	0.55
33:RQ:30:GLY:CA	33:RQ:107:ALA:HB2	2.37	0.55
44:R1:53:VAL:HG11	44:R1:90:ILE:HD11	1.88	0.55
19:XS:67:VAL:HG21	47:Y4:60:GLN:HE22	1.70	0.55
20:XT:49:ALA:HB1	20:XT:99:LEU:HB2	1.89	0.55
22:YA:2306:C:H2'	22:YA:2307:G:H21	1.71	0.55
22:YA:2356:C:O3'	43:Y0:20:ARG:HD3	2.07	0.55
27:YG:67:LYS:HZ3	47:Y4:6:HIS:CD2	2.24	0.55
28:YH:121:ILE:HG12	28:YH:140:LYS:HD2	1.89	0.55
32:YP:52:GLU:HG3	32:YP:57:THR:HG22	1.88	0.55
36:YT:3:ARG:HG3	36:YT:7:ILE:HG12	1.88	0.55
38:YV:38:LEU:H	38:YV:51:VAL:HG13	1.70	0.55
42:YZ:136:PHE:HE1	42:YZ:138:GLU:HG3	1.71	0.55
51:Y8:60:LEU:HB3	51:Y8:63:PRO:HG2	1.89	0.55
1:QA:632:A:H3'	1:QA:633:G:H8	1.72	0.55
1:QA:985:C:H42	1:QA:1220:G:H1	1.54	0.55
1:QA:1301:U:H3'	1:QA:1302:U:H5'	1.89	0.55
2:QB:5:ILE:HD12	2:QB:224:GLN:HG2	1.89	0.55
8:QH:86:ILE:HG13	8:QH:133:LEU:HD22	1.89	0.55
22:RA:2543:G:H2'	22:RA:2544:G:C8	2.42	0.55
26:RF:101:LEU:O	26:RF:106:ARG:NH1	2.40	0.55
37:RU:52:ARG:HA	37:RU:55:ARG:HG3	1.88	0.55
41:RY:37:VAL:HG21	41:RY:72:VAL:HG21	1.88	0.55
41:RY:81:LYS:HB2	41:RY:96:ILE:HG22	1.89	0.55
41:RY:96:ILE:HG12	41:RY:101:LYS:HB2	1.88	0.55
1:XA:411:A:C4	1:XA:413:G:H1'	2.42	0.55
2:XB:82:ARG:NH1	2:XB:86:GLU:OE2	2.40	0.55
22:YA:468:G:N7	50:Y7:39:ARG:NH2	2.51	0.55
22:YA:958:U:OP2	33:YQ:14:ARG:NH1	2.40	0.55
22:YA:1534:G:H1	22:YA:1538:G:N2	2.03	0.55
25:YE:63:LEU:HD12	25:YE:64:LYS:N	2.22	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:YH:157:TYR:HA	28:YH:171:LEU:O	2.06	0.55
32:YP:62:LEU:HD12	51:Y8:30:ARG:NH1	2.22	0.55
22:RA:288:C:H2'	22:RA:289:A:H8	1.72	0.55
22:RA:589:C:H2'	22:RA:590:A:C8	2.42	0.55
22:RA:1210:A:H4'	22:RA:1211:U:O5'	2.07	0.55
47:R4:16:CYS:SG	47:R4:36:CYS:N	2.79	0.55
1:XA:45:U:H2'	1:XA:46:G:C8	2.42	0.55
1:XA:262:A:H2'	1:XA:263:A:C8	2.42	0.55
1:XA:1175:G:H2'	1:XA:1176:A:C8	2.42	0.55
1:XA:1359:C:OP2	14:YN:35:ARG:NH1	2.40	0.55
1:XA:1497:G:H2'	1:XA:1498:U:H5'	1.88	0.55
22:YA:900:A:H3'	22:YA:901:A:H8	1.71	0.55
22:YA:2467:C:H4'	33:YQ:123:HIS:CD2	2.40	0.55
32:YP:71:VAL:HG13	32:YP:72:PRO:HD3	1.88	0.55
1:QA:474:G:H2'	1:QA:475:G:H8	1.72	0.55
1:QA:711:G:OP1	6:QF:54:LYS:NZ	2.36	0.55
1:QA:1002:G:H1	1:QA:1038:C:H42	1.54	0.55
4:QD:27:TYR:HE2	6:XF:15:ASP:HB3	1.71	0.55
22:RA:70:G:H21	22:RA:71:A:H62	1.55	0.55
22:RA:1576:U:H2'	22:RA:1577:C:C6	2.42	0.55
22:RA:2611:U:O2	48:R5:3:LYS:HE3	2.06	0.55
22:RA:2888:C:H2'	22:RA:2889:C:H6	1.72	0.55
28:RH:109:PHE:HZ	28:RH:152:ARG:HG2	1.72	0.55
1:XA:1318:A:H5'	19:XS:11:VAL:HG11	1.89	0.55
9:XI:16:ARG:HB2	9:XI:64:THR:HB	1.89	0.55
11:XK:34:ASP:OD1	11:XK:38:ASN:N	2.39	0.55
22:YA:528:A:C2	22:YA:2043:C:H4'	2.42	0.55
22:YA:612:G:O2'	22:YA:616:A:N1	2.33	0.55
22:YA:630:G:OP2	51:Y8:15:LYS:NZ	2.39	0.55
22:YA:1841:U:H2'	22:YA:1842:G:C8	2.42	0.55
24:YD:43:ARG:HD2	24:YD:44:ASN:OD1	2.07	0.55
29:YI:77:LEU:HD23	29:YI:138:ILE:HD11	1.89	0.55
39:YW:14:PRO:O	39:YW:17:VAL:N	2.40	0.55
43:Y0:18:ALA:HB3	43:Y0:20:ARG:NH1	2.22	0.55
1:QA:745:C:H2'	1:QA:746:A:H8	1.72	0.55
22:RA:265:A:O2'	22:RA:266:G:H4'	2.07	0.55
22:RA:1466:G:N2	22:RA:1547:C:N3	2.55	0.55
23:RB:37:C:O2	35:RS:95:HIS:NE2	2.40	0.55
24:RD:35:LYS:NZ	24:RD:104:TYR:HB2	2.22	0.55
40:RX:25:LYS:HD3	40:RX:80:ILE:HD11	1.89	0.55
48:R5:56:LYS:H	48:R5:56:LYS:HD2	1.72	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:539:A:OP1	12:XL:114:LYS:NZ	2.32	0.55
1:XA:965:A:H4'	1:XA:966:G:OP1	2.07	0.55
1:XA:1256:A:OP2	1:XA:1279:A:N6	2.40	0.55
1:XA:1320:C:N4	19:XS:36:ARG:HG3	2.21	0.55
8:XH:86:ILE:HG22	8:XH:93:VAL:HG21	1.89	0.55
22:YA:1499:C:H2'	22:YA:1500:G:H8	1.71	0.55
23:YB:70:C:H2'	23:YB:71:C:C6	2.42	0.55
36:YT:26:ASP:O	36:YT:49:VAL:HG12	2.07	0.55
38:YV:34:GLU:O	38:YV:36:PRO:HD3	2.06	0.55
1:QA:414:A:N6	1:QA:431:A:N3	2.55	0.55
9:QI:26:VAL:HG22	9:QI:61:ALA:HB3	1.89	0.55
10:QJ:13:HIS:CE1	10:QJ:14:LYS:HE3	2.42	0.55
22:RA:1728:G:H3'	22:RA:1729:A:C5'	2.36	0.55
22:RA:2469:A:OP1	22:RA:2469:A:H4'	2.06	0.55
22:RA:2688:U:H5	22:RA:2720:U:OP2	1.90	0.55
23:RB:40:U:H1'	23:RB:45:A:H61	1.71	0.55
23:RB:103:U:O2'	42:RZ:72:ARG:HD3	2.07	0.55
29:RI:13:GLY:HA3	29:RI:17:GLN:CD	2.28	0.55
41:RY:95:LYS:CB	41:RY:100:ALA:HA	2.36	0.55
1:XA:719:C:O2'	18:XR:49:LYS:HB3	2.07	0.55
1:XA:767:A:H2'	1:XA:768:A:O4'	2.07	0.55
12:XL:70:ILE:HG12	12:XL:100:ILE:HD12	1.88	0.55
22:YA:771:G:OP1	50:Y7:14:LYS:HE3	2.06	0.55
22:YA:862:G:H2'	22:YA:863:A:O4'	2.06	0.55
26:YF:116:ASP:OD2	32:YP:1:MET:N	2.26	0.55
38:YV:61:VAL:HG23	38:YV:63:GLY:H	1.71	0.55
4:QD:167:GLY:CA	24:YD:135:PHE:CE2	2.89	0.54
22:RA:1028:A:N3	22:RA:2486:G:O2'	2.37	0.54
22:RA:1050:A:H2'	22:RA:1051:G:O4'	2.07	0.54
22:RA:1167:U:H2'	22:RA:1168:G:O4'	2.07	0.54
22:RA:1283:G:N2	22:RA:1286:A:H5'	2.22	0.54
22:RA:1354:A:OP1	24:RD:38:LYS:HE2	2.06	0.54
22:RA:2041:U:H2'	22:RA:2042:A:H8	1.72	0.54
28:RH:124:GLU:HB3	28:RH:132:ARG:HG3	1.89	0.54
42:RZ:140:ASP:N	42:RZ:140:ASP:OD2	2.38	0.54
51:R8:29:LYS:HD3	51:R8:44:LYS:HB2	1.88	0.54
1:XA:221:C:H2'	1:XA:222:U:H6	1.73	0.54
1:XA:1128:C:H5'	9:XI:16:ARG:HH22	1.71	0.54
10:XJ:33:GLN:HB2	10:XJ:75:ILE:HD11	1.88	0.54
22:YA:271:G:H2'	22:YA:272:G:C8	2.34	0.54
22:YA:2110:G:OP1	22:YA:2145:C:N4	2.40	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2205:C:H2'	22:YA:2206:C:C6	2.42	0.54
22:YA:2298:A:H62	22:YA:2318:G:H8	1.53	0.54
22:YA:2394:C:OP1	32:YP:63:PRO:HD2	2.06	0.54
22:YA:2585:U:H5	56:Z8:76:PPU:HO2'	1.54	0.54
22:YA:2788:C:O2'	22:YA:2809:A:N3	2.37	0.54
30:YN:42:TRP:O	37:YU:64:ARG:NH2	2.40	0.54
1:QA:249:U:O2'	1:QA:252:U:O2'	2.21	0.54
1:QA:1402:C:H2'	1:QA:1403:C:O4'	2.06	0.54
22:RA:861:A:N3	23:RB:79:C:O2'	2.39	0.54
22:RA:2126:A:H4'	22:RA:2127:G:O5'	2.08	0.54
22:RA:2543:G:H21	22:RA:2646:C:H5''	1.71	0.54
22:RA:2867:G:O2'	22:RA:2868:A:P	2.66	0.54
26:RF:184:TYR:CE2	26:RF:188:ARG:HD2	2.42	0.54
30:RN:40:PRO:HB3	37:RU:68:ALA:HB2	1.89	0.54
33:RQ:31:ASP:O	33:RQ:134:ARG:HB2	2.07	0.54
36:RT:1:MET:O	36:RT:3:ARG:N	2.40	0.54
1:XA:392:G:H2'	1:XA:393:A:H8	1.72	0.54
1:XA:1095:U:OP1	1:XA:1108:G:N2	2.38	0.54
3:XC:150:LYS:HE2	3:XC:152:ILE:HD11	1.88	0.54
8:XH:54:ASP:N	8:XH:54:ASP:OD1	2.39	0.54
13:XM:3:ARG:HH22	27:YG:139:LEU:HD13	1.70	0.54
13:XM:22:ILE:HD12	13:XM:25:ILE:HD12	1.89	0.54
22:YA:834:C:H2'	22:YA:835:A:H8	1.72	0.54
22:YA:2336:A:H61	43:Y0:43:THR:HG21	1.73	0.54
22:YA:2366:A:H2'	22:YA:2367:G:O4'	2.07	0.54
22:YA:2562:U:O2'	31:YO:23:ARG:HD3	2.07	0.54
33:YQ:60:ARG:HA	42:YZ:178:GLU:O	2.07	0.54
33:YQ:109:VAL:HG13	33:YQ:113:GLN:HB3	1.89	0.54
34:YR:55:ALA:HB2	34:YR:79:LEU:HD13	1.89	0.54
34:YR:56:LYS:NZ	34:YR:87:TYR:O	2.40	0.54
36:YT:62:THR:HG22	36:YT:75:ILE:HG12	1.89	0.54
48:Y5:55:ARG:HG3	48:Y5:57:VAL:H	1.72	0.54
1:QA:187:C:H1'	1:QA:191(A):G:N2	2.22	0.54
1:QA:523:A:H61	12:QL:92:ASP:HB2	1.72	0.54
1:QA:790:A:N6	1:QA:791:G:O6	2.41	0.54
3:QC:79:ARG:HD2	11:XK:99:GLN:OE1	2.07	0.54
5:QE:78:HIS:CE1	5:QE:142:LEU:HD23	2.42	0.54
22:RA:1843:C:H5'	24:RD:253:GLN:OE1	2.07	0.54
22:RA:1999:C:H5''	22:RA:2723:C:O2'	2.08	0.54
22:RA:2343:C:O2'	22:RA:2373:G:O2'	2.14	0.54
22:RA:2758:A:C2	22:RA:2759:G:H1'	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:RQ:54:MET:HG3	33:RQ:117:ALA:HB1	1.89	0.54
1:XA:128:G:O2'	17:XQ:3:LYS:NZ	2.33	0.54
1:XA:729:A:H2'	1:XA:730:G:H8	1.71	0.54
4:XD:92:VAL:O	4:XD:96:LEU:HD22	2.07	0.54
22:YA:501:A:H8	22:YA:501:A:O5'	1.90	0.54
22:YA:609(A):G:H2'	22:YA:610:C:C6	2.41	0.54
22:YA:1149:G:H2'	22:YA:1150:C:C6	2.43	0.54
22:YA:1794:U:H2'	22:YA:1795:C:C6	2.42	0.54
24:YD:12:SER:O	24:YD:16:MET:HB2	2.08	0.54
1:QA:530:G:O6	54:QX:6:G:H1'	2.08	0.54
1:QA:1425:U:H2'	1:QA:1426:C:C6	2.43	0.54
25:RE:35:GLN:HE21	25:RE:37:ARG:CZ	2.21	0.54
30:RN:30:ILE:HG22	30:RN:34:LEU:HD22	1.88	0.54
34:RR:103:ARG:NH1	34:RR:108:GLY:O	2.41	0.54
42:RZ:100:VAL:HG11	42:RZ:134:PRO:HG2	1.89	0.54
44:R1:58:ILE:HD11	44:R1:86:SER:HB2	1.88	0.54
45:R2:42:GLY:O	45:R2:44:LEU:N	2.35	0.54
22:YA:1423:G:H2'	22:YA:1424:G:C8	2.41	0.54
22:YA:2421:G:OP1	49:Y6:6:ARG:NH2	2.39	0.54
23:YB:12:C:O2'	43:Y0:74:ARG:HG3	2.07	0.54
33:YQ:137:TYR:OH	42:YZ:45:ASP:OD2	2.20	0.54
37:YU:76:TYR:CZ	37:YU:80:ILE:HG13	2.43	0.54
1:QA:865:A:H5'	1:QA:1078:U:C5	2.43	0.54
1:QA:988:G:H2'	1:QA:989:C:O4'	2.07	0.54
1:QA:1152:A:H2'	1:QA:1153:C:C6	2.42	0.54
9:QI:121:ARG:NH1	9:QI:122:ALA:O	2.40	0.54
10:QJ:8:LEU:HB3	10:QJ:16:LEU:HD21	1.88	0.54
13:QM:3:ARG:CB	47:R4:34:GLU:HB3	2.31	0.54
22:RA:1849:G:H2'	22:RA:1850:G:H8	1.73	0.54
22:RA:2586:C:OP2	22:RA:2608:G:N1	2.32	0.54
27:RG:16:ARG:NH2	27:RG:28:VAL:O	2.41	0.54
29:RI:8:PRO:HA	29:RI:14:ASP:HA	1.88	0.54
45:R2:50:ILE:HD12	45:R2:51:ARG:H	1.72	0.54
48:R5:40:LYS:HG2	48:R5:47:PRO:HD2	1.90	0.54
1:XA:382:A:H2'	1:XA:383:A:C8	2.42	0.54
1:XA:707:C:OP1	11:XK:85:ARG:NH1	2.40	0.54
1:XA:881:G:OP1	12:XL:12:ARG:NH2	2.40	0.54
1:XA:1161:C:H2'	1:XA:1162:C:C6	2.43	0.54
5:XE:100:VAL:HG22	5:XE:118:ILE:HG22	1.90	0.54
22:YA:247:G:H4'	22:YA:386:G:C5	2.43	0.54
22:YA:2847:U:P	36:YT:98:LYS:HZ3	2.30	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:Y4:54:GLY:O	47:Y4:59:PHE:HB2	2.07	0.54
4:QD:149:ALA:HB3	4:QD:152:SER:HB2	1.89	0.54
13:QM:22:ILE:HB	13:QM:25:ILE:HD12	1.89	0.54
22:RA:520:G:H2'	22:RA:521:G:C8	2.43	0.54
22:RA:861:A:H2'	22:RA:862:G:O4'	2.07	0.54
22:RA:994:C:OP2	37:RU:54:LYS:NZ	2.38	0.54
24:RD:35:LYS:HZ1	24:RD:104:TYR:HB2	1.71	0.54
29:RI:82:ARG:HG2	29:RI:146:ALA:HB3	1.88	0.54
29:RI:115:ALA:HB3	29:RI:128:LEU:HD12	1.89	0.54
37:RU:112:ARG:NH2	38:RV:47:VAL:HG13	2.23	0.54
40:RX:83:VAL:CG1	40:RX:87:GLN:HB2	2.38	0.54
1:XA:1252:A:H2'	1:XA:1253:G:O4'	2.08	0.54
1:XA:1314:C:OP1	19:XS:6:LYS:HE3	2.08	0.54
5:XE:12:LEU:HD21	5:XE:14:ARG:HD3	1.89	0.54
7:XG:20:ASP:HB3	7:XG:23:VAL:HG23	1.88	0.54
12:XL:115:LYS:O	12:XL:117:ARG:N	2.35	0.54
18:XR:31:LEU:HD23	18:XR:31:LEU:H	1.73	0.54
22:YA:573:G:OP2	38:YV:78:LYS:NZ	2.39	0.54
22:YA:1510:A:OP1	22:YA:1511:A:H8	1.91	0.54
22:YA:2439:A:H4'	22:YA:2440:C:O5'	2.08	0.54
30:YN:35:ARG:HB2	30:YN:42:TRP:CH2	2.42	0.54
32:YP:64:LYS:O	32:YP:66:GLY:N	2.41	0.54
42:YZ:169:GLU:HG2	42:YZ:170:THR:N	2.22	0.54
1:QA:498:A:H4'	1:QA:500:G:OP1	2.06	0.54
1:QA:1095:U:OP1	1:QA:1108:G:N1	2.41	0.54
2:QB:84:GLU:HB3	2:QB:219:VAL:HG21	1.89	0.54
23:RB:5:C:O2'	23:RB:27:C:O2	2.26	0.54
36:RT:37:GLY:O	36:RT:39:ARG:N	2.34	0.54
36:RT:111:ARG:O	36:RT:112:ARG:HG3	2.08	0.54
1:XA:20:U:H2'	1:XA:21:G:O4'	2.07	0.54
1:XA:513:C:H42	1:XA:538:G:H1	1.54	0.54
1:XA:585:G:O2'	1:XA:879:C:OP1	2.21	0.54
1:XA:940:C:H2'	1:XA:941:G:H8	1.71	0.54
1:XA:941:G:H1	1:XA:1342:C:H42	1.55	0.54
1:XA:1368:G:OP1	9:XI:111:ARG:NH2	2.37	0.54
3:XC:150:LYS:HB3	3:XC:201:TYR:HB2	1.90	0.54
7:XG:49:ILE:O	7:XG:53:LYS:HB3	2.08	0.54
22:YA:674:G:N3	26:YF:74:ARG:NH1	2.56	0.54
22:YA:964:C:O2'	22:YA:2273:A:N3	2.38	0.54
45:Y2:35:LEU:HD12	45:Y2:53:LEU:HD12	1.89	0.54
53:XV:3:C:H2'	53:XV:4:G:H5'	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:QE:7:GLU:N	5:QE:35:GLY:O	2.36	0.54
22:RA:699:A:H2'	22:RA:700:G:O4'	2.08	0.54
25:RE:111:ARG:HG3	25:RE:160:TYR:CD1	2.43	0.54
32:RP:9:ASN:HB2	32:RP:10:PRO:HD2	1.90	0.54
32:RP:38:GLN:HG2	32:RP:45:LEU:CD1	2.36	0.54
1:XA:347:G:H1'	1:XA:348:G:H5''	1.90	0.54
1:XA:1190:G:OP2	3:XC:5:ILE:HG23	2.08	0.54
3:XC:15:THR:HG23	3:XC:181:ASN:HD22	1.73	0.54
10:XJ:32:ALA:H	10:XJ:78:ASN:HD21	1.55	0.54
22:YA:1178:C:H2'	22:YA:1179:C:C6	2.43	0.54
22:YA:2028:U:H2'	22:YA:2029:G:O4'	2.08	0.54
22:YA:2807:G:H22	22:YA:2893:G:H1	1.56	0.54
42:YZ:28:MET:O	42:YZ:34:ASN:HA	2.08	0.54
1:QA:279:A:H4'	1:QA:280:C:H5''	1.90	0.54
1:QA:633:G:H5'	1:QA:634:C:OP2	2.08	0.54
22:RA:242:G:O2'	22:RA:254:G:O6	2.10	0.54
22:RA:855:G:H1	22:RA:922:U:H3	1.56	0.54
22:RA:945:A:C4	22:RA:2448:A:C2	2.96	0.54
22:RA:1423:G:H2'	22:RA:1424:G:C8	2.42	0.54
34:RR:45:ARG:HA	34:RR:95:THR:HG21	1.90	0.54
1:XA:426:G:OP1	4:XD:38:TYR:OH	2.16	0.54
13:XM:3:ARG:HA	13:XM:9:ILE:CG2	2.37	0.54
16:XP:43:LYS:HG2	16:XP:48:TRP:CE3	2.42	0.54
22:YA:1013:C:H42	22:YA:1149:G:H1	1.54	0.54
22:YA:1149:G:H2'	22:YA:1150:C:H6	1.73	0.54
22:YA:1341:U:O4'	40:YX:57:LEU:HD23	2.08	0.54
22:YA:2389:G:H5''	22:YA:2390:U:O4'	2.08	0.54
22:YA:2396:G:C2	22:YA:2397:G:C8	2.96	0.54
27:YG:15:VAL:HG21	27:YG:176:LEU:HD23	1.90	0.54
29:YI:109:ILE:HB	29:YI:130:TYR:CZ	2.43	0.54
30:YN:6:PRO:HG3	30:YN:41:ASP:HB2	1.89	0.54
1:QA:1371:G:OP1	9:QI:12:GLU:HB2	2.08	0.54
2:QB:204:ASN:HD22	2:QB:206:ASP:H	1.56	0.54
4:QD:194:LEU:HD12	4:QD:195:ALA:H	1.73	0.54
19:QS:10:PHE:HE2	19:QS:16:LEU:HD22	1.73	0.54
22:RA:245:G:O2'	22:RA:384:U:O2	2.14	0.54
22:RA:559:G:H2'	22:RA:560:C:O4'	2.07	0.54
22:RA:679:C:H2'	22:RA:680:G:C8	2.43	0.54
22:RA:902:C:H2'	22:RA:903:C:C6	2.42	0.54
22:RA:1203:G:H5''	22:RA:1204:A:H5''	1.90	0.54
22:RA:1924:C:H4'	53:QV:13:C:O2'	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:2224:G:OP1	24:RD:268:ARG:NH1	2.39	0.54
22:RA:2509:G:N2	22:RA:2579:C:N3	2.47	0.54
22:RA:2549:G:N2	22:RA:2560:C:C2	2.76	0.54
22:RA:2712:U:HO2'	22:RA:2712(A):A:P	2.27	0.54
2:XB:162:ILE:O	2:XB:185:ILE:HG12	2.07	0.54
10:XJ:9:ARG:HB2	10:XJ:95:GLU:HB3	1.88	0.54
22:YA:340:A:H2'	22:YA:341:G:O4'	2.08	0.54
22:YA:2245:U:C5'	22:YA:2246:G:H5'	2.37	0.54
22:YA:2262:U:OP2	43:Y0:16:SER:HB2	2.08	0.54
22:YA:2315:G:OP1	27:YG:36:LYS:NZ	2.41	0.54
23:YB:40:U:H3	23:YB:43:C:H5''	1.73	0.54
24:YD:70:TRP:CH2	24:YD:150:LYS:HA	2.43	0.54
25:YE:111:ARG:HD2	25:YE:160:TYR:CD1	2.42	0.54
32:YP:62:LEU:HD12	51:Y8:30:ARG:HH11	1.72	0.54
49:Y6:25:LYS:HZ2	51:Y8:34:TRP:HZ2	1.56	0.54
1:QA:1336:C:O2	1:QA:1336:C:H2'	2.08	0.53
2:QB:235:SER:O	2:QB:237:ALA:N	2.41	0.53
22:RA:478:A:N1	22:RA:500:G:H4'	2.23	0.53
22:RA:2102:U:H2'	22:RA:2103:C:C6	2.43	0.53
22:RA:2267:A:H5''	22:RA:2268:A:H5'	1.89	0.53
22:RA:2309:A:C6	22:RA:2310:A:C6	2.95	0.53
32:RP:14:LYS:O	32:RP:16:ARG:HG2	2.08	0.53
1:XA:591:U:H2'	1:XA:592:G:C8	2.43	0.53
1:XA:1225:A:N3	1:XA:1225:A:H2'	2.22	0.53
2:XB:82:ARG:HA	2:XB:92:TYR:CE2	2.43	0.53
22:YA:304:G:H2'	22:YA:305:U:C6	2.43	0.53
22:YA:1270:C:O2'	22:YA:1648:C:OP2	2.17	0.53
22:YA:2853:C:H2'	22:YA:2854:G:H8	1.73	0.53
29:YI:131:LYS:HB3	29:YI:132:PRO:HA	1.90	0.53
32:YP:88:LEU:HD12	32:YP:95:VAL:HG11	1.90	0.53
1:QA:191(D):U:H2'	1:QA:191(E):G:C8	2.44	0.53
1:QA:1072:G:H2'	1:QA:1073:U:C6	2.43	0.53
1:QA:1410:G:H1	1:QA:1490:C:N4	2.00	0.53
3:QC:84:ILE:HD11	3:QC:88:ARG:HH21	1.73	0.53
15:QO:6:GLU:OE2	15:QO:6:GLU:N	2.35	0.53
22:RA:271:G:H2'	22:RA:272:G:H8	1.73	0.53
22:RA:321:G:H5''	26:RF:136:THR:HG23	1.90	0.53
22:RA:686:G:H21	22:RA:788:A:H61	1.56	0.53
22:RA:2050:C:N4	22:RA:2051:A:N1	2.55	0.53
22:RA:2277:G:H5''	33:RQ:85:LYS:HB2	1.90	0.53
22:RA:2772:C:H2'	22:RA:2773:C:C6	2.43	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RD:44:ASN:HD22	24:RD:44:ASN:N	2.06	0.53
32:RP:61:ARG:HD2	51:R8:13:ARG:HD2	1.90	0.53
36:RT:33:LYS:HD2	36:RT:82:LEU:HA	1.89	0.53
47:R4:56:VAL:HA	47:R4:60:GLN:HB2	1.89	0.53
1:XA:1075:C:OP1	2:XB:179:LYS:HE2	2.09	0.53
1:XA:1191:A:H5''	3:XC:4:LYS:HZ2	1.73	0.53
3:XC:14:ILE:O	3:XC:16:ARG:N	2.35	0.53
22:YA:190:A:N3	22:YA:679:C:O2'	2.40	0.53
22:YA:270(E):G:H2'	22:YA:270(F):U:O4'	2.08	0.53
22:YA:1265:A:H3'	48:Y5:19:ARG:NH1	2.23	0.53
24:YD:43:ARG:CB	24:YD:54:ARG:HB2	2.38	0.53
24:YD:244:ARG:HB2	24:YD:245:PRO:HD2	1.90	0.53
25:YE:78:LEU:HG	25:YE:79:ARG:NE	2.23	0.53
30:YN:30:ILE:HG23	30:YN:52:VAL:HG11	1.91	0.53
33:YQ:137:TYR:CE2	42:YZ:83:PRO:HG3	2.44	0.53
1:QA:593:G:H1	1:QA:646:U:H3	1.55	0.53
1:QA:598:U:H4'	8:QH:94:TYR:CD2	2.43	0.53
1:QA:689:C:OP2	11:QK:55:LYS:NZ	2.41	0.53
12:QL:55:VAL:HG12	12:QL:69:TYR:HA	1.90	0.53
22:RA:49:A:N7	22:RA:120:U:H5	2.06	0.53
22:RA:1053:C:N3	22:RA:1106:G:N2	2.42	0.53
22:RA:1204:A:O2'	22:RA:1205:U:O5'	2.26	0.53
22:RA:1289:C:H2'	22:RA:1290:C:C6	2.44	0.53
22:RA:1930:G:O2'	22:RA:1931:U:P	2.66	0.53
22:RA:2250:G:C8	22:RA:2496:C:H5''	2.44	0.53
22:RA:2563:U:O2	22:RA:2565:A:H8	1.90	0.53
22:RA:2687:U:C4	22:RA:2688:U:C5	2.96	0.53
29:RI:7:GLU:O	29:RI:9:LEU:HD13	2.08	0.53
29:RI:144:VAL:HG13	29:RI:145:VAL:HG23	1.91	0.53
1:XA:327:A:C4	1:XA:329:A:C8	2.97	0.53
1:XA:1145:C:H5'	1:XA:1146:A:OP1	2.08	0.53
2:XB:60:ASP:O	2:XB:64:ARG:HG2	2.09	0.53
10:XJ:4:ILE:HG12	10:XJ:100:THR:HG22	1.89	0.53
19:XS:36:ARG:NH1	19:XS:52:TYR:O	2.42	0.53
22:YA:528:A:C8	22:YA:528:A:H3'	2.42	0.53
22:YA:1076:C:H2'	22:YA:1077:A:H5''	1.90	0.53
22:YA:1454:U:H5'	34:YR:63:ARG:NE	2.23	0.53
22:YA:1509:C:H2'	22:YA:1511:A:C8	2.43	0.53
22:YA:2636:U:OP1	25:YE:79:ARG:HA	2.09	0.53
38:YV:66:ARG:NH1	38:YV:88:ARG:HD3	2.23	0.53
45:Y2:15:LYS:H	45:Y2:67:LYS:HE2	1.73	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:6:G:N2	5:QE:98:THR:OG1	2.41	0.53
1:QA:147:G:H2'	1:QA:148:G:C8	2.44	0.53
1:QA:299:G:H2'	1:QA:300:A:C8	2.44	0.53
1:QA:606:G:H22	1:QA:631:G:H5'	1.73	0.53
1:QA:1321:C:N4	1:QA:1322:C:N3	2.57	0.53
1:QA:1350:A:OP2	9:QI:118:LYS:NZ	2.41	0.53
8:QH:51:VAL:HG11	8:QH:60:ARG:HG3	1.90	0.53
22:RA:554:U:H2'	22:RA:556:G:C8	2.44	0.53
22:RA:1224:G:N2	22:RA:1227:A:OP2	2.42	0.53
22:RA:1264:G:H3'	22:RA:1265:A:H5''	1.89	0.53
22:RA:2562:U:O2'	31:RO:23:ARG:NH1	2.35	0.53
23:RB:105:G:H2'	23:RB:106:G:H8	1.73	0.53
31:RO:2:ILE:HD13	31:RO:8:LEU:HD11	1.90	0.53
33:RQ:32:TYR:CE1	33:RQ:133:ARG:HG3	2.43	0.53
38:RV:99:ILE:O	38:RV:101:GLY:N	2.42	0.53
1:XA:1238:A:H62	1:XA:1301:U:H3	1.54	0.53
9:XI:111:ARG:NE	9:XI:112:LYS:O	2.38	0.53
11:XK:84:VAL:HG11	11:XK:95:ILE:HD11	1.90	0.53
22:YA:528:A:C2	22:YA:2042:A:H2'	2.44	0.53
22:YA:2789:C:H1'	22:YA:2892:A:H2	1.73	0.53
1:QA:636:U:H2'	1:QA:637:G:C8	2.44	0.53
1:QA:920:U:H2'	1:QA:921:U:C6	2.43	0.53
3:QC:35:GLU:HG2	3:QC:59:ARG:NH2	2.24	0.53
13:QM:62:ASN:OD1	47:R4:49:PHE:HD2	1.92	0.53
22:RA:247:G:H4'	22:RA:386:G:C5	2.44	0.53
22:RA:270(F):U:H2'	22:RA:270(G):C:C6	2.44	0.53
22:RA:380:U:H2'	22:RA:381:G:C8	2.43	0.53
22:RA:511:U:O4	22:RA:512:G:N1	2.42	0.53
22:RA:674:G:C1'	26:RF:74:ARG:HD3	2.35	0.53
22:RA:1620:G:O2'	22:RA:1621:U:H5'	2.09	0.53
22:RA:2332:U:H4'	22:RA:2336:A:N6	2.24	0.53
26:RF:135:LYS:HB3	26:RF:138:GLU:HG3	1.90	0.53
28:RH:149:ARG:HE	28:RH:154:PRO:HG2	1.73	0.53
45:R2:10:LEU:O	45:R2:13:ALA:N	2.40	0.53
1:XA:514:C:H2'	1:XA:515:G:C8	2.44	0.53
1:XA:1347:G:OP2	9:XI:107:ARG:HG2	2.09	0.53
22:YA:747:U:OP2	48:Y5:3:LYS:HD2	2.08	0.53
22:YA:1165:U:H2'	22:YA:1166:C:C6	2.43	0.53
22:YA:2033:A:O2'	22:YA:2035:G:OP2	2.26	0.53
23:YB:77:U:P	42:YZ:19:ARG:HH22	2.31	0.53
24:YD:30:GLU:HG3	24:YD:63:ARG:HH21	1.73	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:YT:51:ARG:CG	36:YT:98:LYS:HG3	2.38	0.53
36:YT:112:ARG:O	36:YT:112:ARG:NE	2.39	0.53
42:YZ:102:LEU:HG	42:YZ:123:ASP:HA	1.89	0.53
52:Y9:27:CYS:SG	52:Y9:28:GLU:N	2.82	0.53
1:QA:892:A:H2'	1:QA:893:C:C6	2.43	0.53
1:QA:1004:A:H1'	1:QA:1036:G:H22	1.74	0.53
1:QA:1510:U:H2'	1:QA:1511:G:C8	2.44	0.53
22:RA:1405:U:H2'	22:RA:1406:U:C6	2.44	0.53
22:RA:2010:G:H5''	39:RW:42:ARG:HB2	1.91	0.53
26:RF:32:LEU:O	26:RF:36:VAL:HG23	2.09	0.53
29:RI:114:LEU:HD12	29:RI:129:THR:O	2.08	0.53
1:XA:107:G:C2	1:XA:108:G:H1'	2.44	0.53
1:XA:933:G:N2	1:XA:1384:C:O2	2.39	0.53
8:XH:121:ASP:HB2	8:XH:125:ARG:NH2	2.24	0.53
17:XQ:4:LYS:HE3	17:XQ:6:LEU:HD21	1.90	0.53
22:YA:1162:G:H2'	22:YA:1163:G:H8	1.72	0.53
22:YA:1953:A:N1	22:YA:2549:G:O2'	2.38	0.53
23:YB:16:G:C6	23:YB:69:G:C2	2.97	0.53
33:YQ:12:GLN:HG2	33:YQ:73:PRO:HD2	1.90	0.53
36:YT:105:LEU:O	36:YT:107:ASP:N	2.42	0.53
42:YZ:52:SER:O	42:YZ:52:SER:OG	2.24	0.53
1:QA:148:G:H2'	1:QA:149:A:H8	1.72	0.53
1:QA:382:A:H2'	1:QA:383:A:H8	1.73	0.53
1:QA:665:A:H2'	1:QA:725:G:N2	2.22	0.53
1:QA:872:A:O2'	1:QA:873:A:H5''	2.08	0.53
1:QA:1346:A:H5''	9:QI:120:ARG:NH1	2.20	0.53
6:QF:10:LEU:HD13	6:QF:61:LEU:HD13	1.90	0.53
9:QI:71:SER:HA	9:QI:74:ILE:HD12	1.90	0.53
13:QM:7:VAL:HB	27:RG:115:ARG:NH1	2.24	0.53
22:RA:676:A:H8	22:RA:2069:G:N2	2.02	0.53
22:RA:1035:U:H2'	22:RA:1036:G:C8	2.44	0.53
22:RA:1058:G:H1	22:RA:1079:C:N4	2.06	0.53
22:RA:2277:G:OP2	43:R0:10:THR:HG21	2.09	0.53
22:RA:2823:A:OP1	25:RE:113:PHE:HB2	2.08	0.53
29:RI:132:PRO:HB2	29:RI:133:HIS:CE1	2.43	0.53
35:RS:106:ARG:HA	35:RS:110:LEU:HD21	1.91	0.53
41:RY:98:VAL:HG13	41:RY:99:CYS:SG	2.48	0.53
1:XA:356:A:N3	1:XA:368:U:O2'	2.35	0.53
1:XA:865:A:H2	1:XA:918:A:H4'	1.72	0.53
19:XS:5:LEU:HD11	47:Y4:67:TYR:N	2.24	0.53
22:YA:273(C):C:N4	22:YA:363(C):G:H1	2.04	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:729:G:C6	24:YD:208:LYS:HB2	2.43	0.53
22:YA:1933:G:H2'	22:YA:1934:C:O4'	2.09	0.53
22:YA:2022:U:O2'	22:YA:2617:C:H5'	2.09	0.53
23:YB:37:C:O2	35:YS:95:HIS:NE2	2.42	0.53
30:YN:96:GLU:HG2	30:YN:97:ARG:N	2.23	0.53
32:YP:92:GLU:HA	32:YP:123:LEU:HD23	1.89	0.53
36:YT:16:ARG:HE	36:YT:19:LEU:HD21	1.73	0.53
1:QA:922:G:H2'	1:QA:923:A:C8	2.44	0.53
1:QA:1342:C:H4'	9:QI:125:TYR:HB3	1.90	0.53
1:QA:1432:G:OP1	36:RT:107:ASP:HB2	2.09	0.53
19:QS:44:MET:O	19:QS:46:GLY:N	2.40	0.53
22:RA:295:G:H1	22:RA:343:C:H42	1.56	0.53
22:RA:445:C:H2'	22:RA:446:G:O4'	2.09	0.53
22:RA:609(A):G:H2'	22:RA:610:C:C6	2.44	0.53
22:RA:864:G:H1'	22:RA:914:C:H42	1.74	0.53
22:RA:960:A:H2'	22:RA:962:G:H5'	1.91	0.53
22:RA:1871:A:H2'	22:RA:1872:A:C8	2.44	0.53
22:RA:2128:C:H1'	22:RA:2173:A:N3	2.23	0.53
26:RF:157:VAL:HB	26:RF:194:MET:HB3	1.91	0.53
32:RP:113:LYS:HG2	32:RP:115:LEU:HD23	1.90	0.53
39:RW:110:LYS:HG3	39:RW:111:HIS:ND1	2.23	0.53
42:RZ:111:VAL:O	42:RZ:113:ALA:N	2.42	0.53
45:R2:65:ASN:HB3	45:R2:69:ARG:NH2	2.24	0.53
1:XA:68:G:H5'	1:XA:171:A:H1'	1.90	0.53
1:XA:947:G:H2'	1:XA:948:C:C6	2.44	0.53
1:XA:1312:G:H3'	47:Y4:67:TYR:OH	2.09	0.53
19:XS:31:ILE:HG23	19:XS:49:ILE:HA	1.91	0.53
20:XT:95:ALA:O	20:XT:97:ALA:N	2.42	0.53
22:YA:1413:G:H2'	22:YA:1414:G:O4'	2.09	0.53
22:YA:1676:A:H2'	22:YA:1677:A:O4'	2.08	0.53
22:YA:2734:A:H5'	22:YA:2735:G:OP2	2.09	0.53
24:YD:206:LEU:O	24:YD:211:ARG:HD3	2.09	0.53
37:YU:102:GLU:OE1	38:YV:13:ARG:NH2	2.42	0.53
1:QA:7:G:H2'	5:QE:119:LEU:HD22	1.90	0.53
1:QA:447:G:O6	1:QA:485:G:H2'	2.09	0.53
1:QA:1077:G:N2	1:QA:1080:A:OP2	2.38	0.53
1:QA:1194:U:H5''	1:QA:1195:C:OP2	2.09	0.53
4:QD:78:LEU:HD22	4:QD:96:LEU:HB3	1.89	0.53
22:RA:26:G:H1'	22:RA:515:A:H61	1.73	0.53
22:RA:303:U:H2'	22:RA:304:G:C8	2.43	0.53
22:RA:415:A:H2'	22:RA:416:C:O4'	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:709:U:H3	22:RA:722:A:H61	1.55	0.53
22:RA:768:G:H2'	22:RA:769:G:H8	1.74	0.53
22:RA:2262:U:H5	43:R0:16:SER:HG	1.57	0.53
25:RE:203:LYS:HE3	25:RE:204:ALA:HB2	1.91	0.53
29:RI:101:LEU:HD23	29:RI:105:HIS:HB2	1.90	0.53
44:R1:80:LEU:HD23	44:R1:80:LEU:H	1.74	0.53
1:XA:381:C:H2'	1:XA:382:A:O4'	2.09	0.53
1:XA:1321:C:H5''	1:XA:1322:C:H5''	1.91	0.53
18:XR:25:THR:HB	18:XR:26:LEU:HD23	1.91	0.53
22:YA:528:A:H2	22:YA:2043:C:C5'	2.22	0.53
22:YA:1510:A:H2'	22:YA:1510:A:N3	2.24	0.53
22:YA:2572:A:C8	25:YE:144:ARG:NE	2.75	0.53
27:YG:179:PRO:HG3	47:Y4:38:LYS:NZ	2.24	0.53
28:YH:149:ARG:NH1	28:YH:167:GLU:OE1	2.42	0.53
29:YI:82:ARG:O	29:YI:89:TYR:HD1	1.92	0.53
49:Y6:26:ASN:ND2	49:Y6:35:GLU:OE2	2.42	0.53
1:QA:918:A:H2'	1:QA:919:A:O4'	2.09	0.53
1:QA:939:G:H5''	7:QG:102:ARG:NH2	2.24	0.53
22:RA:137(A):G:N3	40:RX:41:ASN:ND2	2.54	0.53
22:RA:1496:A:H8	22:RA:1577:C:O2'	1.92	0.53
22:RA:1652:A:N6	34:RR:11:ASN:OD1	2.38	0.53
22:RA:2232:U:P	44:R1:40:ARG:HH12	2.32	0.53
22:RA:2888:C:H2'	22:RA:2889:C:C6	2.44	0.53
23:RB:13:A:O2'	23:RB:14:U:H3'	2.08	0.53
28:RH:10:PRO:HD2	28:RH:50:VAL:HG13	1.89	0.53
43:R0:70:GLN:OE1	43:R0:80:HIS:NE2	2.40	0.53
48:R5:40:LYS:NZ	48:R5:46:CYS:HB3	2.24	0.53
1:XA:130:A:N3	1:XA:263:A:O2'	2.37	0.53
1:XA:243:A:H4'	1:XA:244:U:H3'	1.91	0.53
1:XA:255:G:H4'	17:XQ:17:LYS:HD3	1.91	0.53
1:XA:946:A:H2'	1:XA:947:G:C8	2.43	0.53
2:XB:44:LEU:H	2:XB:44:LEU:HD12	1.74	0.53
22:YA:270(T):G:OP1	44:Y1:97:LEU:HD13	2.09	0.53
22:YA:1093:G:OP1	28:YH:170:ARG:NH1	2.42	0.53
22:YA:2441:C:OP2	22:YA:2586:C:O2'	2.24	0.53
30:YN:13:TRP:O	30:YN:135:PRO:HD2	2.08	0.53
41:YY:35:TYR:CE1	41:YY:69:ALA:HB3	2.44	0.53
49:Y6:40:CYS:HB2	49:Y6:45:LYS:HD3	1.90	0.53
1:QA:36:C:O2'	12:QL:117:ARG:NH2	2.42	0.52
1:QA:37:U:O2'	1:QA:500:G:H4'	2.09	0.52
1:QA:476:G:H2'	1:QA:477:G:C8	2.44	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1275:A:H2'	1:QA:1276:G:O4'	2.10	0.52
22:RA:1532:C:O2	22:RA:1540:G:N2	2.42	0.52
22:RA:1858:G:H1'	22:RA:1884:A:N6	2.24	0.52
22:RA:2844:G:H3'	22:RA:2845:G:H8	1.74	0.52
25:RE:1:MET:N	25:RE:83:ASP:O	2.41	0.52
45:R2:4:SER:OG	45:R2:5:GLU:OE2	2.16	0.52
1:XA:1003:G:H21	1:XA:1005:A:H5'	1.74	0.52
1:XA:1399:C:C2	1:XA:1502:A:N6	2.77	0.52
7:XG:15:ASP:HB3	7:XG:19:GLY:H	1.74	0.52
12:XL:7:ILE:HD13	12:XL:10:LEU:HD12	1.90	0.52
22:YA:1055:G:N2	22:YA:1104:C:N3	2.47	0.52
29:YI:124:GLY:H	29:YI:142:VAL:HG23	1.74	0.52
33:YQ:60:ARG:NH1	42:YZ:113:ALA:HB3	2.20	0.52
35:YS:10:ARG:O	35:YS:12:PHE:N	2.42	0.52
1:QA:1244:C:N3	1:QA:1293:G:N2	2.41	0.52
1:QA:1305:G:N2	1:QA:1331:G:H2'	2.24	0.52
14:QN:24:CYS:HB3	14:QN:29:ARG:N	2.23	0.52
22:RA:1007:C:H5''	30:RN:35:ARG:HH11	1.75	0.52
22:RA:1181:C:H2'	22:RA:1182:A:H8	1.73	0.52
24:RD:206:LEU:O	24:RD:211:ARG:NH1	2.38	0.52
1:XA:261:U:OP2	20:XT:79:ARG:NH2	2.42	0.52
1:XA:1161:C:O2'	1:XA:1162:C:H5'	2.09	0.52
1:XA:1439:C:H42	1:XA:1462:G:H1	1.57	0.52
20:XT:47:GLY:O	20:XT:49:ALA:N	2.41	0.52
27:YG:96:ARG:O	27:YG:98:ARG:N	2.42	0.52
29:YI:5:LEU:HD21	29:YI:12:LEU:HB3	1.91	0.52
30:YN:110:GLY:O	30:YN:114:ARG:HG3	2.09	0.52
42:YZ:10:ARG:NH2	42:YZ:26:GLY:H	2.07	0.52
42:YZ:144:LEU:HD11	42:YZ:149:SER:HA	1.90	0.52
1:QA:410:G:H3'	4:QD:25:ARG:HH21	1.73	0.52
1:QA:940:C:H42	1:QA:1343:G:H1	1.56	0.52
4:QD:98:GLU:OE2	4:QD:107:ARG:NE	2.43	0.52
22:RA:943:U:OP2	32:RP:36:LYS:HG2	2.08	0.52
29:RI:79:ILE:HD13	29:RI:80:PRO:HD2	1.91	0.52
38:RV:60:GLU:HB2	38:RV:97:LYS:HE3	1.92	0.52
1:XA:1067:A:N1	1:XA:1108:G:O2'	2.36	0.52
1:XA:1277:C:O2'	1:XA:1279:A:H1'	2.09	0.52
3:XC:40:ARG:O	3:XC:44:GLU:HB2	2.09	0.52
22:YA:669:G:H2'	22:YA:669:G:N3	2.23	0.52
22:YA:1114:G:H2'	22:YA:1115:G:H8	1.72	0.52
22:YA:2261:C:OP2	43:Y0:17:GLN:N	2.40	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2688:U:H1'	22:YA:2721:A:N6	2.25	0.52
24:YD:85:ASP:OD2	24:YD:88:ARG:HD2	2.08	0.52
24:YD:132:PRO:HD3	24:YD:190:TYR:CZ	2.44	0.52
29:YI:5:LEU:HD12	29:YI:5:LEU:N	2.24	0.52
33:YQ:20:ALA:HB3	42:YZ:79:ARG:NH2	2.23	0.52
35:YS:6:ALA:O	35:YS:10:ARG:HD3	2.09	0.52
1:QA:42:G:H8	1:QA:42:G:O5'	1.93	0.52
1:QA:396:G:O2'	1:QA:398:C:OP1	2.20	0.52
1:QA:625:G:H2'	1:QA:626:U:H6	1.75	0.52
2:QB:134:GLU:HA	2:QB:137:ARG:HB3	1.92	0.52
13:QM:66:LEU:HA	13:QM:70:LEU:HB2	1.92	0.52
22:RA:548:A:C5	22:RA:549:G:H1'	2.43	0.52
22:RA:1297:C:H2'	22:RA:1298:C:H6	1.74	0.52
22:RA:2106:G:H1	22:RA:2183:C:N4	2.01	0.52
24:RD:35:LYS:NZ	24:RD:64:ILE:O	2.41	0.52
26:RF:134:GLY:HA3	26:RF:165:ARG:NH1	2.25	0.52
28:RH:46:GLU:OE2	28:RH:51:ARG:NH1	2.42	0.52
1:XA:1245:A:OP2	21:XU:9:ARG:NH2	2.42	0.52
22:YA:297:C:H2'	22:YA:298:G:O4'	2.09	0.52
22:YA:347:A:H2'	22:YA:348:G:C8	2.44	0.52
22:YA:1287:A:N7	34:YR:107:ASP:HB2	2.25	0.52
22:YA:1614:A:N1	39:YW:91:GLY:HA2	2.25	0.52
22:YA:2845:G:H5''	36:YT:54:ARG:O	2.08	0.52
1:QA:617:G:H1	1:QA:623:C:H42	1.57	0.52
1:QA:1464:G:OP1	36:RT:108:ARG:NH2	2.43	0.52
3:QC:37:GLN:NE2	14:QN:52:GLN:OE1	2.32	0.52
22:RA:1247:A:OP1	26:RF:95:ARG:NH2	2.42	0.52
22:RA:1432:C:H2'	22:RA:1433:U:O4'	2.10	0.52
22:RA:1790:C:H5''	22:RA:1791:A:OP1	2.10	0.52
22:RA:2019:A:OP2	48:R5:9:LYS:NZ	2.40	0.52
22:RA:2105:C:N4	22:RA:2106:G:O6	2.42	0.52
22:RA:2247:A:H2'	22:RA:2248:C:C6	2.44	0.52
22:RA:2461:C:H2'	22:RA:2462:U:H6	1.73	0.52
27:RG:82:LEU:HA	27:RG:86:MET:SD	2.48	0.52
28:RH:86:GLU:HG3	28:RH:165:ALA:N	2.25	0.52
29:RI:29:TYR:CD2	29:RI:30:LEU:HD23	2.44	0.52
34:RR:59:ASP:OD1	34:RR:61:HIS:HB3	2.08	0.52
1:XA:757:U:OP1	1:XA:822:C:O2'	2.27	0.52
1:XA:987:G:H1	1:XA:1218:C:H42	1.57	0.52
1:XA:1203:C:H2'	1:XA:1204:A:H8	1.75	0.52
16:XP:8:ARG:O	16:XP:9:PHE:HD2	1.93	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:213:A:H2'	22:YA:214:G:O4'	2.09	0.52
22:YA:325:G:H2'	22:YA:326:G:C8	2.43	0.52
22:YA:528:A:OP2	30:YN:114:ARG:NH1	2.42	0.52
22:YA:2193:G:H2'	22:YA:2194:G:C8	2.44	0.52
1:QA:690:G:H22	11:QK:55:LYS:NZ	2.08	0.52
22:RA:78:A:H2'	22:RA:79:G:H8	1.73	0.52
22:RA:537:C:H5'	22:RA:539:G:OP2	2.10	0.52
24:RD:108:PRO:HB3	24:RD:143:HIS:HE1	1.73	0.52
24:RD:133:LEU:HB3	24:RD:173:VAL:HG11	1.91	0.52
26:RF:150:GLY:HA2	26:RF:172:TRP:CE3	2.44	0.52
29:RI:124:GLY:O	29:RI:142:VAL:HG23	2.09	0.52
42:RZ:111:VAL:HG13	42:RZ:112:ARG:H	1.74	0.52
1:XA:684:A:C6	1:XA:685:G:C6	2.98	0.52
1:XA:1284:C:H3'	1:XA:1285:A:H8	1.75	0.52
1:XA:1320:C:H5'	19:XS:70:LYS:HG3	1.92	0.52
3:XC:189:ALA:HB3	3:XC:196:LEU:HB2	1.91	0.52
14:XN:43:CYS:HA	14:XN:46:GLU:HG3	1.92	0.52
22:YA:11:G:H2'	22:YA:12:U:H5'	1.90	0.52
22:YA:519:U:H2'	22:YA:520:G:H8	1.75	0.52
22:YA:1658:C:H2'	22:YA:1659:U:C6	2.45	0.52
27:YG:88:ILE:O	27:YG:88:ILE:HD13	2.09	0.52
49:Y6:13:CYS:O	49:Y6:21:TYR:HA	2.09	0.52
53:XV:74:C:C2'	53:XV:75:C:H5'	2.40	0.52
1:QA:7:G:H5'	1:QA:298:A:O4'	2.10	0.52
1:QA:602:A:H2'	1:QA:603:U:C6	2.45	0.52
22:RA:180:G:P	50:R7:32:LYS:HE2	2.50	0.52
22:RA:380:U:H2'	22:RA:381:G:H8	1.74	0.52
22:RA:1042:G:H2'	22:RA:1043:C:C6	2.45	0.52
22:RA:1810:A:H2'	22:RA:1811:G:O4'	2.10	0.52
22:RA:2119:A:N6	22:RA:2170:A:N7	2.56	0.52
29:RI:29:TYR:HD2	29:RI:30:LEU:HD23	1.74	0.52
41:RY:87:LYS:HA	41:RY:92:ASN:HB3	1.91	0.52
1:XA:464:G:C6	1:XA:466:C:H5'	2.45	0.52
1:XA:1229:A:O2'	53:XV:30:G:OP1	2.25	0.52
22:YA:1820:U:H4'	22:YA:1821:A:OP2	2.10	0.52
22:YA:2291:U:H2'	22:YA:2292:C:C6	2.44	0.52
22:YA:2527:C:H5''	52:Y9:30:PRO:HB2	1.90	0.52
26:YF:63:LYS:HE2	26:YF:67:GLN:HB2	1.91	0.52
32:YP:20:GLY:HA2	32:YP:27:HIS:O	2.10	0.52
51:Y8:11:LYS:NZ	51:Y8:63:PRO:HG3	2.24	0.52
1:QA:137:C:O4'	16:QP:63:GLY:HA2	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:192:U:H2'	1:QA:193:C:C6	2.45	0.52
1:QA:301:G:H2'	1:QA:302:G:C8	2.45	0.52
1:QA:382:A:H2'	1:QA:383:A:C8	2.44	0.52
1:QA:1150:U:O4	1:QA:1151:A:N6	2.43	0.52
22:RA:551:G:H5'	22:RA:1220:A:H1'	1.91	0.52
22:RA:608:A:OP1	26:RF:100:THR:OG1	2.28	0.52
22:RA:1592:C:H2'	22:RA:1593:G:H8	1.74	0.52
22:RA:2493:U:H2'	22:RA:2494:G:O4'	2.10	0.52
22:RA:2774:C:H2'	22:RA:2775:A:O4'	2.10	0.52
23:RB:44:G:H5''	23:RB:45:A:OP1	2.09	0.52
24:RD:206:LEU:HD22	24:RD:211:ARG:HG2	1.92	0.52
29:RI:12:LEU:HG	29:RI:19:VAL:HG21	1.90	0.52
38:RV:34:GLU:O	38:RV:36:PRO:HD3	2.10	0.52
41:RY:84:ARG:O	41:RY:95:LYS:HD3	2.09	0.52
1:XA:42:G:H1	1:XA:400:C:H42	1.58	0.52
1:XA:113:G:H1	1:XA:314:C:N4	2.07	0.52
1:XA:476:G:H2'	1:XA:477:G:C8	2.45	0.52
1:XA:1069:C:O2'	1:XA:1192:C:O2	2.15	0.52
7:XG:78:ARG:HG3	7:XG:79:ARG:N	2.25	0.52
10:XJ:78:ASN:O	10:XJ:81:THR:OG1	2.25	0.52
20:XT:53:LEU:O	20:XT:57:ARG:NH1	2.42	0.52
22:YA:278:A:H2'	22:YA:279:C:C6	2.45	0.52
22:YA:649:G:C6	22:YA:650:C:C4	2.98	0.52
22:YA:759:G:H2'	22:YA:760:G:H8	1.74	0.52
22:YA:2825:C:H6	22:YA:2825:C:O5'	1.92	0.52
26:YF:24:LEU:HD23	26:YF:115:ALA:HA	1.91	0.52
1:QA:376:G:H5''	16:QP:5:ARG:HB2	1.92	0.52
1:QA:411:A:H62	1:QA:413:G:N2	2.08	0.52
1:QA:1126:U:H1'	1:QA:1280:A:N7	2.25	0.52
4:QD:12:CYS:HA	4:QD:19:LEU:HD23	1.92	0.52
5:QE:145:LYS:HA	8:QH:107:LEU:HD21	1.91	0.52
11:QK:96:ARG:HA	11:QK:99:GLN:HE21	1.75	0.52
22:RA:883:G:H22	22:RA:892:G:H22	1.57	0.52
22:RA:1178:C:H4'	22:RA:1179:C:OP1	2.10	0.52
22:RA:2183:C:H2'	22:RA:2184:G:C8	2.45	0.52
22:RA:2867:G:O2'	22:RA:2868:A:H8	1.93	0.52
39:RW:60:ASN:HD22	39:RW:60:ASN:H	1.56	0.52
1:XA:643:C:H2'	1:XA:644:G:H8	1.73	0.52
1:XA:877:C:O2'	8:XH:3:THR:OG1	2.22	0.52
1:XA:1296:C:OP1	13:XM:44:ARG:NH2	2.43	0.52
2:XB:35:GLU:O	2:XB:36:ARG:HD3	2.10	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:XD:13:ARG:HD2	4:XD:38:TYR:O	2.10	0.52
12:XL:77:LEU:HD21	12:XL:107:ALA:HA	1.92	0.52
22:YA:330:A:O2'	22:YA:331:A:H8	1.92	0.52
22:YA:860:U:H5	22:YA:917:A:C2	2.28	0.52
28:YH:41:MET:HE1	28:YH:64:LEU:HB3	1.91	0.52
45:Y2:58:ALA:O	45:Y2:62:THR:HG23	2.10	0.52
46:Y3:40:THR:HB	46:Y3:43:ILE:HG12	1.92	0.52
1:QA:701:C:H1'	1:QA:703:G:C5	2.45	0.52
1:QA:892:A:H2'	1:QA:893:C:H6	1.75	0.52
5:QE:91:LEU:HD12	5:QE:120:THR:HG22	1.92	0.52
11:QK:32:ILE:HG13	11:QK:72:ALA:HB2	1.92	0.52
22:RA:172:C:H2'	22:RA:173:G:C8	2.44	0.52
22:RA:631:A:P	51:R8:46:ARG:NH2	2.83	0.52
22:RA:903:C:H2'	22:RA:904:C:C6	2.45	0.52
22:RA:1341:U:OP2	22:RA:1394:U:O2'	2.24	0.52
22:RA:1857:G:O2'	22:RA:1885:A:N6	2.42	0.52
22:RA:2291:U:H2'	22:RA:2292:C:C6	2.45	0.52
22:RA:2482:G:O6	33:RQ:124:LYS:NZ	2.43	0.52
29:RI:38:LEU:H	29:RI:38:LEU:HD12	1.74	0.52
36:RT:111:ARG:C	36:RT:113:LYS:H	2.12	0.52
1:XA:359:U:H2'	1:XA:360:A:C8	2.45	0.52
1:XA:518:C:H2'	1:XA:530:G:N3	2.24	0.52
1:XA:590:C:O2'	1:XA:591:U:H5'	2.09	0.52
22:YA:270(R):G:H2'	22:YA:270(S):G:C8	2.43	0.52
22:YA:503:A:H4'	22:YA:504:U:H5'	1.92	0.52
22:YA:540:G:H5'	22:YA:541:C:OP2	2.10	0.52
22:YA:700:G:H2'	22:YA:701:G:O4'	2.10	0.52
22:YA:863:A:H2'	22:YA:864:G:H8	1.75	0.52
22:YA:2398:U:H2'	22:YA:2399:G:C8	2.45	0.52
28:YH:88:LEU:H	28:YH:88:LEU:HD22	1.75	0.52
36:YT:88:ILE:HD12	36:YT:90:GLN:N	2.25	0.52
44:Y1:83:GLU:HG2	44:Y1:84:GLY:N	2.24	0.52
1:QA:32:A:H2'	1:QA:33:A:C8	2.45	0.51
1:QA:222:U:H2'	1:QA:223:U:C6	2.45	0.51
1:QA:659:U:N3	1:QA:660:G:N7	2.58	0.51
1:QA:1217:C:H2'	1:QA:1218:C:C6	2.45	0.51
1:QA:1305:G:H22	1:QA:1331:G:H2'	1.75	0.51
1:QA:1453:G:H2'	20:QT:39:LYS:NZ	2.24	0.51
8:QH:77:GLU:HG2	8:QH:78:GLN:H	1.74	0.51
22:RA:111:A:H4'	45:R2:69:ARG:NH2	2.24	0.51
22:RA:2057:A:H2'	22:RA:2058:A:O4'	2.10	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:2287:A:O2'	22:RA:2288:A:H5''	2.09	0.51
22:RA:2404:C:O3'	32:RP:77:ARG:NH2	2.42	0.51
22:RA:2532:G:H2'	22:RA:2533:A:O4'	2.09	0.51
24:RD:12:SER:HB2	24:RD:208:LYS:HB3	1.92	0.51
26:RF:150:GLY:HA2	26:RF:172:TRP:CD2	2.45	0.51
29:RI:138:ILE:HG12	29:RI:139:GLN:O	2.10	0.51
34:RR:33:ARG:HD3	34:RR:113:LEU:HG	1.92	0.51
44:R1:2:SER:HB2	44:R1:4:VAL:HG12	1.92	0.51
1:XA:677:U:H2'	1:XA:678:U:O4'	2.11	0.51
1:XA:865:A:C2	1:XA:918:A:H4'	2.44	0.51
1:XA:1132:C:H2'	1:XA:1133:G:C8	2.41	0.51
2:XB:29:ALA:O	2:XB:32:ILE:HG22	2.10	0.51
3:XC:47:LEU:HD11	3:XC:76:VAL:HB	1.91	0.51
4:XD:108:LEU:HB3	4:XD:110:PHE:CE1	2.45	0.51
19:XS:19:VAL:HG11	19:XS:44:MET:HG2	1.91	0.51
20:XT:26:ASN:HB2	20:XT:71:THR:HG23	1.92	0.51
22:YA:892:G:N2	22:YA:893:C:C2	2.78	0.51
22:YA:1056:G:H4'	22:YA:1086:A:H8	1.75	0.51
22:YA:1062:G:H8	22:YA:1062:G:O5'	1.93	0.51
39:YW:40:ASN:O	39:YW:41:LYS:HG2	2.10	0.51
43:Y0:67:VAL:HG22	43:Y0:81:VAL:HG22	1.91	0.51
49:Y6:7:ILE:HG13	49:Y6:8:LYS:H	1.75	0.51
51:Y8:51:ALA:N	51:Y8:53:PRO:HD2	2.25	0.51
1:QA:427:U:OP1	4:QD:13:ARG:NH2	2.42	0.51
1:QA:1142:G:H3'	1:QA:1143:G:C8	2.44	0.51
1:QA:1151:A:H2'	1:QA:1152:A:H8	1.75	0.51
22:RA:1083:U:O2'	22:RA:1085:A:H5''	2.10	0.51
22:RA:1636:C:H2'	22:RA:1637:A:C8	2.45	0.51
22:RA:2059:A:H5'	26:RF:71:GLY:HA2	1.93	0.51
40:RX:59:VAL:HG21	40:RX:78:LYS:HE3	1.91	0.51
1:XA:1117:G:H5''	9:XI:104:ARG:NH1	2.25	0.51
1:XA:1347:G:H22	1:XA:1374:A:P	2.34	0.51
2:XB:170:GLU:O	2:XB:174:VAL:HG23	2.11	0.51
22:YA:235:U:H2'	22:YA:236:C:H6	1.75	0.51
22:YA:380:U:H5'	44:Y1:16:ASN:O	2.10	0.51
22:YA:1430:C:H2'	22:YA:1431:U:C6	2.46	0.51
22:YA:1446:C:N4	22:YA:1465:G:H1	2.06	0.51
32:YP:96:THR:HG22	32:YP:126:VAL:HB	1.92	0.51
34:YR:83:ILE:HG22	34:YR:87:TYR:HE2	1.76	0.51
37:YU:107:ALA:O	37:YU:110:VAL:HB	2.10	0.51
45:Y2:24:LEU:HD13	45:Y2:60:LEU:HD11	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:965:A:C2	1:QA:969:A:C2	2.99	0.51
1:QA:984:C:H2'	1:QA:985:C:H6	1.75	0.51
1:QA:1143:G:H2'	1:QA:1144:G:C8	2.45	0.51
22:RA:1101:U:H2'	22:RA:1102:C:C6	2.45	0.51
23:RB:52:A:N6	35:RS:33:LYS:HG3	2.25	0.51
26:RF:47:GLY:HA3	26:RF:95:ARG:O	2.10	0.51
28:RH:153:LYS:HG2	28:RH:162:ILE:HG13	1.92	0.51
32:RP:10:PRO:O	32:RP:12:ALA:N	2.43	0.51
33:RQ:108:GLY:HA3	42:RZ:116:VAL:HG21	1.92	0.51
39:RW:67:ASP:OD2	39:RW:67:ASP:N	2.33	0.51
42:RZ:165:VAL:HG11	42:RZ:169:GLU:HB2	1.92	0.51
1:XA:110:C:H2'	1:XA:111:G:O4'	2.10	0.51
1:XA:1493:A:OP1	57:XA:1601:PAR:H51	2.11	0.51
1:XA:1511:G:H2'	1:XA:1512:U:O4'	2.10	0.51
5:XE:102:ALA:HB1	5:XE:106:PRO:HG2	1.92	0.51
20:XT:89:ARG:HH21	20:XT:104:LEU:HD11	1.76	0.51
22:YA:26:G:N1	22:YA:27:G:N2	2.58	0.51
28:YH:26:VAL:HG13	28:YH:27:LYS:H	1.76	0.51
38:YV:65:GLY:HA3	38:YV:91:TYR:CZ	2.46	0.51
42:YZ:144:LEU:HD21	42:YZ:149:SER:HA	1.93	0.51
1:QA:1388:C:H2'	1:QA:1389:C:C6	2.46	0.51
4:QD:61:LYS:HB2	4:QD:203:VAL:HG13	1.93	0.51
7:QG:153:HIS:CE1	11:QK:57:THR:HG23	2.46	0.51
10:QJ:31:GLY:HA3	10:QJ:78:ASN:ND2	2.26	0.51
22:RA:297:C:H5''	41:RY:85:VAL:HG21	1.92	0.51
22:RA:1049:C:H2'	22:RA:1050:A:H5''	1.91	0.51
22:RA:1384:A:N3	22:RA:1405:U:H1'	2.25	0.51
22:RA:1607:C:H5''	22:RA:1608:A:H5'	1.92	0.51
29:RI:37:VAL:HG12	29:RI:38:LEU:HD12	1.92	0.51
41:RY:74:PRO:O	41:RY:80:GLY:HA2	2.11	0.51
2:XB:21:ARG:HB2	2:XB:39:ILE:HA	1.91	0.51
5:XE:13:ILE:HD11	5:XE:55:VAL:HG22	1.91	0.51
6:XF:4:TYR:HD1	6:XF:92:LYS:HA	1.76	0.51
9:XI:11:LYS:H	9:XI:104:ARG:HH21	1.57	0.51
9:XI:70:LYS:O	9:XI:74:ILE:HG13	2.10	0.51
22:YA:612:G:N2	22:YA:616:A:O2'	2.44	0.51
22:YA:858:U:O2	22:YA:2268:A:H2'	2.11	0.51
22:YA:2370:G:C6	22:YA:2371:G:C6	2.98	0.51
24:YD:148:GLU:HB2	24:YD:151:LYS:HD2	1.92	0.51
26:YF:127:GLU:OE1	26:YF:196:LEU:HB2	2.11	0.51
27:YG:77:ILE:HD13	27:YG:82:LEU:HD12	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:YN:38:HIS:O	37:YU:67:ALA:HB1	2.10	0.51
38:YV:25:LEU:H	38:YV:92:THR:HG21	1.75	0.51
42:YZ:181:GLU:HG3	42:YZ:183:LEU:HB2	1.93	0.51
48:Y5:38:ALA:HB3	48:Y5:40:LYS:HE3	1.92	0.51
1:QA:824:C:H2'	1:QA:825:G:C8	2.45	0.51
1:QA:859:A:H2'	1:QA:860:A:O4'	2.11	0.51
1:QA:1068:G:N3	1:QA:1191:A:C2	2.76	0.51
18:QR:32:ARG:HA	18:QR:69:THR:HG21	1.91	0.51
22:RA:389:G:N1	32:RP:70:GLN:HB3	2.25	0.51
22:RA:1303:G:HO2'	22:RA:1642:G:HO2'	1.58	0.51
22:RA:2273:A:H2'	22:RA:2274:A:C8	2.46	0.51
22:RA:2399:G:H2'	22:RA:2400:G:O4'	2.11	0.51
22:RA:2517:C:C2	22:RA:2542:A:N6	2.78	0.51
40:RX:35:THR:HG23	40:RX:38:GLU:HG2	1.93	0.51
1:XA:484:G:H4'	1:XA:485:G:O5'	2.11	0.51
1:XA:1432:G:H8	1:XA:1432:G:O5'	1.94	0.51
13:XM:14:ARG:N	13:XM:44:ARG:HD3	2.21	0.51
22:YA:528:A:H3'	22:YA:528:A:H8	1.75	0.51
22:YA:860:U:C5	22:YA:917:A:C2	2.97	0.51
22:YA:2150:U:H2'	22:YA:2151:G:C8	2.46	0.51
27:YG:16:ARG:O	27:YG:20:ILE:HG12	2.10	0.51
37:YU:47:TYR:HA	37:YU:50:ARG:NH2	2.26	0.51
45:Y2:65:ASN:HB3	45:Y2:69:ARG:NH2	2.26	0.51
46:Y3:43:ILE:O	46:Y3:47:VAL:HG23	2.10	0.51
1:QA:105:G:H2'	1:QA:106:C:H6	1.76	0.51
1:QA:1086:U:H3	1:QA:1099:G:H22	1.57	0.51
1:QA:1376:U:OP1	7:QG:94:ARG:NH1	2.43	0.51
8:QH:20:TYR:HE2	8:QH:75:ARG:HD2	1.76	0.51
12:QL:38:THR:HG23	12:QL:57:LYS:HB3	1.93	0.51
21:QU:6:ARG:HE	21:QU:15:ARG:HH21	1.59	0.51
22:RA:388:G:OP1	44:R1:32:LYS:N	2.32	0.51
22:RA:1381:G:H1'	22:RA:1571:A:N1	2.26	0.51
22:RA:1948:G:N2	22:RA:1958:C:O2	2.41	0.51
28:RH:86:GLU:H	28:RH:86:GLU:CD	2.12	0.51
1:XA:778:G:H1'	11:XK:119:CYS:HB3	1.93	0.51
1:XA:1127:G:H4'	1:XA:1148:U:O2	2.11	0.51
1:XA:1226:C:H4'	1:XA:1227:A:OP1	2.11	0.51
7:XG:155:ARG:NH2	7:XG:155:ARG:O	2.43	0.51
17:XQ:100:LYS:O	17:XQ:101:ARG:NE	2.43	0.51
20:XT:10:LEU:O	20:XT:13:LEU:HG	2.11	0.51
22:YA:380:U:H2'	22:YA:381:G:H8	1.76	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1550:C:H2'	22:YA:1551:C:H6	1.75	0.51
22:YA:2078:C:H42	22:YA:2241:A:H61	1.58	0.51
29:YI:56:LYS:HE3	29:YI:57:ARG:HG2	1.93	0.51
34:YR:104:ARG:HD3	34:YR:111:LEU:HD21	1.92	0.51
36:YT:109:GLU:O	36:YT:113:LYS:HB2	2.11	0.51
44:Y1:70:VAL:O	44:Y1:74:VAL:HG23	2.10	0.51
48:Y5:42:PRO:HB2	48:Y5:43:HIS:ND1	2.25	0.51
48:Y5:56:LYS:HD3	48:Y5:58:LEU:HD23	1.90	0.51
1:QA:35:G:H2'	1:QA:36:C:C6	2.46	0.51
1:QA:137:C:H42	1:QA:226:G:H1	1.56	0.51
1:QA:266:G:H5''	1:QA:267:C:C5	2.46	0.51
1:QA:370:C:H2'	1:QA:371:G:H8	1.75	0.51
1:QA:1368:G:H5'	9:QI:112:LYS:HB3	1.92	0.51
22:RA:180:G:OP2	50:R7:32:LYS:HE2	2.11	0.51
22:RA:723:G:C6	22:RA:724:U:C4	2.98	0.51
22:RA:902:C:H2'	22:RA:903:C:H6	1.76	0.51
22:RA:1382:G:H4'	22:RA:1573:G:N2	2.25	0.51
22:RA:1677:A:H8	22:RA:1677:A:O5'	1.93	0.51
22:RA:1716:U:H2'	22:RA:1717:G:H8	1.75	0.51
22:RA:2630:G:N3	22:RA:2894:G:N2	2.58	0.51
22:RA:2712:U:H1'	22:RA:2712(A):A:C8	2.45	0.51
26:RF:149:ASP:OD1	26:RF:149:ASP:N	2.27	0.51
29:RI:11:ASN:O	29:RI:12:LEU:HB2	2.09	0.51
29:RI:60:GLU:HG3	29:RI:61:ARG:HH12	1.75	0.51
36:RT:28:VAL:HG23	36:RT:88:ILE:HA	1.92	0.51
42:RZ:91:LEU:HD12	42:RZ:130:PRO:HG3	1.93	0.51
1:XA:234:C:H2'	1:XA:235:C:H6	1.74	0.51
1:XA:692:U:O2'	1:XA:694:A:N7	2.29	0.51
1:XA:828:A:H2'	1:XA:829:G:O4'	2.10	0.51
6:XF:97:PHE:CD2	18:XR:31:LEU:HD21	2.46	0.51
19:XS:15:LEU:O	19:XS:19:VAL:N	2.36	0.51
19:XS:26:GLY:O	19:XS:28:LYS:N	2.43	0.51
22:YA:1041:C:H2'	22:YA:1042:G:H8	1.76	0.51
22:YA:1469:A:H2'	22:YA:1470:G:C8	2.44	0.51
22:YA:1537:C:H2'	22:YA:1538:G:O4'	2.11	0.51
22:YA:1843:C:H5'	24:YD:253:GLN:OE1	2.10	0.51
23:YB:60:C:H2'	23:YB:61:G:C8	2.42	0.51
33:YQ:2:LEU:HD23	33:YQ:2:LEU:H	1.76	0.51
37:YU:92:ARG:NH1	38:YV:11:GLN:O	2.44	0.51
41:YY:81:LYS:HG2	41:YY:97:ARG:HD3	1.93	0.51
1:QA:347:G:O2'	1:QA:348:G:H5''	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:991:U:O4	1:QA:1212:U:O2'	2.19	0.51
19:QS:5:LEU:HG	47:R4:66:SER:HB3	1.93	0.51
22:RA:140:A:C8	22:RA:1408:C:O2'	2.61	0.51
23:RB:65:C:N4	23:RB:108:C:H2'	2.23	0.51
25:RE:134:ILE:HA	25:RE:137:HIS:CD2	2.46	0.51
26:RF:185:ASP:HA	26:RF:188:ARG:HD3	1.93	0.51
42:RZ:104:PHE:HB3	42:RZ:141:VAL:HG12	1.93	0.51
1:XA:396:G:C2	1:XA:398:C:C4	2.99	0.51
1:XA:962:C:H2'	1:XA:963:G:C8	2.41	0.51
22:YA:347:A:H2'	22:YA:348:G:H8	1.75	0.51
22:YA:640:C:O2	22:YA:649:G:C2	2.64	0.51
23:YB:24:G:H1'	23:YB:26:A:H62	1.75	0.51
23:YB:42:C:O2	27:YG:93:THR:N	2.27	0.51
24:YD:35:LYS:NZ	24:YD:104:TYR:HB2	2.26	0.51
25:YE:62:PRO:O	25:YE:64:LYS:N	2.43	0.51
28:YH:6:ARG:NE	28:YH:54:ARG:HH12	2.09	0.51
35:YS:11:LYS:HB2	35:YS:91:PRO:HB3	1.93	0.51
39:YW:106:ILE:O	39:YW:106:ILE:HG12	2.07	0.51
48:Y5:45:VAL:HG11	48:Y5:57:VAL:HG12	1.93	0.51
1:QA:767:A:O2'	1:QA:1524:C:O2	2.28	0.51
1:QA:1192:C:OP2	3:QC:4:LYS:NZ	2.41	0.51
16:QP:3:LYS:HG3	16:QP:24:ALA:HB2	1.92	0.51
20:QT:14:LYS:HA	20:QT:17:ARG:HG3	1.91	0.51
22:RA:37:C:H2'	22:RA:38:A:C8	2.45	0.51
22:RA:1645:G:H5''	22:RA:1646:C:H5'	1.93	0.51
22:RA:1927:A:H2'	22:RA:1928:A:C8	2.46	0.51
26:RF:20:LEU:HD23	26:RF:125:LEU:HD12	1.93	0.51
37:RU:90:VAL:HG22	38:RV:39:LEU:HB3	1.93	0.51
1:XA:598:U:H2'	1:XA:599:C:H6	1.75	0.51
1:XA:1306:A:N6	1:XA:1331:G:H1'	2.25	0.51
1:XA:1313:U:OP1	19:XS:5:LEU:HB2	2.11	0.51
1:XA:1402:C:H2'	1:XA:1403:C:O4'	2.11	0.51
4:XD:78:LEU:HD22	4:XD:96:LEU:HB3	1.93	0.51
15:XO:33:THR:HG21	15:XO:85:LEU:HD22	1.93	0.51
22:YA:141(A):C:H2'	22:YA:142:G:O4'	2.10	0.51
22:YA:455:C:N3	22:YA:473:G:H5'	2.26	0.51
22:YA:796:C:H2'	22:YA:797:C:C6	2.46	0.51
22:YA:1028:A:N3	22:YA:2486:G:O2'	2.34	0.51
22:YA:1217:C:OP1	37:YU:15:LYS:HE3	2.11	0.51
22:YA:1753:G:H5'	22:YA:1754:C:OP2	2.09	0.51
22:YA:2467:C:C2'	22:YA:2468:G:H5'	2.41	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2849:U:H4'	22:YA:2868:A:C2	2.46	0.51
23:YB:56:G:H5'	27:YG:27:ASN:ND2	2.26	0.51
33:YQ:66:ILE:O	33:YQ:104:PHE:N	2.39	0.51
1:QA:1239:A:H62	1:QA:1299:A:N6	2.08	0.51
6:QF:69:GLU:CD	6:QF:69:GLU:H	2.15	0.51
22:RA:322:A:H5'	22:RA:340:A:H1'	1.93	0.51
22:RA:607:U:H3	22:RA:621:A:H2	1.57	0.51
22:RA:679:C:H2'	22:RA:680:G:H8	1.74	0.51
22:RA:811:U:OP2	32:RP:29:LYS:N	2.38	0.51
22:RA:1262:A:H2	48:R5:10:LYS:HD2	1.76	0.51
22:RA:1637:A:H4'	22:RA:2711:A:O2'	2.11	0.51
22:RA:2262:U:OP1	43:R0:19:LYS:NZ	2.39	0.51
22:RA:2505:G:H2'	22:RA:2576:G:O6	2.10	0.51
27:RG:88:ILE:O	27:RG:88:ILE:HD13	2.10	0.51
35:RS:56:LEU:HD23	35:RS:58:LEU:HD22	1.92	0.51
1:XA:22:G:H2'	1:XA:23:C:C6	2.45	0.51
1:XA:1030:C:H2'	1:XA:1031:G:O4'	2.10	0.51
1:XA:1157:A:H8	1:XA:1158:C:N4	2.09	0.51
11:XK:41:THR:HG21	11:XK:71:LYS:HB3	1.93	0.51
22:YA:199:A:C8	22:YA:2433:A:N6	2.80	0.51
22:YA:610:C:H42	22:YA:618:G:H1	1.59	0.51
22:YA:811:U:H2'	32:YP:21:ARG:O	2.11	0.51
22:YA:1655:A:O2'	25:YE:115:GLY:HA2	2.11	0.51
22:YA:2577:A:H5''	22:YA:2578:G:H5'	1.93	0.51
23:YB:104:A:H5'	42:YZ:72:ARG:HD3	1.92	0.51
51:Y8:23:VAL:CG1	51:Y8:46:ARG:HD3	2.40	0.51
1:QA:189:U:O2'	17:QQ:63:ARG:NH2	2.44	0.50
1:QA:967:C:H2'	1:QA:968:A:C8	2.45	0.50
9:QI:8:GLY:HA2	9:QI:79:LEU:HD12	1.92	0.50
11:QK:33:THR:HG22	11:QK:39:PRO:HA	1.92	0.50
22:RA:25:U:H5'	39:RW:79:GLY:HA2	1.92	0.50
22:RA:330:A:O2'	22:RA:331:A:H2'	2.11	0.50
22:RA:723:G:H2'	22:RA:724:U:O4'	2.11	0.50
22:RA:1859:A:N6	22:RA:1883:G:HO2'	2.09	0.50
22:RA:2477:C:H2'	52:R9:1:MET:HG3	1.92	0.50
23:RB:48:A:H2'	23:RB:49:C:C6	2.45	0.50
32:RP:62:LEU:CD2	51:R8:25:MET:HB2	2.37	0.50
36:RT:19:LEU:HD22	36:RT:86:ILE:HG22	1.93	0.50
36:RT:118:ARG:HH21	36:RT:121:ILE:HG21	1.76	0.50
40:RX:40:LYS:HG3	40:RX:51:VAL:HB	1.92	0.50
48:R5:3:LYS:HA	48:R5:3:LYS:NZ	2.27	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:129:U:H2'	1:XA:131:C:H5	1.76	0.50
1:XA:571:U:O4	1:XA:864:A:N6	2.43	0.50
1:XA:1065:U:C5	1:XA:1190:G:H1'	2.46	0.50
1:XA:1179:A:H4'	9:XI:103:THR:HA	1.93	0.50
6:XF:86:ARG:O	6:XF:87:ARG:HG2	2.11	0.50
22:YA:195:A:H5''	22:YA:196:A:O5'	2.10	0.50
22:YA:279:C:H2'	22:YA:280:C:H6	1.75	0.50
22:YA:287:C:H2'	22:YA:288:C:C6	2.46	0.50
22:YA:593:G:H1	22:YA:664:C:H42	1.59	0.50
22:YA:691:C:H2'	22:YA:692:C:C6	2.45	0.50
22:YA:1019:U:HO2'	22:YA:1021:A:H2	1.57	0.50
22:YA:1114:G:H2'	22:YA:1115:G:C8	2.46	0.50
22:YA:1923:U:H2'	22:YA:1924:C:C6	2.45	0.50
22:YA:2219:G:H2'	22:YA:2224:G:H5'	1.91	0.50
22:YA:2294:C:H2'	22:YA:2295:C:H6	1.76	0.50
22:YA:2469:A:H2	22:YA:2481:G:N2	2.08	0.50
22:YA:2584:U:H5''	56:Z8:76:PPU:H92	1.93	0.50
28:YH:89:ILE:O	28:YH:89:ILE:HG12	2.10	0.50
35:YS:30:ARG:HG3	35:YS:97:ARG:NH2	2.26	0.50
1:QA:41:G:H2'	1:QA:42:G:C8	2.46	0.50
1:QA:359:U:H2'	1:QA:360:A:C8	2.45	0.50
13:QM:33:ALA:HA	13:QM:59:TYR:HE2	1.76	0.50
22:RA:270(I):G:H2'	22:RA:270(J):G:C8	2.44	0.50
22:RA:706:A:H2'	22:RA:707:G:O4'	2.11	0.50
22:RA:860:U:O2'	22:RA:861:A:H5'	2.10	0.50
22:RA:1667:G:H8	22:RA:1667:G:OP2	1.94	0.50
22:RA:2419:U:H2'	22:RA:2420:C:C6	2.46	0.50
22:RA:2516:G:C5	22:RA:2517:C:C4	2.99	0.50
22:RA:2747:G:H21	22:RA:2757:A:H62	1.57	0.50
30:RN:46:VAL:HG13	30:RN:48:MET:HG3	1.93	0.50
1:XA:272:C:H2'	1:XA:273:A:C8	2.47	0.50
1:XA:1346:A:C4	7:XG:10:ARG:NH1	2.79	0.50
2:XB:9:GLU:HB3	2:XB:48:MET:SD	2.50	0.50
2:XB:80:ILE:HD11	2:XB:208:ILE:HG23	1.93	0.50
3:XC:138:VAL:HG22	3:XC:151:VAL:HG23	1.93	0.50
4:XD:108:LEU:HD21	4:XD:183:GLY:HA3	1.93	0.50
22:YA:869:G:H2'	22:YA:870:A:O4'	2.11	0.50
22:YA:969:U:H2'	22:YA:970:C:C6	2.46	0.50
22:YA:1825:A:H2'	22:YA:1826:G:H8	1.76	0.50
22:YA:1882:C:H3'	22:YA:1883:G:H8	1.76	0.50
22:YA:2422:A:C5	22:YA:2424:C:N4	2.79	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2469:A:O2'	33:YQ:56:ARG:HG2	2.10	0.50
22:YA:2498:C:O2'	22:YA:2499:C:H5'	2.11	0.50
22:YA:2633:G:H1'	25:YE:62:PRO:HG2	1.92	0.50
22:YA:2757:A:P	52:Y9:20:HIS:H	2.34	0.50
22:YA:2821:A:OP2	34:YR:3:HIS:NE2	2.44	0.50
23:YB:80:U:O2'	23:YB:81:G:H5'	2.10	0.50
39:YW:57:ASN:O	39:YW:61:ASN:HB2	2.10	0.50
1:QA:276:G:O3'	17:QQ:68:ARG:NH1	2.40	0.50
1:QA:501:C:OP1	12:QL:117:ARG:NH2	2.37	0.50
1:QA:568:G:N2	1:QA:883:C:C2	2.79	0.50
1:QA:1009:G:H1	1:QA:1020:U:H3	1.60	0.50
1:QA:1301:U:O2	1:QA:1301:U:H2'	2.09	0.50
1:QA:1312:G:OP2	47:R4:67:TYR:HE1	1.93	0.50
22:RA:240:G:O2'	22:RA:257:A:N6	2.41	0.50
22:RA:347:A:H2'	22:RA:348:G:H8	1.76	0.50
22:RA:372:G:O2'	22:RA:373:U:P	2.69	0.50
22:RA:498:G:N3	41:RY:47:LYS:NZ	2.59	0.50
22:RA:1173:G:H4'	22:RA:1174:A:N7	2.26	0.50
22:RA:1278:A:H4'	34:RR:34:ILE:HD12	1.93	0.50
22:RA:2065:C:H1'	22:RA:2449:U:N3	2.26	0.50
22:RA:2070:G:H2'	22:RA:2071:A:C8	2.46	0.50
25:RE:6:GLY:HA2	25:RE:51:PHE:CZ	2.46	0.50
25:RE:176:ILE:HG23	25:RE:178:GLU:OE2	2.11	0.50
28:RH:152:ARG:HH21	28:RH:153:LYS:HZ1	1.60	0.50
32:RP:14:LYS:O	32:RP:14:LYS:HD3	2.12	0.50
33:RQ:17:LEU:HD23	33:RQ:96:VAL:HG23	1.92	0.50
39:RW:60:ASN:HD22	39:RW:60:ASN:N	2.09	0.50
41:RY:97:ARG:HH21	41:RY:98:VAL:HB	1.77	0.50
1:XA:160:A:H1'	1:XA:344:A:C5	2.47	0.50
1:XA:243:A:C2	1:XA:246:A:C8	3.00	0.50
1:XA:260:G:H2'	1:XA:261:U:C6	2.45	0.50
1:XA:749:C:H2'	1:XA:750:G:H8	1.76	0.50
1:XA:881:G:H2'	1:XA:882:C:O4'	2.11	0.50
1:XA:1450:U:O2'	1:XA:1451:A:N7	2.43	0.50
2:XB:114:ARG:O	2:XB:117:GLU:HB2	2.10	0.50
3:XC:54:ARG:HD3	3:XC:56:ASP:OD1	2.10	0.50
19:XS:40:ILE:HG23	19:XS:67:VAL:O	2.11	0.50
22:YA:783:A:H3'	22:YA:783:A:C8	2.46	0.50
22:YA:1292:U:H2'	22:YA:1293:C:C6	2.46	0.50
22:YA:1658:C:H2'	22:YA:1659:U:H6	1.76	0.50
22:YA:2636:U:H1'	22:YA:2783:G:N2	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2764:A:N6	22:YA:2766:G:C2	2.80	0.50
32:YP:62:LEU:HD23	32:YP:62:LEU:N	2.26	0.50
33:YQ:89:ASN:O	33:YQ:91:GLU:N	2.44	0.50
51:Y8:58:ILE:HA	51:Y8:61:LEU:HD21	1.92	0.50
1:QA:105:G:H2'	1:QA:106:C:C6	2.46	0.50
1:QA:1178:G:C8	1:QA:1180:A:OP2	2.65	0.50
1:QA:1297:C:H4'	1:QA:1298:C:H5'	1.94	0.50
1:QA:1366:C:O3'	10:QJ:60:ARG:NH2	2.44	0.50
7:QG:116:ALA:O	7:QG:120:ILE:HG12	2.11	0.50
9:QI:53:VAL:HB	9:QI:95:LYS:HE3	1.92	0.50
10:QJ:47:PHE:CE1	10:QJ:63:PHE:HB2	2.47	0.50
11:QK:17:GLY:N	11:QK:79:SER:O	2.44	0.50
22:RA:33:U:O4	22:RA:446:G:O2'	2.25	0.50
22:RA:860:U:C5	22:RA:917:A:C2	2.98	0.50
22:RA:1007:C:H5''	30:RN:35:ARG:NH1	2.26	0.50
22:RA:1188:U:O2'	22:RA:1189:A:H5'	2.11	0.50
22:RA:1991:U:H2'	22:RA:1992:G:H5''	1.93	0.50
24:RD:62:TYR:CE1	24:RD:64:ILE:HA	2.46	0.50
40:RX:60:ARG:HH12	50:R7:47:ARG:HH22	1.58	0.50
42:RZ:10:ARG:HD3	42:RZ:18:LEU:HD21	1.93	0.50
44:R1:62:VAL:HG23	44:R1:63:ALA:O	2.11	0.50
1:XA:41:G:H2'	1:XA:42:G:C8	2.47	0.50
2:XB:189:ASP:HB3	2:XB:203:GLY:O	2.12	0.50
22:YA:443:A:H1'	22:YA:1201:C:O4'	2.11	0.50
22:YA:805:G:N2	22:YA:828:U:H5''	2.26	0.50
22:YA:2574:G:H2'	22:YA:2575:C:C6	2.46	0.50
22:YA:2790:A:C2	22:YA:2791:C:H2'	2.46	0.50
38:YV:52:VAL:HG23	38:YV:55:ALA:H	1.76	0.50
47:Y4:10:VAL:HG22	47:Y4:11:PRO:HD2	1.94	0.50
1:QA:313:A:H2'	1:QA:314:C:C6	2.46	0.50
1:QA:673:G:H2'	1:QA:674:G:C8	2.46	0.50
2:QB:162:ILE:HD11	2:QB:184:VAL:HG22	1.93	0.50
2:QB:231:GLU:HG3	2:QB:233:SER:H	1.77	0.50
12:QL:54:LYS:H	12:QL:54:LYS:HD2	1.75	0.50
12:QL:69:TYR:CG	12:QL:90:VAL:HG21	2.46	0.50
22:RA:318:C:H2'	22:RA:319:C:H6	1.77	0.50
22:RA:1860:G:H1	22:RA:1882:C:N4	2.09	0.50
29:RI:109:ILE:HB	29:RI:130:TYR:CZ	2.47	0.50
33:RQ:89:ASN:O	33:RQ:92:GLY:N	2.42	0.50
48:R5:46:CYS:HB2	48:R5:50:GLY:HA3	1.93	0.50
50:R7:5:TRP:NE1	50:R7:7:PRO:HG3	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:R8:23:VAL:HG11	51:R8:46:ARG:HD3	1.92	0.50
1:XA:115:G:H8	1:XA:115:G:O5'	1.94	0.50
1:XA:690:G:H22	11:XK:55:LYS:NZ	2.08	0.50
1:XA:719:C:O2'	18:XR:50:ILE:O	2.20	0.50
1:XA:1232:U:OP1	9:XI:124:GLN:NE2	2.45	0.50
1:XA:1382:C:H2'	1:XA:1383:C:C6	2.46	0.50
2:XB:21:ARG:O	2:XB:23:ARG:N	2.44	0.50
2:XB:111:ARG:HH21	2:XB:114:ARG:HG2	1.76	0.50
19:XS:4:SER:O	19:XS:5:LEU:HD13	2.11	0.50
22:YA:1348:G:H2'	22:YA:1349:A:H5''	1.91	0.50
25:YE:111:ARG:HA	34:YR:1:MET:CG	2.40	0.50
26:YF:167:ALA:HB1	26:YF:173:VAL:HG11	1.93	0.50
27:YG:67:LYS:HZ3	47:Y4:1:MET:HB2	1.77	0.50
27:YG:79:ASN:HD22	27:YG:79:ASN:N	2.08	0.50
32:YP:58:THR:O	32:YP:61:ARG:CZ	2.59	0.50
43:Y0:50:ASN:C	43:Y0:62:LEU:HD12	2.32	0.50
1:QA:10:A:H2'	1:QA:11:G:C8	2.45	0.50
1:QA:42:G:H2'	1:QA:43:C:O4'	2.11	0.50
1:QA:464:G:C6	1:QA:466:C:H5'	2.47	0.50
1:QA:1133:G:H2'	1:QA:1134:G:C8	2.46	0.50
1:QA:1285:A:H4'	1:QA:1286:A:O5'	2.12	0.50
9:QI:95:LYS:NZ	9:QI:96:LEU:HD13	2.26	0.50
13:QM:40:ASN:ND2	13:QM:43:THR:HG23	2.27	0.50
22:RA:111:A:C6	22:RA:112:U:C4	3.00	0.50
22:RA:935:C:H2'	22:RA:936:C:H6	1.76	0.50
22:RA:1024:G:H8	22:RA:1024:G:O5'	1.95	0.50
22:RA:1754:C:N3	22:RA:2716:U:O2'	2.39	0.50
22:RA:1798:U:C5'	24:RD:259:THR:HG22	2.42	0.50
22:RA:1947:C:H42	22:RA:1959:G:H1	1.58	0.50
22:RA:2055:C:H4'	22:RA:2056:G:H5''	1.94	0.50
22:RA:2293:C:H5''	35:RS:89:ARG:NH1	2.23	0.50
22:RA:2815:C:H5'	48:R5:29:THR:HG21	1.93	0.50
32:RP:26:GLY:O	32:RP:28:GLY:N	2.45	0.50
40:RX:26:TYR:HB3	40:RX:92:LEU:HD12	1.93	0.50
42:RZ:1:MET:HG2	42:RZ:2:GLU:H	1.76	0.50
1:XA:537:G:H5''	12:XL:113:ARG:NH1	2.26	0.50
13:XM:3:ARG:CG	47:Y4:34:GLU:HB3	2.41	0.50
22:YA:1751:C:H2'	22:YA:1752:C:C6	2.47	0.50
22:YA:2025:C:H2'	22:YA:2026:C:C6	2.44	0.50
27:YG:5:VAL:HG11	27:YG:100:TRP:HB3	1.93	0.50
28:YH:84:SER:O	28:YH:85:LYS:HB2	2.11	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:YO:120:GLU:HG2	31:YO:122:LEU:HG	1.94	0.50
42:YZ:10:ARG:NH2	42:YZ:37:VAL:O	2.44	0.50
43:Y0:24:LYS:O	43:Y0:25:ARG:HD3	2.12	0.50
49:Y6:47:THR:HG22	49:Y6:48:VAL:HG12	1.94	0.50
1:QA:179:A:H2'	1:QA:180:U:C6	2.46	0.50
1:QA:789:U:H5	1:QA:791:G:H3'	1.76	0.50
1:QA:1080:A:H5''	5:QE:16:THR:HG21	1.92	0.50
1:QA:1522:U:H2'	1:QA:1523:G:H8	1.77	0.50
13:QM:3:ARG:NH2	27:RG:113:ARG:HH21	2.10	0.50
19:QS:41:VAL:HA	19:QS:44:MET:HG3	1.93	0.50
22:RA:273:G:H1	22:RA:364:C:N4	2.07	0.50
22:RA:1899:G:N2	22:RA:1902:C:H41	2.10	0.50
28:RH:132:ARG:HH11	28:RH:132:ARG:HB2	1.76	0.50
29:RI:5:LEU:HD12	29:RI:17:GLN:HB3	1.92	0.50
35:RS:67:ARG:O	35:RS:71:ARG:HG3	2.12	0.50
36:RT:111:ARG:O	36:RT:113:LYS:N	2.42	0.50
42:RZ:121:HIS:NE2	42:RZ:169:GLU:HG2	2.26	0.50
1:XA:234:C:H2'	1:XA:235:C:C6	2.46	0.50
2:XB:162:ILE:HD11	2:XB:184:VAL:HG22	1.94	0.50
22:YA:226:G:H2'	22:YA:227:A:C8	2.47	0.50
22:YA:239:U:H2'	22:YA:240:G:O4'	2.12	0.50
22:YA:1364:G:N7	44:Y1:2:SER:N	2.59	0.50
22:YA:1835:G:H5''	22:YA:1836:C:OP2	2.12	0.50
22:YA:1999:C:H2'	22:YA:2000:G:H8	1.76	0.50
26:YF:65:TRP:O	26:YF:67:GLN:N	2.43	0.50
32:YP:36:LYS:HB3	32:YP:40:SER:HB3	1.94	0.50
38:YV:61:VAL:HA	38:YV:94:LEU:HD23	1.93	0.50
50:Y7:5:TRP:NE1	50:Y7:7:PRO:HG3	2.26	0.50
51:Y8:25:MET:O	51:Y8:47:LYS:NZ	2.44	0.50
53:XV:19:G:C4	53:XV:57:A:C2	2.99	0.50
1:QA:348:G:H2'	1:QA:349:A:H8	1.77	0.50
1:QA:1037:C:H2'	1:QA:1038:C:C6	2.47	0.50
4:QD:33:MET:CE	4:QD:37:PRO:HA	2.41	0.50
13:QM:40:ASN:HD22	13:QM:43:THR:HG23	1.77	0.50
13:QM:92:HIS:HD2	13:QM:110:ARG:HH21	1.58	0.50
22:RA:1545:A:H2'	22:RA:1545(A):A:O4'	2.12	0.50
22:RA:1803:A:H4'	24:RD:259:THR:HG23	1.94	0.50
22:RA:1818:U:H2'	24:RD:157:ARG:HG3	1.94	0.50
22:RA:2228:G:C6	22:RA:2229:C:N3	2.80	0.50
22:RA:2570:G:H2'	22:RA:2571:C:O4'	2.12	0.50
36:RT:39:ARG:HG2	36:RT:40:THR:H	1.76	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:RZ:180:VAL:O	42:RZ:181:GLU:HB2	2.12	0.50
1:XA:59:A:N6	1:XA:331:G:H1'	2.26	0.50
1:XA:97:U:H2'	1:XA:99:C:C6	2.47	0.50
2:XB:32:ILE:HD11	2:XB:40:HIS:HB3	1.94	0.50
11:XK:86:GLY:O	11:XK:91:ARG:HD3	2.11	0.50
22:YA:563:G:H22	22:YA:578:A:H2	1.60	0.50
22:YA:759:G:H2'	22:YA:760:G:C8	2.46	0.50
22:YA:1012:U:O4	30:YN:25:ARG:HA	2.12	0.50
22:YA:1858:G:O2'	22:YA:1884:A:N6	2.44	0.50
22:YA:2776:A:OP1	22:YA:2776:A:H3'	2.12	0.50
23:YB:89(A):A:N7	23:YB:90:C:H1'	2.27	0.50
26:YF:108:LYS:O	26:YF:112:MET:HG3	2.12	0.50
28:YH:4:ILE:HG13	28:YH:6:ARG:NE	2.26	0.50
30:YN:58:ASP:OD1	30:YN:58:ASP:N	2.45	0.50
33:YQ:66:ILE:HG13	33:YQ:67:ARG:N	2.27	0.50
53:XV:17:C:O2	53:XV:17:C:H2'	2.11	0.50
1:QA:56:U:H2'	1:QA:57:G:C8	2.46	0.50
1:QA:149:A:H4'	1:QA:1450:U:C4	2.46	0.50
1:QA:410:G:H5''	1:QA:411:A:OP1	2.12	0.50
1:QA:1288:A:C2	1:QA:1289:A:C4	3.00	0.50
10:QJ:22:LYS:HZ2	10:QJ:23:ILE:HA	1.77	0.50
22:RA:611:C:C2	22:RA:618:G:N2	2.79	0.50
22:RA:688:U:O5'	22:RA:688:U:H6	1.95	0.50
22:RA:826:U:H2'	22:RA:828:U:O4'	2.12	0.50
22:RA:1561:G:H2'	22:RA:1562:A:H8	1.77	0.50
22:RA:1614:A:H62	39:RW:93:ALA:CB	2.21	0.50
22:RA:1796:U:H2'	22:RA:1797:C:H6	1.75	0.50
22:RA:2116:G:H1	22:RA:2162:G:P	2.35	0.50
22:RA:2359:C:H2'	22:RA:2360:A:O4'	2.12	0.50
22:RA:2784:C:H2'	22:RA:2785:C:H6	1.77	0.50
26:RF:16:GLY:O	26:RF:18:ARG:N	2.45	0.50
30:RN:34:LEU:O	30:RN:49:GLY:HA3	2.12	0.50
36:RT:34:VAL:HG12	36:RT:36:GLU:HG2	1.94	0.50
1:XA:431:A:H2'	1:XA:432:A:O4'	2.12	0.50
1:XA:923:A:H2'	1:XA:924:C:O4'	2.12	0.50
1:XA:1179:A:H2'	1:XA:1180:A:O4'	2.12	0.50
1:XA:1366:C:H2'	1:XA:1367:C:C6	2.44	0.50
4:XD:112:VAL:HG12	4:XD:116:GLN:OE1	2.12	0.50
13:XM:49:THR:HB	13:XM:52:GLU:H	1.77	0.50
15:XO:67:LEU:HB3	15:XO:78:TYR:HE1	1.77	0.50
22:YA:1812:A:H2'	22:YA:1813:G:H8	1.77	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2795:G:H3'	22:YA:2797:U:C5'	2.42	0.50
22:YA:2804:C:H2'	22:YA:2805:G:C8	2.47	0.50
25:YE:73:GLU:HG3	25:YE:74:PRO:HD2	1.92	0.50
29:YI:29:TYR:CD2	29:YI:30:LEU:HD23	2.31	0.50
33:YQ:20:ALA:HB3	42:YZ:79:ARG:CZ	2.42	0.50
37:YU:83:LEU:HG	37:YU:88:ILE:HG13	1.93	0.50
40:YX:60:ARG:HH22	50:Y7:47:ARG:HH12	1.60	0.50
41:YY:97:ARG:HH21	41:YY:98:VAL:HB	1.76	0.50
1:QA:1118:C:H1'	1:QA:1179:A:C4	2.47	0.49
1:QA:1343:G:H2'	1:QA:1344:C:C6	2.46	0.49
1:QA:1352:C:OP1	21:QU:3:LYS:NZ	2.39	0.49
1:QA:1455:G:H2'	1:QA:1459:C:H6	1.76	0.49
3:QC:14:ILE:HG12	3:QC:15:THR:N	2.27	0.49
9:QI:46:ALA:HB2	9:QI:74:ILE:HG23	1.94	0.49
9:QI:118:LYS:O	9:QI:120:ARG:N	2.40	0.49
22:RA:20:C:H2'	22:RA:21:A:H8	1.76	0.49
22:RA:656:G:H2'	22:RA:657:U:O4'	2.12	0.49
22:RA:815:C:H2'	22:RA:816:C:C6	2.44	0.49
22:RA:1075:C:C2	22:RA:1076:C:H1'	2.47	0.49
22:RA:1341:U:H2'	22:RA:1397:U:O2	2.12	0.49
22:RA:2247:A:H2'	22:RA:2248:C:H6	1.75	0.49
22:RA:2668:G:H2'	22:RA:2669:G:H8	1.77	0.49
23:RB:28:C:H2'	23:RB:29:A:O4'	2.12	0.49
40:RX:40:LYS:O	40:RX:42:ALA:N	2.45	0.49
42:RZ:45:ASP:O	42:RZ:48:PHE:N	2.44	0.49
1:XA:264:U:H2'	1:XA:265:G:O4'	2.12	0.49
1:XA:337:C:H2'	1:XA:338:A:C8	2.46	0.49
1:XA:598:U:H2'	1:XA:599:C:C6	2.47	0.49
1:XA:1304:G:N1	1:XA:1332:A:OP2	2.32	0.49
1:XA:1431:C:H2'	1:XA:1432:G:O4'	2.11	0.49
1:XA:1443:G:H5'	1:XA:1446:A:OP2	2.12	0.49
5:XE:76:ILE:HG13	5:XE:93:PRO:HB3	1.94	0.49
13:XM:20:THR:C	13:XM:22:ILE:H	2.15	0.49
16:XP:28:ARG:NH1	16:XP:29:ASP:OD1	2.45	0.49
20:XT:64:ASP:HA	20:XT:67:ALA:HB3	1.93	0.49
22:YA:107:C:H2'	22:YA:108:U:H6	1.77	0.49
22:YA:479:A:N3	22:YA:481:G:H5''	2.26	0.49
22:YA:1093:G:H4'	28:YH:170:ARG:NH2	2.26	0.49
22:YA:2641:G:P	30:YN:83:LYS:HE3	2.52	0.49
22:YA:2780:G:OP2	30:YN:118:LYS:HE2	2.12	0.49
23:YB:48:A:P	35:YS:30:ARG:HH22	2.35	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YE:103:ASP:OD1	25:YE:201:THR:HG23	2.12	0.49
32:YP:126:VAL:HG13	32:YP:145:PRO:HB2	1.94	0.49
42:YZ:144:LEU:HD13	42:YZ:145:GLU:H	1.77	0.49
1:QA:411:A:N6	1:QA:413:G:H21	2.10	0.49
1:QA:784:C:H4'	22:RA:1837:C:OP1	2.12	0.49
1:QA:1203:C:H2'	1:QA:1204:A:H8	1.76	0.49
1:QA:1263:C:H5'	1:QA:1264:C:OP2	2.11	0.49
1:QA:1347:G:H22	1:QA:1374:A:P	2.36	0.49
1:QA:1404:C:H2'	1:QA:1405:G:C8	2.47	0.49
2:QB:204:ASN:ND2	2:QB:206:ASP:O	2.45	0.49
2:QB:235:SER:OG	2:QB:236:TYR:N	2.46	0.49
3:QC:14:ILE:HG12	3:QC:15:THR:H	1.76	0.49
3:QC:157:ILE:HD11	3:QC:166:GLU:HB2	1.94	0.49
6:QF:97:PHE:O	18:QR:31:LEU:HD23	2.12	0.49
13:QM:65:LYS:NZ	47:R4:52:THR:HG21	2.27	0.49
22:RA:270(S):G:H5'	44:R1:76:ARG:HG2	1.93	0.49
22:RA:873:G:H1	22:RA:904:C:N4	2.10	0.49
22:RA:1171:G:N7	22:RA:1174:A:N6	2.60	0.49
22:RA:1205:U:C4	26:RF:171:PRO:HA	2.47	0.49
22:RA:1598:C:H5'	40:RX:36:LYS:HB2	1.93	0.49
22:RA:2078:C:H2'	22:RA:2079:U:O4'	2.11	0.49
22:RA:2416:C:H2'	22:RA:2417:C:C6	2.48	0.49
33:RQ:20:ALA:HB1	33:RQ:99:PRO:HD2	1.94	0.49
1:XA:16:A:N1	1:XA:919:A:H2	2.11	0.49
1:XA:1147:C:O2'	9:XI:16:ARG:HD3	2.12	0.49
12:XL:71:PRO:O	12:XL:102:ARG:HD3	2.12	0.49
14:XN:23:ARG:NH1	14:XN:30:ALA:HB2	2.27	0.49
22:YA:336:C:O2'	41:YY:35:TYR:OH	2.26	0.49
22:YA:551:G:H5'	22:YA:1220:A:H1'	1.92	0.49
22:YA:881:G:H3'	22:YA:882:G:H8	1.76	0.49
22:YA:2118:U:O2	22:YA:2148:G:O2'	2.22	0.49
1:QA:109:A:C6	1:QA:326:G:C6	3.00	0.49
1:QA:334:C:H2'	1:QA:335:C:C6	2.47	0.49
1:QA:954:G:H21	1:QA:1227:A:H62	1.60	0.49
1:QA:1342:C:H2'	1:QA:1343:G:C8	2.47	0.49
4:QD:167:GLY:HA3	24:YD:135:PHE:CE2	2.47	0.49
8:QH:9:MET:HG3	8:QH:26:VAL:HG21	1.94	0.49
22:RA:184:C:H2'	22:RA:185:U:C6	2.47	0.49
22:RA:1467:C:N3	22:RA:1525:G:N2	2.52	0.49
22:RA:2729:G:H1'	25:RE:187:ALA:HB2	1.93	0.49
22:RA:2828:C:O2'	22:RA:2829:C:H5'	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:RB:83:G:N2	23:RB:93:C:N3	2.50	0.49
28:RH:155:SER:OG	28:RH:156:ALA:N	2.45	0.49
33:RQ:11:LYS:HE2	33:RQ:86:GLY:O	2.11	0.49
34:RR:44:LEU:HD22	34:RR:48:VAL:HG23	1.94	0.49
1:XA:67:C:O2'	1:XA:171:A:N3	2.39	0.49
1:XA:1256:A:H4'	1:XA:1258:G:C4	2.47	0.49
6:XF:97:PHE:HB2	18:XR:32:ARG:CZ	2.41	0.49
11:XK:82:VAL:HB	11:XK:108:ILE:HG12	1.94	0.49
13:XM:81:LEU:HD13	13:XM:88:ARG:HD2	1.94	0.49
22:YA:273:G:N2	22:YA:365:C:C2	2.80	0.49
22:YA:769:G:H5'	22:YA:1379:A:N6	2.28	0.49
22:YA:1093:G:HO2'	22:YA:1099:G:H1	1.59	0.49
22:YA:2629:A:O2'	22:YA:2630:G:H5''	2.11	0.49
29:YI:5:LEU:HD11	29:YI:19:VAL:HG12	1.94	0.49
30:YN:7:LYS:N	30:YN:7:LYS:HD2	2.28	0.49
40:YX:53:LYS:HB3	40:YX:82:GLN:HB3	1.93	0.49
3:QC:73:PRO:O	3:QC:76:VAL:HG22	2.12	0.49
22:RA:242:G:N2	22:RA:254:G:H2'	2.28	0.49
22:RA:1077:A:C2	22:RA:1078:U:H4'	2.48	0.49
22:RA:1534:G:C2'	22:RA:1535:U:H4'	2.41	0.49
22:RA:1798:U:H5'	24:RD:259:THR:HG22	1.95	0.49
22:RA:2021:C:H5	37:RU:25:TRP:CD1	2.30	0.49
22:RA:2755:C:N3	52:R9:19:ARG:NH1	2.60	0.49
23:RB:8:U:O3'	35:RS:25:ARG:NH2	2.39	0.49
24:RD:175:LEU:HD12	24:RD:185:VAL:HG21	1.93	0.49
26:RF:9:ILE:HD11	26:RF:125:LEU:HG	1.94	0.49
27:RG:115:ARG:NH2	27:RG:137:GLU:OE1	2.46	0.49
35:RS:15:ARG:NH1	35:RS:25:ARG:HH21	2.11	0.49
42:RZ:10:ARG:NH2	42:RZ:26:GLY:O	2.45	0.49
1:XA:188:U:H2'	1:XA:189:U:H5''	1.94	0.49
1:XA:996:A:H8	1:XA:996:A:O5'	1.95	0.49
9:XI:40:LEU:C	9:XI:42:ARG:H	2.15	0.49
10:XJ:49:VAL:HG22	14:YN:41:ARG:HB2	1.94	0.49
19:XS:5:LEU:CD1	47:Y4:66:SER:CA	2.90	0.49
20:XT:89:ARG:NH2	20:XT:104:LEU:HD11	2.27	0.49
22:YA:277:C:H5'	22:YA:278:A:H5'	1.95	0.49
22:YA:307:G:H21	22:YA:330:A:H62	1.60	0.49
22:YA:522:G:C2	22:YA:523:C:C2	3.00	0.49
22:YA:1786:A:C2	22:YA:2606:C:H1'	2.47	0.49
22:YA:2401:U:H2'	22:YA:2402:C:H5''	1.94	0.49
23:YB:89:G:C6	23:YB:89(A):A:C6	3.01	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YD:121:PRO:HB3	24:YD:135:PHE:CE1	2.47	0.49
25:YE:35:GLN:HG2	25:YE:37:ARG:HE	1.78	0.49
26:YF:31:HIS:HB2	32:YP:9:ASN:OD1	2.12	0.49
27:YG:94:LEU:HD12	27:YG:99:MET:HA	1.95	0.49
29:YI:3:VAL:HG12	29:YI:38:LEU:HA	1.94	0.49
29:YI:72:LEU:HD11	29:YI:107:VAL:HG21	1.94	0.49
29:YI:110:ASP:HB3	29:YI:111:PRO:C	2.32	0.49
37:YU:95:LEU:HD22	38:YV:4:ILE:HD12	1.93	0.49
42:YZ:136:PHE:CE1	42:YZ:138:GLU:HG3	2.47	0.49
1:QA:684:A:C6	1:QA:685:G:C5	3.00	0.49
7:QG:20:ASP:HB3	7:QG:23:VAL:HG23	1.94	0.49
18:QR:26:LEU:HD22	18:QR:42:ARG:HD2	1.94	0.49
22:RA:286:C:H2'	22:RA:287:C:C6	2.48	0.49
22:RA:1359:A:H2'	22:RA:1360:A:H5'	1.94	0.49
22:RA:1678:G:N2	22:RA:1989:G:H22	2.10	0.49
50:R7:31:LEU:HD22	50:R7:42:LEU:HD13	1.95	0.49
1:XA:34:C:H1'	12:XL:32:PHE:CE2	2.48	0.49
1:XA:56:U:H2'	1:XA:57:G:C8	2.46	0.49
1:XA:1258:G:H1	1:XA:1277:C:H42	1.60	0.49
22:YA:185:U:H4'	22:YA:218:A:H4'	1.94	0.49
22:YA:483:A:H5''	22:YA:484:C:OP2	2.12	0.49
22:YA:1087:G:H2'	22:YA:1089:G:H4'	1.93	0.49
22:YA:1355:G:H8	22:YA:1355:G:O5'	1.95	0.49
22:YA:1509:C:H3'	22:YA:1510:A:H5''	1.94	0.49
22:YA:1754:C:H5	36:YT:96:ARG:NH2	2.11	0.49
22:YA:2561:A:H2'	22:YA:2562:U:O4'	2.12	0.49
22:YA:2656:U:H3	22:YA:2665:A:H2	1.57	0.49
30:YN:17:ASP:O	30:YN:56:ASN:HB2	2.12	0.49
30:YN:34:LEU:HD21	30:YN:120:LEU:HB2	1.94	0.49
37:YU:61:TRP:CD2	37:YU:94:ASN:HA	2.47	0.49
1:QA:587:G:N2	1:QA:754:C:OP2	2.46	0.49
1:QA:664:G:P	18:QR:64:ARG:HH21	2.35	0.49
1:QA:1058:G:N2	10:QJ:53:PRO:HG3	2.27	0.49
1:QA:1356:G:H2'	1:QA:1357:A:H8	1.76	0.49
8:QH:95:VAL:HB	8:QH:99:GLU:O	2.13	0.49
22:RA:177:G:H3'	22:RA:178:G:H8	1.77	0.49
22:RA:296:C:H2'	22:RA:297:C:H6	1.77	0.49
22:RA:322:A:OP2	26:RF:169:ASN:HB2	2.13	0.49
22:RA:1047:G:H2'	22:RA:1110:G:H1	1.78	0.49
22:RA:1161:C:H2'	22:RA:1162:G:C8	2.47	0.49
22:RA:1401:G:H2'	22:RA:1402:C:C6	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:1469:A:H2'	22:RA:1470:G:O4'	2.13	0.49
22:RA:1899:G:N2	22:RA:1902:C:N4	2.58	0.49
22:RA:2510:C:H2'	22:RA:2511:U:C6	2.47	0.49
26:RF:178:PRO:HG2	26:RF:179:GLU:OE2	2.13	0.49
30:RN:134:ARG:N	30:RN:135:PRO:HD3	2.28	0.49
33:RQ:69:PHE:CD1	33:RQ:70:PRO:HD2	2.46	0.49
41:RY:47:LYS:HG2	41:RY:60:PHE:HD1	1.76	0.49
46:R3:6:VAL:HG13	46:R3:56:VAL:HG13	1.94	0.49
1:XA:374:A:O2'	1:XA:451:A:OP2	2.27	0.49
1:XA:528:C:H41	12:XL:49:ASN:CG	2.14	0.49
1:XA:1191:A:H5''	3:XC:4:LYS:NZ	2.27	0.49
2:XB:24:TRP:CZ3	2:XB:26:PRO:HA	2.48	0.49
19:XS:41:VAL:HB	19:XS:42:PRO:CA	2.42	0.49
22:YA:147:U:H2'	22:YA:148:C:C6	2.48	0.49
22:YA:2633:G:H5'	22:YA:2811:G:O2'	2.11	0.49
23:YB:95:U:H2'	23:YB:96:G:H8	1.75	0.49
24:YD:27:THR:HG21	24:YD:83:GLU:HG2	1.94	0.49
40:YX:57:LEU:HD11	40:YX:78:LYS:HD2	1.94	0.49
47:Y4:15:ILE:H	47:Y4:15:ILE:HD13	1.77	0.49
49:Y6:41:PRO:HD2	49:Y6:46:HIS:N	2.28	0.49
3:QC:47:LEU:HD23	3:QC:68:VAL:HG11	1.94	0.49
14:QN:15:LYS:HD2	14:QN:16:PHE:CE2	2.47	0.49
17:QQ:18:THR:HG23	17:QQ:69:LYS:HE3	1.94	0.49
22:RA:121:G:H4'	22:RA:149:A:H5'	1.94	0.49
22:RA:593:G:H4'	51:R8:61:LEU:HD13	1.94	0.49
22:RA:1016:G:H2'	22:RA:1017:G:O4'	2.13	0.49
22:RA:1065:U:H3	22:RA:1073:A:H61	1.61	0.49
22:RA:1789:A:H2'	22:RA:1790:C:O4'	2.13	0.49
24:RD:35:LYS:HZ1	24:RD:65:ILE:HA	1.76	0.49
25:RE:70:ALA:O	25:RE:72:VAL:N	2.46	0.49
26:RF:132:VAL:HG23	26:RF:133:ASN:OD1	2.12	0.49
27:RG:60:LEU:O	27:RG:64:THR:HG22	2.11	0.49
27:RG:110:ALA:HB1	27:RG:140:ILE:HD12	1.94	0.49
33:RQ:89:ASN:O	33:RQ:91:GLU:N	2.45	0.49
37:RU:92:ARG:O	37:RU:92:ARG:HG2	2.13	0.49
40:RX:27:THR:HB	40:RX:80:ILE:HB	1.94	0.49
42:RZ:151:HIS:O	42:RZ:171:ILE:HG12	2.13	0.49
1:XA:37:U:H2'	1:XA:38:G:O4'	2.12	0.49
1:XA:143:A:H5''	1:XA:144:G:O5'	2.12	0.49
1:XA:464:G:H1'	1:XA:468:A:N6	2.28	0.49
1:XA:1060:C:C5	3:XC:2:GLY:HA2	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:XK:59:TYR:CZ	11:XK:63:LEU:HD11	2.47	0.49
13:XM:14:ARG:HG2	13:XM:17:VAL:HG23	1.94	0.49
22:YA:781:A:H2'	22:YA:1777:U:O2'	2.13	0.49
22:YA:2345:G:N3	22:YA:2381:C:H2'	2.28	0.49
22:YA:2645:G:C3'	22:YA:2646:C:H5'	2.43	0.49
25:YE:179:GLU:HB3	25:YE:181:LEU:HD23	1.94	0.49
32:YP:61:ARG:HD3	51:Y8:13:ARG:HD2	1.94	0.49
32:YP:63:PRO:HD3	51:Y8:13:ARG:HD3	1.95	0.49
41:YY:86:ARG:HB2	41:YY:95:LYS:HD2	1.93	0.49
49:Y6:41:PRO:O	49:Y6:45:LYS:HE3	2.12	0.49
1:QA:8:A:H4'	1:QA:9:G:OP1	2.11	0.49
1:QA:229:U:H2'	1:QA:230:G:C8	2.48	0.49
1:QA:975:A:C8	1:QA:1357:A:H2	2.31	0.49
1:QA:1318:A:H4'	19:QS:11:VAL:CG1	2.43	0.49
22:RA:58:G:C5	22:RA:59:U:C5	3.01	0.49
22:RA:270(U):C:H2'	22:RA:270(V):G:H8	1.77	0.49
22:RA:606:U:H4'	22:RA:658:C:H4'	1.94	0.49
22:RA:979:G:H3'	22:RA:980:A:C5'	2.41	0.49
22:RA:1853:A:N3	22:RA:2233:U:O2'	2.41	0.49
22:RA:2210:G:H5'	22:RA:2211:G:C6	2.48	0.49
24:RD:228:PRO:HD3	24:RD:234:GLY:C	2.33	0.49
27:RG:54:GLU:HA	27:RG:57:ALA:HB3	1.94	0.49
29:RI:81:VAL:CG2	29:RI:142:VAL:HG12	2.39	0.49
42:RZ:62:PRO:C	42:RZ:64:GLY:H	2.16	0.49
49:R6:15:GLU:CD	49:R6:41:PRO:HB3	2.32	0.49
1:XA:17:U:H2'	1:XA:18:C:C6	2.48	0.49
1:XA:643:C:H2'	1:XA:644:G:C8	2.48	0.49
1:XA:818:G:O2'	1:XA:819:A:H5'	2.12	0.49
3:XC:148:GLY:HA3	3:XC:172:ARG:O	2.12	0.49
10:XJ:35:SER:OG	10:XJ:73:ASP:HB2	2.13	0.49
12:XL:62:SER:HB2	12:XL:64:TYR:HD1	1.76	0.49
22:YA:855:G:C6	22:YA:856:C:C4	3.01	0.49
22:YA:1208:C:C4	22:YA:1209:G:N7	2.81	0.49
22:YA:1312:U:H4'	22:YA:1313:U:O5'	2.13	0.49
22:YA:1930:G:O2'	22:YA:1931:U:P	2.71	0.49
22:YA:2020:A:O2'	22:YA:2021:C:H2'	2.12	0.49
22:YA:2496:C:P	33:YQ:81:VAL:HG12	2.53	0.49
24:YD:76:PRO:HG2	24:YD:98:VAL:HG21	1.94	0.49
29:YI:104:GLN:HG2	29:YI:105:HIS:CE1	2.48	0.49
1:QA:522:C:OP2	12:QL:69:TYR:OH	2.25	0.49
1:QA:849:C:H2'	1:QA:850:U:O4'	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1203:C:H2'	1:QA:1204:A:C8	2.48	0.49
1:QA:1226:C:H2'	13:QM:103:THR:HB	1.93	0.49
3:QC:79:ARG:HE	11:XK:99:GLN:NE2	2.11	0.49
12:QL:24:VAL:HG13	12:QL:98:TYR:HE2	1.77	0.49
15:QO:87:ILE:HG22	15:QO:88:ARG:H	1.78	0.49
19:QS:77:THR:HG22	19:QS:78:ARG:HD3	1.95	0.49
20:QT:79:ARG:O	20:QT:83:ARG:HG3	2.12	0.49
22:RA:589:C:H2'	22:RA:590:A:H8	1.76	0.49
22:RA:680:G:H2'	22:RA:681:G:C8	2.48	0.49
22:RA:1091:G:N2	22:RA:1101:U:H1'	2.27	0.49
22:RA:1212:G:N2	22:RA:1236:G:O2'	2.44	0.49
22:RA:1449:A:HO2'	22:RA:1530:G:N2	2.04	0.49
22:RA:2540:C:H2'	22:RA:2541:A:O4'	2.13	0.49
29:RI:3:VAL:HG12	29:RI:38:LEU:HA	1.94	0.49
49:R6:14:THR:O	49:R6:49:HIS:HA	2.12	0.49
1:XA:518:C:H2'	1:XA:530:G:C4	2.48	0.49
1:XA:1277:C:H2'	1:XA:1279:A:H8	1.76	0.49
1:XA:1291:G:OP1	7:XG:37:ASN:ND2	2.46	0.49
1:XA:1443:G:H2'	36:YT:122:ASP:OD2	2.13	0.49
2:XB:47:THR:HA	2:XB:202:PRO:HG2	1.95	0.49
5:XE:10:MET:SD	5:XE:13:ILE:HD13	2.53	0.49
22:YA:602:G:C2	22:YA:656:G:C6	3.01	0.49
22:YA:1657:C:O2'	25:YE:133:LYS:HD2	2.13	0.49
22:YA:1693:U:O2'	24:YD:14:ARG:NH2	2.45	0.49
22:YA:1758:G:OP1	22:YA:1760:A:N6	2.46	0.49
22:YA:2323:G:H2'	22:YA:2324:C:O4'	2.13	0.49
24:YD:61:LEU:O	24:YD:63:ARG:NH1	2.45	0.49
28:YH:12:PRO:HG3	28:YH:48:GLY:HA2	1.95	0.49
42:YZ:48:PHE:CE2	42:YZ:52:SER:HA	2.48	0.49
49:Y6:21:TYR:HE1	49:Y6:53:LYS:HE3	1.77	0.49
53:QV:9:G:N3	53:QV:45:G:H2'	2.28	0.49
1:QA:266:G:H5'	1:QA:268:C:H41	1.77	0.49
1:QA:617:G:N2	1:QA:618:C:N3	2.61	0.49
1:QA:751:U:H2'	1:QA:752:G:O4'	2.13	0.49
1:QA:1025:U:HO2'	1:QA:1026:G:P	2.36	0.49
1:QA:1066:C:H5'	1:QA:1067:A:OP2	2.13	0.49
1:QA:1512:U:H2'	1:QA:1513:A:H8	1.78	0.49
2:QB:80:ILE:HG21	2:QB:212:GLN:HA	1.95	0.49
4:QD:129:ASN:HA	4:QD:145:GLU:HB2	1.94	0.49
10:QJ:51:ARG:NH2	14:QN:58:LYS:HZ1	2.11	0.49
21:QU:5:ASP:O	21:QU:11:GLY:HA3	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:860:U:H5	22:RA:917:A:C2	2.31	0.49
22:RA:861:A:C2	22:RA:917:A:C5	3.01	0.49
22:RA:1130:U:C2	25:RE:147:PRO:HB3	2.48	0.49
22:RA:1178:C:H2'	22:RA:1179:C:C5	2.48	0.49
22:RA:1292:U:H2'	22:RA:1293:C:C6	2.48	0.49
22:RA:1676:A:N6	22:RA:1677:A:N1	2.61	0.49
22:RA:2144:U:O2'	22:RA:2147:G:O6	2.21	0.49
22:RA:2292:C:OP2	35:RS:17:ARG:NH2	2.46	0.49
27:RG:98:ARG:HE	27:RG:98:ARG:HB2	1.38	0.49
1:XA:1118:C:OP1	9:XI:9:ARG:HD3	2.12	0.49
1:XA:1179:A:O3'	9:XI:103:THR:HG23	2.13	0.49
3:XC:79:ARG:HH12	3:XC:82:GLU:HG3	1.77	0.49
6:XF:19:LEU:HD21	6:XF:59:TYR:CE2	2.47	0.49
22:YA:698:C:O2'	22:YA:734:A:N6	2.46	0.49
22:YA:1042:G:H1	22:YA:1113:U:H3	1.61	0.49
22:YA:1957:C:H2'	22:YA:1958:C:C6	2.48	0.49
22:YA:2639:A:H2'	22:YA:2640:G:O4'	2.13	0.49
24:YD:170:GLY:C	24:YD:172:TYR:H	2.16	0.49
26:YF:176:LEU:HD21	26:YF:181:LEU:HA	1.94	0.49
33:YQ:104:PHE:CE1	33:YQ:125:LEU:HD11	2.41	0.49
42:YZ:52:SER:C	42:YZ:54:HIS:H	2.16	0.49
1:QA:325:A:H2'	1:QA:326:G:O4'	2.11	0.48
1:QA:455:C:H42	1:QA:477:G:H1	1.59	0.48
1:QA:855:G:C6	1:QA:856:C:C4	3.01	0.48
1:QA:1053:G:O6	1:QA:1199:U:H2'	2.13	0.48
1:QA:1053:G:N7	1:QA:1199:U:H3'	2.27	0.48
1:QA:1312:G:H5''	47:R4:67:TYR:OH	2.13	0.48
1:QA:1412:C:H2'	1:QA:1413:A:C8	2.48	0.48
2:QB:96:ARG:H	2:QB:96:ARG:HD2	1.76	0.48
7:QG:155:ARG:O	7:QG:155:ARG:NH2	2.46	0.48
15:QO:16:ALA:HB1	15:QO:21:ASP:HB3	1.94	0.48
22:RA:205:G:O2'	22:RA:206:U:OP2	2.25	0.48
22:RA:503:A:C4'	22:RA:504:U:H5'	2.42	0.48
22:RA:1022:G:H4'	22:RA:1023:U:H5'	1.95	0.48
22:RA:1137:G:O2'	22:RA:2039:C:H5'	2.13	0.48
22:RA:2469:A:H2	22:RA:2481:G:H21	1.61	0.48
28:RH:4:ILE:HG13	28:RH:6:ARG:NE	2.28	0.48
36:RT:16:ARG:HD3	36:RT:19:LEU:HD11	1.94	0.48
41:RY:47:LYS:HG2	41:RY:60:PHE:CD1	2.48	0.48
49:R6:25:LYS:HE2	49:R6:27:LYS:HD3	1.94	0.48
1:XA:347:G:C4	1:XA:348:G:C8	3.00	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:444:C:H2'	1:XA:445:G:C8	2.48	0.48
3:XC:134:ILE:HG23	3:XC:151:VAL:HB	1.94	0.48
5:XE:33:VAL:HG11	5:XE:109:ILE:HA	1.95	0.48
22:YA:225:A:O2'	22:YA:257:A:H4'	2.13	0.48
22:YA:270(G):C:H2'	22:YA:270(H):C:C6	2.47	0.48
22:YA:1159:U:H2'	22:YA:1160:G:O4'	2.13	0.48
22:YA:2636:U:OP2	25:YE:79:ARG:NH1	2.46	0.48
22:YA:2687:U:H2'	22:YA:2688:U:O4'	2.12	0.48
24:YD:35:LYS:HD3	24:YD:63:ARG:CB	2.43	0.48
28:YH:98:LEU:HD13	28:YH:125:VAL:HB	1.94	0.48
36:YT:107:ASP:H	36:YT:110:ILE:HG22	1.78	0.48
1:QA:440:A:H5'	1:QA:442:C:OP2	2.13	0.48
1:QA:1060:C:H2'	1:QA:1061:G:H8	1.78	0.48
1:QA:1305:G:O2'	1:QA:1306:A:O4'	2.31	0.48
1:QA:1368:G:H5'	9:QI:112:LYS:O	2.13	0.48
2:QB:21:ARG:O	2:QB:23:ARG:N	2.46	0.48
10:QJ:24:VAL:HG21	10:QJ:37:PRO:HD3	1.95	0.48
10:QJ:32:ALA:HB3	10:QJ:76:ASN:HB2	1.95	0.48
12:QL:58:VAL:O	12:QL:65:GLU:HA	2.13	0.48
22:RA:107:C:H2'	22:RA:108:U:C6	2.48	0.48
22:RA:381:G:H2'	22:RA:382:G:H8	1.78	0.48
22:RA:456:C:O2'	22:RA:457:A:H5'	2.13	0.48
22:RA:977:G:C6	22:RA:987:G:C6	3.01	0.48
22:RA:1366:A:H2'	22:RA:1367:A:O4'	2.12	0.48
22:RA:2056:G:N2	48:R5:4:HIS:O	2.45	0.48
22:RA:2404:C:H2'	22:RA:2405:G:H5'	1.95	0.48
26:RF:178:PRO:HB2	26:RF:201:VAL:HG11	1.94	0.48
28:RH:41:MET:HG3	28:RH:54:ARG:HA	1.96	0.48
42:RZ:30:ASN:N	42:RZ:30:ASN:OD1	2.43	0.48
1:XA:107:G:OP1	1:XA:325:A:N6	2.46	0.48
1:XA:485:G:H1'	1:XA:486:U:H5	1.77	0.48
1:XA:619:U:O2	1:XA:619:U:H2'	2.11	0.48
1:XA:757:U:H2'	1:XA:758:G:O4'	2.13	0.48
6:XF:35:ALA:HA	6:XF:67:MET:HB3	1.94	0.48
22:YA:840:C:OP2	22:YA:932:G:N2	2.39	0.48
22:YA:860:U:OP2	22:YA:916:G:N1	2.45	0.48
22:YA:1011:G:H22	22:YA:1151:G:H1'	1.77	0.48
22:YA:1204:A:H1'	22:YA:1206:G:C5	2.48	0.48
22:YA:1265:A:H8	22:YA:1265:A:OP1	1.95	0.48
22:YA:1494:A:H2'	22:YA:1495:A:C8	2.48	0.48
22:YA:1870:C:H2'	22:YA:1871:A:O4'	2.12	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1918:A:HO2'	22:YA:1920:C:N4	2.11	0.48
22:YA:2097:C:H2'	22:YA:2098:U:O4'	2.14	0.48
25:YE:21:VAL:HG23	25:YE:22:PRO:HD3	1.95	0.48
25:YE:111:ARG:HG2	34:YR:1:MET:SD	2.53	0.48
27:YG:166:ASP:HA	27:YG:169:ALA:HB3	1.95	0.48
28:YH:55:PRO:HG2	28:YH:61:HIS:CE1	2.48	0.48
31:YO:4:PRO:O	31:YO:5:GLN:HB2	2.11	0.48
31:YO:76:ALA:HB3	36:YT:75:ILE:HD12	1.95	0.48
37:YU:98:LEU:O	37:YU:102:GLU:N	2.37	0.48
39:YW:51:LEU:HD23	39:YW:105:VAL:HG11	1.94	0.48
42:YZ:10:ARG:NH2	42:YZ:26:GLY:O	2.45	0.48
1:QA:129(A):G:N3	1:QA:189:U:H5'	2.28	0.48
1:QA:474:G:H2'	1:QA:475:G:C8	2.48	0.48
1:QA:1224:G:C6	1:QA:1322:C:H1'	2.49	0.48
1:QA:1310:G:N2	1:QA:1327:C:O2	2.40	0.48
1:QA:1423:G:H2'	1:QA:1424:C:O4'	2.12	0.48
2:QB:163:PHE:HD2	2:QB:185:ILE:HG13	1.78	0.48
4:QD:88:VAL:HG13	5:QE:97:GLY:HA3	1.95	0.48
7:QG:113:GLU:HG3	7:QG:119:ARG:HG2	1.94	0.48
22:RA:27:G:C2	22:RA:512:G:N3	2.81	0.48
22:RA:247:G:N7	22:RA:249:C:C2	2.81	0.48
22:RA:577:G:O2'	22:RA:1254:A:OP1	2.32	0.48
22:RA:858:U:O2	22:RA:2268:A:H2'	2.14	0.48
22:RA:2545:G:H2'	22:RA:2546:U:O4'	2.13	0.48
26:RF:155:LEU:HD12	26:RF:174:VAL:HG22	1.94	0.48
32:RP:59:LEU:HA	32:RP:61:ARG:HE	1.76	0.48
34:RR:97:VAL:HG22	34:RR:114:VAL:CG2	2.43	0.48
40:RX:39:ILE:O	40:RX:43:VAL:HG12	2.13	0.48
44:R1:53:VAL:HB	44:R1:58:ILE:HD12	1.94	0.48
1:XA:564:C:C2	17:XQ:31:LEU:HD11	2.48	0.48
1:XA:1024:G:H3'	1:XA:1024:G:N3	2.28	0.48
1:XA:1090:U:H2'	1:XA:1091:U:H6	1.78	0.48
1:XA:1399:C:C2	1:XA:1401:G:C5	3.01	0.48
3:XC:130:VAL:HG21	3:XC:157:ILE:HG23	1.94	0.48
5:XE:152:ARG:NH2	8:XH:107:LEU:O	2.46	0.48
15:XO:70:LEU:HD11	15:XO:77:ARG:HG3	1.96	0.48
16:XP:26:ARG:HH21	16:XP:31:LYS:HB3	1.77	0.48
22:YA:396:G:H1'	44:Y1:42:GLN:HB3	1.94	0.48
22:YA:1728:G:H3'	22:YA:1729:A:C5'	2.43	0.48
22:YA:1823:G:P	24:YD:54:ARG:HH21	2.36	0.48
22:YA:2729:G:H2'	22:YA:2730:C:C6	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:YF:185:ASP:OD1	26:YF:188:ARG:NH1	2.35	0.48
1:QA:1082:G:H5'	1:QA:1083:U:OP2	2.13	0.48
4:QD:100:ARG:NH2	4:QD:136:PRO:O	2.47	0.48
13:QM:23:TYR:HE1	13:QM:70:LEU:HD12	1.77	0.48
22:RA:429:A:C5	22:RA:430:G:C6	3.01	0.48
22:RA:962:G:H2'	22:RA:963:U:O4'	2.14	0.48
22:RA:1316:U:H2'	22:RA:1317:A:C8	2.48	0.48
22:RA:2563:U:N3	22:RA:2566:A:OP2	2.43	0.48
23:RB:7:G:H5'	35:RS:29:PHE:CE1	2.49	0.48
32:RP:58:THR:O	32:RP:61:ARG:CZ	2.61	0.48
1:XA:200:G:H1	1:XA:217:C:H42	1.61	0.48
1:XA:542:G:OP1	4:XD:10:ARG:NH2	2.46	0.48
1:XA:713:G:H2'	1:XA:714:G:C8	2.48	0.48
1:XA:1216:G:OP1	14:YN:2:ALA:HA	2.13	0.48
2:XB:101:MET:HA	2:XB:108:ILE:HG13	1.95	0.48
3:XC:7:PRO:O	3:XC:11:ARG:HG2	2.13	0.48
5:XE:50:GLU:HG3	5:XE:52:PRO:HD2	1.95	0.48
6:XF:36:ARG:CZ	6:XF:38:GLU:HG2	2.44	0.48
20:XT:93:GLU:OE1	20:XT:94:ALA:N	2.46	0.48
22:YA:199:A:C8	22:YA:2433:A:C6	3.01	0.48
22:YA:220:G:O2'	22:YA:233:A:N3	2.44	0.48
22:YA:259:G:H21	22:YA:621:A:H8	1.60	0.48
22:YA:638:G:H2'	22:YA:639:U:O4'	2.13	0.48
22:YA:745:G:O6	22:YA:746:A:N6	2.46	0.48
22:YA:1796:U:H2'	22:YA:1797:C:C6	2.47	0.48
22:YA:2127:G:H22	22:YA:2162:G:H1'	1.78	0.48
22:YA:2168:G:N2	22:YA:2170:A:H62	2.11	0.48
22:YA:2321:G:N2	22:YA:2322:A:O4'	2.46	0.48
22:YA:2532:G:C6	22:YA:2533:A:C6	3.01	0.48
23:YB:82:G:C4	23:YB:83:G:C8	3.01	0.48
25:YE:20:ALA:HB3	25:YE:21:VAL:HG13	1.95	0.48
28:YH:137:ASP:HB3	28:YH:140:LYS:HB3	1.94	0.48
32:YP:82:GLY:HA2	32:YP:113:LYS:O	2.12	0.48
32:YP:135:LEU:HD13	32:YP:139:LYS:HE2	1.94	0.48
36:YT:102:ILE:HB	36:YT:110:ILE:HD13	1.95	0.48
38:YV:15:GLU:O	38:YV:18:LEU:HB2	2.14	0.48
44:Y1:41:ARG:HH11	44:Y1:41:ARG:HG3	1.79	0.48
48:Y5:41:PRO:O	48:Y5:44:THR:OG1	2.32	0.48
1:QA:256:U:H2'	1:QA:257:G:C8	2.48	0.48
1:QA:258:G:C2	1:QA:259:G:C8	3.02	0.48
1:QA:642:A:N3	8:QH:113:SER:OG	2.38	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QC:150:LYS:HG3	3:QC:169:ALA:HB2	1.96	0.48
13:QM:49:THR:HG22	13:QM:51:ALA:H	1.79	0.48
20:QT:12:ALA:O	20:QT:15:ARG:HB2	2.14	0.48
22:RA:270(P):C:O3'	29:RI:45:LYS:HE2	2.14	0.48
22:RA:508:G:HO2'	22:RA:509:C:P	2.36	0.48
22:RA:592:G:H1	22:RA:665:C:N4	2.10	0.48
22:RA:888:C:H3'	22:RA:889:C:H4'	1.95	0.48
22:RA:1011:G:C2	22:RA:1151:G:C2	3.01	0.48
22:RA:1319:G:H1	22:RA:1333:C:H42	1.59	0.48
22:RA:2461:C:H2'	22:RA:2462:U:C6	2.48	0.48
22:RA:2751:G:C2	28:RH:3:ARG:HB3	2.49	0.48
22:RA:2815:C:H2'	22:RA:2816:C:H6	1.77	0.48
30:RN:4:TYR:O	37:RU:64:ARG:NH1	2.46	0.48
34:RR:2:ARG:HA	34:RR:5:LYS:HE3	1.95	0.48
43:R0:40:GLN:OE1	43:R0:44:ARG:N	2.43	0.48
46:R3:4:LEU:O	46:R3:36:VAL:HA	2.13	0.48
1:XA:258:G:H2'	1:XA:259:G:C8	2.46	0.48
1:XA:295:C:H2'	1:XA:296:U:C6	2.48	0.48
2:XB:204:ASN:ND2	2:XB:206:ASP:H	2.11	0.48
5:XE:110:LEU:HD13	5:XE:118:ILE:HG21	1.94	0.48
11:XK:18:ARG:NH2	11:XK:35:PRO:O	2.45	0.48
22:YA:816:C:O2'	22:YA:932:G:O6	2.26	0.48
22:YA:890:A:HO2'	22:YA:892:G:H8	1.61	0.48
22:YA:1341:U:OP2	22:YA:1394:U:O2'	2.18	0.48
22:YA:1639:U:H4'	22:YA:2699:C:H4'	1.95	0.48
22:YA:1665:A:H2'	22:YA:1666:G:O4'	2.14	0.48
22:YA:2331:G:H4'	43:Y0:43:THR:N	2.26	0.48
32:YP:5:ASP:O	32:YP:6:LEU:O	2.31	0.48
32:YP:14:LYS:O	32:YP:16:ARG:HG2	2.13	0.48
53:QV:53:G:O2'	53:QV:54:U:H6	1.96	0.48
1:QA:380:G:C2	1:QA:384:G:C6	3.02	0.48
3:QC:79:ARG:NH2	11:XK:99:GLN:HB2	2.29	0.48
9:QI:17:VAL:HG11	9:QI:81:ILE:HA	1.95	0.48
10:QJ:80:LYS:HD3	10:QJ:80:LYS:HA	1.69	0.48
11:QK:48:ILE:HD11	11:QK:64:ALA:HA	1.95	0.48
15:QO:26:GLU:H	15:QO:26:GLU:HG2	1.41	0.48
16:QP:43:LYS:HA	16:QP:48:TRP:HB3	1.96	0.48
19:QS:26:GLY:O	19:QS:28:LYS:N	2.41	0.48
22:RA:180:G:N2	22:RA:214:G:O6	2.46	0.48
22:RA:627:A:H4'	22:RA:628:G:H5'	1.95	0.48
22:RA:825:C:H2'	22:RA:826:U:O4'	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:991:C:O2'	38:RV:85:LYS:NZ	2.47	0.48
22:RA:1259:G:H2'	22:RA:1260:G:H8	1.78	0.48
22:RA:2404:C:H1'	32:RP:67:MET:CE	2.44	0.48
25:RE:181:LEU:HD21	36:RT:7:ILE:HG23	1.95	0.48
26:RF:197:ASP:OD2	26:RF:197:ASP:N	2.46	0.48
29:RI:90:GLY:O	29:RI:121:LYS:HE2	2.13	0.48
35:RS:64:GLU:O	35:RS:68:GLN:HG3	2.14	0.48
41:RY:51:VAL:O	41:RY:56:PRO:HA	2.14	0.48
41:RY:81:LYS:NZ	41:RY:98:VAL:HG11	2.28	0.48
42:RZ:146:ILE:HG22	42:RZ:174:VAL:HG12	1.95	0.48
43:R0:36:ILE:HG13	43:R0:58:THR:HG23	1.93	0.48
48:R5:55:ARG:HG3	48:R5:57:VAL:N	2.17	0.48
1:XA:1086:U:H3	1:XA:1099:G:H22	1.61	0.48
1:XA:1233:G:H2'	1:XA:1234:C:C6	2.49	0.48
2:XB:73:THR:OG1	2:XB:170:GLU:OE2	2.23	0.48
9:XI:9:ARG:HB2	9:XI:14:VAL:HA	1.96	0.48
22:YA:77:C:O5'	22:YA:77:C:H6	1.97	0.48
22:YA:443:A:H5''	22:YA:444:C:OP1	2.14	0.48
22:YA:609(A):G:H2'	22:YA:610:C:H6	1.79	0.48
22:YA:662:G:H5''	32:YP:17:LYS:HG2	1.95	0.48
22:YA:1607:C:H4'	22:YA:1608:A:O5'	2.14	0.48
22:YA:2320:A:H2'	22:YA:2320:A:N3	2.28	0.48
22:YA:2564:A:OP1	22:YA:2648:C:H4'	2.14	0.48
22:YA:2867:G:OP2	36:YT:119:LYS:NZ	2.23	0.48
29:YI:52:ARG:HA	29:YI:55:ALA:HB3	1.95	0.48
32:YP:52:GLU:O	32:YP:55:ARG:HG2	2.14	0.48
40:YX:63:LYS:O	40:YX:64:LYS:HD2	2.14	0.48
41:YY:35:TYR:CD1	41:YY:69:ALA:HB3	2.49	0.48
42:YZ:105:VAL:HG22	42:YZ:140:ASP:HB3	1.94	0.48
1:QA:559:A:C4'	1:QA:560:U:H3'	2.34	0.48
1:QA:935:A:H2'	1:QA:936:C:C6	2.49	0.48
1:QA:1305:G:H5'	21:QU:4:GLY:HA3	1.94	0.48
8:QH:102:ARG:NH1	8:QH:105:ARG:HH22	2.12	0.48
22:RA:769:G:H5'	22:RA:1379:A:H61	1.79	0.48
22:RA:2021:C:OP1	48:R5:12:SER:OG	2.28	0.48
22:RA:2030:A:H4'	22:RA:2031:A:C8	2.48	0.48
22:RA:2109:U:H2'	22:RA:2110:G:C8	2.47	0.48
27:RG:81:LYS:O	27:RG:82:LEU:HB2	2.13	0.48
28:RH:154:PRO:HD3	28:RH:162:ILE:H	1.77	0.48
32:RP:36:LYS:HB3	32:RP:40:SER:HB3	1.95	0.48
1:XA:201:C:N4	1:XA:209:U:O2	2.47	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:865:A:N3	1:XA:918:A:O2'	2.38	0.48
1:XA:1171:G:H2'	1:XA:1172:C:C6	2.48	0.48
1:XA:1365:G:H2'	1:XA:1366:C:H6	1.79	0.48
1:XA:1366:C:C2	1:XA:1367:C:C5	3.01	0.48
19:XS:39:THR:HG22	19:XS:40:ILE:H	1.78	0.48
22:YA:270(O):U:O4	29:YI:52:ARG:HD3	2.14	0.48
22:YA:963:U:O2'	22:YA:964:C:H5'	2.13	0.48
22:YA:975:G:H1'	22:YA:990:A:C2	2.48	0.48
22:YA:1183:G:H4'	46:Y3:29:ARG:HH22	1.78	0.48
22:YA:1266:G:O5'	39:YW:15:ARG:NH2	2.46	0.48
22:YA:1359:A:H61	22:YA:1372:U:H3	1.60	0.48
22:YA:1448:G:N3	22:YA:1529:A:H2	2.12	0.48
24:YD:254:THR:O	24:YD:254:THR:OG1	2.30	0.48
37:YU:60:LEU:HD22	37:YU:60:LEU:O	2.14	0.48
37:YU:97:ASP:OD1	37:YU:101:ARG:NH1	2.46	0.48
38:YV:76:LYS:HB2	38:YV:81:TYR:HB3	1.95	0.48
39:YW:67:ASP:OD2	39:YW:67:ASP:N	2.46	0.48
42:YZ:62:PRO:O	42:YZ:64:GLY:N	2.47	0.48
53:XV:2:G:H2'	53:XV:3:C:H6	1.78	0.48
53:XV:10:G:H2'	53:XV:10:G:N3	2.28	0.48
1:QA:662:G:H2'	1:QA:663:A:C8	2.49	0.48
1:QA:1053:G:H2'	1:QA:1199:U:C5	2.48	0.48
1:QA:1347:G:C8	9:QI:107:ARG:HB3	2.49	0.48
4:QD:31:CYS:O	4:QD:31:CYS:SG	2.71	0.48
9:QI:40:LEU:O	9:QI:42:ARG:N	2.46	0.48
10:QJ:78:ASN:O	10:QJ:82:ILE:HG12	2.14	0.48
22:RA:617:G:P	26:RF:40:GLN:HE21	2.28	0.48
22:RA:813:U:H2'	22:RA:814:C:C6	2.48	0.48
22:RA:1190:G:H5'	32:RP:32:THR:HA	1.96	0.48
22:RA:1608:A:H1'	22:RA:1610:A:OP2	2.14	0.48
22:RA:1755:A:N6	22:RA:2694:G:O2'	2.47	0.48
22:RA:1849:G:H2'	22:RA:1850:G:C8	2.47	0.48
22:RA:2279:G:N2	22:RA:2280:G:H1'	2.29	0.48
22:RA:2415:G:H4'	32:RP:67:MET:N	2.28	0.48
22:RA:2742:C:OP1	52:R9:35:ARG:HD3	2.13	0.48
48:R5:46:CYS:O	48:R5:48:GLU:N	2.47	0.48
51:R8:51:ALA:N	51:R8:53:PRO:HD2	2.29	0.48
1:XA:7:G:H5'	1:XA:298:A:O4'	2.14	0.48
1:XA:292:G:N7	1:XA:293:G:H1'	2.29	0.48
1:XA:356:A:H2'	1:XA:357:G:C8	2.41	0.48
1:XA:486:U:H2'	1:XA:487:A:H8	1.77	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:623:C:H2'	1:XA:624:C:O4'	2.14	0.48
1:XA:1323:G:H4'	1:XA:1362(A):C:C2	2.49	0.48
5:XE:6:PHE:CE2	5:XE:36:ASP:HB3	2.48	0.48
9:XI:114:TYR:CD2	9:XI:114:TYR:N	2.81	0.48
16:XP:22:THR:HA	16:XP:33:ILE:HG12	1.96	0.48
22:YA:263:C:H2'	22:YA:264:C:O4'	2.14	0.48
22:YA:279:C:H2'	22:YA:280:C:C6	2.48	0.48
22:YA:521:G:H2'	22:YA:522:G:C8	2.44	0.48
22:YA:1045:A:O2'	22:YA:1046:A:OP2	2.22	0.48
22:YA:1131:G:N2	22:YA:1132:A:C2	2.82	0.48
22:YA:2477:C:H2'	52:Y9:1:MET:CG	2.43	0.48
29:YI:83:ALA:O	29:YI:85:GLU:N	2.47	0.48
35:YS:74:ALA:HB1	35:YS:107:GLU:HB3	1.96	0.48
37:YU:90:VAL:HG22	38:YV:39:LEU:HB3	1.96	0.48
48:Y5:58:LEU:HD22	48:Y5:60:VAL:HB	1.96	0.48
53:QV:17:C:H2'	53:QV:17:C:O2	2.13	0.48
1:QA:181:G:O2'	1:QA:182:U:O5'	2.32	0.48
1:QA:743:U:H2'	1:QA:744:C:C6	2.49	0.48
1:QA:911:U:H2'	1:QA:912:C:C6	2.49	0.48
5:QE:69:VAL:O	5:QE:71:LEU:N	2.47	0.48
7:QG:57:GLU:OE1	7:QG:57:GLU:N	2.41	0.48
17:QQ:100:LYS:O	17:QQ:101:ARG:NE	2.47	0.48
22:RA:405:U:H6	22:RA:405:U:H5'	1.78	0.48
22:RA:2107:C:N4	22:RA:2182:G:H1	2.04	0.48
22:RA:2803:C:H2'	22:RA:2804:C:C6	2.48	0.48
26:RF:102:PRO:HB2	26:RF:105:VAL:HG23	1.95	0.48
27:RG:82:LEU:HD21	27:RG:88:ILE:HG13	1.96	0.48
28:RH:86:GLU:OE1	28:RH:86:GLU:N	2.43	0.48
47:R4:23:GLU:HG3	47:R4:25:TYR:CE2	2.49	0.48
49:R6:18:ARG:HB2	49:R6:44:ARG:HH12	1.77	0.48
1:XA:777:A:H2'	1:XA:778:G:H8	1.77	0.48
1:XA:1112:C:C2	3:XC:178:LEU:HB2	2.49	0.48
1:XA:1118:C:P	9:XI:104:ARG:HH11	2.37	0.48
6:XF:10:LEU:HD22	6:XF:61:LEU:HD11	1.95	0.48
13:XM:68:GLY:HA3	27:YG:116:ASP:CG	2.34	0.48
22:YA:566:U:OP1	32:YP:29:LYS:NZ	2.39	0.48
22:YA:1293:C:H2'	22:YA:1294:U:H6	1.79	0.48
22:YA:1382:G:C4	22:YA:1383:C:C5	3.02	0.48
22:YA:1436:G:H2'	22:YA:1437:C:O4'	2.13	0.48
22:YA:1638:C:O2'	22:YA:2698:U:O2'	2.15	0.48
22:YA:1733:G:H5'	22:YA:1734:C:OP2	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2112:G:C6	22:YA:2169:A:N6	2.81	0.48
22:YA:2131:G:H1'	22:YA:2158:A:N6	2.28	0.48
23:YB:78:A:C2	23:YB:99:A:C4	3.02	0.48
28:YH:6:ARG:HA	28:YH:66:GLY:HA2	1.95	0.48
29:YI:40:THR:O	29:YI:44:LEU:HB2	2.13	0.48
32:YP:46:LYS:HE3	32:YP:46:LYS:HB3	1.54	0.48
32:YP:98:GLU:HA	32:YP:101:VAL:HB	1.96	0.48
37:YU:92:ARG:CZ	38:YV:11:GLN:H	2.26	0.48
1:QA:1086:U:O5'	1:QA:1086:U:H6	1.97	0.48
12:QL:17:LYS:HG2	12:QL:19:ARG:HG2	1.94	0.48
12:QL:38:THR:O	12:QL:79:GLU:HG3	2.14	0.48
22:RA:125:G:H1'	50:R7:13:ALA:CB	2.44	0.48
22:RA:229:A:H4'	22:RA:229:A:OP1	2.12	0.48
22:RA:1342:A:O2'	22:RA:1344:G:OP2	2.28	0.48
22:RA:1614:A:N7	39:RW:93:ALA:HB2	2.28	0.48
22:RA:2633:G:H2'	22:RA:2634:G:O4'	2.14	0.48
24:RD:25:THR:O	24:RD:27:THR:HG22	2.14	0.48
26:RF:183:VAL:O	26:RF:187:VAL:HG23	2.13	0.48
29:RI:113:ARG:HG3	29:RI:131:LYS:HD3	1.96	0.48
1:XA:254:G:OP1	17:XQ:67:LYS:O	2.32	0.48
1:XA:438:G:H4'	4:XD:123:HIS:CD2	2.48	0.48
1:XA:1127:G:H21	1:XA:1147:C:N4	2.12	0.48
8:XH:49:GLU:HG2	8:XH:62:TYR:HE2	1.78	0.48
22:YA:57:C:H2'	22:YA:58:G:O4'	2.13	0.48
22:YA:389:G:H1	32:YP:70:GLN:HB3	1.79	0.48
22:YA:392:C:H5''	22:YA:409:C:H5''	1.95	0.48
22:YA:413:C:O5'	22:YA:413:C:H6	1.97	0.48
22:YA:805:G:H22	22:YA:828:U:H5''	1.79	0.48
22:YA:1416:G:H2'	22:YA:1417:C:C6	2.49	0.48
22:YA:1469:A:H2'	22:YA:1470:G:H8	1.76	0.48
24:YD:35:LYS:HZ1	24:YD:104:TYR:HB2	1.79	0.48
41:YY:44:ILE:HG13	41:YY:45:VAL:N	2.28	0.48
49:Y6:27:LYS:NZ	49:Y6:27:LYS:HB2	2.28	0.48
1:QA:602:A:H2'	1:QA:603:U:H6	1.78	0.47
1:QA:663:A:O3'	18:QR:64:ARG:NH2	2.47	0.47
1:QA:1347:G:HO2'	1:QA:1373:G:H1	1.61	0.47
4:QD:57:ARG:NH2	5:QE:107:ARG:HD3	2.24	0.47
4:QD:106:TYR:HE1	4:QD:112:VAL:O	1.97	0.47
13:QM:57:ARG:HB2	13:QM:57:ARG:HH11	1.79	0.47
14:QN:41:ARG:CZ	14:QN:42:ILE:HD11	2.44	0.47
22:RA:455:C:N3	22:RA:473:G:H5'	2.29	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:671:C:H2'	22:RA:672:C:C6	2.49	0.47
22:RA:747:U:O2	22:RA:2014:A:H1'	2.14	0.47
22:RA:1093:G:H1'	22:RA:1099:G:O6	2.14	0.47
22:RA:2646:C:H2'	22:RA:2647:U:O4'	2.14	0.47
22:RA:2821:A:H2'	22:RA:2822:G:O4'	2.14	0.47
23:RB:78:A:H2'	23:RB:79:C:O4'	2.14	0.47
32:RP:61:ARG:CD	51:R8:13:ARG:HD2	2.44	0.47
40:RX:83:VAL:HG11	40:RX:87:GLN:HB2	1.96	0.47
45:R2:41:ILE:HD11	45:R2:44:LEU:HD12	1.96	0.47
52:R9:27:CYS:SG	52:R9:32:HIS:HB2	2.54	0.47
1:XA:678:U:C4	1:XA:679:C:N4	2.82	0.47
1:XA:1043:C:H2'	1:XA:1044:A:H8	1.79	0.47
1:XA:1390:U:H2'	1:XA:1391:U:H6	1.78	0.47
1:XA:1410:G:H2'	1:XA:1411:C:C6	2.48	0.47
18:XR:66:LEU:O	18:XR:70:ILE:HG13	2.14	0.47
22:YA:189:G:H1'	22:YA:207:A:N6	2.29	0.47
22:YA:336:C:HO2'	41:YY:35:TYR:HH	1.57	0.47
22:YA:458:G:C8	50:Y7:37:LYS:HG2	2.49	0.47
22:YA:2038:G:H2'	22:YA:2039:C:O4'	2.14	0.47
22:YA:2108:C:H2'	22:YA:2109:U:C6	2.48	0.47
22:YA:2349:G:OP2	51:Y8:42:ARG:HD3	2.14	0.47
30:YN:134:ARG:N	30:YN:135:PRO:HD3	2.29	0.47
35:YS:65:VAL:O	35:YS:69:VAL:HG12	2.14	0.47
38:YV:44:LYS:O	38:YV:46:VAL:HG12	2.13	0.47
42:YZ:141:VAL:HG23	42:YZ:144:LEU:HB2	1.96	0.47
42:YZ:145:GLU:OE2	42:YZ:146:ILE:HG23	2.14	0.47
43:Y0:6:GLY:O	53:XV:1:C:O2'	2.27	0.47
45:Y2:59:ARG:O	45:Y2:63:VAL:HG23	2.14	0.47
1:QA:176:C:H2'	1:QA:177:C:H6	1.78	0.47
1:QA:222:U:H2'	1:QA:223:U:H6	1.79	0.47
1:QA:623:C:H2'	1:QA:624:C:O4'	2.14	0.47
1:QA:636:U:H2'	1:QA:637:G:H8	1.80	0.47
1:QA:826:C:H2'	1:QA:827:U:O2	2.14	0.47
2:QB:25:ASN:O	2:QB:27:LYS:N	2.47	0.47
26:RF:167:ALA:HB1	26:RF:173:VAL:HG11	1.95	0.47
27:RG:145:THR:O	27:RG:147:ASP:N	2.47	0.47
44:R1:91:LYS:O	44:R1:94:LEU:N	2.36	0.47
1:XA:556:C:H2'	1:XA:557:G:C8	2.49	0.47
1:XA:939:G:C2	1:XA:940:C:C2	3.02	0.47
2:XB:84:GLU:OE1	2:XB:87:ARG:NH2	2.43	0.47
3:XC:70:VAL:HG12	3:XC:72:LYS:H	1.79	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:XI:121:ARG:NH1	9:XI:122:ALA:O	2.47	0.47
9:XI:126:SER:O	9:XI:128:ARG:N	2.43	0.47
10:XJ:38:ILE:HD11	10:XJ:71:LEU:HD23	1.96	0.47
18:XR:36:ASN:O	18:XR:36:ASN:ND2	2.41	0.47
22:YA:1797:C:H4'	24:YD:257:LEU:O	2.14	0.47
22:YA:2444:G:P	26:YF:68:LYS:HE3	2.53	0.47
22:YA:2721:A:H2'	22:YA:2722:G:O4'	2.14	0.47
23:YB:62:C:H2'	23:YB:63:G:H8	1.79	0.47
42:YZ:10:ARG:HD2	42:YZ:36:LYS:HB3	1.95	0.47
42:YZ:182:LYS:CG	42:YZ:183:LEU:HA	2.43	0.47
48:Y5:46:CYS:O	48:Y5:48:GLU:N	2.38	0.47
1:QA:10:A:OP2	5:QE:126:ARG:HD3	2.14	0.47
1:QA:375:U:OP1	16:QP:69:THR:HG21	2.13	0.47
1:QA:1127:G:H21	1:QA:1147:C:H41	1.62	0.47
1:QA:1238:A:H62	1:QA:1299:A:H61	1.62	0.47
2:QB:70:PHE:O	2:QB:93:VAL:N	2.48	0.47
2:QB:97:TRP:CH2	2:QB:173:ALA:HA	2.49	0.47
2:QB:211:ILE:O	2:QB:215:LEU:HB2	2.14	0.47
4:QD:12:CYS:HA	4:QD:19:LEU:CD2	2.44	0.47
4:QD:26:CYS:HA	4:QD:31:CYS:HA	1.96	0.47
20:QT:75:ASN:OD1	20:QT:75:ASN:N	2.40	0.47
22:RA:186:G:C2	22:RA:211:A:C2	3.03	0.47
22:RA:822:U:H2'	22:RA:823:G:H8	1.78	0.47
22:RA:1078:U:O2'	22:RA:1088:A:N1	2.46	0.47
22:RA:2070:G:H2'	22:RA:2071:A:O4'	2.14	0.47
22:RA:2320:A:H8	22:RA:2321:G:N1	2.12	0.47
22:RA:2832:U:H4'	22:RA:2833:G:H5''	1.95	0.47
30:RN:7:LYS:H	30:RN:7:LYS:HD2	1.80	0.47
32:RP:127:ALA:HB3	32:RP:130:PHE:CZ	2.49	0.47
1:XA:1360:A:H2'	1:XA:1361:G:O4'	2.15	0.47
3:XC:79:ARG:NH1	3:XC:82:GLU:HG3	2.29	0.47
4:XD:15:GLU:HG2	4:XD:63:LYS:HB2	1.97	0.47
5:XE:8:GLU:OE2	5:XE:63:ARG:NH2	2.46	0.47
22:YA:175:G:H2'	22:YA:176:G:H8	1.79	0.47
22:YA:467:G:O2'	22:YA:796:C:O2'	2.24	0.47
22:YA:598:G:H5'	32:YP:11:GLY:HA3	1.95	0.47
22:YA:1198:U:H2'	22:YA:1199:U:H6	1.78	0.47
22:YA:1668:A:H4'	22:YA:1669:A:O5'	2.15	0.47
22:YA:1825:A:H2'	22:YA:1826:G:C8	2.49	0.47
22:YA:2584:U:C5'	56:Z8:76:PPU:H92	2.45	0.47
24:YD:71:ASP:HB2	24:YD:103:ARG:NH2	2.27	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:YP:144:GLU:OE1	32:YP:144:GLU:N	2.40	0.47
36:YT:11:GLU:OE1	36:YT:11:GLU:N	2.43	0.47
42:YZ:89:PHE:HE1	42:YZ:96:VAL:HG21	1.79	0.47
43:Y0:22:GLY:N	43:Y0:39:ARG:O	2.37	0.47
43:Y0:23:VAL:HA	43:Y0:38:VAL:HG22	1.96	0.47
44:Y1:91:LYS:HB3	44:Y1:92:LYS:H	1.44	0.47
1:QA:544:G:OP2	4:QD:66:ARG:NH2	2.47	0.47
1:QA:1099:G:H2'	1:QA:1100:C:O4'	2.15	0.47
6:QF:41:GLU:HB2	6:QF:62:TRP:CE3	2.50	0.47
7:QG:99:LEU:HD22	7:QG:103:TRP:CZ2	2.49	0.47
22:RA:605:C:H1'	22:RA:657:U:O2'	2.14	0.47
22:RA:1283:G:N2	22:RA:1285:G:H3'	2.30	0.47
22:RA:2037:G:C6	22:RA:2038:G:C6	3.02	0.47
22:RA:2391:G:O2'	22:RA:2422:A:N7	2.48	0.47
22:RA:2421:G:OP1	49:R6:6:ARG:NH2	2.47	0.47
33:RQ:136:ALA:C	33:RQ:138:ASP:H	2.18	0.47
37:RU:97:ASP:OD1	37:RU:101:ARG:NH1	2.47	0.47
42:RZ:177:PRO:O	42:RZ:178:GLU:HG2	2.14	0.47
1:XA:405:U:OP2	4:XD:3:ARG:NH2	2.47	0.47
1:XA:625:G:H2'	1:XA:626:U:H6	1.79	0.47
1:XA:803:G:H2'	1:XA:804:U:O4'	2.15	0.47
1:XA:1093:A:C2	1:XA:1095:U:H5'	2.50	0.47
1:XA:1148:U:H2'	1:XA:1149:C:O4'	2.14	0.47
3:XC:81:GLY:O	3:XC:85:ARG:HB2	2.14	0.47
6:XF:69:GLU:O	6:XF:72:VAL:HG12	2.14	0.47
12:XL:7:ILE:HD13	12:XL:7:ILE:HA	1.82	0.47
12:XL:24:VAL:HG12	12:XL:24:VAL:O	2.14	0.47
20:XT:98:PRO:O	20:XT:100:ILE:N	2.46	0.47
22:YA:383:U:O2	22:YA:385:C:N4	2.46	0.47
22:YA:563:G:C4	22:YA:2018:G:C2	3.03	0.47
22:YA:624:C:O2	22:YA:657:U:H4'	2.14	0.47
22:YA:1914:C:H2'	22:YA:1915:U:O4'	2.14	0.47
23:YB:31:C:N4	35:YS:32:LEU:HD13	2.29	0.47
26:YF:36:VAL:HG11	26:YF:183:VAL:HG11	1.95	0.47
42:YZ:111:VAL:HA	42:YZ:115:GLY:HA3	1.95	0.47
43:Y0:25:ARG:HH11	43:Y0:25:ARG:HG2	1.80	0.47
44:Y1:53:VAL:HG22	44:Y1:74:VAL:HG13	1.96	0.47
1:QA:176:C:OP1	20:QT:29:LYS:NZ	2.48	0.47
1:QA:757:U:H2'	1:QA:758:G:O4'	2.14	0.47
1:QA:1106:G:H5''	3:QC:172:ARG:HG2	1.97	0.47
1:QA:1127:G:H21	1:QA:1147:C:N4	2.12	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1207:G:H2'	1:QA:1208:C:C6	2.49	0.47
1:QA:1292:U:H2'	1:QA:1293:G:C8	2.48	0.47
2:QB:85:ALA:HB3	2:QB:92:TYR:HD2	1.79	0.47
20:QT:30:LYS:O	20:QT:33:ILE:HB	2.14	0.47
22:RA:430:G:H5''	22:RA:431:U:OP2	2.13	0.47
22:RA:458:G:O2'	50:R7:39:ARG:HD3	2.15	0.47
22:RA:565:C:H4'	22:RA:1253:A:C6	2.50	0.47
22:RA:729:G:H2'	22:RA:1775:U:H1'	1.97	0.47
22:RA:754:C:H2'	22:RA:755:C:C6	2.45	0.47
22:RA:764:A:H5'	24:RD:210:GLY:HA2	1.95	0.47
22:RA:777:A:H2'	22:RA:778:G:C8	2.50	0.47
22:RA:840:C:H2'	22:RA:841:A:C8	2.49	0.47
22:RA:1178:C:H2'	22:RA:1179:C:C6	2.48	0.47
22:RA:1509:C:H3'	22:RA:1510:A:H5''	1.97	0.47
22:RA:2067:G:H1	22:RA:2443:C:N4	2.12	0.47
22:RA:2336:A:H61	43:R0:43:THR:HG21	1.80	0.47
25:RE:73:GLU:HG3	25:RE:74:PRO:HD2	1.95	0.47
27:RG:3:LEU:HD11	47:R4:25:TYR:CE1	2.48	0.47
33:RQ:63:LYS:HG2	33:RQ:65:PHE:CE2	2.50	0.47
36:RT:64:ARG:HD2	36:RT:73:GLU:OE1	2.14	0.47
42:RZ:151:HIS:HA	42:RZ:170:THR:HA	1.95	0.47
1:XA:163:C:H2'	1:XA:164:U:C6	2.50	0.47
1:XA:280:C:C2	17:XQ:38:ARG:HG3	2.49	0.47
1:XA:595:G:H1'	1:XA:596:C:H5	1.78	0.47
1:XA:790:A:OP1	53:XV:38:A:O2'	2.23	0.47
1:XA:1347:G:O2'	1:XA:1348:U:P	2.72	0.47
1:XA:1435:G:H2'	1:XA:1436:U:C6	2.50	0.47
3:XC:22:TRP:CD1	3:XC:59:ARG:HD2	2.49	0.47
3:XC:34:LEU:HD23	3:XC:38:ARG:HG3	1.95	0.47
9:XI:4:TYR:CZ	9:XI:88:TYR:HB2	2.49	0.47
12:XL:27:LEU:O	12:XL:29:GLY:N	2.46	0.47
15:XO:66:LEU:HD12	15:XO:66:LEU:HA	1.67	0.47
20:XT:35:THR:O	20:XT:39:LYS:HG3	2.14	0.47
22:YA:270:A:C2	22:YA:366:C:H4'	2.49	0.47
22:YA:528:A:H2	22:YA:2043:C:H5'	1.79	0.47
24:YD:28:GLU:HB2	24:YD:29:PRO:CD	2.45	0.47
33:YQ:21:THR:HB	33:YQ:22:LYS:H	1.40	0.47
51:Y8:36:LYS:HB3	51:Y8:40:GLU:HG2	1.95	0.47
1:QA:1298:C:O2'	1:QA:1299:A:OP2	2.28	0.47
9:QI:28:VAL:HG22	9:QI:63:ILE:HB	1.96	0.47
12:QL:44:THR:HA	12:QL:45:PRO:HD3	1.74	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:QL:51:ALA:HB3	12:QL:53:ARG:HE	1.80	0.47
13:QM:78:ILE:HG23	13:QM:92:HIS:ND1	2.29	0.47
22:RA:186:G:H2'	22:RA:187:G:H8	1.80	0.47
22:RA:871:U:H4'	33:RQ:69:PHE:CE2	2.49	0.47
22:RA:901:A:H2'	22:RA:901:A:N3	2.29	0.47
22:RA:1283:G:H22	22:RA:1286:A:H5'	1.80	0.47
22:RA:1297:C:H2'	22:RA:1298:C:C6	2.49	0.47
22:RA:1300:U:H4'	22:RA:1301:A:H5''	1.95	0.47
22:RA:1449:A:H5'	22:RA:1449(A):G:OP2	2.15	0.47
22:RA:1782:C:H1'	22:RA:2609:U:H5''	1.96	0.47
22:RA:2293:C:OP1	22:RA:2377:A:N6	2.47	0.47
22:RA:2327:A:N6	22:RA:2387:U:O4	2.47	0.47
22:RA:2516:G:C2	22:RA:2569:G:N3	2.83	0.47
22:RA:2566:A:H4'	22:RA:2567:G:O5'	2.15	0.47
22:RA:2662:A:H8	22:RA:2662:A:O5'	1.96	0.47
22:RA:2679:A:C2	22:RA:2729:G:C2	3.02	0.47
25:RE:37:ARG:NE	25:RE:37:ARG:HA	2.28	0.47
39:RW:63:ASP:OD1	39:RW:63:ASP:N	2.48	0.47
41:RY:21:LYS:HG3	41:RY:22:GLY:N	2.30	0.47
43:R0:24:LYS:O	43:R0:25:ARG:HD3	2.14	0.47
1:XA:209:U:H1'	1:XA:216:G:C2	2.50	0.47
1:XA:664:G:H22	1:XA:741:G:H1	1.62	0.47
1:XA:729:A:H2'	1:XA:730:G:C8	2.49	0.47
17:XQ:67:LYS:O	17:XQ:68:ARG:HB3	2.15	0.47
22:YA:1656:C:P	25:YE:136:ARG:HE	2.37	0.47
22:YA:1833:U:O2'	22:YA:1969:A:N1	2.38	0.47
22:YA:2142:C:H2'	22:YA:2143:C:C6	2.49	0.47
22:YA:2712:U:O2'	22:YA:2712(A):A:P	2.71	0.47
22:YA:2849:U:OP2	36:YT:95:ARG:NH1	2.48	0.47
26:YF:164:ARG:HG3	26:YF:175:THR:OG1	2.15	0.47
27:YG:28:VAL:O	27:YG:31:VAL:HG13	2.14	0.47
30:YN:30:ILE:HG22	30:YN:34:LEU:HD22	1.96	0.47
32:YP:50:ARG:HE	51:Y8:7:HIS:HE2	1.63	0.47
1:QA:189:U:C4	17:QQ:72:ARG:NH2	2.83	0.47
1:QA:580:U:H5''	15:QO:58:MET:HG2	1.95	0.47
1:QA:604:G:H2'	1:QA:605:U:O4'	2.15	0.47
1:QA:652:U:O2'	1:QA:653:A:O5'	2.32	0.47
1:QA:954:G:N2	1:QA:1226:C:O2	2.43	0.47
1:QA:980:C:H5''	1:QA:981:U:H5	1.78	0.47
1:QA:1347:G:O2'	1:QA:1348:U:P	2.73	0.47
6:QF:61:LEU:HB3	6:QF:63:TYR:HE2	1.80	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:QG:18:TYR:HD2	7:QG:59:LEU:HD22	1.79	0.47
8:QH:91:ARG:HB2	12:QL:7:ILE:HG13	1.97	0.47
12:QL:27:LEU:O	12:QL:29:GLY:N	2.47	0.47
17:QQ:76:LEU:HD21	17:QQ:79:SER:HB2	1.97	0.47
22:RA:336:C:H2'	22:RA:337:C:C6	2.50	0.47
22:RA:709:U:C2	22:RA:723:G:N2	2.83	0.47
22:RA:777:A:H2'	22:RA:778:G:H8	1.80	0.47
22:RA:960:A:H61	33:RQ:82:ARG:HH12	1.62	0.47
22:RA:1204:A:H1'	22:RA:1206:G:C4	2.49	0.47
22:RA:1382:G:H4'	22:RA:1573:G:C2	2.50	0.47
22:RA:1416:G:C2	22:RA:1417:C:C4	3.02	0.47
22:RA:1638:C:H5''	22:RA:2710:C:O2'	2.14	0.47
22:RA:1728:G:C6	22:RA:1730:U:OP2	2.68	0.47
22:RA:1835:G:H1'	22:RA:1931:U:C5	2.50	0.47
22:RA:2257:U:O2'	22:RA:2258:C:H5'	2.15	0.47
22:RA:2351:G:H8	22:RA:2351:G:O5'	1.98	0.47
22:RA:2378:A:OP1	35:RS:111:GLU:HG2	2.15	0.47
22:RA:2415:G:C5'	32:RP:67:MET:H	2.28	0.47
22:RA:2418:A:P	51:R8:29:LYS:HE2	2.54	0.47
22:RA:2512:C:H5''	22:RA:2513:G:OP2	2.14	0.47
22:RA:2605:U:H2'	22:RA:2606:C:H6	1.80	0.47
22:RA:2690:C:OP2	34:RR:14:SER:HB3	2.14	0.47
22:RA:2697:G:C6	22:RA:2698:U:C4	3.03	0.47
22:RA:2749:A:H3'	22:RA:2750:A:H2'	1.97	0.47
25:RE:95:ILE:HD12	25:RE:95:ILE:H	1.80	0.47
28:RH:152:ARG:HG3	28:RH:153:LYS:CD	2.44	0.47
29:RI:61:ARG:NE	29:RI:61:ARG:HA	2.30	0.47
29:RI:79:ILE:HG22	29:RI:142:VAL:HG13	1.96	0.47
35:RS:56:LEU:O	35:RS:58:LEU:N	2.48	0.47
36:RT:123:GLN:O	36:RT:125:ARG:N	2.48	0.47
44:R1:76:ARG:H	44:R1:76:ARG:HD2	1.80	0.47
1:XA:29:G:N2	1:XA:554:C:O2	2.45	0.47
1:XA:31:G:O2'	1:XA:48:C:N4	2.47	0.47
1:XA:41:G:H2'	1:XA:42:G:H8	1.80	0.47
1:XA:61:G:H2'	1:XA:62:U:O4'	2.15	0.47
1:XA:401:C:H2'	1:XA:402:G:C8	2.47	0.47
1:XA:411:A:N9	1:XA:413:G:H1'	2.29	0.47
1:XA:457:C:H2'	1:XA:458:C:C6	2.50	0.47
1:XA:926:G:C6	1:XA:1505:G:C6	3.02	0.47
1:XA:1064:G:OP1	1:XA:1386:G:H4'	2.14	0.47
1:XA:1152:A:H2'	1:XA:1153:C:C6	2.48	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1494:G:H4'	22:YA:1913:A:N7	2.30	0.47
2:XB:93:VAL:HG11	2:XB:97:TRP:CD1	2.50	0.47
5:XE:89:ILE:HG12	5:XE:91:LEU:HD13	1.97	0.47
9:XI:114:TYR:HD1	10:XJ:60:ARG:HB2	1.79	0.47
10:XJ:47:PHE:HB3	14:YN:34:TYR:CE2	2.50	0.47
11:XK:48:ILE:HG13	11:XK:63:LEU:HB2	1.97	0.47
22:YA:71:A:H5''	22:YA:72:U:H3'	1.96	0.47
22:YA:138:G:H2'	22:YA:139:G:C8	2.50	0.47
22:YA:401:A:H61	22:YA:422:A:H61	1.62	0.47
22:YA:1342:A:OP1	40:YX:36:LYS:NZ	2.47	0.47
22:YA:2051:A:H5'	22:YA:2578:G:O4'	2.14	0.47
23:YB:99:A:C4	23:YB:100:G:C8	3.03	0.47
24:YD:206:LEU:HA	24:YD:206:LEU:HD23	1.51	0.47
24:YD:237:GLU:O	24:YD:239:ARG:N	2.47	0.47
26:YF:182:ASN:HD21	26:YF:185:ASP:CG	2.14	0.47
27:YG:34:LEU:HD22	27:YG:35:GLU:N	2.30	0.47
27:YG:113:ARG:HG2	47:Y4:34:GLU:OE2	2.14	0.47
27:YG:114:ILE:HD13	27:YG:140:ILE:HG21	1.96	0.47
28:YH:122:THR:HG22	28:YH:134:SER:HB2	1.96	0.47
29:YI:67:ARG:CZ	29:YI:68:LEU:HD13	2.45	0.47
39:YW:110:LYS:HG3	39:YW:111:HIS:H	1.80	0.47
53:XV:4:G:O2'	53:XV:5:G:O5'	2.27	0.47
1:QA:56:U:H2'	1:QA:57:G:H8	1.80	0.47
1:QA:484:G:H4'	1:QA:485:G:O5'	2.15	0.47
2:QB:32:ILE:HD13	2:QB:40:HIS:HB3	1.95	0.47
12:QL:17:LYS:HG3	12:QL:18:VAL:N	2.30	0.47
22:RA:685:A:C8	22:RA:774:A:C6	3.03	0.47
22:RA:1803:A:C8	22:RA:1804:C:C5	3.02	0.47
22:RA:2285:C:N4	49:R6:27:LYS:HE2	2.30	0.47
22:RA:2647:U:H2'	22:RA:2648:C:C6	2.50	0.47
24:RD:12:SER:O	24:RD:16:MET:HB2	2.14	0.47
24:RD:211:ARG:HD2	24:RD:214:TRP:CZ3	2.50	0.47
25:RE:21:VAL:HB	25:RE:22:PRO:HB3	1.96	0.47
26:RF:133:ASN:HA	26:RF:162:LEU:HD22	1.96	0.47
29:RI:122:GLU:O	29:RI:126:TYR:OH	2.32	0.47
42:RZ:53:ILE:HG22	42:RZ:71:VAL:O	2.15	0.47
1:XA:502:G:OP1	12:XL:118:SER:HB2	2.14	0.47
1:XA:1080:A:H5''	1:XA:1081:G:OP2	2.14	0.47
1:XA:1142:G:H2'	1:XA:1143:G:O4'	2.15	0.47
13:XM:77:ASN:HA	47:Y4:71:ARG:NH2	2.29	0.47
22:YA:207:A:H2'	22:YA:208:C:O4'	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:972:G:C6	22:YA:973:A:C6	3.03	0.47
22:YA:1026:U:O2	22:YA:1027:A:H3'	2.15	0.47
22:YA:1906:G:H1	22:YA:1924:C:H42	1.63	0.47
22:YA:1999:C:H2'	22:YA:2000:G:C8	2.50	0.47
22:YA:2335:A:O2'	22:YA:2336:A:H8	1.98	0.47
22:YA:2787:C:O2'	22:YA:2810:A:O2'	2.26	0.47
22:YA:2850:A:N7	22:YA:2868:A:O2'	2.35	0.47
26:YF:9:ILE:HG23	26:YF:20:LEU:O	2.15	0.47
26:YF:129:PHE:HA	26:YF:142:TRP:NE1	2.29	0.47
29:YI:4:ILE:HG21	29:YI:47:LEU:HD22	1.97	0.47
46:Y3:23:LEU:HD13	46:Y3:50:VAL:HG11	1.96	0.47
53:XV:15:G:H22	53:XV:48:C:H42	1.62	0.47
1:QA:51:A:C6	1:QA:353:A:C2	3.03	0.47
1:QA:865:A:H5'	1:QA:1078:U:H5	1.80	0.47
2:QB:8:LYS:H	2:QB:8:LYS:HD3	1.79	0.47
3:QC:82:GLU:O	3:QC:86:VAL:HG13	2.14	0.47
11:QK:16:SER:OG	11:QK:106:LYS:NZ	2.48	0.47
22:RA:307:G:H21	22:RA:330:A:N6	2.12	0.47
22:RA:540:G:C6	22:RA:541:C:C4	3.03	0.47
22:RA:735:A:H2'	22:RA:736:C:O4'	2.15	0.47
22:RA:1422:G:C6	22:RA:1423:G:C5	3.03	0.47
22:RA:1465:G:C4	22:RA:1466:G:C8	3.03	0.47
22:RA:1919:A:H2'	22:RA:1919:A:N3	2.29	0.47
22:RA:2418:A:H2'	22:RA:2419:U:O4'	2.14	0.47
22:RA:2712:U:O2'	22:RA:2712(A):A:P	2.73	0.47
22:RA:2715:C:H2'	22:RA:2716:U:C6	2.50	0.47
22:RA:2755:C:C4	52:R9:19:ARG:NH1	2.83	0.47
24:RD:118:VAL:HG22	24:RD:119:ALA:N	2.29	0.47
28:RH:27:LYS:HA	28:RH:32:GLU:HA	1.96	0.47
36:RT:16:ARG:HE	36:RT:19:LEU:HD21	1.80	0.47
41:RY:76:CYS:HB2	41:RY:101:LYS:HG3	1.96	0.47
42:RZ:1:MET:HB3	42:RZ:3:TYR:CE1	2.50	0.47
43:R0:72:ARG:CB	43:R0:75:LEU:HB2	2.44	0.47
1:XA:552:U:H4'	12:XL:86:ARG:O	2.15	0.47
1:XA:598:U:H4'	8:XH:94:TYR:CD2	2.49	0.47
1:XA:864:A:H2	1:XA:917:G:N3	2.12	0.47
2:XB:18:GLY:H	2:XB:42:ILE:HG22	1.80	0.47
22:YA:137(A):G:N3	40:YX:41:ASN:ND2	2.61	0.47
22:YA:155:C:H5'	22:YA:161:U:OP2	2.15	0.47
22:YA:287:C:H2'	22:YA:288:C:H6	1.80	0.47
22:YA:304:G:H2'	22:YA:305:U:H6	1.79	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:436:C:H2'	22:YA:438:G:H8	1.79	0.47
22:YA:1009:A:OP1	30:YN:37:LYS:NZ	2.45	0.47
22:YA:1045:A:H5''	22:YA:1047:G:H1'	1.96	0.47
22:YA:1464:C:HO2'	22:YA:1528:A:H8	1.63	0.47
22:YA:2433:A:H5''	22:YA:2434:A:OP1	2.15	0.47
22:YA:2777:G:C8	22:YA:2777:G:H3'	2.50	0.47
25:YE:116:VAL:HG11	25:YE:138:PRO:HB3	1.97	0.47
28:YH:4:ILE:HB	28:YH:6:ARG:CG	2.43	0.47
28:YH:154:PRO:HD3	28:YH:162:ILE:H	1.79	0.47
1:QA:144:G:H1	1:QA:178:C:H42	1.62	0.47
1:QA:464:G:H1'	1:QA:468:A:N6	2.30	0.47
1:QA:933:G:O6	7:QG:3:ARG:NH2	2.47	0.47
1:QA:1129:C:H5'	1:QA:1130:A:OP1	2.15	0.47
1:QA:1436:U:H2'	1:QA:1437:C:O4'	2.15	0.47
19:QS:35:SER:O	19:QS:71:LEU:HD12	2.15	0.47
22:RA:70:G:C2	22:RA:114:U:C4	3.03	0.47
22:RA:580:C:H2'	22:RA:581:C:C6	2.49	0.47
22:RA:593:G:O2'	51:R8:61:LEU:HD13	2.15	0.47
22:RA:742:G:H2'	22:RA:743:G:H8	1.80	0.47
22:RA:1657:C:H2'	22:RA:1658:C:H6	1.75	0.47
22:RA:2156:G:O6	22:RA:2157:G:N2	2.48	0.47
22:RA:2648:C:H2'	22:RA:2649:U:C6	2.50	0.47
26:RF:62:ARG:HB3	26:RF:62:ARG:CZ	2.45	0.47
38:RV:24:LYS:HG3	38:RV:92:THR:HG23	1.97	0.47
1:XA:998:G:N2	1:XA:1043:C:O2	2.37	0.47
1:XA:1010:G:H2'	1:XA:1011:G:C8	2.49	0.47
1:XA:1053:G:H2'	1:XA:1199:U:C5	2.50	0.47
1:XA:1131:G:H2'	1:XA:1132:C:C6	2.50	0.47
1:XA:1212:U:O2'	1:XA:1213:A:C8	2.68	0.47
1:XA:1430:C:H2'	1:XA:1431:C:H6	1.79	0.47
19:XS:33:THR:OG1	19:XS:34:TRP:N	2.48	0.47
22:YA:49:A:N7	22:YA:120:U:C5	2.83	0.47
22:YA:409:C:O2'	22:YA:410:G:H5'	2.15	0.47
22:YA:819:A:P	22:YA:1187:G:H22	2.38	0.47
22:YA:896:A:N3	42:YZ:176:PRO:HB3	2.30	0.47
22:YA:1336:A:H2'	22:YA:1337:G:C8	2.50	0.47
22:YA:1368:G:C2	22:YA:1369:G:C8	3.02	0.47
22:YA:2126:A:H4'	22:YA:2127:G:O5'	2.15	0.47
22:YA:2365:G:H4'	43:Y0:60:PHE:CE2	2.50	0.47
26:YF:140:LEU:HD12	26:YF:140:LEU:HA	1.77	0.47
27:YG:11:TYR:HA	27:YG:15:VAL:HB	1.95	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:YH:4:ILE:HG13	28:YH:6:ARG:CZ	2.45	0.47
29:YI:5:LEU:HD12	29:YI:5:LEU:H	1.80	0.47
32:YP:64:LYS:HB2	51:Y8:25:MET:HG3	1.96	0.47
32:YP:96:THR:O	32:YP:99:LEU:HB3	2.15	0.47
53:XV:4:G:HO2'	53:XV:5:G:P	2.38	0.47
53:XV:38:A:H8	53:XV:38:A:O5'	1.98	0.47
1:QA:410:G:N1	1:QA:429:U:O2	2.48	0.46
1:QA:793:U:O2	1:QA:1516:G:H4'	2.15	0.46
1:QA:1144:G:H22	1:QA:1146:A:H62	1.63	0.46
2:QB:166:ASP:OD1	2:QB:169:LYS:HB2	2.15	0.46
5:QE:9:LYS:HB3	5:QE:112:LEU:HD11	1.98	0.46
13:QM:3:ARG:HH12	27:RG:113:ARG:NH2	2.13	0.46
19:QS:15:LEU:H	19:QS:15:LEU:HD23	1.79	0.46
20:QT:89:ARG:NH2	20:QT:105:SER:O	2.36	0.46
22:RA:74:A:C5'	22:RA:74:A:H8	2.27	0.46
22:RA:185:U:H4'	22:RA:218:A:H4'	1.97	0.46
22:RA:517:C:OP1	48:R5:16:ARG:NH2	2.48	0.46
22:RA:586:A:N1	22:RA:809:G:O2'	2.43	0.46
22:RA:866:A:N3	22:RA:866:A:H2'	2.29	0.46
22:RA:1142:U:O2	22:RA:1142:U:H2'	2.15	0.46
22:RA:1448:G:H1'	22:RA:1528:A:H62	1.80	0.46
22:RA:2013:A:H2	39:RW:88:ARG:HH22	1.63	0.46
22:RA:2134:A:H1'	22:RA:2159:G:H21	1.80	0.46
22:RA:2318:G:H22	35:RS:2:ALA:N	2.12	0.46
37:RU:8:VAL:HG23	37:RU:11:ARG:HH21	1.80	0.46
44:R1:89:GLU:HA	44:R1:93:GLU:HB2	1.95	0.46
51:R8:29:LYS:HD3	51:R8:44:LYS:CB	2.45	0.46
1:XA:606:G:N2	1:XA:631:G:H8	2.12	0.46
1:XA:993:G:O6	1:XA:1045:C:N4	2.29	0.46
4:XD:63:LYS:HD2	4:XD:198:VAL:HG22	1.97	0.46
17:XQ:63:ARG:HG2	17:XQ:64:PRO:HD2	1.97	0.46
22:YA:221:A:H4'	22:YA:222:A:O5'	2.16	0.46
22:YA:372:G:O2'	22:YA:373:U:P	2.73	0.46
22:YA:483:A:H3'	22:YA:484:C:H6	1.80	0.46
22:YA:554:U:O2'	22:YA:556:G:H8	1.98	0.46
22:YA:1289:C:H2'	22:YA:1290:C:H6	1.80	0.46
22:YA:1899:G:N2	22:YA:1902:C:N4	2.63	0.46
22:YA:2051:A:C6	22:YA:2614:A:C5	3.03	0.46
22:YA:2466:C:H5''	52:Y9:6:SER:HB3	1.96	0.46
22:YA:2645:G:H3'	22:YA:2646:C:H5'	1.97	0.46
26:YF:108:LYS:NZ	26:YF:108:LYS:HB3	2.31	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:YN:114:ARG:O	30:YN:115:ARG:HB3	2.14	0.46
41:YY:73:ARG:HE	41:YY:73:ARG:HB3	1.47	0.46
41:YY:87:LYS:HD3	41:YY:92:ASN:HB3	1.98	0.46
47:Y4:2:LYS:HA	47:Y4:2:LYS:HD2	1.67	0.46
48:Y5:33:CYS:SG	48:Y5:34:PRO:HD2	2.55	0.46
55:XY:34:C:O5'	55:XY:34:C:H6	1.97	0.46
1:QA:358:U:H2'	1:QA:359:U:O4'	2.14	0.46
1:QA:408:A:H2'	1:QA:409:G:O4'	2.14	0.46
1:QA:572:A:N3	1:QA:917:G:H1'	2.31	0.46
1:QA:683:G:H2'	1:QA:684:A:C8	2.50	0.46
1:QA:769:G:H4'	1:QA:1513:A:H4'	1.96	0.46
1:QA:1126:U:OP2	1:QA:1281:U:H1'	2.16	0.46
1:QA:1512:U:H2'	1:QA:1513:A:C8	2.50	0.46
7:QG:78:ARG:HG3	7:QG:79:ARG:N	2.29	0.46
12:QL:11:VAL:HG13	17:QQ:29:HIS:HD2	1.80	0.46
16:QP:3:LYS:O	16:QP:21:VAL:HA	2.15	0.46
17:QQ:74:LEU:HB3	17:QQ:75:ARG:H	1.63	0.46
22:RA:1022:G:C6	22:RA:1140:C:C4	3.03	0.46
22:RA:1579:A:H2'	22:RA:1580:A:C8	2.50	0.46
22:RA:1741:C:H6	22:RA:1741:C:O5'	1.97	0.46
22:RA:2274:A:N1	22:RA:2276:G:H1'	2.30	0.46
24:RD:61:LEU:HA	24:RD:61:LEU:HD12	1.77	0.46
24:RD:70:TRP:CD2	24:RD:150:LYS:HD2	2.49	0.46
25:RE:186:GLY:O	25:RE:188:VAL:N	2.48	0.46
28:RH:153:LYS:HB3	28:RH:162:ILE:H	1.80	0.46
39:RW:23:LEU:O	39:RW:27:LYS:HD2	2.14	0.46
41:RY:89:PHE:O	41:RY:90:LEU:HD13	2.15	0.46
1:XA:760:G:H2'	1:XA:761:G:H5'	1.97	0.46
1:XA:1397:C:H4'	1:XA:1398:A:OP2	2.15	0.46
1:XA:1415:G:C6	1:XA:1486:G:C6	3.03	0.46
3:XC:14:ILE:HG12	3:XC:15:THR:N	2.30	0.46
7:XG:74:GLU:HG2	7:XG:91:VAL:HG22	1.98	0.46
9:XI:18:PHE:HB2	9:XI:62:TYR:HB3	1.97	0.46
22:YA:464:U:H2'	22:YA:465:G:O4'	2.14	0.46
22:YA:569:U:H2'	22:YA:570:G:O4'	2.15	0.46
22:YA:770:G:N3	22:YA:1354:A:H2	2.12	0.46
22:YA:1791:A:OP2	22:YA:1791:A:H8	1.98	0.46
22:YA:2487:G:N2	22:YA:2488:A:C4	2.83	0.46
23:YB:6:C:C2	23:YB:115:G:N2	2.84	0.46
32:YP:19:VAL:HG13	32:YP:21:ARG:N	2.20	0.46
32:YP:88:LEU:HB2	32:YP:91:PHE:HE2	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:YS:27:SER:HA	35:YS:88:ASP:HB2	1.96	0.46
35:YS:52:SER:HB2	35:YS:55:ALA:H	1.79	0.46
47:Y4:38:LYS:HD3	47:Y4:42:PHE:HE1	1.80	0.46
53:QV:54:U:H2'	53:QV:55:U:O4'	2.15	0.46
1:QA:1104:G:O5'	2:QB:111:ARG:HD2	2.16	0.46
1:QA:1135:U:H2'	1:QA:1137:C:O2	2.15	0.46
12:QL:11:VAL:HG11	17:QQ:36:ILE:HG21	1.97	0.46
20:QT:33:ILE:HD13	20:QT:62:LEU:HB3	1.97	0.46
22:RA:751:A:C6	22:RA:789:A:C5	3.03	0.46
22:RA:852:G:N2	22:RA:926:A:H1'	2.31	0.46
22:RA:1588:C:H2'	22:RA:1589:C:H6	1.79	0.46
22:RA:1754:C:H5''	36:RT:113:LYS:HE3	1.97	0.46
24:RD:43:ARG:HH11	24:RD:44:ASN:CG	2.16	0.46
31:RO:76:ALA:HB3	36:RT:75:ILE:HB	1.97	0.46
36:RT:20:PRO:HD2	36:RT:86:ILE:HG23	1.97	0.46
40:RX:49:VAL:HG13	40:RX:83:VAL:HG13	1.96	0.46
1:XA:77:C:O2	1:XA:92:G:N2	2.36	0.46
1:XA:679:C:H2'	1:XA:680:C:C6	2.50	0.46
1:XA:703:G:H8	1:XA:703:G:O5'	1.99	0.46
1:XA:1004:A:H1'	1:XA:1036:G:N1	2.29	0.46
1:XA:1202:G:H1'	14:YN:29:ARG:HD2	1.96	0.46
2:XB:163:PHE:CD2	2:XB:185:ILE:HG13	2.50	0.46
2:XB:201:ILE:HG21	2:XB:214:ILE:HG21	1.95	0.46
4:XD:30:LYS:C	4:XD:32:ALA:H	2.18	0.46
19:XS:41:VAL:HA	19:XS:44:MET:HG3	1.97	0.46
19:XS:41:VAL:HG23	19:XS:67:VAL:HG13	1.98	0.46
22:YA:389:G:N1	32:YP:70:GLN:HB3	2.30	0.46
22:YA:466:A:N3	22:YA:683:C:H1'	2.29	0.46
22:YA:629:G:N3	22:YA:639:U:O2'	2.47	0.46
22:YA:654(A):G:C6	22:YA:654(B):C:N4	2.83	0.46
22:YA:787:U:H3'	22:YA:791:C:H41	1.80	0.46
22:YA:1441:G:H2'	22:YA:1442:G:C8	2.48	0.46
22:YA:2062:A:H2'	22:YA:2062:A:N3	2.30	0.46
22:YA:2491:U:O2'	22:YA:2570:G:OP1	2.29	0.46
24:YD:17:THR:CG2	24:YD:205:VAL:H	2.29	0.46
24:YD:94:LEU:HD22	24:YD:95:LEU:N	2.31	0.46
25:YE:150:VAL:HG13	25:YE:154:LYS:HG3	1.96	0.46
25:YE:176:ILE:HB	25:YE:181:LEU:HB2	1.97	0.46
32:YP:121:LYS:HB2	32:YP:121:LYS:HE2	1.75	0.46
42:YZ:144:LEU:HD13	42:YZ:145:GLU:N	2.30	0.46
42:YZ:182:LYS:HE3	42:YZ:182:LYS:HB2	1.56	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:Y0:27:GLU:HA	43:Y0:67:VAL:O	2.15	0.46
1:QA:1120:G:H2'	1:QA:1121:U:C6	2.51	0.46
6:QF:10:LEU:N	6:QF:59:TYR:O	2.46	0.46
22:RA:57:C:H2'	22:RA:58:G:O4'	2.15	0.46
22:RA:580:C:H2'	22:RA:581:C:H6	1.81	0.46
22:RA:1504:C:H5'	22:RA:1505:C:OP2	2.15	0.46
22:RA:2410:G:H2'	22:RA:2411:A:O4'	2.15	0.46
29:RI:118:LYS:HA	29:RI:118:LYS:HD2	1.77	0.46
32:RP:83:VAL:HG12	32:RP:114:ILE:HA	1.98	0.46
35:RS:48:LEU:HD23	35:RS:82:ILE:HD11	1.96	0.46
40:RX:55:ASN:HB2	40:RX:80:ILE:HG23	1.97	0.46
42:RZ:40:ASP:OD1	42:RZ:42:VAL:HB	2.15	0.46
42:RZ:59:LEU:HD11	42:RZ:69:THR:HG21	1.96	0.46
1:XA:217:C:O2'	1:XA:466:C:N4	2.48	0.46
1:XA:818:G:N2	1:XA:873:A:OP1	2.43	0.46
1:XA:974:A:OP2	14:YN:41:ARG:NH1	2.48	0.46
1:XA:1003:G:N2	1:XA:1005:A:H5'	2.30	0.46
1:XA:1065:U:C4	1:XA:1190:G:H1'	2.51	0.46
1:XA:1293:G:H2'	1:XA:1294:G:O4'	2.15	0.46
1:XA:1446:A:C6	36:YT:118:ARG:NH1	2.84	0.46
7:XG:115:ARG:HB2	7:XG:118:VAL:HG22	1.97	0.46
9:XI:83:ARG:O	9:XI:86:VAL:HG12	2.15	0.46
20:XT:87:LYS:HD2	20:XT:87:LYS:HA	1.74	0.46
22:YA:30:G:H2'	22:YA:31:C:O4'	2.15	0.46
22:YA:979:G:H5''	22:YA:980:A:OP2	2.15	0.46
22:YA:1465:G:H5'	22:YA:1528:A:H1'	1.98	0.46
22:YA:1496:A:H8	22:YA:1577:C:O2'	1.90	0.46
22:YA:2397:G:H2'	22:YA:2398:U:C6	2.50	0.46
22:YA:2777:G:H3'	22:YA:2777:G:H8	1.79	0.46
22:YA:2817:G:OP1	34:YR:99:LYS:NZ	2.37	0.46
26:YF:127:GLU:OE2	26:YF:128:ALA:N	2.47	0.46
44:Y1:96:LYS:H	44:Y1:97:LEU:HD12	1.81	0.46
53:QV:3:C:O2'	53:QV:4:G:H5'	2.15	0.46
1:QA:377:G:H1	1:QA:386:C:H42	1.62	0.46
1:QA:1129:C:OP1	9:QI:62:TYR:OH	2.20	0.46
19:QS:63:THR:HG23	19:QS:65:ASN:OD1	2.15	0.46
22:RA:275:G:H3'	22:RA:276:A:H5''	1.97	0.46
22:RA:519:U:H2'	22:RA:520:G:H8	1.80	0.46
22:RA:807:U:O2'	22:RA:2060:A:N1	2.45	0.46
22:RA:935:C:H2'	22:RA:936:C:C6	2.49	0.46
22:RA:1561:G:H2'	22:RA:1562:A:C8	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:1797:C:C4	22:RA:1798:U:C5	3.04	0.46
22:RA:2146:C:H4'	22:RA:2147:G:N7	2.31	0.46
22:RA:2321:G:H2'	22:RA:2321:G:N3	2.31	0.46
22:RA:2516:G:N2	22:RA:2569:G:H1'	2.30	0.46
23:RB:97:G:H2'	23:RB:98:G:O4'	2.15	0.46
26:RF:126:VAL:HG11	26:RF:142:TRP:HH2	1.80	0.46
27:RG:22:ARG:HH22	27:RG:175:LEU:HD21	1.80	0.46
35:RS:78:LEU:HD11	35:RS:107:GLU:O	2.15	0.46
35:RS:83:LYS:O	35:RS:109:GLY:HA3	2.15	0.46
39:RW:86:LEU:O	39:RW:94:ASP:N	2.44	0.46
41:RY:17:SER:OG	41:RY:71:LYS:HD2	2.16	0.46
42:RZ:82:ARG:HG2	42:RZ:82:ARG:HH11	1.81	0.46
1:XA:129(A):G:N2	1:XA:191(A):G:C5	2.83	0.46
1:XA:135:C:H2'	1:XA:136:C:H5'	1.98	0.46
1:XA:284:G:H2'	1:XA:285:G:H8	1.80	0.46
1:XA:579:G:C6	1:XA:580:U:C4	3.04	0.46
1:XA:1074:G:H2'	1:XA:1075:C:C6	2.51	0.46
5:XE:78:HIS:HB3	8:XH:107:LEU:HD12	1.98	0.46
22:YA:746:A:C6	22:YA:2611:U:H5''	2.50	0.46
22:YA:894:C:H2'	22:YA:895:U:H6	1.81	0.46
22:YA:1093:G:O2'	22:YA:1099:G:N1	2.45	0.46
22:YA:1534:G:H2'	22:YA:1534:G:N3	2.30	0.46
22:YA:1658:C:C2	22:YA:1659:U:C5	3.04	0.46
22:YA:2335:A:O2'	22:YA:2336:A:C8	2.69	0.46
22:YA:2683:C:H4'	25:YE:13:ARG:NH2	2.31	0.46
24:YD:25:THR:CG2	24:YD:82:ILE:H	2.27	0.46
24:YD:118:VAL:HG22	24:YD:119:ALA:N	2.31	0.46
29:YI:32:PRO:C	29:YI:34:GLY:H	2.19	0.46
32:YP:29:LYS:HD2	32:YP:30:THR:HG23	1.97	0.46
37:YU:75:ASN:HB3	37:YU:78:THR:H	1.81	0.46
41:YY:94:LYS:HD2	41:YY:101:LYS:HZ3	1.81	0.46
42:YZ:43:GLU:O	42:YZ:47:VAL:HG23	2.15	0.46
46:Y3:8:LEU:HD22	46:Y3:31:LEU:HD22	1.96	0.46
1:QA:946:A:H61	1:QA:1234:C:N4	2.14	0.46
1:QA:1269:A:N1	1:QA:1312:G:O2'	2.38	0.46
1:QA:1338:G:H21	53:QV:41:C:H1'	1.80	0.46
10:QJ:84:GLN:H	10:QJ:84:GLN:HG3	1.49	0.46
22:RA:834:C:H2'	22:RA:835:A:H8	1.80	0.46
22:RA:1389:G:H2'	22:RA:1390:U:H6	1.81	0.46
27:RG:98:ARG:O	27:RG:101:ILE:HG13	2.16	0.46
28:RH:170:ARG:HB3	28:RH:171:LEU:H	1.52	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:RI:82:ARG:NE	29:RI:146:ALA:O	2.49	0.46
29:RI:131:LYS:HB3	29:RI:132:PRO:HA	1.97	0.46
32:RP:124:LYS:HA	32:RP:143:GLY:O	2.16	0.46
43:R0:29:GLN:O	43:R0:67:VAL:HG23	2.16	0.46
49:R6:13:CYS:HB2	49:R6:22:ALA:HB3	1.98	0.46
1:XA:975:A:N6	1:XA:1367:C:O4'	2.49	0.46
1:XA:977:A:H2'	1:XA:978:A:H5''	1.98	0.46
1:XA:1057:G:H2'	1:XA:1058:G:O4'	2.15	0.46
3:XC:78:GLY:HA3	3:XC:83:ARG:HB3	1.98	0.46
3:XC:178:LEU:HD13	3:XC:178:LEU:HA	1.84	0.46
12:XL:62:SER:O	12:XL:64:TYR:N	2.48	0.46
22:YA:264:C:C2'	22:YA:265:A:H5''	2.46	0.46
22:YA:865:C:H4'	22:YA:866:A:OP1	2.16	0.46
22:YA:1899:G:H21	22:YA:1902:C:N4	2.14	0.46
22:YA:2059:A:H5'	22:YA:2060:A:OP2	2.16	0.46
25:YE:36:ARG:NH2	25:YE:88:GLY:HA2	2.29	0.46
27:YG:34:LEU:HD12	27:YG:100:TRP:CH2	2.50	0.46
44:Y1:80:LEU:HB2	44:Y1:81:LYS:H	1.61	0.46
1:QA:186:C:H5'	20:QT:78:ALA:HB1	1.97	0.46
1:QA:530:G:O2'	55:QY:35:G:H4'	2.15	0.46
1:QA:1285:A:H5'	1:QA:1286:A:N3	2.30	0.46
20:QT:29:LYS:O	20:QT:33:ILE:HG12	2.16	0.46
22:RA:1543:A:O2'	22:RA:1544:C:H3'	2.14	0.46
22:RA:2292:C:H2'	22:RA:2293:C:C6	2.51	0.46
23:RB:31:C:H4'	27:RG:29:TRP:CH2	2.50	0.46
33:RQ:29:PHE:N	33:RQ:105:GLU:OE2	2.40	0.46
51:R8:39:LYS:O	51:R8:43:GLN:HB2	2.15	0.46
51:R8:50:LEU:C	51:R8:53:PRO:HD2	2.36	0.46
1:XA:485:G:O2'	1:XA:486:U:P	2.74	0.46
1:XA:815:A:H4'	1:XA:817:C:C4	2.50	0.46
1:XA:973:G:C4	10:XJ:55:LYS:HE2	2.51	0.46
1:XA:1049:U:H4'	1:XA:1050:G:C5'	2.46	0.46
1:XA:1365:G:H2'	1:XA:1366:C:C6	2.51	0.46
7:XG:50:ILE:HG21	7:XG:61:VAL:HG21	1.98	0.46
10:XJ:62:HIS:H	10:XJ:62:HIS:CD2	2.33	0.46
13:XM:36:LYS:C	13:XM:36:LYS:HD3	2.36	0.46
15:XO:6:GLU:H	15:XO:6:GLU:CD	2.15	0.46
15:XO:56:LEU:O	15:XO:60:VAL:HG23	2.16	0.46
19:XS:41:VAL:HB	19:XS:42:PRO:HA	1.96	0.46
22:YA:909:A:H2'	22:YA:912:C:H5	1.80	0.46
22:YA:996:A:H4'	37:YU:92:ARG:HE	1.81	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1190:G:H5'	32:YP:32:THR:HA	1.98	0.46
22:YA:1268:A:H2'	22:YA:1269:A:O4'	2.16	0.46
22:YA:1598:C:H2'	22:YA:1599:C:H6	1.81	0.46
22:YA:2078:C:N4	22:YA:2241:A:H61	2.14	0.46
22:YA:2867:G:O2'	22:YA:2868:A:P	2.73	0.46
24:YD:35:LYS:HE3	24:YD:63:ARG:C	2.36	0.46
24:YD:35:LYS:HB3	24:YD:63:ARG:HA	1.98	0.46
33:YQ:136:ALA:O	33:YQ:138:ASP:N	2.40	0.46
39:YW:110:LYS:HG3	39:YW:111:HIS:ND1	2.31	0.46
53:QV:35:A:H2'	53:QV:36:U:C6	2.51	0.46
1:QA:20:U:H2'	1:QA:21:G:O4'	2.16	0.46
1:QA:651:C:N4	1:QA:753:A:OP2	2.41	0.46
1:QA:673:G:H8	1:QA:673:G:O5'	1.98	0.46
1:QA:713:G:H2'	1:QA:714:G:C8	2.51	0.46
1:QA:771:G:H2'	1:QA:772:U:C6	2.51	0.46
1:QA:1010:G:N2	1:QA:1020:U:H1'	2.31	0.46
1:QA:1320:C:C2	19:QS:72:GLY:HA3	2.50	0.46
2:QB:165:VAL:HG23	2:QB:166:ASP:H	1.81	0.46
4:QD:9:CYS:SG	4:QD:31:CYS:C	2.94	0.46
4:QD:75:PHE:HE1	4:QD:97:LEU:HD11	1.81	0.46
4:QD:103:ASN:OD1	4:QD:114:ARG:NE	2.49	0.46
12:QL:54:LYS:HD2	12:QL:54:LYS:N	2.31	0.46
19:QS:32:LYS:HA	19:QS:50:ALA:HB3	1.98	0.46
22:RA:224:G:O6	22:RA:419:C:O2'	2.27	0.46
22:RA:330:A:H2	22:RA:1210:A:H2'	1.80	0.46
22:RA:384:U:H2'	22:RA:385:C:H6	1.81	0.46
22:RA:548:A:C6	22:RA:549:G:H1'	2.51	0.46
22:RA:817:C:O2'	22:RA:839:U:H5''	2.16	0.46
22:RA:864:G:C6	22:RA:865:C:N4	2.84	0.46
22:RA:1338:G:N3	22:RA:1393:A:H2	2.13	0.46
22:RA:1639:U:H4'	22:RA:2699:C:H4'	1.98	0.46
22:RA:1778:U:H2'	22:RA:1784:A:N6	2.30	0.46
22:RA:2074:U:H2'	22:RA:2075:U:H6	1.75	0.46
24:RD:68:LYS:HD2	24:RD:70:TRP:CZ2	2.51	0.46
25:RE:63:LEU:HD12	25:RE:64:LYS:N	2.30	0.46
28:RH:85:LYS:HD2	28:RH:85:LYS:HA	1.85	0.46
28:RH:87:LEU:HA	28:RH:163:TYR:O	2.16	0.46
37:RU:69:CYS:HB3	37:RU:106:PHE:HZ	1.81	0.46
49:R6:33:LYS:HG3	49:R6:34:LEU:HD13	1.98	0.46
1:XA:1386:G:H2'	1:XA:1387:G:H8	1.80	0.46
2:XB:70:PHE:O	2:XB:93:VAL:N	2.34	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:XB:204:ASN:HD22	2:XB:205:ASP:N	2.13	0.46
12:XL:92:ASP:O	12:XL:94:PRO:HD3	2.16	0.46
16:XP:1:MET:O	16:XP:3:LYS:HG3	2.16	0.46
20:XT:26:ASN:O	20:XT:30:LYS:HB2	2.16	0.46
22:YA:216:A:C4	22:YA:432:A:C2	3.03	0.46
22:YA:637:A:H4'	22:YA:638:G:O5'	2.15	0.46
22:YA:923:C:O4'	43:Y0:29:GLN:NE2	2.42	0.46
22:YA:1354:A:OP1	24:YD:38:LYS:HE2	2.15	0.46
22:YA:1972:A:H2'	22:YA:1973:G:C8	2.50	0.46
22:YA:2319:G:N7	35:YS:3:ARG:HB3	2.31	0.46
22:YA:2586:C:C5	22:YA:2608:G:N2	2.84	0.46
22:YA:2602:A:N6	53:XV:76:A:H2'	2.30	0.46
22:YA:2605:U:H2'	22:YA:2606:C:C6	2.51	0.46
22:YA:2741:A:OP1	52:Y9:22:ARG:NH2	2.47	0.46
22:YA:2849:U:H5	36:YT:93:ARG:NH1	2.06	0.46
23:YB:51:G:H5'	23:YB:52:A:OP2	2.16	0.46
25:YE:116:VAL:O	25:YE:117:MET:HB3	2.16	0.46
53:XV:52:G:N3	53:XV:52:G:H2'	2.30	0.46
1:QA:322:C:H41	1:QA:328:C:H6	1.63	0.46
1:QA:778:G:H8	1:QA:778:G:O5'	1.98	0.46
1:QA:789:U:H1'	1:QA:792:A:H2	1.81	0.46
1:QA:883:C:O2'	1:QA:884:U:H5'	2.15	0.46
1:QA:1158:C:N3	1:QA:1160:G:C8	2.83	0.46
1:QA:1468:A:H5''	1:QA:1469:G:OP2	2.15	0.46
2:QB:178:ARG:NH2	8:QH:74:PRO:HG3	2.30	0.46
9:QI:45:ALA:O	9:QI:48:GLU:HG2	2.15	0.46
22:RA:48:G:N2	22:RA:177:G:H21	2.13	0.46
22:RA:363:G:H2'	22:RA:363(A):A:H8	1.80	0.46
22:RA:705:A:H1'	24:RD:9:TYR:CE1	2.50	0.46
22:RA:1337:G:H2'	22:RA:1338:G:C8	2.50	0.46
22:RA:1578:U:OP2	22:RA:1578:U:H6	1.99	0.46
22:RA:2334:G:H4'	22:RA:2335:A:OP2	2.15	0.46
22:RA:2635:C:H5''	25:RE:78:LEU:HA	1.98	0.46
22:RA:2666:C:H3'	22:RA:2667:C:H6	1.81	0.46
28:RH:115:VAL:HG11	28:RH:148:ILE:HD11	1.98	0.46
31:RO:31:LYS:HB3	31:RO:32:TYR:CD1	2.51	0.46
33:RQ:81:VAL:C	33:RQ:82:ARG:HG2	2.37	0.46
33:RQ:104:PHE:HE1	33:RQ:125:LEU:HD11	1.80	0.46
34:RR:37:THR:OG1	34:RR:40:LYS:HG3	2.16	0.46
35:RS:24:LEU:HB2	35:RS:85:VAL:HG12	1.96	0.46
35:RS:61:ASN:O	35:RS:65:VAL:HG23	2.14	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:R9:8:LYS:O	52:R9:34:GLN:NE2	2.49	0.46
1:XA:975:A:H5'	1:XA:975:A:H8	1.79	0.46
1:XA:986:A:H2'	1:XA:987:G:O4'	2.16	0.46
2:XB:114:ARG:O	2:XB:118:LEU:HG	2.16	0.46
2:XB:217:ARG:HE	2:XB:217:ARG:HB2	1.54	0.46
9:XI:46:ALA:HA	9:XI:78:LYS:HB2	1.98	0.46
18:XR:32:ARG:HA	18:XR:69:THR:HG21	1.97	0.46
22:YA:254:G:N7	51:Y8:5:LYS:HE2	2.31	0.46
22:YA:436:C:H2'	22:YA:438:G:C8	2.51	0.46
22:YA:570:G:H2'	22:YA:2030:A:C5	2.51	0.46
22:YA:740:U:H2'	22:YA:741:G:C8	2.51	0.46
22:YA:840:C:O5'	22:YA:840:C:H6	1.98	0.46
22:YA:1175:U:H4'	22:YA:1176:G:OP1	2.15	0.46
22:YA:2751:G:O5'	22:YA:2751:G:H8	1.98	0.46
25:YE:70:ALA:O	25:YE:72:VAL:N	2.49	0.46
26:YF:129:PHE:O	26:YF:142:TRP:CD1	2.69	0.46
28:YH:103:LEU:HD23	28:YH:115:VAL:HB	1.97	0.46
28:YH:167:GLU:HA	28:YH:168:PRO:HD3	1.79	0.46
34:YR:51:LEU:HD12	34:YR:70:LEU:HG	1.97	0.46
34:YR:78:LYS:O	34:YR:83:ILE:HG12	2.16	0.46
1:QA:706:A:H1'	11:QK:29:ILE:HD11	1.98	0.46
1:QA:1213:A:C6	1:QA:1215:G:C4	3.03	0.46
1:QA:1399:C:H4'	1:QA:1400:C:O5'	2.16	0.46
22:RA:71:A:H4'	22:RA:72:U:H5''	1.97	0.46
22:RA:414:C:H1'	22:RA:1864:U:O2'	2.15	0.46
22:RA:608:A:H2'	22:RA:609:A:C8	2.51	0.46
22:RA:1392:A:N6	22:RA:1393:A:N6	2.63	0.46
23:RB:6:C:O2	23:RB:115:G:N2	2.49	0.46
28:RH:103:LEU:HD13	28:RH:131:VAL:HG11	1.97	0.46
29:RI:101:LEU:HB3	29:RI:107:VAL:O	2.16	0.46
32:RP:101:VAL:HG23	32:RP:107:LYS:H	1.81	0.46
36:RT:26:ASP:HB2	36:RT:90:GLN:O	2.16	0.46
38:RV:51:VAL:HG12	38:RV:53:GLU:H	1.80	0.46
44:R1:73:LEU:HB3	44:R1:90:ILE:HG23	1.97	0.46
49:R6:44:ARG:O	49:R6:45:LYS:HB2	2.16	0.46
1:XA:291:C:H42	1:XA:309:G:H1	1.64	0.46
1:XA:411:A:C8	1:XA:413:G:H1'	2.51	0.46
2:XB:55:PHE:HD1	2:XB:58:ILE:HG13	1.81	0.46
22:YA:36:G:N3	22:YA:450:G:O2'	2.49	0.46
22:YA:278:A:H4'	22:YA:279:C:OP1	2.15	0.46
22:YA:327:G:N2	22:YA:335:C:O2	2.45	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:395:U:O2'	22:YA:396:G:C8	2.65	0.46
22:YA:1329:U:H5''	22:YA:1330:C:H5	1.81	0.46
22:YA:1901:A:H2'	22:YA:1901:A:N3	2.31	0.46
22:YA:1945:G:C6	22:YA:1946:U:C4	3.03	0.46
23:YB:24:G:O6	23:YB:56:G:O2'	2.27	0.46
25:YE:108:SER:HB3	25:YE:165:VAL:HG21	1.98	0.46
28:YH:86:GLU:O	28:YH:87:LEU:HB2	2.16	0.46
28:YH:106:THR:HG22	28:YH:112:PRO:HB3	1.97	0.46
32:YP:135:LEU:HD23	32:YP:135:LEU:HA	1.74	0.46
38:YV:19:LYS:HA	38:YV:94:LEU:O	2.15	0.46
42:YZ:16:SER:O	42:YZ:20:ARG:HB2	2.15	0.46
1:QA:791:G:C2'	1:QA:792:A:H5'	2.45	0.45
1:QA:998(A):C:H2'	1:QA:999:U:C6	2.51	0.45
1:QA:1327:C:OP2	21:QU:12:LYS:NZ	2.49	0.45
5:QE:97:GLY:N	5:QE:117:ASP:OD2	2.40	0.45
10:QJ:22:LYS:HB3	10:QJ:22:LYS:HE3	1.68	0.45
22:RA:29:U:H2'	22:RA:30:G:C8	2.51	0.45
22:RA:71:A:H5''	22:RA:72:U:H3'	1.98	0.45
22:RA:210:C:H4'	22:RA:1367:A:H1'	1.97	0.45
22:RA:385:C:HO2'	22:RA:388:G:N2	2.13	0.45
22:RA:671:C:O2'	22:RA:672:C:H5'	2.16	0.45
22:RA:1640:C:H5'	22:RA:1641:A:OP2	2.15	0.45
22:RA:1805:U:O2	24:RD:50:THR:HB	2.16	0.45
22:RA:2278:A:H5''	43:R0:12:ASN:HD21	1.81	0.45
22:RA:2512:C:H1'	25:RE:140:SER:O	2.16	0.45
22:RA:2593:U:C4	22:RA:2594:C:N4	2.84	0.45
28:RH:120:GLY:HA3	28:RH:140:LYS:NZ	2.32	0.45
34:RR:33:ARG:HG2	34:RR:34:ILE:N	2.30	0.45
47:R4:10:VAL:HA	47:R4:11:PRO:HD2	1.75	0.45
1:XA:437:U:H2'	1:XA:438:G:O4'	2.16	0.45
1:XA:453:A:C6	1:XA:454:C:C4	3.04	0.45
1:XA:1154:G:C4	1:XA:1155:G:C8	3.04	0.45
5:XE:41:VAL:HG13	5:XE:113:ALA:HB2	1.97	0.45
6:XF:48:LEU:HG	6:XF:57:GLN:HA	1.98	0.45
9:XI:18:PHE:HD1	9:XI:62:TYR:HD2	1.62	0.45
22:YA:26:G:H1'	22:YA:515:A:H61	1.80	0.45
22:YA:114:U:H2'	22:YA:115:C:C6	2.51	0.45
22:YA:273(A):G:C2	22:YA:364:C:N3	2.84	0.45
22:YA:469:G:N7	50:Y7:37:LYS:NZ	2.63	0.45
22:YA:1230:C:H2'	22:YA:1231:G:C8	2.51	0.45
22:YA:1530:G:C6	22:YA:1531:C:C4	3.03	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1742:C:H5'	22:YA:1743:G:OP2	2.16	0.45
22:YA:2135:A:O2'	22:YA:2160:G:H4'	2.16	0.45
22:YA:2255:G:C5	22:YA:2256:G:C8	3.04	0.45
22:YA:2406:U:N3	32:YP:73:GLY:O	2.33	0.45
22:YA:2592:G:C6	22:YA:2593:U:N3	2.84	0.45
22:YA:2596:U:H2'	22:YA:2597:G:O4'	2.17	0.45
24:YD:10:THR:OG1	24:YD:13:ARG:HB2	2.16	0.45
24:YD:137:PRO:O	24:YD:140:THR:HG23	2.16	0.45
26:YF:129:PHE:C	26:YF:131:GLY:H	2.18	0.45
33:YQ:135:ASP:N	33:YQ:135:ASP:OD1	2.48	0.45
1:QA:44:G:N2	1:QA:399:G:C4	2.85	0.45
1:QA:54:C:N4	1:QA:353:A:OP2	2.49	0.45
1:QA:299:G:H2'	1:QA:300:A:H8	1.81	0.45
1:QA:652:U:H1'	1:QA:653:A:H2	1.79	0.45
1:QA:922:G:N3	1:QA:1398:A:H2	2.14	0.45
1:QA:987:G:H1	1:QA:1218:C:H42	1.64	0.45
1:QA:1144:G:N2	1:QA:1146:A:H62	2.14	0.45
1:QA:1386:G:C2	1:QA:1387:G:C8	3.04	0.45
4:QD:18:LYS:HD3	4:QD:20:TYR:CZ	2.51	0.45
8:QH:20:TYR:HA	8:QH:65:TYR:CZ	2.51	0.45
13:QM:84:ILE:HD12	13:QM:84:ILE:HA	1.75	0.45
22:RA:1968:G:O2'	22:RA:1969:A:O4'	2.24	0.45
22:RA:2061:G:H5''	22:RA:2503:A:C2	2.52	0.45
22:RA:2212:A:H1'	22:RA:2215:G:C5	2.51	0.45
22:RA:2379:G:O2'	35:RS:17:ARG:NH1	2.49	0.45
22:RA:2857:G:N2	22:RA:2859:G:H3'	2.30	0.45
22:RA:2867:G:OP2	36:RT:119:LYS:NZ	2.35	0.45
32:RP:6:LEU:HB3	32:RP:7:ARG:H	1.55	0.45
32:RP:88:LEU:HD12	32:RP:95:VAL:HG11	1.98	0.45
35:RS:16:ASN:HA	35:RS:19:LYS:HD3	1.98	0.45
42:RZ:45:ASP:OD2	42:RZ:49:ARG:NH2	2.50	0.45
1:XA:114:U:H2'	1:XA:115:G:C8	2.52	0.45
1:XA:701:C:O2	1:XA:703:G:N1	2.49	0.45
1:XA:742:G:OP2	15:XO:35:ARG:NH2	2.47	0.45
2:XB:140:HIS:HA	2:XB:143:GLU:OE1	2.17	0.45
9:XI:114:TYR:N	9:XI:114:TYR:HD2	2.14	0.45
18:XR:73:ALA:HB3	18:XR:79:LEU:HD12	1.98	0.45
20:XT:75:ASN:OD1	20:XT:75:ASN:N	2.40	0.45
22:YA:224:G:O6	22:YA:419:C:O2'	2.29	0.45
22:YA:1012:U:O2'	22:YA:1013:C:OP2	2.25	0.45
22:YA:1319:G:C6	22:YA:1320:C:N4	2.84	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1544:C:H2'	22:YA:1544:C:O2	2.17	0.45
22:YA:1588:C:H2'	22:YA:1589:C:H6	1.82	0.45
22:YA:2317:C:H2'	22:YA:2318:G:O4'	2.16	0.45
32:YP:138:LEU:C	32:YP:140:ALA:H	2.19	0.45
37:YU:68:ALA:O	37:YU:71:GLN:HB2	2.16	0.45
41:YY:51:VAL:HG13	41:YY:52:SER:N	2.28	0.45
41:YY:84:ARG:HB3	41:YY:95:LYS:HD3	1.97	0.45
43:Y0:51:VAL:CG1	43:Y0:59:LEU:HB3	2.46	0.45
44:Y1:58:ILE:HD12	44:Y1:58:ILE:N	2.31	0.45
49:Y6:33:LYS:HE2	49:Y6:33:LYS:HB2	1.76	0.45
1:QA:17:U:H1'	1:QA:1080:A:H1'	1.97	0.45
1:QA:945:G:C6	1:QA:1337:G:C5	3.04	0.45
4:QD:121:VAL:O	4:QD:134:ASP:HA	2.16	0.45
6:QF:99:ALA:HB1	18:QR:23:LYS:NZ	2.31	0.45
13:QM:89:GLY:O	13:QM:92:HIS:HB2	2.15	0.45
22:RA:184:C:H4'	22:RA:217:G:N3	2.31	0.45
22:RA:531:C:C5	22:RA:2035:G:C2	3.05	0.45
22:RA:537:C:H6	22:RA:537:C:H5''	1.82	0.45
22:RA:635:C:O2'	22:RA:639:U:OP1	2.32	0.45
22:RA:818:G:N1	22:RA:1188:U:OP2	2.41	0.45
22:RA:1341:U:P	22:RA:1397:U:H3	2.39	0.45
22:RA:1533:C:N4	22:RA:1538:G:H1	2.14	0.45
22:RA:1620:G:H2'	22:RA:1621:U:C6	2.51	0.45
22:RA:1931:U:H2'	22:RA:1932:A:O4'	2.17	0.45
22:RA:2787:C:H1'	25:RE:62:PRO:HG3	1.98	0.45
33:RQ:2:LEU:H	33:RQ:2:LEU:HD23	1.81	0.45
42:RZ:19:ARG:HD2	42:RZ:84:GLU:HA	1.98	0.45
1:XA:453:A:C5	1:XA:454:C:C4	3.05	0.45
1:XA:922:G:O2'	1:XA:1398:A:N1	2.43	0.45
1:XA:1171:G:C2	1:XA:1172:C:C2	3.04	0.45
1:XA:1264:C:H42	1:XA:1271:G:H1	1.64	0.45
1:XA:1269:A:H2	1:XA:1312:G:N3	2.14	0.45
1:XA:1284:C:H3'	1:XA:1285:A:C8	2.50	0.45
1:XA:1305:G:O2'	1:XA:1306:A:O5'	2.34	0.45
5:XE:99:GLY:N	5:XE:117:ASP:OD2	2.47	0.45
8:XH:86:ILE:HG13	8:XH:133:LEU:HD22	1.98	0.45
13:XM:58:GLU:O	13:XM:62:ASN:ND2	2.33	0.45
19:XS:47:HIS:O	19:XS:62:ILE:HG12	2.17	0.45
22:YA:198:C:O2'	22:YA:199:A:H5''	2.15	0.45
22:YA:372:G:H5'	44:Y1:66:HIS:NE2	2.32	0.45
22:YA:735:A:H3'	22:YA:736:C:H6	1.80	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1144:G:H2'	22:YA:1145:C:C6	2.51	0.45
22:YA:1161:C:H4'	38:YV:8:GLY:HA2	1.99	0.45
22:YA:1726:G:C6	22:YA:1727:U:C4	3.03	0.45
22:YA:2530:A:O2'	22:YA:2532:G:OP2	2.23	0.45
26:YF:11:VAL:HA	26:YF:125:LEU:O	2.16	0.45
32:YP:27:HIS:ND1	32:YP:27:HIS:N	2.64	0.45
37:YU:66:ASN:O	37:YU:70:ARG:HB2	2.17	0.45
41:YY:87:LYS:HA	41:YY:92:ASN:HB3	1.98	0.45
1:QA:514:C:C2	1:QA:515:G:C8	3.05	0.45
1:QA:685:G:C2	1:QA:686:U:C4	3.04	0.45
1:QA:1109:C:H2'	1:QA:1110:A:O4'	2.16	0.45
1:QA:1124:G:H5''	1:QA:1145:C:H41	1.82	0.45
1:QA:1285:A:H5'	1:QA:1286:A:C2	2.51	0.45
1:QA:1298:C:H4'	1:QA:1299:A:C5	2.52	0.45
3:QC:23:TYR:CD1	10:QJ:10:GLY:HA2	2.51	0.45
3:QC:131:ARG:NH1	5:QE:50:GLU:HG2	2.30	0.45
6:QF:45:LEU:HD12	6:QF:59:TYR:HD1	1.82	0.45
7:QG:20:ASP:OD1	7:QG:21:VAL:N	2.48	0.45
7:QG:45:ASP:O	7:QG:49:ILE:HG12	2.16	0.45
22:RA:19:C:OP2	37:RU:30:LYS:NZ	2.45	0.45
22:RA:585:G:O5'	22:RA:585:G:H8	1.99	0.45
22:RA:843:G:N2	22:RA:936:C:C2	2.84	0.45
22:RA:957:A:H5''	33:RQ:14:ARG:HH22	1.81	0.45
22:RA:1335:U:OP2	40:RX:65:ARG:NH2	2.49	0.45
22:RA:2740:A:H2'	22:RA:2741:A:C8	2.52	0.45
23:RB:61:G:H2'	23:RB:62:C:C6	2.52	0.45
24:RD:76:PRO:HB2	24:RD:116:GLN:OE1	2.17	0.45
26:RF:31:HIS:HB2	32:RP:9:ASN:OD1	2.16	0.45
31:RO:48:PRO:O	31:RO:49:ARG:HG2	2.17	0.45
1:XA:129(A):G:N2	1:XA:191(A):G:C4	2.84	0.45
1:XA:963:G:N2	1:XA:972:C:N3	2.53	0.45
1:XA:1236:A:O2'	1:XA:1304:G:H4'	2.17	0.45
6:XF:100:ASN:O	18:XR:28:GLU:HG2	2.17	0.45
7:XG:45:ASP:O	7:XG:49:ILE:HG12	2.16	0.45
22:YA:229:A:C2	22:YA:418:G:H4'	2.52	0.45
22:YA:232:G:H8	22:YA:232:G:OP2	1.98	0.45
22:YA:2801:A:C6	22:YA:2802:G:H1'	2.52	0.45
22:YA:2812:G:H2'	22:YA:2813:A:C8	2.52	0.45
23:YB:62:C:H2'	23:YB:63:G:C8	2.51	0.45
27:YG:6:ALA:N	47:Y4:23:GLU:HG2	2.28	0.45
32:YP:124:LYS:HA	32:YP:143:GLY:O	2.15	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YR:109:ALA:HA	34:YR:110:PRO:HD2	1.77	0.45
41:YY:56:PRO:O	41:YY:58:GLY:N	2.49	0.45
44:Y1:91:LYS:HA	44:Y1:91:LYS:HE3	1.98	0.45
46:Y3:31:LEU:O	46:Y3:32:GLN:HB2	2.17	0.45
53:QV:17:C:H5'	53:QV:61:C:OP1	2.16	0.45
1:QA:392:G:H2'	1:QA:393:A:H8	1.82	0.45
1:QA:1014:A:H4'	19:QS:14:HIS:CD2	2.51	0.45
1:QA:1298:C:C5	7:QG:114:ARG:HD2	2.51	0.45
1:QA:1338:G:H2'	1:QA:1339:A:C8	2.52	0.45
3:QC:19:GLU:HA	3:QC:54:ARG:HH12	1.82	0.45
4:QD:15:GLU:HG2	4:QD:63:LYS:HG3	1.97	0.45
22:RA:270(E):G:C2	22:RA:270(F):U:C2	3.05	0.45
22:RA:428:A:N7	22:RA:429:A:C5	2.84	0.45
22:RA:482:A:H4'	41:RY:47:LYS:HD2	1.99	0.45
22:RA:759:G:H2'	22:RA:760:G:C8	2.51	0.45
22:RA:1030:G:OP2	33:RQ:128:LYS:HG2	2.17	0.45
22:RA:1079:C:H5'	22:RA:1080:C:OP2	2.16	0.45
22:RA:1130:U:N3	25:RE:147:PRO:HB3	2.31	0.45
22:RA:1416:G:H2'	22:RA:1417:C:C6	2.52	0.45
22:RA:1754:C:H2'	22:RA:1755:A:C8	2.50	0.45
22:RA:2025:C:H2'	22:RA:2026:C:C6	2.52	0.45
22:RA:2679:A:H5'	25:RE:165:VAL:HG21	1.98	0.45
23:RB:83:G:H1	23:RB:93:C:N4	2.03	0.45
24:RD:30:GLU:HG3	24:RD:63:ARG:CZ	2.47	0.45
24:RD:105:ILE:HD12	24:RD:105:ILE:HA	1.63	0.45
24:RD:118:VAL:HG22	24:RD:119:ALA:H	1.82	0.45
24:RD:121:PRO:HB3	24:RD:135:PHE:CE1	2.52	0.45
27:RG:106:LEU:HA	27:RG:110:ALA:HB3	1.98	0.45
32:RP:18:ARG:HD2	32:RP:27:HIS:HD2	1.81	0.45
32:RP:77:ARG:HB2	32:RP:78:PRO:HD2	1.99	0.45
33:RQ:63:LYS:HD2	42:RZ:175:VAL:HG21	1.98	0.45
42:RZ:45:ASP:OD1	42:RZ:49:ARG:NE	2.41	0.45
49:R6:26:ASN:ND2	49:R6:35:GLU:OE2	2.49	0.45
1:XA:479:C:H2'	1:XA:480:U:O4'	2.17	0.45
1:XA:908:A:H2'	1:XA:909:A:C8	2.51	0.45
1:XA:945:G:N2	1:XA:1334:G:O2'	2.48	0.45
1:XA:1447:G:N2	1:XA:1460:A:H1'	2.32	0.45
1:XA:1510:U:H2'	1:XA:1511:G:C8	2.51	0.45
19:XS:63:THR:HG23	19:XS:66:MET:HG2	1.99	0.45
22:YA:184:C:H2'	22:YA:185:U:C6	2.52	0.45
22:YA:1022:G:C6	22:YA:1140:C:C4	3.05	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1125:G:C6	22:YA:1126:A:N6	2.84	0.45
22:YA:2762:G:C6	22:YA:2763:G:C4	3.05	0.45
27:YG:146:TYR:O	27:YG:149:VAL:HG22	2.16	0.45
37:YU:58:ARG:HA	37:YU:61:TRP:CE3	2.52	0.45
38:YV:36:PRO:HA	38:YV:56:SER:OG	2.16	0.45
42:YZ:5:LEU:HD22	42:YZ:47:VAL:HG21	1.97	0.45
45:Y2:4:SER:OG	45:Y2:5:GLU:OE1	2.23	0.45
1:QA:97:U:H2'	1:QA:99:C:C6	2.52	0.45
1:QA:514:C:H2'	1:QA:515:G:H8	1.81	0.45
1:QA:1151:A:H5'	10:QJ:41:PRO:HA	1.99	0.45
1:QA:1358:U:H5''	14:QN:33:VAL:O	2.16	0.45
4:QD:53:ASP:O	4:QD:57:ARG:HD2	2.16	0.45
7:QG:49:ILE:O	7:QG:53:LYS:HB3	2.16	0.45
7:QG:113:GLU:CG	7:QG:119:ARG:HG2	2.47	0.45
12:QL:113:ARG:HH21	12:QL:116:SER:HB2	1.81	0.45
22:RA:270(T):G:C5'	44:R1:97:LEU:HD22	2.47	0.45
22:RA:708:C:N4	22:RA:723:G:H1	2.02	0.45
22:RA:1792:G:H2'	22:RA:1793:C:H6	1.81	0.45
22:RA:2076:U:H5''	22:RA:2077:A:OP1	2.16	0.45
22:RA:2439:A:H3'	22:RA:2439:A:P	2.57	0.45
22:RA:2882:A:OP1	34:RR:96:ARG:NH1	2.35	0.45
25:RE:111:ARG:HA	34:RR:1:MET:SD	2.57	0.45
28:RH:153:LYS:HG3	28:RH:161:GLY:HA2	1.97	0.45
31:RO:22:ILE:HG12	31:RO:41:ALA:HA	1.98	0.45
34:RR:78:LYS:HE2	34:RR:83:ILE:HD11	1.98	0.45
34:RR:103:ARG:NH1	39:RW:40:ASN:OD1	2.50	0.45
42:RZ:10:ARG:NE	42:RZ:37:VAL:O	2.49	0.45
1:XA:489:C:H2'	1:XA:490:G:H8	1.81	0.45
1:XA:522:C:H2'	1:XA:523:A:O4'	2.16	0.45
1:XA:923:A:N6	1:XA:1392:G:O6	2.50	0.45
1:XA:1014:A:H4'	19:XS:14:HIS:CD2	2.51	0.45
1:XA:1316:G:N2	1:XA:1318:A:H3'	2.32	0.45
3:XC:48:TYR:OH	3:XC:122:GLU:OE2	2.22	0.45
13:XM:65:LYS:O	13:XM:70:LEU:HD23	2.17	0.45
15:XO:32:LEU:HD11	15:XO:62:GLN:HG2	1.99	0.45
17:XQ:43:LEU:HD12	17:XQ:68:ARG:HG2	1.97	0.45
22:YA:704:G:H2'	22:YA:726:G:N2	2.31	0.45
22:YA:783:A:C8	22:YA:783:A:C3'	2.99	0.45
22:YA:2078:C:C4	22:YA:2079:U:C4	3.05	0.45
22:YA:2124:G:C6	22:YA:2125:G:C4	3.05	0.45
22:YA:2212:A:N3	22:YA:2215:G:N1	2.64	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:YB:15:A:H1'	23:YB:109:G:N9	2.31	0.45
28:YH:150:ALA:O	28:YH:152:ARG:N	2.49	0.45
36:YT:6:LEU:HA	36:YT:9:LEU:HB2	1.99	0.45
38:YV:19:LYS:HG3	38:YV:95:LEU:HD23	1.98	0.45
41:YY:101:LYS:HG2	41:YY:102:CYS:H	1.81	0.45
42:YZ:26:GLY:HA2	42:YZ:85:HIS:CD2	2.52	0.45
42:YZ:100:VAL:HA	42:YZ:101:PRO:HD3	1.84	0.45
43:Y0:15:ASP:OD1	43:Y0:16:SER:N	2.46	0.45
45:Y2:21:LEU:O	45:Y2:25:VAL:HG23	2.17	0.45
49:Y6:15:GLU:CD	49:Y6:41:PRO:HB3	2.37	0.45
1:QA:129(A):G:H1'	1:QA:189:U:H5''	1.97	0.45
1:QA:134:A:H61	16:QP:25:ARG:NH1	2.15	0.45
1:QA:272:C:H2'	1:QA:273:A:C8	2.52	0.45
1:QA:1199:U:H4'	10:QJ:54:PHE:CE2	2.51	0.45
1:QA:1516:G:H2'	1:QA:1518:A:OP2	2.17	0.45
4:QD:8:VAL:HG13	4:QD:21:LEU:HD12	1.97	0.45
11:QK:91:ARG:NH1	11:QK:110:ASP:OD1	2.48	0.45
12:QL:102:ARG:HE	12:QL:102:ARG:HB3	1.39	0.45
20:QT:26:ASN:HB2	20:QT:71:THR:HG23	1.97	0.45
22:RA:49:A:N7	22:RA:120:U:C5	2.84	0.45
22:RA:404:C:HO2'	22:RA:405:U:P	2.36	0.45
22:RA:728:G:C2	22:RA:730:C:C2	3.04	0.45
22:RA:1485:G:N1	22:RA:1486:A:C5	2.85	0.45
22:RA:2355:C:O2	43:R0:39:ARG:NH2	2.50	0.45
22:RA:2686:G:N2	22:RA:2724:C:H1'	2.31	0.45
22:RA:2852:G:H2'	22:RA:2853:C:C6	2.51	0.45
27:RG:10:LYS:O	27:RG:14:GLU:HB3	2.17	0.45
34:RR:29:LEU:HD12	34:RR:29:LEU:HA	1.74	0.45
49:R6:34:LEU:HD13	49:R6:34:LEU:H	1.81	0.45
1:XA:376:G:H5''	16:XP:5:ARG:HD2	1.99	0.45
1:XA:857:C:H2'	1:XA:858:G:O4'	2.17	0.45
1:XA:1053:G:H5'	1:XA:1054:C:H5'	1.98	0.45
1:XA:1386:G:H2'	1:XA:1387:G:C8	2.52	0.45
7:XG:15:ASP:OD2	7:XG:44:TYR:OH	2.35	0.45
16:XP:17:TYR:CE1	16:XP:41:PRO:HG3	2.52	0.45
22:YA:673:C:OP1	26:YF:54:ARG:NH1	2.46	0.45
22:YA:676:A:H2	22:YA:802:A:H61	1.63	0.45
22:YA:1127:A:N7	22:YA:2488:A:O2'	2.48	0.45
22:YA:1840:G:C6	22:YA:1841:U:C4	3.05	0.45
22:YA:2006:C:O2'	22:YA:2823:A:N3	2.49	0.45
22:YA:2115:G:O6	22:YA:2172:U:H5	2.00	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2447:G:N2	22:YA:2450:A:OP2	2.49	0.45
22:YA:2635:C:H5''	25:YE:78:LEU:HA	1.99	0.45
25:YE:67:PHE:O	25:YE:69:LYS:N	2.49	0.45
29:YI:81:VAL:HG21	29:YI:88:ILE:HD12	1.99	0.45
29:YI:110:ASP:HB2	29:YI:130:TYR:OH	2.16	0.45
1:QA:273:A:H1'	17:QQ:16:GLN:OE1	2.17	0.45
1:QA:607:A:H2'	1:QA:608:A:O4'	2.16	0.45
1:QA:617:G:N2	1:QA:623:C:N3	2.61	0.45
1:QA:1241:G:H2'	1:QA:1242:C:C6	2.52	0.45
1:QA:1347:G:O2'	1:QA:1348:U:OP2	2.34	0.45
2:QB:30:ARG:HH21	2:QB:194:PRO:HG2	1.81	0.45
2:QB:76:GLN:O	2:QB:208:ILE:HG12	2.17	0.45
4:QD:28:SER:HB3	4:QD:29:PRO:CD	2.42	0.45
8:QH:6:ILE:O	8:QH:10:LEU:HG	2.17	0.45
8:QH:104:ARG:O	8:QH:107:LEU:HB2	2.16	0.45
10:QJ:40:LEU:HB2	10:QJ:69:ASN:CB	2.47	0.45
11:QK:41:THR:HG21	11:QK:71:LYS:HB2	1.99	0.45
22:RA:18:C:H2'	22:RA:19:C:C6	2.52	0.45
22:RA:1676:A:H2'	22:RA:1677:A:O4'	2.17	0.45
22:RA:1935:G:H1'	22:RA:1964:G:N2	2.32	0.45
22:RA:1972:A:H2'	22:RA:1973:G:C8	2.51	0.45
23:RB:40:U:H1'	23:RB:45:A:N6	2.31	0.45
25:RE:107:THR:O	25:RE:190:GLY:HA2	2.17	0.45
30:RN:19:GLU:HB2	30:RN:56:ASN:HD22	1.80	0.45
34:RR:33:ARG:HH22	48:R5:55:ARG:HG2	1.81	0.45
35:RS:10:ARG:O	35:RS:14:VAL:HG12	2.17	0.45
41:RY:68:HIS:CE1	41:RY:70:SER:HB3	2.52	0.45
42:RZ:110:GLY:HA2	42:RZ:111:VAL:O	2.17	0.45
1:XA:232:G:H1'	1:XA:262:A:N1	2.31	0.45
1:XA:388:G:O2'	1:XA:389:A:P	2.75	0.45
1:XA:454:C:N4	1:XA:479:C:N3	2.64	0.45
1:XA:1129:C:C4'	1:XA:1130:A:H5'	2.45	0.45
1:XA:1497:G:C2'	1:XA:1498:U:H5'	2.47	0.45
3:XC:153:VAL:HG22	3:XC:198:VAL:HG22	1.98	0.45
4:XD:50:ARG:H	4:XD:50:ARG:HG3	1.63	0.45
8:XH:51:VAL:HG11	8:XH:60:ARG:HG3	1.98	0.45
19:XS:66:MET:HB2	19:XS:74:PHE:CZ	2.52	0.45
22:YA:270(A):A:N6	22:YA:270(Y):G:H1'	2.32	0.45
22:YA:277:C:H3'	22:YA:278:A:C5'	2.46	0.45
22:YA:661:C:H5''	32:YP:15:ARG:NH2	2.31	0.45
22:YA:1689:A:N6	22:YA:1698:A:H2	2.11	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2580:U:H4'	25:YE:130:GLY:CA	2.34	0.45
24:YD:44:ASN:ND2	24:YD:44:ASN:N	2.64	0.45
29:YI:115:ALA:HB3	29:YI:128:LEU:HD12	1.98	0.45
34:YR:24:GLN:HE21	34:YR:44:LEU:HG	1.81	0.45
36:YT:102:ILE:HA	36:YT:105:LEU:CD2	2.47	0.45
39:YW:97:LYS:HE2	39:YW:99:ARG:NH2	2.31	0.45
44:Y1:79:GLY:N	44:Y1:80:LEU:HD23	2.32	0.45
1:QA:24:U:H2'	1:QA:25:C:C6	2.52	0.45
1:QA:132:C:H2'	1:QA:133:U:O4'	2.17	0.45
1:QA:145:G:H2'	1:QA:146:G:O4'	2.17	0.45
1:QA:500:G:H2'	1:QA:501:C:C6	2.51	0.45
1:QA:974:A:OP2	14:QN:41:ARG:NH1	2.50	0.45
1:QA:1375:A:H4'	7:QG:29:LYS:HE3	1.99	0.45
1:QA:1379:G:O6	7:QG:2:ALA:HB3	2.17	0.45
1:QA:1455:G:H2'	1:QA:1459:C:C6	2.52	0.45
3:QC:79:ARG:NE	11:XK:99:GLN:CD	2.70	0.45
4:QD:167:GLY:HA2	24:YD:135:PHE:CE2	2.52	0.45
22:RA:1946:U:H2'	22:RA:1947:C:C6	2.52	0.45
22:RA:2564:A:C2	22:RA:2647:U:H4'	2.52	0.45
22:RA:2705:A:C6	22:RA:2706:G:C4	3.05	0.45
25:RE:46:ALA:HB2	25:RE:82:ARG:HA	1.98	0.45
26:RF:45:ARG:HH11	26:RF:45:ARG:CG	2.29	0.45
26:RF:161:GLU:OE2	26:RF:164:ARG:NH1	2.50	0.45
34:RR:42:LYS:HA	34:RR:45:ARG:HD2	1.98	0.45
42:RZ:181:GLU:HB3	42:RZ:182:LYS:H	1.47	0.45
43:R0:43:THR:HG23	43:R0:43:THR:O	2.17	0.45
44:R1:83:GLU:OE2	44:R1:83:GLU:N	2.49	0.45
45:R2:41:ILE:HD11	45:R2:44:LEU:HB2	1.99	0.45
1:XA:126:G:H4'	1:XA:634:C:O2	2.16	0.45
1:XA:406:G:C5'	4:XD:5:ILE:HD13	2.46	0.45
1:XA:426:G:P	4:XD:36:ARG:HH11	2.40	0.45
1:XA:947:G:N2	1:XA:1235:U:C2	2.84	0.45
2:XB:115:LEU:HD13	2:XB:145:LEU:HB3	1.98	0.45
4:XD:86:LYS:HD2	4:XD:86:LYS:H	1.82	0.45
20:XT:33:ILE:HG23	20:XT:63:ILE:HG12	1.99	0.45
22:YA:414:C:H2'	22:YA:415:A:C8	2.52	0.45
22:YA:636:G:H4'	22:YA:638:G:H4'	1.97	0.45
22:YA:674:G:C1'	26:YF:74:ARG:HD3	2.35	0.45
22:YA:994:C:OP1	37:YU:53:ARG:NH2	2.49	0.45
22:YA:1204:A:O2'	22:YA:1205:U:O5'	2.35	0.45
22:YA:1430:C:H2'	22:YA:1431:U:H6	1.80	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2030:A:H4'	22:YA:2031:A:H8	1.82	0.45
22:YA:2331:G:N2	22:YA:2385:C:C4	2.84	0.45
22:YA:2507:C:H2'	22:YA:2508:G:O4'	2.17	0.45
22:YA:2758:A:C2	22:YA:2759:G:H1'	2.52	0.45
25:YE:167:VAL:HG21	25:YE:187:ALA:CB	2.47	0.45
40:YX:60:ARG:HH22	50:Y7:47:ARG:NH1	2.14	0.45
42:YZ:136:PHE:C	42:YZ:137:ILE:HG12	2.38	0.45
43:Y0:43:THR:O	43:Y0:43:THR:HG23	2.17	0.45
45:Y2:24:LEU:HA	45:Y2:24:LEU:HD23	1.67	0.45
47:Y4:16:CYS:HB3	47:Y4:33:VAL:HB	1.98	0.45
53:XV:4:G:O2'	53:XV:5:G:P	2.75	0.45
1:QA:280:C:C2	17:QQ:38:ARG:HG3	2.52	0.45
1:QA:836:G:C6	1:QA:851:G:C6	3.05	0.45
1:QA:980:C:H5'	1:QA:981:U:OP2	2.17	0.45
1:QA:1012:U:H2'	1:QA:1013:G:C8	2.52	0.45
1:QA:1475:G:H2'	1:QA:1476:G:H8	1.82	0.45
2:QB:51:LEU:HD22	2:QB:55:PHE:HE2	1.82	0.45
2:QB:163:PHE:HA	2:QB:185:ILE:HG13	1.99	0.45
22:RA:67:U:H2'	22:RA:68:G:C8	2.52	0.45
22:RA:99:U:H4'	22:RA:101:G:O5'	2.16	0.45
22:RA:270(E):G:N2	22:RA:270(F):U:C2	2.86	0.45
22:RA:765:G:H2'	22:RA:766:C:C6	2.52	0.45
22:RA:888:C:C3'	22:RA:889:C:H4'	2.48	0.45
22:RA:971:C:H2'	22:RA:972:G:O4'	2.17	0.45
22:RA:1183:G:O3'	46:R3:29:ARG:NH1	2.50	0.45
22:RA:1314:C:H42	22:RA:1338:G:H1	1.65	0.45
22:RA:1651:G:N2	22:RA:2007:C:C2	2.85	0.45
22:RA:1788:C:H2'	22:RA:1789:A:O4'	2.17	0.45
22:RA:2262:U:H2'	22:RA:2263:C:C6	2.52	0.45
22:RA:2383:G:OP2	51:R8:37:SER:HB2	2.17	0.45
22:RA:2575:C:H2'	22:RA:2578:G:O6	2.17	0.45
27:RG:102:PHE:O	27:RG:106:LEU:N	2.50	0.45
32:RP:64:LYS:HB2	51:R8:25:MET:HG3	1.98	0.45
33:RQ:111:GLU:C	33:RQ:113:GLN:H	2.19	0.45
1:XA:35:G:C2	1:XA:550:G:C2	3.05	0.45
1:XA:241:C:C2	1:XA:286:G:C2	3.05	0.45
1:XA:407:G:H1'	4:XD:119:GLN:HE22	1.81	0.45
1:XA:652:U:H1'	1:XA:653:A:C2	2.52	0.45
1:XA:664:G:N2	1:XA:741:G:H1	2.15	0.45
8:XH:75:ARG:HA	8:XH:76:PRO:HD2	1.71	0.45
9:XI:111:ARG:HH22	10:XJ:62:HIS:CE1	2.35	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:XJ:16:LEU:HD11	10:XJ:70:ARG:HB2	1.99	0.45
13:XM:62:ASN:OD1	47:Y4:49:PHE:CD2	2.63	0.45
19:XS:24:ALA:O	19:XS:25:LYS:HB3	2.16	0.45
22:YA:372:G:O2'	22:YA:373:U:O5'	2.34	0.45
22:YA:493:G:H4'	39:YW:8:ARG:HB2	1.99	0.45
22:YA:648:G:H4'	22:YA:2351:G:H5''	1.98	0.45
22:YA:1003:G:N2	22:YA:1153:C:C2	2.85	0.45
22:YA:1101:U:H2'	22:YA:1102:C:C6	2.51	0.45
22:YA:1151:G:C2	22:YA:1152:C:C2	3.05	0.45
22:YA:1344:G:H4'	22:YA:1384:A:C5	2.52	0.45
22:YA:1412:A:H2'	22:YA:1413:G:C8	2.52	0.45
22:YA:1579:A:H2'	22:YA:1580:A:C8	2.52	0.45
22:YA:1751:C:H2'	22:YA:1752:C:H6	1.81	0.45
22:YA:2213:U:H1'	44:Y1:52:ARG:CZ	2.47	0.45
22:YA:2352:A:C4	22:YA:2366:A:C2	3.05	0.45
22:YA:2356:C:H2'	22:YA:2357:U:O4'	2.16	0.45
22:YA:2545:G:H2'	22:YA:2546:U:O4'	2.17	0.45
22:YA:2853:C:H2'	22:YA:2854:G:C8	2.51	0.45
24:YD:39:LYS:HB2	24:YD:62:TYR:HB2	1.98	0.45
28:YH:3:ARG:HA	28:YH:3:ARG:NE	2.32	0.45
28:YH:52:VAL:HG21	28:YH:68:THR:HG22	1.99	0.45
32:YP:126:VAL:HG12	32:YP:147:LEU:HD22	1.99	0.45
47:Y4:22:ILE:HG22	47:Y4:23:GLU:H	1.82	0.45
53:QV:25:C:H2'	53:QV:26:G:O4'	2.17	0.45
1:QA:29:G:O2'	1:QA:295:C:H4'	2.17	0.44
1:QA:376:G:H5''	16:QP:5:ARG:HD2	1.99	0.44
1:QA:437:U:C5	1:QA:438:G:C5	3.05	0.44
1:QA:457:C:H42	1:QA:475:G:H1	1.65	0.44
1:QA:1376:U:P	7:QG:94:ARG:HH12	2.40	0.44
1:QA:1494:G:N7	57:QA:1601:PAR:N32	2.65	0.44
8:QH:6:ILE:HB	8:QH:85:ARG:HH11	1.82	0.44
9:QI:126:SER:O	9:QI:128:ARG:N	2.45	0.44
13:QM:92:HIS:CD2	13:QM:110:ARG:HH21	2.35	0.44
19:QS:10:PHE:HB2	19:QS:39:THR:H	1.82	0.44
19:QS:66:MET:HB2	19:QS:74:PHE:CZ	2.51	0.44
22:RA:201:C:H4'	22:RA:386:G:C2	2.53	0.44
22:RA:286:C:H2'	22:RA:287:C:H6	1.80	0.44
22:RA:413:C:H2'	22:RA:414:C:C6	2.53	0.44
22:RA:1174:A:N3	22:RA:1178:C:N4	2.53	0.44
22:RA:1428:C:O2'	22:RA:1569:A:OP2	2.25	0.44
22:RA:2015:A:C8	22:RA:2016:U:C6	3.05	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:RB:13:A:C6	23:RB:70:C:H5'	2.52	0.44
28:RH:52:VAL:HG21	28:RH:69:ARG:HA	1.98	0.44
30:RN:116:LEU:HD23	30:RN:116:LEU:HA	1.78	0.44
31:RO:111:PHE:HB3	31:RO:114:ILE:HG13	1.98	0.44
1:XA:99:C:H2'	1:XA:101:A:C8	2.52	0.44
1:XA:164:U:H2'	1:XA:165:C:C6	2.52	0.44
1:XA:807:A:H2'	1:XA:808:C:H6	1.81	0.44
1:XA:892:A:O2'	1:XA:1415:G:H4'	2.17	0.44
1:XA:1106:G:H5''	3:XC:172:ARG:HG2	1.99	0.44
1:XA:1342:C:H4'	9:XI:125:TYR:CB	2.39	0.44
1:XA:1442:G:C5	1:XA:1446:A:C6	3.05	0.44
2:XB:12:GLU:C	2:XB:14:GLY:H	2.21	0.44
2:XB:33:TYR:HB2	2:XB:43:ASP:HB2	1.98	0.44
4:XD:25:ARG:NH1	4:XD:30:LYS:HG3	2.32	0.44
12:XL:45:PRO:HG3	12:XL:53:ARG:HD3	1.98	0.44
13:XM:68:GLY:CA	27:YG:116:ASP:OD2	2.63	0.44
22:YA:904:C:O2'	42:YZ:169:GLU:HG3	2.17	0.44
22:YA:1209:G:H21	22:YA:1210:A:N6	2.09	0.44
22:YA:1622:G:H2'	22:YA:1623:G:H8	1.82	0.44
22:YA:2461:C:H2'	22:YA:2462:U:H6	1.78	0.44
22:YA:2790:A:H2'	22:YA:2791:C:H5''	1.99	0.44
28:YH:12:PRO:O	28:YH:13:LYS:HB2	2.17	0.44
1:QA:412:A:H1'	1:QA:413:G:OP2	2.17	0.44
1:QA:1466:C:C5	1:QA:1467:G:C5	3.05	0.44
4:QD:158:ILE:HD13	4:QD:158:ILE:HA	1.82	0.44
10:QJ:33:GLN:O	10:QJ:75:ILE:HG12	2.17	0.44
22:RA:397:G:H1'	22:RA:2231:C:O2'	2.17	0.44
22:RA:742:G:H2'	22:RA:743:G:C8	2.53	0.44
22:RA:994:C:O2	38:RV:10:LYS:HE2	2.17	0.44
22:RA:1027:A:N6	22:RA:1126:A:C4	2.85	0.44
22:RA:1658:C:OP1	25:RE:135:HIS:NE2	2.50	0.44
22:RA:1753:G:N1	22:RA:1756:G:C2	2.85	0.44
22:RA:2066:C:C2'	22:RA:2067:G:H5'	2.47	0.44
31:RO:87:ILE:HD12	31:RO:91:LEU:HD12	1.99	0.44
34:RR:28:LEU:HD12	34:RR:48:VAL:HG11	1.99	0.44
1:XA:667:G:H4'	15:XO:51:HIS:CE1	2.53	0.44
1:XA:956:U:H2'	1:XA:957:U:O4'	2.18	0.44
1:XA:1320:C:H5'	19:XS:70:LYS:CG	2.46	0.44
7:XG:138:LYS:HE2	7:XG:142:GLU:OE2	2.17	0.44
11:XK:28:THR:OG1	11:XK:90:GLY:HA3	2.17	0.44
22:YA:413:C:H2'	22:YA:414:C:C6	2.49	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:467:G:H8	22:YA:467:G:O5'	1.99	0.44
22:YA:479:A:HO2'	22:YA:481:G:H8	1.63	0.44
22:YA:950:G:H2'	22:YA:951:C:C6	2.53	0.44
22:YA:1202:C:N4	22:YA:1203:G:C6	2.85	0.44
22:YA:1288:U:C2	22:YA:1327:C:O2	2.70	0.44
22:YA:1405:U:H2'	22:YA:1406:U:C6	2.52	0.44
22:YA:1601:G:C5	22:YA:1602:U:C4	3.04	0.44
22:YA:2328:A:H2'	22:YA:2329:G:C8	2.52	0.44
23:YB:22:U:H2'	23:YB:23:G:C8	2.51	0.44
29:YI:95:LYS:O	29:YI:99:GLU:HB2	2.17	0.44
30:YN:62:VAL:HG12	30:YN:66:LYS:HD2	1.98	0.44
31:YO:86:ILE:HG22	31:YO:94:ARG:HD3	2.00	0.44
39:YW:33:ARG:NH2	39:YW:52:GLU:OE1	2.50	0.44
40:YX:35:THR:O	40:YX:39:ILE:HG13	2.16	0.44
42:YZ:109:ALA:HB3	42:YZ:143:GLY:HA2	1.98	0.44
45:Y2:41:ILE:HD11	45:Y2:44:LEU:CG	2.47	0.44
53:XV:66:C:H2'	53:XV:67:C:H6	1.82	0.44
1:QA:412:A:H4'	1:QA:413:G:O5'	2.17	0.44
6:QF:23:LYS:O	6:QF:27:GLN:HG2	2.17	0.44
6:QF:41:GLU:HB3	6:QF:62:TRP:HB3	2.00	0.44
15:QO:39:LEU:HA	15:QO:39:LEU:HD23	1.68	0.44
22:RA:311:A:C6	22:RA:328:U:C4	3.05	0.44
22:RA:630:G:P	51:R8:46:ARG:HH12	2.40	0.44
22:RA:846:C:O2'	22:RA:847:U:OP2	2.28	0.44
22:RA:953:A:C2	22:RA:954:G:C8	3.05	0.44
22:RA:1227:A:H5''	22:RA:1228:G:OP2	2.16	0.44
22:RA:1408:C:H2'	22:RA:1409:C:C6	2.52	0.44
22:RA:1641:A:H2'	22:RA:1642:G:O4'	2.17	0.44
22:RA:1773:A:H2'	22:RA:1774:C:O4'	2.17	0.44
22:RA:2259:G:C2	22:RA:2282:G:N1	2.86	0.44
22:RA:2261:C:C5	43:R0:16:SER:HB3	2.52	0.44
22:RA:2391:G:N2	22:RA:2425:A:OP1	2.43	0.44
22:RA:2397:G:N2	22:RA:2420:C:H1'	2.32	0.44
22:RA:2889:C:H3'	22:RA:2891:G:C8	2.46	0.44
25:RE:23:VAL:HG12	25:RE:184:VAL:O	2.17	0.44
28:RH:109:PHE:CZ	28:RH:152:ARG:HG2	2.53	0.44
33:RQ:12:GLN:HE21	33:RQ:72:LYS:HD3	1.82	0.44
37:RU:65:ILE:HG12	37:RU:96:ALA:CB	2.47	0.44
41:RY:42:VAL:HG12	41:RY:65:ALA:HB3	1.99	0.44
49:R6:32:ASN:N	49:R6:32:ASN:OD1	2.49	0.44
1:XA:157:G:H1	1:XA:164:U:H3	1.64	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:451:A:H61	1:XA:481:G:H5'	1.82	0.44
1:XA:530:G:O6	54:XX:6:G:H1'	2.17	0.44
1:XA:564:C:C4	1:XA:565:U:C4	3.04	0.44
1:XA:693:G:H2'	1:XA:694:A:C8	2.52	0.44
9:XI:25:LYS:HE3	9:XI:25:LYS:HB2	1.72	0.44
10:XJ:61:GLU:OE1	14:XN:58:LYS:HE2	2.17	0.44
13:XM:115:LYS:HE3	13:XM:115:LYS:HB2	1.75	0.44
22:YA:265:A:O2'	22:YA:266:G:H4'	2.16	0.44
22:YA:517:C:OP1	48:Y5:16:ARG:NH2	2.50	0.44
22:YA:980:A:C4	22:YA:1136:G:O4'	2.70	0.44
22:YA:1309:G:H4'	50:Y7:7:PRO:HB2	1.99	0.44
22:YA:1382:G:H2'	22:YA:1383:C:C6	2.48	0.44
22:YA:1404:C:H2'	22:YA:1405:U:H5'	1.99	0.44
22:YA:1923:U:H2'	22:YA:1924:C:H6	1.83	0.44
22:YA:2305:A:H5''	27:YG:134:GLY:HA3	2.00	0.44
22:YA:2574:G:H2'	22:YA:2575:C:H6	1.82	0.44
22:YA:2881:C:H2'	22:YA:2882:A:H8	1.83	0.44
27:YG:114:ILE:HB	27:YG:117:PHE:HB2	1.99	0.44
29:YI:23:PRO:HA	29:YI:26:ALA:HB3	1.99	0.44
29:YI:86:THR:HA	29:YI:123:LEU:HB2	1.99	0.44
31:YO:17:ARG:NH2	31:YO:47:ILE:HD13	2.33	0.44
32:YP:64:LYS:CB	51:Y8:25:MET:HG3	2.48	0.44
1:QA:108:G:H5''	1:QA:109:A:C5'	2.43	0.44
1:QA:254:G:OP1	17:QQ:67:LYS:O	2.35	0.44
1:QA:401:C:H2'	1:QA:402:G:C8	2.52	0.44
1:QA:487:A:H2'	1:QA:488:C:O4'	2.18	0.44
1:QA:530:G:O2'	1:QA:531:U:P	2.75	0.44
1:QA:583:A:H2'	1:QA:584:G:O4'	2.17	0.44
1:QA:853:G:H2'	1:QA:854:G:C8	2.49	0.44
1:QA:881:G:H2'	1:QA:882:C:O4'	2.17	0.44
1:QA:922:G:H4'	5:QE:20:GLN:HA	1.99	0.44
1:QA:1141:C:H2'	1:QA:1142:G:C8	2.48	0.44
1:QA:1364:U:O2'	1:QA:1365:G:H5'	2.17	0.44
3:QC:70:VAL:HG21	3:QC:76:VAL:HG11	2.00	0.44
7:QG:153:HIS:HE1	11:QK:57:THR:HG23	1.82	0.44
12:QL:11:VAL:HG13	17:QQ:29:HIS:CD2	2.52	0.44
22:RA:120:U:C5	22:RA:149:A:N6	2.85	0.44
22:RA:302:C:H2'	22:RA:303:U:C6	2.52	0.44
22:RA:511:U:O4	22:RA:512:G:C6	2.71	0.44
22:RA:921:G:H4'	22:RA:2269:A:C5	2.52	0.44
22:RA:1161:C:H2'	22:RA:1162:G:H8	1.81	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:1735:C:H2'	22:RA:1741:C:C6	2.52	0.44
22:RA:1803:A:N6	22:RA:1814:G:O2'	2.45	0.44
22:RA:1930:G:HO2'	22:RA:1931:U:P	2.40	0.44
22:RA:2106:G:H2'	22:RA:2107:C:O4'	2.18	0.44
22:RA:2133:G:H1'	22:RA:2158:A:H61	1.81	0.44
22:RA:2494:G:H2'	22:RA:2495:G:H8	1.83	0.44
22:RA:2527:C:H5''	52:R9:30:PRO:HB2	1.99	0.44
23:RB:77:U:C5	23:RB:98:G:N2	2.85	0.44
24:RD:49:ILE:CD1	24:RD:52:ARG:HA	2.47	0.44
24:RD:70:TRP:HZ3	24:RD:146:GLU:OE2	2.01	0.44
27:RG:57:ALA:HB1	27:RG:68:PRO:HG2	1.98	0.44
28:RH:4:ILE:O	28:RH:6:ARG:N	2.51	0.44
30:RN:114:ARG:O	30:RN:115:ARG:HB3	2.17	0.44
33:RQ:134:ARG:CZ	42:RZ:122:ARG:HD2	2.48	0.44
35:RS:11:LYS:HG3	35:RS:91:PRO:HD3	1.98	0.44
42:RZ:111:VAL:HG22	42:RZ:112:ARG:N	2.33	0.44
1:XA:647:C:H2'	1:XA:648:A:O4'	2.17	0.44
1:XA:1032(A):G:H2'	1:XA:1032(B):G:C8	2.52	0.44
1:XA:1226:C:O2'	13:XM:103:THR:O	2.23	0.44
1:XA:1299:A:H2'	1:XA:1301:U:C1'	2.34	0.44
3:XC:82:GLU:O	3:XC:86:VAL:HG13	2.17	0.44
8:XH:65:TYR:HA	8:XH:79:VAL:HG23	1.98	0.44
8:XH:83:ILE:HB	8:XH:137:VAL:HG13	1.99	0.44
13:XM:65:LYS:HB3	47:Y4:50:VAL:HG21	1.99	0.44
18:XR:52:PRO:HB2	18:XR:54:ARG:HG2	2.00	0.44
19:XS:5:LEU:CG	47:Y4:66:SER:HB2	2.47	0.44
20:XT:87:LYS:O	20:XT:91:LEU:HG	2.18	0.44
21:XU:5:ASP:HB3	21:XU:8:THR:OG1	2.17	0.44
22:YA:469:G:O6	50:Y7:37:LYS:NZ	2.31	0.44
22:YA:530:G:H5''	22:YA:531:C:OP1	2.17	0.44
22:YA:942:G:O2'	22:YA:1189:A:H2'	2.17	0.44
22:YA:1087:G:C5	22:YA:1089:G:H1'	2.52	0.44
22:YA:1142(A):A:H4'	30:YN:25:ARG:HH22	1.81	0.44
22:YA:2885:C:N3	22:YA:2886:G:H1'	2.32	0.44
29:YI:94:ALA:HB1	29:YI:111:PRO:HB2	1.98	0.44
36:YT:61:PHE:CE2	36:YT:76:PHE:HB2	2.53	0.44
37:YU:66:ASN:HB2	37:YU:76:TYR:HB2	1.99	0.44
37:YU:104:GLN:OE1	37:YU:105:VAL:HG23	2.17	0.44
43:Y0:12:ASN:HB2	43:Y0:13:GLY:H	1.46	0.44
44:Y1:53:VAL:HB	44:Y1:58:ILE:HD13	1.98	0.44
53:QV:19:G:N2	53:QV:56:C:N3	2.66	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:XV:14:A:H2'	53:XV:14:A:N3	2.33	0.44
1:QA:44:G:C6	1:QA:45:U:C2	3.06	0.44
1:QA:752:G:HO2'	1:QA:753:A:P	2.40	0.44
1:QA:1022:G:H2'	1:QA:1023:G:C8	2.52	0.44
1:QA:1080:A:C5'	5:QE:16:THR:HG21	2.47	0.44
1:QA:1127:G:H22	1:QA:1145:C:C1'	2.24	0.44
1:QA:1219:U:P	14:QN:19:ARG:HH22	2.38	0.44
1:QA:1255:G:C6	1:QA:1279:A:C8	3.06	0.44
1:QA:1271:G:H5'	1:QA:1314:C:H5'	1.98	0.44
1:QA:1335:C:P	1:QA:1337:G:H21	2.40	0.44
1:QA:1350:A:H2'	1:QA:1351:U:O4'	2.17	0.44
2:QB:228:GLY:O	2:QB:230:VAL:N	2.50	0.44
4:QD:150:GLU:OE1	4:QD:150:GLU:N	2.51	0.44
11:QK:92:GLU:HB3	11:QK:96:ARG:NH1	2.33	0.44
12:QL:70:ILE:HD13	12:QL:77:LEU:HD12	1.99	0.44
12:QL:109:GLY:HA3	12:QL:121:GLY:O	2.17	0.44
22:RA:564:C:H2'	22:RA:565:C:O4'	2.17	0.44
22:RA:778:G:C6	22:RA:779:U:C4	3.06	0.44
22:RA:918:A:C5	22:RA:919:G:H1'	2.52	0.44
22:RA:1815:A:C6	22:RA:1817:G:C6	3.05	0.44
22:RA:1816:G:C8	24:RD:62:TYR:CZ	3.05	0.44
22:RA:1856:G:N2	22:RA:1886:C:N3	2.53	0.44
22:RA:2032:G:N1	22:RA:2572:A:C8	2.86	0.44
22:RA:2191:G:C6	22:RA:2192:G:C8	3.05	0.44
22:RA:2232:U:OP2	44:R1:40:ARG:NH1	2.43	0.44
22:RA:2489:G:C6	22:RA:2490:G:N7	2.86	0.44
22:RA:2593:U:O4	22:RA:2594:C:N4	2.50	0.44
22:RA:2821:A:O5'	22:RA:2821:A:H8	2.00	0.44
27:RG:37:VAL:O	27:RG:94:LEU:HG	2.17	0.44
31:RO:106:LEU:HA	31:RO:106:LEU:HD23	1.81	0.44
38:RV:35:LEU:CD2	38:RV:57:VAL:HG22	2.47	0.44
42:RZ:103:ARG:HD3	42:RZ:136:PHE:CD1	2.52	0.44
42:RZ:104:PHE:HB3	42:RZ:141:VAL:HG11	2.00	0.44
45:R2:49:LYS:O	45:R2:53:LEU:HB2	2.18	0.44
48:R5:46:CYS:HA	48:R5:47:PRO:HD2	1.63	0.44
1:XA:302:G:C6	1:XA:303:A:C5	3.06	0.44
1:XA:491:G:H2'	1:XA:492:G:O4'	2.18	0.44
1:XA:775:G:O2'	1:XA:776:G:H5'	2.17	0.44
1:XA:868:C:H2'	1:XA:869:G:O4'	2.18	0.44
1:XA:949:A:N7	13:XM:106:ASN:ND2	2.66	0.44
1:XA:1158:C:H4'	2:XB:133:LYS:HZ3	1.82	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1213:A:N7	1:XA:1215:G:C5	2.86	0.44
5:XE:110:LEU:HD13	5:XE:118:ILE:HD13	1.98	0.44
7:XG:87:VAL:HG11	7:XG:155:ARG:HA	1.99	0.44
15:XO:32:LEU:O	15:XO:36:ILE:HG13	2.18	0.44
15:XO:82:ILE:O	15:XO:86:GLY:N	2.51	0.44
19:XS:81:ARG:HE	19:XS:81:ARG:HB2	1.36	0.44
22:YA:270:A:H1'	22:YA:370:G:C2	2.52	0.44
22:YA:270(K):C:O2	22:YA:270(N):G:N2	2.39	0.44
22:YA:686:G:N2	22:YA:788:A:H61	2.16	0.44
22:YA:1071:G:O5'	22:YA:1071:G:H8	2.00	0.44
22:YA:1339:G:C2	22:YA:1340:U:C5	3.06	0.44
22:YA:1753:G:H5''	22:YA:1753:G:H8	1.83	0.44
22:YA:2774:C:H2'	22:YA:2775:A:O4'	2.17	0.44
23:YB:11:C:O5'	23:YB:12:C:H5	2.00	0.44
23:YB:66:A:H61	23:YB:107:U:H2'	1.82	0.44
26:YF:184:TYR:CE2	26:YF:188:ARG:HD2	2.52	0.44
28:YH:124:GLU:HB3	28:YH:132:ARG:HG3	1.99	0.44
30:YN:134:ARG:O	30:YN:136:GLU:N	2.50	0.44
36:YT:42:ILE:HG21	36:YT:84:GLN:NE2	2.32	0.44
38:YV:15:GLU:HG3	38:YV:16:PRO:HD2	1.99	0.44
38:YV:99:ILE:HD13	38:YV:99:ILE:H	1.82	0.44
42:YZ:6:LYS:HB2	42:YZ:6:LYS:HE3	1.61	0.44
42:YZ:92:SER:OG	42:YZ:93:ASP:N	2.49	0.44
42:YZ:182:LYS:HG3	42:YZ:183:LEU:CD2	2.48	0.44
43:Y0:53:MET:HA	43:Y0:58:THR:O	2.17	0.44
45:Y2:17:SER:CB	45:Y2:67:LYS:HE3	2.47	0.44
53:QV:61:C:H2'	53:QV:62:C:H6	1.83	0.44
53:XV:16:C:O2'	53:XV:61:C:OP1	2.34	0.44
1:QA:977:A:H1'	1:QA:981:U:H3	1.81	0.44
2:QB:71:VAL:HA	2:QB:93:VAL:HB	2.00	0.44
4:QD:166:LYS:HG3	4:QD:178:VAL:HG11	1.99	0.44
15:QO:50:HIS:O	15:QO:53:HIS:HB3	2.17	0.44
22:RA:590:A:H2'	22:RA:591:C:C6	2.52	0.44
22:RA:856:C:H1'	43:R0:27:GLU:HB3	1.99	0.44
22:RA:1045:A:O4'	22:RA:1111:A:N6	2.51	0.44
22:RA:1191:G:OP1	32:RP:32:THR:HB	2.17	0.44
22:RA:1425:G:H2'	22:RA:1426:G:C8	2.53	0.44
22:RA:1668:A:H4'	22:RA:1669:A:O5'	2.17	0.44
22:RA:2111:C:H5	22:RA:2147:G:H22	1.65	0.44
22:RA:2495:G:H5''	33:RQ:81:VAL:HG13	1.98	0.44
22:RA:2634:G:C6	22:RA:2635:C:C4	3.05	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:2662:A:C5	22:RA:2663:G:H1'	2.53	0.44
22:RA:2679:A:H4'	25:RE:165:VAL:HG11	1.99	0.44
24:RD:65:ILE:HD13	24:RD:65:ILE:H	1.82	0.44
27:RG:51:ARG:O	27:RG:53:LEU:N	2.48	0.44
27:RG:171:ALA:O	27:RG:175:LEU:HG	2.18	0.44
28:RH:28:GLY:HA3	28:RH:79:VAL:HB	2.00	0.44
42:RZ:8:TYR:HB2	42:RZ:38:TYR:CE2	2.52	0.44
42:RZ:54:HIS:CD2	42:RZ:101:PRO:HG3	2.52	0.44
42:RZ:82:ARG:HA	42:RZ:83:PRO:HD3	1.89	0.44
44:R1:49:VAL:HG11	44:R1:70:VAL:HG11	1.98	0.44
1:XA:160:A:H2'	1:XA:161:A:O4'	2.17	0.44
1:XA:271:C:H2'	1:XA:272:C:C6	2.52	0.44
1:XA:329:A:C2	1:XA:332:G:C4	3.05	0.44
1:XA:1095:U:P	1:XA:1108:G:H1	2.41	0.44
1:XA:1124:G:C8	1:XA:1145:C:C5	3.05	0.44
1:XA:1280:A:HO2'	1:XA:1281:U:P	2.35	0.44
1:XA:1364:U:C6	21:XU:14:TRP:HH2	2.35	0.44
9:XI:95:LYS:HZ3	9:XI:96:LEU:HD13	1.83	0.44
12:XL:42:THR:HA	12:XL:53:ARG:O	2.18	0.44
15:XO:39:LEU:HD13	15:XO:56:LEU:HB2	2.00	0.44
22:YA:480:A:H1'	41:YY:44:ILE:HG12	1.98	0.44
22:YA:482:A:H4'	41:YY:47:LYS:HD2	2.00	0.44
22:YA:1026:U:H1'	22:YA:1027:A:O5'	2.18	0.44
22:YA:1045:A:N3	22:YA:1047:G:N2	2.66	0.44
22:YA:1077:A:H3'	22:YA:1078:U:C5'	2.47	0.44
22:YA:2041:U:H2'	22:YA:2042:A:H8	1.83	0.44
22:YA:2209:C:O2	22:YA:2216:G:C2	2.70	0.44
22:YA:2216:G:H2'	22:YA:2217:G:H8	1.82	0.44
22:YA:2592:G:C6	22:YA:2593:U:C2	3.06	0.44
26:YF:63:LYS:HE3	26:YF:65:TRP:O	2.18	0.44
35:YS:43:GLU:HG3	43:Y0:49:LYS:NZ	2.32	0.44
35:YS:88:ASP:HB3	35:YS:89:ARG:H	1.47	0.44
36:YT:48:ILE:HD12	36:YT:48:ILE:H	1.83	0.44
41:YY:51:VAL:O	41:YY:56:PRO:HA	2.18	0.44
47:Y4:48:ARG:CZ	47:Y4:51:ASP:HA	2.47	0.44
49:Y6:7:ILE:HD12	49:Y6:7:ILE:HA	1.85	0.44
49:Y6:34:LEU:HD13	49:Y6:34:LEU:H	1.83	0.44
1:QA:35:G:C6	1:QA:36:C:N4	2.86	0.44
1:QA:1061:G:OP1	10:QJ:59:SER:OG	2.34	0.44
1:QA:1237:C:H5''	1:QA:1238:A:O4'	2.18	0.44
1:QA:1442:G:C5	1:QA:1446:A:C6	3.05	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:QE:100:VAL:HG22	5:QE:118:ILE:HG22	1.99	0.44
10:QJ:47:PHE:HE1	10:QJ:63:PHE:HB2	1.83	0.44
12:QL:71:PRO:HG3	12:QL:99:HIS:HD2	1.82	0.44
16:QP:23:ASP:O	16:QP:26:ARG:HB2	2.17	0.44
22:RA:467:G:OP1	50:R7:33:ARG:NH1	2.51	0.44
22:RA:1153:C:H2'	22:RA:1154:G:O4'	2.17	0.44
22:RA:1535:U:C2	22:RA:1536:A:N7	2.86	0.44
22:RA:1593:G:C2	22:RA:1594:G:C5	3.06	0.44
22:RA:1593:G:H2'	22:RA:1594:G:C8	2.53	0.44
22:RA:1777:U:O2'	22:RA:1778:U:H5'	2.18	0.44
22:RA:1803:A:H4'	24:RD:259:THR:CG2	2.47	0.44
22:RA:2816:C:H2'	22:RA:2817:G:C8	2.52	0.44
23:RB:15:A:H1'	23:RB:109:G:C4	2.53	0.44
24:RD:34:VAL:HG22	24:RD:35:LYS:HG3	2.00	0.44
26:RF:9:ILE:HA	26:RF:10:PRO:HD3	1.89	0.44
26:RF:117:ARG:HH12	32:RP:1:MET:N	2.16	0.44
27:RG:95:ARG:O	27:RG:99:MET:HG2	2.18	0.44
29:RI:69:LYS:HG2	29:RI:70:GLU:N	2.33	0.44
29:RI:130:TYR:C	29:RI:131:LYS:HD2	2.38	0.44
34:RR:54:LEU:HD23	34:RR:66:VAL:HG23	1.98	0.44
36:RT:107:ASP:O	36:RT:111:ARG:NH1	2.51	0.44
38:RV:16:PRO:HB3	38:RV:97:LYS:O	2.17	0.44
38:RV:49:THR:HB	38:RV:50:PRO:HD2	1.99	0.44
40:RX:57:LEU:HD11	40:RX:78:LYS:HD2	1.99	0.44
42:RZ:181:GLU:HB3	42:RZ:182:LYS:HD3	2.00	0.44
49:R6:40:CYS:HA	49:R6:41:PRO:HD2	1.85	0.44
49:R6:41:PRO:HD2	49:R6:46:HIS:H	1.83	0.44
1:XA:57:G:N2	1:XA:355:C:O2	2.51	0.44
1:XA:724:G:C2	1:XA:725:G:C8	3.05	0.44
1:XA:870:U:H5''	1:XA:871:U:OP1	2.17	0.44
1:XA:958:A:N6	1:XA:959:A:N1	2.66	0.44
1:XA:1095:U:H2'	1:XA:1096:C:C6	2.52	0.44
1:XA:1308:U:H5''	13:XM:98:VAL:HG23	1.99	0.44
1:XA:1316:G:O2'	1:XA:1318:A:N7	2.37	0.44
12:XL:39:VAL:HG12	12:XL:41:ARG:HG3	2.00	0.44
13:XM:23:TYR:HE1	13:XM:70:LEU:HD12	1.83	0.44
15:XO:26:GLU:H	15:XO:26:GLU:HG2	1.54	0.44
16:XP:18:ARG:NH1	16:XP:32:TYR:OH	2.50	0.44
22:YA:483:A:O2'	41:YY:48:ALA:O	2.36	0.44
22:YA:692:C:HO2'	22:YA:1354:A:HO2'	1.64	0.44
22:YA:987:G:C6	22:YA:988:A:C4	3.06	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1042:G:C6	22:YA:1043:C:C4	3.06	0.44
22:YA:1337:G:C4	22:YA:1338:G:C8	3.06	0.44
22:YA:1382:G:C4	22:YA:1383:C:H5	2.34	0.44
22:YA:1980:G:O2'	22:YA:1982:C:OP2	2.35	0.44
22:YA:2169:A:C6	22:YA:2170:A:C6	3.06	0.44
23:YB:114:G:H2'	23:YB:115:G:O4'	2.18	0.44
24:YD:61:LEU:HD13	24:YD:61:LEU:HA	1.91	0.44
24:YD:85:ASP:HB2	24:YD:92:ILE:HD13	1.99	0.44
27:YG:98:ARG:O	27:YG:101:ILE:HG13	2.17	0.44
32:YP:62:LEU:HB2	51:Y8:30:ARG:HH11	1.83	0.44
42:YZ:5:LEU:HB3	42:YZ:6:LYS:H	1.52	0.44
47:Y4:35:VAL:C	47:Y4:37:SER:H	2.20	0.44
51:Y8:49:VAL:HG23	51:Y8:53:PRO:HB3	2.00	0.44
1:QA:44:G:OP2	16:QP:12:LYS:HE2	2.18	0.44
1:QA:179:A:H2'	1:QA:180:U:H6	1.83	0.44
1:QA:560:U:H4'	1:QA:561:U:O5'	2.17	0.44
1:QA:687:A:H4'	1:QA:688:G:O5'	2.17	0.44
1:QA:991:U:O2	1:QA:993:G:H8	2.01	0.44
1:QA:1264:C:O2	1:QA:1272:G:N2	2.51	0.44
9:QI:16:ARG:O	9:QI:63:ILE:HA	2.17	0.44
22:RA:30:G:O2'	22:RA:1214:A:N3	2.43	0.44
22:RA:601:C:O2	22:RA:605:C:H4'	2.18	0.44
22:RA:952:G:C6	22:RA:966:G:C6	3.06	0.44
22:RA:1582:C:N4	22:RA:1583:A:N7	2.66	0.44
22:RA:2111:C:N3	22:RA:2118:U:O2'	2.50	0.44
24:RD:85:ASP:HA	24:RD:86:PRO:HD2	1.72	0.44
27:RG:95:ARG:C	27:RG:99:MET:HG2	2.38	0.44
28:RH:123:PHE:O	28:RH:125:VAL:HG23	2.18	0.44
31:RO:22:ILE:HD13	31:RO:22:ILE:HA	1.77	0.44
32:RP:140:ALA:O	32:RP:141:ALA:HB2	2.17	0.44
33:RQ:83:MET:HB2	43:R0:7:LEU:HD12	2.00	0.44
40:RX:87:GLN:O	40:RX:88:LYS:HG3	2.18	0.44
42:RZ:101:PRO:HA	42:RZ:123:ASP:HA	1.99	0.44
42:RZ:127:LYS:HB3	42:RZ:162:GLU:HB3	2.00	0.44
42:RZ:177:PRO:HB2	42:RZ:178:GLU:H	1.62	0.44
52:R9:24:TYR:CE2	52:R9:35:ARG:HG3	2.53	0.44
1:XA:134:A:H61	16:XP:25:ARG:HH12	1.63	0.44
1:XA:371:G:H2'	1:XA:372:C:O4'	2.18	0.44
1:XA:625:G:H2'	1:XA:626:U:C6	2.53	0.44
1:XA:954:G:C6	1:XA:955:U:C4	3.06	0.44
1:XA:1517:G:N3	22:YA:1919:A:O2'	2.36	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:XC:47:LEU:HA	3:XC:47:LEU:HD12	1.83	0.44
15:XO:77:ARG:HA	15:XO:80:ALA:HB3	1.99	0.44
16:XP:39:TYR:CZ	16:XP:41:PRO:HB3	2.53	0.44
22:YA:554:U:HO2'	22:YA:556:G:H8	1.58	0.44
22:YA:1210:A:C5'	22:YA:1210:A:C8	3.00	0.44
22:YA:1449:A:C6	22:YA:1449(A):G:C4	3.06	0.44
22:YA:1581:G:C6	22:YA:1582:C:C4	3.06	0.44
22:YA:1792:G:OP1	24:YD:206:LEU:HB2	2.18	0.44
22:YA:2557:G:H5''	22:YA:2557:G:H8	1.83	0.44
22:YA:2734:A:H3'	22:YA:2735:G:H8	1.83	0.44
22:YA:2795:G:N2	22:YA:2799:A:OP2	2.50	0.44
23:YB:12:C:O2	43:Y0:74:ARG:HD2	2.17	0.44
25:YE:105:THR:OG1	25:YE:199:ARG:NH1	2.50	0.44
26:YF:47:GLY:HA3	26:YF:95:ARG:O	2.18	0.44
27:YG:10:LYS:HE2	27:YG:175:LEU:O	2.18	0.44
29:YI:2:LYS:HG2	29:YI:20:ASP:HB3	2.00	0.44
1:QA:358:U:H2'	1:QA:359:U:C6	2.52	0.44
1:QA:392:G:H2'	1:QA:393:A:C8	2.51	0.44
1:QA:793:U:H3'	1:QA:794:A:H5''	2.00	0.44
1:QA:814:A:N7	1:QA:816:A:C4	2.85	0.44
1:QA:927:G:H1	1:QA:1390:U:H3	1.65	0.44
1:QA:1119:C:OP1	9:QI:83:ARG:NH1	2.51	0.44
10:QJ:54:PHE:HB3	10:QJ:55:LYS:H	1.69	0.44
22:RA:244:A:H2'	22:RA:245:G:O4'	2.18	0.44
22:RA:301:G:H1'	22:RA:302:C:C6	2.53	0.44
22:RA:997:G:OP1	37:RU:93:LYS:HB2	2.18	0.44
22:RA:1039:G:H1	22:RA:1116:C:H42	1.65	0.44
22:RA:1751:C:O2'	22:RA:1752:C:H5'	2.18	0.44
22:RA:2491:U:H1'	22:RA:2569:G:O3'	2.18	0.44
22:RA:2850:A:C2	22:RA:2851:A:C4	3.06	0.44
34:RR:27:SER:HB3	34:RR:34:ILE:HD11	1.99	0.44
35:RS:19:LYS:O	35:RS:20:ARG:HB3	2.18	0.44
41:RY:81:LYS:HB2	41:RY:96:ILE:CG2	2.48	0.44
42:RZ:59:LEU:O	42:RZ:60:GLU:HB3	2.17	0.44
48:R5:16:ARG:HD2	48:R5:20:ARG:NH1	2.33	0.44
1:XA:253:U:H2'	1:XA:254:G:C8	2.53	0.44
1:XA:373:A:H2'	1:XA:374:A:H8	1.82	0.44
1:XA:652:U:O2	1:XA:652:U:H2'	2.18	0.44
1:XA:1108:G:H5'	3:XC:176:HIS:ND1	2.33	0.44
3:XC:108:ASN:HB3	3:XC:111:LEU:HD12	2.00	0.44
6:XF:33:TYR:HB2	6:XF:75:LEU:HD12	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:XK:19:ALA:HB2	11:XK:32:ILE:HG22	2.00	0.44
22:YA:76:C:H1'	45:Y2:62:THR:HG21	1.99	0.44
22:YA:830:G:N2	22:YA:2445:G:O2'	2.47	0.44
22:YA:1496:A:H2'	22:YA:1577:C:O2'	2.18	0.44
22:YA:2283:C:C2	22:YA:2389:G:C2	3.06	0.44
22:YA:2516:G:C6	22:YA:2517:C:C4	3.05	0.44
22:YA:2776:A:C6	22:YA:2778:A:C6	3.06	0.44
27:YG:47:LYS:HB2	27:YG:47:LYS:HE3	1.73	0.44
40:YX:70:LEU:HD23	40:YX:70:LEU:H	1.83	0.44
44:Y1:70:VAL:O	44:Y1:73:LEU:HB2	2.18	0.44
49:Y6:41:PRO:HD2	49:Y6:46:HIS:H	1.81	0.44
53:QV:1:C:H2'	53:QV:2:G:H8	1.83	0.44
53:QV:54:U:C5	53:QV:55:U:C4	3.06	0.44
1:QA:115:G:H4'	1:QA:116:A:O5'	2.17	0.43
1:QA:404:U:H2'	1:QA:405:U:C6	2.44	0.43
1:QA:963:G:H1	1:QA:972:C:H42	1.64	0.43
1:QA:976:G:P	14:QN:32:SER:H	2.41	0.43
1:QA:1394:A:H61	1:QA:1500:A:HO2'	1.65	0.43
4:QD:155:LEU:O	4:QD:159:ARG:HG2	2.18	0.43
7:QG:116:ALA:HA	7:QG:119:ARG:HE	1.83	0.43
22:RA:80:G:O2'	22:RA:294:A:N1	2.47	0.43
22:RA:396:G:O5'	22:RA:396:G:H8	2.01	0.43
22:RA:579:G:O2'	22:RA:2019:A:OP1	2.32	0.43
22:RA:588:U:H2'	22:RA:589:C:C6	2.52	0.43
22:RA:918:A:O2'	23:RB:96:G:N2	2.51	0.43
22:RA:1014:U:H3	22:RA:1148:A:H61	1.66	0.43
22:RA:1022:G:H22	22:RA:1142(A):A:H2	1.65	0.43
22:RA:1025:G:C4	22:RA:1135:C:H1'	2.52	0.43
22:RA:1188:U:H4'	38:RV:79:VAL:HG22	1.99	0.43
22:RA:2612:C:C5	22:RA:2613:U:H5	2.36	0.43
22:RA:2734:A:C8	22:RA:2735:G:C8	3.06	0.43
22:RA:2740:A:N6	22:RA:2764:A:C8	2.86	0.43
22:RA:2788:C:OP1	25:RE:61:ARG:NH1	2.51	0.43
22:RA:2869:G:O5'	22:RA:2869:G:H8	2.01	0.43
24:RD:145:VAL:HG11	24:RD:175:LEU:HD11	2.00	0.43
29:RI:80:PRO:HA	29:RI:143:SER:O	2.17	0.43
49:R6:28:ARG:HG3	49:R6:31:PRO:HD2	2.00	0.43
1:XA:95:G:H3'	1:XA:96:G:C8	2.51	0.43
1:XA:554:C:H2'	1:XA:555:C:H6	1.83	0.43
1:XA:1162:C:C2	1:XA:1175:G:C2	3.06	0.43
1:XA:1220:G:N2	19:XS:54:GLY:O	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1271:G:H2'	1:XA:1272:G:H5''	2.00	0.43
7:XG:36:LYS:HB2	7:XG:36:LYS:HZ2	1.83	0.43
12:XL:24:VAL:O	12:XL:26:ALA:N	2.47	0.43
16:XP:45:THR:HG22	16:XP:47:ASP:N	2.26	0.43
22:YA:363(B):G:H2'	22:YA:363(C):G:C8	2.52	0.43
22:YA:389:G:H22	32:YP:72:PRO:CD	2.31	0.43
22:YA:656:G:H2'	22:YA:657:U:C6	2.53	0.43
22:YA:896:A:C8	42:YZ:146:ILE:HD12	2.52	0.43
22:YA:1011:G:C2	22:YA:1151:G:N3	2.85	0.43
22:YA:1111:A:O2'	22:YA:1112:G:H4'	2.17	0.43
22:YA:1319:G:C2	22:YA:1334:G:C5	3.05	0.43
22:YA:1332:G:H8	22:YA:1332:G:H2'	1.54	0.43
22:YA:1360:A:H2'	22:YA:1361:G:O4'	2.18	0.43
22:YA:1568:G:H5'	24:YD:59:LYS:O	2.17	0.43
22:YA:1803:A:H4'	24:YD:259:THR:HG23	2.00	0.43
22:YA:1924:C:H4'	53:XV:13:C:O2'	2.17	0.43
22:YA:1972:A:H2'	22:YA:1973:G:H8	1.82	0.43
22:YA:2387:U:H1'	43:Y0:41:ARG:NH2	2.33	0.43
22:YA:2815:C:H5'	48:Y5:29:THR:HG21	2.00	0.43
23:YB:106:G:C6	23:YB:107:U:C4	3.06	0.43
25:YE:37:ARG:O	25:YE:45:THR:HA	2.18	0.43
26:YF:66:PRO:O	26:YF:68:LYS:N	2.51	0.43
28:YH:4:ILE:H	28:YH:4:ILE:HG12	1.59	0.43
28:YH:67:LEU:O	28:YH:71:LEU:HB2	2.17	0.43
32:YP:126:VAL:HG12	32:YP:147:LEU:CD2	2.48	0.43
44:Y1:94:LEU:HD23	44:Y1:94:LEU:HA	1.81	0.43
45:Y2:31:GLU:HB2	45:Y2:53:LEU:HD11	2.00	0.43
1:QA:74:C:H42	1:QA:96:G:H1	1.66	0.43
1:QA:153:C:O5'	1:QA:153:C:H6	2.01	0.43
1:QA:271:C:H2'	1:QA:272:C:H6	1.83	0.43
1:QA:518:C:H4'	1:QA:519:C:H5''	2.00	0.43
1:QA:1266:G:N2	1:QA:1270:C:N3	2.66	0.43
1:QA:1388:C:H2'	1:QA:1389:C:H6	1.82	0.43
10:QJ:51:ARG:NE	10:QJ:60:ARG:O	2.45	0.43
22:RA:923:C:O5'	22:RA:923:C:H6	2.01	0.43
22:RA:1213:A:N3	22:RA:1238:G:O2'	2.46	0.43
22:RA:1310:G:H1	22:RA:1604:C:N4	2.12	0.43
25:RE:143:ASN:HD22	25:RE:147:PRO:HD3	1.83	0.43
32:RP:37:GLY:O	32:RP:40:SER:OG	2.26	0.43
40:RX:67:GLY:O	40:RX:69:TYR:N	2.43	0.43
41:RY:42:VAL:O	41:RY:65:ALA:N	2.45	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:414:A:C6	1:XA:431:A:C2	3.06	0.43
1:XA:517:G:H4'	1:XA:519:C:C6	2.54	0.43
1:XA:564:C:C4	17:XQ:31:LEU:HD11	2.53	0.43
1:XA:1216:G:H5''	14:XN:5:ALA:HB2	1.99	0.43
1:XA:1305:G:C5'	21:XU:4:GLY:HA3	2.46	0.43
5:XE:9:LYS:HB2	5:XE:9:LYS:HE3	1.89	0.43
10:XJ:32:ALA:H	10:XJ:78:ASN:ND2	2.16	0.43
16:XP:4:ILE:HB	16:XP:66:PRO:HB3	2.00	0.43
19:XS:64:GLU:O	47:Y4:55:ARG:NH1	2.51	0.43
22:YA:65:C:H5'	40:YX:71:GLY:HA3	2.00	0.43
22:YA:310:A:C4	22:YA:312:G:C8	3.05	0.43
22:YA:414:C:H1'	22:YA:1864:U:H1'	2.01	0.43
22:YA:942:G:O2'	22:YA:1189:A:N3	2.41	0.43
22:YA:1058:G:O5'	22:YA:1060:U:H5	2.01	0.43
22:YA:1476:C:H2'	22:YA:1477:A:O4'	2.18	0.43
22:YA:1795:C:H2'	22:YA:1796:U:O4'	2.17	0.43
22:YA:1853:A:C6	22:YA:1889:A:C5	3.06	0.43
22:YA:2350:C:H5	51:Y8:42:ARG:NH1	2.17	0.43
22:YA:2512:C:H2'	22:YA:2513:G:O4'	2.17	0.43
22:YA:2655:G:O2'	22:YA:2664:G:O6	2.36	0.43
22:YA:2871:C:H5''	22:YA:2872:G:OP1	2.18	0.43
29:YI:46:ALA:C	29:YI:50:ARG:HD3	2.38	0.43
32:YP:61:ARG:NH1	51:Y8:56:GLU:OE2	2.49	0.43
34:YR:38:VAL:HG22	34:YR:112:ALA:HB2	2.00	0.43
36:YT:35:LYS:H	36:YT:35:LYS:HD2	1.83	0.43
44:Y1:25:LYS:C	44:Y1:27:GLU:H	2.22	0.43
1:QA:927:G:H2'	1:QA:928:G:O4'	2.18	0.43
1:QA:937:A:H8	1:QA:937:A:O5'	2.02	0.43
1:QA:1223:C:P	19:QS:78:ARG:HH12	2.41	0.43
1:QA:1446:A:C5	36:RT:118:ARG:NH1	2.87	0.43
2:QB:74:LYS:O	2:QB:78:GLN:HG3	2.18	0.43
2:QB:167:PRO:HG3	2:QB:188:ALA:HB2	2.00	0.43
3:QC:81:GLY:O	3:QC:85:ARG:HB2	2.18	0.43
4:QD:133:VAL:HG12	4:QD:135:LEU:H	1.83	0.43
7:QG:9:VAL:HG13	7:QG:94:ARG:NH2	2.27	0.43
7:QG:113:GLU:H	7:QG:113:GLU:HG2	1.39	0.43
11:QK:19:ALA:HB2	11:QK:32:ILE:HG22	2.00	0.43
13:QM:3:ARG:NH1	27:RG:113:ARG:NH2	2.66	0.43
20:QT:16:HIS:O	20:QT:19:SER:HB3	2.18	0.43
22:RA:483:A:H1'	41:RY:59:GLY:O	2.19	0.43
22:RA:888:C:C2'	22:RA:889:C:H4'	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:960:A:H61	33:RQ:82:ARG:NH1	2.16	0.43
22:RA:1462:C:H4'	22:RA:2703:C:H5'	2.00	0.43
22:RA:1614:A:N1	39:RW:91:GLY:HA2	2.34	0.43
22:RA:2364:C:H2'	22:RA:2365:G:O4'	2.18	0.43
22:RA:2518:A:H4'	22:RA:2519:U:OP1	2.14	0.43
22:RA:2766:G:N3	22:RA:2766:G:H2'	2.34	0.43
25:RE:119:ARG:HD3	25:RE:160:TYR:HB2	2.00	0.43
29:RI:57:ARG:O	29:RI:61:ARG:HG2	2.18	0.43
29:RI:94:ALA:N	29:RI:116:LEU:HD13	2.31	0.43
30:RN:33:LEU:HA	30:RN:38:HIS:CE1	2.53	0.43
33:RQ:136:ALA:O	33:RQ:138:ASP:N	2.46	0.43
36:RT:19:LEU:HA	36:RT:20:PRO:HD3	1.86	0.43
41:RY:97:ARG:HE	41:RY:98:VAL:HB	1.83	0.43
42:RZ:48:PHE:O	42:RZ:52:SER:HB3	2.18	0.43
1:XA:250:A:H5'	1:XA:252:U:O4'	2.18	0.43
1:XA:256:U:H2'	1:XA:257:G:O4'	2.18	0.43
1:XA:374:A:C6	1:XA:375:U:C4	3.06	0.43
1:XA:1312:G:H5''	47:Y4:67:TYR:OH	2.17	0.43
1:XA:1318:A:H4'	19:XS:11:VAL:CG1	2.48	0.43
1:XA:1460:A:H2'	1:XA:1461:G:O4'	2.18	0.43
2:XB:80:ILE:HG21	2:XB:212:GLN:HA	2.00	0.43
3:XC:72:LYS:HB3	3:XC:75:VAL:HG23	2.00	0.43
4:XD:100:ARG:NH1	4:XD:137:SER:HB3	2.33	0.43
10:XJ:54:PHE:CZ	10:XJ:55:LYS:HE3	2.54	0.43
12:XL:62:SER:C	12:XL:64:TYR:H	2.21	0.43
13:XM:14:ARG:H	13:XM:44:ARG:CD	2.25	0.43
17:XQ:62:SER:HB3	17:XQ:72:ARG:HE	1.84	0.43
22:YA:467:G:OP2	50:Y7:34:ARG:NH1	2.51	0.43
22:YA:528:A:C8	22:YA:528:A:C3'	3.02	0.43
22:YA:547:A:H2'	22:YA:548:A:C8	2.54	0.43
22:YA:951:C:C2'	22:YA:952:G:H5'	2.48	0.43
22:YA:2638:G:N1	22:YA:2776:A:OP2	2.27	0.43
22:YA:2756:U:H5''	52:Y9:19:ARG:HB3	2.00	0.43
24:YD:92:ILE:HD12	24:YD:104:TYR:CD2	2.54	0.43
27:YG:67:LYS:O	27:YG:67:LYS:HD2	2.17	0.43
30:YN:112:LEU:HG	30:YN:112:LEU:O	2.17	0.43
38:YV:52:VAL:O	38:YV:54:GLY:N	2.51	0.43
40:YX:72:LYS:HG2	40:YX:73:ARG:O	2.18	0.43
42:YZ:62:PRO:C	42:YZ:64:GLY:H	2.21	0.43
42:YZ:179:ASP:OD1	42:YZ:180:VAL:N	2.51	0.43
52:Y9:1:MET:O	52:Y9:34:GLN:HG2	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:26:A:N6	1:QA:558:G:O2'	2.48	0.43
1:QA:319:G:C2	1:QA:320:C:C2	3.07	0.43
1:QA:397:A:H3'	1:QA:397:A:N3	2.32	0.43
1:QA:402:G:C6	1:QA:403:C:C4	3.06	0.43
1:QA:713:G:OP1	24:RD:166:GLN:NE2	2.50	0.43
1:QA:768:A:N3	1:QA:1512:U:O2'	2.50	0.43
1:QA:890:G:O2'	1:QA:906:G:O6	2.25	0.43
1:QA:904:C:C4	1:QA:905:U:C4	3.07	0.43
1:QA:985:C:H2'	1:QA:986:A:C8	2.52	0.43
8:QH:13:ILE:O	8:QH:17:THR:HG23	2.19	0.43
17:QQ:60:ILE:HB	17:QQ:74:LEU:HD23	2.00	0.43
22:RA:240:G:H2'	22:RA:241:A:C8	2.53	0.43
22:RA:333:G:H5''	22:RA:334:C:OP2	2.18	0.43
22:RA:634:C:H2'	22:RA:635:C:H6	1.83	0.43
22:RA:668:G:H2'	22:RA:670:A:H62	1.83	0.43
22:RA:797:C:H2'	22:RA:798:G:C8	2.53	0.43
22:RA:1265:A:H3'	48:R5:19:ARG:NH1	2.33	0.43
22:RA:1492:G:H3'	22:RA:1493:C:H5'	1.99	0.43
22:RA:1727:U:H2'	22:RA:1728:G:O4'	2.18	0.43
22:RA:1952:A:C2	31:RO:22:ILE:HG23	2.54	0.43
22:RA:2224:G:OP1	24:RD:268:ARG:HD3	2.18	0.43
22:RA:2458:G:H4'	22:RA:2459:A:H8	1.82	0.43
23:RB:80:U:C2	23:RB:81:G:N2	2.87	0.43
29:RI:4:ILE:HA	29:RI:18:VAL:HA	2.01	0.43
1:XA:258:G:H1	1:XA:268:C:H42	1.65	0.43
1:XA:373:A:H2'	1:XA:374:A:C8	2.53	0.43
1:XA:657:G:C2	1:XA:658:G:C8	3.06	0.43
1:XA:883:C:C2'	1:XA:884:U:H5'	2.48	0.43
1:XA:903:G:H2'	1:XA:904:C:H6	1.83	0.43
1:XA:1355:G:H2'	1:XA:1356:G:C8	2.52	0.43
1:XA:1430:C:H2'	1:XA:1431:C:C6	2.53	0.43
1:XA:1480:G:C6	1:XA:1481:U:C2	3.06	0.43
1:XA:1489:G:H2'	1:XA:1490:C:O4'	2.18	0.43
2:XB:100:GLY:N	2:XB:176:GLU:OE2	2.47	0.43
4:XD:153:ARG:NH1	4:XD:181:MET:HB2	2.32	0.43
9:XI:118:LYS:O	9:XI:119:ALA:HB3	2.18	0.43
12:XL:58:VAL:O	12:XL:65:GLU:HA	2.18	0.43
12:XL:78:GLN:HB3	12:XL:79:GLU:H	1.68	0.43
12:XL:110:VAL:CG2	12:XL:120:TYR:HB3	2.48	0.43
13:XM:62:ASN:CG	47:Y4:49:PHE:HD2	2.20	0.43
14:YN:29:ARG:HD3	14:YN:40:CYS:HB2	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:XT:98:PRO:C	20:XT:100:ILE:H	2.21	0.43
22:YA:78:A:H2'	22:YA:79:G:C8	2.53	0.43
22:YA:199:A:O2'	22:YA:2433:A:N6	2.41	0.43
22:YA:228:A:C6	22:YA:230:U:C2	3.07	0.43
22:YA:323:G:H1'	22:YA:1205:U:O2	2.19	0.43
22:YA:440:G:H2'	22:YA:441:U:O4'	2.18	0.43
22:YA:593:G:H1	22:YA:664:C:N4	2.17	0.43
22:YA:802:A:H5''	22:YA:803:U:OP2	2.19	0.43
22:YA:817:C:H4'	22:YA:932:G:C5	2.53	0.43
22:YA:819:A:C4	22:YA:1189:A:C2	3.06	0.43
22:YA:825:C:H2'	22:YA:826:U:O4'	2.18	0.43
22:YA:1225:C:O2'	38:YV:85:LYS:HA	2.19	0.43
22:YA:1257:C:H4'	26:YF:83:PHE:CE2	2.53	0.43
22:YA:1812:A:H2'	22:YA:1813:G:C8	2.53	0.43
22:YA:1906:G:C2	22:YA:1925:C:O2	2.71	0.43
22:YA:2467:C:O2'	22:YA:2468:G:H5'	2.18	0.43
22:YA:2595:G:H5''	22:YA:2596:U:OP2	2.18	0.43
22:YA:2680:C:H2'	22:YA:2681:C:C5	2.54	0.43
22:YA:2783:G:O5'	22:YA:2783:G:H8	2.02	0.43
22:YA:2881:C:H2'	22:YA:2882:A:C8	2.53	0.43
25:YE:87:GLU:O	25:YE:89:ASP:N	2.50	0.43
25:YE:188:VAL:O	25:YE:188:VAL:HG13	2.19	0.43
26:YF:33:LEU:HD12	26:YF:33:LEU:HA	1.86	0.43
31:YO:88:ASN:ND2	31:YO:92:GLU:HB2	2.22	0.43
35:YS:39:ILE:HD12	35:YS:85:VAL:HG11	2.00	0.43
38:YV:55:ALA:HB2	38:YV:101:GLY:HA2	1.99	0.43
40:YX:53:LYS:H	40:YX:82:GLN:HB3	1.83	0.43
42:YZ:44:PHE:O	42:YZ:48:PHE:N	2.48	0.43
43:Y0:27:GLU:HB2	43:Y0:69:PHE:CD1	2.53	0.43
43:Y0:37:LEU:HG	43:Y0:60:PHE:HA	2.01	0.43
1:QA:166:G:H2'	1:QA:167:G:H8	1.80	0.43
1:QA:296:U:H2'	1:QA:297:G:C8	2.53	0.43
1:QA:542:G:H5'	4:QD:41:GLY:HA3	2.00	0.43
1:QA:895:G:H1	1:QA:904:C:H42	1.66	0.43
1:QA:1004:A:H1'	1:QA:1036:G:N2	2.33	0.43
1:QA:1026:G:N2	1:QA:1028:C:OP1	2.52	0.43
1:QA:1314:C:P	19:QS:6:LYS:HD2	2.59	0.43
1:QA:1347:G:N2	1:QA:1374:A:OP2	2.43	0.43
1:QA:1376:U:H2'	1:QA:1377:A:C8	2.53	0.43
10:QJ:76:ASN:HA	10:QJ:77:PRO:HD2	1.85	0.43
16:QP:20:VAL:HG21	16:QP:32:TYR:CE1	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:11:G:H2'	22:RA:12:U:H5'	2.00	0.43
22:RA:429:A:C6	22:RA:430:G:N1	2.87	0.43
22:RA:702:G:C6	22:RA:703:U:C4	3.06	0.43
22:RA:738:G:C6	22:RA:739:G:C2	3.06	0.43
22:RA:1024:G:N1	22:RA:1025:G:C6	2.87	0.43
22:RA:1323:U:OP1	39:RW:98:LYS:NZ	2.43	0.43
22:RA:1686:C:C2	22:RA:1703:G:N2	2.86	0.43
22:RA:1689:A:H2'	22:RA:1690:A:C8	2.54	0.43
22:RA:1954:G:O2'	22:RA:1955:U:OP2	2.29	0.43
22:RA:2637:U:C4	22:RA:2638:G:C6	3.06	0.43
22:RA:2693:A:H2'	22:RA:2694:G:H8	1.84	0.43
22:RA:2744:G:H21	28:RH:143:GLN:NE2	2.16	0.43
23:RB:19:G:H2'	23:RB:20:C:O4'	2.19	0.43
36:RT:1:MET:O	36:RT:3:ARG:HG2	2.19	0.43
41:RY:46:LYS:HB2	41:RY:61:ILE:HG22	2.00	0.43
41:RY:47:LYS:O	41:RY:49:VAL:N	2.51	0.43
1:XA:812:C:H1'	1:XA:813:U:OP2	2.18	0.43
1:XA:825:G:H1'	8:XH:2:LEU:HD21	2.00	0.43
2:XB:215:LEU:HD22	2:XB:215:LEU:HA	1.73	0.43
10:XJ:44:VAL:HG13	10:XJ:66:ARG:HG2	1.99	0.43
15:XO:25:THR:HG21	15:XO:70:LEU:HB2	2.01	0.43
22:YA:243:U:O2'	22:YA:244:A:H5'	2.18	0.43
22:YA:285:C:H2'	22:YA:286:C:C6	2.53	0.43
22:YA:654:A:O2'	22:YA:654(A):G:OP2	2.34	0.43
22:YA:707:G:H8	22:YA:707:G:O5'	2.01	0.43
22:YA:724:U:H2'	22:YA:725:G:O4'	2.18	0.43
22:YA:1495:A:O2'	22:YA:1579:A:H5''	2.18	0.43
22:YA:1652:A:C2'	22:YA:1653:G:H5'	2.49	0.43
22:YA:1657:C:H4'	25:YE:133:LYS:HB3	2.00	0.43
22:YA:1831:G:H1	22:YA:1974:C:H42	1.67	0.43
22:YA:2373:G:H1	22:YA:2380:C:H42	1.65	0.43
22:YA:2648:C:H2'	22:YA:2649:U:C6	2.53	0.43
22:YA:2653:U:O2'	28:YH:110:SER:HB2	2.18	0.43
22:YA:2792:G:C6	22:YA:2805:G:C2	3.06	0.43
22:YA:2854:G:C6	22:YA:2864:G:N1	2.86	0.43
24:YD:132:PRO:HG3	24:YD:190:TYR:CE1	2.54	0.43
26:YF:64:ILE:HG23	26:YF:65:TRP:CD1	2.53	0.43
31:YO:64:ARG:HG2	31:YO:79:PHE:CD1	2.53	0.43
32:YP:83:VAL:O	32:YP:114:ILE:HA	2.19	0.43
34:YR:33:ARG:HH21	48:Y5:55:ARG:HG2	1.82	0.43
41:YY:67:LEU:HD12	41:YY:67:LEU:HA	1.77	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Y2:15:LYS:H	45:Y2:67:LYS:CE	2.32	0.43
46:Y3:51:ALA:HA	46:Y3:54:VAL:HG12	2.00	0.43
47:Y4:43:TYR:C	47:Y4:43:TYR:CD2	2.92	0.43
1:QA:390:C:O3'	16:QP:28:ARG:NH2	2.47	0.43
1:QA:986:A:O2'	19:QS:55:LYS:O	2.37	0.43
1:QA:1161:C:H2'	1:QA:1162:C:C6	2.51	0.43
1:QA:1337:G:H4'	1:QA:1338:G:OP1	2.19	0.43
2:QB:8:LYS:HE3	2:QB:11:LEU:HB3	2.01	0.43
2:QB:217:ARG:HE	2:QB:217:ARG:HB2	1.29	0.43
3:QC:11:ARG:HB3	3:QC:15:THR:HB	2.00	0.43
9:QI:116:LYS:HE2	9:QI:122:ALA:HB2	2.01	0.43
13:QM:3:ARG:HG2	47:R4:34:GLU:CG	2.47	0.43
17:QQ:63:ARG:HG2	17:QQ:64:PRO:HD2	2.00	0.43
18:QR:37:VAL:HG22	18:QR:78:LEU:HB3	2.01	0.43
22:RA:493:G:H2'	22:RA:494:G:O4'	2.19	0.43
22:RA:752:A:C5	22:RA:1781:C:O4'	2.72	0.43
22:RA:948:G:N2	22:RA:970:C:O2	2.51	0.43
22:RA:1268:A:H2'	22:RA:1269:A:O4'	2.18	0.43
22:RA:1523:U:O5'	22:RA:1523:U:H6	2.01	0.43
22:RA:2562:U:O2'	31:RO:23:ARG:HD3	2.18	0.43
22:RA:2693:A:H2'	22:RA:2694:G:C8	2.54	0.43
29:RI:115:ALA:C	29:RI:117:GLU:H	2.18	0.43
39:RW:20:VAL:HG22	39:RW:47:VAL:HG21	2.00	0.43
43:R0:53:MET:HA	43:R0:58:THR:O	2.19	0.43
51:R8:58:ILE:HA	51:R8:61:LEU:HD21	2.01	0.43
1:XA:181:G:O2'	1:XA:182:U:O5'	2.36	0.43
1:XA:271:C:H2'	1:XA:272:C:H6	1.83	0.43
1:XA:731:G:OP1	1:XA:766:A:H1'	2.18	0.43
1:XA:734:G:C2	1:XA:735:C:C2	3.07	0.43
1:XA:914:A:H2'	1:XA:915:A:C8	2.51	0.43
1:XA:970:C:N4	9:XI:128:ARG:OXT	2.51	0.43
1:XA:1235:U:H2'	1:XA:1236:A:O4'	2.18	0.43
1:XA:1314:C:OP2	19:XS:4:SER:OG	2.37	0.43
2:XB:37:ASN:C	2:XB:39:ILE:H	2.20	0.43
2:XB:172:ILE:O	2:XB:175:ARG:HB3	2.18	0.43
9:XI:8:GLY:HA2	9:XI:79:LEU:HD12	2.01	0.43
22:YA:493:G:H2'	22:YA:494:G:O4'	2.18	0.43
22:YA:1313:U:O2	22:YA:1313:U:H2'	2.18	0.43
22:YA:1827:C:H2'	22:YA:1828:G:O4'	2.18	0.43
22:YA:1920:C:O5'	22:YA:1920:C:H6	2.01	0.43
22:YA:2094:G:OP1	29:YI:22:LYS:HD2	2.17	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2186:G:H2'	22:YA:2187:G:C8	2.54	0.43
22:YA:2205:C:O5'	22:YA:2205:C:H6	2.02	0.43
22:YA:2350:C:H2'	22:YA:2351:G:O4'	2.18	0.43
22:YA:2531:A:H2'	22:YA:2532:G:H8	1.83	0.43
22:YA:2634:G:N2	22:YA:2785:C:C2	2.87	0.43
22:YA:2764:A:N7	22:YA:2766:G:C6	2.86	0.43
29:YI:77:LEU:HD12	29:YI:104:GLN:HE22	1.83	0.43
31:YO:88:ASN:OD1	31:YO:90:GLN:HB2	2.19	0.43
32:YP:113:LYS:HG2	32:YP:115:LEU:HD23	2.01	0.43
32:YP:126:VAL:HG22	32:YP:145:PRO:HG2	2.01	0.43
42:YZ:58:VAL:O	42:YZ:60:GLU:N	2.50	0.43
45:Y2:47:ASN:HB2	45:Y2:48:HIS:H	1.50	0.43
50:Y7:47:ARG:HB2	50:Y7:48:LYS:H	1.60	0.43
1:QA:266:G:H5''	1:QA:267:C:H5	1.81	0.43
1:QA:376:G:H2'	1:QA:377:G:H8	1.84	0.43
1:QA:1291:G:H4'	9:QI:38:GLN:O	2.18	0.43
1:QA:1317:C:C2	19:QS:37:ARG:NH2	2.86	0.43
4:QD:135:LEU:HD13	4:QD:135:LEU:HA	1.86	0.43
13:QM:44:ARG:HB2	13:QM:47:ASP:OD2	2.19	0.43
15:QO:17:ARG:HD3	15:QO:26:GLU:HG3	1.99	0.43
22:RA:563:G:H22	22:RA:578:A:H2	1.66	0.43
22:RA:706:A:C2	22:RA:707:G:H1'	2.53	0.43
22:RA:1025:G:C5	22:RA:1135:C:H1'	2.54	0.43
22:RA:1173:G:H4'	22:RA:1174:A:C5	2.54	0.43
22:RA:1675:C:H6	22:RA:1675:C:O5'	2.01	0.43
22:RA:1726:G:H2'	22:RA:1727:U:O4'	2.19	0.43
22:RA:1799:G:H5'	22:RA:1819:A:H61	1.83	0.43
22:RA:2257:U:H2'	22:RA:2258:C:C6	2.53	0.43
24:RD:35:LYS:HE3	24:RD:64:ILE:C	2.39	0.43
25:RE:36:ARG:HH21	25:RE:88:GLY:HA2	1.84	0.43
26:RF:9:ILE:HG23	26:RF:20:LEU:O	2.18	0.43
29:RI:128:LEU:HD13	29:RI:128:LEU:HA	1.57	0.43
30:RN:58:ASP:HB3	30:RN:95:PRO:HB3	2.00	0.43
32:RP:90:ARG:HB3	32:RP:91:PHE:H	1.68	0.43
37:RU:69:CYS:HB3	37:RU:106:PHE:CZ	2.53	0.43
41:RY:55:TYR:CD2	41:RY:55:TYR:N	2.86	0.43
1:XA:979:C:OP1	1:XA:1223:C:N4	2.52	0.43
1:XA:1422:G:H1	1:XA:1478:C:H42	1.65	0.43
1:XA:1504:G:OP1	1:XA:1507:A:H4'	2.19	0.43
13:XM:4:ILE:HG22	13:XM:5:ALA:N	2.34	0.43
22:YA:465:G:C6	22:YA:466:A:N6	2.87	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:704:G:H2'	22:YA:726:G:H22	1.83	0.43
22:YA:748:G:OP2	39:YW:88:ARG:HG3	2.19	0.43
22:YA:1697:G:OP2	22:YA:1698:A:O2'	2.23	0.43
22:YA:1932:A:H2	22:YA:1969:A:C2	2.36	0.43
22:YA:2133:G:H1'	22:YA:2158:A:N6	2.31	0.43
22:YA:2256:G:C6	22:YA:2257:U:C4	3.07	0.43
22:YA:2432:A:H2'	22:YA:2433:A:C8	2.54	0.43
25:YE:119:ARG:HG2	25:YE:160:TYR:HB2	2.00	0.43
29:YI:37:VAL:HG12	29:YI:38:LEU:HD12	2.01	0.43
34:YR:34:ILE:HA	34:YR:34:ILE:HD13	1.72	0.43
34:YR:70:LEU:HD23	34:YR:70:LEU:HA	1.84	0.43
41:YY:80:GLY:O	41:YY:81:LYS:HG3	2.18	0.43
41:YY:87:LYS:HB2	41:YY:87:LYS:NZ	2.34	0.43
1:QA:486:U:H2'	1:QA:487:A:H8	1.84	0.43
1:QA:625:G:H2'	1:QA:626:U:C6	2.53	0.43
1:QA:781:A:C8	1:QA:782:A:C8	3.07	0.43
1:QA:1127:G:N2	1:QA:1145:C:O2'	2.52	0.43
1:QA:1129:C:C4'	1:QA:1130:A:H5'	2.49	0.43
1:QA:1346:A:C4	7:QG:10:ARG:NH1	2.86	0.43
1:QA:1522:U:H2'	1:QA:1523:G:C8	2.53	0.43
8:QH:25:ASP:N	8:QH:25:ASP:OD1	2.50	0.43
8:QH:105:ARG:HA	8:QH:105:ARG:HD3	1.78	0.43
11:QK:38:ASN:HA	11:QK:39:PRO:HD3	1.88	0.43
17:QQ:45:HIS:NE2	17:QQ:47:PRO:HG3	2.34	0.43
22:RA:492:A:H2'	22:RA:493:G:O4'	2.19	0.43
22:RA:508:G:O2'	22:RA:509:C:P	2.77	0.43
22:RA:1188:U:C4'	38:RV:79:VAL:HG22	2.48	0.43
22:RA:1203:G:H3'	22:RA:1204:A:H5''	2.01	0.43
22:RA:1360:A:C6	22:RA:1372:U:C4	3.07	0.43
22:RA:1489:U:O3'	22:RA:1490:A:H8	2.01	0.43
22:RA:1510:A:N3	22:RA:1510:A:H2'	2.33	0.43
22:RA:2066:C:H2'	22:RA:2067:G:H5'	2.01	0.43
22:RA:2282:G:H5''	22:RA:2283:C:O4'	2.18	0.43
22:RA:2532:G:H2'	22:RA:2533:A:C8	2.53	0.43
22:RA:2867:G:O2'	22:RA:2868:A:O5'	2.30	0.43
23:RB:29:A:H2'	23:RB:30:C:C6	2.54	0.43
26:RF:23:ASP:OD1	26:RF:23:ASP:N	2.48	0.43
32:RP:18:ARG:HD2	32:RP:27:HIS:CD2	2.54	0.43
33:RQ:20:ALA:HA	33:RQ:98:LYS:HB3	2.00	0.43
42:RZ:62:PRO:C	42:RZ:64:GLY:N	2.72	0.43
43:R0:7:LEU:HD23	43:R0:7:LEU:N	2.34	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:522:C:H41	12:XL:53:ARG:HH22	1.67	0.43
1:XA:627:G:O2'	1:XA:628:G:H5'	2.19	0.43
1:XA:662:G:H2'	1:XA:663:A:C8	2.53	0.43
1:XA:1010:G:N2	1:XA:1020:U:H1'	2.34	0.43
1:XA:1213:A:C5	1:XA:1215:G:C4	3.06	0.43
1:XA:1219:U:H2'	1:XA:1220:G:O4'	2.18	0.43
1:XA:1439:C:N4	1:XA:1462:G:H1	2.17	0.43
2:XB:7:VAL:HG21	2:XB:217:ARG:NH1	2.34	0.43
7:XG:140:ASP:HA	7:XG:143:ARG:NH1	2.34	0.43
12:XL:59:ARG:NH1	12:XL:65:GLU:OE2	2.51	0.43
14:YN:27:CYS:SG	14:YN:29:ARG:HB2	2.58	0.43
19:XS:5:LEU:CG	47:Y4:66:SER:CB	2.96	0.43
22:YA:382:G:H1	22:YA:392:C:H42	1.67	0.43
22:YA:950:G:H2'	22:YA:951:C:H6	1.84	0.43
22:YA:1360:A:N6	22:YA:1372:U:C5	2.87	0.43
22:YA:1449:A:H5'	22:YA:1449(A):G:OP2	2.19	0.43
22:YA:1903:G:OP2	24:YD:241:PRO:HB2	2.19	0.43
22:YA:2063:C:C4	22:YA:2064:C:C5	3.07	0.43
22:YA:2475:C:H3'	22:YA:2476:A:H5''	1.99	0.43
25:YE:36:ARG:HH21	25:YE:88:GLY:CA	2.32	0.43
27:YG:145:THR:O	27:YG:147:ASP:N	2.44	0.43
32:YP:5:ASP:O	32:YP:6:LEU:C	2.57	0.43
32:YP:15:ARG:O	32:YP:17:LYS:HG3	2.19	0.43
32:YP:30:THR:O	32:YP:33:ARG:HB2	2.18	0.43
45:Y2:17:SER:HB3	45:Y2:67:LYS:HE3	2.00	0.43
49:Y6:28:ARG:HH21	49:Y6:30:THR:HG23	1.84	0.43
1:QA:67:C:H2'	1:QA:68:G:C8	2.54	0.43
1:QA:147:G:N2	1:QA:148:G:C4	2.87	0.43
1:QA:444:C:H2'	1:QA:445:G:C8	2.49	0.43
1:QA:1126:U:H6	1:QA:1126:U:H2'	1.66	0.43
1:QA:1239:A:O2'	1:QA:1298:C:N4	2.50	0.43
5:QE:18:ARG:HE	5:QE:18:ARG:HB3	1.51	0.43
9:QI:95:LYS:HZ1	9:QI:96:LEU:HD13	1.83	0.43
12:QL:85:ILE:HD12	12:QL:85:ILE:HA	1.75	0.43
15:QO:25:THR:HG21	15:QO:70:LEU:HB2	2.00	0.43
20:QT:84:LEU:HD23	20:QT:84:LEU:HA	1.86	0.43
22:RA:242:G:H2'	51:R8:5:LYS:HA	2.01	0.43
22:RA:710:G:H2'	22:RA:711:G:H8	1.84	0.43
22:RA:1075:C:H2'	22:RA:1076:C:C4'	2.49	0.43
22:RA:1203:G:O6	22:RA:1204:A:N6	2.52	0.43
22:RA:1834:U:O5'	22:RA:1834:U:H6	2.02	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:1858:G:H1'	22:RA:1884:A:H61	1.83	0.43
22:RA:2516:G:C6	22:RA:2569:G:C2	3.07	0.43
22:RA:2811:G:H5''	22:RA:2811:G:H8	1.83	0.43
23:RB:49:C:H2'	23:RB:50:G:C8	2.54	0.43
25:RE:179:GLU:HB3	25:RE:181:LEU:HD22	1.99	0.43
26:RF:34:TRP:CE3	26:RF:35:GLU:HG2	2.54	0.43
27:RG:97:ASP:HA	27:RG:100:TRP:HD1	1.84	0.43
30:RN:61:ARG:HA	30:RN:61:ARG:HE	1.82	0.43
31:RO:104:ARG:HD3	36:RT:36:GLU:OE2	2.19	0.43
32:RP:65:ARG:O	32:RP:68:GLN:NE2	2.50	0.43
33:RQ:104:PHE:CE1	33:RQ:125:LEU:HD11	2.54	0.43
33:RQ:116:GLU:O	33:RQ:120:ILE:HG12	2.17	0.43
35:RS:88:ASP:CG	35:RS:89:ARG:H	2.21	0.43
36:RT:107:ASP:O	36:RT:110:ILE:HG22	2.19	0.43
1:XA:22:G:C5	1:XA:23:C:C4	3.07	0.43
1:XA:131:C:O2'	1:XA:262:A:N3	2.45	0.43
1:XA:154:C:H42	1:XA:167:G:H1	1.66	0.43
1:XA:181:G:HO2'	1:XA:182:U:P	2.42	0.43
1:XA:427:U:C4	1:XA:428:G:C6	3.06	0.43
1:XA:719:C:H1'	18:XR:49:LYS:HB3	2.01	0.43
1:XA:741:G:H2'	1:XA:742:G:O4'	2.19	0.43
1:XA:953:G:C2	1:XA:954:G:H1'	2.53	0.43
1:XA:977:A:C8	1:XA:1223:C:N3	2.78	0.43
1:XA:1441:G:N2	1:XA:1461:G:O6	2.51	0.43
2:XB:212:GLN:NE2	2:XB:216:SER:HB2	2.34	0.43
5:XE:69:VAL:O	5:XE:71:LEU:N	2.51	0.43
13:XM:3:ARG:HG2	47:Y4:34:GLU:CB	2.49	0.43
14:XN:6:LEU:HD23	14:XN:23:ARG:HH22	1.83	0.43
22:YA:671:C:H2'	22:YA:672:C:H6	1.84	0.43
22:YA:846:C:C2	22:YA:847:U:H5	2.37	0.43
22:YA:898:C:H5'	22:YA:899:A:OP2	2.18	0.43
22:YA:950:G:H1	22:YA:967:C:N4	2.16	0.43
22:YA:978:G:H2'	22:YA:979:G:O4'	2.19	0.43
22:YA:1767:C:H2'	22:YA:1768:U:O4'	2.18	0.43
22:YA:2335:A:O2'	22:YA:2336:A:H2'	2.18	0.43
22:YA:2634:G:H1	22:YA:2784:C:H42	1.67	0.43
22:YA:2788:C:OP1	25:YE:61:ARG:NH1	2.51	0.43
32:YP:62:LEU:HB2	51:Y8:30:ARG:NH1	2.34	0.43
32:YP:125:VAL:CG1	32:YP:138:LEU:HD21	2.49	0.43
42:YZ:108:PRO:HB2	42:YZ:111:VAL:HG23	2.01	0.43
48:Y5:58:LEU:HB2	48:Y5:60:VAL:H	1.83	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:Y5:58:LEU:HD13	48:Y5:60:VAL:HB	2.01	0.43
53:QV:4:G:N3	53:QV:5:G:C8	2.87	0.43
1:QA:530:G:HO2'	1:QA:531:U:P	2.40	0.43
1:QA:754:C:H5'	15:QO:72:ARG:NH2	2.34	0.43
1:QA:1119:C:H2'	1:QA:1120:G:C8	2.53	0.43
1:QA:1172:C:H2'	1:QA:1173:G:H8	1.81	0.43
1:QA:1200:C:O2'	1:QA:1201:A:OP2	2.34	0.43
1:QA:1492:A:C6	1:QA:1493:A:N1	2.86	0.43
8:QH:101:PRO:HG2	8:QH:133:LEU:HD11	2.01	0.43
9:QI:112:LYS:HD3	9:QI:113:LYS:O	2.18	0.43
18:QR:29:PHE:CD2	18:QR:29:PHE:N	2.87	0.43
18:QR:53:ARG:HH21	18:QR:60:ALA:N	2.17	0.43
19:QS:41:VAL:HG12	19:QS:44:MET:HB2	2.01	0.43
22:RA:27:G:H1'	22:RA:513:A:H62	1.84	0.43
22:RA:176:G:C6	22:RA:177:G:N7	2.87	0.43
22:RA:242:G:H3'	51:R8:6:THR:HG23	1.99	0.43
22:RA:372:G:N2	22:RA:400:G:H2'	2.34	0.43
22:RA:784:A:O4'	24:RD:227:ASN:ND2	2.52	0.43
22:RA:1265:A:C8	22:RA:1267:U:C2	3.07	0.43
22:RA:1303:G:H1	22:RA:1625:C:H42	1.67	0.43
25:RE:116:VAL:HG11	25:RE:138:PRO:HB3	2.01	0.43
25:RE:117:MET:HB2	25:RE:122:PHE:O	2.18	0.43
29:RI:88:ILE:HG12	29:RI:88:ILE:H	1.50	0.43
30:RN:89:LYS:O	30:RN:93:THR:HG22	2.19	0.43
41:RY:54:LYS:HB3	41:RY:55:TYR:CD2	2.53	0.43
42:RZ:59:LEU:HB2	42:RZ:60:GLU:H	1.52	0.43
42:RZ:163:LEU:H	42:RZ:163:LEU:HG	1.50	0.43
49:R6:7:ILE:HG13	49:R6:8:LYS:H	1.84	0.43
1:XA:622:A:C8	1:XA:623:C:C6	3.07	0.43
1:XA:690:G:C6	1:XA:691:G:C6	3.07	0.43
1:XA:1087:G:N2	1:XA:1099:G:H1'	2.33	0.43
1:XA:1220:G:H21	19:XS:54:GLY:CA	2.32	0.43
1:XA:1240:U:OP2	7:XG:116:ALA:N	2.52	0.43
1:XA:1312:G:H5''	47:Y4:67:TYR:CE1	2.54	0.43
1:XA:1347:G:C8	9:XI:107:ARG:HB3	2.54	0.43
3:XC:149:ALA:HA	3:XC:201:TYR:O	2.18	0.43
4:XD:196:LEU:O	4:XD:198:VAL:N	2.51	0.43
12:XL:28:LYS:HB3	12:XL:30:ALA:HB2	2.01	0.43
12:XL:44:THR:HA	12:XL:45:PRO:HD3	1.68	0.43
22:YA:425:G:N2	22:YA:426:C:C2	2.87	0.43
22:YA:630:G:H4'	22:YA:640:C:H4'	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:729:G:O6	24:YD:209:ALA:N	2.41	0.43
22:YA:933:A:C5	22:YA:934:G:C8	3.07	0.43
22:YA:1059:G:H3'	22:YA:1060:U:H5''	2.01	0.43
22:YA:1084:A:H5'	22:YA:1085:A:OP2	2.18	0.43
22:YA:1289:C:C2	22:YA:1290:C:C5	3.07	0.43
22:YA:1339:G:H5''	40:YX:16:LYS:HD3	2.01	0.43
22:YA:2314:C:H2'	22:YA:2315:G:C8	2.53	0.43
22:YA:2773:C:P	25:YE:166:THR:HG1	2.42	0.43
23:YB:77:U:H2'	23:YB:78:A:H5'	2.01	0.43
25:YE:4:ILE:HD12	25:YE:28:ALA:HB1	2.01	0.43
25:YE:14:ILE:HG23	25:YE:15:PHE:N	2.34	0.43
33:YQ:45:GLN:H	33:YQ:45:GLN:CD	2.22	0.43
35:YS:83:LYS:HZ1	35:YS:109:GLY:HA2	1.83	0.43
38:YV:64:HIS:ND1	38:YV:92:THR:HG22	2.34	0.43
42:YZ:133:ILE:HD12	42:YZ:133:ILE:H	1.84	0.43
42:YZ:144:LEU:HD11	42:YZ:149:SER:CB	2.49	0.43
46:Y3:7:LYS:HE2	46:Y3:32:GLN:O	2.19	0.43
47:Y4:6:HIS:HA	47:Y4:7:PRO:HD2	1.82	0.43
49:Y6:41:PRO:HG2	49:Y6:45:LYS:N	2.29	0.43
1:QA:451:A:N7	1:QA:481:G:N1	2.67	0.42
1:QA:1306:A:C6	1:QA:1307:U:C2	3.06	0.42
1:QA:1394:A:N6	1:QA:1501:C:H5'	2.34	0.42
2:QB:21:ARG:HG3	2:QB:38:GLY:O	2.19	0.42
4:QD:108:LEU:HD21	4:QD:183:GLY:HA3	2.01	0.42
9:QI:17:VAL:HG11	9:QI:81:ILE:HD13	2.00	0.42
14:QN:47:LEU:HD23	14:QN:47:LEU:HA	1.74	0.42
22:RA:86:C:H2'	22:RA:87:C:H6	1.84	0.42
22:RA:264:C:C2'	22:RA:265:A:H5''	2.49	0.42
22:RA:360:G:H2'	22:RA:361:G:O4'	2.19	0.42
22:RA:370:G:H4'	22:RA:371:A:OP2	2.19	0.42
22:RA:394:A:H5''	22:RA:395:U:OP2	2.18	0.42
22:RA:452:G:H2'	22:RA:453:C:H6	1.83	0.42
22:RA:718:A:H3'	22:RA:719:C:C6	2.54	0.42
22:RA:1204:A:C2	22:RA:1241:A:C2	3.07	0.42
22:RA:1319:G:H1	22:RA:1333:C:N4	2.16	0.42
22:RA:1527:G:H2'	22:RA:1543:A:N1	2.32	0.42
22:RA:2376:A:H2'	22:RA:2377:A:O4'	2.19	0.42
22:RA:2676:C:H2'	22:RA:2677:G:H8	1.84	0.42
22:RA:2676:C:O2	22:RA:2732:G:N2	2.44	0.42
23:RB:14:U:O3'	23:RB:107:U:O2'	2.33	0.42
25:RE:48:GLN:OE1	25:RE:64:LYS:NZ	2.52	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:RH:124:GLU:HB3	28:RH:132:ARG:CG	2.48	0.42
34:RR:113:LEU:HD12	34:RR:113:LEU:HA	1.88	0.42
42:RZ:68:PRO:O	42:RZ:91:LEU:HB2	2.19	0.42
49:R6:8:LYS:O	49:R6:27:LYS:HA	2.18	0.42
1:XA:116:A:H2'	1:XA:117:G:O4'	2.19	0.42
1:XA:522:C:H41	12:XL:53:ARG:NH2	2.16	0.42
1:XA:554:C:H2'	1:XA:555:C:C6	2.53	0.42
1:XA:837:G:N2	1:XA:849:C:O2	2.51	0.42
1:XA:973:G:H3'	1:XA:974:A:C5'	2.48	0.42
1:XA:1149:C:H2'	1:XA:1150:U:C6	2.54	0.42
1:XA:1213:A:N1	1:XA:1215:G:H1'	2.34	0.42
5:XE:42:GLY:CA	5:XE:66:MET:HG2	2.48	0.42
5:XE:131:ILE:HD13	5:XE:131:ILE:HA	1.84	0.42
6:XF:30:LEU:HB3	6:XF:35:ALA:HB3	2.01	0.42
8:XH:13:ILE:O	8:XH:17:THR:HG23	2.19	0.42
10:XJ:6:ILE:HG22	10:XJ:98:ILE:HG23	2.01	0.42
18:XR:56:THR:HB	18:XR:58:LEU:HD12	2.01	0.42
22:YA:654(B):C:H42	22:YA:654(T):C:H42	1.67	0.42
22:YA:773:U:O2	22:YA:778:G:O2'	2.37	0.42
22:YA:1429:G:H2'	22:YA:1430:C:H6	1.82	0.42
22:YA:2360:A:H2'	22:YA:2361:A:O4'	2.19	0.42
23:YB:79:C:H2'	23:YB:80:U:O4'	2.19	0.42
25:YE:111:ARG:HD2	25:YE:160:TYR:CE1	2.55	0.42
25:YE:201:THR:HG22	25:YE:203:LYS:H	1.83	0.42
27:YG:31:VAL:HA	27:YG:32:PRO:HD3	1.83	0.42
29:YI:92:VAL:O	29:YI:120:ILE:HG22	2.18	0.42
42:YZ:166:SER:H	42:YZ:167:PRO:HA	1.84	0.42
47:Y4:14:ILE:HG13	47:Y4:31:ILE:HB	1.99	0.42
1:QA:358:U:H2'	1:QA:359:U:H6	1.84	0.42
1:QA:374:A:C6	1:QA:375:U:C4	3.06	0.42
1:QA:424:G:O5'	1:QA:424:G:H8	2.01	0.42
1:QA:540:G:H2'	1:QA:541:G:C8	2.54	0.42
1:QA:877:C:H5''	8:QH:88:LYS:HD3	2.00	0.42
1:QA:1128:C:O2'	1:QA:1130:A:H8	2.01	0.42
1:QA:1355:G:H2'	1:QA:1356:G:O4'	2.19	0.42
6:QF:99:ALA:HB1	18:QR:23:LYS:HZ2	1.83	0.42
15:QO:48:LYS:HD3	15:QO:48:LYS:HA	1.76	0.42
20:QT:87:LYS:HD2	20:QT:87:LYS:HA	1.68	0.42
22:RA:226:G:O2'	22:RA:227:A:O5'	2.34	0.42
22:RA:470:A:C2	22:RA:471:A:C4	3.07	0.42
22:RA:955:C:OP2	33:RQ:14:ARG:HD2	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:966:G:H2'	22:RA:967:C:C6	2.54	0.42
22:RA:1212:G:O2'	22:RA:1236:G:N2	2.46	0.42
22:RA:1502:C:H5'	22:RA:1503:U:OP2	2.18	0.42
22:RA:2355:C:O5'	22:RA:2355:C:H6	2.02	0.42
22:RA:2557:G:O2'	22:RA:2558:C:H5'	2.19	0.42
24:RD:169:GLU:N	24:RD:172:TYR:O	2.52	0.42
26:RF:28:ILE:H	26:RF:28:ILE:HG13	1.68	0.42
33:RQ:78:PRO:O	33:RQ:79:LEU:HB3	2.19	0.42
38:RV:64:HIS:CG	38:RV:92:THR:HG22	2.52	0.42
42:RZ:104:PHE:HA	42:RZ:139:VAL:HB	2.01	0.42
42:RZ:117:LEU:HA	42:RZ:174:VAL:HA	2.01	0.42
1:XA:390:C:H2'	1:XA:391:G:C8	2.54	0.42
1:XA:779:C:O2'	1:XA:780:A:H5'	2.18	0.42
1:XA:780:A:H1'	1:XA:803:G:N2	2.34	0.42
1:XA:825:G:C6	1:XA:826:C:C4	3.07	0.42
1:XA:1049:U:HO2'	14:YN:2:ALA:N	2.16	0.42
1:XA:1090:U:H2'	1:XA:1091:U:C6	2.54	0.42
1:XA:1152:A:H5'	10:XJ:13:HIS:CG	2.55	0.42
1:XA:1305:G:C8	1:XA:1305:G:OP2	2.72	0.42
1:XA:1352:C:N4	1:XA:1370:G:H1	2.10	0.42
1:XA:1427:U:H2'	1:XA:1428:A:C8	2.54	0.42
3:XC:85:ARG:HD2	3:XC:85:ARG:HA	1.83	0.42
8:XH:104:ARG:HD2	8:XH:138:TRP:CD2	2.53	0.42
22:YA:273(F):C:H2'	22:YA:274:G:H5''	2.01	0.42
22:YA:363(F):A:H4'	22:YA:364:C:H5'	2.00	0.42
22:YA:776:G:C4'	22:YA:777:A:H5''	2.44	0.42
22:YA:778:G:C6	22:YA:779:U:C4	3.07	0.42
22:YA:875:G:N2	22:YA:903:C:C2	2.87	0.42
22:YA:1265:A:H3'	48:Y5:19:ARG:HH12	1.83	0.42
22:YA:1514:U:H2'	22:YA:1515:C:C6	2.54	0.42
22:YA:1686:C:H5''	22:YA:1686:C:H6	1.85	0.42
22:YA:1794:U:C2	22:YA:1795:C:C5	3.06	0.42
22:YA:1820:U:O2	24:YD:202:LYS:N	2.51	0.42
22:YA:1952:A:C6	22:YA:1953:A:N1	2.87	0.42
22:YA:2246:G:H1'	22:YA:2426:A:C2	2.55	0.42
22:YA:2404:C:O3'	32:YP:77:ARG:NH2	2.50	0.42
25:YE:201:THR:HG22	25:YE:203:LYS:N	2.34	0.42
28:YH:159:GLU:O	28:YH:160:LYS:HG2	2.19	0.42
30:YN:96:GLU:HG2	30:YN:97:ARG:H	1.84	0.42
30:YN:134:ARG:H	30:YN:135:PRO:HD3	1.83	0.42
39:YW:86:LEU:HD22	39:YW:96:ILE:HD12	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:YZ:33:LEU:HD12	42:YZ:34:ASN:H	1.84	0.42
49:Y6:15:GLU:HG2	49:Y6:49:HIS:NE2	2.34	0.42
50:Y7:25:PRO:HA	50:Y7:28:ARG:CZ	2.49	0.42
55:QY:34:C:H2'	55:QY:35:G:C8	2.54	0.42
1:QA:9:G:C4	1:QA:10:A:C8	3.08	0.42
1:QA:593:G:N2	1:QA:646:U:O2	2.37	0.42
1:QA:923:A:H2'	1:QA:924:C:O4'	2.20	0.42
1:QA:1015:A:C6	1:QA:1016:A:C6	3.07	0.42
1:QA:1053:G:O3'	1:QA:1054:C:H4'	2.19	0.42
1:QA:1424:C:H2'	1:QA:1425:U:O4'	2.19	0.42
1:QA:1453:G:H2'	20:QT:39:LYS:HZ3	1.82	0.42
2:QB:69:LEU:O	2:QB:162:ILE:HA	2.18	0.42
3:QC:112:SER:O	3:QC:116:VAL:HG23	2.20	0.42
3:QC:148:GLY:HA3	3:QC:172:ARG:O	2.18	0.42
6:QF:62:TRP:CH2	6:QF:64:GLN:HB2	2.55	0.42
7:QG:102:ARG:HG2	7:QG:106:GLN:OE1	2.20	0.42
9:QI:48:GLU:N	9:QI:49:PRO:HD2	2.35	0.42
17:QQ:29:HIS:CG	17:QQ:30:PRO:HD2	2.54	0.42
22:RA:884:C:H41	22:RA:886:C:H1'	1.84	0.42
22:RA:1238:G:O2'	22:RA:1239:G:H5'	2.20	0.42
22:RA:1591:G:C6	22:RA:1592:C:C4	3.07	0.42
22:RA:1673:U:H5''	22:RA:1674:G:OP2	2.19	0.42
22:RA:1826:G:C6	22:RA:1827:C:C4	3.08	0.42
22:RA:1947:C:H5''	22:RA:1947:C:H6	1.83	0.42
22:RA:2004:G:C6	22:RA:2005:A:C4	3.08	0.42
22:RA:2120:G:H2'	22:RA:2121:G:H8	1.81	0.42
22:RA:2205:C:O2'	22:RA:2227:A:N1	2.48	0.42
22:RA:2401:U:H2'	22:RA:2402:C:C6	2.54	0.42
22:RA:2489:G:C2'	22:RA:2490:G:H5'	2.49	0.42
22:RA:2854:G:C6	22:RA:2855:C:C4	3.07	0.42
24:RD:245:PRO:HA	24:RD:246:PRO:HD3	1.95	0.42
28:RH:90:LYS:HE2	28:RH:90:LYS:HB3	1.91	0.42
30:RN:96:GLU:HB2	30:RN:122:VAL:HG12	2.00	0.42
35:RS:12:PHE:HD2	35:RS:12:PHE:HA	1.72	0.42
35:RS:39:ILE:HD11	35:RS:73:LEU:HD11	2.00	0.42
49:R6:35:GLU:H	49:R6:35:GLU:HG2	1.72	0.42
49:R6:45:LYS:HD3	49:R6:45:LYS:HA	1.75	0.42
1:XA:375:U:O3'	16:XP:6:LEU:HB2	2.20	0.42
1:XA:833:U:H2'	1:XA:834:C:C6	2.55	0.42
1:XA:1414:U:H2'	1:XA:1415:G:C8	2.51	0.42
1:XA:1519:A:N7	1:XA:1520:G:H1'	2.35	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:XF:95:GLU:HA	6:XF:96:PRO:HD3	1.87	0.42
7:XG:38:LEU:HD12	7:XG:38:LEU:O	2.20	0.42
9:XI:32:ASP:OD1	9:XI:33:PHE:N	2.53	0.42
22:YA:1636:C:H2'	22:YA:1637:A:C8	2.53	0.42
22:YA:1973:G:C6	22:YA:1974:C:C4	3.07	0.42
22:YA:2364:C:H2'	22:YA:2365:G:O4'	2.19	0.42
22:YA:2712:U:H2'	22:YA:2712(A):A:H3'	2.01	0.42
27:YG:16:ARG:N	27:YG:17:PRO:HD2	2.34	0.42
27:YG:103:LEU:HA	27:YG:103:LEU:HD23	1.83	0.42
28:YH:126:PRO:HG2	28:YH:128:PRO:HA	2.00	0.42
28:YH:126:PRO:HB2	28:YH:127:GLU:H	1.59	0.42
29:YI:133:HIS:HB2	29:YI:134:PRO:CD	2.50	0.42
33:YQ:76:LYS:HG3	33:YQ:77:LYS:N	2.35	0.42
35:YS:60:GLY:O	35:YS:61:ASN:HB3	2.18	0.42
44:Y1:58:ILE:HG23	44:Y1:87:PRO:HG3	2.02	0.42
47:Y4:60:GLN:O	47:Y4:63:TYR:HB3	2.20	0.42
51:Y8:52:LYS:N	51:Y8:53:PRO:HD2	2.33	0.42
53:XV:2:G:H2'	53:XV:3:C:C6	2.54	0.42
1:QA:261:U:N3	1:QA:264:U:OP2	2.44	0.42
1:QA:316:G:OP2	1:QA:351:G:O2'	2.32	0.42
1:QA:1494:G:C2	1:QA:1495:U:C6	3.08	0.42
5:QE:79:GLU:HB3	5:QE:92:LYS:HA	2.02	0.42
14:QN:41:ARG:NH2	14:QN:42:ILE:HD11	2.35	0.42
15:QO:43:LEU:HA	15:QO:43:LEU:HD23	1.74	0.42
17:QQ:10:VAL:HG13	17:QQ:19:VAL:HB	2.01	0.42
22:RA:49:A:N6	22:RA:177:G:C4	2.87	0.42
22:RA:58:G:N2	22:RA:70:G:C4	2.88	0.42
22:RA:116:C:H2'	22:RA:117:G:O4'	2.19	0.42
22:RA:273:G:C2	22:RA:273(A):G:C8	3.08	0.42
22:RA:278:A:H61	22:RA:362:U:H3	1.67	0.42
22:RA:1409:C:N4	22:RA:1593:G:H1	2.16	0.42
22:RA:2168:G:N3	22:RA:2168:G:H2'	2.34	0.42
22:RA:2590:A:O2'	22:RA:2591:C:H5'	2.20	0.42
22:RA:2630:G:H2'	22:RA:2631:G:H8	1.85	0.42
22:RA:2632:A:C2	22:RA:2787:C:C2	3.07	0.42
22:RA:2683:C:OP1	36:RT:53:ARG:NH2	2.52	0.42
22:RA:2695:C:H2'	22:RA:2696:U:C6	2.55	0.42
24:RD:72:LYS:NZ	24:RD:99:ASP:OD1	2.43	0.42
27:RG:159:VAL:HG21	27:RG:173:LEU:HD11	2.00	0.42
28:RH:6:ARG:HG3	28:RH:7:LEU:HG	2.01	0.42
29:RI:61:ARG:NH2	29:RI:64:GLU:OE1	2.52	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:RI:126:TYR:HE1	29:RI:142:VAL:HG21	1.83	0.42
35:RS:29:PHE:HD2	35:RS:92:TYR:HH	1.66	0.42
35:RS:93:LYS:HE3	35:RS:93:LYS:HB2	1.66	0.42
37:RU:75:ASN:HB2	37:RU:78:THR:H	1.84	0.42
47:R4:14:ILE:HG22	47:R4:24:THR:HG22	2.01	0.42
49:R6:11:LEU:HD13	49:R6:11:LEU:HA	1.81	0.42
1:XA:639:G:C2	1:XA:640:A:C5	3.07	0.42
1:XA:791:G:C5	1:XA:792:A:C2	3.08	0.42
1:XA:1032(B):G:H2'	1:XA:1033:G:C8	2.54	0.42
1:XA:1213:A:C6	1:XA:1215:G:C4	3.06	0.42
1:XA:1256:A:H2	1:XA:1277:C:C6	2.37	0.42
1:XA:1469:G:H2'	1:XA:1470:G:C8	2.55	0.42
2:XB:7:VAL:HG11	2:XB:217:ARG:CZ	2.49	0.42
2:XB:113:HIS:O	2:XB:116:GLU:HB2	2.20	0.42
7:XG:89:MET:CE	7:XG:156:TRP:H	2.32	0.42
13:XM:7:VAL:O	13:XM:9:ILE:HG23	2.19	0.42
22:YA:88:G:C2	22:YA:89:G:C8	3.07	0.42
22:YA:128:C:H4'	50:Y7:49:ARG:NH1	2.31	0.42
22:YA:258:G:C5	22:YA:259:G:N7	2.88	0.42
22:YA:528:A:N1	22:YA:2042:A:H2'	2.34	0.42
22:YA:612:G:H2'	22:YA:613:U:O2	2.19	0.42
22:YA:778:G:C5	22:YA:779:U:C4	3.07	0.42
22:YA:1214:A:N6	22:YA:1235:G:O2'	2.47	0.42
22:YA:1401:G:H2'	22:YA:1402:C:C6	2.54	0.42
22:YA:1482:U:H5'	22:YA:1483:G:P	2.60	0.42
22:YA:2032:G:OP2	22:YA:2454:G:O2'	2.28	0.42
22:YA:2088:G:C6	22:YA:2089:U:C4	3.07	0.42
22:YA:2304:G:H22	22:YA:2312:U:H3	1.68	0.42
22:YA:2543:G:N2	22:YA:2765:A:C8	2.88	0.42
22:YA:2636:U:H2'	22:YA:2637:U:C6	2.54	0.42
22:YA:2849:U:P	36:YT:95:ARG:HH12	2.42	0.42
23:YB:15:A:O2'	23:YB:109:G:C8	2.62	0.42
25:YE:57:LYS:HD2	25:YE:57:LYS:HA	1.87	0.42
26:YF:45:ARG:HH11	26:YF:45:ARG:CG	2.32	0.42
28:YH:153:LYS:HB3	28:YH:154:PRO:CD	2.49	0.42
32:YP:39:LYS:HG3	32:YP:45:LEU:CD2	2.45	0.42
33:YQ:39:PRO:HA	33:YQ:97:VAL:O	2.20	0.42
36:YT:45:PHE:CE1	36:YT:65:LYS:HE3	2.55	0.42
36:YT:58:ASN:C	36:YT:58:ASN:HD22	2.23	0.42
36:YT:80:SER:HA	36:YT:81:PRO:HD3	1.89	0.42
42:YZ:49:ARG:H	42:YZ:49:ARG:HG3	1.56	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:YZ:106:GLY:O	42:YZ:141:VAL:HG13	2.19	0.42
46:Y3:4:LEU:HD22	46:Y3:56:VAL:HG12	2.01	0.42
1:QA:130:A:H5''	1:QA:190:G:O2'	2.19	0.42
1:QA:945:G:C6	1:QA:1337:G:C6	3.07	0.42
1:QA:955:U:H1'	1:QA:1227:A:H61	1.84	0.42
1:QA:1080:A:H5''	1:QA:1081:G:OP2	2.19	0.42
1:QA:1306:A:N6	1:QA:1331:G:O2'	2.52	0.42
2:QB:44:LEU:H	2:QB:44:LEU:HD12	1.83	0.42
4:QD:192:GLU:H	4:QD:192:GLU:HG3	1.56	0.42
6:QF:22:GLU:O	6:QF:26:ILE:HG13	2.19	0.42
7:QG:70:LYS:HA	7:QG:71:PRO:HD2	1.89	0.42
19:QS:10:PHE:CG	19:QS:11:VAL:N	2.88	0.42
22:RA:123:G:H2'	22:RA:124:G:O4'	2.19	0.42
22:RA:536:A:C2	22:RA:558:G:C2	3.08	0.42
22:RA:637:A:O5'	32:RP:116:GLY:HA2	2.19	0.42
22:RA:852:G:C6	22:RA:853:G:C6	3.07	0.42
22:RA:879:G:H2'	22:RA:880:G:O4'	2.19	0.42
22:RA:931:G:O2'	46:R3:24:LYS:HD3	2.20	0.42
22:RA:1027:A:C6	22:RA:1126:A:C4	3.08	0.42
22:RA:1149:G:H2'	22:RA:1150:C:C6	2.55	0.42
22:RA:1444(A):A:H5''	22:RA:1445:C:H5	1.83	0.42
22:RA:1553:A:N7	22:RA:1555:G:C5	2.87	0.42
22:RA:2038:G:H2'	22:RA:2039:C:O4'	2.20	0.42
22:RA:2050:C:N4	22:RA:2051:A:C6	2.88	0.42
22:RA:2066:C:H42	22:RA:2444:G:H1	1.66	0.42
22:RA:2630:G:C2	22:RA:2894:G:N2	2.88	0.42
22:RA:2653:U:O2'	28:RH:110:SER:HB2	2.20	0.42
23:RB:82:G:O2'	23:RB:83:G:H5'	2.19	0.42
25:RE:9:VAL:HG23	25:RE:26:ILE:HA	2.00	0.42
30:RN:30:ILE:HG23	30:RN:52:VAL:HG11	2.00	0.42
42:RZ:54:HIS:CE1	42:RZ:101:PRO:HG3	2.54	0.42
42:RZ:153:SER:H	42:RZ:167:PRO:HB2	1.85	0.42
51:R8:4:MET:SD	51:R8:61:LEU:HD12	2.59	0.42
1:XA:167:G:O2'	1:XA:168:G:H5'	2.20	0.42
1:XA:1420:C:H6	1:XA:1420:C:O5'	2.02	0.42
2:XB:68:ILE:HB	2:XB:70:PHE:HE1	1.84	0.42
2:XB:223:ILE:HA	2:XB:226:ARG:HB3	2.02	0.42
4:XD:112:VAL:N	4:XD:116:GLN:OE1	2.38	0.42
13:XM:40:ASN:ND2	13:XM:43:THR:HG23	2.34	0.42
13:XM:121:LYS:HA	13:XM:121:LYS:HD3	1.90	0.42
22:YA:341:G:H2'	22:YA:342:G:O4'	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:350:U:H2'	22:YA:351:G:O4'	2.20	0.42
22:YA:372:G:HO2'	22:YA:373:U:H5	1.67	0.42
22:YA:489:G:C5	22:YA:1284:A:C2	3.08	0.42
22:YA:896:A:H61	42:YZ:112:ARG:HD2	1.84	0.42
22:YA:1429:G:N3	22:YA:1568:G:C2	2.88	0.42
22:YA:1494:A:H2'	22:YA:1495:A:H8	1.84	0.42
22:YA:1527:G:O2'	22:YA:1545(A):A:N6	2.51	0.42
22:YA:1672:C:N4	22:YA:1673:U:O4	2.53	0.42
22:YA:2019:A:H4'	37:YU:34:LYS:HD2	2.01	0.42
24:YD:36:PRO:CB	24:YD:61:LEU:HB3	2.50	0.42
29:YI:61:ARG:O	29:YI:64:GLU:HB3	2.20	0.42
32:YP:1:MET:HB3	32:YP:2:LYS:H	1.61	0.42
1:QA:259:G:H2'	1:QA:260:G:O4'	2.20	0.42
1:QA:474:G:H5''	16:QP:81:ARG:NE	2.34	0.42
1:QA:616:G:C2	1:QA:617:G:C8	3.07	0.42
1:QA:687:A:N1	1:QA:704:A:N7	2.67	0.42
1:QA:945:G:C2	1:QA:946:A:C8	3.07	0.42
1:QA:949:A:C4	1:QA:1233:G:N2	2.86	0.42
1:QA:1099:G:C6	1:QA:1100:C:N3	2.87	0.42
1:QA:1187:G:H2'	1:QA:1187:G:N3	2.35	0.42
1:QA:1442:G:C6	1:QA:1446:A:N6	2.87	0.42
1:QA:1503:A:O2'	1:QA:1504:G:H5'	2.20	0.42
3:QC:59:ARG:HH12	3:QC:97:LYS:HE3	1.84	0.42
5:QE:152:ARG:HG2	8:QH:79:VAL:HG13	2.02	0.42
13:QM:4:ILE:H	13:QM:9:ILE:HG22	1.84	0.42
15:QO:87:ILE:HG22	15:QO:88:ARG:N	2.35	0.42
22:RA:266:G:C2	22:RA:267:C:H1'	2.55	0.42
22:RA:443:A:H1'	22:RA:1201:C:O4'	2.20	0.42
22:RA:628:G:HO2'	22:RA:651:G:HO2'	1.61	0.42
22:RA:693:C:O2'	22:RA:1353:A:N3	2.42	0.42
22:RA:1410:G:H3'	22:RA:1411:C:H6	1.85	0.42
22:RA:1971:A:H5'	22:RA:1972:A:H5''	2.00	0.42
22:RA:2273:A:O2'	22:RA:2274:A:H5'	2.18	0.42
22:RA:2698:U:H2'	22:RA:2699:C:C6	2.54	0.42
24:RD:96:HIS:NE2	24:RD:102:LYS:HE2	2.34	0.42
24:RD:123:ALA:HA	24:RD:124:PRO:HD2	1.77	0.42
26:RF:182:ASN:O	26:RF:186:ILE:HG12	2.20	0.42
27:RG:173:LEU:O	27:RG:178:PHE:HB2	2.20	0.42
28:RH:153:LYS:HD2	28:RH:153:LYS:N	2.33	0.42
29:RI:130:TYR:HD1	29:RI:130:TYR:HA	1.67	0.42
36:RT:26:ASP:HB3	36:RT:92:GLY:N	2.18	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:RW:34:ASN:ND2	48:R5:39:MET:HG3	2.34	0.42
40:RX:44:GLU:O	40:RX:48:LYS:N	2.52	0.42
42:RZ:5:LEU:HB3	42:RZ:6:LYS:H	1.51	0.42
42:RZ:29:TYR:HA	42:RZ:33:LEU:O	2.19	0.42
48:R5:56:LYS:HB3	48:R5:56:LYS:HE3	1.79	0.42
51:R8:59:LYS:HB2	51:R8:59:LYS:NZ	2.35	0.42
1:XA:60:A:P	1:XA:60:A:H8	2.42	0.42
1:XA:127:G:N2	1:XA:234:C:O2	2.52	0.42
1:XA:179:A:H2'	1:XA:180:U:C6	2.55	0.42
1:XA:580:U:H2'	1:XA:581:G:O4'	2.19	0.42
1:XA:730:G:C6	1:XA:731:G:H1'	2.55	0.42
1:XA:815:A:O2'	1:XA:1527:C:H1'	2.20	0.42
1:XA:1152:A:OP1	10:XJ:68:HIS:CD2	2.73	0.42
2:XB:19:HIS:CE1	2:XB:206:ASP:HB2	2.54	0.42
4:XD:120:LEU:HD23	4:XD:120:LEU:HA	1.89	0.42
9:XI:91:ASP:C	9:XI:93:ARG:H	2.21	0.42
18:XR:43:PHE:CE2	18:XR:58:LEU:HD11	2.54	0.42
20:XT:50:GLU:HG3	20:XT:51:GLU:N	2.33	0.42
22:YA:18:C:O3'	37:YU:23:GLY:HA2	2.19	0.42
22:YA:229:A:HO2'	22:YA:230:U:P	2.42	0.42
22:YA:1198:U:H2'	22:YA:1199:U:C6	2.55	0.42
22:YA:1215:G:C4	22:YA:1216:G:C8	3.08	0.42
22:YA:2055:C:O2	22:YA:2572:A:N6	2.53	0.42
22:YA:2330:G:H2'	22:YA:2331:G:O4'	2.20	0.42
22:YA:2532:G:H2'	22:YA:2533:A:C8	2.54	0.42
22:YA:2883:A:H3'	22:YA:2884:U:H5'	2.02	0.42
23:YB:39:A:C4	23:YB:44:G:N2	2.87	0.42
24:YD:35:LYS:HE3	24:YD:64:ILE:N	2.35	0.42
27:YG:64:THR:CG2	27:YG:66:GLN:H	2.28	0.42
35:YS:81:GLY:O	35:YS:83:LYS:N	2.53	0.42
35:YS:83:LYS:NZ	35:YS:109:GLY:HA2	2.33	0.42
37:YU:109:LEU:HD23	37:YU:109:LEU:HA	1.89	0.42
38:YV:65:GLY:O	38:YV:90:PRO:HA	2.20	0.42
45:Y2:8:LYS:HB2	45:Y2:8:LYS:HE3	1.84	0.42
46:Y3:8:LEU:HB3	46:Y3:31:LEU:HA	2.01	0.42
51:Y8:60:LEU:C	51:Y8:63:PRO:HD2	2.40	0.42
53:XV:15:G:N2	53:XV:48:C:H42	2.18	0.42
53:XV:45:G:H8	53:XV:45:G:O5'	2.02	0.42
1:QA:37:U:H3	1:QA:397:A:H61	1.67	0.42
1:QA:64:G:H4'	1:QA:65:U:H5'	2.00	0.42
1:QA:262:A:H2'	1:QA:263:A:C8	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:719:C:O2'	18:QR:49:LYS:HB3	2.19	0.42
1:QA:778:G:H2'	1:QA:779:C:O4'	2.19	0.42
2:QB:60:ASP:O	2:QB:64:ARG:HG2	2.19	0.42
3:QC:56:ASP:O	3:QC:66:VAL:HA	2.19	0.42
22:RA:565:C:H2'	22:RA:566:U:O4'	2.20	0.42
22:RA:681:G:H2'	22:RA:682:G:O4'	2.19	0.42
22:RA:719:C:H2'	22:RA:720:C:C6	2.55	0.42
22:RA:754:C:O2'	22:RA:755:C:H5'	2.19	0.42
22:RA:802:A:C5	22:RA:803:U:C4	3.07	0.42
22:RA:840:C:H2'	22:RA:841:A:H8	1.85	0.42
22:RA:862:G:H4'	23:RB:79:C:H4'	2.02	0.42
22:RA:1122:G:H2'	22:RA:1123:C:H5'	2.01	0.42
22:RA:1816:G:H8	24:RD:62:TYR:CZ	2.38	0.42
22:RA:1903:G:O2'	22:RA:1904:G:H5'	2.19	0.42
22:RA:2778:A:H4'	22:RA:2779:U:OP1	2.18	0.42
24:RD:33:LEU:HB3	24:RD:34:VAL:H	1.64	0.42
28:RH:16:SER:OG	28:RH:26:VAL:O	2.30	0.42
28:RH:164:TYR:O	28:RH:166:GLY:N	2.52	0.42
29:RI:7:GLU:HA	29:RI:15:VAL:HG13	2.01	0.42
30:RN:35:ARG:HB2	30:RN:42:TRP:CZ3	2.54	0.42
35:RS:78:LEU:HD23	35:RS:78:LEU:HA	1.86	0.42
37:RU:83:LEU:HD12	37:RU:113:ALA:HB2	2.01	0.42
41:RY:50:ARG:H	41:RY:50:ARG:HG2	1.67	0.42
42:RZ:13:GLU:HB3	42:RZ:18:LEU:HD11	2.01	0.42
49:R6:28:ARG:HB3	49:R6:30:THR:H	1.84	0.42
1:XA:340:U:O2	1:XA:350:G:N2	2.53	0.42
1:XA:663:A:H5'	1:XA:836:G:OP1	2.20	0.42
1:XA:1017:G:H2'	1:XA:1018:C:C6	2.54	0.42
1:XA:1084:G:C5	1:XA:1085:U:C4	3.07	0.42
1:XA:1158:C:H4'	2:XB:133:LYS:HZ1	1.85	0.42
1:XA:1162:C:H2'	1:XA:1163:C:C6	2.55	0.42
3:XC:32:LEU:HD22	3:XC:59:ARG:NH1	2.34	0.42
7:XG:15:ASP:O	7:XG:19:GLY:HA2	2.20	0.42
9:XI:4:TYR:CE1	9:XI:88:TYR:HB2	2.55	0.42
13:XM:77:ASN:HA	47:Y4:71:ARG:HH22	1.85	0.42
20:XT:39:LYS:HG3	20:XT:39:LYS:H	1.63	0.42
22:YA:270(M):U:O2'	22:YA:270(N):G:O5'	2.34	0.42
22:YA:300:A:OP1	41:YY:84:ARG:NH2	2.52	0.42
22:YA:341:G:C5	22:YA:342:G:C8	3.08	0.42
22:YA:442:G:C6	22:YA:444:C:C4	3.08	0.42
22:YA:470:A:H2'	22:YA:471:A:O4'	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:606:U:H4'	22:YA:658:C:H4'	2.02	0.42
22:YA:611:C:H2'	22:YA:612:G:O4'	2.19	0.42
22:YA:1053:C:H5'	22:YA:1054:A:OP2	2.20	0.42
22:YA:1353:A:C5	22:YA:1378:A:C5	3.08	0.42
22:YA:1824:G:H5''	24:YD:52:ARG:NH1	2.35	0.42
22:YA:1871:A:H2'	22:YA:1872:A:C8	2.55	0.42
23:YB:74:U:H2'	23:YB:75:G:O4'	2.19	0.42
24:YD:25:THR:HG21	24:YD:81:ALA:HA	2.02	0.42
24:YD:25:THR:HG22	24:YD:82:ILE:H	1.84	0.42
30:YN:46:VAL:HG13	30:YN:48:MET:HG3	2.02	0.42
30:YN:137:LYS:HD2	30:YN:137:LYS:HA	1.77	0.42
31:YO:21:CYS:O	31:YO:22:ILE:HD13	2.20	0.42
32:YP:36:LYS:HB3	32:YP:40:SER:CB	2.49	0.42
36:YT:26:ASP:HB2	36:YT:91:ARG:HA	2.00	0.42
47:Y4:68:ARG:HB2	47:Y4:69:LYS:H	1.51	0.42
49:Y6:14:THR:HG21	49:Y6:19:ARG:HH21	1.85	0.42
1:QA:137:C:N3	1:QA:226:G:N2	2.51	0.42
1:QA:347:G:O2'	1:QA:348:G:OP2	2.27	0.42
1:QA:575:G:O2'	1:QA:821:G:H5'	2.20	0.42
1:QA:693:G:C6	1:QA:694:A:C5	3.08	0.42
1:QA:830:G:C6	1:QA:831:U:N3	2.88	0.42
1:QA:888:G:O2'	1:QA:1488:G:O2'	2.35	0.42
1:QA:1316:G:N2	1:QA:1319:A:H5''	2.28	0.42
1:QA:1318:A:C5'	19:QS:11:VAL:HG11	2.50	0.42
2:QB:88:ALA:HB2	2:QB:219:VAL:HG13	2.02	0.42
2:QB:92:TYR:CD1	2:QB:151:GLY:HA3	2.55	0.42
3:QC:36:ASP:HA	3:QC:39:ILE:HD12	2.02	0.42
4:QD:11:LEU:HD22	4:QD:66:ARG:HD3	2.02	0.42
13:QM:40:ASN:HA	13:QM:41:PRO:HD3	1.89	0.42
15:QO:2:PRO:HB2	15:QO:3:ILE:H	1.56	0.42
18:QR:53:ARG:HE	18:QR:59:SER:C	2.22	0.42
22:RA:318:C:H2'	22:RA:319:C:C6	2.54	0.42
22:RA:343:C:H5'	22:RA:344:G:OP2	2.19	0.42
22:RA:1448:G:H2'	22:RA:1449:A:C8	2.55	0.42
22:RA:1701:A:H5''	22:RA:1702:G:OP2	2.19	0.42
22:RA:2406:U:N3	32:RP:73:GLY:O	2.39	0.42
22:RA:2532:G:N2	22:RA:2663:G:O2'	2.53	0.42
22:RA:2580:U:C5	22:RA:2581:G:C6	3.08	0.42
22:RA:2636:U:H2'	22:RA:2637:U:H6	1.84	0.42
22:RA:2754:U:H2'	22:RA:2755:C:H5''	2.02	0.42
22:RA:2791:C:H42	22:RA:2803:C:N4	2.17	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:2883:A:H3'	22:RA:2884:U:H5'	2.01	0.42
23:RB:75:G:N1	23:RB:102:G:N2	2.68	0.42
25:RE:78:LEU:HG	25:RE:79:ARG:NE	2.35	0.42
25:RE:188:VAL:HG23	25:RE:189:PRO:HD2	2.01	0.42
27:RG:6:ALA:N	47:R4:23:GLU:HG2	2.31	0.42
27:RG:116:ASP:OD1	27:RG:116:ASP:N	2.53	0.42
27:RG:151:ALA:HB3	27:RG:153:ARG:NH1	2.35	0.42
29:RI:86:THR:HA	29:RI:123:LEU:HD12	2.01	0.42
32:RP:100:LEU:HA	32:RP:100:LEU:HD22	1.77	0.42
34:RR:63:ARG:HA	34:RR:80:PHE:CZ	2.54	0.42
36:RT:51:ARG:HG3	36:RT:98:LYS:HG3	2.02	0.42
39:RW:75:TYR:CZ	39:RW:104:THR:HG21	2.54	0.42
42:RZ:180:VAL:HG23	42:RZ:181:GLU:H	1.85	0.42
44:R1:90:ILE:O	44:R1:94:LEU:HB2	2.20	0.42
45:R2:70:GLN:O	45:R2:71:ASN:HB2	2.19	0.42
48:R5:56:LYS:H	48:R5:56:LYS:CD	2.31	0.42
1:XA:68:G:C2	1:XA:69:G:C4	3.07	0.42
1:XA:444:C:H2'	1:XA:445:G:H8	1.84	0.42
1:XA:448:A:C4	1:XA:487:A:C2	3.07	0.42
1:XA:487:A:H2'	1:XA:488:C:O4'	2.19	0.42
1:XA:503:C:H2'	1:XA:504:C:C6	2.53	0.42
1:XA:988:G:C2	1:XA:1218:C:C2	3.07	0.42
1:XA:1216:G:H5''	14:XN:5:ALA:CB	2.49	0.42
8:XH:121:ASP:OD1	8:XH:121:ASP:N	2.46	0.42
22:YA:753:C:H2'	22:YA:754:C:H6	1.85	0.42
22:YA:1039:G:H2'	22:YA:1040:C:C6	2.54	0.42
22:YA:1252:G:C2	22:YA:1253:A:C2	3.08	0.42
22:YA:1627:G:C2	22:YA:1628:G:C8	3.08	0.42
22:YA:1728:G:H5'	22:YA:1729:A:OP2	2.20	0.42
22:YA:1728:G:H8	22:YA:1732:A:H62	1.68	0.42
22:YA:1889:A:C6	22:YA:1890:A:C6	3.08	0.42
22:YA:2271:G:O5'	22:YA:2271:G:H8	2.03	0.42
22:YA:2875:C:H4'	36:YT:5:ALA:HB2	2.01	0.42
24:YD:89:SER:O	24:YD:198:ASN:ND2	2.52	0.42
28:YH:30:LYS:HE2	28:YH:81:GLU:H	1.85	0.42
29:YI:7:GLU:HA	29:YI:15:VAL:HG12	2.00	0.42
35:YS:106:ARG:HA	35:YS:110:LEU:CD2	2.47	0.42
40:YX:84:ALA:HB1	40:YX:85:PRO:HD2	2.02	0.42
1:QA:32:A:C2	1:QA:33:A:C4	3.07	0.42
1:QA:358:U:O5'	1:QA:358:U:H6	2.03	0.42
1:QA:842:C:O2'	1:QA:848:C:N4	2.53	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:909:A:H2'	1:QA:910:C:O4'	2.18	0.42
1:QA:1527:C:O2'	1:QA:1528:U:H5'	2.20	0.42
2:QB:130:ARG:HA	2:QB:131:PRO:HD3	1.81	0.42
8:QH:59:LEU:O	8:QH:61:VAL:HG23	2.20	0.42
10:QJ:81:THR:C	10:QJ:83:GLU:H	2.23	0.42
11:QK:41:THR:HG22	11:QK:42:TRP:N	2.34	0.42
11:QK:48:ILE:HG23	11:QK:63:LEU:HD22	2.01	0.42
12:QL:38:THR:HG21	12:QL:65:GLU:OE2	2.19	0.42
22:RA:64:A:H2'	22:RA:65:C:O4'	2.19	0.42
22:RA:242:G:C8	51:R8:5:LYS:HG2	2.54	0.42
22:RA:373:U:O2	22:RA:373:U:H2'	2.19	0.42
22:RA:414:C:H2'	22:RA:415:A:C8	2.55	0.42
22:RA:691:C:O2'	22:RA:692:C:H5'	2.19	0.42
22:RA:784:A:O2'	22:RA:785:G:H5''	2.20	0.42
22:RA:959:A:C6	22:RA:960:A:N1	2.88	0.42
22:RA:1344:G:C2	22:RA:1404:C:C2	3.08	0.42
22:RA:1668:A:C8	22:RA:1674:G:C6	3.07	0.42
22:RA:1752:C:H5''	22:RA:2862:G:H5'	2.00	0.42
22:RA:1977:A:N6	22:RA:1978:A:C6	2.88	0.42
22:RA:2718:G:C6	22:RA:2719:G:C5	3.08	0.42
22:RA:2745:C:N4	22:RA:2759:G:H1	2.17	0.42
25:RE:34:VAL:HG23	25:RE:64:LYS:HZ2	1.85	0.42
26:RF:184:TYR:O	26:RF:188:ARG:HG3	2.19	0.42
30:RN:10:GLU:HA	30:RN:11:PRO:HD3	1.65	0.42
32:RP:20:GLY:HA2	32:RP:27:HIS:O	2.19	0.42
35:RS:14:VAL:HG11	35:RS:90:GLY:O	2.19	0.42
42:RZ:109:ALA:O	42:RZ:112:ARG:HB2	2.19	0.42
46:R3:35:ARG:HB3	46:R3:37:LEU:HD21	2.01	0.42
47:R4:55:ARG:O	47:R4:59:PHE:HB3	2.20	0.42
1:XA:157:G:H2'	1:XA:158:G:C8	2.55	0.42
1:XA:282:A:OP2	1:XA:283:C:N4	2.36	0.42
1:XA:298:A:H2'	1:XA:299:G:O4'	2.20	0.42
1:XA:327:A:C6	1:XA:329:A:C5	3.07	0.42
1:XA:352:C:H4'	1:XA:354:G:OP1	2.20	0.42
1:XA:951:G:H1'	1:XA:970:C:O2'	2.20	0.42
1:XA:1299:A:C2'	1:XA:1301:U:H1'	2.34	0.42
1:XA:1321:C:H5''	1:XA:1322:C:H5'	2.02	0.42
1:XA:1369:C:H2'	1:XA:1370:G:C8	2.55	0.42
1:XA:1434:A:H2'	1:XA:1435:G:O4'	2.20	0.42
1:XA:1524:C:N4	1:XA:1525:G:O6	2.53	0.42
3:XC:91:LEU:O	3:XC:95:THR:OG1	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:XE:79:GLU:H	5:XE:79:GLU:HG3	1.46	0.42
9:XI:125:TYR:HD2	9:XI:126:SER:H	1.68	0.42
11:XK:109:VAL:HG11	18:XR:84:LYS:HD3	2.02	0.42
19:XS:78:ARG:H	19:XS:78:ARG:HG2	1.56	0.42
22:YA:136:G:H2'	22:YA:137:C:H6	1.85	0.42
22:YA:196:A:O2'	22:YA:805:G:O6	2.16	0.42
22:YA:396:G:H8	22:YA:396:G:O5'	2.03	0.42
22:YA:648:G:H2'	22:YA:649:G:C8	2.55	0.42
22:YA:1374:G:H2'	22:YA:1375:C:C6	2.55	0.42
22:YA:1449:A:N6	22:YA:1449(A):G:C4	2.88	0.42
22:YA:1586:A:H3'	22:YA:1587:A:C8	2.45	0.42
22:YA:1668:A:O4'	22:YA:1669:A:C2	2.73	0.42
22:YA:1832:C:N4	22:YA:1833:U:C4	2.87	0.42
22:YA:2163:C:N4	22:YA:2164:C:H41	2.18	0.42
22:YA:2747:G:O6	22:YA:2755:C:H5''	2.19	0.42
24:YD:34:VAL:HG22	24:YD:35:LYS:HG3	2.00	0.42
24:YD:221:VAL:HG22	24:YD:226:MET:CE	2.49	0.42
25:YE:167:VAL:HG21	25:YE:187:ALA:HB1	2.01	0.42
29:YI:63:ALA:HA	29:YI:66:GLU:HG2	2.02	0.42
29:YI:130:TYR:HD1	29:YI:130:TYR:HA	1.71	0.42
35:YS:30:ARG:NH2	35:YS:92:TYR:CD1	2.87	0.42
35:YS:38:GLN:HG3	35:YS:47:THR:HG21	2.02	0.42
42:YZ:37:VAL:HG23	42:YZ:38:TYR:N	2.35	0.42
43:Y0:48:GLY:N	43:Y0:79:VAL:O	2.46	0.42
47:Y4:16:CYS:SG	47:Y4:36:CYS:HB3	2.59	0.42
48:Y5:31:VAL:HG13	48:Y5:42:PRO:HG3	2.01	0.42
51:Y8:44:LYS:HD2	51:Y8:44:LYS:N	2.34	0.42
53:QV:6:G:H1	53:QV:67:C:N4	2.05	0.42
1:QA:401:C:O2'	1:QA:621:A:N3	2.50	0.42
1:QA:411:A:C4	1:QA:413:G:H1'	2.53	0.42
1:QA:807:A:H2'	1:QA:808:C:O4'	2.19	0.42
1:QA:1363:A:H1'	1:QA:1365:G:N7	2.35	0.42
2:QB:27:LYS:HD2	2:QB:193:ASP:CB	2.46	0.42
3:QC:134:ILE:HD11	3:QC:153:VAL:HG21	2.02	0.42
4:QD:63:LYS:HB2	4:QD:63:LYS:HE3	1.77	0.42
4:QD:165:MET:SD	4:QD:168:ARG:HD2	2.60	0.42
4:QD:171:GLY:HA2	4:QD:172:PRO:HD3	1.87	0.42
7:QG:13:GLN:O	7:QG:24:THR:HG21	2.20	0.42
8:QH:54:ASP:OD1	8:QH:54:ASP:N	2.53	0.42
14:QN:23:ARG:NH1	14:QN:30:ALA:HB2	2.35	0.42
22:RA:69:C:O5'	22:RA:69:C:H6	2.03	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:188:G:H1	22:RA:208:C:H42	1.67	0.42
22:RA:227:A:C5	22:RA:2407:G:O4'	2.73	0.42
22:RA:725:G:H8	22:RA:725:G:O5'	2.03	0.42
22:RA:774:A:O2'	22:RA:775:G:H8	2.02	0.42
22:RA:774:A:HO2'	22:RA:775:G:P	2.41	0.42
22:RA:804:A:H2'	22:RA:806:C:C4	2.55	0.42
22:RA:1306:C:C2	22:RA:1623:G:C2	3.08	0.42
22:RA:2209:C:O2	22:RA:2216:G:C2	2.73	0.42
22:RA:2400:G:N2	22:RA:2417:C:C2	2.88	0.42
22:RA:2630:G:H2'	22:RA:2631:G:C8	2.55	0.42
24:RD:35:LYS:HB3	24:RD:36:PRO:HA	2.01	0.42
24:RD:43:ARG:HB2	24:RD:54:ARG:HB2	2.02	0.42
26:RF:46:ARG:HG2	26:RF:46:ARG:HH11	1.84	0.42
26:RF:93:LYS:HB3	26:RF:94:PRO:HD2	2.01	0.42
28:RH:105:LEU:HD22	28:RH:113:VAL:HB	2.01	0.42
28:RH:125:VAL:HA	28:RH:126:PRO:HA	1.90	0.42
29:RI:102:SER:C	29:RI:104:GLN:H	2.23	0.42
37:RU:58:ARG:NH1	37:RU:93:LYS:HE2	2.35	0.42
42:RZ:150:LEU:HD22	42:RZ:150:LEU:H	1.84	0.42
44:R1:85:LEU:HA	44:R1:87:PRO:HD2	2.01	0.42
1:XA:606:G:N2	1:XA:631:G:C8	2.88	0.42
1:XA:658:G:C2	1:XA:749:C:N3	2.88	0.42
1:XA:982:U:H5''	14:YN:6:LEU:HD21	2.02	0.42
1:XA:1367:C:OP1	9:XI:115:GLY:N	2.47	0.42
10:XJ:3:LYS:HB2	10:XJ:75:ILE:O	2.19	0.42
13:XM:3:ARG:HG3	13:XM:9:ILE:HG21	2.02	0.42
22:YA:254:G:O6	51:Y8:5:LYS:HG2	2.19	0.42
22:YA:1077:A:H3'	22:YA:1078:U:H5''	2.02	0.42
22:YA:1162:G:H2'	22:YA:1163:G:C8	2.52	0.42
22:YA:1952:A:C6	22:YA:1953:A:C6	3.08	0.42
22:YA:2170:A:H2'	22:YA:2171:A:O4'	2.20	0.42
22:YA:2396:G:OP1	44:Y1:25:LYS:NZ	2.52	0.42
22:YA:2422:A:H4'	22:YA:2423:U:OP1	2.19	0.42
22:YA:2469:A:C8	22:YA:2482:G:C4	3.08	0.42
22:YA:2556:C:H2'	22:YA:2557:G:O4'	2.20	0.42
25:YE:144:ARG:HB3	25:YE:145:LYS:H	1.45	0.42
30:YN:59:LYS:HE3	30:YN:61:ARG:HH22	1.84	0.42
32:YP:29:LYS:HD2	32:YP:30:THR:CG2	2.50	0.42
33:YQ:85:LYS:O	33:YQ:86:GLY:C	2.58	0.42
34:YR:2:ARG:HG2	34:YR:5:LYS:NZ	2.35	0.42
40:YX:26:TYR:HB3	40:YX:92:LEU:HD12	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:YY:51:VAL:HG23	41:YY:57:GLN:N	2.35	0.42
51:Y8:26:LYS:HB3	51:Y8:44:LYS:HG3	2.01	0.42
1:QA:151:A:H2'	1:QA:152:A:O4'	2.20	0.41
1:QA:735:C:H2'	1:QA:736:C:C6	2.55	0.41
2:QB:230:VAL:HB	2:QB:231:GLU:H	1.60	0.41
8:QH:38:ILE:HD12	8:QH:118:VAL:HG12	2.02	0.41
8:QH:51:VAL:HG21	8:QH:60:ARG:HG2	2.02	0.41
8:QH:54:ASP:O	8:QH:56:LYS:HG3	2.20	0.41
14:QN:29:ARG:HG2	14:QN:31:ARG:O	2.20	0.41
22:RA:996:A:OP2	37:RU:92:ARG:NH2	2.53	0.41
22:RA:1040:C:H2'	22:RA:1041:C:H6	1.85	0.41
22:RA:1113:U:H2'	22:RA:1114:G:C8	2.54	0.41
22:RA:1440:G:H2'	22:RA:1441:G:H8	1.84	0.41
22:RA:1466:G:N2	22:RA:1547:C:C2	2.88	0.41
22:RA:1702:G:H2'	22:RA:1703:G:O4'	2.19	0.41
22:RA:1794:U:H2'	22:RA:1795:C:C6	2.55	0.41
22:RA:2043:C:C2	22:RA:2044:C:C5	3.08	0.41
22:RA:2080:G:C5	22:RA:2081:C:C5	3.08	0.41
22:RA:2666:C:H5''	22:RA:2667:C:OP2	2.20	0.41
22:RA:2723:C:OP2	25:RE:109:LYS:NZ	2.52	0.41
24:RD:101:GLU:OE1	24:RD:103:ARG:NH1	2.53	0.41
26:RF:78:ILE:H	26:RF:78:ILE:HG13	1.66	0.41
29:RI:29:TYR:O	29:RI:32:PRO:HD2	2.19	0.41
29:RI:132:PRO:HB2	29:RI:133:HIS:ND1	2.34	0.41
31:RO:7:TYR:CE1	31:RO:20:MET:HB2	2.55	0.41
51:R8:23:VAL:CG1	51:R8:46:ARG:HD3	2.49	0.41
1:XA:200:G:H1	1:XA:217:C:N4	2.18	0.41
1:XA:938:A:H8	1:XA:938:A:O5'	2.02	0.41
1:XA:1147:C:O2	9:XI:16:ARG:NH1	2.52	0.41
1:XA:1469:G:H2'	1:XA:1470:G:H8	1.84	0.41
1:XA:1523:G:OP1	11:XK:123:LYS:NZ	2.44	0.41
4:XD:127:THR:HA	4:XD:132:ARG:HA	2.02	0.41
13:XM:16:ASP:HB3	13:XM:41:PRO:HB3	2.01	0.41
13:XM:20:THR:O	13:XM:22:ILE:N	2.51	0.41
22:YA:142:G:H1'	40:YX:37:THR:CG2	2.50	0.41
22:YA:1085:A:O2'	22:YA:1086:A:P	2.78	0.41
22:YA:1480:G:C6	22:YA:1482:U:C4	3.08	0.41
22:YA:1488:G:N2	22:YA:1502:C:C2	2.87	0.41
22:YA:1587:A:H2'	22:YA:1588:C:C6	2.56	0.41
22:YA:2019:A:C4'	37:YU:34:LYS:HD2	2.50	0.41
22:YA:2146:C:OP2	22:YA:2146:C:H6	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:2620:C:H2'	22:YA:2621:A:O4'	2.19	0.41
22:YA:2659:G:O2'	22:YA:2661:G:N7	2.40	0.41
24:YD:232:PRO:HB3	24:YD:244:ARG:CZ	2.50	0.41
29:YI:69:LYS:HE2	29:YI:73:GLU:OE1	2.20	0.41
32:YP:82:GLY:HA3	32:YP:115:LEU:HD21	2.01	0.41
37:YU:30:LYS:HA	37:YU:30:LYS:HD3	1.90	0.41
38:YV:72:VAL:HG13	38:YV:85:LYS:HG2	2.01	0.41
41:YY:96:ILE:HG13	41:YY:98:VAL:H	1.85	0.41
42:YZ:70:LEU:HA	42:YZ:70:LEU:HD23	1.65	0.41
47:Y4:37:SER:HB3	47:Y4:42:PHE:HB3	2.00	0.41
47:Y4:39:CYS:O	47:Y4:40:HIS:HB2	2.20	0.41
48:Y5:56:LYS:H	48:Y5:56:LYS:CD	2.30	0.41
53:QV:23:C:H2'	53:QV:24:U:H6	1.84	0.41
1:QA:15:G:H2'	1:QA:16:A:O4'	2.20	0.41
1:QA:44:G:N1	1:QA:45:U:O2	2.53	0.41
1:QA:187:C:H2'	1:QA:188:U:O4'	2.20	0.41
1:QA:270:A:C5	1:QA:271:C:C4	3.08	0.41
1:QA:746:A:H2'	1:QA:747:C:C6	2.55	0.41
1:QA:824:C:H2'	1:QA:825:G:H8	1.83	0.41
1:QA:947:G:H2'	1:QA:948:C:O4'	2.20	0.41
4:QD:169:LYS:HE2	4:QD:169:LYS:HB3	1.88	0.41
8:QH:36:LEU:HD12	8:QH:59:LEU:HD13	2.02	0.41
11:QK:120:ARG:HA	11:QK:121:PRO:HD3	1.87	0.41
14:QN:4:LYS:O	14:QN:7:ILE:HG12	2.20	0.41
15:QO:31:LEU:O	15:QO:35:ARG:HG3	2.20	0.41
18:QR:56:THR:HB	18:QR:58:LEU:CD1	2.50	0.41
19:QS:28:LYS:HA	19:QS:47:HIS:HE1	1.86	0.41
22:RA:189:G:H2'	22:RA:205:G:N2	2.35	0.41
22:RA:336:C:H2'	22:RA:337:C:H6	1.83	0.41
22:RA:409:C:H2'	22:RA:410:G:H8	1.84	0.41
22:RA:460:A:C2	22:RA:470:A:C4	3.08	0.41
22:RA:534:U:H2'	22:RA:535:C:C6	2.55	0.41
22:RA:551:G:O4'	22:RA:1220:A:N3	2.53	0.41
22:RA:1248:G:C5	37:RU:3:ARG:HB2	2.55	0.41
22:RA:1392:A:C6	22:RA:1393:A:C6	3.08	0.41
22:RA:1620:G:H2'	22:RA:1621:U:H6	1.83	0.41
22:RA:2320:A:C8	22:RA:2333:A:N6	2.88	0.41
22:RA:2531:A:H4'	28:RH:157:TYR:CE2	2.55	0.41
22:RA:2838:G:C6	22:RA:2839:G:C5	3.08	0.41
26:RF:113:ALA:HB1	26:RF:186:ILE:HG21	2.02	0.41
26:RF:129:PHE:O	26:RF:130:ALA:HB3	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:RF:177:ALA:HB1	26:RF:178:PRO:HD2	2.02	0.41
27:RG:47:LYS:HD3	27:RG:81:LYS:CB	2.49	0.41
32:RP:63:PRO:HA	51:R8:13:ARG:HB3	2.02	0.41
41:RY:39:VAL:HB	41:RY:40:GLU:H	1.57	0.41
42:RZ:125:LEU:HD23	42:RZ:164:ALA:O	2.21	0.41
46:R3:7:LYS:HA	46:R3:33:GLN:O	2.20	0.41
50:R7:47:ARG:HB2	50:R7:48:LYS:H	1.68	0.41
1:XA:253:U:H2'	1:XA:254:G:H8	1.84	0.41
1:XA:262:A:C6	1:XA:263:A:C6	3.08	0.41
1:XA:339:C:H2'	1:XA:340:U:C6	2.55	0.41
1:XA:691:G:H2'	1:XA:692:U:C6	2.55	0.41
1:XA:977:A:C8	1:XA:1223:C:C4	3.08	0.41
1:XA:1171:G:H2'	1:XA:1172:C:H6	1.84	0.41
9:XI:40:LEU:O	9:XI:42:ARG:N	2.48	0.41
16:XP:60:LEU:HD23	16:XP:60:LEU:HA	1.80	0.41
18:XR:38:GLU:O	18:XR:42:ARG:NH1	2.53	0.41
22:YA:74:A:H5'	22:YA:75:G:O4'	2.19	0.41
22:YA:230:U:H2'	22:YA:231:C:H6	1.86	0.41
22:YA:307:G:H8	22:YA:307:G:O5'	2.02	0.41
22:YA:363(A):A:H2'	22:YA:363(B):G:C8	2.55	0.41
22:YA:389:G:H22	32:YP:72:PRO:CG	2.33	0.41
22:YA:422:A:C6	22:YA:423:A:C6	3.08	0.41
22:YA:519:U:H2'	22:YA:520:G:C8	2.54	0.41
22:YA:593:G:C4'	51:Y8:4:MET:HE1	2.50	0.41
22:YA:654:A:HO2'	22:YA:654(A):G:P	2.44	0.41
22:YA:875:G:H2'	22:YA:876:C:O4'	2.20	0.41
22:YA:1173:G:H5''	22:YA:1174:A:OP1	2.20	0.41
22:YA:1204:A:C2	22:YA:1241:A:N1	2.84	0.41
22:YA:1483:G:C6	22:YA:1507:A:C8	3.08	0.41
22:YA:1657:C:H2'	22:YA:1658:C:H6	1.84	0.41
22:YA:1729:A:N6	22:YA:1731:G:C2	2.88	0.41
22:YA:1824:G:OP1	24:YD:52:ARG:HD3	2.21	0.41
22:YA:1956:U:H2'	22:YA:1957:C:H5'	2.01	0.41
22:YA:2261:C:OP1	43:Y0:17:GLN:HB2	2.19	0.41
22:YA:2531:A:H2'	22:YA:2532:G:C8	2.54	0.41
22:YA:2740:A:H2'	22:YA:2741:A:C8	2.55	0.41
23:YB:63:G:C6	23:YB:64:C:C4	3.08	0.41
24:YD:245:PRO:HA	24:YD:246:PRO:HD3	1.87	0.41
27:YG:86:MET:HA	27:YG:87:PRO:HD2	1.95	0.41
29:YI:6:LEU:HD13	29:YI:36:ALA:HA	2.01	0.41
29:YI:23:PRO:O	29:YI:27:ARG:HG2	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:YN:35:ARG:HB2	30:YN:42:TRP:CZ3	2.55	0.41
30:YN:65:LYS:O	30:YN:69:GLN:HG2	2.19	0.41
34:YR:3:HIS:O	34:YR:5:LYS:N	2.53	0.41
42:YZ:152:ALA:HA	42:YZ:167:PRO:HB2	2.03	0.41
44:Y1:89:GLU:HA	44:Y1:93:GLU:HB2	2.02	0.41
47:Y4:24:THR:OG1	47:Y4:25:TYR:N	2.53	0.41
1:QA:224:C:H2'	1:QA:225:C:H6	1.85	0.41
1:QA:230:G:N2	1:QA:231:G:C4	2.88	0.41
1:QA:371:G:H1	1:QA:390:C:H42	1.69	0.41
1:QA:407:G:H2'	1:QA:408:A:C8	2.56	0.41
1:QA:1194:U:H4'	5:QE:22:GLY:O	2.20	0.41
2:QB:219:VAL:O	2:QB:223:ILE:HG13	2.19	0.41
5:QE:47:LYS:HE2	5:QE:47:LYS:HB2	1.82	0.41
8:QH:12:ARG:NH1	8:QH:27:PRO:HD2	2.35	0.41
8:QH:20:TYR:CE2	8:QH:75:ARG:HD2	2.54	0.41
12:QL:27:LEU:HG	12:QL:62:SER:HB3	2.01	0.41
16:QP:53:VAL:O	16:QP:57:ARG:HG2	2.21	0.41
19:QS:50:ALA:HB1	19:QS:57:HIS:HB3	2.02	0.41
22:RA:65:C:H1'	22:RA:456:C:H42	1.84	0.41
22:RA:297:C:H5''	41:RY:85:VAL:CG2	2.50	0.41
22:RA:462:C:C4	22:RA:463:G:N7	2.88	0.41
22:RA:571:A:C5	22:RA:575:A:C8	3.08	0.41
22:RA:581:C:H2'	22:RA:582:G:C8	2.55	0.41
22:RA:731:C:H2'	22:RA:732:C:H6	1.84	0.41
22:RA:750:A:C4	22:RA:753:C:H1'	2.56	0.41
22:RA:872:A:C6	22:RA:906:G:C2	3.08	0.41
22:RA:1204:A:H2	22:RA:1241:A:C2	2.38	0.41
22:RA:1342:A:C5	22:RA:1397:U:C6	3.08	0.41
22:RA:1785:A:N7	22:RA:1787:A:C5	2.88	0.41
22:RA:2266:A:H5'	22:RA:2267:A:N7	2.35	0.41
22:RA:2423:U:OP2	49:R6:5:VAL:HG23	2.20	0.41
23:RB:44:G:C2	23:RB:48:A:C2	3.08	0.41
25:RE:76:ARG:N	25:RE:76:ARG:HD2	2.35	0.41
26:RF:178:PRO:HB2	26:RF:201:VAL:CG1	2.50	0.41
27:RG:6:ALA:HB3	27:RG:104:GLU:OE2	2.20	0.41
28:RH:4:ILE:HB	28:RH:6:ARG:HG2	2.02	0.41
28:RH:10:PRO:HD2	28:RH:50:VAL:O	2.20	0.41
29:RI:52:ARG:O	29:RI:56:LYS:HB3	2.19	0.41
31:RO:73:ASP:OD2	36:RT:32:TYR:OH	2.28	0.41
32:RP:81:GLN:HG2	32:RP:106:LEU:HD23	2.02	0.41
33:RQ:40:ALA:O	33:RQ:42:ILE:HD12	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:RQ:58:PHE:HD1	33:RQ:61:GLY:HA3	1.85	0.41
33:RQ:68:ILE:HD13	33:RQ:103:MET:HG2	2.02	0.41
35:RS:108:GLY:O	35:RS:110:LEU:HG	2.20	0.41
40:RX:40:LYS:C	40:RX:42:ALA:H	2.23	0.41
41:RY:88:LYS:NZ	41:RY:88:LYS:HA	2.35	0.41
1:XA:114:U:H1'	1:XA:353:A:H1'	2.01	0.41
1:XA:540:G:H2'	1:XA:541:G:O4'	2.18	0.41
1:XA:739:C:HO2'	15:XO:42:HIS:CE1	2.38	0.41
1:XA:1160:G:H2'	1:XA:1160:G:N3	2.35	0.41
1:XA:1352:C:OP1	21:XU:3:LYS:NZ	2.47	0.41
1:XA:1367:C:OP2	9:XI:112:LYS:NZ	2.47	0.41
1:XA:1368:G:H5''	9:XI:112:LYS:HB3	2.01	0.41
1:XA:1372:U:H5''	9:XI:71:SER:HB3	2.02	0.41
8:XH:104:ARG:HD2	8:XH:138:TRP:CG	2.56	0.41
9:XI:46:ALA:HB2	9:XI:74:ILE:HG23	2.02	0.41
13:XM:12:ASN:N	13:XM:45:VAL:HG13	2.35	0.41
16:XP:56:ALA:HB1	16:XP:74:LEU:HD13	2.02	0.41
20:XT:53:LEU:HD12	20:XT:100:ILE:HG23	2.02	0.41
22:YA:935:C:H2'	22:YA:936:C:C6	2.55	0.41
22:YA:1001:A:H2'	22:YA:1002:G:O4'	2.20	0.41
22:YA:1216:G:P	37:YU:12:ARG:HH21	2.43	0.41
22:YA:1337:G:H2'	22:YA:1338:G:O4'	2.20	0.41
22:YA:2207:C:H2'	22:YA:2208:U:O4'	2.20	0.41
22:YA:2657:A:H1'	22:YA:2665:A:N6	2.35	0.41
22:YA:2749:A:C5	22:YA:2750:A:N7	2.88	0.41
22:YA:2777:G:OP2	22:YA:2781:A:O2'	2.22	0.41
26:YF:117:ARG:HD2	26:YF:120:GLU:OE2	2.20	0.41
27:YG:165:THR:OG1	27:YG:168:GLU:HG3	2.21	0.41
28:YH:19:VAL:HG22	28:YH:24:VAL:HG12	2.02	0.41
30:YN:7:LYS:HD2	30:YN:7:LYS:H	1.84	0.41
30:YN:18:ALA:HB3	30:YN:55:VAL:O	2.19	0.41
33:YQ:54:MET:HB3	33:YQ:64:ILE:HD13	2.01	0.41
38:YV:22:VAL:HG12	38:YV:23:GLU:H	1.85	0.41
50:Y7:47:ARG:HB2	50:Y7:47:ARG:HE	1.58	0.41
53:QV:19:G:C4	53:QV:57:A:C2	3.08	0.41
53:XV:20:U:H2'	53:XV:21:A:H5'	2.01	0.41
1:QA:752:G:H1'	1:QA:754:C:H41	1.84	0.41
1:QA:943:U:H1'	9:QI:124:GLN:HE22	1.86	0.41
1:QA:1182:G:H4'	1:QA:1183:A:H5''	2.02	0.41
9:QI:111:ARG:HG2	9:QI:112:LYS:N	2.35	0.41
13:QM:7:VAL:HB	27:RG:115:ARG:HH11	1.84	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:QQ:83:ASP:O	17:QQ:87:LYS:HG2	2.20	0.41
20:QT:64:ASP:CG	20:QT:81:LYS:HZ2	2.23	0.41
22:RA:17:G:C6	22:RA:18:C:N4	2.88	0.41
22:RA:74:A:H8	22:RA:74:A:O5'	2.04	0.41
22:RA:304:G:C2	22:RA:314:A:C2	3.08	0.41
22:RA:573:G:O2'	22:RA:574:C:H3'	2.21	0.41
22:RA:675:A:N6	22:RA:676:A:N6	2.68	0.41
22:RA:704:G:H1'	22:RA:726:G:N2	2.35	0.41
22:RA:918:A:H1'	23:RB:80:U:O2'	2.20	0.41
22:RA:1239:G:H2'	22:RA:1240:U:O4'	2.20	0.41
22:RA:1270:C:H5''	22:RA:1271:G:H5'	2.01	0.41
22:RA:1526:G:C6	22:RA:1527:G:C2	3.09	0.41
22:RA:1651:G:OP2	34:RR:40:LYS:NZ	2.53	0.41
22:RA:2212:A:H1'	22:RA:2215:G:C4	2.56	0.41
29:RI:76:THR:HG21	29:RI:141:LYS:HE3	2.02	0.41
33:RQ:17:LEU:HD21	33:RQ:41:TRP:HD1	1.84	0.41
34:RR:22:ARG:HA	34:RR:47:PHE:HE2	1.86	0.41
38:RV:76:LYS:HB2	38:RV:81:TYR:HB3	2.01	0.41
50:R7:1:MET:SD	50:R7:3:ARG:NH2	2.93	0.41
1:XA:44:G:C2	1:XA:45:U:H1'	2.56	0.41
1:XA:134:A:N6	16:XP:25:ARG:NH1	2.61	0.41
1:XA:191:G:C4	20:XT:105:SER:HB3	2.54	0.41
1:XA:503:C:O2'	1:XA:504:C:H5'	2.20	0.41
1:XA:895:G:H2'	1:XA:896:C:C6	2.55	0.41
1:XA:1301:U:O2'	1:XA:1302:U:OP1	2.31	0.41
3:XC:150:LYS:HE3	3:XC:167:TRP:HE1	1.84	0.41
9:XI:125:TYR:HD2	9:XI:126:SER:N	2.18	0.41
11:XK:18:ARG:HA	11:XK:81:ASP:H	1.86	0.41
11:XK:88:GLY:C	11:XK:90:GLY:H	2.23	0.41
16:XP:17:TYR:HE1	16:XP:41:PRO:HG3	1.85	0.41
19:XS:40:ILE:CG1	19:XS:41:VAL:HG13	2.47	0.41
22:YA:811:U:O2'	32:YP:21:ARG:HG3	2.20	0.41
22:YA:1022:G:C5	22:YA:1140:C:N4	2.88	0.41
22:YA:1166:C:H2'	22:YA:1167:U:C6	2.55	0.41
22:YA:1287:A:C5	22:YA:1288:U:C4	3.09	0.41
22:YA:1411:C:H5'	22:YA:1412:A:OP2	2.20	0.41
22:YA:1654:A:OP2	34:YR:2:ARG:HD2	2.20	0.41
22:YA:1759:A:H4'	22:YA:2715:C:O4'	2.21	0.41
22:YA:2078:C:H42	22:YA:2241:A:N6	2.18	0.41
22:YA:2115:G:H4'	22:YA:2166:G:H4'	2.01	0.41
22:YA:2720:U:H2'	22:YA:2721:A:H8	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:YB:32:C:C2	23:YB:51:G:N2	2.88	0.41
23:YB:42:C:H5''	27:YG:69:ALA:HB2	2.00	0.41
23:YB:80:U:H3	23:YB:96:G:H1	1.69	0.41
23:YB:82:G:N3	23:YB:83:G:C8	2.88	0.41
24:YD:105:ILE:HD12	24:YD:105:ILE:HA	1.55	0.41
25:YE:86:PRO:HB2	25:YE:87:GLU:H	1.66	0.41
27:YG:166:ASP:OD1	27:YG:166:ASP:N	2.54	0.41
29:YI:21:VAL:HG22	29:YI:22:LYS:H	1.85	0.41
29:YI:69:LYS:HE2	29:YI:73:GLU:CD	2.41	0.41
35:YS:51:ALA:HB1	35:YS:69:VAL:HG23	2.03	0.41
35:YS:107:GLU:N	35:YS:110:LEU:HD11	2.35	0.41
37:YU:69:CYS:HB3	37:YU:106:PHE:CZ	2.56	0.41
42:YZ:158:PRO:HA	42:YZ:159:PRO:HD2	1.82	0.41
43:Y0:7:LEU:O	53:XV:2:G:H4'	2.20	0.41
44:Y1:76:ARG:H	44:Y1:76:ARG:HD2	1.84	0.41
46:Y3:35:ARG:HB3	46:Y3:37:LEU:HD21	2.01	0.41
53:QV:4:G:C4	53:QV:5:G:C8	3.09	0.41
1:QA:280:C:H3'	1:QA:281:G:H5'	2.03	0.41
1:QA:564:C:P	12:QL:15:ARG:HH21	2.43	0.41
1:QA:567:G:C2	1:QA:568:G:H1'	2.55	0.41
1:QA:1077:G:C6	1:QA:1081:G:O6	2.73	0.41
1:QA:1199:U:H4'	10:QJ:54:PHE:CZ	2.55	0.41
1:QA:1327:C:H2'	1:QA:1328:C:C6	2.56	0.41
1:QA:1336:C:H1'	1:QA:1337:G:C2	2.56	0.41
2:QB:184:VAL:N	2:QB:198:ASP:OD1	2.44	0.41
10:QJ:79:ARG:HD3	10:QJ:79:ARG:HA	1.78	0.41
16:QP:20:VAL:HG21	16:QP:32:TYR:CD1	2.56	0.41
21:QU:2:GLY:O	21:QU:5:ASP:N	2.47	0.41
22:RA:690:G:H21	24:RD:43:ARG:HH22	1.68	0.41
22:RA:1026:U:H1'	22:RA:1027:A:H5''	2.03	0.41
22:RA:1042:G:C6	22:RA:1043:C:N4	2.89	0.41
22:RA:1441:G:H2'	22:RA:1442:G:H8	1.84	0.41
22:RA:1484:G:H2'	22:RA:1485:G:H5''	2.02	0.41
22:RA:1568:G:H21	24:RD:58:HIS:HE2	1.67	0.41
22:RA:2120:G:N2	22:RA:2179:C:N3	2.69	0.41
22:RA:2307:G:C5	22:RA:2311:A:C2	3.09	0.41
22:RA:2422:A:OP2	49:R6:6:ARG:NH1	2.53	0.41
22:RA:2464:C:H2'	22:RA:2465:C:O4'	2.21	0.41
22:RA:2749:A:H2'	28:RH:59:ARG:HE	1.84	0.41
22:RA:2836:U:H2'	22:RA:2837:G:C8	2.55	0.41
22:RA:2850:A:H3'	22:RA:2851:A:H8	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:RB:11:C:H3'	23:RB:12:C:C6	2.56	0.41
24:RD:35:LYS:HE3	24:RD:63:ARG:C	2.41	0.41
27:RG:27:ASN:HB3	27:RG:30:GLU:HG3	2.01	0.41
33:RQ:18:LYS:HB3	33:RQ:19:GLY:H	1.50	0.41
34:RR:109:ALA:HA	34:RR:110:PRO:HD2	1.95	0.41
43:R0:50:ASN:C	43:R0:62:LEU:HD12	2.41	0.41
1:XA:464:G:O6	1:XA:466:C:H5'	2.20	0.41
1:XA:588:G:C6	1:XA:589:C:C4	3.08	0.41
1:XA:991:U:O2'	1:XA:992:U:P	2.78	0.41
1:XA:1301:U:HO2'	1:XA:1302:U:P	2.41	0.41
8:XH:44:PHE:HE2	8:XH:109:ILE:CG2	2.34	0.41
12:XL:62:SER:HB2	12:XL:64:TYR:CD1	2.56	0.41
12:XL:68:ALA:HB2	12:XL:85:ILE:HD11	2.03	0.41
12:XL:102:ARG:HE	12:XL:102:ARG:HB3	1.71	0.41
17:XQ:59:ILE:HB	17:XQ:71:PHE:HB3	2.03	0.41
22:YA:72:U:H3	45:Y2:62:THR:HG22	1.84	0.41
22:YA:483:A:H5'	41:YY:49:VAL:HG22	2.02	0.41
22:YA:868:U:H3	22:YA:909:A:H61	1.67	0.41
22:YA:888:C:C3'	22:YA:889:C:H4'	2.51	0.41
22:YA:1449:A:N6	22:YA:1449(A):G:C2	2.88	0.41
22:YA:1635:G:C2	22:YA:1636:C:C2	3.09	0.41
22:YA:1854:A:C2	22:YA:2087:G:N3	2.86	0.41
22:YA:2018:G:C6	22:YA:2019:A:C5	3.08	0.41
22:YA:2094:G:H4'	29:YI:25:TYR:CZ	2.56	0.41
22:YA:2633:G:C6	22:YA:2634:G:C5	3.08	0.41
22:YA:2639:A:C2	22:YA:2640:G:H1'	2.56	0.41
25:YE:181:LEU:HD13	25:YE:181:LEU:HA	1.85	0.41
26:YF:107:LYS:CD	26:YF:207:GLY:H	2.30	0.41
32:YP:101:VAL:C	32:YP:103:ALA:H	2.23	0.41
38:YV:38:LEU:O	38:YV:51:VAL:HA	2.20	0.41
41:YY:84:ARG:O	41:YY:95:LYS:HD3	2.21	0.41
53:QV:41:C:C2	53:QV:42:G:C8	3.08	0.41
1:QA:103:C:P	20:QT:17:ARG:HH21	2.43	0.41
1:QA:236:G:H2'	1:QA:237:C:O4'	2.21	0.41
1:QA:1135:U:H4'	1:QA:1136:U:C5	2.55	0.41
1:QA:1259:C:N4	1:QA:1260:C:O2	2.54	0.41
1:QA:1293:G:H2'	1:QA:1294:G:C8	2.56	0.41
1:QA:1371:G:O3'	9:QI:69:GLY:HA3	2.20	0.41
2:QB:120:ALA:C	2:QB:122:PHE:H	2.23	0.41
2:QB:210:SER:O	2:QB:214:ILE:HG12	2.21	0.41
4:QD:122:ARG:O	4:QD:122:ARG:HD3	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:QE:110:LEU:HD13	5:QE:118:ILE:HG12	2.02	0.41
5:QE:127:ASN:HA	5:QE:128:PRO:HD3	1.89	0.41
11:QK:99:GLN:HG2	11:QK:105:VAL:HG21	2.03	0.41
13:QM:91:ARG:HB2	13:QM:98:VAL:HG13	2.03	0.41
20:QT:89:ARG:HH21	20:QT:104:LEU:HG	1.85	0.41
22:RA:55:G:H2'	22:RA:56:A:H8	1.85	0.41
22:RA:422:A:C6	22:RA:423:A:C6	3.09	0.41
22:RA:806:C:OP2	32:RP:41:ARG:NH1	2.32	0.41
22:RA:838:C:H2'	22:RA:839:U:H6	1.86	0.41
22:RA:890:A:H2'	22:RA:892:G:H8	1.86	0.41
22:RA:1053:C:H2'	22:RA:1054:A:O4'	2.21	0.41
22:RA:1054:A:N6	22:RA:1055:G:C6	2.88	0.41
22:RA:1070:A:C8	22:RA:1096:A:H2'	2.55	0.41
22:RA:1490:A:O2'	24:RD:99:ASP:OD2	2.39	0.41
22:RA:1492:G:H3'	22:RA:1493:C:C5'	2.51	0.41
22:RA:2020:A:O2'	22:RA:2021:C:H5'	2.20	0.41
22:RA:2584:U:H2'	22:RA:2585:U:C6	2.55	0.41
22:RA:2631:G:N3	22:RA:2810:A:H2	2.17	0.41
22:RA:2822:G:O5'	22:RA:2822:G:H8	2.02	0.41
26:RF:29:ASN:O	26:RF:112:MET:HE1	2.20	0.41
26:RF:33:LEU:HD12	26:RF:33:LEU:HA	1.83	0.41
27:RG:124:SER:HB2	27:RG:131:TYR:CE1	2.56	0.41
35:RS:14:VAL:HG21	35:RS:89:ARG:HG2	2.02	0.41
40:RX:51:VAL:HG13	40:RX:81:VAL:HG23	2.03	0.41
41:RY:54:LYS:HB3	41:RY:55:TYR:CE2	2.55	0.41
41:RY:84:ARG:HD3	41:RY:86:ARG:NH1	2.35	0.41
1:XA:11:G:C6	1:XA:12:U:C4	3.08	0.41
1:XA:147:G:C2	1:XA:148:G:C4	3.09	0.41
1:XA:237:C:H5''	17:XQ:25:ARG:CZ	2.50	0.41
1:XA:452:A:H62	1:XA:480:U:H3	1.67	0.41
1:XA:827:U:C5	1:XA:870:U:C4	3.09	0.41
1:XA:1235:U:O5'	1:XA:1235:U:H6	2.04	0.41
1:XA:1286:A:H2'	1:XA:1287:A:H4'	2.03	0.41
1:XA:1463:C:OP1	36:YT:111:ARG:HD2	2.20	0.41
6:XF:46:ARG:HB3	6:XF:60:PHE:CE1	2.55	0.41
16:XP:8:ARG:C	16:XP:9:PHE:HD2	2.24	0.41
16:XP:23:ASP:O	16:XP:26:ARG:HB2	2.21	0.41
22:YA:626:U:O4	32:YP:81:GLN:NE2	2.53	0.41
22:YA:815:C:H2'	22:YA:816:C:C6	2.55	0.41
22:YA:1050:A:C8	22:YA:2751:G:C4	3.09	0.41
22:YA:1288:U:O2'	22:YA:1647:G:N2	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1535:U:H5''	22:YA:1537:C:N4	2.36	0.41
22:YA:1696:G:C6	22:YA:1697:G:C4	3.08	0.41
22:YA:1804:C:H42	22:YA:1813:G:H1	1.67	0.41
22:YA:1805:U:O2	24:YD:50:THR:HB	2.21	0.41
22:YA:2248:C:H3'	22:YA:2249:U:H6	1.85	0.41
22:YA:2847:U:OP2	36:YT:98:LYS:NZ	2.54	0.41
23:YB:26:A:H2'	23:YB:27:C:O4'	2.20	0.41
23:YB:71:C:H2'	23:YB:72:G:H8	1.85	0.41
33:YQ:16:ARG:HB3	33:YQ:17:LEU:H	1.76	0.41
33:YQ:19:GLY:O	33:YQ:21:THR:OG1	2.23	0.41
35:YS:43:GLU:OE2	43:Y0:49:LYS:HE2	2.20	0.41
35:YS:88:ASP:O	35:YS:89:ARG:HB3	2.21	0.41
37:YU:98:LEU:HD23	37:YU:99:ALA:N	2.36	0.41
38:YV:72:VAL:CG1	38:YV:85:LYS:HG2	2.50	0.41
41:YY:63:LYS:HD2	41:YY:63:LYS:HA	1.86	0.41
42:YZ:107:THR:HA	42:YZ:108:PRO:HD3	1.75	0.41
47:Y4:48:ARG:NH1	47:Y4:52:THR:H	2.19	0.41
53:QV:75:C:H2'	53:QV:76:A:O4'	2.20	0.41
53:XV:19:G:C2	53:XV:57:A:N3	2.89	0.41
1:QA:21:G:H2'	1:QA:22:G:C8	2.56	0.41
1:QA:129(A):G:C2	1:QA:188:U:O2'	2.74	0.41
1:QA:626:U:H2'	1:QA:627:G:O4'	2.21	0.41
1:QA:865:A:O5'	1:QA:865:A:H8	2.04	0.41
1:QA:1098:C:H2'	1:QA:1099:G:O4'	2.21	0.41
1:QA:1238:A:C2	1:QA:1241:G:N3	2.89	0.41
2:QB:104:ASN:OD1	2:QB:107:THR:OG1	2.30	0.41
2:QB:208:ILE:HA	2:QB:211:ILE:HD12	2.03	0.41
4:QD:38:TYR:HB2	4:QD:44:GLY:O	2.21	0.41
10:QJ:61:GLU:HG3	14:QN:58:LYS:HZ1	1.85	0.41
15:QO:32:LEU:HA	15:QO:32:LEU:HD23	1.76	0.41
22:RA:18:C:O2'	22:RA:553:U:OP1	2.28	0.41
22:RA:30:G:C5	22:RA:31:C:C4	3.09	0.41
22:RA:413:C:O5'	22:RA:413:C:H6	2.03	0.41
22:RA:483:A:H5''	41:RY:49:VAL:HG13	2.02	0.41
22:RA:558:G:OP1	30:RN:111:PRO:HD2	2.21	0.41
22:RA:603:A:O4'	22:RA:655:A:N6	2.53	0.41
22:RA:623:G:H2'	22:RA:624:C:C6	2.56	0.41
22:RA:768:G:H2'	22:RA:769:G:C8	2.54	0.41
22:RA:852:G:C2	22:RA:926:A:N3	2.89	0.41
22:RA:1278:A:H5''	34:RR:36:THR:HG22	2.03	0.41
22:RA:1421:G:C2	22:RA:1422:G:C8	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:2022:U:HO2'	22:RA:2617:C:H5'	1.84	0.41
22:RA:2046:G:H2'	22:RA:2047:U:H6	1.84	0.41
22:RA:2352:A:C4	22:RA:2366:A:C2	3.09	0.41
22:RA:2477:C:C6	52:R9:1:MET:HE3	2.56	0.41
22:RA:2760:C:C2'	22:RA:2761:G:H5''	2.50	0.41
22:RA:2776:A:H3'	22:RA:2776:A:OP1	2.21	0.41
23:RB:97:G:C4	23:RB:98:G:C8	3.08	0.41
24:RD:127:VAL:HA	24:RD:193:VAL:HG22	2.02	0.41
25:RE:92:THR:HB	25:RE:93:VAL:H	1.54	0.41
26:RF:164:ARG:HG3	26:RF:175:THR:OG1	2.20	0.41
29:RI:37:VAL:HG12	29:RI:38:LEU:H	1.86	0.41
30:RN:71:ILE:HG21	30:RN:84:LYS:HB3	2.02	0.41
42:RZ:116:VAL:HG12	42:RZ:117:LEU:O	2.21	0.41
49:R6:13:CYS:O	49:R6:21:TYR:HA	2.20	0.41
1:XA:358:U:H2'	1:XA:359:U:O4'	2.20	0.41
1:XA:678:U:O4	1:XA:679:C:N4	2.53	0.41
1:XA:750:G:O2'	15:XO:21:ASP:OD2	2.39	0.41
1:XA:792:A:H4'	1:XA:793:U:O5'	2.21	0.41
1:XA:957:U:N3	1:XA:960:U:OP2	2.53	0.41
1:XA:1104:G:H2'	1:XA:1105:A:O4'	2.20	0.41
1:XA:1122:U:O4	1:XA:1123:A:N6	2.53	0.41
1:XA:1250:A:H2'	1:XA:1251:A:C8	2.56	0.41
1:XA:1397:C:O4'	54:XX:8:A:N6	2.54	0.41
2:XB:80:ILE:HD11	2:XB:208:ILE:HG12	2.02	0.41
3:XC:119:ARG:HH21	3:XC:140:ARG:CZ	2.34	0.41
10:XJ:3:LYS:HD2	10:XJ:77:PRO:HD3	2.01	0.41
11:XK:48:ILE:HD13	11:XK:48:ILE:HA	1.83	0.41
12:XL:70:ILE:HA	12:XL:71:PRO:HD3	1.81	0.41
14:XN:51:GLY:O	14:XN:53:LEU:N	2.53	0.41
17:XQ:62:SER:CB	17:XQ:72:ARG:HE	2.33	0.41
18:XR:85:LEU:HD23	18:XR:88:LYS:HD2	2.03	0.41
22:YA:301:G:C4	22:YA:302:C:C5	3.09	0.41
22:YA:478:A:C6	22:YA:480:A:C6	3.09	0.41
22:YA:894:C:H2'	22:YA:895:U:C6	2.55	0.41
22:YA:1210:A:N3	22:YA:1212:G:N2	2.69	0.41
22:YA:1535:U:H3	22:YA:1537:C:H1'	1.85	0.41
22:YA:1955:U:O4	22:YA:2554:U:H5	2.04	0.41
22:YA:2494:G:C4	22:YA:2495:G:C8	3.08	0.41
22:YA:2695:C:H2'	22:YA:2696:U:H6	1.84	0.41
26:YF:125:LEU:HA	26:YF:194:MET:O	2.20	0.41
27:YG:103:LEU:O	27:YG:107:LEU:HG	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:YI:2:LYS:HA	29:YI:20:ASP:HA	2.02	0.41
29:YI:120:ILE:HG12	29:YI:126:TYR:CE1	2.55	0.41
37:YU:8:VAL:O	37:YU:12:ARG:HG3	2.20	0.41
42:YZ:180:VAL:HA	42:YZ:181:GLU:HA	1.84	0.41
51:Y8:37:SER:O	51:Y8:40:GLU:HB3	2.20	0.41
53:XV:16:C:O2	53:XV:60:U:H4'	2.20	0.41
53:XV:66:C:H2'	53:XV:67:C:C6	2.56	0.41
1:QA:147:G:H1	1:QA:175:C:N4	2.09	0.41
1:QA:364:A:H2'	1:QA:365:U:O2	2.21	0.41
1:QA:555:C:H2'	1:QA:556:C:C6	2.55	0.41
1:QA:676:A:C2	1:QA:677:U:C4	3.08	0.41
1:QA:688:G:H2'	1:QA:689:C:H6	1.85	0.41
1:QA:789:U:H1'	1:QA:792:A:C2	2.56	0.41
1:QA:1391:U:H2'	1:QA:1392:G:C8	2.56	0.41
2:QB:47:THR:HA	2:QB:202:PRO:HG2	2.00	0.41
3:QC:122:GLU:HA	3:QC:125:GLU:OE1	2.21	0.41
4:QD:173:TRP:CD1	4:QD:174:LEU:HG	2.55	0.41
5:QE:12:LEU:O	5:QE:13:ILE:HD12	2.21	0.41
10:QJ:31:GLY:HA3	10:QJ:78:ASN:CG	2.40	0.41
19:QS:5:LEU:HD12	19:QS:5:LEU:HA	1.93	0.41
19:QS:36:ARG:HA	19:QS:71:LEU:HB2	2.03	0.41
22:RA:646:A:H2'	22:RA:647:G:O4'	2.21	0.41
22:RA:1059:G:C5	22:RA:1060:U:H1'	2.56	0.41
22:RA:2105:C:H2'	22:RA:2106:G:C8	2.55	0.41
22:RA:2602:A:OP1	53:QV:75:C:OP1	2.39	0.41
22:RA:2674:G:H2'	22:RA:2675:A:O4'	2.21	0.41
22:RA:2853:C:O2'	22:RA:2854:G:H5'	2.21	0.41
24:RD:111:LEU:HD23	24:RD:111:LEU:HA	1.78	0.41
24:RD:150:LYS:N	24:RD:150:LYS:HD3	2.36	0.41
25:RE:35:GLN:HB3	25:RE:48:GLN:HB2	2.02	0.41
29:RI:9:LEU:HD22	29:RI:9:LEU:N	2.36	0.41
30:RN:47:ALA:HB2	30:RN:112:LEU:HD11	2.02	0.41
33:RQ:66:ILE:HG13	33:RQ:67:ARG:N	2.36	0.41
34:RR:10:LEU:O	34:RR:12:ARG:HG3	2.21	0.41
34:RR:70:LEU:C	34:RR:72:ASP:H	2.21	0.41
36:RT:91:ARG:HB2	36:RT:121:ILE:HG13	2.03	0.41
44:R1:58:ILE:CD1	44:R1:86:SER:HB2	2.50	0.41
1:XA:7:G:C5	1:XA:298:A:C2	3.08	0.41
1:XA:665:A:H1'	1:XA:733:A:O4'	2.20	0.41
1:XA:667:G:H4'	15:XO:51:HIS:ND1	2.36	0.41
1:XA:715:A:H2'	1:XA:716:A:C8	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:878:G:OP1	8:XH:88:LYS:HB3	2.20	0.41
1:XA:924:C:H2'	1:XA:925:G:C8	2.56	0.41
1:XA:1055:A:H1'	3:XC:156:ARG:NH1	2.35	0.41
1:XA:1306:A:H61	1:XA:1331:G:H1'	1.84	0.41
3:XC:138:VAL:HG13	3:XC:149:ALA:HB3	2.02	0.41
10:XJ:54:PHE:CD2	10:XJ:55:LYS:HG3	2.56	0.41
10:XJ:76:ASN:HA	10:XJ:77:PRO:HD2	1.96	0.41
22:YA:29:U:H4'	37:YU:7:GLY:O	2.20	0.41
22:YA:103:A:O5'	22:YA:103:A:H8	2.02	0.41
22:YA:729:G:C4	22:YA:1775:U:O2	2.74	0.41
22:YA:795:C:H2'	22:YA:796:C:C6	2.55	0.41
22:YA:828:U:H2'	22:YA:829:A:C8	2.55	0.41
22:YA:1056:G:O2'	22:YA:1086:A:H1'	2.20	0.41
22:YA:1324:G:C4	22:YA:1328:G:O6	2.73	0.41
22:YA:2111:C:H5	22:YA:2147:G:H22	1.68	0.41
22:YA:2232:U:OP1	44:Y1:40:ARG:NH1	2.49	0.41
22:YA:2712:U:C1'	22:YA:2712(A):A:C8	3.01	0.41
22:YA:2768:C:C4	22:YA:2769:C:C5	3.08	0.41
22:YA:2810:A:H2'	22:YA:2811:G:O4'	2.21	0.41
22:YA:2844:G:H8	22:YA:2844:G:O5'	2.04	0.41
24:YD:3:VAL:HG13	24:YD:17:THR:HG23	2.03	0.41
24:YD:102:LYS:C	24:YD:103:ARG:HG2	2.40	0.41
25:YE:64:LYS:C	25:YE:66:HIS:H	2.24	0.41
26:YF:9:ILE:HD11	26:YF:125:LEU:HG	2.03	0.41
26:YF:67:GLN:HG3	26:YF:67:GLN:O	2.20	0.41
27:YG:124:SER:HB2	27:YG:131:TYR:CE1	2.56	0.41
30:YN:29:LYS:H	30:YN:29:LYS:HG2	1.53	0.41
42:YZ:182:LYS:HG3	42:YZ:183:LEU:HD23	2.03	0.41
1:QA:189:U:O2	17:QQ:63:ARG:NH2	2.54	0.41
1:QA:340:U:C4	1:QA:341:C:C4	3.08	0.41
1:QA:348:G:H2'	1:QA:349:A:C8	2.54	0.41
1:QA:529:G:O6	12:QL:49:ASN:HA	2.21	0.41
1:QA:682:G:N3	1:QA:709:G:C2	2.88	0.41
1:QA:763:G:C6	1:QA:764:C:C4	3.09	0.41
1:QA:785:G:N2	1:QA:798:G:C4	2.89	0.41
1:QA:949:A:C2	1:QA:1233:G:N3	2.89	0.41
1:QA:1049:U:H5'	1:QA:1201:A:OP1	2.21	0.41
1:QA:1128:C:H4'	9:QI:16:ARG:HH22	1.85	0.41
1:QA:1178:G:H5''	9:QI:93:ARG:HH21	1.85	0.41
1:QA:1245:A:OP2	21:QU:9:ARG:NH2	2.54	0.41
3:QC:42:LEU:HD12	3:QC:42:LEU:HA	1.80	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QC:83:ARG:O	3:QC:86:VAL:HG22	2.21	0.41
6:QF:35:ALA:HA	6:QF:67:MET:HB3	2.02	0.41
7:QG:45:ASP:O	7:QG:48:LYS:HB3	2.21	0.41
8:QH:41:ARG:NH2	8:QH:123:GLU:OE2	2.54	0.41
11:QK:25:TYR:CZ	11:QK:87:THR:HB	2.55	0.41
12:QL:103:GLY:N	12:QL:107:ALA:O	2.49	0.41
13:QM:3:ARG:CZ	27:RG:113:ARG:HH21	2.34	0.41
13:QM:105:THR:OG1	13:QM:106:ASN:N	2.54	0.41
15:QO:4:THR:HB	15:QO:6:GLU:CD	2.41	0.41
22:RA:26:G:N1	22:RA:27:G:N2	2.69	0.41
22:RA:30:G:C6	22:RA:31:C:C4	3.09	0.41
22:RA:40:C:H2'	22:RA:41:C:O4'	2.21	0.41
22:RA:439:G:N2	22:RA:440:G:C4	2.89	0.41
22:RA:528:A:C2	22:RA:2042:A:H2'	2.55	0.41
22:RA:617:G:H5'	26:RF:40:GLN:NE2	2.36	0.41
22:RA:667:U:H2'	22:RA:668:G:O4'	2.20	0.41
22:RA:966:G:H2'	22:RA:967:C:H6	1.86	0.41
22:RA:1015:G:N1	22:RA:1016:G:C5	2.89	0.41
22:RA:1034:G:C6	22:RA:1035:U:C4	3.08	0.41
22:RA:1248:G:N7	37:RU:3:ARG:HB2	2.36	0.41
22:RA:1283:G:N2	22:RA:1286:A:OP2	2.49	0.41
22:RA:1542:G:N7	22:RA:1543:A:C5	2.89	0.41
22:RA:1589:C:H2'	22:RA:1590:U:C6	2.56	0.41
22:RA:1649:G:H2'	22:RA:1650:G:O4'	2.21	0.41
22:RA:1751:C:H2'	22:RA:1752:C:C6	2.55	0.41
22:RA:2485:G:C2	22:RA:2486:G:C8	3.09	0.41
22:RA:2568:C:H2'	22:RA:2569:G:O4'	2.21	0.41
22:RA:2816:C:O3'	34:RR:99:LYS:NZ	2.54	0.41
22:RA:2869:G:H2'	22:RA:2870:C:O4'	2.21	0.41
23:RB:115:G:H2'	23:RB:115:G:N3	2.36	0.41
24:RD:34:VAL:C	24:RD:35:LYS:HG3	2.40	0.41
24:RD:226:MET:HB3	24:RD:230:ASP:HB2	2.03	0.41
27:RG:103:LEU:HA	27:RG:103:LEU:HD23	1.89	0.41
27:RG:131:TYR:O	27:RG:159:VAL:HG13	2.21	0.41
28:RH:33:LEU:HD11	28:RH:136:ILE:O	2.20	0.41
29:RI:60:GLU:HG3	29:RI:61:ARG:NH1	2.36	0.41
29:RI:102:SER:OG	29:RI:108:THR:HG22	2.21	0.41
30:RN:9:VAL:HG21	30:RN:48:MET:HB3	2.02	0.41
30:RN:57:ALA:C	30:RN:60:ILE:HD11	2.40	0.41
30:RN:57:ALA:O	30:RN:60:ILE:HD11	2.21	0.41
30:RN:73:THR:HB	30:RN:82:LEU:HD11	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:RO:26:LYS:HB2	31:RO:30:ALA:HB2	2.02	0.41
32:RP:62:LEU:HD13	32:RP:62:LEU:N	2.36	0.41
35:RS:83:LYS:C	35:RS:109:GLY:HA3	2.41	0.41
37:RU:61:TRP:O	37:RU:65:ILE:HG13	2.21	0.41
42:RZ:165:VAL:HG12	42:RZ:166:SER:N	2.36	0.41
47:R4:39:CYS:HB2	47:R4:41:PRO:HD2	2.02	0.41
49:R6:24:GLU:HB3	49:R6:25:LYS:H	1.74	0.41
1:XA:34:C:H1'	12:XL:32:PHE:CZ	2.56	0.41
1:XA:36:C:C4	1:XA:37:U:C4	3.09	0.41
1:XA:186:C:H2'	1:XA:186(A):C:C6	2.56	0.41
1:XA:354:G:C2	1:XA:355:C:C5	3.09	0.41
1:XA:376:G:O3'	16:XP:5:ARG:HD2	2.21	0.41
1:XA:731:G:H5'	1:XA:766:A:H4'	2.02	0.41
1:XA:812:C:H4'	1:XA:813:U:H5'	2.03	0.41
1:XA:820:U:H4'	1:XA:821:G:OP2	2.21	0.41
1:XA:881:G:P	12:XL:12:ARG:NH2	2.92	0.41
1:XA:1109:C:OP2	3:XC:176:HIS:ND1	2.54	0.41
1:XA:1189:C:H5''	1:XA:1190:G:OP2	2.21	0.41
1:XA:1223:C:P	19:XS:78:ARG:HH12	2.43	0.41
1:XA:1336:C:O2'	1:XA:1337:G:P	2.78	0.41
1:XA:1343:G:H4'	9:XI:122:ALA:HB3	2.03	0.41
1:XA:1348:U:H3	1:XA:1374:A:H2	1.66	0.41
2:XB:118:LEU:CB	2:XB:142:LEU:HD12	2.50	0.41
2:XB:126:GLU:O	2:XB:129:GLU:HB2	2.20	0.41
4:XD:52:SER:O	4:XD:55:ALA:HB3	2.21	0.41
4:XD:186:LEU:HD23	4:XD:186:LEU:HA	1.95	0.41
5:XE:82:VAL:HB	5:XE:138:ALA:HB2	2.03	0.41
9:XI:79:LEU:O	9:XI:83:ARG:HG2	2.19	0.41
19:XS:36:ARG:HA	19:XS:71:LEU:HB2	2.02	0.41
20:XT:11:SER:HA	20:XT:13:LEU:HD12	2.01	0.41
20:XT:43:LEU:HD23	20:XT:43:LEU:HA	1.88	0.41
22:YA:221:A:C4	22:YA:266:G:C8	3.09	0.41
22:YA:450:G:O6	22:YA:453:C:OP1	2.38	0.41
22:YA:581:C:C2	22:YA:582:G:C8	3.08	0.41
22:YA:649:G:C5	22:YA:650:C:C5	3.09	0.41
22:YA:706:A:H2'	22:YA:707:G:O4'	2.21	0.41
22:YA:1053:C:N4	22:YA:1106:G:H1	2.16	0.41
22:YA:1058:G:H2'	22:YA:1058:G:N3	2.36	0.41
22:YA:1120:G:H2'	22:YA:1121:C:C6	2.56	0.41
22:YA:1275:A:O2'	22:YA:1645:G:N3	2.54	0.41
22:YA:1754:C:H2'	22:YA:1755:A:O4'	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1811:G:H2'	22:YA:1812:A:O4'	2.20	0.41
22:YA:1844:C:H2'	22:YA:1845:G:C8	2.33	0.41
22:YA:1878:G:H2'	22:YA:1879:C:H6	1.83	0.41
22:YA:2309:A:C6	22:YA:2310:A:C2	3.08	0.41
22:YA:2320:A:C2	22:YA:2333:A:C8	3.09	0.41
22:YA:2334:G:C2	35:YS:12:PHE:CE2	3.09	0.41
22:YA:2473:U:OP1	22:YA:2529:G:N2	2.53	0.41
22:YA:2525:G:H2'	22:YA:2525:G:N3	2.35	0.41
22:YA:2584:U:H2'	22:YA:2585:U:C6	2.56	0.41
22:YA:2621:A:C6	22:YA:2622:C:C4	3.09	0.41
22:YA:2666:C:H5''	22:YA:2667:C:OP2	2.21	0.41
22:YA:2681:C:C4	22:YA:2724:C:H5	2.38	0.41
22:YA:2683:C:H5''	22:YA:2684:U:OP2	2.20	0.41
22:YA:2742:C:N4	22:YA:2763:G:N2	2.69	0.41
22:YA:2743:C:C2	22:YA:2762:G:N2	2.89	0.41
22:YA:2812:G:H2'	22:YA:2813:A:H8	1.86	0.41
22:YA:2858:C:H2'	22:YA:2859:G:O4'	2.21	0.41
22:YA:2867:G:O2'	22:YA:2868:A:OP2	2.33	0.41
24:YD:36:PRO:HB3	24:YD:61:LEU:HB3	2.03	0.41
24:YD:130:ALA:C	24:YD:131:LEU:HD12	2.42	0.41
25:YE:32:PRO:HA	25:YE:90:THR:HA	2.03	0.41
25:YE:41:LYS:HA	25:YE:41:LYS:HE2	2.02	0.41
25:YE:95:ILE:H	25:YE:95:ILE:CD1	2.31	0.41
26:YF:64:ILE:HA	26:YF:64:ILE:HD12	1.80	0.41
29:YI:79:ILE:HA	29:YI:80:PRO:HD3	1.79	0.41
30:YN:7:LYS:NZ	30:YN:7:LYS:H	2.18	0.41
30:YN:96:GLU:O	30:YN:100:GLU:HG3	2.20	0.41
34:YR:44:LEU:HD22	34:YR:48:VAL:HG23	2.02	0.41
37:YU:17:ILE:HG23	37:YU:39:LEU:HD12	2.02	0.41
37:YU:92:ARG:HD2	37:YU:95:LEU:HD12	2.02	0.41
37:YU:96:ALA:HA	37:YU:98:LEU:HD23	2.03	0.41
42:YZ:62:PRO:C	42:YZ:64:GLY:N	2.74	0.41
42:YZ:165:VAL:HG12	42:YZ:166:SER:N	2.36	0.41
43:Y0:37:LEU:O	43:Y0:38:VAL:HG23	2.21	0.41
44:Y1:83:GLU:C	44:Y1:85:LEU:H	2.24	0.41
49:Y6:36:LEU:HD13	49:Y6:50:ARG:CZ	2.51	0.41
53:QV:64:G:C2	53:QV:65:C:C2	3.08	0.41
1:QA:144:G:H1	1:QA:178:C:N4	2.18	0.41
1:QA:230:G:N2	1:QA:231:G:N3	2.68	0.41
1:QA:324:G:N2	1:QA:327:A:C8	2.89	0.41
1:QA:1049:U:OP1	14:QN:3:ARG:HD3	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1240:U:H1'	7:QG:42:ILE:HD11	2.03	0.41
7:QG:93:PRO:O	7:QG:96:GLN:HB2	2.21	0.41
8:QH:44:PHE:HD1	8:QH:80:ILE:HG12	1.86	0.41
9:QI:40:LEU:HD11	9:QI:70:LYS:HG2	2.02	0.41
21:QU:10:ARG:HA	21:QU:13:ILE:HB	2.02	0.41
22:RA:337:C:H2'	22:RA:338:G:O4'	2.21	0.41
22:RA:746:A:HO2'	22:RA:747:U:P	2.43	0.41
22:RA:797:C:H2'	22:RA:798:G:O4'	2.21	0.41
22:RA:805:G:OP2	32:RP:41:ARG:HG2	2.21	0.41
22:RA:1040:C:H2'	22:RA:1041:C:C6	2.55	0.41
22:RA:1162:G:O4'	38:RV:23:GLU:HG3	2.21	0.41
22:RA:1222:C:C2	22:RA:1229(A):G:C2	3.09	0.41
22:RA:2046:G:H2'	22:RA:2047:U:C6	2.55	0.41
22:RA:2441:C:O2'	22:RA:2442:C:H5'	2.21	0.41
22:RA:2452:C:H2'	22:RA:2453:A:C8	2.56	0.41
22:RA:2881:C:C2	22:RA:2882:A:C8	3.09	0.41
23:RB:11:C:OP2	23:RB:12:C:N4	2.34	0.41
23:RB:75:G:H1	23:RB:102:G:N2	2.18	0.41
24:RD:257:LEU:HD23	24:RD:257:LEU:HA	1.90	0.41
25:RE:184:VAL:HB	25:RE:185:LYS:H	1.65	0.41
26:RF:107:LYS:HE3	26:RF:206:ILE:HD12	2.02	0.41
28:RH:107:VAL:HB	28:RH:153:LYS:HE3	2.03	0.41
43:R0:50:ASN:HB3	43:R0:63:VAL:HG22	2.03	0.41
1:XA:93:U:H2'	1:XA:95:G:C4'	2.51	0.41
1:XA:105:G:H2'	1:XA:106:C:C6	2.56	0.41
1:XA:181:G:O2'	1:XA:182:U:H6	2.04	0.41
1:XA:300:A:C5	1:XA:301:G:H1'	2.56	0.41
1:XA:791:G:C6	1:XA:792:A:N1	2.88	0.41
1:XA:917:G:C2	1:XA:918:A:C4	3.09	0.41
1:XA:971:G:H3'	1:XA:971:G:OP1	2.20	0.41
1:XA:1358:U:H5''	14:XN:34:TYR:HA	2.01	0.41
5:XE:51:VAL:HB	5:XE:52:PRO:HD3	2.03	0.41
5:XE:68:GLU:O	5:XE:68:GLU:HG3	2.21	0.41
7:XG:89:MET:HE3	7:XG:155:ARG:HB2	2.03	0.41
8:XH:6:ILE:HB	8:XH:85:ARG:NH1	2.36	0.41
8:XH:12:ARG:HD3	8:XH:26:VAL:HB	2.03	0.41
22:YA:330:A:H2	22:YA:1210:A:H2'	1.85	0.41
22:YA:381:G:H2'	22:YA:382:G:H8	1.85	0.41
22:YA:1022:G:C6	22:YA:1140:C:N3	2.88	0.41
22:YA:1085:A:O2'	22:YA:1086:A:OP1	2.31	0.41
22:YA:1169:G:N2	22:YA:1181:C:C2	2.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1286:A:H1'	22:YA:1288:U:OP2	2.21	0.41
22:YA:2270:G:O5'	22:YA:2270:G:H8	2.03	0.41
22:YA:2320:A:C8	22:YA:2333:A:N6	2.89	0.41
22:YA:2493:U:H2'	22:YA:2494:G:O4'	2.21	0.41
22:YA:2686:G:C2	22:YA:2724:C:O2	2.74	0.41
24:YD:62:TYR:HA	24:YD:87:ASN:OD1	2.21	0.41
24:YD:145:VAL:HG11	24:YD:175:LEU:HD11	2.02	0.41
26:YF:28:ILE:H	26:YF:28:ILE:HG13	1.68	0.41
26:YF:198:ALA:HA	26:YF:201:VAL:HG12	2.03	0.41
32:YP:29:LYS:HB3	32:YP:30:THR:H	1.59	0.41
32:YP:106:LEU:O	32:YP:107:LYS:HB2	2.20	0.41
37:YU:92:ARG:NH2	38:YV:11:GLN:H	2.18	0.41
40:YX:31:HIS:HB3	40:YX:34:ALA:HB2	2.03	0.41
42:YZ:108:PRO:O	42:YZ:111:VAL:N	2.45	0.41
42:YZ:150:LEU:HD13	42:YZ:150:LEU:H	1.86	0.41
47:Y4:48:ARG:HH12	47:Y4:52:THR:H	1.68	0.41
54:QX:6:G:H1	55:QY:34:C:N4	2.18	0.41
1:QA:505:G:C5	1:QA:506:G:N7	2.89	0.40
1:QA:591:U:H2'	1:QA:592:G:H8	1.86	0.40
1:QA:865:A:N3	1:QA:918:A:O2'	2.43	0.40
1:QA:1224:G:N1	1:QA:1322:C:H1'	2.36	0.40
1:QA:1263:C:H42	1:QA:1272:G:H1	1.70	0.40
1:QA:1512:U:H3	1:QA:1523:G:H1	1.70	0.40
5:QE:147:ASP:O	5:QE:151:LEU:HG	2.21	0.40
7:QG:54:THR:O	7:QG:56:GLN:N	2.52	0.40
10:QJ:4:ILE:HA	10:QJ:100:THR:HG22	2.02	0.40
22:RA:342:G:H2'	22:RA:343:C:O4'	2.20	0.40
22:RA:1003:G:N2	22:RA:1153:C:C2	2.89	0.40
22:RA:1120:G:H2'	22:RA:1121:C:O4'	2.21	0.40
22:RA:1412:A:C6	22:RA:1591:G:C6	3.09	0.40
22:RA:2481:G:HO2'	22:RA:2482:G:P	2.44	0.40
22:RA:2574:G:H2'	22:RA:2575:C:O4'	2.20	0.40
25:RE:55:ASN:HD22	25:RE:58:ARG:HB2	1.86	0.40
27:RG:47:LYS:HB2	27:RG:47:LYS:HE3	1.81	0.40
28:RH:30:LYS:HD2	28:RH:81:GLU:H	1.85	0.40
28:RH:103:LEU:HG	28:RH:105:LEU:HD12	2.02	0.40
29:RI:110:ASP:HB2	29:RI:130:TYR:OH	2.22	0.40
31:RO:63:VAL:HB	31:RO:106:LEU:HD11	2.02	0.40
43:R0:18:ALA:O	43:R0:20:ARG:NH1	2.54	0.40
47:R4:13:ARG:O	47:R4:30:GLU:HA	2.21	0.40
47:R4:23:GLU:HG3	47:R4:25:TYR:HE2	1.85	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:374:A:N3	1:XA:374:A:H2'	2.35	0.40
1:XA:493:G:N2	1:XA:494:U:O4	2.54	0.40
1:XA:534:U:H6	1:XA:534:U:O5'	2.04	0.40
1:XA:539:A:OP2	12:XL:115:LYS:HE3	2.21	0.40
1:XA:637:G:C6	1:XA:638:G:C5	3.09	0.40
1:XA:875:C:O2'	8:XH:14:ARG:NH1	2.54	0.40
1:XA:892:A:H2'	1:XA:893:C:C6	2.56	0.40
1:XA:1091:U:H2'	1:XA:1093:A:OP2	2.20	0.40
4:XD:64:LEU:HD13	4:XD:198:VAL:HG11	2.02	0.40
4:XD:131:ARG:H	4:XD:131:ARG:HG2	1.67	0.40
4:XD:165:MET:O	4:XD:167:GLY:N	2.54	0.40
6:XF:25:ILE:HD13	6:XF:28:ARG:NH1	2.36	0.40
11:XK:19:ALA:CB	11:XK:32:ILE:HG22	2.51	0.40
12:XL:38:THR:CG2	12:XL:57:LYS:HB3	2.49	0.40
22:YA:26:G:C6	22:YA:27:G:C2	3.08	0.40
22:YA:107:C:H2'	22:YA:108:U:C6	2.54	0.40
22:YA:189:G:H1'	22:YA:207:A:H61	1.84	0.40
22:YA:258:G:C4	22:YA:259:G:C8	3.10	0.40
22:YA:271:G:C4	22:YA:272:G:N7	2.89	0.40
22:YA:321:G:H5''	26:YF:136:THR:HG23	2.03	0.40
22:YA:376:C:H2'	22:YA:377:C:C6	2.56	0.40
22:YA:460:A:C2	22:YA:470:A:C4	3.10	0.40
22:YA:604:G:H2'	22:YA:605:C:C6	2.57	0.40
22:YA:845:G:H8	22:YA:845:G:OP2	2.04	0.40
22:YA:1019:U:H3	22:YA:1142(A):A:H62	1.69	0.40
22:YA:1105:U:C2	22:YA:1106:G:C8	3.09	0.40
22:YA:1273:U:C4	22:YA:2003:G:H1'	2.56	0.40
22:YA:1833:U:H2'	22:YA:1834:U:C6	2.54	0.40
22:YA:1932:A:C2	22:YA:1969:A:C2	3.09	0.40
22:YA:1957:C:H2'	22:YA:1958:C:H6	1.85	0.40
22:YA:2323:G:C6	22:YA:2324:C:C4	3.09	0.40
22:YA:2881:C:C2	22:YA:2882:A:C8	3.09	0.40
23:YB:63:G:C2	23:YB:64:C:C2	3.09	0.40
24:YD:201:HIS:O	24:YD:204:ILE:HG12	2.21	0.40
25:YE:49:LEU:HD12	25:YE:49:LEU:HA	1.72	0.40
27:YG:7:LEU:HD12	27:YG:104:GLU:HA	2.03	0.40
27:YG:18:GLU:OE1	27:YG:22:ARG:NH1	2.49	0.40
27:YG:61:ALA:HA	27:YG:64:THR:HG22	2.02	0.40
30:YN:65:LYS:H	30:YN:65:LYS:HG2	1.60	0.40
31:YO:4:PRO:O	31:YO:5:GLN:CB	2.69	0.40
1:QA:148:G:H1	1:QA:174:C:H42	1.68	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:250:A:H8	1:QA:250:A:O5'	2.03	0.40
1:QA:355:C:C4	1:QA:356:A:N7	2.89	0.40
1:QA:509:A:C8	1:QA:509:A:H3'	2.56	0.40
1:QA:540:G:H2'	1:QA:541:G:O4'	2.20	0.40
1:QA:781:A:C5	1:QA:802:A:C2	3.09	0.40
1:QA:1256:A:OP1	3:QC:26:LYS:NZ	2.45	0.40
1:QA:1428:A:H2'	1:QA:1429:C:O4'	2.21	0.40
3:QC:71:ALA:HB2	3:QC:109:PRO:HB3	2.04	0.40
5:QE:50:GLU:HG3	5:QE:52:PRO:HD2	2.04	0.40
22:RA:71:A:H2	40:RX:31:HIS:NE2	2.19	0.40
22:RA:84:A:C2	22:RA:103:A:C5	3.09	0.40
22:RA:188:G:N2	22:RA:208:C:O2	2.54	0.40
22:RA:977:G:N3	22:RA:1001:A:H2	2.19	0.40
22:RA:1020:A:OP1	22:RA:1034:G:N2	2.42	0.40
22:RA:1303:G:H1'	22:RA:1641:A:N1	2.37	0.40
22:RA:1519:G:C6	22:RA:1520:U:C4	3.09	0.40
22:RA:1614:A:H62	39:RW:93:ALA:CA	2.34	0.40
22:RA:2466:C:OP1	52:R9:4:ARG:HB2	2.20	0.40
22:RA:2751:G:C5	28:RH:2:SER:HB3	2.56	0.40
23:RB:14:U:H4'	23:RB:70:C:O2	2.21	0.40
24:RD:44:ASN:HB2	24:RD:49:ILE:HA	2.02	0.40
26:RF:181:LEU:HD22	26:RF:181:LEU:HA	1.79	0.40
30:RN:17:ASP:O	30:RN:19:GLU:N	2.54	0.40
32:RP:62:LEU:O	51:R8:13:ARG:HB2	2.22	0.40
33:RQ:58:PHE:CD1	33:RQ:61:GLY:HA3	2.56	0.40
35:RS:62:LYS:HB3	35:RS:97:ARG:CD	2.44	0.40
36:RT:51:ARG:CG	36:RT:98:LYS:HG3	2.52	0.40
36:RT:109:GLU:O	36:RT:113:LYS:HB2	2.21	0.40
37:RU:83:LEU:HG	37:RU:88:ILE:HB	2.03	0.40
40:RX:67:GLY:C	40:RX:69:TYR:H	2.23	0.40
42:RZ:100:VAL:HA	42:RZ:101:PRO:HD3	1.84	0.40
42:RZ:117:LEU:HB2	42:RZ:174:VAL:HG22	2.03	0.40
51:R8:49:VAL:HG23	51:R8:53:PRO:HB3	2.04	0.40
1:XA:57:G:H2'	1:XA:58:C:O4'	2.21	0.40
1:XA:75:C:H2'	1:XA:76:G:O4'	2.21	0.40
1:XA:236:G:H2'	1:XA:237:C:C6	2.56	0.40
1:XA:344:A:O2'	1:XA:346:G:O6	2.22	0.40
1:XA:380:G:N2	1:XA:383:A:OP2	2.55	0.40
1:XA:735:C:H2'	1:XA:736:C:C6	2.50	0.40
1:XA:936:C:H42	1:XA:1379:G:H1	1.69	0.40
1:XA:1120:G:C6	1:XA:1121:U:C4	3.10	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1137:C:OP1	1:XA:1137:C:H4'	2.21	0.40
2:XB:120:ALA:C	2:XB:122:PHE:H	2.24	0.40
2:XB:166:ASP:HB3	2:XB:169:LYS:HB2	2.02	0.40
3:XC:42:LEU:HD12	3:XC:42:LEU:HA	1.87	0.40
5:XE:69:VAL:HA	5:XE:70:PRO:HD2	1.76	0.40
10:XJ:6:ILE:O	10:XJ:71:LEU:HD12	2.21	0.40
12:XL:90:VAL:O	12:XL:92:ASP:N	2.54	0.40
22:YA:219:G:H2'	22:YA:220:G:O4'	2.21	0.40
22:YA:389:G:H22	32:YP:72:PRO:HD3	1.86	0.40
22:YA:651:G:H4'	51:Y8:18:ALA:HB3	2.03	0.40
22:YA:676:A:H1'	22:YA:2443:C:H1'	2.03	0.40
22:YA:681:G:H2'	22:YA:682:G:O4'	2.21	0.40
22:YA:1062:G:H1'	22:YA:1088:A:C6	2.56	0.40
22:YA:1087:G:C4	22:YA:1089:G:H1'	2.57	0.40
22:YA:1359:A:H62	22:YA:1372:U:H3	1.62	0.40
22:YA:1363:C:H2'	22:YA:1364:G:O4'	2.21	0.40
22:YA:1932:A:C2	22:YA:1969:A:C4	3.09	0.40
22:YA:2477:C:O2	52:Y9:4:ARG:NH1	2.32	0.40
22:YA:2532:G:O2'	22:YA:2657:A:N1	2.45	0.40
22:YA:2715:C:H2'	22:YA:2716:U:H6	1.86	0.40
22:YA:2852:G:C6	22:YA:2853:C:C4	3.10	0.40
23:YB:12:C:O4'	23:YB:15:A:N6	2.53	0.40
24:YD:35:LYS:HZ1	24:YD:65:ILE:HA	1.86	0.40
28:YH:109:PHE:HZ	28:YH:152:ARG:HG2	1.86	0.40
28:YH:125:VAL:HG22	28:YH:131:VAL:HG13	2.02	0.40
33:YQ:80:GLU:HB2	33:YQ:81:VAL:H	1.69	0.40
43:Y0:11:ARG:H	43:Y0:11:ARG:HG2	1.51	0.40
49:Y6:13:CYS:HB2	49:Y6:22:ALA:HB3	2.03	0.40
53:XV:17:C:N4	53:XV:17(A):U:O4	2.53	0.40
1:QA:185:A:H2'	1:QA:186:C:C6	2.56	0.40
1:QA:281:G:OP2	1:QA:281:G:H8	2.04	0.40
1:QA:439:A:OP2	1:QA:493:G:N1	2.43	0.40
1:QA:758:G:H5'	1:QA:880:C:H1'	2.02	0.40
1:QA:887:G:N2	1:QA:911:U:H1'	2.36	0.40
1:QA:1160:G:N3	1:QA:1160:G:H2'	2.36	0.40
1:QA:1279:A:OP2	10:QJ:9:ARG:NH1	2.55	0.40
6:QF:30:LEU:HD23	6:QF:75:LEU:HD11	2.02	0.40
22:RA:394:A:N1	22:RA:395:U:C2	2.89	0.40
22:RA:612:G:O2'	22:RA:616:A:N1	2.43	0.40
22:RA:654(B):C:H42	22:RA:654(T):C:H42	1.69	0.40
22:RA:764:A:C6	22:RA:781:A:C2	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:960:A:N7	22:RA:962:G:C4	2.89	0.40
22:RA:1527:G:H5''	22:RA:1528:A:OP1	2.21	0.40
22:RA:2029:G:H2'	22:RA:2031:A:OP1	2.21	0.40
22:RA:2127:G:H22	22:RA:2162:G:H1'	1.86	0.40
22:RA:2500:U:H5''	22:RA:2501:C:OP2	2.21	0.40
22:RA:2819:G:C6	22:RA:2821:A:C2	3.08	0.40
22:RA:2842:G:H2'	22:RA:2843:G:O4'	2.21	0.40
24:RD:209:ALA:O	24:RD:212:SER:HB2	2.22	0.40
25:RE:26:ILE:O	25:RE:26:ILE:HG12	2.18	0.40
25:RE:36:ARG:HB3	25:RE:36:ARG:HH11	1.87	0.40
25:RE:197:ILE:HD11	25:RE:199:ARG:CZ	2.50	0.40
26:RF:29:ASN:HB3	26:RF:32:LEU:HD23	2.04	0.40
27:RG:117:PHE:HE1	27:RG:120:LEU:HD23	1.87	0.40
28:RH:98:LEU:HB2	28:RH:125:VAL:HB	2.03	0.40
32:RP:114:ILE:HD11	32:RP:130:PHE:CD1	2.57	0.40
33:RQ:72:LYS:HB3	33:RQ:94:VAL:O	2.21	0.40
35:RS:23:ARG:HB2	35:RS:86:ALA:HB2	2.03	0.40
37:RU:66:ASN:CG	37:RU:70:ARG:HH21	2.21	0.40
41:RY:11:ASP:O	41:RY:26:LYS:HG3	2.21	0.40
42:RZ:5:LEU:HD21	42:RZ:44:PHE:HA	2.02	0.40
1:XA:96:G:H2'	1:XA:97:U:O4'	2.22	0.40
1:XA:129(A):G:C2	1:XA:188:U:O2'	2.74	0.40
1:XA:450:G:N7	1:XA:481:G:C6	2.89	0.40
1:XA:452:A:H4'	16:XP:72:ARG:NH2	2.36	0.40
1:XA:509:A:H4'	1:XA:510:A:OP1	2.22	0.40
1:XA:955:U:H1'	1:XA:1227:A:H61	1.87	0.40
1:XA:1390:U:H2'	1:XA:1391:U:C6	2.56	0.40
2:XB:19:HIS:NE2	2:XB:206:ASP:HB2	2.36	0.40
9:XI:95:LYS:NZ	9:XI:96:LEU:HD13	2.36	0.40
11:XK:18:ARG:HB3	11:XK:33:THR:OG1	2.21	0.40
17:XQ:58:GLU:O	17:XQ:74:LEU:N	2.40	0.40
22:YA:7:G:H2'	22:YA:8:A:O4'	2.20	0.40
22:YA:552:G:C6	22:YA:553:U:C4	3.09	0.40
22:YA:640:C:H2'	22:YA:641:C:C6	2.56	0.40
22:YA:795:C:H6	22:YA:795:C:O5'	2.04	0.40
22:YA:864:G:H1'	22:YA:914:C:N4	2.36	0.40
22:YA:1024:G:C8	22:YA:1025:G:H2'	2.56	0.40
22:YA:1448:G:H2'	22:YA:1449:A:C8	2.57	0.40
22:YA:1566:A:O2'	22:YA:1567:A:H5'	2.22	0.40
22:YA:1630(A):C:N3	22:YA:1635:G:N1	2.64	0.40
22:YA:1685:C:H2'	22:YA:1686:C:H5''	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:YA:1779:U:C6	22:YA:1783:A:N7	2.89	0.40
22:YA:2023:G:H4'	22:YA:2617:C:O3'	2.20	0.40
22:YA:2133:G:N2	22:YA:2157:G:H2'	2.37	0.40
22:YA:2285:C:H5	49:Y6:27:LYS:HE2	1.85	0.40
22:YA:2466:C:H42	22:YA:2484:G:H1	1.70	0.40
22:YA:2532:G:H1'	22:YA:2663:G:N2	2.37	0.40
22:YA:2550:G:C6	22:YA:2551:C:C4	3.09	0.40
22:YA:2667:C:H1'	28:YH:109:PHE:HD2	1.86	0.40
22:YA:2674:G:H2'	22:YA:2675:A:C8	2.57	0.40
22:YA:2850:A:OP2	22:YA:2866:U:N3	2.54	0.40
23:YB:27:C:H5'	23:YB:28:C:OP2	2.22	0.40
26:YF:168:ARG:HG3	26:YF:175:THR:HG21	2.02	0.40
27:YG:99:MET:HG3	27:YG:100:TRP:N	2.36	0.40
31:YO:68:GLU:CD	31:YO:68:GLU:H	2.24	0.40
37:YU:17:ILE:HD13	37:YU:17:ILE:HA	1.92	0.40
42:YZ:89:PHE:CE1	42:YZ:96:VAL:HG21	2.57	0.40
46:Y3:12:PRO:O	46:Y3:14:GLY:N	2.55	0.40
47:Y4:43:TYR:O	47:Y4:46:GLN:HA	2.20	0.40
52:Y9:2:LYS:HD2	52:Y9:2:LYS:HA	1.86	0.40
53:QV:29:G:C4	53:QV:30:G:C8	3.09	0.40
54:QX:1:A:C6	54:QX:2:U:C4	3.09	0.40
1:QA:119:A:H3'	1:QA:119:A:OP1	2.21	0.40
1:QA:148:G:H2'	1:QA:149:A:C8	2.55	0.40
1:QA:241:C:H42	1:QA:285:G:H1	1.69	0.40
1:QA:321:A:N6	1:QA:329:A:OP2	2.51	0.40
1:QA:503:C:H2'	1:QA:504:C:H6	1.86	0.40
1:QA:872:A:C2	1:QA:874:G:C6	3.10	0.40
1:QA:924:C:N4	1:QA:925:G:O6	2.55	0.40
3:QC:43:LEU:HD22	3:QC:47:LEU:HD22	2.02	0.40
10:QJ:61:GLU:OE1	14:QN:58:LYS:HE2	2.21	0.40
13:QM:13:LYS:HG3	13:QM:44:ARG:NH1	2.36	0.40
16:QP:34:GLU:OE2	16:QP:55:ARG:NH1	2.53	0.40
22:RA:227:A:O2'	22:RA:228:A:OP2	2.38	0.40
22:RA:654(A):G:OP2	22:RA:654(A):G:H3'	2.21	0.40
22:RA:1007:C:H4'	30:RN:108:PRO:HD3	2.03	0.40
22:RA:1011:G:C6	22:RA:1013:C:C4	3.09	0.40
22:RA:1077:A:H3'	22:RA:1078:U:C5'	2.51	0.40
22:RA:1114:G:N1	22:RA:1115:G:C6	2.89	0.40
22:RA:1219:G:O2'	22:RA:1220:A:H5''	2.20	0.40
22:RA:1694:C:H6	22:RA:1694:C:H2'	1.65	0.40
22:RA:1937:A:C8	22:RA:1939:U:H2'	2.56	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:RA:2867:G:HO2'	22:RA:2868:A:P	2.41	0.40
22:RA:2885:C:N3	22:RA:2886:G:H1'	2.36	0.40
22:RA:2886:G:H2'	22:RA:2887:U:H6	1.87	0.40
24:RD:35:LYS:HB3	24:RD:63:ARG:HA	2.04	0.40
24:RD:132:PRO:HG3	24:RD:190:TYR:CE1	2.56	0.40
29:RI:93:THR:O	29:RI:97:ILE:HG12	2.21	0.40
31:RO:66:LYS:HA	31:RO:79:PHE:O	2.22	0.40
33:RQ:83:MET:H	43:R0:7:LEU:HD12	1.87	0.40
35:RS:69:VAL:HG13	35:RS:101:LEU:HD22	2.03	0.40
42:RZ:153:SER:N	42:RZ:167:PRO:HB2	2.37	0.40
44:R1:87:PRO:O	44:R1:91:LYS:HB2	2.21	0.40
44:R1:95:LEU:HD23	44:R1:95:LEU:HA	1.94	0.40
1:XA:403:C:OP2	4:XD:74:GLN:NE2	2.54	0.40
1:XA:619:U:O2	4:XD:135:LEU:HD23	2.21	0.40
1:XA:663:A:H61	1:XA:742:G:H1	1.69	0.40
1:XA:872:A:C5	1:XA:874:G:C8	3.10	0.40
1:XA:977:A:H8	1:XA:1223:C:C2	2.40	0.40
1:XA:1002:G:N3	1:XA:1003:G:C8	2.89	0.40
1:XA:1004:A:N7	1:XA:1026:G:C8	2.89	0.40
1:XA:1151:A:O2'	1:XA:1152:A:O5'	2.34	0.40
1:XA:1342:C:H2'	1:XA:1343:G:C8	2.57	0.40
3:XC:20:SER:HB2	3:XC:40:ARG:NH2	2.29	0.40
3:XC:188:LEU:HD13	3:XC:188:LEU:HA	1.90	0.40
5:XE:31:LEU:HD23	5:XE:45:PHE:HD1	1.78	0.40
5:XE:34:VAL:HG11	5:XE:63:ARG:HG2	2.03	0.40
5:XE:89:ILE:HG12	5:XE:91:LEU:CD1	2.52	0.40
9:XI:75:ASP:HA	9:XI:78:LYS:HB3	2.04	0.40
13:XM:3:ARG:HG2	47:Y4:34:GLU:HB3	2.03	0.40
13:XM:68:GLY:HA3	27:YG:116:ASP:OD1	2.21	0.40
22:YA:768:G:C6	22:YA:769:G:C5	3.08	0.40
22:YA:1022:G:H22	22:YA:1142(A):A:H2	1.65	0.40
22:YA:1072:C:H42	22:YA:1092:C:N4	2.19	0.40
22:YA:1264:G:C3'	22:YA:1265:A:H5''	2.47	0.40
22:YA:2314:C:H2'	22:YA:2315:G:H8	1.87	0.40
22:YA:2466:C:H5''	52:Y9:6:SER:CB	2.51	0.40
22:YA:2467:C:H4'	33:YQ:123:HIS:CG	2.57	0.40
22:YA:2594:C:O2	22:YA:2594:C:H2'	2.21	0.40
22:YA:2634:G:H1	22:YA:2784:C:N4	2.18	0.40
24:YD:237:GLU:O	24:YD:238:GLY:C	2.59	0.40
28:YH:46:GLU:OE1	28:YH:51:ARG:NH1	2.54	0.40
29:YI:91:SER:OG	29:YI:92:VAL:N	2.54	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:YS:69:VAL:HA	35:YS:72:ALA:HB3	2.03	0.40
37:YU:19:LYS:O	37:YU:22:LYS:HB2	2.22	0.40
38:YV:21:ARG:HD2	38:YV:91:TYR:CE1	2.56	0.40
42:YZ:112:ARG:HG2	42:YZ:113:ALA:H	1.86	0.40
46:Y3:52:HIS:CD2	46:Y3:53:LEU:HG	2.57	0.40
47:Y4:14:ILE:O	47:Y4:14:ILE:HG23	2.21	0.40
49:Y6:11:LEU:HD13	49:Y6:11:LEU:HA	1.86	0.40
1:QA:266:G:H8	1:QA:266:G:H2'	1.81	0.40
1:QA:292:G:C5	1:QA:293:G:H1'	2.55	0.40
1:QA:437:U:O2'	4:QD:123:HIS:HD2	2.04	0.40
1:QA:899:C:H6	1:QA:899:C:O5'	2.05	0.40
1:QA:1179:A:H2'	1:QA:1180:A:O4'	2.22	0.40
1:QA:1290:G:C4	1:QA:1291:G:C8	3.09	0.40
6:QF:21:LEU:O	6:QF:25:ILE:HG12	2.21	0.40
6:QF:33:TYR:CE1	6:QF:78:GLU:HG2	2.57	0.40
8:QH:83:ILE:HB	8:QH:137:VAL:HG13	2.03	0.40
13:QM:4:ILE:H	13:QM:9:ILE:CG2	2.35	0.40
13:QM:93:ARG:NH1	22:RA:888:C:OP1	2.50	0.40
20:QT:86:ARG:O	20:QT:90:GLN:HG3	2.21	0.40
22:RA:30:G:C6	22:RA:31:C:N4	2.90	0.40
22:RA:270(R):G:H1'	44:R1:78:LYS:HZ1	1.86	0.40
22:RA:304:G:H2'	22:RA:305:U:C6	2.56	0.40
22:RA:533:G:C6	22:RA:534:U:N3	2.90	0.40
22:RA:702:G:C2	22:RA:731:C:N3	2.90	0.40
22:RA:1265:A:OP2	22:RA:2615:U:OP1	2.40	0.40
22:RA:1630:G:H2'	22:RA:1630(A):C:C6	2.57	0.40
22:RA:1668:A:N7	22:RA:1674:G:C6	2.89	0.40
22:RA:1790:C:H2'	22:RA:1791:A:C4	2.56	0.40
22:RA:2233:U:H2'	22:RA:2234:G:C8	2.57	0.40
22:RA:2422:A:N7	51:R8:31:HIS:HE1	2.20	0.40
22:RA:2474:C:H5''	22:RA:2475:C:H5	1.86	0.40
22:RA:2639:A:C2	22:RA:2778:A:C8	3.10	0.40
24:RD:26:LYS:H	24:RD:26:LYS:HD2	1.87	0.40
24:RD:43:ARG:CB	24:RD:54:ARG:HB2	2.52	0.40
24:RD:96:HIS:CD2	24:RD:102:LYS:HG2	2.57	0.40
28:RH:167:GLU:HA	28:RH:168:PRO:HD3	1.90	0.40
30:RN:108:PRO:O	30:RN:113:GLY:HA3	2.21	0.40
32:RP:25:SER:OG	32:RP:26:GLY:O	2.38	0.40
42:RZ:166:SER:HB3	42:RZ:168:GLU:N	2.34	0.40
50:R7:31:LEU:HD23	50:R7:31:LEU:HA	1.86	0.40
1:XA:28:G:O2'	1:XA:296:U:H5''	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:191:G:C5	1:XA:192:U:C4	3.10	0.40
1:XA:514:C:H2'	1:XA:515:G:H8	1.84	0.40
1:XA:651:C:H2'	1:XA:652:U:C6	2.48	0.40
1:XA:675:A:H2'	1:XA:676:A:C8	2.51	0.40
1:XA:1097:C:O2'	1:XA:1169:A:N3	2.44	0.40
1:XA:1126:U:OP2	1:XA:1281:U:H1'	2.21	0.40
1:XA:1179:A:C6	1:XA:1180:A:C2	3.10	0.40
1:XA:1189:C:O2'	3:XC:176:HIS:HD2	2.04	0.40
1:XA:1325:C:H2'	1:XA:1326:C:H6	1.87	0.40
1:XA:1502:A:H2'	1:XA:1504:G:C8	2.57	0.40
4:XD:108:LEU:HB3	4:XD:110:PHE:CD1	2.57	0.40
5:XE:12:LEU:HB3	5:XE:31:LEU:CB	2.51	0.40
9:XI:5:TYR:HA	9:XI:17:VAL:O	2.21	0.40
10:XJ:77:PRO:O	10:XJ:79:ARG:NH1	2.54	0.40
11:XK:38:ASN:HA	11:XK:39:PRO:HD3	1.75	0.40
19:XS:15:LEU:HA	19:XS:18:LYS:HB3	2.04	0.40
22:YA:244:A:H2'	22:YA:245:G:O4'	2.20	0.40
22:YA:270(J):G:H1	22:YA:270(P):C:H42	1.70	0.40
22:YA:270(Z):U:O2'	22:YA:271(A):C:C6	2.74	0.40
22:YA:984:A:H5''	22:YA:985:C:C5	2.38	0.40
22:YA:1027:A:C6	22:YA:1126:A:C5	3.09	0.40
22:YA:1050:A:C6	22:YA:1051:G:C5	3.10	0.40
22:YA:2139:C:H2'	22:YA:2140:C:O4'	2.21	0.40
22:YA:2369:A:C6	22:YA:2370:G:C6	3.10	0.40
22:YA:2392:A:H2'	22:YA:2393:A:O4'	2.21	0.40
22:YA:2399:G:H8	22:YA:2399:G:O5'	2.05	0.40
22:YA:2849:U:O4	36:YT:23:ARG:NH2	2.54	0.40
23:YB:10:C:H2'	23:YB:11:C:H6	1.87	0.40
23:YB:21:G:N2	23:YB:63:G:C4	2.90	0.40
23:YB:85:G:C6	23:YB:86:G:N7	2.89	0.40
26:YF:122:LYS:HD3	26:YF:122:LYS:HA	1.86	0.40
29:YI:46:ALA:O	29:YI:50:ARG:HD3	2.21	0.40
30:YN:46:VAL:O	30:YN:47:ALA:HB3	2.21	0.40
32:YP:68:GLN:HG2	51:Y8:12:LYS:HD3	2.03	0.40
38:YV:3:ALA:HA	38:YV:40:LEU:O	2.21	0.40
41:YY:89:PHE:C	41:YY:90:LEU:HD13	2.42	0.40
48:Y5:41:PRO:HA	48:Y5:42:PRO:HD3	1.95	0.40
49:Y6:28:ARG:HB3	49:Y6:30:THR:C	2.41	0.40

All (1) 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)
22:YA:1593:G:O2'	23:YB:54:G:OP1[1_655]	2.14	0.06

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	QB	235/256 (92%)	174 (74%)	44 (19%)	17 (7%)	1	15
2	XB	235/256 (92%)	178 (76%)	42 (18%)	15 (6%)	1	18
3	QC	203/239 (85%)	163 (80%)	34 (17%)	6 (3%)	4	32
3	XC	203/239 (85%)	171 (84%)	29 (14%)	3 (2%)	10	44
4	QD	206/209 (99%)	176 (85%)	24 (12%)	6 (3%)	4	32
4	XD	206/209 (99%)	177 (86%)	24 (12%)	5 (2%)	6	35
5	QE	149/162 (92%)	136 (91%)	8 (5%)	5 (3%)	3	30
5	XE	149/162 (92%)	133 (89%)	13 (9%)	3 (2%)	7	39
6	QF	99/101 (98%)	95 (96%)	4 (4%)	0	100	100
6	XF	99/101 (98%)	94 (95%)	5 (5%)	0	100	100
7	QG	153/156 (98%)	135 (88%)	16 (10%)	2 (1%)	12	47
7	XG	153/156 (98%)	138 (90%)	13 (8%)	2 (1%)	12	47
8	QH	136/138 (99%)	121 (89%)	14 (10%)	1 (1%)	22	59
8	XH	136/138 (99%)	120 (88%)	12 (9%)	4 (3%)	4	32
9	QI	125/128 (98%)	103 (82%)	17 (14%)	5 (4%)	3	26
9	XI	125/128 (98%)	97 (78%)	24 (19%)	4 (3%)	4	31
10	QJ	97/105 (92%)	75 (77%)	19 (20%)	3 (3%)	4	31
10	XJ	97/105 (92%)	79 (81%)	13 (13%)	5 (5%)	2	21
11	QK	117/129 (91%)	100 (86%)	14 (12%)	3 (3%)	5	33
11	XK	117/129 (91%)	101 (86%)	14 (12%)	2 (2%)	9	42
12	QL	123/132 (93%)	98 (80%)	18 (15%)	7 (6%)	1	19

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	XL	123/132 (93%)	98 (80%)	15 (12%)	10 (8%)	1	11
13	QM	119/126 (94%)	95 (80%)	15 (13%)	9 (8%)	1	13
13	XM	119/126 (94%)	94 (79%)	16 (13%)	9 (8%)	1	13
14	QN	58/61 (95%)	48 (83%)	6 (10%)	4 (7%)	1	15
14	XN	58/61 (95%)	46 (79%)	6 (10%)	6 (10%)	0	7
15	QO	86/89 (97%)	80 (93%)	5 (6%)	1 (1%)	13	49
15	XO	86/89 (97%)	80 (93%)	4 (5%)	2 (2%)	6	36
16	QP	82/88 (93%)	74 (90%)	7 (8%)	1 (1%)	13	49
16	XP	82/88 (93%)	71 (87%)	10 (12%)	1 (1%)	13	49
17	QQ	98/105 (93%)	91 (93%)	5 (5%)	2 (2%)	7	39
17	XQ	98/105 (93%)	88 (90%)	10 (10%)	0	100	100
18	QR	68/88 (77%)	56 (82%)	9 (13%)	3 (4%)	2	24
18	XR	68/88 (77%)	61 (90%)	6 (9%)	1 (2%)	10	44
19	QS	82/93 (88%)	56 (68%)	15 (18%)	11 (13%)	0	4
19	XS	82/93 (88%)	54 (66%)	17 (21%)	11 (13%)	0	4
20	QT	97/106 (92%)	76 (78%)	15 (16%)	6 (6%)	1	18
20	XT	97/106 (92%)	75 (77%)	16 (16%)	6 (6%)	1	18
21	QU	23/27 (85%)	19 (83%)	3 (13%)	1 (4%)	2	24
21	XU	23/27 (85%)	18 (78%)	4 (17%)	1 (4%)	2	24
24	RD	270/276 (98%)	226 (84%)	32 (12%)	12 (4%)	2	24
24	YD	270/276 (98%)	227 (84%)	34 (13%)	9 (3%)	4	31
25	RE	203/206 (98%)	147 (72%)	36 (18%)	20 (10%)	0	8
25	YE	203/206 (98%)	142 (70%)	41 (20%)	20 (10%)	0	8
26	RF	200/210 (95%)	167 (84%)	20 (10%)	13 (6%)	1	17
26	YF	200/210 (95%)	167 (84%)	25 (12%)	8 (4%)	3	26
27	RG	179/182 (98%)	139 (78%)	26 (14%)	14 (8%)	1	13
27	YG	179/182 (98%)	142 (79%)	25 (14%)	12 (7%)	1	16
28	RH	168/180 (93%)	114 (68%)	33 (20%)	21 (12%)	0	4
28	YH	168/180 (93%)	121 (72%)	23 (14%)	24 (14%)	0	3
29	RI	144/148 (97%)	94 (65%)	31 (22%)	19 (13%)	0	4
29	YI	144/148 (97%)	100 (69%)	23 (16%)	21 (15%)	0	3

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
30	RN	136/140 (97%)	104 (76%)	20 (15%)	12 (9%)	1	10
30	YN	136/140 (97%)	106 (78%)	16 (12%)	14 (10%)	0	7
31	RO	120/122 (98%)	109 (91%)	9 (8%)	2 (2%)	9	42
31	YO	120/122 (98%)	108 (90%)	10 (8%)	2 (2%)	9	42
32	RP	148/150 (99%)	107 (72%)	27 (18%)	14 (10%)	0	9
32	YP	148/150 (99%)	108 (73%)	23 (16%)	17 (12%)	0	5
33	RQ	139/141 (99%)	99 (71%)	22 (16%)	18 (13%)	0	4
33	YQ	139/141 (99%)	98 (70%)	22 (16%)	19 (14%)	0	3
34	RR	116/118 (98%)	106 (91%)	5 (4%)	5 (4%)	2	24
34	YR	116/118 (98%)	99 (85%)	11 (10%)	6 (5%)	2	21
35	RS	109/112 (97%)	76 (70%)	22 (20%)	11 (10%)	0	8
35	YS	109/112 (97%)	78 (72%)	18 (16%)	13 (12%)	0	5
36	RT	135/146 (92%)	106 (78%)	17 (13%)	12 (9%)	1	10
36	YT	135/146 (92%)	108 (80%)	17 (13%)	10 (7%)	1	14
37	RU	115/118 (98%)	102 (89%)	9 (8%)	4 (4%)	3	29
37	YU	115/118 (98%)	101 (88%)	10 (9%)	4 (4%)	3	29
38	RV	99/101 (98%)	82 (83%)	11 (11%)	6 (6%)	1	18
38	YV	99/101 (98%)	79 (80%)	12 (12%)	8 (8%)	1	11
39	RW	111/113 (98%)	99 (89%)	8 (7%)	4 (4%)	3	29
39	YW	111/113 (98%)	100 (90%)	9 (8%)	2 (2%)	8	41
40	RX	90/96 (94%)	77 (86%)	11 (12%)	2 (2%)	6	37
40	YX	90/96 (94%)	82 (91%)	6 (7%)	2 (2%)	6	37
41	RY	100/110 (91%)	71 (71%)	13 (13%)	16 (16%)	0	3
41	YY	100/110 (91%)	70 (70%)	18 (18%)	12 (12%)	0	5
42	RZ	181/206 (88%)	118 (65%)	35 (19%)	28 (16%)	0	3
42	YZ	181/206 (88%)	113 (62%)	46 (25%)	22 (12%)	0	5
43	R0	80/85 (94%)	61 (76%)	15 (19%)	4 (5%)	2	22
43	Y0	80/85 (94%)	66 (82%)	13 (16%)	1 (1%)	12	47
44	R1	95/98 (97%)	75 (79%)	11 (12%)	9 (10%)	0	9
44	Y1	95/98 (97%)	72 (76%)	17 (18%)	6 (6%)	1	18
45	R2	67/72 (93%)	53 (79%)	9 (13%)	5 (8%)	1	13

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
45	Y2	67/72 (93%)	55 (82%)	6 (9%)	6 (9%)	1	10
46	R3	57/60 (95%)	52 (91%)	3 (5%)	2 (4%)	3	29
46	Y3	57/60 (95%)	52 (91%)	4 (7%)	1 (2%)	8	41
47	R4	69/71 (97%)	35 (51%)	18 (26%)	16 (23%)	0	0
47	Y4	69/71 (97%)	35 (51%)	15 (22%)	19 (28%)	0	0
48	R5	57/60 (95%)	44 (77%)	11 (19%)	2 (4%)	3	29
48	Y5	57/60 (95%)	46 (81%)	9 (16%)	2 (4%)	3	29
49	R6	47/54 (87%)	23 (49%)	13 (28%)	11 (23%)	0	0
49	Y6	47/54 (87%)	22 (47%)	17 (36%)	8 (17%)	0	2
50	R7	47/49 (96%)	45 (96%)	1 (2%)	1 (2%)	7	38
50	Y7	47/49 (96%)	43 (92%)	3 (6%)	1 (2%)	7	38
51	R8	62/65 (95%)	51 (82%)	6 (10%)	5 (8%)	1	11
51	Y8	62/65 (95%)	48 (77%)	10 (16%)	4 (6%)	1	17
52	R9	35/37 (95%)	35 (100%)	0	0	100	100
52	Y9	35/37 (95%)	31 (89%)	4 (11%)	0	100	100
All	All	11470/12128 (95%)	9180 (80%)	1546 (14%)	744 (6%)	1	17

All (744) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	QB	236	TYR
3	QC	12	LEU
3	QC	190	ARG
4	QD	28	SER
13	QM	67	GLU
13	QM	106	ASN
13	QM	118	ALA
14	QN	16	PHE
19	QS	12	ASP
19	QS	45	VAL
20	QT	49	ALA
24	RD	26	LYS
24	RD	122	ASP
24	RD	242	ARG
25	RE	22	PRO
25	RE	53	PRO
25	RE	63	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	RE	68	ALA
25	RE	71	GLY
25	RE	93	VAL
28	RH	12	PRO
28	RH	86	GLU
28	RH	126	PRO
28	RH	127	GLU
28	RH	154	PRO
28	RH	168	PRO
28	RH	169	VAL
29	RI	15	VAL
29	RI	102	SER
29	RI	115	ALA
29	RI	133	HIS
30	RN	9	VAL
30	RN	22	THR
30	RN	96	GLU
30	RN	131	GLN
31	RO	5	GLN
32	RP	6	LEU
32	RP	10	PRO
32	RP	15	ARG
32	RP	65	ARG
32	RP	95	VAL
32	RP	141	ALA
32	RP	148	LEU
33	RQ	22	LYS
33	RQ	66	ILE
33	RQ	78	PRO
33	RQ	90	VAL
33	RQ	139	GLU
34	RR	3	HIS
34	RR	4	LEU
35	RS	57	LYS
35	RS	88	ASP
35	RS	89	ARG
36	RT	2	ASN
36	RT	3	ARG
36	RT	106	SER
36	RT	112	ARG
36	RT	124	ASP
37	RU	91	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	RV	48	GLY
38	RV	50	PRO
38	RV	100	ARG
39	RW	111	HIS
41	RY	3	VAL
41	RY	50	ARG
41	RY	57	GLN
41	RY	77	PRO
41	RY	78	ALA
42	RZ	60	GLU
42	RZ	111	VAL
42	RZ	112	ARG
42	RZ	158	PRO
42	RZ	179	ASP
42	RZ	182	LYS
43	R0	57	PHE
45	R2	47	ASN
45	R2	48	HIS
45	R2	70	GLN
45	R2	71	ASN
47	R4	16	CYS
47	R4	18	CYS
47	R4	40	HIS
47	R4	43	TYR
47	R4	49	PHE
47	R4	50	VAL
47	R4	53	GLU
48	R5	4	HIS
48	R5	47	PRO
49	R6	15	GLU
51	R8	34	TRP
51	R8	52	LYS
51	R8	62	LEU
2	XB	230	VAL
2	XB	236	TYR
3	XC	12	LEU
3	XC	79	ARG
4	XD	154	ASN
11	XK	91	ARG
12	XL	48	PRO
12	XL	64	TYR
13	XM	67	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	XM	106	ASN
13	XM	118	ALA
14	XN	14	PRO
14	XN	16	PHE
14	XN	52	GLN
19	XS	3	ARG
19	XS	12	ASP
20	XT	48	LYS
20	XT	96	GLY
24	YD	26	LYS
24	YD	28	GLU
24	YD	122	ASP
24	YD	123	ALA
25	YE	2	LYS
25	YE	19	ARG
25	YE	22	PRO
25	YE	53	PRO
25	YE	63	LEU
25	YE	71	GLY
26	YF	73	ALA
26	YF	134	GLY
27	YG	96	ARG
28	YH	3	ARG
28	YH	12	PRO
28	YH	13	LYS
28	YH	86	GLU
28	YH	126	PRO
28	YH	127	GLU
28	YH	128	PRO
28	YH	168	PRO
28	YH	169	VAL
29	YI	113	ARG
29	YI	133	HIS
29	YI	145	VAL
30	YN	9	VAL
30	YN	22	THR
30	YN	36	GLY
32	YP	6	LEU
32	YP	10	PRO
32	YP	14	LYS
32	YP	15	ARG
32	YP	25	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	YP	27	HIS
32	YP	95	VAL
32	YP	106	LEU
32	YP	148	LEU
33	YQ	18	LYS
33	YQ	22	LYS
33	YQ	25	ASP
33	YQ	79	LEU
33	YQ	86	GLY
33	YQ	90	VAL
33	YQ	134	ARG
34	YR	3	HIS
35	YS	82	ILE
35	YS	88	ASP
35	YS	107	GLU
36	YT	2	ASN
36	YT	123	GLN
36	YT	124	ASP
37	YU	90	VAL
37	YU	91	ASP
37	YU	93	LYS
38	YV	45	THR
40	YX	68	ARG
41	YY	50	ARG
41	YY	57	GLN
41	YY	77	PRO
41	YY	78	ALA
42	YZ	7	ALA
42	YZ	53	ILE
42	YZ	152	ALA
42	YZ	159	PRO
42	YZ	165	VAL
44	Y1	30	VAL
44	Y1	84	GLY
44	Y1	91	LYS
44	Y1	95	LEU
45	Y2	16	LEU
45	Y2	43	GLN
45	Y2	47	ASN
45	Y2	48	HIS
47	Y4	24	THR
47	Y4	40	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
47	Y4	49	PHE
48	Y5	4	HIS
49	Y6	15	GLU
50	Y7	48	LYS
51	Y8	52	LYS
51	Y8	62	LEU
2	QB	15	VAL
2	QB	96	ARG
2	QB	229	VAL
2	QB	230	VAL
2	QB	237	ALA
3	QC	79	ARG
4	QD	51	PRO
4	QD	154	ASN
5	QE	115	VAL
8	QH	129	VAL
9	QI	41	VAL
9	QI	117	HIS
11	QK	101	SER
12	QL	47	LYS
12	QL	91	LYS
13	QM	12	ASN
14	QN	12	ARG
17	QQ	74	LEU
17	QQ	81	ARG
19	QS	3	ARG
19	QS	11	VAL
19	QS	26	GLY
19	QS	31	ILE
19	QS	41	VAL
24	RD	32	SER
25	RE	50	GLY
25	RE	60	ASN
25	RE	66	HIS
25	RE	72	VAL
25	RE	90	THR
25	RE	92	THR
25	RE	187	ALA
26	RF	17	ARG
26	RF	67	GLN
26	RF	73	ALA
26	RF	89	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	RF	134	GLY
26	RF	198	ALA
27	RG	4	ASP
27	RG	5	VAL
27	RG	14	GLU
27	RG	96	ARG
27	RG	137	GLU
27	RG	146	TYR
28	RH	8	PRO
28	RH	128	PRO
28	RH	137	ASP
28	RH	153	LYS
28	RH	155	SER
29	RI	11	ASN
29	RI	13	GLY
29	RI	116	LEU
29	RI	117	GLU
32	RP	11	GLY
32	RP	90	ARG
32	RP	103	ALA
32	RP	106	LEU
33	RQ	6	ARG
33	RQ	25	ASP
33	RQ	27	VAL
33	RQ	133	ARG
34	RR	107	ASP
35	RS	4	LEU
35	RS	107	GLU
36	RT	37	GLY
37	RU	90	VAL
38	RV	49	THR
38	RV	79	VAL
40	RX	41	ASN
41	RY	45	VAL
41	RY	48	ALA
41	RY	63	LYS
42	RZ	6	LYS
42	RZ	12	GLY
42	RZ	53	ILE
42	RZ	62	PRO
42	RZ	152	ALA
42	RZ	177	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
42	RZ	181	GLU
44	R1	30	VAL
44	R1	80	LEU
44	R1	84	GLY
44	R1	91	LYS
44	R1	95	LEU
45	R2	43	GLN
46	R3	26	LEU
47	R4	24	THR
47	R4	30	GLU
47	R4	51	ASP
47	R4	66	SER
49	R6	7	ILE
49	R6	45	LYS
2	XB	15	VAL
4	XD	30	LYS
4	XD	166	LYS
5	XE	115	VAL
7	XG	55	GLY
8	XH	50	ARG
9	XI	41	VAL
9	XI	127	LYS
10	XJ	30	SER
10	XJ	86	MET
12	XL	63	GLY
12	XL	91	LYS
12	XL	115	LYS
13	XM	6	GLY
13	XM	21	TYR
19	XS	41	VAL
19	XS	45	VAL
20	XT	99	LEU
24	YD	238	GLY
24	YD	242	ARG
25	YE	7	VAL
25	YE	204	ALA
26	YF	128	ALA
26	YF	132	VAL
26	YF	181	LEU
27	YG	4	ASP
27	YG	36	LYS
28	YH	27	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	YH	50	VAL
28	YH	85	LYS
28	YH	152	ARG
28	YH	155	SER
29	YI	11	ASN
29	YI	84	GLY
29	YI	114	LEU
29	YI	122	GLU
30	YN	23	LEU
30	YN	96	GLU
31	YO	5	GLN
32	YP	66	GLY
32	YP	93	GLY
32	YP	141	ALA
33	YQ	6	ARG
33	YQ	60	ARG
33	YQ	137	TYR
34	YR	4	LEU
34	YR	45	ARG
34	YR	107	ASP
35	YS	12	PHE
35	YS	57	LYS
35	YS	109	GLY
36	YT	13	ARG
36	YT	39	ARG
36	YT	106	SER
38	YV	31	ALA
38	YV	48	GLY
38	YV	79	VAL
39	YW	111	HIS
41	YY	58	GLY
41	YY	102	CYS
42	YZ	6	LYS
42	YZ	61	LEU
42	YZ	81	ARG
42	YZ	121	HIS
42	YZ	177	PRO
43	Y0	64	ASP
45	Y2	70	GLN
45	Y2	71	ASN
47	Y4	5	ILE
47	Y4	18	CYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
47	Y4	22	ILE
47	Y4	37	SER
47	Y4	43	TYR
47	Y4	50	VAL
49	Y6	7	ILE
49	Y6	16	CYS
49	Y6	33	LYS
2	QB	26	PRO
2	QB	87	ARG
2	QB	204	ASN
2	QB	207	ALA
3	QC	4	LYS
3	QC	51	GLY
4	QD	155	LEU
5	QE	77	PRO
10	QJ	30	SER
11	QK	103	LEU
11	QK	125	PHE
12	QL	28	LYS
13	QM	13	LYS
13	QM	120	LYS
14	QN	14	PRO
15	QO	23	GLY
19	QS	9	VAL
19	QS	14	HIS
19	QS	28	LYS
20	QT	96	GLY
24	RD	46	GLN
24	RD	239	ARG
25	RE	79	ARG
25	RE	204	ALA
26	RF	133	ASN
27	RG	32	PRO
27	RG	116	ASP
28	RH	5	GLY
28	RH	27	LYS
28	RH	55	PRO
28	RH	87	LEU
28	RH	138	LYS
29	RI	12	LEU
29	RI	65	ALA
29	RI	109	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	RN	8	GLN
30	RN	23	LEU
30	RN	95	PRO
30	RN	130	HIS
31	RO	97	ARG
32	RP	29	LYS
32	RP	67	MET
33	RQ	11	LYS
33	RQ	19	GLY
33	RQ	137	TYR
34	RR	74	LYS
35	RS	12	PHE
35	RS	61	ASN
36	RT	12	SER
36	RT	97	ALA
37	RU	117	GLN
40	RX	67	GLY
41	RY	58	GLY
42	RZ	13	GLU
42	RZ	30	ASN
42	RZ	63	ASP
42	RZ	92	SER
42	RZ	104	PHE
42	RZ	159	PRO
42	RZ	165	VAL
43	R0	12	ASN
44	R1	76	ARG
46	R3	27	GLY
49	R6	16	CYS
49	R6	33	LYS
49	R6	35	GLU
49	R6	49	HIS
51	R8	31	HIS
51	R8	51	ALA
2	XB	13	ALA
2	XB	22	LYS
2	XB	24	TRP
2	XB	135	GLN
2	XB	207	ALA
4	XD	73	ARG
4	XD	155	LEU
7	XG	7	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	XH	2	LEU
9	XI	56	LEU
9	XI	95	LYS
10	XJ	59	SER
11	XK	103	LEU
13	XM	4	ILE
13	XM	12	ASN
13	XM	42	ALA
19	XS	27	GLU
19	XS	28	LYS
24	YD	32	SER
25	YE	20	ALA
25	YE	50	GLY
25	YE	79	ARG
25	YE	90	THR
25	YE	92	THR
25	YE	117	MET
25	YE	184	VAL
26	YF	198	ALA
28	YH	8	PRO
28	YH	10	PRO
28	YH	87	LEU
28	YH	137	ASP
28	YH	138	LYS
28	YH	153	LYS
28	YH	154	PRO
29	YI	10	GLU
29	YI	12	LEU
29	YI	15	VAL
29	YI	16	GLY
29	YI	83	ALA
29	YI	86	THR
29	YI	118	LYS
30	YN	7	LYS
30	YN	131	GLN
32	YP	16	ARG
32	YP	29	LYS
32	YP	65	ARG
33	YQ	19	GLY
33	YQ	105	GLU
33	YQ	133	ARG
34	YR	86	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	YS	4	LEU
35	YS	11	LYS
36	YT	97	ALA
38	YV	49	THR
38	YV	53	GLU
38	YV	100	ARG
41	YY	42	VAL
41	YY	63	LYS
42	YZ	62	PRO
42	YZ	112	ARG
42	YZ	115	GLY
46	Y3	3	ARG
47	Y4	9	LEU
47	Y4	23	GLU
47	Y4	30	GLU
47	Y4	34	GLU
47	Y4	66	SER
48	Y5	47	PRO
49	Y6	19	ARG
49	Y6	49	HIS
51	Y8	30	ARG
51	Y8	34	TRP
2	QB	22	LYS
2	QB	126	GLU
2	QB	209	ARG
4	QD	171	GLY
9	QI	56	LEU
12	QL	27	LEU
12	QL	48	PRO
13	QM	6	GLY
18	QR	20	ALA
18	QR	54	ARG
20	QT	71	THR
21	QU	9	ARG
24	RD	3	VAL
24	RD	123	ALA
24	RD	237	GLU
25	RE	78	LEU
26	RF	66	PRO
26	RF	197	ASP
27	RG	36	LYS
27	RG	86	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	RH	92	ILE
29	RI	10	GLU
29	RI	118	LYS
29	RI	122	GLU
32	RP	21	ARG
33	RQ	21	THR
33	RQ	28	ALA
33	RQ	86	GLY
33	RQ	104	PHE
33	RQ	105	GLU
34	RR	71	GLN
35	RS	109	GLY
36	RT	38	ASN
36	RT	39	ARG
37	RU	98	LEU
39	RW	18	ARG
39	RW	63	ASP
39	RW	68	ARG
41	RY	4	LYS
41	RY	53	PRO
41	RY	99	CYS
42	RZ	81	ARG
42	RZ	83	PRO
42	RZ	108	PRO
42	RZ	151	HIS
43	R0	3	HIS
50	R7	48	LYS
2	XB	19	HIS
2	XB	101	MET
2	XB	155	LEU
5	XE	70	PRO
8	XH	129	VAL
12	XL	19	ARG
12	XL	28	LYS
14	XN	15	LYS
14	XN	32	SER
15	XO	88	ARG
18	XR	20	ALA
19	XS	9	VAL
20	XT	84	LEU
20	XT	98	PRO
21	XU	9	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
27	YG	14	GLU
27	YG	82	LEU
27	YG	86	MET
27	YG	116	ASP
28	YH	83	TYR
29	YI	115	ALA
30	YN	11	PRO
30	YN	28	THR
30	YN	47	ALA
33	YQ	104	PHE
33	YQ	140	ALA
35	YS	89	ARG
35	YS	96	GLY
36	YT	17	THR
40	YX	40	LYS
41	YY	51	VAL
41	YY	53	PRO
42	YZ	13	GLU
42	YZ	92	SER
42	YZ	160	GLY
42	YZ	166	SER
47	Y4	16	CYS
47	Y4	25	TYR
47	Y4	54	GLY
47	Y4	60	GLN
49	Y6	35	GLU
2	QB	234	PRO
4	QD	42	GLN
5	QE	70	PRO
5	QE	96	PRO
7	QG	7	ALA
9	QI	121	ARG
12	QL	19	ARG
12	QL	121	GLY
13	QM	4	ILE
18	QR	26	LEU
20	QT	73	HIS
20	QT	97	ALA
24	RD	238	GLY
25	RE	54	GLN
26	RF	8	GLN
27	RG	82	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	RH	21	PRO
28	RH	83	TYR
29	RI	47	LEU
29	RI	145	VAL
30	RN	18	ALA
30	RN	57	ALA
30	RN	135	PRO
35	RS	97	ARG
35	RS	110	LEU
36	RT	40	THR
41	RY	39	VAL
41	RY	41	GLY
41	RY	62	GLU
42	RZ	116	VAL
44	R1	74	VAL
44	R1	82	LEU
47	R4	5	ILE
47	R4	23	GLU
47	R4	28	LYS
47	R4	68	ARG
49	R6	9	LEU
49	R6	19	ARG
2	XB	121	LEU
3	XC	181	ASN
10	XJ	27	ALA
12	XL	27	LEU
12	XL	65	GLU
13	XM	101	GLN
15	XO	23	GLY
20	XT	97	ALA
24	YD	3	VAL
24	YD	46	GLN
25	YE	68	ALA
25	YE	82	ARG
25	YE	86	PRO
27	YG	5	VAL
27	YG	53	LEU
27	YG	117	PHE
28	YH	151	ILE
29	YI	18	VAL
29	YI	33	ARG
29	YI	80	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	YI	87	LYS
29	YI	112	LYS
30	YN	95	PRO
30	YN	127	ASP
30	YN	134	ARG
30	YN	135	PRO
32	YP	7	ARG
33	YQ	11	LYS
33	YQ	27	VAL
35	YS	94	TYR
35	YS	110	LEU
36	YT	86	ILE
37	YU	117	GLN
38	YV	50	PRO
41	YY	39	VAL
42	YZ	168	GLU
44	Y1	74	VAL
47	Y4	14	ILE
49	Y6	21	TYR
2	QB	155	LEU
10	QJ	82	ILE
13	QM	10	PRO
14	QN	15	LYS
20	QT	98	PRO
24	RD	125	ILE
25	RE	82	ARG
26	RF	130	ALA
27	RG	52	ILE
27	RG	88	ILE
27	RG	117	PHE
29	RI	9	LEU
35	RS	82	ILE
41	RY	5	MET
42	RZ	61	LEU
44	R1	55	GLY
47	R4	11	PRO
49	R6	21	TYR
49	R6	34	LEU
2	XB	26	PRO
2	XB	126	GLU
2	XB	237	ALA
10	XJ	91	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	XN	60	SER
19	XS	7	LYS
25	YE	72	VAL
26	YF	58	ALA
29	YI	9	LEU
31	YO	97	ARG
33	YQ	62	GLY
33	YQ	81	VAL
41	YY	3	VAL
42	YZ	96	VAL
44	Y1	55	GLY
2	QB	5	ILE
16	QP	46	PRO
25	RE	21	VAL
25	RE	86	PRO
26	RF	25	PRO
28	RH	166	GLY
29	RI	144	VAL
43	R0	8	GLY
5	XE	74	GLY
12	XL	18	VAL
3	QC	81	GLY
5	QE	74	GLY
19	QS	46	GLY
24	RD	35	LYS
19	XS	26	GLY
19	XS	46	GLY
26	YF	66	PRO
36	YT	37	GLY
42	YZ	137	ILE
7	QG	50	ILE
9	QI	89	ASN
10	QJ	37	PRO
30	RN	134	ARG
33	RQ	81	VAL
36	RT	86	ILE
42	RZ	141	VAL
8	XH	51	VAL
16	XP	46	PRO
19	XS	31	ILE
25	YE	21	VAL
39	YW	14	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
42	YZ	147	GLY
26	RF	132	VAL
29	RI	18	VAL
38	RV	54	GLY
42	RZ	94	GLU
27	YG	52	ILE
27	YG	88	ILE
28	YH	7	LEU
32	YP	24	GLY
34	YR	117	VAL
2	QB	227	GLY
35	YS	60	GLY
42	YZ	95	PRO

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	QB	205/220 (93%)	172 (84%)	33 (16%)	2	15
2	XB	205/220 (93%)	180 (88%)	25 (12%)	5	24
3	QC	159/188 (85%)	145 (91%)	14 (9%)	10	38
3	XC	159/188 (85%)	146 (92%)	13 (8%)	11	41
4	QD	180/181 (99%)	157 (87%)	23 (13%)	4	22
4	XD	180/181 (99%)	154 (86%)	26 (14%)	3	19
5	QE	116/123 (94%)	104 (90%)	12 (10%)	7	31
5	XE	116/123 (94%)	104 (90%)	12 (10%)	7	31
6	QF	90/90 (100%)	78 (87%)	12 (13%)	4	21
6	XF	90/90 (100%)	82 (91%)	8 (9%)	9	37
7	QG	126/127 (99%)	114 (90%)	12 (10%)	8	34
7	XG	126/127 (99%)	114 (90%)	12 (10%)	8	34
8	QH	119/119 (100%)	109 (92%)	10 (8%)	11	40
8	XH	119/119 (100%)	106 (89%)	13 (11%)	6	29

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	QI	98/99 (99%)	81 (83%)	17 (17%)	2	12
9	XI	98/99 (99%)	80 (82%)	18 (18%)	1	10
10	QJ	89/92 (97%)	77 (86%)	12 (14%)	4	21
10	XJ	89/92 (97%)	74 (83%)	15 (17%)	2	13
11	QK	90/99 (91%)	81 (90%)	9 (10%)	7	32
11	XK	90/99 (91%)	82 (91%)	8 (9%)	9	37
12	QL	104/109 (95%)	87 (84%)	17 (16%)	2	15
12	XL	104/109 (95%)	93 (89%)	11 (11%)	6	30
13	QM	97/101 (96%)	73 (75%)	24 (25%)	0	5
13	XM	97/101 (96%)	78 (80%)	19 (20%)	1	9
14	QN	49/50 (98%)	40 (82%)	9 (18%)	1	10
14	XN	49/50 (98%)	42 (86%)	7 (14%)	3	19
15	QO	79/80 (99%)	72 (91%)	7 (9%)	9	37
15	XO	79/80 (99%)	69 (87%)	10 (13%)	4	23
16	QP	72/74 (97%)	63 (88%)	9 (12%)	4	23
16	XP	72/74 (97%)	63 (88%)	9 (12%)	4	23
17	QQ	95/97 (98%)	87 (92%)	8 (8%)	11	40
17	XQ	95/97 (98%)	89 (94%)	6 (6%)	18	49
18	QR	61/77 (79%)	50 (82%)	11 (18%)	1	11
18	XR	61/77 (79%)	52 (85%)	9 (15%)	3	18
19	QS	73/80 (91%)	59 (81%)	14 (19%)	1	9
19	XS	73/80 (91%)	57 (78%)	16 (22%)	1	6
20	QT	76/82 (93%)	67 (88%)	9 (12%)	5	26
20	XT	76/82 (93%)	66 (87%)	10 (13%)	4	21
21	QU	20/22 (91%)	20 (100%)	0	100	100
21	XU	20/22 (91%)	19 (95%)	1 (5%)	24	55
24	RD	214/218 (98%)	174 (81%)	40 (19%)	1	10
24	YD	214/218 (98%)	181 (85%)	33 (15%)	2	17
25	RE	165/166 (99%)	126 (76%)	39 (24%)	1	5
25	YE	165/166 (99%)	137 (83%)	28 (17%)	2	13
26	RF	161/166 (97%)	132 (82%)	29 (18%)	1	11

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	YF	161/166 (97%)	137 (85%)	24 (15%)	3	18
27	RG	155/156 (99%)	134 (86%)	21 (14%)	4	21
27	YG	155/156 (99%)	133 (86%)	22 (14%)	3	19
28	RH	142/148 (96%)	120 (84%)	22 (16%)	2	17
28	YH	142/148 (96%)	117 (82%)	25 (18%)	2	12
29	RI	122/124 (98%)	86 (70%)	36 (30%)	0	2
29	YI	122/124 (98%)	85 (70%)	37 (30%)	0	2
30	RN	117/119 (98%)	97 (83%)	20 (17%)	2	13
30	YN	117/119 (98%)	96 (82%)	21 (18%)	2	11
31	RO	100/100 (100%)	90 (90%)	10 (10%)	7	32
31	YO	100/100 (100%)	88 (88%)	12 (12%)	5	25
32	RP	116/116 (100%)	85 (73%)	31 (27%)	0	3
32	YP	116/116 (100%)	82 (71%)	34 (29%)	0	2
33	RQ	111/111 (100%)	95 (86%)	16 (14%)	3	19
33	YQ	111/111 (100%)	92 (83%)	19 (17%)	2	13
34	RR	101/101 (100%)	83 (82%)	18 (18%)	2	11
34	YR	101/101 (100%)	81 (80%)	20 (20%)	1	8
35	RS	87/88 (99%)	69 (79%)	18 (21%)	1	7
35	YS	87/88 (99%)	68 (78%)	19 (22%)	1	7
36	RT	120/127 (94%)	102 (85%)	18 (15%)	3	17
36	YT	120/127 (94%)	98 (82%)	22 (18%)	1	10
37	RU	93/94 (99%)	78 (84%)	15 (16%)	2	15
37	YU	93/94 (99%)	77 (83%)	16 (17%)	2	13
38	RV	82/82 (100%)	66 (80%)	16 (20%)	1	9
38	YV	82/82 (100%)	67 (82%)	15 (18%)	1	10
39	RW	92/92 (100%)	73 (79%)	19 (21%)	1	7
39	YW	92/92 (100%)	76 (83%)	16 (17%)	2	12
40	RX	74/78 (95%)	64 (86%)	10 (14%)	4	21
40	YX	74/78 (95%)	60 (81%)	14 (19%)	1	9
41	RY	85/91 (93%)	63 (74%)	22 (26%)	0	4
41	YY	85/91 (93%)	64 (75%)	21 (25%)	0	5

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
42	RZ	162/179 (90%)	131 (81%)	31 (19%)	1	9
42	YZ	162/179 (90%)	121 (75%)	41 (25%)	0	4
43	R0	65/67 (97%)	56 (86%)	9 (14%)	3	20
43	Y0	65/67 (97%)	53 (82%)	12 (18%)	1	10
44	R1	82/83 (99%)	73 (89%)	9 (11%)	6	29
44	Y1	82/83 (99%)	70 (85%)	12 (15%)	3	18
45	R2	64/67 (96%)	57 (89%)	7 (11%)	6	29
45	Y2	64/67 (96%)	47 (73%)	17 (27%)	0	3
46	R3	51/52 (98%)	45 (88%)	6 (12%)	5	26
46	Y3	51/52 (98%)	43 (84%)	8 (16%)	2	16
47	R4	63/63 (100%)	45 (71%)	18 (29%)	0	2
47	Y4	63/63 (100%)	43 (68%)	20 (32%)	0	1
48	R5	51/52 (98%)	37 (72%)	14 (28%)	0	3
48	Y5	51/52 (98%)	37 (72%)	14 (28%)	0	3
49	R6	48/52 (92%)	35 (73%)	13 (27%)	0	3
49	Y6	48/52 (92%)	38 (79%)	10 (21%)	1	7
50	R7	42/42 (100%)	34 (81%)	8 (19%)	1	9
50	Y7	42/42 (100%)	35 (83%)	7 (17%)	2	14
51	R8	54/55 (98%)	44 (82%)	10 (18%)	1	10
51	Y8	54/55 (98%)	41 (76%)	13 (24%)	0	5
52	R9	34/34 (100%)	32 (94%)	2 (6%)	19	51
52	Y9	34/34 (100%)	32 (94%)	2 (6%)	19	51
All	All	9702/10066 (96%)	8111 (84%)	1591 (16%)	2	15

All (1591) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	QB	5	ILE
2	QB	6	THR
2	QB	7	VAL
2	QB	8	LYS
2	QB	15	VAL
2	QB	23	ARG
2	QB	24	TRP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	QB	32	ILE
2	QB	33	TYR
2	QB	53	ARG
2	QB	60	ASP
2	QB	67	THR
2	QB	82	ARG
2	QB	87	ARG
2	QB	92	TYR
2	QB	94	ASN
2	QB	101	MET
2	QB	109	SER
2	QB	119	GLU
2	QB	121	LEU
2	QB	150	SER
2	QB	155	LEU
2	QB	158	LEU
2	QB	163	PHE
2	QB	165	VAL
2	QB	168	THR
2	QB	172	ILE
2	QB	175	ARG
2	QB	187	LEU
2	QB	196	LEU
2	QB	204	ASN
2	QB	215	LEU
2	QB	217	ARG
3	QC	3	ASN
3	QC	5	ILE
3	QC	12	LEU
3	QC	16	ARG
3	QC	21	ARG
3	QC	45	LYS
3	QC	52	LEU
3	QC	76	VAL
3	QC	94	LEU
3	QC	127	ARG
3	QC	131	ARG
3	QC	154	SER
3	QC	165	THR
3	QC	206	GLU
4	QD	3	ARG
4	QD	14	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	QD	22	LYS
4	QD	26	CYS
4	QD	30	LYS
4	QD	33	MET
4	QD	50	ARG
4	QD	58	LEU
4	QD	73	ARG
4	QD	76	ARG
4	QD	86	LYS
4	QD	94	LEU
4	QD	96	LEU
4	QD	122	ARG
4	QD	127	THR
4	QD	131	ARG
4	QD	135	LEU
4	QD	154	ASN
4	QD	175	SER
4	QD	187	ARG
4	QD	190	ASP
4	QD	191	ARG
4	QD	192	GLU
5	QE	10	MET
5	QE	12	LEU
5	QE	31	LEU
5	QE	34	VAL
5	QE	41	VAL
5	QE	51	VAL
5	QE	68	GLU
5	QE	79	GLU
5	QE	81	GLU
5	QE	98	THR
5	QE	101	ILE
5	QE	153	LYS
6	QF	16	GLN
6	QF	21	LEU
6	QF	23	LYS
6	QF	43	LEU
6	QF	45	LEU
6	QF	47	ARG
6	QF	55	ASP
6	QF	69	GLU
6	QF	70	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	QF	72	VAL
6	QF	75	LEU
6	QF	98	LEU
7	QG	8	GLU
7	QG	54	THR
7	QG	80	VAL
7	QG	92	SER
7	QG	94	ARG
7	QG	104	LEU
7	QG	113	GLU
7	QG	114	ARG
7	QG	135	VAL
7	QG	136	LYS
7	QG	137	LYS
7	QG	155	ARG
8	QH	1	MET
8	QH	24	THR
8	QH	25	ASP
8	QH	26	VAL
8	QH	41	ARG
8	QH	99	GLU
8	QH	109	ILE
8	QH	112	LEU
8	QH	125	ARG
8	QH	129	VAL
9	QI	9	ARG
9	QI	10	ARG
9	QI	11	LYS
9	QI	23	ASN
9	QI	47	LEU
9	QI	56	LEU
9	QI	64	THR
9	QI	65	VAL
9	QI	75	ASP
9	QI	95	LYS
9	QI	104	ARG
9	QI	105	ASP
9	QI	113	LYS
9	QI	114	TYR
9	QI	121	ARG
9	QI	125	TYR
9	QI	128	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	QJ	22	LYS
10	QJ	47	PHE
10	QJ	54	PHE
10	QJ	57	LYS
10	QJ	58	ASP
10	QJ	62	HIS
10	QJ	73	ASP
10	QJ	74	ILE
10	QJ	80	LYS
10	QJ	84	GLN
10	QJ	92	THR
10	QJ	96	ILE
11	QK	26	ASN
11	QK	29	ILE
11	QK	32	ILE
11	QK	34	ASP
11	QK	63	LEU
11	QK	92	GLU
11	QK	103	LEU
11	QK	109	VAL
11	QK	127	LYS
12	QL	17	LYS
12	QL	18	VAL
12	QL	20	LYS
12	QL	27	LEU
12	QL	33	ARG
12	QL	38	THR
12	QL	42	THR
12	QL	50	SER
12	QL	54	LYS
12	QL	59	ARG
12	QL	60	LEU
12	QL	73	GLU
12	QL	83	VAL
12	QL	85	ILE
12	QL	89	ARG
12	QL	102	ARG
12	QL	113	ARG
13	QM	8	GLU
13	QM	11	ARG
13	QM	13	LYS
13	QM	17	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	QM	19	LEU
13	QM	45	VAL
13	QM	47	ASP
13	QM	48	LEU
13	QM	56	LEU
13	QM	57	ARG
13	QM	64	TRP
13	QM	66	LEU
13	QM	70	LEU
13	QM	77	ASN
13	QM	84	ILE
13	QM	88	ARG
13	QM	90	LEU
13	QM	98	VAL
13	QM	108	ARG
13	QM	111	LYS
13	QM	114	ARG
13	QM	115	LYS
13	QM	117	VAL
13	QM	122	LYS
14	QN	6	LEU
14	QN	12	ARG
14	QN	13	THR
14	QN	18	VAL
14	QN	33	VAL
14	QN	43	CYS
14	QN	44	LEU
14	QN	46	GLU
14	QN	57	ARG
15	QO	3	ILE
15	QO	4	THR
15	QO	26	GLU
15	QO	31	LEU
15	QO	39	LEU
15	QO	64	ARG
15	QO	84	LYS
16	QP	2	VAL
16	QP	20	VAL
16	QP	26	ARG
16	QP	28	ARG
16	QP	33	ILE
16	QP	53	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	QP	67	THR
16	QP	69	THR
16	QP	71	ARG
17	QQ	37	LYS
17	QQ	38	ARG
17	QQ	52	LYS
17	QQ	59	ILE
17	QQ	62	SER
17	QQ	68	ARG
17	QQ	74	LEU
17	QQ	101	ARG
18	QR	26	LEU
18	QR	29	PHE
18	QR	31	LEU
18	QR	32	ARG
18	QR	36	ASN
18	QR	46	GLU
18	QR	54	ARG
18	QR	76	LEU
18	QR	82	THR
18	QR	83	GLU
18	QR	86	VAL
19	QS	5	LEU
19	QS	10	PHE
19	QS	12	ASP
19	QS	21	GLU
19	QS	28	LYS
19	QS	29	ARG
19	QS	30	LEU
19	QS	37	ARG
19	QS	43	GLU
19	QS	44	MET
19	QS	63	THR
19	QS	67	VAL
19	QS	77	THR
19	QS	83	HIS
20	QT	17	ARG
20	QT	24	LEU
20	QT	45	GLN
20	QT	72	LEU
20	QT	73	HIS
20	QT	75	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	QT	80	ARG
20	QT	84	LEU
20	QT	93	GLU
24	RD	5	LYS
24	RD	10	THR
24	RD	17	THR
24	RD	25	THR
24	RD	40	THR
24	RD	43	ARG
24	RD	44	ASN
24	RD	46	GLN
24	RD	49	ILE
24	RD	61	LEU
24	RD	65	ILE
24	RD	69	ARG
24	RD	71	ASP
24	RD	73	VAL
24	RD	83	GLU
24	RD	87	ASN
24	RD	88	ARG
24	RD	95	LEU
24	RD	103	ARG
24	RD	105	ILE
24	RD	106	ILE
24	RD	111	LEU
24	RD	134	ARG
24	RD	150	LYS
24	RD	155	LEU
24	RD	157	ARG
24	RD	173	VAL
24	RD	192	THR
24	RD	211	ARG
24	RD	212	SER
24	RD	221	VAL
24	RD	229	VAL
24	RD	237	GLU
24	RD	242	ARG
24	RD	257	LEU
24	RD	259	THR
24	RD	261	LYS
24	RD	268	ARG
24	RD	271	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
24	RD	273	ARG
25	RE	2	LYS
25	RE	4	ILE
25	RE	7	VAL
25	RE	12	THR
25	RE	13	ARG
25	RE	16	ARG
25	RE	26	ILE
25	RE	27	LEU
25	RE	33	VAL
25	RE	34	VAL
25	RE	38	THR
25	RE	41	LYS
25	RE	42	ASP
25	RE	47	VAL
25	RE	49	LEU
25	RE	52	LEU
25	RE	54	GLN
25	RE	63	LEU
25	RE	77	ILE
25	RE	79	ARG
25	RE	80	GLU
25	RE	82	ARG
25	RE	92	THR
25	RE	101	ARG
25	RE	113	PHE
25	RE	116	VAL
25	RE	119	ARG
25	RE	127	ASP
25	RE	144	ARG
25	RE	146	THR
25	RE	167	VAL
25	RE	175	VAL
25	RE	179	GLU
25	RE	181	LEU
25	RE	184	VAL
25	RE	197	ILE
25	RE	200	GLU
25	RE	202	LYS
25	RE	203	LYS
26	RF	9	ILE
26	RF	13	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	RF	24	LEU
26	RF	28	ILE
26	RF	32	LEU
26	RF	33	LEU
26	RF	45	ARG
26	RF	57	VAL
26	RF	65	TRP
26	RF	68	LYS
26	RF	70	THR
26	RF	74	ARG
26	RF	77	ASP
26	RF	78	ILE
26	RF	84	VAL
26	RF	104	LYS
26	RF	107	LYS
26	RF	117	ARG
26	RF	127	GLU
26	RF	149	ASP
26	RF	158	THR
26	RF	161	GLU
26	RF	165	ARG
26	RF	174	VAL
26	RF	176	LEU
26	RF	181	LEU
26	RF	192	LEU
26	RF	194	MET
26	RF	197	ASP
27	RG	7	LEU
27	RG	10	LYS
27	RG	20	ILE
27	RG	26	GLN
27	RG	33	ARG
27	RG	34	LEU
27	RG	43	LEU
27	RG	53	LEU
27	RG	54	GLU
27	RG	67	LYS
27	RG	71	THR
27	RG	88	ILE
27	RG	94	LEU
27	RG	98	ARG
27	RG	116	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
27	RG	118	ARG
27	RG	133	LEU
27	RG	147	ASP
27	RG	159	VAL
27	RG	167	GLU
27	RG	174	GLU
28	RH	3	ARG
28	RH	4	ILE
28	RH	7	LEU
28	RH	9	ILE
28	RH	27	LYS
28	RH	42	ARG
28	RH	43	VAL
28	RH	51	ARG
28	RH	59	ARG
28	RH	64	LEU
28	RH	77	LYS
28	RH	81	GLU
28	RH	88	LEU
28	RH	89	ILE
28	RH	105	LEU
28	RH	107	VAL
28	RH	132	ARG
28	RH	139	GLN
28	RH	152	ARG
28	RH	153	LYS
28	RH	158	HIS
28	RH	169	VAL
29	RI	3	VAL
29	RI	6	LEU
29	RI	9	LEU
29	RI	10	GLU
29	RI	15	VAL
29	RI	25	TYR
29	RI	27	ARG
29	RI	33	ARG
29	RI	35	LEU
29	RI	38	LEU
29	RI	40	THR
29	RI	42	SER
29	RI	57	ARG
29	RI	58	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	RI	68	LEU
29	RI	69	LYS
29	RI	70	GLU
29	RI	72	LEU
29	RI	79	ILE
29	RI	81	VAL
29	RI	85	GLU
29	RI	86	THR
29	RI	88	ILE
29	RI	92	VAL
29	RI	97	ILE
29	RI	102	SER
29	RI	112	LYS
29	RI	113	ARG
29	RI	118	LYS
29	RI	129	THR
29	RI	130	TYR
29	RI	131	LYS
29	RI	133	HIS
29	RI	135	GLU
29	RI	138	ILE
29	RI	142	VAL
30	RN	1	MET
30	RN	2	LYS
30	RN	5	VAL
30	RN	7	LYS
30	RN	12	ARG
30	RN	32	THR
30	RN	34	LEU
30	RN	43	THR
30	RN	48	MET
30	RN	60	ILE
30	RN	61	ARG
30	RN	62	VAL
30	RN	87	LEU
30	RN	90	MET
30	RN	96	GLU
30	RN	98	VAL
30	RN	109	LYS
30	RN	120	LEU
30	RN	127	ASP
30	RN	136	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
31	RO	3	GLN
31	RO	9	GLU
31	RO	19	ILE
31	RO	24	VAL
31	RO	31	LYS
31	RO	49	ARG
31	RO	53	LYS
31	RO	69	ILE
31	RO	91	LEU
31	RO	102	VAL
32	RP	5	ASP
32	RP	6	LEU
32	RP	9	ASN
32	RP	14	LYS
32	RP	15	ARG
32	RP	16	ARG
32	RP	19	VAL
32	RP	21	ARG
32	RP	30	THR
32	RP	36	LYS
32	RP	41	ARG
32	RP	45	LEU
32	RP	50	ARG
32	RP	56	SER
32	RP	61	ARG
32	RP	62	LEU
32	RP	64	LYS
32	RP	70	GLN
32	RP	71	VAL
32	RP	75	ILE
32	RP	81	GLN
32	RP	88	LEU
32	RP	91	PHE
32	RP	100	LEU
32	RP	105	LEU
32	RP	107	LYS
32	RP	112	LEU
32	RP	133	SER
32	RP	138	LEU
32	RP	144	GLU
32	RP	146	VAL
33	RQ	17	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
33	RQ	26	TYR
33	RQ	27	VAL
33	RQ	35	VAL
33	RQ	45	GLN
33	RQ	54	MET
33	RQ	60	ARG
33	RQ	79	LEU
33	RQ	81	VAL
33	RQ	82	ARG
33	RQ	83	MET
33	RQ	85	LYS
33	RQ	96	VAL
33	RQ	112	GLU
33	RQ	135	ASP
33	RQ	139	GLU
34	RR	1	MET
34	RR	6	SER
34	RR	9	LYS
34	RR	18	LEU
34	RR	29	LEU
34	RR	35	THR
34	RR	44	LEU
34	RR	63	ARG
34	RR	71	GLN
34	RR	75	LEU
34	RR	79	LEU
34	RR	91	GLN
34	RR	95	THR
34	RR	100	LEU
34	RR	104	ARG
34	RR	105	ARG
34	RR	117	VAL
34	RR	118	GLU
35	RS	3	ARG
35	RS	4	LEU
35	RS	12	PHE
35	RS	17	ARG
35	RS	20	ARG
35	RS	27	SER
35	RS	39	ILE
35	RS	44	LYS
35	RS	50	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	RS	54	LEU
35	RS	56	LEU
35	RS	57	LYS
35	RS	58	LEU
35	RS	59	LYS
35	RS	98	VAL
35	RS	101	LEU
35	RS	103	GLU
35	RS	106	ARG
36	RT	18	ASP
36	RT	27	THR
36	RT	30	VAL
36	RT	41	ARG
36	RT	42	ILE
36	RT	50	ILE
36	RT	51	ARG
36	RT	62	THR
36	RT	65	LYS
36	RT	74	ARG
36	RT	88	ILE
36	RT	89	VAL
36	RT	99	LEU
36	RT	105	LEU
36	RT	107	ASP
36	RT	112	ARG
36	RT	125	ARG
36	RT	128	GLU
37	RU	52	ARG
37	RU	55	ARG
37	RU	59	ARG
37	RU	60	LEU
37	RU	64	ARG
37	RU	69	CYS
37	RU	74	LEU
37	RU	90	VAL
37	RU	92	ARG
37	RU	94	ASN
37	RU	98	LEU
37	RU	108	GLU
37	RU	111	GLU
37	RU	114	LYS
37	RU	117	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	RV	13	ARG
38	RV	19	LYS
38	RV	21	ARG
38	RV	22	VAL
38	RV	24	LYS
38	RV	35	LEU
38	RV	37	VAL
38	RV	45	THR
38	RV	47	VAL
38	RV	57	VAL
38	RV	61	VAL
38	RV	62	LEU
38	RV	64	HIS
38	RV	78	LYS
38	RV	79	VAL
38	RV	99	ILE
39	RW	11	ARG
39	RW	16	LYS
39	RW	18	ARG
39	RW	19	LEU
39	RW	20	VAL
39	RW	23	LEU
39	RW	27	LYS
39	RW	30	GLU
39	RW	40	ASN
39	RW	51	LEU
39	RW	60	ASN
39	RW	63	ASP
39	RW	67	ASP
39	RW	76	VAL
39	RW	82	LEU
39	RW	92	ARG
39	RW	100	THR
39	RW	106	ILE
39	RW	107	LEU
40	RX	12	VAL
40	RX	23	GLU
40	RX	27	THR
40	RX	30	VAL
40	RX	35	THR
40	RX	49	VAL
40	RX	65	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
40	RX	70	LEU
40	RX	80	ILE
40	RX	81	VAL
41	RY	2	ARG
41	RY	13	VAL
41	RY	14	LEU
41	RY	27	VAL
41	RY	34	LYS
41	RY	37	VAL
41	RY	38	ILE
41	RY	43	ASN
41	RY	45	VAL
41	RY	55	TYR
41	RY	57	GLN
41	RY	61	ILE
41	RY	67	LEU
41	RY	70	SER
41	RY	75	ILE
41	RY	76	CYS
41	RY	87	LYS
41	RY	90	LEU
41	RY	95	LYS
41	RY	96	ILE
41	RY	97	ARG
41	RY	102	CYS
42	RZ	5	LEU
42	RZ	20	ARG
42	RZ	24	LEU
42	RZ	29	TYR
42	RZ	35	ARG
42	RZ	38	TYR
42	RZ	53	ILE
42	RZ	70	LEU
42	RZ	80	ARG
42	RZ	81	ARG
42	RZ	87	ASP
42	RZ	89	PHE
42	RZ	94	GLU
42	RZ	98	MET
42	RZ	112	ARG
42	RZ	117	LEU
42	RZ	119	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
42	RZ	121	HIS
42	RZ	145	GLU
42	RZ	146	ILE
42	RZ	150	LEU
42	RZ	151	HIS
42	RZ	163	LEU
42	RZ	166	SER
42	RZ	168	GLU
42	RZ	169	GLU
42	RZ	171	ILE
42	RZ	180	VAL
42	RZ	181	GLU
42	RZ	182	LYS
42	RZ	183	LEU
43	R0	5	LYS
43	R0	7	LEU
43	R0	10	THR
43	R0	14	ARG
43	R0	17	GLN
43	R0	31	VAL
43	R0	36	ILE
43	R0	66	VAL
43	R0	74	ARG
44	R1	21	ARG
44	R1	41	ARG
44	R1	51	VAL
44	R1	62	VAL
44	R1	78	LYS
44	R1	80	LEU
44	R1	90	ILE
44	R1	91	LYS
44	R1	92	LYS
45	R2	17	SER
45	R2	24	LEU
45	R2	27	GLU
45	R2	32	LEU
45	R2	50	ILE
45	R2	53	LEU
45	R2	62	THR
46	R3	6	VAL
46	R3	8	LEU
46	R3	18	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
46	R3	32	GLN
46	R3	40	THR
46	R3	56	VAL
47	R4	13	ARG
47	R4	15	ILE
47	R4	23	GLU
47	R4	33	VAL
47	R4	34	GLU
47	R4	37	SER
47	R4	42	PHE
47	R4	48	ARG
47	R4	49	PHE
47	R4	50	VAL
47	R4	52	THR
47	R4	57	GLU
47	R4	61	ARG
47	R4	62	ARG
47	R4	63	TYR
47	R4	66	SER
47	R4	67	TYR
47	R4	68	ARG
48	R5	4	HIS
48	R5	6	VAL
48	R5	11	THR
48	R5	21	SER
48	R5	23	HIS
48	R5	25	LEU
48	R5	29	THR
48	R5	36	CYS
48	R5	40	LYS
48	R5	51	TYR
48	R5	52	TYR
48	R5	56	LYS
48	R5	58	LEU
48	R5	60	VAL
49	R6	6	ARG
49	R6	8	LYS
49	R6	9	LEU
49	R6	10	LEU
49	R6	11	LEU
49	R6	17	LYS
49	R6	19	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
49	R6	23	THR
49	R6	27	LYS
49	R6	30	THR
49	R6	34	LEU
49	R6	37	ARG
49	R6	44	ARG
50	R7	1	MET
50	R7	2	LYS
50	R7	4	THR
50	R7	9	ARG
50	R7	10	ARG
50	R7	14	LYS
50	R7	43	THR
50	R7	46	VAL
51	R8	14	VAL
51	R8	15	LYS
51	R8	34	TRP
51	R8	35	GLN
51	R8	44	LYS
51	R8	47	LYS
51	R8	49	VAL
51	R8	52	LYS
51	R8	64	TYR
51	R8	65	GLU
52	R9	1	MET
52	R9	29	ASN
2	XB	5	ILE
2	XB	7	VAL
2	XB	8	LYS
2	XB	15	VAL
2	XB	23	ARG
2	XB	24	TRP
2	XB	33	TYR
2	XB	36	ARG
2	XB	67	THR
2	XB	71	VAL
2	XB	82	ARG
2	XB	92	TYR
2	XB	113	HIS
2	XB	145	LEU
2	XB	155	LEU
2	XB	163	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	XB	172	ILE
2	XB	175	ARG
2	XB	178	ARG
2	XB	187	LEU
2	XB	195	ASP
2	XB	196	LEU
2	XB	204	ASN
2	XB	215	LEU
2	XB	235	SER
3	XC	3	ASN
3	XC	5	ILE
3	XC	12	LEU
3	XC	21	ARG
3	XC	45	LYS
3	XC	47	LEU
3	XC	56	ASP
3	XC	94	LEU
3	XC	95	THR
3	XC	131	ARG
3	XC	178	LEU
3	XC	184	TYR
3	XC	192	THR
4	XD	3	ARG
4	XD	9	CYS
4	XD	15	GLU
4	XD	19	LEU
4	XD	30	LYS
4	XD	33	MET
4	XD	50	ARG
4	XD	53	ASP
4	XD	58	LEU
4	XD	73	ARG
4	XD	76	ARG
4	XD	84	LYS
4	XD	86	LYS
4	XD	96	LEU
4	XD	108	LEU
4	XD	122	ARG
4	XD	127	THR
4	XD	131	ARG
4	XD	137	SER
4	XD	150	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	XD	154	ASN
4	XD	175	SER
4	XD	187	ARG
4	XD	190	ASP
4	XD	193	ASP
4	XD	208	SER
5	XE	6	PHE
5	XE	7	GLU
5	XE	10	MET
5	XE	11	ILE
5	XE	18	ARG
5	XE	31	LEU
5	XE	41	VAL
5	XE	73	ASN
5	XE	79	GLU
5	XE	101	ILE
5	XE	147	ASP
5	XE	153	LYS
6	XF	21	LEU
6	XF	23	LYS
6	XF	36	ARG
6	XF	71	ARG
6	XF	74	ASP
6	XF	91	VAL
6	XF	92	LYS
6	XF	98	LEU
7	XG	5	ARG
7	XG	8	GLU
7	XG	35	LYS
7	XG	54	THR
7	XG	63	LYS
7	XG	78	ARG
7	XG	104	LEU
7	XG	113	GLU
7	XG	114	ARG
7	XG	136	LYS
7	XG	137	LYS
7	XG	155	ARG
8	XH	1	MET
8	XH	12	ARG
8	XH	19	VAL
8	XH	24	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	XH	26	VAL
8	XH	41	ARG
8	XH	54	ASP
8	XH	63	LEU
8	XH	80	ILE
8	XH	85	ARG
8	XH	109	ILE
8	XH	112	LEU
8	XH	137	VAL
9	XI	9	ARG
9	XI	38	GLN
9	XI	44	VAL
9	XI	56	LEU
9	XI	65	VAL
9	XI	95	LYS
9	XI	96	LEU
9	XI	102	LEU
9	XI	104	ARG
9	XI	105	ASP
9	XI	108	VAL
9	XI	111	ARG
9	XI	112	LYS
9	XI	114	TYR
9	XI	121	ARG
9	XI	124	GLN
9	XI	125	TYR
9	XI	128	ARG
10	XJ	3	LYS
10	XJ	17	ASP
10	XJ	22	LYS
10	XJ	45	ARG
10	XJ	47	PHE
10	XJ	49	VAL
10	XJ	54	PHE
10	XJ	57	LYS
10	XJ	62	HIS
10	XJ	70	ARG
10	XJ	74	ILE
10	XJ	80	LYS
10	XJ	84	GLN
10	XJ	96	ILE
10	XJ	98	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	XK	26	ASN
11	XK	29	ILE
11	XK	31	THR
11	XK	32	ILE
11	XK	36	ASP
11	XK	57	THR
11	XK	114	VAL
11	XK	116	HIS
12	XL	17	LYS
12	XL	18	VAL
12	XL	20	LYS
12	XL	27	LEU
12	XL	33	ARG
12	XL	59	ARG
12	XL	62	SER
12	XL	81	SER
12	XL	89	ARG
12	XL	91	LYS
12	XL	126	LYS
13	XM	3	ARG
13	XM	13	LYS
13	XM	17	VAL
13	XM	19	LEU
13	XM	32	GLU
13	XM	45	VAL
13	XM	48	LEU
13	XM	56	LEU
13	XM	64	TRP
13	XM	66	LEU
13	XM	70	LEU
13	XM	84	ILE
13	XM	88	ARG
13	XM	98	VAL
13	XM	108	ARG
13	XM	114	ARG
13	XM	115	LYS
13	XM	117	VAL
13	XM	122	LYS
14	XN	6	LEU
14	XN	12	ARG
14	XN	32	SER
14	XN	33	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	XN	40	CYS
14	XN	41	ARG
14	XN	44	LEU
15	XO	3	ILE
15	XO	8	LYS
15	XO	24	SER
15	XO	26	GLU
15	XO	39	LEU
15	XO	62	GLN
15	XO	64	ARG
15	XO	66	LEU
15	XO	82	ILE
15	XO	87	ILE
16	XP	2	VAL
16	XP	11	SER
16	XP	20	VAL
16	XP	28	ARG
16	XP	32	TYR
16	XP	67	THR
16	XP	69	THR
16	XP	72	ARG
16	XP	82	GLN
17	XQ	52	LYS
17	XQ	59	ILE
17	XQ	62	SER
17	XQ	68	ARG
17	XQ	74	LEU
17	XQ	101	ARG
18	XR	26	LEU
18	XR	29	PHE
18	XR	36	ASN
18	XR	41	LYS
18	XR	46	GLU
18	XR	54	ARG
18	XR	76	LEU
18	XR	82	THR
18	XR	86	VAL
19	XS	5	LEU
19	XS	10	PHE
19	XS	11	VAL
19	XS	12	ASP
19	XS	13	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
19	XS	21	GLU
19	XS	28	LYS
19	XS	29	ARG
19	XS	30	LEU
19	XS	31	ILE
19	XS	37	ARG
19	XS	44	MET
19	XS	63	THR
19	XS	78	ARG
19	XS	81	ARG
19	XS	83	HIS
20	XT	10	LEU
20	XT	13	LEU
20	XT	24	LEU
20	XT	37	SER
20	XT	41	ILE
20	XT	45	GLN
20	XT	50	GLU
20	XT	73	HIS
20	XT	84	LEU
20	XT	93	GLU
21	XU	6	ARG
24	YD	5	LYS
24	YD	17	THR
24	YD	27	THR
24	YD	28	GLU
24	YD	30	GLU
24	YD	38	LYS
24	YD	43	ARG
24	YD	44	ASN
24	YD	49	ILE
24	YD	65	ILE
24	YD	73	VAL
24	YD	88	ARG
24	YD	94	LEU
24	YD	95	LEU
24	YD	103	ARG
24	YD	105	ILE
24	YD	106	ILE
24	YD	111	LEU
24	YD	112	GLN
24	YD	141	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
24	YD	192	THR
24	YD	200	ASP
24	YD	202	LYS
24	YD	212	SER
24	YD	217	ARG
24	YD	218	ARG
24	YD	221	VAL
24	YD	229	VAL
24	YD	237	GLU
24	YD	242	ARG
24	YD	257	LEU
24	YD	259	THR
24	YD	273	ARG
25	YE	4	ILE
25	YE	12	THR
25	YE	13	ARG
25	YE	16	ARG
25	YE	17	ASP
25	YE	26	ILE
25	YE	27	LEU
25	YE	41	LYS
25	YE	42	ASP
25	YE	49	LEU
25	YE	77	ILE
25	YE	79	ARG
25	YE	82	ARG
25	YE	92	THR
25	YE	113	PHE
25	YE	116	VAL
25	YE	117	MET
25	YE	119	ARG
25	YE	127	ASP
25	YE	128	SER
25	YE	144	ARG
25	YE	146	THR
25	YE	154	LYS
25	YE	175	VAL
25	YE	197	ILE
25	YE	200	GLU
25	YE	202	LYS
25	YE	203	LYS
26	YF	9	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	YF	32	LEU
26	YF	33	LEU
26	YF	38	ARG
26	YF	45	ARG
26	YF	65	TRP
26	YF	70	THR
26	YF	78	ILE
26	YF	105	VAL
26	YF	106	ARG
26	YF	107	LYS
26	YF	117	ARG
26	YF	127	GLU
26	YF	161	GLU
26	YF	164	ARG
26	YF	165	ARG
26	YF	170	LEU
26	YF	174	VAL
26	YF	176	LEU
26	YF	181	LEU
26	YF	183	VAL
26	YF	196	LEU
26	YF	197	ASP
26	YF	206	ILE
27	YG	3	LEU
27	YG	7	LEU
27	YG	22	ARG
27	YG	31	VAL
27	YG	34	LEU
27	YG	43	LEU
27	YG	45	GLU
27	YG	58	GLN
27	YG	63	ILE
27	YG	66	GLN
27	YG	67	LYS
27	YG	80	PHE
27	YG	82	LEU
27	YG	84	LYS
27	YG	88	ILE
27	YG	90	LEU
27	YG	94	LEU
27	YG	116	ASP
27	YG	118	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
27	YG	145	THR
27	YG	147	ASP
27	YG	167	GLU
28	YH	3	ARG
28	YH	4	ILE
28	YH	6	ARG
28	YH	9	ILE
28	YH	27	LYS
28	YH	32	GLU
28	YH	37	VAL
28	YH	40	GLU
28	YH	41	MET
28	YH	59	ARG
28	YH	77	LYS
28	YH	88	LEU
28	YH	89	ILE
28	YH	103	LEU
28	YH	105	LEU
28	YH	122	THR
28	YH	129	THR
28	YH	132	ARG
28	YH	136	ILE
28	YH	143	GLN
28	YH	149	ARG
28	YH	152	ARG
28	YH	153	LYS
28	YH	155	SER
28	YH	169	VAL
29	YI	1	MET
29	YI	3	VAL
29	YI	9	LEU
29	YI	10	GLU
29	YI	12	LEU
29	YI	25	TYR
29	YI	31	LEU
29	YI	33	ARG
29	YI	38	LEU
29	YI	40	THR
29	YI	41	GLU
29	YI	42	SER
29	YI	45	LYS
29	YI	56	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	YI	57	ARG
29	YI	67	ARG
29	YI	70	GLU
29	YI	72	LEU
29	YI	75	LEU
29	YI	77	LEU
29	YI	81	VAL
29	YI	82	ARG
29	YI	85	GLU
29	YI	92	VAL
29	YI	96	ASP
29	YI	99	GLU
29	YI	102	SER
29	YI	113	ARG
29	YI	123	LEU
29	YI	128	LEU
29	YI	130	TYR
29	YI	131	LYS
29	YI	135	GLU
29	YI	138	ILE
29	YI	139	GLN
29	YI	142	VAL
29	YI	144	VAL
30	YN	2	LYS
30	YN	5	VAL
30	YN	7	LYS
30	YN	32	THR
30	YN	34	LEU
30	YN	43	THR
30	YN	48	MET
30	YN	60	ILE
30	YN	61	ARG
30	YN	62	VAL
30	YN	65	LYS
30	YN	67	LEU
30	YN	73	THR
30	YN	90	MET
30	YN	96	GLU
30	YN	99	LEU
30	YN	109	LYS
30	YN	112	LEU
30	YN	116	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	YN	120	LEU
30	YN	136	GLU
31	YO	9	GLU
31	YO	19	ILE
31	YO	20	MET
31	YO	23	ARG
31	YO	24	VAL
31	YO	28	SER
31	YO	31	LYS
31	YO	47	ILE
31	YO	49	ARG
31	YO	53	LYS
31	YO	66	LYS
31	YO	91	LEU
32	YP	6	LEU
32	YP	7	ARG
32	YP	9	ASN
32	YP	14	LYS
32	YP	16	ARG
32	YP	19	VAL
32	YP	21	ARG
32	YP	27	HIS
32	YP	29	LYS
32	YP	32	THR
32	YP	36	LYS
32	YP	45	LEU
32	YP	49	ARG
32	YP	50	ARG
32	YP	61	ARG
32	YP	64	LYS
32	YP	65	ARG
32	YP	71	VAL
32	YP	75	ILE
32	YP	88	LEU
32	YP	91	PHE
32	YP	94	GLU
32	YP	98	GLU
32	YP	100	LEU
32	YP	101	VAL
32	YP	112	LEU
32	YP	115	LEU
32	YP	117	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	YP	123	LEU
32	YP	135	LEU
32	YP	144	GLU
32	YP	146	VAL
32	YP	147	LEU
32	YP	149	GLU
33	YQ	5	ARG
33	YQ	10	ARG
33	YQ	25	ASP
33	YQ	45	GLN
33	YQ	55	VAL
33	YQ	59	ARG
33	YQ	71	ASP
33	YQ	75	THR
33	YQ	76	LYS
33	YQ	79	LEU
33	YQ	81	VAL
33	YQ	82	ARG
33	YQ	83	MET
33	YQ	87	LYS
33	YQ	103	MET
33	YQ	112	GLU
33	YQ	132	VAL
33	YQ	135	ASP
33	YQ	139	GLU
34	YR	1	MET
34	YR	18	LEU
34	YR	28	LEU
34	YR	29	LEU
34	YR	34	ILE
34	YR	36	THR
34	YR	40	LYS
34	YR	44	LEU
34	YR	51	LEU
34	YR	54	LEU
34	YR	57	ARG
34	YR	63	ARG
34	YR	65	LEU
34	YR	79	LEU
34	YR	83	ILE
34	YR	95	THR
34	YR	100	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
34	YR	102	GLU
34	YR	104	ARG
34	YR	105	ARG
35	YS	10	ARG
35	YS	12	PHE
35	YS	14	VAL
35	YS	15	ARG
35	YS	20	ARG
35	YS	25	ARG
35	YS	27	SER
35	YS	44	LYS
35	YS	54	LEU
35	YS	56	LEU
35	YS	58	LEU
35	YS	69	VAL
35	YS	78	LEU
35	YS	83	LYS
35	YS	85	VAL
35	YS	89	ARG
35	YS	103	GLU
35	YS	106	ARG
35	YS	111	GLU
36	YT	17	THR
36	YT	23	ARG
36	YT	27	THR
36	YT	28	VAL
36	YT	40	THR
36	YT	41	ARG
36	YT	42	ILE
36	YT	51	ARG
36	YT	58	ASN
36	YT	65	LYS
36	YT	66	VAL
36	YT	74	ARG
36	YT	86	ILE
36	YT	87	ASP
36	YT	88	ILE
36	YT	89	VAL
36	YT	110	ILE
36	YT	112	ARG
36	YT	115	ARG
36	YT	125	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
36	YT	128	GLU
36	YT	134	GLU
37	YU	5	LYS
37	YU	11	ARG
37	YU	27	LEU
37	YU	51	LYS
37	YU	52	ARG
37	YU	60	LEU
37	YU	64	ARG
37	YU	70	ARG
37	YU	74	LEU
37	YU	88	ILE
37	YU	91	ASP
37	YU	98	LEU
37	YU	104	GLN
37	YU	111	GLU
37	YU	112	ARG
37	YU	114	LYS
38	YV	7	THR
38	YV	10	LYS
38	YV	13	ARG
38	YV	19	LYS
38	YV	35	LEU
38	YV	39	LEU
38	YV	40	LEU
38	YV	45	THR
38	YV	61	VAL
38	YV	66	ARG
38	YV	72	VAL
38	YV	73	SER
38	YV	78	LYS
38	YV	79	VAL
38	YV	99	ILE
39	YW	11	ARG
39	YW	16	LYS
39	YW	23	LEU
39	YW	37	ARG
39	YW	40	ASN
39	YW	51	LEU
39	YW	67	ASP
39	YW	69	LEU
39	YW	76	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	YW	88	ARG
39	YW	92	ARG
39	YW	95	ILE
39	YW	96	ILE
39	YW	100	THR
39	YW	106	ILE
39	YW	107	LEU
40	YX	6	ASP
40	YX	12	VAL
40	YX	15	GLU
40	YX	27	THR
40	YX	36	LYS
40	YX	43	VAL
40	YX	49	VAL
40	YX	57	LEU
40	YX	59	VAL
40	YX	63	LYS
40	YX	65	ARG
40	YX	66	LEU
40	YX	80	ILE
40	YX	88	LYS
41	YY	14	LEU
41	YY	26	LYS
41	YY	27	VAL
41	YY	28	LYS
41	YY	29	GLU
41	YY	34	LYS
41	YY	38	ILE
41	YY	44	ILE
41	YY	57	GLN
41	YY	61	ILE
41	YY	64	GLU
41	YY	67	LEU
41	YY	71	LYS
41	YY	73	ARG
41	YY	75	ILE
41	YY	86	ARG
41	YY	87	LYS
41	YY	89	PHE
41	YY	90	LEU
41	YY	95	LYS
41	YY	97	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
42	YZ	5	LEU
42	YZ	6	LYS
42	YZ	8	TYR
42	YZ	20	ARG
42	YZ	24	LEU
42	YZ	35	ARG
42	YZ	42	VAL
42	YZ	52	SER
42	YZ	53	ILE
42	YZ	59	LEU
42	YZ	66	SER
42	YZ	71	VAL
42	YZ	72	ARG
42	YZ	76	LEU
42	YZ	78	LYS
42	YZ	81	ARG
42	YZ	86	VAL
42	YZ	88	PHE
42	YZ	91	LEU
42	YZ	94	GLU
42	YZ	105	VAL
42	YZ	119	GLU
42	YZ	121	HIS
42	YZ	122	ARG
42	YZ	124	ILE
42	YZ	128	VAL
42	YZ	131	ARG
42	YZ	133	ILE
42	YZ	139	VAL
42	YZ	140	ASP
42	YZ	144	LEU
42	YZ	145	GLU
42	YZ	146	ILE
42	YZ	150	LEU
42	YZ	151	HIS
42	YZ	153	SER
42	YZ	156	LYS
42	YZ	166	SER
42	YZ	168	GLU
42	YZ	178	GLU
42	YZ	182	LYS
43	Y0	9	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
43	Y0	10	THR
43	Y0	12	ASN
43	Y0	19	LYS
43	Y0	29	GLN
43	Y0	35	ASN
43	Y0	36	ILE
43	Y0	41	ARG
43	Y0	55	ARG
43	Y0	74	ARG
43	Y0	77	ARG
43	Y0	82	ARG
44	Y1	30	VAL
44	Y1	46	LEU
44	Y1	50	ARG
44	Y1	51	VAL
44	Y1	56	GLN
44	Y1	62	VAL
44	Y1	78	LYS
44	Y1	80	LEU
44	Y1	82	LEU
44	Y1	83	GLU
44	Y1	91	LYS
44	Y1	92	LYS
45	Y2	4	SER
45	Y2	7	ARG
45	Y2	9	GLN
45	Y2	16	LEU
45	Y2	23	LYS
45	Y2	24	LEU
45	Y2	27	GLU
45	Y2	32	LEU
45	Y2	34	GLU
45	Y2	41	ILE
45	Y2	47	ASN
45	Y2	50	ILE
45	Y2	51	ARG
45	Y2	52	ASP
45	Y2	53	LEU
45	Y2	64	LEU
45	Y2	65	ASN
46	Y3	6	VAL
46	Y3	8	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
46	Y3	23	LEU
46	Y3	30	ARG
46	Y3	31	LEU
46	Y3	36	VAL
46	Y3	37	LEU
46	Y3	56	VAL
47	Y4	6	HIS
47	Y4	10	VAL
47	Y4	15	ILE
47	Y4	16	CYS
47	Y4	22	ILE
47	Y4	27	THR
47	Y4	34	GLU
47	Y4	39	CYS
47	Y4	42	PHE
47	Y4	43	TYR
47	Y4	48	ARG
47	Y4	49	PHE
47	Y4	53	GLU
47	Y4	57	GLU
47	Y4	58	ARG
47	Y4	61	ARG
47	Y4	63	TYR
47	Y4	67	TYR
47	Y4	68	ARG
47	Y4	71	ARG
48	Y5	3	LYS
48	Y5	4	HIS
48	Y5	6	VAL
48	Y5	11	THR
48	Y5	29	THR
48	Y5	36	CYS
48	Y5	37	LYS
48	Y5	40	LYS
48	Y5	48	GLU
48	Y5	49	CYS
48	Y5	51	TYR
48	Y5	52	TYR
48	Y5	56	LYS
48	Y5	58	LEU
49	Y6	6	ARG
49	Y6	8	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
49	Y6	11	LEU
49	Y6	19	ARG
49	Y6	23	THR
49	Y6	30	THR
49	Y6	33	LYS
49	Y6	34	LEU
49	Y6	37	ARG
49	Y6	44	ARG
50	Y7	1	MET
50	Y7	4	THR
50	Y7	8	ASN
50	Y7	9	ARG
50	Y7	10	ARG
50	Y7	14	LYS
50	Y7	47	ARG
51	Y8	13	ARG
51	Y8	14	VAL
51	Y8	15	LYS
51	Y8	29	LYS
51	Y8	30	ARG
51	Y8	34	TRP
51	Y8	43	GLN
51	Y8	44	LYS
51	Y8	47	LYS
51	Y8	56	GLU
51	Y8	58	ILE
51	Y8	64	TYR
51	Y8	65	GLU
52	Y9	1	MET
52	Y9	17	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (20) such sidechains are listed below:

Mol	Chain	Res	Type
2	QB	19	HIS
2	QB	204	ASN
2	QB	212	GLN
10	QJ	13	HIS
10	QJ	78	ASN
13	QM	92	HIS
19	QS	47	HIS
25	RE	143	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	RH	143	GLN
28	RH	147	ASN
29	RI	104	GLN
35	RS	34	HIS
43	R0	12	ASN
52	R9	29	ASN
52	R9	32	HIS
2	XB	19	HIS
2	XB	204	ASN
2	XB	212	GLN
10	XJ	78	ASN
36	YT	58	ASN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	QA	1498/1522 (98%)	341 (22%)	49 (3%)
1	XA	1498/1522 (98%)	352 (23%)	40 (2%)
22	RA	2879/2916 (98%)	747 (25%)	65 (2%)
22	YA	2880/2916 (98%)	734 (25%)	57 (1%)
23	RB	119/122 (97%)	29 (24%)	2 (1%)
23	YB	119/122 (97%)	32 (26%)	1 (0%)
53	QV	76/77 (98%)	22 (28%)	1 (1%)
53	XV	76/77 (98%)	24 (31%)	3 (3%)
54	QX	7/25 (28%)	4 (57%)	1 (14%)
54	XX	7/25 (28%)	3 (42%)	1 (14%)
55	QY	7/17 (41%)	3 (42%)	0
55	XY	7/17 (41%)	2 (28%)	0
56	Z6	1/3 (33%)	0	0
56	Z8	1/3 (33%)	0	0
All	All	9175/9364 (97%)	2293 (24%)	220 (2%)

All (2293) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	QA	7	G
1	QA	9	G
1	QA	22	G
1	QA	32	A
1	QA	39	G
1	QA	43	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	QA	44	G
1	QA	47	C
1	QA	48	C
1	QA	50	A
1	QA	51	A
1	QA	64	G
1	QA	65	U
1	QA	66	G
1	QA	73	G
1	QA	79	G
1	QA	89	U
1	QA	91	C
1	QA	101	A
1	QA	105	G
1	QA	108	G
1	QA	116	A
1	QA	120	A
1	QA	121	C
1	QA	122	G
1	QA	129(A)	G
1	QA	130	A
1	QA	135	C
1	QA	144	G
1	QA	146	G
1	QA	163	C
1	QA	173	U
1	QA	174	C
1	QA	182	U
1	QA	189	U
1	QA	190	G
1	QA	191(C)	G
1	QA	195	A
1	QA	197	A
1	QA	201	C
1	QA	208	U
1	QA	209	U
1	QA	210	U
1	QA	216	G
1	QA	244	U
1	QA	245	C
1	QA	247	G
1	QA	250	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	QA	251	G
1	QA	260	G
1	QA	266	G
1	QA	267	C
1	QA	270	A
1	QA	271	C
1	QA	280	C
1	QA	281	G
1	QA	289	G
1	QA	298	A
1	QA	309	G
1	QA	314	C
1	QA	318	G
1	QA	321	A
1	QA	328	C
1	QA	329	A
1	QA	332	G
1	QA	344	A
1	QA	346	G
1	QA	347	G
1	QA	351	G
1	QA	352	C
1	QA	353	A
1	QA	354	G
1	QA	367	U
1	QA	369	C
1	QA	372	C
1	QA	373	A
1	QA	384	G
1	QA	388	G
1	QA	390	C
1	QA	397	A
1	QA	398	C
1	QA	406	G
1	QA	411	A
1	QA	412	A
1	QA	413	G
1	QA	414	A
1	QA	419	C
1	QA	422	C
1	QA	423	G
1	QA	429	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	QA	430	A
1	QA	440	A
1	QA	442	C
1	QA	453	A
1	QA	466	C
1	QA	467	G
1	QA	468	A
1	QA	478	A
1	QA	485	G
1	QA	486	U
1	QA	496	A
1	QA	497	U
1	QA	500	G
1	QA	505	G
1	QA	509	A
1	QA	510	A
1	QA	511	C
1	QA	518	C
1	QA	521	G
1	QA	527	G
1	QA	531	U
1	QA	532	A
1	QA	533	A
1	QA	536	C
1	QA	545	C
1	QA	547	A
1	QA	558	G
1	QA	559	A
1	QA	561	U
1	QA	562	C
1	QA	563	A
1	QA	565	U
1	QA	566	G
1	QA	572	A
1	QA	573	A
1	QA	576	G
1	QA	577	G
1	QA	579	G
1	QA	604	G
1	QA	614	A
1	QA	618	C
1	QA	630	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	QA	631	G
1	QA	633	G
1	QA	652	U
1	QA	653	A
1	QA	665	A
1	QA	687	A
1	QA	688	G
1	QA	698	G
1	QA	701	C
1	QA	702	A
1	QA	703	G
1	QA	704	A
1	QA	723	U
1	QA	728	A
1	QA	729	A
1	QA	731	G
1	QA	748	C
1	QA	749	C
1	QA	753	A
1	QA	754	C
1	QA	755	G
1	QA	760	G
1	QA	763	G
1	QA	778	G
1	QA	784	C
1	QA	792	A
1	QA	793	U
1	QA	794	A
1	QA	817	C
1	QA	819	A
1	QA	821	G
1	QA	828	A
1	QA	841	U
1	QA	842	C
1	QA	843	U
1	QA	848	C
1	QA	859	A
1	QA	870	U
1	QA	871	U
1	QA	872	A
1	QA	873	A
1	QA	884	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	QA	889	A
1	QA	891	U
1	QA	902	G
1	QA	914	A
1	QA	927	G
1	QA	934	C
1	QA	935	A
1	QA	940	C
1	QA	960	U
1	QA	961	U
1	QA	968	A
1	QA	969	A
1	QA	971	G
1	QA	972	C
1	QA	974	A
1	QA	976	G
1	QA	977	A
1	QA	978	A
1	QA	981	U
1	QA	991	U
1	QA	992	U
1	QA	993	G
1	QA	994	A
1	QA	995	C
1	QA	1001	G
1	QA	1004	A
1	QA	1006	C
1	QA	1009	G
1	QA	1010	G
1	QA	1020	U
1	QA	1023	G
1	QA	1024	G
1	QA	1025	U
1	QA	1026	G
1	QA	1028	C
1	QA	1029	G
1	QA	1031	G
1	QA	1032(A)	G
1	QA	1036	G
1	QA	1038	C
1	QA	1040	U
1	QA	1042	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	QA	1043	C
1	QA	1046	A
1	QA	1054	C
1	QA	1055	A
1	QA	1057	G
1	QA	1066	C
1	QA	1067	A
1	QA	1070	U
1	QA	1079	G
1	QA	1081	G
1	QA	1086	U
1	QA	1094	G
1	QA	1095	U
1	QA	1096	C
1	QA	1101	A
1	QA	1112	C
1	QA	1121	U
1	QA	1124	G
1	QA	1125	U
1	QA	1126	U
1	QA	1127	G
1	QA	1129	C
1	QA	1130	A
1	QA	1131	G
1	QA	1136	U
1	QA	1137	C
1	QA	1138	G
1	QA	1139	G
1	QA	1140	C
1	QA	1157	A
1	QA	1158	C
1	QA	1159	U
1	QA	1160	G
1	QA	1161	C
1	QA	1163	C
1	QA	1170	A
1	QA	1171	G
1	QA	1177	G
1	QA	1178	G
1	QA	1181	G
1	QA	1182	G
1	QA	1183	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	QA	1185	G
1	QA	1186	G
1	QA	1187	G
1	QA	1191	A
1	QA	1193	G
1	QA	1194	U
1	QA	1196	U
1	QA	1197	G
1	QA	1200	C
1	QA	1201	A
1	QA	1202	G
1	QA	1204	A
1	QA	1212	U
1	QA	1213	A
1	QA	1214	C
1	QA	1215	G
1	QA	1225	A
1	QA	1227	A
1	QA	1238	A
1	QA	1240	U
1	QA	1241	G
1	QA	1256	A
1	QA	1257	U
1	QA	1258	G
1	QA	1263	C
1	QA	1267	C
1	QA	1268	A
1	QA	1270	C
1	QA	1273	G
1	QA	1280	A
1	QA	1281	U
1	QA	1282	C
1	QA	1286	A
1	QA	1287	A
1	QA	1288	A
1	QA	1297	C
1	QA	1298	C
1	QA	1299	A
1	QA	1300	G
1	QA	1301	U
1	QA	1302	U
1	QA	1303	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	QA	1305	G
1	QA	1319	A
1	QA	1320	C
1	QA	1322	C
1	QA	1323	G
1	QA	1331	G
1	QA	1334	G
1	QA	1335	C
1	QA	1336	C
1	QA	1337	G
1	QA	1338	G
1	QA	1346	A
1	QA	1347	G
1	QA	1348	U
1	QA	1353	G
1	QA	1362(A)	C
1	QA	1368	G
1	QA	1370	G
1	QA	1379	G
1	QA	1394	A
1	QA	1397	C
1	QA	1398	A
1	QA	1411	C
1	QA	1419	G
1	QA	1442	G
1	QA	1446	A
1	QA	1447	G
1	QA	1452	C
1	QA	1453	G
1	QA	1454	G
1	QA	1492	A
1	QA	1499	A
1	QA	1503	A
1	QA	1504	G
1	QA	1505	G
1	QA	1506	U
1	QA	1517	G
1	QA	1519	A
1	QA	1520	G
1	QA	1529	G
1	QA	1530	G
22	RA	10	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	15	G
22	RA	28	A
22	RA	34	C
22	RA	35	G
22	RA	43	G
22	RA	46	C
22	RA	51	G
22	RA	55	G
22	RA	61	G
22	RA	64	A
22	RA	71	A
22	RA	72	U
22	RA	74	A
22	RA	75	G
22	RA	81	G
22	RA	82	G
22	RA	83	G
22	RA	95	G
22	RA	96	G
22	RA	101	G
22	RA	102	G
22	RA	103	A
22	RA	118	A
22	RA	120	U
22	RA	125	G
22	RA	127	A
22	RA	135	G
22	RA	138	G
22	RA	140	A
22	RA	161	U
22	RA	177	G
22	RA	181	A
22	RA	188	G
22	RA	196	A
22	RA	199	A
22	RA	201	C
22	RA	206	U
22	RA	214	G
22	RA	215	G
22	RA	216	A
22	RA	221	A
22	RA	222	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	223	A
22	RA	225	A
22	RA	228	A
22	RA	229	A
22	RA	230	U
22	RA	232	G
22	RA	233	A
22	RA	242	G
22	RA	243	U
22	RA	248	G
22	RA	249	C
22	RA	250	G
22	RA	252	G
22	RA	264	C
22	RA	265	A
22	RA	266	G
22	RA	269	U
22	RA	270(L)	U
22	RA	270(M)	U
22	RA	270(N)	G
22	RA	270(P)	C
22	RA	270(T)	G
22	RA	271(C)	U
22	RA	271	G
22	RA	272	G
22	RA	273(F)	C
22	RA	275	G
22	RA	276	A
22	RA	277	C
22	RA	278	A
22	RA	286	C
22	RA	299	A
22	RA	311	A
22	RA	312	G
22	RA	317	G
22	RA	323	G
22	RA	324	A
22	RA	327	G
22	RA	329	G
22	RA	330	A
22	RA	331	A
22	RA	332	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	333	G
22	RA	342	G
22	RA	343	C
22	RA	345	A
22	RA	346	A
22	RA	347	A
22	RA	352	G
22	RA	357	A
22	RA	364	C
22	RA	371	A
22	RA	372	G
22	RA	373	U
22	RA	394	A
22	RA	405	U
22	RA	407	G
22	RA	411	G
22	RA	412	A
22	RA	428	A
22	RA	434	U
22	RA	442	G
22	RA	444	C
22	RA	447	A
22	RA	448	U
22	RA	454	A
22	RA	455	C
22	RA	456	C
22	RA	457	A
22	RA	458	G
22	RA	470	A
22	RA	481	G
22	RA	496	G
22	RA	504	U
22	RA	505	A
22	RA	509	C
22	RA	513	A
22	RA	521	G
22	RA	527	C
22	RA	529	A
22	RA	530	G
22	RA	532	A
22	RA	533	G
22	RA	537	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	539	G
22	RA	540	G
22	RA	541	C
22	RA	544	C
22	RA	546	C
22	RA	549	G
22	RA	550	G
22	RA	554	U
22	RA	556	G
22	RA	563	G
22	RA	571	A
22	RA	573	G
22	RA	574	C
22	RA	575	A
22	RA	588	U
22	RA	603	A
22	RA	607	U
22	RA	609(A)	G
22	RA	613	U
22	RA	614	U
22	RA	615	G
22	RA	617	G
22	RA	621	A
22	RA	622	G
22	RA	627	A
22	RA	628	G
22	RA	631	A
22	RA	634	C
22	RA	637	A
22	RA	638	G
22	RA	645	C
22	RA	646	A
22	RA	647	G
22	RA	651	G
22	RA	652	C
22	RA	654	A
22	RA	654(A)	G
22	RA	654(T)	C
22	RA	657	U
22	RA	659	C
22	RA	668	G
22	RA	669	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	686	G
22	RA	701	G
22	RA	702	G
22	RA	704	G
22	RA	714	U
22	RA	717	G
22	RA	722	A
22	RA	726	G
22	RA	730	C
22	RA	747	U
22	RA	753	C
22	RA	758	C
22	RA	764	A
22	RA	771	G
22	RA	775	G
22	RA	776	G
22	RA	782	A
22	RA	784	A
22	RA	785	G
22	RA	788	A
22	RA	790	C
22	RA	792	G
22	RA	793	A
22	RA	800	A
22	RA	801	G
22	RA	805	G
22	RA	809	G
22	RA	812	C
22	RA	819	A
22	RA	827	U
22	RA	828	U
22	RA	831	G
22	RA	846	C
22	RA	847	U
22	RA	856	C
22	RA	857	C
22	RA	859	G
22	RA	860	U
22	RA	882	G
22	RA	884	C
22	RA	885	C
22	RA	886	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	888	C
22	RA	889	C
22	RA	893	C
22	RA	896	A
22	RA	897	C
22	RA	898	C
22	RA	899	A
22	RA	900	A
22	RA	901	A
22	RA	902	C
22	RA	904	C
22	RA	907	U
22	RA	910	A
22	RA	917	A
22	RA	918	A
22	RA	932	G
22	RA	933	A
22	RA	938	G
22	RA	941	A
22	RA	944	G
22	RA	945	A
22	RA	946	G
22	RA	958	U
22	RA	961	C
22	RA	962	G
22	RA	972	G
22	RA	973	A
22	RA	974	G
22	RA	974(A)	C
22	RA	975	G
22	RA	980	A
22	RA	983	A
22	RA	990	A
22	RA	996	A
22	RA	1003	G
22	RA	1010	A
22	RA	1011	G
22	RA	1012	U
22	RA	1013	C
22	RA	1015	G
22	RA	1019	U
22	RA	1020	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	1022	G
22	RA	1023	U
22	RA	1025	G
22	RA	1026	U
22	RA	1027	A
22	RA	1033	U
22	RA	1034	G
22	RA	1037	G
22	RA	1044	G
22	RA	1045	A
22	RA	1046	A
22	RA	1047	G
22	RA	1050	A
22	RA	1051	G
22	RA	1054	A
22	RA	1055	G
22	RA	1057	A
22	RA	1059	G
22	RA	1060	U
22	RA	1061	U
22	RA	1065	U
22	RA	1066	U
22	RA	1067	A
22	RA	1068	G
22	RA	1070	A
22	RA	1071	G
22	RA	1073	A
22	RA	1077	A
22	RA	1078	U
22	RA	1079	C
22	RA	1080	C
22	RA	1082	U
22	RA	1083	U
22	RA	1084	A
22	RA	1085	A
22	RA	1086	A
22	RA	1087	G
22	RA	1088	A
22	RA	1091	G
22	RA	1093	G
22	RA	1095	A
22	RA	1096	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	1101	U
22	RA	1104	C
22	RA	1105	U
22	RA	1110	G
22	RA	1111	A
22	RA	1112	G
22	RA	1115	G
22	RA	1122	G
22	RA	1128	A
22	RA	1130	U
22	RA	1131	G
22	RA	1135	C
22	RA	1136	G
22	RA	1139	G
22	RA	1142	U
22	RA	1142(A)	A
22	RA	1155	A
22	RA	1158	C
22	RA	1161	C
22	RA	1169	G
22	RA	1173	G
22	RA	1174	A
22	RA	1175	U
22	RA	1176	G
22	RA	1178	C
22	RA	1179	C
22	RA	1183	G
22	RA	1186	G
22	RA	1191	G
22	RA	1195	G
22	RA	1196	C
22	RA	1204	A
22	RA	1205	U
22	RA	1206	G
22	RA	1210	A
22	RA	1211	U
22	RA	1212	G
22	RA	1219	G
22	RA	1220	A
22	RA	1221	C
22	RA	1225	C
22	RA	1227	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	1236	G
22	RA	1238	G
22	RA	1246	A
22	RA	1247	A
22	RA	1248	G
22	RA	1252	G
22	RA	1253	A
22	RA	1256	G
22	RA	1265	A
22	RA	1271	G
22	RA	1272	A
22	RA	1273	U
22	RA	1282	U
22	RA	1287	A
22	RA	1300	U
22	RA	1301	A
22	RA	1302	A
22	RA	1312	U
22	RA	1313	U
22	RA	1314	C
22	RA	1319	G
22	RA	1321	A
22	RA	1329	U
22	RA	1349	A
22	RA	1352	U
22	RA	1365	A
22	RA	1379	A
22	RA	1380	G
22	RA	1384	A
22	RA	1385	G
22	RA	1386	C
22	RA	1390	U
22	RA	1395	A
22	RA	1406	U
22	RA	1407	C
22	RA	1408	C
22	RA	1411	C
22	RA	1416	G
22	RA	1419	A
22	RA	1420	U
22	RA	1421	G
22	RA	1428	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	1444(A)	A
22	RA	1445	C
22	RA	1449	A
22	RA	1449(A)	G
22	RA	1451	C
22	RA	1455	G
22	RA	1460	A
22	RA	1461	G
22	RA	1467	C
22	RA	1471	A
22	RA	1474	C
22	RA	1480	G
22	RA	1483	G
22	RA	1485	G
22	RA	1486	A
22	RA	1487	G
22	RA	1493	C
22	RA	1495	A
22	RA	1497	U
22	RA	1502	C
22	RA	1504	C
22	RA	1505	C
22	RA	1506	C
22	RA	1507	A
22	RA	1508	A
22	RA	1510	A
22	RA	1513	C
22	RA	1514	U
22	RA	1515	C
22	RA	1522	G
22	RA	1523	U
22	RA	1534	G
22	RA	1535	U
22	RA	1536	A
22	RA	1537	C
22	RA	1538	G
22	RA	1543	A
22	RA	1544	C
22	RA	1545	A
22	RA	1548	C
22	RA	1558	A
22	RA	1559	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	1560	G
22	RA	1569	A
22	RA	1578	U
22	RA	1579	A
22	RA	1580	A
22	RA	1581	G
22	RA	1585	C
22	RA	1586	A
22	RA	1593	G
22	RA	1598	C
22	RA	1608	A
22	RA	1609	A
22	RA	1610	A
22	RA	1616	A
22	RA	1617	C
22	RA	1618	A
22	RA	1630(A)	C
22	RA	1634	A
22	RA	1648	C
22	RA	1651	G
22	RA	1653	G
22	RA	1654	A
22	RA	1655	A
22	RA	1664	A
22	RA	1667	G
22	RA	1673	U
22	RA	1674	G
22	RA	1688	U
22	RA	1695	G
22	RA	1696	G
22	RA	1697	G
22	RA	1701	A
22	RA	1703	G
22	RA	1725	G
22	RA	1728	G
22	RA	1729	A
22	RA	1730	U
22	RA	1731	G
22	RA	1733	G
22	RA	1742	C
22	RA	1746	G
22	RA	1752	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	1763	G
22	RA	1764	G
22	RA	1766	U
22	RA	1769	G
22	RA	1773	A
22	RA	1776	G
22	RA	1780	A
22	RA	1782	C
22	RA	1791	A
22	RA	1799	G
22	RA	1800	C
22	RA	1815	A
22	RA	1816	G
22	RA	1820	U
22	RA	1829	A
22	RA	1834	U
22	RA	1835	G
22	RA	1847	A
22	RA	1858	G
22	RA	1864	U
22	RA	1869	G
22	RA	1872	A
22	RA	1878	G
22	RA	1882	C
22	RA	1885	A
22	RA	1886	C
22	RA	1888	G
22	RA	1889	A
22	RA	1905	C
22	RA	1906	G
22	RA	1913	A
22	RA	1914	C
22	RA	1919	A
22	RA	1920	C
22	RA	1927	A
22	RA	1929	G
22	RA	1931	U
22	RA	1934	C
22	RA	1936	A
22	RA	1938	A
22	RA	1940	U
22	RA	1944	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	1947	C
22	RA	1955	U
22	RA	1963	U
22	RA	1964	G
22	RA	1967	C
22	RA	1969	A
22	RA	1970	A
22	RA	1971	A
22	RA	1972	A
22	RA	1981	A
22	RA	1982	C
22	RA	1991	U
22	RA	1992	G
22	RA	1993	U
22	RA	1996	C
22	RA	2020	A
22	RA	2023	G
22	RA	2031	A
22	RA	2032	G
22	RA	2033	A
22	RA	2039	C
22	RA	2043	C
22	RA	2049	G
22	RA	2051	A
22	RA	2054	A
22	RA	2055	C
22	RA	2056	G
22	RA	2059	A
22	RA	2060	A
22	RA	2061	G
22	RA	2062	A
22	RA	2063	C
22	RA	2067	G
22	RA	2069	G
22	RA	2080	G
22	RA	2089	U
22	RA	2099	U
22	RA	2101	G
22	RA	2102	U
22	RA	2107	C
22	RA	2111	C
22	RA	2112	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	2113	U
22	RA	2114	A
22	RA	2115	G
22	RA	2116	G
22	RA	2117	A
22	RA	2119	A
22	RA	2126	A
22	RA	2127	G
22	RA	2128	C
22	RA	2131	G
22	RA	2132	U
22	RA	2133	G
22	RA	2134	A
22	RA	2135	A
22	RA	2136	C
22	RA	2145	C
22	RA	2147	G
22	RA	2148	G
22	RA	2150	U
22	RA	2160	G
22	RA	2161	C
22	RA	2166	G
22	RA	2167	U
22	RA	2168	G
22	RA	2170	A
22	RA	2173	A
22	RA	2178	C
22	RA	2179	C
22	RA	2189	U
22	RA	2190	G
22	RA	2192	G
22	RA	2198	A
22	RA	2199	A
22	RA	2207	C
22	RA	2208	U
22	RA	2210	G
22	RA	2211	G
22	RA	2212	A
22	RA	2213	U
22	RA	2215	G
22	RA	2225	A
22	RA	2227	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	2238	G
22	RA	2239	G
22	RA	2241	A
22	RA	2243	U
22	RA	2246	G
22	RA	2273	A
22	RA	2275	C
22	RA	2283	C
22	RA	2286	A
22	RA	2287	A
22	RA	2288	A
22	RA	2297	C
22	RA	2299	G
22	RA	2300	G
22	RA	2303	G
22	RA	2307	G
22	RA	2308	G
22	RA	2311	A
22	RA	2319	G
22	RA	2320	A
22	RA	2321	G
22	RA	2325	G
22	RA	2334	G
22	RA	2336	A
22	RA	2345	G
22	RA	2346	A
22	RA	2347	C
22	RA	2350	C
22	RA	2352	A
22	RA	2353	G
22	RA	2354	G
22	RA	2358	G
22	RA	2383	G
22	RA	2384	G
22	RA	2385	C
22	RA	2387	U
22	RA	2392	A
22	RA	2398	U
22	RA	2402	C
22	RA	2403	C
22	RA	2405	G
22	RA	2406	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	2410	G
22	RA	2422	A
22	RA	2423	U
22	RA	2424	C
22	RA	2425	A
22	RA	2429	G
22	RA	2430	A
22	RA	2431	U
22	RA	2435	A
22	RA	2439	A
22	RA	2440	C
22	RA	2441	C
22	RA	2443	C
22	RA	2445	G
22	RA	2448	A
22	RA	2469	A
22	RA	2470	G
22	RA	2474	C
22	RA	2475	C
22	RA	2482	G
22	RA	2487	G
22	RA	2490	G
22	RA	2494	G
22	RA	2502	G
22	RA	2505	G
22	RA	2513	G
22	RA	2519	U
22	RA	2525	G
22	RA	2529	G
22	RA	2540	C
22	RA	2542	A
22	RA	2543	G
22	RA	2545	G
22	RA	2546	U
22	RA	2554	U
22	RA	2556	C
22	RA	2558	C
22	RA	2564	A
22	RA	2567	G
22	RA	2572	A
22	RA	2573	C
22	RA	2574	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	2582	G
22	RA	2585	U
22	RA	2602	A
22	RA	2608	G
22	RA	2609	U
22	RA	2610	C
22	RA	2611	U
22	RA	2612	C
22	RA	2615	U
22	RA	2621	A
22	RA	2623	G
22	RA	2629	A
22	RA	2641	G
22	RA	2655	G
22	RA	2665	A
22	RA	2666	C
22	RA	2667	C
22	RA	2673	G
22	RA	2675	A
22	RA	2679	A
22	RA	2682	U
22	RA	2689	U
22	RA	2690	C
22	RA	2702	U
22	RA	2703	C
22	RA	2707	G
22	RA	2712	U
22	RA	2712(A)	A
22	RA	2713	A
22	RA	2714	G
22	RA	2726	U
22	RA	2733	A
22	RA	2747	G
22	RA	2748	A
22	RA	2750	A
22	RA	2752	C
22	RA	2758	A
22	RA	2761	G
22	RA	2764	A
22	RA	2765	A
22	RA	2767	C
22	RA	2770	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	2777	G
22	RA	2778	A
22	RA	2779	U
22	RA	2780	G
22	RA	2790	A
22	RA	2791	C
22	RA	2793	G
22	RA	2797	U
22	RA	2807	G
22	RA	2810	A
22	RA	2811	G
22	RA	2813	A
22	RA	2818	G
22	RA	2820	A
22	RA	2821	A
22	RA	2831	G
22	RA	2833	G
22	RA	2834	G
22	RA	2835	A
22	RA	2836	U
22	RA	2839	G
22	RA	2849	U
22	RA	2867	G
22	RA	2868	A
22	RA	2872	G
22	RA	2876	G
22	RA	2880	C
22	RA	2885	C
22	RA	2886	G
22	RA	2891	G
22	RA	2892	A
22	RA	2894	G
23	RB	2	C
23	RB	9	G
23	RB	13	A
23	RB	15	A
23	RB	16	G
23	RB	21	G
23	RB	22	U
23	RB	24	G
23	RB	25	A
23	RB	26	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	RB	27	C
23	RB	29	A
23	RB	31	C
23	RB	32	C
23	RB	33	G
23	RB	40	U
23	RB	41	U
23	RB	42	C
23	RB	43	C
23	RB	44	G
23	RB	45	A
23	RB	56	G
23	RB	67	G
23	RB	73	A
23	RB	81	G
23	RB	89	G
23	RB	91	C
23	RB	109	G
23	RB	115	G
1	XA	6	G
1	XA	9	G
1	XA	10	A
1	XA	12	U
1	XA	19	C
1	XA	32	A
1	XA	34	C
1	XA	39	G
1	XA	47	C
1	XA	48	C
1	XA	50	A
1	XA	51	A
1	XA	59	A
1	XA	61	G
1	XA	64	G
1	XA	65	U
1	XA	66	G
1	XA	78	G
1	XA	79	G
1	XA	81	G
1	XA	89	U
1	XA	90	C
1	XA	91	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	XA	92	G
1	XA	95	G
1	XA	108	G
1	XA	115	G
1	XA	116	A
1	XA	121	C
1	XA	129(A)	G
1	XA	130	A
1	XA	138	G
1	XA	144	G
1	XA	147	G
1	XA	163	C
1	XA	168	G
1	XA	172	A
1	XA	173	U
1	XA	174	C
1	XA	182	U
1	XA	189	U
1	XA	190	G
1	XA	191(C)	G
1	XA	191(E)	G
1	XA	195	A
1	XA	197	A
1	XA	199	G
1	XA	201	C
1	XA	209	U
1	XA	216	G
1	XA	218	C
1	XA	220	G
1	XA	222	U
1	XA	226	G
1	XA	240	C
1	XA	244	U
1	XA	245	C
1	XA	247	G
1	XA	251	G
1	XA	253	U
1	XA	266	G
1	XA	267	C
1	XA	270	A
1	XA	271	C
1	XA	280	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	XA	281	G
1	XA	289	G
1	XA	298	A
1	XA	299	G
1	XA	306	G
1	XA	314	C
1	XA	318	G
1	XA	321	A
1	XA	328	C
1	XA	329	A
1	XA	330	C
1	XA	332	G
1	XA	338	A
1	XA	345	C
1	XA	346	G
1	XA	347	G
1	XA	348	G
1	XA	349	A
1	XA	352	C
1	XA	353	A
1	XA	354	G
1	XA	367	U
1	XA	372	C
1	XA	373	A
1	XA	384	G
1	XA	389	A
1	XA	397	A
1	XA	398	C
1	XA	406	G
1	XA	408	A
1	XA	409	G
1	XA	411	A
1	XA	412	A
1	XA	413	G
1	XA	414	A
1	XA	422	C
1	XA	423	G
1	XA	424	G
1	XA	427	U
1	XA	429	U
1	XA	430	A
1	XA	434	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	XA	452	A
1	XA	466	C
1	XA	467	G
1	XA	481	G
1	XA	482	A
1	XA	485	G
1	XA	486	U
1	XA	496	A
1	XA	497	U
1	XA	505	G
1	XA	509	A
1	XA	510	A
1	XA	511	C
1	XA	513	C
1	XA	518	C
1	XA	527	G
1	XA	529	G
1	XA	531	U
1	XA	532	A
1	XA	533	A
1	XA	542	G
1	XA	545	C
1	XA	546	G
1	XA	547	A
1	XA	548	G
1	XA	559	A
1	XA	561	U
1	XA	562	C
1	XA	563	A
1	XA	564	C
1	XA	572	A
1	XA	573	A
1	XA	576	G
1	XA	577	G
1	XA	579	G
1	XA	607	A
1	XA	617	G
1	XA	620	C
1	XA	630	G
1	XA	631	G
1	XA	633	G
1	XA	653	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	XA	657	G
1	XA	665	A
1	XA	688	G
1	XA	702	A
1	XA	703	G
1	XA	704	A
1	XA	721	G
1	XA	724	G
1	XA	731	G
1	XA	748	C
1	XA	749	C
1	XA	755	G
1	XA	760	G
1	XA	763	G
1	XA	777	A
1	XA	792	A
1	XA	793	U
1	XA	794	A
1	XA	796	C
1	XA	799	G
1	XA	813	U
1	XA	816	A
1	XA	817	C
1	XA	818	G
1	XA	819	A
1	XA	821	G
1	XA	828	A
1	XA	838	G
1	XA	841	U
1	XA	842	C
1	XA	843	U
1	XA	848	C
1	XA	853	G
1	XA	859	A
1	XA	864	A
1	XA	870	U
1	XA	871	U
1	XA	872	A
1	XA	873	A
1	XA	902	G
1	XA	914	A
1	XA	927	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	XA	934	C
1	XA	935	A
1	XA	936	C
1	XA	939	G
1	XA	950	U
1	XA	960	U
1	XA	961	U
1	XA	966	G
1	XA	967	C
1	XA	968	A
1	XA	969	A
1	XA	971	G
1	XA	972	C
1	XA	974	A
1	XA	975	A
1	XA	976	G
1	XA	977	A
1	XA	983	A
1	XA	991	U
1	XA	992	U
1	XA	993	G
1	XA	994	A
1	XA	1000	A
1	XA	1001	G
1	XA	1002	G
1	XA	1004	A
1	XA	1006	C
1	XA	1008	C
1	XA	1016	A
1	XA	1021	G
1	XA	1024	G
1	XA	1026	G
1	XA	1028	C
1	XA	1029	G
1	XA	1032(A)	G
1	XA	1032(B)	G
1	XA	1036	G
1	XA	1039	C
1	XA	1040	U
1	XA	1042	G
1	XA	1053	G
1	XA	1054	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	XA	1055	A
1	XA	1064	G
1	XA	1066	C
1	XA	1081	G
1	XA	1085	U
1	XA	1089	G
1	XA	1094	G
1	XA	1095	U
1	XA	1101	A
1	XA	1103	C
1	XA	1124	G
1	XA	1125	U
1	XA	1126	U
1	XA	1127	G
1	XA	1130	A
1	XA	1131	G
1	XA	1136	U
1	XA	1137	C
1	XA	1138	G
1	XA	1139	G
1	XA	1140	C
1	XA	1146	A
1	XA	1152	A
1	XA	1157	A
1	XA	1158	C
1	XA	1159	U
1	XA	1160	G
1	XA	1161	C
1	XA	1162	C
1	XA	1170	A
1	XA	1176	A
1	XA	1177	G
1	XA	1181	G
1	XA	1182	G
1	XA	1183	A
1	XA	1187	G
1	XA	1188	A
1	XA	1189	C
1	XA	1190	G
1	XA	1193	G
1	XA	1195	C
1	XA	1196	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	XA	1201	A
1	XA	1211	U
1	XA	1212	U
1	XA	1214	C
1	XA	1220	G
1	XA	1225	A
1	XA	1226	C
1	XA	1238	A
1	XA	1240	U
1	XA	1256	A
1	XA	1257	U
1	XA	1258	G
1	XA	1264	C
1	XA	1270	C
1	XA	1272	G
1	XA	1275	A
1	XA	1277	C
1	XA	1278	U
1	XA	1280	A
1	XA	1281	U
1	XA	1282	C
1	XA	1285	A
1	XA	1286	A
1	XA	1287	A
1	XA	1288	A
1	XA	1290	G
1	XA	1298	C
1	XA	1299	A
1	XA	1300	G
1	XA	1301	U
1	XA	1302	U
1	XA	1305	G
1	XA	1306	A
1	XA	1318	A
1	XA	1320	C
1	XA	1321	C
1	XA	1322	C
1	XA	1323	G
1	XA	1329	A
1	XA	1331	G
1	XA	1336	C
1	XA	1337	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	XA	1338	G
1	XA	1346	A
1	XA	1347	G
1	XA	1348	U
1	XA	1353	G
1	XA	1359	C
1	XA	1362(A)	C
1	XA	1363	A
1	XA	1378	C
1	XA	1379	G
1	XA	1394	A
1	XA	1397	C
1	XA	1401	G
1	XA	1419	G
1	XA	1442	G
1	XA	1443	G
1	XA	1446	A
1	XA	1452	C
1	XA	1453	G
1	XA	1482	G
1	XA	1483	A
1	XA	1487	G
1	XA	1492	A
1	XA	1497	G
1	XA	1499	A
1	XA	1503	A
1	XA	1504	G
1	XA	1506	U
1	XA	1517	G
1	XA	1518	A
1	XA	1519	A
1	XA	1520	G
1	XA	1528	U
1	XA	1529	G
1	XA	1530	G
22	YA	9	U
22	YA	13	A
22	YA	15	G
22	YA	28	A
22	YA	34	C
22	YA	35	G
22	YA	46	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	49	A
22	YA	55	G
22	YA	61	G
22	YA	63	U
22	YA	71	A
22	YA	72	U
22	YA	74	A
22	YA	75	G
22	YA	96	G
22	YA	97	C
22	YA	99	U
22	YA	101	G
22	YA	102	G
22	YA	103	A
22	YA	118	A
22	YA	119	A
22	YA	120	U
22	YA	121	G
22	YA	134	C
22	YA	155	C
22	YA	161	U
22	YA	162	U
22	YA	173	G
22	YA	181	A
22	YA	188	G
22	YA	196	A
22	YA	199	A
22	YA	215	G
22	YA	216	A
22	YA	221	A
22	YA	222	A
22	YA	223	A
22	YA	224	G
22	YA	226	G
22	YA	228	A
22	YA	229	A
22	YA	230	U
22	YA	232	G
22	YA	242	G
22	YA	243	U
22	YA	248	G
22	YA	249	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	250	G
22	YA	252	G
22	YA	261	G
22	YA	264	C
22	YA	265	A
22	YA	266	G
22	YA	269	U
22	YA	270(K)	C
22	YA	270(L)	U
22	YA	270(M)	U
22	YA	270(N)	G
22	YA	270(O)	U
22	YA	270(P)	C
22	YA	270(Q)	C
22	YA	270(W)	G
22	YA	270(Y)	G
22	YA	270(Z)	U
22	YA	271(A)	C
22	YA	271(C)	U
22	YA	271	G
22	YA	274	G
22	YA	275	G
22	YA	276	A
22	YA	278	A
22	YA	279	C
22	YA	299	A
22	YA	300	A
22	YA	311	A
22	YA	312	G
22	YA	315	G
22	YA	316	C
22	YA	323	G
22	YA	324	A
22	YA	329	G
22	YA	330	A
22	YA	332	A
22	YA	342	G
22	YA	345	A
22	YA	352	G
22	YA	356	G
22	YA	363	G
22	YA	364	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	371	A
22	YA	372	G
22	YA	373	U
22	YA	380	U
22	YA	386	G
22	YA	387	U
22	YA	394	A
22	YA	396	G
22	YA	405	U
22	YA	406	G
22	YA	411	G
22	YA	412	A
22	YA	428	A
22	YA	429	A
22	YA	442	G
22	YA	443	A
22	YA	444	C
22	YA	448	U
22	YA	451	C
22	YA	454	A
22	YA	457	A
22	YA	470	A
22	YA	472	A
22	YA	479	A
22	YA	480	A
22	YA	481	G
22	YA	483	A
22	YA	494	G
22	YA	496	G
22	YA	501	A
22	YA	503	A
22	YA	504	U
22	YA	505	A
22	YA	508	G
22	YA	509	C
22	YA	512	G
22	YA	513	A
22	YA	518	G
22	YA	528	A
22	YA	531	C
22	YA	532	A
22	YA	533	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	537	C
22	YA	539	G
22	YA	540	G
22	YA	546	C
22	YA	547	A
22	YA	549	G
22	YA	562	U
22	YA	563	G
22	YA	571	A
22	YA	573	G
22	YA	574	C
22	YA	575	A
22	YA	580	C
22	YA	586	A
22	YA	587	C
22	YA	588	U
22	YA	591	C
22	YA	599	G
22	YA	603	A
22	YA	607	U
22	YA	613	U
22	YA	614	U
22	YA	615	G
22	YA	617	G
22	YA	618	G
22	YA	622	G
22	YA	627	A
22	YA	634	C
22	YA	637	A
22	YA	638	G
22	YA	645	C
22	YA	646	A
22	YA	649	G
22	YA	651	G
22	YA	654	A
22	YA	654(A)	G
22	YA	654(B)	C
22	YA	654(T)	C
22	YA	657	U
22	YA	664	C
22	YA	668	G
22	YA	670	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	685	A
22	YA	686	G
22	YA	701	G
22	YA	702	G
22	YA	704	G
22	YA	716	A
22	YA	717	G
22	YA	719	C
22	YA	721	C
22	YA	722	A
22	YA	730	C
22	YA	740	U
22	YA	762	U
22	YA	776	G
22	YA	777	A
22	YA	782	A
22	YA	784	A
22	YA	785	G
22	YA	788	A
22	YA	789	A
22	YA	790	C
22	YA	791	C
22	YA	792	G
22	YA	793	A
22	YA	800	A
22	YA	805	G
22	YA	812	C
22	YA	813	U
22	YA	819	A
22	YA	827	U
22	YA	828	U
22	YA	830	G
22	YA	845	G
22	YA	846	C
22	YA	847	U
22	YA	856	C
22	YA	857	C
22	YA	858	U
22	YA	860	U
22	YA	869	G
22	YA	880	G
22	YA	881	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	882	G
22	YA	883	G
22	YA	884	C
22	YA	885	C
22	YA	886	C
22	YA	887	A
22	YA	889	C
22	YA	896	A
22	YA	897	C
22	YA	899	A
22	YA	900	A
22	YA	901	A
22	YA	907	U
22	YA	910	A
22	YA	914	C
22	YA	915	C
22	YA	917	A
22	YA	932	G
22	YA	938	G
22	YA	941	A
22	YA	945	A
22	YA	946	G
22	YA	957	A
22	YA	959	A
22	YA	961	C
22	YA	973	A
22	YA	974	G
22	YA	974(A)	C
22	YA	975	G
22	YA	980	A
22	YA	983	A
22	YA	986	C
22	YA	995	C
22	YA	996	A
22	YA	1003	G
22	YA	1005	C
22	YA	1010	A
22	YA	1011	G
22	YA	1012	U
22	YA	1013	C
22	YA	1016	G
22	YA	1020	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	1022	G
22	YA	1023	U
22	YA	1025	G
22	YA	1026	U
22	YA	1027	A
22	YA	1033	U
22	YA	1043	C
22	YA	1045	A
22	YA	1046	A
22	YA	1047	G
22	YA	1050	A
22	YA	1053	C
22	YA	1054	A
22	YA	1057	A
22	YA	1059	G
22	YA	1060	U
22	YA	1061	U
22	YA	1065	U
22	YA	1066	U
22	YA	1067	A
22	YA	1068	G
22	YA	1069	A
22	YA	1070	A
22	YA	1071	G
22	YA	1077	A
22	YA	1078	U
22	YA	1079	C
22	YA	1082	U
22	YA	1083	U
22	YA	1084	A
22	YA	1085	A
22	YA	1086	A
22	YA	1088	A
22	YA	1089	G
22	YA	1090	U
22	YA	1091	G
22	YA	1095	A
22	YA	1096	A
22	YA	1097	U
22	YA	1099	G
22	YA	1103	A
22	YA	1104	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	1110	G
22	YA	1111	A
22	YA	1122	G
22	YA	1126	A
22	YA	1128	A
22	YA	1130	U
22	YA	1131	G
22	YA	1135	C
22	YA	1136	G
22	YA	1139	G
22	YA	1142	U
22	YA	1142(A)	A
22	YA	1143	A
22	YA	1155	A
22	YA	1168	G
22	YA	1170	G
22	YA	1173	G
22	YA	1174	A
22	YA	1175	U
22	YA	1176	G
22	YA	1178	C
22	YA	1179	C
22	YA	1194	A
22	YA	1195	G
22	YA	1204	A
22	YA	1205	U
22	YA	1210	A
22	YA	1211	U
22	YA	1218	C
22	YA	1220	A
22	YA	1221	C
22	YA	1228	G
22	YA	1230	C
22	YA	1236	G
22	YA	1237	A
22	YA	1238	G
22	YA	1240	U
22	YA	1241	A
22	YA	1242	A
22	YA	1244	G
22	YA	1250	G
22	YA	1252	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	1253	A
22	YA	1255	U
22	YA	1256	G
22	YA	1257	C
22	YA	1265	A
22	YA	1271	G
22	YA	1272	A
22	YA	1273	U
22	YA	1300	U
22	YA	1301	A
22	YA	1306	C
22	YA	1309	G
22	YA	1313	U
22	YA	1319	G
22	YA	1321	A
22	YA	1329	U
22	YA	1349	A
22	YA	1352	U
22	YA	1365	A
22	YA	1368	G
22	YA	1371	G
22	YA	1372	U
22	YA	1379	A
22	YA	1383	C
22	YA	1384	A
22	YA	1385	G
22	YA	1386	C
22	YA	1389	G
22	YA	1391	U
22	YA	1395	A
22	YA	1407	C
22	YA	1411	C
22	YA	1416	G
22	YA	1417	C
22	YA	1419	A
22	YA	1420	U
22	YA	1421	G
22	YA	1428	C
22	YA	1429	G
22	YA	1444(A)	A
22	YA	1445	C
22	YA	1449	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	1449(A)	G
22	YA	1455	G
22	YA	1458	C
22	YA	1459	G
22	YA	1460	A
22	YA	1461	G
22	YA	1467	C
22	YA	1471	A
22	YA	1475	G
22	YA	1482	U
22	YA	1483	G
22	YA	1484	G
22	YA	1487	G
22	YA	1489	U
22	YA	1493	C
22	YA	1496	A
22	YA	1497	U
22	YA	1504	C
22	YA	1506	C
22	YA	1507	A
22	YA	1508	A
22	YA	1510	A
22	YA	1511	A
22	YA	1515	C
22	YA	1516	U
22	YA	1522	G
22	YA	1525	G
22	YA	1533	C
22	YA	1534	G
22	YA	1535	U
22	YA	1536	A
22	YA	1537	C
22	YA	1540	G
22	YA	1543	A
22	YA	1544	C
22	YA	1545	A
22	YA	1545(A)	A
22	YA	1549	C
22	YA	1554	A
22	YA	1558	A
22	YA	1559	G
22	YA	1560	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	1569	A
22	YA	1578	U
22	YA	1579	A
22	YA	1585	C
22	YA	1586	A
22	YA	1587	A
22	YA	1591	G
22	YA	1592	C
22	YA	1597	A
22	YA	1598	C
22	YA	1608	A
22	YA	1609	A
22	YA	1610	A
22	YA	1617	C
22	YA	1640	C
22	YA	1648	C
22	YA	1654	A
22	YA	1674	G
22	YA	1678	G
22	YA	1682	G
22	YA	1686	C
22	YA	1693	U
22	YA	1694	C
22	YA	1695	G
22	YA	1698	A
22	YA	1699	G
22	YA	1700	A
22	YA	1701	A
22	YA	1725	G
22	YA	1729	A
22	YA	1730	U
22	YA	1731	G
22	YA	1732	A
22	YA	1733	G
22	YA	1742	C
22	YA	1743	G
22	YA	1750	G
22	YA	1753	G
22	YA	1754	C
22	YA	1756	G
22	YA	1762	A
22	YA	1763	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	1764	G
22	YA	1773	A
22	YA	1780	A
22	YA	1781	C
22	YA	1787	A
22	YA	1791	A
22	YA	1799	G
22	YA	1800	C
22	YA	1801	G
22	YA	1805	U
22	YA	1816	G
22	YA	1824	G
22	YA	1826	G
22	YA	1829	A
22	YA	1835	G
22	YA	1847	A
22	YA	1848	A
22	YA	1858	G
22	YA	1869	G
22	YA	1871	A
22	YA	1872	A
22	YA	1878	G
22	YA	1882	C
22	YA	1889	A
22	YA	1896	G
22	YA	1899	G
22	YA	1900	A
22	YA	1903	G
22	YA	1906	G
22	YA	1913	A
22	YA	1919	A
22	YA	1929	G
22	YA	1930	G
22	YA	1931	U
22	YA	1935	G
22	YA	1936	A
22	YA	1938	A
22	YA	1939	U
22	YA	1941	C
22	YA	1955	U
22	YA	1956	U
22	YA	1963	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	1965	C
22	YA	1967	C
22	YA	1968	G
22	YA	1969	A
22	YA	1970	A
22	YA	1971	A
22	YA	1972	A
22	YA	1976	U
22	YA	1982	C
22	YA	1985	G
22	YA	1987	G
22	YA	1991	U
22	YA	1992	G
22	YA	1993	U
22	YA	1996	C
22	YA	2020	A
22	YA	2023	G
22	YA	2031	A
22	YA	2033	A
22	YA	2043	C
22	YA	2055	C
22	YA	2056	G
22	YA	2059	A
22	YA	2060	A
22	YA	2061	G
22	YA	2062	A
22	YA	2063	C
22	YA	2069	G
22	YA	2072	G
22	YA	2098	U
22	YA	2107	C
22	YA	2108	C
22	YA	2111	C
22	YA	2112	G
22	YA	2113	U
22	YA	2114	A
22	YA	2115	G
22	YA	2116	G
22	YA	2117	A
22	YA	2119	A
22	YA	2120	G
22	YA	2126	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	2127	G
22	YA	2128	C
22	YA	2131	G
22	YA	2132	U
22	YA	2133	G
22	YA	2136	C
22	YA	2145	C
22	YA	2147	G
22	YA	2148	G
22	YA	2158	A
22	YA	2159	G
22	YA	2166	G
22	YA	2167	U
22	YA	2168	G
22	YA	2173	A
22	YA	2177	C
22	YA	2183	C
22	YA	2189	U
22	YA	2190	G
22	YA	2192	G
22	YA	2194	G
22	YA	2195	C
22	YA	2198	A
22	YA	2209	C
22	YA	2210	G
22	YA	2211	G
22	YA	2212	A
22	YA	2215	G
22	YA	2225	A
22	YA	2238	G
22	YA	2239	G
22	YA	2242	G
22	YA	2243	U
22	YA	2263	C
22	YA	2267	A
22	YA	2269	A
22	YA	2274	A
22	YA	2275	C
22	YA	2278	A
22	YA	2280	G
22	YA	2283	C
22	YA	2287	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	2288	A
22	YA	2299	G
22	YA	2305	A
22	YA	2307	G
22	YA	2308	G
22	YA	2311	A
22	YA	2319	G
22	YA	2320	A
22	YA	2325	G
22	YA	2334	G
22	YA	2336	A
22	YA	2342	C
22	YA	2346	A
22	YA	2347	C
22	YA	2358	G
22	YA	2377	A
22	YA	2379	G
22	YA	2383	G
22	YA	2385	C
22	YA	2392	A
22	YA	2394	C
22	YA	2398	U
22	YA	2402	C
22	YA	2403	C
22	YA	2406	U
22	YA	2410	G
22	YA	2423	U
22	YA	2424	C
22	YA	2425	A
22	YA	2429	G
22	YA	2430	A
22	YA	2431	U
22	YA	2435	A
22	YA	2439	A
22	YA	2440	C
22	YA	2441	C
22	YA	2448	A
22	YA	2453	A
22	YA	2468	G
22	YA	2469	A
22	YA	2475	C
22	YA	2491	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	2494	G
22	YA	2497	A
22	YA	2502	G
22	YA	2505	G
22	YA	2518	A
22	YA	2524	G
22	YA	2525	G
22	YA	2529	G
22	YA	2531	A
22	YA	2542	A
22	YA	2543	G
22	YA	2554	U
22	YA	2562	U
22	YA	2566	A
22	YA	2567	G
22	YA	2573	C
22	YA	2574	G
22	YA	2582	G
22	YA	2585	U
22	YA	2595	G
22	YA	2596	U
22	YA	2602	A
22	YA	2609	U
22	YA	2611	U
22	YA	2612	C
22	YA	2615	U
22	YA	2621	A
22	YA	2623	G
22	YA	2626	C
22	YA	2629	A
22	YA	2632	A
22	YA	2640	G
22	YA	2646	C
22	YA	2651	C
22	YA	2654	A
22	YA	2660	A
22	YA	2665	A
22	YA	2666	C
22	YA	2673	G
22	YA	2675	A
22	YA	2679	A
22	YA	2682	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	2683	C
22	YA	2689	U
22	YA	2690	C
22	YA	2691	C
22	YA	2702	U
22	YA	2703	C
22	YA	2707	G
22	YA	2712	U
22	YA	2712(A)	A
22	YA	2713	A
22	YA	2714	G
22	YA	2718	G
22	YA	2719	G
22	YA	2720	U
22	YA	2726	U
22	YA	2733	A
22	YA	2734	A
22	YA	2739	U
22	YA	2742	C
22	YA	2749	A
22	YA	2750	A
22	YA	2751	G
22	YA	2752	C
22	YA	2758	A
22	YA	2761	G
22	YA	2765	A
22	YA	2766	G
22	YA	2770	G
22	YA	2771	C
22	YA	2777	G
22	YA	2778	A
22	YA	2779	U
22	YA	2789	C
22	YA	2790	A
22	YA	2791	C
22	YA	2793	G
22	YA	2795	G
22	YA	2797	U
22	YA	2798	C
22	YA	2804	C
22	YA	2807	G
22	YA	2808	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	2818	G
22	YA	2820	A
22	YA	2821	A
22	YA	2833	G
22	YA	2834	G
22	YA	2835	A
22	YA	2836	U
22	YA	2867	G
22	YA	2868	A
22	YA	2872	G
22	YA	2880	C
22	YA	2892	A
22	YA	2893	G
23	YB	2	C
23	YB	8	U
23	YB	13	A
23	YB	15	A
23	YB	16	G
23	YB	21	G
23	YB	22	U
23	YB	24	G
23	YB	25	A
23	YB	29	A
23	YB	31	C
23	YB	32	C
23	YB	39	A
23	YB	40	U
23	YB	41	U
23	YB	42	C
23	YB	44	G
23	YB	45	A
23	YB	52	A
23	YB	53	A
23	YB	65	C
23	YB	67	G
23	YB	72	G
23	YB	73	A
23	YB	81	G
23	YB	82	G
23	YB	90	C
23	YB	91	C
23	YB	107	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	YB	108	C
23	YB	109	G
23	YB	115	G
53	QV	5	G
53	QV	7	G
53	QV	8	U
53	QV	16	C
53	QV	17(A)	U
53	QV	18	G
53	QV	19	G
53	QV	21	A
53	QV	22	G
53	QV	31	G
53	QV	41	C
53	QV	44	A
53	QV	47	U
53	QV	48	C
53	QV	50	U
53	QV	54	U
53	QV	59	A
53	QV	63	G
53	QV	64	G
53	QV	67	C
53	QV	75	C
53	QV	76	A
54	QX	2	U
54	QX	3	G
54	QX	4	C
54	QX	7	G
55	QY	34	C
55	QY	36	G
55	QY	38	A
53	XV	4	G
53	XV	5	G
53	XV	7	G
53	XV	10	G
53	XV	11	A
53	XV	16	C
53	XV	17(A)	U
53	XV	18	G
53	XV	19	G
53	XV	21	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	XV	30	G
53	XV	31	G
53	XV	47	U
53	XV	48	C
53	XV	49	G
53	XV	50	U
53	XV	52	G
53	XV	54	U
53	XV	58	A
53	XV	63	G
53	XV	64	G
53	XV	66	C
53	XV	75	C
53	XV	76	A
54	XX	3	G
54	XX	4	C
54	XX	7	G
55	XY	34	C
55	XY	36	G

All (220) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	QA	31	G
1	QA	64	G
1	QA	115	G
1	QA	119	A
1	QA	181	G
1	QA	243	A
1	QA	244	U
1	QA	250	A
1	QA	266	G
1	QA	328	C
1	QA	353	A
1	QA	389	A
1	QA	410	G
1	QA	412	A
1	QA	421	U
1	QA	429	U
1	QA	452	A
1	QA	484	G
1	QA	485	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	QA	509	A
1	QA	530	G
1	QA	560	U
1	QA	687	A
1	QA	701	C
1	QA	703	G
1	QA	752	G
1	QA	753	A
1	QA	792	A
1	QA	913	A
1	QA	934	C
1	QA	991	U
1	QA	992	U
1	QA	1025	U
1	QA	1027	C
1	QA	1065	U
1	QA	1157	A
1	QA	1200	C
1	QA	1280	A
1	QA	1285	A
1	QA	1297	C
1	QA	1336	C
1	QA	1337	G
1	QA	1346	A
1	QA	1347	G
1	QA	1446	A
1	QA	1453	G
1	QA	1498	U
1	QA	1503	A
1	QA	1528	U
22	RA	27	G
22	RA	71	A
22	RA	74	A
22	RA	99	U
22	RA	101	G
22	RA	196	A
22	RA	205	G
22	RA	222	A
22	RA	227	A
22	RA	229	A
22	RA	242	G
22	RA	271(B)	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	271(C)	U
22	RA	345	A
22	RA	370	G
22	RA	372	G
22	RA	405	U
22	RA	508	G
22	RA	512	G
22	RA	587	C
22	RA	637	A
22	RA	752	A
22	RA	774	A
22	RA	846	C
22	RA	856	C
22	RA	859	G
22	RA	974(A)	C
22	RA	1012	U
22	RA	1022	G
22	RA	1026	U
22	RA	1045	A
22	RA	1078	U
22	RA	1085	A
22	RA	1130	U
22	RA	1178	C
22	RA	1204	A
22	RA	1210	A
22	RA	1312	U
22	RA	1427	A
22	RA	1558	A
22	RA	1653	G
22	RA	1694	C
22	RA	1799	G
22	RA	1819	A
22	RA	1930	G
22	RA	1980	G
22	RA	1992	G
22	RA	2060	A
22	RA	2126	A
22	RA	2238	G
22	RA	2351	G
22	RA	2405	G
22	RA	2422	A
22	RA	2439	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	RA	2481	G
22	RA	2518	A
22	RA	2566	A
22	RA	2581	G
22	RA	2610	C
22	RA	2689	U
22	RA	2712	U
22	RA	2726	U
22	RA	2776	A
22	RA	2832	U
22	RA	2867	G
23	RB	24	G
23	RB	66	A
1	XA	31	G
1	XA	60	A
1	XA	78	G
1	XA	89	U
1	XA	115	G
1	XA	181	G
1	XA	243	A
1	XA	244	U
1	XA	250	A
1	XA	266	G
1	XA	328	C
1	XA	345	C
1	XA	388	G
1	XA	412	A
1	XA	428	G
1	XA	429	U
1	XA	481	G
1	XA	484	G
1	XA	485	G
1	XA	509	A
1	XA	560	U
1	XA	687	A
1	XA	703	G
1	XA	812	C
1	XA	913	A
1	XA	960	U
1	XA	991	U
1	XA	992	U
1	XA	1025	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	XA	1027	C
1	XA	1094	G
1	XA	1280	A
1	XA	1285	A
1	XA	1297	C
1	XA	1301	U
1	XA	1305	G
1	XA	1336	C
1	XA	1347	G
1	XA	1498	U
1	XA	1503	A
22	YA	27	G
22	YA	71	A
22	YA	99	U
22	YA	102	G
22	YA	195	A
22	YA	221	A
22	YA	222	A
22	YA	229	A
22	YA	242	G
22	YA	278	A
22	YA	372	G
22	YA	404	C
22	YA	503	A
22	YA	508	G
22	YA	532	A
22	YA	587	C
22	YA	637	A
22	YA	653	A
22	YA	654	A
22	YA	846	C
22	YA	856	C
22	YA	859	G
22	YA	896	A
22	YA	974	G
22	YA	974(A)	C
22	YA	1012	U
22	YA	1022	G
22	YA	1026	U
22	YA	1045	A
22	YA	1078	U
22	YA	1085	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	YA	1109	C
22	YA	1130	U
22	YA	1178	C
22	YA	1204	A
22	YA	1210	A
22	YA	1427	A
22	YA	1558	A
22	YA	1653	G
22	YA	1698	A
22	YA	1799	G
22	YA	1899	G
22	YA	1930	G
22	YA	1955	U
22	YA	1992	G
22	YA	2126	A
22	YA	2406	U
22	YA	2422	A
22	YA	2439	A
22	YA	2566	A
22	YA	2610	C
22	YA	2681	C
22	YA	2689	U
22	YA	2712	U
22	YA	2776	A
22	YA	2832	U
22	YA	2867	G
23	YB	66	A
53	QV	53	G
54	QX	6	G
53	XV	19	G
53	XV	53	G
53	XV	60	U
54	XX	3	G

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

2 non-standard protein/DNA/RNA residues are modelled in this entry.

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$
56	PPU	Z6	76	22,56	32,40,41	1.02	1 (3%)	33,57,60	2.06	10 (30%)
56	PPU	Z8	76	22,56	32,40,41	1.04	3 (9%)	33,57,60	1.67	8 (24%)

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
56	PPU	Z6	76	22,56	-	3/21/43/44	0/4/4/4
56	PPU	Z8	76	22,56	-	1/21/43/44	0/4/4/4

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	Z8	76	PPU	C2'-C3'	-2.48	1.49	1.53
56	Z6	76	PPU	C5-C4	2.41	1.47	1.40
56	Z8	76	PPU	C5-C4	2.15	1.46	1.40
56	Z8	76	PPU	C4-N3	-2.11	1.32	1.35

All (18) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	Z6	76	PPU	C3'-N3'-C	-5.98	114.20	123.21
56	Z6	76	PPU	N1-C6-N6	4.60	121.89	117.06
56	Z8	76	PPU	N1-C6-N6	4.54	121.83	117.06
56	Z6	76	PPU	C10-N6-C6	-3.29	109.56	119.51
56	Z6	76	PPU	CM-OC-CZ	3.24	124.55	117.51
56	Z8	76	PPU	O2'-C2'-C3'	-3.11	103.55	111.16
56	Z8	76	PPU	C3'-N3'-C	-3.01	118.67	123.21
56	Z6	76	PPU	CG-CB-CA	-2.81	108.28	114.13
56	Z8	76	PPU	C4-C5-N7	-2.76	106.53	109.40
56	Z8	76	PPU	C10-N6-C6	-2.63	111.56	119.51
56	Z6	76	PPU	N3-C2-N1	-2.61	124.60	128.68
56	Z6	76	PPU	C9-N6-C6	-2.55	111.81	119.51
56	Z6	76	PPU	C4-C5-N7	-2.47	106.83	109.40
56	Z6	76	PPU	O-C-N3'	-2.43	118.42	122.93
56	Z8	76	PPU	C9-N6-C6	-2.42	112.19	119.51

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	Z8	76	PPU	N3-C2-N1	-2.32	125.05	128.68
56	Z8	76	PPU	O4'-C4'-C3'	2.07	107.03	104.06
56	Z6	76	PPU	C10-N6-C9	-2.04	109.56	116.12

There are no chirality outliers.

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
56	Z6	76	PPU	CE1-CZ-OC-CM
56	Z6	76	PPU	CE2-CZ-OC-CM
56	Z8	76	PPU	C5-C6-N6-C9
56	Z6	76	PPU	C5-C6-N6-C9

There are no ring outliers.

1 monomer is involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	Z8	76	PPU	4	0

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 706 ligands modelled in this entry, 704 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
57	PAR	QA	1601	-	45,45,45	1.47	7 (15%)	64,67,67	1.38	9 (14%)
57	PAR	XA	1601	-	45,45,45	1.50	6 (13%)	64,67,67	1.34	5 (7%)

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
57	PAR	QA	1601	-	-	8/18/94/94	0/4/4/4
57	PAR	XA	1601	-	-	6/18/94/94	0/4/4/4

All (13) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	QA	1601	PAR	C64-C54	5.14	1.59	1.52
57	XA	1601	PAR	C64-C54	4.91	1.58	1.52
57	QA	1601	PAR	C52-C42	3.16	1.58	1.52
57	QA	1601	PAR	O54-C14	2.86	1.49	1.41
57	XA	1601	PAR	O54-C14	2.85	1.49	1.41
57	XA	1601	PAR	C11-C21	2.85	1.57	1.52
57	XA	1601	PAR	C52-C42	2.84	1.58	1.52
57	XA	1601	PAR	O51-C11	2.62	1.48	1.41
57	QA	1601	PAR	C11-C21	2.36	1.57	1.52
57	QA	1601	PAR	O51-C11	2.35	1.47	1.41
57	XA	1601	PAR	C14-C24	2.19	1.56	1.52
57	QA	1601	PAR	C14-C24	2.08	1.56	1.52
57	QA	1601	PAR	C31-C21	2.03	1.56	1.53

All (14) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	XA	1601	PAR	O33-C14-C24	4.73	116.37	108.22
57	XA	1601	PAR	C14-O54-C54	4.30	122.13	113.69
57	QA	1601	PAR	O52-C13-C23	3.82	115.89	107.96
57	QA	1601	PAR	C14-O54-C54	3.79	121.13	113.69
57	QA	1601	PAR	O33-C14-C24	3.76	114.69	108.22
57	XA	1601	PAR	O52-C13-C23	3.44	115.09	107.96
57	QA	1601	PAR	O11-C42-C32	-3.13	101.71	109.18
57	QA	1601	PAR	O11-C42-C52	3.10	115.34	107.48
57	QA	1601	PAR	O54-C54-C64	2.98	111.56	106.01
57	XA	1601	PAR	O54-C54-C64	2.87	111.35	106.01
57	XA	1601	PAR	C11-O51-C51	2.56	118.72	113.69
57	QA	1601	PAR	O54-C54-C44	-2.12	105.85	109.69
57	QA	1601	PAR	C22-C32-C42	2.07	114.77	109.53
57	QA	1601	PAR	O41-C41-C51	2.02	114.31	109.30

There are no chirality outliers.

All (14) torsion outliers are listed below:

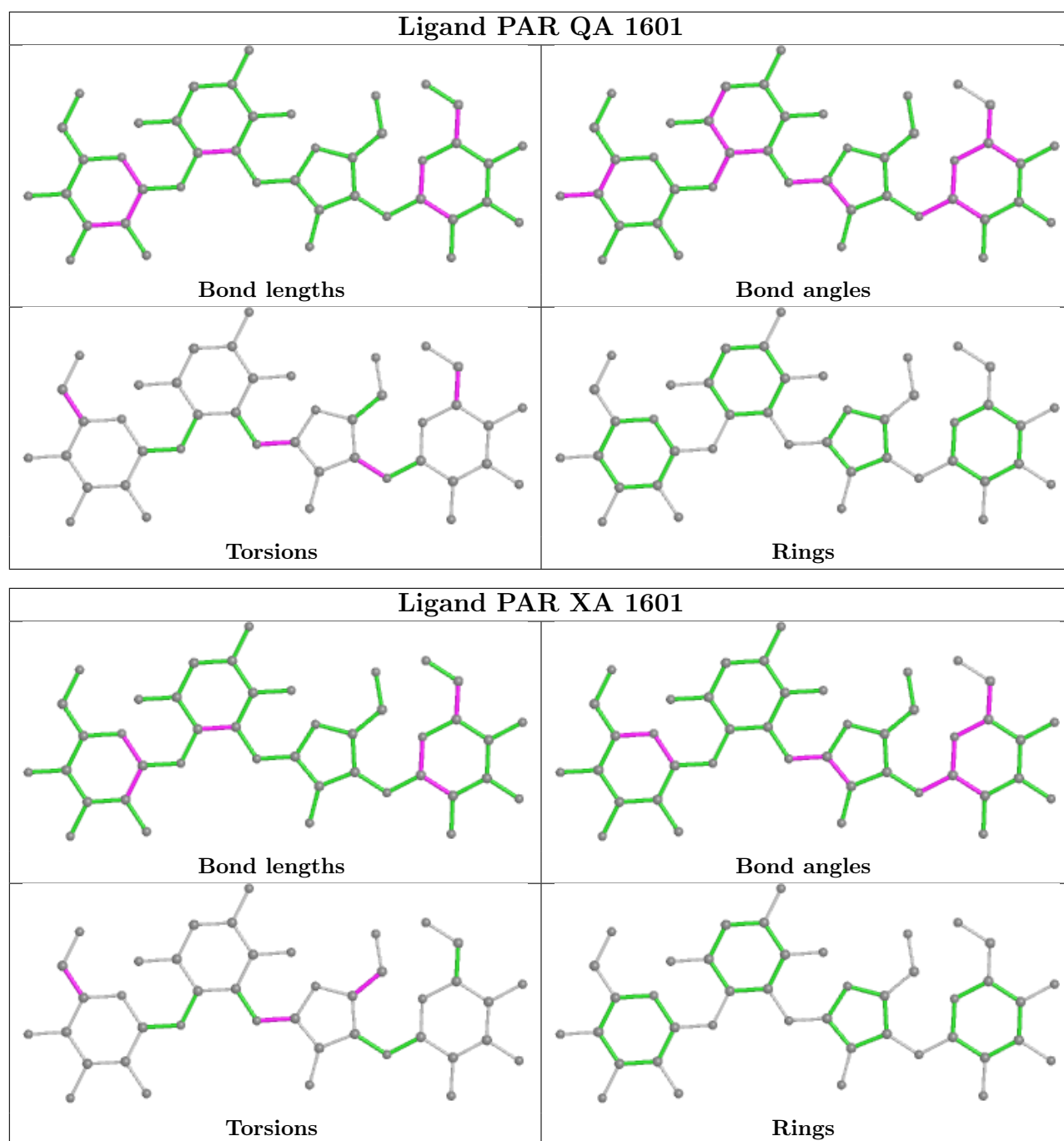
Mol	Chain	Res	Type	Atoms
57	QA	1601	PAR	C44-C54-C64-N64
57	QA	1601	PAR	O54-C54-C64-N64
57	QA	1601	PAR	O51-C51-C61-O61
57	XA	1601	PAR	O51-C51-C61-O61
57	QA	1601	PAR	C41-C51-C61-O61
57	XA	1601	PAR	C41-C51-C61-O61
57	XA	1601	PAR	C33-C43-C53-O53
57	QA	1601	PAR	O43-C13-O52-C52
57	XA	1601	PAR	O43-C13-O52-C52
57	XA	1601	PAR	O43-C43-C53-O53
57	QA	1601	PAR	C23-C13-O52-C52
57	XA	1601	PAR	C23-C13-O52-C52
57	QA	1601	PAR	C23-C33-O33-C14
57	QA	1601	PAR	C43-C33-O33-C14

There are no ring outliers.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	QA	1601	PAR	1	0
57	XA	1601	PAR	2	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	QA	1500/1522 (98%)	0.42	75 (5%) 28 20	28, 70, 146, 264	0
1	XA	1500/1522 (98%)	0.54	83 (5%) 25 17	18, 64, 151, 247	0
2	QB	237/256 (92%)	0.13	9 (3%) 40 28	48, 115, 166, 191	0
2	XB	237/256 (92%)	-0.23	1 (0%) 92 88	35, 98, 150, 194	0
3	QC	205/239 (85%)	0.52	10 (4%) 29 21	45, 105, 149, 166	0
3	XC	205/239 (85%)	0.15	2 (0%) 82 72	35, 78, 130, 168	0
4	QD	208/209 (99%)	0.46	10 (4%) 30 21	27, 79, 119, 169	0
4	XD	208/209 (99%)	0.30	4 (1%) 66 54	34, 75, 127, 151	0
5	QE	151/162 (93%)	0.45	7 (4%) 32 22	37, 88, 135, 167	0
5	XE	151/162 (93%)	0.29	3 (1%) 65 52	29, 65, 115, 148	0
6	QF	101/101 (100%)	-0.20	1 (0%) 82 72	21, 76, 112, 185	0
6	XF	101/101 (100%)	0.21	0 100 100	32, 72, 115, 153	0
7	QG	155/156 (99%)	0.57	22 (14%) 2 2	46, 96, 152, 185	0
7	XG	155/156 (99%)	0.31	9 (5%) 23 15	40, 87, 145, 167	0
8	QH	138/138 (100%)	0.29	2 (1%) 75 63	41, 90, 125, 153	0
8	XH	138/138 (100%)	0.27	3 (2%) 62 48	33, 72, 108, 149	0
9	QI	127/128 (99%)	1.38	35 (27%) 0 0	67, 109, 148, 172	0
9	XI	127/128 (99%)	0.65	15 (11%) 4 4	28, 99, 147, 164	0
10	QJ	99/105 (94%)	0.96	16 (16%) 1 1	59, 114, 165, 205	0
10	XJ	99/105 (94%)	0.90	16 (16%) 1 1	41, 103, 147, 171	0
11	QK	119/129 (92%)	0.54	7 (5%) 22 15	35, 79, 130, 177	0
11	XK	119/129 (92%)	0.68	6 (5%) 28 20	24, 71, 125, 182	0
12	QL	125/132 (94%)	1.06	15 (12%) 4 3	30, 70, 120, 182	0
12	XL	125/132 (94%)	0.91	23 (18%) 1 1	15, 58, 120, 182	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	QM	121/126 (96%)	1.20	30 (24%) 0 0	36, 106, 144, 196	0
13	XM	121/126 (96%)	0.53	11 (9%) 9 6	38, 88, 137, 187	0
14	QN	60/61 (98%)	2.07	30 (50%) 0 0	58, 97, 124, 142	0
14	XN	60/61 (98%)	1.09	9 (15%) 2 1	34, 75, 109, 125	0
15	QO	88/89 (98%)	0.01	0 100 100	30, 79, 123, 154	0
15	XO	88/89 (98%)	0.25	1 (1%) 80 70	28, 73, 108, 124	0
16	QP	84/88 (95%)	0.44	1 (1%) 79 68	35, 69, 107, 152	0
16	XP	84/88 (95%)	1.14	20 (23%) 0 0	34, 74, 129, 163	0
17	QQ	100/105 (95%)	1.01	14 (14%) 2 2	24, 83, 122, 140	0
17	XQ	100/105 (95%)	0.98	14 (14%) 2 2	39, 78, 113, 165	0
18	QR	70/88 (79%)	0.06	1 (1%) 75 63	26, 78, 137, 167	0
18	XR	70/88 (79%)	0.31	3 (4%) 35 25	24, 70, 120, 147	0
19	QS	84/93 (90%)	1.71	32 (38%) 0 0	68, 111, 151, 176	0
19	XS	84/93 (90%)	0.60	8 (9%) 8 5	32, 97, 148, 177	0
20	QT	99/106 (93%)	0.91	9 (9%) 9 6	34, 79, 133, 144	0
20	XT	99/106 (93%)	1.63	34 (34%) 0 0	44, 88, 140, 174	0
21	QU	25/27 (92%)	3.33	20 (80%) 0 0	36, 102, 144, 147	0
21	XU	25/27 (92%)	2.34	15 (60%) 0 0	67, 92, 119, 132	0
22	RA	2882/2916 (98%)	0.47	145 (5%) 28 20	14, 51, 198, 261	0
22	YA	2883/2916 (98%)	0.42	106 (3%) 41 29	8, 43, 187, 292	0
23	RB	120/122 (98%)	-0.05	1 (0%) 86 77	53, 81, 118, 144	0
23	YB	120/122 (98%)	-0.03	1 (0%) 86 77	36, 67, 98, 136	0
24	RD	272/276 (98%)	0.34	4 (1%) 73 62	9, 50, 100, 155	0
24	YD	272/276 (98%)	0.60	5 (1%) 68 56	2, 42, 86, 187	0
25	RE	205/206 (99%)	0.37	7 (3%) 45 33	17, 61, 126, 193	0
25	YE	205/206 (99%)	0.19	2 (0%) 82 72	3, 56, 124, 170	0
26	RF	202/210 (96%)	-0.04	0 100 100	9, 61, 124, 182	0
26	YF	202/210 (96%)	0.01	1 (0%) 91 85	10, 53, 113, 148	0
27	RG	181/182 (99%)	0.49	9 (4%) 28 20	42, 97, 145, 178	0
27	YG	181/182 (99%)	0.12	4 (2%) 62 48	40, 80, 130, 201	0
28	RH	170/180 (94%)	1.84	67 (39%) 0 0	67, 134, 177, 201	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	YH	170/180 (94%)	-0.05	1 (0%) 89 83	24, 76, 126, 177	0
29	RI	146/148 (98%)	0.05	3 (2%) 63 50	24, 87, 130, 181	0
29	YI	146/148 (98%)	-0.04	3 (2%) 63 50	19, 86, 127, 152	0
30	RN	138/140 (98%)	0.44	7 (5%) 28 19	29, 68, 121, 174	0
30	YN	138/140 (98%)	0.11	0 100 100	13, 56, 111, 173	0
31	RO	122/122 (100%)	0.53	3 (2%) 57 43	11, 55, 102, 158	0
31	YO	122/122 (100%)	0.90	11 (9%) 9 6	9, 51, 88, 123	0
32	RP	150/150 (100%)	0.63	11 (7%) 15 10	13, 69, 133, 176	0
32	YP	150/150 (100%)	0.41	5 (3%) 46 34	12, 61, 122, 182	0
33	RQ	141/141 (100%)	1.22	29 (20%) 1 0	29, 71, 124, 164	0
33	YQ	141/141 (100%)	0.43	4 (2%) 53 39	16, 56, 115, 152	0
34	RR	118/118 (100%)	0.43	4 (3%) 45 33	3, 55, 102, 136	0
34	YR	118/118 (100%)	0.77	5 (4%) 36 25	27, 57, 95, 140	0
35	RS	111/112 (99%)	0.66	10 (9%) 9 6	34, 80, 124, 162	0
35	YS	111/112 (99%)	0.17	2 (1%) 68 56	27, 72, 113, 138	0
36	RT	137/146 (93%)	0.53	7 (5%) 28 19	27, 67, 143, 169	0
36	YT	137/146 (93%)	0.53	4 (2%) 51 38	19, 65, 135, 172	0
37	RU	117/118 (99%)	0.21	2 (1%) 70 58	12, 62, 111, 167	0
37	YU	117/118 (99%)	0.36	2 (1%) 70 58	13, 45, 111, 172	0
38	RV	101/101 (100%)	0.03	2 (1%) 65 52	16, 78, 131, 186	0
38	YV	101/101 (100%)	0.34	3 (2%) 50 36	21, 68, 139, 214	0
39	RW	113/113 (100%)	0.29	1 (0%) 84 75	15, 47, 106, 158	0
39	YW	113/113 (100%)	0.27	2 (1%) 68 56	16, 46, 106, 168	0
40	RX	92/96 (95%)	0.34	0 100 100	17, 56, 103, 130	0
40	YX	92/96 (95%)	0.10	0 100 100	9, 42, 86, 138	0
41	RY	102/110 (92%)	0.41	1 (0%) 82 72	28, 86, 142, 176	0
41	YY	102/110 (92%)	0.09	1 (0%) 82 72	30, 73, 138, 185	0
42	RZ	183/206 (88%)	0.42	12 (6%) 18 11	45, 92, 141, 160	0
42	YZ	183/206 (88%)	-0.18	1 (0%) 91 85	21, 82, 136, 178	0
43	R0	82/85 (96%)	0.97	7 (8%) 10 8	9, 51, 88, 102	0
43	Y0	82/85 (96%)	0.34	0 100 100	20, 48, 73, 92	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	R1	97/98 (98%)	0.82	6 (6%) 20 13	13, 60, 144, 182	0
44	Y1	97/98 (98%)	1.05	11 (11%) 5 4	7, 53, 136, 172	0
45	R2	69/72 (95%)	-0.06	0 100 100	36, 77, 136, 164	0
45	Y2	69/72 (95%)	-0.06	0 100 100	18, 57, 116, 159	0
46	R3	59/60 (98%)	0.80	2 (3%) 45 33	33, 76, 118, 142	0
46	Y3	59/60 (98%)	0.03	1 (1%) 70 58	19, 57, 109, 169	0
47	R4	71/71 (100%)	0.87	12 (16%) 1 1	61, 142, 196, 236	0
47	Y4	71/71 (100%)	0.14	5 (7%) 16 10	58, 131, 182, 223	0
48	R5	59/60 (98%)	0.42	2 (3%) 45 33	12, 66, 149, 160	0
48	Y5	59/60 (98%)	0.85	8 (13%) 3 2	17, 64, 166, 185	0
49	R6	49/54 (90%)	4.49	44 (89%) 0 0	101, 159, 184, 200	0
49	Y6	49/54 (90%)	3.64	42 (85%) 0 0	95, 152, 182, 209	0
50	R7	49/49 (100%)	0.39	2 (4%) 37 26	11, 41, 95, 153	0
50	Y7	49/49 (100%)	0.42	4 (8%) 11 8	6, 33, 78, 135	0
51	R8	64/65 (98%)	0.83	6 (9%) 8 5	18, 59, 121, 163	0
51	Y8	64/65 (98%)	0.74	5 (7%) 13 9	16, 52, 108, 164	0
52	R9	37/37 (100%)	8.37	37 (100%) 0 0	92, 141, 184, 204	0
52	Y9	37/37 (100%)	5.96	37 (100%) 0 0	102, 132, 168, 182	0
53	QV	77/77 (100%)	-0.12	1 (1%) 77 66	35, 82, 137, 160	0
53	XV	77/77 (100%)	-0.07	1 (1%) 77 66	11, 71, 111, 159	0
54	QX	8/25 (32%)	0.84	0 100 100	44, 56, 107, 137	0
54	XX	8/25 (32%)	1.20	2 (25%) 0 0	37, 46, 104, 148	0
55	QY	8/17 (47%)	1.51	2 (25%) 0 0	62, 74, 124, 144	0
55	XY	8/17 (47%)	0.50	1 (12%) 3 3	54, 71, 109, 122	0
56	Z6	2/3 (66%)	0.82	0 100 100	45, 45, 45, 52	0
56	Z8	2/3 (66%)	1.45	0 100 100	30, 30, 30, 32	0
All	All	20861/21492 (97%)	0.50	1352 (6%) 18 12	2, 66, 150, 292	0

All (1352) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
52	R9	11	CYS	18.9
52	R9	37	GLY	15.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
52	R9	14	CYS	14.9
52	Y9	1	MET	14.0
52	R9	36	GLN	14.0
52	R9	12	ASP	12.9
11	XK	129	SER	12.3
22	YA	2105	C	12.1
22	RA	2146	C	11.6
49	R6	14	THR	11.5
52	R9	9	ARG	11.5
52	R9	15	LYS	11.2
52	Y9	34	GLN	11.1
49	R6	13	CYS	10.9
52	R9	16	VAL	10.4
52	R9	17	ILE	10.2
52	R9	13	LYS	10.1
49	Y6	26	ASN	9.5
22	RA	2145	C	9.5
22	RA	2159	G	9.4
52	R9	25	VAL	9.2
52	R9	34	GLN	9.1
52	R9	30	PRO	8.9
49	Y6	49	HIS	8.8
49	R6	50	ARG	8.6
22	RA	2121	G	8.5
49	Y6	53	LYS	8.5
52	R9	1	MET	8.4
52	Y9	21	GLY	8.4
52	Y9	36	GLN	8.4
49	Y6	42	TRP	8.1
52	R9	28	GLU	8.1
20	XT	9	ASN	8.0
22	YA	2141	G	8.0
28	RH	43	VAL	7.9
52	R9	32	HIS	7.9
52	R9	10	ILE	7.8
52	Y9	12	ASP	7.8
22	RA	2147	G	7.8
52	R9	26	ILE	7.8
22	RA	2148	G	7.7
52	R9	24	TYR	7.7
22	YA	2188	C	7.7
52	R9	22	ARG	7.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	QG	82	GLY	7.6
52	R9	2	LYS	7.5
52	Y9	32	HIS	7.5
47	R4	71	ARG	7.5
49	R6	49	HIS	7.4
22	RA	2144	U	7.3
47	R4	68	ARG	7.3
52	Y9	24	TYR	7.3
11	QK	129	SER	7.2
7	QG	78	ARG	7.2
52	Y9	7	VAL	7.2
11	QK	11	LYS	7.2
47	R4	49	PHE	7.1
22	RA	2112	G	7.1
49	R6	20	ASN	7.0
47	R4	69	LYS	7.0
52	Y9	29	ASN	7.0
22	YA	2108	C	7.0
52	Y9	6	SER	7.0
44	Y1	97	LEU	6.9
44	Y1	96	LYS	6.9
22	RA	2160	G	6.9
52	Y9	9	ARG	6.9
22	RA	2142	C	6.9
22	YA	2166	G	6.9
52	R9	33	LYS	6.9
22	YA	2142	C	6.8
13	QM	101	GLN	6.8
22	RA	2141	G	6.8
52	Y9	25	VAL	6.7
49	R6	25	LYS	6.7
9	QI	110	GLU	6.7
32	RP	150	ALA	6.6
22	RA	2139	C	6.6
22	YA	2179	C	6.6
49	R6	43	CYS	6.6
22	RA	2136	C	6.6
18	QR	88	LYS	6.6
22	RA	2179	C	6.6
49	R6	42	TRP	6.5
13	QM	102	ARG	6.5
52	R9	20	HIS	6.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
52	Y9	10	ILE	6.5
52	R9	3	VAL	6.5
11	XK	12	ARG	6.4
52	R9	29	ASN	6.4
22	YA	2107	C	6.4
28	RH	89	ILE	6.4
7	QG	79	ARG	6.3
52	R9	4	ARG	6.3
22	YA	2146	C	6.3
44	R1	98	LEU	6.3
52	R9	23	VAL	6.3
22	RA	2135	A	6.3
21	XU	15	ARG	6.2
52	Y9	8	LYS	6.2
49	R6	29	ASN	6.2
10	QJ	64	GLU	6.2
13	QM	122	LYS	6.1
52	R9	35	ARG	6.1
48	Y5	2	ALA	6.1
24	YD	26	LYS	6.0
49	R6	24	GLU	6.0
21	QU	26	LYS	6.0
22	YA	2106	G	6.0
22	YA	2116	G	6.0
52	Y9	5	ALA	6.0
12	QL	128	ALA	6.0
38	YV	36	PRO	6.0
12	QL	129	ALA	6.0
52	Y9	26	ILE	5.9
13	QM	6	GLY	5.9
22	RA	1100	C	5.9
22	RA	2156	G	5.9
52	R9	19	ARG	5.9
13	QM	7	VAL	5.9
22	RA	2166	G	5.9
22	RA	2155	G	5.9
52	Y9	35	ARG	5.9
52	R9	18	ARG	5.8
52	R9	27	CYS	5.8
22	RA	2167	U	5.8
52	Y9	4	ARG	5.8
22	RA	2168	G	5.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
44	Y1	98	LEU	5.8
42	RZ	113	ALA	5.8
22	RA	1093	G	5.8
22	YA	2121	G	5.8
49	R6	12	GLU	5.7
49	Y6	13	CYS	5.7
22	RA	2143	C	5.7
22	YA	2804	C	5.7
47	R4	67	TYR	5.7
47	Y4	69	LYS	5.7
52	Y9	33	LYS	5.7
52	R9	7	VAL	5.7
22	RA	1092	C	5.7
49	Y6	37	ARG	5.6
22	YA	2140	C	5.6
52	Y9	14	CYS	5.6
22	RA	1103	A	5.6
49	R6	21	TYR	5.5
11	XK	11	LYS	5.5
49	R6	36	LEU	5.5
52	Y9	28	GLU	5.5
22	RA	2154	G	5.5
22	YA	2104	G	5.5
47	R4	66	SER	5.5
49	Y6	18	ARG	5.5
37	YU	118	GLY	5.5
22	YA	2145	C	5.4
28	RH	88	LEU	5.4
22	RA	2158	A	5.4
22	YA	2113	U	5.4
49	R6	41	PRO	5.4
22	RA	2116	G	5.4
12	XL	19	ARG	5.3
7	XG	78	ARG	5.3
49	R6	52	VAL	5.3
11	QK	128	ALA	5.3
10	QJ	46	ARG	5.3
52	Y9	22	ARG	5.2
13	QM	103	THR	5.2
22	RA	1095	A	5.2
22	YA	2153	G	5.2
49	R6	7	ILE	5.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	XM	94	ARG	5.2
28	RH	24	VAL	5.2
22	RA	2797	U	5.2
14	QN	31	ARG	5.2
52	Y9	37	GLY	5.2
49	R6	34	LEU	5.2
22	RA	1099	G	5.2
52	R9	5	ALA	5.2
50	Y7	48	LYS	5.2
52	Y9	15	LYS	5.1
49	R6	40	CYS	5.1
27	RG	138	GLN	5.1
49	Y6	48	VAL	5.1
49	Y6	43	CYS	5.1
52	Y9	2	LYS	5.1
52	Y9	23	VAL	5.1
22	YA	2143	C	5.1
28	RH	29	PRO	5.1
52	R9	6	SER	5.1
22	RA	1082	U	5.1
47	R4	70	GLY	5.0
22	RA	2120	G	5.0
13	QM	121	LYS	5.0
13	QM	88	ARG	5.0
52	Y9	16	VAL	5.0
22	RA	2111	C	5.0
13	QM	97	PRO	5.0
28	RH	141	VAL	5.0
20	XT	18	GLN	5.0
49	R6	6	ARG	4.9
22	RA	1104	C	4.9
22	RA	2175	C	4.9
22	RA	2178	C	4.9
22	YA	2144	U	4.9
44	R1	96	LYS	4.9
48	R5	2	ALA	4.9
49	R6	27	LYS	4.9
20	XT	70	SER	4.9
52	Y9	27	CYS	4.9
22	RA	2138	C	4.9
22	RA	1096	A	4.9
22	RA	2109	U	4.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	YA	2109	U	4.8
1	QA	1286	A	4.8
10	QJ	45	ARG	4.8
22	RA	2123	G	4.8
22	RA	2140	C	4.8
22	RA	1083	U	4.8
22	YA	2180	U	4.8
14	QN	39	LEU	4.8
34	YR	69	ASP	4.8
49	R6	9	LEU	4.8
22	RA	2799	A	4.8
21	QU	16	GLY	4.7
22	YA	887	A	4.7
28	RH	81	GLU	4.7
22	YA	2161	C	4.7
12	QL	28	LYS	4.7
20	XT	8	ARG	4.7
22	YA	2138	C	4.7
22	YA	2118	U	4.7
38	YV	101	GLY	4.6
42	YZ	113	ALA	4.6
11	QK	127	LYS	4.6
21	QU	15	ARG	4.6
52	Y9	11	CYS	4.6
13	QM	92	HIS	4.6
22	RA	2165	G	4.6
1	QA	1451	A	4.6
9	QI	127	LYS	4.6
22	RA	2115	G	4.6
21	QU	6	ARG	4.6
19	QS	71	LEU	4.6
16	XP	1	MET	4.6
22	RA	1094	U	4.6
22	RA	2169	A	4.6
44	R1	97	LEU	4.6
12	XL	129	ALA	4.6
32	RP	149	GLU	4.6
22	YA	2122	U	4.6
22	YA	2139	C	4.5
12	QL	127	GLU	4.5
21	XU	26	LYS	4.5
19	QS	85	LYS	4.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	QI	128	ARG	4.5
47	Y4	68	ARG	4.5
22	RA	2114	A	4.5
28	RH	112	PRO	4.5
7	XG	5	ARG	4.5
22	YA	2120	G	4.5
52	R9	21	GLY	4.5
22	YA	2137	C	4.5
49	Y6	12	GLU	4.5
1	XA	106	C	4.5
33	RQ	80	GLU	4.5
49	R6	37	ARG	4.5
22	RA	889	C	4.5
21	QU	24	ARG	4.4
7	QG	32	ARG	4.4
22	YA	2110	G	4.4
22	RA	1057	A	4.4
20	XT	16	HIS	4.4
14	QN	34	TYR	4.4
22	YA	2103	C	4.4
12	XL	28	LYS	4.4
20	XT	19	SER	4.4
22	RA	2122	U	4.4
14	QN	35	ARG	4.4
49	Y6	22	ALA	4.4
16	XP	35	LYS	4.4
22	RA	2110	G	4.4
49	R6	26	ASN	4.4
20	XT	72	LEU	4.4
22	RA	2129	C	4.4
49	R6	8	LYS	4.4
1	XA	1451	A	4.3
49	Y6	52	VAL	4.3
49	Y6	47	THR	4.3
25	YE	205	ALA	4.3
9	QI	111	ARG	4.3
52	Y9	17	ILE	4.3
44	Y1	93	GLU	4.3
33	RQ	32	TYR	4.3
32	YP	13	ASN	4.3
49	R6	46	HIS	4.3
49	Y6	36	LEU	4.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
48	Y5	54	GLY	4.3
9	QI	10	ARG	4.3
49	R6	22	ALA	4.3
52	Y9	30	PRO	4.3
22	RA	2170	A	4.2
13	QM	120	LYS	4.2
9	QI	36	TYR	4.2
1	XA	63	C	4.2
20	QT	26	ASN	4.2
49	Y6	38	LYS	4.2
9	QI	124	GLN	4.2
49	R6	53	LYS	4.2
52	Y9	13	LYS	4.2
49	Y6	29	ASN	4.2
35	YS	2	ALA	4.2
14	QN	38	GLY	4.2
21	QU	25	LYS	4.2
19	QS	35	SER	4.2
21	QU	2	GLY	4.2
22	RA	1084	A	4.1
22	RA	2125	G	4.1
22	RA	1061	U	4.1
1	XA	208	U	4.1
10	QJ	65	LEU	4.1
1	XA	108	G	4.1
28	RH	105	LEU	4.1
46	R3	60	GLU	4.1
22	RA	2108	C	4.1
28	YH	3	ARG	4.1
12	XL	21	LYS	4.1
28	RH	35	VAL	4.1
49	Y6	25	LYS	4.0
4	QD	49	ARG	4.0
4	XD	209	ARG	4.0
21	QU	17	THR	4.0
29	RI	12	LEU	4.0
1	XA	328	C	4.0
22	YA	2162	G	4.0
22	YA	2189	U	4.0
49	Y6	20	ASN	4.0
49	R6	11	LEU	4.0
22	RA	2157	G	4.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	QS	15	LEU	4.0
32	RP	79	ARG	4.0
19	QS	36	ARG	4.0
51	R8	65	GLU	4.0
9	XI	8	GLY	4.0
33	RQ	66	ILE	4.0
22	YA	2149	G	4.0
49	Y6	14	THR	4.0
37	RU	118	GLY	4.0
42	RZ	114	GLY	4.0
14	XN	2	ALA	4.0
50	R7	49	ARG	3.9
21	QU	23	PRO	3.9
51	R8	64	TYR	3.9
22	YA	2112	G	3.9
22	RA	1098	A	3.9
50	Y7	49	ARG	3.9
10	XJ	59	SER	3.9
25	RE	143	ASN	3.9
12	QL	19	ARG	3.9
22	RA	1058	G	3.9
14	QN	2	ALA	3.9
21	QU	10	ARG	3.9
52	Y9	20	HIS	3.9
16	XP	29	ASP	3.9
28	RH	96	ALA	3.9
9	QI	65	VAL	3.9
1	XA	111	G	3.9
28	RH	90	LYS	3.9
22	RA	2104	G	3.8
12	XL	128	ALA	3.8
22	RA	1102	C	3.8
22	RA	2137	C	3.8
53	QV	1	C	3.8
9	XI	128	ARG	3.8
1	QA	108	G	3.8
22	RA	1059	G	3.8
36	YT	104	ASN	3.8
22	RA	1085	A	3.8
11	XK	128	ALA	3.8
49	R6	32	ASN	3.8
16	XP	25	ARG	3.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
31	YO	80	ASP	3.8
49	R6	39	TYR	3.8
7	QG	156	TRP	3.8
22	RA	2133	G	3.8
21	QU	22	ARG	3.8
19	QS	2	PRO	3.8
22	RA	1177	A	3.8
43	R0	2	ALA	3.8
54	XX	8	A	3.7
20	QT	22	ARG	3.7
22	YA	2187	G	3.7
3	QC	193	TYR	3.7
28	RH	84	SER	3.7
19	QS	79	THR	3.7
12	XL	18	VAL	3.7
19	QS	53	ASN	3.7
14	QN	26	ARG	3.7
14	QN	37	PHE	3.7
22	RA	2117	A	3.7
20	XT	27	LYS	3.7
52	R9	31	LYS	3.7
10	XJ	60	ARG	3.7
33	RQ	63	LYS	3.7
49	Y6	51	GLU	3.7
27	RG	75	LYS	3.7
12	XL	9	GLN	3.7
22	RA	2118	U	3.7
33	RQ	112	GLU	3.7
7	QG	81	GLY	3.7
19	QS	39	THR	3.7
49	R6	23	THR	3.7
22	YA	2133	G	3.7
22	YA	2147	G	3.7
28	RH	109	PHE	3.7
10	XJ	5	ARG	3.6
28	RH	97	ARG	3.6
1	XA	135	C	3.6
13	XM	100	GLY	3.6
16	XP	7	ALA	3.6
22	RA	1176	G	3.6
42	RZ	112	ARG	3.6
1	XA	134	A	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
27	RG	152	LEU	3.6
7	XG	153	HIS	3.6
21	QU	13	ILE	3.6
19	QS	69	HIS	3.6
21	QU	14	TRP	3.6
22	YA	2154	G	3.6
1	XA	1531	A	3.6
49	R6	5	VAL	3.6
22	YA	2167	U	3.6
20	XT	106	ALA	3.6
31	RO	1	MET	3.6
3	QC	190	ARG	3.6
22	YA	2165	G	3.6
49	Y6	30	THR	3.6
1	QA	1224	G	3.5
9	XI	126	SER	3.5
49	R6	30	THR	3.5
21	XU	2	GLY	3.5
1	QA	1354	C	3.5
10	XJ	64	GLU	3.5
22	RA	887	A	3.5
22	RA	1068	G	3.5
28	RH	103	LEU	3.5
28	RH	104	GLU	3.5
49	Y6	19	ARG	3.5
1	QA	1531	A	3.5
22	RA	1056	G	3.5
22	RA	1053	C	3.5
21	QU	5	ASP	3.5
1	QA	1251	A	3.5
21	QU	18	TYR	3.5
22	RA	2107	C	3.5
7	QG	5	ARG	3.5
20	XT	24	LEU	3.5
20	XT	69	GLY	3.5
37	YU	117	GLN	3.5
25	RE	205	ALA	3.5
35	RS	2	ALA	3.5
22	RA	1101	U	3.5
48	Y5	59	GLU	3.5
27	RG	182	LYS	3.5
43	R0	42	GLY	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
14	QN	61	TRP	3.5
49	R6	51	GLU	3.5
22	RA	2128	C	3.4
29	YI	117	GLU	3.4
47	Y4	70	GLY	3.4
33	RQ	104	PHE	3.4
48	Y5	60	VAL	3.4
11	QK	13	GLN	3.4
9	QI	109	VAL	3.4
9	QI	117	HIS	3.4
44	Y1	92	LYS	3.4
49	R6	31	PRO	3.4
11	QK	12	ARG	3.4
28	RH	159	GLU	3.4
49	R6	33	LYS	3.4
28	RH	52	VAL	3.4
1	QA	1348	U	3.4
10	QJ	48	THR	3.4
36	RT	106	SER	3.4
10	QJ	55	LYS	3.4
46	Y3	60	GLU	3.4
49	Y6	39	TYR	3.4
10	XJ	47	PHE	3.4
2	QB	133	LYS	3.4
9	QI	119	ALA	3.4
1	QA	131	C	3.4
20	XT	21	LYS	3.3
27	RG	137	GLU	3.3
22	YA	2124	G	3.3
10	QJ	62	HIS	3.3
38	YV	45	THR	3.3
52	Y9	31	LYS	3.3
14	QN	23	ARG	3.3
29	YI	12	LEU	3.3
7	QG	33	ASP	3.3
28	RH	95	ARG	3.3
33	RQ	6	ARG	3.3
9	QI	70	LYS	3.3
10	QJ	47	PHE	3.3
1	XA	107	G	3.3
14	QN	41	ARG	3.3
49	R6	47	THR	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
17	XQ	36	ILE	3.3
20	XT	17	ARG	3.3
12	XL	64	TYR	3.3
33	RQ	91	GLU	3.3
49	Y6	15	GLU	3.3
7	XG	79	ARG	3.3
28	RH	85	LYS	3.3
49	Y6	16	CYS	3.3
10	XJ	58	ASP	3.3
22	RA	1026	U	3.3
22	RA	2795	G	3.3
28	RH	94	TYR	3.3
1	QA	1226	C	3.3
43	R0	41	ARG	3.3
8	XH	3	THR	3.3
5	QE	24	ARG	3.3
21	XU	14	TRP	3.2
20	XT	75	ASN	3.2
28	RH	152	ARG	3.2
33	RQ	99	PRO	3.2
47	Y4	67	TYR	3.2
10	QJ	67	THR	3.2
9	QI	66	ARG	3.2
16	XP	67	THR	3.2
10	XJ	57	LYS	3.2
4	XD	134	ASP	3.2
1	XA	1529	G	3.2
22	RA	1060	U	3.2
22	YA	2181	G	3.2
28	RH	169	VAL	3.2
1	XA	105	G	3.2
22	YA	2125	G	3.2
10	QJ	54	PHE	3.2
12	QL	95	GLY	3.2
1	QA	947	G	3.2
1	XA	324	G	3.2
22	RA	2319	G	3.2
22	YA	2795	G	3.2
1	QA	1363	A	3.2
28	RH	106	THR	3.2
12	XL	20	LYS	3.2
22	YA	2136	C	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
28	RH	115	VAL	3.2
22	RA	1089	G	3.1
22	YA	2155	G	3.1
9	QI	64	THR	3.1
13	XM	102	ARG	3.1
13	XM	97	PRO	3.1
21	XU	16	GLY	3.1
34	YR	72	ASP	3.1
22	RA	2134	A	3.1
22	YA	2801	A	3.1
22	YA	2175	C	3.1
52	R9	8	LYS	3.1
9	XI	106	ALA	3.1
22	RA	1066	U	3.1
22	YA	1177	A	3.1
22	RA	2182	G	3.1
49	Y6	46	HIS	3.1
22	YA	2117	A	3.1
47	Y4	71	ARG	3.1
13	QM	96	LEU	3.1
22	RA	2176	A	3.1
22	RA	2124	G	3.1
34	RR	69	ASP	3.1
5	XE	21	ALA	3.1
22	RA	2793	G	3.1
22	YA	2123	G	3.1
15	XO	89	GLY	3.1
9	QI	116	LYS	3.1
1	XA	110	C	3.1
14	QN	6	LEU	3.1
5	QE	13	ILE	3.1
22	RA	1087	G	3.1
28	RH	148	ILE	3.1
49	Y6	23	THR	3.1
33	RQ	1	MET	3.1
20	QT	9	ASN	3.1
20	QT	80	ARG	3.0
49	Y6	50	ARG	3.0
29	RI	1	MET	3.0
31	YO	81	ASP	3.0
1	QA	1307	U	3.0
13	QM	91	ARG	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
17	QQ	4	LYS	3.0
20	QT	21	LYS	3.0
33	RQ	103	MET	3.0
7	XG	156	TRP	3.0
22	YA	2114	A	3.0
28	RH	108	GLY	3.0
1	QA	1202	G	3.0
22	RA	1125	G	3.0
1	QA	1362	C	3.0
14	QN	32	SER	3.0
28	RH	145	ALA	3.0
1	QA	948	C	3.0
7	QG	4	ARG	3.0
27	RG	89	GLY	3.0
1	QA	975	A	3.0
10	XJ	61	GLU	3.0
1	XA	378	G	3.0
7	XG	34	GLY	3.0
20	XT	73	HIS	3.0
47	R4	47	GLN	3.0
49	Y6	33	LYS	3.0
49	Y6	35	GLU	3.0
21	QU	21	TYR	3.0
32	RP	108	LYS	3.0
22	YA	2168	G	3.0
28	RH	25	LYS	3.0
13	QM	108	ARG	3.0
1	QA	1257	U	3.0
1	XA	1365	G	3.0
1	XA	1450	U	3.0
9	QI	125	TYR	3.0
19	QS	33	THR	3.0
22	RA	1097	U	3.0
20	XT	55	ILE	3.0
31	YO	1	MET	3.0
9	QI	13	ALA	3.0
20	XT	22	ARG	3.0
22	RA	2105	C	3.0
1	QA	1032	A	3.0
48	Y5	55	ARG	3.0
22	YA	888	C	2.9
1	QA	973	G	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
14	XN	19	ARG	2.9
20	XT	79	ARG	2.9
33	RQ	5	ARG	2.9
1	QA	328	C	2.9
36	YT	106	SER	2.9
28	RH	98	LEU	2.9
19	QS	80	TYR	2.9
16	XP	27	LYS	2.9
28	RH	48	GLY	2.9
33	RQ	12	GLN	2.9
22	RA	2127	G	2.9
13	QM	99	ARG	2.9
34	YR	14	SER	2.9
1	XA	975	A	2.9
1	QA	1220	G	2.9
1	XA	103	C	2.9
1	XA	87	A	2.9
4	QD	50	ARG	2.9
20	XT	80	ARG	2.9
32	RP	13	ASN	2.9
19	QS	70	LYS	2.9
20	QT	72	LEU	2.9
28	RH	100	GLY	2.9
48	R5	54	GLY	2.9
1	XA	312	C	2.9
1	XA	1286	A	2.9
20	XT	28	ALA	2.9
1	QA	1221	G	2.9
22	YA	2805	G	2.9
2	XB	133	LYS	2.9
23	YB	1	U	2.9
9	QI	9	ARG	2.9
22	YA	2799	A	2.9
33	RQ	133	ARG	2.9
14	QN	25	VAL	2.9
19	QS	67	VAL	2.9
17	QQ	101	ARG	2.9
1	XA	1361	G	2.9
9	XI	105	ASP	2.9
12	XL	8	ASN	2.9
20	XT	14	LYS	2.8
1	XA	325	A	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
14	QN	29	ARG	2.8
1	XA	102	G	2.8
16	XP	4	ILE	2.8
2	QB	165	VAL	2.8
25	YE	204	ALA	2.8
16	XP	28	ARG	2.8
20	XT	26	ASN	2.8
10	XJ	65	LEU	2.8
22	YA	2148	G	2.8
22	YA	2160	G	2.8
30	RN	10	GLU	2.8
31	YO	82	ASN	2.8
1	QA	1249	C	2.8
20	XT	23	ARG	2.8
13	QM	78	ILE	2.8
22	YA	2697	G	2.8
13	QM	106	ASN	2.8
20	XT	71	THR	2.8
1	QA	1450	U	2.8
1	XA	104	G	2.8
19	QS	83	HIS	2.8
22	RA	2171	A	2.8
48	Y5	58	LEU	2.8
3	QC	194	GLY	2.8
22	YA	2185	C	2.8
22	YA	2798	C	2.8
1	QA	1324	A	2.8
1	XA	313	A	2.8
43	R0	5	LYS	2.8
10	XJ	46	ARG	2.8
12	XL	63	GLY	2.8
32	YP	149	GLU	2.8
49	Y6	44	ARG	2.8
52	Y9	3	VAL	2.8
13	XM	96	LEU	2.8
19	QS	73	GLU	2.8
52	Y9	18	ARG	2.8
7	QG	153	HIS	2.8
19	QS	12	ASP	2.8
21	QU	9	ARG	2.8
33	YQ	80	GLU	2.8
14	QN	17	LYS	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	QS	77	THR	2.8
39	YW	113	LYS	2.8
1	QA	1353	G	2.8
22	YA	2159	G	2.8
9	QI	123	PRO	2.8
28	RH	49	VAL	2.8
1	XA	210	U	2.8
36	RT	1	MET	2.8
20	QT	25	ARG	2.7
28	RH	162	ILE	2.7
22	YA	2186	G	2.7
13	XM	98	VAL	2.7
1	QA	1357	A	2.7
28	RH	42	ARG	2.7
16	XP	24	ALA	2.7
17	XQ	98	LEU	2.7
42	RZ	155	LEU	2.7
22	YA	1536	A	2.7
28	RH	10	PRO	2.7
9	QI	121	ARG	2.7
13	QM	81	LEU	2.7
19	XS	76	PRO	2.7
22	RA	1088	A	2.7
8	QH	1	MET	2.7
32	YP	16	ARG	2.7
49	R6	18	ARG	2.7
4	QD	24	GLU	2.7
22	RA	1055	G	2.7
22	RA	2334	G	2.7
22	YA	2174	C	2.7
28	RH	164	TYR	2.7
10	QJ	66	ARG	2.7
28	RH	170	ARG	2.7
12	QL	68	ALA	2.7
1	XA	1257	U	2.7
10	QJ	63	PHE	2.7
49	Y6	8	LYS	2.7
28	RH	144	VAL	2.7
22	YA	2129	C	2.7
1	QA	978	A	2.7
33	YQ	91	GLU	2.7
5	QE	125	SER	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
12	QL	29	GLY	2.7
21	QU	7	ARG	2.7
28	RH	3	ARG	2.7
42	RZ	150	LEU	2.7
1	XA	136	C	2.7
17	XQ	45	HIS	2.7
25	RE	54	GLN	2.7
49	Y6	34	LEU	2.7
17	QQ	22	LEU	2.7
22	RA	2161	C	2.7
1	QA	378	G	2.7
13	QM	80	ARG	2.7
14	QN	19	ARG	2.7
18	XR	88	LYS	2.7
22	YA	2131	G	2.7
22	YA	2152	G	2.7
13	QM	119	GLY	2.7
44	Y1	16	ASN	2.7
12	QL	17	LYS	2.7
49	R6	48	VAL	2.7
14	XN	17	LYS	2.7
13	QM	104	ARG	2.6
49	Y6	41	PRO	2.6
1	QA	995	C	2.6
1	XA	311	C	2.6
42	RZ	169	GLU	2.6
47	R4	51	ASP	2.6
22	RA	2318	G	2.6
22	YA	2169	A	2.6
31	YO	65	THR	2.6
4	QD	169	LYS	2.6
28	RH	41	MET	2.6
19	QS	10	PHE	2.6
19	XS	74	PHE	2.6
20	XT	42	GLN	2.6
33	RQ	36	ALA	2.6
36	YT	51	ARG	2.6
1	XA	1354	C	2.6
3	QC	62	ASP	2.6
12	XL	127	GLU	2.6
12	XL	15	ARG	2.6
55	QY	40	G	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	QI	115	GLY	2.6
1	XA	1437	C	2.6
33	RQ	102	VAL	2.6
4	QD	209	ARG	2.6
14	QN	7	ILE	2.6
3	XC	26	LYS	2.6
1	QA	310	G	2.6
14	QN	36	PHE	2.6
24	YD	50	THR	2.6
16	XP	31	LYS	2.6
7	QG	85	TYR	2.6
1	QA	1358	U	2.6
1	XA	1436	U	2.6
9	XI	127	LYS	2.6
14	QN	13	THR	2.6
14	QN	33	VAL	2.6
1	XA	1202	G	2.6
17	QQ	71	PHE	2.6
49	Y6	9	LEU	2.6
1	XA	327	A	2.6
13	QM	111	LYS	2.6
32	RP	35	HIS	2.6
9	QI	31	GLN	2.6
31	YO	45	GLU	2.6
14	QN	11	LYS	2.6
14	QN	55	GLY	2.6
31	YO	66	LYS	2.6
36	RT	2	ASN	2.6
22	RA	2131	G	2.6
22	YA	529	A	2.6
22	YA	1762	A	2.6
50	R7	48	LYS	2.6
17	QQ	68	ARG	2.6
1	XA	1368	G	2.6
22	RA	1067	A	2.6
22	YA	669	G	2.6
27	YG	84	LYS	2.6
7	QG	80	VAL	2.6
41	YY	103	GLY	2.6
19	QS	38	SER	2.6
44	Y1	95	LEU	2.5
6	QF	101	ALA	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	QS	32	LYS	2.5
4	XD	156	GLU	2.5
5	XE	81	GLU	2.5
51	Y8	64	TYR	2.5
13	XM	104	ARG	2.5
21	XU	11	GLY	2.5
17	QQ	60	ILE	2.5
28	RH	111	HIS	2.5
49	Y6	40	CYS	2.5
21	XU	3	LYS	2.5
49	Y6	17	LYS	2.5
19	QS	11	VAL	2.5
20	XT	64	ASP	2.5
35	RS	33	LYS	2.5
22	RA	888	C	2.5
22	RA	2173	A	2.5
22	YA	2173	A	2.5
51	Y8	2	PRO	2.5
28	RH	87	LEU	2.5
16	XP	2	VAL	2.5
8	XH	1	MET	2.5
14	XN	12	ARG	2.5
51	R8	21	LYS	2.5
1	QA	1287	A	2.5
3	QC	87	LEU	2.5
22	RA	1086	A	2.5
3	XC	30	ARG	2.5
1	QA	31	G	2.5
44	R1	65	SER	2.5
8	QH	86	ILE	2.5
12	QL	64	TYR	2.5
1	XA	1362(A)	C	2.5
32	RP	106	LEU	2.5
2	QB	96	ARG	2.5
1	QA	322	C	2.5
1	QA	1234	C	2.5
20	XT	58	LYS	2.5
28	RH	86	GLU	2.5
53	XV	1	C	2.5
1	XA	1530	G	2.5
39	RW	94	ASP	2.5
1	QA	1369	C	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
51	R8	63	PRO	2.5
16	XP	20	VAL	2.5
26	YF	69	HIS	2.5
13	XM	122	LYS	2.5
17	XQ	7	THR	2.5
17	XQ	16	GLN	2.5
22	RA	2321	G	2.5
32	RP	81	GLN	2.5
21	XU	22	ARG	2.5
22	YA	2163	C	2.5
36	RT	115	ARG	2.5
7	XG	85	TYR	2.5
5	QE	10	MET	2.5
5	XE	134	ALA	2.5
24	RD	55	GLY	2.5
12	XL	91	LYS	2.5
1	XA	972	C	2.4
22	RA	2174	C	2.4
22	RA	2755	C	2.4
22	YA	1836	C	2.4
13	QM	110	ARG	2.4
20	XT	87	LYS	2.4
37	RU	117	GLN	2.4
1	QA	1225	A	2.4
17	XQ	37	LYS	2.4
5	QE	94	ALA	2.4
14	QN	5	ALA	2.4
19	QS	74	PHE	2.4
20	XT	15	ARG	2.4
43	R0	37	LEU	2.4
16	XP	68	ASP	2.4
22	RA	2180	U	2.4
1	QA	1365	G	2.4
1	XA	1224	G	2.4
22	RA	1030	G	2.4
9	XI	120	ARG	2.4
28	RH	107	VAL	2.4
30	RN	83	LYS	2.4
35	RS	20	ARG	2.4
42	RZ	78	LYS	2.4
49	Y6	6	ARG	2.4
19	XS	38	SER	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	QG	16	LEU	2.4
52	Y9	19	ARG	2.4
17	QQ	8	GLY	2.4
1	QA	1309	G	2.4
1	XA	306	G	2.4
1	XA	1222	G	2.4
14	QN	15	LYS	2.4
17	QQ	40	LYS	2.4
14	QN	8	GLU	2.4
22	RA	2189	U	2.4
27	RG	2	PRO	2.4
33	YQ	141	GLN	2.4
9	QI	27	THR	2.4
22	RA	1064	C	2.4
1	QA	1233	G	2.4
1	XA	64	G	2.4
14	XN	59	ALA	2.4
17	XQ	17	LYS	2.4
20	XT	25	ARG	2.4
25	RE	149	ARG	2.4
30	RN	84	LYS	2.4
44	Y1	42	GLN	2.4
13	QM	84	ILE	2.4
22	RA	1536	A	2.4
36	YT	109	GLU	2.4
1	QA	966	G	2.4
1	XA	1438	G	2.4
7	XG	33	ASP	2.4
9	QI	126	SER	2.4
22	RA	2149	G	2.4
28	RH	134	SER	2.4
13	XM	110	ARG	2.4
48	Y5	53	ALA	2.4
22	RA	1033	U	2.4
28	RH	11	VAL	2.4
32	RP	105	LEU	2.4
2	QB	4	GLU	2.4
8	XH	132	GLU	2.4
1	QA	1285	A	2.4
1	XA	913	A	2.4
9	QI	42	ARG	2.4
12	XL	61	THR	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	QM	71	ARG	2.4
16	XP	22	THR	2.4
19	QS	81	ARG	2.4
9	QI	102	LEU	2.4
28	RH	165	ALA	2.4
1	QA	994	A	2.4
22	RA	1070	A	2.4
33	RQ	141	GLN	2.4
35	RS	64	GLU	2.4
5	QE	12	LEU	2.4
33	RQ	129	THR	2.4
1	QA	963	G	2.4
1	XA	1353	G	2.4
12	XL	23	LYS	2.4
48	Y5	3	LYS	2.4
28	RH	51	ARG	2.4
22	RA	2320	A	2.4
22	RA	2801	A	2.4
1	QA	1366	C	2.4
1	XA	1366	C	2.4
1	XA	1367	C	2.4
17	XQ	35	VAL	2.3
31	YO	84	ALA	2.3
28	RH	30	LYS	2.3
13	QM	8	GLU	2.3
17	QQ	20	THR	2.3
17	XQ	32	TYR	2.3
4	XD	50	ARG	2.3
13	XM	99	ARG	2.3
27	YG	137	GLU	2.3
13	QM	100	GLY	2.3
42	RZ	177	PRO	2.3
49	Y6	32	ASN	2.3
1	QA	1017	G	2.3
29	YI	79	ILE	2.3
4	QD	145	GLU	2.3
9	XI	110	GLU	2.3
3	QC	28	GLN	2.3
22	YA	2150	U	2.3
22	YA	2803	C	2.3
9	XI	116	LYS	2.3
7	QG	155	ARG	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	XJ	62	HIS	2.3
10	XJ	98	ILE	2.3
14	XN	31	ARG	2.3
20	XT	63	ILE	2.3
22	RA	2695	C	2.3
7	XG	82	GLY	2.3
9	XI	121	ARG	2.3
10	XJ	48	THR	2.3
17	QQ	7	THR	2.3
51	R8	53	PRO	2.3
12	XL	27	LEU	2.3
9	QI	113	LYS	2.3
10	QJ	10	GLY	2.3
1	QA	1223	C	2.3
22	RA	1079	C	2.3
22	RA	2446	G	2.3
54	XX	7	G	2.3
33	RQ	90	VAL	2.3
19	QS	37	ARG	2.3
20	XT	20	LEU	2.3
1	XA	815	A	2.3
1	XA	61	G	2.3
1	XA	112	G	2.3
1	XA	1527	C	2.3
33	RQ	34	LEU	2.3
36	RT	99	LEU	2.3
49	Y6	31	PRO	2.3
30	RN	50	ASP	2.3
35	RS	5	THR	2.3
36	RT	46	GLU	2.3
11	XK	120	ARG	2.3
14	XN	18	VAL	2.3
22	RA	1054	A	2.3
22	YA	1755	A	2.3
22	YA	2062	A	2.3
22	RA	2798	C	2.3
4	QD	118	ARG	2.3
22	RA	1115	G	2.3
3	QC	196	LEU	2.3
9	QI	44	VAL	2.3
19	XS	71	LEU	2.3
22	RA	2113	U	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
17	XQ	101	ARG	2.3
34	RR	7	GLY	2.3
1	XA	162	A	2.3
1	XA	729	A	2.3
9	QI	11	LYS	2.3
18	XR	31	LEU	2.3
1	XA	562	C	2.3
1	XA	230	G	2.3
1	XA	1435	G	2.3
21	XU	24	ARG	2.3
22	RA	1091	G	2.3
22	YA	1835	G	2.3
22	YA	2709	G	2.3
28	RH	5	GLY	2.3
24	YD	230	ASP	2.3
27	YG	116	ASP	2.3
33	RQ	130	LYS	2.3
28	RH	50	VAL	2.3
20	QT	18	GLN	2.3
12	XL	89	ARG	2.3
20	XT	29	LYS	2.3
49	Y6	7	ILE	2.3
25	RE	159	HIS	2.3
22	YA	1630	G	2.2
33	RQ	105	GLU	2.2
17	QQ	97	SER	2.2
20	XT	74	LYS	2.2
49	R6	17	LYS	2.2
27	RG	35	GLU	2.2
7	QG	83	ALA	2.2
38	RV	45	THR	2.2
42	RZ	121	HIS	2.2
51	R8	12	LYS	2.2
14	XN	61	TRP	2.2
28	RH	155	SER	2.2
12	XL	33	ARG	2.2
1	XA	177	C	2.2
1	XA	555	C	2.2
10	XJ	95	GLU	2.2
22	RA	1116	C	2.2
9	XI	49	PRO	2.2
25	RE	151	TYR	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	RR	8	ARG	2.2
7	QG	36	LYS	2.2
24	RD	26	LYS	2.2
9	QI	30	GLY	2.2
9	QI	28	VAL	2.2
22	RA	2790	A	2.2
1	QA	1314	C	2.2
1	QA	1367	C	2.2
1	XA	379	C	2.2
1	XA	1066	C	2.2
9	QI	37	PHE	2.2
22	YA	2164	C	2.2
47	R4	48	ARG	2.2
17	QQ	24	GLU	2.2
1	XA	260	G	2.2
19	QS	52	TYR	2.2
22	YA	2156	G	2.2
28	RH	83	TYR	2.2
22	RA	2119	A	2.2
9	QI	101	PHE	2.2
11	QK	99	GLN	2.2
27	YG	80	PHE	2.2
44	R1	2	SER	2.2
33	RQ	100	GLY	2.2
13	QM	75	ALA	2.2
19	QS	66	MET	2.2
33	YQ	1	MET	2.2
1	XA	1502	A	2.2
22	RA	1129	A	2.2
22	RA	2062	A	2.2
51	Y8	63	PRO	2.2
22	YA	2506	U	2.2
47	R4	6	HIS	2.2
28	RH	114	VAL	2.2
34	RR	14	SER	2.2
11	XK	19	ALA	2.2
7	QG	28	ASN	2.2
10	QJ	59	SER	2.2
10	XJ	8	LEU	2.2
14	QN	49	HIS	2.2
1	QA	1323	G	2.2
1	XA	262	A	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	XJ	53	PRO	2.2
17	XQ	2	PRO	2.2
12	XL	7	ILE	2.2
17	QQ	65	ILE	2.2
5	QE	26	PHE	2.2
39	YW	92	ARG	2.2
49	R6	44	ARG	2.2
49	R6	45	LYS	2.2
22	YA	2132	U	2.2
30	RN	9	VAL	2.2
21	XU	13	ILE	2.2
24	YD	227	ASN	2.2
28	RH	82	GLY	2.2
35	RS	3	ARG	2.2
1	QA	971	G	2.2
19	QS	50	ALA	2.2
50	Y7	1	MET	2.2
1	XA	322	C	2.2
21	XU	18	TYR	2.2
22	RA	34	C	2.2
22	YA	1076	C	2.2
16	QP	31	LYS	2.2
21	QU	20	LYS	2.2
24	RD	34	VAL	2.2
32	RP	109	GLY	2.2
21	XU	17	THR	2.2
22	YA	2696	U	2.2
2	QB	134	GLU	2.2
3	QC	135	LYS	2.2
12	QL	27	LEU	2.2
28	RH	4	ILE	2.2
42	RZ	23	LYS	2.2
9	XI	117	HIS	2.2
31	RO	81	ASP	2.2
7	QG	41	ARG	2.2
10	QJ	44	VAL	2.2
34	YR	21	TYR	2.2
43	R0	4	LYS	2.2
22	YA	1082	U	2.2
51	Y8	35	GLN	2.2
31	RO	98	VAL	2.1
32	RP	65	ARG	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
46	R3	26	LEU	2.1
1	QA	976	G	2.1
22	RA	1252	G	2.1
22	YA	1678	G	2.1
22	YA	1758	G	2.1
28	RH	161	GLY	2.1
7	QG	2	ALA	2.1
1	QA	1235	U	2.1
1	QA	1364	U	2.1
3	QC	192	THR	2.1
21	XU	6	ARG	2.1
41	RY	46	LYS	2.1
7	QG	84	ASN	2.1
1	XA	60	A	2.1
13	QM	5	ALA	2.1
22	RA	575	A	2.1
22	YA	2170	A	2.1
36	RT	91	ARG	2.1
1	XA	817	C	2.1
22	YA	2695	C	2.1
22	YA	2794	C	2.1
28	RH	123	PHE	2.1
33	RQ	64	ILE	2.1
1	XA	1511	G	2.1
55	XY	33	U	2.1
9	XI	17	VAL	2.1
33	RQ	10	ARG	2.1
1	QA	262	A	2.1
1	QA	974	A	2.1
22	YA	229	A	2.1
13	QM	83	ASP	2.1
20	QT	64	ASP	2.1
19	QS	6	LYS	2.1
1	QA	1254	C	2.1
1	QA	1321	C	2.1
17	XQ	38	ARG	2.1
22	YA	2477	C	2.1
31	YO	122	LEU	2.1
22	RA	2172	U	2.1
16	XP	36	ILE	2.1
1	QA	230	G	2.1
1	XA	351	G	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	YA	956	G	2.1
32	YP	34	GLY	2.1
2	QB	240	GLN	2.1
9	QI	43	ALA	2.1
12	QL	67	THR	2.1
49	R6	19	ARG	2.1
1	QA	1306	A	2.1
1	QA	1332	A	2.1
21	XU	23	PRO	2.1
22	RA	899	A	2.1
22	YA	2158	A	2.1
22	YA	2176	A	2.1
1	QA	311	C	2.1
1	QA	323	U	2.1
1	XA	320	C	2.1
22	YA	277	C	2.1
14	XN	22	THR	2.1
21	QU	8	THR	2.1
47	R4	50	VAL	2.1
49	R6	28	ARG	2.1
19	XS	53	ASN	2.1
4	QD	16	GLY	2.1
21	XU	10	ARG	2.1
2	QB	186	ALA	2.1
9	XI	124	GLN	2.1
30	RN	69	GLN	2.1
24	YD	92	ILE	2.1
22	RA	2177	C	2.1
25	RE	145	LYS	2.1
33	RQ	89	ASN	2.1
1	QA	962	C	2.1
35	RS	8	GLU	2.1
1	QA	112	G	2.1
1	XA	878	G	2.1
12	QL	47	LYS	2.1
22	RA	1051	G	2.1
22	YA	1296	G	2.1
28	RH	32	GLU	2.1
42	RZ	153	SER	2.1
9	QI	120	ARG	2.1
14	QN	54	PRO	2.1
19	XS	78	ARG	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
44	Y1	41	ARG	2.1
1	QA	232	G	2.1
16	XP	19	ILE	2.1
19	XS	56	GLN	2.1
22	YA	1176	G	2.1
22	RA	567	A	2.1
12	XL	5	PRO	2.1
17	XQ	85	VAL	2.1
51	Y8	65	GLU	2.1
17	XQ	34	LYS	2.1
35	RS	35	ILE	2.1
38	RV	74	LYS	2.1
44	R1	69	LYS	2.1
9	XI	102	LEU	2.1
28	RH	93	GLY	2.1
1	QA	977	A	2.1
1	XA	149	A	2.1
1	XA	951	G	2.1
22	RA	2162	G	2.1
22	YA	2578	G	2.1
30	RN	72	TYR	2.1
1	QA	934	C	2.1
19	QS	41	VAL	2.1
7	QG	26	PHE	2.1
12	QL	71	PRO	2.1
19	QS	84	GLY	2.1
31	YO	108	GLU	2.1
35	RS	37	ALA	2.1
33	RQ	68	ILE	2.1
28	RH	74	ASN	2.1
1	QA	1236	A	2.0
1	XA	915	A	2.0
12	XL	16	GLU	2.1
1	QA	377	G	2.0
1	QA	1368	G	2.0
1	QA	1370	G	2.0
1	XA	310	G	2.0
1	XA	1523	G	2.0
19	XS	2	PRO	2.0
12	QL	101	VAL	2.0
33	RQ	35	VAL	2.0
33	RQ	37	LEU	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	XA	62	U	2.0
19	QS	40	ILE	2.0
14	QN	22	THR	2.0
18	XR	42	ARG	2.0
55	QY	33	U	2.0
4	QD	140	VAL	2.0
22	RA	2126	A	2.0
23	RB	89(A)	A	2.0
1	XA	309	G	2.0
1	XA	769	G	2.0
1	QA	330	C	2.0
10	QJ	53	PRO	2.0
14	QN	60	SER	2.0
22	RA	902	C	2.0
34	YR	1	MET	2.0
50	Y7	47	ARG	2.0
28	RH	33	LEU	2.0
28	RH	116	GLU	2.0
7	QG	10	ARG	2.0
1	XA	958	A	2.0
22	YA	1637	A	2.0
44	Y1	39	LYS	2.0
4	QD	117	ALA	2.0
42	RZ	176	PRO	2.0
43	R0	53	MET	2.0
17	QQ	9	VAL	2.0
29	RI	18	VAL	2.0
31	YO	83	ALA	2.0
44	Y1	13	ILE	2.0
2	QB	149	LEU	2.0
3	QC	64	VAL	2.0
12	XL	96	VAL	2.0
24	RD	5	LYS	2.0
28	RH	131	VAL	2.0
27	RG	80	PHE	2.0
28	RH	168	PRO	2.0
35	RS	57	LYS	2.0
1	XA	976	G	2.0
16	XP	37	GLY	2.0
22	RA	832	G	2.0
22	RA	2183	C	2.0
2	QB	118	LEU	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	XM	90	LEU	2.0
16	XP	32	TYR	2.0
35	YS	11	LYS	2.0
16	XP	30	GLY	2.0
32	YP	65	ARG	2.0
49	Y6	24	GLU	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	PPU	Z6	76	37/38	0.96	0.40	37,37,37,37	0
56	PPU	Z8	76	37/38	0.96	0.41	30,30,30,30	0

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
58	MG	RA	3227	1/1	0.32	0.47	60,60,60,60	0
58	MG	RA	3212	1/1	0.57	0.75	73,73,73,73	0
58	MG	XM	201	1/1	0.58	0.35	98,98,98,98	0
58	MG	RA	3221	1/1	0.60	0.23	30,30,30,30	0
58	MG	QA	1667	1/1	0.66	0.24	35,35,35,35	0
58	MG	YA	3214	1/1	0.66	0.68	50,50,50,50	0
58	MG	YA	3170	1/1	0.67	0.33	33,33,33,33	0
58	MG	RA	3157	1/1	0.67	0.38	37,37,37,37	0
58	MG	RA	3234	1/1	0.68	0.33	69,69,69,69	0
58	MG	YA	3205	1/1	0.70	0.37	62,62,62,62	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
58	MG	RA	3204	1/1	0.71	0.24	50,50,50,50	0
58	MG	QA	1621	1/1	0.73	0.21	38,38,38,38	0
58	MG	RA	3182	1/1	0.73	0.39	22,22,22,22	0
58	MG	RA	3144	1/1	0.73	0.33	32,32,32,32	0
58	MG	RA	3209	1/1	0.73	0.25	47,47,47,47	0
58	MG	RA	3225	1/1	0.74	0.39	33,33,33,33	0
58	MG	YA	3263	1/1	0.74	0.26	40,40,40,40	0
58	MG	YA	3174	1/1	0.75	0.12	10,10,10,10	0
58	MG	RA	3143	1/1	0.76	0.14	5,5,5,5	0
58	MG	QA	1604	1/1	0.76	0.25	5,5,5,5	0
58	MG	YA	3182	1/1	0.76	0.24	3,3,3,3	0
58	MG	RA	3002	1/1	0.76	0.46	30,30,30,30	0
58	MG	RA	3138	1/1	0.76	0.28	38,38,38,38	0
58	MG	YA	3169	1/1	0.76	0.15	16,16,16,16	0
58	MG	XA	1679	1/1	0.77	0.18	18,18,18,18	0
58	MG	RA	3171	1/1	0.77	0.29	31,31,31,31	0
58	MG	YA	3144	1/1	0.77	0.15	6,6,6,6	0
58	MG	RA	3013	1/1	0.77	0.27	29,29,29,29	0
58	MG	RA	3067	1/1	0.77	0.94	74,74,74,74	0
58	MG	YA	3126	1/1	0.78	0.15	0,0,0,0	0
58	MG	YA	3130	1/1	0.78	0.25	21,21,21,21	0
58	MG	YA	3203	1/1	0.78	0.18	18,18,18,18	0
58	MG	RA	3247	1/1	0.78	0.30	9,9,9,9	0
58	MG	RA	3196	1/1	0.78	0.26	63,63,63,63	0
58	MG	RA	3164	1/1	0.78	0.30	45,45,45,45	0
58	MG	YA	3018	1/1	0.79	0.77	74,74,74,74	0
58	MG	RA	3233	1/1	0.79	0.22	42,42,42,42	0
58	MG	XA	1680	1/1	0.79	0.31	45,45,45,45	0
58	MG	YA	3254	1/1	0.79	0.29	16,16,16,16	0
58	MG	XA	1650	1/1	0.79	0.21	14,14,14,14	0
58	MG	Y0	101	1/1	0.79	0.42	74,74,74,74	0
58	MG	YA	3116	1/1	0.80	0.22	14,14,14,14	0
58	MG	RA	3126	1/1	0.80	0.22	16,16,16,16	0
58	MG	QA	1603	1/1	0.81	0.23	11,11,11,11	0
58	MG	RA	3056	1/1	0.81	0.54	74,74,74,74	0
58	MG	YA	3164	1/1	0.81	0.39	44,44,44,44	0
58	MG	RA	3006	1/1	0.81	0.41	10,10,10,10	0
58	MG	YA	3222	1/1	0.81	0.19	13,13,13,13	0
58	MG	YA	3228	1/1	0.81	0.14	9,9,9,9	0
58	MG	RA	3229	1/1	0.81	0.24	23,23,23,23	0
58	MG	RA	3232	1/1	0.81	0.11	15,15,15,15	0
58	MG	YA	3179	1/1	0.81	0.23	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
58	MG	XA	1635	1/1	0.82	0.17	26,26,26,26	0
58	MG	XA	1667	1/1	0.83	0.21	34,34,34,34	0
58	MG	RA	3004	1/1	0.83	0.43	40,40,40,40	0
58	MG	YA	3132	1/1	0.83	0.17	7,7,7,7	0
58	MG	RA	3105	1/1	0.83	0.15	14,14,14,14	0
58	MG	YA	3151	1/1	0.83	0.21	3,3,3,3	0
58	MG	XA	1632	1/1	0.83	0.14	9,9,9,9	0
58	MG	YA	3165	1/1	0.83	0.22	1,1,1,1	0
58	MG	YA	3236	1/1	0.83	0.22	18,18,18,18	0
58	MG	RA	3201	1/1	0.83	0.25	34,34,34,34	0
58	MG	YA	3080	1/1	0.83	0.56	74,74,74,74	0
58	MG	QA	1677	1/1	0.83	0.19	47,47,47,47	0
58	MG	YA	3218	1/1	0.84	0.82	59,59,59,59	0
58	MG	RA	3203	1/1	0.84	0.18	15,15,15,15	0
58	MG	YA	3155	1/1	0.84	0.25	45,45,45,45	0
58	MG	YA	3233	1/1	0.84	0.22	34,34,34,34	0
58	MG	RA	3183	1/1	0.84	0.29	11,11,11,11	0
58	MG	YA	3250	1/1	0.84	0.33	15,15,15,15	0
58	MG	XA	1630	1/1	0.84	0.16	15,15,15,15	0
58	MG	YA	3259	1/1	0.84	0.28	5,5,5,5	0
58	MG	YA	3133	1/1	0.84	0.25	32,32,32,32	0
58	MG	XA	1681	1/1	0.84	0.20	31,31,31,31	0
58	MG	YA	3234	1/1	0.85	0.21	17,17,17,17	0
58	MG	YA	3207	1/1	0.85	0.34	55,55,55,55	0
58	MG	YA	3246	1/1	0.85	0.22	0,0,0,0	0
58	MG	YA	3249	1/1	0.85	0.33	20,20,20,20	0
58	MG	RA	3220	1/1	0.85	0.15	13,13,13,13	0
58	MG	RA	3161	1/1	0.85	0.23	10,10,10,10	0
58	MG	YA	3099	1/1	0.85	0.58	74,74,74,74	0
58	MG	XA	1602	1/1	0.85	0.23	15,15,15,15	0
58	MG	YD	301	1/1	0.85	0.46	74,74,74,74	0
58	MG	RA	3228	1/1	0.85	0.16	13,13,13,13	0
58	MG	RA	3177	1/1	0.86	0.35	15,15,15,15	0
58	MG	YA	3162	1/1	0.86	0.35	11,11,11,11	0
58	MG	RA	3130	1/1	0.86	0.20	15,15,15,15	0
58	MG	XA	1651	1/1	0.86	0.28	33,33,33,33	0
58	MG	YA	3105	1/1	0.86	0.19	19,19,19,19	0
58	MG	XA	1656	1/1	0.86	0.20	17,17,17,17	0
58	MG	YA	3118	1/1	0.86	0.35	8,8,8,8	0
58	MG	YA	3248	1/1	0.86	0.20	8,8,8,8	0
58	MG	XA	1658	1/1	0.86	0.14	3,3,3,3	0
58	MG	RA	3205	1/1	0.86	0.46	17,17,17,17	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	YA	3183	1/1	0.86	0.12	19,19,19,19	0
58	MG	RA	3074	1/1	0.86	0.20	6,6,6,6	0
58	MG	XA	1628	1/1	0.86	0.14	18,18,18,18	0
58	MG	QA	1672	1/1	0.86	0.32	19,19,19,19	0
58	MG	RA	3005	1/1	0.86	0.22	24,24,24,24	0
58	MG	RA	3199	1/1	0.87	0.78	63,63,63,63	0
58	MG	QA	1645	1/1	0.87	0.29	4,4,4,4	0
58	MG	YA	3208	1/1	0.87	0.41	35,35,35,35	0
58	MG	YA	3145	1/1	0.87	0.20	20,20,20,20	0
58	MG	YA	3216	1/1	0.87	0.34	55,55,55,55	0
58	MG	YA	3217	1/1	0.87	0.13	18,18,18,18	0
58	MG	QA	1671	1/1	0.87	0.16	6,6,6,6	0
58	MG	YA	3014	1/1	0.87	0.46	74,74,74,74	0
58	MG	QA	1653	1/1	0.87	0.17	0,0,0,0	0
58	MG	XA	1646	1/1	0.87	0.14	21,21,21,21	0
58	MG	QA	1675	1/1	0.87	0.26	32,32,32,32	0
58	MG	QA	1664	1/1	0.87	0.16	56,56,56,56	0
58	MG	YA	3245	1/1	0.87	0.18	33,33,33,33	0
58	MG	RA	3158	1/1	0.87	0.22	15,15,15,15	0
58	MG	RA	3243	1/1	0.87	0.26	1,1,1,1	0
58	MG	YA	3120	1/1	0.87	0.29	46,46,46,46	0
58	MG	YA	3181	1/1	0.87	0.26	0,0,0,0	0
58	MG	RA	3188	1/1	0.87	0.48	48,48,48,48	0
58	MG	XA	1672	1/1	0.87	0.19	16,16,16,16	0
58	MG	YA	3184	1/1	0.87	0.20	23,23,23,23	0
58	MG	YA	3191	1/1	0.87	0.28	9,9,9,9	0
58	MG	RA	3159	1/1	0.87	0.12	23,23,23,23	0
58	MG	XA	1636	1/1	0.88	0.18	8,8,8,8	0
58	MG	YA	3223	1/1	0.88	0.21	34,34,34,34	0
58	MG	YA	3041	1/1	0.88	0.56	74,74,74,74	0
58	MG	RA	3216	1/1	0.88	0.28	2,2,2,2	0
58	MG	RA	3193	1/1	0.88	0.23	47,47,47,47	0
58	MG	YA	3187	1/1	0.88	0.29	41,41,41,41	0
58	MG	YA	3244	1/1	0.88	0.25	0,0,0,0	0
58	MG	YA	3102	1/1	0.88	0.10	8,8,8,8	0
58	MG	YA	3200	1/1	0.88	0.15	6,6,6,6	0
58	MG	YA	3247	1/1	0.88	0.49	34,34,34,34	0
58	MG	YA	3156	1/1	0.88	0.57	29,29,29,29	0
58	MG	RA	3235	1/1	0.88	0.47	74,74,74,74	0
58	MG	QA	1674	1/1	0.88	0.18	8,8,8,8	0
58	MG	XA	1682	1/1	0.88	0.20	35,35,35,35	0
58	MG	XB	301	1/1	0.88	0.17	41,41,41,41	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	RA	3172	1/1	0.88	0.24	42,42,42,42	0
58	MG	YB	202	1/1	0.88	0.34	19,19,19,19	0
58	MG	YA	3013	1/1	0.88	0.32	3,3,3,3	0
58	MG	YQ	201	1/1	0.88	0.11	90,90,90,90	0
58	MG	XA	1663	1/1	0.88	0.21	32,32,32,32	0
58	MG	RA	3223	1/1	0.89	0.32	54,54,54,54	0
58	MG	RA	3014	1/1	0.89	0.19	28,28,28,28	0
58	MG	QA	1643	1/1	0.89	0.23	21,21,21,21	0
58	MG	XA	1639	1/1	0.89	0.21	45,45,45,45	0
58	MG	YA	3163	1/1	0.89	0.29	21,21,21,21	0
58	MG	RA	3202	1/1	0.89	0.30	0,0,0,0	0
58	MG	YA	3226	1/1	0.89	0.14	11,11,11,11	0
58	MG	YA	3075	1/1	0.89	0.15	12,12,12,12	0
58	MG	QA	1632	1/1	0.89	0.17	42,42,42,42	0
58	MG	RA	3073	1/1	0.89	0.21	10,10,10,10	0
58	MG	YA	3173	1/1	0.89	0.25	15,15,15,15	0
58	MG	QA	1640	1/1	0.89	0.27	13,13,13,13	0
58	MG	RA	3207	1/1	0.89	0.20	7,7,7,7	0
58	MG	RA	3148	1/1	0.89	0.39	47,47,47,47	0
58	MG	RA	3154	1/1	0.89	0.20	59,59,59,59	0
58	MG	RA	3214	1/1	0.89	0.26	24,24,24,24	0
58	MG	XA	1676	1/1	0.89	0.34	19,19,19,19	0
58	MG	YA	3127	1/1	0.89	0.30	23,23,23,23	0
58	MG	RF	301	1/1	0.89	0.22	13,13,13,13	0
58	MG	YA	3256	1/1	0.89	0.60	74,74,74,74	0
58	MG	YA	3199	1/1	0.89	0.25	12,12,12,12	0
58	MG	YA	3262	1/1	0.89	0.23	26,26,26,26	0
58	MG	QA	1660	1/1	0.89	0.10	36,36,36,36	0
58	MG	YB	201	1/1	0.89	0.25	33,33,33,33	0
58	MG	XA	1621	1/1	0.89	0.10	19,19,19,19	0
58	MG	RA	3120	1/1	0.89	0.18	4,4,4,4	0
58	MG	YD	302	1/1	0.89	0.21	5,5,5,5	0
58	MG	RA	3124	1/1	0.89	0.16	2,2,2,2	0
58	MG	YA	3150	1/1	0.89	0.30	16,16,16,16	0
58	MG	RA	3136	1/1	0.90	0.20	5,5,5,5	0
58	MG	XA	1642	1/1	0.90	0.16	47,47,47,47	0
58	MG	YA	3158	1/1	0.90	0.36	21,21,21,21	0
58	MG	YA	3161	1/1	0.90	0.26	23,23,23,23	0
58	MG	RA	3238	1/1	0.90	0.24	32,32,32,32	0
58	MG	YA	3072	1/1	0.90	0.21	22,22,22,22	0
58	MG	RA	3242	1/1	0.90	0.32	13,13,13,13	0
58	MG	RA	3094	1/1	0.90	0.28	16,16,16,16	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	YA	3081	1/1	0.90	0.29	10,10,10,10	0
58	MG	QA	1658	1/1	0.90	0.16	39,39,39,39	0
58	MG	YA	3235	1/1	0.90	0.21	26,26,26,26	0
58	MG	RA	3191	1/1	0.90	0.17	46,46,46,46	0
58	MG	YA	3239	1/1	0.90	0.17	41,41,41,41	0
58	MG	RA	3226	1/1	0.90	0.32	1,1,1,1	0
58	MG	YA	3176	1/1	0.90	0.13	45,45,45,45	0
58	MG	XA	1665	1/1	0.90	0.15	33,33,33,33	0
58	MG	XA	1604	1/1	0.90	0.29	9,9,9,9	0
58	MG	XA	1607	1/1	0.90	0.28	7,7,7,7	0
58	MG	XA	1610	1/1	0.90	0.21	6,6,6,6	0
58	MG	XA	1617	1/1	0.90	0.36	74,74,74,74	0
58	MG	RA	3068	1/1	0.90	0.25	13,13,13,13	0
58	MG	RA	3017	1/1	0.90	0.35	18,18,18,18	0
58	MG	YA	3194	1/1	0.90	0.26	36,36,36,36	0
58	MG	YA	3197	1/1	0.90	1.19	42,42,42,42	0
58	MG	RA	3198	1/1	0.90	0.19	26,26,26,26	0
58	MG	YA	3135	1/1	0.90	0.22	6,6,6,6	0
58	MG	QA	1668	1/1	0.90	0.17	0,0,0,0	0
58	MG	RA	3215	1/1	0.90	0.09	13,13,13,13	0
58	MG	YA	3012	1/1	0.90	0.29	10,10,10,10	0
58	MG	RA	3088	1/1	0.90	0.16	7,7,7,7	0
58	MG	YA	3210	1/1	0.90	0.20	17,17,17,17	0
58	MG	XV	102	1/1	0.90	0.18	2,2,2,2	0
58	MG	QA	1602	1/1	0.91	0.21	6,6,6,6	0
58	MG	YA	3028	1/1	0.91	0.19	15,15,15,15	0
58	MG	YA	3035	1/1	0.91	0.33	12,12,12,12	0
58	MG	YA	3219	1/1	0.91	0.42	22,22,22,22	0
58	MG	YA	3036	1/1	0.91	0.28	11,11,11,11	0
58	MG	RA	3135	1/1	0.91	0.13	12,12,12,12	0
58	MG	YA	3054	1/1	0.91	0.26	14,14,14,14	0
58	MG	YA	3056	1/1	0.91	0.22	5,5,5,5	0
58	MG	YA	3230	1/1	0.91	0.15	42,42,42,42	0
58	MG	YA	3071	1/1	0.91	0.21	1,1,1,1	0
58	MG	XA	1655	1/1	0.91	0.29	68,68,68,68	0
58	MG	QA	1627	1/1	0.91	0.18	30,30,30,30	0
58	MG	QA	1673	1/1	0.91	0.24	9,9,9,9	0
58	MG	RA	3051	1/1	0.91	0.31	1,1,1,1	0
58	MG	YA	3090	1/1	0.91	0.27	26,26,26,26	0
58	MG	XA	1609	1/1	0.91	0.09	51,51,51,51	0
58	MG	RA	3101	1/1	0.91	0.18	18,18,18,18	0
58	MG	XA	1670	1/1	0.91	0.19	27,27,27,27	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	YA	3112	1/1	0.91	0.17	13,13,13,13	0
58	MG	RA	3146	1/1	0.91	0.16	25,25,25,25	0
58	MG	XA	1620	1/1	0.91	0.33	15,15,15,15	0
58	MG	YA	3251	1/1	0.91	0.57	10,10,10,10	0
58	MG	RA	3208	1/1	0.91	0.16	30,30,30,30	0
58	MG	QF	201	1/1	0.91	0.25	36,36,36,36	0
58	MG	YA	3257	1/1	0.91	0.26	14,14,14,14	0
58	MG	RA	3010	1/1	0.91	0.47	14,14,14,14	0
58	MG	RA	3155	1/1	0.91	0.16	54,54,54,54	0
58	MG	RA	3237	1/1	0.91	0.38	6,6,6,6	0
58	MG	YA	3264	1/1	0.91	0.35	5,5,5,5	0
58	MG	RA	3156	1/1	0.91	0.17	9,9,9,9	0
58	MG	YA	3011	1/1	0.91	0.20	9,9,9,9	0
58	MG	YA	3137	1/1	0.91	0.11	10,10,10,10	0
58	MG	YA	3142	1/1	0.91	0.61	31,31,31,31	0
58	MG	RA	3241	1/1	0.91	0.13	8,8,8,8	0
58	MG	RA	3012	1/1	0.91	0.40	31,31,31,31	0
58	MG	RA	3072	1/1	0.91	0.29	18,18,18,18	0
58	MG	RA	3033	1/1	0.92	0.37	6,6,6,6	0
58	MG	RA	3121	1/1	0.92	0.17	36,36,36,36	0
58	MG	RE	301	1/1	0.92	0.20	9,9,9,9	0
58	MG	XA	1675	1/1	0.92	0.32	14,14,14,14	0
58	MG	YA	3206	1/1	0.92	0.27	52,52,52,52	0
58	MG	RA	3160	1/1	0.92	0.19	19,19,19,19	0
58	MG	XA	1677	1/1	0.92	0.16	2,2,2,2	0
57	PAR	QA	1601	42/42	0.92	0.35	42,42,42,42	0
58	MG	RA	3162	1/1	0.92	0.52	18,18,18,18	0
58	MG	RA	3003	1/1	0.92	0.18	4,4,4,4	0
58	MG	RA	3129	1/1	0.92	0.23	21,21,21,21	0
58	MG	YA	3139	1/1	0.92	0.15	8,8,8,8	0
58	MG	YA	3140	1/1	0.92	0.34	8,8,8,8	0
58	MG	RA	3063	1/1	0.92	0.24	19,19,19,19	0
58	MG	XA	1611	1/1	0.92	0.15	11,11,11,11	0
58	MG	RA	3218	1/1	0.92	0.12	17,17,17,17	0
58	MG	QA	1647	1/1	0.92	0.32	38,38,38,38	0
58	MG	RA	3180	1/1	0.92	0.24	17,17,17,17	0
58	MG	YA	3152	1/1	0.92	0.24	27,27,27,27	0
58	MG	XA	1624	1/1	0.92	0.10	22,22,22,22	0
58	MG	RA	3181	1/1	0.92	0.33	21,21,21,21	0
58	MG	RA	3224	1/1	0.92	0.83	142,142,142,142	0
58	MG	YA	3160	1/1	0.92	0.14	16,16,16,16	0
58	MG	QA	1626	1/1	0.92	0.11	17,17,17,17	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	QA	1655	1/1	0.92	0.21	14,14,14,14	0
58	MG	RA	3184	1/1	0.92	0.35	23,23,23,23	0
58	MG	YA	3051	1/1	0.92	0.25	13,13,13,13	0
58	MG	XA	1637	1/1	0.92	0.16	14,14,14,14	0
58	MG	RA	3140	1/1	0.92	0.32	34,34,34,34	0
58	MG	RA	3141	1/1	0.92	0.59	40,40,40,40	0
58	MG	YA	3171	1/1	0.92	0.22	22,22,22,22	0
58	MG	QA	1612	1/1	0.92	0.29	15,15,15,15	0
58	MG	YA	3255	1/1	0.92	0.38	12,12,12,12	0
58	MG	XA	1647	1/1	0.92	0.12	22,22,22,22	0
58	MG	QA	1616	1/1	0.92	0.15	52,52,52,52	0
58	MG	QA	1617	1/1	0.92	0.18	46,46,46,46	0
58	MG	RA	3092	1/1	0.92	0.32	0,0,0,0	0
58	MG	YA	3093	1/1	0.92	0.27	10,10,10,10	0
58	MG	YA	3096	1/1	0.92	0.20	6,6,6,6	0
58	MG	QA	1618	1/1	0.92	0.09	17,17,17,17	0
58	MG	RA	3001	1/1	0.92	0.27	16,16,16,16	0
58	MG	YA	3188	1/1	0.92	0.13	13,13,13,13	0
58	MG	YA	3190	1/1	0.92	0.15	8,8,8,8	0
58	MG	YP	202	1/1	0.92	0.10	1,1,1,1	0
58	MG	RA	3104	1/1	0.92	0.18	11,11,11,11	0
58	MG	RA	3031	1/1	0.92	0.36	9,9,9,9	0
58	MG	YA	3115	1/1	0.92	0.22	17,17,17,17	0
58	MG	RA	3106	1/1	0.93	0.14	6,6,6,6	0
58	MG	RA	3142	1/1	0.93	0.38	20,20,20,20	0
58	MG	YA	3078	1/1	0.93	0.17	9,9,9,9	0
58	MG	YA	3159	1/1	0.93	0.15	12,12,12,12	0
58	MG	RA	3075	1/1	0.93	0.14	9,9,9,9	0
58	MG	RA	3076	1/1	0.93	0.15	7,7,7,7	0
58	MG	RA	3086	1/1	0.93	0.22	22,22,22,22	0
58	MG	YA	3227	1/1	0.93	0.40	39,39,39,39	0
58	MG	XA	1678	1/1	0.93	0.23	2,2,2,2	0
58	MG	XA	1634	1/1	0.93	0.17	7,7,7,7	0
58	MG	YA	3231	1/1	0.93	0.20	34,34,34,34	0
58	MG	RA	3173	1/1	0.93	0.28	35,35,35,35	0
58	MG	RA	3125	1/1	0.93	0.30	19,19,19,19	0
57	PAR	XA	1601	42/42	0.93	0.30	38,38,38,38	0
58	MG	R0	101	1/1	0.93	0.09	2,2,2,2	0
58	MG	YA	3237	1/1	0.93	0.32	36,36,36,36	0
58	MG	YA	3172	1/1	0.93	0.37	40,40,40,40	0
58	MG	YA	3243	1/1	0.93	0.21	13,13,13,13	0
58	MG	XA	1640	1/1	0.93	0.26	27,27,27,27	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	XA	1641	1/1	0.93	0.24	11,11,11,11	0
58	MG	R5	101	1/1	0.93	0.32	11,11,11,11	0
58	MG	QA	1622	1/1	0.93	0.09	12,12,12,12	0
58	MG	RA	3036	1/1	0.93	0.48	18,18,18,18	0
58	MG	RA	3095	1/1	0.93	0.25	18,18,18,18	0
58	MG	RA	3231	1/1	0.93	0.17	16,16,16,16	0
58	MG	QA	1676	1/1	0.93	0.14	13,13,13,13	0
58	MG	RA	3185	1/1	0.93	0.22	16,16,16,16	0
58	MG	YA	3040	1/1	0.93	0.17	19,19,19,19	0
58	MG	XA	1613	1/1	0.93	0.12	8,8,8,8	0
58	MG	YA	3049	1/1	0.93	0.39	74,74,74,74	0
58	MG	QA	1670	1/1	0.93	0.34	5,5,5,5	0
58	MG	YA	3195	1/1	0.93	0.19	5,5,5,5	0
58	MG	YA	3141	1/1	0.93	0.13	19,19,19,19	0
58	MG	XA	1664	1/1	0.93	0.19	22,22,22,22	0
58	MG	YA	3055	1/1	0.93	0.28	6,6,6,6	0
58	MG	XA	1619	1/1	0.93	0.24	5,5,5,5	0
58	MG	YA	3146	1/1	0.93	0.23	40,40,40,40	0
58	MG	YA	3058	1/1	0.93	0.17	20,20,20,20	0
58	MG	YA	3060	1/1	0.93	0.24	8,8,8,8	0
58	MG	RA	3062	1/1	0.93	0.36	21,21,21,21	0
58	MG	YA	3153	1/1	0.93	0.11	14,14,14,14	0
58	MG	YA	3154	1/1	0.93	0.44	11,11,11,11	0
58	MG	RA	3022	1/1	0.94	0.20	24,24,24,24	0
58	MG	RA	3190	1/1	0.94	0.07	40,40,40,40	0
58	MG	XA	1671	1/1	0.94	0.38	33,33,33,33	0
58	MG	QA	1636	1/1	0.94	0.18	1,1,1,1	0
58	MG	QA	1639	1/1	0.94	0.22	33,33,33,33	0
58	MG	YA	3192	1/1	0.94	0.30	21,21,21,21	0
58	MG	YA	3193	1/1	0.94	0.08	14,14,14,14	0
58	MG	YA	3103	1/1	0.94	0.25	8,8,8,8	0
58	MG	RA	3127	1/1	0.94	0.16	22,22,22,22	0
58	MG	YA	3106	1/1	0.94	0.15	16,16,16,16	0
58	MG	YA	3198	1/1	0.94	0.27	18,18,18,18	0
58	MG	YA	3108	1/1	0.94	0.30	7,7,7,7	0
58	MG	RA	3230	1/1	0.94	0.20	41,41,41,41	0
58	MG	QA	1629	1/1	0.94	0.20	11,11,11,11	0
58	MG	XA	1626	1/1	0.94	0.13	15,15,15,15	0
58	MG	XA	1627	1/1	0.94	0.17	12,12,12,12	0
58	MG	YA	3119	1/1	0.94	0.24	9,9,9,9	0
58	MG	QA	1641	1/1	0.94	0.14	43,43,43,43	0
58	MG	YA	3124	1/1	0.94	0.23	6,6,6,6	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	YA	3211	1/1	0.94	0.50	55,55,55,55	0
58	MG	QA	1642	1/1	0.94	0.18	38,38,38,38	0
58	MG	YA	3215	1/1	0.94	0.13	42,42,42,42	0
58	MG	XA	1683	1/1	0.94	0.10	10,10,10,10	0
58	MG	XA	1631	1/1	0.94	0.21	4,4,4,4	0
58	MG	QA	1663	1/1	0.94	0.21	19,19,19,19	0
58	MG	YA	3001	1/1	0.94	0.20	23,23,23,23	0
58	MG	YA	3220	1/1	0.94	0.16	1,1,1,1	0
58	MG	YA	3134	1/1	0.94	0.13	19,19,19,19	0
58	MG	YA	3002	1/1	0.94	0.22	0,0,0,0	0
58	MG	YA	3136	1/1	0.94	0.17	0,0,0,0	0
58	MG	YA	3003	1/1	0.94	0.42	74,74,74,74	0
58	MG	XA	1633	1/1	0.94	0.10	7,7,7,7	0
58	MG	RA	3163	1/1	0.94	0.26	34,34,34,34	0
58	MG	RA	3008	1/1	0.94	0.46	6,6,6,6	0
58	MG	QA	1628	1/1	0.94	0.26	10,10,10,10	0
58	MG	YA	3016	1/1	0.94	0.10	7,7,7,7	0
58	MG	QA	1665	1/1	0.94	0.09	37,37,37,37	0
58	MG	YA	3020	1/1	0.94	0.41	8,8,8,8	0
58	MG	YA	3024	1/1	0.94	0.24	10,10,10,10	0
58	MG	QA	1666	1/1	0.94	0.12	68,68,68,68	0
58	MG	YA	3242	1/1	0.94	0.14	9,9,9,9	0
58	MG	YA	3031	1/1	0.94	0.18	5,5,5,5	0
58	MG	YA	3032	1/1	0.94	0.22	1,1,1,1	0
58	MG	RA	3107	1/1	0.94	0.17	2,2,2,2	0
58	MG	RA	3245	1/1	0.94	0.36	7,7,7,7	0
58	MG	RA	3178	1/1	0.94	0.13	25,25,25,25	0
58	MG	XA	1643	1/1	0.94	0.34	74,74,74,74	0
58	MG	YA	3046	1/1	0.94	0.50	74,74,74,74	0
58	MG	RD	301	1/1	0.94	0.33	12,12,12,12	0
58	MG	RA	3115	1/1	0.94	0.26	21,21,21,21	0
58	MG	YA	3252	1/1	0.94	0.36	1,1,1,1	0
58	MG	YA	3053	1/1	0.94	0.22	8,8,8,8	0
58	MG	XA	1648	1/1	0.94	0.16	19,19,19,19	0
58	MG	QA	1635	1/1	0.94	0.39	76,76,76,76	0
58	MG	RA	3147	1/1	0.94	0.37	32,32,32,32	0
58	MG	XA	1654	1/1	0.94	0.27	54,54,54,54	0
58	MG	YA	3260	1/1	0.94	0.71	74,74,74,74	0
58	MG	YA	3059	1/1	0.94	0.14	11,11,11,11	0
58	MG	QM	201	1/1	0.94	0.06	51,51,51,51	0
58	MG	YA	3070	1/1	0.94	0.20	1,1,1,1	0
58	MG	RA	3149	1/1	0.94	0.25	4,4,4,4	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	RA	3122	1/1	0.94	0.15	5,5,5,5	0
58	MG	YA	3074	1/1	0.94	0.12	1,1,1,1	0
58	MG	YA	3178	1/1	0.94	0.26	17,17,17,17	0
58	MG	XA	1661	1/1	0.94	0.09	2,2,2,2	0
58	MG	RA	3222	1/1	0.94	0.12	2,2,2,2	0
58	MG	RA	3186	1/1	0.94	0.28	17,17,17,17	0
58	MG	RA	3187	1/1	0.94	0.21	42,42,42,42	0
58	MG	RA	3240	1/1	0.95	0.29	5,5,5,5	0
58	MG	RA	3114	1/1	0.95	0.16	10,10,10,10	0
58	MG	RA	3054	1/1	0.95	0.25	18,18,18,18	0
58	MG	YA	3019	1/1	0.95	0.34	13,13,13,13	0
58	MG	RA	3055	1/1	0.95	0.12	10,10,10,10	0
58	MG	QA	1625	1/1	0.95	0.29	29,29,29,29	0
58	MG	QA	1615	1/1	0.95	0.21	9,9,9,9	0
58	MG	YA	3029	1/1	0.95	0.22	12,12,12,12	0
58	MG	YA	3030	1/1	0.95	0.61	18,18,18,18	0
58	MG	RB	201	1/1	0.95	0.08	16,16,16,16	0
58	MG	QA	1619	1/1	0.95	0.25	12,12,12,12	0
58	MG	RA	3009	1/1	0.95	0.94	74,74,74,74	0
58	MG	RA	3165	1/1	0.95	0.23	30,30,30,30	0
58	MG	QA	1606	1/1	0.95	0.43	10,10,10,10	0
58	MG	RA	3071	1/1	0.95	0.24	11,11,11,11	0
58	MG	QA	1662	1/1	0.95	0.12	0,0,0,0	0
58	MG	YA	3147	1/1	0.95	0.27	9,9,9,9	0
58	MG	YA	3149	1/1	0.95	0.21	16,16,16,16	0
58	MG	YA	3047	1/1	0.95	0.31	3,3,3,3	0
58	MG	XA	1603	1/1	0.95	0.11	1,1,1,1	0
58	MG	RA	3175	1/1	0.95	0.27	14,14,14,14	0
58	MG	XA	1660	1/1	0.95	0.18	22,22,22,22	0
58	MG	XA	1606	1/1	0.95	0.23	3,3,3,3	0
58	MG	XA	1662	1/1	0.95	0.14	12,12,12,12	0
58	MG	QA	1613	1/1	0.95	0.36	8,8,8,8	0
58	MG	YA	3057	1/1	0.95	0.34	11,11,11,11	0
58	MG	RA	3219	1/1	0.95	0.24	8,8,8,8	0
58	MG	QA	1630	1/1	0.95	0.17	7,7,7,7	0
58	MG	RA	3179	1/1	0.95	0.14	4,4,4,4	0
58	MG	YA	3241	1/1	0.95	0.17	18,18,18,18	0
58	MG	YA	3065	1/1	0.95	0.22	31,31,31,31	0
58	MG	XA	1669	1/1	0.95	0.06	55,55,55,55	0
58	MG	QA	1624	1/1	0.95	0.12	26,26,26,26	0
58	MG	XA	1615	1/1	0.95	0.08	19,19,19,19	0
58	MG	RA	3018	1/1	0.95	0.26	5,5,5,5	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	XA	1673	1/1	0.95	0.12	6,6,6,6	0
58	MG	XA	1618	1/1	0.95	0.12	0,0,0,0	0
58	MG	RA	3019	1/1	0.95	0.11	8,8,8,8	0
58	MG	QA	1633	1/1	0.95	0.23	15,15,15,15	0
58	MG	YA	3084	1/1	0.95	0.15	12,12,12,12	0
58	MG	RA	3090	1/1	0.95	0.20	6,6,6,6	0
58	MG	XA	1622	1/1	0.95	0.23	6,6,6,6	0
58	MG	RA	3027	1/1	0.95	0.21	15,15,15,15	0
58	MG	QA	1646	1/1	0.95	0.16	28,28,28,28	0
58	MG	QA	1634	1/1	0.95	0.42	23,23,23,23	0
58	MG	YA	3258	1/1	0.95	0.34	4,4,4,4	0
58	MG	QA	1669	1/1	0.95	0.20	18,18,18,18	0
58	MG	XA	1629	1/1	0.95	0.23	4,4,4,4	0
58	MG	YA	3186	1/1	0.95	0.24	25,25,25,25	0
58	MG	RA	3102	1/1	0.95	0.33	21,21,21,21	0
58	MG	RA	3042	1/1	0.95	0.23	1,1,1,1	0
58	MG	YA	3265	1/1	0.95	0.17	24,24,24,24	0
58	MG	RA	3043	1/1	0.95	0.27	10,10,10,10	0
58	MG	RA	3195	1/1	0.95	0.14	7,7,7,7	0
58	MG	YA	3007	1/1	0.95	0.16	8,8,8,8	0
58	MG	YA	3008	1/1	0.95	0.24	8,8,8,8	0
58	MG	RA	3044	1/1	0.95	0.21	8,8,8,8	0
58	MG	QA	1649	1/1	0.95	0.14	32,32,32,32	0
58	MG	YA	3121	1/1	0.95	0.11	6,6,6,6	0
58	MG	RA	3108	1/1	0.95	0.10	6,6,6,6	0
58	MG	XA	1605	1/1	0.96	0.35	15,15,15,15	0
58	MG	RA	3011	1/1	0.96	0.23	0,0,0,0	0
58	MG	RA	3206	1/1	0.96	0.14	5,5,5,5	0
58	MG	YA	3076	1/1	0.96	0.34	10,10,10,10	0
58	MG	YA	3077	1/1	0.96	0.25	6,6,6,6	0
58	MG	XA	1608	1/1	0.96	0.17	1,1,1,1	0
58	MG	YA	3079	1/1	0.96	0.19	22,22,22,22	0
58	MG	YA	3189	1/1	0.96	0.07	30,30,30,30	0
58	MG	QA	1657	1/1	0.96	0.12	19,19,19,19	0
58	MG	XA	1674	1/1	0.96	0.17	4,4,4,4	0
58	MG	RA	3064	1/1	0.96	0.24	4,4,4,4	0
58	MG	YA	3086	1/1	0.96	0.20	3,3,3,3	0
58	MG	RA	3109	1/1	0.96	0.20	0,0,0,0	0
58	MG	RA	3111	1/1	0.96	0.20	12,12,12,12	0
58	MG	YA	3196	1/1	0.96	0.11	41,41,41,41	0
58	MG	YA	3094	1/1	0.96	0.17	12,12,12,12	0
58	MG	RA	3213	1/1	0.96	0.13	9,9,9,9	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	RA	3032	1/1	0.96	0.25	14,14,14,14	0
58	MG	QA	1648	1/1	0.96	0.12	43,43,43,43	0
58	MG	RA	3119	1/1	0.96	0.16	20,20,20,20	0
58	MG	RA	3217	1/1	0.96	0.09	8,8,8,8	0
58	MG	RA	3070	1/1	0.96	0.17	4,4,4,4	0
58	MG	RA	3034	1/1	0.96	0.27	6,6,6,6	0
58	MG	XA	1623	1/1	0.96	0.05	28,28,28,28	0
58	MG	YA	3113	1/1	0.96	0.22	17,17,17,17	0
58	MG	RA	3166	1/1	0.96	0.23	5,5,5,5	0
58	MG	YA	3212	1/1	0.96	0.09	10,10,10,10	0
58	MG	RA	3167	1/1	0.96	0.18	1,1,1,1	0
58	MG	YA	3117	1/1	0.96	0.11	28,28,28,28	0
58	MG	RA	3168	1/1	0.96	0.19	3,3,3,3	0
58	MG	YA	3004	1/1	0.96	0.15	11,11,11,11	0
58	MG	YA	3005	1/1	0.96	0.22	26,26,26,26	0
58	MG	RA	3169	1/1	0.96	0.20	13,13,13,13	0
58	MG	QA	1637	1/1	0.96	0.09	17,17,17,17	0
58	MG	RA	3123	1/1	0.96	0.08	10,10,10,10	0
58	MG	RA	3038	1/1	0.96	0.22	4,4,4,4	0
58	MG	YA	3224	1/1	0.96	0.26	18,18,18,18	0
58	MG	RA	3039	1/1	0.96	0.29	7,7,7,7	0
58	MG	RA	3041	1/1	0.96	0.26	9,9,9,9	0
58	MG	YA	3015	1/1	0.96	0.52	74,74,74,74	0
58	MG	RA	3015	1/1	0.96	0.27	0,0,0,0	0
58	MG	RA	3079	1/1	0.96	0.07	25,25,25,25	0
58	MG	RA	3081	1/1	0.96	0.39	18,18,18,18	0
58	MG	RA	3133	1/1	0.96	0.16	7,7,7,7	0
58	MG	YA	3022	1/1	0.96	0.26	7,7,7,7	0
58	MG	RA	3134	1/1	0.96	0.26	17,17,17,17	0
58	MG	YA	3026	1/1	0.96	0.26	5,5,5,5	0
58	MG	RA	3084	1/1	0.96	0.20	14,14,14,14	0
58	MG	YA	3240	1/1	0.96	0.15	12,12,12,12	0
58	MG	YA	3143	1/1	0.96	0.09	0,0,0,0	0
58	MG	RA	3007	1/1	0.96	0.42	8,8,8,8	0
58	MG	RA	3137	1/1	0.96	0.25	14,14,14,14	0
58	MG	QA	1652	1/1	0.96	0.10	13,13,13,13	0
58	MG	RA	3089	1/1	0.96	0.16	6,6,6,6	0
58	MG	YA	3034	1/1	0.96	0.22	7,7,7,7	0
58	MG	RA	3045	1/1	0.96	0.15	2,2,2,2	0
58	MG	RA	3189	1/1	0.96	0.12	14,14,14,14	0
58	MG	XA	1649	1/1	0.96	0.13	17,17,17,17	0
58	MG	RA	3046	1/1	0.96	0.36	24,24,24,24	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	YA	3043	1/1	0.96	0.28	5,5,5,5	0
58	MG	YA	3045	1/1	0.96	0.25	5,5,5,5	0
58	MG	QA	1610	1/1	0.96	0.22	21,21,21,21	0
58	MG	XA	1653	1/1	0.96	0.37	42,42,42,42	0
58	MG	YA	3048	1/1	0.96	0.15	4,4,4,4	0
58	MG	QA	1644	1/1	0.96	0.11	26,26,26,26	0
58	MG	RA	3097	1/1	0.96	0.21	5,5,5,5	0
58	MG	YA	3052	1/1	0.96	0.16	12,12,12,12	0
58	MG	RA	3100	1/1	0.96	0.13	0,0,0,0	0
58	MG	YA	3261	1/1	0.96	0.49	16,16,16,16	0
58	MG	RA	3197	1/1	0.96	0.18	81,81,81,81	0
58	MG	XA	1659	1/1	0.96	0.12	36,36,36,36	0
58	MG	RA	3025	1/1	0.96	0.23	3,3,3,3	0
58	MG	RA	3026	1/1	0.96	0.24	7,7,7,7	0
58	MG	RA	3150	1/1	0.96	0.23	27,27,27,27	0
58	MG	R8	101	1/1	0.96	0.15	6,6,6,6	0
58	MG	RA	3153	1/1	0.96	0.12	0,0,0,0	0
58	MG	RA	3058	1/1	0.96	0.11	5,5,5,5	0
58	MG	YA	3067	1/1	0.96	0.27	17,17,17,17	0
58	MG	YA	3177	1/1	0.96	0.13	4,4,4,4	0
58	MG	YX	101	1/1	0.96	0.19	47,47,47,47	0
58	MG	XA	1666	1/1	0.96	0.52	85,85,85,85	0
58	MG	RA	3060	1/1	0.96	0.20	15,15,15,15	0
58	MG	YA	3109	1/1	0.97	0.08	10,10,10,10	0
58	MG	YA	3110	1/1	0.97	0.14	4,4,4,4	0
58	MG	RA	3085	1/1	0.97	0.23	7,7,7,7	0
58	MG	RA	3061	1/1	0.97	0.16	0,0,0,0	0
58	MG	YA	3114	1/1	0.97	0.22	6,6,6,6	0
58	MG	YA	3033	1/1	0.97	0.17	12,12,12,12	0
58	MG	XA	1616	1/1	0.97	0.18	5,5,5,5	0
58	MG	RA	3023	1/1	0.97	0.23	9,9,9,9	0
58	MG	RA	3024	1/1	0.97	0.29	11,11,11,11	0
58	MG	YA	3037	1/1	0.97	0.14	16,16,16,16	0
58	MG	YA	3202	1/1	0.97	0.21	38,38,38,38	0
58	MG	YA	3038	1/1	0.97	0.33	16,16,16,16	0
58	MG	YA	3204	1/1	0.97	0.59	42,42,42,42	0
58	MG	YA	3039	1/1	0.97	0.17	20,20,20,20	0
58	MG	YA	3122	1/1	0.97	0.15	9,9,9,9	0
58	MG	YA	3123	1/1	0.97	0.21	1,1,1,1	0
58	MG	QA	1605	1/1	0.97	0.28	6,6,6,6	0
58	MG	YA	3209	1/1	0.97	0.14	7,7,7,7	0
58	MG	YA	3125	1/1	0.97	0.14	11,11,11,11	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	RA	3192	1/1	0.97	0.24	17,17,17,17	0
58	MG	YA	3042	1/1	0.97	0.23	15,15,15,15	0
58	MG	YA	3129	1/1	0.97	0.16	20,20,20,20	0
58	MG	RA	3066	1/1	0.97	0.16	7,7,7,7	0
58	MG	YA	3044	1/1	0.97	0.24	2,2,2,2	0
58	MG	RA	3093	1/1	0.97	0.24	12,12,12,12	0
58	MG	RA	3049	1/1	0.97	0.23	12,12,12,12	0
58	MG	RA	3050	1/1	0.97	0.18	9,9,9,9	0
58	MG	XA	1625	1/1	0.97	0.11	5,5,5,5	0
58	MG	YA	3221	1/1	0.97	0.08	19,19,19,19	0
58	MG	RA	3069	1/1	0.97	0.17	19,19,19,19	0
58	MG	YA	3050	1/1	0.97	0.23	5,5,5,5	0
58	MG	RA	3236	1/1	0.97	0.37	13,13,13,13	0
58	MG	YA	3225	1/1	0.97	0.14	12,12,12,12	0
58	MG	RA	3099	1/1	0.97	0.31	11,11,11,11	0
58	MG	RA	3131	1/1	0.97	0.30	7,7,7,7	0
58	MG	RA	3132	1/1	0.97	0.20	9,9,9,9	0
58	MG	QA	1620	1/1	0.97	0.10	3,3,3,3	0
58	MG	RA	3052	1/1	0.97	0.17	1,1,1,1	0
58	MG	RA	3053	1/1	0.97	0.10	2,2,2,2	0
58	MG	RA	3244	1/1	0.97	0.17	0,0,0,0	0
58	MG	RA	3103	1/1	0.97	0.28	5,5,5,5	0
58	MG	RA	3246	1/1	0.97	0.17	33,33,33,33	0
58	MG	YA	3062	1/1	0.97	0.20	4,4,4,4	0
58	MG	RA	3170	1/1	0.97	0.09	9,9,9,9	0
58	MG	XA	1638	1/1	0.97	0.15	4,4,4,4	0
58	MG	YA	3068	1/1	0.97	0.19	20,20,20,20	0
58	MG	YA	3069	1/1	0.97	0.26	12,12,12,12	0
58	MG	QA	1654	1/1	0.97	0.14	12,12,12,12	0
58	MG	RA	3028	1/1	0.97	0.30	17,17,17,17	0
58	MG	RA	3210	1/1	0.97	0.22	8,8,8,8	0
58	MG	RA	3211	1/1	0.97	0.20	16,16,16,16	0
58	MG	YA	3006	1/1	0.97	0.16	26,26,26,26	0
58	MG	RA	3029	1/1	0.97	0.23	2,2,2,2	0
58	MG	XA	1645	1/1	0.97	0.18	5,5,5,5	0
58	MG	RA	3057	1/1	0.97	0.14	4,4,4,4	0
58	MG	RA	3176	1/1	0.97	0.06	21,21,21,21	0
58	MG	YA	3166	1/1	0.97	0.12	11,11,11,11	0
58	MG	YA	3167	1/1	0.97	0.12	15,15,15,15	0
58	MG	R8	102	1/1	0.97	0.20	2,2,2,2	0
58	MG	RA	3077	1/1	0.97	0.18	6,6,6,6	0
58	MG	RA	3030	1/1	0.97	0.19	8,8,8,8	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	YA	3085	1/1	0.97	0.25	17,17,17,17	0
58	MG	RA	3059	1/1	0.97	0.23	8,8,8,8	0
58	MG	YA	3088	1/1	0.97	0.20	6,6,6,6	0
58	MG	YA	3175	1/1	0.97	0.25	14,14,14,14	0
58	MG	XA	1652	1/1	0.97	0.07	32,32,32,32	0
58	MG	RA	3145	1/1	0.97	0.17	3,3,3,3	0
58	MG	RA	3112	1/1	0.97	0.18	7,7,7,7	0
58	MG	YA	3095	1/1	0.97	0.20	19,19,19,19	0
58	MG	RA	3113	1/1	0.97	0.13	1,1,1,1	0
58	MG	YA	3097	1/1	0.97	0.14	11,11,11,11	0
58	MG	YB	203	1/1	0.97	0.14	4,4,4,4	0
58	MG	RA	3083	1/1	0.97	0.22	32,32,32,32	0
58	MG	YA	3025	1/1	0.97	0.13	16,16,16,16	0
58	MG	XA	1657	1/1	0.97	0.18	19,19,19,19	0
58	MG	YA	3104	1/1	0.97	0.09	0,0,0,0	0
58	MG	QA	1651	1/1	0.97	0.11	5,5,5,5	0
58	MG	RA	3116	1/1	0.97	0.11	8,8,8,8	0
58	MG	RA	3152	1/1	0.97	0.24	14,14,14,14	0
58	MG	YA	3087	1/1	0.98	0.19	5,5,5,5	0
58	MG	RA	3117	1/1	0.98	0.12	11,11,11,11	0
58	MG	YA	3089	1/1	0.98	0.26	13,13,13,13	0
58	MG	RA	3118	1/1	0.98	0.24	16,16,16,16	0
58	MG	YA	3091	1/1	0.98	0.22	29,29,29,29	0
58	MG	YA	3092	1/1	0.98	0.14	28,28,28,28	0
58	MG	QA	1609	1/1	0.98	0.10	32,32,32,32	0
58	MG	QA	1638	1/1	0.98	0.10	14,14,14,14	0
58	MG	RA	3096	1/1	0.98	0.30	17,17,17,17	0
58	MG	XA	1612	1/1	0.98	0.24	10,10,10,10	0
58	MG	YA	3157	1/1	0.98	0.17	0,0,0,0	0
58	MG	RA	3040	1/1	0.98	0.20	13,13,13,13	0
58	MG	YA	3098	1/1	0.98	0.33	8,8,8,8	0
58	MG	XA	1614	1/1	0.98	0.10	21,21,21,21	0
58	MG	YA	3100	1/1	0.98	0.23	8,8,8,8	0
58	MG	YA	3101	1/1	0.98	0.32	5,5,5,5	0
58	MG	RA	3098	1/1	0.98	0.12	10,10,10,10	0
58	MG	QA	1656	1/1	0.98	0.27	44,44,44,44	0
58	MG	YA	3229	1/1	0.98	0.15	14,14,14,14	0
58	MG	RA	3239	1/1	0.98	0.23	0,0,0,0	0
58	MG	QA	1631	1/1	0.98	0.14	50,50,50,50	0
58	MG	YA	3232	1/1	0.98	0.24	35,35,35,35	0
58	MG	QA	1614	1/1	0.98	0.13	2,2,2,2	0
58	MG	YA	3107	1/1	0.98	0.17	9,9,9,9	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
58	MG	YA	3009	1/1	0.98	0.17	15,15,15,15	0
58	MG	YA	3010	1/1	0.98	0.28	15,15,15,15	0
58	MG	RA	3078	1/1	0.98	0.21	16,16,16,16	0
58	MG	RA	3128	1/1	0.98	0.11	9,9,9,9	0
58	MG	QA	1607	1/1	0.98	0.15	22,22,22,22	0
58	MG	QA	1661	1/1	0.98	0.16	50,50,50,50	0
58	MG	RA	3082	1/1	0.98	0.18	10,10,10,10	0
58	MG	QA	1650	1/1	0.98	0.17	53,53,53,53	0
58	MG	YA	3017	1/1	0.98	0.14	11,11,11,11	0
58	MG	YA	3061	1/1	0.98	0.14	15,15,15,15	0
58	MG	RA	3047	1/1	0.98	0.15	19,19,19,19	0
58	MG	YA	3064	1/1	0.98	0.14	4,4,4,4	0
58	MG	RB	202	1/1	0.98	0.13	29,29,29,29	0
58	MG	YA	3066	1/1	0.98	0.31	6,6,6,6	0
58	MG	YA	3185	1/1	0.98	0.28	22,22,22,22	0
58	MG	RA	3065	1/1	0.98	0.19	0,0,0,0	0
58	MG	QA	1611	1/1	0.98	0.11	1,1,1,1	0
58	MG	YA	3253	1/1	0.98	0.14	22,22,22,22	0
58	MG	YA	3023	1/1	0.98	0.29	18,18,18,18	0
58	MG	RE	302	1/1	0.98	0.23	15,15,15,15	0
58	MG	XA	1668	1/1	0.98	0.13	0,0,0,0	0
58	MG	YA	3128	1/1	0.98	0.46	6,6,6,6	0
58	MG	RA	3110	1/1	0.98	0.13	19,19,19,19	0
58	MG	YA	3073	1/1	0.98	0.10	4,4,4,4	0
58	MG	YA	3131	1/1	0.98	0.14	16,16,16,16	0
58	MG	RP	201	1/1	0.98	0.92	118,118,118,118	0
58	MG	RP	202	1/1	0.98	0.43	76,76,76,76	0
58	MG	QA	1608	1/1	0.98	0.06	4,4,4,4	0
58	MG	RA	3194	1/1	0.98	0.25	0,0,0,0	0
58	MG	RA	3020	1/1	0.98	0.20	4,4,4,4	0
58	MG	RA	3139	1/1	0.98	0.19	12,12,12,12	0
58	MG	YA	3201	1/1	0.98	0.13	57,57,57,57	0
58	MG	YA	3138	1/1	0.98	0.18	6,6,6,6	0
58	MG	RA	3021	1/1	0.98	0.22	18,18,18,18	0
58	MG	RA	3091	1/1	0.98	0.28	9,9,9,9	0
58	MG	YP	201	1/1	0.98	1.20	54,54,54,54	0
58	MG	YA	3082	1/1	0.98	0.13	17,17,17,17	0
58	MG	YA	3083	1/1	0.98	0.25	5,5,5,5	0
58	MG	QA	1623	1/1	0.98	0.13	46,46,46,46	0
58	MG	RA	3200	1/1	0.98	0.12	9,9,9,9	0
58	MG	Y5	101	1/1	0.98	0.26	13,13,13,13	0
58	MG	QV	101	1/1	0.98	0.20	22,22,22,22	0

Continued on next page...

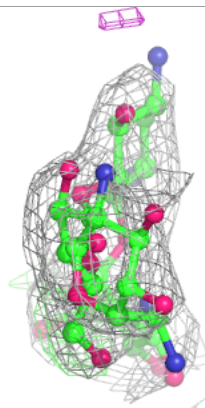
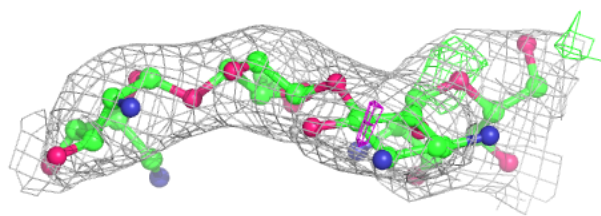
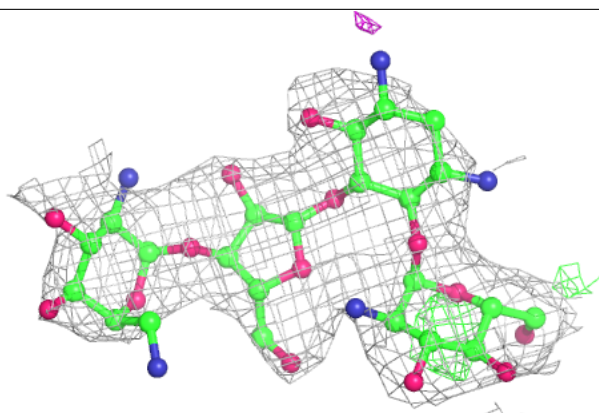
Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
58	MG	XV	101	1/1	0.98	0.12	3,3,3,3	0
58	MG	RA	3037	1/1	0.98	0.88	74,74,74,74	0
59	ZN	XN	101	1/1	0.98	0.12	70,70,70,70	0
58	MG	QA	1659	1/1	0.99	0.09	42,42,42,42	0
58	MG	RA	3016	1/1	0.99	0.18	8,8,8,8	0
58	MG	YA	3180	1/1	0.99	0.24	19,19,19,19	0
58	MG	YA	3213	1/1	0.99	0.12	31,31,31,31	0
58	MG	YA	3111	1/1	0.99	0.08	26,26,26,26	0
58	MG	YA	3063	1/1	0.99	0.36	12,12,12,12	0
58	MG	RA	3035	1/1	0.99	0.11	2,2,2,2	0
58	MG	YA	3168	1/1	0.99	0.26	3,3,3,3	0
58	MG	RA	3151	1/1	0.99	0.38	3,3,3,3	0
58	MG	YA	3021	1/1	0.99	0.26	8,8,8,8	0
58	MG	RA	3080	1/1	0.99	0.25	10,10,10,10	0
58	MG	YA	3238	1/1	0.99	0.27	76,76,76,76	0
58	MG	XA	1644	1/1	0.99	0.13	4,4,4,4	0
58	MG	RA	3174	1/1	0.99	0.06	17,17,17,17	0
58	MG	RA	3048	1/1	0.99	0.17	2,2,2,2	0
58	MG	RA	3087	1/1	0.99	0.18	10,10,10,10	0
58	MG	YA	3027	1/1	0.99	0.22	21,21,21,21	0
59	ZN	QN	101	1/1	0.99	0.07	86,86,86,86	0
58	MG	YA	3148	1/1	0.99	0.12	15,15,15,15	0
59	ZN	XD	301	1/1	1.00	0.29	10,10,10,10	0
59	ZN	QD	301	1/1	1.00	0.23	27,27,27,27	0

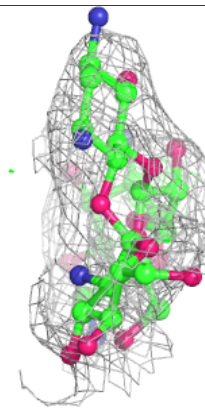
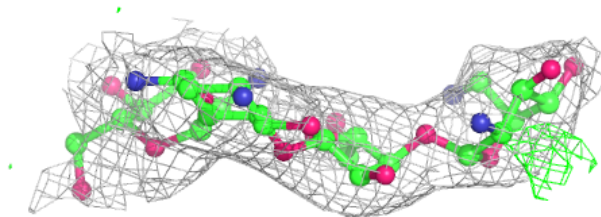
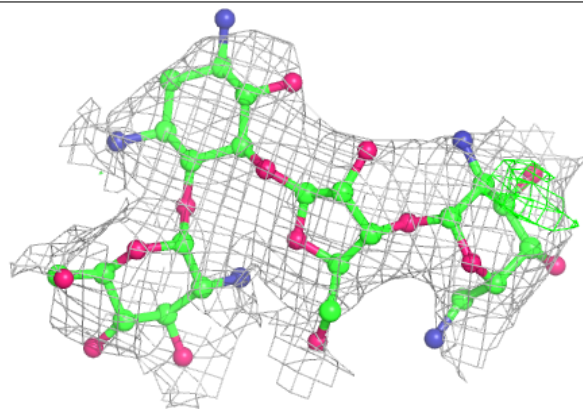
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around PAR QA 1601:

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

**Electron density around PAR XA 1601:**

$2mF_o-DF_c$ (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.