



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 11:00 PM GMT

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 X-ray Structure Validation Report for a publicly released PDB entry.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

---

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

MolProbity : 4.02b-467  
Mogul : 1.7 (RC4), CSD as536be (2015)  
Xtriage (Phenix) : 1.9-1692  
EDS : rb-20026688  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Refmac : 5.8.0135  
CCP4 : 6.5.0  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : trunk26865

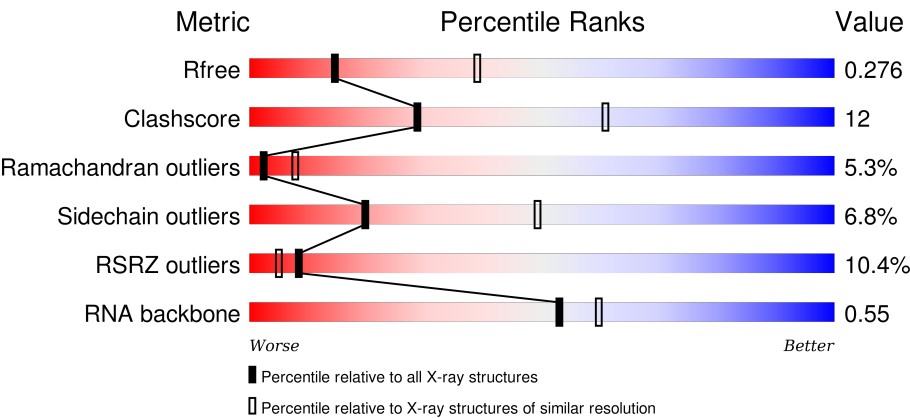
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.90 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	91344	1451 (2.90-2.90)
Clashscore	102246	1668 (2.90-2.90)
Ramachandran outliers	100387	1630 (2.90-2.90)
Sidechain outliers	100360	1632 (2.90-2.90)
RSRZ outliers	91569	1456 (2.90-2.90)
RNA backbone	2183	1093 (3.30-2.50)

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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AB	120	<div><div></div><div><div></div><div>66%</div><div>26%</div><div>7%</div><div>.</div></div></div>
1	CB	120	<div><div></div><div><div></div><div>60%</div><div>32%</div><div>7%</div><div>.</div></div></div>
1	EB	120	<div><div></div><div><div></div><div>63%</div><div>24%</div><div>9%</div><div>.</div><div>.</div></div></div>
1	GB	120	<div><div></div><div><div></div><div>%</div><div>36%</div><div>51%</div><div>10%</div><div>.</div><div>.</div></div></div>

Continued on next page...



Continued from previous page...

Mol	Chain	Length	Quality of chain
2	AC	273	
2	CC	273	
2	EC	273	
2	GC	273	
3	AA	2904	
3	CA	2904	
3	EA	2904	
3	GA	2904	
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	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
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	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
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	
25	AY	63	
25	CY	63	
25	EY	63	
25	GY	63	
26	AZ	59	
26	CZ	59	
26	EZ	59	
26	GZ	59	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
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	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
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	
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	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
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	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
46	HM	118	
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	

Continued on next page...



Continued from previous page...

Mol	Chain	Length	Quality of chain
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, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	AA	3026	-	-	-	X
57	MG	AA	3029	-	-	-	X
57	MG	AA	3037	-	-	-	X
57	MG	AA	3041	-	-	-	X
57	MG	AA	3047	-	-	-	X
57	MG	AA	3050	-	-	-	X
57	MG	AA	3068	-	-	-	X
57	MG	AA	3078	-	-	-	X
57	MG	AA	3090	-	-	-	X
57	MG	AA	3095	-	-	-	X

Continued on next page...

*Continued from previous page...*

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
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	3115	-	-	-	X
57	MG	AA	3129	-	-	-	X
57	MG	AA	3135	-	-	-	X
57	MG	BA	1607	-	-	-	X
57	MG	BA	1616	-	-	-	X
57	MG	BA	1627	-	-	-	X
57	MG	CA	3040	-	-	-	X
57	MG	CA	3046	-	-	-	X
57	MG	CA	3068	-	-	-	X
57	MG	CA	3105	-	-	-	X
57	MG	CA	3109	-	-	-	X
57	MG	CA	3112	-	-	-	X
57	MG	CA	3120	-	-	-	X
57	MG	CA	3131	-	-	-	X
57	MG	CA	3136	-	-	-	X
57	MG	DA	1628	-	-	-	X
57	MG	DA	1642	-	-	-	X
57	MG	DV	802	-	-	-	X
57	MG	EA	3005	-	-	-	X
57	MG	EA	3023	-	-	-	X
57	MG	EA	3025	-	-	-	X
57	MG	EA	3038	-	-	-	X
57	MG	EA	3040	-	-	-	X
57	MG	EA	3042	-	-	-	X
57	MG	EA	3046	-	-	-	X
57	MG	EA	3096	-	-	-	X
57	MG	EA	3100	-	-	-	X
57	MG	EA	3103	-	-	-	X
57	MG	EA	3104	-	-	-	X
57	MG	EA	3123	-	-	-	X
57	MG	FA	1609	-	-	-	X
57	MG	FA	1611	-	-	-	X
57	MG	FA	1613	-	-	-	X
57	MG	FA	1626	-	-	-	X
57	MG	FA	1635	-	-	-	X
57	MG	GA	3009	-	-	-	X

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	MG	GA	3021	-	-	-	X
57	MG	GA	3023	-	-	-	X
57	MG	GA	3030	-	-	-	X
57	MG	GA	3050	-	-	-	X
57	MG	GA	3055	-	-	-	X
57	MG	GA	3100	-	-	-	X
57	MG	GA	3104	-	-	-	X
57	MG	GA	3107	-	-	-	X
57	MG	GA	3115	-	-	-	X
57	MG	GA	3119	-	-	-	X
57	MG	GA	3131	-	-	-	X
57	MG	HA	1613	-	-	-	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 hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 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...*

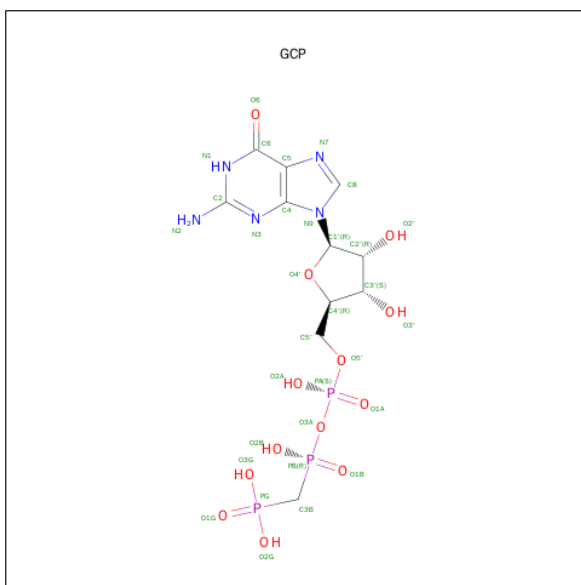
*Continued from previous page...*

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 PHOSPHOMETHYLPHOSPHONIC ACID GUANYLATE ESTER (three-letter code: GCP) (formula: C<sub>11</sub>H<sub>18</sub>N<sub>5</sub>O<sub>13</sub>P<sub>3</sub>).



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

- Molecule 60 is water.

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

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

*Continued on next page...*

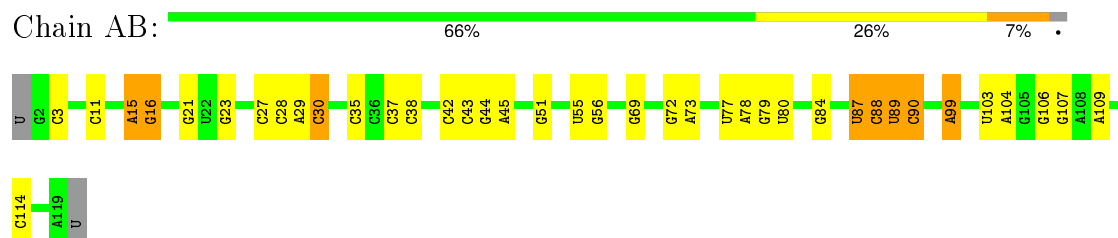
*Continued from previous page...*

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

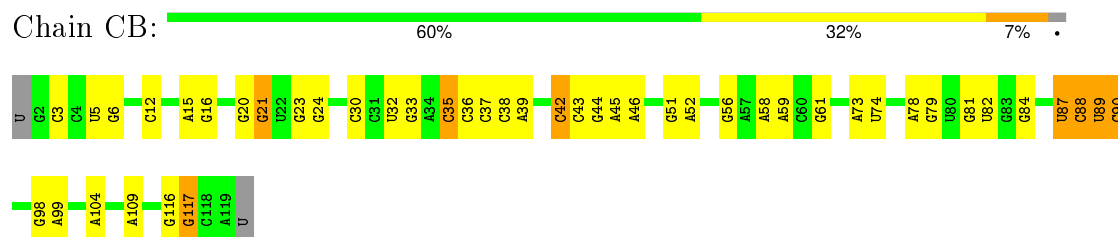
### 3 Residue-property plots

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.

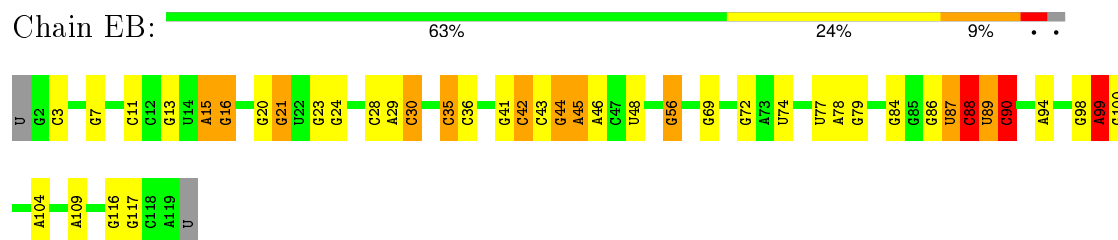
#### • Molecule 1: 5S rRNA



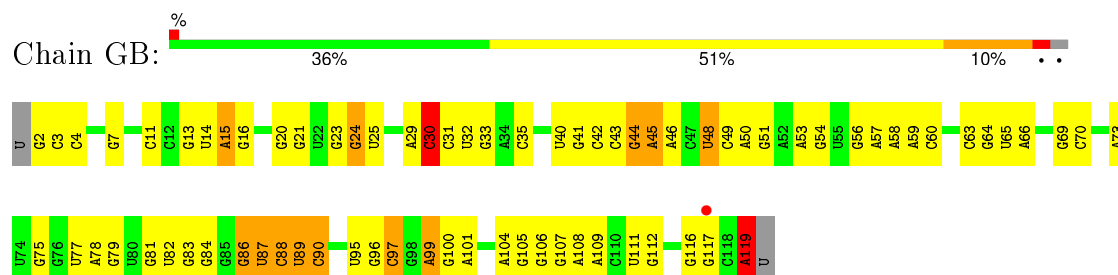
#### • Molecule 1: 5S rRNA



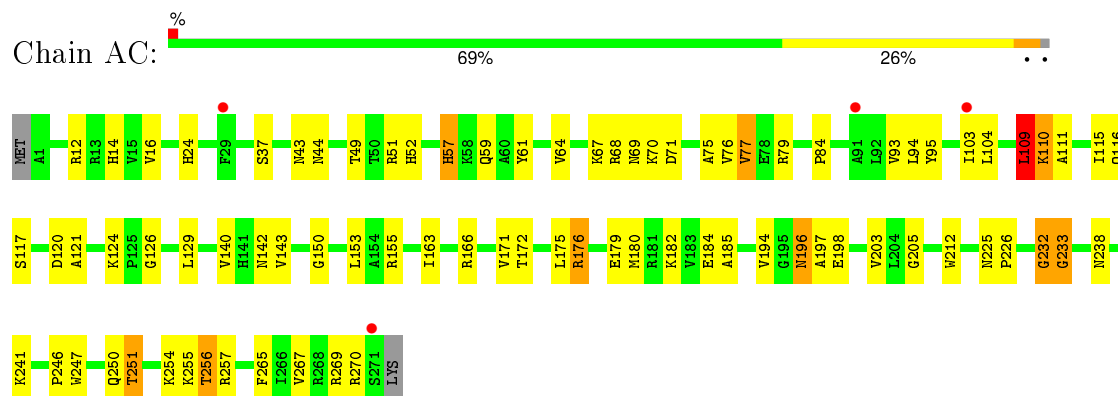
#### • Molecule 1: 5S rRNA



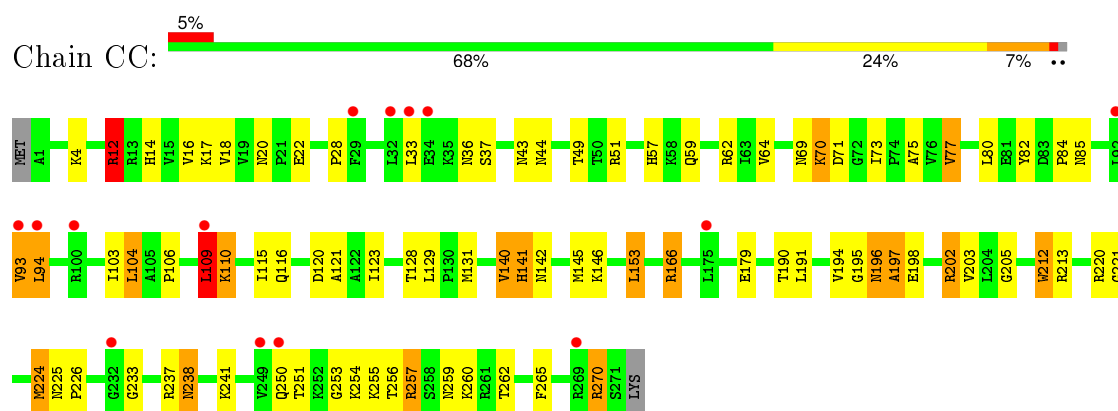
#### • Molecule 1: 5S rRNA



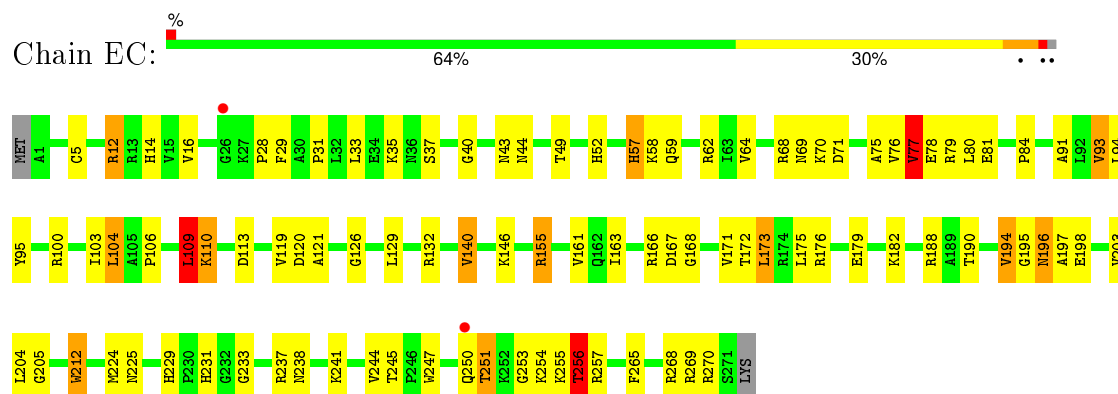
- Molecule 2: 50S ribosomal protein L2



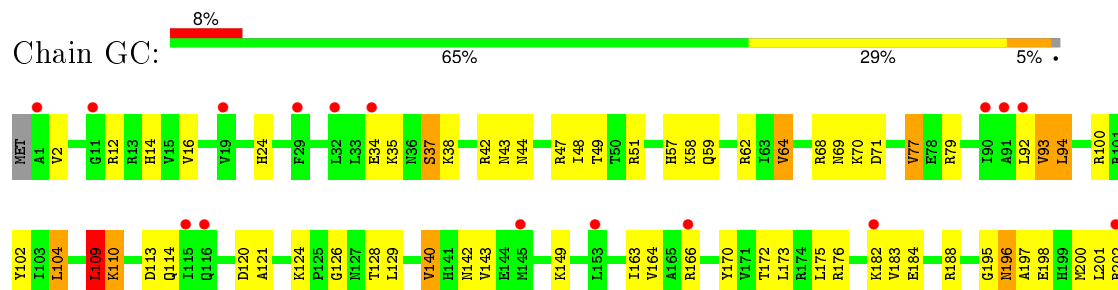
- Molecule 2: 50S ribosomal protein L2

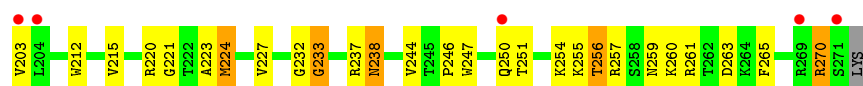


- Molecule 2: 50S ribosomal protein L2

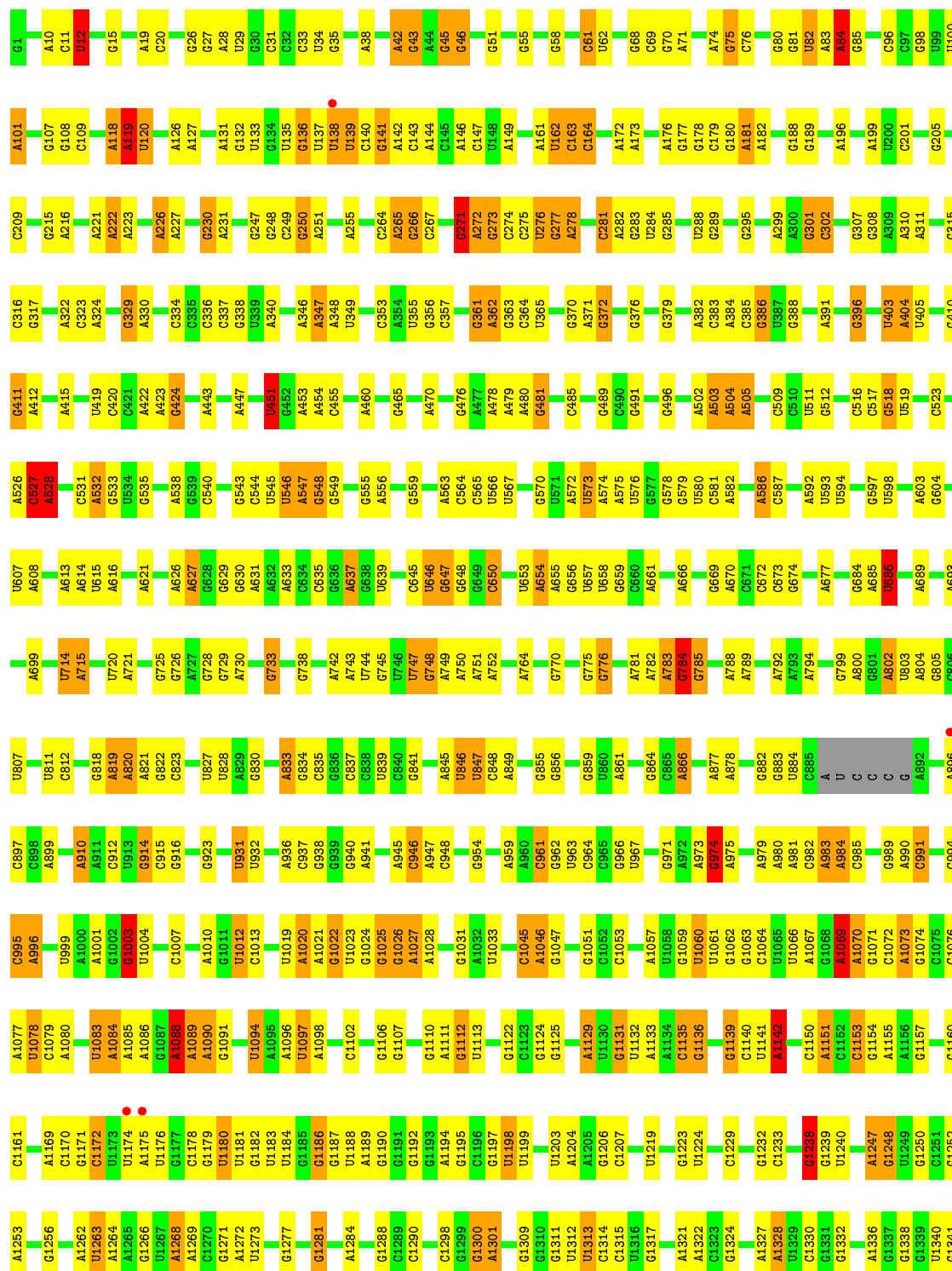


- Molecule 2: 50S ribosomal protein L2





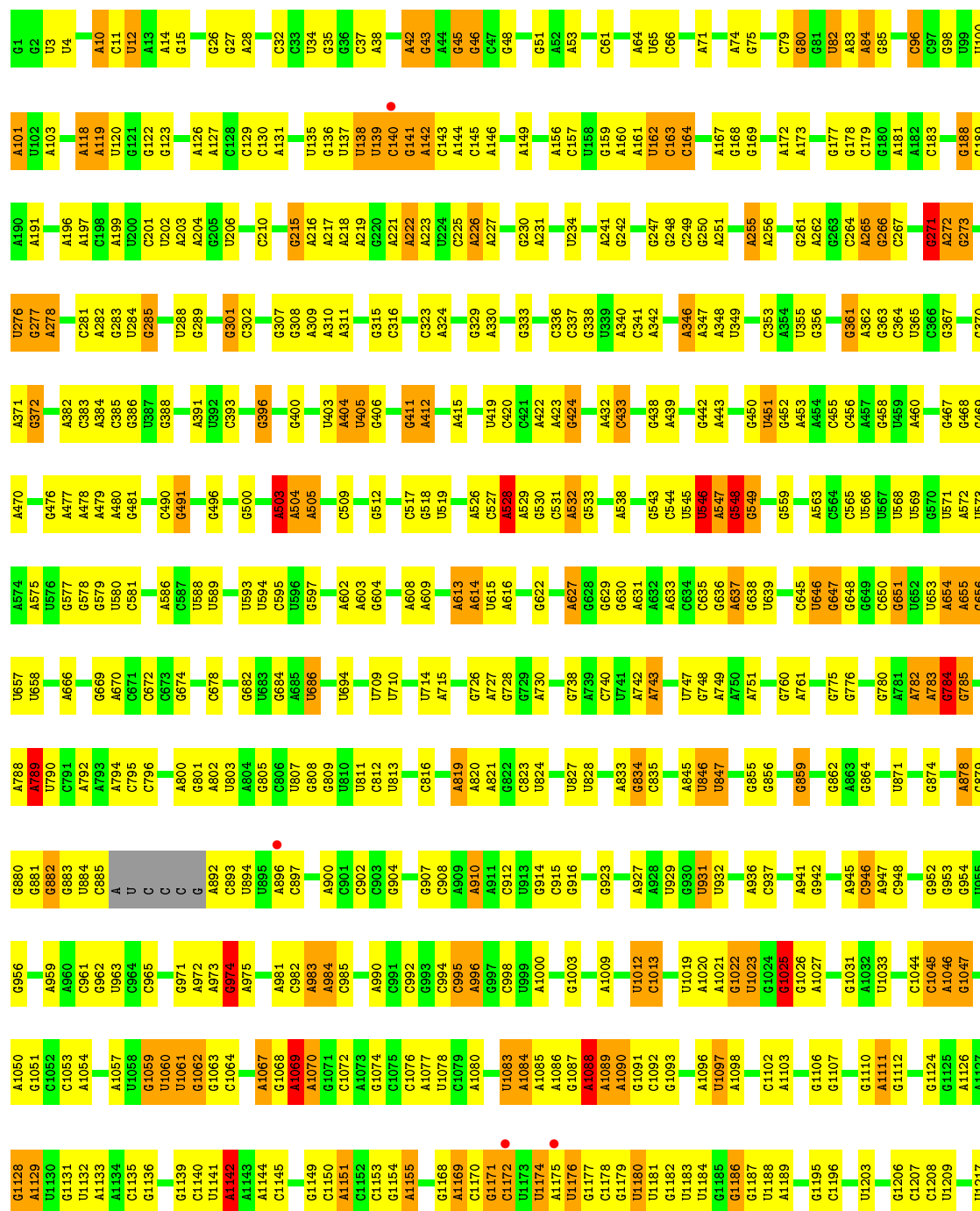
• Molecule 3: 23S rRNA





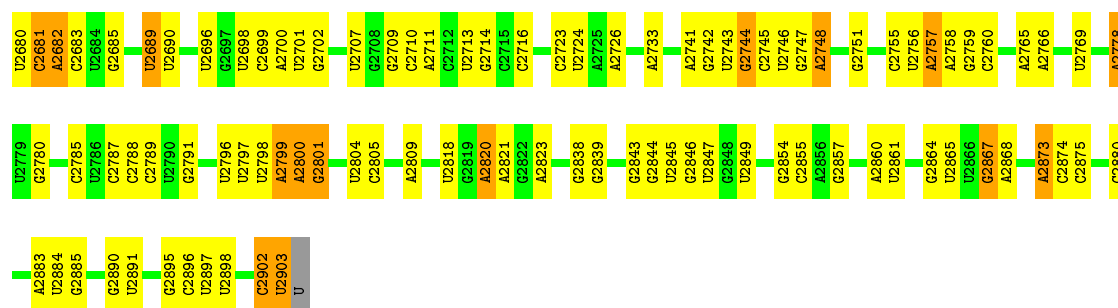


• Molecule 3: 23S rRNA

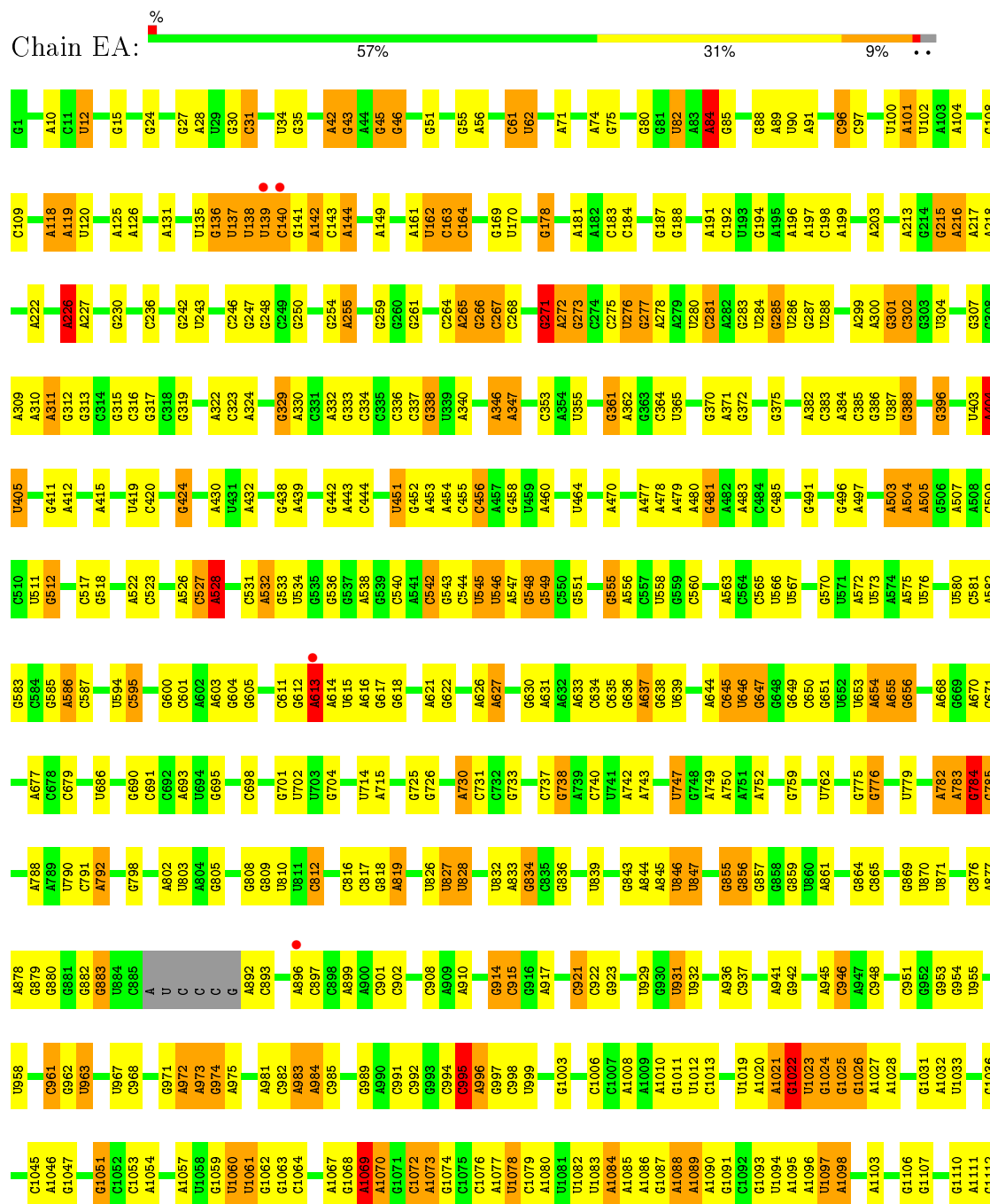




WORLDWIDE  
**PDB**  
PROTEIN DATA BANK



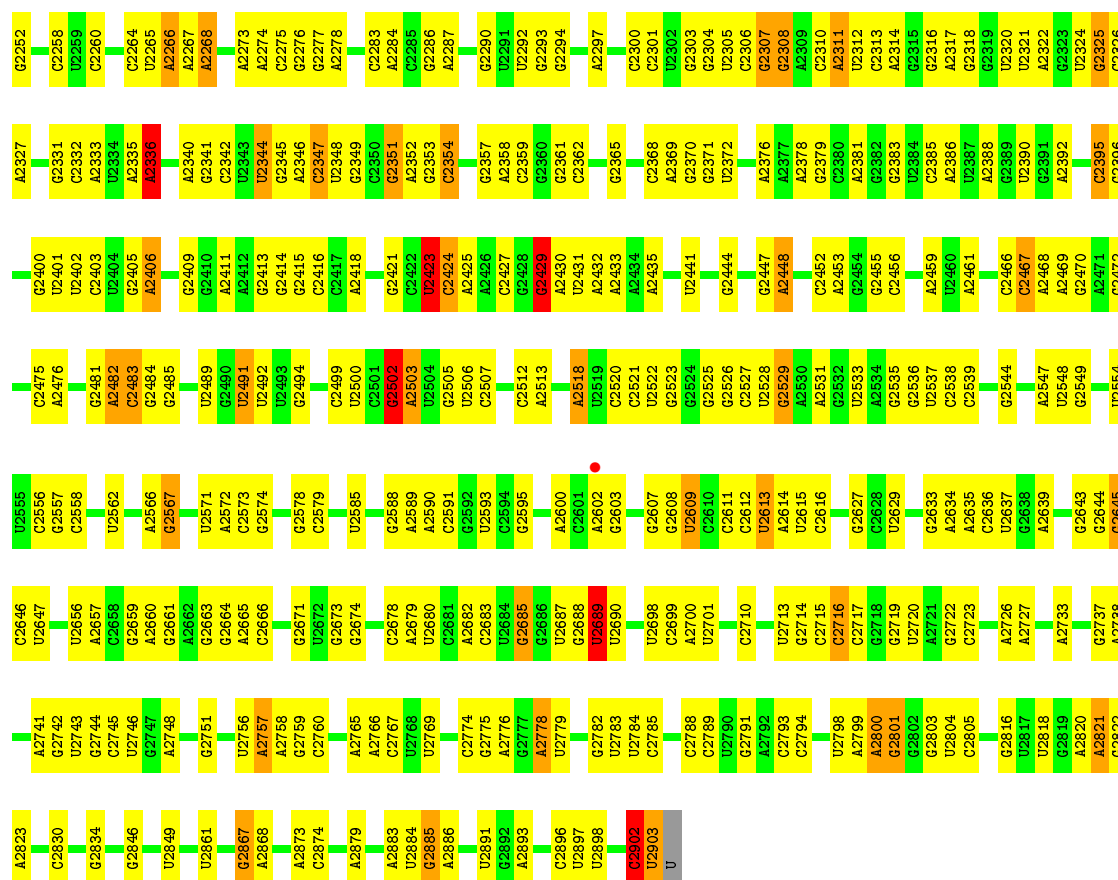
### • Molecule 3: 23S rRNA



A2542	U2441	G2351	A2270	U	G	G2027	U1988	A1791	A1665	U1559	G1435	U1316	U1222	U119
G2543	G2446	A2352	G2271	A	U	A2030	G1906	A1794	G1666	G1566	G1436	G1317	G1223	G1125
G2544	G2447	G2353	C2275	C	A	G2031	G1907	C1795	G1667	C1564	C1437	U1325	U1224	
U2545	A2448	G2354	G2276	A	G	G2032	A1913	C1799	A1668	U1565	U1438	A1327	A1226	A1129
A2547	U2449	U2355	G2277	C	A	A2033	C1914	C1800	C1670	A1566	A1439	U1249	C1229	U1130
U2548	A2450	G2361	A2278	U	U		A1927	A1801	U1671	C1567	G1332	G1250	G1133	U1131
	A2451		G2279	A	A	A2037	A1928	A1802	G1674	G1568		G1238	U1132	U1132
C2551	G2455	A2366	G2280	U	G	G2038	A1929	C1806	C1675	A1569	U1340	A1247	A1133	A1133
U2554		G2367	A2281	U	U	A2181	G1930	G1807	A1676	C1451	G1341	U1249	G1135	G1136
G2557	A2459	A2368	G2282	U	G	G2040	C1934	A1808	A1678		C1350	U1249	G1133	
C2558	U2460	G2373	A2283	G	G	A2042	G1935			G1445	C1351	G1250	G1133	
U2561	G2470	G2374	G2286	A	A	C2043	A1936	U1811	U1688	G1446	U1352	G1250	G1133	
U2562	A2471	C2374	A2287	G	G	C2044	A1937	G1812	U1688	G1458	A1353	A1253	G1140	G1139
U2563	U2473	G2375	U2187	G	G		A1938	G1813	C1694	U1458	A1354	G1257	A1142	U1141
			G2190	C	C	G2048	U1939	G1814	C1694	G1459	G1355	G1257	A1142	A1143
				U	U			A1815	A1700	U1468	G1356	G1257	A1144	A1144
A2566	U2474	A2378	A2052	U	U	A2052	U1943	C1816	U1712		C1360	A1260	A1260	A1144
G2567	C2475	U2195	G2053	U	U	G2053		G1817	U1712	U1474	G1360	C1261	C1261	G1149
	A2476	C2196	A2054	U	A	C2054	U1955	U1818	A1713	G1475	G1360	C1261	C1261	G1149
A2572	A2478	U2305	C2055	U	A	C2055	G1959	G1823	A1603		G1364	U1263	U1263	C1150
C2573		G2306	G2056	U	A	G2056	A1960	G1824	C1604		A1365	U1263	U1263	A1151
G2574		G2307	G2057	U	A	G2057	G1961	G1823	C1606		A1265	G1266	G1266	G1152
C2575		G2308		U	U			U1827	C1607		G1368	U1267	U1267	C1153
			A2060	U	U	A2060	A1962	G1828	C1727	U1485	G1368	G1267	G1267	G1154
C2579		A2311	G2061	U	U	G2061	U1963	A1829	C1728	U1486	G1372	U1267	U1267	A1155
		A2314	C2062	U	A	C2062	A1966	G1830	A1610	U1487	G1372	U1267	U1267	A1155
G2582		G2315	C2063	U	A	C2063	A1967	G1831	C1604		G1376	A1269	A1269	A1156
G2583		G2316	C2064	U	A	C2064	G1968	G1832	C1604		G1376	C1270	C1270	G1157
U2584		A2317	G2069	U	A	G2069	A1969	C1832	G1613		G1377	C1271	C1271	C1158
U2585		G2318	A2070	U	A	A2070	G1970	C1833	A1614		A1378	A1272	A1272	G1168
		G2319	C2071	U	A	C2071	U1971	G1843	C1615		G1380	U1273	U1273	A1169
G2588		A2225	C2072	U	A	C2072	G1972		A1504		G1380	U1273	U1273	A1169
		C2226		U	A			A1847	G1737		G1277	G1277	G1277	G1170
C2592		G2230	U2075	U	U	U2075	G1983	A1848	A1739		G1278	C1278	C1278	G1171
G2595		G2231	A2076	U	A	A2076		A1853	A1744		G1279	G1279	G1279	C1172
		U2231	C2077	U	A	C2077	U1991	A1853	A1744		G1280	G1280	G1280	U1173
		G2238	G2087	U	A	G2087	U1993	A1858	U1747		G1281	G1281	G1281	U1174
A2598		G2239	U2082	U	A	U2082	C1996	A1866	C1748		A1284	A1284	A1284	A1175
		G2242	G2083	U	A	G2083	C1997	G1867	C1748		A1285	A1285	A1285	G1177
		U2249	A2094	U	A	A2094	A1998	G1868	C1764		G1288	G1288	G1288	G1179
G2603		U2249	U2098	U	A	U2098	A2005	G1869	A1773		G1292	G1292	G1292	U1180
G2608		G2251	U2099	U	A	U2099	A2005	C1870	C1774		C1293	C1293	C1293	G1186
U2609		G2252	G2100	U	A	G2100	A2013	A1871	U1775		G1415	G1415	G1415	G1187
		A2336		U	A			A1872	G1776		G1416	G1416	G1416	U1188
C2612		A2340	C2103	U	A	C2103	U2016	G1873	U1777		G1422	G1422	G1422	A1189
U2613		A2342	C2104	U	A	C2104	U2017		U1778		A1419	A1419	A1419	A1301
A2614		A2343	U2105	U	A	U2105	G2018	A1876	U1779		A1420	A1420	A1420	G1300
U2615		U2261	U2106	U	A	U2106	A2019	A1877	G1783		G1421	G1421	G1421	A1301
C2616		U2262	G2107	U	A	G2107	A2020	G1878	A1655		G1422	G1422	G1422	G1191
U2617		U2263	A2108	U	A	A2108	C2021		A1784		G1427	G1427	G1427	U1198
G2618		U2264	U2109	U	A	U2109	C2022	G1884	A1785		A1427	A1427	A1427	U1198
C2619		U2265	G2110	U	A	G2110	C2023		A1786		C1428	C1428	C1428	A1205
C2620		U2266		U	A		C2023	C1887	A1787		G1429	G1429	G1429	G1313
G2627		U2267		U	A		G2024		A1787		A1431	A1431	A1431	C1221



G2179	A	G1846	C1658	A1431	A1342	G1248	U176	U1094	G1031	G969
U2180	G	A1847	A1544	G1435	A1346	U1249	G1177	A1095	A1032	U970
U2181	G	A1848	A1545	A1664	A1347	G1250	C1178	A1096	U1033	G971
A2182	U	G1945	G1774	A1665	A1348	C1251	G1179	U1097	G1034	A972
A2183	G	U1851	C1558	U1439	G1351	G1252	U1181	A1098	U1035	A973
A2184	G	A1852	A1566	A1439	U1352	A1253	G1182	G1107	G1037	G974
U2185	A	A1853	G1567	U1440	A1353	U1254	G1185	U1108	G1038	A975
U2186	A	A1854	A1668	G1448	A1354	G1255	G1185	G1109	G1039	A976
G2187	G	A1855	A1568	G1449	A1355	G1256	G1186	A1039	G1040	G977
U2188	G	A1856	A1569	G1450	A1356	G1257	G1187	G1110	A1041	G978
U2189	C	A1857	A1570	G1451	A1357	G1258	G1188	G1111	G1042	A979
G2190	U	G1860	A1571	G1452	G1360	A1260	U1189	G1112	G1043	A980
G2191	U	A1861	U1578	G1453	G1361	G1261	G1190	G1113	G1044	A981
U2194	U	U1864	U1578	G1454	A1365	A1262	G1191	G1114	C1045	C982
U2195	G	U1865	C1582	G1455	A1366	G1266	G1192	C1117	C1046	A983
C2196	G	A1866	A1678	G1456	A1367	U1267	G1193	A1046	A1047	A984
U2197	G	A1867	U1680	U1459	A1368	A1268	A1194	G1052	G1053	C985
A2198	G	G1869	G1681	G1459	G1369	A1269	G1195	A1050	A1051	C986
A2199	G	C1870	G1682	U1460	G1370	C1270	G1196	A1052	G1053	C987
C2200	G	A1871	U1683	C1462	G1371	G1271	G1197	A1054	G1055	A990
G2201	G	U1872	C1686	C1463	G1372	A1272	U1198	G1056	G1056	C991
G2202	U	G1873	U1594	A1469	C1376	U1273	U1201	G1057	G1057	C994
G2203	U	A1874	C1595	A1474	A1377	G1281	G1202	C995	A1057	C995
G2204	G	U1875	C1600	G1475	A1378	G1285	U1203	A996	U1058	A996
G2205	G	A1876	G1601	G1476	U1379	A1286	A1204	C997	G1059	C997
C2206	G	A1877	U1602	G1477	G1380	A1287	G1208	C998	U1060	C998
C2207	G	U1878	U1603	G1478	G1381	G1288	G1209	U999	U1061	U999
G2208	G	A1879	C1604	G1479	A1382	G1289	G1210	A1000	G1062	A1000
G2209	G	G1881	C1607	G1482	A1383	G1297	G1211	A1001	G1063	A1001
G2210	G	U1882	A1608	U1483	A1384	G1297	C1211	A1002	G1064	A1002
A2211	G	A1883	A1609	U1484	A1385	G1297	G1212	G1003	U1065	G1003
A2212	G	U1884	A1610	U1485	C1386	G1300	G1213	U1004	U1066	U1004
U2213	G	G1885	A1611	U1486	A1387	A1301	A1214	U1005	A1067	U1005
C2214	G	C1886	G1613	G1487	A1388	A1302	G1215	C1006	G1068	C1006
G2215	G	A1887	U1616	U1488	A1389	G1309	G1216	C1007	A1069	C1007
G2216	G	U1888	U1617	G1489	U1392	G1310	U1217	A1008	A1070	A1008
G2217	G	A1889	U1618	A1494	A1393	G1311	G1218	A1009	G1071	A1009
G2218	G	U1890	U1619	A1495	U1394	G1312	U1219	A1010	G1072	A1010
U2219	G	G1891	U1620	A1496	A1395	G1313	G1220	U1011	A1073	U1011
U2220	G	A1892	G1621	A1504	A1403	U1314	G1223	U1012	G1074	U1012
G2221	G	U1893	U1622	A1504	U1404	G1315	U1224	A1013	C1075	A1013
A2225	G	A1894	A1626	A1508	U1405	G1316	G1152	A1014	G1076	A1014
C2226	G	U1895	G1627	A1509	U1406	U1317	C1153	U1015	A1077	U1015
A2227	G	G1906	U1636	G1510	G1410	G1317	A1155	G1016	U1078	G1016
G2230	G	U1907	U1636	A1515	A1413	G1324	U1231	G1017	G1079	G1017
U2233	C	A1912	C1646	G1516	G1414	G1324	G1232	U1018	A1080	U1018
G2234	C	U1913	U1647	U1415	U1414	G1324	C1233	U1019	U1081	U1019
G2235	C	A1914	U1648	G1524	U1415	A1327	U1234	A1020	U1082	A1020
G2236	C	U1915	U1649	U1524	G1416	A1328	G1235	A1021	U1083	A1021
G2237	C	A1916	U1650	G1527	A1419	G1332	G1236	G1022	A1084	G1022
G2238	C	U1917	A1651	A1528	U1419	G1332	A1237	G1023	G1087	G1023
G2239	C	G1920	U1652	G1528	A1420	G1333	G1238	G1024	A1088	G1024
G2240	C	A1921	A1653	G1529	G1421	G1334	G1239	G1025	A1089	G1025
G2241	C	U1922	A1654	C1533	G1422	G1334	G1240	G1026	A1090	G1026
G2242	C	A1923	A1655	U1534	U1423	G1335	G1241	A1027	A1091	A1027
G2243	C	U1924	A1656	C1536	G1424	G1336	A1244	A1028	G1092	A1028
G2244	C	A1925	U1657	G1537	G1425	G1337	A1245	G1093	G1093	G1093
G2245	C	G1926	U1658	G1538	G1426	G1338	G1246			
G2246	C	U1927	U1659	G1539	G1427	G1339	A1247			
G2247	C	A1928	U1660	G1540	G1428	G1340				
G2248	C	U1929	U1661	G1541	G1429	G1341				
G2249	C	G1930	U1662	G1542	G1430	G1342				
G2250	C	U1931	U1663	G1543	G1431	G1343				
G2251	C	A1932	U1664	G1544	G1432	G1344				



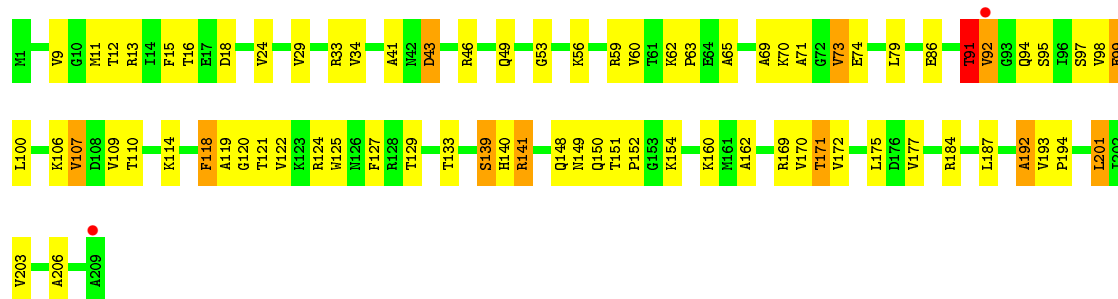
• Molecule 4: 50S ribosomal protein L3



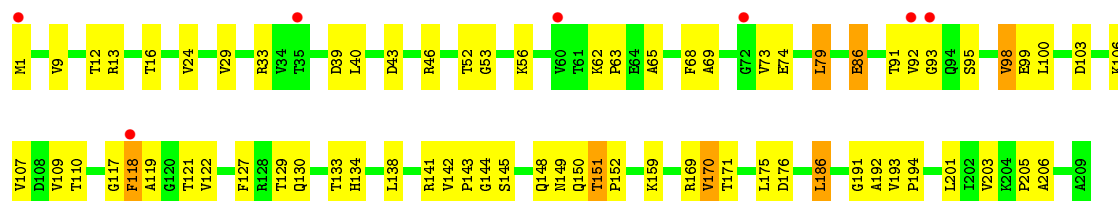
• Molecule 4: 50S ribosomal protein L3



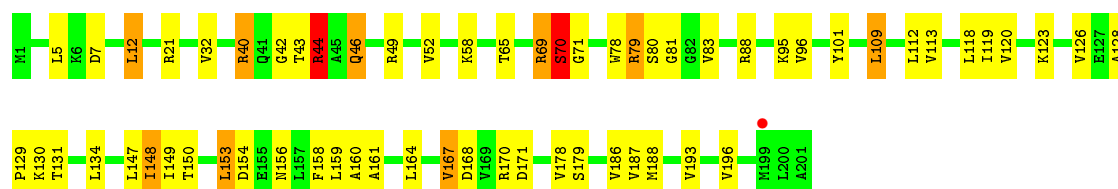
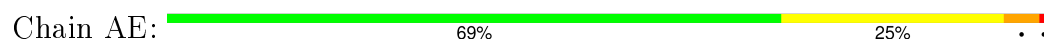
• Molecule 4: 50S ribosomal protein L3



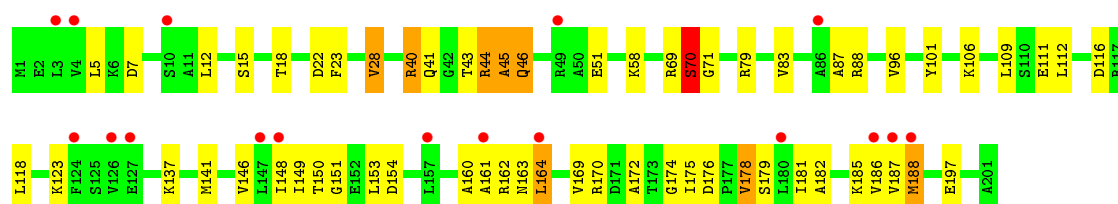
- Molecule 4: 50S ribosomal protein L3



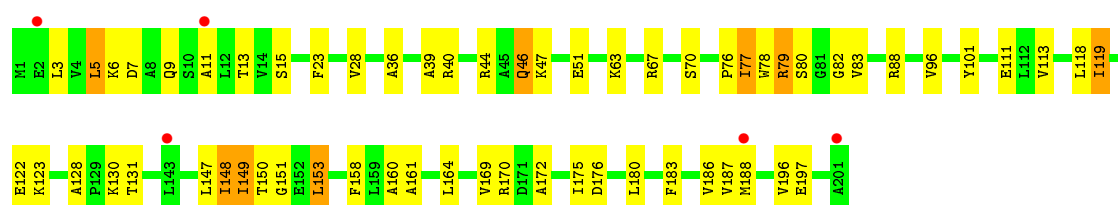
- Molecule 5: 50S ribosomal protein L4



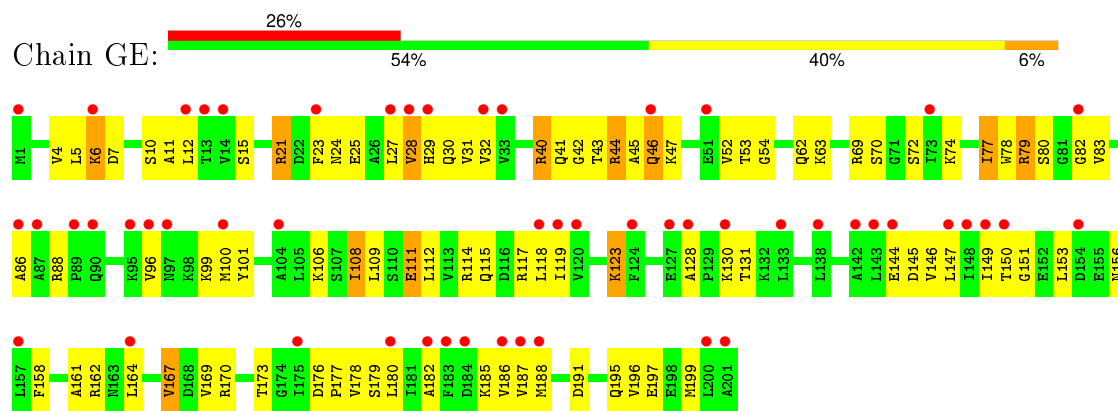
- Molecule 5: 50S ribosomal protein L4



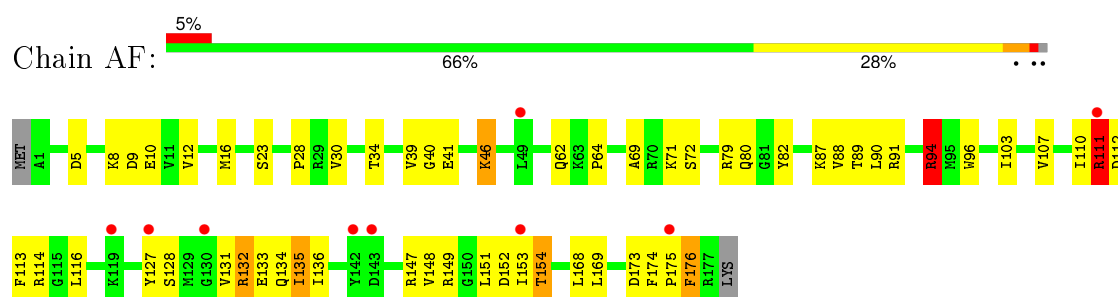
- Molecule 5: 50S ribosomal protein L4



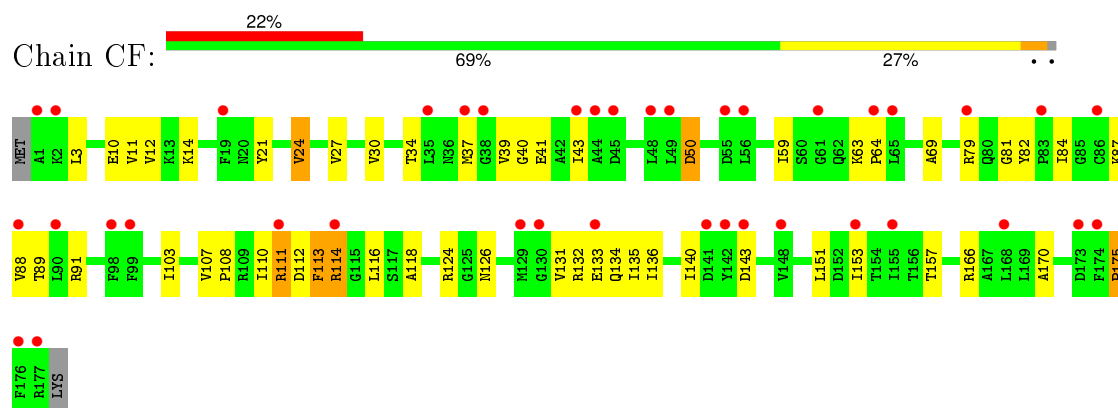
- Molecule 5: 50S ribosomal protein L4



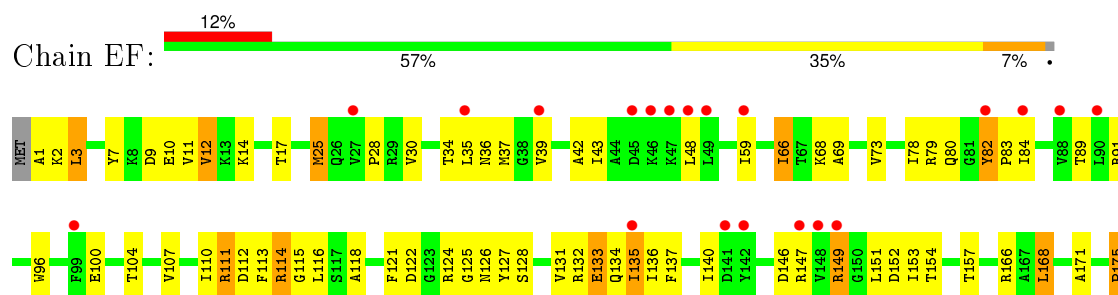
- Molecule 6: 50S ribosomal protein L5



- Molecule 6: 50S ribosomal protein L5



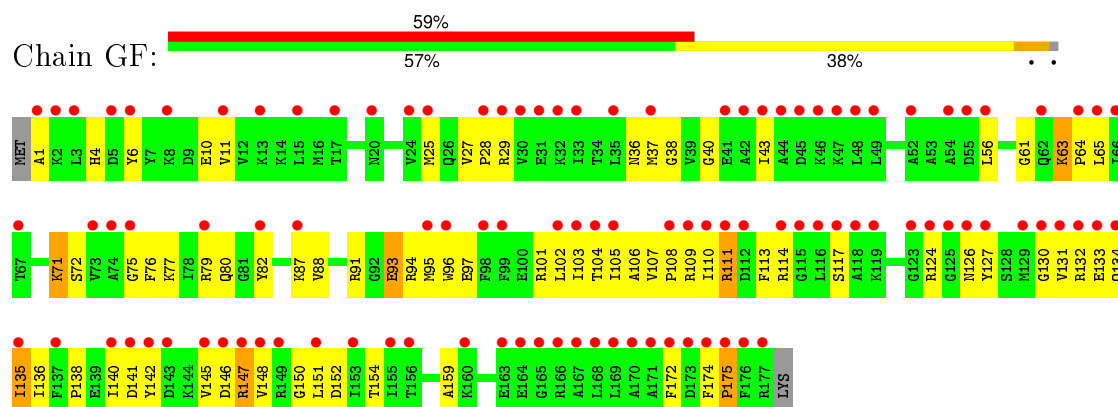
- Molecule 6: 50S ribosomal protein L5



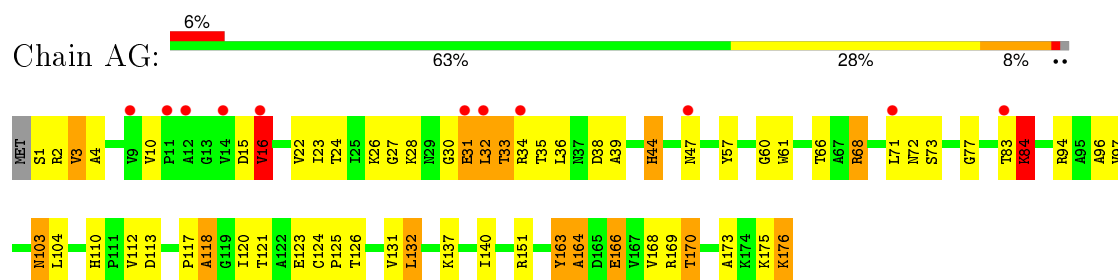




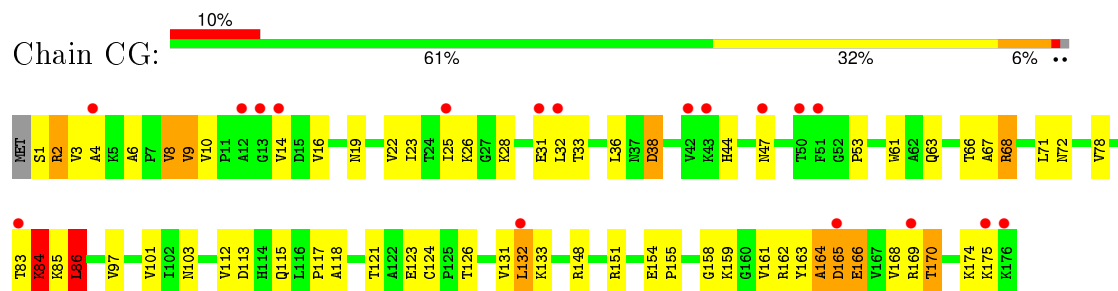
- Molecule 6: 50S ribosomal protein L5



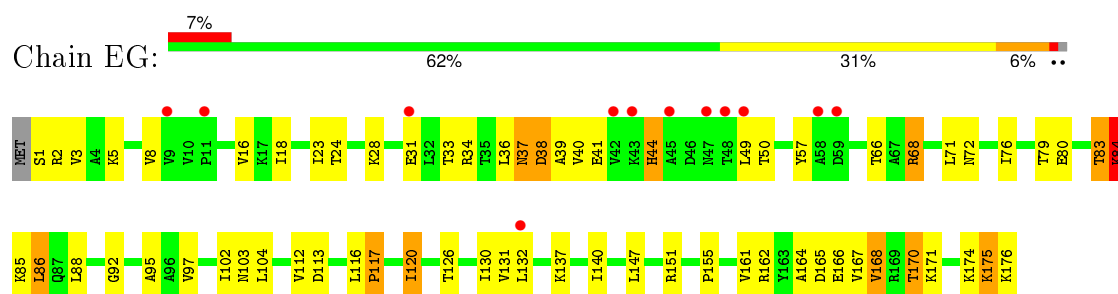
- Molecule 7: 50S ribosomal protein L6



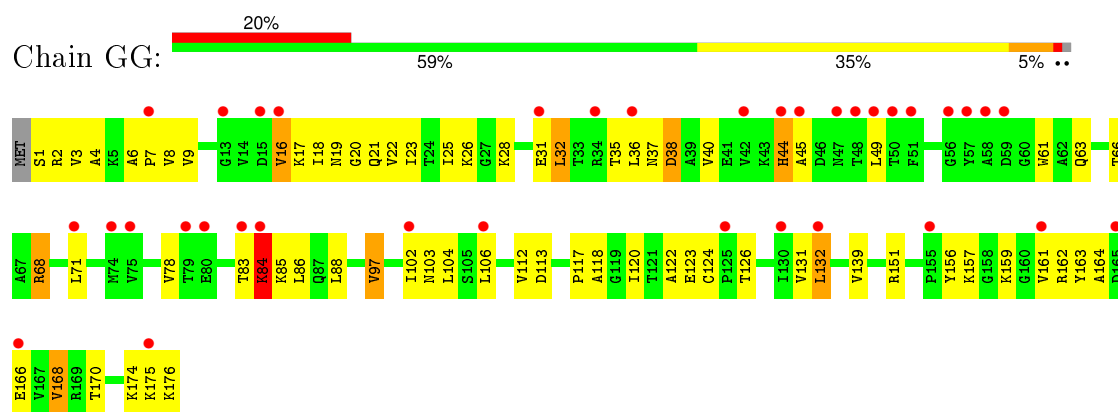
- Molecule 7: 50S ribosomal protein L6



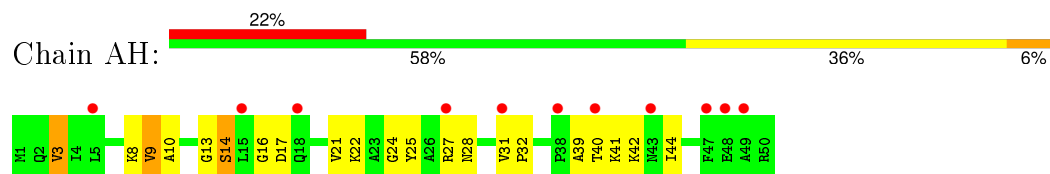
- Molecule 7: 50S ribosomal protein L6



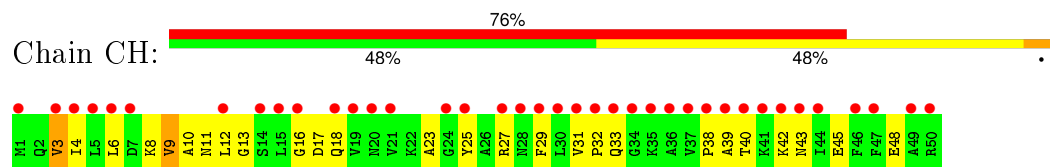
- Molecule 7: 50S ribosomal protein L6



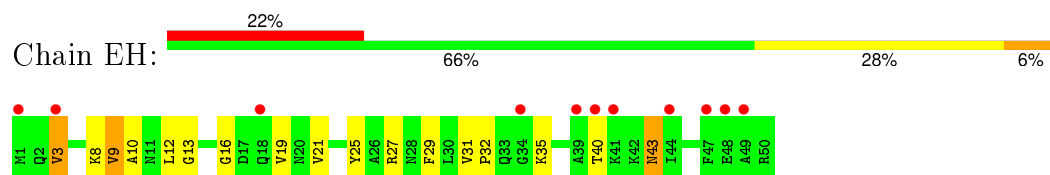
- Molecule 8: 50S ribosomal protein L9



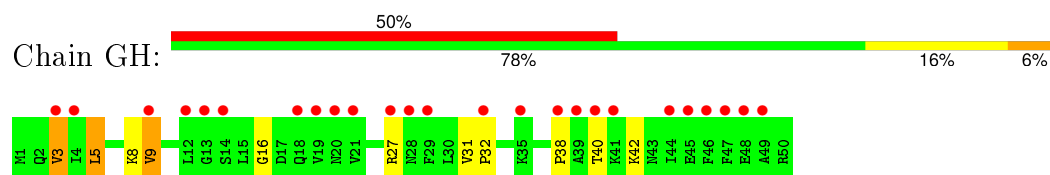
- Molecule 8: 50S ribosomal protein L9



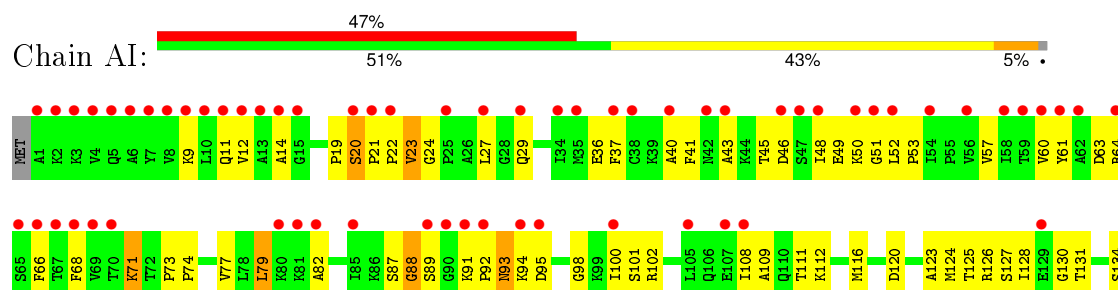
- Molecule 8: 50S ribosomal protein L9

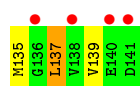


- Molecule 8: 50S ribosomal protein L9

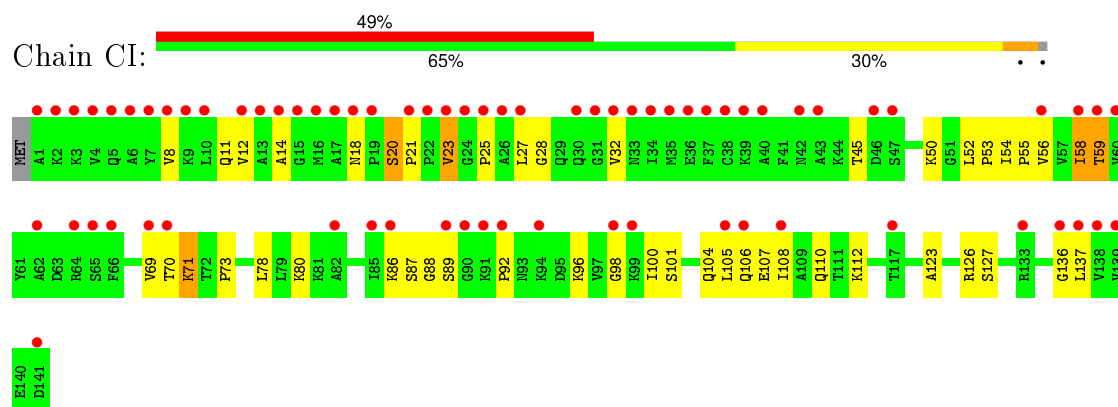


- Molecule 9: 50S ribosomal protein L11

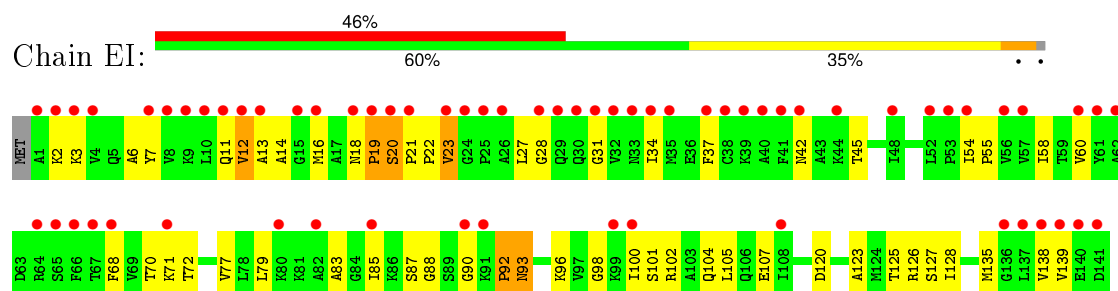




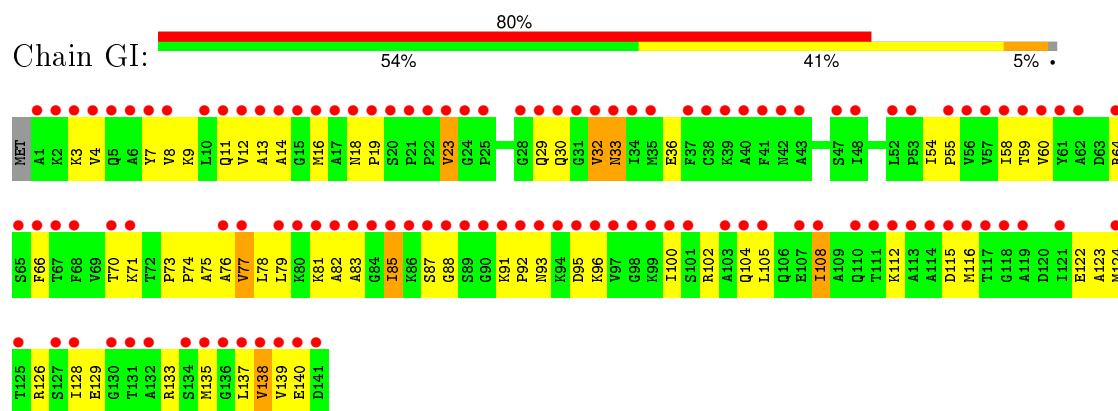
- Molecule 9: 50S ribosomal protein L11



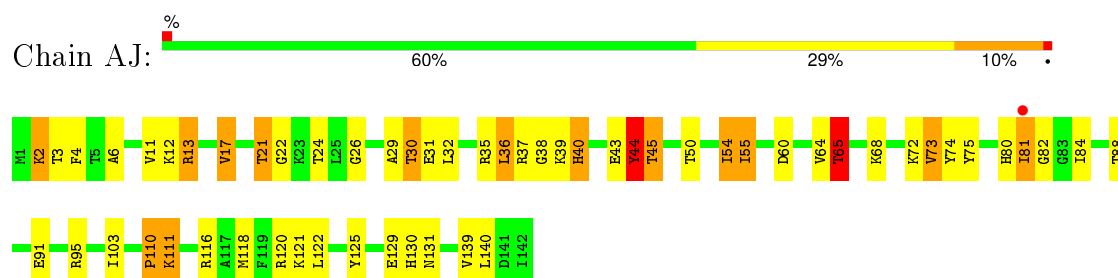
- Molecule 9: 50S ribosomal protein L11



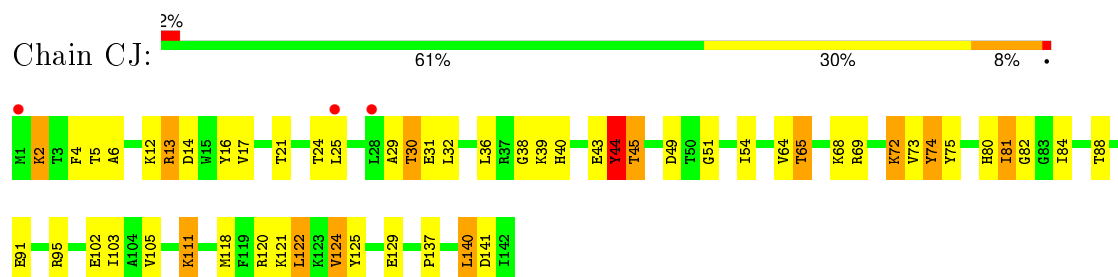
- Molecule 9: 50S ribosomal protein L11



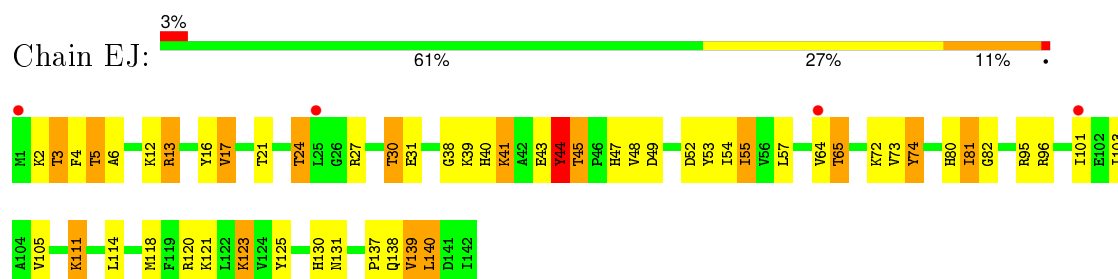
- Molecule 10: 50S ribosomal protein L13



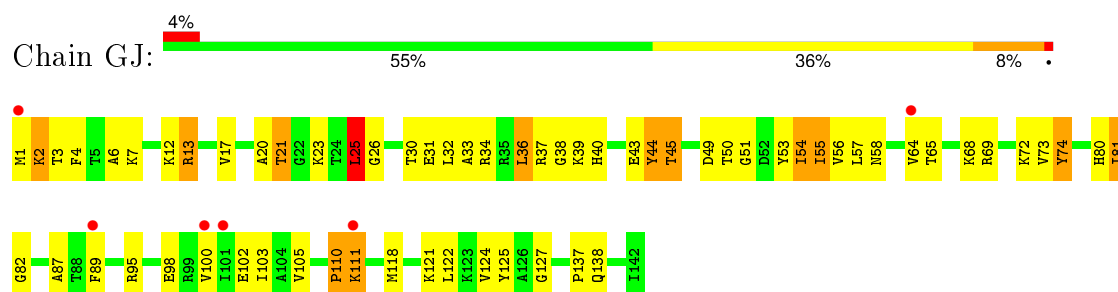
- Molecule 10: 50S ribosomal protein L13



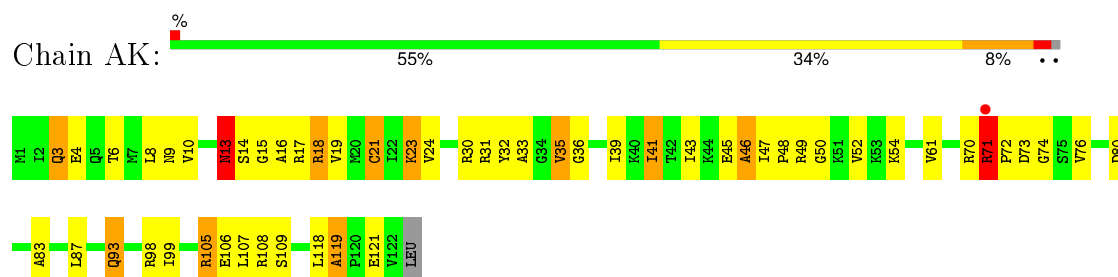
- Molecule 10: 50S ribosomal protein L13



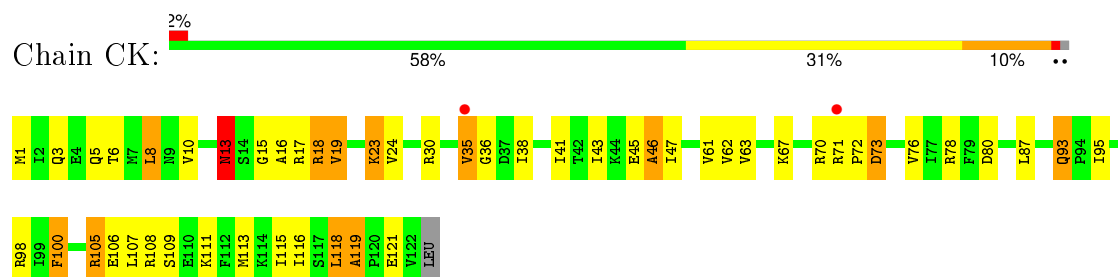
- Molecule 10: 50S ribosomal protein L13



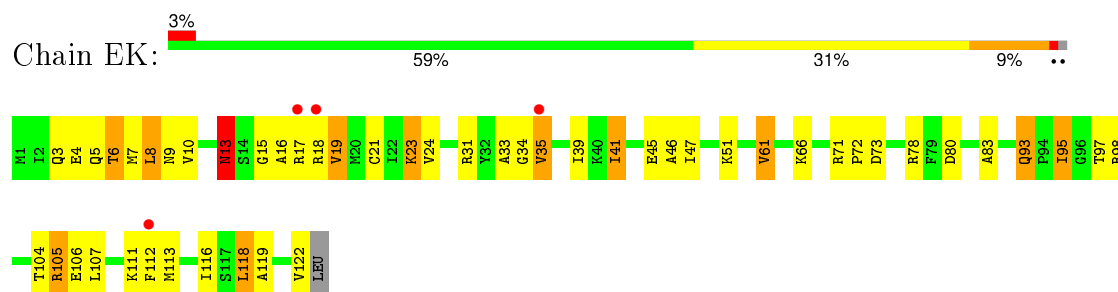
- Molecule 11: 50S ribosomal protein L14



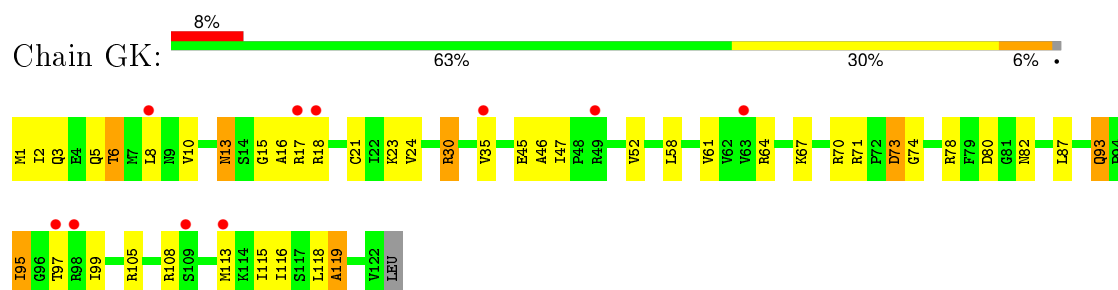
- Molecule 11: 50S ribosomal protein L14



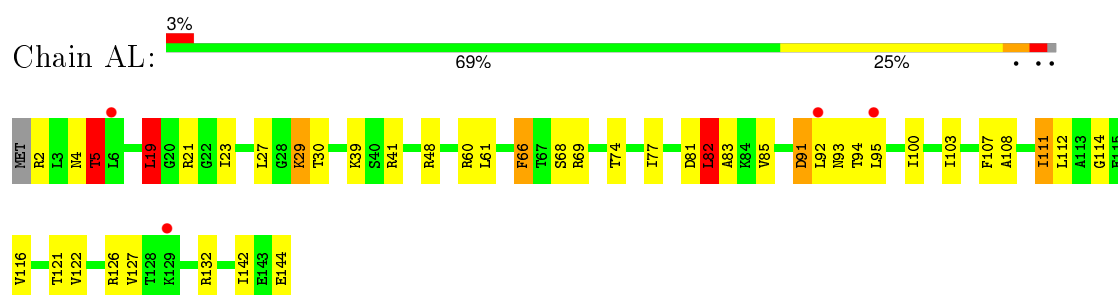
- Molecule 11: 50S ribosomal protein L14



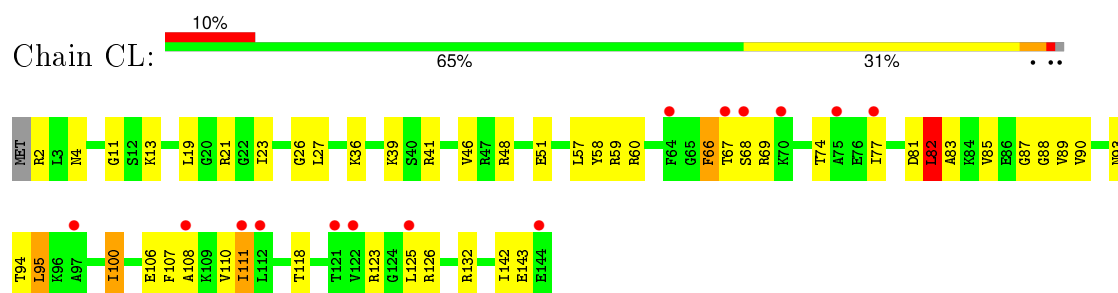
- Molecule 11: 50S ribosomal protein L14



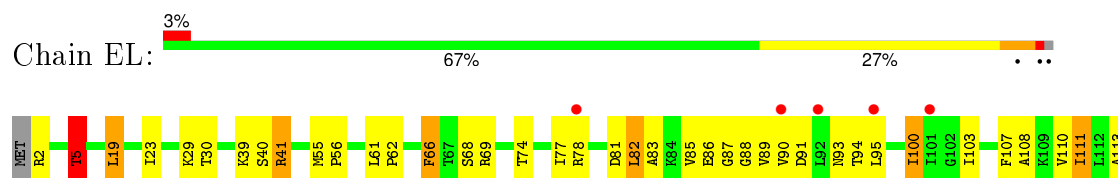
- Molecule 12: 50S ribosomal protein L15

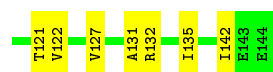


- Molecule 12: 50S ribosomal protein L15

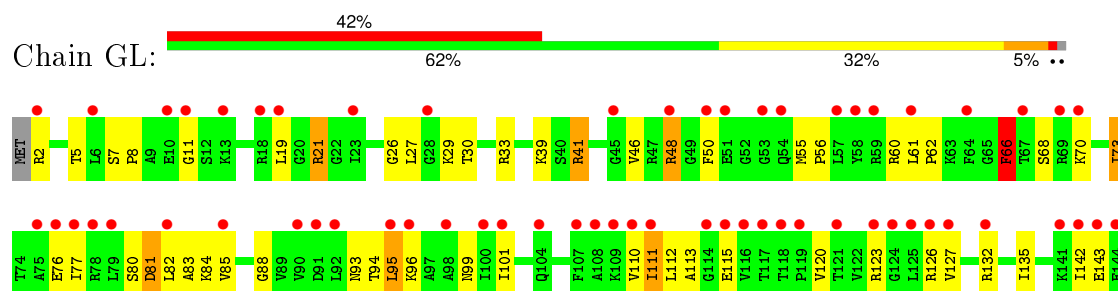


- Molecule 12: 50S ribosomal protein L15

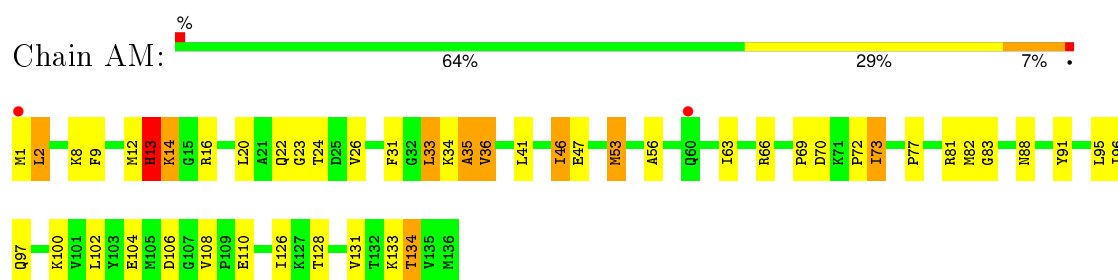




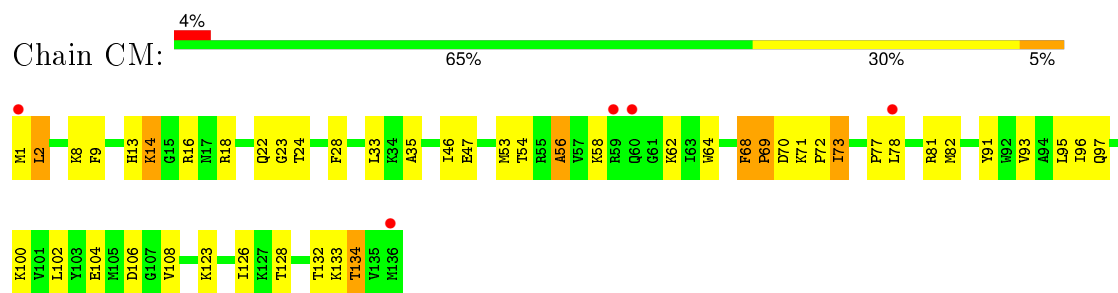
- Molecule 12: 50S ribosomal protein L15



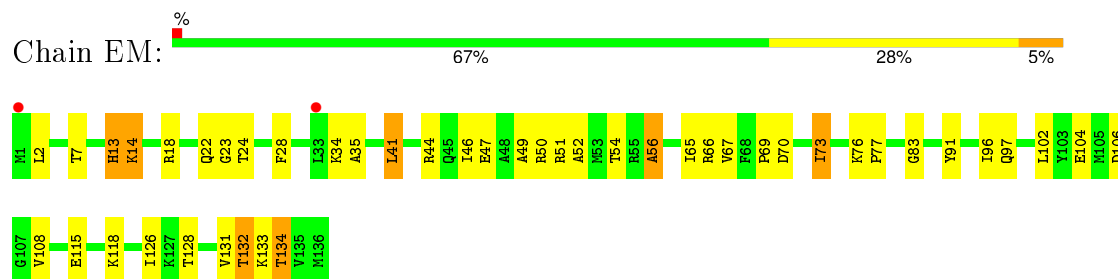
- Molecule 13: 50S ribosomal protein L16



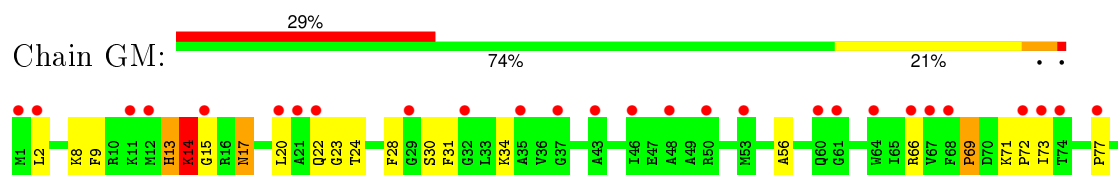
- Molecule 13: 50S ribosomal protein L16

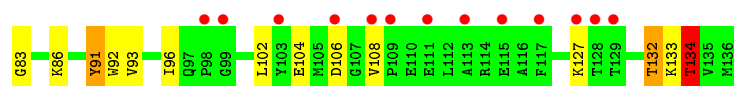


- Molecule 13: 50S ribosomal protein L16



- Molecule 13: 50S ribosomal protein L16





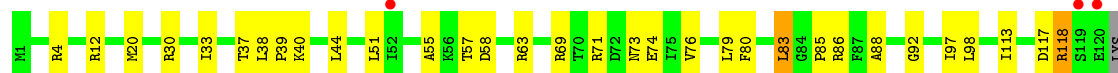
- Molecule 14: 50S ribosomal protein L17



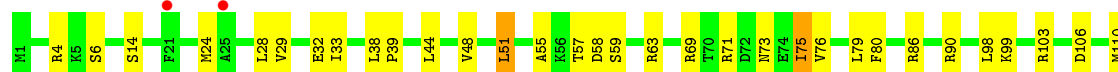
- Molecule 14: 50S ribosomal protein L17



- Molecule 14: 50S ribosomal protein L17

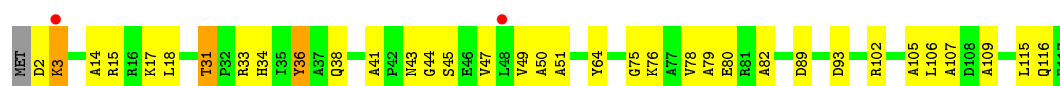


- Molecule 14: 50S ribosomal protein L17

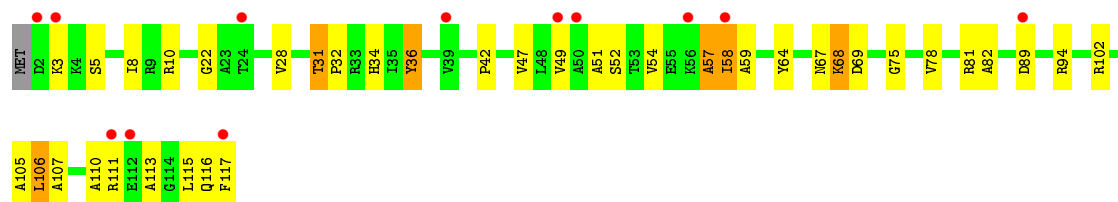


- Molecule 15: 50S ribosomal protein L18

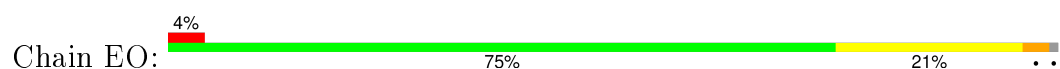




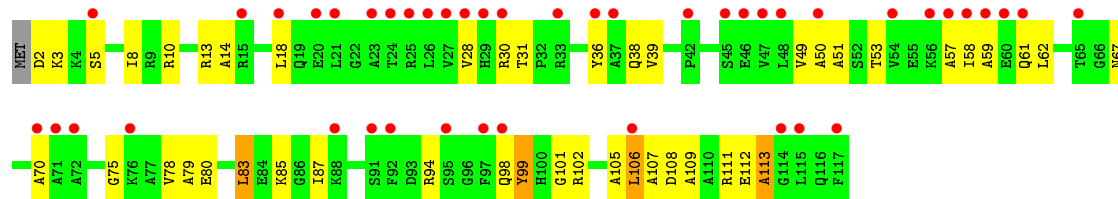
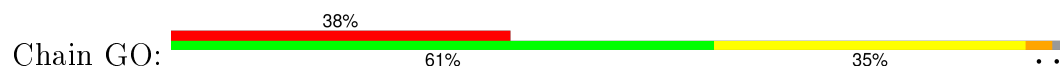
- Molecule 15: 50S ribosomal protein L18



- Molecule 15: 50S ribosomal protein L18



- Molecule 15: 50S ribosomal protein L18



- Molecule 16: 50S ribosomal protein L19



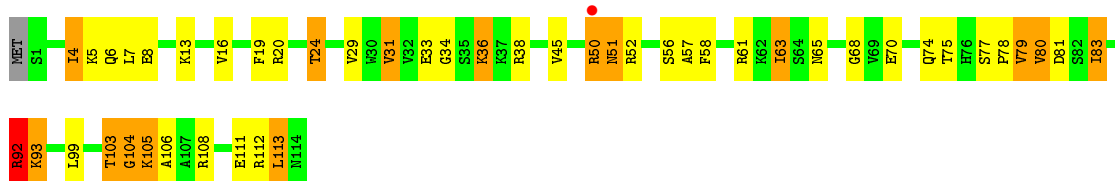
- Molecule 16: 50S ribosomal protein L19



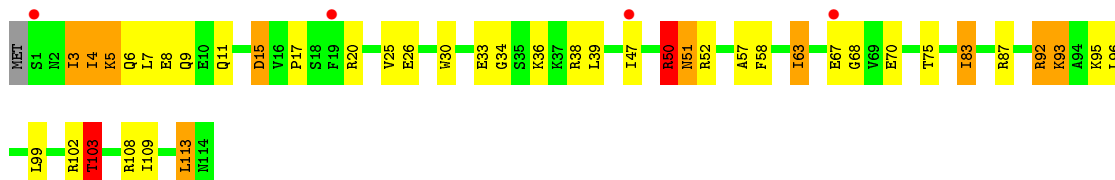




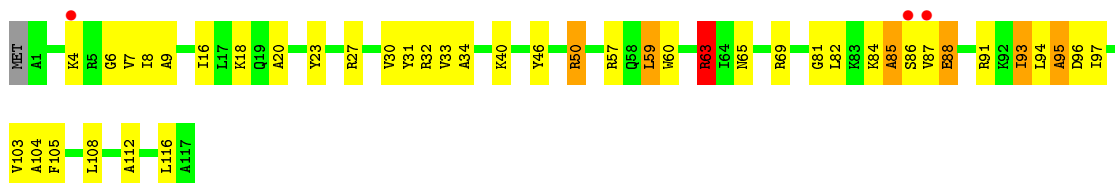
- Molecule 16: 50S ribosomal protein L19



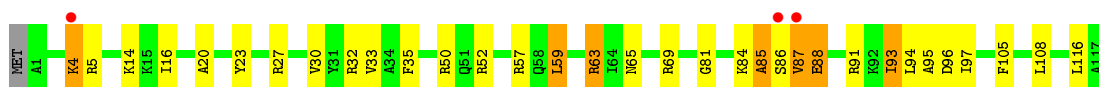
- Molecule 16: 50S ribosomal protein L19



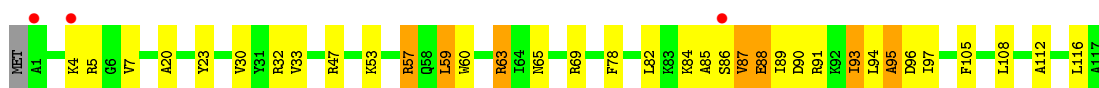
- Molecule 17: 50S ribosomal protein L20



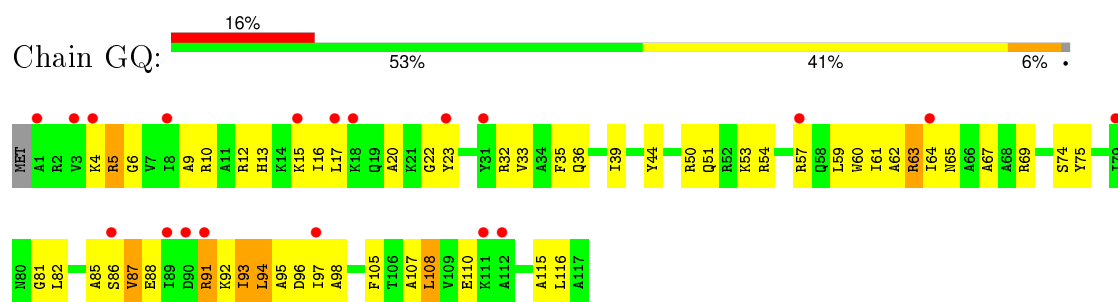
- Molecule 17: 50S ribosomal protein L20



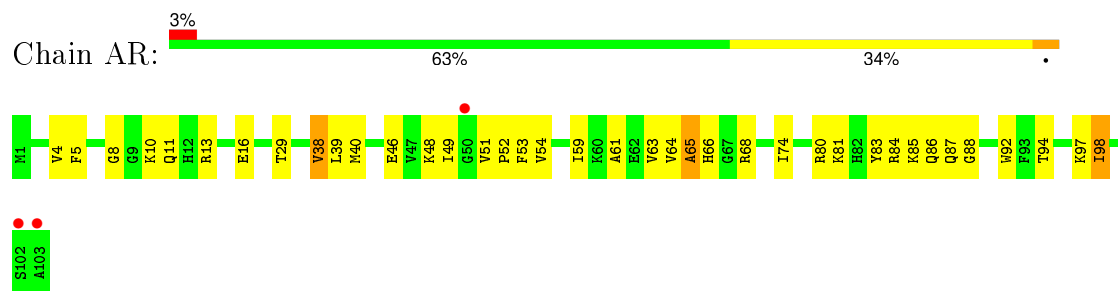
- Molecule 17: 50S ribosomal protein L20



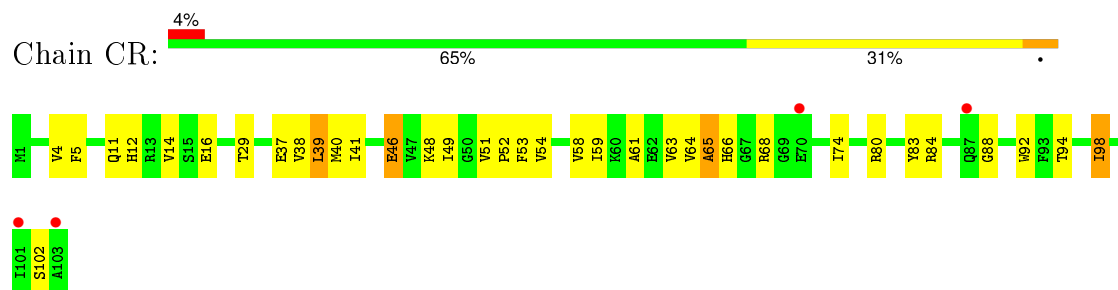
- Molecule 17: 50S ribosomal protein L20



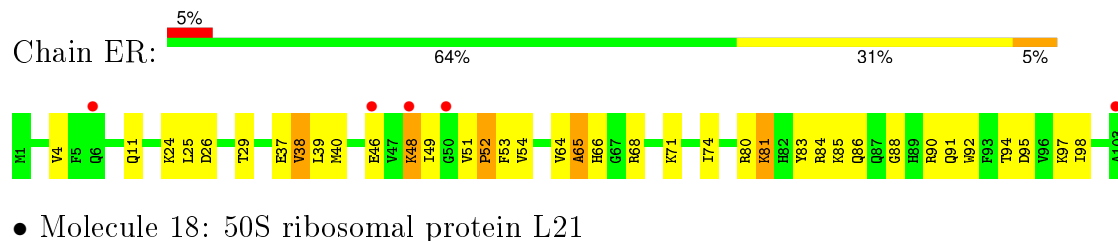
- Molecule 18: 50S ribosomal protein L21



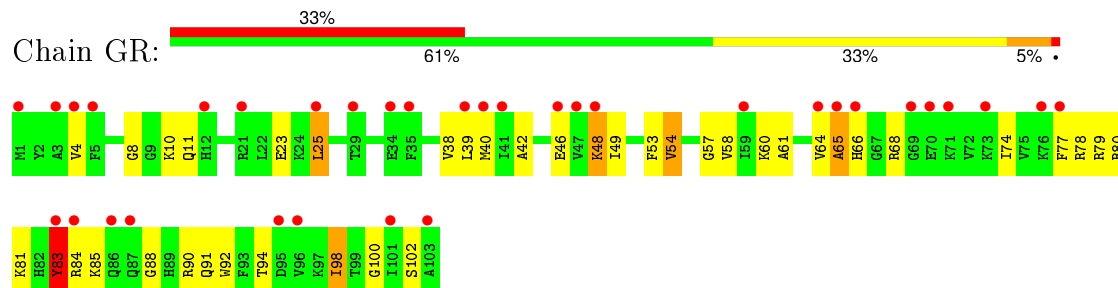
- Molecule 18: 50S ribosomal protein L21



- Molecule 18: 50S ribosomal protein L21

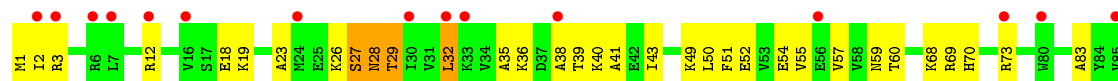


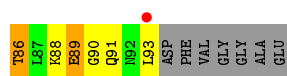
- Molecule 18: 50S ribosomal protein L21



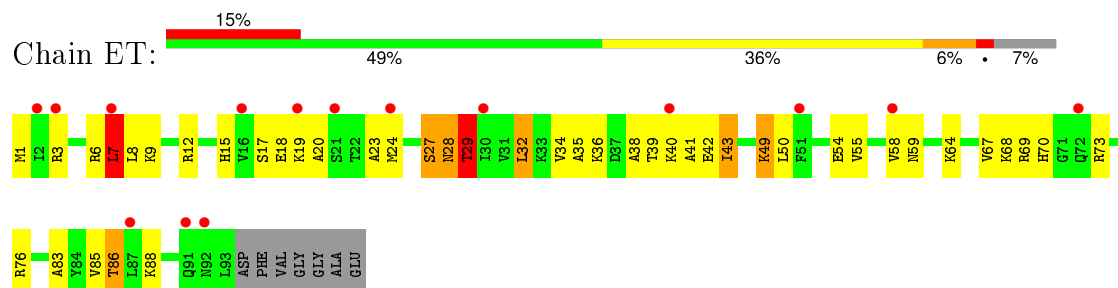
- Molecule 19: 50S ribosomal protein L22



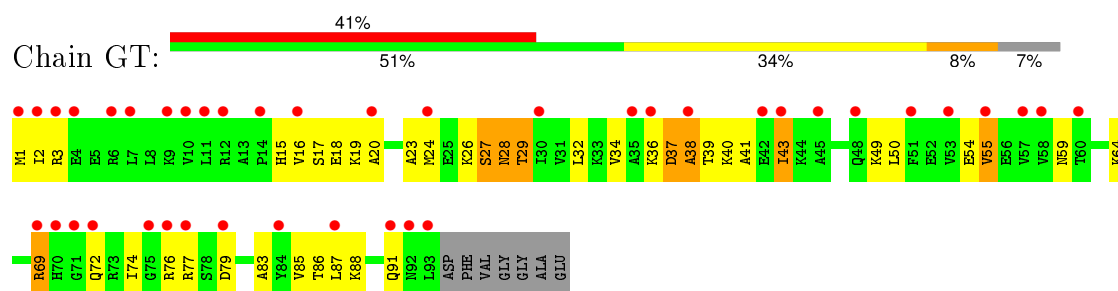




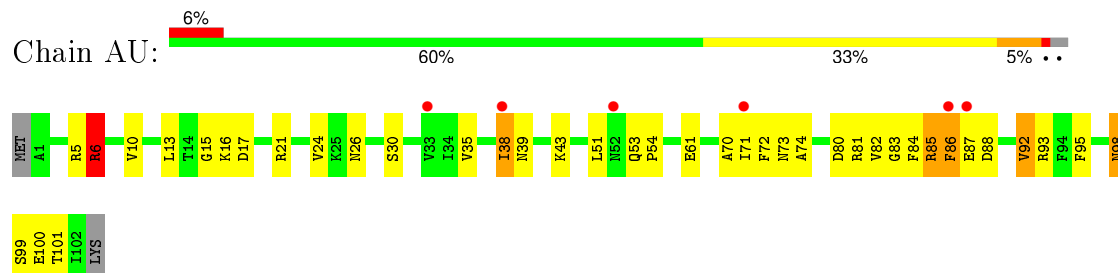
- Molecule 20: 50S ribosomal protein L23



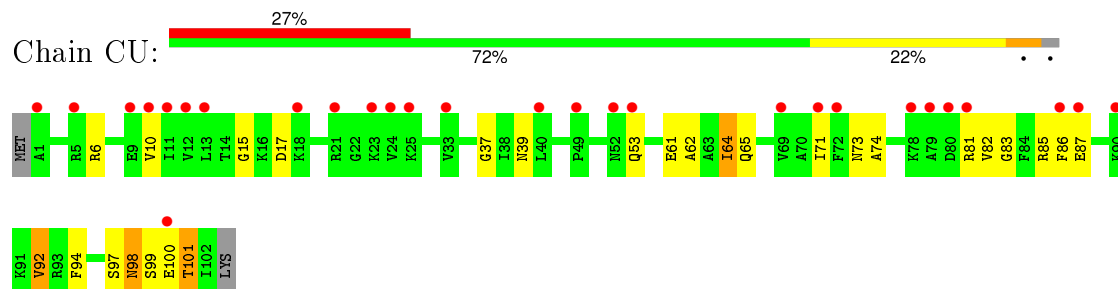
- Molecule 20: 50S ribosomal protein L23



- Molecule 21: 50S ribosomal protein L24

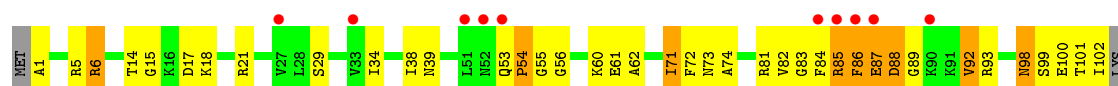


- Molecule 21: 50S ribosomal protein L24



- Molecule 21: 50S ribosomal protein L24

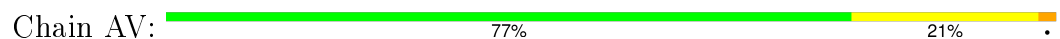




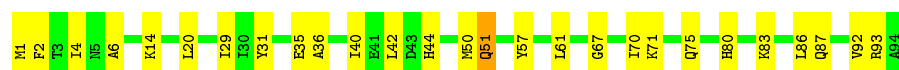
- Molecule 21: 50S ribosomal protein L24



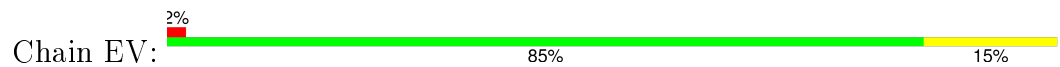
- Molecule 22: 50S ribosomal protein L25



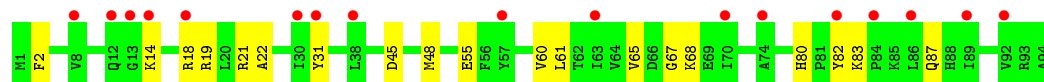
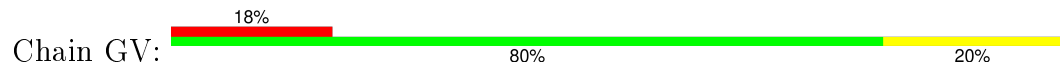
- Molecule 22: 50S ribosomal protein L25



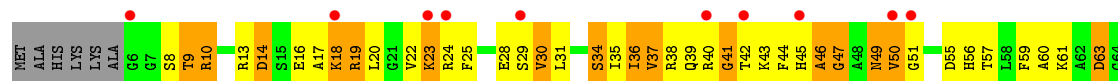
- Molecule 22: 50S ribosomal protein L25



- Molecule 22: 50S ribosomal protein L25

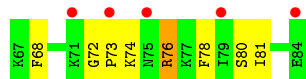
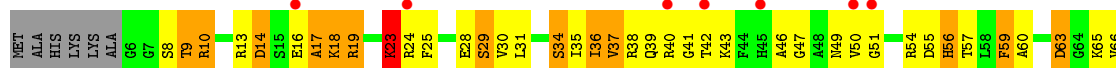


- Molecule 23: 50S ribosomal protein L27

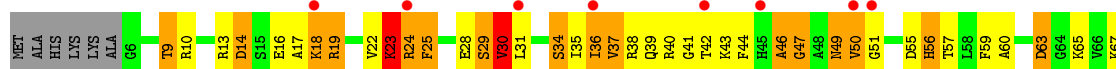




- Molecule 23: 50S ribosomal protein L27



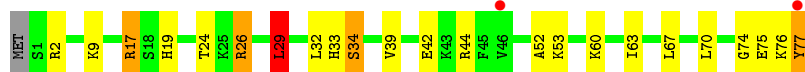
- Molecule 23: 50S ribosomal protein L27



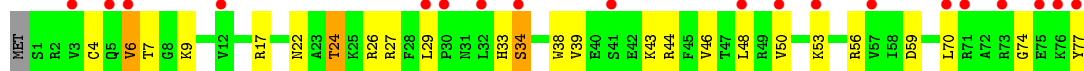
- Molecule 23: 50S ribosomal protein L27



- Molecule 24: 50S ribosomal protein L28

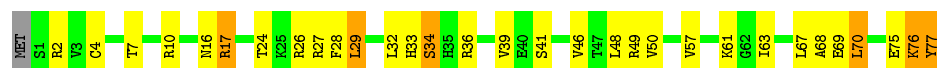


- Molecule 24: 50S ribosomal protein L28



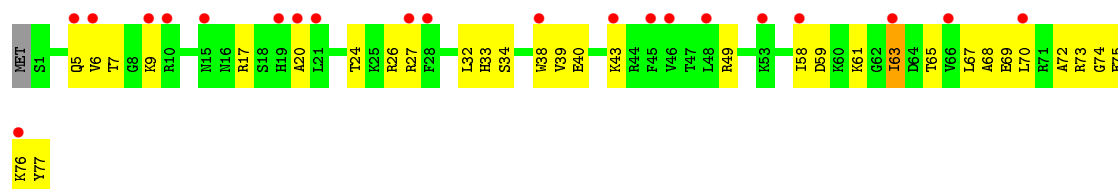
- Molecule 24: 50S ribosomal protein L28

Chain EX: 



- Molecule 24: 50S ribosomal protein L28

Chain GX: 




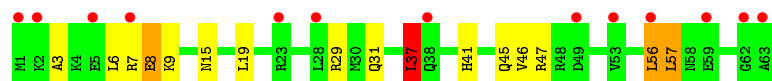
- Molecule 25: 50S ribosomal protein L29

Chain AY: 



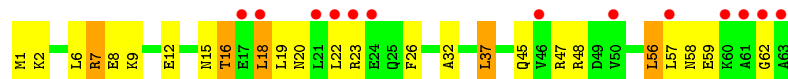
- Molecule 25: 50S ribosomal protein L29

Chain CY: 




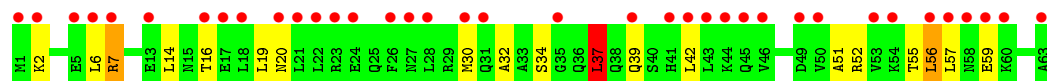
- Molecule 25: 50S ribosomal protein L29

Chain EY: 



- Molecule 25: 50S ribosomal protein L29

Chain GY: 

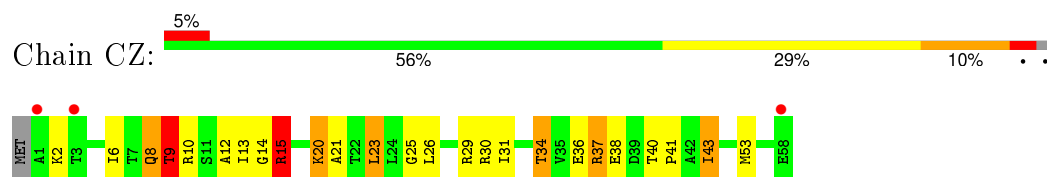


- Molecule 26: 50S ribosomal protein L30

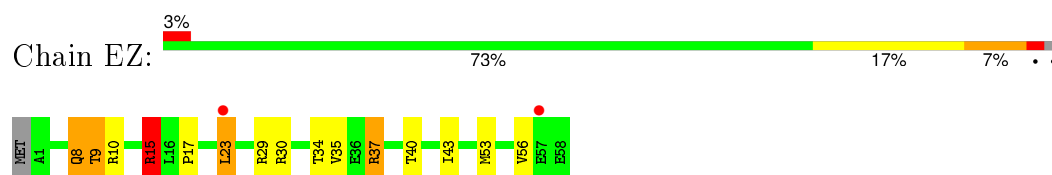
Chain AZ: 



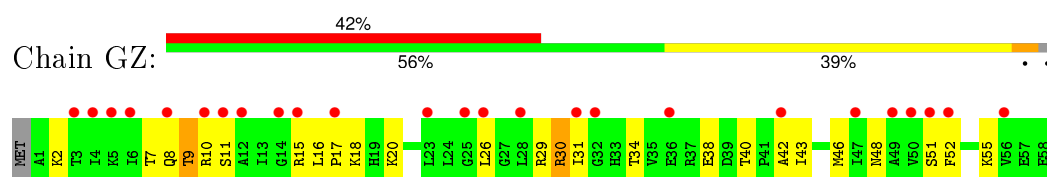
- Molecule 26: 50S ribosomal protein L30



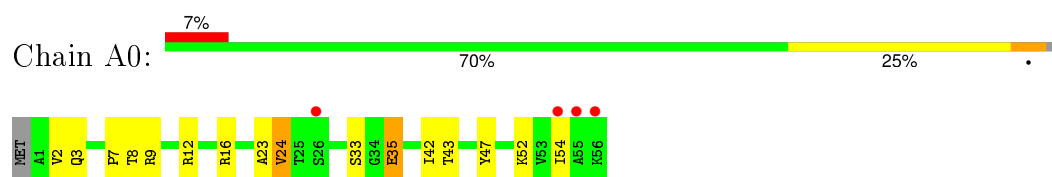
- Molecule 26: 50S ribosomal protein L30



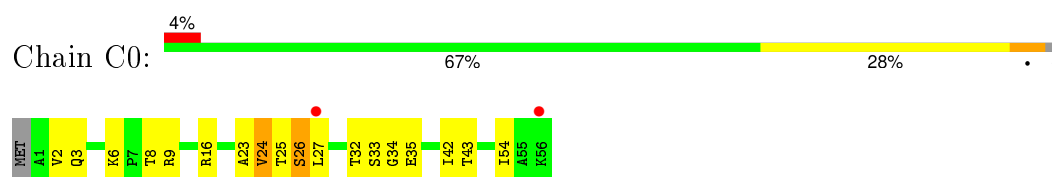
- Molecule 26: 50S ribosomal protein L30



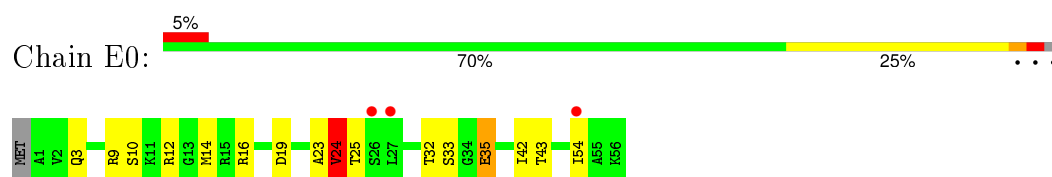
- Molecule 27: 50S ribosomal protein L32



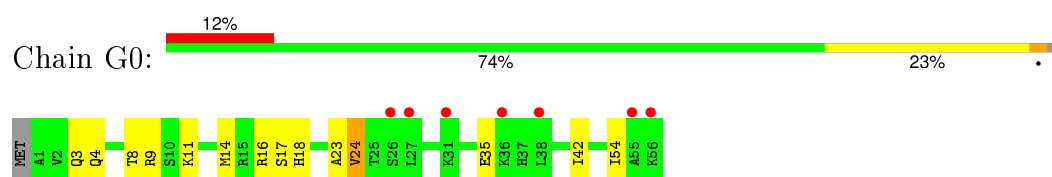
- Molecule 27: 50S ribosomal protein L32



- Molecule 27: 50S ribosomal protein L32

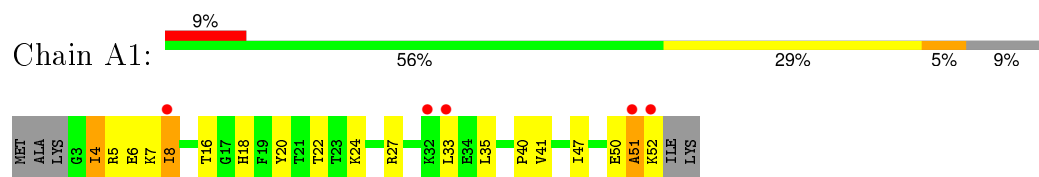


- Molecule 27: 50S ribosomal protein L32

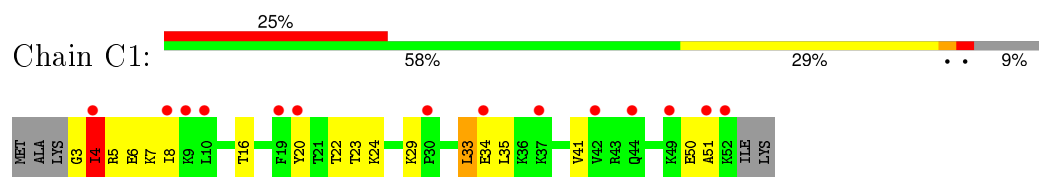




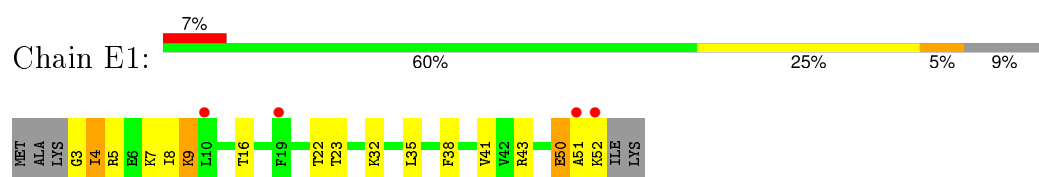
- Molecule 28: 50S ribosomal protein L33



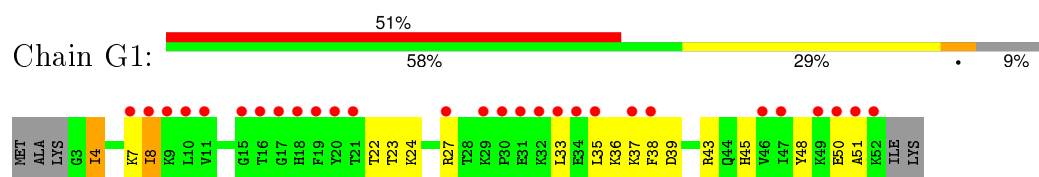
- Molecule 28: 50S ribosomal protein L33



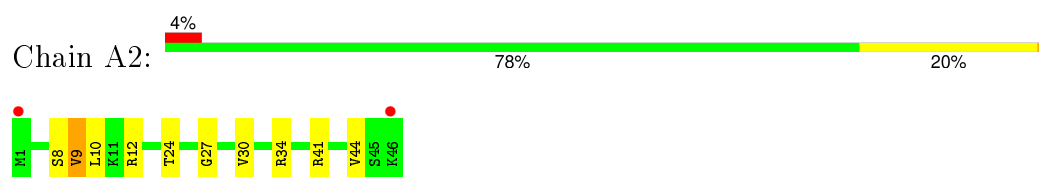
- Molecule 28: 50S ribosomal protein L33



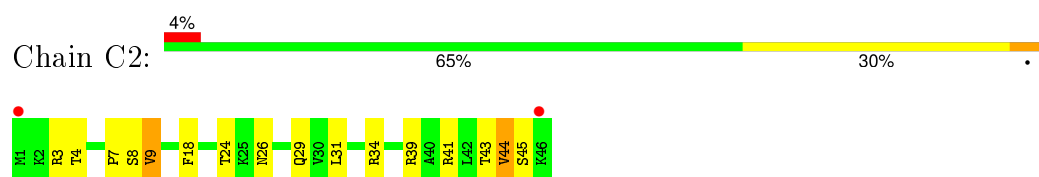
- Molecule 28: 50S ribosomal protein L33



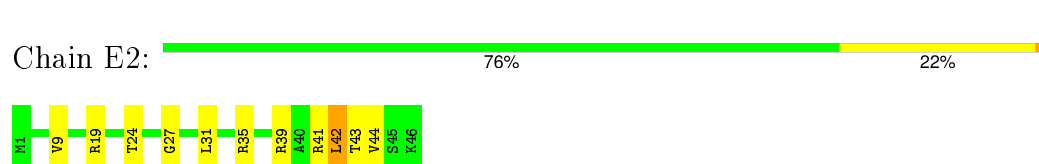
- Molecule 29: 50S ribosomal protein L34



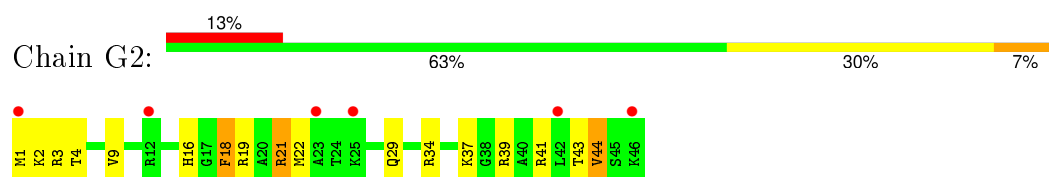
- Molecule 29: 50S ribosomal protein L34



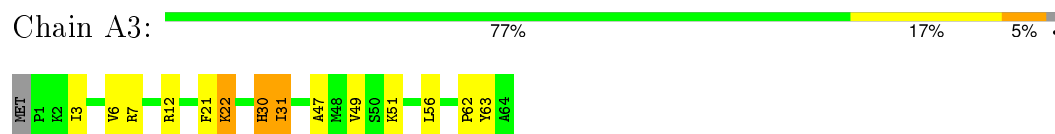
- Molecule 29: 50S ribosomal protein L34



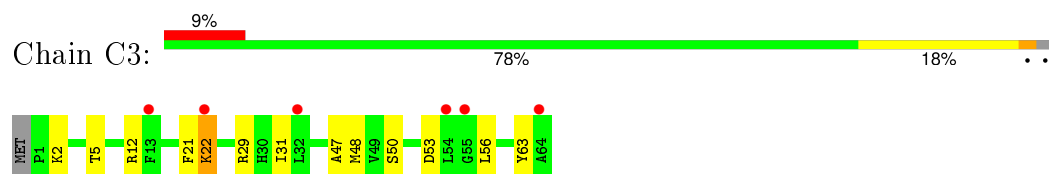
- Molecule 29: 50S ribosomal protein L34



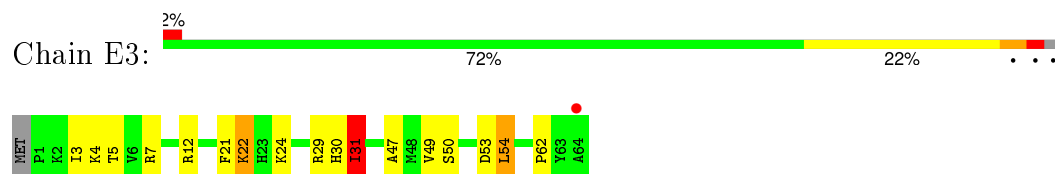
- Molecule 30: 50S ribosomal protein L35



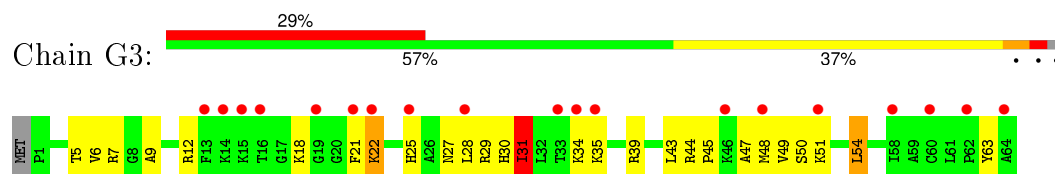
- Molecule 30: 50S ribosomal protein L35



- Molecule 30: 50S ribosomal protein L35



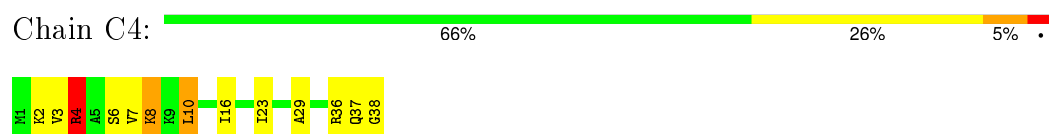
- Molecule 30: 50S ribosomal protein L35



- Molecule 31: 50S ribosomal protein L36

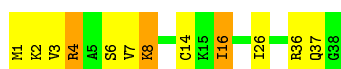


- Molecule 31: 50S ribosomal protein L36

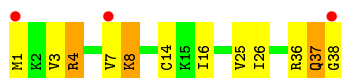


- Molecule 31: 50S ribosomal protein L36

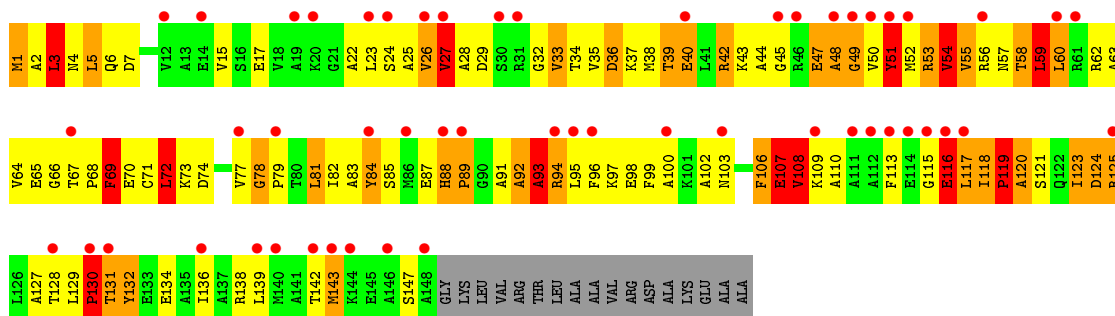
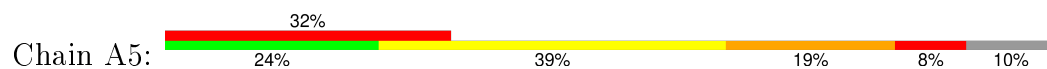




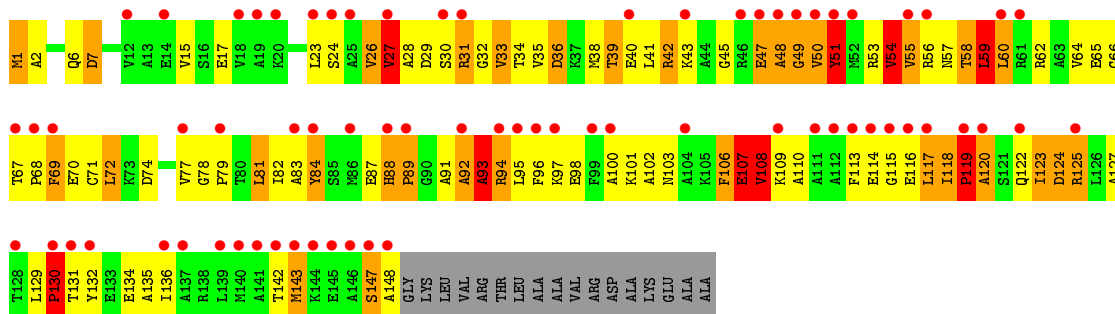
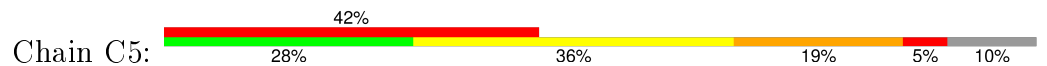
- Molecule 31: 50S ribosomal protein L36



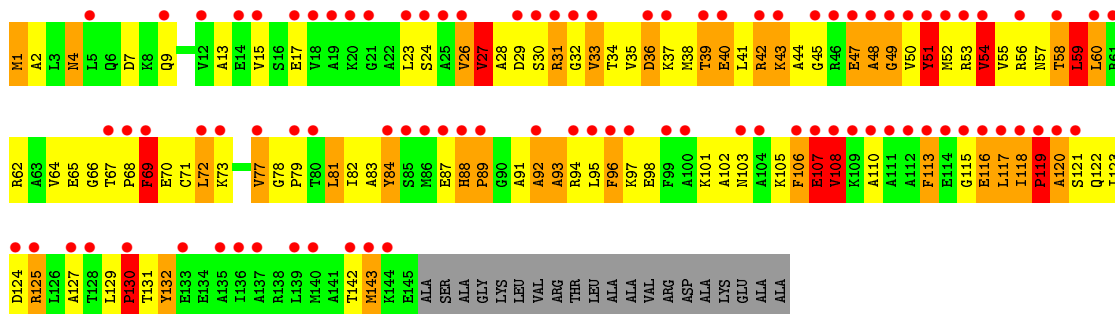
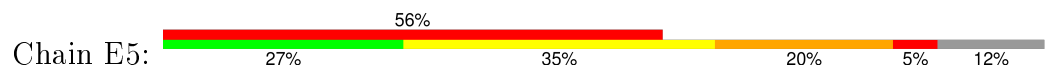
- Molecule 32: 50S ribosomal protein L10



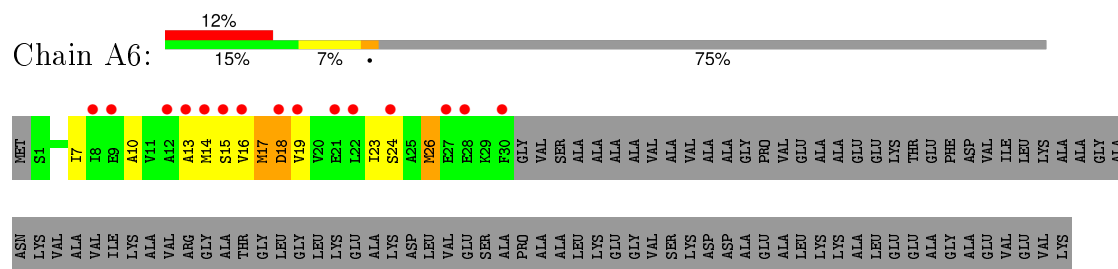
- Molecule 32: 50S ribosomal protein L10



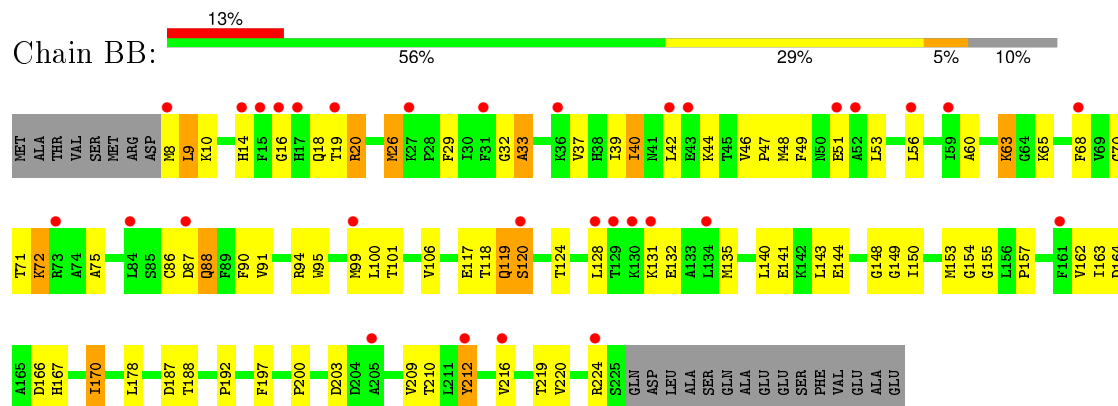
- Molecule 32: 50S ribosomal protein L10



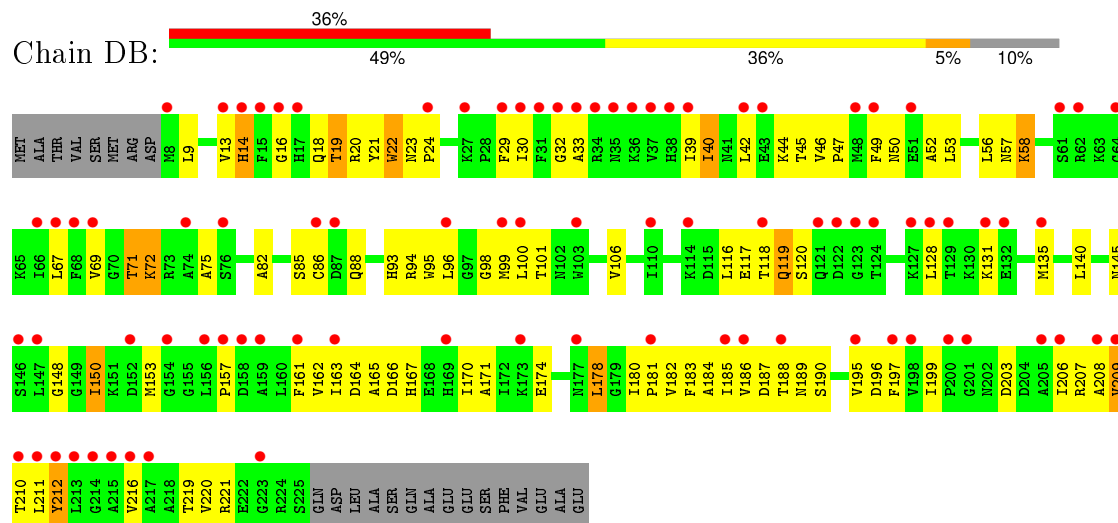
- Molecule 33: 50S ribosomal protein L7/L12



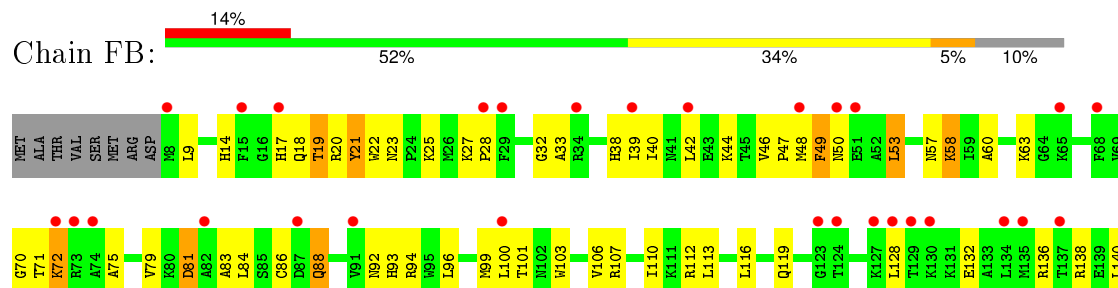
- Molecule 34: 30S ribosomal protein S2

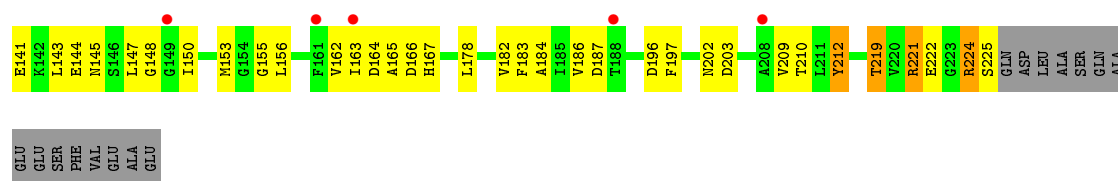


- Molecule 34: 30S ribosomal protein S2

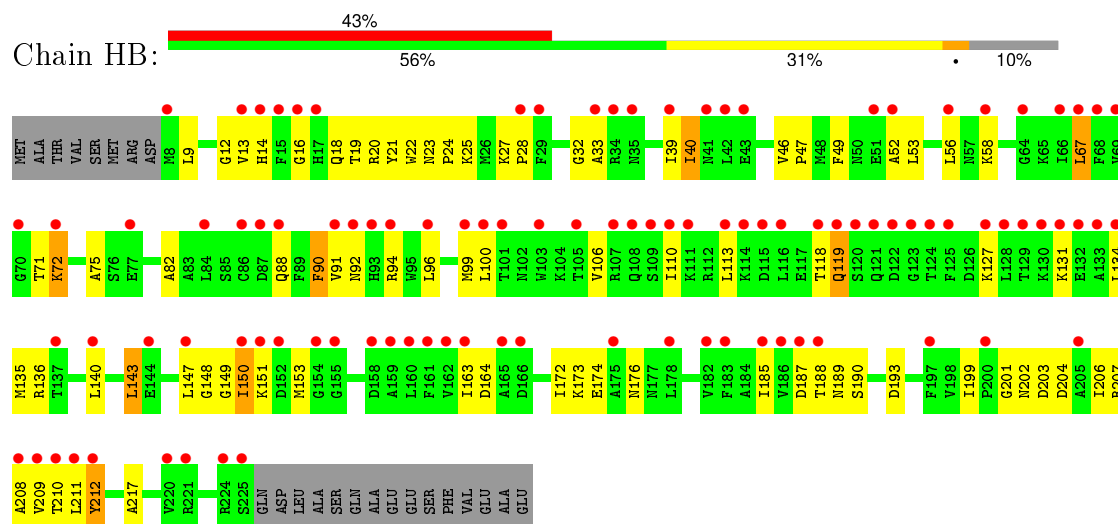


- Molecule 34: 30S ribosomal protein S2

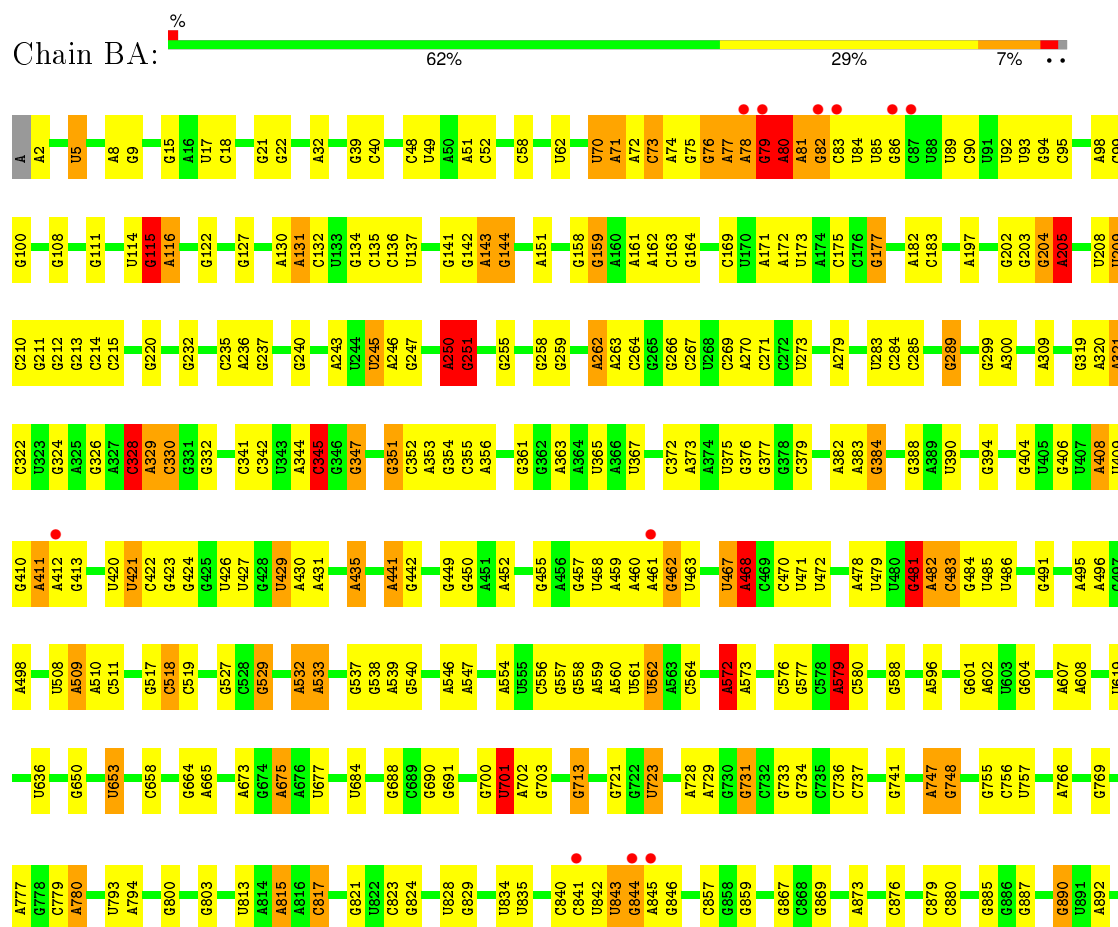


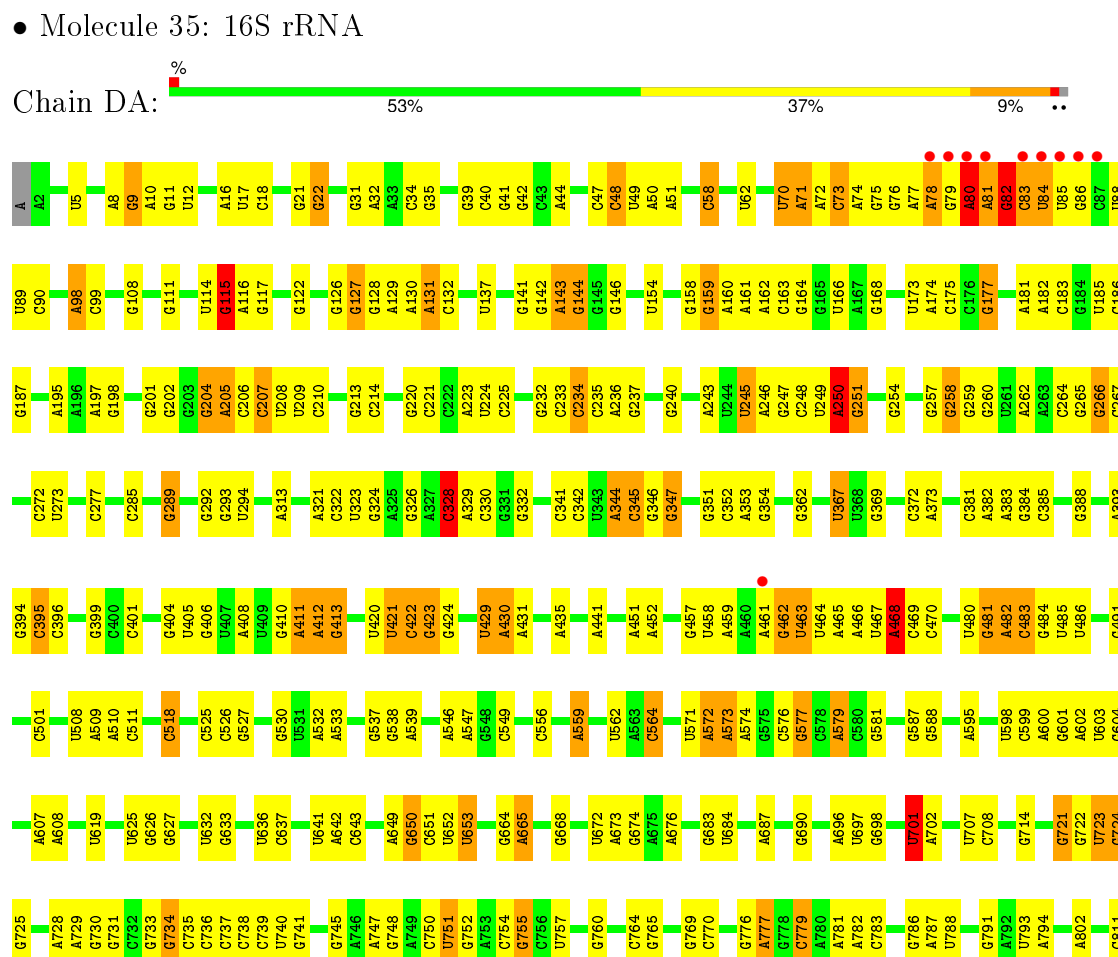
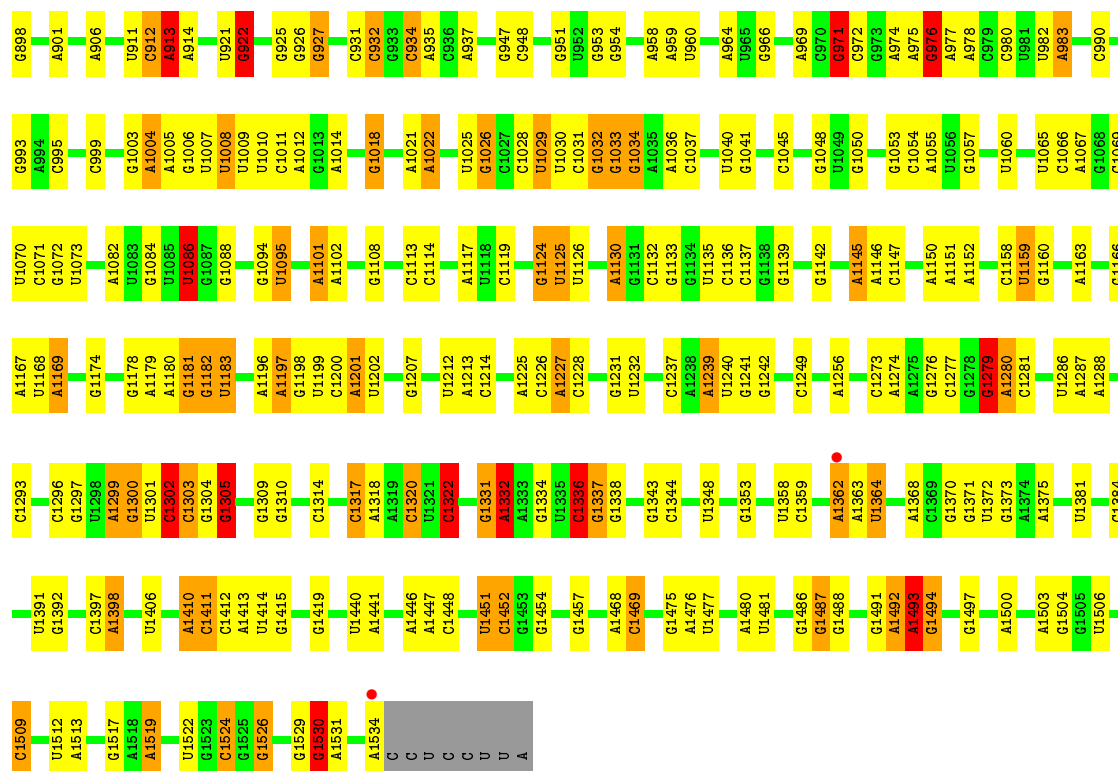


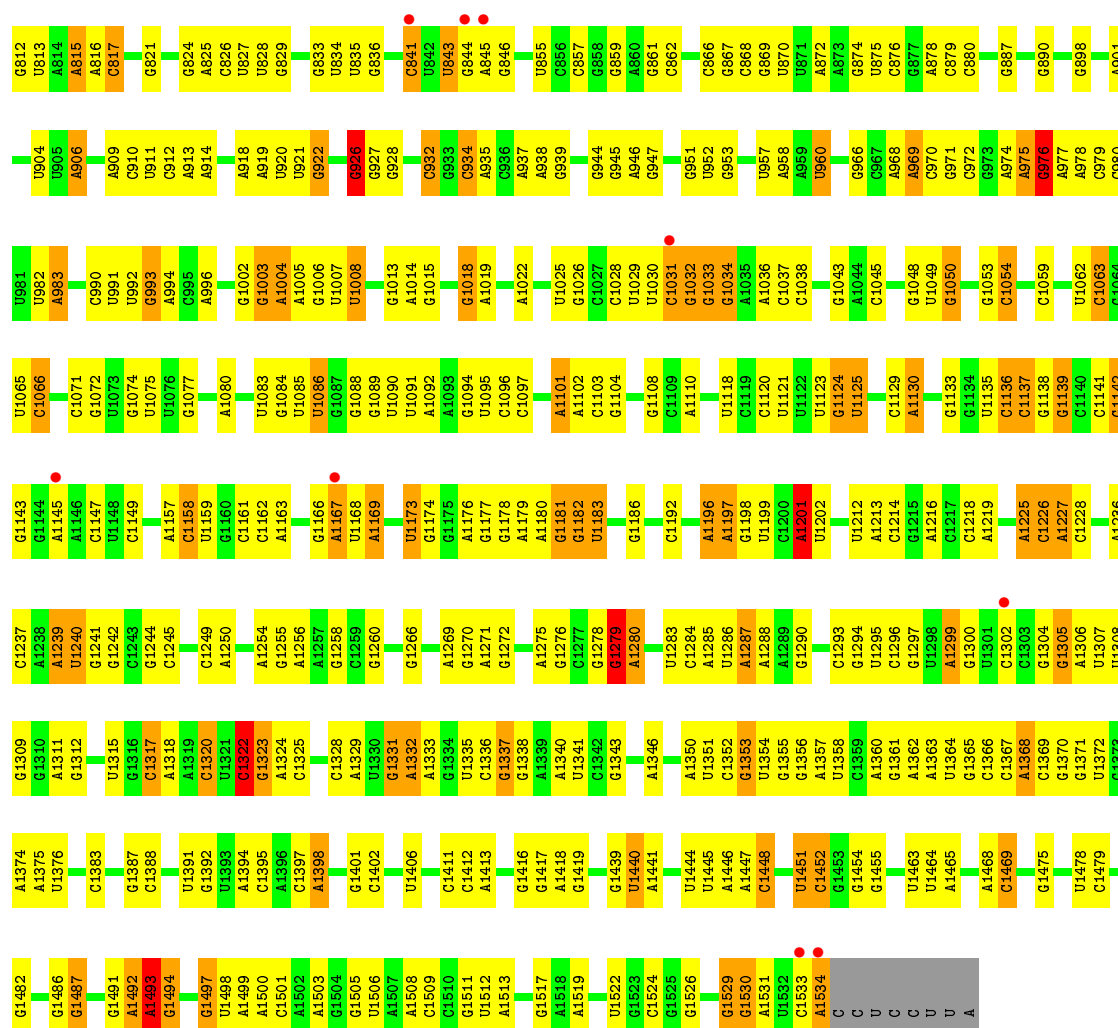
• Molecule 34: 30S ribosomal protein S2



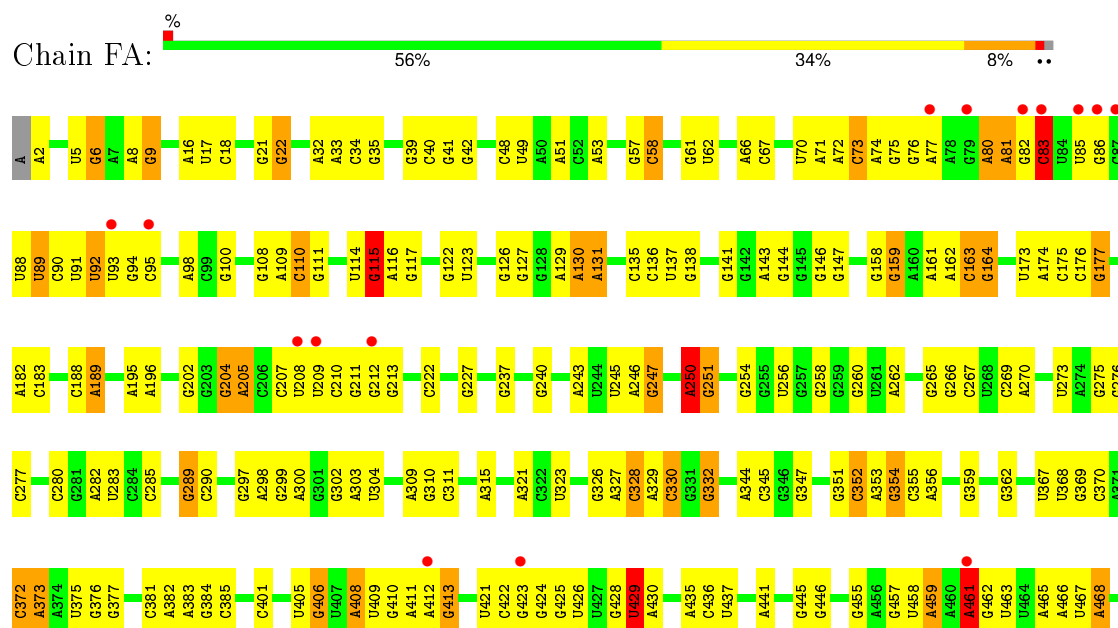
• Molecule 35: 16S rRNA







- Molecule 35: 16S rRNA

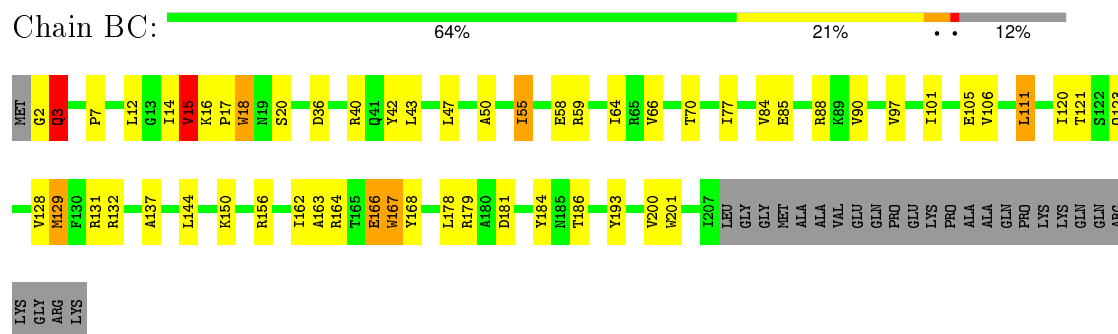




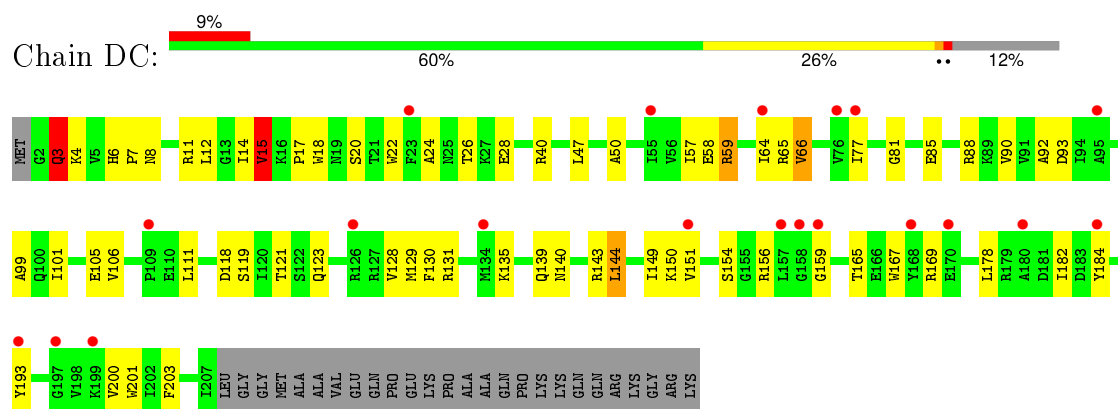


G1494	U1391	C1320	G1257	U1189	A1105	A1035	A969	A892	A814	G741	G558	A468	A383
U1495	G1392	U1321	G1258	G1190	G1106	A1036	C970	G895	A815	G742	A559	C469	G384
G1496	C1322	C1322	C1259	C1191	G1107	C1037	G971	G896	A816	A665	C470	C385	C386
G1497	G1323	G1324	A1261	G1193	G1108	C1038	C972	G897	C817	G743	U562	G474	U387
A1503	A1398	A1325	C1262	G1194	C1109	G1039	G973	G898	G818	G744	C564		
G1504	G1401	U1326	G1263	C1195	A1110	U1043	A974	G899	A819	G745	U565	C392	
G1505	C1402	U1327	U1264	C1196	C1113	A1042	A975		U820	A746	U480		
U1506	C1328	C1327	U1265	A1197	C1114	A1042	A976		G821	A747	U481	A397	
C1403	C1329	G1198	G1266	G1198	U1115	C1045	A977	G902	U822	U672	A482	U398	
G1404	G1200	G1199	C1267	U1199	U1115	A1046	A978	G903	C823	A673	G567	U399	
G1405	C1201	C1200	G1268	C1200	U1118	G1047	C980	U904	G750	A674	G568	G399	
U1406	A1332	A1269	A1269	A1201	U1118	G1048	G981	U905	U827	U675	A572	C400	
C1411	A1333	G1270	G1270	U1202	G1124	U1049	U982		G829	A676	A573	C401	
C1412	G1334	A1271	A1271	C1203	U1125	G1050	U983	A913	G832	G754	A574	G402	
A1413	U1335	C1272	G1272	U1204	U1125	C1051	C984	A914	G833	G755	C575	C403	
G1414	U1336	C1273	C1273	U1205	C1128	U1052	C985	A915	U834		G577	G404	
G1415	G1337	A1274	A1274	G1206	U1129	G1053	U986	A916	U835	A759	C578	U405	
G1416	G1338	A1275	A1275	G1207	U1130	C1054	G987	A917	U836	G760	C579	G406	
G1417	A1339	C1276	C1276	C1208	G1131	A1055	G988	A918	U837	G761	C580	U407	
A1418	A1340	C1277	C1277	C1209	U1132	U1056		A919	U838	G762	C581	A408	
G1343		G1278	G1278	C1210	G1133	G1057	G993	U921	G839	G763	C582	U409	
G1344	G1344	A1280	A1280	U1211	U1134	G1058	A994	G922	C764	G764	C583	G410	
U1345	U1345	C1281	C1281	U1212	G1135	U1060	C995		C840	G765	C584	G411	
A1423	A1346	C1282	C1282	G1214	C1137	G1061		G926	U842	A766	C587	G412	
U1424	A1430	U1283	U1283	G1215	U1138	U1062	A1000	G927	U843	G769	C588	A414	
A1430	G1347	C1284	C1284	G1216	G1139	G1063	C1001	G928	U844	C770	G589	A415	
G1435	U1348	A1285	A1285	C1217	C1140	G1064	G1002	G929	G845	G771	A596	A510	
U1436	A1349	U1286	U1286	G1218	U1141	U1065	G1003	C931	A846	G772	C597	U512	
C1351	U1351	A1287	A1287	A1219	G1143	C1066	A1005	G932	G847	G773	U598	C513	
C1352	C1352	A1288	A1288	G1220	U1144	A1067	G1006	G933	C848	G774	G604	U421	
C1353	G1353	G1292	G1292	G1222	A1145	C1071	U1007	C934	C849	G775	G517	G422	
U1354	U1354	C1293	C1293	C1223	A1146	G1072	U1008	A935	U850	G776	C518	G423	
U1355	G1355	G1294	G1294	U1224	C1147	U1073	U1009	C936	G851	G777	G615	G424	
U1358	U1358	U1295	U1295	U1225	U1148	U1074	U1010		C779	A780	U619	G428	
G1359	G1359	C1296	C1296	C1226	G1149	U1075	A1012	G940	G858	A781	C620	U429	
A1360	A1360	G1297	G1297	A1227	A1150	U1076	G1013	G941	G859	A782	A621	A430	
G1361	G1361	U1298	U1298	C1228	C1158	G1077	G1014	G942	A864	A784	U531	U430	
A1362	A1362	A1299	A1299	A1229	U1159	U1078	G1015	U943	A865	G785	C623	A435	
U1363	U1363	C1302	C1302	C1230	G1166	G1079	A1016	G944	A866	G791	G626	U439	
G1364	G1364	C1303	C1303	G1233	U1167	A1080	U1017	G945	C867	A792	U534	C440	
G1365	G1365	G1304	G1304		U1168	G1084	G1018	A946	C868	U793	A535	C441	
C1366	C1366	G1305	G1305	G1236	U1169	U1085	A1019	G947	G869	A794	C536	A441	
C1367	C1367	A1306	A1306	C1237	A1170	U1086	G1020	C948			A640	G537	
A1468	A1468	U1307	U1307	A1238	G1171	G1087	A1021		A872	C795	U641	G538	
C1469	C1469	U1308	U1308	A1239	C1172	G1088	U1023	U952	A873	C796	A642	A539	
U1470	U1470	G1309	G1309	U1240	G1177	G1089	U1024	A958	G874	C797	C643	G540	
U1471	U1471	G1310	G1310	G1241	G1178		U1025	A959		U798	U644		
G1475	G1475	A1311	A1311	G1242	U1179	G1094	G1026	U960	G877	G800	U543	U457	
G1486	U1375	C1243	C1243	C1243	A1179	U1095	C1027	U961	A878	A728	G850	U458	
G1487	U1376	U1313	U1313	C1244	A1180	C1096	C1028	U962	C879	A729	C545	U459	
G1488	A1377	G1314	G1314	C1245	G1181	C1097	G963	G962		A802	U652	A460	
G1379	G1379	U1315	U1315	U1182	U1182	C1098	U1030	G964	G885	G803	U653	A461	
G1380	G1380	G1316	G1316	U1183	U1183		C1031	U965	G886	C732	G654	U462	
A1492	A1492	C1317	C1317	A1251	A1101	A1101	G1032	G966	G887	G734	A655	U463	
A1493	A1493	A1318	A1318	A1256	G1187	G1104	G1033	C967	G888	C735	U656	A465	
		A1319	A1319		A1188		G1034	A968		U813	C658	U467	

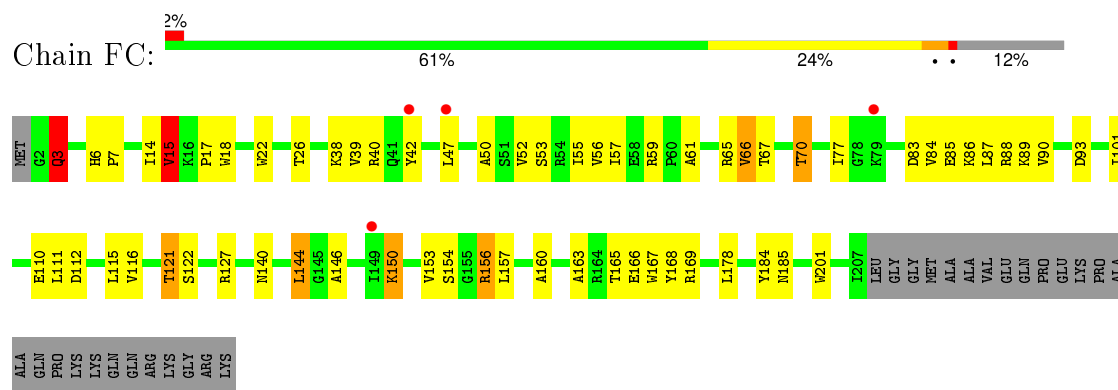
- Molecule 36: 30S ribosomal protein S3



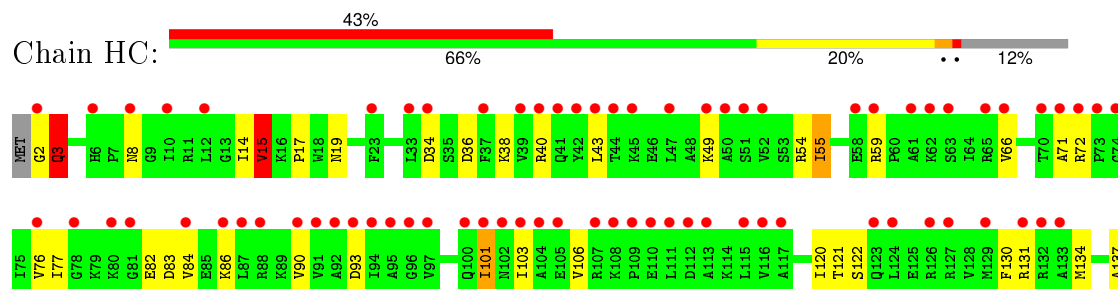
- Molecule 36: 30S ribosomal protein S3

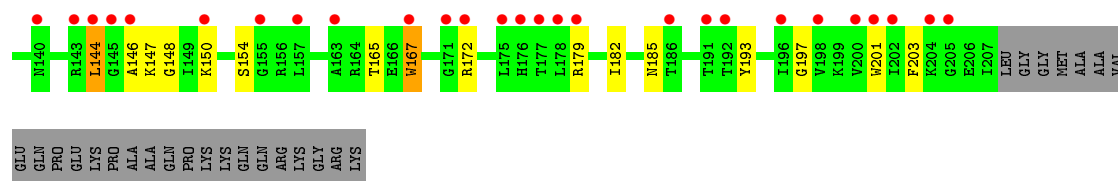


- Molecule 36: 30S ribosomal protein S3

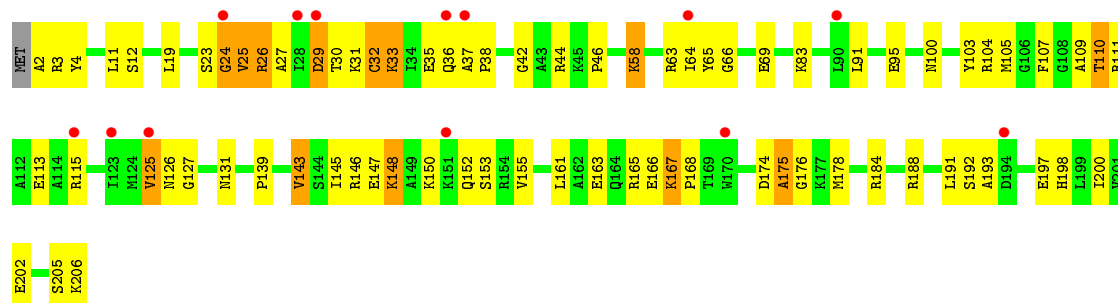


- Molecule 36: 30S ribosomal protein S3

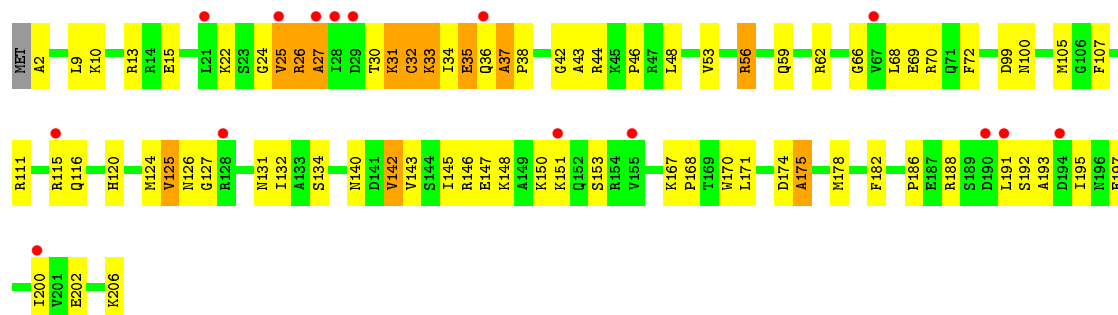




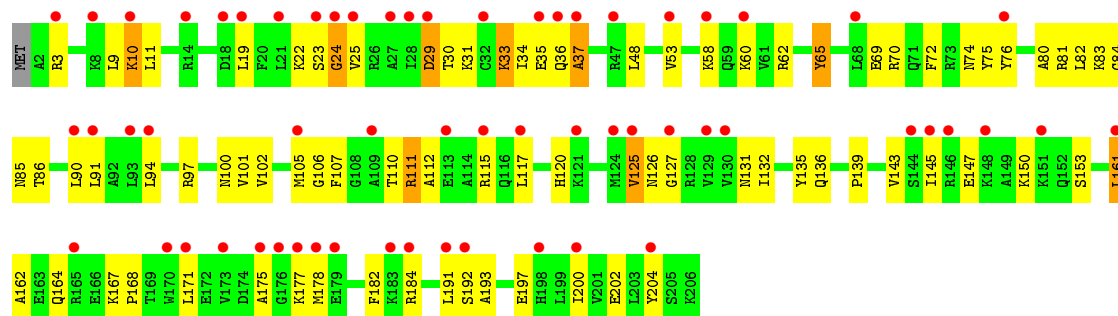
• Molecule 37: 30S ribosomal protein S4



• Molecule 37: 30S ribosomal protein S4

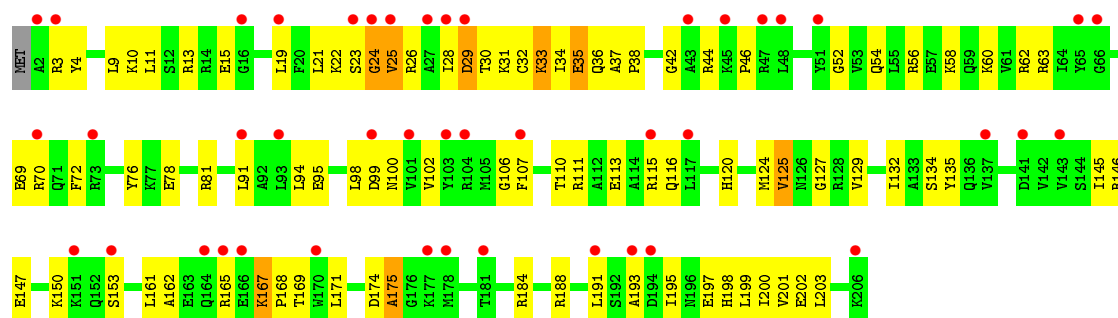


• Molecule 37: 30S ribosomal protein S4

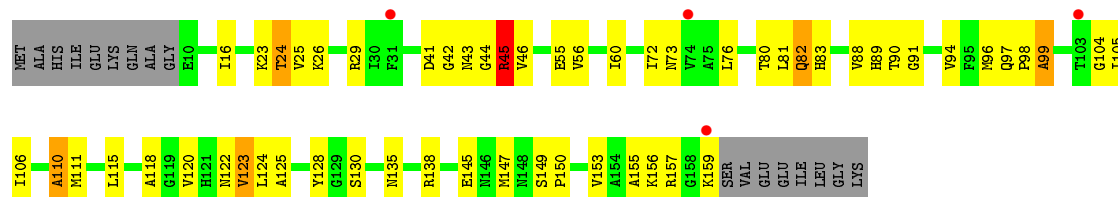


• Molecule 37: 30S ribosomal protein S4

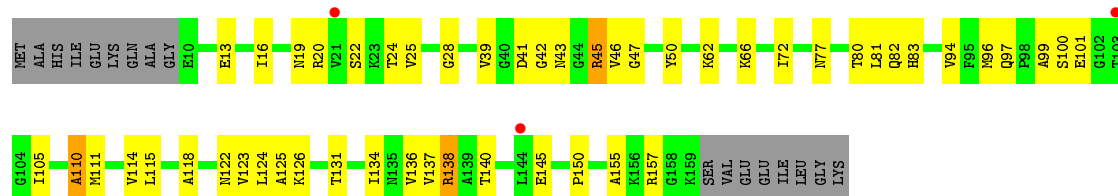




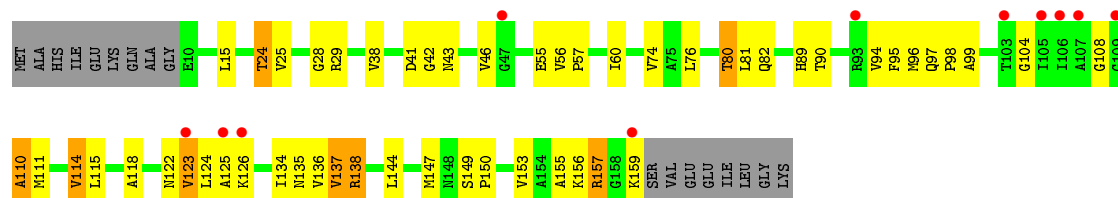
- Molecule 38: 30S ribosomal protein S5



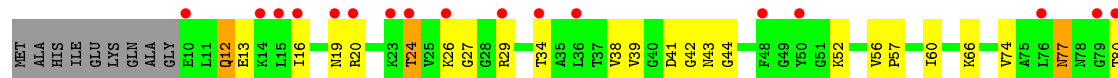
- Molecule 38: 30S ribosomal protein S5

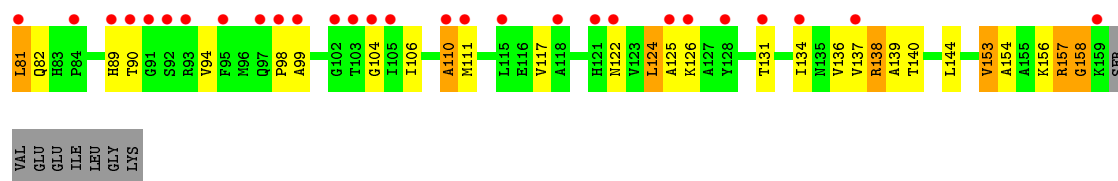


- Molecule 38: 30S ribosomal protein S5

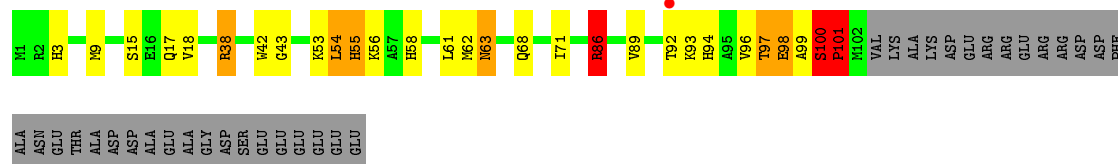


- Molecule 38: 30S ribosomal protein S5

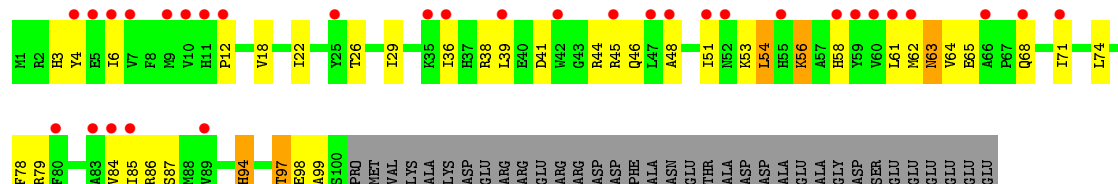




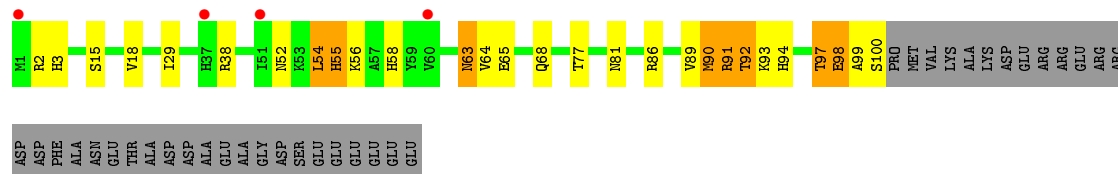
- Molecule 39: 30S ribosomal protein S6



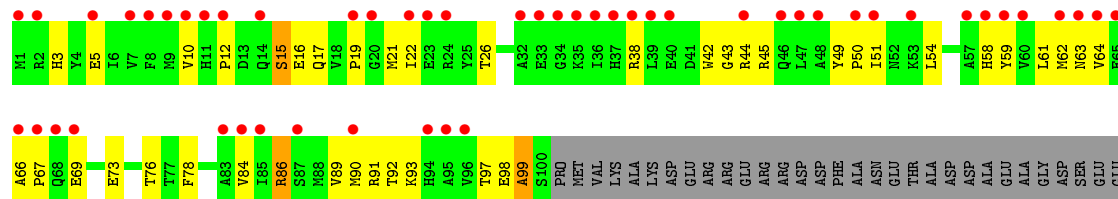
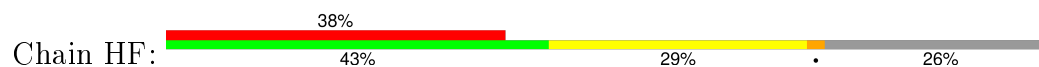
- Molecule 39: 30S ribosomal protein S6



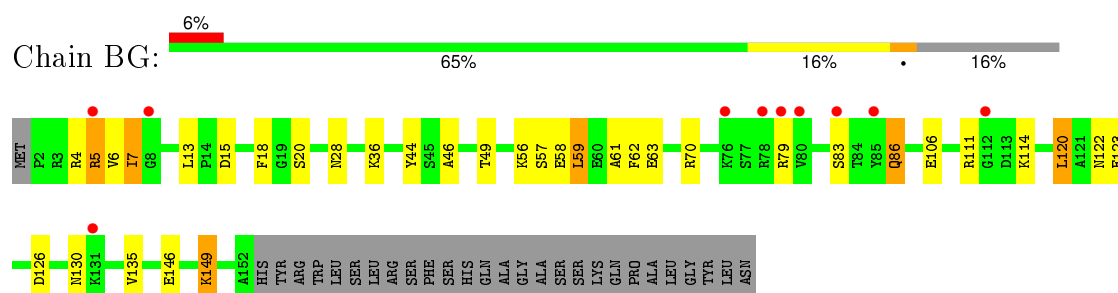
- Molecule 39: 30S ribosomal protein S6



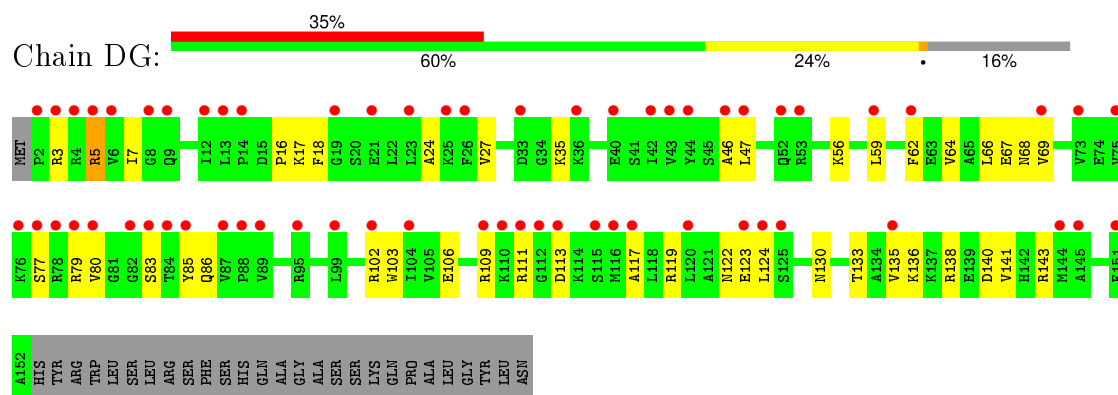
- Molecule 39: 30S ribosomal protein S6



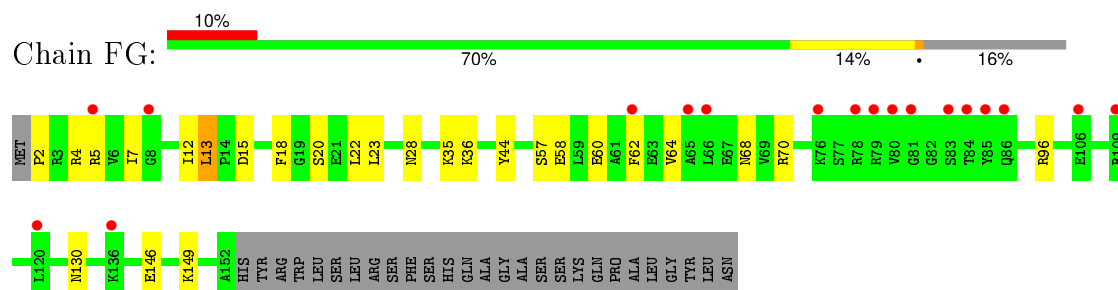
- Molecule 40: 30S ribosomal protein S7



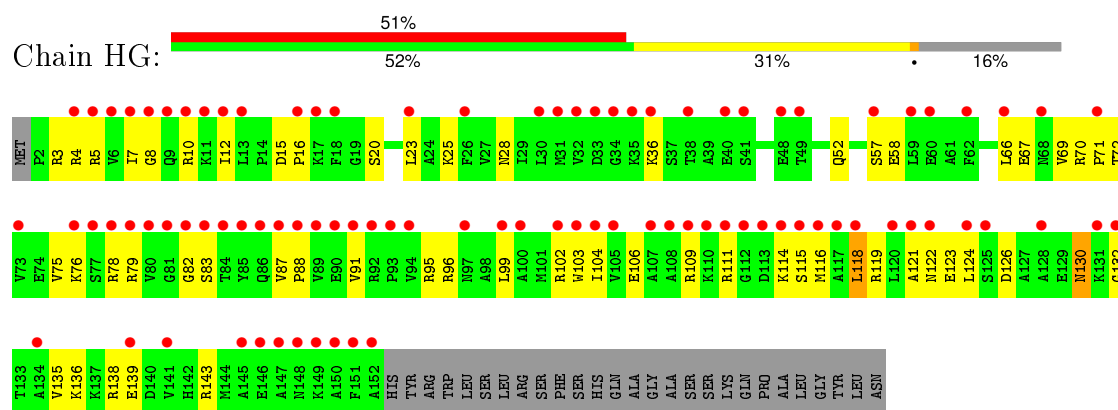
- Molecule 40: 30S ribosomal protein S7



- Molecule 40: 30S ribosomal protein S7

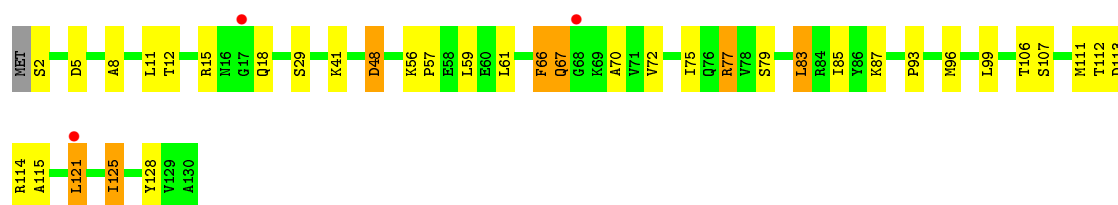


- Molecule 40: 30S ribosomal protein S7

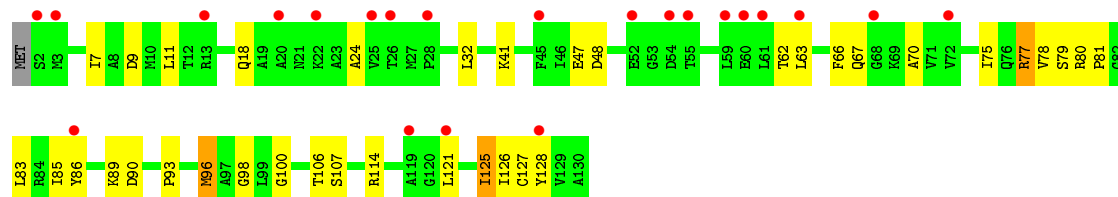
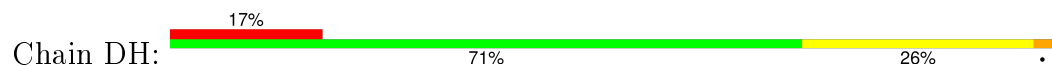


- Molecule 41: 30S ribosomal protein S8

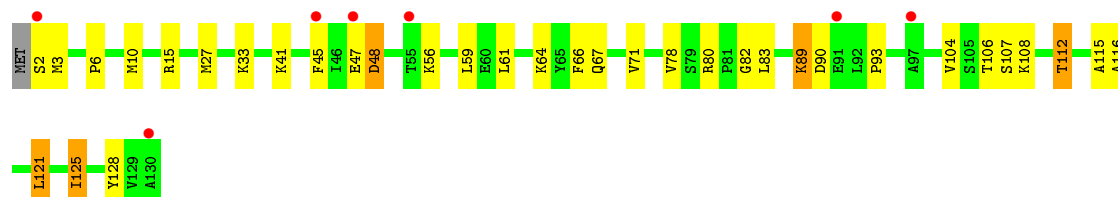
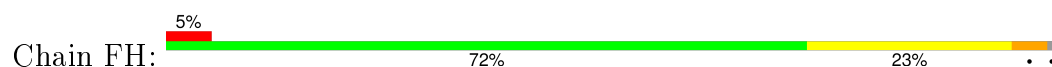




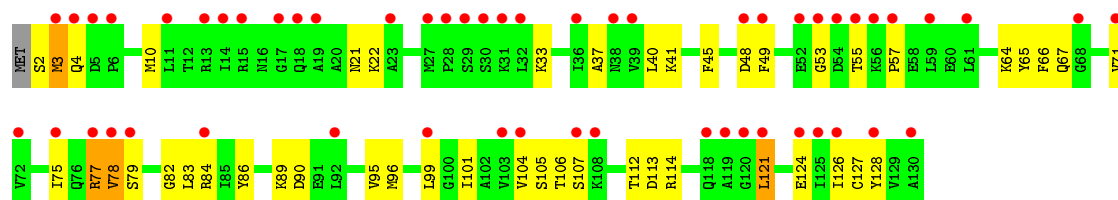
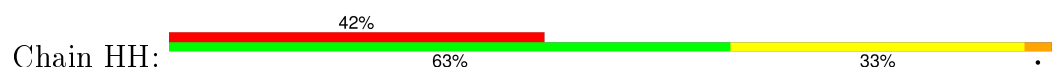
- Molecule 41: 30S ribosomal protein S8



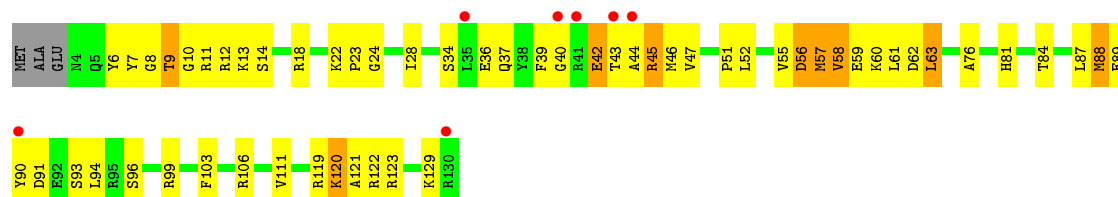
- Molecule 41: 30S ribosomal protein S8



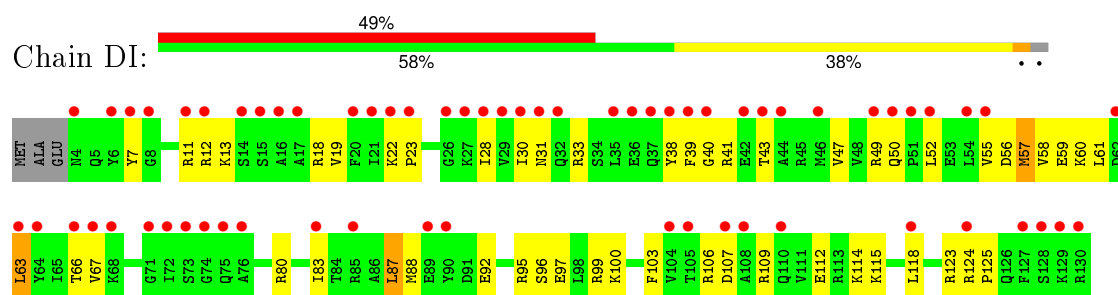
- Molecule 41: 30S ribosomal protein S8



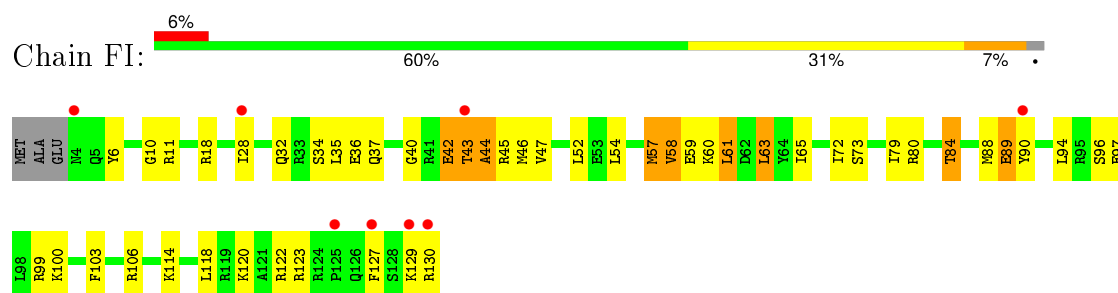
- Molecule 42: 30S ribosomal protein S9



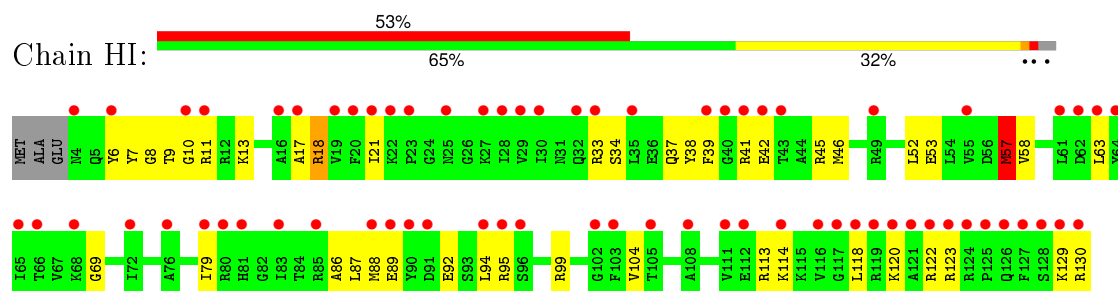
- Molecule 42: 30S ribosomal protein S9



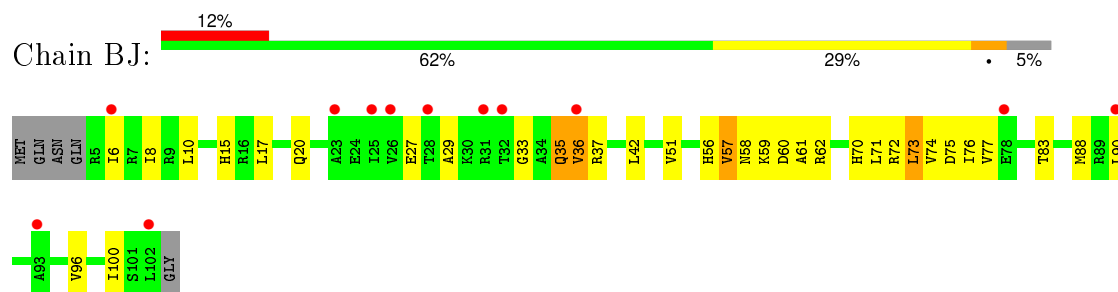
- Molecule 42: 30S ribosomal protein S9



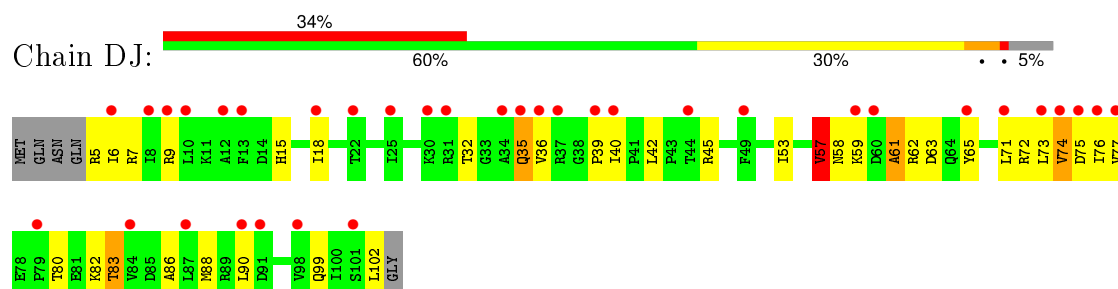
- Molecule 42: 30S ribosomal protein S9



- Molecule 43: 30S ribosomal protein S10

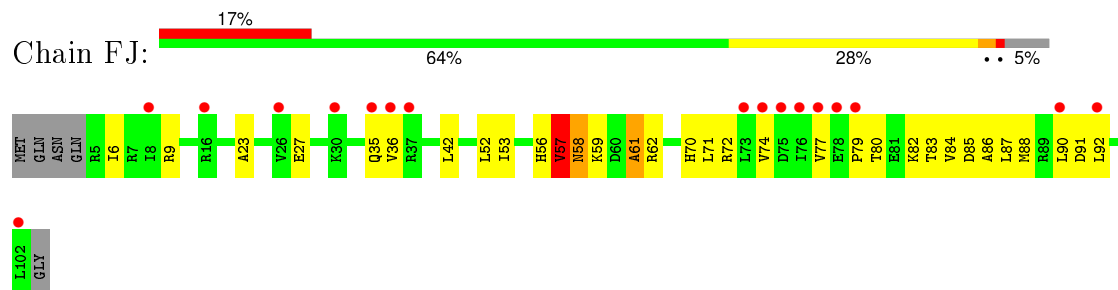


- Molecule 43: 30S ribosomal protein S10

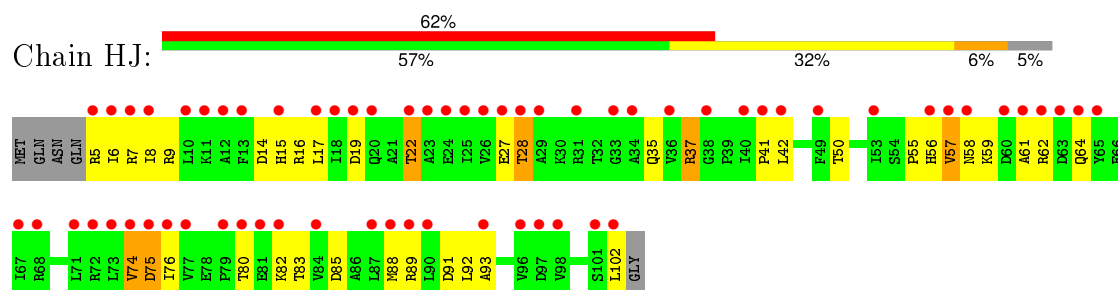




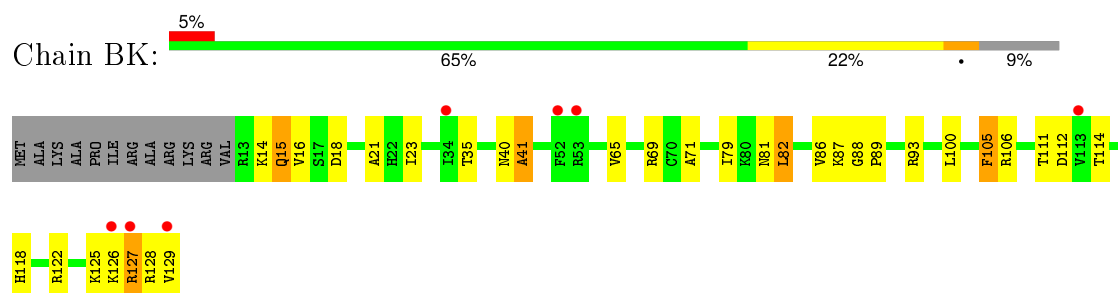
- Molecule 43: 30S ribosomal protein S10



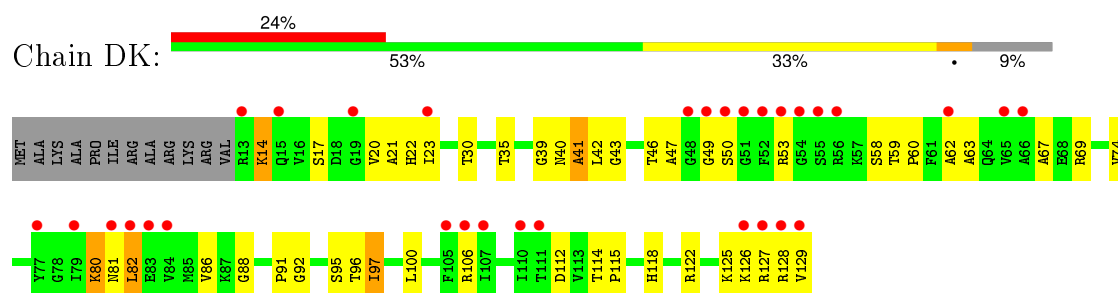
- Molecule 43: 30S ribosomal protein S10



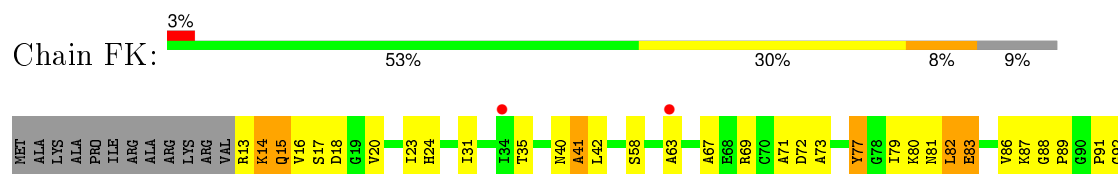
- Molecule 44: 30S ribosomal protein S11



- Molecule 44: 30S ribosomal protein S11

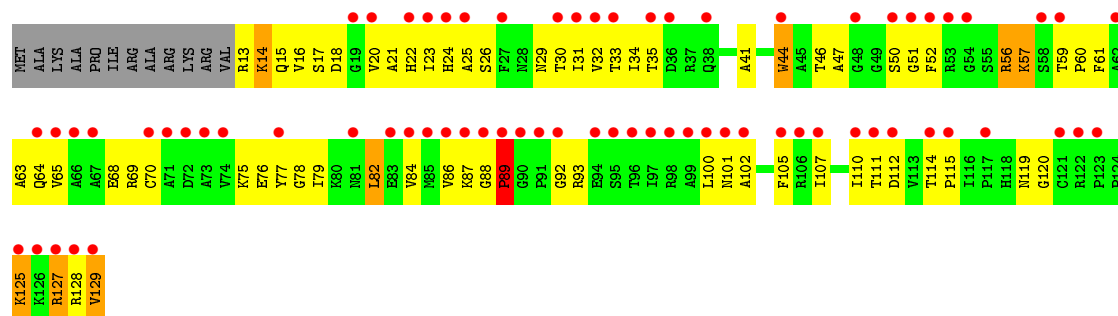
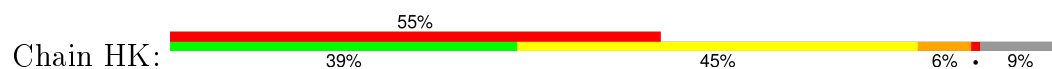


- Molecule 44: 30S ribosomal protein S11

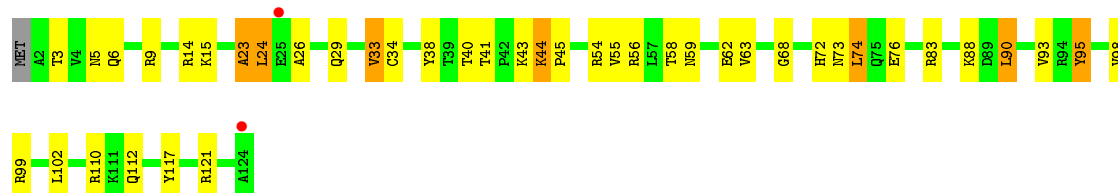




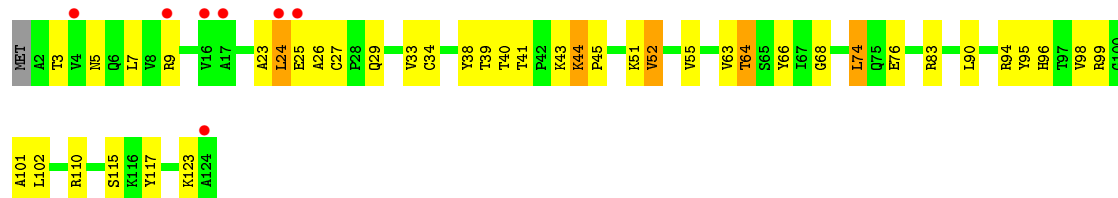
- Molecule 44: 30S ribosomal protein S11



- Molecule 45: 30S ribosomal protein S12



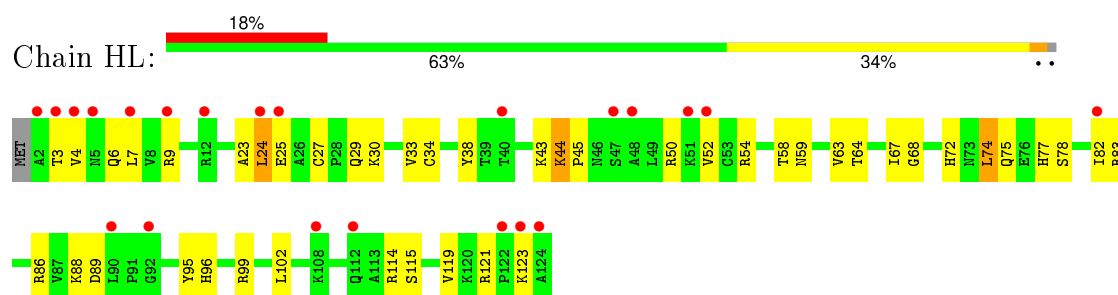
- Molecule 45: 30S ribosomal protein S12



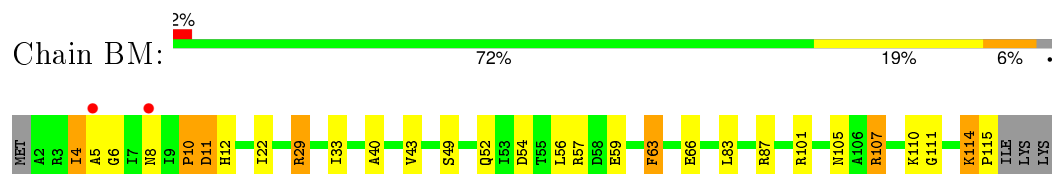
- Molecule 45: 30S ribosomal protein S12



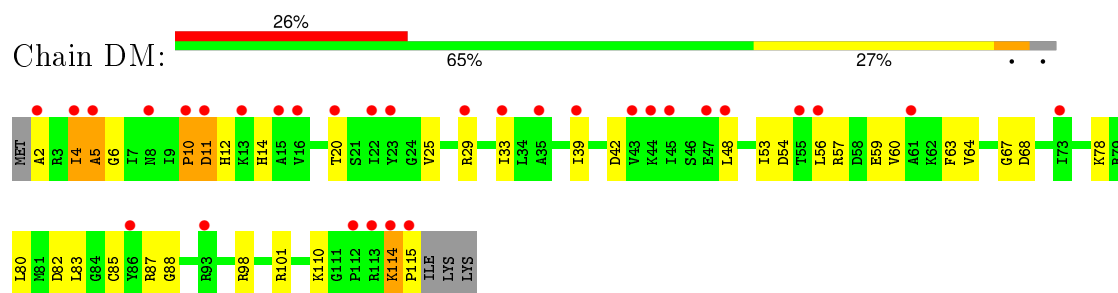
- Molecule 45: 30S ribosomal protein S12



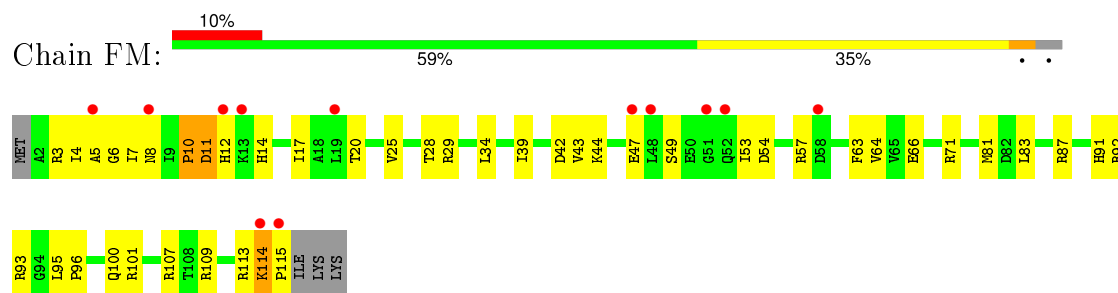
- Molecule 46: 30S ribosomal protein S13



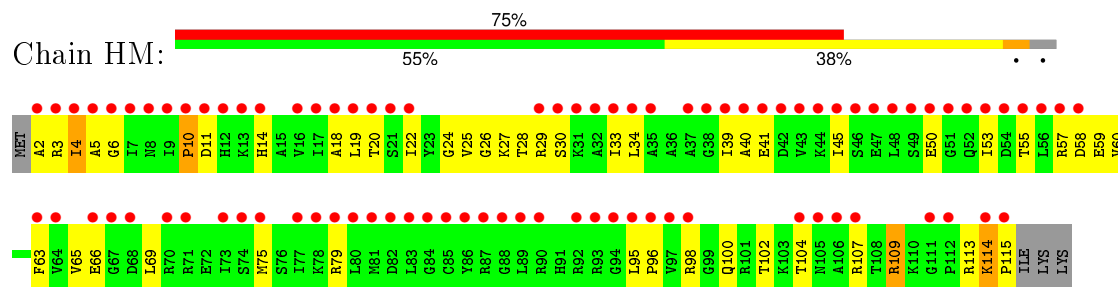
- Molecule 46: 30S ribosomal protein S13



- Molecule 46: 30S ribosomal protein S13

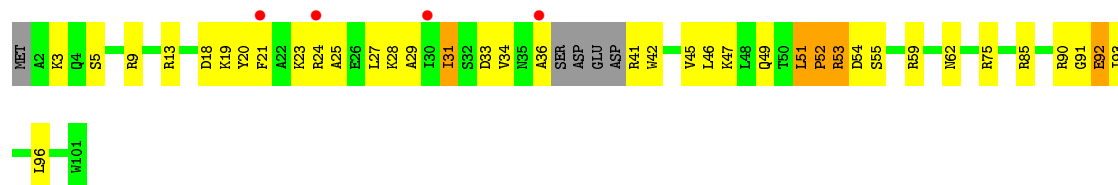


- Molecule 46: 30S ribosomal protein S13

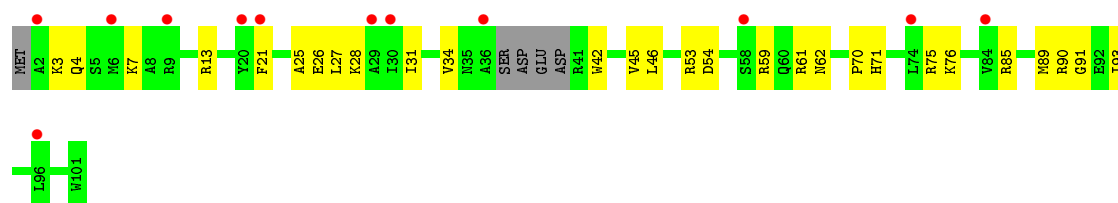


- Molecule 47: 30S ribosomal protein S14

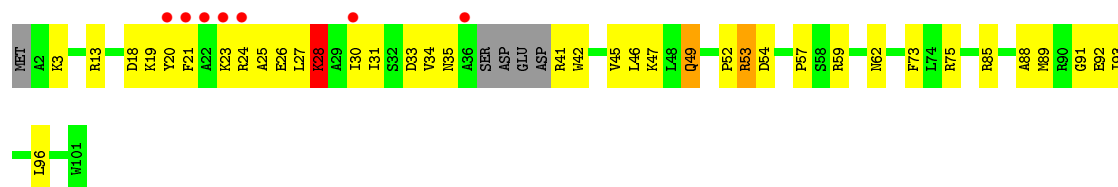




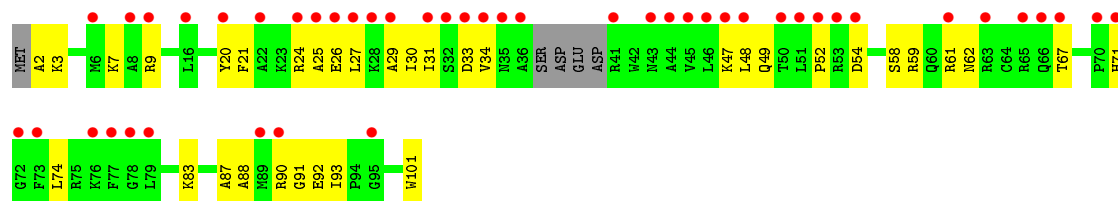
- Molecule 47: 30S ribosomal protein S14



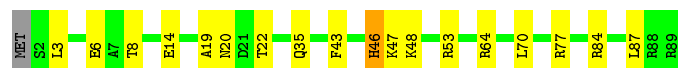
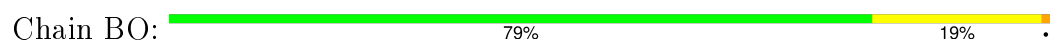
- Molecule 47: 30S ribosomal protein S14



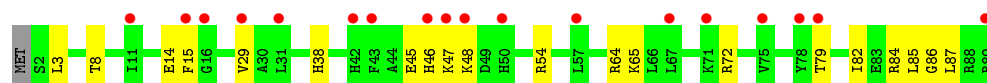
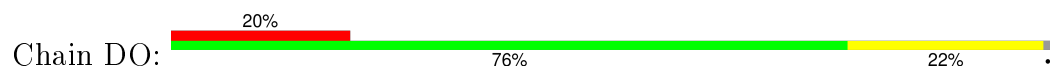
- Molecule 47: 30S ribosomal protein S14



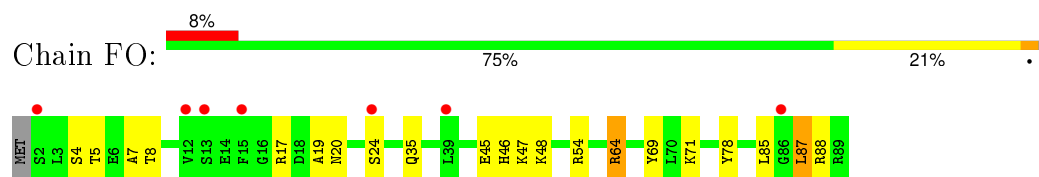
- Molecule 48: 30S ribosomal protein S15



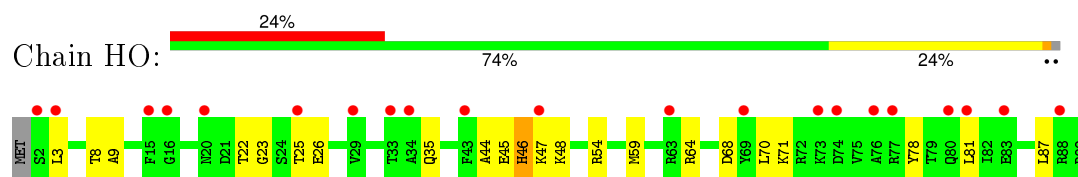
- Molecule 48: 30S ribosomal protein S15



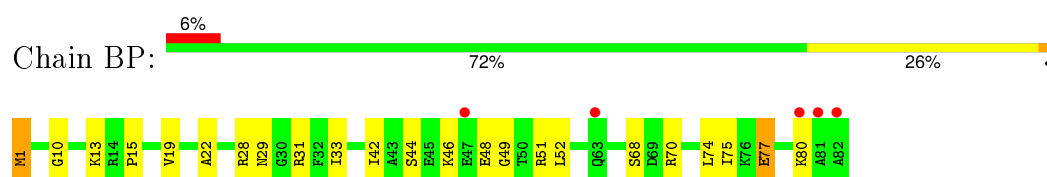
- Molecule 48: 30S ribosomal protein S15



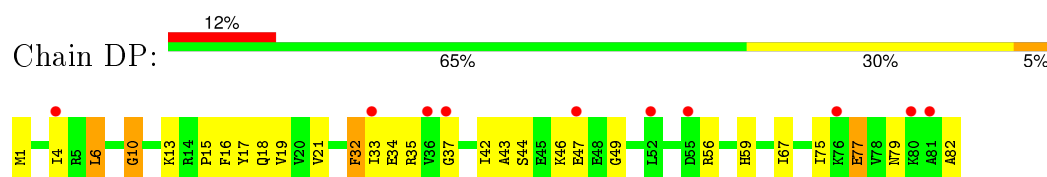
- Molecule 48: 30S ribosomal protein S15



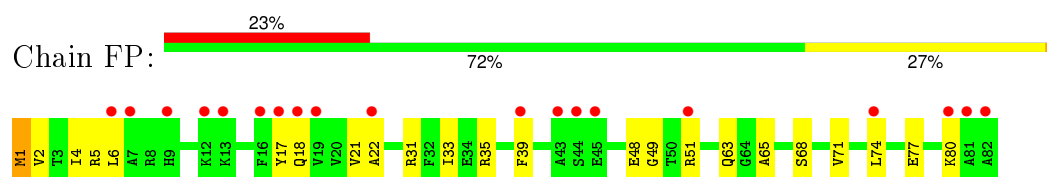
- Molecule 49: 30S ribosomal protein S16



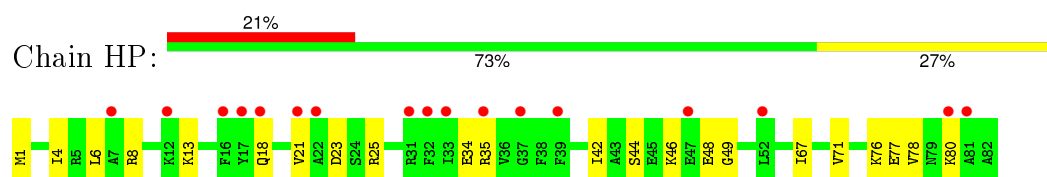
- Molecule 49: 30S ribosomal protein S16



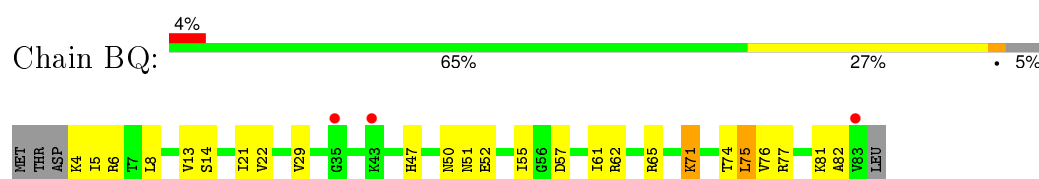
- Molecule 49: 30S ribosomal protein S16



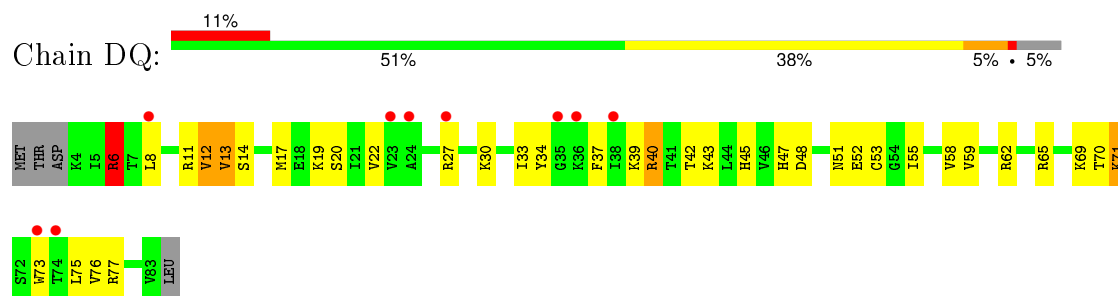
- Molecule 49: 30S ribosomal protein S16



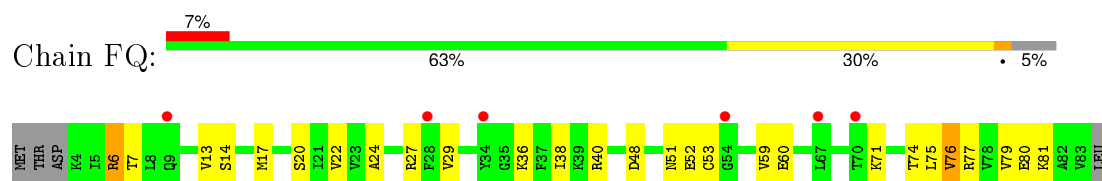
- Molecule 50: 30S ribosomal protein S17



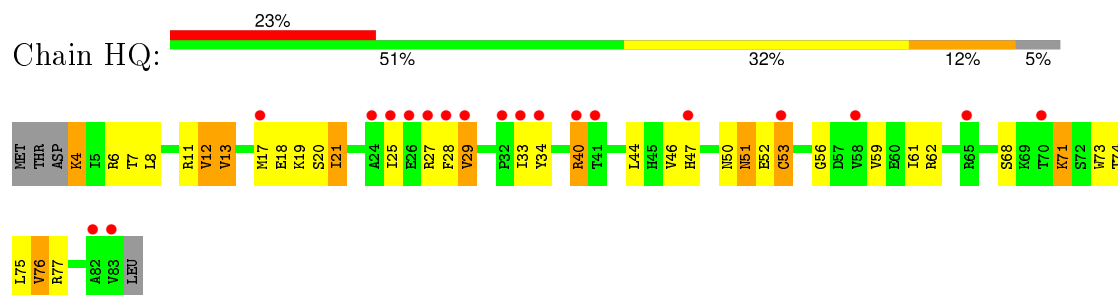
## • Molecule 50: 30S ribosomal protein S17



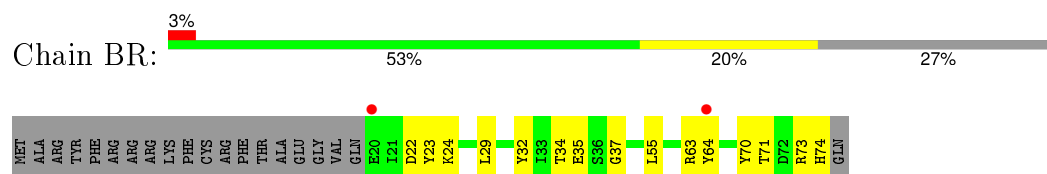
## • Molecule 50: 30S ribosomal protein S17



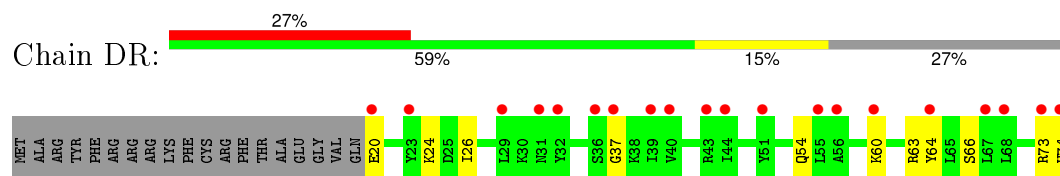
## • Molecule 50: 30S ribosomal protein S17



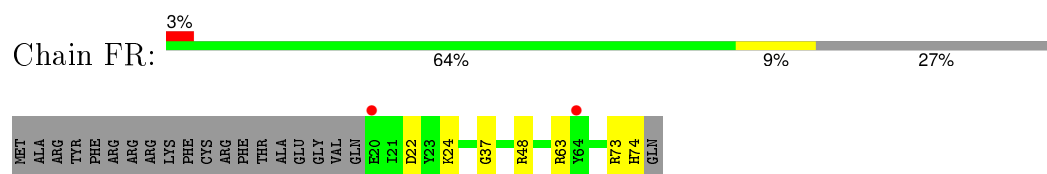
## • Molecule 51: 30S ribosomal protein S18



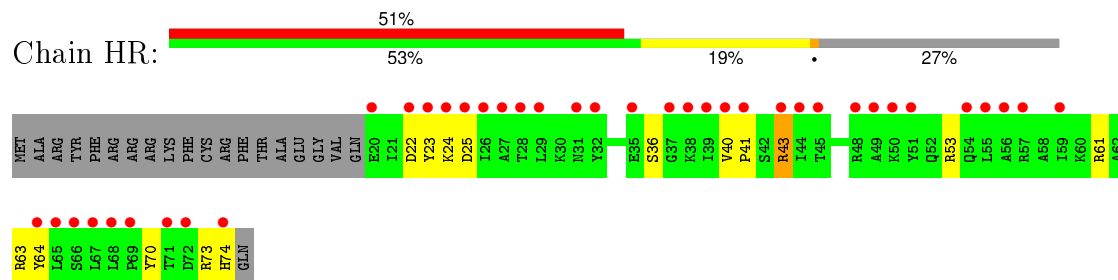
## • Molecule 51: 30S ribosomal protein S18



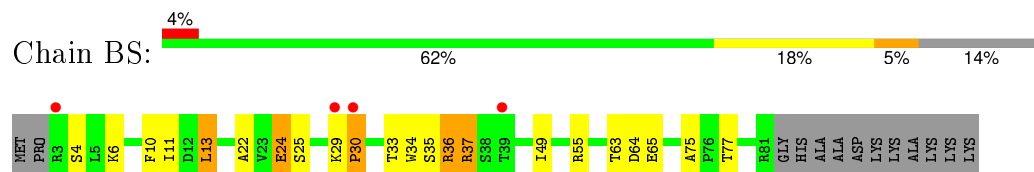
## • Molecule 51: 30S ribosomal protein S18



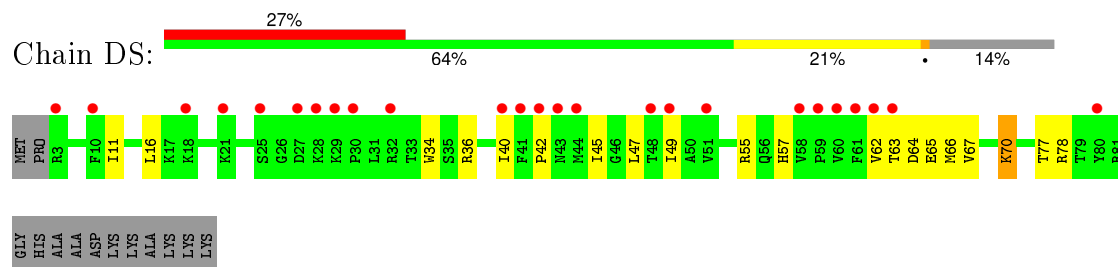
- Molecule 51: 30S ribosomal protein S18



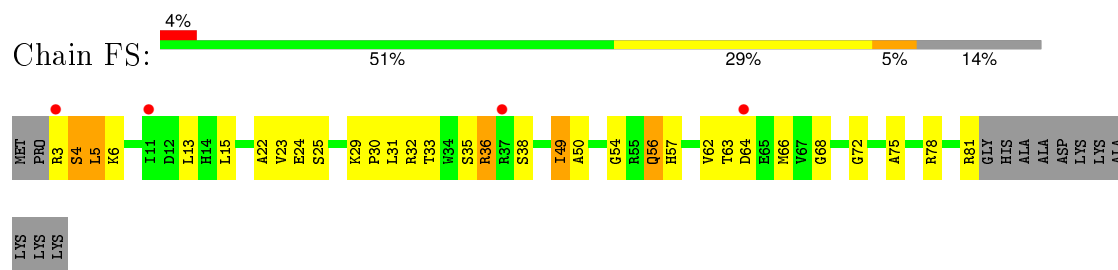
- Molecule 52: 30S ribosomal protein S19



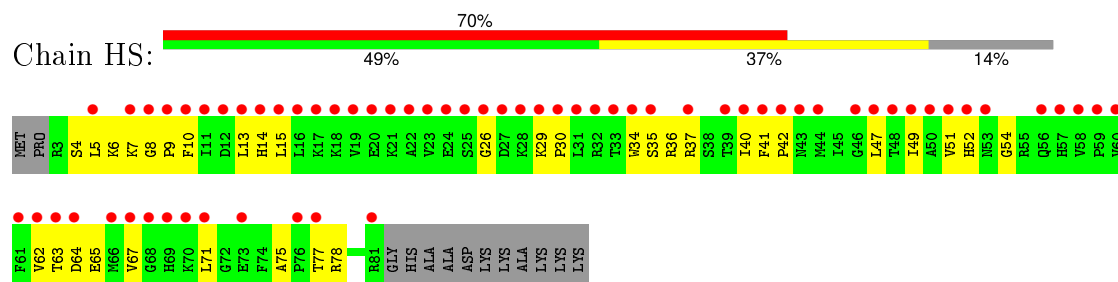
- Molecule 52: 30S ribosomal protein S19



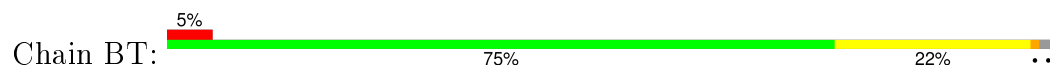
- Molecule 52: 30S ribosomal protein S19

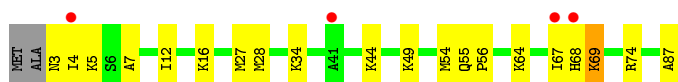


- Molecule 52: 30S ribosomal protein S19



- Molecule 53: 30S ribosomal protein S20

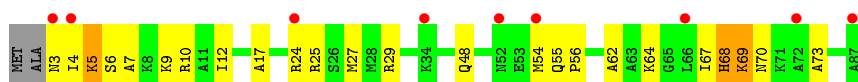
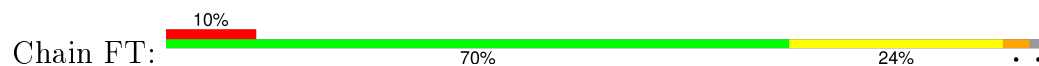




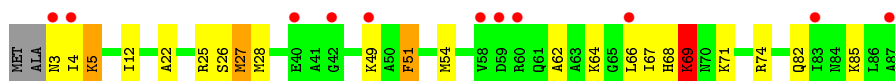
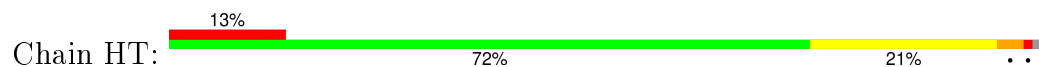
- Molecule 53: 30S ribosomal protein S20



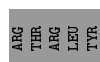
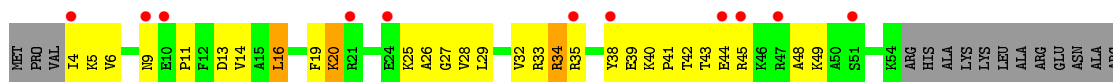
- Molecule 53: 30S ribosomal protein S20



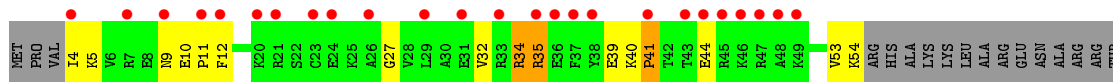
- Molecule 53: 30S ribosomal protein S20



- Molecule 54: 30S ribosomal protein S21



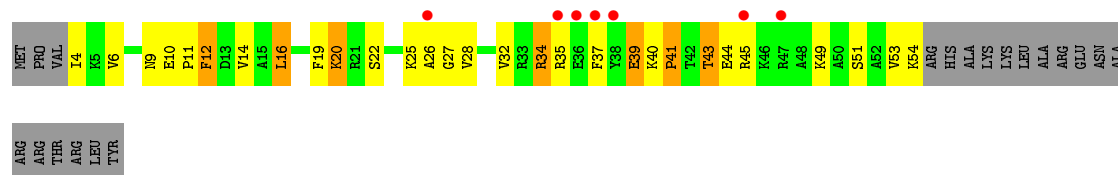
- Molecule 54: 30S ribosomal protein S21



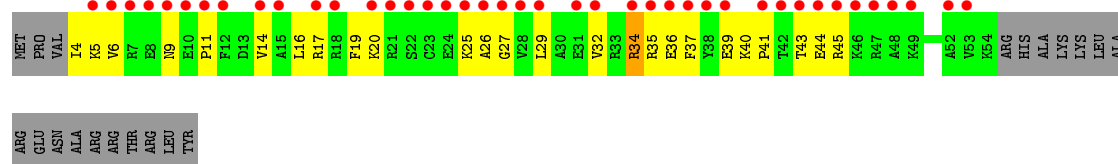
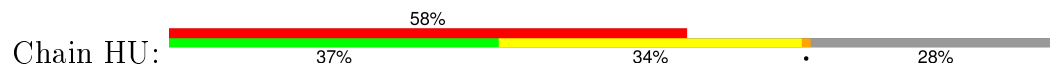
- Molecule 54: 30S ribosomal protein S21



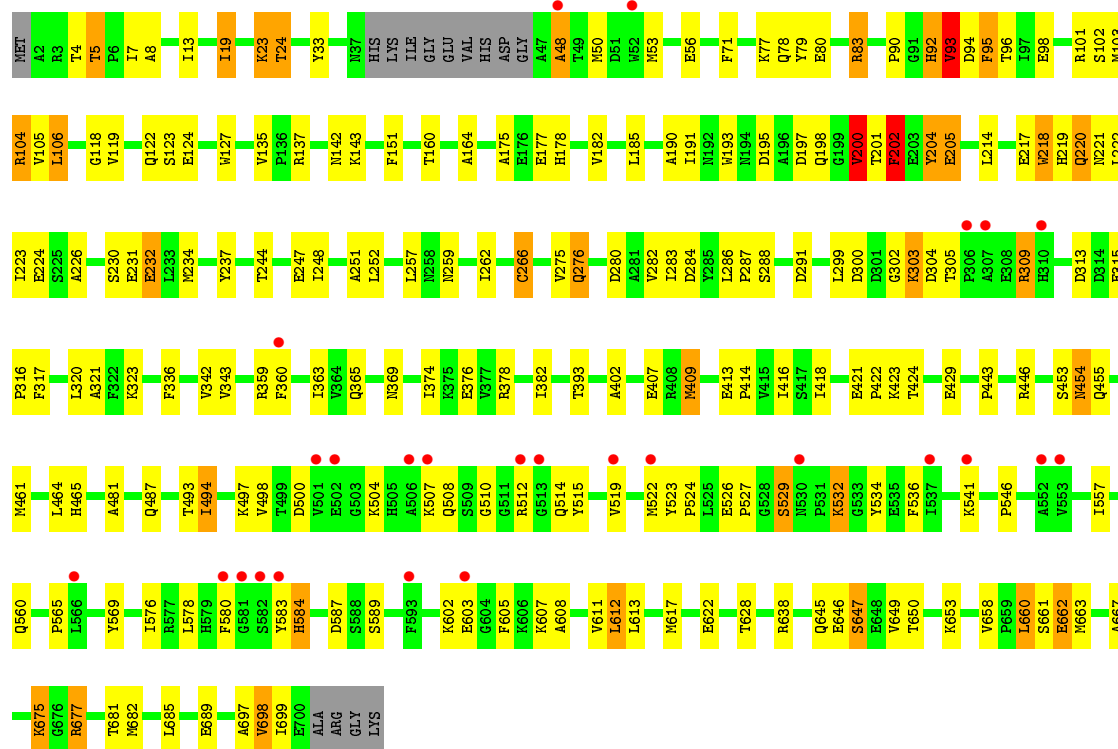




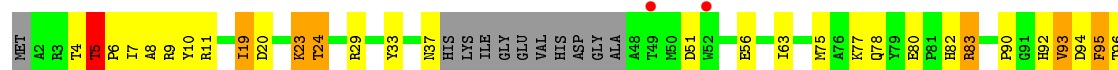
- Molecule 54: 30S ribosomal protein S21

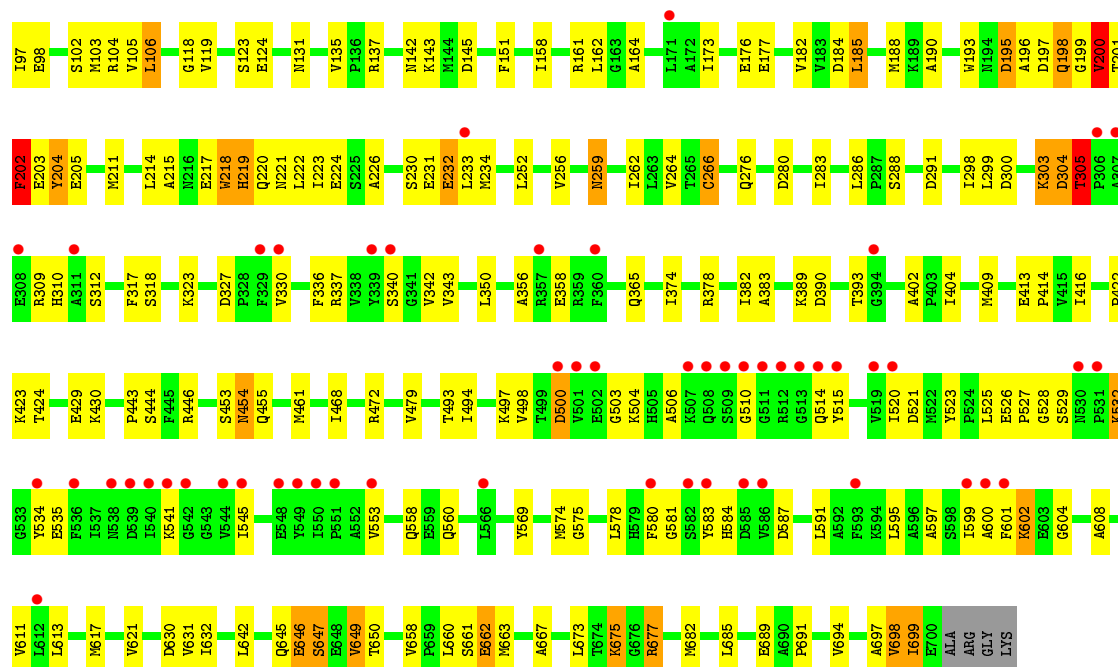


- Molecule 55: Elongation factor G

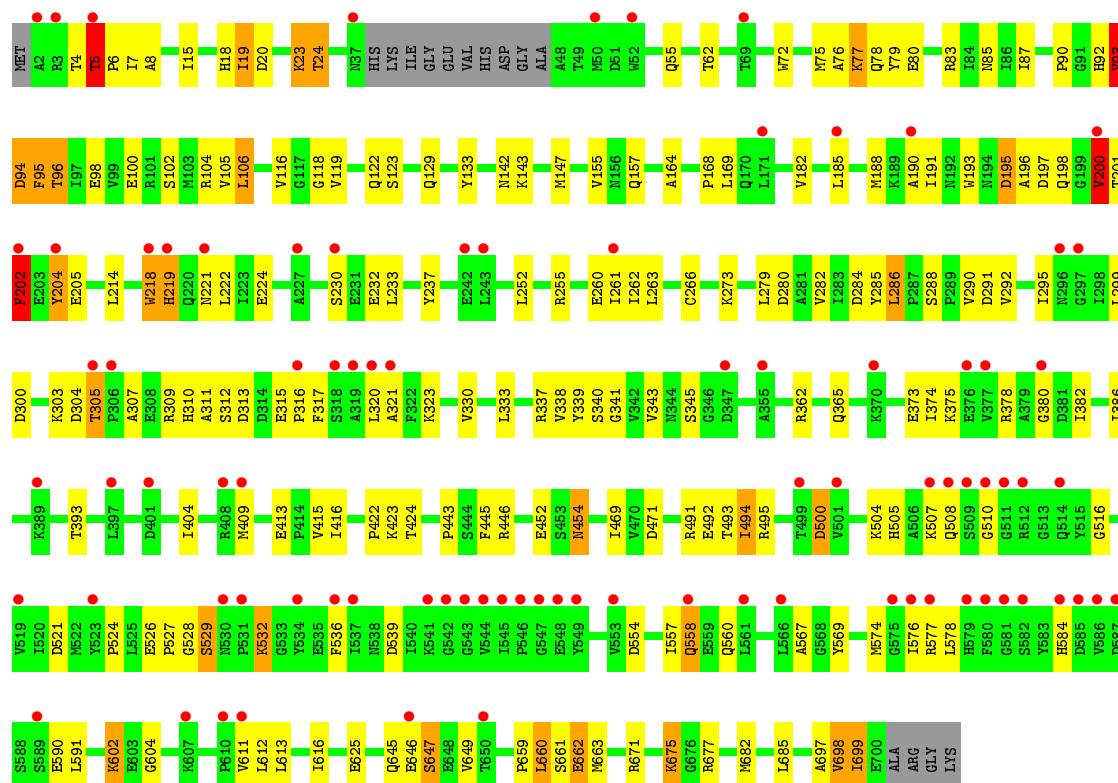


- Molecule 55: Elongation factor G



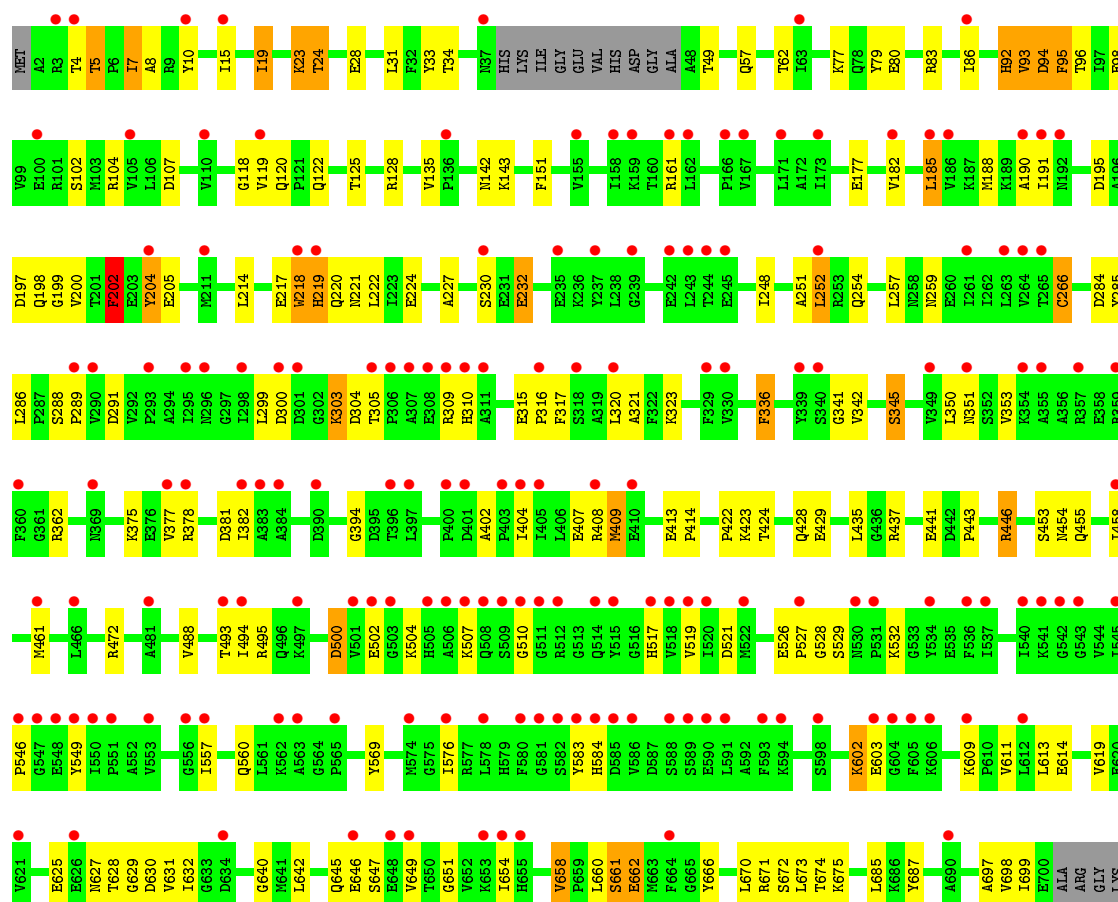


- Molecule 55: Elongation factor G

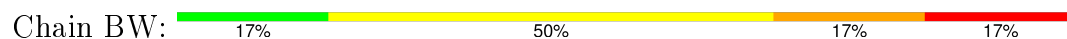


- Molecule 55: Elongation factor G

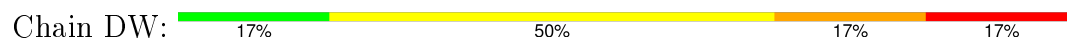




• Molecule 56: Viomycin



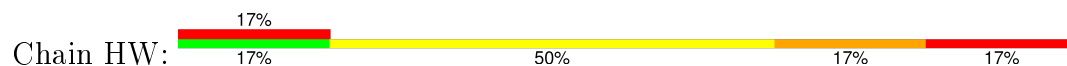
• Molecule 56: Viomycin



• Molecule 56: Viomycin



• Molecule 56: Viomycin





## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	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
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.35 (at 2.91Å)	Xtriage
Refinement program	PHENIX	Depositor
R, $R_{free}$	0.223 , 0.272 0.230 , 0.276	Depositor DCC
$R_{free}$ test set	8388 reflections (0.45%)	DCC
Wilson B-factor (Å <sup>2</sup> )	73.3	Xtriage
Anisotropy	0.160	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.26 , 28.1	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.46$ , $\langle L^2 \rangle = 0.28$	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 <sup>2</sup> )	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.*

<sup>1</sup> Intensities estimated from amplitudes.

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

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, 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 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	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
9	GI	1032	0	1088	64	0
10	AJ	1129	0	1162	53	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
20	CT	738	0	807	26	0
20	ET	738	0	807	33	0

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
30	G3	504	0	574	27	0
31	A4	302	0	340	15	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
42	DI	1022	0	1070	39	0
42	FI	1022	0	1070	43	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
52	HS	637	0	665	32	0
53	BT	665	0	714	11	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
57	FV	1	0	0	0	0
57	GA	136	0	0	0	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
60	CA	607	0	0	84	0
60	CB	21	0	0	2	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
60	FT	4	0	0	0	0
60	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
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

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 12.

All (11056) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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	Interatomic distance (Å)	Clash overlap (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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EA:973:A:OP2	18:ER:81:LYS:NZ	2.06	0.89
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:GB:14:U:OP2	1:GB:70:C:O2'	2.21	0.57

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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	Interatomic distance (Å)	Clash overlap (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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GA:1813:G:H1'	2:GC:49:THR:HG21	1.85	0.57
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:DA:696:A:N3	35:DA:786:G:O2'	2.42	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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	Interatomic distance (Å)	Clash overlap (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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:162:ARG:HB3	7:CG:166:GLU:HG2	1.94	0.50
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
55:DV:553:VAL:HG23	55:DV:597:ALA:HB2	1.97	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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	Interatomic distance (Å)	Clash overlap (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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:A3:21:PHE:O	30:A3:22:LYS:O	2.33	0.46
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
3:GA:820:A:C2	3:GA:821:A:C4	3.05	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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	Interatomic distance (Å)	Clash overlap (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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CA:1753:G:OP1	16:CP:92:ARG:NE	2.50	0.44
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
35:BA:1084:G:OP1	35:BA:1086:U:N3	2.53	0.42

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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	Interatomic distance (Å)	Clash overlap (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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AA:2661:G:H5'	55:BV:19:ILE:HG13	2.02	0.42
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
19:GS:18:ARG:CG	19:GS:76:VAL:CG2	2.98	0.41
3:GA:2135:A:H62	3:GA:2156:G:CI'	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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
9:GI:74:PRO:O	9:GI:112:LYS:NZ	2.52	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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	Interatomic distance (Å)	Clash overlap (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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DA:341:C:H2'	35:DA:342:C:H6	1.84	0.41
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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	Interatomic distance (Å)	Clash overlap (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 [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	AC	269/273 (98%)	211 (78%)	43 (16%)	15 (6%)	<b>2</b> <b>7</b>

Continued on next page...

*Continued from previous page...*

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	CC	269/273 (98%)	211 (78%)	42 (16%)	16 (6%)	2	6
2	EC	269/273 (98%)	212 (79%)	44 (16%)	13 (5%)	3	10
2	GC	269/273 (98%)	210 (78%)	42 (16%)	17 (6%)	2	5
4	AD	207/209 (99%)	163 (79%)	30 (14%)	14 (7%)	1	4
4	CD	207/209 (99%)	166 (80%)	27 (13%)	14 (7%)	1	4
4	ED	207/209 (99%)	165 (80%)	29 (14%)	13 (6%)	2	5
4	GD	207/209 (99%)	161 (78%)	32 (16%)	14 (7%)	1	4
5	AE	199/201 (99%)	162 (81%)	27 (14%)	10 (5%)	3	9
5	CE	199/201 (99%)	159 (80%)	27 (14%)	13 (6%)	1	4
5	EE	199/201 (99%)	164 (82%)	24 (12%)	11 (6%)	2	7
5	GE	199/201 (99%)	159 (80%)	30 (15%)	10 (5%)	3	9
6	AF	175/179 (98%)	141 (81%)	30 (17%)	4 (2%)	8	30
6	CF	175/179 (98%)	145 (83%)	25 (14%)	5 (3%)	6	23
6	EF	175/179 (98%)	140 (80%)	26 (15%)	9 (5%)	2	9
6	GF	175/179 (98%)	140 (80%)	26 (15%)	9 (5%)	2	9
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	2
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	1
8	AH	48/50 (96%)	29 (60%)	14 (29%)	5 (10%)	1	1
8	CH	48/50 (96%)	31 (65%)	12 (25%)	5 (10%)	1	1
8	EH	48/50 (96%)	31 (65%)	12 (25%)	5 (10%)	1	1
8	GH	48/50 (96%)	30 (62%)	15 (31%)	3 (6%)	2	5
9	AI	139/142 (98%)	97 (70%)	33 (24%)	9 (6%)	1	4
9	CI	139/142 (98%)	95 (68%)	38 (27%)	6 (4%)	3	13
9	EI	139/142 (98%)	97 (70%)	38 (27%)	4 (3%)	6	23
9	GI	139/142 (98%)	95 (68%)	34 (24%)	10 (7%)	1	3
10	AJ	140/142 (99%)	113 (81%)	18 (13%)	9 (6%)	2	5
10	CJ	140/142 (99%)	112 (80%)	20 (14%)	8 (6%)	2	6
10	EJ	140/142 (99%)	114 (81%)	17 (12%)	9 (6%)	2	5
10	GJ	140/142 (99%)	113 (81%)	19 (14%)	8 (6%)	2	6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
11	AK	120/123 (98%)	96 (80%)	14 (12%)	10 (8%)	1	2
11	CK	120/123 (98%)	93 (78%)	21 (18%)	6 (5%)	3	9
11	EK	120/123 (98%)	92 (77%)	21 (18%)	7 (6%)	2	6
11	GK	120/123 (98%)	92 (77%)	20 (17%)	8 (7%)	1	4
12	AL	141/144 (98%)	104 (74%)	32 (23%)	5 (4%)	4	18
12	CL	141/144 (98%)	103 (73%)	33 (23%)	5 (4%)	4	18
12	EL	141/144 (98%)	108 (77%)	26 (18%)	7 (5%)	3	9
12	GL	141/144 (98%)	103 (73%)	32 (23%)	6 (4%)	3	13
13	AM	134/136 (98%)	107 (80%)	16 (12%)	11 (8%)	1	2
13	CM	134/136 (98%)	110 (82%)	16 (12%)	8 (6%)	2	6
13	EM	134/136 (98%)	106 (79%)	18 (13%)	10 (8%)	1	3
13	GM	134/136 (98%)	109 (81%)	17 (13%)	8 (6%)	2	6
14	AN	118/127 (93%)	101 (86%)	16 (14%)	1 (1%)	24	60
14	CN	118/127 (93%)	103 (87%)	14 (12%)	1 (1%)	24	60
14	EN	118/127 (93%)	100 (85%)	17 (14%)	1 (1%)	24	60
14	GN	118/127 (93%)	98 (83%)	19 (16%)	1 (1%)	24	60
15	AO	114/117 (97%)	95 (83%)	18 (16%)	1 (1%)	21	57
15	CO	114/117 (97%)	95 (83%)	15 (13%)	4 (4%)	4	18
15	EO	114/117 (97%)	95 (83%)	18 (16%)	1 (1%)	21	57
15	GO	114/117 (97%)	95 (83%)	15 (13%)	4 (4%)	4	18
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%)	0	1
16	GP	112/115 (97%)	85 (76%)	19 (17%)	8 (7%)	1	3
17	AQ	115/118 (98%)	99 (86%)	12 (10%)	4 (4%)	4	18
17	CQ	115/118 (98%)	99 (86%)	12 (10%)	4 (4%)	4	18
17	EQ	115/118 (98%)	99 (86%)	12 (10%)	4 (4%)	4	18
17	GQ	115/118 (98%)	99 (86%)	14 (12%)	2 (2%)	11	38
18	AR	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	5	22
18	CR	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	5	22
18	ER	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	5	22

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
18	GR	101/103 (98%)	83 (82%)	13 (13%)	5 (5%)	3	9
19	AS	108/110 (98%)	94 (87%)	9 (8%)	5 (5%)	3	11
19	CS	108/110 (98%)	95 (88%)	9 (8%)	4 (4%)	4	17
19	ES	108/110 (98%)	92 (85%)	10 (9%)	6 (6%)	2	7
19	GS	108/110 (98%)	91 (84%)	11 (10%)	6 (6%)	2	7
20	AT	91/100 (91%)	57 (63%)	24 (26%)	10 (11%)	0	1
20	CT	91/100 (91%)	55 (60%)	25 (28%)	11 (12%)	0	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%)	0	1
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%)	0	1
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
22	CV	92/94 (98%)	80 (87%)	11 (12%)	1 (1%)	17	51
22	EV	92/94 (98%)	80 (87%)	12 (13%)	0	100	100
22	GV	92/94 (98%)	78 (85%)	13 (14%)	1 (1%)	17	51
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%)	4	15
24	CX	75/78 (96%)	63 (84%)	10 (13%)	2 (3%)	6	25
24	EX	75/78 (96%)	63 (84%)	9 (12%)	3 (4%)	4	15
24	GX	75/78 (96%)	63 (84%)	9 (12%)	3 (4%)	4	15
25	AY	61/63 (97%)	39 (64%)	18 (30%)	4 (7%)	1	4
25	CY	61/63 (97%)	42 (69%)	15 (25%)	4 (7%)	1	4
25	EY	61/63 (97%)	40 (66%)	17 (28%)	4 (7%)	1	4
25	GY	61/63 (97%)	39 (64%)	20 (33%)	2 (3%)	5	20
26	AZ	56/59 (95%)	46 (82%)	8 (14%)	2 (4%)	4	18
26	CZ	56/59 (95%)	46 (82%)	8 (14%)	2 (4%)	4	18

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
26	EZ	56/59 (95%)	46 (82%)	8 (14%)	2 (4%)	4	18
26	GZ	56/59 (95%)	44 (79%)	10 (18%)	2 (4%)	4	18
27	A0	54/57 (95%)	43 (80%)	7 (13%)	4 (7%)	1	3
27	C0	54/57 (95%)	45 (83%)	3 (6%)	6 (11%)	0	1
27	E0	54/57 (95%)	44 (82%)	6 (11%)	4 (7%)	1	3
27	G0	54/57 (95%)	46 (85%)	4 (7%)	4 (7%)	1	3
28	A1	48/55 (87%)	42 (88%)	3 (6%)	3 (6%)	2	5
28	C1	48/55 (87%)	42 (88%)	4 (8%)	2 (4%)	3	13
28	E1	48/55 (87%)	42 (88%)	4 (8%)	2 (4%)	3	13
28	G1	48/55 (87%)	42 (88%)	3 (6%)	3 (6%)	2	5
29	A2	44/46 (96%)	41 (93%)	3 (7%)	0	100	100
29	C2	44/46 (96%)	41 (93%)	2 (4%)	1 (2%)	8	30
29	E2	44/46 (96%)	40 (91%)	4 (9%)	0	100	100
29	G2	44/46 (96%)	40 (91%)	3 (7%)	1 (2%)	8	30
30	A3	62/65 (95%)	53 (86%)	7 (11%)	2 (3%)	5	20
30	C3	62/65 (95%)	54 (87%)	6 (10%)	2 (3%)	5	20
30	E3	62/65 (95%)	56 (90%)	4 (6%)	2 (3%)	5	20
30	G3	62/65 (95%)	54 (87%)	6 (10%)	2 (3%)	5	20
31	A4	36/38 (95%)	29 (81%)	4 (11%)	3 (8%)	1	2
31	C4	36/38 (95%)	29 (81%)	4 (11%)	3 (8%)	1	2
31	E4	36/38 (95%)	29 (81%)	4 (11%)	3 (8%)	1	2
31	G4	36/38 (95%)	30 (83%)	2 (6%)	4 (11%)	0	1
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%)	4	18
34	BB	216/241 (90%)	151 (70%)	51 (24%)	14 (6%)	1	4
34	DB	216/241 (90%)	157 (73%)	47 (22%)	12 (6%)	2	7
34	FB	216/241 (90%)	153 (71%)	51 (24%)	12 (6%)	2	7
34	HB	216/241 (90%)	153 (71%)	51 (24%)	12 (6%)	2	7
36	BC	204/233 (88%)	181 (89%)	18 (9%)	5 (2%)	7	27

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
36	DC	204/233 (88%)	179 (88%)	20 (10%)	5 (2%)	7	27
36	FC	204/233 (88%)	180 (88%)	18 (9%)	6 (3%)	6	23
36	HC	204/233 (88%)	181 (89%)	17 (8%)	6 (3%)	6	23
37	BD	203/206 (98%)	162 (80%)	30 (15%)	11 (5%)	2	7
37	DD	203/206 (98%)	162 (80%)	29 (14%)	12 (6%)	2	6
37	FD	203/206 (98%)	163 (80%)	29 (14%)	11 (5%)	2	7
37	HD	203/206 (98%)	165 (81%)	26 (13%)	12 (6%)	2	6
38	BE	148/167 (89%)	123 (83%)	18 (12%)	7 (5%)	3	11
38	DE	148/167 (89%)	125 (84%)	18 (12%)	5 (3%)	5	19
38	FE	148/167 (89%)	122 (82%)	20 (14%)	6 (4%)	3	14
38	HE	148/167 (89%)	121 (82%)	20 (14%)	7 (5%)	3	11
39	BF	100/135 (74%)	79 (79%)	15 (15%)	6 (6%)	2	6
39	DF	98/135 (73%)	80 (82%)	13 (13%)	5 (5%)	2	9
39	FF	98/135 (73%)	81 (83%)	11 (11%)	6 (6%)	2	5
39	HF	98/135 (73%)	76 (78%)	18 (18%)	4 (4%)	3	14
40	BG	149/179 (83%)	128 (86%)	20 (13%)	1 (1%)	26	63
40	DG	149/179 (83%)	125 (84%)	22 (15%)	2 (1%)	15	46
40	FG	149/179 (83%)	127 (85%)	21 (14%)	1 (1%)	26	63
40	HG	149/179 (83%)	127 (85%)	20 (13%)	2 (1%)	15	46
41	BH	127/130 (98%)	114 (90%)	12 (9%)	1 (1%)	24	60
41	DH	127/130 (98%)	113 (89%)	12 (9%)	2 (2%)	12	40
41	FH	127/130 (98%)	112 (88%)	13 (10%)	2 (2%)	12	40
41	HH	127/130 (98%)	112 (88%)	13 (10%)	2 (2%)	12	40
42	BI	125/130 (96%)	105 (84%)	14 (11%)	6 (5%)	3	10
42	DI	125/130 (96%)	102 (82%)	22 (18%)	1 (1%)	24	60
42	FI	125/130 (96%)	106 (85%)	13 (10%)	6 (5%)	3	10
42	HI	125/130 (96%)	103 (82%)	19 (15%)	3 (2%)	7	29
43	BJ	96/103 (93%)	69 (72%)	20 (21%)	7 (7%)	1	3
43	DJ	96/103 (93%)	71 (74%)	19 (20%)	6 (6%)	2	5
43	FJ	96/103 (93%)	69 (72%)	21 (22%)	6 (6%)	2	5
43	HJ	96/103 (93%)	68 (71%)	19 (20%)	9 (9%)	1	2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
44	BK	115/129 (89%)	97 (84%)	12 (10%)	6 (5%)	2	8
44	DK	115/129 (89%)	92 (80%)	19 (16%)	4 (4%)	4	18
44	FK	115/129 (89%)	96 (84%)	13 (11%)	6 (5%)	2	8
44	HK	115/129 (89%)	91 (79%)	15 (13%)	9 (8%)	1	3
45	BL	121/124 (98%)	101 (84%)	16 (13%)	4 (3%)	5	20
45	DL	121/124 (98%)	98 (81%)	20 (16%)	3 (2%)	7	27
45	FL	121/124 (98%)	100 (83%)	14 (12%)	7 (6%)	2	6
45	HL	121/124 (98%)	101 (84%)	15 (12%)	5 (4%)	3	14
46	BM	112/118 (95%)	98 (88%)	8 (7%)	6 (5%)	2	7
46	DM	112/118 (95%)	96 (86%)	11 (10%)	5 (4%)	3	12
46	FM	112/118 (95%)	99 (88%)	7 (6%)	6 (5%)	2	7
46	HM	112/118 (95%)	92 (82%)	12 (11%)	8 (7%)	1	3
47	BN	92/101 (91%)	73 (79%)	13 (14%)	6 (6%)	1	4
47	DN	92/101 (91%)	71 (77%)	19 (21%)	2 (2%)	8	31
47	FN	92/101 (91%)	71 (77%)	17 (18%)	4 (4%)	3	13
47	HN	92/101 (91%)	70 (76%)	18 (20%)	4 (4%)	3	13
48	BO	86/89 (97%)	75 (87%)	9 (10%)	2 (2%)	8	30
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%)	4	18
49	BP	80/82 (98%)	60 (75%)	17 (21%)	3 (4%)	4	16
49	DP	80/82 (98%)	60 (75%)	15 (19%)	5 (6%)	2	5
49	FP	80/82 (98%)	62 (78%)	15 (19%)	3 (4%)	4	16
49	HP	80/82 (98%)	56 (70%)	21 (26%)	3 (4%)	4	16
50	BQ	78/84 (93%)	59 (76%)	15 (19%)	4 (5%)	2	9
50	DQ	78/84 (93%)	58 (74%)	14 (18%)	6 (8%)	1	3
50	FQ	78/84 (93%)	58 (74%)	17 (22%)	3 (4%)	4	16
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

*Continued on next page...*

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
51	HR	53/75 (71%)	49 (92%)	4 (8%)	0	100	100
52	BS	77/92 (84%)	65 (84%)	11 (14%)	1 (1%)	15	46
52	DS	77/92 (84%)	66 (86%)	11 (14%)	0	100	100
52	FS	77/92 (84%)	64 (83%)	11 (14%)	2 (3%)	7	26
52	HS	77/92 (84%)	66 (86%)	9 (12%)	2 (3%)	7	26
53	BT	83/87 (95%)	74 (89%)	7 (8%)	2 (2%)	7	29
53	DT	83/87 (95%)	74 (89%)	6 (7%)	3 (4%)	4	18
53	FT	83/87 (95%)	75 (90%)	6 (7%)	2 (2%)	7	29
53	HT	83/87 (95%)	73 (88%)	8 (10%)	2 (2%)	7	29
54	BU	49/71 (69%)	26 (53%)	20 (41%)	3 (6%)	2	5
54	DU	49/71 (69%)	25 (51%)	20 (41%)	4 (8%)	1	2
54	FU	49/71 (69%)	24 (49%)	21 (43%)	4 (8%)	1	2
54	HU	49/71 (69%)	29 (59%)	18 (37%)	2 (4%)	3	14
55	BV	686/704 (97%)	559 (82%)	92 (13%)	35 (5%)	2	9
55	DV	685/704 (97%)	559 (82%)	93 (14%)	33 (5%)	3	10
55	FV	685/704 (97%)	564 (82%)	89 (13%)	32 (5%)	3	11
55	HV	685/704 (97%)	562 (82%)	88 (13%)	35 (5%)	2	9
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%)	2	8

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

Continued on next page...

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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.

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles		
2	AC	216/218 (99%)	202 (94%)	14 (6%)	21	52	
2	CC	216/218 (99%)	197 (91%)	19 (9%)	12	35	
2	EC	216/218 (99%)	194 (90%)	22 (10%)	9	27	
2	GC	216/218 (99%)	203 (94%)	13 (6%)	24	57	
4	AD	164/164 (100%)	151 (92%)	13 (8%)	15	41	
4	CD	164/164 (100%)	152 (93%)	12 (7%)	17	45	
4	ED	164/164 (100%)	152 (93%)	12 (7%)	17	45	
4	GD	164/164 (100%)	151 (92%)	13 (8%)	15	41	
5	AE	165/165 (100%)	146 (88%)	19 (12%)	7	21	
5	CE	165/165 (100%)	157 (95%)	8 (5%)	31	67	
5	EE	165/165 (100%)	153 (93%)	12 (7%)	17	45	
5	GE	165/165 (100%)	152 (92%)	13 (8%)	15	41	
6	AF	148/150 (99%)	138 (93%)	10 (7%)	20	49	
6	CF	148/150 (99%)	140 (95%)	8 (5%)	27	62	
6	EF	148/150 (99%)	133 (90%)	15 (10%)	9	28	
6	GF	148/150 (99%)	146 (99%)	2 (1%)	74	93	
7	AG	137/138 (99%)	122 (89%)	15 (11%)	8	23	
7	CG	137/138 (99%)	125 (91%)	12 (9%)	12	35	
7	EG	137/138 (99%)	119 (87%)	18 (13%)	5	15	
7	GG	137/138 (99%)	128 (93%)	9 (7%)	21	51	
8	AH	40/40 (100%)	39 (98%)	1 (2%)	55	85	
8	CH	40/40 (100%)	38 (95%)	2 (5%)	30	65	
8	EH	40/40 (100%)	37 (92%)	3 (8%)	17	44	
8	GH	40/40 (100%)	39 (98%)	1 (2%)	55	85	
9	AI	109/110 (99%)	105 (96%)	4 (4%)	41	77	
9	CI	109/110 (99%)	106 (97%)	3 (3%)	51	84	
9	EI	109/110 (99%)	106 (97%)	3 (3%)	51	84	
9	GI	109/110 (99%)	107 (98%)	2 (2%)	66	90	
10	AJ	116/116 (100%)	100 (86%)	16 (14%)	4	13	
10	CJ	116/116 (100%)	101 (87%)	15 (13%)	5	16	

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	EJ	116/116 (100%)	97 (84%)	19 (16%)	3	8
10	GJ	116/116 (100%)	104 (90%)	12 (10%)	9	26
11	AK	103/104 (99%)	92 (89%)	11 (11%)	8	24
11	CK	103/104 (99%)	87 (84%)	16 (16%)	3	10
11	EK	103/104 (99%)	87 (84%)	16 (16%)	3	10
11	GK	103/104 (99%)	90 (87%)	13 (13%)	5	16
12	AL	102/103 (99%)	95 (93%)	7 (7%)	19	48
12	CL	102/103 (99%)	94 (92%)	8 (8%)	16	41
12	EL	102/103 (99%)	96 (94%)	6 (6%)	24	58
12	GL	102/103 (99%)	96 (94%)	6 (6%)	24	58
13	AM	109/109 (100%)	93 (85%)	16 (15%)	4	11
13	CM	109/109 (100%)	98 (90%)	11 (10%)	9	28
13	EM	109/109 (100%)	100 (92%)	9 (8%)	14	38
13	GM	109/109 (100%)	103 (94%)	6 (6%)	27	61
14	AN	100/103 (97%)	93 (93%)	7 (7%)	19	47
14	CN	100/103 (97%)	96 (96%)	4 (4%)	38	74
14	EN	100/103 (97%)	96 (96%)	4 (4%)	38	74
14	GN	100/103 (97%)	93 (93%)	7 (7%)	19	47
15	AO	86/87 (99%)	78 (91%)	8 (9%)	11	32
15	CO	86/87 (99%)	80 (93%)	6 (7%)	19	47
15	EO	86/87 (99%)	81 (94%)	5 (6%)	25	58
15	GO	86/87 (99%)	81 (94%)	5 (6%)	25	58
16	AP	99/100 (99%)	91 (92%)	8 (8%)	15	39
16	CP	99/100 (99%)	90 (91%)	9 (9%)	12	34
16	EP	99/100 (99%)	88 (89%)	11 (11%)	8	22
16	GP	99/100 (99%)	90 (91%)	9 (9%)	12	34
17	AQ	89/90 (99%)	81 (91%)	8 (9%)	12	34
17	CQ	89/90 (99%)	84 (94%)	5 (6%)	26	60
17	EQ	89/90 (99%)	83 (93%)	6 (7%)	20	50
17	GQ	89/90 (99%)	83 (93%)	6 (7%)	20	50
18	AR	84/84 (100%)	78 (93%)	6 (7%)	18	47

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
18	CR	84/84 (100%)	79 (94%)	5 (6%)	24	57
18	ER	84/84 (100%)	76 (90%)	8 (10%)	11	31
18	GR	84/84 (100%)	79 (94%)	5 (6%)	24	57
19	AS	93/93 (100%)	84 (90%)	9 (10%)	10	30
19	CS	93/93 (100%)	86 (92%)	7 (8%)	17	44
19	ES	93/93 (100%)	84 (90%)	9 (10%)	10	30
19	GS	93/93 (100%)	88 (95%)	5 (5%)	27	62
20	AT	80/84 (95%)	77 (96%)	3 (4%)	40	76
20	CT	80/84 (95%)	75 (94%)	5 (6%)	22	54
20	ET	80/84 (95%)	74 (92%)	6 (8%)	17	44
20	GT	80/84 (95%)	77 (96%)	3 (4%)	40	76
21	AU	83/85 (98%)	76 (92%)	7 (8%)	14	37
21	CU	83/85 (98%)	80 (96%)	3 (4%)	42	78
21	EU	83/85 (98%)	78 (94%)	5 (6%)	24	57
21	GU	83/85 (98%)	79 (95%)	4 (5%)	31	67
22	AV	78/78 (100%)	75 (96%)	3 (4%)	40	76
22	CV	78/78 (100%)	73 (94%)	5 (6%)	22	53
22	EV	78/78 (100%)	75 (96%)	3 (4%)	40	76
22	GV	78/78 (100%)	77 (99%)	1 (1%)	76	94
23	AW	59/63 (94%)	53 (90%)	6 (10%)	9	27
23	CW	59/63 (94%)	55 (93%)	4 (7%)	20	49
23	EW	59/63 (94%)	49 (83%)	10 (17%)	2	8
23	GW	59/63 (94%)	57 (97%)	2 (3%)	44	79
24	AX	67/68 (98%)	61 (91%)	6 (9%)	12	34
24	CX	67/68 (98%)	60 (90%)	7 (10%)	9	26
24	EX	67/68 (98%)	57 (85%)	10 (15%)	4	11
24	GX	67/68 (98%)	63 (94%)	4 (6%)	24	57
25	AY	55/55 (100%)	52 (94%)	3 (6%)	27	61
25	CY	55/55 (100%)	51 (93%)	4 (7%)	17	45
25	EY	55/55 (100%)	50 (91%)	5 (9%)	12	34
25	GY	55/55 (100%)	52 (94%)	3 (6%)	27	61

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	AZ	48/49 (98%)	40 (83%)	8 (17%)	3	8
26	CZ	48/49 (98%)	39 (81%)	9 (19%)	2	6
26	EZ	48/49 (98%)	41 (85%)	7 (15%)	4	12
26	GZ	48/49 (98%)	46 (96%)	2 (4%)	36	73
27	A0	47/48 (98%)	46 (98%)	1 (2%)	61	88
27	C0	47/48 (98%)	47 (100%)	0	100	100
27	E0	47/48 (98%)	46 (98%)	1 (2%)	61	88
27	G0	47/48 (98%)	45 (96%)	2 (4%)	35	71
28	A1	45/49 (92%)	42 (93%)	3 (7%)	20	50
28	C1	45/49 (92%)	42 (93%)	3 (7%)	20	50
28	E1	45/49 (92%)	42 (93%)	3 (7%)	20	50
28	G1	45/49 (92%)	43 (96%)	2 (4%)	35	70
29	A2	38/38 (100%)	35 (92%)	3 (8%)	15	41
29	C2	38/38 (100%)	34 (90%)	4 (10%)	8	25
29	E2	38/38 (100%)	36 (95%)	2 (5%)	28	63
29	G2	38/38 (100%)	35 (92%)	3 (8%)	15	41
30	A3	51/52 (98%)	46 (90%)	5 (10%)	10	30
30	C3	51/52 (98%)	49 (96%)	2 (4%)	39	75
30	E3	51/52 (98%)	47 (92%)	4 (8%)	16	41
30	G3	51/52 (98%)	48 (94%)	3 (6%)	24	58
31	A4	34/34 (100%)	31 (91%)	3 (9%)	12	35
31	C4	34/34 (100%)	32 (94%)	2 (6%)	24	58
31	E4	34/34 (100%)	32 (94%)	2 (6%)	24	58
31	G4	34/34 (100%)	33 (97%)	1 (3%)	50	83
32	A5	112/123 (91%)	93 (83%)	19 (17%)	2	7
32	C5	112/123 (91%)	95 (85%)	17 (15%)	3	10
32	E5	111/123 (90%)	93 (84%)	18 (16%)	3	9
33	A6	26/85 (31%)	22 (85%)	4 (15%)	3	10
34	BB	180/199 (90%)	170 (94%)	10 (6%)	26	60
34	DB	180/199 (90%)	170 (94%)	10 (6%)	26	60
34	FB	180/199 (90%)	171 (95%)	9 (5%)	30	65

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	HB	180/199 (90%)	174 (97%)	6 (3%)	45	80
36	BC	170/190 (90%)	156 (92%)	14 (8%)	14	39
36	DC	170/190 (90%)	162 (95%)	8 (5%)	32	68
36	FC	170/190 (90%)	158 (93%)	12 (7%)	18	47
36	HC	170/190 (90%)	163 (96%)	7 (4%)	37	73
37	BD	172/173 (99%)	165 (96%)	7 (4%)	37	73
37	DD	172/173 (99%)	163 (95%)	9 (5%)	29	64
37	FD	172/173 (99%)	165 (96%)	7 (4%)	37	73
37	HD	172/173 (99%)	167 (97%)	5 (3%)	50	83
38	BE	113/126 (90%)	108 (96%)	5 (4%)	35	70
38	DE	113/126 (90%)	109 (96%)	4 (4%)	43	78
38	FE	113/126 (90%)	107 (95%)	6 (5%)	28	63
38	HE	113/126 (90%)	105 (93%)	8 (7%)	18	47
39	BF	89/116 (77%)	82 (92%)	7 (8%)	15	41
39	DF	87/116 (75%)	86 (99%)	1 (1%)	80	95
39	FF	87/116 (75%)	82 (94%)	5 (6%)	25	59
39	HF	87/116 (75%)	85 (98%)	2 (2%)	58	87
40	BG	124/147 (84%)	115 (93%)	9 (7%)	17	45
40	DG	124/147 (84%)	123 (99%)	1 (1%)	86	96
40	FG	124/147 (84%)	122 (98%)	2 (2%)	70	91
40	HG	124/147 (84%)	124 (100%)	0	100	100
41	BH	104/105 (99%)	96 (92%)	8 (8%)	16	42
41	DH	104/105 (99%)	97 (93%)	7 (7%)	20	50
41	FH	104/105 (99%)	99 (95%)	5 (5%)	31	67
41	HH	104/105 (99%)	97 (93%)	7 (7%)	20	50
42	BI	105/107 (98%)	96 (91%)	9 (9%)	13	36
42	DI	105/107 (98%)	101 (96%)	4 (4%)	40	76
42	FI	105/107 (98%)	96 (91%)	9 (9%)	13	36
42	HI	105/107 (98%)	102 (97%)	3 (3%)	50	83
43	BJ	86/90 (96%)	83 (96%)	3 (4%)	43	78
43	DJ	86/90 (96%)	82 (95%)	4 (5%)	32	68

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
43	FJ	86/90 (96%)	83 (96%)	3 (4%)	43	78
43	HJ	86/90 (96%)	81 (94%)	5 (6%)	25	58
44	BK	90/99 (91%)	85 (94%)	5 (6%)	26	60
44	DK	90/99 (91%)	87 (97%)	3 (3%)	45	80
44	FK	90/99 (91%)	81 (90%)	9 (10%)	9	28
44	HK	90/99 (91%)	83 (92%)	7 (8%)	16	41
45	BL	103/104 (99%)	96 (93%)	7 (7%)	20	49
45	DL	103/104 (99%)	96 (93%)	7 (7%)	20	49
45	FL	103/104 (99%)	96 (93%)	7 (7%)	20	49
45	HL	103/104 (99%)	99 (96%)	4 (4%)	39	75
46	BM	92/96 (96%)	88 (96%)	4 (4%)	35	71
46	DM	92/96 (96%)	92 (100%)	0	100	100
46	FM	92/96 (96%)	91 (99%)	1 (1%)	80	95
46	HM	92/96 (96%)	91 (99%)	1 (1%)	80	95
47	BN	79/84 (94%)	75 (95%)	4 (5%)	29	65
47	DN	79/84 (94%)	78 (99%)	1 (1%)	76	94
47	FN	79/84 (94%)	76 (96%)	3 (4%)	40	76
47	HN	79/84 (94%)	79 (100%)	0	100	100
48	BO	76/77 (99%)	72 (95%)	4 (5%)	28	63
48	DO	76/77 (99%)	74 (97%)	2 (3%)	54	85
48	FO	76/77 (99%)	71 (93%)	5 (7%)	21	51
48	HO	76/77 (99%)	74 (97%)	2 (3%)	54	85
49	BP	65/65 (100%)	61 (94%)	4 (6%)	23	55
49	DP	65/65 (100%)	62 (95%)	3 (5%)	33	69
49	FP	65/65 (100%)	64 (98%)	1 (2%)	72	92
49	HP	65/65 (100%)	63 (97%)	2 (3%)	47	82
50	BQ	74/78 (95%)	66 (89%)	8 (11%)	8	24
50	DQ	74/78 (95%)	71 (96%)	3 (4%)	37	73
50	FQ	74/78 (95%)	72 (97%)	2 (3%)	52	84
50	HQ	74/78 (95%)	68 (92%)	6 (8%)	15	39
51	BR	48/65 (74%)	47 (98%)	1 (2%)	61	88

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
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%)	13	36
52	DS	70/79 (89%)	67 (96%)	3 (4%)	35	71
52	FS	70/79 (89%)	67 (96%)	3 (4%)	35	71
52	HS	70/79 (89%)	69 (99%)	1 (1%)	74	93
53	BT	65/66 (98%)	60 (92%)	5 (8%)	16	42
53	DT	65/66 (98%)	58 (89%)	7 (11%)	8	24
53	FT	65/66 (98%)	58 (89%)	7 (11%)	8	24
53	HT	65/66 (98%)	57 (88%)	8 (12%)	6	17
54	BU	44/61 (72%)	36 (82%)	8 (18%)	2	6
54	DU	44/61 (72%)	42 (96%)	2 (4%)	34	70
54	FU	44/61 (72%)	39 (89%)	5 (11%)	7	21
54	HU	44/61 (72%)	43 (98%)	1 (2%)	58	87
55	BV	568/578 (98%)	521 (92%)	47 (8%)	14	38
55	DV	568/578 (98%)	527 (93%)	41 (7%)	18	46
55	FV	568/578 (98%)	528 (93%)	40 (7%)	19	47
55	HV	568/578 (98%)	535 (94%)	33 (6%)	25	58
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%)	20	49

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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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
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

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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%)
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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
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

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
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	1.29	1 (12%)	7,8,10	1.43	1 (14%)
56	DPP	BW	2	56	3,5,6	0.95	0	1,5,7	3.25	1 (100%)
56	UAL	BW	5	56	7,8,9	2.58	4 (57%)	4,9,11	3.84	1 (25%)
56	5OH	BW	6	56	7,12,13	1.60	2 (28%)	7,16,18	2.35	4 (57%)
56	KBE	DW	1	56	8,8,9	1.04	1 (12%)	7,8,10	2.35	3 (42%)
56	DPP	DW	2	56	3,5,6	0.88	0	1,5,7	2.34	1 (100%)
56	UAL	DW	5	56	7,8,9	2.55	4 (57%)	4,9,11	3.78	2 (50%)
56	5OH	DW	6	56	7,12,13	1.62	2 (28%)	7,16,18	1.67	3 (42%)
56	KBE	FW	1	56	8,8,9	1.02	1 (12%)	7,8,10	1.27	1 (14%)
56	DPP	FW	2	56	3,5,6	0.98	0	1,5,7	2.84	1 (100%)
56	UAL	FW	5	56	7,8,9	2.48	4 (57%)	4,9,11	4.43	1 (25%)
56	5OH	FW	6	56	7,12,13	1.83	2 (28%)	7,16,18	1.69	2 (28%)
56	KBE	HW	1	56	8,8,9	1.03	1 (12%)	7,8,10	0.99	1 (14%)
56	DPP	HW	2	56	3,5,6	0.94	0	1,5,7	2.96	1 (100%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
56	UAL	HW	5	56	7,8,9	3.08	4 (57%)	4,9,11	4.06	3 (75%)
56	5OH	HW	6	56	7,12,13	1.58	2 (28%)	7,16,18	1.54	2 (28%)

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

All (28) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	FW	6	5OH	CR-CB	-3.07	1.47	1.53
56	BW	1	KBE	CB-N	-2.66	1.39	1.47
56	BW	6	5OH	CR-CB	-2.45	1.48	1.53
56	HW	1	KBE	CB-N	-2.42	1.40	1.47
56	FW	1	KBE	CB-N	-2.25	1.40	1.47
56	DW	1	KBE	CB-N	-2.22	1.41	1.47
56	DW	6	5OH	CR-CB	-2.09	1.49	1.53
56	HW	6	5OH	CR-CB	-2.06	1.49	1.53
56	HW	5	UAL	CA-N	2.45	1.41	1.34
56	FW	5	UAL	C-CA	2.71	1.49	1.45
56	FW	5	UAL	CA-N	2.75	1.42	1.34
56	DW	5	UAL	C-CA	2.75	1.49	1.45
56	FW	6	5OH	CQ-NQ	2.96	1.41	1.34

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	BW	5	UAL	CA-N	3.02	1.42	1.34
56	BW	5	UAL	C1-N1	3.06	1.45	1.40
56	DW	5	UAL	CA-N	3.06	1.43	1.34
56	BW	6	5OH	CQ-NQ	3.14	1.42	1.34
56	FW	5	UAL	C1-N1	3.19	1.45	1.40
56	DW	6	5OH	CQ-NQ	3.20	1.42	1.34
56	BW	5	UAL	C-CA	3.20	1.49	1.45
56	HW	6	5OH	CQ-NQ	3.32	1.42	1.34
56	DW	5	UAL	C1-N1	3.42	1.46	1.40
56	DW	5	UAL	CB-N1	3.98	1.45	1.35
56	BW	5	UAL	CB-N1	4.19	1.46	1.35
56	FW	5	UAL	CB-N1	4.20	1.46	1.35
56	HW	5	UAL	C1-N1	4.24	1.47	1.40
56	HW	5	UAL	CB-N1	4.46	1.47	1.35
56	HW	5	UAL	C-CA	4.68	1.52	1.45

All (28) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	FW	5	UAL	O-C-CA	-8.62	112.69	125.40
56	BW	5	UAL	O-C-CA	-7.50	114.35	125.40
56	HW	5	UAL	O-C-CA	-7.43	114.45	125.40
56	DW	5	UAL	O-C-CA	-7.01	115.06	125.40
56	BW	6	5OH	O-C-CA	-3.85	115.26	125.44
56	BW	6	5OH	CR-CB-CA	-3.32	109.29	112.71
56	BW	2	DPP	O-C-CA	-3.25	117.02	125.49
56	HW	2	DPP	O-C-CA	-2.96	117.78	125.49
56	FW	2	DPP	O-C-CA	-2.84	118.10	125.49
56	FW	6	5OH	CR-CB-CA	-2.62	110.01	112.71
56	FW	6	5OH	O-C-CA	-2.62	118.52	125.44
56	DW	6	5OH	CR-CB-CA	-2.59	110.04	112.71
56	HW	6	5OH	O-C-CA	-2.55	118.69	125.44
56	DW	1	KBE	CB-CA-C	-2.48	108.39	112.32
56	HW	5	UAL	O2-C1-N2	-2.46	119.09	123.30
56	DW	2	DPP	O-C-CA	-2.34	119.40	125.49
56	DW	6	5OH	O-C-CA	-2.32	119.30	125.44
56	HW	1	KBE	O-C-CA	-2.16	117.34	125.24
56	BW	1	KBE	CD-CG-CB	-2.13	108.20	115.16
56	FW	1	KBE	CG-CB-CA	-2.07	109.15	111.10
56	DW	1	KBE	O-C-CA	-2.03	117.84	125.24
56	BW	6	5OH	NQ-CQ-NP	2.06	121.50	116.64
56	HW	5	UAL	N2-C1-N1	2.12	120.14	115.57

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	DW	5	UAL	N2-C1-N1	2.13	120.15	115.57
56	DW	6	5OH	CS-CR-CB	2.23	115.43	111.72
56	HW	6	5OH	C-CA-N	2.60	115.27	109.83
56	BW	6	5OH	C-CA-N	2.71	115.49	109.83
56	DW	1	KBE	CG-CB-CA	5.27	116.05	111.10

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.

12 monomers are involved in 15 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	BW	1	KBE	2	0
56	BW	5	UAL	2	0
56	BW	6	5OH	1	0
56	DW	1	KBE	2	0
56	DW	5	UAL	2	0
56	DW	6	5OH	1	0
56	FW	1	KBE	1	0
56	FW	5	UAL	1	0
56	FW	6	5OH	1	0
56	HW	1	KBE	3	0
56	HW	2	DPP	1	0
56	HW	6	5OH	2	0

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

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	26,34,34	2.11	6 (23%)	34,54,54	2.37	9 (26%)
59	GCP	DV	801	57	26,34,34	2.04	6 (23%)	34,54,54	2.45	10 (29%)
59	GCP	FV	801	57	26,34,34	2.14	5 (19%)	34,54,54	2.11	11 (32%)
59	GCP	HV	801	57	26,34,34	2.06	5 (19%)	34,54,54	2.38	13 (38%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
59	GCP	BV	801	57	-	0/15/38/38	0/3/3/3
59	GCP	DV	801	57	-	0/15/38/38	0/3/3/3
59	GCP	FV	801	57	-	0/15/38/38	0/3/3/3
59	GCP	HV	801	57	-	0/15/38/38	0/3/3/3

All (22) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	FV	801	GCP	C2'-C3'	-4.17	1.42	1.53
59	DV	801	GCP	C2'-C3'	-4.15	1.42	1.53
59	HV	801	GCP	C2'-C3'	-3.93	1.42	1.53
59	BV	801	GCP	C2'-C3'	-3.91	1.42	1.53
59	BV	801	GCP	PB-O3A	-3.64	1.54	1.58
59	BV	801	GCP	C3'-C4'	-3.04	1.44	1.53
59	DV	801	GCP	C3'-C4'	-3.03	1.44	1.53
59	HV	801	GCP	C3'-C4'	-2.75	1.45	1.53
59	DV	801	GCP	PB-O3A	-2.72	1.55	1.58
59	FV	801	GCP	PB-O3A	-2.70	1.55	1.58
59	FV	801	GCP	C3'-C4'	-2.60	1.46	1.53
59	BV	801	GCP	C5'-C4'	-2.05	1.45	1.51
59	HV	801	GCP	C5'-C4'	-2.04	1.45	1.51
59	DV	801	GCP	C5'-C4'	-2.02	1.45	1.51
59	DV	801	GCP	O4'-C1'	5.02	1.47	1.41
59	BV	801	GCP	C2-N2	5.21	1.44	1.34
59	DV	801	GCP	C2-N2	5.22	1.44	1.34
59	BV	801	GCP	O4'-C1'	5.37	1.48	1.41

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	FV	801	GCP	C2-N2	5.42	1.45	1.34
59	HV	801	GCP	O4'-C1'	5.50	1.48	1.41
59	HV	801	GCP	C2-N2	5.65	1.45	1.34
59	FV	801	GCP	O4'-C1'	6.18	1.49	1.41

All (43) 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	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	BV	801	GCP	PA-O3A-PB	-6.89	113.39	132.73
59	DV	801	GCP	PA-O3A-PB	-6.19	115.35	132.73
59	FV	801	GCP	PA-O3A-PB	-5.98	115.94	132.73
59	HV	801	GCP	N3-C2-N1	-5.52	119.04	127.44
59	FV	801	GCP	N3-C2-N1	-5.22	119.50	127.44
59	FV	801	GCP	C4'-O4'-C1'	-5.04	104.18	109.72
59	BV	801	GCP	N3-C2-N1	-4.84	120.06	127.44
59	DV	801	GCP	N3-C2-N1	-4.80	120.13	127.44
59	HV	801	GCP	PA-O3A-PB	-3.67	122.42	132.73
59	HV	801	GCP	C1'-N9-C4	-3.65	121.44	126.94
59	DV	801	GCP	C1'-N9-C4	-2.98	122.44	126.94
59	DV	801	GCP	C5-C6-N1	-2.81	119.75	123.59
59	BV	801	GCP	C5-C6-N1	-2.73	119.85	123.59
59	HV	801	GCP	C6-C5-C4	-2.66	117.72	120.90
59	HV	801	GCP	C5-C6-N1	-2.51	120.16	123.59
59	HV	801	GCP	C4-C5-N7	-2.44	107.24	109.48
59	DV	801	GCP	C2'-C1'-N9	-2.43	110.58	114.29
59	BV	801	GCP	C1'-N9-C4	-2.38	123.35	126.94
59	FV	801	GCP	C4-C5-N7	-2.36	107.31	109.48
59	FV	801	GCP	C1'-N9-C4	-2.31	123.45	126.94
59	DV	801	GCP	C6-C5-C4	-2.27	118.19	120.90
59	BV	801	GCP	C4-C5-N7	-2.23	107.42	109.48
59	HV	801	GCP	C2'-C1'-N9	-2.20	110.93	114.29
59	FV	801	GCP	C6-C5-C4	-2.13	118.35	120.90
59	FV	801	GCP	C5-C6-N1	-2.13	120.67	123.59
59	BV	801	GCP	O3G-PG-C3B	2.00	111.26	106.40
59	HV	801	GCP	N2-C2-N1	2.09	120.66	117.20
59	FV	801	GCP	C2'-C3'-C4'	2.15	107.03	102.61
59	DV	801	GCP	O3A-PA-O5'	2.19	108.74	102.94
59	HV	801	GCP	O3A-PA-O5'	2.21	108.79	102.94
59	FV	801	GCP	N2-C2-N1	2.21	120.87	117.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	FV	801	GCP	O3A-PA-O5'	2.24	108.87	102.94
59	HV	801	GCP	O4'-C4'-C3'	2.32	109.82	105.15
59	HV	801	GCP	O4'-C1'-N9	2.39	113.10	108.10
59	DV	801	GCP	C2'-C3'-C4'	2.42	107.59	102.61
59	BV	801	GCP	O3A-PA-O5'	2.58	109.79	102.94
59	FV	801	GCP	C6-N1-C2	2.79	119.81	115.94
59	BV	801	GCP	C6-N1-C2	3.15	120.31	115.94
59	DV	801	GCP	C6-N1-C2	3.25	120.45	115.94
59	HV	801	GCP	C6-N1-C2	3.59	120.92	115.94

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

4 monomers are involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	BV	801	GCP	1	0
59	DV	801	GCP	2	0
59	FV	801	GCP	2	0
59	HV	801	GCP	1	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data [i](#)

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

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	AB	118/120 (98%)	-0.45	0 <span>100</span> <span>100</span>	7, 25, 37, 49	0
1	CB	118/120 (98%)	-0.62	0 <span>100</span> <span>100</span>	19, 41, 55, 61	0
1	EB	118/120 (98%)	-0.37	0 <span>100</span> <span>100</span>	6, 27, 41, 51	0
1	GB	118/120 (98%)	0.04	1 (0%) <span>87</span> <span>86</span>	34, 57, 66, 70	0
2	AC	271/273 (99%)	-0.00	4 (1%) <span>76</span> <span>74</span>	2, 14, 26, 50	0
2	CC	271/273 (99%)	0.33	14 (5%) <span>31</span> <span>24</span>	14, 33, 45, 54	0
2	EC	271/273 (99%)	0.04	2 (0%) <span>89</span> <span>88</span>	3, 17, 30, 42	0
2	GC	271/273 (99%)	0.36	21 (7%) <span>16</span> <span>11</span>	12, 29, 43, 52	0
3	AA	2854/2904 (98%)	-0.05	41 (1%) <span>78</span> <span>76</span>	2, 14, 50, 79	0
3	CA	2854/2904 (98%)	-0.21	35 (1%) <span>81</span> <span>78</span>	8, 29, 57, 78	0
3	EA	2854/2904 (98%)	-0.06	42 (1%) <span>76</span> <span>74</span>	2, 16, 52, 83	0
3	GA	2854/2904 (98%)	-0.06	52 (1%) <span>71</span> <span>68</span>	10, 42, 64, 76	0
4	AD	209/209 (100%)	0.03	4 (1%) <span>70</span> <span>66</span>	2, 15, 35, 57	0
4	CD	209/209 (100%)	0.19	5 (2%) <span>62</span> <span>57</span>	5, 23, 42, 56	0
4	ED	209/209 (100%)	0.03	2 (0%) <span>84</span> <span>82</span>	2, 20, 40, 52	0
4	GD	209/209 (100%)	0.21	7 (3%) <span>50</span> <span>42</span>	10, 30, 46, 55	0
5	AE	201/201 (100%)	0.06	1 (0%) <span>91</span> <span>90</span>	3, 19, 40, 51	0
5	CE	201/201 (100%)	0.39	17 (8%) <span>13</span> <span>8</span>	9, 34, 47, 57	0
5	EE	201/201 (100%)	0.11	5 (2%) <span>61</span> <span>55</span>	2, 21, 43, 57	0
5	GE	201/201 (100%)	1.30	53 (26%) <span>1</span> <span>0</span>	25, 51, 61, 68	0
6	AF	177/179 (98%)	0.41	9 (5%) <span>32</span> <span>25</span>	19, 33, 50, 60	0
6	CF	177/179 (98%)	1.01	39 (22%) <span>1</span> <span>0</span>	31, 47, 56, 62	0
6	EF	177/179 (98%)	0.61	21 (11%) <span>6</span> <span>3</span>	16, 34, 49, 58	0
6	GF	177/179 (98%)	3.14	106 (59%) <span>0</span> <span>0</span>	47, 59, 67, 72	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
7	AG	176/177 (99%)	0.31	11 (6%) 23 17	9, 25, 46, 59	0
7	CG	176/177 (99%)	0.52	18 (10%) 9 5	18, 36, 51, 61	0
7	EG	176/177 (99%)	0.31	12 (6%) 20 14	16, 31, 44, 55	0
7	GG	176/177 (99%)	1.05	36 (20%) 1 1	26, 43, 54, 65	0
8	AH	50/50 (100%)	0.90	11 (22%) 1 0	16, 41, 55, 57	0
8	CH	50/50 (100%)	3.76	38 (76%) 0 0	46, 57, 64, 68	0
8	EH	50/50 (100%)	1.19	11 (22%) 1 0	14, 38, 56, 62	0
8	GH	50/50 (100%)	2.32	25 (50%) 0 0	39, 52, 61, 64	0
9	AI	141/142 (99%)	2.53	67 (47%) 0 0	31, 53, 66, 78	0
9	CI	141/142 (99%)	2.20	70 (49%) 0 0	36, 54, 63, 72	0
9	EI	141/142 (99%)	2.27	65 (46%) 0 0	32, 54, 66, 76	0
9	GI	141/142 (99%)	4.04	114 (80%) 0 0	42, 59, 69, 80	0
10	AJ	142/142 (100%)	0.04	1 (0%) 89 88	4, 11, 29, 39	0
10	CJ	142/142 (100%)	0.23	3 (2%) 67 62	8, 24, 37, 54	0
10	EJ	142/142 (100%)	0.20	4 (2%) 56 50	5, 14, 28, 43	0
10	GJ	142/142 (100%)	0.37	6 (4%) 40 33	21, 36, 47, 55	0
11	AK	122/123 (99%)	0.12	1 (0%) 87 86	4, 10, 25, 50	0
11	CK	122/123 (99%)	0.07	2 (1%) 74 72	9, 18, 35, 42	0
11	EK	122/123 (99%)	0.19	4 (3%) 50 42	7, 18, 34, 47	0
11	GK	122/123 (99%)	0.66	10 (8%) 14 9	12, 24, 39, 53	0
12	AL	143/144 (99%)	0.17	4 (2%) 56 50	2, 18, 34, 39	0
12	CL	143/144 (99%)	0.53	14 (9%) 10 6	11, 31, 46, 54	0
12	EL	143/144 (99%)	0.26	5 (3%) 48 40	2, 18, 37, 49	0
12	GL	143/144 (99%)	1.79	61 (42%) 0 0	29, 46, 59, 65	0
13	AM	136/136 (100%)	0.17	2 (1%) 76 74	2, 9, 25, 48	0
13	CM	136/136 (100%)	0.35	5 (3%) 45 38	10, 21, 36, 52	0
13	EM	136/136 (100%)	0.15	2 (1%) 76 74	4, 13, 29, 43	0
13	GM	136/136 (100%)	1.47	40 (29%) 1 0	28, 44, 56, 60	0
14	AN	120/127 (94%)	0.18	2 (1%) 73 70	5, 13, 25, 56	0
14	CN	120/127 (94%)	0.22	1 (0%) 87 86	13, 24, 35, 56	0
14	EN	120/127 (94%)	0.21	3 (2%) 61 55	9, 19, 31, 59	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
14	GN	120/127 (94%)	0.25	4 (3%) 50 42	16, 28, 37, 58	0
15	AO	116/117 (99%)	0.05	2 (1%) 73 70	12, 24, 37, 46	0
15	CO	116/117 (99%)	0.58	12 (10%) 9 5	29, 40, 53, 59	0
15	EO	116/117 (99%)	0.34	5 (4%) 39 32	14, 27, 40, 44	0
15	GO	116/117 (99%)	1.77	44 (37%) 0 0	39, 52, 58, 65	0
16	AP	114/115 (99%)	0.05	2 (1%) 71 68	5, 19, 36, 44	0
16	CP	114/115 (99%)	0.18	3 (2%) 59 54	11, 25, 41, 54	0
16	EP	114/115 (99%)	0.02	1 (0%) 85 84	14, 26, 41, 60	0
16	GP	114/115 (99%)	0.14	4 (3%) 48 40	13, 27, 42, 51	0
17	AQ	117/118 (99%)	0.11	3 (2%) 59 54	3, 10, 26, 53	0
17	CQ	117/118 (99%)	0.17	3 (2%) 59 54	9, 23, 35, 54	0
17	EQ	117/118 (99%)	0.16	3 (2%) 59 54	2, 12, 27, 52	0
17	GQ	117/118 (99%)	0.94	19 (16%) 3 1	24, 41, 53, 58	0
18	AR	103/103 (100%)	0.02	3 (2%) 55 49	2, 18, 34, 47	0
18	CR	103/103 (100%)	0.30	4 (3%) 43 36	12, 31, 45, 55	0
18	ER	103/103 (100%)	0.28	5 (4%) 33 27	3, 23, 42, 49	0
18	GR	103/103 (100%)	1.53	34 (33%) 0 0	30, 47, 56, 64	0
19	AS	110/110 (100%)	0.19	2 (1%) 71 68	3, 12, 32, 54	0
19	CS	110/110 (100%)	0.42	6 (5%) 29 22	13, 22, 40, 47	0
19	ES	110/110 (100%)	0.31	3 (2%) 58 52	5, 14, 36, 51	0
19	GS	110/110 (100%)	1.01	21 (19%) 2 1	20, 39, 50, 55	0
20	AT	93/100 (93%)	0.64	10 (10%) 8 4	7, 24, 51, 55	0
20	CT	93/100 (93%)	1.00	16 (17%) 2 1	22, 36, 52, 56	0
20	ET	93/100 (93%)	0.88	15 (16%) 3 1	13, 26, 50, 58	0
20	GT	93/100 (93%)	1.80	41 (44%) 0 0	26, 45, 57, 64	0
21	AU	102/104 (98%)	0.57	6 (5%) 26 19	9, 22, 41, 62	0
21	CU	102/104 (98%)	1.35	28 (27%) 1 0	25, 36, 52, 65	0
21	EU	102/104 (98%)	0.60	10 (9%) 10 6	14, 30, 44, 59	0
21	GU	102/104 (98%)	2.73	63 (61%) 0 0	35, 53, 61, 68	0
22	AV	94/94 (100%)	-0.23	0 100 100	8, 23, 40, 46	0
22	CV	94/94 (100%)	-0.14	0 100 100	22, 31, 44, 52	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
22	EV	94/94 (100%)	-0.08	2 (2%) 67 62	12, 23, 40, 48	0
22	GV	94/94 (100%)	0.89	17 (18%) 2 1	36, 49, 59, 61	0
23	AW	79/85 (92%)	0.76	13 (16%) 2 1	8, 19, 41, 49	0
23	CW	79/85 (92%)	0.89	12 (15%) 3 1	18, 32, 48, 60	0
23	EW	79/85 (92%)	0.75	11 (13%) 4 2	6, 20, 38, 51	0
23	GW	79/85 (92%)	2.42	41 (51%) 0 0	35, 49, 59, 71	0
24	AX	77/78 (98%)	0.36	2 (2%) 59 54	7, 17, 37, 41	0
24	CX	77/78 (98%)	1.22	19 (24%) 1 0	22, 37, 49, 54	0
24	EX	77/78 (98%)	0.45	0 100 100	5, 15, 36, 37	0
24	GX	77/78 (98%)	1.28	21 (27%) 1 0	26, 44, 53, 58	0
25	AY	63/63 (100%)	0.54	7 (11%) 7 4	16, 34, 48, 52	0
25	CY	63/63 (100%)	1.08	13 (20%) 1 1	30, 43, 55, 62	0
25	EY	63/63 (100%)	0.90	13 (20%) 1 1	18, 33, 45, 56	0
25	GY	63/63 (100%)	2.55	37 (58%) 0 0	44, 51, 58, 60	0
26	AZ	58/59 (98%)	0.57	1 (1%) 73 70	4, 13, 39, 51	0
26	CZ	58/59 (98%)	0.68	3 (5%) 31 24	11, 26, 46, 59	0
26	EZ	58/59 (98%)	0.31	2 (3%) 49 41	3, 15, 37, 47	0
26	GZ	58/59 (98%)	1.87	25 (43%) 0 0	25, 48, 58, 63	0
27	A0	56/57 (98%)	0.45	4 (7%) 19 13	3, 19, 42, 51	0
27	C0	56/57 (98%)	0.29	2 (3%) 46 38	10, 27, 44, 55	0
27	E0	56/57 (98%)	0.33	3 (5%) 29 23	3, 22, 40, 47	0
27	G0	56/57 (98%)	0.63	7 (12%) 5 3	18, 35, 49, 57	0
28	A1	50/55 (90%)	0.68	5 (10%) 9 5	13, 24, 37, 43	0
28	C1	50/55 (90%)	1.64	14 (28%) 1 0	25, 39, 50, 51	0
28	E1	50/55 (90%)	0.70	4 (8%) 15 10	12, 22, 36, 43	0
28	G1	50/55 (90%)	2.74	28 (56%) 0 0	38, 50, 60, 65	0
29	A2	46/46 (100%)	0.10	2 (4%) 39 32	4, 8, 18, 44	0
29	C2	46/46 (100%)	0.48	2 (4%) 39 32	17, 24, 34, 43	0
29	E2	46/46 (100%)	0.07	0 100 100	5, 11, 21, 36	0
29	G2	46/46 (100%)	1.03	6 (13%) 5 3	20, 36, 43, 54	0
30	A3	64/65 (98%)	0.18	0 100 100	3, 10, 18, 30	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
30	C3	64/65 (98%)	0.67	6 (9%) 11 6	15, 28, 36, 39	0
30	E3	64/65 (98%)	0.32	1 (1%) 74 72	4, 9, 19, 31	0
30	G3	64/65 (98%)	1.66	19 (29%) 1 0	32, 43, 52, 60	0
31	A4	38/38 (100%)	0.18	0 100 100	5, 11, 25, 27	0
31	C4	38/38 (100%)	0.32	0 100 100	14, 23, 37, 39	0
31	E4	38/38 (100%)	0.11	0 100 100	7, 16, 27, 30	0
31	G4	38/38 (100%)	0.72	3 (7%) 15 10	24, 37, 50, 53	0
32	A5	148/165 (89%)	1.84	53 (35%) 0 0	30, 49, 61, 72	0
32	C5	148/165 (89%)	2.52	70 (47%) 0 0	37, 54, 64, 72	0
32	E5	145/165 (87%)	3.19	92 (63%) 0 0	36, 53, 62, 67	0
33	A6	30/121 (24%)	3.18	15 (50%) 0 0	47, 53, 62, 65	0
34	BB	218/241 (90%)	0.77	31 (14%) 4 2	24, 41, 56, 66	0
34	DB	218/241 (90%)	1.79	87 (39%) 0 0	35, 52, 61, 69	0
34	FB	218/241 (90%)	0.74	34 (15%) 3 1	25, 43, 56, 66	0
34	HB	218/241 (90%)	2.19	103 (47%) 0 0	42, 56, 66, 71	0
35	BA	1533/1542 (99%)	-0.20	13 (0%) 87 86	7, 21, 52, 78	0
35	DA	1533/1542 (99%)	-0.20	19 (1%) 81 78	13, 42, 64, 78	0
35	FA	1533/1542 (99%)	-0.15	22 (1%) 78 76	9, 31, 57, 75	0
35	HA	1533/1542 (99%)	0.36	129 (8%) 14 9	20, 52, 71, 78	0
36	BC	206/233 (88%)	-0.06	0 100 100	8, 26, 39, 57	0
36	DC	206/233 (88%)	0.61	20 (9%) 10 6	30, 45, 52, 59	0
36	FC	206/233 (88%)	0.26	4 (1%) 70 66	15, 30, 44, 57	0
36	HC	206/233 (88%)	2.18	100 (48%) 0 0	36, 52, 61, 67	0
37	BD	205/206 (99%)	0.35	13 (6%) 23 17	12, 28, 44, 51	0
37	DD	205/206 (99%)	0.39	15 (7%) 18 12	14, 30, 47, 55	0
37	FD	205/206 (99%)	1.50	60 (29%) 1 0	29, 45, 56, 68	0
37	HD	205/206 (99%)	1.01	44 (21%) 1 0	32, 45, 56, 65	0
38	BE	150/167 (89%)	0.06	4 (2%) 58 52	11, 26, 45, 63	0
38	DE	150/167 (89%)	0.10	3 (2%) 68 64	24, 38, 51, 60	0
38	FE	150/167 (89%)	0.28	11 (7%) 18 12	16, 35, 49, 64	0
38	HE	150/167 (89%)	1.24	45 (30%) 1 0	34, 49, 56, 59	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
39	BF	102/135 (75%)	-0.00	1 (0%) 84 82	15, 30, 42, 51	0
39	DF	100/135 (74%)	1.58	32 (32%) 1 0	42, 52, 59, 63	0
39	FF	100/135 (74%)	0.24	4 (4%) 42 35	13, 32, 44, 49	0
39	HF	100/135 (74%)	2.43	51 (51%) 0 0	46, 56, 65, 69	0
40	BG	151/179 (84%)	0.30	10 (6%) 22 16	10, 27, 46, 60	0
40	DG	151/179 (84%)	1.86	62 (41%) 0 0	41, 54, 61, 67	0
40	FG	151/179 (84%)	0.73	18 (11%) 6 3	15, 32, 50, 59	0
40	HG	151/179 (84%)	3.35	92 (60%) 0 0	46, 58, 66, 69	0
41	BH	129/130 (99%)	0.17	3 (2%) 64 59	15, 26, 40, 58	0
41	DH	129/130 (99%)	0.80	22 (17%) 2 1	27, 43, 55, 61	0
41	FH	129/130 (99%)	0.30	7 (5%) 29 23	19, 35, 47, 55	0
41	HH	129/130 (99%)	1.88	54 (41%) 0 0	36, 50, 58, 64	0
42	BI	127/130 (97%)	0.45	7 (5%) 29 22	8, 25, 47, 58	0
42	DI	127/130 (97%)	2.33	64 (50%) 0 0	41, 55, 62, 68	0
42	FI	127/130 (97%)	0.36	8 (6%) 23 17	9, 27, 50, 56	0
42	HI	127/130 (97%)	2.48	69 (54%) 0 0	46, 57, 65, 68	0
43	BJ	98/103 (95%)	0.74	12 (12%) 5 3	9, 35, 56, 61	0
43	DJ	98/103 (95%)	1.65	35 (35%) 0 0	38, 52, 60, 68	0
43	FJ	98/103 (95%)	0.92	17 (17%) 2 1	16, 31, 53, 59	0
43	HJ	98/103 (95%)	2.71	64 (65%) 0 0	40, 54, 63, 66	0
44	BK	117/129 (90%)	0.21	7 (5%) 25 18	14, 26, 40, 52	0
44	DK	117/129 (90%)	1.31	31 (26%) 1 0	38, 52, 60, 62	0
44	FK	117/129 (90%)	-0.04	4 (3%) 49 41	13, 24, 36, 41	0
44	HK	117/129 (90%)	2.85	71 (60%) 0 0	45, 58, 68, 73	0
45	BL	123/124 (99%)	0.07	2 (1%) 74 72	5, 12, 29, 52	0
45	DL	123/124 (99%)	0.22	7 (5%) 27 21	12, 24, 40, 49	0
45	FL	123/124 (99%)	0.19	3 (2%) 62 57	11, 26, 43, 51	0
45	HL	123/124 (99%)	0.98	22 (17%) 2 1	24, 41, 53, 63	0
46	BM	114/118 (96%)	-0.01	2 (1%) 71 68	11, 30, 51, 54	0
46	DM	114/118 (96%)	1.37	31 (27%) 1 0	39, 53, 62, 66	0
46	FM	114/118 (96%)	0.35	12 (10%) 8 5	17, 36, 52, 59	0

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
46	HM	114/118 (96%)	4.36	88 (77%) 0 0	48, 60, 68, 77	0
47	BN	96/101 (95%)	0.31	4 (4%) 40 33	10, 22, 46, 57	0
47	DN	96/101 (95%)	0.70	12 (12%) 5 3	31, 45, 55, 62	0
47	FN	96/101 (95%)	0.51	7 (7%) 18 12	19, 29, 50, 64	0
47	HN	96/101 (95%)	2.34	46 (47%) 0 0	41, 56, 66, 71	0
48	BO	88/89 (98%)	0.04	0 100 100	12, 27, 40, 42	0
48	DO	88/89 (98%)	0.98	18 (20%) 1 1	36, 46, 55, 59	0
48	FO	88/89 (98%)	0.48	7 (7%) 15 10	16, 31, 44, 51	0
48	HO	88/89 (98%)	1.17	21 (23%) 1 0	37, 49, 58, 63	0
49	BP	82/82 (100%)	0.57	5 (6%) 25 18	13, 21, 46, 63	0
49	DP	82/82 (100%)	0.86	10 (12%) 5 3	16, 27, 48, 59	0
49	FP	82/82 (100%)	1.27	19 (23%) 1 0	24, 35, 54, 70	0
49	HP	82/82 (100%)	0.98	17 (20%) 1 1	25, 37, 49, 59	0
50	BQ	80/84 (95%)	0.35	3 (3%) 44 37	14, 26, 39, 48	0
50	DQ	80/84 (95%)	0.64	9 (11%) 7 4	26, 37, 45, 48	0
50	FQ	80/84 (95%)	0.60	6 (7%) 17 11	18, 36, 50, 55	0
50	HQ	80/84 (95%)	1.21	19 (23%) 1 0	35, 44, 55, 62	0
51	BR	55/75 (73%)	0.33	2 (3%) 46 38	16, 26, 39, 48	0
51	DR	55/75 (73%)	2.06	20 (36%) 0 0	43, 52, 60, 62	0
51	FR	55/75 (73%)	0.31	2 (3%) 46 38	18, 26, 37, 45	0
51	HR	55/75 (73%)	3.37	38 (69%) 0 0	43, 54, 61, 63	0
52	BS	79/92 (85%)	0.25	4 (5%) 32 25	14, 23, 39, 65	0
52	DS	79/92 (85%)	1.46	25 (31%) 1 0	31, 49, 58, 61	0
52	FS	79/92 (85%)	0.27	4 (5%) 32 25	22, 34, 48, 52	0
52	HS	79/92 (85%)	4.48	64 (81%) 0 0	50, 60, 70, 73	0
53	BT	85/87 (97%)	0.48	4 (4%) 35 29	12, 23, 42, 47	0
53	DT	85/87 (97%)	0.53	7 (8%) 14 9	17, 28, 44, 53	0
53	FT	85/87 (97%)	0.76	9 (10%) 8 5	25, 38, 47, 63	0
53	HT	85/87 (97%)	0.94	11 (12%) 5 3	22, 33, 46, 52	0
54	BU	51/71 (71%)	1.01	11 (21%) 1 0	22, 37, 52, 61	0
54	DU	51/71 (71%)	2.22	25 (49%) 0 0	36, 54, 60, 64	0

*Continued on next page...*

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
54	FU	51/71 (71%)	0.80	7 (13%) 4 2	25, 35, 54, 61	0
54	HU	51/71 (71%)	4.17	41 (80%) 0 0	40, 54, 65, 71	0
55	BV	690/704 (98%)	0.03	26 (3%) 44 37	10, 30, 48, 66	0
55	DV	689/704 (97%)	0.27	56 (8%) 15 9	16, 37, 53, 63	0
55	FV	689/704 (97%)	0.59	87 (12%) 5 3	16, 41, 54, 63	0
55	HV	689/704 (97%)	1.17	171 (24%) 1 0	25, 51, 62, 73	0
56	BW	2/6 (33%)	0.16	0 100 100	16, 16, 16, 20	0
56	DW	2/6 (33%)	-0.22	0 100 100	32, 32, 32, 34	0
56	FW	2/6 (33%)	0.79	0 100 100	23, 23, 23, 29	0
56	HW	2/6 (33%)	0.89	1 (50%) 0 0	51, 51, 51, 58	0
All	All	43746/45264 (96%)	0.45	4563 (10%) 8 5	2, 33, 60, 83	0

All (4563) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
46	HM	84	GLY	19.9
26	CZ	1	ALA	18.5
26	AZ	1	ALA	16.2
6	GF	169	LEU	15.8
28	C1	52	LYS	15.5
21	GU	89	GLY	15.2
32	C5	50	VAL	14.3
55	HV	542	GLY	13.8
34	HB	188	THR	12.5
32	E5	51	TYR	12.1
40	HG	104	ILE	12.0
42	HI	125	PRO	12.0
39	HF	10	VAL	12.0
9	EI	4	VAL	11.7
9	AI	3	LYS	11.7
9	GI	1	ALA	11.7
23	GW	51	GLY	11.7
9	AI	8	VAL	11.4
23	CW	51	GLY	11.4
40	HG	83	SER	11.4
46	HM	43	VAL	11.4
9	AI	21	PRO	11.3
42	BI	43	THR	11.2

Continued on next page...

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
32	A5	112	ALA	11.2
37	FD	25	VAL	11.2
37	FD	28	ILE	11.2
9	AI	90	GLY	11.1
9	GI	114	ALA	11.1
9	EI	1	ALA	11.1
51	HR	55	LEU	11.0
28	G1	20	TYR	10.9
40	DG	85	TYR	10.9
42	DI	130	ARG	10.9
32	C5	112	ALA	10.9
46	HM	106	ALA	10.8
40	HG	5	ARG	10.8
40	HG	33	ASP	10.7
32	E5	49	GLY	10.6
9	AI	1	ALA	10.5
21	GU	87	GLU	10.4
32	E5	96	PHE	10.4
32	C5	96	PHE	10.4
52	HS	61	PHE	10.3
9	EI	7	TYR	10.3
44	HK	126	LYS	10.3
34	HB	129	THR	10.2
52	HS	60	VAL	10.1
9	CI	4	VAL	10.1
32	E5	18	VAL	10.1
15	GO	97	PHE	10.1
40	HG	87	VAL	10.1
9	GI	13	ALA	10.1
54	HU	26	ALA	10.1
33	A6	8	ILE	10.1
55	HV	511	GLY	10.1
32	E5	88	HIS	10.0
52	HS	31	LEU	10.0
54	HU	37	PHE	10.0
34	HB	128	LEU	9.9
37	FD	36	GLN	9.9
9	CI	90	GLY	9.9
35	BA	78	A	9.8
49	BP	47	GLU	9.8
9	GI	138	VAL	9.8
32	E5	89	PRO	9.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
54	HU	23	CYS	9.7
46	HM	85	CYS	9.7
32	E5	111	ALA	9.6
54	HU	38	TYR	9.6
32	A5	50	VAL	9.6
6	GF	49	LEU	9.5
52	HS	66	MET	9.5
46	HM	10	PRO	9.5
40	HG	4	ARG	9.5
52	HS	48	THR	9.5
9	GI	5	GLN	9.4
12	GL	108	ALA	9.4
32	E5	116	GLU	9.4
46	HM	7	ILE	9.3
46	DM	115	PRO	9.2
32	C5	24	SER	9.2
52	HS	30	PRO	9.2
32	C5	111	ALA	9.2
33	A6	22	LEU	9.2
34	HB	150	ILE	9.2
52	HS	11	ILE	9.2
45	HL	124	ALA	9.1
9	AI	136	GLY	9.1
9	AI	4	VAL	9.0
44	HK	101	ASN	9.0
52	HS	8	GLY	9.0
9	CI	2	LYS	9.0
6	GF	30	VAL	9.0
43	HJ	25	ILE	9.0
30	G3	28	LEU	8.9
32	E5	50	VAL	8.9
6	GF	33	ILE	8.9
9	AI	9	LYS	8.9
32	C5	51	TYR	8.9
50	HQ	26	GLU	8.8
21	GU	70	ALA	8.8
49	FP	81	ALA	8.8
8	CH	6	LEU	8.8
40	HG	88	PRO	8.8
43	HJ	26	VAL	8.8
29	G2	46	LYS	8.7
9	CI	27	LEU	8.7

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	CI	3	LYS	8.7
52	HS	21	LYS	8.7
44	HK	30	THR	8.6
32	E5	31	ARG	8.6
40	HG	114	LYS	8.6
35	DA	78	A	8.6
32	E5	117	LEU	8.6
32	C5	88	HIS	8.6
6	GF	17	THR	8.5
9	GI	58	ILE	8.5
46	HM	8	ASN	8.5
37	DD	28	ILE	8.5
6	GF	171	ALA	8.5
40	HG	30	LEU	8.5
6	GF	130	GLY	8.4
9	GI	4	VAL	8.4
32	E5	19	ALA	8.4
40	HG	85	TYR	8.4
52	HS	63	THR	8.4
38	HE	103	THR	8.3
9	GI	2	LYS	8.3
32	A5	84	TYR	8.3
49	DP	81	ALA	8.2
37	HD	151	LYS	8.2
35	DA	86	G	8.2
39	HF	58	HIS	8.2
52	HS	25	SER	8.2
46	HM	14	HIS	8.1
51	HR	37	GLY	8.1
6	GF	129	MET	8.1
46	HM	11	ASP	8.1
6	GF	45	ASP	8.1
23	GW	50	VAL	8.1
46	HM	12	HIS	8.1
23	GW	45	HIS	8.1
8	CH	47	PHE	8.0
6	GF	48	LEU	8.0
55	HV	543	GLY	8.0
9	EI	10	LEU	8.0
9	AI	22	PRO	8.0
55	HV	593	PHE	8.0
32	C5	114	GLU	7.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
40	HG	77	SER	7.9
46	HM	33	ILE	7.9
52	HS	29	LYS	7.9
46	HM	46	SER	7.9
53	DT	4	ILE	7.9
44	HK	71	ALA	7.9
46	HM	2	ALA	7.9
46	HM	34	LEU	7.9
47	HN	70	PRO	7.9
55	HV	589	SER	7.9
4	GD	92	VAL	7.8
52	DS	27	ASP	7.8
49	FP	82	ALA	7.8
40	HG	84	THR	7.8
52	HS	43	ASN	7.8
23	GW	24	ARG	7.8
28	E1	52	LYS	7.8
40	FG	80	VAL	7.8
40	HG	113	ASP	7.8
34	HB	87	ASP	7.7
40	DG	76	LYS	7.7
32	C5	84	TYR	7.7
40	DG	42	ILE	7.7
32	A5	89	PRO	7.7
9	EI	38	CYS	7.7
52	HS	19	VAL	7.7
23	GW	42	THR	7.7
46	HM	88	GLY	7.7
9	CI	7	TYR	7.7
34	BB	17	HIS	7.7
9	EI	32	VAL	7.6
51	HR	56	ALA	7.6
32	C5	140	MET	7.6
37	HD	194	ASP	7.6
42	HI	105	THR	7.6
32	C5	40	GLU	7.6
32	E5	20	LYS	7.5
34	BB	8	MET	7.5
32	A5	117	LEU	7.5
9	GI	6	ALA	7.5
34	DB	8	MET	7.5
46	HM	82	ASP	7.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
8	CH	37	VAL	7.5
8	GH	41	LYS	7.5
36	HC	51	SER	7.5
54	HU	35	ARG	7.4
39	HF	8	PHE	7.4
33	A6	15	SER	7.4
37	FD	27	ALA	7.4
33	A6	18	ASP	7.3
46	HM	104	THR	7.3
46	HM	81	MET	7.3
41	HH	4	GLN	7.3
40	DG	5	ARG	7.3
9	GI	24	GLY	7.3
42	DI	38	TYR	7.3
5	GE	143	LEU	7.3
50	HQ	83	VAL	7.3
9	GI	92	PRO	7.2
55	HV	320	LEU	7.2
51	HR	51	TYR	7.2
6	GF	1	ALA	7.2
39	DF	9	MET	7.2
43	FJ	90	LEU	7.2
46	HM	80	LEU	7.2
7	GG	51	PHE	7.1
7	CG	31	GLU	7.1
54	HU	27	GLY	7.1
9	GI	108	ILE	7.1
46	HM	29	ARG	7.1
18	GR	5	PHE	7.1
41	HH	59	LEU	7.1
43	HJ	74	VAL	7.1
52	HS	42	PRO	7.1
9	AI	7	TYR	7.1
34	FB	8	MET	7.1
6	GF	173	ASP	7.1
54	HU	36	GLU	7.1
34	FB	17	HIS	7.0
9	GI	96	LYS	7.0
55	HV	405	ILE	7.0
8	CH	19	VAL	7.0
40	HG	62	PHE	7.0
9	CI	6	ALA	7.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
54	DU	38	TYR	7.0
32	C5	99	PHE	7.0
40	HG	108	ALA	7.0
12	GL	110	VAL	6.9
47	HN	20	TYR	6.9
42	HI	130	ARG	6.9
32	E5	48	ALA	6.9
9	GI	56	VAL	6.9
40	FG	79	ARG	6.9
32	A5	88	HIS	6.9
49	BP	80	LYS	6.9
17	GQ	90	ASP	6.9
36	HC	101	ILE	6.9
44	HK	97	ILE	6.9
42	DI	67	VAL	6.9
9	EI	67	THR	6.9
9	GI	10	LEU	6.9
42	HI	117	GLY	6.9
34	HB	66	ILE	6.9
9	GI	94	LYS	6.9
52	HS	17	LYS	6.9
9	GI	8	VAL	6.9
9	GI	31	GLY	6.9
40	HG	117	ALA	6.9
46	HM	45	ILE	6.9
41	DH	3	MET	6.9
20	GT	69	ARG	6.9
28	G1	52	LYS	6.8
9	GI	97	VAL	6.8
49	DP	80	LYS	6.8
6	GF	102	LEU	6.8
42	DI	108	ALA	6.8
28	G1	34	GLU	6.8
9	GI	34	ILE	6.8
21	GU	88	ASP	6.8
46	HM	115	PRO	6.8
9	GI	20	SER	6.8
39	HF	2	ARG	6.8
8	CH	15	LEU	6.8
54	HU	34	ARG	6.8
46	HM	49	SER	6.8
28	G1	33	LEU	6.8

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
6	GF	140	ILE	6.8
41	HH	49	PHE	6.8
9	AI	2	LYS	6.8
34	HB	116	LEU	6.8
44	HK	122	ARG	6.8
6	GF	174	PHE	6.7
32	A5	130	PRO	6.7
55	FV	545	ILE	6.7
49	BP	82	ALA	6.7
9	GI	121	ILE	6.7
46	HM	30	SER	6.7
32	A5	96	PHE	6.7
52	HS	49	ILE	6.7
34	HB	132	GLU	6.7
36	HC	95	ALA	6.7
44	HK	99	ALA	6.7
8	CH	29	PHE	6.7
55	FV	530	ASN	6.7
34	FB	135	MET	6.7
23	GW	75	ASN	6.7
9	GI	135	MET	6.6
46	HM	39	ILE	6.6
40	FG	85	TYR	6.6
33	A6	14	MET	6.6
32	E5	84	TYR	6.6
44	HK	96	THR	6.6
3	GA	1175	A	6.6
49	DP	47	GLU	6.6
39	DF	47	LEU	6.6
47	HN	52	PRO	6.6
51	HR	69	PRO	6.6
6	GF	62	GLN	6.6
17	GQ	89	ILE	6.6
32	A5	140	MET	6.6
45	HL	4	VAL	6.6
50	HQ	28	PHE	6.6
36	HC	109	PRO	6.6
39	HF	11	HIS	6.6
47	HN	29	ALA	6.6
44	DK	82	LEU	6.5
9	EI	25	PRO	6.5
8	CH	38	PRO	6.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
7	GG	31	GLU	6.5
4	ED	92	VAL	6.5
43	HJ	73	LEU	6.5
9	AI	59	THR	6.5
9	GI	3	LYS	6.5
17	GQ	4	LYS	6.5
25	GY	60	LYS	6.5
44	BK	129	VAL	6.5
15	GO	26	LEU	6.5
8	GH	19	VAL	6.5
40	HG	105	VAL	6.5
6	GF	164	GLU	6.5
52	FS	3	ARG	6.5
55	HV	506	ALA	6.5
21	GU	40	LEU	6.4
44	HK	95	SER	6.4
29	C2	1	MET	6.4
6	GF	118	ALA	6.4
13	GM	67	VAL	6.4
6	GF	64	PRO	6.4
8	GH	38	PRO	6.4
8	GH	20	ASN	6.4
44	HK	62	ALA	6.4
51	HR	39	ILE	6.4
34	DB	128	LEU	6.4
9	GI	25	PRO	6.4
9	GI	100	ILE	6.4
51	DR	64	TYR	6.4
40	HG	112	GLY	6.4
32	A5	51	TYR	6.4
42	FI	130	ARG	6.3
44	HK	70	CYS	6.3
32	E5	36	ASP	6.3
40	HG	11	LYS	6.3
44	DK	19	GLY	6.3
9	GI	87	SER	6.3
42	BI	130	ARG	6.3
46	HM	9	ILE	6.3
9	GI	12	VAL	6.3
44	HK	74	VAL	6.3
47	FN	30	ILE	6.3
25	GY	16	THR	6.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
9	AI	70	THR	6.3
32	A5	116	GLU	6.3
46	HM	54	ASP	6.3
42	DI	16	ALA	6.3
34	DB	15	PHE	6.3
28	A1	52	LYS	6.3
5	GE	188	MET	6.2
46	HM	4	ILE	6.2
51	HR	59	ILE	6.2
9	GI	38	CYS	6.2
44	HK	125	LYS	6.2
55	HV	576	ILE	6.2
42	DI	129	LYS	6.2
6	GF	156	THR	6.2
42	HI	129	LYS	6.2
52	BS	30	PRO	6.2
35	HA	86	G	6.2
49	HP	22	ALA	6.2
44	HK	127	ARG	6.2
9	EI	68	PHE	6.2
43	HJ	75	ASP	6.2
42	HI	124	ARG	6.2
32	E5	100	ALA	6.2
28	G1	50	GLU	6.2
34	BB	51	GLU	6.2
40	HG	100	ALA	6.2
49	BP	81	ALA	6.2
36	HC	102	ASN	6.2
54	HU	45	ARG	6.2
40	DG	151	PHE	6.1
43	FJ	74	VAL	6.1
46	HM	77	ILE	6.1
49	FP	44	SER	6.1
52	HS	41	PHE	6.1
9	GI	95	ASP	6.1
54	HU	10	GLU	6.1
34	HB	161	PHE	6.1
12	GL	77	ILE	6.1
42	DI	28	ILE	6.1
51	DR	29	LEU	6.1
55	HV	295	ILE	6.1
55	HV	510	GLY	6.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
54	HU	24	GLU	6.1
54	HU	25	LYS	6.1
9	GI	30	GLN	6.1
52	HS	59	PRO	6.1
32	C5	148	ALA	6.1
39	HF	36	ILE	6.0
51	DR	20	GLU	6.0
7	EG	42	VAL	6.0
12	GL	70	LYS	6.0
21	CU	52	ASN	6.0
34	HB	115	ASP	6.0
3	AA	2148	G	6.0
32	C5	100	ALA	6.0
46	HM	40	ALA	6.0
26	GZ	5	LYS	6.0
36	HC	45	LYS	6.0
6	GF	116	LEU	6.0
55	DV	541	LYS	6.0
35	HA	1312	G	6.0
21	GU	79	ALA	6.0
32	E5	24	SER	6.0
52	HS	9	PRO	6.0
21	CU	87	GLU	6.0
47	HN	22	ALA	6.0
9	EI	8	VAL	6.0
5	EE	201	ALA	6.0
55	HV	581	GLY	6.0
28	G1	10	LEU	6.0
55	HV	290	VAL	6.0
52	HS	40	ILE	6.0
32	E5	139	LEU	5.9
32	C5	89	PRO	5.9
9	CI	8	VAL	5.9
40	HG	115	SER	5.9
9	GI	59	THR	5.9
13	GM	108	VAL	5.9
21	EU	87	GLU	5.9
38	DE	103	THR	5.9
13	GM	103	TYR	5.9
42	DI	20	PHE	5.9
23	CW	45	HIS	5.9
50	HQ	27	ARG	5.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
54	HU	22	SER	5.9
32	C5	144	LYS	5.9
34	HB	165	ALA	5.9
52	HS	22	ALA	5.9
3	EA	2140	G	5.9
47	HN	71	HIS	5.9
41	HH	120	GLY	5.9
9	CI	65	SER	5.9
9	GI	111	THR	5.9
32	E5	142	THR	5.9
40	HG	122	ASN	5.9
9	GI	83	ALA	5.9
32	C5	116	GLU	5.9
39	HF	34	GLY	5.9
55	FV	512	ARG	5.9
32	E5	47	GLU	5.9
9	AI	13	ALA	5.9
55	FV	319	ALA	5.9
18	GR	41	ILE	5.8
8	CH	7	ASP	5.8
32	C5	146	ALA	5.8
33	A6	21	GLU	5.8
44	DK	107	ILE	5.8
12	GL	50	PHE	5.8
35	HA	1533	C	5.8
40	HG	149	LYS	5.8
9	GI	140	GLU	5.8
34	DB	135	MET	5.8
3	AA	2150	C	5.8
20	GT	16	VAL	5.8
6	GF	66	ILE	5.8
36	HC	202	ILE	5.8
7	GG	7	PRO	5.8
9	CI	25	PRO	5.8
9	GI	99	LYS	5.8
34	DB	17	HIS	5.8
10	CJ	1	MET	5.8
55	DV	530	ASN	5.8
41	HH	27	MET	5.8
32	E5	128	THR	5.7
9	AI	92	PRO	5.7
43	HJ	34	ALA	5.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
9	GI	136	GLY	5.7
9	GI	139	VAL	5.7
40	HG	32	VAL	5.7
21	AU	87	GLU	5.7
49	FP	45	GLU	5.7
42	HI	126	GLN	5.7
32	E5	136	ILE	5.7
41	HH	57	PRO	5.7
12	EL	92	LEU	5.7
47	FN	21	PHE	5.7
21	GU	50	ALA	5.7
9	EI	65	SER	5.7
44	HK	52	PHE	5.7
52	HS	18	LYS	5.7
9	GI	14	ALA	5.7
46	HM	48	LEU	5.7
34	DB	121	GLN	5.7
34	FB	50	ASN	5.7
52	HS	32	ARG	5.7
12	GL	116	VAL	5.7
32	E5	12	VAL	5.7
55	HV	119	VAL	5.7
3	EA	2136	G	5.7
6	GF	147	ARG	5.7
32	C5	46	ARG	5.7
47	BN	30	ILE	5.7
3	GA	2157	G	5.7
35	DA	1534	A	5.7
55	HV	369	ASN	5.7
34	HB	134	LEU	5.7
39	HF	64	VAL	5.6
54	HU	6	VAL	5.6
37	FD	37	ALA	5.6
3	AA	2133	G	5.6
25	GY	17	GLU	5.6
55	HV	545	ILE	5.6
5	CE	126	VAL	5.6
34	HB	68	PHE	5.6
40	DG	144	MET	5.6
52	HS	44	MET	5.6
32	C5	19	ALA	5.6
55	HV	586	VAL	5.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
38	FE	125	ALA	5.6
39	DF	62	MET	5.6
54	DU	45	ARG	5.6
36	HC	47	LEU	5.6
52	HS	27	ASP	5.6
34	DB	127	LYS	5.6
55	HV	588	SER	5.6
7	CG	175	LYS	5.6
40	HG	103	TRP	5.6
32	A5	144	LYS	5.6
42	HI	63	LEU	5.6
42	DI	17	ALA	5.5
46	HM	53	ILE	5.5
25	EY	60	LYS	5.5
34	DB	213	LEU	5.5
41	HH	29	SER	5.5
3	EA	1175	A	5.5
15	GO	56	LYS	5.5
47	FN	22	ALA	5.5
8	CH	40	THR	5.5
55	HV	580	PHE	5.5
39	HF	57	ALA	5.5
3	EA	2157	G	5.5
42	HI	64	TYR	5.5
9	GI	88	GLY	5.5
34	DB	68	PHE	5.5
52	HS	62	VAL	5.5
46	DM	2	ALA	5.5
54	HU	28	VAL	5.5
43	HJ	67	ILE	5.5
9	GI	22	PRO	5.5
9	EI	15	GLY	5.5
42	HI	20	PHE	5.5
55	HV	585	ASP	5.5
4	CD	209	ALA	5.5
37	FD	109	ALA	5.5
46	FM	48	LEU	5.5
9	EI	56	VAL	5.5
24	GX	66	VAL	5.5
39	HF	96	VAL	5.5
35	HA	80	A	5.5
9	AI	68	PHE	5.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
25	CY	1	MET	5.5
13	GM	1	MET	5.5
39	DF	59	TYR	5.4
9	EI	13	ALA	5.4
32	C5	137	ALA	5.4
6	GF	47	LYS	5.4
32	A5	114	GLU	5.4
8	CH	43	ASN	5.4
36	HC	84	VAL	5.4
46	HM	94	GLY	5.4
40	HG	102	ARG	5.4
13	EM	1	MET	5.4
33	A6	13	ALA	5.4
46	HM	86	TYR	5.4
46	HM	13	LYS	5.4
42	HI	128	SER	5.4
32	C5	18	VAL	5.4
6	GF	74	ALA	5.4
39	HF	51	ILE	5.4
32	C5	117	LEU	5.4
55	DV	538	ASN	5.4
6	GF	15	LEU	5.4
9	GI	65	SER	5.4
51	FR	20	GLU	5.4
52	HS	33	THR	5.4
8	CH	44	ILE	5.4
46	DM	45	ILE	5.4
5	GE	124	PHE	5.4
55	FV	508	GLN	5.4
21	GU	35	VAL	5.4
55	HV	502	GLU	5.4
32	A5	24	SER	5.4
46	HM	63	PHE	5.4
51	DR	43	ARG	5.4
3	AA	2136	G	5.4
6	GF	87	LYS	5.4
9	EI	90	GLY	5.4
32	A5	61	ARG	5.4
36	HC	10	ILE	5.4
13	GM	60	GLN	5.4
6	GF	168	LEU	5.4
40	HG	6	VAL	5.3

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
3	CA	1175	A	5.3
7	GG	57	TYR	5.3
42	HI	118	LEU	5.3
3	GA	2143	C	5.3
9	AI	6	ALA	5.3
23	EW	24	ARG	5.3
32	E5	143	MET	5.3
33	A6	27	GLU	5.3
40	HG	97	ASN	5.3
6	GF	24	VAL	5.3
40	HG	89	VAL	5.3
13	GM	129	THR	5.3
32	C5	115	GLY	5.3
51	HR	40	VAL	5.3
8	CH	46	PHE	5.3
37	FD	170	TRP	5.3
40	HG	107	ALA	5.3
52	HS	20	GLU	5.3
21	GU	6	ARG	5.3
55	FV	37	ASN	5.3
47	DN	20	TYR	5.3
55	HV	549	TYR	5.3
25	GY	63	ALA	5.3
55	FV	580	PHE	5.3
8	GH	40	THR	5.3
55	HV	540	ILE	5.3
36	HC	116	VAL	5.3
46	DM	23	TYR	5.3
6	GF	135	ILE	5.3
6	GF	172	PHE	5.3
43	HJ	71	LEU	5.3
9	GI	128	ILE	5.2
46	HM	93	ARG	5.2
28	G1	51	ALA	5.2
55	FV	509	SER	5.2
43	HJ	88	MET	5.2
9	EI	24	GLY	5.2
18	ER	50	GLY	5.2
54	HU	9	ASN	5.2
44	DK	77	TYR	5.2
46	HM	66	GLU	5.2
32	C5	43	LYS	5.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
15	GO	29	HIS	5.2
51	HR	43	ARG	5.2
9	AI	27	LEU	5.2
9	GI	67	THR	5.2
47	HN	54	ASP	5.2
44	HK	66	ALA	5.2
7	GG	47	ASN	5.2
41	HH	52	GLU	5.2
39	DF	36	ILE	5.2
52	HS	12	ASP	5.2
54	HU	7	ARG	5.2
25	GY	28	LEU	5.2
18	GR	35	PHE	5.2
6	GF	114	ARG	5.2
8	CH	34	GLY	5.2
43	DJ	76	ILE	5.2
36	HC	111	LEU	5.2
23	EW	73	PRO	5.2
55	FV	579	HIS	5.2
46	HM	17	ILE	5.2
6	GF	56	LEU	5.2
48	HO	47	LYS	5.2
52	HS	35	SER	5.2
55	HV	512	ARG	5.2
9	AI	25	PRO	5.1
54	DU	41	PRO	5.1
42	HI	103	PHE	5.1
51	HR	72	ASP	5.1
55	HV	309	ARG	5.1
40	HG	146	GLU	5.1
47	HN	66	GLN	5.1
3	AA	2107	G	5.1
42	DI	42	GLU	5.1
39	HF	62	MET	5.1
55	HV	522	MET	5.1
9	EI	9	LYS	5.1
39	HF	12	PRO	5.1
13	GM	73	ILE	5.1
23	GW	35	ILE	5.1
43	HJ	96	VAL	5.1
23	AW	40	ARG	5.1
40	DG	83	SER	5.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
51	DR	36	SER	5.1
3	EA	2152	G	5.1
9	GI	68	PHE	5.1
28	G1	31	GLU	5.1
55	BV	512	ARG	5.1
4	AD	92	VAL	5.1
9	GI	29	GLN	5.1
35	HA	87	C	5.1
51	HR	64	TYR	5.1
6	GF	31	GLU	5.1
34	BB	134	LEU	5.1
46	DM	4	ILE	5.1
9	EI	40	ALA	5.1
13	GM	21	ALA	5.1
9	AI	37	PHE	5.1
35	HA	1331	G	5.1
38	HE	98	PRO	5.1
46	DM	10	PRO	5.1
50	HQ	25	ILE	5.1
41	DH	26	THR	5.1
46	HM	68	ASP	5.1
41	HH	108	LYS	5.1
55	FV	553	VAL	5.1
9	AI	65	SER	5.1
5	CE	148	ILE	5.1
21	CU	71	ILE	5.1
23	GW	57	THR	5.1
42	HI	40	GLY	5.1
43	HJ	61	ALA	5.1
9	GI	23	VAL	5.1
32	E5	61	ARG	5.1
43	FJ	35	GLN	5.1
7	EG	47	ASN	5.0
9	AI	47	SER	5.0
21	GU	52	ASN	5.0
46	HM	56	LEU	5.0
51	HR	38	LYS	5.0
39	HF	37	HIS	5.0
40	BG	5	ARG	5.0
55	BV	581	GLY	5.0
41	HH	78	VAL	5.0
54	HU	42	THR	5.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
6	CF	37	MET	5.0
17	CQ	86	SER	5.0
42	HI	23	PRO	5.0
12	GL	124	GLY	5.0
32	C5	48	ALA	5.0
45	HL	92	GLY	5.0
54	FU	26	ALA	5.0
48	DO	43	PHE	5.0
52	HS	67	VAL	5.0
32	A5	46	ARG	5.0
46	HM	87	ARG	5.0
51	HR	66	SER	5.0
55	HV	583	TYR	5.0
33	A6	9	GLU	5.0
34	DB	209	VAL	5.0
44	DK	52	PHE	5.0
19	GS	103	ILE	5.0
6	GF	55	ASP	5.0
28	G1	17	GLY	5.0
6	GF	111	ARG	5.0
40	HG	59	LEU	5.0
9	CI	1	ALA	5.0
36	HC	105	GLU	5.0
54	DU	43	THR	5.0
8	CH	20	ASN	5.0
9	GI	15	GLY	5.0
9	AI	141	ASP	5.0
40	HG	48	GLU	5.0
9	GI	80	LYS	5.0
28	G1	16	THR	5.0
40	HG	118	LEU	5.0
32	C5	49	GLY	5.0
9	CI	17	ALA	5.0
53	DT	87	ALA	5.0
15	GO	98	GLN	5.0
44	DK	129	VAL	5.0
9	AI	15	GLY	5.0
20	GT	35	ALA	5.0
28	C1	20	TYR	5.0
38	HE	92	SER	5.0
35	BA	86	G	4.9
55	HV	4	THR	4.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
39	DF	61	LEU	4.9
44	HK	84	VAL	4.9
18	GR	25	LEU	4.9
34	DB	48	MET	4.9
26	GZ	49	ALA	4.9
34	DB	33	ALA	4.9
21	EU	86	PHE	4.9
6	GF	148	VAL	4.9
15	GO	28	VAL	4.9
43	DJ	36	VAL	4.9
46	HM	97	VAL	4.9
52	HS	53	ASN	4.9
32	C5	79	PRO	4.9
40	HG	111	ARG	4.9
36	HC	196	ILE	4.9
55	HV	261	ILE	4.9
3	EA	2156	G	4.9
6	GF	20	ASN	4.9
23	AW	24	ARG	4.9
32	C5	14	GLU	4.9
52	HS	24	GLU	4.9
32	C5	52	MET	4.9
52	DS	60	VAL	4.9
9	GI	118	GLY	4.9
44	HK	90	GLY	4.9
26	GZ	28	LEU	4.9
9	EI	16	MET	4.9
40	HG	8	GLY	4.9
42	DI	66	THR	4.9
26	GZ	6	ILE	4.9
40	DG	104	ILE	4.9
46	HM	78	LYS	4.9
55	HV	191	ILE	4.9
36	HC	23	PHE	4.9
9	EI	39	LYS	4.9
6	GF	65	LEU	4.9
9	GI	105	LEU	4.9
43	HJ	101	SER	4.9
11	GK	35	VAL	4.9
34	HB	187	ASP	4.9
39	DF	10	VAL	4.9
51	DR	40	VAL	4.9

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	GI	93	ASN	4.8
55	HV	185	LEU	4.8
37	HD	28	ILE	4.8
6	GF	170	ALA	4.8
32	E5	99	PHE	4.8
41	BH	68	GLY	4.8
49	HP	80	LYS	4.8
52	HS	34	TRP	4.8
36	DC	168	TYR	4.8
39	DF	51	ILE	4.8
55	HV	289	PRO	4.8
23	GW	9	THR	4.8
44	FK	126	LYS	4.8
40	BG	80	VAL	4.8
55	DV	550	ILE	4.8
32	A5	113	PHE	4.8
40	HG	78	ARG	4.8
55	HV	360	PHE	4.8
38	FE	103	THR	4.8
40	HG	82	GLY	4.8
52	HS	23	VAL	4.8
6	GF	160	LYS	4.8
32	C5	145	GLU	4.8
47	HN	31	ILE	4.8
9	AI	140	GLU	4.8
34	DB	123	GLY	4.8
6	GF	46	LYS	4.8
8	CH	5	LEU	4.8
9	EI	30	GLN	4.8
30	G3	13	PHE	4.8
40	HG	152	ALA	4.8
41	HH	72	VAL	4.8
34	DB	188	THR	4.8
25	GY	42	LEU	4.8
9	CI	9	LYS	4.8
41	HH	107	SER	4.8
44	DK	55	SER	4.8
32	E5	23	LEU	4.8
36	HC	70	THR	4.8
40	DG	124	LEU	4.8
40	HG	121	ALA	4.8
9	GI	127	SER	4.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
40	HG	81	GLY	4.7
19	GS	107	VAL	4.7
41	HH	28	PRO	4.7
8	GH	12	LEU	4.7
21	CU	72	PHE	4.7
27	E0	54	ILE	4.7
46	HM	67	GLY	4.7
9	GI	119	ALA	4.7
15	GO	92	PHE	4.7
26	GZ	52	PHE	4.7
32	E5	114	GLU	4.7
37	HD	177	LYS	4.7
6	GF	176	PHE	4.7
34	DB	118	THR	4.7
7	GG	106	LEU	4.7
52	HS	69	HIS	4.7
20	AT	72	GLN	4.7
20	CT	3	ARG	4.7
28	C1	51	ALA	4.7
40	DG	84	THR	4.7
9	EI	53	PRO	4.7
22	GV	14	LYS	4.7
32	E5	144	LYS	4.7
9	GI	84	GLY	4.7
5	GE	183	PHE	4.7
7	GG	80	GLU	4.7
25	EY	62	GLY	4.7
32	E5	32	GLY	4.7
51	DR	23	TYR	4.7
42	HI	83	ILE	4.7
9	AI	89	SER	4.7
21	GU	92	VAL	4.7
44	HK	33	THR	4.7
18	GR	84	ARG	4.7
15	GO	18	LEU	4.7
37	FD	19	LEU	4.7
53	BT	68	HIS	4.7
8	EH	44	ILE	4.7
6	GF	145	VAL	4.7
47	HN	34	VAL	4.7
8	GH	18	GLN	4.7
34	HB	163	ILE	4.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
37	DD	151	LYS	4.7
54	DU	47	ARG	4.7
12	CL	68	SER	4.7
35	FA	844	G	4.7
44	DK	51	GLY	4.7
25	GY	49	ASP	4.6
32	A5	128	THR	4.6
42	DI	63	LEU	4.6
6	GF	32	LYS	4.6
32	A5	19	ALA	4.6
32	C5	25	ALA	4.6
55	HV	541	LYS	4.6
55	DV	545	ILE	4.6
21	GU	61	GLU	4.6
34	DB	146	SER	4.6
9	AI	10	LEU	4.6
34	HB	42	LEU	4.6
32	C5	141	ALA	4.6
54	HU	43	THR	4.6
32	E5	86	MET	4.6
3	AA	1175	A	4.6
40	DG	21	GLU	4.6
40	HG	73	VAL	4.6
49	FP	19	VAL	4.6
32	E5	115	GLY	4.6
37	FD	60	LYS	4.6
5	GE	157	LEU	4.6
36	HC	163	ALA	4.6
32	C5	86	MET	4.6
21	GU	85	ARG	4.6
50	HQ	53	CYS	4.6
7	GG	165	ASP	4.6
20	ET	91	GLN	4.6
42	HI	65	ILE	4.6
32	E5	42	ARG	4.6
40	DG	53	ARG	4.6
52	HS	68	GLY	4.6
6	GF	35	LEU	4.6
43	DJ	73	LEU	4.6
26	GZ	8	GLN	4.6
46	HM	35	ALA	4.6
54	HU	11	PRO	4.6

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
11	AK	71	ARG	4.6
23	CW	40	ARG	4.6
47	HN	53	ARG	4.6
20	ET	16	VAL	4.6
34	HB	123	GLY	4.6
39	HF	39	LEU	4.6
8	EH	39	ALA	4.6
25	GY	54	LYS	4.6
54	FU	35	ARG	4.6
21	GU	11	ILE	4.6
45	HL	3	THR	4.6
34	HB	186	VAL	4.6
42	FI	90	TYR	4.6
36	HC	87	LEU	4.6
37	BD	151	LYS	4.6
9	AI	82	ALA	4.6
42	HI	41	ARG	4.6
40	HG	16	PRO	4.6
5	GE	120	VAL	4.6
39	HF	59	TYR	4.6
42	HI	94	LEU	4.6
47	HN	43	ASN	4.6
46	HM	42	ASP	4.6
27	E0	26	SER	4.6
35	HA	1218	C	4.6
36	HC	2	GLY	4.6
55	FV	542	GLY	4.6
8	CH	41	LYS	4.6
54	DU	35	ARG	4.6
9	CI	10	LEU	4.6
9	AI	11	GLN	4.5
3	GA	2152	G	4.5
9	CI	16	MET	4.5
12	GL	57	LEU	4.5
42	HI	90	TYR	4.5
51	HR	68	LEU	4.5
6	GF	117	SER	4.5
5	GE	96	VAL	4.5
32	E5	113	PHE	4.5
27	A0	56	LYS	4.5
27	G0	36	LYS	4.5
36	HC	192	THR	4.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
42	HI	68	LYS	4.5
49	FP	13	LYS	4.5
8	CH	32	PRO	4.5
28	G1	18	HIS	4.5
6	EF	49	LEU	4.5
25	GY	22	LEU	4.5
7	AG	31	GLU	4.5
40	DG	6	VAL	4.5
55	HV	565	PRO	4.5
8	EH	47	PHE	4.5
40	HG	66	LEU	4.5
34	HB	205	ALA	4.5
6	GF	82	TYR	4.5
37	HD	66	GLY	4.5
43	HJ	24	GLU	4.5
51	HR	20	GLU	4.5
51	HR	44	ILE	4.5
44	DK	65	VAL	4.5
6	GF	175	PRO	4.5
9	GI	21	PRO	4.5
35	HA	699	C	4.5
37	FD	117	LEU	4.5
40	HG	151	PHE	4.5
8	CH	18	GLN	4.5
46	HM	19	LEU	4.5
21	CU	11	ILE	4.5
34	HB	114	LYS	4.5
55	FV	523	TYR	4.5
43	BJ	25	ILE	4.5
8	GH	21	VAL	4.5
27	G0	27	LEU	4.5
40	HG	120	LEU	4.5
32	A5	111	ALA	4.5
48	HO	73	LYS	4.5
55	HV	648	GLU	4.5
9	GI	85	ILE	4.5
5	GE	33	VAL	4.5
39	HF	1	MET	4.5
9	CI	13	ALA	4.5
42	DI	49	ARG	4.5
6	GF	155	ILE	4.5
34	FB	87	ASP	4.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
52	DS	51	VAL	4.5
3	GA	2136	G	4.5
34	DB	49	PHE	4.5
40	FG	78	ARG	4.5
42	HI	39	PHE	4.5
46	HM	44	LYS	4.5
9	GI	11	GLN	4.5
15	GO	57	ALA	4.5
25	CY	63	ALA	4.5
34	DB	74	ALA	4.5
45	HL	25	GLU	4.5
44	HK	51	GLY	4.4
55	DV	542	GLY	4.4
55	HV	515	TYR	4.4
42	DI	104	VAL	4.4
42	HI	11	ARG	4.4
44	HK	65	VAL	4.4
3	AA	2149	U	4.4
25	GY	45	GLN	4.4
46	HM	83	LEU	4.4
51	HR	29	LEU	4.4
54	BU	38	TYR	4.4
32	E5	67	THR	4.4
32	E5	80	THR	4.4
36	HC	115	LEU	4.4
32	E5	85	SER	4.4
34	DB	38	HIS	4.4
23	CW	84	GLU	4.4
21	GU	86	PHE	4.4
34	HB	15	PHE	4.4
45	HL	5	ASN	4.4
41	DH	68	GLY	4.4
41	HH	3	MET	4.4
7	GG	125	PRO	4.4
32	A5	125	ARG	4.4
42	DI	15	SER	4.4
2	CC	29	PHE	4.4
9	EI	37	PHE	4.4
34	DB	31	PHE	4.4
45	DL	4	VAL	4.4
9	CI	91	LYS	4.4
21	GU	73	ASN	4.4

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
34	FB	82	ALA	4.4
6	GF	104	THR	4.4
30	G3	25	HIS	4.4
36	HC	110	GLU	4.4
28	G1	19	PHE	4.4
32	E5	97	LYS	4.4
42	HI	95	ARG	4.4
39	HF	66	ALA	4.4
48	DO	31	LEU	4.4
35	HA	975	A	4.4
40	HG	68	ASN	4.4
48	HO	2	SER	4.4
32	A5	77	VAL	4.4
40	DG	117	ALA	4.4
3	AA	2135	A	4.4
25	GY	30	MET	4.4
34	HB	110	ILE	4.4
43	DJ	31	ARG	4.4
55	HV	301	ASP	4.4
23	CW	50	VAL	4.4
36	HC	91	VAL	4.4
40	FG	81	GLY	4.4
42	HI	29	VAL	4.4
43	HJ	13	PHE	4.4
44	HK	86	VAL	4.4
9	EI	137	LEU	4.4
38	HE	97	GLN	4.4
9	EI	2	LYS	4.4
40	HG	76	LYS	4.4
35	HA	1453	G	4.4
34	HB	200	PRO	4.4
46	HM	96	PRO	4.4
55	DV	509	SER	4.4
55	FV	581	GLY	4.4
6	GF	167	ALA	4.4
9	EI	52	LEU	4.4
29	G2	23	ALA	4.4
40	HG	124	LEU	4.4
44	HK	94	GLU	4.4
10	GJ	1	MET	4.3
42	DI	51	PRO	4.3
44	HK	91	PRO	4.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
52	DS	59	PRO	4.3
9	GI	90	GLY	4.3
25	CY	62	GLY	4.3
34	DB	214	GLY	4.3
21	GU	59	GLU	4.3
32	C5	147	SER	4.3
51	DR	39	ILE	4.3
34	HB	151	LYS	4.3
12	GL	75	ALA	4.3
48	HO	3	LEU	4.3
3	GA	896	A	4.3
6	EF	84	ILE	4.3
55	BV	513	GLY	4.3
8	CH	33	GLN	4.3
37	BD	36	GLN	4.3
55	HV	377	VAL	4.3
5	GE	200	LEU	4.3
8	GH	49	ALA	4.3
25	GY	1	MET	4.3
44	HK	85	MET	4.3
52	DS	3	ARG	4.3
21	CU	24	VAL	4.3
9	AI	40	ALA	4.3
32	C5	60	LEU	4.3
25	EY	17	GLU	4.3
35	HA	1520	C	4.3
3	EA	2134	A	4.3
12	GL	119	PRO	4.3
34	FB	127	LYS	4.3
37	FD	21	LEU	4.3
40	HG	145	ALA	4.3
41	HH	32	LEU	4.3
46	HM	70	ARG	4.3
32	C5	142	THR	4.3
6	CF	129	MET	4.3
28	G1	15	GLY	4.3
32	E5	87	GLU	4.3
43	DJ	40	ILE	4.3
20	GT	92	ASN	4.3
40	DG	4	ARG	4.3
40	HG	35	LYS	4.3
15	CO	50	ALA	4.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
39	DF	66	ALA	4.3
6	GF	133	GLU	4.3
40	DG	123	GLU	4.3
46	HM	6	GLY	4.3
8	GH	4	ILE	4.3
9	AI	54	ILE	4.3
2	CC	100	ARG	4.3
6	EF	46	LYS	4.3
25	GY	2	LYS	4.3
32	A5	27	VAL	4.3
40	HG	86	GLN	4.3
41	HH	54	ASP	4.3
35	FA	1534	A	4.3
55	HV	296	ASN	4.3
32	E5	112	ALA	4.3
42	DI	36	GLU	4.3
32	E5	21	GLY	4.3
38	BE	103	THR	4.3
40	DG	8	GLY	4.3
17	AQ	86	SER	4.3
55	HV	408	ARG	4.3
47	HN	45	VAL	4.3
3	AA	2103	C	4.3
3	EA	2133	G	4.3
39	DF	5	GLU	4.3
40	DG	79	ARG	4.2
12	GL	67	THR	4.2
21	GU	76	THR	4.2
44	HK	23	ILE	4.2
44	HK	111	THR	4.2
9	GI	115	ASP	4.2
34	BB	87	ASP	4.2
42	HI	19	VAL	4.2
34	HB	133	ALA	4.2
51	BR	20	GLU	4.2
55	FV	376	GLU	4.2
3	AA	2152	G	4.2
32	A5	115	GLY	4.2
38	FE	47	GLY	4.2
21	CU	80	ASP	4.2
52	HS	58	VAL	4.2
37	DD	191	LEU	4.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
40	HG	23	LEU	4.2
47	HN	46	LEU	4.2
3	EA	2105	U	4.2
28	C1	10	LEU	4.2
46	DM	48	LEU	4.2
42	DI	8	GLY	4.2
55	DV	511	GLY	4.2
55	FV	306	PRO	4.2
39	HF	94	HIS	4.2
28	G1	9	LYS	4.2
54	BU	47	ARG	4.2
9	GI	43	ALA	4.2
35	DA	83	C	4.2
35	HA	841	C	4.2
39	DF	60	VAL	4.2
44	HK	25	ALA	4.2
3	GA	2140	G	4.2
24	CX	41	SER	4.2
15	GO	65	THR	4.2
34	HB	118	THR	4.2
34	HB	154	GLY	4.2
32	E5	109	LYS	4.2
9	AI	5	GLN	4.2
38	HE	105	ILE	4.2
9	AI	38	CYS	4.2
55	HV	316	PRO	4.2
54	BU	44	GLU	4.2
35	DA	85	U	4.2
43	FJ	36	VAL	4.2
19	AS	110	ARG	4.2
52	HS	81	ARG	4.2
23	AW	6	GLY	4.2
47	HN	72	GLY	4.2
9	GI	19	PRO	4.2
35	HA	412	A	4.2
46	DM	114	LYS	4.2
5	GE	187	VAL	4.2
8	CH	30	LEU	4.2
9	EI	23	VAL	4.2
47	HN	33	ASP	4.2
42	DI	90	TYR	4.1
46	HM	21	SER	4.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
23	GW	18	LYS	4.1
28	G1	21	THR	4.1
40	DG	110	LYS	4.1
54	HU	21	ARG	4.1
37	BD	28	ILE	4.1
37	FD	3	ARG	4.1
47	HN	28	LYS	4.1
9	CI	37	PHE	4.1
20	GT	14	PRO	4.1
32	C5	113	PHE	4.1
34	HB	101	THR	4.1
28	C1	8	ILE	4.1
3	AA	2147	A	4.1
21	GU	82	VAL	4.1
40	DG	89	VAL	4.1
51	DR	68	LEU	4.1
55	DV	510	GLY	4.1
3	EA	2148	G	4.1
43	HJ	79	PRO	4.1
6	GF	54	ALA	4.1
9	GI	57	VAL	4.1
43	HJ	15	HIS	4.1
51	DR	67	LEU	4.1
55	FV	377	VAL	4.1
34	HB	111	LYS	4.1
37	FD	146	ARG	4.1
13	GM	12	MET	4.1
3	CA	2140	G	4.1
42	HI	32	GLN	4.1
23	GW	79	ILE	4.1
5	GE	164	LEU	4.1
8	CH	12	LEU	4.1
9	AI	67	THR	4.1
19	ES	110	ARG	4.1
47	HN	61	ARG	4.1
55	DV	307	ALA	4.1
34	HB	99	MET	4.1
55	HV	574	MET	4.1
8	GH	46	PHE	4.1
9	EI	71	LYS	4.1
38	HE	23	LYS	4.1
40	BG	85	TYR	4.1

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
55	HV	590	GLU	4.1
8	CH	49	ALA	4.1
52	HS	57	HIS	4.1
54	HU	53	VAL	4.1
39	HF	9	MET	4.1
52	DS	44	MET	4.1
37	FD	115	ARG	4.1
15	CO	112	GLU	4.1
3	AA	2157	G	4.1
12	CL	77	ILE	4.1
41	HH	17	GLY	4.1
44	HK	19	GLY	4.1
36	HC	50	ALA	4.1
38	HE	137	VAL	4.1
42	DI	35	LEU	4.1
42	HI	16	ALA	4.1
32	C5	131	THR	4.1
43	HJ	97	ASP	4.1
7	GG	74	MET	4.1
15	CO	117	PHE	4.1
40	HG	90	GLU	4.1
13	GM	15	GLY	4.1
40	HG	132	GLY	4.1
25	AY	63	ALA	4.1
44	HK	129	VAL	4.1
55	HV	400	PRO	4.1
3	AA	2156	G	4.1
34	HB	105	THR	4.1
43	HJ	60	ASP	4.1
6	GF	98	PHE	4.1
20	AT	24	MET	4.1
40	HG	116	MET	4.1
20	AT	2	ILE	4.1
20	CT	16	VAL	4.1
34	BB	42	LEU	4.1
37	FD	191	LEU	4.1
40	HG	17	LYS	4.1
15	GO	60	GLU	4.1
35	HA	851	G	4.1
43	DJ	44	THR	4.1
44	HK	48	GLY	4.0
8	GH	39	ALA	4.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
52	DS	21	LYS	4.0
9	GI	60	VAL	4.0
21	GU	41	VAL	4.0
34	DB	67	LEU	4.0
40	DG	13	LEU	4.0
54	DU	11	PRO	4.0
46	HM	50	GLU	4.0
55	DV	536	PHE	4.0
55	HV	530	ASN	4.0
9	GI	104	GLN	4.0
35	HA	1534	A	4.0
37	HD	47	ARG	4.0
54	DU	7	ARG	4.0
34	HB	39	ILE	4.0
46	DM	22	ILE	4.0
52	HS	47	LEU	4.0
52	HS	76	PRO	4.0
24	CX	34	SER	4.0
46	HM	41	GLU	4.0
52	DS	61	PHE	4.0
21	CU	78	LYS	4.0
36	HC	155	GLY	4.0
40	BG	79	ARG	4.0
44	HK	98	ARG	4.0
52	HS	7	LYS	4.0
55	FV	510	GLY	4.0
55	FV	541	LYS	4.0
34	DB	129	THR	4.0
5	GE	142	ALA	4.0
30	G3	64	ALA	4.0
7	GG	75	VAL	4.0
30	C3	54	LEU	4.0
34	HB	100	LEU	4.0
36	DC	76	VAL	4.0
46	HM	64	VAL	4.0
55	FV	586	VAL	4.0
39	HF	69	GLU	4.0
28	C1	49	LYS	4.0
39	HF	38	ARG	4.0
51	HR	50	LYS	4.0
37	FD	24	GLY	4.0
41	HH	18	GLN	4.0

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
7	CG	25	ILE	4.0
55	HV	173	ILE	4.0
7	GG	42	VAL	4.0
8	CH	21	VAL	4.0
9	EI	12	VAL	4.0
42	DI	29	VAL	4.0
29	A2	46	LYS	4.0
6	CF	176	PHE	4.0
9	EI	66	PHE	4.0
9	GI	28	GLY	4.0
18	GR	1	MET	4.0
34	HB	35	ASN	4.0
3	AA	2134	A	4.0
18	GR	70	GLU	4.0
21	GU	71	ILE	4.0
34	HB	162	VAL	4.0
38	HE	131	THR	4.0
46	DM	15	ALA	4.0
20	GT	87	LEU	4.0
54	DU	21	ARG	4.0
54	FU	36	GLU	4.0
8	AH	47	PHE	4.0
55	HV	536	PHE	4.0
52	HS	52	HIS	4.0
20	CT	24	MET	4.0
18	GR	103	ALA	4.0
46	HM	47	GLU	4.0
47	DN	30	ILE	4.0
55	DV	306	PRO	4.0
9	CI	89	SER	4.0
20	GT	3	ARG	4.0
51	FR	64	TYR	4.0
6	CF	44	ALA	4.0
36	HC	71	ALA	4.0
3	EA	2135	A	4.0
34	DB	147	LEU	4.0
41	HH	61	LEU	4.0
47	HN	50	THR	4.0
9	GI	98	GLY	4.0
6	GF	141	ASP	4.0
9	AI	94	LYS	4.0
48	HO	69	TYR	4.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
18	GR	40	MET	4.0
28	A1	51	ALA	4.0
32	E5	140	MET	4.0
3	GA	2183	A	4.0
9	AI	91	LYS	4.0
9	CI	66	PHE	4.0
9	GI	70	THR	4.0
32	C5	56	ARG	4.0
44	DK	126	LYS	4.0
54	DU	12	PHE	4.0
35	HA	88	U	3.9
9	AI	85	ILE	3.9
34	FB	74	ALA	3.9
42	HI	17	ALA	3.9
51	DR	56	ALA	3.9
54	DU	26	ALA	3.9
3	AA	2141	G	3.9
37	FD	177	LYS	3.9
12	GL	11	GLY	3.9
32	A5	79	PRO	3.9
6	GF	42	ALA	3.9
34	HB	103	TRP	3.9
42	HI	61	LEU	3.9
45	FL	14	ARG	3.9
3	AA	2106	U	3.9
14	EN	120	GLU	3.9
42	DI	37	GLN	3.9
9	CI	39	LYS	3.9
24	GX	10	ARG	3.9
36	HC	73	PRO	3.9
40	BG	131	LYS	3.9
51	DR	60	LYS	3.9
51	HR	24	LYS	3.9
9	CI	43	ALA	3.9
38	HE	125	ALA	3.9
20	ET	2	ILE	3.9
26	GZ	47	ILE	3.9
36	HC	129	MET	3.9
43	HJ	53	ILE	3.9
55	HV	557	ILE	3.9
55	HV	509	SER	3.9
7	AG	47	ASN	3.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
23	GW	21	GLY	3.9
21	AU	86	PHE	3.9
54	HU	8	GLU	3.9
6	GF	124	ARG	3.9
41	HH	31	LYS	3.9
34	DB	200	PRO	3.9
39	DF	83	ALA	3.9
8	CH	25	TYR	3.9
9	AI	60	VAL	3.9
15	EO	90	VAL	3.9
32	E5	54	VAL	3.9
41	HH	128	TYR	3.9
51	HR	32	TYR	3.9
55	HV	517	HIS	3.9
3	AA	2104	C	3.9
35	HA	1228	C	3.9
55	HV	582	SER	3.9
12	GL	107	PHE	3.9
9	CI	94	LYS	3.9
25	GY	20	ASN	3.9
39	DF	80	PHE	3.9
39	HF	63	ASN	3.9
8	AH	18	GLN	3.9
34	DB	87	ASP	3.9
8	CH	31	VAL	3.9
9	GI	32	VAL	3.9
37	FD	204	TYR	3.9
41	HH	11	LEU	3.9
43	HJ	8	ILE	3.9
44	HK	107	ILE	3.9
34	DB	16	GLY	3.9
55	FV	50	MET	3.9
55	HV	186	VAL	3.9
9	CI	42	ASN	3.9
46	HM	105	ASN	3.9
3	AA	2108	A	3.9
9	AI	43	ALA	3.9
3	EA	2141	G	3.9
7	EG	43	LYS	3.9
17	GQ	17	LEU	3.9
42	HI	72	ILE	3.9
43	DJ	37	ARG	3.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
51	HR	67	LEU	3.9
51	BR	64	TYR	3.9
8	CH	14	SER	3.9
40	HG	125	SER	3.9
46	FM	8	ASN	3.9
43	HJ	29	ALA	3.9
44	HK	102	ALA	3.9
46	DM	5	ALA	3.9
42	DI	23	PRO	3.9
55	FV	370	LYS	3.9
25	EY	57	LEU	3.9
9	GI	125	THR	3.9
34	FB	124	THR	3.9
9	GI	7	TYR	3.9
37	FD	179	GLU	3.9
42	HI	42	GLU	3.9
52	DS	29	LYS	3.9
9	EI	57	VAL	3.9
37	FD	53	VAL	3.9
42	DI	21	ILE	3.9
9	CI	70	THR	3.9
23	EW	45	HIS	3.9
34	BB	14	HIS	3.9
41	HH	55	THR	3.9
43	HJ	56	HIS	3.9
48	DO	79	THR	3.9
2	GC	271	SER	3.9
30	G3	22	LYS	3.9
32	C5	109	LYS	3.9
42	DI	68	LYS	3.9
54	BU	35	ARG	3.9
44	HK	67	ALA	3.8
5	GE	138	LEU	3.8
12	GL	101	ILE	3.8
24	CX	32	LEU	3.8
46	DM	56	LEU	3.8
5	GE	13	THR	3.8
39	DF	11	HIS	3.8
6	CF	45	ASP	3.8
43	DJ	75	ASP	3.8
23	GW	52	CYS	3.8
35	BA	79	G	3.8

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
35	FA	86	G	3.8
36	HC	145	GLY	3.8
7	AG	32	LEU	3.8
25	GY	43	LEU	3.8
32	E5	72	LEU	3.8
51	DR	55	LEU	3.8
45	FL	15	LYS	3.8
55	HV	527	PRO	3.8
46	DM	20	THR	3.8
52	HS	39	THR	3.8
55	HV	548	GLU	3.8
5	CE	161	ALA	3.8
32	A5	100	ALA	3.8
40	BG	83	SER	3.8
19	GS	105	VAL	3.8
27	G0	56	LYS	3.8
35	HA	1311	A	3.8
49	HP	35	ARG	3.8
54	HU	47	ARG	3.8
9	GI	37	PHE	3.8
55	HV	211	MET	3.8
36	HC	113	ALA	3.8
34	HB	120	SER	3.8
20	GT	43	ILE	3.8
55	HV	404	ILE	3.8
3	AA	2153	C	3.8
3	AA	2138	G	3.8
26	GZ	17	PRO	3.8
55	HV	508	GLN	3.8
6	CF	111	ARG	3.8
42	FI	43	THR	3.8
44	BK	126	LYS	3.8
6	GF	75	GLY	3.8
48	HO	33	THR	3.8
6	GF	143	ASP	3.8
34	HB	158	ASP	3.8
39	HF	48	ALA	3.8
9	GI	89	SER	3.8
43	BJ	102	LEU	3.8
47	HN	16	LEU	3.8
55	HV	591	LEU	3.8
21	GU	69	VAL	3.8

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
41	HH	36	ILE	3.8
34	DB	197	PHE	3.8
6	GF	166	ARG	3.8
20	ET	72	GLN	3.8
28	G1	32	LYS	3.8
47	HN	24	ARG	3.8
49	FP	80	LYS	3.8
53	FT	24	ARG	3.8
3	CA	2152	G	3.8
35	HA	1048	G	3.8
15	GO	23	ALA	3.8
23	GW	34	SER	3.8
32	E5	69	PHE	3.8
37	FD	145	ILE	3.8
46	HM	73	ILE	3.8
20	CT	73	ARG	3.8
21	GU	90	LYS	3.8
9	GI	55	PRO	3.8
13	AM	60	GLN	3.8
13	GM	61	GLY	3.8
23	AW	45	HIS	3.8
46	HM	111	GLY	3.8
3	EA	2144	G	3.8
9	CI	141	ASP	3.8
42	BI	90	TYR	3.8
12	GL	121	THR	3.8
32	C5	23	LEU	3.8
34	HB	51	GLU	3.8
9	AI	12	VAL	3.8
13	GM	117	PHE	3.8
15	EO	87	ILE	3.8
20	GT	51	PHE	3.8
28	G1	49	LYS	3.8
40	HG	141	VAL	3.8
55	HV	359	ARG	3.8
21	GU	77	GLY	3.8
55	FV	543	GLY	3.8
6	GF	8	LYS	3.8
12	GL	96	LYS	3.8
36	FC	79	LYS	3.8
42	DI	62	ASP	3.8
46	HM	3	ARG	3.8

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
55	DV	515	TYR	3.8
34	BB	84	LEU	3.8
25	GY	46	VAL	3.8
34	HB	69	VAL	3.8
50	HQ	58	VAL	3.8
9	CI	99	LYS	3.7
12	GL	144	GLU	3.7
32	E5	104	ALA	3.7
34	DB	14	HIS	3.7
36	HC	108	LYS	3.7
54	DU	24	GLU	3.7
34	FB	128	LEU	3.7
34	HB	122	ASP	3.7
41	HH	125	ILE	3.7
32	E5	39	THR	3.7
40	HG	49	THR	3.7
9	GI	42	ASN	3.7
3	EA	2154	A	3.7
8	CH	42	LYS	3.7
34	DB	34	ARG	3.7
55	HV	547	GLY	3.7
30	G3	60	CYS	3.7
32	E5	95	LEU	3.7
3	CA	2151	U	3.7
9	EI	41	PHE	3.7
43	HJ	28	THR	3.7
44	HK	128	ARG	3.7
46	DM	93	ARG	3.7
51	HR	28	THR	3.7
5	GE	97	ASN	3.7
3	GA	1172	C	3.7
51	DR	74	HIS	3.7
6	CF	174	PHE	3.7
37	HD	206	LYS	3.7
8	EH	40	THR	3.7
40	DG	82	GLY	3.7
43	HJ	38	GLY	3.7
26	GZ	11	SER	3.7
20	GT	70	HIS	3.7
36	HC	43	LEU	3.7
9	GI	86	LYS	3.7
25	GY	50	VAL	3.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
40	DG	69	VAL	3.7
43	FJ	8	ILE	3.7
55	HV	518	VAL	3.7
18	GR	83	TYR	3.7
12	GL	76	GLU	3.7
42	DI	4	ASN	3.7
7	AG	11	PRO	3.7
39	HF	67	PRO	3.7
40	HG	109	ARG	3.7
44	DK	127	ARG	3.7
55	HV	481	ALA	3.7
18	GR	76	LYS	3.7
12	GL	82	LEU	3.7
48	HO	15	PHE	3.7
3	CA	2143	C	3.7
6	GF	43	ILE	3.7
39	HF	60	VAL	3.7
20	GT	42	GLU	3.7
25	GY	13	GLU	3.7
54	DU	33	ARG	3.7
25	EY	63	ALA	3.7
49	FP	43	ALA	3.7
7	GG	59	ASP	3.7
36	HC	175	LEU	3.7
40	FG	66	LEU	3.7
41	HH	5	ASP	3.7
18	GR	46	GLU	3.7
21	CU	9	GLU	3.7
40	DG	80	VAL	3.7
3	EA	2150	C	3.7
9	EI	29	GLN	3.7
9	GI	130	GLY	3.7
36	HC	100	GLN	3.7
40	DG	112	GLY	3.7
47	HN	44	ALA	3.7
39	BF	92	THR	3.7
25	GY	26	PHE	3.7
45	HL	24	LEU	3.7
54	HU	29	LEU	3.7
15	GO	27	VAL	3.7
34	HB	14	HIS	3.7
23	GW	53	GLY	3.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
26	GZ	25	GLY	3.7
35	HA	1210	C	3.7
40	DG	44	TYR	3.7
55	HV	534	TYR	3.7
8	CH	39	ALA	3.7
12	CL	125	LEU	3.7
34	HB	147	LEU	3.7
34	HB	183	PHE	3.7
55	HV	136	PRO	3.7
6	EF	177	ARG	3.7
9	GI	39	LYS	3.7
38	FE	123	VAL	3.7
43	HJ	20	GLN	3.7
49	DP	37	GLY	3.7
3	CA	2153	C	3.7
20	GT	45	ALA	3.7
40	HG	150	ALA	3.7
20	ET	3	ARG	3.6
29	C2	46	LYS	3.6
40	HG	79	ARG	3.6
6	GF	165	GLY	3.6
9	AI	51	GLY	3.6
40	FG	84	THR	3.6
9	EI	108	ILE	3.6
40	HG	7	ILE	3.6
44	DK	84	VAL	3.6
44	HK	100	LEU	3.6
47	HN	51	LEU	3.6
3	CA	2157	G	3.6
6	GF	28	PRO	3.6
13	CM	60	GLN	3.6
23	EW	42	THR	3.6
52	HS	51	VAL	3.6
40	HG	36	LYS	3.6
6	CF	19	PHE	3.6
49	DP	52	LEU	3.6
3	AA	2154	A	3.6
3	GA	2133	G	3.6
27	G0	26	SER	3.6
34	HB	121	GLN	3.6
36	HC	34	ASP	3.6
41	HH	39	VAL	3.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
42	HI	30	ILE	3.6
42	HI	79	ILE	3.6
50	HQ	41	THR	3.6
51	HR	45	THR	3.6
28	C1	34	GLU	3.6
9	GI	132	ALA	3.6
28	E1	51	ALA	3.6
32	E5	120	ALA	3.6
43	HJ	102	LEU	3.6
5	GE	119	ILE	3.6
6	CF	143	ASP	3.6
21	GU	58	VAL	3.6
34	DB	69	VAL	3.6
36	HC	126	ARG	3.6
37	DD	25	VAL	3.6
39	HF	68	GLN	3.6
41	HH	126	ILE	3.6
43	DJ	84	VAL	3.6
12	GL	141	LYS	3.6
23	GW	49	ASN	3.6
54	HU	46	LYS	3.6
40	HG	139	GLU	3.6
23	GW	64	GLY	3.6
32	E5	5	LEU	3.6
6	AF	119	LYS	3.6
23	AW	71	LYS	3.6
25	GY	7	ARG	3.6
9	CI	56	VAL	3.6
32	C5	55	VAL	3.6
39	HF	35	LYS	3.6
39	HF	46	GLN	3.6
42	FI	28	ILE	3.6
49	DP	36	VAL	3.6
53	BT	4	ILE	3.6
3	CA	2108	A	3.6
16	GP	1	SER	3.6
9	GI	131	THR	3.6
35	HA	845	A	3.6
37	FD	32	CYS	3.6
52	HS	14	HIS	3.6
42	DI	76	ALA	3.6
53	HT	87	ALA	3.6

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
9	CI	136	GLY	3.6
51	HR	48	ARG	3.6
55	HV	378	ARG	3.6
12	GL	111	ILE	3.6
15	CO	49	VAL	3.6
27	A0	54	ILE	3.6
9	GI	18	ASN	3.6
36	HC	117	ALA	3.6
36	HC	127	ARG	3.6
38	HE	90	THR	3.6
46	DM	29	ARG	3.6
52	HS	50	ALA	3.6
4	GD	118	PHE	3.6
35	HA	1166	G	3.6
34	DB	198	VAL	3.6
37	HD	25	VAL	3.6
42	HI	116	VAL	3.6
35	BA	83	C	3.6
35	FA	841	C	3.6
46	FM	58	ASP	3.6
44	HK	89	PRO	3.6
36	HC	176	HIS	3.6
40	HG	147	ALA	3.6
7	GG	48	THR	3.6
54	FU	37	PHE	3.6
33	A6	28	GLU	3.6
36	HC	72	ARG	3.6
48	HO	74	ASP	3.6
44	HK	115	PRO	3.6
33	A6	12	ALA	3.6
3	CA	2183	A	3.6
9	GI	101	SER	3.6
12	GL	143	GLU	3.5
40	HG	110	LYS	3.5
35	HA	839	C	3.5
35	HA	1297	G	3.5
35	HA	1327	C	3.5
43	DJ	79	PRO	3.5
9	CI	40	ALA	3.5
13	GM	99	GLY	3.5
9	GI	66	PHE	3.5
7	GG	49	LEU	3.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
43	DJ	10	LEU	3.5
44	BK	53	ARG	3.5
46	DM	113	ARG	3.5
20	ET	58	VAL	3.5
41	DH	25	VAL	3.5
55	DV	501	VAL	3.5
24	CX	77	TYR	3.5
49	FP	17	TYR	3.5
5	GE	100	MET	3.5
37	FD	178	MET	3.5
40	HG	93	PRO	3.5
35	FA	79	G	3.5
40	HG	60	GLU	3.5
42	DI	12	ARG	3.5
44	HK	83	GLU	3.5
44	HK	58	SER	3.5
23	AW	42	THR	3.5
34	FB	129	THR	3.5
9	EI	140	GLU	3.5
14	GN	120	GLU	3.5
28	G1	37	LYS	3.5
32	A5	56	ARG	3.5
36	DC	170	GLU	3.5
44	HK	92	GLY	3.5
45	BL	124	ALA	3.5
12	GL	125	LEU	3.5
43	HJ	87	LEU	3.5
52	HS	5	LEU	3.5
13	GM	22	GLN	3.5
54	HU	32	VAL	3.5
13	GM	11	LYS	3.5
23	GW	61	LYS	3.5
34	DB	212	TYR	3.5
54	HU	18	ARG	3.5
46	FM	51	GLY	3.5
21	GU	72	PHE	3.5
39	DF	12	PRO	3.5
28	E1	10	LEU	3.5
34	DB	35	ASN	3.5
41	HH	121	LEU	3.5
34	HB	225	SER	3.5
41	FH	2	SER	3.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
3	EA	2138	G	3.5
46	DM	33	ILE	3.5
46	HM	92	ARG	3.5
15	GO	24	THR	3.5
15	GO	46	GLU	3.5
40	FG	106	GLU	3.5
22	GV	74	ALA	3.5
34	FB	15	PHE	3.5
44	BK	52	PHE	3.5
9	AI	52	LEU	3.5
55	FV	320	LEU	3.5
8	CH	50	ARG	3.5
12	GL	54	GLN	3.5
38	HE	19	ASN	3.5
6	GF	73	VAL	3.5
8	GH	44	ILE	3.5
19	GS	30	SER	3.5
37	HD	101	VAL	3.5
41	HH	104	VAL	3.5
21	GU	100	GLU	3.5
43	DJ	25	ILE	3.5
54	DU	4	ILE	3.5
26	GZ	12	ALA	3.5
36	HC	44	THR	3.5
9	CI	38	CYS	3.5
20	GT	7	LEU	3.5
55	HV	551	PRO	3.5
6	GF	11	VAL	3.5
7	CG	42	VAL	3.5
8	EH	48	GLU	3.5
9	CI	60	VAL	3.5
42	HI	111	VAL	3.5
46	FM	12	HIS	3.5
6	GF	103	ILE	3.5
9	CI	58	ILE	3.5
37	FD	200	ILE	3.5
39	DF	85	ILE	3.5
55	HV	318	SER	3.5
34	DB	159	ALA	3.5
6	EF	142	TYR	3.5
23	GW	25	PHE	3.5
25	GY	44	LYS	3.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
6	EF	48	LEU	3.5
46	HM	95	LEU	3.5
47	HN	27	LEU	3.5
3	EA	1172	C	3.5
37	FD	125	VAL	3.5
3	GA	2135	A	3.5
13	GM	32	GLY	3.5
15	GO	91	SER	3.5
35	HA	1021	A	3.5
5	GE	128	ALA	3.5
26	GZ	15	ARG	3.5
36	HC	107	ARG	3.5
47	HN	36	ALA	3.5
8	AH	40	THR	3.5
32	C5	67	THR	3.5
46	HM	75	MET	3.5
6	CF	35	LEU	3.4
9	AI	105	LEU	3.4
19	GS	9	HIS	3.4
54	HU	14	VAL	3.4
7	CG	13	GLY	3.4
46	HM	114	LYS	3.4
8	CH	36	ALA	3.4
2	GC	32	LEU	3.4
15	EO	24	THR	3.4
55	HV	263	LEU	3.4
55	HV	166	PRO	3.4
32	E5	53	ARG	3.4
34	HB	94	ARG	3.4
38	HE	26	LYS	3.4
25	GY	6	LEU	3.4
20	AT	91	GLN	3.4
40	DG	9	GLN	3.4
48	HO	77	ARG	3.4
55	HV	514	GLN	3.4
43	HJ	41	PRO	3.4
21	EU	27	VAL	3.4
3	GA	1170	C	3.4
40	DG	62	PHE	3.4
43	HJ	7	ARG	3.4
46	HM	79	ARG	3.4
4	GD	1	MET	3.4

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
38	HE	81	LEU	3.4
25	EY	46	VAL	3.4
32	C5	128	THR	3.4
46	HM	55	THR	3.4
28	A1	8	ILE	3.4
32	C5	136	ILE	3.4
5	GE	182	ALA	3.4
34	BB	52	ALA	3.4
42	HI	123	ARG	3.4
47	FN	24	ARG	3.4
49	FP	22	ALA	3.4
55	BV	580	PHE	3.4
32	A5	30	SER	3.4
35	HA	728	A	3.4
39	DF	4	TYR	3.4
39	DF	25	TYR	3.4
7	EG	11	PRO	3.4
9	EI	21	PRO	3.4
32	E5	130	PRO	3.4
46	FM	115	PRO	3.4
9	AI	58	ILE	3.4
44	DK	53	ARG	3.4
3	GA	846	U	3.4
8	CH	28	ASN	3.4
30	G3	21	PHE	3.4
40	FG	62	PHE	3.4
44	DK	66	ALA	3.4
47	HN	73	PHE	3.4
15	GO	106	LEU	3.4
35	BA	461	A	3.4
9	AI	35	MET	3.4
34	HB	119	GLN	3.4
43	HJ	10	LEU	3.4
23	GW	22	VAL	3.4
24	GX	46	VAL	3.4
3	GA	2137	U	3.4
34	HB	137	THR	3.4
9	AI	46	ASP	3.4
43	DJ	91	ASP	3.4
52	HS	10	PHE	3.4
47	HN	48	LEU	3.4
21	GU	21	ARG	3.4

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
36	HC	40	ARG	3.4
44	HK	44	TRP	3.4
20	GT	58	VAL	3.4
35	BA	82	G	3.4
35	HA	1305	G	3.4
5	GE	175	ILE	3.4
9	EI	54	ILE	3.4
32	E5	14	GLU	3.4
43	HJ	81	GLU	3.4
45	HL	82	ILE	3.4
44	HK	114	THR	3.4
2	GC	92	LEU	3.4
25	GY	39	GLN	3.4
43	HJ	17	LEU	3.4
8	GH	35	LYS	3.4
35	BA	1534	A	3.4
17	EQ	86	SER	3.4
32	E5	40	GLU	3.4
3	AA	2105	U	3.4
32	E5	119	PRO	3.4
42	DI	124	ARG	3.4
44	HK	106	ARG	3.4
34	BB	128	LEU	3.4
42	DI	40	GLY	3.3
55	HV	556	GLY	3.3
35	BA	845	A	3.3
35	HA	1229	A	3.3
42	DI	128	SER	3.3
44	BK	34	ILE	3.3
5	GE	104	ALA	3.3
32	A5	31	ARG	3.3
34	FB	68	PHE	3.3
34	HB	125	PHE	3.3
37	FD	165	ARG	3.3
45	HL	2	ALA	3.3
55	HV	329	PHE	3.3
6	GF	112	ASP	3.3
21	GU	23	LYS	3.3
28	G1	35	LEU	3.3
34	DB	211	LEU	3.3
35	HA	1196	A	3.3
42	HI	88	MET	3.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
20	GT	6	ARG	3.3
34	HB	107	ARG	3.3
12	GL	64	PHE	3.3
55	FV	536	PHE	3.3
55	HV	355	ALA	3.3
2	CC	33	LEU	3.3
51	HR	71	THR	3.3
55	DV	502	GLU	3.3
55	FV	397	LEU	3.3
11	GK	98	ARG	3.3
19	GS	11	ARG	3.3
20	GT	12	ARG	3.3
42	HI	25	ASN	3.3
17	AQ	4	LYS	3.3
32	C5	143	MET	3.3
39	DF	84	VAL	3.3
40	HG	80	VAL	3.3
42	HI	55	VAL	3.3
46	HM	107	ARG	3.3
52	FS	37	ARG	3.3
6	EF	82	TYR	3.3
33	A6	30	PHE	3.3
55	HV	307	ALA	3.3
32	C5	47	GLU	3.3
32	E5	17	GLU	3.3
55	FV	218	TRP	3.3
34	HB	64	GLY	3.3
36	DC	157	LEU	3.3
41	HH	53	GLY	3.3
44	HK	64	GLN	3.3
31	G4	7	VAL	3.3
9	GI	48	ILE	3.3
20	GT	30	ILE	3.3
28	G1	47	ILE	3.3
35	HA	1042	A	3.3
54	HU	15	ALA	3.3
5	GE	89	PRO	3.3
12	GL	58	TYR	3.3
40	DG	52	GLN	3.3
30	G3	16	THR	3.3
51	HR	31	ASN	3.3
55	FV	296	ASN	3.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
34	BB	161	PHE	3.3
47	DN	36	ALA	3.3
2	CC	269	ARG	3.3
9	EI	20	SER	3.3
32	C5	61	ARG	3.3
38	HE	93	ARG	3.3
55	HV	340	SER	3.3
55	DV	531	PRO	3.3
43	HJ	64	GLN	3.3
22	GV	8	VAL	3.3
43	DJ	77	VAL	3.3
55	HV	553	VAL	3.3
38	HE	20	ARG	3.3
41	HH	77	ARG	3.3
3	GA	1413	A	3.3
51	HR	27	ALA	3.3
8	GH	13	GLY	3.3
5	GE	184	ASP	3.3
55	HV	612	LEU	3.3
17	GQ	91	ARG	3.3
25	AY	7	ARG	3.3
36	HC	52	VAL	3.3
55	HV	182	VAL	3.3
37	HD	2	ALA	3.3
38	HE	99	ALA	3.3
42	HI	114	LYS	3.3
44	HK	27	PHE	3.3
52	DS	10	PHE	3.3
12	GL	114	GLY	3.3
12	GL	61	LEU	3.3
35	HA	976	G	3.3
35	HA	1024	G	3.3
35	HA	1041	G	3.3
35	HA	1207	G	3.3
51	HR	23	TYR	3.3
48	DO	42	HIS	3.3
7	EG	31	GLU	3.3
9	EI	138	VAL	3.3
55	HV	264	VAL	3.3
20	ET	24	MET	3.3
55	HV	605	PHE	3.3
5	CE	3	LEU	3.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
21	GU	54	PRO	3.3
33	A6	24	SER	3.3
40	DG	109	ARG	3.3
41	HH	79	SER	3.3
45	HL	9	ARG	3.3
54	FU	47	ARG	3.3
3	AA	2145	C	3.2
21	GU	42	LYS	3.2
30	C3	22	LYS	3.2
9	EI	139	VAL	3.2
14	AN	120	GLU	3.2
35	HA	1009	U	3.2
39	HF	33	GLU	3.2
7	CG	12	ALA	3.2
36	DC	95	ALA	3.2
9	CI	24	GLY	3.2
42	DI	71	GLY	3.2
4	GD	35	THR	3.2
55	HV	396	THR	3.2
3	GA	2147	A	3.2
12	GL	78	ARG	3.2
44	DK	13	ARG	3.2
55	HV	357	ARG	3.2
24	CX	76	LYS	3.2
6	CF	83	PRO	3.2
42	HI	96	SER	3.2
35	HA	1038	C	3.2
37	FD	173	VAL	3.2
39	DF	58	HIS	3.2
44	HK	32	VAL	3.2
43	HJ	6	ILE	3.2
43	HJ	49	PHE	3.2
34	HB	8	MET	3.2
43	FJ	37	ARG	3.2
7	GG	50	THR	3.2
21	GU	25	LYS	3.2
6	CF	173	ASP	3.2
15	EO	115	LEU	3.2
35	FA	461	A	3.2
37	HD	19	LEU	3.2
40	DG	33	ASP	3.2
41	DH	61	LEU	3.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
55	HV	171	LEU	3.2
8	GH	48	GLU	3.2
34	HB	212	TYR	3.2
43	HJ	65	TYR	3.2
10	GJ	64	VAL	3.2
55	FV	519	VAL	3.2
3	EA	2153	C	3.2
41	FH	97	ALA	3.2
48	HO	16	GLY	3.2
55	BV	541	LYS	3.2
35	HA	849	G	3.2
35	HA	1511	G	3.2
9	EI	33	ASN	3.2
4	CD	35	THR	3.2
9	GI	141	ASP	3.2
34	DB	100	LEU	3.2
52	HS	64	ASP	3.2
55	DV	548	GLU	3.2
42	DI	6	TYR	3.2
43	HJ	77	VAL	3.2
34	DB	29	PHE	3.2
46	HM	32	ALA	3.2
7	GG	166	GLU	3.2
54	HU	39	GLU	3.2
25	GY	56	LEU	3.2
35	HA	1006	G	3.2
55	HV	300	ASP	3.2
54	FU	45	ARG	3.2
32	C5	130	PRO	3.2
48	DO	47	LYS	3.2
18	CR	103	ALA	3.2
34	BB	68	PHE	3.2
37	FD	144	SER	3.2
40	FG	83	SER	3.2
39	HF	83	ALA	3.2
47	BN	21	PHE	3.2
25	GY	41	HIS	3.2
28	G1	8	ILE	3.2
25	GY	24	GLU	3.2
41	DH	60	GLU	3.2
7	GG	71	LEU	3.2
36	HC	186	THR	3.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
46	DM	55	THR	3.2
21	CU	69	VAL	3.2
34	HB	220	VAL	3.2
43	BJ	36	VAL	3.2
34	BB	15	PHE	3.2
36	HC	42	TYR	3.2
52	HS	26	GLY	3.2
37	BD	64	ILE	3.2
43	HJ	27	GLU	3.2
41	HH	84	ARG	3.2
55	DV	512	ARG	3.2
34	BB	130	LYS	3.2
38	HE	76	LEU	3.2
6	GF	5	ASP	3.2
9	CI	69	VAL	3.2
9	EI	19	PRO	3.2
32	E5	68	PRO	3.2
32	E5	77	VAL	3.2
36	DC	151	VAL	3.2
39	HF	50	PRO	3.2
45	HL	52	VAL	3.2
46	HM	20	THR	3.2
55	HV	105	VAL	3.2
3	CA	2141	G	3.2
34	FB	163	ILE	3.2
36	HC	63	SER	3.2
36	HC	133	ALA	3.2
42	DI	30	ILE	3.2
40	FG	86	GLN	3.2
41	HH	118	GLN	3.2
5	CE	147	LEU	3.2
37	FD	90	LEU	3.2
7	GG	15	ASP	3.2
6	GF	79	ARG	3.2
12	GL	69	ARG	3.2
33	A6	16	VAL	3.2
7	CG	4	ALA	3.2
23	AW	73	PRO	3.2
34	HB	43	GLU	3.2
40	HG	38	THR	3.2
54	BU	21	ARG	3.2
41	HH	130	ALA	3.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
55	HV	646	GLU	3.2
21	CU	18	LYS	3.2
35	HA	1033	G	3.2
50	HQ	34	TYR	3.2
9	GI	116	MET	3.2
55	DV	612	LEU	3.2
55	HV	401	ASP	3.2
6	GF	125	GLY	3.1
6	GF	163	GLU	3.1
12	CL	122	VAL	3.1
34	HB	13	VAL	3.1
37	FD	183	LYS	3.1
41	DH	72	VAL	3.1
48	HO	29	VAL	3.1
52	HS	28	LYS	3.1
54	HU	44	GLU	3.1
55	FV	544	VAL	3.1
7	GG	45	ALA	3.1
34	DB	217	ALA	3.1
9	CI	59	THR	3.1
32	A5	142	THR	3.1
41	HH	14	ILE	3.1
6	GF	134	GLN	3.1
9	CI	5	GLN	3.1
20	GT	91	GLN	3.1
41	DH	128	TYR	3.1
55	FV	318	SER	3.1
3	CA	2107	G	3.1
5	GE	118	LEU	3.1
32	A5	139	LEU	3.1
37	HD	117	LEU	3.1
34	FB	73	ARG	3.1
13	GM	29	GLY	3.1
16	CP	67	GLU	3.1
35	HA	1214	C	3.1
42	DI	27	LYS	3.1
24	GX	28	PHE	3.1
55	HV	621	VAL	3.1
8	AH	49	ALA	3.1
13	GM	35	ALA	3.1
34	BB	205	ALA	3.1
36	HC	92	ALA	3.1

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
48	HO	76	ALA	3.1
3	CA	2147	A	3.1
34	HB	124	THR	3.1
43	DJ	35	GLN	3.1
20	GT	11	LEU	3.1
42	HI	35	LEU	3.1
48	DO	67	LEU	3.1
48	HO	63	ARG	3.1
35	HA	734	G	3.1
40	DG	40	GLU	3.1
55	HV	626	GLU	3.1
7	GG	155	PRO	3.1
32	E5	56	ARG	3.1
32	E5	125	ARG	3.1
36	HC	179	ARG	3.1
40	DG	12	ILE	3.1
45	HL	122	PRO	3.1
53	FT	66	LEU	3.1
55	DV	549	TYR	3.1
24	CX	75	GLU	3.1
37	FD	113	GLU	3.1
55	HV	100	GLU	3.1
34	HB	208	ALA	3.1
35	HA	1230	C	3.1
8	GH	27	ARG	3.1
23	GW	19	ARG	3.1
25	CY	7	ARG	3.1
40	DG	111	ARG	3.1
47	FN	36	ALA	3.1
9	CI	34	ILE	3.1
22	GV	30	ILE	3.1
24	GX	58	ILE	3.1
6	CF	133	GLU	3.1
39	DF	39	LEU	3.1
49	FP	6	LEU	3.1
32	A5	143	MET	3.1
34	HB	70	GLY	3.1
34	HB	86	CYS	3.1
36	HC	96	GLY	3.1
9	CI	32	VAL	3.1
55	BV	553	VAL	3.1
36	HC	8	ASN	3.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
55	BV	530	ASN	3.1
5	GE	147	LEU	3.1
13	GM	20	LEU	3.1
16	AP	67	GLU	3.1
38	HE	50	TYR	3.1
53	DT	68	HIS	3.1
23	GW	14	ASP	3.1
24	CX	73	ARG	3.1
32	C5	31	ARG	3.1
36	HC	172	ARG	3.1
40	FG	5	ARG	3.1
6	GF	52	ALA	3.1
11	GK	63	VAL	3.1
14	GN	25	ALA	3.1
27	A0	55	ALA	3.1
54	HU	52	ALA	3.1
6	GF	110	ILE	3.1
20	CT	30	ILE	3.1
3	CA	2144	G	3.1
42	BI	35	LEU	3.1
12	GL	45	GLY	3.1
34	BB	16	GLY	3.1
55	FV	547	GLY	3.1
36	HC	62	LYS	3.1
55	HV	594	LYS	3.1
13	GM	128	THR	3.1
30	G3	48	MET	3.1
32	A5	67	THR	3.1
32	E5	30	SER	3.1
32	E5	52	MET	3.1
21	GU	2	ALA	3.1
22	GV	92	VAL	3.1
32	E5	25	ALA	3.1
55	DV	544	VAL	3.1
43	HJ	76	ILE	3.1
44	DK	23	ILE	3.1
55	HV	63	ILE	3.1
9	GI	137	LEU	3.1
24	GX	15	ASN	3.1
21	GU	43	LYS	3.1
23	GW	77	LYS	3.1
34	HB	72	LYS	3.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
47	HN	47	LYS	3.1
55	HV	354	LYS	3.1
53	DT	20	HIS	3.1
34	DB	37	VAL	3.1
40	DG	75	VAL	3.1
41	HH	30	SER	3.1
43	HJ	36	VAL	3.1
46	HM	37	ALA	3.1
55	DV	582	SER	3.1
55	DV	586	VAL	3.1
6	GF	96	TRP	3.1
6	GF	109	ARG	3.1
25	GY	31	GLN	3.1
32	A5	136	ILE	3.1
32	E5	118	ILE	3.1
34	DB	163	ILE	3.1
36	HC	167	TRP	3.1
55	DV	520	ILE	3.1
55	FV	52	TRP	3.1
55	DV	507	LYS	3.1
6	CF	86	CYS	3.1
9	CI	15	GLY	3.1
23	GW	20	LEU	3.1
25	GY	21	LEU	3.1
44	HK	88	GLY	3.1
3	CA	896	A	3.1
37	HD	178	MET	3.0
50	FQ	34	TYR	3.0
18	GR	47	VAL	3.0
26	GZ	56	VAL	3.0
12	GL	117	THR	3.0
5	GE	46	GLN	3.0
36	HC	204	LYS	3.0
46	DM	73	ILE	3.0
15	GO	21	LEU	3.0
22	GV	13	GLY	3.0
35	FA	208	U	3.0
3	CA	2104	C	3.0
6	EF	99	PHE	3.0
12	GL	2	ARG	3.0
9	CI	12	VAL	3.0
39	HF	65	GLU	3.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
44	HK	24	HIS	3.0
46	HM	58	ASP	3.0
9	CI	82	ALA	3.0
9	GI	17	ALA	3.0
18	GR	3	ALA	3.0
7	GG	83	THR	3.0
14	EN	119	SER	3.0
7	AG	71	LEU	3.0
20	CT	32	LEU	3.0
9	EI	91	LYS	3.0
46	DM	47	GLU	3.0
15	GO	70	ALA	3.0
17	GQ	31	TYR	3.0
22	GV	82	TYR	3.0
36	HC	41	GLN	3.0
41	HH	75	ILE	3.0
42	HI	28	ILE	3.0
48	DO	16	GLY	3.0
12	GL	123	ARG	3.0
20	GT	76	ARG	3.0
42	DI	118	LEU	3.0
43	HJ	31	ARG	3.0
55	HV	252	LEU	3.0
3	EA	2137	U	3.0
23	GW	43	LYS	3.0
34	BB	36	LYS	3.0
41	DH	28	PRO	3.0
55	HV	308	GLU	3.0
8	EH	49	ALA	3.0
35	HA	1319	A	3.0
37	FD	124	MET	3.0
41	HH	23	ALA	3.0
41	HH	71	VAL	3.0
6	AF	142	TYR	3.0
6	CF	38	GLY	3.0
6	CF	155	ILE	3.0
9	EI	85	ILE	3.0
35	HA	1286	U	3.0
42	DI	83	ILE	3.0
47	HN	78	GLY	3.0
5	GE	95	LYS	3.0
20	GT	93	LEU	3.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
23	CW	42	THR	3.0
32	E5	37	LYS	3.0
50	HQ	70	THR	3.0
35	HA	973	G	3.0
25	AY	20	ASN	3.0
53	FT	3	ASN	3.0
6	CF	1	ALA	3.0
20	GT	10	VAL	3.0
35	HA	1336	C	3.0
36	DC	180	ALA	3.0
36	HC	66	VAL	3.0
39	DF	89	VAL	3.0
48	HO	34	ALA	3.0
47	HN	65	ARG	3.0
50	HQ	47	HIS	3.0
55	FV	219	HIS	3.0
5	GE	6	LYS	3.0
49	FP	12	LYS	3.0
5	CE	127	GLU	3.0
49	HP	16	PHE	3.0
7	GG	34	ARG	3.0
32	A5	94	ARG	3.0
32	E5	127	ALA	3.0
35	HA	1018	G	3.0
36	HC	146	ALA	3.0
37	BD	194	ASP	3.0
37	HD	29	ASP	3.0
43	HJ	68	ARG	3.0
54	BU	9	ASN	3.0
54	HU	48	ALA	3.0
9	EI	35	MET	3.0
9	GI	91	LYS	3.0
34	DB	99	MET	3.0
35	HA	1339	A	3.0
35	HA	1403	C	3.0
2	AC	103	ILE	3.0
34	DB	30	ILE	3.0
34	DB	66	ILE	3.0
36	HC	103	ILE	3.0
52	HS	16	LEU	3.0
55	HV	598	SER	3.0
32	E5	46	ARG	3.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
5	GE	186	VAL	3.0
8	EH	41	LYS	3.0
9	AI	56	VAL	3.0
12	GL	98	ALA	3.0
37	FD	129	VAL	3.0
55	FV	587	ASP	3.0
6	GF	115	GLY	3.0
9	CI	30	GLN	3.0
15	GO	58	ILE	3.0
35	BA	87	C	3.0
35	HA	1227	A	3.0
35	HA	1302	C	3.0
51	HR	35	GLU	3.0
9	GI	79	LEU	3.0
34	HB	67	LEU	3.0
55	FV	577	ARG	3.0
12	GL	118	THR	3.0
38	HE	95	PHE	3.0
7	AG	12	ALA	3.0
9	GI	77	VAL	3.0
20	GT	38	ALA	3.0
32	E5	137	ALA	3.0
36	HC	200	VAL	3.0
43	DJ	39	PRO	3.0
44	FK	63	ALA	3.0
9	CI	18	ASN	3.0
23	AW	51	GLY	3.0
9	CI	35	MET	3.0
13	AM	1	MET	3.0
25	GY	59	GLU	3.0
45	HL	112	GLN	3.0
3	AA	2140	G	3.0
35	HA	698	G	3.0
37	DD	21	LEU	3.0
42	DI	7	TYR	3.0
40	DG	25	LYS	3.0
47	DN	21	PHE	3.0
34	DB	124	THR	2.9
46	HM	5	ALA	2.9
52	DS	48	THR	2.9
21	GU	80	ASP	2.9
28	G1	30	PRO	2.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
50	HQ	32	PRO	2.9
54	DU	48	ALA	2.9
40	HG	148	ASN	2.9
20	GT	2	ILE	2.9
37	BD	123	ILE	2.9
9	EI	80	LYS	2.9
9	GI	71	LYS	2.9
54	HU	20	LYS	2.9
35	HA	967	C	2.9
36	HC	201	TRP	2.9
44	DK	105	PHE	2.9
7	EG	58	ALA	2.9
2	CC	250	GLN	2.9
6	GF	149	ARG	2.9
9	GI	53	PRO	2.9
15	CO	111	ARG	2.9
18	AR	50	GLY	2.9
34	BB	43	GLU	2.9
42	HI	89	GLU	2.9
55	HV	330	VAL	2.9
23	CW	71	LYS	2.9
36	HC	150	LYS	2.9
22	EV	1	MET	2.9
43	HJ	18	ILE	2.9
55	HV	550	ILE	2.9
40	DG	47	LEU	2.9
43	HJ	90	LEU	2.9
4	ED	209	ALA	2.9
6	GF	177	ARG	2.9
13	GM	66	ARG	2.9
9	EI	3	LYS	2.9
12	EL	90	VAL	2.9
21	EU	33	VAL	2.9
24	AX	46	VAL	2.9
24	GX	6	VAL	2.9
32	C5	12	VAL	2.9
41	FH	130	ALA	2.9
41	HH	68	GLY	2.9
42	HI	66	THR	2.9
44	HK	72	ASP	2.9
55	HV	293	PRO	2.9
36	HC	33	LEU	2.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
46	HM	89	LEU	2.9
21	GU	60	LYS	2.9
39	HF	5	GLU	2.9
32	C5	77	VAL	2.9
44	HK	20	VAL	2.9
49	HP	37	GLY	2.9
50	HQ	24	ALA	2.9
50	FQ	9	GLN	2.9
35	HA	1270	G	2.9
52	DS	42	PRO	2.9
7	EG	48	THR	2.9
34	DB	110	ILE	2.9
47	HN	67	THR	2.9
55	FV	537	ILE	2.9
55	HV	494	ILE	2.9
55	HV	537	ILE	2.9
7	CG	169	ARG	2.9
15	GO	48	LEU	2.9
32	C5	125	ARG	2.9
38	DE	144	LEU	2.9
40	DG	120	LEU	2.9
52	HS	71	LEU	2.9
6	GF	41	GLU	2.9
42	FI	129	LYS	2.9
6	GF	127	TYR	2.9
51	DR	51	TYR	2.9
37	HD	43	ALA	2.9
43	DJ	12	ALA	2.9
46	DM	61	ALA	2.9
49	FP	7	ALA	2.9
12	GL	127	VAL	2.9
52	DS	58	VAL	2.9
55	HV	390	ASP	2.9
6	CF	79	ARG	2.9
8	GH	47	PHE	2.9
12	CL	144	GLU	2.9
15	CO	56	LYS	2.9
15	GO	76	LYS	2.9
20	ET	7	LEU	2.9
35	HA	844	G	2.9
21	EU	52	ASN	2.9
38	FE	126	LYS	2.9

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
47	HN	76	LYS	2.9
49	FP	9	HIS	2.9
42	DI	64	TYR	2.9
55	FV	511	GLY	2.9
20	AT	16	VAL	2.9
34	HB	88	GLN	2.9
46	DM	43	VAL	2.9
9	CI	64	ARG	2.9
46	HM	71	ARG	2.9
55	DV	357	ARG	2.9
6	GF	105	ILE	2.9
19	GS	35	ILE	2.9
46	HM	31	LYS	2.9
53	FT	4	ILE	2.9
25	AY	28	LEU	2.9
37	HD	191	LEU	2.9
9	AI	66	PHE	2.9
34	DB	177	ASN	2.9
40	HG	18	PHE	2.9
48	HO	43	PHE	2.9
32	A5	49	GLY	2.9
46	HM	38	GLY	2.9
8	CH	27	ARG	2.9
35	FA	412	A	2.9
36	HC	59	ARG	2.9
43	DJ	65	TYR	2.9
32	C5	122	GLN	2.9
55	DV	330	VAL	2.9
55	DV	508	GLN	2.9
24	GX	76	LYS	2.9
6	CF	49	LEU	2.9
12	GL	51	GLU	2.9
21	CU	49	PRO	2.9
28	C1	4	ILE	2.9
54	BU	4	ILE	2.9
56	HW	4	SER	2.9
37	BD	90	LEU	2.9
20	GT	24	MET	2.9
23	GW	59	PHE	2.9
55	FV	499	THR	2.9
37	BD	24	GLY	2.9
48	HO	20	ASN	2.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
6	GF	44	ALA	2.9
35	HA	1532	U	2.9
35	HA	1310	G	2.9
55	FV	355	ALA	2.9
18	GR	64	VAL	2.9
37	HD	164	GLN	2.9
44	HK	38	GLN	2.9
3	CA	2150	C	2.9
6	GF	146	ASP	2.9
35	HA	1328	C	2.9
43	BJ	78	GLU	2.9
5	GE	180	LEU	2.9
10	GJ	101	ILE	2.9
32	E5	79	PRO	2.9
34	DB	181	PRO	2.9
34	HB	109	SER	2.9
53	HT	4	ILE	2.9
7	CG	51	PHE	2.9
35	HA	1212	U	2.9
42	DI	46	MET	2.9
32	A5	131	THR	2.9
37	HD	45	LYS	2.9
55	HV	219	HIS	2.9
32	A5	48	ALA	2.9
43	HJ	12	ALA	2.9
3	GA	2108	A	2.8
42	DI	110	GLN	2.8
36	DC	193	TYR	2.8
3	CA	2186	G	2.8
12	GL	92	LEU	2.8
12	GL	142	ILE	2.8
36	HC	49	LYS	2.8
37	FD	148	LYS	2.8
37	HD	24	GLY	2.8
52	HS	46	GLY	2.8
53	FT	54	MET	2.8
18	GR	12	HIS	2.8
21	GU	75	ALA	2.8
23	CW	75	ASN	2.8
34	HB	41	ASN	2.8
21	GU	12	VAL	2.8
34	HB	182	VAL	2.8

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
35	HA	1008	U	2.8
20	AT	7	LEU	2.8
25	CY	56	LEU	2.8
34	DB	206	ILE	2.8
34	FB	134	LEU	2.8
36	HC	144	LEU	2.8
55	DV	171	LEU	2.8
24	CX	30	PRO	2.8
3	AA	2155	U	2.8
35	HA	89	U	2.8
5	GE	87	ALA	2.8
37	FD	175	ALA	2.8
45	HL	48	ALA	2.8
18	GR	87	GLN	2.8
24	GX	5	GLN	2.8
36	HC	39	VAL	2.8
43	DJ	74	VAL	2.8
47	HN	26	GLU	2.8
12	GL	126	ARG	2.8
7	GG	175	LYS	2.8
41	DH	22	LYS	2.8
46	DM	13	LYS	2.8
49	HP	12	LYS	2.8
3	AA	2181	U	2.8
15	GO	115	LEU	2.8
25	GY	57	LEU	2.8
34	DB	39	ILE	2.8
34	DB	156	LEU	2.8
34	HB	84	LEU	2.8
3	EA	2104	C	2.8
35	FA	87	C	2.8
35	HA	720	C	2.8
40	HG	26	PHE	2.8
3	AA	2110	G	2.8
43	FJ	79	PRO	2.8
9	EI	62	ALA	2.8
22	EV	94	ALA	2.8
33	A6	19	VAL	2.8
34	HB	93	HIS	2.8
3	GA	1176	U	2.8
12	CL	121	THR	2.8
34	HB	92	ASN	2.8

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
54	DU	23	CYS	2.8
3	GA	1583	A	2.8
6	CF	141	ASP	2.8
9	AI	34	ILE	2.8
9	AI	48	ILE	2.8
9	AI	95	ASP	2.8
35	HA	1362	A	2.8
55	DV	534	TYR	2.8
25	AY	62	GLY	2.8
36	DC	158	GLY	2.8
54	DU	37	PHE	2.8
3	EA	140	C	2.8
3	EA	2146	C	2.8
9	CI	36	GLU	2.8
11	GK	18	ARG	2.8
9	GI	82	ALA	2.8
17	GQ	86	SER	2.8
20	CT	56	GLU	2.8
35	FA	95	C	2.8
36	DC	109	PRO	2.8
47	BN	24	ARG	2.8
3	EA	1738	G	2.8
34	BB	216	VAL	2.8
39	DF	52	ASN	2.8
42	HI	43	THR	2.8
45	HL	40	THR	2.8
52	DS	63	THR	2.8
5	GE	133	LEU	2.8
9	EI	34	ILE	2.8
17	GQ	79	ILE	2.8
34	DB	42	LEU	2.8
36	HC	124	LEU	2.8
38	FE	109	GLY	2.8
48	DO	78	TYR	2.8
23	GW	54	ARG	2.8
25	CY	23	ARG	2.8
44	DK	128	ARG	2.8
55	FV	408	ARG	2.8
35	HA	1298	U	2.8
18	GR	65	ALA	2.8
32	C5	104	ALA	2.8
35	HA	934	C	2.8

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
9	EI	11	GLN	2.8
7	GG	44	HIS	2.8
6	AF	49	LEU	2.8
10	AJ	81	ILE	2.8
11	EK	18	ARG	2.8
17	GQ	23	TYR	2.8
22	GV	57	TYR	2.8
22	GV	63	ILE	2.8
34	HB	113	LEU	2.8
36	HC	191	THR	2.8
38	HE	48	PHE	2.8
38	HE	79	GLY	2.8
44	HK	59	THR	2.8
49	DP	55	ASP	2.8
51	HR	25	ASP	2.8
52	HS	15	LEU	2.8
55	HV	265	THR	2.8
43	DJ	49	PHE	2.8
5	CE	188	MET	2.8
17	GQ	1	ALA	2.8
35	DA	1533	C	2.8
40	DG	116	MET	2.8
47	HN	25	ALA	2.8
19	GS	101	SER	2.8
36	HC	131	ARG	2.8
28	A1	32	LYS	2.8
20	GT	4	GLU	2.8
24	GX	70	LEU	2.8
32	E5	124	ASP	2.8
35	HA	82	G	2.8
38	HE	102	GLY	2.8
38	BE	31	PHE	2.8
38	HE	134	ILE	2.8
40	BG	8	GLY	2.8
54	HU	5	LYS	2.8
55	HV	653	LYS	2.8
49	HP	47	GLU	2.8
5	GE	86	ALA	2.8
32	E5	110	ALA	2.8
37	BD	37	ALA	2.8
5	GE	90	GLN	2.8
42	HI	119	ARG	2.8

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
43	BJ	31	ARG	2.8
50	HQ	40	ARG	2.8
32	C5	30	SER	2.8
34	DB	61	SER	2.8
40	DG	115	SER	2.8
52	DS	25	SER	2.8
7	CG	176	LYS	2.8
41	HH	56	LYS	2.8
2	GC	11	GLY	2.8
23	EW	51	GLY	2.8
26	GZ	32	GLY	2.8
40	FG	8	GLY	2.8
5	GE	73	ILE	2.8
36	HC	157	LEU	2.8
37	FD	93	LEU	2.8
38	HE	16	ILE	2.8
41	DH	59	LEU	2.8
51	HR	65	LEU	2.8
55	DV	540	ILE	2.8
3	CA	2139	U	2.8
3	EA	2155	U	2.8
39	DF	42	TRP	2.8
3	GA	613	A	2.8
35	HA	974	A	2.8
35	HA	1268	G	2.8
49	HP	17	TYR	2.8
17	CQ	4	LYS	2.8
24	CX	53	LYS	2.8
43	FJ	30	LYS	2.8
49	DP	76	LYS	2.8
52	DS	30	PRO	2.8
55	BV	519	VAL	2.8
3	GA	140	C	2.7
6	CF	61	GLY	2.7
23	GW	28	GLU	2.7
7	GG	36	LEU	2.7
19	GS	74	ILE	2.7
20	CT	93	LEU	2.7
21	GU	34	ILE	2.7
34	HB	197	PHE	2.7
37	DD	200	ILE	2.7
52	HS	13	LEU	2.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
43	FJ	16	ARG	2.7
47	HN	90	ARG	2.7
50	DQ	27	ARG	2.7
12	CL	108	ALA	2.7
3	EA	2110	G	2.7
18	ER	6	GLN	2.7
43	HJ	82	LYS	2.7
44	DK	15	GLN	2.7
55	FV	607	LYS	2.7
6	CF	88	VAL	2.7
6	EF	148	VAL	2.7
9	CI	139	VAL	2.7
11	EK	35	VAL	2.7
6	GF	123	GLY	2.7
9	EI	31	GLY	2.7
16	AP	1	SER	2.7
2	AC	29	PHE	2.7
5	GE	12	LEU	2.7
23	EW	36	ILE	2.7
34	HB	185	ILE	2.7
37	DD	29	ASP	2.7
48	DO	15	PHE	2.7
54	DU	29	LEU	2.7
21	CU	25	LYS	2.7
35	HA	960	U	2.7
4	AD	209	ALA	2.7
9	GI	113	ALA	2.7
19	GS	3	THR	2.7
24	CX	5	GLN	2.7
35	HA	780	A	2.7
46	FM	5	ALA	2.7
49	HP	81	ALA	2.7
51	HR	49	ALA	2.7
55	BV	583	TYR	2.7
55	FV	534	TYR	2.7
21	GU	33	VAL	2.7
3	EA	2186	G	2.7
53	DT	54	MET	2.7
55	HV	546	PRO	2.7
21	GU	81	ARG	2.7
9	GI	47	SER	2.7
3	GA	1536	C	2.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
8	CH	35	LYS	2.7
32	A5	23	LEU	2.7
34	BB	56	LEU	2.7
34	HB	56	LEU	2.7
35	HA	1265	C	2.7
39	FF	37	HIS	2.7
40	DG	77	SER	2.7
42	DI	39	PHE	2.7
46	HM	74	SER	2.7
51	DR	44	ILE	2.7
55	DV	539	ASP	2.7
42	FI	4	ASN	2.7
9	EI	82	ALA	2.7
20	GT	72	GLN	2.7
21	CU	79	ALA	2.7
37	DD	36	GLN	2.7
42	DI	75	GLN	2.7
44	HK	73	ALA	2.7
3	GA	2134	A	2.7
5	GE	144	GLU	2.7
34	BB	212	TYR	2.7
54	DU	44	GLU	2.7
55	HV	339	TYR	2.7
6	GF	131	VAL	2.7
34	DB	216	VAL	2.7
43	HJ	84	VAL	2.7
9	EI	136	GLY	2.7
30	G3	62	PRO	2.7
46	DM	112	PRO	2.7
9	CI	86	LYS	2.7
34	BB	131	LYS	2.7
34	HB	29	PHE	2.7
34	HB	130	LYS	2.7
55	FV	507	LYS	2.7
3	AA	2144	G	2.7
10	EJ	25	LEU	2.7
15	GO	5	SER	2.7
38	FE	106	ILE	2.7
43	DJ	8	ILE	2.7
2	EC	250	GLN	2.7
3	AA	138	U	2.7
6	CF	177	ARG	2.7

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
23	GW	82	GLU	2.7
25	GY	5	GLU	2.7
47	HN	35	ASN	2.7
3	GA	2184	A	2.7
24	CX	50	VAL	2.7
42	HI	6	TYR	2.7
13	CM	136	MET	2.7
34	DB	173	LYS	2.7
36	DC	159	GLY	2.7
42	HI	27	LYS	2.7
45	HL	51	LYS	2.7
55	HV	497	LYS	2.7
6	CF	56	LEU	2.7
43	DJ	90	LEU	2.7
9	EI	141	ASP	2.7
35	HA	4	U	2.7
25	CY	5	GLU	2.7
44	HK	53	ARG	2.7
21	AU	52	ASN	2.7
6	GF	142	TYR	2.7
10	EJ	64	VAL	2.7
23	EW	50	VAL	2.7
36	DC	197	GLY	2.7
10	EJ	1	MET	2.7
44	DK	111	THR	2.7
6	GF	99	PHE	2.7
7	EG	49	LEU	2.7
55	DV	360	PHE	2.7
20	CT	12	ARG	2.7
22	GV	89	ILE	2.7
43	HJ	5	ARG	2.7
34	DB	86	CYS	2.7
41	FH	47	GLU	2.7
38	HE	118	ALA	2.7
44	HK	121	CYS	2.7
9	CI	33	ASN	2.7
36	HC	205	GLY	2.7
44	HK	81	ASN	2.7
46	DM	86	TYR	2.7
29	G2	1	MET	2.7
18	GR	29	THR	2.7
25	GY	18	LEU	2.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
34	BB	19	THR	2.7
34	FB	29	PHE	2.7
42	HI	80	ARG	2.7
13	GM	64	TRP	2.7
21	AU	71	ILE	2.7
45	HL	123	LYS	2.7
55	HV	230	SER	2.7
55	HV	311	ALA	2.7
2	CC	232	GLY	2.7
35	HA	1317	C	2.7
6	CF	148	VAL	2.7
9	AI	138	VAL	2.7
32	A5	12	VAL	2.7
35	HA	1266	G	2.7
44	HK	77	TYR	2.7
52	DS	32	ARG	2.7
54	HU	17	ARG	2.7
31	G4	1	MET	2.7
6	GF	119	LYS	2.7
30	G3	14	LYS	2.7
34	HB	127	LYS	2.7
37	FD	35	GLU	2.7
37	FD	68	LEU	2.7
39	HF	23	GLU	2.7
40	DG	99	LEU	2.7
53	DT	66	LEU	2.7
9	GI	117	THR	2.7
21	GU	101	THR	2.7
6	EF	141	ASP	2.7
37	DD	194	ASP	2.7
42	DI	50	GLN	2.7
12	GL	90	VAL	2.7
18	GR	4	VAL	2.7
36	HC	132	ARG	2.7
44	DK	56	ARG	2.7
45	DL	9	ARG	2.7
47	HN	9	ARG	2.7
3	GA	102	U	2.6
17	GQ	111	LYS	2.6
9	AI	107	GLU	2.6
18	GR	77	PHE	2.6
9	CI	21	PRO	2.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
13	GM	109	PRO	2.6
25	CY	28	LEU	2.6
35	BA	1362	A	2.6
35	HA	832	G	2.6
45	BL	25	GLU	2.6
43	DJ	18	ILE	2.6
49	DP	4	ILE	2.6
55	HV	298	ILE	2.6
50	DQ	74	THR	2.6
55	HV	493	THR	2.6
2	GC	91	ALA	2.6
9	GI	62	ALA	2.6
39	DF	48	ALA	2.6
40	DG	145	ALA	2.6
8	EH	34	GLY	2.6
51	HR	74	HIS	2.6
41	DH	2	SER	2.6
48	FO	13	SER	2.6
34	DB	27	LYS	2.6
36	HC	76	VAL	2.6
37	BD	125	VAL	2.6
39	DF	35	LYS	2.6
35	HA	840	C	2.6
41	HH	124	GLU	2.6
45	FL	25	GLU	2.6
53	HT	3	ASN	2.6
2	CC	175	LEU	2.6
12	GL	95	LEU	2.6
37	FD	94	LEU	2.6
37	HD	103	TYR	2.6
17	GQ	8	ILE	2.6
20	CT	2	ILE	2.6
35	HA	988	G	2.6
20	CT	38	ALA	2.6
26	CZ	3	THR	2.6
36	HC	81	GLY	2.6
39	HF	20	GLY	2.6
40	HG	9	GLN	2.6
55	HV	305	THR	2.6
7	GG	84	LYS	2.6
38	HE	89	HIS	2.6
20	CT	80	TRP	2.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
39	HF	87	SER	2.6
44	HK	50	SER	2.6
3	GA	2181	U	2.6
23	AW	75	ASN	2.6
55	FV	171	LEU	2.6
6	GF	6	TYR	2.6
52	BS	3	ARG	2.6
35	FA	845	A	2.6
15	GO	50	ALA	2.6
15	GO	114	GLY	2.6
32	A5	20	LYS	2.6
39	HF	32	ALA	2.6
53	FT	34	LYS	2.6
3	CA	2148	G	2.6
34	DB	132	GLU	2.6
34	FB	51	GLU	2.6
55	DV	553	VAL	2.6
55	HV	245	GLU	2.6
15	GO	45	SER	2.6
21	EU	85	ARG	2.6
55	DV	329	PHE	2.6
24	GX	21	LEU	2.6
43	DJ	71	LEU	2.6
46	BM	8	ASN	2.6
28	G1	7	LYS	2.6
32	C5	20	LYS	2.6
34	BB	99	MET	2.6
47	FN	20	TYR	2.6
49	DP	33	ILE	2.6
55	HV	461	MET	2.6
2	GC	1	ALA	2.6
4	GD	72	GLY	2.6
5	GE	82	GLY	2.6
13	GM	98	PRO	2.6
47	DN	29	ALA	2.6
51	HR	54	GLN	2.6
55	FV	227	ALA	2.6
35	HA	1241	G	2.6
36	HC	97	VAL	2.6
42	DI	43	THR	2.6
54	BU	24	GLU	2.6
8	GH	9	VAL	2.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
21	CU	81	ARG	2.6
32	C5	94	ARG	2.6
55	FV	200	VAL	2.6
9	GI	134	SER	2.6
21	CU	86	PHE	2.6
43	DJ	13	PHE	2.6
12	GL	19	LEU	2.6
52	DS	18	LYS	2.6
3	CA	2103	C	2.6
32	A5	52	MET	2.6
35	FA	83	C	2.6
54	DU	9	ASN	2.6
55	FV	221	ASN	2.6
3	GA	142	A	2.6
8	GH	32	PRO	2.6
34	DB	24	PRO	2.6
37	FD	29	ASP	2.6
37	FD	127	GLY	2.6
37	HD	99	ASP	2.6
44	HK	123	PRO	2.6
55	FV	546	PRO	2.6
26	CZ	58	GLU	2.6
9	AI	64	ARG	2.6
13	GM	50	ARG	2.6
38	HE	24	THR	2.6
55	BV	310	HIS	2.6
34	HB	160	LEU	2.6
48	FO	39	LEU	2.6
9	GI	35	MET	2.6
42	DI	72	ILE	2.6
50	DQ	38	ILE	2.6
21	CU	100	GLU	2.6
23	CW	24	ARG	2.6
26	GZ	10	ARG	2.6
32	E5	29	ASP	2.6
35	DA	87	C	2.6
39	HF	14	GLN	2.6
4	AD	118	PHE	2.6
18	GR	66	HIS	2.6
55	FV	611	VAL	2.6
7	GG	79	THR	2.6
24	GX	45	PHE	2.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
55	HV	664	PHE	2.6
55	HV	397	LEU	2.6
7	GG	102	ILE	2.6
12	GL	115	GLU	2.6
21	GU	37	GLY	2.6
38	HE	104	GLY	2.6
40	BG	78	ARG	2.6
35	FA	842	U	2.6
40	HG	128	ALA	2.6
41	DH	52	GLU	2.6
53	BT	67	ILE	2.6
18	AR	103	ALA	2.6
25	GY	58	ASN	2.6
32	A5	148	ALA	2.6
50	HQ	82	ALA	2.6
55	BV	502	GLU	2.6
55	FV	190	ALA	2.6
3	CA	1172	C	2.6
6	EF	45	ASP	2.6
9	CI	46	ASP	2.6
14	GN	112	TYR	2.6
20	GT	84	TYR	2.6
34	HB	131	LYS	2.6
38	HE	84	PRO	2.6
36	HC	198	VAL	2.6
43	HJ	98	VAL	2.6
49	FP	16	PHE	2.6
2	CC	32	LEU	2.6
25	EY	21	LEU	2.6
34	FB	100	LEU	2.6
34	HB	210	THR	2.6
40	DG	78	ARG	2.6
5	GE	148	ILE	2.6
12	GL	100	ILE	2.6
26	GZ	36	GLU	2.6
36	DC	55	ILE	2.6
36	HC	94	ILE	2.6
44	DK	79	ILE	2.6
46	HM	22	ILE	2.6
50	BQ	35	GLY	2.6
2	GC	116	GLN	2.6
39	HF	90	MET	2.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
9	AI	61	TYR	2.6
35	HA	944	G	2.6
35	HA	1510	C	2.6
37	HD	65	TYR	2.6
44	HK	112	ASP	2.6
2	GC	203	VAL	2.6
17	AQ	87	VAL	2.6
26	GZ	50	VAL	2.6
36	HC	37	PHE	2.5
55	HV	649	VAL	2.6
9	GI	64	ARG	2.5
12	CL	70	LYS	2.5
23	AW	23	LYS	2.5
34	DB	43	GLU	2.5
40	DG	23	LEU	2.5
55	HV	243	LEU	2.5
9	AI	100	ILE	2.5
30	G3	58	ILE	2.5
9	EI	26	ALA	2.5
13	GM	43	ALA	2.5
40	HG	31	MET	2.5
41	HH	19	ALA	2.5
36	HC	112	ASP	2.5
42	DI	107	ASP	2.5
43	HJ	63	ASP	2.5
55	HV	37	ASN	2.5
24	AX	77	TYR	2.5
40	DG	14	PRO	2.5
55	HV	218	TRP	2.5
7	AG	9	VAL	2.5
12	GL	48	ARG	2.5
20	AT	3	ARG	2.5
21	AU	33	VAL	2.5
35	HA	984	C	2.5
37	FD	184	ARG	2.5
49	FP	51	ARG	2.5
13	GM	127	LYS	2.5
21	CU	13	LEU	2.5
21	EU	90	LYS	2.5
24	CX	48	LEU	2.5
28	C1	9	LYS	2.5
8	CH	24	GLY	2.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
34	HB	96	LEU	2.5
37	FD	171	LEU	2.5
16	GP	47	ILE	2.5
23	GW	46	ALA	2.5
34	FB	188	THR	2.5
52	HS	56	GLN	2.5
55	BV	537	ILE	2.5
47	DN	2	ALA	2.5
55	BV	506	ALA	2.5
6	EF	147	ARG	2.5
55	DV	500	ASP	2.5
39	HF	19	PRO	2.5
40	DG	2	PRO	2.5
3	GA	1045	C	2.5
5	GE	23	PHE	2.5
12	GL	109	LYS	2.5
32	A5	109	LYS	2.5
40	FG	136	LYS	2.5
48	DO	48	LYS	2.5
55	DV	52	TRP	2.5
54	BU	10	GLU	2.5
7	CG	32	LEU	2.5
13	GM	2	LEU	2.5
21	EU	51	LEU	2.5
35	HA	1260	G	2.5
43	FJ	102	LEU	2.5
36	DC	64	ILE	2.5
47	BN	36	ALA	2.5
52	DS	49	ILE	2.5
55	HV	520	ILE	2.5
7	AG	83	THR	2.5
15	GO	25	ARG	2.5
13	CM	1	MET	2.5
54	DU	49	LYS	2.5
21	GU	84	PHE	2.5
21	GU	95	PHE	2.5
23	AW	50	VAL	2.5
42	DI	89	GLU	2.5
54	FU	38	TYR	2.5
54	HU	12	PHE	2.5
2	EC	26	GLY	2.5
3	EA	2147	A	2.5

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
3	GA	2153	C	2.5
10	CJ	25	LEU	2.5
26	GZ	23	LEU	2.5
35	DA	80	A	2.5
36	HC	74	GLY	2.5
35	HA	1013	G	2.5
42	HI	122	ARG	2.5
9	CI	85	ILE	2.5
3	EA	2151	U	2.5
35	FA	843	U	2.5
50	DQ	24	ALA	2.5
6	AF	143	ASP	2.5
9	AI	20	SER	2.5
9	GI	124	MET	2.5
15	CO	24	THR	2.5
38	HE	80	THR	2.5
6	GF	108	PRO	2.5
7	CG	47	ASN	2.5
16	GP	19	PHE	2.5
32	C5	68	PRO	2.5
46	DM	16	VAL	2.5
46	HM	16	VAL	2.5
2	CC	92	LEU	2.5
3	AA	2184	A	2.5
7	GG	13	GLY	2.5
9	EI	64	ARG	2.5
19	AS	11	ARG	2.5
20	CT	6	ARG	2.5
24	CX	71	ARG	2.5
45	HL	12	ARG	2.5
3	AA	2137	U	2.5
3	EA	2106	U	2.5
6	GF	13	LYS	2.5
9	AI	14	ALA	2.5
12	GL	23	ILE	2.5
19	GS	4	ILE	2.5
19	GS	28	LYS	2.5
24	GX	9	LYS	2.5
30	G3	51	LYS	2.5
32	E5	73	LYS	2.5
46	FM	52	GLN	2.5
50	BQ	43	LYS	2.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
55	FV	584	HIS	2.5
43	HJ	40	ILE	2.5
3	AA	2102	G	2.5
3	CA	1731	G	2.5
3	GA	2110	G	2.5
35	HA	945	G	2.5
4	CD	43	ASP	2.5
37	FD	105	MET	2.5
54	DU	31	GLU	2.5
55	FV	242	GLU	2.5
5	CE	10	SER	2.5
27	A0	26	SER	2.5
6	CF	114	ARG	2.5
39	DF	7	VAL	2.5
12	GL	28	GLY	2.5
15	GO	42	PRO	2.5
34	DB	32	GLY	2.5
44	HK	54	GLY	2.5
35	DA	81	A	2.5
3	CA	2146	C	2.5
15	GO	61	GLN	2.5
17	EQ	1	ALA	2.5
39	HF	22	ILE	2.5
39	HF	95	ALA	2.5
16	GP	67	GLU	2.5
13	CM	59	ARG	2.5
28	G1	27	ARG	2.5
35	FA	209	U	2.5
42	HI	91	ASP	2.5
14	GN	21	PHE	2.5
34	DB	13	VAL	2.5
35	DA	844	G	2.5
43	HJ	80	THR	2.5
44	HK	35	THR	2.5
47	HN	77	PHE	2.5
52	DS	62	VAL	2.5
9	AI	50	LYS	2.5
15	GO	88	LYS	2.5
21	GU	32	LYS	2.5
40	DG	36	LYS	2.5
38	HE	36	LEU	2.5
43	BJ	90	LEU	2.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
55	HV	204	TYR	2.5
3	EA	2602	A	2.5
34	HB	33	ALA	2.5
42	HI	108	ALA	2.5
44	HK	110	ILE	2.5
53	BT	41	ALA	2.5
8	GH	45	GLU	2.5
55	FV	3	ARG	2.5
18	GR	95	ASP	2.5
23	GW	65	LYS	2.5
27	C0	56	LYS	2.5
34	DB	122	ASP	2.5
34	HB	166	ASP	2.5
32	E5	106	PHE	2.5
36	HC	90	VAL	2.5
37	FD	176	GLY	2.5
42	DI	26	GLY	2.5
50	BQ	83	VAL	2.5
55	HV	501	VAL	2.5
3	GA	1537	G	2.5
13	GM	74	THR	2.5
15	GO	95	SER	2.5
32	E5	121	SER	2.5
13	EM	33	LEU	2.5
24	GX	48	LEU	2.5
37	HD	51	TYR	2.5
9	GI	40	ALA	2.5
20	AT	73	ARG	2.5
21	CU	21	ARG	2.5
32	C5	83	ALA	2.5
34	BB	59	ILE	2.5
37	HD	115	ARG	2.5
40	DG	95	ARG	2.5
47	HN	8	ALA	2.5
49	BP	63	GLN	2.5
55	FV	2	ALA	2.5
44	HK	22	HIS	2.5
34	DB	103	TRP	2.5
34	FB	72	LYS	2.5
45	HL	108	LYS	2.5
37	BD	29	ASP	2.5
46	DM	11	ASP	2.5

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
25	CY	53	VAL	2.5
25	GY	53	VAL	2.5
29	A2	1	MET	2.5
34	HB	209	VAL	2.5
42	BI	40	GLY	2.5
55	FV	575	GLY	2.5
55	HV	519	VAL	2.5
6	CF	64	PRO	2.4
6	CF	90	LEU	2.4
37	HD	91	LEU	2.4
37	HD	181	THR	2.4
43	DJ	87	LEU	2.4
53	HT	66	LEU	2.4
40	HG	10	ARG	2.4
43	HJ	62	ARG	2.4
46	HM	57	ARG	2.4
55	DV	49	THR	2.4
51	DR	32	TYR	2.4
52	HS	73	GLU	2.4
5	EE	11	ALA	2.4
6	CF	153	ILE	2.4
12	GL	13	LYS	2.4
14	CN	52	ILE	2.4
34	DB	36	LYS	2.4
39	HF	85	ILE	2.4
40	FG	65	ALA	2.4
43	DJ	30	LYS	2.4
3	CA	1727	C	2.4
35	HA	1273	C	2.4
2	GC	145	MET	2.4
5	CE	4	VAL	2.4
11	CK	35	VAL	2.4
34	HB	91	VAL	2.4
43	DJ	98	VAL	2.4
15	GO	30	ARG	2.4
52	HS	37	ARG	2.4
12	CL	112	LEU	2.4
3	EA	2181	U	2.4
9	CI	22	PRO	2.4
34	BB	120	SER	2.4
38	HE	15	LEU	2.4
49	HP	52	LEU	2.4

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
28	C1	44	GLN	2.4
46	HM	112	PRO	2.4
52	DS	43	ASN	2.4
55	HV	159	LYS	2.4
4	CD	146	ILE	2.4
6	EF	59	ILE	2.4
8	CH	4	ILE	2.4
13	GM	48	ALA	2.4
55	HV	192	ASN	2.4
19	CS	103	ILE	2.4
3	GA	2156	G	2.4
35	HA	715	A	2.4
35	HA	1000	A	2.4
35	HA	519	C	2.4
38	HE	91	GLY	2.4
8	AH	5	LEU	2.4
9	GI	81	LYS	2.4
20	ET	87	LEU	2.4
54	HU	31	GLU	2.4
20	ET	21	SER	2.4
21	CU	53	GLN	2.4
26	GZ	51	SER	2.4
19	CS	44	ALA	2.4
22	GV	84	PRO	2.4
37	HD	193	ALA	2.4
46	DM	39	ILE	2.4
50	HQ	33	ILE	2.4
51	DR	31	ASN	2.4
3	CA	2180	U	2.4
6	GF	132	ARG	2.4
35	HA	1022	A	2.4
37	HD	104	ARG	2.4
42	BI	41	ARG	2.4
34	FB	149	GLY	2.4
41	DH	54	ASP	2.4
41	FH	45	PHE	2.4
55	DV	601	PHE	2.4
35	BA	841	C	2.4
36	HC	86	LYS	2.4
39	HF	7	VAL	2.4
40	BG	76	LYS	2.4
41	HH	103	VAL	2.4

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
18	ER	46	GLU	2.4
25	CY	59	GLU	2.4
53	DT	76	LYS	2.4
2	GC	250	GLN	2.4
9	CI	106	GLN	2.4
21	GU	1	ALA	2.4
21	GU	38	ILE	2.4
23	CW	73	PRO	2.4
30	C3	64	ALA	2.4
40	HG	12	ILE	2.4
49	HP	7	ALA	2.4
5	GE	150	THR	2.4
7	CG	83	THR	2.4
8	AH	27	ARG	2.4
30	G3	33	THR	2.4
34	FB	137	THR	2.4
36	DC	184	TYR	2.4
46	DM	8	ASN	2.4
47	DN	9	ARG	2.4
3	EA	1508	A	2.4
20	GT	9	LYS	2.4
21	GU	18	LYS	2.4
39	DF	55	HIS	2.4
6	EF	88	VAL	2.4
12	GL	85	VAL	2.4
21	CU	10	VAL	2.4
54	DU	36	GLU	2.4
5	CE	164	LEU	2.4
36	HC	178	LEU	2.4
45	HL	90	LEU	2.4
7	AG	34	ARG	2.4
12	CL	75	ALA	2.4
21	CU	1	ALA	2.4
25	EY	23	ARG	2.4
37	DD	115	ARG	2.4
37	DD	128	ARG	2.4
44	DK	62	ALA	2.4
44	DK	106	ARG	2.4
44	FK	127	ARG	2.4
46	HM	52	GLN	2.4
55	DV	514	GLN	2.4
13	GM	72	PRO	2.4

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
34	DB	208	ALA	2.4
43	DJ	34	ALA	2.4
55	HV	161	ARG	2.4
37	FD	23	SER	2.4
37	FD	192	SER	2.4
39	FF	51	ILE	2.4
43	DJ	101	SER	2.4
55	DV	599	ILE	2.4
2	GC	182	LYS	2.4
34	DB	114	LYS	2.4
34	FB	65	LYS	2.4
38	HE	14	LYS	2.4
53	HT	49	LYS	2.4
26	GZ	14	GLY	2.4
3	CA	2142	A	2.4
3	CA	2602	A	2.4
5	GE	51	GLU	2.4
32	A5	40	GLU	2.4
49	HP	39	PHE	2.4
9	CI	138	VAL	2.4
13	GM	106	ASP	2.4
24	CX	12	VAL	2.4
28	G1	11	VAL	2.4
35	FA	77	A	2.4
8	EH	1	MET	2.4
15	GO	15	ARG	2.4
35	HA	848	C	2.4
36	DC	126	ARG	2.4
44	BK	127	ARG	2.4
47	HN	6	MET	2.4
9	GI	103	ALA	2.4
15	GO	72	ALA	2.4
18	GR	71	LYS	2.4
23	GW	73	PRO	2.4
26	GZ	4	ILE	2.4
26	GZ	31	ILE	2.4
30	G3	15	LYS	2.4
43	HJ	11	LYS	2.4
34	DB	157	PRO	2.4
48	DO	11	ILE	2.4
55	FV	531	PRO	2.4
34	DB	64	GLY	2.4

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
43	FJ	78	GLU	2.4
46	FM	47	GLU	2.4
55	DV	513	GLY	2.4
6	GF	67	THR	2.4
15	GO	36	TYR	2.4
34	DB	161	PHE	2.4
7	AG	14	VAL	2.4
34	DB	62	ARG	2.4
35	DA	1145	A	2.4
35	HA	81	A	2.4
55	HV	3	ARG	2.4
55	HV	655	HIS	2.4
20	ET	19	LYS	2.4
20	GT	1	MET	2.4
24	CX	29	LEU	2.4
25	CY	2	LYS	2.4
42	HI	22	LYS	2.4
3	CA	2179	C	2.4
3	GA	138	U	2.4
8	AH	48	GLU	2.4
9	CI	19	PRO	2.4
32	C5	119	PRO	2.4
35	BA	844	G	2.4
35	HA	1020	G	2.4
35	HA	1505	G	2.4
46	HM	51	GLY	2.4
51	HR	41	PRO	2.4
54	HU	41	PRO	2.4
55	FV	610	PRO	2.4
55	HV	503	GLY	2.4
19	GS	108	SER	2.4
42	DI	14	SER	2.4
39	HF	44	ARG	2.4
43	HJ	58	ASN	2.4
55	FV	230	SER	2.4
43	HJ	89	ARG	2.4
55	DV	339	TYR	2.4
8	AH	31	VAL	2.4
17	GQ	3	VAL	2.4
3	EA	2108	A	2.4
18	GR	39	LEU	2.4
35	HA	1531	A	2.4

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
40	DG	59	LEU	2.4
55	HV	507	LYS	2.4
19	GS	1	MET	2.4
9	CI	26	ALA	2.4
34	FB	208	ALA	2.4
42	HI	76	ALA	2.4
53	FT	87	ALA	2.4
55	HV	190	ALA	2.4
6	GF	153	ILE	2.4
16	EP	50	ARG	2.4
18	GR	69	GLY	2.4
21	GU	57	ILE	2.4
32	E5	94	ARG	2.4
34	DB	223	GLY	2.4
34	HB	224	ARG	2.4
44	DK	54	GLY	2.4
55	DV	593	PHE	2.4
55	FV	202	PHE	2.4
3	CA	2149	U	2.4
35	HA	1323	G	2.4
35	HA	1381	U	2.4
32	A5	26	VAL	2.4
43	BJ	26	VAL	2.4
3	CA	2154	A	2.3
24	CX	70	LEU	2.3
35	DA	845	A	2.3
9	AI	129	GLU	2.3
9	CI	14	ALA	2.3
15	GO	33	ARG	2.3
23	GW	60	ALA	2.3
36	HC	61	ALA	2.3
54	BU	45	ARG	2.3
55	BV	48	ALA	2.3
55	BV	552	ALA	2.3
55	FV	646	GLU	2.3
4	GD	93	GLY	2.3
3	CA	1726	C	2.3
3	CA	1730	C	2.3
34	DB	185	ILE	2.3
50	DQ	35	GLY	2.3
35	HA	1054	C	2.3
35	HA	1404	C	2.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
6	AF	175	PRO	2.3
6	CF	98	PHE	2.3
17	GQ	18	LYS	2.3
30	C3	13	PHE	2.3
42	HI	127	PHE	2.3
55	BV	360	PHE	2.3
35	FA	212	G	2.3
35	HA	833	G	2.3
52	FS	64	ASP	2.3
9	CI	105	LEU	2.3
20	GT	60	THR	2.3
21	CU	40	LEU	2.3
27	C0	27	LEU	2.3
41	DH	63	LEU	2.3
55	FV	243	LEU	2.3
12	GL	59	ARG	2.3
21	EU	53	GLN	2.3
29	G2	12	ARG	2.3
32	C5	92	ALA	2.3
32	E5	133	GLU	2.3
34	HB	108	GLN	2.3
35	HA	1275	A	2.3
36	HC	58	GLU	2.3
48	HO	80	GLN	2.3
9	EI	100	ILE	2.3
12	EL	101	ILE	2.3
21	AU	38	ILE	2.3
36	DC	77	ILE	2.3
53	HT	42	GLY	2.3
34	DB	131	LYS	2.3
37	FD	151	LYS	2.3
40	FG	76	LYS	2.3
54	DU	46	LYS	2.3
55	HV	86	ILE	2.3
3	GA	1582	C	2.3
55	HV	403	PRO	2.3
8	GH	3	VAL	2.3
2	GC	202	ARG	2.3
6	CF	55	ASP	2.3
7	EG	9	VAL	2.3
16	CP	1	SER	2.3
38	HE	128	TYR	2.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
43	HJ	19	ASP	2.3
44	BK	113	VAL	2.3
55	DV	340	SER	2.3
55	DV	585	ASP	2.3
55	FV	401	ASP	2.3
55	HV	155	VAL	2.3
11	GK	8	LEU	2.3
12	AL	92	LEU	2.3
12	GL	6	LEU	2.3
21	CU	5	ARG	2.3
24	GX	27	ARG	2.3
25	EY	22	LEU	2.3
40	HG	99	LEU	2.3
45	DL	24	LEU	2.3
25	AY	5	GLU	2.3
3	GA	2138	G	2.3
5	GE	130	LYS	2.3
6	GF	37	MET	2.3
15	GO	71	ALA	2.3
17	GQ	15	LYS	2.3
23	EW	18	LYS	2.3
25	EY	61	ALA	2.3
32	A5	86	MET	2.3
35	HA	79	G	2.3
40	HG	34	GLY	2.3
55	FV	380	GLY	2.3
18	CR	101	ILE	2.3
20	ET	30	ILE	2.3
43	BJ	6	ILE	2.3
6	CF	99	PHE	2.3
20	ET	51	PHE	2.3
21	EU	84	PHE	2.3
28	C1	19	PHE	2.3
9	CI	92	PRO	2.3
35	HA	796	C	2.3
7	AG	16	VAL	2.3
40	DG	3	ARG	2.3
43	FJ	77	VAL	2.3
49	HP	21	VAL	2.3
8	EH	18	GLN	2.3
22	GV	12	GLN	2.3
22	GV	38	LEU	2.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
23	EW	31	LEU	2.3
34	HB	178	LEU	2.3
37	FD	10	LYS	2.3
39	HF	53	LYS	2.3
41	HH	99	LEU	2.3
55	FV	585	ASP	2.3
9	CI	62	ALA	2.3
35	DA	461	A	2.3
40	DG	19	GLY	2.3
42	HI	102	GLY	2.3
42	HI	121	ALA	2.3
50	FQ	70	THR	2.3
9	EI	48	ILE	2.3
17	GQ	64	ILE	2.3
35	HA	1526	G	2.3
44	FK	34	ILE	2.3
42	HI	33	ARG	2.3
44	HK	105	PHE	2.3
55	DV	580	PHE	2.3
40	DG	73	VAL	2.3
40	HG	71	PRO	2.3
55	BV	306	PRO	2.3
6	CF	2	LYS	2.3
26	EZ	57	GLU	2.3
32	A5	14	GLU	2.3
55	HV	235	GLU	2.3
3	EA	2180	U	2.3
6	EF	90	LEU	2.3
13	CM	78	LEU	2.3
29	G2	42	LEU	2.3
37	HD	141	ASP	2.3
42	DI	54	LEU	2.3
45	HL	7	LEU	2.3
37	HD	153	SER	2.3
47	HN	32	SER	2.3
49	HP	18	GLN	2.3
55	BV	582	SER	2.3
44	DK	48	GLY	2.3
8	CH	1	MET	2.3
6	EF	135	ILE	2.3
11	CK	71	ARG	2.3
24	GX	63	ILE	2.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
48	HO	25	THR	2.3
49	HP	33	ILE	2.3
13	GM	68	PHE	2.3
50	FQ	28	PHE	2.3
3	EA	2187	U	2.3
18	ER	48	LYS	2.3
35	HA	1023	U	2.3
35	HA	1354	U	2.3
38	HE	10	GLU	2.3
46	FM	114	LYS	2.3
43	HJ	57	VAL	2.3
53	HT	40	GLU	2.3
55	HV	410	GLU	2.3
5	CE	180	LEU	2.3
25	EY	18	LEU	2.3
47	DN	74	LEU	2.3
51	HR	22	ASP	2.3
55	DV	233	LEU	2.3
55	FV	185	LEU	2.3
55	HV	578	LEU	2.3
5	CE	86	ALA	2.3
7	GG	56	GLY	2.3
9	EI	18	ASN	2.3
26	GZ	42	ALA	2.3
41	DH	13	ARG	2.3
42	BI	44	ALA	2.3
42	HI	10	GLY	2.3
37	HD	70	ARG	2.3
42	DI	85	ARG	2.3
46	DM	35	ALA	2.3
46	HM	98	ARG	2.3
3	EA	896	A	2.3
24	GX	38	TRP	2.3
36	HC	80	LYS	2.3
37	FD	58	LYS	2.3
42	DI	105	THR	2.3
55	FV	69	THR	2.3
48	HO	83	GLU	2.3
5	GE	14	VAL	2.3
20	GT	57	VAL	2.3
32	E5	108	VAL	2.3
3	AA	2186	G	2.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
21	GU	51	LEU	2.3
35	HA	987	G	2.3
35	HA	1138	G	2.3
3	AA	2179	C	2.3
34	FB	34	ARG	2.3
37	FD	161	LEU	2.3
40	DG	102	ARG	2.3
40	FG	120	LEU	2.3
41	HH	15	ARG	2.3
43	DJ	9	ARG	2.3
3	GA	1078	U	2.3
3	GA	1174	U	2.3
15	GO	59	ALA	2.3
23	GW	62	ALA	2.3
5	GE	29	HIS	2.3
36	HC	140	ASN	2.3
9	EI	99	LYS	2.3
20	CT	33	LYS	2.3
12	CL	67	THR	2.3
11	GK	49	ARG	2.3
21	CU	12	VAL	2.3
21	GU	27	VAL	2.3
2	GC	153	LEU	2.3
55	DV	551	PRO	2.3
30	G3	19	GLY	2.3
3	GA	2150	C	2.3
35	HA	1262	C	2.3
38	BE	159	LYS	2.3
40	DG	46	ALA	2.3
54	DU	20	LYS	2.3
44	DK	50	SER	2.3
55	FV	582	SER	2.3
2	GC	115	ILE	2.3
6	GF	95	MET	2.3
8	GH	29	PHE	2.3
15	GO	117	PHE	2.3
18	CR	70	GLU	2.3
32	E5	107	GLU	2.3
38	HE	111	MET	2.3
48	FO	15	PHE	2.3
3	GA	1095	A	2.3
35	HA	702	A	2.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
36	HC	88	ARG	2.3
38	HE	29	ARG	2.3
42	HI	49	ARG	2.3
2	CC	93	VAL	2.3
2	CC	249	VAL	2.3
4	GD	60	VAL	2.3
5	GE	28	VAL	2.3
19	CS	45	VAL	2.3
20	CT	85	VAL	2.3
32	C5	27	VAL	2.3
55	FV	5	THR	2.3
20	GT	36	LYS	2.3
21	GU	49	PRO	2.3
21	GU	83	GLY	2.3
30	G3	46	LYS	2.3
34	HB	155	GLY	2.3
36	HC	78	GLY	2.3
37	DD	190	ASP	2.2
37	FD	121	LYS	2.3
43	DJ	60	ASP	2.2
52	BS	29	LYS	2.3
27	G0	55	ALA	2.2
41	DH	20	ALA	2.2
35	DA	1031	C	2.2
35	HA	726	C	2.2
9	EI	42	ASN	2.2
23	EW	75	ASN	2.2
35	HA	745	G	2.2
40	HG	40	GLU	2.2
55	FV	548	GLU	2.2
37	HD	165	ARG	2.2
38	FE	105	ILE	2.2
45	HL	47	SER	2.2
6	GF	2	LYS	2.2
12	AL	129	LYS	2.2
21	CU	33	VAL	2.2
24	CX	6	VAL	2.2
38	HE	126	LYS	2.2
47	FN	23	LYS	2.2
52	DS	28	LYS	2.2
6	GF	3	LEU	2.2
12	AL	95	LEU	2.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
20	CT	7	LEU	2.2
27	E0	27	LEU	2.2
30	C3	55	GLY	2.2
32	A5	45	GLY	2.2
32	E5	58	THR	2.2
38	HE	115	LEU	2.2
7	EG	45	ALA	2.2
9	GI	76	ALA	2.2
43	BJ	23	ALA	2.2
55	HV	531	PRO	2.2
55	HV	563	ALA	2.2
42	DI	11	ARG	2.2
55	DV	308	GLU	2.2
6	CF	43	ILE	2.2
18	GR	73	LYS	2.2
23	AW	29	SER	2.2
37	HD	23	SER	2.2
54	BU	51	SER	2.2
55	HV	237	TYR	2.2
32	C5	97	LYS	2.2
38	FE	159	LYS	2.2
3	EA	613	A	2.2
5	CE	187	VAL	2.2
9	EI	28	GLY	2.2
15	GO	54	VAL	2.2
45	DL	16	VAL	2.2
10	CJ	28	LEU	2.2
15	AO	48	LEU	2.2
25	AY	56	LEU	2.2
30	C3	32	LEU	2.2
11	EK	17	ARG	2.2
12	GL	10	GLU	2.2
21	GU	17	ASP	2.2
34	BB	73	ARG	2.2
38	HE	110	ALA	2.2
41	DH	119	ALA	2.2
44	HK	36	ASP	2.2
48	DO	89	ARG	2.2
14	AN	80	PHE	2.2
3	AA	2151	U	2.2
19	GS	85	ILE	2.2
42	HI	21	ILE	2.2

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
55	BV	507	LYS	2.2
55	FV	576	ILE	2.2
55	HV	382	ILE	2.2
2	AC	271	SER	2.2
3	EA	1536	C	2.2
3	GA	1079	C	2.2
34	HB	17	HIS	2.2
35	DA	1302	C	2.2
36	DC	134	MET	2.2
40	HG	57	SER	2.2
6	AF	130	GLY	2.2
7	GG	16	VAL	2.2
9	CI	23	VAL	2.2
24	CX	57	VAL	2.2
35	BA	412	A	2.2
35	HA	413	G	2.2
37	FD	130	VAL	2.2
51	DR	37	GLY	2.2
2	CC	94	LEU	2.2
9	GI	110	GLN	2.2
20	GT	48	GLN	2.2
25	CY	38	GLN	2.2
55	FV	514	GLN	2.2
37	FD	18	ASP	2.2
52	BS	39	THR	2.2
52	HS	77	THR	2.2
55	FV	321	ALA	2.2
21	CU	23	LYS	2.2
37	FD	8	LYS	2.2
55	FV	389	LYS	2.2
2	GC	29	PHE	2.2
5	CE	124	PHE	2.2
10	GJ	89	PHE	2.2
34	BB	31	PHE	2.2
55	HV	158	ILE	2.2
22	GV	31	TYR	2.2
32	E5	103	ASN	2.2
44	DK	81	ASN	2.2
17	GQ	57	ARG	2.2
18	GR	21	ARG	2.2
48	FO	24	SER	2.2
49	HP	31	ARG	2.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
7	GG	132	LEU	2.2
9	AI	29	GLN	2.2
9	GI	107	GLU	2.2
42	DI	52	LEU	2.2
43	FJ	92	LEU	2.2
50	DQ	8	LEU	2.2
3	GA	561	G	2.2
3	GA	2107	G	2.2
7	CG	165	ASP	2.2
7	EG	59	ASP	2.2
9	AI	81	LYS	2.2
15	CO	2	ASP	2.2
24	GX	53	LYS	2.2
55	HV	609	LYS	2.2
34	HB	28	PRO	2.2
51	DR	73	ARG	2.2
8	CH	16	GLY	2.2
21	GU	26	ASN	2.2
32	A5	103	ASN	2.2
35	HA	1452	C	2.2
36	FC	42	TYR	2.2
47	HN	95	GLY	2.2
47	DN	58	SER	2.2
55	HV	351	ASN	2.2
5	GE	32	VAL	2.2
8	CH	3	VAL	2.2
9	CI	137	LEU	2.2
28	G1	29	LYS	2.2
32	E5	9	GLN	2.2
37	DD	155	VAL	2.2
39	DF	68	GLN	2.2
39	FF	60	VAL	2.2
39	HF	84	VAL	2.2
40	HG	94	VAL	2.2
48	DO	29	VAL	2.2
50	FQ	67	LEU	2.2
52	HS	70	LYS	2.2
55	DV	566	LEU	2.2
3	GA	2602	A	2.2
13	GM	113	ALA	2.2
25	CY	49	ASP	2.2
38	FE	107	ALA	2.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
6	GF	137	PHE	2.2
34	DB	210	THR	2.2
35	HA	850	U	2.2
41	DH	45	PHE	2.2
42	DI	127	PHE	2.2
36	FC	149	ILE	2.2
36	HC	143	ARG	2.2
40	HG	92	ARG	2.2
43	BJ	32	THR	2.2
55	FV	316	PRO	2.2
23	CW	79	ILE	2.2
39	DF	6	ILE	2.2
43	DJ	6	ILE	2.2
55	HV	15	ILE	2.2
11	GK	113	MET	2.2
32	E5	45	GLY	2.2
40	BG	112	GLY	2.2
54	HU	49	LYS	2.2
24	CX	3	VAL	2.2
34	DB	195	VAL	2.2
48	DO	75	VAL	2.2
6	CF	48	LEU	2.2
7	CG	132	LEU	2.2
12	EL	95	LEU	2.2
48	FO	2	SER	2.2
48	HO	81	LEU	2.2
49	FP	74	LEU	2.2
55	BV	566	LEU	2.2
3	EA	1174	U	2.2
19	CS	34	ASP	2.2
30	E3	64	ALA	2.2
11	GK	17	ARG	2.2
34	DB	158	ASP	2.2
36	HC	104	ALA	2.2
8	AH	38	PRO	2.2
37	HD	107	PHE	2.2
10	EJ	101	ILE	2.2
15	AO	3	LYS	2.2
15	CO	58	ILE	2.2
29	G2	25	LYS	2.2
43	DJ	59	LYS	2.2
44	DK	110	ILE	2.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
44	HK	31	ILE	2.2
51	HR	26	ILE	2.2
55	HV	562	LYS	2.2
12	GL	53	GLY	2.2
34	HB	77	GLU	2.2
35	HA	778	G	2.2
3	AA	1174	U	2.2
5	EE	188	MET	2.2
34	DB	186	VAL	2.2
37	DD	67	VAL	2.2
55	BV	501	VAL	2.2
55	FV	501	VAL	2.2
34	HB	140	LEU	2.2
41	DH	121	LEU	2.2
3	GA	2146	C	2.2
6	EF	149	ARG	2.2
6	GF	29	ARG	2.2
22	GV	18	ARG	2.2
34	DB	205	ALA	2.2
34	HB	159	ALA	2.2
35	DA	841	C	2.2
35	HA	1325	C	2.2
40	DG	125	SER	2.2
40	HG	41	SER	2.2
5	GE	154	ASP	2.2
27	G0	31	LYS	2.2
40	DG	26	PHE	2.2
49	HP	32	PHE	2.2
15	GO	20	GLU	2.2
34	HB	16	GLY	2.2
36	HC	171	GLY	2.2
39	HF	40	GLU	2.2
55	HV	242	GLU	2.2
43	HJ	22	THR	2.2
1	GB	117	G	2.2
2	GC	166	ARG	2.2
6	AF	111	ARG	2.2
12	GL	79	LEU	2.2
15	EO	26	LEU	2.2
19	ES	105	VAL	2.2
19	GS	31	GLN	2.2
26	GZ	26	LEU	2.2

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
32	A5	60	LEU	2.2
35	FA	82	G	2.2
36	HC	6	HIS	2.2
37	HD	73	ARG	2.2
40	DG	87	VAL	2.2
55	BV	52	TRP	2.2
8	GH	28	ASN	2.2
37	HD	27	ALA	2.2
53	FT	52	ASN	2.2
18	GR	48	LYS	2.1
3	AA	2185	U	2.1
40	DG	113	ASP	2.1
53	HT	59	ASP	2.1
7	GG	130	ILE	2.1
9	CI	31	GLY	2.1
12	CL	111	ILE	2.1
23	CW	16	GLU	2.1
20	GT	75	GLY	2.1
34	DB	154	GLY	2.1
34	DB	201	GLY	2.1
34	FB	28	PRO	2.1
44	DK	83	GLU	2.1
53	HT	83	ILE	2.1
55	FV	261	ILE	2.1
55	HV	654	ILE	2.1
39	HF	24	ARG	2.1
50	HQ	65	ARG	2.1
55	HV	244	THR	2.1
2	GC	19	VAL	2.1
6	EF	35	LEU	2.1
6	GF	25	MET	2.1
19	CS	46	LEU	2.1
19	GS	102	HIS	2.1
40	DG	135	VAL	2.1
55	DV	519	VAL	2.1
10	GJ	111	LYS	2.1
3	CA	1870	C	2.1
8	GH	14	SER	2.1
11	GK	109	SER	2.1
20	AT	30	ILE	2.1
34	BB	224	ARG	2.1
40	FG	109	ARG	2.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
41	HH	13	ARG	2.1
42	FI	125	PRO	2.1
44	HK	117	PRO	2.1
47	HN	41	ARG	2.1
9	EI	44	LYS	2.1
2	GC	204	LEU	2.1
5	CE	186	VAL	2.1
17	CQ	87	VAL	2.1
17	EQ	4	LYS	2.1
21	CU	90	LYS	2.1
23	GW	71	LYS	2.1
28	C1	37	LYS	2.1
6	CF	168	LEU	2.1
21	GU	13	LEU	2.1
34	FB	48	MET	2.1
36	HC	177	THR	2.1
37	HD	48	LEU	2.1
39	HF	47	LEU	2.1
42	DI	55	VAL	2.1
47	HN	89	MET	2.1
48	FO	12	VAL	2.1
48	DO	46	HIS	2.1
55	BV	522	MET	2.1
18	ER	103	ALA	2.1
8	AH	43	ASN	2.1
19	GS	38	TYR	2.1
32	C5	132	TYR	2.1
55	DV	600	ALA	2.1
12	GL	91	ASP	2.1
19	GS	2	GLU	2.1
25	GY	27	ASN	2.1
21	GU	99	SER	2.1
28	E1	19	PHE	2.1
42	HI	4	ASN	2.1
55	BV	593	PHE	2.1
12	EL	78	ARG	2.1
35	HA	1131	G	2.1
43	HJ	72	ARG	2.1
3	AA	896	A	2.1
39	DF	71	ILE	2.1
21	GU	16	LYS	2.1
23	AW	18	LYS	2.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
30	G3	34	LYS	2.1
34	HB	58	LYS	2.1
55	HV	306	PRO	2.1
6	EF	39	VAL	2.1
12	GL	104	GLN	2.1
36	HC	123	GLN	2.1
9	GI	52	LEU	2.1
37	FD	91	LEU	2.1
41	HH	92	LEU	2.1
47	DN	6	MET	2.1
55	FV	305	THR	2.1
55	FV	409	MET	2.1
11	EK	112	PHE	2.1
12	GL	18	ARG	2.1
13	GM	115	GLU	2.1
17	GQ	112	ALA	2.1
18	GR	34	GLU	2.1
32	C5	120	ALA	2.1
32	E5	92	ALA	2.1
40	HG	134	ALA	2.1
42	DI	44	ALA	2.1
46	HM	18	ALA	2.1
55	BV	307	ALA	2.1
32	C5	69	PHE	2.1
37	FD	47	ARG	2.1
38	HE	122	ASN	2.1
55	DV	583	TYR	2.1
55	HV	634	ASP	2.1
13	GM	37	GLY	2.1
42	DI	74	GLY	2.1
44	HK	87	LYS	2.1
55	FV	589	SER	2.1
9	AI	108	ILE	2.1
3	EA	1171	G	2.1
3	GA	352	A	2.1
3	GA	1111	A	2.1
22	GV	70	ILE	2.1
55	HV	458	ILE	2.1
4	AD	186	LEU	2.1
20	GT	53	VAL	2.1
20	GT	55	VAL	2.1
21	GU	24	VAL	2.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
32	A5	95	LEU	2.1
32	E5	15	VAL	2.1
38	DE	21	VAL	2.1
43	FJ	26	VAL	2.1
49	FP	18	GLN	2.1
37	HD	3	ARG	2.1
43	FJ	73	LEU	2.1
48	DO	57	LEU	2.1
2	AC	91	ALA	2.1
25	EY	24	GLU	2.1
34	HB	144	GLU	2.1
41	DH	55	THR	2.1
41	FH	55	THR	2.1
43	DJ	22	THR	2.1
43	HJ	23	ALA	2.1
6	CF	142	TYR	2.1
24	GX	43	LYS	2.1
34	FB	161	PHE	2.1
42	HI	120	LYS	2.1
44	DK	49	GLY	2.1
48	DO	71	LYS	2.1
55	HV	239	GLY	2.1
55	HV	606	LYS	2.1
19	GS	96	ILE	2.1
35	DA	84	U	2.1
37	BD	170	TRP	2.1
3	AA	1730	C	2.1
35	HA	1031	C	2.1
35	HA	1226	C	2.1
3	GA	232	G	2.1
34	HB	34	ARG	2.1
35	HA	971	G	2.1
35	HA	1309	G	2.1
36	HC	12	LEU	2.1
40	HG	91	VAL	2.1
46	HM	90	ARG	2.1
8	AH	15	LEU	2.1
26	EZ	23	LEU	2.1
28	A1	33	LEU	2.1
32	C5	139	LEU	2.1
47	DN	84	VAL	2.1
55	BV	603	GLU	2.1

*Continued on next page...*



*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
55	HV	466	LEU	2.1
5	GE	1	MET	2.1
5	GE	201	ALA	2.1
9	GI	112	LYS	2.1
20	ET	40	LYS	2.1
20	GT	20	ALA	2.1
23	GW	23	LYS	2.1
23	GW	67	LYS	2.1
39	FF	1	MET	2.1
40	HG	131	LYS	2.1
36	DC	23	PHE	2.1
42	FI	127	PHE	2.1
55	HV	584	HIS	2.1
3	EA	139	U	2.1
31	G4	38	GLY	2.1
34	HB	152	ASP	2.1
36	HC	93	ASP	2.1
55	FV	347	ASP	2.1
18	GR	59	ILE	2.1
18	GR	101	ILE	2.1
5	CE	49	ARG	2.1
18	CR	87	GLN	2.1
20	AT	80	TRP	2.1
20	GT	77	ARG	2.1
53	HT	60	ARG	2.1
3	EA	1535	A	2.1
35	HA	1219	A	2.1
35	HA	1267	C	2.1
55	FV	558	GLN	2.1
8	EH	3	VAL	2.1
9	EI	60	VAL	2.1
15	GO	47	VAL	2.1
21	GU	78	LYS	2.1
28	C1	42	VAL	2.1
32	E5	26	VAL	2.1
34	FB	91	VAL	2.1
37	HD	143	VAL	2.1
38	BE	74	VAL	2.1
41	BH	121	LEU	2.1
43	HJ	42	LEU	2.1
46	FM	13	LYS	2.1
55	HV	110	VAL	2.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
3	CA	2138	G	2.1
7	GG	58	ALA	2.1
43	BJ	93	ALA	2.1
43	HJ	93	ALA	2.1
9	GI	41	PHE	2.1
38	HE	121	HIS	2.1
9	CI	117	THR	2.1
48	FO	86	GLY	2.1
12	GL	132	ARG	2.1
21	GU	93	ARG	2.1
23	GW	40	ARG	2.1
37	FD	76	TYR	2.1
55	FV	204	TYR	2.1
2	GC	34	GLU	2.1
18	GR	86	GLN	2.1
3	CA	140	C	2.1
3	GA	1046	A	2.1
4	CD	92	VAL	2.1
12	AL	6	LEU	2.1
28	C1	30	PRO	2.1
32	E5	60	LEU	2.1
37	HD	170	TRP	2.1
40	DG	43	VAL	2.1
24	GX	20	ALA	2.1
32	E5	135	ALA	2.1
34	HB	52	ALA	2.1
55	DV	311	ALA	2.1
55	HV	383	ALA	2.1
55	HV	384	ALA	2.1
9	CI	98	GLY	2.1
50	FQ	54	GLY	2.1
52	DS	41	PHE	2.1
34	HB	221	ARG	2.1
35	DA	79	G	2.1
37	FD	14	ARG	2.1
37	FD	198	HIS	2.1
48	DO	50	HIS	2.1
55	DV	394	GLY	2.1
42	HI	62	ASP	2.1
5	GE	149	ILE	2.1
6	AF	127	TYR	2.1
6	GF	126	ASN	2.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
9	CI	108	ILE	2.1
34	BB	129	THR	2.1
43	BJ	28	THR	2.1
21	GU	91	LYS	2.1
32	E5	43	LYS	2.1
43	FJ	76	ILE	2.1
52	DS	80	TYR	2.1
9	CI	47	SER	2.1
5	GE	27	LEU	2.1
7	CG	14	VAL	2.1
16	CP	35	SER	2.1
23	GW	8	SER	2.1
42	DI	32	GLN	2.1
13	GM	77	PRO	2.1
28	G1	46	VAL	2.1
34	FB	42	LEU	2.1
37	HD	93	LEU	2.1
34	HB	175	ALA	2.1
35	HA	743	A	2.1
35	HA	1340	A	2.1
36	FC	47	LEU	2.1
47	DN	96	LEU	2.1
15	GO	37	ALA	2.1
5	AE	199	MET	2.0
6	CF	130	GLY	2.0
9	GI	16	MET	2.0
12	CL	64	PHE	2.0
23	GW	13	ARG	2.1
36	HC	65	ARG	2.1
37	DD	27	ALA	2.1
45	DL	17	ALA	2.1
50	DQ	73	TRP	2.1
50	HQ	17	MET	2.0
20	GT	79	ASP	2.0
24	GX	19	HIS	2.0
34	BB	27	LYS	2.0
43	FJ	75	ASP	2.0
55	HV	310	HIS	2.0
2	GC	90	ILE	2.0
5	EE	2	GLU	2.0
13	GM	46	ILE	2.0
19	ES	103	ILE	2.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
35	FA	423	G	2.0
35	HA	1215	G	2.0
37	HD	166	GLU	2.0
26	GZ	3	THR	2.0
38	HE	34	THR	2.0
41	DH	86	TYR	2.0
55	FV	650	THR	2.0
9	AI	42	ASN	2.0
9	GI	33	ASN	2.0
41	HH	38	ASN	2.0
7	EG	132	LEU	2.0
9	CI	133	ARG	2.0
10	GJ	100	VAL	2.0
15	CO	39	VAL	2.0
22	GV	86	LEU	2.0
25	GY	23	ARG	2.0
32	C5	95	LEU	2.0
32	E5	33	VAL	2.0
34	DB	76	SER	2.0
34	DB	96	LEU	2.0
37	BD	115	ARG	2.0
42	DI	73	SER	2.0
47	HN	79	LEU	2.0
9	AI	62	ALA	2.0
35	DA	1167	A	2.0
40	DG	88	PRO	2.0
53	FT	72	ALA	2.0
34	FB	123	GLY	2.0
49	FP	39	PHE	2.0
55	HV	604	GLY	2.0
13	GM	53	MET	2.0
34	FB	130	LYS	2.0
50	DQ	36	LYS	2.0
2	CC	34	GLU	2.0
34	DB	51	GLU	2.0
42	HI	81	HIS	2.0
42	HI	112	GLU	2.0
45	DL	25	GLU	2.0
6	AF	153	ILE	2.0
17	GQ	97	ILE	2.0
38	FE	93	ARG	2.0
48	HO	88	ARG	2.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
55	FV	549	TYR	2.0
55	HV	10	TYR	2.0
5	CE	157	LEU	2.0
6	CF	65	LEU	2.0
6	EF	27	VAL	2.0
6	GF	151	LEU	2.0
18	GR	96	VAL	2.0
37	HD	137	VAL	2.0
40	HG	13	LEU	2.0
50	HQ	29	VAL	2.0
12	CL	97	ALA	2.0
18	AR	102	SER	2.0
30	G3	35	LYS	2.0
32	A5	146	ALA	2.0
34	DB	215	ALA	2.0
55	HV	690	ALA	2.0
41	BH	17	GLY	2.0
55	FV	297	GLY	2.0
3	GA	1178	C	2.0
13	GM	111	GLU	2.0
3	GA	139	U	2.0
34	DB	152	ASP	2.0
2	GC	269	ARG	2.0
23	GW	38	ARG	2.0
42	HI	85	ARG	2.0
47	HN	63	ARG	2.0
55	HV	505	HIS	2.0
34	FB	39	ILE	2.0
2	CC	109	LEU	2.0
5	EE	143	LEU	2.0
9	AI	80	LYS	2.0
11	GK	97	THR	2.0
19	CS	51	LEU	2.0
25	EY	50	VAL	2.0
27	G0	38	LEU	2.0
34	HB	211	LEU	2.0
36	DC	199	LYS	2.0
38	HE	159	LYS	2.0
42	DI	22	LYS	2.0
42	DI	31	ASN	2.0
50	DQ	23	VAL	2.0
55	HV	349	VAL	2.0

*Continued on next page...*

*Continued from previous page...*

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	GA	234	U	2.0
3	GA	1047	G	2.0
25	GY	35	GLY	2.0
35	FA	93	U	2.0
35	FA	1454	G	2.0
35	HA	1026	G	2.0
41	HH	119	ALA	2.0
45	DL	124	ALA	2.0
46	BM	5	ALA	2.0
28	G1	38	PHE	2.0
41	FH	91	GLU	2.0
55	HV	603	GLU	2.0
39	DF	45	ARG	2.0
51	HR	57	ARG	2.0
15	CO	89	ASP	2.0
14	EN	52	ILE	2.0
34	DB	169	HIS	2.0
41	HH	48	ASP	2.0
52	DS	40	ILE	2.0
52	FS	11	ILE	2.0
6	EF	47	LYS	2.0
7	CG	43	LYS	2.0
15	CO	3	LYS	2.0
46	DM	44	LYS	2.0
3	AA	2099	U	2.0
3	AA	2187	U	2.0
7	CG	50	THR	2.0
7	GG	161	VAL	2.0
9	AI	69	VAL	2.0
9	EI	61	TYR	2.0
9	GI	61	TYR	2.0
19	GS	29	VAL	2.0
35	FA	85	U	2.0
46	FM	19	LEU	2.0
53	HT	58	VAL	2.0
55	FV	561	LEU	2.0
55	FV	566	LEU	2.0
55	HV	162	LEU	2.0
55	HV	167	VAL	2.0
20	ET	92	ASN	2.0
20	GT	71	GLY	2.0
37	HD	16	GLY	2.0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
43	HJ	33	GLY	2.0
5	GE	127	GLU	2.0
23	EW	84	GLU	2.0
41	HH	6	PRO	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
56	KBE	DW	1	9/10	0.83	0.27	-	33,35,41,48	0
56	5OH	BW	6	12/13	0.94	0.14	-	11,17,21,21	0
56	5OH	DW	6	12/13	0.95	0.13	-	22,29,35,37	0
56	5OH	FW	6	12/13	0.96	0.16	-	10,24,29,30	0
56	KBE	FW	1	9/10	0.89	0.42	-	17,21,37,51	0
56	KBE	HW	1	9/10	0.84	0.31	-	27,45,52,55	0
56	KBE	BW	1	9/10	0.93	0.19	-	4,9,22,23	0
56	UAL	BW	5	9/10	0.92	0.21	-	16,20,27,32	0
56	DPP	HW	2	6/7	0.82	0.15	-	30,41,49,53	0
56	DPP	BW	2	6/7	0.96	0.18	-	6,12,15,22	0
56	UAL	HW	5	9/10	0.87	0.25	-	36,48,56,60	0
56	DPP	FW	2	6/7	0.98	0.20	-	18,22,27,32	0
56	5OH	HW	6	12/13	0.80	0.27	-	48,54,58,60	0
56	UAL	DW	5	9/10	0.93	0.12	-	17,27,36,48	0
56	UAL	FW	5	9/10	0.93	0.15	-	15,18,29,38	0
56	DPP	DW	2	6/7	0.96	0.12	-	25,37,38,39	0

## 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
57	MG	GA	3131	1/1	0.83	1.13	47.87	43,43,43,43	0
57	MG	AA	3097	1/1	0.70	0.56	28.93	34,34,34,34	0
57	MG	GA	3055	1/1	0.91	0.64	22.04	21,21,21,21	0
57	MG	GA	3021	1/1	0.97	0.67	19.81	20,20,20,20	0
57	MG	EA	3040	1/1	0.97	0.28	16.70	11,11,11,11	0
57	MG	CA	3112	1/1	0.99	0.30	16.06	10,10,10,10	0
57	MG	AA	3078	1/1	0.99	0.34	10.55	13,13,13,13	0
57	MG	AA	3129	1/1	0.98	0.24	10.06	9,9,9,9	0
57	MG	HA	1628	1/1	0.98	0.26	9.28	29,29,29,29	0
57	MG	AA	3111	1/1	0.99	0.25	7.12	3,3,3,3	0
57	MG	GA	3050	1/1	0.96	0.28	6.75	26,26,26,26	0
57	MG	AA	3037	1/1	0.96	0.43	6.71	30,30,30,30	0
57	MG	AA	3100	1/1	0.95	0.29	6.37	1,1,1,1	0
57	MG	GA	3107	1/1	0.99	0.26	5.98	13,13,13,13	0
57	MG	AA	3041	1/1	0.99	0.24	5.97	7,7,7,7	0
57	MG	AA	3135	1/1	0.97	0.37	5.96	12,12,12,12	0
57	MG	AA	3047	1/1	0.95	0.21	5.89	12,12,12,12	0
57	MG	EA	3005	1/1	0.99	0.20	5.78	16,16,16,16	0
57	MG	DA	1628	1/1	0.97	0.32	5.64	44,44,44,44	0
57	MG	BA	1616	1/1	0.99	0.27	5.59	3,3,3,3	0
57	MG	AA	3107	1/1	1.00	0.24	5.54	4,4,4,4	0
57	MG	EA	3042	1/1	0.99	0.23	5.39	13,13,13,13	0
57	MG	AA	3095	1/1	0.98	0.26	5.21	4,4,4,4	0
57	MG	CA	3046	1/1	0.99	0.22	5.21	21,21,21,21	0
57	MG	AA	3068	1/1	0.99	0.23	4.84	2,2,2,2	0
57	MG	GA	3100	1/1	0.98	0.29	4.79	12,12,12,12	0
57	MG	AA	3115	1/1	0.99	0.24	4.71	1,1,1,1	0
57	MG	AA	3090	1/1	0.94	0.24	4.62	32,32,32,32	0
57	MG	BA	1627	1/1	0.98	0.22	4.35	19,19,19,19	0
57	MG	GA	3009	1/1	0.95	0.22	4.22	35,35,35,35	0
57	MG	FA	1635	1/1	0.85	0.34	4.11	41,41,41,41	0
57	MG	EA	3123	1/1	0.99	0.23	4.07	3,3,3,3	0
57	MG	HA	1613	1/1	0.97	0.27	4.04	32,32,32,32	0
57	MG	FA	1609	1/1	0.99	0.25	4.00	7,7,7,7	0
57	MG	EA	3046	1/1	0.97	0.23	3.90	9,9,9,9	0
57	MG	CA	3131	1/1	0.99	0.27	3.87	11,11,11,11	0
57	MG	EA	3038	1/1	0.98	0.22	3.85	2,2,2,2	0
57	MG	AA	3026	1/1	0.99	0.22	3.76	4,4,4,4	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	CA	3068	1/1	0.98	0.19	3.69	9,9,9,9	0
57	MG	GA	3104	1/1	0.99	0.29	3.62	12,12,12,12	0
57	MG	CA	3040	1/1	0.99	0.21	3.52	11,11,11,11	0
57	MG	FA	1626	1/1	0.98	0.23	3.24	22,22,22,22	0
57	MG	AA	3050	1/1	1.00	0.20	3.21	2,2,2,2	0
57	MG	BA	1607	1/1	0.88	0.27	3.19	34,34,34,34	0
57	MG	AA	3108	1/1	0.99	0.26	3.18	1,1,1,1	0
57	MG	GA	3023	1/1	0.99	0.33	3.17	27,27,27,27	0
57	MG	EA	3103	1/1	0.99	0.26	3.10	0,0,0,0	0
57	MG	AA	3029	1/1	0.99	0.24	3.02	0,0,0,0	0
57	MG	GA	3030	1/1	0.98	0.26	2.96	15,15,15,15	0
57	MG	CA	3109	1/1	0.98	0.24	2.93	7,7,7,7	0
57	MG	AA	3106	1/1	0.99	0.21	2.85	4,4,4,4	0
57	MG	GA	3115	1/1	0.98	0.23	2.80	20,20,20,20	0
57	MG	DA	1642	1/1	1.00	0.21	2.71	4,4,4,4	0
57	MG	CA	3105	1/1	0.99	0.23	2.65	14,14,14,14	0
57	MG	GA	3119	1/1	0.97	0.21	2.60	18,18,18,18	0
57	MG	EA	3025	1/1	0.98	0.23	2.57	1,1,1,1	0
57	MG	EA	3096	1/1	0.99	0.22	2.50	9,9,9,9	0
57	MG	FA	1611	1/1	0.98	0.21	2.50	7,7,7,7	0
57	MG	CA	3136	1/1	0.85	0.28	2.42	22,22,22,22	0
57	MG	FA	1613	1/1	1.00	0.20	2.35	6,6,6,6	0
57	MG	EA	3104	1/1	0.99	0.23	2.34	0,0,0,0	0
57	MG	EA	3023	1/1	0.99	0.22	2.33	9,9,9,9	0
57	MG	DV	802	1/1	0.99	0.20	2.27	14,14,14,14	0
57	MG	EA	3100	1/1	0.98	0.22	2.23	1,1,1,1	0
57	MG	CA	3120	1/1	0.99	0.21	2.08	11,11,11,11	0
57	MG	CA	3023	1/1	0.98	0.26	1.81	5,5,5,5	0
57	MG	AA	3060	1/1	0.89	0.27	1.68	34,34,34,34	0
57	MG	FA	1622	1/1	0.98	0.20	1.63	9,9,9,9	0
57	MG	HA	1623	1/1	0.98	0.20	1.58	36,36,36,36	0
57	MG	GA	3049	1/1	1.00	0.22	1.55	12,12,12,12	0
57	MG	EA	3037	1/1	0.99	0.19	1.51	2,2,2,2	0
57	MG	CN	201	1/1	0.97	0.21	1.44	20,20,20,20	0
57	MG	DA	1616	1/1	0.98	0.34	1.42	28,28,28,28	0
57	MG	CA	3110	1/1	0.96	0.18	1.42	23,23,23,23	0
57	MG	CA	3009	1/1	0.99	0.18	1.37	10,10,10,10	0
57	MG	DA	1639	1/1	0.98	0.16	1.36	30,30,30,30	0
57	MG	CA	3024	1/1	0.98	0.20	1.32	6,6,6,6	0
57	MG	AA	3035	1/1	0.98	0.20	1.31	5,5,5,5	0
57	MG	CB	1202	1/1	0.92	0.16	1.29	44,44,44,44	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	1638	1/1	1.00	0.18	1.29	13,13,13,13	0
57	MG	CA	3005	1/1	0.99	0.15	1.24	35,35,35,35	0
57	MG	CA	3079	1/1	0.99	0.20	1.24	27,27,27,27	0
57	MG	AA	3094	1/1	1.00	0.19	1.19	16,16,16,16	0
57	MG	BA	1626	1/1	0.98	0.21	1.06	5,5,5,5	0
57	MG	CA	3121	1/1	1.00	0.22	1.05	8,8,8,8	0
57	MG	EA	3053	1/1	0.99	0.20	1.02	1,1,1,1	0
57	MG	EA	3084	1/1	0.99	0.22	1.00	7,7,7,7	0
57	MG	CA	3066	1/1	0.98	0.17	0.97	4,4,4,4	0
57	MG	BA	1605	1/1	0.98	0.16	0.91	28,28,28,28	0
57	MG	BV	802	1/1	0.98	0.20	0.83	22,22,22,22	0
57	MG	DA	1610	1/1	0.98	0.10	0.81	28,28,28,28	0
57	MG	EA	3130	1/1	0.98	0.20	0.63	0,0,0,0	0
57	MG	BA	1640	1/1	0.99	0.22	0.61	11,11,11,11	0
57	MG	BA	1632	1/1	0.99	0.16	0.51	14,14,14,14	0
57	MG	BA	1628	1/1	1.00	0.19	0.50	18,18,18,18	0
57	MG	GA	3109	1/1	0.87	0.16	0.44	35,35,35,35	0
57	MG	EA	3120	1/1	0.99	0.20	0.37	5,5,5,5	0
57	MG	CA	3113	1/1	0.95	0.20	0.33	10,10,10,10	0
57	MG	GA	3022	1/1	0.99	0.17	0.31	30,30,30,30	0
57	MG	GA	3040	1/1	0.97	0.16	0.21	15,15,15,15	0
57	MG	CA	3133	1/1	0.99	0.21	0.17	13,13,13,13	0
57	MG	AA	3009	1/1	1.00	0.19	0.15	2,2,2,2	0
57	MG	FV	802	1/1	0.99	0.18	0.15	24,24,24,24	0
57	MG	AA	3130	1/1	0.98	0.20	0.13	3,3,3,3	0
57	MG	DA	1606	1/1	0.98	0.20	0.13	15,15,15,15	0
57	MG	CA	3107	1/1	0.98	0.17	0.13	14,14,14,14	0
57	MG	GA	3108	1/1	0.97	0.18	0.09	38,38,38,38	0
57	MG	GA	3099	1/1	0.97	0.14	0.06	33,33,33,33	0
57	MG	BA	1636	1/1	0.95	0.15	0.03	24,24,24,24	0
57	MG	AA	3114	1/1	0.95	0.20	-0.03	10,10,10,10	0
57	MG	HV	802	1/1	0.99	0.17	-0.04	38,38,38,38	0
57	MG	GA	3024	1/1	0.96	0.19	-0.10	14,14,14,14	0
57	MG	CA	3116	1/1	0.98	0.16	-0.10	7,7,7,7	0
57	MG	GA	3047	1/1	0.99	0.12	-0.12	38,38,38,38	0
57	MG	EA	3133	1/1	1.00	0.21	-0.14	0,0,0,0	0
57	MG	AA	3065	1/1	1.00	0.18	-0.15	11,11,11,11	0
57	MG	HA	1611	1/1	0.88	0.20	-0.15	26,26,26,26	0
57	MG	BA	1613	1/1	0.96	0.17	-0.17	8,8,8,8	0
57	MG	GA	3053	1/1	0.99	0.17	-0.20	6,6,6,6	0
57	MG	FA	1628	1/1	0.99	0.16	-0.22	27,27,27,27	0
59	GCP	FV	801	32/32	0.95	0.16	-0.23	16,28,45,57	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	EA	3014	1/1	0.97	0.21	-0.28	1,1,1,1	0
57	MG	GL	201	1/1	0.85	0.30	-0.31	47,47,47,47	0
57	MG	CA	3049	1/1	0.98	0.17	-0.31	7,7,7,7	0
57	MG	GA	3008	1/1	0.93	0.17	-0.32	24,24,24,24	0
57	MG	BA	1619	1/1	0.99	0.17	-0.34	13,13,13,13	0
57	MG	HA	1606	1/1	0.98	0.17	-0.35	29,29,29,29	0
57	MG	HA	1633	1/1	0.99	0.17	-0.38	46,46,46,46	0
59	GCP	DV	801	32/32	0.96	0.14	-0.39	17,28,38,41	0
57	MG	AA	3104	1/1	0.98	0.20	-0.41	2,2,2,2	0
57	MG	HA	1627	1/1	0.96	0.20	-0.42	41,41,41,41	0
57	MG	CA	3069	1/1	0.84	0.12	-0.42	61,61,61,61	0
57	MG	EA	3024	1/1	0.99	0.19	-0.43	2,2,2,2	0
57	MG	EA	3115	1/1	0.98	0.17	-0.43	6,6,6,6	0
57	MG	EA	3112	1/1	0.99	0.17	-0.43	2,2,2,2	0
57	MG	EA	3008	1/1	1.00	0.18	-0.48	1,1,1,1	0
57	MG	EA	3113	1/1	0.99	0.14	-0.49	7,7,7,7	0
57	MG	CA	3028	1/1	1.00	0.18	-0.52	9,9,9,9	0
57	MG	AA	3103	1/1	0.98	0.18	-0.55	0,0,0,0	0
57	MG	HA	1637	1/1	0.92	0.14	-0.56	51,51,51,51	0
57	MG	EA	3034	1/1	0.98	0.17	-0.57	31,31,31,31	0
57	MG	EB	1202	1/1	0.98	0.13	-0.60	17,17,17,17	0
57	MG	GA	3078	1/1	0.98	0.12	-0.61	35,35,35,35	0
59	GCP	BV	801	32/32	0.98	0.14	-0.62	9,25,32,35	0
57	MG	GA	3032	1/1	0.94	0.16	-0.65	22,22,22,22	0
57	MG	EA	3108	1/1	0.98	0.20	-0.66	15,15,15,15	0
57	MG	FN	202	1/1	1.00	0.15	-0.80	26,26,26,26	0
57	MG	GA	3113	1/1	0.97	0.13	-0.80	32,32,32,32	0
57	MG	HA	1640	1/1	1.00	0.15	-0.81	18,18,18,18	0
57	MG	HA	1620	1/1	0.94	0.17	-0.83	32,32,32,32	0
57	MG	GA	3012	1/1	0.99	0.16	-0.85	22,22,22,22	0
57	MG	GA	3062	1/1	0.98	0.17	-0.86	19,19,19,19	0
57	MG	EA	3079	1/1	0.99	0.15	-0.88	8,8,8,8	0
57	MG	AA	3073	1/1	0.99	0.18	-0.89	2,2,2,2	0
58	ZN	C4	102	1/1	0.99	0.14	-0.90	41,41,41,41	0
57	MG	GA	3122	1/1	0.99	0.17	-0.93	16,16,16,16	0
57	MG	CA	3008	1/1	0.99	0.16	-0.95	14,14,14,14	0
57	MG	AA	3109	1/1	0.99	0.08	-0.96	20,20,20,20	0
57	MG	AA	3039	1/1	0.99	0.18	-0.97	3,3,3,3	0
57	MG	CA	3003	1/1	0.98	0.13	-0.98	10,10,10,10	0
57	MG	GA	3069	1/1	0.83	0.11	-0.99	70,70,70,70	0
57	MG	GA	3132	1/1	0.98	0.15	-1.00	28,28,28,28	0
57	MG	AA	3002	1/1	0.98	0.15	-1.00	25,25,25,25	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	AA	3062	1/1	0.99	0.18	-1.01	4,4,4,4	0
57	MG	DA	1609	1/1	0.98	0.15	-1.01	13,13,13,13	0
57	MG	GA	3036	1/1	0.98	0.15	-1.04	38,38,38,38	0
57	MG	GA	3106	1/1	0.98	0.15	-1.04	7,7,7,7	0
59	GCP	HV	801	32/32	0.96	0.12	-1.04	18,36,48,55	0
57	MG	AA	3132	1/1	0.99	0.17	-1.07	0,0,0,0	0
57	MG	EA	3035	1/1	0.98	0.18	-1.07	12,12,12,12	0
57	MG	CA	3104	1/1	0.99	0.16	-1.10	8,8,8,8	0
57	MG	CA	3071	1/1	0.99	0.17	-1.14	10,10,10,10	0
57	MG	GA	3111	1/1	0.98	0.14	-1.15	35,35,35,35	0
57	MG	DA	1621	1/1	0.98	0.12	-1.16	44,44,44,44	0
58	ZN	A4	102	1/1	0.99	0.13	-1.17	42,42,42,42	0
57	MG	CA	3114	1/1	0.99	0.12	-1.17	26,26,26,26	0
57	MG	CA	3053	1/1	0.98	0.15	-1.18	20,20,20,20	0
57	MG	CE	301	1/1	0.98	0.07	-1.20	19,19,19,19	0
57	MG	ED	301	1/1	0.99	0.16	-1.21	7,7,7,7	0
57	MG	CA	3027	1/1	0.99	0.10	-1.23	10,10,10,10	0
57	MG	DA	1613	1/1	0.99	0.13	-1.24	23,23,23,23	0
57	MG	GA	3064	1/1	0.99	0.12	-1.25	11,11,11,11	0
57	MG	GA	3130	1/1	1.00	0.11	-1.32	18,18,18,18	0
57	MG	BU	101	1/1	0.98	0.14	-1.36	19,19,19,19	0
57	MG	EA	3022	1/1	0.99	0.17	-1.36	2,2,2,2	0
57	MG	FA	1630	1/1	0.98	0.08	-1.38	44,44,44,44	0
57	MG	HA	1629	1/1	0.91	0.12	-1.38	45,45,45,45	0
58	ZN	G4	101	1/1	0.98	0.07	-1.47	66,66,66,66	0
57	MG	EA	3131	1/1	0.98	0.11	-1.47	3,3,3,3	0
57	MG	GA	3017	1/1	0.96	0.12	-1.48	10,10,10,10	0
57	MG	BA	1604	1/1	0.99	0.07	-1.50	17,17,17,17	0
57	MG	EA	3049	1/1	0.98	0.17	-1.51	8,8,8,8	0
57	MG	BA	1610	1/1	0.98	0.09	-1.52	41,41,41,41	0
57	MG	DA	1607	1/1	0.98	0.14	-1.54	16,16,16,16	0
57	MG	CA	3095	1/1	0.98	0.15	-1.55	14,14,14,14	0
57	MG	EA	3114	1/1	0.96	0.17	-1.55	17,17,17,17	0
57	MG	EA	3002	1/1	0.99	0.14	-1.61	7,7,7,7	0
57	MG	AA	3113	1/1	0.97	0.12	-1.63	8,8,8,8	0
57	MG	GA	3007	1/1	0.92	0.07	-1.65	39,39,39,39	0
57	MG	DA	1633	1/1	0.99	0.08	-1.87	29,29,29,29	0
57	MG	GA	3134	1/1	0.98	0.08	-1.88	28,28,28,28	0
57	MG	FA	1604	1/1	0.96	0.08	-2.06	34,34,34,34	0
57	MG	EA	3095	1/1	0.94	0.13	-2.07	6,6,6,6	0
57	MG	FA	1620	1/1	0.97	0.09	-2.08	41,41,41,41	0
57	MG	FA	1607	1/1	0.99	0.10	-2.09	21,21,21,21	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	FA	1631	1/1	0.99	0.10	-2.13	24,24,24,24	0
57	MG	EA	3105	1/1	0.99	0.14	-2.14	5,5,5,5	0
57	MG	CA	3118	1/1	0.98	0.12	-2.14	31,31,31,31	0
57	MG	EA	3110	1/1	0.91	0.14	-2.15	12,12,12,12	0
57	MG	CA	3073	1/1	0.98	0.13	-2.17	4,4,4,4	0
57	MG	AA	3018	1/1	1.00	0.16	-2.19	2,2,2,2	0
57	MG	GA	3096	1/1	0.99	0.15	-2.23	15,15,15,15	0
57	MG	EA	3107	1/1	1.00	0.15	-2.23	5,5,5,5	0
57	MG	AA	3025	1/1	0.97	0.15	-2.25	0,0,0,0	0
57	MG	EA	3065	1/1	0.99	0.14	-2.30	5,5,5,5	0
57	MG	FA	1616	1/1	0.99	0.12	-2.50	18,18,18,18	0
57	MG	DA	1604	1/1	0.96	0.07	-2.51	18,18,18,18	0
57	MG	FA	1638	1/1	0.98	0.12	-2.51	16,16,16,16	0
57	MG	DA	1634	1/1	0.93	0.08	-2.58	34,34,34,34	0
57	MG	AA	3003	1/1	0.99	0.13	-2.59	11,11,11,11	0
57	MG	GA	3128	1/1	0.92	0.10	-2.61	18,18,18,18	0
57	MG	CA	3124	1/1	0.99	0.13	-2.63	26,26,26,26	0
57	MG	AA	3004	1/1	0.99	0.12	-2.72	20,20,20,20	0
57	MG	DA	1630	1/1	0.96	0.11	-2.72	25,25,25,25	0
57	MG	HA	1604	1/1	0.96	0.04	-2.74	31,31,31,31	0
57	MG	AA	3012	1/1	0.97	0.21	-2.77	32,32,32,32	0
57	MG	DA	1624	1/1	0.96	0.14	-2.77	18,18,18,18	0
57	MG	CA	3063	1/1	0.99	0.14	-2.85	4,4,4,4	0
57	MG	EA	3106	1/1	0.99	0.13	-2.86	9,9,9,9	0
57	MG	DA	1611	1/1	0.99	0.11	-2.88	35,35,35,35	0
57	MG	AA	3054	1/1	1.00	0.14	-3.01	3,3,3,3	0
57	MG	AA	3024	1/1	0.99	0.15	-3.15	5,5,5,5	0
57	MG	AA	3119	1/1	0.98	0.15	-3.20	0,0,0,0	0
57	MG	EA	3109	1/1	0.96	0.11	-3.22	19,19,19,19	0
57	MG	AA	3082	1/1	0.99	0.07	-3.26	22,22,22,22	0
58	ZN	E4	101	1/1	0.99	0.09	-3.28	59,59,59,59	0
57	MG	EA	3064	1/1	0.99	0.14	-3.32	2,2,2,2	0
57	MG	AB	1202	1/1	0.99	0.08	-3.35	25,25,25,25	0
57	MG	AA	3014	1/1	0.99	0.14	-3.43	2,2,2,2	0
57	MG	GA	3002	1/1	0.98	0.07	-3.61	31,31,31,31	0
57	MG	CA	3012	1/1	0.94	0.13	-3.63	6,6,6,6	0
57	MG	GA	3118	1/1	0.99	0.11	-3.72	39,39,39,39	0
57	MG	GA	3074	1/1	0.99	0.14	-3.75	10,10,10,10	0
57	MG	EA	3111	1/1	0.98	0.13	-3.92	5,5,5,5	0
57	MG	DA	1617	1/1	0.97	0.08	-4.07	39,39,39,39	0
57	MG	CA	3070	1/1	0.99	0.10	-4.10	8,8,8,8	0
57	MG	CA	3058	1/1	1.00	0.14	-4.21	18,18,18,18	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	CA	3050	1/1	0.99	0.08	-4.25	14,14,14,14	0
57	MG	AA	3123	1/1	0.99	0.11	-4.26	5,5,5,5	0
57	MG	AA	3131	1/1	0.99	0.10	-4.43	3,3,3,3	0
57	MG	EA	3066	1/1	0.99	0.12	-4.82	1,1,1,1	0
57	MG	AA	3071	1/1	1.00	0.12	-5.33	4,4,4,4	0
57	MG	EA	3128	1/1	0.98	0.18	-5.44	0,0,0,0	0
57	MG	BA	1631	1/1	0.99	0.07	-5.93	16,16,16,16	0
57	MG	GA	3027	1/1	0.99	0.09	-5.97	17,17,17,17	0
57	MG	AA	3128	1/1	1.00	0.15	-6.05	0,0,0,0	0
57	MG	CA	3119	1/1	0.94	0.08	-6.25	34,34,34,34	0
57	MG	AA	3028	1/1	0.99	0.12	-7.11	4,4,4,4	0
57	MG	CA	3013	1/1	0.99	0.07	-7.12	9,9,9,9	0
57	MG	GA	3065	1/1	0.98	0.12	-	20,20,20,20	0
57	MG	FA	1621	1/1	0.97	0.14	-	13,13,13,13	0
57	MG	FA	1614	1/1	0.98	0.20	-	13,13,13,13	0
57	MG	DA	1631	1/1	0.99	0.06	-	13,13,13,13	0
57	MG	GA	3121	1/1	0.96	0.15	-	16,16,16,16	0
57	MG	EA	3006	1/1	0.99	0.11	-	9,9,9,9	0
57	MG	EA	3134	1/1	0.99	0.24	-	7,7,7,7	0
57	MG	FA	1601	1/1	0.98	0.08	-	17,17,17,17	0
57	MG	AA	3008	1/1	0.99	0.06	-	19,19,19,19	0
57	MG	GA	3054	1/1	0.98	0.14	-	12,12,12,12	0
57	MG	EA	3082	1/1	0.99	0.12	-	6,6,6,6	0
57	MG	EA	3124	1/1	0.99	0.43	-	4,4,4,4	0
57	MG	CA	3020	1/1	0.99	0.11	-	6,6,6,6	0
57	MG	GA	3083	1/1	0.91	0.12	-	26,26,26,26	0
57	MG	EA	3126	1/1	0.99	0.13	-	6,6,6,6	0
57	MG	GA	3052	1/1	0.98	0.18	-	4,4,4,4	0
57	MG	AA	3093	1/1	0.91	0.31	-	34,34,34,34	0
57	MG	EA	3045	1/1	0.98	0.17	-	9,9,9,9	0
57	MG	GA	3135	1/1	0.84	0.41	-	28,28,28,28	0
57	MG	AA	3101	1/1	0.99	0.16	-	8,8,8,8	0
57	MG	EA	3125	1/1	0.95	0.24	-	18,18,18,18	0
57	MG	AA	3059	1/1	0.99	0.24	-	1,1,1,1	0
57	MG	CA	3123	1/1	0.99	0.24	-	26,26,26,26	0
57	MG	FU	101	1/1	0.95	0.17	-	21,21,21,21	0
57	MG	EA	3102	1/1	0.98	0.08	-	23,23,23,23	0
57	MG	AA	3084	1/1	0.96	0.19	-	2,2,2,2	0
57	MG	BA	1603	1/1	0.97	0.15	-	18,18,18,18	0
57	MG	GA	3127	1/1	0.98	0.13	-	18,18,18,18	0
57	MG	GA	3105	1/1	0.98	0.17	-	16,16,16,16	0
57	MG	AA	3030	1/1	0.99	0.09	-	1,1,1,1	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	GB	1203	1/1	0.98	0.07	-	23,23,23,23	0
57	MG	GA	3014	1/1	0.99	0.07	-	15,15,15,15	0
57	MG	GA	3043	1/1	0.99	0.09	-	20,20,20,20	0
57	MG	GA	3026	1/1	0.98	0.16	-	31,31,31,31	0
57	MG	FA	1625	1/1	0.98	0.15	-	21,21,21,21	0
57	MG	FA	1605	1/1	0.99	0.09	-	30,30,30,30	0
57	MG	AA	3074	1/1	0.99	0.18	-	5,5,5,5	0
57	MG	GA	3094	1/1	0.99	0.06	-	14,14,14,14	0
57	MG	GA	3077	1/1	0.97	0.12	-	55,55,55,55	0
57	MG	HA	1609	1/1	0.91	0.20	-	23,23,23,23	0
57	MG	A4	101	1/1	0.98	0.12	-	20,20,20,20	0
57	MG	BA	1612	1/1	0.99	0.18	-	3,3,3,3	0
57	MG	CA	3117	1/1	0.99	0.12	-	7,7,7,7	0
57	MG	CA	3075	1/1	0.99	0.25	-	11,11,11,11	0
57	MG	AA	3064	1/1	0.99	0.12	-	3,3,3,3	0
57	MG	HA	1608	1/1	0.94	0.43	-	47,47,47,47	0
57	MG	CA	3128	1/1	1.00	0.16	-	17,17,17,17	0
57	MG	CA	3088	1/1	0.96	0.28	-	23,23,23,23	0
57	MG	CA	3134	1/1	0.98	0.20	-	21,21,21,21	0
57	MG	AA	3089	1/1	0.99	0.09	-	4,4,4,4	0
57	MG	GA	3010	1/1	0.98	0.32	-	16,16,16,16	0
57	MG	CA	3025	1/1	0.94	0.14	-	24,24,24,24	0
57	MG	EA	3020	1/1	1.00	0.15	-	7,7,7,7	0
57	MG	BA	1602	1/1	0.88	0.23	-	38,38,38,38	0
57	MG	EA	3121	1/1	0.97	0.30	-	5,5,5,5	0
57	MG	GA	3124	1/1	0.94	0.20	-	36,36,36,36	0
57	MG	EA	3122	1/1	0.97	0.28	-	4,4,4,4	0
57	MG	CA	3044	1/1	0.95	0.08	-	28,28,28,28	0
57	MG	GA	3045	1/1	0.99	0.20	-	17,17,17,17	0
57	MG	FA	1637	1/1	0.97	0.09	-	29,29,29,29	0
57	MG	GA	3004	1/1	0.95	0.39	-	25,25,25,25	0
57	MG	CB	1203	1/1	0.99	0.10	-	12,12,12,12	0
57	MG	GA	3082	1/1	0.98	0.09	-	38,38,38,38	0
57	MG	CA	3122	1/1	1.00	0.20	-	5,5,5,5	0
57	MG	AA	3022	1/1	1.00	0.11	-	2,2,2,2	0
57	MG	EA	3099	1/1	0.99	0.16	-	3,3,3,3	0
57	MG	EA	3068	1/1	1.00	0.20	-	2,2,2,2	0
57	MG	BA	1615	1/1	0.91	0.30	-	25,25,25,25	0
57	MG	HA	1607	1/1	0.98	0.07	-	33,33,33,33	0
57	MG	CA	3026	1/1	0.98	0.15	-	14,14,14,14	0
57	MG	FA	1606	1/1	0.95	0.16	-	15,15,15,15	0
57	MG	EA	3091	1/1	0.95	0.27	-	40,40,40,40	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	FA	1629	1/1	0.99	0.12	-	30,30,30,30	0
57	MG	GA	3011	1/1	0.88	0.11	-	46,46,46,46	0
57	MG	EA	3041	1/1	0.98	0.18	-	3,3,3,3	0
57	MG	CA	3074	1/1	0.98	0.16	-	13,13,13,13	0
57	MG	GA	3029	1/1	0.99	0.08	-	16,16,16,16	0
57	MG	BA	1601	1/1	0.98	0.10	-	23,23,23,23	0
57	MG	EA	3058	1/1	0.99	0.14	-	5,5,5,5	0
57	MG	CA	3065	1/1	0.99	0.17	-	11,11,11,11	0
57	MG	EA	3118	1/1	0.93	0.13	-	17,17,17,17	0
57	MG	HA	1624	1/1	0.88	0.11	-	38,38,38,38	0
57	MG	CA	3089	1/1	0.99	0.19	-	14,14,14,14	0
57	MG	DA	1623	1/1	0.97	0.17	-	42,42,42,42	0
57	MG	GA	3016	1/1	0.98	0.12	-	12,12,12,12	0
57	MG	CA	3041	1/1	0.99	0.08	-	12,12,12,12	0
57	MG	EA	3007	1/1	0.98	0.08	-	12,12,12,12	0
57	MG	GA	3028	1/1	0.96	0.17	-	12,12,12,12	0
57	MG	BA	1621	1/1	1.00	0.09	-	11,11,11,11	0
57	MG	EA	3012	1/1	1.00	0.20	-	2,2,2,2	0
57	MG	EA	3059	1/1	1.00	0.17	-	10,10,10,10	0
57	MG	FA	1619	1/1	0.99	0.12	-	7,7,7,7	0
57	MG	EA	3132	1/1	0.96	0.14	-	21,21,21,21	0
57	MG	BA	1609	1/1	0.99	0.12	-	7,7,7,7	0
57	MG	HA	1632	1/1	0.97	0.10	-	31,31,31,31	0
57	MG	EA	3013	1/1	1.00	0.13	-	1,1,1,1	0
57	MG	EA	3019	1/1	0.96	0.13	-	10,10,10,10	0
57	MG	HA	1631	1/1	0.96	0.17	-	31,31,31,31	0
57	MG	EA	3021	1/1	0.99	0.16	-	11,11,11,11	0
57	MG	CA	3032	1/1	0.99	0.17	-	8,8,8,8	0
57	MG	DA	1619	1/1	0.99	0.18	-	34,34,34,34	0
57	MG	AB	1201	1/1	0.99	0.08	-	34,34,34,34	0
57	MG	AA	3083	1/1	0.94	0.26	-	18,18,18,18	0
57	MG	GA	3080	1/1	0.90	0.21	-	36,36,36,36	0
57	MG	FN	201	1/1	0.96	0.24	-	14,14,14,14	0
57	MG	CA	3087	1/1	0.99	0.14	-	23,23,23,23	0
57	MG	AA	3105	1/1	0.99	0.15	-	2,2,2,2	0
57	MG	AA	3045	1/1	0.97	0.21	-	8,8,8,8	0
57	MG	EB	1203	1/1	0.99	0.17	-	0,0,0,0	0
57	MG	CA	3093	1/1	0.97	0.11	-	40,40,40,40	0
57	MG	AA	3118	1/1	0.97	0.07	-	14,14,14,14	0
57	MG	EA	3061	1/1	0.99	0.17	-	5,5,5,5	0
57	MG	CA	3061	1/1	0.98	0.10	-	4,4,4,4	0
57	MG	CA	3057	1/1	1.00	0.11	-	7,7,7,7	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	1622	1/1	0.99	0.14	-	13,13,13,13	0
57	MG	GA	3037	1/1	0.99	0.32	-	18,18,18,18	0
57	MG	CA	3001	1/1	1.00	0.09	-	16,16,16,16	0
57	MG	AA	3086	1/1	0.99	0.08	-	14,14,14,14	0
57	MG	CA	3084	1/1	0.99	0.22	-	20,20,20,20	0
57	MG	EA	3016	1/1	0.99	0.23	-	0,0,0,0	0
57	MG	CA	3031	1/1	0.99	0.15	-	7,7,7,7	0
57	MG	CA	3022	1/1	0.99	0.12	-	17,17,17,17	0
57	MG	AA	3136	1/1	0.97	0.34	-	11,11,11,11	0
57	MG	GA	3116	1/1	0.92	0.31	-	22,22,22,22	0
57	MG	GA	3042	1/1	1.00	0.14	-	20,20,20,20	0
57	MG	GA	3097	1/1	0.99	0.28	-	10,10,10,10	0
57	MG	EA	3076	1/1	0.97	0.13	-	6,6,6,6	0
57	MG	EA	3003	1/1	0.99	0.19	-	9,9,9,9	0
57	MG	CA	3126	1/1	0.99	0.14	-	22,22,22,22	0
57	MG	FE	201	1/1	0.98	0.12	-	35,35,35,35	0
57	MG	HA	1612	1/1	0.97	0.28	-	20,20,20,20	0
57	MG	EA	3043	1/1	1.00	0.17	-	8,8,8,8	0
57	MG	EA	3031	1/1	1.00	0.16	-	1,1,1,1	0
57	MG	GA	3087	1/1	0.98	0.12	-	23,23,23,23	0
57	MG	EA	3036	1/1	0.98	0.13	-	12,12,12,12	0
57	MG	HA	1616	1/1	0.96	0.38	-	40,40,40,40	0
57	MG	AA	3031	1/1	0.99	0.20	-	5,5,5,5	0
57	MG	BA	1639	1/1	0.98	0.26	-	12,12,12,12	0
57	MG	AA	3076	1/1	0.98	0.14	-	13,13,13,13	0
57	MG	FA	1634	1/1	0.99	0.18	-	13,13,13,13	0
57	MG	AA	3121	1/1	0.99	0.22	-	3,3,3,3	0
57	MG	HA	1625	1/1	0.94	0.32	-	44,44,44,44	0
57	MG	CA	3052	1/1	1.00	0.14	-	4,4,4,4	0
57	MG	AA	3006	1/1	0.88	0.15	-	32,32,32,32	0
57	MG	AA	3056	1/1	1.00	0.13	-	11,11,11,11	0
57	MG	GA	3041	1/1	0.99	0.12	-	10,10,10,10	0
57	MG	GA	3051	1/1	0.96	0.25	-	20,20,20,20	0
57	MG	CA	3125	1/1	1.00	0.23	-	11,11,11,11	0
57	MG	GA	3092	1/1	0.98	0.17	-	16,16,16,16	0
57	MG	CA	3132	1/1	0.98	0.10	-	9,9,9,9	0
57	MG	EA	3069	1/1	0.95	0.09	-	25,25,25,25	0
57	MG	AE	301	1/1	0.95	0.30	-	21,21,21,21	0
57	MG	HA	1615	1/1	0.89	0.17	-	36,36,36,36	0
57	MG	AA	3046	1/1	0.98	0.29	-	13,13,13,13	0
57	MG	BA	1611	1/1	0.99	0.12	-	7,7,7,7	0
57	MG	CA	3115	1/1	0.87	0.23	-	51,51,51,51	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	AA	3077	1/1	0.99	0.11	-	16,16,16,16	0
57	MG	BA	1630	1/1	0.99	0.16	-	26,26,26,26	0
57	MG	EA	3070	1/1	0.93	0.60	-	23,23,23,23	0
57	MG	CA	3056	1/1	0.88	0.72	-	27,27,27,27	0
57	MG	EA	3050	1/1	0.91	0.19	-	23,23,23,23	0
57	MG	BA	1633	1/1	0.98	0.10	-	20,20,20,20	0
57	MG	FA	1632	1/1	0.99	0.13	-	24,24,24,24	0
57	MG	GA	3076	1/1	0.91	0.27	-	34,34,34,34	0
57	MG	EA	3052	1/1	0.97	0.17	-	12,12,12,12	0
57	MG	GA	3114	1/1	0.92	0.31	-	27,27,27,27	0
57	MG	DA	1635	1/1	0.94	0.08	-	37,37,37,37	0
57	MG	EA	3073	1/1	0.99	0.15	-	0,0,0,0	0
57	MG	GA	3071	1/1	0.99	0.16	-	16,16,16,16	0
57	MG	HA	1617	1/1	0.89	0.14	-	49,49,49,49	0
57	MG	AA	3102	1/1	0.99	0.11	-	10,10,10,10	0
57	MG	FA	1608	1/1	0.99	0.23	-	13,13,13,13	0
57	MG	EA	3030	1/1	0.99	0.28	-	7,7,7,7	0
57	MG	HA	1602	1/1	0.95	0.16	-	26,26,26,26	0
57	MG	AA	3088	1/1	0.98	0.18	-	4,4,4,4	0
57	MG	EA	3081	1/1	0.99	0.20	-	0,0,0,0	0
57	MG	FA	1610	1/1	0.97	0.25	-	33,33,33,33	0
57	MG	CA	3037	1/1	0.99	0.27	-	6,6,6,6	0
57	MG	AA	3017	1/1	1.00	0.11	-	0,0,0,0	0
57	MG	DA	1638	1/1	0.98	0.09	-	25,25,25,25	0
57	MG	GA	3058	1/1	0.99	0.13	-	24,24,24,24	0
57	MG	EA	3028	1/1	0.98	0.17	-	7,7,7,7	0
57	MG	CA	3098	1/1	0.97	0.15	-	29,29,29,29	0
57	MG	FA	1617	1/1	0.97	0.12	-	40,40,40,40	0
57	MG	HA	1621	1/1	0.99	0.14	-	7,7,7,7	0
57	MG	GA	3075	1/1	0.98	0.18	-	16,16,16,16	0
57	MG	AA	3079	1/1	0.99	0.11	-	4,4,4,4	0
57	MG	AA	3011	1/1	1.00	0.25	-	6,6,6,6	0
57	MG	BA	1620	1/1	0.93	0.12	-	15,15,15,15	0
57	MG	AA	3066	1/1	1.00	0.21	-	0,0,0,0	0
57	MG	BN	201	1/1	0.98	0.20	-	13,13,13,13	0
57	MG	AA	3058	1/1	0.99	0.14	-	9,9,9,9	0
57	MG	CA	3007	1/1	0.98	0.15	-	35,35,35,35	0
57	MG	EA	3117	1/1	0.97	0.09	-	15,15,15,15	0
57	MG	EA	3071	1/1	0.99	0.17	-	0,0,0,0	0
57	MG	BA	1618	1/1	0.99	0.17	-	1,1,1,1	0
57	MG	GC	301	1/1	0.98	0.24	-	26,26,26,26	0
57	MG	CA	3082	1/1	0.98	0.16	-	14,14,14,14	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	EA	3063	1/1	0.99	0.14	-	2,2,2,2	0
57	MG	DA	1629	1/1	0.90	0.53	-	43,43,43,43	0
57	MG	CA	3019	1/1	0.98	0.14	-	27,27,27,27	0
57	MG	GA	3006	1/1	0.94	0.12	-	29,29,29,29	0
57	MG	HA	1626	1/1	0.74	0.27	-	32,32,32,32	0
57	MG	EA	3055	1/1	0.89	0.56	-	30,30,30,30	0
57	MG	EA	3078	1/1	0.98	0.10	-	20,20,20,20	0
57	MG	CA	3060	1/1	0.99	0.12	-	7,7,7,7	0
57	MG	EA	3129	1/1	0.99	0.21	-	2,2,2,2	0
57	MG	GA	3066	1/1	0.99	0.16	-	12,12,12,12	0
57	MG	EA	3075	1/1	1.00	0.21	-	11,11,11,11	0
57	MG	CA	3083	1/1	0.99	0.04	-	32,32,32,32	0
57	MG	AA	3040	1/1	1.00	0.25	-	1,1,1,1	0
57	MG	EA	3090	1/1	0.99	0.07	-	11,11,11,11	0
57	MG	CA	3072	1/1	0.99	0.14	-	14,14,14,14	0
57	MG	HK	201	1/1	0.81	0.24	-	28,28,28,28	0
57	MG	EA	3116	1/1	0.99	0.16	-	6,6,6,6	0
57	MG	EB	1201	1/1	0.97	0.10	-	30,30,30,30	0
57	MG	CA	3043	1/1	0.99	0.16	-	4,4,4,4	0
57	MG	HA	1639	1/1	0.96	0.14	-	22,22,22,22	0
57	MG	EA	3093	1/1	0.98	0.13	-	11,11,11,11	0
57	MG	GA	3112	1/1	0.99	0.20	-	13,13,13,13	0
57	MG	GA	3085	1/1	0.99	0.17	-	10,10,10,10	0
57	MG	GA	3073	1/1	0.99	0.17	-	10,10,10,10	0
57	MG	AA	3049	1/1	0.99	0.19	-	17,17,17,17	0
57	MG	BA	1637	1/1	0.94	0.34	-	15,15,15,15	0
57	MG	CA	3011	1/1	0.90	0.22	-	31,31,31,31	0
57	MG	CA	3051	1/1	0.99	0.32	-	6,6,6,6	0
57	MG	EA	3086	1/1	1.00	0.19	-	8,8,8,8	0
57	MG	CA	3034	1/1	0.98	0.14	-	13,13,13,13	0
57	MG	FA	1623	1/1	0.99	0.16	-	6,6,6,6	0
57	MG	AA	3033	1/1	0.99	0.19	-	1,1,1,1	0
57	MG	EA	3032	1/1	1.00	0.17	-	1,1,1,1	0
57	MG	HA	1601	1/1	0.94	0.06	-	27,27,27,27	0
57	MG	GA	3056	1/1	1.00	0.06	-	13,13,13,13	0
57	MG	GA	3091	1/1	0.98	0.06	-	28,28,28,28	0
57	MG	GA	3003	1/1	0.98	0.10	-	26,26,26,26	0
57	MG	HA	1634	1/1	0.96	0.10	-	35,35,35,35	0
57	MG	AA	3126	1/1	0.99	0.13	-	2,2,2,2	0
57	MG	EA	3127	1/1	0.99	0.15	-	11,11,11,11	0
57	MG	AA	3133	1/1	0.99	0.18	-	10,10,10,10	0
57	MG	AA	3007	1/1	0.97	0.10	-	19,19,19,19	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	AA	3099	1/1	0.99	0.14	-	13,13,13,13	0
57	MG	DA	1615	1/1	0.99	0.20	-	45,45,45,45	0
57	MG	EA	3027	1/1	1.00	0.17	-	4,4,4,4	0
57	MG	BE	201	1/1	0.81	0.15	-	31,31,31,31	0
57	MG	AA	3001	1/1	0.95	0.72	-	20,20,20,20	0
57	MG	EA	3060	1/1	0.99	0.20	-	2,2,2,2	0
57	MG	DA	1602	1/1	0.97	0.08	-	28,28,28,28	0
57	MG	AA	3052	1/1	0.98	0.16	-	3,3,3,3	0
57	MG	AA	3019	1/1	0.98	0.14	-	15,15,15,15	0
57	MG	AA	3127	1/1	0.99	0.13	-	10,10,10,10	0
57	MG	GA	3067	1/1	0.99	0.27	-	29,29,29,29	0
57	MG	GA	3103	1/1	0.99	0.22	-	12,12,12,12	0
57	MG	DA	1612	1/1	0.97	0.14	-	33,33,33,33	0
57	MG	EA	3051	1/1	0.98	0.27	-	6,6,6,6	0
57	MG	FA	1633	1/1	0.98	0.15	-	24,24,24,24	0
57	MG	EA	3101	1/1	0.98	0.14	-	7,7,7,7	0
57	MG	EA	3067	1/1	0.99	0.21	-	3,3,3,3	0
57	MG	GA	3133	1/1	0.91	0.42	-	15,15,15,15	0
57	MG	CA	3106	1/1	0.99	0.26	-	12,12,12,12	0
57	MG	AA	3069	1/1	0.86	0.13	-	44,44,44,44	0
57	MG	EA	3039	1/1	0.93	0.19	-	15,15,15,15	0
57	MG	AA	3016	1/1	0.95	0.17	-	11,11,11,11	0
57	MG	DA	1608	1/1	0.96	0.22	-	30,30,30,30	0
57	MG	CA	3077	1/1	0.90	0.63	-	37,37,37,37	0
57	MG	DA	1625	1/1	0.98	0.14	-	29,29,29,29	0
57	MG	EA	3083	1/1	0.59	0.43	-	35,35,35,35	0
57	MG	CA	3091	1/1	0.94	0.43	-	38,38,38,38	0
57	MG	BA	1625	1/1	0.96	0.17	-	23,23,23,23	0
57	MG	FA	1624	1/1	0.98	0.20	-	27,27,27,27	0
57	MG	CA	3067	1/1	1.00	0.20	-	6,6,6,6	0
57	MG	CA	3054	1/1	0.99	0.09	-	14,14,14,14	0
57	MG	BA	1608	1/1	0.99	0.23	-	11,11,11,11	0
57	MG	EA	3089	1/1	0.99	0.14	-	6,6,6,6	0
57	MG	HA	1622	1/1	0.97	0.21	-	30,30,30,30	0
57	MG	GA	3129	1/1	0.94	0.28	-	29,29,29,29	0
57	MG	GA	3120	1/1	0.97	0.20	-	19,19,19,19	0
57	MG	CA	3035	1/1	1.00	0.13	-	7,7,7,7	0
57	MG	EA	3062	1/1	0.99	0.16	-	4,4,4,4	0
57	MG	AA	3112	1/1	0.98	0.25	-	0,0,0,0	0
57	MG	EA	3085	1/1	0.99	0.26	-	11,11,11,11	0
57	MG	GA	3015	1/1	0.95	0.22	-	27,27,27,27	0
57	MG	AA	3032	1/1	0.99	0.17	-	0,0,0,0	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	CA	3004	1/1	0.99	0.09	-	24,24,24,24	0
57	MG	CA	3103	1/1	0.98	0.11	-	17,17,17,17	0
57	MG	GA	3095	1/1	0.85	0.42	-	43,43,43,43	0
57	MG	AA	3042	1/1	0.98	0.20	-	8,8,8,8	0
57	MG	CA	3101	1/1	1.00	0.18	-	5,5,5,5	0
57	MG	AA	3027	1/1	0.99	0.17	-	15,15,15,15	0
57	MG	GA	3072	1/1	0.99	0.08	-	24,24,24,24	0
57	MG	AA	3124	1/1	0.97	0.25	-	4,4,4,4	0
57	MG	EA	3080	1/1	0.98	0.20	-	15,15,15,15	0
57	MG	GB	1201	1/1	0.82	0.26	-	62,62,62,62	0
57	MG	DA	1626	1/1	0.92	0.15	-	44,44,44,44	0
57	MG	GA	3098	1/1	1.00	0.15	-	15,15,15,15	0
57	MG	BA	1614	1/1	0.99	0.11	-	7,7,7,7	0
57	MG	CA	3097	1/1	0.99	0.13	-	3,3,3,3	0
57	MG	GA	3019	1/1	1.00	0.15	-	6,6,6,6	0
57	MG	FA	1636	1/1	0.71	0.24	-	35,35,35,35	0
57	MG	DA	1620	1/1	1.00	0.04	-	12,12,12,12	0
57	MG	AA	3070	1/1	0.98	0.27	-	6,6,6,6	0
57	MG	BA	1617	1/1	0.99	0.06	-	21,21,21,21	0
57	MG	CA	3100	1/1	0.99	0.07	-	16,16,16,16	0
57	MG	GA	3070	1/1	0.94	0.14	-	22,22,22,22	0
57	MG	GA	3048	1/1	0.99	0.16	-	15,15,15,15	0
57	MG	EA	3056	1/1	0.98	0.13	-	13,13,13,13	0
57	MG	GA	3001	1/1	0.99	0.06	-	31,31,31,31	0
57	MG	CA	3036	1/1	0.98	0.12	-	28,28,28,28	0
57	MG	GA	3126	1/1	0.98	0.07	-	35,35,35,35	0
57	MG	GA	3039	1/1	0.98	0.25	-	28,28,28,28	0
57	MG	CA	3078	1/1	0.96	0.08	-	34,34,34,34	0
57	MG	AA	3075	1/1	0.98	0.11	-	15,15,15,15	0
57	MG	AA	3134	1/1	0.96	0.23	-	21,21,21,21	0
57	MG	FA	1603	1/1	0.92	0.14	-	20,20,20,20	0
57	MG	AA	3043	1/1	0.99	0.15	-	5,5,5,5	0
57	MG	CA	3059	1/1	0.98	0.18	-	10,10,10,10	0
57	MG	AA	3072	1/1	0.99	0.17	-	5,5,5,5	0
57	MG	CB	1204	1/1	0.97	0.05	-	15,15,15,15	0
57	MG	GA	3018	1/1	0.96	0.05	-	21,21,21,21	0
57	MG	FA	1639	1/1	0.99	0.16	-	20,20,20,20	0
57	MG	GA	3034	1/1	0.99	0.09	-	36,36,36,36	0
57	MG	GA	3123	1/1	0.98	0.20	-	44,44,44,44	0
57	MG	HA	1618	1/1	0.92	0.16	-	35,35,35,35	0
57	MG	CA	3029	1/1	0.99	0.15	-	19,19,19,19	0
57	MG	CA	3081	1/1	0.99	0.24	-	6,6,6,6	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	GA	3136	1/1	0.95	0.22	-	27,27,27,27	0
57	MG	CA	3135	1/1	0.94	0.36	-	8,8,8,8	0
57	MG	CA	3085	1/1	0.95	0.16	-	5,5,5,5	0
57	MG	GA	3093	1/1	0.99	0.11	-	21,21,21,21	0
57	MG	CA	3039	1/1	0.99	0.25	-	4,4,4,4	0
57	MG	GA	3033	1/1	0.97	0.28	-	30,30,30,30	0
57	MG	EA	3017	1/1	0.99	0.15	-	8,8,8,8	0
57	MG	AA	3005	1/1	0.97	0.13	-	16,16,16,16	0
57	MG	GA	3063	1/1	0.98	0.14	-	27,27,27,27	0
57	MG	EB	1204	1/1	0.99	0.12	-	8,8,8,8	0
57	MG	DA	1640	1/1	0.98	0.06	-	24,24,24,24	0
57	MG	AA	3092	1/1	0.94	0.10	-	14,14,14,14	0
57	MG	DA	1643	1/1	0.94	0.22	-	32,32,32,32	0
57	MG	EA	3015	1/1	0.87	0.55	-	2,2,2,2	0
57	MG	AA	3038	1/1	0.98	0.26	-	3,3,3,3	0
57	MG	GA	3057	1/1	0.92	0.14	-	28,28,28,28	0
57	MG	HA	1603	1/1	0.99	0.08	-	25,25,25,25	0
57	MG	EA	3077	1/1	0.99	0.09	-	18,18,18,18	0
57	MG	EA	3029	1/1	1.00	0.25	-	2,2,2,2	0
57	MG	DA	1603	1/1	0.95	0.13	-	20,20,20,20	0
57	MG	FA	1618	1/1	0.96	0.27	-	21,21,21,21	0
57	MG	AA	3080	1/1	0.99	0.22	-	0,0,0,0	0
57	MG	GA	3090	1/1	0.94	0.10	-	27,27,27,27	0
57	MG	CA	3062	1/1	0.99	0.16	-	15,15,15,15	0
57	MG	GA	3060	1/1	0.98	0.15	-	18,18,18,18	0
57	MG	DA	1637	1/1	0.98	0.12	-	25,25,25,25	0
57	MG	HA	1605	1/1	0.98	0.15	-	40,40,40,40	0
57	MG	BA	1624	1/1	0.99	0.21	-	9,9,9,9	0
57	MG	EA	3057	1/1	0.97	0.07	-	18,18,18,18	0
57	MG	HA	1619	1/1	0.91	0.10	-	19,19,19,19	0
57	MG	CA	3092	1/1	0.93	0.27	-	58,58,58,58	0
57	MG	AA	3021	1/1	0.99	0.20	-	6,6,6,6	0
57	MG	AB	1204	1/1	0.99	0.06	-	18,18,18,18	0
57	MG	EA	3088	1/1	0.96	0.35	-	19,19,19,19	0
57	MG	CA	3108	1/1	1.00	0.21	-	11,11,11,11	0
57	MG	DA	1632	1/1	0.98	0.09	-	22,22,22,22	0
57	MG	CA	3010	1/1	0.96	0.28	-	8,8,8,8	0
57	MG	HA	1641	1/1	0.93	0.19	-	30,30,30,30	0
57	MG	CA	3094	1/1	0.92	0.43	-	37,37,37,37	0
57	MG	AA	3048	1/1	0.99	0.08	-	16,16,16,16	0
57	MG	EA	3033	1/1	0.97	0.26	-	0,0,0,0	0
57	MG	EA	3010	1/1	1.00	0.16	-	6,6,6,6	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	CA	3017	1/1	1.00	0.18	-	7,7,7,7	0
57	MG	GA	3086	1/1	0.95	0.13	-	24,24,24,24	0
57	MG	GA	3046	1/1	0.99	0.12	-	35,35,35,35	0
57	MG	CA	3002	1/1	0.97	0.16	-	38,38,38,38	0
57	MG	AA	3051	1/1	0.99	0.10	-	9,9,9,9	0
57	MG	GA	3110	1/1	0.92	0.21	-	11,11,11,11	0
57	MG	CA	3064	1/1	0.99	0.16	-	6,6,6,6	0
57	MG	GA	3079	1/1	0.72	0.80	-	52,52,52,52	0
57	MG	EA	3092	1/1	0.97	0.13	-	22,22,22,22	0
57	MG	AA	3013	1/1	0.99	0.18	-	0,0,0,0	0
57	MG	EA	3011	1/1	0.91	0.88	-	24,24,24,24	0
57	MG	AA	3110	1/1	0.98	0.20	-	9,9,9,9	0
57	MG	CA	3111	1/1	0.96	0.15	-	18,18,18,18	0
57	MG	CA	3047	1/1	0.99	0.10	-	23,23,23,23	0
57	MG	EA	3074	1/1	0.98	0.20	-	11,11,11,11	0
57	MG	AA	3036	1/1	1.00	0.18	-	2,2,2,2	0
57	MG	BA	1622	1/1	0.99	0.16	-	17,17,17,17	0
57	MG	AA	3015	1/1	0.99	0.27	-	0,0,0,0	0
57	MG	CA	3076	1/1	0.98	0.13	-	16,16,16,16	0
57	MG	AA	3010	1/1	0.99	0.18	-	8,8,8,8	0
57	MG	HA	1610	1/1	0.98	0.07	-	31,31,31,31	0
57	MG	AA	3081	1/1	0.99	0.11	-	1,1,1,1	0
57	MG	DA	1627	1/1	0.99	0.14	-	23,23,23,23	0
57	MG	CA	3006	1/1	0.94	0.08	-	30,30,30,30	0
57	MG	GA	3025	1/1	0.94	0.17	-	25,25,25,25	0
57	MG	CA	3048	1/1	0.99	0.17	-	17,17,17,17	0
57	MG	AA	3087	1/1	0.97	0.15	-	19,19,19,19	0
57	MG	EA	3047	1/1	0.99	0.08	-	25,25,25,25	0
57	MG	CA	3127	1/1	0.99	0.17	-	3,3,3,3	0
57	MG	CA	3090	1/1	0.97	0.21	-	19,19,19,19	0
57	MG	CA	3102	1/1	0.99	0.24	-	9,9,9,9	0
57	MG	EE	301	1/1	0.98	0.09	-	19,19,19,19	0
57	MG	GA	3125	1/1	1.00	0.12	-	10,10,10,10	0
57	MG	AC	301	1/1	0.99	0.14	-	3,3,3,3	0
57	MG	AA	3091	1/1	0.99	0.08	-	33,33,33,33	0
57	MG	CA	3055	1/1	0.96	0.19	-	19,19,19,19	0
57	MG	C4	101	1/1	0.97	0.09	-	17,17,17,17	0
57	MG	GA	3068	1/1	0.94	0.40	-	30,30,30,30	0
57	MG	GA	3061	1/1	0.98	0.11	-	20,20,20,20	0
57	MG	EA	3009	1/1	0.98	0.25	-	2,2,2,2	0
57	MG	DA	1618	1/1	0.97	0.04	-	37,37,37,37	0
57	MG	EA	3135	1/1	0.98	0.14	-	25,25,25,25	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	HA	1614	1/1	0.94	0.17	-	49,49,49,49	0
57	MG	CA	3086	1/1	0.99	0.17	-	15,15,15,15	0
57	MG	GA	3038	1/1	0.98	0.17	-	21,21,21,21	0
57	MG	AA	3096	1/1	1.00	0.15	-	0,0,0,0	0
57	MG	GA	3013	1/1	0.98	0.08	-	18,18,18,18	0
57	MG	CA	3129	1/1	0.99	0.12	-	9,9,9,9	0
57	MG	CA	3080	1/1	0.97	0.17	-	20,20,20,20	0
57	MG	CA	3015	1/1	0.94	0.12	-	25,25,25,25	0
57	MG	AA	3098	1/1	0.99	0.21	-	0,0,0,0	0
57	MG	GA	3020	1/1	0.99	0.19	-	3,3,3,3	0
57	MG	AA	3034	1/1	0.99	0.21	-	4,4,4,4	0
57	MG	EA	3044	1/1	0.99	0.10	-	15,15,15,15	0
57	MG	AB	1203	1/1	0.98	0.16	-	0,0,0,0	0
57	MG	CA	3042	1/1	0.98	0.08	-	16,16,16,16	0
57	MG	FA	1615	1/1	0.99	0.12	-	16,16,16,16	0
57	MG	AA	3057	1/1	0.99	0.09	-	25,25,25,25	0
57	MG	CA	3038	1/1	0.99	0.20	-	9,9,9,9	0
57	MG	GA	3081	1/1	0.99	0.19	-	14,14,14,14	0
57	MG	GA	3089	1/1	0.99	0.20	-	8,8,8,8	0
57	MG	FA	1602	1/1	0.98	0.12	-	18,18,18,18	0
57	MG	EA	3098	1/1	0.99	0.17	-	4,4,4,4	0
57	MG	HE	201	1/1	0.90	0.34	-	55,55,55,55	0
57	MG	GA	3117	1/1	0.97	0.13	-	10,10,10,10	0
57	MG	AA	3116	1/1	0.99	0.14	-	0,0,0,0	0
57	MG	GA	3044	1/1	0.98	0.06	-	21,21,21,21	0
57	MG	HA	1635	1/1	0.98	0.11	-	28,28,28,28	0
57	MG	DA	1641	1/1	0.99	0.11	-	28,28,28,28	0
57	MG	AA	3044	1/1	0.98	0.10	-	4,4,4,4	0
57	MG	HA	1636	1/1	0.99	0.13	-	28,28,28,28	0
57	MG	HA	1630	1/1	0.99	0.23	-	32,32,32,32	0
57	MG	AA	3053	1/1	1.00	0.17	-	4,4,4,4	0
57	MG	BA	1634	1/1	0.99	0.10	-	13,13,13,13	0
57	MG	CA	3030	1/1	0.99	0.16	-	39,39,39,39	0
57	MG	GA	3031	1/1	0.98	0.10	-	15,15,15,15	0
57	MG	AA	3122	1/1	0.99	0.16	-	6,6,6,6	0
57	MG	DA	1601	1/1	0.97	0.12	-	26,26,26,26	0
57	MG	CA	3096	1/1	0.98	0.21	-	16,16,16,16	0
57	MG	CA	3033	1/1	0.99	0.17	-	6,6,6,6	0
57	MG	AA	3063	1/1	1.00	0.19	-	0,0,0,0	0
57	MG	AA	3085	1/1	1.00	0.14	-	7,7,7,7	0
57	MG	AA	3125	1/1	0.99	0.22	-	8,8,8,8	0
57	MG	GB	1202	1/1	0.93	0.14	-	64,64,64,64	0

*Continued on next page...*



*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	CA	3021	1/1	0.98	0.11	-	5,5,5,5	0
57	MG	EA	3072	1/1	1.00	0.15	-	2,2,2,2	0
57	MG	DA	1636	1/1	0.95	0.77	-	34,34,34,34	0
57	MG	GA	3101	1/1	0.96	0.14	-	13,13,13,13	0
57	MG	GA	3059	1/1	0.96	0.12	-	25,25,25,25	0
57	MG	FA	1627	1/1	0.49	0.53	-	53,53,53,53	0
57	MG	GA	3005	1/1	0.83	0.11	-	42,42,42,42	0
57	MG	GB	1204	1/1	0.97	0.04	-	37,37,37,37	0
57	MG	BA	1629	1/1	0.98	0.15	-	15,15,15,15	0
57	MG	AA	3120	1/1	0.98	0.24	-	9,9,9,9	0
57	MG	GA	3088	1/1	0.90	0.67	-	37,37,37,37	0
57	MG	GA	3035	1/1	0.92	0.14	-	24,24,24,24	0
57	MG	EA	3136	1/1	0.86	0.37	-	15,15,15,15	0
57	MG	AA	3117	1/1	0.99	0.10	-	11,11,11,11	0
57	MG	EA	3048	1/1	0.99	0.22	-	25,25,25,25	0
57	MG	GA	3084	1/1	0.97	0.40	-	30,30,30,30	0
57	MG	DA	1605	1/1	0.99	0.15	-	18,18,18,18	0
57	MG	BA	1606	1/1	0.99	0.18	-	14,14,14,14	0
57	MG	DA	1614	1/1	0.85	0.25	-	46,46,46,46	0
57	MG	BA	1623	1/1	0.99	0.10	-	25,25,25,25	0
57	MG	EA	3119	1/1	0.98	0.23	-	1,1,1,1	0
57	MG	EA	3097	1/1	0.94	0.21	-	19,19,19,19	0
57	MG	CA	3014	1/1	1.00	0.27	-	13,13,13,13	0
57	MG	EA	3137	1/1	0.98	0.32	-	11,11,11,11	0
57	MG	EA	3094	1/1	0.93	0.12	-	33,33,33,33	0
57	MG	AA	3023	1/1	1.00	0.08	-	0,0,0,0	0
57	MG	CB	1201	1/1	0.93	0.19	-	28,28,28,28	0
57	MG	GA	3102	1/1	0.99	0.14	-	19,19,19,19	0
57	MG	AA	3061	1/1	0.98	0.28	-	5,5,5,5	0
57	MG	EA	3001	1/1	0.97	0.18	-	11,11,11,11	0
57	MG	CA	3099	1/1	0.99	0.18	-	5,5,5,5	0
57	MG	EA	3018	1/1	0.99	0.19	-	9,9,9,9	0
57	MG	EA	3026	1/1	0.99	0.18	-	0,0,0,0	0
57	MG	EA	3054	1/1	0.99	0.12	-	2,2,2,2	0
57	MG	AA	3067	1/1	0.99	0.17	-	2,2,2,2	0
57	MG	GC	302	1/1	0.98	0.07	-	22,22,22,22	0
57	MG	CA	3045	1/1	0.98	0.20	-	5,5,5,5	0
57	MG	EA	3004	1/1	0.98	0.13	-	12,12,12,12	0
57	MG	CA	3016	1/1	0.97	0.18	-	11,11,11,11	0
57	MG	AA	3055	1/1	0.99	0.16	-	0,0,0,0	0
57	MG	BA	1635	1/1	0.98	0.14	-	29,29,29,29	0
57	MG	CA	3018	1/1	0.99	0.08	-	30,30,30,30	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	AA	3020	1/1	0.99	0.09	-	9,9,9,9	0
57	MG	CA	3130	1/1	0.99	0.16	-	21,21,21,21	0
57	MG	EA	3087	1/1	0.98	0.10	-	21,21,21,21	0
57	MG	HA	1638	1/1	0.99	0.04	-	28,28,28,28	0
57	MG	FA	1612	1/1	0.99	0.30	-	4,4,4,4	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.