



Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 11:16 PM BST

PDB ID : 4V9O
Title : Control of ribosomal subunit rotation by elongation factor G
Authors : Pulk, A.; Cate, J.H.D.
Deposited on : 2013-05-03
Resolution : 2.90 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

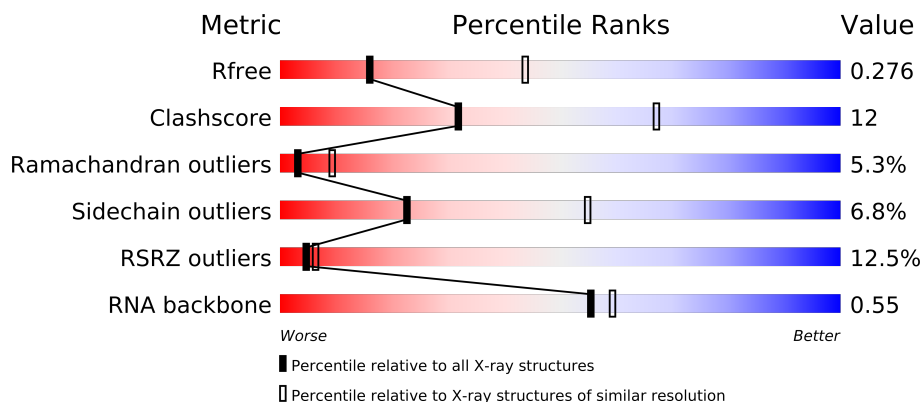
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.16 November 2013
Xtriage (Phenix) : dev-1323
EDS : stable23397
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable23397

1 Overall quality at a glance

The reported resolution of this entry is 2.90 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	66092	1053 (2.90-2.90)
Clashscore	79885	1326 (2.90-2.90)
Ramachandran outliers	78287	1290 (2.90-2.90)
Sidechain outliers	78261	1292 (2.90-2.90)
RSRZ outliers	66119	1054 (2.90-2.90)
RNA backbone	1838	1055 (3.40-2.40)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	AB	120	
1	CB	120	
1	EB	120	
1	GB	120	
2	AC	273	
2	CC	273	
2	EC	273	
2	GC	273	
3	AA	2904	
3	CA	2904	
3	EA	2904	
3	GA	2904	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
4	AD	209	
4	CD	209	
4	ED	209	
4	GD	209	
5	AE	201	
5	CE	201	
5	EE	201	
5	GE	201	
6	AF	179	
6	CF	179	
6	EF	179	
6	GF	179	
7	AG	177	
7	CG	177	
7	EG	177	
7	GG	177	
8	AH	50	
8	CH	50	
8	EH	50	
8	GH	50	
9	AI	142	
9	CI	142	
9	EI	142	
9	GI	142	
10	AJ	142	
10	CJ	142	
10	EJ	142	
10	GJ	142	
11	AK	123	
11	CK	123	
11	EK	123	
11	GK	123	
12	AL	144	
12	CL	144	
12	EL	144	
12	GL	144	
13	AM	136	
13	CM	136	
13	EM	136	
13	GM	136	
14	AN	127	
14	CN	127	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
14	EN	127	
14	GN	127	
15	AO	117	
15	CO	117	
15	EO	117	
15	GO	117	
16	AP	115	
16	CP	115	
16	EP	115	
16	GP	115	
17	AQ	118	
17	CQ	118	
17	EQ	118	
17	GQ	118	
18	AR	103	
18	CR	103	
18	ER	103	
18	GR	103	
19	AS	110	
19	CS	110	
19	ES	110	
19	GS	110	
20	AT	100	
20	CT	100	
20	ET	100	
20	GT	100	
21	AU	104	
21	CU	104	
21	EU	104	
21	GU	104	
22	AV	94	
22	CV	94	
22	EV	94	
22	GV	94	
23	AW	85	
23	CW	85	
23	EW	85	
23	GW	85	
24	AX	78	
24	CX	78	
24	EX	78	
24	GX	78	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
25	AY	63	
25	CY	63	
25	EY	63	
25	GY	63	
26	AZ	59	
26	CZ	59	
26	EZ	59	
26	GZ	59	
27	A0	57	
27	C0	57	
27	E0	57	
27	G0	57	
28	A1	55	
28	C1	55	
28	E1	55	
28	G1	55	
29	A2	46	
29	C2	46	
29	E2	46	
29	G2	46	
30	A3	65	
30	C3	65	
30	E3	65	
30	G3	65	
31	A4	38	
31	C4	38	
31	E4	38	
31	G4	38	
32	A5	165	
32	C5	165	
32	E5	165	
33	A6	121	
34	BB	241	
34	DB	241	
34	FB	241	
34	HB	241	
35	BA	1542	
35	DA	1542	
35	FA	1542	
35	HA	1542	
36	BC	233	
36	DC	233	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
36	FC	233	
36	HC	233	
37	BD	206	
37	DD	206	
37	FD	206	
37	HD	206	
38	BE	167	
38	DE	167	
38	FE	167	
38	HE	167	
39	BF	135	
39	DF	135	
39	FF	135	
39	HF	135	
40	BG	179	
40	DG	179	
40	FG	179	
40	HG	179	
41	BH	130	
41	DH	130	
41	FH	130	
41	HH	130	
42	BI	130	
42	DI	130	
42	FI	130	
42	HI	130	
43	BJ	103	
43	DJ	103	
43	FJ	103	
43	HJ	103	
44	BK	129	
44	DK	129	
44	FK	129	
44	HK	129	
45	BL	124	
45	DL	124	
45	FL	124	
45	HL	124	
46	BM	118	
46	DM	118	
46	FM	118	
46	HM	118	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
47	BN	101	
47	DN	101	
47	FN	101	
47	HN	101	
48	BO	89	
48	DO	89	
48	FO	89	
48	HO	89	
49	BP	82	
49	DP	82	
49	FP	82	
49	HP	82	
50	BQ	84	
50	DQ	84	
50	FQ	84	
50	HQ	84	
51	BR	75	
51	DR	75	
51	FR	75	
51	HR	75	
52	BS	92	
52	DS	92	
52	FS	92	
52	HS	92	
53	BT	87	
53	DT	87	
53	FT	87	
53	HT	87	
54	BU	71	
54	DU	71	
54	FU	71	
54	HU	71	
55	BV	704	
55	DV	704	
55	FV	704	
55	HV	704	
56	BW	6	
56	DW	6	
56	FW	6	
56	HW	6	

The following table lists non-polymeric compounds that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Geometry	Electron density
57	MG	AA	3001	-	X
57	MG	AA	3010	-	X
57	MG	AA	3011	-	X
57	MG	AA	3015	-	X
57	MG	AA	3026	-	X
57	MG	AA	3029	-	X
57	MG	AA	3037	-	X
57	MG	AA	3038	-	X
57	MG	AA	3040	-	X
57	MG	AA	3041	-	X
57	MG	AA	3042	-	X
57	MG	AA	3045	-	X
57	MG	AA	3046	-	X
57	MG	AA	3047	-	X
57	MG	AA	3050	-	X
57	MG	AA	3061	-	X
57	MG	AA	3066	-	X
57	MG	AA	3068	-	X
57	MG	AA	3078	-	X
57	MG	AA	3083	-	X
57	MG	AA	3090	-	X
57	MG	AA	3093	-	X
57	MG	AA	3095	-	X
57	MG	AA	3097	-	X
57	MG	AA	3100	-	X
57	MG	AA	3106	-	X
57	MG	AA	3107	-	X
57	MG	AA	3108	-	X
57	MG	AA	3111	-	X
57	MG	AA	3112	-	X
57	MG	AA	3115	-	X
57	MG	AA	3124	-	X
57	MG	AA	3125	-	X
57	MG	AA	3129	-	X
57	MG	AA	3134	-	X
57	MG	AA	3135	-	X
57	MG	AA	3136	-	X
57	MG	AE	301	-	X
57	MG	BA	1602	-	X
57	MG	BA	1603	-	X
57	MG	BA	1605	-	X
57	MG	BA	1608	-	X
57	MG	BA	1615	-	X

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Geometry	Electron density
57	MG	BA	1616	-	X
57	MG	BA	1624	-	X
57	MG	BA	1626	-	X
57	MG	BA	1627	-	X
57	MG	BA	1637	-	X
57	MG	BA	1638	-	X
57	MG	BA	1639	-	X
57	MG	CA	3005	-	X
57	MG	CA	3007	-	X
57	MG	CA	3010	-	X
57	MG	CA	3011	-	X
57	MG	CA	3014	-	X
57	MG	CA	3023	-	X
57	MG	CA	3024	-	X
57	MG	CA	3037	-	X
57	MG	CA	3039	-	X
57	MG	CA	3040	-	X
57	MG	CA	3046	-	X
57	MG	CA	3051	-	X
57	MG	CA	3056	-	X
57	MG	CA	3065	-	X
57	MG	CA	3067	-	X
57	MG	CA	3068	-	X
57	MG	CA	3077	-	X
57	MG	CA	3086	-	X
57	MG	CA	3088	-	X
57	MG	CA	3089	-	X
57	MG	CA	3090	-	X
57	MG	CA	3091	-	X
57	MG	CA	3092	-	X
57	MG	CA	3094	-	X
57	MG	CA	3096	-	X
57	MG	CA	3102	-	X
57	MG	CA	3105	-	X
57	MG	CA	3106	-	X
57	MG	CA	3109	-	X
57	MG	CA	3112	-	X
57	MG	CA	3115	-	X
57	MG	CA	3120	-	X
57	MG	CA	3123	-	X
57	MG	CA	3125	-	X
57	MG	CA	3128	-	X

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Geometry	Electron density
57	MG	CA	3131	-	X
57	MG	CA	3134	-	X
57	MG	CA	3135	-	X
57	MG	CA	3136	-	X
57	MG	CB	1201	-	X
57	MG	DA	1608	-	X
57	MG	DA	1615	-	X
57	MG	DA	1619	-	X
57	MG	DA	1628	-	X
57	MG	DA	1629	-	X
57	MG	DA	1636	-	X
57	MG	DA	1642	-	X
57	MG	DV	802	-	X
57	MG	EA	3003	-	X
57	MG	EA	3005	-	X
57	MG	EA	3009	-	X
57	MG	EA	3011	-	X
57	MG	EA	3015	-	X
57	MG	EA	3018	-	X
57	MG	EA	3023	-	X
57	MG	EA	3029	-	X
57	MG	EA	3030	-	X
57	MG	EA	3033	-	X
57	MG	EA	3038	-	X
57	MG	EA	3040	-	X
57	MG	EA	3041	-	X
57	MG	EA	3042	-	X
57	MG	EA	3046	-	X
57	MG	EA	3051	-	X
57	MG	EA	3055	-	X
57	MG	EA	3067	-	X
57	MG	EA	3069	-	X
57	MG	EA	3070	-	X
57	MG	EA	3085	-	X
57	MG	EA	3088	-	X
57	MG	EA	3091	-	X
57	MG	EA	3097	-	X
57	MG	EA	3103	-	X
57	MG	EA	3121	-	X
57	MG	EA	3122	-	X
57	MG	EA	3123	-	X
57	MG	EA	3124	-	X

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Geometry	Electron density
57	MG	EA	3125	-	X
57	MG	EA	3134	-	X
57	MG	EA	3136	-	X
57	MG	EA	3137	-	X
57	MG	FA	1608	-	X
57	MG	FA	1609	-	X
57	MG	FA	1610	-	X
57	MG	FA	1611	-	X
57	MG	FA	1612	-	X
57	MG	FA	1613	-	X
57	MG	FA	1618	-	X
57	MG	FA	1622	-	X
57	MG	FA	1623	-	X
57	MG	FA	1624	-	X
57	MG	FA	1626	-	X
57	MG	FA	1627	-	X
57	MG	FA	1635	-	X
57	MG	FV	802	-	X
57	MG	GA	3009	-	X
57	MG	GA	3010	-	X
57	MG	GA	3015	-	X
57	MG	GA	3021	-	X
57	MG	GA	3023	-	X
57	MG	GA	3030	-	X
57	MG	GA	3033	-	X
57	MG	GA	3037	-	X
57	MG	GA	3039	-	X
57	MG	GA	3045	-	X
57	MG	GA	3049	-	X
57	MG	GA	3050	-	X
57	MG	GA	3051	-	X
57	MG	GA	3055	-	X
57	MG	GA	3066	-	X
57	MG	GA	3067	-	X
57	MG	GA	3068	-	X
57	MG	GA	3076	-	X
57	MG	GA	3079	-	X
57	MG	GA	3084	-	X
57	MG	GA	3087	-	X
57	MG	GA	3088	-	X
57	MG	GA	3089	-	X
57	MG	GA	3092	-	X

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Geometry	Electron density
57	MG	GA	3095	-	X
57	MG	GA	3097	-	X
57	MG	GA	3100	-	X
57	MG	GA	3104	-	X
57	MG	GA	3107	-	X
57	MG	GA	3110	-	X
57	MG	GA	3112	-	X
57	MG	GA	3114	-	X
57	MG	GA	3115	-	X
57	MG	GA	3119	-	X
57	MG	GA	3124	-	X
57	MG	GA	3129	-	X
57	MG	GA	3131	-	X
57	MG	GA	3133	-	X
57	MG	GA	3135	-	X
57	MG	GB	1201	-	X
57	MG	HA	1602	-	X
57	MG	HA	1608	-	X
57	MG	HA	1613	-	X
57	MG	HA	1616	-	X
57	MG	HA	1624	-	X
57	MG	HA	1625	-	X
57	MG	HA	1628	-	X

2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 592086 atoms, of which 0 are hydrogen and 0 are deuterium.

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 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
1	CB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
1	EB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
1	GB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			

- Molecule 2 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
2	CC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
2	EC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
2	GC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			

- Molecule 3 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			
3	CA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			
3	EA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			
3	GA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
4	CD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
4	ED	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
4	GD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
5	CE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
5	EE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
5	GE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			
6	CF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			
6	EF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			
6	GF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			
7	CG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			
7	EG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	GG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			
8	CH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			
8	EH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			
8	GH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			

- Molecule 9 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
9	CI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
9	EI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
9	GI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			

- Molecule 10 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
10	CJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
10	EJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
10	GJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			

- Molecule 11 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
11	CK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
11	EK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
11	GK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			

- Molecule 12 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
12	CL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
12	EL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
12	GL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

- Molecule 13 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
13	CM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
13	EM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
13	GM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

- Molecule 14 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			
14	CN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			
14	EN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	GN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			

- Molecule 15 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	116	Total	C	N	O		0	0	0
			892	552	178	162				
15	CO	116	Total	C	N	O		0	0	0
			892	552	178	162				
15	EO	116	Total	C	N	O		0	0	0
			892	552	178	162				
15	GO	116	Total	C	N	O		0	0	0
			892	552	178	162				

- Molecule 16 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
16	CP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
16	EP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
16	GP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			

- Molecule 17 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	117	Total	C	N	O		0	0	0
			947	604	192	151				
17	CQ	117	Total	C	N	O		0	0	0
			947	604	192	151				
17	EQ	117	Total	C	N	O		0	0	0
			947	604	192	151				
17	GQ	117	Total	C	N	O		0	0	0
			947	604	192	151				

- Molecule 18 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
18	CR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
18	ER	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
18	GR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

- Molecule 19 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
19	CS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
19	ES	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
19	GS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 20 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
20	CT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
20	ET	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
20	GT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			

- Molecule 21 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	102	Total	C	N	O	0	0	0
			779	492	146	141			
21	CU	102	Total	C	N	O	0	0	0
			779	492	146	141			
21	EU	102	Total	C	N	O	0	0	0
			779	492	146	141			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	GU	102	Total	C	N	O	0	0	0
			779	492	146	141			

- Molecule 22 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
22	CV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
22	EV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
22	GV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			

- Molecule 23 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			
23	CW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			
23	EW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			
23	GW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			

- Molecule 24 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
24	CX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
24	EX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
24	GX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			

- Molecule 25 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	AY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
25	CY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
25	EY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
25	GY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			

- Molecule 26 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	AZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
26	CZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
26	EZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
26	GZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	A0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
27	C0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
27	E0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
27	G0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
28	A1	50	Total	C	N	O	0	0	0
			409	263	75	71			
28	C1	50	Total	C	N	O	0	0	0
			409	263	75	71			
28	E1	50	Total	C	N	O	0	0	0
			409	263	75	71			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
28	G1	50	Total	C	N	O	0	0	0
			409	263	75	71			

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	A2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
29	C2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
29	E2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
29	G2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

- Molecule 30 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	A3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
30	C3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
30	E3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
30	G3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			

- Molecule 31 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	A4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
31	C4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
31	E4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
31	G4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

- Molecule 32 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	A5	148	Total	C	N	O	S	0	0	0
			1117	705	196	209	7			
32	C5	148	Total	C	N	O	S	0	0	0
			1117	705	196	209	7			
32	E5	145	Total	C	N	O	S	0	0	0
			1101	696	193	205	7			

- Molecule 33 is a protein called 50S ribosomal protein L7/L12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	A6	30	Total	C	N	O	S	0	0	0
			227	144	33	47	3			

- Molecule 34 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
34	DB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
34	FB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
34	HB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			

- Molecule 35 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			
35	DA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			
35	FA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			
35	HA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			

- Molecule 36 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	DC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			
36	FC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			
36	HC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			

- Molecule 37 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
37	DD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
37	FD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
37	HD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			

- Molecule 38 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
38	DE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
38	FE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
38	HE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			

- Molecule 39 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BF	102	Total	C	N	O	S	0	0	0
			832	525	150	150	7			
39	DF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
39	FF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
39	HF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			

- Molecule 40 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			
40	DG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			
40	FG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			
40	HG	151	Total	C	N	O	S	0	0	0
			1181	735	227	215	4			

- Molecule 41 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
41	DH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
41	FH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
41	HH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			

- Molecule 42 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
42	DI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
42	FI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
42	HI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			

- Molecule 43 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			
43	DJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			
43	FJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	HJ	98	Total	C	N	O	S	0	0	0
			786	493	150	142	1			

- Molecule 44 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
44	DK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
44	FK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
44	HK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			

- Molecule 45 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
45	DL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
45	FL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
45	HL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			

- Molecule 46 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			
46	DM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			
46	FM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			
46	HM	114	Total	C	N	O	S	0	0	0
			883	546	178	156	3			

- Molecule 47 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
47	DN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
47	FN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
47	HN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			

- Molecule 48 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	BO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
48	DO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
48	FO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
48	HO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			

- Molecule 49 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
49	DP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
49	FP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
49	HP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			

- Molecule 50 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	BQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			
50	DQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			
50	FQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	HQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			

- Molecule 51 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	BR	55	Total	C	N	O		0	0	0
			455	288	86	81				
51	DR	55	Total	C	N	O		0	0	0
			455	288	86	81				
51	FR	55	Total	C	N	O		0	0	0
			455	288	86	81				
51	HR	55	Total	C	N	O		0	0	0
			455	288	86	81				

- Molecule 52 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	BS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			
52	DS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			
52	FS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			
52	HS	79	Total	C	N	O	S	0	0	0
			637	408	120	107	2			

- Molecule 53 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	BT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
53	DT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
53	FT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
53	HT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			

- Molecule 54 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	BU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			
54	DU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			
54	FU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			
54	HU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			

- Molecule 55 is a protein called Elongation factor G.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	BV	690	Total	C	N	O	S	0	0	0
			5345	3369	920	1031	25			
55	DV	689	Total	C	N	O	S	0	0	0
			5340	3366	919	1030	25			
55	FV	689	Total	C	N	O	S	0	0	0
			5340	3366	919	1030	25			
55	HV	689	Total	C	N	O	S	0	0	0
			5340	3366	919	1030	25			

- Molecule 56 is a protein called Viomycin.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
56	BW	6	Total	C	N	O	0	0	0
			48	25	13	10			
56	DW	6	Total	C	N	O	0	0	0
			48	25	13	10			
56	FW	6	Total	C	N	O	0	0	0
			48	25	13	10			
56	HW	6	Total	C	N	O	0	0	0
			48	25	13	10			

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	FA	39	Total	Mg	0	0
			39	39		
57	BA	40	Total	Mg	0	0
			40	40		
57	CA	136	Total	Mg	0	0
			136	136		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	HE	1	Total 1	Mg 1	0	0
57	AB	4	Total 4	Mg 4	0	0
57	BE	1	Total 1	Mg 1	0	0
57	GA	136	Total 136	Mg 136	0	0
57	HA	41	Total 41	Mg 41	0	0
57	EB	4	Total 4	Mg 4	0	0
57	FU	1	Total 1	Mg 1	0	0
57	FV	1	Total 1	Mg 1	0	0
57	C4	1	Total 1	Mg 1	0	0
57	AE	1	Total 1	Mg 1	0	0
57	AA	136	Total 136	Mg 136	0	0
57	FE	1	Total 1	Mg 1	0	0
57	DV	1	Total 1	Mg 1	0	0
57	EA	137	Total 137	Mg 137	0	0
57	BU	1	Total 1	Mg 1	0	0
57	HK	1	Total 1	Mg 1	0	0
57	CN	1	Total 1	Mg 1	0	0
57	BN	1	Total 1	Mg 1	0	0
57	EE	1	Total 1	Mg 1	0	0
57	GL	1	Total 1	Mg 1	0	0
57	A4	1	Total 1	Mg 1	0	0

Continued on next page...

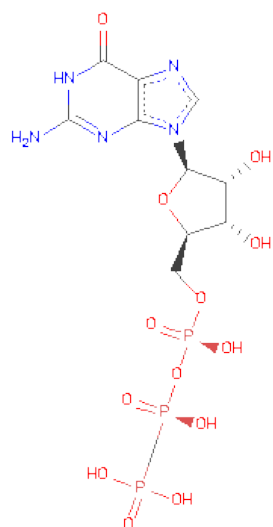
Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	DA	43	Total 43	Mg 43	0	0
57	GC	2	Total 2	Mg 2	0	0
57	BV	1	Total 1	Mg 1	0	0
57	CB	4	Total 4	Mg 4	0	0
57	FN	2	Total 2	Mg 2	0	0
57	AC	1	Total 1	Mg 1	0	0
57	ED	1	Total 1	Mg 1	0	0
57	GB	4	Total 4	Mg 4	0	0
57	CE	1	Total 1	Mg 1	0	0
57	HV	1	Total 1	Mg 1	0	0

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	E4	1	Total 1	Zn 1	0	0
58	G4	1	Total 1	Zn 1	0	0
58	A4	1	Total 1	Zn 1	0	0
58	C4	1	Total 1	Zn 1	0	0

- Molecule 59 is PHOSPHOMETHYLPHOSPHONICACID GUANYLATE ESTER (three-letter code: GCP) (formula: C₁₁H₁₈N₅O₁₃P₃).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
59	BV	1	Total	C	N	O	P	0	0
			32	11	5	13	3		
59	DV	1	Total	C	N	O	P	0	0
			32	11	5	13	3		
59	FV	1	Total	C	N	O	P	0	0
			32	11	5	13	3		
59	HV	1	Total	C	N	O	P	0	0
			32	11	5	13	3		

- Molecule 60 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	AB	18	Total	O	0	0
			18	18		
60	AC	6	Total	O	0	0
			6	6		
60	AA	614	Total	O	0	0
			614	614		
60	AD	4	Total	O	0	0
			4	4		
60	AE	1	Total	O	0	0
			1	1		
60	AF	1	Total	O	0	0
			1	1		
60	AJ	1	Total	O	0	0
			1	1		
60	AL	5	Total	O	0	0
			5	5		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	AN	2	Total 2	O 2	0	0
60	AP	1	Total 1	O 1	0	0
60	AQ	2	Total 2	O 2	0	0
60	AS	1	Total 1	O 1	0	0
60	A0	2	Total 2	O 2	0	0
60	A2	1	Total 1	O 1	0	0
60	A3	1	Total 1	O 1	0	0
60	A4	1	Total 1	O 1	0	0
60	BA	202	Total 202	O 202	0	0
60	BL	1	Total 1	O 1	0	0
60	BN	2	Total 2	O 2	0	0
60	BT	2	Total 2	O 2	0	0
60	BV	1	Total 1	O 1	0	0
60	CB	21	Total 21	O 21	0	0
60	CA	607	Total 607	O 607	0	0
60	CC	8	Total 8	O 8	0	0
60	CD	3	Total 3	O 3	0	0
60	CE	1	Total 1	O 1	0	0
60	CJ	2	Total 2	O 2	0	0
60	CL	5	Total 5	O 5	0	0
60	CN	2	Total 2	O 2	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	CQ	1	Total 1	O 1	0	0
60	CS	2	Total 2	O 2	0	0
60	CT	2	Total 2	O 2	0	0
60	CU	1	Total 1	O 1	0	0
60	C0	1	Total 1	O 1	0	0
60	C2	1	Total 1	O 1	0	0
60	C3	1	Total 1	O 1	0	0
60	C4	2	Total 2	O 2	0	0
60	DA	186	Total 186	O 186	0	0
60	DC	2	Total 2	O 2	0	0
60	DD	1	Total 1	O 1	0	0
60	DE	1	Total 1	O 1	0	0
60	DG	1	Total 1	O 1	0	0
60	DK	1	Total 1	O 1	0	0
60	DL	2	Total 2	O 2	0	0
60	DN	8	Total 8	O 8	0	0
60	DQ	1	Total 1	O 1	0	0
60	DT	4	Total 4	O 4	0	0
60	DU	1	Total 1	O 1	0	0
60	DV	1	Total 1	O 1	0	0
60	EA	610	Total 610	O 610	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	EB	18	Total 18	O 18	0	0
60	EC	9	Total 9	O 9	0	0
60	ED	3	Total 3	O 3	0	0
60	EE	2	Total 2	O 2	0	0
60	EL	4	Total 4	O 4	0	0
60	EN	3	Total 3	O 3	0	0
60	ER	1	Total 1	O 1	0	0
60	ET	2	Total 2	O 2	0	0
60	EV	2	Total 2	O 2	0	0
60	E0	1	Total 1	O 1	0	0
60	E2	1	Total 1	O 1	0	0
60	E3	2	Total 2	O 2	0	0
60	E4	2	Total 2	O 2	0	0
60	FA	197	Total 197	O 197	0	0
60	FC	1	Total 1	O 1	0	0
60	FE	2	Total 2	O 2	0	0
60	FN	3	Total 3	O 3	0	0
60	FT	4	Total 4	O 4	0	0
60	FU	1	Total 1	O 1	0	0
60	FV	1	Total 1	O 1	0	0
60	GB	19	Total 19	O 19	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	GA	606	Total O 606 606	0	0
60	GC	10	Total O 10 10	0	0
60	GD	3	Total O 3 3	0	0
60	GE	2	Total O 2 2	0	0
60	GJ	1	Total O 1 1	0	0
60	GL	4	Total O 4 4	0	0
60	GN	4	Total O 4 4	0	0
60	GQ	1	Total O 1 1	0	0
60	GR	2	Total O 2 2	0	0
60	GS	2	Total O 2 2	0	0
60	GU	1	Total O 1 1	0	0
60	GV	1	Total O 1 1	0	0
60	G2	2	Total O 2 2	0	0
60	G3	1	Total O 1 1	0	0
60	G4	1	Total O 1 1	0	0
60	HA	193	Total O 193 193	0	0
60	HD	3	Total O 3 3	0	0
60	HE	3	Total O 3 3	0	0
60	HN	7	Total O 7 7	0	0
60	HQ	1	Total O 1 1	0	0
60	HT	1	Total O 1 1	0	0

Continued on next page...

Continued from previous page...

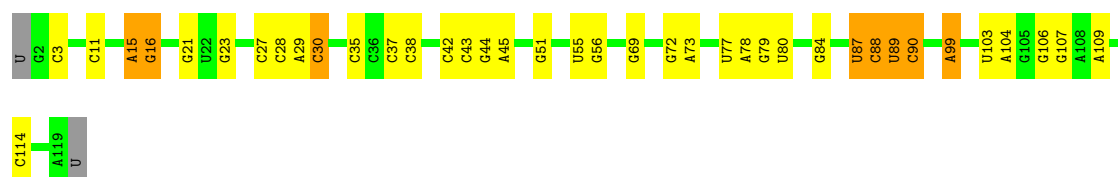
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	HV	1	Total	O	0	0
			1	1		

3 Residue-property plots

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

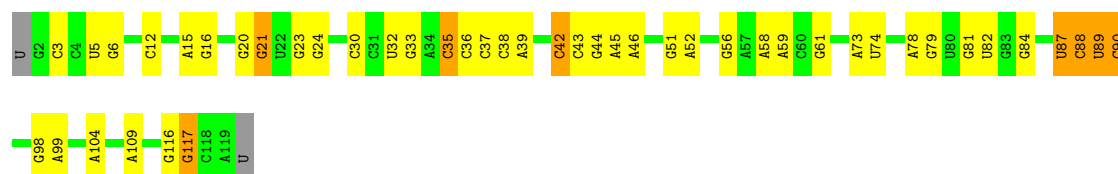
- Molecule 1: 5S rRNA

Chain AB: 



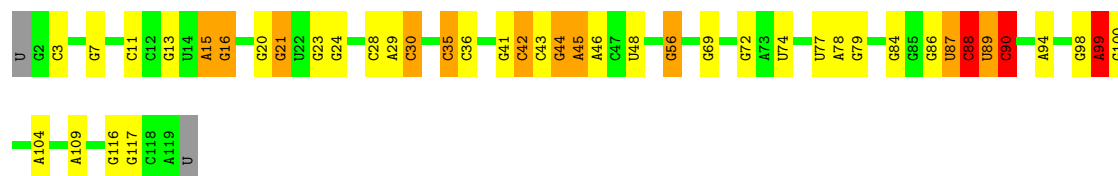
- Molecule 1: 5S rRNA

Chain CB: 



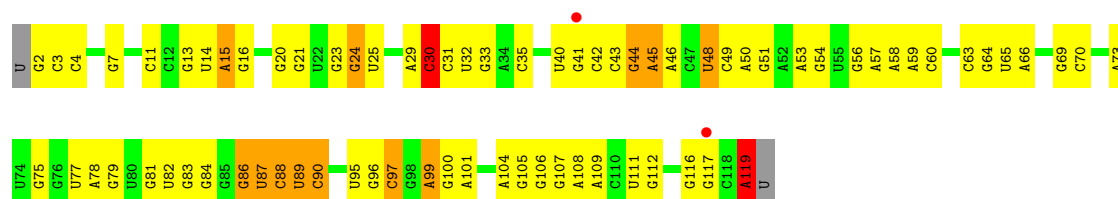
- Molecule 1: 5S rRNA

Chain EB: 



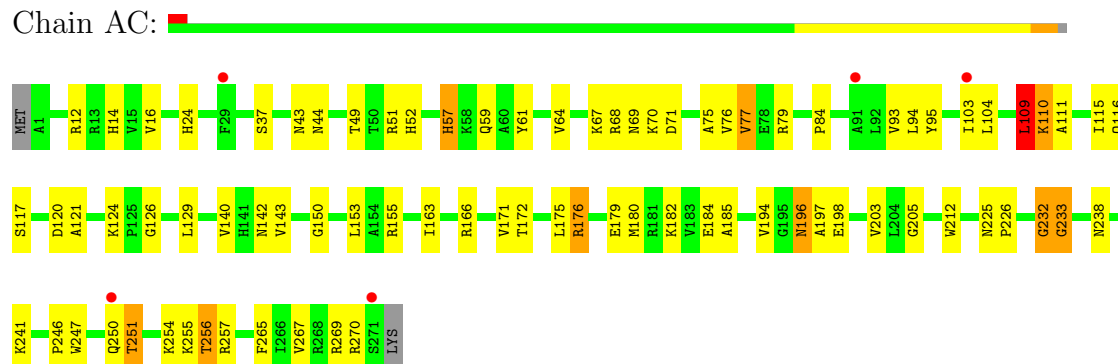
- Molecule 1: 5S rRNA

Chain GB: 



- Molecule 2: 50S ribosomal protein L2

Chain AC:



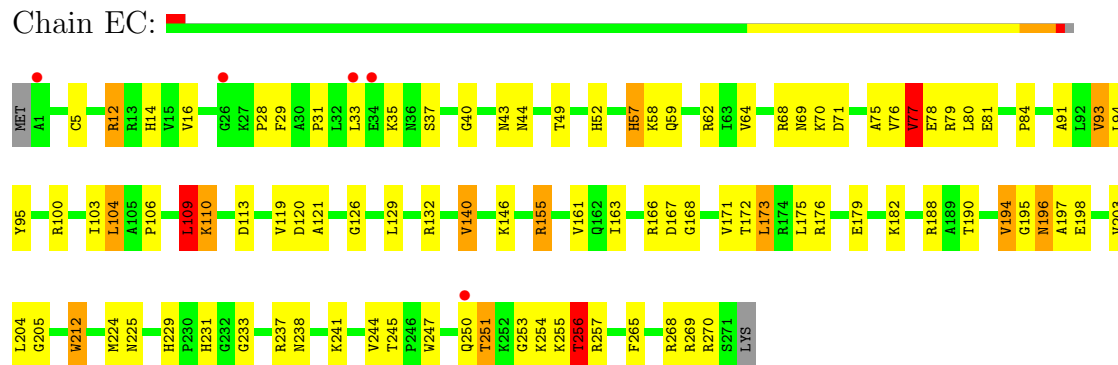
- Molecule 2: 50S ribosomal protein L2

Chain CC:



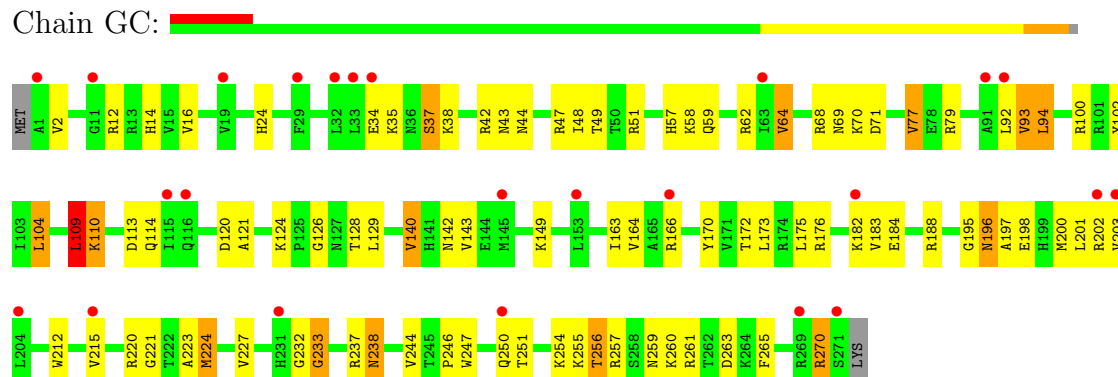
- Molecule 2: 50S ribosomal protein L2

Chain EC:



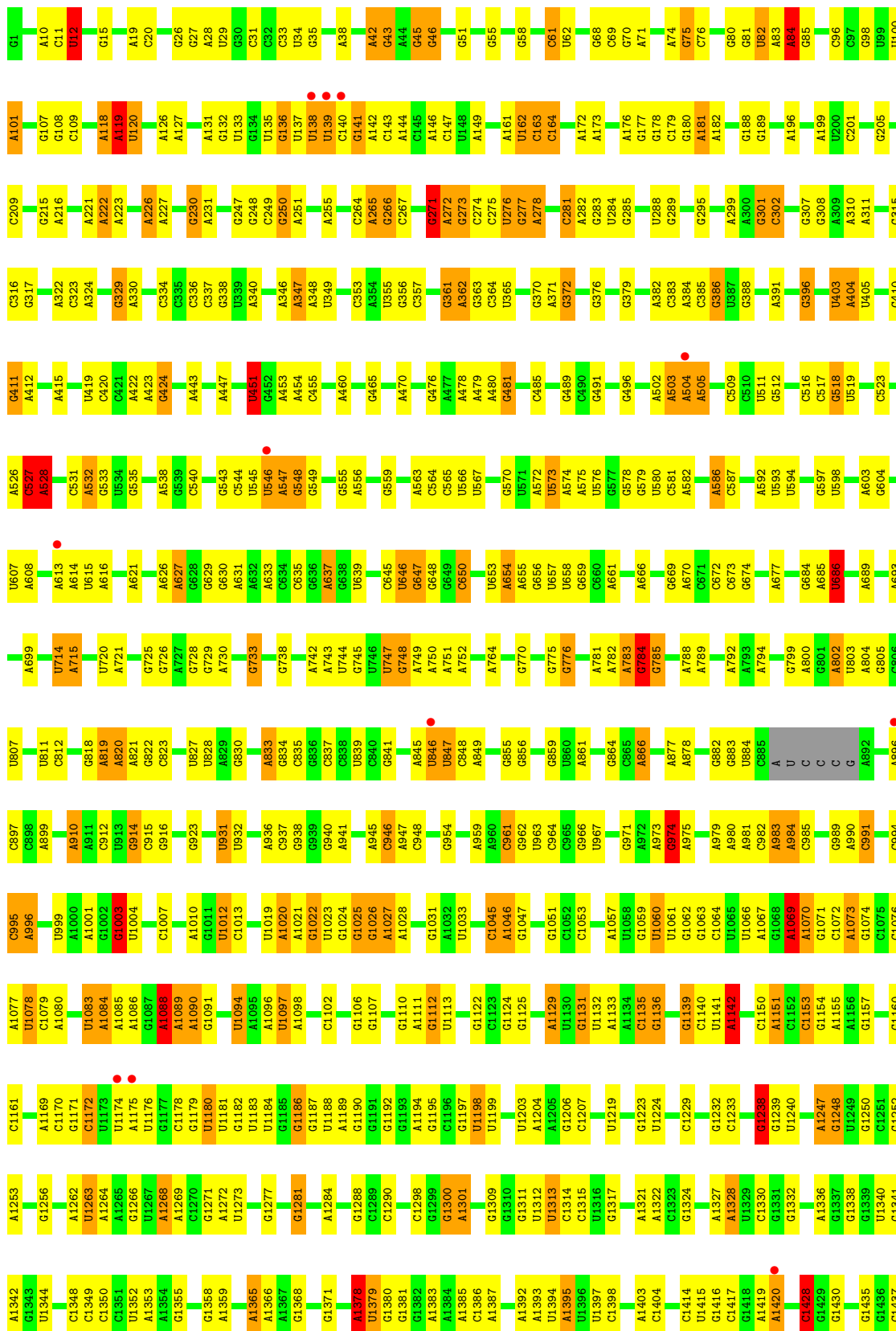
- Molecule 2: 50S ribosomal protein L2

Chain GC:

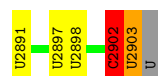


- Molecule 3: 23S rRNA

Chain AA:

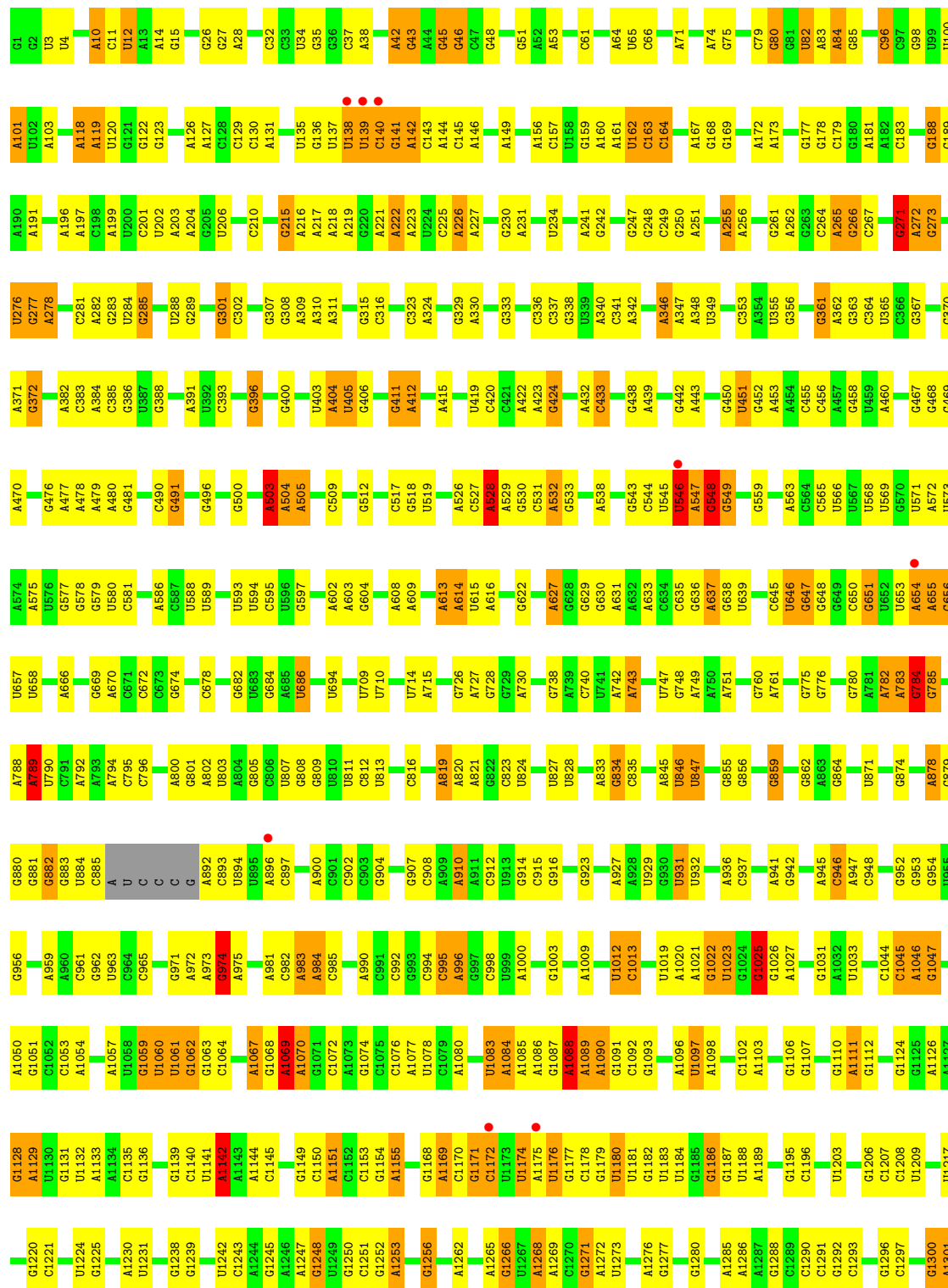


U1779	G2686	G2592	G2307	U2202	U2139	G2066	G1959	G1830	A1757	G1649	A1553	U1438
G2780	U2687	G2592	G2308	U2203	G2140	G2067	A1960	G1831	A1758	A1652	A1553	A1439
C2788	G2688	G2595	A2311	G2204	G2142	A2068	U1963	C1833	A1759	A1652	C1565	U1440
C2789	U2690	G2595	A2312	G2205	C2143	A2069	U1963	C1833	C1760	A1654	C1567	G1441
U2790	G2698	G2599	G2313	U2211	G2144	G2061	A1966	C1837	C1761	A1655	G1567	U1442
G2791	A2600	G2599	G2314	A2212	C2145	A2062	C1967	C1838	A1762	C1658	A1568	U1443
A2792	C2699	G2601	A2314	U2213	C2146	G2069	G1968	G1839	C1763	C1659	A1569	G1444
C2793	U2700	A2602	G2318	U2214	A2147	G2070	A1969	C1843	C1764	U1662	A1571	G1445
G2794	G2701	G2603	G2319	A2225	G2148	A2071	A1970	C1844	G1770	U1662	A1571	G1450
C2795	G2702	U2604	U2320	C2226	U2149	A2072	U1971	C1844	U1771	U1662	G1451	G1451
U2796	G2703	G2607	U2321	G2230	C2150	C2073	G1972	U1847	G1772	A1669	G1452	G1452
G2797	C2704	G2608	A2322	U2231	U2151	U2074	U1979	A1847	A1772	C1670	U1578	U1578
U2798	U2707	G2609	G2323	U2232	G2152	U2075	G1980	A1848	A1773	C1670	A1579	A1579
A2799	G2610	G2610	U2324	U2233	C2153	U2091	G1983	G1857	C1774	G1674	A1580	U1580
G2800	C2710	G2611	C2325	G2234	U2155	U2092	G1983	A1858	U1775	G1675	G1581	G1459
U2801	G2714	A2612	A2326	G2238	G2156	U2092	U1991	U1864	U1776	C1676	A1582	U1465
G2802	C2715	G2613	A2327	U2239	G2157	G2093	U1992	U1864	U1777	A1677	A1583	U1466
G2803	G2716	A2614	U2328	U2240	A	A2094	U1992	G1867	U1778	A1678	C1585	U1466
U2804	C2716	G2615	G2329	A2241	G	U2099	U1992	G1868	U1779	A1679	A1586	A1469
U2818	G2719	U2616	G2330	U2244	C	G2102	C1996	G1869	A1783	U1680	G1587	U1474
A2820	U2720	G2617	C2331	U2244	C	C2103	C1997	G1870	A1784	G1681	G1588	U1474
A2821	G2619	G2618	A2332	A2247	G	C2104	A1998	A1871	A1785	G1684	U1591	U1475
G2822	U2629	G2619	A2333	G2250	C	C2105	C2006	G1872	A1786	C1686	C1592	U1476
A2823	G2636	U2637	A2334	C2260	C	U2106	U2011	G1873	A1789	U1691	A1593	U1477
G2824	U2637	U2637	U2335	U2259	U	G2107	U2011	G1884	C1790	C1691	A1594	G1478
G2825	G2638	U2638	A2336	C2263	U	U2108	U2011	G1884	A1791	U1692	A1603	G1479
U2839	U2647	U2647	U2337	U2263	U	U2109	U2011	G1884	A1791	U1692	A1603	G1482
U2845	G2648	G2648	U2338	U2263	A	U2110	U2011	G1884	A1791	U1692	A1603	G1482
G2846	G2649	U2650	A2339	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
U2847	A2741	U2650	U2340	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
G2852	G2742	U2650	U2341	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
C2853	U2743	A2657	U2342	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
U2860	G2744	U2660	U2343	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
U2861	C2745	G2661	U2344	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
G2862	U2746	A2662	U2345	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
C2863	G2747	G2663	A2346	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
U2867	A2748	G2664	U2347	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
U2754	U2754	A2665	U2348	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
C2755	C2755	G2665	U2349	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
G2867	U2756	G2666	U2350	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
U2868	A2757	A2667	U2351	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
G2869	G2758	G2668	U2352	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
C2870	U2759	A2669	U2353	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
A2873	C2760	G2669	U2354	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
C2874	U2761	G2670	U2355	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
U2880	A2762	G2671	U2356	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
G2881	C2763	A2670	U2357	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
U2882	U2764	G2672	U2358	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
A2883	G2765	A2671	U2359	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
U2884	A2766	G2673	U2360	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
G2885	G2770	A2682	U2361	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
C2889	G2777	G2683	U2362	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482
G2890	A2778	G2685	U2363	U2263	A	U	U2011	G1884	A1791	U1692	A1603	G1482



• Molecule 3: 23S rRNA

Chain CA:

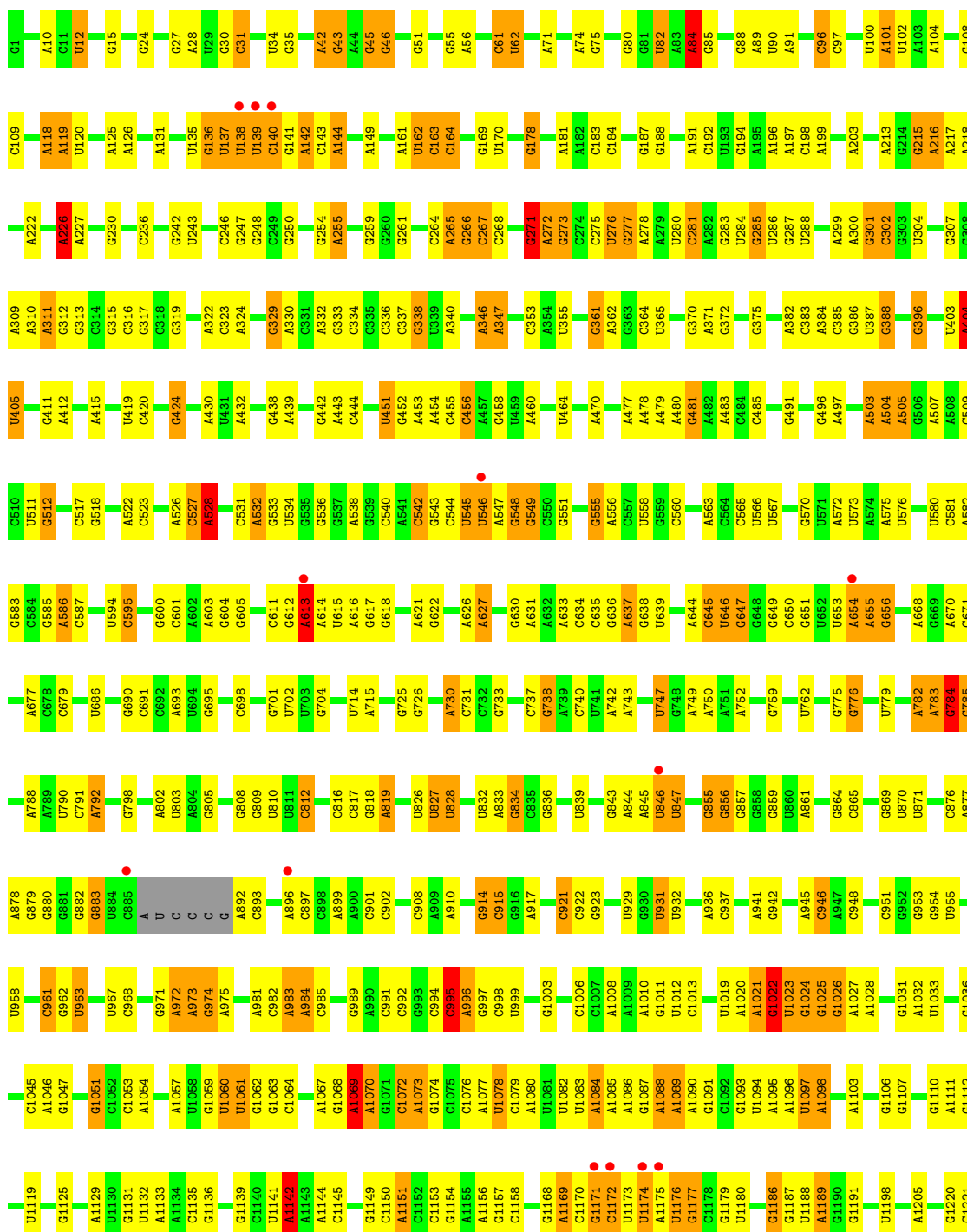


U2580	C2681	G2582	U2489	A2392	G2307	U2188	G	C2043	A1960	C1837	A1746	U1829	U1513	U1405	G1309
C2681	A2682	G2583	U2490	U2393	G2308	U2194	C	A2051	U1963	G1838	U1747	C1638	G1514	U1406	U1313
C2683	U2491	A2311	U2491	C2394	G2309	U2195	U	A2052	C1967	G1840	G1763	G1642	G1524	G1410	C1314
U2684	C2492	G2312	U2492	U2400	G2313	A2198	U	G2053	C1967	U1841	U1758	G1641	C1533	U1414	C1315
C2685	U2493	C2313	U2493	U2401	G2314	A2199	A2134	C2055	G1968	G1842	U1769	G1641	U1534	U1415	U1316
U2686	C2494	G2314	U2494	U2402	G2315	G2204	A2135	G2056	A1969	C1843	C1760	U1647	C1534	G1416	G1317
U2687	U2495	G2315	U2495	U2403	G2316	G2205	A2136	A2057	A1970	U1847	C1761	U1648	U1535	U1417	U1318
U2688	C2496	G2316	U2496	U2404	G2317	G2206	U2137	A2058	G1971	G1847	C1762	U1649	A1536	A1418	A1322
U2689	U2497	C2317	U2497	U2405	G2318	G2207	U2138	A2059	G1972	A1847	C1763	U1650	A1537	A1420	U1326
U2690	C2498	G2319	U2498	U2406	G2320	G2208	U2139	A2060	G1973	U1848	G1764	U1651	U1538	G1421	U1327
U2691	U2499	G2320	U2499	U2407	G2321	G2209	U2140	A2061	G1974	C1847	U1773	U1652	A1539	C1428	A1328
U2692	C2499	G2321	U2500	U2408	G2322	G2210	U2141	A2062	G1975	A1848	U1774	U1653	U1540	G1435	U1329
U2693	U2501	G2322	U2501	U2409	G2323	G2211	U2142	A2063	G1976	U1849	U1775	U1654	A1541	G1436	C1330
U2694	C2502	G2324	U2502	U2410	G2324	G2212	U2143	A2064	G1977	U1850	U1776	U1655	U1542	U1437	U1331
U2695	U2503	G2325	U2503	U2411	G2325	G2213	U2144	A2065	G1978	U1851	U1777	U1656	A1543	U1438	U1332
U2696	C2504	G2326	U2504	U2412	G2326	G2214	U2145	A2066	G1979	U1852	U1778	U1657	U1544	U1439	U1333
U2697	U2505	G2327	U2505	U2413	G2327	G2215	U2146	A2067	G1980	U1853	U1779	U1658	U1545	U1440	U1334
U2698	C2506	G2328	U2506	U2414	G2328	G2216	U2147	A2068	G1981	U1854	U1780	U1659	U1546	U1441	U1335
U2699	U2507	G2329	U2507	U2415	G2329	G2217	U2148	A2069	G1982	U1855	U1781	U1660	U1547	U1442	U1336
U2700	C2508	G2330	U2508	U2416	G2330	G2218	U2149	A2070	G1983	U1856	U1782	U1661	U1548	U1443	U1337
U2701	U2509	G2331	U2509	U2417	G2331	G2219	U2150	A2071	G1984	U1857	U1783	U1662	U1549	U1444	U1338
U2702	C2510	G2332	U2510	U2418	G2332	G2220	U2151	A2072	G1985	U1858	U1784	U1663	U1550	U1445	U1339
U2703	U2511	G2333	U2511	U2419	G2333	G2221	U2152	A2073	G1986	U1859	U1785	U1664	U1551	U1446	U1340
U2704	C2512	G2334	U2512	U2420	G2334	G2222	U2153	A2074	G1987	U1860	U1786	U1665	U1552	U1447	U1341
U2705	U2513	G2335	U2513	U2421	G2335	G2223	U2154	A2075	G1988	U1861	U1787	U1666	U1553	U1448	U1342
U2706	C2514	G2336	U2514	U2422	G2336	G2224	U2155	A2076	G1989	U1862	U1788	U1667	U1554	U1449	U1343
U2707	U2515	G2337	U2515	U2423	G2337	G2225	U2156	A2077	G1990	U1863	U1789	U1668	U1555	U1450	U1344
U2708	C2516	G2338	U2516	U2424	G2338	G2226	U2157	A2078	G1991	U1864	U1790	U1669	U1556	U1451	U1345
U2709	U2517	G2339	U2517	U2425	G2339	G2227	U2158	A2079	G1992	U1865	U1791	U1670	U1557	U1452	U1346
U2710	C2518	G2340	U2518	U2426	G2340	G2228	U2159	A2080	G1993	U1866	U1792	U1671	U1558	U1453	U1347
U2711	U2519	G2341	U2519	U2427	G2341	G2229	U2160	A2081	G1994	U1867	U1793	U1672	U1559	U1454	U1348
U2712	C2520	G2342	U2520	U2428	G2342	G2230	U2161	A2082	G1995	U1868	U1794	U1673	U1560	U1455	U1349
U2713	U2521	G2343	U2521	U2429	G2343	G2231	U2162	A2083	G1996	U1869	U1795	U1674	U1561	U1456	U1350
U2714	C2522	G2344	U2522	U2430	G2344	G2232	U2163	A2084	G1997	U1870	U1796	U1675	U1562	U1457	U1351
U2715	U2523	G2345	U2523	U2431	G2345	G2233	U2164	A2085	G1998	U1871	U1797	U1676	U1563	U1458	U1352
U2716	C2524	G2346	U2524	U2432	G2346	G2234	U2165	A2086	G1999	U1872	U1798	U1677	U1564	U1459	U1353
U2717	U2525	G2347	U2525	U2433	G2347	G2235	U2166	A2087	G2000	U1873	U1799	U1678	U1565	U1460	U1354
U2718	C2526	G2348	U2526	U2434	G2348	G2236	U2167	A2088	G2001	U1874	U1800	U1679	U1566	U1461	U1355
U2719	U2527	G2349	U2527	U2435	G2349	G2237	U2168	A2089	G2002	U1875	U1801	U1680	U1567	U1462	U1356
U2720	C2528	G2350	U2528	U2436	G2350	G2238	U2169	A2090	G2003	U1876	U1802	U1681	U1568	U1463	U1357
U2721	U2529	G2351	U2529	U2437	G2351	G2239	U2170	A2091	G2004	U1877	U1803	U1682	U1569	U1464	U1358
U2722	C2530	G2352	U2530	U2438	G2352	G2240	U2171	A2092	G2005	U1878	U1804	U1683	U1570	U1465	U1359
U2723	U2531	G2353	U2531	U2439	G2353	G2241	U2172	A2093	G2006	U1879	U1805	U1684	U1571	U1466	U1360
U2724	C2532	G2354	U2532	U2440	G2354	G2242	U2173	A2094	G2007	U1880	U1806	U1685	U1572	U1467	U1361
U2725	U2533	G2355	U2533	U2441	G2355	G2243	U2174	A2095	G2008	U1881	U1807	U1686	U1573	U1468	U1362
U2726	C2534	G2356	U2534	U2442	G2356	G2244	U2175	A2096	G2009	U1882	U1808	U1687	U1574	U1469	U1363
U2727	U2535	G2357	U2535	U2443	G2357	G2245	U2176	A2097	G2010	U1883	U1809	U1688	U1575	U1470	U1364
U2728	C2536	G2358	U2536	U2444	G2358	G2246	U2177	A2098	G2011	U1884	U1810	U1689	U1576	U1471	U1365
U2729	U2537	G2359	U2537	U2445	G2359	G2247	U2178	A2099	G2012	U1885	U1811	U1690	U1577	U1472	U1366
U2730	C2538	G2360	U2538	U2446	G2360	G2248	U2179	A2100	G2013	U1886	U1812	U1691	U1578	U1473	U1367
U2731	U2539	G2361	U2539	U2447	G2361	G2249	U2180	A2101	G2014	U1887	U1813	U1692	U1579	U1474	U1368
U2732	C2540	G2362	U2540	U2448	G2362	G2250	U2181	A2102	G2015	U1888	U1814	U1693	U1580	U1475	U1369
U2733	U2541	G2363	U2541	U2449	G2363	G2251	U2182	A2103	G2016	U1889	U1815	U1694	U1581	U1476	U1370
U2734	C2542	G2364	U2542	U2450	G2364	G2252	U2183	A2104	G2017	U1890	U1816	U1695	U1582	U1477	U1371
U2735	U2543	G2365	U2543	U2451	G2365	G2253	U2184	A2105	G2018	U1891	U1817	U1696	U1583	U1478	U1372
U2736	C2544	G2366	U2544	U2452	G2366	G2254	U2185	A2106	G2019	U1892	U1818	U1697	U1584	U1479	U1373
U2737	U2545	G2367	U2545	U2453	G2367	G2255	U2186	A2107	G2020	U1893	U1819	U1698	U1585	U1480	U1374
U2738	C2546	G2368	U2546	U2454	G2368	G2256	U2187	A2108	G2021	U1894	U1820	U1699	U1586	U1481	U1375
U2739	U2547	G2369	U2547	U2455	G2369	G2257	U2188	A2109	G2022	U1895	U1821	U1700	U1587	U1482	U1376
U2740	C2548	G2370	U2548	U2456	G2370	G2258	U2189	A2110	G2023	U1896	U1822	U1701	U1588	U1483	U1377
U2741	U2549	G2371	U2549	U2457	G2371	G2259	U2190	A2111	G2024	U1897	U1823	U1702	U1589	U1484	U1378
U2742	C2550	G2372	U2550	U2458	G2372	G2260	U2191	A2112	G2025	U1898	U1824	U1703	U1590	U1485	U1379
U2743	U2551	G2373	U2551	U2459	G2373	G2261	U2192	A2113	G2026	U1899	U1825	U1704	U1591	U1486	U1380
U2744	C2552	G2374	U2552	U2460	G2374	G2262	U2193	A2114	G2027	U1900	U1826	U1705	U1592	U1487	U1381
U2745	U2553	G2375	U2553	U2461	G2375	G2263	U2194	A2115	G2028	U1901	U1827	U1706	U1593	U1488	U1382
U2746	C2554	G2376	U2554	U2462	G2376	G2264	U2195	A2116	G2029	U1902	U1828	U1707	U1594	U1489	U1383
U2747	U2555	G2377	U2555	U2463	G2377	G2265	U2196	A2117	G2030	U1903	U1829	U1708	U1595	U1490	U1384
U2748	C2556	G2378	U2556	U2464	G2378	G2266	U2197	A2118	G2031	U1904	U1830	U1709	U1596	U1491	U1385
U2749	U2557	G2379	U2557	U2465	G2379	G2267	U2198	A2119	G2032	U1905	U1831	U1710	U1597	U1492	U1386
U2750	C2558	G2380	U2558	U2466	G2380	G2268	U2199	A2120	G2033	U1906	U1832	U1711	U1598	U1493	U1387
U2751	U2559	G2381	U2559	U2467	G2381	G2269	U2200	A2121	G2034	U1907	U1833	U1712	U1599	U1494	U1388
U2752	C2560	G2382	U2560	U2468	G2382	G2270	U2201	A2122	G2035	U1908	U1834	U1713	U1600	U1495	U1389
U2753	U2561	G2383	U2561	U2469	G2383	G2271	U2202	A2123	G2036	U1909	U1835	U1714	U1601	U1496	U1390
U2754	C2562	G2384	U2562	U2470	G2384	G2272	U2203	A2124	G2037	U1910	U1836	U1715	U1602	U1497	U1391
U2755	U2563	G2385	U2563	U2471	G2385	G2273	U2204	A2125	G2038	U1911	U1837	U1716	U1603	U1498	U1392
U2756	C2564	G2386	U2564	U2472	G2386	G2274	U2205	A2126	G2039	U1912	U1838	U1717	U1604	U1499	U1393
U2757	U2565	G2387	U2565	U2473	G2387	G2275	U2206	A2127	G2040	U1913	U1839	U1718	U1605	U1500	U1394
U2758	C2566	G2388	U2566	U2474	G2388	G2276	U2207	A2128	G2041	U1914	U1840				

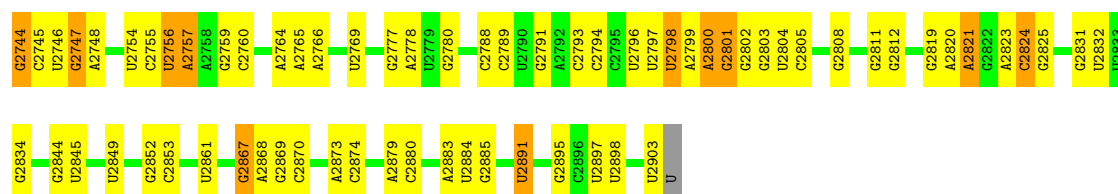


• Molecule 3: 23S rRNA

Chain EA:

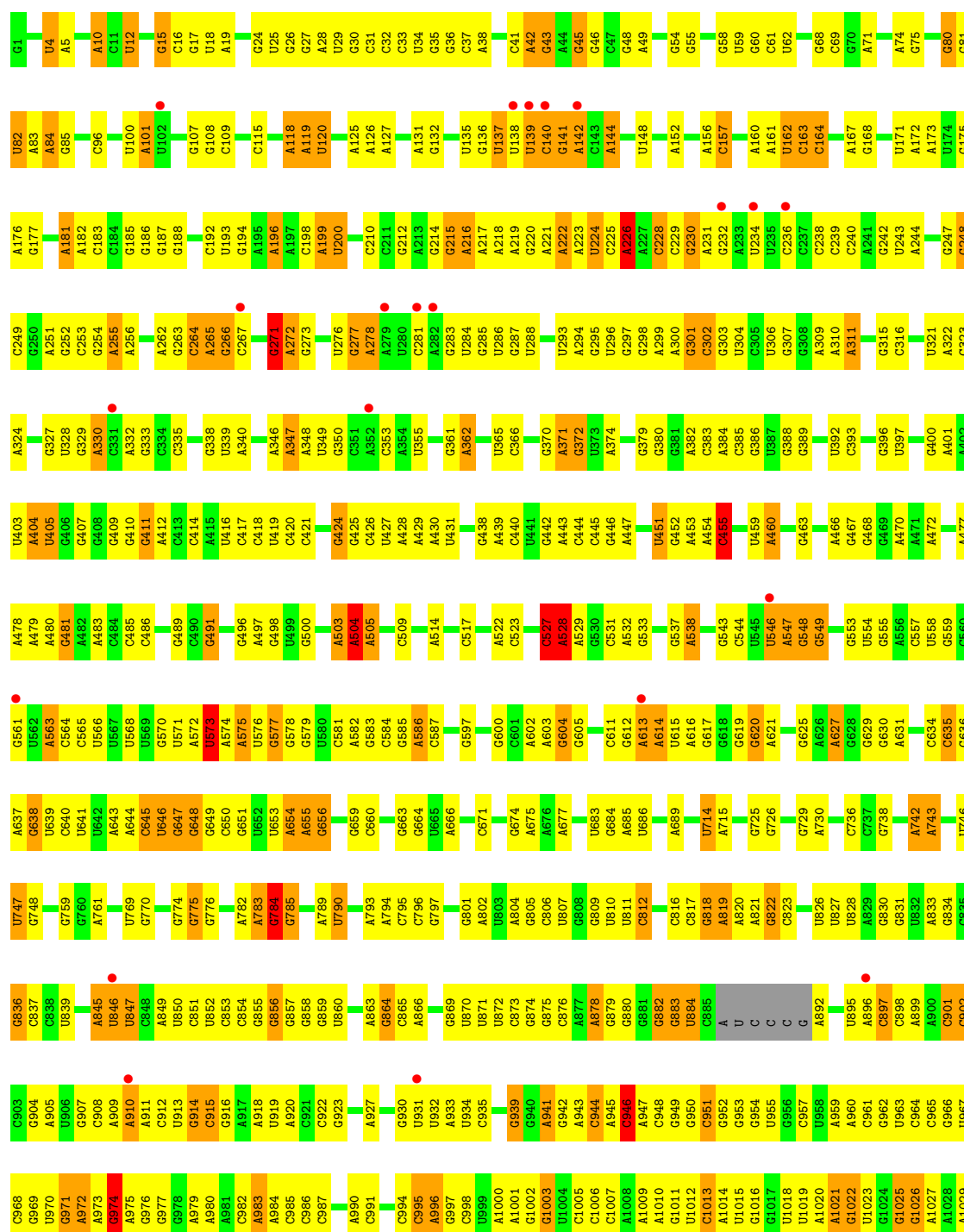


G2528	G2529	A2634	A2635	A2636	A2637	G2640	U2647	G2652	U2653	A2660	G2661	A2662	G2663	G2671	G2678	U2680	G2681	G2682	U2684	G2685	U2686	G2687	U2688	U2689	U2690	U2698	G2699	A2705	A2706	U2707	A2711	G2714	G2715	G2716	G2719	U2720	G2721	G2722	A2726	A2733	G2742	U2743																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
G2542	G2543	G2544	G2545	U2546	U2547	U2548	C2551	U2554	G2557	C2558	U2561	U2562	U2563	A2566	G2567	A2572	G2573	G2574	C2575	C2579	A2582	G2583	U2584	U2585	G2588	U2598	G2599	A2705	A2706	U2707	A2711	G2714	G2715	G2716	G2719	U2720	G2721	G2722	A2726	A2733	G2742	U2743																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
U2441	G2446	G2447	G2448	U2449	A2450	A2451	G2455	A2459	U2460	G2470	A2471	G2472	U2473	U2474	A2475	A2381	G2382	G2383	U2384	G2385	A2386	U2387	G2388	U2389	U2390	G2391	C2394	U2395	G2396	U2402	C2403	U2404	G2405	U2406	U2407	U2408	U2409	G2410	U2411	U2412	U2413	U2414	U2415	U2416	U2417	U2418	U2419	U2420	U2421	U2422	U2423	U2424	U2425	U2426	U2427	U2428	U2429	U2430	U2431	U2432	U2433	U2434	U2435	U2436	U2437	U2438	U2439	U2440	U2441	U2442	U2443	U2444	U2445	U2446	U2447	U2448	U2449	U2450	U2451	U2452	U2453	U2454	U2455	U2456	U2457	U2458	U2459	U2460	U2461	U2462	U2463	U2464	U2465	U2466	U2467	U2468	U2469	U2470	U2471	U2472	U2473	U2474	U2475	U2476	U2477	U2478	U2479	U2480	U2481	U2482	U2483	U2484	U2485	U2486	U2487	U2488	U2489	U2490	U2491	U2492	U2493	U2494	U2495	U2496	U2497	U2498	U2499	U2500	U2501	U2502	U2503	U2504	U2505	U2506	U2507	U2508	U2509	U2510	U2511	U2512	U2513	U2514	U2515	U2516	U2517	U2518	U2519	U2520	U2521	U2522	U2523	U2524	U2525	U2526	U2527	U2528	U2529	U2530	U2531	U2532	U2533	U2534	U2535	U2536	U2537	U2538	U2539	U2540	U2541	U2542	U2543	U2544	U2545	U2546	U2547	U2548	U2549	U2550	U2551	U2552	U2553	U2554	U2555	U2556	U2557	U2558	U2559	U2560	U2561	U2562	U2563	U2564	U2565	U2566	U2567	U2568	U2569	U2570	U2571	U2572	U2573	U2574	U2575	U2576	U2577	U2578	U2579	U2580	U2581	U2582	U2583	U2584	U2585	U2586	U2587	U2588	U2589	U2590	U2591	U2592	U2593	U2594	U2595	U2596	U2597	U2598	U2599	U2600	U2601	U2602	U2603	U2604	U2605	U2606	U2607	U2608	U2609	U2610	U2611	U2612	U2613	U2614	U2615	U2616	U2617	U2618	U2619	U2620	U2621	U2622	U2623	U2624	U2625	U2626	U2627	U2628	U2629	U2630	U2631	U2632	U2633	U2634	U2635	U2636	U2637	U2638	U2639	U2640	U2641	U2642	U2643	U2644	U2645	U2646	U2647	U2648	U2649	U2650	U2651	U2652	U2653	U2654	U2655	U2656	U2657	U2658	U2659	U2660	U2661	U2662	U2663	U2664	U2665	U2666	U2667	U2668	U2669	U2670	U2671	U2672	U2673	U2674	U2675	U2676	U2677	U2678	U2679	U2680	U2681	U2682	U2683	U2684	U2685	U2686	U2687	U2688	U2689	U2690	U2691	U2692	U2693	U2694	U2695	U2696	U2697	U2698	U2699	U2700	U2701	U2702	U2703	U2704	U2705	U2706	U2707	U2708	U2709	U2710	U2711	U2712	U2713	U2714	U2715	U2716	U2717	U2718	U2719	U2720	U2721	U2722	U2723	U2724	U2725	U2726	U2727	U2728	U2729	U2730	U2731	U2732	U2733	U2734	U2735	U2736	U2737	U2738	U2739	U2740	U2741	U2742	U2743	U2744	U2745	U2746	U2747	U2748	U2749	U2750	U2751	U2752	U2753	U2754	U2755	U2756	U2757	U2758	U2759	U2760	U2761	U2762	U2763	U2764	U2765	U2766	U2767	U2768	U2769	U2770	U2771	U2772	U2773	U2774	U2775	U2776	U2777	U2778	U2779	U2780	U2781	U2782	U2783	U2784	U2785	U2786	U2787	U2788	U2789	U2790	U2791	U2792	U2793	U2794	U2795	U2796	U2797	U2798	U2799	U2800	U2801	U2802	U2803	U2804	U2805	U2806	U2807	U2808	U2809	U2810	U2811	U2812	U2813	U2814	U2815	U2816	U2817	U2818	U2819	U2820	U2821	U2822	U2823	U2824	U2825	U2826	U2827	U2828	U2829	U2830	U2831	U2832	U2833	U2834	U2835	U2836	U2837	U2838	U2839	U2840	U2841	U2842	U2843	U2844	U2845	U2846	U2847	U2848	U2849	U2850	U2851	U2852	U2853	U2854	U2855	U2856	U2857	U2858	U2859	U2860	U2861	U2862	U2863	U2864	U2865	U2866	U2867	U2868	U2869	U2870	U2871	U2872	U2873	U2874	U2875	U2876	U2877	U2878	U2879	U2880	U2881	U2882	U2883	U2884	U2885	U2886	U2887	U2888	U2889	U2890	U2891	U2892	U2893	U2894	U2895	U2896	U2897	U2898	U2899	U2900	U2901	U2902	U2903	U2904	U2905	U2906	U2907	U2908	U2909	U2910	U2911	U2912	U2913	U2914	U2915	U2916	U2917	U2918	U2919	U2920	U2921	U2922	U2923	U2924	U2925	U2926	U2927	U2928	U2929	U2930	U2931	U2932	U2933	U2934	U2935	U2936	U2937	U2938	U2939	U2940	U2941	U2942	U2943	U2944	U2945	U2946	U2947	U2948	U2949	U2950	U2951	U2952	U2953	U2954	U2955	U2956	U2957	U2958	U2959	U2960	U2961	U2962	U2963	U2964	U2965	U2966	U2967	U2968	U2969	U2970	U2971	U2972	U2973	U2974	U2975	U2976	U2977	U2978	U2979	U2980	U2981	U2982	U2983	U2984	U2985	U2986	U2987	U2988	U2989	U2990	U2991	U2992	U2993	U2994	U2995	U2996	U2997	U2998	U2999	U3000	U3001	U3002	U3003	U3004	U3005	U3006	U3007	U3008	U3009	U3010	U3011	U3012	U3013	U3014	U3015	U3016	U3017	U3018	U3019	U3020	U3021	U3022	U3023	U3024	U3025	U3026	U3027	U3028	U3029	U3030	U3031	U3032	U3033	U3034	U3035	U3036	U3037	U3038	U3039	U3040	U3041	U3042	U3043	U3044	U3045	U3046	U3047	U3048	U3049	U3050	U3051	U3052	U3053	U3054	U3055	U3056	U3057	U3058	U3059	U3060	U3061	U3062	U3063	U3064	U3065	U3066	U3067	U3068	U3069	U3070	U3071	U3072	U3073	U3074	U3075	U3076	U3077	U3078	U3079	U3080	U3081	U3082	U3083	U3084	U3085	U3086	U3087	U3088	U3089	U3090	U3091	U3092	U3093	U3094	U3095	U3096	U3097	U3098	U3099	U3100	U3101	U3102	U3103	U3104	U3105	U3106	U3107	U3108	U3109	U3110	U3111	U3112	U3113	U3114	U3115	U3116	U3117	U3118	U3119	U3120	U3121	U3122	U3123	U3124	U3125	U3126	U3127	U3128	U3129	U3130	U3131	U3132	U3133	U3134	U3135	U3136	U3137	U3138	U3139	U3140	U3141	U3142	U3143	U3144	U3145	U3146	U3147	U3148	U3149	U3150	U3151	U3152	U3153	U3154	U3155	U3156	U3157	U3158	U3159	U3160	U3161	U3162	U3163	U3164	U3165	U3166	U3167	U3168	U3169	U3170	U3171	U3172	U3173	U3174	U3175	U3176	U3177	U3178	U3179	U3180	U3181	U3182	U3183	U3184	U3185	U3186	U3187	U3188	U3189	U3190	U3191	U3192	U3193	U3194	U3195	U3196	U3197	U3198	U3199	U3200	U3201	U3202	U3203	U3204	U3205	U3206	U3207	U3208	U3209	U3210	U3211	U3212	U3213	U3214	U3215	U3216	U3217	U3218	U3219	U3220	U3221	U3222	U3223	U3224	U3225	U3226	U3227	U3228	U3229	U3230	U3231	U3232	U3233	U3234	U3235	U3236	U3237	U3238	U3239	U3240	U3241	U3242	U3243	U3244	U3245	U3246	U3247	U3248	U3249	U3250	U3251	U3252	U3253	U3254	U3255	U3256	U3257	U3258	U3259	U3260	U3261	U3262	U3263	U3264	U3265	U3266	U3267	U3268	U3269	U3270	U3271	U3272	U3273	U3274	U3275	U3276	U3277	U3278	U3279	U3280	U3281	U3282	U3283	U3284	U3285	U3286	U3287	U3288	U3289	U3290	U3291	U3292	U3293	U3294	U3295	U3296	U3297	U3298	U3299	U3300	U3301	U3302	U3303	U3304	U3305	U3306	U3307	U3308	U3309	U3310	U3311	U3312	U3313	U3314	U3315	U3316	U3317	U3318	U3319	U3320	U3321	U3322	U3323	U3324	U3325	U3326	U3327	U3328	U3329	U3330	U3331	U3332	U3333	U3334	U3335	U3336	U3337	U3338	U3339	U3340	U3341	U3342	U3343	U3344	U3345	U3346	U3347	U3348	U3349	U3350	U3351	U3352	U3353	U3354	U3355	U3356	U3357	U3358	U3359	U3360	U3361	U3362	U3363	U3364	U3365	U3366	U3367	U3368	U3369	U3370	U3371	U3372	U3373	U3374	U3375	U3376	U3377	U3378	U3379	U3380	U3381	U3382	U3383	U3384	U3385	U3386	U3387	U3388	U3389	U3390	U3391	U3392	U3393	U3394	U3395	U3396	U3397	U3398	U3399	U3400	U3401	U3402	U3403	U3404	U3405	U3406	U3407	U3408	U3409	U3410	U3411	U3412	U3413	U3414	U3415	U3416	U3417	U3418	U3419	U3420	U3421	U3422	U3423	U3424	U3425	U3426	U3427	U3428	U3429	U3430	U3431	U3432	U3433	U3434	U3435	U3436	U3437	U3438	U3439	U3440	U3441	U3442	U3443	U3444	U3445	U3446	U3447	U3448	U3449	U3450	U3451	U3452	U3453	U3454	U3455	U3456	U3457	U3458	U3459	U3460	U3461	U3462	U3463	U3464	U3465	U3466	U3467	U3468	U3469	U3470	U3471	U3472	U3473	U3474	U3475	U3476	U3477	U3478	U3479	U3480	U3481	U3482	U3483	U3484	U3485	U3486	U3487	U3488	U3489	U3490	U3491	U3492	U3493	U3494	U3495	U3496	U3497	U3498	U3499	U3500	U3501	U3502	U3503	U3504	U3505	U3506	U3507	U3508	U3509	U3510	U3511	U3512	U3513	U3514	U3515	U3516	U3517	U3518

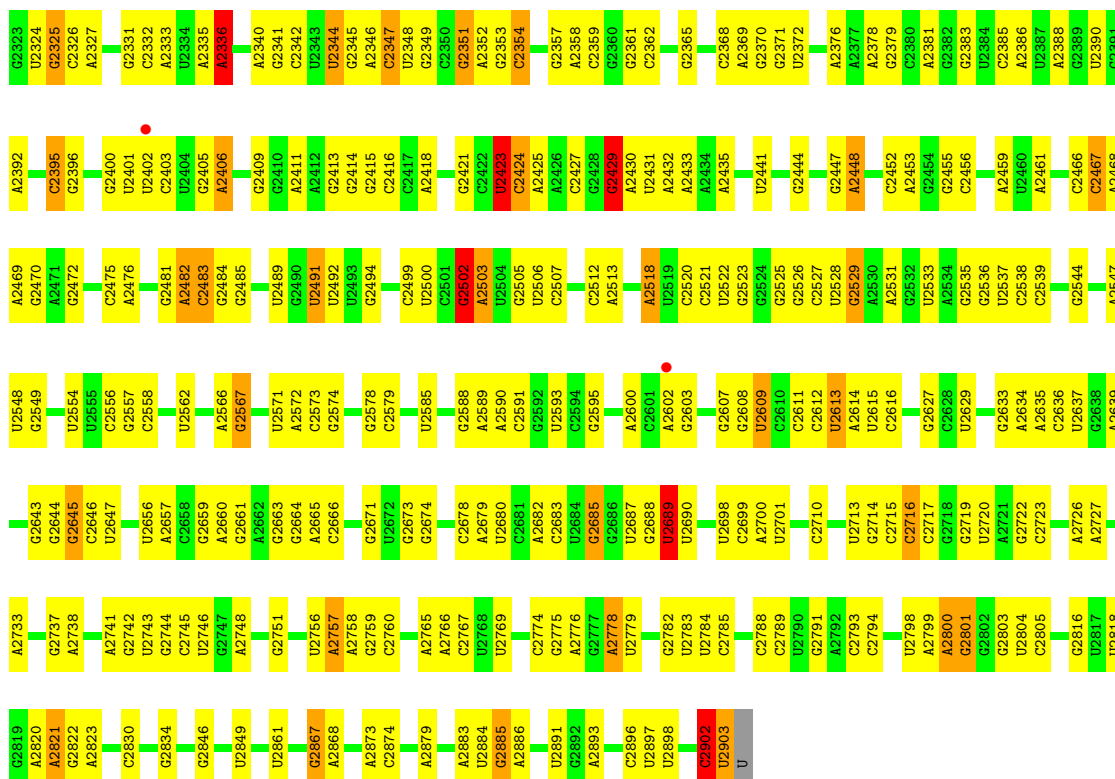


• Molecule 3: 23S rRNA

Chain GA:

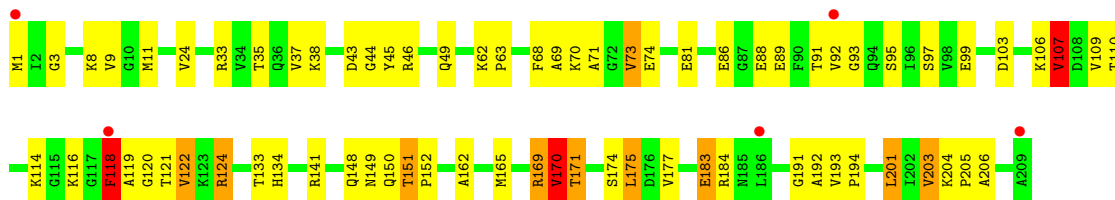


A2247	C	A2037	G	G1840	G1763	C1656	C1536	G1429	U1340	A1247	A1175	G1093	C1030
G2250	A	G2038	G	G1846	C1764	U1657	G1537	G1430	G1341	G1248	U1176	U1094	G1031
G2251	C	A2042	U	A1847	A1772	C1658	A1544	A1431	A1342	U1249	G1177	A1096	A1032
G2252	G	C2043	A	A1948	A1773	G1663	A1545	G1435	G1346	C1251	U1180	U1097	U1033
C2268	A	G2046	G	U1851	A1774	A1664	C1558	U1438	A1347	G1252	U1181	A1098	U1035
G2269	U	C2047	U	U1852	A1775	A1665	A1566	A1439	C1351	A1253	G1182	G1107	G1036
A2183	G	A1952	G	A1853	U1777	G1666	A1567	U1440	G1352	A1254	U1108	U1108	G1037
A2184	G	U1955	G	A1854	U1778	A1667	G1567	A1448	A1353	U1255	G1185	G1109	A1039
U2185	A	A2052	G	U1858	U1779	A1668	G1568	G1449	A1354	G1256	G1186	G1110	A1040
U2186	A	G2053	G	A1859	A1780	A1669	A1569	U1450	A1359	G1259	U1187	G1111	G1041
U2187	G	A2054	G	U1859	U1781	C1670	A1570	C1451	G1360	A1260	U1188	G1112	G1042
U2188	G	G1959	G	G1860	U1782	U1671	A1571	G1452	G1361	C1261	U1189	U1113	C1943
A2288	C	A1960	U	A1864	A1783	G1674	U1578	G1455	G1366	A1262	G1190	C1114	C1044
U2189	U	C1965	U	A1865	A1784	A1678	U1578	G1455	A1366	G1266	G1191	A1046	A1046
A2274	U	A1966	U	A1866	A1785	A1679	C1582	G1455	A1366	U1267	G1192	C1117	G1047
A2273	U	C1967	U	A1866	A1786	U1680	U1584	U1458	A1367	A1268	G1193	A1126	A1050
C2275	U	G1968	G	G1869	A1791	G1681	U1584	G1459	G1368	A1269	G1194	A1127	G1051
G2276	G	C1968	G	C1870	G1792	G1682	C1585	G1459	G1369	G1270	G1195	G1128	C1052
G2277	G	A1969	G	A1871	C1793	U1683	U1589	C1462	G1371	C1271	U1198	U1130	C1053
A2278	A	U1970	G	A1872	U1794	U1683	U1589	C1463	G1371	A1272	U1198	G1131	G1056
U2197	G	G1972	G	G1873	C1795	C1686	U1594	A1469	G1376	U1273	U1201	A1132	A1057
C2200	U	G1972	G	C1874	U1796	G1703	C1595	U1474	G1377	G1281	G1202	A1133	U1058
A2284	U	G1975	G	G1875	G1797	U1798	C1600	U1475	A1378	G1281	U1203	A1134	U1059
G2285	U	U1976	G	G1878	U1798	A1713	C1601	G1475	A1379	A1285	U1204	G1135	U1060
A2286	U	C2072	G	C1878	U1799	U1714	G1601	G1475	G1380	A1286	A1205	G1136	U1061
C2206	G	C2073	G	C1878	C1800	G1715	U1602	G1478	G1381	A1287	G1211	G1137	G1062
G2207	G	U1991	G	C1881	A1801	G1715	U1603	G1479	G1382	G1288	C1208	G1138	G1063
C2208	G	G1992	G	U1882	A1802	U1716	C1604	G1482	A1383	C1297	U1209	G1139	C1064
G2209	G	U1993	G	U1883	A1803	U1716	C1604	G1482	A1384	G1297	U1210	U1141	U1065
U2210	G	C1997	G	G1884	C1804	A1722	A1607	G1482	A1385	C1297	G1211	A1142	U1066
G2211	U	A1998	G	U1884	A1805	G1723	A1608	G1482	A1386	G1300	G1212	A1143	A1067
A2212	U	C1999	G	C1893	A1806	G1723	A1609	U1485	A1387	A1301	G1213	A1144	G1068
U2213	U	C1999	G	C1894	A1807	G1723	A1609	U1485	A1387	A1302	G1214	C1145	A1069
C2214	U	A2005	G	C1895	A1808	G1727	A1610	U1486	A1392	A1302	G1215	C1146	A1070
U2076	G	C2006	G	A1900	A1810	C1728	G1613	C1493	A1393	G1309	U1217	U1148	G1071
A2077	G	U2011	G	G1904	U1812	U1729	A1616	A1494	U1394	G1310	U1218	U1149	C1072
C2078	G	G2012	G	U1905	G1813	C1730	A1616	A1496	A1395	G1311	U1219	G1150	A1073
G2078	G	A2013	G	C1906	G1816	C1732	G1619	A1496	A1403	U1312	G1220	C1151	G1074
C2084	G	U2017	G	G1906	C1816	U1735	G1620	A1504	A1404	U1313	A1151	C1075	C1075
G2087	G	G2018	G	C1909	U1820	U1736	A1626	A1508	A1405	G1314	G1223	C1076	C1076
A2088	G	A2019	G	A1912	A1821	G1737	G1627	A1508	U1406	C1315	U1224	A1077	U1077
C2091	G	A2020	G	A1913	G1826	G1738	G1627	G1510	G1410	U1316	U1231	U1078	C1078
U2092	G	C2021	G	U1915	U1827	A1739	U1636	G1510	G1410	G1317	A1230	A1156	C1079
G2093	G	G2102	G	U1915	U1827	A1739	U1636	G1510	G1410	G1317	A1231	A1156	C1079
A2094	G	C2103	G	U1915	U1827	A1739	U1636	G1510	G1410	G1317	A1231	A1156	C1079
C2104	G	U2105	G	A1916	A1828	A1744	C1646	A1515	A1413	G1324	U1232	G1157	U1081
U2106	G	C2023	G	A1916	A1829	A1745	C1646	A1515	A1413	G1324	U1232	G1157	U1081
G2107	G	C2024	G	A1916	A1830	A1746	C1647	A1516	U1415	A1327	G1233	C1158	U1082
A2108	G	U2026	G	C1920	A1831	U1747	U1648	G1524	G1416	A1328	U1234	C1158	U1083
U2109	G	G2027	G	C1920	A1832	G1747	G1649	G1524	G1416	A1328	U1234	C1158	U1083
G2110	G	U2109	G	C1920	A1833	A1757	G1650	G1527	A1419	G1332	A1237	A1169	G1087
U2110	G	A1927	G	A1834	A1834	U1758	G1651	A1528	A1420	G1333	G1238	C1170	A1088
A2031	G	A1928	G	A1835	A1835	A1759	A1652	A1528	G1421	G1334	G1239	G1171	A1089
G2032	G	U1929	G	G1836	A1836	A1760	G1653	C1533	G1422	G1338	C1243	U1172	A1090
A2033	G	G1930	G	C1837	A1837	C1761	A1654	U1534	G1422	G1338	C1243	U1173	G1091
A2033	G	U1931	G	C1837	A1837	A1762	A1655	A1535	C1428	G1339	A1244	U1174	C1092



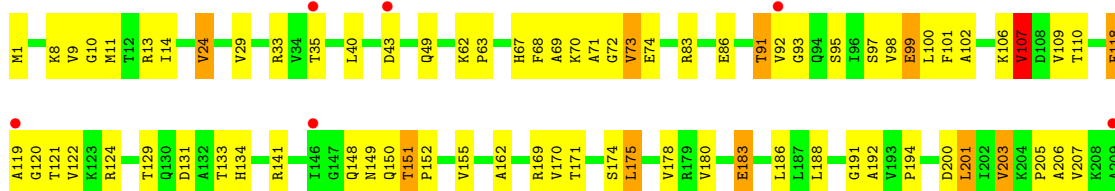
• Molecule 4: 50S ribosomal protein L3

Chain AD:



• Molecule 4: 50S ribosomal protein L3

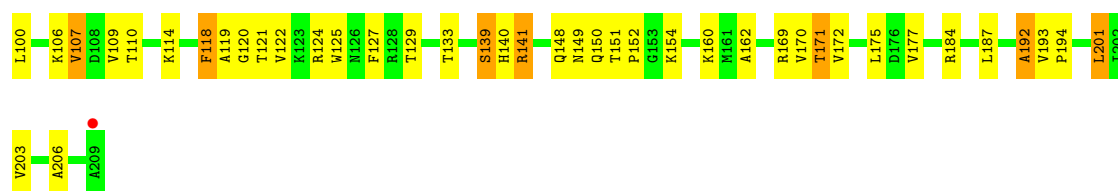
Chain CD:



• Molecule 4: 50S ribosomal protein L3

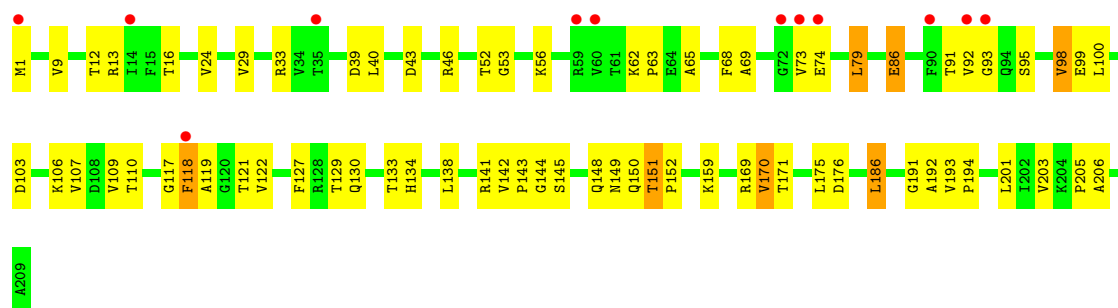
Chain ED:





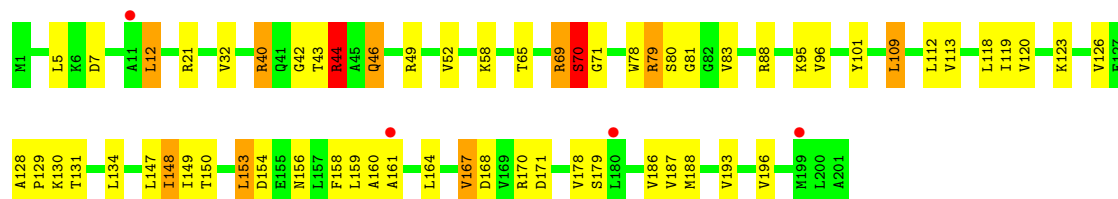
• Molecule 4: 50S ribosomal protein L3

Chain GD:



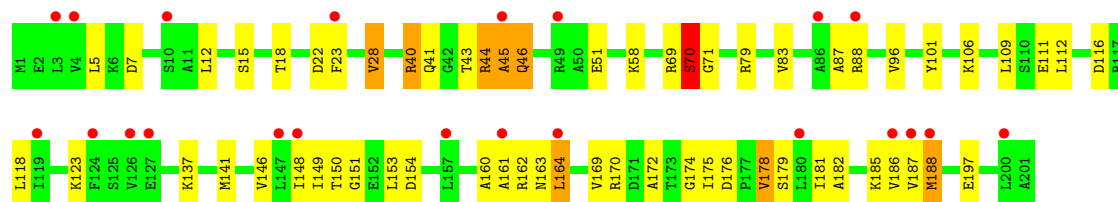
• Molecule 5: 50S ribosomal protein L4

Chain AE:



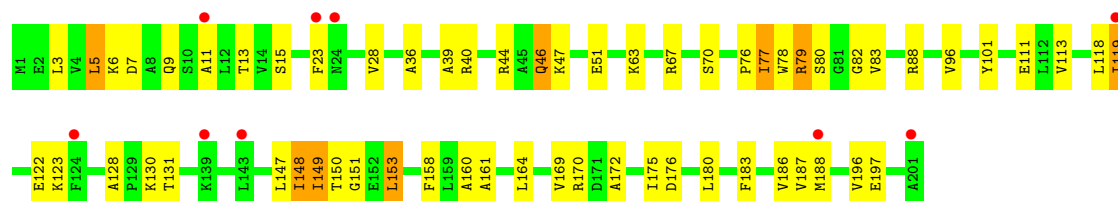
• Molecule 5: 50S ribosomal protein L4

Chain CE:



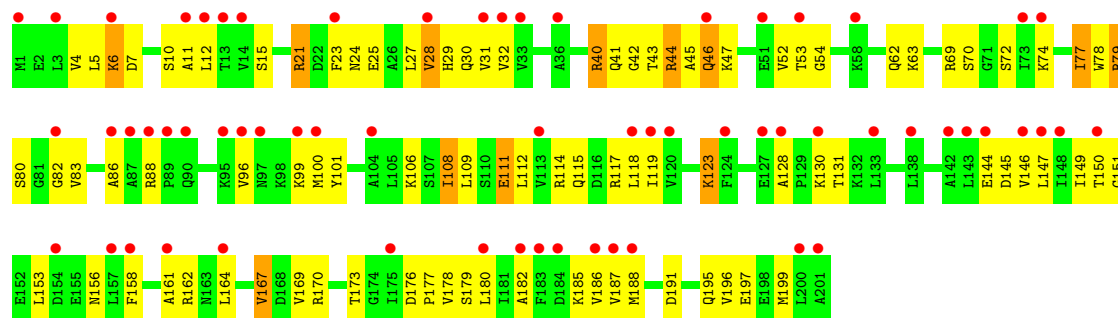
• Molecule 5: 50S ribosomal protein L4

Chain EE:



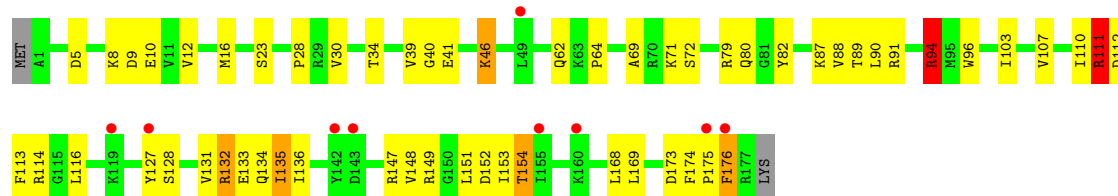
• Molecule 5: 50S ribosomal protein L4

Chain GE:



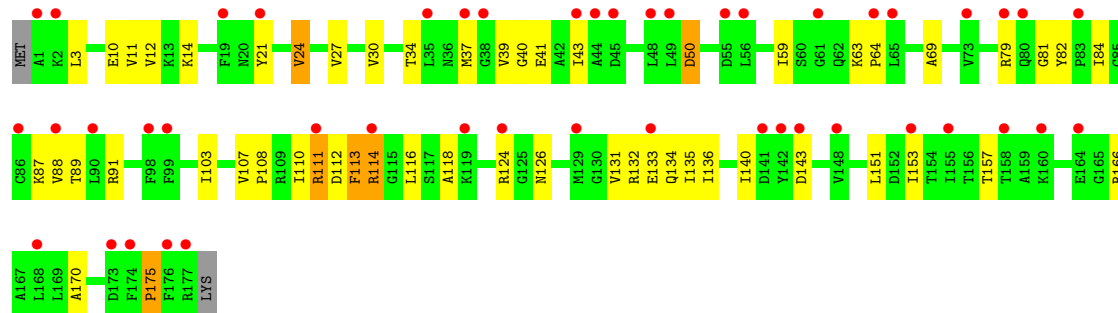
- Molecule 6: 50S ribosomal protein L5

Chain AF:



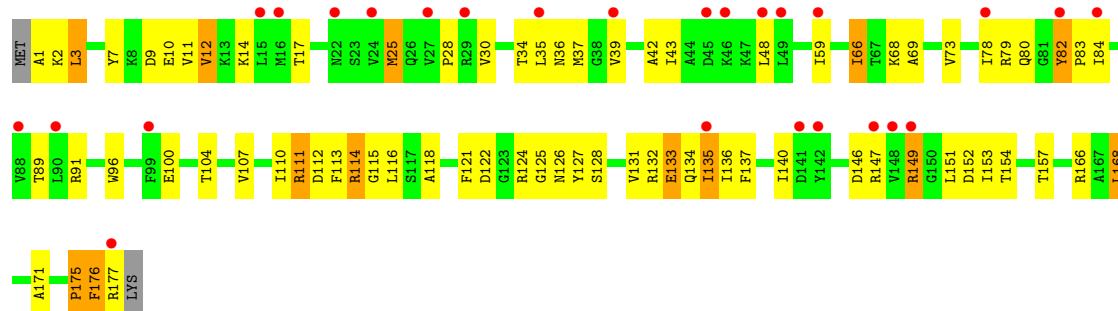
- Molecule 6: 50S ribosomal protein L5

Chain CF:



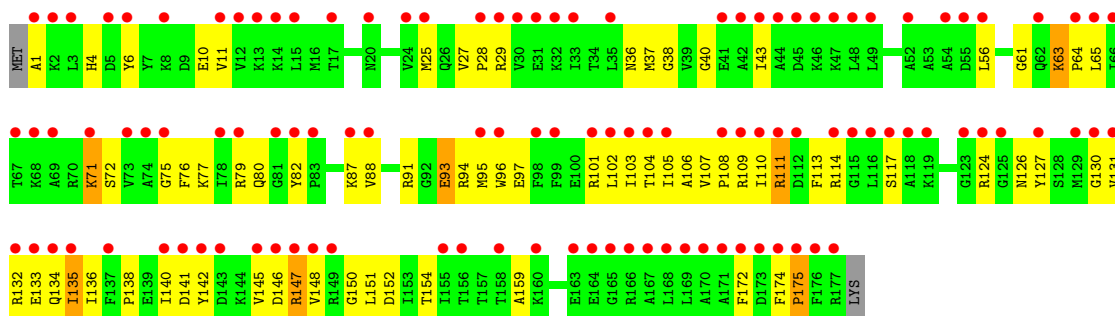
- Molecule 6: 50S ribosomal protein L5

Chain EF:



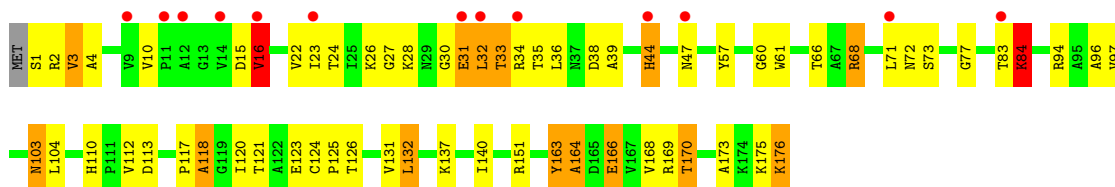
- Molecule 6: 50S ribosomal protein L5

Chain GF:



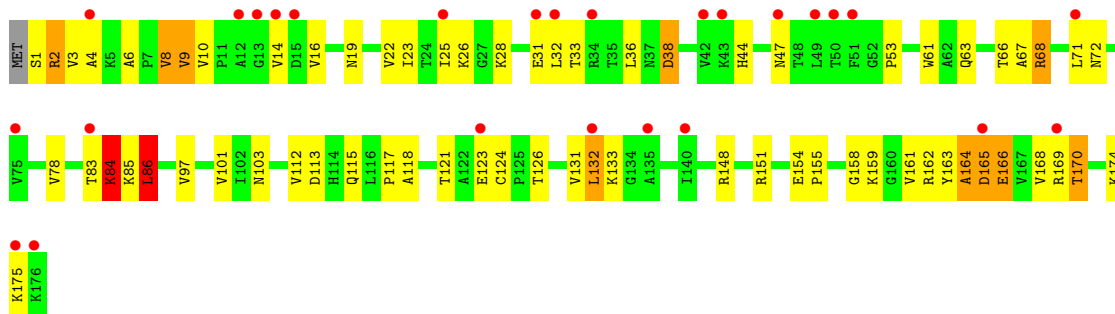
• Molecule 7: 50S ribosomal protein L6

Chain AG:



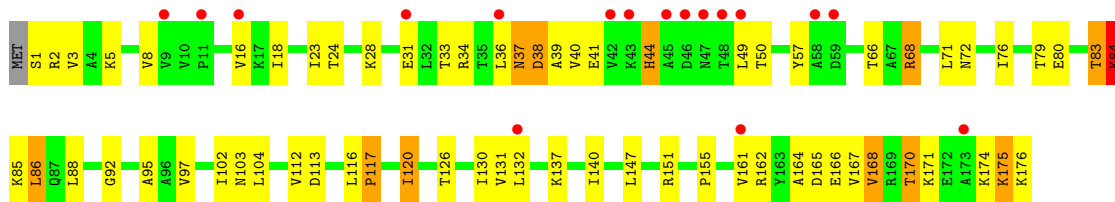
• Molecule 7: 50S ribosomal protein L6

Chain CG:



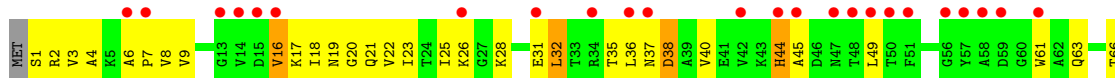
• Molecule 7: 50S ribosomal protein L6

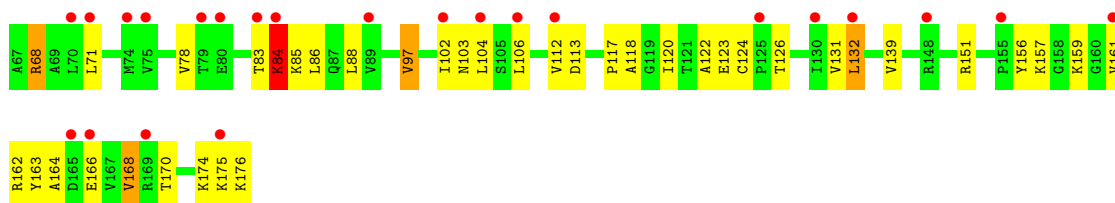
Chain EG:



• Molecule 7: 50S ribosomal protein L6

Chain GG:





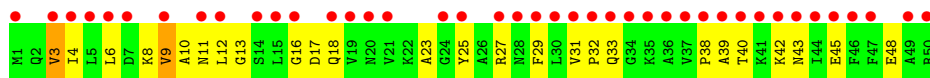
- Molecule 8: 50S ribosomal protein L9

Chain AH:



- Molecule 8: 50S ribosomal protein L9

Chain CH:



- Molecule 8: 50S ribosomal protein L9

Chain EH:



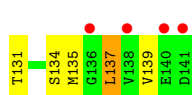
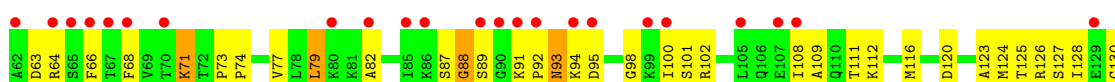
- Molecule 8: 50S ribosomal protein L9

Chain GH:



- Molecule 9: 50S ribosomal protein L11

Chain AI:



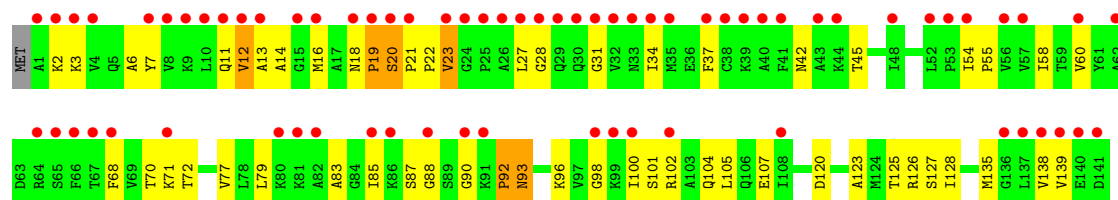
- Molecule 9: 50S ribosomal protein L11

Chain CI:



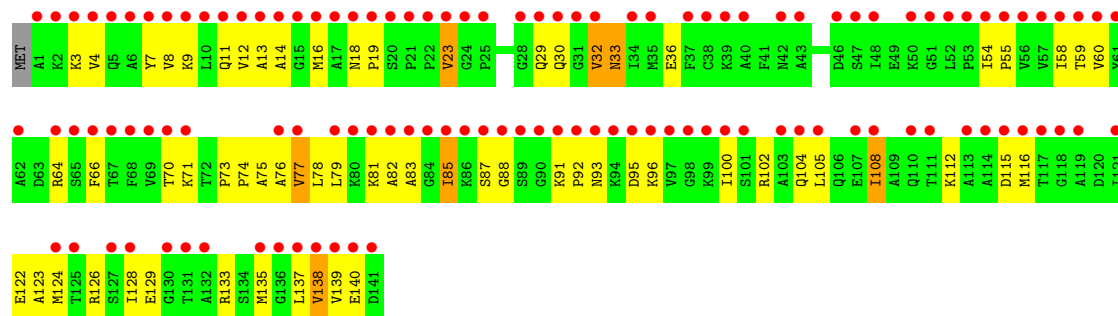
- Molecule 9: 50S ribosomal protein L11

Chain EI:



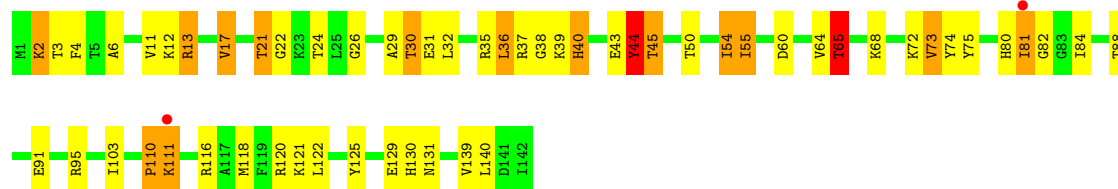
- Molecule 9: 50S ribosomal protein L11

Chain GI:



- Molecule 10: 50S ribosomal protein L13

Chain AJ:



- Molecule 10: 50S ribosomal protein L13

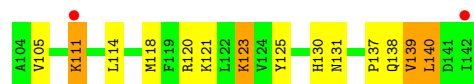
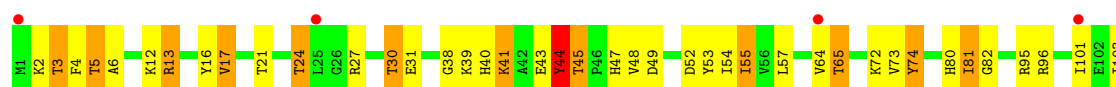
Chain CJ:





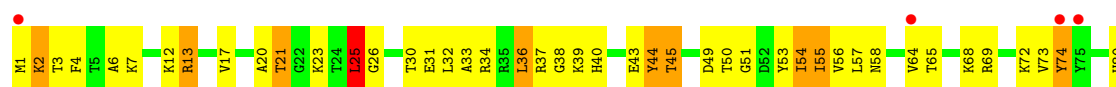
- Molecule 10: 50S ribosomal protein L13

Chain EJ:



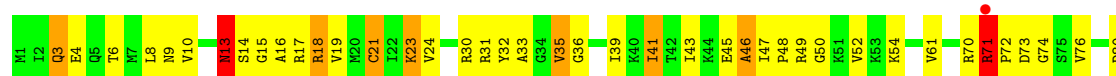
- Molecule 10: 50S ribosomal protein L13

Chain GJ:



- Molecule 11: 50S ribosomal protein L14

Chain AK:



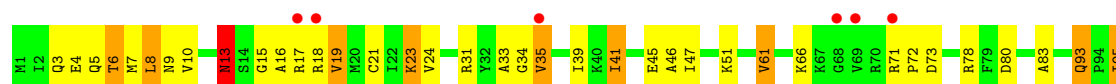
- Molecule 11: 50S ribosomal protein L14

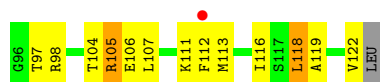
Chain CK:



- Molecule 11: 50S ribosomal protein L14

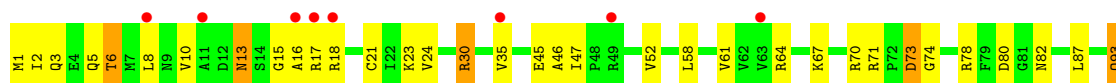
Chain EK:





- Molecule 11: 50S ribosomal protein L14

Chain GK:



- Molecule 12: 50S ribosomal protein L15

Chain AL:



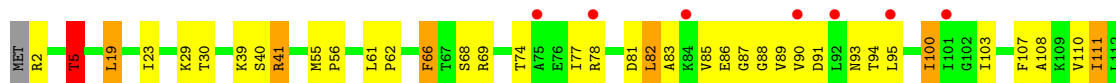
- Molecule 12: 50S ribosomal protein L15

Chain CL:



- Molecule 12: 50S ribosomal protein L15

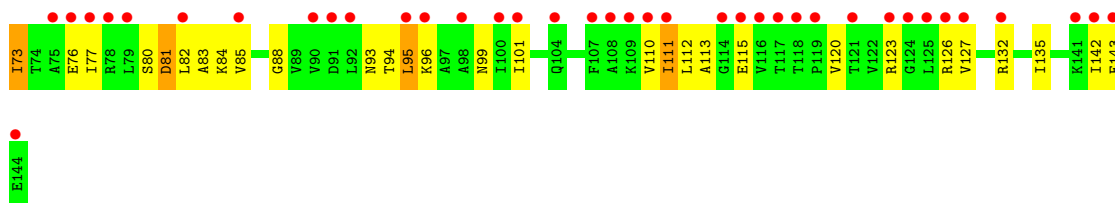
Chain EL:



- Molecule 12: 50S ribosomal protein L15

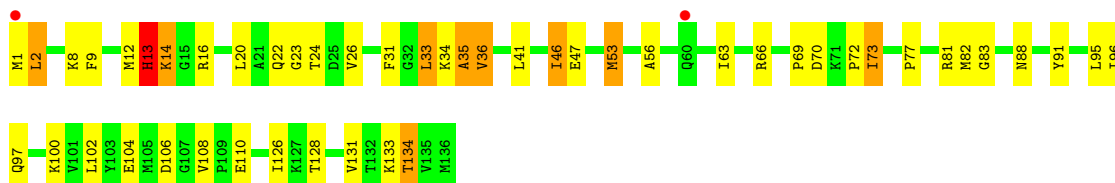
Chain GL:





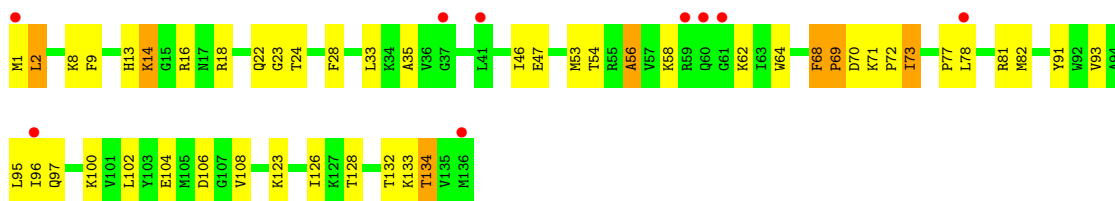
- Molecule 13: 50S ribosomal protein L16

Chain AM:



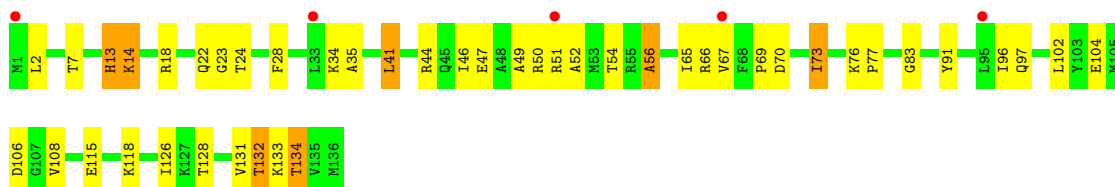
- Molecule 13: 50S ribosomal protein L16

Chain CM:



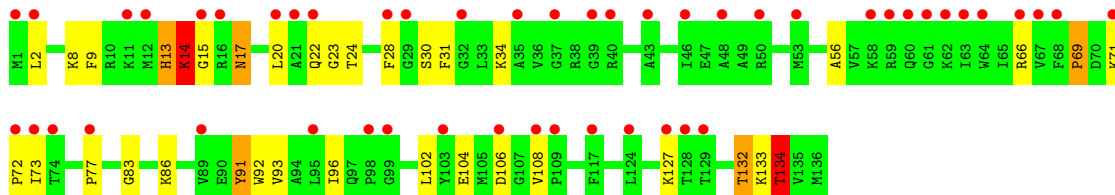
- Molecule 13: 50S ribosomal protein L16

Chain EM:



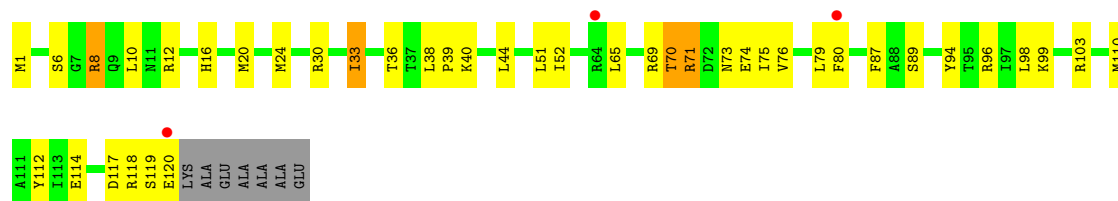
- Molecule 13: 50S ribosomal protein L16

Chain GM:



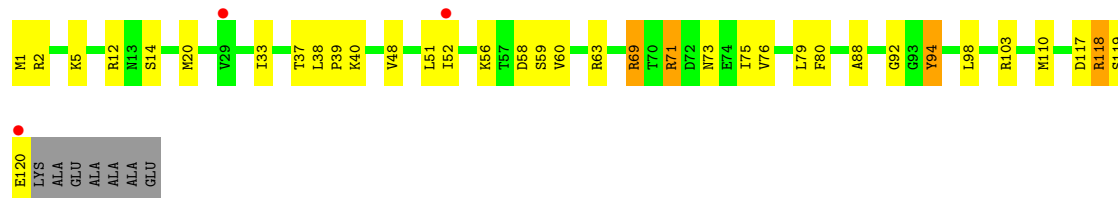
- Molecule 14: 50S ribosomal protein L17

Chain AN:



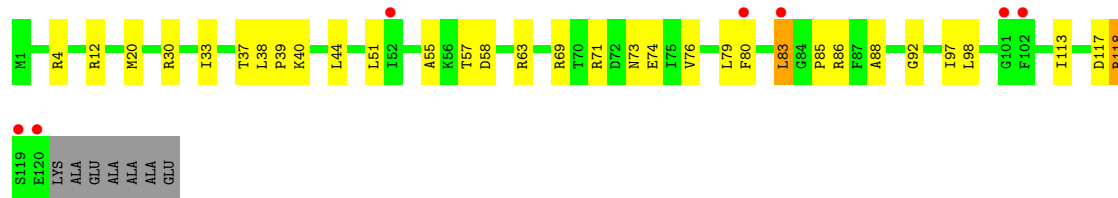
- Molecule 14: 50S ribosomal protein L17

Chain CN:



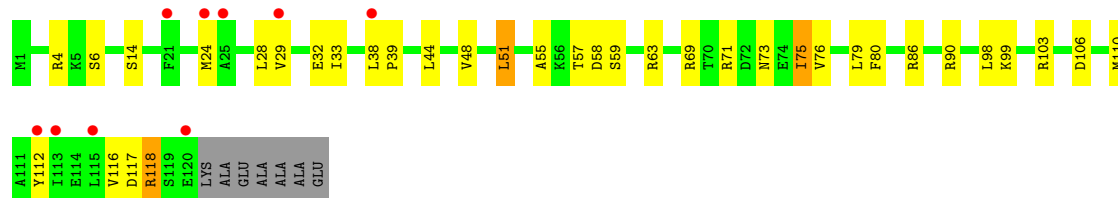
- Molecule 14: 50S ribosomal protein L17

Chain EN:



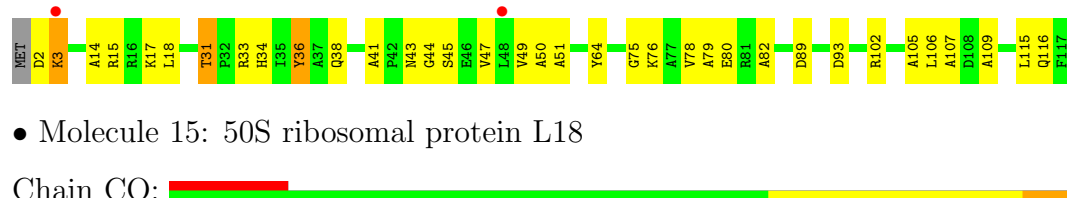
- Molecule 14: 50S ribosomal protein L17

Chain GN:



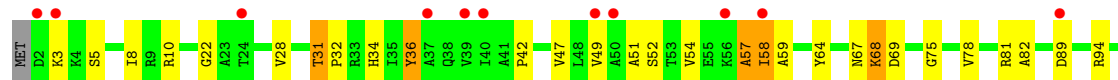
- Molecule 15: 50S ribosomal protein L18

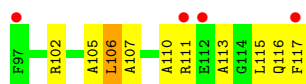
Chain AO:



- Molecule 15: 50S ribosomal protein L18

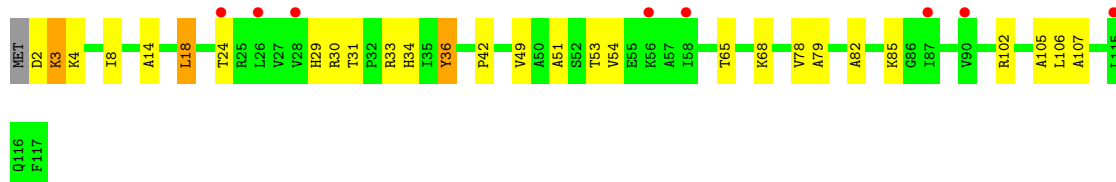
Chain CO:





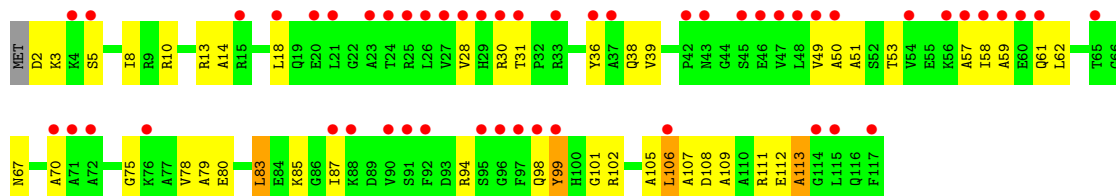
- Molecule 15: 50S ribosomal protein L18

Chain EO:



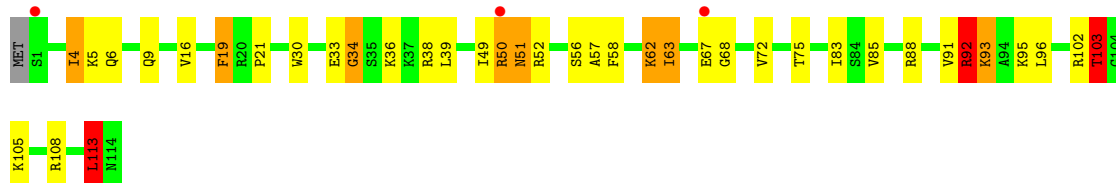
- Molecule 15: 50S ribosomal protein L18

Chain GO:



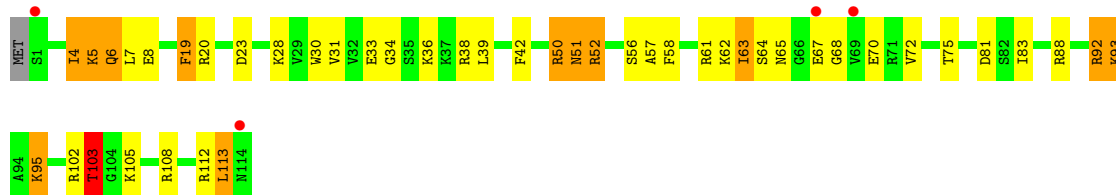
- Molecule 16: 50S ribosomal protein L19

Chain AP:



- Molecule 16: 50S ribosomal protein L19

Chain CP:



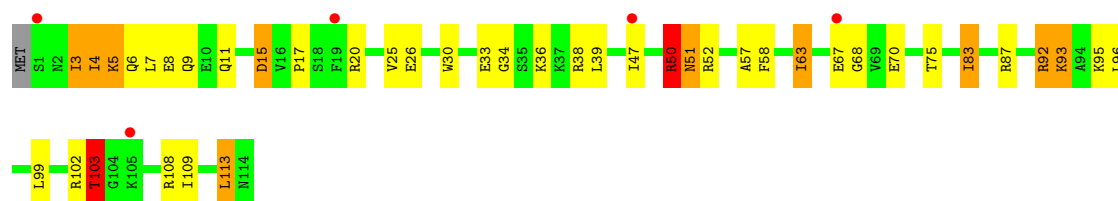
- Molecule 16: 50S ribosomal protein L19

Chain EP:



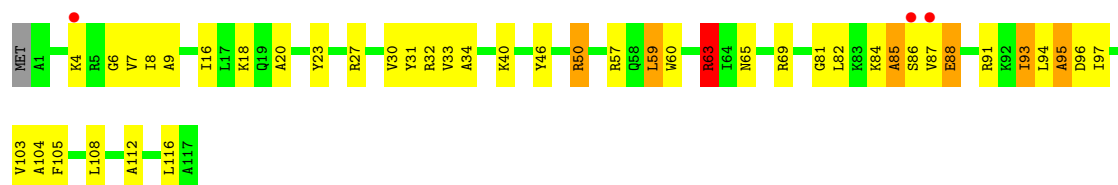
- Molecule 16: 50S ribosomal protein L19

Chain GP:



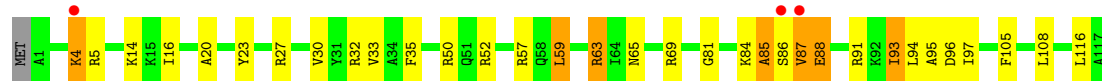
- Molecule 17: 50S ribosomal protein L20

Chain AQ:



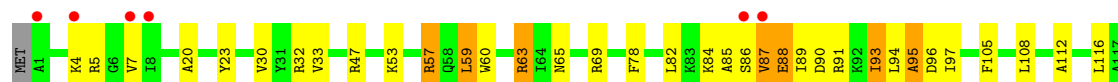
- Molecule 17: 50S ribosomal protein L20

Chain CQ:



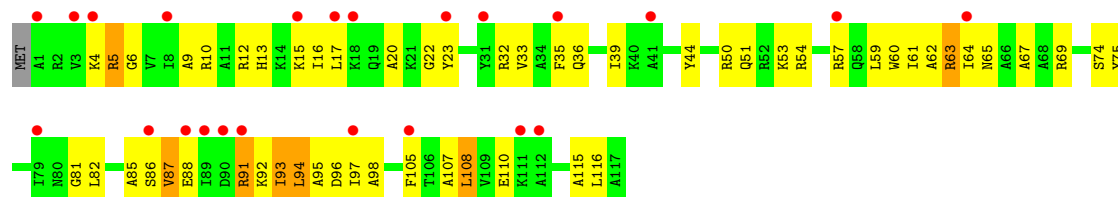
- Molecule 17: 50S ribosomal protein L20

Chain EQ:



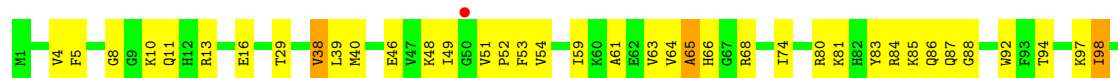
- Molecule 17: 50S ribosomal protein L20

Chain GQ:



- Molecule 18: 50S ribosomal protein L21

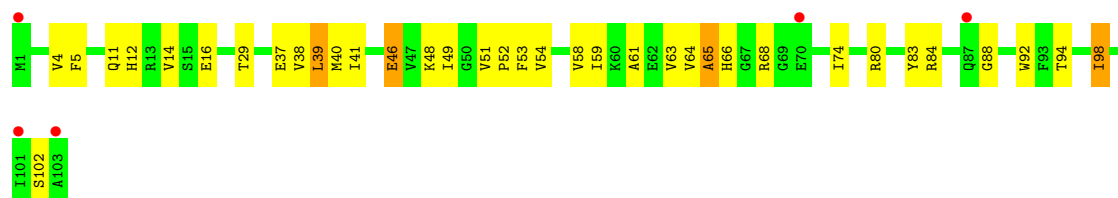
Chain AR:





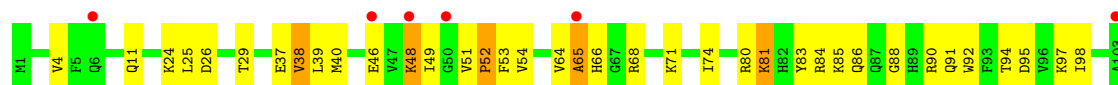
- Molecule 18: 50S ribosomal protein L21

Chain CR:



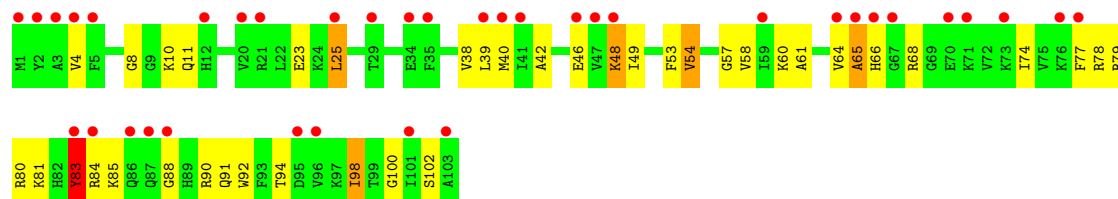
- Molecule 18: 50S ribosomal protein L21

Chain ER:



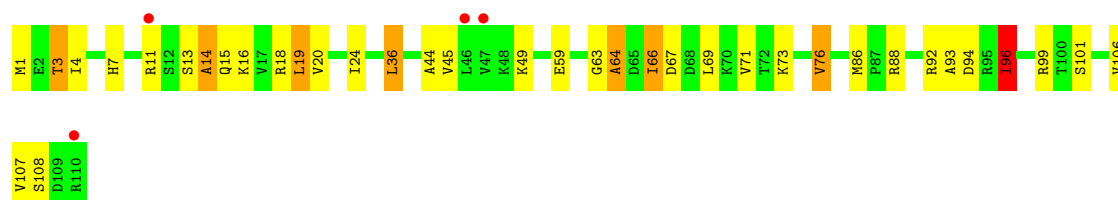
- Molecule 18: 50S ribosomal protein L21

Chain GR:



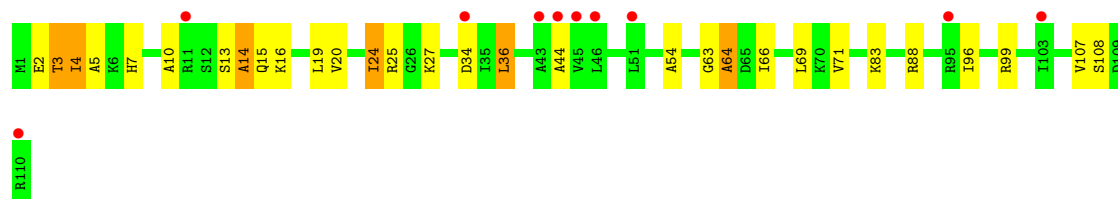
- Molecule 19: 50S ribosomal protein L22

Chain AS:



- Molecule 19: 50S ribosomal protein L22

Chain CS:



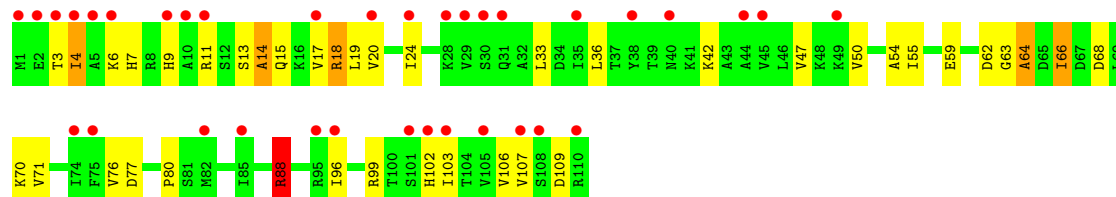
- Molecule 19: 50S ribosomal protein L22

Chain ES: 



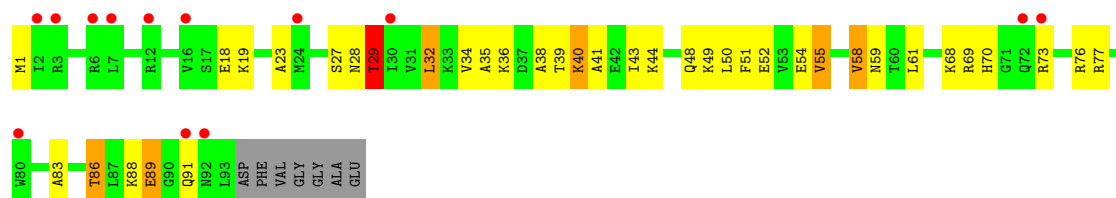
- Molecule 19: 50S ribosomal protein L22

Chain GS: 



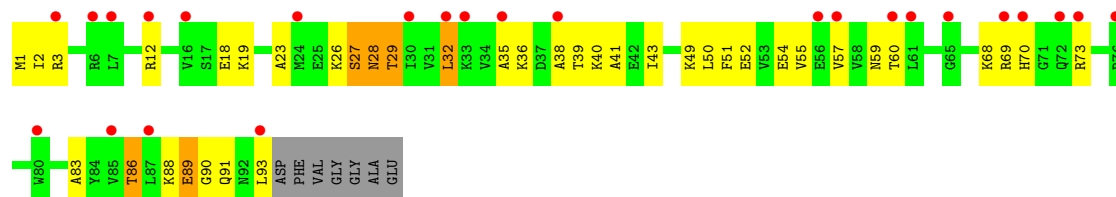
- Molecule 20: 50S ribosomal protein L23

Chain AT: 



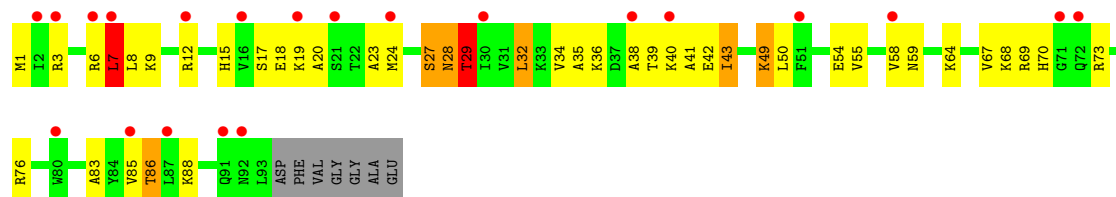
- Molecule 20: 50S ribosomal protein L23

Chain CT: 



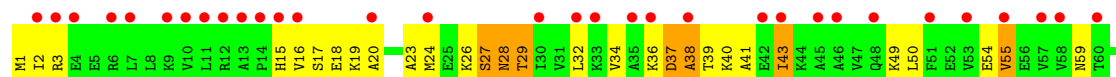
- Molecule 20: 50S ribosomal protein L23

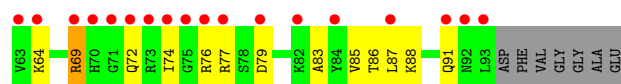
Chain ET: 



- Molecule 20: 50S ribosomal protein L23

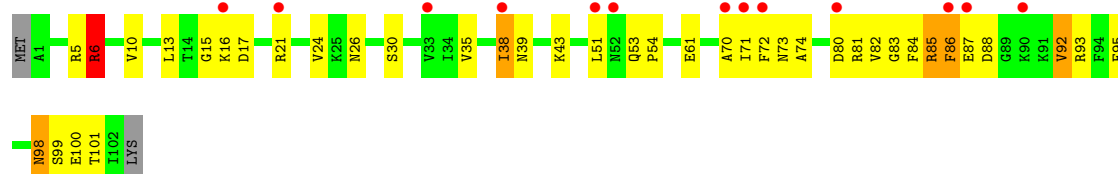
Chain GT: 





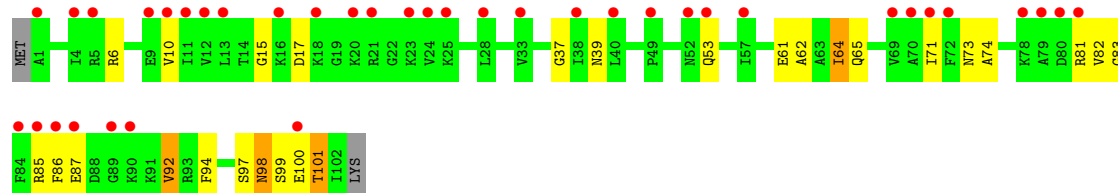
- Molecule 21: 50S ribosomal protein L24

Chain AU:



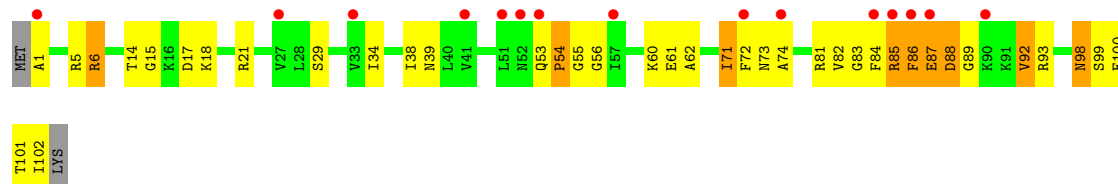
- Molecule 21: 50S ribosomal protein L24

Chain CU:



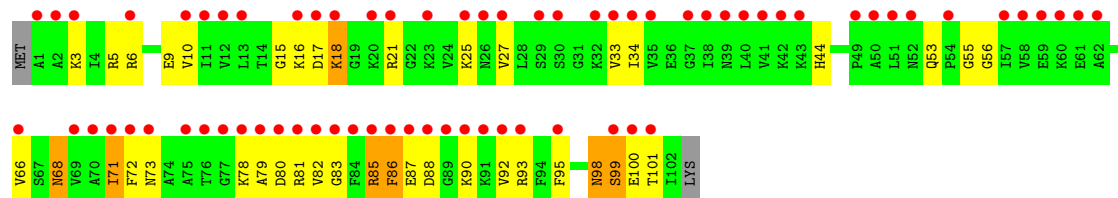
- Molecule 21: 50S ribosomal protein L24

Chain EU:



- Molecule 21: 50S ribosomal protein L24

Chain GU:



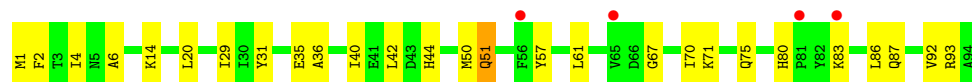
- Molecule 22: 50S ribosomal protein L25

Chain AV:



- Molecule 22: 50S ribosomal protein L25

Chain CV:



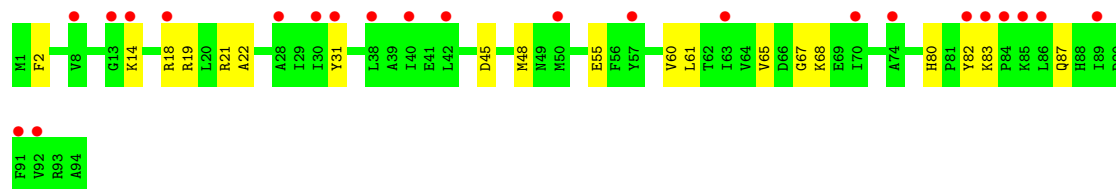
- Molecule 22: 50S ribosomal protein L25

Chain EV:



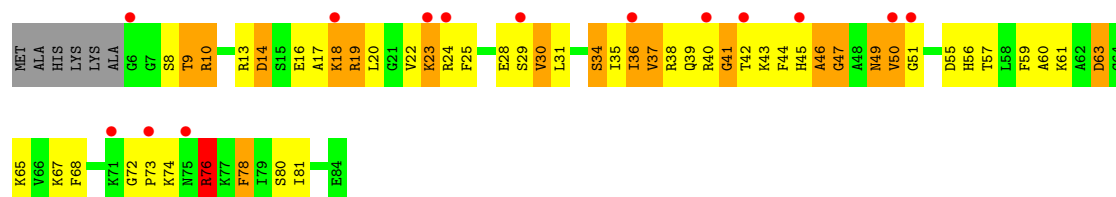
- Molecule 22: 50S ribosomal protein L25

Chain GV:



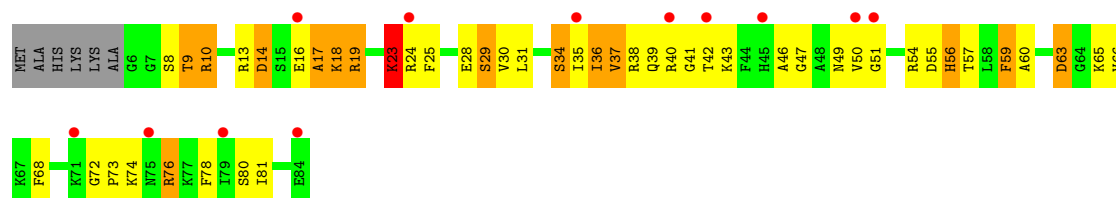
- Molecule 23: 50S ribosomal protein L27

Chain AW:



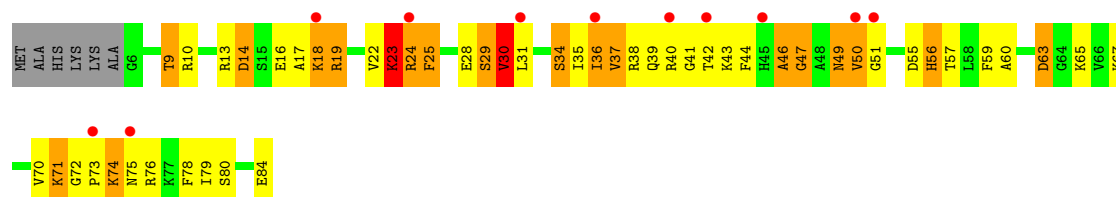
- Molecule 23: 50S ribosomal protein L27

Chain CW:



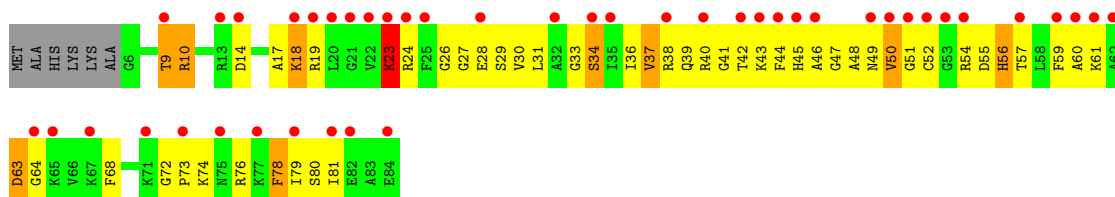
- Molecule 23: 50S ribosomal protein L27

Chain EW:



- Molecule 23: 50S ribosomal protein L27

Chain GW:



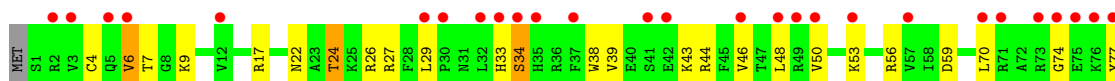
- Molecule 24: 50S ribosomal protein L28

Chain AX:



- Molecule 24: 50S ribosomal protein L28

Chain CX:



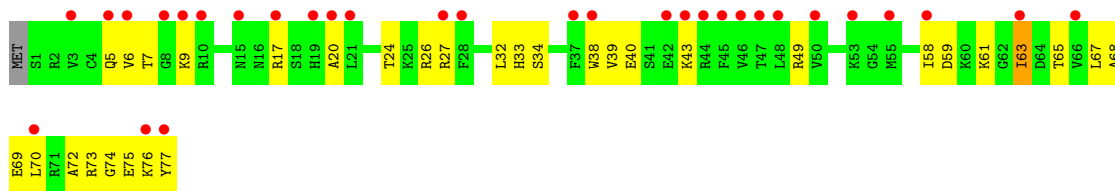
- Molecule 24: 50S ribosomal protein L28

Chain EX:



- Molecule 24: 50S ribosomal protein L28

Chain GX:



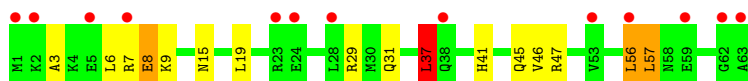
- Molecule 25: 50S ribosomal protein L29

Chain AY:



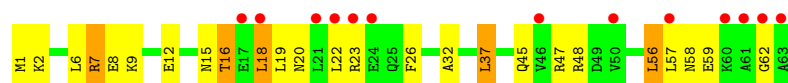
- Molecule 25: 50S ribosomal protein L29

Chain CY:



- Molecule 25: 50S ribosomal protein L29

Chain EY: 



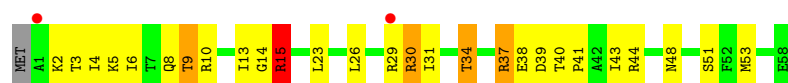
- Molecule 25: 50S ribosomal protein L29

Chain GY: 



- Molecule 26: 50S ribosomal protein L30

Chain AZ: 



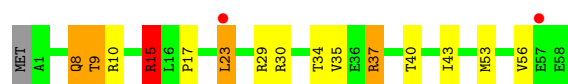
- Molecule 26: 50S ribosomal protein L30

Chain CZ: 



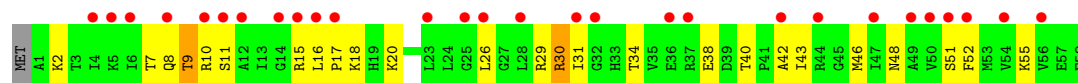
- Molecule 26: 50S ribosomal protein L30

Chain EZ: 



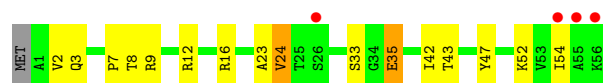
- Molecule 26: 50S ribosomal protein L30

Chain GZ: 



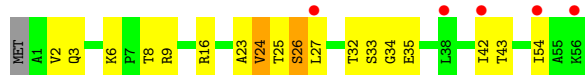
- Molecule 27: 50S ribosomal protein L32

Chain A0: 



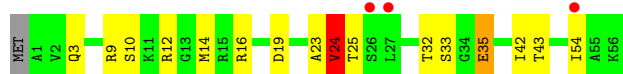
- Molecule 27: 50S ribosomal protein L32

Chain C0: 



- Molecule 27: 50S ribosomal protein L32

Chain E0:



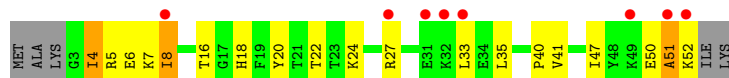
- Molecule 27: 50S ribosomal protein L32

Chain G0:



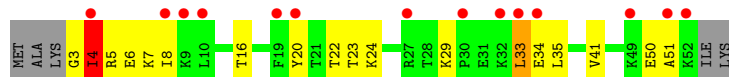
- Molecule 28: 50S ribosomal protein L33

Chain A1:



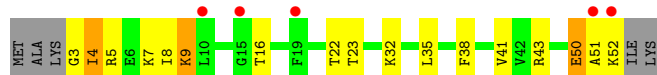
- Molecule 28: 50S ribosomal protein L33

Chain C1:



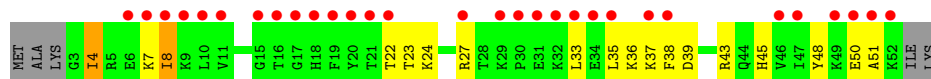
- Molecule 28: 50S ribosomal protein L33

Chain E1:



- Molecule 28: 50S ribosomal protein L33

Chain G1:



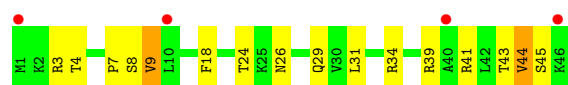
- Molecule 29: 50S ribosomal protein L34

Chain A2:



- Molecule 29: 50S ribosomal protein L34

Chain C2: 



- Molecule 29: 50S ribosomal protein L34

Chain E2: 



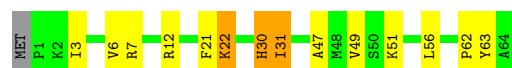
- Molecule 29: 50S ribosomal protein L34

Chain G2: 



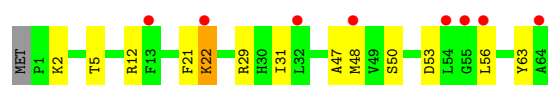
- Molecule 30: 50S ribosomal protein L35

Chain A3: 



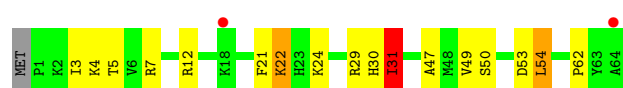
- Molecule 30: 50S ribosomal protein L35

Chain C3: 



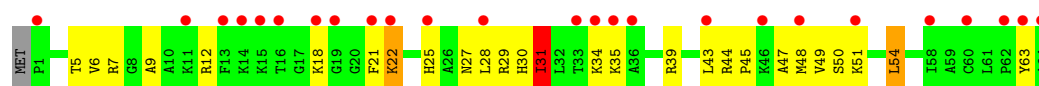
- Molecule 30: 50S ribosomal protein L35

Chain E3: 



- Molecule 30: 50S ribosomal protein L35

Chain G3: 



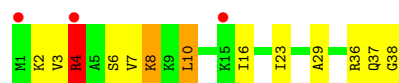
- Molecule 31: 50S ribosomal protein L36

Chain A4: 



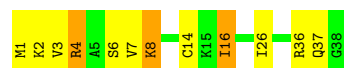
- Molecule 31: 50S ribosomal protein L36

Chain C4: 



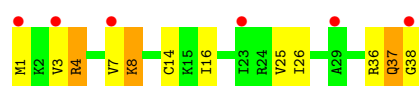
- Molecule 31: 50S ribosomal protein L36

Chain E4: 



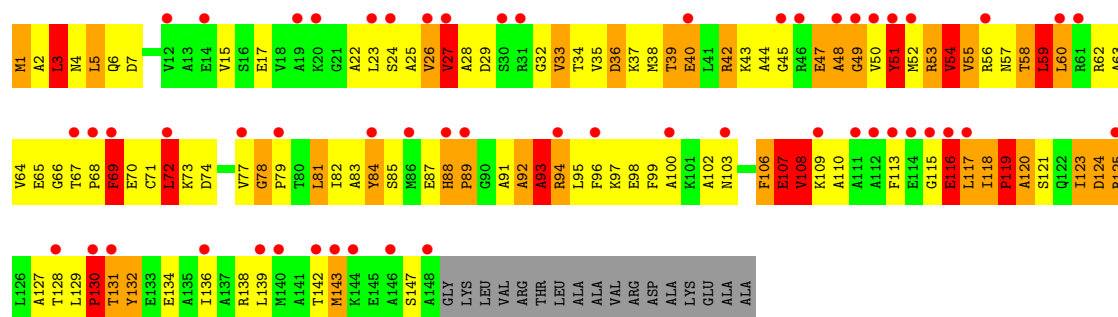
- Molecule 31: 50S ribosomal protein L36

Chain G4: 



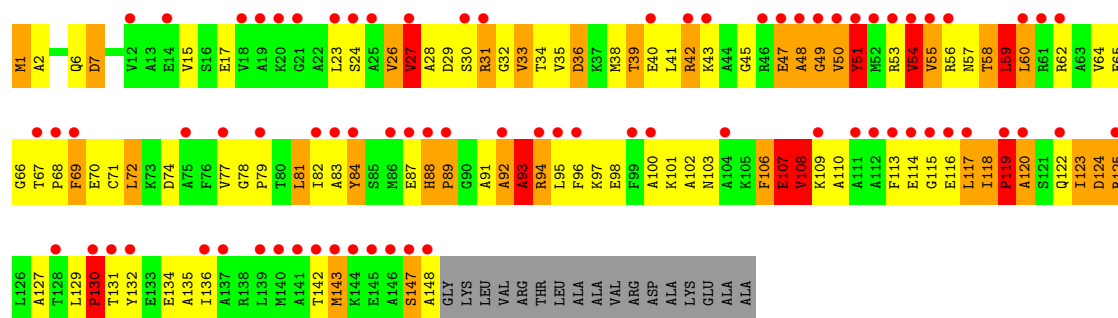
- Molecule 32: 50S ribosomal protein L10

Chain A5: 



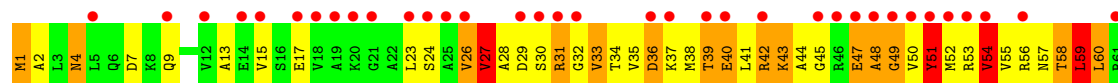
- Molecule 32: 50S ribosomal protein L10

Chain C5: 

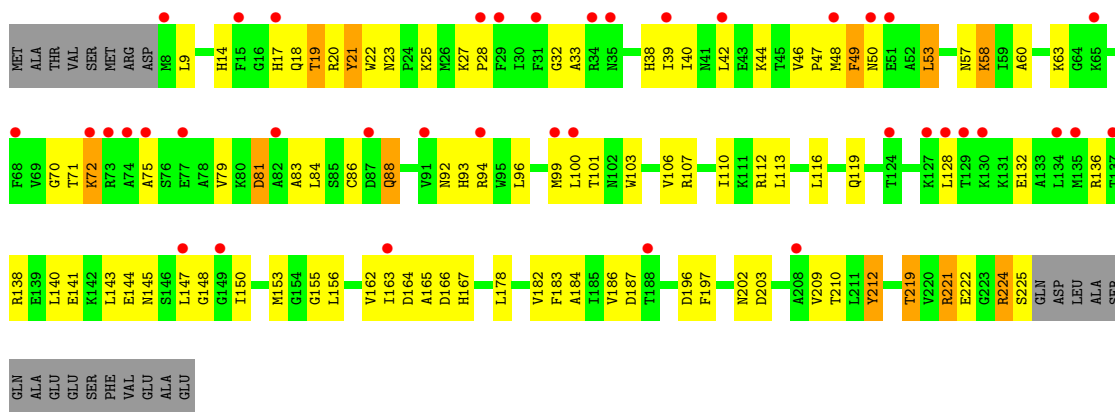


- Molecule 32: 50S ribosomal protein L10

Chain E5: 

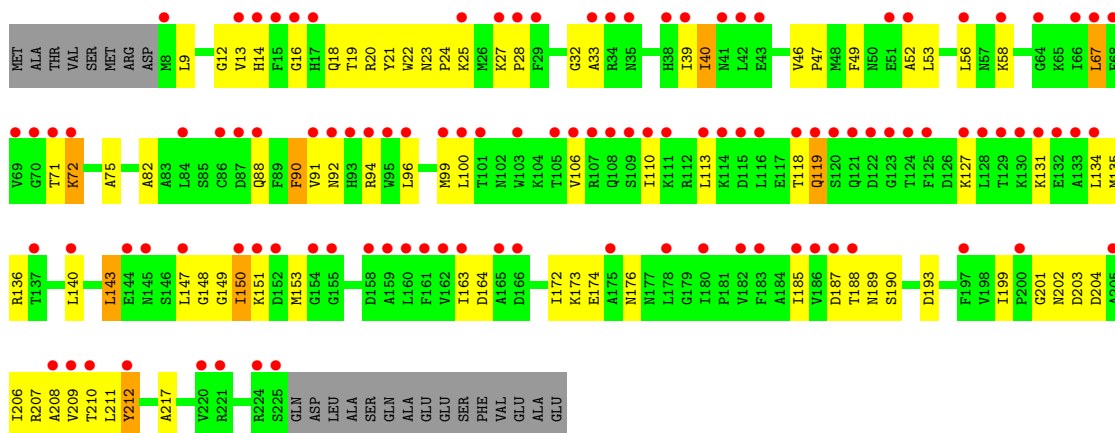






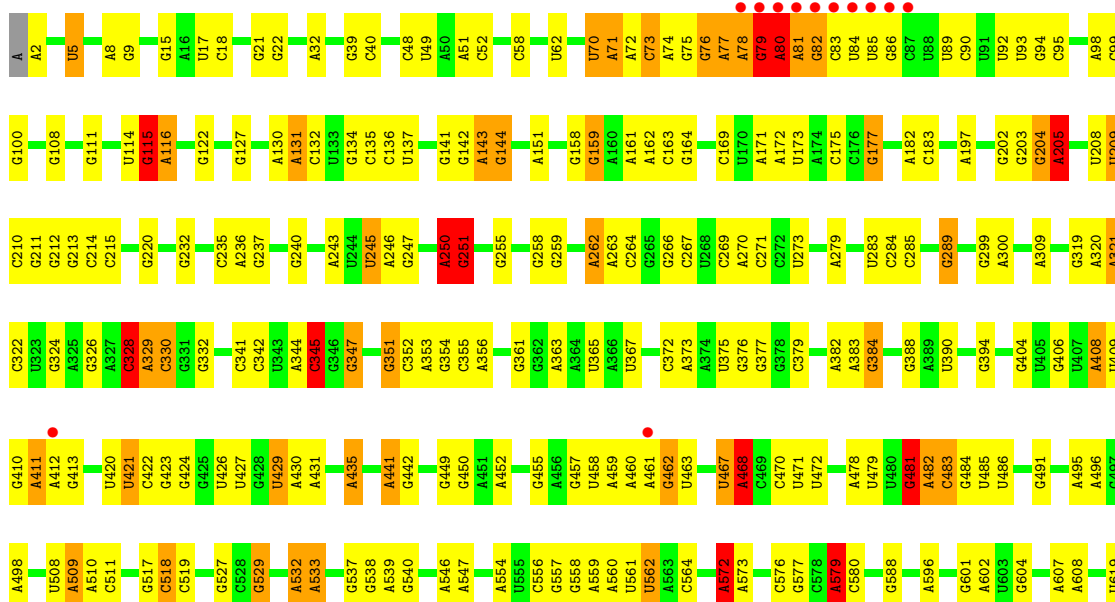
• Molecule 34: 30S ribosomal protein S2

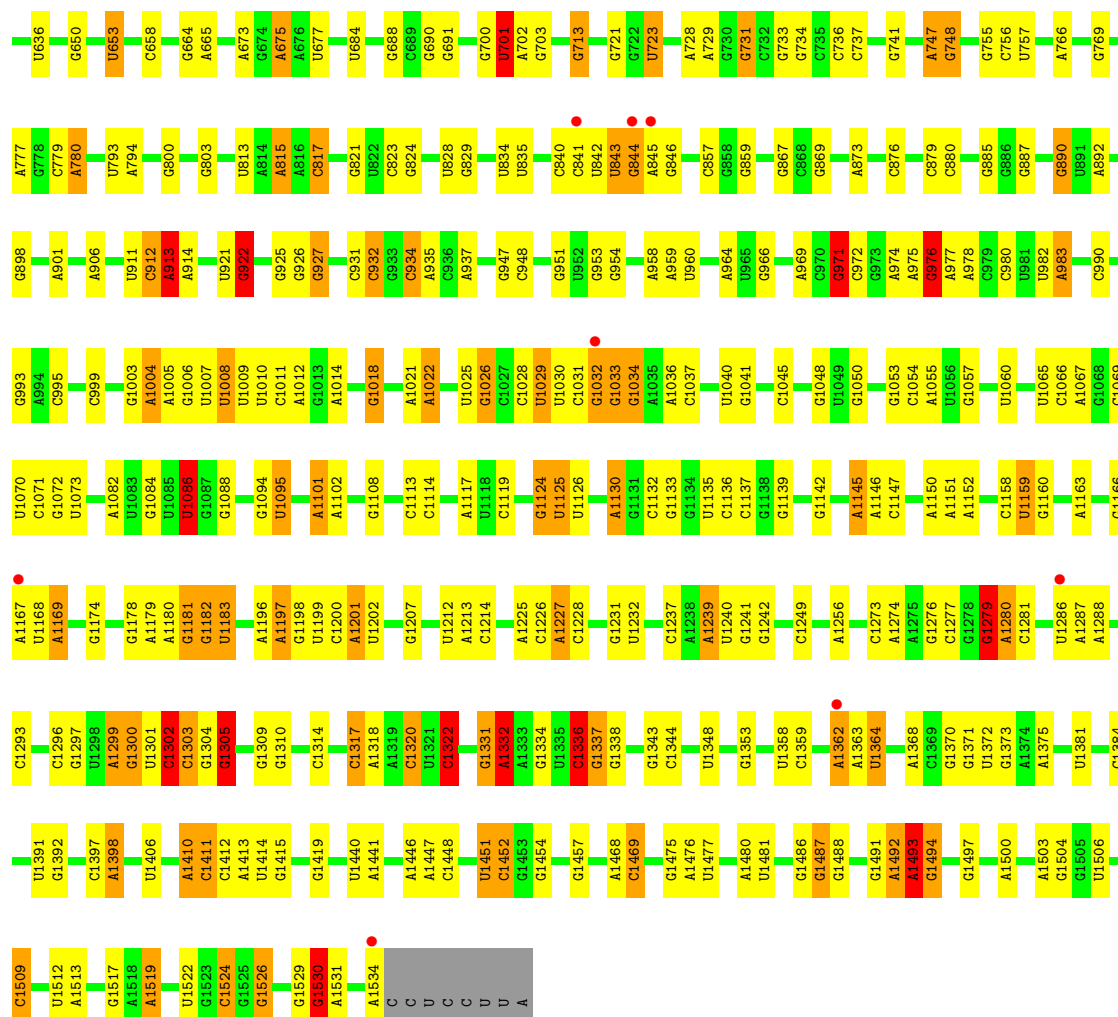
Chain HB:

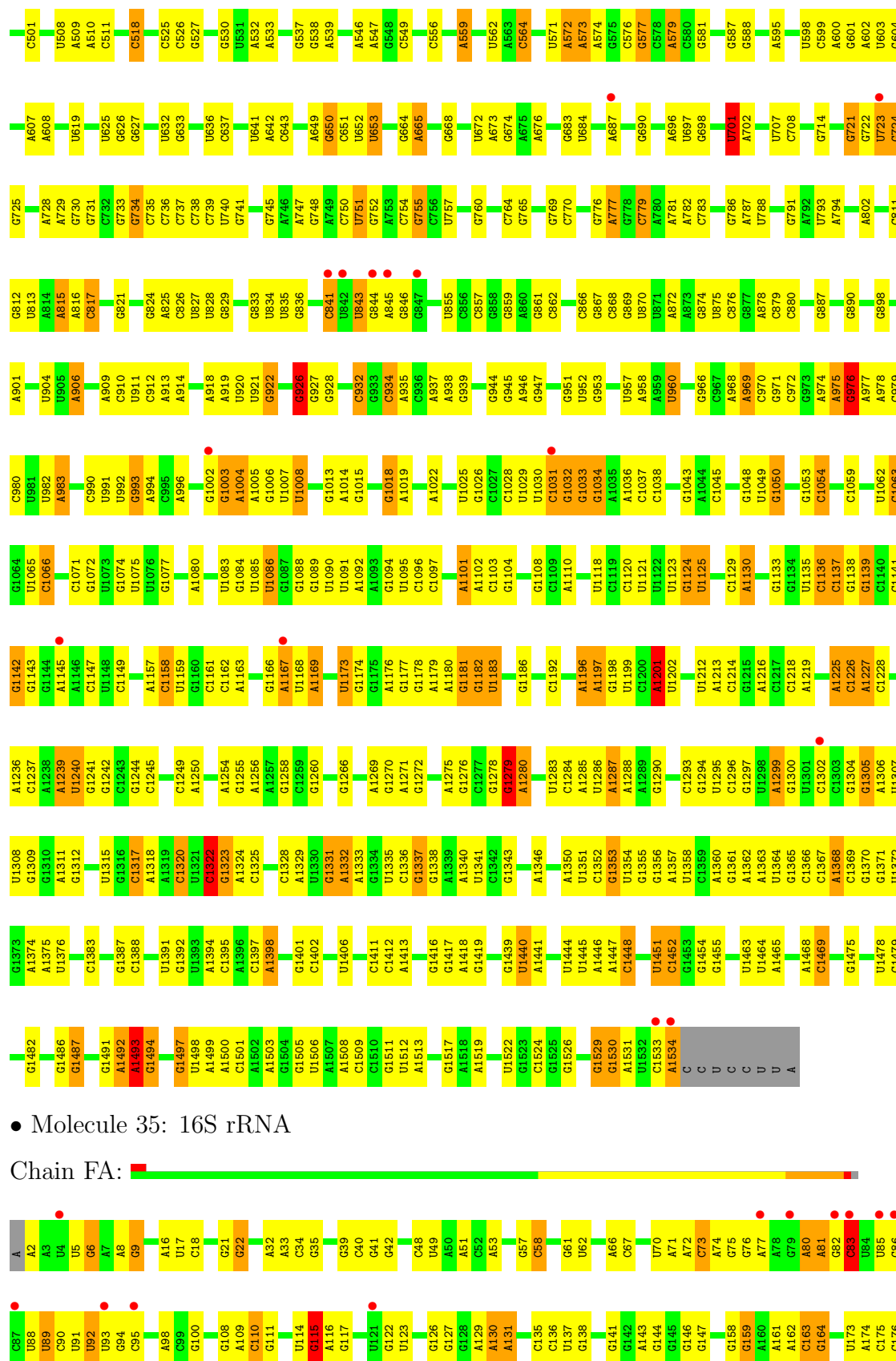


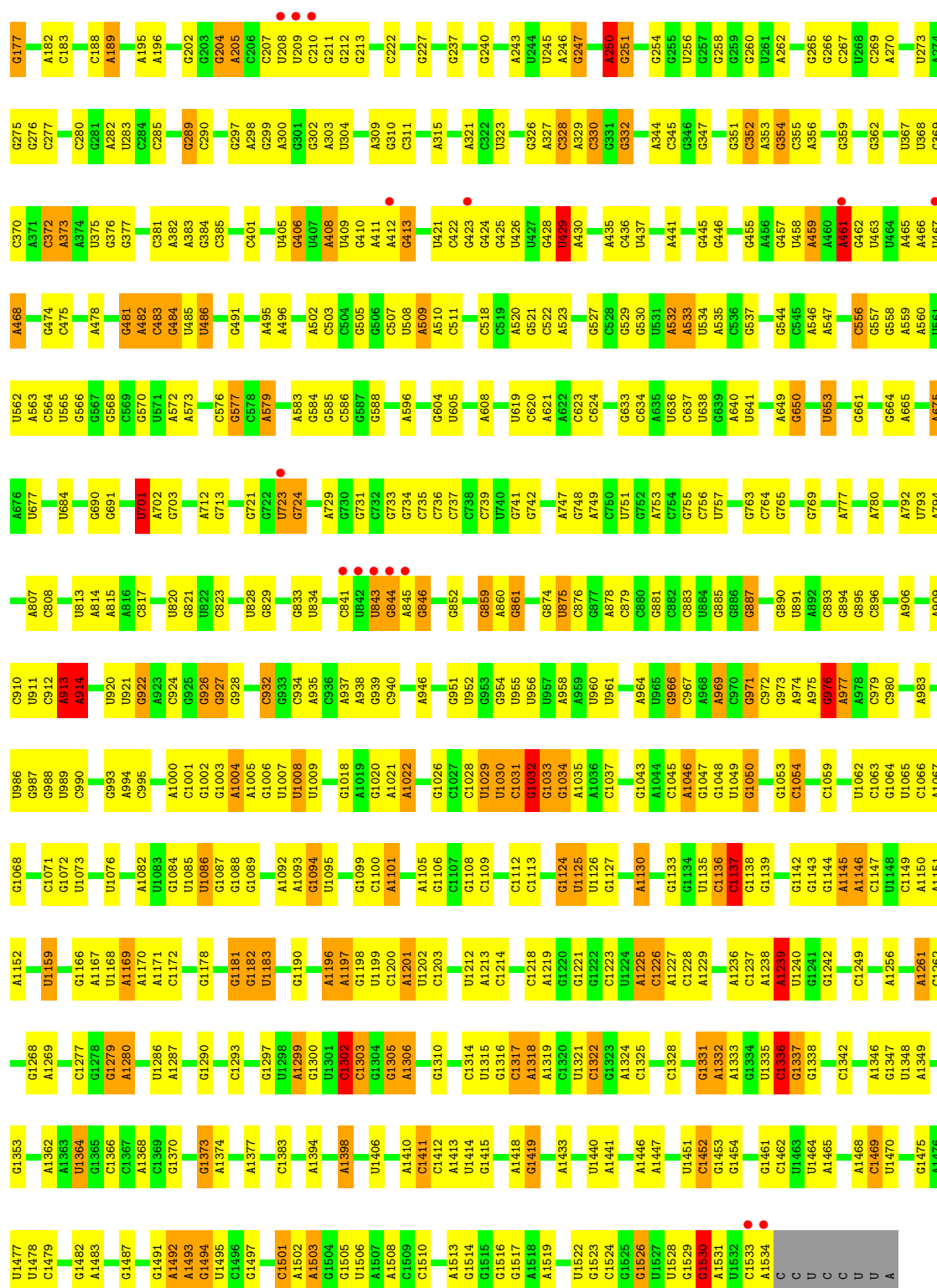
• Molecule 35: 16S rRNA

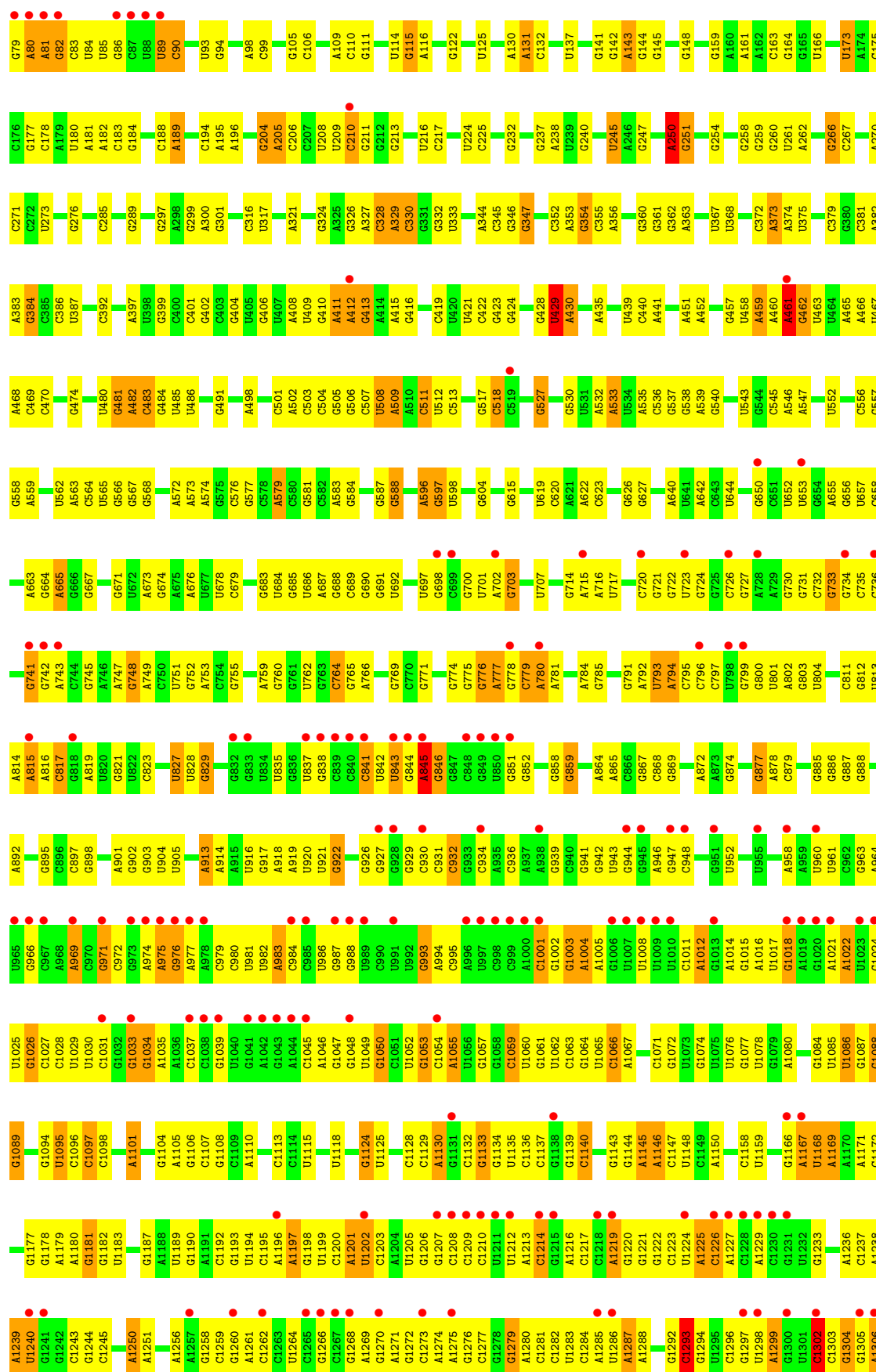
Chain BA:

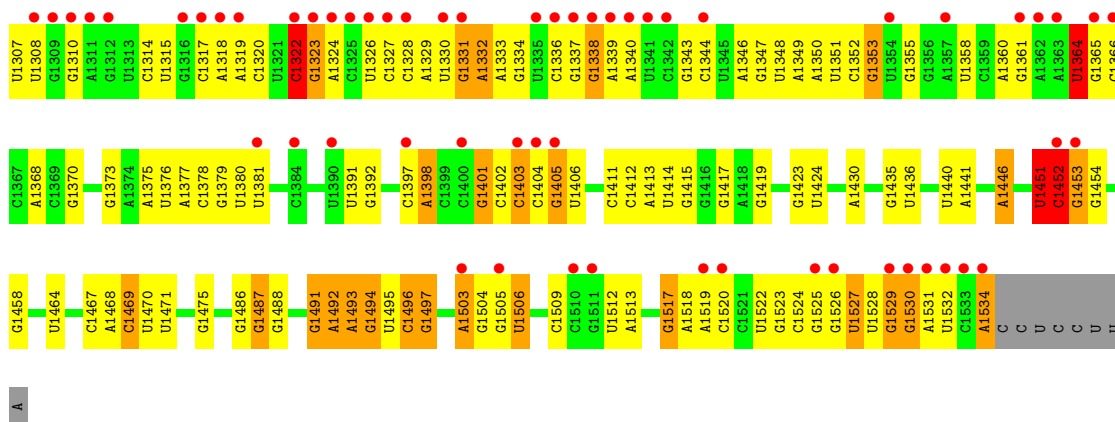






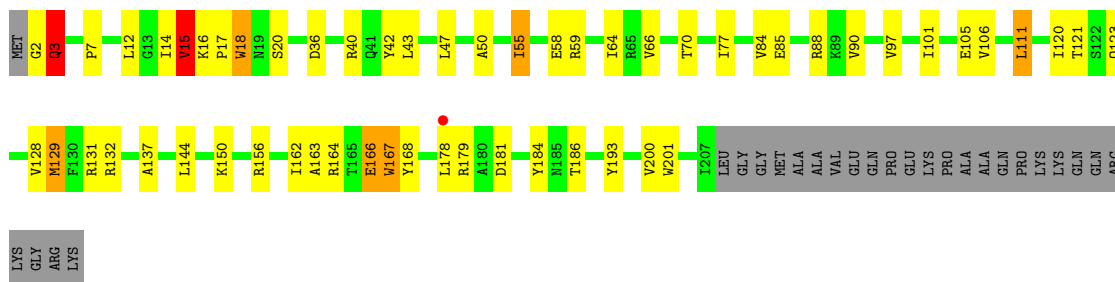






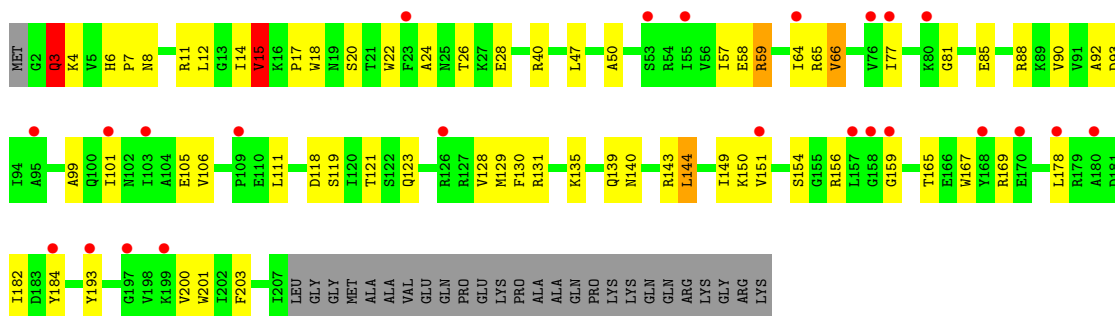
- Molecule 36: 30S ribosomal protein S3

Chain BC:



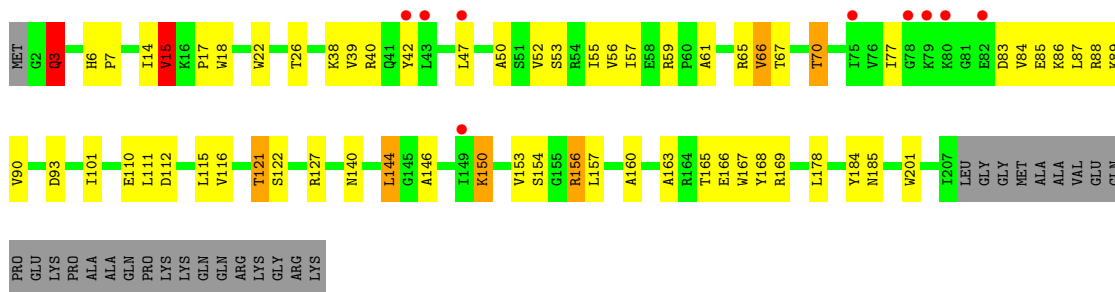
- Molecule 36: 30S ribosomal protein S3

Chain DC:



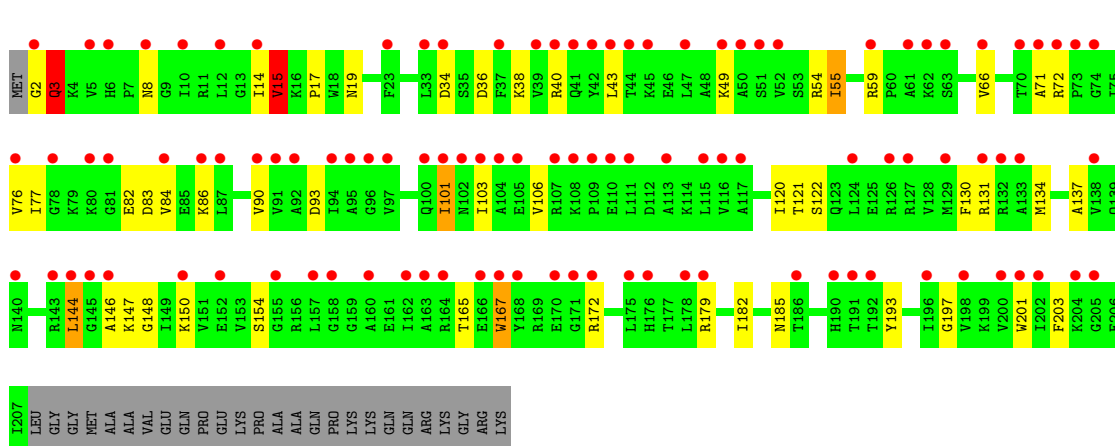
- Molecule 36: 30S ribosomal protein S3

Chain FC:



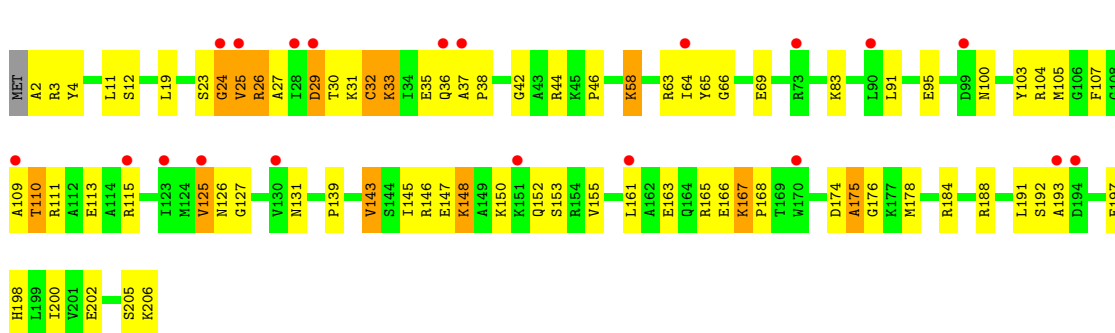
- Molecule 36: 30S ribosomal protein S3

Chain HC:



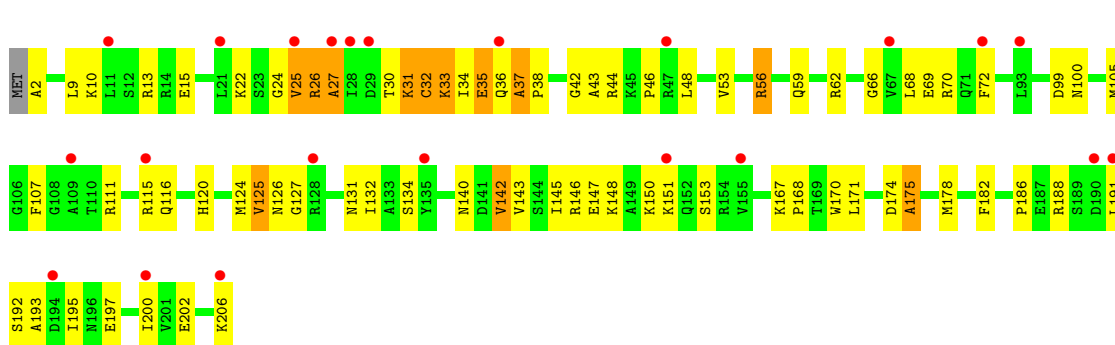
- Molecule 37: 30S ribosomal protein S4

Chain BD:



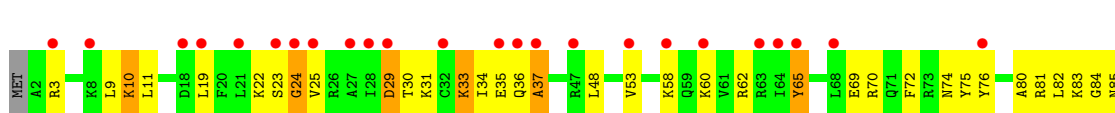
- Molecule 37: 30S ribosomal protein S4

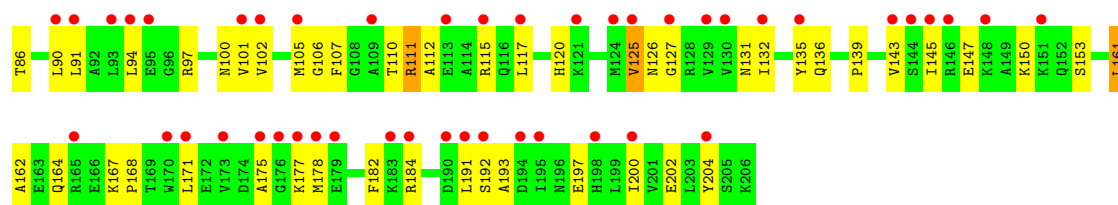
Chain DD:



- Molecule 37: 30S ribosomal protein S4

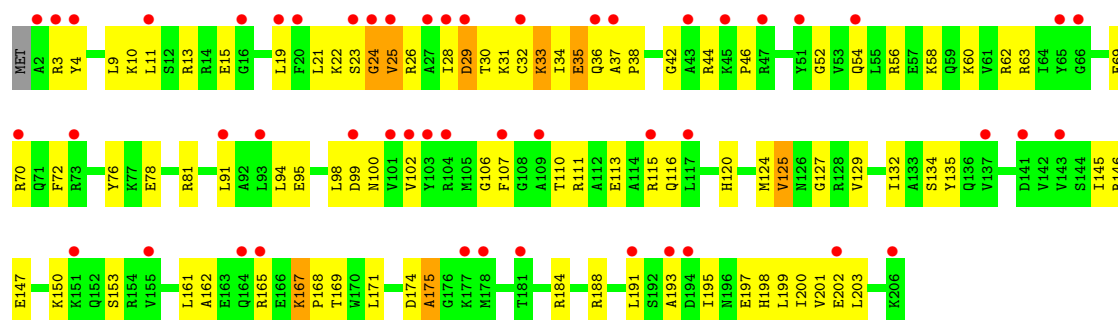
Chain FD:





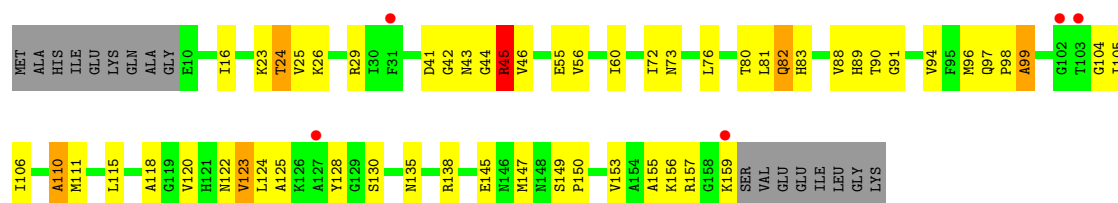
• Molecule 37: 30S ribosomal protein S4

Chain HD:



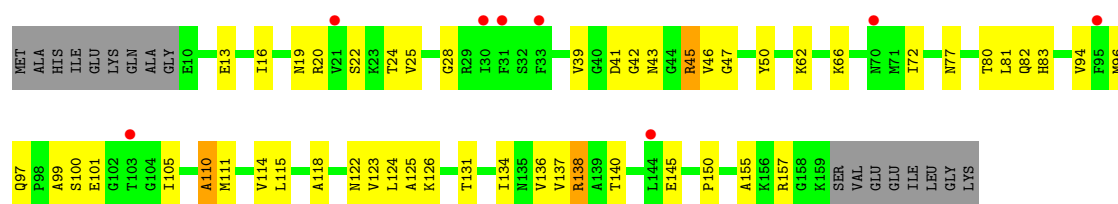
• Molecule 38: 30S ribosomal protein S5

Chain BE:



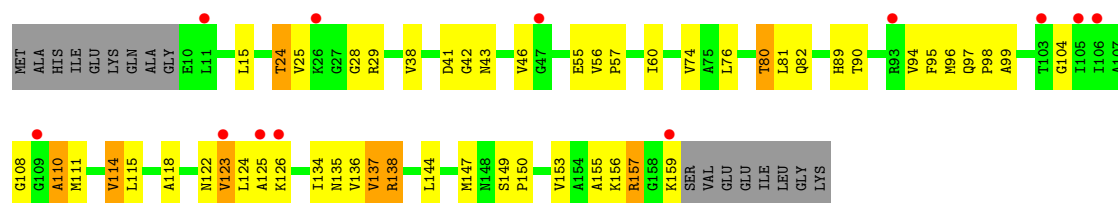
• Molecule 38: 30S ribosomal protein S5

Chain DE:



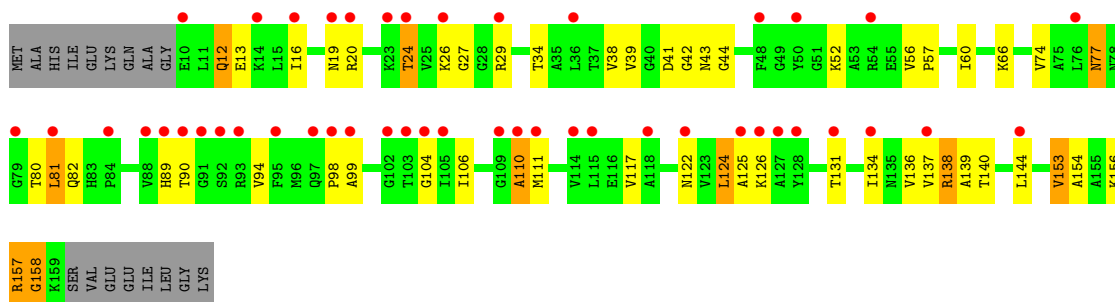
• Molecule 38: 30S ribosomal protein S5

Chain FE:



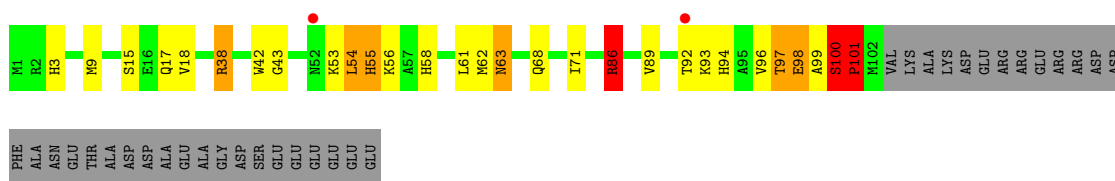
• Molecule 38: 30S ribosomal protein S5

Chain HE: 



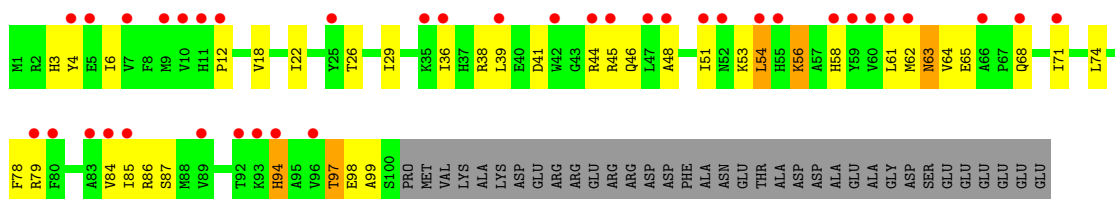
- Molecule 39: 30S ribosomal protein S6

Chain BF:



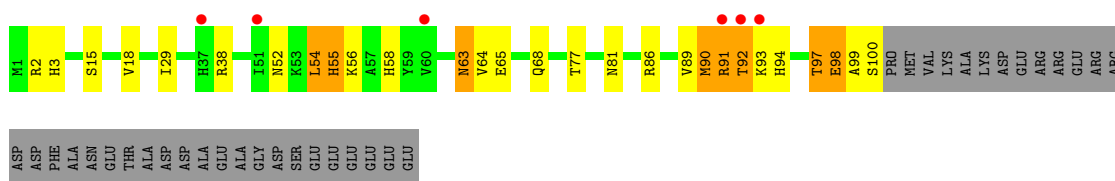
- Molecule 39: 30S ribosomal protein S6

Chain DF:



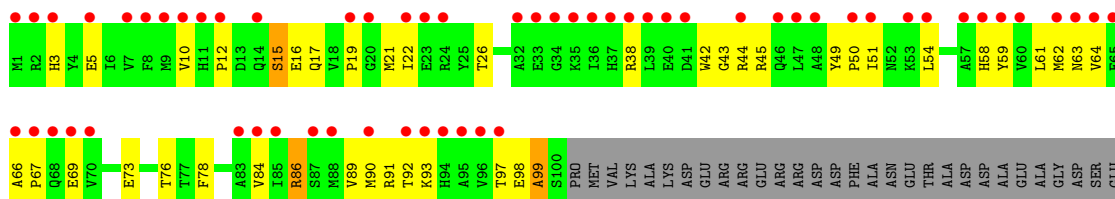
- Molecule 39: 30S ribosomal protein S6

Chain FF:



- Molecule 39: 30S ribosomal protein S6

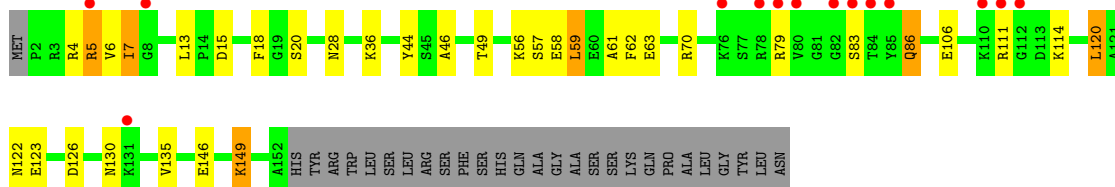
Chain HF:



GLU
GLU
GLU
GLU

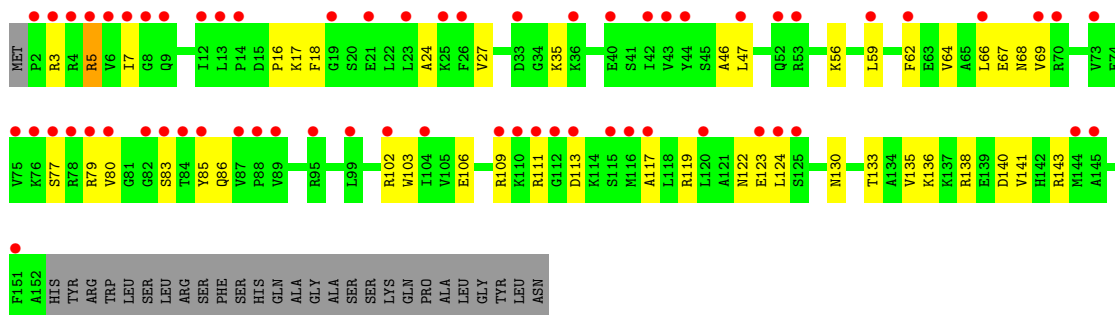
- Molecule 40: 30S ribosomal protein S7

Chain BG:



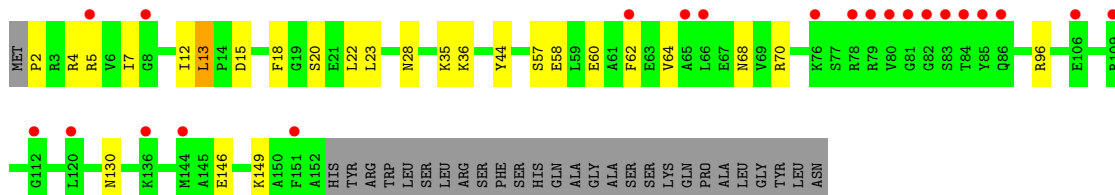
- Molecule 40: 30S ribosomal protein S7

Chain DG:



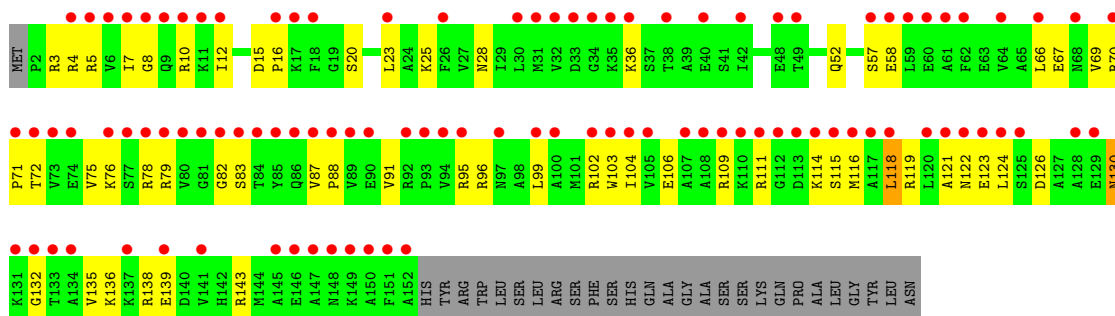
- Molecule 40: 30S ribosomal protein S7

Chain FG:

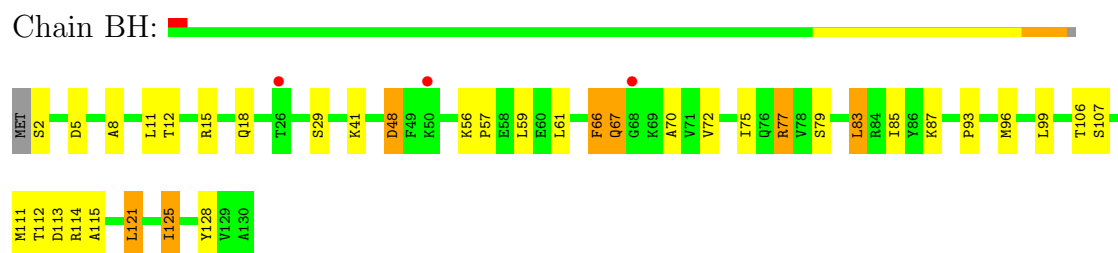


- Molecule 40: 30S ribosomal protein S7

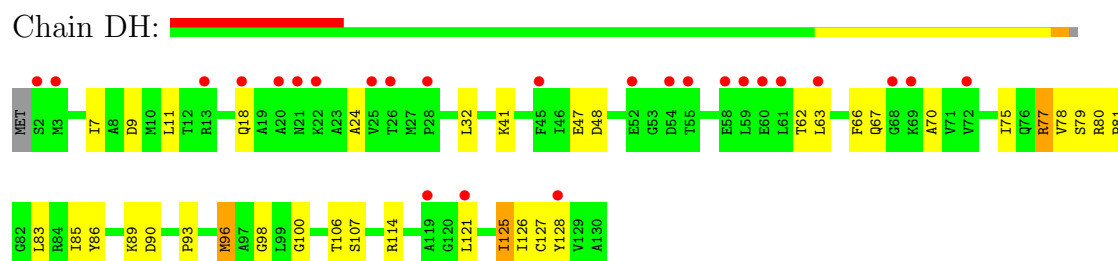
Chain HG:



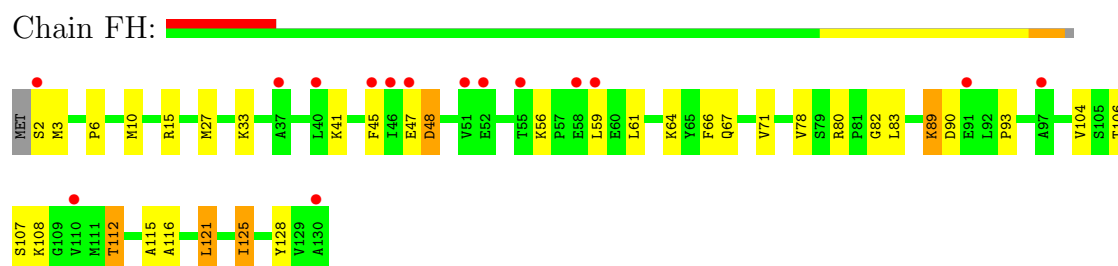
- Molecule 41: 30S ribosomal protein S8



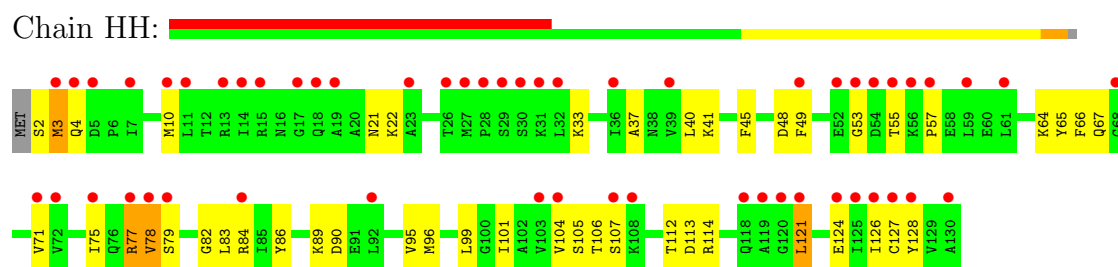
- Molecule 41: 30S ribosomal protein S8



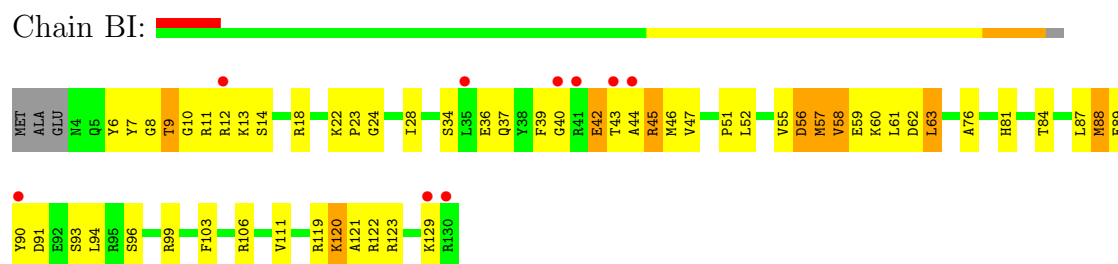
- Molecule 41: 30S ribosomal protein S8



- Molecule 41: 30S ribosomal protein S8

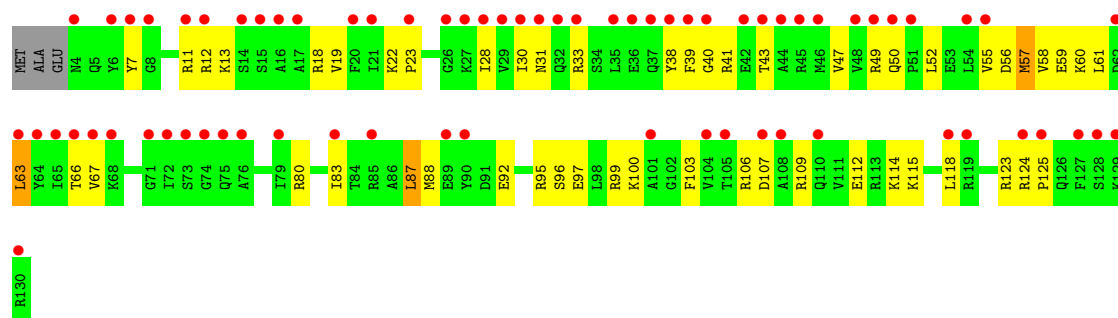


- Molecule 42: 30S ribosomal protein S9



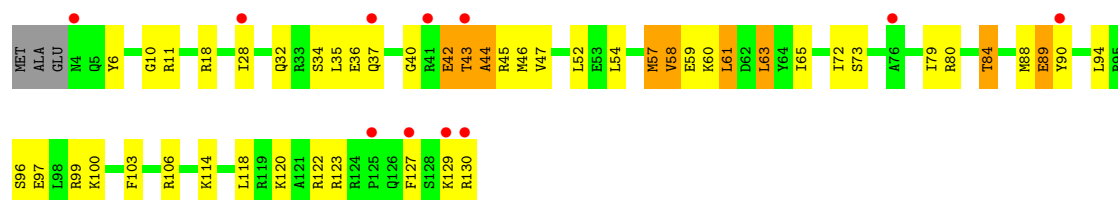
- Molecule 42: 30S ribosomal protein S9





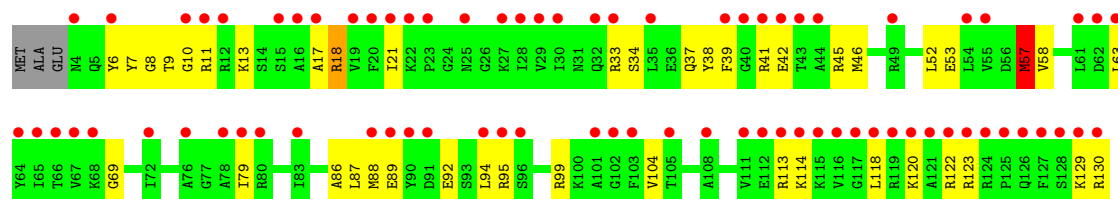
- Molecule 42: 30S ribosomal protein S9

Chain FI:



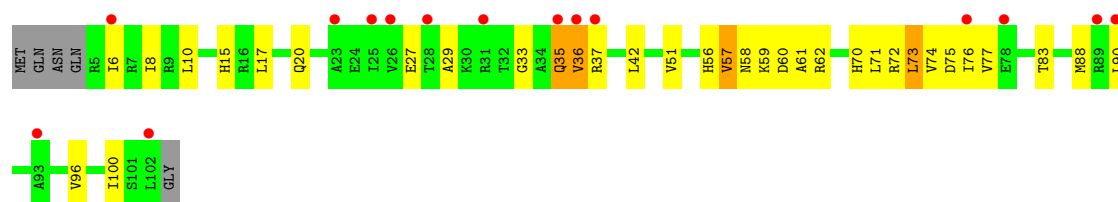
- Molecule 42: 30S ribosomal protein S9

Chain HI:



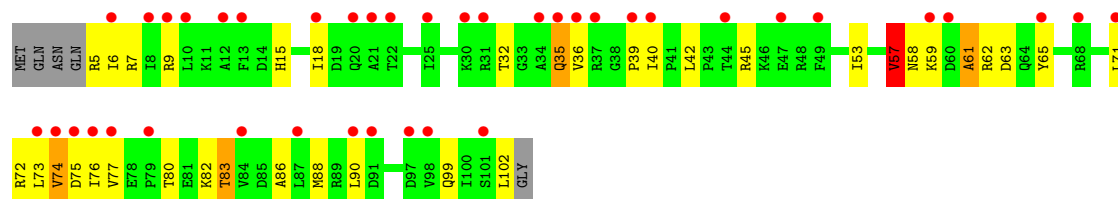
- Molecule 43: 30S ribosomal protein S10

Chain BJ:



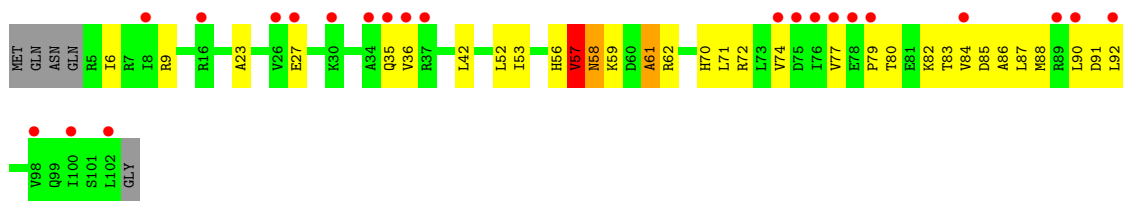
- Molecule 43: 30S ribosomal protein S10

Chain DJ:



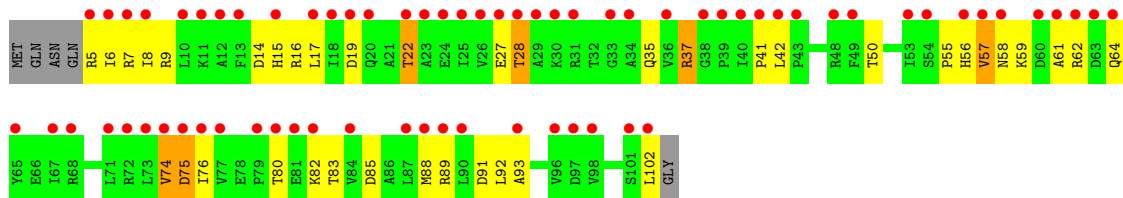
- Molecule 43: 30S ribosomal protein S10

Chain FJ:



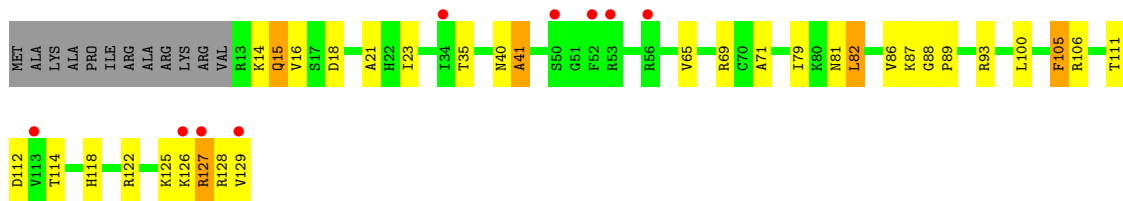
- Molecule 43: 30S ribosomal protein S10

Chain HJ:



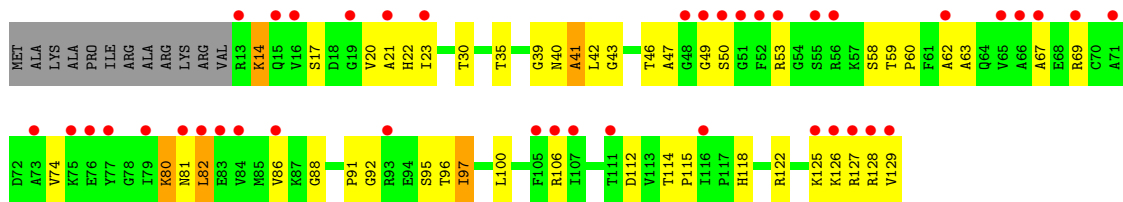
- Molecule 44: 30S ribosomal protein S11

Chain BK:



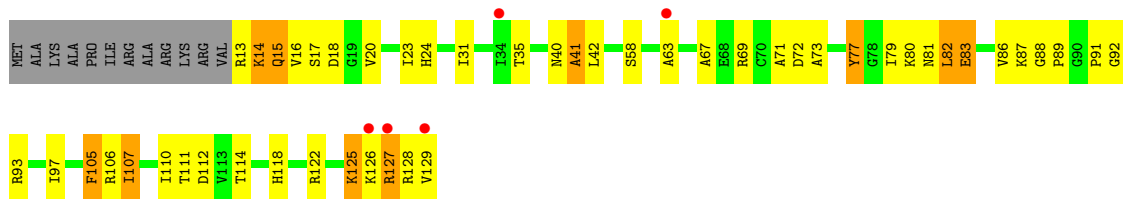
- Molecule 44: 30S ribosomal protein S11

Chain DK:



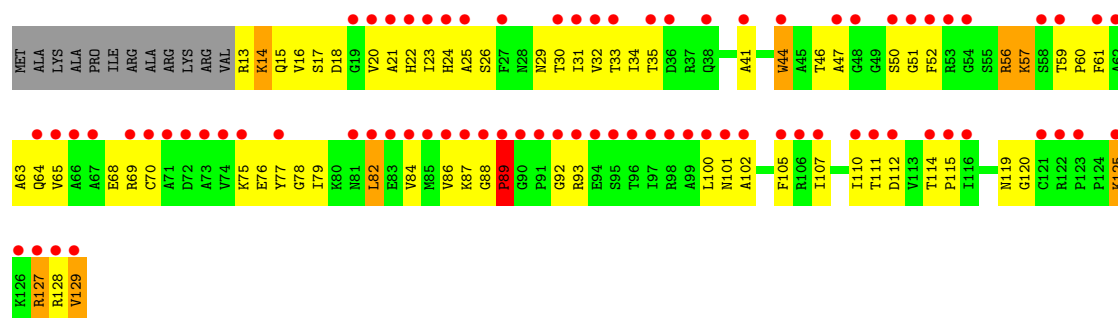
- Molecule 44: 30S ribosomal protein S11

Chain FK:



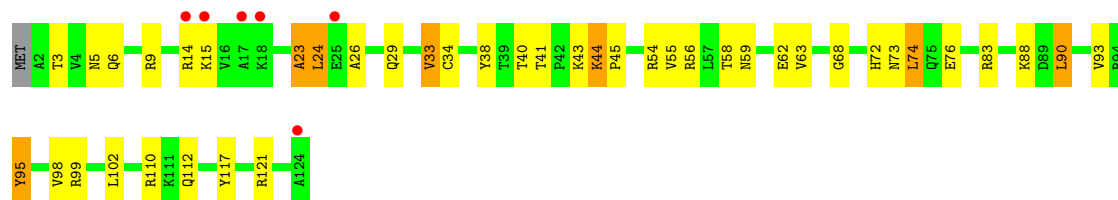
- Molecule 44: 30S ribosomal protein S11

Chain HK:



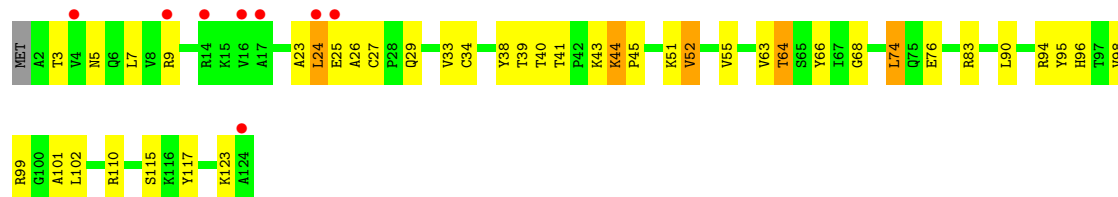
- Molecule 45: 30S ribosomal protein S12

Chain BL:



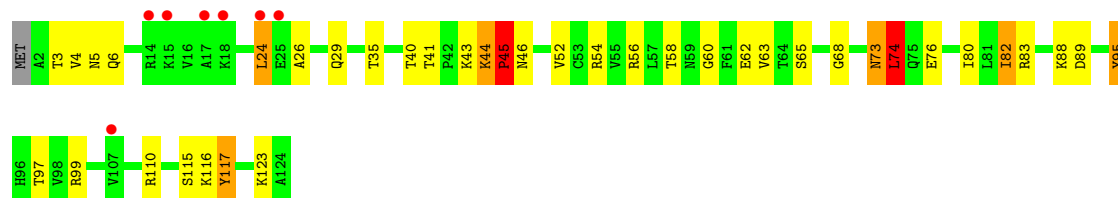
- Molecule 45: 30S ribosomal protein S12

Chain DL:



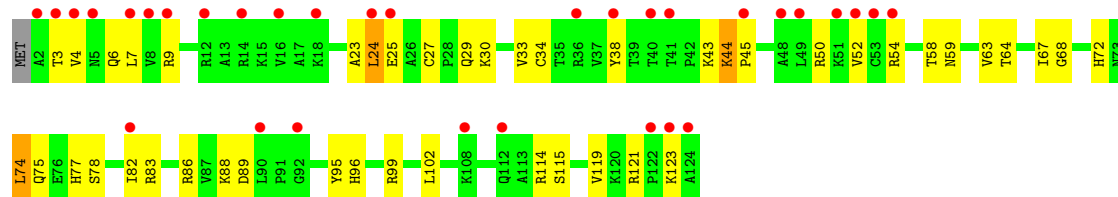
- Molecule 45: 30S ribosomal protein S12

Chain FL:



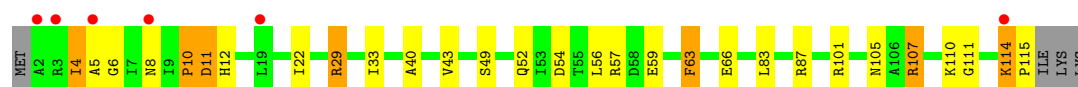
- Molecule 45: 30S ribosomal protein S12

Chain HL:



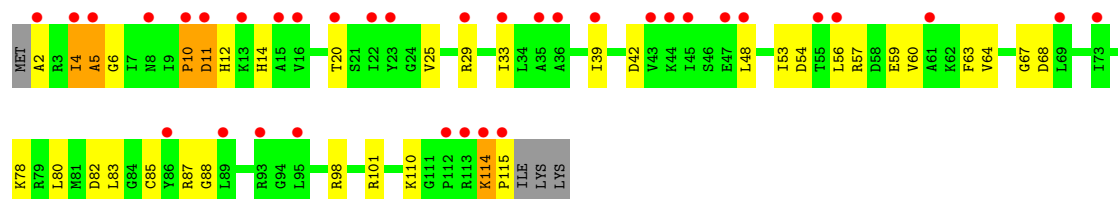
- Molecule 46: 30S ribosomal protein S13

Chain BM: 



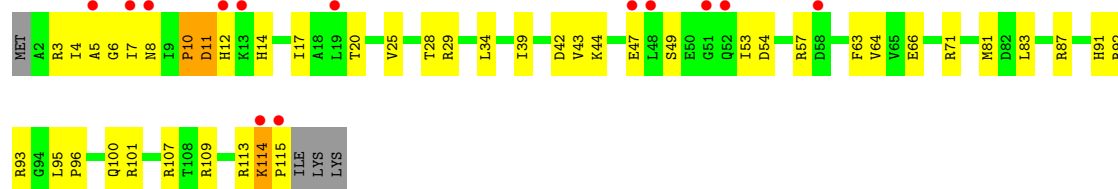
- Molecule 46: 30S ribosomal protein S13

Chain DM: 



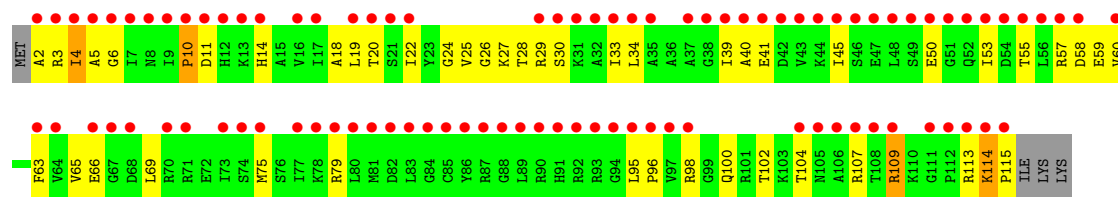
- Molecule 46: 30S ribosomal protein S13

Chain FM: 



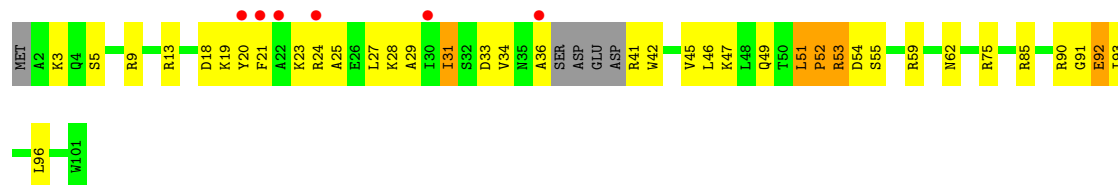
- Molecule 46: 30S ribosomal protein S13

Chain HM: 



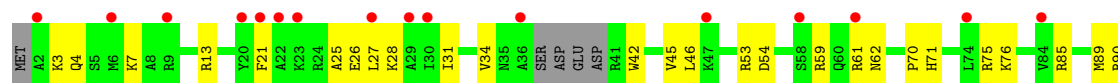
- Molecule 47: 30S ribosomal protein S14

Chain BN: 



- Molecule 47: 30S ribosomal protein S14

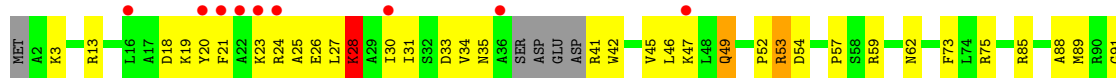
Chain DN: 





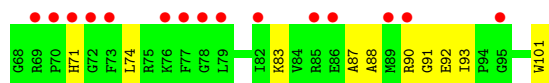
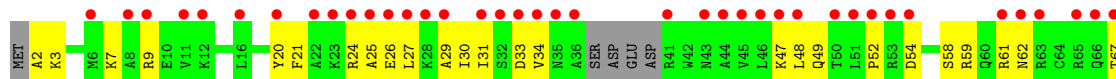
- Molecule 47: 30S ribosomal protein S14

Chain FN:



- Molecule 47: 30S ribosomal protein S14

Chain HN:



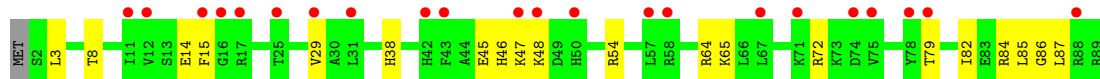
- Molecule 48: 30S ribosomal protein S15

Chain BO:



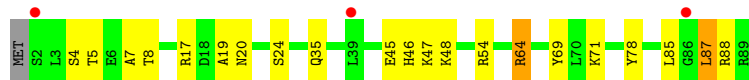
- Molecule 48: 30S ribosomal protein S15

Chain DO:



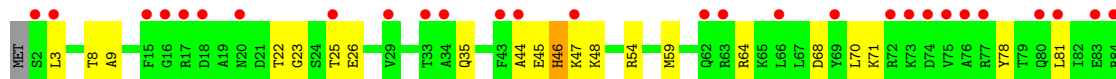
- Molecule 48: 30S ribosomal protein S15

Chain FO:



- Molecule 48: 30S ribosomal protein S15

Chain HO:



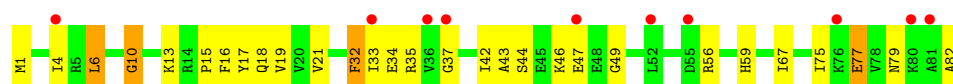
- Molecule 49: 30S ribosomal protein S16

Chain BP:



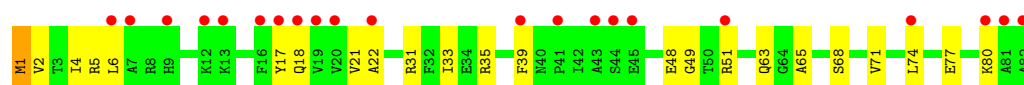
- Molecule 49: 30S ribosomal protein S16

Chain DP:



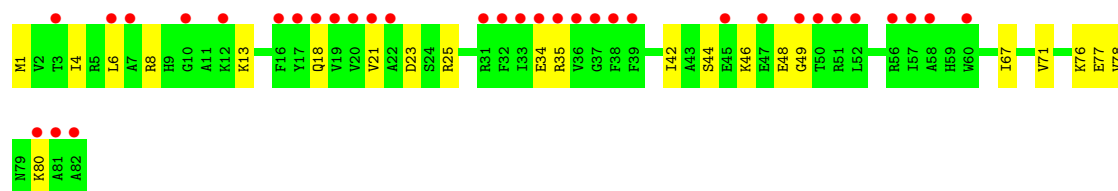
- Molecule 49: 30S ribosomal protein S16

Chain FP:



- Molecule 49: 30S ribosomal protein S16

Chain HP:



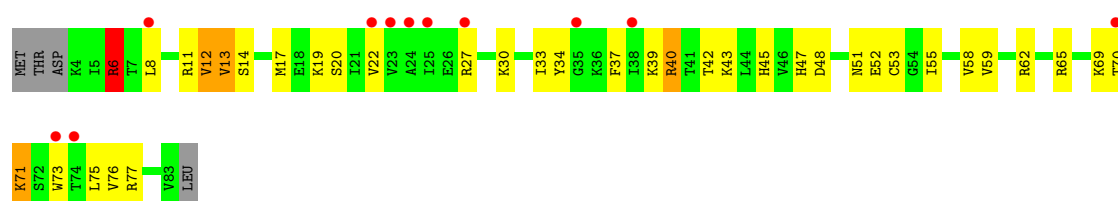
- Molecule 50: 30S ribosomal protein S17

Chain BQ:



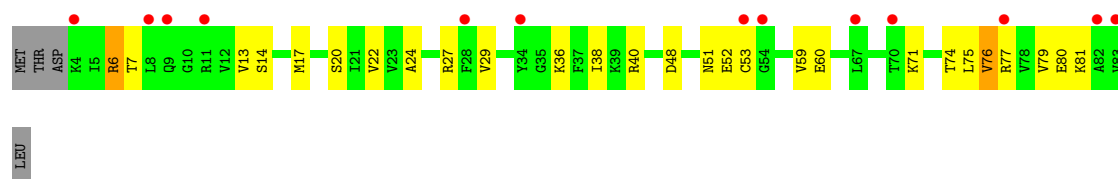
- Molecule 50: 30S ribosomal protein S17

Chain DQ:



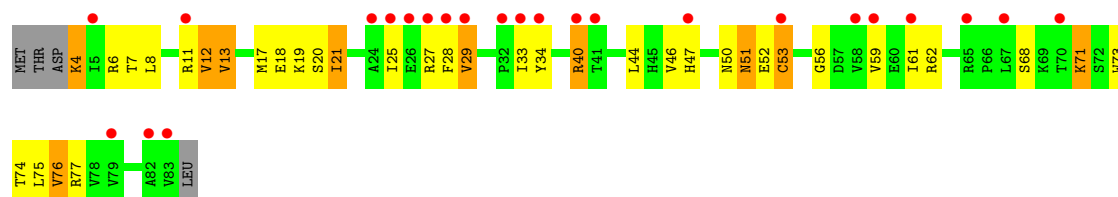
- Molecule 50: 30S ribosomal protein S17

Chain FQ:



- Molecule 50: 30S ribosomal protein S17

Chain HQ:



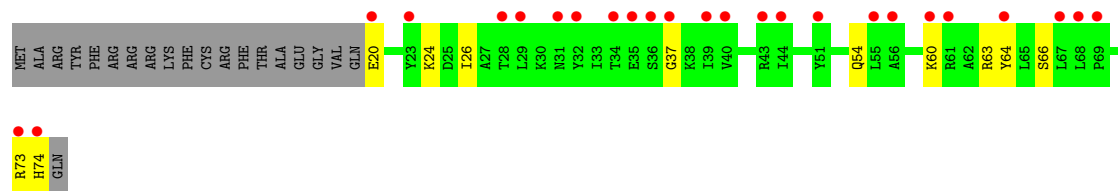
- Molecule 51: 30S ribosomal protein S18

Chain BR:



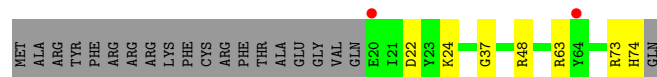
- Molecule 51: 30S ribosomal protein S18

Chain DR:



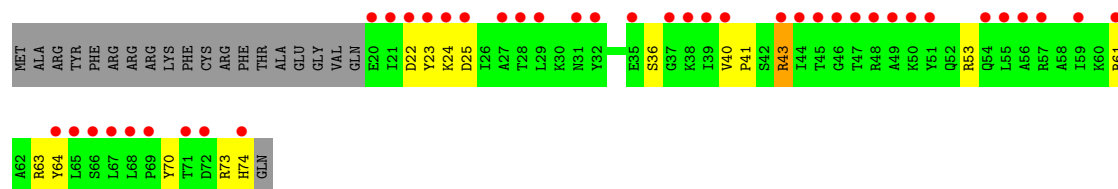
- Molecule 51: 30S ribosomal protein S18

Chain FR:



- Molecule 51: 30S ribosomal protein S18

Chain HR:



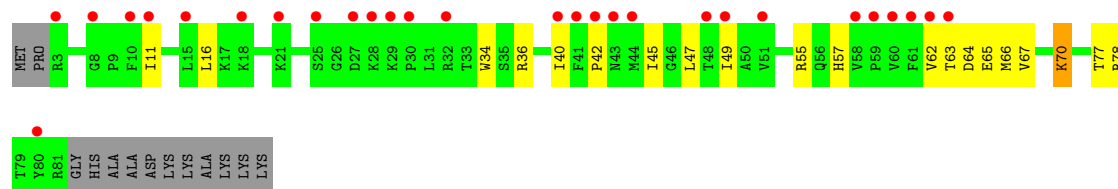
- Molecule 52: 30S ribosomal protein S19

Chain BS:



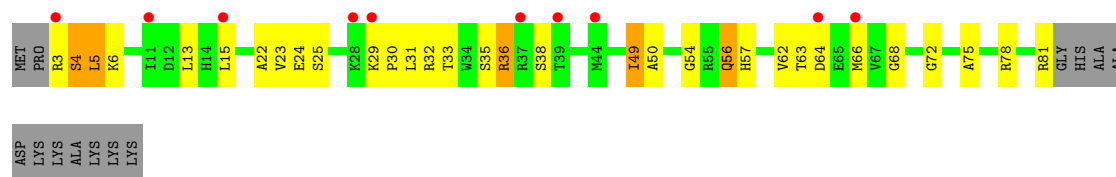
- Molecule 52: 30S ribosomal protein S19

Chain DS:



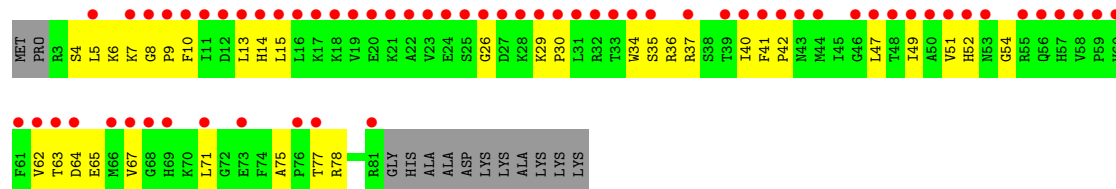
- Molecule 52: 30S ribosomal protein S19

Chain FS:



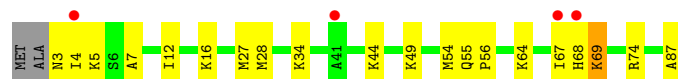
- Molecule 52: 30S ribosomal protein S19

Chain HS:



- Molecule 53: 30S ribosomal protein S20

Chain BT:



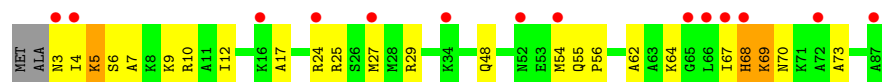
- Molecule 53: 30S ribosomal protein S20

Chain DT:



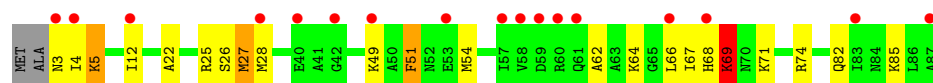
- Molecule 53: 30S ribosomal protein S20

Chain FT:



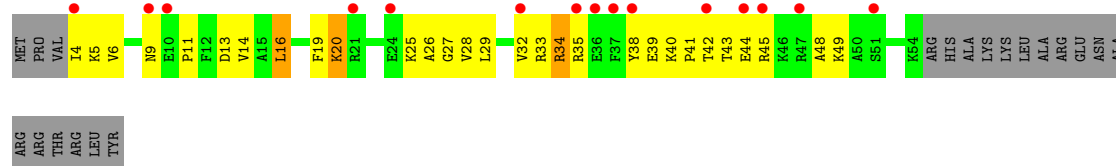
- Molecule 53: 30S ribosomal protein S20

Chain HT:



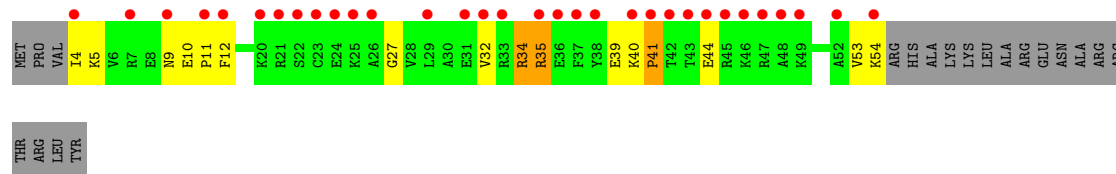
- Molecule 54: 30S ribosomal protein S21

Chain BU:



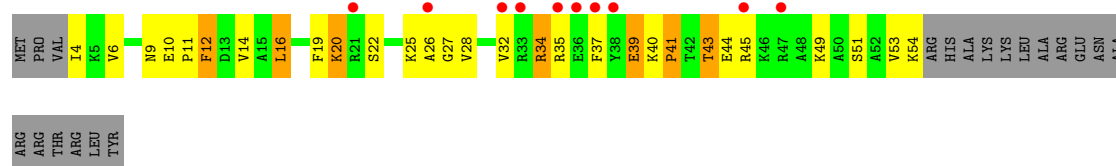
- Molecule 54: 30S ribosomal protein S21

Chain DU:



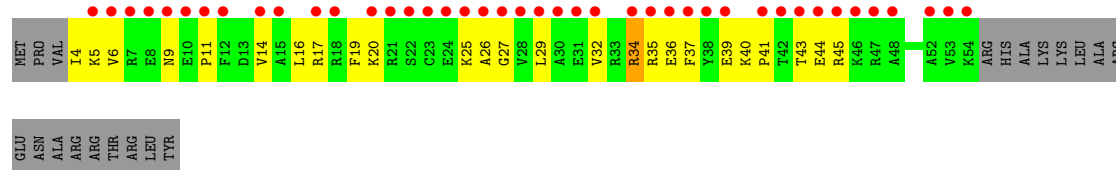
- Molecule 54: 30S ribosomal protein S21

Chain FU:



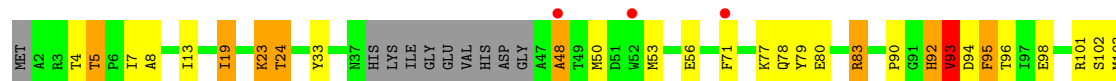
- Molecule 54: 30S ribosomal protein S21

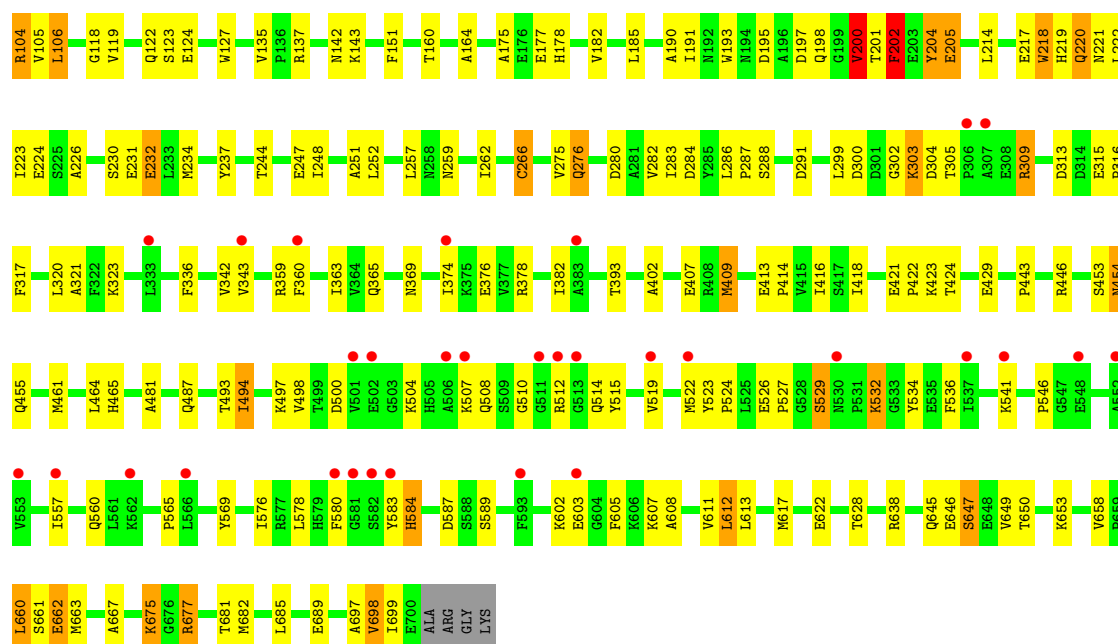
Chain HU:



- Molecule 55: Elongation factor G

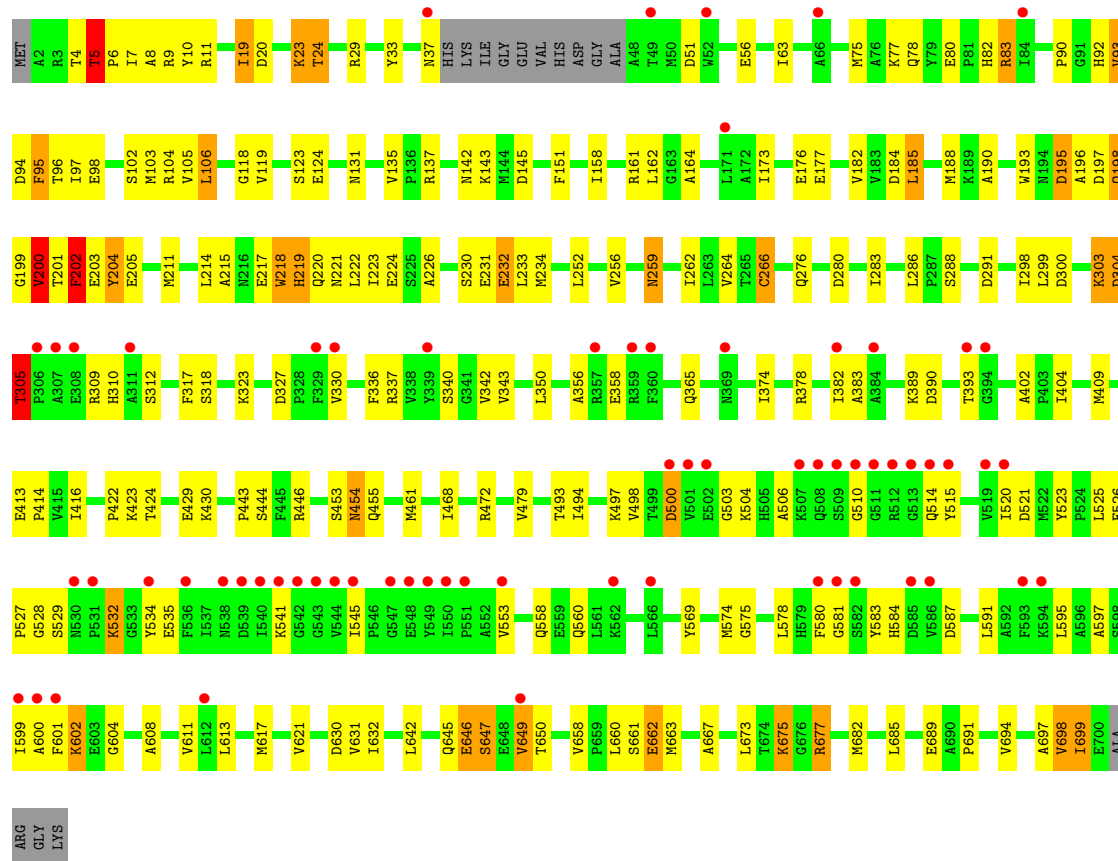
Chain BV:





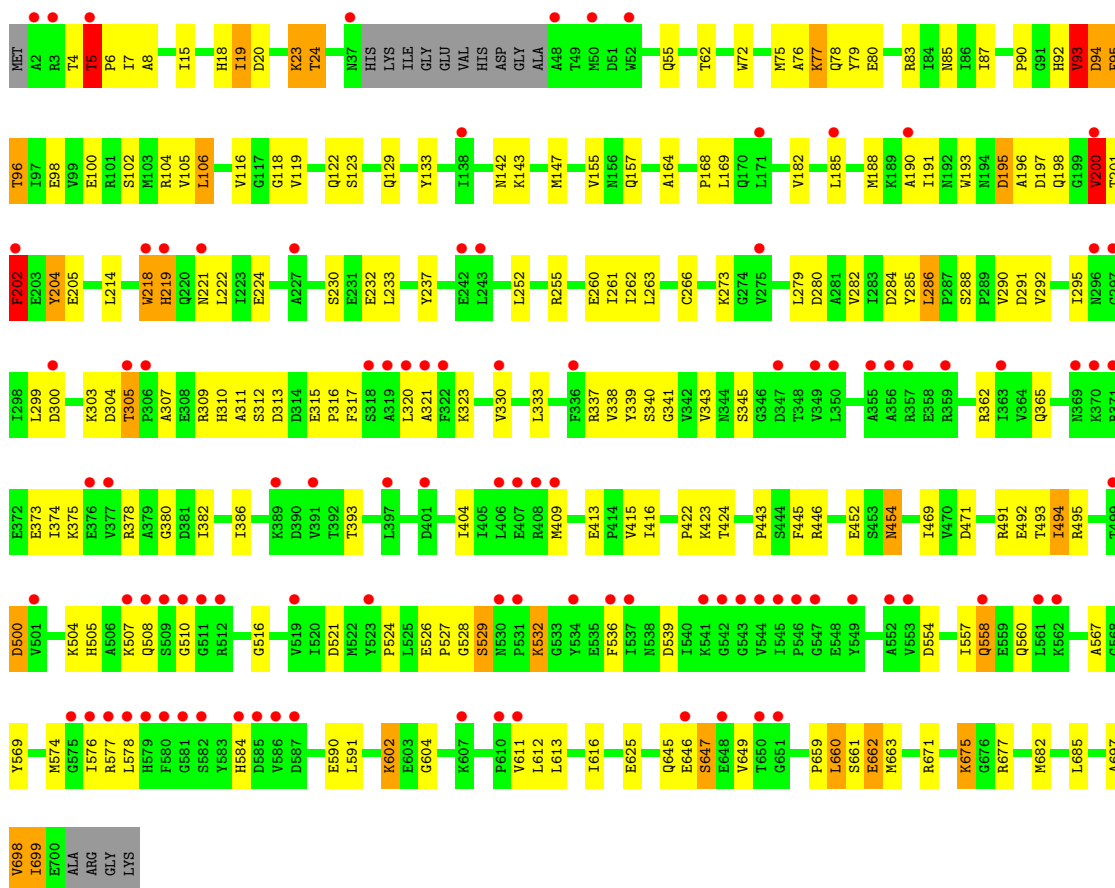
• Molecule 55: Elongation factor G

Chain DV:



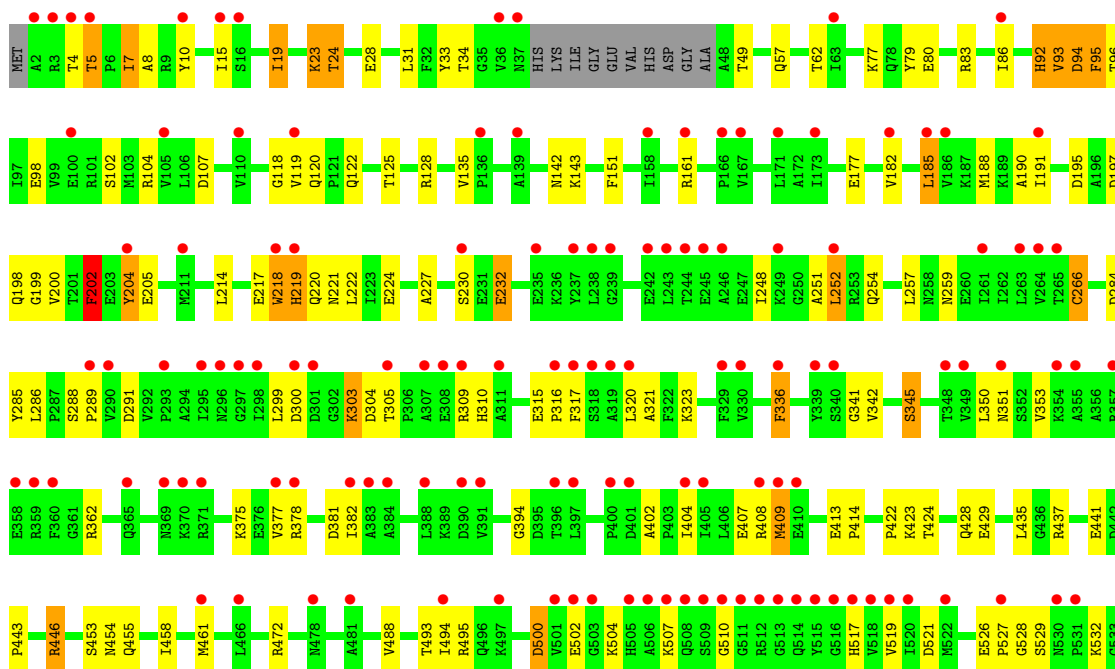
• Molecule 55: Elongation factor G

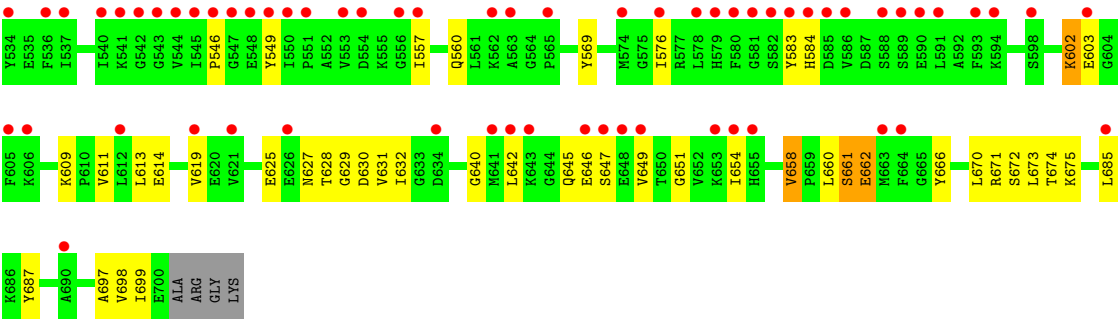
Chain DV:



- Molecule 55: Elongation factor G

Chain HV:





● Molecule 56: Viomycin

Chain BW:



● Molecule 56: Viomycin

Chain DW:



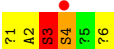
● Molecule 56: Viomycin

Chain FW:



● Molecule 56: Viomycin

Chain HW:



4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	361.60Å 361.77Å 433.20Å 90.00° 103.57° 90.00°	Depositor
Resolution (Å)	70.00 – 2.90 69.05 – 2.90	Depositor EDS
% Data completeness (in resolution range)	(Not available) (70.00-2.90) 78.9 (69.05-2.90)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.35 (at 2.91Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.223 , 0.272 0.232 , 0.276	Depositor DCC
R_{free} test set	8388 reflections (0.45%)	DCC
Wilson B-factor (Å ²)	73.3	Xtriage
Anisotropy	0.160	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.25 , -7.2	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.28$	Xtriage
Outliers	0 of 1874570 reflections	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	592086	wwPDB-VP
Average B, all atoms (Å ²)	32.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 29.65 % of the origin peak, indicating pseudo translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo translational symmetry is equal to 1.4952e-03. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

¹Intensities estimated from amplitudes.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, DPP, MG, KBE, GCP, UAL, 5OH

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	AB	0.66	0/2828	1.10	2/4410 (0.0%)
1	CB	0.53	0/2828	1.02	1/4410 (0.0%)
1	EB	0.63	0/2828	1.15	8/4410 (0.2%)
1	GB	0.75	0/2828	1.13	10/4410 (0.2%)
2	AC	0.54	0/2121	0.79	2/2852 (0.1%)
2	CC	0.46	0/2121	0.72	2/2852 (0.1%)
2	EC	0.52	0/2121	0.76	2/2852 (0.1%)
2	GC	0.46	0/2121	0.74	1/2852 (0.0%)
3	AA	0.81	17/68626 (0.0%)	1.22	304/107056 (0.3%)
3	CA	0.62	4/68626 (0.0%)	1.08	117/107056 (0.1%)
3	EA	0.76	17/68626 (0.0%)	1.22	292/107056 (0.3%)
3	GA	0.64	0/68626	1.14	193/107056 (0.2%)
4	AD	0.57	0/1586	0.77	1/2134 (0.0%)
4	CD	0.51	0/1586	0.75	1/2134 (0.0%)
4	ED	0.55	0/1586	0.74	0/2134
4	GD	0.48	0/1586	0.72	1/2134 (0.0%)
5	AE	0.53	0/1571	0.76	2/2113 (0.1%)
5	CE	0.43	0/1571	0.66	0/2113
5	EE	0.51	0/1571	0.72	0/2113
5	GE	0.54	0/1571	0.75	2/2113 (0.1%)
6	AF	0.49	0/1434	0.71	1/1926 (0.1%)
6	CF	0.48	0/1434	0.70	0/1926
6	EF	0.50	0/1434	0.73	0/1926
6	GF	0.60	0/1434	0.75	0/1926
7	AG	0.55	0/1343	0.73	0/1816
7	CG	0.49	0/1343	0.73	1/1816 (0.1%)
7	EG	0.50	0/1343	0.75	0/1816
7	GG	0.51	0/1343	0.68	0/1816
8	AH	0.53	0/389	0.73	0/523
8	CH	0.61	0/389	0.74	0/523
8	EH	0.50	0/389	0.73	0/523
8	GH	0.55	0/389	0.69	0/523

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
9	AI	0.62	0/1046	0.84	1/1410 (0.1%)
9	CI	0.57	0/1046	0.72	0/1410
9	EI	0.53	0/1046	0.72	0/1410
9	GI	0.71	0/1046	0.80	0/1410
10	AJ	0.63	1/1152 (0.1%)	0.78	0/1551
10	CJ	0.52	1/1152 (0.1%)	0.72	0/1551
10	EJ	0.63	1/1152 (0.1%)	0.78	0/1551
10	GJ	0.48	0/1152	0.71	1/1551 (0.1%)
11	AK	0.65	1/947 (0.1%)	0.77	0/1268
11	CK	0.55	0/947	0.78	0/1268
11	EK	0.53	0/947	0.74	0/1268
11	GK	0.49	0/947	0.77	0/1268
12	AL	0.56	0/1054	0.79	2/1403 (0.1%)
12	CL	0.44	0/1054	0.74	1/1403 (0.1%)
12	EL	0.55	0/1054	0.77	1/1403 (0.1%)
12	GL	0.53	0/1054	0.73	0/1403
13	AM	0.61	0/1093	0.77	0/1460
13	CM	0.47	0/1093	0.67	0/1460
13	EM	0.55	0/1093	0.72	0/1460
13	GM	0.48	0/1093	0.68	0/1460
14	AN	0.51	0/973	0.68	0/1301
14	CN	0.45	0/973	0.64	0/1301
14	EN	0.48	0/973	0.65	0/1301
14	GN	0.45	0/973	0.65	0/1301
15	AO	0.46	0/902	0.70	0/1209
15	CO	0.42	0/902	0.70	0/1209
15	EO	0.44	0/902	0.74	0/1209
15	GO	0.55	0/902	0.82	1/1209 (0.1%)
16	AP	0.52	0/929	0.78	1/1242 (0.1%)
16	CP	0.51	0/929	0.80	0/1242
16	EP	0.55	0/929	0.80	0/1242
16	GP	0.51	0/929	0.81	2/1242 (0.2%)
17	AQ	0.62	0/960	0.71	1/1278 (0.1%)
17	CQ	0.50	0/960	0.67	0/1278
17	EQ	0.58	0/960	0.68	0/1278
17	GQ	0.49	0/960	0.69	1/1278 (0.1%)
18	AR	0.61	1/829 (0.1%)	0.76	0/1107
18	CR	0.50	0/829	0.70	0/1107
18	ER	0.57	1/829 (0.1%)	0.77	0/1107
18	GR	0.55	0/829	0.78	1/1107 (0.1%)
19	AS	0.54	0/864	0.73	0/1156
19	CS	0.46	0/864	0.66	0/1156
19	ES	0.52	0/864	0.75	0/1156

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
19	GS	0.45	0/864	0.75	2/1156 (0.2%)
20	AT	0.54	0/744	0.85	1/994 (0.1%)
20	CT	0.49	0/744	0.74	0/994
20	ET	0.59	0/744	0.87	3/994 (0.3%)
20	GT	0.54	0/744	0.76	0/994
21	AU	0.56	0/787	0.78	0/1051
21	CU	0.47	0/787	0.69	0/1051
21	EU	0.48	0/787	0.79	0/1051
21	GU	0.56	0/787	0.73	0/1051
22	AV	0.48	0/766	0.67	1/1025 (0.1%)
22	CV	0.44	0/766	0.62	0/1025
22	EV	0.49	0/766	0.67	0/1025
22	GV	0.55	0/766	0.70	0/1025
23	AW	0.69	0/603	1.00	1/797 (0.1%)
23	CW	0.63	0/603	0.88	0/797
23	EW	0.69	0/603	0.97	0/797
23	GW	0.63	0/603	0.87	0/797
24	AX	0.50	0/635	0.79	1/848 (0.1%)
24	CX	0.41	0/635	0.71	0/848
24	EX	0.51	0/635	0.78	0/848
24	GX	0.45	0/635	0.68	0/848
25	AY	0.46	0/510	0.75	0/677
25	CY	0.47	0/510	0.74	0/677
25	EY	0.49	0/510	0.81	0/677
25	GY	0.55	0/510	0.75	0/677
26	AZ	0.54	0/453	0.84	1/605 (0.2%)
26	CZ	0.48	0/453	0.80	1/605 (0.2%)
26	EZ	0.50	0/453	0.75	2/605 (0.3%)
26	GZ	0.57	0/453	0.83	0/605
27	A0	0.54	0/450	0.70	0/599
27	C0	0.48	0/450	0.69	0/599
27	E0	0.49	0/450	0.71	1/599 (0.2%)
27	G0	0.43	0/450	0.64	0/599
28	A1	0.53	0/416	0.74	0/554
28	C1	0.49	0/416	0.73	0/554
28	E1	0.49	0/416	0.70	0/554
28	G1	0.54	0/416	0.78	0/554
29	A2	0.53	0/380	0.70	0/498
29	C2	0.46	0/380	0.77	0/498
29	E2	0.51	0/380	0.69	0/498
29	G2	0.48	0/380	0.65	0/498
30	A3	0.53	0/513	0.75	0/676
30	C3	0.41	0/513	0.63	0/676

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
30	E3	0.54	0/513	0.74	0/676
30	G3	0.49	0/513	0.65	0/676
31	A4	0.59	0/303	0.84	0/397
31	C4	0.48	0/303	0.70	0/397
31	E4	0.56	0/303	0.78	1/397 (0.3%)
31	G4	0.50	0/303	0.78	0/397
32	A5	0.74	0/1131	1.32	26/1524 (1.7%)
32	C5	0.70	0/1131	1.31	26/1524 (1.7%)
32	E5	0.69	0/1115	1.33	24/1502 (1.6%)
33	A6	0.59	0/227	0.65	0/304
34	BB	0.49	0/1735	0.71	0/2338
34	DB	0.51	0/1735	0.72	0/2338
34	FB	0.50	0/1735	0.76	0/2338
34	HB	0.56	0/1735	0.73	0/2338
35	BA	0.65	3/36834 (0.0%)	1.14	96/57462 (0.2%)
35	DA	0.60	0/36834	1.06	47/57462 (0.1%)
35	FA	0.62	1/36834 (0.0%)	1.11	98/57462 (0.2%)
35	HA	0.72	2/36834 (0.0%)	1.11	74/57462 (0.1%)
36	BC	0.45	0/1651	0.69	0/2225
36	DC	0.43	0/1651	0.66	0/2225
36	FC	0.46	0/1651	0.70	0/2225
36	HC	0.57	0/1651	0.73	1/2225 (0.0%)
37	BD	0.53	0/1665	0.79	0/2227
37	DD	0.51	0/1665	0.73	0/2227
37	FD	0.52	0/1665	0.69	0/2227
37	HD	0.52	0/1665	0.73	0/2227
38	BE	0.49	0/1118	0.76	0/1504
38	DE	0.46	0/1118	0.71	0/1504
38	FE	0.47	0/1118	0.69	0/1504
38	HE	0.48	0/1118	0.68	0/1504
39	BF	0.50	0/851	0.70	0/1150
39	DF	0.54	0/835	0.75	0/1128
39	FF	0.47	0/835	0.72	0/1128
39	HF	0.56	0/835	0.73	0/1128
40	BG	0.49	0/1195	0.67	0/1602
40	DG	0.52	0/1195	0.69	0/1602
40	FG	0.48	0/1195	0.69	0/1602
40	HG	0.60	0/1195	0.74	1/1602 (0.1%)
41	BH	0.48	0/989	0.65	0/1326
41	DH	0.48	0/989	0.63	0/1326
41	FH	0.44	0/989	0.62	0/1326
41	HH	0.54	0/989	0.77	1/1326 (0.1%)
42	BI	0.54	0/1034	0.81	0/1375

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
42	DI	0.52	0/1034	0.70	0/1375
42	FI	0.54	0/1034	0.77	0/1375
42	HI	0.57	0/1034	0.79	2/1375 (0.1%)
43	BJ	0.54	0/796	0.80	0/1077
43	DJ	0.55	0/796	0.73	0/1077
43	FJ	0.51	0/796	0.74	0/1077
43	HJ	0.59	0/796	0.80	0/1077
44	BK	0.50	0/893	0.74	0/1205
44	DK	0.51	0/893	0.67	0/1205
44	FK	0.50	0/893	0.75	1/1205 (0.1%)
44	HK	0.63	0/893	0.79	0/1205
45	BL	0.54	0/969	0.82	0/1300
45	DL	0.51	0/969	0.79	0/1300
45	FL	0.47	0/969	0.78	0/1300
45	HL	0.47	0/969	0.77	0/1300
46	BM	0.48	0/892	0.70	0/1193
46	DM	0.51	0/892	0.71	0/1193
46	FM	0.42	0/892	0.71	0/1193
46	HM	0.66	0/892	0.80	0/1193
47	BN	0.48	0/785	0.78	0/1043
47	DN	0.47	0/785	0.72	0/1043
47	FN	0.50	0/785	0.80	0/1043
47	HN	0.53	0/785	0.73	0/1043
48	BO	0.44	0/722	0.66	0/964
48	DO	0.44	0/722	0.67	0/964
48	FO	0.42	0/722	0.63	0/964
48	HO	0.56	0/722	0.69	0/964
49	BP	0.48	0/659	0.74	0/884
49	DP	0.45	0/659	0.69	0/884
49	FP	0.48	0/659	0.68	0/884
49	HP	0.46	0/659	0.65	0/884
50	BQ	0.46	0/657	0.73	0/881
50	DQ	0.49	0/657	0.82	2/881 (0.2%)
50	FQ	0.47	0/657	0.68	0/881
50	HQ	0.53	0/657	0.78	0/881
51	BR	0.45	0/462	0.62	0/621
51	DR	0.50	0/462	0.67	0/621
51	FR	0.46	0/462	0.62	0/621
51	HR	0.58	0/462	0.74	1/621 (0.2%)
52	BS	0.47	0/652	0.81	0/877
52	DS	0.50	0/652	0.72	0/877
52	FS	0.46	0/652	0.71	0/877
52	HS	0.67	0/652	0.85	1/877 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
53	BT	0.47	0/671	0.60	0/888
53	DT	0.49	0/671	0.64	0/888
53	FT	0.45	0/671	0.64	0/888
53	HT	0.43	0/671	0.66	0/888
54	BU	0.66	0/430	0.84	0/570
54	DU	0.73	0/430	0.83	0/570
54	FU	0.73	1/430 (0.2%)	0.88	0/570
54	HU	0.68	0/430	0.73	0/570
55	BV	0.46	0/5444	0.67	2/7367 (0.0%)
55	DV	0.45	0/5439	0.65	0/7360
55	FV	0.46	0/5439	0.65	1/7360 (0.0%)
55	HV	0.48	0/5439	0.65	0/7360
56	BW	2.29	1/11 (9.1%)	1.55	0/13
56	DW	2.28	1/11 (9.1%)	1.54	0/13
56	FW	2.37	1/11 (9.1%)	1.57	0/13
56	HW	2.38	1/11 (9.1%)	1.80	0/13
All	All	0.64	55/636829 (0.0%)	1.05	1375/948879 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	AC	0	1
2	GC	0	1
4	AD	0	1
4	CD	0	2
4	ED	0	1
4	GD	0	1
10	AJ	0	1
10	GJ	0	1
11	AK	0	1
32	A5	0	1
39	BF	0	1
39	FF	0	1
42	DI	0	1
45	BL	0	1
45	DL	0	1
45	HL	0	1
53	DT	0	1
55	BV	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
55	DV	0	1
55	FV	0	1
55	HV	0	1
All	All	0	22

All (55) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	HA	753	A	N7-C5	8.68	1.44	1.39
3	EA	528	A	N9-C4	-8.47	1.32	1.37
3	AA	984	A	N9-C4	-8.47	1.32	1.37
35	BA	1362	A	N7-C5	7.96	1.44	1.39
3	AA	528	A	N9-C4	-6.66	1.33	1.37
10	EJ	44	TYR	CD1-CE1	-6.60	1.29	1.39
3	AA	1142	A	N9-C4	-6.58	1.33	1.37
3	EA	984	A	C5-C6	-6.46	1.35	1.41
56	HW	3	SER	C-N	6.38	1.48	1.34
3	EA	1142	A	N9-C4	-6.34	1.34	1.37
3	EA	1785	A	N9-C4	-6.31	1.34	1.37
3	AA	2504	U	C4-O4	6.28	1.28	1.23
35	HA	1517	G	N9-C4	6.21	1.43	1.38
3	AA	1569	A	N9-C4	-6.18	1.34	1.37
3	AA	783	A	N9-C4	-6.17	1.34	1.37
3	EA	783	A	N7-C5	-6.09	1.35	1.39
3	AA	783	A	N3-C4	-5.99	1.31	1.34
3	EA	783	A	N9-C4	-5.97	1.34	1.37
3	EA	783	A	C5-C6	-5.94	1.35	1.41
56	DW	3	SER	C-N	5.86	1.47	1.34
56	FW	3	SER	C-N	5.86	1.47	1.34
3	EA	1936	A	C5-C6	-5.83	1.35	1.41
3	EA	2542	A	N9-C4	-5.82	1.34	1.37
3	CA	1142	A	N9-C4	-5.76	1.34	1.37
3	AA	1073	A	C5-C6	5.74	1.46	1.41
3	EA	2038	G	N7-C5	-5.68	1.35	1.39
3	AA	2504	U	C2-N3	5.68	1.41	1.37
3	CA	528	A	N9-C4	-5.65	1.34	1.37
3	AA	2504	U	N3-C4	5.63	1.43	1.38
10	AJ	44	TYR	CD2-CE2	-5.61	1.30	1.39
35	BA	1362	A	N3-C4	5.52	1.38	1.34
35	FA	461	A	N9-C4	5.45	1.41	1.37
3	AA	528	A	N3-C4	-5.42	1.31	1.34
3	EA	2053	G	N9-C4	-5.41	1.33	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	AR	86	GLN	CB-CG	5.41	1.67	1.52
3	AA	783	A	N7-C5	-5.37	1.36	1.39
3	EA	984	A	N9-C4	-5.36	1.34	1.37
56	BW	3	SER	C-N	5.33	1.46	1.34
3	EA	528	A	N3-C4	-5.31	1.31	1.34
3	AA	1142	A	C5-C6	-5.29	1.36	1.41
11	AK	21	CYS	CB-SG	-5.26	1.73	1.81
54	FU	39	GLU	CD-OE2	5.21	1.31	1.25
3	AA	2053	G	C6-O6	5.18	1.28	1.24
3	CA	984	A	N9-C4	-5.17	1.34	1.37
10	CJ	44	TYR	CD1-CE1	-5.15	1.31	1.39
3	AA	2478	A	N9-C4	-5.12	1.34	1.37
3	EA	2055	C	N1-C6	-5.09	1.34	1.37
3	EA	2060	A	N9-C4	-5.09	1.34	1.37
18	ER	86	GLN	CB-CG	5.07	1.66	1.52
3	EA	203	A	C5-C6	-5.05	1.36	1.41
3	EA	776	G	C6-O6	5.05	1.28	1.24
3	AA	1321	A	N9-C4	5.05	1.40	1.37
3	CA	1088	A	N9-C4	-5.04	1.34	1.37
35	BA	1500	A	N9-C4	-5.02	1.34	1.37
3	AA	783	A	C5-C6	-5.01	1.36	1.41

All (1375) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AA	1073	A	N1-C6-N6	-20.05	106.57	118.60
3	EA	1936	A	N1-C6-N6	15.79	128.07	118.60
3	AA	1073	A	C5-C6-N6	14.08	134.96	123.70
3	AA	2053	G	N1-C6-O6	13.88	128.23	119.90
3	EA	1936	A	C5-C6-N6	-13.76	112.69	123.70
3	EA	783	A	N1-C6-N6	13.27	126.56	118.60
3	EA	2053	G	N1-C6-O6	13.03	127.72	119.90
3	AA	2504	U	N3-C4-O4	12.99	128.49	119.40
3	EA	834	G	N1-C6-O6	12.28	127.27	119.90
3	AA	984	A	C2-N3-C4	-12.08	104.56	110.60
35	HA	753	A	C4-C5-C6	-11.78	111.11	117.00
3	AA	961	C	O5'-P-OP2	-11.77	95.11	105.70
36	HC	93	ASP	CB-CG-OD2	-11.70	107.77	118.30
3	AA	2053	G	C6-C5-N7	-11.61	123.43	130.40
3	EA	984	A	C2-N3-C4	-11.52	104.84	110.60
3	AA	1073	A	C6-C5-N7	11.43	140.30	132.30
3	AA	2053	G	C5-C6-N1	-11.39	105.80	111.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	1362	A	C4-C5-C6	-11.37	111.31	117.00
35	BA	1362	A	N1-C6-N6	-11.30	111.82	118.60
3	AA	1073	A	C4-C5-N7	-11.26	105.07	110.70
3	EA	1024	G	N1-C6-O6	11.24	126.64	119.90
3	EA	1936	A	C6-C5-N7	-11.12	124.51	132.30
3	EA	783	A	C4-C5-N7	11.05	116.23	110.70
3	EA	1936	A	C4-C5-N7	11.01	116.20	110.70
35	BA	1362	A	C6-C5-N7	10.79	139.86	132.30
3	AA	783	A	C5-N7-C8	-10.76	98.52	103.90
3	AA	2504	U	C5-C6-N1	10.56	127.98	122.70
3	AA	974	G	C6-C5-N7	-10.54	124.08	130.40
3	EA	1936	A	N9-C4-C5	-10.45	101.62	105.80
3	EA	783	A	C5-N7-C8	-10.34	98.73	103.90
3	CA	2053	G	N1-C6-O6	10.33	126.10	119.90
3	AA	2053	G	C4-C5-C6	10.21	124.92	118.80
3	GA	1866	A	OP1-P-OP2	10.20	134.90	119.60
3	EA	776	G	C5-C6-O6	10.00	134.60	128.60
3	EA	783	A	C6-C5-N7	-9.99	125.31	132.30
35	BA	1362	A	C4-N9-C1'	-9.92	108.45	126.30
35	BA	1362	A	C8-N9-C4	9.88	109.75	105.80
3	AA	974	G	C4-C5-N7	9.85	114.74	110.80
3	EA	2147	A	O4'-C1'-N9	9.85	116.08	108.20
3	AA	2504	U	C6-N1-C2	-9.84	115.09	121.00
3	EA	1024	G	C6-C5-N7	-9.80	124.52	130.40
3	EA	984	A	N1-C6-N6	9.76	124.46	118.60
3	CA	2544	G	N1-C6-O6	9.72	125.73	119.90
50	DQ	6	ARG	NE-CZ-NH1	9.70	125.15	120.30
3	GA	2266	A	C8-N9-C4	-9.69	101.92	105.80
3	AA	783	A	N7-C8-N9	9.61	118.61	113.80
32	A5	92	ALA	C-N-CA	9.60	145.71	121.70
3	CA	1839	G	N1-C6-O6	9.59	125.65	119.90
3	EA	974	G	N7-C8-N9	9.57	117.89	113.10
3	GA	1865	U	OP2-P-O3'	-9.51	84.28	105.20
3	EA	834	G	C5-C6-O6	-9.33	123.00	128.60
3	AA	1534	U	C2-N1-C1'	9.33	128.89	117.70
3	EA	2447	G	O5'-P-OP1	-9.32	97.31	105.70
3	AA	1073	A	C5-N7-C8	9.30	108.55	103.90
35	HA	1517	G	N3-C4-C5	-9.29	123.96	128.60
3	EA	698	C	O5'-P-OP2	-9.27	97.36	105.70
3	EA	2275	C	C6-N1-C2	-9.21	116.62	120.30
3	AA	528	A	C2-N3-C4	-9.16	106.02	110.60
3	GA	1865	U	OP1-P-O3'	-9.16	85.06	105.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	EA	2402	U	O4'-C1'-N1	9.13	115.51	108.20
32	A5	93	ALA	C-N-CA	9.06	144.36	121.70
3	CA	834	G	N1-C6-O6	9.06	125.34	119.90
32	C5	92	ALA	C-N-CA	9.04	144.30	121.70
35	FA	1530	G	O4'-C1'-N9	9.04	115.43	108.20
35	BA	1362	A	O4'-C1'-N9	8.98	115.39	108.20
32	E5	27	VAL	CG1-CB-CG2	8.97	125.26	110.90
35	FA	1032	G	C4-N9-C1'	8.96	138.15	126.50
35	BA	1362	A	N7-C8-N9	-8.89	109.35	113.80
32	E5	93	ALA	C-N-CA	8.89	143.93	121.70
3	AA	1950	G	N1-C6-O6	8.87	125.22	119.90
3	CA	974	G	C6-C5-N7	-8.80	125.12	130.40
3	AA	465	G	C8-N9-C4	-8.77	102.89	106.40
3	EA	783	A	C5-C6-N6	-8.69	116.75	123.70
3	AA	783	A	C8-N9-C4	-8.66	102.34	105.80
3	EA	528	A	C2-N3-C4	-8.62	106.29	110.60
3	AA	1533	C	N1-C2-O2	8.62	124.07	118.90
3	GA	1196	C	C6-N1-C2	-8.62	116.85	120.30
3	AA	1073	A	N9-C4-C5	8.61	109.25	105.80
3	EA	2824	C	C6-N1-C2	-8.58	116.87	120.30
19	GS	88	ARG	NE-CZ-NH2	8.56	124.58	120.30
3	AA	2074	U	O5'-P-OP2	-8.54	98.02	105.70
3	CA	2326	C	C6-N1-C2	-8.51	116.90	120.30
3	AA	1936	A	C2-N3-C4	-8.50	106.35	110.60
3	AA	2534	A	N1-C6-N6	8.49	123.70	118.60
32	C5	93	ALA	C-N-CA	8.48	142.91	121.70
35	BA	922	G	O5'-P-OP2	-8.45	98.10	105.70
3	AA	974	G	C4-N9-C1'	8.43	137.46	126.50
3	CA	1839	G	C6-C5-N7	-8.41	125.36	130.40
3	AA	1533	C	C2-N1-C1'	8.40	128.04	118.80
3	EA	974	G	C5-N7-C8	-8.37	100.11	104.30
3	EA	2053	G	N3-C2-N2	-8.35	114.06	119.90
3	AA	2572	A	N1-C6-N6	8.34	123.60	118.60
3	GA	2078	C	O5'-P-OP2	-8.33	98.20	105.70
3	AA	1142	A	C2-N3-C4	-8.32	106.44	110.60
3	EA	1943	U	C5-C4-O4	8.30	130.88	125.90
35	HA	1527	U	O5'-P-OP2	-8.30	98.23	105.70
3	EA	974	G	C8-N9-C4	-8.29	103.08	106.40
35	BA	529	G	N1-C6-O6	8.27	124.86	119.90
32	E5	77	VAL	C-N-CA	8.25	139.62	122.30
3	CA	393	C	C6-N1-C2	-8.22	117.01	120.30
32	E5	92	ALA	C-N-CA	8.19	142.17	121.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	A5	27	VAL	CG1-CB-CG2	8.18	123.99	110.90
3	EA	2447	G	C5-C6-N1	-8.16	107.42	111.50
3	EA	503	A	C8-N9-C4	-8.14	102.54	105.80
3	AA	586	A	O5'-P-OP1	-8.14	98.37	105.70
3	GA	2307	G	C4-N9-C1'	-8.13	115.93	126.50
35	HA	971	G	O4'-C1'-N9	8.10	114.68	108.20
3	EA	2447	G	C4-C5-C6	8.09	123.65	118.80
32	E5	119	PRO	C-N-CA	8.09	141.91	121.70
3	GA	2107	G	N1-C6-O6	8.09	124.75	119.90
3	CA	783	A	N7-C8-N9	8.08	117.84	113.80
32	C5	119	PRO	C-N-CA	8.07	141.88	121.70
35	DA	328	C	C2-N1-C1'	8.06	127.67	118.80
35	FA	1032	G	C8-N9-C1'	-8.01	116.59	127.00
35	FA	1032	G	N3-C4-N9	8.01	130.81	126.00
3	EA	974	G	C6-C5-N7	-8.01	125.60	130.40
4	AD	151	THR	C-N-CD	8.00	145.21	128.40
35	HA	753	A	C6-C5-N7	7.96	137.87	132.30
3	EA	1936	A	C5-N7-C8	-7.96	99.92	103.90
3	EA	974	G	C4-C5-N7	7.96	113.98	110.80
3	AA	1533	C	C6-N1-C2	-7.94	117.12	120.30
3	GA	200	U	N3-C2-O2	-7.94	116.64	122.20
3	GA	1060	U	O5'-P-OP1	-7.92	98.58	105.70
3	EA	1024	G	C5-C6-O6	-7.91	123.85	128.60
3	CA	783	A	C5-N7-C8	-7.91	99.94	103.90
3	EA	528	A	N1-C6-N6	7.88	123.33	118.60
3	AA	783	A	C4-C5-N7	7.86	114.63	110.70
3	CA	1128	G	O5'-P-OP2	-7.85	98.63	105.70
32	E5	123	ILE	CG1-CB-CG2	7.82	128.61	111.40
15	GO	83	LEU	CA-CB-CG	7.82	133.28	115.30
3	EA	836	G	N1-C6-O6	7.81	124.58	119.90
3	GA	2307	G	C6-C5-N7	7.79	135.07	130.40
32	C5	81	LEU	CB-CG-CD2	7.78	124.22	111.00
3	AA	1478	G	N1-C6-O6	7.76	124.56	119.90
3	EA	542	C	N3-C4-C5	-7.75	118.80	121.90
3	GA	455	C	C6-N1-C2	-7.74	117.20	120.30
35	HA	753	A	C5-C6-N1	7.74	121.57	117.70
3	AA	984	A	N3-C4-C5	7.73	132.21	126.80
3	AA	1795	C	C6-N1-C2	-7.72	117.21	120.30
35	BA	1362	A	C8-N9-C1'	7.72	141.60	127.70
3	EA	2332	C	C6-N1-C2	7.72	123.39	120.30
32	C5	49	GLY	C-N-CA	7.72	141.00	121.70
3	GA	822	G	N3-C4-C5	-7.72	124.74	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	EA	2055	C	C6-N1-C2	7.71	123.39	120.30
3	EA	2053	G	C5-C6-N1	-7.71	107.64	111.50
1	EB	16	G	N1-C6-O6	7.70	124.52	119.90
3	CA	528	A	N1-C6-N6	7.69	123.21	118.60
32	A5	51	TYR	C-N-CA	7.69	140.92	121.70
3	CA	984	A	C2-N3-C4	-7.69	106.76	110.60
3	AA	2053	G	C4-N9-C1'	7.68	136.48	126.50
3	CA	546	U	O4'-C1'-N1	7.66	114.33	108.20
3	GA	822	G	N3-C4-N9	7.66	130.60	126.00
12	CL	82	LEU	CA-CB-CG	7.66	132.91	115.30
3	AA	2053	G	C2-N3-C4	-7.65	108.07	111.90
32	A5	49	GLY	C-N-CA	7.65	140.82	121.70
3	CA	2053	G	N3-C2-N2	-7.64	114.55	119.90
3	AA	783	A	N1-C6-N6	7.63	123.18	118.60
3	AA	2504	U	N3-C4-C5	-7.62	110.03	114.60
3	AA	465	G	N3-C4-C5	-7.62	124.79	128.60
32	A5	123	ILE	CG1-CB-CG2	7.61	128.15	111.40
23	AW	76	ARG	NE-CZ-NH2	7.60	124.10	120.30
3	CA	974	G	C4-C5-N7	7.60	113.84	110.80
3	AA	974	G	C8-N9-C1'	-7.59	117.13	127.00
3	EA	834	G	C6-C5-N7	-7.58	125.85	130.40
32	E5	117	LEU	C-N-CA	7.58	140.65	121.70
3	GA	944	C	C6-N1-C2	7.58	123.33	120.30
3	GA	2146	C	N1-C2-O2	7.57	123.44	118.90
32	A5	119	PRO	C-N-CA	7.55	140.58	121.70
3	CA	974	G	C4-N9-C1'	7.54	136.30	126.50
3	GA	1732	C	C6-N1-C2	-7.53	117.29	120.30
3	AA	783	A	C6-C5-N7	-7.51	127.04	132.30
32	C5	51	TYR	C-N-CA	7.50	140.44	121.70
35	FA	1322	C	C2-N1-C1'	7.49	127.04	118.80
3	CA	783	A	C8-N9-C4	-7.48	102.81	105.80
3	EA	2447	G	N1-C6-O6	7.48	124.39	119.90
3	EA	1355	G	N1-C6-O6	7.47	124.38	119.90
3	EA	2053	G	C2-N3-C4	-7.47	108.16	111.90
3	AA	776	G	C5-C6-O6	7.45	133.07	128.60
3	EA	1799	G	N1-C6-O6	-7.45	115.43	119.90
32	C5	72	LEU	C-N-CA	7.44	140.31	121.70
3	AA	1839	G	N1-C6-O6	7.44	124.36	119.90
32	E5	50	VAL	C-N-CA	7.44	140.29	121.70
3	AA	2146	C	N3-C4-C5	-7.44	118.93	121.90
5	AE	44	ARG	NE-CZ-NH2	7.43	124.02	120.30
3	GA	1509	A	O4'-C1'-N9	7.43	114.15	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	EA	2447	G	C8-N9-C1'	-7.43	117.34	127.00
3	GA	2307	G	C8-N9-C1'	7.43	136.66	127.00
3	EA	2515	C	O5'-P-OP1	-7.43	99.02	105.70
32	C5	39	THR	C-N-CA	7.42	140.25	121.70
3	EA	2503	A	C2-N3-C4	7.39	114.30	110.60
32	A5	72	LEU	C-N-CA	7.38	140.15	121.70
32	E5	72	LEU	C-N-CA	7.38	140.15	121.70
32	E5	108	VAL	CG1-CB-CG2	7.38	122.71	110.90
3	AA	2504	U	C5-C4-O4	-7.37	121.48	125.90
3	CA	528	A	C2-N3-C4	-7.34	106.93	110.60
32	C5	50	VAL	C-N-CA	7.33	140.02	121.70
3	GA	638	G	N1-C6-O6	7.32	124.29	119.90
3	CA	834	G	C6-C5-N7	-7.31	126.02	130.40
35	HA	1517	G	N3-C4-N9	7.31	130.38	126.00
3	AA	1533	C	N3-C2-O2	-7.30	116.79	121.90
32	A5	81	LEU	CB-CG-CD2	7.29	123.40	111.00
35	BA	1362	A	N1-C2-N3	-7.29	125.66	129.30
3	EA	974	G	C4-N9-C1'	7.29	135.97	126.50
3	AA	974	G	C5-N7-C8	-7.28	100.66	104.30
3	GA	2307	G	N1-C6-O6	-7.27	115.54	119.90
35	HA	1322	C	C2-N1-C1'	7.27	126.80	118.80
32	C5	123	ILE	CG1-CB-CG2	7.27	127.39	111.40
3	AA	2053	G	N1-C2-N3	7.26	128.26	123.90
3	AA	1073	A	O5'-P-OP2	7.26	119.41	110.70
3	EA	1452	G	C6-C5-N7	-7.26	126.05	130.40
3	EA	776	G	C5-C6-N1	-7.25	107.88	111.50
32	E5	49	GLY	C-N-CA	7.24	139.80	121.70
3	GA	1840	G	N1-C6-O6	7.24	124.24	119.90
3	AA	1534	U	C6-N1-C1'	-7.23	111.08	121.20
3	AA	1950	G	C6-C5-N7	-7.23	126.06	130.40
3	CA	2053	G	C5-C6-O6	-7.22	124.27	128.60
32	C5	47	GLU	C-N-CA	7.22	139.75	121.70
3	CA	2544	G	C6-C5-N7	-7.21	126.07	130.40
3	AA	2250	G	C6-C5-N7	-7.21	126.07	130.40
3	AA	1142	A	N1-C6-N6	7.21	122.92	118.60
35	FA	1418	A	C8-N9-C4	-7.20	102.92	105.80
35	FA	976	G	C4-C5-N7	-7.20	107.92	110.80
27	E0	19	ASP	CB-CG-OD1	7.19	124.78	118.30
3	CA	2681	C	C6-N1-C2	7.19	123.18	120.30
3	EA	2038	G	N1-C6-O6	7.19	124.21	119.90
3	AA	2501	C	C2-N1-C1'	-7.18	110.90	118.80
3	EA	2250	G	C2-N3-C4	-7.18	108.31	111.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	EA	776	G	C4-C5-N7	-7.17	107.93	110.80
3	AA	2447	G	O5'-P-OP1	-7.17	99.24	105.70
4	CD	151	THR	C-N-CD	7.17	143.46	128.40
32	C5	27	VAL	CG1-CB-CG2	7.17	122.36	110.90
35	HA	703	G	N3-C4-N9	7.16	130.29	126.00
3	CA	743	A	O5'-P-OP2	-7.16	99.26	105.70
3	AA	2053	G	C8-N9-C1'	-7.14	117.72	127.00
32	E5	81	LEU	CB-CG-CD2	7.13	123.12	111.00
3	AA	776	G	C5-C6-N1	-7.12	107.94	111.50
3	EA	752	A	C5-N7-C8	-7.12	100.34	103.90
32	A5	28	ALA	C-N-CA	7.12	139.50	121.70
3	EA	1024	G	C4-C5-N7	7.12	113.65	110.80
35	FA	1136	C	C2-N1-C1'	7.12	126.63	118.80
35	BA	1086	U	N3-C2-O2	-7.11	117.22	122.20
3	CA	2572	A	N1-C6-N6	7.08	122.85	118.60
3	EA	62	U	N1-C2-O2	7.08	127.75	122.80
35	FA	1370	G	N1-C6-O6	7.07	124.14	119.90
32	C5	54	VAL	CG1-CB-CG2	7.05	122.18	110.90
35	FA	58	C	C6-N1-C2	-7.05	117.48	120.30
3	CA	1378	A	P-O3'-C3'	7.04	128.15	119.70
32	E5	47	GLU	C-N-CA	7.04	139.30	121.70
3	EA	2554	U	O5'-P-OP1	-7.04	99.37	105.70
32	E5	51	TYR	C-N-CA	7.03	139.29	121.70
35	HA	932	C	C6-N1-C2	-7.03	117.49	120.30
32	A5	47	GLU	C-N-CA	7.03	139.28	121.70
35	FA	976	G	C5-C6-O6	7.03	132.82	128.60
3	GA	951	C	C6-N1-C2	-7.02	117.49	120.30
35	FA	1137	C	C6-N1-C2	-7.01	117.50	120.30
35	FA	1322	C	C6-N1-C1'	-7.01	112.39	120.80
32	A5	54	VAL	CG1-CB-CG2	7.00	122.09	110.90
35	DA	328	C	C6-N1-C1'	-6.99	112.41	120.80
2	GC	233	GLY	N-CA-C	-6.99	95.61	113.10
3	AA	2423	U	P-O3'-C3'	6.98	128.08	119.70
3	GA	2144	G	C8-N9-C4	-6.98	103.61	106.40
3	EA	836	G	C5-C6-O6	-6.98	124.41	128.60
3	EA	836	G	C6-C5-N7	-6.97	126.22	130.40
35	HA	1452	C	C6-N1-C2	-6.96	117.51	120.30
2	EC	109	LEU	CA-CB-CG	6.96	131.31	115.30
26	CZ	15	ARG	NE-CZ-NH1	6.95	123.78	120.30
32	E5	28	ALA	C-N-CA	6.95	139.07	121.70
35	HA	741	G	C4-N9-C1'	-6.95	117.47	126.50
3	AA	1935	G	O5'-P-OP2	-6.94	99.45	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	EA	2584	U	N3-C4-O4	6.94	124.26	119.40
3	AA	1284	A	O5'-P-OP2	-6.94	99.45	105.70
3	GA	2038	G	N1-C6-O6	6.94	124.06	119.90
3	EA	595	C	N1-C2-O2	-6.93	114.74	118.90
3	AA	2250	G	N1-C6-O6	6.93	124.06	119.90
3	AA	2448	A	N1-C6-N6	6.92	122.75	118.60
32	C5	147	SER	C-N-CA	6.92	139.00	121.70
3	EA	779	U	O5'-P-OP1	-6.92	99.47	105.70
3	EA	187	G	N1-C6-O6	6.91	124.05	119.90
3	AA	2503	A	C5-C6-N6	-6.91	118.17	123.70
35	HA	429	U	O5'-P-OP1	6.91	118.99	110.70
35	BA	971	G	N1-C6-O6	6.91	124.04	119.90
3	AA	802	A	N1-C6-N6	-6.90	114.46	118.60
35	DA	751	U	C2-N1-C1'	6.90	125.98	117.70
3	CA	469	G	N1-C6-O6	6.90	124.04	119.90
3	AA	2061	G	C6-C5-N7	-6.89	126.27	130.40
35	BA	1524	C	O5'-P-OP1	-6.89	99.50	105.70
3	AA	2504	U	C2-N1-C1'	6.88	125.96	117.70
3	AA	984	A	N3-C4-N9	-6.87	121.90	127.40
3	AA	1839	G	C6-C5-N7	-6.86	126.28	130.40
3	EA	1452	G	N7-C8-N9	6.85	116.53	113.10
3	EA	2687	U	C5-C4-O4	6.85	130.01	125.90
3	EA	2764	A	C8-N9-C4	6.85	108.54	105.80
3	EA	1799	G	C5-C6-O6	6.84	132.71	128.60
3	AA	1378	A	P-O3'-C3'	6.84	127.91	119.70
3	AA	783	A	C2-N3-C4	-6.83	107.18	110.60
3	AA	1654	A	O5'-P-OP1	-6.83	99.55	105.70
32	C5	28	ALA	C-N-CA	6.83	138.78	121.70
35	FA	914	A	O5'-P-OP1	-6.83	99.56	105.70
3	EA	2447	G	C4-N9-C1'	6.82	135.36	126.50
3	EA	2544	G	N1-C6-O6	6.82	123.99	119.90
3	AA	974	G	N1-C6-O6	6.81	123.98	119.90
3	AA	1311	G	C8-N9-C4	-6.80	103.68	106.40
3	GA	1795	C	O5'-P-OP2	-6.79	99.59	105.70
3	AA	503	A	C8-N9-C4	-6.76	103.09	105.80
3	EA	783	A	N7-C8-N9	6.76	117.18	113.80
3	AA	974	G	N3-C4-N9	6.76	130.06	126.00
3	AA	12	U	N3-C2-O2	-6.76	117.47	122.20
3	EA	1452	G	C8-N9-C4	-6.76	103.70	106.40
3	GA	2073	C	C6-N1-C2	-6.76	117.60	120.30
3	AA	1192	G	C8-N9-C4	6.75	109.10	106.40
3	CA	834	G	C5-C6-O6	-6.75	124.55	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	HA	1520	C	N1-C2-O2	6.75	122.95	118.90
3	AA	2681	C	C6-N1-C2	6.74	123.00	120.30
3	EA	1452	G	C4-N9-C1'	6.74	135.27	126.50
3	GA	2344	U	C5-C6-N1	6.74	126.07	122.70
3	EA	984	A	C6-C5-N7	-6.73	127.59	132.30
3	CA	1174	U	C2-N1-C1'	6.73	125.77	117.70
3	AA	974	G	N7-C8-N9	6.71	116.46	113.10
35	BA	328	C	N3-C2-O2	-6.71	117.21	121.90
3	EA	2143	C	C6-N1-C2	-6.71	117.62	120.30
3	CA	651	G	N1-C6-O6	6.70	123.92	119.90
3	AA	974	G	N9-C4-C5	-6.70	102.72	105.40
35	BA	328	C	N1-C2-O2	6.69	122.92	118.90
3	CA	974	G	C8-N9-C1'	-6.69	118.30	127.00
3	AA	974	G	C5-C6-O6	-6.69	124.59	128.60
12	AL	19	LEU	CA-CB-CG	6.69	130.68	115.30
32	E5	54	VAL	CG1-CB-CG2	6.68	121.59	110.90
3	EA	812	C	N1-C2-O2	-6.68	114.89	118.90
3	EA	1263	U	N3-C4-C5	-6.66	110.60	114.60
6	AF	94	ARG	NE-CZ-NH1	6.66	123.63	120.30
3	AA	2823	A	C8-N9-C4	-6.65	103.14	105.80
3	AA	2610	C	N3-C2-O2	-6.65	117.25	121.90
3	GA	2266	A	N7-C8-N9	6.64	117.12	113.80
3	CA	2447	G	N1-C6-O6	6.63	123.88	119.90
3	GA	2107	G	C5-C6-O6	-6.63	124.62	128.60
32	C5	40	GLU	C-N-CA	6.61	138.21	121.70
3	EA	2053	G	C5-C6-O6	-6.61	124.64	128.60
3	EA	1962	C	N1-C2-O2	6.59	122.86	118.90
35	FA	1373	G	O5'-P-OP2	-6.59	99.77	105.70
3	GA	970	U	C5-C4-O4	6.59	129.86	125.90
2	AC	233	GLY	N-CA-C	-6.59	96.62	113.10
3	AA	528	A	N1-C6-N6	6.59	122.56	118.60
35	FA	1322	C	O4'-C1'-N1	6.58	113.47	108.20
3	GA	783	A	C8-N9-C4	-6.57	103.17	105.80
3	CA	140	C	C2-N1-C1'	6.57	126.02	118.80
3	EA	203	A	C5-C6-N6	-6.57	118.45	123.70
35	FA	1032	G	N3-C4-C5	-6.56	125.32	128.60
3	GA	1071	G	C8-N9-C4	-6.56	103.78	106.40
3	AA	1815	A	N9-C4-C5	6.56	108.42	105.80
20	ET	7	LEU	CB-CG-CD1	6.56	122.15	111.00
3	GA	1395	A	O4'-C1'-N9	6.55	113.44	108.20
35	FA	108	G	C6-C5-N7	-6.55	126.47	130.40
3	CA	1963	U	C2-N1-C1'	6.54	125.55	117.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	CA	784	G	P-O3'-C3'	6.53	127.54	119.70
35	BA	1530	G	O4'-C1'-N9	6.53	113.42	108.20
3	EA	995	C	O4'-C1'-N1	-6.52	102.98	108.20
3	EA	1142	A	C2-N3-C4	-6.52	107.34	110.60
32	C5	84	TYR	C-N-CA	6.52	137.99	121.70
35	HA	741	G	C8-N9-C1'	6.51	135.46	127.00
35	HA	779	C	C6-N1-C2	-6.51	117.70	120.30
3	EA	1226	A	N1-C6-N6	-6.50	114.70	118.60
35	BA	1305	G	O5'-P-OP1	-6.50	99.85	105.70
3	EA	783	A	N9-C4-C5	-6.50	103.20	105.80
3	GA	1164	C	O4'-C1'-N1	6.50	113.40	108.20
35	HA	1403	C	C6-N1-C2	-6.50	117.70	120.30
3	AA	984	A	N1-C6-N6	6.49	122.49	118.60
35	HA	1322	C	N1-C2-O2	6.48	122.79	118.90
3	CA	1088	A	O4'-C1'-N9	-6.48	103.02	108.20
3	EA	375	G	N1-C6-O6	6.47	123.78	119.90
32	A5	84	TYR	C-N-CA	6.47	137.88	121.70
32	A5	147	SER	C-N-CA	6.46	137.85	121.70
3	AA	2447	G	N1-C6-O6	6.46	123.78	119.90
3	AA	2689	U	C5-C4-O4	6.45	129.77	125.90
42	HI	18	ARG	NE-CZ-NH2	6.45	123.53	120.30
3	CA	1322	A	N1-C6-N6	6.45	122.47	118.60
35	BA	1086	U	N1-C2-O2	6.45	127.31	122.80
32	A5	40	GLU	C-N-CA	6.44	137.81	121.70
3	AA	2146	C	C2-N3-C4	6.43	123.12	119.90
3	AA	1263	U	N3-C4-C5	-6.43	110.74	114.60
3	GA	1128	G	N3-C4-C5	-6.43	125.38	128.60
35	BA	1332	A	C2-N3-C4	-6.42	107.39	110.60
26	EZ	15	ARG	NE-CZ-NH1	6.40	123.50	120.30
3	EA	62	U	N3-C2-O2	-6.40	117.72	122.20
3	EA	430	A	O5'-P-OP1	-6.40	99.94	105.70
35	FA	861	G	C5-C6-O6	-6.40	124.76	128.60
3	AA	404	A	P-O3'-C3'	6.39	127.37	119.70
3	AA	820	A	O5'-P-OP1	-6.39	99.94	105.70
3	AA	670	A	O4'-C1'-N9	-6.39	103.08	108.20
35	DA	926	G	C4-N9-C1'	-6.39	118.19	126.50
3	EA	1263	U	C6-N1-C2	-6.39	117.17	121.00
3	EA	261	G	N3-C4-C5	6.38	131.79	128.60
3	AA	2267	A	C8-N9-C4	-6.37	103.25	105.80
32	E5	53	ARG	C-N-CA	6.37	137.62	121.70
35	BA	995	C	C6-N1-C2	6.36	122.85	120.30
35	FA	108	G	C4-C5-N7	6.36	113.35	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	EA	404	A	N1-C6-N6	6.36	122.42	118.60
32	A5	50	VAL	C-N-CA	6.36	137.60	121.70
3	AA	2551	C	OP2-P-O3'	6.36	119.18	105.20
3	EA	2503	A	C5-C6-N1	6.35	120.88	117.70
41	HH	3	MET	CG-SD-CE	-6.34	90.06	100.20
3	EA	2832	U	O5'-P-OP1	-6.34	100.00	105.70
35	HA	1517	G	C4-N9-C1'	6.34	134.74	126.50
3	AA	2142	A	OP2-P-O3'	6.34	119.14	105.20
4	GD	151	THR	C-N-CD	6.33	141.71	128.40
3	EA	2523	G	N1-C6-O6	6.33	123.70	119.90
3	EA	776	G	N9-C4-C5	6.33	107.93	105.40
5	AE	44	ARG	NE-CZ-NH1	-6.32	117.14	120.30
3	EA	512	G	N1-C6-O6	-6.31	116.11	119.90
3	AA	2754	U	N3-C4-O4	6.31	123.81	119.40
35	FA	1032	G	C6-C5-N7	-6.31	126.62	130.40
35	BA	5	U	N1-C2-O2	6.31	127.21	122.80
35	FA	1530	G	C4-N9-C1'	-6.30	118.30	126.50
3	EA	784	G	P-O3'-C3'	6.30	127.26	119.70
3	AA	1142	A	N3-C4-C5	6.29	131.21	126.80
35	FA	742	G	N1-C6-O6	6.29	123.67	119.90
3	CA	1832	C	C6-N1-C2	-6.28	117.79	120.30
3	GA	986	C	O5'-P-OP2	-6.28	100.05	105.70
3	EA	1936	A	N3-C4-N9	6.27	132.41	127.40
35	HA	330	C	N3-C4-C5	6.27	124.41	121.90
32	A5	108	VAL	CG1-CB-CG2	6.27	120.92	110.90
3	GA	2144	G	N7-C8-N9	6.27	116.23	113.10
3	AA	748	G	O4'-C1'-N9	6.26	113.21	108.20
3	EA	1675	C	C6-N1-C2	-6.26	117.80	120.30
3	EA	2447	G	C6-C5-N7	-6.26	126.65	130.40
3	AA	1125	G	N1-C6-O6	6.25	123.65	119.90
3	AA	2770	G	N1-C6-O6	-6.25	116.15	119.90
55	BV	302	GLY	N-CA-C	-6.25	97.47	113.10
3	GA	1247	A	P-O3'-C3'	6.25	127.20	119.70
3	CA	2423	U	P-O3'-C3'	6.24	127.19	119.70
3	EA	1966	A	O4'-C1'-N9	-6.24	103.21	108.20
3	GA	783	A	N7-C8-N9	6.24	116.92	113.80
32	C5	53	ARG	C-N-CA	6.23	137.28	121.70
35	BA	701	U	P-O3'-C3'	6.23	127.17	119.70
35	DA	115	G	C8-N9-C4	-6.23	103.91	106.40
32	A5	39	THR	C-N-CA	6.22	137.26	121.70
3	EA	1027	A	N1-C6-N6	6.22	122.33	118.60
3	GA	335	C	C5-C6-N1	6.22	124.11	121.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	GB	30	C	C6-N1-C2	-6.22	117.81	120.30
3	EA	555	G	C8-N9-C4	-6.21	103.91	106.40
3	EA	2406	A	O5'-P-OP1	-6.21	100.11	105.70
3	GA	486	C	C6-N1-C2	6.21	122.78	120.30
3	EA	595	C	N3-C2-O2	6.21	126.25	121.90
3	GA	577	G	C4-N9-C1'	6.21	134.57	126.50
32	A5	60	LEU	CB-CG-CD1	6.21	121.55	111.00
3	CA	2250	G	C2-N3-C4	-6.20	108.80	111.90
35	BA	5	U	N3-C2-O2	-6.19	117.86	122.20
35	BA	1279	G	C4-N9-C1'	6.19	134.54	126.50
3	AA	1839	G	C5-C6-O6	-6.19	124.89	128.60
3	GA	85	G	O5'-P-OP1	-6.18	100.14	105.70
3	GA	1131	G	N3-C4-N9	6.18	129.71	126.00
3	AA	1142	A	C5-N7-C8	-6.18	100.81	103.90
35	HA	1097	C	C6-N1-C2	-6.18	117.83	120.30
3	AA	2250	G	C4-C5-N7	6.18	113.27	110.80
3	GA	1189	A	C5-C6-N6	6.18	128.64	123.70
3	AA	1142	A	C4-C5-N7	6.17	113.79	110.70
3	AA	1950	G	C5-C6-O6	-6.17	124.90	128.60
3	AA	1003	G	O5'-P-OP2	-6.17	100.14	105.70
3	AA	567	U	N1-C2-O2	-6.17	118.48	122.80
32	E5	39	THR	C-N-CA	6.17	137.13	121.70
2	AC	109	LEU	CA-CB-CG	6.17	129.48	115.30
3	EA	2053	G	N3-C4-C5	6.16	131.68	128.60
3	EA	2286	G	N3-C4-C5	6.16	131.68	128.60
35	HA	703	G	N3-C4-C5	-6.16	125.52	128.60
2	CC	12	ARG	NE-CZ-NH1	6.16	123.38	120.30
32	E5	84	TYR	C-N-CA	6.16	137.10	121.70
3	EA	187	G	C5-C6-O6	-6.16	124.91	128.60
3	EA	2381	A	C8-N9-C4	6.16	108.26	105.80
35	DA	1279	G	C8-N9-C4	-6.15	103.94	106.40
32	E5	40	GLU	C-N-CA	6.15	137.08	121.70
35	FA	757	U	N3-C2-O2	6.15	126.51	122.20
3	AA	2592	G	O5'-P-OP2	-6.15	100.17	105.70
35	BA	1069	C	O5'-P-OP1	-6.15	100.17	105.70
3	EA	1814	G	C4-C5-N7	-6.15	108.34	110.80
3	GA	1189	A	N3-C4-N9	-6.14	122.49	127.40
3	EA	1355	G	C6-C5-N7	-6.14	126.72	130.40
3	AA	2505	G	O5'-P-OP2	-6.13	100.18	105.70
3	EA	816	C	C6-N1-C2	6.13	122.75	120.30
35	FA	583	A	N1-C6-N6	-6.13	114.92	118.60
35	DA	751	U	C6-N1-C2	-6.13	117.32	121.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	1322	C	C6-N1-C1'	-6.12	113.45	120.80
3	GA	115	C	C6-N1-C2	-6.12	117.85	120.30
3	CA	2363	G	C8-N9-C4	6.12	108.85	106.40
35	FA	529	G	C5-C6-O6	-6.12	124.93	128.60
3	EA	2061	G	N3-C4-C5	-6.12	125.54	128.60
35	BA	452	A	N1-C6-N6	6.11	122.27	118.60
3	GA	1914	C	C5-C6-N1	6.11	124.06	121.00
3	GA	635	C	N1-C2-O2	6.11	122.57	118.90
3	GA	2336	A	N1-C6-N6	6.11	122.27	118.60
3	AA	2250	G	C5-N7-C8	-6.11	101.25	104.30
35	BA	468	A	C8-N9-C4	-6.10	103.36	105.80
3	GA	1646	C	N1-C2-O2	6.10	122.56	118.90
35	HA	1517	G	C8-N9-C4	-6.10	103.96	106.40
3	GA	1189	A	N1-C6-N6	-6.10	114.94	118.60
3	GA	573	U	N1-C2-O2	6.10	127.07	122.80
3	GA	1157	G	O5'-P-OP2	-6.09	100.22	105.70
35	FA	58	C	C5-C6-N1	6.09	124.05	121.00
3	GA	504	A	O4'-C1'-N9	6.09	113.07	108.20
35	BA	971	G	N3-C2-N2	-6.09	115.64	119.90
3	AA	548	G	C8-N9-C4	-6.08	103.97	106.40
3	AA	2241	A	C8-N9-C4	-6.08	103.37	105.80
3	GA	228	C	O4'-C1'-N1	6.08	113.07	108.20
35	DA	1201	A	P-O3'-C3'	6.08	127.00	119.70
3	CA	1963	U	N3-C2-O2	-6.08	117.94	122.20
35	FA	1261	A	O4'-C1'-N9	6.08	113.06	108.20
3	AA	379	G	N1-C6-O6	6.07	123.54	119.90
35	BA	1370	G	N1-C6-O6	6.07	123.54	119.90
3	EA	268	C	C5-C4-N4	-6.07	115.95	120.20
35	FA	913	A	P-O3'-C3'	6.06	126.98	119.70
3	EA	2283	C	N1-C2-O2	-6.06	115.26	118.90
3	AA	784	G	P-O3'-C3'	6.06	126.97	119.70
3	EA	2250	G	N3-C4-C5	6.06	131.63	128.60
3	AA	784	G	O4'-C1'-N9	-6.06	103.36	108.20
35	HA	877	G	N9-C4-C5	6.05	107.82	105.40
1	EB	99	A	N3-C4-C5	6.05	131.04	126.80
32	A5	59	LEU	C-N-CA	6.05	136.82	121.70
3	GA	1128	G	N3-C4-N9	6.05	129.63	126.00
3	CA	984	A	N3-C4-N9	-6.04	122.56	127.40
35	FA	108	G	N1-C6-O6	6.04	123.53	119.90
3	GA	2467	C	C6-N1-C2	-6.04	117.88	120.30
12	AL	82	LEU	CA-CB-CG	6.03	129.17	115.30
3	CA	503	A	C8-N9-C4	-6.03	103.39	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	EA	1943	U	N3-C4-O4	-6.03	115.18	119.40
3	EA	62	U	C2-N1-C1'	6.03	124.93	117.70
3	EA	1247	A	P-O3'-C3'	6.03	126.93	119.70
35	FA	530	G	C4-N9-C1'	6.02	134.33	126.50
35	DA	82	G	O4'-C1'-N9	6.01	113.01	108.20
3	EA	2261	C	C6-N1-C2	-6.01	117.89	120.30
3	GA	1051	G	C8-N9-C4	-6.01	103.99	106.40
35	HA	780	A	C8-N9-C4	-6.01	103.39	105.80
35	HA	1059	C	C6-N1-C2	-6.01	117.89	120.30
3	AA	1073	A	N7-C8-N9	-6.01	110.80	113.80
32	C5	50	VAL	CG1-CB-CG2	6.01	120.52	110.90
35	BA	330	C	N3-C4-C5	6.01	124.30	121.90
3	CA	140	C	N1-C2-O2	6.00	122.50	118.90
3	AA	2534	A	C4-C5-N7	6.00	113.70	110.70
32	C5	59	LEU	C-N-CA	6.00	136.69	121.70
35	FA	529	G	N1-C6-O6	6.00	123.50	119.90
35	BA	1279	G	C8-N9-C1'	-6.00	119.21	127.00
3	EA	2211	A	P-O3'-C3'	6.00	126.89	119.70
3	GA	2544	G	N1-C6-O6	5.99	123.50	119.90
3	AA	1025	G	P-O3'-C3'	5.99	126.89	119.70
3	AA	1069	A	OP2-P-O3'	5.99	118.37	105.20
3	EA	752	A	N1-C6-N6	5.99	122.19	118.60
35	BA	237	G	N3-C4-C5	5.98	131.59	128.60
3	EA	1887	C	O5'-P-OP1	-5.98	100.31	105.70
35	HA	1496	C	C6-N1-C2	-5.98	117.91	120.30
3	AA	528	A	C5-C6-N1	-5.97	114.71	117.70
35	BA	80	A	O4'-C1'-N9	5.97	112.98	108.20
3	EA	984	A	C5-C6-N1	-5.97	114.71	117.70
3	AA	1328	A	O5'-P-OP2	-5.97	100.33	105.70
3	GA	157	C	C6-N1-C2	-5.97	117.91	120.30
3	AA	2043	C	C6-N1-C2	-5.97	117.91	120.30
3	GA	2502	G	C8-N9-C4	-5.97	104.01	106.40
35	BA	1509	C	C6-N1-C2	-5.96	117.92	120.30
35	BA	529	G	C5-C6-O6	-5.96	125.02	128.60
3	GA	748	G	O4'-C1'-N9	5.96	112.97	108.20
35	DA	751	U	N3-C2-O2	-5.96	118.03	122.20
3	GA	1378	A	P-O3'-C3'	5.95	126.84	119.70
3	GA	2107	G	C4-C5-N7	5.95	113.18	110.80
35	FA	701	U	P-O3'-C3'	5.95	126.84	119.70
35	FA	115	G	P-O3'-C3'	5.94	126.83	119.70
32	A5	53	ARG	C-N-CA	5.94	136.56	121.70
3	EA	404	A	OP2-P-O3'	5.94	118.28	105.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	HA	1401	G	N3-C4-C5	-5.94	125.63	128.60
3	CA	2146	C	N1-C2-O2	5.94	122.47	118.90
3	AA	2747	G	OP2-P-O3'	5.94	118.26	105.20
32	E5	60	LEU	CB-CG-CD2	5.93	121.09	111.00
35	HA	1364	U	C2-N1-C1'	5.93	124.82	117.70
3	AA	1779	U	N3-C4-O4	-5.93	115.25	119.40
3	AA	2447	G	C5-C6-O6	-5.93	125.04	128.60
3	GA	2107	G	N9-C4-C5	-5.93	103.03	105.40
35	FA	1530	G	C8-N9-C1'	5.93	134.71	127.00
3	AA	2610	C	N1-C2-O2	5.93	122.46	118.90
3	GA	1164	C	C2-N1-C1'	-5.93	112.28	118.80
3	EA	613	A	N7-C8-N9	5.93	116.76	113.80
3	AA	1815	A	C8-N9-C4	-5.93	103.43	105.80
3	GA	2251	G	N1-C6-O6	5.93	123.46	119.90
3	AA	119	A	O5'-P-OP2	-5.92	100.37	105.70
3	EA	2275	C	C5-C6-N1	5.92	123.96	121.00
3	EA	2423	U	P-O3'-C3'	5.92	126.80	119.70
35	FA	976	G	O4'-C1'-N9	5.92	112.93	108.20
3	AA	964	C	O5'-P-OP2	-5.92	100.38	105.70
3	GA	271	G	P-O3'-C3'	5.91	126.80	119.70
35	HA	1322	C	C6-N1-C1'	-5.91	113.71	120.80
3	AA	2554	U	O5'-P-OP1	-5.91	100.38	105.70
3	AA	2715	C	C6-N1-C2	5.91	122.66	120.30
12	EL	82	LEU	CA-CB-CG	5.91	128.89	115.30
3	GA	946	C	O5'-P-OP1	-5.91	100.39	105.70
35	BA	1370	G	C5-C6-N1	-5.90	108.55	111.50
3	CA	1831	G	C8-N9-C4	-5.90	104.04	106.40
32	E5	59	LEU	C-N-CA	5.90	136.46	121.70
3	GA	783	A	C5-N7-C8	-5.90	100.95	103.90
3	EA	2242	G	C8-N9-C4	-5.89	104.04	106.40
35	DA	81	A	O4'-C1'-N9	5.88	112.91	108.20
3	EA	752	A	N7-C8-N9	5.88	116.74	113.80
3	AA	1428	C	O5'-P-OP1	-5.88	100.41	105.70
35	BA	1302	C	P-O3'-C3'	5.88	126.75	119.70
35	FA	503	C	C6-N1-C2	-5.88	117.95	120.30
3	AA	527	C	P-O3'-C3'	5.88	126.75	119.70
3	AA	1094	U	N3-C4-C5	-5.88	111.08	114.60
3	AA	1670	C	N1-C2-O2	-5.88	115.38	118.90
35	HA	877	G	N3-C4-N9	-5.87	122.48	126.00
3	EA	679	C	N1-C2-O2	-5.87	115.38	118.90
3	CA	2486	C	C6-N1-C2	-5.86	117.95	120.30
3	CA	2505	G	C8-N9-C4	-5.86	104.06	106.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BA	330	C	C6-N1-C2	5.86	122.64	120.30
3	EA	869	G	C5-C6-N1	-5.86	108.57	111.50
3	AA	2448	A	C6-C5-N7	-5.86	128.20	132.30
3	EA	404	A	P-O3'-C3'	5.86	126.73	119.70
35	BA	1201	A	N1-C6-N6	-5.86	115.09	118.60
3	GA	1070	A	O4'-C1'-N9	-5.86	103.52	108.20
3	AA	1837	C	O5'-P-OP1	-5.85	100.43	105.70
3	AA	1069	A	C8-N9-C4	-5.85	103.46	105.80
3	CA	2326	C	C5-C6-N1	5.85	123.92	121.00
3	AA	1509	A	O4'-C1'-N9	5.84	112.87	108.20
3	EA	869	G	N1-C6-O6	5.84	123.41	119.90
3	CA	1731	G	O4'-C1'-N9	5.84	112.87	108.20
3	EA	2044	C	N1-C2-O2	-5.83	115.40	118.90
3	GA	527	C	C2-N1-C1'	5.83	125.21	118.80
3	EA	1533	C	N1-C2-O2	5.83	122.40	118.90
3	GA	1248	G	N9-C4-C5	-5.83	103.07	105.40
3	GA	2482	A	N7-C8-N9	5.83	116.71	113.80
1	GB	119	A	O5'-P-OP2	5.82	117.68	110.70
35	DA	234	C	C6-N1-C2	-5.82	117.97	120.30
35	BA	262	A	O5'-P-OP1	-5.81	100.47	105.70
35	BA	990	C	C6-N1-C2	-5.81	117.97	120.30
3	AA	866	A	N1-C6-N6	5.81	122.09	118.60
35	BA	79	G	P-O3'-C3'	5.81	126.67	119.70
3	EA	752	A	C4-C5-N7	5.81	113.61	110.70
3	EA	2523	G	C5-C6-O6	-5.81	125.11	128.60
1	GB	30	C	C5-C6-N1	5.81	123.90	121.00
3	EA	961	C	O5'-P-OP2	-5.80	100.48	105.70
35	BA	108	G	C4-N9-C1'	5.80	134.04	126.50
3	CA	1839	G	C4-C5-C6	5.80	122.28	118.80
3	AA	1358	G	C8-N9-C4	-5.79	104.08	106.40
35	FA	83	C	C6-N1-C2	-5.79	117.98	120.30
35	HA	984	C	C6-N1-C2	-5.79	117.98	120.30
35	DA	351	G	C4-C5-N7	5.79	113.12	110.80
3	AA	516	C	O5'-P-OP1	-5.79	100.49	105.70
3	EA	2446	G	O5'-P-OP2	-5.79	100.49	105.70
3	GA	1081	U	C5-C6-N1	5.79	125.59	122.70
35	BA	251	G	N1-C6-O6	5.78	123.37	119.90
3	EA	2391	G	N1-C6-O6	-5.78	116.43	119.90
35	HA	245	U	C5-C4-O4	5.78	129.37	125.90
3	EA	1983	G	C8-N9-C4	5.78	108.71	106.40
35	DA	779	C	C6-N1-C2	-5.78	117.99	120.30
3	EA	528	A	C5-N7-C8	-5.77	101.01	103.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AA	1645	G	N3-C4-C5	-5.77	125.72	128.60
3	EA	2719	G	N3-C4-C5	5.77	131.49	128.60
3	AA	2241	A	N9-C4-C5	5.77	108.11	105.80
3	GA	4	U	C5-C6-N1	5.76	125.58	122.70
35	DA	926	G	C8-N9-C1'	5.76	134.49	127.00
3	EA	1694	C	C6-N1-C2	-5.76	118.00	120.30
3	EA	792	A	N1-C6-N6	-5.76	115.15	118.60
35	HA	1528	U	C6-N1-C2	5.76	124.45	121.00
3	CA	2000	C	C6-N1-C2	5.75	122.60	120.30
3	CA	2179	C	O4'-C1'-N1	5.75	112.80	108.20
3	EA	1607	C	C6-N1-C2	5.75	122.60	120.30
3	EA	555	G	N9-C4-C5	5.75	107.70	105.40
3	EA	791	C	N3-C2-O2	-5.75	117.88	121.90
35	DA	108	G	C4-C5-N7	5.74	113.10	110.80
3	GA	743	A	O5'-P-OP2	-5.74	100.53	105.70
3	GA	2902	C	P-O3'-C3'	5.74	126.59	119.70
35	DA	351	G	C5-N7-C8	-5.74	101.43	104.30
3	EA	2424	C	C6-N1-C2	5.73	122.59	120.30
3	EA	2211	A	O4'-C1'-N9	-5.73	103.62	108.20
3	GA	1952	A	C8-N9-C4	-5.73	103.51	105.80
3	GA	2612	C	N3-C4-N4	5.73	122.01	118.00
35	BA	844	G	C4-N9-C1'	5.73	133.94	126.50
3	AA	1606	C	C2-N3-C4	-5.72	117.04	119.90
3	CA	1915	U	N3-C2-O2	-5.72	118.20	122.20
32	C5	60	LEU	CB-CG-CD2	5.72	120.72	111.00
3	GA	2710	C	C6-N1-C2	-5.71	118.01	120.30
3	GA	2351	G	N3-C4-N9	5.71	129.43	126.00
3	EA	178	G	C8-N9-C4	5.71	108.68	106.40
3	EA	784	G	C5-C6-O6	-5.71	125.18	128.60
32	A5	117	LEU	C-N-CA	5.71	135.96	121.70
35	BA	529	G	C6-C5-N7	-5.70	126.98	130.40
35	HA	827	U	C5-C6-N1	5.70	125.55	122.70
3	CA	2544	G	C5-C6-O6	-5.70	125.18	128.60
3	AA	1247	A	P-O3'-C3'	5.70	126.54	119.70
35	BA	1279	G	N7-C8-N9	5.70	115.95	113.10
3	AA	1789	A	O5'-P-OP1	-5.70	100.57	105.70
3	GA	784	G	P-O3'-C3'	5.70	126.54	119.70
3	GA	2144	G	C6-C5-N7	-5.70	126.98	130.40
35	HA	932	C	C2-N1-C1'	5.70	125.07	118.80
1	EB	99	A	C2-N3-C4	-5.69	107.75	110.60
35	HA	764	C	C6-N1-C2	-5.69	118.02	120.30
16	GP	50	ARG	CB-CG-CD	5.69	126.40	111.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AA	1263	U	C6-N1-C2	-5.69	117.59	121.00
32	C5	108	VAL	CG1-CB-CG2	5.69	120.00	110.90
35	FA	584	G	N1-C6-O6	5.69	123.31	119.90
35	FA	1030	U	O4'-C1'-N1	5.69	112.75	108.20
16	GP	113	LEU	CA-CB-CG	5.69	128.38	115.30
35	BA	431	A	C8-N9-C4	5.68	108.07	105.80
35	BA	1279	G	O4'-C1'-N9	-5.68	103.66	108.20
3	EA	1256	G	C4-N9-C1'	5.68	133.89	126.50
35	FA	1032	G	O4'-C1'-N9	5.68	112.74	108.20
3	GA	200	U	C6-N1-C2	-5.68	117.59	121.00
3	AA	2061	G	N3-C4-N9	5.68	129.41	126.00
3	AA	1066	U	N3-C2-O2	-5.67	118.23	122.20
35	HA	1405	G	N3-C4-C5	5.67	131.44	128.60
3	AA	1979	U	C6-N1-C2	-5.67	117.60	121.00
3	CA	972	A	N1-C6-N6	-5.67	115.20	118.60
3	AA	2604	U	N3-C4-O4	-5.67	115.43	119.40
3	EA	834	G	N3-C2-N2	-5.67	115.93	119.90
32	E5	108	VAL	CA-CB-CG1	5.67	119.40	110.90
35	FA	1279	G	N7-C8-N9	5.67	115.93	113.10
35	FA	1528	U	O5'-P-OP2	-5.67	100.60	105.70
3	AA	1088	A	O4'-C1'-N9	-5.67	103.67	108.20
3	AA	2501	C	N3-C4-C5	5.67	124.17	121.90
3	CA	2414	G	N1-C6-O6	5.66	123.30	119.90
3	AA	2271	G	C5-C6-O6	-5.66	125.20	128.60
3	EA	1795	C	O5'-P-OP1	-5.66	100.61	105.70
3	AA	2534	A	C5-N7-C8	-5.66	101.07	103.90
3	EA	545	U	C5-C6-N1	5.66	125.53	122.70
3	GA	460	A	C2-N3-C4	-5.66	107.77	110.60
3	GA	635	C	C2-N1-C1'	5.66	125.03	118.80
3	GA	2646	C	C6-N1-C2	-5.66	118.04	120.30
3	CA	2374	C	C6-N1-C2	5.66	122.56	120.30
3	EA	2146	C	P-O3'-C3'	5.66	126.49	119.70
35	FA	1198	G	O5'-P-OP2	5.66	117.49	110.70
3	EA	1032	A	O5'-P-OP2	-5.65	100.61	105.70
3	EA	690	G	O5'-P-OP1	-5.65	100.62	105.70
35	FA	507	C	C6-N1-C2	-5.65	118.04	120.30
52	HS	65	GLU	N-CA-C	5.65	126.25	111.00
3	EA	989	G	O5'-P-OP1	-5.64	100.62	105.70
3	EA	2616	C	C2-N1-C1'	-5.64	112.59	118.80
3	CA	1999	C	OP2-P-O3'	5.64	117.60	105.20
35	DA	468	A	C8-N9-C4	-5.64	103.55	105.80
3	EA	2250	G	C5-N7-C8	-5.64	101.48	104.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	GA	1236	G	C8-N9-C4	-5.63	104.15	106.40
3	GA	1738	G	N3-C4-C5	-5.63	125.78	128.60
35	FA	429	U	N3-C2-O2	-5.63	118.26	122.20
35	DA	976	G	O4'-C1'-N9	5.63	112.70	108.20
31	E4	14	CYS	CA-CB-SG	-5.63	103.87	114.00
3	AA	2719	G	C5-C6-N1	-5.62	108.69	111.50
3	EA	1314	C	C6-N1-C2	-5.62	118.05	120.30
3	EA	1036	G	N1-C6-O6	5.62	123.27	119.90
3	AA	1534	U	C5-C6-N1	5.62	125.51	122.70
3	EA	1142	A	N3-C4-N9	-5.62	122.91	127.40
3	CA	783	A	C6-C5-N7	-5.62	128.37	132.30
3	AA	1207	C	C6-N1-C2	-5.62	118.05	120.30
3	EA	1256	G	C8-N9-C1'	-5.62	119.70	127.00
3	EA	776	G	C8-N9-C4	-5.61	104.15	106.40
3	GA	2144	G	C4-N9-C1'	5.61	133.80	126.50
3	AA	271	G	OP1-P-O3'	5.61	117.55	105.20
35	FA	108	G	C5-C6-O6	-5.61	125.23	128.60
3	GA	1341	G	N3-C4-C5	-5.61	125.80	128.60
42	HI	18	ARG	NE-CZ-NH1	-5.61	117.50	120.30
35	BA	1493	A	P-O3'-C3'	5.61	126.43	119.70
1	EB	16	G	C5-C6-O6	-5.61	125.23	128.60
35	HA	461	A	O4'-C1'-N9	5.61	112.69	108.20
35	DA	1158	C	C2-N1-C1'	5.61	124.97	118.80
3	AA	2719	G	N1-C6-O6	5.60	123.26	119.90
3	CA	783	A	C4-C5-N7	5.60	113.50	110.70
35	FA	1302	C	N1-C2-N3	-5.60	115.28	119.20
3	GA	2719	G	C5-C6-N1	-5.60	108.70	111.50
3	AA	1157	G	N1-C6-O6	5.60	123.26	119.90
35	FA	1306	A	O5'-P-OP2	5.60	117.42	110.70
3	GA	974	G	O4'-C1'-N9	5.60	112.68	108.20
35	BA	1362	A	C2-N3-C4	5.60	113.40	110.60
3	GA	1730	C	O4'-C1'-N1	5.60	112.68	108.20
35	HA	733	G	N3-C4-N9	-5.60	122.64	126.00
3	AA	1073	A	C4-N9-C1'	-5.59	116.23	126.30
3	EA	2447	G	N1-C2-N3	5.59	127.26	123.90
35	FA	887	G	C4-N9-C1'	-5.59	119.23	126.50
3	AA	1198	U	O5'-P-OP2	-5.59	100.67	105.70
35	BA	1359	C	N1-C2-O2	5.59	122.25	118.90
32	C5	117	LEU	C-N-CA	5.59	135.67	121.70
35	HA	538	G	O5'-P-OP1	-5.59	100.67	105.70
3	CA	984	A	N1-C2-N3	5.58	132.09	129.30
3	EA	2038	G	C5-C6-N1	-5.58	108.71	111.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AA	209	C	C6-N1-C2	5.58	122.53	120.30
3	AA	626	A	N1-C6-N6	5.58	121.95	118.60
35	FA	1516	G	C8-N9-C4	5.58	108.63	106.40
3	AA	1153	C	N1-C2-O2	-5.58	115.55	118.90
35	FA	1302	C	C6-N1-C2	5.58	122.53	120.30
3	EA	1022	G	N1-C6-O6	-5.57	116.56	119.90
35	BA	1362	A	C5-C6-N1	5.57	120.49	117.70
35	DA	1136	C	C6-N1-C2	-5.57	118.07	120.30
35	HA	733	G	C6-C5-N7	5.57	133.74	130.40
3	AA	2544	G	C6-C5-N7	-5.57	127.06	130.40
3	EA	1142	A	N3-C4-C5	5.57	130.70	126.80
3	EA	2276	G	C2-N3-C4	-5.57	109.12	111.90
3	EA	2747	G	N1-C6-O6	5.57	123.24	119.90
35	FA	1510	C	N1-C2-O2	-5.57	115.56	118.90
3	CA	1025	G	P-O3'-C3'	5.57	126.38	119.70
3	CA	2053	G	C2-N3-C4	-5.56	109.12	111.90
3	GA	864	G	N3-C4-C5	-5.56	125.82	128.60
19	GS	88	ARG	NE-CZ-NH1	-5.56	117.52	120.30
35	BA	1519	A	C4-C5-C6	5.56	119.78	117.00
35	DA	1322	C	C2-N1-C1'	5.56	124.92	118.80
3	GA	2076	U	C2-N1-C1'	5.56	124.38	117.70
3	GA	2502	G	O5'-P-OP2	-5.56	100.69	105.70
3	CA	974	G	N3-C4-N9	5.56	129.34	126.00
1	GB	86	G	O5'-P-OP2	5.56	117.37	110.70
3	GA	1145	C	C6-N1-C2	-5.56	118.08	120.30
3	AA	1509	A	P-O3'-C3'	5.56	126.37	119.70
35	HA	1517	G	C4-C5-C6	5.56	122.14	118.80
3	CA	882	G	P-O3'-C3'	5.56	126.37	119.70
3	EA	836	G	C4-C5-N7	5.56	113.02	110.80
3	EA	203	A	N1-C6-N6	5.55	121.93	118.60
17	GQ	91	ARG	NE-CZ-NH2	5.55	123.08	120.30
3	EA	2326	C	C6-N1-C2	-5.55	118.08	120.30
3	AA	1192	G	N9-C4-C5	-5.55	103.18	105.40
3	GA	2211	A	P-O3'-C3'	5.55	126.36	119.70
35	HA	1086	U	C2-N1-C1'	5.55	124.36	117.70
3	GA	939	G	N1-C6-O6	5.54	123.23	119.90
3	CA	2105	U	C5-C6-N1	5.54	125.47	122.70
3	GA	335	C	C6-N1-C2	-5.54	118.08	120.30
3	EA	2061	G	C6-C5-N7	-5.54	127.08	130.40
3	EA	1006	C	N1-C2-O2	-5.54	115.58	118.90
3	AA	2053	G	N3-C2-N2	-5.54	116.02	119.90
3	CA	834	G	C4-C5-N7	5.54	113.02	110.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AA	1125	G	C6-C5-N7	-5.53	127.08	130.40
7	CG	86	LEU	CA-CB-CG	5.53	128.03	115.30
3	EA	2030	A	C4-C5-N7	-5.53	107.93	110.70
3	GA	2482	A	C8-N9-C4	-5.53	103.59	105.80
3	GA	822	G	C4-N9-C1'	5.53	133.69	126.50
40	HG	118	LEU	CB-CG-CD1	-5.53	101.60	111.00
3	EA	2239	G	N1-C6-O6	5.53	123.22	119.90
35	BA	1410	A	N1-C6-N6	-5.53	115.28	118.60
35	DA	80	A	C8-N9-C4	-5.53	103.59	105.80
3	AA	2326	C	C5-C4-N4	-5.53	116.33	120.20
3	AA	984	A	C5-C6-N1	-5.52	114.94	117.70
32	C5	50	VAL	CA-CB-CG1	5.52	119.19	110.90
35	HA	703	G	N3-C2-N2	5.52	123.77	119.90
3	AA	1611	C	N1-C2-O2	-5.52	115.59	118.90
35	BA	237	G	C8-N9-C4	5.52	108.61	106.40
35	FA	1221	G	C8-N9-C4	5.52	108.61	106.40
35	FA	976	G	C4-C5-C6	5.52	122.11	118.80
3	GA	1248	G	N3-C4-N9	5.52	129.31	126.00
35	BA	844	G	C8-N9-C1'	-5.51	119.83	127.00
3	AA	2146	C	C6-N1-C2	-5.51	118.10	120.30
3	EA	1777	U	O5'-P-OP2	-5.51	100.74	105.70
3	EA	2038	G	C6-C5-N7	-5.51	127.09	130.40
35	HA	1219	A	C2-N3-C4	5.51	113.35	110.60
3	CA	1069	A	OP2-P-O3'	5.51	117.32	105.20
35	FA	1342	C	C6-N1-C2	5.51	122.50	120.30
3	GA	2893	A	C8-N9-C4	5.51	108.00	105.80
3	AA	1069	A	O4'-C1'-N9	5.50	112.60	108.20
3	EA	2143	C	P-O3'-C3'	5.50	126.30	119.70
3	EA	2551	C	OP2-P-O3'	5.50	117.31	105.20
3	GA	1087	G	C8-N9-C4	-5.50	104.20	106.40
3	EA	2038	G	C8-N9-C4	-5.50	104.20	106.40
35	BA	351	G	C4-C5-N7	5.50	113.00	110.80
3	EA	2048	G	O5'-P-OP2	-5.50	100.75	105.70
3	EA	2617	U	N3-C2-O2	-5.50	118.35	122.20
35	BA	1359	C	C6-N1-C2	5.50	122.50	120.30
3	EA	338	G	C8-N9-C4	-5.50	104.20	106.40
35	FA	887	G	C8-N9-C1'	5.49	134.14	127.00
35	HA	1304	G	C8-N9-C4	-5.49	104.20	106.40
35	DA	1493	A	P-O3'-C3'	5.49	126.28	119.70
3	AA	55	G	C5-C6-O6	-5.49	125.31	128.60
35	FA	1279	G	C4-N9-C1'	5.48	133.63	126.50
3	AA	29	U	OP2-P-O3'	5.48	117.26	105.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	70	U	C5-C6-N1	5.48	125.44	122.70
35	DA	82	G	C2-N3-C4	5.48	114.64	111.90
3	GA	459	U	C5-C4-O4	-5.48	122.61	125.90
3	GA	1032	A	O4'-C1'-N9	5.48	112.58	108.20
3	AA	989	G	O4'-C1'-N9	5.48	112.58	108.20
3	AA	2689	U	N3-C4-O4	-5.48	115.57	119.40
35	HA	184	G	N3-C4-C5	-5.47	125.86	128.60
3	CA	130	C	C6-N1-C2	5.47	122.49	120.30
3	EA	1992	G	O4'-C1'-N9	-5.47	103.82	108.20
35	FA	1068	G	C8-N9-C4	-5.47	104.21	106.40
35	FA	1495	U	N3-C2-O2	-5.47	118.37	122.20
3	CA	66	C	C6-N1-C2	-5.47	118.11	120.30
2	CC	140	VAL	N-CA-C	5.47	125.76	111.00
35	BA	913	A	P-O3'-C3'	5.46	126.26	119.70
1	EB	88	C	N1-C2-O2	5.46	122.18	118.90
1	AB	80	U	N1-C2-N3	5.46	118.18	114.90
3	AA	672	C	N1-C2-O2	5.46	122.18	118.90
35	FA	661	G	C8-N9-C4	-5.46	104.22	106.40
3	AA	2439	A	N1-C6-N6	5.46	121.88	118.60
3	AA	2446	G	OP2-P-O3'	5.46	117.21	105.20
3	GA	1601	G	C8-N9-C4	-5.46	104.22	106.40
35	BA	115	G	N3-C4-C5	-5.46	125.87	128.60
3	EA	856	G	N3-C4-C5	-5.45	125.87	128.60
3	EA	1605	C	C6-N1-C2	-5.45	118.12	120.30
35	FA	988	G	C8-N9-C4	-5.45	104.22	106.40
18	GR	83	TYR	CB-CG-CD1	5.45	124.27	121.00
3	AA	1027	A	O4'-C1'-N9	-5.45	103.84	108.20
3	EA	2250	G	N3-C4-N9	-5.45	122.73	126.00
3	AA	2353	G	N1-C6-O6	-5.45	116.63	119.90
3	EA	84	A	N1-C6-N6	-5.45	115.33	118.60
3	GA	1458	U	P-O3'-C3'	5.44	126.23	119.70
3	AA	2544	G	N1-C6-O6	5.44	123.17	119.90
3	CA	1839	G	C4-N9-C1'	5.44	133.57	126.50
3	EA	737	C	N3-C4-N4	5.43	121.81	118.00
3	GA	736	C	C6-N1-C2	5.43	122.47	120.30
3	AA	2244	U	C5-C4-O4	-5.43	122.64	125.90
3	AA	2604	U	C5-C4-O4	5.43	129.16	125.90
3	CA	548	G	C8-N9-C4	-5.43	104.23	106.40
3	GA	939	G	C5-C6-N1	-5.43	108.78	111.50
3	AA	1229	C	C6-N1-C2	5.43	122.47	120.30
3	AA	2282	G	C8-N9-C4	-5.43	104.23	106.40
3	CA	528	A	C5-N7-C8	-5.43	101.19	103.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	DA	272	C	C6-N1-C2	-5.43	118.13	120.30
35	DA	906	A	N1-C6-N6	-5.43	115.34	118.60
3	AA	1430	G	N1-C6-O6	5.42	123.16	119.90
3	AA	2250	G	C2-N3-C4	-5.42	109.19	111.90
35	FA	372	C	C6-N1-C2	5.42	122.47	120.30
3	AA	451	U	O4'-C1'-N1	5.42	112.54	108.20
3	AA	2353	G	C2-N3-C4	5.42	114.61	111.90
35	DA	944	G	N3-C4-C5	5.42	131.31	128.60
3	EA	31	C	O5'-P-OP2	-5.42	100.82	105.70
2	EC	233	GLY	N-CA-C	-5.42	99.56	113.10
3	GA	503	A	P-O3'-C3'	5.42	126.20	119.70
3	GA	577	G	C8-N9-C1'	-5.42	119.96	127.00
3	CA	1573	G	C4-N9-C1'	-5.42	119.46	126.50
3	AA	598	U	OP2-P-O3'	5.41	117.11	105.20
3	CA	1839	G	C5-C6-N1	-5.41	108.80	111.50
3	AA	1759	A	N1-C6-N6	5.41	121.84	118.60
3	CA	271	G	P-O3'-C3'	5.41	126.19	119.70
3	AA	532	A	C8-N9-C4	-5.41	103.64	105.80
3	EA	1458	U	P-O3'-C3'	5.41	126.19	119.70
3	AA	1073	A	C8-N9-C1'	5.40	137.43	127.70
3	AA	2271	G	N1-C6-O6	5.40	123.14	119.90
35	FA	1137	C	N3-C2-O2	-5.40	118.12	121.90
3	EA	268	C	N3-C4-N4	5.40	121.78	118.00
3	EA	542	C	C2-N3-C4	5.40	122.60	119.90
35	FA	735	C	O5'-P-OP2	-5.40	100.84	105.70
3	GA	790	U	C5-C4-O4	5.40	129.14	125.90
3	GA	1194	A	C5-N7-C8	-5.40	101.20	103.90
3	AA	1129	A	O5'-P-OP1	-5.40	100.84	105.70
3	AA	1190	G	C5-N7-C8	-5.40	101.60	104.30
3	EA	2584	U	C5-C4-O4	-5.40	122.66	125.90
35	FA	330	C	C6-N1-C2	5.40	122.46	120.30
32	C5	60	LEU	CB-CG-CD1	5.40	120.17	111.00
3	EA	2504	U	O5'-P-OP1	-5.39	100.84	105.70
35	BA	481	G	C4-N9-C1'	-5.39	119.49	126.50
3	AA	1311	G	N7-C8-N9	5.39	115.80	113.10
3	EA	1934	C	C2-N1-C1'	-5.39	112.87	118.80
35	FA	976	G	N3-C4-C5	-5.39	125.91	128.60
3	CA	2146	C	O4'-C1'-N1	5.39	112.51	108.20
3	GA	864	G	C8-N9-C4	-5.39	104.25	106.40
3	GA	2483	C	C6-N1-C2	-5.39	118.14	120.30
35	HA	250	A	P-O3'-C3'	5.39	126.16	119.70
3	AA	2153	C	O4'-C1'-N1	5.38	112.50	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	EA	528	A	N1-C2-N3	5.38	131.99	129.30
3	EA	1073	A	O5'-P-OP2	5.38	117.16	110.70
35	BA	976	G	C5-C6-O6	5.38	131.83	128.60
35	HA	845	A	O4'-C1'-N9	-5.38	103.90	108.20
3	GA	2146	C	N3-C2-O2	-5.38	118.14	121.90
3	GA	527	C	P-O3'-C3'	5.37	126.15	119.70
3	AA	1950	G	C8-N9-C1'	-5.37	120.02	127.00
3	AA	1420	A	O4'-C1'-N9	5.37	112.50	108.20
3	AA	1970	A	C8-N9-C4	-5.37	103.65	105.80
3	AA	1350	C	C6-N1-C2	5.37	122.45	120.30
35	DA	250	A	P-O3'-C3'	5.37	126.14	119.70
3	EA	2286	G	C2-N3-C4	-5.37	109.22	111.90
3	CA	2456	C	O5'-P-OP2	-5.36	100.87	105.70
3	GA	2423	U	O4'-C1'-N1	-5.36	103.91	108.20
35	BA	1301	U	O5'-P-OP2	-5.36	100.88	105.70
3	EA	236	C	N1-C2-O2	-5.36	115.68	118.90
3	GA	200	U	N1-C2-N3	5.36	118.12	114.90
3	AA	2015	A	N1-C6-N6	-5.36	115.38	118.60
35	BA	1241	G	C5-C6-O6	5.36	131.81	128.60
35	FA	1239	A	O4'-C1'-N9	5.35	112.48	108.20
3	AA	250	G	O5'-P-OP2	-5.35	100.89	105.70
1	EB	88	C	C2-N1-C1'	5.35	124.68	118.80
3	AA	1025	G	C8-N9-C4	-5.35	104.26	106.40
35	BA	328	C	C2-N1-C1'	5.35	124.68	118.80
3	GA	1840	G	C4-N9-C1'	5.35	133.45	126.50
35	HA	527	G	C4-N9-C1'	-5.35	119.55	126.50
3	EA	2265	U	N3-C2-O2	-5.35	118.46	122.20
35	FA	1370	G	C5-C6-N1	-5.35	108.83	111.50
3	AA	2355	G	C8-N9-C4	5.34	108.54	106.40
3	EA	1378	A	P-O3'-C3'	5.34	126.11	119.70
3	GA	1952	A	N9-C4-C5	5.34	107.94	105.80
3	AA	677	A	OP1-P-O3'	5.34	116.95	105.20
3	AA	2723	C	C6-N1-C2	-5.34	118.16	120.30
35	DA	115	G	N3-C4-C5	-5.34	125.93	128.60
3	AA	837	C	N1-C2-O2	-5.34	115.69	118.90
3	GA	1192	G	C4-N9-C1'	5.34	133.44	126.50
3	GA	2429	G	C5-C6-O6	-5.34	125.39	128.60
16	AP	113	LEU	CA-CB-CG	5.34	127.58	115.30
35	BA	844	G	N3-C4-N9	5.34	129.20	126.00
35	HA	1452	C	P-O3'-C3'	5.34	126.11	119.70
3	AA	2608	G	C2-N3-C4	-5.34	109.23	111.90
35	DA	1066	C	C6-N1-C2	-5.34	118.17	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	EA	2687	U	C2-N1-C1'	-5.34	111.30	117.70
3	CA	974	G	N7-C8-N9	5.33	115.77	113.10
5	GE	114	ARG	NE-CZ-NH1	-5.33	117.63	120.30
3	GA	200	U	C2-N1-C1'	5.33	124.10	117.70
3	GA	2423	U	P-O3'-C3'	5.33	126.10	119.70
3	EA	983	A	N1-C6-N6	5.33	121.80	118.60
3	CA	974	G	C5-N7-C8	-5.33	101.64	104.30
3	CA	2250	G	C4-C5-N7	5.33	112.93	110.80
3	EA	542	C	C6-N1-C2	-5.33	118.17	120.30
3	EA	2470	G	N1-C6-O6	-5.33	116.70	119.90
3	AA	548	G	N3-C4-C5	-5.33	125.94	128.60
3	AA	1206	G	N3-C4-C5	-5.32	125.94	128.60
3	AA	2571	U	C2-N1-C1'	-5.32	111.31	117.70
3	AA	2704	C	C6-N1-C2	5.32	122.43	120.30
3	EA	1930	G	C8-N9-C4	5.32	108.53	106.40
35	FA	861	G	N1-C6-O6	5.32	123.09	119.90
3	GA	1830	C	N3-C2-O2	-5.32	118.17	121.90
35	DA	1455	G	C5-C6-O6	-5.32	125.41	128.60
3	EA	184	C	N1-C2-O2	-5.32	115.71	118.90
3	AA	2263	C	N3-C4-C5	-5.32	119.77	121.90
35	FA	1336	C	C2-N1-C1'	5.31	124.64	118.80
35	FA	6	G	O5'-P-OP2	-5.31	100.92	105.70
3	CA	651	G	C6-C5-N7	-5.31	127.22	130.40
3	GA	1131	G	N3-C4-C5	-5.31	125.95	128.60
3	CA	2465	C	OP2-P-O3'	5.31	116.87	105.20
3	AA	84	A	N1-C6-N6	-5.30	115.42	118.60
32	A5	50	VAL	CG1-CB-CG2	5.30	119.39	110.90
35	BA	1526	G	O5'-P-OP1	-5.30	100.93	105.70
3	GA	2154	A	N1-C6-N6	5.30	121.78	118.60
35	HA	1001	C	C6-N1-C2	-5.30	118.18	120.30
35	DA	701	U	P-O3'-C3'	5.30	126.06	119.70
35	FA	250	A	P-O3'-C3'	5.30	126.06	119.70
3	GA	1187	G	N3-C4-N9	5.30	129.18	126.00
35	DA	207	C	C6-N1-C2	-5.30	118.18	120.30
3	EA	2052	A	N1-C6-N6	-5.30	115.42	118.60
3	EA	2614	A	O5'-P-OP2	-5.30	100.93	105.70
35	FA	1043	G	C4-C5-N7	-5.30	108.68	110.80
3	AA	1565	C	C6-N1-C2	-5.30	118.18	120.30
3	EA	2307	G	C5-C6-O6	-5.30	125.42	128.60
32	E5	50	VAL	CG1-CB-CG2	5.30	119.38	110.90
3	AA	1355	G	C8-N9-C4	-5.30	104.28	106.40
35	DA	1448	C	N3-C4-N4	5.30	121.71	118.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	GA	1651	G	N1-C6-O6	5.30	123.08	119.90
35	HA	1293	C	N1-C1'-C2'	-5.30	106.17	112.00
35	BA	976	G	C4-C5-N7	-5.29	108.68	110.80
3	EA	2432	A	O5'-P-OP1	-5.29	100.93	105.70
35	HA	779	C	C5-C6-N1	5.29	123.65	121.00
3	AA	1831	G	C8-N9-C4	-5.29	104.28	106.40
3	GA	1081	U	C5-C4-O4	-5.29	122.72	125.90
3	GA	1438	U	C5-C6-N1	5.29	125.35	122.70
32	A5	131	THR	N-CA-C	-5.29	96.71	111.00
3	EA	2563	U	N3-C4-O4	-5.29	115.70	119.40
3	GA	822	G	C6-C5-N7	-5.29	127.23	130.40
3	GA	2719	G	N1-C6-O6	5.29	123.07	119.90
3	AA	2071	A	OP2-P-O3'	5.29	116.83	105.20
3	AA	2250	G	N7-C8-N9	5.28	115.74	113.10
3	EA	2744	G	OP2-P-O3'	5.28	116.82	105.20
35	FA	110	C	C6-N1-C2	-5.28	118.19	120.30
35	HA	1403	C	N3-C4-C5	-5.28	119.79	121.90
3	GA	4	U	N3-C4-O4	5.28	123.10	119.40
3	AA	2470	G	OP2-P-O3'	5.28	116.82	105.20
3	GA	460	A	C5-C6-N1	-5.28	115.06	117.70
35	HA	771	G	O5'-P-OP2	-5.28	100.95	105.70
3	CA	783	A	N1-C6-N6	5.28	121.77	118.60
3	GA	971	G	N3-C4-C5	-5.28	125.96	128.60
3	GA	742	A	N1-C6-N6	-5.27	115.44	118.60
3	AA	1458	U	P-O3'-C3'	5.27	126.03	119.70
35	BA	572	A	N1-C6-N6	-5.27	115.44	118.60
3	AA	2685	G	C5-C6-N1	-5.27	108.86	111.50
3	AA	518	G	O5'-P-OP1	-5.27	100.96	105.70
3	AA	776	G	C4-N9-C1'	5.27	133.35	126.50
3	AA	1533	C	C5-C6-N1	5.26	123.63	121.00
3	EA	1355	G	C5-C6-N1	-5.26	108.87	111.50
3	AA	1131	G	OP1-P-O3'	5.26	116.78	105.20
35	BA	108	G	C4-C5-N7	5.26	112.91	110.80
3	AA	2501	C	C6-N1-C1'	5.26	127.11	120.80
3	EA	194	G	C2-N3-C4	-5.26	109.27	111.90
3	EA	1936	A	C6-N1-C2	-5.26	115.44	118.60
35	HA	975	A	O4'-C1'-N9	5.26	112.41	108.20
3	AA	1943	U	C5-C4-O4	5.26	129.05	125.90
32	A5	50	VAL	CA-CB-CG1	5.26	118.78	110.90
3	CA	2179	C	C6-N1-C2	-5.26	118.20	120.30
3	AA	1824	G	N9-C4-C5	5.25	107.50	105.40
3	GA	2307	G	O4'-C1'-N9	5.25	112.40	108.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	GE	114	ARG	NE-CZ-NH2	5.25	122.93	120.30
35	BA	250	A	P-O3'-C3'	5.25	126.00	119.70
35	FA	1201	A	P-O3'-C3'	5.25	126.00	119.70
3	EA	984	A	N1-C2-N3	5.25	131.93	129.30
35	BA	912	C	N3-C4-N4	5.25	121.67	118.00
35	FA	976	G	C5-C6-N1	-5.25	108.88	111.50
3	GA	528	A	C2-N3-C4	-5.25	107.98	110.60
3	EA	974	G	O4'-C1'-N9	5.25	112.40	108.20
3	EA	1069	A	OP2-P-O3'	5.25	116.74	105.20
3	CA	1174	U	N1-C2-O2	5.24	126.47	122.80
20	ET	29	THR	N-CA-C	5.24	125.16	111.00
3	GA	125	A	O4'-C1'-N9	5.24	112.40	108.20
3	GA	226	A	C8-N9-C4	-5.24	103.70	105.80
24	AX	29	LEU	CA-CB-CG	5.24	127.36	115.30
35	FA	969	A	OP1-P-O3'	5.24	116.73	105.20
3	AA	748	G	C4-C5-N7	-5.24	108.70	110.80
3	EA	2797	U	O4'-C1'-N1	5.24	112.39	108.20
3	GA	2523	G	C5-C6-O6	-5.24	125.46	128.60
3	AA	991	C	C6-N1-C2	-5.24	118.20	120.30
35	BA	1057	G	N1-C6-O6	-5.24	116.76	119.90
3	CA	1256	G	C4-N9-C1'	5.24	133.31	126.50
3	CA	1373	A	C8-N9-C4	-5.24	103.71	105.80
3	EA	1024	G	C5-N7-C8	-5.24	101.68	104.30
55	BV	93	VAL	N-CA-C	-5.23	96.87	111.00
35	FA	247	G	N1-C6-O6	-5.23	116.76	119.90
35	FA	577	G	C2-N3-C4	-5.23	109.28	111.90
3	AA	940	G	N1-C6-O6	5.23	123.04	119.90
3	AA	2825	G	N3-C4-N9	5.23	129.14	126.00
3	EA	972	A	O5'-P-OP2	-5.23	100.99	105.70
26	AZ	15	ARG	NE-CZ-NH1	5.23	122.92	120.30
35	HA	776	G	C8-N9-C4	-5.23	104.31	106.40
3	AA	2037	A	N9-C4-C5	5.23	107.89	105.80
3	AA	2618	G	C5-C6-N1	-5.23	108.89	111.50
3	CA	1947	C	C6-N1-C2	5.23	122.39	120.30
35	HA	1304	G	N7-C8-N9	5.23	115.71	113.10
3	EA	2543	G	C4-C5-N7	5.23	112.89	110.80
3	AA	2537	U	C5-C4-O4	5.22	129.03	125.90
3	CA	1509	A	P-O3'-C3'	5.22	125.97	119.70
35	HA	689	C	C6-N1-C2	-5.22	118.21	120.30
35	DA	395	C	C6-N1-C2	-5.22	118.21	120.30
3	AA	1264	A	O5'-P-OP1	-5.22	101.00	105.70
35	BA	1370	G	N3-C2-N2	-5.22	116.25	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	HA	333	U	O5'-P-OP2	-5.22	101.00	105.70
3	AA	916	G	C6-C5-N7	-5.22	127.27	130.40
17	AQ	63	ARG	NE-CZ-NH2	-5.22	117.69	120.30
3	EA	512	G	O4'-C1'-N9	5.22	112.37	108.20
3	EA	677	A	O5'-P-OP1	-5.22	101.00	105.70
3	EA	855	G	C8-N9-C4	-5.22	104.31	106.40
3	GA	856	G	C8-N9-C1'	-5.22	120.22	127.00
35	BA	1201	A	P-O3'-C3'	5.21	125.96	119.70
3	GA	864	G	C4-N9-C1'	5.21	133.28	126.50
35	BA	134	G	N1-C2-N2	-5.21	111.51	116.20
3	AA	733	G	C8-N9-C4	-5.21	104.32	106.40
3	AA	1446	C	C6-N1-C2	-5.21	118.22	120.30
3	EA	1823	G	C8-N9-C4	-5.20	104.32	106.40
35	FA	1136	C	C6-N1-C1'	-5.20	114.56	120.80
51	HR	43	ARG	NE-CZ-NH2	5.20	122.90	120.30
3	AA	833	A	C8-N9-C4	-5.20	103.72	105.80
3	EA	808	G	O5'-P-OP2	-5.20	101.02	105.70
3	EA	2561	U	N3-C4-O4	5.20	123.04	119.40
3	EA	456	C	C6-N1-C2	-5.20	118.22	120.30
3	EA	1533	C	C2-N1-C1'	5.20	124.52	118.80
3	EA	1786	A	O4'-C1'-N9	5.20	112.36	108.20
3	GA	818	G	N3-C4-N9	5.20	129.12	126.00
35	HA	1302	C	N1-C2-O2	5.20	122.02	118.90
3	AA	404	A	C8-N9-C4	-5.20	103.72	105.80
3	AA	1025	G	N3-C4-C5	-5.20	126.00	128.60
3	GA	1216	G	C8-N9-C4	-5.20	104.32	106.40
35	BA	931	C	C5-C4-N4	5.19	123.83	120.20
35	BA	890	G	O5'-P-OP1	5.19	116.93	110.70
3	EA	534	U	O5'-P-OP1	-5.19	101.03	105.70
3	GA	1193	G	C8-N9-C4	-5.19	104.32	106.40
3	EA	2608	G	OP2-P-O3'	5.19	116.61	105.20
1	EB	30	C	O5'-P-OP1	-5.19	101.03	105.70
3	GA	1780	A	C8-N9-C4	5.19	107.88	105.80
35	HA	596	A	O4'-C1'-N9	-5.19	104.05	108.20
3	AA	2584	U	N3-C4-O4	5.19	123.03	119.40
35	DA	1493	A	O5'-P-OP1	-5.18	101.03	105.70
3	EA	2238	G	C5-C6-O6	-5.18	125.49	128.60
35	BA	326	G	N3-C4-N9	-5.18	122.89	126.00
3	AA	1936	A	N3-C4-C5	5.18	130.43	126.80
3	GA	638	G	N3-C2-N2	-5.18	116.27	119.90
35	BA	52	C	O5'-P-OP2	-5.18	101.04	105.70
35	FA	1279	G	C6-C5-N7	-5.18	127.29	130.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AA	2534	A	C5-C6-N6	-5.18	119.56	123.70
3	EA	187	G	C6-C5-N7	-5.18	127.29	130.40
35	FA	859	G	N3-C4-C5	-5.18	126.01	128.60
35	HA	733	G	C8-N9-C1'	5.18	133.73	127.00
3	GA	2238	G	C5-C6-O6	-5.17	125.50	128.60
3	GA	2689	U	C5-C4-O4	5.17	129.00	125.90
3	EA	921	C	C6-N1-C2	-5.17	118.23	120.30
3	CA	1963	U	N1-C2-O2	5.17	126.42	122.80
35	DA	1063	C	C6-N1-C2	-5.17	118.23	120.30
3	EA	595	C	C6-N1-C2	5.17	122.37	120.30
3	EA	963	U	N3-C2-O2	5.17	125.82	122.20
3	GA	972	A	N1-C6-N6	-5.17	115.50	118.60
35	BA	351	G	C5-N7-C8	-5.17	101.72	104.30
3	AA	454	A	O5'-P-OP2	-5.17	101.05	105.70
3	EA	271	G	OP1-P-O3'	5.17	116.56	105.20
3	EA	2053	G	C6-C5-N7	-5.17	127.30	130.40
3	AA	119	A	P-O3'-C3'	5.17	125.90	119.70
3	AA	1684	G	N3-C4-C5	-5.16	126.02	128.60
3	EA	2239	G	C6-C5-N7	-5.16	127.31	130.40
35	FA	1501	C	N3-C2-O2	-5.16	118.29	121.90
35	HA	1496	C	C2-N1-C1'	5.16	124.47	118.80
3	GA	1620	G	N3-C4-C5	5.16	131.18	128.60
3	AA	2368	C	C6-N1-C2	5.15	122.36	120.30
3	EA	953	G	O5'-P-OP2	-5.15	101.06	105.70
3	GA	2053	G	N3-C4-C5	5.15	131.18	128.60
26	EZ	15	ARG	NE-CZ-NH2	-5.15	117.72	120.30
3	EA	2265	U	C2-N1-C1'	5.15	123.88	117.70
3	AA	1238	G	O5'-P-OP2	-5.15	101.07	105.70
3	AA	2015	A	N9-C4-C5	5.15	107.86	105.80
32	A5	130	PRO	CA-N-CD	-5.15	104.29	111.50
3	CA	2700	A	N1-C6-N6	5.15	121.69	118.60
3	GA	1900	A	C8-N9-C4	-5.15	103.74	105.80
35	HA	741	G	O4'-C1'-N9	5.15	112.32	108.20
3	AA	776	G	C4-C5-C6	5.14	121.89	118.80
3	AA	2518	A	N1-C6-N6	5.14	121.69	118.60
3	CA	528	A	C5-C6-N1	-5.14	115.13	117.70
3	CA	2723	C	C6-N1-C2	-5.14	118.24	120.30
3	GA	1189	A	N9-C4-C5	5.14	107.86	105.80
3	GA	2069	G	N3-C4-C5	5.14	131.17	128.60
3	GA	2467	C	N3-C2-O2	-5.14	118.30	121.90
44	FK	125	LYS	CD-CE-NZ	5.14	123.53	111.70
3	GA	855	G	N3-C4-C5	-5.14	126.03	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AA	2422	C	N1-C2-O2	5.14	121.98	118.90
35	BA	319	G	C4-N9-C1'	-5.14	119.82	126.50
35	BA	1241	G	N3-C4-N9	-5.14	122.92	126.00
3	EA	2538	C	C6-N1-C2	5.14	122.36	120.30
3	EA	1738	G	C2-N3-C4	5.14	114.47	111.90
3	AA	1395	A	O4'-C1'-N9	5.14	112.31	108.20
35	BA	467	U	P-O3'-C3'	5.14	125.86	119.70
3	EA	984	A	C4-C5-N7	5.14	113.27	110.70
3	GA	2107	G	O4'-C1'-N9	-5.14	104.09	108.20
3	GA	2307	G	C5-C6-O6	5.14	131.68	128.60
3	CA	496	G	N3-C4-C5	5.13	131.17	128.60
3	GA	759	G	N1-C6-O6	5.13	122.98	119.90
35	FA	95	C	C6-N1-C2	-5.13	118.25	120.30
3	GA	2144	G	N3-C4-C5	-5.13	126.03	128.60
3	CA	2580	U	C5-C6-N1	5.13	125.26	122.70
50	DQ	6	ARG	NE-CZ-NH2	-5.13	117.74	120.30
3	GA	1916	A	C8-N9-C4	5.13	107.85	105.80
3	AA	1122	G	N3-C4-N9	-5.12	122.92	126.00
35	FA	1203	C	O5'-P-OP2	-5.12	101.09	105.70
3	EA	2076	U	N3-C2-O2	-5.12	118.61	122.20
35	FA	95	C	N1-C2-O2	5.12	121.97	118.90
35	FA	875	U	O5'-P-OP2	-5.12	101.09	105.70
3	AA	1355	G	N3-C2-N2	-5.12	116.31	119.90
3	AA	1639	C	C6-N1-C2	5.12	122.35	120.30
35	BA	479	U	O4'-C1'-N1	5.12	112.30	108.20
20	ET	7	LEU	CA-CB-CG	5.12	127.08	115.30
3	AA	1659	G	N3-C4-C5	5.12	131.16	128.60
3	AA	1524	G	C8-N9-C4	-5.12	104.35	106.40
3	EA	2546	U	N3-C2-O2	5.12	125.78	122.20
3	AA	1928	A	N1-C6-N6	5.12	121.67	118.60
3	GA	1840	G	C6-C5-N7	-5.11	127.33	130.40
35	FA	530	G	C8-N9-C4	-5.11	104.36	106.40
3	AA	1452	G	C4-C5-N7	5.11	112.84	110.80
35	FA	583	A	N9-C4-C5	5.11	107.84	105.80
35	HA	597	G	C8-N9-C4	-5.11	104.36	106.40
35	DA	1173	U	C5-C6-N1	5.11	125.25	122.70
3	EA	832	U	O5'-P-OP2	5.11	116.83	110.70
3	AA	2443	C	C6-N1-C2	-5.11	118.26	120.30
3	CA	1839	G	C5-C6-O6	-5.11	125.53	128.60
3	CA	2501	C	C2-N1-C1'	-5.11	113.18	118.80
3	EA	2256	G	N3-C4-N9	5.11	129.06	126.00
3	EA	2043	C	C6-N1-C2	5.11	122.34	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	CA	1069	A	C8-N9-C4	5.10	107.84	105.80
3	AA	699	A	N1-C6-N6	5.10	121.66	118.60
3	AA	752	A	C2-N3-C4	-5.10	108.05	110.60
35	BA	579	A	OP2-P-O3'	5.10	116.43	105.20
35	BA	869	G	C5-C6-O6	-5.10	125.54	128.60
22	AV	61	LEU	CA-CB-CG	5.10	127.03	115.30
1	GB	97	C	C6-N1-C2	-5.10	118.26	120.30
3	AA	807	U	N3-C4-O4	5.10	122.97	119.40
3	CA	1256	G	C8-N9-C4	-5.10	104.36	106.40
3	GA	2523	G	N1-C6-O6	5.10	122.96	119.90
35	DA	207	C	N3-C2-O2	-5.10	118.33	121.90
3	EA	375	G	C5-C6-N1	-5.10	108.95	111.50
3	EA	951	C	OP2-P-O3'	5.10	116.42	105.20
1	GB	33	G	N1-C6-O6	-5.10	116.84	119.90
3	CA	974	G	N9-C4-C5	-5.10	103.36	105.40
35	DA	313	A	N1-C6-N6	-5.10	115.54	118.60
3	AA	465	G	C4-C5-C6	5.09	121.86	118.80
35	BA	345	C	O5'-P-OP1	-5.09	101.11	105.70
3	CA	433	C	N3-C2-O2	-5.09	118.33	121.90
3	CA	469	G	C5-C6-O6	-5.09	125.54	128.60
3	CA	651	G	C5-C6-O6	-5.09	125.54	128.60
3	EA	855	G	C4-N9-C1'	5.09	133.12	126.50
35	FA	1418	A	N9-C4-C5	5.09	107.84	105.80
3	AA	376	G	C6-C5-N7	-5.09	127.34	130.40
3	AA	984	A	N1-C2-N3	5.09	131.85	129.30
9	AI	79	LEU	CA-CB-CG	5.09	127.01	115.30
35	BA	1322	C	N1-C2-O2	5.09	121.95	118.90
3	GA	546	U	C2-N1-C1'	5.09	123.81	117.70
35	FA	792	A	O4'-C1'-N9	5.09	112.27	108.20
3	CA	2544	G	C4-C5-C6	5.08	121.85	118.80
3	AA	1538	G	N3-C4-C5	5.08	131.14	128.60
3	EA	737	C	N3-C2-O2	5.08	125.46	121.90
3	EA	834	G	C4-C5-C6	5.08	121.85	118.80
3	GA	1071	G	N7-C8-N9	5.08	115.64	113.10
3	AA	2503	A	C5-C6-N1	5.08	120.24	117.70
35	FA	117	G	N1-C6-O6	5.08	122.95	119.90
3	GA	1189	A	C6-C5-N7	5.08	135.86	132.30
35	HA	1306	A	C8-N9-C4	-5.08	103.77	105.80
3	AA	1534	U	N1-C2-O2	5.08	126.35	122.80
35	DA	108	G	C4-N9-C1'	5.08	133.10	126.50
35	FA	852	G	C8-N9-C4	5.08	108.43	106.40
3	EA	1898	U	C5-C4-O4	5.08	128.95	125.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	CA	2581	G	N3-C2-N2	5.08	123.45	119.90
3	EA	1189	A	O5'-P-OP1	-5.08	101.13	105.70
35	FA	1483	A	O5'-P-OP1	-5.08	101.13	105.70
3	GA	836	G	C8-N9-C4	-5.08	104.37	106.40
3	EA	693	A	N1-C6-N6	-5.07	115.56	118.60
1	AB	114	C	C5-C4-N4	-5.07	116.65	120.20
35	BA	205	A	O4'-C1'-N9	-5.07	104.14	108.20
1	CB	61	G	O4'-C1'-N9	5.07	112.26	108.20
3	EA	695	G	N3-C4-N9	-5.07	122.96	126.00
3	EA	2351	G	C8-N9-C4	-5.07	104.37	106.40
10	GJ	25	LEU	CA-CB-CG	5.07	126.96	115.30
35	DA	115	G	P-O3'-C3'	5.07	125.78	119.70
55	FV	93	VAL	N-CA-C	-5.07	97.32	111.00
3	AA	403	U	P-O3'-C3'	5.07	125.78	119.70
3	AA	2455	G	O5'-P-OP2	-5.07	101.14	105.70
3	EA	798	G	N3-C4-C5	5.07	131.13	128.60
3	AA	1983	G	C5-C6-N1	-5.06	108.97	111.50
3	CA	53	A	O5'-P-OP2	5.06	116.78	110.70
3	AA	2198	A	O4'-C1'-N9	5.06	112.25	108.20
3	EA	828	U	O5'-P-OP1	-5.06	101.14	105.70
3	EA	1377	G	C6-C5-N7	-5.06	127.36	130.40
3	EA	503	A	N9-C4-C5	5.06	107.82	105.80
3	EA	1606	C	N3-C2-O2	-5.06	118.36	121.90
3	CA	2022	U	C5-C4-O4	-5.06	122.86	125.90
35	HA	1451	U	C5-C6-N1	5.06	125.23	122.70
3	AA	1779	U	C5-C6-N1	-5.06	120.17	122.70
3	GA	742	A	N9-C4-C5	5.06	107.82	105.80
32	C5	130	PRO	CA-N-CD	-5.06	104.42	111.50
35	BA	1336	C	P-O3'-C3'	5.05	125.76	119.70
3	EA	671	C	C6-N1-C2	-5.05	118.28	120.30
3	AA	2396	G	N1-C6-O6	-5.05	116.87	119.90
3	EA	1008	A	N1-C6-N6	-5.05	115.57	118.60
35	BA	780	A	N1-C6-N6	-5.05	115.57	118.60
3	EA	304	U	C5-C4-O4	5.05	128.93	125.90
3	EA	1051	G	N3-C4-N9	5.05	129.03	126.00
35	FA	1046	A	O4'-C1'-N9	5.05	112.24	108.20
3	CA	2056	G	C6-C5-N7	-5.04	127.37	130.40
35	FA	1526	G	OP2-P-O3'	5.04	116.30	105.20
3	AA	1606	C	P-O3'-C3'	5.04	125.75	119.70
3	CA	2678	C	N1-C2-O2	-5.04	115.87	118.90
35	DA	1279	G	N7-C8-N9	5.04	115.62	113.10
3	EA	1024	G	C4-C5-C6	5.04	121.83	118.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	GA	2685	G	C8-N9-C4	-5.04	104.38	106.40
3	AA	650	C	C6-N1-C2	-5.04	118.28	120.30
3	EA	1991	U	O5'-P-OP1	-5.04	101.16	105.70
3	GA	831	G	N3-C4-C5	5.04	131.12	128.60
3	GA	913	U	C5-C6-N1	5.04	125.22	122.70
3	GA	2251	G	C6-C5-N7	-5.04	127.38	130.40
1	EB	90	C	C6-N1-C2	-5.04	118.28	120.30
35	BA	1279	G	C6-C5-N7	-5.04	127.38	130.40
3	CA	789	A	O5'-P-OP1	-5.04	101.17	105.70
3	EA	783	A	C2-N3-C4	-5.04	108.08	110.60
3	AA	1533	C	C6-N1-C1'	-5.04	114.76	120.80
35	BA	713	G	N3-C4-N9	-5.04	122.98	126.00
3	CA	1174	U	C6-N1-C1'	-5.04	114.15	121.20
35	DA	187	G	C5-C6-N1	-5.04	108.98	111.50
3	EA	1831	G	N1-C6-O6	5.04	122.92	119.90
1	GB	33	G	C4-N9-C1'	-5.04	119.95	126.50
3	AA	2537	U	N1-C2-N3	5.03	117.92	114.90
1	GB	33	G	C6-C5-N7	5.03	133.42	130.40
3	EA	2040	G	O5'-P-OP1	-5.03	101.17	105.70
3	AA	2902	C	P-O3'-C3'	5.03	125.74	119.70
3	GA	818	G	C4-N9-C1'	5.03	133.04	126.50
3	GA	1187	G	C4-N9-C1'	5.03	133.04	126.50
35	HA	1053	G	C4-C5-N7	-5.03	108.79	110.80
3	AA	686	U	C2-N1-C1'	-5.03	111.67	117.70
35	FA	1302	C	O4'-C1'-N1	-5.03	104.18	108.20
3	GA	856	G	C4-N9-C1'	5.03	133.03	126.50
3	EA	1229	C	C6-N1-C2	-5.03	118.29	120.30
3	EA	2754	U	N3-C4-O4	5.03	122.92	119.40
3	GA	1909	C	O4'-C1'-N1	5.02	112.22	108.20
20	AT	29	THR	N-CA-C	5.02	124.56	111.00
3	EA	454	A	OP2-P-O3'	5.02	116.25	105.20
1	GB	75	G	N3-C4-C5	5.02	131.11	128.60
3	EA	695	G	C5-C6-N1	-5.02	108.99	111.50
3	AA	2551	C	O5'-P-OP1	-5.02	101.18	105.70
3	EA	226	A	N1-C6-N6	5.02	121.61	118.60
3	GA	1914	C	C6-N1-C2	-5.02	118.29	120.30
35	HA	1306	A	C2-N3-C4	5.02	113.11	110.60
3	AA	2448	A	C5-C6-N6	-5.02	119.69	123.70
3	AA	1314	C	C2-N1-C1'	5.01	124.32	118.80
3	AA	2278	A	OP2-P-O3'	5.01	116.23	105.20
3	CA	748	G	O4'-C1'-N9	5.01	112.21	108.20
3	EA	1678	A	C8-N9-C4	5.01	107.81	105.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AA	1997	C	O4'-C1'-N1	5.01	112.21	108.20
3	GA	1780	A	N1-C6-N6	5.01	121.61	118.60
3	GA	2743	U	O5'-P-OP2	-5.01	101.19	105.70
1	GB	48	U	O4'-C1'-N1	5.01	112.21	108.20
3	GA	1201	U	C5-C6-N1	5.01	125.20	122.70
3	EA	1292	G	C8-N9-C4	-5.01	104.40	106.40
3	CA	2607	G	N3-C4-C5	-5.00	126.10	128.60
35	HA	1324	A	C4-C5-C6	-5.00	114.50	117.00
35	HA	1520	C	C2-N1-C1'	5.00	124.31	118.80
3	AA	2443	C	N3-C4-N4	5.00	121.50	118.00
3	CA	2146	C	N3-C2-O2	-5.00	118.40	121.90
3	GA	1063	G	C4-N9-C1'	-5.00	120.00	126.50
3	GA	2395	C	C6-N1-C2	5.00	122.30	120.30
3	GA	2645	G	O5'-P-OP1	-5.00	101.20	105.70

There are no chirality outliers.

All (22) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
32	A5	130	PRO	Peptide
2	AC	233	GLY	Peptide
4	AD	9	VAL	Peptide
10	AJ	110	PRO	Peptide
11	AK	71	ARG	Peptide
39	BF	101	PRO	Peptide
45	BL	23	ALA	Peptide
55	BV	218	TRP	Peptide
4	CD	10	GLY	Peptide
4	CD	9	VAL	Peptide
42	DI	40	GLY	Peptide
45	DL	23	ALA	Peptide
53	DT	68	HIS	Peptide
55	DV	218	TRP	Peptide
4	ED	9	VAL	Peptide
39	FF	90	MET	Peptide
55	FV	218	TRP	Peptide
2	GC	233	GLY	Peptide
4	GD	9	VAL	Peptide
10	GJ	110	PRO	Peptide
45	HL	23	ALA	Peptide
55	HV	218	TRP	Peptide

5.2 Close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AB	2529	0	1281	20	0
1	CB	2529	0	1281	30	0
1	EB	2529	0	1281	33	0
1	GB	2529	0	1281	59	0
2	AC	2082	0	2157	52	0
2	CC	2082	0	2157	66	0
2	EC	2082	0	2157	65	0
2	GC	2082	0	2157	68	0
3	AA	61274	0	30819	778	0
3	CA	61274	0	30819	819	0
3	EA	61274	0	30819	734	0
3	GA	61274	0	30817	1239	2
4	AD	1565	0	1616	53	0
4	CD	1565	0	1616	49	0
4	ED	1565	0	1616	49	0
4	GD	1565	0	1616	48	0
5	AE	1552	0	1619	36	0
5	CE	1552	0	1619	44	0
5	EE	1552	0	1619	34	0
5	GE	1552	0	1619	72	0
6	AF	1410	0	1447	41	0
6	CF	1410	0	1447	39	0
6	EF	1410	0	1447	48	0
6	GF	1410	0	1447	57	0
7	AG	1323	0	1374	39	0
7	CG	1323	0	1374	50	0
7	EG	1323	0	1374	43	0
7	GG	1323	0	1374	56	0
8	AH	384	0	405	14	0
8	CH	384	0	405	20	0
8	EH	384	0	405	9	0
8	GH	384	0	405	7	0
9	AI	1032	0	1088	52	0
9	CI	1032	0	1088	38	0
9	EI	1032	0	1088	45	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	GI	1032	0	1088	64	0
10	AJ	1129	0	1162	53	0
10	CJ	1129	0	1162	54	0
10	EJ	1129	0	1162	49	0
10	GJ	1129	0	1162	53	0
11	AK	938	0	1012	40	0
11	CK	938	0	1012	38	0
11	EK	938	0	1012	32	0
11	GK	938	0	1012	24	0
12	AL	1045	0	1117	35	0
12	CL	1045	0	1116	36	0
12	EL	1045	0	1117	34	0
12	GL	1045	0	1117	52	0
13	AM	1074	0	1157	26	0
13	CM	1074	0	1157	32	0
13	EM	1074	0	1157	23	0
13	GM	1074	0	1157	26	0
14	AN	960	0	1000	30	0
14	CN	960	0	1000	34	0
14	EN	960	0	1000	24	0
14	GN	960	0	1000	23	0
15	AO	892	0	923	18	0
15	CO	892	0	923	27	0
15	EO	892	0	923	18	0
15	GO	892	0	923	32	0
16	AP	917	0	965	44	0
16	CP	917	0	965	41	0
16	EP	917	0	965	44	0
16	GP	917	0	965	36	0
17	AQ	947	0	1022	52	0
17	CQ	947	0	1022	50	0
17	EQ	947	0	1022	44	0
17	GQ	947	0	1022	56	0
18	AR	816	0	839	35	0
18	CR	816	0	839	36	0
18	ER	816	0	839	34	0
18	GR	816	0	839	46	0
19	AS	857	0	922	29	0
19	CS	857	0	922	18	0
19	ES	857	0	922	20	0
19	GS	857	0	922	29	0
20	AT	738	0	807	35	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
20	CT	738	0	807	26	0
20	ET	738	0	807	33	0
20	GT	738	0	807	29	0
21	AU	779	0	834	27	0
21	CU	779	0	834	12	0
21	EU	779	0	834	23	0
21	GU	779	0	834	29	0
22	AV	753	0	780	13	0
22	CV	753	0	780	17	0
22	EV	753	0	780	10	0
22	GV	753	0	780	13	0
23	AW	596	0	610	77	0
23	CW	596	0	610	62	0
23	EW	596	0	610	74	0
23	GW	596	0	610	60	0
24	AX	625	0	655	17	0
24	CX	625	0	655	14	0
24	EX	625	0	655	21	0
24	GX	625	0	655	18	0
25	AY	509	0	543	13	0
25	CY	509	0	543	9	0
25	EY	509	0	543	16	0
25	GY	509	0	543	11	0
26	AZ	449	0	491	16	0
26	CZ	449	0	491	21	0
26	EZ	449	0	491	10	0
26	GZ	449	0	491	27	0
27	A0	444	0	461	19	0
27	C0	444	0	461	17	0
27	E0	444	0	461	12	0
27	G0	444	0	461	8	0
28	A1	409	0	440	15	0
28	C1	409	0	440	11	0
28	E1	409	0	440	15	0
28	G1	409	0	440	17	0
29	A2	377	0	418	5	0
29	C2	377	0	418	11	0
29	E2	377	0	418	9	0
29	G2	377	0	418	17	0
30	A3	504	0	574	10	0
30	C3	504	0	574	7	0
30	E3	504	0	574	15	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
30	G3	504	0	574	27	0
31	A4	302	0	340	15	0
31	C4	302	0	340	12	0
31	E4	302	0	340	8	0
31	G4	302	0	340	12	0
32	A5	1117	0	1155	122	0
32	C5	1117	0	1155	136	0
32	E5	1101	0	1140	128	0
33	A6	227	0	237	7	0
34	BB	1704	0	1732	54	0
34	DB	1704	0	1732	62	0
34	FB	1704	0	1732	74	0
34	HB	1704	0	1732	58	0
35	BA	32895	0	16553	336	0
35	DA	32895	0	16553	472	0
35	FA	32895	0	16553	401	1
35	HA	32895	0	16552	581	0
36	BC	1624	0	1696	33	0
36	DC	1624	0	1696	41	0
36	FC	1624	0	1696	44	0
36	HC	1624	0	1696	35	0
37	BD	1643	0	1707	69	0
37	DD	1643	0	1707	63	0
37	FD	1643	0	1707	63	0
37	HD	1643	0	1707	73	0
38	BE	1105	0	1148	45	0
38	DE	1105	0	1148	35	0
38	FE	1105	0	1148	36	0
38	HE	1105	0	1148	36	0
39	BF	832	0	824	23	0
39	DF	817	0	808	36	0
39	FF	817	0	808	21	0
39	HF	817	0	808	36	0
40	BG	1181	0	1238	22	0
40	DG	1181	0	1238	30	0
40	FG	1181	0	1238	18	0
40	HG	1181	0	1238	50	0
41	BH	979	0	1031	28	0
41	DH	979	0	1031	25	0
41	FH	979	0	1031	28	0
41	HH	979	0	1031	33	0
42	BI	1022	0	1070	46	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
42	DI	1022	0	1070	39	0
42	FI	1022	0	1070	43	0
42	HI	1022	0	1070	38	0
43	BJ	786	0	828	23	0
43	DJ	786	0	828	28	0
43	FJ	786	0	828	18	1
43	HJ	786	0	828	29	0
44	BK	877	0	887	32	0
44	DK	877	0	887	40	0
44	FK	877	0	887	40	0
44	HK	877	0	887	57	0
45	BL	955	0	1016	36	0
45	DL	955	0	1016	37	0
45	FL	955	0	1016	33	0
45	HL	955	0	1016	41	0
46	BM	883	0	941	20	0
46	DM	883	0	941	33	0
46	FM	883	0	941	33	0
46	HM	883	0	941	39	0
47	BN	774	0	824	25	0
47	DN	774	0	824	31	0
47	FN	774	0	824	27	0
47	HN	774	0	824	28	0
48	BO	714	0	734	8	0
48	DO	714	0	734	13	0
48	FO	714	0	734	12	0
48	HO	714	0	734	18	0
49	BP	649	0	666	13	0
49	DP	649	0	666	17	0
49	FP	649	0	666	15	0
49	HP	649	0	666	12	0
50	BQ	648	0	691	11	0
50	DQ	648	0	691	33	0
50	FQ	648	0	691	23	0
50	HQ	648	0	691	28	0
51	BR	455	0	478	10	0
51	DR	455	0	478	9	0
51	FR	455	0	478	4	0
51	HR	455	0	478	24	0
52	BS	637	0	665	18	0
52	DS	637	0	665	14	0
52	FS	637	0	665	29	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	HS	637	0	665	32	0
53	BT	665	0	714	11	0
53	DT	665	0	714	23	0
53	FT	665	0	714	15	0
53	HT	665	0	714	13	0
54	BU	425	0	449	30	0
54	DU	425	0	449	17	0
54	FU	425	0	449	39	0
54	HU	425	0	449	27	0
55	BV	5345	0	5311	117	0
55	DV	5340	0	5306	132	0
55	FV	5340	0	5306	103	0
55	HV	5340	0	5307	116	0
56	BW	48	0	41	5	0
56	DW	48	0	41	5	0
56	FW	48	0	41	3	0
56	HW	48	0	40	6	0
57	A4	1	0	0	0	0
57	AA	136	0	0	0	0
57	AB	4	0	0	0	0
57	AC	1	0	0	0	0
57	AE	1	0	0	0	0
57	BA	40	0	0	0	0
57	BE	1	0	0	0	0
57	BN	1	0	0	0	0
57	BU	1	0	0	0	0
57	BV	1	0	0	0	0
57	C4	1	0	0	0	0
57	CA	136	0	0	0	0
57	CB	4	0	0	0	0
57	CE	1	0	0	0	0
57	CN	1	0	0	0	0
57	DA	43	0	0	0	0
57	DV	1	0	0	0	0
57	EA	137	0	0	0	0
57	EB	4	0	0	0	0
57	ED	1	0	0	0	0
57	EE	1	0	0	0	0
57	FA	39	0	0	0	0
57	FE	1	0	0	0	0
57	FN	2	0	0	0	0
57	FU	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	FV	1	0	0	0	0
57	GA	136	0	0	0	0
57	GB	4	0	0	0	0
57	GC	2	0	0	0	0
57	GL	1	0	0	0	0
57	HA	41	0	0	0	0
57	HE	1	0	0	0	0
57	HK	1	0	0	0	0
57	HV	1	0	0	0	0
58	A4	1	0	0	0	0
58	C4	1	0	0	0	0
58	E4	1	0	0	0	0
58	G4	1	0	0	0	0
59	BV	32	0	14	1	0
59	DV	32	0	14	2	0
59	FV	32	0	14	2	0
59	HV	32	0	14	1	0
60	A0	2	0	0	0	0
60	A2	1	0	0	0	0
60	A3	1	0	0	0	0
60	A4	1	0	0	0	0
60	AA	614	0	0	102	0
60	AB	18	0	0	1	0
60	AC	6	0	0	1	0
60	AD	4	0	0	0	0
60	AE	1	0	0	0	0
60	AF	1	0	0	0	0
60	AJ	1	0	0	0	0
60	AL	5	0	0	1	0
60	AN	2	0	0	0	0
60	AP	1	0	0	0	0
60	AQ	2	0	0	0	0
60	AS	1	0	0	0	0
60	BA	202	0	0	31	0
60	BL	1	0	0	0	0
60	BN	2	0	0	0	0
60	BT	2	0	0	0	0
60	BV	1	0	0	1	0
60	C0	1	0	0	0	0
60	C2	1	0	0	0	0
60	C3	1	0	0	0	0
60	C4	2	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	CA	607	0	0	84	0
60	CB	21	0	0	2	0
60	CC	8	0	0	0	0
60	CD	3	0	0	0	0
60	CE	1	0	0	0	0
60	CJ	2	0	0	1	0
60	CL	5	0	0	0	0
60	CN	2	0	0	0	0
60	CQ	1	0	0	1	0
60	CS	2	0	0	1	0
60	CT	2	0	0	1	0
60	CU	1	0	0	0	0
60	DA	186	0	0	27	0
60	DC	2	0	0	0	0
60	DD	1	0	0	0	0
60	DE	1	0	0	0	0
60	DG	1	0	0	0	0
60	DK	1	0	0	0	0
60	DL	2	0	0	0	0
60	DN	8	0	0	3	0
60	DQ	1	0	0	0	0
60	DT	4	0	0	1	0
60	DU	1	0	0	0	0
60	DV	1	0	0	0	0
60	E0	1	0	0	0	0
60	E2	1	0	0	0	0
60	E3	2	0	0	0	0
60	E4	2	0	0	0	0
60	EA	610	0	0	105	0
60	EB	18	0	0	3	0
60	EC	9	0	0	1	0
60	ED	3	0	0	0	0
60	EE	2	0	0	1	0
60	EL	4	0	0	0	0
60	EN	3	0	0	0	0
60	ER	1	0	0	0	0
60	ET	2	0	0	0	0
60	EV	2	0	0	0	0
60	FA	197	0	0	24	0
60	FC	1	0	0	0	0
60	FE	2	0	0	0	0
60	FN	3	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	FT	4	0	0	0	0
60	FU	1	0	0	0	0
60	FV	1	0	0	0	0
60	G2	2	0	0	0	0
60	G3	1	0	0	0	0
60	G4	1	0	0	0	0
60	GA	606	0	0	136	0
60	GB	19	0	0	9	0
60	GC	10	0	0	0	0
60	GD	3	0	0	0	0
60	GE	2	0	0	1	0
60	GJ	1	0	0	0	0
60	GL	4	0	0	1	0
60	GN	4	0	0	0	0
60	GQ	1	0	0	0	0
60	GR	2	0	0	1	0
60	GS	2	0	0	0	0
60	GU	1	0	0	0	0
60	GV	1	0	0	0	0
60	HA	193	0	0	31	0
60	HD	3	0	0	2	0
60	HE	3	0	0	0	0
60	HN	7	0	0	3	0
60	HQ	1	0	0	0	0
60	HT	1	0	0	0	0
60	HV	1	0	0	0	0
All	All	592086	0	404164	11056	2

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 12.

All (11056) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:C5:24:SER:CB	32:C5:116:GLU:HG2	1.46	1.44
32:C5:24:SER:O	32:C5:116:GLU:HB3	1.41	1.16
32:C5:24:SER:HB2	32:C5:116:GLU:CG	1.76	1.14
32:E5:24:SER:HB2	32:E5:116:GLU:HG2	1.27	1.14
3:AA:912:C:OP1	13:AM:8:LYS:NZ	1.79	1.12
32:A5:71:CYS:HB3	32:A5:117:LEU:HD12	1.33	1.10
32:C5:24:SER:HB2	32:C5:116:GLU:HG2	1.10	1.09
32:E5:117:LEU:HD22	32:E5:120:ALA:HA	1.25	1.09
32:E5:117:LEU:CD2	32:E5:120:ALA:HA	1.82	1.09

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:E5:26:VAL:HG21	32:E5:115:GLY:H	1.12	1.09
32:E5:26:VAL:CG2	32:E5:115:GLY:H	1.67	1.07
32:E5:24:SER:CB	32:E5:116:GLU:HG2	1.84	1.06
32:A5:26:VAL:HG21	32:A5:115:GLY:H	1.23	1.03
32:C5:24:SER:CB	32:C5:116:GLU:CG	2.35	1.00
32:C5:24:SER:HB3	32:C5:116:GLU:HG2	1.42	1.00
32:A5:3:LEU:O	32:A5:7:ASP:OD1	1.79	1.00
3:CA:1248:G:OP2	5:CE:44:ARG:NH1	1.95	1.00
42:HI:57:MET:N	42:HI:57:MET:SD	2.35	0.99
32:E5:26:VAL:HG21	32:E5:115:GLY:N	1.76	0.99
3:CA:996:A:OP2	17:CQ:91:ARG:NH2	1.95	0.99
3:AA:576:U:OP1	60:AA:3660:HOH:O	1.85	0.95
3:AA:1913:A:N7	55:BV:507:LYS:NZ	2.14	0.95
2:EC:78:GLU:OE1	2:EC:100:ARG:NH1	2.00	0.94
32:A5:117:LEU:CD2	32:A5:120:ALA:HA	1.97	0.94
3:EA:826:U:OP1	60:EA:3694:HOH:O	1.86	0.93
17:EQ:91:ARG:NH1	18:ER:11:GLN:O	2.02	0.93
32:A5:71:CYS:HB3	32:A5:117:LEU:CD1	1.98	0.92
35:DA:1178:G:O6	42:DI:99:ARG:NH2	2.03	0.92
3:AA:1154:G:OP2	17:AQ:57:ARG:NH1	2.03	0.91
32:C5:26:VAL:HG21	32:C5:115:GLY:H	1.33	0.91
32:E5:73:LYS:HG2	32:E5:117:LEU:HD21	1.52	0.91
8:CH:27:ARG:NH2	24:CX:59:ASP:OD1	2.03	0.91
35:BA:1493:A:OP1	56:BW:1:KBE:N	2.03	0.91
32:A5:71:CYS:CB	32:A5:117:LEU:HD12	2.00	0.91
3:EA:883:G:N2	3:EA:892:A:N7	2.18	0.90
3:GA:2306:C:N4	6:GF:38:GLY:O	2.04	0.90
3:AA:2279:G:N7	23:AW:10:ARG:NH2	2.20	0.90
3:CA:1154:G:OP2	17:CQ:57:ARG:NH1	2.05	0.90
1:AB:43:C:O2	6:AF:91:ARG:NH2	2.04	0.90
32:A5:24:SER:HB2	32:A5:116:GLU:HG2	1.54	0.90
3:AA:1248:G:OP2	5:AE:44:ARG:NH1	2.03	0.90
35:BA:1412:C:OP1	45:BL:54:ARG:NH1	2.05	0.90
1:CB:43:C:O2	6:CF:91:ARG:NH2	2.05	0.90
3:GA:2816:G:O3'	14:GN:99:LYS:NZ	2.05	0.90
3:AA:576:U:OP1	60:AA:3661:HOH:O	1.90	0.89
2:EC:5:CYS:SG	2:EC:12:ARG:NH1	2.46	0.89
3:AA:415:A:N7	60:AA:3556:HOH:O	2.04	0.89
32:A5:71:CYS:CB	32:A5:117:LEU:CD1	2.50	0.89
3:GA:2057:G:OP2	60:GA:3484:HOH:O	1.90	0.89
3:EA:1658:C:OP1	60:EA:3798:HOH:O	1.88	0.89
3:EA:973:A:OP2	18:ER:81:LYS:NZ	2.06	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AU:98:ASN:O	21:AU:100:GLU:N	2.06	0.89
3:AA:1336:A:OP2	20:AT:68:LYS:NZ	2.06	0.88
32:E5:30:SER:O	32:E5:31:ARG:HB2	1.73	0.88
40:DG:111:ARG:O	40:DG:119:ARG:NH2	2.06	0.88
3:GA:504:A:O2'	3:GA:505:A:OP1	1.92	0.88
35:HA:1493:A:OP1	56:HW:1:KBE:N	2.05	0.88
6:GF:134:GLN:O	6:GF:136:ILE:N	2.05	0.88
35:HA:429:U:OP2	37:HD:13:ARG:NH2	2.06	0.88
3:CA:948:C:O2	3:CA:984:A:O2'	1.92	0.87
3:GA:2499:C:OP2	60:GA:3673:HOH:O	1.92	0.87
32:C5:26:VAL:CG2	32:C5:115:GLY:H	1.87	0.87
37:HD:70:ARG:NH2	60:HD:303:HOH:O	2.07	0.87
3:GA:2448:A:OP2	60:GA:3675:HOH:O	1.92	0.87
35:BA:1178:G:O6	42:BI:99:ARG:NH2	2.08	0.87
3:AA:996:A:OP2	17:AQ:91:ARG:NH2	2.07	0.87
3:GA:878:A:N6	3:GA:899:A:O2'	2.07	0.87
52:BS:24:GLU:OE2	52:BS:24:GLU:N	2.07	0.87
35:HA:815:A:N7	35:HA:1509:C:O2'	2.07	0.87
3:GA:1828:G:OP2	60:GA:3729:HOH:O	1.94	0.86
55:HV:309:ARG:NH2	55:HV:402:ALA:O	2.08	0.86
1:EB:43:C:O2	6:EF:91:ARG:NH2	2.09	0.86
32:C5:71:CYS:HB3	32:C5:117:LEU:HD12	1.57	0.86
3:GA:991:C:OP2	60:GA:3588:HOH:O	1.93	0.86
36:FC:156:ARG:NH1	36:FC:160:ALA:O	2.08	0.86
35:FA:1178:G:O6	42:FI:99:ARG:NH2	2.09	0.86
42:BI:57:MET:O	42:BI:59:GLU:N	2.09	0.85
3:AA:1723:G:O6	3:AA:1737:G:O2'	1.94	0.85
32:E5:29:ASP:HA	32:E5:108:VAL:HG11	1.57	0.85
3:GA:1837:C:O2'	3:GA:1927:A:N3	2.06	0.85
35:HA:1288:A:N3	35:HA:1352:C:O2'	2.08	0.85
20:AT:39:THR:O	20:AT:41:ALA:N	2.09	0.85
35:HA:78:A:OP2	35:HA:80:A:N6	2.09	0.85
3:CA:1395:A:OP1	60:CA:3406:HOH:O	1.95	0.85
3:GA:2057:G:OP2	60:GA:3657:HOH:O	1.93	0.85
3:GA:804:A:N6	60:GA:3323:HOH:O	2.09	0.85
3:EA:1509:A:O2'	3:EA:1510:G:OP2	1.95	0.85
3:EA:733:G:N7	60:EA:3295:HOH:O	2.08	0.84
35:BA:978:A:OP2	35:BA:1362:A:N6	2.09	0.84
3:EA:2451:A:OP1	60:EA:3522:HOH:O	1.94	0.84
26:GZ:11:SER:O	26:GZ:15:ARG:NH1	2.10	0.84
3:CA:975:A:OP2	60:CA:3582:HOH:O	1.94	0.84
3:GA:223:A:N1	3:GA:407:G:O2'	2.11	0.84

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:981:A:OP1	60:AA:3587:HOH:O	1.95	0.84
3:CA:2308:G:O6	3:CA:2311:A:N6	2.10	0.84
3:EA:2331:G:O2'	23:EW:39:GLN:O	1.95	0.84
35:DA:362:G:N7	60:DA:1709:HOH:O	2.10	0.84
3:AA:1069:A:N3	3:AA:1073:A:N6	2.26	0.84
3:CA:504:A:O2'	3:CA:505:A:OP1	1.96	0.84
35:HA:995:C:N3	35:HA:1046:A:O2'	2.10	0.84
35:DA:934:C:OP1	60:DA:1763:HOH:O	1.94	0.84
3:AA:2053:G:N2	3:AA:2616:C:N3	2.24	0.84
32:C5:30:SER:O	32:C5:31:ARG:HB2	1.78	0.84
3:GA:2720:U:OP1	16:GP:52:ARG:NH2	2.11	0.84
10:EJ:49:ASP:OD1	10:EJ:121:LYS:NZ	2.10	0.84
35:FA:823:C:HO2'	41:FH:2:SER:N	1.76	0.84
3:GA:17:G:OP2	60:GA:3202:HOH:O	1.95	0.84
42:FI:57:MET:O	42:FI:59:GLU:N	2.11	0.83
47:FN:30:ILE:O	47:FN:35:ASN:ND2	2.11	0.83
3:GA:1369:G:N7	60:GA:3397:HOH:O	2.09	0.83
3:GA:2265:U:OP2	3:GA:2266:A:O2'	1.93	0.83
55:DV:219:HIS:O	55:DV:222:LEU:N	2.11	0.83
55:BV:219:HIS:O	55:BV:222:LEU:N	2.11	0.83
35:FA:1505:G:OP1	60:FA:1799:HOH:O	1.97	0.83
3:EA:995:C:O2	10:EJ:3:THR:OG1	1.97	0.83
40:DG:113:ASP:OD2	40:DG:122:ASN:ND2	2.11	0.83
3:GA:2502:G:OP1	60:GA:3487:HOH:O	1.97	0.83
32:E5:73:LYS:HB2	32:E5:117:LEU:HD11	1.61	0.83
32:E5:26:VAL:HG11	32:E5:77:VAL:HG13	1.60	0.83
3:CA:990:A:OP2	60:CA:3589:HOH:O	1.96	0.83
35:DA:1129:C:O2'	35:DA:1139:G:N7	2.10	0.83
35:HA:1064:G:O6	35:HA:1192:C:N4	2.12	0.83
35:HA:1187:G:O2'	42:HI:113:ARG:NH1	2.11	0.83
34:FB:83:ALA:O	34:FB:88:GLN:NE2	2.11	0.83
2:AC:196:ASN:O	2:AC:198:GLU:N	2.12	0.83
3:GA:263:G:O2'	3:GA:429:A:N3	2.12	0.82
32:A5:71:CYS:HA	32:A5:117:LEU:CD1	2.10	0.82
32:A5:77:VAL:C	32:A5:79:PRO:HD2	2.00	0.82
3:GA:1022:G:O2'	3:GA:1025:G:N2	2.12	0.82
3:AA:991:C:OP2	60:AA:3592:HOH:O	1.98	0.82
35:HA:579:A:O2'	48:HO:54:ARG:NH1	2.10	0.82
35:FA:362:G:N7	60:FA:1714:HOH:O	2.12	0.82
3:GA:192:C:N3	60:GA:3320:HOH:O	2.12	0.82
3:CA:1009:A:OP2	60:CA:3763:HOH:O	1.98	0.82
32:A5:33:VAL:N	32:A5:36:ASP:OD2	2.12	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:913:A:OP1	45:HL:43:LYS:NZ	2.11	0.82
3:AA:1824:G:OP2	60:AA:3650:HOH:O	1.95	0.82
3:AA:1371:G:N7	60:AA:3397:HOH:O	2.13	0.82
35:HA:33:A:O2'	45:HL:29:GLN:NE2	2.12	0.82
3:AA:526:A:OP1	60:AA:3246:HOH:O	1.98	0.82
35:BA:324:G:N7	60:BA:1845:HOH:O	2.13	0.82
32:E5:24:SER:O	32:E5:116:GLU:HB3	1.80	0.82
3:AA:504:A:O2'	3:AA:505:A:OP1	1.98	0.81
32:E5:26:VAL:CG2	32:E5:115:GLY:N	2.38	0.81
35:HA:1405:G:N2	35:HA:1518:A:N3	2.27	0.81
36:FC:40:ARG:NH1	36:FC:55:ILE:O	2.14	0.81
20:CT:39:THR:O	20:CT:41:ALA:N	2.14	0.81
32:A5:71:CYS:HA	32:A5:117:LEU:HD13	1.60	0.81
3:AA:1647:U:OP2	60:AA:3415:HOH:O	1.98	0.81
35:HA:692:U:O4	44:HK:57:LYS:NZ	2.13	0.81
3:GA:2331:G:O2'	23:GW:39:GLN:O	1.98	0.81
3:GA:2242:G:OP2	60:GA:3497:HOH:O	1.97	0.81
16:AP:50:ARG:HB3	16:AP:57:ALA:H	1.43	0.81
35:DA:869:G:OP2	60:DA:1812:HOH:O	1.99	0.81
3:EA:1671:U:O4	60:EA:3716:HOH:O	1.96	0.81
3:AA:1012:U:OP2	17:AQ:69:ARG:NH1	2.14	0.81
7:EG:1:SER:O	7:EG:3:VAL:N	2.13	0.81
15:AO:34:HIS:O	15:AO:102:ARG:NH1	2.14	0.81
37:BD:100:ASN:OD1	37:BD:111:ARG:NH1	2.13	0.81
4:CD:91:THR:O	4:CD:93:GLY:N	2.14	0.81
35:HA:581:G:N2	35:HA:760:G:N7	2.28	0.81
3:CA:84:A:N1	3:CA:98:G:O2'	2.14	0.81
52:FS:35:SER:HG	52:FS:38:SER:HG	1.23	0.81
37:DD:27:ALA:O	37:DD:31:LYS:NZ	2.14	0.81
21:GU:73:ASN:ND2	21:GU:80:ASP:OD2	2.14	0.81
3:EA:826:U:O3'	60:EA:3344:HOH:O	1.97	0.80
35:HA:1001:C:O2	35:HA:1039:G:N1	2.13	0.80
3:AA:1268:A:OP1	60:AA:3372:HOH:O	1.99	0.80
32:A5:103:ASN:ND2	32:A5:107:GLU:O	2.13	0.80
3:CA:1509:A:O2'	3:CA:1510:G:OP2	1.99	0.80
3:EA:622:G:OP2	60:EA:3800:HOH:O	1.98	0.80
35:BA:1029:U:O2'	35:BA:1033:G:N2	2.14	0.80
10:EJ:43:GLU:O	10:EJ:45:THR:N	2.14	0.80
55:HV:422:PRO:O	55:HV:424:THR:N	2.14	0.80
15:GO:85:LYS:HB2	15:GO:87:ILE:HG12	1.61	0.80
35:HA:988:G:HO2'	35:HA:1015:G:H1	1.26	0.80
35:HA:961:U:O2	35:HA:1201:A:N6	2.15	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:1229:A:OP2	46:HM:113:ARG:NH1	2.15	0.80
3:GA:1011:G:OP2	17:GQ:65:ASN:ND2	2.15	0.80
3:AA:1783:A:OP1	60:AA:3688:HOH:O	1.98	0.80
3:CA:946:C:OP2	60:CA:3339:HOH:O	1.98	0.80
35:DA:483:C:O2	49:DP:13:LYS:NZ	2.14	0.80
37:HD:197:GLU:O	37:HD:200:ILE:N	2.14	0.80
3:GA:675:A:O5'	60:GA:3323:HOH:O	1.99	0.80
3:EA:1153:C:OP2	60:EA:3358:HOH:O	2.00	0.80
3:GA:1960:A:OP2	60:GA:3453:HOH:O	1.99	0.80
55:BV:93:VAL:O	55:BV:95:PHE:N	2.15	0.79
3:CA:982:C:OP1	60:CA:3562:HOH:O	1.99	0.79
3:AA:2720:U:OP1	16:AP:52:ARG:NH2	2.15	0.79
3:CA:1998:A:OP2	4:CD:141:ARG:NH2	2.15	0.79
3:AA:2448:A:OP2	60:AA:3676:HOH:O	2.00	0.79
3:CA:1782:U:O3'	60:CA:3686:HOH:O	2.00	0.79
3:EA:2352:A:N1	23:EW:30:VAL:HG11	1.97	0.79
3:GA:941:A:O2'	3:GA:1190:G:O3'	2.00	0.79
3:CA:927:A:O2'	26:CZ:38:GLU:OE1	2.01	0.79
35:FA:913:A:OP1	45:FL:43:LYS:NZ	2.14	0.79
3:AA:975:A:OP2	60:AA:3583:HOH:O	2.00	0.79
3:AA:945:A:OP2	60:AA:3341:HOH:O	1.98	0.79
3:EA:2057:G:OP2	60:EA:3487:HOH:O	2.00	0.79
3:AA:733:G:OP1	60:AA:3293:HOH:O	2.01	0.79
32:A5:33:VAL:HG12	32:A5:34:THR:H	1.48	0.79
32:A5:43:LYS:NZ	32:A5:98:GLU:OE1	2.16	0.79
35:FA:891:U:OP2	60:FA:1764:HOH:O	1.97	0.79
35:BA:964:A:OP1	60:BA:1830:HOH:O	2.01	0.79
35:HA:1262:C:N4	35:HA:1273:C:N3	2.30	0.79
55:BV:422:PRO:O	55:BV:424:THR:N	2.14	0.79
26:CZ:26:LEU:O	26:CZ:37:ARG:NH1	2.16	0.79
11:AK:105:ARG:NH1	11:AK:106:GLU:OE2	2.16	0.79
35:BA:934:C:OP1	60:BA:1767:HOH:O	2.01	0.79
55:DV:93:VAL:O	55:DV:95:PHE:N	2.16	0.79
3:GA:684:G:OP1	29:G2:16:HIS:ND1	2.16	0.79
2:CC:196:ASN:O	2:CC:198:GLU:N	2.15	0.79
35:BA:8:A:N6	37:BD:202:GLU:O	2.16	0.79
3:EA:1054:A:OP1	32:E5:31:ARG:NH2	2.16	0.78
55:DV:78:GLN:NE2	55:DV:280:ASP:OD2	2.16	0.78
60:GA:3492:HOH:O	5:GE:63:LYS:NZ	2.15	0.78
3:CA:1669:A:OP2	60:CA:3709:HOH:O	2.01	0.78
32:E5:33:VAL:HG12	32:E5:34:THR:H	1.46	0.78
21:EU:98:ASN:O	21:EU:100:GLU:N	2.17	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1938:A:OP2	60:GA:3715:HOH:O	2.02	0.78
36:FC:89:LYS:NZ	36:FC:93:ASP:OD1	2.16	0.78
32:C5:24:SER:O	32:C5:116:GLU:CB	2.27	0.78
13:EM:22:GLN:O	13:EM:24:THR:N	2.17	0.78
32:C5:33:VAL:HG12	32:C5:34:THR:H	1.47	0.78
35:BA:1197:A:OP1	60:BA:1833:HOH:O	2.01	0.78
3:AA:579:G:OP1	60:AA:3270:HOH:O	2.01	0.78
3:GA:1156:A:O4'	17:GQ:50:ARG:NH1	2.15	0.78
32:C5:29:ASP:HA	32:C5:108:VAL:HG11	1.64	0.78
35:DA:880:C:OP1	45:DL:9:ARG:NH1	2.17	0.78
35:HA:362:G:N7	60:HA:1711:HOH:O	2.16	0.78
55:FV:79:TYR:OH	55:FV:284:ASP:OD1	2.01	0.78
3:EA:2107:G:N1	3:EA:2182:U:O2'	2.15	0.78
23:EW:41:GLY:O	23:EW:43:LYS:N	2.16	0.78
39:HF:38:ARG:NH1	39:HF:63:ASN:OD1	2.17	0.78
3:EA:731:C:OP2	60:EA:3688:HOH:O	2.02	0.78
3:CA:981:A:OP1	60:CA:3584:HOH:O	2.01	0.78
3:GA:1647:U:OP2	60:GA:3415:HOH:O	2.01	0.78
35:BA:1028:C:N4	35:BA:1029:U:O2	2.17	0.78
35:FA:1468:A:H2'	35:FA:1469:C:H5'	1.66	0.78
35:HA:939:G:O2'	35:HA:1375:A:N3	2.16	0.78
3:GA:1772:A:O3'	60:GA:3439:HOH:O	2.02	0.78
3:AA:1509:A:O2'	3:AA:1510:G:OP2	2.01	0.78
3:AA:946:C:OP2	60:AA:3341:HOH:O	2.02	0.78
4:AD:184:ARG:NH1	16:AP:6:GLN:OE1	2.17	0.78
3:CA:1265:A:OP2	60:CA:3734:HOH:O	2.02	0.78
35:HA:415:A:N7	60:HA:1718:HOH:O	2.17	0.78
3:GA:1095:A:N7	55:HV:631:VAL:N	2.31	0.78
3:GA:839:U:O2'	3:GA:1191:G:N3	2.17	0.78
10:GJ:34:ARG:NH1	10:GJ:39:LYS:O	2.17	0.78
3:AA:1828:G:OP1	60:AA:3451:HOH:O	2.02	0.78
35:BA:1033:G:H2'	35:BA:1034:G:H5'	1.64	0.77
3:GA:410:G:OP2	60:GA:3556:HOH:O	2.02	0.77
35:BA:21:G:OP1	60:BA:1817:HOH:O	2.01	0.77
3:GA:572:A:OP1	60:GA:3559:HOH:O	2.01	0.77
25:AY:18:LEU:O	25:AY:22:LEU:N	2.17	0.77
37:BD:35:GLU:O	37:BD:37:ALA:N	2.17	0.77
3:GA:964:C:O2'	3:GA:2273:A:N3	2.16	0.77
35:DA:289:G:OP2	60:DA:1876:HOH:O	2.03	0.77
2:AC:269:ARG:NH2	3:AA:1799:G:OP2	2.16	0.77
23:CW:41:GLY:O	23:CW:43:LYS:N	2.16	0.77
35:BA:1095:U:OP2	60:BA:1860:HOH:O	2.01	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:FK:125:LYS:O	54:FU:34:ARG:NH2	2.16	0.77
42:HI:114:LYS:NZ	42:HI:118:LEU:O	2.17	0.77
3:GA:1782:U:O2	3:GA:2608:G:O2'	2.02	0.77
32:A5:117:LEU:HD23	32:A5:120:ALA:HA	1.65	0.77
3:EA:1664:A:OP2	60:EA:3423:HOH:O	2.01	0.77
32:A5:91:ALA:C	32:A5:93:ALA:H	1.87	0.77
35:FA:964:A:OP1	60:FA:1829:HOH:O	2.03	0.77
35:DA:754:C:OP1	48:DO:72:ARG:NH2	2.18	0.77
2:AC:69:ASN:O	2:AC:71:ASP:N	2.18	0.77
3:EA:1669:A:OP2	60:EA:3716:HOH:O	2.03	0.77
3:GA:2529:G:OP1	7:GG:174:LYS:NZ	2.16	0.77
3:GA:1062:G:O6	3:GA:1076:C:N4	2.18	0.77
41:FH:82:GLY:O	50:FQ:36:LYS:NZ	2.17	0.77
3:EA:975:A:OP2	60:EA:3588:HOH:O	2.01	0.77
37:DD:13:ARG:NH1	37:DD:37:ALA:O	2.17	0.77
32:A5:71:CYS:CA	32:A5:117:LEU:CD1	2.62	0.77
14:GN:58:ASP:OD2	14:GN:63:ARG:NH2	2.18	0.77
44:HK:26:SER:OG	44:HK:29:ASN:O	2.01	0.76
55:HV:98:GLU:O	55:HV:102:SER:OG	2.01	0.76
32:A5:35:VAL:HA	32:A5:38:MET:SD	2.24	0.76
3:GA:2011:U:OP1	19:GS:42:LYS:NZ	2.17	0.76
3:AA:526:A:OP1	60:AA:3248:HOH:O	2.02	0.76
3:EA:2503:A:OP1	60:EA:3664:HOH:O	2.02	0.76
3:GA:1044:C:O2'	3:GA:1111:A:N1	2.18	0.76
35:HA:1310:G:OP1	46:HM:79:ARG:NH2	2.19	0.76
3:GA:1270:C:N4	60:GA:3377:HOH:O	2.19	0.76
42:FI:42:GLU:O	42:FI:44:ALA:N	2.18	0.76
32:E5:73:LYS:CG	32:E5:117:LEU:HD21	2.16	0.76
3:CA:2279:G:N7	23:CW:10:ARG:NH2	2.33	0.76
35:DA:1074:G:O2'	35:DA:1101:A:N1	2.16	0.76
55:FV:100:GLU:OE2	55:FV:133:TYR:OH	2.03	0.76
2:AC:68:ARG:NH2	2:AC:126:GLY:O	2.18	0.76
35:DA:683:G:N2	44:DK:39:GLY:O	2.18	0.76
49:DP:4:ILE:HG13	49:DP:21:VAL:HG12	1.68	0.76
15:CO:111:ARG:NH2	15:CO:115:LEU:O	2.19	0.76
3:CA:1723:G:O6	3:CA:1737:G:O2'	2.03	0.76
3:AA:410:G:OP2	60:AA:3557:HOH:O	2.03	0.76
3:EA:740:C:OP2	60:EA:3690:HOH:O	2.04	0.76
35:FA:1522:U:OP1	44:FK:128:ARG:NH2	2.18	0.76
3:AA:1380:G:OP2	60:AA:3740:HOH:O	2.03	0.76
35:HA:1245:C:O2	35:HA:1292:G:N2	2.18	0.76
3:GA:301:G:OP2	21:GU:81:ARG:NH1	2.19	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:HE:41:ASP:OD2	38:HE:43:ASN:N	2.19	0.76
3:AA:1186:G:OP2	60:AA:3591:HOH:O	2.04	0.76
3:GA:1938:A:OP2	60:GA:3714:HOH:O	2.04	0.76
35:BA:1522:U:OP1	44:BK:128:ARG:NH2	2.19	0.76
3:CA:2146:C:N4	3:GA:2143:C:O2'	2.18	0.76
3:CA:2589:A:OP1	60:CA:3309:HOH:O	2.04	0.76
35:HA:1027:C:HO2'	35:HA:1034:G:N2	1.84	0.76
34:FB:14:HIS:O	34:FB:14:HIS:ND1	2.19	0.76
35:HA:781:A:O2'	35:HA:1522:U:O2	2.04	0.75
3:GA:636:G:N1	12:GL:76:GLU:OE2	2.19	0.75
38:DE:41:ASP:OD1	38:DE:43:ASN:N	2.19	0.75
3:EA:301:G:OP2	21:EU:81:ARG:NH1	2.18	0.75
35:HA:905:U:OP2	60:HA:1757:HOH:O	2.04	0.75
46:DM:85:CYS:SG	46:DM:88:GLY:N	2.59	0.75
51:DR:37:GLY:O	51:DR:63:ARG:NH2	2.18	0.75
15:GO:108:ASP:OD1	15:GO:111:ARG:NH2	2.18	0.75
35:DA:1492:A:H2'	35:DA:1493:A:H5'	1.69	0.75
2:CC:259:ASN:OD1	2:CC:262:THR:N	2.18	0.75
3:EA:2428:G:OP1	60:EA:3694:HOH:O	2.03	0.75
3:AA:2006:C:OP1	60:AA:3372:HOH:O	2.05	0.75
32:E5:43:LYS:NZ	32:E5:98:GLU:OE1	2.19	0.75
3:AA:1153:C:OP2	60:AA:3353:HOH:O	2.04	0.75
3:AA:2025:C:OP2	60:AA:3470:HOH:O	2.03	0.75
35:HA:1166:G:N1	35:HA:1169:A:OP2	2.18	0.75
36:DC:20:SER:OG	36:DC:40:ARG:NH2	2.19	0.75
35:BA:980:C:OP2	60:BA:1835:HOH:O	2.04	0.75
45:FL:44:LYS:HB3	45:FL:45:PRO:HD3	1.69	0.75
3:EA:2447:G:N3	60:EA:3678:HOH:O	2.18	0.75
1:AB:23:G:O6	60:AB:1307:HOH:O	2.05	0.75
35:FA:1064:G:O2'	35:FA:1190:G:N2	2.19	0.75
36:BC:36:ASP:OD1	36:BC:59:ARG:NH1	2.19	0.75
3:EA:31:C:OP1	60:EA:3699:HOH:O	2.03	0.75
3:CA:761:A:N7	60:CA:3292:HOH:O	2.18	0.75
3:EA:2503:A:OP1	60:EA:3665:HOH:O	2.04	0.75
37:DD:197:GLU:O	37:DD:200:ILE:N	2.20	0.75
3:GA:1658:C:OP1	60:GA:3643:HOH:O	2.04	0.75
35:FA:1508:A:OP1	60:FA:1799:HOH:O	2.05	0.75
55:HV:93:VAL:O	55:HV:95:PHE:N	2.20	0.75
3:EA:1783:A:OP1	60:EA:3691:HOH:O	2.05	0.75
3:EA:1534:U:O2'	3:EA:1537:G:O6	2.03	0.75
16:EP:50:ARG:HB3	16:EP:57:ALA:H	1.52	0.75
3:GA:2503:A:OP1	60:GA:3483:HOH:O	2.05	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:E5:35:VAL:HA	32:E5:38:MET:SD	2.27	0.75
3:CA:1265:A:OP2	60:CA:3735:HOH:O	2.04	0.75
3:EA:975:A:OP2	60:EA:3585:HOH:O	2.03	0.75
3:CA:1332:G:OP1	60:CA:3747:HOH:O	2.05	0.75
6:EF:1:ALA:O	6:EF:3:LEU:N	2.20	0.75
3:EA:2005:A:OP1	60:EA:3381:HOH:O	2.04	0.75
3:EA:548:G:O2'	3:EA:549:G:N2	2.20	0.75
1:GB:95:U:O4	60:GB:1312:HOH:O	2.04	0.75
35:HA:1243:C:O2	35:HA:1294:G:N1	2.20	0.74
3:CA:1153:C:OP2	60:CA:3352:HOH:O	2.04	0.74
3:CA:816:C:OP2	60:CA:3362:HOH:O	2.05	0.74
47:BN:31:ILE:H	47:BN:31:ILE:HD12	1.50	0.74
3:EA:2575:C:OP2	60:EA:3706:HOH:O	2.05	0.74
3:GA:990:A:OP2	60:GA:3588:HOH:O	2.05	0.74
3:CA:945:A:OP2	60:CA:3339:HOH:O	2.05	0.74
1:GB:23:G:O6	60:GB:1310:HOH:O	2.05	0.74
55:BV:142:ASN:OD1	55:BV:143:LYS:N	2.19	0.74
3:EA:572:A:OP2	18:ER:80:ARG:NH2	2.20	0.74
3:EA:2268:A:OP1	60:EA:3508:HOH:O	2.04	0.74
3:EA:1153:C:OP2	60:EA:3359:HOH:O	2.05	0.74
3:CA:2499:C:OP2	60:CA:3672:HOH:O	2.04	0.74
3:GA:980:A:O3'	60:GA:3583:HOH:O	2.04	0.74
3:CA:1106:G:OP1	32:C5:62:ARG:NH2	2.20	0.74
35:HA:1197:A:OP1	60:HA:1825:HOH:O	2.04	0.74
3:EA:2429:G:OP1	60:EA:3694:HOH:O	2.06	0.74
23:EW:36:ILE:O	23:EW:39:GLN:NE2	2.21	0.74
3:CA:1186:G:OP2	60:CA:3591:HOH:O	2.03	0.74
55:HV:219:HIS:O	55:HV:222:LEU:N	2.19	0.74
3:GA:372:G:O2'	3:GA:400:G:O6	2.04	0.74
35:HA:1451:U:O2'	35:HA:1452:C:OP2	2.05	0.74
32:E5:57:ASN:O	32:E5:59:LEU:N	2.19	0.74
32:C5:77:VAL:C	32:C5:79:PRO:HD2	2.07	0.74
42:BI:57:MET:SD	42:BI:58:VAL:N	2.61	0.74
3:AA:1187:G:OP1	18:AR:85:LYS:NZ	2.19	0.74
32:C5:26:VAL:HG21	32:C5:115:GLY:N	2.02	0.74
3:CA:971:G:OP2	3:CA:974:G:N2	2.21	0.74
34:FB:182:VAL:N	34:FB:196:ASP:OD2	2.19	0.74
35:FA:195:A:OP2	60:FA:1875:HOH:O	2.04	0.74
35:DA:573:A:OP2	60:DA:1733:HOH:O	2.05	0.74
3:CA:468:G:N7	29:C2:39:ARG:NH2	2.36	0.74
4:GD:91:THR:O	4:GD:93:GLY:N	2.21	0.74
35:FA:563:A:OP1	60:FA:1732:HOH:O	2.05	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:510:A:N7	60:DA:1719:HOH:O	2.21	0.74
3:GA:214:G:N2	3:GA:216:A:N3	2.36	0.74
42:DI:57:MET:O	42:DI:59:GLU:N	2.20	0.74
3:AA:1342:A:O2'	3:AA:1344:U:OP2	2.04	0.74
3:AA:2707:U:O2	14:AN:71:ARG:NH1	2.20	0.74
3:AA:2503:A:OP1	60:AA:3660:HOH:O	2.04	0.74
3:AA:2579:C:OP1	60:AA:3536:HOH:O	2.05	0.74
14:CN:117:ASP:O	14:CN:119:SER:N	2.21	0.74
35:FA:1050:G:O6	60:FA:1778:HOH:O	2.06	0.74
3:CA:740:C:OP2	60:CA:3685:HOH:O	2.06	0.74
3:CA:862:G:OP2	60:CA:3712:HOH:O	2.05	0.74
35:HA:869:G:N7	60:HA:1815:HOH:O	2.21	0.74
3:GA:161:A:H3'	3:GA:162:U:H5''	1.69	0.74
21:GU:98:ASN:O	21:GU:100:GLU:N	2.21	0.74
3:GA:945:A:OP2	60:GA:3341:HOH:O	2.06	0.74
4:AD:91:THR:O	4:AD:93:GLY:N	2.21	0.74
15:CO:34:HIS:O	15:CO:102:ARG:NH1	2.21	0.74
35:FA:579:A:O2'	48:FO:54:ARG:NH1	2.21	0.74
1:GB:59:A:N7	60:GB:1307:HOH:O	2.21	0.74
31:A4:11:CYS:SG	31:A4:14:CYS:N	2.60	0.74
55:FV:219:HIS:O	55:FV:222:LEU:N	2.21	0.74
14:EN:98:LEU:HB3	27:E0:42:ILE:HD11	1.69	0.74
32:E5:71:CYS:HA	32:E5:117:LEU:CD1	2.18	0.73
3:EA:1664:A:OP1	60:EA:3426:HOH:O	2.05	0.73
35:BA:560:A:OP2	60:BA:1734:HOH:O	2.05	0.73
55:FV:92:HIS:O	55:FV:122:GLN:NE2	2.20	0.73
35:FA:1505:G:OP1	60:FA:1800:HOH:O	2.06	0.73
35:DA:1505:G:OP2	60:DA:1860:HOH:O	2.05	0.73
32:A5:131:THR:O	32:A5:134:GLU:N	2.20	0.73
3:CA:450:G:OP2	60:CA:3240:HOH:O	2.06	0.73
32:C5:129:LEU:O	32:C5:131:THR:N	2.20	0.73
16:GP:4:ILE:O	16:GP:6:GLN:N	2.22	0.73
35:BA:533:A:OP1	60:BA:1847:HOH:O	2.05	0.73
56:DW:3:SER:OG	56:DW:4:SER:N	2.22	0.73
35:HA:411:A:OP1	37:HD:26:ARG:NH2	2.21	0.73
10:CJ:36:LEU:O	10:CJ:121:LYS:NZ	2.21	0.73
35:HA:1134:G:N2	35:HA:1140:C:N3	2.36	0.73
50:HQ:4:LYS:HZ2	50:HQ:4:LYS:N	1.85	0.73
32:A5:57:ASN:O	32:A5:59:LEU:N	2.21	0.73
3:EA:2499:C:OP2	60:EA:3679:HOH:O	2.07	0.73
35:BA:1524:C:OP1	44:BK:125:LYS:NZ	2.20	0.73
3:AA:2331:G:O2'	23:AW:39:GLN:O	2.04	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:1970:A:OP2	60:AA:3466:HOH:O	2.07	0.73
32:C5:71:CYS:CB	32:C5:117:LEU:HD12	2.18	0.73
3:EA:2582:G:OP2	60:EA:3700:HOH:O	2.04	0.73
3:AA:572:A:OP2	18:AR:80:ARG:NH2	2.21	0.73
35:HA:483:C:O2	49:HP:13:LYS:NZ	2.21	0.73
3:EA:802:A:OP1	60:EA:3328:HOH:O	2.04	0.73
3:AA:1998:A:OP2	4:AD:141:ARG:NH2	2.21	0.73
32:E5:71:CYS:HB3	32:E5:117:LEU:HD12	1.71	0.73
10:AJ:43:GLU:O	10:AJ:45:THR:N	2.22	0.73
3:AA:2592:G:OP1	60:AA:3459:HOH:O	2.06	0.73
3:GA:761:A:N7	60:GA:3292:HOH:O	2.20	0.73
34:HB:135:MET:N	34:HB:135:MET:SD	2.62	0.73
3:GA:29:U:OP2	60:GA:3207:HOH:O	2.07	0.73
35:HA:903:G:N7	60:HA:1759:HOH:O	2.21	0.73
3:GA:1798:U:OP2	2:GC:270:ARG:NH2	2.21	0.73
35:HA:674:G:N2	35:HA:717:U:O2	2.22	0.73
3:EA:1998:A:OP2	4:ED:141:ARG:NH2	2.21	0.73
10:EJ:41:LYS:NZ	10:EJ:52:ASP:OD1	2.21	0.73
42:HI:92:GLU:OE1	42:HI:95:ARG:NH2	2.21	0.73
3:EA:1799:G:OP2	2:EC:269:ARG:NH2	2.22	0.73
32:A5:1:MET:SD	32:A5:2:ALA:N	2.58	0.73
35:FA:2:A:O3'	37:FD:83:LYS:NZ	2.21	0.73
3:AA:1439:A:OP2	60:AA:3623:HOH:O	2.07	0.73
48:DO:14:GLU:O	48:DO:84:ARG:NH2	2.21	0.73
10:EJ:4:PHE:N	10:EJ:44:TYR:OH	2.22	0.72
32:C5:36:ASP:O	32:C5:39:THR:OG1	2.07	0.72
7:AG:22:VAL:HG12	7:AG:36:LEU:CD1	2.19	0.72
47:FN:91:GLY:O	47:FN:93:ILE:N	2.22	0.72
3:AA:2056:G:OP2	60:AA:3481:HOH:O	2.06	0.72
54:HU:44:GLU:OE2	54:HU:45:ARG:NH1	2.22	0.72
3:EA:2640:G:OP1	10:EJ:96:ARG:NH1	2.21	0.72
3:EA:2522:U:O2'	3:EA:2647:U:OP1	2.06	0.72
3:CA:1013:C:OP2	60:CA:3593:HOH:O	2.07	0.72
3:CA:2331:G:O2'	23:CW:39:GLN:O	2.02	0.72
35:HA:892:A:OP2	60:HA:1758:HOH:O	2.07	0.72
35:HA:652:U:O4	35:HA:752:G:O2'	2.06	0.72
35:FA:1228:C:OP1	46:FM:107:ARG:NH2	2.22	0.72
3:GA:613:A:N6	3:GA:617:G:N3	2.37	0.72
35:DA:935:A:O2'	35:DA:1383:C:N3	2.23	0.72
3:EA:730:A:OP2	60:EA:3688:HOH:O	2.08	0.72
3:CA:530:G:O4'	60:CA:3652:HOH:O	2.05	0.72
3:GA:1154:G:OP2	17:GQ:57:ARG:NH1	2.21	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:EC:69:ASN:O	2:EC:71:ASP:N	2.23	0.72
3:GA:2252:G:OP1	60:GA:3502:HOH:O	2.06	0.72
3:EA:1253:A:OP1	17:EQ:32:ARG:NH1	2.21	0.72
3:EA:962:G:OP1	60:EA:3356:HOH:O	2.07	0.72
3:GA:1342:A:OP2	60:GA:3797:HOH:O	2.06	0.72
3:GA:514:A:N3	3:GA:581:C:O2'	2.21	0.72
3:EA:1106:G:OP1	32:E5:62:ARG:NH2	2.22	0.72
35:FA:1126:U:O4	43:FJ:9:ARG:NH1	2.23	0.72
25:EY:15:ASN:O	25:EY:19:LEU:N	2.22	0.72
35:FA:1242:G:O2'	60:FA:1790:HOH:O	2.02	0.72
1:GB:60:C:OP2	60:GB:1309:HOH:O	2.07	0.72
3:CA:2873:A:OP1	60:CA:3784:HOH:O	2.08	0.72
42:BI:56:ASP:O	42:BI:60:LYS:NZ	2.19	0.72
3:CA:1153:C:OP2	60:CA:3351:HOH:O	2.08	0.72
47:FN:20:TYR:O	47:FN:24:ARG:N	2.23	0.72
15:CO:57:ALA:O	15:CO:59:ALA:N	2.22	0.72
39:HF:90:MET:SD	51:HR:61:ARG:NE	2.63	0.72
3:GA:120:U:OP1	60:GA:3215:HOH:O	2.07	0.72
46:HM:57:ARG:HA	46:HM:60:VAL:HG12	1.71	0.72
35:DA:857:C:OP2	60:DA:1811:HOH:O	2.06	0.72
32:A5:106:PHE:O	32:A5:108:VAL:N	2.23	0.72
3:GA:1095:A:C5	55:HV:628:THR:HA	2.25	0.72
3:EA:1325:U:OP1	60:EA:3384:HOH:O	2.08	0.72
3:GA:576:U:H2'	3:GA:577:G:C8	2.24	0.72
3:GA:975:A:OP2	60:GA:3579:HOH:O	2.08	0.72
3:AA:990:A:OP2	60:AA:3590:HOH:O	2.06	0.72
3:GA:453:A:OP2	60:GA:3240:HOH:O	2.07	0.72
3:CA:954:G:OP2	13:CM:16:ARG:NH2	2.22	0.72
47:DN:7:LYS:NZ	60:DN:204:HOH:O	2.21	0.72
44:FK:88:GLY:O	44:FK:93:ARG:NH1	2.23	0.72
3:CA:962:G:OP1	60:CA:3349:HOH:O	2.08	0.72
32:E5:24:SER:HB3	32:E5:116:GLU:HG2	1.72	0.71
35:BA:892:A:OP2	60:BA:1764:HOH:O	2.08	0.71
20:GT:39:THR:O	20:GT:41:ALA:N	2.23	0.71
55:FV:313:ASP:OD2	55:FV:378:ARG:NH1	2.23	0.71
2:GC:110:LYS:NZ	2:GC:113:ASP:OD1	2.21	0.71
3:EA:2324:U:H3'	3:EA:2325:G:H5''	1.71	0.71
3:GA:193:U:OP2	60:GA:3742:HOH:O	2.07	0.71
35:BA:1468:A:H2'	35:BA:1469:C:H5'	1.72	0.71
3:AA:2478:A:OP2	31:A4:2:LYS:NZ	2.23	0.71
55:FV:98:GLU:O	55:FV:102:SER:OG	2.04	0.71
1:GB:7:G:O2'	15:GO:38:GLN:OE1	2.06	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DM:14:HIS:ND1	46:DM:42:ASP:O	2.23	0.71
35:FA:1492:A:H2'	35:FA:1493:A:H5'	1.73	0.71
9:GI:112:LYS:NZ	9:GI:115:ASP:OD2	2.23	0.71
3:GA:219:A:N3	3:GA:234:U:O2'	2.20	0.71
3:EA:818:G:OP2	60:EA:3577:HOH:O	2.08	0.71
32:C5:117:LEU:HD22	32:C5:120:ALA:HA	1.71	0.71
52:HS:36:ARG:NH2	52:HS:75:ALA:O	2.23	0.71
3:CA:2615:U:OP1	60:CA:3735:HOH:O	2.08	0.71
3:CA:450:G:OP2	60:CA:3238:HOH:O	2.07	0.71
44:BK:126:LYS:O	54:BU:34:ARG:NE	2.24	0.71
2:CC:69:ASN:O	2:CC:71:ASP:N	2.23	0.71
35:HA:1505:G:OP2	60:HA:1866:HOH:O	2.06	0.71
3:CA:2062:A:OP2	60:CA:3487:HOH:O	2.06	0.71
7:GG:106:LEU:O	7:GG:151:ARG:NH2	2.24	0.71
55:DV:142:ASN:OD1	55:DV:143:LYS:N	2.23	0.71
3:AA:2057:G:OP2	60:AA:3481:HOH:O	2.08	0.71
3:EA:1376:C:OP1	60:EA:3398:HOH:O	2.09	0.71
3:EA:1022:G:O2'	3:EA:1024:G:O6	2.06	0.71
23:EW:19:ARG:HA	23:EW:34:SER:HA	1.72	0.71
4:GD:86:GLU:N	4:GD:86:GLU:OE1	2.24	0.71
9:GI:73:PRO:O	9:GI:112:LYS:NZ	2.23	0.71
3:EA:762:U:OP1	60:EA:3689:HOH:O	2.07	0.71
1:CB:116:G:H4'	15:CO:54:VAL:HG22	1.73	0.71
35:DA:1468:A:H2'	35:DA:1469:C:H5'	1.71	0.71
3:EA:2013:A:N3	19:ES:88:ARG:NH1	2.39	0.71
3:GA:2062:A:OP1	60:GA:3492:HOH:O	2.08	0.71
3:AA:621:A:OP2	60:AA:3291:HOH:O	2.08	0.71
60:FA:1879:HOH:O	45:FL:110:ARG:NH2	2.23	0.71
3:EA:254:G:N7	30:E3:4:LYS:NZ	2.37	0.71
3:CA:1837:C:O2'	3:CA:1927:A:N3	2.22	0.71
3:AA:1993:U:H4'	4:AD:133:THR:HG21	1.73	0.71
35:FA:1149:C:OP1	42:FI:11:ARG:NH1	2.24	0.71
3:CA:217:A:OP2	60:CA:3225:HOH:O	2.07	0.71
32:C5:24:SER:CA	32:C5:116:GLU:HG2	2.21	0.71
3:GA:574:A:OP1	60:GA:3563:HOH:O	2.07	0.71
3:CA:143:C:O2'	20:CT:3:ARG:NH1	2.24	0.71
3:CA:2096:C:O2	40:HG:52:GLN:NE2	2.24	0.71
35:DA:1015:G:O2'	47:DN:53:ARG:NH1	2.23	0.71
3:AA:1010:A:OP2	60:AA:3768:HOH:O	2.08	0.71
2:AC:49:THR:OG1	3:AA:1805:A:N3	2.24	0.71
3:EA:198:C:OP2	60:EA:3751:HOH:O	2.08	0.71
6:EF:114:ARG:NH2	6:EF:115:GLY:O	2.24	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:2584:U:O4	60:AA:3698:HOH:O	2.08	0.71
36:BC:16:LYS:NZ	36:BC:181:ASP:OD1	2.23	0.71
3:EA:1327:A:OP2	60:EA:3610:HOH:O	2.07	0.71
39:DF:68:GLN:HA	39:DF:71:ILE:HG22	1.72	0.71
3:EA:819:A:OP2	3:EA:1187:G:N2	2.21	0.70
3:EA:948:C:O2	3:EA:984:A:O2'	2.08	0.70
35:FA:1147:C:O2	42:FI:18:ARG:NH1	2.24	0.70
3:AA:963:U:OP1	60:AA:3350:HOH:O	2.08	0.70
20:ET:9:LYS:O	20:ET:12:ARG:NH1	2.24	0.70
3:EA:1828:G:OP1	60:EA:3456:HOH:O	2.09	0.70
3:GA:2593:U:O4	60:GA:3770:HOH:O	2.09	0.70
15:CO:67:ASN:O	15:CO:69:ASP:N	2.25	0.70
35:HA:195:A:OP2	60:HA:1872:HOH:O	2.09	0.70
3:GA:774:G:OP1	2:GC:47:ARG:NH2	2.22	0.70
3:EA:1618:A:OP2	60:EA:3417:HOH:O	2.09	0.70
35:HA:404:G:O2'	35:HA:498:A:N1	2.21	0.70
3:AA:161:A:H3'	3:AA:162:U:H5''	1.72	0.70
3:CA:965:C:OP2	60:CA:3331:HOH:O	2.08	0.70
3:CA:965:C:OP2	60:CA:3334:HOH:O	2.09	0.70
3:GA:1269:A:OP2	60:GA:3379:HOH:O	2.08	0.70
3:GA:32:C:N4	60:GA:3212:HOH:O	2.22	0.70
2:EC:196:ASN:O	2:EC:198:GLU:N	2.23	0.70
3:GA:196:A:O3'	60:GA:3744:HOH:O	2.08	0.70
36:DC:85:GLU:OE1	36:DC:88:ARG:NH1	2.23	0.70
3:GA:807:U:OP2	12:GL:41:ARG:NH1	2.24	0.70
3:EA:2279:G:N7	23:EW:10:ARG:NH2	2.39	0.70
9:CI:58:ILE:O	9:CI:59:THR:OG1	2.09	0.70
3:GA:876:C:N3	3:GA:901:C:N4	2.37	0.70
3:GA:2405:G:O2'	3:GA:2411:A:N6	2.24	0.70
3:CA:2324:U:H3'	3:CA:2325:G:H5''	1.72	0.70
3:GA:223:A:O2'	3:GA:420:C:O2	2.10	0.70
32:C5:33:VAL:N	32:C5:36:ASP:OD2	2.24	0.70
16:AP:5:LYS:NZ	16:AP:9:GLN:OE1	2.23	0.70
35:DA:159:G:N2	35:DA:162:A:OP2	2.25	0.70
38:DE:25:VAL:N	38:DE:28:GLY:O	2.21	0.70
38:DE:41:ASP:OD1	38:DE:42:GLY:N	2.24	0.70
3:EA:1269:A:OP2	60:EA:3380:HOH:O	2.09	0.70
3:CA:1604:C:OP2	60:CA:3400:HOH:O	2.09	0.70
47:DN:4:GLN:NE2	60:DN:202:HOH:O	2.23	0.70
35:HA:1468:A:H2'	35:HA:1469:C:H5'	1.72	0.70
35:DA:1254:A:N7	43:DJ:45:ARG:NH1	2.39	0.70
35:DA:161:A:N1	35:DA:347:G:O2'	2.23	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1030:C:OP2	13:GM:127:LYS:NZ	2.24	0.70
43:DJ:88:MET:O	43:DJ:90:LEU:N	2.24	0.70
3:CA:1993:U:H4'	4:CD:133:THR:HG21	1.74	0.70
35:BA:462:G:N2	35:BA:470:C:N3	2.39	0.70
3:EA:2022:U:OP1	60:EA:3657:HOH:O	2.08	0.70
32:E5:26:VAL:HG11	32:E5:77:VAL:CG1	2.22	0.70
3:GA:597:G:O2'	12:GL:11:GLY:O	2.09	0.70
3:AA:2353:G:H1'	23:AW:30:VAL:HG12	1.72	0.70
35:BA:1504:G:N3	60:BA:1869:HOH:O	2.23	0.70
3:EA:810:U:OP1	60:EA:3332:HOH:O	2.09	0.70
12:GL:93:ASN:OD1	12:GL:94:THR:N	2.24	0.70
32:C5:26:VAL:HG11	32:C5:77:VAL:CG1	2.22	0.70
3:GA:810:U:OP1	60:GA:3329:HOH:O	2.08	0.70
3:EA:1968:G:OP1	60:EA:3464:HOH:O	2.09	0.70
32:C5:1:MET:SD	32:C5:2:ALA:N	2.64	0.70
3:EA:991:C:OP2	60:EA:3596:HOH:O	2.09	0.70
3:CA:1380:G:N2	3:CA:1570:A:N1	2.40	0.70
3:AA:1938:A:OP2	60:AA:3720:HOH:O	2.09	0.70
35:HA:545:C:H5'	37:HD:69:GLU:HG2	1.74	0.70
3:EA:272:A:HO2'	3:EA:273:G:H8	1.39	0.70
37:HD:15:GLU:OE2	37:HD:56:ARG:NH2	2.25	0.70
35:FA:964:A:OP1	60:FA:1827:HOH:O	2.08	0.70
26:AZ:8:GLN:O	26:AZ:10:ARG:N	2.25	0.70
5:GE:170:ARG:NH2	5:GE:176:ASP:OD2	2.25	0.70
48:FO:46:HIS:O	48:FO:48:LYS:N	2.25	0.70
3:GA:979:A:OP2	60:GA:3586:HOH:O	2.08	0.70
3:AA:981:A:OP1	60:AA:3585:HOH:O	2.08	0.70
32:C5:30:SER:O	32:C5:31:ARG:CB	2.38	0.70
35:HA:501:C:OP2	45:HL:121:ARG:NH1	2.25	0.70
3:EA:1787:A:OP1	60:EA:3737:HOH:O	2.09	0.70
54:BU:44:GLU:OE2	54:BU:45:ARG:NH1	2.25	0.70
35:BA:1304:G:OP2	60:BA:1792:HOH:O	2.10	0.70
3:EA:2448:A:OP2	60:EA:3679:HOH:O	2.09	0.69
18:GR:46:GLU:N	18:GR:46:GLU:OE1	2.24	0.69
3:AA:1604:C:OP1	60:AA:3402:HOH:O	2.09	0.69
53:FT:69:LYS:NZ	53:FT:70:ASN:OD1	2.19	0.69
3:CA:1203:U:O2'	12:CL:4:ASN:OD1	2.10	0.69
35:BA:1492:A:H2'	35:BA:1493:A:H5'	1.73	0.69
3:EA:2138:G:N3	3:EA:2154:A:N6	2.38	0.69
3:GA:1007:C:OP1	10:GJ:37:ARG:NH2	2.25	0.69
3:AA:2588:G:OP2	60:AA:3537:HOH:O	2.10	0.69
3:CA:622:G:OP2	60:CA:3794:HOH:O	2.08	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:2324:U:H3'	3:AA:2325:G:H5''	1.74	0.69
37:FD:70:ARG:O	37:FD:74:ASN:ND2	2.25	0.69
17:GQ:91:ARG:HH21	17:GQ:93:ILE:HG12	1.57	0.69
3:AA:1776:G:OP2	60:AA:3447:HOH:O	2.09	0.69
3:GA:1780:A:OP1	60:GA:3680:HOH:O	2.10	0.69
6:AF:116:LEU:N	6:AF:176:PHE:O	2.24	0.69
3:GA:948:C:O2	3:GA:984:A:O2'	2.10	0.69
3:GA:571:U:OP1	18:GR:80:ARG:NH2	2.24	0.69
3:GA:2268:A:OP2	60:GA:3508:HOH:O	2.09	0.69
35:FA:684:U:O2'	44:FK:40:ASN:O	2.10	0.69
47:BN:91:GLY:O	47:BN:93:ILE:N	2.23	0.69
35:HA:416:G:OP2	60:HA:1715:HOH:O	2.10	0.69
3:CA:2588:G:OP2	60:CA:3537:HOH:O	2.11	0.69
7:CG:84:LYS:HG3	7:CG:132:LEU:H	1.56	0.69
3:CA:2051:A:OP1	60:CA:3479:HOH:O	2.09	0.69
32:C5:116:GLU:HG3	32:C5:117:LEU:H	1.56	0.69
23:AW:30:VAL:HG13	23:AW:30:VAL:O	1.92	0.69
13:EM:66:ARG:NH1	13:EM:104:GLU:OE1	2.25	0.69
5:GE:111:GLU:OE1	5:GE:115:GLN:NE2	2.26	0.69
3:EA:996:A:OP2	17:EQ:91:ARG:NH2	2.26	0.69
3:AA:512:G:N7	60:AA:3757:HOH:O	2.25	0.69
3:GA:30:G:O2'	3:GA:1214:A:N3	2.25	0.69
3:GA:746:U:O4	60:GA:3304:HOH:O	2.08	0.69
35:FA:177:G:OP2	53:FT:64:LYS:NZ	2.25	0.69
3:AA:1124:G:OP2	60:AA:3601:HOH:O	2.10	0.69
39:DF:79:ARG:NH2	39:DF:87:SER:OG	2.25	0.69
3:AA:2091:C:O2	24:AX:33:HIS:NE2	2.26	0.69
53:DT:3:ASN:O	53:DT:5:LYS:N	2.25	0.69
3:EA:1154:G:OP2	17:EQ:57:ARG:NH1	2.26	0.69
45:FL:44:LYS:CB	45:FL:45:PRO:HD3	2.23	0.69
32:E5:94:ARG:O	32:E5:97:LYS:N	2.26	0.69
3:GA:583:G:N7	60:GA:3285:HOH:O	2.24	0.69
3:GA:605:G:OP1	5:GE:99:LYS:NZ	2.26	0.69
3:GA:1001:A:OP2	60:GA:3722:HOH:O	2.10	0.69
55:FV:93:VAL:O	55:FV:95:PHE:N	2.24	0.69
35:DA:928:G:O2'	35:DA:1533:C:OP1	2.10	0.69
36:HC:49:LYS:O	36:HC:72:ARG:NH2	2.26	0.69
18:ER:46:GLU:OE1	18:ER:46:GLU:N	2.25	0.69
3:GA:1187:G:OP1	18:GR:85:LYS:NZ	2.26	0.69
3:EA:2574:G:OP1	60:EA:3706:HOH:O	2.09	0.69
3:AA:1332:G:OP1	60:AA:3751:HOH:O	2.10	0.69
16:CP:50:ARG:HB3	16:CP:57:ALA:H	1.58	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:1936:A:N6	3:AA:1963:U:O2	2.26	0.69
3:EA:2270:A:OP2	60:EA:3512:HOH:O	2.10	0.69
3:AA:587:C:OP2	12:AL:21:ARG:NH1	2.25	0.69
35:DA:8:A:N6	37:DD:202:GLU:O	2.26	0.69
35:BA:483:C:O2	49:BP:13:LYS:NZ	2.26	0.69
55:HV:8:ALA:O	55:HV:288:SER:OG	2.08	0.69
35:HA:261:U:OP2	53:HT:74:ARG:NH2	2.25	0.69
3:GA:472:A:N7	60:GA:3241:HOH:O	2.25	0.69
3:GA:1334:G:OP2	60:GA:3387:HOH:O	2.11	0.69
17:EQ:91:ARG:HE	17:EQ:93:ILE:CG2	2.05	0.69
3:AA:971:G:OP2	3:AA:974:G:N2	2.25	0.69
3:EA:1799:G:O2'	2:EC:179:GLU:OE2	2.04	0.69
49:HP:42:ILE:O	49:HP:44:SER:N	2.26	0.69
26:CZ:12:ALA:O	26:CZ:20:LYS:NZ	2.24	0.69
4:AD:149:ASN:OD1	4:AD:150:GLN:N	2.26	0.69
3:GA:2421:G:OP1	28:G1:7:LYS:NZ	2.25	0.69
37:BD:30:THR:HB	37:BD:31:LYS:HZ2	1.58	0.69
3:CA:1676:A:OP2	60:CA:3750:HOH:O	2.11	0.69
3:EA:962:G:OP2	60:EA:3355:HOH:O	2.11	0.68
3:EA:923:G:H1'	23:EW:23:LYS:HD3	1.75	0.68
3:EA:1010:A:OP2	60:EA:3770:HOH:O	2.10	0.68
20:CT:54:GLU:CG	20:CT:88:LYS:HB2	2.24	0.68
37:FD:22:LYS:O	37:FD:24:GLY:N	2.25	0.68
2:GC:196:ASN:O	2:GC:198:GLU:N	2.24	0.68
35:HA:1110:A:OP2	60:HA:1852:HOH:O	2.11	0.68
3:GA:1333:G:OP2	60:GA:3386:HOH:O	2.10	0.68
2:GC:69:ASN:O	2:GC:71:ASP:N	2.26	0.68
3:GA:2849:U:O4	16:GP:20:ARG:NH1	2.27	0.68
32:A5:25:ALA:O	32:A5:26:VAL:HG13	1.94	0.68
32:E5:106:PHE:O	32:E5:108:VAL:N	2.26	0.68
32:C5:57:ASN:O	32:C5:59:LEU:N	2.25	0.68
35:FA:1130:A:OP1	42:FI:18:ARG:NH2	2.26	0.68
35:HA:803:G:OP1	60:HA:1750:HOH:O	2.11	0.68
35:DA:951:G:O2'	35:DA:970:C:O2'	2.03	0.68
3:CA:161:A:H3'	3:CA:162:U:H5''	1.74	0.68
15:GO:31:THR:O	15:GO:102:ARG:NH1	2.27	0.68
35:FA:135:C:N3	49:FP:1:MET:N	2.31	0.68
3:GA:2579:C:OP1	60:GA:3535:HOH:O	2.12	0.68
3:GA:2611:C:OP2	60:GA:3535:HOH:O	2.11	0.68
48:HO:45:GLU:CG	48:HO:46:HIS:H	2.07	0.68
16:CP:50:ARG:HG3	16:CP:57:ALA:O	1.93	0.68
3:AA:1658:C:OP1	60:AA:3646:HOH:O	2.11	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:HH:22:LYS:O	41:HH:65:TYR:OH	2.10	0.68
16:EP:4:ILE:O	16:EP:6:GLN:N	2.26	0.68
3:GA:666:A:H4'	12:GL:48:ARG:HE	1.57	0.68
32:C5:116:GLU:CG	32:C5:117:LEU:H	2.06	0.68
37:BD:29:ASP:O	37:BD:31:LYS:NZ	2.27	0.68
3:GA:1332:G:OP1	60:GA:3746:HOH:O	2.11	0.68
3:AA:2615:U:OP1	60:AA:3737:HOH:O	2.12	0.68
3:EA:2061:G:OP2	60:EA:3492:HOH:O	2.10	0.68
3:AA:2269:G:OP1	60:AA:3503:HOH:O	2.11	0.68
13:AM:66:ARG:NH1	13:AM:104:GLU:OE1	2.26	0.68
3:EA:1223:G:N7	18:ER:71:LYS:NZ	2.42	0.68
5:CE:170:ARG:NH2	5:CE:176:ASP:OD2	2.26	0.68
35:DA:1166:G:N2	35:DA:1169:A:OP2	2.26	0.68
35:FA:1229:A:OP2	46:FM:113:ARG:NH1	2.25	0.68
35:FA:413:G:O2'	35:FA:428:G:N2	2.26	0.68
3:GA:2275:C:O2'	13:GM:83:GLY:O	2.12	0.68
3:CA:963:U:OP1	60:CA:3348:HOH:O	2.10	0.68
3:CA:1780:A:OP1	60:CA:3679:HOH:O	2.12	0.68
3:AA:324:A:N6	3:AA:338:G:O2'	2.27	0.68
3:GA:2211:A:O2'	3:GA:2212:A:OP1	2.07	0.68
2:AC:176:ARG:NH2	3:AA:1820:U:OP1	2.27	0.68
29:C2:43:THR:O	29:C2:45:SER:N	2.26	0.68
39:HF:15:SER:O	39:HF:17:GLN:N	2.27	0.68
10:GJ:6:ALA:HB3	10:GJ:45:THR:HG21	1.75	0.68
55:DV:80:GLU:OE2	55:DV:80:GLU:N	2.25	0.68
35:BA:100:G:OP2	60:BA:1875:HOH:O	2.11	0.68
35:BA:79:G:O2'	35:BA:80:A:O5'	2.08	0.68
12:AL:93:ASN:O	12:AL:95:LEU:N	2.27	0.68
3:EA:827:U:OP1	60:EA:3693:HOH:O	2.11	0.68
3:CA:370:G:O2'	3:CA:424:G:OP1	2.12	0.68
17:CQ:32:ARG:NH1	60:CQ:201:HOH:O	2.27	0.68
13:GM:22:GLN:O	13:GM:24:THR:N	2.26	0.68
45:FL:68:GLY:O	45:FL:99:ARG:NH1	2.25	0.68
3:EA:2056:G:OP2	60:EA:3487:HOH:O	2.10	0.68
3:AA:948:C:O2	3:AA:984:A:O2'	2.12	0.68
15:GO:58:ILE:O	15:GO:61:GLN:NE2	2.27	0.68
17:CQ:63:ARG:NH1	17:CQ:95:ALA:O	2.26	0.68
35:BA:159:G:N2	35:BA:162:A:OP2	2.27	0.68
3:CA:572:A:OP2	18:CR:80:ARG:NH2	2.27	0.68
19:ES:73:LYS:HB3	19:ES:106:VAL:HB	1.76	0.68
32:C5:103:ASN:ND2	32:C5:107:GLU:O	2.27	0.68
3:AA:301:G:OP2	21:AU:81:ARG:NH1	2.26	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:793:A:OP2	3:GA:2071:A:O2'	2.11	0.68
3:CA:2269:G:OP1	60:CA:3503:HOH:O	2.12	0.67
3:AA:2588:G:OP2	60:AA:3539:HOH:O	2.11	0.67
3:GA:944:C:OP2	60:GA:3262:HOH:O	2.12	0.67
3:AA:2247:A:OP1	60:AA:3499:HOH:O	2.11	0.67
3:AA:120:U:OP1	60:AA:3220:HOH:O	2.12	0.67
38:FE:80:THR:OG1	38:FE:81:LEU:N	2.25	0.67
3:GA:922:C:O2	23:GW:19:ARG:NH1	2.25	0.67
1:AB:73:A:C4	1:AB:104:A:C2	2.82	0.67
3:EA:2419:U:O4	60:EA:3809:HOH:O	2.11	0.67
3:CA:1245:G:OP1	12:CL:13:LYS:NZ	2.23	0.67
34:FB:60:ALA:O	34:FB:224:ARG:NH1	2.26	0.67
19:CS:25:ARG:NH1	60:CS:202:HOH:O	2.27	0.67
3:CA:1658:C:OP1	60:CA:3643:HOH:O	2.11	0.67
3:EA:560:C:O2	17:EQ:47:ARG:NH1	2.25	0.67
32:A5:26:VAL:O	32:A5:27:VAL:HB	1.93	0.67
3:CA:2711:A:OP2	60:CA:3543:HOH:O	2.12	0.67
8:CH:10:ALA:O	8:CH:12:LEU:N	2.22	0.67
3:AA:42:A:C2'	3:AA:43:G:H5'	2.25	0.67
18:GR:79:ARG:O	60:GR:201:HOH:O	2.12	0.67
3:CA:2499:C:OP1	60:CA:3675:HOH:O	2.13	0.67
11:AK:76:VAL:HB	16:AP:72:VAL:HG22	1.76	0.67
3:GA:19:A:OP1	17:GQ:22:GLY:N	2.27	0.67
10:AJ:4:PHE:N	10:AJ:44:TYR:OH	2.28	0.67
2:EC:52:HIS:ND1	60:EC:304:HOH:O	2.18	0.67
9:AI:100:ILE:HB	9:AI:139:VAL:HA	1.75	0.67
3:CA:301:G:OP2	21:CU:81:ARG:NH1	2.27	0.67
35:FA:1433:A:OP2	60:FA:1836:HOH:O	2.12	0.67
32:C5:91:ALA:C	32:C5:93:ALA:H	1.97	0.67
3:AA:2592:G:OP1	60:AA:3458:HOH:O	2.12	0.67
3:GA:2091:C:O2	24:GX:33:HIS:NE2	2.28	0.67
3:EA:2134:A:O2'	3:EA:2156:G:N2	2.27	0.67
39:DF:97:THR:O	39:DF:98:GLU:HG2	1.95	0.67
51:FR:73:ARG:O	51:FR:74:HIS:ND1	2.28	0.67
40:HG:126:ASP:OD1	40:HG:132:GLY:N	2.28	0.67
35:BA:1198:G:OP2	60:BA:1833:HOH:O	2.12	0.67
3:GA:909:A:OP1	60:GA:3709:HOH:O	2.13	0.67
3:CA:795:C:OP2	60:CA:3312:HOH:O	2.11	0.67
35:HA:835:U:OP1	51:HR:53:ARG:NH1	2.26	0.67
24:CX:70:LEU:O	24:CX:74:GLY:N	2.27	0.67
1:AB:79:G:O2'	3:AA:861:A:N3	2.27	0.67
3:GA:15:G:OP2	60:GA:3543:HOH:O	2.13	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:1054:A:OP1	32:C5:31:ARG:NH2	2.27	0.67
3:EA:1676:A:OP2	60:EA:3759:HOH:O	2.13	0.67
3:CA:1342:A:O2'	3:CA:1344:U:OP2	2.11	0.67
3:GA:1665:A:OP2	60:GA:3421:HOH:O	2.12	0.67
48:BO:46:HIS:O	48:BO:48:LYS:N	2.28	0.67
35:HA:10:A:OP2	38:HE:131:THR:OG1	2.10	0.67
2:EC:110:LYS:NZ	2:EC:113:ASP:OD1	2.19	0.67
35:DA:559:A:OP2	60:DA:1830:HOH:O	2.13	0.67
12:GL:99:ASN:OD1	60:GL:302:HOH:O	2.13	0.67
3:CA:2343:U:O2'	3:CA:2373:G:O2'	2.11	0.67
3:CA:572:A:OP1	60:CA:3559:HOH:O	2.13	0.66
11:AK:18:ARG:HB2	11:AK:45:GLU:HB2	1.77	0.66
35:DA:937:A:OP2	60:DA:1769:HOH:O	2.13	0.66
3:EA:982:C:O3'	60:EA:3564:HOH:O	2.12	0.66
46:BM:29:ARG:CZ	46:BM:63:PHE:HB2	2.25	0.66
35:DA:1219:A:H5'	47:DN:53:ARG:NH1	2.10	0.66
35:BA:427:U:O4	60:BA:1720:HOH:O	2.08	0.66
3:CA:1798:U:OP2	2:CC:270:ARG:NH2	2.27	0.66
3:EA:784:G:OP2	60:EA:3314:HOH:O	2.12	0.66
3:CA:2139:U:O2'	3:CA:2152:G:O6	2.13	0.66
3:EA:1439:A:OP2	60:EA:3628:HOH:O	2.13	0.66
47:BN:49:GLN:OE1	47:BN:49:GLN:N	2.28	0.66
35:HA:1050:G:N2	35:HA:1208:C:O2	2.27	0.66
3:GA:1187:G:OP1	60:GA:3363:HOH:O	2.12	0.66
2:EC:43:ASN:OD1	2:EC:44:ASN:N	2.27	0.66
35:DA:779:C:O2'	44:DK:122:ARG:NH1	2.28	0.66
28:C1:3:GLY:O	28:C1:5:ARG:N	2.27	0.66
3:GA:1828:G:OP2	60:GA:3728:HOH:O	2.13	0.66
32:C5:106:PHE:O	32:C5:108:VAL:N	2.28	0.66
3:GA:819:A:OP2	3:GA:1187:G:N2	2.28	0.66
37:HD:62:ARG:NH1	37:HD:69:GLU:OE2	2.29	0.66
35:BA:111:G:O6	35:BA:330:C:N4	2.28	0.66
3:EA:1678:A:OP2	60:EA:3441:HOH:O	2.12	0.66
3:CA:526:A:OP1	60:CA:3248:HOH:O	2.13	0.66
3:GA:428:A:OP2	60:GA:3226:HOH:O	2.12	0.66
14:EN:73:ASN:HA	14:EN:76:VAL:CG1	2.26	0.66
35:DA:1007:U:H2'	35:DA:1008:U:H5'	1.78	0.66
32:C5:117:LEU:CD2	32:C5:120:ALA:HA	2.26	0.66
3:AA:1670:C:OP1	60:AA:3431:HOH:O	2.14	0.66
35:HA:1011:C:H2'	35:HA:1012:A:H5'	1.78	0.66
35:BA:572:A:OP1	60:BA:1739:HOH:O	2.13	0.66
3:GA:1604:C:OP2	60:GA:3405:HOH:O	2.13	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:A5:24:SER:CB	32:A5:116:GLU:HG2	2.24	0.66
3:GA:675:A:O4'	60:GA:3323:HOH:O	2.14	0.66
3:GA:1072:C:N4	3:GA:1097:U:O5'	2.28	0.66
43:DJ:5:ARG:HB3	43:DJ:77:VAL:HA	1.78	0.66
3:GA:1338:G:O2'	3:GA:1393:A:N1	2.29	0.66
34:FB:81:ASP:O	34:FB:84:LEU:N	2.28	0.66
3:GA:1378:A:O2'	3:GA:1380:G:N7	2.27	0.66
38:HE:140:THR:O	38:HE:144:LEU:N	2.26	0.66
3:AA:1679:A:OP2	60:AA:3436:HOH:O	2.13	0.66
20:CT:26:LYS:O	20:CT:27:SER:OG	2.14	0.66
32:E5:73:LYS:CB	32:E5:117:LEU:HD21	2.25	0.66
32:C5:26:VAL:CG1	32:C5:77:VAL:HG11	2.26	0.66
46:HM:57:ARG:HA	46:HM:60:VAL:CG1	2.26	0.66
35:FA:1197:A:OP2	60:FA:1781:HOH:O	2.14	0.66
35:FA:8:A:N6	37:FD:202:GLU:O	2.29	0.66
44:DK:126:LYS:O	54:DU:34:ARG:NH1	2.28	0.66
42:BI:42:GLU:O	42:BI:45:ARG:NH1	2.29	0.66
42:FI:84:THR:HG21	42:FI:103:PHE:HB3	1.76	0.66
35:FA:1031:C:O2'	35:FA:1032:G:N3	2.29	0.66
5:CE:150:THR:HG21	5:CE:153:LEU:HA	1.77	0.66
3:CA:1565:C:H5''	2:CC:17:LYS:HE3	1.78	0.66
3:EA:621:A:OP2	60:EA:3799:HOH:O	2.13	0.66
35:BA:404:G:O6	37:BD:2:ALA:N	2.28	0.66
3:GA:1197:G:H2'	3:GA:1198:U:C6	2.31	0.66
3:GA:809:G:OP2	60:GA:3255:HOH:O	2.13	0.66
12:AL:93:ASN:OD1	12:AL:94:THR:N	2.28	0.66
3:GA:1636:U:OP2	60:GA:3641:HOH:O	2.13	0.66
15:AO:76:LYS:NZ	15:AO:80:GLU:OE1	2.29	0.66
35:BA:175:C:O2'	35:BA:1447:A:N1	2.26	0.66
34:HB:164:ASP:OD1	34:HB:190:SER:OG	2.14	0.66
11:AK:71:ARG:HB3	11:AK:72:PRO:HD3	1.78	0.66
3:AA:1789:A:OP1	60:AA:3772:HOH:O	2.13	0.66
30:G3:49:VAL:HG23	30:G3:54:LEU:HD11	1.78	0.66
3:CA:2707:U:O4	60:CA:3671:HOH:O	2.12	0.66
32:E5:30:SER:O	32:E5:31:ARG:CB	2.44	0.66
3:CA:2588:G:OP1	60:CA:3310:HOH:O	2.13	0.66
1:CB:87:U:H3'	1:CB:88:C:H5'	1.78	0.66
3:AA:363:G:H2'	3:AA:364:C:C6	2.31	0.66
55:HV:310:HIS:N	55:HV:315:GLU:OE1	2.29	0.66
3:EA:878:A:N6	3:EA:899:A:O2'	2.28	0.66
16:CP:4:ILE:O	16:CP:6:GLN:N	2.29	0.66
7:EG:174:LYS:O	7:EG:176:LYS:N	2.29	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:2683:C:O2	11:GK:70:ARG:NH2	2.29	0.66
3:GA:1620:G:OP2	60:GA:3634:HOH:O	2.13	0.66
3:EA:2268:A:OP1	60:EA:3507:HOH:O	2.14	0.65
3:EA:2352:A:C2	23:EW:30:VAL:HG11	2.30	0.65
3:EA:2353:G:H1'	23:EW:30:VAL:HG13	1.78	0.65
9:GI:123:ALA:HA	9:GI:126:ARG:NH2	2.11	0.65
35:HA:1250:A:OP1	42:HI:69:GLY:N	2.28	0.65
35:DA:21:G:OP1	60:DA:1808:HOH:O	2.14	0.65
55:FV:660:LEU:O	55:FV:662:GLU:N	2.29	0.65
32:E5:1:MET:SD	32:E5:2:ALA:N	2.63	0.65
34:BB:88:GLN:HE22	34:BB:220:VAL:HG23	1.60	0.65
17:CQ:91:ARG:HH11	18:CR:11:GLN:N	1.94	0.65
3:EA:576:U:OP1	60:EA:3664:HOH:O	2.14	0.65
35:FA:1007:U:H2'	35:FA:1008:U:H5'	1.77	0.65
3:GA:2593:U:O4	60:GA:3788:HOH:O	2.12	0.65
35:BA:151:A:OP2	35:BA:169:C:N4	2.28	0.65
35:HA:1077:G:N2	35:HA:1080:A:OP2	2.30	0.65
35:DA:817:C:OP2	60:DA:1736:HOH:O	2.13	0.65
3:AA:2611:C:OP2	60:AA:3535:HOH:O	2.14	0.65
12:CL:93:ASN:OD1	12:CL:94:THR:N	2.29	0.65
35:HA:111:G:O6	35:HA:330:C:N4	2.29	0.65
3:CA:994:C:O2'	3:CA:996:A:OP1	2.11	0.65
32:A5:39:THR:HA	32:A5:42:ARG:HD2	1.78	0.65
3:GA:1912:A:N3	35:HA:1494:G:N2	2.44	0.65
3:GA:1338:G:O2'	20:GT:18:GLU:OE1	2.06	0.65
3:AA:2142:A:H4'	3:AA:2143:C:OP2	1.96	0.65
35:DA:574:A:OP2	60:DA:1733:HOH:O	2.13	0.65
3:EA:856:G:H1'	23:EW:23:LYS:HB3	1.78	0.65
3:GA:2022:U:O5'	60:GA:3649:HOH:O	2.12	0.65
14:AN:98:LEU:HB3	27:A0:42:ILE:HD11	1.79	0.65
55:DV:309:ARG:NH2	55:DV:402:ALA:O	2.30	0.65
23:AW:37:VAL:HG12	23:AW:38:ARG:H	1.61	0.65
35:DA:1137:C:O2	35:DA:1138:G:N2	2.29	0.65
35:FA:159:G:N2	35:FA:162:A:OP2	2.30	0.65
55:FV:142:ASN:OD1	55:FV:143:LYS:N	2.29	0.65
10:AJ:6:ALA:HB3	10:AJ:45:THR:HG21	1.78	0.65
3:GA:1095:A:C6	55:HV:628:THR:HA	2.32	0.65
3:GA:1067:A:H2'	3:GA:1068:G:H8	1.61	0.65
3:GA:27:G:O2'	3:GA:28:A:OP2	2.13	0.65
55:DV:660:LEU:O	55:DV:662:GLU:N	2.28	0.65
35:BA:1181:G:O2'	35:BA:1182:G:C8	2.49	0.65
3:EA:1313:U:OP1	60:EA:3389:HOH:O	2.14	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:E4:36:ARG:HG2	31:E4:37:GLN:H	1.61	0.65
55:HV:500:ASP:N	55:HV:521:ASP:OD1	2.29	0.65
3:GA:943:A:OP2	60:GA:3776:HOH:O	2.14	0.65
3:EA:1156:A:OP2	60:EA:3361:HOH:O	2.14	0.65
55:DV:23:LYS:O	55:DV:24:THR:OG1	2.14	0.65
5:EE:51:GLU:OE2	5:EE:88:ARG:NH1	2.27	0.65
14:AN:118:ARG:O	14:AN:120:GLU:N	2.30	0.65
3:CA:2346:A:H3'	3:CA:2347:C:C5'	2.27	0.65
13:GM:30:SER:O	13:GM:133:LYS:N	2.30	0.65
23:EW:37:VAL:HG12	23:EW:38:ARG:H	1.61	0.65
37:HD:100:ASN:OD1	37:HD:111:ARG:NH1	2.30	0.65
59:BV:801:GCP:O3G	60:BV:901:HOH:O	2.13	0.65
14:EN:30:ARG:NH1	14:EN:74:GLU:OE1	2.29	0.65
3:AA:999:U:OP2	60:AA:3354:HOH:O	2.15	0.65
32:A5:117:LEU:HD22	32:A5:120:ALA:HA	1.75	0.65
3:GA:987:C:O2'	3:GA:1000:A:N3	2.26	0.65
35:DA:1498:U:O3'	60:DA:1859:HOH:O	2.14	0.65
3:EA:2394:C:OP1	30:E3:29:ARG:NH2	2.29	0.65
35:HA:1504:G:OP1	60:HA:1793:HOH:O	2.13	0.65
55:FV:80:GLU:N	55:FV:80:GLU:OE2	2.29	0.65
35:HA:1194:U:OP2	35:HA:1195:C:N4	2.28	0.65
3:GA:2332:C:H4'	3:GA:2336:A:C6	2.31	0.65
56:DW:3:SER:O	56:DW:5:UAL:N	2.30	0.65
3:CA:2711:A:OP1	60:CA:3541:HOH:O	2.14	0.65
55:DV:203:GLU:O	55:DV:205:GLU:N	2.30	0.65
35:DA:684:U:O2'	44:DK:40:ASN:O	2.15	0.65
1:GB:99:A:O3'	60:GB:1315:HOH:O	2.13	0.65
37:BD:66:GLY:O	37:BD:115:ARG:NH2	2.30	0.65
35:FA:1303:C:OP1	60:FA:1790:HOH:O	2.14	0.65
37:HD:147:GLU:HA	37:HD:150:LYS:HB2	1.79	0.65
3:EA:2271:G:O6	60:EA:3510:HOH:O	2.14	0.65
35:BA:1299:A:H2'	35:BA:1299:A:N3	2.12	0.65
35:FA:608:A:O5'	60:FA:1851:HOH:O	2.15	0.65
3:CA:1774:C:OP2	60:CA:3730:HOH:O	2.14	0.65
3:GA:262:A:N3	3:GA:430:A:O2'	2.27	0.64
35:FA:749:A:O2'	48:FO:20:ASN:OD1	2.14	0.64
35:DA:1108:G:O6	60:DA:1854:HOH:O	2.10	0.64
3:EA:1256:G:OP2	60:EA:3272:HOH:O	2.15	0.64
3:EA:1263:U:OP1	27:E0:12:ARG:NH1	2.29	0.64
35:FA:814:A:OP2	60:FA:1755:HOH:O	2.14	0.64
3:EA:2269:G:OP1	60:EA:3507:HOH:O	2.13	0.64
3:GA:1647:U:OP2	60:GA:3414:HOH:O	2.14	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:1027:C:O2'	35:HA:1034:G:N2	2.30	0.64
35:DA:405:U:O4	37:DD:2:ALA:N	2.30	0.64
3:EA:456:C:O2	20:ET:73:ARG:NH1	2.30	0.64
5:AE:58:LYS:NZ	5:AE:70:SER:O	2.31	0.64
17:CQ:91:ARG:NH1	18:CR:11:GLN:O	2.31	0.64
3:GA:2600:A:N6	60:GA:3769:HOH:O	2.30	0.64
35:FA:351:G:OP1	53:FT:3:ASN:N	2.31	0.64
3:GA:2324:U:H3'	3:GA:2325:G:H5''	1.79	0.64
17:EQ:65:ASN:OD1	17:EQ:69:ARG:NH2	2.30	0.64
2:AC:43:ASN:OD1	2:AC:44:ASN:N	2.30	0.64
3:CA:597:G:O2'	12:CL:11:GLY:O	2.10	0.64
3:EA:161:A:H3'	3:EA:162:U:H5''	1.77	0.64
32:E5:37:LYS:HE3	32:E5:41:LEU:HD11	1.80	0.64
3:CA:1664:A:OP2	60:CA:3420:HOH:O	2.15	0.64
3:GA:2595:G:O6	2:GC:238:ASN:ND2	2.30	0.64
32:E5:56:ARG:O	32:E5:57:ASN:ND2	2.30	0.64
23:CW:18:LYS:HA	23:CW:36:ILE:HG13	1.80	0.64
55:BV:78:GLN:NE2	55:BV:280:ASP:OD2	2.29	0.64
3:CA:1983:G:N2	60:CA:3718:HOH:O	2.30	0.64
47:FN:21:PHE:HA	47:FN:25:ALA:HB3	1.79	0.64
3:AA:1669:A:OP2	60:AA:3712:HOH:O	2.15	0.64
3:EA:931:U:OP1	26:EZ:29:ARG:NH1	2.30	0.64
3:GA:2429:G:OP2	60:GA:3339:HOH:O	2.15	0.64
40:FG:28:ASN:OD1	40:FG:36:LYS:NZ	2.30	0.64
47:HN:20:TYR:O	47:HN:24:ARG:N	2.30	0.64
32:C5:129:LEU:HB3	32:C5:130:PRO:HD2	1.80	0.64
32:E5:116:GLU:HG3	32:E5:117:LEU:H	1.62	0.64
32:C5:39:THR:HA	32:C5:42:ARG:HD2	1.79	0.64
9:AI:73:PRO:O	9:AI:112:LYS:NZ	2.31	0.64
35:FA:1166:G:N1	35:FA:1169:A:OP2	2.31	0.64
19:AS:18:ARG:O	19:AS:19:LEU:HB2	1.98	0.64
32:C5:27:VAL:HG13	32:C5:83:ALA:HB3	1.79	0.64
23:EW:35:ILE:O	23:EW:37:VAL:N	2.30	0.64
2:AC:179:GLU:OE2	3:AA:1799:G:O2'	2.07	0.64
23:CW:37:VAL:HG12	23:CW:38:ARG:H	1.62	0.64
35:HA:1026:G:H2'	35:HA:1027:C:H5'	1.78	0.64
32:A5:129:LEU:O	32:A5:131:THR:N	2.26	0.64
3:EA:810:U:OP1	60:EA:3333:HOH:O	2.14	0.64
7:AG:1:SER:O	7:AG:3:VAL:N	2.31	0.64
3:EA:1107:G:H4'	32:E5:81:LEU:HA	1.78	0.64
21:AU:73:ASN:ND2	21:AU:80:ASP:OD2	2.31	0.64
7:AG:38:ASP:N	7:AG:38:ASP:OD1	2.29	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:91:ARG:HE	17:CQ:93:ILE:CG2	2.10	0.64
3:CA:1107:G:H5''	32:C5:58:THR:CG2	2.27	0.64
14:CN:117:ASP:OD1	14:CN:118:ARG:N	2.30	0.64
3:EA:1187:G:OP1	18:ER:85:LYS:NZ	2.30	0.64
3:CA:1187:G:H5''	18:CR:83:TYR:CE2	2.32	0.64
35:DA:324:G:O6	60:DA:1836:HOH:O	2.09	0.64
55:FV:554:ASP:OD1	55:FV:558:GLN:NE2	2.30	0.64
3:GA:300:A:N6	60:GA:3546:HOH:O	2.29	0.64
35:FA:1299:A:N3	35:FA:1299:A:H2'	2.12	0.64
23:GW:51:GLY:HA3	23:GW:59:PHE:CZ	2.33	0.64
35:HA:958:A:N6	52:HS:77:THR:O	2.31	0.64
35:HA:986:U:O2	35:HA:1220:G:N2	2.30	0.64
52:HS:36:ARG:HG3	52:HS:51:VAL:HG11	1.79	0.64
35:FA:1492:A:C2'	35:FA:1493:A:H5'	2.27	0.64
40:HG:130:ASN:HD22	40:HG:135:VAL:HG21	1.62	0.64
15:GO:79:ALA:O	15:GO:83:LEU:N	2.26	0.64
35:HA:254:G:O3'	50:HQ:71:LYS:NZ	2.29	0.64
20:AT:32:LEU:H	20:AT:83:ALA:HB3	1.63	0.64
35:DA:237:G:H5''	50:DQ:27:ARG:HH22	1.61	0.64
19:GS:18:ARG:O	19:GS:20:VAL:N	2.24	0.64
3:AA:1968:G:OP1	60:AA:3459:HOH:O	2.15	0.64
3:CA:784:G:O2'	3:CA:785:G:OP2	2.13	0.64
3:GA:927:A:O2'	26:GZ:38:GLU:OE1	2.14	0.64
35:BA:1297:G:O2'	40:BG:114:LYS:NZ	2.30	0.64
55:DV:211:MET:O	55:DV:215:ALA:N	2.23	0.64
3:CA:568:U:OP1	12:CL:36:LYS:NZ	2.25	0.64
35:HA:1306:A:H1'	35:HA:1332:A:C4	2.32	0.64
17:EQ:63:ARG:NH1	17:EQ:95:ALA:O	2.31	0.64
54:BU:14:VAL:HG13	54:BU:16:LEU:HG	1.80	0.64
3:EA:1993:U:H4'	4:ED:133:THR:HG21	1.78	0.64
3:GA:137:U:C5	3:GA:140:C:H1'	2.33	0.64
35:FA:1524:C:P	44:FK:125:LYS:NZ	2.71	0.63
3:AA:1199:U:H5'	17:AQ:4:LYS:HE3	1.79	0.63
9:AI:108:ILE:O	9:AI:111:THR:OG1	2.17	0.63
32:E5:39:THR:HA	32:E5:42:ARG:HD2	1.80	0.63
3:CA:32:C:OP2	60:CA:3689:HOH:O	2.14	0.63
46:HM:114:LYS:HB2	46:HM:115:PRO:HD3	1.80	0.63
3:AA:1482:G:H1'	3:AA:1509:A:H61	1.62	0.63
37:HD:29:ASP:O	37:HD:31:LYS:NZ	2.23	0.63
23:AW:35:ILE:O	23:AW:37:VAL:N	2.31	0.63
44:DK:35:THR:OG1	44:DK:41:ALA:N	2.31	0.63
3:GA:2353:G:O2'	23:GW:31:LEU:HD21	1.98	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1094:U:H2'	3:GA:1096:A:OP2	1.98	0.63
3:CA:885:C:C2	3:CA:892:A:C2	2.85	0.63
3:CA:616:A:H4'	5:CE:101:TYR:CE2	2.33	0.63
42:FI:94:LEU:O	42:FI:96:SER:N	2.29	0.63
41:BH:77:ARG:NE	41:BH:79:SER:O	2.31	0.63
12:EL:93:ASN:OD1	12:EL:94:THR:N	2.31	0.63
37:FD:58:LYS:NZ	37:FD:69:GLU:OE2	2.32	0.63
3:GA:962:G:O5'	60:GA:3351:HOH:O	2.15	0.63
10:AJ:44:TYR:HB2	17:AQ:63:ARG:HB3	1.79	0.63
23:EW:39:GLN:HB2	23:EW:41:GLY:O	1.98	0.63
3:EA:802:A:O3'	60:EA:3323:HOH:O	2.15	0.63
34:BB:140:LEU:O	34:BB:144:GLU:N	2.27	0.63
35:HA:62:U:O2'	35:HA:379:C:O2	2.15	0.63
35:HA:533:A:O2'	35:HA:535:A:OP2	2.14	0.63
35:HA:1417:G:O6	60:HA:1787:HOH:O	2.15	0.63
32:E5:24:SER:HB2	32:E5:116:GLU:CG	2.16	0.63
42:FI:42:GLU:C	42:FI:44:ALA:H	2.00	0.63
7:GG:7:PRO:O	7:GG:68:ARG:NH1	2.30	0.63
35:DA:1033:G:H2'	35:DA:1034:G:H5'	1.80	0.63
3:EA:2542:A:OP2	60:EA:3534:HOH:O	2.16	0.63
35:HA:517:G:N2	35:HA:530:G:OP1	2.32	0.63
3:GA:858:G:O2'	3:GA:2268:A:N3	2.26	0.63
44:FK:88:GLY:H	44:FK:114:THR:HG22	1.63	0.63
50:HQ:19:LYS:O	50:HQ:47:HIS:ND1	2.31	0.63
40:HG:118:LEU:O	40:HG:122:ASN:N	2.30	0.63
23:GW:18:LYS:N	23:GW:36:ILE:HG13	2.12	0.63
51:DR:20:GLU:O	51:DR:54:GLN:NE2	2.32	0.63
35:HA:687:A:N1	35:HA:700:G:O2'	2.21	0.63
1:AB:87:U:H3'	1:AB:88:C:H5'	1.80	0.63
56:FW:1:KBE:N	56:FW:1:KBE:O	2.22	0.63
35:BA:1095:U:OP2	60:BA:1861:HOH:O	2.15	0.63
3:CA:218:A:OP2	60:CA:3226:HOH:O	2.15	0.63
55:HV:188:MET:HE3	55:HV:218:TRP:CD1	2.33	0.63
3:CA:396:G:OP2	24:CX:9:LYS:NZ	2.29	0.63
3:EA:1378:A:O2'	3:EA:1380:G:N7	2.19	0.63
35:FA:88:U:H2'	35:FA:89:U:C6	2.33	0.63
10:EJ:6:ALA:HB3	10:EJ:45:THR:HG21	1.80	0.63
3:GA:806:C:OP2	12:GL:41:ARG:NE	2.24	0.63
38:FE:24:THR:HA	38:FE:29:ARG:HA	1.81	0.63
1:EB:87:U:H3'	1:EB:88:C:H5'	1.79	0.63
14:EN:58:ASP:OD2	14:EN:63:ARG:NH2	2.32	0.63
35:HA:9:G:OP2	38:HE:126:LYS:NZ	2.29	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:FM:8:ASN:ND2	46:FM:66:GLU:OE2	2.32	0.63
3:AA:1617:C:OP1	60:AA:3416:HOH:O	2.15	0.63
32:A5:26:VAL:HG21	32:A5:115:GLY:N	2.06	0.63
3:GA:976:G:H4'	3:GA:1156:A:N7	2.13	0.63
55:DV:222:LEU:O	55:DV:226:ALA:N	2.29	0.63
3:GA:946:C:OP1	60:GA:3343:HOH:O	2.15	0.63
2:AC:49:THR:HG21	3:AA:1813:G:H1'	1.81	0.63
32:E5:58:THR:HB	32:E5:82:ILE:HB	1.81	0.63
35:FA:846:G:OP1	51:FR:48:ARG:NH1	2.32	0.63
3:GA:2136:G:N2	3:GA:2155:U:O4	2.32	0.63
48:DO:82:ILE:O	48:DO:86:GLY:N	2.32	0.63
3:AA:2346:A:H3'	3:AA:2347:C:C5'	2.29	0.63
44:BK:93:ARG:NH2	44:BK:112:ASP:OD2	2.32	0.63
42:FI:57:MET:O	42:FI:60:LYS:N	2.29	0.63
16:AP:50:ARG:HG3	16:AP:57:ALA:O	1.97	0.63
36:BC:85:GLU:OE2	36:BC:88:ARG:NH1	2.30	0.63
38:BE:115:LEU:HD23	38:BE:123:VAL:HG21	1.80	0.63
46:HM:95:LEU:HB3	46:HM:96:PRO:HD2	1.81	0.63
3:EA:2346:A:H3'	3:EA:2347:C:C5'	2.28	0.63
3:CA:2529:G:H5'	7:CG:174:LYS:HG3	1.79	0.63
17:CQ:63:ARG:HH22	17:CQ:96:ASP:N	1.96	0.62
48:HO:46:HIS:O	48:HO:48:LYS:N	2.32	0.62
16:GP:50:ARG:HG3	16:GP:57:ALA:O	1.98	0.62
3:EA:517:C:OP2	27:E0:9:ARG:NH2	2.32	0.62
3:CA:1842:G:O2'	2:CC:250:GLN:NE2	2.32	0.62
44:FK:24:HIS:HB3	44:FK:31:ILE:HG13	1.81	0.62
35:HA:1492:A:H2'	35:HA:1493:A:H5'	1.79	0.62
35:FA:88:U:H2'	35:FA:89:U:C5	2.33	0.62
20:CT:57:VAL:O	20:CT:86:THR:OG1	2.16	0.62
35:BA:1166:G:N1	35:BA:1169:A:OP2	2.33	0.62
3:AA:546:U:O2'	3:AA:547:A:H4'	1.99	0.62
10:GJ:36:LEU:O	10:GJ:121:LYS:NZ	2.24	0.62
3:AA:1385:A:H1'	3:AA:1386:C:C6	2.34	0.62
36:DC:156:ARG:NH1	36:DC:193:TYR:O	2.32	0.62
3:CA:995:C:OP2	17:CQ:52:ARG:NH1	2.31	0.62
3:GA:447:A:OP2	60:GA:3212:HOH:O	2.15	0.62
39:DF:38:ARG:NH1	39:DF:63:ASN:OD1	2.32	0.62
3:CA:751:A:OP1	60:CA:3306:HOH:O	2.16	0.62
3:EA:2780:G:OP2	10:EJ:120:ARG:NE	2.31	0.62
20:CT:32:LEU:H	20:CT:83:ALA:HB3	1.64	0.62
4:GD:151:THR:HG22	4:GD:152:PRO:HD3	1.82	0.62
3:AA:2499:C:O2	60:AA:3523:HOH:O	2.13	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DK:17:SER:O	44:DK:80:LYS:N	2.31	0.62
40:HG:70:ARG:HG2	40:HG:96:ARG:HD3	1.81	0.62
15:CO:89:ASP:HA	15:CO:116:GLN:HB3	1.81	0.62
3:EA:1654:A:O2'	4:ED:118:PHE:CG	2.51	0.62
3:GA:2346:A:H3'	3:GA:2347:C:C5'	2.29	0.62
3:AA:81:G:HO2'	3:AA:295:G:HO2'	1.47	0.62
3:GA:221:A:N1	3:GA:265:A:O2'	2.32	0.62
3:CA:2867:G:O2'	3:CA:2868:A:OP2	2.16	0.62
3:GA:1073:A:H3'	3:GA:1074:G:H5''	1.80	0.62
21:GU:86:PHE:CE1	21:GU:90:LYS:HB2	2.35	0.62
60:EA:3798:HOH:O	4:ED:140:HIS:NE2	2.31	0.62
3:GA:945:A:N7	60:GA:3260:HOH:O	2.30	0.62
16:AP:4:ILE:O	16:AP:6:GLN:N	2.31	0.62
3:AA:42:A:H2'	3:AA:43:G:H5'	1.80	0.62
9:CI:80:LYS:HG3	9:CI:86:LYS:HA	1.82	0.62
5:EE:170:ARG:NH2	5:EE:176:ASP:OD2	2.31	0.62
3:EA:2484:G:OP1	13:EM:44:ARG:NH2	2.32	0.62
9:GI:29:GLN:NE2	55:HV:651:GLY:O	2.29	0.62
3:EA:2210:U:H4'	3:EA:2211:A:H5'	1.81	0.62
35:HA:254:G:OP1	50:HQ:68:SER:OG	2.13	0.62
35:BA:1130:A:OP1	42:BI:18:ARG:NH2	2.33	0.62
3:AA:1359:A:OP1	60:AA:3607:HOH:O	2.16	0.62
32:E5:31:ARG:CB	32:E5:108:VAL:HG22	2.29	0.62
3:GA:571:U:C4	3:GA:2030:A:C6	2.88	0.62
3:GA:2062:A:OP1	60:GA:3490:HOH:O	2.16	0.62
5:GE:176:ASP:OD1	5:GE:179:SER:N	2.25	0.62
3:GA:971:G:OP2	3:GA:974:G:N2	2.32	0.62
37:FD:150:LYS:NZ	37:FD:177:LYS:O	2.28	0.62
3:AA:1024:G:N7	60:AA:3700:HOH:O	2.31	0.62
36:HC:71:ALA:HA	36:HC:106:VAL:HG22	1.82	0.62
3:EA:2849:U:O4	16:EP:20:ARG:NH1	2.32	0.62
8:GH:3:VAL:HG12	8:GH:38:PRO:HA	1.82	0.62
23:EW:9:THR:OG1	23:EW:10:ARG:N	2.33	0.62
38:BE:99:ALA:O	38:BE:122:ASN:ND2	2.33	0.62
10:GJ:32:LEU:O	10:GJ:36:LEU:N	2.32	0.62
21:EU:15:GLY:O	21:EU:17:ASP:N	2.32	0.62
36:FC:42:TYR:CE2	36:FC:90:VAL:HG21	2.35	0.62
3:GA:1262:A:OP2	19:GS:99:ARG:NH2	2.32	0.62
34:FB:70:GLY:HA2	34:FB:163:ILE:HG22	1.82	0.62
34:BB:87:ASP:OD2	34:BB:224:ARG:NH1	2.33	0.62
21:AU:15:GLY:O	21:AU:17:ASP:N	2.32	0.62
35:FA:946:A:O2'	35:FA:1333:A:N3	2.28	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:GG:17:LYS:O	7:GG:19:ASN:N	2.33	0.62
33:A6:18:ASP:N	33:A6:18:ASP:OD1	2.32	0.62
35:DA:880:C:OP1	45:DL:9:ARG:NH2	2.32	0.62
35:DA:1255:G:O2'	35:DA:1258:G:N3	2.26	0.62
3:EA:784:G:OP2	60:EA:3313:HOH:O	2.16	0.62
3:EA:1824:G:N3	2:EC:251:THR:HG21	2.15	0.62
35:DA:142:G:H3'	35:DA:143:A:H8	1.65	0.62
36:HC:19:ASN:OD1	36:HC:54:ARG:NE	2.33	0.62
35:FA:951:G:OP2	46:FM:101:ARG:NH2	2.33	0.62
3:GA:1394:U:H4'	3:GA:1603:A:H4'	1.82	0.62
3:CA:1813:G:H1'	2:CC:49:THR:HG21	1.80	0.62
9:EI:58:ILE:HA	9:EI:68:PHE:HB2	1.81	0.62
55:BV:23:LYS:O	55:BV:24:THR:OG1	2.17	0.62
3:AA:784:G:O2'	3:AA:785:G:OP2	2.15	0.62
35:DA:652:U:O4	35:DA:752:G:O2'	2.17	0.62
14:AN:73:ASN:HA	14:AN:76:VAL:HG12	1.81	0.62
17:EQ:91:ARG:HE	17:EQ:93:ILE:HG23	1.65	0.61
35:BA:1033:G:C2'	35:BA:1034:G:H5'	2.30	0.61
3:GA:636:G:O2'	3:GA:638:G:O2'	2.13	0.61
42:DI:56:ASP:O	42:DI:60:LYS:NZ	2.32	0.61
20:ET:3:ARG:NH2	20:ET:42:GLU:OE2	2.32	0.61
37:DD:48:LEU:HD21	37:DD:53:VAL:N	2.15	0.61
35:DA:518:C:H2'	35:DA:530:G:C8	2.35	0.61
3:CA:1179:G:H2'	3:CA:1180:U:O4'	2.00	0.61
3:EA:839:U:O2'	3:EA:1191:G:N3	2.33	0.61
15:EO:105:ALA:O	15:EO:107:ALA:N	2.33	0.61
55:BV:190:ALA:N	55:BV:205:GLU:O	2.33	0.61
3:EA:633:A:OP1	12:EL:68:SER:OG	2.17	0.61
32:C5:24:SER:HB2	32:C5:116:GLU:HG3	1.77	0.61
3:GA:587:C:OP2	12:GL:21:ARG:NH1	2.32	0.61
3:CA:1913:A:N7	35:DA:1494:G:H5'	2.14	0.61
35:DA:1499:A:OP2	60:DA:1861:HOH:O	2.16	0.61
3:AA:370:G:O2'	3:AA:424:G:OP1	2.15	0.61
34:DB:16:GLY:HA3	34:DB:40:ILE:HG23	1.82	0.61
40:HG:102:ARG:O	40:HG:106:GLU:N	2.32	0.61
37:DD:99:ASP:OD1	37:DD:100:ASN:N	2.32	0.61
35:HA:180:U:O4	60:HA:1873:HOH:O	2.14	0.61
35:FA:585:G:N3	35:FA:879:C:H4'	2.15	0.61
3:AA:856:G:H21	23:AW:19:ARG:NH1	1.97	0.61
35:FA:405:U:OP1	35:FA:406:G:O2'	2.08	0.61
3:EA:1688:U:O2'	3:EA:1700:A:N7	2.29	0.61
55:BV:222:LEU:O	55:BV:226:ALA:N	2.31	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:100:ILE:HG22	9:AI:101:SER:N	2.15	0.61
35:HA:1306:A:H2'	35:HA:1307:U:O4'	2.00	0.61
7:GG:38:ASP:OD2	7:GG:63:GLN:NE2	2.33	0.61
55:FV:23:LYS:O	55:FV:24:THR:OG1	2.17	0.61
3:AA:2780:G:OP2	10:AJ:120:ARG:NE	2.33	0.61
34:HB:187:ASP:OD1	34:HB:188:THR:N	2.28	0.61
3:GA:2522:U:O2'	3:GA:2647:U:OP1	2.16	0.61
9:AI:131:THR:O	9:AI:134:SER:OG	2.16	0.61
55:BV:455:GLN:NE2	55:BV:487:GLN:OE1	2.32	0.61
44:BK:88:GLY:H	44:BK:114:THR:HG22	1.65	0.61
3:EA:1095:A:N6	55:FV:625:GLU:OE2	2.33	0.61
3:AA:163:C:O2'	3:AA:164:C:O5'	2.17	0.61
32:C5:26:VAL:HG11	32:C5:77:VAL:HG13	1.80	0.61
3:GA:504:A:HO2'	3:GA:505:A:P	2.19	0.61
3:GA:1095:A:H1'	55:HV:632:ILE:CG1	2.30	0.61
12:EL:81:ASP:O	12:EL:83:ALA:N	2.31	0.61
55:FV:645:GLN:O	55:FV:647:SER:N	2.32	0.61
3:EA:2720:U:OP1	16:EP:52:ARG:NH2	2.34	0.61
32:C5:24:SER:C	32:C5:116:GLU:HG2	2.20	0.61
3:CA:1107:G:H4'	32:C5:81:LEU:HA	1.83	0.61
3:CA:2015:A:C2	27:C0:2:VAL:HG22	2.36	0.61
3:AA:2478:A:P	31:A4:2:LYS:HZ1	2.23	0.61
35:BA:554:A:H5'	45:BL:26:ALA:HB1	1.83	0.61
13:EM:73:ILE:HG21	13:EM:91:TYR:CZ	2.36	0.61
2:AC:57:HIS:CD2	3:AA:1567:G:H5'	2.35	0.61
3:EA:555:G:O2'	3:EA:556:A:OP2	2.14	0.61
3:GA:2444:G:OP2	60:GA:3494:HOH:O	2.16	0.61
3:AA:1759:A:HO2'	3:AA:2714:G:HO2'	1.47	0.61
3:CA:2683:C:O2	11:CK:70:ARG:NH2	2.33	0.61
44:HK:93:ARG:NH2	44:HK:112:ASP:OD2	2.33	0.61
10:AJ:6:ALA:CB	10:AJ:45:THR:HG21	2.31	0.61
42:BI:57:MET:O	42:BI:60:LYS:N	2.31	0.61
3:GA:1077:A:O2'	9:GI:133:ARG:HD3	2.00	0.61
20:CT:29:THR:OG1	20:CT:86:THR:N	2.33	0.61
46:HM:3:ARG:HG2	46:HM:10:PRO:HD2	1.82	0.61
3:AA:923:G:H1'	23:AW:23:LYS:HD3	1.81	0.61
47:DN:91:GLY:O	47:DN:93:ILE:N	2.31	0.61
55:HV:80:GLU:OE2	55:HV:80:GLU:N	2.32	0.61
3:EA:2311:A:N3	6:EF:84:ILE:HD11	2.15	0.61
3:CA:1342:A:OP2	60:CA:3702:HOH:O	2.16	0.61
17:EQ:87:VAL:HG12	17:EQ:89:ILE:HG23	1.81	0.61
9:GI:76:ALA:O	9:GI:78:LEU:N	2.34	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:151:THR:HG22	4:CD:152:PRO:HD3	1.81	0.61
3:GA:2557:G:H2'	3:GA:2558:C:C6	2.36	0.61
42:HI:6:TYR:HB3	42:HI:89:GLU:HB2	1.82	0.61
55:FV:188:MET:HE3	55:FV:218:TRP:NE1	2.15	0.61
3:GA:1439:A:OP2	60:GA:3623:HOH:O	2.16	0.61
20:ET:39:THR:O	20:ET:41:ALA:N	2.33	0.61
34:FB:20:ARG:O	34:FB:22:TRP:N	2.33	0.61
32:E5:26:VAL:CG1	32:E5:77:VAL:CG1	2.78	0.61
3:AA:819:A:OP2	3:AA:1187:G:N2	2.23	0.61
2:GC:68:ARG:O	2:GC:188:ARG:NH2	2.33	0.61
3:GA:1080:A:O2'	9:GI:126:ARG:NE	2.29	0.61
3:GA:2500:U:O3'	60:GA:3660:HOH:O	2.16	0.61
35:BA:823:C:HO2'	41:BH:2:SER:N	1.98	0.61
20:GT:29:THR:OG1	20:GT:86:THR:N	2.34	0.61
3:GA:2088:A:N6	3:GA:2230:G:O6	2.34	0.61
35:HA:598:U:H4'	41:HH:86:TYR:CG	2.35	0.61
44:HK:56:ARG:N	44:HK:56:ARG:HD3	2.16	0.61
3:AA:2011:U:OP2	19:AS:16:LYS:NZ	2.31	0.61
32:E5:27:VAL:HG13	32:E5:83:ALA:HB3	1.83	0.61
16:AP:50:ARG:CB	16:AP:57:ALA:H	2.11	0.61
44:DK:125:LYS:O	54:DU:34:ARG:NH2	2.34	0.61
3:GA:194:G:OP2	60:GA:3743:HOH:O	2.16	0.61
47:HN:91:GLY:O	47:HN:93:ILE:N	2.31	0.61
3:CA:1799:G:O2'	2:CC:179:GLU:OE2	2.07	0.61
55:HV:645:GLN:O	55:HV:647:SER:N	2.34	0.61
3:AA:616:A:H4'	5:AE:101:TYR:CE2	2.36	0.61
34:HB:99:MET:HA	34:HB:106:VAL:HG21	1.83	0.61
3:GA:1003:G:N2	3:GA:1153:C:C2	2.69	0.61
5:GE:23:PHE:CD1	5:GE:111:GLU:HG3	2.36	0.61
3:EA:1517:G:C2	3:EA:1732:C:N3	2.68	0.61
38:HE:110:ALA:O	38:HE:111:MET:HB3	2.00	0.61
3:CA:14:A:OP2	60:CA:3544:HOH:O	2.16	0.61
3:GA:1776:G:OP2	60:GA:3445:HOH:O	2.16	0.61
3:GA:1993:U:H4'	4:GD:133:THR:HG21	1.81	0.61
3:AA:1828:G:OP2	60:AA:3791:HOH:O	2.16	0.60
3:CA:1913:A:H62	35:DA:1493:A:H2'	1.65	0.60
37:DD:188:ARG:NE	37:DD:197:GLU:OE2	2.34	0.60
12:EL:93:ASN:O	12:EL:95:LEU:N	2.34	0.60
35:DA:770:C:O5'	60:DA:1750:HOH:O	2.16	0.60
21:AU:38:ILE:CG2	21:AU:39:ASN:N	2.64	0.60
3:GA:1864:U:O3'	3:GA:2409:G:N2	2.33	0.60
5:GE:15:SER:N	5:GE:197:GLU:OE2	2.33	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:A4:36:ARG:HG2	31:A4:37:GLN:H	1.66	0.60
55:BV:177:GLU:N	55:BV:177:GLU:OE1	2.32	0.60
37:BD:27:ALA:HA	37:BD:31:LYS:HZ1	1.66	0.60
39:HF:10:VAL:HG21	39:HF:21:MET:SD	2.42	0.60
38:BE:41:ASP:OD1	38:BE:43:ASN:N	2.33	0.60
3:CA:1064:C:C5'	9:CI:89:SER:HB3	2.31	0.60
3:EA:1776:G:OP2	60:EA:3449:HOH:O	2.16	0.60
9:GI:82:ALA:HB1	9:GI:108:ILE:HD11	1.82	0.60
35:FA:966:G:O2'	42:FI:130:ARG:OXT	2.12	0.60
6:EF:59:ILE:HD12	6:EF:137:PHE:CG	2.37	0.60
17:CQ:105:PHE:O	17:CQ:108:LEU:N	2.33	0.60
35:HA:930:C:N4	60:HA:1821:HOH:O	2.33	0.60
50:DQ:6:ARG:HG2	50:DQ:6:ARG:HH11	1.65	0.60
3:CA:983:A:C6	3:CA:984:A:C2	2.89	0.60
23:AW:55:ASP:O	23:AW:57:THR:N	2.34	0.60
35:BA:1305:G:N2	35:BA:1331:G:O2'	2.34	0.60
3:GA:2107:G:H1	3:GA:2182:U:H2'	1.67	0.60
37:FD:19:LEU:HD11	37:FD:60:LYS:HG3	1.82	0.60
55:HV:92:HIS:O	55:HV:122:GLN:NE2	2.33	0.60
37:BD:95:GLU:OE2	37:BD:104:ARG:NE	2.31	0.60
3:GA:517:C:OP2	27:G0:9:ARG:NH2	2.34	0.60
3:EA:324:A:N6	3:EA:338:G:O2'	2.33	0.60
3:EA:1068:G:O6	3:EA:1069:A:N6	2.34	0.60
35:HA:568:G:O2'	35:HA:574:A:N1	2.31	0.60
55:BV:660:LEU:O	55:BV:662:GLU:N	2.34	0.60
3:EA:1913:A:N7	55:FV:507:LYS:NZ	2.46	0.60
35:FA:1468:A:C2'	35:FA:1469:C:H5'	2.30	0.60
3:CA:2364:C:OP1	23:CW:54:ARG:HD3	2.01	0.60
45:FL:4:VAL:HG23	50:FQ:36:LYS:HE2	1.83	0.60
35:HA:946:A:HO2'	35:HA:1333:A:C2'	2.13	0.60
53:DT:65:GLY:HA2	53:DT:68:HIS:CD2	2.36	0.60
28:C1:24:LYS:NZ	28:C1:51:ALA:O	2.32	0.60
3:GA:1820:U:OP1	2:GC:176:ARG:NH2	2.34	0.60
13:CM:22:GLN:O	13:CM:24:THR:N	2.35	0.60
35:DA:1147:C:O2	42:DI:18:ARG:NH1	2.34	0.60
23:CW:19:ARG:HA	23:CW:34:SER:HA	1.83	0.60
32:E5:71:CYS:CB	32:E5:117:LEU:HD12	2.31	0.60
35:HA:815:A:O2'	35:HA:1526:G:N2	2.30	0.60
42:FI:57:MET:SD	42:FI:58:VAL:N	2.74	0.60
45:HL:44:LYS:CB	45:HL:45:PRO:HD3	2.31	0.60
3:GA:819:A:C4	3:GA:1189:A:C2	2.89	0.60
3:AA:963:U:OP2	60:AA:3352:HOH:O	2.16	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:EP:4:ILE:HG22	16:EP:5:LYS:H	1.64	0.60
3:AA:947:A:HO2'	3:AA:984:A:H2	1.50	0.60
35:BA:1296:C:O3'	35:BA:1302:C:N4	2.34	0.60
5:EE:63:LYS:NZ	60:EE:402:HOH:O	2.31	0.60
25:GY:16:THR:O	25:GY:20:ASN:ND2	2.35	0.60
3:CA:138:U:H5'	3:CA:139:U:H5''	1.84	0.60
38:BE:80:THR:OG1	38:BE:81:LEU:N	2.34	0.60
45:FL:56:ARG:NH2	45:FL:60:GLY:O	2.34	0.60
3:GA:1619:G:N7	60:GA:3632:HOH:O	2.32	0.60
8:EH:43:ASN:N	8:EH:43:ASN:OD1	2.34	0.60
37:FD:80:ALA:HA	37:FD:86:THR:HG23	1.84	0.60
3:GA:324:A:N6	3:GA:338:G:O2'	2.34	0.60
35:BA:1492:A:C2'	35:BA:1493:A:H5'	2.31	0.60
55:BV:221:ASN:HA	55:BV:224:GLU:HB3	1.84	0.60
23:CW:9:THR:OG1	23:CW:10:ARG:N	2.34	0.60
3:CA:450:G:O6	60:CA:3243:HOH:O	2.12	0.60
47:HN:67:THR:O	60:HN:203:HOH:O	2.15	0.60
38:BE:111:MET:CE	38:BE:125:ALA:HB1	2.31	0.60
3:EA:61:C:H2'	3:EA:62:U:H5'	1.83	0.60
1:GB:63:C:N4	60:GB:1302:HOH:O	2.35	0.60
43:DJ:9:ARG:N	43:DJ:99:GLN:O	2.34	0.60
3:GA:126:A:C6	3:GA:127:A:N1	2.70	0.60
3:AA:830:G:OP2	60:AA:3348:HOH:O	2.17	0.60
55:FV:362:ARG:NH2	55:FV:373:GLU:OE2	2.30	0.60
23:CW:73:PRO:HG2	23:CW:76:ARG:HD2	1.84	0.60
34:HB:82:ALA:O	34:HB:88:GLN:NE2	2.34	0.60
3:GA:1846:G:N2	3:GA:1895:C:C2	2.70	0.60
4:CD:149:ASN:OD1	4:CD:150:GLN:N	2.34	0.60
39:BF:98:GLU:HG3	39:BF:99:ALA:N	2.16	0.60
35:DA:572:A:OP1	60:DA:1732:HOH:O	2.16	0.60
35:BA:1025:U:H5''	35:BA:1026:G:H5'	1.82	0.60
38:FE:110:ALA:O	38:FE:111:MET:HB3	2.02	0.60
3:EA:1818:U:OP2	2:EC:155:ARG:NH1	2.34	0.60
28:E1:22:THR:OG1	28:E1:23:THR:N	2.32	0.60
45:HL:63:VAL:HG21	45:HL:95:TYR:HE2	1.66	0.60
7:CG:84:LYS:HG3	7:CG:132:LEU:N	2.17	0.60
3:GA:2683:C:N3	3:GA:2727:A:O2'	2.35	0.60
35:HA:1331:G:O2'	35:HA:1332:A:OP2	2.19	0.60
10:CJ:2:LYS:NZ	10:CJ:2:LYS:O	2.35	0.60
36:HC:40:ARG:NH1	47:HN:92:GLU:OE2	2.34	0.60
3:CA:2800:A:H3'	3:CA:2801:G:C5'	2.32	0.60
3:GA:470:A:N6	20:GT:72:GLN:OE1	2.34	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:GI:60:VAL:HG22	9:GI:66:PHE:CD2	2.37	0.60
3:GA:2140:G:N7	3:GA:2152:G:N3	2.50	0.60
50:DQ:48:ASP:OD2	50:DQ:52:GLU:N	2.35	0.60
10:GJ:17:VAL:HG23	10:GJ:137:PRO:HB2	1.81	0.60
26:EZ:8:GLN:O	26:EZ:10:ARG:N	2.33	0.60
3:AA:1248:G:N7	5:AE:46:GLN:NE2	2.48	0.60
3:EA:1509:A:HO2'	3:EA:1510:G:P	2.23	0.60
23:EW:37:VAL:HG13	23:EW:56:HIS:HB2	1.84	0.60
42:FI:6:TYR:CG	42:FI:89:GLU:HB2	2.37	0.60
35:HA:598:U:H4'	41:HH:86:TYR:CD2	2.37	0.60
3:CA:912:C:OP1	13:CM:8:LYS:NZ	2.21	0.60
32:C5:35:VAL:HA	32:C5:38:MET:SD	2.42	0.60
17:GQ:63:ARG:NH2	17:GQ:92:LYS:O	2.34	0.60
41:BH:18:GLN:NE2	41:BH:70:ALA:HB1	2.17	0.60
34:FB:132:GLU:OE2	34:FB:136:ARG:NH1	2.35	0.60
3:CA:219:A:N3	3:CA:234:U:O2'	2.31	0.60
35:DA:1197:A:OP2	60:DA:1773:HOH:O	2.16	0.60
3:AA:511:U:OP2	60:AA:3758:HOH:O	2.15	0.60
35:FA:1181:G:O2'	35:FA:1182:G:C8	2.55	0.60
15:AO:105:ALA:O	15:AO:107:ALA:N	2.34	0.60
23:AW:9:THR:OG1	23:AW:10:ARG:N	2.31	0.60
32:A5:29:ASP:HA	32:A5:108:VAL:HG11	1.82	0.60
3:GA:1070:A:N1	9:GI:8:VAL:HG22	2.17	0.60
3:EA:272:A:O2'	3:EA:273:G:O5'	2.20	0.60
3:GA:1332:G:O5'	60:GA:3386:HOH:O	2.16	0.60
9:GI:122:GLU:O	9:GI:126:ARG:NH1	2.34	0.60
52:HS:29:LYS:HB3	52:HS:30:PRO:HD2	1.84	0.60
3:GA:2742:G:OP1	31:G4:36:ARG:NH1	2.32	0.60
55:DV:124:GLU:OE2	55:DV:677:ARG:NH1	2.35	0.60
3:EA:790:U:OP2	60:EA:3748:HOH:O	2.16	0.60
3:CA:210:C:OP1	29:C2:29:GLN:NE2	2.35	0.60
55:FV:295:ILE:HG13	55:FV:339:TYR:CD2	2.36	0.60
3:GA:1613:G:O2'	29:G2:3:ARG:NH2	2.34	0.60
3:GA:1968:G:OP1	60:GA:3462:HOH:O	2.16	0.60
36:FC:3:GLN:N	36:FC:3:GLN:OE1	2.35	0.60
32:C5:24:SER:C	32:C5:116:GLU:HB3	2.18	0.59
3:AA:276:U:O2'	3:AA:278:A:N7	2.34	0.59
3:AA:2353:G:N3	23:AW:30:VAL:CG1	2.65	0.59
39:HF:15:SER:C	39:HF:17:GLN:H	2.04	0.59
3:GA:1172:C:C5	3:GA:1173:U:H1'	2.37	0.59
37:DD:100:ASN:OD1	37:DD:111:ARG:NH1	2.35	0.59
34:DB:49:PHE:O	34:DB:53:LEU:N	2.35	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:299:G:O6	60:HA:1833:HOH:O	2.10	0.59
43:BJ:57:VAL:HG12	43:BJ:58:ASN:H	1.67	0.59
9:AI:93:ASN:ND2	9:AI:135:MET:O	2.36	0.59
3:AA:370:G:OP2	60:AA:3552:HOH:O	2.16	0.59
35:HA:1343:G:H1'	42:HI:123:ARG:CZ	2.32	0.59
3:EA:2588:G:OP2	60:EA:3541:HOH:O	2.16	0.59
45:BL:56:ARG:NH1	45:BL:62:GLU:OE1	2.35	0.59
3:CA:998:C:OP2	17:CQ:57:ARG:NH2	2.35	0.59
14:CN:33:ILE:HD11	14:CN:118:ARG:HD3	1.83	0.59
48:HO:45:GLU:HG3	48:HO:46:HIS:H	1.66	0.59
5:CE:176:ASP:CG	5:CE:179:SER:HG	2.06	0.59
3:CA:1217:U:OP2	17:CQ:14:LYS:NZ	2.34	0.59
55:HV:321:ALA:O	55:HV:394:GLY:N	2.32	0.59
35:BA:1397:C:O2'	35:BA:1398:A:OP1	2.20	0.59
9:AI:92:PRO:O	9:AI:94:LYS:N	2.36	0.59
3:AA:2800:A:H3'	3:AA:2801:G:C5'	2.32	0.59
35:DA:201:G:N2	35:DA:469:C:O2	2.34	0.59
3:GA:1509:A:H1'	3:GA:1510:G:OP2	2.02	0.59
35:BA:1317:C:OP2	47:BN:28:LYS:NZ	2.35	0.59
17:AQ:63:ARG:NH1	17:AQ:95:ALA:O	2.35	0.59
23:EW:39:GLN:HG3	23:EW:56:HIS:HB3	1.84	0.59
55:DV:217:GLU:O	55:DV:220:GLN:N	2.36	0.59
3:GA:1070:A:H5'	3:GA:1072:C:OP2	2.03	0.59
3:GA:2066:C:OP1	60:GA:3504:HOH:O	2.16	0.59
3:GA:451:U:O3'	5:GE:47:LYS:NZ	2.36	0.59
35:DA:951:G:OP2	46:DM:101:ARG:NH2	2.36	0.59
3:EA:2711:A:OP2	60:EA:3545:HOH:O	2.16	0.59
40:BG:63:GLU:OE1	40:BG:70:ARG:NH1	2.35	0.59
42:BI:94:LEU:O	42:BI:96:SER:N	2.33	0.59
43:BJ:88:MET:O	43:BJ:90:LEU:N	2.30	0.59
35:BA:843:U:N3	35:BA:844:G:O6	2.36	0.59
4:GD:39:ASP:OD1	4:GD:40:LEU:N	2.36	0.59
45:BL:44:LYS:CB	45:BL:45:PRO:HD3	2.32	0.59
3:EA:125:A:OP2	29:E2:19:ARG:NH2	2.35	0.59
35:DA:1110:A:OP2	60:DA:1851:HOH:O	2.17	0.59
55:HV:546:PRO:HD3	55:HV:583:TYR:CE2	2.37	0.59
16:AP:50:ARG:HB3	16:AP:57:ALA:N	2.17	0.59
42:BI:45:ARG:HE	42:BI:46:MET:H	1.50	0.59
16:GP:50:ARG:HG2	16:GP:57:ALA:N	2.16	0.59
45:HL:83:ARG:N	45:HL:96:HIS:O	2.34	0.59
40:BG:4:ARG:HG3	40:BG:5:ARG:N	2.16	0.59
39:DF:46:GLN:HA	39:DF:56:LYS:HG2	1.83	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:1654:A:O2'	4:CD:118:PHE:CG	2.54	0.59
55:BV:80:GLU:OE2	55:BV:80:GLU:N	2.33	0.59
55:BV:200:VAL:O	55:BV:201:THR:OG1	2.21	0.59
32:C5:26:VAL:CG2	32:C5:115:GLY:N	2.61	0.59
3:CA:2269:G:O2'	23:CW:18:LYS:HG2	2.02	0.59
38:HE:41:ASP:OD2	38:HE:42:GLY:N	2.36	0.59
3:AA:1930:G:O2'	3:AA:1968:G:O6	2.17	0.59
20:CT:54:GLU:HG3	20:CT:88:LYS:HB2	1.83	0.59
31:C4:36:ARG:HG2	31:C4:37:GLN:H	1.68	0.59
3:AA:1262:A:OP2	19:AS:99:ARG:NH2	2.35	0.59
2:AC:256:THR:OG1	3:AA:1803:A:O3'	2.19	0.59
35:DA:323:U:OP2	60:DA:1834:HOH:O	2.17	0.59
3:GA:2390:U:O5'	30:G3:34:LYS:NZ	2.33	0.59
24:GX:5:GLN:OE1	24:GX:49:ARG:N	2.34	0.59
3:GA:243:U:OP1	30:G3:5:THR:OG1	2.10	0.59
36:HC:8:ASN:HD22	47:HN:90:ARG:HA	1.66	0.59
32:E5:117:LEU:HD22	32:E5:120:ALA:CA	2.17	0.59
3:GA:1064:C:N4	3:GA:1065:U:O4	2.36	0.59
55:FV:219:HIS:CE1	55:FV:221:ASN:HB2	2.37	0.59
3:AA:1106:G:OP1	32:A5:62:ARG:NH2	2.35	0.59
3:EA:2592:G:OP1	60:EA:3464:HOH:O	2.16	0.59
3:AA:983:A:C6	3:AA:984:A:C2	2.90	0.59
37:FD:197:GLU:O	37:FD:200:ILE:N	2.36	0.59
35:FA:382:A:H2'	35:FA:383:A:C8	2.38	0.59
10:EJ:80:HIS:O	10:EJ:82:GLY:N	2.35	0.59
3:AA:1338:G:O2'	20:AT:18:GLU:OE1	2.20	0.59
3:AA:1131:G:OP1	10:AJ:82:GLY:HA2	2.02	0.59
35:DA:735:C:H5'	51:DR:60:LYS:HD3	1.85	0.59
2:EC:255:LYS:O	2:EC:257:ARG:N	2.36	0.59
32:A5:27:VAL:HG13	32:A5:83:ALA:HB3	1.83	0.59
37:HD:188:ARG:NH1	37:HD:191:LEU:O	2.35	0.59
35:HA:1451:U:HO2'	35:HA:1452:C:P	2.26	0.59
3:GA:2134:A:N6	3:GA:2156:G:O2'	2.36	0.59
2:EC:254:LYS:O	2:EC:256:THR:N	2.35	0.59
15:AO:89:ASP:HA	15:AO:116:GLN:HB3	1.84	0.59
7:CG:1:SER:O	7:CG:3:VAL:N	2.36	0.59
3:GA:1354:A:OP1	2:GC:35:LYS:NZ	2.36	0.59
3:CA:859:G:O2'	3:CA:916:G:O6	2.11	0.59
35:DA:723:U:O2	35:DA:855:U:O2'	2.19	0.59
38:DE:19:ASN:OD1	38:DE:20:ARG:N	2.36	0.59
3:GA:1253:A:N7	60:GA:3328:HOH:O	2.32	0.59
32:E5:54:VAL:O	32:E5:56:ARG:N	2.36	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1492:A:C2'	35:DA:1493:A:H5'	2.33	0.59
3:AA:635:C:OP2	12:AL:126:ARG:NH1	2.35	0.59
3:AA:480:A:OP2	21:AU:43:LYS:NZ	2.34	0.59
14:CN:98:LEU:HB3	27:C0:42:ILE:HD11	1.85	0.59
23:AW:51:GLY:HA3	23:AW:59:PHE:CE1	2.38	0.59
32:C5:17:GLU:HA	32:C5:88:HIS:CE1	2.37	0.59
10:CJ:4:PHE:N	10:CJ:44:TYR:OH	2.36	0.59
3:EA:994:C:O2'	3:EA:996:A:OP1	2.17	0.59
35:HA:1492:A:C2'	35:HA:1493:A:H5'	2.33	0.59
14:AN:98:LEU:O	14:AN:112:TYR:N	2.34	0.59
3:AA:1359:A:OP1	60:AA:3610:HOH:O	2.17	0.59
3:GA:2106:U:N3	3:GA:2107:G:N7	2.51	0.59
3:CA:2352:A:N1	23:CW:30:VAL:HG11	2.18	0.59
6:GF:1:ALA:HB3	6:GF:4:HIS:HB2	1.84	0.59
3:EA:1076:C:O2'	9:EI:92:PRO:HB3	2.03	0.59
35:FA:1526:G:P	54:FU:39:GLU:HG2	2.42	0.59
3:EA:1784:A:N6	60:EA:3686:HOH:O	2.35	0.59
35:FA:1033:G:C2'	35:FA:1034:G:H5'	2.32	0.59
55:HV:441:GLU:OE1	55:HV:472:ARG:NH2	2.35	0.59
32:C5:71:CYS:HB3	32:C5:117:LEU:CD1	2.33	0.58
32:E5:117:LEU:CD2	32:E5:120:ALA:CA	2.72	0.58
32:E5:103:ASN:ND2	32:E5:107:GLU:O	2.36	0.58
35:HA:429:U:P	37:HD:13:ARG:HH22	2.26	0.58
42:DI:22:LYS:HG3	42:DI:23:PRO:HD2	1.84	0.58
3:GA:1361:G:OP2	60:GA:3607:HOH:O	2.16	0.58
3:EA:586:A:N1	3:EA:809:G:O2'	2.23	0.58
17:AQ:84:LYS:O	17:AQ:86:SER:N	2.36	0.58
52:FS:3:ARG:O	52:FS:4:SER:OG	2.18	0.58
35:DA:975:A:N1	43:DJ:62:ARG:NH2	2.50	0.58
3:EA:2615:U:C2	27:E0:3:GLN:HA	2.38	0.58
2:EC:79:ARG:NH2	2:EC:81:GLU:OE2	2.36	0.58
15:EO:2:ASP:OD1	15:EO:3:LYS:N	2.36	0.58
24:EX:4:CYS:SG	24:EX:7:THR:OG1	2.58	0.58
6:GF:27:VAL:O	6:GF:29:ARG:NH1	2.36	0.58
53:BT:3:ASN:O	53:BT:5:LYS:N	2.36	0.58
34:DB:182:VAL:N	34:DB:196:ASP:OD2	2.36	0.58
51:DR:73:ARG:O	51:DR:74:HIS:ND1	2.36	0.58
12:GL:93:ASN:O	12:GL:95:LEU:N	2.36	0.58
3:GA:1315:C:OP2	60:GA:3746:HOH:O	2.16	0.58
3:GA:644:A:N1	3:GA:2369:A:H1'	2.18	0.58
23:AW:51:GLY:HA3	23:AW:59:PHE:CZ	2.38	0.58
52:FS:4:SER:O	52:FS:6:LYS:N	2.31	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:4:ILE:HD11	22:CV:50:MET:CE	2.33	0.58
11:EK:78:ARG:NH1	16:EP:70:GLU:OE2	2.36	0.58
3:GA:1013:C:OP2	60:GA:3593:HOH:O	2.16	0.58
36:BC:7:PRO:HG2	36:BC:184:TYR:CG	2.38	0.58
11:CK:71:ARG:HB2	11:CK:105:ARG:NH2	2.18	0.58
54:HU:40:LYS:N	54:HU:41:PRO:CD	2.66	0.58
35:DA:1361:G:C5	35:DA:1362:A:N7	2.71	0.58
14:EN:73:ASN:HA	14:EN:76:VAL:HG12	1.85	0.58
3:EA:1080:A:H1'	9:EI:127:SER:HA	1.84	0.58
37:DD:9:LEU:HD21	37:DD:22:LYS:HG3	1.84	0.58
3:AA:1654:A:O2'	4:AD:118:PHE:CG	2.55	0.58
55:DV:105:VAL:O	55:DV:337:ARG:NH1	2.37	0.58
3:CA:1313:U:OP1	60:CA:3383:HOH:O	2.17	0.58
35:HA:816:A:N7	60:HA:1755:HOH:O	2.32	0.58
37:FD:65:TYR:O	37:FD:115:ARG:NH1	2.30	0.58
38:BE:82:GLN:HG2	38:BE:150:PRO:HD3	1.85	0.58
35:FA:1290:G:OP1	40:FG:35:LYS:NZ	2.36	0.58
37:BD:32:CYS:SG	37:BD:33:LYS:N	2.75	0.58
3:GA:811:U:H2'	12:GL:21:ARG:HA	1.86	0.58
26:GZ:8:GLN:NE2	26:GZ:29:ARG:O	2.36	0.58
55:BV:219:HIS:CE1	55:BV:221:ASN:HB2	2.38	0.58
3:GA:1919:A:H2	35:HA:1495:U:HO2'	1.50	0.58
3:AA:1076:C:H1'	9:AI:93:ASN:HB3	1.86	0.58
35:HA:1250:A:N3	35:HA:1370:G:O2'	2.35	0.58
50:DQ:27:ARG:NH2	50:DQ:42:THR:OG1	2.35	0.58
4:ED:118:PHE:HD1	4:ED:119:ALA:H	1.49	0.58
11:CK:76:VAL:HB	16:CP:72:VAL:HG22	1.85	0.58
3:AA:800:A:OP1	60:AA:3320:HOH:O	2.17	0.58
3:AA:802:A:OP1	60:AA:3326:HOH:O	2.17	0.58
35:BA:259:G:OP2	60:BA:1701:HOH:O	2.17	0.58
36:DC:111:LEU:HD21	36:DC:144:LEU:HB2	1.85	0.58
50:HQ:52:GLU:HG2	50:HQ:53:CYS:H	1.67	0.58
3:EA:85:G:OP1	21:EU:6:ARG:N	2.35	0.58
3:CA:265:A:H4'	3:CA:266:G:OP1	2.03	0.58
35:DA:1534:A:N6	54:DU:44:GLU:OE1	2.36	0.58
5:AE:168:ASP:OD2	5:AE:170:ARG:NH2	2.36	0.58
32:A5:45:GLY:HA2	32:A5:49:GLY:HA2	1.85	0.58
7:CG:169:ARG:NH1	31:C4:29:ALA:O	2.36	0.58
17:CQ:93:ILE:O	17:CQ:96:ASP:N	2.32	0.58
55:FV:188:MET:HE3	55:FV:218:TRP:CD1	2.38	0.58
38:BE:41:ASP:OD1	38:BE:42:GLY:N	2.37	0.58
20:GT:26:LYS:O	20:GT:27:SER:OG	2.20	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:C5:45:GLY:HA2	32:C5:49:GLY:HA2	1.86	0.58
2:EC:16:VAL:N	2:EC:203:VAL:HG12	2.17	0.58
37:DD:132:ILE:HG22	37:DD:134:SER:H	1.67	0.58
40:DG:64:VAL:O	40:DG:68:ASN:ND2	2.37	0.58
32:A5:15:VAL:HG22	32:A5:66:GLY:HA3	1.84	0.58
1:CB:51:G:C6	1:CB:52:A:C6	2.92	0.58
36:DC:3:GLN:OE1	36:DC:3:GLN:N	2.36	0.58
35:FA:1366:C:O2'	43:FJ:62:ARG:NH2	2.36	0.58
3:AA:1938:A:OP2	60:AA:3718:HOH:O	2.16	0.58
35:BA:756:C:HO2'	41:BH:2:SER:N	2.02	0.58
47:FN:19:LYS:O	47:FN:23:LYS:HD3	2.01	0.58
55:DV:358:GLU:OE2	55:DV:390:ASP:N	2.37	0.58
20:AT:35:ALA:HB3	20:AT:38:ALA:HB2	1.85	0.58
35:DA:17:U:H2'	35:DA:18:C:C6	2.37	0.58
48:BO:14:GLU:O	48:BO:84:ARG:NH2	2.35	0.58
2:AC:16:VAL:N	2:AC:203:VAL:HG12	2.17	0.58
21:CU:37:GLY:N	21:CU:61:GLU:OE2	2.34	0.58
1:GB:82:U:H5''	26:GZ:16:LEU:HD11	1.85	0.58
40:FG:57:SER:OG	40:FG:58:GLU:N	2.37	0.58
19:GS:88:ARG:CG	19:GS:88:ARG:HH21	2.16	0.58
13:AM:41:LEU:HD11	13:AM:126:ILE:HD13	1.85	0.58
3:GA:252:G:N2	3:GA:253:C:H1'	2.18	0.58
35:FA:729:A:N1	35:FA:764:C:O2'	2.31	0.58
35:BA:867:G:O2'	35:BA:873:A:N1	2.30	0.58
32:E5:33:VAL:N	32:E5:36:ASP:OD2	2.35	0.58
44:DK:128:ARG:HG3	54:DU:34:ARG:NH2	2.18	0.58
4:CD:148:GLN:OE1	4:CD:148:GLN:N	2.36	0.58
4:CD:118:PHE:HD1	4:CD:119:ALA:H	1.51	0.58
3:GA:742:A:H2'	3:GA:743:A:C8	2.38	0.58
46:DM:114:LYS:HB3	46:DM:115:PRO:HD3	1.86	0.58
35:DA:890:G:O2'	35:DA:906:A:N6	2.37	0.58
40:HG:28:ASN:OD1	40:HG:36:LYS:NZ	2.37	0.58
3:GA:2233:U:H2'	3:GA:2234:G:C8	2.38	0.58
3:GA:307:G:N2	3:GA:310:A:OP2	2.35	0.58
35:DA:595:A:N6	35:DA:641:U:O2'	2.36	0.58
3:GA:322:A:H5'	3:GA:340:A:H1'	1.83	0.58
11:EK:13:ASN:O	11:EK:15:GLY:N	2.35	0.58
14:GN:29:VAL:HG11	14:GN:75:ILE:HG23	1.84	0.58
32:C5:56:ARG:O	32:C5:57:ASN:ND2	2.36	0.58
3:GA:2331:G:O2'	3:GA:2336:A:N1	2.37	0.58
3:GA:2237:G:O2'	3:GA:2239:G:N7	2.33	0.58
54:DU:35:ARG:HB3	54:DU:40:LYS:HZ3	1.69	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:536:C:OP1	60:HA:1880:HOH:O	2.17	0.58
6:GF:11:VAL:HG22	6:GF:172:PHE:CZ	2.39	0.58
45:DL:44:LYS:CB	45:DL:45:PRO:HD3	2.34	0.58
45:DL:44:LYS:HB2	45:DL:45:PRO:HD3	1.84	0.58
9:GI:79:LEU:HA	9:GI:83:ALA:HB3	1.85	0.58
37:HD:78:GLU:OE1	37:HD:81:ARG:NE	2.28	0.58
35:HA:981:U:O4'	60:HA:1772:HOH:O	2.17	0.58
3:EA:846:U:O2'	3:EA:847:U:O5'	2.20	0.58
9:AI:37:PHE:O	9:AI:41:PHE:HB3	2.04	0.58
3:CA:2552:U:OP2	60:CA:3428:HOH:O	2.17	0.58
35:BA:1007:U:H2'	35:BA:1008:U:H5'	1.85	0.58
46:HM:20:THR:HA	46:HM:25:VAL:HG23	1.86	0.58
55:HV:23:LYS:O	55:HV:24:THR:OG1	2.17	0.58
53:HT:82:GLN:HA	53:HT:85:LYS:HG2	1.85	0.58
3:EA:528:A:C2	3:EA:2043:C:H4'	2.39	0.58
35:FA:17:U:H2'	35:FA:18:C:C6	2.39	0.58
35:DA:117:G:OP2	60:DA:1874:HOH:O	2.17	0.58
3:GA:577:G:O2'	3:GA:1254:A:OP1	2.21	0.58
16:GP:50:ARG:HB3	16:GP:57:ALA:H	1.67	0.58
35:HA:775:G:N2	35:HA:804:U:O4	2.36	0.58
3:GA:1019:U:C5	3:GA:1144:A:C2	2.92	0.58
30:E3:50:SER:OG	30:E3:53:ASP:OD2	2.21	0.58
20:GT:54:GLU:OE2	20:GT:54:GLU:N	2.37	0.58
55:HV:62:THR:OG1	59:HV:801:GCP:O1G	2.22	0.58
7:GG:162:ARG:CZ	7:GG:168:VAL:HG11	2.33	0.58
35:HA:1128:C:O2'	35:HA:1147:C:N3	2.37	0.58
20:AT:54:GLU:HG3	20:AT:88:LYS:HB2	1.86	0.58
10:CJ:64:VAL:HG22	10:CJ:68:LYS:HB2	1.86	0.58
10:CJ:81:ILE:HG13	10:CJ:82:GLY:N	2.19	0.58
3:CA:1613:G:O2'	29:C2:3:ARG:NH2	2.34	0.58
32:E5:31:ARG:O	32:E5:108:VAL:CG2	2.51	0.57
3:GA:2600:A:N6	60:GA:3788:HOH:O	2.28	0.57
3:AA:1076:C:H2'	3:AA:1077:A:O4'	2.03	0.57
3:GA:265:A:N1	3:GA:427:U:O2'	2.33	0.57
35:FA:1182:G:H4'	35:FA:1183:U:C5'	2.34	0.57
34:DB:117:GLU:HA	34:DB:120:SER:HB2	1.85	0.57
35:FA:352:C:N3	35:FA:356:A:N6	2.52	0.57
42:BI:34:SER:HB3	42:BI:37:GLN:CG	2.34	0.57
3:EA:1648:U:OP1	60:EA:3385:HOH:O	2.17	0.57
3:EA:1315:C:OP2	60:EA:3754:HOH:O	2.17	0.57
35:HA:1329:A:OP1	46:HM:26:GLY:N	2.37	0.57
55:DV:230:SER:OG	55:DV:232:GLU:OE1	2.21	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GB:14:U:OP2	1:GB:70:C:O2'	2.21	0.57
35:FA:995:C:N3	35:FA:1046:A:O2'	2.28	0.57
19:GS:14:ALA:O	19:GS:17:VAL:N	2.37	0.57
36:BC:129:MET:HB3	36:BC:132:ARG:HG3	1.84	0.57
34:HB:90:PHE:H	34:HB:149:GLY:HA3	1.69	0.57
32:E5:31:ARG:HB3	32:E5:108:VAL:HG22	1.86	0.57
35:DA:1468:A:C2'	35:DA:1469:C:H5'	2.34	0.57
3:AA:27:G:O2'	3:AA:28:A:OP2	2.19	0.57
1:GB:99:A:C5	1:GB:100:G:C8	2.92	0.57
9:EI:70:THR:OG1	9:EI:71:LYS:N	2.36	0.57
55:FV:500:ASP:N	55:FV:521:ASP:OD1	2.37	0.57
35:FA:1297:G:H5'	35:FA:1302:C:N4	2.20	0.57
5:GE:158:PHE:HA	5:GE:169:VAL:HG21	1.86	0.57
3:CA:1326:U:HO2'	3:CA:2010:G:HO2'	1.53	0.57
34:HB:52:ALA:HB3	34:HB:199:ILE:HD11	1.86	0.57
3:CA:42:A:C2'	3:CA:43:G:H5'	2.33	0.57
3:EA:2757:A:N1	7:EG:66:THR:HG21	2.19	0.57
6:EF:118:ALA:O	6:EF:166:ARG:NH1	2.36	0.57
3:GA:231:A:C6	3:GA:232:G:C6	2.92	0.57
9:CI:11:GLN:N	9:CI:11:GLN:OE1	2.37	0.57
35:DA:1025:U:H5''	35:DA:1026:G:H5'	1.86	0.57
10:CJ:6:ALA:HB3	10:CJ:45:THR:HG21	1.85	0.57
17:AQ:63:ARG:HH22	17:AQ:95:ALA:C	2.08	0.57
3:GA:822:G:H2'	3:GA:823:C:H6	1.69	0.57
3:GA:1782:U:C6	3:GA:2609:U:C5	2.92	0.57
42:FI:44:ALA:HB1	42:FI:47:VAL:HG13	1.85	0.57
55:DV:190:ALA:N	55:DV:205:GLU:O	2.38	0.57
3:AA:1386:C:H2'	3:AA:1387:A:C8	2.39	0.57
3:AA:2548:U:O2	11:AK:23:LYS:NZ	2.37	0.57
55:BV:98:GLU:O	55:BV:102:SER:OG	2.07	0.57
3:EA:2612:C:OP2	60:EA:3538:HOH:O	2.17	0.57
25:EY:16:THR:O	25:EY:20:ASN:ND2	2.38	0.57
35:FA:1310:G:OP2	46:FM:87:ARG:NH2	2.35	0.57
3:CA:45:G:N2	3:CA:433:C:O2	2.31	0.57
51:BR:73:ARG:O	51:BR:74:HIS:ND1	2.38	0.57
55:BV:645:GLN:O	55:BV:647:SER:N	2.37	0.57
32:C5:24:SER:C	32:C5:116:GLU:CB	2.73	0.57
17:EQ:91:ARG:HH11	18:ER:11:GLN:N	2.01	0.57
23:EW:30:VAL:O	23:EW:30:VAL:CG2	2.52	0.57
23:AW:39:GLN:HG2	23:AW:41:GLY:H	1.69	0.57
35:FA:1033:G:H2'	35:FA:1034:G:H5'	1.86	0.57
2:CC:203:VAL:O	2:CC:205:GLY:N	2.36	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:FV:697:ALA:O	55:FV:699:ILE:N	2.36	0.57
3:AA:31:C:OP1	60:AA:3695:HOH:O	2.18	0.57
6:EF:147:ARG:HG3	6:EF:149:ARG:H	1.67	0.57
42:BI:6:TYR:CD1	42:BI:89:GLU:HB2	2.40	0.57
35:HA:920:U:H2'	35:HA:921:U:C6	2.40	0.57
47:FN:54:ASP:OD1	47:FN:59:ARG:NH1	2.37	0.57
41:DH:77:ARG:NE	41:DH:79:SER:O	2.38	0.57
32:E5:23:LEU:HA	32:E5:118:ILE:HD11	1.84	0.57
7:CG:84:LYS:N	7:CG:84:LYS:HD2	2.19	0.57
37:BD:31:LYS:N	37:BD:31:LYS:HD3	2.20	0.57
38:BE:110:ALA:O	38:BE:111:MET:HB3	2.04	0.57
35:HA:558:G:OP1	60:HA:1833:HOH:O	2.18	0.57
35:HA:1348:U:H4'	42:HI:122:ARG:HG3	1.85	0.57
19:ES:12:SER:O	19:ES:101:SER:OG	2.23	0.57
6:GF:79:ARG:HB3	6:GF:82:TYR:CE2	2.39	0.57
16:AP:63:ILE:HA	16:AP:68:GLY:HA2	1.85	0.57
3:GA:1203:U:OP2	3:GA:1204:A:O2'	2.20	0.57
3:CA:1535:A:H4'	3:CA:1536:C:OP2	2.05	0.57
55:DV:75:MET:SD	55:DV:202:PHE:HZ	2.26	0.57
35:FA:675:A:H1'	44:FK:118:HIS:CD2	2.40	0.57
34:HB:14:HIS:ND1	34:HB:14:HIS:O	2.38	0.57
3:GA:2025:C:OP2	60:GA:3470:HOH:O	2.17	0.57
38:BE:24:THR:HA	38:BE:29:ARG:HA	1.87	0.57
3:CA:2780:G:OP2	10:CJ:120:ARG:NE	2.38	0.57
53:HT:62:ALA:HA	53:HT:67:ILE:HG22	1.86	0.57
3:CA:1812:U:O4'	2:CC:44:ASN:ND2	2.37	0.57
32:A5:3:LEU:CD1	32:A5:5:LEU:HG	2.35	0.57
55:BV:220:GLN:O	55:BV:224:GLU:N	2.37	0.57
37:BD:30:THR:HB	37:BD:31:LYS:NZ	2.19	0.57
16:GP:50:ARG:CG	16:GP:57:ALA:O	2.52	0.57
26:EZ:8:GLN:O	26:EZ:9:THR:HG22	2.04	0.57
35:FA:1182:G:H4'	35:FA:1183:U:H5''	1.87	0.57
35:DA:776:G:N2	35:DA:802:A:OP2	2.36	0.57
3:GA:1455:G:OP2	60:GA:3408:HOH:O	2.17	0.57
15:CO:58:ILE:HD11	15:CO:81:ARG:HH22	1.69	0.57
3:EA:526:A:OP1	60:EA:3245:HOH:O	2.18	0.57
35:HA:237:G:H4'	50:HQ:27:ARG:HH12	1.69	0.57
35:DA:82:G:N3	35:DA:82:G:H2'	2.18	0.57
32:C5:95:LEU:HD22	32:C5:95:LEU:H	1.69	0.57
10:GJ:43:GLU:O	10:GJ:45:THR:N	2.37	0.57
45:BL:33:VAL:HG21	55:BV:429:GLU:HG3	1.87	0.57
3:GA:1813:G:H1'	2:GC:49:THR:HG21	1.85	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:C5:48:ALA:HB3	32:C5:51:TYR:HB3	1.86	0.57
3:EA:646:U:C4	3:EA:2368:C:H1'	2.39	0.57
3:GA:1654:A:O2'	4:GD:118:PHE:CG	2.57	0.57
3:GA:1041:G:N2	3:GA:1114:C:N3	2.51	0.57
3:CA:992:C:H4'	18:CR:74:ILE:HD13	1.87	0.57
2:AC:77:VAL:HG23	2:AC:111:ALA:HA	1.85	0.57
3:GA:1346:G:N2	3:GA:1600:C:O2	2.30	0.57
3:AA:2517:C:C6	3:AA:2542:A:N7	2.72	0.57
23:AW:76:ARG:HH21	23:AW:76:ARG:CG	2.17	0.57
32:C5:47:GLU:HG2	32:C5:95:LEU:HD21	1.86	0.57
39:HF:51:ILE:HD11	39:HF:86:ARG:HG2	1.87	0.57
4:AD:118:PHE:HD1	4:AD:119:ALA:H	1.49	0.57
3:AA:422:A:C2	3:AA:423:A:C4	2.92	0.57
16:AP:58:PHE:CD1	16:AP:75:THR:HG22	2.40	0.57
28:E1:50:GLU:OE2	28:E1:52:LYS:NZ	2.38	0.57
35:BA:1082:A:OP1	38:BE:23:LYS:NZ	2.37	0.57
3:GA:659:G:O2'	5:GE:30:GLN:NE2	2.38	0.57
35:FA:723:U:H2'	54:FU:49:LYS:CE	2.33	0.57
3:CA:2674:G:H4'	11:CK:30:ARG:HG3	1.86	0.57
3:GA:528:A:C2	3:GA:2043:C:H4'	2.40	0.57
3:GA:1095:A:H1'	55:HV:632:ILE:HB	1.86	0.57
42:HI:41:ARG:N	42:HI:45:ARG:HB3	2.20	0.57
36:DC:40:ARG:HE	36:DC:57:ILE:HD12	1.70	0.57
23:AW:28:GLU:HB3	23:AW:31:LEU:HD21	1.86	0.57
3:AA:1936:A:H2	3:AA:1943:U:C5	2.23	0.57
40:HG:69:VAL:HA	40:HG:135:VAL:HG12	1.86	0.57
34:DB:49:PHE:CD1	34:DB:50:ASN:N	2.73	0.57
43:DJ:71:LEU:O	43:DJ:72:ARG:NH1	2.38	0.57
20:AT:19:LYS:O	20:AT:23:ALA:N	2.35	0.57
3:CA:2785:C:O2'	4:CD:67:HIS:ND1	2.35	0.57
3:CA:2101:A:C2	3:CA:2102:G:C2	2.93	0.57
1:CB:23:G:OP2	60:CB:1310:HOH:O	2.18	0.57
20:ET:32:LEU:H	20:ET:83:ALA:HB3	1.70	0.57
35:HA:983:A:OP1	47:HN:9:ARG:NH1	2.33	0.57
7:EG:68:ARG:NH2	7:EG:72:ASN:HD22	2.03	0.57
3:GA:1072:C:H42	3:GA:1097:U:H5'	1.68	0.57
3:GA:2005:A:OP1	60:GA:3379:HOH:O	2.17	0.57
3:AA:1187:G:OP2	60:AA:3361:HOH:O	2.18	0.57
7:GG:38:ASP:OD1	7:GG:38:ASP:N	2.38	0.57
3:AA:2742:G:OP1	31:A4:36:ARG:NH1	2.38	0.57
3:GA:1268:A:C2	3:GA:2013:A:C4	2.93	0.57
35:DA:1002:G:N2	35:DA:1038:C:O2	2.36	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:HJ:14:ASP:OD2	43:HJ:17:LEU:N	2.38	0.57
35:DA:740:U:OP1	48:DO:38:HIS:NE2	2.32	0.57
52:BS:29:LYS:HB3	52:BS:30:PRO:HD2	1.87	0.57
7:CG:23:ILE:HG21	7:CG:71:LEU:HD11	1.87	0.57
1:GB:4:C:N3	1:GB:116:G:N2	2.52	0.57
3:GA:1031:G:N2	31:G4:38:GLY:OXT	2.38	0.57
35:BA:1239:A:H62	35:BA:1299:A:N6	2.03	0.56
1:CB:73:A:C4	1:CB:104:A:C2	2.93	0.56
3:GA:349:U:H2'	3:GA:350:G:H8	1.70	0.56
3:CA:635:C:P	12:CL:126:ARG:NH1	2.78	0.56
4:GD:33:ARG:NH1	4:GD:53:GLY:O	2.38	0.56
38:DE:115:LEU:HD23	38:DE:123:VAL:HG21	1.87	0.56
49:BP:28:ARG:NH2	49:BP:29:ASN:OD1	2.38	0.56
40:BG:28:ASN:OD1	40:BG:36:LYS:NZ	2.38	0.56
3:GA:967:U:O4	60:GA:3336:HOH:O	2.13	0.56
3:AA:1738:G:HO2'	3:AA:1739:A:P	2.27	0.56
55:BV:219:HIS:NE2	55:BV:221:ASN:HB2	2.19	0.56
34:FB:86:CYS:HB2	34:FB:88:GLN:HG3	1.85	0.56
18:GR:83:TYR:HD1	18:GR:84:ARG:N	2.03	0.56
3:AA:1353:A:C8	3:AA:1378:A:N6	2.73	0.56
35:FA:481:G:O2'	35:FA:482:A:O5'	2.23	0.56
34:HB:173:LYS:HA	34:HB:176:ASN:HD22	1.70	0.56
32:A5:132:TYR:CZ	33:A6:23:ILE:HD11	2.40	0.56
18:ER:49:ILE:HG22	18:ER:54:VAL:HG13	1.87	0.56
18:CR:58:VAL:HG13	18:CR:102:SER:HB2	1.88	0.56
3:AA:673:C:OP1	5:AE:49:ARG:NH2	2.36	0.56
16:CP:19:PHE:N	16:CP:19:PHE:CD1	2.72	0.56
3:EA:996:A:H4'	17:EQ:91:ARG:HG2	1.86	0.56
23:EW:39:GLN:HG3	23:EW:40:ARG:H	1.70	0.56
3:GA:1070:A:H2'	3:GA:1072:C:H5	1.69	0.56
3:EA:2005:A:OP1	60:EA:3380:HOH:O	2.17	0.56
42:DI:23:PRO:HA	42:DI:61:LEU:HG	1.87	0.56
32:A5:56:ARG:O	32:A5:57:ASN:ND2	2.39	0.56
3:CA:2154:A:H3'	3:CA:2155:U:H4'	1.88	0.56
23:GW:19:ARG:HA	23:GW:34:SER:HA	1.86	0.56
9:AI:100:ILE:HD11	9:AI:137:LEU:HG	1.87	0.56
21:GU:86:PHE:CE1	21:GU:92:VAL:HG22	2.41	0.56
31:G4:36:ARG:HG2	31:G4:37:GLN:N	2.19	0.56
3:EA:846:U:HO2'	3:EA:847:U:P	2.28	0.56
3:CA:1673:G:OP1	60:CA:3428:HOH:O	2.18	0.56
3:CA:1534:U:H3'	3:CA:1536:C:C5	2.40	0.56
20:GT:15:HIS:O	20:GT:17:SER:N	2.39	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:EI:125:THR:O	9:EI:128:ILE:N	2.37	0.56
3:GA:2312:U:O2	6:GF:36:ASN:ND2	2.38	0.56
54:BU:9:ASN:HB2	54:BU:11:PRO:HD2	1.87	0.56
35:BA:375:U:C4	35:BA:376:G:N7	2.73	0.56
3:CA:2574:G:OP1	60:CA:3700:HOH:O	2.17	0.56
3:CA:548:G:O2'	3:CA:549:G:N2	2.38	0.56
5:GE:196:VAL:HA	5:GE:199:MET:HB3	1.86	0.56
39:FF:2:ARG:NH2	39:FF:68:GLN:OE1	2.38	0.56
47:FN:49:GLN:N	47:FN:49:GLN:OE1	2.38	0.56
38:FE:90:THR:HB	38:FE:135:ASN:ND2	2.19	0.56
3:EA:992:C:H4'	18:ER:74:ILE:HD13	1.87	0.56
6:CF:11:VAL:H	6:CF:14:LYS:HG2	1.70	0.56
35:HA:1268:G:H1'	35:HA:1327:C:H5'	1.88	0.56
34:BB:166:ASP:OD1	34:BB:167:HIS:N	2.38	0.56
17:AQ:81:GLY:O	17:AQ:85:ALA:N	2.37	0.56
3:GA:1385:A:H1'	3:GA:1386:C:C6	2.40	0.56
5:AE:150:THR:HG21	5:AE:153:LEU:HA	1.87	0.56
7:EG:155:PRO:O	7:EG:171:LYS:N	2.39	0.56
40:HG:79:ARG:NH1	40:HG:82:GLY:O	2.39	0.56
16:CP:58:PHE:CD1	16:CP:75:THR:HG22	2.41	0.56
3:GA:600:G:OP1	5:GE:24:ASN:ND2	2.38	0.56
3:EA:1568:G:OP1	2:EC:62:ARG:NH1	2.38	0.56
38:FE:115:LEU:HD23	38:FE:123:VAL:HG21	1.87	0.56
35:HA:1496:C:C5	35:HA:1497:G:C5	2.94	0.56
35:HA:1293:C:H2'	35:HA:1294:G:H8	1.70	0.56
40:HG:16:PRO:HB2	42:HI:46:MET:SD	2.46	0.56
3:CA:1252:G:C2	3:CA:1253:A:C2	2.93	0.56
3:CA:995:C:H42	10:CJ:2:LYS:HB2	1.71	0.56
35:HA:843:U:H2'	35:HA:844:G:H5'	1.87	0.56
4:AD:118:PHE:O	4:AD:120:GLY:N	2.36	0.56
3:GA:340:A:O2'	5:GE:162:ARG:NH1	2.38	0.56
20:ET:59:ASN:O	20:ET:83:ALA:O	2.24	0.56
3:AA:1107:G:H5''	32:A5:58:THR:CG2	2.36	0.56
54:FU:11:PRO:O	54:FU:12:PHE:HB2	2.05	0.56
34:HB:150:ILE:O	34:HB:153:MET:N	2.34	0.56
12:EL:74:THR:HG22	12:EL:107:PHE:HB2	1.88	0.56
3:CA:2011:U:OP2	19:CS:16:LYS:NZ	2.39	0.56
1:EB:116:G:H4'	15:EO:54:VAL:HG12	1.87	0.56
35:BA:664:G:H22	35:BA:741:G:H1	1.53	0.56
3:GA:1149:G:H2'	3:GA:1150:C:C6	2.39	0.56
3:GA:239:C:HO2'	3:GA:621:A:H2	1.54	0.56
55:DV:220:GLN:O	55:DV:224:GLU:N	2.36	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:1049:U:H4'	35:HA:1050:G:H5'	1.87	0.56
3:GA:1187:G:OP2	60:GA:3364:HOH:O	2.18	0.56
3:CA:2387:U:P	23:CW:54:ARG:HH22	2.27	0.56
3:EA:1288:G:C4	3:EA:1327:A:C2	2.94	0.56
3:GA:31:C:N4	60:GA:3212:HOH:O	2.38	0.56
3:EA:1107:G:H5''	32:E5:58:THR:CG2	2.35	0.56
10:GJ:49:ASP:OD1	10:GJ:121:LYS:NZ	2.38	0.56
3:GA:321:U:O2'	3:GA:340:A:N3	2.38	0.56
16:GP:58:PHE:HD1	16:GP:75:THR:HG22	1.70	0.56
3:EA:2275:C:O2'	13:EM:83:GLY:O	2.20	0.56
21:GU:25:LYS:N	21:GU:34:ILE:O	2.39	0.56
1:AB:55:U:O3'	6:AF:23:SER:OG	2.21	0.56
55:BV:164:ALA:HB1	55:BV:262:ILE:HD11	1.88	0.56
3:GA:2627:G:O3'	60:GA:3246:HOH:O	2.18	0.56
37:HD:198:HIS:O	37:HD:202:GLU:N	2.36	0.56
4:CD:11:MET:HA	4:CD:24:VAL:O	2.05	0.56
45:DL:40:THR:OG1	45:DL:41:THR:N	2.38	0.56
15:GO:85:LYS:CB	15:GO:87:ILE:HG12	2.33	0.56
3:GA:1070:A:H2'	3:GA:1072:C:C5	2.40	0.56
35:HA:1452:C:O2'	35:HA:1453:G:OP1	2.19	0.56
46:DM:114:LYS:CB	46:DM:115:PRO:HD3	2.35	0.56
3:GA:1654:A:H2'	3:GA:1655:A:H8	1.69	0.56
17:AQ:105:PHE:O	17:AQ:108:LEU:N	2.38	0.56
3:AA:1773:A:N7	3:AA:1829:A:H1'	2.20	0.56
35:FA:753:A:OP1	48:FO:69:TYR:OH	2.23	0.56
35:FA:1084:G:C5	35:FA:1085:U:C4	2.94	0.56
3:CA:2576:G:O2'	3:CA:2579:C:OP2	2.22	0.56
3:CA:1458:U:H4'	3:CA:1459:G:O5'	2.04	0.56
55:DV:98:GLU:O	55:DV:102:SER:OG	2.16	0.56
3:CA:122:G:O6	60:CA:3215:HOH:O	2.16	0.56
15:AO:2:ASP:OD1	15:AO:3:LYS:N	2.39	0.56
4:ED:149:ASN:OD1	4:ED:150:GLN:N	2.39	0.56
14:GN:103:ARG:NH2	14:GN:106:ASP:OD2	2.39	0.56
32:E5:118:ILE:HB	32:E5:119:PRO:CD	2.36	0.56
3:AA:2331:G:O2'	3:AA:2336:A:N1	2.38	0.56
19:GS:18:ARG:HG3	19:GS:76:VAL:CG2	2.36	0.56
36:HC:71:ALA:HA	36:HC:106:VAL:CG2	2.35	0.56
23:AW:18:LYS:HG3	23:AW:19:ARG:N	2.21	0.56
54:FU:12:PHE:CZ	54:FU:16:LEU:HD21	2.40	0.56
3:EA:102:U:C4	25:EY:2:LYS:HB2	2.40	0.56
15:EO:49:VAL:HG21	15:EO:82:ALA:HA	1.87	0.56
1:GB:24:G:H4'	1:GB:25:U:C5	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1457:G:OP1	53:BT:34:LYS:NZ	2.35	0.56
43:FJ:71:LEU:O	43:FJ:72:ARG:NH1	2.38	0.56
42:BI:10:GLY:HA2	42:BI:81:HIS:CD2	2.41	0.56
35:BA:757:U:O2'	35:BA:879:C:O2	2.19	0.56
35:DA:34:C:O4'	45:DL:29:GLN:NE2	2.39	0.56
3:AA:1019:U:H3	3:AA:1142:A:H62	1.53	0.56
35:DA:833:G:H2'	35:DA:834:U:O4'	2.05	0.56
14:GN:117:ASP:OD1	14:GN:118:ARG:N	2.39	0.56
3:GA:248:G:N3	3:GA:2431:U:H4'	2.19	0.56
3:GA:372:G:N2	3:GA:401:A:OP2	2.37	0.56
9:AI:135:MET:HB3	9:AI:137:LEU:HD22	1.88	0.56
3:EA:1313:U:H2'	3:EA:1610:A:C2	2.41	0.56
20:AT:59:ASN:O	20:AT:83:ALA:O	2.24	0.56
15:EO:82:ALA:O	15:EO:85:LYS:N	2.39	0.56
3:GA:2482:A:C4	3:GA:2483:C:C5	2.94	0.56
3:AA:283:G:C2	3:AA:284:U:H1'	2.41	0.56
3:GA:564:C:O4'	17:GQ:36:GLN:NE2	2.38	0.56
55:BV:248:ILE:O	55:BV:251:ALA:N	2.39	0.56
34:BB:32:GLY:HA3	34:BB:39:ILE:H	1.70	0.56
3:CA:119:A:O3'	60:CA:3218:HOH:O	2.18	0.56
4:ED:16:THR:OG1	4:ED:18:ASP:OD1	2.17	0.56
35:HA:1239:A:H4'	35:HA:1240:U:H5''	1.88	0.56
17:EQ:93:ILE:O	17:EQ:96:ASP:N	2.36	0.56
35:DA:926:G:N2	35:DA:1505:G:H2'	2.21	0.56
35:BA:779:C:O2'	44:BK:122:ARG:NH1	2.39	0.56
3:GA:1214:A:O2'	60:GA:3691:HOH:O	2.13	0.56
3:AA:2015:A:C2	27:A0:2:VAL:HG22	2.41	0.56
35:DA:978:A:HO2'	35:DA:1322:C:H5	1.54	0.56
35:BA:71:A:N1	35:BA:99:C:O2'	2.37	0.56
35:BA:1147:C:O2	42:BI:18:ARG:NH1	2.39	0.56
54:FU:40:LYS:N	54:FU:41:PRO:CD	2.69	0.56
20:ET:29:THR:OG1	20:ET:86:THR:N	2.36	0.56
35:DA:537:G:OP1	45:DL:110:ARG:NH2	2.39	0.56
45:DL:83:ARG:HG2	45:DL:83:ARG:HH11	1.70	0.56
11:CK:10:VAL:HG21	11:CK:17:ARG:H	1.70	0.56
3:AA:76:C:O2'	25:AY:55:THR:OG1	2.16	0.56
35:BA:299:G:H2'	35:BA:300:A:C8	2.40	0.56
9:EI:19:PRO:HG2	9:EI:22:PRO:HD2	1.88	0.56
3:AA:2680:U:H5'	4:AD:194:PRO:HA	1.88	0.56
23:EW:16:GLU:O	23:EW:17:ALA:HB3	2.06	0.56
23:CW:35:ILE:O	23:CW:37:VAL:N	2.39	0.56
35:HA:734:G:H21	51:HR:64:TYR:HE1	1.54	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:85:VAL:CG2	12:AL:94:THR:HG22	2.36	0.56
3:CA:751:A:C6	3:CA:789:A:C5	2.94	0.56
35:HA:125:U:C2	35:HA:237:G:N2	2.74	0.56
3:EA:1064:C:N4	3:EA:1070:A:OP1	2.39	0.56
34:HB:22:TRP:CZ3	34:HB:24:PRO:HA	2.41	0.56
6:AF:151:LEU:HD12	6:AF:152:ASP:N	2.21	0.56
3:CA:1843:C:O2'	2:CC:253:GLY:O	2.13	0.56
35:BA:1414:U:O2	35:BA:1487:G:N2	2.39	0.56
35:DA:1157:A:H5'	35:DA:1158:C:C6	2.41	0.56
34:DB:95:TRP:NE1	34:DB:171:ALA:HB2	2.21	0.56
3:EA:1262:A:OP2	19:ES:99:ARG:NH2	2.39	0.56
35:HA:81:A:H5'	35:HA:90:C:N4	2.21	0.56
41:DH:18:GLN:NE2	41:DH:70:ALA:HB1	2.21	0.56
42:FI:35:LEU:O	42:FI:40:GLY:N	2.39	0.56
3:AA:2502:G:OP2	60:AA:3487:HOH:O	2.18	0.55
35:DA:1129:C:O2	35:DA:1130:A:N6	2.37	0.55
3:GA:1140:C:OP2	10:GJ:68:LYS:NZ	2.38	0.55
3:CA:83:A:O2'	3:CA:103:A:N6	2.39	0.55
35:HA:673:A:N3	35:HA:734:G:N2	2.54	0.55
3:GA:323:C:OP1	3:GA:338:G:N2	2.39	0.55
35:BA:932:C:H5'	40:BG:4:ARG:HE	1.71	0.55
26:GZ:16:LEU:HB3	26:GZ:17:PRO:HD2	1.87	0.55
35:BA:1530:G:H2'	35:BA:1531:A:C8	2.41	0.55
2:CC:36:ASN:ND2	2:CC:85:ASN:OD1	2.39	0.55
35:FA:100:G:OP2	60:FA:1873:HOH:O	2.18	0.55
40:HG:15:ASP:HB2	40:HG:23:LEU:HB2	1.88	0.55
20:ET:1:MET:SD	20:ET:49:LYS:NZ	2.75	0.55
3:GA:1853:A:N1	3:GA:2087:G:H1'	2.22	0.55
35:FA:315:A:OP2	60:FA:1708:HOH:O	2.18	0.55
4:ED:33:ARG:NH1	4:ED:53:GLY:O	2.39	0.55
21:CU:15:GLY:O	21:CU:17:ASP:N	2.39	0.55
3:GA:1958:C:OP1	60:GA:3717:HOH:O	2.18	0.55
3:EA:612:G:O2'	3:EA:613:A:C8	2.59	0.55
42:DI:112:GLU:OE2	42:DI:115:LYS:NZ	2.31	0.55
3:CA:1385:A:H1'	3:CA:1386:C:C6	2.41	0.55
38:DE:110:ALA:O	38:DE:111:MET:HB3	2.06	0.55
3:AA:686:U:H2'	3:AA:788:A:N1	2.21	0.55
4:CD:35:THR:N	4:CD:49:GLN:O	2.37	0.55
3:EA:460:A:OP1	29:E2:41:ARG:NH1	2.38	0.55
3:AA:1378:A:O2'	3:AA:1380:G:N7	2.27	0.55
3:GA:2252:G:O3'	60:GA:3504:HOH:O	2.17	0.55
44:FK:93:ARG:NH2	44:FK:112:ASP:OD2	2.36	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:1786:A:H1'	3:AA:1938:A:N6	2.22	0.55
23:GW:18:LYS:HA	23:GW:36:ILE:HG13	1.87	0.55
10:GJ:53:TYR:CE1	10:GJ:121:LYS:HG2	2.41	0.55
4:ED:118:PHE:O	4:ED:120:GLY:N	2.38	0.55
54:FU:9:ASN:HB2	54:FU:11:PRO:HD2	1.88	0.55
11:CK:10:VAL:HG11	11:CK:16:ALA:HB3	1.88	0.55
34:DB:185:ILE:HA	34:DB:199:ILE:HB	1.87	0.55
3:CA:2543:G:C6	3:CA:2544:G:C6	2.94	0.55
3:GA:2314:A:OP1	6:GF:87:LYS:NZ	2.39	0.55
35:HA:1261:A:N6	35:HA:1274:A:O2'	2.35	0.55
3:CA:241:A:O2'	30:C3:2:LYS:NZ	2.38	0.55
16:EP:58:PHE:CD1	16:EP:75:THR:HG22	2.41	0.55
3:GA:651:G:OP1	30:G3:18:LYS:N	2.37	0.55
3:AA:100:U:H4'	3:AA:101:A:O5'	2.06	0.55
35:BA:58:C:O2'	35:BA:388:G:N7	2.24	0.55
3:EA:42:A:C2'	3:EA:43:G:H5'	2.35	0.55
3:AA:85:G:OP2	21:AU:6:ARG:HG3	2.06	0.55
20:ET:19:LYS:O	20:ET:23:ALA:N	2.39	0.55
3:AA:1324:G:C4	3:AA:1328:A:N6	2.74	0.55
35:FA:1530:G:H2'	35:FA:1531:A:C8	2.41	0.55
44:BK:89:PRO:HB3	54:BU:29:LEU:HD22	1.87	0.55
35:DA:1492:A:O3'	56:DW:1:KBE:NZ	2.39	0.55
7:CG:84:LYS:HG2	7:CG:85:LYS:N	2.21	0.55
40:HG:67:GLU:HG3	40:HG:70:ARG:CZ	2.37	0.55
10:AJ:81:ILE:HG13	10:AJ:82:GLY:N	2.21	0.55
16:AP:33:GLU:HB2	16:AP:38:ARG:HH11	1.71	0.55
35:HA:626:G:OP1	49:HP:35:ARG:NH2	2.39	0.55
46:BM:8:ASN:ND2	46:BM:66:GLU:OE2	2.39	0.55
13:EM:106:ASP:O	13:EM:108:VAL:N	2.37	0.55
3:CA:819:A:C4	3:CA:1189:A:C2	2.93	0.55
55:BV:92:HIS:O	55:BV:122:GLN:NE2	2.40	0.55
18:CR:49:ILE:HG22	18:CR:54:VAL:HG13	1.87	0.55
35:BA:1152:A:OP1	43:BJ:70:HIS:ND1	2.40	0.55
3:EA:364:C:H2'	3:EA:365:U:C6	2.41	0.55
35:HA:1034:G:N2	35:HA:1035:A:N7	2.54	0.55
35:BA:93:U:H2'	35:BA:94:G:H5''	1.88	0.55
6:EF:59:ILE:HD11	6:EF:140:ILE:CD1	2.36	0.55
3:GA:646:U:N3	3:GA:2368:C:H1'	2.21	0.55
3:AA:1107:G:H4'	32:A5:81:LEU:HA	1.88	0.55
49:FP:6:LEU:HD12	49:FP:17:TYR:CB	2.36	0.55
3:GA:655:A:H4'	3:GA:656:G:OP1	2.07	0.55
52:BS:36:ARG:NH2	52:BS:75:ALA:O	2.39	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:2415:G:C6	3:GA:2416:C:C4	2.95	0.55
37:HD:4:TYR:CZ	37:HD:11:LEU:HD11	2.41	0.55
3:GA:1027:A:C6	3:GA:1126:A:C4	2.95	0.55
30:G3:27:ASN:O	30:G3:35:LYS:NZ	2.39	0.55
36:DC:154:SER:CB	36:DC:165:THR:HG22	2.37	0.55
11:AK:121:GLU:OE1	16:AP:62:LYS:NZ	2.37	0.55
44:HK:13:ARG:N	44:HK:76:GLU:HB3	2.20	0.55
36:BC:3:GLN:N	36:BC:3:GLN:OE1	2.39	0.55
35:FA:623:C:C4	35:FA:624:C:C5	2.95	0.55
14:AN:30:ARG:NH1	14:AN:74:GLU:OE1	2.40	0.55
3:AA:1482:G:C6	3:AA:1508:A:C2	2.94	0.55
2:AC:68:ARG:CD	2:AC:103:ILE:HD11	2.37	0.55
54:BU:25:LYS:NZ	54:BU:26:ALA:HB2	2.20	0.55
35:HA:844:G:C3'	35:HA:845:A:H5''	2.37	0.55
3:GA:1082:U:N3	3:GA:1083:U:O2	2.40	0.55
3:CA:422:A:C2	3:CA:423:A:C4	2.95	0.55
39:DF:48:ALA:H	51:DR:66:SER:HG	1.52	0.55
3:GA:663:G:N2	3:GA:939:G:O3'	2.40	0.55
42:HI:99:ARG:HG3	42:HI:104:VAL:HG22	1.89	0.55
3:GA:2021:C:P	27:G0:8:THR:HG21	2.47	0.55
3:AA:1676:A:OP2	60:AA:3754:HOH:O	2.18	0.55
35:DA:177:G:OP2	53:DT:64:LYS:NZ	2.32	0.55
41:FH:10:MET:HE2	41:FH:33:LYS:HD3	1.87	0.55
3:CA:2037:A:C6	3:CA:2038:G:C6	2.95	0.55
3:GA:1778:U:H2'	3:GA:1784:A:H62	1.71	0.55
35:BA:579:A:H2'	35:BA:580:C:C6	2.42	0.55
1:GB:83:G:H4'	26:GZ:52:PHE:CG	2.41	0.55
3:GA:41:C:H2'	3:GA:42:A:O4'	2.05	0.55
37:BD:58:LYS:HB2	37:BD:200:ILE:HG13	1.86	0.55
3:EA:299:A:OP2	60:EA:3551:HOH:O	2.18	0.55
32:A5:23:LEU:HG	32:A5:24:SER:N	2.22	0.55
23:CW:37:VAL:HG13	23:CW:55:ASP:C	2.27	0.55
23:CW:55:ASP:O	23:CW:57:THR:N	2.40	0.55
15:CO:31:THR:O	15:CO:102:ARG:NH1	2.40	0.55
3:GA:979:A:N7	60:GA:3582:HOH:O	2.32	0.55
3:CA:2347:C:O2'	28:C1:20:TYR:OH	2.11	0.55
50:DQ:6:ARG:CG	50:DQ:6:ARG:HH11	2.20	0.55
2:AC:14:HIS:O	2:AC:203:VAL:HG11	2.05	0.55
2:CC:43:ASN:OD1	2:CC:44:ASN:N	2.35	0.55
44:FK:111:THR:HA	54:FU:4:ILE:O	2.07	0.55
3:EA:2144:G:N2	3:EA:2149:U:O2'	2.40	0.55
42:DI:114:LYS:NZ	42:DI:118:LEU:O	2.33	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1277:C:HO2'	35:BA:1279:G:H8	1.55	0.55
44:HK:24:HIS:HB2	44:HK:87:LYS:HD2	1.88	0.55
50:HQ:12:VAL:O	50:HQ:13:VAL:HG22	2.07	0.55
3:GA:955:U:OP1	13:GM:86:LYS:NZ	2.32	0.55
3:EA:1996:C:OP1	11:EK:31:ARG:NE	2.40	0.55
19:ES:14:ALA:O	19:ES:17:VAL:N	2.39	0.55
10:AJ:17:VAL:HG23	10:AJ:139:VAL:HA	1.88	0.55
35:HA:1016:A:O2'	35:HA:1217:C:O2	2.25	0.55
6:CF:132:ARG:O	6:CF:133:GLU:HB3	2.07	0.55
34:DB:187:ASP:HB2	34:DB:203:ASP:HB3	1.89	0.55
29:C2:34:ARG:NH1	29:C2:41:ARG:O	2.40	0.55
2:CC:28:PRO:HG2	2:CC:33:LEU:HD11	1.88	0.55
32:C5:23:LEU:HG	32:C5:24:SER:N	2.22	0.55
3:GA:818:G:OP2	60:GA:3568:HOH:O	2.18	0.55
3:CA:2331:G:O2'	3:CA:2336:A:N1	2.39	0.55
3:GA:635:C:OP1	12:GL:126:ARG:NH1	2.40	0.55
35:BA:1468:A:C2'	35:BA:1469:C:H5'	2.37	0.55
40:HG:114:LYS:HD3	40:HG:118:LEU:CD1	2.36	0.55
3:CA:864:G:OP1	13:CM:22:GLN:NE2	2.39	0.55
3:EA:865:C:N3	3:EA:908:C:N4	2.55	0.55
10:EJ:81:ILE:HG23	10:EJ:82:GLY:N	2.21	0.55
55:FV:422:PRO:O	55:FV:424:THR:N	2.40	0.55
35:FA:196:A:OP2	60:FA:1877:HOH:O	2.18	0.55
3:AA:1458:U:H4'	3:AA:1459:G:O5'	2.07	0.55
3:CA:2637:U:OP1	4:CD:83:ARG:NH2	2.38	0.55
3:GA:1383:A:N7	3:GA:1384:A:C6	2.75	0.55
35:DA:843:U:H2'	35:DA:844:G:H5'	1.89	0.55
26:CZ:40:THR:CG2	26:CZ:43:ILE:HG23	2.37	0.55
32:C5:122:GLN:CG	32:C5:123:ILE:H	2.18	0.55
35:BA:1004:A:O2'	35:BA:1036:A:N1	2.32	0.55
48:BO:19:ALA:O	48:BO:20:ASN:HB2	2.07	0.55
3:GA:2264:C:C5	3:GA:2265:U:C4	2.95	0.55
24:AX:32:LEU:O	24:AX:33:HIS:ND1	2.39	0.55
3:AA:811:U:C4	12:AL:21:ARG:NH2	2.75	0.55
13:CM:106:ASP:O	13:CM:108:VAL:N	2.39	0.55
34:FB:32:GLY:HA3	34:FB:39:ILE:H	1.71	0.55
34:DB:46:VAL:HB	34:DB:47:PRO:HD3	1.89	0.55
21:GU:15:GLY:O	21:GU:17:ASP:N	2.39	0.55
37:DD:151:LYS:N	37:DD:178:MET:SD	2.80	0.55
46:HM:14:HIS:O	46:HM:18:ALA:N	2.36	0.55
3:GA:1309:G:OP1	29:G2:9:VAL:HG13	2.07	0.55
35:BA:1021:A:H2'	35:BA:1022:A:H5'	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:976:G:OP2	35:HA:1358:U:O2'	2.25	0.55
55:DV:526:GLU:O	55:DV:528:GLY:N	2.40	0.55
39:FF:38:ARG:HB3	39:FF:63:ASN:HB2	1.88	0.55
4:CD:33:ARG:NH2	4:CD:74:GLU:O	2.39	0.55
39:BF:42:TRP:CZ2	39:BF:101:PRO:HD3	2.42	0.55
10:EJ:44:TYR:HB2	17:EQ:63:ARG:HB3	1.88	0.55
3:GA:858:G:N2	3:GA:919:U:O4	2.40	0.55
3:AA:277:G:O2'	3:AA:278:A:OP2	2.25	0.55
3:GA:411:G:OP2	3:GA:2406:A:O2'	2.24	0.55
35:BA:158:G:H2'	35:BA:159:G:H5'	1.88	0.55
3:EA:784:G:O2'	3:EA:785:G:OP2	2.16	0.55
3:GA:962:G:H21	3:GA:2250:G:H1	1.53	0.55
45:BL:34:CYS:HA	45:BL:55:VAL:HA	1.89	0.55
3:GA:2800:A:H3'	3:GA:2801:G:C5'	2.37	0.55
35:HA:1266:G:O2'	35:HA:1268:G:N7	2.29	0.55
25:GY:51:ALA:O	25:GY:55:THR:OG1	2.19	0.55
34:HB:147:LEU:O	34:HB:151:LYS:NZ	2.36	0.55
3:CA:1242:U:H2'	3:CA:1243:C:C6	2.42	0.55
35:BA:558:G:OP1	60:BA:1842:HOH:O	2.18	0.55
3:AA:2335:A:C6	3:AA:2337:G:H1'	2.42	0.55
35:DA:904:U:O4	60:DA:1758:HOH:O	2.15	0.55
4:CD:13:ARG:NH1	11:CK:73:ASP:O	2.40	0.55
3:GA:871:U:C2	3:GA:907:G:C6	2.95	0.55
7:CG:38:ASP:N	7:CG:38:ASP:OD1	2.39	0.55
22:AV:80:HIS:HD2	22:AV:83:LYS:N	2.05	0.55
3:GA:1073:A:OP1	3:GA:1074:G:N2	2.39	0.55
16:CP:50:ARG:CG	16:CP:57:ALA:O	2.54	0.55
47:FN:25:ALA:O	47:FN:28:LYS:HG3	2.07	0.55
1:GB:82:U:H5''	26:GZ:16:LEU:CD1	2.37	0.55
3:AA:910:A:N6	3:AA:2277:G:O2'	2.36	0.55
43:DJ:57:VAL:HG13	43:DJ:58:ASN:N	2.22	0.55
3:EA:1485:U:H2'	3:EA:1486:U:H6	1.71	0.55
26:GZ:7:THR:OG1	26:GZ:55:LYS:O	2.23	0.55
3:EA:2152:G:H2'	3:EA:2153:C:H5'	1.89	0.55
35:HA:811:C:N4	35:HA:812:G:O6	2.40	0.55
3:AA:299:A:OP1	60:AA:3548:HOH:O	2.18	0.55
3:CA:442:G:O4'	5:CE:41:GLN:NE2	2.40	0.55
16:CP:63:ILE:HA	16:CP:68:GLY:HA2	1.88	0.55
3:GA:2793:C:H2'	3:GA:2794:C:C6	2.42	0.55
41:BH:93:PRO:HG3	41:BH:125:ILE:HD12	1.89	0.55
38:FE:104:GLY:CA	38:FE:122:ASN:HA	2.37	0.55
35:FA:111:G:O6	35:FA:330:C:N4	2.40	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:1290:G:OP1	40:DG:35:LYS:NZ	2.40	0.55
3:CA:654:A:N3	3:CA:654:A:H3'	2.22	0.55
2:AC:251:THR:HG21	3:AA:1824:G:N3	2.21	0.54
37:HD:188:ARG:NH2	37:HD:197:GLU:OE2	2.39	0.54
32:A5:43:LYS:HZ3	32:A5:98:GLU:HB2	1.71	0.54
49:DP:21:VAL:HG22	49:DP:34:GLU:O	2.07	0.54
3:EA:856:G:H21	23:EW:19:ARG:HH22	1.55	0.54
18:AR:39:LEU:O	18:AR:49:ILE:HG23	2.07	0.54
3:GA:225:C:N4	3:GA:230:G:H1	2.05	0.54
36:FC:168:TYR:OH	38:FE:55:GLU:OE1	2.22	0.54
3:GA:2292:U:N3	3:GA:2293:G:N7	2.55	0.54
3:AA:1754:A:H4'	16:AP:102:ARG:NH2	2.22	0.54
39:BF:53:LYS:O	39:BF:54:LEU:HB3	2.06	0.54
38:BE:106:ILE:HD11	38:BE:124:LEU:HD22	1.89	0.54
11:AK:43:ILE:CD1	11:AK:52:VAL:HB	2.37	0.54
49:DP:43:ALA:HB1	49:DP:46:LYS:HE2	1.88	0.54
26:CZ:8:GLN:O	26:CZ:10:ARG:N	2.38	0.54
11:AK:107:LEU:O	11:AK:109:SER:N	2.38	0.54
3:CA:742:A:H2'	3:CA:743:A:C8	2.42	0.54
12:GL:61:LEU:O	30:G3:12:ARG:NH2	2.39	0.54
4:AD:106:LYS:HB3	4:AD:206:ALA:HB3	1.89	0.54
3:GA:587:C:N3	12:GL:33:ARG:NH2	2.50	0.54
3:CA:85:G:O2'	3:CA:103:A:N1	2.35	0.54
3:GA:942:G:H4'	3:GA:1190:G:H5'	1.88	0.54
3:AA:227:A:O2'	3:AA:2407:A:O2'	2.19	0.54
30:G3:51:LYS:HA	30:G3:54:LEU:HD22	1.88	0.54
4:GD:151:THR:CG2	4:GD:152:PRO:HD3	2.37	0.54
32:A5:44:ALA:O	32:A5:49:GLY:N	2.40	0.54
3:GA:659:G:C2'	5:GE:30:GLN:HE22	2.20	0.54
32:A5:64:VAL:O	32:A5:68:PRO:HD2	2.06	0.54
46:BM:56:LEU:O	46:BM:59:GLU:N	2.38	0.54
3:CA:2006:C:O2'	3:CA:2823:A:N3	2.40	0.54
34:DB:86:CYS:SG	34:DB:88:GLN:NE2	2.80	0.54
35:BA:1452:C:O2'	35:FA:83:C:OP1	2.24	0.54
20:ET:67:VAL:HA	20:ET:76:ARG:HA	1.88	0.54
3:CA:443:A:C6	5:CE:40:ARG:HD3	2.42	0.54
34:FB:187:ASP:HB2	34:FB:203:ASP:HB3	1.89	0.54
36:FC:150:LYS:HB3	36:FC:169:ARG:HG2	1.88	0.54
1:GB:2:G:N2	1:GB:119:A:O3'	2.40	0.54
16:CP:88:ARG:O	16:CP:112:ARG:N	2.39	0.54
34:FB:99:MET:HA	34:FB:106:VAL:HG21	1.88	0.54
3:AA:265:A:H4'	3:AA:266:G:OP1	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:EG:104:LEU:HB2	7:EG:112:VAL:HG21	1.89	0.54
3:AA:2681:C:OP2	4:AD:114:LYS:NZ	2.33	0.54
38:FE:136:VAL:O	38:FE:138:ARG:N	2.40	0.54
35:BA:135:C:N3	49:BP:1:MET:N	2.43	0.54
3:GA:664:G:H4'	3:GA:941:A:OP1	2.07	0.54
4:GD:186:LEU:HD11	16:GP:3:ILE:HD11	1.90	0.54
23:EW:19:ARG:NH2	23:EW:22:VAL:HG21	2.22	0.54
3:GA:445:C:H4'	3:GA:1248:G:O6	2.07	0.54
3:AA:1936:A:N6	3:AA:1963:U:H3	2.05	0.54
2:GC:68:ARG:NE	2:GC:128:THR:OG1	2.41	0.54
48:HO:45:GLU:HG3	48:HO:46:HIS:N	2.22	0.54
35:BA:1181:G:O2'	35:BA:1182:G:N7	2.40	0.54
3:GA:1534:U:O2'	3:GA:1537:G:O6	2.16	0.54
46:FM:3:ARG:CD	46:FM:7:ILE:HD12	2.37	0.54
20:CT:19:LYS:O	20:CT:23:ALA:N	2.39	0.54
2:CC:12:ARG:HH11	2:CC:12:ARG:CG	2.20	0.54
3:CA:728:G:H4'	2:CC:12:ARG:HD3	1.89	0.54
40:FG:15:ASP:OD1	40:FG:44:TYR:OH	2.25	0.54
3:GA:959:A:C6	3:GA:960:A:C6	2.94	0.54
44:HK:60:PRO:HB3	44:HK:92:GLY:CA	2.37	0.54
37:BD:192:SER:OG	37:BD:193:ALA:N	2.40	0.54
55:BV:313:ASP:OD2	55:BV:378:ARG:NH1	2.40	0.54
3:CA:96:C:H4'	25:CY:41:HIS:CE1	2.42	0.54
49:FP:4:ILE:HG13	49:FP:21:VAL:HG12	1.90	0.54
18:GR:77:PHE:HE1	18:GR:79:ARG:HA	1.72	0.54
3:GA:1938:A:OP2	60:GA:3716:HOH:O	2.19	0.54
35:HA:1033:G:C2'	35:HA:1034:G:H5'	2.37	0.54
12:GL:85:VAL:CG2	12:GL:94:THR:HG22	2.37	0.54
16:CP:50:ARG:CD	16:CP:51:ASN:N	2.71	0.54
46:HM:96:PRO:HD3	46:HM:102:THR:CG2	2.38	0.54
34:FB:163:ILE:HG23	34:FB:164:ASP:N	2.23	0.54
3:CA:2800:A:C2	3:CA:2895:G:H1'	2.42	0.54
34:DB:49:PHE:HA	34:DB:52:ALA:HB3	1.90	0.54
55:DV:526:GLU:N	55:DV:526:GLU:OE1	2.41	0.54
25:AY:56:LEU:O	25:AY:58:ASN:N	2.39	0.54
3:AA:1772:A:N1	3:AA:1980:G:C6	2.76	0.54
35:FA:920:U:H2'	35:FA:921:U:C6	2.43	0.54
37:FD:161:LEU:HD13	37:FD:164:GLN:HB3	1.89	0.54
40:HG:57:SER:OG	40:HG:58:GLU:N	2.41	0.54
35:BA:619:U:H3	37:BD:131:ASN:HB3	1.72	0.54
3:CA:1567:G:C8	2:CC:82:TYR:CE2	2.96	0.54
40:BG:57:SER:OG	40:BG:58:GLU:N	2.40	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CN:58:ASP:OD2	14:CN:63:ARG:NH2	2.39	0.54
37:FD:30:THR:HG22	37:FD:31:LYS:H	1.72	0.54
8:CH:45:GLU:HA	8:CH:48:GLU:HB3	1.88	0.54
55:BV:522:MET:HE1	55:BV:605:PHE:HA	1.89	0.54
35:FA:429:U:H5'	37:FD:9:LEU:HG	1.89	0.54
22:EV:75:GLN:HB2	22:EV:92:VAL:HG23	1.88	0.54
34:FB:221:ARG:NH1	34:FB:222:GLU:HB2	2.23	0.54
3:AA:2636:C:HO2'	4:AD:45:TYR:HH	1.53	0.54
54:DU:9:ASN:HB2	54:DU:11:PRO:HD2	1.89	0.54
3:EA:1843:C:H5'	2:EC:250:GLN:OE1	2.08	0.54
32:E5:23:LEU:H	32:E5:87:GLU:HB2	1.73	0.54
3:GA:1000:A:N6	3:GA:1155:A:C8	2.76	0.54
3:GA:975:A:C2	3:GA:990:A:C8	2.95	0.54
16:AP:50:ARG:CG	16:AP:57:ALA:O	2.55	0.54
45:FL:44:LYS:CB	45:FL:45:PRO:CD	2.86	0.54
35:DA:429:U:OP2	37:DD:13:ARG:NH2	2.40	0.54
32:A5:129:LEU:HB3	32:A5:130:PRO:HD2	1.89	0.54
3:GA:2134:A:HO2'	3:GA:2135:A:H8	1.55	0.54
38:BE:96:MET:CE	38:BE:115:LEU:HD11	2.38	0.54
32:A5:60:LEU:O	32:A5:64:VAL:HB	2.08	0.54
3:CA:1779:U:H5	3:CA:1784:A:N7	2.06	0.54
1:GB:29:A:H2'	1:GB:30:C:C6	2.43	0.54
40:HG:66:LEU:HA	40:HG:104:ILE:HD11	1.88	0.54
35:FA:1021:A:C2'	35:FA:1022:A:H5'	2.38	0.54
3:CA:546:U:O2'	3:CA:547:A:H4'	2.07	0.54
28:A1:8:ILE:HD11	28:A1:24:LYS:N	2.21	0.54
55:FV:495:ARG:HD2	55:FV:611:VAL:HB	1.90	0.54
3:AA:2355:G:H4'	23:AW:20:LEU:HD13	1.88	0.54
26:AZ:5:LYS:HD2	26:AZ:5:LYS:H	1.72	0.54
32:A5:54:VAL:HA	32:A5:84:TYR:O	2.07	0.54
3:EA:2138:G:N2	3:EA:2150:C:N3	2.56	0.54
35:HA:1129:C:O4'	35:HA:1146:A:N6	2.36	0.54
10:GJ:32:LEU:O	10:GJ:36:LEU:HB2	2.07	0.54
3:AA:163:C:O2'	3:AA:164:C:P	2.65	0.54
35:HA:980:C:O2	60:HA:1772:HOH:O	2.16	0.54
3:GA:42:A:H1'	3:GA:438:G:H22	1.73	0.54
35:BA:135:C:H2'	35:BA:136:C:H5'	1.87	0.54
45:BL:68:GLY:O	45:BL:99:ARG:NH1	2.40	0.54
3:AA:834:G:C6	3:AA:835:C:C4	2.95	0.54
3:EA:1936:A:H61	3:EA:1963:U:H3	1.55	0.54
3:AA:2698:U:H2'	3:AA:2699:C:H6	1.72	0.54
35:DA:755:G:OP2	48:DO:65:LYS:NZ	2.39	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:G1:35:LEU:HD21	28:G1:37:LYS:HD2	1.88	0.54
3:AA:2415:G:H4'	12:AL:66:PHE:HB2	1.90	0.54
7:EG:37:ASN:N	7:EG:37:ASN:OD1	2.40	0.54
17:GQ:105:PHE:O	17:GQ:108:LEU:N	2.40	0.54
3:CA:1288:G:C4	3:CA:1327:A:C2	2.96	0.54
3:CA:2211:A:O2'	3:CA:2212:A:OP1	2.23	0.54
9:EI:83:ALA:HB1	9:EI:100:ILE:HD11	1.90	0.54
17:EQ:63:ARG:HH22	17:EQ:96:ASP:N	2.06	0.54
32:C5:39:THR:HA	32:C5:42:ARG:HH11	1.72	0.54
3:AA:855:G:H1'	23:AW:23:LYS:HE3	1.89	0.54
3:GA:1865:U:C4	3:GA:1875:G:C2	2.96	0.54
18:AR:49:ILE:HB	18:AR:51:VAL:O	2.08	0.54
32:A5:58:THR:HB	32:A5:82:ILE:HB	1.89	0.54
34:FB:57:ASN:HB2	34:FB:219:THR:HG23	1.90	0.54
46:FM:11:ASP:OD1	46:FM:12:HIS:N	2.39	0.54
3:AA:189:G:O6	3:AA:205:G:O2'	2.19	0.54
6:GF:71:LYS:NZ	6:GF:80:GLN:OE1	2.32	0.54
50:DQ:17:MET:SD	50:DQ:20:SER:OG	2.49	0.54
53:FT:5:LYS:HD3	53:FT:6:SER:N	2.23	0.54
19:AS:73:LYS:HB3	19:AS:106:VAL:HB	1.90	0.54
35:DA:577:G:OP1	60:DA:1752:HOH:O	2.18	0.54
24:EX:39:VAL:O	24:EX:41:SER:N	2.39	0.54
4:AD:107:VAL:CG2	4:AD:203:VAL:HG23	2.37	0.54
15:EO:51:ALA:HB3	15:EO:78:VAL:HG13	1.90	0.54
16:EP:63:ILE:HA	16:EP:68:GLY:HA2	1.88	0.54
32:C5:71:CYS:CB	32:C5:117:LEU:CD1	2.86	0.54
3:EA:2356:U:H5''	23:EW:16:GLU:HG2	1.90	0.54
3:GA:820:A:H2'	3:GA:821:A:O4'	2.07	0.54
10:CJ:118:MET:HA	10:CJ:121:LYS:HE2	1.90	0.54
44:FK:35:THR:OG1	44:FK:40:ASN:N	2.41	0.54
3:GA:2210:U:H4'	3:GA:2211:A:H5'	1.90	0.54
16:GP:63:ILE:HA	16:GP:68:GLY:HA2	1.89	0.54
3:AA:2757:A:N1	7:AG:66:THR:HG21	2.21	0.54
35:DA:131:A:H2'	35:DA:132:C:C6	2.43	0.54
24:CX:4:CYS:SG	24:CX:7:THR:OG1	2.62	0.54
17:GQ:82:LEU:HA	17:GQ:85:ALA:HB3	1.90	0.54
39:HF:98:GLU:HG3	39:HF:99:ALA:N	2.23	0.54
35:FA:875:U:O2'	41:FH:15:ARG:NH1	2.41	0.54
2:GC:38:LYS:NZ	2:GC:57:HIS:O	2.25	0.54
26:EZ:40:THR:HG23	26:EZ:43:ILE:H	1.73	0.54
3:CA:1080:A:H1'	9:CI:127:SER:HA	1.90	0.54
7:EG:38:ASP:N	7:EG:38:ASP:OD1	2.41	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:33:LEU:HD22	13:AM:128:THR:HB	1.90	0.54
3:CA:315:G:H2'	3:CA:316:C:C6	2.43	0.54
32:C5:131:THR:O	32:C5:134:GLU:N	2.40	0.54
23:EW:37:VAL:HG13	23:EW:55:ASP:C	2.28	0.54
35:HA:1468:A:C2'	35:HA:1469:C:H5'	2.38	0.54
16:CP:50:ARG:HG2	16:CP:57:ALA:N	2.23	0.54
2:GC:71:ASP:OD2	2:GC:188:ARG:NH1	2.41	0.54
48:HO:45:GLU:CG	48:HO:46:HIS:N	2.71	0.54
35:BA:1182:G:H4'	35:BA:1183:U:C5'	2.37	0.54
20:AT:32:LEU:N	20:AT:83:ALA:HB3	2.21	0.54
16:GP:50:ARG:CB	16:GP:57:ALA:H	2.21	0.54
38:FE:111:MET:CE	38:FE:125:ALA:HB1	2.38	0.54
18:AR:49:ILE:HG22	18:AR:54:VAL:HG13	1.89	0.54
3:GA:42:A:C2	3:GA:43:G:N7	2.76	0.54
3:CA:545:U:H2'	3:CA:546:U:O3'	2.07	0.54
32:A5:4:ASN:O	32:A5:6:GLN:N	2.41	0.54
3:CA:1789:A:OP2	2:CC:220:ARG:NH1	2.40	0.54
35:HA:727:G:H4'	35:HA:741:G:H22	1.72	0.54
3:CA:250:G:OP2	30:C3:12:ARG:NH1	2.40	0.54
42:FI:34:SER:HB3	42:FI:37:GLN:CG	2.38	0.54
3:CA:163:C:O2'	3:CA:164:C:O5'	2.22	0.54
3:CA:2425:A:H5''	3:CA:2427:C:O4'	2.08	0.54
1:EB:90:C:H5'	13:EM:18:ARG:HG2	1.89	0.54
3:AA:84:A:P	21:AU:5:ARG:NH2	2.81	0.54
35:HA:1053:G:N7	35:HA:1199:U:H3'	2.22	0.54
56:FW:5:UAL:O	56:FW:6:5OH:NP	2.41	0.54
3:CA:602:A:N3	3:CA:655:A:C2	2.75	0.54
3:CA:2297:A:N1	3:CA:2321:U:H5	2.05	0.54
3:CA:1418:G:N1	3:CA:1579:A:OP2	2.34	0.54
3:AA:396:G:OP2	24:AX:9:LYS:NZ	2.40	0.54
3:GA:2266:A:H5'	3:GA:2267:A:C5	2.43	0.54
3:GA:445:C:N4	3:GA:446:G:O6	2.40	0.54
11:AK:70:ARG:HD3	11:AK:76:VAL:HG22	1.90	0.54
12:CL:93:ASN:O	12:CL:95:LEU:N	2.41	0.54
3:GA:974:G:O5'	18:GR:78:ARG:NH1	2.41	0.54
26:GZ:17:PRO:HA	26:GZ:20:LYS:HE2	1.90	0.54
3:CA:1568:G:OP1	2:CC:62:ARG:NH1	2.40	0.54
3:EA:1843:C:O2'	2:EC:253:GLY:O	2.16	0.54
3:GA:816:C:OP1	3:GA:1185:G:O2'	2.26	0.54
43:DJ:32:THR:HG21	43:DJ:86:ALA:CB	2.38	0.54
3:GA:2766:A:C2	3:GA:2767:C:C6	2.96	0.54
37:FD:34:ILE:O	37:FD:35:GLU:HB3	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:FB:100:LEU:HD23	34:FB:178:LEU:HD23	1.90	0.54
35:DA:277:C:OP1	50:DQ:43:LYS:NZ	2.41	0.54
24:EX:57:VAL:O	24:EX:61:LYS:N	2.41	0.54
37:DD:147:GLU:HA	37:DD:150:LYS:HD2	1.90	0.54
55:FV:190:ALA:N	55:FV:205:GLU:O	2.40	0.54
3:AA:877:A:C2	3:AA:899:A:C2	2.95	0.54
3:AA:443:A:N7	5:AE:40:ARG:HD3	2.21	0.54
3:AA:2552:U:O4	60:AA:3711:HOH:O	2.19	0.54
34:BB:209:VAL:HG23	34:BB:210:THR:H	1.72	0.54
10:CJ:43:GLU:O	10:CJ:45:THR:N	2.41	0.53
17:AQ:91:ARG:NH1	18:AR:10:LYS:HB3	2.23	0.53
55:DV:188:MET:HE3	55:DV:218:TRP:NE1	2.23	0.53
52:HS:36:ARG:NH1	52:HS:52:HIS:O	2.40	0.53
16:AP:4:ILE:HG22	16:AP:5:LYS:H	1.72	0.53
3:GA:1095:A:C8	55:HV:631:VAL:N	2.76	0.53
47:DN:4:GLN:OE1	60:DN:203:HOH:O	2.17	0.53
3:CA:565:C:H2'	3:CA:566:U:O4'	2.09	0.53
3:EA:2156:G:H2'	3:EA:2157:G:H21	1.72	0.53
43:HJ:56:HIS:CD2	43:HJ:57:VAL:HG23	2.43	0.53
38:BE:104:GLY:CA	38:BE:122:ASN:HA	2.38	0.53
38:BE:104:GLY:HA3	38:BE:122:ASN:HA	1.90	0.53
21:AU:38:ILE:HG22	21:AU:39:ASN:H	1.73	0.53
45:BL:43:LYS:HG2	45:BL:44:LYS:HG3	1.90	0.53
35:BA:351:G:OP1	53:BT:3:ASN:ND2	2.40	0.53
4:AD:120:GLY:HA2	4:AD:162:ALA:CB	2.38	0.53
47:FN:18:ASP:OD1	47:FN:19:LYS:N	2.41	0.53
3:GA:1019:U:OP1	3:GA:1035:U:O2'	2.17	0.53
1:CB:23:G:O6	60:CB:1311:HOH:O	2.18	0.53
34:HB:67:LEU:HD12	34:HB:153:MET:CE	2.37	0.53
4:ED:33:ARG:NH2	4:ED:74:GLU:O	2.41	0.53
7:GG:104:LEU:HB2	7:GG:112:VAL:HG21	1.89	0.53
13:CM:73:ILE:HG21	13:CM:91:TYR:CZ	2.43	0.53
3:GA:2867:G:O2'	3:GA:2868:A:OP2	2.26	0.53
15:CO:105:ALA:O	15:CO:107:ALA:N	2.40	0.53
20:AT:50:LEU:C	20:AT:52:GLU:H	2.11	0.53
9:EI:23:VAL:HB	9:EI:27:LEU:HD23	1.90	0.53
3:CA:64:A:H2'	3:CA:65:U:C6	2.43	0.53
1:EB:23:G:N7	60:EB:1310:HOH:O	2.33	0.53
23:AW:63:ASP:OD1	23:AW:63:ASP:N	2.35	0.53
5:EE:119:ILE:O	5:EE:119:ILE:HG12	2.07	0.53
32:C5:26:VAL:HG11	32:C5:77:VAL:HG11	1.88	0.53
16:EP:50:ARG:HG3	16:EP:57:ALA:O	2.07	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:1187:G:H5''	18:AR:83:TYR:CE2	2.43	0.53
35:DA:1013:G:N2	35:DA:1015:G:H3'	2.22	0.53
3:CA:1378:A:H4'	3:CA:1379:U:OP1	2.08	0.53
9:AI:98:GLY:HA3	9:AI:137:LEU:HB3	1.90	0.53
35:DA:1147:C:O2'	42:DI:18:ARG:NH1	2.41	0.53
35:DA:202:G:HO2'	35:DA:468:A:H8	1.55	0.53
3:GA:2415:G:H4'	12:GL:66:PHE:HB2	1.91	0.53
3:AA:1535:A:H4'	3:AA:1536:C:OP2	2.08	0.53
35:HA:1530:G:H2'	35:HA:1531:A:C8	2.44	0.53
9:CI:87:SER:OG	9:CI:88:GLY:N	2.37	0.53
21:AU:21:ARG:CZ	21:AU:72:PHE:CE2	2.90	0.53
7:AG:84:LYS:HG3	7:AG:132:LEU:H	1.73	0.53
36:HC:15:VAL:HG11	36:HC:179:ARG:HA	1.91	0.53
3:AA:1080:A:H1'	9:AI:127:SER:HA	1.91	0.53
3:EA:163:C:O2'	3:EA:164:C:P	2.67	0.53
12:AL:77:ILE:CD1	12:AL:108:ALA:HB1	2.38	0.53
35:DA:31:G:O2'	35:DA:48:C:N4	2.42	0.53
5:GE:41:GLN:NE2	5:GE:43:THR:HG21	2.23	0.53
34:BB:14:HIS:O	34:BB:14:HIS:ND1	2.42	0.53
2:GC:256:THR:O	2:GC:256:THR:OG1	2.25	0.53
36:HC:83:ASP:HA	36:HC:86:LYS:HG2	1.90	0.53
35:HA:429:U:P	37:HD:13:ARG:NH2	2.80	0.53
37:HD:13:ARG:NH2	37:HD:32:CYS:O	2.40	0.53
3:CA:947:A:HO2'	3:CA:984:A:H2	1.55	0.53
23:EW:17:ALA:HB1	23:EW:36:ILE:HA	1.89	0.53
3:AA:1069:A:C4	3:AA:1073:A:N7	2.77	0.53
37:DD:197:GLU:O	37:DD:200:ILE:HG22	2.09	0.53
3:CA:2588:G:OP2	60:CA:3540:HOH:O	2.19	0.53
23:AW:37:VAL:HB	23:AW:38:ARG:HH11	1.74	0.53
37:FD:147:GLU:HA	37:FD:150:LYS:HB2	1.91	0.53
3:CA:923:G:N3	23:CW:23:LYS:HE2	2.22	0.53
45:HL:114:ARG:HB3	45:HL:119:VAL:HB	1.89	0.53
20:GT:19:LYS:O	20:GT:23:ALA:N	2.40	0.53
46:FM:20:THR:HA	46:FM:25:VAL:HG23	1.91	0.53
1:GB:31:C:H4'	6:GF:25:MET:SD	2.48	0.53
55:HV:142:ASN:OD1	55:HV:143:LYS:N	2.42	0.53
3:GA:2207:C:H2'	3:GA:2208:C:C6	2.44	0.53
51:HR:41:PRO:HG3	51:HR:43:ARG:CZ	2.38	0.53
12:EL:111:ILE:HD12	12:EL:111:ILE:N	2.24	0.53
3:EA:322:A:H5'	3:EA:340:A:H1'	1.90	0.53
35:DA:564:C:H5'	50:DQ:34:TYR:CE1	2.43	0.53
9:AI:116:MET:SD	9:AI:124:MET:HE2	2.48	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BC:42:TYR:CE2	36:BC:90:VAL:HG21	2.43	0.53
35:BA:857:C:OP2	60:BA:1822:HOH:O	2.18	0.53
6:EF:110:ILE:O	6:EF:112:ASP:N	2.40	0.53
3:CA:528:A:C2	3:CA:2043:C:H4'	2.44	0.53
45:HL:68:GLY:O	45:HL:99:ARG:NH1	2.36	0.53
10:GJ:39:LYS:HA	10:GJ:43:GLU:HB2	1.91	0.53
8:CH:13:GLY:HA3	35:HA:1294:G:H4'	1.88	0.53
23:GW:29:SER:OG	23:GW:30:VAL:N	2.40	0.53
17:CQ:84:LYS:O	17:CQ:86:SER:N	2.41	0.53
3:AA:299:A:OP2	60:AA:3546:HOH:O	2.18	0.53
24:GX:70:LEU:O	24:GX:74:GLY:N	2.41	0.53
3:EA:942:G:OP1	60:EA:3783:HOH:O	2.17	0.53
46:DM:54:ASP:HB2	46:DM:57:ARG:HB3	1.89	0.53
35:DA:71:A:N1	35:DA:99:C:O2'	2.40	0.53
3:GA:654:A:H5'	3:GA:654:A:N3	2.24	0.53
45:BL:110:ARG:NH1	45:BL:112:GLN:O	2.41	0.53
35:FA:207:C:O2	35:FA:212:G:N2	2.41	0.53
20:ET:54:GLU:HG3	20:ET:88:LYS:HB2	1.91	0.53
40:BG:15:ASP:OD1	40:BG:44:TYR:OH	2.22	0.53
37:BD:165:ARG:O	37:BD:167:LYS:N	2.40	0.53
14:CN:92:GLY:HA2	14:CN:94:TYR:CE1	2.43	0.53
3:AA:954:G:OP2	13:AM:16:ARG:NH2	2.42	0.53
45:FL:74:LEU:HD11	45:FL:80:ILE:HG21	1.90	0.53
2:GC:16:VAL:N	2:GC:203:VAL:HG12	2.23	0.53
37:FD:125:VAL:O	37:FD:127:GLY:N	2.40	0.53
35:BA:684:U:O2'	44:BK:40:ASN:O	2.26	0.53
55:BV:382:ILE:O	55:BV:382:ILE:HD12	2.09	0.53
40:FG:4:ARG:HG3	40:FG:5:ARG:N	2.23	0.53
32:C5:71:CYS:HA	32:C5:117:LEU:CD1	2.38	0.53
3:GA:812:C:H1'	3:GA:1250:G:C2	2.44	0.53
23:EW:55:ASP:O	23:EW:57:THR:N	2.41	0.53
16:EP:50:ARG:HB3	16:EP:57:ALA:N	2.20	0.53
3:AA:2016:U:H1'	27:A0:2:VAL:HG11	1.89	0.53
32:E5:81:LEU:HD23	32:E5:82:ILE:N	2.24	0.53
6:GF:1:ALA:HB1	6:GF:97:GLU:HG2	1.90	0.53
26:GZ:17:PRO:HA	26:GZ:20:LYS:CE	2.38	0.53
14:GN:29:VAL:HG11	14:GN:75:ILE:CG2	2.39	0.53
35:HA:1239:A:H5''	40:HG:119:ARG:HH12	1.74	0.53
13:CM:54:THR:O	13:CM:56:ALA:N	2.39	0.53
35:DA:1309:G:C6	35:DA:1329:A:C6	2.96	0.53
1:GB:48:U:OP1	15:GO:98:GLN:N	2.40	0.53
38:HE:154:ALA:O	38:HE:158:GLY:N	2.41	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:324:G:OP2	60:HA:1838:HOH:O	2.18	0.53
36:FC:6:HIS:ND1	47:FN:89:MET:HB3	2.23	0.53
11:CK:19:VAL:HG21	11:CK:41:ILE:HD13	1.91	0.53
35:DA:1004:A:H2'	35:DA:1005:A:O4'	2.09	0.53
3:GA:2199:A:C4	3:GA:2225:A:C2	2.96	0.53
37:DD:32:CYS:SG	37:DD:33:LYS:N	2.81	0.53
45:HL:44:LYS:HB2	45:HL:45:PRO:HD3	1.89	0.53
23:GW:37:VAL:HG13	23:GW:56:HIS:HB2	1.90	0.53
23:GW:41:GLY:O	23:GW:43:LYS:N	2.34	0.53
45:FL:44:LYS:HB3	45:FL:45:PRO:CD	2.35	0.53
3:CA:2336:A:N6	23:CW:40:ARG:HB3	2.23	0.53
16:CP:4:ILE:HG22	16:CP:5:LYS:H	1.72	0.53
3:AA:2547:A:H2'	3:AA:2548:U:C6	2.43	0.53
2:CC:16:VAL:N	2:CC:203:VAL:HG12	2.23	0.53
35:FA:723:U:O2'	35:FA:724:G:OP1	2.22	0.53
42:FI:40:GLY:HA2	42:FI:45:ARG:HB3	1.91	0.53
35:HA:936:C:OP1	60:HA:1770:HOH:O	2.18	0.53
3:CA:2037:A:N6	3:CA:2038:G:O6	2.42	0.53
43:DJ:80:THR:HB	43:DJ:83:THR:HB	1.90	0.53
39:HF:43:GLY:HA2	39:HF:58:HIS:CE1	2.42	0.53
3:GA:923:G:N3	23:GW:23:LYS:HD2	2.24	0.53
45:FL:40:THR:OG1	45:FL:41:THR:N	2.39	0.53
7:CG:8:VAL:HG22	7:CG:9:VAL:H	1.73	0.53
14:EN:44:LEU:HD23	14:EN:113:ILE:HD13	1.89	0.53
23:AW:13:ARG:HG2	23:AW:14:ASP:H	1.74	0.53
3:AA:674:G:H1'	5:AE:69:ARG:HE	1.72	0.53
3:EA:1248:G:C5	5:EE:46:GLN:NE2	2.76	0.53
3:EA:1248:G:N7	5:EE:46:GLN:NE2	2.57	0.53
40:DG:67:GLU:O	44:HK:14:LYS:NZ	2.32	0.53
6:AF:103:ILE:HG23	6:AF:175:PRO:HD3	1.90	0.53
39:FF:18:VAL:HG21	39:FF:58:HIS:CD2	2.44	0.53
6:EF:124:ARG:O	6:EF:126:ASN:ND2	2.42	0.53
35:FA:1452:C:H4'	35:FA:1453:G:O5'	2.08	0.53
3:CA:79:C:O2'	3:CA:346:A:N3	2.33	0.53
47:BN:20:TYR:O	47:BN:24:ARG:N	2.42	0.53
32:A5:36:ASP:O	32:A5:39:THR:OG1	2.26	0.53
37:BD:25:VAL:HG12	37:BD:26:ARG:N	2.24	0.53
3:EA:2575:C:OP2	60:EA:3707:HOH:O	2.18	0.53
3:EA:818:G:N7	3:EA:1187:G:C6	2.76	0.53
3:GA:1378:A:H4'	3:GA:1379:U:OP1	2.08	0.53
3:AA:1715:G:N2	3:AA:1744:A:OP2	2.36	0.53
19:GS:88:ARG:HG3	19:GS:88:ARG:HH21	1.73	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:528:A:C2	3:EA:2042:A:H2'	2.42	0.53
3:CA:2102:G:N2	3:CA:2188:U:H3	2.07	0.53
35:FA:260:G:N2	35:FA:265:G:N7	2.57	0.53
24:EX:63:ILE:HG22	24:EX:67:LEU:HD23	1.91	0.53
47:DN:21:PHE:HA	47:DN:25:ALA:HB3	1.90	0.53
35:DA:1031:C:HO2'	35:DA:1032:G:N2	2.06	0.53
54:BU:40:LYS:N	54:BU:41:PRO:CD	2.72	0.53
1:EB:100:G:OP2	60:EB:1314:HOH:O	2.18	0.53
3:EA:1737:G:H5''	3:EA:1738:G:OP2	2.08	0.53
3:AA:565:C:O3'	60:AA:3328:HOH:O	2.18	0.53
3:AA:1397:U:OP2	3:AA:1398:C:N4	2.34	0.53
12:AL:103:ILE:N	60:AL:203:HOH:O	2.30	0.53
43:BJ:71:LEU:O	43:BJ:72:ARG:NH1	2.39	0.53
55:BV:79:TYR:OH	55:BV:284:ASP:OD1	2.16	0.53
35:FA:890:G:O2'	35:FA:906:A:N6	2.41	0.53
5:CE:118:LEU:HD23	5:CE:186:VAL:HG13	1.91	0.53
14:CN:12:ARG:CZ	14:CN:20:MET:HE1	2.38	0.53
3:GA:2030:A:C2	3:GA:2499:C:H5''	2.44	0.53
52:HS:34:TRP:HA	52:HS:51:VAL:HG13	1.91	0.53
3:GA:947:A:C2	3:GA:948:C:C2	2.96	0.53
35:DA:1315:U:O2'	35:DA:1360:A:N3	2.34	0.53
3:EA:1913:A:O2'	56:FW:4:SER:N	2.36	0.53
55:DV:75:MET:SD	55:DV:193:TRP:HH2	2.32	0.53
35:DA:834:U:C2	35:DA:835:U:C5	2.97	0.53
7:GG:104:LEU:HD12	7:GG:112:VAL:HG21	1.91	0.53
36:BC:77:ILE:HA	36:BC:84:VAL:HG23	1.91	0.53
15:CO:78:VAL:O	15:CO:82:ALA:N	2.38	0.53
35:DA:690:G:O6	44:DK:53:ARG:NH2	2.41	0.53
35:BA:677:U:H3	35:BA:713:G:H22	1.56	0.53
35:FA:484:G:N7	35:FA:486:U:H1'	2.24	0.53
3:EA:315:G:H2'	3:EA:316:C:C6	2.44	0.53
9:GI:70:THR:OG1	9:GI:71:LYS:N	2.41	0.53
50:HQ:76:VAL:HG23	50:HQ:77:ARG:H	1.74	0.53
3:EA:2880:C:O2'	14:EN:92:GLY:O	2.22	0.53
40:HG:72:THR:O	40:HG:91:VAL:HG12	2.09	0.53
3:AA:2526:G:N3	31:A4:1:MET:N	2.57	0.53
35:FA:243:A:C2	35:FA:246:A:C8	2.97	0.53
34:HB:94:ARG:NH1	34:HB:96:LEU:HA	2.24	0.53
3:AA:1069:A:C5	3:AA:1073:A:N7	2.77	0.53
16:AP:50:ARG:CD	16:AP:51:ASN:N	2.72	0.53
3:CA:2016:U:H1'	27:C0:2:VAL:HG11	1.91	0.53
32:A5:129:LEU:C	32:A5:131:THR:H	2.10	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:GW:18:LYS:CA	23:GW:36:ILE:HG13	2.39	0.53
17:AQ:81:GLY:HA2	17:AQ:116:LEU:CD1	2.38	0.53
3:EA:833:A:OP2	12:EL:39:LYS:NZ	2.42	0.53
3:AA:1263:U:OP1	27:A0:12:ARG:NH1	2.41	0.53
35:FA:297:G:N2	35:FA:300:A:OP2	2.41	0.53
3:GA:2639:A:C2	3:GA:2778:A:C8	2.97	0.53
6:CF:118:ALA:O	6:CF:166:ARG:NH1	2.40	0.53
1:EB:94:A:OP2	60:EB:1312:HOH:O	2.19	0.53
46:BM:107:ARG:O	46:BM:111:GLY:N	2.41	0.53
3:GA:1131:G:OP1	10:GJ:82:GLY:HA2	2.09	0.53
1:EB:41:G:N7	6:EF:68:LYS:NZ	2.56	0.53
42:BI:91:ASP:OD1	42:BI:91:ASP:N	2.40	0.53
35:HA:1401:G:H2'	35:HA:1402:C:O4'	2.08	0.53
6:EF:128:SER:HA	6:EF:154:THR:HA	1.91	0.53
6:GF:110:ILE:HG12	6:GF:136:ILE:HG21	1.91	0.53
15:AO:31:THR:HG22	15:AO:34:HIS:H	1.74	0.53
3:EA:1153:C:N4	3:EA:1154:G:C6	2.76	0.53
3:EA:1536:C:H1'	3:EA:1537:G:N2	2.24	0.53
14:EN:98:LEU:HB3	27:E0:42:ILE:CD1	2.38	0.53
3:GA:671:C:H41	12:GL:41:ARG:H	1.55	0.53
3:GA:1172:C:C4	3:GA:1173:U:H1'	2.44	0.53
3:GA:971:G:H2'	3:GA:972:A:O4'	2.09	0.53
38:BE:150:PRO:HA	38:BE:153:VAL:HG13	1.90	0.53
3:GA:225:C:N4	3:GA:231:A:C2	2.76	0.53
3:GA:2313:C:H5''	6:GF:87:LYS:HD3	1.89	0.53
35:BA:1279:G:H2'	35:BA:1279:G:N3	2.23	0.53
3:CA:443:A:C5	5:CE:40:ARG:HD3	2.43	0.53
35:HA:720:C:OP1	51:HR:43:ARG:NH1	2.39	0.53
35:DA:98:A:H2'	35:DA:99:C:C6	2.44	0.53
35:BA:1242:G:N3	60:BA:1793:HOH:O	2.34	0.53
4:CD:62:LYS:HB2	4:CD:63:PRO:HD3	1.90	0.53
38:HE:122:ASN:OD1	38:HE:122:ASN:N	2.41	0.53
35:DA:757:U:O2'	35:DA:879:C:O2	2.23	0.53
55:HV:230:SER:OG	55:HV:232:GLU:OE1	2.27	0.53
53:DT:44:LYS:CB	53:DT:87:ALA:HB2	2.39	0.53
3:AA:1001:A:OP2	60:AA:3725:HOH:O	2.18	0.53
44:HK:107:ILE:HD13	54:HU:14:VAL:HA	1.91	0.53
55:HV:660:LEU:O	55:HV:662:GLU:N	2.38	0.53
3:CA:2757:A:N1	7:CG:66:THR:HG21	2.23	0.53
34:FB:53:LEU:HD21	34:FB:212:TYR:HE1	1.73	0.53
35:FA:91:U:H2'	35:FA:92:U:C6	2.44	0.53
1:CB:90:C:H6	1:CB:90:C:H5''	1.74	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:1012:U:OP2	17:CQ:69:ARG:NH1	2.41	0.53
35:BA:958:A:N6	52:BS:77:THR:O	2.41	0.53
6:EF:125:GLY:O	6:EF:157:THR:OG1	2.20	0.53
7:EG:151:ARG:HG2	7:EG:151:ARG:HH11	1.74	0.53
11:CK:98:ARG:HA	11:CK:118:LEU:CD2	2.39	0.53
3:EA:994:C:H3'	17:EQ:53:LYS:HE2	1.91	0.52
3:GA:1913:A:N7	55:HV:507:LYS:NZ	2.56	0.52
23:GW:37:VAL:HG12	23:GW:38:ARG:H	1.74	0.52
35:HA:1206:G:H2'	35:HA:1207:G:O4'	2.09	0.52
23:CW:39:GLN:CG	23:CW:41:GLY:O	2.57	0.52
35:HA:717:U:O2'	35:HA:734:G:O4'	2.26	0.52
3:AA:273:G:N2	3:AA:365:U:C2	2.77	0.52
23:AW:37:VAL:HG13	23:AW:55:ASP:C	2.29	0.52
4:CD:151:THR:CG2	4:CD:152:PRO:HD3	2.39	0.52
3:EA:1913:A:N7	35:FA:1494:G:H4'	2.24	0.52
35:FA:1021:A:H2'	35:FA:1022:A:H5'	1.90	0.52
35:FA:211:G:C2	35:FA:212:G:H1'	2.44	0.52
36:FC:17:PRO:O	36:FC:18:TRP:HB2	2.09	0.52
35:DA:213:G:C8	35:DA:214:C:C5	2.97	0.52
3:AA:1394:U:H4'	3:AA:1603:A:H4'	1.92	0.52
9:CI:23:VAL:HB	9:CI:27:LEU:HB2	1.91	0.52
45:DL:98:VAL:HG13	45:DL:101:ALA:HB3	1.91	0.52
3:CA:271:G:H4'	3:CA:272:A:OP1	2.08	0.52
3:GA:1668:A:O2'	3:GA:1674:G:N7	2.32	0.52
10:GJ:74:TYR:HB2	10:GJ:87:ALA:O	2.10	0.52
41:BH:106:THR:HG21	41:BH:121:LEU:HD22	1.92	0.52
50:FQ:14:SER:HB3	50:FQ:22:VAL:CG1	2.39	0.52
32:C5:43:LYS:NZ	32:C5:98:GLU:OE1	2.38	0.52
35:BA:951:G:OP2	46:BM:101:ARG:NH2	2.42	0.52
10:CJ:111:LYS:N	60:CJ:201:HOH:O	2.39	0.52
47:HN:54:ASP:OD1	47:HN:59:ARG:NH1	2.41	0.52
32:E5:117:LEU:HD23	32:E5:120:ALA:HA	1.83	0.52
10:AJ:39:LYS:HA	10:AJ:43:GLU:HG3	1.91	0.52
3:CA:1107:G:OP1	32:C5:59:LEU:N	2.42	0.52
39:HF:38:ARG:HB3	39:HF:63:ASN:HB2	1.91	0.52
3:GA:2316:G:O2'	6:GF:124:ARG:NH2	2.42	0.52
7:CG:84:LYS:HG2	7:CG:85:LYS:H	1.74	0.52
20:CT:54:GLU:OE1	20:CT:54:GLU:N	2.43	0.52
3:GA:666:A:H4'	12:GL:48:ARG:NE	2.24	0.52
14:AN:73:ASN:HA	14:AN:76:VAL:CG1	2.39	0.52
3:GA:2444:G:OP1	5:GE:62:GLN:NE2	2.37	0.52
2:EC:14:HIS:O	2:EC:203:VAL:HG11	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DV:358:GLU:OE1	55:DV:389:LYS:N	2.40	0.52
3:GA:1130:U:C2	3:GA:2025:C:H5''	2.44	0.52
35:FA:1085:U:OP1	60:FA:1862:HOH:O	2.19	0.52
47:DN:26:GLU:HG2	47:DN:27:LEU:HD12	1.91	0.52
3:AA:2297:A:N1	3:AA:2321:U:H5	2.07	0.52
3:AA:2092:U:H4'	3:AA:2093:G:O5'	2.09	0.52
5:EE:149:ILE:O	5:EE:188:MET:HA	2.10	0.52
14:CN:73:ASN:HA	14:CN:76:VAL:CG1	2.39	0.52
35:DA:243:A:C5	35:DA:245:U:C4	2.97	0.52
35:BA:197:A:N1	35:BA:220:G:O2'	2.35	0.52
51:BR:32:TYR:CG	51:BR:55:LEU:HD21	2.44	0.52
35:HA:1314:C:H2'	35:HA:1315:U:C6	2.44	0.52
42:HI:129:LYS:HG3	42:HI:130:ARG:H	1.75	0.52
44:BK:21:ALA:HB2	44:BK:82:LEU:CD1	2.40	0.52
35:FA:1279:G:N3	35:FA:1279:G:H2'	2.24	0.52
35:HA:958:A:N1	52:HS:54:GLY:HA3	2.23	0.52
55:HV:625:GLU:HA	55:HV:628:THR:HG23	1.91	0.52
3:AA:2016:U:H1'	27:A0:2:VAL:CG1	2.40	0.52
35:DA:1007:U:C2'	35:DA:1008:U:H5'	2.39	0.52
34:FB:20:ARG:NH1	34:FB:20:ARG:HA	2.24	0.52
3:EA:1332:G:OP1	60:EA:3754:HOH:O	2.19	0.52
3:GA:1130:U:N3	3:GA:2025:C:H5''	2.25	0.52
32:A5:81:LEU:HD23	32:A5:82:ILE:N	2.24	0.52
42:FI:36:GLU:HA	42:FI:40:GLY:CA	2.39	0.52
41:BH:125:ILE:HD11	41:BH:128:TYR:CE1	2.44	0.52
28:A1:33:LEU:N	28:A1:51:ALA:HB3	2.25	0.52
9:EI:101:SER:OG	9:EI:102:ARG:N	2.42	0.52
3:CA:1050:A:C2	3:CA:2751:G:C4	2.98	0.52
39:BF:68:GLN:HA	39:BF:71:ILE:HG22	1.91	0.52
25:CY:31:GLN:HG2	25:CY:37:LEU:H	1.73	0.52
35:HA:1095:U:OP2	60:HA:1857:HOH:O	2.19	0.52
3:AA:384:A:H2'	3:AA:385:C:H5'	1.90	0.52
3:CA:1262:A:OP2	19:CS:99:ARG:NH2	2.42	0.52
35:FA:303:A:C5	35:FA:304:U:C5	2.97	0.52
44:FK:67:ALA:O	44:FK:71:ALA:N	2.41	0.52
55:FV:193:TRP:HB2	55:FV:273:LYS:HD3	1.91	0.52
3:CA:1450:G:C6	3:CA:1451:C:N4	2.78	0.52
3:AA:1203:U:O2'	12:AL:4:ASN:OD1	2.28	0.52
3:GA:228:C:H5''	3:GA:229:C:C6	2.45	0.52
3:AA:1779:U:H5	3:AA:1784:A:N7	2.06	0.52
45:HL:77:HIS:NE2	55:HV:428:GLN:OE1	2.42	0.52
41:BH:12:THR:HG22	41:BH:15:ARG:HH22	1.73	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:EF:69:ALA:N	6:EF:82:TYR:O	2.39	0.52
34:HB:71:THR:HG22	34:HB:72:LYS:H	1.73	0.52
32:E5:17:GLU:HA	32:E5:88:HIS:CE1	2.44	0.52
26:AZ:6:ILE:O	26:AZ:34:THR:HA	2.10	0.52
36:DC:47:LEU:HB3	36:DC:50:ALA:HB3	1.89	0.52
40:DG:135:VAL:O	40:DG:138:ARG:N	2.42	0.52
21:AU:35:VAL:HB	21:AU:38:ILE:HG21	1.90	0.52
45:FL:56:ARG:NH1	45:FL:62:GLU:OE1	2.43	0.52
3:GA:251:A:C5	3:GA:252:G:H1'	2.45	0.52
17:EQ:84:LYS:O	17:EQ:86:SER:N	2.43	0.52
3:AA:1288:G:C4	3:AA:1327:A:C2	2.98	0.52
5:EE:15:SER:N	5:EE:197:GLU:OE2	2.42	0.52
11:AK:10:VAL:HG11	11:AK:16:ALA:HB3	1.90	0.52
3:GA:2574:G:OP1	60:GA:3700:HOH:O	2.19	0.52
39:HF:61:LEU:HD21	51:HR:24:LYS:HZ3	1.74	0.52
35:HA:776:G:N2	35:HA:802:A:OP2	2.42	0.52
3:EA:483:A:O2'	21:EU:56:GLY:HA2	2.10	0.52
37:HD:107:PHE:CD1	37:HD:145:ILE:HD11	2.45	0.52
10:AJ:32:LEU:HD22	10:AJ:54:ILE:HD12	1.90	0.52
3:AA:2134:A:HO2'	3:AA:2135:A:H8	1.55	0.52
43:DJ:53:ILE:HG13	47:DN:85:ARG:NE	2.23	0.52
34:FB:94:ARG:HG3	34:FB:96:LEU:HD23	1.91	0.52
3:GA:2536:G:C6	3:GA:2537:U:C4	2.97	0.52
9:CI:56:VAL:HA	9:CI:71:LYS:HZ1	1.74	0.52
13:GM:2:LEU:HD23	13:GM:69:PRO:HD3	1.91	0.52
35:DA:462:G:N2	35:DA:470:C:N3	2.53	0.52
26:CZ:15:ARG:HH11	26:CZ:15:ARG:CG	2.22	0.52
51:HR:63:ARG:HB3	51:HR:70:TYR:CZ	2.44	0.52
3:CA:2615:U:C2	27:C0:3:GLN:HA	2.44	0.52
3:GA:1061:U:H1'	3:GA:1070:A:O4'	2.09	0.52
15:CO:111:ARG:HG2	15:CO:117:PHE:CZ	2.45	0.52
35:HA:1087:G:H2'	35:HA:1088:G:H8	1.75	0.52
37:DD:188:ARG:NH1	37:DD:191:LEU:O	2.43	0.52
16:EP:50:ARG:CG	16:EP:57:ALA:O	2.58	0.52
44:BK:125:LYS:O	54:BU:34:ARG:NE	2.41	0.52
35:HA:727:G:N2	35:HA:730:G:OP2	2.36	0.52
10:GJ:80:HIS:O	10:GJ:82:GLY:N	2.43	0.52
20:AT:89:GLU:O	20:AT:91:GLN:N	2.41	0.52
32:A5:118:ILE:HB	32:A5:119:PRO:CD	2.40	0.52
34:DB:209:VAL:HG23	34:DB:210:THR:H	1.74	0.52
5:GE:146:VAL:HA	5:GE:185:LYS:O	2.10	0.52
55:DV:497:LYS:HG2	55:DV:523:TYR:HB2	1.91	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:1060:U:H3	3:CA:1088:A:H2	1.56	0.52
43:DJ:15:HIS:HA	43:DJ:18:ILE:HG22	1.92	0.52
10:AJ:55:ILE:HD11	10:AJ:130:HIS:CG	2.44	0.52
31:A4:7:VAL:O	31:A4:35:GLN:NE2	2.42	0.52
23:AW:46:ALA:HB3	23:AW:80:SER:HB3	1.91	0.52
2:EC:245:THR:O	2:EC:247:TRP:N	2.43	0.52
35:DA:293:G:C6	35:DA:294:U:C4	2.98	0.52
47:BN:54:ASP:OD1	47:BN:59:ARG:NH1	2.43	0.52
24:GX:58:ILE:HG23	24:GX:63:ILE:HA	1.91	0.52
17:EQ:91:ARG:HH21	17:EQ:93:ILE:HG21	1.74	0.52
3:GA:585:G:OP2	17:GQ:5:ARG:NH2	2.42	0.52
3:GA:1063:G:C2	3:GA:1064:C:H1'	2.44	0.52
14:CN:118:ARG:O	14:CN:120:GLU:N	2.43	0.52
35:HA:452:A:H62	35:HA:480:U:H3	1.58	0.52
3:GA:863:A:H2'	3:GA:864:G:C8	2.44	0.52
34:BB:86:CYS:HB2	34:BB:88:GLN:NE2	2.25	0.52
35:HA:687:A:N3	35:HA:688:G:H1'	2.25	0.52
38:BE:96:MET:HE2	38:BE:115:LEU:HD11	1.91	0.52
3:EA:630:G:N2	3:EA:633:A:OP2	2.42	0.52
3:GA:659:G:H2'	5:GE:30:GLN:HE22	1.75	0.52
35:HA:730:G:O2'	35:HA:814:A:N6	2.43	0.52
3:CA:250:G:C6	3:CA:251:A:C6	2.97	0.52
46:DM:4:ILE:O	46:DM:6:GLY:N	2.39	0.52
24:GX:63:ILE:O	24:GX:67:LEU:HD13	2.09	0.52
3:CA:2533:U:OP1	3:CA:2665:A:O2'	2.23	0.52
3:CA:973:A:O4'	3:CA:1188:U:C6	2.63	0.52
51:BR:37:GLY:O	51:BR:63:ARG:NH2	2.40	0.52
12:CL:81:ASP:O	12:CL:83:ALA:N	2.39	0.52
3:GA:674:G:H1'	5:GE:69:ARG:HD2	1.92	0.52
13:EM:47:GLU:OE2	13:EM:51:ARG:NH2	2.42	0.52
20:AT:44:LYS:HG3	20:AT:55:VAL:HG11	1.90	0.52
19:GS:54:ALA:HB1	19:GS:107:VAL:HG12	1.91	0.52
16:EP:33:GLU:HB3	16:EP:36:LYS:HG2	1.92	0.52
35:HA:1391:U:H2'	35:HA:1392:G:C8	2.45	0.52
14:EN:117:ASP:OD1	14:EN:118:ARG:N	2.41	0.52
1:CB:39:A:O2'	1:CB:46:A:N1	2.34	0.52
35:BA:81:A:H2'	35:BA:82:G:H5''	1.91	0.52
23:CW:63:ASP:OD1	23:CW:63:ASP:N	2.41	0.52
3:GA:1266:G:OP2	27:G0:16:ARG:NE	2.42	0.52
23:GW:72:GLY:N	23:GW:73:PRO:CD	2.73	0.52
3:GA:571:U:C4	3:GA:575:A:C5	2.97	0.52
3:GA:1022:G:N7	3:GA:1140:C:N4	2.57	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:CW:54:ARG:HG3	23:CW:55:ASP:N	2.23	0.52
35:HA:1166:G:C6	35:HA:1168:U:H5'	2.44	0.52
23:GW:51:GLY:HA3	23:GW:59:PHE:CE1	2.44	0.52
35:HA:1304:G:O2'	35:HA:1333:A:N6	2.42	0.52
3:CA:1805:A:N3	2:CC:49:THR:OG1	2.42	0.52
50:HQ:50:ASN:O	50:HQ:52:GLU:N	2.43	0.52
35:HA:82:G:H22	35:HA:89:U:H4'	1.75	0.52
20:AT:50:LEU:HD12	20:AT:50:LEU:H	1.74	0.52
7:AG:83:THR:HA	7:AG:84:LYS:CE	2.39	0.52
3:CA:79:C:C4	3:CA:80:G:N7	2.78	0.52
3:GA:2776:A:C2	3:GA:2778:A:C4	2.98	0.52
10:GJ:81:ILE:HG13	10:GJ:82:GLY:N	2.24	0.52
35:DA:1331:G:O2'	35:DA:1332:A:OP2	2.26	0.52
13:GM:69:PRO:HB3	13:GM:92:TRP:HB3	1.92	0.52
10:CJ:16:TYR:HB3	10:CJ:140:LEU:HD12	1.90	0.52
11:AK:80:ASP:HB2	16:AP:67:GLU:HG3	1.90	0.52
35:DA:1317:C:OP2	47:DN:28:LYS:NZ	2.43	0.52
3:GA:640:C:H2'	3:GA:641:U:C6	2.45	0.52
3:EA:2423:U:O2'	3:EA:2424:C:OP2	2.26	0.52
3:EA:2262:U:OP1	3:EA:2387:U:O2'	2.16	0.52
34:HB:185:ILE:HD11	34:HB:212:TYR:CD2	2.45	0.52
34:FB:166:ASP:OD1	34:FB:167:HIS:N	2.42	0.52
55:HV:248:ILE:O	55:HV:251:ALA:N	2.42	0.52
3:EA:1421:G:C2	3:EA:1422:G:C8	2.97	0.52
55:DV:131:ASN:OD1	55:DV:137:ARG:NH1	2.38	0.52
47:FN:42:TRP:CD1	47:FN:45:VAL:HG13	2.45	0.52
3:GA:2489:U:O2'	3:GA:2518:A:N6	2.42	0.52
34:DB:166:ASP:OD1	34:DB:167:HIS:N	2.43	0.52
20:AT:69:ARG:CG	20:AT:70:HIS:H	2.23	0.52
53:HT:69:LYS:HB2	53:HT:69:LYS:NZ	2.25	0.52
35:DA:204:G:H3'	35:DA:205:A:C5'	2.39	0.52
35:FA:33:A:H2'	35:FA:34:C:C6	2.45	0.52
35:HA:1512:U:H2'	35:HA:1513:A:C8	2.45	0.52
3:GA:996:A:C8	18:GR:10:LYS:HE2	2.45	0.52
13:AM:8:LYS:HE3	13:AM:9:PHE:CE2	2.45	0.52
3:GA:2267:A:OP2	60:GA:3506:HOH:O	2.19	0.52
35:HA:1207:G:H2'	35:HA:1208:C:O4'	2.10	0.52
16:GP:4:ILE:HG22	16:GP:8:GLU:HG3	1.92	0.52
3:EA:819:A:C4	3:EA:1189:A:C2	2.98	0.52
30:G3:21:PHE:HB2	30:G3:49:VAL:HG21	1.91	0.52
3:GA:414:C:H1'	3:GA:1864:U:H1'	1.91	0.52
1:GB:20:G:O6	60:GB:1302:HOH:O	2.18	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:GF:65:LEU:HB3	6:GF:87:LYS:O	2.09	0.52
54:BU:39:GLU:OE1	54:BU:42:THR:OG1	2.26	0.52
3:GA:2537:U:H2'	3:GA:2538:C:C6	2.44	0.52
26:GZ:40:THR:HG23	26:GZ:43:ILE:H	1.75	0.52
9:EI:120:ASP:HB3	9:EI:123:ALA:HB2	1.92	0.52
3:EA:946:C:OP2	60:EA:3347:HOH:O	2.19	0.52
3:EA:1277:G:C5'	14:EN:20:MET:HE2	2.39	0.52
4:CD:71:ALA:O	4:CD:73:VAL:N	2.41	0.52
21:AU:82:VAL:HG12	21:AU:83:GLY:N	2.25	0.52
3:AA:2211:A:O2'	3:AA:2212:A:OP1	2.25	0.52
35:BA:815:A:N7	35:BA:1509:C:O2'	2.37	0.52
37:DD:124:MET:HG3	37:DD:146:ARG:HG2	1.92	0.52
3:CA:1266:G:N2	3:CA:2012:G:H2'	2.24	0.52
3:GA:2513:A:O3'	4:GD:159:LYS:NZ	2.42	0.52
9:AI:87:SER:OG	9:AI:88:GLY:N	2.43	0.52
15:GO:5:SER:O	15:GO:8:ILE:HG22	2.10	0.52
3:AA:2425:A:H5''	3:AA:2427:C:O4'	2.09	0.52
55:BV:104:ARG:NH2	55:BV:407:GLU:HB3	2.25	0.52
3:CA:2680:U:H5'	4:CD:194:PRO:HA	1.92	0.52
9:EI:11:GLN:OE1	9:EI:11:GLN:N	2.43	0.52
32:A5:71:CYS:CA	32:A5:117:LEU:HD13	2.31	0.52
3:AA:2502:G:H5'	3:AA:2503:A:H5''	1.92	0.52
47:BN:27:LEU:C	47:BN:31:ILE:HD13	2.30	0.52
16:GP:5:LYS:NZ	16:GP:9:GLN:OE1	2.43	0.52
35:HA:482:A:C2	35:HA:483:C:H1'	2.44	0.52
35:HA:1236:A:H1'	35:HA:1333:A:N1	2.24	0.52
21:GU:86:PHE:HD2	21:GU:88:ASP:HB3	1.75	0.52
9:GI:78:LEU:HB3	9:GI:105:LEU:CD2	2.39	0.52
35:FA:373:A:C4	35:FA:482:A:N7	2.78	0.52
18:ER:39:LEU:O	18:ER:49:ILE:HG23	2.10	0.52
41:BH:106:THR:HG22	41:BH:107:SER:N	2.25	0.52
53:DT:62:ALA:HA	53:DT:67:ILE:HG23	1.92	0.52
16:CP:20:ARG:N	16:CP:23:ASP:OD2	2.43	0.52
11:CK:61:VAL:HG22	11:CK:87:LEU:HD11	1.91	0.52
13:AM:73:ILE:HG21	13:AM:91:TYR:CZ	2.45	0.52
36:BC:14:ILE:O	36:BC:15:VAL:HG22	2.10	0.52
3:EA:616:A:H4'	5:EE:101:TYR:CE2	2.45	0.52
34:DB:163:ILE:HG23	34:DB:164:ASP:H	1.75	0.52
4:ED:91:THR:HG23	4:ED:92:VAL:H	1.75	0.52
3:GA:1975:G:C6	3:GA:1976:U:N3	2.78	0.52
35:BA:1040:U:H2'	35:BA:1041:G:C8	2.45	0.52
15:AO:36:TYR:N	15:AO:36:TYR:CD1	2.78	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:108:ARG:NH1	11:CK:113:MET:SD	2.83	0.52
35:BA:546:A:P	37:BD:69:GLU:HB2	2.49	0.52
3:CA:419:U:H2'	3:CA:420:C:C6	2.44	0.52
32:C5:24:SER:HB3	32:C5:116:GLU:CG	2.19	0.52
10:EJ:6:ALA:CB	10:EJ:45:THR:HG21	2.40	0.52
32:C5:58:THR:HB	32:C5:82:ILE:HB	1.92	0.52
55:BV:217:GLU:O	55:BV:220:GLN:N	2.43	0.52
44:HK:29:ASN:OD1	44:HK:57:LYS:HB2	2.10	0.52
42:DI:57:MET:O	42:DI:60:LYS:N	2.42	0.52
7:CG:84:LYS:CG	7:CG:132:LEU:H	2.20	0.52
3:GA:869:G:C6	3:GA:909:A:C6	2.98	0.52
12:CL:77:ILE:CD1	12:CL:108:ALA:HB1	2.40	0.52
35:DA:707:U:H4'	44:DK:22:HIS:CG	2.45	0.52
20:CT:59:ASN:O	20:CT:83:ALA:O	2.28	0.52
3:GA:2345:G:H5'	3:GA:2347:C:H5'	1.91	0.52
3:AA:1328:A:H2'	3:AA:1330:C:C5	2.45	0.52
35:HA:615:G:C2	35:HA:626:G:C5	2.98	0.52
36:FC:150:LYS:HG3	36:FC:201:TRP:CE3	2.45	0.52
1:EB:90:C:H5''	1:EB:90:C:H6	1.74	0.52
2:GC:16:VAL:N	2:GC:203:VAL:CG1	2.73	0.52
53:DT:67:ILE:HD11	53:DT:71:LYS:HE3	1.91	0.52
11:AK:19:VAL:CG1	11:AK:41:ILE:HG12	2.40	0.52
3:EA:2415:G:H4'	12:EL:66:PHE:HB2	1.91	0.52
35:FA:254:G:O3'	50:FQ:71:LYS:NZ	2.43	0.52
3:AA:38:A:O2'	5:AE:43:THR:HA	2.09	0.52
35:FA:664:G:H22	35:FA:741:G:H1	1.57	0.52
6:AF:132:ARG:O	6:AF:133:GLU:HB3	2.10	0.52
3:EA:370:G:OP2	60:EA:3559:HOH:O	2.19	0.52
55:BV:603:GLU:OE2	55:BV:607:LYS:NZ	2.38	0.52
35:HA:460:A:H2'	35:HA:460:A:N3	2.25	0.52
8:CH:4:ILE:HD12	8:CH:43:ASN:HB3	1.91	0.52
43:FJ:35:GLN:HG2	43:FJ:77:VAL:HG23	1.92	0.52
16:EP:24:THR:O	16:EP:24:THR:OG1	2.28	0.52
42:BI:84:THR:HG21	42:BI:103:PHE:HB3	1.92	0.52
36:DC:90:VAL:HA	36:DC:93:ASP:HB3	1.92	0.52
3:GA:2897:U:H2'	3:GA:2898:U:C6	2.44	0.52
35:FA:1328:C:H5''	46:FM:28:THR:HG21	1.92	0.52
44:HK:82:LEU:HD21	44:HK:100:LEU:HD21	1.92	0.52
35:BA:114:U:O2'	35:BA:115:G:H5'	2.10	0.52
3:AA:411:G:OP2	3:AA:2406:A:O2'	2.25	0.52
25:EY:56:LEU:O	25:EY:58:ASN:N	2.41	0.52
5:EE:76:PRO:HA	5:EE:82:GLY:HA3	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1309:G:C6	35:BA:1310:G:C5	2.98	0.52
35:DA:195:A:OP2	60:DA:1867:HOH:O	2.19	0.52
35:DA:198:G:C5	35:DA:220:G:C2	2.98	0.52
2:GC:77:VAL:HA	2:GC:93:VAL:HA	1.92	0.52
17:AQ:31:TYR:O	17:AQ:34:ALA:N	2.42	0.52
35:FA:269:C:H2'	35:FA:270:A:C8	2.45	0.52
17:CQ:91:ARG:HE	17:CQ:93:ILE:HG21	1.75	0.51
23:AW:8:SER:O	23:AW:9:THR:HG22	2.10	0.51
17:AQ:63:ARG:HH12	17:AQ:96:ASP:CA	2.22	0.51
32:C5:81:LEU:HD23	32:C5:82:ILE:N	2.24	0.51
23:GW:55:ASP:O	23:GW:57:THR:N	2.43	0.51
3:AA:945:A:C5	3:AA:2448:A:C2	2.98	0.51
3:GA:817:C:N4	60:GA:3567:HOH:O	2.35	0.51
35:FA:1524:C:P	44:FK:125:LYS:HZ2	2.32	0.51
3:EA:2502:G:H5'	3:EA:2503:A:H5''	1.92	0.51
3:GA:287:G:H2'	3:GA:288:U:C6	2.45	0.51
39:BF:98:GLU:CG	39:BF:99:ALA:N	2.72	0.51
3:GA:920:A:OP1	26:GZ:18:LYS:CE	2.58	0.51
35:BA:17:U:H2'	35:BA:18:C:C6	2.44	0.51
36:FC:150:LYS:HB3	36:FC:169:ARG:CG	2.40	0.51
3:GA:639:U:H2'	3:GA:640:C:C6	2.45	0.51
11:GK:13:ASN:O	11:GK:15:GLY:N	2.41	0.51
47:HN:47:LYS:C	47:HN:49:GLN:H	2.12	0.51
4:GD:149:ASN:OD1	4:GD:150:GLN:N	2.42	0.51
35:DA:79:G:H3'	35:DA:80:A:H8	1.75	0.51
7:GG:23:ILE:HG21	7:GG:71:LEU:HD11	1.92	0.51
3:EA:1309:G:OP1	29:E2:9:VAL:HG13	2.11	0.51
30:E3:31:ILE:CG1	30:E3:31:ILE:O	2.58	0.51
3:EA:2707:U:O2	14:EN:71:ARG:NH1	2.41	0.51
15:EO:24:THR:HG22	15:EO:42:PRO:HD3	1.91	0.51
3:AA:460:A:C2	3:AA:470:A:C4	2.99	0.51
3:AA:2232:C:P	24:AX:26:ARG:HH22	2.32	0.51
41:HH:75:ILE:HG13	41:HH:128:TYR:O	2.10	0.51
31:A4:3:VAL:HG23	31:A4:4:ARG:H	1.74	0.51
35:DA:815:A:N7	35:DA:1509:C:O2'	2.34	0.51
3:EA:1667:G:O2'	3:EA:1991:U:O4	2.19	0.51
55:FV:119:VAL:O	55:FV:123:SER:OG	2.27	0.51
24:EX:69:GLU:O	24:EX:70:LEU:CB	2.56	0.51
16:GP:33:GLU:OE2	16:GP:38:ARG:NH1	2.42	0.51
32:C5:26:VAL:CG1	32:C5:77:VAL:CG1	2.85	0.51
3:AA:2053:G:H1	3:AA:2616:C:H42	1.57	0.51
3:GA:2265:U:H4'	13:GM:13:HIS:CE1	2.44	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:A5:43:LYS:NZ	32:A5:98:GLU:HB2	2.24	0.51
35:HA:1034:G:C2	35:HA:1035:A:N7	2.78	0.51
37:HD:26:ARG:HD3	37:HD:31:LYS:HE3	1.92	0.51
35:DA:980:C:C4'	47:DN:59:ARG:HE	2.23	0.51
35:DA:158:G:H2'	35:DA:159:G:H5'	1.92	0.51
3:AA:1776:G:OP2	60:AA:3445:HOH:O	2.19	0.51
3:AA:1332:G:OP1	60:AA:3749:HOH:O	2.18	0.51
34:FB:163:ILE:HG23	34:FB:164:ASP:H	1.74	0.51
45:BL:24:LEU:O	45:BL:26:ALA:N	2.42	0.51
42:DI:18:ARG:HB2	42:DI:66:THR:HB	1.92	0.51
10:AJ:81:ILE:CG1	10:AJ:82:GLY:N	2.74	0.51
54:DU:35:ARG:HE	54:DU:40:LYS:NZ	2.08	0.51
10:CJ:64:VAL:HG11	10:CJ:69:ARG:HB2	1.91	0.51
10:CJ:80:HIS:O	10:CJ:82:GLY:N	2.43	0.51
42:FI:36:GLU:HA	42:FI:40:GLY:HA3	1.92	0.51
2:EC:68:ARG:NH2	2:EC:126:GLY:O	2.43	0.51
35:FA:1199:U:OP1	60:FA:1830:HOH:O	2.19	0.51
10:GJ:30:THR:HG22	10:GJ:31:GLU:N	2.26	0.51
34:DB:82:ALA:O	34:DB:85:SER:OG	2.20	0.51
21:EU:93:ARG:O	21:EU:102:ILE:N	2.41	0.51
3:EA:2526:G:N3	31:E4:1:MET:N	2.58	0.51
39:BF:63:ASN:ND2	39:BF:96:VAL:HG22	2.25	0.51
44:FK:16:VAL:O	44:FK:18:ASP:N	2.41	0.51
35:FA:93:U:H2'	35:FA:94:G:H5''	1.93	0.51
3:AA:729:G:H2'	3:AA:1775:U:H1'	1.91	0.51
6:CF:59:ILE:HD11	6:CF:140:ILE:HD11	1.91	0.51
35:HA:588:G:H1'	41:HH:3:MET:HE2	1.91	0.51
3:CA:1280:G:N2	3:CA:1291:C:C2	2.78	0.51
3:GA:784:G:O2'	3:GA:785:G:OP2	2.25	0.51
9:CI:73:PRO:HG2	9:CI:112:LYS:HG2	1.92	0.51
49:DP:79:ASN:ND2	49:DP:82:ALA:O	2.37	0.51
19:GS:9:HIS:O	19:GS:11:ARG:NH1	2.42	0.51
9:CI:96:LYS:HG3	9:CI:136:GLY:HA3	1.91	0.51
10:CJ:44:TYR:CD1	10:CJ:44:TYR:O	2.64	0.51
3:GA:1195:G:C2	3:GA:1196:C:C5	2.98	0.51
3:CA:1009:A:OP2	60:CA:3762:HOH:O	2.18	0.51
35:HA:988:G:H1'	35:HA:1015:G:H22	1.75	0.51
21:EU:98:ASN:ND2	21:EU:100:GLU:OE1	2.43	0.51
15:GO:111:ARG:O	15:GO:113:ALA:N	2.43	0.51
46:DM:14:HIS:HB3	46:DM:42:ASP:HA	1.92	0.51
9:GI:122:GLU:HG2	9:GI:126:ARG:HH12	1.75	0.51
35:HA:1060:U:O2'	43:HJ:58:ASN:OD1	2.27	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:GG:63:GLN:O	7:GG:66:THR:OG1	2.26	0.51
47:HN:88:ALA:HB2	47:HN:93:ILE:HD12	1.92	0.51
37:FD:65:TYR:CE2	37:FD:94:LEU:HB3	2.46	0.51
3:CA:855:G:N3	23:CW:23:LYS:HD3	2.24	0.51
3:GA:2290:G:N2	3:GA:2342:C:O2	2.43	0.51
35:BA:690:G:H2'	35:BA:691:G:O4'	2.10	0.51
12:EL:40:SER:OG	12:EL:41:ARG:N	2.41	0.51
3:CA:2394:C:OP1	30:C3:29:ARG:NH2	2.43	0.51
3:AA:489:G:N7	19:AS:49:LYS:NZ	2.58	0.51
1:GB:41:G:OP1	1:GB:43:C:N4	2.43	0.51
3:AA:2313:C:H5''	6:AF:87:LYS:HD3	1.92	0.51
3:GA:1014:A:C6	3:GA:1015:U:C4	2.99	0.51
34:HB:32:GLY:HA3	34:HB:39:ILE:O	2.10	0.51
35:DA:254:G:O3'	50:DQ:71:LYS:NZ	2.43	0.51
11:CK:78:ARG:NH1	16:CP:70:GLU:OE2	2.44	0.51
3:EA:1613:G:C2	3:EA:1619:G:C5	2.97	0.51
27:E0:33:SER:OG	27:E0:35:GLU:HG3	2.09	0.51
49:FP:18:GLN:HG3	49:FP:35:ARG:HD2	1.93	0.51
35:DA:1395:C:HO2'	35:DA:1401:G:HO2'	1.52	0.51
3:EA:1084:A:N6	3:EA:1085:A:N1	2.58	0.51
44:HK:111:THR:HB	54:HU:5:LYS:HB3	1.92	0.51
20:AT:29:THR:OG1	20:AT:86:THR:N	2.43	0.51
55:DV:493:THR:HG22	55:DV:613:LEU:HD21	1.93	0.51
55:BV:48:ALA:HB2	55:BV:369:ASN:CG	2.30	0.51
6:GF:107:VAL:HB	6:GF:108:PRO:HD3	1.92	0.51
32:C5:54:VAL:HG22	32:C5:83:ALA:HB1	1.92	0.51
42:BI:52:LEU:HB3	42:BI:57:MET:HB3	1.92	0.51
3:AA:1647:U:OP2	60:AA:3417:HOH:O	2.19	0.51
35:DA:880:C:OP1	45:DL:9:ARG:CZ	2.59	0.51
3:AA:2387:U:O2'	23:AW:38:ARG:NH2	2.43	0.51
23:AW:16:GLU:O	23:AW:17:ALA:HB3	2.10	0.51
18:AR:39:LEU:HA	18:AR:49:ILE:HG21	1.92	0.51
7:AG:84:LYS:HB3	7:AG:132:LEU:O	2.09	0.51
49:BP:44:SER:O	49:BP:46:LYS:N	2.44	0.51
35:DA:197:A:C6	35:DA:221:C:H4'	2.45	0.51
3:EA:1774:C:OP1	60:EA:3444:HOH:O	2.19	0.51
3:CA:1439:A:C2	3:CA:1553:A:C4	2.98	0.51
3:GA:2400:G:C5	3:GA:2401:U:C4	2.98	0.51
32:A5:94:ARG:O	32:A5:97:LYS:N	2.43	0.51
3:AA:750:A:OP1	3:AA:1615:C:N4	2.40	0.51
7:AG:96:ALA:HB3	7:AG:103:ASN:HB2	1.93	0.51
35:DA:687:A:O2'	35:DA:701:U:O4	2.16	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:2615:U:C2	27:G0:3:GLN:HA	2.45	0.51
7:EG:117:PRO:N	7:EG:120:ILE:HD11	2.26	0.51
3:EA:2331:G:O2'	3:EA:2336:A:N1	2.43	0.51
3:GA:2276:G:C2	3:GA:2277:G:C8	2.98	0.51
3:GA:954:G:C2	3:GA:964:C:O2	2.63	0.51
35:BA:410:G:OP1	37:BD:26:ARG:NH1	2.39	0.51
35:DA:1101:A:H5''	34:DB:170:ILE:HD11	1.92	0.51
16:GP:4:ILE:HG22	16:GP:5:LYS:H	1.75	0.51
48:DO:46:HIS:O	48:DO:48:LYS:N	2.39	0.51
3:EA:271:G:H4'	3:EA:272:A:OP1	2.10	0.51
3:GA:645:C:H2'	3:GA:647:G:C8	2.45	0.51
16:CP:58:PHE:HD1	16:CP:75:THR:HG22	1.74	0.51
16:GP:58:PHE:CD1	16:GP:75:THR:HG22	2.46	0.51
35:DA:815:A:N1	35:DA:1529:G:O2'	2.33	0.51
3:EA:250:G:OP2	30:E3:12:ARG:NH1	2.44	0.51
3:GA:1267:U:C5	3:GA:2012:G:N2	2.79	0.51
39:FF:98:GLU:HG3	39:FF:99:ALA:N	2.25	0.51
3:CA:1150:C:H2'	3:CA:1151:A:O5'	2.11	0.51
38:HE:89:HIS:HB3	38:HE:139:ALA:HB2	1.92	0.51
50:FQ:80:GLU:HG2	50:FQ:81:LYS:N	2.26	0.51
5:GE:29:HIS:CG	12:GL:8:PRO:HA	2.45	0.51
19:CS:20:VAL:HG11	19:CS:44:ALA:HA	1.91	0.51
3:GA:2344:U:O2'	28:G1:36:LYS:O	2.21	0.51
43:HJ:5:ARG:HG3	43:HJ:6:ILE:HG13	1.93	0.51
13:GM:106:ASP:O	13:GM:108:VAL:N	2.38	0.51
25:GY:30:MET:O	25:GY:34:SER:N	2.40	0.51
2:GC:79:ARG:HE	2:GC:92:LEU:HD23	1.75	0.51
32:A5:25:ALA:HB3	32:A5:85:SER:OG	2.09	0.51
17:CQ:91:ARG:HH21	17:CQ:93:ILE:HG21	1.74	0.51
55:DV:221:ASN:HA	55:DV:224:GLU:HB3	1.93	0.51
35:FA:1524:C:P	44:FK:125:LYS:HZ3	2.34	0.51
35:HA:1292:G:H5''	42:HI:41:ARG:NH1	2.25	0.51
3:EA:802:A:C5	3:EA:803:U:C4	2.99	0.51
39:DF:71:ILE:HA	39:DF:74:LEU:HB2	1.92	0.51
3:GA:33:C:O2'	3:GA:446:G:N2	2.42	0.51
3:AA:26:G:C6	3:AA:27:G:N1	2.79	0.51
35:HA:1333:A:C5	35:HA:1334:G:H1'	2.46	0.51
3:EA:1353:A:C8	3:EA:1378:A:N6	2.78	0.51
15:CO:51:ALA:HB3	15:CO:78:VAL:HG13	1.93	0.51
6:CF:10:GLU:O	6:CF:12:VAL:N	2.44	0.51
3:CA:142:A:C2	20:CT:2:ILE:HG23	2.46	0.51
3:CA:2365:G:H4'	23:CW:59:PHE:CE2	2.45	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:1567:G:H5'	2:EC:57:HIS:CD2	2.45	0.51
44:DK:81:ASN:HD22	44:DK:106:ARG:HB3	1.75	0.51
40:FG:146:GLU:HG2	40:FG:149:LYS:HE3	1.92	0.51
8:CH:3:VAL:HA	8:CH:39:ALA:HB2	1.92	0.51
3:EA:1869:G:H3'	3:EA:1870:C:H5''	1.93	0.51
3:CA:1363:C:O2'	3:CA:1809:A:N3	2.39	0.51
22:CV:75:GLN:HB2	22:CV:92:VAL:CG2	2.41	0.51
19:GS:59:GLU:HA	19:GS:64:ALA:HA	1.93	0.51
3:GA:852:U:H2'	3:GA:853:C:C6	2.46	0.51
35:HA:1074:G:O2'	35:HA:1101:A:N1	2.37	0.51
3:EA:1437:C:H2'	3:EA:1438:U:C6	2.46	0.51
28:C1:22:THR:OG1	28:C1:23:THR:N	2.43	0.51
3:GA:1568:G:OP1	2:GC:62:ARG:NH1	2.44	0.51
3:GA:222:A:H3'	3:GA:421:C:H5'	1.93	0.51
35:FA:1152:A:OP1	43:FJ:70:HIS:ND1	2.43	0.51
5:AE:148:ILE:HA	5:AE:187:VAL:HB	1.93	0.51
22:AV:51:GLN:OE1	22:AV:57:TYR:OH	2.28	0.51
3:AA:748:G:P	19:AS:88:ARG:NH2	2.83	0.51
42:FI:28:ILE:HG13	42:FI:63:LEU:HD21	1.92	0.51
4:AD:62:LYS:HB2	4:AD:63:PRO:HD3	1.93	0.51
35:HA:131:A:H2'	35:HA:132:C:C6	2.46	0.51
35:BA:971:G:O6	35:BA:1364:U:O2'	2.26	0.51
36:BC:168:TYR:OH	38:BE:55:GLU:OE1	2.25	0.51
22:AV:44:HIS:HE1	22:AV:86:LEU:H	1.59	0.51
32:A5:25:ALA:O	32:A5:116:GLU:OE1	2.28	0.51
10:AJ:39:LYS:HA	10:AJ:43:GLU:HB2	1.91	0.51
35:HA:579:A:H61	35:HA:762:U:H3	1.58	0.51
3:AA:974:G:H8	3:AA:990:A:H62	1.58	0.51
3:GA:583:G:C6	3:GA:584:C:C4	2.99	0.51
12:GL:48:ARG:HH12	30:G3:6:VAL:HG23	1.75	0.51
35:DA:976:G:C2	35:DA:1363:A:C2	2.99	0.51
3:GA:863:A:C2	3:GA:864:G:C4	2.98	0.51
14:CN:98:LEU:CB	27:C0:42:ILE:HD11	2.41	0.51
3:EA:1076:C:H2'	3:EA:1077:A:O4'	2.10	0.51
37:FD:65:TYR:N	37:FD:65:TYR:CD1	2.79	0.51
35:HA:1329:A:H4'	46:HM:24:GLY:O	2.11	0.51
4:GD:33:ARG:NH2	4:GD:74:GLU:O	2.43	0.51
7:EG:112:VAL:HG23	7:EG:113:ASP:N	2.25	0.51
55:FV:191:ILE:HG21	55:FV:193:TRP:CZ2	2.45	0.51
35:DA:9:G:OP2	38:DE:126:LYS:NZ	2.40	0.51
55:DV:195:ASP:OD1	55:DV:196:ALA:N	2.43	0.51
3:EA:1813:G:H1'	2:EC:49:THR:HG21	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:1750:G:O2'	3:AA:2860:A:N1	2.37	0.51
22:AV:9:ARG:NH2	22:AV:12:GLN:HA	2.26	0.51
2:AC:255:LYS:O	2:AC:257:ARG:N	2.43	0.51
34:FB:143:LEU:O	34:FB:147:LEU:N	2.37	0.51
4:ED:62:LYS:HB2	4:ED:63:PRO:HD3	1.93	0.51
3:GA:2418:A:H3'	60:GA:3800:HOH:O	2.11	0.51
3:GA:1300:G:H4'	3:GA:1301:A:H5'	1.93	0.51
39:HF:50:PRO:HD2	51:HR:74:HIS:CG	2.46	0.51
35:DA:1391:U:H2'	35:DA:1392:G:C8	2.45	0.51
45:FL:63:VAL:HG21	45:FL:95:TYR:CE1	2.46	0.51
16:EP:105:LYS:HA	16:EP:108:ARG:HD2	1.92	0.51
14:AN:52:ILE:HB	14:AN:94:TYR:CD2	2.46	0.51
37:BD:107:PHE:CD1	37:BD:107:PHE:N	2.76	0.51
7:CG:165:ASP:OD1	7:CG:165:ASP:N	2.42	0.51
3:EA:532:A:N7	3:EA:2021:C:O2'	2.32	0.51
3:AA:1437:C:H2'	3:AA:1438:U:C6	2.46	0.51
52:DS:63:THR:HG22	52:DS:64:ASP:N	2.25	0.51
3:AA:2579:C:OP1	60:AA:3534:HOH:O	2.17	0.51
3:GA:1059:G:H2'	3:GA:1060:U:C5	2.45	0.51
35:DA:1219:A:H5'	47:DN:53:ARG:CZ	2.41	0.51
39:DF:68:GLN:CA	39:DF:71:ILE:HG22	2.40	0.51
3:AA:2354:C:H4'	23:AW:31:LEU:HD22	1.92	0.51
36:FC:42:TYR:HE2	36:FC:90:VAL:HG21	1.75	0.51
45:BL:44:LYS:HB2	45:BL:45:PRO:HD3	1.92	0.51
22:CV:2:PHE:HB3	22:CV:50:MET:HE1	1.91	0.51
3:GA:1019:U:H5	3:GA:1142:A:N6	2.08	0.51
2:CC:16:VAL:N	2:CC:203:VAL:CG1	2.74	0.51
38:FE:104:GLY:HA3	38:FE:122:ASN:HA	1.93	0.51
23:CW:23:LYS:CG	23:CW:24:ARG:N	2.74	0.51
5:EE:148:ILE:HA	5:EE:187:VAL:HB	1.93	0.51
3:AA:2314:A:OP1	6:AF:87:LYS:NZ	2.44	0.51
35:FA:885:G:O2'	35:FA:914:A:N1	2.36	0.51
3:CA:2804:U:H2'	3:CA:2805:C:C6	2.46	0.51
3:EA:570:G:OP1	60:EA:3767:HOH:O	2.20	0.51
34:DB:9:LEU:HD12	34:DB:42:LEU:HD13	1.93	0.51
36:DC:8:ASN:HD22	47:DN:90:ARG:HA	1.76	0.51
7:EG:137:LYS:O	7:EG:140:ILE:HG22	2.11	0.51
11:AK:13:ASN:O	11:AK:15:GLY:N	2.43	0.51
39:FF:91:ARG:O	39:FF:92:THR:OG1	2.27	0.51
34:DB:71:THR:HG22	34:DB:72:LYS:H	1.76	0.51
34:BB:153:MET:O	34:BB:155:GLY:N	2.44	0.51
35:DA:224:U:H2'	35:DA:225:C:C6	2.45	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:27:ARG:HA	17:CQ:33:VAL:HG12	1.90	0.51
35:BA:1273:C:H2'	35:BA:1274:A:O4'	2.11	0.51
22:CV:44:HIS:HE1	22:CV:86:LEU:H	1.59	0.51
55:HV:493:THR:HG22	55:HV:613:LEU:HD21	1.92	0.51
39:HF:78:PHE:CD1	39:HF:84:VAL:HG11	2.45	0.51
35:HA:823:C:O2	41:HH:2:SER:N	2.44	0.51
3:AA:2039:U:H2'	3:AA:2040:G:C8	2.45	0.51
3:CA:27:G:O2'	3:CA:28:A:OP2	2.29	0.51
18:CR:38:VAL:HG11	18:CR:59:ILE:HG13	1.93	0.51
38:DE:72:ILE:HD11	38:DE:145:GLU:CD	2.31	0.51
37:FD:48:LEU:HD21	37:FD:53:VAL:N	2.26	0.51
35:DA:874:G:C5	35:DA:875:U:C5	2.99	0.51
1:GB:87:U:H3'	1:GB:88:C:H5'	1.92	0.51
38:HE:38:VAL:HG12	38:HE:117:VAL:HG21	1.92	0.51
24:EX:77:TYR:C	24:EX:77:TYR:CD1	2.82	0.51
4:CD:186:LEU:CD2	16:CP:7:LEU:HD21	2.41	0.51
12:AL:91:ASP:OD1	12:AL:92:LEU:N	2.43	0.51
10:EJ:39:LYS:HA	10:EJ:43:GLU:HG3	1.93	0.51
3:GA:571:U:H3'	18:GR:80:ARG:NH2	2.25	0.51
3:GA:954:G:H5''	13:GM:13:HIS:ND1	2.26	0.51
17:AQ:65:ASN:OD1	17:AQ:69:ARG:NH2	2.42	0.51
3:EA:945:A:C4	3:EA:2448:A:C2	2.99	0.51
35:HA:481:G:O2'	35:HA:482:A:C8	2.63	0.51
35:HA:715:A:N6	35:HA:716:A:N6	2.58	0.51
35:BA:1468:A:H2'	35:BA:1469:C:C5'	2.40	0.51
23:EW:9:THR:HG23	23:EW:10:ARG:HD3	1.91	0.51
35:FA:401:C:O2'	35:FA:621:A:N3	2.35	0.51
3:GA:2757:A:N1	7:GG:66:THR:HG21	2.26	0.51
3:GA:1006:C:C2	3:GA:1138:G:N2	2.79	0.51
35:HA:1268:G:N2	35:HA:1327:C:O4'	2.44	0.51
3:EA:42:A:H2'	3:EA:43:G:H5'	1.91	0.51
16:AP:33:GLU:CD	16:AP:34:GLY:N	2.63	0.51
19:ES:13:SER:O	19:ES:14:ALA:CB	2.59	0.51
37:FD:25:VAL:HA	37:FD:161:LEU:HG	1.92	0.51
4:GD:148:GLN:N	4:GD:148:GLN:OE1	2.44	0.51
11:CK:113:MET:SD	11:CK:116:ILE:HD11	2.51	0.51
35:BA:309:A:O2'	35:BA:607:A:N1	2.40	0.51
35:HA:161:A:N1	35:HA:347:G:O2'	2.36	0.51
6:AF:71:LYS:HD3	6:AF:72:SER:N	2.26	0.51
46:BM:4:ILE:O	46:BM:6:GLY:N	2.44	0.51
44:BK:16:VAL:CG1	44:BK:79:ILE:HG12	2.40	0.51
6:CF:110:ILE:O	6:CF:112:ASP:N	2.44	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:ER:68:ARG:HD3	18:ER:92:TRP:CE2	2.45	0.51
7:GG:84:LYS:HB2	7:GG:132:LEU:H	1.76	0.51
21:CU:98:ASN:ND2	21:CU:100:GLU:OE1	2.44	0.51
36:BC:164:ARG:NH1	36:BC:166:GLU:OE1	2.44	0.51
3:GA:1485:U:H2'	3:GA:1486:U:C6	2.46	0.51
35:BA:289:G:O5'	60:BA:1888:HOH:O	2.19	0.51
3:GA:851:C:O2'	26:GZ:42:ALA:O	2.21	0.51
3:CA:1251:C:C6	17:CQ:5:ARG:NH1	2.79	0.51
9:CI:106:GLN:HG2	9:CI:107:GLU:N	2.26	0.51
40:DG:133:THR:HA	40:DG:136:LYS:HB3	1.93	0.51
2:AC:61:TYR:CE2	3:AA:1816:C:C5	2.98	0.51
35:FA:1336:C:H4'	35:FA:1337:G:H5'	1.92	0.51
6:CF:21:TYR:CE2	6:CF:27:VAL:HA	2.45	0.51
6:GF:134:GLN:HG3	6:GF:140:ILE:HD13	1.93	0.51
23:EW:30:VAL:HA	23:EW:60:ALA:HB3	1.93	0.51
3:GA:1072:C:N4	3:GA:1097:U:C5'	2.73	0.51
32:E5:95:LEU:H	32:E5:95:LEU:HD22	1.75	0.51
42:HI:87:LEU:HB3	42:HI:94:LEU:CD1	2.40	0.51
2:GC:68:ARG:NH2	2:GC:126:GLY:O	2.43	0.51
3:GA:248:G:C2	3:GA:2431:U:H4'	2.45	0.51
20:AT:50:LEU:O	20:AT:52:GLU:N	2.42	0.51
34:BB:94:ARG:NH1	34:BB:95:TRP:O	2.43	0.51
9:AI:36:GLU:HB3	9:AI:66:PHE:CE1	2.46	0.51
6:GF:117:SER:O	6:GF:127:TYR:OH	2.28	0.51
11:EK:4:GLU:OE2	11:EK:23:LYS:NZ	2.42	0.51
18:ER:66:HIS:CD2	18:ER:94:THR:HG22	2.46	0.51
3:GA:2782:G:C2	3:GA:2783:U:C6	2.99	0.51
3:CA:1084:A:H5'	32:C5:55:VAL:HG13	1.91	0.51
13:CM:71:LYS:HD3	13:CM:95:LEU:HD13	1.92	0.51
11:EK:9:ASN:O	11:EK:83:ALA:HA	2.11	0.51
3:CA:1732:C:O2'	3:CA:1733:G:H5'	2.11	0.51
4:CD:14:ILE:HD11	4:CD:178:VAL:CG1	2.41	0.51
3:CA:2502:G:H5'	3:CA:2503:A:H5''	1.93	0.51
3:CA:1668:A:O2'	3:CA:1674:G:N7	2.44	0.51
2:EC:77:VAL:HG22	2:EC:77:VAL:O	2.11	0.51
55:BV:191:ILE:HG23	55:BV:202:PHE:CE1	2.46	0.51
3:AA:1738:G:O2'	3:AA:1739:A:O5'	2.25	0.50
3:EA:855:G:H1'	23:EW:23:LYS:HE3	1.93	0.50
4:ED:184:ARG:NH1	16:EP:6:GLN:OE1	2.44	0.50
8:CH:9:VAL:HG12	8:CH:10:ALA:H	1.75	0.50
3:GA:909:A:C6	3:GA:912:C:C2	2.98	0.50
50:HQ:19:LYS:N	50:HQ:51:ASN:OD1	2.42	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:CW:72:GLY:N	23:CW:73:PRO:CD	2.74	0.50
13:CM:8:LYS:HE3	13:CM:9:PHE:CE2	2.45	0.50
34:HB:172:ILE:HG22	34:HB:176:ASN:HD21	1.76	0.50
34:HB:67:LEU:HD21	34:HB:91:VAL:HG23	1.93	0.50
34:DB:186:VAL:N	34:DB:199:ILE:O	2.44	0.50
3:GA:2415:G:C5	3:GA:2416:C:C5	2.99	0.50
35:FA:110:C:N4	35:FA:111:G:C6	2.79	0.50
28:A1:4:ILE:HG23	28:A1:5:ARG:H	1.76	0.50
9:CI:71:LYS:N	9:CI:71:LYS:HD2	2.27	0.50
7:CG:22:VAL:HG12	7:CG:36:LEU:CD1	2.41	0.50
2:GC:246:PRO:HG2	2:GC:247:TRP:CZ3	2.46	0.50
3:GA:2661:G:H5'	55:HV:19:ILE:HG13	1.93	0.50
35:DA:867:G:H2'	35:DA:868:C:C6	2.46	0.50
35:BA:701:U:H5''	35:BA:703:G:O4'	2.11	0.50
35:HA:17:U:H2'	35:HA:18:C:C6	2.45	0.50
35:FA:1477:U:H2'	35:FA:1478:U:C6	2.46	0.50
3:EA:1026:G:OP1	60:EA:3704:HOH:O	2.19	0.50
38:DE:46:VAL:CG2	38:DE:118:ALA:HA	2.41	0.50
4:AD:151:THR:HG22	4:AD:152:PRO:HD3	1.92	0.50
28:E1:3:GLY:O	28:E1:5:ARG:N	2.45	0.50
19:AS:20:VAL:HG11	19:AS:44:ALA:HA	1.93	0.50
9:AI:109:ALA:HB2	9:AI:128:ILE:HG13	1.93	0.50
31:E4:3:VAL:HG23	31:E4:4:ARG:H	1.75	0.50
3:AA:1300:G:H4'	3:AA:1301:A:H5'	1.92	0.50
3:AA:592:A:HO2'	30:A3:63:TYR:HH	1.59	0.50
3:AA:141:G:N1	20:AT:1:MET:O	2.44	0.50
34:HB:207:ARG:HG3	34:HB:208:ALA:N	2.26	0.50
35:BA:177:G:OP2	53:BT:64:LYS:NZ	2.44	0.50
3:CA:532:A:N7	3:CA:2021:C:O2'	2.33	0.50
13:GM:17:ASN:ND2	13:GM:17:ASN:O	2.43	0.50
20:ET:35:ALA:HB3	20:ET:38:ALA:HB2	1.92	0.50
3:GA:2529:G:H5'	7:GG:174:LYS:HD2	1.93	0.50
15:CO:52:SER:HB2	15:CO:54:VAL:HG12	1.94	0.50
35:DA:738:C:H2'	35:DA:739:C:C6	2.46	0.50
43:HJ:57:VAL:HG12	43:HJ:58:ASN:N	2.26	0.50
3:GA:974:G:C4	3:GA:1186:G:C2	2.99	0.50
3:CA:2800:A:H3'	3:CA:2801:G:H5''	1.93	0.50
2:AC:256:THR:CG2	3:AA:1797:G:O2'	2.59	0.50
35:BA:1007:U:C2'	35:BA:1008:U:H5'	2.41	0.50
35:BA:999:C:H42	35:BA:1041:G:H1	1.59	0.50
3:AA:391:A:C6	3:AA:411:G:C2	3.00	0.50
16:EP:108:ARG:NH1	35:FA:1464:U:OP2	2.42	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:GI:32:VAL:HG12	9:GI:33:ASN:H	1.76	0.50
40:DG:16:PRO:HG3	42:DI:43:THR:HG23	1.93	0.50
3:AA:2094:A:C2	3:AA:2196:C:C2	2.99	0.50
26:CZ:21:ALA:O	26:CZ:25:GLY:N	2.43	0.50
4:CD:120:GLY:HA2	4:CD:162:ALA:CB	2.41	0.50
35:DA:111:G:O6	35:DA:330:C:N4	2.44	0.50
51:FR:37:GLY:O	51:FR:63:ARG:NH2	2.44	0.50
3:EA:2800:A:H3'	3:EA:2801:G:C5'	2.41	0.50
3:CA:2204:G:OP2	2:CC:146:LYS:NZ	2.40	0.50
3:AA:2329:U:H2'	3:AA:2330:G:C8	2.47	0.50
35:BA:840:C:N4	35:BA:842:U:O2'	2.44	0.50
35:FA:1410:A:H2'	35:FA:1411:C:C6	2.47	0.50
35:BA:1053:G:HO2'	35:BA:1199:U:H5	1.58	0.50
35:HA:142:G:H3'	35:HA:143:A:H8	1.75	0.50
38:HE:24:THR:HA	38:HE:29:ARG:HA	1.92	0.50
19:AS:86:MET:HB2	19:AS:96:ILE:HG21	1.92	0.50
32:C5:142:THR:OG1	32:C5:143:MET:N	2.44	0.50
55:DV:11:ARG:HE	55:DV:283:ILE:HA	1.77	0.50
3:CA:594:U:H2'	3:CA:595:C:C6	2.46	0.50
19:AS:13:SER:O	19:AS:14:ALA:CB	2.60	0.50
23:EW:37:VAL:HB	23:EW:38:ARG:HH11	1.76	0.50
3:GA:2265:U:N3	3:GA:2266:A:C6	2.80	0.50
3:GA:918:A:C2	3:GA:919:U:H1'	2.47	0.50
3:CA:83:A:H2'	3:CA:84:A:N7	2.26	0.50
3:GA:1064:C:C4	3:GA:1065:U:C5	2.99	0.50
15:CO:31:THR:HG22	15:CO:34:HIS:H	1.75	0.50
37:HD:62:ARG:HG2	37:HD:72:PHE:CD2	2.45	0.50
39:HF:10:VAL:HG21	39:HF:21:MET:CE	2.41	0.50
40:HG:126:ASP:O	40:HG:130:ASN:N	2.44	0.50
35:HA:888:G:O2'	35:HA:1488:G:O2'	2.20	0.50
35:DA:1033:G:C2'	35:DA:1034:G:H5'	2.40	0.50
3:EA:126:A:O5'	29:E2:19:ARG:HG3	2.10	0.50
47:HN:61:ARG:NH1	60:HN:201:HOH:O	2.44	0.50
42:BI:89:GLU:OE1	42:BI:90:TYR:CD1	2.65	0.50
49:FP:6:LEU:HD12	49:FP:17:TYR:HB3	1.94	0.50
1:GB:83:G:H4'	26:GZ:52:PHE:CD1	2.45	0.50
32:C5:123:ILE:HG12	32:C5:124:ASP:N	2.26	0.50
35:DA:816:A:OP1	35:DA:1526:G:O2'	2.21	0.50
35:HA:324:G:N7	60:HA:1837:HOH:O	2.35	0.50
3:AA:565:C:H2'	3:AA:566:U:O4'	2.11	0.50
5:GE:29:HIS:O	5:GE:32:VAL:HG22	2.11	0.50
3:AA:2571:U:O2'	4:AD:151:THR:CG2	2.60	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:100:U:H4'	3:EA:101:A:O5'	2.11	0.50
11:CK:80:ASP:OD1	16:CP:61:ARG:NH1	2.45	0.50
45:FL:24:LEU:O	45:FL:26:ALA:N	2.44	0.50
3:EA:2146:C:H4'	3:EA:2147:A:OP1	2.12	0.50
50:FQ:76:VAL:HG22	50:FQ:77:ARG:HG3	1.92	0.50
11:GK:78:ARG:NH1	16:GP:70:GLU:OE2	2.44	0.50
35:FA:202:G:HO2'	35:FA:468:A:H8	1.56	0.50
35:DA:982:U:H4'	35:DA:983:A:C5'	2.41	0.50
35:FA:80:A:N1	35:FA:81:A:C2	2.79	0.50
35:DA:1163:A:C6	35:DA:1174:G:C6	2.99	0.50
3:GA:1039:A:H2'	3:GA:1040:A:O4'	2.11	0.50
46:HM:33:ILE:HD13	46:HM:59:GLU:HB3	1.93	0.50
20:GT:76:ARG:NH2	20:GT:79:ASP:OD1	2.44	0.50
34:FB:93:HIS:ND1	34:FB:145:ASN:O	2.44	0.50
11:AK:9:ASN:O	11:AK:83:ALA:HA	2.11	0.50
10:EJ:30:THR:HG22	10:EJ:31:GLU:N	2.26	0.50
3:GA:1847:A:H2'	3:GA:1847:A:N3	2.26	0.50
16:GP:15:ASP:N	16:GP:15:ASP:OD1	2.43	0.50
14:AN:96:ARG:NH2	14:AN:114:GLU:OE1	2.44	0.50
8:GH:27:ARG:HH22	24:GX:59:ASP:HA	1.76	0.50
22:GV:80:HIS:CD2	22:GV:83:LYS:HG3	2.45	0.50
3:CA:404:A:O2'	3:CA:405:U:OP2	2.23	0.50
32:C5:54:VAL:HA	32:C5:84:TYR:O	2.11	0.50
3:GA:878:A:N6	3:GA:899:A:HO2'	2.08	0.50
55:DV:185:LEU:HD13	55:DV:222:LEU:HD13	1.94	0.50
37:BD:26:ARG:HD3	37:BD:26:ARG:C	2.32	0.50
23:CW:39:GLN:HG2	23:CW:40:ARG:N	2.25	0.50
4:GD:46:ARG:NH2	4:GD:86:GLU:H	2.09	0.50
8:EH:40:THR:OG1	8:EH:43:ASN:OD1	2.30	0.50
40:BG:63:GLU:OE1	40:BG:70:ARG:NH2	2.45	0.50
3:AA:1654:A:H2'	3:AA:1655:A:H8	1.77	0.50
3:GA:348:A:H2'	3:GA:349:U:O4'	2.11	0.50
40:HG:116:MET:HA	40:HG:119:ARG:HD2	1.92	0.50
4:AD:193:VAL:HG21	4:AD:201:LEU:HD21	1.93	0.50
32:A5:68:PRO:HA	32:A5:72:LEU:HD11	1.94	0.50
2:EC:244:VAL:HG12	2:EC:250:GLN:HA	1.93	0.50
6:GF:72:SER:HB3	6:GF:80:GLN:NE2	2.27	0.50
35:HA:769:G:H4'	35:HA:1513:A:H4'	1.92	0.50
39:BF:38:ARG:NH1	39:BF:63:ASN:OD1	2.44	0.50
16:EP:92:ARG:O	16:EP:93:LYS:CB	2.59	0.50
37:DD:44:ARG:C	37:DD:46:PRO:HD3	2.32	0.50
42:DI:92:GLU:OE2	42:DI:95:ARG:NH2	2.33	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:696:A:N3	35:DA:786:G:O2'	2.42	0.50
6:GF:37:MET:HE3	6:GF:151:LEU:HB3	1.93	0.50
50:BQ:47:HIS:HB2	50:BQ:71:LYS:HE2	1.93	0.50
35:HA:1365:G:C2	35:HA:1366:C:C2	2.99	0.50
5:GE:151:GLY:O	5:GE:195:GLN:NE2	2.45	0.50
1:CB:42:C:OP2	6:CF:63:LYS:NZ	2.45	0.50
23:EW:47:GLY:H	23:EW:80:SER:HB3	1.77	0.50
6:EF:132:ARG:O	6:EF:133:GLU:HB3	2.12	0.50
55:HV:557:ILE:HG21	55:HV:576:ILE:HD12	1.93	0.50
47:HN:29:ALA:HA	47:HN:33:ASP:HB2	1.91	0.50
5:EE:128:ALA:O	5:EE:130:LYS:N	2.42	0.50
3:EA:1171:G:C6	3:EA:1172:C:N4	2.79	0.50
44:BK:81:ASN:HB3	44:BK:106:ARG:HB3	1.92	0.50
3:AA:2803:G:H2'	3:AA:2804:U:C6	2.45	0.50
22:GV:65:VAL:HG13	22:GV:68:LYS:HD2	1.93	0.50
3:EA:451:U:C2	3:EA:453:A:N7	2.79	0.50
55:FV:310:HIS:O	55:FV:312:SER:N	2.44	0.50
6:GF:105:ILE:HB	6:GF:138:PRO:HG2	1.93	0.50
5:CE:148:ILE:HA	5:CE:187:VAL:HB	1.94	0.50
3:EA:2038:G:H2'	3:EA:2039:U:O4'	2.11	0.50
35:HA:1115:U:H1'	47:HN:101:TRP:HA	1.93	0.50
36:HC:77:ILE:HA	36:HC:84:VAL:HG23	1.94	0.50
3:AA:1084:A:H5'	32:A5:55:VAL:HG13	1.93	0.50
35:HA:1014:A:H2	35:HA:1219:A:N3	2.09	0.50
55:BV:95:PHE:CZ	55:BV:464:LEU:HD22	2.47	0.50
3:GA:1353:A:C8	3:GA:1378:A:N6	2.80	0.50
38:BE:153:VAL:O	38:BE:157:ARG:N	2.44	0.50
7:EG:155:PRO:O	7:EG:170:THR:HA	2.10	0.50
3:AA:2636:C:O2'	4:AD:45:TYR:OH	2.25	0.50
35:HA:1053:G:N7	35:HA:1200:C:H5''	2.27	0.50
3:GA:653:U:H3'	3:GA:654:A:C5'	2.42	0.50
35:DA:1005:A:H2'	35:DA:1006:G:O4'	2.11	0.50
3:CA:363:G:H2'	3:CA:364:C:C6	2.47	0.50
3:AA:2211:A:O2'	3:AA:2212:A:P	2.70	0.50
7:EG:120:ILE:H	7:EG:120:ILE:HD13	1.77	0.50
24:AX:70:LEU:O	24:AX:75:GLU:N	2.45	0.50
59:FV:801:GCP:O2B	59:FV:801:GCP:O2A	2.28	0.50
3:GA:384:A:H2'	3:GA:385:C:H5'	1.93	0.50
35:HA:1285:A:N1	35:HA:1355:G:H5'	2.27	0.50
3:AA:846:U:HO2'	3:AA:847:U:P	2.34	0.50
3:CA:2105:U:H2'	3:CA:2106:U:H5''	1.93	0.50
3:CA:2595:G:O6	2:CC:238:ASN:ND2	2.33	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:1382:G:O3'	3:CA:1573:G:N2	2.43	0.50
35:FA:1306:A:N6	35:FA:1331:G:H1'	2.27	0.50
43:DJ:40:ILE:HD12	43:DJ:73:LEU:HD23	1.93	0.50
11:EK:80:ASP:OD1	16:EP:61:ARG:NH1	2.42	0.50
50:FQ:48:ASP:OD2	50:FQ:52:GLU:N	2.45	0.50
11:CK:107:LEU:O	11:CK:109:SER:N	2.40	0.50
1:EB:98:G:H1	22:EV:14:LYS:HB2	1.77	0.50
32:E5:29:ASP:HA	32:E5:108:VAL:CG1	2.34	0.50
17:AQ:91:ARG:HE	17:AQ:93:ILE:CG2	2.25	0.50
17:AQ:94:LEU:C	17:AQ:96:ASP:H	2.14	0.50
23:EW:29:SER:C	23:EW:30:VAL:HG12	2.31	0.50
3:GA:374:A:N6	3:GA:400:G:O2'	2.44	0.50
3:GA:453:A:OP1	60:GA:3238:HOH:O	2.20	0.50
3:GA:1067:A:C4	3:GA:1068:G:N7	2.80	0.50
3:CA:995:C:N4	10:CJ:2:LYS:HB2	2.26	0.50
3:GA:1252:G:C2	17:GQ:32:ARG:HG2	2.47	0.50
1:GB:81:G:C6	1:GB:96:G:C6	2.99	0.50
51:HR:41:PRO:HB2	51:HR:43:ARG:HG2	1.94	0.50
3:EA:532:A:C8	3:EA:2021:C:C6	3.00	0.50
4:AD:148:GLN:OE1	4:AD:148:GLN:N	2.45	0.50
3:AA:1533:C:H2'	3:AA:1534:U:C6	2.46	0.50
8:AH:41:LYS:HA	8:AH:44:ILE:HG12	1.93	0.50
15:GO:106:LEU:HA	15:GO:109:ALA:HB3	1.94	0.50
35:FA:53:A:C2	35:FA:359:G:C2	2.99	0.50
3:CA:2092:U:H4'	3:CA:2093:G:O5'	2.10	0.50
3:GA:2307:G:N1	3:GA:2311:A:H2'	2.26	0.50
3:CA:1076:C:H2'	3:CA:1077:A:O4'	2.11	0.50
3:CA:2745:C:C4	3:CA:2746:U:C4	3.00	0.50
29:A2:27:GLY:O	29:A2:30:VAL:HB	2.11	0.50
3:AA:1753:G:OP1	16:AP:92:ARG:NE	2.38	0.50
16:AP:91:VAL:O	16:AP:92:ARG:HG2	2.12	0.50
36:FC:65:ARG:O	36:FC:66:VAL:HB	2.11	0.50
55:HV:453:SER:O	55:HV:455:GLN:N	2.45	0.50
12:CL:26:GLY:C	12:CL:27:LEU:HD12	2.32	0.50
18:AR:61:ALA:HB2	18:AR:98:ILE:HA	1.92	0.50
3:AA:2074:U:H2'	3:AA:2075:U:C6	2.46	0.50
35:DA:1276:G:N2	35:DA:1283:U:O4'	2.44	0.50
55:HV:640:GLY:HA3	55:HV:658:VAL:HG13	1.94	0.50
35:HA:697:U:H2'	35:HA:698:G:H5'	1.94	0.50
2:CC:123:ILE:HD12	2:CC:123:ILE:H	1.77	0.50
47:HN:7:LYS:NZ	60:HN:207:HOH:O	2.43	0.50
7:CG:162:ARG:HB3	7:CG:166:GLU:HG2	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:86:LEU:HB3	7:CG:162:ARG:O	2.11	0.50
3:EA:565:C:H2'	3:EA:566:U:O4'	2.12	0.50
40:DG:111:ARG:HE	40:DG:123:GLU:HG2	1.77	0.50
37:HD:70:ARG:NH1	60:HD:302:HOH:O	2.45	0.50
35:HA:1414:U:H2'	35:HA:1415:G:H8	1.76	0.50
3:AA:2352:A:C6	23:AW:30:VAL:HG11	2.47	0.50
35:BA:1331:G:HO2'	35:BA:1332:A:P	2.34	0.50
25:GY:16:THR:HA	25:GY:19:LEU:HB3	1.93	0.50
37:FD:80:ALA:HA	37:FD:86:THR:CG2	2.42	0.50
10:CJ:81:ILE:CG1	10:CJ:82:GLY:N	2.75	0.50
3:GA:953:G:N2	3:GA:965:C:N3	2.59	0.50
46:FM:3:ARG:HD3	46:FM:7:ILE:HD12	1.94	0.50
35:FA:921:U:H2'	35:FA:922:G:O4'	2.12	0.50
35:BA:537:G:OP1	45:BL:110:ARG:NH2	2.42	0.50
35:HA:877:G:H21	41:HH:2:SER:N	2.10	0.50
6:CF:103:ILE:HG23	6:CF:175:PRO:HD3	1.93	0.50
32:E5:91:ALA:HB3	32:E5:130:PRO:HB3	1.93	0.50
10:GJ:25:LEU:HD22	10:GJ:26:GLY:N	2.26	0.50
26:AZ:41:PRO:HA	26:AZ:44:ARG:HB3	1.93	0.50
10:AJ:21:THR:HG22	10:AJ:22:GLY:N	2.27	0.50
35:FA:928:G:O2'	35:FA:1533:C:OP1	2.27	0.50
35:HA:402:G:O2'	35:HA:620:C:N3	2.45	0.50
44:DK:30:THR:O	44:DK:47:ALA:N	2.43	0.50
53:DT:81:ALA:O	53:DT:85:LYS:HG2	2.11	0.50
55:FV:452:GLU:OE1	55:FV:491:ARG:NH1	2.44	0.50
31:G4:7:VAL:HG23	31:G4:8:LYS:H	1.76	0.50
34:HB:23:ASN:H	34:HB:189:ASN:HA	1.76	0.50
3:EA:792:A:N3	3:EA:2072:C:O2'	2.38	0.50
35:BA:673:A:H4'	39:BF:86:ARG:HD2	1.93	0.50
35:DA:619:U:H3	37:DD:131:ASN:HB3	1.77	0.50
11:GK:1:MET:SD	11:GK:67:LYS:HD3	2.52	0.50
3:CA:726:G:O2'	3:CA:727:A:OP2	2.24	0.50
3:GA:2885:G:H2'	3:GA:2886:A:O4'	2.12	0.50
29:A2:34:ARG:NH1	29:A2:41:ARG:O	2.45	0.50
40:DG:102:ARG:O	40:DG:106:GLU:N	2.43	0.50
3:GA:1594:U:H2'	3:GA:1595:C:C6	2.47	0.50
35:FA:328:C:H2'	35:FA:328:C:O2	2.11	0.50
35:DA:49:U:O2'	35:DA:50:A:H2'	2.11	0.50
52:BS:63:THR:HG22	52:BS:64:ASP:N	2.26	0.50
3:GA:1224:U:H4'	18:GR:88:GLY:O	2.12	0.50
11:GK:61:VAL:CG2	11:GK:87:LEU:HD11	2.42	0.50
3:AA:322:A:H5'	3:AA:340:A:H1'	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:1548:A:H2'	3:EA:1549:A:C8	2.47	0.50
7:GG:32:LEU:HD13	7:GG:32:LEU:N	2.27	0.50
53:DT:51:PHE:CD1	53:DT:51:PHE:C	2.84	0.50
2:GC:12:ARG:HH11	2:GC:12:ARG:HG2	1.77	0.50
13:AM:20:LEU:N	13:AM:20:LEU:HD22	2.26	0.50
55:BV:536:PHE:CZ	55:BV:578:LEU:HD23	2.47	0.50
3:AA:2286:G:O6	28:A1:22:THR:OG1	2.24	0.50
3:EA:654:A:H3'	3:EA:654:A:N3	2.26	0.50
3:GA:857:G:N1	3:GA:858:G:C6	2.80	0.50
35:HA:1063:C:H5	35:HA:1064:G:HO2'	1.59	0.50
35:HA:1495:U:H2'	35:HA:1496:C:O2	2.12	0.50
3:GA:1088:A:O2'	3:GA:1089:A:OP2	2.26	0.50
3:GA:1072:C:N4	3:GA:1097:U:P	2.85	0.50
49:DP:21:VAL:HG23	49:DP:33:ILE:HB	1.94	0.50
3:CA:2146:C:OP1	3:GA:2146:C:N4	2.45	0.50
46:HM:25:VAL:HB	46:HM:29:ARG:HD3	1.93	0.50
3:AA:223:A:C5	3:AA:422:A:C8	3.00	0.50
34:HB:20:ARG:O	34:HB:22:TRP:N	2.44	0.50
3:CA:1142:A:N3	3:CA:1144:A:C8	2.80	0.50
3:GA:468:G:N7	29:G2:39:ARG:NH2	2.60	0.50
43:DJ:53:ILE:HG22	43:DJ:61:ALA:HB1	1.94	0.50
35:DA:979:C:H1'	35:DA:1317:C:N4	2.27	0.50
25:EY:56:LEU:HA	25:EY:59:GLU:HG2	1.94	0.50
55:FV:337:ARG:HA	55:FV:382:ILE:HG22	1.93	0.50
3:AA:1179:G:H2'	3:AA:1180:U:O4'	2.12	0.50
55:FV:493:THR:HG22	55:FV:613:LEU:HD21	1.92	0.50
3:AA:2109:U:H2'	3:AA:2110:G:H5'	1.93	0.50
3:GA:729:G:H2'	3:GA:1775:U:H1'	1.94	0.50
38:FE:155:ALA:HB1	41:FH:66:PHE:HZ	1.77	0.50
2:GC:255:LYS:O	2:GC:257:ARG:N	2.45	0.50
34:DB:216:VAL:HA	34:DB:219:THR:HG22	1.94	0.50
3:EA:183:C:O2'	3:EA:432:A:N3	2.36	0.50
35:BA:1228:C:OP2	46:BM:110:LYS:NZ	2.45	0.50
20:CT:60:THR:OG1	60:CT:202:HOH:O	2.19	0.50
46:BM:11:ASP:CG	46:BM:12:HIS:H	2.15	0.50
35:BA:409:U:OP1	37:BD:24:GLY:HA3	2.11	0.50
35:FA:690:G:H2'	35:FA:691:G:O4'	2.11	0.50
21:GU:5:ARG:HE	21:GU:93:ARG:NH1	2.09	0.50
26:EZ:35:VAL:HG22	26:EZ:37:ARG:HE	1.77	0.50
32:E5:51:TYR:CD1	32:E5:52:MET:HG2	2.47	0.50
45:DL:33:VAL:HG21	55:DV:429:GLU:HG3	1.93	0.50
3:EA:1356:G:C6	3:EA:1357:C:C4	3.00	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:2:PHE:HB3	22:AV:50:MET:HE1	1.94	0.50
35:DA:1463:U:H2'	35:DA:1464:U:C6	2.46	0.50
55:DV:19:ILE:CD1	55:DV:92:HIS:H	2.25	0.50
7:AG:16:VAL:HG21	7:AG:44:HIS:CD2	2.46	0.50
35:BA:142:G:H3'	35:BA:143:A:H8	1.77	0.50
2:CC:103:ILE:HG13	2:CC:104:LEU:N	2.27	0.50
3:GA:2472:G:C8	3:GA:2475:C:N4	2.80	0.50
17:AQ:94:LEU:C	17:AQ:96:ASP:N	2.64	0.50
18:GR:83:TYR:C	18:GR:83:TYR:CD1	2.86	0.50
35:DA:429:U:P	37:DD:13:ARG:HH22	2.35	0.50
3:GA:635:C:N4	3:GA:636:G:C6	2.80	0.50
55:HV:93:VAL:HG22	55:HV:94:ASP:H	1.77	0.50
3:EA:1187:G:H5''	18:ER:83:TYR:CE2	2.47	0.50
3:GA:875:G:H1	3:GA:902:C:H42	1.60	0.50
1:GB:49:C:OP1	15:GO:102:ARG:N	2.41	0.50
35:BA:158:G:H2'	35:BA:159:G:C5'	2.42	0.50
3:CA:2347:C:H2'	3:CA:2348:U:C6	2.47	0.50
34:HB:52:ALA:CB	34:HB:199:ILE:HD11	2.42	0.50
45:DL:110:ARG:NH1	45:DL:117:TYR:CE2	2.80	0.50
3:CA:163:C:O2'	3:CA:164:C:P	2.70	0.50
7:CG:63:GLN:O	7:CG:66:THR:OG1	2.30	0.50
3:AA:1533:C:C2	3:AA:1534:U:C4	2.99	0.50
3:GA:2751:G:H4'	7:GG:3:VAL:CG1	2.42	0.50
35:FA:1005:A:H2'	35:FA:1006:G:O4'	2.12	0.50
35:FA:568:G:N2	35:FA:883:C:C2	2.79	0.50
3:GA:910:A:OP1	60:GA:3710:HOH:O	2.17	0.50
3:CA:910:A:N6	3:CA:2277:G:O2'	2.44	0.50
7:AG:73:SER:O	7:AG:77:GLY:N	2.45	0.50
3:EA:954:G:C5	3:EA:955:U:C5	3.00	0.50
3:EA:645:C:O2	3:EA:645:C:O2'	2.19	0.50
3:CA:749:A:C6	3:CA:1618:A:C2	3.00	0.50
10:CJ:73:VAL:HB	10:CJ:75:TYR:CE1	2.47	0.50
44:FK:81:ASN:HB2	44:FK:106:ARG:O	2.12	0.50
35:DA:1244:G:C6	35:DA:1294:G:C6	3.00	0.50
3:GA:2698:U:H2'	3:GA:2699:C:C6	2.46	0.50
3:AA:118:A:N3	3:AA:178:G:H1'	2.27	0.50
38:FE:41:ASP:OD1	38:FE:43:ASN:N	2.44	0.50
3:CA:2618:G:C6	3:CA:2619:C:C4	3.00	0.50
10:GJ:58:ASN:N	10:GJ:127:GLY:O	2.36	0.50
35:FA:1053:G:N7	35:FA:1200:C:H5''	2.27	0.50
3:GA:2340:A:H2'	3:GA:2341:G:H8	1.77	0.50
35:BA:947:G:C6	35:BA:948:C:C4	3.00	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:1223:C:C5	35:HA:1224:U:H5	2.29	0.50
16:EP:104:GLY:O	16:EP:106:ALA:N	2.42	0.50
35:FA:619:U:H3	37:FD:131:ASN:HB3	1.75	0.50
45:DL:76:GLU:HG3	55:DV:454:ASN:CB	2.42	0.50
32:E5:31:ARG:C	32:E5:108:VAL:HG21	2.33	0.49
35:HA:428:G:O4'	35:HA:430:A:C8	2.64	0.49
52:HS:36:ARG:HD2	52:HS:51:VAL:HG11	1.94	0.49
35:HA:781:A:H4'	35:HA:1522:U:O2'	2.12	0.49
3:AA:27:G:N2	3:AA:512:G:H1'	2.26	0.49
16:CP:4:ILE:HG22	16:CP:8:GLU:HG3	1.93	0.49
3:GA:2352:A:H2'	3:GA:2353:G:O4'	2.12	0.49
3:GA:2354:C:H4'	23:GW:31:LEU:HD13	1.93	0.49
23:GW:26:GLY:O	23:GW:28:GLU:N	2.45	0.49
23:GW:30:VAL:HB	23:GW:59:PHE:CD2	2.48	0.49
6:GF:130:GLY:HA2	6:GF:152:ASP:CB	2.42	0.49
35:HA:1269:A:H1'	35:HA:1326:U:H1'	1.94	0.49
35:HA:829:G:OP1	34:HB:27:LYS:NZ	2.45	0.49
3:GA:1026:G:H2'	3:GA:1027:A:C8	2.46	0.49
37:BD:58:LYS:CB	37:BD:200:ILE:HG13	2.42	0.49
3:GA:2292:U:C2	3:GA:2293:G:C8	3.00	0.49
26:CZ:8:GLN:O	26:CZ:9:THR:HG22	2.12	0.49
3:AA:443:A:C5	5:AE:40:ARG:HD3	2.47	0.49
34:HB:32:GLY:HA3	34:HB:39:ILE:H	1.77	0.49
26:AZ:26:LEU:O	26:AZ:37:ARG:NH1	2.44	0.49
36:DC:58:GLU:OE2	36:DC:65:ARG:HD2	2.12	0.49
41:FH:106:THR:HG21	41:FH:121:LEU:HD13	1.93	0.49
19:CS:13:SER:O	19:CS:14:ALA:HB3	2.12	0.49
37:DD:66:GLY:O	37:DD:115:ARG:NH2	2.44	0.49
3:GA:1010:A:H5'	17:GQ:61:ILE:CG2	2.42	0.49
3:AA:2043:C:OP1	3:AA:2777:G:O2'	2.24	0.49
3:CA:1176:U:H2'	3:CA:1177:G:C8	2.47	0.49
40:DG:47:LEU:HD12	40:DG:124:LEU:HD11	1.94	0.49
34:DB:67:LEU:HD12	34:DB:157:PRO:HG2	1.94	0.49
1:GB:65:U:C4	1:GB:108:A:N3	2.80	0.49
3:CA:2563:U:H1'	3:CA:2566:A:N6	2.27	0.49
35:DA:811:C:O2'	35:DA:901:A:N1	2.39	0.49
23:AW:49:ASN:HA	23:AW:61:LYS:HB2	1.94	0.49
35:FA:1062:U:H2'	35:FA:1063:C:C6	2.47	0.49
35:DA:736:C:H2'	35:DA:737:C:C6	2.47	0.49
6:EF:73:VAL:HG22	6:EF:78:ILE:HD11	1.94	0.49
3:GA:794:A:H2'	3:GA:795:C:C6	2.47	0.49
13:AM:53:MET:HE3	13:AM:63:ILE:HD13	1.94	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:1847:A:N3	3:CA:1847:A:H2'	2.27	0.49
3:GA:2578:G:N2	4:GD:130:GLN:OE1	2.45	0.49
32:E5:31:ARG:C	32:E5:108:VAL:CG2	2.80	0.49
3:GA:570:G:OP1	60:GA:3757:HOH:O	2.19	0.49
17:AQ:93:ILE:O	17:AQ:96:ASP:N	2.39	0.49
23:EW:37:VAL:HA	23:EW:39:GLN:HG2	1.94	0.49
3:GA:1060:U:OP1	9:GI:75:ALA:CB	2.60	0.49
3:AA:1315:C:OP2	60:AA:3749:HOH:O	2.18	0.49
35:BA:79:G:HO2'	35:BA:80:A:P	2.32	0.49
3:EA:2134:A:H2'	3:EA:2156:G:N2	2.27	0.49
35:HA:1004:A:H5'	35:HA:1024:G:N2	2.27	0.49
35:BA:330:C:O2	60:BA:1890:HOH:O	2.16	0.49
3:CA:1187:G:OP2	60:CA:3360:HOH:O	2.19	0.49
15:GO:80:GLU:HA	15:GO:83:LEU:HD12	1.94	0.49
35:FA:1314:C:OP2	52:FS:6:LYS:CD	2.60	0.49
35:BA:390:U:O3'	49:BP:28:ARG:NH1	2.45	0.49
54:FU:12:PHE:CE2	54:FU:16:LEU:HD11	2.46	0.49
45:DL:7:LEU:HD23	50:DQ:34:TYR:HE1	1.77	0.49
3:GA:1218:G:C2	3:GA:1232:G:C5	3.00	0.49
41:BH:12:THR:HG22	41:BH:15:ARG:HH12	1.76	0.49
3:GA:783:A:OP2	60:GA:3311:HOH:O	2.19	0.49
13:CM:35:ALA:HB2	13:CM:102:LEU:HD21	1.93	0.49
35:HA:1071:C:H2'	35:HA:1072:G:H8	1.77	0.49
3:EA:580:U:H2'	3:EA:581:C:H6	1.77	0.49
35:DA:1320:C:OP1	52:DS:70:LYS:NZ	2.26	0.49
47:BN:42:TRP:O	47:BN:45:VAL:HG22	2.12	0.49
47:BN:90:ARG:HB2	47:BN:92:GLU:HG3	1.93	0.49
3:CA:1300:G:H4'	3:CA:1301:A:H5'	1.94	0.49
3:AA:2867:G:O2'	3:AA:2868:A:OP2	2.28	0.49
54:FU:53:VAL:HG13	54:FU:54:LYS:N	2.27	0.49
20:ET:50:LEU:H	20:ET:50:LEU:HD12	1.77	0.49
35:HA:655:A:H2	35:HA:751:U:H3	1.60	0.49
3:GA:630:G:OP2	30:G3:22:LYS:NZ	2.44	0.49
3:EA:600:G:N2	3:EA:605:G:O3'	2.45	0.49
38:HE:13:GLU:CB	38:HE:39:VAL:HG12	2.43	0.49
55:FV:393:THR:HG21	55:FV:443:PRO:HD3	1.95	0.49
3:AA:2701:U:H3'	3:AA:2702:G:C5'	2.42	0.49
3:CA:1839:G:C6	3:CA:1840:G:N7	2.80	0.49
41:DH:47:GLU:HB3	41:DH:62:THR:HB	1.94	0.49
20:CT:50:LEU:H	20:CT:50:LEU:HD12	1.77	0.49
40:DG:77:SER:HA	40:DG:86:GLN:HA	1.94	0.49
3:CA:1760:C:H2'	3:CA:1761:C:O4'	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:GK:52:VAL:HG13	11:GK:95:ILE:HD11	1.94	0.49
3:GA:1256:G:O2'	5:GE:77:ILE:HD11	2.12	0.49
35:DA:676:A:H4'	44:DK:115:PRO:HB3	1.95	0.49
32:A5:95:LEU:HD22	32:A5:95:LEU:H	1.77	0.49
17:EQ:63:ARG:HH12	17:EQ:96:ASP:CA	2.24	0.49
10:AJ:44:TYR:O	10:AJ:45:THR:HB	2.11	0.49
3:CA:1913:A:C2	55:DV:591:LEU:HD12	2.47	0.49
27:E0:42:ILE:HG22	27:E0:43:THR:O	2.12	0.49
39:DF:38:ARG:HB3	39:DF:63:ASN:HB2	1.94	0.49
43:HJ:57:VAL:HG12	43:HJ:58:ASN:H	1.76	0.49
34:BB:141:GLU:HA	34:BB:144:GLU:HB2	1.95	0.49
37:FD:19:LEU:HD11	37:FD:60:LYS:CG	2.42	0.49
47:HN:67:THR:HG23	47:HN:83:LYS:HG3	1.95	0.49
22:CV:4:ILE:HD11	22:CV:50:MET:SD	2.53	0.49
20:AT:54:GLU:CG	20:AT:88:LYS:HB2	2.42	0.49
6:EF:118:ALA:HB1	6:EF:166:ARG:HD3	1.94	0.49
16:EP:58:PHE:HD1	16:EP:75:THR:HG22	1.77	0.49
3:EA:163:C:O2'	3:EA:164:C:OP2	2.28	0.49
3:GA:38:A:H1'	5:GE:43:THR:HA	1.94	0.49
44:HK:107:ILE:CD1	54:HU:14:VAL:HA	2.42	0.49
3:AA:1778:U:H2'	3:AA:1784:A:N6	2.27	0.49
3:EA:2800:A:H3'	3:EA:2801:G:H5''	1.95	0.49
5:CE:149:ILE:HG23	5:CE:188:MET:HG3	1.95	0.49
19:CS:13:SER:O	19:CS:14:ALA:CB	2.60	0.49
39:HF:45:ARG:HB3	39:HF:59:TYR:CE1	2.47	0.49
37:DD:38:PRO:HD2	37:DD:42:GLY:HA2	1.94	0.49
4:CD:1:MET:HG2	4:CD:205:PRO:HG3	1.95	0.49
2:GC:244:VAL:HG12	2:GC:250:GLN:HA	1.94	0.49
13:EM:34:LYS:HD2	13:EM:131:VAL:HG11	1.93	0.49
43:FJ:53:ILE:HG12	43:FJ:61:ALA:HB1	1.93	0.49
9:CI:14:ALA:HB3	9:CI:50:LYS:HA	1.92	0.49
37:BD:147:GLU:OE2	20:CT:91:GLN:NE2	2.45	0.49
44:FK:82:LEU:HD11	44:FK:105:PHE:CD2	2.48	0.49
39:DF:53:LYS:O	39:DF:54:LEU:HB3	2.12	0.49
15:GO:14:ALA:O	15:GO:18:LEU:N	2.34	0.49
35:DA:1351:U:C2	35:DA:1352:C:C5	3.00	0.49
34:BB:44:LYS:O	34:BB:48:MET:HG2	2.13	0.49
46:HM:27:LYS:HA	46:HM:30:SER:HB3	1.93	0.49
47:HN:21:PHE:CD1	47:HN:25:ALA:HB3	2.48	0.49
37:FD:76:TYR:HA	37:FD:90:LEU:HD13	1.94	0.49
32:C5:94:ARG:O	32:C5:97:LYS:N	2.44	0.49
3:CA:833:A:H2'	3:CA:834:G:C8	2.47	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:ES:24:ILE:HD11	19:ES:36:LEU:CD2	2.42	0.49
35:BA:953:G:C6	35:BA:954:G:C4	3.00	0.49
11:EK:10:VAL:HG21	11:EK:16:ALA:HB3	1.95	0.49
3:GA:2378:A:C5	3:GA:2379:G:H1'	2.46	0.49
3:AA:1022:G:C5	3:AA:1140:C:C4	3.00	0.49
46:FM:81:MET:O	46:FM:92:ARG:NH2	2.46	0.49
35:FA:636:U:C5'	50:FQ:6:ARG:HE	2.26	0.49
37:HD:76:TYR:HE2	37:HD:201:VAL:HG13	1.77	0.49
32:E5:129:LEU:O	32:E5:131:THR:N	2.46	0.49
39:DF:86:ARG:HH21	51:DR:64:TYR:HB3	1.77	0.49
3:GA:504:A:H3'	3:GA:505:A:H5'	1.95	0.49
3:GA:1196:C:H2'	3:GA:1197:G:C8	2.46	0.49
3:GA:2265:U:H2'	3:GA:2266:A:N7	2.27	0.49
55:DV:188:MET:HE3	55:DV:218:TRP:CD1	2.47	0.49
3:GA:818:G:H3'	3:GA:1187:G:H22	1.77	0.49
3:CA:2268:A:OP1	60:CA:3503:HOH:O	2.19	0.49
35:HA:1033:G:H2'	35:HA:1034:G:H5'	1.94	0.49
54:HU:35:ARG:HE	54:HU:40:LYS:HD3	1.78	0.49
3:CA:794:A:H2'	3:CA:795:C:C6	2.47	0.49
3:EA:2588:G:OP1	60:EA:3793:HOH:O	2.19	0.49
3:CA:635:C:OP2	12:CL:126:ARG:NH1	2.45	0.49
3:GA:438:G:H2'	3:GA:439:A:C8	2.46	0.49
49:DP:46:LYS:HG3	49:DP:47:GLU:N	2.27	0.49
35:DA:577:G:H1'	35:DA:816:A:N3	2.27	0.49
11:CK:13:ASN:OD1	11:CK:98:ARG:N	2.43	0.49
51:HR:22:ASP:HB3	51:HR:25:ASP:HB2	1.94	0.49
55:HV:251:ALA:O	55:HV:254:GLN:HB3	2.12	0.49
3:AA:747:U:O2'	19:AS:88:ARG:NH2	2.45	0.49
3:AA:139:U:O2'	20:AT:1:MET:HA	2.12	0.49
35:FA:1331:G:O2'	35:FA:1332:A:P	2.69	0.49
34:BB:99:MET:HA	34:BB:106:VAL:HG21	1.94	0.49
35:FA:843:U:H2'	35:FA:844:G:H5'	1.95	0.49
36:HC:154:SER:CB	36:HC:165:THR:HG22	2.41	0.49
34:BB:70:GLY:HA2	34:BB:163:ILE:HG22	1.94	0.49
52:BS:33:THR:HB	52:BS:35:SER:H	1.77	0.49
3:CA:48:G:N1	3:CA:177:G:OP2	2.37	0.49
3:CA:1057:A:C6	3:CA:1086:A:C2	3.01	0.49
3:GA:573:U:H3	3:GA:2031:A:P	2.35	0.49
3:EA:1364:G:OP2	24:EX:49:ARG:NH2	2.46	0.49
3:CA:823:C:H2'	3:CA:824:U:O4'	2.12	0.49
3:GA:685:A:C2	3:GA:689:A:C6	3.00	0.49
35:DA:1260:G:O2'	35:DA:1275:A:N6	2.43	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1223:G:P	18:GR:68:ARG:HH11	2.35	0.49
22:EV:44:HIS:HE1	22:EV:86:LEU:H	1.59	0.49
35:HA:964:A:OP1	60:HA:1822:HOH:O	2.20	0.49
45:BL:83:ARG:HH11	45:BL:83:ARG:HG2	1.77	0.49
26:EZ:15:ARG:HH11	26:EZ:15:ARG:CG	2.26	0.49
3:CA:1730:C:H4'	3:CA:1730:C:OP1	2.12	0.49
32:A5:138:ARG:NH2	33:A6:26:MET:HA	2.27	0.49
32:A5:3:LEU:HD12	32:A5:5:LEU:H	1.76	0.49
17:AQ:63:ARG:NH1	17:AQ:96:ASP:HA	2.27	0.49
3:GA:1140:C:O4'	3:GA:1143:A:C2	2.66	0.49
35:BA:21:G:OP1	60:BA:1819:HOH:O	2.20	0.49
37:HD:30:THR:HG22	37:HD:31:LYS:H	1.77	0.49
3:GA:948:C:H1'	3:GA:984:A:N3	2.28	0.49
3:GA:983:A:C8	3:GA:984:A:N7	2.81	0.49
44:DK:14:LYS:HD2	40:HG:130:ASN:OD1	2.13	0.49
3:GA:1068:G:H2'	3:GA:1068:G:N3	2.27	0.49
3:AA:856:G:H21	23:AW:19:ARG:HH12	1.58	0.49
35:DA:636:U:H5''	50:DQ:6:ARG:NH1	2.27	0.49
34:FB:132:GLU:O	34:FB:132:GLU:HG2	2.13	0.49
23:AW:76:ARG:HH21	23:AW:76:ARG:HG2	1.76	0.49
3:CA:1019:U:H3	3:CA:1142:A:H62	1.61	0.49
3:CA:1141:U:H4'	3:CA:1142:A:O4'	2.13	0.49
3:CA:1084:A:C6	3:CA:1085:A:C6	3.00	0.49
3:CA:1731:G:O2'	3:CA:1732:C:O5'	2.29	0.49
3:AA:2330:G:C2	3:AA:2386:A:C2	3.01	0.49
34:DB:150:ILE:O	34:DB:153:MET:N	2.45	0.49
39:HF:42:TRP:HB2	39:HF:59:TYR:HB2	1.94	0.49
3:GA:2758:A:H2'	3:GA:2759:G:H5'	1.95	0.49
14:CN:48:VAL:O	14:CN:51:LEU:N	2.45	0.49
14:CN:2:ARG:HA	14:CN:5:LYS:HD2	1.94	0.49
6:AF:79:ARG:HB3	6:AF:82:TYR:CZ	2.48	0.49
3:GA:483:A:C8	21:GU:44:HIS:HD2	2.30	0.49
37:DD:125:VAL:O	37:DD:127:GLY:N	2.44	0.49
3:AA:564:C:O2	3:AA:578:G:N2	2.46	0.49
13:AM:35:ALA:O	13:AM:36:VAL:HB	2.11	0.49
3:CA:2313:C:H5''	6:CF:87:LYS:HD3	1.94	0.49
3:GA:1869:G:H3'	3:GA:1870:C:H5''	1.95	0.49
3:GA:963:U:OP2	60:GA:3352:HOH:O	2.19	0.49
35:DA:1149:C:O2'	35:DA:1280:A:N1	2.41	0.49
12:GL:110:VAL:HG11	12:GL:135:ILE:HD11	1.94	0.49
17:EQ:4:LYS:HG3	17:EQ:5:ARG:H	1.78	0.49
20:ET:34:VAL:O	20:ET:34:VAL:HG23	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:AZ:30:ARG:HB3	26:AZ:30:ARG:HH11	1.76	0.49
3:AA:2504:U:O5'	3:AA:2504:U:H6	1.94	0.49
46:HM:63:PHE:CE1	46:HM:69:LEU:HD13	2.48	0.49
3:AA:1475:G:O2'	3:AA:1514:G:O6	2.30	0.49
4:AD:38:LYS:NZ	4:AD:81:GLU:OE1	2.26	0.49
52:FS:36:ARG:HB3	52:FS:72:GLY:CA	2.43	0.49
32:E5:26:VAL:CG1	32:E5:77:VAL:HG11	2.41	0.49
8:CH:23:ALA:O	8:CH:27:ARG:N	2.37	0.49
3:GA:577:G:H2'	3:GA:578:G:C8	2.48	0.49
35:HA:1209:C:C2	35:HA:1210:C:C5	3.01	0.49
35:HA:1026:G:H2'	35:HA:1027:C:C5'	2.40	0.49
4:AD:91:THR:OG1	4:AD:91:THR:O	2.28	0.49
35:HA:892:A:O2'	35:HA:1415:G:H4'	2.13	0.49
3:CA:1252:G:C2	17:CQ:32:ARG:HG2	2.47	0.49
3:GA:2353:G:O2'	23:GW:31:LEU:HD11	2.11	0.49
35:FA:1314:C:H2'	35:FA:1315:U:C6	2.48	0.49
3:CA:221:A:N1	3:CA:265:A:O2'	2.41	0.49
3:EA:527:C:H4'	3:EA:528:A:O5'	2.12	0.49
3:CA:1386:C:H2'	3:CA:1387:A:C8	2.47	0.49
32:A5:4:ASN:C	32:A5:6:GLN:H	2.16	0.49
3:CA:2204:G:C5	3:CA:2221:G:C2	3.01	0.49
3:GA:1535:A:H4'	3:GA:1536:C:OP2	2.13	0.49
10:CJ:88:THR:HG23	10:CJ:91:GLU:H	1.77	0.49
15:AO:51:ALA:HB3	15:AO:78:VAL:HG13	1.94	0.49
35:HA:276:G:H5''	50:HQ:17:MET:HE1	1.94	0.49
38:BE:155:ALA:HB1	41:BH:66:PHE:CE2	2.47	0.49
3:EA:287:G:H2'	3:EA:288:U:C6	2.47	0.49
35:DA:1355:G:C4	35:DA:1368:A:C2	3.00	0.49
3:CA:1952:A:C6	3:CA:1953:A:N1	2.80	0.49
27:C0:32:THR:HG22	27:C0:33:SER:N	2.28	0.49
1:CB:32:U:H2'	1:CB:33:G:O4'	2.12	0.49
46:FM:114:LYS:H	46:FM:115:PRO:CD	2.25	0.49
53:BT:68:HIS:HB3	53:BT:69:LYS:HZ2	1.78	0.49
3:AA:1614:A:N1	19:AS:93:ALA:HB2	2.27	0.49
52:DS:45:ILE:HA	52:DS:62:VAL:CG1	2.42	0.49
3:AA:308:G:O2'	3:AA:329:G:N2	2.46	0.49
17:EQ:82:LEU:HD12	17:EQ:112:ALA:HB2	1.94	0.49
55:BV:416:ILE:HG12	55:BV:667:ALA:HB3	1.94	0.49
20:GT:37:ASP:OD1	20:GT:37:ASP:N	2.46	0.49
35:BA:972:C:OP1	43:BJ:59:LYS:NZ	2.29	0.49
3:AA:250:G:C6	3:AA:251:A:C6	3.01	0.49
3:GA:1713:A:C5	3:GA:1716:U:H1'	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DI:96:SER:O	42:DI:99:ARG:HB3	2.12	0.49
32:C5:74:ASP:HA	32:C5:77:VAL:HG23	1.94	0.49
35:HA:1220:G:OP1	52:HS:37:ARG:NE	2.45	0.49
3:EA:1024:G:O5'	3:EA:1024:G:H8	1.96	0.49
3:GA:863:A:H2'	3:GA:864:G:H8	1.77	0.49
34:HB:163:ILE:HG23	34:HB:164:ASP:H	1.77	0.49
35:DA:404:G:O6	37:DD:2:ALA:N	2.45	0.49
3:GA:648:G:C2	3:GA:649:G:N7	2.81	0.49
3:EA:1654:A:H2'	3:EA:1655:A:H8	1.76	0.49
35:BA:932:C:H4'	40:BG:4:ARG:HH21	1.77	0.49
2:AC:256:THR:O	2:AC:256:THR:OG1	2.28	0.49
3:GA:565:C:H2'	3:GA:566:U:O4'	2.12	0.49
3:GA:2482:A:C5	3:GA:2483:C:C5	3.01	0.49
38:DE:16:ILE:HG23	38:DE:110:ALA:HB2	1.93	0.49
18:CR:49:ILE:HD12	18:CR:52:PRO:HA	1.95	0.49
22:EV:75:GLN:HB2	22:EV:92:VAL:CG2	2.43	0.49
53:FT:5:LYS:HD2	53:FT:7:ALA:H	1.77	0.49
47:BN:20:TYR:O	47:BN:23:LYS:HB3	2.12	0.49
7:AG:15:ASP:O	7:AG:16:VAL:HG13	2.12	0.49
35:DA:1352:C:H2'	35:DA:1353:G:C8	2.47	0.49
3:AA:2533:U:OP1	3:AA:2665:A:O2'	2.20	0.49
3:GA:547:A:H5''	3:GA:548:G:C8	2.47	0.49
11:EK:51:LYS:HG2	11:EK:95:ILE:CD1	2.43	0.49
9:AI:48:ILE:HG13	9:AI:49:GLU:H	1.77	0.49
35:DA:791:G:N2	35:DA:1497:G:O3'	2.45	0.49
3:GA:2591:C:O3'	60:GA:3459:HOH:O	2.20	0.49
2:CC:77:VAL:HA	2:CC:93:VAL:HA	1.95	0.49
55:DV:393:THR:HG21	55:DV:443:PRO:HD3	1.94	0.49
52:BS:10:PHE:CD1	52:BS:10:PHE:C	2.85	0.49
4:ED:106:LYS:O	4:ED:107:VAL:HB	2.12	0.49
35:HA:667:G:OP1	35:HA:732:C:O2'	2.22	0.49
5:AE:112:LEU:HD13	5:AE:186:VAL:HG11	1.94	0.49
3:AA:2343:U:O2'	3:AA:2373:G:O2'	2.28	0.49
35:DA:1284:C:C2	35:DA:1285:A:N7	2.81	0.49
35:HA:676:A:H5''	44:HK:115:PRO:HB3	1.95	0.49
4:AD:68:PHE:C	4:AD:73:VAL:HG12	2.33	0.49
3:AA:1808:A:O2'	24:AX:2:ARG:NH1	2.45	0.49
5:GE:119:ILE:HG13	5:GE:119:ILE:O	2.12	0.49
4:ED:11:MET:HE1	4:ED:192:ALA:HA	1.93	0.49
14:GN:73:ASN:HA	14:GN:76:VAL:HG12	1.94	0.49
3:GA:571:U:O2	3:GA:2030:A:O2'	2.25	0.49
55:HV:309:ARG:CZ	55:HV:404:ILE:HD13	2.43	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DD:30:THR:HB	37:DD:31:LYS:HD2	1.94	0.49
35:HA:1346:A:N7	40:HG:10:ARG:NH2	2.60	0.49
3:GA:1073:A:N7	3:GA:1074:G:N3	2.60	0.49
35:DA:1101:A:H61	34:DB:101:THR:HG21	1.78	0.49
3:EA:1186:G:OP2	60:EA:3596:HOH:O	2.19	0.49
3:AA:2016:U:H2'	3:AA:2017:U:C6	2.48	0.49
3:AA:2683:C:O2	11:AK:70:ARG:NH2	2.38	0.49
35:FA:1239:A:H62	35:FA:1299:A:N6	2.10	0.49
50:HQ:20:SER:HB2	50:HQ:71:LYS:HZ1	1.78	0.49
54:BU:20:LYS:HE2	54:BU:20:LYS:HA	1.95	0.49
3:CA:1183:U:H2'	3:CA:1184:U:C6	2.48	0.49
34:HB:187:ASP:HB2	34:HB:203:ASP:HB3	1.95	0.49
3:AA:923:G:H1'	23:AW:23:LYS:CD	2.43	0.49
35:HA:1350:A:N7	42:HI:120:LYS:NZ	2.61	0.49
18:AR:49:ILE:HD12	18:AR:52:PRO:HA	1.95	0.49
34:HB:172:ILE:O	34:HB:176:ASN:ND2	2.45	0.49
5:EE:149:ILE:CD1	5:EE:172:ALA:HA	2.42	0.49
3:GA:2400:G:C6	3:GA:2401:U:N3	2.81	0.49
4:AD:151:THR:CG2	4:AD:152:PRO:HD3	2.42	0.49
11:CK:80:ASP:HB2	16:CP:67:GLU:HG3	1.95	0.49
3:EA:2297:A:N1	3:EA:2321:U:H5	2.10	0.49
3:GA:271:G:H4'	3:GA:272:A:OP1	2.13	0.49
41:BH:41:LYS:HD3	41:BH:48:ASP:HB2	1.94	0.49
55:FV:536:PHE:CZ	55:FV:578:LEU:HD23	2.47	0.49
18:GR:58:VAL:HG13	18:GR:102:SER:HB2	1.95	0.49
3:CA:183:C:O2'	3:CA:432:A:N3	2.41	0.49
54:HU:17:ARG:HG3	54:HU:19:PHE:HB3	1.93	0.49
3:AA:107:G:H2'	3:AA:108:G:H8	1.78	0.49
35:FA:311:C:OP1	49:FP:31:ARG:NH1	2.45	0.49
9:AI:123:ALA:HA	9:AI:126:ARG:CZ	2.43	0.49
35:HA:1299:A:H2'	35:HA:1299:A:N3	2.28	0.49
3:CA:1309:G:OP1	29:C2:9:VAL:HG13	2.13	0.49
52:HS:41:PHE:HB3	52:HS:42:PRO:CD	2.43	0.49
9:EI:12:VAL:HG23	9:EI:13:ALA:H	1.77	0.49
3:GA:210:C:OP1	29:G2:29:GLN:NE2	2.41	0.49
35:DA:1083:U:H5"	35:DA:1086:U:H5	1.78	0.49
3:AA:2421:G:N7	30:A3:30:HIS:HD2	2.10	0.49
35:DA:1451:U:O2'	35:DA:1452:C:OP1	2.23	0.49
35:FA:895:G:C6	35:FA:896:C:C4	3.01	0.49
3:CA:1864:U:O3'	3:CA:2409:G:N2	2.46	0.49
55:HV:345:SER:N	55:HV:375:LYS:O	2.44	0.49
3:GA:834:G:H1'	3:GA:2358:A:N3	2.28	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:545:U:H6	3:EA:545:U:O5'	1.96	0.49
23:GW:68:PHE:CD1	23:GW:79:ILE:HG12	2.47	0.49
10:EJ:44:TYR:C	10:EJ:44:TYR:CD1	2.86	0.49
3:GA:568:U:O2'	3:GA:570:G:N7	2.36	0.49
37:DD:72:PHE:CE2	37:DD:200:ILE:HD11	2.47	0.49
18:GR:39:LEU:O	18:GR:49:ILE:HG23	2.13	0.49
3:GA:220:G:N2	60:GA:3226:HOH:O	2.41	0.49
35:DA:237:G:H5''	50:DQ:27:ARG:NH2	2.28	0.49
3:EA:2867:G:O2'	3:EA:2868:A:OP2	2.31	0.49
36:FC:87:LEU:HA	36:FC:90:VAL:HG22	1.93	0.49
40:FG:18:PHE:CE1	40:FG:58:GLU:HG2	2.48	0.49
46:DM:114:LYS:CB	46:DM:115:PRO:CD	2.91	0.49
14:GN:79:LEU:O	14:GN:80:PHE:HB2	2.13	0.49
3:CA:1131:G:OP1	10:CJ:82:GLY:HA2	2.13	0.49
42:BI:88:MET:SD	42:BI:89:GLU:N	2.86	0.49
35:FA:110:C:C4	35:FA:111:G:C5	3.00	0.49
32:A5:4:ASN:C	32:A5:6:GLN:N	2.66	0.49
35:HA:658:C:H1'	48:HO:22:THR:HG21	1.94	0.49
35:BA:1526:G:OP1	54:BU:39:GLU:CG	2.60	0.49
6:GF:107:VAL:N	6:GF:108:PRO:CD	2.76	0.49
35:FA:1464:U:H2'	35:FA:1465:A:H8	1.78	0.49
3:EA:84:A:H62	3:EA:101:A:H2	1.59	0.49
32:A5:51:TYR:C	32:A5:51:TYR:CD1	2.86	0.49
3:GA:627:A:N6	12:GL:112:LEU:O	2.45	0.49
1:GB:11:C:O2'	1:GB:15:A:N6	2.46	0.49
6:EF:7:TYR:O	6:EF:12:VAL:HG12	2.12	0.49
3:GA:1285:A:H2'	3:GA:1286:A:H5'	1.95	0.49
35:BA:1084:G:OP1	35:BA:1086:U:C2	2.66	0.49
35:DA:1500:A:H5''	35:DA:1508:A:H5''	1.95	0.49
8:CH:38:PRO:HB2	8:CH:40:THR:HG23	1.94	0.49
35:BA:455:G:C2	35:BA:478:A:C2	3.00	0.49
35:BA:1179:A:H2'	35:BA:1180:A:O4'	2.12	0.49
3:GA:479:A:N3	3:GA:481:G:H5''	2.27	0.49
3:AA:654:A:N3	3:AA:654:A:H3'	2.26	0.49
43:BJ:29:ALA:HB3	43:BJ:36:VAL:CG2	2.43	0.49
35:HA:502:A:H2'	35:HA:503:C:O4'	2.12	0.49
35:FA:309:A:C2	35:FA:310:G:N7	2.81	0.49
4:GD:121:THR:O	4:GD:122:VAL:HB	2.12	0.49
3:AA:1572:A:OP2	60:AA:3618:HOH:O	2.19	0.49
2:EC:75:ALA:HB2	2:EC:95:TYR:CD1	2.47	0.49
15:GO:53:THR:HA	15:GO:59:ALA:HB2	1.95	0.49
30:E3:3:ILE:HG21	30:E3:62:PRO:HG3	1.95	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:121:GLU:OE2	16:CP:65:ASN:ND2	2.46	0.49
3:CA:2209:G:C2	3:CA:2216:G:C2	3.00	0.49
35:BA:1012:A:C2	35:BA:1018:G:C2	3.01	0.49
35:FA:146:G:N2	35:FA:147:G:H1'	2.28	0.49
39:FF:55:HIS:O	39:FF:56:LYS:HB2	2.12	0.49
35:BA:1125:U:O2	35:BA:1126:U:O2'	2.26	0.49
55:DV:177:GLU:N	55:DV:177:GLU:OE1	2.46	0.49
3:GA:997:G:C6	3:GA:998:C:C4	3.01	0.49
3:EA:1292:G:H2'	3:EA:1293:C:H6	1.78	0.49
25:CY:15:ASN:O	25:CY:19:LEU:N	2.43	0.49
35:BA:1028:C:C4	35:BA:1029:U:H1'	2.48	0.49
35:HA:1205:U:H2'	35:HA:1206:G:C8	2.48	0.49
3:CA:945:A:C4	3:CA:2448:A:C2	3.01	0.49
3:GA:819:A:C6	3:GA:820:A:C5	3.01	0.49
10:CJ:49:ASP:OD1	10:CJ:121:LYS:NZ	2.43	0.49
35:HA:546:A:P	37:HD:69:GLU:HB2	2.52	0.49
32:C5:102:ALA:O	32:C5:107:GLU:HB2	2.13	0.49
21:GU:86:PHE:HE1	21:GU:92:VAL:HG13	1.78	0.49
35:FA:368:U:C6	55:FV:362:ARG:HD3	2.48	0.49
53:BT:5:LYS:HD2	53:BT:7:ALA:H	1.78	0.49
42:BI:6:TYR:CG	42:BI:89:GLU:HB2	2.48	0.49
35:HA:583:A:C2	35:HA:584:G:H1'	2.48	0.49
32:E5:88:HIS:CB	32:E5:89:PRO:CD	2.90	0.49
3:CA:2685:G:OP1	11:CK:78:ARG:NH2	2.46	0.49
7:GG:84:LYS:HD2	7:GG:84:LYS:N	2.27	0.49
35:BA:898:G:N2	35:BA:901:A:OP2	2.46	0.49
7:AG:112:VAL:HG23	7:AG:113:ASP:N	2.28	0.49
35:DA:1228:C:P	46:DM:110:LYS:NZ	2.86	0.49
55:HV:697:ALA:O	55:HV:699:ILE:N	2.46	0.49
3:EA:1300:G:H4'	3:EA:1301:A:H5'	1.94	0.49
13:AM:34:LYS:HD2	13:AM:131:VAL:HG11	1.95	0.49
55:DV:145:ASP:C	55:DV:176:GLU:HA	2.33	0.49
35:BA:1010:U:H2'	35:BA:1011:C:C6	2.48	0.49
6:GF:103:ILE:HG23	6:GF:175:PRO:HD3	1.95	0.49
3:CA:1027:A:C6	3:CA:1126:A:C4	3.00	0.49
23:EW:72:GLY:N	23:EW:73:PRO:CD	2.76	0.49
55:HV:190:ALA:N	55:HV:205:GLU:O	2.45	0.49
8:AH:9:VAL:O	8:AH:13:GLY:N	2.46	0.49
20:AT:34:VAL:O	20:AT:34:VAL:CG2	2.61	0.49
3:EA:2681:C:OP2	4:ED:114:LYS:NZ	2.32	0.49
55:HV:119:VAL:HB	55:HV:161:ARG:HD2	1.94	0.49
36:FC:154:SER:CB	36:FC:165:THR:HG22	2.43	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1193:G:H2'	3:GA:1194:A:H8	1.78	0.48
26:GZ:29:ARG:CB	26:GZ:30:ARG:HE	2.25	0.48
32:A5:39:THR:HA	32:A5:42:ARG:CD	2.43	0.48
3:GA:2332:C:C4'	3:GA:2336:A:C6	2.96	0.48
37:DD:25:VAL:HG12	37:DD:26:ARG:N	2.28	0.48
3:GA:1077:A:H2	3:GA:1088:A:N7	2.11	0.48
15:CO:31:THR:HG23	15:CO:32:PRO:HD2	1.95	0.48
9:GI:74:PRO:O	9:GI:77:VAL:HG23	2.12	0.48
6:GF:124:ARG:O	6:GF:126:ASN:ND2	2.46	0.48
35:DA:668:G:HO2'	48:DO:46:HIS:CG	2.29	0.48
3:GA:1248:G:O6	5:GE:46:GLN:NE2	2.46	0.48
3:CA:1676:A:H2'	3:CA:1677:A:O4'	2.13	0.48
35:HA:683:G:H1	35:HA:707:U:H3	1.58	0.48
3:EA:2346:A:H3'	3:EA:2347:C:H5''	1.94	0.48
3:CA:1171:G:C6	3:CA:1172:C:N4	2.81	0.48
23:AW:23:LYS:HE2	23:AW:24:ARG:H	1.78	0.48
35:FA:1092:A:N6	35:FA:1093:A:C6	2.81	0.48
3:GA:1930:G:N2	3:GA:1969:A:O5'	2.46	0.48
27:C0:42:ILE:HG22	27:C0:43:THR:O	2.13	0.48
3:GA:247:G:C8	3:GA:249:C:C6	3.00	0.48
3:CA:1536:C:H1'	3:CA:1537:G:N2	2.28	0.48
3:GA:2025:C:H2'	3:GA:2026:U:C6	2.48	0.48
20:ET:29:THR:HB	20:ET:86:THR:HA	1.94	0.48
35:HA:1053:G:O2'	35:HA:1199:U:OP2	2.31	0.48
9:EI:23:VAL:CG2	9:EI:27:LEU:HD23	2.43	0.48
24:GX:70:LEU:HD23	24:GX:73:ARG:HH11	1.78	0.48
3:GA:1359:A:C6	3:GA:1360:G:C4	3.01	0.48
34:BB:153:MET:SD	34:BB:157:PRO:HG3	2.53	0.48
6:CF:107:VAL:N	6:CF:108:PRO:CD	2.76	0.48
7:GG:83:THR:HA	7:GG:84:LYS:CE	2.43	0.48
38:FE:41:ASP:OD1	38:FE:42:GLY:N	2.46	0.48
6:AF:79:ARG:HB3	6:AF:82:TYR:CE1	2.48	0.48
3:GA:997:G:O2'	3:GA:998:C:H5'	2.12	0.48
3:GA:171:U:H2'	3:GA:172:A:C8	2.48	0.48
3:CA:1068:G:C3'	3:CA:1069:A:H5''	2.44	0.48
3:GA:1376:C:OP1	60:GA:3392:HOH:O	2.19	0.48
13:CM:96:ILE:HD11	13:CM:126:ILE:HD11	1.94	0.48
11:AK:30:ARG:NH1	11:AK:32:TYR:O	2.45	0.48
36:DC:123:GLN:HB3	36:DC:128:VAL:HG11	1.95	0.48
11:EK:105:ARG:NH2	11:EK:106:GLU:OE2	2.37	0.48
36:DC:140:ASN:HA	36:DC:143:ARG:HB2	1.95	0.48
55:DV:304:ASP:O	55:DV:305:THR:HG22	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:1794:A:H2'	3:EA:1795:C:C6	2.48	0.48
55:HV:488:VAL:HG21	55:HV:661:SER:HB3	1.95	0.48
3:CA:451:U:C2	3:CA:453:A:N7	2.81	0.48
15:GO:2:ASP:OD1	15:GO:3:LYS:N	2.46	0.48
27:C0:24:VAL:O	27:C0:25:THR:OG1	2.28	0.48
10:CJ:30:THR:HG22	10:CJ:31:GLU:N	2.28	0.48
3:CA:1915:U:H2'	3:CA:1916:A:O4'	2.13	0.48
23:EW:70:VAL:C	23:EW:71:LYS:HD2	2.33	0.48
34:BB:100:LEU:HD23	34:BB:178:LEU:HD23	1.95	0.48
35:DA:1123:U:O2'	43:DJ:39:PRO:O	2.31	0.48
3:AA:1869:G:H3'	3:AA:1870:C:H5''	1.94	0.48
3:AA:2393:U:H5'	12:AL:60:ARG:O	2.13	0.48
3:EA:1350:C:C4	3:EA:1351:C:C5	3.01	0.48
3:EA:2017:U:H5''	3:EA:2018:G:P	2.52	0.48
3:AA:749:A:C6	3:AA:1618:A:C2	3.01	0.48
3:GA:1893:C:C5	3:GA:1894:C:C5	3.01	0.48
3:EA:1509:A:O2'	3:EA:1510:G:P	2.71	0.48
32:C5:29:ASP:HA	32:C5:108:VAL:CG1	2.41	0.48
35:HA:1062:U:H2'	35:HA:1063:C:C6	2.47	0.48
55:HV:632:ILE:HD12	55:HV:642:LEU:CD2	2.44	0.48
23:AW:39:GLN:HG2	23:AW:40:ARG:N	2.28	0.48
3:CA:954:G:O2'	3:CA:2274:A:N1	2.43	0.48
35:HA:110:C:N4	35:HA:111:G:C6	2.82	0.48
19:GS:6:LYS:HB2	19:GS:103:ILE:O	2.13	0.48
16:CP:72:VAL:HG23	16:CP:72:VAL:O	2.13	0.48
10:GJ:55:ILE:HD11	10:GJ:57:LEU:HD21	1.95	0.48
35:DA:201:G:H21	35:DA:469:C:H1'	1.77	0.48
55:BV:200:VAL:HG23	55:BV:201:THR:N	2.28	0.48
6:GF:1:ALA:CB	6:GF:97:GLU:HG2	2.42	0.48
3:GA:307:G:H22	3:GA:310:A:P	2.35	0.48
2:CC:16:VAL:H	2:CC:203:VAL:HG12	1.77	0.48
3:GA:952:G:H2'	3:GA:953:G:O5'	2.13	0.48
3:AA:1327:A:N6	3:AA:1328:A:C2	2.81	0.48
3:AA:221:A:N1	3:AA:265:A:O2'	2.45	0.48
3:GA:957:C:C4	3:GA:959:A:C4	3.01	0.48
1:CB:90:C:H5'	13:CM:18:ARG:HG2	1.95	0.48
1:EB:78:A:N6	1:EB:98:G:O2'	2.44	0.48
37:BD:147:GLU:HA	37:BD:150:LYS:HB2	1.94	0.48
40:FG:70:ARG:HG3	40:FG:96:ARG:HG2	1.93	0.48
41:FH:41:LYS:HD3	41:FH:48:ASP:HA	1.96	0.48
3:CA:2108:A:N6	3:CA:2182:U:OP1	2.46	0.48
43:FJ:57:VAL:HG13	43:FJ:58:ASN:N	2.28	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BC:150:LYS:HG3	36:BC:201:TRP:CE3	2.49	0.48
42:HI:34:SER:HB3	42:HI:37:GLN:HG2	1.94	0.48
3:CA:2657:A:O3'	7:CG:159:LYS:NZ	2.46	0.48
3:GA:1746:A:H2'	3:GA:1747:U:C6	2.48	0.48
35:DA:769:G:H4'	35:DA:1513:A:H4'	1.96	0.48
3:EA:137:U:C5	3:EA:140:C:H1'	2.48	0.48
34:DB:94:ARG:HG3	34:DB:96:LEU:HD23	1.95	0.48
23:GW:9:THR:HG23	23:GW:10:ARG:HD3	1.96	0.48
35:HA:563:A:HO2'	35:HA:567:G:H8	1.59	0.48
16:EP:31:VAL:HG22	16:EP:38:ARG:HG2	1.95	0.48
5:GE:147:LEU:HD12	5:GE:186:VAL:HG23	1.95	0.48
43:HJ:59:LYS:O	43:HJ:62:ARG:NH1	2.46	0.48
3:EA:1354:A:OP1	2:EC:35:LYS:NZ	2.43	0.48
5:CE:161:ALA:HA	5:CE:164:LEU:HB2	1.94	0.48
17:GQ:13:HIS:O	17:GQ:16:ILE:N	2.43	0.48
3:AA:1219:U:OP2	17:AQ:18:LYS:NZ	2.46	0.48
37:DD:15:GLU:OE2	37:DD:56:ARG:NH2	2.46	0.48
35:FA:459:A:N6	35:FA:474:G:O6	2.47	0.48
32:C5:127:ALA:O	32:C5:129:LEU:N	2.45	0.48
8:CH:23:ALA:O	8:CH:27:ARG:HG2	2.12	0.48
3:GA:2386:A:C2	23:GW:38:ARG:HD2	2.49	0.48
3:GA:1076:C:H2'	3:GA:1077:A:O4'	2.13	0.48
45:FL:3:THR:HG22	45:FL:5:ASN:H	1.77	0.48
3:GA:161:A:C3'	3:GA:162:U:H5''	2.41	0.48
17:GQ:94:LEU:HD11	18:GR:4:VAL:HG11	1.94	0.48
3:AA:301:G:H1'	3:AA:302:C:C6	2.48	0.48
8:CH:9:VAL:HG12	8:CH:10:ALA:N	2.29	0.48
37:HD:99:ASP:OD1	37:HD:100:ASN:N	2.45	0.48
3:CA:1813:G:H1'	2:CC:49:THR:CG2	2.44	0.48
55:DV:337:ARG:HA	55:DV:382:ILE:HG22	1.94	0.48
41:DH:79:SER:HA	41:DH:85:ILE:HG12	1.95	0.48
3:CA:2543:G:H2'	3:CA:2544:G:C8	2.47	0.48
35:BA:1276:G:H2'	35:BA:1277:C:O4'	2.13	0.48
35:FA:922:G:HO2'	35:FA:1398:A:H2	1.61	0.48
9:EI:79:LEU:HA	9:EI:83:ALA:CB	2.42	0.48
17:GQ:81:GLY:HA2	17:GQ:116:LEU:CD1	2.43	0.48
55:BV:191:ILE:HG21	55:BV:193:TRP:CZ2	2.47	0.48
24:AX:67:LEU:HD23	24:AX:70:LEU:HD12	1.96	0.48
11:EK:71:ARG:CG	11:EK:105:ARG:NH2	2.77	0.48
36:DC:135:LYS:NZ	36:DC:139:GLN:OE1	2.40	0.48
3:GA:1450:G:N2	3:GA:1452:G:O6	2.42	0.48
43:BJ:15:HIS:C	43:BJ:17:LEU:H	2.16	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DK:46:THR:O	44:DK:50:SER:OG	2.28	0.48
35:FA:677:U:H3	35:FA:713:G:H22	1.60	0.48
52:FS:63:THR:HG22	52:FS:64:ASP:N	2.28	0.48
21:AU:85:ARG:HD3	21:AU:86:PHE:N	2.28	0.48
35:HA:864:A:N1	35:HA:917:G:O2'	2.30	0.48
3:GA:2047:C:O2'	3:GA:2823:A:N1	2.37	0.48
35:HA:474:G:OP1	49:HP:76:LYS:HD2	2.13	0.48
3:AA:1485:U:H2'	3:AA:1486:U:C6	2.48	0.48
3:AA:2230:G:O3'	24:AX:29:LEU:HD23	2.14	0.48
4:ED:110:THR:HG23	4:ED:171:THR:HG22	1.95	0.48
42:BI:119:ARG:HH21	42:BI:123:ARG:CZ	2.26	0.48
55:DV:422:PRO:O	55:DV:424:THR:N	2.46	0.48
3:GA:1527:G:N2	3:GA:1544:A:C8	2.82	0.48
39:HF:22:ILE:O	39:HF:26:THR:OG1	2.18	0.48
3:GA:2194:U:C4	3:GA:2195:U:C5	3.01	0.48
52:FS:15:LEU:HD13	52:FS:33:THR:HG21	1.95	0.48
3:GA:1157:G:C6	3:GA:1158:C:C4	3.01	0.48
37:HD:22:LYS:O	37:HD:24:GLY:N	2.46	0.48
3:AA:1268:A:OP1	60:AA:3373:HOH:O	2.20	0.48
3:GA:1187:G:H5''	18:GR:83:TYR:CE2	2.48	0.48
3:GA:409:G:C2	3:GA:410:G:C4	3.01	0.48
37:BD:35:GLU:O	37:BD:38:PRO:HD3	2.13	0.48
3:CA:974:G:C4	3:CA:1186:G:C2	3.01	0.48
54:BU:34:ARG:CZ	54:BU:35:ARG:HD2	2.43	0.48
3:AA:973:A:P	18:AR:81:LYS:HZ3	2.37	0.48
35:HA:690:G:H2'	35:HA:691:G:O4'	2.14	0.48
6:AF:110:ILE:O	6:AF:112:ASP:N	2.46	0.48
9:AI:135:MET:HB3	9:AI:137:LEU:CD2	2.43	0.48
3:GA:2484:G:C2	3:GA:2485:G:C8	3.01	0.48
43:DJ:35:GLN:HG2	43:DJ:77:VAL:HB	1.95	0.48
35:HA:1061:G:H4'	43:HJ:58:ASN:ND2	2.28	0.48
44:DK:17:SER:HB3	40:HG:138:ARG:HH12	1.78	0.48
10:GJ:17:VAL:HG13	10:GJ:57:LEU:CD2	2.44	0.48
3:CA:1326:U:O2'	3:CA:2010:G:O2'	2.22	0.48
3:GA:2024:G:C2	3:GA:2025:C:C2	3.01	0.48
20:ET:29:THR:CB	20:ET:86:THR:HA	2.44	0.48
45:DL:99:ARG:HB2	45:DL:117:TYR:HA	1.95	0.48
3:GA:1803:A:O3'	2:GC:256:THR:OG1	2.27	0.48
32:E5:88:HIS:CB	32:E5:89:PRO:HD3	2.43	0.48
53:DT:67:ILE:HD11	53:DT:71:LYS:CD	2.44	0.48
39:BF:38:ARG:HG2	39:BF:63:ASN:HB2	1.95	0.48
3:AA:528:A:C2	3:AA:2043:C:H4'	2.49	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:1022:G:C6	3:AA:1140:C:C4	3.01	0.48
39:DF:86:ARG:NH2	51:DR:64:TYR:HB3	2.28	0.48
47:BN:53:ARG:HH21	52:BS:37:ARG:NH2	2.11	0.48
14:GN:73:ASN:HA	14:GN:76:VAL:CG1	2.42	0.48
35:DA:1083:U:H5''	35:DA:1086:U:C5	2.47	0.48
6:AF:64:PRO:HA	6:AF:88:VAL:HG22	1.95	0.48
23:AW:44:PHE:HD1	23:AW:45:HIS:CE1	2.31	0.48
38:HE:56:VAL:O	38:HE:60:ILE:HG13	2.14	0.48
55:BV:584:HIS:HB2	55:BV:587:ASP:HB2	1.94	0.48
16:AP:105:LYS:HA	16:AP:108:ARG:HD2	1.95	0.48
23:EW:13:ARG:HG2	23:EW:14:ASP:H	1.79	0.48
38:BE:46:VAL:O	38:BE:72:ILE:N	2.39	0.48
7:AG:118:ALA:O	7:AG:120:ILE:N	2.41	0.48
3:AA:1996:C:OP1	11:AK:31:ARG:NE	2.46	0.48
52:BS:22:ALA:HA	52:BS:25:SER:HB3	1.95	0.48
35:DA:235:C:H2'	35:DA:236:A:C8	2.48	0.48
35:HA:270:A:H2'	35:HA:271:C:C6	2.49	0.48
5:GE:25:GLU:OE1	12:GL:7:SER:OG	2.22	0.48
3:AA:580:U:H2'	3:AA:581:C:H6	1.79	0.48
6:EF:175:PRO:O	6:EF:176:PHE:CG	2.66	0.48
3:EA:1174:U:H2'	3:EA:1176:U:H1'	1.96	0.48
40:DG:79:ARG:HA	40:DG:83:SER:O	2.13	0.48
3:CA:100:U:H4'	3:CA:101:A:O5'	2.13	0.48
35:BA:320:A:H2'	35:BA:321:A:O4'	2.12	0.48
35:DA:921:U:H2'	35:DA:922:G:O4'	2.13	0.48
55:FV:307:ALA:HB1	55:FV:404:ILE:HG21	1.95	0.48
6:EF:66:ILE:H	6:EF:66:ILE:HD13	1.79	0.48
35:BA:322:C:OP2	35:BA:328:C:N4	2.47	0.48
50:HQ:7:THR:OG1	50:HQ:8:LEU:N	2.46	0.48
32:C5:93:ALA:HB3	32:C5:95:LEU:HD23	1.96	0.48
32:E5:71:CYS:CA	32:E5:117:LEU:CD1	2.90	0.48
3:EA:973:A:O4'	3:EA:1188:U:C6	2.66	0.48
37:HD:38:PRO:HD2	37:HD:42:GLY:CA	2.43	0.48
3:CA:947:A:O2'	3:CA:984:A:H2	1.96	0.48
42:FI:47:VAL:O	42:FI:80:ARG:HG2	2.13	0.48
3:GA:371:A:N1	3:GA:401:A:H5''	2.28	0.48
38:DE:25:VAL:O	38:DE:28:GLY:N	2.41	0.48
3:AA:2015:A:C2	27:A0:2:VAL:CG2	2.96	0.48
3:EA:1256:G:O2'	5:EE:77:ILE:HD11	2.14	0.48
23:GW:30:VAL:O	23:GW:59:PHE:HB2	2.14	0.48
3:GA:2371:G:C2	3:GA:2372:U:C6	3.01	0.48
16:CP:92:ARG:O	16:CP:92:ARG:CG	2.62	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:974:G:O5'	18:GR:78:ARG:CZ	2.61	0.48
10:EJ:81:ILE:CG2	10:EJ:82:GLY:N	2.77	0.48
3:GA:565:C:H4'	3:GA:1253:A:N6	2.28	0.48
28:E1:8:ILE:HD11	28:E1:51:ALA:HA	1.96	0.48
18:CR:49:ILE:HB	18:CR:51:VAL:O	2.14	0.48
3:GA:468:G:OP2	29:G2:37:LYS:NZ	2.33	0.48
23:CW:23:LYS:HD2	23:CW:24:ARG:H	1.79	0.48
34:FB:167:HIS:ND1	34:FB:167:HIS:O	2.45	0.48
43:HJ:8:ILE:HB	43:HJ:74:VAL:HB	1.95	0.48
24:AX:70:LEU:O	24:AX:74:GLY:N	2.46	0.48
6:EF:43:ILE:CG2	6:EF:78:ILE:HG22	2.43	0.48
37:BD:147:GLU:HA	37:BD:150:LYS:HD2	1.96	0.48
32:E5:127:ALA:O	32:E5:129:LEU:N	2.47	0.48
17:EQ:4:LYS:HG3	17:EQ:5:ARG:N	2.28	0.48
3:AA:1474:U:H2'	3:AA:1475:G:H5'	1.95	0.48
35:BA:983:A:C2'	35:BA:983:A:N3	2.76	0.48
35:DA:1225:A:H2'	35:DA:1226:C:C5	2.49	0.48
35:HA:21:G:H2'	35:HA:22:G:C8	2.49	0.48
15:CO:5:SER:HA	15:CO:8:ILE:HG22	1.96	0.48
11:GK:24:VAL:HG12	11:GK:30:ARG:HD2	1.96	0.48
3:CA:2556:C:H2'	3:CA:2557:G:O4'	2.13	0.48
35:DA:546:A:P	37:DD:69:GLU:HB2	2.53	0.48
35:HA:181:A:N7	60:HA:1874:HOH:O	2.34	0.48
3:EA:1224:U:H4'	18:ER:88:GLY:O	2.13	0.48
3:GA:1570:A:C6	3:GA:1571:A:C6	3.02	0.48
3:CA:1727:C:H2'	3:CA:1728:C:O4'	2.14	0.48
3:CA:2483:C:N3	13:CM:123:LYS:NZ	2.51	0.48
2:GC:195:GLY:O	2:GC:197:ALA:N	2.46	0.48
2:EC:80:LEU:HD21	2:EC:109:LEU:HB2	1.95	0.48
36:HC:34:ASP:O	36:HC:38:LYS:N	2.44	0.48
4:GD:193:VAL:HB	4:GD:194:PRO:HD2	1.95	0.48
9:CI:52:LEU:HB3	9:CI:53:PRO:HD2	1.93	0.48
35:DA:367:U:C6	35:DA:394:G:N2	2.82	0.48
41:HH:89:LYS:HG3	41:HH:90:ASP:N	2.29	0.48
3:EA:1808:A:O2'	24:EX:2:ARG:NH1	2.47	0.48
3:CA:959:A:N6	13:CM:82:MET:CE	2.76	0.48
7:AG:23:ILE:HG21	7:AG:71:LEU:HD11	1.95	0.48
44:BK:111:THR:HA	54:BU:4:ILE:O	2.14	0.48
45:DL:24:LEU:HG	45:DL:25:GLU:H	1.78	0.48
22:CV:6:ALA:HB1	22:CV:40:ILE:CG2	2.43	0.48
2:AC:265:PHE:CD1	2:AC:265:PHE:N	2.82	0.48
34:BB:131:LYS:NZ	35:BA:1159:U:OP1	2.46	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:2079:U:O2'	24:CX:22:ASN:OD1	2.32	0.48
26:AZ:38:GLU:O	26:AZ:43:ILE:HG12	2.13	0.48
47:BN:9:ARG:O	47:BN:13:ARG:HG3	2.14	0.48
32:E5:54:VAL:HG22	32:E5:83:ALA:HB1	1.94	0.48
17:EQ:60:TRP:HA	17:EQ:63:ARG:HE	1.79	0.48
3:GA:571:U:P	18:GR:80:ARG:HH12	2.37	0.48
32:C5:30:SER:O	32:C5:108:VAL:HG13	2.14	0.48
35:FA:537:G:OP1	60:FA:1879:HOH:O	2.20	0.48
35:HA:1003:G:H21	35:HA:1005:A:H5'	1.78	0.48
3:GA:860:U:C5	3:GA:916:G:N2	2.82	0.48
47:HN:20:TYR:HE2	47:HN:52:PRO:HG2	1.79	0.48
3:GA:2352:A:H61	23:GW:30:VAL:HG21	1.78	0.48
15:GO:80:GLU:HA	15:GO:83:LEU:CG	2.43	0.48
35:HA:946:A:O2'	35:HA:1334:G:H5'	2.13	0.48
3:GA:962:G:P	60:GA:3351:HOH:O	2.72	0.48
35:DA:636:U:H2'	35:DA:637:C:C6	2.48	0.48
35:BA:1305:G:H22	35:BA:1331:G:C2'	2.26	0.48
3:AA:479:A:C2	3:AA:480:A:C4	3.01	0.48
55:DV:105:VAL:HG23	55:DV:106:LEU:N	2.28	0.48
54:DU:35:ARG:HB3	54:DU:40:LYS:NZ	2.28	0.48
3:GA:109:C:H4'	3:GA:348:A:H4'	1.96	0.48
17:CQ:86:SER:O	18:CR:51:VAL:HA	2.14	0.48
1:EB:89:U:H3'	1:EB:90:C:C5'	2.44	0.48
14:CN:92:GLY:HA2	14:CN:94:TYR:HE1	1.78	0.48
53:DT:44:LYS:HB3	53:DT:87:ALA:HB2	1.96	0.48
10:AJ:32:LEU:CD2	10:AJ:54:ILE:HD12	2.44	0.48
17:EQ:78:PHE:CZ	17:EQ:82:LEU:HD11	2.49	0.48
32:A5:51:TYR:HD1	32:A5:52:MET:N	2.12	0.48
11:AK:24:VAL:HG13	11:AK:33:ALA:HB2	1.95	0.48
35:FA:505:G:H5'	35:FA:534:U:H2'	1.96	0.48
34:DB:162:VAL:HG22	34:DB:184:ALA:HB2	1.96	0.48
39:HF:5:GLU:OE2	51:HR:23:TYR:OH	2.22	0.48
3:CA:1067:A:N3	55:DV:645:GLN:NE2	2.61	0.48
44:HK:16:VAL:O	44:HK:18:ASP:N	2.45	0.48
11:EK:61:VAL:HG11	11:EK:112:PHE:CZ	2.48	0.48
12:AL:19:LEU:HB2	12:AL:27:LEU:HB3	1.94	0.48
35:HA:504:C:OP1	60:HA:1878:HOH:O	2.20	0.48
38:DE:62:LYS:O	38:DE:66:LYS:HG2	2.13	0.48
35:DA:1018:G:C6	35:DA:1019:A:C6	3.02	0.48
35:DA:1071:C:H2'	35:DA:1072:G:H8	1.78	0.48
35:DA:1343:G:H1'	42:DI:123:ARG:CZ	2.43	0.48
35:BA:394:G:O2'	55:BV:359:ARG:NH1	2.46	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:FA:1419:G:C5	35:FA:1482:G:N2	2.82	0.48
3:AA:770:G:H5''	29:A2:10:LEU:HD23	1.95	0.48
35:DA:1278:G:H4'	35:DA:1279:G:C8	2.49	0.48
13:AM:1:MET:O	13:AM:2:LEU:CB	2.62	0.48
3:CA:1786:A:H1'	3:CA:1938:A:N6	2.28	0.48
35:HA:216:U:H2'	35:HA:217:C:C6	2.49	0.48
35:DA:1118:U:OP1	42:DI:11:ARG:NE	2.46	0.48
44:HK:68:GLU:C	44:HK:70:CYS:H	2.16	0.48
2:CC:195:GLY:O	2:CC:197:ALA:N	2.46	0.48
6:CF:50:ASP:N	6:CF:50:ASP:OD1	2.45	0.48
3:AA:11:C:C3'	3:AA:12:U:H5'	2.44	0.48
10:CJ:44:TYR:CD2	17:CQ:59:LEU:HD22	2.49	0.48
32:C5:110:ALA:CB	32:C5:113:PHE:CE2	2.97	0.48
3:GA:2057:G:O6	60:GA:3485:HOH:O	2.17	0.48
3:GA:1192:G:H2'	3:GA:1193:G:H8	1.79	0.48
10:AJ:43:GLU:O	10:AJ:45:THR:HG22	2.13	0.48
32:C5:32:GLY:HA2	32:C5:108:VAL:HG21	1.95	0.48
55:BV:221:ASN:HA	55:BV:224:GLU:CB	2.43	0.48
3:GA:2336:A:N6	23:GW:40:ARG:HB3	2.28	0.48
3:EA:999:U:C5	3:EA:1154:G:C5	3.01	0.48
23:CW:37:VAL:HG13	23:CW:56:HIS:HB2	1.96	0.48
35:FA:1523:G:O3'	44:FK:125:LYS:NZ	2.46	0.48
23:EW:9:THR:CG2	23:EW:10:ARG:HD3	2.42	0.48
3:CA:783:A:C2	3:CA:785:G:H1'	2.47	0.48
3:AA:1199:U:H5'	17:AQ:4:LYS:CE	2.42	0.48
38:BE:105:ILE:HA	38:BE:123:VAL:HG23	1.95	0.48
34:FB:71:THR:HG22	34:FB:72:LYS:H	1.78	0.48
20:GT:28:ASN:O	20:GT:29:THR:HG22	2.13	0.48
3:GA:1138:G:C5	3:GA:1139:G:H1'	2.48	0.48
42:HI:120:LYS:CG	42:HI:123:ARG:HB3	2.44	0.48
54:DU:40:LYS:N	54:DU:41:PRO:CD	2.77	0.48
3:CA:42:A:H2'	3:CA:43:G:H5'	1.94	0.48
55:FV:698:VAL:O	55:FV:699:ILE:HD12	2.14	0.48
3:AA:1107:G:H5''	32:A5:58:THR:HG23	1.94	0.48
35:DA:834:U:H2'	35:DA:835:U:C6	2.48	0.48
3:EA:1485:U:H2'	3:EA:1486:U:C6	2.49	0.48
35:HA:811:C:O2'	35:HA:901:A:N1	2.47	0.48
35:DA:1526:G:OP2	54:DU:39:GLU:HB3	2.13	0.48
3:CA:2318:G:C6	3:CA:2319:G:C6	3.01	0.48
23:CW:24:ARG:NH1	23:CW:25:PHE:O	2.46	0.48
55:FV:20:ASP:N	59:FV:801:GCP:H3B1	2.28	0.48
55:FV:382:ILE:O	55:FV:382:ILE:HD12	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:1838:C:H4'	3:CA:1839:G:N7	2.29	0.48
25:AY:8:GLU:O	25:AY:12:GLU:HB2	2.12	0.48
37:HD:116:GLN:OE1	37:HD:120:HIS:NE2	2.46	0.48
3:EA:668:A:H2'	3:EA:670:A:H62	1.76	0.48
3:CA:500:G:N1	3:CA:503:A:OP2	2.43	0.48
35:HA:819:A:N7	35:HA:1529:G:N1	2.61	0.48
10:GJ:38:GLY:HA2	10:GJ:51:GLY:HA2	1.95	0.48
35:HA:439:U:C5	35:HA:440:C:C5	3.02	0.48
12:EL:77:ILE:CD1	12:EL:108:ALA:HB1	2.43	0.48
3:EA:136:G:O6	3:EA:142:A:N6	2.47	0.48
5:AE:164:LEU:HB3	5:AE:167:VAL:CG1	2.44	0.48
3:GA:2392:A:C2	12:GL:55:MET:HE3	2.48	0.48
38:HE:19:ASN:OD1	38:HE:20:ARG:N	2.46	0.48
3:EA:1430:G:H2'	3:EA:1431:A:O4'	2.14	0.48
8:EH:31:VAL:HB	8:EH:32:PRO:CD	2.43	0.48
6:GF:28:PRO:HB3	6:GF:159:ALA:HB2	1.95	0.48
3:AA:1135:C:N4	3:AA:1139:G:C6	2.82	0.48
3:EA:2520:C:C6	3:EA:2567:G:H1'	2.49	0.48
3:GA:37:C:O2'	5:GE:45:ALA:HA	2.13	0.48
4:CD:174:SER:OG	4:CD:175:LEU:N	2.47	0.48
55:DV:317:PHE:CE1	55:DV:343:VAL:CG2	2.97	0.48
5:CE:178:VAL:O	5:CE:182:ALA:N	2.45	0.48
20:GT:34:VAL:HG23	20:GT:34:VAL:O	2.13	0.48
16:AP:19:PHE:CD1	16:AP:19:PHE:N	2.82	0.48
34:FB:156:LEU:H	34:FB:156:LEU:HD23	1.78	0.48
3:GA:994:C:H3'	17:GQ:53:LYS:HE2	1.96	0.48
16:EP:13:LYS:NZ	16:EP:80:VAL:HG12	2.29	0.48
3:GA:1801:A:N7	2:GC:261:ARG:NH2	2.62	0.48
23:AW:9:THR:HG23	23:AW:10:ARG:HD3	1.95	0.48
35:HA:1064:G:C8	35:HA:1066:C:C2	3.01	0.48
3:GA:2300:C:H2'	3:GA:2301:C:C6	2.49	0.48
9:CI:58:ILE:HG22	9:CI:59:THR:H	1.79	0.48
9:CI:58:ILE:HG22	9:CI:59:THR:N	2.29	0.48
3:AA:983:A:N6	3:AA:984:A:N1	2.62	0.48
34:FB:63:LYS:HA	34:FB:224:ARG:HD3	1.96	0.48
35:BA:71:A:H8	35:BA:71:A:H5'	1.79	0.48
23:GW:28:GLU:O	23:GW:31:LEU:HG	2.14	0.48
3:EA:2849:U:H4'	3:EA:2868:A:C2	2.49	0.48
28:C1:8:ILE:HG12	28:C1:51:ALA:HA	1.96	0.48
42:BI:55:VAL:HG11	42:BI:94:LEU:HD23	1.95	0.48
37:FD:65:TYR:N	37:FD:65:TYR:HD1	2.12	0.48
47:HN:61:ARG:NH2	47:HN:71:HIS:CE1	2.81	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:GD:118:PHE:HD1	4:GD:119:ALA:H	1.60	0.48
29:G2:34:ARG:NH1	29:G2:39:ARG:HD3	2.29	0.48
37:FD:25:VAL:HG13	37:FD:161:LEU:HD23	1.96	0.48
3:AA:2747:G:O2'	7:AG:66:THR:HG22	2.14	0.48
3:GA:442:G:O4'	5:GE:41:GLN:NE2	2.46	0.48
3:GA:2093:G:N7	3:GA:2225:A:H2'	2.28	0.48
54:BU:38:TYR:C	54:BU:41:PRO:HD2	2.34	0.48
3:AA:2405:G:O2'	3:AA:2406:A:OP1	2.26	0.48
5:GE:29:HIS:CE1	12:GL:8:PRO:HB3	2.49	0.48
46:BM:11:ASP:OD1	46:BM:12:HIS:N	2.36	0.48
11:EK:16:ALA:O	11:EK:17:ARG:HB2	2.14	0.48
35:HA:952:U:H5'	35:HA:972:C:N4	2.28	0.48
38:BE:45:ARG:HA	38:BE:72:ILE:O	2.14	0.48
3:GA:255:A:H2'	3:GA:256:A:O4'	2.13	0.48
24:GX:76:LYS:HG3	24:GX:77:TYR:H	1.79	0.48
3:CA:1328:A:H2'	3:CA:1330:C:C5	2.49	0.48
3:CA:608:A:H2'	3:CA:609:A:C8	2.49	0.48
55:DV:5:THR:HG23	55:DV:6:PRO:HD3	1.94	0.48
10:EJ:73:VAL:HG23	10:EJ:74:TYR:H	1.78	0.48
50:DQ:12:VAL:O	50:DQ:13:VAL:HB	2.14	0.48
55:BV:230:SER:OG	55:BV:232:GLU:OE1	2.31	0.48
3:CA:627:A:C6	3:CA:637:A:C8	3.01	0.48
2:AC:225:ASN:HB3	2:AC:226:PRO:HD2	1.96	0.48
55:FV:96:THR:HG22	55:FV:129:GLN:HE22	1.79	0.48
46:FM:29:ARG:NH2	46:FM:63:PHE:HB2	2.28	0.48
50:DQ:59:VAL:CG1	50:DQ:75:LEU:CD1	2.92	0.48
50:DQ:76:VAL:HG23	50:DQ:77:ARG:N	2.29	0.48
3:EA:638:G:C5	3:EA:651:G:C2	3.02	0.48
55:HV:627:ASN:ND2	55:HV:674:THR:HA	2.29	0.48
32:C5:93:ALA:HA	32:C5:130:PRO:CG	2.44	0.48
10:CJ:44:TYR:HB2	17:CQ:63:ARG:HB3	1.95	0.48
35:HA:401:C:OP2	37:HD:70:ARG:HD3	2.14	0.48
32:C5:64:VAL:O	32:C5:68:PRO:HD2	2.13	0.48
34:FB:14:HIS:O	34:FB:14:HIS:CG	2.65	0.48
53:FT:68:HIS:C	53:FT:69:LYS:CG	2.81	0.48
17:GQ:60:TRP:CE2	17:GQ:93:ILE:HB	2.49	0.48
35:HA:664:G:OP1	51:HR:53:ARG:NE	2.41	0.48
41:BH:18:GLN:NE2	41:BH:72:VAL:H	2.12	0.48
3:GA:2742:G:P	31:G4:36:ARG:HH11	2.37	0.48
35:FA:1028:C:H42	35:FA:1033:G:H1	1.61	0.48
6:EF:147:ARG:HG3	6:EF:149:ARG:N	2.29	0.48
32:C5:51:TYR:C	32:C5:51:TYR:CD1	2.88	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:109:C:C5'	3:GA:348:A:H4'	2.44	0.48
3:GA:600:G:H5''	5:GE:27:LEU:HD22	1.96	0.48
54:FU:10:GLU:HG2	54:FU:11:PRO:HD3	1.96	0.48
23:CW:23:LYS:O	23:CW:66:VAL:HB	2.13	0.48
32:C5:43:LYS:NZ	32:C5:98:GLU:HB2	2.29	0.48
43:DJ:53:ILE:HD11	47:DN:85:ARG:CZ	2.43	0.48
3:AA:2406:A:C2	12:AL:69:ARG:NH2	2.82	0.48
39:FF:3:HIS:O	39:FF:92:THR:OG1	2.32	0.48
44:BK:16:VAL:HG13	44:BK:79:ILE:HG12	1.96	0.48
21:GU:82:VAL:HG12	21:GU:83:GLY:N	2.29	0.48
34:BB:163:ILE:HG23	34:BB:164:ASP:N	2.29	0.48
6:AF:69:ALA:N	6:AF:82:TYR:O	2.47	0.48
9:AI:14:ALA:HB3	9:AI:51:GLY:H	1.79	0.48
41:FH:41:LYS:HD3	41:FH:48:ASP:HB2	1.95	0.48
3:GA:995:C:O5'	17:GQ:53:LYS:HD3	2.14	0.48
25:GY:2:LYS:HG3	25:GY:52:ARG:HD3	1.95	0.48
1:EB:74:U:O2	22:EV:29:ILE:HD13	2.14	0.48
4:GD:142:VAL:HB	4:GD:143:PRO:HD2	1.95	0.48
38:FE:156:LYS:O	38:FE:159:LYS:NZ	2.46	0.48
45:DL:63:VAL:HG21	45:DL:95:TYR:CE1	2.49	0.48
3:AA:1730:C:OP1	3:AA:1730:C:H4'	2.12	0.48
3:CA:2564:A:C2	3:CA:2647:U:H4'	2.49	0.48
44:BK:23:ILE:HG13	44:BK:86:VAL:HA	1.96	0.48
3:AA:995:C:O2	10:AJ:3:THR:HG23	2.13	0.48
34:FB:162:VAL:HG22	34:FB:184:ALA:HB2	1.96	0.48
25:CY:3:ALA:HA	25:CY:6:LEU:CB	2.44	0.48
3:AA:1277:G:C5'	14:AN:20:MET:HE2	2.44	0.48
38:HE:157:ARG:CZ	41:HH:45:PHE:CZ	2.97	0.48
35:DA:264:C:H4'	50:DQ:65:ARG:HD2	1.96	0.48
35:HA:38:G:N2	35:HA:397:A:C4	2.81	0.48
5:AE:32:VAL:HG23	5:AE:178:VAL:HG12	1.95	0.48
35:BA:203:G:N2	35:BA:215:C:C2	2.82	0.48
6:CF:143:ASP:OD1	46:DM:67:GLY:HA3	2.14	0.48
35:BA:1413:A:C2	35:BA:1488:G:C2	3.01	0.48
23:GW:49:ASN:OD1	23:GW:80:SER:HA	2.14	0.48
36:BC:47:LEU:HB3	36:BC:50:ALA:HB3	1.94	0.48
10:GJ:12:LYS:O	10:GJ:13:ARG:HB2	2.13	0.48
3:AA:1348:C:H2'	3:AA:1349:C:H5'	1.96	0.48
35:DA:673:A:H2'	35:DA:674:G:C8	2.49	0.48
3:GA:2056:G:OP2	60:GA:3484:HOH:O	2.20	0.48
3:GA:897:C:H2'	3:GA:898:C:C6	2.49	0.48
3:AA:1069:A:C1'	3:AA:1073:A:H62	2.27	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:1494:G:C6	35:HA:1495:U:C4	3.02	0.48
23:GW:39:GLN:NE2	23:GW:43:LYS:O	2.45	0.48
35:HA:1219:A:H2'	35:HA:1220:G:C8	2.49	0.48
55:BV:93:VAL:HG13	55:BV:94:ASP:N	2.29	0.48
3:GA:1071:G:C8	3:GA:1089:A:C6	3.02	0.48
35:BA:1182:G:H4'	35:BA:1183:U:H5''	1.96	0.48
23:GW:30:VAL:HB	23:GW:59:PHE:HD2	1.79	0.48
44:HK:21:ALA:HA	44:HK:35:THR:CG2	2.44	0.48
3:AA:2346:A:H3'	3:AA:2347:C:H5''	1.95	0.48
23:AW:18:LYS:CG	23:AW:19:ARG:N	2.77	0.48
9:GI:83:ALA:CB	9:GI:105:LEU:HD21	2.43	0.48
28:E1:8:ILE:HG12	28:E1:51:ALA:HA	1.95	0.48
3:AA:1327:A:H2'	3:AA:1328:A:O4'	2.14	0.48
49:HP:18:GLN:NE2	49:HP:35:ARG:NE	2.61	0.48
26:CZ:40:THR:HG23	26:CZ:43:ILE:HG23	1.96	0.48
35:BA:1021:A:C2'	35:BA:1022:A:H5'	2.44	0.48
36:FC:150:LYS:HD3	36:FC:201:TRP:CD2	2.49	0.48
55:BV:4:THR:CG2	55:BV:378:ARG:CZ	2.92	0.48
7:GG:112:VAL:HG23	7:GG:113:ASP:N	2.29	0.48
7:AG:84:LYS:HG3	7:AG:132:LEU:N	2.28	0.48
5:EE:188:MET:HE3	5:EE:196:VAL:HG21	1.96	0.48
42:HI:129:LYS:HG3	42:HI:130:ARG:N	2.29	0.48
44:BK:71:ALA:HB1	44:BK:105:PHE:HE2	1.79	0.48
35:DA:204:G:H3'	35:DA:205:A:H5''	1.96	0.48
3:EA:100:U:C2	3:EA:101:A:N6	2.81	0.48
5:CE:148:ILE:HB	5:CE:169:VAL:HG12	1.95	0.48
41:FH:106:THR:HG21	41:FH:121:LEU:HD22	1.96	0.48
3:AA:1474:U:C2'	3:AA:1475:G:H5'	2.44	0.48
43:BJ:29:ALA:O	43:BJ:33:GLY:N	2.47	0.48
35:BA:411:A:C5	35:BA:429:U:C5	3.02	0.48
5:EE:161:ALA:HA	5:EE:164:LEU:HD23	1.96	0.48
55:DV:33:TYR:CE2	55:DV:276:GLN:HG3	2.49	0.48
32:A5:110:ALA:HB1	32:A5:113:PHE:CE1	2.49	0.48
16:CP:33:GLU:OE2	35:DA:345:C:O3'	2.32	0.48
3:AA:2022:U:OP1	60:AA:3656:HOH:O	2.20	0.48
12:AL:81:ASP:O	12:AL:83:ALA:N	2.41	0.48
21:CU:82:VAL:HG12	21:CU:83:GLY:N	2.28	0.48
35:HA:726:C:O3'	35:HA:742:G:N2	2.41	0.48
34:FB:9:LEU:HD23	34:FB:9:LEU:O	2.13	0.48
3:GA:2204:G:C5	3:GA:2221:G:C2	3.02	0.48
9:AI:40:ALA:O	9:AI:43:ALA:HB3	2.14	0.48
37:BD:4:TYR:CZ	37:BD:11:LEU:HD11	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:6:G:O6	38:HE:99:ALA:HB1	2.13	0.48
36:HC:147:LYS:HB2	36:HC:203:PHE:CE2	2.49	0.48
44:HK:33:THR:HA	44:HK:44:TRP:HD1	1.79	0.48
35:BA:1314:C:H41	52:BS:4:SER:HA	1.79	0.48
35:HA:328:C:H4'	35:HA:329:A:H5''	1.94	0.48
52:HS:47:LEU:HB2	52:HS:62:VAL:HG21	1.96	0.48
18:CR:64:VAL:O	18:CR:65:ALA:HB3	2.14	0.48
3:EA:2287:A:C4	3:EA:2289:G:N7	2.82	0.48
3:EA:1093:G:O2'	3:EA:1098:A:N6	2.44	0.48
39:FF:64:VAL:HG12	39:FF:65:GLU:N	2.29	0.48
7:AG:30:GLY:O	7:AG:32:LEU:N	2.38	0.48
3:GA:163:C:O2'	3:GA:164:C:O5'	2.30	0.48
50:HQ:28:PHE:O	50:HQ:29:VAL:HG13	2.14	0.48
13:CM:2:LEU:CD1	13:CM:69:PRO:HD2	2.44	0.48
35:HA:1347:G:N7	42:HI:13:LYS:HE3	2.28	0.48
10:AJ:44:TYR:CD1	17:AQ:63:ARG:HG2	2.49	0.47
3:CA:2146:C:P	3:GA:2146:C:H42	2.37	0.47
35:DA:21:G:H2'	35:DA:22:G:C8	2.49	0.47
22:GV:14:LYS:HE3	22:GV:18:ARG:NH2	2.29	0.47
3:GA:648:G:H5'	3:GA:2352:A:H5'	1.96	0.47
32:A5:15:VAL:HG22	32:A5:66:GLY:CA	2.44	0.47
3:GA:297:G:H2'	3:GA:298:G:O4'	2.13	0.47
3:EA:846:U:O2'	3:EA:847:U:P	2.72	0.47
3:GA:619:G:P	3:GA:620:G:H22	2.36	0.47
54:FU:4:ILE:N	54:FU:19:PHE:CE1	2.81	0.47
35:DA:587:G:N2	35:DA:755:G:C5	2.82	0.47
3:CA:1059:G:N2	9:CI:127:SER:O	2.44	0.47
3:CA:1789:A:OP1	60:CA:3768:HOH:O	2.20	0.47
35:HA:1095:U:H2'	35:HA:1096:C:O4'	2.14	0.47
23:AW:47:GLY:H	23:AW:80:SER:HB3	1.79	0.47
3:AA:391:A:C5	3:AA:411:G:C2	3.02	0.47
3:AA:748:G:OP1	19:AS:88:ARG:NH2	2.45	0.47
45:FL:82:ILE:HD11	45:FL:95:TYR:HB2	1.95	0.47
3:CA:27:G:N2	3:CA:512:G:H1'	2.29	0.47
9:AI:60:VAL:HG22	9:AI:66:PHE:HB3	1.95	0.47
3:EA:545:U:H2'	3:EA:546:U:O3'	2.14	0.47
3:CA:2522:U:O2'	3:CA:2647:U:OP1	2.17	0.47
14:AN:12:ARG:CZ	14:AN:20:MET:HE1	2.43	0.47
32:A5:110:ALA:HB1	32:A5:113:PHE:CZ	2.49	0.47
35:FA:41:G:H2'	35:FA:42:G:C8	2.49	0.47
3:GA:557:C:C2	3:GA:558:U:C5	3.02	0.47
3:CA:1031:G:H4'	31:C4:6:SER:HB2	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:134:GLN:O	6:AF:136:ILE:N	2.47	0.47
3:GA:1482:G:C8	3:GA:1483:G:C8	3.02	0.47
35:BA:471:U:H2'	35:BA:472:U:H6	1.79	0.47
35:HA:1107:C:C4	35:HA:1108:G:N7	2.82	0.47
4:ED:49:GLN:NE2	4:ED:79:LEU:HD13	2.29	0.47
19:AS:24:ILE:HD11	19:AS:36:LEU:HD13	1.96	0.47
3:CA:191:A:O2'	3:CA:678:C:O2	2.31	0.47
11:GK:108:ARG:HD2	11:GK:116:ILE:HD13	1.95	0.47
3:CA:682:G:H5'	29:C2:26:ASN:ND2	2.29	0.47
7:GG:22:VAL:HG12	7:GG:36:LEU:HD11	1.96	0.47
35:FA:461:A:N3	35:FA:461:A:H3'	2.29	0.47
3:AA:1607:C:H4'	3:AA:1608:A:O5'	2.13	0.47
35:HA:1492:A:C6	35:HA:1493:A:C6	3.02	0.47
36:FC:156:ARG:H	36:FC:163:ALA:HA	1.78	0.47
26:GZ:29:ARG:HB3	26:GZ:30:ARG:HH21	1.78	0.47
3:GA:1913:A:C5	55:HV:507:LYS:NZ	2.82	0.47
4:GD:186:LEU:HD11	16:GP:3:ILE:CD1	2.44	0.47
1:CB:116:G:C4'	15:CO:54:VAL:HG22	2.43	0.47
35:DA:158:G:H2'	35:DA:159:G:C5'	2.45	0.47
3:CA:1378:A:C4	3:CA:1380:G:N7	2.83	0.47
3:GA:265:A:H4'	3:GA:266:G:OP1	2.12	0.47
9:GI:78:LEU:CD1	9:GI:128:ILE:HG23	2.44	0.47
1:GB:20:G:C2	1:GB:64:G:C2	3.01	0.47
55:HV:353:VAL:HG21	55:HV:408:ARG:HH11	1.79	0.47
51:BR:71:THR:HG23	51:BR:74:HIS:H	1.79	0.47
3:GA:1779:U:H5	3:GA:1784:A:N7	2.12	0.47
10:GJ:73:VAL:HG23	10:GJ:74:TYR:H	1.78	0.47
3:AA:1778:U:H2'	3:AA:1784:A:H62	1.78	0.47
47:FN:45:VAL:HG23	47:FN:46:LEU:H	1.79	0.47
16:GP:38:ARG:NH1	35:HA:346:G:H4'	2.29	0.47
6:CF:116:LEU:HD23	6:CF:175:PRO:HB2	1.96	0.47
17:CQ:4:LYS:HG3	17:CQ:5:ARG:H	1.79	0.47
3:EA:653:U:H3'	3:EA:654:A:C5'	2.44	0.47
3:CA:1838:C:H4'	3:CA:1839:G:C8	2.48	0.47
34:BB:163:ILE:HG23	34:BB:164:ASP:H	1.77	0.47
52:FS:36:ARG:NH2	52:FS:75:ALA:O	2.47	0.47
39:FF:55:HIS:N	39:FF:55:HIS:ND1	2.62	0.47
3:EA:1301:A:C8	3:EA:1303:G:C8	3.02	0.47
42:HI:33:ARG:HB3	42:HI:37:GLN:HB2	1.95	0.47
19:AS:24:ILE:HG22	19:AS:71:VAL:HG11	1.95	0.47
11:GK:108:ARG:NH1	11:GK:113:MET:SD	2.88	0.47
3:GA:444:C:O2'	5:GE:44:ARG:HD3	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:28:PHE:N	13:CM:104:GLU:OE2	2.46	0.47
3:CA:222:A:N6	3:CA:231:A:C2	2.82	0.47
3:CA:792:A:C6	3:CA:2440:C:C6	3.02	0.47
3:AA:630:G:N2	3:AA:633:A:OP2	2.37	0.47
55:FV:164:ALA:HB1	55:FV:262:ILE:CD1	2.44	0.47
40:HG:4:ARG:HG3	40:HG:5:ARG:N	2.29	0.47
55:HV:221:ASN:HA	55:HV:224:GLU:HB3	1.96	0.47
3:AA:555:G:O2'	3:AA:556:A:OP2	2.31	0.47
3:CA:255:A:H2'	3:CA:256:A:O4'	2.14	0.47
3:GA:2821:A:H2'	3:GA:2822:G:O4'	2.14	0.47
3:EA:226:A:C6	3:EA:227:A:C6	3.02	0.47
44:DK:58:SER:O	44:DK:91:PRO:HG2	2.13	0.47
55:FV:345:SER:N	55:FV:375:LYS:O	2.47	0.47
2:CC:142:ASN:HA	2:CC:153:LEU:O	2.14	0.47
15:CO:75:GLY:HA2	15:CO:106:LEU:HD13	1.95	0.47
35:DA:250:A:H4'	35:DA:251:G:O5'	2.15	0.47
18:CR:46:GLU:N	18:CR:46:GLU:OE1	2.42	0.47
34:HB:46:VAL:HB	34:HB:47:PRO:HD3	1.96	0.47
45:FL:116:LYS:C	45:FL:117:TYR:HD1	2.17	0.47
3:GA:217:A:H2'	3:GA:218:A:O4'	2.14	0.47
38:DE:82:GLN:HG2	38:DE:150:PRO:HD3	1.95	0.47
23:GW:45:HIS:HB2	23:GW:50:VAL:HA	1.94	0.47
3:CA:2134:A:H5"	3:CA:2135:A:C8	2.49	0.47
55:BV:658:VAL:CG2	55:BV:663:MET:SD	3.03	0.47
3:EA:1450:G:C6	3:EA:1451:C:N4	2.82	0.47
3:EA:1831:G:H2'	3:EA:1832:C:C6	2.49	0.47
52:DS:42:PRO:HA	52:DS:67:VAL:HG13	1.96	0.47
37:DD:140:ASN:N	37:DD:182:PHE:O	2.45	0.47
1:CB:74:U:O2	22:CV:29:ILE:HD13	2.14	0.47
32:A5:23:LEU:H	32:A5:87:GLU:HB2	1.80	0.47
37:HD:32:CYS:SG	37:HD:33:LYS:N	2.88	0.47
3:GA:1197:G:H2'	3:GA:1198:U:H6	1.77	0.47
3:GA:811:U:OP2	12:GL:29:LYS:N	2.44	0.47
35:HA:363:A:P	45:HL:58:THR:HG21	2.53	0.47
35:HA:1375:A:C2	35:HA:1376:U:C2	3.02	0.47
3:GA:1095:A:H1'	55:HV:632:ILE:HG13	1.97	0.47
7:CG:84:LYS:NZ	7:CG:133:LYS:HG2	2.29	0.47
3:AA:999:U:OP2	60:AA:3355:HOH:O	2.20	0.47
7:GG:6:ALA:HB1	7:GG:7:PRO:HD2	1.96	0.47
45:BL:24:LEU:HB2	45:BL:59:ASN:ND2	2.29	0.47
35:FA:723:U:O2'	35:FA:724:G:P	2.73	0.47
3:GA:952:G:C6	3:GA:966:G:C6	3.01	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:FP:6:LEU:CD1	49:FP:17:TYR:HB3	2.44	0.47
37:BD:197:GLU:O	37:BD:200:ILE:N	2.47	0.47
40:DG:103:TRP:CH2	40:DG:141:VAL:HG21	2.48	0.47
35:HA:459:A:H2'	35:HA:460:A:H5'	1.96	0.47
3:GA:1039:A:C6	3:GA:1040:A:C5	3.03	0.47
3:CA:2093:G:O2'	3:CA:2198:A:N1	2.34	0.47
35:BA:1067:A:N1	35:BA:1108:G:O2'	2.39	0.47
3:EA:478:A:C6	3:EA:480:A:C6	3.02	0.47
3:GA:563:A:C6	3:GA:2018:G:C5	3.02	0.47
3:CA:1883:U:O4	3:CA:1884:G:N1	2.47	0.47
55:FV:616:ILE:HA	55:FV:659:PRO:HA	1.96	0.47
3:GA:182:A:C2	3:GA:183:C:C2	3.02	0.47
3:CA:2539:C:C4	3:CA:2540:C:C5	3.01	0.47
55:BV:309:ARG:NH2	55:BV:402:ALA:O	2.48	0.47
41:HH:41:LYS:HD2	41:HH:48:ASP:HB2	1.96	0.47
12:AL:82:LEU:CD1	12:AL:116:VAL:HG23	2.44	0.47
3:AA:2862:G:C5	3:AA:2863:C:C5	3.02	0.47
19:CS:15:GLN:O	19:CS:19:LEU:HD13	2.14	0.47
35:DA:1241:G:C2	35:DA:1242:G:N7	2.82	0.47
2:GC:42:ARG:NH2	2:GC:48:ILE:HD11	2.28	0.47
3:AA:1760:C:H2'	3:AA:1761:C:O4'	2.14	0.47
38:DE:122:ASN:OD1	38:DE:122:ASN:N	2.46	0.47
21:EU:82:VAL:HG12	21:EU:83:GLY:N	2.29	0.47
36:FC:53:SER:HB2	36:FC:115:LEU:HG	1.95	0.47
34:BB:46:VAL:HB	34:BB:47:PRO:HD3	1.96	0.47
3:AA:1031:G:H4'	31:A4:6:SER:HB2	1.95	0.47
36:DC:150:LYS:HG3	36:DC:201:TRP:CE3	2.49	0.47
17:CQ:81:GLY:O	17:CQ:85:ALA:N	2.44	0.47
32:A5:88:HIS:CB	32:A5:89:PRO:HD3	2.44	0.47
50:DQ:11:ARG:HA	50:DQ:58:VAL:HA	1.97	0.47
6:AF:5:ASP:OD1	6:AF:8:LYS:NZ	2.46	0.47
35:BA:1303:C:OP1	60:BA:1794:HOH:O	2.19	0.47
13:AM:106:ASP:O	13:AM:108:VAL:N	2.44	0.47
37:FD:105:MET:SD	37:FD:143:VAL:CG1	3.03	0.47
12:GL:88:GLY:O	12:GL:120:VAL:HG13	2.13	0.47
34:BB:20:ARG:NH1	34:BB:20:ARG:HA	2.29	0.47
32:C5:7:ASP:OD1	32:C5:7:ASP:N	2.47	0.47
35:BA:1048:G:H5''	47:BN:3:LYS:HG3	1.96	0.47
40:DG:109:ARG:O	40:DG:119:ARG:NH2	2.40	0.47
32:C5:59:LEU:HD23	32:C5:62:ARG:HE	1.79	0.47
35:HA:1405:G:H1	35:HA:1496:C:H5	1.61	0.47
3:GA:1190:G:H2'	3:GA:1191:G:C8	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1095:A:H1'	55:HV:632:ILE:CB	2.44	0.47
45:FL:4:VAL:HG23	50:FQ:36:LYS:CE	2.44	0.47
9:GI:75:ALA:HA	9:GI:112:LYS:HE2	1.96	0.47
3:GA:2212:A:C2	3:GA:2214:C:N4	2.82	0.47
44:DK:22:HIS:CD2	44:DK:35:THR:HG22	2.49	0.47
3:CA:780:G:H2'	3:CA:782:A:N7	2.30	0.47
3:EA:555:G:HO2'	3:EA:556:A:P	2.34	0.47
42:FI:129:LYS:HG3	42:FI:130:ARG:HG2	1.95	0.47
3:AA:2335:A:C5	3:AA:2337:G:C4	3.02	0.47
35:FA:875:U:C4	35:FA:876:C:C5	3.02	0.47
50:DQ:33:ILE:HB	50:DQ:34:TYR:CD2	2.50	0.47
44:BK:35:THR:OG1	44:BK:40:ASN:N	2.47	0.47
24:EX:69:GLU:O	24:EX:70:LEU:HB3	2.14	0.47
3:GA:783:A:H8	3:GA:784:G:H5''	1.78	0.47
5:GE:28:VAL:HG23	5:GE:32:VAL:HG13	1.97	0.47
36:BC:131:ARG:NH2	36:BC:166:GLU:OE2	2.47	0.47
35:DA:982:U:H4'	35:DA:983:A:O5'	2.14	0.47
18:GR:68:ARG:HD3	18:GR:92:TRP:CE2	2.49	0.47
3:AA:995:C:N4	10:AJ:2:LYS:HB3	2.29	0.47
5:CE:46:GLN:HG3	5:CE:87:ALA:HB3	1.97	0.47
51:BR:23:TYR:CE1	51:BR:24:LYS:HG3	2.49	0.47
28:A1:16:THR:HG21	28:A1:41:VAL:HG13	1.97	0.47
32:A5:100:ALA:HB2	32:A5:125:ARG:HE	1.79	0.47
24:CX:53:LYS:HA	24:CX:56:ARG:HG3	1.96	0.47
14:CN:103:ARG:HD3	14:CN:110:MET:HE3	1.97	0.47
4:ED:99:GLU:HG3	4:ED:100:LEU:N	2.30	0.47
55:BV:151:PHE:CE1	55:BV:266:CYS:HB3	2.50	0.47
3:AA:2839:G:N2	3:AA:2880:C:C4	2.82	0.47
52:DS:11:ILE:HD12	52:DS:16:LEU:HD13	1.96	0.47
37:BD:174:ASP:OD1	37:BD:176:GLY:N	2.48	0.47
3:GA:84:A:H62	3:GA:101:A:H2	1.63	0.47
3:CA:1747:U:H2'	3:CA:1748:C:C6	2.49	0.47
55:DV:256:VAL:O	55:DV:259:ASN:N	2.45	0.47
3:AA:1992:G:OP1	60:AA:3419:HOH:O	2.20	0.47
32:E5:73:LYS:HB2	32:E5:117:LEU:HD21	1.97	0.47
3:GA:1195:G:H2'	3:GA:1196:C:H6	1.79	0.47
3:CA:1509:A:C4	3:CA:1510:G:C8	3.03	0.47
23:CW:37:VAL:HG11	23:CW:55:ASP:HB2	1.96	0.47
3:GA:1071:G:C8	3:GA:1089:A:N1	2.82	0.47
6:GF:142:TYR:CE2	46:HM:75:MET:HG2	2.49	0.47
16:EP:50:ARG:O	16:EP:51:ASN:HB2	2.15	0.47
55:FV:224:GLU:HG3	55:FV:237:TYR:CE2	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:HI:94:LEU:HD12	42:HI:95:ARG:N	2.29	0.47
39:HF:90:MET:HG2	39:HF:91:ARG:N	2.29	0.47
3:AA:1010:A:OP2	60:AA:3766:HOH:O	2.20	0.47
3:AA:587:C:P	12:AL:21:ARG:NH1	2.88	0.47
3:GA:1178:C:N4	3:GA:1179:G:O6	2.48	0.47
23:GW:18:LYS:HD2	23:GW:36:ILE:HD11	1.95	0.47
3:CA:1178:C:H3'	3:CA:1179:G:H8	1.79	0.47
2:AC:84:PRO:HG3	3:AA:1567:G:H2'	1.95	0.47
3:GA:1252:G:O2'	3:GA:1253:A:C8	2.68	0.47
23:CW:30:VAL:HA	23:CW:60:ALA:HB3	1.94	0.47
55:DV:75:MET:SD	55:DV:202:PHE:CZ	3.08	0.47
18:ER:49:ILE:HD12	18:ER:53:PHE:H	1.78	0.47
3:CA:545:U:H3'	3:CA:546:U:H4'	1.96	0.47
2:GC:57:HIS:CD2	2:GC:58:LYS:H	2.33	0.47
3:CA:855:G:H21	23:CW:23:LYS:HG2	1.79	0.47
11:CK:19:VAL:HG23	11:CK:43:ILE:HA	1.96	0.47
35:BA:982:U:H4'	35:BA:983:A:C5'	2.44	0.47
35:BA:982:U:C5	35:BA:983:A:N6	2.83	0.47
14:CN:37:THR:HG22	14:CN:110:MET:HE1	1.97	0.47
26:AZ:48:ASN:O	26:AZ:51:SER:OG	2.27	0.47
35:DA:714:G:N3	35:DA:777:A:H1'	2.30	0.47
3:AA:1817:G:H2'	3:AA:1818:U:H5'	1.97	0.47
13:EM:35:ALA:HB2	13:EM:102:LEU:HD21	1.96	0.47
35:DA:35:G:O2'	45:DL:115:SER:O	2.29	0.47
32:A5:123:ILE:HG12	32:A5:124:ASP:N	2.30	0.47
5:EE:175:ILE:HD11	5:EE:180:LEU:HD21	1.96	0.47
5:CE:23:PHE:CE1	12:CL:2:ARG:NH2	2.83	0.47
55:FV:365:GLN:HB2	55:FV:374:ILE:HD11	1.96	0.47
18:AR:68:ARG:HD3	18:AR:92:TRP:CZ2	2.49	0.47
35:FA:126:G:OP1	35:FA:605:U:O2'	2.29	0.47
3:CA:2758:A:H2'	3:CA:2759:G:H5'	1.96	0.47
55:BV:493:THR:HG22	55:BV:613:LEU:HD21	1.97	0.47
19:AS:63:GLY:O	19:AS:64:ALA:CB	2.62	0.47
3:AA:2793:C:H2'	3:AA:2794:C:C6	2.50	0.47
3:GA:2423:U:O2'	3:GA:2424:C:OP2	2.30	0.47
3:CA:1370:C:H2'	3:CA:1371:G:O4'	2.15	0.47
45:FL:76:GLU:HG3	55:FV:454:ASN:CB	2.45	0.47
20:CT:35:ALA:HB3	20:CT:38:ALA:HB2	1.96	0.47
10:EJ:12:LYS:O	10:EJ:13:ARG:CB	2.63	0.47
35:FA:893:C:C4	35:FA:894:G:N7	2.82	0.47
53:HT:25:ARG:NH1	53:HT:66:LEU:HD11	2.30	0.47
16:GP:47:ILE:HA	16:GP:96:LEU:HB2	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:GK:80:ASP:HB2	16:GP:67:GLU:HG3	1.96	0.47
3:GA:1860:G:N2	3:GA:1882:U:O2	2.38	0.47
24:AX:39:VAL:HG22	24:AX:44:ARG:O	2.14	0.47
3:CA:1392:A:C6	3:CA:1393:A:C6	3.02	0.47
3:GA:132:G:N2	3:GA:148:U:C2	2.82	0.47
55:DV:119:VAL:HB	55:DV:161:ARG:HD2	1.96	0.47
38:DE:134:ILE:HD12	38:DE:134:ILE:H	1.79	0.47
3:CA:2326:C:H3'	3:CA:2326:C:C6	2.49	0.47
9:GI:16:MET:HB3	9:GI:19:PRO:HG3	1.97	0.47
14:AN:103:ARG:HD3	14:AN:110:MET:HE3	1.95	0.47
41:FH:3:MET:CE	41:FH:6:PRO:HA	2.44	0.47
32:C5:15:VAL:HG22	32:C5:66:GLY:HA3	1.96	0.47
10:EJ:3:THR:HB	10:EJ:44:TYR:OH	2.15	0.47
3:EA:892:A:H2'	3:EA:893:C:C5	2.50	0.47
3:GA:571:U:C5	3:GA:575:A:C6	3.02	0.47
35:BA:1028:C:N4	35:BA:1034:G:C2	2.82	0.47
3:AA:1509:A:HO2'	3:AA:1510:G:P	2.35	0.47
45:FL:5:ASN:HB2	50:FQ:36:LYS:HE3	1.97	0.47
14:GN:58:ASP:OD1	14:GN:59:SER:N	2.48	0.47
35:FA:401:C:OP2	37:FD:70:ARG:HD3	2.13	0.47
9:AI:100:ILE:HD13	9:AI:137:LEU:HD12	1.96	0.47
30:G3:50:SER:O	30:G3:54:LEU:HD13	2.14	0.47
27:A0:42:ILE:HD12	27:A0:42:ILE:H	1.80	0.47
23:AW:18:LYS:HA	23:AW:36:ILE:HG13	1.95	0.47
3:GA:1139:G:P	10:GJ:72:LYS:NZ	2.88	0.47
35:FA:1181:G:O2'	35:FA:1182:G:N7	2.48	0.47
2:EC:16:VAL:HB	2:EC:203:VAL:HG12	1.97	0.47
34:FB:57:ASN:HB2	34:FB:219:THR:CG2	2.45	0.47
55:BV:79:TYR:CD2	55:BV:283:ILE:HD11	2.50	0.47
39:FF:97:THR:O	39:FF:98:GLU:HG2	2.14	0.47
37:BD:150:LYS:O	37:BD:152:GLN:NE2	2.47	0.47
35:DA:1118:U:H5'	42:DI:106:ARG:HD2	1.95	0.47
4:GD:142:VAL:HB	4:GD:143:PRO:CD	2.44	0.47
3:GA:557:C:H2'	3:GA:558:U:C6	2.49	0.47
3:CA:1124:G:H1'	31:C4:38:GLY:OXT	2.14	0.47
3:GA:181:A:H2'	3:GA:182:A:C8	2.50	0.47
3:AA:725:G:C6	3:AA:726:G:N1	2.82	0.47
4:CD:110:THR:HG23	4:CD:171:THR:HG22	1.96	0.47
35:DA:401:C:OP2	37:DD:70:ARG:HD3	2.14	0.47
9:EI:85:ILE:HD13	9:EI:98:GLY:CA	2.44	0.47
37:HD:91:LEU:HA	37:HD:94:LEU:HB2	1.96	0.47
3:AA:2678:C:H2'	3:AA:2679:A:O4'	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1656:C:OP1	4:GD:141:ARG:NH1	2.39	0.47
3:GA:1151:A:OP1	60:GA:3356:HOH:O	2.20	0.47
3:EA:415:A:C2	3:EA:2409:G:C2	3.03	0.47
41:HH:77:ARG:NE	41:HH:79:SER:O	2.47	0.47
3:EA:1607:C:H4'	3:EA:1608:A:O5'	2.14	0.47
35:HA:1198:G:N2	43:HJ:55:PRO:HG2	2.29	0.47
50:BQ:76:VAL:HG23	50:BQ:77:ARG:H	1.79	0.47
37:FD:100:ASN:OD1	37:FD:111:ARG:NH1	2.34	0.47
42:DI:39:PHE:O	42:DI:41:ARG:N	2.47	0.47
13:AM:22:GLN:O	13:AM:24:THR:N	2.48	0.47
3:CA:571:U:C4	3:CA:2030:A:C6	3.03	0.47
35:DA:1287:A:C6	35:DA:1288:A:C6	3.02	0.47
55:BV:557:ILE:HG21	55:BV:576:ILE:HD12	1.97	0.47
35:FA:521:G:C2	35:FA:522:C:C6	3.03	0.47
3:AA:2902:C:C2'	3:AA:2903:U:O5'	2.63	0.47
17:GQ:35:PHE:CE1	17:GQ:39:ILE:HD11	2.50	0.47
2:EC:28:PRO:HG2	2:EC:33:LEU:HD11	1.96	0.47
9:AI:19:PRO:CG	9:AI:23:VAL:HG23	2.45	0.47
2:AC:232:GLY:H	2:AC:241:LYS:HE3	1.79	0.47
10:CJ:43:GLU:O	10:CJ:44:TYR:C	2.53	0.47
3:CA:983:A:N6	3:CA:984:A:C2	2.82	0.47
3:GA:586:A:N1	3:GA:809:G:O2'	2.32	0.47
3:AA:996:A:H4'	17:AQ:91:ARG:NE	2.29	0.47
32:C5:60:LEU:O	32:C5:64:VAL:HB	2.14	0.47
3:GA:954:G:H4'	13:GM:13:HIS:CE1	2.50	0.47
3:GA:2502:G:H5'	3:GA:2503:A:H5''	1.97	0.47
3:GA:1022:G:C5	3:GA:1140:C:N4	2.83	0.47
37:DD:30:THR:HG22	37:DD:31:LYS:H	1.79	0.47
18:GR:83:TYR:C	18:GR:83:TYR:HD1	2.18	0.47
35:HA:1025:U:H5''	35:HA:1026:G:H5'	1.97	0.47
3:GA:629:G:H5''	3:GA:650:C:O2'	2.14	0.47
55:HV:93:VAL:HG11	55:HV:671:ARG:NH2	2.29	0.47
56:DW:5:UAL:O	56:DW:6:5OH:NP	2.47	0.47
37:HD:26:ARG:HH11	37:HD:31:LYS:HE2	1.79	0.47
7:AG:22:VAL:HG23	7:AG:22:VAL:O	2.14	0.47
3:GA:1060:U:OP1	9:GI:75:ALA:HB2	2.15	0.47
3:GA:2211:A:H5''	3:GA:2211:A:N3	2.30	0.47
35:DA:976:G:H2'	35:DA:1362:A:C2	2.48	0.47
3:CA:684:G:C2	3:CA:794:A:C2	3.03	0.47
3:GA:1181:U:H2'	3:GA:1182:G:H8	1.79	0.47
34:BB:56:LEU:HD23	34:BB:220:VAL:CG1	2.44	0.47
35:HA:111:G:C6	35:HA:330:C:N4	2.83	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:HV:185:LEU:HB2	55:HV:188:MET:HE1	1.96	0.47
36:HC:106:VAL:HG23	36:HC:106:VAL:O	2.15	0.47
3:CA:1182:G:H2'	3:CA:1183:U:O4'	2.15	0.47
55:BV:453:SER:O	55:BV:455:GLN:N	2.48	0.47
46:HM:3:ARG:HA	46:HM:10:PRO:CD	2.45	0.47
38:HE:111:MET:CE	38:HE:125:ALA:HB1	2.44	0.47
3:GA:126:A:C4	29:G2:18:PHE:CD2	3.02	0.47
3:GA:644:A:H2'	3:GA:645:C:O4'	2.15	0.47
31:G4:36:ARG:CG	31:G4:37:GLN:N	2.78	0.47
3:GA:1930:G:O2'	3:GA:1968:G:N1	2.47	0.47
3:GA:2526:G:C6	3:GA:2527:C:C4	3.03	0.47
43:BJ:57:VAL:HG12	43:BJ:58:ASN:N	2.28	0.47
3:CA:1654:A:H2'	3:CA:1655:A:H8	1.79	0.47
3:GA:2800:A:H3'	3:GA:2801:G:H5''	1.96	0.47
35:FA:16:A:C6	35:FA:17:U:C5	3.03	0.47
50:HQ:27:ARG:HG2	50:HQ:40:ARG:O	2.14	0.47
3:CA:118:A:OP2	60:CA:3804:HOH:O	2.20	0.47
35:HA:1216:A:H2'	35:HA:1217:C:C6	2.50	0.47
22:AV:80:HIS:HD2	22:AV:83:LYS:H	1.62	0.47
3:CA:2006:C:N4	60:CA:3779:HOH:O	2.47	0.47
43:DJ:32:THR:HG23	43:DJ:83:THR:HA	1.96	0.47
3:CA:2880:C:O2'	14:CN:92:GLY:O	2.24	0.47
14:CN:94:TYR:CD1	14:CN:94:TYR:N	2.83	0.47
3:GA:2199:A:H3'	3:GA:2200:C:C6	2.50	0.47
47:BN:21:PHE:HA	47:BN:25:ALA:HB3	1.95	0.47
9:GI:11:GLN:NE2	9:GI:55:PRO:HA	2.29	0.47
38:HE:104:GLY:HA2	38:HE:122:ASN:HA	1.97	0.47
32:E5:88:HIS:HB3	32:E5:89:PRO:HD3	1.96	0.47
4:ED:91:THR:O	4:ED:92:VAL:C	2.52	0.47
3:AA:747:U:C2'	19:AS:88:ARG:NH2	2.78	0.47
35:DA:872:A:C5	35:DA:874:G:C8	3.02	0.47
7:GG:84:LYS:HG2	7:GG:85:LYS:N	2.30	0.47
4:CD:178:VAL:N	4:CD:188:LEU:O	2.45	0.47
3:EA:929:U:H4'	26:EZ:37:ARG:HH12	1.80	0.47
3:CA:2547:A:C8	3:CA:2566:A:C8	3.03	0.47
3:EA:1198:U:O3'	17:EQ:4:LYS:HE3	2.15	0.47
9:AI:14:ALA:HB1	9:AI:45:THR:HG23	1.97	0.47
35:DA:1225:A:C2	35:DA:1226:C:C4	3.02	0.47
35:DA:957:U:H1'	35:DA:960:U:C4	2.50	0.47
35:DA:264:C:N4	35:DA:265:G:C6	2.82	0.47
51:BR:22:ASP:OD1	51:BR:24:LYS:NZ	2.45	0.47
21:CU:64:ILE:HG12	21:CU:65:GLN:N	2.30	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:E5:142:THR:OG1	32:E5:143:MET:N	2.48	0.47
3:AA:1814:G:C6	3:AA:1815:A:N6	2.82	0.47
39:HF:73:GLU:O	39:HF:76:THR:OG1	2.29	0.47
1:AB:29:A:H2'	1:AB:30:C:C6	2.50	0.47
55:BV:698:VAL:O	55:BV:699:ILE:HD12	2.15	0.47
11:EK:98:ARG:HA	11:EK:118:LEU:CD2	2.45	0.47
35:FA:175:C:O2'	35:FA:1447:A:N1	2.45	0.47
3:GA:2687:U:H2'	3:GA:2688:G:O4'	2.14	0.47
7:EG:162:ARG:CZ	7:EG:168:VAL:HG21	2.45	0.47
46:DM:78:LYS:O	46:DM:82:ASP:N	2.47	0.47
3:AA:1090:A:C2	3:AA:1102:C:H1'	2.50	0.47
4:AD:174:SER:OG	4:AD:175:LEU:N	2.46	0.47
3:CA:907:G:C6	3:CA:908:C:C4	3.03	0.47
21:EU:1:ALA:HB1	21:EU:84:PHE:CE2	2.49	0.47
35:DA:1356:G:H2'	35:DA:1357:A:C8	2.50	0.47
55:FV:105:VAL:HG23	55:FV:106:LEU:N	2.30	0.47
35:FA:972:C:P	43:FJ:59:LYS:HD3	2.55	0.47
35:FA:1142:G:C6	35:FA:1143:G:H1'	2.50	0.47
34:BB:9:LEU:HD23	34:BB:9:LEU:O	2.15	0.47
41:BH:11:LEU:CD2	41:BH:75:ILE:HD11	2.45	0.47
3:GA:2455:G:C6	3:GA:2456:C:N4	2.82	0.47
5:CE:154:ASP:OD1	5:CE:154:ASP:N	2.47	0.47
35:DA:207:C:H2'	35:DA:208:U:C5	2.50	0.47
3:GA:175:G:H2'	3:GA:176:A:O4'	2.15	0.47
16:GP:102:ARG:O	16:GP:103:THR:HG22	2.15	0.47
34:BB:90:PHE:CD1	34:BB:149:GLY:HA3	2.50	0.47
35:DA:972:C:P	43:DJ:59:LYS:HD3	2.55	0.47
35:HA:1258:G:H2'	35:HA:1259:C:C6	2.50	0.47
48:DO:29:VAL:HG12	48:DO:85:LEU:CD2	2.44	0.47
3:AA:451:U:C2	3:AA:453:A:N7	2.83	0.47
42:FI:114:LYS:NZ	42:FI:118:LEU:O	2.44	0.47
41:FH:80:ARG:CZ	41:FH:83:LEU:HD13	2.44	0.47
50:DQ:14:SER:HB3	50:DQ:22:VAL:CG1	2.45	0.47
7:AG:123:GLU:HG2	7:AG:124:CYS:N	2.30	0.47
3:EA:2053:G:H1	3:EA:2616:C:H42	1.62	0.47
34:HB:100:LEU:HB3	34:HB:174:GLU:CG	2.45	0.47
23:EW:46:ALA:HB3	23:EW:79:ILE:O	2.14	0.47
3:AA:2889:C:N4	3:AA:2890:G:C6	2.83	0.47
5:GE:178:VAL:O	5:GE:182:ALA:N	2.47	0.47
3:EA:511:U:OP2	60:EA:3761:HOH:O	2.20	0.47
3:CA:2854:G:C6	3:CA:2855:C:C4	3.02	0.47
43:BJ:6:ILE:HB	43:BJ:76:ILE:HB	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:FP:22:ALA:HA	49:FP:33:ILE:HG13	1.95	0.47
3:CA:1486:U:H2'	3:CA:1487:U:C6	2.50	0.47
3:GA:1794:A:H2'	3:GA:1795:C:C6	2.50	0.47
29:C2:44:VAL:O	29:C2:44:VAL:HG12	2.15	0.47
3:GA:12:U:H2'	3:GA:12:U:O2	2.15	0.47
18:ER:64:VAL:N	18:ER:95:ASP:O	2.44	0.47
32:E5:59:LEU:HD23	32:E5:62:ARG:NE	2.30	0.47
10:EJ:44:TYR:HA	17:EQ:59:LEU:CD2	2.44	0.47
3:GA:2276:G:N3	3:GA:2277:G:C8	2.83	0.47
35:DA:481:G:H5''	35:DA:481:G:C8	2.50	0.47
42:DI:49:ARG:O	42:DI:52:LEU:N	2.47	0.47
35:HA:374:A:H5''	35:HA:452:A:C2	2.49	0.47
35:HA:716:A:C6	35:HA:717:U:N3	2.83	0.47
3:EA:855:G:N3	23:EW:23:LYS:HE3	2.29	0.47
3:AA:947:A:O2'	3:AA:984:A:H2	1.98	0.47
23:GW:33:GLY:O	23:GW:34:SER:HB3	2.15	0.47
44:DK:128:ARG:CG	54:DU:34:ARG:NH2	2.77	0.47
3:CA:780:G:H21	3:CA:783:A:H62	1.63	0.47
23:GW:17:ALA:O	23:GW:18:LYS:HB2	2.15	0.47
9:GI:83:ALA:HB2	9:GI:105:LEU:CD2	2.45	0.47
3:AA:479:A:H4'	3:AA:480:A:OP1	2.15	0.47
3:AA:478:A:C6	3:AA:480:A:C6	3.03	0.47
32:C5:88:HIS:CB	32:C5:89:PRO:HD3	2.43	0.47
53:BT:3:ASN:C	53:BT:5:LYS:H	2.17	0.47
19:GS:13:SER:O	19:GS:14:ALA:CB	2.63	0.47
3:CA:635:C:O2'	3:CA:639:U:OP1	2.33	0.47
15:EO:34:HIS:CD2	15:EO:54:VAL:HG23	2.50	0.47
3:CA:118:A:C8	3:CA:119:A:C8	3.03	0.47
4:ED:73:VAL:HG23	4:ED:74:GLU:H	1.80	0.47
45:BL:99:ARG:HB2	45:BL:117:TYR:HA	1.96	0.47
47:FN:41:ARG:HG3	47:FN:42:TRP:CE3	2.50	0.47
3:AA:2425:A:C5'	3:AA:2427:C:O4'	2.62	0.47
35:FA:1331:G:O2'	35:FA:1332:A:OP2	2.27	0.47
7:GG:32:LEU:CD1	7:GG:32:LEU:N	2.78	0.47
3:EA:183:C:N4	3:EA:213:A:H61	2.12	0.47
3:CA:2548:U:O2	11:CK:23:LYS:NZ	2.48	0.47
7:AG:104:LEU:HB2	7:AG:112:VAL:HG21	1.96	0.47
40:DG:80:VAL:HB	40:DG:85:TYR:CD2	2.49	0.47
37:BD:11:LEU:HG	37:BD:63:ARG:NH1	2.29	0.47
3:CA:1638:C:H4'	3:CA:2710:C:O2	2.13	0.47
1:EB:24:G:C6	1:EB:56:G:C2	3.03	0.47
3:EA:587:C:O2'	12:EL:19:LEU:HD22	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:1377:A:N6	40:HG:7:ILE:HD11	2.29	0.47
35:HA:1171:A:H2'	35:HA:1172:C:C6	2.50	0.47
3:EA:958:U:O4'	13:EM:14:LYS:NZ	2.42	0.47
12:AL:23:ILE:HD12	18:AR:84:ARG:CZ	2.45	0.47
19:GS:7:HIS:HB2	19:GS:50:VAL:HG22	1.96	0.47
3:CA:284:U:H2'	3:CA:285:G:C8	2.50	0.47
3:AA:1939:U:O2	3:AA:1967:C:H4'	2.15	0.47
39:HF:92:THR:HG22	39:HF:93:LYS:N	2.30	0.47
37:HD:168:PRO:HB2	37:HD:171:LEU:HG	1.97	0.47
13:GM:34:LYS:HD3	22:GV:82:TYR:HA	1.97	0.47
7:CG:101:VAL:HG12	7:CG:115:GLN:HA	1.96	0.47
3:AA:1958:C:OP1	60:AA:3722:HOH:O	2.20	0.47
55:BV:105:VAL:HG23	55:BV:106:LEU:N	2.30	0.47
3:GA:1403:A:H2'	3:GA:1404:C:C6	2.50	0.47
3:CA:123:G:N2	3:CA:129:C:C2	2.83	0.47
3:GA:1288:G:C4	3:GA:1327:A:C2	3.03	0.47
51:FR:22:ASP:OD1	51:FR:24:LYS:HE3	2.15	0.47
3:CA:1206:G:C6	3:CA:1207:C:C4	3.03	0.47
27:E0:24:VAL:O	27:E0:25:THR:OG1	2.28	0.47
15:CO:36:TYR:N	15:CO:36:TYR:CD1	2.83	0.47
55:HV:177:GLU:OE1	55:HV:177:GLU:N	2.44	0.47
10:AJ:84:ILE:HG23	10:AJ:84:ILE:O	2.15	0.47
12:GL:81:ASP:O	12:GL:83:ALA:N	2.42	0.47
37:HD:9:LEU:HD21	37:HD:22:LYS:HG3	1.97	0.47
3:CA:975:A:C2	3:CA:990:A:C8	3.02	0.47
35:HA:1014:A:N7	35:HA:1015:G:C6	2.83	0.47
52:HS:51:VAL:HG12	52:HS:52:HIS:N	2.30	0.47
3:GA:817:C:C4	3:GA:818:G:C5	3.02	0.47
34:DB:98:GLY:HA2	34:DB:101:THR:HG22	1.97	0.47
5:GE:46:GLN:HB3	5:GE:86:ALA:HB1	1.97	0.47
3:CA:1252:G:N3	3:CA:1253:A:C2	2.83	0.47
1:GB:78:A:OP2	22:GV:14:LYS:NZ	2.43	0.47
32:E5:39:THR:HA	32:E5:42:ARG:CD	2.45	0.47
3:CA:686:U:H2'	3:CA:788:A:N1	2.30	0.47
3:AA:856:G:O2'	23:AW:22:VAL:HG23	2.14	0.47
55:HV:320:LEU:HD23	55:HV:321:ALA:N	2.30	0.47
35:HA:1327:C:N4	35:HA:1328:C:H41	2.13	0.47
3:EA:460:A:C2	3:EA:470:A:C4	3.02	0.47
7:EG:104:LEU:HB2	7:EG:112:VAL:CG2	2.45	0.47
3:AA:2355:G:H4'	23:AW:20:LEU:CD1	2.44	0.47
3:CA:923:G:O2'	23:CW:24:ARG:O	2.29	0.47
39:FF:15:SER:OG	39:FF:58:HIS:ND1	2.46	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:2340:A:H5'	1:EB:41:G:N2	2.30	0.47
14:CN:73:ASN:HA	14:CN:76:VAL:HG12	1.97	0.47
42:BI:84:THR:HG21	42:BI:103:PHE:CB	2.45	0.47
3:CA:1439:A:C2	3:CA:1553:A:C5	3.03	0.47
3:EA:1869:G:N2	3:EA:1871:A:H8	2.13	0.47
19:GS:63:GLY:O	19:GS:64:ALA:CB	2.62	0.47
3:CA:1731:G:N3	3:CA:1733:G:N7	2.63	0.47
6:GF:131:VAL:HG22	6:GF:151:LEU:H	1.80	0.47
21:GU:3:LYS:HD3	21:GU:82:VAL:HB	1.97	0.47
35:HA:1223:C:P	52:HS:78:ARG:NH1	2.88	0.47
35:BA:972:C:P	43:BJ:59:LYS:HD3	2.55	0.47
12:AL:19:LEU:HD23	12:AL:19:LEU:C	2.35	0.47
13:CM:2:LEU:HD12	13:CM:69:PRO:HD2	1.96	0.47
34:BB:49:PHE:CD1	34:BB:49:PHE:C	2.87	0.47
36:DC:6:HIS:ND1	47:DN:89:MET:HB3	2.29	0.47
54:FU:25:LYS:O	54:FU:27:GLY:N	2.48	0.47
12:EL:62:PRO:HG2	30:E3:24:LYS:HB3	1.96	0.47
3:EA:1582:C:O2'	3:EA:1585:C:N3	2.44	0.47
3:CA:518:G:H2'	3:CA:519:U:C6	2.50	0.47
3:EA:2063:C:O2	3:EA:2450:A:N1	2.48	0.47
3:GA:2185:U:H2'	3:GA:2186:G:C8	2.50	0.47
34:BB:16:GLY:HA3	34:BB:40:ILE:HG23	1.97	0.47
3:CA:1061:U:H1'	3:CA:1070:A:O4'	2.14	0.47
4:AD:169:ARG:O	4:AD:170:VAL:HG13	2.15	0.47
3:GA:683:U:O3'	29:G2:21:ARG:NH1	2.46	0.47
3:GA:144:A:O4'	20:GT:3:ARG:NH1	2.46	0.47
3:CA:1090:A:C2	3:CA:1102:C:H1'	2.50	0.47
3:CA:2583:G:OP2	60:CA:3696:HOH:O	2.20	0.47
36:DC:151:VAL:HG12	36:DC:200:VAL:HG13	1.95	0.47
3:EA:2557:G:H2'	3:EA:2558:C:C6	2.49	0.47
35:DA:724:G:C2	35:DA:725:G:C8	3.03	0.47
37:BD:139:PRO:HB3	37:BD:184:ARG:HA	1.96	0.47
55:FV:494:ILE:HD11	55:FV:524:PRO:N	2.30	0.47
7:EG:102:ILE:HG13	7:EG:116:LEU:HD11	1.96	0.47
35:HA:792:A:H4'	35:HA:793:U:O5'	2.15	0.47
14:EN:85:PRO:HA	14:EN:88:ALA:HB2	1.97	0.47
35:FA:1348:U:H4'	42:FI:122:ARG:HG3	1.96	0.47
36:DC:22:TRP:HB3	36:DC:59:ARG:H	1.80	0.47
11:CK:5:GLN:O	11:CK:6:THR:HB	2.15	0.47
15:GO:49:VAL:HG12	15:GO:50:ALA:N	2.30	0.47
3:GA:2547:A:C2	3:GA:2562:U:C2	3.03	0.47
2:EC:172:THR:HG22	2:EC:182:LYS:HG2	1.95	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:235:C:H2'	35:BA:236:A:C8	2.50	0.47
10:AJ:12:LYS:O	10:AJ:13:ARG:HB2	2.15	0.47
23:AW:72:GLY:N	23:AW:73:PRO:CD	2.78	0.47
32:C5:129:LEU:CB	32:C5:130:PRO:HD2	2.44	0.47
17:CQ:91:ARG:HD3	18:CR:11:GLN:HB2	1.97	0.47
32:C5:26:VAL:O	32:C5:27:VAL:HB	2.15	0.47
35:HA:1493:A:OP2	56:HW:6:5OH:NQ	2.48	0.47
6:GF:134:GLN:HE21	6:GF:140:ILE:HG21	1.80	0.47
17:AQ:63:ARG:HH22	17:AQ:96:ASP:N	2.12	0.47
23:EW:29:SER:OG	23:EW:30:VAL:HG12	2.15	0.47
3:GA:819:A:N1	3:GA:820:A:C4	2.83	0.47
35:BA:1468:A:C2'	35:BA:1469:C:C5'	2.93	0.47
3:GA:901:C:H3'	3:GA:902:C:C5	2.50	0.47
17:GQ:91:ARG:HH21	17:GQ:93:ILE:CG1	2.26	0.47
16:CP:50:ARG:CB	16:CP:57:ALA:H	2.25	0.47
3:AA:983:A:N6	3:AA:984:A:C2	2.82	0.47
35:HA:1143:G:H2'	35:HA:1144:G:H8	1.80	0.47
34:BB:88:GLN:HE22	34:BB:220:VAL:CG2	2.27	0.47
3:AA:1198:U:O3'	17:AQ:4:LYS:HE3	2.15	0.47
47:HN:2:ALA:N	47:HN:67:THR:O	2.48	0.47
29:G2:18:PHE:O	29:G2:22:MET:N	2.45	0.47
28:G1:39:ASP:O	28:G1:43:ARG:HA	2.15	0.47
45:BL:33:VAL:HG23	45:BL:56:ARG:HB3	1.96	0.47
40:BG:4:ARG:O	40:BG:6:VAL:N	2.47	0.47
10:CJ:64:VAL:HG13	10:CJ:65:THR:N	2.30	0.47
35:HA:1076:U:OP1	34:HB:173:LYS:NZ	2.36	0.47
35:FA:739:C:OP1	39:FF:68:GLN:NE2	2.45	0.47
35:DA:1090:U:H2'	35:DA:1091:U:C6	2.50	0.47
24:CX:6:VAL:HG12	24:CX:50:VAL:HG22	1.97	0.47
36:BC:42:TYR:CD2	36:BC:43:LEU:HD12	2.50	0.47
3:GA:654:A:H3'	3:GA:654:A:N3	2.30	0.47
47:BN:20:TYR:HB2	47:BN:55:SER:OG	2.15	0.47
3:GA:1218:G:N1	3:GA:1232:G:N7	2.62	0.47
39:HF:61:LEU:HD22	51:HR:24:LYS:HD3	1.97	0.47
43:HJ:6:ILE:HB	43:HJ:76:ILE:HB	1.96	0.47
3:EA:1172:C:N4	3:EA:1173:U:O2	2.48	0.47
3:GA:479:A:H4'	3:GA:480:A:OP1	2.15	0.47
35:DA:1118:U:C5'	42:DI:106:ARG:HD2	2.44	0.47
35:DA:674:G:H21	44:DK:118:HIS:HB2	1.79	0.47
54:FU:25:LYS:C	54:FU:27:GLY:H	2.18	0.47
23:CW:49:ASN:OD1	23:CW:80:SER:HA	2.14	0.47
37:HD:125:VAL:O	37:HD:127:GLY:N	2.47	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DV:553:VAL:HG23	55:DV:597:ALA:HB2	1.97	0.47
2:AC:246:PRO:HG2	2:AC:247:TRP:CZ3	2.50	0.47
36:FC:14:ILE:O	36:FC:15:VAL:HG22	2.15	0.47
3:GA:278:A:N3	3:GA:278:A:H2'	2.29	0.47
16:CP:28:LYS:HD3	16:CP:39:LEU:HD23	1.97	0.47
34:FB:46:VAL:HB	34:FB:47:PRO:HD3	1.96	0.47
3:EA:864:G:O6	60:EA:3721:HOH:O	2.18	0.47
47:BN:33:ASP:O	47:BN:41:ARG:NE	2.48	0.47
35:DA:322:C:H5	35:DA:328:C:C5	2.33	0.47
41:HH:106:THR:HG21	41:HH:121:LEU:HD22	1.97	0.47
35:HA:1319:A:H5''	52:HS:4:SER:HB2	1.97	0.47
6:AF:10:GLU:O	6:AF:12:VAL:N	2.44	0.47
50:DQ:39:LYS:O	50:DQ:40:ARG:HD3	2.15	0.47
35:BA:937:A:OP2	60:BA:1772:HOH:O	2.20	0.47
13:CM:13:HIS:O	13:CM:14:LYS:HB2	2.15	0.47
47:HN:27:LEU:HD23	47:HN:30:ILE:HB	1.97	0.47
35:DA:866:C:H4'	35:DA:919:A:H5'	1.97	0.47
3:CA:2233:U:H2'	3:CA:2234:G:C8	2.50	0.47
1:CB:58:A:N7	1:CB:59:A:N7	2.63	0.47
3:AA:419:U:H2'	3:AA:420:C:C6	2.50	0.47
23:AW:9:THR:HG23	23:AW:10:ARG:N	2.30	0.46
23:AW:9:THR:CG2	23:AW:10:ARG:HD3	2.44	0.46
3:AA:1509:A:C4	3:AA:1510:G:C8	3.04	0.46
3:GA:1092:C:C2'	3:GA:1093:G:H5'	2.45	0.46
3:GA:32:C:N4	3:GA:446:G:O2'	2.47	0.46
23:AW:28:GLU:O	23:AW:30:VAL:N	2.48	0.46
3:GA:869:G:O4'	13:GM:8:LYS:NZ	2.45	0.46
44:BK:112:ASP:CB	54:BU:20:LYS:HE3	2.46	0.46
3:GA:2571:U:O2'	4:GD:151:THR:CG2	2.63	0.46
3:CA:1063:G:H2'	3:CA:1064:C:O4'	2.15	0.46
20:AT:54:GLU:OE1	20:AT:54:GLU:N	2.48	0.46
3:EA:2747:G:O2'	7:EG:66:THR:HG22	2.14	0.46
3:GA:1805:A:N3	2:GC:49:THR:OG1	2.48	0.46
54:FU:12:PHE:CD2	54:FU:16:LEU:HD11	2.50	0.46
3:EA:138:U:H5'	3:EA:139:U:H5''	1.97	0.46
3:CA:1387:A:H5'	3:CA:1469:A:H1'	1.96	0.46
55:BV:19:ILE:CD1	55:BV:92:HIS:H	2.28	0.46
54:FU:4:ILE:HD13	54:FU:20:LYS:NZ	2.30	0.46
3:CA:1779:U:C5	3:CA:1784:A:N7	2.83	0.46
35:HA:658:C:O4'	48:HO:22:THR:OG1	2.31	0.46
3:AA:84:A:N1	3:AA:98:G:O2'	2.30	0.46
20:ET:54:GLU:CG	20:ET:88:LYS:HB2	2.46	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:2880:C:H1'	14:EN:92:GLY:H	1.80	0.46
6:EF:79:ARG:O	6:EF:82:TYR:HB2	2.14	0.46
13:EM:46:ILE:HD12	13:EM:47:GLU:N	2.29	0.46
53:DT:67:ILE:HD11	53:DT:71:LYS:CE	2.45	0.46
3:GA:783:A:H2'	3:GA:784:G:H4'	1.97	0.46
39:FF:92:THR:HG22	39:FF:93:LYS:N	2.31	0.46
38:DE:45:ARG:HA	38:DE:72:ILE:O	2.15	0.46
35:FA:204:G:H3'	35:FA:205:A:C5'	2.45	0.46
32:E5:93:ALA:CA	32:E5:130:PRO:HG2	2.44	0.46
3:GA:1050:A:C2	3:GA:2751:G:C5	3.03	0.46
17:EQ:4:LYS:NZ	17:EQ:7:VAL:HG22	2.30	0.46
9:AI:120:ASP:O	9:AI:123:ALA:N	2.46	0.46
13:CM:68:PHE:CD1	13:CM:68:PHE:C	2.88	0.46
21:EU:85:ARG:HD2	21:EU:87:GLU:N	2.30	0.46
3:AA:517:C:OP2	27:A0:9:ARG:NH2	2.48	0.46
27:G0:11:LYS:HA	27:G0:14:MET:HE2	1.97	0.46
1:GB:13:G:H2'	1:GB:69:G:N2	2.30	0.46
3:EA:485:C:C2	3:EA:496:G:C2	3.03	0.46
41:HH:10:MET:CE	41:HH:33:LYS:HA	2.45	0.46
2:EC:140:VAL:HA	2:EC:190:THR:O	2.15	0.46
9:GI:4:VAL:HG13	9:GI:7:TYR:CE1	2.50	0.46
6:GF:133:GLU:HG3	6:GF:148:VAL:HB	1.96	0.46
3:AA:657:U:H2'	3:AA:658:U:C6	2.50	0.46
35:DA:421:U:H5'	35:DA:422:C:C5	2.49	0.46
3:CA:172:A:H2'	3:CA:173:A:C8	2.50	0.46
37:FD:139:PRO:HA	37:FD:182:PHE:HD2	1.81	0.46
39:DF:51:ILE:HG23	39:DF:85:ILE:HD12	1.97	0.46
39:DF:3:HIS:CD2	39:DF:94:HIS:HA	2.50	0.46
46:FM:49:SER:O	46:FM:53:ILE:N	2.45	0.46
3:CA:2844:G:C2'	3:CA:2845:U:H5'	2.45	0.46
40:HG:75:VAL:HA	40:HG:88:PRO:HA	1.97	0.46
3:EA:2547:A:H2'	3:EA:2548:U:C6	2.50	0.46
49:DP:56:ARG:NH2	49:DP:59:HIS:CE1	2.84	0.46
36:HC:36:ASP:OD1	36:HC:59:ARG:NH1	2.46	0.46
55:DV:691:PRO:O	55:DV:694:VAL:HB	2.15	0.46
3:EA:2823:A:C5	3:EA:2824:C:C5	3.03	0.46
5:GE:108:ILE:HD11	5:GE:180:LEU:HB3	1.95	0.46
55:FV:663:MET:HG2	55:FV:682:MET:SD	2.55	0.46
40:DG:62:PHE:O	40:DG:66:LEU:N	2.42	0.46
40:HG:143:ARG:HD2	44:HK:52:PHE:HZ	1.79	0.46
35:FA:977:A:O2'	35:FA:979:C:OP2	2.24	0.46
30:A3:21:PHE:O	30:A3:22:LYS:O	2.33	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DE:155:ALA:HB1	41:DH:66:PHE:CZ	2.50	0.46
35:BA:1060:U:C5	36:BC:2:GLY:HA3	2.50	0.46
20:GT:55:VAL:HA	20:GT:87:LEU:HA	1.97	0.46
40:DG:140:ASP:O	40:DG:143:ARG:HB3	2.15	0.46
13:GM:20:LEU:HD22	13:GM:20:LEU:N	2.30	0.46
3:AA:523:C:H5''	3:AA:540:C:O2'	2.15	0.46
9:GI:14:ALA:HB2	9:GI:54:ILE:HD12	1.97	0.46
32:E5:116:GLU:CG	32:E5:117:LEU:H	2.26	0.46
17:CQ:63:ARG:HH12	17:CQ:96:ASP:CA	2.28	0.46
17:EQ:94:LEU:C	17:EQ:96:ASP:H	2.18	0.46
3:GA:2448:A:OP1	60:GA:3677:HOH:O	2.20	0.46
17:AQ:91:ARG:HH21	17:AQ:93:ILE:HD13	1.80	0.46
42:BI:57:MET:SD	42:BI:58:VAL:CA	3.03	0.46
55:BV:219:HIS:C	55:BV:221:ASN:N	2.68	0.46
35:HA:1221:G:H4'	52:HS:77:THR:HG21	1.96	0.46
3:EA:2352:A:C6	3:EA:2366:A:C4	3.03	0.46
2:AC:175:LEU:HD23	3:AA:1799:G:C5	2.49	0.46
35:HA:1028:C:C2	35:HA:1034:G:H1'	2.50	0.46
55:DV:9:ARG:NH1	55:DV:80:GLU:HG3	2.30	0.46
35:FA:159:G:N1	35:FA:163:C:N4	2.63	0.46
23:GW:30:VAL:HA	23:GW:60:ALA:HB3	1.97	0.46
35:HA:686:U:O4	35:HA:703:G:O2'	2.25	0.46
3:GA:126:A:C5	29:G2:18:PHE:CD2	3.03	0.46
34:BB:32:GLY:O	34:BB:33:ALA:CB	2.64	0.46
6:AF:131:VAL:HG22	6:AF:151:LEU:H	1.80	0.46
3:GA:1778:U:H2'	3:GA:1784:A:N6	2.30	0.46
32:A5:60:LEU:HD23	32:A5:78:GLY:HA3	1.97	0.46
28:G1:37:LYS:HB2	28:G1:48:TYR:CD1	2.50	0.46
17:GQ:85:ALA:HA	17:GQ:115:ALA:HB2	1.96	0.46
44:FK:16:VAL:CG1	44:FK:79:ILE:HG12	2.45	0.46
3:AA:747:U:H2'	19:AS:88:ARG:NH2	2.30	0.46
37:DD:44:ARG:O	37:DD:46:PRO:HD3	2.15	0.46
35:DA:920:U:H2'	35:DA:921:U:C6	2.51	0.46
35:HA:181:A:H1'	35:HA:194:C:N4	2.29	0.46
3:CA:2134:A:H2'	3:CA:2135:A:C8	2.49	0.46
3:GA:563:A:C6	3:GA:2018:G:C4	3.03	0.46
45:FL:76:GLU:HG3	55:FV:454:ASN:HB2	1.98	0.46
35:DA:322:C:H41	35:DA:328:C:H6	1.63	0.46
3:GA:2297:A:N1	3:GA:2321:U:C5	2.83	0.46
2:CC:80:LEU:HD11	2:CC:109:LEU:HD13	1.96	0.46
37:HD:124:MET:HA	37:HD:129:VAL:HA	1.96	0.46
48:HO:3:LEU:HB3	48:HO:8:THR:HG22	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:ES:2:GLU:HA	19:ES:108:SER:HB3	1.98	0.46
45:DL:38:TYR:HB2	45:DL:52:VAL:HG23	1.97	0.46
3:GA:242:G:H5''	30:G3:63:TYR:CE2	2.50	0.46
35:FA:1000:A:H2'	35:FA:1001:C:C6	2.50	0.46
3:EA:2230:G:O3'	24:EX:29:LEU:HD23	2.15	0.46
3:GA:1792:G:O2'	3:GA:1830:C:OP1	2.30	0.46
18:AR:64:VAL:HG21	18:AR:97:LYS:HB2	1.97	0.46
41:BH:112:THR:HG22	41:BH:114:ARG:H	1.80	0.46
28:C1:16:THR:HB	28:C1:41:VAL:HG11	1.97	0.46
6:CF:79:ARG:HB3	6:CF:82:TYR:CE2	2.50	0.46
35:DA:1266:G:N2	35:DA:1269:A:OP2	2.39	0.46
34:BB:101:THR:HG21	35:BA:1101:A:H61	1.80	0.46
3:CA:2897:U:H2'	3:CA:2898:U:C6	2.50	0.46
35:DA:721:G:H4'	35:DA:722:G:O4'	2.16	0.46
2:EC:93:VAL:CG1	2:EC:94:LEU:N	2.78	0.46
3:GA:2349:G:OP1	30:G3:44:ARG:NH2	2.40	0.46
34:DB:23:ASN:ND2	34:DB:190:SER:O	2.49	0.46
2:AC:67:LYS:HG2	2:AC:150:GLY:HA2	1.97	0.46
2:GC:114:GLN:O	2:GC:124:LYS:NZ	2.42	0.46
3:CA:2698:U:H2'	3:CA:2699:C:C6	2.51	0.46
48:FO:4:SER:O	48:FO:7:ALA:N	2.48	0.46
34:HB:118:THR:O	34:HB:119:GLN:HB2	2.15	0.46
6:EF:121:PHE:CE1	6:EF:127:TYR:HD1	2.33	0.46
3:GA:2636:C:H2'	3:GA:2637:U:C6	2.49	0.46
32:C5:136:ILE:HD12	32:C5:136:ILE:H	1.80	0.46
32:A5:54:VAL:HG22	32:A5:83:ALA:HB1	1.97	0.46
35:FA:756:C:HO2'	41:FH:2:SER:N	2.13	0.46
3:GA:2264:C:C4	3:GA:2265:U:C4	3.04	0.46
23:GW:40:ARG:HG3	23:GW:56:HIS:CD2	2.50	0.46
3:GA:822:G:C4	3:GA:823:C:C5	3.03	0.46
3:CA:2364:C:H4'	23:CW:55:ASP:OD1	2.15	0.46
32:A5:127:ALA:O	32:A5:129:LEU:N	2.48	0.46
35:HA:451:A:C2	35:HA:480:U:C4	3.03	0.46
3:EA:923:G:H1'	23:EW:23:LYS:CD	2.43	0.46
23:GW:28:GLU:HG2	23:GW:29:SER:N	2.30	0.46
34:FB:70:GLY:HA2	34:FB:163:ILE:CG2	2.45	0.46
35:FA:946:A:C2	35:FA:1236:A:C2	3.03	0.46
21:AU:38:ILE:CG2	21:AU:39:ASN:H	2.28	0.46
38:FE:94:VAL:HG21	38:FE:111:MET:SD	2.55	0.46
42:BI:34:SER:HB3	42:BI:37:GLN:HG2	1.97	0.46
3:GA:528:A:H2'	3:GA:2042:A:N1	2.29	0.46
18:ER:49:ILE:HB	18:ER:51:VAL:O	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:ET:24:MET:HE3	20:ET:29:THR:HG21	1.98	0.46
3:GA:602:A:N3	3:GA:655:A:C2	2.83	0.46
25:AY:56:LEU:O	25:AY:57:LEU:HB3	2.14	0.46
9:EI:27:LEU:HD13	9:EI:34:ILE:CD1	2.46	0.46
3:GA:1804:C:OP1	2:GC:256:THR:OG1	2.33	0.46
45:DL:7:LEU:HD23	50:DQ:34:TYR:CE1	2.50	0.46
35:DA:945:G:C6	35:DA:1337:G:C5	3.04	0.46
35:HA:588:G:H1'	41:HH:3:MET:CE	2.45	0.46
2:AC:255:LYS:NZ	3:AA:1844:C:O3'	2.43	0.46
3:CA:1731:G:N2	3:CA:1734:G:C6	2.84	0.46
4:AD:148:GLN:HB2	4:AD:152:PRO:HG2	1.96	0.46
36:FC:66:VAL:HG12	36:FC:67:THR:N	2.29	0.46
35:DA:1284:C:C6	35:DA:1285:A:C8	3.02	0.46
3:CA:2376:A:H2'	3:CA:2377:A:O4'	2.15	0.46
37:DD:62:ARG:HH21	37:DD:68:LEU:HA	1.81	0.46
3:GA:163:C:O2'	3:GA:164:C:P	2.74	0.46
18:AR:68:ARG:HD3	18:AR:92:TRP:CE2	2.50	0.46
15:GO:39:VAL:HB	15:GO:49:VAL:HB	1.97	0.46
38:DE:83:HIS:CG	41:DH:96:MET:CE	2.98	0.46
1:AB:51:G:OP2	15:AO:64:TYR:HD2	1.98	0.46
1:CB:81:G:C6	1:CB:82:U:C4	3.04	0.46
37:DD:36:GLN:O	37:DD:36:GLN:HG2	2.15	0.46
3:CA:1609:A:C2	3:CA:1616:A:C8	3.04	0.46
3:GA:866:A:C8	3:GA:914:G:C2	3.03	0.46
35:HA:539:A:N6	35:HA:540:G:O6	2.48	0.46
5:GE:128:ALA:O	5:GE:130:LYS:N	2.46	0.46
15:AO:15:ARG:NE	15:AO:93:ASP:OD2	2.44	0.46
35:FA:114:U:O2'	35:FA:115:G:H5'	2.16	0.46
38:BE:89:HIS:CE1	38:BE:90:THR:HG1	2.33	0.46
3:CA:709:U:H2'	3:CA:710:U:O4'	2.15	0.46
15:CO:110:ALA:HA	15:CO:113:ALA:HB3	1.97	0.46
5:GE:5:LEU:HD22	5:GE:10:SER:HB3	1.95	0.46
35:BA:77:A:H2	35:BA:92:U:C2	2.33	0.46
3:EA:2636:C:H2'	3:EA:2637:U:C6	2.50	0.46
9:EI:14:ALA:HB2	9:EI:54:ILE:HD11	1.96	0.46
55:DV:310:HIS:O	55:DV:312:SER:N	2.48	0.46
4:ED:70:LYS:O	4:ED:71:ALA:HB3	2.15	0.46
35:HA:842:U:O2'	35:HA:846:G:O6	2.33	0.46
13:AM:46:ILE:HD13	13:AM:47:GLU:N	2.30	0.46
35:HA:1021:A:C2	35:HA:1022:A:N7	2.83	0.46
35:HA:114:U:O2'	35:HA:115:G:H5'	2.15	0.46
3:CA:341:C:H2'	3:CA:342:A:O4'	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:2755:C:O2'	3:EA:2756:U:H2'	2.16	0.46
35:FA:250:A:H4'	35:FA:251:G:O5'	2.15	0.46
3:EA:1727:C:H2'	3:EA:1728:C:O4'	2.14	0.46
35:HA:878:A:H2'	35:HA:879:C:O4'	2.15	0.46
23:GW:63:ASP:OD1	23:GW:63:ASP:N	2.49	0.46
20:AT:61:LEU:C	20:AT:61:LEU:HD12	2.35	0.46
35:DA:1299:A:H2'	35:DA:1299:A:N3	2.31	0.46
3:EA:1474:U:C4	3:EA:1475:G:N1	2.83	0.46
13:GM:132:THR:O	13:GM:134:THR:OG1	2.33	0.46
32:C5:24:SER:C	32:C5:116:GLU:CG	2.83	0.46
32:E5:23:LEU:HA	32:E5:118:ILE:CD1	2.45	0.46
3:CA:945:A:N7	60:CA:3262:HOH:O	2.35	0.46
35:BA:426:U:H5''	37:BD:37:ALA:CB	2.45	0.46
3:GA:1075:C:C4	3:GA:1076:C:N4	2.84	0.46
35:FA:579:A:C2	35:FA:763:G:C2	3.03	0.46
37:HD:25:VAL:HG23	37:HD:26:ARG:H	1.80	0.46
18:GR:48:LYS:HD2	18:GR:49:ILE:C	2.36	0.46
7:CG:85:LYS:HG2	7:CG:131:VAL:HB	1.97	0.46
37:BD:30:THR:HG22	37:BD:31:LYS:HD3	1.96	0.46
29:C2:31:LEU:HD21	29:C2:43:THR:HG21	1.96	0.46
21:AU:73:ASN:HA	21:AU:95:PHE:CE2	2.50	0.46
19:GS:76:VAL:HG12	19:GS:103:ILE:HA	1.97	0.46
3:EA:518:G:H4'	19:ES:18:ARG:NH1	2.31	0.46
44:FK:24:HIS:CB	44:FK:31:ILE:HG13	2.45	0.46
3:EA:1077:A:H4'	9:EI:93:ASN:HB3	1.97	0.46
35:FA:1526:G:OP2	54:FU:39:GLU:HG2	2.16	0.46
35:HA:1266:G:N2	35:HA:1269:A:OP2	2.48	0.46
3:CA:443:A:C5	5:CE:40:ARG:CD	2.98	0.46
35:HA:1053:G:N7	35:HA:1200:C:C5'	2.79	0.46
36:HC:82:GLU:O	36:HC:86:LYS:N	2.43	0.46
3:AA:1784:A:O3'	60:AA:3446:HOH:O	2.21	0.46
35:BA:815:A:H4'	35:BA:817:C:C4	2.50	0.46
8:CH:3:VAL:HA	8:CH:39:ALA:CB	2.46	0.46
3:EA:570:G:C4	3:EA:2030:A:N7	2.84	0.46
34:HB:207:ARG:HB2	34:HB:211:LEU:HD13	1.97	0.46
31:G4:7:VAL:HG23	31:G4:8:LYS:N	2.30	0.46
35:BA:983:A:N3	35:BA:983:A:H2'	2.30	0.46
50:DQ:76:VAL:HG23	50:DQ:77:ARG:H	1.80	0.46
32:A5:110:ALA:O	32:A5:113:PHE:N	2.46	0.46
3:GA:2018:G:C2	3:GA:2019:A:C4	3.04	0.46
3:GA:2019:A:H4'	17:GQ:33:VAL:HG21	1.97	0.46
24:AX:39:VAL:HG21	24:AX:42:GLU:HB2	1.96	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:277:G:C2'	3:GA:278:A:OP2	2.63	0.46
55:DV:691:PRO:HB2	55:DV:694:VAL:HG23	1.97	0.46
1:GB:73:A:C5	1:GB:104:A:C2	3.03	0.46
3:GA:2660:A:N7	55:HV:672:SER:HA	2.30	0.46
55:FV:529:SER:OG	55:FV:532:LYS:NZ	2.22	0.46
3:CA:2902:C:O2'	3:CA:2903:U:OP1	2.28	0.46
39:HF:66:ALA:HB1	39:HF:67:PRO:HD2	1.96	0.46
42:HI:38:TYR:CD2	42:HI:39:PHE:CD2	3.03	0.46
3:CA:580:U:H2'	3:CA:581:C:H6	1.80	0.46
55:DV:514:GLN:HA	55:DV:587:ASP:O	2.15	0.46
35:DA:751:U:O2	35:DA:751:U:H2'	2.14	0.46
3:CA:878:A:C2	3:CA:900:A:C4	3.03	0.46
3:AA:2059:A:OP2	60:AA:3271:HOH:O	2.20	0.46
10:AJ:37:ARG:HA	10:AJ:118:MET:CE	2.45	0.46
53:BT:44:LYS:HB3	53:BT:87:ALA:HB1	1.96	0.46
30:G3:30:HIS:ND1	30:G3:31:ILE:HG22	2.31	0.46
35:FA:426:U:P	37:FD:33:LYS:HZ3	2.39	0.46
34:HB:202:ASN:OD1	34:HB:204:ASP:N	2.48	0.46
6:AF:39:VAL:HG13	6:AF:40:GLY:N	2.31	0.46
35:HA:148:G:N2	35:HA:175:C:O2	2.48	0.46
20:GT:83:ALA:HB1	20:GT:85:VAL:HG23	1.98	0.46
3:EA:1456:G:C6	3:EA:1457:U:C4	3.03	0.46
37:BD:110:THR:HG23	37:BD:113:GLU:H	1.79	0.46
43:BJ:100:ILE:O	43:BJ:100:ILE:HG13	2.15	0.46
3:EA:2684:U:C4	3:EA:2685:G:N7	2.83	0.46
12:CL:106:GLU:C	12:CL:107:PHE:CD1	2.89	0.46
3:EA:742:A:H2'	3:EA:743:A:C8	2.50	0.46
38:FE:95:PHE:CE1	38:FE:97:GLN:HG2	2.51	0.46
10:CJ:39:LYS:HA	10:CJ:43:GLU:HG3	1.97	0.46
35:BA:1494:G:O5'	56:BW:3:SER:OG	2.33	0.46
32:C5:110:ALA:HB1	32:C5:113:PHE:CZ	2.50	0.46
35:HA:428:G:C5	35:HA:430:A:C6	3.04	0.46
3:GA:2265:U:OP2	3:GA:2266:A:C2'	2.64	0.46
45:HL:44:LYS:HB3	45:HL:45:PRO:HD3	1.96	0.46
35:DA:481:G:O2'	35:DA:482:A:C8	2.65	0.46
35:HA:1375:A:C6	35:HA:1376:U:C4	3.03	0.46
3:CA:2015:A:C2	27:C0:2:VAL:CG2	2.98	0.46
36:BC:59:ARG:HA	36:BC:64:ILE:HA	1.97	0.46
1:CB:116:G:H2'	1:CB:117:G:C8	2.49	0.46
16:AP:72:VAL:O	16:AP:72:VAL:HG23	2.15	0.46
3:EA:2517:C:C6	3:EA:2542:A:N7	2.83	0.46
44:HK:22:HIS:CD2	44:HK:35:THR:HG21	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DC:159:GLY:HA2	36:DC:193:TYR:CE1	2.51	0.46
35:FA:951:G:C6	35:FA:952:U:C4	3.03	0.46
35:BA:1331:G:O2'	35:BA:1332:A:P	2.73	0.46
3:AA:1392:A:N6	3:AA:1393:A:N6	2.63	0.46
3:AA:2365:G:H4'	23:AW:59:PHE:CZ	2.51	0.46
37:DD:132:ILE:HG22	37:DD:134:SER:N	2.29	0.46
35:HA:921:U:H2'	35:HA:922:G:O4'	2.16	0.46
17:EQ:86:SER:O	18:ER:51:VAL:HA	2.14	0.46
3:GA:600:G:H1'	5:GE:100:MET:HG2	1.97	0.46
35:HA:1296:C:H4'	35:HA:1302:C:N3	2.29	0.46
35:BA:579:A:H2'	35:BA:580:C:H6	1.80	0.46
35:DA:1309:G:OP1	46:DM:87:ARG:NH2	2.48	0.46
35:DA:1305:G:H22	35:DA:1331:G:C2'	2.28	0.46
35:FA:91:U:H2'	35:FA:92:U:H6	1.80	0.46
35:FA:1277:C:HO2'	35:FA:1279:G:H8	1.58	0.46
34:DB:163:ILE:HG23	34:DB:164:ASP:N	2.31	0.46
2:GC:77:VAL:HG23	2:GC:77:VAL:O	2.15	0.46
2:EC:68:ARG:O	2:EC:188:ARG:NH2	2.48	0.46
54:HU:17:ARG:CZ	54:HU:20:LYS:HE3	2.45	0.46
11:EK:104:THR:HB	11:EK:106:GLU:OE1	2.16	0.46
41:FH:41:LYS:HD3	41:FH:48:ASP:CB	2.44	0.46
6:AF:147:ARG:HG3	6:AF:148:VAL:N	2.30	0.46
55:BV:546:PRO:HD3	55:BV:583:TYR:CE2	2.50	0.46
20:ET:27:SER:O	20:ET:28:ASN:ND2	2.48	0.46
6:EF:131:VAL:HG21	6:EF:151:LEU:HG	1.98	0.46
52:HS:15:LEU:HD22	52:HS:35:SER:HB3	1.97	0.46
3:CA:2478:A:P	31:C4:2:LYS:HZ1	2.38	0.46
9:AI:57:VAL:HG23	9:AI:71:LYS:CE	2.46	0.46
37:BD:105:MET:SD	37:BD:143:VAL:HG22	2.55	0.46
3:GA:747:U:C4	3:GA:2613:U:C5	3.04	0.46
13:CM:132:THR:HG22	13:CM:133:LYS:H	1.80	0.46
3:EA:443:A:N7	5:EE:40:ARG:HD3	2.31	0.46
36:FC:47:LEU:HB3	36:FC:50:ALA:HB3	1.98	0.46
3:GA:60:G:HO2'	3:GA:62:U:P	2.37	0.46
43:FJ:82:LYS:O	43:FJ:86:ALA:N	2.42	0.46
3:CA:1360:G:OP1	60:CA:3606:HOH:O	2.21	0.46
35:HA:383:A:C5	35:HA:384:G:H1'	2.50	0.46
3:CA:277:G:O2'	3:CA:278:A:OP2	2.29	0.46
8:EH:21:VAL:CG2	8:EH:25:TYR:CD2	2.98	0.46
8:EH:25:TYR:HE1	8:EH:29:PHE:HD2	1.62	0.46
35:DA:1179:A:H2'	35:DA:1180:A:O4'	2.16	0.46
1:GB:111:U:H2'	1:GB:112:G:C8	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:FV:557:ILE:HG21	55:FV:576:ILE:HD12	1.97	0.46
3:AA:2897:U:H2'	3:AA:2898:U:C6	2.51	0.46
18:AR:66:HIS:CG	18:AR:94:THR:HG22	2.49	0.46
35:BA:675:A:H1'	44:BK:118:HIS:CD2	2.51	0.46
3:EA:1088:A:HO2'	3:EA:1089:A:P	2.38	0.46
11:EK:19:VAL:CG1	11:EK:41:ILE:HG12	2.45	0.46
53:DT:30:THR:HA	53:DT:33:LYS:HG3	1.97	0.46
3:AA:1057:A:C6	3:AA:1086:A:C2	3.04	0.46
3:EA:2395:C:H2'	3:EA:2396:G:O4'	2.16	0.46
32:E5:110:ALA:O	32:E5:113:PHE:N	2.43	0.46
55:BV:218:TRP:N	55:BV:218:TRP:CD1	2.83	0.46
3:AA:2649:C:H2'	3:AA:2650:U:C6	2.50	0.46
49:DP:32:PHE:N	49:DP:32:PHE:CD1	2.84	0.46
3:AA:2144:G:H3'	3:AA:2144:G:N3	2.30	0.46
3:EA:2595:G:N2	3:EA:2598:A:OP2	2.44	0.46
3:AA:1079:C:O2	9:AI:130:GLY:HA3	2.15	0.46
3:EA:1385:A:H1'	3:EA:1386:C:C6	2.50	0.46
10:CJ:44:TYR:HA	17:CQ:59:LEU:HD21	1.97	0.46
26:CZ:36:GLU:C	26:CZ:37:ARG:HD2	2.36	0.46
23:CW:40:ARG:HG3	23:CW:56:HIS:CD2	2.50	0.46
3:GA:372:G:O5'	24:GX:61:LYS:NZ	2.48	0.46
55:FV:221:ASN:HA	55:FV:224:GLU:HB3	1.96	0.46
3:AA:1936:A:C2	3:AA:1943:U:C5	3.03	0.46
3:AA:1936:A:N6	3:AA:1963:U:C2	2.84	0.46
11:AK:72:PRO:O	11:AK:74:GLY:N	2.43	0.46
55:DV:309:ARG:CZ	55:DV:404:ILE:HD13	2.46	0.46
42:FI:6:TYR:CE2	42:FI:89:GLU:OE2	2.69	0.46
3:GA:2137:U:O4	3:GA:2155:U:O2'	2.34	0.46
40:HG:71:PRO:HG3	40:HG:103:TRP:CH2	2.50	0.46
55:DV:382:ILE:HD12	55:DV:382:ILE:O	2.15	0.46
20:GT:54:GLU:HG3	20:GT:88:LYS:HB2	1.97	0.46
4:AD:193:VAL:HB	4:AD:194:PRO:HD2	1.98	0.46
37:FD:29:ASP:OD1	37:FD:30:THR:N	2.42	0.46
35:DA:587:G:C2	35:DA:755:G:C6	3.03	0.46
3:EA:636:G:C6	12:EL:111:ILE:HD11	2.51	0.46
3:GA:640:C:H2'	3:GA:641:U:H6	1.80	0.46
2:EC:91:ALA:HB3	2:EC:103:ILE:HG22	1.98	0.46
35:FA:1305:G:H22	35:FA:1331:G:H2'	1.81	0.46
3:EA:601:C:O2'	3:EA:605:G:OP1	2.32	0.46
3:AA:2701:U:H3'	3:AA:2702:G:H5''	1.96	0.46
35:HA:963:G:N2	35:HA:964:A:H1'	2.31	0.46
37:DD:126:ASN:OD1	37:DD:142:VAL:N	2.40	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:8:LYS:O	8:AH:9:VAL:HB	2.15	0.46
11:AK:24:VAL:CG1	11:AK:30:ARG:HD3	2.45	0.46
35:FA:41:G:C2	35:FA:42:G:C4	3.03	0.46
35:BA:1060:U:C4	36:BC:2:GLY:N	2.84	0.46
35:FA:649:A:H2'	35:FA:650:G:O4'	2.15	0.46
3:EA:1786:A:H1'	3:EA:1938:A:N6	2.31	0.46
42:BI:22:LYS:HG3	42:BI:23:PRO:HD2	1.97	0.46
3:AA:247:G:H4'	3:AA:386:G:C5	2.51	0.46
46:HM:98:ARG:HB2	46:HM:100:GLN:OE1	2.16	0.46
25:CY:45:GLN:O	25:CY:46:VAL:HB	2.16	0.46
3:CA:2286:G:P	28:C1:29:LYS:HE2	2.55	0.46
34:DB:131:LYS:O	34:DB:135:MET:HB3	2.15	0.46
25:EY:18:LEU:HD12	25:EY:22:LEU:HB2	1.98	0.46
3:AA:1569:A:N6	3:AA:1570:A:C6	2.84	0.46
3:CA:2393:U:H5'	12:CL:60:ARG:O	2.15	0.46
46:DM:20:THR:HA	46:DM:25:VAL:HG23	1.98	0.46
3:EA:1060:U:H4'	3:EA:1061:U:C5'	2.45	0.46
35:DA:1084:G:C5	35:DA:1085:U:C4	3.04	0.46
3:EA:2819:G:H2'	3:EA:2821:A:N7	2.30	0.46
22:GV:45:ASP:HA	22:GV:48:MET:HB2	1.96	0.46
4:AD:86:GLU:N	4:AD:86:GLU:CD	2.69	0.46
32:E5:4:ASN:O	32:E5:7:ASP:N	2.47	0.46
47:FN:88:ALA:HB1	47:FN:96:LEU:CD2	2.46	0.46
52:HS:40:ILE:HD11	52:HS:71:LEU:HG	1.98	0.46
35:DA:1371:G:C6	35:DA:1372:U:C4	3.03	0.46
35:HA:1057:G:H4'	36:HC:197:GLY:N	2.30	0.46
8:GH:31:VAL:HB	8:GH:32:PRO:CD	2.45	0.46
3:GA:1607:C:H4'	3:GA:1608:A:O5'	2.15	0.46
19:ES:29:VAL:HG23	19:ES:30:SER:N	2.31	0.46
8:AH:31:VAL:HB	8:AH:32:PRO:CD	2.45	0.46
3:EA:1564:C:H2'	3:EA:1565:C:C6	2.51	0.46
3:CA:372:G:O2'	3:CA:400:G:O6	2.25	0.46
10:CJ:38:GLY:O	10:CJ:43:GLU:HB2	2.14	0.46
17:EQ:91:ARG:HH21	17:EQ:93:ILE:HD13	1.81	0.46
17:AQ:91:ARG:HH21	17:AQ:93:ILE:HG21	1.81	0.46
32:A5:77:VAL:O	32:A5:79:PRO:HD2	2.13	0.46
3:CA:82:U:H2'	3:CA:83:A:O4'	2.15	0.46
35:HA:451:A:H2	35:HA:480:U:C4	2.34	0.46
4:GD:86:GLU:OE1	4:GD:86:GLU:CA	2.63	0.46
23:AW:60:ALA:HA	23:AW:81:ILE:HD12	1.97	0.46
37:HD:52:GLY:O	37:HD:56:ARG:HG2	2.16	0.46
3:GA:869:G:C2	3:GA:870:U:H1'	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:1312:U:H4'	3:EA:1313:U:O5'	2.15	0.46
35:HA:1194:U:H5'	38:HE:27:GLY:HA2	1.97	0.46
20:ET:70:HIS:HB3	20:ET:73:ARG:O	2.15	0.46
35:HA:1306:A:N3	35:HA:1332:A:H1'	2.30	0.46
37:FD:147:GLU:HA	37:FD:150:LYS:HD2	1.97	0.46
11:CK:70:ARG:HD3	11:CK:76:VAL:HG22	1.98	0.46
3:AA:923:G:N3	23:AW:23:LYS:HD2	2.31	0.46
3:CA:2660:A:H5'	55:DV:675:LYS:HD2	1.97	0.46
18:AR:49:ILE:HG22	18:AR:53:PHE:C	2.36	0.46
32:A5:15:VAL:HG21	32:A5:66:GLY:HA2	1.96	0.46
38:DE:80:THR:OG1	38:DE:81:LEU:N	2.49	0.46
3:GA:2432:A:N1	24:GX:20:ALA:HA	2.31	0.46
3:EA:1064:C:H4'	9:EI:90:GLY:N	2.31	0.46
44:HK:24:HIS:CB	44:HK:87:LYS:HD2	2.46	0.46
28:A1:4:ILE:HD11	28:A1:27:ARG:HB2	1.97	0.46
35:DA:1237:C:O2'	35:DA:1335:U:O4'	2.31	0.46
11:CK:15:GLY:O	11:CK:46:ALA:HA	2.16	0.46
35:HA:1340:A:O2'	42:HI:129:LYS:NZ	2.33	0.46
3:CA:1088:A:HO2'	3:CA:1089:A:P	2.38	0.46
20:AT:69:ARG:CD	20:AT:70:HIS:H	2.28	0.46
3:GA:996:A:P	18:GR:10:LYS:HD3	2.55	0.46
12:AL:68:SER:O	12:AL:69:ARG:HB3	2.15	0.46
39:FF:99:ALA:O	39:FF:100:SER:CB	2.63	0.46
44:DK:47:ALA:HB1	44:DK:62:ALA:HB1	1.98	0.46
32:E5:48:ALA:HB3	32:E5:51:TYR:HB3	1.98	0.46
16:CP:108:ARG:NH1	35:DA:1464:U:OP2	2.40	0.46
3:CA:2619:C:N4	60:CA:3666:HOH:O	2.35	0.46
35:HA:655:A:H2'	35:HA:656:G:C8	2.50	0.46
2:CC:77:VAL:HG23	2:CC:77:VAL:O	2.14	0.46
3:GA:1544:A:C6	3:GA:1545:A:C6	3.03	0.46
35:FA:533:A:HO2'	35:FA:535:A:P	2.35	0.46
3:EA:136:G:C6	3:EA:142:A:N6	2.84	0.46
50:DQ:12:VAL:HG12	50:DQ:13:VAL:N	2.30	0.46
3:CA:2134:A:H3'	3:CA:2135:A:H5''	1.98	0.46
5:CE:23:PHE:HB2	5:CE:111:GLU:HG2	1.97	0.46
34:BB:9:LEU:HB2	34:BB:42:LEU:HD13	1.98	0.46
35:HA:791:G:C5	35:HA:792:A:N7	2.84	0.46
3:GA:60:G:O2'	3:GA:62:U:OP2	2.31	0.46
3:CA:1045:C:C3'	3:CA:1046:A:H5'	2.46	0.46
3:CA:1230:A:C5	3:CA:1231:U:C4	3.04	0.46
19:ES:63:GLY:O	19:ES:64:ALA:CB	2.63	0.46
35:HA:780:A:C8	35:HA:800:G:C6	3.04	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DN:45:VAL:HG23	47:DN:46:LEU:H	1.81	0.46
35:BA:450:G:N7	35:BA:481:G:O6	2.48	0.46
38:BE:44:GLY:H	38:BE:76:LEU:HD12	1.81	0.46
35:HA:93:U:H2'	35:HA:94:G:H5''	1.98	0.46
55:BV:231:GLU:HA	55:BV:234:MET:HG2	1.98	0.46
9:CI:20:SER:H	9:CI:21:PRO:CD	2.28	0.46
41:BH:29:SER:HB3	41:BH:57:PRO:HB2	1.98	0.46
3:AA:1478:G:C2	3:AA:1479:G:N7	2.83	0.46
36:BC:156:ARG:H	36:BC:163:ALA:HA	1.81	0.46
9:GI:116:MET:SD	9:GI:124:MET:HG2	2.56	0.46
25:CY:56:LEU:O	25:CY:57:LEU:HB3	2.15	0.46
3:EA:626:A:C2	12:EL:78:ARG:HD3	2.51	0.46
28:G1:8:ILE:HD11	28:G1:24:LYS:HG2	1.98	0.46
35:FA:976:G:H2'	35:FA:1362:A:N1	2.31	0.46
49:BP:22:ALA:HA	49:BP:33:ILE:HG13	1.96	0.46
3:AA:2436:G:C2	3:AA:2437:G:C8	3.04	0.46
55:DV:602:LYS:O	55:DV:604:GLY:N	2.44	0.46
25:EY:8:GLU:O	25:EY:12:GLU:HB2	2.16	0.46
13:EM:41:LEU:CD1	13:EM:96:ILE:HD13	2.46	0.46
19:CS:69:LEU:HG	19:CS:107:VAL:CG2	2.46	0.46
53:BT:28:MET:SD	53:BT:67:ILE:HD13	2.55	0.46
21:GU:78:LYS:HG2	21:GU:79:ALA:H	1.80	0.46
2:AC:75:ALA:HB2	2:AC:95:TYR:HA	1.97	0.46
9:CI:123:ALA:HA	9:CI:126:ARG:CZ	2.44	0.46
35:HA:993:G:O2'	35:HA:994:A:N7	2.49	0.46
3:CA:672:C:C2	3:CA:809:G:N2	2.83	0.46
3:EA:1847:A:N3	3:EA:1847:A:H2'	2.30	0.46
35:DA:764:C:H2'	35:DA:765:G:O4'	2.15	0.46
32:E5:54:VAL:HA	32:E5:84:TYR:O	2.16	0.46
32:E5:102:ALA:O	32:E5:107:GLU:HB2	2.16	0.46
3:GA:1194:A:N3	3:GA:1195:G:C8	2.84	0.46
12:GL:29:LYS:HG2	12:GL:30:THR:N	2.30	0.46
3:GA:587:C:C2	12:GL:33:ARG:NH2	2.84	0.46
3:GA:2336:A:C6	23:GW:40:ARG:HB3	2.50	0.46
16:AP:50:ARG:HG2	16:AP:57:ALA:N	2.30	0.46
35:HA:1210:C:H4'	35:HA:1214:C:C4	2.51	0.46
3:GA:836:G:C6	3:GA:837:C:N3	2.84	0.46
3:GA:1110:G:O2'	3:GA:1111:A:H8	1.99	0.46
3:CA:862:G:P	60:CA:3711:HOH:O	2.73	0.46
16:GP:3:ILE:C	16:GP:4:ILE:O	2.54	0.46
44:FK:87:LYS:HA	44:FK:114:THR:HG22	1.97	0.46
3:EA:855:G:C2	23:EW:23:LYS:HD2	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:2354:C:C4'	23:GW:31:LEU:HD13	2.46	0.46
3:CA:788:A:H3'	3:CA:790:U:C5	2.50	0.46
3:GA:528:A:C2	3:GA:2042:A:H2'	2.51	0.46
39:BF:42:TRP:CE2	39:BF:101:PRO:HD3	2.51	0.46
44:HK:60:PRO:HB3	44:HK:92:GLY:N	2.31	0.46
36:HC:14:ILE:O	36:HC:15:VAL:HG22	2.16	0.46
54:HU:14:VAL:HG23	54:HU:16:LEU:CD2	2.46	0.46
34:FB:49:PHE:CD1	34:FB:49:PHE:C	2.89	0.46
3:AA:2210:U:H4'	3:AA:2211:A:H5'	1.97	0.46
53:DT:62:ALA:HA	53:DT:67:ILE:CG2	2.46	0.46
3:CA:1382:G:H4'	3:CA:1573:G:C2	2.51	0.46
3:AA:118:A:C8	3:AA:119:A:C8	3.04	0.46
35:DA:1271:A:C4	35:DA:1272:G:C8	3.04	0.46
35:HA:864:A:H4'	38:HE:90:THR:HG23	1.98	0.46
35:DA:234:C:H2'	35:DA:235:C:C6	2.51	0.46
34:DB:184:ALA:HB3	34:DB:195:VAL:HG11	1.97	0.46
3:AA:11:C:H2'	3:AA:12:U:H5'	1.98	0.46
3:GA:995:C:H42	10:GJ:2:LYS:HB3	1.81	0.46
3:GA:1801:A:C8	2:GC:261:ARG:NH2	2.84	0.46
3:EA:479:A:N3	3:EA:481:G:H5''	2.31	0.46
1:GB:111:U:H2'	1:GB:112:G:H8	1.80	0.46
8:AH:21:VAL:CG2	8:AH:25:TYR:CD2	2.98	0.46
7:GG:123:GLU:HG2	7:GG:124:CYS:N	2.31	0.46
3:EA:936:A:H2'	3:EA:937:C:C6	2.50	0.46
35:DA:1120:C:H2'	35:DA:1121:U:C6	2.51	0.46
39:DF:29:ILE:HD13	39:DF:36:ILE:HG22	1.98	0.46
5:CE:5:LEU:HD11	5:CE:12:LEU:HB2	1.98	0.46
11:AK:99:ILE:HG21	11:AK:119:ALA:HB2	1.98	0.46
35:FA:289:G:C6	35:FA:290:C:N4	2.84	0.46
3:CA:247:G:N7	3:CA:249:C:C2	2.84	0.46
35:HA:1276:G:N3	35:HA:1282:C:O2'	2.40	0.46
3:EA:82:U:H3	3:EA:104:A:H61	1.64	0.46
6:GF:141:ASP:O	6:GF:145:VAL:HG13	2.15	0.46
3:AA:2318:G:C6	3:AA:2319:G:C6	3.03	0.46
3:EA:2715:C:C4	3:EA:2716:C:C5	3.04	0.46
53:FT:62:ALA:HA	53:FT:67:ILE:HG22	1.97	0.46
55:HV:342:VAL:HG22	55:HV:378:ARG:HD2	1.98	0.46
5:CE:137:LYS:O	5:CE:141:MET:N	2.44	0.46
3:GA:1936:A:C2	3:GA:1945:G:C4	3.04	0.46
35:HA:1381:U:H1'	40:HG:78:ARG:O	2.16	0.46
3:GA:2362:C:OP1	30:G3:39:ARG:NE	2.45	0.46
31:G4:14:CYS:HB3	31:G4:25:VAL:HG13	1.98	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:2459:A:C2	3:EA:2460:U:H1'	2.51	0.46
3:AA:593:U:H2'	3:AA:594:U:C6	2.51	0.46
11:CK:35:VAL:HG12	11:CK:36:GLY:N	2.30	0.46
19:CS:4:ILE:HG13	19:CS:5:ALA:N	2.30	0.46
3:GA:2715:C:C4	3:GA:2716:C:C5	3.03	0.46
55:FV:78:GLN:NE2	55:FV:280:ASP:OD2	2.49	0.46
3:EA:24:G:H1'	19:ES:77:ASP:HB3	1.98	0.46
34:DB:183:PHE:CE2	34:DB:197:PHE:CD2	3.03	0.46
19:CS:63:GLY:O	19:CS:64:ALA:CB	2.64	0.46
35:DA:1295:U:C4	35:DA:1296:C:N4	2.84	0.46
9:AI:61:TYR:CD1	9:AI:61:TYR:N	2.82	0.46
45:BL:72:HIS:ND1	45:BL:73:ASN:O	2.41	0.46
7:EG:88:LEU:HD11	7:EG:95:ALA:HB2	1.96	0.46
53:DT:7:ALA:O	53:DT:10:ARG:HB2	2.16	0.46
3:AA:959:A:H62	13:AM:82:MET:CE	2.28	0.46
3:GA:1808:A:N1	24:GX:27:ARG:HD2	2.31	0.46
5:AE:44:ARG:HG3	5:AE:44:ARG:HH21	1.80	0.46
18:GR:79:ARG:O	18:GR:80:ARG:HG2	2.16	0.46
23:GW:37:VAL:HB	23:GW:38:ARG:HH11	1.80	0.46
35:HA:1014:A:C2	35:HA:1219:A:N3	2.83	0.46
3:EA:2352:A:C6	23:EW:30:VAL:HG11	2.49	0.46
3:GA:1095:A:C8	55:HV:629:GLY:C	2.89	0.46
3:GA:635:C:C4	3:GA:636:G:C5	3.03	0.46
45:DL:43:LYS:HG2	45:DL:44:LYS:N	2.30	0.46
16:EP:50:ARG:CD	16:EP:56:SER:HB3	2.46	0.46
53:DT:3:ASN:C	53:DT:5:LYS:H	2.18	0.46
3:GA:2611:C:OP2	60:GA:3537:HOH:O	2.21	0.46
35:BA:111:G:C6	35:BA:330:C:N4	2.84	0.46
3:GA:1181:U:H2'	3:GA:1182:G:C8	2.51	0.46
19:AS:18:ARG:HG3	19:AS:76:VAL:HG13	1.98	0.46
35:HA:841:C:N3	35:HA:843:U:C5	2.84	0.46
35:DA:595:A:C2	35:DA:641:U:C2	3.04	0.46
3:GA:952:G:C2'	3:GA:953:G:O5'	2.64	0.46
34:BB:32:GLY:HA2	34:BB:39:ILE:HB	1.98	0.46
3:GA:2314:A:H1'	6:GF:154:THR:HG21	1.97	0.46
3:CA:2038:G:C6	3:CA:2039:U:C4	3.03	0.46
3:CA:655:A:H4'	3:CA:656:G:OP1	2.16	0.46
43:FJ:6:ILE:HD11	43:FJ:79:PRO:HB3	1.97	0.46
44:HK:79:ILE:HB	44:HK:105:PHE:CE1	2.51	0.46
2:EC:68:ARG:CD	2:EC:103:ILE:HD11	2.46	0.46
3:EA:2142:A:N7	3:EA:2147:A:C2	2.84	0.46
3:EA:2071:A:H2'	3:EA:2072:C:C6	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:AZ:3:THR:HA	26:AZ:37:ARG:O	2.16	0.46
3:GA:478:A:C6	3:GA:480:A:C6	3.04	0.46
3:EA:2016:U:H2'	3:EA:2017:U:C6	2.50	0.46
35:DA:1118:U:OP1	42:DI:106:ARG:NE	2.49	0.46
35:DA:1287:A:N6	35:DA:1288:A:N6	2.63	0.46
55:FV:87:ILE:HD12	55:FV:106:LEU:HD23	1.97	0.46
54:FU:25:LYS:C	54:FU:27:GLY:N	2.69	0.46
55:HV:342:VAL:HG21	55:HV:378:ARG:NH1	2.30	0.46
35:BA:420:U:C2'	35:BA:421:U:H5''	2.46	0.46
35:FA:376:G:H4'	49:FP:5:ARG:HD2	1.98	0.46
35:FA:282:A:C8	35:FA:283:U:C5	3.04	0.46
35:DA:1412:C:H2'	35:DA:1413:A:C8	2.50	0.46
55:HV:414:PRO:HA	55:HV:461:MET:SD	2.55	0.46
3:AA:1838:C:H4'	3:AA:1839:G:C8	2.51	0.46
49:DP:18:GLN:HG3	49:DP:35:ARG:HD2	1.97	0.46
55:DV:545:ILE:HD11	55:DV:581:GLY:HA3	1.97	0.46
35:DA:1062:U:H2'	35:DA:1063:C:C6	2.51	0.46
3:GA:845:A:C6	3:GA:847:U:C5	3.03	0.46
4:CD:99:GLU:HG3	4:CD:100:LEU:N	2.30	0.46
35:BA:283:U:C4	35:BA:284:C:C4	3.03	0.46
1:GB:106:G:C2	1:GB:107:G:H1'	2.50	0.46
3:CA:2063:C:O2	3:CA:2450:A:N1	2.48	0.46
19:GS:77:ASP:O	19:GS:102:HIS:N	2.34	0.46
9:GI:96:LYS:HG3	9:GI:135:MET:HE2	1.98	0.46
3:EA:2281:A:O2'	3:EA:2282:G:H5'	2.16	0.46
3:EA:2194:U:C4	3:EA:2195:U:C5	3.04	0.46
3:CA:2035:G:OP1	3:CA:2036:C:N4	2.48	0.46
22:EV:80:HIS:CD2	22:EV:83:LYS:HB2	2.51	0.46
3:CA:1563:U:H2'	3:CA:1564:C:C6	2.51	0.46
3:EA:2652:C:C4	3:EA:2653:U:C4	3.04	0.46
3:CA:2423:U:H6	3:CA:2423:U:H5'	1.81	0.46
36:HC:144:LEU:H	36:HC:144:LEU:HD22	1.81	0.46
16:AP:21:PRO:HD3	16:AP:49:ILE:HD12	1.98	0.46
3:EA:1747:U:H2'	3:EA:1748:C:C6	2.51	0.46
3:AA:1248:G:C5	5:AE:46:GLN:NE2	2.84	0.46
32:E5:31:ARG:O	32:E5:108:VAL:HG22	2.16	0.46
40:DG:113:ASP:HB2	40:DG:119:ARG:HG2	1.98	0.46
3:GA:575:A:C2	3:GA:576:U:C5	3.04	0.46
10:EJ:49:ASP:OD2	10:EJ:121:LYS:HE2	2.16	0.46
3:GA:1913:A:N7	35:HA:1494:G:H4'	2.30	0.46
3:GA:2336:A:C5	23:GW:40:ARG:HD3	2.51	0.46
37:DD:26:ARG:O	37:DD:27:ALA:HB2	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:821:A:H5''	3:GA:822:G:O5'	2.16	0.46
3:GA:837:C:N4	3:GA:941:A:N6	2.64	0.46
26:CZ:36:GLU:O	26:CZ:37:ARG:HD2	2.16	0.46
35:HA:1244:G:H2'	35:HA:1245:C:C6	2.51	0.46
9:AI:137:LEU:HD23	9:AI:137:LEU:H	1.81	0.46
35:DA:324:G:N2	35:DA:326:G:H3'	2.31	0.46
3:GA:2365:G:OP1	23:GW:54:ARG:N	2.42	0.46
35:HA:1331:G:O2'	35:HA:1332:A:P	2.75	0.46
3:CA:2571:U:O2'	4:CD:151:THR:CG2	2.64	0.46
23:CW:72:GLY:N	23:CW:73:PRO:HD2	2.31	0.46
3:CA:2741:A:O3'	31:C4:36:ARG:NH1	2.49	0.46
3:EA:1131:G:OP1	10:EJ:82:GLY:HA2	2.15	0.46
37:FD:91:LEU:HA	37:FD:94:LEU:HB2	1.98	0.46
3:GA:1655:A:H5'	4:GD:118:PHE:CD1	2.51	0.46
3:CA:546:U:H2'	3:CA:547:A:C4'	2.45	0.46
28:A1:8:ILE:HG21	28:A1:51:ALA:HA	1.98	0.46
2:GC:14:HIS:O	2:GC:203:VAL:HG11	2.16	0.46
3:EA:370:G:O2'	3:EA:424:G:OP1	2.29	0.46
20:AT:29:THR:HB	20:AT:86:THR:HG22	1.98	0.46
3:GA:1359:A:C5	3:GA:1360:G:C8	3.04	0.46
34:BB:65:LYS:HD2	34:BB:153:MET:HG2	1.97	0.46
18:ER:66:HIS:CG	18:ER:94:THR:HG22	2.51	0.46
35:DA:898:G:N2	35:DA:901:A:OP2	2.43	0.46
3:GA:186:G:H2'	3:GA:187:G:H8	1.81	0.46
3:GA:833:A:OP2	12:GL:39:LYS:NZ	2.43	0.46
35:DA:1228:C:OP1	46:DM:110:LYS:NZ	2.48	0.46
7:AG:23:ILE:HD12	7:AG:23:ILE:H	1.81	0.46
35:BA:471:U:H2'	35:BA:472:U:C6	2.51	0.46
34:HB:46:VAL:O	34:HB:49:PHE:CD2	2.69	0.46
35:FA:1143:G:C2	35:FA:1144:G:C8	3.03	0.46
35:DA:72:A:H3'	35:DA:73:C:H5''	1.98	0.46
3:AA:627:A:C6	3:AA:637:A:C8	3.04	0.46
8:AH:40:THR:C	8:AH:42:LYS:H	2.19	0.46
36:BC:120:ILE:HD11	36:BC:137:ALA:HB2	1.98	0.46
3:CA:145:C:H2'	3:CA:146:A:H8	1.81	0.46
35:BA:250:A:H4'	35:BA:251:G:O5'	2.16	0.46
3:AA:1542:U:H2'	3:AA:1543:G:O4'	2.16	0.46
5:CE:58:LYS:NZ	5:CE:70:SER:O	2.50	0.46
55:FV:309:ARG:NE	55:FV:316:PRO:HG2	2.30	0.46
35:HA:259:G:N2	35:HA:260:G:H1'	2.31	0.46
3:GA:1370:C:O2'	3:GA:1811:G:O2'	2.33	0.46
3:CA:438:G:H2'	3:CA:439:A:C8	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:FT:55:GLN:N	53:FT:56:PRO:HD2	2.31	0.46
12:CL:132:ARG:HG3	12:CL:142:ILE:HD12	1.98	0.46
3:EA:1877:A:H2'	3:EA:1878:G:O4'	2.16	0.46
41:HH:64:LYS:HB3	41:HH:71:VAL:HG21	1.98	0.46
41:HH:112:THR:HG22	41:HH:114:ARG:H	1.81	0.46
39:DF:44:ARG:HA	39:DF:58:HIS:HA	1.98	0.46
46:FM:95:LEU:HB3	46:FM:96:PRO:HD2	1.97	0.46
3:CA:2103:C:H2'	3:CA:2104:C:H5''	1.97	0.46
3:AA:2326:C:H4'	3:AA:2327:A:OP1	2.16	0.46
12:GL:46:VAL:HB	12:GL:50:PHE:HD2	1.80	0.46
35:HA:386:C:N4	35:HA:387:U:C4	2.84	0.46
26:CZ:6:ILE:O	26:CZ:34:THR:HA	2.16	0.46
43:HJ:50:THR:CG2	43:HJ:64:GLN:HG2	2.46	0.46
3:GA:2659:G:P	7:GG:157:LYS:HZ2	2.38	0.46
18:GR:66:HIS:CG	18:GR:94:THR:HG22	2.51	0.46
12:AL:61:LEU:O	30:A3:12:ARG:HD3	2.16	0.46
3:CA:1758:U:C5	3:CA:2696:U:H5'	2.51	0.46
14:EN:83:LEU:HA	14:EN:86:ARG:HB3	1.98	0.46
4:GD:62:LYS:HB2	4:GD:63:PRO:HD3	1.97	0.46
35:FA:436:C:H2'	35:FA:437:U:C6	2.52	0.46
14:AN:70:THR:HB	14:AN:75:ILE:CD1	2.46	0.46
3:CA:204:A:OP1	3:CA:206:U:H1'	2.16	0.46
53:DT:4:ILE:HG22	53:DT:4:ILE:O	2.16	0.46
3:CA:1403:A:C2	3:CA:1404:C:C2	3.03	0.46
3:GA:2657:A:O2'	7:GG:159:LYS:NZ	2.45	0.46
32:C5:127:ALA:C	32:C5:129:LEU:N	2.70	0.45
1:EB:44:G:N2	1:EB:48:U:C2	2.84	0.45
32:C5:39:THR:HA	32:C5:42:ARG:CD	2.45	0.45
3:GA:1076:C:H4'	9:GI:93:ASN:ND2	2.31	0.45
46:HM:75:MET:O	46:HM:79:ARG:N	2.36	0.45
3:GA:29:U:O4'	17:GQ:10:ARG:NH2	2.46	0.45
3:EA:921:C:H2'	3:EA:922:C:H6	1.81	0.45
23:AW:30:VAL:HG23	23:AW:60:ALA:O	2.15	0.45
6:AF:107:VAL:HG11	6:AF:116:LEU:HD21	1.99	0.45
3:GA:983:A:C5	3:GA:984:A:N7	2.84	0.45
17:AQ:4:LYS:NZ	17:AQ:7:VAL:HG11	2.31	0.45
23:AW:19:ARG:CZ	23:AW:22:VAL:HB	2.46	0.45
9:GI:102:ARG:H	9:GI:140:GLU:HB2	1.81	0.45
35:HA:930:C:N4	35:HA:931:C:N4	2.64	0.45
35:FA:1319:A:P	52:FS:5:LEU:HD11	2.56	0.45
2:EC:16:VAL:N	2:EC:203:VAL:CG1	2.79	0.45
40:FG:57:SER:CB	40:FG:60:GLU:OE2	2.65	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:139:U:O2'	20:ET:1:MET:HA	2.17	0.45
18:CR:39:LEU:HA	18:CR:49:ILE:HG21	1.97	0.45
46:FM:10:PRO:O	46:FM:11:ASP:CB	2.63	0.45
3:GA:923:G:N3	23:GW:23:LYS:CD	2.80	0.45
37:DD:146:ARG:HB3	37:DD:148:LYS:HG2	1.98	0.45
7:CG:164:ALA:N	7:CG:166:GLU:HG3	2.31	0.45
3:EA:929:U:H4'	26:EZ:37:ARG:HH22	1.81	0.45
16:CP:64:SER:OG	16:CP:65:ASN:ND2	2.49	0.45
35:BA:1126:U:C2	35:BA:1281:C:C5	3.03	0.45
3:GA:2674:G:H4'	11:GK:30:ARG:HG3	1.97	0.45
44:HK:34:ILE:CD1	44:HK:70:CYS:SG	3.04	0.45
10:AJ:12:LYS:O	10:AJ:13:ARG:CB	2.64	0.45
3:GA:278:A:C2	3:GA:362:A:C8	3.03	0.45
35:DA:322:C:OP2	35:DA:328:C:N4	2.49	0.45
21:GU:78:LYS:HG2	21:GU:79:ALA:N	2.31	0.45
3:GA:846:U:O2'	3:GA:847:U:O5'	2.34	0.45
12:CL:68:SER:O	12:CL:69:ARG:HB3	2.16	0.45
55:BV:497:LYS:HG2	55:BV:523:TYR:HB2	1.98	0.45
35:HA:1344:C:H1'	35:HA:1349:A:H4'	1.98	0.45
3:EA:2329:U:H2'	3:EA:2330:G:C8	2.51	0.45
5:CE:18:THR:HG22	5:CE:106:LYS:HE2	1.98	0.45
40:BG:59:LEU:O	40:BG:62:PHE:HB3	2.16	0.45
55:BV:127:TRP:CH2	55:BV:137:ARG:HD2	2.51	0.45
48:HO:35:GLN:HB3	48:HO:59:MET:HE1	1.98	0.45
35:FA:332:G:OP2	53:FT:4:ILE:HA	2.16	0.45
4:ED:15:PHE:CD1	16:EP:78:PRO:HD2	2.50	0.45
35:BA:653:U:H5'	41:BH:56:LYS:HE2	1.98	0.45
55:HV:151:PHE:CE1	55:HV:266:CYS:HB3	2.51	0.45
28:E1:16:THR:HB	28:E1:41:VAL:HG11	1.98	0.45
38:HE:153:VAL:HB	38:HE:156:LYS:HE2	1.97	0.45
35:HA:565:U:OP2	35:HA:566:G:O2'	2.18	0.45
3:EA:246:C:H2'	3:EA:247:G:H5'	1.98	0.45
35:HA:1105:A:H2'	35:HA:1106:G:H8	1.81	0.45
6:CF:34:THR:HG22	6:CF:89:THR:HA	1.98	0.45
5:CE:146:VAL:HA	5:CE:185:LYS:O	2.15	0.45
35:BA:1410:A:H2'	35:BA:1411:C:C6	2.50	0.45
3:GA:614:A:H5''	3:GA:616:A:C6	2.50	0.45
32:E5:60:LEU:HA	32:E5:64:VAL:HG23	1.98	0.45
32:E5:64:VAL:O	32:E5:68:PRO:HD2	2.17	0.45
34:DB:32:GLY:HA3	34:DB:39:ILE:HB	1.98	0.45
3:EA:1544:A:C6	3:EA:1545:A:C6	3.04	0.45
3:CA:2328:A:H2'	3:CA:2329:U:C6	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DN:31:ILE:HD12	47:DN:31:ILE:N	2.31	0.45
55:BV:421:GLU:O	55:BV:481:ALA:HB1	2.17	0.45
17:GQ:4:LYS:HG3	17:GQ:5:ARG:H	1.80	0.45
3:GA:878:A:H3'	3:GA:879:G:H8	1.81	0.45
3:CA:2311:A:H2	6:CF:43:ILE:HG21	1.80	0.45
60:GA:3363:HOH:O	18:GR:85:LYS:NZ	2.47	0.45
44:FK:126:LYS:O	54:FU:34:ARG:CZ	2.64	0.45
35:DA:926:G:C6	35:DA:1505:G:C5	3.05	0.45
54:HU:41:PRO:O	54:HU:45:ARG:N	2.41	0.45
35:FA:1126:U:O2	35:FA:1280:A:H2'	2.16	0.45
3:CA:1797:G:O3'	2:CC:255:LYS:O	2.35	0.45
34:BB:60:ALA:HB2	34:BB:220:VAL:HG12	1.99	0.45
35:HA:1306:A:N6	35:HA:1330:U:N3	2.65	0.45
35:HA:505:G:C6	35:HA:535:A:C2	3.04	0.45
3:CA:686:U:H2'	3:CA:788:A:C2	2.50	0.45
23:AW:19:ARG:CD	23:AW:19:ARG:C	2.85	0.45
3:GA:2521:C:C4	3:GA:2522:U:C4	3.05	0.45
3:GA:643:A:C5	3:GA:644:A:N7	2.84	0.45
3:GA:646:U:H3'	3:GA:647:G:H5''	1.98	0.45
10:AJ:80:HIS:O	10:AJ:82:GLY:N	2.50	0.45
3:GA:306:U:O2'	3:GA:1211:C:OP1	2.28	0.45
43:HJ:14:ASP:OD2	43:HJ:17:LEU:HB3	2.16	0.45
3:CA:1144:A:C6	3:CA:1145:C:C4	3.05	0.45
35:BA:1277:C:O2'	35:BA:1279:G:H8	1.98	0.45
6:CF:131:VAL:CG2	6:CF:132:ARG:N	2.79	0.45
9:EI:83:ALA:HB1	9:EI:100:ILE:CD1	2.45	0.45
35:HA:657:U:H1'	48:HO:23:GLY:HA2	1.98	0.45
23:CW:23:LYS:HG3	23:CW:24:ARG:N	2.31	0.45
35:FA:932:C:H5'	40:FG:4:ARG:HE	1.81	0.45
7:CG:9:VAL:HA	7:CG:47:ASN:O	2.16	0.45
9:EI:120:ASP:O	9:EI:123:ALA:N	2.48	0.45
20:AT:29:THR:CB	20:AT:86:THR:H	2.29	0.45
3:CA:141:G:H5''	3:CA:142:A:C5	2.51	0.45
55:DV:196:ALA:O	55:DV:198:GLN:N	2.49	0.45
35:HA:751:U:O2'	48:HO:25:THR:OG1	2.32	0.45
3:CA:824:U:O2'	3:CA:2358:A:N7	2.41	0.45
35:DA:234:C:H2'	35:DA:235:C:H6	1.81	0.45
9:GI:18:ASN:N	9:GI:19:PRO:CD	2.79	0.45
6:GF:132:ARG:O	6:GF:133:GLU:HB3	2.16	0.45
3:CA:2844:G:C5	3:CA:2845:U:C5	3.04	0.45
11:EK:18:ARG:H	11:EK:45:GLU:HB2	1.81	0.45
35:FA:1347:G:HO2'	35:FA:1373:G:H1	1.64	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DC:7:PRO:HG2	36:DC:184:TYR:CG	2.50	0.45
37:BD:125:VAL:O	37:BD:127:GLY:N	2.47	0.45
45:HL:7:LEU:HB3	50:HQ:34:TYR:CD2	2.51	0.45
26:CZ:23:LEU:HD21	26:CZ:53:MET:SD	2.56	0.45
36:HC:150:LYS:HG3	36:HC:201:TRP:CE3	2.51	0.45
23:EW:51:GLY:HA3	23:EW:59:PHE:CE1	2.52	0.45
50:HQ:74:THR:HG22	50:HQ:75:LEU:N	2.31	0.45
35:FA:994:A:N1	35:FA:1047:G:H4'	2.31	0.45
34:HB:25:LYS:HE2	34:HB:193:ASP:OD1	2.16	0.45
55:HV:443:PRO:O	55:HV:446:ARG:NH2	2.44	0.45
55:DV:97:ILE:HB	55:DV:444:SER:HB3	1.97	0.45
35:BA:1119:C:OP2	42:BI:11:ARG:NH2	2.49	0.45
6:AF:30:VAL:CG1	6:AF:96:TRP:CH2	2.99	0.45
34:HB:113:LEU:HD13	34:HB:143:LEU:CD1	2.46	0.45
32:E5:15:VAL:HG21	32:E5:66:GLY:HA2	1.98	0.45
4:CD:102:ALA:HA	4:CD:180:VAL:HG11	1.98	0.45
17:GQ:20:ALA:HA	17:GQ:23:TYR:CE2	2.52	0.45
49:FP:68:SER:HB2	49:FP:71:VAL:H	1.81	0.45
34:DB:57:ASN:OD1	34:DB:220:VAL:HA	2.17	0.45
35:FA:188:C:H2'	35:FA:189:A:O4'	2.16	0.45
17:EQ:90:ASP:HA	18:ER:11:GLN:HE22	1.82	0.45
1:EB:48:U:P	15:EO:30:ARG:HH22	2.39	0.45
23:GW:39:GLN:HG2	23:GW:40:ARG:N	2.32	0.45
32:C5:33:VAL:HG12	32:C5:34:THR:N	2.24	0.45
35:HA:1243:C:H2'	35:HA:1244:G:C8	2.51	0.45
3:GA:2301:C:N3	3:GA:2316:G:N2	2.64	0.45
54:BU:45:ARG:HA	54:BU:48:ALA:HB3	1.97	0.45
17:GQ:91:ARG:NH1	18:GR:11:GLN:O	2.49	0.45
12:AL:85:VAL:HG22	12:AL:94:THR:HG22	1.98	0.45
35:DA:1363:A:C8	35:DA:1365:G:C8	3.04	0.45
39:DF:38:ARG:HE	39:DF:97:THR:HA	1.81	0.45
46:BM:29:ARG:NH1	46:BM:63:PHE:HB2	2.31	0.45
12:CL:77:ILE:N	12:CL:77:ILE:HD12	2.32	0.45
35:DA:707:U:H2'	35:DA:708:C:C6	2.52	0.45
23:GW:31:LEU:HD23	23:GW:31:LEU:N	2.30	0.45
3:CA:783:A:H8	3:CA:784:G:H5''	1.81	0.45
35:HA:947:G:O4'	35:HA:1333:A:O2'	2.20	0.45
10:GJ:118:MET:HA	10:GJ:121:LYS:HE2	1.97	0.45
3:GA:1930:G:H22	3:GA:1969:A:P	2.39	0.45
52:FS:5:LEU:C	52:FS:6:LYS:HG3	2.37	0.45
35:FA:354:G:C2	35:FA:355:C:C6	3.04	0.45
3:GA:230:G:C4	3:GA:231:A:C8	3.04	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:953:G:N2	3:GA:965:C:C2	2.85	0.45
38:DE:94:VAL:CG2	38:DE:111:MET:SD	3.04	0.45
44:HK:24:HIS:CG	44:HK:25:ALA:N	2.84	0.45
2:CC:33:LEU:CD2	2:CC:62:ARG:HD3	2.47	0.45
20:ET:54:GLU:OE1	20:ET:54:GLU:N	2.50	0.45
35:DA:1305:G:N2	35:DA:1331:G:O2'	2.49	0.45
35:DA:79:G:H2'	35:DA:80:A:O5'	2.16	0.45
55:BV:48:ALA:HB2	55:BV:369:ASN:OD1	2.17	0.45
5:AE:187:VAL:O	5:AE:188:MET:HB3	2.16	0.45
39:FF:90:MET:HG2	39:FF:91:ARG:N	2.31	0.45
3:CA:26:G:C6	3:CA:27:G:N1	2.85	0.45
7:GG:84:LYS:HB3	7:GG:132:LEU:O	2.16	0.45
52:BS:10:PHE:HE1	52:BS:37:ARG:HD2	1.82	0.45
8:CH:40:THR:C	8:CH:42:LYS:H	2.18	0.45
13:CM:96:ILE:HD11	13:CM:126:ILE:CD1	2.45	0.45
25:CY:3:ALA:HA	25:CY:6:LEU:HB3	1.98	0.45
3:AA:2862:G:C6	3:AA:2863:C:C4	3.04	0.45
35:FA:174:A:C5	35:FA:175:C:C5	3.04	0.45
6:EF:121:PHE:CE1	6:EF:127:TYR:CD1	3.04	0.45
35:BA:481:G:O2'	35:BA:482:A:C8	2.66	0.45
3:EA:27:G:O2'	3:EA:28:A:OP2	2.32	0.45
3:GA:1351:C:C2	3:GA:1381:G:N1	2.85	0.45
55:FV:338:VAL:O	55:FV:380:GLY:N	2.45	0.45
17:GQ:6:GLY:HA2	17:GQ:9:ALA:HB3	1.98	0.45
3:AA:1088:A:HO2'	3:AA:1089:A:P	2.39	0.45
3:GA:2227:A:H5''	2:GC:260:LYS:HD3	1.98	0.45
19:GS:36:LEU:HD21	19:GS:47:VAL:HG12	1.98	0.45
3:CA:2291:U:O2'	3:CA:2374:C:O2	2.26	0.45
14:EN:38:LEU:HB3	14:EN:39:PRO:HD3	1.98	0.45
1:AB:37:C:C5	1:AB:38:C:C4	3.04	0.45
48:HO:26:GLU:HG2	48:HO:81:LEU:HD22	1.98	0.45
21:GU:27:VAL:HA	21:GU:33:VAL:HG12	1.96	0.45
42:HI:7:TYR:HE2	42:HI:9:THR:HG1	1.63	0.45
3:EA:311:A:C8	3:EA:332:A:N7	2.84	0.45
35:DA:1444:U:H2'	35:DA:1445:U:C6	2.51	0.45
35:FA:35:G:N3	45:FL:115:SER:OG	2.49	0.45
35:HA:109:A:H2'	35:HA:326:G:N2	2.30	0.45
36:FC:153:VAL:HG23	36:FC:157:LEU:HD21	1.97	0.45
50:FQ:17:MET:SD	50:FQ:20:SER:OG	2.62	0.45
35:FA:1059:C:O3'	47:FN:85:ARG:NH2	2.49	0.45
1:CB:35:C:H2'	1:CB:36:C:O4'	2.16	0.45
35:FA:986:U:H2'	35:FA:987:G:O4'	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:2478:A:P	31:E4:2:LYS:HZ1	2.40	0.45
11:EK:24:VAL:HG13	11:EK:33:ALA:HB2	1.98	0.45
13:GM:28:PHE:N	13:GM:104:GLU:OE2	2.46	0.45
3:AA:1313:U:H2'	3:AA:1610:A:C2	2.51	0.45
24:GX:40:GLU:O	24:GX:43:LYS:HD2	2.17	0.45
3:CA:1681:G:O2'	3:CA:1762:A:N3	2.36	0.45
25:GY:32:ALA:HA	25:GY:37:LEU:HB3	1.99	0.45
15:AO:43:ASN:O	15:AO:45:SER:N	2.50	0.45
34:FB:21:TYR:CD1	34:FB:21:TYR:N	2.82	0.45
6:EF:30:VAL:CG1	6:EF:96:TRP:CH2	2.99	0.45
34:BB:132:GLU:HA	34:BB:135:MET:HB3	1.97	0.45
16:EP:19:PHE:HZ	16:EP:83:ILE:HG12	1.82	0.45
23:GW:44:PHE:HB3	23:GW:78:PHE:CD1	2.51	0.45
45:HL:44:LYS:CB	45:HL:45:PRO:CD	2.94	0.45
3:AA:2478:A:H2'	3:AA:2479:U:H5'	1.98	0.45
35:HA:1467:C:H2'	35:HA:1468:A:H8	1.81	0.45
35:BA:460:A:H2	35:BA:462:G:C8	2.34	0.45
10:GJ:33:ALA:O	10:GJ:37:ARG:N	2.50	0.45
3:CA:1344:U:H4'	3:CA:1384:A:C5	2.51	0.45
17:AQ:4:LYS:NZ	17:AQ:7:VAL:CG1	2.79	0.45
48:DO:79:THR:O	48:DO:82:ILE:HG12	2.17	0.45
40:HG:138:ARG:NH1	40:HG:139:GLU:OE2	2.49	0.45
3:CA:2849:U:N3	3:CA:2867:G:O4'	2.40	0.45
21:GU:85:ARG:HD3	21:GU:86:PHE:N	2.31	0.45
3:CA:1171:G:N1	3:CA:1172:C:C4	2.85	0.45
31:G4:1:MET:HE1	31:G4:36:ARG:HB2	1.98	0.45
35:FA:1526:G:P	54:FU:39:GLU:CG	3.04	0.45
35:FA:1319:A:OP2	52:FS:5:LEU:HD11	2.16	0.45
3:GA:2304:G:O2'	6:GF:152:ASP:OD2	2.32	0.45
54:FU:10:GLU:CG	54:FU:11:PRO:HD3	2.47	0.45
3:GA:248:G:O2'	3:GA:2432:A:OP1	2.29	0.45
9:EI:20:SER:HB3	9:EI:21:PRO:HD3	1.98	0.45
3:CA:2305:U:C4	6:CF:151:LEU:HA	2.52	0.45
28:A1:33:LEU:N	28:A1:51:ALA:CB	2.80	0.45
3:AA:2698:U:H2'	3:AA:2699:C:C6	2.51	0.45
7:EG:37:ASN:HB3	7:EG:40:VAL:HG22	1.98	0.45
3:CA:2211:A:O2'	3:CA:2212:A:P	2.75	0.45
35:DA:1328:C:C2	35:DA:1329:A:C8	3.04	0.45
5:EE:188:MET:CE	5:EE:196:VAL:HG21	2.47	0.45
11:AK:10:VAL:HG21	11:AK:17:ARG:H	1.81	0.45
9:CI:55:PRO:O	9:CI:71:LYS:HG3	2.17	0.45
35:DA:204:G:H1'	35:DA:465:A:C2	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:13:ASN:O	11:AK:14:SER:OG	2.29	0.45
3:CA:1731:G:O2'	3:CA:1732:C:H3'	2.16	0.45
3:AA:1171:G:C6	3:AA:1172:C:C4	3.04	0.45
3:AA:2108:A:C2'	3:AA:2109:U:O5'	2.65	0.45
13:CM:13:HIS:O	13:CM:14:LYS:CB	2.63	0.45
6:EF:37:MET:HE3	6:EF:151:LEU:HB3	1.98	0.45
8:GH:31:VAL:HB	8:GH:32:PRO:HD3	1.97	0.45
11:AK:98:ARG:HA	11:AK:118:LEU:HD23	1.97	0.45
32:E5:15:VAL:HG22	32:E5:66:GLY:HA3	1.97	0.45
43:DJ:74:VAL:HG12	43:DJ:75:ASP:N	2.31	0.45
41:FH:59:LEU:HD21	41:FH:61:LEU:HD21	1.99	0.45
52:DS:36:ARG:HH22	52:DS:77:THR:CG2	2.29	0.45
3:EA:1028:A:N6	3:EA:1125:G:H2'	2.31	0.45
18:GR:54:VAL:HG12	18:GR:57:GLY:HA3	1.98	0.45
14:CN:69:ARG:O	14:CN:71:ARG:N	2.47	0.45
3:CA:613:A:O2'	3:CA:614:A:OP1	2.31	0.45
11:GK:73:ASP:OD1	11:GK:74:GLY:N	2.49	0.45
46:DM:64:VAL:HG13	46:DM:68:ASP:HB3	1.98	0.45
40:HG:111:ARG:HH21	40:HG:123:GLU:HG2	1.82	0.45
10:GJ:44:TYR:CE2	17:GQ:59:LEU:HD11	2.51	0.45
13:EM:54:THR:O	13:EM:56:ALA:N	2.47	0.45
3:CA:2473:U:C4	3:CA:2474:U:C4	3.04	0.45
35:BA:913:A:OP1	45:BL:88:LYS:NZ	2.45	0.45
3:AA:938:G:OP2	30:A3:51:LYS:NZ	2.33	0.45
55:FV:195:ASP:OD1	55:FV:196:ALA:N	2.50	0.45
7:EG:39:ALA:HA	7:EG:57:TYR:CD2	2.52	0.45
55:BV:532:LYS:HD3	55:BV:534:TYR:H	1.81	0.45
3:AA:1593:A:H2'	3:AA:1594:U:O4'	2.17	0.45
37:HD:169:THR:HG22	37:HD:184:ARG:NH2	2.30	0.45
7:AG:163:TYR:O	7:AG:164:ALA:HB2	2.16	0.45
3:AA:751:A:C6	3:AA:789:A:C5	3.04	0.45
10:CJ:122:LEU:HD11	10:CJ:124:VAL:HG13	1.97	0.45
55:HV:79:TYR:OH	55:HV:284:ASP:OD1	2.22	0.45
35:HA:885:G:N1	35:HA:886:G:C5	2.85	0.45
3:AA:1686:C:C2	3:AA:1703:G:C2	3.05	0.45
3:GA:2634:A:C2	3:GA:2635:A:C4	3.04	0.45
50:DQ:8:LEU:HD12	50:DQ:73:TRP:CH2	2.52	0.45
5:AE:119:ILE:O	5:AE:119:ILE:HG13	2.16	0.45
10:CJ:84:ILE:HG23	10:CJ:84:ILE:O	2.17	0.45
43:DJ:63:ASP:HB3	43:DJ:65:TYR:CE1	2.51	0.45
3:CA:197:A:OP1	60:CA:3744:HOH:O	2.20	0.45
12:AL:132:ARG:HG3	12:AL:142:ILE:HD12	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:GX:65:THR:O	24:GX:68:ALA:HB3	2.16	0.45
10:CJ:4:PHE:C	10:CJ:44:TYR:HE1	2.20	0.45
32:E5:31:ARG:HA	32:E5:31:ARG:HD3	1.76	0.45
3:GA:1198:U:O3'	17:GQ:4:LYS:HE3	2.16	0.45
35:HA:1404:C:H2'	35:HA:1405:G:C8	2.52	0.45
52:HS:36:ARG:CD	52:HS:51:VAL:HG11	2.46	0.45
3:GA:819:A:C5	3:GA:1189:A:C2	3.04	0.45
3:CA:2336:A:H61	23:CW:40:ARG:HB3	1.82	0.45
3:GA:160:A:C6	3:GA:161:A:C6	3.04	0.45
44:BK:127:ARG:NH2	54:BU:33:ARG:O	2.47	0.45
35:FA:1007:U:C2'	35:FA:1008:U:H5'	2.44	0.45
16:EP:4:ILE:HG22	16:EP:8:GLU:HG3	1.96	0.45
39:DF:38:ARG:HG2	39:DF:39:LEU:N	2.32	0.45
3:GA:1171:G:N2	3:GA:1172:C:C4	2.85	0.45
35:DA:707:U:H4'	44:DK:22:HIS:CD2	2.51	0.45
3:GA:2107:G:N1	3:GA:2182:U:H2'	2.29	0.45
35:HA:536:C:H2'	35:HA:537:G:C8	2.51	0.45
35:HA:1128:C:H4'	35:HA:1148:U:C2	2.51	0.45
1:EB:116:G:H4'	15:EO:54:VAL:CG1	2.47	0.45
4:CD:24:VAL:HA	4:CD:191:GLY:H	1.82	0.45
3:AA:85:G:OP1	21:AU:6:ARG:N	2.49	0.45
22:AV:80:HIS:CD2	22:AV:83:LYS:HB2	2.52	0.45
32:A5:68:PRO:HA	32:A5:72:LEU:CG	2.46	0.45
17:GQ:97:ILE:CD1	17:GQ:105:PHE:HD1	2.30	0.45
7:AG:83:THR:C	7:AG:84:LYS:HD3	2.37	0.45
45:DL:98:VAL:HG13	45:DL:101:ALA:CB	2.46	0.45
3:CA:1266:G:OP2	27:C0:16:ARG:NE	2.49	0.45
49:FP:18:GLN:CG	49:FP:35:ARG:HD2	2.46	0.45
3:AA:2024:G:C4	3:AA:2040:G:N2	2.84	0.45
3:CA:2061:G:OP2	60:CA:3492:HOH:O	2.21	0.45
3:GA:1010:A:OP1	17:GQ:62:ALA:HA	2.16	0.45
13:CM:35:ALA:HA	13:CM:128:THR:HG22	1.98	0.45
3:CA:1838:C:C4	3:CA:1899:A:C4	3.04	0.45
3:GA:549:G:H2'	10:GJ:1:MET:HE1	1.98	0.45
23:EW:73:PRO:O	23:EW:74:LYS:HB3	2.17	0.45
35:HA:972:C:H4'	43:HJ:59:LYS:HB3	1.98	0.45
45:DL:63:VAL:HG22	45:DL:64:THR:N	2.31	0.45
35:DA:206:C:H2'	35:DA:207:C:O4'	2.16	0.45
35:FA:979:C:N4	35:FA:980:C:C2	2.84	0.45
35:BA:1060:U:OP1	47:BN:85:ARG:NH2	2.49	0.45
18:GR:66:HIS:CD2	18:GR:94:THR:HG22	2.51	0.45
36:HC:130:PHE:CG	36:HC:131:ARG:N	2.84	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:33:C:O2	3:AA:447:A:N6	2.50	0.45
11:GK:10:VAL:HG11	11:GK:16:ALA:CB	2.47	0.45
3:CA:2517:C:C6	3:CA:2542:A:N7	2.84	0.45
3:EA:2204:G:OP2	2:EC:146:LYS:NZ	2.42	0.45
3:AA:2852:G:C6	3:AA:2853:C:N3	2.84	0.45
3:GA:559:G:OP1	10:GJ:111:LYS:HD3	2.17	0.45
22:EV:6:ALA:HB1	22:EV:40:ILE:CG2	2.47	0.45
3:GA:1904:G:N3	3:GA:1928:A:H2	2.14	0.45
3:CA:813:U:O2'	3:CA:1225:G:O2'	2.28	0.45
43:FJ:88:MET:O	43:FJ:90:LEU:N	2.44	0.45
3:GA:1774:C:OP1	60:GA:3441:HOH:O	2.21	0.45
36:FC:77:ILE:HA	36:FC:84:VAL:HG23	1.99	0.45
3:CA:384:A:H2'	3:CA:385:C:H5'	1.99	0.45
3:GA:1430:G:H2'	3:GA:1431:A:O4'	2.17	0.45
36:DC:14:ILE:O	36:DC:15:VAL:HG22	2.17	0.45
35:HA:211:G:N3	35:HA:211:G:H3'	2.31	0.45
35:DA:1387:G:C6	35:DA:1388:C:C4	3.05	0.45
35:HA:872:A:C8	35:HA:874:G:C8	3.05	0.45
5:GE:109:LEU:HD13	5:GE:112:LEU:HD12	1.99	0.45
35:BA:880:C:OP1	45:BL:9:ARG:NH1	2.49	0.45
3:AA:1161:C:H1'	18:AR:8:GLY:O	2.15	0.45
32:A5:63:ALA:HB3	32:A5:84:TYR:CE2	2.52	0.45
10:AJ:44:TYR:HD1	17:AQ:63:ARG:HG2	1.81	0.45
3:GA:856:G:H2'	3:GA:857:G:C8	2.52	0.45
35:HA:579:A:N6	35:HA:762:U:H3	2.14	0.45
54:FU:34:ARG:HE	54:FU:35:ARG:HG3	1.79	0.45
23:CW:8:SER:O	23:CW:9:THR:HG22	2.17	0.45
44:FK:35:THR:HA	44:FK:42:LEU:HG	1.99	0.45
35:FA:135:C:H2'	35:FA:136:C:H5'	1.97	0.45
3:AA:2615:U:C2	27:A0:3:GLN:HA	2.51	0.45
3:EA:1676:A:H2'	3:EA:1677:A:O4'	2.16	0.45
9:GI:126:ARG:HH11	9:GI:126:ARG:HG3	1.82	0.45
3:GA:884:U:H2'	3:GA:892:A:H61	1.81	0.45
35:FA:408:A:OP1	37:FD:112:ALA:HB3	2.16	0.45
17:AQ:7:VAL:HG13	17:AQ:8:ILE:N	2.32	0.45
3:GA:1462:C:H2'	3:GA:1463:C:C6	2.52	0.45
3:GA:973:A:H5''	18:GR:81:LYS:NZ	2.32	0.45
3:AA:855:G:H21	23:AW:23:LYS:HG2	1.82	0.45
3:EA:1073:A:C5	3:EA:1074:G:C8	3.04	0.45
35:FA:1034:G:O2'	35:FA:1035:A:H5'	2.17	0.45
3:GA:1019:U:C5	3:GA:1142:A:N6	2.84	0.45
53:HT:62:ALA:CA	53:HT:67:ILE:HG22	2.45	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:646:U:H3'	3:EA:647:G:H5''	1.97	0.45
55:BV:565:PRO:CG	55:BV:605:PHE:CD2	2.99	0.45
40:BG:15:ASP:HB3	40:BG:20:SER:H	1.82	0.45
55:BV:658:VAL:HG21	55:BV:663:MET:SD	2.57	0.45
14:AN:103:ARG:CZ	14:AN:110:MET:CE	2.95	0.45
3:EA:2745:C:C4	3:EA:2746:U:C4	3.05	0.45
3:CA:580:U:H2'	3:CA:581:C:C6	2.51	0.45
11:EK:19:VAL:HG13	11:EK:41:ILE:HG12	1.99	0.45
3:AA:2326:C:C6	3:AA:2326:C:H3'	2.52	0.45
13:GM:66:ARG:NH1	13:GM:104:GLU:OE1	2.49	0.45
3:GA:2665:A:C2	3:GA:2666:C:C6	3.04	0.45
2:AC:12:ARG:HD3	3:AA:728:G:H4'	1.98	0.45
35:FA:935:A:O2'	35:FA:1383:C:N3	2.38	0.45
3:EA:1773:A:N7	3:EA:1829:A:H1'	2.32	0.45
35:DA:1417:G:N2	35:DA:1482:G:H2'	2.32	0.45
35:DA:1124:G:H2'	35:DA:1145:A:H61	1.82	0.45
35:HA:587:G:H4'	41:HH:4:GLN:HA	1.97	0.45
32:A5:136:ILE:HG13	32:A5:139:LEU:HD12	1.98	0.45
19:AS:1:MET:O	19:AS:108:SER:HB2	2.16	0.45
37:BD:145:ILE:CD1	37:BD:155:VAL:HG21	2.47	0.45
45:HL:25:GLU:OE2	45:HL:30:LYS:NZ	2.47	0.45
35:BA:658:C:O4'	48:BO:22:THR:OG1	2.33	0.45
3:GA:1495:A:C6	3:GA:1496:A:C6	3.04	0.45
41:HH:83:LEU:HD11	45:HL:4:VAL:HG11	1.99	0.45
6:CF:134:GLN:O	6:CF:136:ILE:N	2.49	0.45
35:DA:1486:G:H2'	35:DA:1487:G:O4'	2.17	0.45
3:EA:442:G:C6	3:EA:444:C:N4	2.85	0.45
55:DV:151:PHE:CE1	55:DV:266:CYS:HB3	2.52	0.45
10:GJ:98:GLU:HB3	10:GJ:124:VAL:HG23	1.98	0.45
55:FV:320:LEU:HD23	55:FV:321:ALA:N	2.30	0.45
3:CA:1684:G:C6	3:CA:1685:C:N3	2.84	0.45
2:AC:24:HIS:NE2	2:AC:79:ARG:NH2	2.65	0.45
30:A3:3:ILE:HG21	30:A3:62:PRO:HG3	1.98	0.45
4:AD:1:MET:HG2	4:AD:205:PRO:HG3	1.98	0.45
1:EB:20:G:C6	1:EB:21:G:C5	3.04	0.45
3:CA:1647:U:P	3:CA:1647:U:H3'	2.57	0.45
6:GF:102:LEU:HD22	6:GF:106:ALA:HB3	1.98	0.45
32:A5:71:CYS:CA	32:A5:117:LEU:HD11	2.43	0.45
32:A5:26:VAL:O	32:A5:27:VAL:CB	2.64	0.45
10:EJ:44:TYR:HD1	10:EJ:44:TYR:C	2.20	0.45
3:EA:1054:A:P	32:E5:31:ARG:HH21	2.39	0.45
3:AA:996:A:H4'	17:AQ:91:ARG:CD	2.47	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:FI:57:MET:SD	42:FI:58:VAL:CA	3.05	0.45
35:HA:692:U:OP1	44:HK:127:ARG:HD3	2.17	0.45
23:GW:37:VAL:HA	23:GW:56:HIS:HB2	1.98	0.45
35:FA:1468:A:C2'	35:FA:1469:C:C5'	2.95	0.45
3:GA:1095:A:C1'	55:HV:632:ILE:HB	2.46	0.45
3:AA:973:A:O4'	3:AA:1188:U:C6	2.70	0.45
35:HA:1486:G:H2'	35:HA:1487:G:O4'	2.16	0.45
3:GA:671:C:H41	12:GL:41:ARG:N	2.14	0.45
18:GR:39:LEU:HA	18:GR:49:ILE:HG21	1.99	0.45
35:FA:159:G:O2'	35:FA:161:A:N7	2.33	0.45
42:FI:90:TYR:HB2	42:FI:94:LEU:HD13	1.98	0.45
42:FI:90:TYR:HD2	42:FI:94:LEU:HD21	1.80	0.45
12:EL:90:VAL:HG13	12:EL:95:LEU:HD21	1.98	0.45
1:EB:86:G:H2'	1:EB:87:U:H5''	1.98	0.45
4:ED:118:PHE:O	4:ED:119:ALA:HB3	2.17	0.45
9:GI:85:ILE:HD11	9:GI:100:ILE:HG21	1.99	0.45
1:CB:12:C:C4	23:CW:72:GLY:HA3	2.52	0.45
36:BC:7:PRO:CG	36:BC:184:TYR:CG	3.00	0.45
3:GA:1346:G:H2'	3:GA:1347:A:C8	2.52	0.45
11:CK:24:VAL:CG1	11:CK:30:ARG:HD3	2.47	0.45
35:BA:1320:C:O2	52:BS:36:ARG:NH1	2.49	0.45
3:GA:439:A:H2'	3:GA:440:C:O4'	2.16	0.45
44:HK:24:HIS:H	44:HK:31:ILE:HD11	1.82	0.45
3:GA:871:U:C2	3:GA:907:G:N1	2.85	0.45
3:GA:2218:G:C6	3:GA:2219:U:C4	3.04	0.45
3:EA:322:A:C5	3:EA:340:A:C2	3.05	0.45
3:CA:2747:G:O6	3:CA:2755:C:H5''	2.16	0.45
34:HB:32:GLY:CA	34:HB:39:ILE:O	2.65	0.45
3:CA:2681:C:C2	3:CA:2724:U:O4	2.69	0.45
39:FF:98:GLU:CG	39:FF:99:ALA:N	2.79	0.45
35:DA:223:A:H2'	35:DA:224:U:C6	2.52	0.45
55:BV:193:TRP:CZ3	55:BV:276:GLN:HB2	2.51	0.45
3:EA:2801:G:C2	3:EA:2802:G:C4	3.04	0.45
35:FA:466:A:N1	35:FA:468:A:N7	2.64	0.45
16:AP:91:VAL:HG11	16:AP:96:LEU:HD21	1.98	0.45
55:DV:19:ILE:HD13	55:DV:92:HIS:H	1.80	0.45
41:DH:47:GLU:O	41:DH:48:ASP:HB3	2.17	0.45
8:AH:8:LYS:O	8:AH:13:GLY:HA2	2.16	0.45
2:AC:265:PHE:N	2:AC:265:PHE:HD1	2.15	0.45
32:A5:125:ARG:CZ	32:A5:125:ARG:HA	2.46	0.45
9:AI:24:GLY:O	9:AI:27:LEU:HG	2.16	0.45
3:CA:878:A:H3'	3:CA:879:G:H8	1.82	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:EP:19:PHE:HZ	16:EP:83:ILE:CG1	2.29	0.45
10:CJ:102:GLU:HG3	10:CJ:124:VAL:HG21	1.98	0.45
3:GA:538:A:H4'	10:GJ:7:LYS:HG2	1.99	0.45
3:CA:1794:A:H2'	3:CA:1795:C:C6	2.51	0.45
3:GA:1365:A:C2	3:GA:1366:A:C5	3.05	0.45
55:BV:71:PHE:CE1	55:BV:83:ARG:HG3	2.52	0.45
3:AA:2740:A:C6	3:AA:2764:A:C8	3.04	0.45
7:CG:155:PRO:O	7:CG:170:THR:HA	2.17	0.45
2:CC:225:ASN:HB3	2:CC:226:PRO:HD2	1.98	0.45
44:DK:88:GLY:H	44:DK:114:THR:HG22	1.81	0.45
3:EA:1407:G:C2	3:EA:1596:A:C2	3.05	0.45
6:EF:39:VAL:HG21	6:EF:42:ALA:HB2	1.97	0.45
55:HV:526:GLU:O	55:HV:528:GLY:N	2.50	0.45
35:HA:52:C:H2'	35:HA:53:A:C8	2.52	0.45
51:DR:24:LYS:O	51:DR:26:ILE:N	2.44	0.45
3:GA:485:C:C2	3:GA:496:G:N2	2.84	0.45
19:GS:24:ILE:HG22	19:GS:71:VAL:HG11	1.98	0.45
35:FA:1394:A:C5	35:FA:1501:C:H4'	2.51	0.45
31:E4:7:VAL:HG23	31:E4:8:LYS:H	1.82	0.45
3:GA:1773:A:N7	3:GA:1829:A:H1'	2.32	0.45
42:BI:44:ALA:HB1	42:BI:76:ALA:CB	2.47	0.45
38:FE:56:VAL:N	38:FE:57:PRO:HD2	2.31	0.45
3:GA:2525:G:N2	3:GA:2539:C:C2	2.85	0.45
23:EW:44:PHE:O	23:EW:78:PHE:HA	2.17	0.45
37:HD:44:ARG:C	37:HD:46:PRO:HD3	2.37	0.45
3:EA:2661:G:C6	3:EA:2662:A:C2	3.05	0.45
3:EA:725:G:C6	3:EA:726:G:N1	2.84	0.45
55:DV:500:ASP:N	55:DV:521:ASP:OD1	2.46	0.45
3:EA:635:C:O2'	3:EA:639:U:OP1	2.34	0.45
3:CA:202:U:C4	3:CA:203:A:C6	3.05	0.45
34:BB:71:THR:HG22	34:BB:72:LYS:H	1.81	0.45
55:HV:382:ILE:HD12	55:HV:382:ILE:O	2.17	0.45
3:CA:669:G:N2	3:CA:670:A:C2	2.85	0.45
40:FG:22:LEU:CD1	40:FG:62:PHE:HE2	2.30	0.45
34:FB:92:ASN:OD1	34:FB:92:ASN:N	2.50	0.45
3:EA:1566:A:C6	2:EC:212:TRP:CZ3	3.05	0.45
3:CA:996:A:H4'	17:CQ:91:ARG:NE	2.32	0.45
3:GA:812:C:C2	3:GA:1250:G:N1	2.85	0.45
3:AA:994:C:H1'	18:AR:10:LYS:CE	2.47	0.45
3:CA:504:A:H3'	3:CA:505:A:H5'	1.99	0.45
35:DA:1130:A:N6	35:DA:1143:G:N2	2.64	0.45
37:BD:23:SER:O	37:BD:25:VAL:N	2.50	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:CW:17:ALA:O	23:CW:18:LYS:HB2	2.17	0.45
3:GA:2531:A:OP2	7:GG:174:LYS:HG3	2.17	0.45
35:DA:1074:G:N3	35:DA:1102:A:C2	2.84	0.45
37:DD:192:SER:OG	37:DD:193:ALA:N	2.50	0.45
42:DI:60:LYS:O	42:DI:61:LEU:HD12	2.17	0.45
35:HA:481:G:O2'	35:HA:482:A:O5'	2.35	0.45
23:EW:22:VAL:O	23:EW:25:PHE:CD1	2.70	0.45
35:HA:1130:A:N6	35:HA:1144:G:N3	2.65	0.45
19:GS:18:ARG:HG3	19:GS:76:VAL:HG21	1.98	0.45
35:DA:1028:C:N4	35:DA:1033:G:H1	2.14	0.45
34:DB:14:HIS:O	34:DB:14:HIS:CG	2.70	0.45
2:AC:84:PRO:HG3	3:AA:1567:G:C2'	2.46	0.45
3:GA:644:A:C2	3:GA:645:C:C2	3.04	0.45
2:GC:35:LYS:HD3	2:GC:37:SER:HB2	1.99	0.45
35:HA:764:C:H2'	35:HA:765:G:O4'	2.17	0.45
47:FN:57:PRO:C	47:FN:59:ARG:H	2.20	0.45
3:GA:952:G:C4	3:GA:966:G:N1	2.85	0.45
38:DE:111:MET:HG3	38:DE:140:THR:HG21	1.98	0.45
7:EG:37:ASN:HB3	7:EG:40:VAL:CG2	2.47	0.45
9:EI:79:LEU:HA	9:EI:83:ALA:HB2	1.98	0.45
46:DM:4:ILE:HA	46:DM:57:ARG:NH1	2.31	0.45
3:CA:364:C:H2'	3:CA:365:U:H6	1.82	0.45
35:HA:1314:C:H42	35:HA:1323:G:H1	1.65	0.45
26:CZ:15:ARG:HH11	26:CZ:15:ARG:HG2	1.80	0.45
4:ED:91:THR:OG1	4:ED:92:VAL:N	2.49	0.45
16:GP:33:GLU:HB3	16:GP:36:LYS:O	2.17	0.45
23:CW:51:GLY:HA3	23:CW:59:PHE:HE1	1.81	0.45
35:DA:825:A:O2'	41:DH:9:ASP:OD2	2.34	0.45
35:HA:1078:U:H4'	38:HE:138:ARG:CZ	2.47	0.45
7:GG:1:SER:HA	7:GG:4:ALA:HB3	1.99	0.45
30:A3:31:ILE:O	30:A3:31:ILE:HG13	2.17	0.45
50:HQ:8:LEU:HG	50:HQ:25:ILE:HD13	1.98	0.45
47:BN:36:ALA:HB2	47:BN:41:ARG:CG	2.47	0.45
3:GA:2297:A:N1	3:GA:2321:U:H5	2.15	0.45
3:CA:2478:A:OP2	31:C4:2:LYS:NZ	2.46	0.45
11:AK:98:ARG:HA	11:AK:118:LEU:CD2	2.47	0.45
3:GA:1808:A:H3'	3:GA:1809:A:C8	2.52	0.45
12:AL:122:VAL:CG1	12:AL:142:ILE:HG12	2.47	0.45
45:HL:24:LEU:HG	45:HL:25:GLU:H	1.81	0.45
39:DF:61:LEU:HD22	51:DR:24:LYS:HD3	1.98	0.45
42:HI:17:ALA:HB1	42:HI:79:ILE:HG13	1.98	0.45
35:FA:641:U:H4'	41:FH:107:SER:O	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:79:ALA:O	15:AO:82:ALA:N	2.49	0.45
3:AA:1150:C:H2'	3:AA:1151:A:O5'	2.17	0.45
11:EK:5:GLN:O	11:EK:6:THR:HB	2.17	0.45
3:CA:1394:U:H4'	3:CA:1603:A:H4'	1.99	0.45
53:DT:78:ASN:ND2	60:DT:102:HOH:O	2.49	0.45
36:FC:7:PRO:HG2	36:FC:184:TYR:CG	2.51	0.45
35:DA:1049:U:H4'	35:DA:1050:G:H5'	1.99	0.45
2:AC:163:ILE:HG23	2:AC:171:VAL:CG1	2.47	0.45
49:BP:75:ILE:O	49:BP:77:GLU:N	2.43	0.45
35:HA:1380:U:C5	40:HG:3:ARG:HA	2.51	0.45
3:CA:1096:A:N6	3:CA:1097:U:C4	2.85	0.45
5:GE:21:ARG:HD2	5:GE:106:LYS:HB3	1.98	0.45
6:GF:6:TYR:CE1	6:GF:10:GLU:OE2	2.70	0.45
42:BI:24:GLY:HA3	42:BI:62:ASP:HB2	1.99	0.45
3:EA:300:A:H2'	3:EA:334:C:H1'	1.99	0.45
46:FM:54:ASP:HA	46:FM:57:ARG:HB3	1.98	0.45
43:BJ:51:VAL:O	43:BJ:62:ARG:HA	2.16	0.45
38:DE:97:GLN:N	38:DE:124:LEU:O	2.43	0.45
35:HA:232:G:H1'	35:HA:262:A:N1	2.32	0.45
55:FV:62:THR:HB	55:FV:90:PRO:HA	1.99	0.45
3:CA:811:U:H2'	12:CL:21:ARG:HA	1.99	0.45
35:DA:911:U:H2'	35:DA:912:C:C6	2.52	0.45
38:FE:15:LEU:CD1	38:FE:60:ILE:HD13	2.47	0.45
3:EA:265:A:H4'	3:EA:266:G:OP1	2.16	0.45
3:AA:792:A:C6	3:AA:2440:C:C6	3.05	0.45
3:CA:2320:U:O2	3:CA:2322:A:C5	2.70	0.45
6:EF:25:MET:HA	6:EF:25:MET:CE	2.46	0.45
16:CP:113:LEU:HG	16:CP:113:LEU:O	2.16	0.45
38:HE:34:THR:HG22	38:HE:52:LYS:HE2	1.99	0.45
55:BV:393:THR:HG21	55:BV:443:PRO:HD3	1.99	0.45
25:AY:45:GLN:O	25:AY:46:VAL:HB	2.17	0.45
2:AC:93:VAL:HG12	2:AC:94:LEU:N	2.31	0.45
3:CA:1405:U:H2'	3:CA:1406:U:C6	2.51	0.45
35:BA:601:G:H2'	35:BA:602:A:C8	2.52	0.45
32:C5:93:ALA:HA	32:C5:130:PRO:CD	2.47	0.45
6:GF:110:ILE:CG1	6:GF:136:ILE:HG21	2.46	0.45
3:GA:1155:A:O2'	3:GA:1156:A:H2'	2.17	0.45
3:CA:929:U:H4'	26:CZ:37:ARG:NH1	2.32	0.45
35:FA:780:A:H5''	44:FK:125:LYS:HE2	1.99	0.45
3:GA:1092:C:H2'	3:GA:1093:G:H5'	1.98	0.45
54:HU:37:PHE:HA	54:HU:40:LYS:HD2	1.99	0.45
54:HU:43:THR:HG23	54:HU:44:GLU:N	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:FA:1067:A:N1	35:FA:1108:G:O2'	2.46	0.45
35:DA:1524:C:OP2	44:DK:125:LYS:NZ	2.36	0.45
3:GA:1067:A:H2'	3:GA:1068:G:C8	2.48	0.45
19:ES:18:ARG:O	19:ES:19:LEU:HB2	2.17	0.45
3:EA:1072:C:H5'	3:EA:1073:A:OP1	2.17	0.45
35:BA:1302:C:O5'	35:BA:1302:C:C6	2.70	0.45
1:GB:20:G:O6	60:GB:1301:HOH:O	2.19	0.45
3:AA:2800:A:H3'	3:AA:2801:G:H5''	1.96	0.45
32:A5:15:VAL:CG2	32:A5:66:GLY:HA2	2.47	0.45
14:GN:29:VAL:CG1	14:GN:75:ILE:HG23	2.47	0.45
35:BA:1008:U:H2'	35:BA:1009:U:O4'	2.17	0.45
3:CA:635:C:H2'	3:CA:636:G:O4'	2.16	0.45
35:BA:376:G:H2'	35:BA:377:G:H8	1.82	0.45
34:HB:22:TRP:HH2	34:HB:27:LYS:HE3	1.82	0.45
16:AP:33:GLU:OE2	35:BA:345:C:H5'	2.16	0.45
3:CA:2305:U:O4	3:CA:2306:C:N4	2.49	0.45
4:AD:44:GLY:HA3	4:AD:45:TYR:HD1	1.82	0.45
3:CA:2425:A:C5'	3:CA:2427:C:O4'	2.64	0.45
45:HL:75:GLN:O	45:HL:77:HIS:N	2.50	0.45
14:EN:12:ARG:CZ	14:EN:20:MET:HE1	2.47	0.45
26:AZ:39:ASP:OD2	26:AZ:44:ARG:NH1	2.46	0.45
23:AW:49:ASN:C	23:AW:49:ASN:ND2	2.66	0.45
3:GA:1223:G:OP1	18:GR:68:ARG:NH1	2.49	0.45
28:G1:8:ILE:HG13	28:G1:24:LYS:HG2	1.99	0.45
3:CA:2406:A:C6	12:CL:69:ARG:NH2	2.85	0.45
3:EA:2328:A:H2'	3:EA:2329:U:C6	2.51	0.45
2:GC:260:LYS:N	2:GC:263:ASP:OD1	2.48	0.45
2:EC:29:PHE:CE2	2:EC:31:PRO:HG2	2.52	0.45
35:BA:161:A:N1	35:BA:347:G:O2'	2.47	0.45
3:GA:826:U:O2	60:GA:3349:HOH:O	2.18	0.45
3:CA:1989:G:H2'	3:CA:1990:C:O4'	2.17	0.45
15:EO:14:ALA:O	15:EO:18:LEU:HD22	2.17	0.45
3:AA:820:A:H2'	3:AA:821:A:O4'	2.16	0.45
35:HA:1150:A:C2	43:HJ:41:PRO:HG3	2.52	0.45
3:AA:666:A:H4'	12:AL:48:ARG:HD2	1.99	0.45
3:CA:2846:G:H2'	3:CA:2847:U:O4'	2.16	0.45
3:GA:1760:C:H2'	3:GA:1761:C:O4'	2.17	0.45
34:FB:209:VAL:HG23	34:FB:210:THR:H	1.81	0.45
35:FA:586:C:O2'	35:FA:878:A:H4'	2.17	0.45
41:HH:84:ARG:NH1	41:HH:124:GLU:OE1	2.49	0.45
3:EA:1150:C:H2'	3:EA:1151:A:O5'	2.17	0.45
3:EA:243:U:OP1	30:E3:5:THR:OG1	2.27	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:61:VAL:HG22	11:AK:87:LEU:HD11	1.98	0.45
44:FK:13:ARG:O	44:FK:14:LYS:CB	2.65	0.45
29:A2:12:ARG:HH11	29:A2:44:VAL:HG11	1.82	0.45
55:DV:327:ASP:HB3	55:DV:330:VAL:HG22	1.99	0.45
3:EA:1257:C:OP1	5:EE:67:ARG:NH1	2.50	0.45
42:DI:47:VAL:HA	42:DI:50:GLN:HG3	1.98	0.45
3:GA:477:A:N6	3:GA:500:G:O2'	2.50	0.45
3:GA:1056:G:H5''	3:GA:1057:A:O4'	2.16	0.45
3:AA:979:A:H2'	3:AA:982:C:H42	1.82	0.45
55:HV:257:LEU:HD11	55:HV:291:ASP:HB3	1.99	0.45
8:GH:5:LEU:H	8:GH:5:LEU:HD23	1.82	0.45
16:EP:111:GLU:OE1	16:EP:111:GLU:N	2.48	0.45
35:FA:637:C:H2'	35:FA:638:U:C6	2.52	0.45
3:EA:655:A:H4'	3:EA:656:G:OP1	2.17	0.45
17:EQ:60:TRP:CE2	17:EQ:93:ILE:HB	2.52	0.45
17:AQ:91:ARG:HH12	18:AR:10:LYS:HB3	1.82	0.45
3:AA:980:A:C4	3:AA:1136:G:O4'	2.70	0.45
32:C5:31:ARG:C	32:C5:108:VAL:HG21	2.37	0.45
35:FA:926:G:N2	35:FA:1505:G:H2'	2.32	0.45
35:HA:1049:U:H5''	35:HA:1050:G:H5''	1.98	0.45
3:GA:613:A:N3	5:GE:173:THR:HG21	2.32	0.45
3:AA:277:G:H2'	3:AA:361:G:O6	2.17	0.45
14:AN:98:LEU:CB	27:A0:42:ILE:HD11	2.46	0.45
35:BA:1181:G:N2	35:BA:1182:G:N2	2.64	0.45
31:E4:36:ARG:CG	31:E4:37:GLN:H	2.27	0.45
35:FA:546:A:P	37:FD:69:GLU:HB2	2.57	0.45
35:HA:518:C:H2'	35:HA:530:G:C8	2.52	0.45
3:CA:1168:G:H3'	3:CA:1169:A:C8	2.51	0.45
23:AW:17:ALA:O	23:AW:18:LYS:CB	2.63	0.45
31:A4:36:ARG:O	31:A4:37:GLN:C	2.55	0.45
1:CB:12:C:C5	23:CW:72:GLY:HA3	2.52	0.45
3:CA:2353:G:H1'	23:CW:30:VAL:HG22	1.99	0.45
2:EC:16:VAL:H	2:EC:203:VAL:HG12	1.82	0.45
3:CA:45:G:H2'	3:CA:215:G:C5	2.52	0.45
28:E1:8:ILE:CD1	28:E1:52:LYS:HG2	2.47	0.45
3:GA:952:G:C6	3:GA:953:G:C5	3.05	0.45
18:ER:37:GLU:HB3	18:ER:53:PHE:CE1	2.52	0.45
18:ER:38:VAL:O	18:ER:53:PHE:HA	2.17	0.45
3:AA:1141:U:H4'	3:AA:1142:A:O4'	2.17	0.45
55:BV:19:ILE:HD13	55:BV:92:HIS:H	1.82	0.45
34:DB:187:ASP:HB2	34:DB:203:ASP:CG	2.37	0.45
1:GB:53:A:C8	1:GB:54:G:C8	3.05	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:2748:A:H1'	7:CG:66:THR:CG2	2.47	0.45
11:CK:13:ASN:OD1	11:CK:13:ASN:N	2.50	0.45
3:CA:559:G:OP1	10:CJ:111:LYS:NZ	2.45	0.45
12:CL:82:LEU:HB3	12:CL:90:VAL:HG21	1.97	0.45
17:CQ:4:LYS:HG3	17:CQ:5:ARG:N	2.32	0.45
2:EC:77:VAL:O	2:EC:77:VAL:CG2	2.65	0.45
55:BV:193:TRP:CH2	55:BV:276:GLN:HB2	2.51	0.45
34:DB:212:TYR:CD1	34:DB:216:VAL:HG13	2.52	0.45
34:DB:153:MET:SD	34:DB:157:PRO:HG3	2.56	0.45
4:AD:69:ALA:HA	4:AD:73:VAL:CG1	2.47	0.45
4:AD:73:VAL:HG23	4:AD:74:GLU:H	1.82	0.45
35:BA:982:U:H4'	35:BA:983:A:O5'	2.17	0.45
55:DV:33:TYR:CE1	55:DV:199:GLY:HA3	2.52	0.45
16:CP:33:GLU:HB3	16:CP:36:LYS:O	2.17	0.45
3:GA:2204:G:C6	3:GA:2205:A:C5	3.05	0.45
3:AA:1031:G:C4'	31:A4:6:SER:HB2	2.47	0.45
3:EA:1087:G:C2	3:EA:1103:A:C2	3.05	0.45
9:CI:123:ALA:HA	9:CI:126:ARG:NH2	2.32	0.45
35:FA:376:G:C2	35:FA:377:G:C8	3.05	0.45
41:HH:101:ILE:HB	41:HH:112:THR:CG2	2.47	0.45
3:GA:1494:A:C2	3:GA:1495:A:C4	3.05	0.45
3:EA:634:C:H2'	3:EA:635:C:C6	2.51	0.45
3:GA:2260:C:O2'	3:GA:2388:A:O2'	2.32	0.45
3:GA:26:G:OP1	19:GS:80:PRO:HB3	2.16	0.45
1:AB:11:C:O2'	1:AB:15:A:N6	2.50	0.45
3:AA:2103:C:H2'	3:AA:2104:C:C5'	2.47	0.45
34:BB:216:VAL:HA	34:BB:219:THR:HG22	1.98	0.45
49:DP:10:GLY:HA3	49:DP:15:PRO:HA	1.99	0.45
10:AJ:30:THR:HG22	10:AJ:31:GLU:N	2.32	0.45
55:DV:430:LYS:HG2	55:DV:479:VAL:CG2	2.47	0.45
35:BA:355:C:C4	35:BA:356:A:N7	2.85	0.45
29:E2:31:LEU:HD21	29:E2:43:THR:HG21	1.99	0.45
3:AA:281:C:H2'	3:AA:282:A:C8	2.51	0.45
3:AA:288:U:H2'	3:AA:289:G:C8	2.52	0.45
3:EA:307:G:N2	3:EA:310:A:OP2	2.50	0.45
3:GA:2784:U:H2'	3:GA:2785:C:C6	2.51	0.45
4:GD:24:VAL:HA	4:GD:191:GLY:H	1.82	0.45
3:EA:504:A:O2'	3:EA:505:A:OP1	2.26	0.45
39:DF:6:ILE:HB	39:DF:62:MET:HB3	1.98	0.45
35:DA:1250:A:N3	35:DA:1370:G:O2'	2.42	0.45
3:CA:1276:A:C2	3:CA:1277:G:C5	3.05	0.45
35:FA:227:G:N2	49:FP:63:GLN:O	2.50	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:FV:55:GLN:NE2	55:FV:471:ASP:OD1	2.50	0.45
35:HA:419:C:OP1	35:HA:513:C:O2'	2.29	0.45
21:EU:88:ASP:OD1	21:EU:89:GLY:N	2.50	0.45
3:GA:1682:G:H2'	3:GA:1683:U:C6	2.51	0.45
7:CG:123:GLU:HG2	7:CG:124:CYS:N	2.31	0.45
35:BA:925:G:C2	35:BA:927:G:C8	3.04	0.45
39:BF:18:VAL:HG21	39:BF:58:HIS:CD2	2.52	0.45
34:FB:153:MET:O	34:FB:155:GLY:N	2.50	0.45
3:GA:425:G:C2	3:GA:426:C:C4	3.05	0.45
37:BD:65:TYR:CD1	37:BD:65:TYR:N	2.84	0.45
2:EC:163:ILE:HG23	2:EC:171:VAL:CG1	2.47	0.45
3:GA:1999:C:H4'	3:GA:2723:C:O2	2.17	0.45
7:EG:92:GLY:HA2	55:FV:147:MET:HE3	1.99	0.45
55:HV:191:ILE:HG23	55:HV:202:PHE:CE1	2.52	0.45
35:DA:114:U:O2'	35:DA:115:G:H5'	2.16	0.45
7:GG:175:LYS:HD2	55:HV:630:ASP:HA	1.98	0.45
32:E5:23:LEU:HG	32:E5:24:SER:N	2.32	0.44
10:CJ:44:TYR:O	10:CJ:45:THR:HG22	2.16	0.44
3:CA:996:A:H4'	17:CQ:91:ARG:CD	2.47	0.44
32:E5:29:ASP:O	32:E5:32:GLY:N	2.46	0.44
35:HA:429:U:H3'	37:HD:9:LEU:HD23	1.98	0.44
55:DV:221:ASN:HA	55:DV:224:GLU:CB	2.46	0.44
34:FB:79:VAL:O	34:FB:83:ALA:HB3	2.17	0.44
23:GW:37:VAL:HG13	23:GW:55:ASP:C	2.37	0.44
55:BV:93:VAL:HG22	55:BV:94:ASP:H	1.82	0.44
49:DP:4:ILE:HD13	49:DP:67:ILE:CD1	2.46	0.44
3:AA:2407:A:C2	3:AA:2408:U:C2	3.05	0.44
3:EA:301:G:H4'	3:EA:302:C:OP1	2.17	0.44
3:CA:565:C:H4'	3:CA:1253:A:N6	2.32	0.44
23:AW:37:VAL:HG11	23:AW:55:ASP:HB2	1.99	0.44
3:CA:616:A:OP2	60:CA:3287:HOH:O	2.21	0.44
40:HG:114:LYS:HD3	40:HG:118:LEU:HD13	1.97	0.44
35:DA:369:G:C4	35:DA:393:A:C2	3.05	0.44
40:DG:68:ASN:OD1	40:DG:130:ASN:ND2	2.50	0.44
53:HT:67:ILE:O	53:HT:68:HIS:HB2	2.17	0.44
35:FA:723:U:H2'	54:FU:49:LYS:HD3	2.00	0.44
14:GN:103:ARG:HD3	14:GN:110:MET:HE3	2.00	0.44
42:BI:9:THR:HG22	42:BI:10:GLY:N	2.31	0.44
34:FB:49:PHE:HA	34:FB:212:TYR:OH	2.17	0.44
3:CA:1262:A:N3	27:C0:6:LYS:NZ	2.58	0.44
6:AF:72:SER:HB2	6:AF:80:GLN:HB2	2.00	0.44
35:FA:204:G:H3'	35:FA:205:A:H5''	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1038:G:N2	3:GA:1117:C:O2	2.46	0.44
3:EA:2037:A:H2'	3:EA:2038:G:C8	2.52	0.44
32:E5:93:ALA:HA	32:E5:130:PRO:HG2	1.98	0.44
21:GU:82:VAL:HG13	21:GU:93:ARG:HB3	1.99	0.44
3:EA:286:U:C2	3:EA:287:G:C8	3.05	0.44
3:GA:2195:U:H2'	3:GA:2196:C:H6	1.82	0.44
3:GA:2673:G:C2	3:GA:2674:G:C8	3.05	0.44
36:DC:150:LYS:HB3	36:DC:169:ARG:HG2	1.99	0.44
3:EA:1386:C:H2'	3:EA:1387:A:C8	2.51	0.44
55:FV:330:VAL:HB	55:FV:386:ILE:HD13	1.98	0.44
35:DA:1308:U:H3'	46:DM:98:ARG:HH21	1.82	0.44
46:HM:50:GLU:HA	46:HM:53:ILE:HD12	1.99	0.44
3:CA:1022:G:C6	3:CA:1140:C:C4	3.05	0.44
23:CW:28:GLU:HG2	23:CW:29:SER:N	2.31	0.44
3:EA:582:A:C6	3:EA:583:G:C6	3.05	0.44
46:BM:54:ASP:HA	46:BM:57:ARG:CB	2.47	0.44
49:HP:4:ILE:HB	49:HP:67:ILE:HD13	1.99	0.44
6:GF:56:LEU:HD22	6:GF:88:VAL:HG21	1.99	0.44
35:HA:251:G:C6	35:HA:266:G:O6	2.70	0.44
35:FA:1099:G:H2'	35:FA:1100:C:O4'	2.18	0.44
35:FA:1268:G:C6	35:FA:1269:A:N6	2.85	0.44
35:FA:109:A:C6	35:FA:326:G:C6	3.05	0.44
3:CA:1948:G:N3	35:DA:1418:A:H2	2.15	0.44
4:ED:86:GLU:N	4:ED:86:GLU:CD	2.70	0.44
22:CV:80:HIS:CD2	22:CV:83:LYS:HB2	2.52	0.44
3:EA:464:U:C2	3:EA:788:A:C6	3.05	0.44
52:FS:23:VAL:HG23	52:FS:24:GLU:N	2.32	0.44
35:DA:257:G:C2	35:DA:258:G:C5	3.05	0.44
3:AA:2021:C:P	27:A0:8:THR:HG21	2.56	0.44
43:FJ:84:VAL:HG13	43:FJ:85:ASP:N	2.32	0.44
50:HQ:44:LEU:HD13	50:HQ:73:TRP:CE2	2.52	0.44
35:BA:747:A:H5'	35:BA:748:G:OP2	2.17	0.44
35:BA:561:U:O2'	35:BA:562:U:OP1	2.33	0.44
35:BA:2:A:O2'	37:BD:83:LYS:NZ	2.47	0.44
11:GK:99:ILE:HG21	11:GK:119:ALA:HB2	1.99	0.44
35:FA:1048:G:H5"	47:FN:3:LYS:HG3	1.99	0.44
55:BV:33:TYR:HE2	55:BV:275:VAL:HB	1.82	0.44
3:AA:315:G:H2'	3:AA:316:C:C6	2.52	0.44
9:EI:6:ALA:CB	9:EI:60:VAL:HB	2.47	0.44
43:BJ:73:LEU:O	43:BJ:75:ASP:N	2.50	0.44
45:HL:6:GLN:HA	45:HL:9:ARG:HE	1.82	0.44
3:AA:2262:U:H4'	3:AA:2328:A:C2	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BP:10:GLY:HA3	49:BP:15:PRO:HA	1.98	0.44
4:AD:3:GLY:HA3	4:AD:204:LYS:HG2	1.99	0.44
34:HB:134:LEU:C	34:HB:136:ARG:H	2.19	0.44
35:HA:827:U:O5'	35:HA:827:U:H6	1.99	0.44
20:GT:50:LEU:HD12	20:GT:50:LEU:H	1.82	0.44
22:GV:55:GLU:N	22:GV:55:GLU:OE1	2.50	0.44
17:CQ:91:ARG:CD	18:CR:11:GLN:H	2.31	0.44
10:AJ:44:TYR:O	10:AJ:45:THR:CB	2.64	0.44
55:DV:184:ASP:O	55:DV:188:MET:N	2.50	0.44
35:FA:1469:C:H2'	35:FA:1470:U:C5'	2.47	0.44
44:FK:127:ARG:HB2	54:FU:34:ARG:NH1	2.33	0.44
35:FA:1008:U:OP1	47:FN:24:ARG:NH2	2.51	0.44
3:GA:2316:G:C2	3:GA:2317:A:C5	3.06	0.44
35:HA:546:A:OP1	37:HD:69:GLU:HB2	2.17	0.44
3:EA:2134:A:C2'	3:EA:2156:G:H22	2.30	0.44
3:EA:783:A:C2	3:EA:785:G:H1'	2.52	0.44
3:EA:1806:C:H1'	2:EC:43:ASN:HD22	1.82	0.44
3:GA:648:G:O2'	3:GA:2351:G:OP1	2.30	0.44
3:EA:1069:A:C2	3:EA:1073:A:C8	3.05	0.44
35:BA:843:U:O2	35:BA:844:G:N7	2.50	0.44
35:DA:452:A:H62	35:DA:480:U:H3	1.64	0.44
6:EF:134:GLN:O	6:EF:136:ILE:N	2.50	0.44
28:E1:8:ILE:CG1	28:E1:51:ALA:HA	2.47	0.44
35:FA:482:A:C2	35:FA:483:C:H1'	2.52	0.44
35:FA:373:A:C2	35:FA:482:A:N6	2.85	0.44
3:GA:1383:A:N7	3:GA:1384:A:C5	2.85	0.44
28:A1:4:ILE:HG23	28:A1:5:ARG:N	2.32	0.44
20:GT:19:LYS:O	20:GT:23:ALA:HB3	2.17	0.44
42:BI:91:ASP:C	42:BI:93:SER:H	2.21	0.44
10:AJ:55:ILE:HD11	10:AJ:130:HIS:CD2	2.51	0.44
3:EA:1567:G:H2'	2:EC:84:PRO:HG3	1.99	0.44
35:DA:224:U:H2'	35:DA:225:C:H6	1.82	0.44
3:AA:2039:U:H2'	3:AA:2040:G:H8	1.82	0.44
35:FA:1478:U:H2'	35:FA:1479:C:C6	2.52	0.44
28:E1:4:ILE:HG23	28:E1:5:ARG:N	2.32	0.44
35:BA:255:G:OP1	50:BQ:71:LYS:NZ	2.49	0.44
38:FE:155:ALA:HB1	41:FH:66:PHE:CZ	2.53	0.44
54:FU:51:SER:C	54:FU:53:VAL:H	2.20	0.44
3:GA:483:A:C8	21:GU:44:HIS:CD2	3.05	0.44
9:AI:45:THR:O	9:AI:48:ILE:HG13	2.18	0.44
7:AG:104:LEU:HB2	7:AG:112:VAL:CG2	2.47	0.44
38:BE:46:VAL:HG21	38:BE:118:ALA:HB2	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DE:99:ALA:O	38:DE:122:ASN:ND2	2.50	0.44
21:EU:84:PHE:O	21:EU:85:ARG:HB3	2.17	0.44
3:CA:1638:C:O3'	3:CA:2709:G:N2	2.50	0.44
35:DA:571:U:O2	35:DA:918:A:H5'	2.16	0.44
40:DG:62:PHE:CZ	40:DG:66:LEU:HD13	2.52	0.44
3:EA:310:A:H5''	21:EU:14:THR:HG23	1.99	0.44
39:BF:43:GLY:HA2	39:BF:58:HIS:CE1	2.52	0.44
35:HA:895:G:H1	35:HA:904:U:H3	1.65	0.44
35:DA:861:G:C6	35:DA:862:C:C4	3.05	0.44
3:CA:1505:A:C6	3:CA:1506:U:C4	3.05	0.44
35:HA:1503:A:N6	35:HA:1532:U:H1'	2.32	0.44
40:BG:56:LYS:O	40:BG:61:ALA:HB2	2.18	0.44
3:EA:1647:U:OP2	60:EA:3418:HOH:O	2.21	0.44
3:CA:674:G:H1'	5:CE:69:ARG:CD	2.47	0.44
48:HO:68:ASP:O	48:HO:71:LYS:HB3	2.17	0.44
55:DV:525:LEU:HD13	55:DV:575:GLY:N	2.33	0.44
35:HA:1277:C:HO2'	35:HA:1279:G:H8	1.62	0.44
7:AG:24:THR:HG23	7:AG:34:ARG:HG2	1.99	0.44
3:EA:2804:U:H2'	3:EA:2805:C:C6	2.52	0.44
16:CP:38:ARG:NH1	35:DA:346:G:H4'	2.32	0.44
3:EA:1394:U:H4'	3:EA:1603:A:H4'	2.00	0.44
45:HL:33:VAL:HG11	55:HV:429:GLU:HG3	1.97	0.44
28:A1:6:GLU:OE1	28:A1:52:LYS:CE	2.64	0.44
44:FK:20:VAL:HG22	44:FK:83:GLU:HG3	1.98	0.44
35:FA:1237:C:H3'	35:FA:1238:A:H5'	1.98	0.44
3:CA:657:U:H2'	3:CA:658:U:C6	2.52	0.44
3:GA:874:G:N3	3:GA:904:G:C2	2.86	0.44
3:GA:236:C:O2'	3:GA:431:U:H4'	2.16	0.44
42:DI:55:VAL:HG21	42:DI:87:LEU:HD21	1.99	0.44
35:DA:41:G:H2'	35:DA:42:G:C8	2.52	0.44
3:EA:901:C:C4	3:EA:902:C:C4	3.05	0.44
3:GA:2722:G:H4'	14:GN:4:ARG:HB2	1.99	0.44
36:FC:110:GLU:HB2	36:FC:144:LEU:HD21	1.98	0.44
25:CY:8:GLU:O	25:CY:8:GLU:HG3	2.17	0.44
23:EW:49:ASN:OD1	23:EW:49:ASN:C	2.54	0.44
35:FA:455:G:C2	35:FA:478:A:C2	3.05	0.44
46:BM:114:LYS:H	46:BM:115:PRO:CD	2.30	0.44
3:AA:980:A:C6	3:AA:981:A:N1	2.85	0.44
3:GA:2266:A:O2'	60:GA:3513:HOH:O	2.20	0.44
32:A5:33:VAL:HG12	32:A5:34:THR:N	2.26	0.44
17:GQ:69:ARG:NH2	17:GQ:74:SER:HA	2.33	0.44
3:GA:817:C:H42	3:GA:1190:G:H1	1.63	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:CW:37:VAL:HB	23:CW:38:ARG:HH11	1.81	0.44
3:GA:1061:U:O4	9:GI:9:LYS:HG2	2.18	0.44
3:EA:749:A:C5	3:EA:1618:A:C2	3.05	0.44
3:AA:2353:G:N3	23:AW:30:VAL:HG12	2.32	0.44
3:AA:271:G:H4'	3:AA:272:A:OP1	2.17	0.44
3:AA:272:A:HO2'	3:AA:273:G:H8	1.63	0.44
3:EA:2394:C:P	30:E3:29:ARG:HH21	2.40	0.44
12:EL:91:ASP:HB3	12:EL:94:THR:HB	2.00	0.44
3:GA:414:C:O3'	3:GA:1878:G:N2	2.50	0.44
3:EA:61:C:C2'	3:EA:62:U:H5'	2.47	0.44
17:GQ:63:ARG:NH2	17:GQ:95:ALA:HB3	2.31	0.44
3:GA:307:G:N2	3:GA:310:A:C8	2.85	0.44
34:HB:14:HIS:HE1	34:HB:40:ILE:HD13	1.83	0.44
3:GA:1016:G:N1	3:GA:1147:A:C6	2.86	0.44
21:AU:6:ARG:O	21:AU:24:VAL:HB	2.17	0.44
7:EG:104:LEU:HD12	7:EG:112:VAL:HG21	1.98	0.44
20:AT:48:GLN:O	20:AT:52:GLU:HA	2.17	0.44
44:BK:82:LEU:HD21	44:BK:105:PHE:HB3	1.99	0.44
35:HA:1097:C:H2'	35:HA:1098:C:C6	2.53	0.44
11:AK:80:ASP:CB	16:AP:67:GLU:HG3	2.47	0.44
55:DV:131:ASN:OD1	55:DV:137:ARG:NH2	2.49	0.44
5:GE:28:VAL:O	5:GE:31:VAL:N	2.50	0.44
43:HJ:35:GLN:CG	43:HJ:37:ARG:NE	2.79	0.44
43:HJ:37:ARG:HD2	43:HJ:75:ASP:O	2.18	0.44
52:DS:63:THR:CG2	52:DS:64:ASP:N	2.80	0.44
3:EA:1025:G:O2'	60:EA:3704:HOH:O	2.21	0.44
9:AI:125:THR:O	9:AI:128:ILE:N	2.48	0.44
1:CB:42:C:O5'	6:CF:63:LYS:HD2	2.17	0.44
5:CE:149:ILE:HD11	5:CE:172:ALA:HA	1.99	0.44
35:DA:1244:G:C6	35:DA:1245:C:C4	3.06	0.44
32:A5:48:ALA:HB3	32:A5:51:TYR:HB3	1.98	0.44
32:A5:100:ALA:HB3	32:A5:125:ARG:HD2	1.98	0.44
21:EU:85:ARG:HD3	21:EU:86:PHE:N	2.33	0.44
35:HA:1377:A:H4'	35:HA:1378:C:H5	1.82	0.44
3:CA:2698:U:H2'	3:CA:2699:C:H6	1.81	0.44
35:FA:376:G:N3	35:FA:377:G:C8	2.86	0.44
35:BA:243:A:C4	35:BA:245:U:C5	3.06	0.44
3:CA:2091:C:H1'	24:CX:33:HIS:CD2	2.52	0.44
3:CA:2081:U:H5'	24:CX:24:THR:HG21	1.99	0.44
36:HC:148:GLY:HA3	36:HC:172:ARG:O	2.18	0.44
6:AF:127:TYR:O	6:AF:128:SER:CB	2.65	0.44
6:AF:128:SER:HA	6:AF:154:THR:HA	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CB:98:G:H1	22:CV:14:LYS:HB2	1.81	0.44
17:AQ:103:VAL:HG23	17:AQ:104:ALA:N	2.32	0.44
3:GA:2678:C:H2'	3:GA:2679:A:O4'	2.17	0.44
3:GA:1721:G:O2'	3:GA:1739:A:N6	2.50	0.44
55:DV:8:ALA:O	55:DV:288:SER:OG	2.33	0.44
16:EP:74:GLN:O	16:EP:77:SER:HB3	2.17	0.44
3:AA:2307:G:N2	3:AA:2311:A:C8	2.85	0.44
9:CI:25:PRO:CG	55:DV:649:VAL:HG22	2.47	0.44
3:AA:818:G:H5'	3:AA:839:U:OP1	2.18	0.44
40:BG:111:ARG:HE	40:BG:123:GLU:HG2	1.83	0.44
3:GA:934:U:C4	3:GA:935:C:C5	3.06	0.44
35:HA:1287:A:N3	35:HA:1353:G:O2'	2.35	0.44
37:DD:116:GLN:OE1	37:DD:120:HIS:CE1	2.71	0.44
5:AE:160:ALA:O	5:AE:161:ALA:HB3	2.18	0.44
3:GA:389:G:C8	3:GA:2413:G:H4'	2.52	0.44
3:EA:2811:G:H2'	3:EA:2812:G:O4'	2.17	0.44
20:AT:40:LYS:HG2	20:AT:58:VAL:HG22	1.99	0.44
44:HK:46:THR:OG1	44:HK:47:ALA:N	2.47	0.44
35:DA:232:G:H1'	35:DA:262:A:N1	2.32	0.44
21:AU:53:GLN:N	21:AU:54:PRO:CD	2.80	0.44
3:EA:2473:U:O4	7:EG:175:LYS:NZ	2.44	0.44
3:EA:1445:G:C5	3:EA:1446:C:C5	3.04	0.44
48:FO:71:LYS:HB2	48:FO:78:TYR:CD2	2.53	0.44
35:FA:1349:A:C2	35:FA:1374:A:C4	3.05	0.44
35:DA:44:A:C2	35:DA:399:G:C2	3.05	0.44
4:GD:106:LYS:HB3	4:GD:206:ALA:HB3	1.99	0.44
35:DA:381:C:H2'	35:DA:382:A:O4'	2.17	0.44
35:DA:1478:U:H2'	35:DA:1479:C:C6	2.52	0.44
35:HA:796:C:H2'	35:HA:797:C:H5'	2.00	0.44
3:AA:1340:U:H4'	3:AA:1341:G:OP2	2.17	0.44
3:AA:1252:G:C2	17:AQ:32:ARG:HG2	2.52	0.44
4:ED:12:THR:HG22	4:ED:13:ARG:N	2.31	0.44
7:EG:86:LEU:HD12	7:EG:130:ILE:HB	1.99	0.44
35:FA:6:G:C5	38:FE:124:LEU:HD11	2.53	0.44
46:DM:39:ILE:CG2	46:DM:48:LEU:HD11	2.47	0.44
10:CJ:44:TYR:O	10:CJ:45:THR:HB	2.18	0.44
56:BW:5:UAL:O	56:BW:6:5OH:NP	2.51	0.44
23:EW:17:ALA:O	23:EW:18:LYS:CB	2.65	0.44
23:EW:17:ALA:HA	23:EW:35:ILE:HG23	2.00	0.44
42:FI:58:VAL:HG12	42:FI:59:GLU:HG2	2.00	0.44
23:AW:39:GLN:HG3	23:AW:42:THR:H	1.81	0.44
48:DO:15:PHE:CD2	48:DO:84:ARG:CZ	3.01	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:67:ASN:O	15:CO:68:LYS:C	2.55	0.44
9:AI:100:ILE:HD11	9:AI:137:LEU:CG	2.48	0.44
44:DK:35:THR:HA	44:DK:42:LEU:HG	1.98	0.44
48:FO:19:ALA:O	48:FO:20:ASN:HB2	2.18	0.44
3:CA:1799:G:N2	3:CA:1819:A:OP2	2.44	0.44
35:FA:1092:A:C2	35:FA:1183:U:N3	2.86	0.44
53:HT:67:ILE:HD11	53:HT:71:LYS:HE3	2.00	0.44
16:AP:58:PHE:CE1	16:AP:75:THR:HG22	2.51	0.44
3:GA:952:G:C4	3:GA:966:G:C2	3.05	0.44
34:DB:95:TRP:HH2	34:DB:174:GLU:HG2	1.81	0.44
37:BD:197:GLU:O	37:BD:200:ILE:HG22	2.17	0.44
26:CZ:8:GLN:HB3	26:CZ:31:ILE:HA	1.99	0.44
35:BA:1451:U:H5''	35:BA:1452:C:C5	2.52	0.44
46:FM:7:ILE:O	46:FM:7:ILE:HG13	2.17	0.44
3:CA:2212:A:C2	3:CA:2214:C:N4	2.86	0.44
15:CO:49:VAL:HG21	15:CO:82:ALA:HA	1.99	0.44
3:EA:2423:U:H6	3:EA:2423:U:H5'	1.82	0.44
35:FA:1150:A:N6	35:FA:1151:A:N6	2.66	0.44
46:BM:4:ILE:HD12	46:BM:22:ILE:HD11	2.00	0.44
3:EA:1171:G:N1	3:EA:1172:C:C4	2.86	0.44
3:GA:790:U:H3	3:GA:794:A:HO2'	1.64	0.44
32:E5:127:ALA:C	32:E5:129:LEU:N	2.71	0.44
3:GA:949:G:N3	3:GA:969:G:C2	2.85	0.44
54:HU:17:ARG:CG	54:HU:19:PHE:HB3	2.47	0.44
3:GA:2358:A:C8	3:GA:2359:C:C5	3.06	0.44
3:AA:580:U:O3'	17:AQ:30:VAL:HG13	2.18	0.44
2:CC:145:MET:SD	2:CC:153:LEU:HD21	2.57	0.44
17:CQ:81:GLY:HA2	17:CQ:116:LEU:CD1	2.48	0.44
34:FB:47:PRO:O	34:FB:50:ASN:HB3	2.18	0.44
1:AB:51:G:H5''	15:AO:64:TYR:CD2	2.52	0.44
50:HQ:59:VAL:CG1	50:HQ:75:LEU:HD13	2.48	0.44
3:AA:1060:U:H3	3:AA:1088:A:H2	1.64	0.44
4:GD:106:LYS:CB	4:GD:206:ALA:H	2.31	0.44
4:ED:12:THR:CG2	4:ED:13:ARG:N	2.81	0.44
48:FO:85:LEU:HB3	48:FO:87:LEU:HD23	2.00	0.44
3:AA:2180:U:C2	3:AA:2181:U:C5	3.06	0.44
3:AA:1443:U:H2'	3:AA:1444:G:C8	2.53	0.44
4:GD:29:VAL:HB	4:GD:98:VAL:CG1	2.47	0.44
55:HV:217:GLU:O	55:HV:220:GLN:N	2.50	0.44
3:CA:1208:C:C2	3:CA:1239:G:C2	3.05	0.44
3:CA:2639:A:C2	3:CA:2778:A:C8	3.05	0.44
35:FA:129:A:H1'	35:FA:130:A:C8	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:36:LEU:O	10:AJ:121:LYS:NZ	2.39	0.44
46:DM:2:ALA:O	46:DM:10:PRO:HD2	2.18	0.44
7:GG:25:ILE:HG22	7:GG:78:VAL:HG11	1.98	0.44
6:AF:62:GLN:NE2	6:AF:89:THR:O	2.46	0.44
3:GA:49:A:N6	3:GA:177:G:C4	2.85	0.44
31:G4:3:VAL:HG23	31:G4:4:ARG:H	1.83	0.44
3:GA:2037:A:C6	3:GA:2038:G:C6	3.05	0.44
14:EN:37:THR:OG1	14:EN:40:LYS:HD2	2.17	0.44
3:CA:2422:C:C4	3:CA:2424:C:C4	3.06	0.44
3:AA:1662:U:O2	3:AA:2687:U:H4'	2.17	0.44
3:EA:312:G:H2'	3:EA:313:G:H8	1.81	0.44
37:FD:36:GLN:O	37:FD:37:ALA:HB3	2.18	0.44
47:BN:47:LYS:HD2	52:BS:13:LEU:HG	1.98	0.44
3:CA:1713:A:N6	3:CA:1746:A:N1	2.65	0.44
3:CA:1714:U:H5'	3:CA:1715:G:H5'	1.99	0.44
3:GA:107:G:O3'	3:GA:293:U:O2'	2.26	0.44
35:HA:1222:G:OP2	35:HA:1322:C:N4	2.51	0.44
55:BV:317:PHE:CE1	55:BV:343:VAL:CG2	2.99	0.44
35:HA:381:C:H2'	35:HA:382:A:O4'	2.17	0.44
35:BA:76:G:N2	35:BA:95:C:N3	2.65	0.44
36:FC:112:ASP:O	36:FC:116:VAL:HG23	2.18	0.44
37:HD:174:ASP:O	37:HD:175:ALA:HB2	2.18	0.44
55:HV:28:GLU:CD	55:HV:49:THR:HA	2.38	0.44
3:AA:597:G:C2	3:AA:661:A:C2	3.04	0.44
35:DA:728:A:H2'	35:DA:729:A:C8	2.52	0.44
24:GX:6:VAL:HG23	24:GX:7:THR:HG23	2.00	0.44
37:HD:35:GLU:HG3	37:HD:36:GLN:HG3	2.00	0.44
34:DB:22:TRP:HA	34:DB:189:ASN:HB3	1.99	0.44
23:GW:48:ALA:O	23:GW:61:LYS:N	2.43	0.44
35:DA:643:C:H5'	41:DH:32:LEU:HD13	2.00	0.44
45:BL:3:THR:HG22	45:BL:5:ASN:H	1.81	0.44
8:AH:14:SER:OG	8:AH:17:ASP:CG	2.55	0.44
5:GE:4:VAL:HG12	5:GE:6:LYS:H	1.82	0.44
35:HA:224:U:H2'	35:HA:225:C:C6	2.51	0.44
55:HV:303:LYS:CE	55:HV:303:LYS:HA	2.48	0.44
3:GA:1914:C:H6	3:GA:1914:C:O5'	2.00	0.44
3:AA:1523:U:O2'	3:AA:1524:G:H5'	2.18	0.44
35:DA:581:G:N2	35:DA:760:G:N7	2.65	0.44
32:E5:71:CYS:CA	32:E5:117:LEU:HD12	2.47	0.44
3:GA:945:A:C2	3:GA:2448:A:C4	3.05	0.44
17:AQ:91:ARG:HH11	18:AR:11:GLN:H	1.64	0.44
3:CA:1054:A:P	32:C5:31:ARG:HH21	2.41	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:820:A:C2	3:GA:821:A:C4	3.05	0.44
32:E5:33:VAL:HG12	32:E5:34:THR:N	2.25	0.44
16:EP:50:ARG:HD3	16:EP:56:SER:HB3	1.99	0.44
32:A5:129:LEU:CB	32:A5:130:PRO:HD2	2.47	0.44
3:EA:922:C:O2'	23:EW:25:PHE:HZ	2.01	0.44
3:EA:923:G:H21	23:EW:23:LYS:NZ	2.16	0.44
3:AA:1197:G:H2'	3:AA:1198:U:H6	1.83	0.44
12:EL:95:LEU:CD2	12:EL:100:ILE:HD11	2.48	0.44
12:EL:81:ASP:HB3	12:EL:100:ILE:HD13	1.98	0.44
20:CT:28:ASN:O	20:CT:29:THR:HG22	2.16	0.44
21:GU:86:PHE:CD2	21:GU:88:ASP:HB3	2.52	0.44
3:AA:635:C:O2'	3:AA:639:U:OP1	2.34	0.44
55:BV:90:PRO:HG2	55:BV:98:GLU:HB2	2.00	0.44
6:EF:134:GLN:HG2	6:EF:135:ILE:N	2.33	0.44
3:GA:966:G:C6	3:GA:967:U:N3	2.86	0.44
22:AV:80:HIS:CD2	22:AV:82:TYR:H	2.35	0.44
16:AP:102:ARG:O	16:AP:103:THR:HG22	2.17	0.44
36:FC:150:LYS:HZ2	36:FC:169:ARG:HG3	1.83	0.44
35:FA:298:A:H2'	35:FA:299:G:O4'	2.18	0.44
11:EK:23:LYS:HB2	11:EK:23:LYS:HZ3	1.83	0.44
3:AA:1614:A:N6	19:AS:92:ARG:O	2.44	0.44
3:GA:833:A:H2'	3:GA:834:G:C8	2.52	0.44
37:FD:105:MET:SD	37:FD:143:VAL:HG11	2.57	0.44
13:EM:13:HIS:O	13:EM:14:LYS:HB2	2.17	0.44
35:DA:322:C:H5	35:DA:328:C:H5	1.65	0.44
35:DA:1096:C:H2'	35:DA:1097:C:C6	2.52	0.44
32:E5:110:ALA:HB1	32:E5:113:PHE:CZ	2.53	0.44
3:AA:1428:C:C5	3:AA:1569:A:H5''	2.52	0.44
35:FA:35:G:N2	45:FL:115:SER:OG	2.49	0.44
35:DA:1124:G:H2'	35:DA:1145:A:N6	2.31	0.44
42:BI:47:VAL:CG2	42:BI:76:ALA:HB1	2.48	0.44
55:BV:119:VAL:HG13	55:BV:123:SER:HB2	2.00	0.44
34:DB:29:PHE:CE2	34:DB:44:LYS:HE3	2.53	0.44
3:AA:720:U:H2'	3:AA:721:A:C8	2.53	0.44
17:GQ:51:GLN:O	17:GQ:54:ARG:N	2.50	0.44
3:AA:1452:G:O2'	60:AA:3409:HOH:O	2.17	0.44
7:CG:31:GLU:HG3	7:CG:32:LEU:HD12	2.00	0.44
38:HE:106:ILE:HD11	38:HE:124:LEU:HD23	2.00	0.44
9:EI:87:SER:OG	9:EI:88:GLY:N	2.47	0.44
3:GA:1371:G:OP2	60:GA:3400:HOH:O	2.21	0.44
3:CA:168:G:C6	3:CA:169:G:N7	2.86	0.44
35:DA:1216:A:OP1	47:DN:3:LYS:HE2	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:2682:A:C8	4:AD:11:MET:HG3	2.53	0.44
3:EA:967:U:H2'	3:EA:968:C:C6	2.52	0.44
19:GS:55:ILE:HG23	19:GS:66:ILE:HG22	2.00	0.44
3:GA:1816:C:N4	2:GC:34:GLU:OE2	2.47	0.44
37:FD:191:LEU:O	37:FD:192:SER:HB2	2.17	0.44
40:HG:76:LYS:N	40:HG:87:VAL:O	2.46	0.44
35:FA:1225:A:H2'	35:FA:1226:C:C5	2.52	0.44
19:CS:34:ASP:HB3	27:C0:27:LEU:HD11	1.98	0.44
3:EA:2098:U:H2'	3:EA:2099:U:O4'	2.17	0.44
3:EA:1157:G:N2	3:EA:1158:C:C2	2.85	0.44
35:FA:1414:U:H2'	35:FA:1415:G:H8	1.82	0.44
35:BA:1415:G:C6	35:BA:1486:G:C5	3.06	0.44
3:AA:2344:U:H4'	3:AA:2345:G:OP1	2.17	0.44
3:CA:1292:G:H2'	3:CA:1293:C:C6	2.53	0.44
36:FC:83:ASP:O	36:FC:86:LYS:HG2	2.18	0.44
3:GA:2803:G:H2'	3:GA:2804:U:H6	1.83	0.44
35:HA:300:A:H2'	35:HA:301:G:O4'	2.18	0.44
35:DA:1397:C:O2'	35:DA:1398:A:OP1	2.33	0.44
3:CA:2143:C:H3'	3:CA:2144:G:H4'	2.00	0.44
6:CF:84:ILE:HG13	6:CF:84:ILE:O	2.18	0.44
36:FC:127:ARG:O	36:FC:127:ARG:HG3	2.18	0.44
13:AM:102:LEU:N	13:AM:102:LEU:HD12	2.32	0.44
35:DA:62:U:OP1	35:DA:385:C:O2'	2.31	0.44
1:AB:90:C:H6	1:AB:90:C:H5''	1.83	0.44
41:DH:93:PRO:HG3	41:DH:125:ILE:HD12	2.00	0.44
17:CQ:91:ARG:HH11	18:CR:11:GLN:H	1.63	0.44
10:EJ:45:THR:O	10:EJ:45:THR:HG23	2.18	0.44
3:GA:1250:G:OP2	12:GL:21:ARG:NH2	2.51	0.44
17:GQ:4:LYS:HG3	17:GQ:5:ARG:N	2.32	0.44
35:HA:1049:U:C5	35:HA:1201:A:H5'	2.53	0.44
35:HA:1206:G:O2'	36:HC:193:TYR:HA	2.17	0.44
45:FL:44:LYS:HB2	45:FL:45:PRO:HD3	1.98	0.44
3:GA:1095:A:C2	55:HV:628:THR:HG22	2.53	0.44
44:BK:126:LYS:HG3	44:BK:127:ARG:HE	1.82	0.44
44:BK:125:LYS:HG2	54:BU:35:ARG:HG2	2.00	0.44
3:AA:278:A:N1	3:AA:362:A:C8	2.85	0.44
23:AW:30:VAL:CG1	23:AW:30:VAL:O	2.64	0.44
3:AA:948:C:H1'	3:AA:984:A:O2'	2.17	0.44
39:DF:97:THR:O	39:DF:98:GLU:CG	2.65	0.44
1:GB:78:A:C2	1:GB:99:A:C4	3.06	0.44
3:AA:545:U:H2'	3:AA:546:U:O3'	2.18	0.44
3:CA:1753:G:OP1	16:CP:92:ARG:NE	2.50	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:652:U:O2'	35:DA:653:U:OP2	2.30	0.44
3:GA:2447:G:C4	3:GA:2500:U:C5	3.05	0.44
3:GA:1820:U:C2	2:GC:200:MET:HB2	2.53	0.44
3:AA:799:G:C6	3:AA:800:A:C6	3.05	0.44
14:GN:75:ILE:O	14:GN:79:LEU:HD12	2.17	0.44
2:CC:14:HIS:O	2:CC:203:VAL:HG11	2.17	0.44
35:HA:89:U:O2	35:HA:90:C:C5	2.71	0.44
18:CR:39:LEU:O	18:CR:49:ILE:HG23	2.18	0.44
3:CA:223:A:C5	3:CA:422:A:C8	3.06	0.44
44:BK:35:THR:OG1	44:BK:41:ALA:N	2.51	0.44
47:BN:21:PHE:C	47:BN:23:LYS:H	2.21	0.44
3:EA:833:A:H2'	3:EA:834:G:C8	2.52	0.44
3:GA:2290:G:H4'	3:GA:2381:A:O2'	2.18	0.44
50:FQ:79:VAL:O	50:FQ:80:GLU:HB3	2.18	0.44
35:FA:1151:A:C4	35:FA:1152:A:N7	2.86	0.44
5:AE:188:MET:HE3	5:AE:196:VAL:HG21	2.00	0.44
35:HA:1078:U:H5"	38:HE:138:ARG:NH2	2.32	0.44
39:BF:86:ARG:NH1	51:BR:64:TYR:HB3	2.32	0.44
35:DA:1353:G:C2	35:DA:1354:U:C6	3.06	0.44
43:BJ:17:LEU:HA	43:BJ:20:GLN:HG2	1.98	0.44
5:EE:160:ALA:O	5:EE:161:ALA:HB3	2.18	0.44
34:FB:9:LEU:HD12	34:FB:42:LEU:HD13	2.00	0.44
31:C4:23:ILE:HG23	31:C4:38:GLY:HA3	2.00	0.44
3:AA:2902:C:H2'	3:AA:2903:U:O5'	2.18	0.44
9:GI:3:LYS:HG3	9:GI:4:VAL:H	1.82	0.44
55:HV:342:VAL:HG13	55:HV:378:ARG:CD	2.47	0.44
3:CA:2104:C:N4	3:CA:2183:A:N1	2.66	0.44
32:E5:67:THR:C	32:E5:69:PHE:N	2.71	0.44
3:AA:1071:G:H1'	3:AA:1089:A:C5	2.53	0.44
35:HA:109:A:C6	35:HA:326:G:C6	3.06	0.44
39:DF:62:MET:HG3	39:DF:62:MET:O	2.18	0.44
9:EI:31:GLY:O	9:EI:60:VAL:HG21	2.17	0.44
10:EJ:17:VAL:HG12	10:EJ:57:LEU:CD2	2.48	0.44
35:BA:517:G:H5'	35:BA:519:C:C2	2.53	0.44
38:FE:74:VAL:HG11	38:FE:144:LEU:HB3	1.99	0.44
3:AA:2276:G:P	13:AM:83:GLY:O	2.76	0.44
9:EI:55:PRO:HG3	9:EI:72:THR:O	2.17	0.44
3:EA:1021:A:C6	3:EA:1023:U:C5	3.06	0.44
39:HF:62:MET:HG2	39:HF:64:VAL:CG2	2.48	0.44
52:FS:50:ALA:HB1	52:FS:57:HIS:HB3	1.98	0.44
3:CA:336:C:N3	3:CA:337:C:C5	2.85	0.44
3:AA:1914:C:H2'	3:AA:1915:U:O4'	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:70:LYS:O	4:AD:71:ALA:HB3	2.17	0.44
6:EF:28:PRO:HB2	6:EF:168:LEU:CD2	2.47	0.44
35:HA:35:G:H2'	35:HA:36:C:C6	2.52	0.44
3:EA:2249:U:O2'	3:EA:2252:G:OP2	2.29	0.44
3:CA:1444:G:C4	3:CA:1445:G:C8	3.05	0.44
35:BA:202:G:O2'	35:BA:468:A:H8	2.01	0.44
35:DA:525:C:H2'	35:DA:526:C:C6	2.53	0.44
3:GA:2051:A:C6	3:GA:2614:A:C5	3.06	0.44
7:CG:112:VAL:HG23	7:CG:113:ASP:N	2.32	0.44
3:EA:2093:G:C6	3:EA:2225:A:C8	3.06	0.44
43:FJ:91:ASP:OD1	43:FJ:92:LEU:N	2.48	0.44
3:CA:694:U:OP1	3:CA:1569:A:H1'	2.18	0.44
36:FC:85:GLU:OE1	36:FC:88:ARG:NH1	2.47	0.44
6:EF:111:ARG:HA	46:FM:71:ARG:NH2	2.33	0.44
3:EA:1266:G:OP2	27:E0:16:ARG:NE	2.48	0.44
3:GA:416:U:C4	3:GA:417:C:C4	3.05	0.44
38:FE:46:VAL:HG11	38:FE:118:ALA:HB2	1.99	0.44
6:GF:101:ARG:HA	6:GF:104:THR:HB	1.99	0.44
35:HA:1225:A:H2'	35:HA:1226:C:C5	2.52	0.44
15:EO:36:TYR:CD1	15:EO:36:TYR:N	2.86	0.44
25:EY:23:ARG:HA	25:EY:23:ARG:HE	1.82	0.44
36:FC:156:ARG:HH11	36:FC:156:ARG:HB3	1.82	0.44
3:GA:817:C:N4	3:GA:818:G:C6	2.86	0.44
3:GA:819:A:C4	3:GA:1189:A:N1	2.86	0.44
35:BA:8:A:N1	37:BD:206:LYS:HD3	2.32	0.44
3:EA:30:G:C5	3:EA:31:C:C4	3.05	0.44
55:HV:93:VAL:HG13	55:HV:94:ASP:N	2.33	0.44
3:EA:1534:U:H5'	3:EA:1535:A:P	2.58	0.44
3:EA:2511:U:O4	3:EA:2575:C:N3	2.50	0.44
42:DI:52:LEU:HD13	42:DI:57:MET:HG2	1.99	0.44
23:AW:42:THR:HG22	23:AW:43:LYS:HZ2	1.83	0.44
1:GB:49:C:OP1	15:GO:101:GLY:HA3	2.17	0.44
3:EA:2529:G:H5'	7:EG:174:LYS:HG3	2.00	0.44
9:GI:122:GLU:HG2	9:GI:126:ARG:NH1	2.33	0.44
3:CA:782:A:C2	2:CC:224:MET:SD	3.11	0.44
35:HA:1306:A:H1'	35:HA:1332:A:C5	2.53	0.44
12:EL:95:LEU:HD22	12:EL:100:ILE:HD11	2.00	0.44
35:DA:518:C:H2'	35:DA:530:G:H8	1.78	0.44
3:EA:2406:A:O4'	12:EL:69:ARG:NH2	2.50	0.44
4:CD:118:PHE:HZ	14:CN:1:MET:HB2	1.83	0.44
3:GA:1252:G:C2	3:GA:1253:A:C2	3.06	0.44
2:EC:16:VAL:HB	2:EC:203:VAL:CG1	2.48	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:45:G:H5''	3:CA:46:G:OP1	2.18	0.44
3:GA:2026:U:H2'	3:GA:2027:G:O4'	2.18	0.44
54:FU:12:PHE:CE2	54:FU:16:LEU:HG	2.53	0.44
20:ET:19:LYS:O	20:ET:20:ALA:C	2.56	0.44
34:DB:86:CYS:SG	34:DB:221:ARG:HA	2.57	0.44
40:FG:15:ASP:HB3	40:FG:20:SER:H	1.82	0.44
4:AD:45:TYR:N	4:AD:45:TYR:CD1	2.86	0.44
26:AZ:5:LYS:HD2	26:AZ:5:LYS:N	2.32	0.44
3:CA:2210:U:H4'	3:CA:2211:A:H5'	2.00	0.44
3:GA:1797:G:O2'	2:GC:256:THR:CG2	2.66	0.44
2:GC:254:LYS:O	2:GC:254:LYS:HG2	2.18	0.44
35:DA:1004:A:C2	35:DA:1005:A:H1'	2.53	0.44
3:GA:2489:U:O2	3:GA:2491:U:C4	2.71	0.44
23:CW:51:GLY:HA3	23:CW:59:PHE:CE1	2.53	0.44
35:FA:1335:U:H5''	35:FA:1337:G:N2	2.32	0.44
50:FQ:76:VAL:HG13	50:FQ:77:ARG:H	1.83	0.44
3:AA:1171:G:N2	3:AA:1179:G:C4	2.86	0.44
3:GA:2189:U:N3	3:GA:2190:G:N7	2.66	0.44
35:BA:143:A:H5'	35:BA:144:G:H5'	2.00	0.44
3:EA:1301:A:C4	3:EA:1303:G:N7	2.85	0.44
11:EK:105:ARG:HD3	11:EK:122:VAL:CG1	2.48	0.44
14:CN:103:ARG:CZ	14:CN:110:MET:CE	2.96	0.44
35:DA:649:A:H2'	35:DA:650:G:O4'	2.18	0.44
3:GA:2423:U:O2'	3:GA:2424:C:P	2.76	0.44
35:FA:1112:C:N3	36:FC:178:LEU:N	2.51	0.44
35:FA:980:C:O3'	47:FN:13:ARG:NH2	2.50	0.44
37:DD:36:GLN:HG3	37:DD:43:ALA:HA	2.00	0.44
9:CI:20:SER:N	9:CI:21:PRO:CD	2.81	0.44
11:CK:36:GLY:HA2	11:CK:62:VAL:O	2.18	0.44
36:FC:157:LEU:CD2	36:FC:166:GLU:HG2	2.48	0.44
6:EF:39:VAL:HG11	6:EF:42:ALA:HB2	2.00	0.44
3:AA:2745:C:C4	3:AA:2746:U:C4	3.05	0.44
35:BA:1158:C:N4	35:BA:1160:G:C4	2.86	0.44
12:CL:111:ILE:HD12	12:CL:111:ILE:N	2.33	0.44
3:AA:2758:A:H2'	3:AA:2759:G:H5'	1.99	0.44
3:GA:365:U:H2'	3:GA:366:C:C6	2.53	0.44
3:EA:2793:C:H2'	3:EA:2794:C:C6	2.53	0.44
35:DA:824:G:N2	35:DA:876:C:O2	2.50	0.44
17:EQ:97:ILE:HD11	17:EQ:105:PHE:HA	2.00	0.44
3:CA:159:G:O2'	3:CA:167:A:N6	2.45	0.44
8:CH:31:VAL:HB	8:CH:32:PRO:CD	2.48	0.44
3:AA:2031:A:C6	3:AA:2498:C:H1'	2.53	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:DT:47:ALA:HB3	53:DT:83:ILE:HD13	1.99	0.44
35:BA:636:U:C5'	50:BQ:6:ARG:HE	2.31	0.44
3:GA:82:U:H5'	3:GA:296:U:H5''	2.00	0.44
47:FN:26:GLU:HG2	47:FN:27:LEU:HD12	1.99	0.44
7:CG:2:ARG:O	7:CG:6:ALA:N	2.48	0.44
16:CP:102:ARG:O	16:CP:103:THR:HG22	2.18	0.44
3:AA:2788:C:H2'	3:AA:2789:C:C6	2.53	0.44
3:GA:489:G:C6	3:GA:491:G:C2	3.06	0.44
2:GC:43:ASN:OD1	2:GC:44:ASN:N	2.48	0.44
35:DA:664:G:H22	35:DA:741:G:H1	1.64	0.44
3:AA:764:A:C6	3:AA:781:A:C2	3.06	0.44
3:EA:1427:A:OP2	3:EA:1559:U:N3	2.42	0.44
35:DA:58:C:O2'	35:DA:388:G:N7	2.38	0.44
4:ED:121:THR:O	4:ED:122:VAL:HB	2.17	0.44
5:GE:149:ILE:HG23	5:GE:188:MET:HA	1.99	0.44
15:EO:68:LYS:H	15:EO:102:ARG:HD2	1.83	0.44
55:FV:200:VAL:HG23	55:FV:201:THR:HG23	1.99	0.44
39:HF:12:PRO:HB3	39:HF:44:ARG:CD	2.48	0.44
3:GA:911:A:C8	13:GM:9:PHE:CE2	3.06	0.44
3:AA:1045:C:C3'	3:AA:1046:A:H5'	2.48	0.44
3:GA:527:C:O3'	60:GA:3245:HOH:O	2.21	0.44
3:AA:1232:G:C5	3:AA:1233:C:C5	3.06	0.44
3:CA:412:A:C5	3:CA:2412:A:H1'	2.52	0.44
34:HB:209:VAL:HG23	34:HB:210:THR:H	1.81	0.44
9:AI:29:GLN:HE22	55:BV:650:THR:CA	2.31	0.44
55:BV:50:MET:HE2	55:BV:50:MET:HA	1.99	0.44
13:CM:46:ILE:HD12	13:CM:47:GLU:N	2.33	0.44
17:AQ:27:ARG:HA	17:AQ:33:VAL:HG12	1.99	0.44
35:FA:275:G:C2	35:FA:276:G:C8	3.06	0.44
18:CR:16:GLU:HA	18:CR:98:ILE:HG22	2.00	0.44
3:EA:1106:G:H1'	32:E5:56:ARG:HH11	1.82	0.44
32:A5:87:GLU:OE2	32:A5:95:LEU:HD23	2.18	0.44
3:GA:1828:G:O6	2:GC:220:ARG:HD2	2.18	0.44
35:BA:976:G:C2	35:BA:1363:A:C2	3.06	0.44
35:BA:8:A:H62	37:BD:205:SER:HB2	1.83	0.44
3:GA:1095:A:C5	55:HV:631:VAL:HB	2.53	0.44
6:AF:113:PHE:HE1	6:AF:116:LEU:HD13	1.81	0.44
3:GA:1851:U:H2'	3:GA:1852:U:C6	2.52	0.44
1:GB:78:A:C2	1:GB:99:A:N3	2.86	0.44
3:GA:2345:G:C8	3:GA:2347:C:C5	3.06	0.44
23:AW:24:ARG:HD3	23:AW:65:LYS:CD	2.48	0.44
35:HA:237:G:C5	35:HA:238:A:N7	2.86	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:FU:12:PHE:CE2	54:FU:14:VAL:CG2	3.01	0.44
9:EI:16:MET:HB3	9:EI:19:PRO:HG3	1.98	0.44
35:BA:1151:A:HO2'	35:BA:1152:A:H8	1.64	0.44
35:HA:658:C:N3	35:HA:748:G:O6	2.51	0.44
20:AT:69:ARG:CG	20:AT:70:HIS:N	2.81	0.44
35:HA:459:A:C2	35:HA:460:A:H8	2.36	0.44
44:HK:82:LEU:HD22	44:HK:105:PHE:CD1	2.53	0.44
9:AI:109:ALA:CB	9:AI:128:ILE:HG13	2.48	0.44
20:GT:76:ARG:HG2	20:GT:77:ARG:O	2.17	0.44
39:BF:9:MET:HG2	39:BF:86:ARG:O	2.17	0.44
3:CA:2661:G:C6	3:CA:2662:A:C2	3.05	0.44
3:EA:644:A:H2'	3:EA:645:C:O4'	2.18	0.44
3:EA:580:U:O3'	17:EQ:30:VAL:CG1	2.65	0.44
19:ES:24:ILE:HG22	19:ES:71:VAL:HG21	1.99	0.44
41:BH:66:PHE:O	41:BH:67:GLN:C	2.56	0.44
3:EA:1808:A:N1	24:EX:27:ARG:HD2	2.32	0.44
45:DL:24:LEU:O	45:DL:26:ALA:N	2.51	0.44
34:FB:162:VAL:HG22	34:FB:184:ALA:CB	2.48	0.44
55:DV:200:VAL:O	55:DV:201:THR:OG1	2.36	0.44
34:FB:9:LEU:HD12	34:FB:42:LEU:HD22	2.00	0.44
6:AF:134:GLN:OE1	6:AF:149:ARG:HB3	2.18	0.44
35:FA:521:G:O2'	35:FA:522:C:H5'	2.18	0.44
9:GI:3:LYS:CG	9:GI:4:VAL:H	2.31	0.44
18:AR:64:VAL:O	18:AR:65:ALA:HB3	2.18	0.44
3:AA:2495:G:O2'	13:AM:82:MET:HE3	2.18	0.44
18:GR:25:LEU:H	18:GR:94:THR:HG21	1.82	0.44
9:EI:6:ALA:HB3	9:EI:60:VAL:HB	1.98	0.44
10:EJ:17:VAL:HG23	10:EJ:139:VAL:HA	1.99	0.44
3:EA:2318:G:C6	3:EA:2319:G:C6	3.05	0.44
3:EA:2869:G:H2'	3:EA:2870:C:C6	2.52	0.44
3:AA:2283:C:H5''	3:AA:2389:G:O2'	2.18	0.44
3:AA:2283:C:C2	3:AA:2389:G:C2	3.06	0.44
3:AA:2846:G:H2'	3:AA:2847:U:O4'	2.17	0.44
35:HA:13:U:C4	35:HA:916:U:O4	2.71	0.44
20:ET:6:ARG:O	20:ET:8:LEU:N	2.51	0.44
3:CA:2632:A:C2	3:CA:2787:C:C2	3.05	0.44
34:FB:44:LYS:O	34:FB:48:MET:CG	2.66	0.44
3:EA:2514:U:H2'	3:EA:2515:C:C6	2.53	0.44
3:GA:553:G:H2'	3:GA:554:U:O4'	2.18	0.44
31:C4:7:VAL:HG23	31:C4:8:LYS:H	1.83	0.44
55:HV:502:GLU:OE1	55:HV:517:HIS:NE2	2.44	0.44
5:GE:150:THR:HG21	5:GE:153:LEU:HA	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:476:G:H4'	3:AA:502:A:N1	2.33	0.44
35:BA:736:C:H2'	35:BA:737:C:C6	2.53	0.44
36:DC:92:ALA:HB2	36:DC:99:ALA:HB3	2.00	0.44
18:AR:74:ILE:HB	18:AR:87:GLN:O	2.18	0.44
46:HM:55:THR:O	46:HM:58:ASP:HB3	2.18	0.44
39:BF:3:HIS:CD2	39:BF:92:THR:HG23	2.52	0.44
22:AV:75:GLN:HB2	22:AV:92:VAL:CG2	2.48	0.44
3:GA:1413:A:H61	3:GA:1589:U:H3	1.66	0.44
35:FA:967:C:H5'	42:FI:127:PHE:CZ	2.53	0.44
3:GA:2258:C:O2'	3:GA:2427:C:OP2	2.32	0.44
14:GN:32:GLU:OE1	14:GN:86:ARG:NH2	2.43	0.44
25:EY:45:GLN:HA	25:EY:48:ARG:HB2	1.99	0.44
3:AA:222:A:N6	3:AA:231:A:C2	2.86	0.44
4:AD:121:THR:O	4:AD:122:VAL:HB	2.17	0.44
35:HA:714:G:N2	35:HA:777:A:H1'	2.33	0.44
3:CA:2505:G:HO2'	3:CA:2506:U:H6	1.60	0.44
3:AA:684:G:C2	3:AA:794:A:C2	3.06	0.44
3:CA:1593:A:H2'	3:CA:1594:U:O4'	2.17	0.44
3:EA:2766:A:N3	3:EA:2766:A:H2'	2.33	0.44
18:GR:74:ILE:HD12	18:GR:74:ILE:N	2.33	0.44
3:EA:361:G:OP2	3:EA:361:G:C8	2.71	0.44
35:FA:502:A:C2	35:FA:544:G:C2	3.06	0.44
3:EA:387:U:C5	3:EA:388:G:C6	3.06	0.44
32:C5:71:CYS:HA	32:C5:117:LEU:HD11	2.00	0.44
32:E5:117:LEU:HD23	32:E5:121:SER:N	2.33	0.44
10:AJ:44:TYR:O	10:AJ:44:TYR:CD2	2.71	0.44
10:AJ:4:PHE:O	10:AJ:44:TYR:OH	2.34	0.44
26:GZ:29:ARG:HB3	26:GZ:30:ARG:HE	1.82	0.44
34:FB:88:GLN:NE2	34:FB:88:GLN:H	2.15	0.44
37:DD:30:THR:HG22	37:DD:31:LYS:N	2.33	0.44
35:HA:1220:G:H21	52:HS:54:GLY:HA2	1.82	0.44
3:GA:1062:G:H2'	3:GA:1063:G:O4'	2.17	0.44
35:HA:781:A:OP1	35:HA:1523:G:H5'	2.18	0.44
7:AG:36:LEU:HD22	7:AG:36:LEU:N	2.33	0.44
3:EA:1022:G:N2	3:EA:1142:A:C2	2.85	0.44
55:DV:9:ARG:HB3	55:DV:82:HIS:ND1	2.33	0.44
14:AN:33:ILE:CD1	14:AN:118:ARG:NE	2.80	0.44
21:AU:73:ASN:O	21:AU:74:ALA:HB3	2.18	0.44
3:GA:2365:G:H4'	23:GW:59:PHE:CZ	2.53	0.44
23:AW:18:LYS:N	23:AW:36:ILE:HG13	2.33	0.44
4:CD:148:GLN:HB2	4:CD:152:PRO:HG2	1.99	0.44
35:HA:1202:U:O2	47:HN:67:THR:HG21	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BL:44:LYS:CB	45:BL:45:PRO:CD	2.96	0.44
32:C5:88:HIS:CB	32:C5:89:PRO:CD	2.96	0.44
3:CA:2352:A:N1	23:CW:30:VAL:CG1	2.80	0.44
1:GB:96:G:C6	1:GB:97:C:C4	3.06	0.44
6:GF:96:TRP:HZ3	6:GF:172:PHE:CZ	2.35	0.44
34:HB:67:LEU:HD12	34:HB:153:MET:HE2	1.98	0.44
3:EA:2250:G:OP1	3:EA:2275:C:O2'	2.36	0.44
26:CZ:40:THR:OG1	26:CZ:41:PRO:HD2	2.18	0.44
39:HF:98:GLU:CG	39:HF:99:ALA:N	2.81	0.44
35:FA:874:G:C5	35:FA:875:U:C5	3.06	0.44
3:CA:65:U:O2'	3:CA:456:C:N3	2.46	0.44
3:CA:855:G:H1'	23:CW:23:LYS:HD3	2.00	0.44
14:EN:33:ILE:N	14:EN:33:ILE:HD12	2.33	0.44
55:HV:495:ARG:HD3	55:HV:609:LYS:HB3	1.99	0.44
18:ER:24:LYS:HA	18:ER:94:THR:HG23	1.99	0.44
3:AA:1171:G:H1	3:AA:1178:C:H42	1.66	0.44
10:CJ:72:LYS:HD3	10:CJ:74:TYR:CE2	2.52	0.44
35:FA:123:U:OP1	35:FA:311:C:O2'	2.34	0.44
11:EK:105:ARG:HD3	11:EK:122:VAL:HG12	1.98	0.44
43:BJ:17:LEU:HD21	43:BJ:96:VAL:CG2	2.48	0.44
3:GA:995:C:O2	10:GJ:3:THR:HG23	2.18	0.44
9:AI:40:ALA:O	9:AI:68:PHE:CZ	2.71	0.44
13:CM:1:MET:O	13:CM:2:LEU:CB	2.65	0.44
13:CM:2:LEU:HD11	13:CM:68:PHE:CD2	2.53	0.44
18:CR:41:ILE:O	18:CR:46:GLU:HB2	2.18	0.44
35:DA:714:G:H21	35:DA:777:A:H1'	1.82	0.44
3:CA:276:U:O2'	3:CA:278:A:N7	2.51	0.44
11:AK:118:LEU:O	11:AK:119:ALA:HB3	2.17	0.44
3:EA:2281:A:C2'	3:EA:2282:G:H5'	2.47	0.44
32:E5:64:VAL:O	32:E5:67:THR:N	2.34	0.44
34:DB:32:GLY:HA3	34:DB:39:ILE:H	1.83	0.44
35:HA:872:A:N3	35:HA:872:A:H2'	2.33	0.44
2:AC:24:HIS:CE1	2:AC:79:ARG:HH21	2.36	0.44
3:EA:1011:G:C4	3:EA:1151:A:C2	3.06	0.44
35:DA:1048:G:H5''	47:DN:3:LYS:HG3	2.00	0.44
17:EQ:105:PHE:O	17:EQ:108:LEU:N	2.51	0.44
5:GE:187:VAL:HG12	5:GE:188:MET:N	2.32	0.44
3:EA:387:U:C5	3:EA:388:G:O6	2.71	0.44
3:AA:1441:G:H2'	3:AA:1442:U:C6	2.53	0.44
10:GJ:20:ALA:O	10:GJ:23:LYS:N	2.47	0.44
3:AA:172:A:H2'	3:AA:173:A:C8	2.53	0.44
3:GA:1458:U:H4'	3:GA:1459:G:O5'	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:39:VAL:HG13	6:CF:40:GLY:N	2.33	0.44
35:HA:356:A:N3	35:HA:368:U:O2'	2.35	0.44
55:FV:539:ASP:OD2	55:FV:577:ARG:NH2	2.51	0.44
7:GG:120:ILE:HD12	7:GG:139:VAL:HG12	1.98	0.44
21:GU:9:GLU:OE2	21:GU:21:ARG:NH2	2.49	0.44
35:HA:1177:G:N2	35:HA:1181:G:N7	2.55	0.44
1:EB:77:U:OP1	22:EV:21:ARG:NH1	2.47	0.44
44:DK:60:PRO:O	44:DK:95:SER:OG	2.21	0.44
30:E3:22:LYS:HA	30:E3:47:ALA:O	2.17	0.44
43:FJ:23:ALA:O	43:FJ:27:GLU:N	2.46	0.44
3:EA:2199:A:C5'	24:EX:36:ARG:HH11	2.31	0.44
45:FL:35:THR:N	45:FL:54:ARG:O	2.49	0.44
55:BV:611:VAL:HG21	55:BV:689:GLU:HG3	1.99	0.44
55:BV:617:MET:HG3	55:BV:682:MET:HE3	2.00	0.44
35:DA:992:U:C2	35:DA:1043:G:N7	2.86	0.44
2:CC:20:ASN:OD1	2:CC:22:GLU:HG2	2.17	0.44
3:EA:1168:G:H3'	3:EA:1169:A:C8	2.53	0.44
35:HA:206:C:H42	35:HA:213:G:H1	1.64	0.44
14:AN:38:LEU:HB3	14:AN:39:PRO:CD	2.48	0.44
13:EM:132:THR:CG2	13:EM:133:LYS:N	2.81	0.44
9:CI:69:VAL:HG12	9:CI:70:THR:H	1.82	0.44
35:BA:72:A:H3'	35:BA:73:C:H5''	2.00	0.44
27:E0:10:SER:O	27:E0:14:MET:HG3	2.17	0.44
3:CA:2788:C:H2'	3:CA:2789:C:C6	2.52	0.44
55:HV:336:PHE:HE1	55:HV:377:VAL:HG11	1.83	0.44
3:CA:2796:U:O2'	3:CA:2797:U:H2'	2.18	0.44
3:AA:2564:A:C2	3:AA:2647:U:H4'	2.53	0.44
55:BV:303:LYS:CE	55:BV:303:LYS:HA	2.48	0.44
5:AE:154:ASP:OD1	5:AE:154:ASP:N	2.50	0.44
44:HK:125:LYS:HZ1	54:HU:36:GLU:H	1.66	0.44
18:CR:68:ARG:HD3	18:CR:92:TRP:CE2	2.53	0.44
53:DT:55:GLN:N	53:DT:56:PRO:HD2	2.33	0.44
32:E5:23:LEU:HD11	32:E5:96:PHE:CZ	2.53	0.43
10:CJ:4:PHE:CD2	10:CJ:44:TYR:CE1	3.06	0.43
23:EW:18:LYS:HA	23:EW:36:ILE:HG13	2.00	0.43
55:DV:218:TRP:CE3	55:DV:223:ILE:HB	2.53	0.43
35:HA:1193:G:O2'	38:HE:26:LYS:NZ	2.45	0.43
3:GA:1140:C:P	10:GJ:68:LYS:HZ3	2.41	0.43
3:AA:1186:G:P	60:AA:3592:HOH:O	2.75	0.43
45:HL:43:LYS:HB2	45:HL:89:ASP:O	2.18	0.43
3:GA:2332:C:H4'	3:GA:2336:A:N6	2.32	0.43
35:HA:1208:C:H2'	35:HA:1209:C:O4'	2.17	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BD:198:HIS:O	37:BD:202:GLU:HB2	2.18	0.43
35:HA:1027:C:HO2'	35:HA:1034:G:H22	1.62	0.43
32:E5:43:LYS:NZ	32:E5:98:GLU:HB2	2.33	0.43
3:EA:2845:U:H5''	16:EP:51:ASN:O	2.18	0.43
35:HA:716:A:N3	44:HK:119:ASN:O	2.51	0.43
13:EM:28:PHE:N	13:EM:104:GLU:OE2	2.49	0.43
3:EA:2134:A:C2'	3:EA:2156:G:N2	2.81	0.43
14:AN:117:ASP:O	14:AN:118:ARG:C	2.56	0.43
7:AG:1:SER:O	7:AG:4:ALA:N	2.48	0.43
3:GA:140:C:H4'	3:GA:141:G:N2	2.33	0.43
35:DA:143:A:H5'	35:DA:144:G:H5'	2.00	0.43
3:EA:2311:A:N3	6:EF:84:ILE:CD1	2.80	0.43
35:HA:929:G:C6	35:HA:930:C:C4	3.05	0.43
3:CA:2799:A:O2'	3:CA:2800:A:OP2	2.28	0.43
3:GA:1252:G:N2	17:GQ:32:ARG:HG2	2.33	0.43
35:FA:1302:C:O5'	35:FA:1302:C:C6	2.71	0.43
34:HB:52:ALA:O	34:HB:56:LEU:HB2	2.18	0.43
3:AA:2517:C:C5	3:AA:2542:A:C5	3.06	0.43
20:ET:24:MET:HE3	20:ET:29:THR:CG2	2.48	0.43
40:HG:15:ASP:N	40:HG:20:SER:O	2.37	0.43
35:HA:626:G:C2	35:HA:627:G:C4	3.06	0.43
7:GG:104:LEU:HB2	7:GG:112:VAL:CG2	2.47	0.43
14:CN:52:ILE:HB	14:CN:94:TYR:HD2	1.83	0.43
34:FB:53:LEU:N	34:FB:53:LEU:HD23	2.33	0.43
40:DG:103:TRP:HZ3	40:DG:138:ARG:HA	1.83	0.43
3:EA:483:A:N7	3:EA:497:A:H2	2.16	0.43
1:GB:41:G:P	1:GB:43:C:H41	2.41	0.43
21:CU:97:SER:O	21:CU:98:ASN:HB3	2.18	0.43
35:DA:982:U:H4'	35:DA:983:A:H5'	2.00	0.43
35:HA:1297:G:H5'	35:HA:1299:A:N6	2.33	0.43
32:A5:51:TYR:CE1	32:A5:52:MET:HG2	2.53	0.43
11:EK:71:ARG:HG3	11:EK:105:ARG:NH2	2.33	0.43
10:CJ:29:ALA:O	10:CJ:30:THR:C	2.57	0.43
38:BE:46:VAL:O	38:BE:72:ILE:HG22	2.18	0.43
32:A5:17:GLU:OE1	32:A5:53:ARG:NH1	2.51	0.43
5:CE:46:GLN:HG3	5:CE:87:ALA:H	1.82	0.43
3:GA:614:A:H4'	3:GA:616:A:C6	2.53	0.43
37:BD:125:VAL:HG23	37:BD:126:ASN:N	2.33	0.43
34:FB:103:TRP:CZ2	34:FB:155:GLY:N	2.86	0.43
39:BF:92:THR:HG22	39:BF:93:LYS:N	2.33	0.43
44:DK:92:GLY:HA2	44:DK:95:SER:HB3	1.99	0.43
35:DA:1125:U:O3'	43:DJ:7:ARG:NH1	2.50	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:75:GLY:HA3	15:AO:109:ALA:HB3	2.00	0.43
35:DA:83:C:HO2'	35:DA:84:U:H5	1.64	0.43
3:AA:1181:U:H2'	3:AA:1182:G:C8	2.52	0.43
3:AA:822:G:H2'	3:AA:823:C:H6	1.83	0.43
3:AA:2582:G:C2	3:AA:2583:G:C8	3.06	0.43
35:BA:1358:U:OP1	47:BN:75:ARG:HG2	2.18	0.43
3:EA:329:G:O4'	3:EA:477:A:H1'	2.17	0.43
4:ED:41:ALA:O	4:ED:43:ASP:N	2.49	0.43
35:DA:412:A:H2	35:DA:413:G:N7	2.16	0.43
35:HA:918:A:H2'	35:HA:919:A:O4'	2.18	0.43
40:HG:121:ALA:HA	40:HG:124:LEU:HD12	1.99	0.43
19:AS:66:ILE:HD13	19:AS:67:ASP:N	2.33	0.43
3:CA:188:G:H2'	3:CA:189:G:H5'	2.00	0.43
25:EY:32:ALA:HA	25:EY:37:LEU:HB3	2.00	0.43
17:EQ:20:ALA:HA	17:EQ:23:TYR:CE2	2.52	0.43
35:FA:1321:U:O2'	52:FS:78:ARG:NH2	2.51	0.43
3:CA:2864:G:C5	3:CA:2865:U:C4	3.06	0.43
55:HV:31:LEU:HA	55:HV:34:THR:HG22	2.00	0.43
44:DK:23:ILE:HG13	44:DK:86:VAL:HA	2.00	0.43
49:FP:48:GLU:OE2	49:FP:51:ARG:NH1	2.51	0.43
42:DI:107:ASP:OD2	42:DI:109:ARG:NH1	2.51	0.43
6:GF:43:ILE:HG21	6:GF:77:LYS:HD2	2.00	0.43
3:CA:1494:A:C2	3:CA:1495:A:C4	3.06	0.43
2:CC:254:LYS:HG2	2:CC:254:LYS:O	2.18	0.43
12:GL:132:ARG:HA	12:GL:142:ILE:CD1	2.48	0.43
1:CB:78:A:H2'	1:CB:79:G:O4'	2.18	0.43
3:CA:225:C:C4	3:CA:226:A:C8	3.06	0.43
10:CJ:44:TYR:O	10:CJ:45:THR:CB	2.66	0.43
6:GF:110:ILE:HD12	6:GF:113:PHE:CD1	2.54	0.43
3:GA:990:A:H1'	3:GA:1156:A:N3	2.33	0.43
3:EA:2269:G:O2'	23:EW:18:LYS:HG2	2.19	0.43
55:DV:219:HIS:C	55:DV:221:ASN:N	2.72	0.43
27:C0:2:VAL:HG12	27:C0:3:GLN:N	2.31	0.43
23:CW:56:HIS:N	23:CW:56:HIS:ND1	2.66	0.43
3:CA:467:G:H2'	3:CA:468:G:O4'	2.18	0.43
37:HD:26:ARG:HD3	37:HD:31:LYS:CE	2.48	0.43
38:HE:140:THR:O	38:HE:144:LEU:HG	2.18	0.43
3:GA:2429:G:H4'	60:GA:3338:HOH:O	2.18	0.43
41:BH:8:ALA:HA	41:BH:77:ARG:HG3	2.00	0.43
3:AA:2347:C:HO2'	28:A1:20:TYR:HH	1.54	0.43
38:BE:115:LEU:HG	38:BE:120:VAL:HG21	1.99	0.43
3:AA:1387:A:H5'	3:AA:1469:A:H1'	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:AW:17:ALA:O	23:AW:18:LYS:HB2	2.18	0.43
3:AA:855:G:H21	23:AW:23:LYS:CG	2.31	0.43
23:AW:24:ARG:HD3	23:AW:65:LYS:HG2	2.00	0.43
35:FA:1526:G:OP1	54:FU:39:GLU:HG2	2.18	0.43
15:EO:2:ASP:OD1	15:EO:4:LYS:N	2.51	0.43
3:AA:800:A:OP1	60:AA:3323:HOH:O	2.21	0.43
2:AC:16:VAL:H	2:AC:203:VAL:HG12	1.83	0.43
3:CA:45:G:H5'	3:CA:46:G:H5'	1.99	0.43
3:GA:2025:C:H2'	3:GA:2026:U:H6	1.83	0.43
18:CR:5:PHE:HE1	18:CR:14:VAL:HG21	1.83	0.43
44:HK:15:GLN:HA	44:HK:77:TYR:O	2.19	0.43
6:EF:122:ASP:OD2	6:EF:126:ASN:HB2	2.18	0.43
3:GA:1218:G:N1	3:GA:1232:G:C5	2.86	0.43
39:BF:63:ASN:ND2	39:BF:96:VAL:CG2	2.81	0.43
20:AT:29:THR:HB	20:AT:86:THR:HA	2.01	0.43
7:EG:117:PRO:HD2	7:EG:120:ILE:HG13	2.00	0.43
35:DA:781:A:H4'	35:DA:1522:U:O2'	2.18	0.43
17:CQ:20:ALA:HA	17:CQ:23:TYR:CE2	2.53	0.43
6:CF:110:ILE:HB	6:CF:113:PHE:HB2	2.00	0.43
55:HV:619:VAL:HG21	55:HV:658:VAL:HG23	1.98	0.43
3:CA:2661:G:H2'	3:CA:2662:A:O4'	2.18	0.43
3:GA:685:A:C2	3:GA:689:A:C5	3.06	0.43
3:AA:2657:A:C2	3:AA:2665:A:C4	3.06	0.43
38:BE:72:ILE:HD11	38:BE:145:GLU:CG	2.48	0.43
3:CA:871:U:H5''	13:CM:68:PHE:CZ	2.53	0.43
7:GG:35:THR:HG22	7:GG:36:LEU:N	2.32	0.43
5:CE:45:ALA:O	5:CE:46:GLN:HB2	2.19	0.43
4:ED:99:GLU:CG	4:ED:100:LEU:N	2.81	0.43
10:EJ:12:LYS:O	10:EJ:13:ARG:HB2	2.18	0.43
27:G0:14:MET:O	27:G0:17:SER:N	2.42	0.43
35:HA:539:A:C6	35:HA:540:G:C6	3.06	0.43
3:CA:580:U:O3'	17:CQ:30:VAL:CG1	2.66	0.43
4:GD:13:ARG:NH1	11:GK:73:ASP:O	2.51	0.43
50:DQ:62:ARG:C	50:DQ:73:TRP:CE3	2.91	0.43
55:DV:151:PHE:HE1	55:DV:264:VAL:HG12	1.83	0.43
35:FA:1413:A:C6	35:FA:1414:U:C4	3.07	0.43
29:E2:24:THR:HG23	29:E2:27:GLY:HA3	2.00	0.43
8:GH:8:LYS:HB3	8:GH:9:VAL:H	1.69	0.43
20:ET:43:ILE:HD11	20:ET:58:VAL:HG21	1.99	0.43
2:GC:164:VAL:HG23	2:GC:172:THR:OG1	2.18	0.43
35:FA:1171:A:H2'	35:FA:1172:C:C6	2.54	0.43
23:EW:24:ARG:HG3	23:EW:65:LYS:HD3	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:646:U:H3'	3:AA:647:G:H5''	2.00	0.43
35:FA:1076:U:C2	35:FA:1082:A:C2	3.06	0.43
18:ER:90:ARG:O	18:ER:91:GLN:HB3	2.18	0.43
35:FA:939:G:C6	35:FA:940:C:N4	2.86	0.43
55:DV:164:ALA:HB1	55:DV:262:ILE:HD11	1.99	0.43
35:FA:860:A:H2'	35:FA:861:G:O4'	2.17	0.43
3:GA:68:G:H2'	3:GA:69:C:O4'	2.18	0.43
38:FE:38:VAL:HG11	38:FE:114:VAL:HA	1.99	0.43
3:CA:1817:G:H2'	3:CA:1818:U:H5'	2.01	0.43
43:FJ:80:THR:O	43:FJ:83:THR:HG22	2.19	0.43
3:GA:2149:U:C5	3:GA:2150:C:C5	3.06	0.43
35:DA:154:U:O2	35:DA:168:G:N2	2.52	0.43
35:BA:1005:A:H2'	35:BA:1006:G:O4'	2.19	0.43
37:BD:12:SER:HA	37:BD:19:LEU:CD1	2.47	0.43
35:FA:620:C:H1'	37:FD:132:ILE:CD1	2.48	0.43
35:DA:266:G:H3'	50:DQ:69:LYS:HB2	1.99	0.43
35:HA:663:A:C2	35:HA:743:A:C2	3.06	0.43
3:AA:1867:G:C5	3:AA:1868:C:C5	3.06	0.43
9:CI:100:ILE:HG22	9:CI:101:SER:N	2.33	0.43
35:BA:204:G:H3'	35:BA:205:A:H5''	2.00	0.43
1:AB:72:G:N2	1:AB:103:U:C5	2.86	0.43
3:AA:1224:U:H4'	18:AR:88:GLY:O	2.18	0.43
35:DA:642:A:C8	41:DH:107:SER:HA	2.53	0.43
19:CS:2:GLU:HA	19:CS:108:SER:HB3	2.00	0.43
22:GV:2:PHE:HB2	22:GV:61:LEU:HD12	1.98	0.43
5:GE:54:GLY:O	5:GE:74:LYS:NZ	2.38	0.43
37:FD:145:ILE:HD12	37:FD:178:MET:HB3	2.00	0.43
4:GD:110:THR:HG23	4:GD:171:THR:HG22	2.00	0.43
15:AO:41:ALA:O	15:AO:44:GLY:N	2.41	0.43
47:FN:31:ILE:HD12	47:FN:31:ILE:N	2.33	0.43
34:HB:9:LEU:O	34:HB:9:LEU:HD23	2.17	0.43
53:HT:51:PHE:C	53:HT:51:PHE:CD1	2.91	0.43
3:GA:1259:G:C6	3:GA:1260:A:C5	3.06	0.43
3:EA:2852:G:C6	3:EA:2853:C:N3	2.86	0.43
35:HA:979:C:N4	47:HN:58:SER:O	2.38	0.43
22:CV:36:ALA:O	22:CV:93:ARG:NH1	2.39	0.43
38:BE:56:VAL:O	38:BE:60:ILE:HG12	2.18	0.43
12:GL:123:ARG:NE	12:GL:143:GLU:OE2	2.42	0.43
3:CA:1317:G:C5	3:CA:1318:U:C4	3.06	0.43
32:E5:26:VAL:O	32:E5:27:VAL:HB	2.19	0.43
3:CA:1106:G:H1'	32:C5:56:ARG:HH11	1.83	0.43
3:GA:1005:C:C2	3:GA:1143:A:C5	3.06	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:GO:85:LYS:HB2	15:GO:87:ILE:CG1	2.42	0.43
3:AA:1509:A:O2'	3:AA:1510:G:P	2.76	0.43
35:FA:769:G:H4'	35:FA:1513:A:H4'	1.99	0.43
37:DD:13:ARG:HD2	37:DD:37:ALA:C	2.39	0.43
35:HA:481:G:O2'	35:HA:482:A:P	2.76	0.43
35:HA:1505:G:H4'	35:HA:1506:U:H5''	1.99	0.43
3:CA:2154:A:H4'	3:CA:2155:U:OP2	2.19	0.43
3:EA:948:C:O5'	3:EA:948:C:H6	2.01	0.43
35:BA:70:U:O2'	35:BA:71:A:C8	2.68	0.43
9:AI:82:ALA:HB1	9:AI:108:ILE:HG21	2.00	0.43
3:EA:1378:A:C4	3:EA:1380:G:N7	2.86	0.43
3:CA:2849:U:OP2	16:CP:92:ARG:HB2	2.18	0.43
3:GA:295:G:H3'	60:GA:3227:HOH:O	2.18	0.43
3:CA:1064:C:H5'	9:CI:89:SER:HB3	1.98	0.43
45:BL:44:LYS:HB3	45:BL:45:PRO:HD3	2.00	0.43
4:AD:120:GLY:HA2	4:AD:162:ALA:HA	2.00	0.43
35:FA:354:G:N1	35:FA:355:C:C4	2.86	0.43
3:GA:1202:G:O6	3:GA:1244:A:C6	2.72	0.43
35:FA:723:U:H5'	54:FU:49:LYS:HD3	2.00	0.43
3:GA:1148:U:H2'	3:GA:1149:G:C8	2.54	0.43
3:EA:2276:G:P	13:EM:83:GLY:O	2.76	0.43
3:CA:309:A:O3'	21:CU:15:GLY:HA2	2.18	0.43
3:AA:2747:G:O6	3:AA:2755:C:H5''	2.18	0.43
35:BA:958:A:C8	52:BS:55:ARG:NH1	2.86	0.43
5:EE:149:ILE:HD13	5:EE:172:ALA:HA	2.01	0.43
3:GA:1266:G:H5''	19:GS:15:GLN:OE1	2.19	0.43
35:HA:588:G:C1'	41:HH:3:MET:HE2	2.47	0.43
17:CQ:23:TYR:HB3	17:CQ:27:ARG:HB3	2.01	0.43
3:CA:1301:A:N3	3:CA:1301:A:H2'	2.33	0.43
52:HS:9:PRO:CB	52:HS:41:PHE:HZ	2.31	0.43
30:A3:31:ILE:O	30:A3:31:ILE:CG1	2.66	0.43
3:EA:1292:G:H2'	3:EA:1293:C:C6	2.53	0.43
37:DD:56:ARG:NE	37:DD:56:ARG:HA	2.33	0.43
35:BA:328:C:H4'	35:BA:329:A:H5''	1.99	0.43
2:EC:80:LEU:HD11	2:EC:109:LEU:HG	2.00	0.43
7:GG:97:VAL:HG22	7:GG:102:ILE:HG13	2.00	0.43
9:GI:96:LYS:HE3	9:GI:135:MET:HG3	2.01	0.43
14:AN:70:THR:HB	14:AN:75:ILE:HD11	2.01	0.43
35:HA:1279:G:H4'	35:HA:1281:C:H41	1.83	0.43
3:GA:2804:U:H2'	3:GA:2805:C:C6	2.52	0.43
35:HA:865:A:C2	35:HA:918:A:H4'	2.53	0.43
35:HA:1158:C:H4'	34:HB:131:LYS:HE3	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DK:67:ALA:HB1	44:DK:100:LEU:HD13	2.00	0.43
48:BO:3:LEU:HD23	48:BO:8:THR:HG22	2.00	0.43
7:AG:60:GLY:O	7:AG:61:TRP:HB2	2.17	0.43
45:BL:90:LEU:HB3	45:BL:93:VAL:CG2	2.48	0.43
40:DG:18:PHE:HD2	40:DG:59:LEU:HD23	1.83	0.43
21:EU:53:GLN:N	21:EU:54:PRO:CD	2.81	0.43
35:DA:1324:A:H2'	35:DA:1325:C:O4'	2.18	0.43
11:EK:113:MET:SD	11:EK:116:ILE:HD11	2.57	0.43
3:CA:2283:C:H5''	3:CA:2389:G:O2'	2.18	0.43
12:GL:26:GLY:C	12:GL:27:LEU:HD12	2.38	0.43
35:FA:1086:U:H3'	35:FA:1087:G:H8	1.84	0.43
3:AA:1003:G:N2	3:AA:1004:U:C2	2.86	0.43
4:AD:124:ARG:HA	4:AD:165:MET:SD	2.58	0.43
3:EA:1959:G:C6	3:EA:1960:A:C5	3.06	0.43
2:GC:170:TYR:CE1	2:GC:184:GLU:HA	2.54	0.43
11:AK:47:ILE:HG13	11:AK:48:PRO:HD2	2.00	0.43
7:EG:23:ILE:HG21	7:EG:71:LEU:HD11	1.99	0.43
36:FC:22:TRP:HB3	36:FC:59:ARG:H	1.83	0.43
3:EA:1419:A:C8	3:EA:1579:A:N6	2.86	0.43
3:CA:2489:U:HO2'	3:CA:2491:U:H5	1.64	0.43
42:DI:28:ILE:HG22	42:DI:30:ILE:HG22	2.00	0.43
30:G3:25:HIS:CE1	30:G3:47:ALA:CB	3.01	0.43
3:AA:1494:A:C2	3:AA:1495:A:C4	3.06	0.43
55:DV:231:GLU:HA	55:DV:234:MET:HG2	1.99	0.43
53:BT:55:GLN:N	53:BT:56:PRO:HD2	2.33	0.43
3:AA:132:G:C2'	3:AA:133:U:H5'	2.48	0.43
3:GA:522:A:H2'	3:GA:523:C:C6	2.53	0.43
35:DA:464:U:H2'	35:DA:466:A:OP2	2.18	0.43
35:DA:1054:C:H5''	35:DA:1196:A:O2'	2.19	0.43
3:GA:244:A:N6	3:GA:254:G:O2'	2.51	0.43
3:AA:1417:C:N3	3:AA:1581:G:N2	2.60	0.43
3:EA:1458:U:H4'	3:EA:1459:G:O5'	2.18	0.43
32:E5:125:ARG:CZ	32:E5:125:ARG:HA	2.48	0.43
6:AF:94:ARG:CG	6:AF:94:ARG:HH11	2.31	0.43
55:DV:365:GLN:HB2	55:DV:374:ILE:HD11	1.99	0.43
6:GF:109:ARG:HB3	6:GF:136:ILE:O	2.19	0.43
35:HA:815:A:N6	35:HA:1509:C:H1'	2.34	0.43
42:BI:57:MET:SD	42:BI:57:MET:C	2.97	0.43
3:AA:1737:G:H5''	3:AA:1738:G:OP2	2.18	0.43
23:EW:18:LYS:H	23:EW:36:ILE:N	2.16	0.43
32:C5:108:VAL:HG12	32:C5:109:LYS:N	2.33	0.43
55:DV:220:GLN:O	55:DV:223:ILE:HG23	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:GW:56:HIS:N	23:GW:56:HIS:ND1	2.66	0.43
7:EG:3:VAL:O	7:EG:68:ARG:HG2	2.18	0.43
42:FI:43:THR:O	42:FI:44:ALA:CB	2.66	0.43
34:DB:101:THR:HA	34:DB:178:LEU:CD2	2.49	0.43
35:FA:1228:C:P	46:FM:107:ARG:HH22	2.41	0.43
3:GA:2421:G:P	28:G1:7:LYS:NZ	2.92	0.43
1:AB:78:A:H2'	1:AB:79:G:O4'	2.18	0.43
3:GA:1180:U:C5	3:GA:1181:U:C4	3.06	0.43
12:CL:85:VAL:HG22	12:CL:94:THR:HG22	2.00	0.43
3:GA:884:U:H2'	3:GA:892:A:N6	2.33	0.43
2:CC:221:GLY:O	2:CC:224:MET:HG3	2.18	0.43
34:FB:72:LYS:HE2	34:FB:163:ILE:HD13	2.00	0.43
55:FV:218:TRP:N	55:FV:218:TRP:CD1	2.84	0.43
3:GA:1865:U:C5	3:GA:1875:G:N1	2.87	0.43
35:DA:1147:C:C2'	42:DI:18:ARG:HH11	2.31	0.43
3:GA:126:A:C4	29:G2:18:PHE:CE2	3.07	0.43
10:GJ:55:ILE:HD11	10:GJ:57:LEU:CD2	2.49	0.43
45:HL:83:ARG:HB3	45:HL:96:HIS:HB2	2.00	0.43
37:FD:3:ARG:NE	37:FD:115:ARG:HD3	2.33	0.43
3:GA:952:G:N3	3:GA:966:G:C2	2.87	0.43
3:CA:942:G:O2'	3:CA:1189:A:O2'	2.23	0.43
18:CR:37:GLU:HB3	18:CR:53:PHE:CE1	2.53	0.43
38:BE:97:GLN:N	38:BE:124:LEU:O	2.42	0.43
2:GC:254:LYS:O	2:GC:256:THR:N	2.52	0.43
7:EG:120:ILE:N	7:EG:120:ILE:HD13	2.33	0.43
5:GE:29:HIS:HA	5:GE:32:VAL:HG13	2.00	0.43
32:E5:91:ALA:HB1	32:E5:130:PRO:HG3	2.00	0.43
3:AA:2108:A:H2'	3:AA:2109:U:O5'	2.17	0.43
41:DH:47:GLU:CB	41:DH:62:THR:HB	2.48	0.43
3:GA:949:G:C2	3:GA:969:G:C2	3.06	0.43
3:CA:1068:G:H3'	3:CA:1069:A:H5''	2.00	0.43
3:CA:682:G:N2	3:CA:796:C:C2	2.86	0.43
3:GA:217:A:H2'	3:GA:218:A:C8	2.53	0.43
18:ER:64:VAL:O	18:ER:65:ALA:HB3	2.18	0.43
37:HD:165:ARG:O	37:HD:167:LYS:N	2.52	0.43
35:DA:918:A:H2'	35:DA:919:A:O4'	2.19	0.43
2:CC:109:LEU:O	2:CC:110:LYS:HB3	2.18	0.43
3:EA:704:G:O2'	3:EA:726:G:N2	2.44	0.43
3:EA:319:G:C4	3:EA:333:G:N2	2.87	0.43
4:ED:46:ARG:NH2	4:ED:86:GLU:H	2.16	0.43
30:E3:21:PHE:O	30:E3:22:LYS:O	2.36	0.43
35:DA:993:G:N2	35:DA:996:A:N6	2.67	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:ES:7:HIS:HB2	19:ES:50:VAL:CG2	2.48	0.43
3:CA:38:A:N3	5:CE:43:THR:HB	2.33	0.43
35:DA:126:G:H2'	35:DA:127:G:O5'	2.19	0.43
5:GE:164:LEU:HB3	5:GE:167:VAL:HG13	2.00	0.43
35:DA:1311:A:C2	35:DA:1312:G:C8	3.06	0.43
50:FQ:74:THR:HG22	50:FQ:75:LEU:N	2.33	0.43
1:AB:27:C:C5	1:AB:28:C:C5	3.06	0.43
3:GA:537:G:N1	3:GA:555:G:C2	2.87	0.43
3:EA:2897:U:H2'	3:EA:2898:U:C6	2.54	0.43
3:EA:217:A:H2'	3:EA:218:A:O4'	2.17	0.43
38:FE:25:VAL:N	38:FE:28:GLY:O	2.38	0.43
3:CA:807:U:H2'	3:CA:808:G:O4'	2.18	0.43
3:GA:2153:C:H5''	3:GA:2154:A:OP2	2.18	0.43
3:EA:1853:A:N1	3:EA:2087:G:H1'	2.32	0.43
35:BA:1117:A:O3'	42:BI:106:ARG:CD	2.66	0.43
35:BA:922:G:H4'	38:BE:25:VAL:HA	2.01	0.43
46:FM:93:ARG:HH12	52:FS:81:ARG:HH21	1.66	0.43
28:A1:18:HIS:CE1	28:A1:40:PRO:HD3	2.54	0.43
52:FS:22:ALA:HA	52:FS:25:SER:HB3	2.00	0.43
35:FA:961:U:OP1	35:FA:1223:C:O2'	2.21	0.43
19:CS:24:ILE:HG23	19:CS:71:VAL:HG11	2.01	0.43
35:DA:1530:G:H2'	35:DA:1531:A:C8	2.54	0.43
52:FS:29:LYS:HB3	52:FS:30:PRO:HD2	2.00	0.43
3:GA:2246:G:C2	3:GA:2247:A:C4	3.07	0.43
35:FA:973:G:H1'	43:FJ:56:HIS:ND1	2.33	0.43
35:HA:204:G:H3'	35:HA:205:A:H5''	2.00	0.43
3:GA:404:A:H1'	3:GA:405:U:OP2	2.19	0.43
3:CA:308:G:N2	3:CA:477:A:C8	2.86	0.43
20:AT:76:ARG:HG3	20:AT:77:ARG:N	2.34	0.43
12:AL:112:LEU:HD23	12:AL:114:GLY:H	1.83	0.43
35:BA:1124:G:H2'	35:BA:1145:A:N6	2.33	0.43
34:BB:118:THR:O	34:BB:119:GLN:HB3	2.18	0.43
3:GA:1419:A:N6	3:GA:1421:G:N3	2.67	0.43
3:GA:1421:G:C2	3:GA:1422:G:N7	2.86	0.43
3:GA:311:A:C8	3:GA:332:A:N7	2.86	0.43
2:AC:76:VAL:O	2:AC:76:VAL:HG22	2.17	0.43
35:DA:946:A:H2'	35:DA:947:G:C8	2.53	0.43
3:CA:1220:G:C2	3:CA:1221:C:C2	3.06	0.43
32:C5:23:LEU:H	32:C5:87:GLU:HB2	1.84	0.43
32:A5:71:CYS:SG	32:A5:117:LEU:HD12	2.58	0.43
17:EQ:91:ARG:CD	18:ER:11:GLN:H	2.31	0.43
5:AE:44:ARG:CG	5:AE:44:ARG:HH21	2.31	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:44:TYR:HA	17:AQ:59:LEU:CD2	2.48	0.43
35:HA:1066:C:H3'	35:HA:1067:A:H8	1.83	0.43
52:HS:36:ARG:HD2	52:HS:51:VAL:CG1	2.48	0.43
35:HA:1220:G:H1'	52:HS:52:HIS:ND1	2.33	0.43
3:GA:818:G:N7	3:GA:1187:G:C6	2.86	0.43
32:E5:34:THR:O	32:E5:38:MET:HG3	2.18	0.43
3:EA:2844:G:C5	3:EA:2845:U:C5	3.06	0.43
3:AA:819:A:C4	3:AA:1189:A:C2	3.06	0.43
3:AA:1439:A:C2	3:AA:1553:A:C4	3.06	0.43
7:AG:35:THR:HG22	7:AG:36:LEU:N	2.33	0.43
3:EA:1142:A:C4	3:EA:1144:A:C8	3.06	0.43
5:GE:170:ARG:NH2	5:GE:179:SER:OG	2.51	0.43
3:GA:983:A:C4	3:GA:984:A:C8	3.07	0.43
3:CA:572:A:C2	3:CA:2033:A:C2	3.06	0.43
35:DA:978:A:C8	35:DA:1361:G:N2	2.87	0.43
18:CR:83:TYR:C	18:CR:83:TYR:CD1	2.91	0.43
3:CA:788:A:H3'	3:CA:790:U:H5	1.83	0.43
36:HC:19:ASN:O	36:HC:40:ARG:NH2	2.52	0.43
3:GA:54:G:C2	3:GA:55:G:H1'	2.53	0.43
9:GI:36:GLU:HG2	9:GI:66:PHE:CE2	2.54	0.43
35:FA:355:C:C4	35:FA:356:A:N7	2.87	0.43
28:E1:9:LYS:HE2	28:E1:52:LYS:NZ	2.33	0.43
42:FI:45:ARG:HG3	42:FI:46:MET:N	2.33	0.43
44:HK:24:HIS:ND1	44:HK:87:LYS:HD2	2.34	0.43
37:DD:151:LYS:HB3	37:DD:178:MET:SD	2.59	0.43
54:DU:10:GLU:HG2	54:DU:11:PRO:HD3	2.01	0.43
17:GQ:81:GLY:O	17:GQ:85:ALA:N	2.39	0.43
3:CA:2748:A:H1'	7:CG:66:THR:HG22	2.01	0.43
7:CG:66:THR:OG1	7:CG:67:ALA:N	2.52	0.43
14:EN:33:ILE:HD11	14:EN:118:ARG:CD	2.49	0.43
20:AT:69:ARG:HG3	20:AT:70:HIS:H	1.83	0.43
4:CD:68:PHE:C	4:CD:73:VAL:HG12	2.38	0.43
16:GP:33:GLU:OE1	35:HA:346:G:P	2.76	0.43
35:DA:1401:G:H2'	35:DA:1402:C:O4'	2.17	0.43
43:HJ:74:VAL:O	43:HJ:75:ASP:HB3	2.19	0.43
3:EA:1567:G:C2'	2:EC:84:PRO:HG3	2.48	0.43
39:FF:3:HIS:CD2	39:FF:94:HIS:HA	2.53	0.43
35:DA:983:A:N3	35:DA:983:A:C2'	2.82	0.43
36:FC:66:VAL:CG1	36:FC:67:THR:N	2.81	0.43
32:E5:91:ALA:CB	32:E5:130:PRO:HG3	2.48	0.43
3:GA:2189:U:C2	3:GA:2190:G:C8	3.06	0.43
20:CT:50:LEU:C	20:CT:52:GLU:H	2.22	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1223:G:OP2	18:GR:90:ARG:NH1	2.48	0.43
3:GA:949:G:N1	3:GA:969:G:C6	2.86	0.43
5:AE:147:LEU:HB3	5:AE:186:VAL:HG23	1.99	0.43
38:BE:72:ILE:HG12	38:BE:73:ASN:N	2.33	0.43
40:DG:83:SER:HB2	40:DG:85:TYR:CE2	2.53	0.43
35:BA:328:C:H2'	35:BA:328:C:O2	2.19	0.43
3:CA:1328:A:H2'	3:CA:1330:C:C4	2.53	0.43
14:AN:20:MET:HE1	14:AN:40:LYS:HE2	2.00	0.43
3:GA:1881:C:H2'	3:GA:1882:U:O4'	2.17	0.43
13:GM:34:LYS:CD	22:GV:82:TYR:HA	2.48	0.43
35:DA:1269:A:N7	35:DA:1270:G:H1'	2.33	0.43
3:CA:2902:C:O2'	3:CA:2903:U:P	2.77	0.43
3:GA:2633:G:C6	3:GA:2634:A:N7	2.87	0.43
35:HA:297:G:H4'	35:HA:557:G:H4'	1.99	0.43
3:EA:309:A:N3	3:EA:329:G:O2'	2.42	0.43
37:FD:135:TYR:CD1	37:FD:136:GLN:N	2.85	0.43
50:FQ:38:ILE:HD12	50:FQ:40:ARG:HG2	1.99	0.43
3:EA:2698:U:H2'	3:EA:2699:C:C6	2.54	0.43
24:EX:28:PHE:CD1	24:EX:28:PHE:N	2.86	0.43
3:CA:880:G:C2	3:CA:881:G:C8	3.06	0.43
3:AA:336:C:N3	3:AA:337:C:C5	2.86	0.43
3:AA:1638:C:H4'	3:AA:2710:C:O2	2.18	0.43
45:BL:23:ALA:HB3	45:BL:95:TYR:CE2	2.53	0.43
35:HA:619:U:N3	37:HD:132:ILE:CD1	2.81	0.43
41:FH:93:PRO:HG3	41:FH:125:ILE:HD12	1.99	0.43
6:EF:14:LYS:O	6:EF:17:THR:OG1	2.36	0.43
55:DV:4:THR:CG2	55:DV:378:ARG:CZ	2.96	0.43
3:GA:1826:G:P	2:GC:221:GLY:H	2.40	0.43
42:FI:65:ILE:HD13	42:FI:79:ILE:HG23	2.01	0.43
6:GF:93:GLU:O	6:GF:95:MET:N	2.51	0.43
41:FH:89:LYS:HG3	41:FH:90:ASP:N	2.34	0.43
38:BE:91:GLY:HA3	38:BE:130:SER:HB3	2.00	0.43
12:EL:110:VAL:HG11	12:EL:135:ILE:HD11	2.01	0.43
49:HP:23:ASP:O	49:HP:25:ARG:N	2.51	0.43
7:EG:24:THR:HG23	7:EG:34:ARG:HG2	2.00	0.43
3:AA:61:C:H2'	3:AA:62:U:H5'	2.00	0.43
55:HV:10:TYR:HB2	55:HV:289:PRO:CG	2.49	0.43
3:CA:1548:A:H2'	3:CA:1549:A:C8	2.54	0.43
3:GA:1670:C:C5	3:GA:1671:U:C4	3.07	0.43
3:EA:782:A:C2	2:EC:224:MET:SD	3.12	0.43
3:AA:1956:U:H2'	3:AA:1957:C:H5'	2.01	0.43
12:AL:2:ARG:HA	12:AL:5:THR:CG2	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:532:A:N6	35:BA:1207:G:H5'	2.33	0.43
12:GL:68:SER:C	12:GL:70:LYS:H	2.22	0.43
35:BA:495:A:C2	35:BA:496:A:C6	3.06	0.43
3:CA:666:A:H4'	12:CL:48:ARG:HD2	2.00	0.43
3:GA:882:G:C6	3:GA:895:U:H1'	2.54	0.43
52:DS:40:ILE:HB	52:DS:66:MET:O	2.18	0.43
3:AA:1239:G:H2'	3:AA:1240:U:O4'	2.19	0.43
26:AZ:15:ARG:HH11	26:AZ:15:ARG:HG2	1.82	0.43
38:DE:157:ARG:NH2	41:DH:114:ARG:HH12	2.16	0.43
3:AA:2557:G:H2'	3:AA:2558:C:C6	2.54	0.43
40:FG:68:ASN:OD1	40:FG:130:ASN:ND2	2.47	0.43
10:AJ:11:VAL:HG11	10:AJ:50:THR:HA	2.01	0.43
2:EC:132:ARG:NH1	2:EC:168:GLY:O	2.51	0.43
42:BI:60:LYS:HD2	42:BI:61:LEU:CD1	2.49	0.43
23:EW:37:VAL:HG13	23:EW:55:ASP:O	2.18	0.43
23:EW:37:VAL:CA	23:EW:39:GLN:HG2	2.49	0.43
3:GA:1913:A:O2'	56:HW:4:SER:HA	2.18	0.43
15:AO:31:THR:HG22	15:AO:34:HIS:N	2.33	0.43
3:CA:1509:A:HO2'	3:CA:1510:G:P	2.40	0.43
35:HA:1049:U:H4'	35:HA:1050:G:C5'	2.48	0.43
10:GJ:45:THR:HG23	10:GJ:45:THR:O	2.18	0.43
45:DL:43:LYS:HG2	45:DL:44:LYS:HG3	2.00	0.43
16:EP:50:ARG:CD	16:EP:51:ASN:N	2.81	0.43
4:GD:186:LEU:HD21	16:GP:3:ILE:HD11	2.00	0.43
35:HA:481:G:C8	35:HA:481:G:H5''	2.53	0.43
35:DA:980:C:O3'	47:DN:13:ARG:NH2	2.52	0.43
5:CE:176:ASP:OD2	5:CE:179:SER:OG	2.36	0.43
1:GB:77:U:OP2	22:GV:14:LYS:HA	2.18	0.43
20:ET:69:ARG:HD2	20:ET:70:HIS:H	1.83	0.43
3:GA:974:G:OP1	18:GR:78:ARG:NH1	2.51	0.43
12:EL:68:SER:O	12:EL:69:ARG:HB3	2.19	0.43
4:GD:133:THR:HG23	4:GD:134:HIS:CD2	2.54	0.43
35:DA:1147:C:H4'	42:DI:7:TYR:CE2	2.53	0.43
45:HL:63:VAL:HG11	45:HL:95:TYR:CE2	2.53	0.43
35:HA:941:G:H4'	35:HA:1350:A:H4'	2.00	0.43
42:HI:120:LYS:HG3	42:HI:123:ARG:HB3	2.01	0.43
7:CG:1:SER:O	7:CG:4:ALA:N	2.43	0.43
35:HA:1308:U:C5'	46:HM:109:ARG:HE	2.31	0.43
4:GD:52:THR:HG23	4:GD:53:GLY:N	2.34	0.43
3:GA:952:G:N1	3:GA:953:G:C4	2.87	0.43
38:FE:89:HIS:CD2	38:FE:138:ARG:HG2	2.54	0.43
35:DA:1236:A:H4'	35:DA:1304:G:H4'	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BH:106:THR:HG21	41:BH:121:LEU:HD13	1.99	0.43
4:CD:69:ALA:HA	4:CD:73:VAL:CG1	2.48	0.43
35:BA:211:G:C6	35:BA:212:G:H1'	2.54	0.43
3:EA:2799:A:O2'	3:EA:2800:A:OP2	2.27	0.43
3:AA:1476:U:C5	3:AA:1514:G:C2	3.07	0.43
8:AH:8:LYS:O	8:AH:9:VAL:CB	2.66	0.43
35:DA:1225:A:H4'	52:DS:78:ARG:NE	2.33	0.43
3:CA:2758:A:C2'	3:CA:2759:G:H5'	2.49	0.43
7:AG:123:GLU:HG2	7:AG:125:PRO:HD3	2.00	0.43
39:HF:3:HIS:H	39:HF:92:THR:HG23	1.84	0.43
19:CS:54:ALA:HB1	19:CS:107:VAL:CG1	2.49	0.43
19:CS:54:ALA:HB1	19:CS:107:VAL:HG12	1.99	0.43
55:HV:4:THR:HB	55:HV:7:ILE:HD11	2.00	0.43
35:FA:375:U:C4	35:FA:376:G:N7	2.86	0.43
9:GI:96:LYS:HG2	9:GI:135:MET:HG2	1.99	0.43
41:HH:112:THR:HG22	41:HH:113:ASP:N	2.33	0.43
41:HH:82:GLY:C	41:HH:83:LEU:HD12	2.38	0.43
52:FS:56:GLN:OE1	52:FS:57:HIS:N	2.51	0.43
3:EA:1168:G:H3'	3:EA:1169:A:H8	1.84	0.43
40:DG:17:LYS:C	40:DG:18:PHE:HD1	2.22	0.43
5:GE:161:ALA:HB1	5:GE:167:VAL:CG2	2.48	0.43
3:CA:479:A:H4'	3:CA:480:A:OP1	2.18	0.43
3:CA:874:G:C6	3:CA:904:G:C6	3.06	0.43
35:BA:688:G:C5	35:BA:700:G:C2	3.07	0.43
3:GA:725:G:C6	3:GA:726:G:N1	2.87	0.43
39:BF:61:LEU:HD12	39:BF:62:MET:H	1.83	0.43
4:ED:193:VAL:HB	4:ED:194:PRO:HD2	2.01	0.43
48:HO:70:LEU:CD2	48:HO:78:TYR:HB2	2.49	0.43
18:AR:5:PHE:HB3	18:AR:59:ILE:HD12	2.01	0.43
37:BD:148:LYS:H	37:BD:148:LYS:HD2	1.83	0.43
3:GA:2376:A:C8	15:GO:99:TYR:HE2	2.36	0.43
35:FA:21:G:H2'	35:FA:22:G:C8	2.54	0.43
55:BV:498:VAL:CG2	55:BV:608:ALA:HA	2.48	0.43
49:BP:70:ARG:O	49:BP:74:LEU:HG	2.19	0.43
55:FV:169:LEU:HD13	55:FV:263:LEU:HD13	2.00	0.43
35:HA:507:C:H3'	35:HA:508:U:H5''	1.99	0.43
3:GA:1681:G:O2'	3:GA:1762:A:N3	2.41	0.43
41:HH:105:SER:N	41:HH:126:ILE:HD13	2.34	0.43
35:DA:626:G:H2'	35:DA:627:G:C8	2.53	0.43
35:FA:881:G:N7	45:FL:6:GLN:NE2	2.67	0.43
3:EA:259:G:H4'	12:EL:103:ILE:HD13	2.01	0.43
2:GC:2:VAL:HG11	2:GC:201:LEU:HD23	2.01	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BJ:35:GLN:HE21	43:BJ:77:VAL:CG2	2.32	0.43
35:DA:1198:G:H2'	35:DA:1199:U:C6	2.53	0.43
34:BB:187:ASP:OD1	34:BB:188:THR:N	2.39	0.43
3:GA:796:C:HO2'	3:GA:797:G:H5'	1.84	0.43
40:HG:12:ILE:HD12	40:HG:25:LYS:HG2	2.00	0.43
30:C3:21:PHE:N	30:C3:48:MET:HE1	2.33	0.43
10:EJ:123:LYS:CD	10:EJ:123:LYS:N	2.81	0.43
12:AL:111:ILE:N	12:AL:111:ILE:HD12	2.33	0.43
10:CJ:44:TYR:HD2	17:CQ:63:ARG:HG2	1.82	0.43
32:C5:100:ALA:HB2	32:C5:125:ARG:HE	1.84	0.43
8:CH:27:ARG:HH21	8:CH:27:ARG:HG3	1.83	0.43
35:HA:759:A:H2'	35:HA:760:G:H5'	2.00	0.43
27:C0:2:VAL:CG1	27:C0:3:GLN:N	2.81	0.43
37:HD:28:ILE:O	37:HD:29:ASP:C	2.56	0.43
3:GA:2317:A:C5	3:GA:2318:G:C5	3.07	0.43
3:CA:2133:G:H5''	3:CA:2155:U:C5	2.54	0.43
60:EA:3737:HOH:O	2:EC:237:ARG:NH2	2.51	0.43
3:GA:983:A:N7	3:GA:984:A:N7	2.67	0.43
7:CG:84:LYS:HZ3	7:CG:133:LYS:HG2	1.82	0.43
12:GL:48:ARG:HH11	12:GL:48:ARG:HB2	1.84	0.43
3:EA:784:G:H5'	2:EC:225:ASN:OD1	2.18	0.43
37:HD:95:GLU:O	37:HD:100:ASN:ND2	2.52	0.43
35:FA:408:A:H2'	35:FA:409:U:O4'	2.18	0.43
50:HQ:47:HIS:HB2	50:HQ:71:LYS:HE2	1.99	0.43
40:HG:114:LYS:HG2	40:HG:115:SER:N	2.33	0.43
40:HG:103:TRP:HA	40:HG:106:GLU:HB3	2.00	0.43
23:AW:19:ARG:NH1	23:AW:22:VAL:HG21	2.33	0.43
3:CA:138:U:H5'	3:CA:139:U:C5'	2.48	0.43
39:DF:45:ARG:NH1	39:DF:46:GLN:O	2.51	0.43
1:CB:51:G:H5''	15:CO:64:TYR:CD2	2.52	0.43
3:GA:299:A:N1	3:GA:322:A:O2'	2.49	0.43
3:AA:2516:A:N6	3:AA:2517:C:N4	2.67	0.43
18:ER:49:ILE:HD12	18:ER:52:PRO:HA	2.01	0.43
35:FA:1085:U:C6	35:FA:1094:G:N1	2.87	0.43
3:GA:1287:A:O5'	14:GN:103:ARG:HD2	2.19	0.43
40:BG:18:PHE:CE1	40:BG:58:GLU:HG2	2.54	0.43
28:A1:8:ILE:CD1	28:A1:24:LYS:HG2	2.48	0.43
28:A1:5:ARG:CZ	28:A1:24:LYS:HA	2.49	0.43
14:CN:52:ILE:HB	14:CN:94:TYR:CD2	2.53	0.43
45:FL:73:ASN:ND2	45:FL:74:LEU:H	2.16	0.43
23:GW:23:LYS:HE2	23:GW:24:ARG:HB3	2.00	0.43
35:DA:1331:G:O2'	35:DA:1332:A:P	2.77	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:GJ:73:VAL:HG23	10:GJ:74:TYR:N	2.34	0.43
3:AA:1779:U:C5	3:AA:1784:A:N7	2.86	0.43
35:BA:876:C:C1'	41:BH:12:THR:HG21	2.49	0.43
3:GA:2513:A:H2	4:GD:148:GLN:HG3	1.84	0.43
47:HN:49:GLN:HG2	52:HS:10:PHE:HE1	1.84	0.43
24:EX:70:LEU:HD13	24:EX:75:GLU:CB	2.49	0.43
35:FA:1124:G:C2	35:FA:1150:A:C2	3.06	0.43
35:FA:1464:U:H2'	35:FA:1465:A:C8	2.53	0.43
3:CA:404:A:N7	3:CA:406:G:C6	2.86	0.43
35:FA:1305:G:N2	35:FA:1331:G:O2'	2.52	0.43
3:CA:834:G:C6	3:CA:835:C:C4	3.07	0.43
12:GL:127:VAL:HG21	12:GL:135:ILE:CD1	2.48	0.43
35:DA:233:C:H2'	35:DA:234:C:H6	1.83	0.43
3:AA:580:U:H2'	3:AA:581:C:C6	2.54	0.43
3:GA:240:C:H2'	3:GA:256:A:N6	2.34	0.43
32:A5:88:HIS:CB	32:A5:89:PRO:CD	2.97	0.43
3:EA:1712:U:C4	3:EA:1713:A:C6	3.06	0.43
18:ER:64:VAL:O	18:ER:65:ALA:CB	2.66	0.43
3:CA:2844:G:H2'	3:CA:2845:U:H5'	2.00	0.43
34:DB:165:ALA:HB3	34:DB:190:SER:HB3	2.01	0.43
9:AI:9:LYS:HB3	9:AI:71:LYS:NZ	2.34	0.43
55:HV:4:THR:HG21	55:HV:378:ARG:HG3	2.00	0.43
30:G3:39:ARG:O	30:G3:43:LEU:HG	2.19	0.43
9:GI:96:LYS:NZ	9:GI:137:LEU:HD23	2.33	0.43
4:GD:12:THR:HG22	4:GD:13:ARG:N	2.33	0.43
46:DM:64:VAL:HG13	46:DM:68:ASP:CB	2.48	0.43
55:DV:430:LYS:HB3	55:DV:479:VAL:HG21	2.00	0.43
35:BA:1391:U:H2'	35:BA:1392:G:C8	2.54	0.43
35:HA:368:U:C4	55:HV:362:ARG:NH2	2.87	0.43
35:BA:1117:A:O3'	42:BI:106:ARG:HD2	2.19	0.43
50:FQ:38:ILE:CD1	50:FQ:40:ARG:HG2	2.48	0.43
13:AM:26:VAL:HB	13:AM:133:LYS:HA	1.99	0.43
5:CE:15:SER:N	5:CE:197:GLU:OE2	2.49	0.43
3:CA:1977:A:H2'	3:CA:1978:A:O4'	2.18	0.43
52:DS:34:TRP:NE1	52:DS:57:HIS:CE1	2.87	0.43
2:CC:128:THR:HA	2:CC:190:THR:HA	2.00	0.43
24:CX:38:TRP:CZ2	24:CX:43:LYS:HA	2.54	0.43
35:HA:392:C:OP1	49:HP:8:ARG:NH2	2.52	0.43
46:DM:5:ALA:HB2	46:DM:60:VAL:HG13	2.01	0.43
5:GE:144:GLU:HG3	5:GE:145:ASP:N	2.32	0.43
35:FA:1105:A:C2	35:FA:1106:G:N7	2.87	0.43
38:HE:77:ASN:HB2	38:HE:82:GLN:NE2	2.33	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:542:C:N3	3:EA:551:G:O6	2.51	0.43
3:EA:1594:U:H2'	3:EA:1595:C:C6	2.54	0.43
20:GT:38:ALA:HB1	20:GT:43:ILE:CG2	2.49	0.43
35:DA:932:C:C6	40:DG:3:ARG:NH1	2.87	0.43
3:AA:742:A:H2'	3:AA:743:A:C8	2.53	0.43
45:DL:34:CYS:HA	45:DL:55:VAL:HA	2.01	0.43
34:DB:93:HIS:ND1	34:DB:145:ASN:O	2.51	0.43
37:DD:174:ASP:OD1	37:DD:175:ALA:N	2.48	0.43
35:BA:911:U:H2'	35:BA:912:C:C6	2.54	0.43
3:CA:1447:C:C2	3:CA:1448:G:C8	3.07	0.43
3:GA:1107:G:C6	3:GA:1108:U:C4	3.07	0.43
3:CA:1268:A:H2'	3:CA:1269:A:O4'	2.19	0.43
40:DG:46:ALA:HB2	40:DG:117:ALA:HA	2.00	0.43
44:HK:89:PRO:HG3	54:HU:29:LEU:HD13	2.01	0.43
3:AA:1857:G:C2	3:AA:1884:G:N3	2.86	0.43
35:DA:538:G:C2	35:DA:539:A:C4	3.06	0.43
3:GA:45:G:H2'	3:GA:215:G:C5	2.54	0.43
35:BA:1480:A:H2'	35:BA:1481:U:O4'	2.19	0.43
35:DA:1394:A:C5	35:DA:1501:C:H4'	2.52	0.43
3:GA:1045:C:H3'	3:GA:1046:A:H5'	2.00	0.43
3:CA:126:A:C5	29:C2:18:PHE:CD2	3.07	0.43
35:HA:1052:U:O2'	35:HA:1055:A:OP2	2.28	0.43
3:CA:2843:G:N2	3:CA:2875:C:C2	2.87	0.43
25:GY:39:GLN:HB3	25:GY:42:LEU:HD13	2.01	0.43
32:C5:147:SER:OG	32:C5:148:ALA:N	2.49	0.43
4:ED:148:GLN:HB2	4:ED:152:PRO:HG2	1.99	0.43
4:ED:148:GLN:OE1	4:ED:148:GLN:N	2.51	0.43
55:DV:520:ILE:HG22	55:DV:578:LEU:HA	2.01	0.43
36:DC:24:ALA:HB1	36:DC:28:GLU:HG2	2.01	0.43
32:C5:47:GLU:HG2	32:C5:95:LEU:CD2	2.48	0.43
32:A5:71:CYS:HB3	32:A5:74:ASP:OD2	2.18	0.43
17:EQ:63:ARG:HH12	17:EQ:96:ASP:HA	1.84	0.43
1:EB:44:G:N2	1:EB:48:U:O2	2.51	0.43
3:GA:1156:A:C8	17:GQ:50:ARG:HD3	2.53	0.43
3:GA:419:U:H2'	3:GA:420:C:C6	2.54	0.43
3:CA:1047:G:OP2	32:C5:59:LEU:HG	2.19	0.43
35:HA:1048:G:H2'	35:HA:1050:G:C8	2.53	0.43
3:GA:819:A:C2	3:GA:820:A:N9	2.87	0.43
3:GA:1647:U:P	3:GA:1647:U:H3'	2.59	0.43
23:CW:16:GLU:O	23:CW:17:ALA:HB3	2.19	0.43
3:GA:1074:G:N7	3:GA:1075:C:C4	2.86	0.43
3:AA:226:A:C6	3:AA:227:A:C6	3.07	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:EP:50:ARG:HG2	16:EP:56:SER:HB3	2.00	0.43
44:BK:126:LYS:O	44:BK:127:ARG:HB2	2.18	0.43
39:HF:86:ARG:HH22	51:HR:64:TYR:HA	1.84	0.43
3:CA:2153:C:H5''	3:CA:2154:A:OP2	2.18	0.43
18:GR:42:ALA:HB2	18:GR:46:GLU:HB2	2.01	0.43
7:CG:83:THR:C	7:CG:84:LYS:HD2	2.39	0.43
46:FM:6:GLY:C	46:FM:8:ASN:H	2.22	0.43
20:ET:3:ARG:NH2	20:ET:7:LEU:HD21	2.33	0.43
23:AW:36:ILE:HG22	23:AW:36:ILE:O	2.18	0.43
4:GD:133:THR:HG23	4:GD:134:HIS:N	2.32	0.43
35:FA:1093:A:N3	35:FA:1109:C:O2'	2.41	0.43
3:AA:479:A:N3	3:AA:481:G:H5''	2.34	0.43
3:GA:251:A:C4	3:GA:252:G:H1'	2.53	0.43
42:BI:89:GLU:CG	42:BI:90:TYR:N	2.82	0.43
28:E1:8:ILE:HD12	28:E1:9:LYS:H	1.83	0.43
3:AA:2335:A:N6	3:AA:2337:G:H1'	2.33	0.43
3:CA:348:A:H2'	3:CA:349:U:O4'	2.19	0.43
1:CB:89:U:H3'	1:CB:90:C:C5'	2.49	0.43
34:FB:94:ARG:NH1	34:FB:96:LEU:HA	2.34	0.43
3:CA:1150:C:C2'	3:CA:1151:A:O5'	2.67	0.43
3:GA:2344:U:OP2	28:G1:36:LYS:HD2	2.19	0.43
3:GA:851:C:O4'	26:GZ:46:MET:HG2	2.18	0.43
3:GA:2782:G:N2	3:GA:2783:U:C2	2.87	0.43
3:GA:1038:G:H2'	3:GA:1039:A:C8	2.54	0.43
35:DA:1464:U:H2'	35:DA:1465:A:C8	2.54	0.43
34:DB:67:LEU:HD12	34:DB:157:PRO:CG	2.49	0.43
26:EZ:15:ARG:HH11	26:EZ:15:ARG:HG2	1.83	0.43
3:GA:557:C:N3	3:GA:558:U:C4	2.87	0.43
3:AA:1223:G:P	18:AR:68:ARG:HH11	2.41	0.43
3:AA:247:G:N7	3:AA:249:C:C2	2.86	0.43
28:G1:8:ILE:CG1	28:G1:24:LYS:HG2	2.48	0.43
25:EY:8:GLU:HG3	25:EY:8:GLU:O	2.18	0.43
35:DA:1416:G:H2'	35:DA:1417:G:H5'	2.01	0.43
3:CA:1022:G:C5	3:CA:1140:C:C4	3.07	0.43
35:HA:297:G:N2	35:HA:300:A:OP2	2.51	0.43
40:FG:64:VAL:O	40:FG:68:ASN:ND2	2.46	0.43
5:GE:79:ARG:HG2	5:GE:80:SER:N	2.34	0.43
15:GO:62:LEU:HD13	15:GO:70:ALA:HB2	1.99	0.43
21:CU:73:ASN:O	21:CU:74:ALA:HB3	2.19	0.43
42:BI:28:ILE:HG13	42:BI:63:LEU:HD21	2.00	0.43
49:HP:6:LEU:CD1	49:HP:71:VAL:HG22	2.49	0.43
35:DA:697:U:C6	35:DA:698:G:C8	3.06	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:FV:255:ARG:HB3	55:FV:261:ILE:HG21	2.01	0.43
28:G1:22:THR:OG1	28:G1:23:THR:N	2.49	0.43
55:BV:8:ALA:O	55:BV:288:SER:OG	2.30	0.43
5:EE:147:LEU:HD23	5:EE:183:PHE:CE1	2.53	0.43
13:GM:14:LYS:HG3	13:GM:15:GLY:H	1.84	0.43
13:AM:13:HIS:O	13:AM:14:LYS:CB	2.66	0.43
36:DC:77:ILE:HG22	36:DC:81:GLY:HA2	2.01	0.43
11:GK:18:ARG:H	11:GK:45:GLU:HB2	1.83	0.43
2:AC:180:MET:O	2:AC:267:VAL:N	2.42	0.43
3:AA:2047:C:O2'	3:AA:2048:G:H5'	2.19	0.43
16:EP:29:VAL:CG2	16:EP:79:VAL:HG22	2.49	0.43
34:FB:140:LEU:O	34:FB:144:GLU:N	2.38	0.43
42:BI:7:TYR:CG	42:BI:8:GLY:N	2.87	0.43
3:CA:630:G:N2	3:CA:633:A:OP2	2.30	0.43
46:DM:83:LEU:HD21	52:DS:65:GLU:HB3	2.01	0.43
10:AJ:110:PRO:HB2	10:AJ:111:LYS:HG3	2.00	0.43
22:AV:29:ILE:HD13	22:AV:30:ILE:N	2.33	0.43
40:BG:130:ASN:HA	40:BG:135:VAL:HG11	2.01	0.43
3:GA:303:G:H2'	3:GA:304:U:O4'	2.19	0.43
3:GA:950:G:H2'	3:GA:951:C:O4'	2.18	0.43
3:EA:1031:G:H4'	31:E4:6:SER:HB2	2.01	0.43
3:CA:1285:A:H2'	3:CA:1286:A:H5'	2.01	0.43
3:GA:199:A:C6	3:GA:2433:A:H2'	2.53	0.43
12:GL:62:PRO:HB2	30:G3:29:ARG:NH2	2.32	0.43
35:DA:579:A:O2'	48:DO:54:ARG:NH1	2.50	0.43
55:DV:515:TYR:CE2	55:DV:583:TYR:HA	2.53	0.43
14:GN:24:MET:HE3	14:GN:44:LEU:HD22	2.00	0.43
28:C1:33:LEU:HD13	28:C1:34:GLU:N	2.34	0.43
34:BB:68:PHE:O	34:BB:91:VAL:N	2.50	0.43
3:EA:2103:C:H2'	3:EA:2104:C:H5'	2.01	0.43
25:AY:21:LEU:HA	25:AY:25:GLN:HB3	2.01	0.43
3:EA:2579:C:H4'	4:ED:139:SER:OG	2.19	0.43
36:BC:70:THR:O	36:BC:106:VAL:N	2.52	0.43
38:FE:137:VAL:HG22	38:FE:137:VAL:O	2.19	0.43
3:EA:12:U:O2	3:EA:12:U:H2'	2.19	0.43
45:BL:76:GLU:HG3	55:BV:454:ASN:CB	2.49	0.43
3:AA:348:A:C5	3:AA:349:U:C5	3.07	0.43
7:AG:39:ALA:HB2	7:AG:57:TYR:CD2	2.54	0.43
32:C5:116:GLU:HG3	32:C5:117:LEU:N	2.27	0.43
32:C5:47:GLU:CG	32:C5:95:LEU:HD21	2.47	0.43
13:AM:8:LYS:CE	13:AM:9:PHE:CE2	3.02	0.43
10:EJ:44:TYR:CD1	10:EJ:44:TYR:O	2.72	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:EQ:94:LEU:C	17:EQ:96:ASP:N	2.72	0.43
3:GA:585:G:H5''	3:GA:586:A:OP1	2.19	0.43
17:AQ:60:TRP:CE2	17:AQ:93:ILE:HB	2.54	0.43
3:GA:976:G:H2'	3:GA:977:G:C8	2.54	0.43
3:GA:418:C:C4	3:GA:419:U:C4	3.07	0.43
35:DA:410:G:P	37:DD:26:ARG:HH21	2.42	0.43
3:GA:1088:A:HO2'	3:GA:1089:A:P	2.41	0.43
9:GI:129:GLU:HB3	9:GI:133:ARG:HH21	1.83	0.43
23:CW:9:THR:HG23	23:CW:10:ARG:N	2.34	0.43
3:AA:1378:A:C4	3:AA:1380:G:N7	2.87	0.43
35:HA:1087:G:H2'	35:HA:1088:G:C8	2.54	0.43
3:AA:1188:U:H4'	18:AR:81:LYS:O	2.19	0.43
35:HA:373:A:C2	35:HA:374:A:C8	3.07	0.43
35:FA:1130:A:N3	35:FA:1146:A:C4	2.87	0.43
37:BD:30:THR:HG22	37:BD:31:LYS:H	1.83	0.43
3:AA:2016:U:O2	27:A0:3:GLN:NE2	2.46	0.43
1:AB:78:A:C2	1:AB:99:A:C4	3.06	0.43
27:A0:42:ILE:HG22	27:A0:43:THR:O	2.19	0.43
3:GA:1068:G:N1	3:GA:1069:A:C6	2.87	0.43
41:BH:5:ASP:OD2	41:BH:77:ARG:NH1	2.47	0.43
35:HA:505:G:H2'	35:HA:506:G:H8	1.83	0.43
44:HK:20:VAL:O	44:HK:35:THR:HG23	2.19	0.43
3:EA:1913:A:C6	35:FA:1494:G:H5'	2.54	0.43
55:DV:675:LYS:HB3	55:DV:677:ARG:HD3	2.01	0.43
45:BL:43:LYS:HG2	45:BL:44:LYS:N	2.34	0.43
35:HA:980:C:H2'	60:HA:1772:HOH:O	2.18	0.43
35:BA:1375:A:P	40:BG:28:ASN:HD22	2.41	0.43
3:GA:1016:G:H1	3:GA:1146:C:H42	1.67	0.43
35:HA:1239:A:C2	35:HA:1296:C:C2	3.07	0.43
34:FB:219:THR:HA	34:FB:221:ARG:HH21	1.84	0.43
9:EI:100:ILE:HG22	9:EI:101:SER:N	2.33	0.43
44:HK:79:ILE:HB	44:HK:105:PHE:CZ	2.54	0.43
1:GB:40:U:O2'	1:GB:43:C:OP2	2.24	0.43
3:CA:1149:G:H2'	3:CA:1150:C:C6	2.54	0.43
43:HJ:8:ILE:HD11	43:HJ:76:ILE:CD1	2.49	0.43
55:HV:495:ARG:HD2	55:HV:611:VAL:HB	2.00	0.43
7:GG:84:LYS:CB	7:GG:132:LEU:H	2.32	0.43
26:GZ:26:LEU:HD21	26:GZ:46:MET:CB	2.49	0.43
55:BV:193:TRP:CZ3	55:BV:202:PHE:HE1	2.36	0.43
3:EA:2142:A:C8	3:EA:2147:A:C2	3.07	0.43
8:AH:39:ALA:HB1	8:AH:44:ILE:HG22	2.01	0.43
3:GA:794:A:C2	3:GA:795:C:C2	3.07	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:HE:13:GLU:HB2	38:HE:39:VAL:HG12	2.01	0.43
3:AA:581:C:H2'	3:AA:582:A:C8	2.53	0.43
55:DV:119:VAL:O	55:DV:123:SER:OG	2.10	0.43
35:HA:1059:C:O2	43:HJ:55:PRO:HG3	2.19	0.43
35:HA:1360:A:H2'	35:HA:1361:G:H5'	2.00	0.43
3:EA:1088:A:O2'	3:EA:1089:A:P	2.77	0.43
3:AA:959:A:N6	13:AM:82:MET:CE	2.82	0.43
55:BV:494:ILE:HD11	55:BV:524:PRO:N	2.34	0.43
3:CA:2262:U:H4'	3:CA:2328:A:H2	1.82	0.43
3:EA:310:A:C5'	21:EU:14:THR:HG23	2.49	0.43
3:CA:1594:U:H2'	3:CA:1595:C:C6	2.54	0.43
35:HA:205:A:OP1	35:HA:205:A:H4'	2.18	0.43
45:HL:86:ARG:HH21	45:HL:88:LYS:HG3	1.83	0.43
10:EJ:55:ILE:CD1	10:EJ:130:HIS:CG	3.02	0.43
48:FO:64:ARG:HE	48:FO:88:ARG:NH1	2.17	0.43
3:EA:2200:C:O2	3:EA:2226:C:N4	2.52	0.43
17:AQ:20:ALA:HA	17:AQ:23:TYR:CE2	2.54	0.43
5:AE:52:VAL:HG11	5:AE:81:GLY:HA3	2.01	0.43
35:DA:598:U:H2'	35:DA:599:C:C6	2.54	0.43
35:BA:263:A:OP2	53:BT:74:ARG:NH1	2.52	0.43
55:DV:621:VAL:HG11	55:DV:631:VAL:HG11	2.01	0.43
49:BP:48:GLU:OE2	49:BP:51:ARG:NH1	2.52	0.43
35:FA:937:A:N6	35:FA:938:A:C6	2.87	0.43
3:GA:1474:U:H2'	3:GA:1475:G:H5'	2.01	0.43
45:FL:46:ASN:HD22	45:FL:89:ASP:CG	2.22	0.43
3:EA:1225:G:C6	3:EA:1226:A:N6	2.87	0.43
55:HV:435:LEU:HD13	55:HV:458:ILE:CG2	2.49	0.43
35:HA:509:A:N3	35:HA:543:U:O2'	2.50	0.43
3:GA:2238:G:H1'	60:GA:3500:HOH:O	2.18	0.43
3:GA:2294:G:OP1	15:GO:10:ARG:NE	2.51	0.43
3:CA:1722:A:N6	3:CA:1738:G:H1'	2.34	0.43
3:GA:460:A:OP1	29:G2:41:ARG:NH1	2.52	0.43
35:FA:509:A:C2	35:FA:510:A:C2	3.07	0.43
3:EA:2375:G:N2	3:EA:2378:A:OP2	2.42	0.43
38:DE:13:GLU:HB2	38:DE:39:VAL:HG12	2.01	0.43
3:EA:1078:U:H5''	3:EA:1079:C:OP1	2.18	0.43
9:AI:91:LYS:HB2	9:AI:95:ASP:HB2	2.00	0.43
3:GA:1405:U:H2'	3:GA:1406:U:C6	2.53	0.43
35:HA:145:G:N2	35:HA:178:C:C2	2.87	0.43
55:FV:72:TRP:CD1	55:FV:279:LEU:HB3	2.53	0.43
3:GA:1324:G:C4	3:GA:1328:A:N6	2.87	0.43
4:GD:65:ALA:O	4:GD:69:ALA:N	2.52	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BM:49:SER:HB2	46:BM:52:GLN:HB2	2.01	0.43
14:AN:8:ARG:HB3	14:AN:10:LEU:CD2	2.48	0.43
24:AX:52:ALA:O	24:AX:53:LYS:CB	2.67	0.43
2:EC:265:PHE:CD1	2:EC:265:PHE:N	2.87	0.43
42:FI:54:LEU:N	42:FI:54:LEU:HD12	2.33	0.43
53:DT:70:ASN:N	53:DT:70:ASN:OD1	2.51	0.43
34:BB:29:PHE:N	34:BB:29:PHE:CD1	2.87	0.43
3:AA:2197:U:O2	3:AA:2198:A:O2'	2.21	0.43
15:CO:22:GLY:HA2	15:CO:42:PRO:HB3	2.01	0.43
3:CA:2070:A:O2'	3:CA:2071:A:H5'	2.19	0.43
3:CA:1044:C:O2'	3:CA:1111:A:N6	2.51	0.43
32:E5:77:VAL:C	32:E5:79:PRO:HD2	2.39	0.43
3:GA:1000:A:C6	3:GA:1155:A:C5	3.07	0.43
45:HL:43:LYS:HG2	45:HL:44:LYS:N	2.34	0.43
32:E5:94:ARG:HB3	32:E5:98:GLU:OE2	2.19	0.43
3:CA:2498:C:P	60:CA:3672:HOH:O	2.77	0.43
37:HD:31:LYS:N	37:HD:31:LYS:HD3	2.33	0.43
35:HA:451:A:N7	35:HA:481:G:N1	2.67	0.43
3:GA:2301:C:N3	3:GA:2316:G:C2	2.87	0.43
3:GA:875:G:H1	3:GA:902:C:N4	2.16	0.43
3:GA:2405:G:O2'	3:GA:2406:A:OP1	2.29	0.43
7:CG:83:THR:O	7:CG:84:LYS:HB3	2.19	0.43
3:AA:1942:C:OP2	3:AA:1943:U:O2'	2.28	0.43
3:AA:323:C:OP1	3:AA:338:G:N2	2.51	0.43
35:DA:1360:A:C6	35:DA:1361:G:C4	3.07	0.43
23:AW:37:VAL:HB	23:AW:38:ARG:NH1	2.34	0.43
1:GB:99:A:C4	1:GB:100:G:C8	3.06	0.43
35:HA:684:U:H2'	35:HA:685:G:O4'	2.19	0.43
3:EA:2347:C:H2'	3:EA:2348:U:C6	2.54	0.43
20:CT:32:LEU:N	20:CT:83:ALA:HB3	2.32	0.43
40:HG:96:ARG:O	40:HG:99:LEU:HB2	2.19	0.43
3:GA:974:G:C5	3:GA:1186:G:C4	3.06	0.43
3:EA:2024:G:O3'	4:ED:154:LYS:NZ	2.38	0.43
11:CK:71:ARG:HB3	11:CK:72:PRO:CD	2.49	0.43
18:CR:58:VAL:CG1	18:CR:102:SER:HB2	2.49	0.43
3:CA:548:G:H4'	3:CA:549:G:H21	1.84	0.43
15:EO:33:ARG:HG2	15:EO:34:HIS:CE1	2.54	0.43
3:AA:1536:C:H1'	3:AA:1537:G:N2	2.34	0.43
13:CM:53:MET:O	13:CM:56:ALA:HB3	2.18	0.43
3:GA:2489:U:HO2'	3:GA:2491:U:H5	1.63	0.43
35:BA:208:U:C2	35:BA:212:G:N2	2.87	0.43
11:AK:13:ASN:N	11:AK:13:ASN:OD1	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:22:VAL:HG23	7:CG:22:VAL:O	2.18	0.43
38:DE:46:VAL:HG12	38:DE:47:GLY:N	2.34	0.43
18:AR:61:ALA:HB1	18:AR:98:ILE:H	1.84	0.43
3:GA:997:G:H2'	3:GA:998:C:H6	1.83	0.43
21:AU:84:PHE:O	21:AU:85:ARG:HB3	2.19	0.43
3:AA:1485:U:H2'	3:AA:1486:U:H6	1.82	0.43
11:CK:6:THR:HG22	11:CK:8:LEU:CD2	2.49	0.43
55:FV:574:MET:HE3	55:FV:576:ILE:HD11	2.01	0.43
4:CD:99:GLU:CG	4:CD:100:LEU:N	2.82	0.43
4:GD:12:THR:CG2	4:GD:13:ARG:N	2.82	0.43
35:DA:1387:G:C6	35:DA:1388:C:N4	2.87	0.43
35:DA:1049:U:H4'	35:DA:1050:G:C5'	2.49	0.43
29:E2:43:THR:O	29:E2:44:VAL:C	2.57	0.43
35:FA:967:C:H5''	42:FI:127:PHE:CE2	2.53	0.43
10:GJ:20:ALA:O	10:GJ:21:THR:C	2.56	0.43
45:BL:63:VAL:HG21	45:BL:95:TYR:CE1	2.54	0.43
12:AL:2:ARG:HA	12:AL:5:THR:HG21	2.01	0.43
35:DA:1053:G:HO2'	35:DA:1199:U:H5	1.65	0.43
3:GA:950:G:N1	3:GA:951:C:C2	2.86	0.43
26:GZ:48:ASN:O	26:GZ:51:SER:OG	2.35	0.43
2:CC:115:ILE:HG22	2:CC:116:GLN:N	2.34	0.43
50:FQ:59:VAL:HG12	50:FQ:60:GLU:N	2.32	0.43
3:EA:108:G:C6	3:EA:109:C:C4	3.07	0.43
26:CZ:13:ILE:HG22	26:CZ:14:GLY:N	2.33	0.43
3:AA:274:C:H2'	3:AA:275:C:O4'	2.19	0.43
55:HV:107:ASP:O	55:HV:135:VAL:HG23	2.19	0.43
3:AA:2491:U:HO2'	3:AA:2492:U:H5	1.67	0.43
18:GR:60:LYS:HB2	18:GR:100:GLY:HA3	2.01	0.43
1:EB:7:G:H5'	15:EO:29:HIS:CE1	2.54	0.43
10:CJ:12:LYS:O	10:CJ:13:ARG:HB2	2.19	0.43
3:EA:404:A:H1'	3:EA:405:U:OP2	2.18	0.43
35:DA:607:A:C2	35:DA:608:A:C4	3.07	0.43
19:GS:4:ILE:HG22	19:GS:106:VAL:HG13	2.00	0.43
3:EA:2808:G:N2	3:EA:2891:U:C6	2.87	0.43
47:DN:61:ARG:HE	47:DN:70:PRO:HB2	1.82	0.43
9:AI:74:PRO:HG2	9:AI:77:VAL:HB	2.01	0.43
28:G1:38:PHE:HB2	28:G1:45:HIS:NE2	2.33	0.43
3:GA:1686:C:C2	3:GA:1703:G:C2	3.07	0.43
39:DF:64:VAL:HG12	39:DF:65:GLU:N	2.34	0.43
55:FV:5:THR:HG23	55:FV:6:PRO:HD3	2.01	0.43
35:FA:1317:C:N3	47:FN:53:ARG:NE	2.67	0.43
49:DP:75:ILE:O	49:DP:77:GLU:N	2.47	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:FA:323:U:H4'	53:FT:17:ALA:HB3	2.01	0.43
35:DA:395:C:H2'	35:DA:396:C:C6	2.53	0.43
3:GA:2083:G:C6	3:GA:2084:C:C4	3.06	0.43
3:CA:517:C:OP2	27:C0:9:ARG:NH2	2.51	0.43
1:CB:5:U:H2'	1:CB:6:G:C8	2.53	0.43
3:CA:1945:G:C2	3:CA:1946:U:C2	3.07	0.43
34:HB:92:ASN:OD1	34:HB:92:ASN:N	2.51	0.43
7:GG:61:TRP:CE3	7:GG:61:TRP:HA	2.54	0.43
3:EA:384:A:H2'	3:EA:385:C:H5'	2.01	0.43
3:GA:2656:U:C5	3:GA:2664:G:N2	2.87	0.43
25:AY:31:GLN:HG2	25:AY:36:GLN:HB2	2.01	0.43
32:E5:118:ILE:HB	32:E5:119:PRO:HD3	1.99	0.42
42:BI:60:LYS:HD2	42:BI:61:LEU:HD13	2.00	0.42
3:EA:2269:G:O5'	60:EA:3509:HOH:O	2.21	0.42
16:AP:50:ARG:CB	16:AP:57:ALA:N	2.78	0.42
35:DA:481:G:H2'	35:DA:483:C:H41	1.82	0.42
35:DA:481:G:O2'	35:DA:482:A:P	2.77	0.42
3:AA:975:A:C5	3:AA:990:A:N7	2.86	0.42
55:DV:93:VAL:HG13	55:DV:94:ASP:N	2.34	0.42
37:BD:198:HIS:O	37:BD:202:GLU:CB	2.67	0.42
3:AA:1482:G:H1'	3:AA:1509:A:N6	2.30	0.42
37:BD:38:PRO:HD2	37:BD:42:GLY:CA	2.49	0.42
35:FA:1523:G:P	44:FK:128:ARG:HH12	2.42	0.42
14:CN:33:ILE:HD11	14:CN:118:ARG:CZ	2.49	0.42
54:HU:43:THR:CG2	54:HU:44:GLU:N	2.82	0.42
2:GC:109:LEU:CD1	2:GC:110:LYS:H	2.32	0.42
3:CA:2138:G:O2'	3:CA:2154:A:N6	2.52	0.42
3:EA:749:A:C6	3:EA:1618:A:C2	3.07	0.42
9:AI:93:ASN:HB2	9:AI:135:MET:SD	2.59	0.42
3:GA:1392:A:C6	3:GA:1393:A:C6	3.07	0.42
3:GA:863:A:C2	3:GA:915:C:N3	2.87	0.42
34:BB:56:LEU:HD23	34:BB:220:VAL:HG13	2.01	0.42
35:FA:409:U:H2'	35:FA:410:G:C8	2.54	0.42
42:FI:89:GLU:HG3	42:FI:90:TYR:N	2.33	0.42
3:GA:579:G:C2	3:GA:1262:A:C4	3.07	0.42
9:GI:100:ILE:O	9:GI:140:GLU:HG2	2.18	0.42
21:AU:38:ILE:HG23	21:AU:39:ASN:N	2.33	0.42
3:GA:2390:U:H3'	30:G3:34:LYS:NZ	2.33	0.42
3:EA:1063:G:N2	3:EA:1076:C:C2	2.86	0.42
17:AQ:86:SER:O	18:AR:51:VAL:HA	2.18	0.42
11:CK:105:ARG:HD3	11:CK:105:ARG:H	1.83	0.42
11:CK:105:ARG:HE	11:CK:106:GLU:CD	2.22	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DC:144:LEU:HD13	36:DC:144:LEU:N	2.34	0.42
19:GS:88:ARG:CG	19:GS:88:ARG:NH2	2.81	0.42
3:GA:965:C:C4	3:GA:966:G:N7	2.87	0.42
3:AA:2755:C:O2'	3:AA:2756:U:H2'	2.19	0.42
23:GW:23:LYS:HE2	23:GW:24:ARG:H	1.84	0.42
35:FA:300:A:H1'	35:FA:565:U:O2	2.20	0.42
9:CI:56:VAL:HA	9:CI:71:LYS:NZ	2.34	0.42
1:GB:43:C:O2	6:GF:91:ARG:NH2	2.41	0.42
7:EG:120:ILE:N	7:EG:120:ILE:CD1	2.82	0.42
3:GA:1359:A:C2	3:GA:1360:G:H1'	2.54	0.42
34:HB:13:VAL:HG23	34:HB:207:ARG:CZ	2.49	0.42
5:CE:187:VAL:HG12	5:CE:188:MET:N	2.34	0.42
3:GA:775:G:C4	3:GA:794:A:C8	3.07	0.42
3:GA:2591:C:P	2:GC:237:ARG:HG3	2.58	0.42
35:BA:1150:A:H1'	35:BA:1280:A:N6	2.33	0.42
27:C0:24:VAL:C	27:C0:26:SER:H	2.22	0.42
45:DL:24:LEU:C	45:DL:26:ALA:H	2.23	0.42
3:AA:1730:C:O2'	3:AA:1731:G:C4	2.69	0.42
34:BB:46:VAL:O	34:BB:49:PHE:CD2	2.72	0.42
3:CA:340:A:O2'	5:CE:162:ARG:NH1	2.52	0.42
37:BD:110:THR:HG23	37:BD:113:GLU:CB	2.49	0.42
32:E5:110:ALA:CB	32:E5:113:PHE:CE2	3.02	0.42
22:EV:80:HIS:HD2	22:EV:83:LYS:N	2.17	0.42
7:EG:39:ALA:CB	7:EG:57:TYR:CD2	3.02	0.42
3:AA:1584:U:H2'	3:AA:1585:C:H5'	1.99	0.42
3:GA:416:U:H2'	3:GA:417:C:O4'	2.19	0.42
55:HV:502:GLU:HG3	55:HV:519:VAL:HG22	2.01	0.42
36:DC:77:ILE:CG2	36:DC:81:GLY:HA2	2.48	0.42
25:GY:56:LEU:O	25:GY:57:LEU:HB3	2.19	0.42
35:FA:445:G:C4	35:FA:446:G:C8	3.07	0.42
55:HV:125:THR:HA	55:HV:128:ARG:NH1	2.34	0.42
35:HA:1524:C:H2'	35:HA:1525:G:C8	2.54	0.42
39:BF:55:HIS:O	39:BF:56:LYS:HB2	2.18	0.42
38:FE:149:SER:HB2	38:FE:150:PRO:HD2	2.01	0.42
24:CX:39:VAL:HG22	24:CX:44:ARG:O	2.19	0.42
6:EF:11:VAL:HG13	6:EF:171:ALA:HB1	2.00	0.42
21:AU:10:VAL:HG12	21:AU:71:ILE:HA	2.01	0.42
37:HD:106:GLY:HA3	37:HD:162:ALA:CB	2.49	0.42
52:FS:31:LEU:HB3	52:FS:49:ILE:CG2	2.49	0.42
35:HA:1270:G:C2	35:HA:1271:A:N7	2.87	0.42
17:CQ:16:ILE:HG12	17:CQ:35:PHE:HD1	1.83	0.42
35:HA:1260:G:O2'	35:HA:1275:A:N6	2.52	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:71:A:N1	35:HA:99:C:O2'	2.52	0.42
35:HA:64:G:C8	35:HA:99:C:N4	2.87	0.42
35:FA:1101:A:H61	34:FB:101:THR:HG21	1.82	0.42
3:AA:1112:G:C5	3:AA:1113:U:C5	3.07	0.42
35:BA:1384:C:OP2	60:BA:1826:HOH:O	2.22	0.42
3:EA:981:A:N1	3:EA:2027:G:O2'	2.49	0.42
3:CA:307:G:N1	3:CA:310:A:OP2	2.49	0.42
7:AG:31:GLU:O	7:AG:33:THR:N	2.52	0.42
3:CA:1195:G:N2	3:CA:1196:C:C2	2.87	0.42
50:FQ:13:VAL:HG11	50:FQ:24:ALA:HB2	1.99	0.42
3:EA:1468:U:H2'	3:EA:1522:A:N6	2.33	0.42
52:HS:63:THR:HG22	52:HS:64:ASP:N	2.34	0.42
9:CI:104:GLN:HA	9:CI:108:ILE:HD12	2.00	0.42
3:EA:45:G:H5'	3:EA:46:G:H5'	2.01	0.42
14:EN:79:LEU:O	14:EN:80:PHE:HB2	2.18	0.42
3:AA:966:G:C6	3:AA:967:U:C4	3.07	0.42
3:CA:1087:G:C2	3:CA:1103:A:N3	2.87	0.42
46:HM:19:LEU:HD21	46:HM:34:LEU:HD21	2.01	0.42
35:HA:597:G:C2	35:HA:644:U:C2	3.07	0.42
55:DV:617:MET:HG3	55:DV:682:MET:HE3	2.00	0.42
3:EA:1096:A:N6	3:EA:1097:U:C4	2.87	0.42
4:AD:110:THR:HG23	4:AD:171:THR:HG22	2.00	0.42
35:FA:909:A:H2'	35:FA:910:C:O4'	2.19	0.42
3:GA:1428:C:C5	3:GA:1569:A:H5''	2.54	0.42
45:DL:51:LYS:N	45:DL:51:LYS:CD	2.82	0.42
42:FI:61:LEU:H	42:FI:61:LEU:HD23	1.83	0.42
3:GA:108:G:O2'	3:GA:347:A:N3	2.32	0.42
32:A5:47:GLU:HG2	32:A5:95:LEU:HD21	2.01	0.42
17:CQ:63:ARG:NH1	17:CQ:96:ASP:HA	2.34	0.42
3:GA:976:G:H4'	3:GA:1156:A:C5	2.53	0.42
35:BA:1322:C:N4	60:BA:1834:HOH:O	2.51	0.42
32:C5:64:VAL:O	32:C5:67:THR:N	2.41	0.42
10:EJ:53:TYR:CE2	10:EJ:121:LYS:HG2	2.54	0.42
52:FS:35:SER:OG	52:FS:38:SER:OG	2.07	0.42
3:GA:1064:C:N3	3:GA:1065:U:C5	2.87	0.42
23:CW:9:THR:HG23	23:CW:10:ARG:HD3	2.00	0.42
3:GA:301:G:H4'	3:GA:302:C:OP1	2.18	0.42
32:E5:47:GLU:HG2	32:E5:95:LEU:HD21	2.01	0.42
14:EN:98:LEU:CB	27:E0:42:ILE:HD11	2.44	0.42
37:HD:29:ASP:OD1	37:HD:30:THR:N	2.34	0.42
35:DA:1365:G:C2	35:DA:1366:C:C2	3.07	0.42
38:FE:81:LEU:HB3	38:FE:147:MET:HE1	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:GO:51:ALA:HB3	15:GO:78:VAL:HG13	2.01	0.42
55:DV:173:ILE:HD13	55:DV:211:MET:SD	2.60	0.42
35:HA:1237:C:H1'	35:HA:1334:G:O2'	2.19	0.42
3:EA:2516:A:N6	3:EA:2517:C:H42	2.18	0.42
35:HA:685:G:N1	35:HA:686:U:O4	2.52	0.42
3:GA:2556:C:H2'	3:GA:2557:G:O4'	2.19	0.42
3:EA:1779:U:H6	60:EA:3686:HOH:O	2.02	0.42
3:GA:1202:G:C6	3:GA:1203:U:N3	2.87	0.42
35:BA:15:G:H4'	38:BE:29:ARG:NH1	2.34	0.42
35:HA:237:G:O6	35:HA:238:A:N6	2.52	0.42
24:EX:39:VAL:HG12	24:EX:63:ILE:HG21	2.01	0.42
3:EA:163:C:O2'	3:EA:164:C:O5'	2.37	0.42
6:AF:103:ILE:HG21	6:AF:173:ASP:HB2	2.01	0.42
11:CK:13:ASN:O	11:CK:15:GLY:N	2.49	0.42
14:CN:75:ILE:HD12	14:CN:76:VAL:N	2.34	0.42
1:EB:35:C:H2'	1:EB:36:C:O4'	2.20	0.42
3:CA:2365:G:H4'	23:CW:59:PHE:CZ	2.55	0.42
40:FG:146:GLU:HA	40:FG:149:LYS:HB2	2.01	0.42
6:CF:107:VAL:CG1	6:CF:113:PHE:CE1	3.02	0.42
34:HB:13:VAL:O	34:HB:207:ARG:HD2	2.18	0.42
24:AX:67:LEU:HD22	24:AX:77:TYR:CE1	2.53	0.42
18:AR:16:GLU:HA	18:AR:98:ILE:HG22	2.01	0.42
34:DB:212:TYR:CE1	34:DB:216:VAL:HG13	2.54	0.42
20:ET:50:LEU:HD22	25:EY:26:PHE:CZ	2.53	0.42
3:AA:2421:G:P	28:A1:7:LYS:NZ	2.92	0.42
35:BA:1086:U:O2	35:BA:1086:U:H5''	2.19	0.42
50:DQ:12:VAL:O	50:DQ:13:VAL:CB	2.67	0.42
2:CC:106:PRO:HB3	2:CC:141:HIS:CE1	2.54	0.42
47:HN:26:GLU:HG2	47:HN:27:LEU:HD12	2.00	0.42
3:EA:1087:G:C6	3:EA:1089:A:C2	3.07	0.42
3:CA:2286:G:P	28:C1:29:LYS:CE	3.07	0.42
52:DS:36:ARG:HH12	52:DS:77:THR:CG2	2.31	0.42
46:HM:2:ALA:CA	46:HM:53:ILE:HD13	2.48	0.42
3:GA:1738:G:O2'	3:GA:1739:A:O5'	2.34	0.42
3:GA:933:A:H5'	3:GA:934:U:OP2	2.19	0.42
4:GD:106:LYS:HB3	4:GD:206:ALA:H	1.84	0.42
18:CR:61:ALA:HB2	18:CR:98:ILE:HA	2.00	0.42
3:AA:1204:A:C2	3:AA:1240:U:N3	2.87	0.42
14:AN:8:ARG:HB3	14:AN:10:LEU:HD22	2.01	0.42
53:FT:25:ARG:HG2	53:FT:29:ARG:NH1	2.34	0.42
3:EA:2314:A:H2'	3:EA:2315:G:C8	2.54	0.42
55:DV:646:GLU:O	55:DV:647:SER:CB	2.67	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DV:414:PRO:HA	55:DV:461:MET:SD	2.59	0.42
5:EE:158:PHE:HA	5:EE:169:VAL:HG21	2.00	0.42
36:DC:64:ILE:HG12	36:DC:66:VAL:HG23	2.01	0.42
35:DA:826:C:H2'	35:DA:827:U:C6	2.55	0.42
9:AI:46:ASP:HA	9:AI:50:LYS:HD2	2.00	0.42
55:DV:416:ILE:HG12	55:DV:667:ALA:HB3	2.01	0.42
11:AK:35:VAL:HG12	11:AK:36:GLY:N	2.34	0.42
35:BA:361:G:N7	60:BA:1716:HOH:O	2.37	0.42
3:AA:1747:U:H2'	3:AA:1748:C:C6	2.54	0.42
36:DC:130:PHE:CG	36:DC:131:ARG:N	2.87	0.42
4:ED:65:ALA:O	4:ED:69:ALA:N	2.47	0.42
1:AB:106:G:H2'	1:AB:107:G:O4'	2.19	0.42
37:HD:19:LEU:HB2	37:HD:21:LEU:HG	2.02	0.42
37:FD:102:VAL:HG13	37:FD:107:PHE:HB2	2.00	0.42
55:DV:698:VAL:O	55:DV:699:ILE:HD12	2.18	0.42
32:E5:45:GLY:HA2	32:E5:49:GLY:HA2	2.02	0.42
35:FA:1377:A:C2	40:FG:2:PRO:HD3	2.54	0.42
35:DA:878:A:C5'	41:DH:81:PRO:HG2	2.49	0.42
46:DM:29:ARG:CZ	46:DM:63:PHE:CD2	3.01	0.42
44:FK:58:SER:O	44:FK:91:PRO:CG	2.66	0.42
3:EA:2563:U:H1'	3:EA:2566:A:N6	2.34	0.42
16:GP:25:VAL:HG22	16:GP:26:GLU:N	2.35	0.42
3:EA:2100:G:C5	3:EA:2190:G:C2	3.08	0.42
33:A6:13:ALA:HB1	33:A6:17:MET:CE	2.49	0.42
3:AA:146:A:H2'	3:AA:147:C:C6	2.54	0.42
4:GD:1:MET:HG2	4:GD:205:PRO:HG3	2.00	0.42
47:FN:73:PHE:CE1	47:FN:75:ARG:HA	2.55	0.42
3:AA:2467:C:OP1	31:A4:8:LYS:NZ	2.48	0.42
35:HA:511:C:HO2'	35:HA:512:U:H6	1.66	0.42
3:GA:1194:A:C2	3:GA:1195:G:C8	3.07	0.42
3:GA:568:U:H5'	3:GA:945:A:N6	2.33	0.42
17:AQ:91:ARG:HH11	18:AR:11:GLN:N	2.16	0.42
3:CA:1054:A:C6	3:CA:1106:G:C6	3.07	0.42
45:HL:50:ARG:HH12	45:HL:89:ASP:CB	2.32	0.42
32:A5:108:VAL:CG1	32:A5:109:LYS:N	2.82	0.42
35:HA:1014:A:H5"	52:HS:14:HIS:HB2	2.02	0.42
3:EA:997:G:O2'	3:EA:998:C:H5'	2.19	0.42
35:HA:362:G:OP1	45:HL:58:THR:OG1	2.37	0.42
49:DP:21:VAL:CG2	49:DP:34:GLU:H	2.32	0.42
3:GA:634:C:H2'	3:GA:635:C:C6	2.54	0.42
3:CA:2136:G:O6	3:CA:2155:U:N3	2.52	0.42
35:FA:1147:C:O2'	42:FI:18:ARG:HD2	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:GR:4:VAL:HG23	18:GR:39:LEU:HB2	2.02	0.42
39:HF:17:GLN:O	39:HF:21:MET:N	2.40	0.42
35:HA:1129:C:H5''	42:HI:18:ARG:HH22	1.85	0.42
3:EA:783:A:H8	3:EA:784:G:H5''	1.83	0.42
35:BA:1181:G:C2	35:BA:1182:G:N2	2.88	0.42
3:AA:545:U:O5'	3:AA:545:U:H6	2.02	0.42
3:GA:2370:G:C6	3:GA:2371:G:C6	3.07	0.42
7:GG:16:VAL:HG12	7:GG:17:LYS:N	2.34	0.42
3:GA:10:A:H2	3:GA:2800:A:HO2'	1.63	0.42
35:FA:764:C:H2'	35:FA:765:G:O4'	2.19	0.42
3:GA:2481:G:O2'	3:GA:2482:A:H8	2.02	0.42
9:EI:18:ASN:N	9:EI:19:PRO:CD	2.83	0.42
37:HD:11:LEU:HG	37:HD:63:ARG:HH11	1.82	0.42
32:A5:67:THR:C	32:A5:69:PHE:N	2.73	0.42
37:BD:192:SER:OG	37:BD:193:ALA:O	2.37	0.42
3:AA:2748:A:H1'	7:AG:66:THR:CG2	2.49	0.42
3:EA:250:G:P	30:E3:12:ARG:HH12	2.42	0.42
45:FL:82:ILE:CD1	45:FL:95:TYR:CB	2.97	0.42
3:CA:2061:G:O4'	3:CA:2503:A:C5	2.73	0.42
3:GA:2698:U:H2'	3:GA:2699:C:H6	1.82	0.42
3:EA:2297:A:C2	3:EA:2321:U:H5	2.36	0.42
3:GA:997:G:C5	3:GA:998:C:C5	3.07	0.42
11:EK:71:ARG:HB3	11:EK:72:PRO:CD	2.50	0.42
23:AW:44:PHE:O	23:AW:78:PHE:HA	2.19	0.42
44:HK:32:VAL:O	44:HK:44:TRP:HB3	2.20	0.42
39:HF:69:GLU:O	39:HF:73:GLU:HB2	2.18	0.42
34:BB:8:MET:HB2	34:BB:42:LEU:HD11	2.00	0.42
34:BB:8:MET:O	34:BB:10:LYS:N	2.52	0.42
16:CP:30:TRP:CH2	16:CP:39:LEU:HD13	2.53	0.42
35:FA:557:G:C6	35:FA:558:G:N1	2.86	0.42
2:EC:93:VAL:HG13	2:EC:94:LEU:N	2.33	0.42
1:GB:104:A:H2'	1:GB:105:G:O4'	2.20	0.42
13:EM:41:LEU:HD11	13:EM:96:ILE:HD13	2.00	0.42
3:GA:847:U:O2	3:GA:847:U:H2'	2.19	0.42
46:BM:54:ASP:HA	46:BM:57:ARG:HB3	2.02	0.42
37:BD:146:ARG:HB3	37:BD:148:LYS:HD2	2.01	0.42
9:CI:104:GLN:O	9:CI:105:LEU:HB2	2.19	0.42
3:GA:443:A:H2'	5:GE:40:ARG:NH2	2.34	0.42
35:BA:1237:C:H4'	35:BA:1334:G:N2	2.35	0.42
4:CD:8:LYS:HB2	4:CD:201:LEU:CD2	2.49	0.42
3:CA:2689:U:O4'	3:CA:2713:U:C2	2.72	0.42
3:GA:2395:C:H2'	3:GA:2396:G:O4'	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:1770:G:C6	3:AA:1983:G:C6	3.07	0.42
3:AA:659:G:H4'	5:AE:95:LYS:HD3	2.02	0.42
8:CH:29:PHE:O	8:CH:33:GLN:HB3	2.19	0.42
55:DV:658:VAL:HG21	55:DV:663:MET:SD	2.60	0.42
2:GC:143:VAL:HG11	2:GC:173:LEU:HD21	2.01	0.42
36:BC:111:LEU:HD21	36:BC:144:LEU:O	2.20	0.42
54:FU:44:GLU:OE2	54:FU:45:ARG:NH1	2.52	0.42
3:AA:2595:G:N1	3:AA:2599:G:C6	2.87	0.42
5:AE:158:PHE:HD2	5:AE:159:LEU:HD12	1.83	0.42
35:BA:885:G:P	45:BL:15:LYS:NZ	2.93	0.42
50:BQ:8:LEU:N	50:BQ:61:ILE:O	2.53	0.42
35:HA:49:U:O2'	35:HA:50:A:H2'	2.20	0.42
36:BC:20:SER:OG	36:BC:40:ARG:NH2	2.53	0.42
3:EA:191:A:H2'	3:EA:192:C:C6	2.55	0.42
35:DA:1092:A:OP1	40:DG:5:ARG:NH1	2.51	0.42
44:HK:88:GLY:H	44:HK:114:THR:HG22	1.85	0.42
35:DA:1176:A:H2'	35:DA:1177:G:C8	2.54	0.42
44:FK:17:SER:HA	44:FK:80:LYS:H	1.84	0.42
3:EA:523:C:H4'	3:EA:540:C:O2	2.18	0.42
3:EA:617:G:H2'	3:EA:618:G:O4'	2.19	0.42
3:GA:1310:G:H3'	3:GA:1311:G:C8	2.55	0.42
35:BA:731:G:H5'	35:BA:766:A:H4'	2.01	0.42
3:AA:962:G:P	60:AA:3351:HOH:O	2.77	0.42
42:HI:21:ILE:CD1	42:HI:86:ALA:HB3	2.49	0.42
55:DV:498:VAL:CG2	55:DV:608:ALA:HA	2.50	0.42
14:GN:90:ARG:NE	14:GN:116:VAL:HG11	2.34	0.42
26:EZ:23:LEU:HD21	26:EZ:53:MET:SD	2.59	0.42
11:CK:100:PHE:N	11:CK:100:PHE:CD1	2.87	0.42
45:DL:102:LEU:CD1	45:DL:102:LEU:N	2.81	0.42
53:DT:9:LYS:HA	53:DT:12:ILE:HG23	2.01	0.42
3:AA:19:A:H2'	3:AA:20:C:O4'	2.20	0.42
32:C5:24:SER:HB2	32:C5:117:LEU:H	1.84	0.42
32:C5:131:THR:O	32:C5:134:GLU:HG2	2.19	0.42
32:A5:54:VAL:O	32:A5:55:VAL:C	2.57	0.42
42:HI:53:GLU:O	42:HI:57:MET:HE3	2.19	0.42
10:CJ:4:PHE:HB3	10:CJ:44:TYR:CE1	2.54	0.42
18:ER:80:ARG:C	18:ER:81:LYS:HD3	2.40	0.42
17:AQ:94:LEU:CD1	18:AR:13:ARG:HB2	2.49	0.42
3:EA:998:C:OP2	17:EQ:57:ARG:NH2	2.46	0.42
3:CA:1669:A:O2'	3:CA:2549:G:OP1	2.36	0.42
3:AA:1970:A:OP2	60:AA:3463:HOH:O	2.22	0.42
18:AR:80:ARG:O	18:AR:81:LYS:HD3	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:716:A:N3	44:HK:120:GLY:HA2	2.34	0.42
4:AD:133:THR:HG23	4:AD:134:HIS:N	2.33	0.42
35:FA:1149:C:P	42:FI:11:ARG:NH1	2.92	0.42
16:CP:50:ARG:HD2	16:CP:51:ASN:N	2.34	0.42
4:AD:149:ASN:CG	4:AD:150:GLN:H	2.21	0.42
35:FA:413:G:H21	35:FA:428:G:H1'	1.83	0.42
39:DF:97:THR:C	39:DF:98:GLU:HG2	2.40	0.42
5:EE:77:ILE:HG12	5:EE:78:TRP:CE3	2.54	0.42
3:EA:161:A:C3'	3:EA:162:U:H5''	2.45	0.42
54:BU:25:LYS:HG2	54:BU:26:ALA:N	2.34	0.42
35:HA:841:C:N3	35:HA:843:U:C6	2.87	0.42
55:BV:638:ARG:O	55:BV:662:GLU:HG2	2.20	0.42
45:HL:82:ILE:HD11	45:HL:95:TYR:HB2	2.01	0.42
35:BA:843:U:H6	35:BA:843:U:H5'	1.84	0.42
54:FU:37:PHE:CE1	54:FU:40:LYS:HE3	2.55	0.42
3:CA:45:G:C5'	3:CA:46:G:H5'	2.49	0.42
2:CC:33:LEU:HD21	2:CC:62:ARG:HD3	2.01	0.42
32:C5:122:GLN:CG	32:C5:123:ILE:N	2.83	0.42
36:FC:150:LYS:HD3	36:FC:201:TRP:CE3	2.54	0.42
44:HK:60:PRO:HB3	44:HK:92:GLY:HA2	2.00	0.42
37:FD:30:THR:HG22	37:FD:31:LYS:N	2.35	0.42
16:EP:63:ILE:HA	16:EP:68:GLY:CA	2.49	0.42
3:CA:2747:G:O2'	7:CG:66:THR:HG22	2.18	0.42
34:FB:53:LEU:HD21	34:FB:212:TYR:CE1	2.52	0.42
20:AT:69:ARG:HA	20:AT:69:ARG:HD2	1.90	0.42
47:HN:49:GLN:HG3	47:HN:49:GLN:O	2.19	0.42
35:BA:1053:G:N7	35:BA:1200:C:H5''	2.34	0.42
3:EA:2145:C:H3'	3:EA:2146:C:H5''	2.01	0.42
35:FA:205:A:H4'	35:FA:205:A:OP1	2.19	0.42
35:FA:465:A:H2'	35:FA:466:A:C8	2.54	0.42
3:CA:2619:C:H5'	4:CD:155:VAL:O	2.19	0.42
3:AA:528:A:P	10:AJ:116:ARG:HH21	2.42	0.42
6:EF:43:ILE:HG21	6:EF:78:ILE:HG22	2.01	0.42
39:DF:53:LYS:HG3	39:DF:54:LEU:H	1.83	0.42
39:HF:19:PRO:HA	39:HF:22:ILE:HD12	2.00	0.42
38:HE:56:VAL:N	38:HE:57:PRO:HD2	2.33	0.42
12:EL:77:ILE:HD11	12:EL:108:ALA:HB1	2.01	0.42
35:HA:6:G:H3'	35:HA:6:G:N3	2.33	0.42
34:HB:49:PHE:HB2	34:HB:53:LEU:HD12	2.01	0.42
35:HA:1198:G:H22	43:HJ:55:PRO:CG	2.32	0.42
35:BA:408:A:C2	35:BA:435:A:C2	3.07	0.42
35:BA:449:G:H2'	35:BA:450:G:C8	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:FV:309:ARG:HB3	55:FV:340:SER:CB	2.49	0.42
11:GK:10:VAL:HG11	11:GK:16:ALA:HB3	2.02	0.42
36:FC:77:ILE:HG12	36:FC:84:VAL:CG2	2.49	0.42
6:GF:102:LEU:O	6:GF:106:ALA:HB3	2.19	0.42
3:EA:1149:G:H2'	3:EA:1150:C:C6	2.55	0.42
45:HL:33:VAL:O	45:HL:34:CYS:HB3	2.19	0.42
1:AB:89:U:H3'	1:AB:90:C:C5'	2.50	0.42
3:EA:1021:A:N3	3:EA:1021:A:H3'	2.34	0.42
55:HV:31:LEU:HA	55:HV:34:THR:CG2	2.50	0.42
3:GA:2148:G:H5''	3:GA:2149:U:OP2	2.19	0.42
46:HM:34:LEU:HD13	46:HM:41:GLU:HA	2.02	0.42
10:CJ:17:VAL:HG23	10:CJ:137:PRO:HB2	2.00	0.42
3:AA:803:U:C4	3:AA:804:A:N7	2.88	0.42
3:EA:2139:U:H4'	3:EA:2151:U:H3	1.84	0.42
38:FE:157:ARG:HD2	41:FH:45:PHE:CE1	2.54	0.42
35:DA:958:A:C8	52:DS:55:ARG:CZ	3.02	0.42
44:DK:112:ASP:HB3	54:DU:4:ILE:HG23	2.00	0.42
55:FV:317:PHE:CZ	55:FV:343:VAL:HG21	2.54	0.42
3:AA:1183:U:H2'	3:AA:1184:U:C6	2.55	0.42
34:DB:207:ARG:HB2	34:DB:211:LEU:HD13	2.01	0.42
35:HA:1084:G:C8	35:HA:1085:U:H2'	2.54	0.42
3:CA:931:U:OP1	26:CZ:29:ARG:NH1	2.52	0.42
3:AA:1298:C:C2	3:AA:1643:G:N2	2.88	0.42
3:AA:1465:G:H2'	3:AA:1466:U:O4'	2.19	0.42
12:EL:2:ARG:HA	12:EL:5:THR:CG2	2.49	0.42
3:AA:372:G:C4	24:AX:60:LYS:HE2	2.54	0.42
3:EA:1866:A:H2'	3:EA:1867:G:O4'	2.19	0.42
3:AA:1281:G:C2	3:AA:1290:C:C2	3.07	0.42
3:CA:2838:G:H2'	3:CA:2839:G:O4'	2.20	0.42
35:BA:1288:A:N1	35:BA:1371:G:H1'	2.35	0.42
3:AA:573:U:O2'	3:AA:574:A:H3'	2.19	0.42
35:BA:49:U:O4	35:BA:365:U:H5	2.02	0.42
35:HA:837:U:H2'	35:HA:838:G:C8	2.55	0.42
36:DC:26:THR:HG22	47:DN:76:LYS:CD	2.49	0.42
1:CB:20:G:H2'	1:CB:21:G:O4'	2.20	0.42
52:HS:5:LEU:O	52:HS:7:LYS:N	2.53	0.42
29:G2:43:THR:O	29:G2:44:VAL:C	2.58	0.42
12:EL:127:VAL:HG23	12:EL:131:ALA:HB3	2.01	0.42
4:ED:125:TRP:CE3	4:ED:160:LYS:HD3	2.54	0.42
5:EE:79:ARG:O	5:EE:80:SER:C	2.57	0.42
3:AA:2070:A:H2'	3:AA:2071:A:O4'	2.19	0.42
35:HA:72:A:H3'	35:HA:73:C:H5''	2.00	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:66:HIS:CD2	18:CR:94:THR:HG22	2.54	0.42
45:HL:38:TYR:HB2	45:HL:52:VAL:CG2	2.48	0.42
7:AG:175:LYS:HA	7:AG:176:LYS:HA	1.79	0.42
37:HD:195:ILE:O	37:HD:195:ILE:HG13	2.19	0.42
3:GA:152:A:N6	3:GA:173:A:N6	2.67	0.42
5:EE:150:THR:OG1	5:EE:151:GLY:N	2.52	0.42
3:GA:811:U:P	12:GL:29:LYS:H	2.42	0.42
3:AA:2845:U:H5''	16:AP:51:ASN:O	2.20	0.42
21:GU:95:PHE:HB2	21:GU:98:ASN:HB3	2.00	0.42
3:AA:2478:A:H5'	31:A4:32:LYS:HD3	2.02	0.42
2:CC:70:LYS:HD2	2:CC:73:ILE:HD13	2.00	0.42
2:AC:49:THR:CG2	3:AA:1813:G:H1'	2.49	0.42
7:CG:83:THR:HA	7:CG:84:LYS:CE	2.49	0.42
7:CG:84:LYS:CG	7:CG:85:LYS:N	2.82	0.42
41:HH:21:ASN:HA	41:HH:65:TYR:CE2	2.54	0.42
3:GA:2467:C:N4	3:GA:2468:A:N1	2.67	0.42
35:BA:404:G:O2'	35:BA:498:A:N1	2.40	0.42
1:GB:99:A:C6	1:GB:100:G:C4	3.06	0.42
20:ET:69:ARG:CD	20:ET:70:HIS:H	2.32	0.42
23:GW:64:GLY:HA3	23:GW:81:ILE:CG2	2.49	0.42
35:HA:1238:A:C2	35:HA:1303:C:H4'	2.55	0.42
40:HG:115:SER:H	40:HG:118:LEU:HD12	1.83	0.42
3:EA:1378:A:H4'	3:EA:1379:U:OP1	2.17	0.42
10:GJ:36:LEU:HD21	10:GJ:122:LEU:HB2	2.02	0.42
7:GG:19:ASN:O	7:GG:21:GLN:N	2.53	0.42
34:FB:20:ARG:HA	34:FB:20:ARG:CZ	2.50	0.42
35:FA:381:C:H2'	35:FA:382:A:O4'	2.20	0.42
28:E1:8:ILE:CD1	28:E1:51:ALA:HA	2.50	0.42
40:HG:79:ARG:HD2	40:HG:83:SER:O	2.20	0.42
34:HB:27:LYS:N	34:HB:28:PRO:CD	2.82	0.42
35:DA:1182:G:H4'	35:DA:1183:U:C5'	2.50	0.42
35:HA:766:A:C6	35:HA:814:A:C4	3.08	0.42
35:BA:1526:G:P	54:BU:38:TYR:CD2	3.13	0.42
3:EA:2391:G:P	30:E3:31:ILE:HD11	2.59	0.42
1:GB:43:C:H2'	1:GB:44:G:H5'	2.01	0.42
19:AS:88:ARG:HD2	19:AS:94:ASP:OD2	2.20	0.42
7:GG:84:LYS:HG3	7:GG:131:VAL:HG23	2.01	0.42
3:AA:1179:G:C6	3:AA:1180:U:C4	3.08	0.42
35:FA:1324:A:H2'	35:FA:1325:C:O4'	2.20	0.42
20:ET:50:LEU:HD22	25:EY:26:PHE:CE2	2.54	0.42
39:DF:12:PRO:CG	39:DF:54:LEU:HD21	2.50	0.42
3:CA:177:G:H3'	3:CA:178:G:C8	2.53	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1084:G:OP1	35:BA:1086:U:N3	2.53	0.42
3:EA:1301:A:C5	3:EA:1303:G:C8	3.08	0.42
3:EA:1450:G:H21	3:EA:1452:G:H1	1.67	0.42
6:GF:135:ILE:HD11	6:GF:148:VAL:HG12	2.01	0.42
3:EA:2756:U:C4	3:EA:2759:G:O6	2.73	0.42
35:BA:408:A:OP1	37:BD:110:THR:HG21	2.18	0.42
38:HE:153:VAL:HA	38:HE:156:LYS:HE2	2.00	0.42
34:HB:110:ILE:O	34:HB:113:LEU:N	2.52	0.42
34:DB:29:PHE:N	34:DB:29:PHE:CD1	2.86	0.42
3:AA:2274:A:C5	3:AA:2276:G:C8	3.07	0.42
35:BA:1158:C:C4	35:BA:1160:G:C4	3.07	0.42
18:AR:74:ILE:HD12	18:AR:74:ILE:N	2.34	0.42
26:AZ:15:ARG:HD3	26:AZ:53:MET:SD	2.59	0.42
3:GA:1045:C:C3'	3:GA:1046:A:H5'	2.50	0.42
25:GY:6:LEU:O	25:GY:7:ARG:HB3	2.20	0.42
3:GA:2046:G:H1'	27:G0:18:HIS:CE1	2.54	0.42
3:AA:356:G:C6	3:AA:357:C:C4	3.07	0.42
55:DV:63:ILE:HG21	55:DV:468:ILE:CD1	2.49	0.42
30:C3:50:SER:OG	30:C3:53:ASP:OD2	2.37	0.42
11:EK:8:LEU:N	11:EK:8:LEU:CD2	2.82	0.42
43:BJ:8:ILE:HG22	43:BJ:10:LEU:CD1	2.49	0.42
49:DP:6:LEU:HG	49:DP:17:TYR:HB3	2.02	0.42
49:DP:19:VAL:HG12	49:DP:37:GLY:C	2.39	0.42
3:CA:1605:C:H2'	3:CA:1606:C:H5'	2.01	0.42
3:CA:156:A:H2'	3:CA:157:C:C6	2.54	0.42
3:CA:1224:U:H4'	18:CR:88:GLY:O	2.20	0.42
3:GA:1009:A:OP2	60:GA:3764:HOH:O	2.21	0.42
3:EA:876:C:H2'	3:EA:877:A:O4'	2.19	0.42
35:HA:1412:C:H2'	35:HA:1413:A:C8	2.54	0.42
35:FA:1218:C:H2'	35:FA:1219:A:C8	2.55	0.42
35:HA:44:A:C2	35:HA:399:G:C6	3.08	0.42
35:DA:430:A:C5	35:DA:431:A:C8	3.06	0.42
3:EA:1057:A:C6	3:EA:1086:A:C2	3.07	0.42
35:DA:16:A:O4'	38:DE:22:SER:HB3	2.19	0.42
55:BV:257:LEU:HD11	55:BV:287:PRO:HB3	2.02	0.42
7:CG:68:ARG:NH1	7:CG:72:ASN:HD22	2.18	0.42
42:DI:33:ARG:HH11	42:DI:38:TYR:HD1	1.68	0.42
5:GE:117:ARG:HH12	12:GL:2:ARG:HB2	1.84	0.42
38:DE:136:VAL:O	38:DE:138:ARG:N	2.52	0.42
35:FA:9:G:H5'	38:FE:108:GLY:HA3	2.01	0.42
44:DK:21:ALA:HB2	44:DK:82:LEU:CD1	2.48	0.42
37:FD:62:ARG:HG2	37:FD:72:PHE:CD2	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:1260:A:C6	3:EA:1261:C:C4	3.08	0.42
3:AA:2543:G:C6	3:AA:2544:G:C6	3.08	0.42
3:GA:1235:G:C6	3:GA:1236:G:N1	2.88	0.42
36:DC:11:ARG:HD3	36:DC:178:LEU:HD12	2.00	0.42
44:HK:75:LYS:C	44:HK:78:GLY:H	2.23	0.42
2:CC:4:LYS:N	2:CC:4:LYS:CD	2.82	0.42
38:HE:134:ILE:HD12	38:HE:134:ILE:H	1.84	0.42
10:AJ:60:ASP:N	10:AJ:60:ASP:OD1	2.52	0.42
37:HD:110:THR:O	37:HD:113:GLU:N	2.52	0.42
20:CT:70:HIS:HB3	20:CT:73:ARG:O	2.20	0.42
20:CT:69:ARG:CG	20:CT:70:HIS:H	2.32	0.42
46:DM:56:LEU:O	46:DM:59:GLU:N	2.52	0.42
10:EJ:43:GLU:O	10:EJ:45:THR:HG22	2.20	0.42
17:EQ:91:ARG:HD3	18:ER:11:GLN:HB2	2.02	0.42
32:E5:105:LYS:O	32:E5:107:GLU:N	2.42	0.42
56:HW:1:KBE:HA	56:HW:2:DPP:HB3	2.02	0.42
3:GA:570:G:C6	3:GA:2030:A:C6	3.08	0.42
26:GZ:8:GLN:O	26:GZ:10:ARG:N	2.45	0.42
26:GZ:8:GLN:O	26:GZ:9:THR:HG22	2.19	0.42
23:EW:38:ARG:HD3	23:EW:38:ARG:N	2.35	0.42
32:A5:108:VAL:HG12	32:A5:109:LYS:N	2.35	0.42
46:DM:80:LEU:HD22	46:DM:85:CYS:SG	2.59	0.42
37:DD:191:LEU:O	37:DD:192:SER:HB2	2.20	0.42
3:CA:2031:A:C6	3:CA:2498:C:H1'	2.55	0.42
55:FV:185:LEU:CD1	55:FV:222:LEU:HD13	2.49	0.42
44:BK:125:LYS:CB	54:BU:35:ARG:HG2	2.49	0.42
23:EW:19:ARG:NH1	23:EW:22:VAL:HG11	2.34	0.42
3:CA:217:A:H2'	3:CA:218:A:O4'	2.19	0.42
44:FK:35:THR:OG1	44:FK:41:ALA:N	2.48	0.42
35:DA:1361:G:C4	35:DA:1362:A:N7	2.88	0.42
35:DA:1366:C:H2'	35:DA:1367:C:C6	2.55	0.42
9:AI:89:SER:OG	9:AI:135:MET:SD	2.68	0.42
3:GA:1179:G:C6	3:GA:1180:U:C6	3.08	0.42
55:DV:20:ASP:H	59:DV:801:GCP:H3B1	1.84	0.42
44:DK:35:THR:OG1	44:DK:40:ASN:N	2.53	0.42
40:HG:106:GLU:HA	40:HG:109:ARG:NE	2.34	0.42
35:DA:770:C:P	60:DA:1750:HOH:O	2.76	0.42
34:DB:181:PRO:HA	34:DB:196:ASP:OD2	2.20	0.42
3:GA:600:G:C5'	5:GE:27:LEU:HD22	2.49	0.42
3:EA:1568:G:H4'	2:EC:58:LYS:HB3	2.01	0.42
16:AP:33:GLU:HB2	16:AP:38:ARG:NH1	2.35	0.42
3:AA:2661:G:H5'	55:BV:19:ILE:HG13	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BM:33:ILE:HG23	46:BM:59:GLU:HB3	2.00	0.42
55:BV:342:VAL:CG2	55:BV:378:ARG:HD2	2.50	0.42
3:CA:2297:A:C2	3:CA:2321:U:H5	2.37	0.42
12:EL:111:ILE:O	12:EL:113:ALA:N	2.52	0.42
35:DA:1304:G:C5	35:DA:1305:G:C2	3.07	0.42
35:DA:243:A:C2	35:DA:246:A:C8	3.08	0.42
5:AE:42:GLY:O	5:AE:43:THR:OG1	2.35	0.42
43:FJ:77:VAL:O	43:FJ:79:PRO:HD3	2.19	0.42
35:BA:115:G:H1'	35:BA:116:A:N7	2.34	0.42
43:HJ:6:ILE:O	43:HJ:76:ILE:HB	2.19	0.42
5:AE:187:VAL:O	5:AE:188:MET:CB	2.67	0.42
6:CF:24:VAL:O	6:CF:27:VAL:HG12	2.19	0.42
3:EA:2800:A:C2	3:EA:2895:G:H1'	2.54	0.42
26:AZ:4:ILE:HD13	26:AZ:44:ARG:NH1	2.34	0.42
23:AW:49:ASN:ND2	23:AW:50:VAL:N	2.67	0.42
19:ES:24:ILE:HG13	19:ES:36:LEU:HD21	2.01	0.42
3:GA:548:G:H4'	3:GA:549:G:N2	2.34	0.42
3:CA:2375:G:O2'	3:CA:2377:A:N7	2.44	0.42
52:FS:63:THR:CG2	52:FS:64:ASP:N	2.83	0.42
55:DV:199:GLY:O	55:DV:200:VAL:HG22	2.19	0.42
9:GI:12:VAL:HG22	9:GI:23:VAL:HG13	2.00	0.42
3:AA:864:G:OP2	13:AM:22:GLN:NE2	2.52	0.42
12:GL:81:ASP:HA	12:GL:84:LYS:HE3	2.01	0.42
3:GA:2297:A:N7	3:GA:2320:U:C4	2.87	0.42
6:CF:69:ALA:HB3	6:CF:81:GLY:N	2.34	0.42
37:BD:145:ILE:HD13	37:BD:155:VAL:HG21	2.02	0.42
37:HD:34:ILE:O	37:HD:35:GLU:HB3	2.20	0.42
35:DA:992:U:H4'	35:DA:993:G:C5'	2.50	0.42
23:EW:24:ARG:CG	23:EW:65:LYS:HD3	2.49	0.42
3:CA:2283:C:C4	3:CA:2389:G:C5	3.08	0.42
3:AA:1238:G:O2'	3:AA:1239:G:H5'	2.19	0.42
3:GA:467:G:O2'	3:GA:796:C:O2'	2.21	0.42
36:BC:105:GLU:HG2	36:BC:106:VAL:N	2.35	0.42
46:HM:34:LEU:HD22	46:HM:39:ILE:HB	2.02	0.42
10:EJ:101:ILE:O	10:EJ:105:VAL:HG12	2.20	0.42
3:EA:1665:A:H5''	11:EK:66:LYS:HG3	2.01	0.42
3:CA:2357:G:N2	3:CA:2361:G:N7	2.68	0.42
3:AA:1096:A:H2'	3:AA:1097:U:H5''	2.01	0.42
3:EA:594:U:H2'	3:EA:595:C:C6	2.55	0.42
17:AQ:82:LEU:HD12	17:AQ:112:ALA:HB2	2.02	0.42
41:HH:53:GLY:HA3	41:HH:57:PRO:HA	2.00	0.42
3:AA:833:A:OP1	12:AL:39:LYS:HE3	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:1283:U:H2'	35:HA:1284:C:C6	2.54	0.42
24:EX:32:LEU:O	24:EX:33:HIS:CG	2.72	0.42
35:HA:1397:C:O2'	35:HA:1398:A:OP1	2.33	0.42
12:GL:77:ILE:HD11	12:GL:101:ILE:HD11	2.01	0.42
3:AA:685:A:C2	3:AA:689:A:C6	3.08	0.42
6:EF:100:GLU:O	6:EF:104:THR:HG22	2.19	0.42
3:EA:1730:C:N4	36:HC:103:ILE:HB	2.34	0.42
3:CA:2591:C:H2'	3:CA:2592:G:C8	2.54	0.42
6:AF:28:PRO:HB2	6:AF:168:LEU:HD22	2.01	0.42
42:BI:120:LYS:O	42:BI:121:ALA:HB3	2.20	0.42
3:EA:2834:G:H2'	3:EA:2879:A:H61	1.85	0.42
35:BA:769:G:H4'	35:BA:1513:A:H4'	2.01	0.42
3:EA:1532:A:H3'	3:EA:1533:C:H6	1.84	0.42
25:EY:6:LEU:O	25:EY:7:ARG:HB3	2.19	0.42
36:HC:43:LEU:HD23	36:HC:55:ILE:HD12	2.01	0.42
3:GA:2902:C:C2'	3:GA:2903:U:O5'	2.67	0.42
11:CK:1:MET:SD	11:CK:67:LYS:HD3	2.60	0.42
3:GA:2459:A:N6	3:GA:2494:G:C2	2.88	0.42
42:DI:19:VAL:HG13	42:DI:63:LEU:HD12	2.00	0.42
38:FE:134:ILE:HD12	38:FE:134:ILE:H	1.84	0.42
46:HM:4:ILE:O	46:HM:6:GLY:N	2.51	0.42
3:EA:2627:G:N2	3:EA:2777:G:OP2	2.51	0.42
32:A5:22:ALA:N	32:A5:87:GLU:O	2.53	0.42
3:AA:1913:A:C6	35:BA:1494:G:H5'	2.55	0.42
42:FI:52:LEU:HB3	42:FI:57:MET:HG2	2.01	0.42
3:GA:2267:A:H5''	3:GA:2268:A:H5'	2.01	0.42
35:HA:579:A:HO2'	48:HO:54:ARG:HH12	1.60	0.42
35:FA:49:U:H3	35:FA:362:G:H1'	1.85	0.42
3:GA:819:A:C2	3:GA:820:A:C1'	3.02	0.42
3:GA:1071:G:H3'	3:GA:1072:C:O4'	2.20	0.42
16:EP:50:ARG:HB2	16:EP:56:SER:HA	2.00	0.42
55:FV:18:HIS:ND1	55:FV:122:GLN:HB2	2.35	0.42
35:DA:1218:C:H2'	35:DA:1219:A:C8	2.55	0.42
35:FA:1130:A:C2	35:FA:1146:A:C8	3.08	0.42
35:FA:1145:A:HO2'	35:FA:1146:A:P	2.43	0.42
32:C5:2:ALA:CB	32:C5:6:GLN:CD	2.88	0.42
35:BA:1447:A:H5'	35:BA:1448:C:H5	1.83	0.42
37:BD:3:ARG:CZ	37:BD:115:ARG:HD3	2.50	0.42
23:AW:19:ARG:NH2	23:AW:22:VAL:CG2	2.83	0.42
3:GA:323:C:C4	3:GA:333:G:C8	3.07	0.42
35:HA:1202:U:H2'	35:HA:1203:C:H5'	2.02	0.42
38:BE:16:ILE:HG23	38:BE:110:ALA:HB2	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1930:G:HO2'	3:GA:1968:G:H1	1.60	0.42
35:HA:552:U:H5'	45:HL:83:ARG:NH1	2.35	0.42
35:DA:734:G:N2	35:DA:735:C:C2	2.88	0.42
3:EA:585:G:H5''	3:EA:586:A:OP1	2.20	0.42
3:GA:307:G:N2	3:GA:309:A:H3'	2.35	0.42
35:DA:451:A:C2	35:DA:480:U:C4	3.08	0.42
3:GA:1041:G:H2'	3:GA:1042:G:H8	1.84	0.42
3:GA:1041:G:C2	3:GA:1042:G:N7	2.88	0.42
3:CA:548:G:HO2'	3:CA:549:G:N2	2.16	0.42
6:CF:11:VAL:N	6:CF:14:LYS:HG2	2.34	0.42
3:AA:1019:U:H3	3:AA:1142:A:N6	2.17	0.42
35:DA:1186:G:O3'	42:DI:115:LYS:NZ	2.52	0.42
3:CA:2543:G:C5	3:CA:2544:G:C5	3.08	0.42
3:GA:2589:A:C2	3:GA:2590:A:C5	3.08	0.42
3:AA:2661:G:C6	3:AA:2662:A:C2	3.06	0.42
41:FH:10:MET:HG3	41:FH:27:MET:SD	2.60	0.42
32:A5:67:THR:CG2	32:A5:72:LEU:HA	2.49	0.42
15:EO:78:VAL:HG23	15:EO:79:ALA:N	2.35	0.42
3:AA:84:A:P	21:AU:5:ARG:HH22	2.42	0.42
53:DT:44:LYS:NZ	53:DT:86:LEU:O	2.38	0.42
20:AT:70:HIS:HB3	20:AT:73:ARG:O	2.19	0.42
36:BC:15:VAL:HG11	36:BC:179:ARG:HA	2.01	0.42
21:EU:5:ARG:HH11	21:EU:93:ARG:HG3	1.84	0.42
3:GA:784:G:C6	2:GC:227:VAL:HG11	2.55	0.42
16:CP:105:LYS:HA	16:CP:108:ARG:HD2	2.00	0.42
47:BN:45:VAL:HG23	47:BN:46:LEU:H	1.83	0.42
30:G3:22:LYS:HB3	30:G3:48:MET:SD	2.59	0.42
37:BD:150:LYS:HG2	37:BD:178:MET:SD	2.59	0.42
4:ED:106:LYS:HB3	4:ED:206:ALA:HB3	2.01	0.42
20:AT:34:VAL:O	20:AT:34:VAL:HG22	2.20	0.42
40:FG:70:ARG:CG	40:FG:96:ARG:HG2	2.49	0.42
37:DD:56:ARG:HE	37:DD:56:ARG:HA	1.85	0.42
9:CI:52:LEU:HB3	9:CI:53:PRO:CD	2.50	0.42
10:GJ:12:LYS:O	10:GJ:13:ARG:CB	2.67	0.42
55:DV:200:VAL:HG23	55:DV:201:THR:HG23	2.02	0.42
36:HC:182:ILE:HD13	36:HC:203:PHE:HA	2.01	0.42
6:AF:134:GLN:HG2	6:AF:135:ILE:N	2.34	0.42
34:HB:49:PHE:C	34:HB:49:PHE:CD1	2.93	0.42
3:GA:100:U:H4'	3:GA:101:A:O5'	2.19	0.42
5:CE:23:PHE:CE1	5:CE:28:VAL:HG11	2.55	0.42
35:HA:1259:C:H6	35:HA:1259:C:O5'	2.01	0.42
9:GI:4:VAL:CG1	9:GI:7:TYR:HE1	2.32	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:HO:8:THR:OG1	48:HO:9:ALA:N	2.50	0.42
30:G3:44:ARG:N	30:G3:45:PRO:HD2	2.35	0.42
3:GA:2348:U:H2'	3:GA:2349:G:O4'	2.20	0.42
30:G3:31:ILE:C	30:G3:31:ILE:CD1	2.88	0.42
37:BD:110:THR:HG23	37:BD:113:GLU:HB2	2.01	0.42
3:CA:277:G:H2'	3:CA:361:G:O6	2.20	0.42
3:GA:2659:G:OP2	7:GG:157:LYS:NZ	2.53	0.42
3:GA:614:A:H4'	3:GA:616:A:C5	2.55	0.42
3:CA:2262:U:H4'	3:CA:2328:A:C2	2.55	0.42
35:BA:658:C:H1'	48:BO:22:THR:HG21	2.02	0.42
46:HM:2:ALA:HA	46:HM:53:ILE:HG21	2.02	0.42
5:GE:149:ILE:HG23	5:GE:188:MET:HG3	2.02	0.42
35:HA:777:A:C4	35:HA:778:G:C8	3.08	0.42
5:GE:72:SER:C	5:GE:74:LYS:H	2.22	0.42
3:EA:396:G:H1'	24:EX:28:PHE:HB3	2.01	0.42
3:AA:2071:A:H2'	3:AA:2072:C:C6	2.54	0.42
42:DI:19:VAL:HG21	42:DI:83:ILE:HG13	2.02	0.42
35:BA:518:C:C2	35:BA:529:G:C6	3.08	0.42
1:EB:45:A:C4	1:EB:46:A:C8	3.07	0.42
35:BA:890:G:O2'	35:BA:906:A:N6	2.52	0.42
35:DA:952:U:H2'	35:DA:953:G:C8	2.53	0.42
34:FB:165:ALA:HB2	34:FB:186:VAL:HG12	2.02	0.42
34:DB:118:THR:O	34:DB:119:GLN:HB3	2.20	0.42
13:CM:62:LYS:HD3	13:CM:64:TRP:CZ2	2.54	0.42
37:FD:168:PRO:HB2	37:FD:171:LEU:HG	2.01	0.42
3:EA:2584:U:H2'	3:EA:2585:U:C6	2.55	0.42
36:DC:182:ILE:HD13	36:DC:203:PHE:HA	2.01	0.42
35:FA:57:G:C2	35:FA:58:C:C2	3.08	0.42
35:FA:57:G:C6	35:FA:58:C:N3	2.88	0.42
3:CA:242:G:H5''	30:C3:63:TYR:CE2	2.55	0.42
44:DK:49:GLY:O	44:DK:69:ARG:NH1	2.52	0.42
3:GA:379:G:C6	3:GA:380:G:C5	3.08	0.42
3:EA:2075:U:H2'	3:EA:2077:A:OP1	2.19	0.42
3:GA:4:U:H2'	3:GA:5:A:C8	2.55	0.42
21:EU:34:ILE:HG23	21:EU:61:GLU:HB3	2.01	0.42
3:CA:2653:U:C4	3:CA:2654:A:C6	3.07	0.42
7:AG:137:LYS:HA	7:AG:140:ILE:HG22	2.02	0.42
55:BV:512:ARG:HG3	55:BV:514:GLN:HE21	1.85	0.42
16:GP:92:ARG:O	16:GP:93:LYS:HB2	2.20	0.42
17:GQ:86:SER:O	17:GQ:87:VAL:C	2.58	0.42
3:AA:570:G:C4	3:AA:2030:A:N7	2.87	0.42
5:AE:12:LEU:HD12	5:AE:193:VAL:HG11	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:142:A:N3	20:GT:2:ILE:HD13	2.34	0.42
44:HK:110:ILE:O	54:HU:6:VAL:HG23	2.20	0.42
44:FK:72:ASP:O	44:FK:73:ALA:HB3	2.20	0.42
11:AK:3:GLN:HG3	11:AK:4:GLU:N	2.34	0.42
3:EA:2634:A:C2	3:EA:2635:A:C4	3.08	0.42
3:GA:2644:G:N7	3:GA:2645:G:C6	2.87	0.42
35:HA:1017:U:N3	35:HA:1018:G:N7	2.68	0.42
35:BA:1072:G:O6	35:BA:1102:A:N6	2.52	0.42
9:GI:138:VAL:HG12	9:GI:139:VAL:N	2.34	0.42
44:FK:23:ILE:HG13	44:FK:86:VAL:HA	2.02	0.42
5:EE:23:PHE:CD1	5:EE:111:GLU:HG3	2.54	0.42
3:AA:2823:A:C5	3:AA:2824:C:C5	3.07	0.42
15:EO:53:THR:HB	15:EO:65:THR:HG22	2.02	0.42
36:HC:2:GLY:C	36:HC:3:GLN:HG3	2.40	0.42
3:CA:936:A:H2'	3:CA:937:C:C6	2.55	0.42
35:DA:1003:G:O6	35:DA:1036:A:N6	2.53	0.42
36:HC:167:TRP:O	36:HC:167:TRP:CE3	2.73	0.42
45:BL:102:LEU:CD1	45:BL:102:LEU:N	2.83	0.42
36:HC:121:THR:HG23	36:HC:122:SER:N	2.35	0.42
14:CN:38:LEU:HB3	14:CN:39:PRO:HD3	2.01	0.42
7:EG:84:LYS:O	7:EG:85:LYS:HB2	2.19	0.42
6:GF:63:LYS:HG2	6:GF:64:PRO:O	2.20	0.42
3:GA:604:G:C6	3:GA:625:G:C6	3.08	0.42
3:AA:1084:A:C6	3:AA:1085:A:C6	3.08	0.42
56:BW:3:SER:O	56:BW:5:UAL:N	2.53	0.42
10:EJ:45:THR:OG1	10:EJ:48:VAL:HB	2.20	0.42
3:GA:880:G:N1	3:GA:898:C:H1'	2.35	0.42
3:GA:2266:A:O5'	3:GA:2266:A:H8	2.03	0.42
37:DD:30:THR:C	37:DD:31:LYS:HD2	2.40	0.42
44:FK:126:LYS:O	44:FK:127:ARG:HB2	2.18	0.42
3:EA:1537:G:N3	3:EA:1537:G:H3'	2.34	0.42
44:BK:122:ARG:HH12	44:BK:125:LYS:CE	2.33	0.42
44:HK:128:ARG:HD3	54:HU:34:ARG:NH1	2.35	0.42
35:DA:160:A:N6	35:DA:347:G:H1'	2.35	0.42
7:CG:132:LEU:N	7:CG:132:LEU:HD23	2.35	0.42
3:GA:2467:C:C5	3:GA:2468:A:C5	3.08	0.42
3:GA:1179:G:C5	3:GA:1180:U:C6	3.08	0.42
15:GO:51:ALA:HB3	15:GO:78:VAL:CG1	2.50	0.42
3:EA:2516:A:N6	3:EA:2517:C:N4	2.67	0.42
16:GP:50:ARG:CD	16:GP:51:ASN:N	2.82	0.42
38:HE:16:ILE:HG23	38:HE:110:ALA:HB2	2.02	0.42
9:GI:108:ILE:HG22	9:GI:108:ILE:O	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:643:A:C5	28:G1:43:ARG:NH2	2.88	0.42
3:GA:118:A:C8	3:GA:119:A:C8	3.08	0.42
3:CA:2742:G:OP1	31:C4:36:ARG:HD3	2.20	0.42
2:AC:16:VAL:N	2:AC:203:VAL:CG1	2.82	0.42
3:GA:225:C:H2'	3:GA:226:A:C5'	2.50	0.42
41:DH:7:ILE:HB	41:DH:77:ARG:NH1	2.35	0.42
37:HD:198:HIS:O	37:HD:202:GLU:CB	2.68	0.42
38:BE:97:GLN:HB2	38:BE:124:LEU:HB2	2.02	0.42
30:G3:9:ALA:O	30:G3:12:ARG:N	2.49	0.42
46:DM:4:ILE:HA	46:DM:57:ARG:CZ	2.50	0.42
37:BD:163:GLU:HA	37:BD:167:LYS:HE2	2.01	0.42
40:HG:91:VAL:HG23	40:HG:95:ARG:HD3	2.02	0.42
3:EA:284:U:H2'	3:EA:285:G:C8	2.55	0.42
3:GA:996:A:H8	18:GR:10:LYS:HZ3	1.64	0.42
7:EG:117:PRO:CD	7:EG:120:ILE:HD11	2.50	0.42
3:AA:2094:A:P	8:AH:22:LYS:HD2	2.59	0.42
16:AP:92:ARG:O	16:AP:92:ARG:CG	2.68	0.42
46:BM:10:PRO:O	46:BM:11:ASP:CB	2.67	0.42
37:DD:125:VAL:HG23	37:DD:126:ASN:N	2.34	0.42
45:DL:25:GLU:O	45:DL:26:ALA:C	2.58	0.42
39:HF:5:GLU:O	39:HF:89:VAL:HA	2.19	0.42
35:DA:1279:G:H2'	35:DA:1279:G:N3	2.34	0.42
55:DV:199:GLY:HA3	55:DV:276:GLN:NE2	2.35	0.42
32:A5:17:GLU:HA	32:A5:88:HIS:CE1	2.54	0.42
14:CN:103:ARG:HB2	14:CN:110:MET:HE3	2.01	0.42
35:FA:1142:G:C2	35:FA:1143:G:H1'	2.55	0.42
18:ER:64:VAL:HG21	18:ER:97:LYS:HB2	2.02	0.42
19:ES:63:GLY:O	19:ES:64:ALA:HB3	2.19	0.42
35:FA:924:C:O2'	35:FA:1502:A:N1	2.36	0.42
34:DB:22:TRP:HZ3	34:DB:24:PRO:HA	1.85	0.42
5:GE:131:THR:CG2	5:GE:164:LEU:CD2	2.97	0.42
19:CS:24:ILE:CD1	19:CS:36:LEU:HD13	2.50	0.42
55:FV:255:ARG:CG	55:FV:260:GLU:HB2	2.50	0.42
3:EA:2315:G:H2'	3:EA:2316:G:H8	1.84	0.42
3:CA:2415:G:H4'	12:CL:66:PHE:HB2	2.01	0.42
8:GH:40:THR:C	8:GH:42:LYS:H	2.23	0.42
35:FA:302:G:N3	35:FA:556:C:H4'	2.35	0.42
35:DA:1306:A:N7	35:DA:1307:U:C5	2.87	0.42
35:FA:1261:A:H2'	35:FA:1262:C:O4'	2.20	0.42
39:DF:22:ILE:O	39:DF:26:THR:OG1	2.29	0.42
37:FD:10:LYS:HG3	37:FD:11:LEU:HD12	2.02	0.42
17:AQ:6:GLY:HA2	17:AQ:9:ALA:HB3	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:622:A:C8	35:HA:623:C:C6	3.08	0.42
35:BA:264:C:H4'	50:BQ:65:ARG:HD2	2.02	0.42
3:CA:1271:G:C2	3:CA:1617:C:H4'	2.55	0.42
3:EA:649:G:H2'	3:EA:650:C:C6	2.54	0.42
6:GF:146:ASP:O	6:GF:147:ARG:HB2	2.19	0.42
35:DA:600:A:H2'	35:DA:601:G:C8	2.55	0.42
6:CF:64:PRO:HA	6:CF:88:VAL:HG22	2.01	0.42
3:GA:2788:C:H2'	3:GA:2789:C:C6	2.54	0.42
3:EA:90:U:C4	3:EA:91:A:C5	3.08	0.42
19:GS:68:ASP:O	19:GS:109:ASP:HB3	2.20	0.42
35:HA:105:G:H2'	35:HA:106:C:C6	2.55	0.42
3:GA:80:G:N1	3:GA:81:G:C5	2.88	0.42
35:HA:745:G:H5'	35:HA:851:G:H21	1.84	0.42
3:CA:629:G:H4'	3:CA:650:C:O2	2.19	0.42
2:EC:229:HIS:O	2:EC:231:HIS:N	2.52	0.42
25:AY:14:LEU:HA	25:AY:17:GLU:HB3	2.01	0.42
3:EA:1714:U:H5'	3:EA:1715:G:H5'	2.02	0.42
35:FA:989:U:N3	35:FA:990:C:C5	2.88	0.42
21:GU:10:VAL:HG12	21:GU:71:ILE:HA	2.00	0.42
3:EA:2481:G:HO2'	3:EA:2482:A:H8	1.68	0.42
7:CG:148:ARG:HA	7:CG:161:VAL:CG1	2.49	0.42
43:HJ:85:ASP:HA	43:HJ:88:MET:HB2	2.01	0.42
8:EH:9:VAL:O	8:EH:13:GLY:N	2.53	0.42
3:CA:2235:G:C6	3:CA:2236:U:C4	3.08	0.42
47:FN:47:LYS:HD2	52:FS:13:LEU:HD21	2.02	0.42
55:DV:158:ILE:HG23	55:DV:162:LEU:HD12	2.00	0.42
3:AA:2727:A:C6	3:AA:2728:U:O4	2.73	0.42
17:CQ:97:ILE:C	17:CQ:97:ILE:HD12	2.40	0.42
22:CV:42:LEU:HD12	22:CV:42:LEU:N	2.35	0.42
3:GA:714:U:H6	3:GA:714:U:H5''	1.85	0.42
6:AF:111:ARG:HA	6:AF:111:ARG:NE	2.34	0.42
3:EA:2326:C:C6	3:EA:2326:C:H3'	2.55	0.42
3:GA:198:C:H6	3:GA:198:C:O5'	2.03	0.42
20:GT:64:LYS:N	20:GT:64:LYS:HD2	2.35	0.42
3:AA:2423:U:H6	3:AA:2423:U:H5'	1.83	0.42
45:FL:83:ARG:HH11	45:FL:83:ARG:HG2	1.85	0.42
34:FB:27:LYS:HB3	34:FB:28:PRO:HD3	2.01	0.42
3:AA:2637:U:C2'	3:AA:2638:G:H5'	2.50	0.42
10:EJ:44:TYR:O	10:EJ:45:THR:HB	2.19	0.42
32:C5:113:PHE:C	32:C5:115:GLY:N	2.73	0.42
21:AU:98:ASN:ND2	21:AU:100:GLU:OE1	2.53	0.42
1:EB:42:C:C5	1:EB:43:C:C5	3.07	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:2846:G:OP1	16:GP:52:ARG:NH1	2.52	0.42
35:HA:987:G:C2	35:HA:1219:A:C6	3.07	0.42
17:GQ:65:ASN:OD1	17:GQ:69:ARG:NH2	2.53	0.42
3:AA:1509:A:H1'	3:AA:1510:G:O5'	2.20	0.42
23:CW:35:ILE:O	23:CW:36:ILE:C	2.58	0.42
3:AA:693:A:O2'	3:AA:1353:A:N3	2.51	0.42
35:BA:560:A:C5	38:BE:128:TYR:CE2	3.07	0.42
35:DA:980:C:H4'	47:DN:59:ARG:HE	1.85	0.42
3:AA:2352:A:N1	23:AW:30:VAL:HG21	2.35	0.42
44:FK:42:LEU:HB3	44:FK:77:TYR:CE2	2.55	0.42
16:CP:51:ASN:C	16:CP:52:ARG:HG2	2.41	0.42
37:FD:22:LYS:C	37:FD:24:GLY:H	2.21	0.42
3:GA:1339:G:O4'	3:GA:1393:A:C2	2.72	0.42
42:BI:45:ARG:NE	42:BI:45:ARG:N	2.68	0.42
34:BB:86:CYS:SG	34:BB:88:GLN:NE2	2.93	0.42
1:GB:100:G:C5	1:GB:101:A:C5	3.08	0.42
17:AQ:4:LYS:HZ3	17:AQ:7:VAL:CG1	2.33	0.42
55:HV:218:TRP:N	55:HV:218:TRP:CD1	2.85	0.42
16:CP:92:ARG:O	16:CP:93:LYS:HB2	2.20	0.42
3:GA:972:A:C6	3:GA:973:A:N6	2.88	0.42
9:EI:7:TYR:HA	9:EI:58:ILE:HB	2.02	0.42
23:AW:19:ARG:HA	23:AW:34:SER:HA	2.00	0.42
38:HE:94:VAL:CG2	38:HE:111:MET:HE3	2.50	0.42
21:AU:35:VAL:O	21:AU:38:ILE:HB	2.19	0.42
3:GA:1820:U:H4'	3:GA:1821:A:OP2	2.19	0.42
35:BA:1296:C:H4'	35:BA:1302:C:N3	2.35	0.42
3:CA:10:A:H2	3:CA:2800:A:HO2'	1.64	0.42
3:AA:479:A:C2	3:AA:480:A:C5	3.08	0.42
2:AC:16:VAL:HB	2:AC:203:VAL:HG12	2.02	0.42
2:AC:203:VAL:O	2:AC:205:GLY:N	2.53	0.42
10:CJ:81:ILE:CG1	10:CJ:82:GLY:H	2.32	0.42
44:HK:13:ARG:O	44:HK:15:GLN:N	2.50	0.42
54:FU:20:LYS:C	54:FU:22:SER:H	2.23	0.42
34:DB:187:ASP:HB2	34:DB:203:ASP:CB	2.49	0.42
1:GB:57:A:H2'	1:GB:58:A:C8	2.55	0.42
35:BA:1526:G:OP1	54:BU:38:TYR:CE2	2.73	0.42
3:AA:2134:A:H2'	3:AA:2135:A:H8	1.85	0.42
11:AK:39:ILE:HD12	11:AK:41:ILE:HD11	2.02	0.42
7:GG:122:ALA:HA	7:GG:132:LEU:HA	2.00	0.42
3:GA:1039:A:N6	3:GA:1040:A:C6	2.88	0.42
3:AA:528:A:H2	3:AA:2043:C:H5'	1.85	0.42
35:FA:636:U:H5'	50:FQ:6:ARG:HH21	1.85	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:2680:U:H5'	4:GD:194:PRO:HA	2.01	0.42
3:EA:481:G:C4	3:EA:507:A:C2	3.08	0.42
3:AA:959:A:H62	13:AM:82:MET:HE1	1.84	0.42
35:HA:565:U:C4	35:HA:566:G:C5	3.08	0.42
3:AA:1312:U:H4'	3:AA:1313:U:O5'	2.20	0.42
3:CA:2846:G:C6	3:CA:2847:U:C4	3.08	0.42
3:EA:2788:C:H2'	3:EA:2789:C:C6	2.54	0.42
39:BF:92:THR:HG22	39:BF:94:HIS:H	1.84	0.42
3:CA:476:G:N2	3:CA:479:A:C8	2.88	0.42
17:GQ:86:SER:O	17:GQ:88:GLU:N	2.53	0.42
35:BA:1072:G:C5	35:BA:1073:U:C4	3.07	0.42
3:CA:1271:G:N2	3:CA:1617:C:O4'	2.53	0.42
35:BA:608:A:OP2	60:BA:1853:HOH:O	2.22	0.42
35:FA:640:A:O3'	41:FH:108:LYS:NZ	2.53	0.42
3:GA:24:G:H2'	3:GA:25:U:O4'	2.20	0.42
22:AV:72:VAL:HG12	22:AV:93:ARG:HA	2.01	0.42
3:EA:2678:C:H2'	3:EA:2679:A:O4'	2.20	0.42
3:AA:1063:G:H2'	3:AA:1064:C:O4'	2.20	0.42
13:EM:49:ALA:O	13:EM:52:ALA:N	2.52	0.42
3:GA:1835:G:H1'	3:GA:1931:U:C2	2.54	0.42
9:EI:96:LYS:HG2	9:EI:138:VAL:HG22	2.02	0.42
3:GA:2689:U:O4'	3:GA:2713:U:C2	2.73	0.42
3:AA:744:U:H2'	3:AA:745:G:O4'	2.19	0.42
50:BQ:57:ASP:OD2	50:BQ:81:LYS:NZ	2.51	0.42
46:FM:34:LEU:HB3	46:FM:39:ILE:HB	2.00	0.42
35:DA:420:U:O2'	35:DA:423:G:O6	2.37	0.42
44:DK:63:ALA:HB1	44:DK:96:THR:HB	2.02	0.42
1:GB:45:A:C2	1:GB:46:A:H1'	2.54	0.42
35:HA:642:A:C5	41:HH:107:SER:HA	2.54	0.42
16:GP:108:ARG:NH1	35:HA:1464:U:OP2	2.44	0.42
3:CA:261:G:C2	3:CA:262:A:C8	3.08	0.42
3:AA:936:A:H2'	3:AA:937:C:C6	2.54	0.42
20:CT:12:ARG:CZ	25:CY:29:ARG:NH2	2.83	0.42
35:DA:1439:G:C5	35:DA:1440:U:C5	3.08	0.42
7:CG:53:PRO:HG3	7:CG:61:TRP:CE2	2.55	0.42
35:DA:11:G:C6	35:DA:12:U:C4	3.07	0.42
9:EI:2:LYS:HG3	9:EI:3:LYS:N	2.34	0.42
55:FV:290:VAL:C	55:FV:292:VAL:H	2.23	0.42
12:EL:87:GLY:O	12:EL:89:VAL:N	2.53	0.42
43:HJ:9:ARG:HD2	43:HJ:102:LEU:HA	2.02	0.42
15:AO:14:ALA:O	15:AO:17:LYS:N	2.52	0.42
28:G1:4:ILE:HG12	28:G1:27:ARG:HD3	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:201:C:OP1	24:AX:17:ARG:NH1	2.51	0.42
3:AA:2821:A:C2	3:AA:2822:G:C4	3.08	0.42
47:BN:18:ASP:OD1	47:BN:19:LYS:N	2.52	0.42
35:DA:909:A:H2'	35:DA:910:C:O4'	2.19	0.42
22:AV:6:ALA:HB1	22:AV:40:ILE:CG2	2.50	0.42
3:CA:1000:A:C4	3:CA:1155:A:C6	3.08	0.42
3:AA:1691:C:C4	3:AA:1692:U:C4	3.08	0.42
3:CA:2219:U:H2'	3:CA:2220:U:O4'	2.20	0.42
2:AC:109:LEU:HD23	2:AC:110:LYS:H	1.83	0.42
51:HR:36:SER:CB	54:HU:4:ILE:HG12	2.50	0.42
7:AG:26:LYS:CG	7:AG:27:GLY:N	2.83	0.42
33:A6:15:SER:OG	33:A6:16:VAL:N	2.53	0.42
23:CW:13:ARG:HG2	23:CW:14:ASP:H	1.84	0.42
26:AZ:13:ILE:HG22	26:AZ:14:GLY:N	2.34	0.42
32:C5:50:VAL:HG12	32:C5:50:VAL:O	2.20	0.42
21:EU:71:ILE:O	21:EU:71:ILE:HD12	2.20	0.42
35:FA:633:G:H2'	35:FA:634:C:H6	1.84	0.42
3:EA:1428:C:C5	3:EA:1569:A:H5''	2.55	0.42
10:EJ:4:PHE:N	10:EJ:44:TYR:HH	2.18	0.42
6:GF:134:GLN:OE1	6:GF:150:GLY:N	2.52	0.42
10:AJ:38:GLY:O	10:AJ:43:GLU:HB2	2.19	0.42
26:GZ:8:GLN:C	26:GZ:10:ARG:H	2.23	0.42
23:EW:37:VAL:HG12	23:EW:38:ARG:N	2.31	0.42
3:CA:1106:G:C5	3:CA:1107:G:C8	3.08	0.42
35:HA:1001:C:C2	35:HA:1002:G:C8	3.08	0.42
3:AA:945:A:C4	3:AA:2448:A:C2	3.07	0.42
44:FK:125:LYS:HG2	54:FU:35:ARG:HG2	2.02	0.42
8:CH:13:GLY:CA	35:HA:1294:G:H4'	2.50	0.42
3:CA:2096:C:H2'	3:CA:2097:A:C8	2.55	0.42
35:DA:1014:A:N7	35:DA:1015:G:C6	2.88	0.42
47:DN:13:ARG:NE	47:DN:54:ASP:OD1	2.48	0.42
53:FT:70:ASN:O	53:FT:73:ALA:HB3	2.20	0.42
7:CG:121:THR:O	7:CG:132:LEU:HA	2.20	0.42
3:CA:1797:G:C6	3:CA:1798:U:C4	3.08	0.42
3:CA:2347:C:C2	3:CA:2348:U:C5	3.07	0.42
44:DK:20:VAL:N	44:DK:35:THR:O	2.40	0.42
3:GA:286:U:H2'	3:GA:287:G:C8	2.55	0.42
37:FD:58:LYS:HD2	37:FD:204:TYR:CZ	2.55	0.42
3:GA:974:G:C8	3:GA:1186:G:H1'	2.55	0.42
55:FV:188:MET:CE	55:FV:218:TRP:CD1	3.03	0.42
3:AA:1714:U:H5'	3:AA:1715:G:H5'	2.02	0.42
35:FA:1181:G:C2	35:FA:1182:G:N2	2.88	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:81:ILE:CG1	10:AJ:82:GLY:H	2.33	0.42
3:CA:1313:U:H2'	3:CA:1610:A:C2	2.55	0.42
14:GN:51:LEU:HB3	14:GN:79:LEU:HD21	2.02	0.42
3:GA:2024:G:H2'	3:GA:2025:C:O4'	2.20	0.42
3:GA:349:U:H2'	3:GA:350:G:C8	2.53	0.42
38:DE:81:LEU:CD2	38:DE:81:LEU:N	2.83	0.42
3:CA:1242:U:C4	3:CA:1243:C:N4	2.88	0.42
25:AY:56:LEU:H	25:AY:56:LEU:HD22	1.84	0.42
17:GQ:97:ILE:HD11	17:GQ:105:PHE:HD1	1.84	0.42
35:FA:61:G:H8	53:FT:5:LYS:HZ1	1.67	0.42
35:HA:814:A:H2'	35:HA:814:A:N3	2.35	0.42
44:BK:21:ALA:HB2	44:BK:82:LEU:HD12	2.01	0.42
35:DA:224:U:C2	35:DA:225:C:C5	3.07	0.42
3:CA:26:G:C5	3:CA:27:G:C6	3.08	0.42
7:GG:83:THR:HA	7:GG:84:LYS:NZ	2.35	0.42
3:CA:2021:C:P	27:C0:8:THR:HG21	2.60	0.42
3:CA:593:U:H2'	3:CA:594:U:H6	1.85	0.42
55:FV:312:SER:HB3	55:FV:315:GLU:HG3	2.02	0.42
36:HC:84:VAL:CG1	36:HC:101:ILE:HG23	2.50	0.42
55:FV:85:ASN:ND2	55:FV:382:ILE:HG13	2.35	0.42
3:CA:2547:A:H2'	3:CA:2548:U:C6	2.55	0.42
37:DD:62:ARG:NH1	37:DD:69:GLU:HG2	2.35	0.42
3:AA:1607:C:H42	3:AA:1622:G:P	2.43	0.42
55:HV:224:GLU:HA	55:HV:227:ALA:HB3	2.01	0.42
35:DA:665:A:C8	35:DA:725:G:C2	3.08	0.42
30:G3:30:HIS:CE1	30:G3:31:ILE:HG22	2.55	0.42
35:HA:148:G:N3	35:HA:1446:A:H2	2.18	0.42
47:DN:42:TRP:CD1	47:DN:45:VAL:HG13	2.54	0.42
35:FA:437:U:O2'	37:FD:120:HIS:ND1	2.50	0.42
35:HA:1104:G:C6	35:HA:1105:A:N7	2.87	0.42
3:CA:1684:G:C5	3:CA:1685:C:C4	3.08	0.42
55:HV:630:ASP:HB3	55:HV:673:LEU:HD22	2.01	0.42
49:HP:4:ILE:HG13	49:HP:21:VAL:HG12	2.02	0.42
35:DA:994:A:C5	35:DA:1216:A:H4'	2.55	0.42
55:BV:611:VAL:HG22	55:BV:612:LEU:N	2.35	0.42
35:DA:1125:U:H4'	43:DJ:7:ARG:NH1	2.35	0.42
37:FD:132:ILE:HD12	37:FD:135:TYR:N	2.34	0.42
6:AF:94:ARG:HB2	6:AF:94:ARG:HH11	1.84	0.42
43:BJ:35:GLN:HG2	43:BJ:77:VAL:H	1.83	0.42
11:EK:7:MET:C	11:EK:8:LEU:HD22	2.41	0.42
34:BB:53:LEU:HD21	34:BB:212:TYR:CE1	2.55	0.42
35:FA:369:G:C2	35:FA:370:C:C5	3.08	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:128:G:H2'	35:DA:129:A:H8	1.85	0.42
5:AE:79:ARG:HG2	5:AE:80:SER:N	2.35	0.42
5:CE:51:GLU:OE2	5:CE:88:ARG:NH1	2.50	0.42
35:DA:782:A:N7	35:DA:783:C:C5	2.88	0.42
55:BV:315:GLU:HB3	55:BV:316:PRO:HD2	2.02	0.42
3:GA:1735:A:C6	3:GA:1736:U:C4	3.08	0.42
17:GQ:64:ILE:HG21	17:GQ:75:TYR:CE1	2.55	0.42
37:DD:105:MET:SD	37:DD:143:VAL:CG1	3.08	0.42
37:DD:107:PHE:HB3	37:DD:145:ILE:HD11	2.01	0.42
2:CC:131:MET:O	2:CC:166:ARG:NH1	2.52	0.42
35:DA:501:C:H1'	35:DA:549:C:H1'	2.01	0.42
3:AA:1194:A:C2'	3:AA:1195:G:O5'	2.68	0.42
35:BA:269:C:H2'	35:BA:270:A:C8	2.55	0.42
3:CA:1628:G:C6	3:CA:1629:U:C4	3.08	0.42
55:BV:244:THR:HG22	55:BV:247:GLU:CD	2.41	0.42
35:DA:1161:C:H2'	35:DA:1162:C:C6	2.55	0.42
16:CP:42:PHE:CE1	16:CP:62:LYS:HD2	2.55	0.42
3:AA:2796:U:C4	3:AA:2798:U:C5	3.08	0.42
55:DV:103:MET:HG2	55:DV:135:VAL:HG11	2.01	0.42
34:BB:51:GLU:HG2	34:BB:197:PHE:CE1	2.55	0.42
55:BV:360:PHE:HD2	55:BV:363:ILE:HD11	1.85	0.42
3:CA:1128:G:C2	3:CA:1129:A:C2	3.08	0.42
55:FV:415:VAL:HG21	55:FV:671:ARG:NH1	2.35	0.42
3:CA:1773:A:N7	3:CA:1829:A:H1'	2.34	0.42
7:EG:8:VAL:CG1	7:EG:49:LEU:HB2	2.50	0.42
55:FV:505:HIS:HB3	55:FV:516:GLY:H	1.85	0.42
55:FV:76:ALA:O	55:FV:77:LYS:HB3	2.20	0.42
3:CA:1937:A:N7	3:CA:1939:U:H2'	2.34	0.42
55:FV:590:GLU:OE1	55:FV:591:LEU:N	2.53	0.42
43:HJ:80:THR:HG22	43:HJ:82:LYS:H	1.84	0.42
22:CV:35:GLU:N	22:CV:35:GLU:OE1	2.48	0.42
3:EA:1584:U:P	3:EA:1584:U:H6	2.43	0.42
46:FM:44:LYS:HD3	46:FM:44:LYS:H	1.84	0.42
12:GL:73:ILE:HD13	12:GL:73:ILE:H	1.84	0.42
37:HD:3:ARG:NH1	37:HD:115:ARG:HE	2.18	0.42
37:DD:170:TRP:CD2	37:DD:186:PRO:HB3	2.54	0.42
34:DB:99:MET:HA	34:DB:106:VAL:HG21	2.02	0.42
3:CA:1932:A:C2	3:CA:1969:A:C6	3.08	0.42
35:HA:429:U:H5'	37:HD:9:LEU:HG	2.02	0.41
3:AA:996:A:C5	3:AA:1160:G:C2	3.08	0.41
3:AA:996:A:C6	3:AA:1160:G:C2	3.08	0.41
23:EW:41:GLY:C	23:EW:43:LYS:N	2.72	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:2274:A:C5	3:GA:2276:G:C8	3.08	0.41
3:AA:1647:U:H3'	3:AA:1647:U:P	2.60	0.41
52:HS:36:ARG:CG	52:HS:51:VAL:HG11	2.47	0.41
35:FA:1513:A:H2'	35:FA:1514:G:C8	2.54	0.41
3:EA:31:C:O2'	3:EA:1238:G:H5'	2.20	0.41
3:EA:1144:A:C6	3:EA:1145:C:C4	3.07	0.41
35:DA:738:C:H5''	39:DF:68:GLN:OE1	2.20	0.41
17:GQ:91:ARG:HD3	18:GR:11:GLN:HB2	2.01	0.41
3:GA:677:A:O2'	3:GA:2071:A:H5'	2.20	0.41
3:CA:2346:A:H3'	3:CA:2347:C:H5''	2.02	0.41
38:BE:105:ILE:H	38:BE:122:ASN:HA	1.84	0.41
23:AW:24:ARG:HH11	23:AW:65:LYS:HG2	1.85	0.41
42:HI:120:LYS:O	42:HI:122:ARG:N	2.49	0.41
35:DA:202:G:O2'	35:DA:468:A:H8	2.02	0.41
55:HV:546:PRO:HD2	55:HV:549:TYR:CD2	2.55	0.41
3:EA:1784:A:H4'	3:EA:1785:A:O5'	2.19	0.41
4:AD:118:PHE:HZ	14:AN:1:MET:HB2	1.85	0.41
1:GB:81:G:C6	1:GB:82:U:C4	3.08	0.41
35:HA:409:U:H2'	35:HA:410:G:O4'	2.20	0.41
18:CR:49:ILE:HD12	18:CR:53:PHE:H	1.84	0.41
18:CR:49:ILE:HG22	18:CR:53:PHE:C	2.41	0.41
39:BF:100:SER:CB	39:BF:101:PRO:HA	2.50	0.41
3:CA:201:C:O2'	3:CA:251:A:N1	2.44	0.41
3:GA:923:G:H1'	23:GW:23:LYS:HD3	2.01	0.41
12:CL:81:ASP:C	12:CL:82:LEU:HD13	2.41	0.41
35:BA:211:G:C2	35:BA:212:G:H1'	2.55	0.41
6:GF:105:ILE:HD12	6:GF:138:PRO:HG2	2.01	0.41
16:AP:92:ARG:HH11	16:AP:92:ARG:HB2	1.85	0.41
3:AA:1365:A:OP1	24:AX:2:ARG:NE	2.48	0.41
3:CA:1027:A:C2	3:CA:1126:A:C8	3.08	0.41
3:AA:2674:G:H4'	11:AK:30:ARG:HG3	2.02	0.41
35:DA:1123:U:H4'	43:DJ:39:PRO:HD2	2.01	0.41
3:AA:1486:U:H2'	3:AA:1487:U:C6	2.55	0.41
35:FA:505:G:C6	35:FA:535:A:C2	3.07	0.41
3:EA:136:G:C2	3:EA:144:A:C2	3.08	0.41
14:AN:12:ARG:HB3	14:AN:16:HIS:HB3	2.01	0.41
15:CO:106:LEU:C	15:CO:106:LEU:HD12	2.40	0.41
3:CA:37:C:O2'	5:CE:45:ALA:HA	2.19	0.41
14:CN:103:ARG:CZ	14:CN:110:MET:HE1	2.49	0.41
32:C5:15:VAL:HG21	32:C5:66:GLY:HA2	2.02	0.41
39:HF:3:HIS:CD2	39:HF:92:THR:HG23	2.55	0.41
35:FA:1113:C:C1'	36:FC:178:LEU:HD23	2.49	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:GJ:110:PRO:HB2	10:GJ:111:LYS:HG3	2.02	0.41
22:CV:80:HIS:HD2	22:CV:83:LYS:N	2.18	0.41
36:FC:111:LEU:HD13	36:FC:144:LEU:HD11	2.02	0.41
3:EA:2092:U:H4'	3:EA:2093:G:O5'	2.19	0.41
38:FE:82:GLN:HG2	38:FE:150:PRO:HD3	2.01	0.41
35:HA:1084:G:C6	35:HA:1085:U:N3	2.88	0.41
20:CT:69:ARG:HD2	20:CT:69:ARG:HA	1.97	0.41
34:FB:27:LYS:N	34:FB:28:PRO:CD	2.83	0.41
46:FM:34:LEU:O	46:FM:39:ILE:N	2.53	0.41
21:CU:39:ASN:ND2	21:CU:62:ALA:O	2.52	0.41
35:BA:246:A:C4	35:BA:279:A:C6	3.08	0.41
3:EA:750:A:OP1	3:EA:1615:C:N4	2.44	0.41
34:FB:183:PHE:CE2	34:FB:197:PHE:CD2	3.08	0.41
49:HP:46:LYS:HG3	49:HP:48:GLU:H	1.85	0.41
3:GA:185:G:C6	3:GA:212:G:N1	2.88	0.41
20:GT:20:ALA:O	20:GT:24:MET:HB3	2.20	0.41
9:GI:58:ILE:HG22	9:GI:59:THR:N	2.35	0.41
35:HA:722:G:H1	35:HA:733:G:H1	1.67	0.41
35:BA:723:U:C5	54:BU:49:LYS:HG3	2.55	0.41
22:GV:19:ARG:O	22:GV:22:ALA:HB3	2.20	0.41
18:GR:61:ALA:HB2	18:GR:98:ILE:HA	2.02	0.41
3:CA:2294:G:H5''	15:CO:10:ARG:HD3	2.02	0.41
10:EJ:140:LEU:HD13	10:EJ:140:LEU:O	2.20	0.41
11:GK:2:ILE:HG23	11:GK:6:THR:HG21	2.00	0.41
55:DV:595:LEU:O	55:DV:599:ILE:HG12	2.20	0.41
3:GA:1029:A:C2	3:GA:2466:C:O4'	2.73	0.41
35:FA:1137:C:O2	35:FA:1138:G:N2	2.53	0.41
3:AA:1414:C:O2	3:AA:1588:G:N2	2.44	0.41
35:DA:1077:G:N2	35:DA:1080:A:OP2	2.45	0.41
3:GA:2700:A:C6	3:GA:2701:U:C4	3.08	0.41
35:BA:131:A:H2'	35:BA:132:C:C6	2.55	0.41
3:EA:627:A:C6	3:EA:637:A:C8	3.08	0.41
3:CA:846:U:O2'	3:CA:847:U:O5'	2.38	0.41
23:AW:67:LYS:O	23:AW:68:PHE:HB2	2.20	0.41
17:CQ:87:VAL:O	17:CQ:88:GLU:HB3	2.20	0.41
55:DV:611:VAL:HG21	55:DV:689:GLU:HG3	2.02	0.41
16:EP:112:ARG:O	16:EP:113:LEU:C	2.58	0.41
30:C3:22:LYS:HA	30:C3:47:ALA:O	2.20	0.41
3:EA:1914:C:H6	3:EA:1914:C:O5'	2.03	0.41
17:CQ:94:LEU:C	17:CQ:96:ASP:N	2.72	0.41
3:EA:2425:A:H5''	3:EA:2427:C:O4'	2.20	0.41
10:EJ:4:PHE:CG	10:EJ:5:THR:N	2.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AQ:91:ARG:HE	17:AQ:93:ILE:HG23	1.85	0.41
1:EB:43:C:H2'	1:EB:44:G:H5'	2.01	0.41
32:C5:58:THR:O	32:C5:60:LEU:N	2.54	0.41
35:DA:1142:G:C2	35:DA:1143:G:H1'	2.54	0.41
32:A5:106:PHE:CG	32:A5:107:GLU:N	2.87	0.41
3:GA:2607:G:C6	3:GA:2608:G:C5	3.08	0.41
3:GA:1087:G:C2	3:GA:1089:A:H1'	2.55	0.41
3:EA:2447:G:N7	3:EA:2501:C:O4'	2.53	0.41
3:EA:30:G:C6	3:EA:31:C:C4	3.09	0.41
35:FA:1280:A:OP1	43:FJ:9:ARG:NH1	2.51	0.41
3:AA:2478:A:C2'	3:AA:2479:U:H5'	2.51	0.41
3:EA:1019:U:H3	3:EA:1142:A:H62	1.68	0.41
35:DA:1254:A:C6	35:DA:1255:G:C5	3.08	0.41
17:GQ:94:LEU:O	17:GQ:94:LEU:HD13	2.21	0.41
3:GA:982:C:H5''	3:GA:983:A:P	2.60	0.41
3:CA:161:A:C3'	3:CA:162:U:H5''	2.45	0.41
35:DA:1167:A:H8	35:DA:1169:A:N7	2.19	0.41
3:GA:869:G:C6	3:GA:909:A:C5	3.08	0.41
43:DJ:5:ARG:CB	43:DJ:77:VAL:HA	2.48	0.41
5:CE:150:THR:OG1	5:CE:151:GLY:N	2.53	0.41
35:FA:158:G:H2'	35:FA:159:G:H5'	2.02	0.41
3:GA:883:G:C2	3:GA:884:U:H1'	2.55	0.41
35:DA:237:G:H5'	50:DQ:27:ARG:HH12	1.84	0.41
3:CA:892:A:H2'	3:CA:893:C:C5	2.55	0.41
3:GA:2155:U:C3'	3:GA:2156:G:H5'	2.50	0.41
3:CA:995:C:P	17:CQ:52:ARG:HH11	2.43	0.41
3:CA:139:U:O2	20:CT:1:MET:HG2	2.20	0.41
3:GA:646:U:C2	3:GA:2368:C:H1'	2.55	0.41
3:GA:2526:G:H5'	3:GA:2742:G:O2'	2.19	0.41
18:AR:38:VAL:O	18:AR:53:PHE:HA	2.20	0.41
3:GA:1202:G:C6	3:GA:1244:A:C6	3.09	0.41
3:GA:966:G:C5	3:GA:967:U:C4	3.08	0.41
35:BA:375:U:C2	35:BA:376:G:C8	3.08	0.41
3:GA:620:G:H4'	3:GA:621:A:O5'	2.19	0.41
6:CF:131:VAL:HG22	6:CF:151:LEU:H	1.85	0.41
35:FA:1021:A:C2	35:FA:1022:A:C8	3.08	0.41
1:AB:16:G:C5	1:AB:69:G:C2	3.07	0.41
3:CA:452:G:C2	3:CA:458:G:C4	3.08	0.41
3:AA:2526:G:C5	3:AA:2527:C:C5	3.08	0.41
35:HA:1095:U:C4	35:HA:1096:C:C4	3.07	0.41
39:HF:61:LEU:CD2	51:HR:24:LYS:HZ3	2.32	0.41
26:CZ:15:ARG:NH1	26:CZ:15:ARG:CG	2.83	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:2259:U:H1'	3:AA:2427:C:C2	2.55	0.41
35:BA:1113:C:H4'	36:BC:14:ILE:HG21	2.02	0.41
42:BI:51:PRO:HB3	42:BI:84:THR:CG2	2.49	0.41
35:DA:79:G:H3'	35:DA:80:A:C8	2.54	0.41
3:GA:2344:U:P	28:G1:36:LYS:HD2	2.60	0.41
39:FF:3:HIS:HB2	39:FF:92:THR:HG23	2.02	0.41
3:GA:2307:G:O6	6:GF:40:GLY:N	2.53	0.41
35:BA:1227:A:OP2	46:BM:110:LYS:HE2	2.20	0.41
3:GA:483:A:O4'	21:GU:44:HIS:HB3	2.20	0.41
3:AA:653:U:H5	3:AA:654:A:C2	2.38	0.41
3:CA:959:A:H62	13:CM:82:MET:CE	2.33	0.41
2:CC:141:HIS:HB2	2:CC:142:ASN:H	1.54	0.41
41:HH:41:LYS:CD	41:HH:48:ASP:HB2	2.50	0.41
30:A3:22:LYS:HA	30:A3:47:ALA:O	2.19	0.41
39:DF:41:ASP:OD1	39:DF:58:HIS:NE2	2.52	0.41
28:E1:16:THR:HG21	28:E1:41:VAL:HG13	2.01	0.41
35:HA:1105:A:C2	35:HA:1106:G:C5	3.08	0.41
3:AA:2103:C:H2'	3:AA:2104:C:H5''	2.02	0.41
35:FA:1049:U:H2'	47:FN:3:LYS:HD2	2.03	0.41
35:DA:382:A:H2'	35:DA:383:A:C8	2.54	0.41
35:DA:1323:G:H2'	35:DA:1324:A:C8	2.55	0.41
37:HD:132:ILE:HG22	37:HD:134:SER:H	1.83	0.41
50:BQ:74:THR:HG22	50:BQ:75:LEU:N	2.36	0.41
44:DK:96:THR:HG23	44:DK:97:ILE:N	2.35	0.41
18:GR:61:ALA:HB2	18:GR:98:ILE:HD13	2.01	0.41
35:HA:897:C:C4	35:HA:898:G:N7	2.89	0.41
3:AA:518:G:H2'	3:AA:519:U:C6	2.54	0.41
35:FA:1054:C:H5''	35:FA:1196:A:O2'	2.20	0.41
35:BA:1343:G:H2'	35:BA:1344:C:C6	2.54	0.41
42:DI:97:GLU:HG2	42:DI:100:LYS:HD3	2.02	0.41
2:EC:106:PRO:HA	2:EC:194:VAL:HA	2.02	0.41
3:CA:1476:U:C5	3:CA:1514:G:C2	3.08	0.41
35:BA:780:A:C8	35:BA:800:G:C6	3.08	0.41
55:FV:445:PHE:CE1	55:FV:469:ILE:HG21	2.55	0.41
3:AA:2580:U:C5	3:AA:2581:G:C6	3.08	0.41
43:HJ:27:GLU:O	43:HJ:28:THR:CB	2.69	0.41
51:BR:34:THR:OG1	51:BR:35:GLU:N	2.53	0.41
3:AA:45:G:H5'	3:AA:46:G:H5'	2.03	0.41
23:EW:28:GLU:HB3	23:EW:31:LEU:HD21	2.02	0.41
2:AC:172:THR:HG22	2:AC:182:LYS:HG2	2.02	0.41
3:EA:88:G:C6	3:EA:89:A:N7	2.87	0.41
3:EA:1360:G:C6	3:EA:1372:U:C2	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DI:12:ARG:HH11	42:DI:13:LYS:HB2	1.84	0.41
36:BC:12:LEU:HD13	36:BC:18:TRP:CE2	2.55	0.41
3:GA:392:U:H2'	3:GA:393:C:C6	2.55	0.41
4:AD:24:VAL:HA	4:AD:191:GLY:H	1.85	0.41
3:GA:397:U:OP2	24:GX:9:LYS:NZ	2.46	0.41
3:GA:2054:A:C2	3:GA:2616:C:C2	3.08	0.41
35:DA:1358:U:OP1	47:DN:75:ARG:HG2	2.20	0.41
35:HA:2:A:C6	35:HA:3:A:N1	2.88	0.41
3:AA:866:A:N7	3:AA:914:G:C6	2.89	0.41
3:CA:1296:G:C4	3:CA:1297:C:C5	3.08	0.41
3:EA:2472:G:C5	3:EA:2475:C:C4	3.09	0.41
35:HA:196:A:OP1	53:HT:64:LYS:HE2	2.20	0.41
3:GA:1410:G:N7	60:GA:3612:HOH:O	2.37	0.41
37:BD:191:LEU:O	37:BD:191:LEU:HD12	2.20	0.41
14:GN:55:ALA:C	14:GN:57:THR:N	2.73	0.41
35:BA:1032:G:N3	35:BA:1032:G:H3'	2.35	0.41
11:EK:34:GLY:O	11:EK:35:VAL:C	2.58	0.41
3:CA:2701:U:H3'	3:CA:2702:G:C5'	2.49	0.41
38:HE:44:GLY:HA2	38:HE:74:VAL:HB	2.01	0.41
35:HA:1118:U:OP1	42:HI:11:ARG:NE	2.50	0.41
3:EA:55:G:H2'	3:EA:56:A:H8	1.84	0.41
17:CQ:91:ARG:NH2	17:CQ:93:ILE:HG21	2.35	0.41
10:EJ:38:GLY:O	10:EJ:43:GLU:HB2	2.20	0.41
32:C5:100:ALA:HA	32:C5:113:PHE:CE2	2.55	0.41
10:AJ:4:PHE:CD2	10:AJ:44:TYR:CE2	3.08	0.41
3:GA:878:A:H3'	3:GA:879:G:C8	2.55	0.41
3:GA:2273:A:H2'	3:GA:2274:A:C8	2.55	0.41
35:HA:1001:C:N3	35:HA:1002:G:N7	2.68	0.41
37:HD:58:LYS:HA	37:HD:200:ILE:CD1	2.50	0.41
8:CH:13:GLY:O	35:HA:1294:G:O2'	2.20	0.41
35:HA:1167:A:H3'	35:HA:1169:A:N7	2.34	0.41
3:EA:855:G:N3	23:EW:23:LYS:HD2	2.35	0.41
3:GA:1851:U:C2	3:GA:1852:U:C5	3.08	0.41
11:AK:76:VAL:CB	16:AP:72:VAL:HG22	2.47	0.41
24:GX:32:LEU:O	24:GX:33:HIS:ND1	2.52	0.41
3:GA:15:G:C6	3:GA:16:C:C4	3.08	0.41
35:FA:955:U:H2'	35:FA:956:U:O4'	2.20	0.41
9:GI:104:GLN:O	9:GI:105:LEU:HB2	2.19	0.41
3:EA:62:U:O2	3:EA:62:U:H2'	2.19	0.41
2:AC:254:LYS:O	2:AC:256:THR:N	2.51	0.41
3:GA:1252:G:N3	17:GQ:32:ARG:HG2	2.35	0.41
3:EA:1270:C:N4	3:EA:1648:U:O4	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DE:81:LEU:HD23	38:DE:123:VAL:CG1	2.50	0.41
3:GA:2469:A:C8	3:GA:2482:A:N6	2.89	0.41
3:EA:611:C:H2'	3:EA:612:G:O4'	2.20	0.41
18:CR:5:PHE:HA	18:CR:39:LEU:HG	2.02	0.41
6:CF:151:LEU:CD1	6:CF:153:ILE:HG23	2.50	0.41
42:FI:34:SER:HB3	42:FI:37:GLN:HG2	2.00	0.41
51:HR:40:VAL:HG13	51:HR:41:PRO:HD2	2.02	0.41
51:HR:40:VAL:CG1	51:HR:41:PRO:HD2	2.50	0.41
34:FB:49:PHE:HB2	34:FB:212:TYR:OH	2.21	0.41
3:GA:2535:G:C4	3:GA:2536:G:C8	3.09	0.41
35:DA:292:G:N7	35:DA:293:G:H1'	2.36	0.41
24:EX:68:ALA:C	24:EX:69:GLU:O	2.54	0.41
12:EL:61:LEU:O	30:E3:12:ARG:HD3	2.20	0.41
35:DA:1340:A:H2'	35:DA:1341:U:O4'	2.21	0.41
3:AA:1301:A:H2'	3:AA:1301:A:N3	2.35	0.41
3:AA:2803:G:H2'	3:AA:2804:U:H6	1.84	0.41
32:E5:44:ALA:HB1	32:E5:52:MET:HB2	2.02	0.41
3:AA:527:C:H4'	3:AA:528:A:O5'	2.21	0.41
35:DA:811:C:C5	35:DA:812:G:C6	3.08	0.41
9:CI:14:ALA:CB	9:CI:45:THR:HG22	2.50	0.41
3:CA:178:G:C6	3:CA:179:C:C5	3.08	0.41
52:FS:36:ARG:HB3	52:FS:72:GLY:HA2	2.01	0.41
43:BJ:59:LYS:HG3	43:BJ:60:ASP:OD1	2.20	0.41
35:FA:895:G:C5	35:FA:896:C:C5	3.08	0.41
3:CA:2209:G:N3	3:CA:2216:G:N2	2.68	0.41
43:BJ:15:HIS:O	43:BJ:17:LEU:N	2.50	0.41
3:EA:479:A:H4'	3:EA:480:A:OP1	2.21	0.41
17:CQ:81:GLY:CA	17:CQ:116:LEU:CD1	2.99	0.41
17:CQ:81:GLY:HA2	17:CQ:116:LEU:HD12	2.02	0.41
3:AA:1937:A:N7	3:AA:1939:U:H2'	2.35	0.41
2:EC:93:VAL:O	2:EC:94:LEU:HB3	2.20	0.41
35:DA:750:C:C2	35:DA:751:U:H5	2.39	0.41
4:AD:46:ARG:HH21	4:AD:86:GLU:H	1.69	0.41
19:ES:59:GLU:HA	19:ES:64:ALA:HB2	2.02	0.41
38:BE:44:GLY:H	38:BE:76:LEU:CD1	2.32	0.41
3:EA:27:G:C4	3:EA:512:G:N2	2.89	0.41
9:GI:96:LYS:CG	9:GI:135:MET:HG2	2.50	0.41
3:EA:1119:U:OP1	22:EV:83:LYS:NZ	2.38	0.41
50:FQ:17:MET:HB3	50:FQ:20:SER:HB3	2.03	0.41
43:DJ:74:VAL:O	43:DJ:75:ASP:HB3	2.21	0.41
10:CJ:105:VAL:HG11	10:CJ:122:LEU:HD21	2.02	0.41
45:BL:3:THR:O	45:BL:6:GLN:N	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:FA:1412:C:H2'	35:FA:1413:A:C8	2.55	0.41
4:ED:121:THR:O	4:ED:122:VAL:CB	2.68	0.41
3:AA:1494:A:C6	3:AA:1495:A:C5	3.08	0.41
3:CA:807:U:C2	3:CA:808:G:C8	3.09	0.41
55:FV:317:PHE:HA	55:FV:341:GLY:HA3	2.02	0.41
36:DC:26:THR:HG22	47:DN:76:LYS:CE	2.50	0.41
7:EG:83:THR:HA	7:EG:84:LYS:NZ	2.35	0.41
3:GA:80:G:O2'	3:GA:294:A:N1	2.43	0.41
35:HA:851:G:C5	35:HA:852:G:N7	2.88	0.41
22:CV:51:GLN:NE2	22:CV:57:TYR:OH	2.53	0.41
35:FA:1461:G:H2'	35:FA:1462:C:O4'	2.20	0.41
3:EA:738:G:C2	3:EA:759:G:C5	3.08	0.41
24:CX:34:SER:HA	24:CX:48:LEU:O	2.20	0.41
54:DU:53:VAL:HG13	54:DU:54:LYS:N	2.35	0.41
3:EA:861:A:C2	3:EA:917:A:C4	3.08	0.41
14:AN:79:LEU:O	14:AN:80:PHE:HB2	2.19	0.41
55:HV:614:GLU:O	55:HV:687:TYR:HA	2.19	0.41
15:AO:49:VAL:HG12	15:AO:50:ALA:N	2.35	0.41
35:FA:1009:U:H3	35:FA:1020:G:H1	1.67	0.41
46:FM:14:HIS:ND1	46:FM:42:ASP:O	2.53	0.41
4:GD:68:PHE:CZ	4:GD:79:LEU:HD11	2.56	0.41
3:CA:323:C:H2'	5:CE:163:ASN:ND2	2.35	0.41
55:DV:51:ASP:HB3	55:DV:56:GLU:HG3	2.01	0.41
12:CL:23:ILE:HD12	18:CR:84:ARG:CZ	2.50	0.41
3:GA:2209:G:C6	3:GA:2216:G:N1	2.89	0.41
35:FA:495:A:C2	35:FA:496:A:N6	2.89	0.41
3:GA:849:A:C2	3:GA:930:G:N2	2.88	0.41
3:EA:2619:C:O2'	3:EA:2620:C:H5'	2.20	0.41
3:CA:2109:U:H2'	3:CA:2110:G:C5'	2.50	0.41
3:CA:2469:A:C2	3:CA:2482:A:H1'	2.55	0.41
3:CA:638:G:C6	3:CA:651:G:C2	3.09	0.41
35:BA:382:A:H2'	35:BA:383:A:C8	2.56	0.41
3:GA:2335:A:OP1	15:GO:13:ARG:HD2	2.21	0.41
3:CA:282:A:H2'	3:CA:283:G:C8	2.55	0.41
24:EX:48:LEU:HB3	24:EX:50:VAL:HG23	2.02	0.41
3:AA:1591:A:H2'	3:AA:1592:C:C6	2.55	0.41
4:AD:35:THR:N	4:AD:49:GLN:O	2.41	0.41
29:G2:1:MET:CG	29:G2:2:LYS:N	2.84	0.41
3:CA:3:U:H2'	3:CA:4:U:O4'	2.20	0.41
12:GL:111:ILE:N	12:GL:111:ILE:HD12	2.35	0.41
17:GQ:12:ARG:O	17:GQ:15:LYS:HB3	2.20	0.41
3:EA:2660:A:H5'	55:FV:675:LYS:HG3	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1663:G:N1	3:GA:1998:A:C6	2.88	0.41
3:GA:2097:A:C2	3:GA:2098:U:C2	3.09	0.41
22:GV:21:ARG:NH2	22:GV:87:GLN:O	2.47	0.41
34:DB:100:LEU:HD21	34:DB:180:ILE:HD12	2.03	0.41
3:GA:571:U:O4	3:GA:2030:A:N1	2.53	0.41
17:AQ:63:ARG:HH12	17:AQ:96:ASP:HA	1.86	0.41
35:BA:978:A:O2'	35:BA:1322:C:H5	2.03	0.41
55:DV:218:TRP:CD1	55:DV:218:TRP:N	2.88	0.41
23:CW:17:ALA:HA	23:CW:35:ILE:HG23	2.01	0.41
32:A5:57:ASN:C	32:A5:59:LEU:N	2.74	0.41
32:A5:59:LEU:HD23	32:A5:62:ARG:HE	1.85	0.41
35:HA:717:U:H2'	35:HA:734:G:C8	2.56	0.41
35:HA:673:A:C2	35:HA:734:G:C2	3.08	0.41
44:HK:128:ARG:HD2	54:HU:35:ARG:HG3	2.03	0.41
3:GA:1002:G:H2'	3:GA:1003:G:O4'	2.20	0.41
3:EA:817:C:H2'	3:EA:818:G:O4'	2.20	0.41
3:EA:855:G:N2	23:EW:23:LYS:HD2	2.35	0.41
3:CA:1378:A:C4	3:CA:1380:G:C8	3.09	0.41
3:AA:301:G:H2'	3:AA:334:C:H2'	2.01	0.41
3:GA:27:G:HO2'	3:GA:28:A:P	2.41	0.41
3:CA:892:A:H2'	3:CA:893:C:C6	2.55	0.41
46:HM:96:PRO:HD3	46:HM:102:THR:HG21	2.02	0.41
3:EA:1655:A:H2'	3:EA:1656:C:O4'	2.21	0.41
20:GT:29:THR:CA	20:GT:86:THR:HA	2.50	0.41
3:EA:1732:C:C3'	3:EA:1733:G:H5'	2.51	0.41
45:HL:63:VAL:HG22	45:HL:64:THR:N	2.35	0.41
35:DA:369:G:C5	35:DA:393:A:C2	3.08	0.41
45:HL:83:ARG:HG2	45:HL:83:ARG:HH11	1.85	0.41
54:FU:39:GLU:O	54:FU:43:THR:HG22	2.20	0.41
3:GA:247:G:N2	3:GA:252:G:C5	2.88	0.41
20:ET:24:MET:HG3	20:ET:29:THR:CG2	2.50	0.41
3:CA:163:C:HO2'	3:CA:164:C:C5'	2.31	0.41
35:HA:749:A:H2	48:HO:22:THR:CG2	2.33	0.41
3:GA:2207:C:C2	3:GA:2218:G:C2	3.08	0.41
2:GC:16:VAL:H	2:GC:203:VAL:HG12	1.84	0.41
3:AA:1394:U:OP1	60:AA:3404:HOH:O	2.22	0.41
3:CA:2751:G:N3	3:CA:2751:G:H2'	2.36	0.41
43:DJ:53:ILE:HG13	47:DN:85:ARG:CD	2.50	0.41
9:EI:120:ASP:HB3	9:EI:123:ALA:CB	2.49	0.41
27:E0:32:THR:HG22	27:E0:33:SER:N	2.34	0.41
43:HJ:35:GLN:HG2	43:HJ:37:ARG:NE	2.36	0.41
24:EX:76:LYS:HG3	24:EX:77:TYR:H	1.84	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:566:U:H2'	3:EA:567:U:O4'	2.20	0.41
35:FA:327:A:O2'	35:FA:328:C:O4'	2.28	0.41
37:BD:24:GLY:HA2	37:BD:109:ALA:HB1	2.01	0.41
35:FA:1004:A:H2'	35:FA:1005:A:O4'	2.21	0.41
3:GA:1010:A:H5'	17:GQ:61:ILE:HG22	2.02	0.41
13:AM:53:MET:CE	13:AM:63:ILE:HG21	2.50	0.41
36:DC:139:GLN:O	36:DC:143:ARG:N	2.51	0.41
3:GA:1570:A:H2'	3:GA:1571:A:C8	2.55	0.41
38:FE:159:LYS:HZ1	41:FH:64:LYS:HE2	1.85	0.41
18:CR:64:VAL:O	18:CR:65:ALA:CB	2.69	0.41
3:EA:2287:A:C8	3:EA:2289:G:C8	3.08	0.41
6:AF:148:VAL:HG23	6:AF:149:ARG:N	2.36	0.41
3:GA:83:A:H5''	3:GA:84:A:OP1	2.20	0.41
35:DA:650:G:C5	35:DA:651:C:C5	3.09	0.41
35:HA:1377:A:C6	40:HG:7:ILE:HD11	2.55	0.41
55:HV:526:GLU:OE1	55:HV:526:GLU:N	2.53	0.41
3:EA:1150:C:C2'	3:EA:1151:A:O5'	2.68	0.41
35:DA:257:G:N1	35:DA:258:G:C5	2.88	0.41
35:FA:131:A:O2'	35:FA:262:A:N3	2.45	0.41
35:DA:728:A:C6	35:DA:729:A:C6	3.08	0.41
4:ED:121:THR:HB	4:ED:127:PHE:CD2	2.55	0.41
5:GE:187:VAL:O	5:GE:188:MET:CB	2.68	0.41
21:GU:21:ARG:CZ	21:GU:72:PHE:CE2	3.04	0.41
35:DA:1053:G:N7	35:DA:1199:U:H3'	2.36	0.41
10:EJ:130:HIS:O	10:EJ:130:HIS:ND1	2.53	0.41
3:CA:2017:U:H5''	3:CA:2018:G:P	2.60	0.41
44:DK:82:LEU:N	44:DK:82:LEU:HD23	2.35	0.41
3:GA:2643:G:C6	3:GA:2644:G:C4	3.09	0.41
3:GA:2054:A:H2'	27:G0:4:GLN:OE1	2.19	0.41
13:GM:96:ILE:HD13	13:GM:102:LEU:CD1	2.51	0.41
5:GE:82:GLY:N	60:GE:301:HOH:O	2.52	0.41
6:EF:34:THR:HG22	6:EF:89:THR:HA	2.02	0.41
55:BV:124:GLU:OE2	55:BV:677:ARG:NH1	2.54	0.41
4:CD:101:PHE:CE2	4:CD:203:VAL:CG2	3.04	0.41
35:DA:625:U:H4'	49:DP:16:PHE:CE2	2.55	0.41
44:DK:43:GLY:HA3	44:DK:74:VAL:CG1	2.51	0.41
37:HD:98:LEU:HD23	37:HD:102:VAL:HG23	2.01	0.41
35:HA:66:A:H4'	35:HA:173:U:C5	2.56	0.41
22:CV:70:ILE:O	22:CV:71:LYS:HB3	2.20	0.41
35:FA:62:U:OP1	35:FA:385:C:O2'	2.25	0.41
35:FA:66:A:C2	35:FA:67:C:C6	3.08	0.41
32:E5:9:GLN:NE2	32:E5:13:ALA:HB2	2.36	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:1132:C:N4	35:BA:1142:G:O6	2.53	0.41
35:DA:1511:G:C6	35:DA:1512:U:C4	3.08	0.41
35:DA:1239:A:H4'	35:DA:1240:U:H5''	2.02	0.41
3:CA:2392:A:C8	3:CA:2429:G:C2	3.08	0.41
21:EU:73:ASN:O	21:EU:74:ALA:HB3	2.20	0.41
41:BH:111:MET:HE2	41:BH:115:ALA:C	2.40	0.41
3:AA:2409:G:H2'	3:AA:2410:G:O4'	2.20	0.41
35:DA:10:A:OP2	38:DE:131:THR:OG1	2.21	0.41
3:AA:1945:G:C6	3:AA:1946:U:C4	3.09	0.41
46:FM:91:HIS:HA	46:FM:109:ARG:HH22	1.84	0.41
20:GT:69:ARG:O	20:GT:74:ILE:HD12	2.20	0.41
3:CA:952:G:H2'	3:CA:953:G:O5'	2.19	0.41
3:AA:1309:G:OP1	29:A2:9:VAL:HG13	2.21	0.41
37:FD:75:TYR:OH	37:FD:97:ARG:NH1	2.53	0.41
55:FV:75:MET:SD	55:FV:202:PHE:CZ	3.13	0.41
35:HA:1124:G:H3'	35:HA:1145:A:H61	1.85	0.41
55:HV:252:LEU:HD13	55:HV:285:TYR:CE2	2.55	0.41
5:GE:52:VAL:HG12	5:GE:53:THR:N	2.35	0.41
3:EA:1179:G:N1	3:EA:1180:U:C4	2.88	0.41
9:EI:42:ASN:HA	9:EI:45:THR:HB	2.02	0.41
50:BQ:5:ILE:N	50:BQ:5:ILE:HD12	2.35	0.41
34:BB:170:ILE:HD13	34:BB:170:ILE:H	1.85	0.41
32:E5:40:GLU:CG	32:E5:40:GLU:O	2.68	0.41
18:ER:48:LYS:CD	18:ER:48:LYS:H	2.34	0.41
3:EA:2031:A:N3	3:EA:2455:G:O2'	2.45	0.41
21:CU:94:PHE:HA	21:CU:101:THR:HA	2.03	0.41
55:DV:453:SER:O	55:DV:455:GLN:N	2.53	0.41
2:AC:143:VAL:HB	2:AC:153:LEU:HB2	2.02	0.41
55:FV:602:LYS:O	55:FV:604:GLY:N	2.51	0.41
10:CJ:38:GLY:HA2	10:CJ:51:GLY:HA2	2.03	0.41
10:CJ:4:PHE:CD1	10:CJ:5:THR:N	2.88	0.41
3:GA:977:G:N3	3:GA:1001:A:H2	2.17	0.41
3:GA:263:G:N2	3:GA:264:C:H1'	2.36	0.41
16:AP:50:ARG:HB2	16:AP:51:ASN:H	1.53	0.41
9:GI:133:ARG:HG2	9:GI:133:ARG:O	2.20	0.41
32:A5:131:THR:HA	32:A5:134:GLU:CG	2.50	0.41
35:HA:673:A:C4	35:HA:734:G:N2	2.88	0.41
35:HA:1415:G:C6	35:HA:1486:G:C6	3.08	0.41
3:EA:962:G:C5	3:EA:963:U:C5	3.08	0.41
2:CC:255:LYS:O	2:CC:257:ARG:N	2.54	0.41
3:CA:1798:U:OP1	2:CC:257:ARG:HB2	2.20	0.41
55:HV:315:GLU:HB3	55:HV:316:PRO:HD2	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DV:23:LYS:NZ	59:DV:801:GCP:O1B	2.47	0.41
3:GA:648:G:H2'	3:GA:649:G:H8	1.86	0.41
23:GW:60:ALA:HB2	23:GW:81:ILE:HD12	2.02	0.41
35:HA:707:U:H4'	44:HK:22:HIS:CD2	2.56	0.41
44:HK:22:HIS:HD2	44:HK:35:THR:HG21	1.85	0.41
54:BU:25:LYS:CG	54:BU:26:ALA:H	2.33	0.41
34:DB:14:HIS:CE1	34:DB:40:ILE:HD11	2.54	0.41
55:FV:15:ILE:HG22	55:FV:23:LYS:HG3	2.02	0.41
35:HA:844:G:H2'	35:HA:845:A:H5''	2.02	0.41
38:BE:111:MET:HE3	38:BE:125:ALA:HB1	2.02	0.41
35:BA:1397:C:HO2'	35:BA:1398:A:P	2.39	0.41
34:HB:14:HIS:O	34:HB:16:GLY:N	2.54	0.41
2:AC:77:VAL:O	2:AC:77:VAL:HG23	2.20	0.41
35:HA:982:U:H4'	35:HA:983:A:O5'	2.21	0.41
54:FU:10:GLU:N	54:FU:11:PRO:CD	2.83	0.41
3:AA:1020:A:C2	3:AA:1141:U:C2	3.09	0.41
54:FU:20:LYS:CE	54:FU:20:LYS:HA	2.51	0.41
50:HQ:21:ILE:HG23	50:HQ:46:VAL:HB	2.03	0.41
6:CF:37:MET:HE3	6:CF:151:LEU:HD23	2.03	0.41
37:DD:151:LYS:HA	37:DD:178:MET:HE1	2.02	0.41
3:CA:443:A:N6	5:CE:40:ARG:HD3	2.36	0.41
3:AA:2685:G:H1	3:AA:2724:U:H3	1.68	0.41
34:FB:222:GLU:OE1	34:FB:225:SER:HA	2.21	0.41
9:EI:100:ILE:O	9:EI:139:VAL:HA	2.20	0.41
27:A0:12:ARG:HD2	27:A0:16:ARG:NH2	2.36	0.41
6:CF:166:ARG:O	6:CF:170:ALA:N	2.52	0.41
35:DA:1332:A:C8	35:DA:1333:A:C8	3.08	0.41
35:BA:958:A:C6	35:BA:959:A:N1	2.88	0.41
3:CA:272:A:HO2'	3:CA:273:G:H8	1.64	0.41
6:EF:82:TYR:CD2	6:EF:83:PRO:HD2	2.56	0.41
13:GM:72:PRO:HA	13:GM:92:TRP:CZ3	2.55	0.41
9:EI:123:ALA:HA	9:EI:126:ARG:HH12	1.85	0.41
16:EP:24:THR:HA	16:EP:45:VAL:HA	2.01	0.41
2:GC:93:VAL:CG1	2:GC:94:LEU:N	2.84	0.41
11:AK:13:ASN:O	11:AK:14:SER:CB	2.67	0.41
3:GA:2307:G:C2	3:GA:2311:A:H2'	2.55	0.41
35:HA:697:U:C2'	35:HA:698:G:H5'	2.51	0.41
41:DH:41:LYS:CD	41:DH:47:GLU:O	2.68	0.41
3:CA:415:A:C2	3:CA:2409:G:C2	3.09	0.41
35:DA:960:U:C4	35:DA:1225:A:C8	3.08	0.41
8:EH:31:VAL:HB	8:EH:32:PRO:HD3	2.02	0.41
16:EP:13:LYS:HZ2	16:EP:80:VAL:HG12	1.84	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:EP:80:VAL:CG1	16:EP:81:ASP:N	2.82	0.41
35:HA:327:A:O2'	35:HA:328:C:O4'	2.30	0.41
13:CM:1:MET:O	13:CM:2:LEU:HB2	2.21	0.41
37:BD:174:ASP:O	37:BD:175:ALA:HB2	2.20	0.41
37:HD:91:LEU:HA	37:HD:94:LEU:HD12	2.02	0.41
35:FA:175:C:H2'	35:FA:176:C:C6	2.56	0.41
23:EW:46:ALA:O	23:EW:50:VAL:HG22	2.20	0.41
3:CA:956:G:O6	13:CM:14:LYS:NZ	2.52	0.41
20:GT:55:VAL:HG22	20:GT:87:LEU:CD2	2.51	0.41
35:HA:994:A:N1	35:HA:1047:G:H4'	2.35	0.41
39:DF:18:VAL:HG21	39:DF:58:HIS:CD2	2.55	0.41
46:FM:54:ASP:HA	46:FM:57:ARG:CB	2.50	0.41
7:GG:176:LYS:H	55:HV:673:LEU:HD23	1.85	0.41
23:EW:65:LYS:HG3	23:EW:84:GLU:HB3	2.01	0.41
3:GA:2145:C:C6	3:GA:2148:G:C8	3.08	0.41
22:GV:60:VAL:O	22:GV:61:LEU:HD13	2.20	0.41
3:GA:1419:A:C5	3:GA:1421:G:C4	3.08	0.41
4:ED:193:VAL:HG21	4:ED:201:LEU:HD21	2.02	0.41
34:FB:116:LEU:HB3	34:FB:140:LEU:HD21	2.02	0.41
34:DB:207:ARG:HG3	34:DB:208:ALA:N	2.36	0.41
35:BA:270:A:H2'	35:BA:271:C:C6	2.56	0.41
11:GK:5:GLN:O	11:GK:6:THR:HB	2.20	0.41
3:CA:323:C:C4	3:CA:333:G:C8	3.08	0.41
3:GA:1448:G:HO2'	3:GA:1528:A:H2	1.65	0.41
55:BV:519:VAL:N	55:BV:580:PHE:O	2.53	0.41
35:FA:736:C:H2'	35:FA:737:C:C6	2.55	0.41
3:CA:1410:G:N7	60:CA:3609:HOH:O	2.37	0.41
3:GA:2308:G:C8	6:GF:76:PHE:HE1	2.39	0.41
3:CA:1972:G:H2'	3:CA:1973:G:H8	1.85	0.41
35:BA:1163:A:C2	35:BA:1174:G:C2	3.08	0.41
35:BA:441:A:H5''	35:BA:442:G:OP2	2.20	0.41
5:EE:36:ALA:O	5:EE:39:ALA:HB3	2.20	0.41
3:EA:2705:A:H2'	3:EA:2706:A:O4'	2.21	0.41
35:BA:363:A:OP1	45:BL:58:THR:HG21	2.20	0.41
3:EA:1220:G:H2'	3:EA:1221:C:O4'	2.20	0.41
3:EA:1316:U:H2'	3:EA:1317:G:H8	1.86	0.41
18:GR:64:VAL:O	18:GR:65:ALA:HB3	2.21	0.41
41:DH:24:ALA:HA	41:DH:63:LEU:CD2	2.50	0.41
2:AC:184:GLU:O	2:AC:185:ALA:HB3	2.20	0.41
35:BA:1372:U:C4	35:BA:1373:G:C4	3.09	0.41
35:HA:412:A:H2	35:HA:413:G:N7	2.19	0.41
44:FK:110:ILE:HB	54:FU:6:VAL:CG2	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:1579:A:H2'	3:AA:1580:A:C8	2.56	0.41
32:A5:142:THR:OG1	32:A5:143:MET:N	2.52	0.41
35:DA:990:C:N4	35:DA:991:U:O4	2.54	0.41
35:HA:1430:A:C2	35:HA:1471:U:C2	3.08	0.41
45:FL:65:SER:OG	45:FL:97:THR:HG23	2.21	0.41
55:HV:350:LEU:HD12	55:HV:351:ASN:N	2.36	0.41
3:CA:1641:A:C8	3:CA:1642:G:C8	3.09	0.41
37:FD:106:GLY:HA3	37:FD:162:ALA:CB	2.50	0.41
37:FD:106:GLY:HA3	37:FD:162:ALA:HB1	2.02	0.41
14:GN:38:LEU:HB3	14:GN:39:PRO:HD3	2.03	0.41
3:EA:2019:A:H4'	17:EQ:33:VAL:HG21	2.01	0.41
1:CB:37:C:C5	1:CB:38:C:C4	3.08	0.41
35:HA:858:G:O2'	35:HA:859:G:H5'	2.20	0.41
45:BL:40:THR:OG1	45:BL:41:THR:N	2.51	0.41
3:GA:1965:C:C4	3:GA:1966:A:C5	3.08	0.41
10:AJ:88:THR:HG22	10:AJ:91:GLU:CG	2.49	0.41
12:CL:57:LEU:C	12:CL:59:ARG:H	2.24	0.41
2:GC:265:PHE:CD1	2:GC:265:PHE:N	2.89	0.41
3:CA:2199:A:H2'	3:CA:2199:A:N3	2.36	0.41
36:BC:167:TRP:CE3	36:BC:167:TRP:O	2.73	0.41
48:FO:17:ARG:CZ	48:FO:17:ARG:HB2	2.50	0.41
49:FP:2:VAL:HG22	49:FP:65:ALA:HA	2.03	0.41
3:AA:75:G:H4'	25:AY:48:ARG:NH2	2.35	0.41
35:HA:1423:G:C6	35:HA:1424:U:C4	3.09	0.41
32:E5:107:GLU:O	32:E5:108:VAL:HB	2.21	0.41
37:HD:13:ARG:HD2	37:HD:38:PRO:HA	2.02	0.41
35:HA:815:A:H4'	35:HA:817:C:C4	2.56	0.41
3:GA:2332:C:C5'	3:GA:2336:A:N6	2.84	0.41
37:DD:26:ARG:HD3	37:DD:31:LYS:HE2	2.02	0.41
3:GA:821:A:C6	3:GA:946:C:C2	3.08	0.41
35:DA:411:A:C5	35:DA:429:U:C5	3.09	0.41
32:A5:129:LEU:C	32:A5:131:THR:N	2.73	0.41
10:CJ:32:LEU:O	10:CJ:36:LEU:HB2	2.21	0.41
3:EA:272:A:O2'	3:EA:273:G:P	2.79	0.41
17:GQ:91:ARG:HB3	17:GQ:94:LEU:H	1.85	0.41
35:DA:745:G:H1'	35:DA:836:G:O2'	2.21	0.41
1:EB:13:G:H1	1:EB:69:G:HO2'	1.67	0.41
3:GA:1315:C:C2	3:GA:1316:U:C5	3.08	0.41
35:HA:664:G:P	51:HR:53:ARG:HE	2.42	0.41
35:HA:1005:A:OP2	35:HA:1024:G:N2	2.53	0.41
3:GA:864:G:H2'	3:GA:865:C:C6	2.55	0.41
3:GA:1178:C:C2	3:GA:1179:G:N7	2.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:GS:18:ARG:CG	19:GS:76:VAL:CG2	2.98	0.41
3:GA:2135:A:H62	3:GA:2156:G:C1'	2.34	0.41
3:EA:517:C:O2'	19:ES:18:ARG:NH2	2.53	0.41
4:ED:120:GLY:HA2	4:ED:162:ALA:HA	2.02	0.41
3:GA:126:A:O5'	29:G2:19:ARG:HG3	2.20	0.41
39:BF:97:THR:O	39:BF:98:GLU:CB	2.69	0.41
3:GA:2741:A:O3'	31:G4:36:ARG:NH1	2.54	0.41
43:BJ:57:VAL:CG1	43:BJ:58:ASN:H	2.33	0.41
45:BL:33:VAL:HG21	55:BV:429:GLU:CG	2.51	0.41
55:HV:394:GLY:O	55:HV:408:ARG:HG3	2.21	0.41
3:AA:1392:A:C6	3:AA:1393:A:C6	3.09	0.41
3:AA:1338:G:O2'	3:AA:1393:A:N1	2.44	0.41
35:FA:354:G:C2	35:FA:355:C:C5	3.08	0.41
16:AP:58:PHE:HD1	16:AP:75:THR:HG22	1.83	0.41
28:E1:32:LYS:HA	28:E1:51:ALA:HB3	2.02	0.41
32:A5:132:TYR:HE1	33:A6:19:VAL:HG13	1.85	0.41
6:AF:151:LEU:CD1	6:AF:153:ILE:HG23	2.51	0.41
35:BA:557:G:C6	35:BA:558:G:C6	3.08	0.41
35:FA:111:G:C6	35:FA:330:C:N4	2.88	0.41
9:EI:77:VAL:C	9:EI:79:LEU:H	2.23	0.41
35:HA:1113:C:H4'	36:HC:14:ILE:HG21	2.03	0.41
35:FA:212:G:H2'	35:FA:213:G:H8	1.85	0.41
35:FA:299:G:C6	35:FA:300:A:C6	3.08	0.41
5:EE:187:VAL:HG12	5:EE:188:MET:N	2.35	0.41
35:DA:181:A:N6	35:DA:195:A:C8	2.88	0.41
18:ER:68:ARG:HD3	18:ER:92:TRP:CZ2	2.55	0.41
3:AA:138:U:H5'	3:AA:139:U:C5'	2.51	0.41
3:AA:528:A:H2	3:AA:2043:C:C5'	2.34	0.41
37:DD:38:PRO:HD2	37:DD:42:GLY:CA	2.50	0.41
3:CA:2820:A:OP1	14:CN:2:ARG:NH2	2.54	0.41
3:EA:2297:A:N1	3:EA:2321:U:C5	2.88	0.41
35:HA:1298:U:H4'	35:HA:1299:A:H5'	2.03	0.41
4:GD:121:THR:O	4:GD:122:VAL:CB	2.69	0.41
35:DA:1227:A:OP2	46:DM:110:LYS:HE2	2.20	0.41
3:AA:749:A:C5	3:AA:1618:A:C2	3.09	0.41
16:EP:31:VAL:CG2	16:EP:31:VAL:O	2.68	0.41
35:FA:712:A:H2'	35:FA:713:G:O4'	2.20	0.41
38:DE:101:GLU:OE1	38:DE:122:ASN:HB3	2.19	0.41
3:AA:1817:G:C2'	3:AA:1818:U:H5'	2.51	0.41
19:AS:63:GLY:O	19:AS:64:ALA:HB3	2.21	0.41
41:HH:77:ARG:HD3	41:HH:78:VAL:N	2.35	0.41
35:FA:1113:C:H4'	36:FC:14:ILE:HG21	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:HN:27:LEU:O	47:HN:31:ILE:HD13	2.20	0.41
9:GI:3:LYS:HG3	9:GI:4:VAL:N	2.35	0.41
14:AN:51:LEU:HD21	14:AN:70:THR:CG2	2.51	0.41
10:CJ:105:VAL:HG11	10:CJ:122:LEU:CD2	2.51	0.41
42:HI:17:ALA:CB	42:HI:79:ILE:HG13	2.50	0.41
3:AA:2180:U:N3	3:AA:2181:U:C5	2.89	0.41
53:DT:48:GLN:HG2	53:DT:83:ILE:HD11	2.02	0.41
32:E5:125:ARG:NH1	32:E5:125:ARG:HA	2.35	0.41
35:BA:921:U:H2'	35:BA:922:G:O4'	2.21	0.41
55:DV:342:VAL:HG13	55:DV:378:ARG:CD	2.51	0.41
52:FS:49:ILE:HD11	52:FS:62:VAL:CG2	2.50	0.41
52:HS:63:THR:CG2	52:HS:64:ASP:N	2.83	0.41
37:HD:110:THR:H	37:HD:113:GLU:HB3	1.86	0.41
3:AA:1096:A:N6	3:AA:1097:U:C4	2.89	0.41
35:FA:57:G:C5	35:FA:58:C:C4	3.08	0.41
3:EA:1714:U:H5''	3:EA:1715:G:H5''	2.02	0.41
10:EJ:16:TYR:HB3	10:EJ:140:LEU:HD12	2.02	0.41
35:BA:383:A:C5	35:BA:384:G:H1'	2.56	0.41
35:FA:911:U:H2'	35:FA:912:C:C6	2.55	0.41
55:FV:155:VAL:HG11	55:FV:168:PRO:HG3	2.02	0.41
3:AA:179:C:C2	3:AA:180:G:C8	3.08	0.41
35:HA:1435:G:H2'	35:HA:1436:U:C6	2.55	0.41
41:DH:126:ILE:HD12	41:DH:126:ILE:N	2.36	0.41
35:BA:1348:U:H4'	42:BI:122:ARG:HG3	2.03	0.41
43:HJ:15:HIS:CG	43:HJ:16:ARG:N	2.88	0.41
10:EJ:114:LEU:O	10:EJ:118:MET:HG3	2.21	0.41
2:GC:140:VAL:HG21	2:GC:163:ILE:HG13	2.03	0.41
3:CA:1607:C:H4'	3:CA:1608:A:O5'	2.20	0.41
55:DV:298:ILE:HG21	55:DV:303:LYS:HZ3	1.86	0.41
3:CA:324:A:N6	3:CA:338:G:O2'	2.44	0.41
3:EA:2602:A:H4'	3:EA:2603:G:OP2	2.19	0.41
3:CA:1707:G:C6	3:CA:1708:C:N3	2.88	0.41
55:BV:414:PRO:HA	55:BV:461:MET:SD	2.61	0.41
35:DA:1103:C:C4	35:DA:1104:G:N7	2.88	0.41
12:AL:29:LYS:HG2	12:AL:30:THR:N	2.36	0.41
42:BI:36:GLU:HA	42:BI:40:GLY:HA3	2.02	0.41
16:AP:88:ARG:HH12	16:AP:113:LEU:HA	1.86	0.41
53:HT:22:ALA:O	53:HT:26:SER:N	2.51	0.41
2:AC:250:GLN:NE2	3:AA:1843:C:H5'	2.36	0.41
36:FC:56:VAL:HG12	36:FC:57:ILE:N	2.36	0.41
54:HU:25:LYS:HG2	54:HU:26:ALA:H	1.86	0.41
3:GA:2737:G:C6	3:GA:2738:A:C6	3.08	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:64:VAL:HG13	10:AJ:65:THR:N	2.35	0.41
38:BE:156:LYS:HA	38:BE:159:LYS:NZ	2.35	0.41
35:HA:1233:G:H21	35:HA:1364:U:H6	1.69	0.41
55:FV:8:ALA:O	55:FV:288:SER:OG	2.32	0.41
3:CA:2675:A:C6	3:CA:2676:C:C4	3.08	0.41
35:HA:671:G:C2	35:HA:736:C:C2	3.09	0.41
3:AA:1403:A:C2	3:AA:1404:C:C2	3.09	0.41
3:AA:307:G:N2	3:AA:310:A:C8	2.89	0.41
49:FP:39:PHE:CG	49:FP:74:LEU:HD11	2.55	0.41
1:GB:89:U:H3'	1:GB:90:C:C5'	2.49	0.41
33:A6:7:ILE:HA	33:A6:10:ALA:HB3	2.02	0.41
4:CD:29:VAL:HB	4:CD:98:VAL:HG22	2.03	0.41
37:FD:81:ARG:NH2	37:FD:82:LEU:HD21	2.36	0.41
37:HD:54:GLN:HG2	37:HD:203:LEU:HB2	2.02	0.41
25:AY:2:LYS:HD2	25:AY:2:LYS:N	2.36	0.41
3:AA:2576:G:H3'	3:AA:2576:G:N3	2.35	0.41
4:CD:86:GLU:N	4:CD:86:GLU:CD	2.72	0.41
49:HP:78:VAL:HG12	49:HP:78:VAL:O	2.21	0.41
3:CA:2354:C:H4'	23:CW:31:LEU:HD22	2.01	0.41
36:BC:123:GLN:HB3	36:BC:128:VAL:CG1	2.51	0.41
4:AD:88:GLU:O	4:AD:89:GLU:HG3	2.21	0.41
24:GX:69:GLU:HA	24:GX:72:ALA:HB3	2.03	0.41
32:A5:3:LEU:HD12	32:A5:5:LEU:N	2.35	0.41
17:CQ:91:ARG:NE	17:CQ:93:ILE:CG2	2.82	0.41
3:GA:574:A:H4'	3:GA:575:A:C5'	2.51	0.41
10:AJ:43:GLU:O	10:AJ:44:TYR:C	2.58	0.41
3:AA:1069:A:C2'	3:AA:1070:A:OP2	2.68	0.41
32:C5:31:ARG:HB2	32:C5:108:VAL:HG13	2.01	0.41
3:CA:1107:G:H5''	32:C5:58:THR:HG23	2.01	0.41
35:FA:362:G:OP1	45:FL:58:THR:OG1	2.39	0.41
3:EA:1670:C:C5	3:EA:1671:U:C4	3.09	0.41
10:GJ:45:THR:CG2	10:GJ:50:THR:HG21	2.51	0.41
35:HA:1034:G:N2	35:HA:1035:A:C5	2.88	0.41
32:E5:94:ARG:O	32:E5:95:LEU:C	2.59	0.41
36:BC:64:ILE:HG22	36:BC:97:VAL:HG23	2.03	0.41
54:BU:34:ARG:NE	54:BU:35:ARG:HG3	2.36	0.41
35:FA:1127:G:H1'	35:FA:1280:A:C6	2.55	0.41
3:EA:856:G:C2	3:EA:857:G:C6	3.09	0.41
3:EA:923:G:O4'	23:EW:25:PHE:CE1	2.74	0.41
3:CA:2194:U:O2	40:HG:52:GLN:NE2	2.53	0.41
3:CA:2138:G:N2	3:CA:2153:C:C5	2.88	0.41
6:AF:107:VAL:HG13	6:AF:110:ILE:HD12	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:112:ASP:N	6:AF:112:ASP:OD1	2.54	0.41
7:CG:83:THR:HA	7:CG:84:LYS:NZ	2.36	0.41
55:FV:93:VAL:HG22	55:FV:94:ASP:H	1.85	0.41
28:C1:4:ILE:HD13	28:C1:5:ARG:H	1.85	0.41
35:BA:78:A:H62	35:BA:93:U:H4'	1.86	0.41
54:BU:20:LYS:HA	54:BU:20:LYS:CE	2.50	0.41
9:GI:85:ILE:HD11	9:GI:100:ILE:HG13	2.02	0.41
3:GA:2107:G:C6	3:GA:2182:U:H2'	2.56	0.41
54:FU:40:LYS:HA	54:FU:43:THR:CG2	2.51	0.41
54:DU:41:PRO:O	54:DU:44:GLU:N	2.54	0.41
34:HB:40:ILE:HG21	34:HB:201:GLY:HA2	2.03	0.41
4:GD:117:GLY:C	4:GD:118:PHE:CD2	2.94	0.41
3:GA:2303:G:C2'	3:GA:2304:G:H5'	2.50	0.41
6:GF:130:GLY:HA2	6:GF:152:ASP:HB3	2.01	0.41
3:CA:2682:A:C8	4:CD:11:MET:CG	3.03	0.41
4:AD:8:LYS:HB2	4:AD:201:LEU:HD22	2.03	0.41
42:HI:99:ARG:HB2	42:HI:104:VAL:HG21	2.02	0.41
50:HQ:12:VAL:HG13	50:HQ:21:ILE:HD11	2.02	0.41
24:CX:6:VAL:HG22	24:CX:7:THR:HG23	2.03	0.41
12:AL:77:ILE:HD13	12:AL:108:ALA:HB1	2.02	0.41
46:DM:4:ILE:HG22	46:DM:57:ARG:HB2	2.01	0.41
35:BA:1526:G:OP1	54:BU:39:GLU:HG3	2.21	0.41
5:EE:187:VAL:O	5:EE:188:MET:HB3	2.19	0.41
3:CA:579:G:C2	3:CA:1262:A:C4	3.08	0.41
51:BR:63:ARG:HD3	51:BR:70:TYR:CD2	2.55	0.41
3:EA:283:G:C2	3:EA:284:U:H1'	2.56	0.41
3:GA:1831:G:C4	3:GA:1975:G:N2	2.89	0.41
23:CW:59:PHE:CD1	23:CW:59:PHE:N	2.89	0.41
51:HR:73:ARG:O	51:HR:74:HIS:ND1	2.53	0.41
9:CI:107:GLU:HA	9:CI:110:GLN:HB3	2.01	0.41
3:GA:2685:G:OP1	11:GK:78:ARG:NH2	2.52	0.41
3:EA:2037:A:H2'	3:EA:2038:G:H8	1.84	0.41
3:EA:1548:A:H2'	3:EA:1549:A:H8	1.85	0.41
32:E5:51:TYR:C	32:E5:51:TYR:CD1	2.93	0.41
18:GR:68:ARG:HD3	18:GR:92:TRP:CZ2	2.56	0.41
35:FA:474:G:N2	35:FA:475:C:H1'	2.36	0.41
3:EA:1807:G:H2'	3:EA:1808:A:H5'	2.01	0.41
41:FH:64:LYS:CB	41:FH:71:VAL:HG21	2.51	0.41
3:GA:2204:G:H4'	2:GC:149:LYS:HG3	2.01	0.41
14:CN:103:ARG:CD	14:CN:110:MET:HE3	2.51	0.41
35:FA:425:G:C2	35:FA:426:U:C2	3.09	0.41
12:CL:74:THR:HG22	12:CL:107:PHE:HB2	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:277:G:C2'	3:CA:278:A:OP2	2.69	0.41
35:HA:1057:G:O3'	36:HC:197:GLY:HA3	2.20	0.41
45:HL:24:LEU:HG	45:HL:25:GLU:N	2.36	0.41
35:BA:561:U:O2'	35:BA:562:U:P	2.79	0.41
35:HA:1532:U:H2'	35:HA:1534:A:H5''	2.02	0.41
5:AE:134:LEU:CD2	5:AE:161:ALA:HB2	2.51	0.41
35:DA:729:A:C4	35:DA:730:G:C8	3.09	0.41
3:GA:2145:C:C5	3:GA:2147:A:H5'	2.55	0.41
3:CA:478:A:C6	3:CA:480:A:C6	3.09	0.41
2:GC:221:GLY:O	2:GC:224:MET:HG3	2.20	0.41
5:EE:147:LEU:HB3	5:EE:186:VAL:HG23	2.03	0.41
3:AA:347:A:C2	3:AA:348:A:C4	3.09	0.41
2:EC:265:PHE:N	2:EC:265:PHE:HD1	2.19	0.41
50:FQ:7:THR:OG1	50:FQ:60:GLU:HG2	2.19	0.41
3:AA:1747:U:H2'	3:AA:1748:C:H6	1.85	0.41
50:BQ:61:ILE:HG22	50:BQ:75:LEU:HA	2.01	0.41
21:EU:60:LYS:HG3	21:EU:61:GLU:H	1.84	0.41
35:BA:1336:C:H4'	35:BA:1337:G:H5'	2.03	0.41
45:DL:3:THR:HG22	45:DL:5:ASN:H	1.85	0.41
14:AN:87:PHE:O	14:AN:89:SER:N	2.54	0.41
3:AA:2660:A:H5'	55:BV:675:LYS:HG3	2.02	0.41
14:CN:59:SER:OG	14:CN:60:VAL:N	2.53	0.41
12:CL:87:GLY:O	12:CL:89:VAL:N	2.53	0.41
7:EG:79:THR:OG1	7:EG:80:GLU:N	2.53	0.41
3:CA:11:C:H2'	3:CA:12:U:H5'	2.03	0.41
55:HV:602:LYS:O	55:HV:603:GLU:HB3	2.21	0.41
14:CN:79:LEU:O	14:CN:80:PHE:HB2	2.21	0.41
28:C1:6:GLU:HG2	28:C1:7:LYS:N	2.36	0.41
40:BG:79:ARG:HA	40:BG:83:SER:O	2.20	0.41
55:DV:10:TYR:CD1	55:DV:83:ARG:HB3	2.56	0.41
3:CA:1092:C:H2'	3:CA:1093:G:H5'	2.02	0.41
35:FA:1316:G:N2	35:FA:1318:A:H3'	2.35	0.41
3:EA:419:U:H2'	3:EA:420:C:C6	2.56	0.41
3:AA:1674:G:N2	3:AA:1677:A:N1	2.69	0.41
55:HV:666:TYR:CE2	55:HV:670:LEU:HD22	2.55	0.41
3:AA:485:C:C2	3:AA:496:G:N2	2.88	0.41
3:AA:58:G:N2	3:AA:70:G:C4	2.89	0.41
12:GL:56:PRO:O	12:GL:60:ARG:HG3	2.20	0.41
44:HK:50:SER:CB	44:HK:65:VAL:HG11	2.51	0.41
40:BG:146:GLU:H	40:BG:149:LYS:HE2	1.86	0.41
3:EA:1265:A:P	60:EA:3742:HOH:O	2.78	0.41
10:EJ:24:THR:HG23	10:EJ:27:ARG:HB2	2.01	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:EB:11:C:O2'	1:EB:15:A:N6	2.53	0.41
3:GA:1435:G:N2	3:GA:1558:C:N4	2.69	0.41
35:FA:701:U:H5''	35:FA:703:G:O4'	2.21	0.41
16:GP:30:TRP:CD2	16:GP:39:LEU:CD1	3.03	0.41
2:EC:167:ASP:OD1	2:EC:167:ASP:N	2.47	0.41
45:HL:102:LEU:N	45:HL:102:LEU:CD1	2.83	0.41
9:EI:104:GLN:HA	9:EI:107:GLU:HB2	2.02	0.41
3:GA:167:A:C5	3:GA:168:G:C8	3.08	0.41
3:AA:2287:A:C8	3:AA:2289:G:C8	3.08	0.41
56:HW:1:KBE:HB	56:HW:1:KBE:NZ	2.36	0.41
3:AA:1722:A:C2	3:AA:1739:A:N3	2.89	0.41
32:C5:67:THR:HB	32:C5:68:PRO:HD3	2.03	0.41
47:FN:33:ASP:O	47:FN:35:ASN:N	2.54	0.41
16:AP:50:ARG:CD	16:AP:56:SER:HB3	2.51	0.41
3:EA:999:U:C5	3:EA:1154:G:N7	2.89	0.41
3:GA:2531:A:H5'	7:GG:156:TYR:CE1	2.56	0.41
35:HA:673:A:C2	35:HA:674:G:C2	3.09	0.41
39:HF:86:ARG:O	39:HF:86:ARG:HD3	2.21	0.41
35:FA:1125:U:C5	35:FA:1127:G:C5	3.08	0.41
3:AA:2478:A:H5'	31:A4:32:LYS:CD	2.51	0.41
35:HA:1468:A:C2'	35:HA:1469:C:C5'	2.98	0.41
3:CA:160:A:C6	3:CA:161:A:C6	3.09	0.41
9:AI:100:ILE:CD1	9:AI:137:LEU:HD12	2.50	0.41
9:AI:100:ILE:CG2	9:AI:101:SER:N	2.79	0.41
39:DF:97:THR:HG22	39:DF:98:GLU:H	1.85	0.41
3:GA:915:C:C4	3:GA:916:G:N7	2.89	0.41
11:AK:71:ARG:O	11:AK:72:PRO:O	2.39	0.41
3:GA:1171:G:C2	3:GA:1178:C:N3	2.89	0.41
14:AN:99:LYS:O	27:A0:42:ILE:HD12	2.20	0.41
35:HA:1332:A:H3'	35:HA:1333:A:H8	1.86	0.41
3:CA:884:U:O4	3:CA:892:A:C2	2.74	0.41
40:HG:115:SER:HB3	40:HG:118:LEU:HD12	2.03	0.41
3:CA:789:A:OP1	3:CA:790:U:C5	2.73	0.41
3:GA:1439:A:C8	3:GA:1440:U:C6	3.09	0.41
34:HB:82:ALA:HB1	34:HB:217:ALA:CB	2.50	0.41
3:GA:2526:G:C2'	31:G4:1:MET:H1	2.34	0.41
45:BL:33:VAL:O	45:BL:34:CYS:HB3	2.19	0.41
3:EA:1131:G:N2	3:EA:2024:G:H21	2.19	0.41
46:DM:114:LYS:HB2	46:DM:115:PRO:CD	2.51	0.41
60:HA:1772:HOH:O	47:HN:61:ARG:HD3	2.21	0.41
3:GA:1035:U:H2'	3:GA:1036:G:C8	2.55	0.41
55:DV:230:SER:HB3	55:DV:233:LEU:HB2	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:HB:90:PHE:CE1	34:HB:149:GLY:N	2.88	0.41
3:GA:1813:G:H1'	2:GC:49:THR:CG2	2.48	0.41
40:HG:15:ASP:HB3	40:HG:20:SER:H	1.86	0.41
38:DE:111:MET:CE	38:DE:125:ALA:HB1	2.51	0.41
3:GA:2588:G:C5	3:GA:2589:A:N7	2.87	0.41
34:FB:219:THR:O	34:FB:221:ARG:NH2	2.54	0.41
1:GB:30:C:H1'	1:GB:58:A:C2	2.56	0.41
3:EA:316:C:H2'	3:EA:317:G:O5'	2.21	0.41
11:CK:118:LEU:O	11:CK:119:ALA:HB3	2.21	0.41
10:CJ:140:LEU:HD22	10:CJ:141:ASP:O	2.21	0.41
11:AK:15:GLY:O	11:AK:46:ALA:HA	2.20	0.41
6:CF:107:VAL:CG1	6:CF:116:LEU:HD21	2.51	0.41
35:HA:16:A:C2'	35:HA:17:U:H5'	2.50	0.41
19:AS:96:ILE:O	19:AS:96:ILE:HG13	2.20	0.41
35:FA:204:G:H1'	35:FA:465:A:C2	2.55	0.41
35:FA:1305:G:H22	35:FA:1331:G:C2'	2.34	0.41
3:CA:2093:G:C2'	3:CA:2094:A:H5'	2.50	0.41
35:BA:171:A:H2'	35:BA:172:A:C8	2.56	0.41
32:A5:51:TYR:CD1	32:A5:52:MET:HG2	2.55	0.41
45:DL:94:ARG:HB2	45:DL:95:TYR:CE1	2.56	0.41
3:CA:2564:A:C6	3:CA:2565:A:N1	2.88	0.41
3:EA:2287:A:N3	3:EA:2287:A:H2'	2.36	0.41
39:FF:64:VAL:CG1	39:FF:65:GLU:N	2.84	0.41
23:GW:50:VAL:O	23:GW:52:CYS:N	2.53	0.41
13:EM:35:ALA:HA	13:EM:128:THR:HG22	2.01	0.41
5:CE:181:ILE:HG23	12:CL:2:ARG:HD3	2.03	0.41
9:AI:19:PRO:HG2	9:AI:24:GLY:H	1.86	0.41
3:AA:1814:G:C6	3:AA:1815:A:C6	3.08	0.41
41:BH:112:THR:HG22	41:BH:113:ASP:N	2.36	0.41
5:GE:128:ALA:C	5:GE:156:ASN:HB3	2.41	0.41
3:CA:340:A:H2'	3:CA:341:C:H5'	2.02	0.41
55:HV:4:THR:CB	55:HV:7:ILE:HD11	2.51	0.41
42:HI:9:THR:HG22	42:HI:10:GLY:N	2.35	0.41
3:CA:669:G:N3	3:CA:669:G:C2'	2.84	0.41
34:FB:103:TRP:CZ2	34:FB:107:ARG:HD3	2.56	0.41
45:HL:33:VAL:HG21	55:HV:429:GLU:CG	2.51	0.41
35:FA:1346:A:N1	35:FA:1374:A:H5''	2.36	0.41
35:DA:1478:U:H2'	35:DA:1479:C:H6	1.86	0.41
30:G3:25:HIS:CE1	30:G3:47:ALA:HB3	2.55	0.41
5:CE:43:THR:OG1	5:CE:43:THR:O	2.37	0.41
3:GA:2138:G:H2'	3:GA:2153:C:N3	2.34	0.41
3:CA:477:A:C6	3:CA:478:A:C6	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BB:187:ASP:HB2	34:BB:203:ASP:HB3	2.02	0.41
35:FA:1105:A:C2	35:FA:1106:G:C8	3.09	0.41
52:FS:13:LEU:HD23	52:FS:13:LEU:HA	1.92	0.41
3:EA:2354:C:H4'	23:EW:31:LEU:HD22	2.03	0.41
41:DH:24:ALA:HA	41:DH:63:LEU:HD23	2.03	0.41
10:AJ:88:THR:HG23	10:AJ:91:GLU:H	1.86	0.41
41:DH:126:ILE:HG22	41:DH:127:CYS:SG	2.61	0.41
10:AJ:65:THR:HG22	10:AJ:68:LYS:NZ	2.36	0.41
3:EA:914:G:H5'	3:EA:915:C:OP2	2.20	0.41
3:CA:1414:C:O2	3:CA:1588:G:N2	2.44	0.41
3:EA:1494:A:C2	3:EA:1495:A:C4	3.09	0.41
12:EL:23:ILE:HD13	18:ER:84:ARG:HG2	2.02	0.41
43:HJ:19:ASP:HA	43:HJ:22:THR:HG22	2.02	0.41
9:AI:52:LEU:HB3	9:AI:53:PRO:HD2	2.03	0.41
27:A0:33:SER:OG	27:A0:35:GLU:HG3	2.21	0.41
35:HA:188:C:H2'	35:HA:189:A:O4'	2.20	0.41
35:HA:1458:G:H5'	53:HT:27:MET:HB3	2.03	0.41
3:GA:2310:C:N3	6:GF:75:GLY:HA3	2.36	0.41
40:BG:46:ALA:HB3	40:BG:120:LEU:HD13	2.03	0.41
19:AS:69:LEU:HG	19:AS:107:VAL:HG22	2.03	0.41
13:EM:50:ARG:HD3	13:EM:65:ILE:HD11	2.03	0.41
6:CF:124:ARG:O	6:CF:126:ASN:ND2	2.54	0.41
3:AA:1026:G:H2'	3:AA:1027:A:C8	2.55	0.41
14:AN:24:MET:CE	14:AN:36:THR:HG21	2.51	0.41
3:GA:1297:C:O2'	3:GA:1302:A:N1	2.51	0.41
11:GK:64:ARG:O	11:GK:82:ASN:HA	2.21	0.41
3:GA:1956:U:C4	3:GA:1957:C:C5	3.09	0.41
34:FB:19:THR:O	34:FB:38:HIS:CD2	2.74	0.41
41:BH:83:LEU:CD1	41:BH:85:ILE:HD11	2.51	0.41
46:BM:83:LEU:HD21	52:BS:65:GLU:HB3	2.03	0.41
48:FO:45:GLU:O	48:FO:47:LYS:N	2.54	0.41
3:CA:1479:G:N1	3:CA:1513:U:C2	2.89	0.41
55:BV:374:ILE:HG22	55:BV:376:GLU:H	1.86	0.41
3:GA:327:G:H2'	3:GA:328:U:O4'	2.20	0.41
35:BA:213:G:C8	35:BA:214:C:C6	3.08	0.41
34:BB:117:GLU:HA	34:BB:120:SER:HB2	2.02	0.41
35:BA:1231:G:C6	35:BA:1232:U:C4	3.08	0.41
3:CA:1949:G:C6	3:CA:1950:G:C6	3.09	0.41
35:BA:232:G:H1'	35:BA:262:A:N1	2.36	0.41
9:AI:20:SER:HB3	9:AI:21:PRO:HD3	2.02	0.41
32:E5:71:CYS:HA	32:E5:117:LEU:HD13	2.00	0.41
17:CQ:91:ARG:HD2	18:CR:11:GLN:H	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:2425:A:C5'	3:EA:2427:C:O4'	2.69	0.41
10:EJ:4:PHE:HB3	10:EJ:44:TYR:CE2	2.56	0.41
17:EQ:63:ARG:NH1	17:EQ:96:ASP:HA	2.35	0.41
32:C5:78:GLY:N	32:C5:79:PRO:HD2	2.36	0.41
35:HA:429:U:H1'	35:HA:430:A:H5''	2.02	0.41
3:CA:948:C:H1'	3:CA:984:A:O2'	2.20	0.41
3:CA:569:U:H1'	3:CA:947:A:O4'	2.20	0.41
10:AJ:4:PHE:HB3	10:AJ:44:TYR:CE2	2.55	0.41
35:BA:976:G:N2	35:BA:1362:A:H2'	2.35	0.41
3:AA:1069:A:N3	3:AA:1073:A:C6	2.88	0.41
32:C5:68:PRO:HA	32:C5:72:LEU:HD21	2.02	0.41
35:DA:1141:C:C2	35:DA:1142:G:C8	3.09	0.41
34:FB:88:GLN:CA	34:FB:88:GLN:HE21	2.34	0.41
35:HA:759:A:C2'	35:HA:760:G:H5'	2.51	0.41
37:HD:197:GLU:C	37:HD:199:LEU:N	2.72	0.41
32:C5:39:THR:HG22	32:C5:42:ARG:NH1	2.36	0.41
3:GA:1095:A:H62	55:HV:631:VAL:HG23	1.86	0.41
3:GA:1095:A:C2	55:HV:654:ILE:HD11	2.56	0.41
35:DA:1492:A:H4'	56:DW:1:KBE:HE	2.02	0.41
35:FA:195:A:H1'	35:FA:222:C:O2'	2.21	0.41
35:HA:1527:U:OP2	54:HU:39:GLU:CG	2.69	0.41
54:HU:39:GLU:CA	54:HU:41:PRO:HD2	2.51	0.41
3:CA:529:A:O3'	60:CA:3652:HOH:O	2.21	0.41
3:GA:411:G:OP1	60:GA:3554:HOH:O	2.21	0.41
4:CD:133:THR:HG23	4:CD:134:HIS:CD2	2.55	0.41
35:BA:460:A:C2	35:BA:462:G:C8	3.09	0.41
23:AW:60:ALA:CB	23:AW:81:ILE:CD1	2.98	0.41
12:GL:93:ASN:HB2	12:GL:96:LYS:HB3	2.03	0.41
3:GA:2211:A:HO2'	3:GA:2212:A:P	2.35	0.41
35:DA:1361:G:H2'	35:DA:1362:A:H8	1.86	0.41
3:AA:301:G:C6	3:AA:317:G:C6	3.09	0.41
3:AA:1789:A:H2'	3:AA:1790:C:O4'	2.20	0.41
3:GA:1171:G:N2	3:GA:1178:C:C2	2.89	0.41
35:HA:1251:A:H1'	35:HA:1370:G:H4'	2.02	0.41
35:HA:1251:A:H1'	35:HA:1370:G:C4'	2.51	0.41
35:BA:1299:A:O2'	35:BA:1300:G:H4'	2.21	0.41
35:FA:954:G:H2'	35:FA:955:U:C6	2.56	0.41
3:EA:1082:U:O2'	32:E5:41:LEU:HD13	2.21	0.41
35:FA:1169:A:C2	35:FA:1170:A:C4	3.08	0.41
3:GA:2354:C:O4'	23:GW:31:LEU:HD22	2.21	0.41
19:GS:18:ARG:C	19:GS:20:VAL:H	2.20	0.41
37:FD:58:LYS:CB	37:FD:200:ILE:HG13	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AA:1613:G:O6	3:AA:1617:C:H2'	2.21	0.41
44:BK:112:ASP:HB3	54:BU:20:LYS:HE3	2.03	0.41
34:BB:63:LYS:HE2	34:BB:224:ARG:HD3	2.02	0.41
7:GG:21:GLN:HG3	7:GG:21:GLN:O	2.20	0.41
47:HN:87:ALA:O	47:HN:92:GLU:HG3	2.21	0.41
3:CA:1181:U:H2'	3:CA:1182:G:C8	2.56	0.41
23:AW:19:ARG:HH21	23:AW:19:ARG:HG2	1.86	0.41
3:CA:856:G:H21	23:CW:19:ARG:NH2	2.19	0.41
37:FD:84:GLY:O	37:FD:86:THR:N	2.54	0.41
35:FA:1159:U:C4	35:FA:1182:G:C5	3.09	0.41
54:FU:39:GLU:CA	54:FU:41:PRO:HD2	2.50	0.41
11:CK:71:ARG:HB3	11:CK:72:PRO:HD2	2.02	0.41
37:FD:65:TYR:HE2	37:FD:94:LEU:HB3	1.86	0.41
26:GZ:18:LYS:O	26:GZ:20:LYS:N	2.53	0.41
3:GA:309:A:C5	3:GA:330:A:C6	3.08	0.41
11:EK:13:ASN:N	11:EK:13:ASN:OD1	2.45	0.41
35:HA:774:G:C6	35:HA:775:G:C4	3.09	0.41
3:CA:2642:G:H5'	10:CJ:80:HIS:CD2	2.56	0.41
6:EF:48:LEU:CD1	6:EF:147:ARG:HH21	2.34	0.41
3:GA:238:C:C4	3:GA:239:C:C5	3.08	0.41
3:GA:200:U:H5	3:GA:248:G:N3	2.19	0.41
40:HG:116:MET:SD	40:HG:119:ARG:HD2	2.61	0.41
9:EI:18:ASN:HB2	9:EI:37:PHE:CE2	2.56	0.41
3:AA:2661:G:H2'	3:AA:2662:A:O4'	2.20	0.41
2:CC:62:ARG:NH2	2:CC:84:PRO:HD3	2.36	0.41
54:DU:10:GLU:CG	54:DU:11:PRO:HD3	2.51	0.41
53:FT:5:LYS:CD	53:FT:7:ALA:H	2.33	0.41
9:EI:27:LEU:HD12	9:EI:28:GLY:N	2.36	0.41
3:GA:2218:G:C5	3:GA:2219:U:C5	3.08	0.41
3:GA:1232:G:C6	3:GA:1233:C:C4	3.09	0.41
5:CE:112:LEU:HD13	5:CE:186:VAL:HG11	2.03	0.41
35:HA:1402:C:C4	35:HA:1403:C:C2	3.09	0.41
35:HA:1096:C:H2'	35:HA:1097:C:H6	1.86	0.41
39:HF:49:TYR:CE2	51:HR:70:TYR:CE2	3.08	0.41
9:CI:71:LYS:HZ2	9:CI:71:LYS:HB3	1.86	0.41
39:HF:49:TYR:CE2	51:HR:70:TYR:HE2	2.38	0.41
19:GS:54:ALA:HB1	19:GS:107:VAL:CG1	2.50	0.41
3:GA:2896:C:H2'	3:GA:2897:U:H6	1.86	0.41
7:GG:23:ILE:H	7:GG:23:ILE:HD12	1.85	0.41
24:EX:70:LEU:HD13	24:EX:75:GLU:HB3	2.02	0.41
55:HV:611:VAL:HG13	55:HV:613:LEU:HD22	2.03	0.41
46:HM:33:ILE:HD13	46:HM:59:GLU:CG	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:2039:U:H2'	3:EA:2040:G:C8	2.56	0.41
3:CA:2661:G:H5'	55:DV:19:ILE:HG13	2.03	0.41
37:BD:103:TYR:HE1	37:BD:109:ALA:O	2.04	0.41
32:E5:51:TYR:CE1	32:E5:52:MET:HG2	2.56	0.41
3:CA:2277:G:H3'	3:CA:2278:A:H5''	2.03	0.41
10:CJ:73:VAL:HG23	10:CJ:74:TYR:H	1.86	0.41
41:FH:116:ALA:HA	41:FH:121:LEU:CD1	2.50	0.41
3:CA:1838:C:N4	3:CA:1899:A:O4'	2.54	0.41
3:AA:2869:G:C6	3:AA:2870:C:C4	3.09	0.41
37:DD:34:ILE:O	37:DD:35:GLU:HB3	2.20	0.41
2:CC:93:VAL:CG1	2:CC:94:LEU:N	2.83	0.41
35:HA:665:A:H2'	35:HA:732:C:O2	2.20	0.41
3:GA:949:G:C4	3:GA:969:G:N2	2.88	0.41
5:AE:109:LEU:O	5:AE:112:LEU:N	2.54	0.41
3:GA:2094:A:C2	3:GA:2196:C:C2	3.09	0.41
3:AA:2676:C:P	11:AK:31:ARG:HH12	2.44	0.41
3:EA:1174:U:C2'	3:EA:1176:U:H1'	2.50	0.41
50:HQ:8:LEU:CG	50:HQ:25:ILE:HD13	2.51	0.41
35:FA:1419:G:C6	35:FA:1482:G:C2	3.09	0.41
12:EL:77:ILE:HD12	12:EL:77:ILE:N	2.36	0.41
25:AY:12:GLU:O	25:AY:15:ASN:HB2	2.21	0.41
5:AE:178:VAL:HG23	5:AE:179:SER:N	2.36	0.41
36:DC:150:LYS:HG3	36:DC:201:TRP:HE3	1.86	0.41
3:GA:2452:C:C4	3:GA:2453:A:C6	3.09	0.41
7:EG:167:VAL:O	7:EG:168:VAL:HG22	2.20	0.41
35:FA:1001:C:H2'	35:FA:1002:G:C8	2.55	0.41
3:EA:2230:G:H2'	3:EA:2231:U:C6	2.56	0.41
3:CA:2896:C:H2'	3:CA:2897:U:H6	1.86	0.41
20:GT:59:ASN:O	20:GT:83:ALA:O	2.38	0.41
30:G3:28:LEU:HD22	30:G3:43:LEU:HB2	2.03	0.41
50:HQ:61:ILE:HG22	50:HQ:75:LEU:HA	2.02	0.41
34:BB:132:GLU:HG2	34:BB:132:GLU:O	2.21	0.41
36:HC:131:ARG:HA	36:HC:134:MET:HE2	2.03	0.41
35:HA:210:C:H4'	35:HA:211:G:C2	2.56	0.41
3:EA:266:G:C6	3:EA:267:C:C4	3.08	0.41
3:CA:2847:U:OP1	16:CP:95:LYS:HE3	2.21	0.41
7:GG:175:LYS:O	7:GG:176:LYS:CB	2.69	0.41
39:BF:15:SER:OG	39:BF:58:HIS:ND1	2.48	0.41
35:HA:250:A:H4'	35:HA:251:G:O5'	2.21	0.41
22:CV:80:HIS:CG	22:CV:83:LYS:HB2	2.56	0.41
3:CA:674:G:H1'	5:CE:69:ARG:HD2	2.03	0.41
36:FC:140:ASN:O	36:FC:144:LEU:HD23	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:796:C:H5'	44:HK:129:VAL:HG13	2.03	0.41
3:GA:48:G:N1	3:GA:177:G:OP2	2.51	0.41
8:AH:14:SER:HG	8:AH:17:ASP:CG	2.23	0.41
3:AA:2682:A:C8	4:AD:11:MET:CG	3.04	0.41
10:EJ:17:VAL:HG22	10:EJ:137:PRO:HB2	2.03	0.41
12:CL:110:VAL:O	12:CL:111:ILE:O	2.39	0.41
37:BD:19:LEU:HD23	37:BD:64:ILE:HG13	2.03	0.41
2:GC:183:VAL:HG12	2:GC:184:GLU:N	2.36	0.41
3:AA:1494:A:C6	3:AA:1495:A:C6	3.08	0.41
3:AA:1638:C:H5''	3:AA:2710:C:O2'	2.21	0.41
3:GA:1107:G:C5	3:GA:1108:U:C5	3.09	0.41
34:FB:112:ARG:NE	34:FB:116:LEU:HD21	2.36	0.41
3:GA:1474:U:C2'	3:GA:1475:G:H5'	2.51	0.41
47:FN:52:PRO:O	47:FN:53:ARG:HB2	2.21	0.41
35:DA:827:U:C4	35:DA:870:U:C2	3.09	0.41
35:HA:360:G:C6	35:HA:361:G:C6	3.08	0.41
3:EA:1866:A:N1	3:EA:1876:A:C8	2.89	0.41
2:CC:4:LYS:HD2	2:CC:4:LYS:N	2.36	0.41
35:HA:1412:C:OP1	45:HL:54:ARG:NH1	2.54	0.41
44:DK:21:ALA:CB	44:DK:82:LEU:CD1	2.98	0.41
3:AA:1094:U:N3	3:AA:1097:U:OP2	2.51	0.41
44:HK:84:VAL:HB	44:HK:110:ILE:HG12	2.03	0.41
3:GA:1667:G:OP1	11:GK:6:THR:HA	2.21	0.41
35:BA:780:A:C2	35:BA:803:G:C6	3.09	0.41
3:GA:1663:G:C2	3:GA:1998:A:C2	3.09	0.41
3:AA:1864:U:O3'	3:AA:2409:G:N2	2.54	0.41
3:EA:1265:A:OP1	60:EA:3742:HOH:O	2.21	0.41
3:GA:1956:U:C5	3:GA:1957:C:C5	3.09	0.41
3:GA:328:U:O2'	21:GU:68:ASN:OD1	2.30	0.41
42:DI:80:ARG:CZ	42:DI:103:PHE:CD1	3.04	0.41
42:BI:12:ARG:O	42:BI:13:LYS:C	2.59	0.41
3:AA:535:G:C6	3:AA:559:G:C6	3.09	0.41
4:CD:106:LYS:O	4:CD:107:VAL:HB	2.20	0.41
41:HH:37:ALA:HB1	41:HH:49:PHE:HB3	2.03	0.41
55:HV:317:PHE:HA	55:HV:341:GLY:HA3	2.02	0.41
3:AA:2201:G:C6	3:AA:2202:U:C4	3.08	0.41
12:EL:55:MET:HA	12:EL:56:PRO:HD3	1.94	0.41
55:DV:350:LEU:HD12	55:DV:356:ALA:O	2.20	0.41
34:BB:26:MET:HE3	34:BB:192:PRO:HG3	2.02	0.41
50:DQ:30:LYS:HB3	50:DQ:37:PHE:CZ	2.56	0.41
30:E3:49:VAL:HG23	30:E3:54:LEU:HD22	2.02	0.41
42:FI:97:GLU:HA	42:FI:100:LYS:HD3	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:259:G:N2	35:DA:260:G:H1'	2.36	0.41
50:DQ:45:HIS:CG	50:DQ:70:THR:HG22	2.56	0.41
3:AA:2601:C:H2'	3:AA:2603:G:C8	2.56	0.41
3:AA:2607:G:H2'	3:AA:2608:G:O4'	2.20	0.41
3:CA:646:U:H3'	3:CA:647:G:H5''	2.02	0.41
35:DA:174:A:H2'	35:DA:175:C:H5'	2.03	0.41
35:FA:927:G:H4'	35:FA:1503:A:N7	2.35	0.41
34:DB:69:VAL:N	34:DB:161:PHE:O	2.54	0.41
34:FB:138:ARG:HA	34:FB:141:GLU:HG2	2.03	0.41
16:GP:17:PRO:HD2	16:GP:83:ILE:HG13	2.03	0.41
39:DF:78:PHE:HA	39:DF:84:VAL:HG11	2.03	0.41
2:AC:115:ILE:HG22	2:AC:116:GLN:N	2.36	0.41
35:HA:867:G:H2'	35:HA:868:C:C6	2.56	0.41
3:AA:2537:U:C4	3:AA:2538:C:N4	2.89	0.41
35:HA:794:A:C6	35:HA:795:C:N4	2.89	0.41
3:CA:1023:U:OP2	3:CA:1025:G:O2'	2.38	0.41
3:GA:370:G:O2'	3:GA:424:G:OP1	2.36	0.41
31:C4:10:LEU:N	31:C4:10:LEU:HD23	2.36	0.41
55:FV:19:ILE:N	55:FV:19:ILE:HD13	2.36	0.41
3:AA:669:G:N3	3:AA:669:G:C2'	2.83	0.41
7:AG:10:VAL:HG22	7:AG:47:ASN:C	2.41	0.41
35:HA:944:G:H2'	35:HA:1338:G:O6	2.20	0.41
3:GA:156:A:H2'	3:GA:157:C:C6	2.56	0.41
16:AP:30:TRP:CE3	16:AP:39:LEU:HD12	2.56	0.41
5:AE:128:ALA:O	5:AE:130:LYS:N	2.53	0.41
5:EE:3:LEU:O	5:EE:11:ALA:HA	2.20	0.41
3:CA:1419:A:C5	3:CA:1421:G:C5	3.08	0.41
55:FV:526:GLU:O	55:FV:528:GLY:N	2.53	0.41
35:BA:1070:U:H2'	35:BA:1071:C:C6	2.56	0.41
7:AG:68:ARG:HH21	7:AG:72:ASN:ND2	2.18	0.41
2:EC:195:GLY:O	2:EC:197:ALA:N	2.53	0.41
45:DL:66:TYR:CE2	45:DL:68:GLY:HA2	2.56	0.41
10:AJ:35:ARG:HG2	10:AJ:40:HIS:HD2	1.85	0.41
41:FH:78:VAL:HG21	41:FH:128:TYR:CE1	2.56	0.41
35:HA:1264:U:C2	35:HA:1272:G:N2	2.89	0.41
23:CW:65:LYS:O	23:CW:81:ILE:HA	2.21	0.41
3:GA:561:G:HO2'	17:GQ:44:TYR:HH	1.67	0.41
9:CI:28:GLY:HA2	9:CI:32:VAL:CB	2.51	0.41
50:BQ:50:ASN:O	50:BQ:52:GLU:N	2.54	0.41
3:GA:58:G:C2	3:GA:59:U:C2	3.09	0.41
3:CA:2743:U:H2'	3:CA:2744:G:O4'	2.21	0.41
35:BA:1014:A:C2	52:BS:34:TRP:CE2	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:461:A:C2'	35:HA:462:G:H5'	2.51	0.41
35:HA:465:A:H2'	35:HA:466:A:C8	2.56	0.41
3:AA:848:C:H2'	3:AA:849:A:C8	2.56	0.41
48:DO:3:LEU:HD23	48:DO:8:THR:HG22	2.03	0.41
3:GA:139:U:O2'	20:GT:1:MET:HA	2.21	0.41
3:EA:336:C:N3	3:EA:337:C:C5	2.88	0.41
3:GA:2512:C:H4'	4:GD:127:PHE:CE2	2.56	0.41
9:CI:12:VAL:CG2	9:CI:54:ILE:HB	2.50	0.41
35:FA:237:G:H5'	50:FQ:27:ARG:NH2	2.36	0.41
3:AA:126:A:C6	3:AA:127:A:N1	2.88	0.41
3:EA:2094:A:C2	3:EA:2196:C:C2	3.09	0.41
9:GI:91:LYS:HB2	9:GI:95:ASP:HB3	2.02	0.41
3:AA:2618:G:C6	3:AA:2619:C:C4	3.09	0.41
3:EA:2283:C:H2'	3:EA:2284:A:O5'	2.21	0.41
55:DV:336:PHE:CD2	55:DV:383:ALA:O	2.73	0.41
35:DA:1192:C:OP2	36:DC:4:LYS:NZ	2.46	0.41
3:GA:1220:G:C2	3:GA:1230:A:C2	3.09	0.41
21:AU:13:LEU:HD11	21:AU:70:ALA:HB2	2.03	0.41
35:FA:1071:C:H2'	35:FA:1072:G:C8	2.56	0.41
3:CA:2250:G:H8	3:CA:2250:G:O5'	2.04	0.41
35:DA:344:A:H2'	35:DA:344:A:N3	2.36	0.41
9:GI:81:LYS:O	9:GI:81:LYS:HG2	2.21	0.41
19:GS:70:LYS:HD2	19:GS:70:LYS:N	2.36	0.41
6:AF:46:LYS:HD3	6:AF:46:LYS:H	1.86	0.41
3:CA:588:U:H2'	3:CA:589:U:C6	2.56	0.41
42:DI:124:ARG:HG3	42:DI:125:PRO:N	2.36	0.41
34:FB:23:ASN:O	34:FB:25:LYS:N	2.53	0.41
35:BA:1512:U:O4	60:BA:1868:HOH:O	2.20	0.41
3:GA:2520:C:C6	3:GA:2567:G:H1'	2.56	0.41
3:CA:227:A:C2	3:CA:2407:A:H1'	2.56	0.41
3:CA:1873:G:N1	3:CA:1874:C:C4	2.89	0.41
32:E5:59:LEU:HD23	32:E5:62:ARG:HE	1.86	0.41
32:C5:77:VAL:HA	32:C5:114:GLU:OE1	2.20	0.41
3:AA:996:A:C5	3:AA:1160:G:N2	2.89	0.41
26:GZ:11:SER:N	26:GZ:31:ILE:HG22	2.36	0.41
10:GJ:64:VAL:HG22	10:GJ:68:LYS:HB2	2.02	0.41
45:HL:43:LYS:HG2	45:HL:44:LYS:H	1.85	0.41
37:HD:197:GLU:O	37:HD:200:ILE:HG22	2.20	0.41
45:FL:43:LYS:HG2	45:FL:44:LYS:N	2.36	0.41
10:GJ:34:ARG:HG3	10:GJ:39:LYS:HB3	2.03	0.41
42:HI:45:ARG:HG3	42:HI:46:MET:N	2.36	0.41
35:HA:374:A:C6	35:HA:375:U:C4	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:GI:74:PRO:O	9:GI:112:LYS:NZ	2.52	0.41
3:GA:1060:U:P	9:GI:75:ALA:HB2	2.61	0.41
3:GA:582:A:C6	3:GA:583:G:C6	3.09	0.41
3:CA:1774:C:OP1	60:CA:3441:HOH:O	2.22	0.41
3:GA:648:G:O4'	3:GA:2351:G:H5''	2.21	0.41
35:HA:684:U:O4	35:HA:685:G:N1	2.54	0.41
3:GA:971:G:H2'	3:GA:972:A:C5'	2.51	0.41
20:GT:29:THR:H	20:GT:91:GLN:HE22	1.69	0.41
35:HA:844:G:H3'	35:HA:845:A:H5''	2.03	0.41
38:BE:81:LEU:HB3	38:BE:147:MET:HE1	2.03	0.41
52:FS:3:ARG:HH12	52:FS:68:GLY:HA3	1.86	0.41
46:HM:22:ILE:O	46:HM:25:VAL:HG22	2.21	0.41
35:HA:983:A:N3	35:HA:983:A:C2'	2.83	0.41
35:DA:1181:G:O2'	35:DA:1182:G:C8	2.74	0.41
18:CR:39:LEU:HB3	18:CR:49:ILE:HD13	2.03	0.41
3:CA:2636:C:H2'	3:CA:2637:U:C6	2.55	0.41
44:HK:59:THR:HB	44:HK:60:PRO:HD2	2.01	0.41
17:GQ:85:ALA:HA	17:GQ:115:ALA:CB	2.51	0.41
43:DJ:80:THR:HB	43:DJ:83:THR:H	1.85	0.41
3:GA:2208:C:C2	3:GA:2217:G:C2	3.09	0.41
9:GI:55:PRO:HB2	9:GI:71:LYS:HD2	2.02	0.41
32:C5:98:GLU:HA	32:C5:101:LYS:HB2	2.03	0.41
3:AA:2298:A:C6	3:AA:2321:U:C4	3.09	0.41
51:HR:22:ASP:OD1	51:HR:24:LYS:N	2.54	0.41
11:GK:13:ASN:N	11:GK:13:ASN:OD1	2.54	0.41
3:CA:2685:G:H1	3:CA:2724:U:H3	1.69	0.41
3:GA:853:C:H2'	3:GA:854:C:C6	2.55	0.41
3:AA:2038:G:H2'	3:AA:2039:U:O4'	2.21	0.41
7:GG:84:LYS:HG3	7:GG:132:LEU:N	2.36	0.41
35:HA:18:C:H4'	35:HA:1078:U:O2	2.21	0.41
3:GA:1799:G:OP1	2:GC:257:ARG:NE	2.50	0.41
3:GA:2340:A:H2'	3:GA:2341:G:C8	2.54	0.41
3:AA:1365:A:N6	3:AA:1366:A:C6	2.89	0.41
52:HS:8:GLY:H	52:HS:9:PRO:HD3	1.86	0.41
35:FA:309:A:H2'	35:FA:310:G:H8	1.85	0.41
35:BA:328:C:C2'	35:BA:328:C:O2	2.69	0.41
35:FA:532:A:H4'	35:FA:533:A:OP2	2.20	0.41
19:AS:59:GLU:HA	19:AS:64:ALA:CB	2.49	0.41
9:GI:12:VAL:HG23	9:GI:13:ALA:N	2.36	0.41
3:CA:285:G:C4	3:CA:356:G:C2	3.09	0.41
3:EA:2063:C:C4	3:EA:2064:C:C4	3.09	0.41
6:EF:151:LEU:HD12	6:EF:152:ASP:N	2.36	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:EK:39:ILE:HD12	11:EK:41:ILE:HD11	2.03	0.41
3:AA:1078:U:H5''	3:AA:1079:C:OP1	2.20	0.41
7:GG:97:VAL:HG23	7:GG:124:CYS:SG	2.61	0.41
3:GA:2716:C:C2	3:GA:2717:C:C5	3.09	0.41
10:GJ:4:PHE:HD2	10:GJ:44:TYR:CE1	2.39	0.41
12:AL:127:VAL:HG11	12:AL:142:ILE:HG21	2.03	0.41
36:DC:15:VAL:O	36:DC:15:VAL:HG23	2.20	0.41
3:AA:1582:C:C2'	3:AA:1585:C:H42	2.35	0.41
37:FD:192:SER:OG	37:FD:193:ALA:O	2.39	0.41
3:CA:336:C:C2	3:CA:337:C:C5	3.08	0.41
5:GE:187:VAL:O	5:GE:188:MET:HB3	2.21	0.41
41:DH:106:THR:HG22	41:DH:107:SER:N	2.36	0.41
25:GY:56:LEU:HA	25:GY:59:GLU:CD	2.41	0.41
38:DE:137:VAL:O	38:DE:138:ARG:HB2	2.20	0.41
25:EY:6:LEU:O	25:EY:7:ARG:CB	2.69	0.41
28:G1:4:ILE:CG1	28:G1:27:ARG:NH1	2.84	0.41
3:AA:1587:G:C4	3:AA:1588:G:C8	3.09	0.41
3:AA:45:G:C5'	3:AA:46:G:H5'	2.51	0.41
4:CD:106:LYS:O	4:CD:107:VAL:CB	2.68	0.41
41:DH:98:GLY:C	41:DH:100:GLY:H	2.23	0.41
8:AH:27:ARG:NH1	24:AX:63:ILE:HG13	2.36	0.41
3:EA:843:G:H2'	3:EA:844:A:C8	2.56	0.41
17:AQ:46:TYR:CZ	17:AQ:50:ARG:NH2	2.89	0.41
3:AA:1083:U:H4'	32:A5:37:LYS:HE2	2.03	0.41
3:CA:391:A:C2	3:CA:411:G:C5	3.09	0.41
21:CU:10:VAL:HG12	21:CU:71:ILE:HA	2.03	0.41
35:FA:833:G:C6	35:FA:834:U:C4	3.09	0.41
35:FA:560:A:H5'	35:FA:566:G:N2	2.35	0.41
35:HA:27:G:H2'	35:HA:28:A:O4'	2.21	0.41
3:EA:215:G:H4'	3:EA:216:A:H4'	2.03	0.41
38:BE:83:HIS:CD2	41:BH:96:MET:CE	3.04	0.41
55:DV:574:MET:CE	55:DV:601:PHE:CE2	3.04	0.41
55:BV:320:LEU:HD23	55:BV:321:ALA:N	2.36	0.41
35:BA:728:A:C6	35:BA:729:A:C6	3.09	0.41
36:DC:118:ASP:HA	36:DC:121:THR:HG22	2.02	0.41
7:GG:88:LEU:HD22	7:GG:161:VAL:HG22	2.02	0.41
16:GP:87:ARG:HH12	16:GP:109:ILE:CD1	2.34	0.41
5:AE:129:PRO:HG3	5:AE:156:ASN:OD1	2.21	0.41
35:FA:72:A:H3'	35:FA:73:C:H5''	2.02	0.41
36:FC:52:VAL:HA	36:FC:70:THR:HG23	2.03	0.41
3:EA:280:U:C2'	3:EA:281:C:O5'	2.69	0.41
35:DA:341:C:H2'	35:DA:342:C:H6	1.84	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BA:834:U:H2'	35:BA:835:U:C6	2.56	0.41
35:BA:1476:A:C2	35:BA:1477:U:C2	3.08	0.41
3:AA:1681:G:N2	3:AA:1763:G:OP2	2.45	0.41
35:HA:57:G:C6	35:HA:58:C:C4	3.08	0.41
3:EA:2183:A:N1	3:EA:2184:A:C2	2.89	0.41
17:GQ:67:ALA:HB2	17:GQ:98:ALA:HB1	2.03	0.41
1:EB:28:C:H2'	1:EB:29:A:O4'	2.20	0.41
3:CA:2024:G:C2	3:CA:2025:C:C2	3.09	0.41
3:CA:820:A:C2	3:CA:821:A:C4	3.09	0.41
42:DI:31:ASN:HD21	42:DI:67:VAL:H	1.68	0.41
3:CA:460:A:C2	3:CA:470:A:C4	3.09	0.41
12:EL:132:ARG:HG3	12:EL:142:ILE:HD12	2.02	0.41
9:CI:98:GLY:HA3	9:CI:137:LEU:HD22	2.03	0.41
3:EA:701:G:C6	3:EA:702:U:C5	3.08	0.41
3:GA:611:C:H2'	3:GA:612:G:O4'	2.20	0.41
6:AF:169:LEU:O	6:AF:174:PHE:HB2	2.21	0.41
3:AA:82:U:H2'	3:AA:83:A:C8	2.56	0.41
2:GC:64:VAL:HA	2:GC:102:TYR:CB	2.51	0.41
55:HV:33:TYR:CE1	55:HV:199:GLY:HA3	2.56	0.41
1:AB:77:U:OP1	22:AV:21:ARG:NH1	2.54	0.41
14:GN:28:LEU:HD23	14:GN:48:VAL:HG21	2.03	0.41
19:CS:7:HIS:CE1	19:CS:10:ALA:HB2	2.56	0.41
44:HK:61:PHE:O	44:HK:64:GLN:HB3	2.21	0.41
55:BV:13:ILE:HD13	55:BV:282:VAL:HG11	2.02	0.41
35:HA:784:A:C6	35:HA:799:G:C2	3.09	0.41
3:GA:339:U:O5'	3:GA:339:U:H6	2.04	0.41
37:FD:184:ARG:C	37:FD:184:ARG:HD2	2.41	0.41
40:BG:86:GLN:HB2	40:BG:86:GLN:HE21	1.75	0.41
3:AA:2555:U:C5	3:AA:2556:C:C2	3.09	0.41
18:GR:8:GLY:HA2	18:GR:23:GLU:CG	2.51	0.41
55:DV:632:ILE:HD12	55:DV:642:LEU:HD22	2.03	0.41
7:CG:10:VAL:HB	7:CG:14:VAL:CG2	2.51	0.41
32:E5:121:SER:HG	32:E5:122:GLN:H	1.69	0.40
35:HA:1491:G:H2'	56:HW:6:5OH:HA	2.01	0.40
18:GR:77:PHE:CE1	18:GR:79:ARG:HA	2.52	0.40
3:EA:2336:A:N6	23:EW:40:ARG:HD3	2.36	0.40
32:C5:31:ARG:HD3	32:C5:31:ARG:HA	1.75	0.40
3:GA:1786:A:H1'	3:GA:1938:A:N6	2.36	0.40
3:GA:315:G:H2'	3:GA:316:C:C6	2.56	0.40
45:DL:44:LYS:CB	45:DL:45:PRO:CD	2.99	0.40
44:HK:128:ARG:HD3	54:HU:34:ARG:CZ	2.51	0.40
54:HU:37:PHE:HE2	54:HU:45:ARG:CZ	2.34	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:452:G:C6	3:GA:453:A:C6	3.09	0.40
55:FV:4:THR:CG2	55:FV:378:ARG:NE	2.84	0.40
2:CC:71:ASP:O	2:CC:73:ILE:HD12	2.21	0.40
47:DN:53:ARG:HB3	47:DN:59:ARG:HH12	1.86	0.40
3:EA:1827:U:O2'	3:EA:1828:G:H5'	2.22	0.40
3:AA:1936:A:C2	3:AA:1943:U:H5	2.38	0.40
20:CT:54:GLU:HB2	20:CT:88:LYS:HB2	2.03	0.40
3:GA:1080:A:H2'	3:GA:1081:U:C6	2.55	0.40
12:CL:95:LEU:CD2	12:CL:100:ILE:HD11	2.51	0.40
1:GB:78:A:H2'	1:GB:79:G:H8	1.85	0.40
3:GA:454:A:H4'	3:GA:455:C:OP2	2.20	0.40
9:AI:82:ALA:HB1	9:AI:108:ILE:HD13	2.03	0.40
3:CA:893:C:H2'	3:CA:894:U:C6	2.56	0.40
44:BK:87:LYS:HA	44:BK:114:THR:HG22	2.03	0.40
44:HK:23:ILE:HG13	44:HK:86:VAL:HA	2.02	0.40
29:G2:18:PHE:C	29:G2:18:PHE:CD1	2.94	0.40
2:EC:203:VAL:O	2:EC:205:GLY:N	2.54	0.40
3:GA:2799:A:O2'	3:GA:2800:A:OP2	2.33	0.40
35:FA:1302:C:O2	46:FM:17:ILE:CD1	2.70	0.40
3:GA:529:A:N6	3:GA:2042:A:H1'	2.36	0.40
38:DE:105:ILE:HD13	38:DE:115:LEU:HB3	2.02	0.40
3:GA:1147:A:C5	3:GA:1148:U:C5	3.09	0.40
3:GA:907:G:C6	3:GA:908:C:C4	3.09	0.40
3:EA:1486:U:H2'	3:EA:1487:U:O4'	2.20	0.40
3:AA:2724:U:P	4:AD:116:LYS:HZ2	2.44	0.40
54:DU:11:PRO:O	54:DU:12:PHE:HB3	2.20	0.40
3:EA:1737:G:C5'	3:EA:1738:G:P	3.10	0.40
40:DG:69:VAL:C	40:DG:138:ARG:HD3	2.41	0.40
3:EA:2423:U:O2'	3:EA:2424:C:P	2.79	0.40
11:AK:19:VAL:HG13	11:AK:41:ILE:HG12	2.02	0.40
8:CH:4:ILE:HG12	8:CH:18:GLN:OE1	2.21	0.40
35:DA:78:A:OP1	35:DA:80:A:N1	2.55	0.40
50:DQ:47:HIS:HB2	50:DQ:71:LYS:HE2	2.02	0.40
1:GB:86:G:H2'	1:GB:87:U:H5''	2.02	0.40
26:GZ:26:LEU:HD21	26:GZ:46:MET:HB2	2.03	0.40
3:EA:1172:C:H42	3:EA:1177:G:H1	1.69	0.40
37:DD:35:GLU:O	37:DD:38:PRO:HD3	2.21	0.40
35:HA:964:A:N3	35:HA:969:A:O2'	2.27	0.40
46:HM:63:PHE:CZ	46:HM:69:LEU:HD22	2.56	0.40
3:GA:968:C:N4	60:GA:3334:HOH:O	2.49	0.40
3:AA:1807:G:H2'	3:AA:1808:A:H5'	2.03	0.40
3:CA:1309:G:H4'	29:C2:7:PRO:HB2	2.02	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CA:1027:A:N1	3:CA:1126:A:C4	2.89	0.40
11:EK:105:ARG:H	11:EK:105:ARG:HD3	1.87	0.40
5:CE:160:ALA:O	5:CE:161:ALA:HB3	2.20	0.40
3:CA:2521:C:O2'	3:CA:2564:A:O2'	2.30	0.40
32:A5:99:PHE:HB3	32:A5:113:PHE:HE1	1.86	0.40
13:EM:67:VAL:HG11	13:EM:102:LEU:HD12	2.03	0.40
35:DA:1287:A:H2'	35:DA:1288:A:C8	2.56	0.40
35:FA:522:C:C4	35:FA:523:A:C5	3.09	0.40
35:HA:1021:A:C2'	35:HA:1022:A:H5'	2.51	0.40
3:EA:246:C:C2'	3:EA:247:G:H5'	2.51	0.40
3:GA:614:A:H5''	3:GA:616:A:N6	2.35	0.40
10:GJ:102:GLU:HG3	10:GJ:124:VAL:HG21	2.03	0.40
34:FB:107:ARG:O	34:FB:110:ILE:HB	2.22	0.40
55:FV:330:VAL:CG2	55:FV:333:LEU:HD21	2.51	0.40
3:EA:2803:G:H2'	3:EA:2804:U:C6	2.56	0.40
46:DM:2:ALA:HB2	46:DM:53:ILE:HD13	2.03	0.40
35:FA:276:G:C2	35:FA:277:C:C6	3.10	0.40
12:GL:132:ARG:HG3	12:GL:142:ILE:HD12	2.03	0.40
2:GC:172:THR:HG22	2:GC:182:LYS:CG	2.51	0.40
2:GC:221:GLY:O	2:GC:223:ALA:N	2.54	0.40
13:GM:14:LYS:HG3	13:GM:15:GLY:N	2.36	0.40
3:AA:109:C:H4'	3:AA:348:A:H4'	2.02	0.40
49:BP:51:ARG:C	49:BP:52:LEU:HD12	2.41	0.40
42:HI:8:GLY:HA3	42:HI:86:ALA:CA	2.51	0.40
25:GY:6:LEU:O	25:GY:7:ARG:CB	2.69	0.40
35:FA:9:G:OP2	38:FE:126:LYS:NZ	2.50	0.40
8:EH:9:VAL:HG22	8:EH:35:LYS:HD3	2.02	0.40
3:CA:2701:U:H3'	3:CA:2702:G:H5''	2.03	0.40
3:GA:849:A:H2'	3:GA:850:U:C6	2.56	0.40
9:EI:104:GLN:O	9:EI:105:LEU:HB2	2.21	0.40
4:CD:106:LYS:HB3	4:CD:206:ALA:HB3	2.03	0.40
4:ED:29:VAL:HB	4:ED:98:VAL:HG22	2.03	0.40
10:AJ:26:GLY:HA2	10:AJ:29:ALA:HB3	2.02	0.40
3:GA:1727:C:H2'	3:GA:1728:C:O4'	2.20	0.40
8:AH:24:GLY:O	8:AH:28:ASN:HB2	2.21	0.40
28:E1:38:PHE:CZ	28:E1:43:ARG:HA	2.55	0.40
41:DH:78:VAL:HG21	41:DH:128:TYR:CE1	2.57	0.40
2:CC:202:ARG:HH22	2:CC:213:ARG:HE	1.68	0.40
3:EA:118:A:N3	3:EA:178:G:H1'	2.36	0.40
3:EA:118:A:C8	3:EA:119:A:C8	3.10	0.40
31:C4:3:VAL:HG23	31:C4:4:ARG:H	1.86	0.40
7:CG:154:GLU:OE1	7:CG:158:GLY:N	2.54	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:GB:32:U:C4	1:GB:51:G:N2	2.89	0.40
42:FI:72:ILE:HG23	42:FI:73:SER:N	2.36	0.40
48:BO:70:LEU:HD21	48:BO:77:ARG:HB2	2.03	0.40
3:GA:1478:G:H2'	3:GA:1479:G:H8	1.85	0.40
3:AA:1381:G:H1'	3:AA:1571:A:N1	2.36	0.40
21:EU:21:ARG:CZ	21:EU:72:PHE:CE2	3.04	0.40
50:HQ:11:ARG:HH21	50:HQ:56:GLY:HA2	1.85	0.40
3:EA:1436:G:N3	3:EA:1515:A:H2	2.19	0.40
3:AA:1028:A:N3	3:AA:2486:C:O2'	2.42	0.40
35:DA:1447:A:C5'	35:DA:1448:C:H5	2.33	0.40
3:GA:2461:A:H1'	3:GA:2492:U:C2	2.55	0.40
55:BV:622:GLU:HG3	55:BV:653:LYS:HG2	2.03	0.40
3:GA:1210:G:C2	3:GA:1237:A:C6	3.09	0.40
3:GA:769:U:C4	3:GA:770:G:N7	2.89	0.40
2:AC:52:HIS:ND1	60:AC:406:HOH:O	2.31	0.40
55:BV:175:ALA:N	55:BV:178:HIS:O	2.54	0.40
3:EA:1340:U:H4'	3:EA:1341:G:OP2	2.21	0.40
3:EA:242:G:N2	3:EA:255:A:OP2	2.34	0.40
35:HA:948:C:OP1	46:HM:107:ARG:N	2.53	0.40
41:HH:95:VAL:HG12	41:HH:96:MET:HG3	2.03	0.40
55:DV:503:GLY:HA3	55:DV:600:ALA:HB2	2.02	0.40
12:GL:80:SER:HA	12:GL:115:GLU:O	2.21	0.40
3:CA:1484:U:H2'	3:CA:1485:U:C6	2.55	0.40
3:CA:577:G:C6	3:CA:578:G:C6	3.08	0.40
3:EA:536:G:N2	10:EJ:47:HIS:CG	2.89	0.40
46:FM:83:LEU:HD22	52:FS:66:MET:HG2	2.02	0.40
3:EA:275:C:H3'	3:EA:276:U:H5''	2.04	0.40
5:GE:101:TYR:CE1	5:GE:177:PRO:HG3	2.57	0.40
45:HL:67:ILE:HG21	45:HL:72:HIS:CD2	2.56	0.40
4:CD:200:ASP:N	4:CD:200:ASP:OD1	2.54	0.40
3:AA:2766:A:H2'	3:AA:2766:A:N3	2.36	0.40
55:FV:230:SER:HB3	55:FV:233:LEU:HB2	2.03	0.40
23:EW:63:ASP:N	23:EW:63:ASP:OD1	2.49	0.40
2:EC:161:VAL:CG1	2:EC:173:LEU:HB3	2.51	0.40
3:GA:1652:A:C2	3:GA:2006:C:N3	2.88	0.40
3:GA:1626:A:C2'	3:GA:1627:G:OP2	2.69	0.40
32:C5:71:CYS:CA	32:C5:117:LEU:CD1	2.99	0.40
10:EJ:44:TYR:CE1	17:EQ:59:LEU:HD13	2.57	0.40
32:C5:110:ALA:O	32:C5:113:PHE:N	2.45	0.40
26:GZ:10:ARG:C	26:GZ:31:ILE:HG22	2.42	0.40
32:C5:57:ASN:C	32:C5:59:LEU:N	2.73	0.40
55:BV:220:GLN:O	55:BV:223:ILE:HG23	2.22	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:1229:A:H62	46:HM:104:THR:CG2	2.34	0.40
3:GA:818:G:N2	3:GA:1190:G:N1	2.70	0.40
55:HV:625:GLU:HA	55:HV:628:THR:CG2	2.50	0.40
2:CC:259:ASN:O	2:CC:260:LYS:HB2	2.21	0.40
37:HD:25:VAL:HG23	37:HD:26:ARG:N	2.36	0.40
54:HU:37:PHE:CE2	54:HU:45:ARG:CZ	3.04	0.40
46:HM:60:VAL:HG22	46:HM:60:VAL:O	2.20	0.40
35:DA:1468:A:C2'	35:DA:1469:C:C5'	2.97	0.40
3:AA:608:A:C8	3:AA:621:A:N6	2.89	0.40
3:GA:1248:G:C6	5:GE:46:GLN:NE2	2.89	0.40
35:HA:1469:C:H2'	35:HA:1470:U:C5'	2.52	0.40
17:GQ:91:ARG:HB3	17:GQ:93:ILE:HG23	2.03	0.40
3:GA:18:U:O3'	17:GQ:22:GLY:HA2	2.21	0.40
3:CA:1342:A:C6	3:CA:1397:U:C5	3.09	0.40
3:GA:864:G:C6	3:GA:865:C:N4	2.89	0.40
12:CL:77:ILE:HG12	12:CL:95:LEU:HD22	2.02	0.40
55:DV:309:ARG:HB3	55:DV:340:SER:CB	2.51	0.40
3:EA:2742:G:OP1	31:E4:36:ARG:HD3	2.21	0.40
15:GO:78:VAL:HG23	15:GO:79:ALA:N	2.36	0.40
44:HK:86:VAL:CG1	44:HK:93:ARG:HE	2.34	0.40
1:GB:64:G:O6	60:GB:1302:HOH:O	2.21	0.40
3:CA:2799:A:C6	3:CA:2801:G:C5	3.09	0.40
43:BJ:56:HIS:CD2	43:BJ:57:VAL:HG23	2.56	0.40
35:DA:468:A:N1	35:DA:469:C:N4	2.69	0.40
3:GA:247:G:C2	3:GA:252:G:C6	3.08	0.40
46:HM:25:VAL:CG1	46:HM:29:ARG:HD3	2.50	0.40
3:GA:1018:U:H5''	3:GA:1036:G:O2'	2.20	0.40
3:GA:224:U:N3	3:GA:225:C:C5	2.88	0.40
35:HA:1328:C:H5''	46:HM:28:THR:HG21	2.02	0.40
9:EI:21:PRO:N	9:EI:22:PRO:CD	2.85	0.40
35:HA:1178:G:C6	42:HI:99:ARG:NH2	2.90	0.40
44:HK:24:HIS:HB3	44:HK:31:ILE:CD1	2.52	0.40
35:DA:841:C:N3	35:DA:843:U:C6	2.90	0.40
24:CX:6:VAL:CG1	24:CX:50:VAL:HG22	2.52	0.40
3:CA:2748:A:C2	3:CA:2757:A:C5	3.09	0.40
4:CD:70:LYS:O	4:CD:71:ALA:HB3	2.21	0.40
25:EY:56:LEU:O	25:EY:57:LEU:HB3	2.19	0.40
55:FV:119:VAL:HG23	55:FV:157:GLN:HB3	2.02	0.40
50:DQ:19:LYS:HB3	50:DQ:47:HIS:CE1	2.57	0.40
49:BP:42:ILE:O	49:BP:44:SER:N	2.45	0.40
3:CA:1362:C:C4	3:CA:1363:C:C5	3.09	0.40
34:FB:113:LEU:HB2	34:FB:143:LEU:HD12	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BK:16:VAL:O	44:BK:18:ASP:N	2.52	0.40
1:EB:78:A:H2'	1:EB:79:G:O4'	2.21	0.40
15:GO:75:GLY:HA2	15:GO:106:LEU:HD13	2.02	0.40
16:AP:92:ARG:O	16:AP:93:LYS:HB2	2.21	0.40
7:GG:1:SER:O	7:GG:3:VAL:N	2.54	0.40
35:DA:672:U:O2'	39:DF:86:ARG:NH1	2.54	0.40
3:GA:483:A:O2'	21:GU:56:GLY:HA2	2.21	0.40
2:CC:93:VAL:HG12	2:CC:94:LEU:N	2.36	0.40
6:EF:116:LEU:O	6:EF:176:PHE:HA	2.21	0.40
35:DA:1350:A:OP1	42:DI:123:ARG:NH1	2.55	0.40
34:FB:9:LEU:HB2	34:FB:42:LEU:HD11	2.02	0.40
35:BA:1314:C:OP2	52:BS:6:LYS:HD2	2.20	0.40
3:EA:2289:G:C2	3:EA:2290:G:C8	3.10	0.40
39:FF:29:ILE:HD13	39:FF:64:VAL:HG11	2.04	0.40
51:BR:23:TYR:CE2	51:BR:24:LYS:HE2	2.56	0.40
7:EG:162:ARG:HB3	7:EG:166:GLU:HG2	2.04	0.40
21:GU:33:VAL:HG13	21:GU:66:VAL:CG2	2.50	0.40
52:DS:36:ARG:HH22	52:DS:77:THR:HG23	1.85	0.40
55:BV:529:SER:O	55:BV:532:LYS:HG3	2.21	0.40
3:EA:634:C:H2'	3:EA:635:C:H6	1.87	0.40
35:DA:1049:U:C2	35:DA:1201:A:C2	3.09	0.40
29:E2:43:THR:O	29:E2:43:THR:OG1	2.26	0.40
55:DV:525:LEU:HD21	55:DV:535:GLU:HB2	2.03	0.40
35:HA:778:G:H2'	35:HA:779:C:O4'	2.20	0.40
35:DA:463:U:H5'	35:DA:464:U:OP2	2.21	0.40
55:FV:169:LEU:HD21	55:FV:285:TYR:CE1	2.56	0.40
41:HH:126:ILE:HG22	41:HH:127:CYS:SG	2.61	0.40
3:GA:2294:G:OP1	15:GO:10:ARG:HD3	2.22	0.40
3:EA:1094:U:H2'	3:EA:1096:A:OP2	2.21	0.40
36:DC:26:THR:HG22	47:DN:76:LYS:HD3	2.03	0.40
35:HA:640:A:H2'	41:HH:107:SER:HB2	2.02	0.40
3:CA:2469:A:C2	3:CA:2482:A:C4	3.09	0.40
9:CI:28:GLY:CA	9:CI:32:VAL:HB	2.52	0.40
3:EA:2283:C:C2	3:EA:2389:G:C2	3.09	0.40
35:HA:784:A:C6	35:HA:785:G:C6	3.09	0.40
3:AA:176:A:N7	3:AA:177:G:C6	2.89	0.40
8:CH:17:ASP:CG	46:HM:40:ALA:HB1	2.42	0.40
35:BA:341:C:H2'	35:BA:342:C:H6	1.85	0.40
3:CA:1566:A:C6	2:CC:212:TRP:CZ3	3.09	0.40
29:E2:35:ARG:HG2	29:E2:42:LEU:HD21	2.03	0.40
12:CL:123:ARG:NE	12:CL:143:GLU:OE2	2.54	0.40
14:GN:98:LEU:O	14:GN:112:TYR:N	2.51	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:HA:51:A:C6	35:HA:353:A:C2	3.08	0.40
40:DG:24:ALA:O	40:DG:27:VAL:HG12	2.21	0.40
3:GA:2774:C:N4	3:GA:2775:G:C6	2.89	0.40
10:GJ:54:ILE:HD11	10:GJ:56:VAL:CG2	2.51	0.40
3:CA:2470:G:O6	3:CA:2476:A:O2'	2.29	0.40
34:DB:116:LEU:HB3	34:DB:140:LEU:HD11	2.03	0.40
35:HA:469:C:C4	35:HA:470:C:C4	3.10	0.40
3:AA:931:U:OP1	26:AZ:29:ARG:NH1	2.55	0.40
3:AA:1847:A:H4'	3:AA:1848:A:OP2	2.21	0.40
46:FM:43:VAL:HG13	46:FM:47:GLU:HG2	2.04	0.40
32:C5:118:ILE:HB	32:C5:119:PRO:CD	2.51	0.40
3:EA:2369:A:C2	3:EA:2370:G:C4	3.09	0.40
3:CA:2857:G:N2	3:CA:2860:A:OP2	2.42	0.40
35:HA:942:G:C2	35:HA:943:U:C5	3.09	0.40
3:GA:873:C:N3	3:GA:905:A:C2	2.89	0.40
55:FV:492:GLU:OE1	55:FV:567:ALA:N	2.52	0.40
5:EE:5:LEU:CD1	5:EE:122:GLU:HB2	2.51	0.40
3:EA:169:G:H2'	3:EA:170:U:C6	2.56	0.40
3:AA:1322:A:OP1	19:AS:11:ARG:NE	2.38	0.40
34:DB:30:ILE:HD11	34:DB:188:THR:HB	2.03	0.40
3:CA:2400:G:N2	3:CA:2417:C:C2	2.89	0.40
35:HA:316:C:H2'	35:HA:317:U:H6	1.87	0.40
3:AA:1684:G:C2	3:AA:1705:A:C2	3.09	0.40
3:GA:2548:U:C4	3:GA:2549:G:N7	2.90	0.40
3:CA:760:G:H4'	3:CA:1776:G:OP1	2.22	0.40
3:GA:1920:C:O5'	3:GA:1920:C:H6	2.04	0.40
2:CC:18:VAL:HG23	2:CC:18:VAL:O	2.21	0.40
3:EA:1649:G:C2'	3:EA:1650:A:H5'	2.51	0.40
3:EA:747:U:C4	3:EA:2613:U:C4	3.10	0.40
3:AA:607:U:OP1	60:AA:3286:HOH:O	2.22	0.40
3:GA:2745:C:C4	3:GA:2746:U:C4	3.10	0.40
3:GA:801:G:H4'	3:GA:802:A:OP2	2.21	0.40
32:C5:87:GLU:OE2	32:C5:95:LEU:HD23	2.21	0.40
32:A5:73:LYS:HB2	32:A5:117:LEU:HD21	2.04	0.40
32:E5:78:GLY:N	32:E5:79:PRO:HD2	2.36	0.40
35:BA:1493:A:OP1	56:BW:1:KBE:CB	2.66	0.40
3:GA:1197:G:C2	3:GA:1250:G:C2	3.09	0.40
23:EW:39:GLN:HG3	23:EW:56:HIS:CB	2.51	0.40
10:GJ:34:ARG:CG	10:GJ:39:LYS:HB3	2.51	0.40
32:E5:98:GLU:HA	32:E5:101:LYS:HB2	2.03	0.40
35:HA:1088:G:N2	35:HA:1089:G:H1'	2.36	0.40
54:BU:34:ARG:CG	54:BU:35:ARG:H	2.33	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:1002:G:C6	3:GA:1154:G:N2	2.89	0.40
3:GA:451:U:H2'	3:GA:453:A:N7	2.35	0.40
3:EA:1141:U:H4'	3:EA:1142:A:O4'	2.21	0.40
39:DF:4:TYR:OH	39:DF:68:GLN:HB3	2.20	0.40
40:HG:135:VAL:CG2	40:HG:136:LYS:N	2.85	0.40
3:GA:1171:G:H1'	3:GA:1179:G:H1	1.86	0.40
55:DV:318:SER:HB3	55:DV:404:ILE:HD11	2.03	0.40
35:HA:1194:U:H3'	35:HA:1195:C:C6	2.56	0.40
19:AS:18:ARG:HG3	19:AS:76:VAL:CG1	2.50	0.40
3:GA:2352:A:N1	23:GW:30:VAL:HG22	2.36	0.40
3:GA:221:A:C4	3:GA:266:G:N7	2.90	0.40
3:AA:783:A:C8	3:AA:784:G:H4'	2.56	0.40
9:GI:79:LEU:HA	9:GI:85:ILE:HD13	2.03	0.40
3:GA:2556:C:C5	3:GA:2557:G:N7	2.89	0.40
35:BA:824:G:O4'	41:BH:2:SER:HA	2.21	0.40
3:GA:1865:U:P	3:GA:2409:G:H21	2.44	0.40
38:BE:94:VAL:CG2	38:BE:111:MET:SD	3.09	0.40
34:DB:45:THR:CG2	34:DB:49:PHE:HE2	2.34	0.40
39:DF:45:ARG:HG2	39:DF:46:GLN:N	2.36	0.40
3:AA:635:C:P	12:AL:126:ARG:HH11	2.44	0.40
3:GA:298:G:O2'	3:GA:322:A:N1	2.31	0.40
3:EA:528:A:H3'	3:EA:528:A:C8	2.56	0.40
42:BI:88:MET:SD	42:BI:88:MET:C	2.99	0.40
3:GA:660:C:O4'	5:GE:30:GLN:NE2	2.54	0.40
3:GA:600:G:C4'	5:GE:27:LEU:HD13	2.52	0.40
3:EA:2250:G:H8	3:EA:2250:G:O5'	2.04	0.40
37:HD:198:HIS:O	37:HD:202:GLU:HB2	2.21	0.40
3:GA:2414:G:C2	3:GA:2415:G:C8	3.09	0.40
35:DA:146:G:N2	35:DA:177:G:C8	2.89	0.40
50:HQ:12:VAL:HG12	50:HQ:13:VAL:N	2.36	0.40
26:CZ:40:THR:HG22	26:CZ:43:ILE:HG23	2.02	0.40
35:HA:1358:U:H5'	47:HN:74:LEU:HD23	2.03	0.40
3:GA:2793:C:H2'	3:GA:2794:C:H6	1.82	0.40
3:AA:2681:C:C2	3:AA:2724:U:O4	2.74	0.40
3:CA:2211:A:H1'	3:CA:2212:A:OP1	2.22	0.40
35:BA:537:G:H2'	35:BA:538:G:C8	2.56	0.40
14:CN:20:MET:HE1	14:CN:40:LYS:HE2	2.03	0.40
19:AS:15:GLN:NE2	27:A0:16:ARG:CZ	2.84	0.40
35:DA:1059:C:O3'	47:DN:85:ARG:NH2	2.54	0.40
20:AT:69:ARG:HG3	20:AT:70:HIS:N	2.36	0.40
3:CA:1290:C:N4	3:CA:1291:C:N4	2.69	0.40
34:BB:153:MET:SD	34:BB:157:PRO:HD3	2.62	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BS:63:THR:CG2	52:BS:64:ASP:N	2.84	0.40
1:GB:66:A:OP2	1:GB:108:A:N6	2.55	0.40
3:CA:833:A:P	12:CL:39:LYS:HZ1	2.44	0.40
2:CC:75:ALA:HB1	2:CC:93:VAL:HG13	2.04	0.40
23:EW:74:LYS:O	23:EW:75:ASN:C	2.59	0.40
3:AA:580:U:O3'	17:AQ:30:VAL:CG1	2.70	0.40
3:GA:36:G:N2	3:GA:37:C:H1'	2.36	0.40
16:EP:80:VAL:O	16:EP:81:ASP:HB3	2.22	0.40
16:EP:80:VAL:HG12	16:EP:81:ASP:N	2.36	0.40
46:FM:29:ARG:CZ	46:FM:63:PHE:CD2	3.04	0.40
9:GI:19:PRO:HD2	9:GI:23:VAL:HG23	2.02	0.40
55:BV:697:ALA:O	55:BV:699:ILE:N	2.53	0.40
38:BE:90:THR:HB	38:BE:135:ASN:ND2	2.36	0.40
3:AA:1007:C:OP1	10:AJ:37:ARG:NH2	2.54	0.40
35:DA:1096:C:H2'	35:DA:1097:C:H6	1.86	0.40
35:HA:780:A:N6	35:HA:801:U:OP2	2.47	0.40
10:GJ:4:PHE:N	10:GJ:44:TYR:OH	2.55	0.40
3:GA:2533:U:OP1	3:GA:2665:A:O2'	2.28	0.40
3:AA:2103:C:N4	3:AA:2186:G:H1	2.19	0.40
35:DA:1369:C:H2'	35:DA:1370:G:O4'	2.20	0.40
35:BA:927:G:N2	35:BA:1391:U:H1'	2.36	0.40
35:FA:130:A:O2'	35:FA:131:A:O5'	2.36	0.40
37:FD:191:LEU:HD12	37:FD:191:LEU:O	2.20	0.40
44:DK:59:THR:HB	44:DK:60:PRO:HD2	2.02	0.40
55:BV:611:VAL:HG21	55:BV:689:GLU:CD	2.41	0.40
35:FA:280:C:O4'	50:FQ:40:ARG:NH1	2.54	0.40
45:BL:95:TYR:N	45:BL:95:TYR:CD1	2.89	0.40
3:CA:126:A:C6	3:CA:127:A:N1	2.90	0.40
28:G1:38:PHE:HD2	28:G1:45:HIS:CE1	2.38	0.40
9:CI:104:GLN:HG2	9:CI:108:ILE:HD12	2.04	0.40
35:HA:1084:G:C5	35:HA:1085:U:C2	3.09	0.40
3:AA:2070:A:C2	3:AA:2071:A:C4	3.09	0.40
46:DM:33:ILE:HD13	46:DM:59:GLU:HB3	2.02	0.40
12:GL:111:ILE:O	12:GL:113:ALA:N	2.54	0.40
55:FV:75:MET:CE	55:FV:202:PHE:HZ	2.35	0.40
55:BV:461:MET:H	55:BV:465:HIS:CD2	2.39	0.40
14:AN:24:MET:HE2	14:AN:44:LEU:HD22	2.02	0.40
3:GA:1213:A:C1'	3:GA:1237:A:C2	3.04	0.40
3:AA:714:U:H5'	3:AA:715:A:OP2	2.21	0.40
7:CG:25:ILE:HG22	7:CG:78:VAL:HG21	2.02	0.40
10:EJ:64:VAL:O	10:EJ:65:THR:CB	2.70	0.40
35:FA:653:U:H5'	41:FH:56:LYS:CE	2.52	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DA:787:A:N1	35:DA:788:U:C2	2.89	0.40
17:GQ:107:ALA:O	17:GQ:110:GLU:HB2	2.21	0.40
35:HA:1179:A:H2'	35:HA:1180:A:O4'	2.21	0.40
3:EA:197:A:N6	3:EA:2430:A:H2'	2.36	0.40
35:FA:807:A:H2'	35:FA:808:C:C6	2.56	0.40
1:EB:72:G:O2'	1:EB:104:A:N6	2.49	0.40
3:GA:1387:A:H5'	3:GA:1469:A:H1'	2.03	0.40
3:EA:870:U:C2'	3:EA:871:U:H5'	2.51	0.40
55:DV:630:ASP:HB3	55:DV:673:LEU:HD22	2.02	0.40
54:HU:9:ASN:HB2	54:HU:11:PRO:HD2	2.02	0.40
3:GA:2834:G:H2'	3:GA:2879:A:H61	1.86	0.40
3:EA:96:C:H2'	3:EA:97:C:C6	2.57	0.40
41:BH:59:LEU:HD11	41:BH:61:LEU:HD21	2.03	0.40
8:EH:12:LEU:HB2	8:EH:19:VAL:HG11	2.03	0.40
3:EA:1284:A:N1	3:EA:1285:A:C2	2.90	0.40
44:HK:30:THR:HG21	44:HK:63:ALA:HA	2.04	0.40
3:EA:971:G:H2'	3:EA:972:A:C5'	2.52	0.40
3:GA:1208:C:C2	3:GA:1239:G:C2	3.10	0.40
14:EN:55:ALA:O	14:EN:57:THR:N	2.54	0.40
3:AA:2145:C:N3	3:AA:2146:C:N3	2.69	0.40
7:GG:37:ASN:HD22	7:GG:40:VAL:HG21	1.86	0.40
10:AJ:73:VAL:HB	10:AJ:75:TYR:CE2	2.57	0.40
35:DA:185:U:C4	35:DA:186:C:N4	2.89	0.40
34:DB:19:THR:HG23	34:DB:20:ARG:H	1.86	0.40
4:ED:34:VAL:CG2	4:ED:94:GLN:H	2.35	0.40
35:BA:509:A:C2	35:BA:510:A:C2	3.09	0.40
46:DM:11:ASP:O	46:DM:12:HIS:HB2	2.21	0.40
3:EA:1278:C:H2'	3:EA:1279:G:H8	1.86	0.40
3:GA:1021:A:N3	3:GA:1021:A:H3'	2.37	0.40
3:GA:2830:C:O3'	4:GD:56:LYS:NZ	2.55	0.40
3:CA:1315:C:O2'	3:CA:1316:U:H5'	2.20	0.40
1:GB:50:A:OP1	15:GO:67:ASN:HB2	2.21	0.40
32:A5:71:CYS:HA	32:A5:117:LEU:HD11	1.96	0.40
42:HI:52:LEU:O	42:HI:57:MET:HE2	2.21	0.40
17:CQ:94:LEU:C	17:CQ:96:ASP:H	2.23	0.40
32:E5:102:ALA:O	32:E5:105:LYS:N	2.46	0.40
3:EA:2336:A:C6	23:EW:40:ARG:HD3	2.57	0.40
35:HA:34:C:O4'	45:HL:29:GLN:NE2	2.54	0.40
3:AA:1268:A:H2'	3:AA:1269:A:O4'	2.20	0.40
35:DA:1492:A:OP1	45:DL:44:LYS:N	2.54	0.40
35:HA:1088:G:N2	35:HA:1167:A:H62	2.20	0.40
37:DD:72:PHE:CZ	37:DD:200:ILE:HD11	2.57	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:31:THR:HG23	15:CO:32:PRO:CD	2.52	0.40
3:AA:1905:C:N4	3:AA:1930:G:C2	2.89	0.40
3:EA:1827:U:H2'	3:EA:1828:G:O4'	2.21	0.40
17:GQ:91:ARG:HB2	17:GQ:94:LEU:HB2	2.04	0.40
3:GA:947:A:C6	3:GA:948:C:C4	3.09	0.40
3:AA:1124:G:H1'	31:A4:38:GLY:OXT	2.21	0.40
16:CP:50:ARG:CD	16:CP:56:SER:HB3	2.51	0.40
3:EA:2156:G:H2'	3:EA:2157:G:N2	2.35	0.40
3:GA:863:A:C2	3:GA:915:C:N4	2.90	0.40
11:GK:70:ARG:O	11:GK:71:ARG:HB2	2.22	0.40
3:CA:783:A:C8	3:CA:784:G:H4'	2.56	0.40
3:GA:137:U:H5''	3:GA:140:C:C5	2.57	0.40
10:GJ:36:LEU:HA	10:GJ:36:LEU:HD13	1.98	0.40
3:CA:1171:G:N2	3:CA:1179:G:C4	2.89	0.40
38:FE:110:ALA:O	38:FE:111:MET:CB	2.68	0.40
3:AA:2799:A:O2'	3:AA:2800:A:OP2	2.32	0.40
3:CA:1654:A:O2'	4:CD:118:PHE:CB	2.70	0.40
6:EF:134:GLN:OE1	6:EF:149:ARG:HB3	2.22	0.40
3:CA:2766:A:H2'	3:CA:2766:A:N3	2.36	0.40
49:BP:28:ARG:HG2	49:BP:29:ASN:OD1	2.21	0.40
45:DL:83:ARG:NH2	45:DL:96:HIS:CG	2.90	0.40
3:GA:1853:A:N1	3:GA:1854:A:C2	2.90	0.40
3:GA:871:U:O2	3:GA:872:U:C4	2.75	0.40
46:FM:3:ARG:HD2	46:FM:7:ILE:HD12	2.03	0.40
3:GA:2060:A:N6	5:GE:69:ARG:NH2	2.69	0.40
14:EN:117:ASP:CG	14:EN:118:ARG:H	2.22	0.40
21:AU:82:VAL:HG13	21:AU:93:ARG:HB3	2.03	0.40
35:HA:1132:C:H3'	35:HA:1133:G:H8	1.86	0.40
35:BA:209:U:H5	35:BA:211:G:C6	2.40	0.40
7:GG:132:LEU:N	7:GG:132:LEU:HD23	2.37	0.40
5:GE:151:GLY:HA3	5:GE:191:ASP:HB3	2.03	0.40
1:EB:78:A:C2	1:EB:99:A:C4	3.09	0.40
7:GG:26:LYS:HE2	7:GG:32:LEU:HD21	2.03	0.40
45:DL:76:GLU:HG3	55:DV:454:ASN:HB2	2.04	0.40
3:AA:2868:A:C2	3:AA:2869:G:C4	3.09	0.40
20:CT:89:GLU:O	20:CT:91:GLN:N	2.54	0.40
3:AA:1022:G:C5	3:AA:1140:C:N4	2.89	0.40
3:GA:2357:G:C5	3:GA:2359:C:OP2	2.75	0.40
50:DQ:59:VAL:CG1	50:DQ:75:LEU:HD13	2.51	0.40
41:FH:47:GLU:N	41:FH:64:LYS:HG3	2.36	0.40
9:GI:18:ASN:N	9:GI:19:PRO:HD3	2.36	0.40
35:FA:520:A:N7	35:FA:521:G:C8	2.89	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:EA:2054:A:C2	3:EA:2616:C:C2	3.10	0.40
37:HD:167:LYS:HA	37:HD:168:PRO:HD3	1.96	0.40
2:CC:109:LEU:CD1	2:CC:110:LYS:H	2.34	0.40
6:CF:69:ALA:N	6:CF:82:TYR:O	2.53	0.40
35:DA:1266:G:C6	35:DA:1270:G:C6	3.09	0.40
9:EI:14:ALA:CA	9:EI:54:ILE:HD11	2.51	0.40
30:G3:31:ILE:HD12	30:G3:31:ILE:C	2.42	0.40
7:EG:88:LEU:HD22	7:EG:161:VAL:HG22	2.04	0.40
45:HL:3:THR:O	45:HL:7:LEU:HD13	2.22	0.40
24:GX:38:TRP:CD1	24:GX:40:GLU:HB2	2.56	0.40
3:AA:841:G:C2	3:AA:938:G:C2	3.10	0.40
3:CA:197:A:N6	3:CA:2430:A:H2'	2.36	0.40
55:HV:381:ASP:OD1	55:HV:382:ILE:N	2.48	0.40
3:CA:188:G:C2'	3:CA:189:G:H5'	2.52	0.40
3:CA:225:C:C4	3:CA:226:A:N7	2.89	0.40
35:FA:620:C:H1'	37:FD:132:ILE:HD11	2.02	0.40
35:DA:598:U:H4'	41:DH:86:TYR:CD1	2.56	0.40
52:FS:31:LEU:HD23	52:FS:32:ARG:N	2.36	0.40
55:DV:697:ALA:O	55:DV:699:ILE:N	2.53	0.40
44:FK:58:SER:O	44:FK:91:PRO:HG2	2.21	0.40
3:EA:522:A:N6	3:EA:523:C:N4	2.69	0.40
3:GA:1215:G:O6	3:GA:1235:G:N2	2.54	0.40
36:HC:76:VAL:HG11	36:HC:103:ILE:CD1	2.52	0.40
3:EA:2834:G:H2'	3:EA:2879:A:N6	2.36	0.40
3:CA:936:A:H2'	3:CA:937:C:H6	1.86	0.40
35:BA:246:A:C4	35:BA:279:A:N6	2.90	0.40
37:BD:188:ARG:NH1	37:BD:191:LEU:O	2.54	0.40
3:GA:2333:A:H5'	3:GA:2335:A:H1'	2.02	0.40
9:AI:52:LEU:HB3	9:AI:53:PRO:CD	2.51	0.40
55:BV:365:GLN:HB2	55:BV:374:ILE:HD11	2.02	0.40
3:EA:1629:U:H2'	3:EA:1630:A:O4'	2.21	0.40
35:FA:1072:G:C5	35:FA:1073:U:C4	3.10	0.40
35:HA:469:C:H2'	35:HA:470:C:O4'	2.22	0.40
6:GF:111:ARG:HH22	52:HS:67:VAL:CG2	2.35	0.40
36:HC:120:ILE:HD11	36:HC:137:ALA:HB2	2.02	0.40
3:EA:2796:U:C4	3:EA:2798:U:C4	3.09	0.40
3:AA:181:A:C2	3:AA:182:A:C4	3.09	0.40
35:DA:968:A:H4'	35:DA:969:A:OP2	2.22	0.40
35:FA:958:A:N1	52:FS:54:GLY:HA3	2.37	0.40
55:BV:53:MET:HB2	55:BV:56:GLU:CG	2.51	0.40
35:HA:354:G:N1	35:HA:355:C:C4	2.90	0.40
55:BV:103:MET:HG2	55:BV:135:VAL:HG11	2.02	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:121:THR:O	4:CD:122:VAL:HB	2.21	0.40
35:DA:248:C:C4	35:DA:249:U:C4	3.10	0.40
27:A0:47:TYR:CE1	27:A0:52:LYS:HD3	2.57	0.40
3:CA:1083:U:P	32:C5:41:LEU:HD22	2.61	0.40
3:EA:323:C:H6	3:EA:1205:A:N1	2.19	0.40
3:EA:879:G:H2'	3:EA:880:G:H8	1.86	0.40
4:ED:56:LYS:O	4:ED:60:VAL:HG23	2.22	0.40
3:AA:68:G:H2'	3:AA:69:C:O4'	2.22	0.40
3:CA:2809:A:H62	3:CA:2890:G:H2'	1.86	0.40
3:EA:2722:G:H4'	14:EN:4:ARG:HB2	2.03	0.40
3:EA:1604:C:H5'	60:EA:3406:HOH:O	2.22	0.40
12:EL:85:VAL:O	12:EL:86:GLU:HB3	2.21	0.40
3:CA:2064:C:H2'	3:CA:2065:C:C6	2.56	0.40
35:FA:971:G:O6	35:FA:1364:U:O2'	2.38	0.40
18:CR:4:VAL:HA	18:CR:12:HIS:O	2.21	0.40
3:EA:438:G:H2'	3:EA:439:A:C8	2.57	0.40
3:EA:346:A:C2	3:EA:347:A:H1'	2.56	0.40
35:HA:678:U:H2'	35:HA:679:C:C6	2.57	0.40
3:EA:2831:G:OP2	4:ED:59:ARG:NH1	2.47	0.40
7:GG:44:HIS:HA	7:GG:49:LEU:HD23	2.04	0.40
36:DC:12:LEU:HB3	36:DC:18:TRP:CZ2	2.57	0.40
3:AA:2447:G:C4	3:AA:2500:U:C5	3.09	0.40
20:ET:15:HIS:O	20:ET:17:SER:N	2.54	0.40
37:BD:44:ARG:O	37:BD:46:PRO:HD3	2.21	0.40
46:BM:40:ALA:HB3	46:BM:43:VAL:HG23	2.03	0.40
3:EA:1631:G:N2	3:EA:1634:A:OP2	2.52	0.40
35:FA:256:U:O4	60:FA:1806:HOH:O	2.20	0.40
12:AL:74:THR:HG22	12:AL:107:PHE:HB2	2.03	0.40
3:EA:452:G:N2	3:EA:458:G:C4	2.89	0.40
3:GA:1515:A:H2'	3:GA:1516:G:O4'	2.22	0.40
32:A5:40:GLU:CG	32:A5:40:GLU:O	2.70	0.40
55:BV:526:GLU:N	55:BV:526:GLU:OE1	2.54	0.40
35:DA:1173:U:H6	35:DA:1173:U:O5'	2.05	0.40
2:CC:265:PHE:N	2:CC:265:PHE:CD1	2.90	0.40
15:GO:105:ALA:O	15:GO:107:ALA:N	2.49	0.40
47:BN:51:LEU:HB2	47:BN:52:PRO:CD	2.51	0.40
3:CA:1492:G:H1	3:CA:1498:C:N4	2.20	0.40
32:A5:47:GLU:CG	32:A5:95:LEU:HD21	2.51	0.40
3:EA:2427:C:H5''	3:EA:2428:G:OP1	2.21	0.40
3:GA:587:C:O2	12:GL:33:ARG:NH2	2.54	0.40
3:GA:1000:A:C5	3:GA:1155:A:C5	3.10	0.40
35:HA:1351:U:H2'	35:HA:1352:C:C6	2.57	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:BV:224:GLU:HG3	55:BV:237:TYR:CE2	2.57	0.40
35:HA:1014:A:H4'	52:HS:14:HIS:CG	2.57	0.40
35:DA:1074:G:C6	35:DA:1075:U:N3	2.90	0.40
3:AA:1378:A:H4'	3:AA:1379:U:OP1	2.20	0.40
3:EA:2447:G:C4	3:EA:2500:U:C5	3.10	0.40
16:GP:9:GLN:C	16:GP:11:GLN:H	2.23	0.40
35:HA:735:C:H1'	51:HR:64:TYR:CZ	2.56	0.40
9:GI:75:ALA:HA	9:GI:112:LYS:HD2	2.03	0.40
3:AA:2017:U:H5''	3:AA:2018:G:P	2.61	0.40
12:CL:95:LEU:HD11	12:CL:125:LEU:HD11	2.04	0.40
35:FA:158:G:C5	35:FA:164:G:C6	3.10	0.40
35:HA:505:G:H2'	35:HA:506:G:C8	2.56	0.40
44:BK:93:ARG:NH1	54:BU:25:LYS:HE2	2.36	0.40
3:CA:1168:G:H3'	3:CA:1169:A:H8	1.87	0.40
3:CA:1062:G:H2'	3:CA:1063:G:C8	2.56	0.40
4:CD:149:ASN:CG	4:CD:150:GLN:H	2.23	0.40
3:GA:2527:C:C4	3:GA:2528:U:C5	3.09	0.40
55:HV:407:GLU:O	55:HV:408:ARG:CB	2.69	0.40
35:DA:468:A:C2	35:DA:469:C:N4	2.89	0.40
22:CV:1:MET:HG3	22:CV:2:PHE:N	2.36	0.40
36:BC:184:TYR:HA	36:BC:200:VAL:O	2.22	0.40
35:HA:1373:G:H5''	40:HG:36:LYS:HD2	2.04	0.40
3:GA:1243:C:C4	3:GA:1244:A:N7	2.89	0.40
3:GA:2304:G:H21	3:GA:2312:U:H3	1.68	0.40
38:FE:96:MET:HE2	38:FE:115:LEU:HD21	2.03	0.40
55:DV:90:PRO:HG2	55:DV:98:GLU:HB2	2.04	0.40
3:GA:1783:A:C2	3:GA:2588:G:O4'	2.75	0.40
16:AP:33:GLU:HG3	16:AP:36:LYS:O	2.22	0.40
37:BD:91:LEU:HD11	37:BD:197:GLU:HG3	2.02	0.40
4:AD:106:LYS:HB3	4:AD:206:ALA:CB	2.52	0.40
50:HQ:62:ARG:HG2	50:HQ:76:VAL:HG13	2.02	0.40
3:AA:1263:U:O2'	27:A0:7:PRO:HD2	2.22	0.40
3:CA:271:G:C2	3:CA:367:G:C2	3.09	0.40
55:BV:104:ARG:C	55:BV:104:ARG:HD2	2.41	0.40
35:BA:1113:C:H2'	35:BA:1114:C:H6	1.87	0.40
2:GC:24:HIS:CE1	2:GC:79:ARG:HH21	2.40	0.40
7:CG:19:ASN:O	7:CG:22:VAL:HG22	2.21	0.40
35:FA:202:G:O2'	35:FA:468:A:H8	2.04	0.40
1:CB:42:C:P	6:CF:63:LYS:NZ	2.95	0.40
1:CB:42:C:H4'	6:CF:63:LYS:HD2	2.03	0.40
3:AA:1365:A:C6	3:AA:1366:A:C5	3.10	0.40
3:GA:463:G:N2	3:GA:466:A:OP2	2.53	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:A3:30:HIS:ND1	30:A3:31:ILE:HG23	2.36	0.40
35:BA:1126:U:O2	35:BA:1280:A:H2'	2.21	0.40
6:AF:148:VAL:HG23	6:AF:149:ARG:H	1.87	0.40
47:BN:36:ALA:HB2	47:BN:41:ARG:HG3	2.03	0.40
2:EC:76:VAL:HG12	2:EC:94:LEU:HB3	2.04	0.40
3:CA:2902:C:HO2'	3:CA:2903:U:P	2.44	0.40
3:CA:2478:A:C2'	3:CA:2479:U:H5'	2.51	0.40
4:AD:46:ARG:CZ	4:AD:46:ARG:HB3	2.51	0.40
55:BV:497:LYS:HG2	55:BV:524:PRO:HD2	2.03	0.40
34:HB:140:LEU:O	34:HB:143:LEU:HG	2.21	0.40
2:GC:259:ASN:O	2:GC:260:LYS:HB2	2.22	0.40
10:CJ:122:LEU:C	10:CJ:122:LEU:HD12	2.42	0.40
3:EA:333:G:C6	3:EA:334:C:C4	3.09	0.40
3:GA:874:G:H1'	3:GA:904:G:N2	2.36	0.40
3:GA:1722:A:N6	3:GA:1738:G:H1'	2.36	0.40
3:CA:1208:C:C4	3:CA:1209:U:C4	3.10	0.40
10:AJ:36:LEU:HD21	10:AJ:122:LEU:HB2	2.04	0.40
6:EF:168:LEU:HD12	6:EF:168:LEU:C	2.42	0.40
3:AA:230:G:N2	3:AA:231:A:C4	2.90	0.40
19:CS:27:LYS:O	19:CS:71:VAL:HG12	2.22	0.40
10:AJ:110:PRO:HB2	10:AJ:111:LYS:CG	2.52	0.40
35:FA:570:G:H1'	35:FA:820:U:C4	2.57	0.40
45:BL:14:ARG:NH1	45:BL:15:LYS:HG2	2.36	0.40
35:HA:50:A:O2'	35:HA:360:G:N2	2.54	0.40
36:BC:40:ARG:HG2	36:BC:55:ILE:HG13	2.03	0.40
3:CA:2591:C:P	2:CC:237:ARG:HG3	2.62	0.40
55:BV:512:ARG:HG3	55:BV:514:GLN:NE2	2.37	0.40
44:FK:107:ILE:HD11	44:FK:110:ILE:HG13	2.04	0.40
35:HA:1338:G:N2	35:HA:1339:A:C4	2.89	0.40
3:EA:276:U:C4	3:EA:277:G:N2	2.90	0.40
39:FF:77:THR:O	39:FF:81:ASN:CB	2.69	0.40
4:ED:177:VAL:HG13	4:ED:187:LEU:HD11	2.03	0.40
43:DJ:6:ILE:O	43:DJ:76:ILE:HB	2.21	0.40
21:EU:39:ASN:O	21:EU:62:ALA:N	2.51	0.40
41:FH:112:THR:HG23	41:FH:115:ALA:HB2	2.03	0.40
3:CA:1975:G:C6	3:CA:1976:U:C4	3.10	0.40
13:GM:71:LYS:HB3	13:GM:93:VAL:O	2.21	0.40
36:DC:105:GLU:HG2	36:DC:106:VAL:N	2.36	0.40
19:ES:66:ILE:HD13	19:ES:67:ASP:N	2.37	0.40
3:AA:1450:G:C6	3:AA:1451:C:N4	2.90	0.40
55:HV:15:ILE:CD1	55:HV:86:ILE:HG23	2.52	0.40
14:CN:56:LYS:HD2	14:CN:88:ALA:HA	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:GA:283:G:N1	3:GA:284:U:C2	2.90	0.40
38:HE:80:THR:OG1	38:HE:81:LEU:N	2.55	0.40
41:DH:11:LEU:CD2	41:DH:75:ILE:HD11	2.52	0.40
55:DV:532:LYS:HD3	55:DV:534:TYR:H	1.86	0.40
35:BA:539:A:H2'	35:BA:540:G:C8	2.56	0.40
3:EA:2343:U:HO2'	3:EA:2373:G:HO2'	1.65	0.40
3:AA:629:G:H4'	3:AA:650:C:O2	2.21	0.40
48:DO:45:GLU:O	48:DO:47:LYS:N	2.53	0.40
35:DA:602:A:H2'	35:DA:603:U:C6	2.56	0.40
3:EA:558:U:O3'	10:EJ:111:LYS:HE3	2.22	0.40
3:CA:802:A:C5	3:CA:803:U:C4	3.09	0.40
3:EA:691:C:O2'	2:EC:40:GLY:HA3	2.22	0.40
35:DA:938:A:C6	35:DA:939:G:C5	3.09	0.40
10:GJ:89:PHE:CE2	10:GJ:100:VAL:HG11	2.57	0.40
35:HA:1189:U:H2'	35:HA:1190:G:H5'	2.03	0.40
55:FV:282:VAL:HG13	55:FV:286:LEU:HD23	2.03	0.40
35:BA:62:U:O2'	35:BA:379:C:O2	2.27	0.40
40:BG:122:ASN:O	40:BG:126:ASP:HB2	2.22	0.40
35:FA:751:U:H4'	48:FO:24:SER:HA	2.04	0.40
40:FG:12:ILE:HG22	40:FG:13:LEU:O	2.22	0.40
3:GA:1678:A:H2'	3:GA:1679:A:O4'	2.21	0.40
3:GA:497:A:C5	3:GA:498:G:N7	2.90	0.40
34:FB:17:HIS:CD2	34:FB:202:ASN:ND2	2.90	0.40
3:CA:288:U:H2'	3:CA:289:G:O4'	2.22	0.40
35:DA:632:U:H3'	35:DA:633:G:H5'	2.02	0.40
36:FC:121:THR:CG2	36:FC:122:SER:N	2.85	0.40
53:HT:3:ASN:O	53:HT:5:LYS:N	2.50	0.40
3:CA:1865:U:C5	3:CA:1875:G:C2	3.09	0.40
44:FK:63:ALA:CB	44:FK:92:GLY:HA3	2.51	0.40
11:CK:18:ARG:H	11:CK:45:GLU:HB2	1.86	0.40
35:DA:1346:A:N1	35:DA:1374:A:H5''	2.36	0.40
35:DA:1375:A:C6	35:DA:1376:U:C4	3.10	0.40
3:CA:490:C:H4'	3:CA:491:G:OP2	2.22	0.40
3:AA:136:G:H1	3:AA:143:C:H42	1.69	0.40
21:GU:99:SER:OG	21:GU:99:SER:O	2.36	0.40
53:FT:24:ARG:N	53:FT:24:ARG:HD2	2.36	0.40
13:GM:91:TYR:CD1	13:GM:91:TYR:N	2.90	0.40
52:HS:13:LEU:HD23	52:HS:13:LEU:HA	1.97	0.40
2:GC:175:LEU:CD1	2:GC:175:LEU:N	2.84	0.40
7:EG:36:LEU:HD22	7:EG:36:LEU:N	2.37	0.40
7:AG:166:GLU:C	7:AG:166:GLU:CD	2.80	0.40
3:AA:2469:A:C6	3:AA:2482:A:C8	3.10	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BO:43:PHE:CZ	48:BO:53:ARG:HA	2.56	0.40

All (2) 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	Distance(Å)	Clash(Å)
35:FA:1029:U:O3'	3:GA:1508:A:N6[1_565]	2.04	0.16
43:FJ:85:ASP:OD1	3:GA:1722:A:O2'[1_565]	2.16	0.04

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AC	269/273 (98%)	211 (78%)	43 (16%)	15 (6%)	3	8
2	CC	269/273 (98%)	211 (78%)	42 (16%)	16 (6%)	2	7
2	EC	269/273 (98%)	212 (79%)	44 (16%)	13 (5%)	4	12
2	GC	269/273 (98%)	210 (78%)	42 (16%)	17 (6%)	2	6
4	AD	207/209 (99%)	163 (79%)	30 (14%)	14 (7%)	2	5
4	CD	207/209 (99%)	166 (80%)	27 (13%)	14 (7%)	2	5
4	ED	207/209 (99%)	165 (80%)	29 (14%)	13 (6%)	2	6
4	GD	207/209 (99%)	161 (78%)	32 (16%)	14 (7%)	2	5
5	AE	199/201 (99%)	162 (81%)	27 (14%)	10 (5%)	3	11
5	CE	199/201 (99%)	159 (80%)	27 (14%)	13 (6%)	2	5
5	EE	199/201 (99%)	164 (82%)	24 (12%)	11 (6%)	3	8
5	GE	199/201 (99%)	159 (80%)	30 (15%)	10 (5%)	3	11
6	AF	175/179 (98%)	141 (81%)	30 (17%)	4 (2%)	10	36
6	CF	175/179 (98%)	145 (83%)	25 (14%)	5 (3%)	7	28
6	EF	175/179 (98%)	140 (80%)	26 (15%)	9 (5%)	3	10

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	GF	175/179 (98%)	140 (80%)	26 (15%)	9 (5%)	3	10
7	AG	174/177 (98%)	127 (73%)	30 (17%)	17 (10%)	1	2
7	CG	174/177 (98%)	131 (75%)	28 (16%)	15 (9%)	1	3
7	EG	174/177 (98%)	125 (72%)	35 (20%)	14 (8%)	1	3
7	GG	174/177 (98%)	126 (72%)	30 (17%)	18 (10%)	1	2
8	AH	48/50 (96%)	29 (60%)	14 (29%)	5 (10%)	1	2
8	CH	48/50 (96%)	31 (65%)	12 (25%)	5 (10%)	1	2
8	EH	48/50 (96%)	31 (65%)	12 (25%)	5 (10%)	1	2
8	GH	48/50 (96%)	30 (62%)	15 (31%)	3 (6%)	2	6
9	AI	139/142 (98%)	97 (70%)	33 (24%)	9 (6%)	2	5
9	CI	139/142 (98%)	95 (68%)	38 (27%)	6 (4%)	4	15
9	EI	139/142 (98%)	97 (70%)	38 (27%)	4 (3%)	7	28
9	GI	139/142 (98%)	95 (68%)	34 (24%)	10 (7%)	2	4
10	AJ	140/142 (99%)	113 (81%)	18 (13%)	9 (6%)	2	6
10	CJ	140/142 (99%)	112 (80%)	20 (14%)	8 (6%)	3	8
10	EJ	140/142 (99%)	114 (81%)	17 (12%)	9 (6%)	2	6
10	GJ	140/142 (99%)	113 (81%)	19 (14%)	8 (6%)	3	8
11	AK	120/123 (98%)	96 (80%)	14 (12%)	10 (8%)	1	3
11	CK	120/123 (98%)	93 (78%)	21 (18%)	6 (5%)	3	11
11	EK	120/123 (98%)	92 (77%)	21 (18%)	7 (6%)	3	7
11	GK	120/123 (98%)	92 (77%)	20 (17%)	8 (7%)	2	5
12	AL	141/144 (98%)	104 (74%)	32 (23%)	5 (4%)	6	23
12	CL	141/144 (98%)	103 (73%)	33 (23%)	5 (4%)	6	23
12	EL	141/144 (98%)	108 (77%)	26 (18%)	7 (5%)	3	11
12	GL	141/144 (98%)	103 (73%)	32 (23%)	6 (4%)	4	15
13	AM	134/136 (98%)	107 (80%)	16 (12%)	11 (8%)	1	3
13	CM	134/136 (98%)	110 (82%)	16 (12%)	8 (6%)	2	7
13	EM	134/136 (98%)	106 (79%)	18 (13%)	10 (8%)	2	4
13	GM	134/136 (98%)	109 (81%)	17 (13%)	8 (6%)	2	7
14	AN	118/127 (93%)	101 (86%)	16 (14%)	1 (1%)	27	68
14	CN	118/127 (93%)	103 (87%)	14 (12%)	1 (1%)	27	68

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	EN	118/127 (93%)	100 (85%)	17 (14%)	1 (1%)	27	68
14	GN	118/127 (93%)	98 (83%)	19 (16%)	1 (1%)	27	68
15	AO	114/117 (97%)	95 (83%)	18 (16%)	1 (1%)	25	66
15	CO	114/117 (97%)	95 (83%)	15 (13%)	4 (4%)	6	23
15	EO	114/117 (97%)	95 (83%)	18 (16%)	1 (1%)	25	66
15	GO	114/117 (97%)	95 (83%)	15 (13%)	4 (4%)	6	23
16	AP	112/115 (97%)	86 (77%)	17 (15%)	9 (8%)	1	3
16	CP	112/115 (97%)	87 (78%)	16 (14%)	9 (8%)	1	3
16	EP	112/115 (97%)	84 (75%)	16 (14%)	12 (11%)	1	2
16	GP	112/115 (97%)	85 (76%)	19 (17%)	8 (7%)	2	4
17	AQ	115/118 (98%)	99 (86%)	12 (10%)	4 (4%)	6	23
17	CQ	115/118 (98%)	99 (86%)	12 (10%)	4 (4%)	6	23
17	EQ	115/118 (98%)	99 (86%)	12 (10%)	4 (4%)	6	23
17	GQ	115/118 (98%)	99 (86%)	14 (12%)	2 (2%)	14	45
18	AR	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	7	27
18	CR	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	7	27
18	ER	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	7	27
18	GR	101/103 (98%)	83 (82%)	13 (13%)	5 (5%)	3	11
19	AS	108/110 (98%)	94 (87%)	9 (8%)	5 (5%)	4	14
19	CS	108/110 (98%)	95 (88%)	9 (8%)	4 (4%)	5	20
19	ES	108/110 (98%)	92 (85%)	10 (9%)	6 (6%)	3	8
19	GS	108/110 (98%)	91 (84%)	11 (10%)	6 (6%)	3	8
20	AT	91/100 (91%)	57 (63%)	24 (26%)	10 (11%)	1	2
20	CT	91/100 (91%)	55 (60%)	25 (28%)	11 (12%)	1	1
20	ET	91/100 (91%)	56 (62%)	26 (29%)	9 (10%)	1	2
20	GT	91/100 (91%)	58 (64%)	23 (25%)	10 (11%)	1	2
21	AU	100/104 (96%)	74 (74%)	16 (16%)	10 (10%)	1	2
21	CU	100/104 (96%)	75 (75%)	17 (17%)	8 (8%)	1	3
21	EU	100/104 (96%)	74 (74%)	15 (15%)	11 (11%)	1	2
21	GU	100/104 (96%)	76 (76%)	14 (14%)	10 (10%)	1	2
22	AV	92/94 (98%)	81 (88%)	11 (12%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
22	CV	92/94 (98%)	80 (87%)	11 (12%)	1 (1%)	21	60
22	EV	92/94 (98%)	80 (87%)	12 (13%)	0	100	100
22	GV	92/94 (98%)	78 (85%)	13 (14%)	1 (1%)	21	60
23	AW	77/85 (91%)	39 (51%)	22 (29%)	16 (21%)	0	0
23	CW	77/85 (91%)	41 (53%)	17 (22%)	19 (25%)	0	0
23	EW	77/85 (91%)	41 (53%)	21 (27%)	15 (20%)	0	0
23	GW	77/85 (91%)	40 (52%)	21 (27%)	16 (21%)	0	0
24	AX	75/78 (96%)	64 (85%)	8 (11%)	3 (4%)	5	17
24	CX	75/78 (96%)	63 (84%)	10 (13%)	2 (3%)	8	30
24	EX	75/78 (96%)	63 (84%)	9 (12%)	3 (4%)	5	17
24	GX	75/78 (96%)	63 (84%)	9 (12%)	3 (4%)	5	17
25	AY	61/63 (97%)	39 (64%)	18 (30%)	4 (7%)	2	5
25	CY	61/63 (97%)	42 (69%)	15 (25%)	4 (7%)	2	5
25	EY	61/63 (97%)	40 (66%)	17 (28%)	4 (7%)	2	5
25	GY	61/63 (97%)	39 (64%)	20 (33%)	2 (3%)	6	24
26	AZ	56/59 (95%)	46 (82%)	8 (14%)	2 (4%)	5	22
26	CZ	56/59 (95%)	46 (82%)	8 (14%)	2 (4%)	5	22
26	EZ	56/59 (95%)	46 (82%)	8 (14%)	2 (4%)	5	22
26	GZ	56/59 (95%)	44 (79%)	10 (18%)	2 (4%)	5	22
27	A0	54/57 (95%)	43 (80%)	7 (13%)	4 (7%)	2	4
27	C0	54/57 (95%)	45 (83%)	3 (6%)	6 (11%)	1	2
27	E0	54/57 (95%)	44 (82%)	6 (11%)	4 (7%)	2	4
27	G0	54/57 (95%)	46 (85%)	4 (7%)	4 (7%)	2	4
28	A1	48/55 (87%)	42 (88%)	3 (6%)	3 (6%)	2	6
28	C1	48/55 (87%)	42 (88%)	4 (8%)	2 (4%)	4	16
28	E1	48/55 (87%)	42 (88%)	4 (8%)	2 (4%)	4	16
28	G1	48/55 (87%)	42 (88%)	3 (6%)	3 (6%)	2	6
29	A2	44/46 (96%)	41 (93%)	3 (7%)	0	100	100
29	C2	44/46 (96%)	41 (93%)	2 (4%)	1 (2%)	10	36
29	E2	44/46 (96%)	40 (91%)	4 (9%)	0	100	100
29	G2	44/46 (96%)	40 (91%)	3 (7%)	1 (2%)	10	36

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
30	A3	62/65 (95%)	53 (86%)	7 (11%)	2 (3%)	6	25
30	C3	62/65 (95%)	54 (87%)	6 (10%)	2 (3%)	6	25
30	E3	62/65 (95%)	56 (90%)	4 (6%)	2 (3%)	6	25
30	G3	62/65 (95%)	54 (87%)	6 (10%)	2 (3%)	6	25
31	A4	36/38 (95%)	29 (81%)	4 (11%)	3 (8%)	1	3
31	C4	36/38 (95%)	29 (81%)	4 (11%)	3 (8%)	1	3
31	E4	36/38 (95%)	29 (81%)	4 (11%)	3 (8%)	1	3
31	G4	36/38 (95%)	30 (83%)	2 (6%)	4 (11%)	1	2
32	A5	146/165 (88%)	77 (53%)	40 (27%)	29 (20%)	0	0
32	C5	146/165 (88%)	78 (53%)	45 (31%)	23 (16%)	0	0
32	E5	143/165 (87%)	79 (55%)	41 (29%)	23 (16%)	0	0
33	A6	28/121 (23%)	20 (71%)	7 (25%)	1 (4%)	5	22
34	BB	216/241 (90%)	151 (70%)	51 (24%)	14 (6%)	2	5
34	DB	216/241 (90%)	157 (73%)	47 (22%)	12 (6%)	3	8
34	FB	216/241 (90%)	153 (71%)	51 (24%)	12 (6%)	3	8
34	HB	216/241 (90%)	153 (71%)	51 (24%)	12 (6%)	3	8
36	BC	204/233 (88%)	181 (89%)	18 (9%)	5 (2%)	9	32
36	DC	204/233 (88%)	179 (88%)	20 (10%)	5 (2%)	9	32
36	FC	204/233 (88%)	180 (88%)	18 (9%)	6 (3%)	7	28
36	HC	204/233 (88%)	181 (89%)	17 (8%)	6 (3%)	7	28
37	BD	203/206 (98%)	162 (80%)	30 (15%)	11 (5%)	3	9
37	DD	203/206 (98%)	162 (80%)	29 (14%)	12 (6%)	2	7
37	FD	203/206 (98%)	163 (80%)	29 (14%)	11 (5%)	3	9
37	HD	203/206 (98%)	165 (81%)	26 (13%)	12 (6%)	2	7
38	BE	148/167 (89%)	123 (83%)	18 (12%)	7 (5%)	4	13
38	DE	148/167 (89%)	125 (84%)	18 (12%)	5 (3%)	6	23
38	FE	148/167 (89%)	122 (82%)	20 (14%)	6 (4%)	4	17
38	HE	148/167 (89%)	121 (82%)	20 (14%)	7 (5%)	4	13
39	BF	100/135 (74%)	79 (79%)	15 (15%)	6 (6%)	2	7
39	DF	98/135 (73%)	80 (82%)	13 (13%)	5 (5%)	3	10
39	FF	98/135 (73%)	81 (83%)	11 (11%)	6 (6%)	2	7

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
39	HF	98/135 (73%)	76 (78%)	18 (18%)	4 (4%)	4	17
40	BG	149/179 (83%)	128 (86%)	20 (13%)	1 (1%)	30	72
40	DG	149/179 (83%)	125 (84%)	22 (15%)	2 (1%)	18	54
40	FG	149/179 (83%)	127 (85%)	21 (14%)	1 (1%)	30	72
40	HG	149/179 (83%)	127 (85%)	20 (13%)	2 (1%)	18	54
41	BH	127/130 (98%)	114 (90%)	12 (9%)	1 (1%)	27	68
41	DH	127/130 (98%)	113 (89%)	12 (9%)	2 (2%)	14	47
41	FH	127/130 (98%)	112 (88%)	13 (10%)	2 (2%)	14	47
41	HH	127/130 (98%)	112 (88%)	13 (10%)	2 (2%)	14	47
42	BI	125/130 (96%)	105 (84%)	14 (11%)	6 (5%)	4	12
42	DI	125/130 (96%)	102 (82%)	22 (18%)	1 (1%)	27	68
42	FI	125/130 (96%)	106 (85%)	13 (10%)	6 (5%)	4	12
42	HI	125/130 (96%)	103 (82%)	19 (15%)	3 (2%)	9	35
43	BJ	96/103 (93%)	69 (72%)	20 (21%)	7 (7%)	2	4
43	DJ	96/103 (93%)	71 (74%)	19 (20%)	6 (6%)	2	6
43	FJ	96/103 (93%)	69 (72%)	21 (22%)	6 (6%)	2	6
43	HJ	96/103 (93%)	68 (71%)	19 (20%)	9 (9%)	1	2
44	BK	115/129 (89%)	97 (84%)	12 (10%)	6 (5%)	3	10
44	DK	115/129 (89%)	92 (80%)	19 (16%)	4 (4%)	6	23
44	FK	115/129 (89%)	96 (84%)	13 (11%)	6 (5%)	3	10
44	HK	115/129 (89%)	91 (79%)	15 (13%)	9 (8%)	1	3
45	BL	121/124 (98%)	101 (84%)	16 (13%)	4 (3%)	6	24
45	DL	121/124 (98%)	98 (81%)	20 (16%)	3 (2%)	9	32
45	FL	121/124 (98%)	100 (83%)	14 (12%)	7 (6%)	3	7
45	HL	121/124 (98%)	101 (84%)	15 (12%)	5 (4%)	4	17
46	BM	112/118 (95%)	98 (88%)	8 (7%)	6 (5%)	3	9
46	DM	112/118 (95%)	96 (86%)	11 (10%)	5 (4%)	4	14
46	FM	112/118 (95%)	99 (88%)	7 (6%)	6 (5%)	3	9
46	HM	112/118 (95%)	92 (82%)	12 (11%)	8 (7%)	2	4
47	BN	92/101 (91%)	73 (79%)	13 (14%)	6 (6%)	2	5
47	DN	92/101 (91%)	71 (77%)	19 (21%)	2 (2%)	10	37

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
47	FN	92/101 (91%)	71 (77%)	17 (18%)	4 (4%)	4	15
47	HN	92/101 (91%)	70 (76%)	18 (20%)	4 (4%)	4	15
48	BO	86/89 (97%)	75 (87%)	9 (10%)	2 (2%)	10	36
48	DO	86/89 (97%)	75 (87%)	11 (13%)	0	100	100
48	FO	86/89 (97%)	75 (87%)	11 (13%)	0	100	100
48	HO	86/89 (97%)	72 (84%)	11 (13%)	3 (4%)	6	23
49	BP	80/82 (98%)	60 (75%)	17 (21%)	3 (4%)	5	19
49	DP	80/82 (98%)	60 (75%)	15 (19%)	5 (6%)	2	6
49	FP	80/82 (98%)	62 (78%)	15 (19%)	3 (4%)	5	19
49	HP	80/82 (98%)	56 (70%)	21 (26%)	3 (4%)	5	19
50	BQ	78/84 (93%)	59 (76%)	15 (19%)	4 (5%)	3	10
50	DQ	78/84 (93%)	58 (74%)	14 (18%)	6 (8%)	1	3
50	FQ	78/84 (93%)	58 (74%)	17 (22%)	3 (4%)	5	19
50	HQ	78/84 (93%)	58 (74%)	13 (17%)	7 (9%)	1	2
51	BR	53/75 (71%)	47 (89%)	6 (11%)	0	100	100
51	DR	53/75 (71%)	46 (87%)	7 (13%)	0	100	100
51	FR	53/75 (71%)	48 (91%)	5 (9%)	0	100	100
51	HR	53/75 (71%)	49 (92%)	4 (8%)	0	100	100
52	BS	77/92 (84%)	65 (84%)	11 (14%)	1 (1%)	18	54
52	DS	77/92 (84%)	66 (86%)	11 (14%)	0	100	100
52	FS	77/92 (84%)	64 (83%)	11 (14%)	2 (3%)	8	32
52	HS	77/92 (84%)	66 (86%)	9 (12%)	2 (3%)	8	32
53	BT	83/87 (95%)	74 (89%)	7 (8%)	2 (2%)	9	35
53	DT	83/87 (95%)	74 (89%)	6 (7%)	3 (4%)	5	22
53	FT	83/87 (95%)	75 (90%)	6 (7%)	2 (2%)	9	35
53	HT	83/87 (95%)	73 (88%)	8 (10%)	2 (2%)	9	35
54	BU	49/71 (69%)	26 (53%)	20 (41%)	3 (6%)	2	7
54	DU	49/71 (69%)	25 (51%)	20 (41%)	4 (8%)	1	3
54	FU	49/71 (69%)	24 (49%)	21 (43%)	4 (8%)	1	3
54	HU	49/71 (69%)	29 (59%)	18 (37%)	2 (4%)	4	17
55	BV	686/704 (97%)	559 (82%)	92 (13%)	35 (5%)	3	10

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
55	DV	685/704 (97%)	559 (82%)	93 (14%)	33 (5%)	4	12
55	FV	685/704 (97%)	564 (82%)	89 (13%)	32 (5%)	4	13
55	HV	685/704 (97%)	562 (82%)	88 (13%)	35 (5%)	3	10
56	BW	2/6 (33%)	0	0	2 (100%)	0	0
56	DW	2/6 (33%)	0	1 (50%)	1 (50%)	0	0
56	FW	2/6 (33%)	2 (100%)	0	0	100	100
56	HW	2/6 (33%)	1 (50%)	0	1 (50%)	0	0
All	All	25302/27000 (94%)	20075 (79%)	3885 (15%)	1342 (5%)	3	9

All (1342) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AC	70	LYS
2	AC	104	LEU
2	AC	121	ALA
2	AC	140	VAL
4	AD	43	ASP
4	AD	73	VAL
4	AD	170	VAL
5	AE	79	ARG
6	AF	111	ARG
7	AG	2	ARG
7	AG	16	VAL
7	AG	28	LYS
7	AG	31	GLU
7	AG	84	LYS
7	AG	164	ALA
7	AG	168	VAL
8	AH	3	VAL
10	AJ	13	ARG
10	AJ	21	THR
10	AJ	44	TYR
10	AJ	45	THR
10	AJ	81	ILE
10	AJ	125	TYR
12	AL	66	PHE
13	AM	14	LYS
13	AM	77	PRO
14	AN	119	SER
16	AP	50	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	AP	51	ASN
16	AP	93	LYS
19	AS	3	THR
19	AS	14	ALA
19	AS	64	ALA
20	AT	27	SER
20	AT	29	THR
20	AT	40	LYS
21	AU	6	ARG
21	AU	87	GLU
21	AU	92	VAL
21	AU	98	ASN
21	AU	99	SER
23	AW	9	THR
23	AW	18	LYS
23	AW	29	SER
23	AW	36	ILE
23	AW	56	HIS
26	AZ	9	THR
27	A0	23	ALA
30	A3	22	LYS
31	A4	8	LYS
32	A5	27	VAL
32	A5	48	ALA
32	A5	54	VAL
32	A5	55	VAL
32	A5	58	THR
32	A5	69	PHE
32	A5	93	ALA
32	A5	107	GLU
32	A5	108	VAL
32	A5	120	ALA
32	A5	124	ASP
32	A5	130	PRO
34	BB	33	ALA
34	BB	40	ILE
34	BB	119	GLN
36	BC	101	ILE
37	BD	24	GLY
37	BD	25	VAL
37	BD	29	ASP
37	BD	36	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
37	BD	125	VAL
37	BD	153	SER
37	BD	166	GLU
37	BD	175	ALA
38	BE	123	VAL
41	BH	67	GLN
42	BI	42	GLU
42	BI	58	VAL
43	BJ	57	VAL
43	BJ	61	ALA
44	BK	14	LYS
44	BK	41	ALA
44	BK	105	PHE
44	BK	127	ARG
45	BL	24	LEU
45	BL	44	LYS
46	BM	4	ILE
46	BM	11	ASP
46	BM	114	LYS
47	BN	52	PRO
47	BN	53	ARG
49	BP	80	LYS
50	BQ	51	ASN
50	BQ	82	ALA
53	BT	4	ILE
54	BU	13	ASP
55	BV	5	THR
55	BV	7	ILE
55	BV	24	THR
55	BV	195	ASP
55	BV	197	ASP
55	BV	200	VAL
55	BV	204	TYR
55	BV	304	ASP
55	BV	423	LYS
55	BV	454	ASN
55	BV	500	ASP
55	BV	529	SER
55	BV	646	GLU
2	CC	70	LYS
2	CC	104	LEU
2	CC	121	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	CC	140	VAL
4	CD	43	ASP
4	CD	92	VAL
4	CD	118	PHE
4	CD	170	VAL
5	CE	79	ARG
5	CE	175	ILE
6	CF	111	ARG
6	CF	135	ILE
7	CG	2	ARG
7	CG	84	LYS
7	CG	175	LYS
8	CH	3	VAL
8	CH	8	LYS
8	CH	9	VAL
8	CH	11	ASN
9	CI	20	SER
9	CI	59	THR
9	CI	92	PRO
10	CJ	13	ARG
10	CJ	21	THR
10	CJ	45	THR
10	CJ	81	ILE
10	CJ	125	TYR
11	CK	13	ASN
12	CL	66	PHE
13	CM	2	LEU
13	CM	14	LYS
13	CM	69	PRO
13	CM	77	PRO
14	CN	118	ARG
15	CO	68	LYS
16	CP	4	ILE
16	CP	50	ARG
16	CP	51	ASN
16	CP	93	LYS
19	CS	3	THR
19	CS	14	ALA
19	CS	64	ALA
19	CS	96	ILE
20	CT	27	SER
20	CT	40	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	CU	6	ARG
21	CU	87	GLU
21	CU	92	VAL
21	CU	98	ASN
21	CU	99	SER
23	CW	9	THR
23	CW	14	ASP
23	CW	18	LYS
23	CW	74	LYS
27	C0	23	ALA
28	C1	4	ILE
30	C3	22	LYS
32	C5	27	VAL
32	C5	31	ARG
32	C5	48	ALA
32	C5	54	VAL
32	C5	55	VAL
32	C5	69	PHE
32	C5	93	ALA
32	C5	107	GLU
32	C5	108	VAL
32	C5	120	ALA
32	C5	124	ASP
32	C5	130	PRO
34	DB	22	TRP
34	DB	33	ALA
34	DB	40	ILE
34	DB	119	GLN
34	DB	150	ILE
36	DC	101	ILE
37	DD	25	VAL
37	DD	27	ALA
37	DD	33	LYS
37	DD	153	SER
38	DE	138	ARG
39	DF	63	ASN
42	DI	58	VAL
43	DJ	36	VAL
43	DJ	57	VAL
44	DK	41	ALA
45	DL	24	LEU
45	DL	44	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
46	DM	4	ILE
46	DM	114	LYS
50	DQ	12	VAL
50	DQ	13	VAL
50	DQ	51	ASN
53	DT	4	ILE
55	DV	5	THR
55	DV	7	ILE
55	DV	24	THR
55	DV	195	ASP
55	DV	197	ASP
55	DV	200	VAL
55	DV	204	TYR
55	DV	300	ASP
55	DV	304	ASP
55	DV	454	ASN
55	DV	647	SER
55	DV	662	GLU
56	DW	4	SER
2	EC	70	LYS
2	EC	104	LEU
2	EC	140	VAL
2	EC	196	ASN
4	ED	43	ASP
4	ED	73	VAL
4	ED	91	THR
4	ED	92	VAL
4	ED	118	PHE
5	EE	79	ARG
6	EF	10	GLU
6	EF	111	ARG
6	EF	176	PHE
7	EG	2	ARG
7	EG	84	LYS
7	EG	168	VAL
7	EG	175	LYS
8	EH	3	VAL
8	EH	9	VAL
8	EH	10	ALA
9	EI	19	PRO
9	EI	20	SER
9	EI	92	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	EJ	13	ARG
10	EJ	21	THR
10	EJ	44	TYR
10	EJ	45	THR
10	EJ	81	ILE
10	EJ	125	TYR
11	EK	13	ASN
12	EL	66	PHE
13	EM	14	LYS
13	EM	23	GLY
13	EM	69	PRO
14	EN	118	ARG
16	EP	50	ARG
16	EP	51	ASN
16	EP	92	ARG
16	EP	104	GLY
18	ER	65	ALA
19	ES	3	THR
19	ES	14	ALA
19	ES	64	ALA
19	ES	96	ILE
20	ET	27	SER
20	ET	29	THR
20	ET	40	LYS
21	EU	6	ARG
21	EU	87	GLU
21	EU	88	ASP
21	EU	92	VAL
21	EU	98	ASN
21	EU	99	SER
23	EW	9	THR
23	EW	14	ASP
23	EW	18	LYS
23	EW	29	SER
23	EW	34	SER
23	EW	37	VAL
23	EW	56	HIS
24	EX	76	LYS
25	EY	37	LEU
27	E0	23	ALA
28	E1	4	ILE
30	E3	22	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	E5	27	VAL
32	E5	48	ALA
32	E5	54	VAL
32	E5	55	VAL
32	E5	58	THR
32	E5	69	PHE
32	E5	88	HIS
32	E5	92	ALA
32	E5	107	GLU
32	E5	108	VAL
32	E5	120	ALA
32	E5	124	ASP
32	E5	130	PRO
34	FB	21	TYR
34	FB	33	ALA
34	FB	40	ILE
34	FB	150	ILE
36	FC	66	VAL
36	FC	101	ILE
37	FD	23	SER
37	FD	29	ASP
37	FD	37	ALA
37	FD	125	VAL
37	FD	153	SER
39	FF	63	ASN
39	FF	92	THR
42	FI	42	GLU
42	FI	43	THR
42	FI	44	ALA
42	FI	58	VAL
43	FJ	57	VAL
44	FK	14	LYS
44	FK	41	ALA
44	FK	127	ARG
45	FL	24	LEU
45	FL	44	LYS
45	FL	123	LYS
46	FM	4	ILE
46	FM	11	ASP
50	FQ	51	ASN
54	FU	12	PHE
55	FV	5	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
55	FV	7	ILE
55	FV	24	THR
55	FV	195	ASP
55	FV	200	VAL
55	FV	300	ASP
55	FV	304	ASP
55	FV	423	LYS
55	FV	454	ASN
55	FV	646	GLU
55	FV	662	GLU
2	GC	37	SER
2	GC	70	LYS
2	GC	104	LEU
2	GC	121	ALA
2	GC	140	VAL
2	GC	196	ASN
4	GD	43	ASP
4	GD	73	VAL
4	GD	92	VAL
4	GD	169	ARG
6	GF	63	LYS
6	GF	93	GLU
6	GF	135	ILE
6	GF	147	ARG
7	GG	9	VAL
7	GG	16	VAL
7	GG	28	LYS
7	GG	170	THR
8	GH	3	VAL
9	GI	77	VAL
9	GI	85	ILE
9	GI	92	PRO
9	GI	138	VAL
10	GJ	13	ARG
10	GJ	21	THR
10	GJ	45	THR
10	GJ	81	ILE
10	GJ	125	TYR
11	GK	35	VAL
12	GL	5	THR
12	GL	66	PHE
13	GM	14	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	GM	23	GLY
15	GO	57	ALA
15	GO	112	GLU
15	GO	113	ALA
16	GP	4	ILE
16	GP	50	ARG
16	GP	51	ASN
16	GP	93	LYS
17	GQ	87	VAL
19	GS	3	THR
19	GS	14	ALA
19	GS	18	ARG
19	GS	64	ALA
19	GS	96	ILE
20	GT	27	SER
20	GT	40	LYS
21	GU	6	ARG
21	GU	85	ARG
21	GU	99	SER
23	GW	9	THR
23	GW	18	LYS
23	GW	56	HIS
23	GW	74	LYS
27	G0	23	ALA
28	G1	4	ILE
30	G3	22	LYS
31	G4	4	ARG
31	G4	8	LYS
34	HB	21	TYR
34	HB	33	ALA
34	HB	40	ILE
34	HB	75	ALA
34	HB	119	GLN
34	HB	127	LYS
34	HB	150	ILE
36	HC	101	ILE
37	HD	25	VAL
37	HD	125	VAL
37	HD	153	SER
37	HD	175	ALA
38	HE	98	PRO
39	HF	15	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	HF	54	LEU
43	HJ	57	VAL
43	HJ	93	ALA
44	HK	41	ALA
44	HK	69	ARG
45	HL	24	LEU
45	HL	44	LYS
46	HM	4	ILE
46	HM	11	ASP
46	HM	66	GLU
50	HQ	13	VAL
50	HQ	51	ASN
50	HQ	53	CYS
52	HS	6	LYS
53	HT	4	ILE
55	HV	5	THR
55	HV	7	ILE
55	HV	24	THR
55	HV	195	ASP
55	HV	197	ASP
55	HV	200	VAL
55	HV	204	TYR
55	HV	300	ASP
55	HV	423	LYS
55	HV	454	ASN
55	HV	500	ASP
55	HV	646	GLU
55	HV	662	GLU
2	AC	37	SER
2	AC	77	VAL
2	AC	238	ASN
2	AC	256	THR
4	AD	92	VAL
4	AD	99	GLU
4	AD	107	VAL
4	AD	118	PHE
6	AF	135	ILE
7	AG	169	ARG
8	AH	9	VAL
8	AH	16	GLY
9	AI	20	SER
9	AI	79	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	AJ	111	LYS
11	AK	35	VAL
11	AK	71	ARG
12	AL	111	ILE
13	AM	2	LEU
13	AM	36	VAL
13	AM	56	ALA
18	AR	65	ALA
19	AS	19	LEU
19	AS	96	ILE
20	AT	36	LYS
20	AT	49	LYS
21	AU	51	LEU
23	AW	14	ASP
23	AW	47	GLY
23	AW	50	VAL
23	AW	74	LYS
25	AY	37	LEU
27	A0	35	GLU
28	A1	4	ILE
28	A1	50	GLU
32	A5	3	LEU
32	A5	33	VAL
32	A5	88	HIS
32	A5	92	ALA
32	A5	116	GLU
32	A5	119	PRO
34	BB	148	GLY
34	BB	150	ILE
36	BC	17	PRO
36	BC	66	VAL
37	BD	33	LYS
38	BE	138	ARG
39	BF	98	GLU
40	BG	7	ILE
43	BJ	74	VAL
49	BP	77	GLU
50	BQ	14	SER
53	BT	69	LYS
55	BV	48	ALA
55	BV	118	GLY
55	BV	202	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
55	BV	300	ASP
55	BV	661	SER
55	BV	662	GLU
2	CC	77	VAL
2	CC	196	ASN
2	CC	238	ASN
4	CD	72	GLY
4	CD	99	GLU
4	CD	107	VAL
4	CD	192	ALA
5	CE	7	ASP
7	CG	8	VAL
7	CG	16	VAL
7	CG	28	LYS
7	CG	33	THR
7	CG	164	ALA
7	CG	168	VAL
7	CG	170	THR
10	CJ	44	TYR
10	CJ	74	TYR
11	CK	35	VAL
12	CL	88	GLY
12	CL	111	ILE
13	CM	23	GLY
15	CO	3	LYS
18	CR	65	ALA
18	CR	98	ILE
20	CT	29	THR
20	CT	36	LYS
23	CW	36	ILE
23	CW	50	VAL
23	CW	56	HIS
25	CY	37	LEU
26	CZ	9	THR
29	C2	44	VAL
32	C5	33	VAL
32	C5	58	THR
32	C5	88	HIS
32	C5	92	ALA
32	C5	118	ILE
37	DD	125	VAL
37	DD	175	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
41	DH	67	GLN
41	DH	89	LYS
43	DJ	74	VAL
44	DK	127	ARG
49	DP	42	ILE
49	DP	44	SER
49	DP	77	GLU
50	DQ	6	ARG
50	DQ	53	CYS
54	DU	35	ARG
55	DV	93	VAL
55	DV	118	GLY
55	DV	202	PHE
55	DV	423	LYS
55	DV	500	ASP
55	DV	529	SER
55	DV	649	VAL
55	DV	661	SER
2	EC	37	SER
2	EC	121	ALA
2	EC	238	ASN
4	ED	99	GLU
4	ED	107	VAL
4	ED	170	VAL
4	ED	175	LEU
6	EF	2	LYS
6	EF	113	PHE
6	EF	135	ILE
7	EG	16	VAL
7	EG	28	LYS
7	EG	117	PRO
7	EG	164	ALA
7	EG	170	THR
9	EI	12	VAL
10	EJ	111	LYS
11	EK	35	VAL
12	EL	111	ILE
13	EM	13	HIS
13	EM	56	ALA
13	EM	77	PRO
15	EO	3	LYS
16	EP	4	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	EP	93	LYS
16	EP	103	THR
19	ES	19	LEU
20	ET	36	LYS
20	ET	49	LYS
21	EU	85	ARG
23	EW	36	ILE
23	EW	47	GLY
23	EW	50	VAL
25	EY	7	ARG
26	EZ	9	THR
27	E0	35	GLU
28	E1	50	GLU
32	E5	31	ARG
34	FB	75	ALA
34	FB	119	GLN
37	FD	33	LYS
37	FD	175	ALA
38	FE	99	ALA
38	FE	110	ALA
38	FE	138	ARG
40	FG	7	ILE
41	FH	67	GLN
43	FJ	74	VAL
44	FK	105	PHE
46	FM	114	LYS
47	FN	28	LYS
49	FP	77	GLU
49	FP	80	LYS
52	FS	4	SER
53	FT	69	LYS
55	FV	93	VAL
55	FV	118	GLY
55	FV	197	ASP
55	FV	500	ASP
55	FV	529	SER
55	FV	649	VAL
55	FV	661	SER
55	FV	698	VAL
2	GC	77	VAL
4	GD	95	SER
4	GD	118	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	GD	144	GLY
5	GE	7	ASP
5	GE	79	ARG
7	GG	2	ARG
7	GG	18	ILE
7	GG	31	GLU
7	GG	84	LYS
7	GG	164	ALA
7	GG	168	VAL
8	GH	9	VAL
9	GI	30	GLN
10	GJ	44	TYR
10	GJ	74	TYR
11	GK	13	ASN
12	GL	81	ASP
12	GL	111	ILE
14	GN	118	ARG
16	GP	34	GLY
18	GR	65	ALA
18	GR	98	ILE
20	GT	29	THR
20	GT	38	ALA
20	GT	55	VAL
21	GU	55	GLY
21	GU	87	GLU
21	GU	98	ASN
23	GW	14	ASP
23	GW	42	THR
23	GW	50	VAL
24	GX	34	SER
25	GY	37	LEU
27	G0	35	GLU
28	G1	50	GLU
31	G4	16	ILE
37	HD	29	ASP
38	HE	110	ALA
38	HE	138	ARG
38	HE	158	GLY
40	HG	8	GLY
40	HG	130	ASN
41	HH	67	GLN
42	HI	42	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
43	HJ	28	THR
43	HJ	61	ALA
44	HK	14	LYS
45	HL	78	SER
46	HM	5	ALA
47	HN	62	ASN
49	HP	80	LYS
50	HQ	6	ARG
50	HQ	12	VAL
53	HT	69	LYS
55	HV	93	VAL
55	HV	118	GLY
55	HV	198	GLN
55	HV	304	ASP
55	HV	529	SER
55	HV	649	VAL
55	HV	661	SER
2	AC	110	LYS
4	AD	95	SER
4	AD	109	VAL
4	AD	192	ALA
5	AE	7	ASP
5	AE	70	SER
5	AE	123	LYS
6	AF	176	PHE
7	AG	32	LEU
7	AG	117	PRO
7	AG	170	THR
8	AH	10	ALA
9	AI	11	GLN
11	AK	13	ASN
11	AK	46	ALA
11	AK	93	GLN
13	AM	69	PRO
15	AO	3	LYS
16	AP	113	LEU
18	AR	98	ILE
21	AU	85	ARG
21	AU	101	THR
23	AW	34	SER
24	AX	17	ARG
24	AX	34	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	AZ	34	THR
28	A1	51	ALA
31	A4	4	ARG
32	A5	5	LEU
32	A5	78	GLY
32	A5	118	ILE
33	A6	14	MET
34	BB	18	GLN
34	BB	75	ALA
36	BC	15	VAL
37	BD	167	LYS
38	BE	99	ALA
38	BE	110	ALA
39	BF	54	LEU
39	BF	63	ASN
39	BF	101	PRO
45	BL	98	VAL
46	BM	5	ALA
48	BO	46	HIS
55	BV	93	VAL
55	BV	323	LYS
55	BV	527	PRO
55	BV	541	LYS
55	BV	649	VAL
56	BW	3	SER
56	BW	4	SER
2	CC	37	SER
2	CC	59	GLN
2	CC	197	ALA
4	CD	73	VAL
4	CD	109	VAL
4	CD	175	LEU
5	CE	46	GLN
6	CF	175	PRO
7	CG	117	PRO
7	CG	163	TYR
10	CJ	111	LYS
11	CK	93	GLN
13	CM	56	ALA
13	CM	134	THR
15	CO	57	ALA
15	CO	58	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	CP	34	GLY
17	CQ	87	VAL
17	CQ	88	GLU
20	CT	49	LYS
21	CU	53	GLN
21	CU	101	THR
23	CW	29	SER
23	CW	42	THR
24	CX	17	ARG
24	CX	34	SER
26	CZ	34	THR
27	C0	35	GLU
31	C4	4	ARG
31	C4	16	ILE
32	C5	119	PRO
32	C5	135	ALA
34	DB	21	TYR
34	DB	72	LYS
34	DB	75	ALA
36	DC	15	VAL
36	DC	66	VAL
37	DD	35	GLU
37	DD	167	LYS
38	DE	110	ALA
40	DG	7	ILE
43	DJ	61	ALA
45	DL	74	LEU
46	DM	5	ALA
46	DM	11	ASP
47	DN	62	ASN
53	DT	68	HIS
53	DT	69	LYS
54	DU	27	GLY
55	DV	198	GLN
55	DV	510	GLY
2	EC	59	GLN
2	EC	77	VAL
2	EC	256	THR
4	ED	169	ARG
5	EE	7	ASP
7	EG	31	GLU
7	EG	33	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	EG	97	VAL
10	EJ	74	TYR
13	EM	2	LEU
13	EM	70	ASP
13	EM	134	THR
16	EP	105	LYS
17	EQ	87	VAL
17	EQ	88	GLU
18	ER	98	ILE
21	EU	55	GLY
21	EU	101	THR
24	EX	17	ARG
25	EY	62	GLY
27	E0	54	ILE
31	E4	4	ARG
31	E4	8	LYS
31	E4	16	ILE
32	E5	72	LEU
32	E5	118	ILE
32	E5	119	PRO
34	FB	18	GLN
34	FB	128	LEU
34	FB	148	GLY
39	FF	91	ARG
43	FJ	61	ALA
46	FM	10	PRO
50	FQ	53	CYS
54	FU	32	VAL
55	FV	198	GLN
55	FV	202	PHE
55	FV	305	THR
55	FV	311	ALA
55	FV	323	LYS
55	FV	510	GLY
55	FV	527	PRO
55	FV	569	TYR
55	FV	647	SER
2	GC	238	ASN
2	GC	256	THR
4	GD	99	GLU
4	GD	107	VAL
4	GD	145	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	GD	170	VAL
4	GD	175	LEU
4	GD	192	ALA
5	GE	46	GLN
5	GE	70	SER
5	GE	123	LYS
6	GF	71	LYS
6	GF	94	ARG
6	GF	111	ARG
6	GF	175	PRO
7	GG	20	GLY
7	GG	163	TYR
9	GI	87	SER
10	GJ	111	LYS
11	GK	46	ALA
13	GM	56	ALA
13	GM	69	PRO
13	GM	73	ILE
13	GM	77	PRO
13	GM	134	THR
15	GO	99	TYR
18	GR	40	MET
20	GT	36	LYS
23	GW	47	GLY
24	GX	17	ARG
26	GZ	9	THR
34	HB	18	GLN
34	HB	72	LYS
34	HB	148	GLY
37	HD	23	SER
37	HD	24	GLY
37	HD	33	LYS
37	HD	35	GLU
37	HD	167	LYS
38	HE	12	GLN
43	HJ	89	ARG
44	HK	101	ASN
44	HK	102	ALA
44	HK	127	ARG
48	HO	46	HIS
49	HP	49	GLY
49	HP	77	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
55	HV	94	ASP
55	HV	202	PHE
55	HV	510	GLY
55	HV	698	VAL
56	HW	3	SER
2	AC	59	GLN
2	AC	197	ALA
4	AD	169	ARG
4	AD	175	LEU
6	AF	132	ARG
7	AG	33	THR
7	AG	173	ALA
9	AI	64	ARG
10	AJ	74	TYR
11	AK	119	ALA
12	AL	29	LYS
13	AM	23	GLY
13	AM	134	THR
16	AP	4	ILE
16	AP	92	ARG
16	AP	103	THR
17	AQ	87	VAL
17	AQ	88	GLU
17	AQ	95	ALA
20	AT	28	ASN
20	AT	51	PHE
20	AT	55	VAL
23	AW	37	VAL
24	AX	76	LYS
25	AY	7	ARG
27	A0	54	ILE
31	A4	16	ILE
32	A5	89	PRO
34	BB	9	LEU
34	BB	120	SER
34	BB	128	LEU
36	BC	3	GLN
38	BE	98	PRO
42	BI	120	LYS
42	BI	129	LYS
43	BJ	35	GLN
44	BK	15	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
46	BM	105	ASN
47	BN	62	ASN
48	BO	47	LYS
49	BP	49	GLY
55	BV	198	GLN
55	BV	305	THR
55	BV	413	GLU
55	BV	569	TYR
55	BV	698	VAL
2	CC	120	ASP
4	CD	95	SER
4	CD	183	GLU
5	CE	70	SER
5	CE	123	LYS
7	CG	9	VAL
8	CH	16	GLY
9	CI	18	ASN
9	CI	58	ILE
11	CK	118	LEU
11	CK	119	ALA
12	CL	41	ARG
16	CP	81	ASP
17	CQ	85	ALA
20	CT	28	ASN
20	CT	55	VAL
20	CT	86	THR
21	CU	85	ARG
23	CW	34	SER
23	CW	76	ARG
25	CY	7	ARG
27	C0	54	ILE
28	C1	50	GLU
31	C4	8	LYS
32	C5	89	PRO
34	DB	18	GLN
34	DB	148	GLY
36	DC	3	GLN
39	DF	54	LEU
39	DF	56	LYS
39	DF	94	HIS
40	DG	56	LYS
44	DK	14	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
44	DK	80	LYS
55	DV	413	GLU
55	DV	569	TYR
55	DV	646	GLU
2	EC	110	LYS
4	ED	95	SER
4	ED	109	VAL
4	ED	192	ALA
5	EE	70	SER
6	EF	175	PRO
8	EH	16	GLY
11	EK	46	ALA
11	EK	93	GLN
11	EK	118	LEU
11	EK	119	ALA
12	EL	29	LYS
12	EL	41	ARG
20	ET	7	LEU
20	ET	55	VAL
24	EX	34	SER
32	E5	89	PRO
37	FD	126	ASN
37	FD	167	LYS
39	FF	54	LEU
39	FF	98	GLU
41	FH	89	LYS
43	FJ	42	LEU
45	FL	74	LEU
46	FM	5	ALA
47	FN	62	ASN
47	FN	92	GLU
52	FS	5	LEU
55	FV	94	ASP
55	FV	219	HIS
55	FV	413	GLU
2	GC	59	GLN
2	GC	110	LYS
2	GC	120	ASP
4	GD	109	VAL
5	GE	11	ALA
6	GF	61	GLY
7	GG	117	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	GG	166	GLU
11	GK	93	GLN
11	GK	119	ALA
12	GL	41	ARG
16	GP	103	THR
20	GT	16	VAL
20	GT	69	ARG
21	GU	53	GLN
25	GY	7	ARG
31	G4	37	GLN
34	HB	67	LEU
36	HC	3	GLN
37	HD	193	ALA
42	HI	58	VAL
43	HJ	37	ARG
45	HL	74	LEU
46	HM	45	ILE
47	HN	3	LYS
48	HO	47	LYS
55	HV	92	HIS
55	HV	259	ASN
55	HV	305	THR
55	HV	409	MET
55	HV	413	GLU
55	HV	527	PRO
2	AC	64	VAL
2	AC	120	ASP
2	AC	196	ASN
4	AD	183	GLU
5	AE	46	GLN
5	AE	96	VAL
7	AG	97	VAL
7	AG	163	TYR
7	AG	166	GLU
9	AI	12	VAL
9	AI	71	LYS
10	AJ	65	THR
11	AK	49	ARG
11	AK	108	ARG
12	AL	5	THR
12	AL	41	ARG
13	AM	35	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	AM	73	ILE
16	AP	34	GLY
17	AQ	85	ALA
20	AT	86	THR
20	AT	89	GLU
21	AU	88	ASP
23	AW	46	ALA
23	AW	76	ARG
25	AY	9	LYS
32	A5	36	ASP
32	A5	72	LEU
34	BB	72	LYS
34	BB	124	THR
34	BB	154	GLY
38	BE	24	THR
38	BE	45	ARG
39	BF	100	SER
42	BI	9	THR
42	BI	56	ASP
43	BJ	37	ARG
44	BK	100	LEU
45	BL	74	LEU
46	BM	10	PRO
47	BN	34	VAL
47	BN	92	GLU
55	BV	92	HIS
55	BV	409	MET
55	BV	510	GLY
55	BV	647	SER
2	CC	64	VAL
2	CC	94	LEU
2	CC	109	LEU
2	CC	110	LYS
5	CE	45	ALA
6	CF	113	PHE
6	CF	114	ARG
7	CG	118	ALA
9	CI	78	LEU
11	CK	46	ALA
12	CL	58	TYR
13	CM	73	ILE
16	CP	5	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	CP	103	THR
18	CR	40	MET
20	CT	51	PHE
23	CW	37	VAL
23	CW	46	ALA
23	CW	47	GLY
32	C5	59	LEU
34	DB	128	LEU
37	DD	26	ARG
38	DE	24	THR
38	DE	45	ARG
38	DE	50	TYR
43	DJ	42	LEU
49	DP	49	GLY
50	DQ	71	LYS
54	DU	41	PRO
55	DV	219	HIS
55	DV	305	THR
55	DV	323	LYS
55	DV	506	ALA
55	DV	541	LYS
2	EC	64	VAL
2	EC	109	LEU
5	EE	13	THR
5	EE	46	GLN
5	EE	96	VAL
5	EE	123	LYS
6	EF	149	ARG
7	EG	44	HIS
12	EL	5	THR
12	EL	88	GLY
13	EM	73	ILE
16	EP	34	GLY
16	EP	65	ASN
17	EQ	95	ALA
18	ER	40	MET
20	ET	86	THR
23	EW	23	LYS
23	EW	42	THR
23	EW	46	ALA
25	EY	9	LYS
26	EZ	34	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	E5	4	ASN
32	E5	33	VAL
32	E5	113	PHE
34	FB	72	LYS
34	FB	81	ASP
36	FC	3	GLN
36	FC	15	VAL
36	FC	61	ALA
38	FE	98	PRO
45	FL	73	ASN
50	FQ	6	ARG
54	FU	26	ALA
54	FU	41	PRO
55	FV	204	TYR
2	GC	64	VAL
2	GC	94	LEU
2	GC	109	LEU
5	GE	6	LYS
5	GE	96	VAL
7	GG	8	VAL
7	GG	45	ALA
7	GG	118	ALA
9	GI	64	ARG
9	GI	108	ILE
11	GK	118	LEU
13	GM	13	HIS
16	GP	5	LYS
18	GR	53	PHE
19	GS	19	LEU
20	GT	28	ASN
20	GT	49	LYS
21	GU	16	LYS
21	GU	101	THR
23	GW	10	ARG
23	GW	27	GLY
23	GW	34	SER
23	GW	46	ALA
23	GW	76	ARG
26	GZ	34	THR
28	G1	51	ALA
36	HC	17	PRO
36	HC	66	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
36	HC	146	ALA
38	HE	24	THR
42	HI	57	MET
43	HJ	75	ASP
44	HK	51	GLY
45	HL	123	LYS
50	HQ	18	GLU
50	HQ	71	LYS
55	HV	323	LYS
5	AE	83	VAL
5	AE	153	LEU
7	AG	118	ALA
8	AH	14	SER
9	AI	93	ASN
11	AK	6	THR
11	AK	50	GLY
13	AM	13	HIS
18	AR	40	MET
21	AU	16	LYS
23	AW	10	ARG
23	AW	78	PHE
32	A5	59	LEU
32	A5	94	ARG
32	A5	102	ALA
32	A5	128	THR
39	BF	86	ARG
43	BJ	36	VAL
43	BJ	42	LEU
47	BN	29	ALA
50	BQ	71	LYS
54	BU	32	VAL
55	BV	259	ASN
55	BV	309	ARG
4	CD	169	ARG
5	CE	83	VAL
5	CE	96	VAL
5	CE	116	ASP
5	CE	188	MET
17	CQ	4	LYS
20	CT	89	GLU
23	CW	10	ARG
23	CW	17	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	CW	23	LYS
23	CW	68	PHE
23	CW	78	PHE
25	CY	8	GLU
25	CY	9	LYS
27	C0	26	SER
32	C5	36	ASP
32	C5	94	ARG
34	DB	58	LYS
39	DF	99	ALA
43	DJ	35	GLN
55	DV	259	ASN
55	DV	527	PRO
55	DV	698	VAL
5	EE	6	LYS
5	EE	83	VAL
5	EE	153	LEU
6	EF	133	GLU
7	EG	83	THR
8	EH	8	LYS
10	EJ	41	LYS
11	EK	6	THR
12	EL	82	LEU
17	EQ	85	ALA
20	ET	28	ASN
23	EW	74	LYS
32	E5	36	ASP
32	E5	132	TYR
34	FB	58	LYS
36	FC	146	ALA
37	FD	85	ASN
38	FE	24	THR
39	FF	86	ARG
42	FI	120	LYS
43	FJ	58	ASN
44	FK	15	GLN
45	FL	88	LYS
46	FM	100	GLN
49	FP	49	GLY
53	FT	68	HIS
2	GC	142	ASN
5	GE	83	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	GG	97	VAL
8	GH	16	GLY
11	GK	6	THR
11	GK	17	ARG
12	GL	82	LEU
17	GQ	5	ARG
18	GR	91	GLN
21	GU	18	LYS
22	GV	67	GLY
23	GW	23	LYS
23	GW	78	PHE
27	G0	54	ILE
30	G3	31	ILE
36	HC	15	VAL
39	HF	16	GLU
39	HF	99	ALA
43	HJ	74	VAL
44	HK	17	SER
46	HM	10	PRO
46	HM	65	VAL
47	HN	48	LEU
48	HO	44	ALA
55	HV	219	HIS
55	HV	345	SER
16	AP	63	ILE
23	AW	41	GLY
54	BU	27	GLY
7	CG	97	VAL
46	DM	10	PRO
9	GI	32	VAL
23	GW	37	VAL
43	HJ	42	LEU
46	HM	114	LYS
54	HU	32	VAL
5	CE	174	GLY
16	CP	63	ILE
20	CT	90	GLY
37	DD	24	GLY
54	DU	32	VAL
16	EP	63	ILE
23	EW	30	VAL
43	FJ	36	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
44	HK	89	PRO
55	HV	569	TYR
5	AE	148	ILE
25	AY	62	GLY
32	A5	32	GLY
34	BB	200	PRO
52	BS	30	PRO
27	C0	34	GLY
37	DD	37	ALA
27	E0	24	VAL
37	FD	24	GLY
38	FE	137	VAL
37	HD	37	ALA
54	HU	27	GLY
2	AC	232	GLY
4	AD	122	VAL
9	AI	22	PRO
9	AI	88	GLY
30	A3	6	VAL
2	CC	233	GLY
5	CE	71	GLY
22	CV	67	GLY
36	DC	17	PRO
47	DN	34	VAL
49	DP	10	GLY
5	EE	148	ILE
16	EP	83	ILE
21	EU	38	ILE
21	EU	54	PRO
42	FI	10	GLY
45	FL	45	PRO
47	FN	34	VAL
2	GC	232	GLY
24	GX	63	ILE
29	G2	44	VAL
34	HB	12	GLY
41	HH	78	VAL
47	HN	34	VAL
5	AE	71	GLY
27	A0	24	VAL
37	BD	168	PRO
27	C0	24	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	C3	31	ILE
37	DD	168	PRO
19	ES	63	GLY
30	E3	31	ILE
44	FK	89	PRO
5	GE	42	GLY
9	GI	88	GLY
16	GP	63	ILE
27	G0	24	VAL
38	HE	137	VAL
52	HS	26	GLY
55	HV	120	GLN

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AC	216/218 (99%)	202 (94%)	14 (6%)	24	58
2	CC	216/218 (99%)	197 (91%)	19 (9%)	14	40
2	EC	216/218 (99%)	194 (90%)	22 (10%)	11	31
2	GC	216/218 (99%)	203 (94%)	13 (6%)	27	63
4	AD	164/164 (100%)	151 (92%)	13 (8%)	18	46
4	CD	164/164 (100%)	152 (93%)	12 (7%)	20	51
4	ED	164/164 (100%)	152 (93%)	12 (7%)	20	51
4	GD	164/164 (100%)	151 (92%)	13 (8%)	18	46
5	AE	165/165 (100%)	146 (88%)	19 (12%)	8	23
5	CE	165/165 (100%)	157 (95%)	8 (5%)	35	74
5	EE	165/165 (100%)	153 (93%)	12 (7%)	20	51
5	GE	165/165 (100%)	152 (92%)	13 (8%)	18	46
6	AF	148/150 (99%)	138 (93%)	10 (7%)	22	55
6	CF	148/150 (99%)	140 (95%)	8 (5%)	31	69
6	EF	148/150 (99%)	133 (90%)	15 (10%)	11	32

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	GF	148/150 (99%)	146 (99%)	2 (1%)	78	96
7	AG	137/138 (99%)	122 (89%)	15 (11%)	9	26
7	CG	137/138 (99%)	125 (91%)	12 (9%)	14	40
7	EG	137/138 (99%)	119 (87%)	18 (13%)	6	17
7	GG	137/138 (99%)	128 (93%)	9 (7%)	24	57
8	AH	40/40 (100%)	39 (98%)	1 (2%)	60	91
8	CH	40/40 (100%)	38 (95%)	2 (5%)	34	73
8	EH	40/40 (100%)	37 (92%)	3 (8%)	19	49
8	GH	40/40 (100%)	39 (98%)	1 (2%)	60	91
9	AI	109/110 (99%)	105 (96%)	4 (4%)	45	84
9	CI	109/110 (99%)	106 (97%)	3 (3%)	56	90
9	EI	109/110 (99%)	106 (97%)	3 (3%)	56	90
9	GI	109/110 (99%)	107 (98%)	2 (2%)	71	94
10	AJ	116/116 (100%)	100 (86%)	16 (14%)	5	14
10	CJ	116/116 (100%)	101 (87%)	15 (13%)	6	17
10	EJ	116/116 (100%)	97 (84%)	19 (16%)	3	10
10	GJ	116/116 (100%)	104 (90%)	12 (10%)	10	30
11	AK	103/104 (99%)	92 (89%)	11 (11%)	10	28
11	CK	103/104 (99%)	87 (84%)	16 (16%)	4	11
11	EK	103/104 (99%)	87 (84%)	16 (16%)	4	11
11	GK	103/104 (99%)	90 (87%)	13 (13%)	7	18
12	AL	102/103 (99%)	95 (93%)	7 (7%)	22	54
12	CL	102/103 (99%)	94 (92%)	8 (8%)	18	46
12	EL	102/103 (99%)	96 (94%)	6 (6%)	28	64
12	GL	102/103 (99%)	96 (94%)	6 (6%)	28	64
13	AM	109/109 (100%)	93 (85%)	16 (15%)	4	13
13	CM	109/109 (100%)	98 (90%)	11 (10%)	11	32
13	EM	109/109 (100%)	100 (92%)	9 (8%)	16	43
13	GM	109/109 (100%)	103 (94%)	6 (6%)	30	68
14	AN	100/103 (97%)	93 (93%)	7 (7%)	21	53
14	CN	100/103 (97%)	96 (96%)	4 (4%)	42	81

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
14	EN	100/103 (97%)	96 (96%)	4 (4%)	42	81
14	GN	100/103 (97%)	93 (93%)	7 (7%)	21	53
15	AO	86/87 (99%)	78 (91%)	8 (9%)	13	37
15	CO	86/87 (99%)	80 (93%)	6 (7%)	21	53
15	EO	86/87 (99%)	81 (94%)	5 (6%)	28	65
15	GO	86/87 (99%)	81 (94%)	5 (6%)	28	65
16	AP	99/100 (99%)	91 (92%)	8 (8%)	17	45
16	CP	99/100 (99%)	90 (91%)	9 (9%)	14	38
16	EP	99/100 (99%)	88 (89%)	11 (11%)	9	26
16	GP	99/100 (99%)	90 (91%)	9 (9%)	14	38
17	AQ	89/90 (99%)	81 (91%)	8 (9%)	14	39
17	CQ	89/90 (99%)	84 (94%)	5 (6%)	30	66
17	EQ	89/90 (99%)	83 (93%)	6 (7%)	23	56
17	GQ	89/90 (99%)	83 (93%)	6 (7%)	23	56
18	AR	84/84 (100%)	78 (93%)	6 (7%)	21	52
18	CR	84/84 (100%)	79 (94%)	5 (6%)	27	63
18	ER	84/84 (100%)	76 (90%)	8 (10%)	12	35
18	GR	84/84 (100%)	79 (94%)	5 (6%)	27	63
19	AS	93/93 (100%)	84 (90%)	9 (10%)	12	35
19	CS	93/93 (100%)	86 (92%)	7 (8%)	19	49
19	ES	93/93 (100%)	84 (90%)	9 (10%)	12	35
19	GS	93/93 (100%)	88 (95%)	5 (5%)	31	69
20	AT	80/84 (95%)	77 (96%)	3 (4%)	44	83
20	CT	80/84 (95%)	75 (94%)	5 (6%)	25	60
20	ET	80/84 (95%)	74 (92%)	6 (8%)	19	49
20	GT	80/84 (95%)	77 (96%)	3 (4%)	44	83
21	AU	83/85 (98%)	76 (92%)	7 (8%)	16	42
21	CU	83/85 (98%)	80 (96%)	3 (4%)	47	85
21	EU	83/85 (98%)	78 (94%)	5 (6%)	27	63
21	GU	83/85 (98%)	79 (95%)	4 (5%)	35	74
22	AV	78/78 (100%)	75 (96%)	3 (4%)	44	83

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
22	CV	78/78 (100%)	73 (94%)	5 (6%)	25	59
22	EV	78/78 (100%)	75 (96%)	3 (4%)	44	83
22	GV	78/78 (100%)	77 (99%)	1 (1%)	80	96
23	AW	59/63 (94%)	53 (90%)	6 (10%)	11	31
23	CW	59/63 (94%)	55 (93%)	4 (7%)	22	55
23	EW	59/63 (94%)	49 (83%)	10 (17%)	3	9
23	GW	59/63 (94%)	57 (97%)	2 (3%)	49	86
24	AX	67/68 (98%)	61 (91%)	6 (9%)	14	39
24	CX	67/68 (98%)	60 (90%)	7 (10%)	10	29
24	EX	67/68 (98%)	57 (85%)	10 (15%)	4	12
24	GX	67/68 (98%)	63 (94%)	4 (6%)	27	63
25	AY	55/55 (100%)	52 (94%)	3 (6%)	30	68
25	CY	55/55 (100%)	51 (93%)	4 (7%)	20	51
25	EY	55/55 (100%)	50 (91%)	5 (9%)	14	38
25	GY	55/55 (100%)	52 (94%)	3 (6%)	30	68
26	AZ	48/49 (98%)	40 (83%)	8 (17%)	3	9
26	CZ	48/49 (98%)	39 (81%)	9 (19%)	2	7
26	EZ	48/49 (98%)	41 (85%)	7 (15%)	5	13
26	GZ	48/49 (98%)	46 (96%)	2 (4%)	40	79
27	A0	47/48 (98%)	46 (98%)	1 (2%)	66	92
27	C0	47/48 (98%)	47 (100%)	0	100	100
27	E0	47/48 (98%)	46 (98%)	1 (2%)	66	92
27	G0	47/48 (98%)	45 (96%)	2 (4%)	40	78
28	A1	45/49 (92%)	42 (93%)	3 (7%)	23	56
28	C1	45/49 (92%)	42 (93%)	3 (7%)	23	56
28	E1	45/49 (92%)	42 (93%)	3 (7%)	23	56
28	G1	45/49 (92%)	43 (96%)	2 (4%)	39	77
29	A2	38/38 (100%)	35 (92%)	3 (8%)	18	46
29	C2	38/38 (100%)	34 (90%)	4 (10%)	10	29
29	E2	38/38 (100%)	36 (95%)	2 (5%)	32	70
29	G2	38/38 (100%)	35 (92%)	3 (8%)	18	46

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	A3	51/52 (98%)	46 (90%)	5 (10%)	12	34
30	C3	51/52 (98%)	49 (96%)	2 (4%)	43	82
30	E3	51/52 (98%)	47 (92%)	4 (8%)	18	46
30	G3	51/52 (98%)	48 (94%)	3 (6%)	28	64
31	A4	34/34 (100%)	31 (91%)	3 (9%)	14	40
31	C4	34/34 (100%)	32 (94%)	2 (6%)	28	64
31	E4	34/34 (100%)	32 (94%)	2 (6%)	28	64
31	G4	34/34 (100%)	33 (97%)	1 (3%)	55	89
32	A5	112/123 (91%)	93 (83%)	19 (17%)	3	9
32	C5	112/123 (91%)	95 (85%)	17 (15%)	4	12
32	E5	111/123 (90%)	93 (84%)	18 (16%)	3	10
33	A6	26/85 (31%)	22 (85%)	4 (15%)	4	12
34	BB	180/199 (90%)	170 (94%)	10 (6%)	30	66
34	DB	180/199 (90%)	170 (94%)	10 (6%)	30	66
34	FB	180/199 (90%)	171 (95%)	9 (5%)	34	73
34	HB	180/199 (90%)	174 (97%)	6 (3%)	50	87
36	BC	170/190 (90%)	156 (92%)	14 (8%)	17	44
36	DC	170/190 (90%)	162 (95%)	8 (5%)	36	75
36	FC	170/190 (90%)	158 (93%)	12 (7%)	21	52
36	HC	170/190 (90%)	163 (96%)	7 (4%)	41	80
37	BD	172/173 (99%)	165 (96%)	7 (4%)	41	80
37	DD	172/173 (99%)	163 (95%)	9 (5%)	32	71
37	FD	172/173 (99%)	165 (96%)	7 (4%)	41	80
37	HD	172/173 (99%)	167 (97%)	5 (3%)	55	89
38	BE	113/126 (90%)	108 (96%)	5 (4%)	39	77
38	DE	113/126 (90%)	109 (96%)	4 (4%)	48	85
38	FE	113/126 (90%)	107 (95%)	6 (5%)	32	70
38	HE	113/126 (90%)	105 (93%)	8 (7%)	21	52
39	BF	89/116 (77%)	82 (92%)	7 (8%)	18	46
39	DF	87/116 (75%)	86 (99%)	1 (1%)	84	97
39	FF	87/116 (75%)	82 (94%)	5 (6%)	29	66

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
39	HF	87/116 (75%)	85 (98%)	2 (2%)	63	92
40	BG	124/147 (84%)	115 (93%)	9 (7%)	20	51
40	DG	124/147 (84%)	123 (99%)	1 (1%)	89	97
40	FG	124/147 (84%)	122 (98%)	2 (2%)	75	95
40	HG	124/147 (84%)	124 (100%)	0	100	100
41	BH	104/105 (99%)	96 (92%)	8 (8%)	18	47
41	DH	104/105 (99%)	97 (93%)	7 (7%)	23	56
41	FH	104/105 (99%)	99 (95%)	5 (5%)	35	74
41	HH	104/105 (99%)	97 (93%)	7 (7%)	23	56
42	BI	105/107 (98%)	96 (91%)	9 (9%)	15	41
42	DI	105/107 (98%)	101 (96%)	4 (4%)	44	83
42	FI	105/107 (98%)	96 (91%)	9 (9%)	15	41
42	HI	105/107 (98%)	102 (97%)	3 (3%)	55	89
43	BJ	86/90 (96%)	83 (96%)	3 (4%)	48	85
43	DJ	86/90 (96%)	82 (95%)	4 (5%)	36	75
43	FJ	86/90 (96%)	83 (96%)	3 (4%)	48	85
43	HJ	86/90 (96%)	81 (94%)	5 (6%)	28	65
44	BK	90/99 (91%)	85 (94%)	5 (6%)	30	66
44	DK	90/99 (91%)	87 (97%)	3 (3%)	50	87
44	FK	90/99 (91%)	81 (90%)	9 (10%)	11	32
44	HK	90/99 (91%)	83 (92%)	7 (8%)	18	46
45	BL	103/104 (99%)	96 (93%)	7 (7%)	22	55
45	DL	103/104 (99%)	96 (93%)	7 (7%)	22	55
45	FL	103/104 (99%)	96 (93%)	7 (7%)	22	55
45	HL	103/104 (99%)	99 (96%)	4 (4%)	43	82
46	BM	92/96 (96%)	88 (96%)	4 (4%)	40	78
46	DM	92/96 (96%)	92 (100%)	0	100	100
46	FM	92/96 (96%)	91 (99%)	1 (1%)	84	97
46	HM	92/96 (96%)	91 (99%)	1 (1%)	84	97
47	BN	79/84 (94%)	75 (95%)	4 (5%)	33	72
47	DN	79/84 (94%)	78 (99%)	1 (1%)	80	96

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
47	FN	79/84 (94%)	76 (96%)	3 (4%)	44	83
47	HN	79/84 (94%)	79 (100%)	0	100	100
48	BO	76/77 (99%)	72 (95%)	4 (5%)	32	70
48	DO	76/77 (99%)	74 (97%)	2 (3%)	59	90
48	FO	76/77 (99%)	71 (93%)	5 (7%)	24	57
48	HO	76/77 (99%)	74 (97%)	2 (3%)	59	90
49	BP	65/65 (100%)	61 (94%)	4 (6%)	26	61
49	DP	65/65 (100%)	62 (95%)	3 (5%)	37	76
49	FP	65/65 (100%)	64 (98%)	1 (2%)	76	95
49	HP	65/65 (100%)	63 (97%)	2 (3%)	52	88
50	BQ	74/78 (95%)	66 (89%)	8 (11%)	9	27
50	DQ	74/78 (95%)	71 (96%)	3 (4%)	41	80
50	FQ	74/78 (95%)	72 (97%)	2 (3%)	57	90
50	HQ	74/78 (95%)	68 (92%)	6 (8%)	17	45
51	BR	48/65 (74%)	47 (98%)	1 (2%)	66	92
51	DR	48/65 (74%)	48 (100%)	0	100	100
51	FR	48/65 (74%)	48 (100%)	0	100	100
51	HR	48/65 (74%)	48 (100%)	0	100	100
52	BS	70/79 (89%)	64 (91%)	6 (9%)	15	41
52	DS	70/79 (89%)	67 (96%)	3 (4%)	40	78
52	FS	70/79 (89%)	67 (96%)	3 (4%)	40	78
52	HS	70/79 (89%)	69 (99%)	1 (1%)	78	96
53	BT	65/66 (98%)	60 (92%)	5 (8%)	18	47
53	DT	65/66 (98%)	58 (89%)	7 (11%)	9	27
53	FT	65/66 (98%)	58 (89%)	7 (11%)	9	27
53	HT	65/66 (98%)	57 (88%)	8 (12%)	7	20
54	BU	44/61 (72%)	36 (82%)	8 (18%)	2	7
54	DU	44/61 (72%)	42 (96%)	2 (4%)	38	77
54	FU	44/61 (72%)	39 (89%)	5 (11%)	8	24
54	HU	44/61 (72%)	43 (98%)	1 (2%)	63	92
55	BV	568/578 (98%)	521 (92%)	47 (8%)	16	43

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
55	DV	568/578 (98%)	527 (93%)	41 (7%)	21	51
55	FV	568/578 (98%)	528 (93%)	40 (7%)	21	53
55	HV	568/578 (98%)	535 (94%)	33 (6%)	28	65
56	BW	2/2 (100%)	1 (50%)	1 (50%)	0	0
56	DW	2/2 (100%)	1 (50%)	1 (50%)	0	0
56	FW	2/2 (100%)	1 (50%)	1 (50%)	0	0
56	HW	2/2 (100%)	0	2 (100%)	0	0
All	All	21011/21990 (96%)	19590 (93%)	1421 (7%)	22	55

All (1421) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AC	51	ARG
2	AC	57	HIS
2	AC	109	LEU
2	AC	117	SER
2	AC	124	LYS
2	AC	129	LEU
2	AC	142	ASN
2	AC	155	ARG
2	AC	166	ARG
2	AC	176	ARG
2	AC	194	VAL
2	AC	212	TRP
2	AC	251	THR
2	AC	270	ARG
4	AD	33	ARG
4	AD	37	VAL
4	AD	97	SER
4	AD	103	ASP
4	AD	107	VAL
4	AD	118	PHE
4	AD	124	ARG
4	AD	170	VAL
4	AD	171	THR
4	AD	177	VAL
4	AD	183	GLU
4	AD	201	LEU
4	AD	203	VAL
5	AE	5	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	AE	12	LEU
5	AE	21	ARG
5	AE	40	ARG
5	AE	44	ARG
5	AE	65	THR
5	AE	69	ARG
5	AE	70	SER
5	AE	78	TRP
5	AE	88	ARG
5	AE	109	LEU
5	AE	113	VAL
5	AE	118	LEU
5	AE	120	VAL
5	AE	126	VAL
5	AE	131	THR
5	AE	149	ILE
5	AE	167	VAL
5	AE	171	ASP
6	AF	9	ASP
6	AF	16	MET
6	AF	34	THR
6	AF	41	GLU
6	AF	46	LYS
6	AF	90	LEU
6	AF	94	ARG
6	AF	111	ARG
6	AF	114	ARG
6	AF	154	THR
7	AG	3	VAL
7	AG	16	VAL
7	AG	44	HIS
7	AG	68	ARG
7	AG	84	LYS
7	AG	94	ARG
7	AG	103	ASN
7	AG	110	HIS
7	AG	121	THR
7	AG	126	THR
7	AG	131	VAL
7	AG	132	LEU
7	AG	151	ARG
7	AG	170	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	AG	176	LYS
8	AH	3	VAL
9	AI	23	VAL
9	AI	63	ASP
9	AI	102	ARG
9	AI	137	LEU
10	AJ	2	LYS
10	AJ	17	VAL
10	AJ	24	THR
10	AJ	30	THR
10	AJ	36	LEU
10	AJ	40	HIS
10	AJ	54	ILE
10	AJ	55	ILE
10	AJ	65	THR
10	AJ	72	LYS
10	AJ	73	VAL
10	AJ	95	ARG
10	AJ	103	ILE
10	AJ	129	GLU
10	AJ	131	ASN
10	AJ	140	LEU
11	AK	3	GLN
11	AK	8	LEU
11	AK	13	ASN
11	AK	18	ARG
11	AK	21	CYS
11	AK	23	LYS
11	AK	41	ILE
11	AK	54	LYS
11	AK	73	ASP
11	AK	93	GLN
11	AK	105	ARG
12	AL	5	THR
12	AL	19	LEU
12	AL	82	LEU
12	AL	91	ASP
12	AL	100	ILE
12	AL	121	THR
12	AL	144	GLU
13	AM	12	MET
13	AM	13	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	AM	31	PHE
13	AM	33	LEU
13	AM	46	ILE
13	AM	53	MET
13	AM	70	ASP
13	AM	72	PRO
13	AM	81	ARG
13	AM	88	ASN
13	AM	95	LEU
13	AM	96	ILE
13	AM	97	GLN
13	AM	100	LYS
13	AM	110	GLU
13	AM	134	THR
14	AN	6	SER
14	AN	8	ARG
14	AN	33	ILE
14	AN	65	LEU
14	AN	69	ARG
14	AN	70	THR
14	AN	71	ARG
15	AO	18	LEU
15	AO	31	THR
15	AO	33	ARG
15	AO	36	TYR
15	AO	38	GLN
15	AO	47	VAL
15	AO	106	LEU
15	AO	115	LEU
16	AP	16	VAL
16	AP	19	PHE
16	AP	62	LYS
16	AP	83	ILE
16	AP	85	VAL
16	AP	92	ARG
16	AP	95	LYS
16	AP	103	THR
17	AQ	16	ILE
17	AQ	40	LYS
17	AQ	50	ARG
17	AQ	59	LEU
17	AQ	63	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	AQ	88	GLU
17	AQ	93	ILE
17	AQ	97	ILE
18	AR	4	VAL
18	AR	29	THR
18	AR	38	VAL
18	AR	46	GLU
18	AR	48	LYS
18	AR	63	VAL
19	AS	3	THR
19	AS	4	ILE
19	AS	7	HIS
19	AS	36	LEU
19	AS	45	VAL
19	AS	66	ILE
19	AS	76	VAL
19	AS	96	ILE
19	AS	101	SER
20	AT	32	LEU
20	AT	43	ILE
20	AT	58	VAL
21	AU	6	ARG
21	AU	26	ASN
21	AU	30	SER
21	AU	38	ILE
21	AU	61	GLU
21	AU	86	PHE
21	AU	92	VAL
22	AV	29	ILE
22	AV	61	LEU
22	AV	87	GLN
23	AW	19	ARG
23	AW	23	LYS
23	AW	25	PHE
23	AW	30	VAL
23	AW	49	ASN
23	AW	63	ASP
24	AX	19	HIS
24	AX	24	THR
24	AX	26	ARG
24	AX	29	LEU
24	AX	34	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
24	AX	77	TYR
25	AY	10	SER
25	AY	16	THR
25	AY	57	LEU
26	AZ	2	LYS
26	AZ	9	THR
26	AZ	15	ARG
26	AZ	23	LEU
26	AZ	30	ARG
26	AZ	31	ILE
26	AZ	37	ARG
26	AZ	40	THR
27	A0	24	VAL
28	A1	8	ILE
28	A1	35	LEU
28	A1	47	ILE
29	A2	8	SER
29	A2	9	VAL
29	A2	24	THR
30	A3	7	ARG
30	A3	30	HIS
30	A3	31	ILE
30	A3	49	VAL
30	A3	56	LEU
31	A4	4	ARG
31	A4	15	LYS
31	A4	27	CYS
32	A5	1	MET
32	A5	3	LEU
32	A5	26	VAL
32	A5	42	ARG
32	A5	51	TYR
32	A5	54	VAL
32	A5	59	LEU
32	A5	65	GLU
32	A5	69	PHE
32	A5	70	GLU
32	A5	96	PHE
32	A5	106	PHE
32	A5	107	GLU
32	A5	116	GLU
32	A5	121	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	A5	125	ARG
32	A5	130	PRO
32	A5	132	TYR
32	A5	143	MET
33	A6	17	MET
33	A6	18	ASP
33	A6	24	SER
33	A6	26	MET
34	BB	19	THR
34	BB	20	ARG
34	BB	26	MET
34	BB	37	VAL
34	BB	63	LYS
34	BB	88	GLN
34	BB	143	LEU
34	BB	162	VAL
34	BB	170	ILE
34	BB	212	TYR
36	BC	3	GLN
36	BC	15	VAL
36	BC	18	TRP
36	BC	55	ILE
36	BC	58	GLU
36	BC	111	LEU
36	BC	121	THR
36	BC	129	MET
36	BC	162	ILE
36	BC	166	GLU
36	BC	167	TRP
36	BC	178	LEU
36	BC	186	THR
36	BC	193	TYR
37	BD	26	ARG
37	BD	32	CYS
37	BD	58	LYS
37	BD	110	THR
37	BD	143	VAL
37	BD	148	LYS
37	BD	161	LEU
38	BE	26	LYS
38	BE	45	ARG
38	BE	82	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	BE	88	VAL
38	BE	149	SER
39	BF	17	GLN
39	BF	38	ARG
39	BF	55	HIS
39	BF	86	ARG
39	BF	89	VAL
39	BF	97	THR
39	BF	100	SER
40	BG	5	ARG
40	BG	7	ILE
40	BG	13	LEU
40	BG	49	THR
40	BG	59	LEU
40	BG	86	GLN
40	BG	106	GLU
40	BG	120	LEU
40	BG	149	LYS
41	BH	48	ASP
41	BH	66	PHE
41	BH	77	ARG
41	BH	83	LEU
41	BH	87	LYS
41	BH	99	LEU
41	BH	121	LEU
41	BH	125	ILE
42	BI	14	SER
42	BI	39	PHE
42	BI	43	THR
42	BI	45	ARG
42	BI	57	MET
42	BI	63	LEU
42	BI	87	LEU
42	BI	88	MET
42	BI	111	VAL
43	BJ	27	GLU
43	BJ	73	LEU
43	BJ	83	THR
44	BK	15	GLN
44	BK	65	VAL
44	BK	69	ARG
44	BK	82	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
44	BK	129	VAL
45	BL	29	GLN
45	BL	33	VAL
45	BL	38	TYR
45	BL	74	LEU
45	BL	90	LEU
45	BL	95	TYR
45	BL	121	ARG
46	BM	29	ARG
46	BM	63	PHE
46	BM	87	ARG
46	BM	107	ARG
47	BN	5	SER
47	BN	31	ILE
47	BN	51	LEU
47	BN	96	LEU
48	BO	6	GLU
48	BO	35	GLN
48	BO	64	ARG
48	BO	87	LEU
49	BP	1	MET
49	BP	19	VAL
49	BP	31	ARG
49	BP	68	SER
50	BQ	4	LYS
50	BQ	13	VAL
50	BQ	21	ILE
50	BQ	22	VAL
50	BQ	29	VAL
50	BQ	55	ILE
50	BQ	62	ARG
50	BQ	75	LEU
51	BR	29	LEU
52	BS	11	ILE
52	BS	13	LEU
52	BS	24	GLU
52	BS	36	ARG
52	BS	37	ARG
52	BS	49	ILE
53	BT	12	ILE
53	BT	16	LYS
53	BT	27	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	BT	49	LYS
53	BT	54	MET
54	BU	5	LYS
54	BU	6	VAL
54	BU	16	LEU
54	BU	19	PHE
54	BU	20	LYS
54	BU	28	VAL
54	BU	34	ARG
54	BU	43	THR
55	BV	5	THR
55	BV	19	ILE
55	BV	23	LYS
55	BV	77	LYS
55	BV	83	ARG
55	BV	95	PHE
55	BV	96	THR
55	BV	101	ARG
55	BV	104	ARG
55	BV	106	LEU
55	BV	160	THR
55	BV	182	VAL
55	BV	185	LEU
55	BV	200	VAL
55	BV	202	PHE
55	BV	204	TYR
55	BV	205	GLU
55	BV	214	LEU
55	BV	220	GLN
55	BV	232	GLU
55	BV	252	LEU
55	BV	266	CYS
55	BV	276	GLN
55	BV	286	LEU
55	BV	291	ASP
55	BV	299	LEU
55	BV	303	LYS
55	BV	336	PHE
55	BV	409	MET
55	BV	418	ILE
55	BV	446	ARG
55	BV	494	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
55	BV	504	LYS
55	BV	508	GLN
55	BV	515	TYR
55	BV	532	LYS
55	BV	560	GLN
55	BV	584	HIS
55	BV	589	SER
55	BV	602	LYS
55	BV	612	LEU
55	BV	628	THR
55	BV	660	LEU
55	BV	675	LYS
55	BV	677	ARG
55	BV	681	THR
55	BV	685	LEU
56	BW	4	SER
2	CC	12	ARG
2	CC	51	ARG
2	CC	57	HIS
2	CC	93	VAL
2	CC	109	LEU
2	CC	129	LEU
2	CC	141	HIS
2	CC	153	LEU
2	CC	166	ARG
2	CC	191	LEU
2	CC	194	VAL
2	CC	202	ARG
2	CC	212	TRP
2	CC	224	MET
2	CC	241	LYS
2	CC	251	THR
2	CC	256	THR
2	CC	257	ARG
2	CC	270	ARG
4	CD	24	VAL
4	CD	40	LEU
4	CD	91	THR
4	CD	97	SER
4	CD	107	VAL
4	CD	124	ARG
4	CD	129	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	CD	131	ASP
4	CD	183	GLU
4	CD	201	LEU
4	CD	203	VAL
4	CD	207	VAL
5	CE	22	ASP
5	CE	28	VAL
5	CE	40	ARG
5	CE	44	ARG
5	CE	70	SER
5	CE	109	LEU
5	CE	164	LEU
5	CE	178	VAL
6	CF	3	LEU
6	CF	24	VAL
6	CF	30	VAL
6	CF	41	GLU
6	CF	50	ASP
6	CF	111	ARG
6	CF	114	ARG
6	CF	157	THR
7	CG	26	LYS
7	CG	38	ASP
7	CG	44	HIS
7	CG	68	ARG
7	CG	84	LYS
7	CG	86	LEU
7	CG	103	ASN
7	CG	126	THR
7	CG	132	LEU
7	CG	151	ARG
7	CG	165	ASP
7	CG	166	GLU
8	CH	6	LEU
8	CH	25	TYR
9	CI	8	VAL
9	CI	23	VAL
9	CI	71	LYS
10	CJ	2	LYS
10	CJ	14	ASP
10	CJ	24	THR
10	CJ	25	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	CJ	30	THR
10	CJ	40	HIS
10	CJ	54	ILE
10	CJ	65	THR
10	CJ	72	LYS
10	CJ	95	ARG
10	CJ	103	ILE
10	CJ	122	LEU
10	CJ	124	VAL
10	CJ	129	GLU
10	CJ	140	LEU
11	CK	3	GLN
11	CK	8	LEU
11	CK	13	ASN
11	CK	18	ARG
11	CK	19	VAL
11	CK	23	LYS
11	CK	38	ILE
11	CK	47	ILE
11	CK	63	VAL
11	CK	73	ASP
11	CK	93	GLN
11	CK	95	ILE
11	CK	100	PHE
11	CK	105	ARG
11	CK	111	LYS
11	CK	115	ILE
12	CL	19	LEU
12	CL	46	VAL
12	CL	51	GLU
12	CL	67	THR
12	CL	82	LEU
12	CL	95	LEU
12	CL	100	ILE
12	CL	118	THR
13	CM	33	LEU
13	CM	58	LYS
13	CM	68	PHE
13	CM	70	ASP
13	CM	72	PRO
13	CM	78	LEU
13	CM	81	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	CM	93	VAL
13	CM	97	GLN
13	CM	100	LYS
13	CM	134	THR
14	CN	14	SER
14	CN	69	ARG
14	CN	71	ARG
14	CN	94	TYR
15	CO	28	VAL
15	CO	31	THR
15	CO	36	TYR
15	CO	47	VAL
15	CO	94	ARG
15	CO	106	LEU
16	CP	6	GLN
16	CP	19	PHE
16	CP	31	VAL
16	CP	52	ARG
16	CP	83	ILE
16	CP	92	ARG
16	CP	95	LYS
16	CP	103	THR
16	CP	113	LEU
17	CQ	50	ARG
17	CQ	59	LEU
17	CQ	63	ARG
17	CQ	65	ASN
17	CQ	93	ILE
18	CR	29	THR
18	CR	39	LEU
18	CR	46	GLU
18	CR	48	LYS
18	CR	63	VAL
19	CS	3	THR
19	CS	4	ILE
19	CS	24	ILE
19	CS	36	LEU
19	CS	66	ILE
19	CS	83	LYS
19	CS	88	ARG
20	CT	18	GLU
20	CT	32	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	CT	43	ILE
20	CT	68	LYS
20	CT	93	LEU
21	CU	64	ILE
21	CU	86	PHE
21	CU	92	VAL
22	CV	20	LEU
22	CV	31	TYR
22	CV	51	GLN
22	CV	61	LEU
22	CV	87	GLN
23	CW	19	ARG
23	CW	23	LYS
23	CW	59	PHE
23	CW	63	ASP
24	CX	6	VAL
24	CX	24	THR
24	CX	26	ARG
24	CX	27	ARG
24	CX	29	LEU
24	CX	46	VAL
24	CX	77	TYR
25	CY	37	LEU
25	CY	47	ARG
25	CY	56	LEU
25	CY	57	LEU
26	CZ	2	LYS
26	CZ	8	GLN
26	CZ	9	THR
26	CZ	15	ARG
26	CZ	20	LYS
26	CZ	23	LEU
26	CZ	30	ARG
26	CZ	37	ARG
26	CZ	43	ILE
28	C1	4	ILE
28	C1	33	LEU
28	C1	35	LEU
29	C2	4	THR
29	C2	8	SER
29	C2	9	VAL
29	C2	24	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	C3	5	THR
30	C3	56	LEU
31	C4	4	ARG
31	C4	10	LEU
32	C5	1	MET
32	C5	7	ASP
32	C5	26	VAL
32	C5	42	ARG
32	C5	51	TYR
32	C5	54	VAL
32	C5	59	LEU
32	C5	65	GLU
32	C5	69	PHE
32	C5	70	GLU
32	C5	96	PHE
32	C5	106	PHE
32	C5	107	GLU
32	C5	125	ARG
32	C5	130	PRO
32	C5	132	TYR
32	C5	143	MET
34	DB	13	VAL
34	DB	14	HIS
34	DB	19	THR
34	DB	56	LEU
34	DB	58	LYS
34	DB	71	THR
34	DB	178	LEU
34	DB	206	ILE
34	DB	209	VAL
34	DB	212	TYR
36	DC	3	GLN
36	DC	15	VAL
36	DC	59	ARG
36	DC	119	SER
36	DC	129	MET
36	DC	144	LEU
36	DC	149	ILE
36	DC	167	TRP
37	DD	10	LYS
37	DD	31	LYS
37	DD	32	CYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
37	DD	56	ARG
37	DD	59	GLN
37	DD	142	VAL
37	DD	171	LEU
37	DD	195	ILE
37	DD	206	LYS
38	DE	77	ASN
38	DE	96	MET
38	DE	100	SER
38	DE	114	VAL
39	DF	97	THR
40	DG	5	ARG
41	DH	77	ARG
41	DH	80	ARG
41	DH	83	LEU
41	DH	90	ASP
41	DH	96	MET
41	DH	121	LEU
41	DH	125	ILE
42	DI	57	MET
42	DI	63	LEU
42	DI	87	LEU
42	DI	88	MET
43	DJ	57	VAL
43	DJ	82	LYS
43	DJ	83	THR
43	DJ	102	LEU
44	DK	82	LEU
44	DK	97	ILE
44	DK	129	VAL
45	DL	27	CYS
45	DL	39	THR
45	DL	52	VAL
45	DL	64	THR
45	DL	74	LEU
45	DL	90	LEU
45	DL	123	LYS
47	DN	71	HIS
48	DO	64	ARG
48	DO	87	LEU
49	DP	1	MET
49	DP	6	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
49	DP	32	PHE
50	DQ	6	ARG
50	DQ	40	ARG
50	DQ	55	ILE
52	DS	47	LEU
52	DS	49	ILE
52	DS	70	LYS
53	DT	5	LYS
53	DT	10	ARG
53	DT	12	ILE
53	DT	27	MET
53	DT	54	MET
53	DT	70	ASN
53	DT	83	ILE
54	DU	5	LYS
54	DU	34	ARG
55	DV	5	THR
55	DV	19	ILE
55	DV	23	LYS
55	DV	29	ARG
55	DV	37	ASN
55	DV	77	LYS
55	DV	83	ARG
55	DV	95	PHE
55	DV	96	THR
55	DV	104	ARG
55	DV	106	LEU
55	DV	182	VAL
55	DV	185	LEU
55	DV	200	VAL
55	DV	202	PHE
55	DV	204	TYR
55	DV	214	LEU
55	DV	232	GLU
55	DV	252	LEU
55	DV	266	CYS
55	DV	286	LEU
55	DV	291	ASP
55	DV	299	LEU
55	DV	303	LYS
55	DV	305	THR
55	DV	409	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
55	DV	446	ARG
55	DV	472	ARG
55	DV	494	ILE
55	DV	504	LYS
55	DV	532	LYS
55	DV	558	GLN
55	DV	560	GLN
55	DV	580	PHE
55	DV	584	HIS
55	DV	602	LYS
55	DV	650	THR
55	DV	675	LYS
55	DV	677	ARG
55	DV	685	LEU
55	DV	699	ILE
56	DW	3	SER
2	EC	12	ARG
2	EC	57	HIS
2	EC	77	VAL
2	EC	93	VAL
2	EC	104	LEU
2	EC	109	LEU
2	EC	119	VAL
2	EC	120	ASP
2	EC	129	LEU
2	EC	155	ARG
2	EC	166	ARG
2	EC	173	LEU
2	EC	175	LEU
2	EC	176	ARG
2	EC	194	VAL
2	EC	204	LEU
2	EC	212	TRP
2	EC	241	LYS
2	EC	251	THR
2	EC	256	THR
2	EC	268	ARG
2	EC	270	ARG
4	ED	24	VAL
4	ED	91	THR
4	ED	97	SER
4	ED	124	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	ED	129	THR
4	ED	139	SER
4	ED	141	ARG
4	ED	151	THR
4	ED	171	THR
4	ED	172	VAL
4	ED	201	LEU
4	ED	203	VAL
5	EE	5	LEU
5	EE	9	GLN
5	EE	28	VAL
5	EE	44	ARG
5	EE	47	LYS
5	EE	77	ILE
5	EE	113	VAL
5	EE	118	LEU
5	EE	119	ILE
5	EE	131	THR
5	EE	149	ILE
5	EE	153	LEU
6	EF	3	LEU
6	EF	9	ASP
6	EF	12	VAL
6	EF	25	MET
6	EF	35	LEU
6	EF	36	ASN
6	EF	66	ILE
6	EF	80	GLN
6	EF	82	TYR
6	EF	107	VAL
6	EF	114	ARG
6	EF	146	ASP
6	EF	153	ILE
6	EF	168	LEU
6	EF	177	ARG
7	EG	5	LYS
7	EG	18	ILE
7	EG	37	ASN
7	EG	38	ASP
7	EG	41	GLU
7	EG	44	HIS
7	EG	50	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	EG	68	ARG
7	EG	76	ILE
7	EG	84	LYS
7	EG	86	LEU
7	EG	103	ASN
7	EG	120	ILE
7	EG	126	THR
7	EG	131	VAL
7	EG	132	LEU
7	EG	147	LEU
7	EG	165	ASP
8	EH	3	VAL
8	EH	27	ARG
8	EH	43	ASN
9	EI	23	VAL
9	EI	93	ASN
9	EI	135	MET
10	EJ	2	LYS
10	EJ	3	THR
10	EJ	5	THR
10	EJ	17	VAL
10	EJ	24	THR
10	EJ	30	THR
10	EJ	40	HIS
10	EJ	44	TYR
10	EJ	54	ILE
10	EJ	55	ILE
10	EJ	65	THR
10	EJ	72	LYS
10	EJ	95	ARG
10	EJ	103	ILE
10	EJ	123	LYS
10	EJ	131	ASN
10	EJ	138	GLN
10	EJ	139	VAL
10	EJ	140	LEU
11	EK	3	GLN
11	EK	8	LEU
11	EK	13	ASN
11	EK	19	VAL
11	EK	21	CYS
11	EK	23	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	EK	41	ILE
11	EK	47	ILE
11	EK	61	VAL
11	EK	73	ASP
11	EK	93	GLN
11	EK	95	ILE
11	EK	97	THR
11	EK	105	ARG
11	EK	107	LEU
11	EK	111	LYS
12	EL	5	THR
12	EL	19	LEU
12	EL	30	THR
12	EL	100	ILE
12	EL	121	THR
12	EL	122	VAL
13	EM	7	THR
13	EM	41	LEU
13	EM	76	LYS
13	EM	97	GLN
13	EM	115	GLU
13	EM	118	LYS
13	EM	126	ILE
13	EM	132	THR
13	EM	134	THR
14	EN	51	LEU
14	EN	69	ARG
14	EN	83	LEU
14	EN	97	ILE
15	EO	8	ILE
15	EO	18	LEU
15	EO	31	THR
15	EO	36	TYR
15	EO	106	LEU
16	EP	7	LEU
16	EP	16	VAL
16	EP	24	THR
16	EP	31	VAL
16	EP	36	LYS
16	EP	79	VAL
16	EP	80	VAL
16	EP	92	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	EP	99	LEU
16	EP	103	THR
16	EP	113	LEU
17	EQ	57	ARG
17	EQ	59	LEU
17	EQ	63	ARG
17	EQ	88	GLU
17	EQ	93	ILE
17	EQ	116	LEU
18	ER	4	VAL
18	ER	25	LEU
18	ER	26	ASP
18	ER	29	THR
18	ER	38	VAL
18	ER	48	LYS
18	ER	52	PRO
18	ER	81	LYS
19	ES	3	THR
19	ES	4	ILE
19	ES	7	HIS
19	ES	18	ARG
19	ES	30	SER
19	ES	66	ILE
19	ES	76	VAL
19	ES	101	SER
19	ES	107	VAL
20	ET	18	GLU
20	ET	32	LEU
20	ET	43	ILE
20	ET	64	LYS
20	ET	68	LYS
20	ET	85	VAL
21	EU	18	LYS
21	EU	29	SER
21	EU	71	ILE
21	EU	86	PHE
21	EU	92	VAL
22	EV	18	ARG
22	EV	46	LYS
22	EV	61	LEU
23	EW	19	ARG
23	EW	23	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	EW	24	ARG
23	EW	25	PHE
23	EW	30	VAL
23	EW	49	ASN
23	EW	63	ASP
23	EW	67	LYS
23	EW	71	LYS
23	EW	76	ARG
24	EX	10	ARG
24	EX	16	ASN
24	EX	17	ARG
24	EX	24	THR
24	EX	26	ARG
24	EX	29	LEU
24	EX	34	SER
24	EX	46	VAL
24	EX	70	LEU
24	EX	77	TYR
25	EY	1	MET
25	EY	16	THR
25	EY	18	LEU
25	EY	47	ARG
25	EY	56	LEU
26	EZ	8	GLN
26	EZ	15	ARG
26	EZ	17	PRO
26	EZ	23	LEU
26	EZ	30	ARG
26	EZ	37	ARG
26	EZ	56	VAL
27	E0	24	VAL
28	E1	7	LYS
28	E1	9	LYS
28	E1	35	LEU
29	E2	39	ARG
29	E2	42	LEU
30	E3	7	ARG
30	E3	30	HIS
30	E3	31	ILE
30	E3	54	LEU
31	E4	16	ILE
31	E4	26	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	E5	1	MET
32	E5	26	VAL
32	E5	42	ARG
32	E5	43	LYS
32	E5	51	TYR
32	E5	59	LEU
32	E5	65	GLU
32	E5	69	PHE
32	E5	70	GLU
32	E5	96	PHE
32	E5	106	PHE
32	E5	107	GLU
32	E5	108	VAL
32	E5	116	GLU
32	E5	125	ARG
32	E5	130	PRO
32	E5	132	TYR
32	E5	143	MET
34	FB	19	THR
34	FB	49	PHE
34	FB	53	LEU
34	FB	58	LYS
34	FB	88	GLN
34	FB	212	TYR
34	FB	219	THR
34	FB	221	ARG
34	FB	224	ARG
36	FC	3	GLN
36	FC	15	VAL
36	FC	26	THR
36	FC	38	LYS
36	FC	39	VAL
36	FC	70	THR
36	FC	121	THR
36	FC	144	LEU
36	FC	150	LYS
36	FC	156	ARG
36	FC	167	TRP
36	FC	185	ASN
37	FD	10	LYS
37	FD	65	TYR
37	FD	101	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
37	FD	110	THR
37	FD	111	ARG
37	FD	117	LEU
37	FD	161	LEU
38	FE	76	LEU
38	FE	80	THR
38	FE	114	VAL
38	FE	123	VAL
38	FE	153	VAL
38	FE	157	ARG
39	FF	52	ASN
39	FF	54	LEU
39	FF	55	HIS
39	FF	89	VAL
39	FF	97	THR
40	FG	13	LEU
40	FG	23	LEU
41	FH	48	ASP
41	FH	104	VAL
41	FH	112	THR
41	FH	121	LEU
41	FH	125	ILE
42	FI	32	GLN
42	FI	57	MET
42	FI	61	LEU
42	FI	63	LEU
42	FI	84	THR
42	FI	88	MET
42	FI	89	GLU
42	FI	106	ARG
42	FI	123	ARG
43	FJ	52	LEU
43	FJ	57	VAL
43	FJ	87	LEU
44	FK	15	GLN
44	FK	69	ARG
44	FK	77	TYR
44	FK	82	LEU
44	FK	83	GLU
44	FK	97	ILE
44	FK	107	ILE
44	FK	122	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
44	FK	129	VAL
45	FL	29	GLN
45	FL	45	PRO
45	FL	52	VAL
45	FL	74	LEU
45	FL	82	ILE
45	FL	95	TYR
45	FL	117	TYR
46	FM	64	VAL
47	FN	28	LYS
47	FN	49	GLN
47	FN	53	ARG
48	FO	5	THR
48	FO	8	THR
48	FO	35	GLN
48	FO	64	ARG
48	FO	87	LEU
49	FP	1	MET
50	FQ	29	VAL
50	FQ	76	VAL
52	FS	36	ARG
52	FS	49	ILE
52	FS	56	GLN
53	FT	5	LYS
53	FT	9	LYS
53	FT	10	ARG
53	FT	12	ILE
53	FT	27	MET
53	FT	48	GLN
53	FT	54	MET
54	FU	16	LEU
54	FU	20	LYS
54	FU	28	VAL
54	FU	34	ARG
54	FU	43	THR
55	FV	5	THR
55	FV	19	ILE
55	FV	23	LYS
55	FV	77	LYS
55	FV	83	ARG
55	FV	95	PHE
55	FV	96	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
55	FV	104	ARG
55	FV	106	LEU
55	FV	116	VAL
55	FV	182	VAL
55	FV	200	VAL
55	FV	202	PHE
55	FV	204	TYR
55	FV	214	LEU
55	FV	232	GLU
55	FV	252	LEU
55	FV	266	CYS
55	FV	286	LEU
55	FV	291	ASP
55	FV	299	LEU
55	FV	303	LYS
55	FV	305	THR
55	FV	409	MET
55	FV	416	ILE
55	FV	446	ARG
55	FV	494	ILE
55	FV	504	LYS
55	FV	508	GLN
55	FV	532	LYS
55	FV	558	GLN
55	FV	560	GLN
55	FV	584	HIS
55	FV	602	LYS
55	FV	612	LEU
55	FV	660	LEU
55	FV	675	LYS
55	FV	677	ARG
55	FV	685	LEU
55	FV	699	ILE
56	FW	4	SER
2	GC	51	ARG
2	GC	93	VAL
2	GC	100	ARG
2	GC	104	LEU
2	GC	109	LEU
2	GC	129	LEU
2	GC	166	ARG
2	GC	202	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	GC	212	TRP
2	GC	215	VAL
2	GC	224	MET
2	GC	251	THR
2	GC	270	ARG
4	GD	16	THR
4	GD	79	LEU
4	GD	86	GLU
4	GD	98	VAL
4	GD	100	LEU
4	GD	103	ASP
4	GD	129	THR
4	GD	138	LEU
4	GD	170	VAL
4	GD	176	ASP
4	GD	186	LEU
4	GD	201	LEU
4	GD	203	VAL
5	GE	12	LEU
5	GE	21	ARG
5	GE	28	VAL
5	GE	40	ARG
5	GE	44	ARG
5	GE	77	ILE
5	GE	78	TRP
5	GE	88	ARG
5	GE	108	ILE
5	GE	111	GLU
5	GE	118	LEU
5	GE	123	LYS
5	GE	167	VAL
6	GF	114	ARG
6	GF	174	PHE
7	GG	32	LEU
7	GG	38	ASP
7	GG	44	HIS
7	GG	68	ARG
7	GG	84	LYS
7	GG	86	LEU
7	GG	103	ASN
7	GG	126	THR
7	GG	132	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	GH	5	LEU
9	GI	23	VAL
9	GI	33	ASN
10	GJ	2	LYS
10	GJ	25	LEU
10	GJ	36	LEU
10	GJ	40	HIS
10	GJ	54	ILE
10	GJ	55	ILE
10	GJ	65	THR
10	GJ	69	ARG
10	GJ	95	ARG
10	GJ	103	ILE
10	GJ	105	VAL
10	GJ	138	GLN
11	GK	3	GLN
11	GK	8	LEU
11	GK	21	CYS
11	GK	23	LYS
11	GK	30	ARG
11	GK	47	ILE
11	GK	58	LEU
11	GK	73	ASP
11	GK	93	GLN
11	GK	95	ILE
11	GK	97	THR
11	GK	105	ARG
11	GK	115	ILE
12	GL	19	LEU
12	GL	21	ARG
12	GL	48	ARG
12	GL	66	PHE
12	GL	73	ILE
12	GL	95	LEU
13	GM	14	LYS
13	GM	17	ASN
13	GM	31	PHE
13	GM	91	TYR
13	GM	132	THR
13	GM	134	THR
14	GN	6	SER
14	GN	14	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	GN	33	ILE
14	GN	51	LEU
14	GN	69	ARG
14	GN	71	ARG
14	GN	75	ILE
15	GO	28	VAL
15	GO	30	ARG
15	GO	36	TYR
15	GO	94	ARG
15	GO	106	LEU
16	GP	3	ILE
16	GP	7	LEU
16	GP	15	ASP
16	GP	83	ILE
16	GP	92	ARG
16	GP	95	LYS
16	GP	99	LEU
16	GP	103	THR
16	GP	113	LEU
17	GQ	17	LEU
17	GQ	63	ARG
17	GQ	93	ILE
17	GQ	94	LEU
17	GQ	96	ASP
17	GQ	108	LEU
18	GR	25	LEU
18	GR	38	VAL
18	GR	48	LYS
18	GR	54	VAL
18	GR	83	TYR
19	GS	4	ILE
19	GS	33	LEU
19	GS	62	ASP
19	GS	66	ILE
19	GS	88	ARG
20	GT	32	LEU
20	GT	37	ASP
20	GT	43	ILE
21	GU	18	LYS
21	GU	68	ASN
21	GU	71	ILE
21	GU	86	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	GV	31	TYR
23	GW	23	LYS
23	GW	63	ASP
24	GX	24	THR
24	GX	26	ARG
24	GX	39	VAL
24	GX	75	GLU
25	GY	14	LEU
25	GY	37	LEU
25	GY	56	LEU
26	GZ	2	LYS
26	GZ	30	ARG
27	G0	24	VAL
27	G0	42	ILE
28	G1	8	ILE
28	G1	33	LEU
29	G2	4	THR
29	G2	18	PHE
29	G2	21	ARG
30	G3	7	ARG
30	G3	31	ILE
30	G3	54	LEU
31	G4	26	ILE
34	HB	19	THR
34	HB	58	LYS
34	HB	90	PHE
34	HB	143	LEU
34	HB	206	ILE
34	HB	212	TYR
36	HC	3	GLN
36	HC	15	VAL
36	HC	55	ILE
36	HC	90	VAL
36	HC	144	LEU
36	HC	167	TRP
36	HC	185	ASN
37	HD	10	LYS
37	HD	60	LYS
37	HD	135	TYR
37	HD	146	ARG
37	HD	161	LEU
38	HE	12	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	HE	66	LYS
38	HE	77	ASN
38	HE	81	LEU
38	HE	124	LEU
38	HE	136	VAL
38	HE	153	VAL
38	HE	157	ARG
39	HF	86	ARG
39	HF	97	THR
41	HH	40	LEU
41	HH	55	THR
41	HH	66	PHE
41	HH	77	ARG
41	HH	99	LEU
41	HH	104	VAL
41	HH	121	LEU
42	HI	57	MET
42	HI	63	LEU
42	HI	88	MET
43	HJ	7	ARG
43	HJ	22	THR
43	HJ	83	THR
43	HJ	91	ASP
43	HJ	92	LEU
44	HK	44	TRP
44	HK	56	ARG
44	HK	57	LYS
44	HK	82	LEU
44	HK	89	PRO
44	HK	125	LYS
44	HK	129	VAL
45	HL	27	CYS
45	HL	59	ASN
45	HL	74	LEU
45	HL	115	SER
46	HM	109	ARG
48	HO	64	ARG
48	HO	87	LEU
49	HP	1	MET
49	HP	34	GLU
50	HQ	4	LYS
50	HQ	21	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	HQ	29	VAL
50	HQ	33	ILE
50	HQ	40	ARG
50	HQ	76	VAL
52	HS	49	ILE
53	HT	5	LYS
53	HT	12	ILE
53	HT	27	MET
53	HT	28	MET
53	HT	49	LYS
53	HT	51	PHE
53	HT	54	MET
53	HT	69	LYS
54	HU	34	ARG
55	HV	5	THR
55	HV	19	ILE
55	HV	23	LYS
55	HV	57	GLN
55	HV	77	LYS
55	HV	83	ARG
55	HV	95	PHE
55	HV	96	THR
55	HV	104	ARG
55	HV	182	VAL
55	HV	185	LEU
55	HV	202	PHE
55	HV	204	TYR
55	HV	214	LEU
55	HV	232	GLU
55	HV	252	LEU
55	HV	266	CYS
55	HV	286	LEU
55	HV	299	LEU
55	HV	303	LYS
55	HV	336	PHE
55	HV	409	MET
55	HV	437	ARG
55	HV	446	ARG
55	HV	494	ILE
55	HV	504	LYS
55	HV	532	LYS
55	HV	560	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
55	HV	584	HIS
55	HV	602	LYS
55	HV	658	VAL
55	HV	675	LYS
55	HV	685	LEU
56	HW	3	SER
56	HW	4	SER

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (99) such sidechains are listed below:

Mol	Chain	Res	Type
6	AF	4	HIS
22	AV	44	HIS
22	AV	80	HIS
25	AY	41	HIS
30	A3	30	HIS
34	BB	88	GLN
39	BF	3	HIS
40	BG	86	GLN
41	BH	18	GLN
42	BI	81	HIS
43	BJ	35	GLN
49	BP	26	ASN
55	BV	122	GLN
55	BV	220	GLN
55	BV	276	GLN
55	BV	465	HIS
2	CC	36	ASN
2	CC	250	GLN
5	CE	163	ASN
8	CH	33	GLN
10	CJ	80	HIS
13	CM	13	HIS
15	CO	34	HIS
16	CP	65	ASN
17	CQ	65	ASN
18	CR	66	HIS
20	CT	70	HIS
22	CV	44	HIS
22	CV	51	GLN
22	CV	80	HIS
23	CW	56	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	C3	25	HIS
34	DB	119	GLN
39	DF	3	HIS
40	DG	86	GLN
40	DG	122	ASN
40	DG	142	HIS
41	DH	18	GLN
44	DK	81	ASN
45	DL	5	ASN
51	DR	54	GLN
52	DS	52	HIS
55	DV	122	GLN
55	DV	276	GLN
55	DV	465	HIS
2	EC	24	HIS
4	ED	49	GLN
13	EM	13	HIS
15	EO	29	HIS
15	EO	34	HIS
18	ER	66	HIS
22	EV	44	HIS
22	EV	80	HIS
25	EY	41	HIS
37	FD	116	GLN
38	FE	82	GLN
38	FE	83	HIS
38	FE	89	HIS
41	FH	18	GLN
47	FN	35	ASN
52	FS	14	HIS
52	FS	52	HIS
52	FS	57	HIS
55	FV	55	GLN
55	FV	78	GLN
55	FV	122	GLN
55	FV	276	GLN
55	FV	310	HIS
55	FV	465	HIS
55	FV	505	HIS
55	FV	558	GLN
5	GE	29	HIS
5	GE	30	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	GE	46	GLN
5	GE	92	HIS
5	GE	97	ASN
7	GG	21	GLN
8	GH	18	GLN
12	GL	99	ASN
13	GM	13	HIS
15	GO	34	HIS
16	GP	76	HIS
21	GU	44	HIS
22	GV	44	HIS
22	GV	80	HIS
25	GY	20	ASN
30	G3	25	HIS
34	HB	176	ASN
38	HE	89	HIS
39	HF	3	HIS
40	HG	148	ASN
43	HJ	56	HIS
44	HK	22	HIS
45	HL	29	GLN
46	HM	91	HIS
47	HN	71	HIS
48	HO	50	HIS
55	HV	122	GLN
55	HV	465	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AB	117/120 (97%)	17 (14%)	0
1	CB	117/120 (97%)	19 (16%)	0
1	EB	117/120 (97%)	18 (15%)	0
1	GB	117/120 (97%)	20 (17%)	0
3	AA	2850/2904 (98%)	455 (15%)	40 (1%)
3	CA	2850/2904 (98%)	457 (16%)	39 (1%)
3	EA	2850/2904 (98%)	452 (15%)	36 (1%)
3	GA	2850/2904 (98%)	459 (16%)	38 (1%)
35	BA	1532/1542 (99%)	264 (17%)	17 (1%)
35	DA	1532/1542 (99%)	264 (17%)	14 (0%)
35	FA	1532/1542 (99%)	263 (17%)	16 (1%)

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
35	HA	1532/1542 (99%)	268 (17%)	15 (0%)
All	All	17996/18264 (98%)	2956 (16%)	215 (1%)

All (2956) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AB	3	C
1	AB	15	A
1	AB	16	G
1	AB	21	G
1	AB	30	C
1	AB	35	C
1	AB	42	C
1	AB	44	G
1	AB	45	A
1	AB	56	G
1	AB	84	G
1	AB	87	U
1	AB	88	C
1	AB	89	U
1	AB	90	C
1	AB	99	A
1	AB	109	A
3	AA	10	A
3	AA	12	U
3	AA	15	G
3	AA	34	U
3	AA	35	G
3	AA	42	A
3	AA	43	G
3	AA	45	G
3	AA	46	G
3	AA	51	G
3	AA	61	C
3	AA	71	A
3	AA	74	A
3	AA	75	G
3	AA	80	G
3	AA	82	U
3	AA	84	A
3	AA	96	C
3	AA	101	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	118	A
3	AA	119	A
3	AA	120	U
3	AA	131	A
3	AA	135	U
3	AA	136	G
3	AA	137	U
3	AA	138	U
3	AA	139	U
3	AA	140	C
3	AA	141	G
3	AA	142	A
3	AA	144	A
3	AA	149	A
3	AA	162	U
3	AA	163	C
3	AA	164	C
3	AA	181	A
3	AA	188	G
3	AA	196	A
3	AA	199	A
3	AA	215	G
3	AA	216	A
3	AA	222	A
3	AA	226	A
3	AA	230	G
3	AA	248	G
3	AA	255	A
3	AA	264	C
3	AA	265	A
3	AA	266	G
3	AA	267	C
3	AA	272	A
3	AA	273	G
3	AA	276	U
3	AA	277	G
3	AA	278	A
3	AA	281	C
3	AA	285	G
3	AA	302	C
3	AA	311	A
3	AA	329	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	330	A
3	AA	346	A
3	AA	347	A
3	AA	353	C
3	AA	355	U
3	AA	361	G
3	AA	362	A
3	AA	371	A
3	AA	372	G
3	AA	382	A
3	AA	383	C
3	AA	386	G
3	AA	388	G
3	AA	396	G
3	AA	404	A
3	AA	405	U
3	AA	411	G
3	AA	412	A
3	AA	424	G
3	AA	451	U
3	AA	455	C
3	AA	481	G
3	AA	491	G
3	AA	503	A
3	AA	504	A
3	AA	505	A
3	AA	509	C
3	AA	528	A
3	AA	531	C
3	AA	532	A
3	AA	533	G
3	AA	538	A
3	AA	543	G
3	AA	544	C
3	AA	546	U
3	AA	547	A
3	AA	548	G
3	AA	549	G
3	AA	563	A
3	AA	573	U
3	AA	575	A
3	AA	586	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	603	A
3	AA	604	G
3	AA	613	A
3	AA	614	A
3	AA	615	U
3	AA	627	A
3	AA	631	A
3	AA	637	A
3	AA	645	C
3	AA	646	U
3	AA	647	G
3	AA	648	G
3	AA	654	A
3	AA	655	A
3	AA	656	G
3	AA	686	U
3	AA	714	U
3	AA	715	A
3	AA	730	A
3	AA	738	G
3	AA	747	U
3	AA	775	G
3	AA	776	G
3	AA	782	A
3	AA	784	G
3	AA	785	G
3	AA	805	G
3	AA	812	C
3	AA	819	A
3	AA	827	U
3	AA	828	U
3	AA	845	A
3	AA	846	U
3	AA	847	U
3	AA	859	G
3	AA	878	A
3	AA	883	G
3	AA	884	U
3	AA	896	A
3	AA	897	C
3	AA	910	A
3	AA	914	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	915	C
3	AA	932	U
3	AA	941	A
3	AA	946	C
3	AA	961	C
3	AA	974	G
3	AA	983	A
3	AA	985	C
3	AA	995	C
3	AA	996	A
3	AA	1003	G
3	AA	1012	U
3	AA	1013	C
3	AA	1021	A
3	AA	1022	G
3	AA	1023	U
3	AA	1025	G
3	AA	1026	G
3	AA	1033	U
3	AA	1045	C
3	AA	1046	A
3	AA	1047	G
3	AA	1051	G
3	AA	1053	C
3	AA	1059	G
3	AA	1060	U
3	AA	1061	U
3	AA	1062	G
3	AA	1067	A
3	AA	1069	A
3	AA	1070	A
3	AA	1072	C
3	AA	1074	G
3	AA	1078	U
3	AA	1083	U
3	AA	1084	A
3	AA	1088	A
3	AA	1089	A
3	AA	1090	A
3	AA	1091	G
3	AA	1097	U
3	AA	1098	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	1110	G
3	AA	1111	A
3	AA	1112	G
3	AA	1129	A
3	AA	1132	U
3	AA	1133	A
3	AA	1135	C
3	AA	1136	G
3	AA	1139	G
3	AA	1142	A
3	AA	1151	A
3	AA	1155	A
3	AA	1169	A
3	AA	1170	C
3	AA	1172	C
3	AA	1174	U
3	AA	1175	A
3	AA	1176	U
3	AA	1180	U
3	AA	1186	G
3	AA	1238	G
3	AA	1248	G
3	AA	1250	G
3	AA	1253	A
3	AA	1256	G
3	AA	1266	G
3	AA	1268	A
3	AA	1271	G
3	AA	1272	A
3	AA	1273	U
3	AA	1281	G
3	AA	1300	G
3	AA	1301	A
3	AA	1313	U
3	AA	1317	G
3	AA	1352	U
3	AA	1365	A
3	AA	1368	G
3	AA	1378	A
3	AA	1379	U
3	AA	1383	A
3	AA	1395	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	1415	U
3	AA	1416	G
3	AA	1419	A
3	AA	1420	A
3	AA	1428	C
3	AA	1435	G
3	AA	1452	G
3	AA	1459	G
3	AA	1482	G
3	AA	1493	C
3	AA	1504	A
3	AA	1508	A
3	AA	1510	G
3	AA	1515	A
3	AA	1524	G
3	AA	1533	C
3	AA	1534	U
3	AA	1535	A
3	AA	1536	C
3	AA	1566	A
3	AA	1569	A
3	AA	1578	U
3	AA	1583	A
3	AA	1584	U
3	AA	1585	C
3	AA	1607	C
3	AA	1608	A
3	AA	1610	A
3	AA	1613	G
3	AA	1627	G
3	AA	1647	U
3	AA	1648	U
3	AA	1649	G
3	AA	1652	A
3	AA	1653	G
3	AA	1674	G
3	AA	1714	U
3	AA	1715	G
3	AA	1723	G
3	AA	1729	U
3	AA	1730	C
3	AA	1737	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	1738	G
3	AA	1739	A
3	AA	1744	A
3	AA	1758	U
3	AA	1764	C
3	AA	1773	A
3	AA	1776	G
3	AA	1791	A
3	AA	1800	C
3	AA	1801	A
3	AA	1802	A
3	AA	1808	A
3	AA	1811	G
3	AA	1816	C
3	AA	1829	A
3	AA	1833	C
3	AA	1847	A
3	AA	1848	A
3	AA	1858	A
3	AA	1869	G
3	AA	1870	C
3	AA	1871	A
3	AA	1872	A
3	AA	1873	G
3	AA	1884	G
3	AA	1906	G
3	AA	1913	A
3	AA	1914	C
3	AA	1927	A
3	AA	1929	G
3	AA	1930	G
3	AA	1937	A
3	AA	1938	A
3	AA	1955	U
3	AA	1960	A
3	AA	1966	A
3	AA	1967	C
3	AA	1970	A
3	AA	1971	U
3	AA	1972	G
3	AA	1991	U
3	AA	1993	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	1997	C
3	AA	2017	U
3	AA	2020	A
3	AA	2022	U
3	AA	2023	C
3	AA	2031	A
3	AA	2033	A
3	AA	2043	C
3	AA	2055	C
3	AA	2056	G
3	AA	2060	A
3	AA	2061	G
3	AA	2062	A
3	AA	2069	G
3	AA	2072	C
3	AA	2093	G
3	AA	2104	C
3	AA	2106	U
3	AA	2107	G
3	AA	2108	A
3	AA	2109	U
3	AA	2110	G
3	AA	2134	A
3	AA	2135	A
3	AA	2137	U
3	AA	2138	G
3	AA	2139	U
3	AA	2140	G
3	AA	2142	A
3	AA	2143	C
3	AA	2144	G
3	AA	2145	C
3	AA	2146	C
3	AA	2147	A
3	AA	2148	G
3	AA	2149	U
3	AA	2150	C
3	AA	2151	U
3	AA	2153	C
3	AA	2154	A
3	AA	2155	U
3	AA	2156	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	2157	G
3	AA	2180	U
3	AA	2183	A
3	AA	2185	U
3	AA	2194	U
3	AA	2198	A
3	AA	2199	A
3	AA	2204	G
3	AA	2211	A
3	AA	2212	A
3	AA	2214	C
3	AA	2225	A
3	AA	2226	C
3	AA	2238	G
3	AA	2239	G
3	AA	2250	G
3	AA	2268	A
3	AA	2278	A
3	AA	2283	C
3	AA	2284	A
3	AA	2286	G
3	AA	2287	A
3	AA	2305	U
3	AA	2308	G
3	AA	2311	A
3	AA	2322	A
3	AA	2325	G
3	AA	2327	A
3	AA	2333	A
3	AA	2336	A
3	AA	2347	C
3	AA	2354	C
3	AA	2361	G
3	AA	2383	G
3	AA	2385	C
3	AA	2402	U
3	AA	2403	C
3	AA	2406	A
3	AA	2423	U
3	AA	2424	C
3	AA	2425	A
3	AA	2429	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	2430	A
3	AA	2435	A
3	AA	2441	U
3	AA	2448	A
3	AA	2470	G
3	AA	2476	A
3	AA	2491	U
3	AA	2502	G
3	AA	2503	A
3	AA	2505	G
3	AA	2506	U
3	AA	2507	C
3	AA	2518	A
3	AA	2529	G
3	AA	2554	U
3	AA	2556	C
3	AA	2566	A
3	AA	2567	G
3	AA	2572	A
3	AA	2573	C
3	AA	2585	U
3	AA	2602	A
3	AA	2603	G
3	AA	2609	U
3	AA	2613	U
3	AA	2629	U
3	AA	2663	G
3	AA	2671	G
3	AA	2681	C
3	AA	2682	A
3	AA	2689	U
3	AA	2690	U
3	AA	2714	G
3	AA	2716	C
3	AA	2726	A
3	AA	2733	A
3	AA	2744	G
3	AA	2748	A
3	AA	2757	A
3	AA	2760	C
3	AA	2765	A
3	AA	2778	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	2791	G
3	AA	2798	U
3	AA	2800	A
3	AA	2801	G
3	AA	2818	U
3	AA	2820	A
3	AA	2821	A
3	AA	2861	U
3	AA	2867	G
3	AA	2873	A
3	AA	2874	C
3	AA	2883	A
3	AA	2884	U
3	AA	2885	G
3	AA	2891	U
3	AA	2903	U
35	BA	5	U
35	BA	9	G
35	BA	22	G
35	BA	32	A
35	BA	39	G
35	BA	40	C
35	BA	48	C
35	BA	51	A
35	BA	70	U
35	BA	71	A
35	BA	73	C
35	BA	74	A
35	BA	75	G
35	BA	76	G
35	BA	77	A
35	BA	78	A
35	BA	79	G
35	BA	80	A
35	BA	81	A
35	BA	82	G
35	BA	83	C
35	BA	84	U
35	BA	85	U
35	BA	86	G
35	BA	89	U
35	BA	90	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	BA	98	A
35	BA	115	G
35	BA	116	A
35	BA	122	G
35	BA	127	G
35	BA	130	A
35	BA	131	A
35	BA	137	U
35	BA	141	G
35	BA	143	A
35	BA	144	G
35	BA	159	G
35	BA	163	C
35	BA	164	G
35	BA	173	U
35	BA	177	G
35	BA	182	A
35	BA	183	C
35	BA	204	G
35	BA	205	A
35	BA	209	U
35	BA	210	C
35	BA	240	G
35	BA	245	U
35	BA	247	G
35	BA	251	G
35	BA	258	G
35	BA	266	G
35	BA	267	C
35	BA	273	U
35	BA	285	C
35	BA	289	G
35	BA	321	A
35	BA	328	C
35	BA	329	A
35	BA	332	G
35	BA	344	A
35	BA	345	C
35	BA	347	G
35	BA	352	C
35	BA	353	A
35	BA	354	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	BA	367	U
35	BA	372	C
35	BA	373	A
35	BA	384	G
35	BA	406	G
35	BA	408	A
35	BA	411	A
35	BA	412	A
35	BA	413	G
35	BA	421	U
35	BA	422	C
35	BA	423	G
35	BA	424	G
35	BA	429	U
35	BA	430	A
35	BA	435	A
35	BA	441	A
35	BA	457	G
35	BA	458	U
35	BA	459	A
35	BA	461	A
35	BA	462	G
35	BA	463	U
35	BA	467	U
35	BA	468	A
35	BA	481	G
35	BA	482	A
35	BA	483	C
35	BA	484	G
35	BA	485	U
35	BA	486	U
35	BA	491	G
35	BA	508	U
35	BA	509	A
35	BA	511	C
35	BA	518	C
35	BA	527	G
35	BA	532	A
35	BA	533	A
35	BA	547	A
35	BA	556	C
35	BA	559	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	BA	562	U
35	BA	564	C
35	BA	572	A
35	BA	573	A
35	BA	576	C
35	BA	577	G
35	BA	579	A
35	BA	588	G
35	BA	596	A
35	BA	604	G
35	BA	650	G
35	BA	653	U
35	BA	665	A
35	BA	675	A
35	BA	701	U
35	BA	702	A
35	BA	721	G
35	BA	723	U
35	BA	731	G
35	BA	734	G
35	BA	747	A
35	BA	748	G
35	BA	755	G
35	BA	777	A
35	BA	793	U
35	BA	794	A
35	BA	813	U
35	BA	815	A
35	BA	817	C
35	BA	821	G
35	BA	828	U
35	BA	829	G
35	BA	841	C
35	BA	843	U
35	BA	845	A
35	BA	846	G
35	BA	859	G
35	BA	887	G
35	BA	914	A
35	BA	922	G
35	BA	926	G
35	BA	927	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	BA	932	C
35	BA	934	C
35	BA	935	A
35	BA	960	U
35	BA	966	G
35	BA	969	A
35	BA	971	G
35	BA	974	A
35	BA	975	A
35	BA	976	G
35	BA	977	A
35	BA	983	A
35	BA	993	G
35	BA	1003	G
35	BA	1004	A
35	BA	1008	U
35	BA	1018	G
35	BA	1022	A
35	BA	1026	G
35	BA	1029	U
35	BA	1030	U
35	BA	1031	C
35	BA	1032	G
35	BA	1033	G
35	BA	1034	G
35	BA	1037	C
35	BA	1045	C
35	BA	1050	G
35	BA	1054	C
35	BA	1055	A
35	BA	1065	U
35	BA	1066	C
35	BA	1086	U
35	BA	1088	G
35	BA	1094	G
35	BA	1095	U
35	BA	1101	A
35	BA	1124	G
35	BA	1125	U
35	BA	1130	A
35	BA	1133	G
35	BA	1135	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	BA	1136	C
35	BA	1137	C
35	BA	1139	G
35	BA	1146	A
35	BA	1159	U
35	BA	1167	A
35	BA	1168	U
35	BA	1169	A
35	BA	1181	G
35	BA	1182	G
35	BA	1183	U
35	BA	1196	A
35	BA	1197	A
35	BA	1202	U
35	BA	1212	U
35	BA	1213	A
35	BA	1214	C
35	BA	1225	A
35	BA	1226	C
35	BA	1227	A
35	BA	1239	A
35	BA	1240	U
35	BA	1249	C
35	BA	1256	A
35	BA	1279	G
35	BA	1280	A
35	BA	1286	U
35	BA	1287	A
35	BA	1293	C
35	BA	1299	A
35	BA	1300	G
35	BA	1302	C
35	BA	1303	C
35	BA	1305	G
35	BA	1317	C
35	BA	1318	A
35	BA	1320	C
35	BA	1322	C
35	BA	1332	A
35	BA	1336	C
35	BA	1337	G
35	BA	1338	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	BA	1353	G
35	BA	1364	U
35	BA	1368	A
35	BA	1381	U
35	BA	1398	A
35	BA	1406	U
35	BA	1411	C
35	BA	1419	G
35	BA	1440	U
35	BA	1441	A
35	BA	1446	A
35	BA	1452	C
35	BA	1454	G
35	BA	1469	C
35	BA	1475	G
35	BA	1487	G
35	BA	1491	G
35	BA	1492	A
35	BA	1493	A
35	BA	1494	G
35	BA	1497	G
35	BA	1503	A
35	BA	1506	U
35	BA	1517	G
35	BA	1519	A
35	BA	1529	G
35	BA	1530	G
35	BA	1534	A
1	CB	3	C
1	CB	15	A
1	CB	16	G
1	CB	21	G
1	CB	24	G
1	CB	30	C
1	CB	35	C
1	CB	42	C
1	CB	44	G
1	CB	45	A
1	CB	56	G
1	CB	84	G
1	CB	87	U
1	CB	88	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CB	89	U
1	CB	90	C
1	CB	99	A
1	CB	109	A
1	CB	117	G
3	CA	10	A
3	CA	12	U
3	CA	15	G
3	CA	34	U
3	CA	35	G
3	CA	42	A
3	CA	43	G
3	CA	45	G
3	CA	46	G
3	CA	51	G
3	CA	61	C
3	CA	71	A
3	CA	74	A
3	CA	75	G
3	CA	80	G
3	CA	82	U
3	CA	84	A
3	CA	96	C
3	CA	101	A
3	CA	118	A
3	CA	119	A
3	CA	120	U
3	CA	131	A
3	CA	135	U
3	CA	136	G
3	CA	137	U
3	CA	138	U
3	CA	139	U
3	CA	140	C
3	CA	141	G
3	CA	142	A
3	CA	144	A
3	CA	149	A
3	CA	162	U
3	CA	163	C
3	CA	164	C
3	CA	181	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CA	188	G
3	CA	196	A
3	CA	199	A
3	CA	215	G
3	CA	216	A
3	CA	222	A
3	CA	226	A
3	CA	230	G
3	CA	248	G
3	CA	255	A
3	CA	264	C
3	CA	265	A
3	CA	266	G
3	CA	267	C
3	CA	272	A
3	CA	273	G
3	CA	276	U
3	CA	277	G
3	CA	278	A
3	CA	281	C
3	CA	285	G
3	CA	302	C
3	CA	311	A
3	CA	329	G
3	CA	330	A
3	CA	346	A
3	CA	347	A
3	CA	353	C
3	CA	355	U
3	CA	361	G
3	CA	362	A
3	CA	371	A
3	CA	372	G
3	CA	382	A
3	CA	383	C
3	CA	386	G
3	CA	388	G
3	CA	396	G
3	CA	404	A
3	CA	405	U
3	CA	411	G
3	CA	412	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CA	424	G
3	CA	451	U
3	CA	455	C
3	CA	481	G
3	CA	491	G
3	CA	503	A
3	CA	504	A
3	CA	505	A
3	CA	509	C
3	CA	528	A
3	CA	531	C
3	CA	532	A
3	CA	533	G
3	CA	538	A
3	CA	543	G
3	CA	544	C
3	CA	546	U
3	CA	547	A
3	CA	548	G
3	CA	549	G
3	CA	563	A
3	CA	573	U
3	CA	575	A
3	CA	586	A
3	CA	603	A
3	CA	604	G
3	CA	613	A
3	CA	614	A
3	CA	615	U
3	CA	627	A
3	CA	631	A
3	CA	637	A
3	CA	645	C
3	CA	646	U
3	CA	647	G
3	CA	648	G
3	CA	653	U
3	CA	654	A
3	CA	655	A
3	CA	656	G
3	CA	686	U
3	CA	714	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CA	715	A
3	CA	730	A
3	CA	738	G
3	CA	747	U
3	CA	775	G
3	CA	776	G
3	CA	782	A
3	CA	784	G
3	CA	785	G
3	CA	789	A
3	CA	801	G
3	CA	805	G
3	CA	812	C
3	CA	819	A
3	CA	827	U
3	CA	828	U
3	CA	845	A
3	CA	846	U
3	CA	847	U
3	CA	859	G
3	CA	878	A
3	CA	883	G
3	CA	896	A
3	CA	897	C
3	CA	902	C
3	CA	910	A
3	CA	914	G
3	CA	915	C
3	CA	932	U
3	CA	941	A
3	CA	946	C
3	CA	961	C
3	CA	974	G
3	CA	983	A
3	CA	985	C
3	CA	995	C
3	CA	996	A
3	CA	1003	G
3	CA	1012	U
3	CA	1013	C
3	CA	1021	A
3	CA	1022	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CA	1023	U
3	CA	1025	G
3	CA	1026	G
3	CA	1033	U
3	CA	1045	C
3	CA	1046	A
3	CA	1047	G
3	CA	1051	G
3	CA	1053	C
3	CA	1059	G
3	CA	1060	U
3	CA	1061	U
3	CA	1062	G
3	CA	1067	A
3	CA	1069	A
3	CA	1070	A
3	CA	1072	C
3	CA	1074	G
3	CA	1078	U
3	CA	1083	U
3	CA	1084	A
3	CA	1088	A
3	CA	1089	A
3	CA	1090	A
3	CA	1091	G
3	CA	1097	U
3	CA	1098	A
3	CA	1110	G
3	CA	1111	A
3	CA	1112	G
3	CA	1129	A
3	CA	1132	U
3	CA	1133	A
3	CA	1135	C
3	CA	1136	G
3	CA	1139	G
3	CA	1142	A
3	CA	1151	A
3	CA	1155	A
3	CA	1169	A
3	CA	1170	C
3	CA	1171	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CA	1172	C
3	CA	1174	U
3	CA	1175	A
3	CA	1176	U
3	CA	1180	U
3	CA	1186	G
3	CA	1238	G
3	CA	1248	G
3	CA	1250	G
3	CA	1253	A
3	CA	1256	G
3	CA	1266	G
3	CA	1268	A
3	CA	1271	G
3	CA	1272	A
3	CA	1273	U
3	CA	1300	G
3	CA	1301	A
3	CA	1313	U
3	CA	1317	G
3	CA	1352	U
3	CA	1365	A
3	CA	1368	G
3	CA	1379	U
3	CA	1383	A
3	CA	1395	A
3	CA	1415	U
3	CA	1416	G
3	CA	1419	A
3	CA	1420	A
3	CA	1428	C
3	CA	1435	G
3	CA	1452	G
3	CA	1459	G
3	CA	1482	G
3	CA	1493	C
3	CA	1504	A
3	CA	1508	A
3	CA	1510	G
3	CA	1515	A
3	CA	1524	G
3	CA	1533	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CA	1534	U
3	CA	1535	A
3	CA	1536	C
3	CA	1566	A
3	CA	1569	A
3	CA	1578	U
3	CA	1583	A
3	CA	1584	U
3	CA	1585	C
3	CA	1607	C
3	CA	1608	A
3	CA	1610	A
3	CA	1627	G
3	CA	1647	U
3	CA	1648	U
3	CA	1649	G
3	CA	1652	A
3	CA	1653	G
3	CA	1674	G
3	CA	1714	U
3	CA	1715	G
3	CA	1723	G
3	CA	1729	U
3	CA	1730	C
3	CA	1731	G
3	CA	1732	C
3	CA	1737	G
3	CA	1738	G
3	CA	1739	A
3	CA	1744	A
3	CA	1764	C
3	CA	1773	A
3	CA	1776	G
3	CA	1791	A
3	CA	1800	C
3	CA	1801	A
3	CA	1808	A
3	CA	1811	G
3	CA	1816	C
3	CA	1829	A
3	CA	1833	C
3	CA	1847	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CA	1848	A
3	CA	1858	A
3	CA	1869	G
3	CA	1870	C
3	CA	1871	A
3	CA	1872	A
3	CA	1873	G
3	CA	1884	G
3	CA	1906	G
3	CA	1913	A
3	CA	1914	C
3	CA	1927	A
3	CA	1929	G
3	CA	1930	G
3	CA	1937	A
3	CA	1938	A
3	CA	1955	U
3	CA	1960	A
3	CA	1966	A
3	CA	1967	C
3	CA	1970	A
3	CA	1971	U
3	CA	1972	G
3	CA	1991	U
3	CA	1993	U
3	CA	1997	C
3	CA	2017	U
3	CA	2020	A
3	CA	2022	U
3	CA	2023	C
3	CA	2031	A
3	CA	2043	C
3	CA	2055	C
3	CA	2056	G
3	CA	2060	A
3	CA	2061	G
3	CA	2062	A
3	CA	2069	G
3	CA	2072	C
3	CA	2093	G
3	CA	2104	C
3	CA	2105	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CA	2106	U
3	CA	2107	G
3	CA	2108	A
3	CA	2109	U
3	CA	2110	G
3	CA	2134	A
3	CA	2135	A
3	CA	2138	G
3	CA	2139	U
3	CA	2140	G
3	CA	2142	A
3	CA	2143	C
3	CA	2144	G
3	CA	2145	C
3	CA	2147	A
3	CA	2148	G
3	CA	2149	U
3	CA	2150	C
3	CA	2151	U
3	CA	2153	C
3	CA	2154	A
3	CA	2155	U
3	CA	2156	G
3	CA	2157	G
3	CA	2180	U
3	CA	2182	U
3	CA	2183	A
3	CA	2185	U
3	CA	2194	U
3	CA	2198	A
3	CA	2199	A
3	CA	2204	G
3	CA	2211	A
3	CA	2212	A
3	CA	2214	C
3	CA	2225	A
3	CA	2226	C
3	CA	2238	G
3	CA	2239	G
3	CA	2250	G
3	CA	2268	A
3	CA	2278	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CA	2283	C
3	CA	2284	A
3	CA	2286	G
3	CA	2287	A
3	CA	2305	U
3	CA	2308	G
3	CA	2311	A
3	CA	2322	A
3	CA	2325	G
3	CA	2327	A
3	CA	2333	A
3	CA	2334	U
3	CA	2336	A
3	CA	2347	C
3	CA	2354	C
3	CA	2361	G
3	CA	2383	G
3	CA	2385	C
3	CA	2402	U
3	CA	2403	C
3	CA	2406	A
3	CA	2423	U
3	CA	2424	C
3	CA	2425	A
3	CA	2429	G
3	CA	2430	A
3	CA	2435	A
3	CA	2441	U
3	CA	2448	A
3	CA	2470	G
3	CA	2476	A
3	CA	2491	U
3	CA	2502	G
3	CA	2503	A
3	CA	2505	G
3	CA	2506	U
3	CA	2507	C
3	CA	2518	A
3	CA	2529	G
3	CA	2554	U
3	CA	2556	C
3	CA	2566	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CA	2567	G
3	CA	2572	A
3	CA	2573	C
3	CA	2585	U
3	CA	2602	A
3	CA	2603	G
3	CA	2609	U
3	CA	2613	U
3	CA	2629	U
3	CA	2663	G
3	CA	2671	G
3	CA	2682	A
3	CA	2689	U
3	CA	2690	U
3	CA	2714	G
3	CA	2716	C
3	CA	2726	A
3	CA	2733	A
3	CA	2744	G
3	CA	2748	A
3	CA	2757	A
3	CA	2760	C
3	CA	2765	A
3	CA	2769	U
3	CA	2778	A
3	CA	2791	G
3	CA	2798	U
3	CA	2799	A
3	CA	2800	A
3	CA	2801	G
3	CA	2818	U
3	CA	2820	A
3	CA	2821	A
3	CA	2861	U
3	CA	2867	G
3	CA	2873	A
3	CA	2874	C
3	CA	2883	A
3	CA	2884	U
3	CA	2885	G
3	CA	2891	U
3	CA	2903	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	DA	5	U
35	DA	9	G
35	DA	22	G
35	DA	32	A
35	DA	39	G
35	DA	40	C
35	DA	47	C
35	DA	48	C
35	DA	51	A
35	DA	58	C
35	DA	70	U
35	DA	71	A
35	DA	73	C
35	DA	74	A
35	DA	75	G
35	DA	76	G
35	DA	77	A
35	DA	78	A
35	DA	80	A
35	DA	81	A
35	DA	82	G
35	DA	83	C
35	DA	84	U
35	DA	85	U
35	DA	86	G
35	DA	88	U
35	DA	89	U
35	DA	90	C
35	DA	98	A
35	DA	115	G
35	DA	116	A
35	DA	122	G
35	DA	127	G
35	DA	130	A
35	DA	131	A
35	DA	137	U
35	DA	141	G
35	DA	143	A
35	DA	144	G
35	DA	159	G
35	DA	163	C
35	DA	164	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	DA	166	U
35	DA	173	U
35	DA	177	G
35	DA	182	A
35	DA	183	C
35	DA	204	G
35	DA	205	A
35	DA	209	U
35	DA	210	C
35	DA	240	G
35	DA	245	U
35	DA	247	G
35	DA	251	G
35	DA	258	G
35	DA	266	G
35	DA	267	C
35	DA	273	U
35	DA	285	C
35	DA	289	G
35	DA	321	A
35	DA	328	C
35	DA	329	A
35	DA	332	G
35	DA	344	A
35	DA	345	C
35	DA	347	G
35	DA	352	C
35	DA	353	A
35	DA	354	G
35	DA	367	U
35	DA	372	C
35	DA	373	A
35	DA	384	G
35	DA	406	G
35	DA	408	A
35	DA	411	A
35	DA	412	A
35	DA	413	G
35	DA	421	U
35	DA	422	C
35	DA	423	G
35	DA	424	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	DA	429	U
35	DA	430	A
35	DA	435	A
35	DA	441	A
35	DA	457	G
35	DA	458	U
35	DA	459	A
35	DA	461	A
35	DA	462	G
35	DA	463	U
35	DA	467	U
35	DA	468	A
35	DA	481	G
35	DA	482	A
35	DA	483	C
35	DA	484	G
35	DA	485	U
35	DA	486	U
35	DA	491	G
35	DA	508	U
35	DA	509	A
35	DA	511	C
35	DA	518	C
35	DA	527	G
35	DA	532	A
35	DA	533	A
35	DA	547	A
35	DA	556	C
35	DA	559	A
35	DA	562	U
35	DA	564	C
35	DA	572	A
35	DA	573	A
35	DA	576	C
35	DA	577	G
35	DA	579	A
35	DA	588	G
35	DA	604	G
35	DA	650	G
35	DA	653	U
35	DA	665	A
35	DA	701	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	DA	702	A
35	DA	721	G
35	DA	723	U
35	DA	724	G
35	DA	731	G
35	DA	734	G
35	DA	747	A
35	DA	748	G
35	DA	755	G
35	DA	777	A
35	DA	793	U
35	DA	794	A
35	DA	813	U
35	DA	815	A
35	DA	817	C
35	DA	821	G
35	DA	828	U
35	DA	829	G
35	DA	841	C
35	DA	843	U
35	DA	845	A
35	DA	846	G
35	DA	859	G
35	DA	887	G
35	DA	914	A
35	DA	922	G
35	DA	926	G
35	DA	927	G
35	DA	932	C
35	DA	934	C
35	DA	960	U
35	DA	966	G
35	DA	969	A
35	DA	971	G
35	DA	974	A
35	DA	975	A
35	DA	976	G
35	DA	977	A
35	DA	983	A
35	DA	993	G
35	DA	1003	G
35	DA	1004	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	DA	1008	U
35	DA	1018	G
35	DA	1022	A
35	DA	1029	U
35	DA	1030	U
35	DA	1031	C
35	DA	1032	G
35	DA	1033	G
35	DA	1034	G
35	DA	1037	C
35	DA	1045	C
35	DA	1050	G
35	DA	1054	C
35	DA	1065	U
35	DA	1066	C
35	DA	1086	U
35	DA	1088	G
35	DA	1089	G
35	DA	1094	G
35	DA	1095	U
35	DA	1101	A
35	DA	1124	G
35	DA	1125	U
35	DA	1130	A
35	DA	1133	G
35	DA	1135	U
35	DA	1136	C
35	DA	1137	C
35	DA	1139	G
35	DA	1142	G
35	DA	1159	U
35	DA	1167	A
35	DA	1168	U
35	DA	1169	A
35	DA	1181	G
35	DA	1182	G
35	DA	1183	U
35	DA	1196	A
35	DA	1197	A
35	DA	1202	U
35	DA	1212	U
35	DA	1213	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	DA	1214	C
35	DA	1225	A
35	DA	1226	C
35	DA	1227	A
35	DA	1239	A
35	DA	1240	U
35	DA	1249	C
35	DA	1256	A
35	DA	1279	G
35	DA	1280	A
35	DA	1286	U
35	DA	1287	A
35	DA	1293	C
35	DA	1297	G
35	DA	1299	A
35	DA	1300	G
35	DA	1302	C
35	DA	1305	G
35	DA	1317	C
35	DA	1318	A
35	DA	1320	C
35	DA	1322	C
35	DA	1323	G
35	DA	1332	A
35	DA	1336	C
35	DA	1337	G
35	DA	1338	G
35	DA	1353	G
35	DA	1364	U
35	DA	1368	A
35	DA	1398	A
35	DA	1406	U
35	DA	1411	C
35	DA	1419	G
35	DA	1440	U
35	DA	1441	A
35	DA	1446	A
35	DA	1452	C
35	DA	1454	G
35	DA	1469	C
35	DA	1475	G
35	DA	1487	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	DA	1491	G
35	DA	1492	A
35	DA	1493	A
35	DA	1494	G
35	DA	1497	G
35	DA	1503	A
35	DA	1506	U
35	DA	1517	G
35	DA	1519	A
35	DA	1529	G
35	DA	1530	G
35	DA	1534	A
3	EA	10	A
3	EA	12	U
3	EA	15	G
3	EA	34	U
3	EA	35	G
3	EA	42	A
3	EA	43	G
3	EA	45	G
3	EA	46	G
3	EA	51	G
3	EA	61	C
3	EA	71	A
3	EA	74	A
3	EA	75	G
3	EA	80	G
3	EA	82	U
3	EA	84	A
3	EA	96	C
3	EA	101	A
3	EA	118	A
3	EA	119	A
3	EA	120	U
3	EA	131	A
3	EA	135	U
3	EA	136	G
3	EA	137	U
3	EA	138	U
3	EA	139	U
3	EA	140	C
3	EA	141	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	142	A
3	EA	143	C
3	EA	144	A
3	EA	149	A
3	EA	162	U
3	EA	163	C
3	EA	164	C
3	EA	181	A
3	EA	188	G
3	EA	196	A
3	EA	199	A
3	EA	215	G
3	EA	216	A
3	EA	222	A
3	EA	226	A
3	EA	230	G
3	EA	248	G
3	EA	255	A
3	EA	264	C
3	EA	265	A
3	EA	266	G
3	EA	267	C
3	EA	272	A
3	EA	273	G
3	EA	276	U
3	EA	277	G
3	EA	278	A
3	EA	281	C
3	EA	285	G
3	EA	302	C
3	EA	311	A
3	EA	329	G
3	EA	330	A
3	EA	346	A
3	EA	347	A
3	EA	353	C
3	EA	355	U
3	EA	361	G
3	EA	362	A
3	EA	371	A
3	EA	372	G
3	EA	382	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	383	C
3	EA	386	G
3	EA	388	G
3	EA	396	G
3	EA	404	A
3	EA	405	U
3	EA	411	G
3	EA	412	A
3	EA	424	G
3	EA	451	U
3	EA	455	C
3	EA	481	G
3	EA	491	G
3	EA	503	A
3	EA	504	A
3	EA	505	A
3	EA	509	C
3	EA	528	A
3	EA	531	C
3	EA	532	A
3	EA	533	G
3	EA	538	A
3	EA	543	G
3	EA	544	C
3	EA	546	U
3	EA	547	A
3	EA	548	G
3	EA	549	G
3	EA	563	A
3	EA	573	U
3	EA	575	A
3	EA	586	A
3	EA	603	A
3	EA	604	G
3	EA	613	A
3	EA	614	A
3	EA	615	U
3	EA	627	A
3	EA	631	A
3	EA	637	A
3	EA	645	C
3	EA	646	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	647	G
3	EA	654	A
3	EA	655	A
3	EA	656	G
3	EA	686	U
3	EA	714	U
3	EA	715	A
3	EA	730	A
3	EA	738	G
3	EA	747	U
3	EA	775	G
3	EA	776	G
3	EA	782	A
3	EA	784	G
3	EA	785	G
3	EA	805	G
3	EA	812	C
3	EA	819	A
3	EA	827	U
3	EA	828	U
3	EA	845	A
3	EA	846	U
3	EA	847	U
3	EA	859	G
3	EA	883	G
3	EA	896	A
3	EA	897	C
3	EA	910	A
3	EA	914	G
3	EA	915	C
3	EA	932	U
3	EA	941	A
3	EA	946	C
3	EA	961	C
3	EA	973	A
3	EA	974	G
3	EA	983	A
3	EA	985	C
3	EA	995	C
3	EA	996	A
3	EA	1003	G
3	EA	1012	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	1013	C
3	EA	1021	A
3	EA	1022	G
3	EA	1023	U
3	EA	1025	G
3	EA	1026	G
3	EA	1033	U
3	EA	1045	C
3	EA	1046	A
3	EA	1047	G
3	EA	1051	G
3	EA	1053	C
3	EA	1059	G
3	EA	1060	U
3	EA	1061	U
3	EA	1062	G
3	EA	1067	A
3	EA	1069	A
3	EA	1070	A
3	EA	1072	C
3	EA	1078	U
3	EA	1083	U
3	EA	1084	A
3	EA	1088	A
3	EA	1089	A
3	EA	1090	A
3	EA	1091	G
3	EA	1097	U
3	EA	1098	A
3	EA	1110	G
3	EA	1111	A
3	EA	1112	G
3	EA	1129	A
3	EA	1132	U
3	EA	1133	A
3	EA	1135	C
3	EA	1136	G
3	EA	1139	G
3	EA	1142	A
3	EA	1151	A
3	EA	1169	A
3	EA	1170	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	1171	G
3	EA	1172	C
3	EA	1174	U
3	EA	1175	A
3	EA	1176	U
3	EA	1177	G
3	EA	1186	G
3	EA	1238	G
3	EA	1248	G
3	EA	1250	G
3	EA	1253	A
3	EA	1256	G
3	EA	1266	G
3	EA	1268	A
3	EA	1271	G
3	EA	1272	A
3	EA	1273	U
3	EA	1281	G
3	EA	1300	G
3	EA	1301	A
3	EA	1313	U
3	EA	1317	G
3	EA	1352	U
3	EA	1365	A
3	EA	1368	G
3	EA	1378	A
3	EA	1379	U
3	EA	1383	A
3	EA	1386	C
3	EA	1395	A
3	EA	1415	U
3	EA	1416	G
3	EA	1419	A
3	EA	1420	A
3	EA	1428	C
3	EA	1435	G
3	EA	1452	G
3	EA	1459	G
3	EA	1482	G
3	EA	1493	C
3	EA	1504	A
3	EA	1508	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	1510	G
3	EA	1515	A
3	EA	1524	G
3	EA	1533	C
3	EA	1534	U
3	EA	1535	A
3	EA	1536	C
3	EA	1566	A
3	EA	1569	A
3	EA	1578	U
3	EA	1583	A
3	EA	1584	U
3	EA	1585	C
3	EA	1607	C
3	EA	1608	A
3	EA	1610	A
3	EA	1627	G
3	EA	1647	U
3	EA	1648	U
3	EA	1649	G
3	EA	1653	G
3	EA	1674	G
3	EA	1714	U
3	EA	1715	G
3	EA	1723	G
3	EA	1729	U
3	EA	1730	C
3	EA	1732	C
3	EA	1737	G
3	EA	1738	G
3	EA	1739	A
3	EA	1744	A
3	EA	1764	C
3	EA	1773	A
3	EA	1776	G
3	EA	1791	A
3	EA	1800	C
3	EA	1801	A
3	EA	1802	A
3	EA	1808	A
3	EA	1811	G
3	EA	1816	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	1829	A
3	EA	1833	C
3	EA	1847	A
3	EA	1848	A
3	EA	1858	A
3	EA	1869	G
3	EA	1870	C
3	EA	1871	A
3	EA	1872	A
3	EA	1873	G
3	EA	1884	G
3	EA	1906	G
3	EA	1913	A
3	EA	1914	C
3	EA	1927	A
3	EA	1929	G
3	EA	1930	G
3	EA	1937	A
3	EA	1938	A
3	EA	1939	U
3	EA	1955	U
3	EA	1960	A
3	EA	1966	A
3	EA	1967	C
3	EA	1970	A
3	EA	1971	U
3	EA	1972	G
3	EA	1991	U
3	EA	1993	U
3	EA	1997	C
3	EA	2017	U
3	EA	2020	A
3	EA	2022	U
3	EA	2023	C
3	EA	2031	A
3	EA	2033	A
3	EA	2043	C
3	EA	2055	C
3	EA	2056	G
3	EA	2060	A
3	EA	2061	G
3	EA	2062	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	2069	G
3	EA	2072	C
3	EA	2093	G
3	EA	2104	C
3	EA	2106	U
3	EA	2107	G
3	EA	2108	A
3	EA	2110	G
3	EA	2134	A
3	EA	2137	U
3	EA	2138	G
3	EA	2139	U
3	EA	2140	G
3	EA	2142	A
3	EA	2143	C
3	EA	2144	G
3	EA	2145	C
3	EA	2146	C
3	EA	2147	A
3	EA	2148	G
3	EA	2149	U
3	EA	2150	C
3	EA	2151	U
3	EA	2153	C
3	EA	2156	G
3	EA	2157	G
3	EA	2180	U
3	EA	2181	U
3	EA	2182	U
3	EA	2183	A
3	EA	2185	U
3	EA	2186	G
3	EA	2187	U
3	EA	2194	U
3	EA	2198	A
3	EA	2199	A
3	EA	2204	G
3	EA	2211	A
3	EA	2212	A
3	EA	2214	C
3	EA	2225	A
3	EA	2226	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	2238	G
3	EA	2239	G
3	EA	2250	G
3	EA	2268	A
3	EA	2278	A
3	EA	2283	C
3	EA	2284	A
3	EA	2286	G
3	EA	2287	A
3	EA	2305	U
3	EA	2308	G
3	EA	2311	A
3	EA	2322	A
3	EA	2325	G
3	EA	2327	A
3	EA	2333	A
3	EA	2336	A
3	EA	2347	C
3	EA	2354	C
3	EA	2361	G
3	EA	2383	G
3	EA	2385	C
3	EA	2402	U
3	EA	2403	C
3	EA	2406	A
3	EA	2423	U
3	EA	2424	C
3	EA	2425	A
3	EA	2429	G
3	EA	2430	A
3	EA	2435	A
3	EA	2441	U
3	EA	2448	A
3	EA	2470	G
3	EA	2476	A
3	EA	2491	U
3	EA	2502	G
3	EA	2503	A
3	EA	2505	G
3	EA	2506	U
3	EA	2507	C
3	EA	2518	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	2529	G
3	EA	2554	U
3	EA	2566	A
3	EA	2567	G
3	EA	2572	A
3	EA	2573	C
3	EA	2585	U
3	EA	2602	A
3	EA	2603	G
3	EA	2609	U
3	EA	2613	U
3	EA	2629	U
3	EA	2663	G
3	EA	2671	G
3	EA	2682	A
3	EA	2689	U
3	EA	2690	U
3	EA	2714	G
3	EA	2716	C
3	EA	2726	A
3	EA	2733	A
3	EA	2744	G
3	EA	2748	A
3	EA	2757	A
3	EA	2760	C
3	EA	2765	A
3	EA	2769	U
3	EA	2778	A
3	EA	2791	G
3	EA	2798	U
3	EA	2800	A
3	EA	2801	G
3	EA	2820	A
3	EA	2821	A
3	EA	2825	G
3	EA	2861	U
3	EA	2867	G
3	EA	2873	A
3	EA	2874	C
3	EA	2883	A
3	EA	2884	U
3	EA	2885	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	2891	U
3	EA	2903	U
1	EB	3	C
1	EB	15	A
1	EB	16	G
1	EB	21	G
1	EB	30	C
1	EB	35	C
1	EB	42	C
1	EB	44	G
1	EB	45	A
1	EB	56	G
1	EB	84	G
1	EB	87	U
1	EB	88	C
1	EB	89	U
1	EB	90	C
1	EB	99	A
1	EB	109	A
1	EB	117	G
35	FA	5	U
35	FA	9	G
35	FA	22	G
35	FA	32	A
35	FA	39	G
35	FA	40	C
35	FA	48	C
35	FA	51	A
35	FA	70	U
35	FA	71	A
35	FA	73	C
35	FA	74	A
35	FA	75	G
35	FA	76	G
35	FA	77	A
35	FA	80	A
35	FA	81	A
35	FA	82	G
35	FA	83	C
35	FA	85	U
35	FA	86	G
35	FA	89	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	FA	90	C
35	FA	92	U
35	FA	98	A
35	FA	115	G
35	FA	116	A
35	FA	122	G
35	FA	127	G
35	FA	130	A
35	FA	131	A
35	FA	137	U
35	FA	138	G
35	FA	141	G
35	FA	143	A
35	FA	144	G
35	FA	159	G
35	FA	163	C
35	FA	164	G
35	FA	173	U
35	FA	177	G
35	FA	182	A
35	FA	183	C
35	FA	189	A
35	FA	204	G
35	FA	205	A
35	FA	208	U
35	FA	209	U
35	FA	210	C
35	FA	240	G
35	FA	245	U
35	FA	247	G
35	FA	251	G
35	FA	258	G
35	FA	266	G
35	FA	267	C
35	FA	273	U
35	FA	285	C
35	FA	289	G
35	FA	321	A
35	FA	328	C
35	FA	329	A
35	FA	332	G
35	FA	344	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	FA	345	C
35	FA	347	G
35	FA	352	C
35	FA	353	A
35	FA	354	G
35	FA	367	U
35	FA	372	C
35	FA	373	A
35	FA	384	G
35	FA	406	G
35	FA	408	A
35	FA	411	A
35	FA	412	A
35	FA	413	G
35	FA	421	U
35	FA	422	C
35	FA	423	G
35	FA	424	G
35	FA	429	U
35	FA	430	A
35	FA	435	A
35	FA	441	A
35	FA	457	G
35	FA	458	U
35	FA	459	A
35	FA	461	A
35	FA	462	G
35	FA	463	U
35	FA	467	U
35	FA	468	A
35	FA	481	G
35	FA	482	A
35	FA	483	C
35	FA	484	G
35	FA	485	U
35	FA	486	U
35	FA	491	G
35	FA	508	U
35	FA	509	A
35	FA	511	C
35	FA	518	C
35	FA	527	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	FA	532	A
35	FA	533	A
35	FA	547	A
35	FA	556	C
35	FA	559	A
35	FA	562	U
35	FA	564	C
35	FA	572	A
35	FA	573	A
35	FA	576	C
35	FA	577	G
35	FA	579	A
35	FA	588	G
35	FA	596	A
35	FA	604	G
35	FA	650	G
35	FA	653	U
35	FA	665	A
35	FA	675	A
35	FA	701	U
35	FA	702	A
35	FA	721	G
35	FA	723	U
35	FA	724	G
35	FA	731	G
35	FA	734	G
35	FA	747	A
35	FA	748	G
35	FA	755	G
35	FA	777	A
35	FA	793	U
35	FA	794	A
35	FA	813	U
35	FA	815	A
35	FA	817	C
35	FA	821	G
35	FA	828	U
35	FA	829	G
35	FA	841	C
35	FA	843	U
35	FA	844	G
35	FA	845	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	FA	846	G
35	FA	859	G
35	FA	887	G
35	FA	914	A
35	FA	922	G
35	FA	926	G
35	FA	927	G
35	FA	932	C
35	FA	934	C
35	FA	960	U
35	FA	966	G
35	FA	969	A
35	FA	971	G
35	FA	974	A
35	FA	975	A
35	FA	976	G
35	FA	977	A
35	FA	983	A
35	FA	993	G
35	FA	1003	G
35	FA	1004	A
35	FA	1008	U
35	FA	1018	G
35	FA	1022	A
35	FA	1026	G
35	FA	1029	U
35	FA	1030	U
35	FA	1031	C
35	FA	1032	G
35	FA	1033	G
35	FA	1034	G
35	FA	1037	C
35	FA	1045	C
35	FA	1050	G
35	FA	1054	C
35	FA	1065	U
35	FA	1066	C
35	FA	1086	U
35	FA	1088	G
35	FA	1089	G
35	FA	1094	G
35	FA	1095	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	FA	1101	A
35	FA	1124	G
35	FA	1125	U
35	FA	1130	A
35	FA	1133	G
35	FA	1135	U
35	FA	1136	C
35	FA	1137	C
35	FA	1139	G
35	FA	1146	A
35	FA	1159	U
35	FA	1167	A
35	FA	1168	U
35	FA	1169	A
35	FA	1181	G
35	FA	1182	G
35	FA	1183	U
35	FA	1196	A
35	FA	1197	A
35	FA	1202	U
35	FA	1212	U
35	FA	1213	A
35	FA	1214	C
35	FA	1225	A
35	FA	1226	C
35	FA	1227	A
35	FA	1239	A
35	FA	1240	U
35	FA	1249	C
35	FA	1256	A
35	FA	1280	A
35	FA	1286	U
35	FA	1287	A
35	FA	1293	C
35	FA	1299	A
35	FA	1300	G
35	FA	1302	C
35	FA	1303	C
35	FA	1305	G
35	FA	1317	C
35	FA	1318	A
35	FA	1322	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	FA	1332	A
35	FA	1336	C
35	FA	1337	G
35	FA	1338	G
35	FA	1353	G
35	FA	1364	U
35	FA	1368	A
35	FA	1398	A
35	FA	1406	U
35	FA	1411	C
35	FA	1419	G
35	FA	1440	U
35	FA	1441	A
35	FA	1446	A
35	FA	1452	C
35	FA	1454	G
35	FA	1469	C
35	FA	1475	G
35	FA	1487	G
35	FA	1491	G
35	FA	1492	A
35	FA	1493	A
35	FA	1494	G
35	FA	1497	G
35	FA	1503	A
35	FA	1506	U
35	FA	1517	G
35	FA	1519	A
35	FA	1529	G
35	FA	1530	G
35	FA	1534	A
1	GB	3	C
1	GB	15	A
1	GB	16	G
1	GB	21	G
1	GB	24	G
1	GB	30	C
1	GB	35	C
1	GB	42	C
1	GB	44	G
1	GB	45	A
1	GB	56	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	GB	84	G
1	GB	87	U
1	GB	88	C
1	GB	89	U
1	GB	90	C
1	GB	99	A
1	GB	109	A
1	GB	117	G
1	GB	119	A
3	GA	10	A
3	GA	12	U
3	GA	15	G
3	GA	34	U
3	GA	35	G
3	GA	42	A
3	GA	43	G
3	GA	45	G
3	GA	46	G
3	GA	61	C
3	GA	71	A
3	GA	74	A
3	GA	75	G
3	GA	80	G
3	GA	82	U
3	GA	84	A
3	GA	96	C
3	GA	101	A
3	GA	118	A
3	GA	119	A
3	GA	120	U
3	GA	131	A
3	GA	135	U
3	GA	136	G
3	GA	137	U
3	GA	138	U
3	GA	139	U
3	GA	140	C
3	GA	141	G
3	GA	142	A
3	GA	144	A
3	GA	162	U
3	GA	163	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	164	C
3	GA	181	A
3	GA	188	G
3	GA	196	A
3	GA	199	A
3	GA	215	G
3	GA	216	A
3	GA	222	A
3	GA	224	U
3	GA	226	A
3	GA	230	G
3	GA	248	G
3	GA	255	A
3	GA	264	C
3	GA	265	A
3	GA	266	G
3	GA	267	C
3	GA	272	A
3	GA	273	G
3	GA	276	U
3	GA	277	G
3	GA	278	A
3	GA	281	C
3	GA	285	G
3	GA	302	C
3	GA	311	A
3	GA	329	G
3	GA	330	A
3	GA	346	A
3	GA	347	A
3	GA	353	C
3	GA	355	U
3	GA	361	G
3	GA	362	A
3	GA	371	A
3	GA	372	G
3	GA	382	A
3	GA	383	C
3	GA	386	G
3	GA	388	G
3	GA	396	G
3	GA	404	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	405	U
3	GA	411	G
3	GA	412	A
3	GA	424	G
3	GA	451	U
3	GA	455	C
3	GA	481	G
3	GA	491	G
3	GA	503	A
3	GA	504	A
3	GA	505	A
3	GA	509	C
3	GA	527	C
3	GA	528	A
3	GA	531	C
3	GA	532	A
3	GA	533	G
3	GA	538	A
3	GA	543	G
3	GA	544	C
3	GA	546	U
3	GA	547	A
3	GA	548	G
3	GA	549	G
3	GA	563	A
3	GA	573	U
3	GA	575	A
3	GA	586	A
3	GA	603	A
3	GA	604	G
3	GA	613	A
3	GA	614	A
3	GA	615	U
3	GA	627	A
3	GA	631	A
3	GA	637	A
3	GA	645	C
3	GA	646	U
3	GA	647	G
3	GA	648	G
3	GA	654	A
3	GA	655	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	656	G
3	GA	686	U
3	GA	714	U
3	GA	715	A
3	GA	730	A
3	GA	738	G
3	GA	747	U
3	GA	775	G
3	GA	776	G
3	GA	782	A
3	GA	784	G
3	GA	785	G
3	GA	789	A
3	GA	805	G
3	GA	812	C
3	GA	819	A
3	GA	827	U
3	GA	828	U
3	GA	830	G
3	GA	845	A
3	GA	846	U
3	GA	847	U
3	GA	859	G
3	GA	878	A
3	GA	883	G
3	GA	884	U
3	GA	896	A
3	GA	897	C
3	GA	902	C
3	GA	910	A
3	GA	914	G
3	GA	915	C
3	GA	932	U
3	GA	941	A
3	GA	946	C
3	GA	961	C
3	GA	974	G
3	GA	983	A
3	GA	985	C
3	GA	995	C
3	GA	996	A
3	GA	1003	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	1012	U
3	GA	1013	C
3	GA	1021	A
3	GA	1022	G
3	GA	1023	U
3	GA	1026	G
3	GA	1033	U
3	GA	1045	C
3	GA	1046	A
3	GA	1047	G
3	GA	1051	G
3	GA	1053	C
3	GA	1059	G
3	GA	1060	U
3	GA	1061	U
3	GA	1062	G
3	GA	1067	A
3	GA	1069	A
3	GA	1070	A
3	GA	1072	C
3	GA	1074	G
3	GA	1078	U
3	GA	1083	U
3	GA	1084	A
3	GA	1088	A
3	GA	1089	A
3	GA	1090	A
3	GA	1091	G
3	GA	1097	U
3	GA	1098	A
3	GA	1110	G
3	GA	1111	A
3	GA	1112	G
3	GA	1129	A
3	GA	1132	U
3	GA	1133	A
3	GA	1135	C
3	GA	1136	G
3	GA	1139	G
3	GA	1142	A
3	GA	1151	A
3	GA	1155	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	1169	A
3	GA	1170	C
3	GA	1171	G
3	GA	1172	C
3	GA	1174	U
3	GA	1175	A
3	GA	1176	U
3	GA	1180	U
3	GA	1186	G
3	GA	1238	G
3	GA	1248	G
3	GA	1250	G
3	GA	1253	A
3	GA	1256	G
3	GA	1266	G
3	GA	1268	A
3	GA	1271	G
3	GA	1272	A
3	GA	1273	U
3	GA	1281	G
3	GA	1300	G
3	GA	1301	A
3	GA	1313	U
3	GA	1317	G
3	GA	1352	U
3	GA	1365	A
3	GA	1368	G
3	GA	1378	A
3	GA	1379	U
3	GA	1383	A
3	GA	1386	C
3	GA	1395	A
3	GA	1415	U
3	GA	1416	G
3	GA	1419	A
3	GA	1420	A
3	GA	1428	C
3	GA	1435	G
3	GA	1452	G
3	GA	1459	G
3	GA	1482	G
3	GA	1493	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	1504	A
3	GA	1508	A
3	GA	1510	G
3	GA	1515	A
3	GA	1524	G
3	GA	1533	C
3	GA	1534	U
3	GA	1535	A
3	GA	1536	C
3	GA	1566	A
3	GA	1569	A
3	GA	1578	U
3	GA	1583	A
3	GA	1584	U
3	GA	1585	C
3	GA	1607	C
3	GA	1608	A
3	GA	1610	A
3	GA	1616	A
3	GA	1627	G
3	GA	1647	U
3	GA	1648	U
3	GA	1649	G
3	GA	1653	G
3	GA	1674	G
3	GA	1714	U
3	GA	1715	G
3	GA	1723	G
3	GA	1729	U
3	GA	1730	C
3	GA	1737	G
3	GA	1738	G
3	GA	1739	A
3	GA	1744	A
3	GA	1758	U
3	GA	1764	C
3	GA	1773	A
3	GA	1776	G
3	GA	1791	A
3	GA	1800	C
3	GA	1801	A
3	GA	1802	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	1808	A
3	GA	1811	G
3	GA	1816	C
3	GA	1829	A
3	GA	1833	C
3	GA	1847	A
3	GA	1848	A
3	GA	1858	A
3	GA	1869	G
3	GA	1870	C
3	GA	1871	A
3	GA	1872	A
3	GA	1873	G
3	GA	1884	G
3	GA	1906	G
3	GA	1913	A
3	GA	1914	C
3	GA	1927	A
3	GA	1929	G
3	GA	1930	G
3	GA	1937	A
3	GA	1938	A
3	GA	1955	U
3	GA	1960	A
3	GA	1966	A
3	GA	1967	C
3	GA	1970	A
3	GA	1971	U
3	GA	1972	G
3	GA	1991	U
3	GA	1993	U
3	GA	1997	C
3	GA	2017	U
3	GA	2020	A
3	GA	2022	U
3	GA	2023	C
3	GA	2031	A
3	GA	2033	A
3	GA	2043	C
3	GA	2055	C
3	GA	2056	G
3	GA	2060	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	2061	G
3	GA	2062	A
3	GA	2069	G
3	GA	2072	C
3	GA	2093	G
3	GA	2104	C
3	GA	2106	U
3	GA	2108	A
3	GA	2109	U
3	GA	2110	G
3	GA	2134	A
3	GA	2135	A
3	GA	2137	U
3	GA	2138	G
3	GA	2140	G
3	GA	2141	G
3	GA	2142	A
3	GA	2143	C
3	GA	2144	G
3	GA	2145	C
3	GA	2146	C
3	GA	2147	A
3	GA	2148	G
3	GA	2149	U
3	GA	2150	C
3	GA	2151	U
3	GA	2152	G
3	GA	2153	C
3	GA	2154	A
3	GA	2155	U
3	GA	2156	G
3	GA	2181	U
3	GA	2182	U
3	GA	2183	A
3	GA	2185	U
3	GA	2186	G
3	GA	2187	U
3	GA	2194	U
3	GA	2198	A
3	GA	2199	A
3	GA	2204	G
3	GA	2211	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	2212	A
3	GA	2214	C
3	GA	2225	A
3	GA	2226	C
3	GA	2238	G
3	GA	2239	G
3	GA	2250	G
3	GA	2268	A
3	GA	2278	A
3	GA	2283	C
3	GA	2284	A
3	GA	2286	G
3	GA	2287	A
3	GA	2305	U
3	GA	2308	G
3	GA	2311	A
3	GA	2322	A
3	GA	2325	G
3	GA	2327	A
3	GA	2336	A
3	GA	2347	C
3	GA	2354	C
3	GA	2361	G
3	GA	2383	G
3	GA	2385	C
3	GA	2402	U
3	GA	2403	C
3	GA	2406	A
3	GA	2423	U
3	GA	2424	C
3	GA	2425	A
3	GA	2429	G
3	GA	2430	A
3	GA	2435	A
3	GA	2441	U
3	GA	2448	A
3	GA	2470	G
3	GA	2476	A
3	GA	2491	U
3	GA	2502	G
3	GA	2503	A
3	GA	2505	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	2506	U
3	GA	2507	C
3	GA	2518	A
3	GA	2529	G
3	GA	2554	U
3	GA	2566	A
3	GA	2567	G
3	GA	2572	A
3	GA	2573	C
3	GA	2585	U
3	GA	2602	A
3	GA	2603	G
3	GA	2609	U
3	GA	2613	U
3	GA	2629	U
3	GA	2663	G
3	GA	2671	G
3	GA	2682	A
3	GA	2689	U
3	GA	2690	U
3	GA	2714	G
3	GA	2716	C
3	GA	2726	A
3	GA	2733	A
3	GA	2744	G
3	GA	2748	A
3	GA	2757	A
3	GA	2760	C
3	GA	2765	A
3	GA	2769	U
3	GA	2778	A
3	GA	2779	U
3	GA	2791	G
3	GA	2798	U
3	GA	2800	A
3	GA	2801	G
3	GA	2818	U
3	GA	2820	A
3	GA	2821	A
3	GA	2861	U
3	GA	2867	G
3	GA	2873	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	2874	C
3	GA	2883	A
3	GA	2884	U
3	GA	2885	G
3	GA	2891	U
3	GA	2903	U
35	HA	5	U
35	HA	9	G
35	HA	22	G
35	HA	32	A
35	HA	39	G
35	HA	40	C
35	HA	47	C
35	HA	48	C
35	HA	51	A
35	HA	58	C
35	HA	70	U
35	HA	71	A
35	HA	73	C
35	HA	74	A
35	HA	75	G
35	HA	76	G
35	HA	77	A
35	HA	78	A
35	HA	79	G
35	HA	80	A
35	HA	81	A
35	HA	82	G
35	HA	83	C
35	HA	84	U
35	HA	85	U
35	HA	86	G
35	HA	89	U
35	HA	90	C
35	HA	98	A
35	HA	115	G
35	HA	116	A
35	HA	122	G
35	HA	130	A
35	HA	131	A
35	HA	137	U
35	HA	141	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	HA	143	A
35	HA	144	G
35	HA	159	G
35	HA	163	C
35	HA	164	G
35	HA	166	U
35	HA	173	U
35	HA	177	G
35	HA	182	A
35	HA	183	C
35	HA	189	A
35	HA	204	G
35	HA	205	A
35	HA	208	U
35	HA	209	U
35	HA	210	C
35	HA	240	G
35	HA	245	U
35	HA	247	G
35	HA	251	G
35	HA	258	G
35	HA	266	G
35	HA	267	C
35	HA	273	U
35	HA	285	C
35	HA	289	G
35	HA	321	A
35	HA	328	C
35	HA	329	A
35	HA	332	G
35	HA	344	A
35	HA	345	C
35	HA	347	G
35	HA	352	C
35	HA	354	G
35	HA	367	U
35	HA	372	C
35	HA	373	A
35	HA	384	G
35	HA	406	G
35	HA	408	A
35	HA	411	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	HA	412	A
35	HA	413	G
35	HA	421	U
35	HA	422	C
35	HA	423	G
35	HA	424	G
35	HA	429	U
35	HA	430	A
35	HA	435	A
35	HA	441	A
35	HA	457	G
35	HA	458	U
35	HA	459	A
35	HA	461	A
35	HA	462	G
35	HA	463	U
35	HA	467	U
35	HA	468	A
35	HA	481	G
35	HA	482	A
35	HA	483	C
35	HA	484	G
35	HA	485	U
35	HA	486	U
35	HA	491	G
35	HA	508	U
35	HA	509	A
35	HA	511	C
35	HA	518	C
35	HA	527	G
35	HA	532	A
35	HA	533	A
35	HA	547	A
35	HA	556	C
35	HA	559	A
35	HA	562	U
35	HA	564	C
35	HA	572	A
35	HA	573	A
35	HA	576	C
35	HA	577	G
35	HA	579	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	HA	588	G
35	HA	596	A
35	HA	604	G
35	HA	650	G
35	HA	653	U
35	HA	665	A
35	HA	701	U
35	HA	702	A
35	HA	721	G
35	HA	723	U
35	HA	724	G
35	HA	731	G
35	HA	747	A
35	HA	748	G
35	HA	755	G
35	HA	777	A
35	HA	793	U
35	HA	794	A
35	HA	813	U
35	HA	815	A
35	HA	817	C
35	HA	821	G
35	HA	828	U
35	HA	829	G
35	HA	841	C
35	HA	843	U
35	HA	845	A
35	HA	846	G
35	HA	859	G
35	HA	887	G
35	HA	902	G
35	HA	914	A
35	HA	922	G
35	HA	926	G
35	HA	927	G
35	HA	932	C
35	HA	934	C
35	HA	960	U
35	HA	966	G
35	HA	969	A
35	HA	971	G
35	HA	974	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	HA	975	A
35	HA	976	G
35	HA	977	A
35	HA	983	A
35	HA	993	G
35	HA	1003	G
35	HA	1004	A
35	HA	1008	U
35	HA	1012	A
35	HA	1018	G
35	HA	1022	A
35	HA	1026	G
35	HA	1029	U
35	HA	1030	U
35	HA	1031	C
35	HA	1033	G
35	HA	1034	G
35	HA	1037	C
35	HA	1045	C
35	HA	1050	G
35	HA	1054	C
35	HA	1055	A
35	HA	1065	U
35	HA	1066	C
35	HA	1086	U
35	HA	1088	G
35	HA	1089	G
35	HA	1094	G
35	HA	1095	U
35	HA	1101	A
35	HA	1124	G
35	HA	1125	U
35	HA	1130	A
35	HA	1133	G
35	HA	1135	U
35	HA	1136	C
35	HA	1137	C
35	HA	1139	G
35	HA	1140	C
35	HA	1146	A
35	HA	1159	U
35	HA	1167	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	HA	1168	U
35	HA	1169	A
35	HA	1181	G
35	HA	1182	G
35	HA	1183	U
35	HA	1196	A
35	HA	1197	A
35	HA	1202	U
35	HA	1212	U
35	HA	1213	A
35	HA	1214	C
35	HA	1225	A
35	HA	1226	C
35	HA	1227	A
35	HA	1239	A
35	HA	1240	U
35	HA	1250	A
35	HA	1256	A
35	HA	1279	G
35	HA	1280	A
35	HA	1286	U
35	HA	1287	A
35	HA	1293	C
35	HA	1299	A
35	HA	1302	C
35	HA	1305	G
35	HA	1317	C
35	HA	1318	A
35	HA	1320	C
35	HA	1322	C
35	HA	1323	G
35	HA	1332	A
35	HA	1336	C
35	HA	1337	G
35	HA	1338	G
35	HA	1353	G
35	HA	1364	U
35	HA	1368	A
35	HA	1379	G
35	HA	1398	A
35	HA	1406	U
35	HA	1411	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	HA	1419	G
35	HA	1440	U
35	HA	1441	A
35	HA	1446	A
35	HA	1452	C
35	HA	1453	G
35	HA	1454	G
35	HA	1469	C
35	HA	1475	G
35	HA	1487	G
35	HA	1491	G
35	HA	1492	A
35	HA	1493	A
35	HA	1494	G
35	HA	1497	G
35	HA	1503	A
35	HA	1506	U
35	HA	1517	G
35	HA	1519	A
35	HA	1529	G
35	HA	1530	G
35	HA	1534	A

All (215) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
3	AA	119	A
3	AA	271	G
3	AA	277	G
3	AA	301	G
3	AA	403	U
3	AA	404	A
3	AA	503	A
3	AA	527	C
3	AA	613	A
3	AA	655	A
3	AA	784	G
3	AA	827	U
3	AA	846	U
3	AA	882	G
3	AA	931	U
3	AA	1020	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	AA	1025	G
3	AA	1069	A
3	AA	1088	A
3	AA	1110	G
3	AA	1247	A
3	AA	1378	A
3	AA	1458	U
3	AA	1509	A
3	AA	1535	A
3	AA	1626	A
3	AA	1738	G
3	AA	1757	A
3	AA	1847	A
3	AA	1870	C
3	AA	1939	U
3	AA	2108	A
3	AA	2142	A
3	AA	2211	A
3	AA	2286	G
3	AA	2326	C
3	AA	2423	U
3	AA	2756	U
3	AA	2873	A
3	AA	2902	C
35	BA	79	G
35	BA	115	G
35	BA	250	A
35	BA	429	U
35	BA	481	G
35	BA	484	G
35	BA	701	U
35	BA	733	G
35	BA	913	A
35	BA	1054	C
35	BA	1136	C
35	BA	1145	A
35	BA	1201	A
35	BA	1302	C
35	BA	1331	G
35	BA	1336	C
35	BA	1451	U
3	CA	119	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	CA	271	G
3	CA	277	G
3	CA	301	G
3	CA	403	U
3	CA	404	A
3	CA	503	A
3	CA	527	C
3	CA	613	A
3	CA	655	A
3	CA	784	G
3	CA	800	A
3	CA	827	U
3	CA	846	U
3	CA	882	G
3	CA	931	U
3	CA	1020	A
3	CA	1025	G
3	CA	1069	A
3	CA	1088	A
3	CA	1247	A
3	CA	1378	A
3	CA	1458	U
3	CA	1509	A
3	CA	1535	A
3	CA	1626	A
3	CA	1731	G
3	CA	1738	G
3	CA	1847	A
3	CA	1870	C
3	CA	1939	U
3	CA	2154	A
3	CA	2211	A
3	CA	2286	G
3	CA	2326	C
3	CA	2423	U
3	CA	2756	U
3	CA	2873	A
3	CA	2902	C
35	DA	115	G
35	DA	209	U
35	DA	250	A
35	DA	429	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	DA	481	G
35	DA	484	G
35	DA	701	U
35	DA	733	G
35	DA	913	A
35	DA	1054	C
35	DA	1201	A
35	DA	1331	G
35	DA	1336	C
35	DA	1451	U
3	EA	119	A
3	EA	271	G
3	EA	301	G
3	EA	403	U
3	EA	404	A
3	EA	503	A
3	EA	527	C
3	EA	613	A
3	EA	655	A
3	EA	784	G
3	EA	827	U
3	EA	846	U
3	EA	882	G
3	EA	931	U
3	EA	1020	A
3	EA	1025	G
3	EA	1069	A
3	EA	1088	A
3	EA	1176	U
3	EA	1247	A
3	EA	1378	A
3	EA	1458	U
3	EA	1509	A
3	EA	1535	A
3	EA	1583	A
3	EA	1626	A
3	EA	1847	A
3	EA	1870	C
3	EA	1939	U
3	EA	2146	C
3	EA	2211	A
3	EA	2286	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	EA	2326	C
3	EA	2423	U
3	EA	2756	U
3	EA	2873	A
35	FA	115	G
35	FA	250	A
35	FA	429	U
35	FA	481	G
35	FA	484	G
35	FA	701	U
35	FA	733	G
35	FA	913	A
35	FA	1054	C
35	FA	1136	C
35	FA	1145	A
35	FA	1201	A
35	FA	1302	C
35	FA	1331	G
35	FA	1336	C
35	FA	1451	U
3	GA	119	A
3	GA	271	G
3	GA	301	G
3	GA	403	U
3	GA	404	A
3	GA	503	A
3	GA	527	C
3	GA	613	A
3	GA	620	G
3	GA	655	A
3	GA	784	G
3	GA	827	U
3	GA	846	U
3	GA	882	G
3	GA	901	C
3	GA	931	U
3	GA	1020	A
3	GA	1025	G
3	GA	1069	A
3	GA	1088	A
3	GA	1247	A
3	GA	1378	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	GA	1458	U
3	GA	1509	A
3	GA	1535	A
3	GA	1626	A
3	GA	1738	G
3	GA	1757	A
3	GA	1847	A
3	GA	1870	C
3	GA	2145	C
3	GA	2211	A
3	GA	2286	G
3	GA	2326	C
3	GA	2423	U
3	GA	2756	U
3	GA	2873	A
3	GA	2902	C
35	HA	80	A
35	HA	115	G
35	HA	250	A
35	HA	429	U
35	HA	481	G
35	HA	484	G
35	HA	701	U
35	HA	913	A
35	HA	1054	C
35	HA	1145	A
35	HA	1201	A
35	HA	1331	G
35	HA	1336	C
35	HA	1451	U
35	HA	1452	C

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

16 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	KBE	BW	1	56	8,8,9	6.92	3 (37%)	6,8,10	1.14	1 (16%)
56	DPP	BW	2	56	5,5,6	7.62	1 (20%)	3,5,7	7.80	1 (33%)
56	UAL	BW	5	56	7,8,9	4.76	4 (57%)	6,9,11	2.87	1 (16%)
56	5OH	BW	6	56	12,12,13	5.89	4 (33%)	13,16,18	1.95	4 (30%)
56	KBE	DW	1	56	8,8,9	6.20	2 (25%)	6,8,10	1.41	1 (16%)
56	DPP	DW	2	56	5,5,6	7.82	1 (20%)	3,5,7	3.82	1 (33%)
56	UAL	DW	5	56	7,8,9	5.00	4 (57%)	6,9,11	2.02	3 (50%)
56	5OH	DW	6	56	12,12,13	5.63	4 (33%)	13,16,18	1.50	2 (15%)
56	KBE	FW	1	56	8,8,9	6.13	2 (25%)	6,8,10	1.00	0
56	DPP	FW	2	56	5,5,6	7.32	1 (20%)	3,5,7	4.11	1 (33%)
56	UAL	FW	5	56	7,8,9	4.98	4 (57%)	6,9,11	1.84	1 (16%)
56	5OH	FW	6	56	12,12,13	5.39	5 (41%)	13,16,18	1.48	2 (15%)
56	KBE	HW	1	56	8,8,9	6.27	2 (25%)	6,8,10	0.60	0
56	DPP	HW	2	56	5,5,6	8.10	1 (20%)	3,5,7	4.56	1 (33%)
56	UAL	HW	5	56	7,8,9	5.44	4 (57%)	6,9,11	1.95	3 (50%)
56	5OH	HW	6	56	12,12,13	5.98	5 (41%)	13,16,18	1.10	2 (15%)

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	KBE	BW	1	56	-	0/6/7/8	0/0/0/0
56	DPP	BW	2	56	-	0/2/4/6	0/0/0/0
56	UAL	BW	5	56	-	0/3/7/9	0/0/0/0
56	5OH	BW	6	56	-	0/2/18/20	0/1/1/1
56	KBE	DW	1	56	-	0/6/7/8	0/0/0/0
56	DPP	DW	2	56	-	0/2/4/6	0/0/0/0
56	UAL	DW	5	56	-	1/3/7/9	0/0/0/0
56	5OH	DW	6	56	-	0/2/18/20	0/1/1/1
56	KBE	FW	1	56	-	0/6/7/8	0/0/0/0
56	DPP	FW	2	56	-	0/2/4/6	0/0/0/0
56	UAL	FW	5	56	-	0/3/7/9	0/0/0/0
56	5OH	FW	6	56	-	0/2/18/20	0/1/1/1
56	KBE	HW	1	56	-	0/6/7/8	0/0/0/0
56	DPP	HW	2	56	-	0/2/4/6	0/0/0/0
56	UAL	HW	5	56	-	0/3/7/9	0/0/0/0
56	5OH	HW	6	56	-	0/2/18/20	0/1/1/1

All (47) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	BW	1	KBE	O-C	19.18	1.24	1.11
56	HW	2	DPP	O-C	18.00	1.23	1.11
56	HW	6	5OH	O-C	17.79	1.23	1.11
56	HW	1	KBE	O-C	17.49	1.23	1.11
56	DW	2	DPP	O-C	17.39	1.23	1.11
56	DW	1	KBE	O-C	17.29	1.23	1.11
56	FW	1	KBE	O-C	17.07	1.23	1.11
56	BW	2	DPP	O-C	16.92	1.23	1.11
56	BW	6	5OH	O-C	16.87	1.23	1.11
56	FW	2	DPP	O-C	16.24	1.22	1.11
56	DW	6	5OH	O-C	15.89	1.22	1.11
56	FW	6	5OH	O-C	15.39	1.22	1.11
56	HW	5	UAL	CB-CA	12.67	1.52	1.35
56	FW	5	UAL	CB-CA	11.63	1.50	1.35
56	DW	5	UAL	CB-CA	11.53	1.50	1.35
56	BW	5	UAL	CB-CA	10.87	1.49	1.35
56	BW	6	5OH	CQ-NP	10.52	1.48	1.35
56	DW	6	5OH	CQ-NP	10.30	1.47	1.35
56	HW	6	5OH	CQ-NP	9.41	1.46	1.35
56	FW	6	5OH	CQ-NP	9.08	1.46	1.35
56	HW	5	UAL	CB-N1	4.40	1.47	1.35
56	FW	5	UAL	CB-N1	4.14	1.46	1.35
56	BW	5	UAL	CB-N1	4.13	1.46	1.35
56	HW	5	UAL	C1-N1	4.10	1.47	1.40
56	DW	5	UAL	CB-N1	3.93	1.45	1.35
56	DW	5	UAL	CA-N	3.42	1.43	1.35
56	BW	5	UAL	CA-N	3.36	1.42	1.35
56	DW	5	UAL	C1-N1	3.31	1.46	1.40
56	HW	6	5OH	CQ-NQ	3.25	1.42	1.34
56	FW	6	5OH	CR-CB	-3.23	1.47	1.53
56	DW	6	5OH	CQ-NQ	3.13	1.42	1.34
56	FW	5	UAL	C1-N1	3.09	1.45	1.40
56	BW	6	5OH	CQ-NQ	3.08	1.42	1.34
56	FW	5	UAL	CA-N	3.02	1.42	1.35
56	BW	5	UAL	C1-N1	2.96	1.45	1.40
56	FW	6	5OH	CQ-NQ	2.90	1.41	1.34
56	HW	5	UAL	CA-N	2.63	1.41	1.35
56	BW	6	5OH	CR-CB	-2.57	1.48	1.53
56	BW	1	KBE	CB-N	-2.56	1.39	1.47
56	BW	1	KBE	CA-CB	-2.53	1.50	1.53
56	FW	6	5OH	CA-CB	-2.44	1.52	1.55
56	HW	6	5OH	CA-C	2.34	1.54	1.49

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	HW	1	KBE	CB-N	-2.33	1.40	1.47
56	DW	6	5OH	CR-CB	-2.19	1.49	1.53
56	FW	1	KBE	CB-N	-2.16	1.40	1.47
56	HW	6	5OH	CR-CB	-2.16	1.49	1.53
56	DW	1	KBE	CB-N	-2.13	1.41	1.47

All (24) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BW	2	DPP	C-CA-N	-13.35	100.49	113.83
56	HW	2	DPP	C-CA-N	-7.89	105.94	113.83
56	FW	2	DPP	C-CA-N	-6.83	107.00	113.83
56	DW	2	DPP	C-CA-N	-6.50	107.34	113.83
56	BW	5	UAL	CA-CB-N1	-6.41	106.90	124.09
56	FW	5	UAL	CA-CB-N1	-4.03	113.27	124.09
56	BW	6	5OH	CR-CB-CA	-3.84	109.29	112.81
56	BW	6	5OH	CA-CB-NP	3.59	115.21	110.31
56	HW	5	UAL	CA-CB-N1	-3.38	115.02	124.09
56	FW	6	5OH	CR-CB-CA	-3.06	110.01	112.81
56	DW	6	5OH	CR-CB-CA	-3.02	110.04	112.81
56	DW	1	KBE	CG-CB-CA	2.85	116.05	111.46
56	DW	5	UAL	CA-CB-N1	-2.85	116.44	124.09
56	DW	5	UAL	CB-CA-N	2.57	128.16	122.88
56	HW	5	UAL	O2-C1-N2	-2.47	119.09	123.27
56	DW	6	5OH	C-CA-N	-2.39	108.05	111.94
56	BW	6	5OH	C-CA-N	2.18	115.49	111.94
56	FW	6	5OH	CB-NP-CQ	-2.18	117.53	122.68
56	BW	6	5OH	NQ-CQ-NP	2.10	121.50	116.60
56	DW	5	UAL	N2-C1-N1	2.05	120.15	115.64
56	HW	6	5OH	C-CA-N	2.05	115.27	111.94
56	HW	5	UAL	N2-C1-N1	2.05	120.14	115.64
56	HW	6	5OH	NP-CQ-NR	-2.05	120.08	122.64
56	BW	1	KBE	CD-CG-CB	-2.00	108.20	115.06

There are no chirality outliers.

All (1) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
56	DW	5	UAL	CA-CB-N1-C1

There are no ring outliers.

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 756 ligands modelled in this entry, 752 are monoatomic - leaving 4 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$
59	GCP	BV	801	57	34,34,34	2.59	10 (29%)	52,54,54	2.26	10 (19%)
59	GCP	DV	801	57	34,34,34	2.45	9 (26%)	52,54,54	2.35	11 (21%)
59	GCP	FV	801	57	34,34,34	2.54	9 (26%)	52,54,54	2.10	10 (19%)
59	GCP	HV	801	57	34,34,34	2.59	9 (26%)	52,54,54	2.43	18 (34%)

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
59	GCP	BV	801	57	-	0/20/38/38	0/3/3/3
59	GCP	DV	801	57	-	0/20/38/38	0/3/3/3
59	GCP	FV	801	57	-	0/20/38/38	0/3/3/3
59	GCP	HV	801	57	-	0/20/38/38	0/3/3/3

All (37) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	HV	801	GCP	C2-N2	8.96	1.45	1.32
59	FV	801	GCP	C2-N2	8.63	1.45	1.32
59	DV	801	GCP	C2-N2	8.35	1.44	1.32
59	BV	801	GCP	C2-N2	8.35	1.44	1.32
59	FV	801	GCP	O4'-C1'	6.18	1.49	1.41
59	BV	801	GCP	C2'-C1'	-5.93	1.44	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	DV	801	GCP	C2'-C1'	-5.53	1.45	1.53
59	HV	801	GCP	O4'-C1'	5.50	1.48	1.41
59	BV	801	GCP	O4'-C1'	5.37	1.48	1.41
59	FV	801	GCP	C2'-C1'	-5.26	1.45	1.53
59	HV	801	GCP	C2'-C1'	-5.11	1.46	1.53
59	DV	801	GCP	O4'-C1'	5.02	1.47	1.41
59	HV	801	GCP	PG-C3B	4.78	1.84	1.79
59	BV	801	GCP	PG-C3B	4.15	1.83	1.79
59	FV	801	GCP	C2'-C3'	-4.12	1.42	1.53
59	DV	801	GCP	C2'-C3'	-4.10	1.42	1.53
59	HV	801	GCP	C2'-C3'	-3.88	1.42	1.53
59	BV	801	GCP	C2'-C3'	-3.86	1.42	1.53
59	HV	801	GCP	PB-C3B	3.71	1.83	1.79
59	BV	801	GCP	PB-O3A	-3.54	1.54	1.58
59	FV	801	GCP	PG-C3B	3.50	1.83	1.79
59	DV	801	GCP	PG-C3B	3.23	1.82	1.79
59	BV	801	GCP	C3'-C4'	-3.01	1.44	1.53
59	DV	801	GCP	C1'-N9	-3.00	1.39	1.48
59	DV	801	GCP	C3'-C4'	-2.99	1.44	1.53
59	FV	801	GCP	PB-C3B	2.80	1.82	1.79
59	BV	801	GCP	C1'-N9	-2.79	1.40	1.48
59	BV	801	GCP	PB-C3B	2.78	1.82	1.79
59	HV	801	GCP	C3'-C4'	-2.71	1.45	1.53
59	DV	801	GCP	PB-O3A	-2.63	1.55	1.58
59	FV	801	GCP	PB-O3A	-2.61	1.55	1.58
59	HV	801	GCP	C1'-N9	-2.60	1.40	1.48
59	FV	801	GCP	C3'-C4'	-2.56	1.46	1.53
59	FV	801	GCP	C1'-N9	-2.32	1.41	1.48
59	BV	801	GCP	C5'-C4'	-2.04	1.45	1.51
59	HV	801	GCP	C5'-C4'	-2.03	1.45	1.51
59	DV	801	GCP	C5'-C4'	-2.01	1.45	1.51

All (49) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	DV	801	GCP	C4'-O4'-C1'	-8.16	100.76	109.72
59	DV	801	GCP	PB-C3B-PG	-7.82	104.02	118.95
59	HV	801	GCP	C4'-O4'-C1'	-7.81	101.14	109.72
59	BV	801	GCP	C4'-O4'-C1'	-7.56	101.41	109.72
59	HV	801	GCP	C6-C5-N7	6.68	135.04	134.14
59	BV	801	GCP	PB-C3B-PG	-6.31	106.90	118.95
59	BV	801	GCP	PA-O3A-PB	-6.20	113.39	132.02

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	HV	801	GCP	PB-C3B-PG	-6.09	107.32	118.95
59	FV	801	GCP	C2-N3-C4	5.67	122.10	115.30
59	FV	801	GCP	C5-C4-N3	-5.65	119.56	126.07
59	DV	801	GCP	PA-O3A-PB	-5.55	115.35	132.02
59	FV	801	GCP	PA-O3A-PB	-5.35	115.94	132.02
59	BV	801	GCP	C5-C4-N3	-5.07	120.23	126.07
59	FV	801	GCP	C4'-O4'-C1'	-5.04	104.18	109.72
59	HV	801	GCP	C2-N3-C4	4.96	121.25	115.30
59	FV	801	GCP	PB-C3B-PG	-4.88	109.63	118.95
59	FV	801	GCP	N3-C4-N9	4.85	134.02	126.91
59	BV	801	GCP	C2-N3-C4	4.72	120.96	115.30
59	BV	801	GCP	N3-C4-N9	4.63	133.70	126.91
59	HV	801	GCP	C5-C4-N3	-4.48	120.91	126.07
59	DV	801	GCP	C5-C4-N3	-4.28	121.14	126.07
59	DV	801	GCP	N3-C4-N9	4.23	133.11	126.91
59	DV	801	GCP	C2-N3-C4	4.21	120.35	115.30
59	HV	801	GCP	N3-C4-N9	4.14	132.98	126.91
59	DV	801	GCP	C3'-C2'-C1'	3.45	106.33	100.92
59	HV	801	GCP	PA-O3A-PB	-3.19	122.42	132.02
59	HV	801	GCP	C1'-N9-C4	-3.01	121.44	126.64
59	FV	801	GCP	N2-C2-N1	2.84	120.87	117.82
59	HV	801	GCP	C3'-C2'-C1'	2.79	105.30	100.92
59	HV	801	GCP	N2-C2-N1	2.65	120.66	117.82
59	BV	801	GCP	O3A-PA-O5'	2.60	109.79	102.91
59	DV	801	GCP	C2'-C3'-C4'	2.48	107.59	102.64
59	DV	801	GCP	C1'-N9-C4	-2.43	122.44	126.64
59	HV	801	GCP	O3A-PB-O1B	-2.31	106.61	111.51
59	HV	801	GCP	O4'-C1'-N9	2.30	113.10	108.10
59	HV	801	GCP	O4'-C4'-C3'	2.29	109.82	105.16
59	FV	801	GCP	O3A-PA-O5'	2.25	108.87	102.91
59	HV	801	GCP	C4-C5-N7	-2.25	107.24	109.41
59	HV	801	GCP	O3A-PA-O5'	2.22	108.79	102.91
59	FV	801	GCP	C2'-C3'-C4'	2.20	107.03	102.64
59	DV	801	GCP	O3A-PA-O5'	2.20	108.74	102.91
59	FV	801	GCP	C4-C5-N7	-2.18	107.31	109.41
59	DV	801	GCP	C8-N9-C4	2.16	108.71	106.96
59	HV	801	GCP	C8-N9-C1'	2.14	130.19	126.15
59	BV	801	GCP	N2-C2-N1	2.09	120.06	117.82
59	BV	801	GCP	C4-C5-N7	-2.06	107.42	109.41
59	HV	801	GCP	C2'-C3'-C4'	2.03	106.70	102.64
59	HV	801	GCP	N1-C2-N3	-2.03	119.04	121.78
59	BV	801	GCP	O3G-PG-C3B	2.00	111.26	106.40

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AB	118/120 (98%)	-0.33	0 100 100	7, 25, 37, 49	0
1	CB	118/120 (98%)	-0.54	0 100 100	19, 41, 55, 61	0
1	EB	118/120 (98%)	-0.28	0 100 100	6, 27, 41, 51	0
1	GB	118/120 (98%)	0.26	2 (1%) 67 76	34, 57, 66, 70	0
2	AC	271/273 (99%)	0.03	5 (1%) 65 74	2, 14, 26, 50	0
2	CC	271/273 (99%)	0.48	26 (9%) 8 11	14, 33, 45, 54	0
2	EC	271/273 (99%)	0.10	5 (1%) 65 74	3, 17, 30, 42	0
2	GC	271/273 (99%)	0.44	24 (8%) 10 12	12, 29, 43, 52	0
3	AA	2854/2904 (98%)	0.13	63 (2%) 59 67	2, 14, 50, 79	0
3	CA	2854/2904 (98%)	-0.06	54 (1%) 64 72	8, 29, 57, 78	0
3	EA	2854/2904 (98%)	0.11	57 (1%) 62 71	2, 16, 52, 83	0
3	GA	2854/2904 (98%)	0.12	79 (2%) 50 59	10, 42, 64, 76	0
4	AD	209/209 (100%)	0.04	5 (2%) 56 65	2, 15, 35, 57	0
4	CD	209/209 (100%)	0.20	6 (2%) 49 58	5, 23, 42, 56	0
4	ED	209/209 (100%)	0.09	3 (1%) 72 80	2, 20, 40, 52	0
4	GD	209/209 (100%)	0.24	12 (5%) 23 28	10, 30, 46, 55	0
5	AE	201/201 (100%)	0.11	4 (1%) 62 71	3, 19, 40, 51	0
5	CE	201/201 (100%)	0.47	22 (10%) 6 8	9, 34, 47, 57	0
5	EE	201/201 (100%)	0.16	9 (4%) 32 39	2, 21, 43, 57	0
5	GE	201/201 (100%)	1.46	63 (31%) 1 1	25, 51, 61, 68	0
6	AF	177/179 (98%)	0.41	9 (5%) 27 33	19, 33, 50, 60	0
6	CF	177/179 (98%)	1.09	46 (25%) 1 1	31, 47, 56, 62	0
6	EF	177/179 (98%)	0.68	26 (14%) 3 5	16, 34, 49, 58	0
6	GF	177/179 (98%)	3.42	113 (63%) 0 0	47, 59, 67, 72	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
7	AG	176/177 (99%)	0.35	13 (7%) 14 17	9, 25, 46, 59	0
7	CG	176/177 (99%)	0.66	26 (14%) 3 4	18, 36, 51, 61	0
7	EG	176/177 (99%)	0.47	17 (9%) 8 10	16, 31, 44, 55	0
7	GG	176/177 (99%)	1.27	47 (26%) 1 1	26, 43, 54, 65	0
8	AH	50/50 (100%)	0.94	9 (18%) 2 3	16, 41, 55, 57	0
8	CH	50/50 (100%)	4.15	41 (82%) 0 0	46, 57, 64, 68	0
8	EH	50/50 (100%)	1.32	11 (22%) 1 2	14, 38, 56, 62	0
8	GH	50/50 (100%)	2.92	30 (60%) 0 0	39, 52, 61, 64	0
9	AI	141/142 (99%)	2.66	72 (51%) 0 0	31, 53, 66, 78	0
9	CI	141/142 (99%)	2.40	72 (51%) 0 0	36, 54, 63, 72	0
9	EI	141/142 (99%)	2.47	70 (49%) 1 0	32, 54, 66, 76	0
9	GI	141/142 (99%)	4.34	116 (82%) 0 0	42, 59, 69, 80	0
10	AJ	142/142 (100%)	0.07	2 (1%) 72 80	4, 11, 29, 39	0
10	CJ	142/142 (100%)	0.22	4 (2%) 50 59	8, 24, 37, 54	0
10	EJ	142/142 (100%)	0.26	6 (4%) 35 41	5, 14, 28, 43	0
10	GJ	142/142 (100%)	0.53	11 (7%) 13 16	21, 36, 47, 55	0
11	AK	122/123 (99%)	0.17	1 (0%) 83 89	4, 10, 25, 50	0
11	CK	122/123 (99%)	0.08	2 (1%) 68 78	9, 18, 35, 42	0
11	EK	122/123 (99%)	0.30	7 (5%) 23 28	7, 18, 34, 47	0
11	GK	122/123 (99%)	0.78	11 (9%) 10 12	12, 24, 39, 53	0
12	AL	143/144 (99%)	0.31	8 (5%) 24 28	2, 18, 34, 39	0
12	CL	143/144 (99%)	0.74	20 (13%) 3 5	11, 31, 46, 54	0
12	EL	143/144 (99%)	0.32	7 (4%) 28 34	2, 18, 37, 49	0
12	GL	143/144 (99%)	2.12	67 (46%) 1 0	29, 46, 59, 65	0
13	AM	136/136 (100%)	0.25	2 (1%) 70 79	2, 9, 25, 48	0
13	CM	136/136 (100%)	0.46	9 (6%) 18 21	10, 21, 36, 52	0
13	EM	136/136 (100%)	0.19	5 (3%) 39 47	4, 13, 29, 43	0
13	GM	136/136 (100%)	1.77	49 (36%) 1 1	28, 44, 56, 60	0
14	AN	120/127 (94%)	0.18	3 (2%) 54 64	5, 13, 25, 56	0
14	CN	120/127 (94%)	0.34	3 (2%) 54 64	13, 24, 35, 56	0
14	EN	120/127 (94%)	0.33	7 (5%) 22 26	9, 19, 31, 59	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
14	GN	120/127 (94%)	0.44	9 (7%) 14 17	16, 28, 37, 58	0
15	AO	116/117 (99%)	0.07	2 (1%) 67 76	12, 24, 37, 46	0
15	CO	116/117 (99%)	0.75	15 (12%) 4 6	29, 40, 53, 59	0
15	EO	116/117 (99%)	0.37	8 (6%) 17 20	14, 27, 40, 44	0
15	GO	116/117 (99%)	2.06	52 (44%) 1 0	39, 52, 58, 65	0
16	AP	114/115 (99%)	0.11	3 (2%) 53 63	5, 19, 36, 44	0
16	CP	114/115 (99%)	0.27	4 (3%) 42 50	11, 25, 41, 54	0
16	EP	114/115 (99%)	0.07	2 (1%) 65 74	14, 26, 41, 60	0
16	GP	114/115 (99%)	0.20	5 (4%) 33 40	13, 27, 42, 51	0
17	AQ	117/118 (99%)	0.14	3 (2%) 53 63	3, 10, 26, 53	0
17	CQ	117/118 (99%)	0.22	3 (2%) 53 63	9, 23, 35, 54	0
17	EQ	117/118 (99%)	0.23	6 (5%) 27 33	2, 12, 27, 52	0
17	GQ	117/118 (99%)	1.10	23 (19%) 2 2	24, 41, 53, 58	0
18	AR	103/103 (100%)	0.00	2 (1%) 64 72	2, 18, 34, 47	0
18	CR	103/103 (100%)	0.36	5 (4%) 28 34	12, 31, 45, 55	0
18	ER	103/103 (100%)	0.33	6 (5%) 22 26	3, 23, 42, 49	0
18	GR	103/103 (100%)	1.77	37 (35%) 1 1	30, 47, 56, 64	0
19	AS	110/110 (100%)	0.28	4 (3%) 41 48	3, 12, 32, 54	0
19	CS	110/110 (100%)	0.57	10 (9%) 9 12	13, 22, 40, 47	0
19	ES	110/110 (100%)	0.38	5 (4%) 32 39	5, 14, 36, 51	0
19	GS	110/110 (100%)	1.33	35 (31%) 1 1	20, 39, 50, 55	0
20	AT	93/100 (93%)	0.78	13 (13%) 3 5	7, 24, 51, 55	0
20	CT	93/100 (93%)	1.33	25 (26%) 1 1	22, 36, 52, 56	0
20	ET	93/100 (93%)	1.08	21 (22%) 1 2	13, 26, 50, 58	0
20	GT	93/100 (93%)	2.34	50 (53%) 0 0	26, 45, 57, 64	0
21	AU	102/104 (98%)	0.72	13 (12%) 4 6	9, 22, 41, 62	0
21	CU	102/104 (98%)	1.57	38 (37%) 1 0	25, 36, 52, 65	0
21	EU	102/104 (98%)	0.84	15 (14%) 3 5	14, 30, 44, 59	0
21	GU	102/104 (98%)	3.07	70 (68%) 0 0	35, 53, 61, 68	0
22	AV	94/94 (100%)	-0.17	0 100 100	8, 23, 40, 46	0
22	CV	94/94 (100%)	-0.06	4 (4%) 34 40	22, 31, 44, 52	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
22	EV	94/94 (100%)	-0.01	2 (2%) 60 69	12, 23, 40, 48	0
22	GV	94/94 (100%)	1.13	23 (24%) 1 2	36, 49, 59, 61	0
23	AW	79/85 (92%)	0.84	14 (17%) 2 3	8, 19, 41, 49	0
23	CW	79/85 (92%)	1.01	12 (15%) 3 4	18, 32, 48, 60	0
23	EW	79/85 (92%)	0.82	11 (13%) 4 5	6, 20, 38, 51	0
23	GW	79/85 (92%)	2.75	44 (55%) 0 0	35, 49, 59, 71	0
24	AX	77/78 (98%)	0.47	5 (6%) 18 22	7, 17, 37, 41	0
24	CX	77/78 (98%)	1.68	27 (35%) 1 1	22, 37, 49, 54	0
24	EX	77/78 (98%)	0.56	3 (3%) 37 45	5, 15, 36, 37	0
24	GX	77/78 (98%)	1.80	31 (40%) 1 0	26, 44, 53, 58	0
25	AY	63/63 (100%)	0.74	7 (11%) 6 8	16, 34, 48, 52	0
25	CY	63/63 (100%)	1.18	13 (20%) 1 2	30, 43, 55, 62	0
25	EY	63/63 (100%)	1.01	13 (20%) 1 2	18, 33, 45, 56	0
25	GY	63/63 (100%)	2.65	37 (58%) 0 0	44, 51, 58, 60	0
26	AZ	58/59 (98%)	0.68	2 (3%) 43 51	4, 13, 39, 51	0
26	CZ	58/59 (98%)	0.86	4 (6%) 17 20	11, 26, 46, 59	0
26	EZ	58/59 (98%)	0.39	2 (3%) 43 51	3, 15, 37, 47	0
26	GZ	58/59 (98%)	2.44	28 (48%) 1 0	25, 48, 58, 63	0
27	A0	56/57 (98%)	0.41	4 (7%) 16 19	3, 19, 42, 51	0
27	C0	56/57 (98%)	0.40	5 (8%) 10 12	10, 27, 44, 55	0
27	E0	56/57 (98%)	0.23	3 (5%) 25 30	3, 22, 40, 47	0
27	G0	56/57 (98%)	0.67	7 (12%) 5 6	18, 35, 49, 57	0
28	A1	50/55 (90%)	0.80	8 (16%) 3 3	13, 24, 37, 43	0
28	C1	50/55 (90%)	1.76	14 (28%) 1 1	25, 39, 50, 51	0
28	E1	50/55 (90%)	0.84	5 (10%) 8 10	12, 22, 36, 43	0
28	G1	50/55 (90%)	3.08	30 (60%) 0 0	38, 50, 60, 65	0
29	A2	46/46 (100%)	0.16	2 (4%) 34 40	4, 8, 18, 44	0
29	C2	46/46 (100%)	0.63	4 (8%) 10 13	17, 24, 34, 43	0
29	E2	46/46 (100%)	0.16	0 100 100	5, 11, 21, 36	0
29	G2	46/46 (100%)	1.28	8 (17%) 2 3	20, 36, 43, 54	0
30	A3	64/65 (98%)	0.24	0 100 100	3, 10, 18, 30	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
30	C3	64/65 (98%)	0.88	8 (12%) 5 6	15, 28, 36, 39	0
30	E3	64/65 (98%)	0.35	2 (3%) 47 55	4, 9, 19, 31	0
30	G3	64/65 (98%)	1.93	25 (39%) 1 0	32, 43, 52, 60	0
31	A4	38/38 (100%)	0.25	0 100 100	5, 11, 25, 27	0
31	C4	38/38 (100%)	0.41	3 (7%) 13 15	14, 23, 37, 39	0
31	E4	38/38 (100%)	0.17	0 100 100	7, 16, 27, 30	0
31	G4	38/38 (100%)	0.91	6 (15%) 3 4	24, 37, 50, 53	0
32	A5	148/165 (89%)	2.02	55 (37%) 1 0	30, 49, 61, 72	0
32	C5	148/165 (89%)	2.77	77 (52%) 0 0	37, 54, 64, 72	0
32	E5	145/165 (87%)	3.33	90 (62%) 0 0	36, 53, 62, 67	0
33	A6	30/121 (24%)	3.29	16 (53%) 0 0	47, 53, 62, 65	0
34	BB	218/241 (90%)	0.89	38 (17%) 2 3	24, 41, 56, 66	0
34	DB	218/241 (90%)	1.84	91 (41%) 1 0	35, 52, 61, 69	0
34	FB	218/241 (90%)	0.81	39 (17%) 2 3	25, 43, 56, 66	0
34	HB	218/241 (90%)	2.31	109 (50%) 0 0	42, 56, 66, 71	0
35	BA	1533/1542 (99%)	-0.06	20 (1%) 74 82	7, 21, 52, 78	0
35	DA	1533/1542 (99%)	-0.05	27 (1%) 65 74	13, 42, 64, 78	0
35	FA	1533/1542 (99%)	-0.04	26 (1%) 67 76	9, 31, 57, 75	0
35	HA	1533/1542 (99%)	0.60	210 (13%) 4 5	20, 52, 71, 78	0
36	BC	206/233 (88%)	-0.06	1 (0%) 88 93	8, 26, 39, 57	0
36	DC	206/233 (88%)	0.65	24 (11%) 5 7	30, 45, 52, 59	0
36	FC	206/233 (88%)	0.30	9 (4%) 33 40	15, 30, 44, 57	0
36	HC	206/233 (88%)	2.24	105 (50%) 0 0	36, 52, 61, 67	0
37	BD	205/206 (99%)	0.47	20 (9%) 8 10	12, 28, 44, 51	0
37	DD	205/206 (99%)	0.53	22 (10%) 6 8	14, 30, 47, 55	0
37	FD	205/206 (99%)	1.63	69 (33%) 1 1	29, 45, 56, 68	0
37	HD	205/206 (99%)	1.29	51 (24%) 1 2	32, 45, 56, 65	0
38	BE	150/167 (89%)	0.10	5 (3%) 44 53	11, 26, 45, 63	0
38	DE	150/167 (89%)	0.21	8 (5%) 25 31	24, 38, 51, 60	0
38	FE	150/167 (89%)	0.38	12 (8%) 12 15	16, 35, 49, 64	0
38	HE	150/167 (89%)	1.30	46 (30%) 1 1	34, 49, 56, 59	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
39	BF	102/135 (75%)	0.06	2 (1%) 62 71	15, 30, 42, 51	0
39	DF	100/135 (74%)	1.72	38 (38%) 1 0	42, 52, 59, 63	0
39	FF	100/135 (74%)	0.26	6 (6%) 21 25	13, 32, 44, 49	0
39	HF	100/135 (74%)	2.79	59 (59%) 0 0	46, 56, 65, 69	0
40	BG	151/179 (84%)	0.43	14 (9%) 9 11	10, 27, 46, 60	0
40	DG	151/179 (84%)	2.10	63 (41%) 1 0	41, 54, 61, 67	0
40	FG	151/179 (84%)	0.78	22 (14%) 3 5	15, 32, 50, 59	0
40	HG	151/179 (84%)	3.74	101 (66%) 0 0	46, 58, 66, 69	0
41	BH	129/130 (99%)	0.18	3 (2%) 57 66	15, 26, 40, 58	0
41	DH	129/130 (99%)	0.98	25 (19%) 2 2	27, 43, 55, 61	0
41	FH	129/130 (99%)	0.46	15 (11%) 5 7	19, 35, 47, 55	0
41	HH	129/130 (99%)	1.92	54 (41%) 1 0	36, 50, 58, 64	0
42	BI	127/130 (97%)	0.56	9 (7%) 16 19	8, 25, 47, 58	0
42	DI	127/130 (97%)	2.60	70 (55%) 0 0	41, 55, 62, 68	0
42	FI	127/130 (97%)	0.48	11 (8%) 10 13	9, 27, 50, 56	0
42	HI	127/130 (97%)	2.92	76 (59%) 0 0	46, 57, 65, 68	0
43	BJ	98/103 (95%)	0.86	15 (15%) 3 4	9, 35, 56, 61	0
43	DJ	98/103 (95%)	1.95	40 (40%) 1 0	38, 52, 60, 68	0
43	FJ	98/103 (95%)	1.13	22 (22%) 1 2	16, 31, 53, 59	0
43	HJ	98/103 (95%)	3.38	69 (70%) 0 0	40, 54, 63, 66	0
44	BK	117/129 (90%)	0.32	9 (7%) 13 16	14, 26, 40, 52	0
44	DK	117/129 (90%)	1.66	41 (35%) 1 1	38, 52, 60, 62	0
44	FK	117/129 (90%)	0.02	5 (4%) 34 40	13, 24, 36, 41	0
44	HK	117/129 (90%)	3.25	79 (67%) 0 0	45, 58, 68, 73	0
45	BL	123/124 (99%)	0.13	6 (4%) 28 34	5, 12, 29, 52	0
45	DL	123/124 (99%)	0.30	8 (6%) 18 22	12, 24, 40, 49	0
45	FL	123/124 (99%)	0.31	7 (5%) 23 28	11, 26, 43, 51	0
45	HL	123/124 (99%)	1.23	32 (26%) 1 1	24, 41, 53, 63	0
46	BM	114/118 (96%)	0.04	6 (5%) 25 31	11, 30, 51, 54	0
46	DM	114/118 (96%)	1.51	35 (30%) 1 1	39, 53, 62, 66	0
46	FM	114/118 (96%)	0.42	13 (11%) 6 7	17, 36, 52, 59	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
46	HM	114/118 (96%)	4.73	92 (80%) 0 0	48, 60, 68, 77	0
47	BN	96/101 (95%)	0.39	6 (6%) 19 23	10, 22, 46, 57	0
47	DN	96/101 (95%)	0.92	17 (17%) 2 3	31, 45, 55, 62	0
47	FN	96/101 (95%)	0.65	9 (9%) 9 11	19, 29, 50, 64	0
47	HN	96/101 (95%)	2.78	54 (56%) 0 0	41, 56, 66, 71	0
48	BO	88/89 (98%)	0.13	0 100 100	12, 27, 40, 42	0
48	DO	88/89 (98%)	1.14	22 (25%) 1 2	36, 46, 55, 59	0
48	FO	88/89 (98%)	0.35	3 (3%) 43 51	16, 31, 44, 51	0
48	HO	88/89 (98%)	1.58	30 (34%) 1 1	37, 49, 58, 63	0
49	BP	82/82 (100%)	0.68	8 (9%) 8 10	13, 21, 46, 63	0
49	DP	82/82 (100%)	1.08	10 (12%) 5 6	16, 27, 48, 59	0
49	FP	82/82 (100%)	1.47	21 (25%) 1 2	24, 35, 54, 70	0
49	HP	82/82 (100%)	1.64	34 (41%) 1 0	25, 37, 49, 59	0
50	BQ	80/84 (95%)	0.32	3 (3%) 38 45	14, 26, 39, 48	0
50	DQ	80/84 (95%)	0.82	11 (13%) 4 5	26, 37, 45, 48	0
50	FQ	80/84 (95%)	0.77	13 (16%) 2 3	18, 36, 50, 55	0
50	HQ	80/84 (95%)	1.52	24 (30%) 1 1	35, 44, 55, 62	0
51	BR	55/75 (73%)	0.47	2 (3%) 41 48	16, 26, 39, 48	0
51	DR	55/75 (73%)	2.25	25 (45%) 1 0	43, 52, 60, 62	0
51	FR	55/75 (73%)	0.34	2 (3%) 41 48	18, 26, 37, 45	0
51	HR	55/75 (73%)	3.59	40 (72%) 0 0	43, 54, 61, 63	0
52	BS	79/92 (85%)	0.32	6 (7%) 14 17	14, 23, 39, 65	0
52	DS	79/92 (85%)	1.60	28 (35%) 1 1	31, 49, 58, 61	0
52	FS	79/92 (85%)	0.43	10 (12%) 4 6	22, 34, 48, 52	0
52	HS	79/92 (85%)	4.79	64 (81%) 0 0	50, 60, 70, 73	0
53	BT	85/87 (97%)	0.49	4 (4%) 30 37	12, 23, 42, 47	0
53	DT	85/87 (97%)	0.78	9 (10%) 7 9	17, 28, 44, 53	0
53	FT	85/87 (97%)	0.93	14 (16%) 2 3	25, 38, 47, 63	0
53	HT	85/87 (97%)	1.15	17 (20%) 2 2	22, 33, 46, 52	0
54	BU	51/71 (71%)	1.24	15 (29%) 1 1	22, 37, 52, 61	0
54	DU	51/71 (71%)	2.60	32 (62%) 0 0	36, 54, 60, 64	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
54	FU	51/71 (71%)	1.16	10 (19%) 2 2	25, 35, 54, 61	0
54	HU	51/71 (71%)	4.42	42 (82%) 0 0	40, 54, 65, 71	0
55	BV	690/704 (98%)	0.07	34 (4%) 28 34	10, 30, 48, 66	0
55	DV	689/704 (97%)	0.34	67 (9%) 8 10	16, 37, 53, 63	0
55	FV	689/704 (97%)	0.65	100 (14%) 3 5	16, 41, 54, 63	0
55	HV	689/704 (97%)	1.29	192 (27%) 1 1	25, 51, 62, 73	0
56	BW	2/6 (33%)	-0.09	0 100 100	16, 16, 16, 20	0
56	DW	2/6 (33%)	-0.31	0 100 100	32, 32, 32, 34	0
56	FW	2/6 (33%)	0.31	0 100 100	23, 23, 23, 29	0
56	HW	2/6 (33%)	0.66	1 (50%) 0 0	51, 51, 51, 58	0
All	All	43746/45264 (96%)	0.60	5477 (12%) 5 6	2, 33, 60, 83	0

All (5477) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
46	HM	84	GLY	23.4
26	CZ	1	ALA	21.9
26	AZ	1	ALA	19.3
6	GF	169	LEU	18.9
55	HV	542	GLY	17.6
28	C1	52	LYS	17.3
32	C5	50	VAL	16.0
21	GU	89	GLY	14.7
46	HM	106	ALA	14.5
9	AI	3	LYS	14.1
42	HI	125	PRO	13.7
23	GW	51	GLY	13.6
39	HF	10	VAL	13.4
9	AI	1	ALA	13.4
40	HG	104	ILE	13.3
35	BA	78	A	12.8
40	HG	5	ARG	12.8
9	GI	1	ALA	12.8
42	BI	43	THR	12.8
34	HB	188	THR	12.8
42	DI	130	ARG	12.7
9	EI	4	VAL	12.7
37	FD	28	ILE	12.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	GI	114	ALA	12.6
9	EI	1	ALA	12.6
46	HM	43	VAL	12.6
32	E5	111	ALA	12.5
9	GI	13	ALA	12.4
9	AI	21	PRO	12.3
15	GO	97	PHE	12.3
21	GU	87	GLU	12.3
51	HR	55	LEU	12.3
52	HS	60	VAL	12.1
32	C5	112	ALA	11.9
23	CW	51	GLY	11.9
40	DG	85	TYR	11.8
9	AI	4	VAL	11.8
32	A5	112	ALA	11.8
35	DA	78	A	11.8
40	HG	33	ASP	11.8
40	HG	83	SER	11.7
45	HL	124	ALA	11.7
40	HG	87	VAL	11.7
54	HU	37	PHE	11.6
44	HK	126	LYS	11.6
37	FD	25	VAL	11.6
9	CI	4	VAL	11.5
12	GL	108	ALA	11.5
46	HM	85	CYS	11.5
6	GF	30	VAL	11.5
32	E5	51	TYR	11.4
28	G1	20	TYR	11.3
21	GU	70	ALA	11.3
52	HS	61	PHE	11.3
32	E5	49	GLY	11.1
32	E5	18	VAL	11.1
43	HJ	26	VAL	11.1
54	HU	26	ALA	10.9
40	HG	4	ARG	10.8
52	HS	30	PRO	10.8
6	GF	49	LEU	10.8
9	CI	90	GLY	10.8
32	C5	96	PHE	10.8
52	HS	8	GLY	10.7
37	DD	28	ILE	10.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	HU	38	TYR	10.6
32	E5	50	VAL	10.5
50	HQ	83	VAL	10.5
9	AI	8	VAL	10.5
9	GI	4	VAL	10.5
32	E5	96	PHE	10.5
55	HV	511	GLY	10.4
32	C5	111	ALA	10.4
9	AI	90	GLY	10.4
6	GF	171	ALA	10.2
32	E5	19	ALA	10.2
9	GI	138	VAL	10.2
9	GI	58	ILE	10.1
52	HS	66	MET	10.1
52	HS	48	THR	10.1
9	GI	6	ALA	10.1
32	E5	89	PRO	10.1
9	EI	7	TYR	10.0
44	HK	71	ALA	9.9
30	G3	28	LEU	9.9
9	GI	5	GLN	9.9
9	CI	2	LYS	9.8
9	GI	2	LYS	9.8
43	HJ	25	ILE	9.8
52	HS	31	LEU	9.8
9	GI	8	VAL	9.8
32	A5	50	VAL	9.8
55	HV	543	GLY	9.7
33	A6	8	ILE	9.7
44	HK	101	ASN	9.7
35	DA	86	G	9.7
40	DG	5	ARG	9.6
6	GF	33	ILE	9.6
42	DI	108	ALA	9.6
9	GI	56	VAL	9.5
37	FD	36	GLN	9.5
40	HG	30	LEU	9.4
46	HM	81	MET	9.4
43	FJ	90	LEU	9.4
23	GW	50	VAL	9.4
32	C5	51	TYR	9.4
32	E5	88	HIS	9.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
49	BP	47	GLU	9.4
32	C5	88	HIS	9.4
46	HM	10	PRO	9.3
34	HB	129	THR	9.3
9	CI	3	LYS	9.3
51	HR	51	TYR	9.2
40	HG	88	PRO	9.2
46	DM	115	PRO	9.1
52	HS	11	ILE	9.1
20	GT	69	ARG	9.1
46	HM	80	LEU	9.1
23	GW	45	HIS	9.1
54	HU	35	ARG	9.1
52	HS	29	LYS	9.1
34	HB	128	LEU	9.1
29	G2	46	LYS	9.0
51	HR	56	ALA	9.0
32	C5	24	SER	9.0
9	EI	32	VAL	9.0
34	HB	150	ILE	9.0
38	HE	103	THR	9.0
6	GF	45	ASP	9.0
37	HD	194	ASP	8.9
46	HM	33	ILE	8.9
46	HM	7	ILE	8.9
6	GF	48	LEU	8.9
49	DP	81	ALA	8.9
50	HQ	26	GLU	8.9
44	HK	30	THR	8.9
53	DT	4	ILE	8.9
33	A6	22	LEU	8.9
40	HG	85	TYR	8.9
28	E1	52	LYS	8.8
32	E5	116	GLU	8.8
34	DB	8	MET	8.8
9	AI	136	GLY	8.7
40	DG	76	LYS	8.7
9	CI	6	ALA	8.7
49	FP	82	ALA	8.7
55	HV	593	PHE	8.7
32	A5	84	TYR	8.7
39	HF	8	PHE	8.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	27	LEU	8.7
8	CH	47	PHE	8.7
8	CH	6	LEU	8.7
32	E5	31	ARG	8.6
46	HM	82	ASP	8.6
4	GD	92	VAL	8.6
42	HI	117	GLY	8.6
32	C5	84	TYR	8.6
49	FP	81	ALA	8.5
47	HN	70	PRO	8.5
6	GF	173	ASP	8.5
52	HS	63	THR	8.5
9	CI	7	TYR	8.5
34	BB	17	HIS	8.5
9	GI	10	LEU	8.5
9	AI	9	LYS	8.5
40	HG	113	ASP	8.5
13	GM	67	VAL	8.5
40	HG	77	SER	8.5
40	HG	114	LYS	8.5
52	HS	21	LYS	8.4
42	HI	130	ARG	8.4
32	E5	117	LEU	8.4
46	HM	8	ASN	8.4
42	BI	130	ARG	8.4
8	CH	19	VAL	8.3
7	GG	51	PHE	8.3
44	BK	129	VAL	8.3
54	HU	34	ARG	8.3
46	HM	46	SER	8.3
9	AI	2	LYS	8.3
23	GW	24	ARG	8.3
3	GA	1175	A	8.3
39	HF	58	HIS	8.3
32	A5	89	PRO	8.3
37	HD	151	LYS	8.3
46	HM	34	LEU	8.2
40	DG	42	ILE	8.2
6	GF	174	PHE	8.2
44	HK	70	CYS	8.2
40	HG	108	ALA	8.2
23	GW	42	THR	8.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
44	HK	127	ARG	8.2
8	GH	19	VAL	8.2
8	GH	41	LYS	8.2
40	FG	80	VAL	8.1
46	HM	88	GLY	8.1
55	HV	545	ILE	8.1
9	EI	10	LEU	8.1
42	FI	130	ARG	8.1
49	HP	22	ALA	8.1
44	HK	122	ARG	8.1
6	GF	1	ALA	8.0
40	HG	62	PHE	8.0
6	GF	17	THR	8.0
32	C5	40	GLU	8.0
52	HS	19	VAL	8.0
7	CG	31	GLU	8.0
54	HU	36	GLU	8.0
52	HS	43	ASN	8.0
54	HU	23	CYS	8.0
52	HS	42	PRO	8.0
40	HG	84	THR	8.0
8	GH	20	ASN	8.0
17	GQ	89	ILE	7.9
4	ED	92	VAL	7.9
43	HJ	74	VAL	7.9
42	DI	67	VAL	7.9
40	FG	79	ARG	7.9
9	AI	22	PRO	7.9
44	HK	97	ILE	7.9
46	HM	29	ARG	7.9
32	A5	117	LEU	7.9
46	HM	40	ALA	7.8
32	C5	99	PHE	7.8
47	HN	52	PRO	7.8
39	HF	2	ARG	7.8
46	HM	11	ASP	7.8
34	FB	135	MET	7.8
34	FB	8	MET	7.8
46	HM	14	HIS	7.8
8	CH	37	VAL	7.8
34	BB	8	MET	7.8
17	GQ	4	LYS	7.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	GI	3	LYS	7.8
6	GF	62	GLN	7.7
43	HJ	67	ILE	7.7
9	GI	12	VAL	7.7
9	AI	7	TYR	7.7
42	DI	38	TYR	7.7
55	HV	320	LEU	7.7
52	HS	25	SER	7.7
52	HS	59	PRO	7.7
35	HA	1533	C	7.7
47	HN	29	ALA	7.7
8	GH	38	PRO	7.7
18	GR	5	PHE	7.7
34	DB	128	LEU	7.7
35	DA	1534	A	7.7
32	C5	114	GLU	7.6
6	GF	164	GLU	7.6
46	HM	104	THR	7.6
55	HV	589	SER	7.6
6	GF	130	GLY	7.6
17	GQ	90	ASP	7.6
55	HV	580	PHE	7.6
40	HG	11	LYS	7.6
52	HS	49	ILE	7.6
32	E5	48	ALA	7.6
9	GI	30	GLN	7.6
46	HM	39	ILE	7.6
49	BP	80	LYS	7.5
8	CH	29	PHE	7.5
33	A6	14	MET	7.5
9	EI	25	PRO	7.5
40	HG	105	VAL	7.5
6	GF	129	MET	7.5
55	HV	581	GLY	7.5
46	HM	2	ALA	7.5
28	G1	52	LYS	7.5
52	BS	30	PRO	7.5
40	HG	100	ALA	7.5
55	HV	586	VAL	7.5
3	AA	2148	G	7.5
42	HI	124	ARG	7.5
8	CH	15	LEU	7.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
41	HH	59	LEU	7.5
42	DI	28	ILE	7.5
46	HM	12	HIS	7.5
32	C5	140	MET	7.5
33	A6	18	ASP	7.5
7	GG	31	GLU	7.5
12	GL	110	VAL	7.5
9	GI	94	LYS	7.5
44	DK	82	LEU	7.5
37	HD	28	ILE	7.5
32	E5	20	LYS	7.4
46	HM	77	ILE	7.4
46	HM	115	PRO	7.4
13	GM	21	ALA	7.4
39	DF	9	MET	7.4
34	HB	66	ILE	7.4
34	HB	132	GLU	7.4
54	DU	38	TYR	7.4
20	GT	16	VAL	7.4
6	GF	102	LEU	7.3
6	GF	168	LEU	7.3
51	HR	37	GLY	7.3
34	HB	87	ASP	7.3
3	EA	2140	G	7.3
9	EI	38	CYS	7.3
9	EI	8	VAL	7.3
47	HN	20	TYR	7.3
52	HS	22	ALA	7.3
42	DI	16	ALA	7.3
55	FV	512	ARG	7.3
37	FD	27	ALA	7.3
3	GA	2157	G	7.3
34	DB	135	MET	7.3
55	HV	540	ILE	7.3
42	HI	129	LYS	7.2
49	DP	80	LYS	7.2
36	HC	95	ALA	7.2
44	HK	74	VAL	7.2
50	HQ	28	PHE	7.2
51	HR	39	ILE	7.2
52	FS	3	ARG	7.2
41	DH	3	MET	7.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	GI	31	GLY	7.2
32	E5	84	TYR	7.2
32	C5	148	ALA	7.2
55	DV	541	LYS	7.2
7	EG	42	VAL	7.2
5	EE	201	ALA	7.1
21	GU	88	ASP	7.1
15	GO	26	LEU	7.1
47	HN	22	ALA	7.1
55	HV	541	LYS	7.1
33	A6	15	SER	7.1
32	A5	88	HIS	7.1
29	C2	1	MET	7.1
39	HF	11	HIS	7.1
43	HJ	71	LEU	7.1
41	HH	49	PHE	7.1
44	DK	52	PHE	7.1
55	HV	506	ALA	7.1
42	HI	105	THR	7.1
9	GI	97	VAL	7.1
45	HL	4	VAL	7.0
39	HF	36	ILE	7.0
43	HJ	73	LEU	7.0
21	CU	87	GLU	7.0
44	HK	99	ALA	7.0
28	A1	52	LYS	7.0
32	C5	146	ALA	7.0
21	GU	40	LEU	7.0
34	FB	17	HIS	7.0
20	GT	35	ALA	7.0
35	HA	1312	G	7.0
9	CI	8	VAL	7.0
8	CH	38	PRO	7.0
9	GI	92	PRO	7.0
55	FV	545	ILE	7.0
40	HG	117	ALA	7.0
53	DT	87	ALA	6.9
54	FU	26	ALA	6.9
3	EA	2105	U	6.9
9	GI	24	GLY	6.9
21	GU	79	ALA	6.9
32	A5	51	TYR	6.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
6	GF	64	PRO	6.9
9	GI	108	ILE	6.9
40	HG	112	GLY	6.9
40	FG	85	TYR	6.9
40	HG	32	VAL	6.9
42	HI	128	SER	6.9
43	HJ	34	ALA	6.9
12	GL	77	ILE	6.9
55	HV	360	PHE	6.9
25	GY	60	LYS	6.8
42	DI	129	LYS	6.8
47	FN	22	ALA	6.8
49	BP	82	ALA	6.8
9	GI	34	ILE	6.8
34	DB	15	PHE	6.8
47	HN	71	HIS	6.8
28	G1	17	GLY	6.8
9	GI	25	PRO	6.8
55	HV	585	ASP	6.8
6	GF	116	LEU	6.8
52	HS	27	ASP	6.8
9	EI	67	THR	6.8
51	DR	20	GLU	6.7
40	BG	5	ARG	6.7
18	GR	41	ILE	6.7
32	A5	140	MET	6.7
50	HQ	27	ARG	6.7
25	GY	16	THR	6.7
55	HV	588	SER	6.7
40	DG	151	PHE	6.7
37	HD	66	GLY	6.7
3	AA	2149	U	6.7
32	A5	96	PHE	6.7
28	G1	34	GLU	6.7
43	HJ	61	ALA	6.7
9	GI	139	VAL	6.7
24	GX	66	VAL	6.7
49	BP	81	ALA	6.7
52	DS	27	ASP	6.7
47	FN	30	ILE	6.7
46	HM	9	ILE	6.7
32	C5	19	ALA	6.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	HB	165	ALA	6.6
21	AU	87	GLU	6.6
34	HB	161	PHE	6.6
34	HB	116	LEU	6.6
54	HU	27	GLY	6.6
44	HK	62	ALA	6.6
46	HM	87	ARG	6.6
54	DU	45	ARG	6.6
9	AI	6	ALA	6.6
13	GM	103	TYR	6.6
44	DK	129	VAL	6.6
6	GF	172	PHE	6.6
32	A5	130	PRO	6.6
19	GS	103	ILE	6.6
5	GE	188	MET	6.6
6	GF	118	ALA	6.6
32	E5	100	ALA	6.6
44	HK	125	LYS	6.6
42	HI	118	LEU	6.6
47	FN	21	PHE	6.6
32	C5	89	PRO	6.6
44	DK	19	GLY	6.6
51	DR	29	LEU	6.6
40	HG	102	ARG	6.5
55	HV	512	ARG	6.5
6	GF	66	ILE	6.5
32	A5	61	ARG	6.5
32	E5	36	ASP	6.5
35	HA	975	A	6.5
35	HA	86	G	6.5
39	HF	64	VAL	6.5
4	CD	209	ALA	6.5
54	HU	45	ARG	6.5
55	FV	319	ALA	6.5
52	HS	9	PRO	6.5
40	HG	78	ARG	6.5
38	DE	103	THR	6.5
40	HG	6	VAL	6.5
3	AA	2106	U	6.5
44	HK	96	THR	6.5
28	G1	10	LEU	6.5
49	FP	45	GLU	6.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
23	CW	45	HIS	6.5
6	GF	47	LYS	6.5
46	HM	86	TYR	6.5
46	HM	30	SER	6.5
43	FJ	74	VAL	6.5
9	CI	1	ALA	6.5
18	GR	84	ARG	6.5
7	CG	175	LYS	6.4
6	GF	156	THR	6.4
9	AI	59	THR	6.4
44	DK	77	TYR	6.4
41	HH	4	GLN	6.4
12	GL	50	PHE	6.4
15	GO	29	HIS	6.4
42	HI	126	GLN	6.4
6	GF	74	ALA	6.4
33	A6	13	ALA	6.4
46	HM	49	SER	6.4
28	G1	33	LEU	6.4
21	CU	52	ASN	6.4
34	DB	17	HIS	6.4
39	HF	62	MET	6.4
55	FV	530	ASN	6.4
3	EA	2157	G	6.4
9	CI	25	PRO	6.4
34	BB	51	GLU	6.4
54	HU	6	VAL	6.4
13	EM	1	MET	6.4
55	HV	290	VAL	6.4
9	GI	100	ILE	6.4
32	C5	46	ARG	6.4
21	EU	87	GLU	6.4
35	HA	80	A	6.4
9	GI	14	ALA	6.4
23	GW	75	ASN	6.4
36	HC	101	ILE	6.4
52	HS	32	ARG	6.4
5	GE	143	LEU	6.4
54	DU	43	THR	6.3
12	GL	116	VAL	6.3
8	GH	21	VAL	6.3
46	HM	45	ILE	6.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	HV	549	TYR	6.3
32	C5	18	VAL	6.3
39	HF	96	VAL	6.3
47	BN	30	ILE	6.3
47	HN	53	ARG	6.3
36	HC	45	LYS	6.3
26	GZ	49	ALA	6.3
9	GI	59	THR	6.3
26	GZ	5	LYS	6.3
3	EA	1175	A	6.3
39	HF	57	ALA	6.3
35	DA	85	U	6.3
6	GF	15	LEU	6.3
12	GL	70	LYS	6.3
32	A5	144	LYS	6.3
3	CA	1175	A	6.3
23	AW	40	ARG	6.3
52	HS	40	ILE	6.3
40	DG	144	MET	6.2
9	AI	70	THR	6.2
9	CI	17	ALA	6.2
49	DP	47	GLU	6.2
44	DK	107	ILE	6.2
9	EI	68	PHE	6.2
34	DB	68	PHE	6.2
40	HG	149	LYS	6.2
21	GU	85	ARG	6.2
55	HV	583	TYR	6.2
6	GF	24	VAL	6.2
9	GI	121	ILE	6.2
42	HI	20	PHE	6.2
52	HS	41	PHE	6.2
3	AA	2150	C	6.2
51	DR	64	TYR	6.2
7	GG	7	PRO	6.2
51	HR	69	PRO	6.2
39	DF	47	LEU	6.2
46	HM	63	PHE	6.2
55	BV	512	ARG	6.2
28	G1	16	THR	6.2
54	HU	42	THR	6.2
55	HV	369	ASN	6.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	DI	42	GLU	6.2
52	HS	17	LYS	6.2
32	C5	137	ALA	6.2
9	CI	65	SER	6.2
43	HJ	75	ASP	6.2
13	GM	108	VAL	6.2
34	HB	68	PHE	6.2
55	HV	295	ILE	6.2
55	HV	576	ILE	6.2
9	GI	96	LYS	6.2
42	HI	68	LYS	6.2
51	FR	20	GLU	6.1
51	HR	20	GLU	6.1
9	GI	111	THR	6.1
6	GF	147	ARG	6.1
54	DU	35	ARG	6.1
44	HK	95	SER	6.1
26	GZ	6	ILE	6.1
32	C5	100	ALA	6.1
13	GM	73	ILE	6.1
40	DG	83	SER	6.1
55	HV	405	ILE	6.1
9	GI	135	MET	6.1
25	CY	1	MET	6.1
54	HU	25	LYS	6.1
40	HG	107	ALA	6.1
55	FV	580	PHE	6.1
3	AA	2107	G	6.1
3	EA	2152	G	6.1
19	GS	107	VAL	6.1
11	AK	71	ARG	6.1
9	EI	9	LYS	6.1
8	GH	40	THR	6.1
49	FP	44	SER	6.1
40	HG	73	VAL	6.1
9	GI	83	ALA	6.1
25	CY	63	ALA	6.1
40	HG	152	ALA	6.1
21	GU	92	VAL	6.1
40	BG	80	VAL	6.1
46	HM	97	VAL	6.1
9	AI	13	ALA	6.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	GI	140	GLU	6.1
32	A5	116	GLU	6.1
45	HL	92	GLY	6.1
28	C1	51	ALA	6.1
51	HR	59	ILE	6.1
9	GI	55	PRO	6.1
32	E5	12	VAL	6.1
28	G1	50	GLU	6.0
41	HH	27	MET	6.0
3	GA	2143	C	6.0
21	GU	50	ALA	6.0
44	HK	66	ALA	6.0
9	GI	20	SER	6.0
32	C5	144	LYS	6.0
34	DB	209	VAL	6.0
32	A5	114	GLU	6.0
26	GZ	28	LEU	6.0
9	GI	95	ASP	6.0
34	DB	74	ALA	6.0
54	HU	43	THR	6.0
46	DM	45	ILE	6.0
5	CE	126	VAL	6.0
15	GO	28	VAL	6.0
21	GU	35	VAL	6.0
40	HG	82	GLY	6.0
6	GF	167	ALA	6.0
40	HG	59	LEU	6.0
42	HI	63	LEU	6.0
21	GU	6	ARG	6.0
43	FJ	35	GLN	6.0
54	FU	35	ARG	6.0
36	HC	163	ALA	6.0
8	GH	12	LEU	6.0
43	BJ	102	LEU	6.0
26	GZ	52	PHE	6.0
30	G3	13	PHE	6.0
43	HJ	13	PHE	6.0
55	FV	508	GLN	6.0
35	HA	699	C	6.0
40	DG	6	VAL	6.0
36	HC	202	ILE	6.0
49	HP	80	LYS	6.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	AA	2136	G	6.0
43	DJ	36	VAL	6.0
52	HS	62	VAL	6.0
36	HC	109	PRO	6.0
54	DU	47	ARG	6.0
6	GF	140	ILE	5.9
51	DR	43	ARG	5.9
34	DB	127	LYS	5.9
35	HA	1196	A	5.9
34	HB	134	LEU	5.9
48	HO	73	LYS	5.9
7	GG	57	TYR	5.9
3	AA	2133	G	5.9
46	HM	53	ILE	5.9
54	HU	24	GLU	5.9
42	HI	64	TYR	5.9
35	HA	87	C	5.9
9	GI	136	GLY	5.9
34	BB	134	LEU	5.9
2	CC	29	PHE	5.9
36	HC	23	PHE	5.9
48	HO	47	LYS	5.9
32	C5	116	GLU	5.9
46	HM	66	GLU	5.9
52	DS	3	ARG	5.9
55	DV	550	ILE	5.9
8	CH	40	THR	5.9
41	DH	26	THR	5.9
39	HF	51	ILE	5.9
39	DF	62	MET	5.9
21	GU	59	GLU	5.9
50	HQ	53	CYS	5.9
3	CA	2151	U	5.9
9	GI	99	LYS	5.9
6	GF	170	ALA	5.9
32	E5	47	GLU	5.9
40	HG	115	SER	5.9
36	HC	196	ILE	5.8
46	HM	4	ILE	5.8
32	A5	46	ARG	5.8
41	HH	52	GLU	5.8
40	HG	89	VAL	5.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	EI	15	GLY	5.8
33	A6	21	GLU	5.8
55	HV	359	ARG	5.8
21	EU	86	PHE	5.8
23	GW	57	THR	5.8
32	E5	112	ALA	5.8
43	DJ	76	ILE	5.8
18	ER	50	GLY	5.8
42	HI	103	PHE	5.8
54	HU	28	VAL	5.8
32	C5	48	ALA	5.8
6	GF	82	TYR	5.8
41	HH	57	PRO	5.8
10	CJ	1	MET	5.8
54	DU	41	PRO	5.8
9	EI	56	VAL	5.8
55	FV	586	VAL	5.8
9	GI	15	GLY	5.8
12	GL	75	ALA	5.8
28	G1	51	ALA	5.8
36	HC	51	SER	5.8
13	GM	129	THR	5.8
25	GY	1	MET	5.8
5	GE	124	PHE	5.8
35	FA	1534	A	5.8
8	CH	20	ASN	5.8
46	HM	35	ALA	5.8
9	GI	87	SER	5.7
36	HC	10	ILE	5.7
46	HM	48	LEU	5.7
46	HM	78	LYS	5.7
55	HV	4	THR	5.7
40	HG	48	GLU	5.7
9	GI	57	VAL	5.7
34	HB	115	ASP	5.7
55	FV	542	GLY	5.7
3	EA	2136	G	5.7
35	HA	1520	C	5.7
40	HG	111	ARG	5.7
44	HK	52	PHE	5.7
8	CH	7	ASP	5.7
7	EG	47	ASN	5.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	GI	11	GLN	5.7
32	C5	117	LEU	5.7
42	HI	16	ALA	5.7
40	DG	79	ARG	5.7
44	DK	51	GLY	5.7
55	DV	542	GLY	5.7
40	DG	4	ARG	5.7
55	DV	530	ASN	5.7
32	E5	142	THR	5.7
9	GI	38	CYS	5.7
47	HN	54	ASP	5.7
34	FB	50	ASN	5.7
32	E5	139	LEU	5.7
51	DR	36	SER	5.7
36	HC	155	GLY	5.7
40	HG	103	TRP	5.7
39	HF	39	LEU	5.7
35	HA	1331	G	5.7
38	HE	92	SER	5.7
47	DN	20	TYR	5.7
40	HG	151	PHE	5.7
52	HS	44	MET	5.7
44	DK	65	VAL	5.7
23	CW	40	ARG	5.7
15	GO	56	LYS	5.7
32	C5	52	MET	5.7
32	E5	24	SER	5.7
12	EL	92	LEU	5.6
45	HL	25	GLU	5.6
55	HV	502	GLU	5.6
28	G1	15	GLY	5.6
37	HD	19	LEU	5.6
41	HH	72	VAL	5.6
40	HG	122	ASN	5.6
3	AA	2152	G	5.6
9	EI	30	GLN	5.6
35	BA	86	G	5.6
8	CH	46	PHE	5.6
21	CU	72	PHE	5.6
44	HK	84	VAL	5.6
9	AI	15	GLY	5.6
39	HF	34	GLY	5.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
8	GH	49	ALA	5.6
6	GF	46	LYS	5.6
8	CH	44	ILE	5.6
55	BV	581	GLY	5.6
55	HV	510	GLY	5.6
32	A5	24	SER	5.6
23	EW	24	ARG	5.6
42	HI	72	ILE	5.6
54	DU	33	ARG	5.6
9	AI	92	PRO	5.6
8	CH	34	GLY	5.6
23	GW	35	ILE	5.6
32	E5	136	ILE	5.6
40	DG	104	ILE	5.6
32	C5	43	LYS	5.6
55	FV	579	HIS	5.6
3	AA	1175	A	5.6
9	AI	27	LEU	5.6
9	GI	7	TYR	5.6
3	AA	2105	U	5.6
37	FD	19	LEU	5.6
34	HB	186	VAL	5.5
26	GZ	8	GLN	5.5
25	GY	17	GLU	5.5
52	HS	58	VAL	5.5
36	HC	192	THR	5.5
43	DJ	73	LEU	5.5
13	GM	15	GLY	5.5
32	E5	61	ARG	5.5
37	FD	170	TRP	5.5
40	DG	8	GLY	5.5
9	EI	13	ALA	5.5
6	GF	175	PRO	5.5
9	EI	24	GLY	5.5
44	HK	86	VAL	5.5
55	FV	553	VAL	5.5
23	EW	73	PRO	5.5
55	HV	119	VAL	5.5
2	CC	100	ARG	5.5
40	HG	146	GLU	5.5
8	CH	49	ALA	5.5
44	HK	90	GLY	5.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	EI	65	SER	5.5
15	GO	92	PHE	5.5
21	CU	71	ILE	5.5
36	HC	47	LEU	5.5
41	HH	120	GLY	5.5
6	GF	176	PHE	5.5
9	GI	128	ILE	5.5
8	CH	5	LEU	5.5
3	GA	2140	G	5.5
39	HF	66	ALA	5.5
6	GF	114	ARG	5.5
4	AD	92	VAL	5.5
20	ET	16	VAL	5.5
32	A5	77	VAL	5.5
32	E5	128	THR	5.5
43	HJ	96	VAL	5.5
48	DO	43	PHE	5.5
8	GH	4	ILE	5.4
49	FP	19	VAL	5.4
6	GF	31	GLU	5.4
37	FD	37	ALA	5.4
45	FL	14	ARG	5.4
54	HU	10	GLU	5.4
18	GR	35	PHE	5.4
9	EI	90	GLY	5.4
34	DB	213	LEU	5.4
40	HG	121	ALA	5.4
20	GT	58	VAL	5.4
40	DG	124	LEU	5.4
54	FU	36	GLU	5.4
55	DV	538	ASN	5.4
35	HA	88	U	5.4
9	GI	68	PHE	5.4
21	GU	86	PHE	5.4
25	GY	28	LEU	5.4
55	HV	547	GLY	5.4
40	HG	97	ASN	5.4
25	EY	60	LYS	5.4
45	FL	15	LYS	5.4
39	DF	36	ILE	5.4
42	HI	83	ILE	5.4
11	GK	35	VAL	5.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
44	FK	126	LYS	5.4
8	GH	18	GLN	5.4
9	AI	5	GLN	5.4
28	G1	31	GLU	5.4
42	DI	17	ALA	5.4
34	HB	15	PHE	5.4
54	HU	7	ARG	5.4
32	C5	115	GLY	5.4
6	GF	87	LYS	5.4
7	GG	165	ASP	5.4
37	DD	151	LYS	5.3
32	C5	14	GLU	5.3
40	HG	81	GLY	5.3
9	AI	25	PRO	5.3
43	HJ	15	HIS	5.3
40	DG	84	THR	5.3
42	DI	20	PHE	5.3
46	HM	94	GLY	5.3
15	GO	18	LEU	5.3
42	HI	11	ARG	5.3
47	HN	61	ARG	5.3
23	AW	6	GLY	5.3
43	HJ	53	ILE	5.3
46	HM	17	ILE	5.3
39	HF	12	PRO	5.3
55	HV	377	VAL	5.3
55	HV	408	ARG	5.3
5	CE	148	ILE	5.3
15	CO	50	ALA	5.3
23	GW	9	THR	5.3
52	HS	33	THR	5.3
40	DG	53	ARG	5.3
51	HR	43	ARG	5.3
37	BD	151	LYS	5.3
51	HR	40	VAL	5.3
32	E5	113	PHE	5.3
44	DK	127	ARG	5.3
26	GZ	12	ALA	5.3
29	G2	23	ALA	5.3
44	HK	23	ILE	5.3
34	HB	187	ASP	5.3
28	G1	18	HIS	5.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	E5	114	GLU	5.3
36	HC	102	ASN	5.3
38	HE	105	ILE	5.3
30	G3	64	ALA	5.3
34	HB	205	ALA	5.3
3	AA	2153	C	5.3
8	CH	32	PRO	5.3
15	GO	98	GLN	5.3
25	GY	49	ASP	5.3
41	HH	29	SER	5.3
35	HA	841	C	5.3
28	G1	19	PHE	5.3
7	GG	106	LEU	5.3
8	CH	12	LEU	5.3
40	HG	120	LEU	5.3
48	HO	3	LEU	5.3
9	GI	22	PRO	5.3
26	GZ	17	PRO	5.3
33	A6	27	GLU	5.2
35	HA	1534	A	5.2
52	HS	18	LYS	5.2
24	CX	77	TYR	5.2
43	HJ	88	MET	5.2
9	EI	40	ALA	5.2
44	HK	25	ALA	5.2
9	AI	140	GLU	5.2
39	DF	10	VAL	5.2
52	HS	20	GLU	5.2
55	FV	509	SER	5.2
32	C5	49	GLY	5.2
32	C5	60	LEU	5.2
34	HB	42	LEU	5.2
46	HM	83	LEU	5.2
50	HQ	25	ILE	5.2
21	GU	61	GLU	5.2
41	HH	78	VAL	5.2
46	HM	107	ARG	5.2
47	HN	50	THR	5.2
47	HN	72	GLY	5.2
3	AA	2141	G	5.2
48	HO	69	TYR	5.2
42	DI	63	LEU	5.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
46	HM	56	LEU	5.2
46	HM	13	LYS	5.2
17	CQ	86	SER	5.2
42	DI	104	VAL	5.2
42	HI	40	GLY	5.2
52	HS	68	GLY	5.2
5	GE	183	PHE	5.2
12	GL	82	LEU	5.2
54	BU	38	TYR	5.2
34	HB	163	ILE	5.2
35	FA	844	G	5.2
42	HI	41	ARG	5.2
46	HM	93	ARG	5.2
18	GR	103	ALA	5.2
52	HS	35	SER	5.2
30	G3	25	HIS	5.2
32	E5	86	MET	5.2
36	HC	111	LEU	5.2
40	HG	66	LEU	5.2
7	GG	80	GLU	5.2
52	DS	60	VAL	5.2
55	HV	357	ARG	5.2
47	HN	66	GLN	5.2
51	HR	50	LYS	5.2
55	FV	581	GLY	5.2
15	GO	57	ALA	5.2
49	HP	35	ARG	5.2
54	BU	47	ARG	5.2
3	GA	2136	G	5.2
35	HA	1311	A	5.2
25	CY	62	GLY	5.2
9	GI	119	ALA	5.2
9	AI	37	PHE	5.2
32	C5	79	PRO	5.2
39	HF	38	ARG	5.2
13	GM	1	MET	5.2
32	C5	86	MET	5.2
40	HG	8	GLY	5.1
8	EH	39	ALA	5.1
36	HC	116	VAL	5.1
43	FJ	36	VAL	5.1
51	BR	20	GLU	5.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	GA	2137	U	5.1
25	GY	63	ALA	5.1
36	HC	84	VAL	5.1
50	HQ	58	VAL	5.1
52	HS	67	VAL	5.1
9	AI	68	PHE	5.1
42	HI	39	PHE	5.1
46	HM	68	ASP	5.1
52	HS	12	ASP	5.1
9	GI	23	VAL	5.1
21	GU	82	VAL	5.1
20	GT	14	PRO	5.1
12	GL	101	ILE	5.1
32	E5	42	ARG	5.1
42	DI	49	ARG	5.1
44	DK	126	LYS	5.1
8	CH	43	ASN	5.1
32	C5	25	ALA	5.1
47	HN	46	LEU	5.1
51	DR	40	VAL	5.1
54	BU	44	GLU	5.1
10	GJ	1	MET	5.1
42	HI	65	ILE	5.1
9	AI	141	ASP	5.1
52	HS	53	ASN	5.1
54	HU	9	ASN	5.1
12	GL	107	PHE	5.1
3	GA	846	U	5.1
25	GY	2	LYS	5.1
9	AI	65	SER	5.1
24	CX	34	SER	5.1
32	A5	111	ALA	5.1
38	HE	98	PRO	5.1
44	HK	128	ARG	5.1
12	GL	124	GLY	5.1
32	E5	143	MET	5.1
40	FG	81	GLY	5.1
29	A2	46	LYS	5.1
34	DB	121	GLN	5.1
6	GF	56	LEU	5.1
41	BH	68	GLY	5.1
55	HV	515	TYR	5.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
12	GL	67	THR	5.1
20	CT	3	ARG	5.1
47	HN	43	ASN	5.1
5	GE	33	VAL	5.1
46	DM	2	ALA	5.1
52	HS	76	PRO	5.1
3	GA	2133	G	5.1
35	HA	1453	G	5.1
51	HR	72	ASP	5.1
40	BG	79	ARG	5.1
3	AA	2147	A	5.0
9	GI	70	THR	5.0
9	GI	88	GLY	5.0
38	FE	47	GLY	5.0
55	FV	510	GLY	5.0
43	HJ	79	PRO	5.0
6	GF	166	ARG	5.0
26	GZ	15	ARG	5.0
40	HG	124	LEU	5.0
43	HJ	49	PHE	5.0
9	CI	13	ALA	5.0
43	HJ	101	SER	5.0
44	HK	102	ALA	5.0
39	HF	37	HIS	5.0
18	GR	1	MET	5.0
3	AA	2154	A	5.0
46	FM	48	LEU	5.0
36	HC	2	GLY	5.0
44	HK	129	VAL	5.0
9	GI	65	SER	5.0
39	HF	94	HIS	5.0
37	FD	60	LYS	5.0
32	E5	99	PHE	5.0
6	GF	20	ASN	5.0
8	GH	39	ALA	5.0
32	C5	141	ALA	5.0
36	FC	79	LYS	5.0
40	HG	145	ALA	5.0
44	DK	55	SER	5.0
44	HK	67	ALA	5.0
46	DM	4	ILE	5.0
40	HG	118	LEU	5.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	DI	35	LEU	5.0
42	FI	90	TYR	5.0
34	DB	123	GLY	5.0
3	AA	2156	G	5.0
43	HJ	68	ARG	5.0
3	AA	2135	A	5.0
55	HV	296	ASN	5.0
3	AA	2104	C	5.0
35	HA	1532	U	5.0
46	HM	54	ASP	5.0
7	AG	31	GLU	5.0
23	AW	24	ARG	5.0
39	DF	59	TYR	5.0
41	DH	68	GLY	5.0
46	DM	93	ARG	5.0
21	GU	58	VAL	5.0
44	HK	65	VAL	5.0
39	DF	66	ALA	5.0
13	GM	20	LEU	5.0
42	DI	12	ARG	5.0
55	BV	513	GLY	5.0
5	GE	96	VAL	5.0
9	EI	29	GLN	5.0
42	HI	29	VAL	5.0
21	GU	71	ILE	4.9
40	FG	78	ARG	4.9
40	HG	35	LYS	4.9
3	AA	2108	A	4.9
32	E5	80	THR	4.9
44	HK	33	THR	4.9
13	GM	60	GLN	4.9
5	GE	120	VAL	4.9
52	HS	23	VAL	4.9
6	GF	160	LYS	4.9
32	C5	145	GLU	4.9
46	HM	41	GLU	4.9
9	AI	85	ILE	4.9
43	HJ	60	ASP	4.9
3	AA	2155	U	4.9
6	GF	35	LEU	4.9
8	EH	47	PHE	4.9
3	GA	2183	A	4.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
35	HA	728	A	4.9
32	A5	19	ALA	4.9
34	HB	133	ALA	4.9
42	HI	94	LEU	4.9
55	DV	545	ILE	4.9
3	GA	102	U	4.9
42	HI	23	PRO	4.9
8	CH	21	VAL	4.9
47	HN	34	VAL	4.9
3	GA	2152	G	4.9
42	DI	15	SER	4.9
55	HV	289	PRO	4.9
42	HI	32	GLN	4.9
41	HH	128	TYR	4.9
46	DM	23	TYR	4.9
7	GG	47	ASN	4.9
32	E5	54	VAL	4.9
6	GF	135	ILE	4.9
30	C3	54	LEU	4.9
55	DV	511	GLY	4.9
42	DI	66	THR	4.9
25	GY	42	LEU	4.9
51	HR	44	ILE	4.9
38	FE	125	ALA	4.9
52	HS	69	HIS	4.9
35	DA	83	C	4.9
9	GI	67	THR	4.9
51	HR	64	TYR	4.9
43	HJ	24	GLU	4.9
3	EA	2106	U	4.9
9	GI	29	GLN	4.9
54	HU	22	SER	4.9
3	AA	2103	C	4.9
17	GQ	17	LEU	4.9
27	E0	54	ILE	4.9
40	DG	82	GLY	4.9
46	HM	105	ASN	4.9
54	BU	35	ARG	4.9
3	EA	2156	G	4.9
8	CH	41	LYS	4.8
9	GI	118	GLY	4.8
32	E5	109	LYS	4.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
37	FD	109	ALA	4.8
51	HR	66	SER	4.8
35	HA	4	U	4.8
6	GF	148	VAL	4.8
9	EI	137	LEU	4.8
32	A5	27	VAL	4.8
42	DI	29	VAL	4.8
46	HM	67	GLY	4.8
51	DR	68	LEU	4.8
21	GU	11	ILE	4.8
40	HG	76	LYS	4.8
43	BJ	25	ILE	4.8
34	DB	38	HIS	4.8
6	GF	54	ALA	4.8
55	HV	565	PRO	4.8
24	CX	32	LEU	4.8
23	GW	79	ILE	4.8
47	HN	73	PHE	4.8
3	CA	2183	A	4.8
9	CI	16	MET	4.8
54	HU	47	ARG	4.8
9	CI	10	LEU	4.8
9	AI	11	GLN	4.8
55	FV	377	VAL	4.8
53	BT	68	HIS	4.8
23	GW	52	CYS	4.8
28	A1	51	ALA	4.8
32	E5	144	LYS	4.8
46	DM	10	PRO	4.8
55	FV	370	LYS	4.8
35	BA	461	A	4.8
6	GF	65	LEU	4.8
9	AI	10	LEU	4.8
21	CU	11	ILE	4.8
34	HB	162	VAL	4.8
9	CI	94	LYS	4.8
6	CF	44	ALA	4.8
18	CR	103	ALA	4.8
42	HI	17	ALA	4.8
55	FV	306	PRO	4.8
37	FD	191	LEU	4.8
42	HI	111	VAL	4.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	A5	113	PHE	4.8
24	GX	10	ARG	4.8
40	HG	68	ASN	4.8
46	HM	70	ARG	4.8
34	DB	129	THR	4.8
9	AI	47	SER	4.8
9	GI	127	SER	4.8
42	DI	76	ALA	4.8
35	FA	208	U	4.8
47	HN	28	LYS	4.8
6	CF	19	PHE	4.8
53	BT	4	ILE	4.8
35	HA	1286	U	4.8
41	HH	28	PRO	4.8
43	DJ	31	ARG	4.7
42	HI	116	VAL	4.7
55	FV	37	ASN	4.7
20	GT	70	HIS	4.7
2	GC	271	SER	4.7
6	GF	42	ALA	4.7
34	DB	33	ALA	4.7
40	DG	117	ALA	4.7
5	GE	164	LEU	4.7
8	CH	18	GLN	4.7
8	CH	30	LEU	4.7
49	DP	52	LEU	4.7
38	HE	20	ARG	4.7
20	GT	43	ILE	4.7
6	EF	46	LYS	4.7
34	HB	99	MET	4.7
35	HA	1362	A	4.7
44	HK	85	MET	4.7
55	HV	301	ASP	4.7
26	GZ	47	ILE	4.7
26	GZ	56	VAL	4.7
37	HD	206	LYS	4.7
20	CT	73	ARG	4.7
12	GL	57	LEU	4.7
28	E1	51	ALA	4.7
32	E5	23	LEU	4.7
38	FE	103	THR	4.7
35	BA	83	C	4.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	BG	85	TYR	4.7
25	GY	22	LEU	4.7
27	A0	56	LYS	4.7
28	C1	8	ILE	4.7
34	HB	39	ILE	4.7
44	HK	94	GLU	4.7
3	GA	896	A	4.7
21	GU	21	ARG	4.7
35	HA	1229	A	4.7
53	FT	24	ARG	4.7
9	EI	39	LYS	4.7
9	GI	71	LYS	4.7
29	C2	46	LYS	4.7
51	HR	29	LEU	4.7
35	BA	82	G	4.7
48	HO	2	SER	4.7
9	GI	53	PRO	4.7
36	HC	129	MET	4.7
6	GF	98	PHE	4.7
39	DF	51	ILE	4.7
6	GF	111	ARG	4.7
43	DJ	37	ARG	4.7
46	HM	64	VAL	4.7
28	C1	49	LYS	4.7
55	FV	541	LYS	4.7
18	GR	25	LEU	4.7
51	HR	68	LEU	4.7
14	EN	120	GLU	4.7
24	CX	75	GLU	4.7
25	GY	30	MET	4.7
34	DB	48	MET	4.7
34	FB	129	THR	4.7
37	BD	28	ILE	4.7
42	HI	95	ARG	4.7
49	FP	13	LYS	4.7
55	HV	518	VAL	4.7
3	EA	2154	A	4.7
34	FB	74	ALA	4.7
34	FB	82	ALA	4.7
43	HJ	97	ASP	4.7
55	DV	307	ALA	4.7
52	HS	81	ARG	4.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	GI	80	LYS	4.7
34	HB	110	ILE	4.7
38	HE	23	LYS	4.7
34	DB	118	THR	4.7
52	HS	34	TRP	4.7
21	GU	52	ASN	4.6
28	C1	10	LEU	4.6
35	HA	976	G	4.6
48	DO	31	LEU	4.6
55	HV	548	GLU	4.6
8	CH	50	ARG	4.6
46	HM	32	ALA	4.6
9	GI	21	PRO	4.6
47	HN	31	ILE	4.6
21	GU	76	THR	4.6
23	CW	50	VAL	4.6
47	HN	45	VAL	4.6
5	GE	157	LEU	4.6
33	A6	9	GLU	4.6
39	HF	69	GLU	4.6
40	HG	109	ARG	4.6
35	HA	1298	U	4.6
43	DJ	40	ILE	4.6
3	CA	2108	A	4.6
15	GO	60	GLU	4.6
18	GR	70	GLU	4.6
19	GS	105	VAL	4.6
20	CT	16	VAL	4.6
25	EY	17	GLU	4.6
28	G1	21	THR	4.6
28	G1	9	LYS	4.6
41	HH	108	LYS	4.6
3	GA	1172	C	4.6
34	HB	123	GLY	4.6
12	GL	96	LYS	4.6
35	HA	1319	A	4.6
36	DC	168	TYR	4.6
51	HR	32	TYR	4.6
35	HA	1230	C	4.6
36	HC	145	GLY	4.6
12	CL	77	ILE	4.6
43	HJ	20	GLN	4.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	GA	1176	U	4.6
38	HE	93	ARG	4.6
42	HI	19	VAL	4.6
39	HF	59	TYR	4.6
55	HV	530	ASN	4.6
44	HK	51	GLY	4.6
6	GF	28	PRO	4.6
46	HM	96	PRO	4.6
6	GF	11	VAL	4.6
51	DR	67	LEU	4.6
34	HB	101	THR	4.6
37	FD	204	TYR	4.6
6	GF	32	LYS	4.6
55	HV	517	HIS	4.6
12	GL	64	PHE	4.6
34	DB	31	PHE	4.6
34	HB	154	GLY	4.6
52	DS	10	PHE	4.6
55	FV	543	GLY	4.6
37	FD	117	LEU	4.6
41	DH	25	VAL	4.6
52	DS	51	VAL	4.6
37	FD	146	ARG	4.6
21	GU	2	ALA	4.6
32	A5	30	SER	4.6
51	DR	39	ILE	4.6
3	EA	2602	A	4.6
6	EF	49	LEU	4.6
9	EI	23	VAL	4.6
37	FD	21	LEU	4.6
23	EW	42	THR	4.6
44	HK	111	THR	4.6
54	FU	37	PHE	4.6
9	AI	82	ALA	4.5
55	HV	648	GLU	4.5
35	BA	79	G	4.5
43	DJ	44	THR	4.5
3	CA	2143	C	4.5
5	GE	200	LEU	4.5
9	EI	16	MET	4.5
39	DF	61	LEU	4.5
39	HF	9	MET	4.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	HG	60	GLU	4.5
43	HJ	17	LEU	4.5
43	HJ	29	ALA	4.5
51	DR	56	ALA	4.5
54	DU	26	ALA	4.5
32	A5	79	PRO	4.5
40	FG	5	ARG	4.5
44	DK	128	ARG	4.5
32	A5	128	THR	4.5
3	EA	2133	G	4.5
9	GI	105	LEU	4.5
34	FB	128	LEU	4.5
34	HB	100	LEU	4.5
36	HC	87	LEU	4.5
40	HG	116	MET	4.5
47	DN	36	ALA	4.5
55	HV	582	SER	4.5
51	HR	48	ARG	4.5
55	HV	400	PRO	4.5
27	G0	36	LYS	4.5
34	HB	114	LYS	4.5
28	C1	20	TYR	4.5
32	E5	85	SER	4.5
36	HC	127	ARG	4.5
37	HD	2	ALA	4.5
47	HN	44	ALA	4.5
7	AG	11	PRO	4.5
8	CH	31	VAL	4.5
22	GV	14	LYS	4.5
23	GW	18	LYS	4.5
40	HG	86	GLN	4.5
41	HH	54	ASP	4.5
15	GO	46	GLU	4.5
51	DR	23	TYR	4.5
3	AA	2134	A	4.5
9	EI	139	VAL	4.5
6	GF	55	ASP	4.5
46	DM	114	LYS	4.5
27	G0	27	LEU	4.5
47	HN	51	LEU	4.5
15	CO	49	VAL	4.5
24	GX	5	GLN	4.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	HG	16	PRO	4.5
47	HN	36	ALA	4.5
32	A5	115	GLY	4.5
42	DI	8	GLY	4.5
55	DV	306	PRO	4.5
35	FA	209	U	4.5
55	HV	590	GLU	4.5
35	HA	412	A	4.5
9	EI	52	LEU	4.5
12	CL	125	LEU	4.5
20	ET	58	VAL	4.5
34	HB	69	VAL	4.5
39	HF	60	VAL	4.5
3	EA	2137	U	4.5
24	CX	76	LYS	4.5
46	HM	42	ASP	4.5
54	DU	7	ARG	4.5
54	FU	45	ARG	4.5
55	HV	309	ARG	4.5
49	FP	17	TYR	4.5
6	GF	155	ILE	4.5
7	CG	25	ILE	4.5
20	ET	72	GLN	4.5
6	GF	104	THR	4.5
8	CH	14	SER	4.5
9	CI	9	LYS	4.5
9	EI	53	PRO	4.5
25	AY	63	ALA	4.5
3	CA	2139	U	4.4
55	FV	523	TYR	4.4
39	HF	63	ASN	4.4
46	FM	8	ASN	4.4
40	DG	123	GLU	4.4
24	CX	41	SER	4.4
40	HG	125	SER	4.4
55	DV	357	ARG	4.4
15	GO	24	THR	4.4
34	DB	188	THR	4.4
35	HA	1038	C	4.4
35	HA	1228	C	4.4
3	AA	2181	U	4.4
3	EA	2181	U	4.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
35	HA	1009	U	4.4
3	EA	2141	G	4.4
9	GI	84	GLY	4.4
45	DL	4	VAL	4.4
21	AU	86	PHE	4.4
34	BB	14	HIS	4.4
55	DV	510	GLY	4.4
3	CA	2140	G	4.4
3	EA	2148	G	4.4
7	GG	42	VAL	4.4
13	GM	12	MET	4.4
36	DC	76	VAL	4.4
40	DG	89	VAL	4.4
9	CI	91	LYS	4.4
18	GR	76	LYS	4.4
34	BB	87	ASP	4.4
35	HA	845	A	4.4
55	DV	548	GLU	4.4
37	DD	191	LEU	4.4
20	GT	76	ARG	4.4
24	CX	73	ARG	4.4
6	GF	75	GLY	4.4
46	HM	111	GLY	4.4
4	ED	209	ALA	4.4
9	AI	60	VAL	4.4
21	GU	41	VAL	4.4
25	EY	46	VAL	4.4
25	GY	54	LYS	4.4
33	A6	16	VAL	4.4
40	HG	150	ALA	4.4
52	HS	7	LYS	4.4
36	HC	110	GLU	4.4
46	HM	79	ARG	4.4
47	HN	16	LEU	4.4
3	EA	2134	A	4.4
6	EF	84	ILE	4.4
35	BA	1534	A	4.4
13	GM	99	GLY	4.4
35	HA	839	C	4.4
9	GI	132	ALA	4.4
38	HE	137	VAL	4.4
52	DS	59	PRO	4.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
8	AH	18	GLN	4.4
55	HV	185	LEU	4.4
32	E5	97	LYS	4.4
8	GH	46	PHE	4.4
9	EI	37	PHE	4.4
32	A5	56	ARG	4.4
35	HA	1317	C	4.4
37	FD	115	ARG	4.4
44	HK	115	PRO	4.4
40	HG	36	LYS	4.4
45	HL	24	LEU	4.4
25	EY	62	GLY	4.4
43	HJ	38	GLY	4.4
38	HE	19	ASN	4.4
19	ES	110	ARG	4.4
21	GU	69	VAL	4.4
24	GX	6	VAL	4.4
26	GZ	11	SER	4.4
32	E5	140	MET	4.4
43	HJ	10	LEU	4.4
35	FA	841	C	4.4
9	EI	140	GLU	4.3
32	C5	67	THR	4.3
32	E5	67	THR	4.3
44	HK	98	ARG	4.3
54	DU	21	ARG	4.3
6	CF	176	PHE	4.3
21	CU	80	ASP	4.3
36	HC	91	VAL	4.3
55	FV	355	ALA	4.3
41	HH	32	LEU	4.3
55	HV	261	ILE	4.3
3	GA	1170	C	4.3
9	AI	67	THR	4.3
37	DD	25	VAL	4.3
48	HO	74	ASP	4.3
34	BB	52	ALA	4.3
44	DK	66	ALA	4.3
46	DM	48	LEU	4.3
32	E5	115	GLY	4.3
20	ET	3	ARG	4.3
42	HI	79	ILE	4.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
44	BK	53	ARG	4.3
55	BV	541	LYS	4.3
34	HB	105	THR	4.3
41	HH	55	THR	4.3
51	BR	64	TYR	4.3
20	AT	72	GLN	4.3
20	ET	91	GLN	4.3
40	DG	9	GLN	4.3
37	HD	25	VAL	4.3
40	HG	23	LEU	4.3
41	HH	3	MET	4.3
55	FV	376	GLU	4.3
32	E5	21	GLY	4.3
44	HK	48	GLY	4.3
55	HV	355	ALA	4.3
8	EH	44	ILE	4.3
9	GI	48	ILE	4.3
3	CA	2157	G	4.3
3	EA	2150	C	4.3
10	GJ	64	VAL	4.3
15	GO	27	VAL	4.3
32	E5	5	LEU	4.3
46	HM	44	LYS	4.3
49	FP	7	ALA	4.3
54	HU	15	ALA	4.3
3	GA	2181	U	4.3
7	AG	47	ASN	4.3
8	CH	33	GLN	4.3
6	GF	177	ARG	4.3
15	GO	48	LEU	4.3
32	C5	56	ARG	4.3
34	DB	67	LEU	4.3
36	HC	126	ARG	4.3
42	DI	124	ARG	4.3
42	DI	51	PRO	4.3
45	BL	124	ALA	4.3
46	DM	15	ALA	4.3
52	HS	57	HIS	4.3
55	HV	536	PHE	4.3
44	HK	19	GLY	4.3
51	HR	28	THR	4.3
54	HU	29	LEU	4.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	DG	80	VAL	4.3
9	AI	40	ALA	4.3
34	HB	200	PRO	4.3
35	HA	1042	A	4.3
55	HV	546	PRO	4.3
42	HI	42	GLU	4.3
9	GI	28	GLY	4.3
9	GI	115	ASP	4.3
32	C5	23	LEU	4.3
34	BB	42	LEU	4.3
47	HN	48	LEU	4.3
32	C5	147	SER	4.3
37	HD	43	ALA	4.3
6	GF	43	ILE	4.3
20	AT	2	ILE	4.3
21	CU	78	LYS	4.3
42	DI	36	GLU	4.3
43	DJ	25	ILE	4.3
51	HR	38	LYS	4.3
52	HS	24	GLU	4.3
54	DU	4	ILE	4.3
48	HO	77	ARG	4.3
9	CI	37	PHE	4.3
39	DF	80	PHE	4.3
9	GI	93	ASN	4.2
41	HH	17	GLY	4.2
9	EI	2	LYS	4.2
9	EI	138	VAL	4.2
9	GI	32	VAL	4.2
20	GT	10	VAL	4.2
54	HU	32	VAL	4.2
55	DV	586	VAL	4.2
12	CL	68	SER	4.2
35	HA	1305	G	4.2
39	HF	83	ALA	4.2
49	FP	22	ALA	4.2
47	DN	30	ILE	4.2
20	GT	51	PHE	4.2
8	CH	25	TYR	4.2
46	HM	19	LEU	4.2
24	GX	76	LYS	4.2
23	CW	84	GLU	4.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
20	AT	24	MET	4.2
38	BE	103	THR	4.2
6	GF	117	SER	4.2
19	AS	110	ARG	4.2
43	HJ	12	ALA	4.2
55	HV	191	ILE	4.2
9	EI	66	PHE	4.2
25	GY	26	PHE	4.2
48	HO	15	PHE	4.2
36	HC	157	LEU	4.2
43	DJ	75	ASP	4.2
37	FD	125	VAL	4.2
45	HL	3	THR	4.2
49	FP	43	ALA	4.2
7	EG	43	LYS	4.2
21	GU	90	LYS	4.2
44	BK	126	LYS	4.2
21	GU	72	PHE	4.2
35	HA	1212	U	4.2
35	HA	1381	U	4.2
20	GT	7	LEU	4.2
21	CU	9	GLU	4.2
6	EF	177	ARG	4.2
24	GX	46	VAL	4.2
39	DF	60	VAL	4.2
44	DK	84	VAL	4.2
35	FA	461	A	4.2
5	GE	182	ALA	4.2
33	A6	12	ALA	4.2
34	HB	118	THR	4.2
32	E5	69	PHE	4.2
35	HA	1214	C	4.2
43	DJ	91	ASP	4.2
34	HB	107	ARG	4.2
18	GR	83	TYR	4.2
43	HJ	65	TYR	4.2
7	GG	75	VAL	4.2
25	GY	45	GLN	4.2
52	DS	29	LYS	4.2
20	GT	45	ALA	4.2
55	HV	551	PRO	4.2
6	GF	165	GLY	4.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	GG	59	ASP	4.2
19	GS	11	ARG	4.2
40	DG	109	ARG	4.2
7	GG	74	MET	4.2
41	HH	125	ILE	4.2
52	DS	44	MET	4.2
40	HG	147	ALA	4.2
25	GY	43	LEU	4.2
32	A5	125	ARG	4.2
34	DB	34	ARG	4.2
40	HG	79	ARG	4.2
42	HI	123	ARG	4.2
30	G3	22	LYS	4.2
9	AI	38	CYS	4.2
35	HA	1218	C	4.2
6	GF	103	ILE	4.2
18	GR	40	MET	4.2
40	DG	21	GLU	4.2
46	HM	47	GLU	4.2
20	GT	30	ILE	4.2
5	GE	13	THR	4.2
23	CW	42	THR	4.2
23	EW	45	HIS	4.2
32	C5	142	THR	4.2
34	HB	94	ARG	4.2
40	BG	131	LYS	4.2
3	AA	138	U	4.2
28	C1	34	GLU	4.2
34	HB	103	TRP	4.2
38	HE	97	GLN	4.2
3	AA	2138	G	4.2
3	EA	2138	G	4.2
50	HQ	34	TYR	4.2
43	HJ	8	ILE	4.1
35	HA	1210	C	4.1
37	FD	24	GLY	4.1
15	GO	23	ALA	4.1
32	E5	120	ALA	4.1
44	DK	105	PHE	4.1
24	GX	48	LEU	4.1
34	BB	128	LEU	4.1
38	HE	131	THR	4.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
41	HH	11	LEU	4.1
44	HK	91	PRO	4.1
13	CM	60	GLN	4.1
43	HJ	81	GLU	4.1
3	EA	2135	A	4.1
9	EI	71	LYS	4.1
34	DB	69	VAL	4.1
20	CT	24	MET	4.1
32	E5	32	GLY	4.1
37	HD	47	ARG	4.1
46	DM	113	ARG	4.1
48	HO	63	ARG	4.1
55	HV	557	ILE	4.1
4	AD	209	ALA	4.1
9	CI	43	ALA	4.1
20	GT	11	LEU	4.1
35	HA	1207	G	4.1
51	DR	55	LEU	4.1
52	HS	50	ALA	4.1
35	FA	842	U	4.1
54	HU	39	GLU	4.1
40	DG	69	VAL	4.1
23	GW	21	GLY	4.1
6	CF	37	MET	4.1
41	HH	75	ILE	4.1
46	HM	73	ILE	4.1
40	BG	83	SER	4.1
41	DH	61	LEU	4.1
3	AA	2157	G	4.1
3	EA	2110	G	4.1
3	EA	2144	G	4.1
23	AW	42	THR	4.1
55	FV	296	ASN	4.1
55	HV	522	MET	4.1
20	GT	42	GLU	4.1
43	HJ	87	LEU	4.1
49	HP	7	ALA	4.1
47	HN	24	ARG	4.1
55	HV	378	ARG	4.1
9	GI	98	GLY	4.1
42	HI	30	ILE	4.1
34	HB	183	PHE	4.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
37	HD	177	LYS	4.1
55	BV	580	PHE	4.1
9	AI	89	SER	4.1
39	HF	67	PRO	4.1
3	GA	2135	A	4.1
40	DG	112	GLY	4.1
21	CU	24	VAL	4.1
34	FB	127	LYS	4.1
37	FD	177	LYS	4.1
54	HU	53	VAL	4.1
42	HI	90	TYR	4.1
2	CC	33	LEU	4.1
9	AI	35	MET	4.1
9	GI	43	ALA	4.1
44	HK	106	ARG	4.1
12	GL	119	PRO	4.1
47	HN	33	ASP	4.1
32	C5	55	VAL	4.1
35	HA	1339	A	4.1
37	FD	53	VAL	4.1
46	DM	43	VAL	4.1
13	GM	66	ARG	4.1
25	AY	7	ARG	4.1
32	C5	113	PHE	4.1
42	DI	118	LEU	4.1
47	FN	24	ARG	4.1
52	DS	61	PHE	4.1
37	BD	36	GLN	4.1
23	AW	45	HIS	4.1
3	CA	2153	C	4.1
44	HK	89	PRO	4.1
55	HV	136	PRO	4.1
8	GH	35	LYS	4.1
42	DI	68	LYS	4.1
35	HA	851	G	4.1
35	HA	960	U	4.1
40	HG	80	VAL	4.1
45	DL	16	VAL	4.1
48	DO	79	THR	4.1
48	HO	33	THR	4.1
15	CO	117	PHE	4.1
17	GQ	91	ARG	4.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
20	GT	12	ARG	4.1
32	A5	31	ARG	4.1
39	HF	1	MET	4.1
9	CI	99	LYS	4.1
12	CL	108	ALA	4.1
14	GN	25	ALA	4.1
39	HF	48	ALA	4.1
39	DF	5	GLU	4.0
43	HJ	27	GLU	4.0
8	GH	27	ARG	4.0
36	HC	40	ARG	4.0
20	GT	92	ASN	4.0
21	EU	27	VAL	4.0
43	HJ	77	VAL	4.0
44	HK	27	PHE	4.0
55	DV	501	VAL	4.0
34	HB	111	LYS	4.0
55	HV	534	TYR	4.0
7	CG	12	ALA	4.0
55	FV	511	GLY	4.0
24	CX	5	GLN	4.0
48	DO	47	LYS	4.0
55	DV	536	PHE	4.0
43	HJ	41	PRO	4.0
11	GK	18	ARG	4.0
34	HB	151	LYS	4.0
35	FA	412	A	4.0
3	EA	2151	U	4.0
3	EA	2180	U	4.0
5	GE	175	ILE	4.0
7	CG	42	VAL	4.0
9	EI	57	VAL	4.0
20	GT	87	LEU	4.0
45	HL	52	VAL	4.0
46	DM	22	ILE	4.0
49	DP	36	VAL	4.0
49	FP	6	LEU	4.0
55	HV	105	VAL	4.0
44	HK	114	THR	4.0
5	GE	142	ALA	4.0
7	GG	34	ARG	4.0
9	AI	43	ALA	4.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
54	HU	11	PRO	4.0
3	CA	2107	G	4.0
8	GH	44	ILE	4.0
40	FG	66	LEU	4.0
42	DI	30	ILE	4.0
44	HK	100	LEU	4.0
55	HV	173	ILE	4.0
43	HJ	28	THR	4.0
25	GY	7	ARG	4.0
46	HM	114	LYS	4.0
23	GW	34	SER	4.0
34	HB	225	SER	4.0
51	DR	74	HIS	4.0
55	DV	509	SER	4.0
7	EG	11	PRO	4.0
7	GG	125	PRO	4.0
9	GI	104	GLN	4.0
12	GL	76	GLU	4.0
55	HV	508	GLN	4.0
34	DB	147	LEU	4.0
40	DG	62	PHE	4.0
9	CI	60	VAL	4.0
44	DK	23	ILE	4.0
37	HD	29	ASP	4.0
39	DF	83	ALA	4.0
8	GH	48	GLU	4.0
42	DI	37	GLN	4.0
9	CI	66	PHE	4.0
23	GW	53	GLY	4.0
26	GZ	25	GLY	4.0
36	HC	105	GLU	4.0
54	DU	24	GLU	4.0
13	GM	22	GLN	4.0
34	DB	49	PHE	4.0
42	FI	28	ILE	4.0
48	HO	29	VAL	4.0
9	CI	136	GLY	4.0
9	CI	141	ASP	4.0
55	FV	50	MET	4.0
8	EH	40	THR	4.0
12	GL	121	THR	4.0
28	G1	32	LYS	4.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	DB	146	SER	4.0
9	GI	19	PRO	4.0
2	CC	269	ARG	4.0
3	CA	2147	A	4.0
32	E5	53	ARG	4.0
35	HA	1531	A	4.0
44	DK	53	ARG	4.0
51	HR	67	LEU	4.0
54	HU	21	ARG	4.0
55	DV	512	ARG	4.0
9	GI	85	ILE	3.9
34	BB	15	PHE	4.0
35	HA	973	G	3.9
3	EA	2155	U	3.9
9	EI	12	VAL	3.9
3	EA	2153	C	3.9
21	GU	73	ASN	3.9
49	DP	37	GLY	3.9
50	HQ	41	THR	3.9
12	GL	61	LEU	3.9
52	HS	13	LEU	3.9
34	BB	161	PHE	3.9
28	G1	47	ILE	3.9
23	GW	22	VAL	3.9
35	HA	974	A	3.9
40	HG	132	GLY	3.9
43	BJ	36	VAL	3.9
40	DG	110	LYS	3.9
41	DH	60	GLU	3.9
3	CA	2152	G	3.9
46	HM	92	ARG	3.9
9	CI	40	ALA	3.9
18	GR	3	ALA	3.9
40	DG	13	LEU	3.9
8	AH	47	PHE	3.9
41	HH	36	ILE	3.9
34	DB	16	GLY	3.9
54	HU	46	LYS	3.9
34	HB	35	ASN	3.9
41	HH	18	GLN	3.9
43	FJ	37	ARG	3.9
24	CX	48	LEU	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	E5	72	LEU	3.9
34	HB	147	LEU	3.9
36	HC	175	LEU	3.9
28	G1	49	LYS	3.9
42	HI	76	ALA	3.9
46	HM	50	GLU	3.9
9	EI	141	ASP	3.9
13	CM	136	MET	3.9
43	HJ	56	HIS	3.9
27	E0	26	SER	3.9
51	HR	24	LYS	3.9
34	FB	15	PHE	3.9
46	DM	47	GLU	3.9
50	HQ	32	PRO	3.9
47	HN	78	GLY	3.9
49	HP	37	GLY	3.9
3	CA	2104	C	3.9
20	GT	3	ARG	3.9
35	HA	1018	G	3.9
3	AA	2137	U	3.9
38	HE	128	TYR	3.9
42	HI	61	LEU	3.9
22	GV	74	ALA	3.9
48	DO	16	GLY	3.9
46	HM	98	ARG	3.9
7	GG	15	ASP	3.9
44	HK	72	ASP	3.9
35	HA	1008	U	3.9
6	CF	129	MET	3.9
22	EV	1	MET	3.9
35	FA	86	G	3.9
51	HR	23	TYR	3.9
13	GM	61	GLY	3.9
34	DB	214	GLY	3.9
37	FD	145	ILE	3.9
39	DF	12	PRO	3.9
42	DI	40	GLY	3.9
43	FJ	8	ILE	3.9
44	HK	107	ILE	3.9
54	FU	47	ARG	3.9
9	AI	91	LYS	3.9
32	C5	109	LYS	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	GI	60	VAL	3.9
9	GI	77	VAL	3.9
34	FB	87	ASP	3.9
34	HB	158	ASP	3.9
35	BA	845	A	3.9
42	DI	107	ASP	3.9
42	FI	43	THR	3.9
55	HV	553	VAL	3.9
3	AA	2187	U	3.9
7	AG	32	LEU	3.9
25	EY	57	LEU	3.9
8	GH	13	GLY	3.9
15	GO	91	SER	3.9
30	G3	60	CYS	3.9
45	HL	82	ILE	3.9
52	DS	21	LYS	3.9
53	HT	4	ILE	3.9
53	HT	87	ALA	3.9
6	GF	163	GLU	3.9
49	HP	21	VAL	3.9
3	CA	2149	U	3.9
2	GC	32	LEU	3.8
9	GI	37	PHE	3.8
23	GW	61	LYS	3.8
37	FD	3	ARG	3.8
21	GU	77	GLY	3.8
41	HH	53	GLY	3.8
52	HS	26	GLY	3.8
17	EQ	86	SER	3.8
5	CE	161	ALA	3.8
9	CI	34	ILE	3.8
36	HC	167	TRP	3.8
38	HE	125	ALA	3.8
40	HG	7	ILE	3.8
43	HJ	18	ILE	3.8
3	CA	2141	G	3.8
40	HG	141	VAL	3.8
41	HH	39	VAL	3.8
9	EI	80	LYS	3.8
44	DK	13	ARG	3.8
46	DM	29	ARG	3.8
6	CF	174	PHE	3.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	DV	549	TYR	3.8
46	HM	21	SER	3.8
32	E5	87	GLU	3.8
40	HG	139	GLU	3.8
43	HJ	64	GLN	3.8
44	HK	83	GLU	3.8
51	HR	54	GLN	3.8
34	DB	87	ASP	3.8
5	GE	187	VAL	3.8
12	GL	78	ARG	3.8
27	G0	56	LYS	3.8
32	C5	131	THR	3.8
30	C3	55	GLY	3.8
35	HA	1048	G	3.8
46	FM	12	HIS	3.8
49	HP	16	PHE	3.8
54	DU	37	PHE	3.8
3	CA	896	A	3.8
16	GP	1	SER	3.8
8	CH	36	ALA	3.8
54	DU	11	PRO	3.8
23	GW	77	LYS	3.8
42	HI	119	ARG	3.8
3	CA	2150	C	3.8
13	GM	95	LEU	3.8
20	CT	32	LEU	3.8
35	HA	1327	C	3.8
37	FD	90	LEU	3.8
40	FG	84	THR	3.8
41	HH	61	LEU	3.8
34	DB	14	HIS	3.8
8	CH	42	LYS	3.8
28	A1	8	ILE	3.8
35	HA	1033	G	3.8
35	HA	1166	G	3.8
35	HA	1297	G	3.8
36	HC	113	ALA	3.8
44	DK	56	ARG	3.8
6	GF	73	VAL	3.8
21	CU	69	VAL	3.8
44	HK	32	VAL	3.8
52	HS	47	LEU	3.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	DT	66	LEU	3.8
35	HA	1336	C	3.8
42	HI	114	LYS	3.8
6	EF	82	TYR	3.8
6	GF	79	ARG	3.8
9	CI	89	SER	3.8
12	GL	69	ARG	3.8
34	DB	200	PRO	3.8
36	HC	117	ALA	3.8
48	HO	34	ALA	3.8
9	AI	12	VAL	3.8
7	GG	71	LEU	3.8
12	GL	114	GLY	3.8
25	GY	13	GLU	3.8
43	DJ	10	LEU	3.8
45	FL	25	GLU	3.8
55	HV	263	LEU	3.8
55	HV	646	GLU	3.8
9	CI	70	THR	3.8
30	G3	21	PHE	3.8
32	E5	39	THR	3.8
52	HS	39	THR	3.8
9	AI	54	ILE	3.8
9	EI	108	ILE	3.8
40	DG	44	TYR	3.8
43	HJ	6	ILE	3.8
40	DG	33	ASP	3.8
14	GN	120	GLU	3.8
33	A6	28	GLU	3.8
36	HC	108	LYS	3.8
46	HM	31	LYS	3.8
55	DV	502	GLU	3.8
55	HV	186	VAL	3.8
55	HV	591	LEU	3.8
26	GZ	32	GLY	3.8
35	HA	89	U	3.8
40	FG	62	PHE	3.8
19	GS	9	HIS	3.8
44	HK	24	HIS	3.8
35	HA	1041	G	3.8
20	CT	30	ILE	3.8
22	GV	63	ILE	3.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
17	AQ	86	SER	3.8
28	G1	37	LYS	3.8
35	HA	1510	C	3.8
40	HG	128	ALA	3.8
41	FH	97	ALA	3.8
42	DI	27	LYS	3.8
51	DR	60	LYS	3.8
54	HU	44	GLU	3.8
43	DJ	74	VAL	3.8
15	GO	30	ARG	3.8
44	BK	52	PHE	3.8
36	HC	186	THR	3.8
3	CA	2602	A	3.7
27	C0	56	LYS	3.7
46	DM	33	ILE	3.8
12	GL	19	LEU	3.7
20	GT	57	VAL	3.7
31	G4	7	VAL	3.7
43	HJ	90	LEU	3.7
46	DM	56	LEU	3.7
52	HS	51	VAL	3.7
26	GZ	10	ARG	3.7
13	GM	68	PHE	3.7
35	HA	934	C	3.7
9	CI	42	ASN	3.7
35	FA	843	U	3.7
6	GF	124	ARG	3.7
8	CH	39	ALA	3.7
17	GQ	1	ALA	3.7
20	GT	38	ALA	3.7
28	E1	10	LEU	3.7
34	HB	208	ALA	3.7
35	BA	412	A	3.7
45	HL	2	ALA	3.7
24	CX	50	VAL	3.7
37	FD	173	VAL	3.7
21	CU	86	PHE	3.7
35	HA	1323	G	3.7
20	CT	56	GLU	3.7
32	E5	14	GLU	3.7
34	HB	14	HIS	3.7
55	HV	626	GLU	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	C5	143	MET	3.7
34	HB	8	MET	3.7
25	CY	23	ARG	3.7
52	FS	37	ARG	3.7
15	GO	106	LEU	3.7
48	HO	16	GLY	3.7
13	GM	11	LYS	3.7
21	GU	23	LYS	3.7
3	EA	1508	A	3.7
13	GM	117	PHE	3.7
35	HA	1021	A	3.7
12	GL	144	GLU	3.7
3	AA	2151	U	3.7
15	EO	87	ILE	3.7
34	FB	163	ILE	3.7
35	HA	698	G	3.7
42	DI	62	ASP	3.7
9	GI	125	THR	3.7
54	HU	18	ARG	3.7
49	HP	12	LYS	3.7
7	EG	58	ALA	3.7
26	GZ	50	VAL	3.7
18	GR	46	GLU	3.7
3	AA	2185	U	3.7
39	DF	11	HIS	3.7
6	GF	141	ASP	3.7
20	ET	2	ILE	3.7
27	A0	54	ILE	3.7
43	HJ	76	ILE	3.7
45	HL	51	LYS	3.7
55	HV	574	MET	3.7
22	GV	82	TYR	3.7
34	HB	137	THR	3.7
39	DF	25	TYR	3.7
55	DV	515	TYR	3.7
3	AA	2140	G	3.7
3	AA	2145	C	3.7
55	HV	514	GLN	3.7
5	GE	128	ALA	3.7
6	GF	145	VAL	3.7
9	CI	56	VAL	3.7
25	EY	63	ALA	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	DB	37	VAL	3.7
35	FA	79	G	3.7
35	HA	849	G	3.7
49	HP	81	ALA	3.7
41	HH	31	LYS	3.7
25	GY	20	ASN	3.7
44	BK	34	ILE	3.7
9	GI	90	GLY	3.7
41	HH	68	GLY	3.7
13	AM	60	GLN	3.7
42	HI	35	LEU	3.7
40	FG	106	GLU	3.7
12	CL	75	ALA	3.7
19	CS	44	ALA	3.7
32	E5	77	VAL	3.7
40	DG	75	VAL	3.7
52	HS	10	PHE	3.7
6	GF	8	LYS	3.7
12	GL	141	LYS	3.7
20	GT	6	ARG	3.7
40	HG	110	LYS	3.7
55	FV	577	ARG	3.7
37	FD	200	ILE	3.7
43	HJ	63	ASP	3.7
55	HV	382	ILE	3.7
12	GL	125	LEU	3.7
47	FN	20	TYR	3.7
16	AP	1	SER	3.7
35	DA	461	A	3.7
35	HA	1227	A	3.7
7	CG	169	ARG	3.7
9	AI	64	ARG	3.7
9	GI	39	LYS	3.7
12	GL	98	ALA	3.7
24	GX	9	LYS	3.7
25	GY	50	VAL	3.7
41	HH	130	ALA	3.7
44	HK	20	VAL	3.7
49	FP	80	LYS	3.7
12	GL	100	ILE	3.7
34	DB	163	ILE	3.7
34	HB	51	GLU	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
46	HM	6	GLY	3.7
35	HA	1511	G	3.7
21	CU	18	LYS	3.7
7	GG	83	THR	3.6
13	GM	35	ALA	3.6
21	EU	33	VAL	3.6
25	GY	46	VAL	3.6
43	FJ	79	PRO	3.6
46	DM	5	ALA	3.6
51	HR	45	THR	3.6
32	C5	47	GLU	3.6
12	GL	23	ILE	3.6
5	GE	138	LEU	3.6
9	AI	94	LYS	3.6
21	EU	52	ASN	3.6
34	DB	35	ASN	3.6
35	HA	1354	U	3.6
39	HF	68	GLN	3.6
40	HG	17	LYS	3.6
55	FV	397	LEU	3.6
55	HV	354	LYS	3.6
36	HC	143	ARG	3.6
3	AA	2110	G	3.6
18	GR	77	PHE	3.6
9	CI	82	ALA	3.6
33	A6	19	VAL	3.6
48	HO	43	PHE	3.6
34	DB	124	THR	3.6
55	HV	264	VAL	3.6
9	EI	31	GLY	3.6
9	EI	85	ILE	3.6
9	GI	141	ASP	3.6
25	GY	44	LYS	3.6
39	HF	22	ILE	3.6
21	EU	51	LEU	3.6
45	HL	5	ASN	3.6
54	DU	29	LEU	3.6
19	GS	30	SER	3.6
35	HA	1302	C	3.6
40	DG	77	SER	3.6
32	A5	100	ALA	3.6
39	DF	84	VAL	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
43	DJ	39	PRO	3.6
44	HK	123	PRO	3.6
54	HU	8	GLU	3.6
15	GO	65	THR	3.6
39	HF	35	LYS	3.6
47	HN	47	LYS	3.6
18	GR	87	GLN	3.6
40	BG	78	ARG	3.6
43	FJ	102	LEU	3.6
55	HV	550	ILE	3.6
3	CA	2182	U	3.6
34	FB	68	PHE	3.6
15	CO	56	LYS	3.6
17	AQ	4	LYS	3.6
23	GW	43	LYS	3.6
37	FD	129	VAL	3.6
48	HO	76	ALA	3.6
2	CC	232	GLY	3.6
23	GW	54	ARG	3.6
32	C5	61	ARG	3.6
55	HV	556	GLY	3.6
15	GO	21	LEU	3.6
36	HC	144	LEU	3.6
35	DA	84	U	3.6
46	HM	75	MET	3.6
3	GA	1413	A	3.6
16	AP	67	GLU	3.6
21	GU	60	LYS	3.6
54	DU	31	GLU	3.6
55	FV	536	PHE	3.6
9	CI	32	VAL	3.6
7	CG	13	GLY	3.6
23	GW	19	ARG	3.6
43	HJ	7	ARG	3.6
32	C5	136	ILE	3.6
34	BB	84	LEU	3.6
49	DP	4	ILE	3.6
49	HP	52	LEU	3.6
21	GU	42	LYS	3.6
38	HE	26	LYS	3.6
54	DU	44	GLU	3.6
3	CA	2186	G	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	GA	2184	A	3.6
11	GK	63	VAL	3.6
13	CM	59	ARG	3.6
55	FV	544	VAL	3.6
5	GE	104	ALA	3.6
37	HD	27	ALA	3.6
37	HD	193	ALA	3.6
38	HE	99	ALA	3.6
9	GI	131	THR	3.6
24	GX	58	ILE	3.6
36	HC	115	LEU	3.6
39	BF	92	THR	3.6
41	HH	126	ILE	3.6
42	DI	21	ILE	3.6
53	FT	4	ILE	3.6
2	GC	145	MET	3.6
32	E5	125	ARG	3.6
42	HI	122	ARG	3.6
51	FR	64	TYR	3.6
9	CI	5	GLN	3.6
37	HD	101	VAL	3.6
37	FD	175	ALA	3.6
52	DS	42	PRO	3.6
55	HV	383	ALA	3.6
55	HV	481	ALA	3.6
6	CF	45	ASP	3.6
12	GL	95	LEU	3.6
36	DC	170	GLU	3.6
39	DF	39	LEU	3.6
40	HG	90	GLU	3.6
43	HJ	102	LEU	3.6
5	GE	100	MET	3.6
3	EA	1172	C	3.6
35	DA	87	C	3.6
2	CC	250	GLN	3.6
11	EK	35	VAL	3.6
12	GL	85	VAL	3.6
15	EO	90	VAL	3.6
25	AY	62	GLY	3.6
42	BI	90	TYR	3.6
6	GF	133	GLU	3.6
21	GU	1	ALA	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	DC	95	ALA	3.6
6	CF	143	ASP	3.6
7	GG	49	LEU	3.6
41	DH	59	LEU	3.6
52	HS	5	LEU	3.6
53	FT	66	LEU	3.6
8	AH	40	THR	3.5
35	BA	1362	A	3.5
41	HH	84	ARG	3.5
43	HJ	5	ARG	3.5
23	AW	71	LYS	3.5
34	DB	197	PHE	3.5
34	HB	125	PHE	3.5
48	DO	48	LYS	3.5
42	DI	90	TYR	3.5
6	CF	83	PRO	3.5
55	HV	390	ASP	3.5
9	AI	58	ILE	3.5
22	GV	89	ILE	3.5
25	CY	7	ARG	3.5
53	DT	20	HIS	3.5
7	GG	48	THR	3.5
9	CI	39	LYS	3.5
23	GW	25	PHE	3.5
34	FB	124	THR	3.5
40	HG	49	THR	3.5
39	HF	46	GLN	3.5
9	GI	101	SER	3.5
14	EN	119	SER	3.5
24	GX	3	VAL	3.5
32	C5	77	VAL	3.5
36	HC	42	TYR	3.5
49	HP	19	VAL	3.5
7	AG	12	ALA	3.5
9	EI	26	ALA	3.5
20	ET	7	LEU	3.5
32	A5	148	ALA	3.5
34	HB	96	LEU	3.5
37	BD	123	ILE	3.5
35	HA	967	C	3.5
3	GA	1174	U	3.5
34	BB	16	GLY	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
37	HD	24	GLY	3.5
55	HV	211	MET	3.5
3	AA	2184	A	3.5
3	GA	2602	A	3.5
41	DH	128	TYR	3.5
43	HJ	84	VAL	3.5
28	G1	35	LEU	3.5
32	E5	119	PRO	3.5
34	FB	134	LEU	3.5
36	HC	204	LYS	3.5
37	HD	117	LEU	3.5
41	HH	5	ASP	3.5
43	HJ	89	ARG	3.5
44	HK	73	ALA	3.5
45	HL	9	ARG	3.5
50	HQ	40	ARG	3.5
37	BD	64	ILE	3.5
41	HH	14	ILE	3.5
2	AC	29	PHE	3.5
9	GI	66	PHE	3.5
35	HA	984	C	3.5
37	FD	179	GLU	3.5
39	HF	90	MET	3.5
46	DM	20	THR	3.5
6	AF	142	TYR	3.5
9	AI	61	TYR	3.5
18	GR	64	VAL	3.5
19	GS	95	ARG	3.5
41	HH	107	SER	3.5
9	AI	46	ASP	3.5
6	CF	1	ALA	3.5
15	GO	50	ALA	3.5
35	FA	845	A	3.5
36	HC	50	ALA	3.5
50	DQ	24	ALA	3.5
4	GD	118	PHE	3.5
20	GT	72	GLN	3.5
9	AI	51	GLY	3.5
23	AW	51	GLY	3.5
5	GE	97	ASN	3.5
7	GG	175	LYS	3.5
3	EA	2186	G	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	C5	128	THR	3.5
40	DG	111	ARG	3.5
9	CI	12	VAL	3.5
20	AT	7	LEU	3.5
24	AX	77	TYR	3.5
55	HV	621	VAL	3.5
6	CF	155	ILE	3.5
22	GV	30	ILE	3.5
36	HC	133	ALA	3.5
41	DH	28	PRO	3.5
43	DJ	8	ILE	3.5
43	FJ	78	GLU	3.5
5	GE	82	GLY	3.5
35	DA	845	A	3.5
47	BN	21	PHE	3.5
34	FB	73	ARG	3.5
37	FD	165	ARG	3.5
43	HJ	72	ARG	3.5
54	BU	21	ARG	3.5
35	HA	850	U	3.5
12	GL	118	THR	3.5
44	HK	35	THR	3.5
44	HK	44	TRP	3.5
43	DJ	84	VAL	3.5
40	FG	83	SER	3.5
42	DI	128	SER	3.5
8	AH	49	ALA	3.5
9	CI	86	LYS	3.5
18	GR	73	LYS	3.5
36	HC	146	ALA	3.5
37	BD	24	GLY	3.5
49	FP	9	HIS	3.5
3	CA	2180	U	3.5
31	G4	1	MET	3.5
51	HR	31	ASN	3.5
53	FT	3	ASN	3.5
55	HV	37	ASN	3.5
15	CO	112	GLU	3.5
21	GU	12	VAL	3.5
36	HC	198	VAL	3.5
41	HH	104	VAL	3.5
7	GG	102	ILE	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
5	GE	46	GLN	3.5
9	AI	62	ALA	3.5
20	CT	38	ALA	3.5
43	DJ	12	ALA	3.5
37	HD	16	GLY	3.5
48	DO	15	PHE	3.5
55	HV	329	PHE	3.5
55	BV	530	ASN	3.4
34	BB	130	LYS	3.4
36	HC	43	LEU	3.4
3	GA	1583	A	3.4
3	GA	2108	A	3.4
6	GF	96	TRP	3.4
20	CT	80	TRP	3.4
36	HC	191	THR	3.4
42	DI	43	THR	3.4
55	BV	553	VAL	3.4
55	FV	585	ASP	3.4
27	G0	26	SER	3.4
42	HI	28	ILE	3.4
11	GK	98	ARG	3.4
12	GL	2	ARG	3.4
36	HC	72	ARG	3.4
40	DG	3	ARG	3.4
46	FM	115	PRO	3.4
47	BN	24	ARG	3.4
34	HB	64	GLY	3.4
54	DU	48	ALA	3.4
52	HS	14	HIS	3.4
52	HS	52	HIS	3.4
3	EA	2104	C	3.4
52	HS	28	LYS	3.4
3	EA	846	U	3.4
9	GI	52	LEU	3.4
37	FD	178	MET	3.4
46	HM	95	LEU	3.4
6	GF	143	ASP	3.4
24	CX	3	VAL	3.4
24	CX	6	VAL	3.4
55	HV	300	ASP	3.4
19	GS	85	ILE	3.4
21	CU	21	ARG	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	HC	131	ARG	3.4
36	HC	201	TRP	3.4
44	HK	38	GLN	3.4
55	HV	3	ARG	3.4
12	GL	11	GLY	3.4
21	GU	75	ALA	3.4
34	DB	159	ALA	3.4
35	DA	80	A	3.4
35	HA	780	A	3.4
50	HQ	82	ALA	3.4
37	HD	45	LYS	3.4
55	HV	100	GLU	3.4
9	CI	18	ASN	3.4
32	E5	95	LEU	3.4
37	HD	191	LEU	3.4
12	CL	122	VAL	3.4
12	GL	127	VAL	3.4
20	CT	12	ARG	3.4
36	HC	179	ARG	3.4
36	HC	200	VAL	3.4
9	EI	54	ILE	3.4
12	GL	111	ILE	3.4
9	GI	130	GLY	3.4
23	GW	64	GLY	3.4
39	DF	4	TYR	3.4
42	HI	43	THR	3.4
32	E5	40	GLU	3.4
32	E5	104	ALA	3.4
36	DC	180	ALA	3.4
43	FJ	30	LYS	3.4
46	HM	37	ALA	3.4
52	DS	30	PRO	3.4
37	FD	93	LEU	3.4
47	HN	90	ARG	3.4
3	EA	2187	U	3.4
34	DB	198	VAL	3.4
3	CA	2103	C	3.4
17	CQ	4	LYS	3.4
35	HA	1054	C	3.4
47	HN	76	LYS	3.4
49	HP	39	PHE	3.4
18	GR	65	ALA	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	DL	17	ALA	3.4
3	CA	2144	G	3.4
24	CX	71	ARG	3.4
23	GW	49	ASN	3.4
25	GY	24	GLU	3.4
34	HB	43	GLU	3.4
43	HJ	36	VAL	3.4
52	DS	58	VAL	3.4
6	EF	99	PHE	3.4
17	GQ	31	TYR	3.4
2	GC	1	ALA	3.4
6	GF	44	ALA	3.4
21	CU	49	PRO	3.4
32	A5	67	THR	3.4
42	HI	66	THR	3.4
44	FK	63	ALA	3.4
6	CF	111	ARG	3.4
44	FK	127	ARG	3.4
45	HL	14	ARG	3.4
9	EI	3	LYS	3.4
47	HN	27	LEU	3.4
3	GA	2134	A	3.4
3	GA	2147	A	3.4
41	DH	72	VAL	3.4
43	DJ	77	VAL	3.4
43	FJ	77	VAL	3.4
51	HR	21	ILE	3.4
55	FV	547	GLY	3.4
50	FQ	34	TYR	3.4
37	FD	183	LYS	3.4
39	DF	58	HIS	3.4
46	HM	3	ARG	3.4
52	HS	37	ARG	3.4
35	HA	1403	C	3.4
37	DD	36	GLN	3.4
10	EJ	64	VAL	3.4
39	DF	85	ILE	3.4
43	DJ	98	VAL	3.4
3	EA	2108	A	3.4
35	HA	977	A	3.4
42	HI	12	ARG	3.4
48	HO	17	ARG	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	DV	360	PHE	3.4
6	AF	119	LYS	3.4
21	GU	25	LYS	3.4
49	HP	17	TYR	3.4
55	FV	389	LYS	3.4
55	HV	653	LYS	3.4
28	G1	30	PRO	3.4
55	HV	527	PRO	3.4
23	GW	20	LEU	3.4
30	G3	16	THR	3.4
37	FD	94	LEU	3.4
13	GM	29	GLY	3.4
26	GZ	14	GLY	3.4
38	FE	109	GLY	3.4
3	EA	1174	U	3.4
9	CI	58	ILE	3.4
11	GK	49	ARG	3.4
43	DJ	18	ILE	3.4
38	HE	95	PHE	3.3
43	HJ	48	ARG	3.4
47	HN	85	ARG	3.4
55	HV	664	PHE	3.3
15	GO	5	SER	3.3
34	HB	120	SER	3.3
46	DM	86	TYR	3.3
55	HV	509	SER	3.3
5	GE	89	PRO	3.3
24	CX	30	PRO	3.3
5	CE	3	LEU	3.3
6	EF	48	LEU	3.3
7	GG	50	THR	3.3
9	AI	105	LEU	3.3
32	C5	92	ALA	3.3
20	GT	36	LYS	3.3
32	E5	56	ARG	3.3
43	HJ	62	ARG	3.3
50	DQ	27	ARG	3.3
8	GH	47	PHE	3.3
21	AU	71	ILE	3.3
23	GW	59	PHE	3.3
39	HF	5	GLU	3.3
6	GF	69	ALA	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	EI	82	ALA	3.3
20	AT	91	GLN	3.3
45	HL	112	GLN	3.3
7	GG	13	GLY	3.3
34	HB	70	GLY	3.3
35	HA	702	A	3.3
37	HD	115	ARG	3.3
44	HK	88	GLY	3.3
20	GT	24	MET	3.3
7	CG	51	PHE	3.3
8	GH	3	VAL	3.3
9	CI	69	VAL	3.3
10	GJ	101	ILE	3.3
26	GZ	31	ILE	3.3
28	G1	8	ILE	3.3
34	HB	182	VAL	3.3
35	HA	82	G	3.3
55	HV	318	SER	3.3
32	C5	130	PRO	3.3
34	BB	36	LYS	3.3
34	BB	56	LEU	3.3
39	DF	48	ALA	3.3
42	HI	27	LYS	3.3
6	GF	109	ARG	3.3
6	GF	115	GLY	3.3
42	HI	80	ARG	3.3
44	DK	69	ARG	3.3
52	DS	32	ARG	3.3
23	GW	14	ASP	3.3
23	EW	36	ILE	3.3
34	DB	206	ILE	3.3
40	HG	26	PHE	3.3
25	AY	28	LEU	3.3
25	GY	6	LEU	3.3
26	GZ	23	LEU	3.3
34	DB	212	TYR	3.3
51	DR	51	TYR	3.3
30	E3	64	ALA	3.3
32	A5	48	ALA	3.3
34	HB	33	ALA	3.3
40	DG	145	ALA	3.3
53	DT	68	HIS	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
44	HK	92	GLY	3.3
6	CF	173	ASP	3.3
34	HB	122	ASP	3.3
55	FV	587	ASP	3.3
13	AM	1	MET	3.3
8	GH	9	VAL	3.3
34	DB	29	PHE	3.3
3	GA	138	U	3.3
53	HT	49	LYS	3.3
37	DD	21	LEU	3.3
38	DE	144	LEU	3.3
44	HK	64	GLN	3.3
6	CF	177	ARG	3.3
6	EF	142	TYR	3.3
11	EK	18	ARG	3.3
44	BK	127	ARG	3.3
55	FV	320	LEU	3.3
3	CA	1730	C	3.3
36	HC	70	THR	3.3
2	AC	103	ILE	3.3
25	AY	20	ASN	3.3
39	DF	89	VAL	3.3
42	HI	55	VAL	3.3
44	DK	79	ILE	3.3
47	HN	77	PHE	3.3
50	HQ	33	ILE	3.3
35	FA	4	U	3.3
2	GC	92	LEU	3.3
21	EU	85	ARG	3.3
25	GY	56	LEU	3.3
42	DI	75	GLN	3.3
23	EW	51	GLY	3.3
39	HF	50	PRO	3.3
45	HL	48	ALA	3.3
46	DM	112	PRO	3.3
8	EH	48	GLU	3.3
36	HC	49	LYS	3.3
49	HP	47	GLU	3.3
5	GE	119	ILE	3.3
9	EI	41	PHE	3.3
34	DB	110	ILE	3.3
42	DI	105	THR	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
24	AX	46	VAL	3.3
37	FD	184	ARG	3.3
41	HH	77	ARG	3.3
54	HU	14	VAL	3.3
2	CC	32	LEU	3.3
3	AA	2186	G	3.3
3	EA	139	U	3.3
35	HA	1202	U	3.3
42	BI	35	LEU	3.3
52	HS	71	LEU	3.3
44	HK	58	SER	3.3
34	DB	131	LYS	3.3
9	EI	62	ALA	3.3
34	BB	205	ALA	3.3
9	CI	38	CYS	3.3
6	GF	99	PHE	3.3
9	CI	59	THR	3.3
24	GX	47	THR	3.3
32	A5	94	ARG	3.3
40	DG	78	ARG	3.3
45	HL	12	ARG	3.3
54	DU	12	PHE	3.3
12	GL	54	GLN	3.3
39	HF	7	VAL	3.3
42	DI	110	GLN	3.3
43	DJ	35	GLN	3.3
5	GE	118	LEU	3.3
5	GE	133	LEU	3.3
35	HA	997	U	3.3
55	DV	612	LEU	3.3
7	EG	31	GLU	3.3
35	DA	1533	C	3.3
40	BG	8	GLY	3.3
40	DG	40	GLU	3.3
9	GI	89	SER	3.3
42	DI	71	GLY	3.3
43	HJ	19	ASP	3.2
52	HS	64	ASP	3.2
9	CI	64	ARG	3.2
32	E5	46	ARG	3.2
42	DI	11	ARG	3.2
19	GS	35	ILE	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
47	DN	21	PHE	3.2
55	DV	520	ILE	3.2
8	CH	28	ASN	3.2
15	EO	24	THR	3.2
38	FE	123	VAL	3.2
38	HE	90	THR	3.2
55	HV	265	THR	3.2
55	HV	396	THR	3.2
55	HV	562	LYS	3.2
20	GT	93	LEU	3.2
55	HV	397	LEU	3.2
35	HA	723	U	3.2
18	GR	12	HIS	3.2
3	GA	140	C	3.2
32	C5	68	PRO	3.2
42	DI	23	PRO	3.2
50	HQ	47	HIS	3.2
54	FU	38	TYR	3.2
9	GI	17	ALA	3.2
34	BB	68	PHE	3.2
35	HA	944	G	3.2
42	DI	83	ILE	3.2
5	GE	12	LEU	3.2
19	CS	45	VAL	3.2
22	GV	8	VAL	3.2
38	HE	10	GLU	3.2
48	DO	67	LEU	3.2
54	DU	32	VAL	3.2
55	DV	330	VAL	3.2
47	HN	95	GLY	3.2
48	HO	25	THR	3.2
35	DA	208	U	3.2
7	GG	155	PRO	3.2
20	GT	84	TYR	3.2
47	HN	65	ARG	3.2
55	FV	546	PRO	3.2
55	HV	166	PRO	3.2
5	GE	87	ALA	3.2
7	CG	4	ALA	3.2
32	A5	109	LYS	3.2
36	HC	71	ALA	3.2
5	GE	23	PHE	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
35	HA	948	C	3.2
42	DI	39	PHE	3.2
21	GU	34	ILE	3.2
7	EG	9	VAL	3.2
17	GQ	3	VAL	3.2
34	HB	13	VAL	3.2
36	DC	151	VAL	3.2
37	HD	137	VAL	3.2
38	HE	88	VAL	3.2
3	CA	1731	G	3.2
38	HE	24	THR	3.2
50	HQ	70	THR	3.2
13	GM	50	ARG	3.2
37	FD	18	ASP	3.2
37	HD	65	TYR	3.2
34	DB	132	GLU	3.2
39	HF	14	GLN	3.2
9	AI	34	ILE	3.2
10	AJ	81	ILE	3.2
32	E5	118	ILE	3.2
34	HB	185	ILE	3.2
18	GR	4	VAL	3.2
37	FD	124	MET	3.2
40	DG	47	LEU	3.2
8	CH	35	LYS	3.2
30	C3	22	LYS	3.2
30	G3	51	LYS	3.2
42	DI	85	ARG	3.2
34	HB	124	THR	3.2
3	AA	2144	G	3.2
21	GU	100	GLU	3.2
30	G3	62	PRO	3.2
34	BB	43	GLU	3.2
34	HB	212	TYR	3.2
46	FM	58	ASP	3.2
6	GF	52	ALA	3.2
32	C5	104	ALA	3.2
32	E5	110	ALA	3.2
35	HA	844	G	3.2
35	HA	945	G	3.2
47	HN	25	ALA	3.2
50	FQ	9	GLN	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
33	A6	30	PHE	3.2
51	HR	27	ALA	3.2
9	CI	85	ILE	3.2
55	FV	537	ILE	3.2
12	GL	45	GLY	3.2
34	DB	211	LEU	3.2
12	GL	123	ARG	3.2
20	AT	16	VAL	3.2
20	CT	6	ARG	3.2
32	A5	143	MET	3.2
32	E5	52	MET	3.2
34	HB	131	LYS	3.2
42	BI	41	ARG	3.2
55	FV	507	LYS	3.2
3	AA	2099	U	3.2
35	DA	723	U	3.2
16	CP	67	GLU	3.2
55	HV	401	ASP	3.2
34	HB	121	GLN	3.2
43	DJ	65	TYR	3.2
44	DK	15	GLN	3.2
7	GG	45	ALA	3.2
34	DB	217	ALA	3.2
41	FH	130	ALA	3.2
12	GL	126	ARG	3.2
15	GO	58	ILE	3.2
19	GS	74	ILE	3.2
34	HB	130	LYS	3.2
36	DC	55	ILE	3.2
37	HD	104	ARG	3.2
39	HF	85	ILE	3.2
49	DP	76	LYS	3.2
24	GX	70	LEU	3.2
55	HV	86	ILE	3.2
55	DV	544	VAL	3.2
5	GE	144	GLU	3.2
39	HF	65	GLU	3.2
3	AA	546	U	3.2
7	EG	48	THR	3.2
3	EA	2146	C	3.2
9	GI	86	LYS	3.2
23	AW	73	PRO	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	E5	79	PRO	3.2
40	HG	71	PRO	3.2
32	E5	127	ALA	3.2
6	CF	35	LEU	3.2
7	AG	71	LEU	3.2
19	GS	4	ILE	3.2
24	GX	21	LEU	3.2
7	AG	9	VAL	3.2
9	GI	42	ASN	3.2
32	E5	17	GLU	3.2
3	CA	2148	G	3.2
3	EA	546	U	3.2
35	DA	844	G	3.2
13	GM	128	THR	3.2
33	A6	24	SER	3.2
41	FH	2	SER	3.2
6	CF	79	ARG	3.2
55	HV	531	PRO	3.2
5	GE	86	ALA	3.2
27	A0	55	ALA	3.2
32	E5	25	ALA	3.2
41	HH	121	LEU	3.2
23	GW	82	GLU	3.1
30	G3	14	LYS	3.1
9	CI	30	GLN	3.1
8	CH	27	ARG	3.1
21	GU	81	ARG	3.1
36	HC	34	ASP	3.1
37	DD	29	ASP	3.1
55	FV	408	ARG	3.1
7	CG	83	THR	3.1
30	C3	13	PHE	3.1
36	HC	44	THR	3.1
40	DG	2	PRO	3.1
46	DM	55	THR	3.1
3	GA	232	G	3.1
38	HE	91	GLY	3.1
40	BG	112	GLY	3.1
40	FG	8	GLY	3.1
12	GL	143	GLU	3.1
47	HN	82	ILE	3.1
5	GE	186	VAL	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
12	EL	90	VAL	3.1
23	EW	50	VAL	3.1
34	DB	13	VAL	3.1
55	FV	519	VAL	3.1
42	HI	25	ASN	3.1
48	HO	20	ASN	3.1
3	CA	2181	U	3.1
15	CO	2	ASP	3.1
34	HB	109	SER	3.1
42	HI	127	PHE	3.1
3	AA	613	A	3.1
5	GE	201	ALA	3.1
6	CF	49	LEU	3.1
22	GV	57	TYR	3.1
45	HL	40	THR	3.1
46	HM	112	PRO	3.1
7	GG	58	ALA	3.1
17	GQ	8	ILE	3.1
32	E5	137	ALA	3.1
37	DD	27	ALA	3.1
37	FD	148	LYS	3.1
42	DI	44	ALA	3.1
53	FT	87	ALA	3.1
1	GB	41	G	3.1
10	EJ	1	MET	3.1
29	G2	1	MET	3.1
35	HA	1270	G	3.1
39	DF	42	TRP	3.1
40	DG	116	MET	3.1
53	DT	54	MET	3.1
55	FV	52	TRP	3.1
15	GO	25	ARG	3.1
16	EP	50	ARG	3.1
35	FA	83	C	3.1
55	HV	605	PHE	3.1
2	GC	11	GLY	3.1
5	CE	147	LEU	3.1
9	EI	91	LYS	3.1
24	CX	53	LYS	3.1
32	C5	20	LYS	3.1
36	DC	109	PRO	3.1
36	DC	157	LEU	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
43	HJ	82	LYS	3.1
46	FM	51	GLY	3.1
5	GE	73	ILE	3.1
6	GF	29	ARG	3.1
9	EI	11	GLN	3.1
22	GV	18	ARG	3.1
36	HC	100	GLN	3.1
37	HD	3	ARG	3.1
37	HD	164	GLN	3.1
43	HJ	98	VAL	3.1
21	GU	26	ASN	3.1
7	GG	166	GLU	3.1
29	G2	25	LYS	3.1
35	HA	1010	U	3.1
53	FT	34	LYS	3.1
42	HI	102	GLY	3.1
55	FV	219	HIS	3.1
5	GE	147	LEU	3.1
7	CG	32	LEU	3.1
12	GL	92	LEU	3.1
12	GL	142	ILE	3.1
55	DV	540	ILE	3.1
55	HV	316	PRO	3.1
30	C3	64	ALA	3.1
37	BD	109	ALA	3.1
46	DM	35	ALA	3.1
54	HU	52	ALA	3.1
9	EI	64	ARG	3.1
32	C5	31	ARG	3.1
32	C5	125	ARG	3.1
3	AA	2183	A	3.1
4	GD	1	MET	3.1
5	GE	95	LYS	3.1
8	EH	41	LYS	3.1
34	HB	72	LYS	3.1
36	HC	150	LYS	3.1
42	HI	88	MET	3.1
5	GE	184	ASP	3.1
6	GF	112	ASP	3.1
42	DI	4	ASN	3.1
3	EA	2182	U	3.1
24	GX	37	PHE	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	HB	29	PHE	3.1
38	BE	31	PHE	3.1
50	FQ	28	PHE	3.1
12	AL	95	LEU	3.1
32	E5	30	SER	3.1
37	BD	90	LEU	3.1
55	DV	171	LEU	3.1
3	CA	1727	C	3.1
6	CF	124	ARG	3.1
9	EI	34	ILE	3.1
15	GO	42	PRO	3.1
40	DG	12	ILE	3.1
35	HA	79	G	3.1
35	HA	1031	C	3.1
35	HA	1268	G	3.1
36	HC	172	ARG	3.1
38	HE	29	ARG	3.1
43	BJ	31	ARG	3.1
17	GQ	41	ALA	3.1
47	DN	29	ALA	3.1
55	HV	563	ALA	3.1
11	CK	35	VAL	3.1
45	HL	123	LYS	3.1
23	CW	75	ASN	3.1
55	FV	218	TRP	3.1
6	CF	61	GLY	3.1
2	CC	92	LEU	3.1
6	EF	147	ARG	3.1
9	AI	52	LEU	3.1
24	CX	70	LEU	3.1
37	HD	11	LEU	3.1
44	HK	53	ARG	3.1
8	GH	32	PRO	3.1
9	EI	21	PRO	3.1
17	GQ	15	LYS	3.1
22	GV	84	PRO	3.1
36	HC	73	PRO	3.1
39	HF	19	PRO	3.1
40	HG	93	PRO	3.1
54	DU	36	GLU	3.1
35	HA	1325	C	3.1
55	HV	330	VAL	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	EA	1738	G	3.1
35	HA	734	G	3.1
35	HA	1266	G	3.1
35	HA	1310	G	3.1
4	GD	72	GLY	3.1
34	HB	41	ASN	3.1
13	GM	64	TRP	3.1
34	FB	29	PHE	3.1
3	AA	1174	U	3.1
3	EA	138	U	3.1
3	GA	1078	U	3.1
20	CT	93	LEU	3.1
34	HB	224	ARG	3.1
38	HE	81	LEU	3.1
3	GA	1095	A	3.1
49	FP	12	LYS	3.1
52	DS	11	ILE	3.1
2	GC	250	GLN	3.1
55	BV	583	TYR	3.1
9	GI	62	ALA	3.1
47	DN	2	ALA	3.1
55	FV	650	THR	3.1
55	HV	544	VAL	3.1
13	CM	1	MET	3.1
9	CI	24	GLY	3.0
9	EI	33	ASN	3.0
14	GN	21	PHE	3.0
19	AS	11	ARG	3.0
21	AU	52	ASN	3.0
30	G3	15	LYS	3.0
46	BM	114	LYS	3.0
52	DS	41	PHE	3.0
55	HV	655	HIS	3.0
12	CL	144	GLU	3.0
20	GT	91	GLN	3.0
3	AA	896	A	3.0
3	CA	2142	A	3.0
12	GL	58	TYR	3.0
35	HA	715	A	3.0
37	HD	103	TYR	3.0
18	GR	47	VAL	3.0
2	EC	26	GLY	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	35	MET	3.0
9	EI	136	GLY	3.0
9	GI	116	MET	3.0
11	GK	17	ARG	3.0
21	GU	80	ASP	3.0
24	GX	8	GLY	3.0
45	DL	9	ARG	3.0
46	DM	13	LYS	3.0
46	HM	38	GLY	3.0
9	AI	66	PHE	3.0
24	GX	15	ASN	3.0
32	A5	23	LEU	3.0
3	EA	140	C	3.0
35	BA	87	C	3.0
35	FA	85	U	3.0
35	HA	1328	C	3.0
23	GW	46	ALA	3.0
28	A1	32	LYS	3.0
47	FN	36	ALA	3.0
24	CX	46	VAL	3.0
34	BB	216	VAL	3.0
21	GU	101	THR	3.0
43	DJ	49	PHE	3.0
43	HJ	22	THR	3.0
55	DV	49	THR	3.0
55	HV	305	THR	3.0
14	AN	120	GLU	3.0
43	DJ	87	LEU	3.0
43	HJ	40	ILE	3.0
49	HP	33	ILE	3.0
51	DR	44	ILE	3.0
28	G1	27	ARG	3.0
32	E5	68	PRO	3.0
12	CL	97	ALA	3.0
9	CI	15	GLY	3.0
20	CT	85	VAL	3.0
55	HV	182	VAL	3.0
3	AA	2102	G	3.0
20	ET	24	MET	3.0
24	GX	28	PHE	3.0
25	GY	5	GLU	3.0
37	HD	99	ASP	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	AA	1847	A	3.0
3	GA	352	A	3.0
34	DB	100	LEU	3.0
35	HA	966	G	3.0
35	HA	1013	G	3.0
50	DQ	74	THR	3.0
42	HI	4	ASN	3.0
55	FV	171	LEU	3.0
36	HC	41	GLN	3.0
32	A5	136	ILE	3.0
35	BA	85	U	3.0
34	FB	34	ARG	3.0
37	FD	192	SER	3.0
40	DG	95	ARG	3.0
40	DG	115	SER	3.0
32	E5	130	PRO	3.0
45	HL	122	PRO	3.0
25	GY	59	GLU	3.0
35	HA	1322	C	3.0
5	CE	188	MET	3.0
6	GF	25	MET	3.0
32	A5	139	LEU	3.0
7	CG	176	LYS	3.0
54	BU	9	ASN	3.0
3	EA	613	A	3.0
35	HA	928	G	3.0
38	HE	102	GLY	3.0
42	HI	89	GLU	3.0
47	HN	26	GLU	3.0
6	EF	148	VAL	3.0
37	FD	130	VAL	3.0
12	AL	92	LEU	3.0
32	A5	52	MET	3.0
43	FJ	92	LEU	3.0
35	HA	1267	C	3.0
38	HE	111	MET	3.0
55	DV	580	PHE	3.0
12	GL	117	THR	3.0
18	GR	29	THR	3.0
35	HA	1308	U	3.0
42	HI	96	SER	3.0
35	HA	1340	A	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
32	A5	20	LYS	3.0
35	HA	1006	G	3.0
38	HE	84	PRO	3.0
2	GC	203	VAL	3.0
9	AI	56	VAL	3.0
21	CU	12	VAL	3.0
25	GY	53	VAL	3.0
32	A5	12	VAL	3.0
41	DH	119	ALA	3.0
41	HH	103	VAL	3.0
6	GF	149	ARG	3.0
12	GL	18	ARG	3.0
30	G3	48	MET	3.0
32	E5	94	ARG	3.0
54	BU	45	ARG	3.0
7	GG	79	THR	3.0
5	CE	127	GLU	3.0
14	CN	52	ILE	3.0
35	HA	1265	C	3.0
55	HV	404	ILE	3.0
15	GO	88	LYS	3.0
35	HA	1335	U	3.0
37	FD	144	SER	3.0
43	HJ	11	LYS	3.0
55	DV	394	GLY	3.0
6	GF	108	PRO	3.0
3	GA	613	A	3.0
5	GE	180	LEU	3.0
12	GL	90	VAL	3.0
21	CU	79	ALA	3.0
32	C5	120	ALA	3.0
44	DK	71	ALA	3.0
48	DO	78	TYR	3.0
36	HC	39	VAL	3.0
37	BD	125	VAL	3.0
48	HO	44	ALA	3.0
49	HP	38	PHE	3.0
55	DV	553	VAL	3.0
55	FV	401	ASP	3.0
34	HB	67	LEU	3.0
40	DG	120	LEU	3.0
3	GA	2110	G	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
37	FD	32	CYS	3.0
9	GI	18	ASN	3.0
40	HG	12	ILE	3.0
3	CA	1172	C	2.9
22	GV	13	GLY	2.9
43	FJ	16	ARG	2.9
15	GO	49	VAL	2.9
41	HH	118	GLN	2.9
9	EI	35	MET	2.9
12	GL	51	GLU	2.9
18	CR	70	GLU	2.9
35	HA	958	A	2.9
39	HF	23	GLU	2.9
51	HR	35	GLU	2.9
52	FS	29	LYS	2.9
54	HU	5	LYS	2.9
39	FF	37	HIS	2.9
39	FF	51	ILE	2.9
15	CO	24	THR	2.9
40	HG	38	THR	2.9
44	HK	59	THR	2.9
35	HA	1007	U	2.9
3	CA	2146	C	2.9
3	GA	1536	C	2.9
9	GI	79	LEU	2.9
10	GJ	89	PHE	2.9
21	GU	33	VAL	2.9
21	GU	84	PHE	2.9
22	EV	94	ALA	2.9
34	BB	212	TYR	2.9
34	DB	208	ALA	2.9
38	HE	110	ALA	2.9
52	HS	16	LEU	2.9
52	HS	56	GLN	2.9
54	HU	48	ALA	2.9
18	ER	48	LYS	2.9
28	C1	9	LYS	2.9
32	E5	37	LYS	2.9
34	DB	30	ILE	2.9
55	FV	369	ASN	2.9
15	CO	111	ARG	2.9
32	A5	142	THR	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	HC	132	ARG	2.9
19	GS	101	SER	2.9
20	GT	79	ASP	2.9
34	DB	36	LYS	2.9
34	HB	160	LEU	2.9
34	HB	197	PHE	2.9
37	FD	29	ASP	2.9
40	DG	36	LYS	2.9
55	DV	329	PHE	2.9
55	DV	531	PRO	2.9
9	AI	14	ALA	2.9
28	G1	11	VAL	2.9
32	C5	83	ALA	2.9
39	HF	95	ALA	2.9
55	BV	506	ALA	2.9
13	GM	32	GLY	2.9
20	AT	3	ARG	2.9
38	HE	104	GLY	2.9
43	BJ	6	ILE	2.9
46	HM	71	ARG	2.9
51	HR	57	ARG	2.9
2	CC	34	GLU	2.9
37	BD	194	ASP	2.9
41	HH	30	SER	2.9
2	GC	153	LEU	2.9
30	C3	56	LEU	2.9
55	HV	336	PHE	2.9
6	GF	6	TYR	2.9
8	CH	9	VAL	2.9
22	GV	92	VAL	2.9
23	AW	50	VAL	2.9
34	HB	220	VAL	2.9
37	BD	37	ALA	2.9
42	DI	64	TYR	2.9
46	HM	5	ALA	2.9
55	BV	519	VAL	2.9
34	DB	99	MET	2.9
40	HG	31	MET	2.9
35	HA	971	G	2.9
19	CS	103	ILE	2.9
21	GU	57	ILE	2.9
36	DC	64	ILE	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
40	HG	34	GLY	2.9
46	DM	39	ILE	2.9
51	DR	73	ARG	2.9
18	GR	66	HIS	2.9
55	FV	584	HIS	2.9
6	AF	143	ASP	2.9
8	GH	29	PHE	2.9
10	EJ	25	LEU	2.9
25	GY	21	LEU	2.9
37	BD	29	ASP	2.9
43	DJ	60	ASP	2.9
43	DJ	90	LEU	2.9
43	HJ	80	THR	2.9
52	DS	63	THR	2.9
2	CC	249	VAL	2.9
6	CF	21	TYR	2.9
32	C5	119	PRO	2.9
7	EG	45	ALA	2.9
9	CI	139	VAL	2.9
15	GO	70	ALA	2.9
17	EQ	1	ALA	2.9
32	C5	12	VAL	2.9
35	HA	996	A	2.9
42	HI	121	ALA	2.9
51	HR	49	ALA	2.9
54	FU	32	VAL	2.9
55	HV	384	ALA	2.9
21	CU	81	ARG	2.9
7	GG	56	GLY	2.9
8	EH	34	GLY	2.9
21	EU	90	LYS	2.9
46	FM	114	LYS	2.9
47	HN	89	MET	2.9
49	HP	31	ARG	2.9
39	HF	20	GLY	2.9
5	GE	148	ILE	2.9
6	GF	41	GLU	2.9
9	GI	137	LEU	2.9
15	EO	115	LEU	2.9
19	CS	46	LEU	2.9
35	FA	87	C	2.9
32	E5	124	ASP	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
37	HD	23	SER	2.9
41	DH	2	SER	2.9
4	CD	92	VAL	2.9
13	GM	43	ALA	2.9
17	GQ	18	LYS	2.9
34	HB	34	ARG	2.9
41	HH	19	ALA	2.9
41	HH	23	ALA	2.9
42	HI	108	ALA	2.9
43	HJ	31	ARG	2.9
50	FQ	83	VAL	2.9
52	BS	3	ARG	2.9
9	CI	98	GLY	2.9
35	DA	412	A	2.9
36	DC	159	GLY	2.9
37	FD	127	GLY	2.9
37	FD	176	GLY	2.9
50	BQ	35	GLY	2.9
9	AI	100	ILE	2.9
18	ER	46	GLU	2.9
30	G3	58	ILE	2.9
46	DM	73	ILE	2.9
48	DO	42	HIS	2.9
54	DU	23	CYS	2.9
13	GM	2	LEU	2.9
22	GV	86	LEU	2.9
25	CY	28	LEU	2.9
36	HC	33	LEU	2.9
43	DJ	13	PHE	2.9
44	HK	36	ASP	2.9
51	HR	65	LEU	2.9
55	HV	243	LEU	2.9
3	GA	234	U	2.9
9	EI	99	LYS	2.9
25	EY	23	ARG	2.9
26	GZ	51	SER	2.9
4	CD	35	THR	2.9
5	GE	14	VAL	2.9
28	C1	30	PRO	2.9
34	BB	19	THR	2.9
41	FH	55	THR	2.9
42	DI	55	VAL	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	DV	551	PRO	2.9
9	GI	76	ALA	2.9
9	GI	82	ALA	2.9
23	GW	62	ALA	2.9
51	DR	32	TYR	2.9
55	FV	534	TYR	2.9
36	DC	158	GLY	2.9
52	HS	46	GLY	2.9
29	A2	1	MET	2.9
16	GP	47	ILE	2.9
20	ET	30	ILE	2.9
34	DB	66	ILE	2.9
37	DD	200	ILE	2.9
42	HI	21	ILE	2.9
46	HM	22	ILE	2.9
54	BU	4	ILE	2.9
35	DA	81	A	2.9
39	DF	52	ASN	2.9
10	CJ	25	LEU	2.9
34	HB	178	LEU	2.9
41	DH	22	LYS	2.9
43	HJ	42	LEU	2.9
46	HM	89	LEU	2.9
49	HP	6	LEU	2.9
55	HV	612	LEU	2.9
3	CA	138	U	2.9
20	GT	4	GLU	2.8
21	CU	10	VAL	2.8
36	HC	90	VAL	2.8
32	C5	21	GLY	2.8
50	HQ	24	ALA	2.8
35	HA	1404	C	2.8
5	GE	90	GLN	2.8
6	GF	110	ILE	2.8
34	BB	99	MET	2.8
35	HA	1024	G	2.8
55	HV	298	ILE	2.8
39	HF	53	LYS	2.8
55	HV	594	LYS	2.8
24	CX	29	LEU	2.8
38	HE	115	LEU	2.8
53	HT	66	LEU	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	AA	1420	A	2.8
3	EA	896	A	2.8
6	GF	5	ASP	2.8
35	HA	815	A	2.8
2	GC	34	GLU	2.8
3	GA	2139	U	2.8
5	GE	51	GLU	2.8
9	CI	31	GLY	2.8
9	CI	138	VAL	2.8
14	GN	112	TYR	2.8
27	G0	55	ALA	2.8
42	HI	6	TYR	2.8
43	HJ	23	ALA	2.8
21	CU	25	LYS	2.8
23	CW	71	LYS	2.8
40	DG	25	LYS	2.8
40	FG	86	GLN	2.8
54	DU	46	LYS	2.8
44	HK	31	ILE	2.8
53	BT	67	ILE	2.8
12	GL	132	ARG	2.8
35	HA	840	C	2.8
43	DJ	9	ARG	2.8
2	EC	33	LEU	2.8
25	GY	18	LEU	2.8
25	GY	57	LEU	2.8
41	DH	63	LEU	2.8
50	DQ	8	LEU	2.8
16	GP	19	PHE	2.8
20	ET	51	PHE	2.8
32	A5	40	GLU	2.8
46	DM	11	ASP	2.8
49	DP	55	ASP	2.8
55	HV	245	GLU	2.8
3	GA	139	U	2.8
3	GA	2151	U	2.8
35	DA	1145	A	2.8
35	HA	1000	A	2.8
42	DI	14	SER	2.8
18	AR	50	GLY	2.8
21	AU	33	VAL	2.8
50	FQ	70	THR	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	AI	48	ILE	2.8
18	CR	101	ILE	2.8
18	GR	21	ARG	2.8
48	HO	88	ARG	2.8
49	FP	51	ARG	2.8
8	GH	45	GLU	2.8
21	CU	13	LEU	2.8
41	DH	121	LEU	2.8
55	DV	585	ASP	2.8
7	GG	84	LYS	2.8
18	GR	71	LYS	2.8
43	DJ	30	LYS	2.8
35	HA	1211	U	2.8
44	DK	50	SER	2.8
7	GG	16	VAL	2.8
9	AI	138	VAL	2.8
34	HB	28	PRO	2.8
50	HQ	29	VAL	2.8
54	HU	41	PRO	2.8
3	GA	2156	G	2.8
3	GA	142	A	2.8
8	EH	49	ALA	2.8
18	ER	6	GLN	2.8
20	GT	77	ARG	2.8
24	GX	77	TYR	2.8
29	G2	12	ARG	2.8
29	G2	21	ARG	2.8
35	HA	1526	G	2.8
36	HC	107	ARG	2.8
55	FV	371	ARG	2.8
47	HN	67	THR	2.8
49	HP	3	THR	2.8
21	GU	13	LEU	2.8
23	AW	75	ASN	2.8
25	EY	21	LEU	2.8
46	FM	47	GLU	2.8
6	CF	86	CYS	2.8
49	HP	32	PHE	2.8
34	FB	149	GLY	2.8
9	EI	20	SER	2.8
55	HV	598	SER	2.8
6	GF	83	PRO	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	21	PRO	2.8
17	AQ	87	VAL	2.8
50	HQ	65	ARG	2.8
55	HV	349	VAL	2.8
34	DB	205	ALA	2.8
36	HC	92	ALA	2.8
40	FG	65	ALA	2.8
16	GP	67	GLU	2.8
20	GT	60	THR	2.8
36	DC	77	ILE	2.8
37	FD	113	GLU	2.8
41	FH	91	GLU	2.8
43	BJ	78	GLU	2.8
20	GT	64	LYS	2.8
34	FB	72	LYS	2.8
35	FA	82	G	2.8
43	DJ	71	LEU	2.8
55	FV	607	LYS	2.8
34	DB	177	ASN	2.8
34	HB	155	GLY	2.8
6	CF	114	ARG	2.8
16	CP	1	SER	2.8
37	DD	115	ARG	2.8
37	FD	47	ARG	2.8
37	HD	70	ARG	2.8
40	FG	109	ARG	2.8
46	HM	113	ARG	2.8
21	EU	53	GLN	2.8
9	EI	19	PRO	2.8
55	HV	649	VAL	2.8
9	EI	100	ILE	2.8
17	GQ	97	ILE	2.8
34	DB	27	LYS	2.8
39	HF	33	GLU	2.8
42	FI	129	LYS	2.8
50	BQ	43	LYS	2.8
53	BT	41	ALA	2.8
7	GG	36	LEU	2.8
34	FB	100	LEU	2.8
8	CH	11	ASN	2.8
8	GH	17	ASP	2.8
21	EU	84	PHE	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
24	GX	45	PHE	2.8
34	HB	93	HIS	2.8
40	HG	148	ASN	2.8
55	FV	347	ASP	2.8
55	HV	351	ASN	2.8
3	EA	2147	A	2.8
12	GL	28	GLY	2.8
15	GO	114	GLY	2.8
21	GU	93	ARG	2.8
24	CX	49	ARG	2.8
39	HF	44	ARG	2.8
47	DN	61	ARG	2.8
51	DR	37	GLY	2.8
3	GA	2107	G	2.8
34	HB	108	GLN	2.8
3	AA	2180	U	2.8
3	CA	2402	U	2.8
5	GE	130	LYS	2.8
15	CO	39	VAL	2.8
21	GU	27	VAL	2.8
39	DF	35	LYS	2.8
44	DK	75	LYS	2.8
54	BU	24	GLU	2.8
6	GF	142	TYR	2.8
10	GJ	75	TYR	2.8
46	FM	5	ALA	2.8
55	HV	307	ALA	2.8
37	HD	178	MET	2.8
55	HV	252	LEU	2.8
3	AA	2179	C	2.8
3	GA	2103	C	2.8
35	HA	736	C	2.8
4	CD	43	ASP	2.8
11	EK	17	ARG	2.8
44	HK	112	ASP	2.8
54	HU	17	ARG	2.8
3	CA	2154	A	2.8
12	GL	115	GLU	2.8
17	GQ	111	LYS	2.8
21	CU	90	LYS	2.8
28	G1	7	LYS	2.8
49	HP	18	GLN	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	CC	93	VAL	2.8
5	CE	4	VAL	2.8
19	AS	47	VAL	2.8
20	CT	57	VAL	2.8
46	DM	16	VAL	2.8
46	HM	74	SER	2.8
55	FV	200	VAL	2.8
28	C1	33	LEU	2.8
34	BB	133	ALA	2.8
35	HA	1505	G	2.8
36	FC	47	LEU	2.8
36	HC	124	LEU	2.8
43	FJ	34	ALA	2.8
55	FV	190	ALA	2.8
55	HV	63	ILE	2.8
34	DB	86	CYS	2.7
34	HB	86	CYS	2.7
55	HV	171	LEU	2.8
7	AG	34	ARG	2.7
25	GY	23	ARG	2.7
32	C5	94	ARG	2.7
55	FV	357	ARG	2.7
6	GF	119	LYS	2.7
20	ET	19	LYS	2.7
30	G3	19	GLY	2.7
34	DB	32	GLY	2.7
34	DB	154	GLY	2.7
36	HC	96	GLY	2.7
41	DH	54	ASP	2.7
38	HE	126	LYS	2.7
3	EA	1536	C	2.7
23	GW	28	GLU	2.7
55	DV	508	GLN	2.7
55	HV	358	GLU	2.7
3	AA	2182	U	2.7
15	GO	47	VAL	2.7
39	DF	7	VAL	2.7
50	HQ	59	VAL	2.7
55	BV	582	SER	2.7
3	GA	1046	A	2.7
2	CC	175	LEU	2.7
2	GC	91	ALA	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	EG	49	LEU	2.7
12	EL	101	ILE	2.7
39	HF	32	ALA	2.7
43	DJ	34	ALA	2.7
43	HJ	93	ALA	2.7
6	CF	2	LYS	2.7
6	GF	13	LYS	2.7
19	GS	28	LYS	2.7
45	FL	18	LYS	2.7
7	EG	59	ASP	2.7
12	GL	53	GLY	2.7
15	GO	20	GLU	2.7
32	A5	49	GLY	2.7
32	E5	29	ASP	2.7
34	DB	64	GLY	2.7
41	FH	52	GLU	2.7
35	HA	1342	C	2.7
35	DA	88	U	2.7
38	DE	21	VAL	2.7
6	AF	160	LYS	2.7
24	GX	63	ILE	2.7
32	E5	73	LYS	2.7
40	DG	99	LEU	2.7
41	HH	13	ARG	2.7
43	DJ	79	PRO	2.7
54	DU	49	LYS	2.7
6	GF	146	ASP	2.7
9	EI	28	GLY	2.7
19	GS	1	MET	2.7
20	AT	80	TRP	2.7
35	HA	978	A	2.7
55	BV	360	PHE	2.7
24	GX	19	HIS	2.7
44	HK	22	HIS	2.7
52	FS	64	ASP	2.7
12	CL	121	THR	2.7
49	HP	50	THR	2.7
12	GL	48	ARG	2.7
33	A6	20	VAL	2.7
40	DG	102	ARG	2.7
41	HH	71	VAL	2.7
47	FN	23	LYS	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	FV	318	SER	2.7
55	FV	582	SER	2.7
9	EI	48	ILE	2.7
21	GU	38	ILE	2.7
22	GV	38	LEU	2.7
34	DB	24	PRO	2.7
35	HA	796	C	2.7
55	HV	537	ILE	2.7
44	HK	77	TYR	2.7
55	HV	410	GLU	2.7
54	BU	37	PHE	2.7
37	DD	194	ASP	2.7
51	HR	22	ASP	2.7
55	HV	584	HIS	2.7
35	HA	1257	A	2.7
35	HA	1275	A	2.7
42	FI	4	ASN	2.7
23	GW	13	ARG	2.7
23	GW	65	LYS	2.7
34	HB	127	LYS	2.7
37	HD	73	ARG	2.7
40	HG	10	ARG	2.7
43	DJ	59	LYS	2.7
55	FV	499	THR	2.7
36	HC	52	VAL	2.7
43	BJ	26	VAL	2.7
2	GC	204	LEU	2.7
19	GS	96	ILE	2.7
37	FD	91	LEU	2.7
37	HD	91	LEU	2.7
38	HE	16	ILE	2.7
41	FH	59	LEU	2.7
55	BV	566	LEU	2.7
3	GA	1537	G	2.7
9	CI	62	ALA	2.7
34	HB	175	ALA	2.7
36	HC	37	PHE	2.7
53	FT	65	GLY	2.7
55	DV	66	ALA	2.7
3	GA	2146	C	2.7
8	EH	1	MET	2.7
37	HD	36	GLN	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	DB	173	LYS	2.7
53	HT	3	ASN	2.7
15	GO	90	VAL	2.7
41	FH	47	GLU	2.7
15	CO	58	ILE	2.7
35	HA	843	U	2.7
40	DG	23	LEU	2.7
41	HH	79	SER	2.7
46	DM	89	LEU	2.7
49	DP	33	ILE	2.7
4	AD	118	PHE	2.7
6	CF	98	PHE	2.7
6	GF	125	GLY	2.7
28	E1	15	GLY	2.7
40	BG	82	GLY	2.7
10	GJ	111	LYS	2.7
20	GT	33	LYS	2.7
40	HG	9	GLN	2.7
55	DV	339	TYR	2.7
55	DV	514	GLN	2.7
53	FT	54	MET	2.7
19	GS	40	ASN	2.7
35	DA	841	C	2.7
44	HK	81	ASN	2.7
12	GL	10	GLU	2.7
19	GS	3	THR	2.7
4	CD	146	ILE	2.7
9	GI	47	SER	2.7
17	CQ	87	VAL	2.7
37	BD	161	LEU	2.7
44	BK	113	VAL	2.7
4	GD	93	GLY	2.7
5	CE	23	PHE	2.7
8	EH	18	GLN	2.7
9	EI	86	LYS	2.7
12	CL	70	LYS	2.7
34	DB	39	ILE	2.7
48	FO	2	SER	2.7
36	HC	205	GLY	2.7
38	DE	31	PHE	2.7
42	BI	129	LYS	2.7
42	DI	26	GLY	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
44	DK	125	LYS	2.7
54	DU	40	LYS	2.7
55	HV	520	ILE	2.7
18	GR	86	GLN	2.7
25	GY	31	GLN	2.7
25	GY	39	GLN	2.7
49	FP	16	PHE	2.7
2	GC	166	ARG	2.7
17	GQ	23	TYR	2.7
42	DI	6	TYR	2.7
45	BL	17	ALA	2.7
46	BM	5	ALA	2.7
55	HV	339	TYR	2.7
24	CX	33	HIS	2.7
55	DV	308	GLU	2.7
3	AA	1730	C	2.7
3	CA	1870	C	2.7
3	GA	561	G	2.7
34	DB	216	VAL	2.7
41	FH	40	LEU	2.7
6	CF	80	GLN	2.7
43	DJ	101	SER	2.7
43	HJ	54	SER	2.7
55	HV	503	GLY	2.7
5	CE	49	ARG	2.7
9	GI	64	ARG	2.7
13	GM	98	PRO	2.7
15	GO	15	ARG	2.7
20	GT	73	ARG	2.7
24	CX	37	PHE	2.7
35	BA	84	U	2.7
42	HI	33	ARG	2.7
47	HN	9	ARG	2.7
5	CE	86	ALA	2.7
15	GO	36	TYR	2.7
35	HA	1306	A	2.7
9	CI	36	GLU	2.7
24	CX	35	HIS	2.7
25	AY	5	GLU	2.7
34	HB	17	HIS	2.7
54	BU	10	GLU	2.7
30	G3	46	LYS	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	HL	18	LYS	2.6
2	CC	173	LEU	2.6
15	AO	48	LEU	2.6
29	G2	42	LEU	2.6
34	DB	156	LEU	2.6
34	HB	113	LEU	2.6
37	FD	171	LEU	2.6
52	HS	15	LEU	2.6
8	CH	3	VAL	2.6
2	CC	181	ARG	2.6
3	AA	2139	U	2.6
3	CA	2179	C	2.6
5	CE	10	SER	2.6
10	GJ	142	ILE	2.6
21	CU	53	GLN	2.6
21	GU	37	GLY	2.6
37	FD	195	ILE	2.6
40	FG	112	GLY	2.6
11	CK	71	ARG	2.6
40	HG	18	PHE	2.6
41	HH	15	ARG	2.6
46	HM	55	THR	2.6
53	HT	57	ILE	2.6
44	HK	105	PHE	2.6
13	GM	72	PRO	2.6
18	GR	95	ASP	2.6
4	CD	119	ALA	2.6
34	FB	51	GLU	2.6
35	HA	1361	G	2.6
36	DC	184	TYR	2.6
36	HC	152	GLU	2.6
47	BN	36	ALA	2.6
54	HU	31	GLU	2.6
5	GE	1	MET	2.6
8	GH	1	MET	2.6
9	GI	35	MET	2.6
47	HN	6	MET	2.6
18	GR	39	LEU	2.6
45	FL	24	LEU	2.6
46	FM	19	LEU	2.6
2	EC	250	GLN	2.6
20	GT	71	GLY	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	HC	138	VAL	2.6
37	DD	128	ARG	2.6
40	DG	7	ILE	2.6
40	DG	52	GLN	2.6
41	FH	51	VAL	2.6
44	DK	93	ARG	2.6
44	HK	54	GLY	2.6
22	GV	70	ILE	2.6
8	GH	14	SER	2.6
46	HM	20	THR	2.6
52	HS	77	THR	2.6
55	DV	601	PHE	2.6
3	AA	2143	C	2.6
3	CA	2145	C	2.6
3	GA	1582	C	2.6
15	GO	59	ALA	2.6
18	AR	103	ALA	2.6
24	GX	43	LYS	2.6
36	HC	61	ALA	2.6
38	HE	127	ALA	2.6
55	FV	2	ALA	2.6
6	CF	90	LEU	2.6
24	CX	2	ARG	2.6
48	HO	81	LEU	2.6
52	DS	43	ASN	2.6
17	GQ	79	ILE	2.6
36	HC	94	ILE	2.6
40	DG	73	VAL	2.6
40	HG	40	GLU	2.6
44	HK	110	ILE	2.6
48	DO	11	ILE	2.6
55	DV	649	VAL	2.6
55	FV	138	ILE	2.6
55	FV	349	VAL	2.6
6	GF	71	LYS	2.6
12	GL	13	LYS	2.6
20	CT	33	LYS	2.6
3	AA	2109	U	2.6
6	CF	141	ASP	2.6
9	AI	95	ASP	2.6
9	CI	22	PRO	2.6
35	HA	955	U	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	DV	539	ASP	2.6
26	GZ	42	ALA	2.6
40	HG	134	ALA	2.6
35	DA	1302	C	2.6
26	GZ	26	LEU	2.6
42	DI	31	ASN	2.6
42	DI	50	GLN	2.6
19	GS	6	LYS	2.6
26	EZ	57	GLU	2.6
24	GX	50	VAL	2.6
27	C0	54	ILE	2.6
34	BB	27	LYS	2.6
34	BB	131	LYS	2.6
41	DH	52	GLU	2.6
6	CF	99	PHE	2.6
35	HA	832	G	2.6
40	DG	26	PHE	2.6
42	DI	48	VAL	2.6
47	HN	11	VAL	2.6
48	DO	75	VAL	2.6
52	DS	62	VAL	2.6
53	HT	83	ILE	2.6
55	HV	15	ILE	2.6
55	DV	582	SER	2.6
32	A5	131	THR	2.6
44	DK	111	THR	2.6
34	BB	73	ARG	2.6
46	DM	61	ALA	2.6
9	GI	91	LYS	2.6
12	AL	6	LEU	2.6
12	GL	63	LYS	2.6
21	GU	83	GLY	2.6
21	GU	91	LYS	2.6
25	CY	56	LEU	2.6
44	HK	87	LYS	2.6
53	FT	16	LYS	2.6
55	HV	516	GLY	2.6
35	BA	841	C	2.6
5	CE	124	PHE	2.6
10	GJ	100	VAL	2.6
14	AN	80	PHE	2.6
34	HB	209	VAL	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
48	HO	75	VAL	2.6
55	DV	519	VAL	2.6
51	HR	25	ASP	2.6
56	HW	4	SER	2.6
3	EA	2183	A	2.6
30	G3	33	THR	2.6
35	DA	1167	A	2.6
35	HA	743	A	2.6
35	HA	1023	U	2.6
34	DB	62	ARG	2.6
43	DJ	22	THR	2.6
51	HR	61	ARG	2.6
55	FV	531	PRO	2.6
19	GS	38	TYR	2.6
21	GU	32	LYS	2.6
32	A5	86	MET	2.6
53	FT	72	ALA	2.6
55	DV	507	LYS	2.6
6	AF	49	LEU	2.6
8	AH	5	LEU	2.6
12	GL	31	GLY	2.6
13	CM	78	LEU	2.6
23	EW	31	LEU	2.6
34	HB	56	LEU	2.6
55	HV	578	LEU	2.6
4	GD	73	VAL	2.6
6	EF	59	ILE	2.6
13	GM	28	PHE	2.6
21	AU	38	ILE	2.6
34	HB	91	VAL	2.6
37	HD	107	PHE	2.6
38	DE	30	ILE	2.6
40	DG	43	VAL	2.6
50	DQ	38	ILE	2.6
55	DV	599	ILE	2.6
2	GC	202	ARG	2.6
9	AI	20	SER	2.6
35	HA	720	C	2.6
55	DV	500	ASP	2.6
12	GL	59	ARG	2.6
23	GW	40	ARG	2.6
41	DH	13	ARG	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
49	HP	60	TRP	2.6
52	HS	55	ARG	2.6
55	DV	52	TRP	2.6
55	HV	230	SER	2.6
3	GA	546	U	2.6
15	GO	76	LYS	2.6
55	HV	497	LYS	2.6
6	CF	133	GLU	2.6
7	AG	83	THR	2.6
3	CA	1420	A	2.6
25	GY	41	HIS	2.6
42	HI	78	ALA	2.6
42	HI	112	GLU	2.6
45	BL	25	GLU	2.6
5	EE	143	LEU	2.6
32	C5	122	GLN	2.6
34	HB	16	GLY	2.6
35	BA	81	A	2.6
36	FC	43	LEU	2.6
42	BI	40	GLY	2.6
35	HA	1020	G	2.6
36	HC	140	ASN	2.6
4	GD	60	VAL	2.6
6	CF	88	VAL	2.6
7	AG	16	VAL	2.6
9	GI	54	ILE	2.6
36	HC	66	VAL	2.6
37	HD	20	PHE	2.6
42	DI	72	ILE	2.6
55	BV	593	PHE	2.6
6	CF	160	LYS	2.6
23	EW	40	ARG	2.6
34	DB	152	ASP	2.6
34	HB	27	LYS	2.6
41	HH	127	CYS	2.6
42	HI	22	LYS	2.6
42	HI	120	LYS	2.6
43	HJ	30	LYS	2.6
17	GQ	86	SER	2.6
40	HG	57	SER	2.6
50	DQ	73	TRP	2.6
35	HA	210	C	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
35	HA	1452	C	2.6
5	EE	11	ALA	2.6
20	CT	60	THR	2.6
21	AU	70	ALA	2.6
36	HC	81	GLY	2.6
36	HC	171	GLY	2.6
36	HC	176	HIS	2.6
51	HR	71	THR	2.6
20	CT	7	LEU	2.6
41	HH	92	LEU	2.6
55	HV	239	GLY	2.6
35	HA	1363	A	2.6
2	CC	63	ILE	2.6
5	GE	6	LYS	2.6
12	GL	109	LYS	2.6
23	CW	79	ILE	2.6
28	C1	32	LYS	2.6
30	G3	35	LYS	2.6
36	HC	80	LYS	2.6
42	HI	49	ARG	2.6
44	HK	93	ARG	2.6
55	BV	537	ILE	2.6
6	CF	148	VAL	2.6
32	E5	108	VAL	2.6
45	HL	16	VAL	2.6
9	GI	107	GLU	2.5
25	CY	5	GLU	2.5
35	HA	778	G	2.5
35	HA	1530	G	2.5
44	BK	50	SER	2.5
53	HT	40	GLU	2.5
35	HA	1326	U	2.5
44	DK	48	GLY	2.5
49	FP	18	GLN	2.5
5	CE	180	LEU	2.5
6	CF	56	LEU	2.5
10	GJ	74	TYR	2.5
20	CT	70	HIS	2.5
34	BB	129	THR	2.5
42	BI	44	ALA	2.5
47	BN	22	ALA	2.5
55	BV	48	ALA	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	HV	641	MET	2.5
12	AL	129	LYS	2.5
13	GM	58	LYS	2.5
35	HA	1397	C	2.5
32	C5	42	ARG	2.5
36	HC	62	LYS	2.5
39	HF	93	LYS	2.5
42	DI	119	ARG	2.5
45	DL	14	ARG	2.5
47	DN	9	ARG	2.5
21	EU	72	PHE	2.5
49	FP	39	PHE	2.5
5	CE	187	VAL	2.5
19	GS	29	VAL	2.5
24	CX	12	VAL	2.5
25	CY	53	VAL	2.5
35	HA	461	A	2.5
40	DG	113	ASP	2.5
55	BV	502	GLU	2.5
55	HV	519	VAL	2.5
32	C5	30	SER	2.5
39	HF	87	SER	2.5
8	CH	16	GLY	2.5
23	GW	73	PRO	2.5
55	DV	513	GLY	2.5
2	EC	1	ALA	2.5
3	GA	2138	G	2.5
12	GL	6	LEU	2.5
18	ER	65	ALA	2.5
20	GT	20	ALA	2.5
21	CU	40	LEU	2.5
29	C2	10	LEU	2.5
36	HC	12	LEU	2.5
38	FE	26	LYS	2.5
40	DG	59	LEU	2.5
38	FE	93	ARG	2.5
42	DI	7	TYR	2.5
42	DI	46	MET	2.5
44	DK	62	ALA	2.5
47	HN	8	ALA	2.5
20	AT	73	ARG	2.5
34	BB	224	ARG	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
34	HB	71	THR	2.5
54	DU	42	THR	2.5
55	DV	534	TYR	2.5
55	FV	409	MET	2.5
55	HV	161	ARG	2.5
55	HV	237	TYR	2.5
55	HV	461	MET	2.5
8	CH	4	ILE	2.5
23	GW	44	PHE	2.5
36	HC	8	ASN	2.5
43	HJ	58	ASN	2.5
47	HN	35	ASN	2.5
50	HQ	61	ILE	2.5
6	EF	88	VAL	2.5
32	A5	26	VAL	2.5
55	HV	36	VAL	2.5
20	GT	9	LYS	2.5
20	GT	82	LYS	2.5
34	DB	114	LYS	2.5
37	DD	206	LYS	2.5
55	HV	340	SER	2.5
6	EF	90	LEU	2.5
12	CL	112	LEU	2.5
12	EL	78	ARG	2.5
19	AS	46	LEU	2.5
28	A1	33	LEU	2.5
35	FA	467	U	2.5
35	HA	798	U	2.5
37	DD	47	ARG	2.5
48	HO	66	LEU	2.5
53	HT	60	ARG	2.5
13	GM	48	ALA	2.5
24	GX	38	TRP	2.5
34	FB	208	ALA	2.5
13	GM	74	THR	2.5
55	HV	348	THR	2.5
5	CE	119	ILE	2.5
35	DA	79	G	2.5
35	HA	1529	G	2.5
36	HC	162	ILE	2.5
43	DJ	6	ILE	2.5
3	GA	1079	C	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	AI	50	LYS	2.5
21	GU	16	LYS	2.5
35	DA	1031	C	2.5
44	DK	49	GLY	2.5
21	GU	54	PRO	2.5
2	AC	91	ALA	2.5
9	GI	103	ALA	2.5
25	EY	24	GLU	2.5
35	HA	81	A	2.5
37	HD	4	TYR	2.5
55	BV	552	ALA	2.5
55	HV	10	TYR	2.5
32	C5	69	PHE	2.5
55	DV	593	PHE	2.5
2	CC	27	LYS	2.5
8	GH	22	LYS	2.5
9	GI	9	LYS	2.5
13	GM	63	ILE	2.5
15	CO	3	LYS	2.5
15	GO	4	LYS	2.5
21	GU	20	LYS	2.5
21	GU	43	LYS	2.5
36	HC	103	ILE	2.5
6	EF	27	VAL	2.5
17	EQ	87	VAL	2.5
20	GT	55	VAL	2.5
34	FB	91	VAL	2.5
37	DD	155	VAL	2.5
43	FJ	26	VAL	2.5
46	HM	16	VAL	2.5
35	HA	1260	G	2.5
39	FF	91	ARG	2.5
42	DI	74	GLY	2.5
55	DV	547	GLY	2.5
6	EF	35	LEU	2.5
15	GO	45	SER	2.5
22	GV	42	LEU	2.5
27	G0	38	LEU	2.5
35	HA	848	C	2.5
35	HA	1037	C	2.5
42	HI	54	LEU	2.5
44	HK	50	SER	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
48	FO	39	LEU	2.5
55	FV	406	LEU	2.5
21	CU	100	GLU	2.5
35	HA	1330	U	2.5
41	HH	124	GLU	2.5
9	CI	14	ALA	2.5
21	CU	70	ALA	2.5
36	DC	193	TYR	2.5
36	HC	160	ALA	2.5
41	DH	20	ALA	2.5
48	DO	50	HIS	2.5
55	HV	139	ALA	2.5
13	GM	127	LYS	2.5
40	BG	110	LYS	2.5
52	DS	18	LYS	2.5
55	HV	643	LYS	2.5
3	GA	1509	A	2.5
6	GF	67	THR	2.5
6	GF	105	ILE	2.5
19	ES	103	ILE	2.5
20	AT	30	ILE	2.5
28	C1	4	ILE	2.5
55	HV	158	ILE	2.5
5	GE	28	VAL	2.5
7	GG	161	VAL	2.5
9	CI	46	ASP	2.5
24	AX	3	VAL	2.5
28	C1	27	ARG	2.5
36	HC	97	VAL	2.5
37	BD	130	VAL	2.5
55	HV	110	VAL	2.5
9	CI	137	LEU	2.5
21	GU	51	LEU	2.5
32	A5	14	GLU	2.5
32	E5	121	SER	2.5
47	HN	79	LEU	2.5
55	FV	646	GLU	2.5
23	GW	67	LYS	2.5
42	FI	125	PRO	2.5
5	EE	188	MET	2.5
15	GO	71	ALA	2.5
15	GO	72	ALA	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
35	HA	519	C	2.5
35	HA	1131	G	2.5
37	HD	51	TYR	2.5
52	FS	44	MET	2.5
5	EE	119	ILE	2.5
20	GT	74	ILE	2.5
22	GV	40	ILE	2.5
52	DS	40	ILE	2.5
6	EF	141	ASP	2.5
9	GI	117	THR	2.5
32	E5	9	GLN	2.5
34	HB	92	ASN	2.5
52	BS	39	THR	2.5
8	AH	48	GLU	2.5
13	GM	37	GLY	2.5
13	GM	39	GLY	2.5
20	GT	75	GLY	2.5
24	CX	74	GLY	2.5
35	HA	1219	A	2.5
39	HF	84	VAL	2.5
36	FC	82	GLU	2.5
43	HJ	33	GLY	2.5
49	HP	36	VAL	2.5
9	CI	105	LEU	2.5
15	GO	115	LEU	2.5
20	ET	40	LYS	2.5
24	GX	53	LYS	2.5
34	FB	130	LYS	2.5
36	FC	80	LYS	2.5
40	HG	99	LEU	2.5
45	HL	90	LEU	2.5
49	FP	74	LEU	2.5
54	HU	20	LYS	2.5
6	AF	175	PRO	2.5
9	CI	92	PRO	2.5
35	FA	93	U	2.5
39	DF	55	HIS	2.5
7	GG	6	ALA	2.5
28	E1	19	PHE	2.5
34	DB	161	PHE	2.5
38	HE	50	TYR	2.5
42	DI	127	PHE	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	FV	321	ALA	2.5
23	GW	38	ARG	2.5
3	CA	2138	G	2.5
15	GO	61	GLN	2.5
38	HE	134	ILE	2.5
43	BJ	76	ILE	2.5
2	CC	241	LYS	2.5
6	GF	12	VAL	2.5
9	CI	33	ASN	2.5
19	GS	17	VAL	2.5
21	CU	89	GLY	2.5
36	HC	76	VAL	2.5
39	HF	40	GLU	2.5
13	GM	71	LYS	2.5
23	EW	18	LYS	2.5
30	E3	18	LYS	2.5
2	CC	109	LEU	2.5
32	A5	60	LEU	2.5
40	DG	125	SER	2.5
54	BU	51	SER	2.5
3	GA	2402	U	2.4
35	HA	989	U	2.4
35	HA	1240	U	2.4
5	GE	161	ALA	2.4
9	CI	133	ARG	2.4
19	CS	11	ARG	2.4
21	CU	1	ALA	2.4
21	CU	5	ARG	2.4
21	GU	62	ALA	2.4
23	GW	32	ALA	2.4
40	HG	95	ARG	2.4
44	DK	67	ALA	2.4
55	HV	246	ALA	2.4
19	GS	24	ILE	2.4
24	CX	42	GLU	2.4
38	FE	106	ILE	2.4
34	HB	166	ASP	2.4
43	DJ	97	ASP	2.4
52	BS	29	LYS	2.4
55	FV	242	GLU	2.4
7	AG	14	VAL	2.4
8	GH	28	ASN	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
37	BD	170	TRP	2.4
46	BM	8	ASN	2.4
50	BQ	83	VAL	2.4
25	EY	22	LEU	2.4
38	HE	76	LEU	2.4
45	DL	24	LEU	2.4
47	DN	74	LEU	2.4
55	FV	185	LEU	2.4
35	HA	1231	G	2.4
3	EA	1535	A	2.4
29	G2	35	ARG	2.4
28	C1	19	PHE	2.4
35	DA	842	U	2.4
6	CF	164	GLU	2.4
6	GF	127	TYR	2.4
15	CO	37	ALA	2.4
20	GT	46	ALA	2.4
24	EX	77	TYR	2.4
32	E5	135	ALA	2.4
49	BP	63	GLN	2.4
53	DT	19	LYS	2.4
55	HV	507	LYS	2.4
55	HV	663	MET	2.4
27	C0	42	ILE	2.4
36	FC	42	TYR	2.4
37	FD	76	TYR	2.4
7	CG	47	ASN	2.4
19	GS	45	VAL	2.4
32	E5	26	VAL	2.4
39	FF	60	VAL	2.4
50	DQ	23	VAL	2.4
51	DR	31	ASN	2.4
4	GD	35	THR	2.4
5	GE	150	THR	2.4
39	DF	92	THR	2.4
55	FV	578	LEU	2.4
55	HV	388	LEU	2.4
3	CA	1726	C	2.4
7	GG	169	ARG	2.4
21	GU	99	SER	2.4
34	DB	61	SER	2.4
13	GM	77	PRO	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
15	CO	97	PHE	2.4
20	GT	15	HIS	2.4
26	CZ	58	GLU	2.4
41	FH	45	PHE	2.4
55	HV	293	PRO	2.4
7	CG	135	ALA	2.4
19	GS	10	ALA	2.4
35	HA	947	G	2.4
39	HF	88	MET	2.4
36	DC	101	ILE	2.4
43	FJ	76	ILE	2.4
45	FL	17	ALA	2.4
21	GU	17	ASP	2.4
46	HM	58	ASP	2.4
50	DQ	25	ILE	2.4
55	HV	654	ILE	2.4
5	CE	186	VAL	2.4
19	ES	20	VAL	2.4
20	ET	87	LEU	2.4
25	AY	56	LEU	2.4
25	EY	18	LEU	2.4
25	EY	50	VAL	2.4
53	HT	58	VAL	2.4
13	GM	40	ARG	2.4
9	GI	81	LYS	2.4
21	GU	30	SER	2.4
36	HC	170	GLU	2.4
3	AA	2189	U	2.4
3	CA	2137	U	2.4
3	EA	2109	U	2.4
30	G3	1	PRO	2.4
34	DB	181	PRO	2.4
3	GA	2153	C	2.4
42	DI	32	GLN	2.4
6	GF	81	GLY	2.4
9	CI	26	ALA	2.4
12	EL	75	ALA	2.4
32	C5	75	ALA	2.4
34	BB	59	ILE	2.4
42	HI	44	ALA	2.4
43	BJ	93	ALA	2.4
49	HP	82	ALA	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
53	DT	57	ILE	2.4
55	FV	48	ALA	2.4
55	FV	297	GLY	2.4
3	EA	2107	G	2.4
3	GA	1847	A	2.4
7	GG	132	LEU	2.4
9	EI	102	ARG	2.4
14	CN	29	VAL	2.4
23	AW	18	LYS	2.4
24	GX	17	ARG	2.4
31	G4	3	VAL	2.4
34	DB	42	LEU	2.4
48	DO	57	LEU	2.4
34	DB	103	TRP	2.4
55	FV	407	GLU	2.4
19	GS	108	SER	2.4
20	ET	21	SER	2.4
34	HB	119	GLN	2.4
3	GA	2180	U	2.4
9	EI	98	GLY	2.4
13	GM	46	ILE	2.4
22	GV	28	ALA	2.4
41	HH	7	ILE	2.4
53	HT	12	ILE	2.4
55	BV	522	MET	2.4
6	GF	132	ARG	2.4
13	GM	16	ARG	2.4
15	AO	3	LYS	2.4
35	HA	726	C	2.4
46	HM	109	ARG	2.4
6	CF	168	LEU	2.4
6	EF	15	LEU	2.4
6	EF	22	ASN	2.4
21	CU	33	VAL	2.4
37	DD	11	LEU	2.4
23	CW	16	GLU	2.4
48	DO	29	VAL	2.4
55	HV	619	VAL	2.4
3	GA	1913	A	2.4
2	AC	271	SER	2.4
34	FB	137	THR	2.4
35	HA	818	G	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
37	FD	23	SER	2.4
47	HN	32	SER	2.4
55	FV	558	GLN	2.4
36	HC	6	HIS	2.4
49	HP	10	GLY	2.4
3	AA	139	U	2.4
3	AA	846	U	2.4
6	GF	95	MET	2.4
30	G3	18	LYS	2.4
47	HN	12	LYS	2.4
48	DO	71	LYS	2.4
21	AU	21	ARG	2.4
34	HB	159	ALA	2.4
36	HC	59	ARG	2.4
37	HD	141	ASP	2.4
40	HG	61	ALA	2.4
55	HV	371	ARG	2.4
5	GE	3	LEU	2.4
6	GF	3	LEU	2.4
7	CG	132	LEU	2.4
26	GZ	16	LEU	2.4
36	HC	178	LEU	2.4
2	GC	215	VAL	2.4
19	ES	105	VAL	2.4
19	GS	20	VAL	2.4
20	GT	63	VAL	2.4
45	FL	107	VAL	2.4
45	HL	8	VAL	2.4
3	AA	1870	C	2.4
3	EA	885	C	2.4
3	EA	2142	A	2.4
6	CF	119	LYS	2.4
17	GQ	105	PHE	2.4
27	A0	26	SER	2.4
27	G0	31	LYS	2.4
38	HE	48	PHE	2.4
35	HA	969	A	2.4
35	HA	1167	A	2.4
40	FG	76	LYS	2.4
42	HI	15	SER	2.4
48	FO	86	GLY	2.4
51	HR	47	THR	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
21	GU	49	PRO	2.4
47	HN	41	ARG	2.4
51	HR	74	HIS	2.4
7	GG	130	ILE	2.4
31	G4	23	ILE	2.4
35	HA	987	G	2.4
50	HQ	5	ILE	2.4
53	FT	67	ILE	2.4
34	BB	33	ALA	2.4
37	FD	68	LEU	2.4
39	DF	54	LEU	2.4
55	DV	566	LEU	2.4
13	EM	67	VAL	2.4
24	CX	57	VAL	2.4
44	DK	16	VAL	2.4
55	HV	501	VAL	2.4
17	EQ	4	LYS	2.4
19	GS	49	LYS	2.4
22	CV	83	LYS	2.4
6	CF	38	GLY	2.4
12	GL	22	GLY	2.4
15	GO	33	ARG	2.4
20	ET	6	ARG	2.4
49	HP	56	ARG	2.4
2	GC	115	ILE	2.4
3	EA	2184	A	2.4
3	GA	2142	A	2.4
3	GA	2182	U	2.4
6	GF	78	ILE	2.4
9	AI	107	GLU	2.4
26	GZ	36	GLU	2.4
34	HB	180	ILE	2.4
37	FD	35	GLU	2.4
49	HP	34	GLU	2.4
10	CJ	28	LEU	2.3
37	DD	109	ALA	2.4
43	BJ	90	LEU	2.3
2	CC	252	LYS	2.3
2	GC	182	LYS	2.3
8	EH	3	VAL	2.3
32	E5	15	VAL	2.3
35	BA	844	G	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
35	HA	833	G	2.3
35	HA	1337	G	2.3
35	HA	1525	G	2.3
40	BG	76	LYS	2.3
49	BP	20	VAL	2.3
25	GY	58	ASN	2.3
54	HU	54	LYS	2.3
13	EM	51	ARG	2.3
9	EI	88	GLY	2.3
21	CU	84	PHE	2.3
22	GV	91	PHE	2.3
34	HB	221	ARG	2.3
42	DI	45	ARG	2.3
50	FQ	11	ARG	2.3
55	FV	359	ARG	2.3
55	FV	648	GLU	2.3
55	HV	242	GLU	2.3
9	CI	117	THR	2.3
15	GO	87	ILE	2.3
34	FB	28	PRO	2.3
3	CA	546	U	2.3
44	FK	34	ILE	2.3
52	DS	49	ILE	2.3
5	AE	11	ALA	2.3
8	CH	1	MET	2.3
9	AI	16	MET	2.3
5	GE	74	LYS	2.3
12	EL	95	LEU	2.3
13	EM	33	LEU	2.3
25	EY	61	ALA	2.3
37	BD	193	ALA	2.3
37	HD	109	ALA	2.3
42	DI	54	LEU	2.3
55	FV	549	TYR	2.3
3	EA	1420	A	2.3
8	AH	19	VAL	2.3
19	GS	31	GLN	2.3
42	HI	67	VAL	2.3
46	HM	52	GLN	2.3
8	AH	27	ARG	2.3
24	GX	27	ARG	2.3
36	DC	126	ARG	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
37	BD	115	ARG	2.3
39	HF	24	ARG	2.3
48	HO	72	ARG	2.3
34	DB	223	GLY	2.3
46	HM	51	GLY	2.3
3	GA	1179	G	2.3
35	FA	423	G	2.3
6	CF	55	ASP	2.3
7	GG	44	HIS	2.3
9	GI	46	ASP	2.3
18	GR	48	LYS	2.3
18	GR	101	ILE	2.3
22	GV	85	LYS	2.3
24	AX	19	HIS	2.3
55	HV	505	HIS	2.3
7	GG	104	LEU	2.3
8	AH	15	LEU	2.3
34	DB	210	THR	2.3
45	HL	49	LEU	2.3
3	GA	2150	C	2.3
35	FA	95	C	2.3
35	HA	1226	C	2.3
55	HV	311	ALA	2.3
2	GC	19	VAL	2.3
9	GI	69	VAL	2.3
20	GT	53	VAL	2.3
31	C4	4	ARG	2.3
37	HD	165	ARG	2.3
39	DF	68	GLN	2.3
43	HJ	57	VAL	2.3
44	DK	106	ARG	2.3
55	FV	330	VAL	2.3
3	GA	1848	A	2.3
11	EK	112	PHE	2.3
36	HC	78	GLY	2.3
41	DH	45	PHE	2.3
28	A1	49	LYS	2.3
41	HH	56	LYS	2.3
53	DT	76	LYS	2.3
34	DB	76	SER	2.3
9	AI	53	PRO	2.3
9	CI	19	PRO	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
12	CL	111	ILE	2.3
15	CO	40	ILE	2.3
17	EQ	8	ILE	2.3
37	FD	132	ILE	2.3
42	DI	65	ILE	2.3
42	DI	79	ILE	2.3
7	EG	132	LEU	2.3
3	CA	2133	G	2.3
3	GA	2102	G	2.3
3	GA	2105	U	2.3
4	GD	59	ARG	2.3
5	AE	199	MET	2.3
12	CL	67	THR	2.3
32	C5	95	LEU	2.3
47	DN	27	LEU	2.3
55	FV	350	LEU	2.3
5	GE	88	ARG	2.3
35	DA	847	G	2.3
46	HM	90	ARG	2.3
52	FS	66	MET	2.3
55	BV	52	TRP	2.3
6	GF	134	GLN	2.3
37	FD	135	TYR	2.3
5	GE	32	VAL	2.3
20	ET	85	VAL	2.3
32	E5	133	GLU	2.3
37	DD	67	VAL	2.3
43	FJ	98	VAL	2.3
4	GD	90	PHE	2.3
7	GG	26	LYS	2.3
12	EL	84	LYS	2.3
12	GL	66	PHE	2.3
31	G4	38	GLY	2.3
34	FB	31	PHE	2.3
36	HC	86	LYS	2.3
41	DH	69	LYS	2.3
44	HK	75	LYS	2.3
35	BA	80	A	2.3
6	EF	45	ASP	2.3
4	AD	186	LEU	2.3
6	CF	65	LEU	2.3
14	EN	52	ILE	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	GS	102	HIS	2.3
36	FC	75	ILE	2.3
36	FC	149	ILE	2.3
36	HC	63	SER	2.3
15	EO	26	LEU	2.3
27	C0	27	LEU	2.3
47	DN	96	LEU	2.3
55	DV	382	ILE	2.3
34	DB	73	ARG	2.3
43	BJ	37	ARG	2.3
47	HN	63	ARG	2.3
48	DO	17	ARG	2.3
3	AA	1729	U	2.3
13	GM	53	MET	2.3
15	GO	37	ALA	2.3
32	C5	87	GLU	2.3
55	FV	305	THR	2.3
9	EI	44	LYS	2.3
21	GU	3	LYS	2.3
32	C5	27	VAL	2.3
37	HD	143	VAL	2.3
42	HI	115	LYS	2.3
47	DN	84	VAL	2.3
55	FV	611	VAL	2.3
21	AU	72	PHE	2.3
21	GU	95	PHE	2.3
23	EW	75	ASN	2.3
3	GA	1178	C	2.3
3	GA	2179	C	2.3
6	EF	135	ILE	2.3
9	EI	27	LEU	2.3
10	EJ	101	ILE	2.3
15	GO	95	SER	2.3
20	GT	32	LEU	2.3
23	CW	24	ARG	2.3
26	GZ	37	ARG	2.3
42	DI	73	SER	2.3
43	FJ	89	ARG	2.3
49	HP	57	ILE	2.3
52	FS	11	ILE	2.3
52	FS	15	LEU	2.3
53	HT	59	ASP	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	FV	363	ILE	2.3
12	GL	104	GLN	2.3
13	GM	109	PRO	2.3
36	HC	166	GLU	2.3
37	FD	151	LYS	2.3
38	FE	159	LYS	2.3
44	DK	83	GLU	2.3
54	DU	54	LYS	2.3
11	GK	11	ALA	2.3
23	GW	60	ALA	2.3
24	GX	20	ALA	2.3
34	HB	52	ALA	2.3
41	DH	55	THR	2.3
39	DF	96	VAL	2.3
40	HG	64	VAL	2.3
55	HV	204	TYR	2.3
12	GL	47	ARG	2.3
3	GA	281	C	2.3
7	EG	36	LEU	2.3
9	CI	108	ILE	2.3
10	EJ	111	LYS	2.3
12	AL	57	LEU	2.3
15	EO	56	LYS	2.3
17	GQ	64	ILE	2.3
18	GR	59	ILE	2.3
19	CS	51	LEU	2.3
30	G3	34	LYS	2.3
34	HB	84	LEU	2.3
35	HA	988	G	2.3
35	HA	1241	G	2.3
35	HA	1338	G	2.3
37	DD	190	ASP	2.3
35	HA	1273	C	2.3
37	FD	198	HIS	2.3
40	FG	120	LEU	2.3
44	HK	82	LEU	2.3
55	HV	16	SER	2.3
55	HV	219	HIS	2.3
55	HV	606	LYS	2.3
22	CV	81	PRO	2.3
9	AI	26	ALA	2.3
9	GI	113	ALA	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
17	GQ	112	ALA	2.3
9	GI	61	TYR	2.3
26	CZ	3	THR	2.3
28	G1	46	VAL	2.3
34	FB	188	THR	2.3
35	HA	1318	A	2.3
42	HI	10	GLY	2.3
45	HL	41	THR	2.3
55	FV	552	ALA	2.3
55	HV	690	ALA	2.3
39	HF	70	VAL	2.3
49	FP	20	VAL	2.3
5	GE	158	PHE	2.3
19	GS	75	PHE	2.3
48	HO	89	ARG	2.3
55	DV	37	ASN	2.3
55	FV	3	ARG	2.3
30	G3	11	LYS	2.3
34	HB	144	GLU	2.3
37	FD	8	LYS	2.3
38	BE	159	LYS	2.3
46	DM	44	LYS	2.3
7	CG	165	ASP	2.3
7	EG	46	ASP	2.3
12	AL	77	ILE	2.3
20	GT	2	ILE	2.3
36	BC	178	LEU	2.3
50	FQ	67	LEU	2.3
34	HB	88	GLN	2.3
53	HT	68	HIS	2.3
43	HJ	39	PRO	2.3
1	GB	117	G	2.3
25	GY	35	GLY	2.3
35	HA	991	U	2.3
35	HA	1215	G	2.3
35	HA	1224	U	2.3
40	DG	19	GLY	2.3
44	HK	121	CYS	2.3
46	DM	36	ALA	2.3
50	FQ	54	GLY	2.3
53	FT	27	MET	2.3
29	C2	40	ALA	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
42	HI	101	ALA	2.3
53	HT	42	GLY	2.3
55	FV	575	GLY	2.3
6	GF	137	PHE	2.3
32	C5	54	VAL	2.3
28	A1	27	ARG	2.3
32	E5	106	PHE	2.3
34	BB	29	PHE	2.3
40	BG	84	THR	2.3
55	FV	391	VAL	2.3
42	DI	33	ARG	2.3
3	AA	2211	A	2.3
3	AA	2602	A	2.3
3	CA	654	A	2.3
9	GI	50	LYS	2.2
34	FB	35	ASN	2.2
38	HE	122	ASN	2.2
40	HG	131	LYS	2.2
2	GC	33	LEU	2.2
9	CI	106	GLN	2.2
10	CJ	142	ILE	2.2
11	GK	8	LEU	2.2
18	CR	87	GLN	2.2
21	CU	28	LEU	2.2
30	G3	43	LEU	2.2
37	FD	64	ILE	2.2
46	DM	69	LEU	2.2
53	FT	68	HIS	2.2
6	CF	64	PRO	2.2
55	BV	306	PRO	2.2
5	GE	58	LYS	2.2
6	EF	149	ARG	2.2
6	CF	142	TYR	2.2
6	GF	2	LYS	2.2
12	AL	9	ALA	2.2
35	HA	1341	U	2.2
7	GG	89	VAL	2.2
14	EN	80	PHE	2.2
15	GO	117	PHE	2.2
21	GU	66	VAL	2.2
34	HB	106	VAL	2.2
36	HC	164	ARG	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	HL	108	LYS	2.2
54	FU	33	ARG	2.2
35	FA	210	C	2.2
35	HA	998	C	2.2
35	HA	1400	C	2.2
55	FV	336	PHE	2.2
4	GD	74	GLU	2.2
3	GA	1177	G	2.2
7	GG	61	TRP	2.2
20	ET	80	TRP	2.2
12	CL	95	LEU	2.2
13	GM	106	ASP	2.2
15	CO	89	ASP	2.2
26	EZ	23	LEU	2.2
30	C3	32	LEU	2.2
35	HA	1044	A	2.2
35	HA	1357	A	2.2
39	HF	54	LEU	2.2
40	DG	66	LEU	2.2
6	AF	155	ILE	2.2
7	AG	44	HIS	2.2
21	EU	57	ILE	2.2
49	BP	33	ILE	2.2
47	DN	58	SER	2.2
2	GC	269	ARG	2.2
7	CG	34	ARG	2.2
9	AI	99	LYS	2.2
20	CT	65	GLY	2.2
34	DB	157	PRO	2.2
34	DB	201	GLY	2.2
55	BV	511	GLY	2.2
47	DN	6	MET	2.2
2	EC	34	GLU	2.2
6	EF	39	VAL	2.2
9	AI	129	GLU	2.2
9	CI	23	VAL	2.2
37	FD	95	GLU	2.2
37	DD	135	TYR	2.2
40	DG	87	VAL	2.2
43	FJ	84	VAL	2.2
44	HK	41	ALA	2.2
52	HS	73	GLU	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	HV	603	GLU	2.2
34	HB	210	THR	2.2
46	DM	8	ASN	2.2
55	FV	5	THR	2.2
3	AA	1726	C	2.2
3	CA	1728	C	2.2
5	CE	164	LEU	2.2
10	GJ	86	GLN	2.2
34	HB	152	ASP	2.2
43	BJ	35	GLN	2.2
45	HL	7	LEU	2.2
46	BM	19	LEU	2.2
2	GC	63	ILE	2.2
36	HC	14	ILE	2.2
21	GU	18	LYS	2.2
35	HA	741	G	2.2
38	FE	126	LYS	2.2
3	GA	910	A	2.2
20	AT	6	ARG	2.2
20	CT	69	ARG	2.2
36	DC	197	GLY	2.2
38	BE	102	GLY	2.2
39	DF	45	ARG	2.2
40	BG	111	ARG	2.2
50	FQ	77	ARG	2.2
50	HQ	11	ARG	2.2
37	FD	105	MET	2.2
40	DG	14	PRO	2.2
40	HG	74	GLU	2.2
55	HV	308	GLU	2.2
5	GE	11	ALA	2.2
19	GS	5	ALA	2.2
36	DC	23	PHE	2.2
49	HP	58	ALA	2.2
50	FQ	82	ALA	2.2
2	CC	102	TYR	2.2
7	CG	15	ASP	2.2
7	CG	71	LEU	2.2
9	AI	18	ASN	2.2
20	AT	92	ASN	2.2
20	GT	48	GLN	2.2
21	CU	16	LYS	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
27	E0	27	LEU	2.2
32	E5	122	GLN	2.2
37	HD	181	THR	2.2
28	G1	29	LYS	2.2
37	FD	58	LYS	2.2
40	FG	136	LYS	2.2
3	CA	140	C	2.2
5	CE	88	ARG	2.2
11	EK	71	ARG	2.2
26	CZ	29	ARG	2.2
32	E5	45	GLY	2.2
35	HA	930	C	2.2
35	HA	1045	C	2.2
50	FQ	53	CYS	2.2
55	HV	297	GLY	2.2
2	CC	78	GLU	2.2
3	CA	2187	U	2.2
3	EA	1583	A	2.2
28	G1	38	PHE	2.2
34	FB	99	MET	2.2
3	GA	1416	G	2.2
3	GA	2109	U	2.2
35	FA	77	A	2.2
35	HA	938	A	2.2
38	BE	127	ALA	2.2
54	HU	12	PHE	2.2
5	GE	31	VAL	2.2
7	CG	14	VAL	2.2
14	GN	29	VAL	2.2
15	EO	28	VAL	2.2
44	DK	86	VAL	2.2
55	DV	311	ALA	2.2
32	C5	132	TYR	2.2
37	FD	65	TYR	2.2
46	FM	13	LYS	2.2
13	CM	41	LEU	2.2
21	AU	51	LEU	2.2
39	HF	97	THR	2.2
44	DK	81	ASN	2.2
45	HL	54	ARG	2.2
55	DV	393	THR	2.2
2	CC	266	ILE	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
21	CU	38	ILE	2.2
18	GR	67	GLY	2.2
20	ET	71	GLY	2.2
25	CY	24	GLU	2.2
34	DB	43	GLU	2.2
36	HC	190	HIS	2.2
12	GL	68	SER	2.2
35	FA	1533	C	2.2
35	HA	985	C	2.2
49	FP	41	PRO	2.2
5	EE	23	PHE	2.2
34	BB	31	PHE	2.2
40	FG	151	PHE	2.2
50	FQ	4	LYS	2.2
55	BV	71	PHE	2.2
3	CA	1729	U	2.2
6	GF	131	VAL	2.2
7	GG	112	VAL	2.2
37	BD	25	VAL	2.2
38	HE	118	ALA	2.2
35	HA	1519	A	2.2
41	DH	18	GLN	2.2
55	BV	383	ALA	2.2
55	HV	319	ALA	2.2
3	GA	1205	A	2.2
34	FB	42	LEU	2.2
47	BN	20	TYR	2.2
37	FD	63	ARG	2.2
55	FV	243	LEU	2.2
55	HV	466	LEU	2.2
20	ET	92	ASN	2.2
35	HA	742	G	2.2
35	HA	838	G	2.2
54	DU	9	ASN	2.2
6	CF	43	ILE	2.2
32	A5	45	GLY	2.2
34	DB	185	ILE	2.2
34	HB	95	TRP	2.2
55	HV	218	TRP	2.2
9	AI	80	LYS	2.2
47	FN	47	LYS	2.2
52	DS	25	SER	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	FV	562	LYS	2.2
9	GI	16	MET	2.2
16	EP	19	PHE	2.2
42	FI	127	PHE	2.2
3	GA	1173	U	2.2
5	AE	161	ALA	2.2
11	EK	69	VAL	2.2
19	CS	95	ARG	2.2
19	GS	44	ALA	2.2
21	EU	1	ALA	2.2
42	HI	113	ARG	2.2
44	DK	21	ALA	2.2
44	HK	69	ARG	2.2
48	HO	62	GLN	2.2
55	DV	359	ARG	2.2
50	HQ	67	LEU	2.2
37	FD	190	ASP	2.2
41	FH	58	GLU	2.2
15	GO	43	ASN	2.2
42	HI	91	ASP	2.2
4	ED	93	GLY	2.2
10	EJ	142	ILE	2.2
15	GO	96	GLY	2.2
21	CU	4	ILE	2.2
26	GZ	4	ILE	2.2
36	FC	78	GLY	2.2
40	HG	72	THR	2.2
40	HG	133	THR	2.2
48	DO	25	THR	2.2
16	GP	105	LYS	2.2
3	EA	1171	G	2.2
35	HA	951	G	2.2
35	HA	1043	G	2.2
38	DE	95	PHE	2.2
24	GX	44	ARG	2.2
34	BB	135	MET	2.2
34	FB	48	MET	2.2
34	FB	94	ARG	2.2
40	HG	92	ARG	2.2
3	EA	2185	U	2.2
35	BA	1286	U	2.2
35	HA	965	U	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	BV	501	VAL	2.2
55	DV	384	ALA	2.2
55	FV	275	VAL	2.2
12	GL	79	LEU	2.2
27	C0	38	LEU	2.2
38	HE	36	LEU	2.2
38	HE	144	LEU	2.2
49	BP	74	LEU	2.2
3	GA	331	C	2.2
35	HA	1001	C	2.2
35	HA	1209	C	2.2
37	BD	99	ASP	2.2
6	CF	153	ILE	2.2
9	AI	86	LYS	2.2
13	CM	37	GLY	2.2
21	CU	57	ILE	2.2
23	AW	36	ILE	2.2
37	FD	121	LYS	2.2
41	DH	21	ASN	2.2
55	DV	594	LYS	2.2
52	DS	48	THR	2.2
3	CA	2135	A	2.1
35	DA	687	A	2.1
7	GG	148	ARG	2.1
6	EF	16	MET	2.1
9	CI	29	GLN	2.1
32	C5	53	ARG	2.1
37	DD	72	PHE	2.1
45	BL	14	ARG	2.1
46	FM	52	GLN	2.1
47	HN	69	ARG	2.1
52	BS	41	PHE	2.1
55	FV	202	PHE	2.1
18	CR	1	MET	2.1
43	DJ	47	GLU	2.1
3	GA	1584	U	2.1
7	EG	173	ALA	2.1
8	GH	10	ALA	2.1
8	GH	37	VAL	2.1
18	ER	103	ALA	2.1
19	CS	43	ALA	2.1
20	ET	38	ALA	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	GV	83	LYS	2.1
25	CY	2	LYS	2.1
32	A5	146	ALA	2.1
32	E5	92	ALA	2.1
34	DB	178	LEU	2.1
34	HB	140	LEU	2.1
35	HA	1039	G	2.1
35	HA	1138	G	2.1
35	HA	1405	G	2.1
40	HG	94	VAL	2.1
50	DQ	22	VAL	2.1
55	BV	343	VAL	2.1
37	FD	194	ASP	2.1
40	HG	137	LYS	2.1
8	CH	24	GLY	2.1
55	DV	581	GLY	2.1
9	AI	108	ILE	2.1
9	CI	100	ILE	2.1
13	CM	96	ILE	2.1
32	C5	82	ILE	2.1
35	HA	1262	C	2.1
52	FS	39	THR	2.1
55	HV	5	THR	2.1
55	HV	244	THR	2.1
25	CY	38	GLN	2.1
48	HO	80	GLN	2.1
5	GE	99	LYS	2.1
32	A5	68	PRO	2.1
43	HJ	43	PRO	2.1
55	HV	370	LYS	2.1
6	GF	88	VAL	2.1
12	CL	110	VAL	2.1
15	GO	54	VAL	2.1
24	EX	3	VAL	2.1
35	HA	653	U	2.1
35	HA	837	U	2.1
36	HC	5	VAL	2.1
37	FD	102	VAL	2.1
41	FH	110	VAL	2.1
45	DL	124	ALA	2.1
50	HQ	79	VAL	2.1
55	HV	642	LEU	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
30	G3	36	ALA	2.1
32	E5	93	ALA	2.1
55	HV	2	ALA	2.1
36	HC	158	GLY	2.1
48	HO	18	ASP	2.1
50	DQ	35	GLY	2.1
55	HV	513	GLY	2.1
55	HV	554	ASP	2.1
7	CG	140	ILE	2.1
34	BB	163	ILE	2.1
34	HB	145	ASN	2.1
35	HA	1309	G	2.1
38	FE	105	ILE	2.1
43	FJ	100	ILE	2.1
46	FM	7	ILE	2.1
17	GQ	57	ARG	2.1
21	CU	85	ARG	2.1
2	GC	29	PHE	2.1
22	CV	56	PHE	2.1
28	A1	31	GLU	2.1
28	G1	22	THR	2.1
37	HD	202	GLU	2.1
40	HG	129	GLU	2.1
41	DH	58	GLU	2.1
44	HK	61	PHE	2.1
51	DR	35	GLU	2.1
55	HV	235	GLU	2.1
3	EA	2143	C	2.1
34	FB	65	LYS	2.1
35	HA	999	C	2.1
35	HA	1208	C	2.1
36	DC	53	SER	2.1
36	DC	199	LYS	2.1
41	BH	50	LYS	2.1
12	CL	6	LEU	2.1
40	FG	144	MET	2.1
16	CP	69	VAL	2.1
22	CV	65	VAL	2.1
44	FK	129	VAL	2.1
47	FN	16	LEU	2.1
9	EI	43	ALA	2.1
9	GI	51	GLY	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	CS	34	ASP	2.1
21	EU	74	ALA	2.1
31	G4	29	ALA	2.1
34	DB	75	ALA	2.1
35	HA	1019	A	2.1
35	HA	1285	A	2.1
35	HA	1324	A	2.1
42	FI	76	ALA	2.1
42	HI	62	ASP	2.1
43	FJ	75	ASP	2.1
52	DS	8	GLY	2.1
55	FV	227	ALA	2.1
55	FV	356	ALA	2.1
6	AF	127	TYR	2.1
18	GR	2	TYR	2.1
20	ET	12	ARG	2.1
39	BF	52	ASN	2.1
48	DO	58	ARG	2.1
51	DR	61	ARG	2.1
55	FV	221	ASN	2.1
21	AU	90	LYS	2.1
38	HE	14	LYS	2.1
42	DI	89	GLU	2.1
54	DU	20	LYS	2.1
6	GF	158	THR	2.1
9	CI	20	SER	2.1
21	GU	29	SER	2.1
55	HV	647	SER	2.1
19	ES	51	LEU	2.1
19	GS	82	MET	2.1
20	CT	61	LEU	2.1
34	DB	153	MET	2.1
46	DM	95	LEU	2.1
52	DS	15	LEU	2.1
55	BV	333	LEU	2.1
3	AA	140	C	2.1
7	EG	16	VAL	2.1
13	CM	61	GLY	2.1
36	HC	74	GLY	2.1
37	FD	101	VAL	2.1
11	GK	16	ALA	2.1
13	GM	59	ARG	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
14	AN	64	ARG	2.1
20	CT	76	ARG	2.1
26	AZ	29	ARG	2.1
34	DB	136	ARG	2.1
40	HG	70	ARG	2.1
41	HH	119	ALA	2.1
42	BI	12	ARG	2.1
42	FI	41	ARG	2.1
46	BM	3	ARG	2.1
55	HV	634	ASP	2.1
22	GV	31	TYR	2.1
24	GX	42	GLU	2.1
31	C4	15	LYS	2.1
36	HC	168	TYR	2.1
39	DF	93	LYS	2.1
52	DS	80	TYR	2.1
32	A5	103	ASN	2.1
2	GC	116	GLN	2.1
12	CL	64	PHE	2.1
14	EN	102	PHE	2.1
6	CF	158	THR	2.1
7	CG	49	LEU	2.1
7	CG	50	THR	2.1
36	DC	178	LEU	2.1
40	DG	88	PRO	2.1
52	BS	13	LEU	2.1
55	FV	561	LEU	2.1
55	HV	238	LEU	2.1
2	CC	202	ARG	2.1
6	CF	73	VAL	2.1
14	EN	101	GLY	2.1
20	AT	12	ARG	2.1
35	BA	1032	G	2.1
35	DA	1002	G	2.1
38	HE	54	ARG	2.1
35	FA	723	U	2.1
35	HA	799	G	2.1
48	DO	12	VAL	2.1
55	HV	167	VAL	2.1
9	AI	17	ALA	2.1
34	DB	193	ASP	2.1
19	GS	2	GLU	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
20	GT	13	ALA	2.1
28	G1	6	GLU	2.1
35	HA	1390	U	2.1
37	HD	37	ALA	2.1
43	BJ	23	ALA	2.1
45	BL	18	LYS	2.1
47	HN	86	GLU	2.1
55	BV	603	GLU	2.1
55	HV	249	LYS	2.1
15	EO	58	ILE	2.1
23	GW	81	ILE	2.1
34	BB	39	ILE	2.1
34	FB	39	ILE	2.1
55	BV	557	ILE	2.1
9	EI	18	ASN	2.1
16	CP	114	ASN	2.1
37	HD	32	CYS	2.1
55	HV	478	ASN	2.1
3	GA	279	A	2.1
46	HM	91	HIS	2.1
13	EM	95	LEU	2.1
23	AW	29	SER	2.1
24	AX	48	LEU	2.1
43	DJ	68	ARG	2.1
46	HM	108	THR	2.1
47	DN	23	LYS	2.1
54	DU	25	LYS	2.1
18	GR	96	VAL	2.1
23	GW	84	GLU	2.1
34	DB	51	GLU	2.1
34	DB	195	VAL	2.1
44	DK	76	GLU	2.1
45	DL	25	GLU	2.1
55	HV	409	MET	2.1
5	CE	45	ALA	2.1
9	GI	40	ALA	2.1
55	DV	600	ALA	2.1
36	DC	103	ILE	2.1
39	DF	71	ILE	2.1
44	DK	116	ILE	2.1
44	HK	116	ILE	2.1
7	GG	37	ASN	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
43	DJ	20	GLN	2.1
35	HA	927	G	2.1
35	HA	1300	G	2.1
38	DE	70	ASN	2.1
2	GC	231	HIS	2.1
32	A5	69	PHE	2.1
12	CL	123	ARG	2.1
14	GN	38	LEU	2.1
19	CS	110	ARG	2.1
18	GR	88	GLY	2.1
20	CT	87	LEU	2.1
21	CU	20	LYS	2.1
32	A5	72	LEU	2.1
34	HB	25	LYS	2.1
37	BD	73	ARG	2.1
38	FE	11	LEU	2.1
43	BJ	89	ARG	2.1
45	BL	15	LYS	2.1
48	DO	88	ARG	2.1
48	HO	84	ARG	2.1
11	EK	68	GLY	2.1
35	HA	1503	A	2.1
40	FG	82	GLY	2.1
40	HG	123	GLU	2.1
43	FJ	27	GLU	2.1
54	DU	22	SER	2.1
5	GE	154	ASP	2.1
7	GG	14	VAL	2.1
14	GN	24	MET	2.1
22	GV	50	MET	2.1
37	FD	143	VAL	2.1
37	HD	102	VAL	2.1
38	HE	114	VAL	2.1
42	DI	125	PRO	2.1
46	HM	60	VAL	2.1
48	DO	74	ASP	2.1
49	HP	20	VAL	2.1
55	FV	501	VAL	2.1
3	AA	2797	U	2.1
3	CA	139	U	2.1
35	FA	121	U	2.1
23	CW	35	ILE	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	HC	104	ALA	2.1
41	FH	37	ALA	2.1
47	DN	22	ALA	2.1
15	GO	99	TYR	2.1
30	G3	63	TYR	2.1
5	EE	24	ASN	2.1
10	AJ	111	LYS	2.1
23	AW	23	LYS	2.1
25	GY	27	ASN	2.1
34	DB	80	LYS	2.1
34	HB	38	HIS	2.1
38	HE	89	HIS	2.1
39	HF	3	HIS	2.1
55	HV	317	PHE	2.1
44	BK	56	ARG	2.1
54	FU	21	ARG	2.1
5	AE	180	LEU	2.1
14	GN	115	LEU	2.1
32	C5	139	LEU	2.1
34	FB	77	GLU	2.1
35	HA	1365	G	2.1
38	HE	109	GLY	2.1
40	HG	58	GLU	2.1
54	BU	36	GLU	2.1
3	AA	504	A	2.0
3	CA	2101	A	2.0
5	GE	146	VAL	2.0
9	GI	124	MET	2.0
17	EQ	7	VAL	2.0
21	EU	41	VAL	2.0
26	GZ	54	VAL	2.0
31	C4	1	MET	2.0
34	BB	126	ASP	2.0
37	HD	155	VAL	2.0
39	HF	92	THR	2.0
43	BJ	28	THR	2.0
51	DR	28	THR	2.0
51	DR	34	THR	2.0
53	HT	28	MET	2.0
3	CA	2185	U	2.0
2	CC	17	LYS	2.0
4	GD	14	ILE	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
5	GE	36	ALA	2.0
9	AI	29	GLN	2.0
14	GN	113	ILE	2.0
20	CT	35	ALA	2.0
44	HK	47	ALA	2.0
55	BV	374	ILE	2.0
55	BV	507	LYS	2.0
55	DV	84	ILE	2.0
55	HV	365	GLN	2.0
6	GF	14	LYS	2.0
7	CG	43	LYS	2.0
47	DN	47	LYS	2.0
5	EE	124	PHE	2.0
6	GF	101	ARG	2.0
16	AP	50	ARG	2.0
26	GZ	44	ARG	2.0
34	BB	35	ASN	2.0
38	DE	33	PHE	2.0
39	DF	44	ARG	2.0
11	GK	121	GLU	2.0
18	GR	34	GLU	2.0
39	DF	94	HIS	2.0
49	HP	45	GLU	2.0
55	BV	548	GLU	2.0
6	CF	48	LEU	2.0
7	GG	70	LEU	2.0
12	CL	92	LEU	2.0
34	FB	147	LEU	2.0
37	HD	93	LEU	2.0
39	HF	47	LEU	2.0
50	FQ	8	LEU	2.0
3	AA	2146	C	2.0
3	GA	267	C	2.0
9	EI	60	VAL	2.0
12	GL	91	ASP	2.0
21	AU	80	ASP	2.0
45	HL	45	PRO	2.0
5	GE	53	THR	2.0
9	GI	110	GLN	2.0
21	CU	23	LYS	2.0
21	GU	78	LYS	2.0
34	DB	130	LYS	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
35	HA	1316	G	2.0
37	HD	54	GLN	2.0
41	BH	26	THR	2.0
45	HL	53	CYS	2.0
52	DS	28	LYS	2.0
34	FB	75	ALA	2.0
54	DU	52	ALA	2.0
55	HV	494	ILE	2.0
3	CA	2211	A	2.0
3	GA	282	A	2.0
6	EF	29	ARG	2.0
32	C5	62	ARG	2.0
35	BA	1167	A	2.0
45	HL	36	ARG	2.0
5	GE	127	GLU	2.0
7	CG	123	GLU	2.0
17	GQ	35	PHE	2.0
25	CY	59	GLU	2.0
32	E5	107	GLU	2.0
45	HL	38	TYR	2.0
47	HN	62	ASN	2.0
53	HT	53	GLU	2.0
55	DV	369	ASN	2.0
14	EN	83	LEU	2.0
37	DD	93	LEU	2.0
55	DV	543	GLY	2.0
55	FV	651	GLY	2.0
6	GF	68	LYS	2.0
21	AU	16	LYS	2.0
24	GX	55	MET	2.0
34	DB	122	ASP	2.0
34	HB	58	LYS	2.0
39	HF	41	ASP	2.0
52	FS	28	LYS	2.0
55	DV	562	LYS	2.0
2	AC	250	GLN	2.0
2	CC	244	VAL	2.0
6	EF	24	VAL	2.0
41	HH	10	MET	2.0
51	DR	69	PRO	2.0
53	HT	61	GLN	2.0
54	BU	32	VAL	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	FV	300	ASP	2.0
9	AI	30	GLN	2.0
55	HV	391	VAL	2.0
12	CL	69	ARG	2.0
19	GS	110	ARG	2.0
39	DF	79	ARG	2.0
40	DG	70	ARG	2.0
41	FH	46	ILE	2.0
35	HA	1344	C	2.0
35	HA	1366	C	2.0
41	HH	26	THR	2.0
46	HM	57	ARG	2.0
49	HP	51	ARG	2.0
44	DK	73	ALA	2.0
54	HU	30	ALA	2.0
55	FV	576	ILE	2.0
8	CH	45	GLU	2.0
14	CN	120	GLU	2.0
17	GQ	88	GLU	2.0
48	HO	83	GLU	2.0
6	AF	176	PHE	2.0
55	FV	322	PHE	2.0
3	CA	2102	G	2.0
3	EA	654	A	2.0
5	CE	157	LEU	2.0
5	CE	200	LEU	2.0
6	GF	123	GLY	2.0
21	GU	39	ASN	2.0
32	E5	103	ASN	2.0
35	HA	650	G	2.0
38	HE	79	GLY	2.0
49	HP	49	GLY	2.0
53	FT	52	ASN	2.0
24	EX	70	LEU	2.0
39	FF	93	LYS	2.0
4	AD	1	MET	2.0
5	GE	113	VAL	2.0
7	CG	75	VAL	2.0
7	EG	161	VAL	2.0
10	GJ	92	MET	2.0
11	GK	113	MET	2.0
13	GM	89	VAL	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
18	GR	20	VAL	2.0
20	CT	72	GLN	2.0
21	GU	10	VAL	2.0
30	C3	48	MET	2.0
34	DB	186	VAL	2.0
42	FI	37	GLN	2.0
55	FV	610	PRO	2.0
6	EF	78	ILE	2.0
7	AG	23	ILE	2.0
40	HG	42	ILE	2.0
3	GA	931	U	2.0
15	GO	31	THR	2.0
39	FF	92	THR	2.0
42	DI	101	ALA	2.0
43	DJ	21	ALA	2.0
44	HK	21	ALA	2.0
46	BM	2	ALA	2.0
50	DQ	70	THR	2.0
54	BU	42	THR	2.0
55	BV	307	ALA	2.0
2	CC	94	LEU	2.0
3	GA	236	C	2.0
5	EE	139	LYS	2.0
9	EI	81	LYS	2.0
12	AL	82	LEU	2.0
13	GM	62	LYS	2.0
13	GM	124	LEU	2.0
23	GW	23	LYS	2.0
23	GW	71	LYS	2.0
35	HA	1384	C	2.0
36	DC	80	LYS	2.0
47	HN	23	LYS	2.0
51	HR	46	GLY	2.0
55	BV	562	LYS	2.0
55	HV	579	HIS	2.0
55	HV	685	LEU	2.0

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

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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains.

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	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	KBE	FW	1	9/10	0.44	15.91	17,21,37,51	0
56	KBE	BW	1	9/10	0.18	6.48	4,9,22,23	0
56	KBE	DW	1	9/10	0.29	5.72	33,35,41,48	0
56	KBE	HW	1	9/10	0.29	2.54	27,45,52,55	0
56	UAL	BW	5	9/10	0.19	1.77	16,20,27,32	0
56	DPP	BW	2	6/7	0.17	1.04	6,12,15,22	0
56	DPP	FW	2	6/7	0.18	0.83	18,22,27,32	0
56	5OH	HW	6	12/13	0.26	0.33	48,54,58,60	0
56	UAL	HW	5	9/10	0.21	0.06	36,48,56,60	0
56	UAL	FW	5	9/10	0.14	-0.55	15,18,29,38	0
56	UAL	DW	5	9/10	0.12	-0.69	17,27,36,48	0
56	DPP	HW	2	6/7	0.13	-0.70	30,41,49,53	0
56	5OH	BW	6	12/13	0.13	-0.93	11,17,21,21	0
56	5OH	FW	6	12/13	0.14	-0.95	10,24,29,30	0
56	5OH	DW	6	12/13	0.12	-1.06	22,29,35,37	0
56	DPP	DW	2	6/7	0.11	-1.15	25,37,38,39	0

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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	RSR	LLDF	B-factors(Å ²)	Q<0.9
57	MG	CA	3094	1/1	0.35	94.71	37,37,37,37	0
57	MG	FA	1627	1/1	0.51	69.00	53,53,53,53	0
57	MG	CA	3077	1/1	0.50	60.54	37,37,37,37	0
57	MG	GA	3079	1/1	0.81	58.84	52,52,52,52	0
57	MG	EA	3070	1/1	0.70	57.70	23,23,23,23	0
57	MG	CA	3092	1/1	0.20	57.27	58,58,58,58	0
57	MG	EA	3011	1/1	0.90	46.29	24,24,24,24	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	CA	3056	1/1	0.78	43.71	27,27,27,27	0
57	MG	AA	3097	1/1	0.59	42.48	34,34,34,34	0
57	MG	GA	3088	1/1	0.49	40.07	37,37,37,37	0
57	MG	GA	3131	1/1	0.85	39.58	43,43,43,43	0
57	MG	CA	3090	1/1	0.20	38.00	19,19,19,19	0
57	MG	EA	3041	1/1	0.18	36.35	3,3,3,3	0
57	MG	EA	3055	1/1	0.67	30.38	30,30,30,30	0
57	MG	GB	1201	1/1	0.24	30.14	62,62,62,62	0
57	MG	CA	3011	1/1	0.27	29.80	31,31,31,31	0
57	MG	GA	3055	1/1	0.73	29.78	21,21,21,21	0
57	MG	DA	1629	1/1	0.46	27.16	43,43,43,43	0
57	MG	AA	3093	1/1	0.24	25.70	34,34,34,34	0
57	MG	EA	3122	1/1	0.26	23.67	4,4,4,4	0
57	MG	EA	3015	1/1	0.55	22.62	2,2,2,2	0
57	MG	EA	3088	1/1	0.25	21.03	19,19,19,19	0
57	MG	CA	3134	1/1	0.22	21.00	21,21,21,21	0
57	MG	GA	3021	1/1	0.68	20.23	20,20,20,20	0
57	MG	GA	3133	1/1	0.39	19.53	15,15,15,15	0
57	MG	GA	3097	1/1	0.28	19.52	10,10,10,10	0
57	MG	EA	3124	1/1	0.44	17.87	4,4,4,4	0
57	MG	CA	3091	1/1	0.36	17.30	38,38,38,38	0
57	MG	CA	3051	1/1	0.33	17.27	6,6,6,6	0
57	MG	BA	1615	1/1	0.40	16.75	25,25,25,25	0
57	MG	EA	3040	1/1	0.27	16.33	11,11,11,11	0
57	MG	GA	3037	1/1	0.32	16.26	18,18,18,18	0
57	MG	CA	3115	1/1	0.22	16.14	51,51,51,51	0
57	MG	FA	1610	1/1	0.30	15.53	33,33,33,33	0
57	MG	GA	3068	1/1	0.38	15.52	30,30,30,30	0
57	MG	GA	3092	1/1	0.20	15.02	16,16,16,16	0
57	MG	CA	3007	1/1	0.18	14.41	35,35,35,35	0
57	MG	CA	3088	1/1	0.27	14.35	23,23,23,23	0
57	MG	AA	3125	1/1	0.21	14.11	8,8,8,8	0
57	MG	AA	3001	1/1	0.77	13.32	20,20,20,20	0
57	MG	AA	3134	1/1	0.24	13.00	21,21,21,21	0
57	MG	DA	1619	1/1	0.17	12.42	34,34,34,34	0
57	MG	CA	3112	1/1	0.28	12.36	10,10,10,10	0
57	MG	AA	3078	1/1	0.34	11.57	13,13,13,13	0
57	MG	CA	3135	1/1	0.32	11.42	8,8,8,8	0
57	MG	HA	1608	1/1	0.36	11.02	47,47,47,47	0
57	MG	BA	1639	1/1	0.25	10.93	12,12,12,12	0
57	MG	EA	3042	1/1	0.24	10.73	13,13,13,13	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	HA	1628	1/1	0.25	10.36	29,29,29,29	0
57	MG	FA	1612	1/1	0.29	10.35	4,4,4,4	0
57	MG	GA	3010	1/1	0.32	10.14	16,16,16,16	0
57	MG	GA	3084	1/1	0.37	10.08	30,30,30,30	0
57	MG	CA	3096	1/1	0.22	9.81	16,16,16,16	0
57	MG	GA	3135	1/1	0.43	9.71	28,28,28,28	0
57	MG	AA	3129	1/1	0.24	9.66	9,9,9,9	0
57	MG	DA	1608	1/1	0.24	9.25	30,30,30,30	0
57	MG	HA	1602	1/1	0.20	9.23	26,26,26,26	0
57	MG	AA	3047	1/1	0.23	9.01	12,12,12,12	0
57	MG	EA	3097	1/1	0.28	9.00	19,19,19,19	0
57	MG	BA	1637	1/1	0.34	8.98	15,15,15,15	0
57	MG	GA	3045	1/1	0.22	8.97	17,17,17,17	0
57	MG	EA	3137	1/1	0.30	8.91	11,11,11,11	0
57	MG	AA	3136	1/1	0.32	8.60	11,11,11,11	0
57	MG	EA	3009	1/1	0.23	8.58	2,2,2,2	0
57	MG	EA	3030	1/1	0.27	8.51	7,7,7,7	0
57	MG	GA	3124	1/1	0.23	8.34	36,36,36,36	0
57	MG	AA	3061	1/1	0.26	8.22	5,5,5,5	0
57	MG	FA	1624	1/1	0.21	8.11	27,27,27,27	0
57	MG	CA	3046	1/1	0.24	8.06	21,21,21,21	0
57	MG	AA	3046	1/1	0.29	7.92	13,13,13,13	0
57	MG	EA	3091	1/1	0.22	7.86	40,40,40,40	0
57	MG	EA	3125	1/1	0.24	7.73	18,18,18,18	0
57	MG	GA	3095	1/1	0.34	7.63	43,43,43,43	0
57	MG	AA	3045	1/1	0.22	7.33	8,8,8,8	0
57	MG	GA	3050	1/1	0.28	7.19	26,26,26,26	0
57	MG	AA	3135	1/1	0.39	7.12	12,12,12,12	0
57	MG	CA	3014	1/1	0.28	7.01	13,13,13,13	0
57	MG	AA	3037	1/1	0.48	6.99	30,30,30,30	0
57	MG	FA	1618	1/1	0.19	6.99	21,21,21,21	0
57	MG	EA	3005	1/1	0.19	6.97	16,16,16,16	0
57	MG	AA	3111	1/1	0.24	6.64	3,3,3,3	0
57	MG	HA	1613	1/1	0.27	6.46	32,32,32,32	0
57	MG	AA	3112	1/1	0.25	6.45	0,0,0,0	0
57	MG	AA	3100	1/1	0.29	6.43	1,1,1,1	0
57	MG	GA	3009	1/1	0.25	6.41	35,35,35,35	0
57	MG	CA	3089	1/1	0.19	6.40	14,14,14,14	0
57	MG	AA	3068	1/1	0.23	6.35	2,2,2,2	0
57	MG	GA	3067	1/1	0.27	6.18	29,29,29,29	0
57	MG	GA	3107	1/1	0.25	6.00	13,13,13,13	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	AA	3041	1/1	0.24	5.92	7,7,7,7	0
57	MG	GA	3100	1/1	0.29	5.52	12,12,12,12	0
57	MG	CA	3010	1/1	0.26	5.48	8,8,8,8	0
57	MG	EA	3051	1/1	0.26	5.36	6,6,6,6	0
57	MG	CA	3067	1/1	0.20	5.32	6,6,6,6	0
57	MG	BA	1608	1/1	0.23	5.24	11,11,11,11	0
57	MG	EA	3121	1/1	0.29	5.09	5,5,5,5	0
57	MG	EA	3018	1/1	0.18	5.08	9,9,9,9	0
57	MG	CB	1201	1/1	0.18	5.02	28,28,28,28	0
57	MG	AA	3083	1/1	0.28	4.94	18,18,18,18	0
57	MG	AA	3015	1/1	0.25	4.90	0,0,0,0	0
57	MG	EA	3046	1/1	0.25	4.81	9,9,9,9	0
57	MG	DA	1628	1/1	0.30	4.76	44,44,44,44	0
57	MG	BA	1616	1/1	0.26	4.71	3,3,3,3	0
57	MG	GA	3110	1/1	0.19	4.71	11,11,11,11	0
57	MG	AA	3029	1/1	0.23	4.61	0,0,0,0	0
57	MG	BA	1627	1/1	0.21	4.56	19,19,19,19	0
57	MG	HA	1625	1/1	0.37	4.55	44,44,44,44	0
57	MG	FV	802	1/1	0.21	4.38	24,24,24,24	0
57	MG	AA	3026	1/1	0.24	4.37	4,4,4,4	0
57	MG	CA	3005	1/1	0.18	4.29	35,35,35,35	0
57	MG	AA	3115	1/1	0.23	4.27	1,1,1,1	0
57	MG	CA	3131	1/1	0.27	4.21	11,11,11,11	0
57	MG	AA	3038	1/1	0.24	4.20	3,3,3,3	0
57	MG	BA	1602	1/1	0.18	4.19	38,38,38,38	0
57	MG	AA	3040	1/1	0.23	4.18	1,1,1,1	0
57	MG	EA	3029	1/1	0.23	4.10	2,2,2,2	0
57	MG	FA	1623	1/1	0.17	4.06	6,6,6,6	0
57	MG	AA	3108	1/1	0.27	3.99	1,1,1,1	0
57	MG	EA	3134	1/1	0.22	3.90	7,7,7,7	0
57	MG	EA	3123	1/1	0.23	3.88	3,3,3,3	0
57	MG	BA	1624	1/1	0.19	3.88	9,9,9,9	0
57	MG	CA	3037	1/1	0.24	3.87	6,6,6,6	0
57	MG	CA	3040	1/1	0.20	3.87	11,11,11,11	0
57	MG	EA	3038	1/1	0.21	3.85	2,2,2,2	0
57	MG	GA	3039	1/1	0.24	3.84	28,28,28,28	0
57	MG	CA	3128	1/1	0.15	3.82	17,17,17,17	0
57	MG	FA	1626	1/1	0.24	3.78	22,22,22,22	0
57	MG	AA	3095	1/1	0.23	3.72	4,4,4,4	0
57	MG	GA	3115	1/1	0.24	3.72	20,20,20,20	0
57	MG	AA	3090	1/1	0.21	3.67	32,32,32,32	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	EA	3003	1/1	0.16	3.57	9,9,9,9	0
57	MG	FA	1609	1/1	0.22	3.51	7,7,7,7	0
57	MG	GA	3104	1/1	0.28	3.47	12,12,12,12	0
57	MG	GA	3129	1/1	0.26	3.34	29,29,29,29	0
57	MG	BA	1605	1/1	0.18	3.33	28,28,28,28	0
57	MG	FA	1608	1/1	0.20	3.33	13,13,13,13	0
57	MG	CA	3105	1/1	0.23	3.32	14,14,14,14	0
57	MG	CA	3125	1/1	0.24	3.29	11,11,11,11	0
57	MG	GA	3051	1/1	0.24	3.28	20,20,20,20	0
57	MG	CA	3106	1/1	0.23	3.23	12,12,12,12	0
57	MG	CA	3123	1/1	0.22	3.21	26,26,26,26	0
57	MG	CA	3120	1/1	0.22	3.19	11,11,11,11	0
57	MG	EA	3023	1/1	0.23	3.19	9,9,9,9	0
57	MG	GA	3033	1/1	0.28	3.19	30,30,30,30	0
57	MG	GA	3089	1/1	0.19	3.18	8,8,8,8	0
57	MG	CA	3068	1/1	0.18	3.14	9,9,9,9	0
57	MG	AA	3107	1/1	0.21	3.14	4,4,4,4	0
57	MG	CA	3065	1/1	0.20	3.12	11,11,11,11	0
57	MG	FA	1635	1/1	0.29	3.12	41,41,41,41	0
57	MG	CA	3039	1/1	0.23	3.07	4,4,4,4	0
57	MG	EA	3069	1/1	0.12	3.03	25,25,25,25	0
57	MG	AA	3010	1/1	0.18	3.00	8,8,8,8	0
57	MG	GA	3114	1/1	0.27	2.98	27,27,27,27	0
57	MG	AA	3124	1/1	0.25	2.93	4,4,4,4	0
57	MG	EA	3103	1/1	0.25	2.93	0,0,0,0	0
57	MG	CA	3102	1/1	0.21	2.89	9,9,9,9	0
57	MG	AA	3106	1/1	0.20	2.84	4,4,4,4	0
57	MG	EA	3136	1/1	0.39	2.78	15,15,15,15	0
57	MG	CA	3024	1/1	0.22	2.77	6,6,6,6	0
57	MG	DA	1615	1/1	0.17	2.73	45,45,45,45	0
57	MG	GA	3076	1/1	0.25	2.72	34,34,34,34	0
57	MG	DA	1642	1/1	0.20	2.71	4,4,4,4	0
57	MG	CA	3109	1/1	0.23	2.69	7,7,7,7	0
57	MG	GA	3015	1/1	0.21	2.67	27,27,27,27	0
57	MG	GA	3119	1/1	0.20	2.64	18,18,18,18	0
57	MG	BA	1638	1/1	0.19	2.60	13,13,13,13	0
57	MG	HA	1624	1/1	0.16	2.58	38,38,38,38	0
57	MG	DV	802	1/1	0.20	2.56	14,14,14,14	0
57	MG	FA	1611	1/1	0.20	2.52	7,7,7,7	0
57	MG	CA	3136	1/1	0.28	2.48	22,22,22,22	0
57	MG	GA	3023	1/1	0.30	2.46	27,27,27,27	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	FA	1613	1/1	0.19	2.45	6,6,6,6	0
57	MG	AE	301	1/1	0.28	2.44	21,21,21,21	0
57	MG	EA	3067	1/1	0.21	2.44	3,3,3,3	0
57	MG	GA	3030	1/1	0.24	2.43	15,15,15,15	0
57	MG	AA	3042	1/1	0.19	2.40	8,8,8,8	0
57	MG	BA	1626	1/1	0.23	2.37	5,5,5,5	0
57	MG	EA	3033	1/1	0.25	2.36	0,0,0,0	0
57	MG	GA	3112	1/1	0.20	2.32	13,13,13,13	0
57	MG	AA	3050	1/1	0.19	2.29	2,2,2,2	0
57	MG	AA	3066	1/1	0.20	2.28	0,0,0,0	0
57	MG	CA	3086	1/1	0.17	2.23	15,15,15,15	0
57	MG	EA	3085	1/1	0.24	2.20	11,11,11,11	0
57	MG	BA	1603	1/1	0.17	2.16	18,18,18,18	0
57	MG	HA	1616	1/1	0.33	2.15	40,40,40,40	0
57	MG	GA	3049	1/1	0.21	2.14	12,12,12,12	0
57	MG	GA	3087	1/1	0.11	2.14	23,23,23,23	0
57	MG	FA	1622	1/1	0.19	2.14	9,9,9,9	0
57	MG	AA	3011	1/1	0.25	2.04	6,6,6,6	0
57	MG	CA	3023	1/1	0.27	2.04	5,5,5,5	0
57	MG	EA	3119	1/1	0.21	2.00	1,1,1,1	0
57	MG	GA	3066	1/1	0.16	2.00	12,12,12,12	0
57	MG	EA	3045	1/1	0.18	1.99	9,9,9,9	0
57	MG	AA	3110	1/1	0.19	1.99	9,9,9,9	0
57	MG	FA	1634	1/1	0.19	1.97	13,13,13,13	0
57	MG	DA	1636	1/1	0.88	1.95	34,34,34,34	0
57	MG	EA	3037	1/1	0.18	1.95	2,2,2,2	0
57	MG	CA	3110	1/1	0.17	1.90	23,23,23,23	0
57	MG	HA	1621	1/1	0.15	1.90	7,7,7,7	0
57	MG	BV	802	1/1	0.20	1.90	22,22,22,22	0
57	MG	EA	3025	1/1	0.22	1.88	1,1,1,1	0
57	MG	BA	1632	1/1	0.18	1.86	14,14,14,14	0
57	MG	GA	3116	1/1	0.29	1.83	22,22,22,22	0
57	MG	BA	1612	1/1	0.19	1.83	3,3,3,3	0
57	MG	CA	3116	1/1	0.18	1.83	7,7,7,7	0
57	MG	AA	3060	1/1	0.26	1.81	34,34,34,34	0
57	MG	BA	1635	1/1	0.15	1.78	29,29,29,29	0
57	MG	BA	1630	1/1	0.18	1.77	26,26,26,26	0
57	MG	EA	3104	1/1	0.22	1.77	0,0,0,0	0
57	MG	EA	3129	1/1	0.21	1.76	2,2,2,2	0
57	MG	CA	3075	1/1	0.22	1.72	11,11,11,11	0
57	MG	CA	3055	1/1	0.18	1.72	19,19,19,19	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	AA	3070	1/1	0.20	1.72	6,6,6,6	0
57	MG	EA	3043	1/1	0.17	1.71	8,8,8,8	0
57	MG	AA	3076	1/1	0.14	1.71	13,13,13,13	0
57	MG	AA	3035	1/1	0.20	1.68	5,5,5,5	0
57	MG	GA	3136	1/1	0.24	1.67	27,27,27,27	0
57	MG	GA	3123	1/1	0.20	1.67	44,44,44,44	0
57	MG	EA	3050	1/1	0.21	1.63	23,23,23,23	0
57	MG	AA	3059	1/1	0.25	1.60	1,1,1,1	0
57	MG	CA	3038	1/1	0.20	1.60	9,9,9,9	0
57	MG	AA	3121	1/1	0.21	1.59	3,3,3,3	0
57	MG	CA	3084	1/1	0.21	1.57	20,20,20,20	0
57	MG	AA	3088	1/1	0.16	1.55	4,4,4,4	0
57	MG	CB	1202	1/1	0.16	1.54	44,44,44,44	0
57	MG	GA	3057	1/1	0.16	1.52	28,28,28,28	0
57	MG	CA	3079	1/1	0.22	1.52	27,27,27,27	0
57	MG	EA	3096	1/1	0.19	1.50	9,9,9,9	0
57	MG	GC	301	1/1	0.22	1.48	26,26,26,26	0
57	MG	DA	1639	1/1	0.16	1.47	30,30,30,30	0
57	MG	CA	3048	1/1	0.17	1.45	17,17,17,17	0
57	MG	DA	1605	1/1	0.17	1.45	18,18,18,18	0
57	MG	GA	3040	1/1	0.17	1.39	15,15,15,15	0
57	MG	GA	3004	1/1	0.32	1.38	25,25,25,25	0
57	MG	CA	3009	1/1	0.17	1.34	10,10,10,10	0
57	MG	GA	3103	1/1	0.23	1.33	12,12,12,12	0
57	MG	AA	3021	1/1	0.19	1.26	6,6,6,6	0
57	MG	CA	3081	1/1	0.21	1.26	6,6,6,6	0
57	MG	CN	201	1/1	0.21	1.24	20,20,20,20	0
57	MG	GA	3042	1/1	0.15	1.23	20,20,20,20	0
57	MG	HA	1605	1/1	0.15	1.22	40,40,40,40	0
57	MG	BA	1618	1/1	0.17	1.19	1,1,1,1	0
57	MG	AA	3049	1/1	0.19	1.19	17,17,17,17	0
57	MG	CA	3107	1/1	0.18	1.14	14,14,14,14	0
57	MG	CA	3017	1/1	0.15	1.13	7,7,7,7	0
57	MG	EA	3048	1/1	0.20	1.04	25,25,25,25	0
57	MG	FA	1628	1/1	0.17	1.03	27,27,27,27	0
57	MG	BA	1613	1/1	0.17	1.02	8,8,8,8	0
57	MG	EA	3075	1/1	0.19	1.01	11,11,11,11	0
57	MG	CA	3045	1/1	0.17	1.00	5,5,5,5	0
57	MG	FA	1633	1/1	0.15	1.00	24,24,24,24	0
57	MG	AA	3065	1/1	0.19	0.96	11,11,11,11	0
57	MG	AA	3069	1/1	0.14	0.95	44,44,44,44	0
57	MG	GA	3022	1/1	0.18	0.93	30,30,30,30	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	DA	1614	1/1	0.21	0.91	46,46,46,46	0
57	MG	CA	3069	1/1	0.17	0.90	61,61,61,61	0
57	MG	AA	3120	1/1	0.24	0.89	9,9,9,9	0
57	MG	CA	3108	1/1	0.18	0.88	11,11,11,11	0
57	MG	HA	1612	1/1	0.26	0.85	20,20,20,20	0
57	MG	CA	3033	1/1	0.18	0.84	6,6,6,6	0
57	MG	EA	3053	1/1	0.19	0.84	1,1,1,1	0
57	MG	CA	3047	1/1	0.14	0.82	23,23,23,23	0
57	MG	FA	1639	1/1	0.15	0.82	20,20,20,20	0
57	MG	FA	1614	1/1	0.17	0.82	13,13,13,13	0
57	MG	AA	3094	1/1	0.18	0.81	16,16,16,16	0
57	MG	AA	3073	1/1	0.19	0.76	2,2,2,2	0
57	MG	DA	1616	1/1	0.32	0.75	28,28,28,28	0
57	MG	EA	3108	1/1	0.20	0.74	15,15,15,15	0
57	MG	DA	1643	1/1	0.20	0.73	32,32,32,32	0
57	MG	DA	1626	1/1	0.12	0.70	44,44,44,44	0
57	MG	BA	1629	1/1	0.16	0.70	15,15,15,15	0
57	MG	HA	1631	1/1	0.18	0.69	31,31,31,31	0
57	MG	GA	3038	1/1	0.17	0.66	21,21,21,21	0
57	MG	BA	1607	1/1	0.19	0.66	34,34,34,34	0
57	MG	FA	1606	1/1	0.16	0.66	15,15,15,15	0
57	MG	GA	3070	1/1	0.16	0.65	22,22,22,22	0
57	MG	HV	802	1/1	0.19	0.63	38,38,38,38	0
57	MG	AA	3074	1/1	0.17	0.62	5,5,5,5	0
57	MG	BA	1620	1/1	0.11	0.62	15,15,15,15	0
57	MG	CA	3121	1/1	0.22	0.59	8,8,8,8	0
57	MG	EA	3130	1/1	0.20	0.57	0,0,0,0	0
57	MG	AA	3034	1/1	0.20	0.57	4,4,4,4	0
57	MG	EA	3115	1/1	0.18	0.56	6,6,6,6	0
57	MG	GA	3024	1/1	0.19	0.54	14,14,14,14	0
57	MG	EA	3061	1/1	0.21	0.50	5,5,5,5	0
57	MG	EA	3086	1/1	0.18	0.49	8,8,8,8	0
57	MG	GA	3052	1/1	0.18	0.49	4,4,4,4	0
57	MG	EA	3084	1/1	0.20	0.46	7,7,7,7	0
57	MG	BA	1619	1/1	0.17	0.44	13,13,13,13	0
57	MG	DA	1610	1/1	0.10	0.43	28,28,28,28	0
57	MG	EA	3001	1/1	0.17	0.41	11,11,11,11	0
57	MG	CA	3087	1/1	0.13	0.39	23,23,23,23	0
57	MG	GA	3047	1/1	0.13	0.39	38,38,38,38	0
57	MG	HA	1611	1/1	0.22	0.38	26,26,26,26	0
57	MG	EA	3049	1/1	0.18	0.38	8,8,8,8	0
57	MG	AA	3063	1/1	0.18	0.37	0,0,0,0	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	CA	3133	1/1	0.22	0.32	13,13,13,13	0
57	MG	HA	1633	1/1	0.21	0.32	46,46,46,46	0
57	MG	CA	3113	1/1	0.20	0.30	10,10,10,10	0
57	MG	EA	3039	1/1	0.18	0.29	15,15,15,15	0
57	MG	FA	1636	1/1	0.14	0.29	35,35,35,35	0
57	MG	EA	3120	1/1	0.19	0.28	5,5,5,5	0
57	MG	CA	3066	1/1	0.15	0.25	4,4,4,4	0
57	MG	CA	3059	1/1	0.20	0.25	10,10,10,10	0
57	MG	GA	3102	1/1	0.12	0.19	19,19,19,19	0
57	MG	CA	3025	1/1	0.16	0.18	24,24,24,24	0
57	MG	GA	3120	1/1	0.19	0.14	19,19,19,19	0
57	MG	GA	3069	1/1	0.18	0.13	70,70,70,70	0
57	MG	GA	3106	1/1	0.16	0.11	7,7,7,7	0
57	MG	DA	1606	1/1	0.19	0.11	15,15,15,15	0
57	MG	GA	3019	1/1	0.16	0.10	6,6,6,6	0
57	MG	AA	3114	1/1	0.20	0.09	10,10,10,10	0
57	MG	GA	3108	1/1	0.18	0.09	38,38,38,38	0
57	MG	GA	3048	1/1	0.17	0.07	15,15,15,15	0
57	MG	GA	3099	1/1	0.14	0.06	33,33,33,33	0
57	MG	AA	3072	1/1	0.18	0.06	5,5,5,5	0
57	MG	HA	1623	1/1	0.17	0.06	36,36,36,36	0
57	MG	EA	3068	1/1	0.18	0.03	2,2,2,2	0
57	MG	AA	3009	1/1	0.18	0.02	2,2,2,2	0
57	MG	EA	3034	1/1	0.17	0.01	31,31,31,31	0
57	MG	HE	201	1/1	0.28	0.00	55,55,55,55	0
57	MG	GA	3077	1/1	0.13	-0.02	55,55,55,55	0
57	MG	CA	3104	1/1	0.17	-0.03	8,8,8,8	0
57	MG	AB	1203	1/1	0.15	-0.04	0,0,0,0	0
57	MG	BA	1636	1/1	0.15	-0.05	24,24,24,24	0
57	MG	GA	3046	1/1	0.14	-0.05	35,35,35,35	0
57	MG	BA	1640	1/1	0.19	-0.08	11,11,11,11	0
57	MG	DA	1622	1/1	0.12	-0.10	13,13,13,13	0
59	GCP	FV	801	32/32	0.17	-0.11	16,28,45,57	0
57	MG	AA	3104	1/1	0.19	-0.11	2,2,2,2	0
57	MG	FA	1638	1/1	0.15	-0.12	16,16,16,16	0
57	MG	DA	1621	1/1	0.14	-0.12	44,44,44,44	0
57	MG	CA	3016	1/1	0.17	-0.13	11,11,11,11	0
57	MG	HA	1609	1/1	0.18	-0.14	23,23,23,23	0
57	MG	HA	1626	1/1	0.30	-0.14	32,32,32,32	0
57	MG	CA	3082	1/1	0.15	-0.14	14,14,14,14	0
57	MG	GL	201	1/1	0.36	-0.15	47,47,47,47	0
57	MG	FA	1603	1/1	0.12	-0.15	20,20,20,20	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	HA	1639	1/1	0.14	-0.16	22,22,22,22	0
57	MG	AA	3103	1/1	0.18	-0.16	0,0,0,0	0
57	MG	DA	1625	1/1	0.13	-0.18	29,29,29,29	0
57	MG	CA	3049	1/1	0.17	-0.20	7,7,7,7	0
57	MG	EB	1203	1/1	0.15	-0.24	0,0,0,0	0
57	MG	AA	3006	1/1	0.14	-0.25	32,32,32,32	0
57	MG	CA	3122	1/1	0.18	-0.28	5,5,5,5	0
57	MG	GA	3075	1/1	0.18	-0.29	16,16,16,16	0
59	GCP	DV	801	32/32	0.14	-0.30	17,28,38,41	0
57	MG	AA	3130	1/1	0.18	-0.30	3,3,3,3	0
57	MG	EA	3074	1/1	0.19	-0.31	11,11,11,11	0
57	MG	HA	1622	1/1	0.20	-0.31	30,30,30,30	0
57	MG	HA	1627	1/1	0.20	-0.33	41,41,41,41	0
57	MG	EA	3008	1/1	0.18	-0.34	1,1,1,1	0
57	MG	EA	3133	1/1	0.20	-0.34	0,0,0,0	0
57	MG	GA	3035	1/1	0.15	-0.34	24,24,24,24	0
59	GCP	BV	801	32/32	0.14	-0.34	9,25,32,35	0
57	MG	HA	1618	1/1	0.20	-0.35	35,35,35,35	0
57	MG	GA	3105	1/1	0.16	-0.36	16,16,16,16	0
57	MG	HA	1606	1/1	0.17	-0.37	29,29,29,29	0
57	MG	GA	3008	1/1	0.16	-0.37	24,24,24,24	0
57	MG	EA	3113	1/1	0.14	-0.37	7,7,7,7	0
57	MG	CA	3064	1/1	0.17	-0.39	6,6,6,6	0
57	MG	AA	3019	1/1	0.13	-0.40	15,15,15,15	0
57	MG	EA	3112	1/1	0.17	-0.40	2,2,2,2	0
57	MG	AA	3031	1/1	0.21	-0.41	5,5,5,5	0
57	MG	AA	3043	1/1	0.14	-0.42	5,5,5,5	0
57	MG	GA	3121	1/1	0.14	-0.45	16,16,16,16	0
57	MG	BA	1625	1/1	0.17	-0.47	23,23,23,23	0
57	MG	GA	3053	1/1	0.16	-0.48	6,6,6,6	0
57	MG	BA	1606	1/1	0.15	-0.50	14,14,14,14	0
57	MG	FN	201	1/1	0.20	-0.51	14,14,14,14	0
57	MG	GA	3080	1/1	0.20	-0.51	36,36,36,36	0
57	MG	HA	1630	1/1	0.16	-0.52	32,32,32,32	0
57	MG	CB	1203	1/1	0.11	-0.53	12,12,12,12	0
57	MG	DA	1601	1/1	0.12	-0.53	26,26,26,26	0
57	MG	FE	201	1/1	0.18	-0.55	35,35,35,35	0
57	MG	BA	1604	1/1	0.09	-0.56	17,17,17,17	0
57	MG	GA	3028	1/1	0.15	-0.59	12,12,12,12	0
57	MG	CA	3026	1/1	0.16	-0.60	14,14,14,14	0
57	MG	CA	3073	1/1	0.15	-0.60	4,4,4,4	0
57	MG	GA	3025	1/1	0.14	-0.61	25,25,25,25	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	GA	3041	1/1	0.12	-0.61	10,10,10,10	0
57	MG	FA	1615	1/1	0.12	-0.64	16,16,16,16	0
57	MG	AA	3033	1/1	0.18	-0.64	1,1,1,1	0
57	MG	BN	201	1/1	0.17	-0.65	13,13,13,13	0
57	MG	HA	1617	1/1	0.16	-0.66	49,49,49,49	0
57	MG	HA	1637	1/1	0.11	-0.67	51,51,51,51	0
57	MG	CA	3028	1/1	0.17	-0.67	9,9,9,9	0
57	MG	DA	1624	1/1	0.17	-0.70	18,18,18,18	0
57	MG	CA	3117	1/1	0.12	-0.70	7,7,7,7	0
57	MG	GA	3122	1/1	0.16	-0.70	16,16,16,16	0
57	MG	GA	3113	1/1	0.13	-0.70	32,32,32,32	0
57	MG	CA	3111	1/1	0.13	-0.72	18,18,18,18	0
57	MG	CA	3074	1/1	0.15	-0.72	13,13,13,13	0
57	MG	FN	202	1/1	0.15	-0.73	26,26,26,26	0
57	MG	EA	3081	1/1	0.19	-0.74	0,0,0,0	0
57	MG	GA	3017	1/1	0.13	-0.75	10,10,10,10	0
57	MG	EB	1204	1/1	0.12	-0.76	8,8,8,8	0
57	MG	GA	3026	1/1	0.14	-0.76	31,31,31,31	0
57	MG	FA	1621	1/1	0.13	-0.77	13,13,13,13	0
57	MG	FA	1630	1/1	0.09	-0.78	44,44,44,44	0
57	MG	EA	3047	1/1	0.10	-0.79	25,25,25,25	0
57	MG	FA	1629	1/1	0.13	-0.79	30,30,30,30	0
57	MG	DA	1637	1/1	0.12	-0.79	25,25,25,25	0
57	MG	GA	3132	1/1	0.15	-0.80	28,28,28,28	0
57	MG	EA	3079	1/1	0.14	-0.81	8,8,8,8	0
57	MG	CA	3098	1/1	0.16	-0.81	29,29,29,29	0
57	MG	EA	3024	1/1	0.18	-0.83	2,2,2,2	0
59	GCP	HV	801	32/32	0.12	-0.83	18,36,48,55	0
57	MG	GA	3032	1/1	0.15	-0.83	22,22,22,22	0
57	MG	AA	3132	1/1	0.17	-0.84	0,0,0,0	0
57	MG	AA	3008	1/1	0.05	-0.86	19,19,19,19	0
58	ZN	C4	102	1/1	0.14	-0.86	41,41,41,41	0
57	MG	FA	1617	1/1	0.12	-0.88	40,40,40,40	0
57	MG	EA	3062	1/1	0.16	-0.88	4,4,4,4	0
57	MG	AA	3109	1/1	0.08	-0.89	20,20,20,20	0
57	MG	HA	1629	1/1	0.13	-0.89	45,45,45,45	0
57	MG	GA	3006	1/1	0.10	-0.90	29,29,29,29	0
57	MG	AA	3067	1/1	0.16	-0.92	2,2,2,2	0
57	MG	EA	3058	1/1	0.15	-0.92	5,5,5,5	0
57	MG	HA	1640	1/1	0.14	-0.94	18,18,18,18	0
57	MG	EA	3020	1/1	0.15	-0.95	7,7,7,7	0
57	MG	EA	3114	1/1	0.17	-0.97	17,17,17,17	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	EA	3099	1/1	0.15	-0.97	3,3,3,3	0
57	MG	GA	3062	1/1	0.17	-0.98	19,19,19,19	0
57	MG	GA	3036	1/1	0.15	-0.98	38,38,38,38	0
57	MG	GA	3012	1/1	0.15	-0.99	22,22,22,22	0
57	MG	CA	3004	1/1	0.08	-1.00	24,24,24,24	0
57	MG	GA	3020	1/1	0.15	-1.00	3,3,3,3	0
57	MG	HA	1620	1/1	0.16	-1.00	32,32,32,32	0
57	MG	EA	3078	1/1	0.12	-1.00	20,20,20,20	0
57	MG	HA	1614	1/1	0.17	-1.00	49,49,49,49	0
57	MG	CA	3062	1/1	0.17	-1.00	15,15,15,15	0
57	MG	GA	3003	1/1	0.11	-1.02	26,26,26,26	0
57	MG	CA	3114	1/1	0.12	-1.03	26,26,26,26	0
57	MG	AA	3122	1/1	0.15	-1.03	6,6,6,6	0
57	MG	CA	3002	1/1	0.14	-1.06	38,38,38,38	0
57	MG	EA	3017	1/1	0.15	-1.07	8,8,8,8	0
57	MG	EA	3014	1/1	0.20	-1.08	1,1,1,1	0
57	MG	GA	3078	1/1	0.09	-1.08	35,35,35,35	0
57	MG	ED	301	1/1	0.16	-1.09	7,7,7,7	0
57	MG	EA	3105	1/1	0.16	-1.10	5,5,5,5	0
57	MG	EA	3109	1/1	0.13	-1.10	19,19,19,19	0
57	MG	EA	3060	1/1	0.19	-1.11	2,2,2,2	0
57	MG	GA	3071	1/1	0.16	-1.12	16,16,16,16	0
57	MG	CA	3003	1/1	0.12	-1.14	10,10,10,10	0
57	MG	CA	3126	1/1	0.12	-1.14	22,22,22,22	0
57	MG	AA	3004	1/1	0.13	-1.14	20,20,20,20	0
57	MG	FA	1632	1/1	0.11	-1.14	24,24,24,24	0
57	MG	EA	3019	1/1	0.10	-1.17	10,10,10,10	0
58	ZN	A4	102	1/1	0.12	-1.17	42,42,42,42	0
57	MG	EA	3026	1/1	0.16	-1.19	0,0,0,0	0
57	MG	EA	3087	1/1	0.11	-1.19	21,21,21,21	0
57	MG	GA	3130	1/1	0.11	-1.21	18,18,18,18	0
57	MG	CA	3042	1/1	0.09	-1.21	16,16,16,16	0
57	MG	AA	3084	1/1	0.19	-1.23	2,2,2,2	0
57	MG	CA	3032	1/1	0.15	-1.23	8,8,8,8	0
57	MG	CA	3027	1/1	0.09	-1.23	10,10,10,10	0
57	MG	CE	301	1/1	0.07	-1.23	19,19,19,19	0
57	MG	CA	3008	1/1	0.13	-1.23	14,14,14,14	0
57	MG	GA	3081	1/1	0.18	-1.24	14,14,14,14	0
57	MG	GA	3134	1/1	0.10	-1.25	28,28,28,28	0
57	MG	GA	3109	1/1	0.10	-1.26	35,35,35,35	0
57	MG	EA	3092	1/1	0.12	-1.28	22,22,22,22	0
57	MG	EA	3135	1/1	0.13	-1.28	25,25,25,25	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	HA	1635	1/1	0.12	-1.28	28,28,28,28	0
57	MG	GA	3083	1/1	0.10	-1.29	26,26,26,26	0
57	MG	AA	3048	1/1	0.09	-1.30	16,16,16,16	0
57	MG	GA	3064	1/1	0.12	-1.31	11,11,11,11	0
57	MG	EA	3004	1/1	0.10	-1.32	12,12,12,12	0
57	MG	CA	3031	1/1	0.15	-1.32	7,7,7,7	0
57	MG	HA	1619	1/1	0.10	-1.33	19,19,19,19	0
57	MG	BE	201	1/1	0.18	-1.34	31,31,31,31	0
57	MG	CA	3043	1/1	0.16	-1.35	4,4,4,4	0
57	MG	CA	3022	1/1	0.12	-1.36	17,17,17,17	0
57	MG	EA	3035	1/1	0.17	-1.36	12,12,12,12	0
57	MG	EA	3095	1/1	0.14	-1.37	6,6,6,6	0
57	MG	AA	3080	1/1	0.19	-1.39	0,0,0,0	0
57	MG	CA	3035	1/1	0.11	-1.40	7,7,7,7	0
57	MG	GA	3005	1/1	0.10	-1.41	42,42,42,42	0
57	MG	BU	101	1/1	0.13	-1.41	19,19,19,19	0
57	MG	EA	3131	1/1	0.10	-1.41	3,3,3,3	0
57	MG	FA	1625	1/1	0.12	-1.42	21,21,21,21	0
57	MG	CA	3018	1/1	0.08	-1.42	30,30,30,30	0
57	MG	FA	1631	1/1	0.11	-1.43	24,24,24,24	0
58	ZN	G4	101	1/1	0.08	-1.44	66,66,66,66	0
57	MG	CA	3036	1/1	0.12	-1.44	28,28,28,28	0
57	MG	AA	3062	1/1	0.17	-1.45	4,4,4,4	0
57	MG	AA	3032	1/1	0.16	-1.46	0,0,0,0	0
57	MG	GA	3063	1/1	0.13	-1.46	27,27,27,27	0
57	MG	CA	3124	1/1	0.13	-1.47	26,26,26,26	0
57	MG	CA	3078	1/1	0.08	-1.47	34,34,34,34	0
57	MG	AA	3098	1/1	0.19	-1.48	0,0,0,0	0
57	MG	DA	1640	1/1	0.05	-1.48	24,24,24,24	0
57	MG	GA	3086	1/1	0.14	-1.48	24,24,24,24	0
57	MG	CA	3044	1/1	0.13	-1.49	28,28,28,28	0
57	MG	DA	1632	1/1	0.08	-1.49	22,22,22,22	0
57	MG	AA	3013	1/1	0.17	-1.50	0,0,0,0	0
57	MG	DA	1633	1/1	0.08	-1.52	29,29,29,29	0
57	MG	EA	3116	1/1	0.15	-1.52	6,6,6,6	0
57	MG	CA	3029	1/1	0.15	-1.55	19,19,19,19	0
57	MG	FA	1616	1/1	0.13	-1.55	18,18,18,18	0
57	MG	AA	3002	1/1	0.14	-1.55	25,25,25,25	0
57	MG	GA	3007	1/1	0.07	-1.56	39,39,39,39	0
57	MG	HA	1615	1/1	0.16	-1.57	36,36,36,36	0
57	MG	CA	3093	1/1	0.11	-1.59	40,40,40,40	0
57	MG	BA	1622	1/1	0.15	-1.62	17,17,17,17	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	GA	3096	1/1	0.15	-1.62	15,15,15,15	0
57	MG	DA	1623	1/1	0.12	-1.63	42,42,42,42	0
57	MG	EA	3127	1/1	0.14	-1.65	11,11,11,11	0
57	MG	EA	3132	1/1	0.11	-1.67	21,21,21,21	0
57	MG	DA	1604	1/1	0.07	-1.68	18,18,18,18	0
57	MG	AA	3039	1/1	0.16	-1.69	3,3,3,3	0
57	MG	AA	3096	1/1	0.15	-1.69	0,0,0,0	0
57	MG	BA	1610	1/1	0.07	-1.70	41,41,41,41	0
57	MG	GA	3018	1/1	0.05	-1.70	21,21,21,21	0
57	MG	CA	3100	1/1	0.06	-1.70	16,16,16,16	0
57	MG	DA	1641	1/1	0.12	-1.71	28,28,28,28	0
57	MG	AA	3077	1/1	0.09	-1.72	16,16,16,16	0
57	MG	GB	1202	1/1	0.13	-1.74	64,64,64,64	0
57	MG	EA	3036	1/1	0.13	-1.74	12,12,12,12	0
57	MG	CA	3132	1/1	0.09	-1.75	9,9,9,9	0
57	MG	EA	3072	1/1	0.14	-1.76	2,2,2,2	0
57	MG	CA	3071	1/1	0.15	-1.78	10,10,10,10	0
57	MG	DA	1607	1/1	0.13	-1.79	16,16,16,16	0
57	MG	GA	3117	1/1	0.11	-1.80	10,10,10,10	0
57	MG	CA	3118	1/1	0.12	-1.80	31,31,31,31	0
57	MG	AA	3099	1/1	0.13	-1.82	13,13,13,13	0
57	MG	DA	1612	1/1	0.12	-1.84	33,33,33,33	0
57	MG	EA	3056	1/1	0.10	-1.85	13,13,13,13	0
57	MG	FA	1607	1/1	0.10	-1.85	21,21,21,21	0
57	MG	AA	3087	1/1	0.16	-1.86	19,19,19,19	0
57	MG	AA	3055	1/1	0.15	-1.87	0,0,0,0	0
57	MG	CA	3130	1/1	0.14	-1.88	21,21,21,21	0
57	MG	EB	1202	1/1	0.10	-1.89	17,17,17,17	0
57	MG	AB	1202	1/1	0.10	-1.89	25,25,25,25	0
57	MG	HA	1601	1/1	0.06	-1.90	27,27,27,27	0
57	MG	EA	3012	1/1	0.18	-1.94	2,2,2,2	0
57	MG	EA	3089	1/1	0.13	-1.95	6,6,6,6	0
57	MG	CA	3101	1/1	0.15	-1.95	5,5,5,5	0
57	MG	AA	3025	1/1	0.14	-2.04	0,0,0,0	0
57	MG	GA	3111	1/1	0.12	-2.04	35,35,35,35	0
57	MG	CA	3053	1/1	0.12	-2.05	20,20,20,20	0
57	MG	GA	3128	1/1	0.11	-2.06	18,18,18,18	0
57	MG	DA	1609	1/1	0.12	-2.06	13,13,13,13	0
57	MG	CA	3072	1/1	0.13	-2.07	14,14,14,14	0
57	MG	EA	3077	1/1	0.08	-2.07	18,18,18,18	0
57	MG	DA	1611	1/1	0.11	-2.07	35,35,35,35	0
57	MG	EA	3071	1/1	0.15	-2.09	0,0,0,0	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	AA	3054	1/1	0.14	-2.10	3,3,3,3	0
57	MG	EE	301	1/1	0.08	-2.11	19,19,19,19	0
57	MG	DA	1613	1/1	0.12	-2.11	23,23,23,23	0
57	MG	AA	3113	1/1	0.12	-2.15	8,8,8,8	0
57	MG	EA	3059	1/1	0.16	-2.17	10,10,10,10	0
57	MG	CA	3020	1/1	0.09	-2.17	6,6,6,6	0
57	MG	EA	3002	1/1	0.13	-2.19	7,7,7,7	0
57	MG	AA	3027	1/1	0.16	-2.19	15,15,15,15	0
57	MG	CA	3127	1/1	0.14	-2.21	3,3,3,3	0
57	MG	BA	1628	1/1	0.14	-2.21	18,18,18,18	0
57	MG	HA	1603	1/1	0.09	-2.22	25,25,25,25	0
57	MG	AA	3052	1/1	0.15	-2.23	3,3,3,3	0
57	MG	GA	3073	1/1	0.14	-2.30	10,10,10,10	0
57	MG	GA	3011	1/1	0.11	-2.31	46,46,46,46	0
57	MG	EA	3100	1/1	0.19	-2.31	1,1,1,1	0
57	MG	FA	1604	1/1	0.08	-2.33	34,34,34,34	0
57	MG	AA	3064	1/1	0.11	-2.33	3,3,3,3	0
57	MG	GB	1203	1/1	0.07	-2.34	23,23,23,23	0
57	MG	GA	3054	1/1	0.13	-2.35	12,12,12,12	0
57	MG	BA	1634	1/1	0.11	-2.40	13,13,13,13	0
57	MG	GA	3044	1/1	0.10	-2.40	21,21,21,21	0
57	MG	HA	1604	1/1	0.04	-2.40	31,31,31,31	0
57	MG	AA	3057	1/1	0.09	-2.42	25,25,25,25	0
57	MG	AA	3133	1/1	0.15	-2.42	10,10,10,10	0
57	MG	CA	3063	1/1	0.14	-2.46	4,4,4,4	0
57	MG	AA	3018	1/1	0.15	-2.49	2,2,2,2	0
57	MG	EA	3065	1/1	0.12	-2.50	5,5,5,5	0
57	MG	EA	3021	1/1	0.12	-2.50	11,11,11,11	0
57	MG	GA	3058	1/1	0.12	-2.50	24,24,24,24	0
57	MG	AA	3119	1/1	0.16	-2.51	0,0,0,0	0
57	MG	AA	3056	1/1	0.12	-2.53	11,11,11,11	0
57	MG	EA	3093	1/1	0.12	-2.54	11,11,11,11	0
57	MG	CA	3030	1/1	0.15	-2.59	39,39,39,39	0
57	MG	FA	1602	1/1	0.10	-2.60	18,18,18,18	0
57	MG	HA	1632	1/1	0.12	-2.61	31,31,31,31	0
57	MG	DA	1627	1/1	0.13	-2.62	23,23,23,23	0
57	MG	AA	3016	1/1	0.12	-2.63	11,11,11,11	0
57	MG	CA	3015	1/1	0.13	-2.64	25,25,25,25	0
57	MG	EA	3044	1/1	0.09	-2.73	15,15,15,15	0
57	MG	AA	3102	1/1	0.10	-2.75	10,10,10,10	0
57	MG	EA	3028	1/1	0.16	-2.76	7,7,7,7	0
57	MG	FA	1620	1/1	0.06	-2.81	41,41,41,41	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	AA	3086	1/1	0.08	-2.84	14,14,14,14	0
57	MG	EA	3107	1/1	0.14	-2.84	5,5,5,5	0
57	MG	EA	3006	1/1	0.10	-2.84	9,9,9,9	0
57	MG	FA	1605	1/1	0.09	-2.87	30,30,30,30	0
57	MG	EA	3052	1/1	0.16	-2.87	12,12,12,12	0
57	MG	CA	3061	1/1	0.12	-2.90	4,4,4,4	0
57	MG	EA	3007	1/1	0.08	-2.91	12,12,12,12	0
57	MG	EA	3080	1/1	0.18	-2.92	15,15,15,15	0
57	MG	GA	3060	1/1	0.15	-2.95	18,18,18,18	0
57	MG	AA	3117	1/1	0.10	-2.96	11,11,11,11	0
58	ZN	E4	101	1/1	0.08	-2.98	59,59,59,59	0
57	MG	GA	3126	1/1	0.07	-2.98	35,35,35,35	0
57	MG	GA	3065	1/1	0.10	-3.00	20,20,20,20	0
57	MG	AA	3003	1/1	0.12	-3.02	11,11,11,11	0
57	MG	DA	1634	1/1	0.07	-3.06	34,34,34,34	0
57	MG	EA	3106	1/1	0.12	-3.08	9,9,9,9	0
57	MG	CA	3001	1/1	0.07	-3.09	16,16,16,16	0
57	MG	GA	3090	1/1	0.08	-3.14	27,27,27,27	0
57	MG	DA	1635	1/1	0.08	-3.14	37,37,37,37	0
57	MG	GA	3082	1/1	0.09	-3.15	38,38,38,38	0
57	MG	EA	3022	1/1	0.14	-3.17	2,2,2,2	0
57	MG	AA	3116	1/1	0.14	-3.19	0,0,0,0	0
57	MG	CA	3041	1/1	0.08	-3.26	12,12,12,12	0
57	MG	EA	3110	1/1	0.12	-3.33	12,12,12,12	0
57	MG	EA	3128	1/1	0.18	-3.37	0,0,0,0	0
57	MG	CA	3019	1/1	0.12	-3.40	27,27,27,27	0
57	MG	CA	3012	1/1	0.12	-3.41	6,6,6,6	0
57	MG	AA	3075	1/1	0.10	-3.42	15,15,15,15	0
57	MG	GA	3031	1/1	0.11	-3.43	15,15,15,15	0
57	MG	DA	1630	1/1	0.10	-3.43	25,25,25,25	0
57	MG	AA	3014	1/1	0.13	-3.44	2,2,2,2	0
57	MG	EA	3073	1/1	0.14	-3.45	0,0,0,0	0
57	MG	GA	3085	1/1	0.16	-3.45	10,10,10,10	0
57	MG	AA	3101	1/1	0.13	-3.46	8,8,8,8	0
57	MG	AA	3082	1/1	0.06	-3.47	22,22,22,22	0
57	MG	FA	1601	1/1	0.08	-3.56	17,17,17,17	0
57	MG	BA	1617	1/1	0.05	-3.56	21,21,21,21	0
57	MG	AA	3131	1/1	0.11	-3.57	3,3,3,3	0
57	MG	GA	3034	1/1	0.10	-3.59	36,36,36,36	0
57	MG	A4	101	1/1	0.09	-3.60	20,20,20,20	0
57	MG	AA	3081	1/1	0.10	-3.63	1,1,1,1	0
57	MG	HA	1607	1/1	0.07	-3.64	33,33,33,33	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	BA	1623	1/1	0.09	-3.67	25,25,25,25	0
57	MG	CA	3070	1/1	0.10	-3.70	8,8,8,8	0
57	MG	AA	3092	1/1	0.09	-3.72	14,14,14,14	0
57	MG	AA	3085	1/1	0.13	-3.72	7,7,7,7	0
57	MG	AA	3091	1/1	0.07	-3.74	33,33,33,33	0
57	MG	EA	3111	1/1	0.12	-3.76	5,5,5,5	0
57	MG	AA	3126	1/1	0.10	-3.81	2,2,2,2	0
57	MG	DA	1638	1/1	0.09	-3.84	25,25,25,25	0
57	MG	C4	101	1/1	0.08	-3.86	17,17,17,17	0
57	MG	GA	3127	1/1	0.12	-3.89	18,18,18,18	0
57	MG	AC	301	1/1	0.13	-3.89	3,3,3,3	0
57	MG	AA	3123	1/1	0.11	-3.91	5,5,5,5	0
57	MG	EA	3082	1/1	0.11	-3.92	6,6,6,6	0
57	MG	EA	3064	1/1	0.13	-3.96	2,2,2,2	0
57	MG	BA	1609	1/1	0.11	-3.97	7,7,7,7	0
57	MG	CB	1204	1/1	0.06	-3.98	15,15,15,15	0
57	MG	DA	1617	1/1	0.07	-3.99	39,39,39,39	0
57	MG	CA	3052	1/1	0.13	-4.05	4,4,4,4	0
57	MG	GA	3118	1/1	0.10	-4.06	39,39,39,39	0
57	MG	GA	3074	1/1	0.14	-4.06	10,10,10,10	0
57	MG	BA	1614	1/1	0.10	-4.07	7,7,7,7	0
57	MG	AA	3036	1/1	0.14	-4.08	2,2,2,2	0
57	MG	CA	3054	1/1	0.10	-4.12	14,14,14,14	0
57	MG	AA	3127	1/1	0.12	-4.15	10,10,10,10	0
57	MG	AA	3024	1/1	0.14	-4.18	5,5,5,5	0
57	MG	CA	3099	1/1	0.14	-4.24	5,5,5,5	0
57	MG	GA	3002	1/1	0.06	-4.39	31,31,31,31	0
57	MG	EA	3118	1/1	0.12	-4.43	17,17,17,17	0
57	MG	EA	3063	1/1	0.13	-4.44	2,2,2,2	0
57	MG	AA	3079	1/1	0.10	-4.47	4,4,4,4	0
57	MG	CA	3085	1/1	0.14	-4.51	5,5,5,5	0
57	MG	AA	3105	1/1	0.14	-4.59	2,2,2,2	0
57	MG	CA	3097	1/1	0.11	-4.63	3,3,3,3	0
57	MG	AA	3020	1/1	0.07	-4.67	9,9,9,9	0
57	MG	CA	3129	1/1	0.10	-4.72	9,9,9,9	0
57	MG	CA	3103	1/1	0.10	-4.72	17,17,17,17	0
57	MG	EA	3066	1/1	0.12	-4.73	1,1,1,1	0
57	MG	GA	3072	1/1	0.08	-4.84	24,24,24,24	0
57	MG	DA	1602	1/1	0.07	-4.87	28,28,28,28	0
57	MG	DA	1603	1/1	0.13	-4.95	20,20,20,20	0
57	MG	CA	3060	1/1	0.12	-4.99	7,7,7,7	0
57	MG	GA	3093	1/1	0.09	-4.99	21,21,21,21	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	DA	1620	1/1	0.04	-5.03	12,12,12,12	0
57	MG	CA	3050	1/1	0.07	-5.04	14,14,14,14	0
57	MG	EA	3057	1/1	0.11	-5.05	18,18,18,18	0
57	MG	AA	3044	1/1	0.10	-5.09	4,4,4,4	0
57	MG	AB	1201	1/1	0.07	-5.14	34,34,34,34	0
57	MG	CA	3034	1/1	0.12	-5.19	13,13,13,13	0
57	MG	AA	3128	1/1	0.15	-5.21	0,0,0,0	0
57	MG	BA	1621	1/1	0.08	-5.29	11,11,11,11	0
57	MG	AA	3071	1/1	0.11	-5.35	4,4,4,4	0
57	MG	CA	3058	1/1	0.12	-5.45	18,18,18,18	0
57	MG	EA	3032	1/1	0.14	-5.46	1,1,1,1	0
57	MG	GA	3125	1/1	0.11	-5.49	10,10,10,10	0
57	MG	EA	3126	1/1	0.11	-5.50	6,6,6,6	0
57	MG	BA	1611	1/1	0.11	-5.61	7,7,7,7	0
57	MG	GC	302	1/1	0.08	-5.63	22,22,22,22	0
57	MG	CA	3057	1/1	0.11	-5.66	7,7,7,7	0
57	MG	AA	3017	1/1	0.10	-5.73	0,0,0,0	0
57	MG	CA	3080	1/1	0.15	-5.77	20,20,20,20	0
57	MG	AA	3028	1/1	0.13	-5.83	4,4,4,4	0
57	MG	EA	3054	1/1	0.12	-5.83	2,2,2,2	0
57	MG	AA	3005	1/1	0.11	-5.83	16,16,16,16	0
57	MG	FA	1619	1/1	0.12	-5.95	7,7,7,7	0
57	MG	AA	3058	1/1	0.11	-6.03	9,9,9,9	0
57	MG	CA	3006	1/1	0.06	-6.10	30,30,30,30	0
57	MG	AA	3089	1/1	0.08	-6.13	4,4,4,4	0
57	MG	EA	3090	1/1	0.07	-6.14	11,11,11,11	0
57	MG	GA	3101	1/1	0.11	-6.21	13,13,13,13	0
57	MG	EA	3098	1/1	0.15	-6.27	4,4,4,4	0
57	MG	CA	3119	1/1	0.08	-6.29	34,34,34,34	0
57	MG	GA	3027	1/1	0.08	-6.46	17,17,17,17	0
57	MG	AB	1204	1/1	0.06	-6.59	18,18,18,18	0
57	MG	GA	3061	1/1	0.10	-6.60	20,20,20,20	0
57	MG	AA	3023	1/1	0.08	-6.67	0,0,0,0	0
57	MG	GA	3013	1/1	0.08	-6.69	18,18,18,18	0
57	MG	EA	3117	1/1	0.06	-6.70	15,15,15,15	0
57	MG	BA	1631	1/1	0.06	-6.74	16,16,16,16	0
57	MG	CA	3021	1/1	0.09	-6.76	5,5,5,5	0
57	MG	GB	1204	1/1	0.07	-6.86	37,37,37,37	0
57	MG	HA	1634	1/1	0.10	-7.00	35,35,35,35	0
57	MG	GA	3001	1/1	0.05	-7.02	31,31,31,31	0
57	MG	HA	1638	1/1	0.04	-7.05	28,28,28,28	0
57	MG	EA	3013	1/1	0.12	-7.30	1,1,1,1	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	MG	BA	1601	1/1	0.07	-7.39	23,23,23,23	0
57	MG	FA	1637	1/1	0.09	-7.52	29,29,29,29	0
57	MG	AA	3053	1/1	0.17	-7.62	4,4,4,4	0
57	MG	GA	3059	1/1	0.10	-7.72	25,25,25,25	0
57	MG	CA	3013	1/1	0.07	-7.83	9,9,9,9	0
57	MG	AA	3051	1/1	0.07	-8.07	9,9,9,9	0
57	MG	EA	3076	1/1	0.13	-8.27	6,6,6,6	0
57	MG	GA	3056	1/1	0.05	-8.35	13,13,13,13	0
57	MG	DA	1631	1/1	0.06	-8.53	13,13,13,13	0
57	MG	CA	3076	1/1	0.13	-8.57	16,16,16,16	0
57	MG	EA	3010	1/1	0.15	-8.98	6,6,6,6	0
57	MG	AA	3030	1/1	0.08	-9.00	1,1,1,1	0
57	MG	CA	3095	1/1	0.10	-9.41	14,14,14,14	0
57	MG	GA	3043	1/1	0.07	-9.82	20,20,20,20	0
57	MG	EA	3101	1/1	0.13	-9.89	7,7,7,7	0
57	MG	GA	3091	1/1	0.05	-10.00	28,28,28,28	0
57	MG	GA	3098	1/1	0.12	-10.94	15,15,15,15	0
57	MG	AA	3022	1/1	0.08	-11.04	2,2,2,2	0
57	MG	GA	3016	1/1	0.07	-11.12	12,12,12,12	0
57	MG	EA	3027	1/1	0.15	-11.46	4,4,4,4	0
57	MG	EB	1201	1/1	0.09	-11.57	30,30,30,30	0
57	MG	DA	1618	1/1	0.04	-11.86	37,37,37,37	0
57	MG	AA	3007	1/1	0.10	-12.36	19,19,19,19	0
57	MG	GA	3094	1/1	0.04	-12.77	14,14,14,14	0
57	MG	EA	3094	1/1	0.08	-14.67	33,33,33,33	0
57	MG	BA	1633	1/1	0.11	-15.18	20,20,20,20	0
57	MG	CA	3083	1/1	0.05	-15.25	32,32,32,32	0
57	MG	HA	1610	1/1	0.05	-15.60	31,31,31,31	0
57	MG	AA	3012	1/1	0.13	-15.97	32,32,32,32	0
57	MG	GA	3014	1/1	0.06	-18.46	15,15,15,15	0
57	MG	EA	3031	1/1	0.14	-18.52	1,1,1,1	0
57	MG	HA	1636	1/1	0.10	-18.87	28,28,28,28	0
57	MG	EA	3102	1/1	0.07	-19.51	23,23,23,23	0
57	MG	AA	3118	1/1	0.10	-24.18	14,14,14,14	0
57	MG	GA	3029	1/1	0.08	-61.52	16,16,16,16	0
57	MG	HK	201	1/1	0.31	-	28,28,28,28	0
57	MG	FU	101	1/1	0.17	-	21,21,21,21	0
57	MG	EA	3083	1/1	0.51	-	35,35,35,35	0
57	MG	EA	3016	1/1	0.20	-	0,0,0,0	0
57	MG	HA	1641	1/1	0.16	-	30,30,30,30	0

6.5 Other polymers ⓘ

There are no such residues in this entry.