



Full wwPDB X-ray Structure Validation Report ⓘ

Oct 10, 2014 – 10:07 AM EDT

PDB ID : 4W2H
Title : Crystal structure of the *Thermus thermophilus* 70S ribosome in complex with pactamycin (co-crystallized), mRNA and deacylated tRNA in the P site
Authors : Polikanov, Y.S.; Osterman, I.A.; Szal, T.; Tashlitsky, V.N.; Serebryakova, M.V.; Kusochev, P.; Bulkley, D.; Malanicheva, I.A.; Efimenko, T.A.; Efremenkova, O.V.; Konevega, A.L.; Shaw, K.J.; Bogdanov, A.A.; Rodnina, M.V.; Dontsova, O.A.; Mankin, A.S.; Steitz, T.A.; Sergiev, P.V.
Deposited on : 2014-09-12
Resolution : 2.70 Å(reported)

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

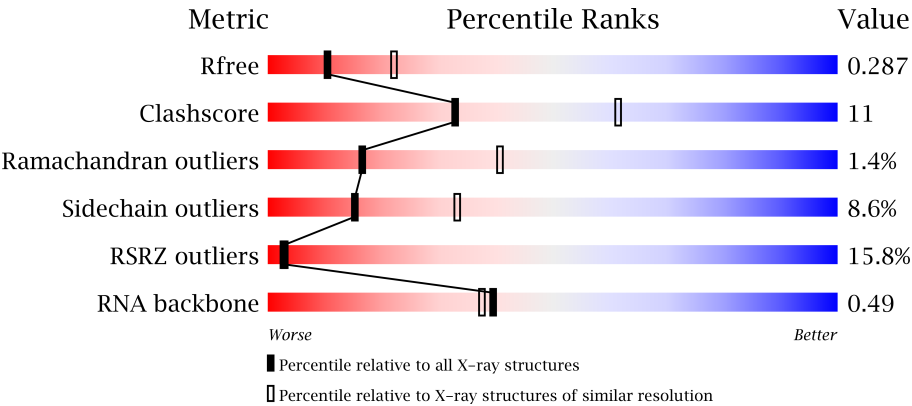
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.16 November 2013
Xtriage (Phenix) : dev-1439
EDS : stable23828
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable23828

1 Overall quality at a glance i

The reported resolution of this entry is 2.70 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	66092	1557 (2.70-2.70)
Clashscore	79885	1939 (2.70-2.70)
Ramachandran outliers	78287	1905 (2.70-2.70)
Sidechain outliers	78261	1905 (2.70-2.70)
RSRZ outliers	66119	1559 (2.70-2.70)
RNA backbone	1838	1042 (3.20-2.20)

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

Mol	Chain	Length	Quality of chain
1	AA	1521	<div><div></div><div></div></div>
1	CA	1521	<div><div></div><div></div></div>
2	AB	256	<div><div></div><div></div></div>
2	CB	256	<div><div></div><div></div></div>
3	AC	239	<div><div></div><div></div></div>
3	CC	239	<div><div></div><div></div></div>
4	AD	209	<div><div></div><div></div></div>
4	CD	209	<div><div></div><div></div></div>
5	AE	162	<div><div></div><div></div></div>
5	CE	162	<div><div></div><div></div></div>
6	AF	101	<div><div></div><div></div></div>

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
6	CF	101	
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	132	
12	CL	132	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	
15	AO	89	
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AV	24	
22	CV	24	
23	AX	77	
23	CX	77	
24	AY	76	
24	CY	76	
25	BA	2915	
25	DA	2915	
26	BB	121	
26	DB	121	
27	BD	276	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
27	DD	276	
28	BE	206	
28	DE	206	
29	BF	210	
29	DF	210	
30	BG	182	
30	DG	182	
31	BH	180	
31	DH	180	
32	BI	148	
32	DI	148	
33	BN	140	
33	DN	140	
34	BO	122	
34	DO	122	
35	BP	150	
35	DP	150	
36	BQ	141	
36	DQ	141	
37	BR	118	
37	DR	118	
38	BS	112	
38	DS	112	
39	BT	146	
39	DT	146	
40	BU	118	
40	DU	118	
41	BV	101	
41	DV	101	
42	BW	113	
42	DW	113	
43	BX	96	
43	DX	96	
44	BY	110	
44	DY	110	
45	BZ	206	
45	DZ	206	
46	B0	85	
46	D0	85	
47	B1	98	
47	D1	98	
48	B2	72	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
48	D2	72	
49	B3	60	
49	D3	60	
50	B4	71	
50	D4	71	
51	B5	60	
51	D5	60	
52	B6	54	
52	D6	54	
53	B7	49	
53	D7	49	
54	B8	65	
54	D8	65	
55	B9	37	
55	D9	37	

2 Entry composition

There are 61 unique types of molecules in this entry. The entry contains 290807 atoms, of which 0 are hydrogen and 0 are deuterium.

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

- Molecule 1 is a RNA chain called 16S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1497	Total	C	N	O	P	0	0	0
			32183	14323	5965	10398	1497			
1	CA	1503	Total	C	N	O	P	0	0	0
			32312	14381	5990	10438	1503			

- Molecule 2 is a protein called 30S Ribosomal Protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	231	Total	C	N	O	S	0	0	0
			1846	1179	331	331	5			
2	CB	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 3 is a protein called 30S Ribosomal Protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1552	976	302	273	1			
3	CC	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

- Molecule 4 is a protein called 30S Ribosomal Protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1659	1040	326	286	7			
4	CD	208	Total	C	N	O	S	0	0	0
			1674	1050	333	284	7			

- Molecule 5 is a protein called 30S Ribosomal Protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	148	Total	C	N	O	S	0	0	0
			1129	714	213	198	4			
5	CE	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 6 is a protein called 30S Ribosomal Protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			806	511	143	149	3			
6	CF	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

- Molecule 7 is a protein called 30S Ribosomal Protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	155	Total	C	N	O	S	0	0	0
			1231	766	243	216	6			
7	CG	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			

- Molecule 8 is a protein called 30S Ribosomal Protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			
8	CH	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 9 is a protein called 30S Ribosomal Protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O		0	0	0
			983	623	193	167				
9	CI	127	Total	C	N	O		0	0	0
			978	619	190	169				

- Molecule 10 is a protein called 30S Ribosomal Protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	97	Total	C	N	O		0	0	0
			709	440	138	131				

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	CJ	96	Total	C	N	O			
			714	445	138	131	0	0	0

- Molecule 11 is a protein called 30S Ribosomal Protein S11.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
11	AK	114	Total	C	N	O	S		
			829	516	155	155	3	0	0
11	CK	114	Total	C	N	O	S		
			833	519	156	155	3	0	0

- Molecule 12 is a protein called 30S Ribosomal Protein S12.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
12	AL	122	Total	C	N	O	S		
			930	585	185	159	1	0	0
12	CL	122	Total	C	N	O	S		
			930	585	185	159	1	0	0

- Molecule 13 is a protein called 30S Ribosomal Protein S13.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
13	AM	120	Total	C	N	O	S		
			937	578	194	163	2	0	0
13	CM	118	Total	C	N	O	S		
			920	566	191	161	2	0	0

- Molecule 14 is a protein called 30S Ribosomal Protein S14.

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

- Molecule 15 is a protein called 30S Ribosomal Protein S15.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S		
			728	456	144	126	2	0	0
15	CO	88	Total	C	N	O	S		
			728	456	144	126	2	0	0

- Molecule 16 is a protein called 30S Ribosomal Protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
16	CP	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 17 is a protein called 30S Ribosomal Protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
17	CQ	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 18 is a protein called 30S Ribosomal Protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	68	Total	C	N	O	0	0	0
			555	355	108	92			
18	CR	68	Total	C	N	O	0	0	0
			555	355	108	92			

- Molecule 19 is a protein called 30S Ribosomal Protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	83	Total	C	N	O	S	0	0	0
			652	417	120	113	2			
19	CS	83	Total	C	N	O	S	0	0	0
			646	412	119	113	2			

- Molecule 20 is a protein called 30S Ribosomal Protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	96	Total	C	N	O	S	0	0	0
			728	446	156	124	2			
20	CT	96	Total	C	N	O	S	0	0	0
			727	446	155	124	2			

- Molecule 21 is a protein called 30S Ribosomal Protein THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	23	Total	C	N	O	0	0	0
			199	122	48	29			
21	CU	23	Total	C	N	O	0	0	0
			199	122	48	29			

- Molecule 22 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	8	Total	C	N	O	P	0	0	0
			169	76	29	56	8			
22	CV	5	Total	C	N	O	P	0	0	0
			109	49	22	33	5			

- Molecule 23 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
23	AX	76	Total	C	N	O	P	S	0	0	0
			1625	725	294	529	76	1			
23	CX	76	Total	C	N	O	P	S	0	0	0
			1625	725	294	529	76	1			

- Molecule 24 is a RNA chain called E-site tRNA Acceptor Stem.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AY	18	Total	C	N	O	P	0	0	0
			385	171	71	125	18			
24	CY	5	Total	C	N	O	P	0	0	0
			104	47	19	33	5			

- Molecule 25 is a RNA chain called 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2822	Total	C	N	O	P	0	0	0
			60792	27054	11380	19537	2821			
25	DA	2800	Total	C	N	O	P	0	0	0
			60311	26840	11284	19388	2799			

- Molecule 26 is a RNA chain called 5S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	DB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- Molecule 27 is a protein called 50S Ribosomal Protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BD	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			
27	DD	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 28 is a protein called 50S Ribosomal Protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BE	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			
28	DE	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			

- Molecule 29 is a protein called 50S Ribosomal Protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BF	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			
29	DF	203	Total	C	N	O	S	0	0	1
			1580	1007	297	274	2			

- Molecule 30 is a protein called 50S Ribosomal Protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BG	181	Total	C	N	O	S	0	0	0
			1425	914	256	251	4			
30	DG	181	Total	C	N	O	S	0	0	0
			1424	911	258	251	4			

- Molecule 31 is a protein called 50S Ribosomal Protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BH	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
31	DH	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			

- Molecule 32 is a protein called 50S Ribosomal Protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BI	146	Total	C	N	O	S	0	0	0
			1085	693	189	202	1			
32	DI	146	Total	C	N	O	S	0	0	0
			1061	680	186	194	1			

- Molecule 33 is a protein called 50S Ribosomal Protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BN	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			
33	DN	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

- Molecule 34 is a protein called 50S Ribosomal Protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
34	DO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 35 is a protein called 50S Ribosomal Protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BP	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			
35	DP	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

- Molecule 36 is a protein called 50S Ribosomal Protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
36	DQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 37 is a protein called 50S Ribosomal Protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
37	DR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 38 is a protein called 50S Ribosomal Protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BS	110	Total	C	N	O	S	0	0	0
			877	553	175	149				
38	DS	110	Total	C	N	O	S	0	0	0
			870	549	173	148				

- Molecule 39 is a protein called 50S Ribosomal Protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BT	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
39	DT	131	Total	C	N	O	S	0	0	0
			1083	675	224	183	1			

- Molecule 40 is a protein called 50S Ribosomal Protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
40	DU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 41 is a protein called 50S Ribosomal Protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BV	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			
41	DV	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

- Molecule 42 is a protein called 50S Ribosomal Protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BW	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	DW	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

- Molecule 43 is a protein called 50S Ribosomal Protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BX	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
43	DX	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

- Molecule 44 is a protein called 50S Ribosomal Protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BY	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			
44	DY	107	Total	C	N	O	S	0	0	0
			806	517	152	131	6			

- Molecule 45 is a protein called 50S Ribosomal Protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BZ	171	Total	C	N	O	S	0	0	0
			1349	862	243	242	2			
45	DZ	174	Total	C	N	O	S	0	0	0
			1360	870	243	245	2			

- Molecule 46 is a protein called 50S Ribosomal Protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	B0	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			
46	D0	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			

- Molecule 47 is a protein called 50S Ribosomal Protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	B1	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			
47	D1	97	Total	C	N	O	S	0	0	0
			755	475	148	131	1			

- Molecule 48 is a protein called 50S Ribosomal Protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B2	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
48	D2	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			

- Molecule 49 is a protein called 50S Ribosomal Protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	B3	59	Total	C	N	O	0	0	0
			469	298	90	81			
49	D3	59	Total	C	N	O	0	0	0
			464	296	90	78			

- Molecule 50 is a protein called 50S Ribosomal Protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B4	69	Total	C	N	O	S	0	0	0
			558	352	102	99	5			
50	D4	69	Total	C	N	O	S	0	0	0
			532	339	97	91	5			

- Molecule 51 is a protein called 50S Ribosomal Protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B5	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			
51	D5	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

- Molecule 52 is a protein called 50S Ribosomal Protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B6	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
52	D6	53	Total	C	N	O	S	0	0	0
			449	279	91	75	4			

- Molecule 53 is a protein called 50S Ribosomal Protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
53	D7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 54 is a protein called 50S Ribosomal Protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B8	64	Total	C	N	O	S	0	0	0
			511	328	99	82	2			
54	D8	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 55 is a protein called 50S Ribosomal Protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	B9	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
55	D9	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	B4	1	Total	Mg	0	0
			1	1		
56	BA	814	Total	Mg	0	0
			814	814		
56	CA	175	Total	Mg	0	0
			175	175		
56	DQ	3	Total	Mg	0	0
			3	3		
56	D3	1	Total	Mg	0	0
			1	1		
56	DF	5	Total	Mg	0	0
			5	5		
56	B8	2	Total	Mg	0	0
			2	2		
56	BE	7	Total	Mg	0	0
			7	7		
56	DU	4	Total	Mg	0	0
			4	4		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AN	1	Total 1	Mg 1	0	0
56	BP	4	Total 4	Mg 4	0	0
56	AX	9	Total 9	Mg 9	0	0
56	DN	1	Total 1	Mg 1	0	0
56	DD	8	Total 8	Mg 8	0	0
56	B5	4	Total 4	Mg 4	0	0
56	BB	22	Total 22	Mg 22	0	0
56	D8	1	Total 1	Mg 1	0	0
56	AE	3	Total 3	Mg 3	0	0
56	DG	1	Total 1	Mg 1	0	0
56	B9	1	Total 1	Mg 1	0	0
56	BF	9	Total 9	Mg 9	0	0
56	BX	2	Total 2	Mg 2	0	0
56	B2	1	Total 1	Mg 1	0	0
56	AA	190	Total 190	Mg 190	0	0
56	BQ	4	Total 4	Mg 4	0	0
56	CX	2	Total 2	Mg 2	0	0
56	DV	3	Total 3	Mg 3	0	0
56	B6	2	Total 2	Mg 2	0	0
56	AM	1	Total 1	Mg 1	0	0
56	BU	9	Total 9	Mg 9	0	0

Continued on next page...

Continued from previous page...

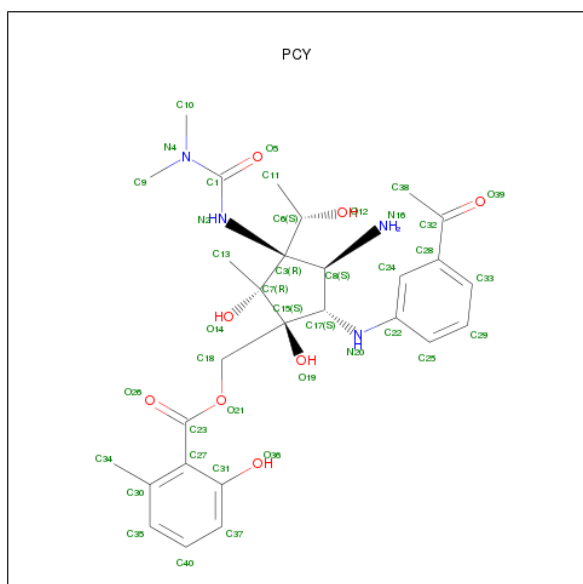
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	DR	1	Total 1	Mg 1	0	0
56	AD	1	Total 1	Mg 1	0	0
56	BN	7	Total 7	Mg 7	0	0
56	CT	1	Total 1	Mg 1	0	0
56	D0	2	Total 2	Mg 2	0	0
56	BG	2	Total 2	Mg 2	0	0
56	BY	3	Total 3	Mg 3	0	0
56	DE	5	Total 5	Mg 5	0	0
56	B3	1	Total 1	Mg 1	0	0
56	CJ	1	Total 1	Mg 1	0	0
56	BR	3	Total 3	Mg 3	0	0
56	DA	674	Total 674	Mg 674	0	0
56	DP	2	Total 2	Mg 2	0	0
56	DW	2	Total 2	Mg 2	0	0
56	B7	5	Total 5	Mg 5	0	0
56	CF	1	Total 1	Mg 1	0	0
56	BV	4	Total 4	Mg 4	0	0
56	DO	1	Total 1	Mg 1	0	0
56	BO	1	Total 1	Mg 1	0	0
56	AQ	1	Total 1	Mg 1	0	0
56	D1	1	Total 1	Mg 1	0	0

Continued on next page...

Continued from previous page...

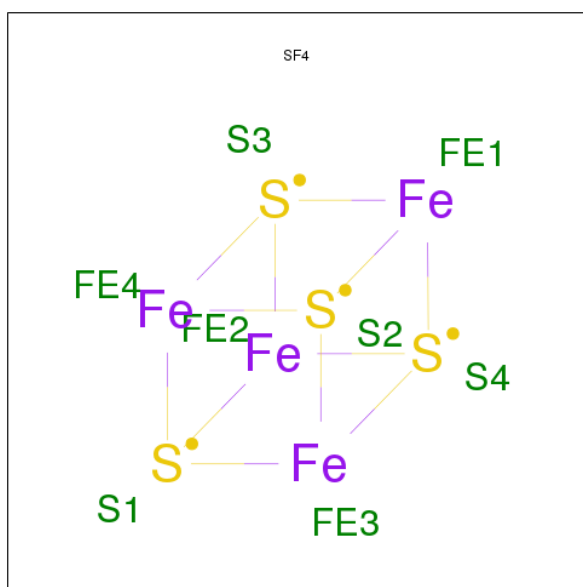
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	BZ	2	Total	Mg	0	0
			2	2		
56	DY	1	Total	Mg	0	0
			1	1		
56	BD	9	Total	Mg	0	0
			9	9		
56	B0	5	Total	Mg	0	0
			5	5		
56	CE	2	Total	Mg	0	0
			2	2		
56	BW	4	Total	Mg	0	0
			4	4		
56	AF	1	Total	Mg	0	0
			1	1		
56	DB	10	Total	Mg	0	0
			10	10		

- Molecule 57 is PACTAMYCIN (three-letter code: PCY) (formula: $C_{28}H_{38}N_4O_8$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
57	AA	1	Total	C	N	O	0	0
			40	28	4	8		
57	CA	1	Total	C	N	O	0	0
			40	28	4	8		

- Molecule 58 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
58	AD	1	Total	Fe	S	0	0
			8	4	4		
58	CD	1	Total	Fe	S	0	0
			8	4	4		

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	B5	1	Total	Zn	0	0
			1	1		
59	B4	1	Total	Zn	0	0
			1	1		
59	CN	1	Total	Zn	0	0
			1	1		
59	BY	1	Total	Zn	0	0
			1	1		
59	B9	1	Total	Zn	0	0
			1	1		
59	DY	1	Total	Zn	0	0
			1	1		
59	D5	1	Total	Zn	0	0
			1	1		
59	D4	1	Total	Zn	0	0
			1	1		
59	AN	1	Total	Zn	0	0
			1	1		
59	D6	1	Total	Zn	0	0
			1	1		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	D9	1	Total 1	Zn 1	0	0
59	B6	1	Total 1	Zn 1	0	0

- Molecule 60 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	AX	1	Total 1	K 1	0	0
60	CX	1	Total 1	K 1	0	0

- Molecule 61 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	AA	175	Total 175	O 175	0	0
61	AJ	2	Total 2	O 2	0	0
61	AL	1	Total 1	O 1	0	0
61	AM	1	Total 1	O 1	0	0
61	AO	1	Total 1	O 1	0	0
61	AV	1	Total 1	O 1	0	0
61	AX	8	Total 8	O 8	0	0
61	BA	1294	Total 1294	O 1294	0	0
61	BB	34	Total 34	O 34	0	0
61	BD	16	Total 16	O 16	0	0
61	BE	12	Total 12	O 12	0	0
61	BF	7	Total 7	O 7	0	0
61	BG	3	Total 3	O 3	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	BI	1	Total 1	O 1	0	0
61	BN	1	Total 1	O 1	0	0
61	BO	4	Total 4	O 4	0	0
61	BP	15	Total 15	O 15	0	0
61	BQ	5	Total 5	O 5	0	0
61	BR	1	Total 1	O 1	0	0
61	BU	2	Total 2	O 2	0	0
61	BV	2	Total 2	O 2	0	0
61	BW	3	Total 3	O 3	0	0
61	BX	5	Total 5	O 5	0	0
61	B0	4	Total 4	O 4	0	0
61	B1	1	Total 1	O 1	0	0
61	B3	1	Total 1	O 1	0	0
61	B5	4	Total 4	O 4	0	0
61	B6	1	Total 1	O 1	0	0
61	B7	1	Total 1	O 1	0	0
61	B8	10	Total 10	O 10	0	0
61	CA	137	Total 137	O 137	0	0
61	CD	1	Total 1	O 1	0	0
61	CJ	2	Total 2	O 2	0	0
61	CL	1	Total 1	O 1	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	CN	1	Total 1	O 1	0	0
61	CT	1	Total 1	O 1	0	0
61	CX	2	Total 2	O 2	0	0
61	DA	924	Total 924	O 924	0	0
61	DB	8	Total 8	O 8	0	0
61	DD	18	Total 18	O 18	0	0
61	DE	9	Total 9	O 9	0	0
61	DF	5	Total 5	O 5	0	0
61	DN	1	Total 1	O 1	0	0
61	DO	1	Total 1	O 1	0	0
61	DP	14	Total 14	O 14	0	0
61	DR	1	Total 1	O 1	0	0
61	DT	1	Total 1	O 1	0	0
61	DU	3	Total 3	O 3	0	0
61	DV	1	Total 1	O 1	0	0
61	DW	1	Total 1	O 1	0	0
61	DX	1	Total 1	O 1	0	0
61	DY	1	Total 1	O 1	0	0
61	D0	7	Total 7	O 7	0	0
61	D1	1	Total 1	O 1	0	0
61	D3	1	Total 1	O 1	0	0

Continued on next page...

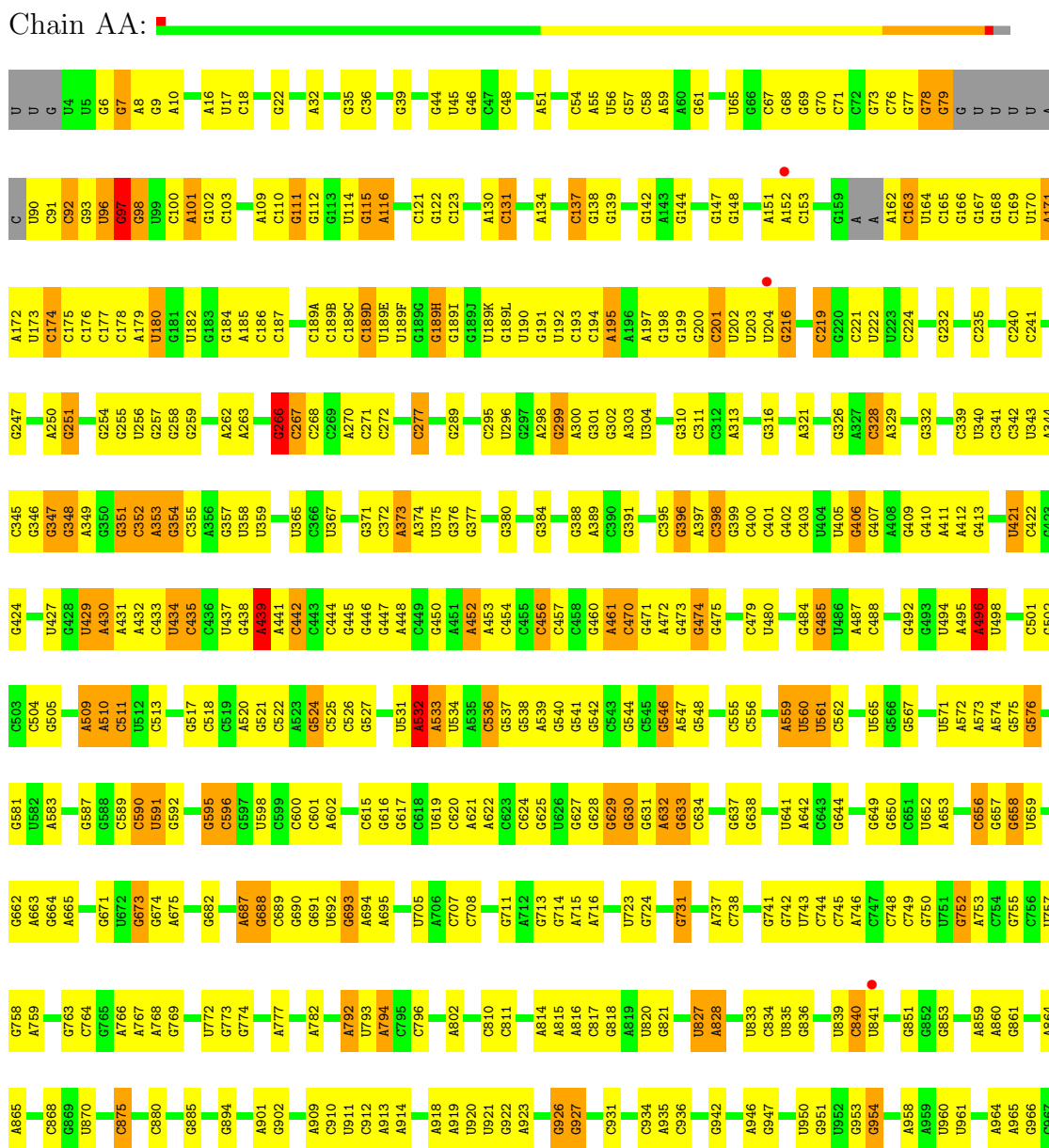
Continued from previous page...

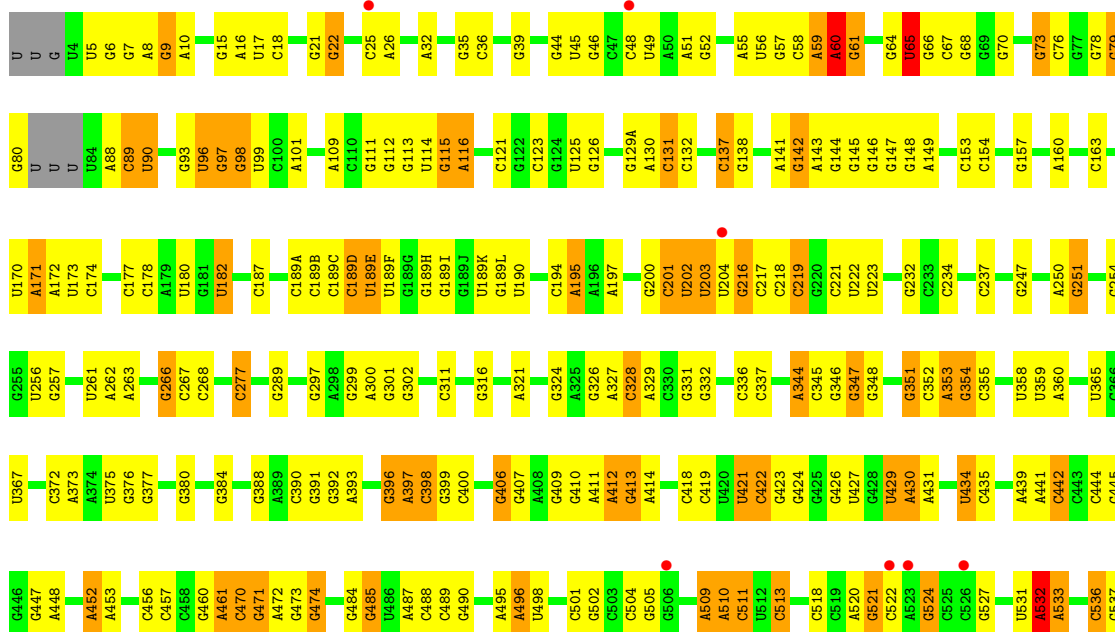
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	D8	4	Total	O	0	0
			4	4		

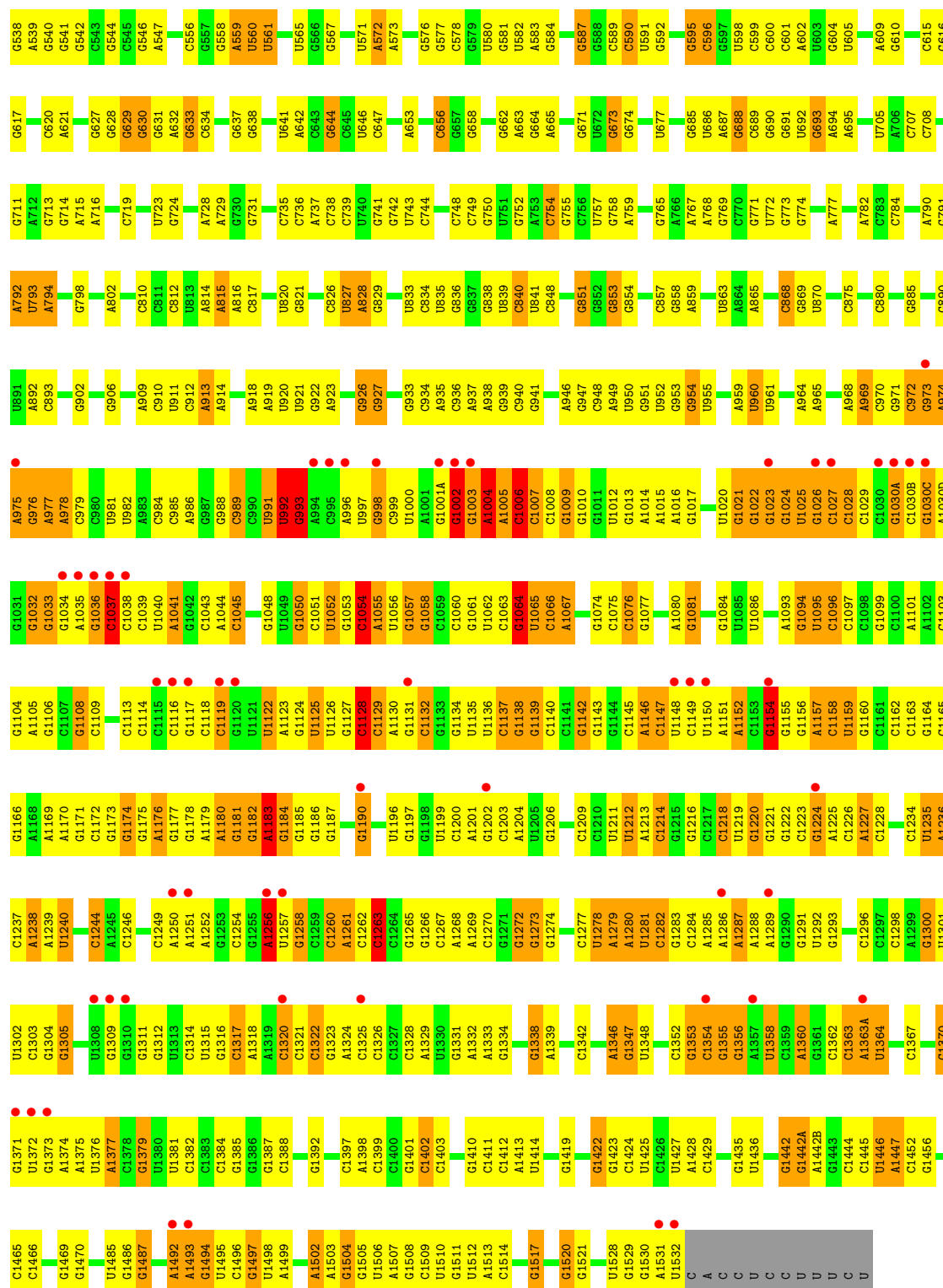
3 Residue-property plots

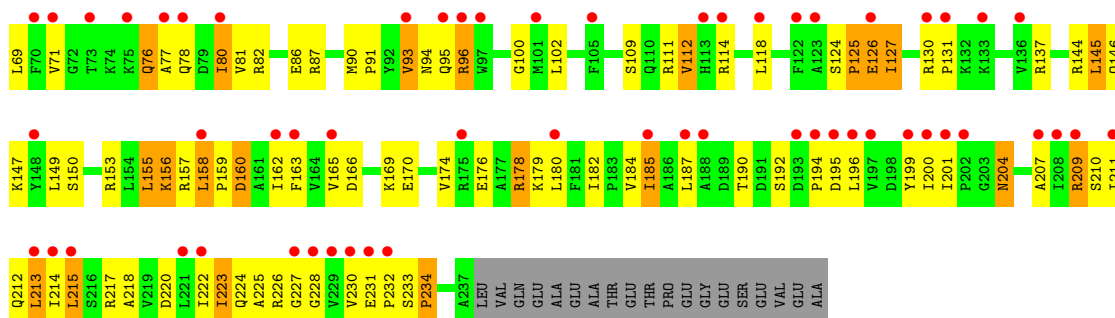
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according 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: 16S Ribosomal RNA



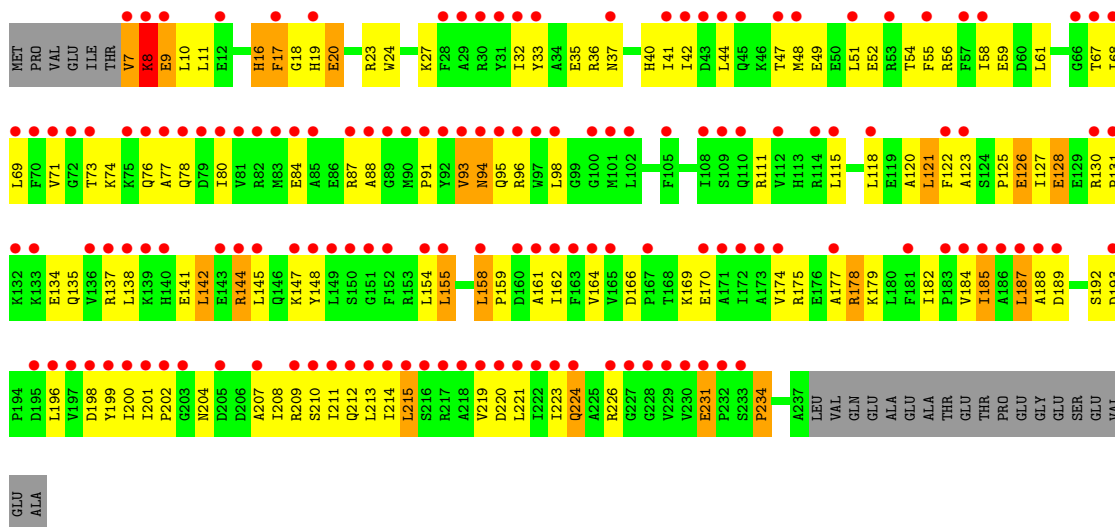






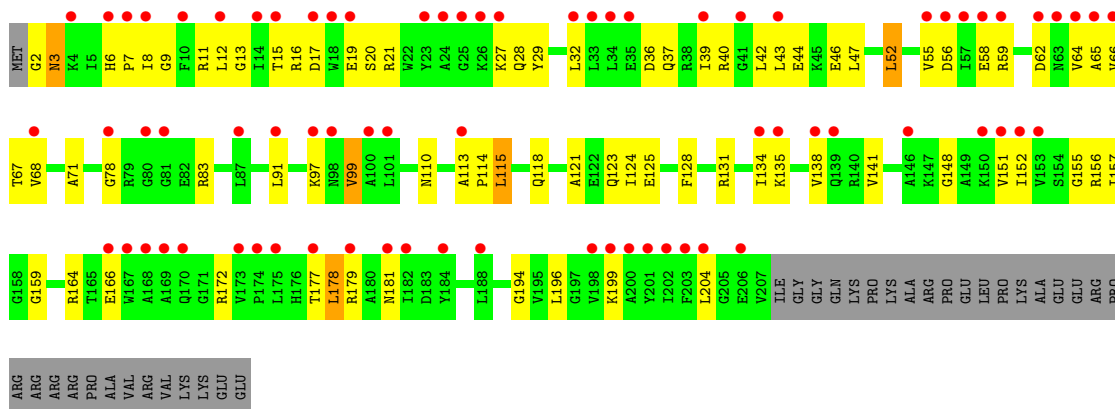
• Molecule 2: 30S Ribosomal Protein S2

Chain CB:



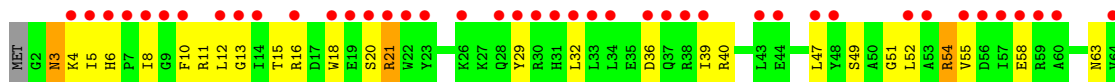
• Molecule 3: 30S Ribosomal Protein S3

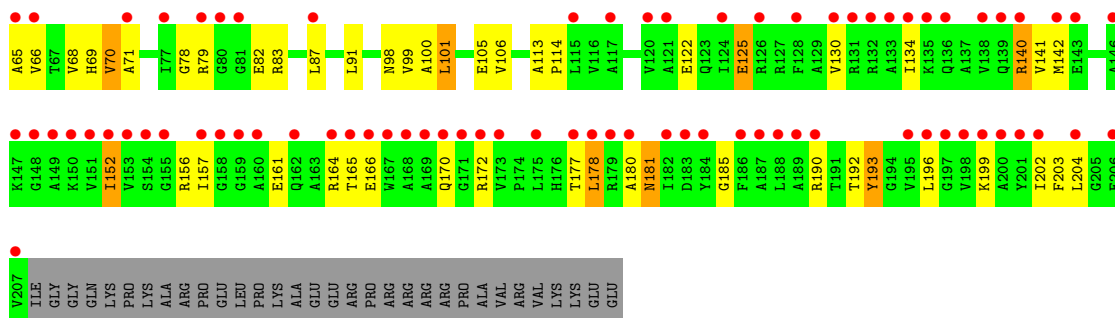
Chain AC:



• Molecule 3: 30S Ribosomal Protein S3

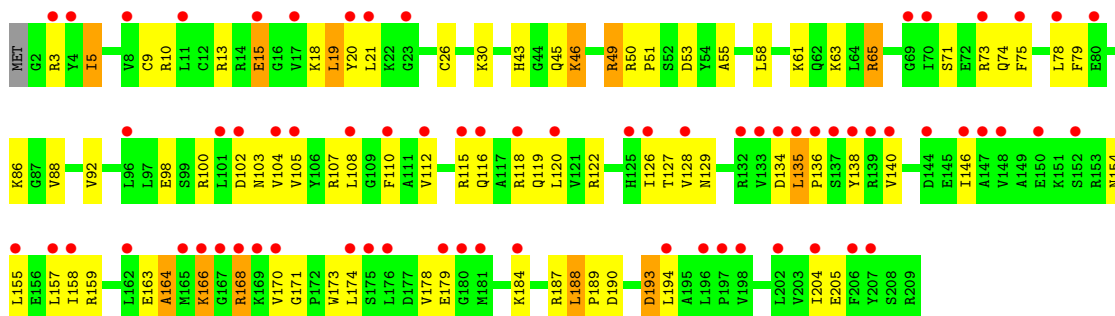
Chain CC:





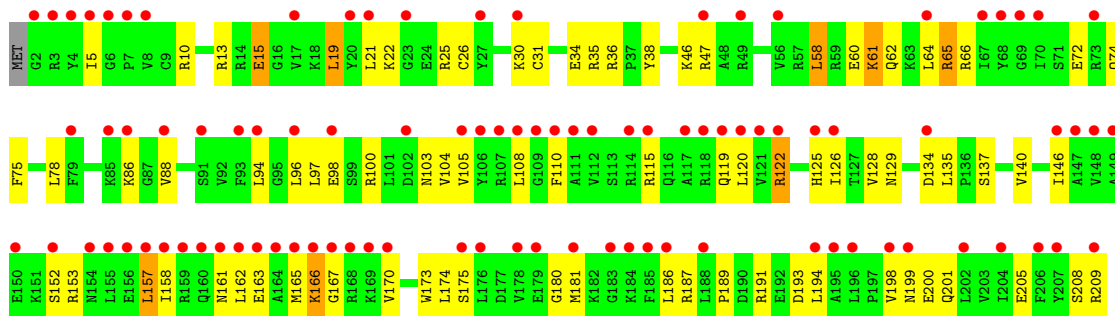
• Molecule 4: 30S Ribosomal Protein S4

Chain AD:



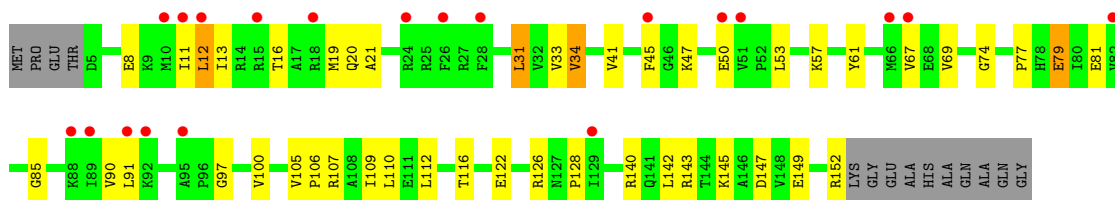
• Molecule 4: 30S Ribosomal Protein S4

Chain CD:



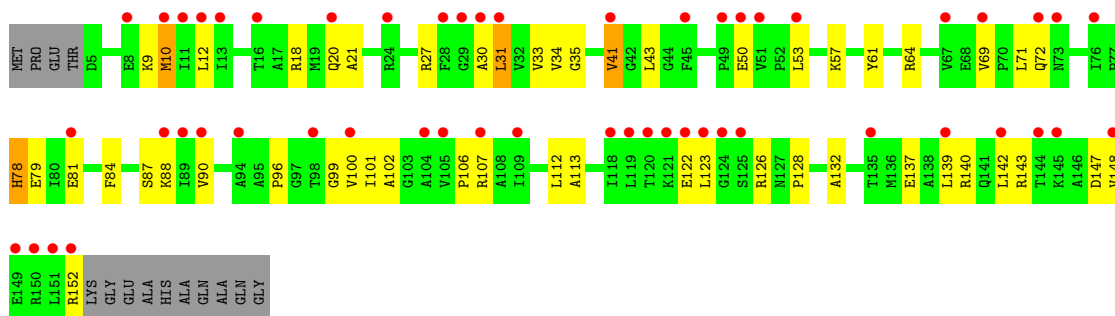
• Molecule 5: 30S Ribosomal Protein S5

Chain AE:



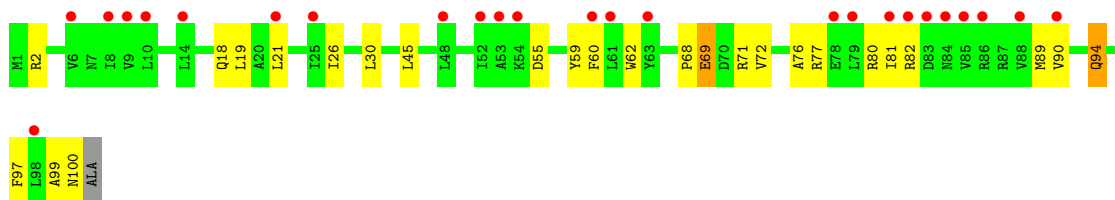
• Molecule 5: 30S Ribosomal Protein S5

Chain CE:



• Molecule 6: 30S Ribosomal Protein S6

Chain AF:



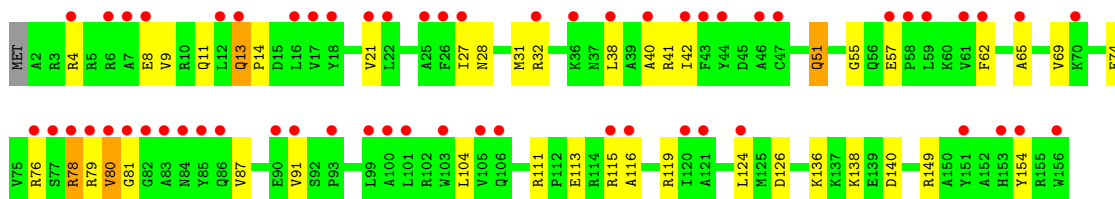
• Molecule 6: 30S Ribosomal Protein S6

Chain CF:



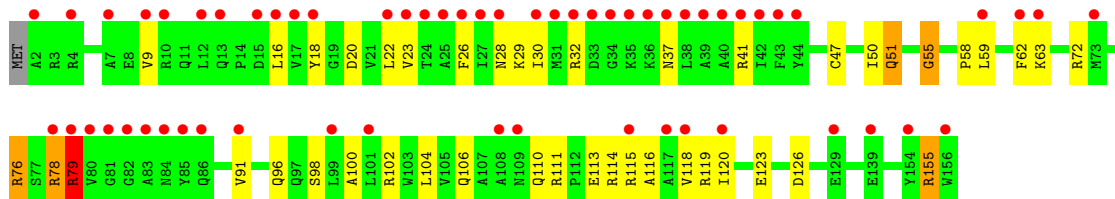
• Molecule 7: 30S Ribosomal Protein S7

Chain AG:



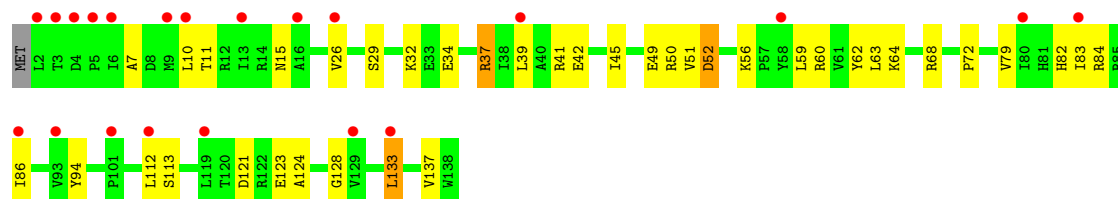
• Molecule 7: 30S Ribosomal Protein S7

Chain CG:



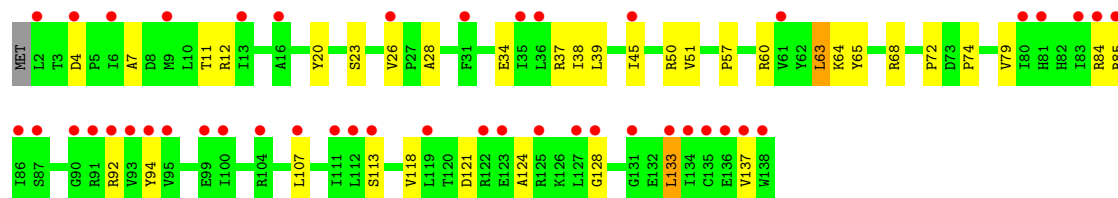
• Molecule 8: 30S Ribosomal Protein S8

Chain AH: 



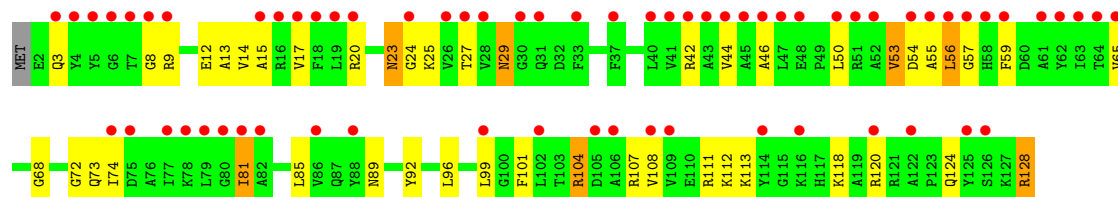
- Molecule 8: 30S Ribosomal Protein S8

Chain CH: 



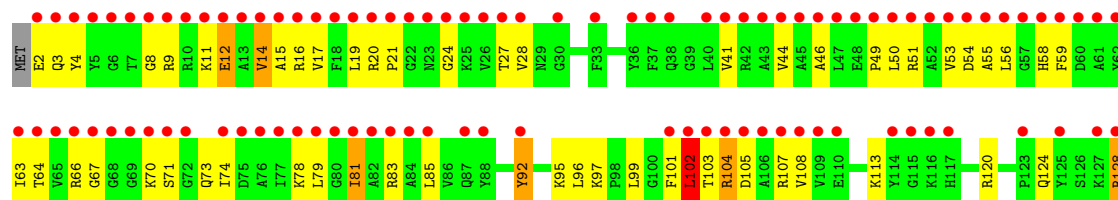
- Molecule 9: 30S Ribosomal Protein S9

Chain AI: 



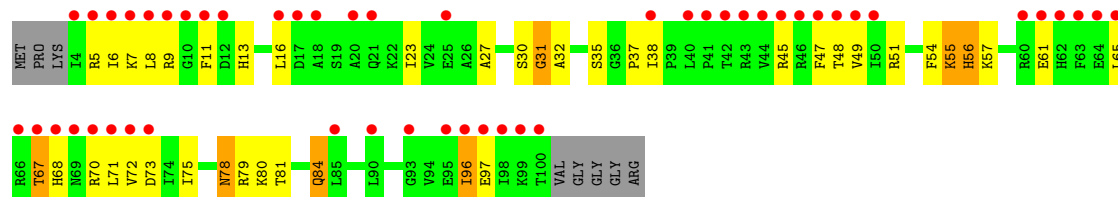
- Molecule 9: 30S Ribosomal Protein S9

Chain CI: 



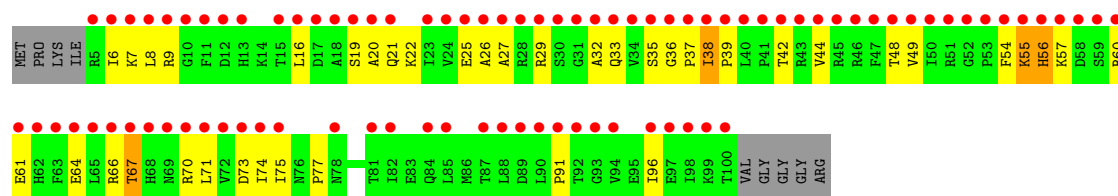
- Molecule 10: 30S Ribosomal Protein S10

Chain AJ: 



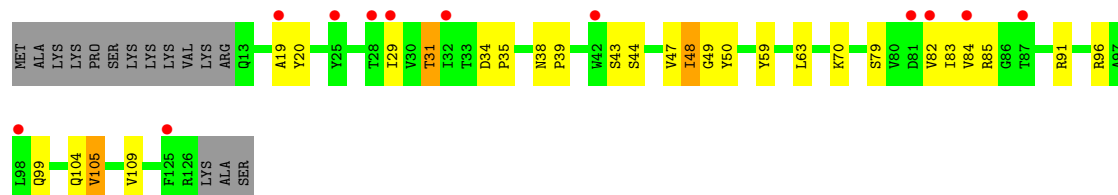
- Molecule 10: 30S Ribosomal Protein S10

Chain CJ: 



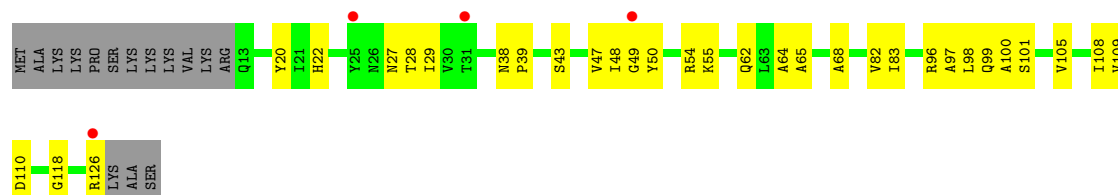
• Molecule 11: 30S Ribosomal Protein S11

Chain AK:



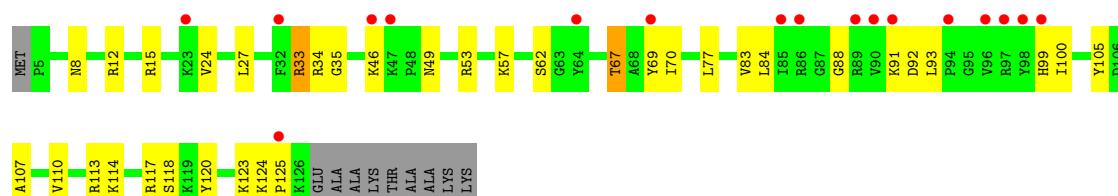
• Molecule 11: 30S Ribosomal Protein S11

Chain CK:



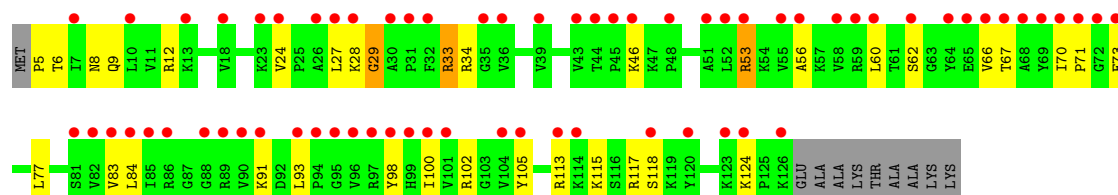
• Molecule 12: 30S Ribosomal Protein S12

Chain AL:



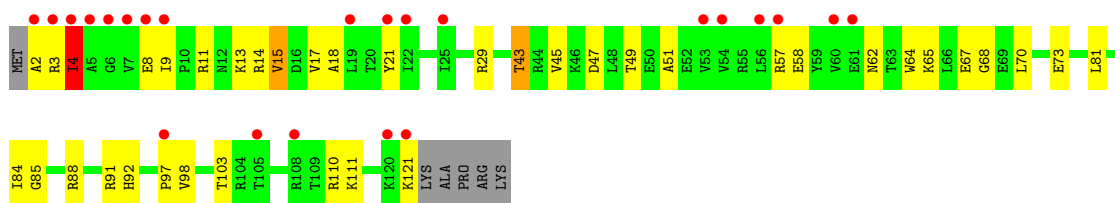
• Molecule 12: 30S Ribosomal Protein S12

Chain CL:



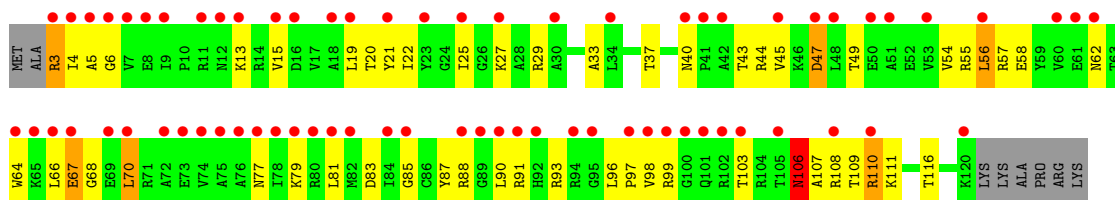
• Molecule 13: 30S Ribosomal Protein S13

Chain AM:



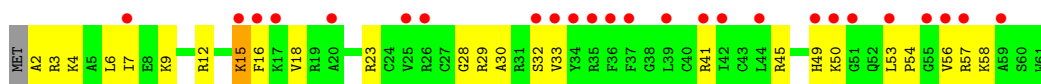
• Molecule 13: 30S Ribosomal Protein S13

Chain CM:



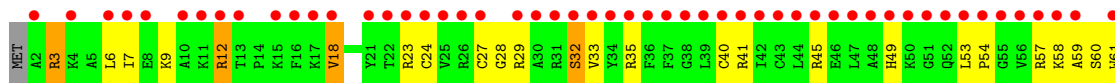
• Molecule 14: 30S Ribosomal Protein S14

Chain AN:



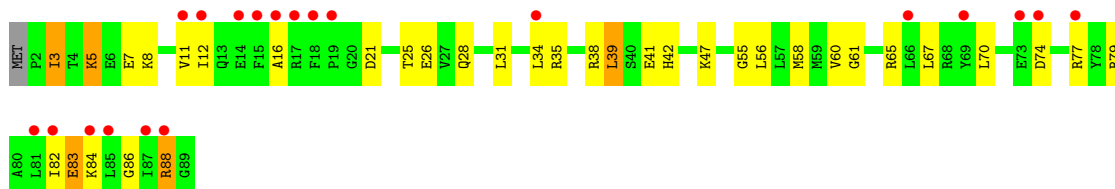
• Molecule 14: 30S Ribosomal Protein S14

Chain CN:



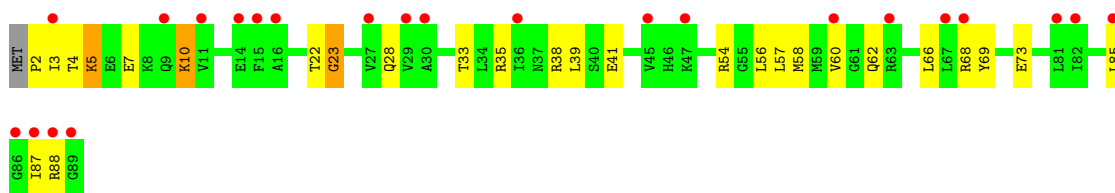
• Molecule 15: 30S Ribosomal Protein S15

Chain AO:



• Molecule 15: 30S Ribosomal Protein S15

Chain CO:



• Molecule 16: 30S Ribosomal Protein S16

The diagram illustrates a network of nodes and connections. The nodes are labeled with alphanumeric codes and are color-coded: green, yellow, orange, and red. The connections are represented by lines of varying thickness and color (green, yellow, orange, red). The diagram is organized into several sections, with nodes grouped together and connected in a hierarchical or networked manner. The labels include D68, T69, A70, R71, R72, L73, L74, R75, Q76, A77, G78, V79, R80, R81, Q82, GLU, ARG, L74, GLU, GLY, ALA, M1, V2, K3, I4, R5, L6, A7, R8, F9, P15, H16, Y17, R18, I19, V20, Q21, T22, D23, A24, R25, R26, K27, R28, D29, G30, K31, Y32, I33, E34, K35, I36, G37, Y38, Y39, D40, P41, R42, K43, T44, T45, W48, L49, K50, V53, E54, R57, Y58, W59, L60, S61, V62, G63, A64, Q65, P66, and T67.

- Chain CP:

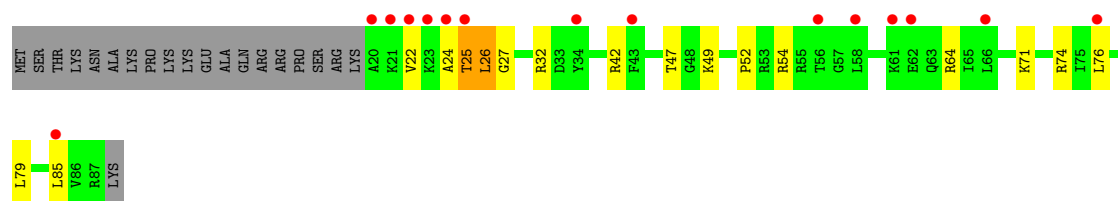
- Chain AQ:

Figure 1: Schematic representation of the 230 amino acid residues of the protein. The sequence is shown as a horizontal bar divided into segments. Amino acid codes are labeled above the bar. Red dots above the bar indicate specific residues. The sequence starts with MET, followed by P2, K3, K4, V5, L6, I7, G8, V9, V10, V11, S12, D13, K14, M15, Q16, T20, V21, L22, V23, E24, F27, P28, V35, I36, K37, H45, D46, P47, E48, E49, L53, G54, I59, I60, R63, S66, K67, R68, K69, R70, F71, L74, R81, M82, D83, L84, V85, E86, and S87.

- Chain CQ:

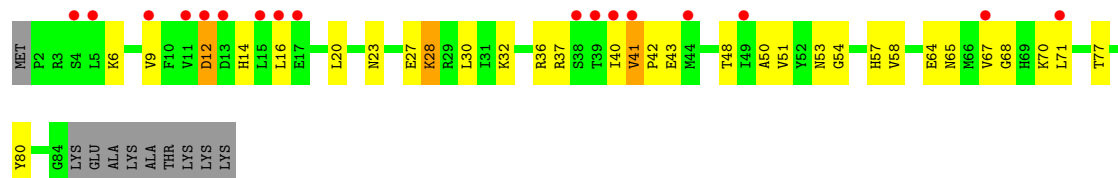
- Chain AR: 

- Chain CR:



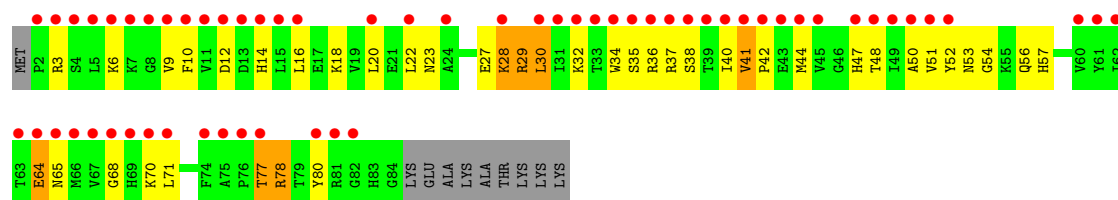
• Molecule 19: 30S Ribosomal Protein S19

Chain AS:



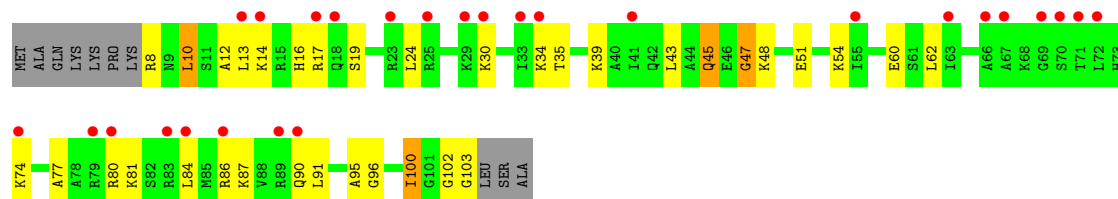
• Molecule 19: 30S Ribosomal Protein S19

Chain CS:



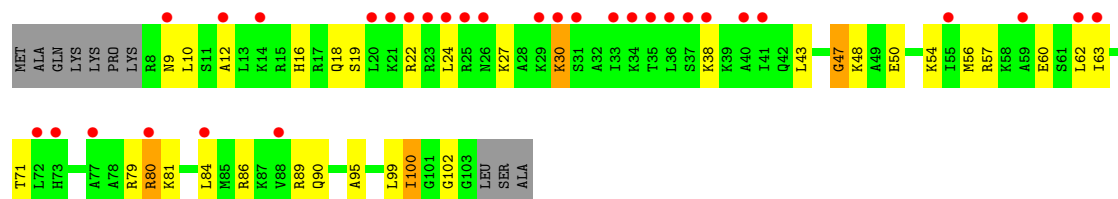
• Molecule 20: 30S Ribosomal Protein S20

Chain AT:



• Molecule 20: 30S Ribosomal Protein S20

Chain CT:



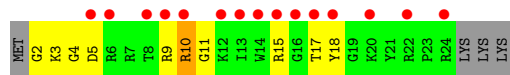
• Molecule 21: 30S Ribosomal Protein THX

Chain AU:



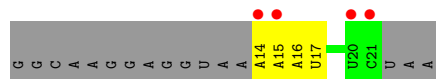
- Molecule 21: 30S Ribosomal Protein THX

Chain CU:



- Molecule 22: mRNA

Chain AV:



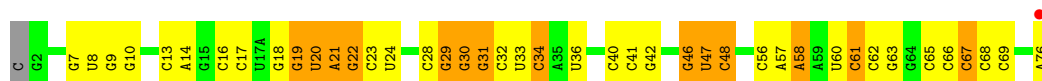
- Molecule 22: mRNA

Chain CV:



- Molecule 23: P-site tRNA

Chain AX:



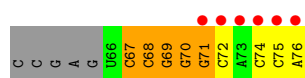
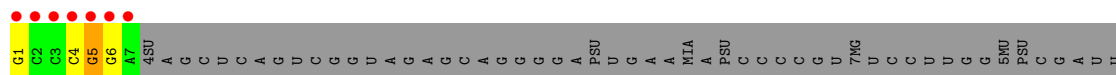
- Molecule 23: P-site tRNA

Chain CX:



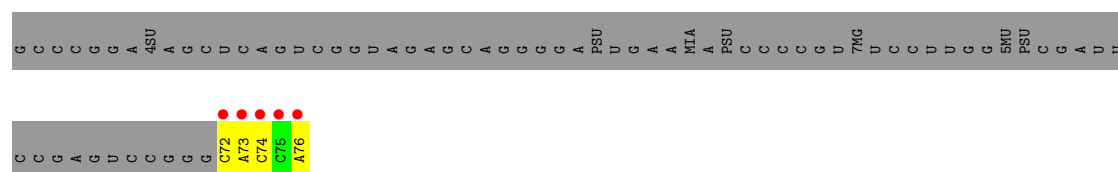
- Molecule 24: E-site tRNA Acceptor Stem

Chain AY:



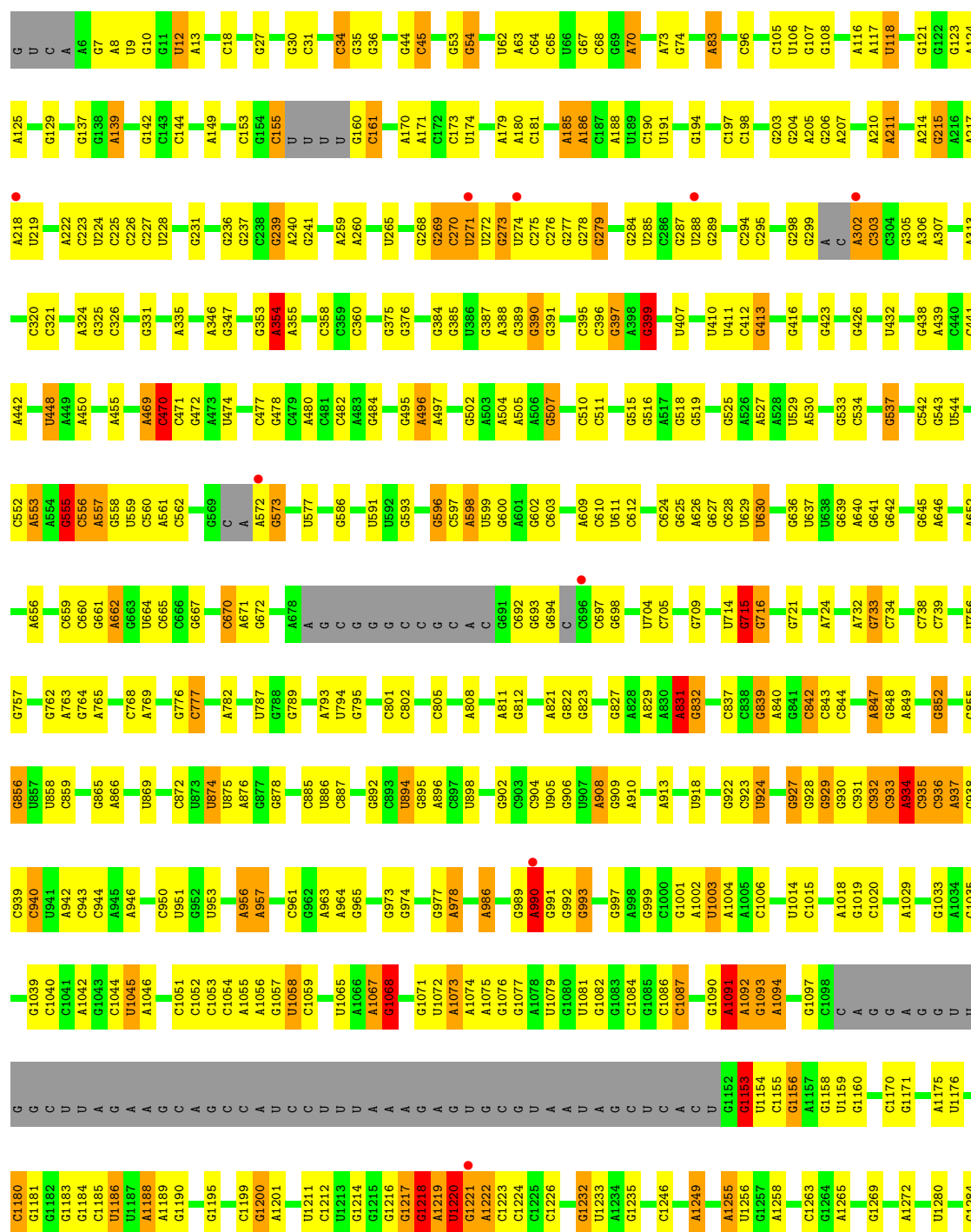
- Molecule 24: E-site tRNA Acceptor Stem

Chain CY:

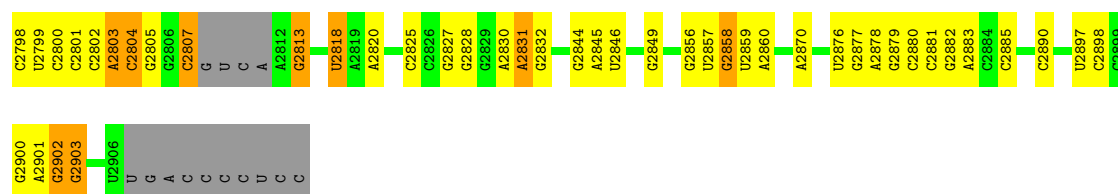


- Molecule 25: 23S Ribosomal RNA

Chain BA:

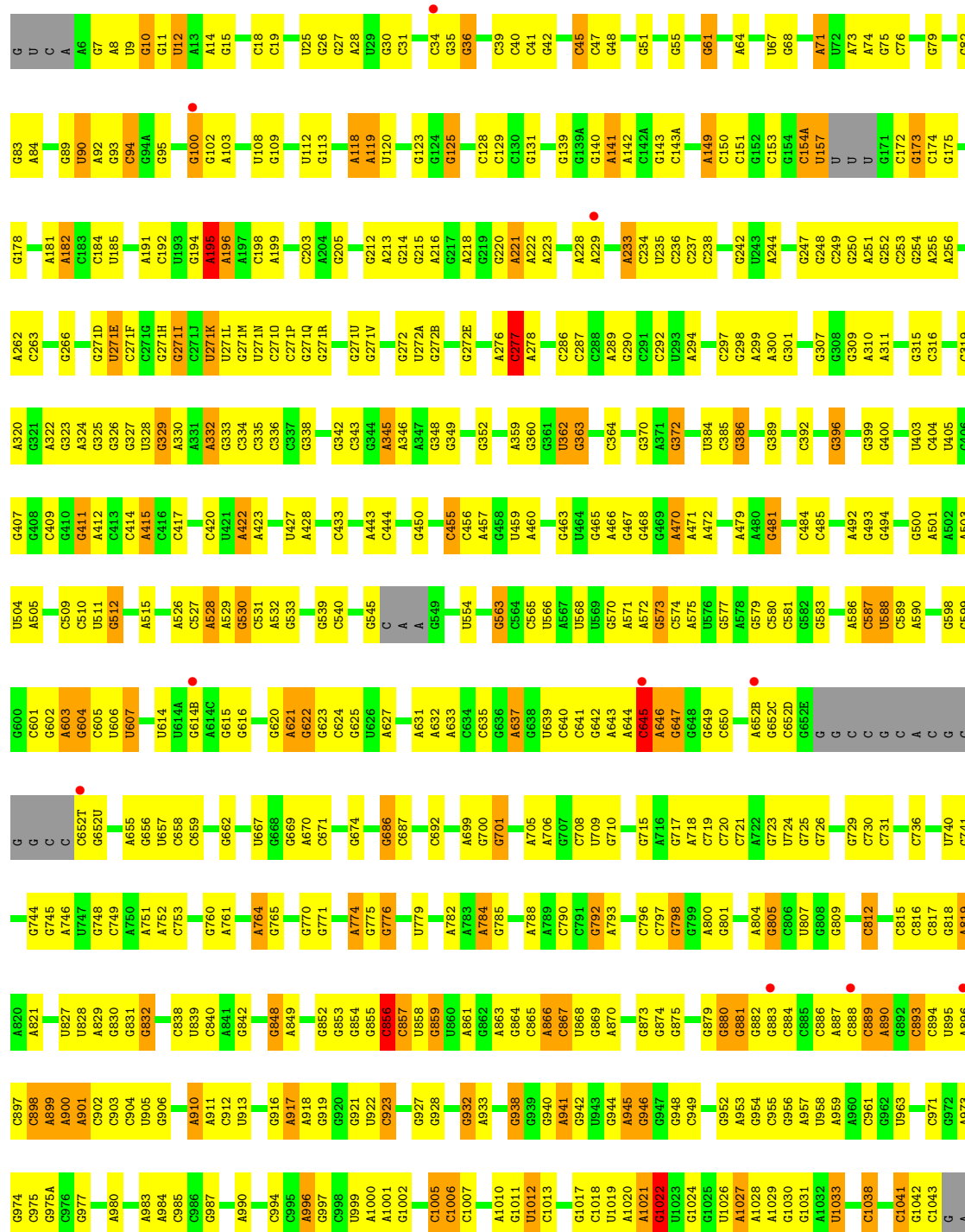


C2703	G2594	A2488	C2375	C2295	C2197	G2137	A2052	H1953	A1834	G1749	G1528	U1535	A1411	G1285
C2707	G2595	C2489	C2376	C2296	A2196	G2138	A2053	A1954	A1841	G1750	C1629	U1536	C1416	U1286
U2708	U2596	A2490	G2377	C2297	C2200	A2199	A2054	G1955	A1842	U1756	A1830	A1536	G1417	A1287
C2598	C2597	C2495	G2384	A2298	C2201	A2141	A2055	A1959	G1845	C1757	A1832	C1539	U1418	G1290
C2711	A2601	G2499	G2387	A2299	G2202	G2142	C2061	A1960	G1846	C1758	A1833	A1540	A1425	A1293
C2712	U2605	A2500	G2391	A2298	G2203	G2143	A2064	U1961	G1847	C1759	A1834	A1541	G1426	
C2713	C2606	G2502	C2392	A2299	G2204	G2144	C2065	U1962	G1848	U1760	C1835	A1542		
C2715	A2614	G2507	G2393	A2300	G2205	U2145	C2066	A1974		U1765			A1430	G1296
G2720	G2615	C2508	G2394	G2301	G2206	G2146	C2067	A1975	G1857	G1766	G1640	C1551	G1431	A1299
G2721	U2616	A2509	G2395	G2302	G2207	G2147	G2071	G1976	G1858	A1767	G1641	C1552	C1432	A1300
C2722	C2617	C2510	G2396	G2303	G2208	A2148	A2072	G1977	G1859	U1768	C1853	A1553	C1433	U1301
C2723	C2618	G2514	C2397	G2304	G2209	G2149	A2073				A1854	A1554	U1440	
U2724	G2619	A2515	U2398	C2305	G2210	C2150	G2074	U1980	C1874	G1776	A1855	A1555	U1441	A1311
A2725	G2620	U2516	G2399	G2306	U2211	U2152	C2077	G1981	A1878		A1856	A1556	U1442	G1312
A2726	U2621	U2517	U2402	A2316	G2212	G2153	G2078	U1985	A1879	G1781	A1660		U1443	U1313
G2727	C2622	U2518		A2317	G2213	U2154	A2082	G1986	G1880				C1444	A1314
	U2623	U2519	A2405	G2320	G2214	U2155	G2083		G1881	G1785	G1676	G1563	U1451	A1315
C2736	C2624	A2530	A2406	G2321	G2215	A2156	G2084	C1989	U1882	U1787	C1677	G1564	U1452	C1316
G2740	U2627	G2541	C2416	A2322	A2220	C2157	A2085	G1990	G1883	U1788	C1678	G1565	U1453	G1317
G2745	C2628	A2542	G2417	A2323	G2227	C2158	C2086	A1991	A1890	U1789	C1679	G1566	C1453	A1318
A2746	G2639	A2543	G2418	A2324	G2228	C2159	C2087	A1992	G1891	A1790	C1680	G1567	C1454	U1319
A2754	A2641	A2544	U2418	C2325	G2229	C2160	C2088	A1993	G1892		C1681	G1568		A1320
	G2642	U2549	G2422	G2326	U2230	C2161		A1994	G1893	A1793	A1688		G1462	
G2760	G2643	C2550	G2423	G2327	G2231	C2162	G2091	A2003	G1894	G1794	G1689	G1576	C1463	U1338
A2761	A2644	G2551	A2434	G2328	G2232	C2163		A2004		G1795		C1577	U1466	U1339
C2768	U2648	G2552	A2437	A2329	G2233	C2164	A2099	C2005	A1899	C1796	C1694	C1578	G1467	C1343
U2769	U2649	G2557	G2424	A2330	G2234	C2165	C2100	C2006	G1900	U1797	G1695	C1579	U1468	
A2770	G2650		G2425	A2331	G2235	U2166	G2101			U1798	C1696	U1581	G1468	
A2771		G2561	A2441	G2332	G2236	C2167	G2102	C2008	C1903	C1799	G1697	A		U1346
G2772	G2653	U2564	A2442	G2333	G2237	C2168		U2013	C1904	U1799	G1698	U1587	C1474	U1347
C2773	C2658	G2565	A2443	G2334	G2238	C2169	U2109	G2014	G1905	G1800	G1700	G1588	G1475	A1348
G2774	U2659	U2566	A2444	A2335	G2239	G2170	G2113	G2015	A1907	A1804	C1701	G1586	G1476	G1349
U2775	U2660	U2567	G2445	A2336	G2240	C2171	U2114	C2018	A1911	G1807	C1710	U1587	A1480	U1359
C2660	U2661	C2568	U2446	A2337	G2241	C2172	G2115	G2019	G1918	U1808	A1711	U1587	A1491	C1360
U2661		G2569	A2447	A2338	G2242	C2173	G2116	G2020	G1919	U1809	G1714	U1588	C1361	C1366
A2666		G2570	G2448	A2339	G2243	C2174	G2117	C2021	G1921	U1810	A1715	C1593	G1496	
		C2571	U2449	A2340	G2244	C2175	G2118	G2022	G1922	A1811	A1716	C1594	G1497	G1370
C2777	U2666	G2572	U2450	A2341	G2245	C2176	U2119	A2023	A1922	C1812	C1717	C1595		
A2778		G2573	A2451	G2342	U2255	G2177	U2120	G2024	G1925	C1813	G1721	C1596	A1500	C1373
G2779		C2574	A2452	G2343	G2256	C2178	U2121	A2027	G1928	A1814	C1722	C1597	U1501	
C2784		G2575	A2453	G2344	G2257	C2179	G2122	G2032	A1935	A1815	C1723	A1601	G1502	G1378
C2785		G2576	C2452	A2345	G2258	C2180	G2123	G2033	C1936	A1816	A1735	C1604	G1503	U1387
C2786		G2577	C2453	A2346	G2259	C2181	U2124	G2034	U1937	A1817	A1736	A1605	A1507	A1388
G2787	G2673	C2580	A2460	C2347	G2260	C2182	U2125	G2035	U1937	A1821	U1740	C1613	G1513	G1389
A2788		G2581	A2461	A2348	G2261	C2183	U2126	A2036	A1940	A1822	G1741	A1614	C1514	C1391
		C2582	A2462	A2349	G2262	C2184	U2127	A2037	C1942	A1823	G1742	A1615	G1517	U1398
C2791	U2696	G2583	A2463	A2350	G2263	C2185	G2128	A2038	G1946	G1824	G1743	A1616	A1518	
U2792	C2697	C2584	G2470	A2351	G2264	C2186	U2129	A2039	G1951	A1825	G1744	A1617	G1525	A1405
G2793	G2698	A2589	A2480	A2352	G2265	C2187	C2132	A2040	G1952	A1826	A1745	U1625	A1406	
A2794	U2699	C2590	A2481	A2353	G2266	C2188	U2130	A2041	G1953	A1827	G1746	A1626	A1526	
G2795	U2700	U2591	G2482	A2354	G2267	C2189	C2133	A2042	G1954	A1828	A1747	A1627	G1529	G1410
C2796	U2701	U2592		A2355	G2268	C2190	C2134	A2043	G1955	A1829				
G2797	C2702	G2593		G2374	A2290	C2191	A2136	U2050	G1956	G1830	A1748			

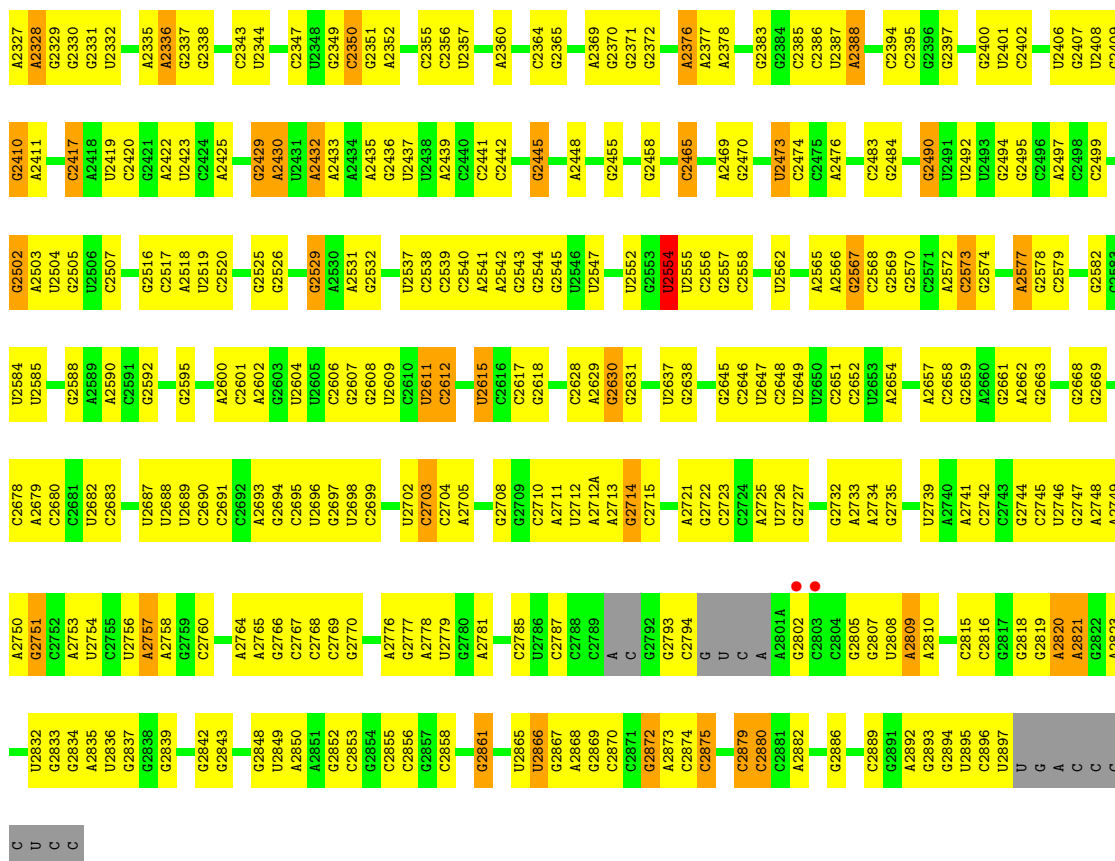


• Molecule 25: 23S Ribosomal RNA

Chain DA:

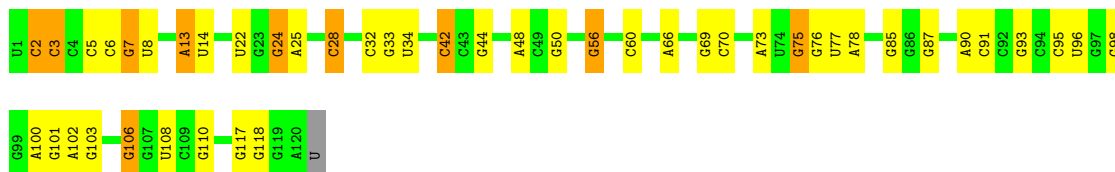






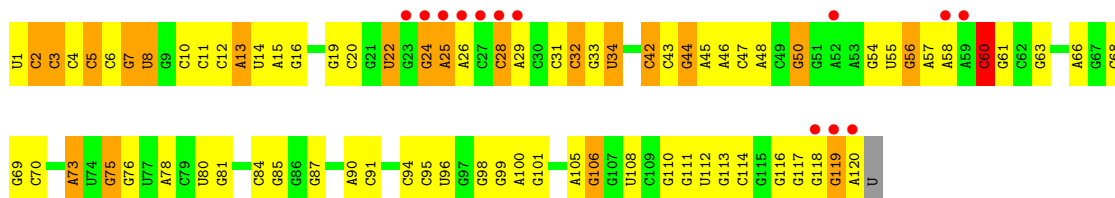
• Molecule 26: 5S Ribosomal RNA

Chain BB:



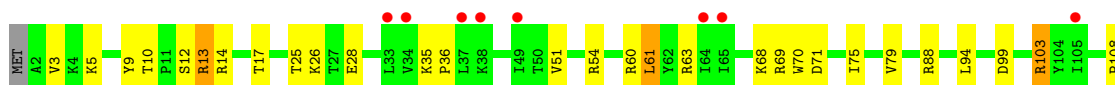
• Molecule 26: 5S Ribosomal RNA

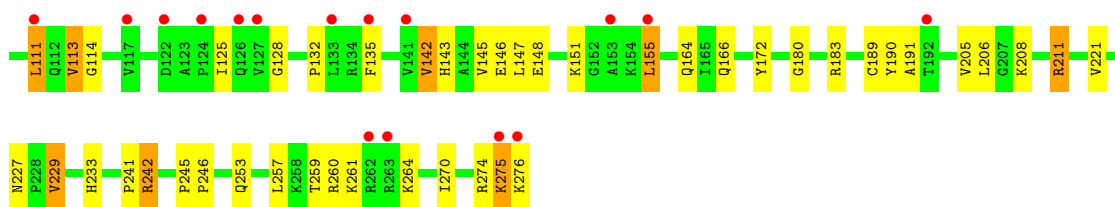
Chain DB:



• Molecule 27: 50S Ribosomal Protein L2

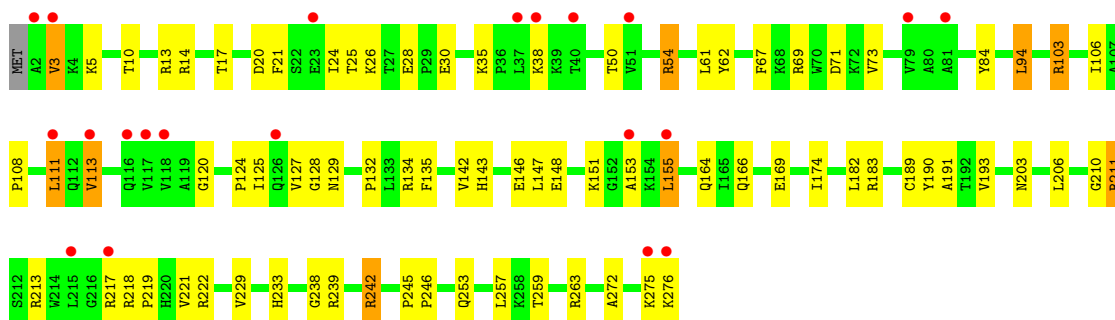
Chain BD:





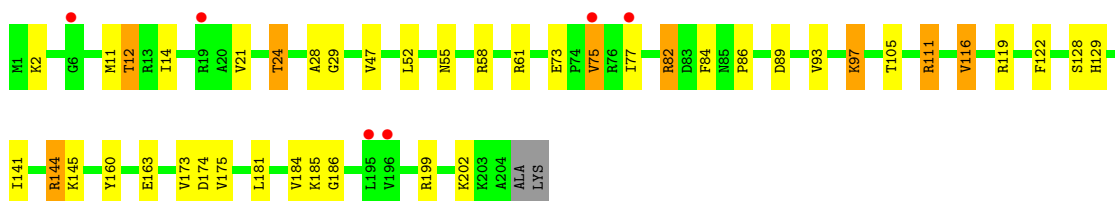
• Molecule 27: 50S Ribosomal Protein L2

Chain DD:



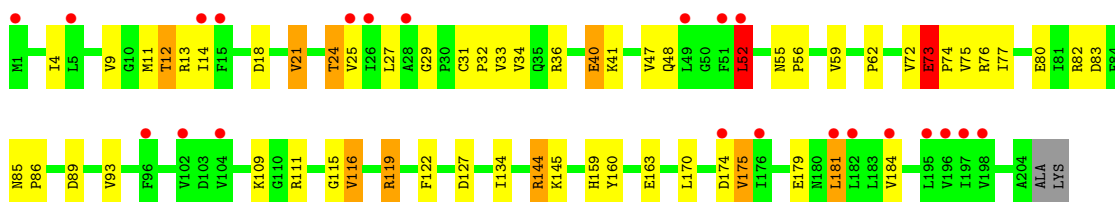
• Molecule 28: 50S Ribosomal Protein L3

Chain BE:



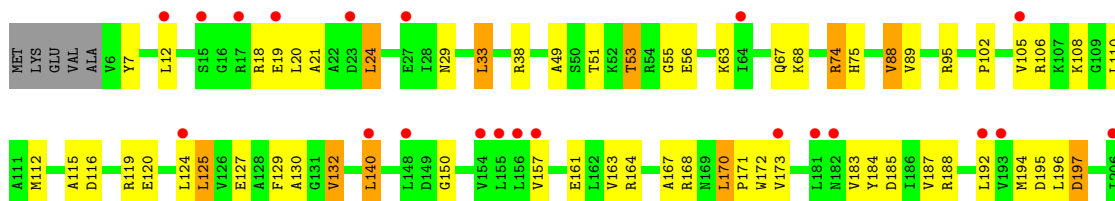
• Molecule 28: 50S Ribosomal Protein L3

Chain DE:



• Molecule 29: 50S Ribosomal Protein L4

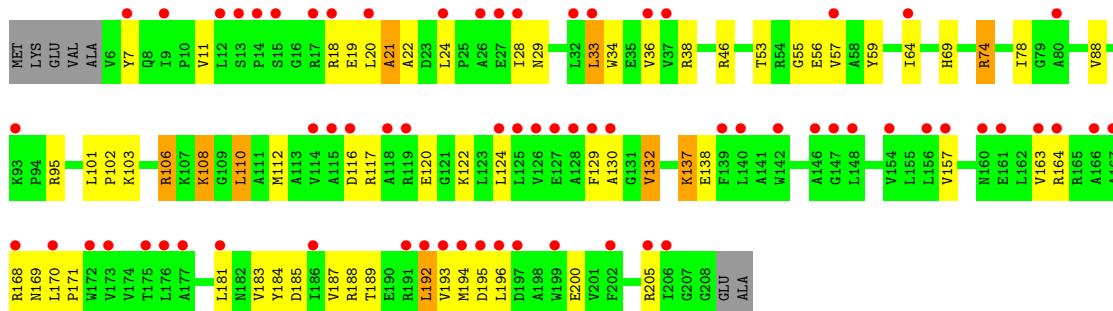
Chain BF:





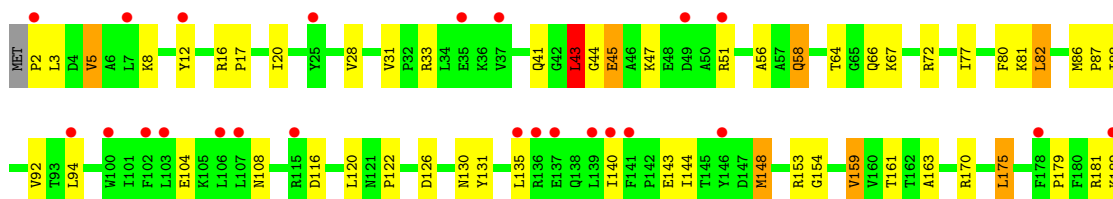
- Molecule 29: 50S Ribosomal Protein L4

Chain DF:



- Molecule 30: 50S Ribosomal Protein L5

Chain BG:



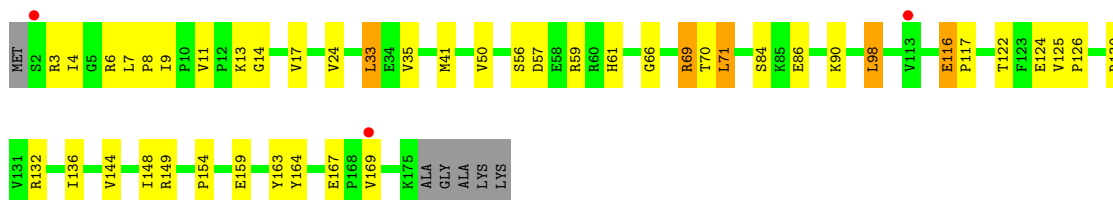
- Molecule 30: 50S Ribosomal Protein L5

Chain DG:



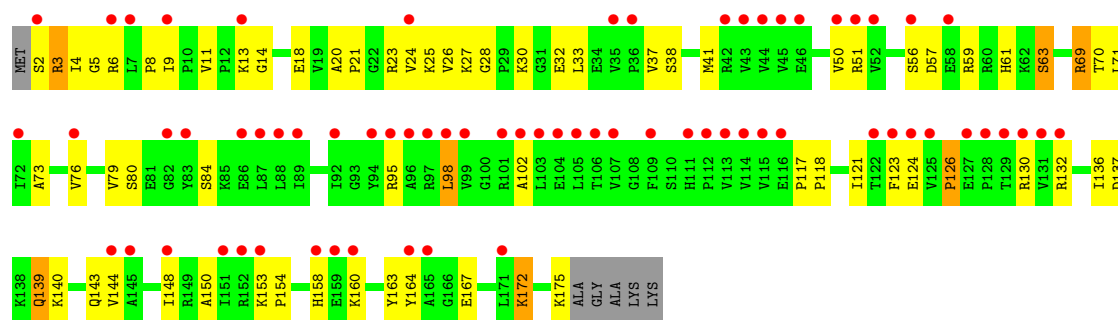
- Molecule 31: 50S Ribosomal Protein L6

Chain BH:



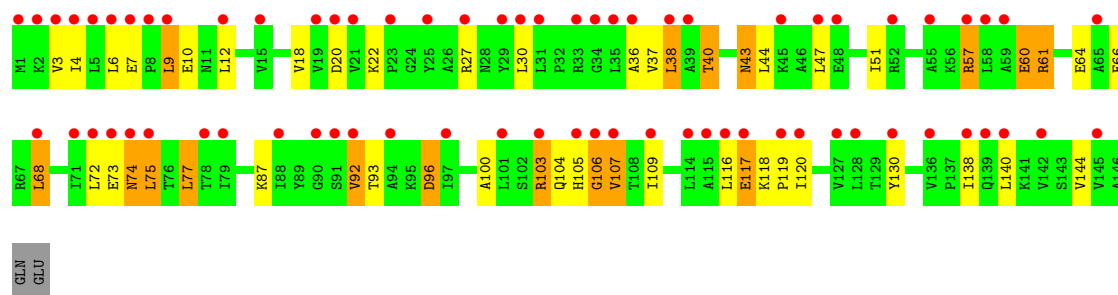
- Molecule 31: 50S Ribosomal Protein L6

Chain DH:



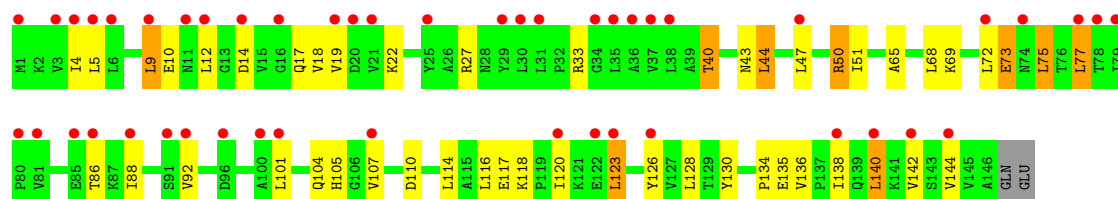
• Molecule 32: 50S Ribosomal Protein L9

Chain BI:



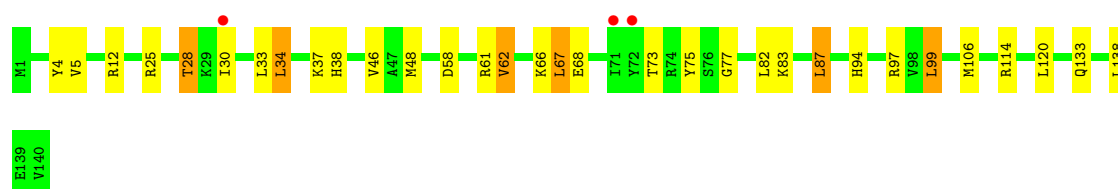
• Molecule 32: 50S Ribosomal Protein L9

Chain DI:



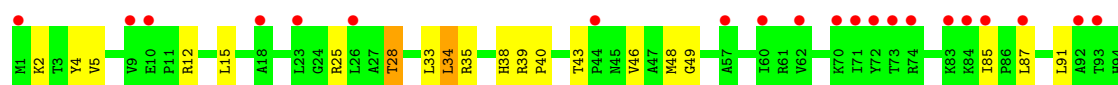
• Molecule 33: 50S Ribosomal Protein L13

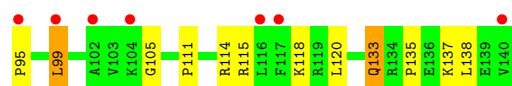
Chain BN:



• Molecule 33: 50S Ribosomal Protein L13

Chain DN:





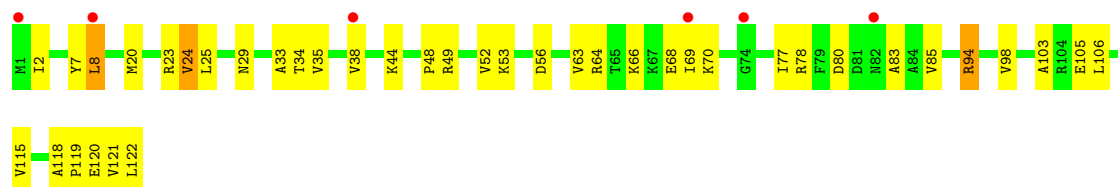
• Molecule 34: 50S Ribosomal Protein L14

Chain BO:



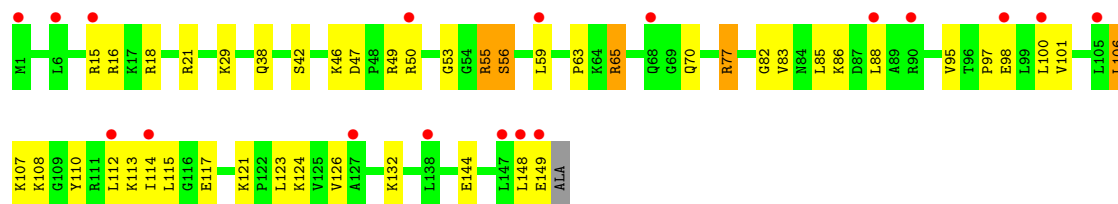
• Molecule 34: 50S Ribosomal Protein L14

Chain DO:



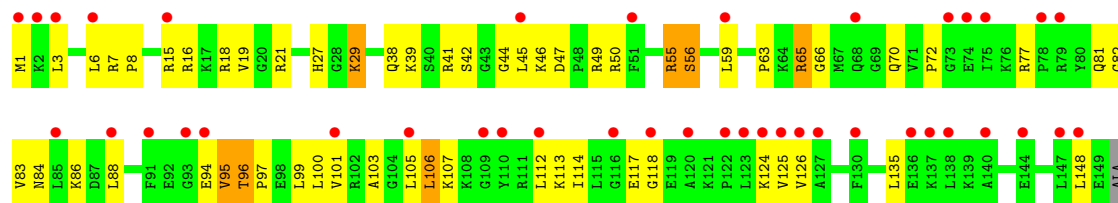
• Molecule 35: 50S Ribosomal Protein L15

Chain BP:



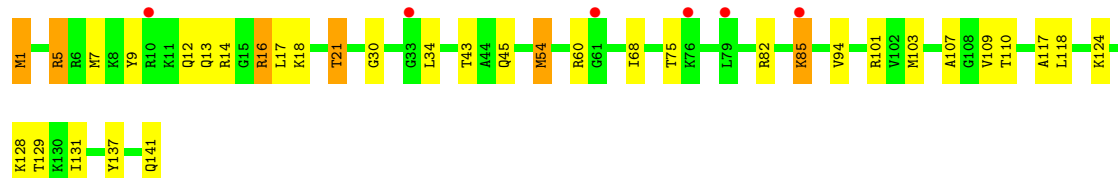
• Molecule 35: 50S Ribosomal Protein L15

Chain DP:



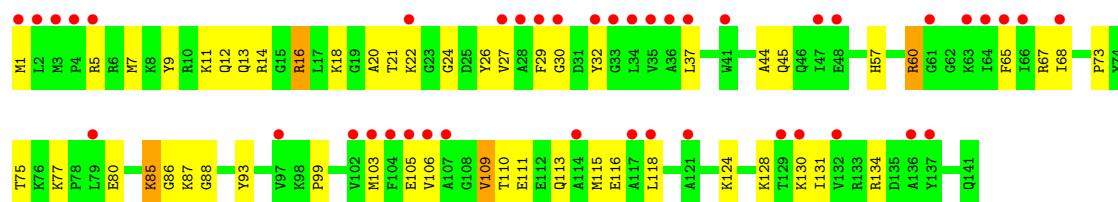
• Molecule 36: 50S Ribosomal Protein L16

Chain BQ:



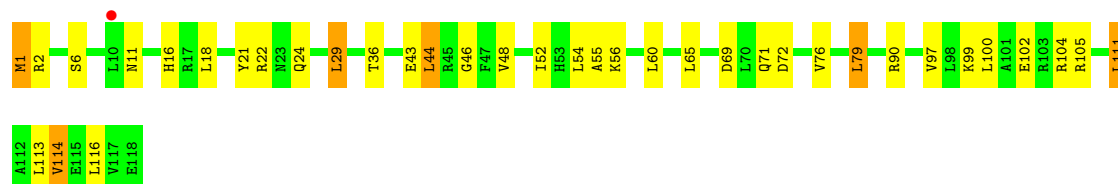
• Molecule 36: 50S Ribosomal Protein L16

Chain DQ: 



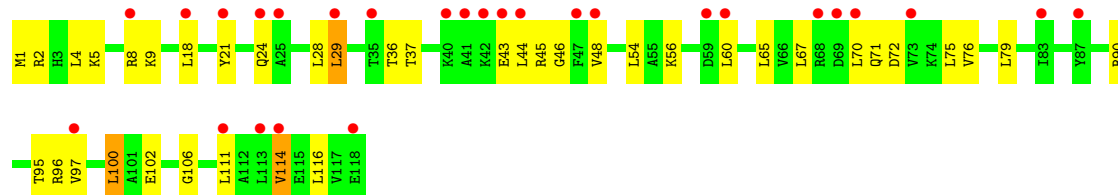
• Molecule 37: 50S Ribosomal Protein L17

Chain BR: 



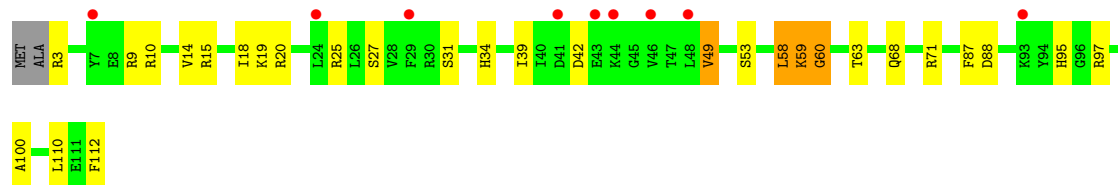
• Molecule 37: 50S Ribosomal Protein L17

Chain DR: 



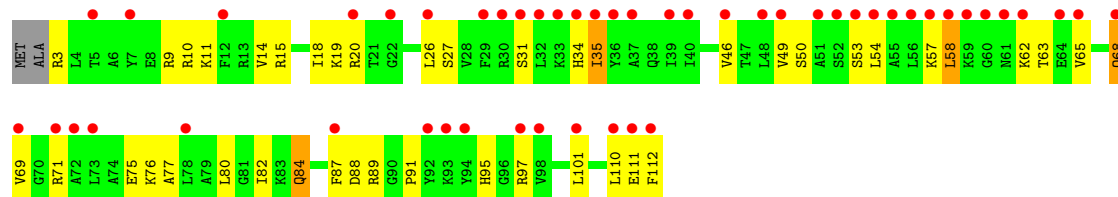
• Molecule 38: 50S Ribosomal Protein L18

Chain BS: 



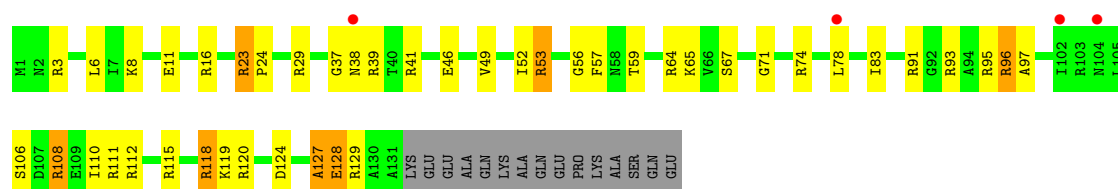
• Molecule 38: 50S Ribosomal Protein L18

Chain DS: 



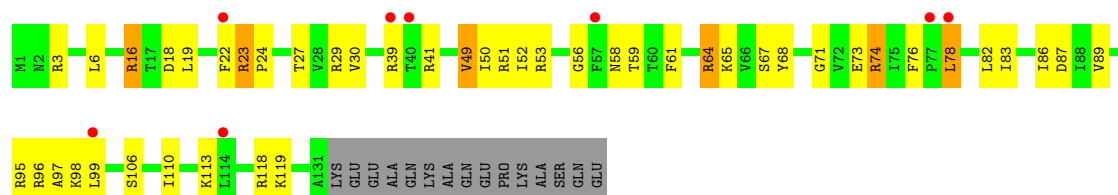
• Molecule 39: 50S Ribosomal Protein L19

Chain BT: 



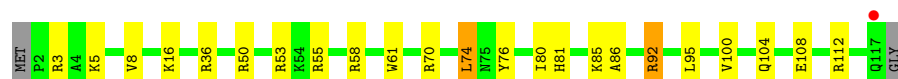
• Molecule 39: 50S Ribosomal Protein L19

Chain DT:



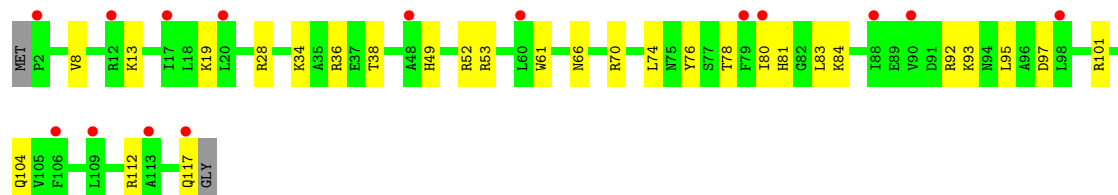
• Molecule 40: 50S Ribosomal Protein L20

Chain BU:



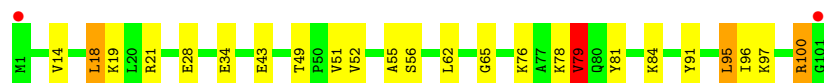
• Molecule 40: 50S Ribosomal Protein L20

Chain DU:



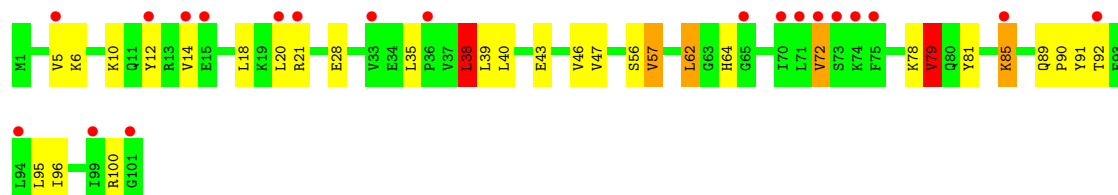
• Molecule 41: 50S Ribosomal Protein L21

Chain BV:



• Molecule 41: 50S Ribosomal Protein L21

Chain DV:



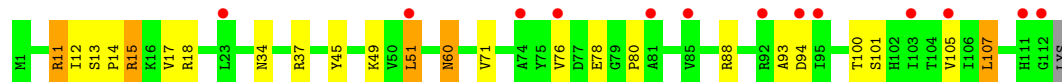
• Molecule 42: 50S Ribosomal Protein L22

Chain BW:



- Molecule 42: 50S Ribosomal Protein L22

Chain DW:



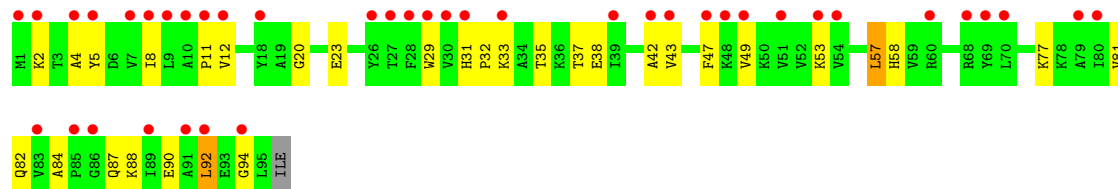
- Molecule 43: 50S Ribosomal Protein L23

Chain BX:



- Molecule 43: 50S Ribosomal Protein L23

Chain DX:



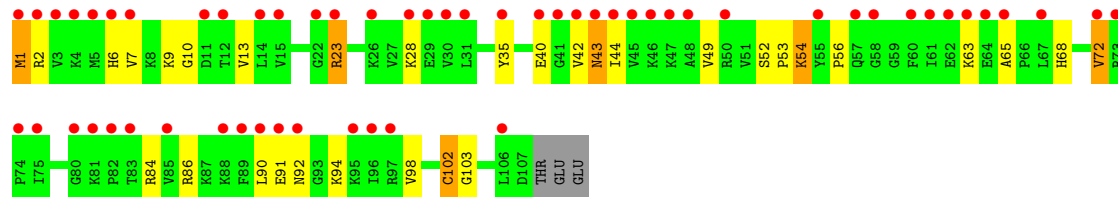
- Molecule 44: 50S Ribosomal Protein L24

Chain BY:



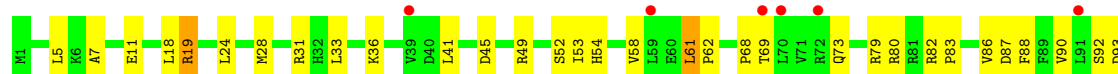
- Molecule 44: 50S Ribosomal Protein L24

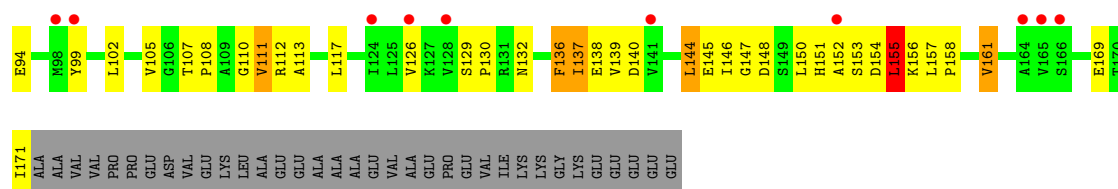
Chain DY:



- Molecule 45: 50S Ribosomal Protein L25

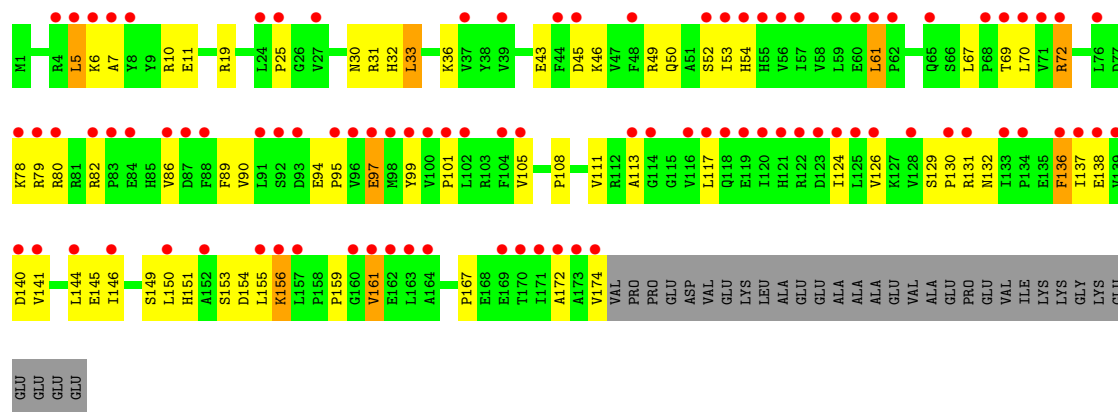
Chain BZ:





• Molecule 45: 50S Ribosomal Protein L25

Chain DZ:



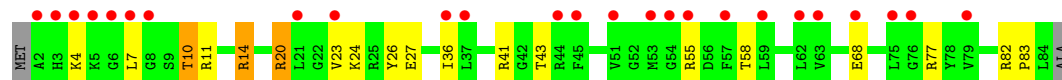
• Molecule 46: 50S Ribosomal Protein L27

Chain B0:



• Molecule 46: 50S Ribosomal Protein L27

Chain D0:



• Molecule 47: 50S Ribosomal Protein L28

Chain B1:



• Molecule 47: 50S Ribosomal Protein L28

Chain D1:



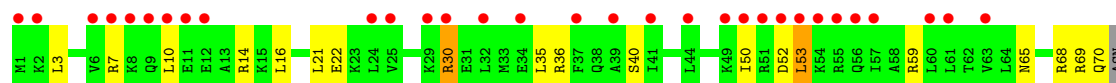
• Molecule 48: 50S Ribosomal Protein L29

Chain B2:



- Molecule 48: 50S Ribosomal Protein L29

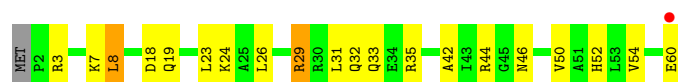
Chain D2:



ALA

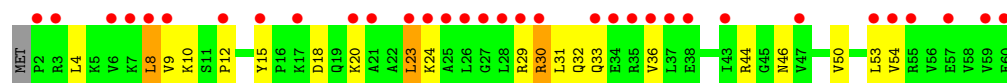
- Molecule 49: 50S Ribosomal Protein L30

Chain B3:



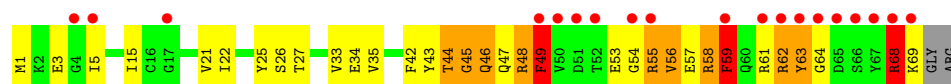
- Molecule 49: 50S Ribosomal Protein L30

Chain D3:



- Molecule 50: 50S Ribosomal Protein L31

Chain B4:



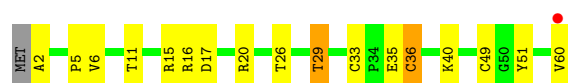
- Molecule 50: 50S Ribosomal Protein L31

Chain D4:



- Molecule 51: 50S Ribosomal Protein L32

Chain B5:



- Molecule 51: 50S Ribosomal Protein L32

Chain D5:



• Molecule 52: 50S Ribosomal Protein L33

Chain B6: 

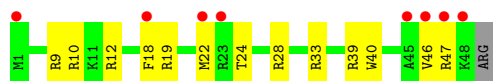
• Molecule 52: 50S Ribosomal Protein L33

Chain D6: 

• Molecule 53: 50S Ribosomal Protein L34

Chain B7: 

• Molecule 53: 50S Ribosomal Protein L34

Chain D7: 

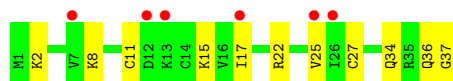
• Molecule 54: 50S Ribosomal Protein L35

Chain B8: 

• Molecule 54: 50S Ribosomal Protein L35

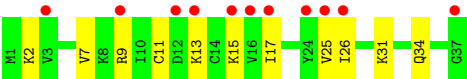
Chain D8: 

• Molecule 55: 50S Ribosomal Protein L36

Chain B9: 

• Molecule 55: 50S Ribosomal Protein L36

Chain D9: 



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	208.93Å 446.95Å 619.78Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	144.86 – 2.70 254.67 – 2.70	Depositor EDS
% Data completeness (in resolution range)	99.6 (144.86-2.70) 99.6 (254.67-2.70)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.32 (at 2.69Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.8.2_1309)	Depositor
R, R_{free}	0.215 , 0.262 0.238 , 0.287	Depositor DCC
R_{free} test set	40291 reflections (2.58%)	DCC
Wilson B-factor (Å ²)	53.5	Xtriage
Anisotropy	0.258	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 33.9	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.41$, $\langle L^2 \rangle = 0.23$	Xtriage
Outliers	0 of 1559766 reflections	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	290807	wwPDB-VP
Average B, all atoms (Å ²)	59.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.51% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: 5MU, MG, PCY, K, ZN, 5MC, 4SU, SF4, PSU

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	AA	1.31	15/36024 (0.0%)	1.16	60/56222 (0.1%)
1	CA	0.43	0/36170	0.97	61/56452 (0.1%)
2	AB	0.34	0/1881	0.62	1/2542 (0.0%)
2	CB	0.35	0/1860	0.62	1/2518 (0.0%)
3	AC	0.30	0/1576	0.51	0/2130
3	CC	0.33	0/1566	0.59	1/2119 (0.0%)
4	AD	0.31	0/1689	0.55	0/2267
4	CD	0.31	0/1704	0.55	0/2284
5	AE	0.31	0/1145	0.53	0/1543
5	CE	0.33	0/1149	0.57	0/1548
6	AF	0.30	0/819	0.52	0/1111
6	CF	0.32	0/829	0.54	0/1123
7	AG	0.29	0/1250	0.50	0/1679
7	CG	0.31	0/1254	0.53	0/1683
8	AH	0.30	0/1108	0.52	0/1494
8	CH	0.29	0/1108	0.52	0/1494
9	AI	0.29	0/1002	0.55	0/1346
9	CI	0.33	0/997	0.58	1/1343 (0.1%)
10	AJ	0.29	0/722	0.54	0/982
10	CJ	0.34	0/727	0.59	0/988
11	AK	0.32	0/844	0.51	0/1145
11	CK	0.30	0/848	0.53	0/1149
12	AL	0.33	0/946	0.51	0/1274
12	CL	0.33	0/946	0.60	1/1274 (0.1%)
13	AM	0.29	0/947	0.58	0/1272
13	CM	0.31	0/930	0.55	0/1250
14	AN	0.31	0/501	0.54	0/664
14	CN	0.34	0/501	0.52	0/664
15	AO	0.31	0/739	0.53	0/985
15	CO	0.32	0/739	0.53	0/985
16	AP	0.31	0/697	0.53	0/939
16	CP	0.32	0/693	0.51	0/935

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.32	0/836	0.52	0/1117
17	CQ	0.31	0/836	0.48	0/1117
18	AR	0.32	0/560	0.53	0/746
18	CR	0.30	0/560	0.51	0/746
19	AS	0.31	0/667	0.53	0/900
19	CS	0.33	0/661	0.65	1/893 (0.1%)
20	AT	0.31	0/730	0.56	0/965
20	CT	0.29	0/729	0.53	0/965
21	AU	0.29	0/203	0.51	0/266
21	CU	0.35	0/203	0.55	0/266
22	AV	0.56	0/188	1.13	0/290
22	CV	0.62	0/122	1.18	0/188
23	AX	0.56	2/1725 (0.1%)	1.16	18/2689 (0.7%)
23	CX	0.55	1/1725 (0.1%)	1.20	18/2689 (0.7%)
24	AY	0.72	1/428 (0.2%)	0.91	0/661
24	CY	0.48	0/115	1.02	0/176
25	BA	0.67	6/68083 (0.0%)	1.04	144/106274 (0.1%)
25	DA	0.51	3/67542 (0.0%)	1.00	78/105428 (0.1%)
26	BB	0.51	0/2878	0.91	0/4490
26	DB	0.57	0/2878	1.01	2/4490 (0.0%)
27	BD	0.44	0/2186	0.60	0/2944
27	DD	0.39	0/2186	0.59	0/2944
28	BE	0.45	0/1592	0.60	0/2149
28	DE	0.38	0/1592	0.62	0/2149
29	BF	0.43	0/1619	0.58	0/2193
29	DF	0.36	0/1615	0.59	0/2188
30	BG	0.33	0/1450	0.55	1/1959 (0.1%)
30	DG	0.36	0/1449	0.57	0/1958
31	BH	0.36	0/1356	0.54	0/1834
31	DH	0.34	0/1356	0.54	0/1834
32	BI	0.32	0/1100	0.58	0/1501
32	DI	0.32	0/1076	0.57	0/1471
33	BN	0.39	0/1144	0.54	0/1543
33	DN	0.36	0/1144	0.57	0/1543
34	BO	0.45	0/943	0.59	1/1269 (0.1%)
34	DO	0.37	0/943	0.60	1/1269 (0.1%)
35	BP	0.42	0/1152	0.60	0/1533
35	DP	0.38	0/1152	0.64	1/1533 (0.1%)
36	BQ	0.44	0/1143	0.58	0/1527
36	DQ	0.36	0/1143	0.57	0/1527
37	BR	0.44	0/982	0.66	0/1312
37	DR	0.33	0/982	0.57	0/1312
38	BS	0.39	0/887	0.62	0/1180

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DS	0.33	0/880	0.55	0/1172
39	BT	0.38	0/1105	0.60	0/1477
39	DT	0.35	0/1097	0.57	1/1468 (0.1%)
40	BU	0.48	0/977	0.61	0/1301
40	DU	0.33	0/977	0.53	0/1301
41	BV	0.44	0/782	0.64	0/1049
41	DV	0.34	0/782	0.55	1/1049 (0.1%)
42	BW	0.50	0/897	0.62	0/1205
42	DW	0.34	0/897	0.53	0/1205
43	BX	0.45	0/764	0.58	0/1025
43	DX	0.34	0/764	0.54	1/1025 (0.1%)
44	BY	0.40	0/819	0.62	0/1095
44	DY	0.33	0/819	0.57	0/1095
45	BZ	0.35	0/1379	0.62	0/1873
45	DZ	0.31	0/1390	0.54	0/1890
46	B0	0.45	0/662	0.65	0/881
46	D0	0.33	0/662	0.55	0/881
47	B1	0.40	0/762	0.55	0/1014
47	D1	0.36	0/762	0.56	0/1014
48	B2	0.39	0/590	0.59	0/781
48	D2	0.29	0/590	0.50	0/781
49	B3	0.41	0/474	0.59	0/635
49	D3	0.30	0/469	0.53	0/630
50	B4	0.36	0/571	0.68	0/768
50	D4	0.34	0/545	0.62	0/737
51	B5	0.50	1/469 (0.2%)	0.77	0/635
51	D5	0.35	0/469	0.59	1/635 (0.2%)
52	B6	0.60	1/460 (0.2%)	0.67	1/613 (0.2%)
52	D6	0.36	0/456	0.52	0/608
53	B7	0.48	0/426	0.62	0/561
53	D7	0.37	0/426	0.57	0/561
54	B8	0.44	0/519	0.61	0/684
54	D8	0.36	0/525	0.54	0/691
55	B9	0.50	0/310	0.65	1/407 (0.2%)
55	D9	0.38	0/310	0.62	0/407
All	All	0.65	30/310558 (0.0%)	0.94	397/464586 (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
1	AA	0	1
7	CG	0	2
38	BS	0	1
50	B4	0	1
50	D4	0	1
All	All	0	6

All (30) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	439	A	C5-C4	145.31	2.40	1.38
1	AA	496	A	C6-N1	114.63	2.15	1.35
1	AA	439	A	N3-C4	59.27	1.70	1.34
1	AA	496	A	C2-N3	54.84	1.82	1.33
1	AA	439	A	C6-N1	53.24	1.72	1.35
1	AA	439	A	N9-C4	44.55	1.64	1.37
1	AA	439	A	C5-C6	42.20	1.79	1.41
1	AA	439	A	N7-C5	41.35	1.64	1.39
1	AA	439	A	N1-C2	40.66	1.71	1.34
1	AA	439	A	C2-N3	38.98	1.68	1.33
1	AA	439	A	C8-N7	32.92	1.54	1.31
1	AA	439	A	N9-C8	32.75	1.64	1.37
1	AA	496	A	N3-C4	19.92	1.46	1.34
1	AA	496	A	C5-C4	-14.32	1.28	1.38
1	AA	496	A	N1-C2	11.06	1.44	1.34
24	AY	1	G	OP3-P	-10.29	1.48	1.61
25	BA	1188	A	N9-C4	-9.37	1.32	1.37
25	BA	354	A	N9-C4	-6.52	1.33	1.37
25	BA	553	A	N9-C4	-6.46	1.33	1.37
25	BA	1067	A	N9-C4	-6.36	1.34	1.37
23	CX	22	G	N7-C5	6.34	1.43	1.39
23	AX	22	G	N7-C5	6.23	1.43	1.39
25	BA	2299	A	N9-C4	-6.16	1.34	1.37
52	B6	43	CYS	CB-SG	6.08	1.92	1.82
25	DA	528	A	N9-C4	-5.97	1.34	1.37
25	DA	2287	A	N9-C4	-5.93	1.34	1.37
51	B5	36	CYS	CB-SG	5.47	1.91	1.82
23	AX	14	A	N7-C5	-5.44	1.35	1.39
25	BA	990	A	N9-C4	-5.24	1.34	1.37
25	DA	1142(A)	A	N9-C4	-5.09	1.34	1.37

All (397) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	496	A	C2-N3-C4	97.04	159.12	110.60
1	AA	496	A	N1-C2-N3	-89.99	84.31	129.30
1	AA	496	A	C5-C6-N6	-36.75	94.30	123.70
1	AA	496	A	C5-C6-N1	31.98	133.69	117.70
1	AA	496	A	C4-C5-C6	-28.65	102.68	117.00
1	AA	439	A	N3-C4-N9	27.30	149.24	127.40
1	AA	439	A	C4-C5-N7	-26.92	97.24	110.70
1	AA	439	A	C6-C5-N7	26.20	150.64	132.30
1	AA	439	A	N9-C4-C5	-25.41	95.64	105.80
1	AA	439	A	C2-N3-C4	25.16	123.18	110.60
1	AA	496	A	N1-C6-N6	22.35	132.01	118.60
1	AA	439	A	C5-N7-C8	18.86	113.33	103.90
1	AA	439	A	C6-N1-C2	18.43	129.66	118.60
1	AA	439	A	N3-C4-C5	-18.40	113.92	126.80
1	AA	439	A	C8-N9-C4	17.01	112.60	105.80
1	AA	439	A	N7-C8-N9	14.77	121.19	113.80
1	CA	1119	C	C2-N3-C4	14.01	126.91	119.90
1	CA	1154	G	C5-C6-O6	13.13	136.48	128.60
1	AA	496	A	C6-C5-N7	12.69	141.18	132.30
1	AA	439	A	C4-C5-C6	-11.90	111.05	117.00
1	AA	439	A	N1-C2-N3	-11.72	123.44	129.30
25	BA	1686	U	O5'-P-OP2	-11.30	95.53	105.70
25	BA	2083	G	O5'-P-OP2	-11.14	95.67	105.70
1	AA	496	A	C4-C5-N7	10.89	116.14	110.70
25	DA	2061	G	O5'-P-OP2	-10.55	96.20	105.70
25	BA	840	A	O5'-P-OP2	-10.40	96.34	105.70
1	CA	1119	C	N1-C2-O2	10.32	125.09	118.90
25	BA	139	A	N7-C8-N9	10.30	118.95	113.80
25	BA	553	A	C2-N3-C4	-10.10	105.55	110.60
1	AA	496	A	N3-C4-N9	9.95	135.36	127.40
25	BA	354	A	C2-N3-C4	-9.87	105.66	110.60
25	BA	990	A	N1-C6-N6	9.81	124.48	118.60
25	BA	1067	A	C2-N3-C4	-9.77	105.71	110.60
23	CX	46	G	C6-N1-C2	-9.77	119.24	125.10
23	AX	14	A	C4-C5-C6	9.68	121.84	117.00
25	BA	31	C	O5'-P-OP1	-9.51	97.14	105.70
25	DA	2155	G	N3-C4-N9	9.44	131.67	126.00
1	CA	1119	C	N3-C4-C5	-9.39	118.14	121.90
1	CA	1154	G	N1-C6-O6	-9.38	114.27	119.90
1	AA	496	A	N3-C4-C5	-9.27	120.31	126.80
25	BA	139	A	C5-N7-C8	-9.25	99.27	103.90
25	BA	2162	C	N1-C2-O2	9.14	124.39	118.90
1	AA	1161	C	N1-C2-O2	9.11	124.36	118.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AX	14	A	C5-N7-C8	9.10	108.45	103.90
25	BA	1807	G	O5'-P-OP2	-9.09	97.52	105.70
25	DA	528	A	C2-N3-C4	-8.98	106.11	110.60
25	BA	1188	A	C2-N3-C4	-8.97	106.12	110.60
25	BA	855	G	O5'-P-OP2	-8.89	97.69	105.70
1	AA	1030(B)	C	N1-C2-O2	8.82	124.19	118.90
25	BA	990	A	C2-N3-C4	-8.75	106.23	110.60
1	AA	1030(B)	C	C2-N1-C1'	8.73	128.41	118.80
23	CX	20	U	N1-C2-O2	8.63	128.84	122.80
1	CA	1119	C	C5-C4-N4	8.54	126.18	120.20
1	AA	1161	C	N3-C2-O2	-8.51	115.94	121.90
25	BA	537	G	O4'-C1'-N9	8.49	114.99	108.20
25	BA	139	A	C8-N9-C4	-8.33	102.47	105.80
23	AX	46	G	C6-N1-C2	-8.30	120.12	125.10
25	BA	1188	A	N3-C4-N9	-8.15	120.88	127.40
25	DA	2577	A	O5'-P-OP1	-8.11	98.40	105.70
25	BA	553	A	N3-C4-N9	-8.10	120.92	127.40
23	CX	14	A	C4-C5-C6	8.04	121.02	117.00
23	CX	20	U	N3-C2-O2	-8.02	116.59	122.20
25	BA	2162	C	C2-N1-C1'	7.94	127.53	118.80
25	DA	645	C	C2-N1-C1'	7.92	127.51	118.80
25	BA	1188	A	N3-C4-C5	7.84	132.29	126.80
23	AX	22	G	C4-C5-C6	-7.82	114.11	118.80
1	CA	1023	G	N3-C4-N9	7.80	130.68	126.00
23	AX	22	G	N1-C6-O6	-7.79	115.23	119.90
1	AA	1160	G	N7-C8-N9	7.71	116.95	113.10
25	BA	354	A	N1-C2-N3	7.70	133.15	129.30
25	BA	553	A	N3-C4-C5	7.64	132.15	126.80
1	AA	496	A	C5-N7-C8	-7.64	100.08	103.90
25	BA	2299	A	C2-N3-C4	-7.64	106.78	110.60
23	CX	46	G	C5-C6-O6	-7.62	124.03	128.60
25	DA	1204	A	O4'-C1'-N9	7.55	114.24	108.20
25	BA	215	G	O4'-C1'-N9	7.48	114.19	108.20
25	BA	990	A	C5-N7-C8	-7.43	100.18	103.90
25	BA	990	A	C4-C5-N7	7.41	114.40	110.70
25	BA	2162	C	N3-C2-O2	-7.39	116.73	121.90
1	CA	1037	C	C6-N1-C2	-7.35	117.36	120.30
23	AX	22	G	N3-C4-N9	-7.31	121.61	126.00
1	AA	254	G	O5'-P-OP1	-7.26	99.16	105.70
25	BA	1581	U	N3-C2-O2	-7.21	117.15	122.20
1	CA	1003	G	N7-C8-N9	7.19	116.70	113.10
25	DA	2276	G	O5'-P-OP1	-7.16	99.25	105.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1030(B)	C	N3-C2-O2	-7.15	116.90	121.90
23	CX	22	G	C4-C5-C6	-7.13	114.52	118.80
25	DA	2155	G	N3-C4-C5	-7.11	125.05	128.60
25	DA	1774	C	O5'-P-OP1	-7.07	99.33	105.70
25	BA	2122	G	C5-C6-O6	-7.07	124.36	128.60
25	BA	848	G	O5'-P-OP2	-7.06	99.34	105.70
1	CA	1003	G	C8-N9-C4	-6.97	103.61	106.40
1	CA	1263	C	C2-N3-C4	6.94	123.37	119.90
25	DA	2155	G	C6-C5-N7	-6.94	126.24	130.40
25	DA	645	C	N1-C2-O2	6.93	123.06	118.90
25	DA	512	G	O4'-C1'-N9	6.92	113.73	108.20
23	CX	14	A	C5-N7-C8	6.92	107.36	103.90
25	BA	1361	C	O5'-P-OP2	-6.89	99.50	105.70
23	AX	14	A	C5-C6-N1	-6.89	114.26	117.70
25	DA	2167	U	N1-C2-O2	6.88	127.62	122.80
1	CA	1158	C	N1-C2-O2	6.86	123.01	118.90
25	BA	1067	A	N1-C2-N3	6.85	132.73	129.30
25	BA	2091	G	O5'-P-OP2	-6.84	99.55	105.70
25	DA	2167	U	N3-C2-O2	-6.82	117.42	122.20
1	AA	1285	A	P-O3'-C3'	6.81	127.87	119.70
25	BA	2858	G	O4'-C1'-N9	6.81	113.65	108.20
25	BA	1068	G	N3-C4-N9	-6.80	121.92	126.00
23	AX	22	G	C6-C5-N7	6.79	134.47	130.40
25	DA	2155	G	N3-C2-N2	6.78	124.64	119.90
1	CA	1003	G	C4-N9-C1'	6.71	135.22	126.50
25	BA	990	A	C6-C5-N7	-6.71	127.61	132.30
23	CX	22	G	C5-N7-C8	-6.70	100.95	104.30
23	AX	22	G	C8-N9-C1'	6.70	135.71	127.00
25	BA	993	G	O5'-P-OP1	-6.69	99.68	105.70
25	BA	986	A	O5'-P-OP1	-6.67	99.69	105.70
25	BA	1068	G	N3-C2-N2	-6.67	115.23	119.90
1	CA	1023	G	C4-N9-C1'	6.62	135.11	126.50
23	CX	22	G	N1-C6-O6	-6.62	115.93	119.90
25	DA	2139	C	C2-N1-C1'	6.60	126.06	118.80
1	CA	1002	G	N3-C2-N2	-6.60	115.28	119.90
25	BA	1311	A	O5'-P-OP2	-6.59	99.77	105.70
1	CA	1158	C	C2-N1-C1'	6.58	126.04	118.80
1	AA	1030(B)	C	C6-N1-C2	-6.57	117.67	120.30
23	CX	20	U	C2-N1-C1'	6.54	125.54	117.70
25	BA	1810	U	O5'-P-OP1	-6.53	99.82	105.70
1	CA	754	C	C2-N1-C1'	6.51	125.96	118.80
25	DA	2155	G	N1-C2-N2	-6.50	110.35	116.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	DX	57	LEU	CA-CB-CG	6.44	130.11	115.30
25	BA	12	U	C2-N1-C1'	6.43	125.42	117.70
25	DA	2287	A	C2-N3-C4	-6.42	107.39	110.60
1	CA	1119	C	C6-N1-C2	-6.42	117.73	120.30
1	CA	1003	G	N3-C4-C5	-6.42	125.39	128.60
23	CX	22	G	C5-C6-N1	6.41	114.70	111.50
23	CX	46	G	C5-C6-N1	6.41	114.70	111.50
25	DA	1828	G	O5'-P-OP1	-6.39	99.94	105.70
25	BA	874	U	O5'-P-OP2	-6.37	99.97	105.70
25	DA	2155	G	C4-N9-C1'	6.36	134.77	126.50
25	BA	2566	U	O5'-P-OP1	-6.34	100.00	105.70
25	BA	2348	A	N9-C4-C5	-6.33	103.27	105.80
1	AA	1160	G	C8-N9-C4	-6.32	103.87	106.40
25	BA	1232	G	N1-C6-O6	-6.31	116.11	119.90
1	CA	1225	A	C5-C6-N6	6.31	128.75	123.70
12	CL	29	GLY	N-CA-C	-6.25	97.47	113.10
25	BA	733	G	N9-C4-C5	-6.23	102.91	105.40
1	AA	1161	C	C4-C5-C6	6.22	120.51	117.40
25	BA	978	A	C5-N7-C8	-6.22	100.79	103.90
25	BA	2260	C	O5'-P-OP2	-6.21	100.11	105.70
25	BA	2627	U	O5'-P-OP1	-6.19	100.13	105.70
25	DA	2473	U	N1-C2-O2	6.17	127.12	122.80
25	BA	139	A	C6-C5-N7	-6.17	127.98	132.30
1	CA	1220	G	N3-C2-N2	-6.17	115.58	119.90
1	CA	1119	C	C5-C6-N1	6.16	124.08	121.00
34	BO	8	LEU	CA-CB-CG	6.15	129.44	115.30
25	DA	277	C	N1-C2-O2	6.14	122.59	118.90
1	CA	1023	G	C6-C5-N7	-6.13	126.72	130.40
25	BA	856	G	N1-C6-O6	-6.12	116.23	119.90
25	BA	978	A	N7-C8-N9	6.09	116.85	113.80
25	BA	2122	G	N1-C6-O6	6.09	123.55	119.90
23	AX	22	G	C5-N7-C8	-6.08	101.26	104.30
25	DA	1021	A	C2-N3-C4	-6.08	107.56	110.60
25	DA	949	C	N1-C2-O2	-6.07	115.26	118.90
25	BA	593	G	C5-C6-N1	6.07	114.54	111.50
25	DA	2473	U	N3-C2-O2	-6.07	117.95	122.20
23	AX	22	G	C4-N9-C1'	-6.06	118.62	126.50
1	CA	1158	C	N3-C2-O2	-6.05	117.66	121.90
1	CA	960	U	C2-N1-C1'	6.05	124.96	117.70
1	AA	1285	A	OP2-P-O3'	6.03	118.47	105.20
25	BA	1067	A	C8-N9-C4	-6.03	103.39	105.80
34	DO	8	LEU	CA-CB-CG	6.01	129.13	115.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1154	G	C6-N1-C2	6.00	128.70	125.10
1	CA	1220	G	N3-C4-N9	-5.98	122.41	126.00
25	DA	2889	C	N1-C2-O2	5.98	122.49	118.90
25	BA	1745	A	C2-N3-C4	-5.97	107.61	110.60
25	DA	2136	C	N1-C2-O2	5.96	122.48	118.90
25	BA	139	A	O4'-C1'-N9	5.96	112.97	108.20
25	BA	2162	C	C6-N1-C2	-5.96	117.92	120.30
25	BA	555	G	N3-C4-C5	5.96	131.58	128.60
25	BA	179	A	O5'-P-OP2	-5.95	100.34	105.70
25	BA	1249	A	O4'-C1'-N9	5.92	112.93	108.20
25	DA	2473	U	C2-N1-C1'	5.91	124.79	117.70
25	DA	2138	C	N1-C2-O2	5.90	122.44	118.90
25	DA	645	C	C6-N1-C1'	-5.89	113.73	120.80
25	DA	1142(A)	A	C2-N3-C4	-5.87	107.67	110.60
1	AA	1030(B)	C	C6-N1-C1'	-5.86	113.77	120.80
25	BA	1067	A	C5-N7-C8	-5.86	100.97	103.90
25	DA	945	A	O4'-C1'-N9	5.86	112.88	108.20
1	CA	1225	A	N1-C6-N6	-5.85	115.09	118.60
1	CA	1023	G	C8-N9-C1'	-5.85	119.39	127.00
1	CA	1263	C	C5-C6-N1	5.83	123.92	121.00
25	BA	990	A	C5-C6-N6	-5.83	119.04	123.70
1	AA	1502	A	N1-C2-N3	5.83	132.21	129.30
25	BA	1067	A	N3-C4-N9	-5.82	122.75	127.40
1	AA	1025	U	N1-C2-O2	5.80	126.86	122.80
25	DA	141	A	N7-C8-N9	5.79	116.70	113.80
1	AA	1160	G	C4-N9-C1'	5.79	134.03	126.50
25	BA	934	A	O4'-C1'-N9	5.79	112.83	108.20
1	CA	1119	C	N3-C2-O2	-5.79	117.84	121.90
25	BA	1745	A	O4'-C1'-N9	5.79	112.83	108.20
25	BA	1067	A	N7-C8-N9	5.79	116.69	113.80
25	BA	831	A	O4'-C1'-N9	5.78	112.83	108.20
25	BA	2014	G	P-O3'-C3'	5.78	126.64	119.70
25	DA	1314	C	C2-N1-C1'	5.77	125.14	118.80
25	DA	2153	G	C5-C6-O6	-5.74	125.15	128.60
25	BA	1858	C	N3-C2-O2	-5.73	117.89	121.90
25	DA	2155	G	C8-N9-C1'	-5.73	119.56	127.00
25	BA	2348	A	N1-C6-N6	5.72	122.03	118.60
25	BA	2605	U	N3-C4-O4	-5.72	115.39	119.40
1	CA	79	G	C5-C6-O6	5.71	132.03	128.60
25	DA	277	C	N3-C2-O2	-5.71	117.91	121.90
25	DA	2108	C	C2-N3-C4	5.71	122.75	119.90
23	AX	22	G	N3-C4-C5	5.70	131.45	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2054	G	C4-C5-N7	-5.70	108.52	110.80
1	CA	1190	G	N9-C1'-C2'	-5.70	105.73	112.00
25	BA	1985	U	C2-N1-C1'	5.70	124.54	117.70
9	CI	102	LEU	CA-CB-CG	5.69	128.39	115.30
25	DA	1313	U	C2-N1-C1'	5.68	124.52	117.70
1	CA	1003	G	N3-C4-N9	5.68	129.41	126.00
25	BA	139	A	C4-C5-N7	5.67	113.53	110.70
25	BA	2210	C	C6-N1-C2	-5.66	118.03	120.30
25	DA	856	C	C6-N1-C2	-5.66	118.03	120.30
25	BA	354	A	N3-C4-N9	-5.66	122.88	127.40
25	DA	528	A	N1-C2-N3	5.65	132.13	129.30
30	BG	82	LEU	CA-CB-CG	5.64	128.28	115.30
25	DA	748	G	C4-N9-C1'	-5.63	119.17	126.50
25	DA	1653	G	P-O3'-C3'	5.62	126.45	119.70
25	BA	2441	G	OP1-P-OP2	-5.62	111.18	119.60
25	BA	2299	A	N3-C4-C5	5.61	130.73	126.80
3	CC	101	LEU	CA-CB-CG	5.61	128.19	115.30
25	BA	637	U	N3-C2-O2	-5.59	118.29	122.20
25	BA	892	G	O4'-C1'-N9	5.59	112.67	108.20
25	BA	1418	U	N3-C4-O4	5.59	123.31	119.40
41	DV	38	LEU	CA-CB-CG	5.58	128.13	115.30
25	DA	2160	G	N3-C4-N9	5.58	129.35	126.00
23	AX	14	A	C8-N9-C1'	-5.56	117.69	127.70
25	BA	1343	C	OP1-P-O3'	5.56	117.44	105.20
25	DA	1022	G	C4-C5-N7	-5.55	108.58	110.80
25	BA	470	C	O5'-P-OP1	5.54	117.35	110.70
25	BA	2211	U	N1-C2-O2	5.54	126.68	122.80
26	DB	1	U	C2-N1-C1'	5.54	124.35	117.70
1	AA	997	U	C5-C4-O4	5.53	129.22	125.90
23	AX	10	G	N3-C2-N2	-5.53	116.03	119.90
25	BA	139	A	N1-C6-N6	5.53	121.92	118.60
1	AA	1160	G	N3-C4-C5	-5.53	125.84	128.60
25	DA	614	U	N3-C2-O2	-5.52	118.33	122.20
1	AA	1183	A	P-O3'-C3'	5.52	126.32	119.70
25	DA	2287	A	N3-C4-C5	5.52	130.66	126.80
1	AA	1137	C	C6-N1-C2	-5.51	118.09	120.30
25	DA	1022	G	N3-C4-N9	-5.51	122.69	126.00
1	CA	1004	A	N7-C8-N9	-5.51	111.05	113.80
23	CX	17	C	C2-N1-C1'	5.51	124.86	118.80
19	CS	16	LEU	CA-CB-CG	5.50	127.96	115.30
1	CA	1220	G	N9-C4-C5	5.49	107.60	105.40
1	CA	1030(B)	C	C6-N1-C2	-5.49	118.10	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1256	A	N1-C6-N6	5.47	121.88	118.60
25	BA	1660	A	O5'-P-OP1	-5.47	100.78	105.70
23	CX	14	A	C4-N9-C1'	5.47	136.15	126.30
51	D5	58	LEU	CA-CB-CG	5.47	127.88	115.30
25	DA	195	A	P-O3'-C3'	5.46	126.26	119.70
26	DB	60	C	C5-C6-N1	5.46	123.73	121.00
1	AA	365	U	C2-N1-C1'	-5.45	111.17	117.70
25	DA	2153	G	N1-C6-O6	5.45	123.17	119.90
1	AA	1042	G	O4'-C1'-N9	5.43	112.54	108.20
25	BA	1153	G	N3-C4-C5	-5.42	125.89	128.60
25	BA	1091	A	C2-N3-C4	5.42	113.31	110.60
23	CX	22	G	C6-C5-N7	5.42	133.65	130.40
25	BA	2045	G	O5'-P-OP1	-5.41	100.83	105.70
25	DA	2167	U	C2-N1-C1'	5.41	124.19	117.70
52	B6	13	CYS	CA-CB-SG	5.39	123.71	114.00
25	DA	2725	A	N1-C6-N6	5.39	121.84	118.60
23	CX	14	A	C8-N9-C1'	-5.39	118.00	127.70
25	BA	2250	G	OP1-P-OP2	5.39	127.68	119.60
25	BA	555	G	C4-C5-N7	5.38	112.95	110.80
23	AX	14	A	C4-N9-C1'	5.38	135.98	126.30
1	CA	992	U	P-O3'-C3'	5.38	126.15	119.70
25	BA	1431	G	O4'-C1'-N9	5.38	112.50	108.20
1	CA	955	U	C2-N3-C4	5.37	130.22	127.00
25	BA	2713	C	C6-N1-C2	-5.36	118.16	120.30
25	BA	1343	C	OP2-P-O3'	-5.36	93.40	105.20
25	BA	1745	A	N1-C2-N3	5.36	131.98	129.30
25	BA	1249	A	C5-N7-C8	-5.36	101.22	103.90
1	CA	1006	C	N1-C2-O2	5.36	122.11	118.90
25	DA	2252	G	N3-C4-N9	-5.35	122.79	126.00
1	AA	532	A	OP1-P-O3'	5.35	116.97	105.20
25	BA	1359	U	C2-N1-C1'	5.35	124.12	117.70
25	BA	827	G	O5'-P-OP2	-5.34	100.89	105.70
25	BA	36	G	O5'-P-OP2	-5.33	100.90	105.70
1	CA	1183	A	P-O3'-C3'	5.33	126.10	119.70
1	CA	1023	G	N3-C4-C5	-5.33	125.94	128.60
25	DA	528	A	N3-C4-N9	-5.32	123.14	127.40
25	BA	1768	U	C2-N1-C1'	5.32	124.08	117.70
25	BA	869	U	N3-C2-O2	-5.29	118.49	122.20
25	DA	801	G	O5'-P-OP2	-5.29	100.93	105.70
25	BA	894	U	C5-C6-N1	-5.29	120.06	122.70
25	BA	978	A	O4'-C1'-N9	5.29	112.43	108.20
25	BA	2054	G	N9-C4-C5	5.29	107.51	105.40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2072	C	N1-C2-O2	-5.28	115.73	118.90
25	BA	1200	G	OP2-P-O3'	5.28	116.81	105.20
25	DA	2155	G	N9-C4-C5	-5.28	103.29	105.40
25	BA	2162	C	C6-N1-C1'	-5.28	114.47	120.80
25	BA	1188	A	C5-C6-N1	-5.27	115.06	117.70
1	CA	65	U	P-O3'-C3'	5.27	126.03	119.70
25	BA	715	G	OP2-P-O3'	5.27	116.80	105.20
25	BA	2077	C	OP1-P-O3'	5.27	116.79	105.20
25	DA	1558	A	P-O3'-C3'	5.26	126.02	119.70
25	DA	2139	C	C6-N1-C1'	-5.26	114.48	120.80
25	BA	1220	U	P-O3'-C3'	5.26	126.01	119.70
25	DA	2207	G	N1-C6-O6	5.26	123.06	119.90
25	BA	2701	U	C5-C6-N1	5.26	125.33	122.70
25	BA	1235	G	C5-N7-C8	5.24	106.92	104.30
23	CX	67	C	C5-C6-N1	5.24	123.62	121.00
25	BA	2024	G	N3-C2-N2	-5.24	116.23	119.90
25	DA	528	A	N3-C4-C5	5.24	130.47	126.80
1	AA	97	G	N3-C4-N9	5.24	129.14	126.00
1	AA	421	U	N1-C2-O2	5.24	126.47	122.80
1	CA	532	A	OP1-P-O3'	5.23	116.71	105.20
25	DA	2139	C	N1-C2-O2	5.23	122.04	118.90
25	BA	1581	U	N1-C2-O2	5.23	126.46	122.80
25	DA	141	A	N1-C2-N3	5.22	131.91	129.30
1	AA	266	G	P-O3'-C3'	5.22	125.96	119.70
25	BA	847	A	OP1-P-OP2	5.22	127.43	119.60
1	AA	299	G	C5-C6-O6	-5.21	125.47	128.60
35	DP	44	GLY	C-N-CA	5.21	134.73	121.70
1	CA	1064	G	P-O3'-C3'	5.21	125.95	119.70
23	AX	46	G	N1-C2-N3	5.20	127.02	123.90
25	BA	354	A	N3-C4-C5	5.20	130.44	126.80
25	BA	2627	U	OP1-P-OP2	5.20	127.41	119.60
25	BA	2211	U	C2-N1-C1'	5.19	123.93	117.70
25	DA	1210	A	P-O3'-C3'	5.19	125.93	119.70
1	AA	1030(B)	C	C5-C6-N1	5.19	123.60	121.00
25	BA	399	G	O4'-C1'-N9	5.19	112.35	108.20
25	DA	2267	A	OP1-P-OP2	5.18	127.37	119.60
25	BA	410	U	C2-N1-C1'	-5.18	111.49	117.70
25	BA	2601	A	C8-N9-C4	5.17	107.87	105.80
25	BA	2209	G	P-O3'-C3'	5.17	125.90	119.70
25	BA	733	G	C4-C5-N7	5.17	112.87	110.80
25	BA	1249	A	C2-N3-C4	-5.17	108.02	110.60
25	DA	1530	C	P-O3'-C3'	5.16	125.89	119.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1768	U	N1-C2-O2	5.16	126.41	122.80
2	AB	9	GLU	N-CA-C	5.15	124.92	111.00
25	BA	2883	A	O4'-C1'-N9	5.15	112.32	108.20
1	CA	1002	G	N1-C2-N2	5.15	120.84	116.20
1	CA	1054	C	C2-N1-C1'	5.15	124.46	118.80
1	CA	913	A	P-O3'-C3'	5.14	125.87	119.70
2	CB	231	GLU	C-N-CD	5.14	139.19	128.40
1	CA	1154	G	N3-C2-N2	5.14	123.50	119.90
1	AA	1004	A	C8-N9-C4	-5.13	103.75	105.80
25	DA	2166	G	P-O3'-C3'	5.13	125.86	119.70
25	BA	2250	G	N3-C4-N9	5.12	129.07	126.00
1	AA	1183	A	O4'-C1'-N9	-5.12	104.10	108.20
1	CA	60	A	P-O3'-C3'	5.12	125.85	119.70
1	CA	1263	C	C6-N1-C2	-5.12	118.25	120.30
25	BA	1700	G	P-O3'-C3'	5.12	125.84	119.70
23	AX	22	G	C5-C6-N1	5.12	114.06	111.50
1	CA	1023	G	C4-C5-N7	5.12	112.85	110.80
55	B9	11	CYS	CA-CB-SG	-5.12	104.79	114.00
25	BA	2189	U	C2-N1-C1'	5.11	123.83	117.70
25	DA	2149	G	N3-C4-N9	5.11	129.06	126.00
25	BA	2168	C	C2-N1-C1'	5.11	124.42	118.80
25	DA	2108	C	N1-C2-O2	5.11	121.96	118.90
39	DT	78	LEU	CA-CB-CG	5.11	127.04	115.30
23	CX	46	G	N1-C2-N3	5.10	126.96	123.90
25	DA	141	A	C5-N7-C8	-5.10	101.35	103.90
25	BA	842	C	N1-C2-O2	5.10	121.96	118.90
25	BA	2515	A	N1-C2-N3	-5.09	126.76	129.30
25	DA	1783	A	C8-N9-C4	5.08	107.83	105.80
25	BA	1218	G	O4'-C1'-N9	5.08	112.26	108.20
1	CA	1128	C	P-O3'-C3'	5.08	125.80	119.70
25	BA	555	G	C5-N7-C8	-5.08	101.76	104.30
1	AA	1160	G	N3-C4-N9	5.08	129.05	126.00
1	AA	1037	C	N1-C2-O2	5.07	121.94	118.90
25	BA	2027	A	OP1-P-O3'	5.07	116.35	105.20
1	AA	1531	A	O4'-C1'-N9	-5.06	104.15	108.20
25	BA	1874	C	C6-N1-C2	5.06	122.33	120.30
25	DA	751	A	O5'-P-OP1	-5.06	101.14	105.70
25	DA	2139	C	C5-C6-N1	5.06	123.53	121.00
1	CA	1023	G	N9-C4-C5	-5.06	103.38	105.40
1	CA	1272	G	C6-N1-C2	5.05	128.13	125.10
25	DA	2554	U	O5'-P-OP1	-5.05	101.15	105.70
1	CA	993	G	N3-C4-C5	-5.05	126.08	128.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1263	C	N3-C4-C5	-5.05	119.88	121.90
25	DA	141	A	O4'-C1'-N9	5.05	112.24	108.20
1	AA	615	C	C6-N1-C2	-5.04	118.28	120.30
25	BA	598	A	O5'-P-OP1	-5.03	101.17	105.70
25	BA	1068	G	N3-C4-C5	5.03	131.12	128.60
25	DA	2152	G	C5-C6-O6	-5.03	125.58	128.60
25	DA	2318	G	N3-C4-C5	-5.03	126.08	128.60
25	BA	2449	U	C5-C6-N1	-5.03	120.19	122.70
1	CA	1004	A	C4-N9-C1'	-5.02	117.26	126.30
23	AX	14	A	C4-C5-N7	-5.02	108.19	110.70
1	CA	1256	A	N9-C4-C5	-5.01	103.79	105.80
25	DA	1022	G	N9-C4-C5	5.01	107.41	105.40
1	AA	1320	C	C5-C6-N1	5.01	123.50	121.00
25	DA	798	G	N3-C4-N9	-5.01	123.00	126.00
1	AA	1065	U	P-O3'-C3'	5.00	125.71	119.70
1	AA	782	A	O5'-P-OP1	-5.00	101.20	105.70
25	BA	2078	G	O4'-C1'-N9	-5.00	104.20	108.20
1	CA	1183	A	OP1-P-O3'	5.00	116.21	105.20

There are no chirality outliers.

All (6) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	439	A	Sidechain
50	B4	59	PHE	Peptide
38	BS	58	LEU	Peptide
7	CG	78	ARG	Peptide
7	CG	79	ARG	Peptide
50	D4	67	TYR	Peptide

5.2 Close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32183	0	16244	640	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	CA	32312	0	16308	675	0
2	AB	1846	0	1867	88	0
2	CB	1825	0	1828	91	0
3	AC	1552	0	1546	53	0
3	CC	1542	0	1517	52	0
4	AD	1659	0	1676	71	0
4	CD	1674	0	1714	52	0
5	AE	1129	0	1185	32	0
5	CE	1133	0	1191	37	0
6	AF	806	0	793	19	0
6	CF	816	0	808	16	0
7	AG	1231	0	1238	22	0
7	CG	1235	0	1249	37	0
8	AH	1088	0	1126	28	0
8	CH	1088	0	1126	26	0
9	AI	983	0	986	30	0
9	CI	978	0	966	47	0
10	AJ	709	0	650	34	0
10	CJ	714	0	672	34	0
11	AK	829	0	825	20	0
11	CK	833	0	836	16	0
12	AL	930	0	980	25	0
12	CL	930	0	980	28	0
13	AM	937	0	977	27	0
13	CM	920	0	950	37	0
14	AN	492	0	529	21	0
14	CN	492	0	529	25	0
15	AO	728	0	760	22	0
15	CO	728	0	760	24	0
16	AP	681	0	697	23	0
16	CP	677	0	686	17	0
17	AQ	823	0	891	11	0
17	CQ	823	0	891	10	0
18	AR	555	0	618	13	0
18	CR	555	0	618	12	0
19	AS	652	0	662	25	0
19	CS	646	0	644	39	0
20	AT	728	0	798	21	0
20	CT	727	0	796	16	0
21	AU	199	0	208	4	0
21	CU	199	0	208	9	0
22	AV	169	0	86	4	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	CV	109	0	55	5	0
23	AX	1625	0	828	21	0
23	CX	1625	0	829	27	0
24	AY	385	0	199	11	0
24	CY	104	0	56	6	0
25	BA	60792	0	30653	698	0
25	DA	60311	0	30414	981	0
26	BB	2573	0	1306	23	0
26	DB	2573	0	1306	73	0
27	BD	2136	0	2218	60	0
27	DD	2136	0	2218	66	0
28	BE	1559	0	1618	27	0
28	DE	1559	0	1618	41	0
29	BF	1584	0	1625	45	0
29	DF	1580	0	1619	51	0
30	BG	1425	0	1443	43	0
30	DG	1424	0	1434	67	0
31	BH	1330	0	1407	24	0
31	DH	1330	0	1407	49	0
32	BI	1085	0	1114	35	0
32	DI	1061	0	1080	30	0
33	BN	1117	0	1183	19	0
33	DN	1117	0	1184	17	0
34	BO	933	0	996	23	0
34	DO	933	0	996	29	0
35	BP	1135	0	1212	34	0
35	DP	1135	0	1212	53	0
36	BQ	1122	0	1179	26	0
36	DQ	1122	0	1179	37	0
37	BR	968	0	1033	20	0
37	DR	968	0	1033	25	0
38	BS	877	0	938	26	0
38	DS	870	0	923	29	0
39	BT	1091	0	1151	38	0
39	DT	1083	0	1136	36	0
40	BU	959	0	1019	18	0
40	DU	959	0	1019	18	0
41	BV	771	0	830	13	0
41	DV	771	0	830	20	0
42	BW	886	0	940	18	0
42	DW	886	0	940	16	0
43	BX	750	0	814	22	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	DX	750	0	814	18	0
44	BY	806	0	881	21	0
44	DY	806	0	881	21	0
45	BZ	1349	0	1355	45	0
45	DZ	1360	0	1363	44	0
46	B0	653	0	674	15	0
46	D0	653	0	674	22	0
47	B1	755	0	826	21	0
47	D1	755	0	826	19	0
48	B2	588	0	643	10	0
48	D2	588	0	643	12	0
49	B3	469	0	518	10	0
49	D3	464	0	514	12	0
50	B4	558	0	544	36	0
50	D4	532	0	503	27	0
51	B5	455	0	465	9	0
51	D5	455	0	465	9	0
52	B6	453	0	473	10	0
52	D6	449	0	469	10	0
53	B7	418	0	467	7	0
53	D7	418	0	467	9	0
54	B8	511	0	571	22	0
54	D8	517	0	582	16	0
55	B9	307	0	335	8	0
55	D9	307	0	335	7	0
56	AA	190	0	0	0	0
56	AD	1	0	0	0	0
56	AE	3	0	0	0	0
56	AF	1	0	0	0	0
56	AM	1	0	0	0	0
56	AN	1	0	0	0	0
56	AQ	1	0	0	0	0
56	AX	9	0	0	0	0
56	B0	5	0	0	0	0
56	B2	1	0	0	0	0
56	B3	1	0	0	0	0
56	B4	1	0	0	0	0
56	B5	4	0	0	0	0
56	B6	2	0	0	0	0
56	B7	5	0	0	0	0
56	B8	2	0	0	0	0
56	B9	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	BA	814	0	0	0	0
56	BB	22	0	0	0	0
56	BD	9	0	0	0	0
56	BE	7	0	0	0	0
56	BF	9	0	0	0	0
56	BG	2	0	0	0	0
56	BN	7	0	0	0	0
56	BO	1	0	0	0	0
56	BP	4	0	0	0	0
56	BQ	4	0	0	0	0
56	BR	3	0	0	0	0
56	BU	9	0	0	0	0
56	BV	4	0	0	0	0
56	BW	4	0	0	0	0
56	BX	2	0	0	0	0
56	BY	3	0	0	0	0
56	BZ	2	0	0	0	0
56	CA	175	0	0	0	0
56	CE	2	0	0	0	0
56	CF	1	0	0	0	0
56	CJ	1	0	0	0	0
56	CT	1	0	0	0	0
56	CX	2	0	0	0	0
56	D0	2	0	0	0	0
56	D1	1	0	0	0	0
56	D3	1	0	0	0	0
56	D8	1	0	0	0	0
56	DA	674	0	0	0	0
56	DB	10	0	0	0	0
56	DD	8	0	0	0	0
56	DE	5	0	0	0	0
56	DF	5	0	0	0	0
56	DG	1	0	0	0	0
56	DN	1	0	0	0	0
56	DO	1	0	0	0	0
56	DP	2	0	0	0	0
56	DQ	3	0	0	0	0
56	DR	1	0	0	0	0
56	DU	4	0	0	0	0
56	DV	3	0	0	0	0
56	DW	2	0	0	0	0
56	DY	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	AA	40	0	38	6	0
57	CA	40	0	38	4	0
58	AD	8	0	0	1	0
58	CD	8	0	0	0	0
59	AN	1	0	0	0	0
59	B4	1	0	0	0	0
59	B5	1	0	0	0	0
59	B6	1	0	0	0	0
59	B9	1	0	0	0	0
59	BY	1	0	0	0	0
59	CN	1	0	0	0	0
59	D4	1	0	0	0	0
59	D5	1	0	0	0	0
59	D6	1	0	0	0	0
59	D9	1	0	0	0	0
59	DY	1	0	0	0	0
60	AX	1	0	0	0	0
60	CX	1	0	0	0	0
61	AA	175	0	0	13	0
61	AJ	2	0	0	0	0
61	AL	1	0	0	0	0
61	AM	1	0	0	0	0
61	AO	1	0	0	0	0
61	AV	1	0	0	0	0
61	AX	8	0	0	0	0
61	B0	4	0	0	0	0
61	B1	1	0	0	0	0
61	B3	1	0	0	0	0
61	B5	4	0	0	1	0
61	B6	1	0	0	0	0
61	B7	1	0	0	0	0
61	B8	10	0	0	1	0
61	BA	1294	0	0	49	0
61	BB	34	0	0	1	0
61	BD	16	0	0	1	0
61	BE	12	0	0	1	0
61	BF	7	0	0	1	0
61	BG	3	0	0	0	0
61	BI	1	0	0	0	0
61	BN	1	0	0	0	0
61	BO	4	0	0	0	0
61	BP	15	0	0	1	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	BQ	5	0	0	0	0
61	BR	1	0	0	0	0
61	BU	2	0	0	0	0
61	BV	2	0	0	0	0
61	BW	3	0	0	0	0
61	BX	5	0	0	0	0
61	CA	137	0	0	12	0
61	CD	1	0	0	0	0
61	CJ	2	0	0	0	0
61	CL	1	0	0	1	0
61	CN	1	0	0	0	0
61	CT	1	0	0	0	0
61	CX	2	0	0	0	0
61	D0	7	0	0	0	0
61	D1	1	0	0	0	0
61	D3	1	0	0	0	0
61	D8	4	0	0	0	0
61	DA	924	0	0	75	0
61	DB	8	0	0	0	0
61	DD	18	0	0	3	0
61	DE	9	0	0	1	0
61	DF	5	0	0	0	0
61	DN	1	0	0	0	0
61	DO	1	0	0	0	0
61	DP	14	0	0	1	0
61	DR	1	0	0	0	0
61	DT	1	0	0	0	0
61	DU	3	0	0	0	0
61	DV	1	0	0	0	0
61	DW	1	0	0	0	0
61	DX	1	0	0	0	0
61	DY	1	0	0	0	0
All	All	290807	0	193177	5129	0

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 11.

All (5129) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:439:A:N3	1:AA:439:A:C2	1.68	1.62
1:AA:439:A:C5	1:AA:439:A:C6	1.79	1.62
1:AA:439:A:N3	1:AA:439:A:C4	1.70	1.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:439:A:N1	1:AA:439:A:C6	1.72	1.55
1:AA:439:A:N1	1:AA:439:A:C2	1.70	1.54
1:AA:439:A:C4	1:AA:496:A:C6	1.95	1.53
1:AA:439:A:C5	1:AA:496:A:C6	1.97	1.50
1:AA:496:A:C2	1:AA:496:A:N3	1.82	1.47
1:AA:439:A:C2	1:AA:496:A:N3	1.92	1.35
1:AA:439:A:C5	1:AA:496:A:N3	1.94	1.35
1:AA:439:A:C4	1:AA:496:A:N3	1.93	1.35
1:AA:439:A:C6	1:AA:496:A:N3	1.95	1.34
1:AA:439:A:N1	1:AA:496:A:N3	1.82	1.25
1:AA:439:A:C8	1:AA:496:A:C6	2.30	1.19
1:AA:439:A:C6	1:AA:496:A:C2	2.31	1.18
1:AA:496:A:C6	1:AA:496:A:N1	2.15	1.14
1:AA:439:A:N3	1:AA:496:A:N3	1.98	1.11
1:CA:1162:C:N4	1:CA:1174:G:H1	1.49	1.08
1:AA:439:A:N9	1:AA:496:A:C6	2.21	1.07
1:AA:439:A:N7	1:AA:496:A:C6	2.25	1.03
1:AA:439:A:N3	1:AA:496:A:C2	2.28	1.00
1:AA:439:A:C2	1:AA:496:A:C2	2.49	1.00
25:DA:2138:C:N4	25:DA:2153:G:H1	1.61	0.99
2:CB:16:HIS:HB2	2:CB:204:ASN:HB3	1.44	0.97
25:DA:2104:G:H1	25:DA:2185:C:H42	1.12	0.97
25:BA:1065:U:HO2'	25:BA:1067:A:H2	1.01	0.96
1:CA:998:G:H1	1:CA:1043:C:H42	0.98	0.95
1:CA:1029:C:N4	1:CA:1032:G:H1	1.62	0.95
22:CV:16:A:H61	23:CX:36:U:H3	1.05	0.95
1:AA:1161:C:N4	1:AA:1175:G:H1	1.64	0.94
1:CA:1262:C:H42	1:CA:1273:G:H1	1.14	0.94
2:AB:16:HIS:HB3	2:AB:210:SER:HB2	1.50	0.94
25:DA:1359:A:N1	25:DA:1372:U:N3	2.16	0.93
1:AA:997:U:H3	1:AA:1044:A:H61	1.04	0.93
1:AA:1161:C:H42	1:AA:1175:G:H1	1.04	0.92
1:AA:1162:C:H42	1:AA:1174:G:H1	1.07	0.91
1:AA:439:A:C8	1:AA:496:A:N6	2.39	0.91
1:CA:1025:U:H3	1:CA:1036:G:H1	1.11	0.91
1:AA:78:G:H1	1:AA:91:C:H42	1.17	0.91
1:CA:1162:C:N3	1:CA:1174:G:N2	2.19	0.90
1:AA:984:C:H42	1:AA:1221:G:H1	1.18	0.90
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.51	0.90
25:BA:927:G:N2	25:BA:944:C:N3	2.21	0.89
22:CV:16:A:N6	23:CX:36:U:H3	1.69	0.89
25:DA:620:G:H4'	25:DA:621:A:H5'	1.53	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2138:C:H42	25:DA:2153:G:H1	0.92	0.89
1:CA:1029:C:N3	1:CA:1032:G:N2	2.21	0.89
1:AA:496:A:N3	1:AA:496:A:N1	2.21	0.88
2:AB:16:HIS:HB2	2:AB:204:ASN:HB3	1.54	0.88
35:BP:126:VAL:HG12	35:BP:148:LEU:HD22	1.55	0.88
35:DP:126:VAL:HG12	35:DP:148:LEU:HD22	1.56	0.88
1:CA:975:A:H4'	1:CA:976:G:H5''	1.56	0.88
1:CA:998:G:H1	1:CA:1043:C:N4	1.71	0.88
1:CA:1162:C:H42	1:CA:1174:G:H1	0.91	0.87
25:DA:2046:G:H5'	51:D5:19:ARG:HA	1.54	0.87
25:DA:2166:G:H3'	25:DA:2167:U:H5''	1.54	0.87
1:AA:1502:A:H2	1:AA:1505:G:H1	1.21	0.87
1:AA:439:A:C5	1:AA:496:A:C4	2.61	0.87
1:AA:1162:C:N4	1:AA:1174:G:H1	1.73	0.87
2:CB:16:HIS:HB3	2:CB:210:SER:HB2	1.57	0.86
25:BA:2118:U:H3	25:BA:2215:G:H1	1.20	0.86
4:AD:107:ARG:HH22	4:AD:194:LEU:HD22	1.36	0.86
1:AA:439:A:N1	1:AA:496:A:C2	2.44	0.86
1:AA:439:A:C4	1:AA:496:A:C4	2.63	0.85
1:CA:1000:U:H3	1:CA:1041:A:H61	1.19	0.85
1:CA:656:C:O2'	15:CO:28:GLN:NE2	2.09	0.85
25:DA:880:G:N1	25:DA:898:C:O2	2.09	0.85
7:CG:113:GLU:HG2	7:CG:119:ARG:HG2	1.57	0.85
2:AB:16:HIS:CD2	2:AB:17:PHE:H	1.94	0.84
25:BA:656:A:OP1	35:BP:65:ARG:NH1	2.10	0.84
1:AA:1030(C):G:H2'	1:AA:1030(D):A:H8	1.43	0.84
25:DA:2401:U:H5'	52:D6:18:ARG:HH12	1.41	0.84
46:B0:11:ARG:O	46:B0:14:ARG:NH2	2.10	0.84
25:BA:1360:C:OP1	61:BA:4706:HOH:O	1.95	0.83
25:BA:839:G:O6	61:BA:4691:HOH:O	1.95	0.83
10:CJ:8:LEU:HB2	10:CJ:70:ARG:HB2	1.60	0.83
1:AA:201:C:H42	1:AA:216:G:H1	1.27	0.82
25:BA:2163:G:O6	25:BA:2172:U:O2	1.95	0.82
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.44	0.82
25:DA:1798:U:H5'	27:DD:259:THR:HG22	1.59	0.82
1:AA:1027:C:C2	1:AA:1034:G:N1	2.46	0.82
1:AA:406:G:H5'	4:AD:5:ILE:HD11	1.58	0.82
1:CA:1128:C:H1'	1:CA:1147:C:H42	1.42	0.82
25:DA:740:U:OP2	61:DA:4497:HOH:O	1.96	0.82
33:DN:15:LEU:HB2	33:DN:135:PRO:HB2	1.62	0.82
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.62	0.81
1:AA:997:U:H3	1:AA:1044:A:N6	1.77	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2807:G:N1	25:DA:2893:G:O6	2.10	0.81
43:DX:53:LYS:HB3	43:DX:82:GLN:HB3	1.61	0.81
1:AA:559:A:OP1	5:AE:126:ARG:NH2	2.14	0.81
25:DA:1271:G:OP2	61:DA:4489:HOH:O	1.98	0.81
10:AJ:35:SER:HB3	10:AJ:73:ASP:HB2	1.61	0.81
1:CA:1007:C:N3	1:CA:1022:G:O6	2.14	0.81
26:DB:2:C:O2	26:DB:119:G:N2	2.13	0.81
25:DA:1153:C:OP2	61:DA:4453:HOH:O	2.00	0.80
25:DA:1721:G:H8	25:DA:1741:A:H62	1.26	0.80
32:BI:92:VAL:HG13	32:BI:120:ILE:HB	1.63	0.80
25:DA:1602:U:O4	61:DA:4187:HOH:O	2.00	0.80
31:DH:24:VAL:HG13	31:DH:37:VAL:HG21	1.63	0.80
1:AA:1033:G:H2'	1:AA:1034:G:H8	1.46	0.80
12:AL:49:ASN:ND2	12:AL:92:ASP:OD2	2.14	0.80
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.00	0.80
1:AA:1158:C:C4	1:AA:1160:G:H8	1.99	0.80
25:BA:388:A:H2'	25:BA:389:G:H8	1.47	0.80
1:AA:427:U:OP1	4:AD:13:ARG:NH2	2.15	0.80
25:DA:1204:A:H2	25:DA:1241:A:H62	1.27	0.79
4:CD:122:ARG:NH1	4:CD:134:ASP:O	2.16	0.79
25:DA:1332:G:OP1	61:DA:4448:HOH:O	1.99	0.79
2:AB:127:ILE:HD12	2:AB:130:ARG:HD3	1.63	0.79
29:DF:53:THR:HG23	29:DF:55:GLY:H	1.47	0.79
3:CC:78:GLY:HA3	3:CC:83:ARG:H	1.48	0.79
19:CS:28:LYS:HB2	19:CS:29:ARG:HA	1.64	0.79
53:B7:24:THR:HG22	53:B7:27:GLY:H	1.48	0.79
25:DA:1022:G:H22	25:DA:1142(A):A:H2	1.27	0.79
37:DR:97:VAL:HG22	37:DR:114:VAL:HG13	1.65	0.79
1:AA:1183:A:O2'	1:AA:1184:G:OP1	2.00	0.79
25:DA:2502:G:N7	61:DA:4677:HOH:O	2.14	0.79
25:BA:932:C:H3'	25:BA:933:C:H5''	1.65	0.79
1:CA:1422:G:H5'	34:DO:48:PRO:HB3	1.65	0.79
1:AA:642:A:N3	8:AH:113:SER:OG	2.15	0.78
1:CA:1119:C:H42	1:CA:1154:G:H1	1.31	0.78
1:CA:953:G:H5'	1:CA:965:A:H61	1.48	0.78
25:DA:631:A:OP1	35:DP:65:ARG:NH1	2.16	0.78
1:AA:894:G:N7	61:AA:4102:HOH:O	2.15	0.78
2:CB:18:GLY:HA2	2:CB:42:ILE:HG13	1.65	0.78
2:AB:63:MET:HB3	2:AB:225:ALA:HB1	1.66	0.78
25:DA:191:A:N1	61:DA:4501:HOH:O	2.15	0.78
1:AA:1422:G:H5'	34:BO:48:PRO:HB3	1.65	0.78
1:CA:1028:C:N3	1:CA:1033:G:C6	2.51	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2104:G:H1	25:DA:2185:C:N4	1.81	0.78
25:DA:994:C:OP1	40:DU:53:ARG:NH2	2.17	0.78
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.63	0.78
1:AA:76:C:H42	1:AA:93:G:H1	1.30	0.78
1:AA:975:A:H4'	1:AA:976:G:H5''	1.65	0.78
1:CA:596:C:O2	1:CA:644:G:N2	2.13	0.78
25:BA:2831:A:OP2	61:BA:5266:HOH:O	2.02	0.78
22:AV:16:A:H61	23:AX:36:U:H3	1.31	0.78
1:AA:78:G:N2	1:AA:91:C:N3	2.33	0.77
2:AB:231:GLU:HB3	2:AB:232:PRO:HD2	1.64	0.77
1:AA:78:G:H1	1:AA:91:C:N4	1.81	0.77
25:DA:602:G:O2'	25:DA:655:A:N6	2.16	0.77
27:DD:238:GLY:O	61:DD:407:HOH:O	2.02	0.77
25:BA:2163:G:H1	25:BA:2171:G:H22	1.29	0.77
25:BA:1829:U:H5'	27:BD:259:THR:HG22	1.66	0.77
1:AA:266:G:H5''	1:AA:268:C:H41	1.48	0.77
1:AA:1007:C:N3	1:AA:1022:G:O6	2.17	0.77
1:CA:664:G:H22	1:CA:741:G:H1	1.31	0.77
1:AA:953:G:H5'	1:AA:965:A:H61	1.48	0.77
25:BA:2251:G:OP2	61:BA:4424:HOH:O	2.02	0.77
27:BD:71:ASP:HB3	27:BD:103:ARG:HH22	1.49	0.77
25:DA:1689:A:H62	25:DA:1698:A:H2	1.31	0.77
1:CA:1026:G:H5'	1:CA:1027:C:O5'	1.83	0.77
29:BF:185:ASP:HA	29:BF:188:ARG:HD3	1.67	0.76
25:BA:1577:C:O2'	25:BA:1578:C:O5'	2.03	0.76
25:BA:2832:G:OP2	61:BA:5266:HOH:O	2.03	0.76
1:CA:771:G:N7	61:CA:4031:HOH:O	2.18	0.76
25:DA:1250:G:N7	35:DP:18:ARG:NH2	2.34	0.76
25:DA:1030:G:OP2	36:DQ:128:LYS:NZ	2.18	0.76
25:DA:2114:A:N6	25:DA:2119:A:N7	2.34	0.76
25:BA:894:U:OP2	61:BA:4495:HOH:O	2.02	0.76
50:D4:24:THR:OG1	50:D4:25:TYR:N	2.16	0.76
4:AD:108:LEU:HD13	4:AD:174:LEU:HD13	1.67	0.76
25:BA:2299:A:H62	25:BA:2356:U:H3	1.33	0.76
1:CA:1209:C:O2'	1:CA:1214:C:N4	2.18	0.76
1:CA:504:C:OP1	61:CA:4008:HOH:O	2.04	0.76
1:AA:627:G:H2'	1:AA:628:G:H8	1.51	0.75
5:AE:12:LEU:HB3	5:AE:31:LEU:HB2	1.66	0.75
25:DA:563:G:OP2	61:DA:4452:HOH:O	2.05	0.75
25:BA:1981:G:N7	61:BA:4103:HOH:O	2.20	0.75
25:BA:478:G:OP2	61:BA:5249:HOH:O	2.04	0.75
1:CA:1165:C:H42	1:CA:1171:G:H1	1.35	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1221:G:OP1	1:CA:1320:C:N4	2.19	0.75
3:CC:152:ILE:HG23	3:CC:199:LYS:HB2	1.69	0.75
13:CM:22:ILE:HG23	13:CM:67:GLU:HG2	1.69	0.75
25:DA:2126:A:N6	25:DA:2162:G:O2'	2.19	0.75
25:BA:591:U:O4	61:BA:4249:HOH:O	2.05	0.75
45:BZ:129:SER:HB2	45:BZ:132:ASN:HB2	1.69	0.75
4:CD:98:GLU:OE1	4:CD:103:ASN:ND2	2.20	0.75
25:DA:1140:C:O3'	33:DN:25:ARG:NH1	2.20	0.75
25:DA:2268:A:OP1	61:DA:4414:HOH:O	2.05	0.75
25:DA:2312:U:H5'	30:DG:88:ILE:HD11	1.69	0.75
25:DA:2430:A:OP2	61:DA:4569:HOH:O	2.05	0.74
10:AJ:7:LYS:HE2	10:AJ:9:ARG:HH12	1.52	0.74
25:BA:1378:G:OP1	61:BA:4706:HOH:O	2.06	0.74
1:CA:1183:A:O2'	1:CA:1184:G:OP1	2.04	0.74
25:BA:1480:A:H61	25:BA:1605:A:H62	1.33	0.74
15:CO:22:THR:OG1	15:CO:23:GLY:N	2.20	0.74
25:DA:587:C:OP2	35:DP:21:ARG:NH2	2.20	0.74
1:AA:439:A:C6	1:AA:496:A:C4	2.76	0.74
44:BY:92:ASN:HB3	44:BY:94:LYS:H	1.52	0.74
25:DA:1783:A:OP1	61:DA:4497:HOH:O	2.04	0.74
25:BA:2015:U:OP2	61:BA:5270:HOH:O	2.05	0.74
1:CA:522:C:H41	12:CL:53:ARG:HH22	1.35	0.74
9:CI:53:VAL:O	9:CI:55:ALA:N	2.20	0.74
25:DA:64:A:N6	25:DA:90:U:O4	2.19	0.74
25:DA:971:C:OP2	61:DA:4841:HOH:O	2.06	0.74
25:BA:1462:G:N2	25:BA:1629:C:O2	2.17	0.74
25:DA:2308:G:O6	25:DA:2311:A:N6	2.16	0.74
1:AA:652:U:O4	1:AA:752:G:O2'	2.05	0.74
1:CA:1114:C:O2'	14:CN:60:SER:O	2.05	0.74
2:CB:123:ALA:H	2:CB:127:ILE:HD12	1.53	0.74
1:AA:574:A:OP2	61:AA:4007:HOH:O	2.04	0.74
4:AD:104:VAL:HG11	4:AD:146:ILE:HD13	1.68	0.74
25:DA:568:U:O4	61:DA:4154:HOH:O	2.06	0.74
1:AA:1158:C:H5	1:AA:1181:G:H1	1.36	0.73
25:BA:2877:G:OP2	39:BT:119:LYS:NZ	2.21	0.73
1:AA:1166:G:N2	1:AA:1170:A:OP2	2.18	0.73
11:CK:48:ILE:O	11:CK:50:TYR:N	2.17	0.73
25:DA:1019:U:H3	25:DA:1142(A):A:H62	1.36	0.73
25:DA:2638:G:P	28:DE:82:ARG:HH22	2.11	0.73
1:AA:972:C:OP1	61:AA:4128:HOH:O	2.07	0.73
1:CA:1507:A:N6	1:CA:1528:U:O4	2.16	0.73
35:BP:42:SER:O	61:BP:305:HOH:O	2.06	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:76:C:H42	1:CA:93:G:H1	1.36	0.73
30:DG:80:PHE:O	30:DG:82:LEU:N	2.21	0.73
1:AA:316:G:OP2	1:AA:351:G:O2'	2.05	0.73
5:CE:122:GLU:O	5:CE:126:ARG:NH1	2.22	0.73
25:DA:573:G:OP2	41:DV:78:LYS:NZ	2.21	0.73
25:DA:2867:G:OP2	39:DT:119:LYS:NZ	2.20	0.73
3:AC:8:ILE:HG23	3:AC:16:ARG:HG2	1.70	0.73
9:AI:17:VAL:HG21	9:AI:81:ILE:HG22	1.70	0.73
51:D5:16:ARG:NH1	51:D5:17:ASP:OD1	2.21	0.73
26:DB:22:U:H3	26:DB:61:G:H1	1.34	0.73
1:AA:400:C:H5''	4:AD:73:ARG:HH22	1.53	0.73
39:BT:16:ARG:NH2	39:BT:83:ILE:O	2.21	0.73
1:AA:78:G:N1	1:AA:91:C:N4	2.36	0.73
1:CA:419:C:OP1	1:CA:513:C:O2'	2.05	0.73
19:AS:20:LEU:HD23	19:AS:23:ASN:HD22	1.52	0.73
25:BA:2324:U:H5'	30:BG:88:ILE:HD11	1.71	0.73
2:CB:87:ARG:HD3	2:CB:234:PRO:HD2	1.70	0.73
30:DG:7:LEU:HD13	30:DG:104:GLU:HA	1.70	0.73
25:DA:1327:C:OP2	61:DA:4194:HOH:O	2.06	0.72
25:DA:792:G:O6	61:DA:4438:HOH:O	2.06	0.72
1:AA:439:A:C5	1:AA:496:A:C5	2.75	0.72
25:DA:2285:C:OP2	52:D6:6:ARG:NH1	2.22	0.72
1:CA:1004:A:N6	1:CA:1037:C:N3	2.37	0.72
27:DD:148:GLU:HB2	27:DD:151:LYS:HD2	1.72	0.72
29:DF:21:ALA:HB3	29:DF:22:ALA:HA	1.70	0.72
35:DP:42:SER:O	61:DP:303:HOH:O	2.06	0.72
39:DT:16:ARG:NH1	39:DT:18:ASP:OD1	2.21	0.72
40:DU:78:THR:O	40:DU:117:GLN:NE2	2.22	0.72
25:BA:1094:A:OP2	25:BA:1155:C:N4	2.15	0.72
1:CA:1048:G:OP1	14:CN:3:ARG:NH2	2.22	0.72
25:DA:2183:C:H2'	25:DA:2184:G:H8	1.54	0.72
1:AA:567:G:N3	61:AA:4097:HOH:O	2.22	0.72
19:AS:68:GLY:H	50:B4:58:ARG:HD3	1.54	0.72
28:BE:105:THR:OG1	28:BE:199:ARG:NH2	2.22	0.72
1:CA:1183:A:O2'	1:CA:1185:G:OP2	2.08	0.72
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.71	0.72
25:DA:1315:C:OP2	61:DA:4448:HOH:O	2.06	0.72
25:DA:1530:C:O2'	25:DA:1531:C:O5'	2.07	0.72
27:BD:108:PRO:HB3	27:BD:143:HIS:CE1	2.25	0.72
51:D5:16:ARG:HG2	51:D5:16:ARG:HH11	1.54	0.72
1:CA:1360:A:OP2	14:CN:35:ARG:NH2	2.22	0.72
25:DA:2595:G:N7	61:DA:4581:HOH:O	2.22	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.72	0.72
52:B6:35:GLU:OE2	52:B6:50:ARG:NH1	2.23	0.71
27:BD:17:THR:O	27:BD:211:ARG:NH2	2.23	0.71
1:CA:1123:A:H4'	10:CJ:36:GLY:HA3	1.72	0.71
1:AA:1353:G:OP1	21:AU:10:ARG:NH1	2.23	0.71
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.73	0.71
1:CA:1442:G:O2'	1:CA:1442(A):G:OP1	2.08	0.71
1:AA:664:G:H22	1:AA:741:G:H1	1.35	0.71
6:AF:18:GLN:HA	6:AF:21:LEU:HD12	1.72	0.71
12:AL:70:ILE:HG12	12:AL:100:ILE:HD12	1.72	0.71
25:BA:2162:C:C2	25:BA:2173:G:N1	2.57	0.71
25:DA:131:G:OP1	61:DA:4106:HOH:O	2.07	0.71
49:B3:8:LEU:HD13	49:B3:31:LEU:HD23	1.71	0.71
25:BA:973:G:N7	61:BA:4494:HOH:O	2.24	0.71
45:BZ:111:VAL:HG12	45:BZ:112:ARG:H	1.55	0.71
1:AA:339:C:OP2	34:BO:97:ARG:NH1	2.23	0.71
25:BA:2125:C:H42	25:BA:2208:G:H1	1.39	0.71
26:BB:48:A:H4'	38:BS:95:HIS:HD2	1.55	0.71
3:CC:12:LEU:HD23	3:CC:16:ARG:HB3	1.72	0.71
1:CA:1187:G:H5'	9:CI:113:LYS:HE2	1.71	0.71
25:DA:1010:A:OP2	61:DA:4463:HOH:O	2.09	0.71
1:AA:1027:C:O2'	1:AA:1034:G:N2	2.24	0.71
57:AA:3191:PCY:O21	57:AA:3191:PCY:O14	2.08	0.71
25:BA:2343:G:O2'	25:BA:2348:A:N1	2.19	0.71
38:BS:25:ARG:NH1	38:BS:42:ASP:OD1	2.23	0.71
1:CA:798:G:N7	61:CA:4027:HOH:O	2.24	0.71
7:CG:16:LEU:HD23	9:CI:41:VAL:HG12	1.73	0.71
3:AC:3:ASN:N	3:AC:3:ASN:OD1	2.23	0.71
25:BA:1370:G:O6	61:BA:4308:HOH:O	2.09	0.71
44:BY:54:LYS:HA	44:BY:56:PRO:HD3	1.72	0.71
25:BA:2340:A:H2'	25:BA:2341:G:C8	2.26	0.71
20:CT:50:GLU:HG3	20:CT:100:ILE:HD13	1.71	0.71
25:DA:2584:U:H2'	25:DA:2585:U:H2'	1.71	0.71
1:CA:1029:C:H42	1:CA:1032:G:H1	0.80	0.70
1:CA:1118:C:OP1	9:CI:104:ARG:NH1	2.23	0.70
9:CI:95:LYS:HA	9:CI:99:LEU:HD13	1.72	0.70
25:DA:1114:G:H2'	25:DA:1115:G:H8	1.56	0.70
25:DA:11:G:H2'	25:DA:12:U:H5''	1.73	0.70
25:DA:2849:U:O4	39:DT:23:ARG:NH2	2.24	0.70
1:AA:1086:U:H3	1:AA:1099:G:H22	1.38	0.70
25:BA:426:G:OP2	61:BA:5008:HOH:O	2.09	0.70
27:BD:69:ARG:NH2	27:BD:128:GLY:O	2.24	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:D1:59:THR:O	47:D1:91:LYS:NZ	2.23	0.70
32:D1:27:ARG:HD2	47:D1:71:TYR:CE1	2.26	0.70
1:AA:1183:A:H8	1:AA:1183:A:H5"	1.55	0.70
25:DA:89:G:H3'	25:DA:90:U:H5"	1.73	0.70
25:BA:1296:G:N7	35:BP:18:ARG:NH2	2.39	0.70
25:BA:1740:U:O2'	27:BD:14:ARG:NH2	2.25	0.70
25:BA:2138:G:N2	25:BA:2184:G:OP1	2.24	0.70
39:BT:95:ARG:HH11	39:BT:95:ARG:HG2	1.54	0.70
3:CC:164:ARG:NH1	3:CC:166:GLU:OE1	2.24	0.70
46:D0:11:ARG:O	46:D0:14:ARG:NH2	2.23	0.70
29:DF:185:ASP:HA	29:DF:188:ARG:HD3	1.72	0.70
43:DX:11:PRO:HB3	43:DX:92:LEU:HD11	1.73	0.70
55:D9:25:VAL:HB	55:D9:34:GLN:HB2	1.73	0.70
25:DA:2042:A:OP1	61:DA:4176:HOH:O	2.10	0.70
25:DA:71:A:H5"	25:DA:73:A:C8	2.26	0.70
26:DB:20:C:H42	26:DB:63:G:H1	1.39	0.70
25:DA:2748:A:H5'	31:DH:4:ILE:HD12	1.74	0.70
34:BO:35:VAL:HG11	34:BO:103:ALA:HB3	1.72	0.70
1:CA:201:C:H42	1:CA:216:G:H1	1.38	0.70
10:CJ:35:SER:HB3	10:CJ:73:ASP:HB2	1.72	0.70
14:CN:9:LYS:HG3	14:CN:12:ARG:HH11	1.55	0.70
25:BA:2339:A:H2'	25:BA:2340:A:C8	2.26	0.70
35:BP:50:ARG:HD3	54:B8:7:HIS:CD2	2.26	0.70
1:CA:1000:U:H3	1:CA:1041:A:N6	1.90	0.70
25:BA:2802:C:O2	25:BA:2903:G:N2	2.21	0.70
1:CA:427:U:OP1	4:CD:13:ARG:NH2	2.25	0.70
25:DA:2682:U:OP2	61:DA:4144:HOH:O	2.10	0.70
25:DA:954:G:H5"	36:DQ:13:GLN:HB3	1.74	0.70
2:AB:16:HIS:CG	2:AB:17:PHE:H	2.09	0.70
1:CA:1237:C:HO2'	1:CA:1300:G:H1	1.37	0.70
10:CJ:61:GLU:OE1	14:CN:58:LYS:NZ	2.24	0.70
1:CA:346:G:OP1	39:DT:41:ARG:NH2	2.22	0.70
25:BA:932:C:N3	25:BA:937:A:N6	2.40	0.70
43:BX:53:LYS:HB3	43:BX:82:GLN:HB3	1.72	0.70
45:BZ:139:VAL:HG22	45:BZ:155:LEU:HD11	1.74	0.70
1:CA:1262:C:N4	1:CA:1273:G:H1	1.87	0.70
1:AA:46:G:O6	61:AA:4149:HOH:O	2.07	0.69
1:AA:596:C:OP2	61:AA:4065:HOH:O	2.10	0.69
25:BA:832:G:OP2	61:BA:4267:HOH:O	2.10	0.69
1:CA:673:G:H2'	1:CA:674:G:C8	2.28	0.69
12:AL:33:ARG:HD3	12:AL:62:SER:HB3	1.73	0.69
25:DA:123:G:N7	61:DA:4069:HOH:O	2.24	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1249:A:H2	25:BA:1287:A:H62	1.40	0.69
31:BH:98:LEU:HD13	31:BH:125:VAL:HG23	1.74	0.69
34:BO:63:VAL:HG12	34:BO:106:LEU:HD11	1.73	0.69
1:CA:1086:U:H3	1:CA:1099:G:H22	1.40	0.69
25:DA:2183:C:H2'	25:DA:2184:G:C8	2.27	0.69
25:DA:2198:A:OP1	32:DI:33:ARG:NH2	2.24	0.69
25:BA:2145:G:H1	25:BA:2197:C:H42	1.40	0.69
3:CC:58:GLU:HB2	3:CC:65:ALA:HB3	1.75	0.69
1:AA:1457:G:OP1	20:AT:39:LYS:NZ	2.24	0.69
13:AM:3:ARG:HD2	13:AM:9:ILE:HG12	1.75	0.69
25:BA:1199:C:OP1	40:BU:92:ARG:NH1	2.24	0.69
25:BA:2695:C:O2	34:BO:70:LYS:NZ	2.20	0.69
43:BX:57:LEU:HD11	43:BX:78:LYS:HE2	1.74	0.69
9:CI:9:ARG:HG2	9:CI:14:VAL:HG12	1.75	0.69
25:DA:2504:U:OP2	61:DA:4445:HOH:O	2.09	0.69
1:AA:439:A:C4	1:AA:496:A:C5	2.76	0.69
25:BA:1170:C:OP1	61:BA:4957:HOH:O	2.09	0.69
25:BA:709:G:OP1	61:BA:4721:HOH:O	2.10	0.69
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.27	0.69
1:AA:984:C:N4	1:AA:1221:G:H1	1.88	0.69
25:BA:1018:A:OP2	61:BA:4249:HOH:O	2.11	0.69
2:CB:78:GLN:NE2	2:CB:95:GLN:OE1	2.26	0.69
25:DA:731:C:OP1	61:DA:4606:HOH:O	2.10	0.69
34:DO:35:VAL:HG11	34:DO:103:ALA:HB3	1.74	0.69
11:AK:79:SER:HA	11:AK:104:GLN:HB2	1.73	0.69
25:BA:153:C:OP2	47:B1:92:LYS:NZ	2.26	0.69
35:BP:100:LEU:HD12	35:BP:112:LEU:HD11	1.73	0.69
1:CA:1132:C:H42	1:CA:1142:G:H1	1.38	0.69
2:CB:162:ILE:HD11	2:CB:184:VAL:HG22	1.73	0.69
5:AE:100:VAL:O	5:AE:107:ARG:NH2	2.26	0.68
25:DA:2206:G:H3'	25:DA:2207:G:N7	2.07	0.68
1:AA:532:A:O2'	1:AA:533:A:OP1	2.11	0.68
25:BA:96:C:OP1	48:B2:2:LYS:NZ	2.25	0.68
1:CA:1317:C:N3	19:CS:37:ARG:NH2	2.41	0.68
25:DA:2820:A:OP2	37:DR:2:ARG:NH2	2.26	0.68
9:AI:53:VAL:O	9:AI:55:ALA:N	2.25	0.68
25:BA:542:C:OP1	51:B5:16:ARG:NH2	2.26	0.68
25:BA:1067:A:H62	25:BA:1186:U:H3	1.41	0.68
2:CB:120:ALA:O	2:CB:122:PHE:N	2.26	0.68
9:CI:17:VAL:HG21	9:CI:81:ILE:HG22	1.74	0.68
1:AA:839:U:O2'	1:AA:840:C:OP1	2.09	0.68
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.75	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:D8:33:ASN:HA	54:D8:36:LYS:HD2	1.76	0.68
25:BA:2162:C:O2	25:BA:2173:G:N1	2.26	0.68
1:CA:1493:A:H2'	25:DA:1913:A:H61	1.59	0.68
20:CT:60:GLU:HG3	20:CT:81:LYS:HD2	1.75	0.68
25:DA:2121:G:H1	25:DA:2177:C:H42	1.41	0.68
25:BA:1218:G:O2'	25:BA:1219:A:O4'	2.10	0.68
1:CA:728:A:H2'	1:CA:729:A:C8	2.29	0.68
24:AY:76:A:N6	25:BA:2434:A:O4'	2.26	0.68
25:BA:2465:A:OP1	61:BA:4680:HOH:O	2.10	0.68
25:BA:303:C:H42	25:BA:385:G:H1	1.41	0.68
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.94	0.68
25:DA:2805:G:H2'	25:DA:2807:G:C8	2.28	0.68
25:BA:129:G:OP1	61:BA:4179:HOH:O	2.12	0.68
31:BH:86:GLU:OE2	31:BH:132:ARG:NH2	2.27	0.68
35:BP:86:LYS:HE3	35:BP:117:GLU:HB3	1.74	0.68
25:DA:2574:G:OP1	61:DA:4879:HOH:O	2.11	0.68
28:DE:36:ARG:HD3	28:DE:85:ASN:HD21	1.59	0.68
29:DF:184:TYR:CE2	29:DF:188:ARG:HD2	2.29	0.68
25:BA:1827:U:H2'	25:BA:1828:C:C6	2.28	0.68
1:CA:768:A:OP2	61:CA:4016:HOH:O	2.10	0.68
16:CP:9:PHE:CE1	16:CP:18:ARG:HD2	2.28	0.68
25:DA:2693:A:H2'	25:DA:2694:G:H8	1.57	0.68
28:DE:72:VAL:HA	28:DE:73:GLU:HB3	1.76	0.68
1:AA:1069:C:OP2	61:AA:4170:HOH:O	2.10	0.68
1:AA:517:G:N2	1:AA:533:A:OP2	2.25	0.68
1:CA:1007:C:O2	1:CA:1022:G:N1	2.22	0.68
20:CT:10:LEU:HD23	20:CT:12:ALA:HB2	1.75	0.68
31:DH:3:ARG:HH12	31:DH:5:GLY:N	1.91	0.68
2:AB:87:ARG:NH2	2:AB:220:ASP:OD1	2.24	0.67
1:CA:1502:A:H2	1:CA:1505:G:H1	1.42	0.67
25:DA:2138:C:N3	25:DA:2153:G:N2	2.38	0.67
1:AA:1030(A):G:O2'	1:AA:1030(C):G:N7	2.27	0.67
1:AA:67:C:H2'	1:AA:68:G:C8	2.29	0.67
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.27	0.67
25:DA:1658:C:OP1	61:DA:4482:HOH:O	2.11	0.67
25:BA:388:A:H2'	25:BA:389:G:C8	2.28	0.67
40:BU:76:TYR:OH	40:BU:92:ARG:NH1	2.27	0.67
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.74	0.67
1:CA:521:G:H4'	12:CL:73:GLU:HG2	1.77	0.67
25:DA:2010:G:N7	61:DA:4368:HOH:O	2.26	0.67
1:AA:79:G:C2	1:AA:90:U:O2	2.48	0.67
35:BP:65:ARG:HG3	54:B8:25:MET:HG3	1.77	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:195:ASP:O	8:AH:68:ARG:NH2	2.27	0.67
2:AB:212:GLN:NE2	2:AB:234:PRO:O	2.27	0.67
12:AL:70:ILE:HD13	12:AL:77:LEU:HD12	1.75	0.67
25:BA:2367:C:H1'	46:B0:39:ARG:HH21	1.59	0.67
4:CD:187:ARG:NH2	4:CD:193:ASP:OD2	2.27	0.67
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.60	0.67
25:BA:1491:A:N7	61:BA:4087:HOH:O	2.26	0.67
5:CE:148:VAL:HG21	8:CH:107:LEU:HD13	1.75	0.67
25:DA:987:G:O2'	25:DA:1000:A:N3	2.25	0.67
25:DA:1114:G:H2'	25:DA:1115:G:C8	2.29	0.67
39:DT:59:THR:HG23	39:DT:78:LEU:HB3	1.77	0.67
25:BA:206:G:OP2	61:BA:5041:HOH:O	2.13	0.67
1:CA:1273:G:H3'	1:CA:1274:G:H8	1.59	0.67
25:DA:2206:G:H3'	25:DA:2207:G:C8	2.29	0.67
25:DA:880:G:H22	25:DA:898:C:H1'	1.59	0.67
30:DG:11:TYR:HB2	30:DG:176:LEU:HD21	1.76	0.67
1:AA:1221:G:OP1	1:AA:1320:C:N4	2.22	0.67
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.77	0.67
25:DA:320:A:OP2	29:DF:137:LYS:NZ	2.25	0.67
4:AD:122:ARG:NH2	4:AD:134:ASP:OD1	2.28	0.67
9:AI:9:ARG:HG2	9:AI:14:VAL:HG13	1.77	0.67
26:BB:106:G:H5'	45:BZ:31:ARG:HG2	1.77	0.67
25:DA:956:G:H5''	36:DQ:77:LYS:HD2	1.77	0.67
13:CM:107:ALA:HB3	13:CM:111:LYS:HD2	1.74	0.66
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.95	0.66
1:CA:1005:A:O2'	1:CA:1037:C:O2'	2.12	0.66
25:DA:2062:A:OP1	61:DA:4140:HOH:O	2.11	0.66
1:AA:452:A:H4'	16:AP:72:ARG:NH1	2.10	0.66
25:BA:1431:G:O2'	25:BA:1442:U:O2	2.09	0.66
35:BP:88:LEU:HD11	35:BP:114:ILE:HD12	1.76	0.66
1:CA:532:A:O2'	1:CA:533:A:OP1	2.12	0.66
1:CA:974:A:OP2	14:CN:29:ARG:NH2	2.28	0.66
9:CI:17:VAL:HG23	9:CI:63:ILE:HG12	1.77	0.66
25:DA:2176:A:H2'	25:DA:2177:C:C6	2.31	0.66
25:DA:2323:G:O6	25:DA:2332:U:N3	2.18	0.66
26:DB:106:G:H5'	45:DZ:31:ARG:HG2	1.76	0.66
1:AA:991:U:O2'	1:AA:992:U:OP2	2.13	0.66
11:AK:48:ILE:HG21	11:AK:63:LEU:HB3	1.78	0.66
29:BF:53:THR:HG22	29:BF:55:GLY:H	1.60	0.66
1:CA:35:G:O2'	12:CL:118:SER:O	2.07	0.66
36:DQ:85:LYS:HG2	46:D0:7:LEU:HB3	1.76	0.66
25:DA:2126:A:H62	25:DA:2172:U:H5'	1.61	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:574:C:OP1	61:DA:4132:HOH:O	2.12	0.66
25:DA:2748:A:O2'	31:DH:63:SER:O	2.10	0.66
7:AG:9:VAL:O	7:AG:11:GLN:NE2	2.28	0.66
1:CA:782:A:OP1	61:CA:4023:HOH:O	2.12	0.66
1:CA:794:A:OP2	61:CA:4023:HOH:O	2.14	0.66
25:DA:1189:A:OP2	61:DA:4459:HOH:O	2.14	0.66
25:DA:1693:U:O2'	27:DD:14:ARG:NH2	2.28	0.66
25:DA:2162:G:H4'	25:DA:2172:U:H2'	1.75	0.66
1:AA:974:A:OP2	14:AN:41:ARG:NH1	2.28	0.66
3:AC:114:PRO:O	3:AC:118:GLN:NE2	2.29	0.66
1:AA:742:G:OP2	15:AO:35:ARG:NH2	2.29	0.66
3:AC:40:ARG:NH2	3:AC:55:VAL:O	2.28	0.66
46:B0:27:GLU:HG3	46:B0:68:GLU:HA	1.77	0.66
25:DA:1648:C:OP1	61:DA:4489:HOH:O	2.14	0.66
26:DB:84:C:OP1	49:D3:15:TYR:OH	2.12	0.66
1:AA:1027:C:C4	1:AA:1034:G:O6	2.49	0.66
28:BE:47:VAL:HG21	28:BE:86:PRO:HD2	1.78	0.66
38:BS:39:ILE:HB	38:BS:49:VAL:HG13	1.78	0.66
1:CA:316:G:OP2	1:CA:351:G:O2'	2.13	0.66
25:DA:2113:U:H3	25:DA:2170:A:H61	1.43	0.66
38:DS:49:VAL:HG23	38:DS:80:LEU:HD22	1.77	0.66
25:DA:1371:G:H2'	25:DA:1372:U:H5	1.60	0.66
28:DE:73:GLU:HG3	28:DE:73:GLU:O	1.95	0.66
34:DO:115:VAL:HG13	34:DO:121:VAL:HG21	1.76	0.66
30:BG:56:ALA:HA	30:BG:153:ARG:HH21	1.61	0.66
1:CA:1347:G:H5''	9:CI:107:ARG:HB3	1.78	0.66
48:D2:22:GLU:OE2	48:D2:68:ARG:NH2	2.29	0.66
43:DX:8:ILE:O	48:D2:36:ARG:NH2	2.28	0.66
45:DZ:72:ARG:NH2	45:DZ:97:GLU:O	2.25	0.66
2:CB:221:LEU:HD23	2:CB:224:GLN:HE22	1.59	0.65
4:CD:162:LEU:HD13	4:CD:181:MET:HG2	1.79	0.65
25:DA:2296:U:OP2	38:DS:9:ARG:NH2	2.28	0.65
39:DT:65:LYS:HE2	39:DT:67:SER:HB2	1.77	0.65
1:AA:1442:G:O2'	1:AA:1442(A):G:OP1	2.09	0.65
1:CA:815:A:N7	1:CA:1509:C:O2'	2.27	0.65
1:AA:1003:G:N2	1:AA:1004:A:N3	2.44	0.65
3:AC:11:ARG:NH2	3:AC:177:THR:O	2.29	0.65
25:DA:1418:G:OP2	61:DA:4396:HOH:O	2.13	0.65
3:AC:39:ILE:HG23	3:AC:91:LEU:HD11	1.78	0.65
25:BA:118:U:OP2	61:BA:4118:HOH:O	2.14	0.65
1:CA:1125:U:O2'	1:CA:1126:U:H2'	1.96	0.65
2:CB:201:ILE:HG21	2:CB:214:ILE:HG21	1.79	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2127:G:O6	25:DA:2161:C:N3	2.28	0.65
2:AB:87:ARG:CZ	2:AB:233:SER:HB3	2.27	0.65
3:AC:12:LEU:HD23	3:AC:16:ARG:HB3	1.77	0.65
25:BA:2122:G:H1	25:BA:2211:U:H3	0.73	0.65
25:DA:2638:G:OP2	28:DE:82:ARG:NH2	2.26	0.65
1:AA:1530:G:H2'	1:AA:1531:A:O4'	1.97	0.65
29:BF:51:THR:HB	29:BF:88:VAL:HG11	1.77	0.65
1:CA:1320:C:H5''	19:CS:70:LYS:HG3	1.78	0.65
2:AB:126:GLU:HG2	2:AB:127:ILE:HG12	1.78	0.65
16:AP:74:LEU:HG	16:AP:79:VAL:HG21	1.78	0.65
38:BS:15:ARG:O	38:BS:19:LYS:HG2	1.97	0.65
43:BX:35:THR:HG22	43:BX:38:GLU:H	1.61	0.65
41:DV:35:LEU:HB2	41:DV:57:VAL:HG23	1.79	0.65
25:BA:872:C:O2	35:BP:55:ARG:NH2	2.25	0.65
32:BI:3:VAL:HG12	32:BI:38:LEU:HA	1.79	0.65
25:BA:2495:C:N3	36:BQ:124:LYS:NZ	2.44	0.65
1:CA:1256:A:N6	1:CA:1278:U:H1'	2.11	0.65
1:CA:142:G:H2'	1:CA:143:A:C8	2.31	0.65
29:DF:103:LYS:HA	29:DF:106:ARG:HG3	1.78	0.65
25:BA:1299:A:OP1	61:BA:4949:HOH:O	2.14	0.65
6:CF:81:ILE:HD11	27:DD:125:ILE:HB	1.77	0.65
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.77	0.65
25:DA:1237:A:OP1	61:DA:4740:HOH:O	2.14	0.65
35:DP:95:VAL:HA	35:DP:99:LEU:HD21	1.77	0.65
25:DA:770:G:OP2	61:DA:4536:HOH:O	2.13	0.65
31:DH:9:ILE:HB	31:DH:50:VAL:HB	1.78	0.65
1:AA:1240:U:OP2	7:AG:116:ALA:N	2.27	0.64
57:AA:3191:PCY:H162	57:AA:3191:PCY:H25	1.62	0.64
25:BA:1815:A:OP2	61:BA:4761:HOH:O	2.15	0.64
25:BA:2122:G:O6	25:BA:2211:U:O4	2.15	0.64
50:B4:15:ILE:HG23	50:B4:21:VAL:HG22	1.79	0.64
2:CB:179:LYS:HA	8:CH:72:PRO:HG3	1.79	0.64
39:DT:95:ARG:HG2	39:DT:95:ARG:HH11	1.60	0.64
1:CA:1022:G:H2'	1:CA:1023:G:C8	2.32	0.64
2:CB:212:GLN:NE2	2:CB:234:PRO:O	2.30	0.64
5:CE:10:MET:N	5:CE:10:MET:SD	2.71	0.64
25:DA:2163:C:OP1	25:DA:2165:G:N2	2.30	0.64
45:DZ:153:SER:HB3	45:DZ:167:PRO:HB3	1.80	0.64
1:AA:1352:C:OP1	21:AU:3:LYS:NZ	2.24	0.64
4:AD:166:LYS:HA	4:AD:178:VAL:HG21	1.79	0.64
10:AJ:38:ILE:HD11	10:AJ:71:LEU:HD23	1.80	0.64
37:BR:104:ARG:HG3	37:BR:111:LEU:HD21	1.78	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:142:MET:HG3	3:CC:170:GLN:HB3	1.79	0.64
25:DA:994:C:O2'	25:DA:996:A:OP1	2.10	0.64
1:AA:79:G:C2	1:AA:90:U:C2	2.85	0.64
25:BA:2239:A:N7	61:BA:4799:HOH:O	2.29	0.64
25:BA:2658:C:OP2	25:BA:2745:G:O2'	2.12	0.64
41:BV:95:LEU:HD13	41:BV:97:LYS:HD3	1.79	0.64
29:DF:29:ASN:H	29:DF:112:MET:HE1	1.63	0.64
25:BA:139:A:H8	25:BA:1454:C:HO2'	1.45	0.64
25:BA:30:G:OP2	40:BU:5:LYS:NZ	2.30	0.64
1:CA:1023:G:H3'	1:CA:1024:G:H8	1.63	0.64
26:DB:76:G:N2	26:DB:101:G:O6	2.28	0.64
39:DT:16:ARG:NH2	39:DT:83:ILE:O	2.30	0.64
41:DV:40:LEU:HB2	41:DV:46:VAL:HG13	1.80	0.64
1:AA:1158:C:C4	1:AA:1160:G:C8	2.85	0.64
1:AA:310:G:OP2	16:AP:27:LYS:NZ	2.24	0.64
4:AD:187:ARG:NH1	4:AD:190:ASP:OD1	2.31	0.64
25:BA:610:C:OP2	35:BP:21:ARG:NH2	2.30	0.64
13:CM:37:THR:O	13:CM:55:ARG:NH1	2.28	0.64
25:DA:2125:G:H22	25:DA:2172:U:H5'	1.62	0.64
25:DA:1278:A:OP1	37:DR:36:THR:HG23	1.97	0.64
39:DT:50:ILE:HA	39:DT:99:LEU:HD12	1.79	0.64
4:AD:98:GLU:HG2	4:AD:189:PRO:HG2	1.78	0.64
25:BA:2442:A:N3	25:BA:2442:A:H2'	2.12	0.64
30:BG:41:GLN:HE22	30:BG:153:ARG:HB3	1.63	0.64
1:CA:1492:A:H2'	1:CA:1493:A:C5	2.33	0.64
25:DA:1814:G:O3'	27:DD:54:ARG:NH2	2.31	0.64
28:DE:59:VAL:HG21	28:DE:74:PRO:HB3	1.80	0.64
25:DA:997:G:OP1	40:DU:92:ARG:HG2	1.98	0.64
45:DZ:52:SER:OG	45:DZ:53:ILE:N	2.31	0.64
25:BA:1201:A:OP1	40:BU:55:ARG:HD3	1.98	0.64
26:DB:10:C:O2	26:DB:111:G:N2	2.19	0.64
27:DD:3:VAL:HG21	27:DD:203:ASN:HB2	1.80	0.64
1:CA:578:C:OP1	61:CA:4043:HOH:O	2.14	0.64
25:DA:2122:U:O4	25:DA:2176:A:N1	2.31	0.64
31:DH:59:ARG:O	31:DH:63:SER:OG	2.16	0.64
25:BA:1221:G:H1'	25:BA:1222:A:H5'	1.79	0.63
2:CB:19:HIS:HB2	2:CB:204:ASN:HB2	1.79	0.63
24:CY:76:A:O5'	61:DA:4895:HOH:O	2.14	0.63
25:BA:2113:U:O4	61:BA:4797:HOH:O	2.14	0.63
25:BA:2130:C:H42	25:BA:2203:G:H1	1.44	0.63
1:CA:532:A:H61	3:CC:193:TYR:HB3	1.62	0.63
2:CB:80:ILE:HD13	2:CB:211:ILE:HB	1.80	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2364:C:OP1	46:D0:55:ARG:NH1	2.31	0.63
14:CN:3:ARG:HB3	14:CN:3:ARG:HH21	1.63	0.63
25:DA:143:G:H4'	43:DX:35:THR:HG21	1.80	0.63
1:AA:1004:A:N6	1:AA:1036:G:N7	2.46	0.63
13:CM:96:LEU:O	13:CM:110:ARG:NH1	2.31	0.63
2:AB:16:HIS:HB3	2:AB:210:SER:CB	2.28	0.63
13:AM:65:LYS:NZ	50:B4:53:GLU:OE1	2.25	0.63
25:DA:2287:A:H62	25:DA:2344:U:H3	1.46	0.63
25:BA:611:U:H2'	25:BA:612:C:C6	2.34	0.63
20:CT:43:LEU:O	20:CT:47:GLY:N	2.25	0.63
25:BA:902:G:O2'	46:B0:27:GLU:OE2	2.13	0.63
25:BA:1890:A:N6	25:BA:1905:G:O2'	2.32	0.63
25:DA:1889:A:H2'	25:DA:1890:A:C8	2.34	0.63
2:AB:95:GLN:HG3	2:AB:147:LYS:HD3	1.81	0.63
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.34	0.63
1:CA:1218:C:OP2	14:CN:9:LYS:NZ	2.26	0.63
1:CA:444:C:H2'	1:CA:445:G:H8	1.62	0.63
1:CA:839:U:O2'	1:CA:840:C:OP1	2.16	0.63
28:DE:47:VAL:HG11	28:DE:86:PRO:HD2	1.80	0.63
32:DI:12:LEU:HD22	32:DI:19:VAL:HG21	1.81	0.63
37:DR:36:THR:HG22	37:DR:37:THR:H	1.63	0.63
2:AB:17:PHE:HD2	2:AB:44:LEU:HD21	1.64	0.63
22:AV:16:A:N6	23:AX:36:U:H3	1.96	0.63
25:BA:630:U:OP1	29:BF:102:PRO:HA	1.98	0.63
32:BI:92:VAL:HG11	32:BI:144:VAL:HG11	1.81	0.63
42:BW:14:PRO:HG2	42:BW:78:GLU:HG2	1.79	0.63
42:BW:4:LYS:HD3	42:BW:6:ILE:HD11	1.80	0.63
45:BZ:11:GLU:O	45:BZ:36:LYS:NZ	2.20	0.63
1:CA:142:G:H2'	1:CA:143:A:H8	1.63	0.63
38:BS:27:SER:HA	38:BS:88:ASP:HB3	1.80	0.62
1:CA:1279:A:O2'	1:CA:1282:C:N4	2.32	0.62
4:CD:61:LYS:NZ	4:CD:72:GLU:OE2	2.22	0.62
26:DB:45:A:O4'	30:DG:95:ARG:NH1	2.32	0.62
36:DQ:109:VAL:HG13	36:DQ:113:GLN:HB3	1.80	0.62
25:BA:2162:C:N3	25:BA:2173:G:O6	2.32	0.62
25:BA:591:U:O2'	61:BA:5137:HOH:O	2.15	0.62
36:BQ:54:MET:HG3	36:BQ:117:ALA:HB1	1.79	0.62
45:BZ:136:PHE:O	45:BZ:137:ILE:HG13	1.99	0.62
25:DA:1266:G:O5'	42:DW:15:ARG:NH2	2.32	0.62
40:BU:81:HIS:CE1	40:BU:85:LYS:HD2	2.33	0.62
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.32	0.62
16:CP:51:VAL:HG12	16:CP:53:VAL:H	1.63	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:72:VAL:HG13	28:DE:73:GLU:O	1.98	0.62
3:AC:152:ILE:HB	3:AC:199:LYS:HB2	1.80	0.62
25:BA:2297:C:OP2	52:B6:6:ARG:NH1	2.33	0.62
45:BZ:117:LEU:HD11	45:BZ:144:LEU:HD23	1.81	0.62
45:BZ:52:SER:OG	45:BZ:53:ILE:N	2.32	0.62
1:CA:1023:G:H3'	1:CA:1024:G:C8	2.35	0.62
1:CA:1029:C:N4	1:CA:1032:G:N1	2.33	0.62
1:CA:1127:G:H5'	1:CA:1280:A:O2'	2.00	0.62
5:CE:100:VAL:O	5:CE:107:ARG:NH2	2.32	0.62
12:CL:70:ILE:HG12	12:CL:100:ILE:HD12	1.79	0.62
25:DA:2070:G:OP2	61:DA:4726:HOH:O	2.16	0.62
25:DA:322:A:OP2	29:DF:169:ASN:HB2	1.98	0.62
35:DP:86:LYS:HB3	35:DP:118:GLY:HA3	1.81	0.62
1:AA:1145:C:H4'	1:AA:1146:A:H5'	1.80	0.62
1:AA:1521:G:N3	61:AA:4051:HOH:O	2.31	0.62
32:BI:93:THR:HG22	32:BI:119:PRO:HB3	1.82	0.62
25:BA:1185:C:O3'	33:BN:25:ARG:NH1	2.32	0.62
39:BT:53:ARG:NH1	39:BT:53:ARG:HB3	2.14	0.62
1:CA:998:G:N2	1:CA:1043:C:N3	2.43	0.62
1:CA:1157:A:H4'	1:CA:1158:C:O5'	1.99	0.62
1:CA:1179:A:H4'	9:CI:103:THR:HA	1.81	0.62
1:CA:1321:C:H5''	1:CA:1322:C:H2'	1.80	0.62
2:CB:128:GLU:OE1	2:CB:135:GLN:NE2	2.33	0.62
30:DG:41:GLN:HE22	30:DG:153:ARG:HB3	1.64	0.62
41:DV:5:VAL:HG11	41:DV:57:VAL:HG21	1.81	0.62
1:AA:221:C:H2'	1:AA:222:U:H6	1.63	0.62
15:AO:5:LYS:HE2	15:AO:5:LYS:H	1.63	0.62
25:BA:2579:G:H2'	25:BA:2580:C:C6	2.34	0.62
25:BA:602:G:H2'	25:BA:603:C:C6	2.34	0.62
1:CA:1063:C:OP2	1:CA:1064:G:O2'	2.18	0.62
26:DB:14:U:OP2	26:DB:70:C:O2'	2.15	0.62
1:AA:277:C:H5''	17:AQ:68:ARG:NH2	2.14	0.62
25:BA:1093:G:H2'	25:BA:1156:G:H1	1.65	0.62
30:BG:41:GLN:NE2	30:BG:154:GLY:O	2.33	0.62
1:CA:1392:G:H21	1:CA:1502:A:H8	1.48	0.62
10:CJ:38:ILE:HD11	10:CJ:71:LEU:HD23	1.82	0.62
25:DA:1557:C:OP2	25:DA:1558:A:O2'	2.17	0.62
25:DA:1653:G:H3'	37:DR:2:ARG:HD3	1.81	0.62
29:DF:157:VAL:HB	29:DF:194:MET:HG2	1.81	0.62
30:DG:108:ASN:HD22	50:D4:22:ILE:HG12	1.64	0.62
25:DA:2483:C:N3	36:DQ:124:LYS:NZ	2.47	0.62
40:DU:76:TYR:OH	40:DU:92:ARG:NH1	2.32	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1118:C:OP1	9:AI:104:ARG:NH1	2.32	0.62
1:AA:972:C:O2'	10:AJ:55:LYS:O	2.16	0.62
52:B6:6:ARG:NH1	52:B6:26:ASN:HB2	2.15	0.62
25:BA:2369:U:OP1	46:B0:20:ARG:NH1	2.32	0.62
34:BO:2:ILE:HD12	34:BO:6:THR:HG21	1.79	0.62
1:AA:79:G:C6	1:AA:90:U:N3	2.68	0.62
25:BA:2374:G:OP1	54:B8:44:LYS:NZ	2.28	0.62
25:BA:271:U:O2'	25:BA:273:G:N2	2.32	0.62
25:DA:1300:U:H4'	25:DA:1301:A:H5''	1.82	0.62
25:DA:2273:A:H2'	25:DA:2274:A:C8	2.35	0.62
1:AA:1314:C:OP1	19:AS:6:LYS:NZ	2.24	0.62
25:BA:1714:G:O2'	25:BA:2013:U:O4	2.14	0.62
1:CA:1003:G:H2'	1:CA:1004:A:O4'	2.00	0.62
1:CA:977:A:O2'	1:CA:981:U:N3	2.32	0.62
8:CH:4:ASP:OD2	8:CH:85:ARG:NH1	2.32	0.62
49:D3:8:LEU:HD13	49:D3:31:LEU:HD23	1.82	0.62
25:DA:2356:C:OP1	46:D0:24:LYS:NZ	2.28	0.62
32:DI:114:LEU:HD11	32:DI:128:LEU:HD13	1.82	0.62
1:AA:1158:C:N4	1:AA:1160:G:H8	1.97	0.61
5:AE:20:GLN:NE2	5:AE:21:ALA:O	2.33	0.61
1:AA:656:C:O2'	15:AO:28:GLN:NE2	2.33	0.61
49:B3:3:ARG:NH1	49:B3:60:GLU:OE2	2.33	0.61
25:BA:354:A:H2	25:BA:1255:A:HO2'	1.47	0.61
25:BA:2145:G:H2'	25:BA:2146:G:H8	1.65	0.61
31:BH:149:ARG:NH1	31:BH:167:GLU:OE2	2.32	0.61
3:CC:18:TRP:O	3:CC:21:ARG:NH1	2.31	0.61
19:CS:27:GLU:HG2	19:CS:47:HIS:NE2	2.15	0.61
25:DA:848:G:H2'	25:DA:849:A:C8	2.35	0.61
1:AA:79:G:N1	1:AA:90:U:C2	2.69	0.61
9:AI:3:GLN:HG2	9:AI:20:ARG:HE	1.65	0.61
2:CB:48:MET:HA	2:CB:51:LEU:HD12	1.82	0.61
9:CI:16:ARG:HB2	9:CI:64:THR:HB	1.82	0.61
25:DA:1033:U:OP1	55:D9:9:ARG:NH2	2.33	0.61
44:DY:23:ARG:HG2	44:DY:42:VAL:HG22	1.81	0.61
1:AA:1174:G:H2'	1:AA:1175:G:H8	1.63	0.61
25:BA:1211:U:H2'	25:BA:1212:C:C6	2.35	0.61
25:BA:671:A:H2'	25:BA:672:G:O4'	2.01	0.61
25:BA:83:A:H5''	44:BY:8:LYS:HE3	1.82	0.61
1:CA:1157:A:H5'	1:CA:1158:C:C6	2.36	0.61
25:DA:2166:G:N7	25:DA:2168:G:N2	2.45	0.61
25:DA:2314:C:H2'	25:DA:2315:G:C8	2.36	0.61
1:AA:1226:C:O2'	13:AM:111:LYS:NZ	2.32	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:48:ILE:H	11:AK:48:ILE:HD13	1.65	0.61
25:BA:2754:A:OP1	55:B9:22:ARG:NH2	2.21	0.61
3:CC:13:GLY:HA3	14:CN:57:ARG:HH21	1.63	0.61
25:DA:2167:U:O2'	25:DA:2168:G:N3	2.34	0.61
37:DR:21:TYR:CZ	37:DR:43:GLU:HG2	2.35	0.61
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.65	0.61
1:AA:439:A:C2	1:AA:496:A:C4	2.86	0.61
50:B4:48:ARG:NH1	50:B4:48:ARG:HA	2.16	0.61
1:CA:1166:G:N2	1:CA:1170:A:OP2	2.33	0.61
2:CB:125:PRO:O	2:CB:127:ILE:N	2.33	0.61
13:CM:54:VAL:HA	13:CM:57:ARG:HB3	1.82	0.61
18:CR:52:PRO:HB2	18:CR:54:ARG:HG2	1.81	0.61
25:DA:1762:A:N1	61:DA:4564:HOH:O	2.30	0.61
25:DA:2074:U:H2'	25:DA:2075:U:C6	2.35	0.61
25:DA:2114:A:N1	25:DA:2117:A:N6	2.49	0.61
1:AA:946:A:H2'	1:AA:947:G:C8	2.35	0.61
3:AC:62:ASP:HA	3:AC:97:LYS:HD3	1.81	0.61
25:BA:2348:A:H61	46:B0:43:THR:CG2	2.13	0.61
25:BA:1040:C:OP1	40:BU:53:ARG:NH2	2.34	0.61
25:DA:2147:G:C2	25:DA:2148:G:H1'	2.36	0.61
25:DA:2753:A:N3	55:D9:15:LYS:NZ	2.46	0.61
13:CM:13:LYS:NZ	13:CM:21:TYR:OH	2.34	0.61
25:DA:2646:C:OP2	25:DA:2732:G:O2'	2.18	0.61
25:BA:929:G:H22	25:BA:940:C:H42	1.48	0.61
1:CA:1051:C:H2'	1:CA:1052:U:C6	2.36	0.61
1:CA:56:U:H2'	1:CA:57:G:C8	2.36	0.61
25:DA:1231:G:H2'	25:DA:1232:G:H8	1.65	0.61
25:DA:1778:U:H2'	25:DA:1784:A:N6	2.15	0.61
27:DD:108:PRO:HB3	27:DD:143:HIS:CE1	2.35	0.61
42:DW:71:VAL:HA	42:DW:107:LEU:HD12	1.83	0.61
8:AH:112:LEU:HB3	8:AH:133:LEU:HA	1.81	0.61
25:BA:1076:G:OP2	36:BQ:128:LYS:NZ	2.33	0.61
25:BA:2255:U:H2'	25:BA:2256:U:C6	2.36	0.61
25:BA:965:G:N2	25:BA:2281:A:OP2	2.34	0.61
25:BA:934:A:O2'	25:BA:935:C:OP2	2.18	0.61
27:BD:132:PRO:HD3	27:BD:190:TYR:CZ	2.35	0.61
29:BF:20:LEU:HD22	29:BF:21:ALA:H	1.66	0.61
1:CA:410:G:OP1	4:CD:30:LYS:NZ	2.20	0.61
13:CM:33:ALA:O	13:CM:37:THR:OG1	2.15	0.61
31:DH:144:VAL:O	31:DH:148:ILE:HG12	2.00	0.61
25:BA:646:A:OP2	35:BP:108:LYS:NZ	2.33	0.61
13:CM:47:ASP:N	13:CM:47:ASP:OD2	2.34	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2661:G:H2'	25:DA:2662:A:C8	2.36	0.61
6:AF:97:PHE:N	18:AR:30:ASP:OD1	2.33	0.60
47:B1:50:ARG:HG2	47:B1:59:THR:HB	1.83	0.60
25:BA:1312:G:O5'	42:BW:15:ARG:NH2	2.34	0.60
25:BA:397:G:H5''	25:BA:450:A:N6	2.16	0.60
25:BA:70:A:N7	43:BX:31:HIS:HE1	1.99	0.60
1:CA:1235:U:O2'	1:CA:1305:G:OP1	2.16	0.60
11:CK:82:VAL:HB	11:CK:108:ILE:HG12	1.83	0.60
25:DA:1371:G:H2'	25:DA:1372:U:C5	2.36	0.60
27:DD:108:PRO:HG2	27:DD:111:LEU:HG	1.83	0.60
45:DZ:45:ASP:OD1	45:DZ:49:ARG:NH1	2.34	0.60
1:AA:1161:C:N3	1:AA:1175:G:N2	2.36	0.60
2:AB:163:PHE:HA	2:AB:185:ILE:HG13	1.83	0.60
45:BZ:145:GLU:O	45:BZ:148:ASP:N	2.26	0.60
3:CC:52:LEU:HD21	3:CC:55:VAL:HG23	1.82	0.60
29:DF:101:LEU:O	29:DF:106:ARG:NH1	2.30	0.60
1:AA:1103:C:OP1	2:AB:96:ARG:NH2	2.34	0.60
25:BA:1338:U:H2'	25:BA:1339:C:C6	2.37	0.60
1:CA:1381:U:H1'	7:CG:79:ARG:HD3	1.83	0.60
25:DA:1292:U:H2'	25:DA:1293:C:C6	2.36	0.60
25:DA:479:A:N3	25:DA:481:G:H5''	2.15	0.60
25:DA:588:U:H2'	25:DA:589:C:C6	2.35	0.60
25:DA:958:U:OP2	36:DQ:14:ARG:NH1	2.35	0.60
45:DZ:108:PRO:HG2	45:DZ:117:LEU:HD13	1.83	0.60
1:AA:1002:G:H3'	1:AA:1003:G:C8	2.36	0.60
5:CE:20:GLN:NE2	5:CE:21:ALA:O	2.35	0.60
19:CS:28:LYS:HB2	19:CS:29:ARG:CA	2.31	0.60
7:CG:50:ILE:HD11	7:CG:58:PRO:HA	1.82	0.60
7:CG:18:TYR:HB3	7:CG:59:LEU:HD13	1.83	0.60
8:CH:34:GLU:OE1	8:CH:37:ARG:NH1	2.35	0.60
25:DA:2125:G:N1	25:DA:2172:U:O5'	2.35	0.60
25:DA:2061:G:H5''	25:DA:2503:A:C2	2.36	0.60
1:AA:954:G:H21	1:AA:1227:A:H62	1.49	0.60
25:BA:1405:A:H2'	25:BA:1406:A:H5'	1.83	0.60
25:BA:1846:A:N1	61:BA:4015:HOH:O	2.30	0.60
1:AA:1020:U:H2'	1:AA:1021:G:H8	1.65	0.60
1:AA:1502:A:H2	1:AA:1505:G:N1	1.96	0.60
8:AH:10:LEU:HD22	8:AH:83:ILE:HD11	1.83	0.60
31:BH:56:SER:OG	31:BH:57:ASP:N	2.35	0.60
25:BA:997:G:OP1	36:BQ:16:ARG:NH2	2.35	0.60
5:CE:102:ALA:O	5:CE:107:ARG:NH1	2.35	0.60
1:AA:1052:U:H2'	1:AA:1055:A:OP2	2.01	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:97:G:O2'	1:AA:98:G:H5''	2.01	0.60
23:AX:8:4SU:H6	23:AX:8:4SU:O5'	2.01	0.60
25:BA:1899:A:H5'	25:BA:1900:G:OP2	2.02	0.60
30:BG:77:ILE:HG22	30:BG:80:PHE:H	1.65	0.60
31:BH:159:GLU:HG3	31:BH:169:VAL:HG11	1.84	0.60
32:BI:130:TYR:HB3	32:BI:138:ILE:HB	1.84	0.60
1:CA:977:A:HO2'	1:CA:981:U:H3	1.49	0.60
12:CL:70:ILE:HD13	12:CL:77:LEU:HD12	1.83	0.60
17:CQ:66:SER:O	17:CQ:70:ARG:NH1	2.34	0.60
25:DA:2109:U:H4'	25:DA:2149:G:H21	1.67	0.60
31:DH:38:SER:HB3	31:DH:41:MET:HG2	1.84	0.60
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.37	0.60
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.37	0.60
5:AE:57:LYS:HD3	5:AE:61:TYR:HE2	1.66	0.60
29:BF:157:VAL:HB	29:BF:194:MET:HG2	1.84	0.60
45:BZ:80:ARG:HB3	45:BZ:82:ARG:HG3	1.84	0.60
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.84	0.60
1:CA:757:U:H2'	1:CA:758:G:O4'	2.02	0.60
25:DA:153:C:OP2	47:D1:92:LYS:NZ	2.34	0.60
25:DA:807:U:OP2	35:DP:41:ARG:NH2	2.35	0.60
25:DA:2723:C:OP2	28:DE:109:LYS:NZ	2.35	0.60
25:DA:1041:C:OP1	45:DZ:46:LYS:NZ	2.35	0.60
1:AA:922:G:H4'	5:AE:20:GLN:HA	1.83	0.60
18:AR:26:LEU:HD21	18:AR:39:VAL:HG13	1.83	0.60
25:BA:1410:G:OP2	47:B1:3:LYS:HG3	2.02	0.60
26:BB:103:G:O2'	45:BZ:73:GLN:NE2	2.35	0.60
27:BD:12:SER:HB3	27:BD:208:LYS:HB3	1.84	0.60
1:CA:677:U:H3	1:CA:713:G:H22	1.50	0.60
3:CC:130:VAL:O	3:CC:134:ILE:HG12	2.02	0.60
25:DA:1028:A:N6	25:DA:1125:G:H2'	2.16	0.60
30:DG:41:GLN:NE2	30:DG:154:GLY:O	2.35	0.60
1:AA:1064:G:H4'	1:AA:1065:U:OP1	2.01	0.59
32:BI:103:ARG:HG2	32:BI:104:GLN:N	2.17	0.59
45:BZ:58:VAL:HG12	45:BZ:68:PRO:HA	1.82	0.59
1:CA:123:C:OP1	1:CA:311:C:O2'	2.17	0.59
1:CA:693:G:O6	57:CA:3176:PCY:N16	2.34	0.59
1:CA:396:G:O2'	1:CA:398:C:OP1	2.16	0.59
25:DA:2630:G:H2'	25:DA:2631:G:C8	2.37	0.59
12:AL:24:VAL:HG11	12:AL:27:LEU:HD22	1.85	0.59
1:CA:627:G:H2'	1:CA:628:G:H8	1.66	0.59
25:DA:307:G:N1	25:DA:310:A:OP2	2.35	0.59
25:DA:792:G:OP2	61:DA:4161:HOH:O	2.16	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DQ:32:TYR:OH	36:DQ:111:GLU:OE1	2.19	0.59
25:BA:173:C:H2'	25:BA:174:U:C6	2.37	0.59
1:CA:694:A:H62	57:CA:3176:PCY:H93	1.67	0.59
1:CA:692:U:O2'	1:CA:694:A:N7	2.33	0.59
2:CB:61:LEU:HD23	2:CB:68:ILE:HD11	1.83	0.59
25:DA:125:G:H5''	53:D7:19:ARG:HD3	1.83	0.59
25:DA:2134:A:H62	25:DA:2157:G:H4'	1.67	0.59
25:DA:2291:U:H2'	25:DA:2292:C:C6	2.37	0.59
25:DA:2648:C:H2'	25:DA:2649:U:C6	2.38	0.59
28:DE:111:ARG:HG3	28:DE:160:TYR:CD2	2.36	0.59
1:AA:629:G:H2'	1:AA:630:G:O4'	2.03	0.59
7:AG:62:PHE:HA	7:AG:124:LEU:HD22	1.84	0.59
10:AJ:27:ALA:HA	10:AJ:81:THR:HG21	1.85	0.59
19:AS:67:VAL:HB	50:B4:58:ARG:HB3	1.83	0.59
25:BA:1793:A:H2'	61:BA:5153:HOH:O	2.03	0.59
42:BW:69:LEU:HD13	42:BW:107:LEU:HD23	1.84	0.59
1:CA:448:A:P	1:CA:485:G:H22	2.26	0.59
1:CA:67:C:H2'	1:CA:68:G:C8	2.37	0.59
5:CE:12:LEU:HB3	5:CE:31:LEU:HB2	1.83	0.59
10:CJ:55:LYS:O	10:CJ:57:LYS:N	2.34	0.59
25:DA:1991:U:H2'	25:DA:1992:G:H5''	1.84	0.59
27:DD:242:ARG:N	27:DD:242:ARG:HD3	2.17	0.59
42:DW:34:ASN:OD1	42:DW:37:ARG:NH2	2.35	0.59
1:AA:411:A:OP1	4:AD:30:LYS:NZ	2.35	0.59
19:AS:9:VAL:HG21	50:B4:61:ARG:HH12	1.67	0.59
25:BA:1221:G:H1'	25:BA:1222:A:C5'	2.32	0.59
1:CA:1256:A:H61	1:CA:1278:U:H1'	1.66	0.59
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.37	0.59
2:CB:71:VAL:HA	2:CB:93:VAL:HG23	1.85	0.59
23:CX:8:4SU:O5'	23:CX:8:4SU:H6	2.02	0.59
25:DA:2127:G:N1	25:DA:2161:C:O2	2.28	0.59
43:DX:4:ALA:HB1	43:DX:42:ALA:HA	1.85	0.59
45:DZ:80:ARG:HB3	45:DZ:82:ARG:HG3	1.85	0.59
1:AA:1347:G:H5''	9:AI:107:ARG:HB3	1.84	0.59
7:AG:113:GLU:HG2	7:AG:119:ARG:HG2	1.84	0.59
10:AJ:30:SER:OG	10:AJ:84:GLN:NE2	2.36	0.59
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.84	0.59
25:BA:1219:A:H4'	25:BA:1220:U:OP1	2.01	0.59
25:BA:1700:G:H3'	37:BR:2:ARG:HD3	1.83	0.59
25:BA:53:G:O2'	53:B7:35:ARG:HD3	2.03	0.59
6:CF:30:LEU:O	6:CF:35:ALA:HB3	2.03	0.59
26:DB:5:C:H42	26:DB:116:G:H1	1.50	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DB:90:A:C5	26:DB:91:C:H1'	2.37	0.59
25:DA:1803:A:O2'	27:DD:259:THR:HG21	2.02	0.59
29:DF:110:LEU:HD21	29:DF:181:LEU:HG	1.84	0.59
1:AA:1414:U:H3	1:AA:1486:G:H1	1.50	0.59
20:AT:60:GLU:HG3	20:AT:81:LYS:HD2	1.83	0.59
25:BA:1613:A:OP1	27:BD:211:ARG:NH1	2.36	0.59
19:CS:53:ASN:HB2	19:CS:77:THR:HA	1.84	0.59
25:DA:2357:U:OP1	46:D0:20:ARG:NH1	2.36	0.59
25:DA:1600:C:OP1	43:DX:58:HIS:NE2	2.26	0.59
25:DA:2532:G:O2'	25:DA:2657:A:N1	2.35	0.59
25:DA:796:C:H2'	25:DA:797:C:C6	2.38	0.59
45:DZ:69:THR:HG22	45:DZ:90:VAL:HA	1.84	0.59
1:AA:1320:C:H5''	19:AS:70:LYS:HG3	1.84	0.59
25:BA:2163:G:C6	25:BA:2172:U:O2	2.56	0.59
25:BA:667:G:H21	25:BA:671:A:H2	1.50	0.59
1:CA:1015:A:N3	1:CA:1218:C:O2'	2.30	0.59
7:CG:22:LEU:HG	7:CG:62:PHE:CE2	2.38	0.59
25:DA:1021:A:H62	25:DA:1141:U:H3	1.50	0.59
25:DA:322:A:OP1	29:DF:168:ARG:HD2	2.02	0.59
34:DO:77:ILE:HB	39:DT:74:ARG:HD3	1.85	0.59
1:AA:1001:A:N1	1:AA:1040:U:O4	2.36	0.59
1:AA:1005:A:H5''	1:AA:1006:C:OP2	2.03	0.59
1:AA:671:G:H5'	6:AF:77:ARG:HH22	1.68	0.59
3:AC:20:SER:HB2	3:AC:40:ARG:HH12	1.67	0.59
25:BA:1074:A:N6	25:BA:1171:G:H2'	2.18	0.59
40:BU:3:ARG:HH12	40:BU:5:LYS:HD3	1.67	0.59
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.37	0.59
25:DA:1971:A:OP2	27:DD:242:ARG:NH2	2.33	0.59
1:AA:1075:C:OP1	2:AB:179:LYS:NZ	2.28	0.59
1:AA:144:G:H1	1:AA:178:C:H42	1.50	0.59
2:AB:137:ARG:CZ	2:AB:137:ARG:HB3	2.32	0.59
4:AD:178:VAL:HG12	4:AD:179:GLU:H	1.68	0.59
8:AH:41:ARG:NH2	8:AH:123:GLU:OE2	2.29	0.59
48:B2:65:ASN:OD1	48:B2:69:ARG:NH1	2.35	0.59
25:DA:299:A:N1	25:DA:322:A:O2'	2.32	0.59
25:DA:529:A:H62	25:DA:2041:U:H3	1.49	0.59
25:DA:607:U:OP1	29:DF:102:PRO:HA	2.03	0.59
29:DF:64:ILE:HG21	29:DF:78:ILE:HG23	1.85	0.59
25:BA:2416:C:O3'	35:BP:77:ARG:NH2	2.36	0.58
25:BA:918:U:OP1	36:BQ:5:ARG:HD3	2.02	0.58
25:BA:1785:C:OP1	39:BT:96:ARG:NH1	2.35	0.58
1:CA:26:A:N6	1:CA:558:G:O2'	2.35	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:104:VAL:HG11	4:CD:146:ILE:HD13	1.84	0.58
1:CA:947:G:O3'	13:CM:109:THR:OG1	2.20	0.58
25:DA:2693:A:H2'	25:DA:2694:G:C8	2.37	0.58
37:DR:67:LEU:HD22	37:DR:76:VAL:HG21	1.85	0.58
10:AJ:78:ASN:O	10:AJ:80:LYS:N	2.36	0.58
25:BA:121:G:OP2	61:BA:4119:HOH:O	2.16	0.58
25:BA:2490:A:OP2	55:B9:2:LYS:NZ	2.35	0.58
26:BB:77:U:OP1	45:BZ:19:ARG:NH2	2.36	0.58
35:DP:63:PRO:HG2	54:D8:25:MET:HB2	1.85	0.58
25:DA:1316:U:H2'	25:DA:1317:A:C8	2.38	0.58
31:DH:8:PRO:O	31:DH:69:ARG:NH1	2.36	0.58
2:AB:15:VAL:O	2:AB:16:HIS:ND1	2.37	0.58
1:AA:376:G:H4'	16:AP:5:ARG:HE	1.67	0.58
31:BH:11:VAL:HG21	31:BH:50:VAL:HG23	1.85	0.58
12:CL:33:ARG:HD3	12:CL:62:SER:HB3	1.83	0.58
25:DA:1038:C:H42	25:DA:1117:G:H1	1.50	0.58
25:DA:577:G:O2'	25:DA:1254:A:OP1	2.19	0.58
28:DE:174:ASP:OD1	28:DE:175:VAL:N	2.36	0.58
9:CI:49:PRO:HD2	9:CI:81:ILE:HD11	1.85	0.58
9:CI:85:LEU:HB3	9:CI:92:TYR:CD2	2.39	0.58
13:CM:85:GLY:HA2	13:CM:93:ARG:HH22	1.67	0.58
1:CA:974:A:P	14:CN:29:ARG:HH21	2.27	0.58
25:DA:1446:C:H42	25:DA:1465:G:H1	1.51	0.58
25:DA:2126:A:N6	25:DA:2162:G:HO2'	2.02	0.58
25:DA:2104:G:N2	25:DA:2185:C:N3	2.42	0.58
32:DI:40:THR:O	32:DI:44:LEU:HB2	2.02	0.58
34:DO:63:VAL:HG12	34:DO:106:LEU:HD11	1.85	0.58
45:DZ:129:SER:HB3	45:DZ:132:ASN:HB2	1.86	0.58
1:AA:139:G:N2	1:AA:224:C:O2	2.30	0.58
1:AA:501:C:OP1	12:AL:117:ARG:NH2	2.24	0.58
47:B1:3:LYS:HB2	47:B1:61:ARG:HH12	1.68	0.58
32:BI:27:ARG:HD2	47:B1:71:TYR:CE1	2.38	0.58
25:BA:1153:G:N2	25:BA:1154:U:O4	2.37	0.58
25:BA:989:G:O3'	61:BA:4867:HOH:O	2.17	0.58
41:BV:14:VAL:HB	41:BV:96:ILE:HG13	1.84	0.58
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.38	0.58
1:CA:148:G:H2'	1:CA:149:A:H8	1.68	0.58
25:DA:1800:C:OP2	27:DD:183:ARG:NH2	2.33	0.58
27:DD:206:LEU:HD22	27:DD:211:ARG:HG2	1.85	0.58
32:DI:117:GLU:HG3	32:DI:118:LYS:H	1.69	0.58
42:DW:14:PRO:HG2	42:DW:78:GLU:HG2	1.84	0.58
1:AA:693:G:C6	57:AA:3191:PCY:H25	2.39	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AR:31:LEU:H	18:AR:31:LEU:HD23	1.69	0.58
25:BA:1249:A:H61	25:BA:1286:U:H2'	1.69	0.58
25:DA:247:G:H4'	25:DA:386:G:C5	2.38	0.58
25:DA:539:G:H2'	25:DA:540:C:C6	2.39	0.58
1:AA:1202:G:O4'	14:AN:29:ARG:NH1	2.36	0.58
1:AA:262:A:H2'	1:AA:263:A:C8	2.37	0.58
10:AJ:65:LEU:HD13	14:AN:56:VAL:HG22	1.84	0.58
25:BA:1346:U:H4'	25:BA:1347:A:H5''	1.84	0.58
25:BA:313:A:N6	25:BA:375:G:O2'	2.37	0.58
30:BG:16:ARG:NE	30:BG:31:VAL:HG11	2.18	0.58
1:CA:45:U:H2'	1:CA:46:G:C8	2.39	0.58
3:CC:71:ALA:HA	3:CC:106:VAL:HB	1.86	0.58
25:DA:2327:A:H2'	25:DA:2328:A:C8	2.39	0.58
34:DO:120:GLU:HG2	34:DO:122:LEU:HG	1.84	0.58
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.19	0.58
2:AB:18:GLY:HA2	2:AB:42:ILE:HG13	1.85	0.58
12:AL:57:LYS:HD3	12:AL:67:THR:HG23	1.85	0.58
25:BA:139:A:H8	25:BA:1454:C:O2'	1.86	0.58
25:BA:904:C:OP1	46:B0:77:ARG:NH2	2.36	0.58
1:CA:598:U:H4'	8:CH:94:TYR:CD2	2.39	0.58
2:CB:95:GLN:HG3	2:CB:147:LYS:HD3	1.85	0.58
2:CB:155:LEU:HD21	2:CB:159:PRO:HG3	1.84	0.58
16:CP:23:ASP:OD2	16:CP:25:ARG:NH1	2.36	0.58
30:DG:151:ALA:HB3	30:DG:153:ARG:HH11	1.68	0.58
1:AA:1160:G:C5	1:AA:1161:C:H5	2.21	0.58
1:AA:1316:G:N1	1:AA:1319:A:OP2	2.35	0.58
25:BA:2745:G:H3'	25:BA:2746:A:O4'	2.04	0.58
32:BI:106:GLY:HA2	32:BI:107:VAL:O	2.03	0.58
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.38	0.58
1:CA:457:C:H42	1:CA:474:G:H1	1.51	0.58
1:CA:975:A:H5''	1:CA:1363(A):A:N6	2.19	0.58
2:CB:74:LYS:HG3	2:CB:77:ALA:HB3	1.84	0.58
25:DA:854:G:H2'	25:DA:855:G:C8	2.39	0.58
30:DG:3:LEU:HD13	50:D4:25:TYR:CZ	2.39	0.58
1:AA:589:C:C2'	1:AA:590:C:H5'	2.34	0.58
9:AI:85:LEU:HB3	9:AI:92:TYR:HD2	1.69	0.58
25:BA:1154:U:O2'	25:BA:1155:C:O4'	2.22	0.58
25:BA:325:G:OP2	44:BY:84:ARG:NH2	2.37	0.58
1:CA:997:U:H3	1:CA:1044:A:H61	1.52	0.58
3:CC:20:SER:HB2	3:CC:40:ARG:HH12	1.67	0.58
25:DA:1325:G:OP1	25:DA:1647:G:O2'	2.11	0.58
25:DA:492:A:H2'	25:DA:493:G:O4'	2.04	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2303:G:O2'	30:DG:132:ASN:HB2	2.04	0.58
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.85	0.57
2:AB:8:LYS:HG2	2:AB:9:GLU:H	1.68	0.57
11:AK:99:GLN:HG2	11:AK:105:VAL:HG21	1.86	0.57
25:BA:1053:C:OP1	33:BN:37:LYS:NZ	2.37	0.57
25:BA:469:A:H1'	25:BA:1246:C:O4'	2.04	0.57
27:BD:148:GLU:HB2	27:BD:151:LYS:HD2	1.86	0.57
25:BA:346:A:OP1	29:BF:168:ARG:HD2	2.04	0.57
32:BI:68:LEU:HD11	32:BI:109:ILE:HD11	1.86	0.57
1:CA:36:C:O2'	12:CL:117:ARG:NH2	2.37	0.57
4:AD:49:ARG:HE	4:AD:49:ARG:H	1.50	0.57
5:AE:81:GLU:HG2	5:AE:90:VAL:HG13	1.86	0.57
28:BE:14:ILE:HD11	28:BE:173:VAL:HG11	1.86	0.57
25:DA:1342:A:O2'	25:DA:1344:G:OP2	2.15	0.57
25:DA:2570:G:O6	61:DA:4792:HOH:O	2.17	0.57
25:DA:2880:C:O3'	37:DR:90:ARG:NH1	2.37	0.57
25:DA:637:A:H8	35:DP:117:GLU:HG3	1.69	0.57
28:DE:127:ASP:OD2	61:DE:409:HOH:O	2.17	0.57
36:DQ:22:LYS:O	45:DZ:78:LYS:NZ	2.29	0.57
1:AA:123:C:OP1	1:AA:311:C:O2'	2.19	0.57
1:AA:964:A:OP1	61:AA:4146:HOH:O	2.17	0.57
4:CD:88:VAL:HG22	5:CE:96:PRO:HB2	1.85	0.57
19:CS:52:TYR:HB2	19:CS:57:HIS:CE1	2.39	0.57
1:AA:1020:U:H2'	1:AA:1021:G:C8	2.39	0.57
1:AA:1173:G:C2'	1:AA:1174:G:H5'	2.34	0.57
1:AA:1239:A:H62	1:AA:1299:A:N6	2.02	0.57
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.40	0.57
1:AA:649:G:H2'	1:AA:650:G:H8	1.68	0.57
9:AI:23:ASN:ND2	9:AI:25:LYS:HG2	2.19	0.57
6:AF:99:ALA:HB1	18:AR:23:LYS:HE2	1.86	0.57
25:BA:1736:A:H62	25:BA:1745:A:H2	1.51	0.57
25:BA:2701:U:H4'	25:BA:2702:C:H5'	1.85	0.57
26:BB:33:G:H5'	30:BG:2:PRO:HD3	1.86	0.57
5:CE:31:LEU:HD22	5:CE:43:LEU:HD11	1.86	0.57
23:CX:23:C:H2'	23:CX:24:U:C6	2.39	0.57
25:DA:566:U:H5''	35:DP:29:LYS:HE3	1.86	0.57
27:DD:142:VAL:HG22	27:DD:193:VAL:HA	1.85	0.57
38:DS:84:GLN:H	38:DS:111:GLU:HB2	1.68	0.57
1:AA:76:C:N4	1:AA:93:G:H1	1.98	0.57
16:AP:53:VAL:HG13	16:AP:79:VAL:HG22	1.85	0.57
25:BA:2594:G:OP2	61:BA:4493:HOH:O	2.17	0.57
25:BA:572:A:O2'	25:BA:573:G:OP1	2.23	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BB:102:A:N7	61:BB:315:HOH:O	2.32	0.57
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.86	0.57
2:CB:178:ARG:NH1	2:CB:196:LEU:O	2.38	0.57
25:DA:2879:C:OP2	61:DA:4411:HOH:O	2.17	0.57
25:DA:41:C:H2'	25:DA:42:G:H8	1.69	0.57
25:DA:852:G:H2'	25:DA:853:G:C8	2.39	0.57
1:AA:1239:A:H62	1:AA:1299:A:H62	1.52	0.57
1:AA:1060:C:C5	3:AC:2:GLY:HA3	2.39	0.57
15:AO:25:THR:HG21	15:AO:70:LEU:HB2	1.85	0.57
1:CA:1150:U:O4	1:CA:1151:A:N6	2.37	0.57
4:CD:30:LYS:HA	4:CD:35:ARG:HD2	1.85	0.57
9:CI:85:LEU:HB3	9:CI:92:TYR:HD2	1.69	0.57
11:CK:22:HIS:HB3	11:CK:29:ILE:HB	1.87	0.57
25:DA:1588:C:H2'	25:DA:1589:C:C6	2.39	0.57
25:DA:643:A:N1	25:DA:2369:A:O2'	2.37	0.57
25:DA:1012:U:H5	33:DN:28:THR:HG21	1.70	0.57
1:AA:682:G:H1	1:AA:708:C:H42	1.53	0.57
2:AB:18:GLY:O	2:AB:19:HIS:HB3	2.04	0.57
9:AI:13:ALA:HB2	9:AI:68:GLY:HA3	1.86	0.57
47:B1:23:LYS:HB3	47:B1:29:GLY:HA3	1.86	0.57
3:CC:180:ALA:HB1	3:CC:203:PHE:HE1	1.69	0.57
13:CM:68:GLY:HA3	30:DG:116:ASP:OD1	2.04	0.57
25:DA:2113:U:H3	25:DA:2170:A:N6	2.02	0.57
24:CY:76:A:N3	25:DA:2394:C:N4	2.52	0.57
25:DA:2557:G:H2'	25:DA:2558:C:C6	2.39	0.57
25:DA:323:G:O2'	25:DA:1205:U:N3	2.35	0.57
25:DA:842:G:N7	61:DA:4699:HOH:O	2.32	0.57
26:DB:44:G:OP1	30:DG:98:ARG:NH2	2.36	0.57
28:DE:36:ARG:HG2	28:DE:47:VAL:HG12	1.86	0.57
2:AB:10:LEU:O	2:AB:12:GLU:N	2.36	0.57
23:AX:23:C:H2'	23:AX:24:U:C6	2.39	0.57
32:BI:93:THR:OG1	32:BI:96:ASP:OD1	2.17	0.57
1:CA:737:A:H1'	6:CF:73:ASN:HD21	1.69	0.57
22:CV:16:A:N1	23:CX:36:U:O2	2.38	0.57
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.40	0.57
15:AO:11:VAL:HG21	15:AO:34:LEU:HD22	1.85	0.57
44:BY:5:MET:HE1	44:BY:32:PRO:HA	1.86	0.57
1:CA:1239:A:H4'	1:CA:1240:U:H5''	1.86	0.57
1:CA:76:C:N4	1:CA:93:G:H1	2.03	0.57
7:CG:22:LEU:HG	7:CG:62:PHE:HE2	1.69	0.57
9:CI:21:PRO:HA	9:CI:59:PHE:HA	1.86	0.57
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.87	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:28:LYS:HB3	19:CS:28:LYS:HZ2	1.69	0.57
52:D6:10:LEU:HD23	52:D6:22:ALA:HB2	1.87	0.57
25:DA:2079:U:O3'	47:D1:35:THR:OG1	2.23	0.57
25:DA:2721:A:OP1	61:DA:4144:HOH:O	2.16	0.57
25:DA:889:C:H2'	25:DA:890:A:O4'	2.04	0.57
27:DD:10:THR:OG1	27:DD:13:ARG:HG2	2.05	0.57
1:AA:992:U:O2	1:AA:1043:C:N4	2.38	0.57
1:AA:1162:C:N3	1:AA:1174:G:N2	2.43	0.57
8:AH:39:LEU:HB3	8:AH:45:ILE:HG12	1.87	0.57
25:BA:2825:C:H5'	51:B5:29:THR:HG21	1.87	0.57
28:BE:174:ASP:OD1	28:BE:175:VAL:N	2.38	0.57
33:BN:94:HIS:HB3	33:BN:97:ARG:HD3	1.87	0.57
1:CA:1051:C:H2'	1:CA:1052:U:H6	1.70	0.57
1:CA:583:A:N6	1:CA:758:G:O2'	2.38	0.57
2:CB:161:ALA:HB1	2:CB:185:ILE:HD11	1.86	0.57
6:CF:24:GLU:HG3	6:CF:28:ARG:NH1	2.19	0.57
50:D4:62:ARG:O	50:D4:64:GLY:N	2.38	0.57
25:DA:2139:C:H42	25:DA:2152:G:H1	1.51	0.57
25:DA:2543:G:H2'	25:DA:2544:G:C8	2.40	0.57
43:DX:32:PRO:HA	43:DX:77:LYS:HD2	1.87	0.57
1:AA:1305:G:N2	1:AA:1331:G:H1'	2.19	0.56
10:AJ:55:LYS:O	10:AJ:57:LYS:N	2.37	0.56
45:BZ:111:VAL:C	45:BZ:113:ALA:H	2.07	0.56
45:BZ:41:LEU:HD21	45:BZ:83:PRO:HG2	1.85	0.56
1:CA:145:G:H1	1:CA:177:C:H42	1.52	0.56
1:CA:524:G:O5'	1:CA:524:G:H8	1.87	0.56
1:CA:826:C:H2'	1:CA:827:U:C6	2.40	0.56
29:DF:11:VAL:HB	29:DF:18:ARG:HB3	1.85	0.56
13:AM:92:HIS:CE1	13:AM:98:VAL:HG11	2.40	0.56
51:B5:16:ARG:HG2	51:B5:16:ARG:HH11	1.69	0.56
25:BA:1091:A:OP1	25:BA:1091:A:H4'	2.06	0.56
25:BA:1071:G:C4	25:BA:1180:C:H1'	2.40	0.56
25:BA:1503:G:OP2	61:BA:4135:HOH:O	2.16	0.56
25:BA:2163:G:H1	25:BA:2171:G:N2	2.02	0.56
25:BA:2545:A:H2'	25:BA:2546:A:O4'	2.06	0.56
25:BA:9:U:H3	25:BA:2641:A:H2	1.52	0.56
1:CA:559:A:OP1	5:CE:126:ARG:NH2	2.37	0.56
1:CA:572:A:OP1	61:CA:4039:HOH:O	2.17	0.56
49:D3:46:ASN:O	49:D3:50:VAL:HG22	2.05	0.56
25:DA:1588:C:H2'	25:DA:1589:C:H6	1.70	0.56
25:DA:2331:G:O2'	25:DA:2336:A:N1	2.28	0.56
31:DH:3:ARG:HB3	31:DH:3:ARG:HH11	1.71	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DR:21:TYR:OH	37:DR:43:GLU:HG2	2.05	0.56
1:AA:1238:A:OP2	61:AA:4121:HOH:O	2.18	0.56
9:AI:3:GLN:OE1	9:AI:20:ARG:NH2	2.37	0.56
51:B5:16:ARG:HD2	51:B5:20:ARG:NH1	2.20	0.56
25:BA:1033:G:O2'	25:BA:1046:A:N3	2.36	0.56
25:BA:2023:A:H2'	25:BA:2024:G:C8	2.40	0.56
30:BG:3:LEU:HD12	30:BG:5:VAL:HG12	1.87	0.56
1:CA:1179:A:H2'	1:CA:1180:A:O4'	2.06	0.56
25:DA:647:G:H8	25:DA:647:G:O5'	1.88	0.56
1:AA:1033:G:H2'	1:AA:1034:G:C8	2.35	0.56
1:AA:1053:G:N2	61:AA:4025:HOH:O	2.39	0.56
1:AA:1183:A:H5''	1:AA:1183:A:C8	2.39	0.56
1:AA:167:G:H2'	1:AA:168:G:H8	1.69	0.56
6:AF:60:PHE:HE2	18:AR:76:LEU:HD12	1.70	0.56
1:AA:707:C:OP1	11:AK:85:ARG:NH1	2.39	0.56
17:AQ:66:SER:O	17:AQ:70:ARG:NH1	2.38	0.56
31:BH:56:SER:HB3	31:BH:61:HIS:ND1	2.20	0.56
1:CA:345:C:OP2	39:DT:39:ARG:NH2	2.36	0.56
1:CA:664:G:N2	1:CA:741:G:H1	2.02	0.56
25:DA:2744:G:N2	31:DH:143:GLN:OE1	2.39	0.56
28:DE:116:VAL:HG13	28:DE:122:PHE:HB2	1.86	0.56
30:DG:16:ARG:O	30:DG:20:ILE:HG13	2.04	0.56
32:DI:130:TYR:HB3	32:DI:138:ILE:HB	1.87	0.56
35:DP:82:GLY:HA2	35:DP:113:LYS:O	2.05	0.56
29:BF:53:THR:CG2	29:BF:55:GLY:H	2.18	0.56
36:BQ:16:ARG:HG3	36:BQ:17:LEU:H	1.71	0.56
37:BR:21:TYR:OH	37:BR:43:GLU:HG2	2.05	0.56
45:BZ:111:VAL:O	45:BZ:113:ALA:N	2.35	0.56
2:CB:8:LYS:HD2	2:CB:9:GLU:H	1.71	0.56
5:CE:140:ARG:O	5:CE:143:ARG:NH2	2.38	0.56
7:CG:111:ARG:HD2	7:CG:123:GLU:HB2	1.88	0.56
35:DP:50:ARG:HD3	54:D8:7:HIS:CD2	2.39	0.56
25:DA:1946:U:H2'	25:DA:1947:C:C6	2.40	0.56
25:DA:572:A:H5''	25:DA:573:G:OP2	2.05	0.56
39:DT:27:THR:HB	39:DT:89:VAL:HG22	1.88	0.56
43:DX:31:HIS:CD2	43:DX:33:LYS:HB2	2.40	0.56
1:AA:445:G:H2'	1:AA:446:G:C8	2.40	0.56
2:AB:80:ILE:HD11	2:AB:212:GLN:HA	1.88	0.56
4:AD:188:LEU:H	4:AD:188:LEU:HD23	1.70	0.56
20:AT:86:ARG:O	20:AT:90:GLN:NE2	2.39	0.56
27:BD:132:PRO:HG2	27:BD:135:PHE:CD2	2.41	0.56
1:CA:839:U:H3'	1:CA:840:C:C5	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:91:ARG:HB2	13:CM:98:VAL:HG13	1.86	0.56
25:DA:500:G:N1	25:DA:503:A:OP2	2.37	0.56
26:DB:13:A:N1	26:DB:69:G:O2'	2.31	0.56
32:DI:72:LEU:HD21	32:DI:107:VAL:HG11	1.86	0.56
1:AA:814:A:H2'	1:AA:816:A:H5''	1.87	0.56
25:BA:139:A:C8	25:BA:1454:C:O2'	2.59	0.56
25:BA:287:G:H4'	25:BA:288:U:H5''	1.87	0.56
29:BF:116:ASP:OD1	29:BF:119:ARG:NH2	2.39	0.56
45:BZ:45:ASP:OD2	45:BZ:49:ARG:NH1	2.38	0.56
1:CA:1028:C:C2	1:CA:1033:G:N1	2.74	0.56
1:CA:589:C:C2'	1:CA:590:C:H5'	2.36	0.56
9:CI:97:LYS:HA	9:CI:102:LEU:HG	1.87	0.56
25:DA:1639:U:H2'	25:DA:1640:C:H5''	1.88	0.56
25:DA:2429:G:OP2	61:DA:4569:HOH:O	2.18	0.56
26:DB:48:A:H4'	38:DS:95:HIS:HD2	1.71	0.56
35:DP:100:LEU:HD12	35:DP:112:LEU:HD11	1.87	0.56
25:DA:2708:G:H1'	37:DR:71:GLN:HE22	1.70	0.56
40:DU:97:ASP:OD1	40:DU:101:ARG:HD2	2.05	0.56
1:AA:56:U:H2'	1:AA:57:G:C8	2.41	0.56
25:BA:1827:U:H2'	25:BA:1828:C:H6	1.70	0.56
25:BA:1834:A:O2'	27:BD:259:THR:HG21	2.05	0.56
25:BA:354:A:H2	25:BA:1255:A:O2'	1.89	0.56
25:BA:934:A:H4'	25:BA:935:C:H5	1.71	0.56
1:CA:1318:A:OP1	19:CS:3:ARG:NH1	2.39	0.56
1:CA:426:G:OP1	4:CD:38:TYR:OH	2.12	0.56
1:AA:193:C:H2'	1:AA:194:C:H6	1.71	0.56
1:AA:1292:U:P	7:AG:41:ARG:HH22	2.29	0.56
50:B4:44:THR:O	50:B4:46:GLN:N	2.39	0.56
25:BA:1466:U:O2'	25:BA:1467:G:OP1	2.24	0.56
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.21	0.56
1:CA:1367:C:H4'	10:CJ:48:THR:HG21	1.86	0.56
25:DA:1316:U:H2'	25:DA:1317:A:H8	1.69	0.56
25:DA:299:A:H5''	44:DY:86:ARG:HH21	1.69	0.56
26:DB:29:A:O2'	26:DB:58:A:N1	2.32	0.56
25:DA:301:G:OP2	44:DY:84:ARG:NH2	2.39	0.56
43:BX:57:LEU:CD1	43:BX:78:LYS:HG2	2.36	0.56
23:CX:40:C:H2'	23:CX:41:C:H6	1.69	0.56
47:D1:23:LYS:HB3	47:D1:29:GLY:HA3	1.87	0.56
25:DA:635:C:O2'	25:DA:639:U:OP1	2.22	0.56
29:DF:192:LEU:HD22	29:DF:194:MET:HG3	1.87	0.56
1:AA:1027:C:N3	1:AA:1034:G:O6	2.38	0.56
25:BA:1500:A:OP2	61:BA:4134:HOH:O	2.18	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2331:G:H22	38:BS:3:ARG:NE	2.04	0.56
40:BU:76:TYR:CZ	40:BU:80:ILE:HG13	2.40	0.56
1:CA:160:A:H61	1:CA:347:G:H1'	1.70	0.56
1:CA:489:C:H2'	1:CA:490:G:H8	1.71	0.56
11:CK:110:ASP:HB3	18:CR:85:LEU:HB3	1.88	0.56
1:CA:719:C:O2'	18:CR:49:LYS:HB3	2.05	0.56
20:CT:16:HIS:O	20:CT:19:SER:OG	2.20	0.56
23:CX:23:C:H2'	23:CX:24:U:H6	1.71	0.56
25:DA:2165:G:N2	25:DA:2172:U:O4	2.38	0.56
25:DA:816:C:O2'	25:DA:932:G:O6	2.19	0.56
25:DA:952:G:OP1	36:DQ:16:ARG:NH2	2.39	0.56
44:DY:43:ASN:CG	44:DY:65:ALA:HB3	2.26	0.56
10:AJ:61:GLU:OE1	14:AN:58:LYS:NZ	2.34	0.55
25:BA:1541:A:H2'	25:BA:1542:A:C8	2.42	0.55
25:BA:191:U:OP1	61:BA:4909:HOH:O	2.18	0.55
25:BA:2188:G:N7	25:BA:2190:G:N2	2.54	0.55
30:BG:131:TYR:HB3	30:BG:159:VAL:HG13	1.88	0.55
32:BI:104:GLN:O	32:BI:106:GLY:N	2.34	0.55
1:CA:1305:G:O2'	1:CA:1331:G:N2	2.38	0.55
3:CC:157:ILE:HD12	3:CC:164:ARG:HB3	1.87	0.55
25:DA:1913:A:H4'	25:DA:1914:C:C5'	2.36	0.55
1:AA:757:U:H2'	1:AA:758:G:O4'	2.06	0.55
2:AB:178:ARG:HG2	8:AH:72:PRO:HA	1.88	0.55
4:AD:65:ARG:HG2	4:AD:75:PHE:CD2	2.40	0.55
25:BA:1451:U:H2'	25:BA:1452:U:C6	2.42	0.55
25:BA:2858:G:C8	39:BT:97:ALA:HB2	2.40	0.55
27:BD:147:LEU:HD13	27:BD:155:LEU:HD21	1.87	0.55
1:CA:1063:C:H3'	1:CA:1064:G:H2'	1.87	0.55
1:CA:646:U:H2'	1:CA:647:C:C6	2.42	0.55
12:CL:33:ARG:HG2	12:CL:60:LEU:HD12	1.89	0.55
18:CR:26:LEU:HD12	18:CR:27:GLY:H	1.71	0.55
29:DF:53:THR:HG22	29:DF:56:GLU:HG3	1.88	0.55
1:AA:134:A:H61	16:AP:25:ARG:HH12	1.54	0.55
1:AA:439:A:C2	1:AA:496:A:H1'	2.41	0.55
2:AB:213:LEU:HD22	2:AB:214:ILE:HD13	1.88	0.55
25:BA:553:A:C2	25:BA:2065:C:H4'	2.42	0.55
1:CA:1173:G:H2'	1:CA:1174:G:C8	2.41	0.55
2:CB:55:PHE:HA	2:CB:58:ILE:HB	1.88	0.55
13:CM:58:GLU:O	13:CM:62:ASN:ND2	2.38	0.55
21:CU:5:ASP:O	21:CU:11:GLY:HA3	2.06	0.55
46:D0:27:GLU:HG3	46:D0:68:GLU:HA	1.89	0.55
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.41	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DO:68:GLU:OE2	34:DO:78:ARG:NH1	2.39	0.55
1:AA:1442:G:HO2'	1:AA:1442(A):G:P	2.29	0.55
35:BP:63:PRO:HD3	54:B8:27:THR:HG22	1.88	0.55
25:BA:1735:U:O2	25:BA:1747:A:H5'	2.07	0.55
25:BA:956:A:H62	36:BQ:12:GLN:HA	1.72	0.55
43:BX:11:PRO:HB3	43:BX:92:LEU:HD11	1.88	0.55
1:CA:1286:A:C8	1:CA:1287:A:H4'	2.41	0.55
17:CQ:26:GLN:HG2	17:CQ:37:LYS:HG2	1.87	0.55
25:DA:194:G:H2'	25:DA:195:A:O4'	2.06	0.55
25:DA:764:A:H5'	27:DD:210:GLY:HA2	1.87	0.55
1:AA:114:U:H1'	1:AA:353:A:H1'	1.89	0.55
3:AC:6:HIS:HD2	3:AC:8:ILE:H	1.53	0.55
28:BE:11:MET:HG2	28:BE:24:THR:HB	1.89	0.55
25:BA:878:G:N2	35:BP:53:GLY:O	2.39	0.55
35:BP:59:LEU:HD23	54:B8:58:ILE:HD13	1.88	0.55
44:BY:7:VAL:HG21	44:BY:72:VAL:HG12	1.89	0.55
1:CA:1093:A:H2'	1:CA:1095:U:H5'	1.87	0.55
1:CA:596:C:N3	1:CA:644:G:N1	2.43	0.55
1:CA:833:U:H2'	1:CA:834:C:C6	2.41	0.55
1:CA:1074:G:OP1	5:CE:64:ARG:NH2	2.40	0.55
15:CO:54:ARG:O	15:CO:58:MET:HG3	2.07	0.55
25:DA:2369:A:H2'	25:DA:2370:G:H8	1.71	0.55
25:DA:41:C:H2'	25:DA:42:G:C8	2.41	0.55
30:DG:170:ARG:HH21	30:DG:180:PHE:HB2	1.71	0.55
31:DH:3:ARG:HH12	31:DH:5:GLY:H	1.51	0.55
9:AI:24:GLY:HA2	9:AI:59:PHE:O	2.06	0.55
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.70	0.55
28:BE:29:GLY:HA3	61:BE:405:HOH:O	2.06	0.55
25:BA:709:G:H5''	35:BP:16:ARG:HG2	1.89	0.55
51:D5:16:ARG:HG2	51:D5:16:ARG:NH1	2.22	0.55
27:DD:108:PRO:HB3	27:DD:143:HIS:HE1	1.70	0.55
31:DH:56:SER:OG	31:DH:57:ASP:N	2.38	0.55
1:AA:1399:C:C2	1:AA:1502:A:N6	2.74	0.55
1:AA:627:G:H2'	1:AA:628:G:C8	2.36	0.55
3:AC:56:ASP:HB2	3:AC:67:THR:HB	1.88	0.55
4:AD:18:LYS:HG2	58:AD:501:SF4:S1	2.47	0.55
25:BA:1219:A:H1'	25:BA:1220:U:H5''	1.88	0.55
25:BA:2212:G:H2'	25:BA:2213:G:O4'	2.07	0.55
25:BA:2804:C:H2'	25:BA:2805:G:H8	1.70	0.55
39:BT:127:ALA:O	39:BT:129:ARG:N	2.40	0.55
1:CA:1134:G:H1	1:CA:1140:C:H42	1.55	0.55
1:CA:959:A:HO2'	1:CA:984:C:HO2'	1.49	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D6:13:CYS:SG	52:D6:47:THR:HG21	2.47	0.55
25:DA:1614:A:H8	25:DA:1614:A:P	2.30	0.55
25:DA:2126:A:H2	25:DA:2127:G:N3	2.05	0.55
25:DA:2184:G:H2'	25:DA:2185:C:H5'	1.88	0.55
25:DA:39:C:O2	29:DF:46:ARG:NH2	2.39	0.55
31:DH:154:PRO:HB3	31:DH:163:TYR:CZ	2.42	0.55
1:AA:1030(D):A:H62	1:AA:1031:G:H21	1.54	0.55
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.42	0.55
1:AA:201:C:N4	1:AA:216:G:H1	1.99	0.55
1:AA:621:A:H2'	1:AA:622:A:C8	2.41	0.55
17:AQ:27:PHE:CZ	17:AQ:36:ILE:HD11	2.42	0.55
25:BA:1269:G:N2	25:BA:1272:A:OP2	2.37	0.55
25:BA:1634:C:H2'	25:BA:1635:C:C6	2.41	0.55
41:BV:21:ARG:HG2	41:BV:91:TYR:CD1	2.41	0.55
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.42	0.55
1:CA:489:C:H2'	1:CA:490:G:C8	2.42	0.55
1:CA:798:G:O6	61:CA:4029:HOH:O	2.17	0.55
29:DF:120:GLU:HB2	29:DF:122:LYS:HG2	1.89	0.55
1:AA:1492:A:O2'	1:AA:1493:A:O5'	2.20	0.55
1:AA:673:G:H2'	1:AA:674:G:C8	2.41	0.55
45:BZ:108:PRO:HB2	45:BZ:111:VAL:HG23	1.89	0.55
1:CA:1190:G:OP1	3:CC:5:ILE:N	2.39	0.55
1:CA:972:C:OP1	61:CA:4116:HOH:O	2.18	0.55
25:DA:1357:U:H2'	25:DA:1358:G:O4'	2.07	0.55
25:DA:220:G:O2'	25:DA:233:A:N3	2.38	0.55
25:DA:289:A:H2'	25:DA:290:G:O4'	2.05	0.55
31:DH:69:ARG:HG3	31:DH:70:THR:N	2.22	0.55
1:AA:1039:C:H2'	1:AA:1040:U:C6	2.41	0.55
1:AA:448:A:O5'	1:AA:485:G:N2	2.24	0.55
1:AA:78:G:C2	1:AA:91:C:N3	2.75	0.55
1:AA:1372:U:OP1	9:AI:72:GLY:N	2.40	0.55
13:AM:88:ARG:HG3	13:AM:98:VAL:HG12	1.89	0.55
15:AO:79:ARG:O	15:AO:83:GLU:HB2	2.07	0.55
1:AA:376:G:H5''	16:AP:5:ARG:HB2	1.88	0.55
25:BA:1588:G:H3'	25:BA:1589:A:H2'	1.89	0.55
25:BA:1874:C:H5'	27:BD:253:GLN:NE2	2.22	0.55
25:BA:1961:U:OP1	25:BA:2616:U:O2'	2.23	0.55
25:BA:2303:U:H2'	25:BA:2304:C:C6	2.42	0.55
31:BH:164:TYR:HB2	31:BH:167:GLU:HB2	1.89	0.55
34:BO:2:ILE:HB	34:BO:33:ALA:HB3	1.89	0.55
1:CA:472:A:H2'	1:CA:473:G:O4'	2.06	0.55
25:DA:48:G:O6	61:DA:4033:HOH:O	2.15	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.42	0.54
1:AA:537:G:H2'	1:AA:538:G:H8	1.71	0.54
4:AD:19:LEU:HB3	4:AD:21:LEU:HD21	1.88	0.54
25:BA:878:G:O2'	35:BP:38:GLN:NE2	2.39	0.54
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.42	0.54
3:CC:40:ARG:NH2	3:CC:55:VAL:O	2.39	0.54
4:CD:19:LEU:HB3	4:CD:21:LEU:HD21	1.89	0.54
1:CA:986:A:H1'	19:CS:54:GLY:O	2.07	0.54
25:DA:1376:C:OP2	61:DA:4086:HOH:O	2.18	0.54
34:DO:2:ILE:HB	34:DO:33:ALA:HB3	1.90	0.54
1:AA:1007:C:O2	1:AA:1022:G:N1	2.25	0.54
1:AA:1095:U:P	1:AA:1108:G:H1	2.30	0.54
1:AA:976:G:N2	1:AA:1363:C:OP2	2.35	0.54
25:BA:1627:A:OP2	25:BA:1627:A:H8	1.90	0.54
25:BA:1829:U:OP2	27:BD:274:ARG:NH2	2.39	0.54
33:BN:67:LEU:HD12	33:BN:87:LEU:HD13	1.89	0.54
1:CA:56:U:H2'	1:CA:57:G:H8	1.71	0.54
25:DA:1012:U:C5	33:DN:28:THR:HG21	2.41	0.54
43:DX:31:HIS:CD2	43:DX:33:LYS:H	2.25	0.54
1:AA:406:G:N3	4:AD:119:GLN:NE2	2.54	0.54
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.88	0.54
23:AX:23:C:H2'	23:AX:24:U:H6	1.73	0.54
25:BA:939:C:H2'	25:BA:940:C:C6	2.42	0.54
32:BI:61:ARG:HA	32:BI:61:ARG:HH11	1.72	0.54
1:CA:1065:U:OP2	1:CA:1190:G:N2	2.40	0.54
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.41	0.54
2:CB:76:GLN:HB2	2:CB:208:ILE:HG12	1.89	0.54
25:DA:571:A:H5'	25:DA:2030:A:N7	2.21	0.54
26:DB:114:C:H4'	38:DS:46:VAL:HG22	1.89	0.54
1:AA:166:G:H2'	1:AA:167:G:H8	1.72	0.54
1:AA:598:U:O4	61:AA:4065:HOH:O	2.17	0.54
50:B4:47:GLN:HG2	50:B4:49:PHE:H	1.72	0.54
26:BB:6:C:H2'	26:BB:7:G:H5''	1.89	0.54
19:CS:44:MET:O	19:CS:47:HIS:HB2	2.08	0.54
25:DA:1010:A:H1'	25:DA:1153:C:H1'	1.90	0.54
25:DA:2180:U:H2'	25:DA:2181:G:O4'	2.08	0.54
25:DA:2747:G:H1	25:DA:2754:U:H2'	1.72	0.54
31:DH:18:GLU:HB3	31:DH:25:LYS:HB2	1.90	0.54
1:AA:1183:A:HO2'	1:AA:1184:G:P	2.27	0.54
1:AA:1278:U:H5'	1:AA:1279:A:O4'	2.08	0.54
2:AB:55:PHE:HA	2:AB:58:ILE:HB	1.90	0.54
13:AM:58:GLU:O	13:AM:62:ASN:ND2	2.28	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AY:71:G:H4'	25:BA:1882:U:H4'	1.88	0.54
27:BD:145:VAL:HG12	27:BD:146:GLU:O	2.08	0.54
1:CA:1028:C:N3	1:CA:1033:G:O6	2.39	0.54
1:CA:1220:G:H5'	19:CS:34:TRP:O	2.06	0.54
1:CA:975:A:N1	10:CJ:48:THR:HB	2.21	0.54
7:CG:106:GLN:O	7:CG:110:GLN:HG3	2.08	0.54
25:DA:459:U:H5''	53:D7:40:TRP:CD2	2.43	0.54
25:DA:1410:G:H2'	25:DA:1411:C:C6	2.42	0.54
25:DA:2820:A:C5	37:DR:4:LEU:HD11	2.43	0.54
25:DA:622:G:H2'	25:DA:623:G:H8	1.72	0.54
25:DA:740:U:H2'	25:DA:741:G:C8	2.43	0.54
26:DB:95:C:H2'	26:DB:96:U:C6	2.42	0.54
34:DO:77:ILE:HG13	39:DT:74:ARG:HG2	1.88	0.54
25:DA:1011:G:OP2	40:DU:66:ASN:ND2	2.39	0.54
45:DZ:19:ARG:HG3	45:DZ:25:PRO:HD3	1.88	0.54
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.07	0.54
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.42	0.54
3:AC:36:ASP:O	3:AC:40:ARG:HG3	2.08	0.54
11:AK:29:ILE:HG23	11:AK:44:SER:HB3	1.90	0.54
1:AA:958:A:N6	19:AS:77:THR:O	2.41	0.54
25:BA:2135:U:N3	25:BA:2136:A:N7	2.56	0.54
25:BA:34:C:H5''	25:BA:35:G:OP2	2.07	0.54
40:BU:3:ARG:NH1	40:BU:5:LYS:HD3	2.22	0.54
25:DA:1005:C:H2'	25:DA:1006:C:C6	2.42	0.54
25:DA:603:A:H4'	25:DA:604:G:H5'	1.89	0.54
25:DA:1188:U:H4'	41:DV:79:VAL:HG22	1.89	0.54
1:AA:1118:C:H2'	1:AA:1119:C:C6	2.43	0.54
1:AA:1272:G:H2'	1:AA:1273:G:O4'	2.07	0.54
25:BA:1014:U:H2'	25:BA:1015:C:C6	2.42	0.54
25:BA:2044:U:O2'	25:BA:2629:C:H5'	2.08	0.54
38:BS:34:HIS:ND1	38:BS:53:SER:OG	2.38	0.54
1:CA:1155:G:N2	1:CA:1156:G:H1'	2.23	0.54
1:CA:89:C:H2'	1:CA:90:U:O4'	2.07	0.54
50:D4:53:GLU:HG2	50:D4:55:ARG:H	1.72	0.54
25:DA:14:A:N1	25:DA:2044:C:O2'	2.34	0.54
25:DA:857:C:H1'	46:D0:26:TYR:HE1	1.71	0.54
26:DB:6:C:H2'	26:DB:7:G:H5''	1.89	0.54
39:DT:30:VAL:HG22	39:DT:86:ILE:HG12	1.88	0.54
1:AA:1320:C:H5'	1:AA:1320:C:H6	1.73	0.54
1:AA:688:G:H2'	1:AA:689:C:H6	1.72	0.54
25:BA:1249:A:N6	25:BA:1286:U:H2'	2.23	0.54
25:BA:1003:U:H5''	36:BQ:14:ARG:HD3	1.90	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BQ:43:THR:HG22	36:BQ:94:VAL:HG12	1.90	0.54
3:CC:15:THR:HG21	3:CC:181:ASN:HA	1.89	0.54
3:CC:180:ALA:HB1	3:CC:203:PHE:CE1	2.42	0.54
9:CI:3:GLN:HG2	9:CI:20:ARG:HE	1.72	0.54
19:CS:32:LYS:HE3	19:CS:57:HIS:CD2	2.43	0.54
25:DA:1341:U:OP1	25:DA:1397:U:N3	2.38	0.54
25:DA:2126:A:N6	25:DA:2172:U:H5'	2.22	0.54
25:DA:2552:U:H2'	25:DA:2554:U:H5''	1.90	0.54
25:DA:1842:G:O2'	27:DD:253:GLN:NE2	2.41	0.54
45:DZ:99:TYR:HA	45:DZ:124:ILE:O	2.08	0.54
45:DZ:70:LEU:O	45:DZ:89:PHE:N	2.37	0.54
1:AA:931:C:H42	1:AA:1386:G:H1	1.54	0.54
25:BA:2340:A:H2'	25:BA:2341:G:H8	1.72	0.54
25:BA:2879:G:H2'	25:BA:2880:C:O4'	2.07	0.54
25:BA:331:G:H21	25:BA:354:A:H62	1.55	0.54
1:CA:452:A:O2'	1:CA:453:A:OP2	2.23	0.54
1:CA:1495:U:O2'	25:DA:1919:A:N1	2.32	0.54
25:DA:863:A:H2'	25:DA:864:G:C8	2.43	0.54
35:DP:94:GLU:HG3	35:DP:124:LYS:HD3	1.90	0.54
1:AA:1456:G:N2	20:AT:43:LEU:HD11	2.22	0.54
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.42	0.54
1:AA:479:C:N4	1:AA:480:U:O4	2.41	0.54
2:AB:231:GLU:HB3	2:AB:232:PRO:CD	2.33	0.54
9:AI:8:GLY:O	9:AI:15:ALA:N	2.41	0.54
48:B2:22:GLU:OE2	48:B2:68:ARG:NH2	2.41	0.54
32:BI:75:LEU:HD22	32:BI:105:HIS:CG	2.43	0.54
39:BT:59:THR:HG23	39:BT:78:LEU:HB3	1.90	0.54
1:CA:1269:A:H2	1:CA:1312:G:N3	2.06	0.54
25:DA:2022:U:O2'	25:DA:2617:C:H5'	2.07	0.54
25:DA:1827:C:OP2	27:DD:222:ARG:NH1	2.38	0.54
26:DB:50:G:OP1	38:DS:63:THR:N	2.40	0.54
1:AA:976:G:H5'	1:AA:1358:U:O2'	2.07	0.53
10:AJ:54:PHE:O	10:AJ:56:HIS:N	2.36	0.53
25:BA:1425:A:H4'	25:BA:1426:G:OP2	2.08	0.53
1:CA:1173:G:H2'	1:CA:1174:G:H8	1.72	0.53
1:CA:922:G:N3	1:CA:1398:A:H2	2.05	0.53
2:CB:16:HIS:CG	2:CB:17:PHE:H	2.26	0.53
25:DA:2305:A:H5''	30:DG:134:GLY:HA3	1.91	0.53
38:DS:35:ILE:HD12	38:DS:101:LEU:HD12	1.89	0.53
44:DY:1:MET:HG2	44:DY:2:ARG:H	1.73	0.53
1:AA:1456:G:H22	20:AT:43:LEU:HD11	1.73	0.53
1:AA:1493:A:H5''	1:AA:1494:G:OP2	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:56:U:H2'	1:AA:57:G:H8	1.72	0.53
3:AC:71:ALA:HB2	3:AC:115:LEU:HD21	1.90	0.53
10:AJ:5:ARG:HD3	10:AJ:71:LEU:HD11	1.90	0.53
24:AY:67:C:H2'	24:AY:68:C:C6	2.42	0.53
27:BD:9:TYR:CZ	27:BD:13:ARG:HG2	2.44	0.53
29:BF:197:ASP:OD1	29:BF:197:ASP:N	2.41	0.53
44:BY:6:HIS:H	44:BY:6:HIS:CD2	2.26	0.53
45:BZ:7:ALA:HB3	45:BZ:61:LEU:HD12	1.90	0.53
1:CA:1338:G:H21	23:CX:41:C:H1'	1.73	0.53
1:CA:1324:A:O4'	1:CA:1362:C:H4'	2.09	0.53
1:CA:153:C:H2'	1:CA:154:C:C6	2.43	0.53
1:CA:937:A:H1'	1:CA:1379:G:N2	2.23	0.53
2:CB:223:ILE:HA	2:CB:226:ARG:HG2	1.89	0.53
2:CB:73:THR:HB	2:CB:95:GLN:O	2.08	0.53
25:DA:18:C:H2'	25:DA:19:C:C6	2.44	0.53
25:DA:692:C:O2'	27:DD:38:LYS:NZ	2.41	0.53
25:DA:903:C:H2'	25:DA:904:C:C6	2.43	0.53
31:DH:56:SER:HB3	31:DH:61:HIS:ND1	2.23	0.53
1:AA:1006:C:H42	1:AA:1023:G:H1	1.57	0.53
25:BA:270:C:H4'	25:BA:271:U:OP1	2.08	0.53
45:BZ:92:SER:O	45:BZ:130:PRO:HG2	2.08	0.53
1:CA:920:U:H2'	1:CA:921:U:C6	2.44	0.53
7:CG:113:GLU:HG3	7:CG:118:VAL:HG12	1.89	0.53
1:CA:1292:U:OP2	7:CG:41:ARG:NH2	2.42	0.53
25:DA:203:C:OP1	61:DA:4577:HOH:O	2.19	0.53
28:DE:82:ARG:HG2	28:DE:83:ASP:N	2.23	0.53
30:DG:114:ILE:HB	30:DG:117:PHE:HB2	1.90	0.53
31:DH:3:ARG:HB3	31:DH:6:ARG:HG2	1.90	0.53
32:DI:104:GLN:O	32:DI:105:HIS:ND1	2.42	0.53
1:AA:1095:U:H5''	1:AA:1109:C:O2	2.08	0.53
1:AA:96:U:O2'	1:AA:97:G:H5'	2.09	0.53
2:AB:77:ALA:HB2	2:AB:165:VAL:HG11	1.90	0.53
25:BA:2130:C:N4	25:BA:2203:G:H1	2.06	0.53
25:BA:2187:G:H1	25:BA:2194:U:H5	1.56	0.53
2:CB:189:ASP:HB3	2:CB:204:ASN:HA	1.90	0.53
23:CX:21:A:H3'	23:CX:46:G:O6	2.08	0.53
25:DA:2184:G:C2'	25:DA:2185:C:H5'	2.39	0.53
25:DA:2364:C:H2'	25:DA:2365:G:O4'	2.07	0.53
38:DS:34:HIS:O	38:DS:97:ARG:NH2	2.41	0.53
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.42	0.53
1:AA:950:U:H2'	1:AA:951:G:H8	1.73	0.53
25:BA:1361:C:OP2	61:BA:4706:HOH:O	2.19	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2776:G:OP2	61:BA:4759:HOH:O	2.17	0.53
44:BY:102:CYS:SG	44:BY:103:GLY:N	2.81	0.53
52:D6:9:LEU:HA	52:D6:54:ILE:HB	1.91	0.53
25:DA:154(A):C:H2'	25:DA:157:U:H5'	1.91	0.53
25:DA:493:G:H2'	25:DA:494:G:O4'	2.08	0.53
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.43	0.53
1:AA:17:U:H2'	1:AA:18:C:C6	2.43	0.53
2:AB:145:LEU:HD12	2:AB:149:LEU:HD12	1.91	0.53
2:AB:71:VAL:HA	2:AB:93:VAL:HG23	1.90	0.53
5:AE:122:GLU:O	5:AE:126:ARG:NH1	2.41	0.53
19:AS:40:ILE:HD11	19:AS:71:LEU:HD23	1.90	0.53
25:BA:2101:U:O3'	47:B1:35:THR:OG1	2.27	0.53
25:BA:1834:A:H4'	27:BD:259:THR:HG23	1.89	0.53
1:CA:1095:U:P	1:CA:1108:G:H1	2.32	0.53
1:CA:221:C:H2'	1:CA:222:U:H6	1.73	0.53
1:CA:324:G:N7	61:CA:4062:HOH:O	2.33	0.53
1:CA:97:G:O2'	1:CA:98:G:H5''	2.08	0.53
13:CM:88:ARG:HG3	13:CM:98:VAL:HG12	1.90	0.53
19:CS:20:LEU:HD23	19:CS:23:ASN:HD22	1.73	0.53
25:DA:1688:U:O2	25:DA:1700:A:H5'	2.08	0.53
25:DA:1721:G:H2'	25:DA:1740:G:O6	2.09	0.53
25:DA:1816:G:O6	27:DD:35:LYS:NZ	2.22	0.53
25:DA:191:A:H2'	25:DA:192:C:C6	2.42	0.53
25:DA:644:A:H4'	25:DA:645:C:C5	2.44	0.53
25:DA:646:A:H2'	25:DA:647:G:O4'	2.08	0.53
25:DA:2751:G:H5'	31:DH:2:SER:HA	1.90	0.53
45:DZ:108:PRO:HG3	45:DZ:141:VAL:HB	1.90	0.53
1:AA:1203:C:H2'	1:AA:1204:A:C8	2.43	0.53
19:AS:41:VAL:HG13	19:AS:43:GLU:H	1.74	0.53
27:BD:146:GLU:HB2	27:BD:189:CYS:HB3	1.90	0.53
34:BO:16:ALA:HB2	34:BO:52:VAL:HG21	1.89	0.53
1:CA:1272:G:H2'	1:CA:1273:G:O4'	2.08	0.53
1:CA:1376:U:H2'	1:CA:1377:A:H8	1.71	0.53
1:CA:328:C:H4'	1:CA:329:A:H5'	1.91	0.53
1:CA:532:A:N6	3:CC:193:TYR:HB3	2.24	0.53
2:CB:68:ILE:HG12	2:CB:161:ALA:HB3	1.90	0.53
25:DA:667:U:O2	54:D8:2:PRO:HD2	2.08	0.53
35:DP:59:LEU:HD23	54:D8:58:ILE:HD13	1.90	0.53
25:DA:1996:C:H4'	25:DA:1997:G:OP1	2.09	0.53
25:DA:2283:C:H2'	25:DA:2284:C:O4'	2.09	0.53
25:DA:400:G:N7	61:DA:4657:HOH:O	2.33	0.53
25:DA:902:C:H2'	25:DA:903:C:H6	1.74	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:347:G:H2'	1:AA:348:G:O4'	2.09	0.53
3:AC:44:GLU:HA	3:AC:52:LEU:HD12	1.91	0.53
7:AG:111:ARG:HB3	7:AG:113:GLU:OE2	2.09	0.53
1:AA:617:G:H4'	16:AP:44:THR:O	2.08	0.53
20:AT:16:HIS:O	20:AT:19:SER:OG	2.24	0.53
35:BP:63:PRO:HG2	54:B8:25:MET:HB2	1.91	0.53
54:B8:42:ARG:HD2	61:B8:206:HOH:O	2.07	0.53
25:BA:1067:A:H3'	25:BA:1067:A:C8	2.44	0.53
25:BA:1513:G:O2'	25:BA:1593:C:O2'	2.26	0.53
39:BT:65:LYS:HE2	39:BT:67:SER:HB2	1.91	0.53
1:CA:991:U:C4	1:CA:1212:U:H1'	2.44	0.53
2:CB:71:VAL:HB	2:CB:164:VAL:HG13	1.89	0.53
50:D4:60:GLN:HA	50:D4:62:ARG:HG2	1.90	0.53
25:DA:27:G:O2'	25:DA:28:A:OP2	2.25	0.53
25:DA:465:G:OP1	53:D7:12:ARG:NH2	2.35	0.53
26:DB:20:C:N4	26:DB:63:G:H1	2.05	0.53
28:DE:14:ILE:HG13	28:DE:21:VAL:HG13	1.90	0.53
33:DN:43:THR:N	33:DN:48:MET:SD	2.80	0.53
25:DA:910:A:H62	36:DQ:12:GLN:HA	1.74	0.53
3:AC:13:GLY:HA3	14:AN:57:ARG:HH21	1.74	0.53
5:AE:33:VAL:HG21	5:AE:109:ILE:HA	1.91	0.53
47:B1:51:VAL:HG11	47:B1:74:VAL:HG21	1.91	0.53
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.44	0.53
1:CA:452:A:OP1	16:CP:43:LYS:NZ	2.37	0.53
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.91	0.53
50:D4:15:ILE:HG23	50:D4:21:VAL:HG22	1.90	0.53
25:DA:1423:G:H2'	25:DA:1424:G:H8	1.74	0.53
25:DA:1802:A:N1	25:DA:1822:G:H1'	2.24	0.53
27:DD:132:PRO:HD3	27:DD:190:TYR:CZ	2.43	0.53
1:AA:1298:C:H4'	1:AA:1299:A:O4'	2.08	0.53
1:AA:997:U:H2'	1:AA:998:G:H8	1.74	0.53
4:AD:173:TRP:CE3	4:AD:174:LEU:HG	2.43	0.53
9:AI:50:LEU:HD13	9:AI:56:LEU:HA	1.90	0.53
25:BA:714:U:O2	54:B8:2:PRO:HD2	2.09	0.53
25:BA:1742:G:N7	27:BD:14:ARG:NH2	2.56	0.53
25:BA:211:A:H5''	25:BA:448:U:OP1	2.09	0.53
25:BA:922:G:H2'	25:BA:923:C:O4'	2.09	0.53
38:BS:14:VAL:O	38:BS:18:ILE:HG12	2.09	0.53
44:BY:92:ASN:N	44:BY:93:GLY:HA2	2.24	0.53
1:CA:1129:C:H2'	1:CA:1139:G:N7	2.23	0.53
1:CA:1288:A:N3	1:CA:1352:C:O2'	2.40	0.53
2:CB:142:LEU:HA	2:CB:145:LEU:HD12	1.91	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:165:MET:O	4:CD:167:GLY:N	2.42	0.53
7:CG:51:GLN:O	7:CG:55:GLY:HA2	2.09	0.53
25:DA:2227:A:OP2	61:DA:4521:HOH:O	2.19	0.53
25:DA:2556:C:H2'	25:DA:2557:G:O4'	2.09	0.53
25:DA:342:G:O6	61:DA:4680:HOH:O	2.15	0.53
25:DA:999:U:OP2	61:DA:4453:HOH:O	2.19	0.53
28:DE:9:VAL:HG13	28:DE:25:VAL:O	2.08	0.53
31:DH:98:LEU:HD12	31:DH:102:ALA:O	2.09	0.53
29:DF:34:TRP:CE2	35:DP:8:PRO:HG3	2.44	0.53
35:DP:97:PRO:HD3	35:DP:126:VAL:O	2.09	0.53
1:AA:1392:G:N2	1:AA:1502:A:H8	2.06	0.52
1:AA:193:C:H2'	1:AA:194:C:C6	2.43	0.52
1:AA:232:G:H1'	1:AA:262:A:N1	2.25	0.52
25:BA:1781:G:O2'	25:BA:2870:A:N1	2.34	0.52
1:CA:1028:C:C4	1:CA:1033:G:O6	2.62	0.52
1:CA:1054:C:H4'	1:CA:1055:A:OP1	2.08	0.52
8:CH:7:ALA:O	8:CH:11:THR:OG1	2.22	0.52
48:D2:65:ASN:OD1	48:D2:69:ARG:NH1	2.41	0.52
25:DA:2704:C:H2'	25:DA:2705:A:O4'	2.09	0.52
25:DA:527:C:H3'	61:DA:4467:HOH:O	2.08	0.52
25:DA:852:G:H2'	25:DA:853:G:H8	1.72	0.52
28:DE:48:GLN:HA	28:DE:80:GLU:HA	1.91	0.52
30:DG:19:LEU:HD22	30:DG:32:PRO:HG2	1.91	0.52
32:DI:120:ILE:HG21	32:DI:126:TYR:CE2	2.44	0.52
32:DI:128:LEU:O	32:DI:140:LEU:N	2.36	0.52
43:DX:12:VAL:HG22	43:DX:29:TRP:CE2	2.45	0.52
1:AA:405:U:O2'	1:AA:496:A:O2'	2.25	0.52
8:AH:51:VAL:HG11	8:AH:60:ARG:HH12	1.74	0.52
10:AJ:16:LEU:HD21	10:AJ:70:ARG:HG2	1.91	0.52
23:AX:7:G:H1	23:AX:66:C:H42	1.57	0.52
25:BA:2145:G:H1	25:BA:2197:C:N4	2.06	0.52
25:BA:2784:C:H2'	25:BA:2785:C:C6	2.44	0.52
25:BA:801:C:H2'	25:BA:802:C:H6	1.74	0.52
25:BA:1993:A:OP2	27:BD:242:ARG:NH2	2.42	0.52
7:CG:111:ARG:NH1	7:CG:113:GLU:OE2	2.40	0.52
7:CG:20:ASP:HB3	7:CG:23:VAL:HB	1.91	0.52
9:CI:55:ALA:HA	9:CI:58:HIS:CD2	2.44	0.52
25:DA:2815:C:C5'	51:D5:29:THR:HG21	2.39	0.52
25:DA:1467:C:C5	25:DA:1546:C:H2'	2.45	0.52
25:DA:1593:G:H2'	25:DA:1594:G:C8	2.44	0.52
25:DA:1664:A:OP1	61:DA:4762:HOH:O	2.19	0.52
25:DA:2131:G:N7	25:DA:2133:G:N2	2.58	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:403:U:H4'	25:DA:404:C:H5'	1.91	0.52
41:DV:43:GLU:OE2	41:DV:43:GLU:N	2.43	0.52
1:AA:396:G:O2'	1:AA:398:C:OP1	2.16	0.52
25:BA:236:G:H4'	25:BA:413:G:C5	2.44	0.52
25:BA:2740:G:O2'	34:BO:70:LYS:NZ	2.40	0.52
1:CA:1012:U:H2'	1:CA:1013:G:C8	2.45	0.52
1:CA:1174:G:H2'	1:CA:1175:G:H8	1.74	0.52
1:CA:1284:C:H5	1:CA:1285:A:HO2'	1.56	0.52
1:CA:17:U:H2'	1:CA:18:C:C6	2.45	0.52
1:CA:460:G:N2	1:CA:471:G:OP2	2.28	0.52
2:CB:138:LEU:HA	2:CB:141:GLU:HB3	1.92	0.52
9:CI:8:GLY:O	9:CI:15:ALA:N	2.39	0.52
25:DA:2206:G:H5'	25:DA:2207:G:N7	2.23	0.52
25:DA:223:A:O2'	25:DA:420:C:O2	2.27	0.52
28:DE:170:LEU:HB3	28:DE:184:VAL:HG22	1.92	0.52
30:DG:5:VAL:HG22	30:DG:8:LYS:H	1.74	0.52
1:AA:192:U:H2'	1:AA:193:C:C6	2.44	0.52
16:AP:3:LYS:HG2	16:AP:65:GLN:HB2	1.92	0.52
25:BA:1848:G:OP1	27:BD:88:ARG:NH2	2.40	0.52
37:BR:100:LEU:HD11	37:BR:113:LEU:HD23	1.92	0.52
5:CE:78:HIS:CE1	5:CE:143:ARG:H	2.27	0.52
25:DA:2309:A:H61	30:DG:79:ASN:ND2	2.08	0.52
31:DH:137:ASP:HB3	31:DH:140:LYS:HB3	1.92	0.52
1:AA:270:A:H2'	1:AA:271:C:C6	2.44	0.52
1:AA:576:G:O6	1:AA:880:C:O2'	2.25	0.52
1:AA:57:G:H2'	1:AA:58:C:C6	2.45	0.52
4:AD:105:VAL:HG13	4:AD:110:PHE:HB2	1.90	0.52
8:AH:51:VAL:HG11	8:AH:60:ARG:NH1	2.24	0.52
9:AI:53:VAL:HG11	9:AI:92:TYR:CE1	2.44	0.52
25:BA:1001:G:OP2	36:BQ:14:ARG:NH2	2.36	0.52
25:BA:2584:A:N7	28:BE:144:ARG:HD2	2.24	0.52
1:CA:954:G:H21	1:CA:1227:A:H62	1.56	0.52
1:CA:1399:C:C2	1:CA:1502:A:N6	2.77	0.52
1:CA:959:A:O2'	1:CA:984:C:O2'	2.21	0.52
48:D2:10:LEU:HD13	48:D2:14:ARG:HH12	1.74	0.52
50:D4:16:CYS:HA	50:D4:33:VAL:HB	1.91	0.52
25:DA:2473:U:O2	25:DA:2473:U:H2'	2.09	0.52
28:DE:72:VAL:HA	28:DE:73:GLU:CB	2.38	0.52
45:DZ:108:PRO:HB2	45:DZ:111:VAL:HG23	1.90	0.52
4:AD:168:ARG:H	4:AD:168:ARG:CD	2.23	0.52
5:AE:74:GLY:HA3	5:AE:116:THR:HG22	1.92	0.52
8:AH:49:GLU:HG2	8:AH:62:TYR:HE1	1.74	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2053:A:C6	25:BA:2510:C:H1'	2.43	0.52
30:BG:5:VAL:HG23	30:BG:104:GLU:OE2	2.09	0.52
39:BT:96:ARG:CZ	39:BT:96:ARG:HB3	2.38	0.52
1:CA:1002:G:H2'	1:CA:1003:G:H8	1.73	0.52
25:DA:2134:A:H2'	25:DA:2135:A:O4'	2.10	0.52
25:DA:212:G:H2'	25:DA:213:A:O4'	2.10	0.52
25:DA:236:C:H2'	25:DA:237:C:C6	2.45	0.52
28:DE:18:ASP:HB3	39:DT:82:LEU:HD21	1.91	0.52
30:DG:33:ARG:O	30:DG:34:LEU:HD23	2.10	0.52
1:AA:1051:C:H2'	1:AA:1052:U:H6	1.74	0.52
25:BA:1594:C:H2'	25:BA:1595:C:C6	2.44	0.52
25:BA:2108:U:H2'	25:BA:2109:G:C8	2.45	0.52
25:BA:2235:G:OP1	27:BD:172:TYR:OH	2.22	0.52
25:BA:934:A:H4'	25:BA:935:C:C5	2.44	0.52
32:BI:72:LEU:C	32:BI:74:ASN:H	2.13	0.52
25:BA:1233:U:H4'	41:BV:79:VAL:HG22	1.92	0.52
45:BZ:24:LEU:HB2	45:BZ:41:LEU:HD23	1.92	0.52
1:CA:1238:A:OP2	61:CA:4060:HOH:O	2.19	0.52
1:CA:975:A:C4'	1:CA:976:G:H5''	2.35	0.52
13:CM:3:ARG:HA	50:D4:34:GLU:HG2	1.92	0.52
13:CM:6:GLY:O	30:DG:115:ARG:NH2	2.42	0.52
25:DA:1636:C:H2'	25:DA:1637:A:C8	2.45	0.52
25:DA:2371:G:O6	61:DA:4325:HOH:O	2.17	0.52
1:AA:1124:G:N7	1:AA:1145:C:O2'	2.35	0.52
1:AA:1256:A:N6	1:AA:1278:U:O4'	2.40	0.52
1:AA:520:A:N1	1:AA:536:C:H1'	2.25	0.52
2:AB:16:HIS:CG	2:AB:17:PHE:N	2.74	0.52
25:BA:1814:A:H5'	25:BA:2620:G:H4'	1.92	0.52
1:CA:629:G:H2'	1:CA:630:G:O4'	2.10	0.52
8:CH:28:ALA:HB3	8:CH:57:PRO:HB2	1.91	0.52
46:D0:68:GLU:HB2	46:D0:82:ARG:HH11	1.75	0.52
25:DA:128:C:H2'	25:DA:129:C:H6	1.74	0.52
25:DA:857:C:OP2	46:D0:77:ARG:NH2	2.43	0.52
25:DA:902:C:H2'	25:DA:903:C:C6	2.44	0.52
1:AA:1003:G:H2'	1:AA:1004:A:H4'	1.92	0.52
1:AA:501:C:H2'	1:AA:502:G:C8	2.45	0.52
25:BA:2123:G:H2'	25:BA:2124:U:C6	2.45	0.52
32:BI:4:ILE:HG12	32:BI:18:VAL:HG22	1.91	0.52
39:BT:112:ARG:HG3	39:BT:115:ARG:HH21	1.74	0.52
1:CA:1376:U:OP1	7:CG:98:SER:OG	2.19	0.52
1:CA:422:C:H4'	1:CA:423:G:C4	2.43	0.52
1:CA:688:G:H2'	1:CA:689:C:H6	1.74	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:735:C:H2'	1:CA:736:C:H6	1.75	0.52
1:CA:827:U:H5''	1:CA:828:A:OP2	2.10	0.52
1:CA:922:G:H2'	1:CA:923:A:C8	2.45	0.52
1:CA:96:U:O2'	1:CA:97:G:H5'	2.09	0.52
8:CH:20:TYR:HA	8:CH:65:TYR:CZ	2.45	0.52
1:CA:719:C:N4	18:CR:71:LYS:HE2	2.25	0.52
19:CS:14:HIS:O	19:CS:18:LYS:HG3	2.10	0.52
47:D1:3:LYS:HB2	47:D1:61:ARG:HH12	1.74	0.52
25:DA:1530:C:HO2'	25:DA:1531:C:P	2.33	0.52
25:DA:27:G:N2	25:DA:512:G:H1'	2.24	0.52
25:DA:652(T):C:H2'	25:DA:652(U):G:C8	2.45	0.52
31:DH:20:ALA:HB1	31:DH:21:PRO:HD2	1.90	0.52
25:DA:637:A:H5''	35:DP:117:GLU:HG2	1.92	0.52
1:AA:439:A:C8	1:AA:439:A:H3'	2.45	0.52
1:AA:600:C:H2'	1:AA:601:C:C6	2.45	0.52
9:AI:23:ASN:HD22	9:AI:25:LYS:HG2	1.75	0.52
10:AJ:61:GLU:OE2	14:AN:45:ARG:NE	2.33	0.52
30:BG:66:GLN:NE2	30:BG:94:LEU:HD23	2.25	0.52
43:BX:57:LEU:HD11	43:BX:78:LYS:HG2	1.92	0.52
2:CB:158:LEU:HD23	2:CB:182:ILE:HD11	1.92	0.52
1:CA:261:U:OP2	20:CT:79:ARG:NH2	2.43	0.52
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.44	0.52
25:DA:1264:G:H2'	25:DA:2014:A:N6	2.25	0.52
25:DA:2110:G:C2	25:DA:2120:G:H1'	2.44	0.52
25:DA:526:A:N3	25:DA:2044:C:H1'	2.25	0.52
39:DT:16:ARG:HH12	39:DT:19:LEU:HG	1.75	0.52
1:AA:1030(D):A:N6	1:AA:1031:G:H21	2.08	0.51
2:AB:17:PHE:HB2	2:AB:44:LEU:HD11	1.93	0.51
11:AK:99:GLN:HG3	11:AK:105:VAL:HG11	1.91	0.51
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.92	0.51
45:BZ:110:GLY:N	45:BZ:144:LEU:O	2.42	0.51
45:BZ:45:ASP:O	45:BZ:49:ARG:HG3	2.09	0.51
1:CA:1165:C:N4	1:CA:1171:G:H1	2.04	0.51
1:CA:336:C:H2'	1:CA:337:C:C6	2.45	0.51
1:CA:421:U:O2'	1:CA:423:G:N7	2.43	0.51
4:CD:157:LEU:O	4:CD:161:ASN:ND2	2.44	0.51
8:CH:34:GLU:HB3	8:CH:118:VAL:HG21	1.92	0.51
25:DA:2839:G:H5'	37:DR:46:GLY:HA2	1.90	0.51
30:DG:64:THR:HB	30:DG:94:LEU:HD21	1.91	0.51
1:AA:1063:C:H3'	1:AA:1064:G:H2'	1.93	0.51
27:BD:26:LYS:HE2	27:BD:28:GLU:O	2.10	0.51
28:BE:21:VAL:HG23	28:BE:185:LYS:HD2	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BW:18:ARG:NH1	42:BW:76:VAL:O	2.43	0.51
1:CA:992:U:H4'	1:CA:993:G:O5'	2.10	0.51
2:CB:221:LEU:HD23	2:CB:224:GLN:NE2	2.24	0.51
3:CC:32:LEU:O	3:CC:36:ASP:HB2	2.10	0.51
5:CE:81:GLU:HG2	5:CE:90:VAL:HG13	1.92	0.51
8:CH:64:LYS:HG2	8:CH:79:VAL:HG21	1.92	0.51
25:DA:1449:A:O2'	25:DA:1529:G:N2	2.21	0.51
25:DA:2075:U:OP2	25:DA:2238:G:O2'	2.26	0.51
25:DA:686:G:N2	25:DA:788:A:H61	2.08	0.51
25:DA:857:C:H4'	46:D0:23:VAL:HG21	1.92	0.51
26:DB:3:C:H2'	26:DB:4:C:H6	1.75	0.51
30:DG:137:GLU:HB3	30:DG:139:LEU:HG	1.91	0.51
31:DH:20:ALA:HB3	31:DH:23:ARG:HG3	1.92	0.51
25:DA:2849:U:P	39:DT:95:ARG:HH12	2.34	0.51
1:AA:1003:G:C2	1:AA:1004:A:N3	2.79	0.51
1:AA:1260:C:O5'	1:AA:1284:C:H4'	2.11	0.51
1:AA:1328:C:OP1	21:AU:21:TYR:OH	2.13	0.51
1:AA:192:U:H2'	1:AA:193:C:H6	1.76	0.51
14:AN:23:ARG:HD2	14:AN:28:GLY:O	2.10	0.51
20:AT:87:LYS:O	20:AT:91:LEU:HG	2.10	0.51
32:BI:27:ARG:HD2	47:B1:71:TYR:CZ	2.44	0.51
25:BA:1639:G:H2'	25:BA:1640:G:C8	2.46	0.51
25:BA:174:U:H4'	25:BA:207:A:H4'	1.93	0.51
25:BA:27:G:N2	25:BA:537:G:H1'	2.26	0.51
25:BA:395:C:OP2	61:BA:4985:HOH:O	2.19	0.51
34:BO:98:VAL:HG13	34:BO:117:LEU:HB3	1.92	0.51
36:BQ:85:LYS:HD3	46:B0:7:LEU:HG	1.92	0.51
1:CA:834:C:H2'	1:CA:835:U:C6	2.45	0.51
8:CH:4:ASP:OD1	8:CH:7:ALA:N	2.27	0.51
19:CS:40:ILE:HD12	19:CS:71:LEU:HD12	1.91	0.51
25:DA:1231:G:H2'	25:DA:1232:G:C8	2.46	0.51
25:DA:1751:C:HO2'	25:DA:2861:G:HO2'	1.56	0.51
25:DA:2552:U:C2	25:DA:2554:U:H5'	2.46	0.51
25:DA:309:G:N3	25:DA:329:G:O2'	2.41	0.51
25:DA:323:G:C8	29:DF:171:PRO:HG3	2.45	0.51
25:DA:839:U:H1'	25:DA:1191:G:H1'	1.92	0.51
25:DA:859:G:O2'	25:DA:916:G:O6	2.23	0.51
1:AA:1249:C:O2'	9:AI:73:GLN:NE2	2.43	0.51
1:AA:353:A:H5'	1:AA:353:A:H8	1.75	0.51
10:AJ:16:LEU:HD22	10:AJ:68:HIS:HB2	1.93	0.51
11:AK:48:ILE:O	11:AK:50:TYR:N	2.36	0.51
47:B1:3:LYS:HB2	47:B1:61:ARG:NH1	2.25	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BQ:30:GLY:HA2	36:BQ:107:ALA:HB2	1.92	0.51
25:BA:957:A:H2'	36:BQ:9:TYR:OH	2.09	0.51
1:CA:148:G:H2'	1:CA:149:A:C8	2.45	0.51
1:CA:992:U:H6	1:CA:992:U:H5'	1.76	0.51
2:CB:184:VAL:N	2:CB:198:ASP:OD2	2.28	0.51
2:CB:19:HIS:CG	2:CB:20:GLU:H	2.28	0.51
1:CA:671:G:H5'	6:CF:77:ARG:HH22	1.76	0.51
12:CL:56:ALA:HB2	12:CL:70:ILE:HD11	1.92	0.51
25:DA:2286:A:H4'	25:DA:2287:A:O4'	2.11	0.51
25:DA:571:A:N6	25:DA:2499:C:O3'	2.43	0.51
25:DA:2657:A:O3'	31:DH:160:LYS:NZ	2.42	0.51
38:DS:77:ALA:HB1	38:DS:82:ILE:HB	1.93	0.51
33:DN:4:TYR:HB2	40:DU:101:ARG:NH1	2.26	0.51
25:DA:1187:G:H5'	41:DV:81:TYR:CE1	2.45	0.51
41:DV:72:VAL:HG22	41:DV:85:LYS:HB3	1.93	0.51
1:AA:1052:U:H5''	1:AA:1053:G:OP2	2.11	0.51
25:BA:1410:G:P	47:B1:3:LYS:HG3	2.50	0.51
25:BA:185:A:H2'	25:BA:185:A:N3	2.26	0.51
1:CA:1226:C:H4'	19:CS:80:TYR:CZ	2.46	0.51
5:CE:137:GLU:HA	5:CE:140:ARG:HB3	1.93	0.51
12:CL:24:VAL:HG12	12:CL:27:LEU:HB2	1.92	0.51
47:D1:95:LEU:HD12	47:D1:98:LEU:HD12	1.93	0.51
25:DA:1499:C:H2'	25:DA:1500:G:H8	1.76	0.51
25:DA:2646:C:H2'	25:DA:2647:U:O4'	2.11	0.51
25:DA:2823:A:OP1	28:DE:159:HIS:NE2	2.40	0.51
42:DW:12:ILE:O	42:DW:101:SER:OG	2.25	0.51
1:AA:1125:U:H1'	1:AA:1126:U:H6	1.74	0.51
1:AA:1161:C:O2'	1:AA:1162:C:H5'	2.11	0.51
1:AA:395:C:N4	61:AA:4042:HOH:O	2.43	0.51
1:AA:456:C:H2'	1:AA:457:C:C6	2.46	0.51
1:AA:984:C:N3	1:AA:1221:G:N2	2.50	0.51
1:AA:997:U:H2'	1:AA:998:G:C8	2.45	0.51
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.76	0.51
44:BY:1:MET:HE3	44:BY:2:ARG:H	1.76	0.51
1:CA:991:U:H2'	1:CA:1212:U:C4	2.45	0.51
1:CA:997:U:C2'	1:CA:998:G:H5'	2.40	0.51
9:CI:24:GLY:HA2	9:CI:59:PHE:O	2.11	0.51
10:CJ:54:PHE:O	10:CJ:56:HIS:N	2.37	0.51
18:CR:26:LEU:HD22	18:CR:42:ARG:HE	1.76	0.51
25:DA:839:U:H2'	25:DA:840:C:C6	2.45	0.51
32:DI:92:VAL:HG23	32:DI:120:ILE:HB	1.91	0.51
26:DB:75:G:O2'	45:DZ:10:ARG:NH2	2.44	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1004:A:N6	1:AA:1036:G:C5	2.77	0.51
1:AA:403:C:O2'	4:AD:122:ARG:NH1	2.43	0.51
1:AA:447:G:O6	1:AA:485:G:O2'	2.23	0.51
2:AB:102:LEU:HB3	2:AB:180:LEU:HD12	1.93	0.51
3:AC:64:VAL:HG13	3:AC:99:VAL:HA	1.92	0.51
50:B4:63:TYR:N	50:B4:64:GLY:HA2	2.25	0.51
55:B9:15:LYS:HE2	55:B9:17:ILE:HD13	1.92	0.51
25:BA:1091:A:H1'	25:BA:1093:G:N3	2.26	0.51
25:BA:260:A:N3	25:BA:395:C:O2'	2.38	0.51
28:BE:47:VAL:HG23	28:BE:84:PHE:O	2.10	0.51
30:BG:16:ARG:HB2	30:BG:17:PRO:HD3	1.92	0.51
32:BI:4:ILE:HD11	32:BI:44:LEU:HD12	1.93	0.51
1:CA:1128:C:H1'	1:CA:1147:C:N4	2.19	0.51
1:CA:954:G:H21	1:CA:1227:A:N6	2.09	0.51
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.11	0.51
20:CT:10:LEU:HB3	20:CT:12:ALA:H	1.76	0.51
35:DP:59:LEU:HD21	54:D8:10:ALA:HA	1.91	0.51
25:DA:1288:U:C2	25:DA:1327:C:O2	2.64	0.51
25:DA:30:G:H2'	25:DA:31:C:C6	2.46	0.51
38:DS:14:VAL:O	38:DS:18:ILE:HG12	2.11	0.51
44:DY:102:CYS:SG	44:DY:103:GLY:N	2.83	0.51
1:AA:946:A:O2'	1:AA:1333:A:N3	2.36	0.51
4:AD:3:ARG:HE	4:AD:118:ARG:HD3	1.76	0.51
8:AH:86:ILE:HG13	8:AH:133:LEU:HD22	1.92	0.51
50:B4:43:TYR:O	50:B4:45:GLY:N	2.44	0.51
25:BA:2402:U:P	54:B8:35:GLN:HE22	2.34	0.51
25:BA:2157:A:N6	25:BA:2178:G:O2'	2.36	0.51
25:BA:2021:C:H5''	25:BA:2736:C:O2'	2.11	0.51
1:CA:447:G:O6	1:CA:485:G:O2'	2.19	0.51
5:CE:57:LYS:HD3	5:CE:61:TYR:HE2	1.75	0.51
25:DA:2135:A:N7	25:DA:2136:C:N4	2.58	0.51
25:DA:2142:C:H2'	25:DA:2143:C:O4'	2.11	0.51
25:DA:221:A:C4	25:DA:266:G:N7	2.79	0.51
30:DG:170:ARG:HH21	30:DG:180:PHE:CB	2.23	0.51
42:DW:88:ARG:NH1	42:DW:94:ASP:OD2	2.43	0.51
1:AA:1530:G:H4'	1:AA:1530:G:OP1	2.10	0.51
1:AA:77:G:H2'	1:AA:78:G:H5'	1.93	0.51
1:AA:864:A:H2'	1:AA:865:A:C8	2.46	0.51
1:AA:918:A:H2'	1:AA:919:A:C8	2.46	0.51
12:AL:77:LEU:HD21	12:AL:107:ALA:HB2	1.92	0.51
13:AM:2:ALA:N	13:AM:8:GLU:OE1	2.44	0.51
25:BA:1831:C:OP1	27:BD:264:LYS:NZ	2.38	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1921:G:H2'	25:BA:1921:G:N3	2.25	0.51
25:BA:2125:C:N4	25:BA:2208:G:H1	2.06	0.51
25:BA:2203:G:O2'	25:BA:2204:G:OP1	2.28	0.51
25:BA:2576:A:C2	25:BA:2659:U:H4'	2.45	0.51
25:BA:441:C:H2'	25:BA:442:A:C8	2.46	0.51
25:BA:596:G:OP2	41:BV:78:LYS:NZ	2.39	0.51
25:BA:624:C:OP1	29:BF:108:LYS:HE3	2.11	0.51
30:BG:33:ARG:O	30:BG:161:THR:HG23	2.11	0.51
45:BZ:69:THR:HG22	45:BZ:90:VAL:HA	1.92	0.51
1:CA:1003:G:N2	1:CA:1025:U:O4	2.43	0.51
1:CA:1262:C:N3	1:CA:1273:G:N2	2.54	0.51
1:CA:972:C:O2'	10:CJ:55:LYS:O	2.29	0.51
25:DA:2849:U:OP2	39:DT:95:ARG:NH1	2.44	0.51
32:DI:5:LEU:HD12	32:DI:9:LEU:HD23	1.93	0.51
1:AA:267:C:OP1	17:AQ:67:LYS:HD2	2.11	0.51
1:CA:663:A:O3'	18:CR:64:ARG:NH2	2.38	0.51
10:CJ:25:GLU:O	10:CJ:29:ARG:HG2	2.11	0.51
1:CA:664:G:P	18:CR:64:ARG:HH21	2.34	0.51
52:D6:10:LEU:HG	52:D6:54:ILE:HG13	1.93	0.51
25:DA:2141:G:O6	25:DA:2150:U:O2	2.29	0.51
25:DA:2808:U:C2'	25:DA:2809:A:H5'	2.41	0.51
25:DA:392:C:H5''	25:DA:409:C:H5''	1.93	0.51
25:DA:484:C:H2'	25:DA:485:C:C6	2.47	0.51
25:DA:623:G:H2'	25:DA:624:C:C6	2.46	0.51
1:AA:184:G:H2'	1:AA:185:A:H8	1.76	0.50
1:AA:191:G:H21	20:AT:103:GLY:HA2	1.76	0.50
8:AH:121:ASP:OD2	8:AH:121:ASP:N	2.44	0.50
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG12	1.91	0.50
43:BX:1:MET:HE1	48:B2:26:ARG:HH21	1.76	0.50
51:B5:16:ARG:NH1	51:B5:17:ASP:OD1	2.44	0.50
25:BA:505:A:N3	25:BA:507:G:H5''	2.25	0.50
44:BY:35:TYR:CE2	44:BY:69:ALA:HB3	2.46	0.50
1:CA:376:G:H5''	16:CP:5:ARG:HB2	1.93	0.50
1:CA:58:C:O2'	1:CA:388:G:N7	2.35	0.50
1:CA:735:C:H2'	1:CA:736:C:C6	2.45	0.50
24:CY:72:C:H4'	25:DA:1852:C:H5''	1.93	0.50
25:DA:1899:G:N3	25:DA:1899:G:H2'	2.26	0.50
25:BA:1073:A:C2	25:BA:2500:A:H5'	2.47	0.50
25:BA:1320:A:N3	25:BA:1343:C:H1'	2.26	0.50
25:BA:1634:C:H2'	25:BA:1635:C:H6	1.77	0.50
25:BA:1817:A:H1'	25:BA:1960:A:N6	2.27	0.50
25:BA:2348:A:H61	46:B0:43:THR:HG21	1.74	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2724:U:O2'	25:BA:2726:A:H5'	2.10	0.50
25:BA:956:A:N3	25:BA:2276:C:O2'	2.39	0.50
1:CA:1305:G:N2	1:CA:1331:G:H1'	2.26	0.50
3:CC:66:VAL:HB	3:CC:101:LEU:HA	1.94	0.50
13:CM:19:LEU:HD21	13:CM:56:LEU:HD11	1.93	0.50
25:DA:1477:A:H2'	25:DA:1478:G:O4'	2.11	0.50
25:DA:195:A:H61	25:DA:198:C:H3'	1.74	0.50
25:DA:539:G:H2'	25:DA:540:C:H6	1.76	0.50
36:DQ:65:PHE:HB2	36:DQ:105:GLU:HB2	1.92	0.50
36:DQ:20:ALA:HA	36:DQ:99:PRO:HD2	1.92	0.50
1:AA:1226:C:P	13:AM:91:ARG:HH12	2.34	0.50
2:AB:19:HIS:NE2	2:AB:20:GLU:OE2	2.45	0.50
5:AE:152:ARG:HD3	8:AH:42:GLU:O	2.12	0.50
16:AP:57:ARG:NH2	16:AP:79:VAL:O	2.43	0.50
25:BA:2073:A:H4'	28:BE:141:ILE:HG12	1.94	0.50
25:BA:298:G:H2'	25:BA:299:G:H8	1.77	0.50
25:BA:876:A:N7	25:BA:2259:A:O2'	2.42	0.50
27:BD:145:VAL:HB	27:BD:155:LEU:HB2	1.92	0.50
27:BD:180:GLY:HA3	27:BD:275:LYS:HG3	1.92	0.50
30:BG:161:THR:HG22	30:BG:163:ALA:H	1.75	0.50
35:BP:97:PRO:HD3	35:BP:126:VAL:O	2.11	0.50
25:DA:2750:A:H8	25:DA:2750:A:OP1	1.94	0.50
33:DN:34:LEU:O	33:DN:49:GLY:HA3	2.10	0.50
1:AA:1060:C:OP1	14:AN:45:ARG:NH2	2.40	0.50
1:AA:1174:G:H2'	1:AA:1175:G:C8	2.46	0.50
2:AB:218:ALA:O	2:AB:222:ILE:HG13	2.10	0.50
25:BA:2230:U:O4'	47:B1:52:ARG:NH2	2.45	0.50
52:B6:11:LEU:HB3	52:B6:49:HIS:HB3	1.93	0.50
25:BA:1952:G:O2'	25:BA:1990:G:O6	2.20	0.50
25:BA:2132:G:C2	25:BA:2142:G:H1'	2.46	0.50
25:BA:2807:C:N4	25:BA:2813:G:H1	2.09	0.50
27:BD:242:ARG:HD3	27:BD:242:ARG:N	2.26	0.50
1:CA:1244:C:H42	1:CA:1293:G:H1	1.59	0.50
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.47	0.50
1:CA:222:U:H2'	1:CA:223:U:C6	2.46	0.50
4:CD:173:TRP:CZ3	4:CD:193:ASP:HB3	2.46	0.50
1:CA:427:U:OP2	4:CD:36:ARG:NH2	2.45	0.50
1:CA:1119:C:OP1	9:CI:83:ARG:NH1	2.44	0.50
25:DA:2336:A:H61	46:D0:43:THR:HG22	1.77	0.50
32:DI:110:ASP:N	32:DI:130:TYR:OH	2.24	0.50
39:DT:106:SER:O	39:DT:110:ILE:HG13	2.12	0.50
40:DU:81:HIS:HD2	40:DU:84:LYS:HD3	1.77	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2012:G:OP1	42:DW:11:ARG:NH2	2.43	0.50
42:DW:60:ASN:HD22	42:DW:60:ASN:N	2.10	0.50
1:AA:1144:G:N2	1:AA:1146:A:H62	2.09	0.50
1:AA:540:G:H2'	1:AA:541:G:O4'	2.12	0.50
1:AA:664:G:N2	1:AA:741:G:H1	2.06	0.50
3:AC:124:ILE:HD12	3:AC:196:LEU:HD12	1.94	0.50
39:BT:29:ARG:HG3	39:BT:46:GLU:HB2	1.93	0.50
1:CA:1002:G:N1	1:CA:1038:C:O2	2.41	0.50
2:CB:174:VAL:O	2:CB:178:ARG:HB3	2.10	0.50
9:CI:96:LEU:HD22	9:CI:101:PHE:HB2	1.94	0.50
25:DA:2001:A:H2'	25:DA:2002:G:C8	2.46	0.50
25:DA:601:C:O2	25:DA:605:C:H4'	2.12	0.50
26:DB:8:U:H3	26:DB:113:G:H1	1.60	0.50
26:DB:31:C:H4'	30:DG:29:TRP:CZ2	2.47	0.50
32:DI:4:ILE:HG12	32:DI:18:VAL:HG22	1.93	0.50
1:AA:950:U:H2'	1:AA:951:G:C8	2.46	0.50
9:AI:29:ASN:OD1	9:AI:65:VAL:N	2.32	0.50
1:AA:1189:C:P	10:AJ:51:ARG:HH22	2.34	0.50
13:AM:84:ILE:HG13	13:AM:85:GLY:HA2	1.92	0.50
25:BA:1002:A:N1	25:BA:2470:G:H4'	2.27	0.50
25:BA:2166:U:H2'	25:BA:2168:C:H5	1.77	0.50
25:BA:2177:G:H2'	25:BA:2178:G:O4'	2.12	0.50
25:BA:241:G:OP1	35:BP:50:ARG:NH1	2.45	0.50
25:BA:1698:G:N7	37:BR:11:ASN:ND2	2.60	0.50
1:CA:1362:C:C2'	1:CA:1363:C:H5''	2.42	0.50
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.93	0.50
3:CC:113:ALA:HB2	3:CC:202:ILE:HG13	1.94	0.50
1:CA:716:A:N3	11:CK:118:GLY:HA2	2.25	0.50
15:CO:54:ARG:HG2	15:CO:58:MET:HE2	1.93	0.50
21:CU:15:ARG:HB2	21:CU:15:ARG:HH11	1.77	0.50
25:DA:2169:A:H2'	25:DA:2170:A:C8	2.47	0.50
25:DA:422:A:H2'	25:DA:423:A:C8	2.46	0.50
25:DA:455:C:N3	25:DA:472:A:H2'	2.26	0.50
25:DA:821:A:H2'	25:DA:946:G:H5''	1.92	0.50
26:DB:15:A:OP2	26:DB:69:G:N2	2.43	0.50
40:DU:49:HIS:HA	40:DU:52:ARG:HB3	1.94	0.50
50:B4:59:PHE:N	50:B4:59:PHE:CD1	2.80	0.50
25:BA:2162:C:O2	25:BA:2162:C:H2'	2.10	0.50
25:BA:795:G:O6	42:BW:90:ARG:NH1	2.45	0.50
1:CA:1132:C:N4	1:CA:1142:G:H1	2.07	0.50
10:CJ:8:LEU:HD23	10:CJ:96:ILE:HG23	1.93	0.50
16:CP:22:THR:HA	16:CP:33:ILE:HG13	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1354:A:H2'	25:DA:1355:G:O4'	2.11	0.50
25:DA:2869:G:H2'	25:DA:2870:C:O4'	2.12	0.50
25:DA:921:G:C6	25:DA:922:U:C4	3.00	0.50
1:AA:473:G:C2'	1:AA:474:G:H5'	2.40	0.50
1:AA:504:C:H2'	1:AA:511:C:H5	1.77	0.50
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.94	0.50
24:AY:75:C:H5''	24:AY:76:A:H5'	1.94	0.50
50:B4:63:TYR:CD1	50:B4:63:TYR:N	2.80	0.50
51:B5:11:THR:HG23	51:B5:15:ARG:HB3	1.93	0.50
25:BA:2018:C:H4'	25:BA:2019:G:OP1	2.12	0.50
25:BA:2398:C:H2'	25:BA:2399:U:C6	2.47	0.50
29:BF:18:ARG:HG2	29:BF:19:GLU:H	1.75	0.50
1:CA:707:C:H2'	1:CA:708:C:C6	2.47	0.50
1:CA:1353:G:OP1	21:CU:10:ARG:NH1	2.44	0.50
25:DA:2059:A:O2'	29:DF:69:HIS:HD2	1.95	0.50
25:DA:253:C:OP2	54:D8:5:LYS:NZ	2.30	0.50
25:DA:586:A:N1	25:DA:809:G:O2'	2.34	0.50
30:DG:28:VAL:O	30:DG:31:VAL:HG12	2.12	0.50
1:AA:461:A:O2'	1:AA:470:C:H5'	2.12	0.50
2:AB:61:LEU:HD23	2:AB:68:ILE:HD11	1.94	0.50
6:AF:89:MET:HE1	18:AR:72:ARG:HB3	1.94	0.50
55:B9:25:VAL:HB	55:B9:34:GLN:HB2	1.92	0.50
25:BA:1809:U:H2'	25:BA:1815:A:N6	2.27	0.50
25:BA:2169:G:H2'	25:BA:2170:G:O4'	2.12	0.50
25:BA:559:U:H2'	25:BA:560:C:C6	2.47	0.50
39:BT:108:ARG:HH22	39:BT:112:ARG:NH1	2.09	0.50
1:CA:1119:C:N4	1:CA:1154:G:H1	2.05	0.50
1:CA:1103:C:OP1	2:CB:96:ARG:NH2	2.45	0.50
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.94	0.50
11:CK:62:GLN:HG3	11:CK:97:ALA:HB2	1.92	0.50
23:CX:48:C:C2	23:CX:59:A:H1'	2.47	0.50
25:DA:1184:G:OP1	49:D3:30:ARG:HD2	2.11	0.50
25:DA:1528(A):A:H2'	25:DA:1529:G:O4'	2.11	0.50
25:DA:1590:U:H2'	25:DA:1591:G:H8	1.77	0.50
25:DA:61:G:H5'	48:D2:50:ILE:HG21	1.94	0.50
25:DA:817:C:H2'	25:DA:818:G:O4'	2.12	0.50
26:DB:3:C:H2'	26:DB:4:C:C6	2.47	0.50
29:DF:129:PHE:CD2	29:DF:163:VAL:HG21	2.47	0.50
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.47	0.49
1:CA:1037:C:H6	1:CA:1037:C:O5'	1.95	0.49
1:CA:429:U:H1'	1:CA:430:A:H5''	1.93	0.49
1:CA:620:C:H2'	1:CA:621:A:O4'	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:953:G:H5'	1:CA:965:A:N6	2.23	0.49
7:CG:91:VAL:HB	7:CG:96:GLN:HG2	1.93	0.49
23:CX:61:C:H2'	23:CX:62:C:H6	1.76	0.49
47:D1:3:LYS:HB2	47:D1:61:ARG:NH1	2.26	0.49
25:DA:100:G:O2'	48:D2:7:ARG:NH2	2.43	0.49
25:DA:528:A:C2	25:DA:2042:A:H2'	2.47	0.49
30:DG:173:LEU:HB3	30:DG:178:PHE:CD1	2.47	0.49
31:DH:30:LYS:HG3	31:DH:80:SER:O	2.12	0.49
39:DT:22:PHE:CE2	39:DT:52:ILE:HD11	2.47	0.49
1:AA:1213:A:O2'	1:AA:1215:G:N7	2.34	0.49
4:AD:102:ASP:OD2	4:AD:118:ARG:NH1	2.44	0.49
4:AD:107:ARG:NH2	4:AD:194:LEU:HD22	2.17	0.49
25:BA:2549:U:H2'	25:BA:2550:C:C6	2.48	0.49
1:CA:297:G:N2	1:CA:300:A:OP2	2.43	0.49
1:CA:64:G:H4'	1:CA:65:U:H3'	1.94	0.49
1:CA:839:U:H3'	1:CA:840:C:C6	2.46	0.49
6:CF:4:TYR:HD1	6:CF:92:LYS:HA	1.77	0.49
25:DA:2355:C:O3'	46:D0:24:LYS:HD2	2.11	0.49
25:DA:1772:G:OP1	61:DA:4511:HOH:O	2.19	0.49
25:DA:1667:G:O2'	25:DA:1991:U:O4	2.24	0.49
25:DA:2166:G:H5'	25:DA:2167:U:OP2	2.12	0.49
45:DZ:54:HIS:CG	45:DZ:101:PRO:HG3	2.46	0.49
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.94	0.49
1:AA:191:G:N2	20:AT:103:GLY:HA2	2.27	0.49
1:AA:662:G:H2'	1:AA:663:A:C8	2.47	0.49
11:AK:84:VAL:HG11	11:AK:91:ARG:HD2	1.93	0.49
25:BA:768:C:H2'	25:BA:769:A:C8	2.47	0.49
1:CA:1118:C:H2'	1:CA:1119:C:C6	2.48	0.49
1:CA:1258:G:H21	1:CA:1279:A:H62	1.60	0.49
25:DA:1197:G:H2'	25:DA:1198:U:H6	1.77	0.49
25:DA:1581:G:H2'	25:DA:1582:C:O4'	2.12	0.49
25:DA:1363:C:O2'	25:DA:1809:A:N3	2.43	0.49
25:DA:2637:U:H5''	28:DE:82:ARG:NH2	2.27	0.49
32:DI:130:TYR:HD2	32:DI:138:ILE:HD12	1.77	0.49
36:DQ:75:THR:HG21	36:DQ:87:LYS:NZ	2.27	0.49
1:AA:1075:C:H2'	1:AA:1076:C:H5'	1.93	0.49
1:AA:16:A:O2'	5:AE:16:THR:HB	2.13	0.49
24:AY:71:G:H2'	24:AY:72:C:C6	2.48	0.49
25:BA:2152:U:H2'	25:BA:2153:G:N2	2.27	0.49
25:BA:18:C:O2'	25:BA:577:U:OP1	2.26	0.49
31:BH:144:VAL:O	31:BH:148:ILE:HG13	2.13	0.49
1:CA:1029:C:N3	1:CA:1032:G:C2	2.81	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1052:U:H5''	1:CA:1053:G:OP2	2.13	0.49
1:CA:863:U:O2'	1:CA:865:A:N7	2.39	0.49
1:CA:937:A:H1'	1:CA:1379:G:H22	1.78	0.49
2:CB:95:GLN:HB2	2:CB:148:TYR:HD1	1.77	0.49
2:CB:55:PHE:O	2:CB:59:GLU:N	2.35	0.49
1:CA:532:A:H61	3:CC:193:TYR:CB	2.24	0.49
13:CM:106:ASN:N	13:CM:106:ASN:OD1	2.44	0.49
25:DA:2394:C:OP2	54:D8:30:ARG:NH1	2.45	0.49
25:DA:39:C:H2'	25:DA:40:C:C6	2.47	0.49
27:DD:28:GLU:OE1	61:DD:413:HOH:O	2.19	0.49
36:DQ:37:LEU:HD11	36:DQ:130:LYS:HB2	1.94	0.49
1:AA:1027:C:O2	1:AA:1034:G:N1	2.45	0.49
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.34	0.49
1:AA:713:G:H2'	1:AA:714:G:C8	2.47	0.49
19:AS:41:VAL:HG22	19:AS:42:PRO:HD2	1.95	0.49
25:BA:904:C:N4	25:BA:905:U:O4	2.46	0.49
1:CA:1028:C:O2	1:CA:1033:G:N1	2.45	0.49
1:CA:1118:C:H1'	1:CA:1179:A:C5	2.47	0.49
13:CM:79:LYS:NZ	13:CM:83:ASP:OD2	2.39	0.49
25:DA:82:G:N1	25:DA:103:A:OP2	2.42	0.49
25:DA:2035:G:OP1	61:DA:4476:HOH:O	2.19	0.49
25:DA:606:U:H4'	25:DA:658:C:H4'	1.95	0.49
25:DA:709:U:H2'	25:DA:710:G:C8	2.47	0.49
26:DB:33:G:C6	26:DB:34:U:C4	3.01	0.49
29:DF:184:TYR:CE1	35:DP:3:LEU:HD21	2.48	0.49
36:DQ:57:HIS:NE2	36:DQ:116:GLU:HB3	2.28	0.49
37:DR:72:ASP:OD2	37:DR:75:LEU:HB2	2.11	0.49
1:AA:741:G:H2'	1:AA:742:G:O4'	2.13	0.49
1:AA:743:U:H2'	1:AA:744:C:C6	2.48	0.49
2:AB:20:GLU:HB3	2:AB:190:THR:OG1	2.12	0.49
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.13	0.49
5:AE:140:ARG:O	5:AE:143:ARG:NH2	2.42	0.49
25:BA:1153:G:H2'	25:BA:1153:G:N3	2.28	0.49
25:BA:2045:G:H5'	25:BA:2629:C:H4'	1.95	0.49
25:BA:2157:A:H61	25:BA:2178:G:C2'	2.26	0.49
25:BA:2285:A:H2'	25:BA:2286:A:C8	2.47	0.49
25:BA:305:G:H1'	25:BA:384:G:N2	2.27	0.49
44:BY:1:MET:HE2	44:BY:1:MET:H3	1.78	0.49
1:CA:950:U:H2'	1:CA:951:G:H8	1.78	0.49
10:CJ:38:ILE:HG12	10:CJ:71:LEU:O	2.13	0.49
23:CX:76:A:H3'	25:DA:2585:U:C5	2.47	0.49
25:DA:745:G:O6	61:DA:4342:HOH:O	2.19	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2787:C:H1'	28:DE:62:PRO:HG3	1.93	0.49
35:DP:88:LEU:HD11	35:DP:114:ILE:HD12	1.93	0.49
1:AA:45:U:H2'	1:AA:46:G:C8	2.47	0.49
1:AA:589:C:H2'	1:AA:590:C:H5'	1.95	0.49
1:AA:839:U:HO2'	1:AA:840:C:P	2.32	0.49
1:AA:839:U:H3'	1:AA:840:C:C5	2.47	0.49
3:AC:42:LEU:O	3:AC:46:GLU:HG2	2.13	0.49
49:B3:29:ARG:N	49:B3:33:GLN:OE1	2.43	0.49
50:B4:46:GLN:N	50:B4:46:GLN:HE21	2.10	0.49
25:BA:2624:C:OP2	51:B5:2:ALA:N	2.46	0.49
25:BA:2008:A:OP1	61:BA:4484:HOH:O	2.20	0.49
25:BA:2202:U:H2'	25:BA:2203:G:O4'	2.12	0.49
25:BA:225:C:H2'	25:BA:226:C:C6	2.48	0.49
29:BF:29:ASN:H	29:BF:112:MET:CE	2.24	0.49
44:BY:15:VAL:HG21	44:BY:42:VAL:HG11	1.93	0.49
1:CA:189(K):U:H2'	1:CA:189(L):G:C8	2.47	0.49
1:CA:820:U:H4'	1:CA:821:G:OP2	2.13	0.49
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.95	0.49
3:CC:125:GLU:HG3	3:CC:190:ARG:O	2.12	0.49
1:CA:1106:G:H5''	3:CC:172:ARG:HG2	1.94	0.49
6:CF:69:GLU:O	6:CF:72:VAL:HG12	2.12	0.49
25:DA:112:U:H2'	25:DA:113:G:O4'	2.13	0.49
25:DA:1759:A:H4'	25:DA:2715:C:O4'	2.13	0.49
25:DA:2329:G:N2	46:D0:41:ARG:HB3	2.28	0.49
25:DA:297:C:H2'	25:DA:298:G:O4'	2.12	0.49
25:DA:800:A:OP1	25:DA:800:A:H8	1.95	0.49
31:DH:118:PRO:HG2	31:DH:121:ILE:HG13	1.95	0.49
33:DN:111:PRO:HA	33:DN:114:ARG:NH1	2.27	0.49
1:AA:1262:C:H2'	1:AA:1263:C:H6	1.78	0.49
1:AA:258:G:H2'	1:AA:259:G:H8	1.78	0.49
7:AG:111:ARG:NH2	7:AG:126:ASP:OD2	2.45	0.49
1:AA:454:C:OP1	16:AP:75:ARG:NH2	2.45	0.49
49:B3:18:ASP:N	49:B3:18:ASP:OD1	2.46	0.49
25:BA:1219:A:H1'	25:BA:1220:U:C5'	2.43	0.49
25:BA:1553:A:O2'	25:BA:1554:A:O4'	2.31	0.49
25:BA:2860:A:OP2	25:BA:2876:U:H5	1.96	0.49
30:BG:44:GLY:N	30:BG:88:ILE:O	2.45	0.49
36:BQ:118:LEU:HB2	36:BQ:131:ILE:HD13	1.95	0.49
25:BA:1232:G:H5''	41:BV:81:TYR:CE1	2.48	0.49
1:CA:1119:C:N3	1:CA:1154:G:N2	2.61	0.49
1:CA:1122:U:H2'	1:CA:1123:A:C8	2.48	0.49
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:441:A:H3'	1:CA:442:C:C6	2.48	0.49
1:CA:627:G:H2'	1:CA:628:G:C8	2.46	0.49
3:CC:98:ASN:O	3:CC:100:ALA:N	2.46	0.49
10:CJ:20:ALA:HB1	10:CJ:37:PRO:HB3	1.94	0.49
53:D7:24:THR:O	53:D7:28:ARG:HG3	2.12	0.49
25:DA:1359:A:N1	25:DA:1372:U:C4	2.80	0.49
25:DA:2351:G:HO2'	25:DA:2352:A:H8	1.59	0.49
25:DA:2417:C:OP1	35:DP:65:ARG:NH2	2.44	0.49
32:DI:14:ASP:N	32:DI:17:GLN:OE1	2.43	0.49
41:DV:21:ARG:HG2	41:DV:91:TYR:CD2	2.47	0.49
1:AA:792:A:O2'	1:AA:794:A:N7	2.42	0.49
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.48	0.49
23:AX:47:U:H5'	23:AX:48:C:H5'	1.95	0.49
6:AF:81:ILE:HD11	27:BD:125:ILE:HB	1.94	0.49
25:BA:1874:C:H5'	27:BD:253:GLN:HE22	1.76	0.49
25:BA:1039:G:OP1	40:BU:50:ARG:NH2	2.45	0.49
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.48	0.49
1:CA:218:C:C2'	1:CA:219:C:H5'	2.43	0.49
1:CA:35:G:H2'	1:CA:36:C:C6	2.47	0.49
1:CA:537:G:H2'	1:CA:538:G:C8	2.47	0.49
2:CB:94:ASN:HB3	2:CB:95:GLN:NE2	2.27	0.49
3:CC:54:ARG:HG3	3:CC:69:HIS:HB2	1.95	0.49
4:CD:98:GLU:HG2	4:CD:189:PRO:HG2	1.94	0.49
8:CH:121:ASP:OD1	8:CH:121:ASP:N	2.43	0.49
9:CI:128:ARG:NH2	23:CX:33:U:OP2	2.46	0.49
10:CJ:8:LEU:HB3	10:CJ:16:LEU:HD22	1.95	0.49
47:D1:91:LYS:HG2	47:D1:95:LEU:HD22	1.95	0.49
25:DA:143:G:H2'	25:DA:143(A):C:C6	2.48	0.49
25:DA:1508:A:H5'	25:DA:1509(A):A:N7	2.28	0.49
25:DA:1608:A:H1'	25:DA:1610:A:OP2	2.12	0.49
25:DA:1889:A:N1	25:DA:2234:G:H1'	2.28	0.49
25:DA:468:G:N7	53:D7:39:ARG:NH2	2.56	0.49
1:AA:1095:U:OP1	1:AA:1108:G:N2	2.45	0.49
1:AA:562:C:H1'	12:AL:15:ARG:HB3	1.95	0.49
1:AA:1048:G:OP1	14:AN:3:ARG:HB3	2.13	0.49
20:AT:14:LYS:HG3	20:AT:17:ARG:NH2	2.27	0.49
45:BZ:151:HIS:C	45:BZ:153:SER:H	2.17	0.49
1:CA:1176:A:H2'	1:CA:1177:G:C8	2.48	0.49
1:CA:194:C:H2'	1:CA:195:A:H5''	1.94	0.49
1:CA:520:A:N1	1:CA:536:C:H1'	2.28	0.49
1:CA:742:G:OP1	15:CO:35:ARG:NH2	2.46	0.49
1:CA:838:G:H1	1:CA:848:C:H42	1.60	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:9:ARG:H	9:CI:79:LEU:HD23	1.78	0.49
20:CT:18:GLN:O	20:CT:22:ARG:HG3	2.13	0.49
25:DA:1865:G:N2	25:DA:1877:A:OP2	2.43	0.49
25:DA:2103:C:H2'	25:DA:2104:G:O4'	2.12	0.49
28:DE:179:GLU:HB3	28:DE:181:LEU:HD22	1.94	0.49
31:DH:73:ALA:O	31:DH:76:VAL:HG12	2.13	0.49
32:DI:88:ILE:HG12	32:DI:123:LEU:HD13	1.94	0.49
25:DA:2094:G:OP1	32:DI:22:LYS:HD2	2.13	0.49
1:AA:1172:C:H2'	1:AA:1173:G:C8	2.44	0.48
1:AA:1260:C:OP1	1:AA:1284:C:O2'	2.31	0.48
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.48	0.48
1:AA:501:C:H2'	1:AA:502:G:H8	1.78	0.48
1:AA:539:A:H2'	1:AA:540:G:C8	2.47	0.48
1:AA:715:A:H2'	1:AA:716:A:C8	2.47	0.48
2:AB:78:GLN:O	2:AB:94:ASN:ND2	2.46	0.48
14:AN:4:LYS:C	14:AN:6:LEU:H	2.15	0.48
24:AY:4:C:H5'	25:BA:1907:A:H5''	1.95	0.48
25:BA:2377:G:O6	54:B8:39:LYS:HE3	2.13	0.48
25:BA:1444:C:OP1	43:BX:53:LYS:NZ	2.40	0.48
25:BA:553:A:N1	25:BA:2064:A:H2'	2.28	0.48
25:BA:2772:G:N7	61:BA:4232:HOH:O	2.35	0.48
28:BE:144:ARG:HB3	28:BE:145:LYS:H	1.43	0.48
32:BI:100:ALA:HA	32:BI:103:ARG:HD2	1.95	0.48
25:BA:1272:A:OP1	41:BV:84:LYS:HE2	2.13	0.48
1:CA:427:U:O2'	1:CA:541:G:OP1	2.27	0.48
2:CB:91:PRO:HG2	2:CB:155:LEU:HD23	1.95	0.48
25:DA:2121:G:H1	25:DA:2177:C:N4	2.08	0.48
25:DA:880:G:H2'	25:DA:881:G:H5'	1.95	0.48
3:AC:43:LEU:HD21	3:AC:91:LEU:HD13	1.95	0.48
4:AD:79:PHE:HE1	4:AD:204:ILE:HD13	1.78	0.48
12:AL:84:LEU:HB2	12:AL:105:TYR:CE2	2.48	0.48
50:B4:57:GLU:HB3	50:B4:58:ARG:HA	1.95	0.48
51:B5:5:PRO:O	61:B5:4001:HOH:O	2.20	0.48
25:BA:1223:C:H2'	25:BA:1224:C:H6	1.78	0.48
25:BA:1879:A:H2'	25:BA:1880:G:H8	1.78	0.48
25:BA:909:G:H2'	25:BA:910:A:O4'	2.13	0.48
27:BD:108:PRO:HG2	27:BD:111:LEU:HG	1.94	0.48
1:CA:444:C:H2'	1:CA:445:G:C8	2.47	0.48
25:DA:1591:G:H2'	25:DA:1592:C:C6	2.47	0.48
25:DA:1798:U:H5'	27:DD:259:THR:CG2	2.38	0.48
25:DA:2695:C:H2'	25:DA:2696:U:C6	2.48	0.48
26:DB:73:A:C4	26:DB:105:A:C2	3.00	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:20:LEU:HA	29:DF:20:LEU:HD23	1.67	0.48
32:DI:77:LEU:HD12	32:DI:140:LEU:HD11	1.94	0.48
38:DS:10:ARG:HH21	38:DS:91:PRO:HB2	1.78	0.48
1:AA:1039:C:H2'	1:AA:1040:U:H6	1.78	0.48
1:AA:1304:G:C6	1:AA:1305:G:N1	2.81	0.48
16:AP:19:ILE:HG23	16:AP:37:GLY:C	2.33	0.48
25:BA:1475:G:H2'	25:BA:1476:C:C6	2.47	0.48
25:BA:2509:A:H5''	61:BA:4109:HOH:O	2.12	0.48
25:BA:886:U:H2'	25:BA:887:C:C6	2.49	0.48
31:BH:24:VAL:HG22	31:BH:35:VAL:HB	1.94	0.48
1:CA:359:U:H2'	1:CA:360:A:C8	2.48	0.48
1:CA:628:G:C2'	1:CA:629:G:H5'	2.42	0.48
3:CC:39:ILE:HG23	3:CC:91:LEU:HD11	1.94	0.48
25:DA:1495:A:H2'	25:DA:1496:A:C8	2.48	0.48
25:DA:1462:C:H4'	25:DA:2703:C:H5'	1.95	0.48
35:DP:38:GLN:O	35:DP:39:LYS:HB3	2.14	0.48
1:AA:1121:U:C2'	1:AA:1122:U:H5'	2.44	0.48
1:AA:166:G:H2'	1:AA:167:G:C8	2.48	0.48
1:AA:977:A:H1'	1:AA:982:U:O4	2.14	0.48
4:AD:154:ASN:HA	4:AD:159:ARG:HH21	1.78	0.48
13:AM:29:ARG:HD3	13:AM:64:TRP:CD2	2.49	0.48
25:BA:1091:A:OP1	25:BA:1092:A:H3'	2.14	0.48
25:BA:186:A:N6	25:BA:2442:A:O2'	2.46	0.48
25:BA:2658:C:H2'	25:BA:2659:U:O4'	2.14	0.48
25:BA:895:G:O6	25:BA:974:G:H2'	2.14	0.48
25:BA:895:G:N3	25:BA:978:A:H1'	2.28	0.48
29:BF:29:ASN:H	29:BF:112:MET:HE1	1.79	0.48
25:BA:721:G:O2'	29:BF:74:ARG:HD3	2.14	0.48
45:BZ:105:VAL:O	45:BZ:140:ASP:HA	2.14	0.48
1:CA:1262:C:O2'	1:CA:1263:C:H5'	2.13	0.48
1:CA:73:G:C6	1:CA:97:G:C6	3.02	0.48
3:CC:47:LEU:HD12	3:CC:68:VAL:HG11	1.95	0.48
4:CD:78:LEU:HD22	4:CD:96:LEU:HB3	1.96	0.48
54:D8:22:VAL:HG12	54:D8:50:LEU:HD12	1.94	0.48
25:DA:1364:G:OP2	47:D1:3:LYS:HG3	2.13	0.48
25:DA:2006:C:O5'	25:DA:2006:C:H6	1.95	0.48
25:DA:625:G:N7	35:DP:107:LYS:NZ	2.51	0.48
25:DA:863:A:OP1	36:DQ:22:LYS:HG3	2.13	0.48
25:DA:2276:G:H5'	36:DQ:86:GLY:HA2	1.96	0.48
37:DR:2:ARG:NH1	37:DR:5:LYS:O	2.44	0.48
25:DA:994:C:H1'	41:DV:10:LYS:HE3	1.94	0.48
44:DY:9:LYS:HA	44:DY:10:GLY:HA2	1.51	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:909:A:H2'	1:AA:910:C:O4'	2.14	0.48
3:AC:164:ARG:HD2	3:AC:166:GLU:HG2	1.95	0.48
15:AO:82:ILE:HD11	15:AO:88:ARG:HH11	1.77	0.48
25:BA:1411:A:OP2	47:B1:3:LYS:HG2	2.13	0.48
50:B4:61:ARG:HG3	50:B4:62:ARG:N	2.27	0.48
25:BA:1800:G:O2'	25:BA:1980:C:OP1	2.26	0.48
25:BA:2087:C:H2'	25:BA:2088:C:C6	2.48	0.48
25:BA:2376:C:H2'	25:BA:2377:G:O4'	2.13	0.48
1:CA:1226:C:H4'	19:CS:80:TYR:OH	2.14	0.48
1:CA:1362:C:H2'	1:CA:1363:C:H5''	1.95	0.48
2:CB:27:LYS:HD3	2:CB:193:ASP:OD1	2.14	0.48
25:DA:2161:C:H2'	25:DA:2162:G:C8	2.47	0.48
25:DA:2369:A:H2'	25:DA:2370:G:C8	2.48	0.48
25:DA:2557:G:H2'	25:DA:2558:C:H6	1.79	0.48
25:DA:271(P):C:H2'	25:DA:271(Q):G:O4'	2.13	0.48
25:DA:570:G:H5''	61:DA:4155:HOH:O	2.13	0.48
25:DA:705:A:H2'	25:DA:706:A:O4'	2.14	0.48
29:DF:117:ARG:NH2	29:DF:189:THR:O	2.46	0.48
30:DG:105:LYS:NZ	30:DG:143:GLU:OE2	2.47	0.48
30:DG:106:LEU:HA	30:DG:110:ALA:HB3	1.96	0.48
34:DO:63:VAL:HG11	34:DO:85:VAL:HG23	1.96	0.48
36:DQ:68:ILE:HG23	36:DQ:103:MET:HA	1.95	0.48
36:DQ:26:TYR:O	36:DQ:67:ARG:NH1	2.46	0.48
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.79	0.48
1:AA:1305:G:H22	1:AA:1331:G:H1'	1.79	0.48
1:AA:429:U:H1'	1:AA:430:A:H5''	1.96	0.48
2:AB:33:TYR:HB2	2:AB:43:ASP:HB2	1.95	0.48
5:AE:11:ILE:HB	5:AE:31:LEU:HB3	1.96	0.48
25:BA:2650:G:OP1	28:BE:82:ARG:NH2	2.46	0.48
25:BA:287:G:N7	25:BA:448:U:H2'	2.29	0.48
25:BA:354:A:HO2'	25:BA:355:A:H8	1.59	0.48
25:BA:390:G:H2'	25:BA:391:G:C8	2.49	0.48
27:BD:10:THR:OG1	27:BD:13:ARG:HB2	2.14	0.48
31:BH:124:GLU:HB2	31:BH:132:ARG:HB3	1.95	0.48
25:BA:2858:G:H8	39:BT:97:ALA:HB2	1.78	0.48
1:CA:299:G:H2'	1:CA:300:A:C8	2.49	0.48
1:CA:434:U:H2'	1:CA:435:C:C6	2.49	0.48
7:CG:47:CYS:HA	7:CG:50:ILE:HG12	1.95	0.48
19:CS:20:LEU:HA	19:CS:23:ASN:HB2	1.95	0.48
25:DA:857:C:H1'	46:D0:26:TYR:CE1	2.49	0.48
25:DA:1378:A:OP1	53:D7:10:ARG:NH2	2.47	0.48
53:D7:9:ARG:HE	53:D7:47:ARG:HG3	1.78	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1429:G:H2'	25:DA:1430:C:C6	2.48	0.48
25:DA:1939:U:OP1	25:DA:2604:U:O2'	2.32	0.48
25:DA:8:A:H2'	25:DA:9:U:H6	1.78	0.48
27:DD:17:THR:O	27:DD:211:ARG:NH2	2.47	0.48
31:DH:27:LYS:NZ	31:DH:32:GLU:OE2	2.41	0.48
1:AA:1001(A):G:C6	1:AA:1002:G:C5	3.02	0.48
1:AA:1118:C:H1'	1:AA:1179:A:C5	2.49	0.48
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.13	0.48
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.77	0.48
1:AA:175:C:H2'	1:AA:176:C:H6	1.79	0.48
1:AA:389:A:N3	1:AA:389:A:H2'	2.29	0.48
1:AA:688:G:H2'	1:AA:689:C:C6	2.49	0.48
1:AA:97:G:O2'	1:AA:98:G:H8	1.96	0.48
2:AB:60:ASP:O	2:AB:64:ARG:HB2	2.13	0.48
14:AN:23:ARG:NH1	14:AN:30:ALA:HB2	2.28	0.48
20:AT:47:GLY:HA2	20:AT:48:LYS:C	2.34	0.48
23:AX:21:A:H5'	23:AX:22:G:OP1	2.13	0.48
50:B4:56:VAL:HG23	50:B4:57:GLU:HG3	1.95	0.48
25:BA:1495:G:H4'	25:BA:1589:A:OP1	2.13	0.48
25:BA:2186:C:H5	25:BA:2187:G:N3	2.12	0.48
25:BA:223:C:H2'	25:BA:224:U:H6	1.79	0.48
25:BA:2760:G:O6	25:BA:2768:C:H5''	2.12	0.48
25:BA:927:G:H2'	25:BA:928:G:H8	1.79	0.48
29:BF:164:ARG:O	29:BF:168:ARG:HB2	2.13	0.48
32:BI:43:ASN:HD22	32:BI:43:ASN:C	2.17	0.48
45:BZ:150:LEU:O	45:BZ:171:ILE:HG13	2.13	0.48
1:CA:129(A):G:C6	1:CA:189(E):U:H4'	2.48	0.48
57:CA:3176:PCY:H8	57:CA:3176:PCY:H181	1.55	0.48
1:CA:406:G:H5'	4:CD:5:ILE:HD11	1.96	0.48
3:CC:125:GLU:OE2	3:CC:125:GLU:N	2.46	0.48
25:DA:938:G:OP1	54:D8:52:LYS:HD2	2.14	0.48
25:DA:1288:U:O4	37:DR:106:GLY:HA3	2.14	0.48
1:CA:1494:G:N2	25:DA:1912:A:N3	2.61	0.48
1:CA:1493:A:H8	25:DA:1913:A:N1	2.12	0.48
25:DA:1637:A:H4'	25:DA:2711:A:O2'	2.14	0.48
25:DA:2776:A:H4'	25:DA:2777:G:H5''	1.95	0.48
25:DA:2809:A:H2'	25:DA:2810:A:C8	2.49	0.48
27:DD:3:VAL:HG13	27:DD:17:THR:HB	1.94	0.48
27:DD:182:LEU:HB2	27:DD:272:ALA:HB3	1.95	0.48
31:DH:9:ILE:HG12	31:DH:69:ARG:HD2	1.96	0.48
1:AA:153:C:H42	1:AA:169:C:N4	2.12	0.48
1:AA:495:A:N3	1:AA:496:A:C8	2.82	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:81:VAL:HG12	2:AB:215:LEU:HD11	1.95	0.48
7:AG:149:ARG:HD2	11:AK:59:TYR:CE1	2.49	0.48
25:BA:155:C:H6	25:BA:155:C:OP2	1.97	0.48
25:BA:715:G:H5'	25:BA:716:G:OP2	2.13	0.48
30:BG:144:ILE:HA	30:BG:148:MET:HE1	1.95	0.48
25:BA:999:G:H5''	36:BQ:13:GLN:HB3	1.95	0.48
37:BR:55:ALA:HB2	37:BR:79:LEU:HD13	1.96	0.48
26:BB:28:C:H5''	38:BS:31:SER:HB3	1.95	0.48
42:BW:51:LEU:HD23	42:BW:105:VAL:HG11	1.95	0.48
1:CA:1036:G:H3'	1:CA:1037:C:C6	2.49	0.48
1:CA:302:G:N3	1:CA:556:C:H4'	2.29	0.48
1:CA:918:A:H2'	1:CA:919:A:C8	2.49	0.48
2:CB:166:ASP:HB3	2:CB:169:LYS:HB3	1.94	0.48
4:CD:74:GLN:NE2	4:CD:137:SER:OG	2.47	0.48
25:DA:2815:C:H2'	25:DA:2816:C:C6	2.49	0.48
25:DA:530:G:N1	61:DA:4457:HOH:O	2.17	0.48
27:DD:73:VAL:HG13	27:DD:120:GLY:HA3	1.96	0.48
28:DE:11:MET:HG2	28:DE:24:THR:HB	1.95	0.48
1:AA:921:U:O2	5:AE:19:MET:HB2	2.12	0.48
13:AM:9:ILE:HB	13:AM:18:ALA:HB1	1.96	0.48
30:BG:66:GLN:HG3	50:B4:1:MET:CE	2.44	0.48
54:B8:6:THR:HG22	54:B8:63:PRO:HD2	1.95	0.48
25:BA:1954:A:H2'	25:BA:1955:G:O4'	2.13	0.48
25:BA:275:C:H2'	25:BA:276:C:C6	2.48	0.48
25:BA:2818:U:H5''	25:BA:2900:G:O6	2.14	0.48
35:BP:107:LYS:O	35:BP:110:TYR:HB2	2.13	0.48
36:BQ:1:MET:SD	36:BQ:1:MET:N	2.82	0.48
37:BR:22:ARG:NE	37:BR:69:ASP:OD1	2.41	0.48
1:CA:1057:G:C2'	1:CA:1058:G:H5'	2.44	0.48
1:CA:1095:U:H5''	1:CA:1109:C:O2	2.14	0.48
1:CA:1122:U:C4	1:CA:1123:A:N7	2.81	0.48
1:CA:539:A:H2'	1:CA:540:G:C8	2.48	0.48
3:CC:181:ASN:HD21	3:CC:204:LEU:HD12	1.77	0.48
25:DA:1796:U:H2'	25:DA:1797:C:H6	1.78	0.48
25:DA:2745:C:C4	25:DA:2746:U:C4	3.02	0.48
25:DA:642:G:H21	25:DA:646:A:H2	1.60	0.48
1:AA:1273:G:H3'	1:AA:1274:G:H8	1.79	0.48
2:AB:10:LEU:C	2:AB:12:GLU:H	2.17	0.48
3:AC:157:ILE:HD12	3:AC:164:ARG:HB3	1.96	0.48
5:AE:77:PRO:HD2	5:AE:142:LEU:HD22	1.95	0.48
25:BA:2101:U:OP1	47:B1:21:ARG:NH2	2.47	0.48
48:B2:32:LEU:HD13	48:B2:36:ARG:NH1	2.29	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:197:C:H2'	25:BA:198:C:C6	2.49	0.48
25:BA:482:C:H4'	61:BA:4029:HOH:O	2.14	0.48
25:BA:661:G:OP1	35:BP:132:LYS:HE2	2.13	0.48
1:CA:600:C:H2'	1:CA:601:C:C6	2.49	0.48
1:CA:911:U:H2'	1:CA:912:C:C6	2.49	0.48
4:CD:15:GLU:OE2	4:CD:66:ARG:NH1	2.40	0.48
19:CS:3:ARG:HH22	19:CS:10:PHE:HD2	1.61	0.48
25:DA:1290:C:H2'	25:DA:1291:C:H6	1.79	0.48
25:DA:1899:G:O2'	25:DA:1900:A:OP2	2.29	0.48
25:DA:2647:U:H2'	25:DA:2648:C:C6	2.49	0.48
25:DA:2680:C:OP2	28:DE:111:ARG:NH2	2.47	0.48
25:DA:911:A:H2'	36:DQ:9:TYR:OH	2.13	0.48
30:DG:3:LEU:HD12	30:DG:5:VAL:HG12	1.95	0.48
28:DE:12:THR:HG22	39:DT:58:ASN:OD1	2.14	0.48
45:DZ:7:ALA:HB3	45:DZ:61:LEU:HD12	1.96	0.48
1:AA:911:U:H2'	1:AA:912:C:C6	2.49	0.47
12:AL:88:GLY:O	12:AL:99:HIS:HD2	1.96	0.47
19:AS:9:VAL:HG11	50:B4:61:ARG:NH2	2.29	0.47
54:B8:23:VAL:HG11	54:B8:47:LYS:HD3	1.94	0.47
25:BA:1629:C:O2'	25:BA:1632:A:N3	2.39	0.47
25:BA:2162:C:N3	25:BA:2173:G:C6	2.82	0.47
25:BA:207:A:C2	25:BA:224:U:H4'	2.49	0.47
25:BA:83:A:H5'	44:BY:8:LYS:HG2	1.95	0.47
30:BG:108:ASN:HD22	50:B4:22:ILE:HG21	1.79	0.47
43:BX:61:GLY:HA3	43:BX:73:ARG:O	2.14	0.47
1:CA:1028:C:C2	1:CA:1033:G:C6	3.02	0.47
1:CA:1097:C:H1'	1:CA:1170:A:H1'	1.95	0.47
1:CA:10:A:OP2	5:CE:126:ARG:HD2	2.14	0.47
1:CA:880:C:OP1	12:CL:8:ASN:ND2	2.45	0.47
1:CA:984:C:H2'	1:CA:985:C:H6	1.78	0.47
1:CA:407:G:O4'	4:CD:119:GLN:NE2	2.47	0.47
25:DA:2114:A:N6	25:DA:2115:G:H21	2.12	0.47
25:DA:2131:G:C8	25:DA:2133:G:C2	3.02	0.47
25:DA:2734:A:H2'	25:DA:2735:G:O4'	2.13	0.47
25:DA:467:G:OP1	53:D7:33:ARG:HD2	2.13	0.47
25:DA:818:G:O2'	25:DA:838:C:O2'	2.23	0.47
26:DB:31:C:C2'	26:DB:32:C:H5'	2.44	0.47
30:DG:7:LEU:HD11	30:DG:107:LEU:HD12	1.95	0.47
32:DI:47:LEU:O	32:DI:51:ILE:HG13	2.14	0.47
42:DW:51:LEU:HD23	42:DW:105:VAL:HG11	1.96	0.47
1:AA:1392:G:H21	1:AA:1502:A:H8	1.59	0.47
25:BA:215:G:H21	25:BA:217:A:H62	1.61	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2798:C:H2'	25:BA:2799:U:O4'	2.14	0.47
25:BA:2804:C:H2'	25:BA:2805:G:C8	2.48	0.47
25:BA:842:C:H2'	25:BA:843:C:C6	2.49	0.47
25:BA:923:C:H2'	25:BA:924:U:O4'	2.14	0.47
44:BY:9:LYS:HA	44:BY:10:GLY:HA2	1.67	0.47
1:CA:739:C:OP1	15:CO:2:PRO:HD3	2.14	0.47
1:CA:814:A:N7	1:CA:816:A:C4	2.82	0.47
1:CA:938:A:C6	1:CA:939:G:C5	3.02	0.47
16:CP:3:LYS:HG2	16:CP:65:GLN:HB2	1.95	0.47
26:DB:2:C:H2'	26:DB:3:C:C6	2.49	0.47
45:DZ:5:LEU:HD13	45:DZ:6:LYS:O	2.14	0.47
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.49	0.47
1:AA:1237:C:O2'	1:AA:1300:G:N2	2.33	0.47
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.49	0.47
1:AA:833:U:H2'	1:AA:834:C:C6	2.49	0.47
1:AA:96:U:H2'	1:AA:97:G:C8	2.50	0.47
1:AA:991:U:HO2'	1:AA:992:U:P	2.34	0.47
1:AA:538:G:H5''	12:AL:114:LYS:HB2	1.96	0.47
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.15	0.47
25:BA:1218:G:O2'	25:BA:1219:A:O5'	2.32	0.47
25:BA:2183:C:O2'	25:BA:2195:A:H4'	2.14	0.47
25:BA:2331:G:N2	38:BS:3:ARG:HA	2.30	0.47
25:BA:2596:U:H2'	25:BA:2597:U:H2'	1.95	0.47
25:BA:2885:C:OP1	39:BT:3:ARG:NH1	2.43	0.47
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.98	0.47
1:CA:1238:A:C2	1:CA:1303:C:H4'	2.50	0.47
1:CA:59:A:H3'	1:CA:331:G:H22	1.79	0.47
1:CA:750:G:H1'	15:CO:22:THR:HG1	1.78	0.47
1:CA:1309:G:O2'	13:CM:77:ASN:ND2	2.47	0.47
50:D4:59:PHE:HA	50:D4:60:GLN:C	2.34	0.47
25:DA:1186:G:C2	25:DA:1187:G:H1'	2.49	0.47
25:DA:898:C:H2'	25:DA:899:A:O4'	2.14	0.47
26:DB:32:C:H2'	26:DB:33:G:O4'	2.15	0.47
30:DG:43:LEU:C	30:DG:45:GLU:H	2.17	0.47
34:DO:119:PRO:HB2	39:DT:68:TYR:CE2	2.48	0.47
25:DA:2683:C:P	39:DT:53:ARG:HH22	2.36	0.47
45:DZ:31:ARG:HD2	45:DZ:94:GLU:OE2	2.13	0.47
1:AA:1005:A:N3	1:AA:1036:G:N2	2.56	0.47
1:AA:1057:G:C2'	1:AA:1058:G:H5'	2.44	0.47
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.49	0.47
1:AA:144:G:H1	1:AA:178:C:N4	2.11	0.47
1:AA:1464:G:OP2	39:BT:111:ARG:NH2	2.48	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:649:G:H2'	1:AA:650:G:C8	2.47	0.47
3:AC:9:GLY:N	14:AN:49:HIS:O	2.46	0.47
25:BA:2623:U:H6	25:BA:2623:U:H5'	1.79	0.47
25:BA:302:A:H4'	25:BA:303:C:OP1	2.14	0.47
25:BA:662:A:H8	35:BP:117:GLU:HG3	1.79	0.47
41:BV:34:GLU:HB3	41:BV:56:SER:HB2	1.97	0.47
1:CA:1057:G:H2'	1:CA:1058:G:H5'	1.95	0.47
1:CA:1165:C:N3	1:CA:1171:G:N2	2.63	0.47
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.49	0.47
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.15	0.47
1:CA:1493:A:H5''	1:CA:1494:G:OP2	2.14	0.47
2:CB:123:ALA:N	2:CB:127:ILE:HD12	2.27	0.47
25:DA:1131:G:C8	25:DA:2025:C:H4'	2.49	0.47
25:DA:2144:U:H1'	25:DA:2148:G:N2	2.29	0.47
29:DF:137:LYS:HB3	29:DF:137:LYS:NZ	2.29	0.47
31:DH:118:PRO:HD2	31:DH:121:ILE:HG21	1.96	0.47
35:DP:39:LYS:HD2	35:DP:45:LEU:HD11	1.95	0.47
38:DS:50:SER:O	38:DS:76:LYS:NZ	2.45	0.47
41:DV:6:LYS:HB2	41:DV:38:LEU:HD21	1.95	0.47
25:DA:875:G:O2'	45:DZ:151:HIS:HE1	1.97	0.47
45:DZ:50:GLN:OE1	45:DZ:50:GLN:N	2.47	0.47
1:AA:1239:A:H4'	1:AA:1240:U:H5''	1.95	0.47
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.37	0.47
1:AA:630:G:O2'	1:AA:631:G:H5'	2.14	0.47
1:AA:818:G:HO2'	1:AA:820:U:H6	1.62	0.47
10:AJ:13:HIS:HA	10:AJ:16:LEU:HB3	1.97	0.47
1:AA:391:G:P	16:AP:28:ARG:HH12	2.37	0.47
26:BB:24:G:N7	26:BB:56:G:H2'	2.29	0.47
38:BS:59:LYS:HB2	38:BS:60:GLY:H	1.51	0.47
40:BU:86:ALA:O	41:BV:49:THR:HG23	2.15	0.47
1:CA:1009:G:N2	1:CA:1021:G:H1'	2.29	0.47
1:CA:1342:C:H1'	9:CI:124:GLN:NE2	2.30	0.47
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.50	0.47
1:CA:728:A:H2'	1:CA:729:A:H8	1.76	0.47
13:CM:81:LEU:HD22	13:CM:88:ARG:HB3	1.96	0.47
14:CN:24:CYS:O	14:CN:28:GLY:N	2.43	0.47
1:CA:976:G:P	14:CN:32:SER:H	2.38	0.47
19:CS:64:GLU:HB2	50:D4:59:PHE:CE1	2.49	0.47
47:D1:83:GLU:HA	47:D1:84:GLY:HA2	1.66	0.47
25:DA:1149:G:H2'	25:DA:1150:C:C6	2.49	0.47
25:DA:1209:G:O2'	25:DA:1237:A:N1	2.38	0.47
25:DA:1486:A:O2'	25:DA:1487:G:H5'	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1505:C:H2'	25:DA:1506:C:C6	2.50	0.47
25:DA:1448:G:H4'	25:DA:1542:A:OP1	2.14	0.47
25:DA:2106:G:H2'	25:DA:2107:C:O4'	2.15	0.47
25:DA:2137:C:H2'	25:DA:2138:C:C5	2.49	0.47
25:DA:2483:C:H2'	25:DA:2484:G:O4'	2.15	0.47
25:DA:2615:U:OP1	61:DA:4295:HOH:O	2.20	0.47
25:DA:307:G:N2	25:DA:310:A:O5'	2.39	0.47
25:DA:484:C:H2'	25:DA:485:C:H6	1.80	0.47
43:DX:43:VAL:HG21	43:DX:81:VAL:HG11	1.95	0.47
44:DY:28:LYS:HD2	44:DY:40:GLU:HG3	1.95	0.47
1:AA:620:C:H2'	1:AA:621:A:O4'	2.13	0.47
1:AA:407:G:OP1	4:AD:115:ARG:HD3	2.15	0.47
4:AD:166:LYS:HD3	4:AD:178:VAL:HG11	1.96	0.47
4:AD:61:LYS:O	4:AD:65:ARG:HB2	2.15	0.47
8:AH:26:VAL:HG22	8:AH:59:LEU:HB2	1.97	0.47
24:AY:69:G:C2	24:AY:70:G:H1'	2.50	0.47
49:B3:26:LEU:O	49:B3:35:ARG:NE	2.46	0.47
25:BA:1189:A:OP1	33:BN:25:ARG:NH2	2.48	0.47
25:BA:777:C:H3'	61:BA:4849:HOH:O	2.15	0.47
25:BA:895:G:N9	25:BA:978:A:H8	2.12	0.47
45:BZ:138:GLU:N	45:BZ:156:LYS:HD3	2.28	0.47
1:CA:359:U:H2'	1:CA:360:A:H8	1.78	0.47
1:CA:642:A:N3	8:CH:113:SER:OG	2.45	0.47
10:CJ:42:THR:HG21	10:CJ:66:ARG:HB3	1.96	0.47
14:CN:27:CYS:SG	14:CN:29:ARG:HB2	2.54	0.47
25:DA:1131:G:H8	25:DA:2025:C:H4'	1.78	0.47
25:DA:2320:A:N3	25:DA:2320:A:H2'	2.30	0.47
25:DA:797:C:H2'	25:DA:798:G:O4'	2.15	0.47
25:DA:2579:C:H4'	28:DE:134:ILE:HG12	1.97	0.47
29:DF:164:ARG:O	29:DF:168:ARG:HB2	2.13	0.47
29:DF:29:ASN:H	29:DF:112:MET:CE	2.26	0.47
25:DA:2562:U:H1'	34:DO:23:ARG:HH11	1.80	0.47
38:DS:62:LYS:HA	38:DS:65:VAL:HB	1.96	0.47
1:AA:373:A:H2'	1:AA:374:A:H8	1.79	0.47
1:AA:439:A:N3	1:AA:496:A:C4	2.82	0.47
1:AA:472:A:H2'	1:AA:473:G:O4'	2.15	0.47
1:AA:745:C:H2'	1:AA:746:A:C8	2.49	0.47
2:AB:170:GLU:O	2:AB:174:VAL:HG23	2.15	0.47
10:AJ:31:GLY:HA2	10:AJ:32:ALA:HA	1.47	0.47
20:AT:48:LYS:HD3	20:AT:48:LYS:HA	1.70	0.47
25:BA:1604:C:OP2	25:BA:1605:A:O2'	2.21	0.47
25:BA:2204:G:H2'	25:BA:2205:C:C6	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2639:G:O2'	25:BA:2794:A:N1	2.37	0.47
25:BA:831:A:C6	27:BD:229:VAL:HG11	2.50	0.47
30:BG:16:ARG:CZ	30:BG:31:VAL:HG11	2.44	0.47
1:AA:1442(B):A:C4	39:BT:118:ARG:NH2	2.83	0.47
1:CA:662:G:H2'	1:CA:663:A:C8	2.49	0.47
1:CA:750:G:H1'	15:CO:22:THR:OG1	2.14	0.47
1:CA:1104:G:H4'	2:CB:111:ARG:NH1	2.29	0.47
3:CC:164:ARG:HG2	3:CC:165:THR:H	1.79	0.47
5:CE:137:GLU:HG2	5:CE:140:ARG:HH11	1.78	0.47
7:CG:111:ARG:NH2	7:CG:126:ASP:OD2	2.46	0.47
1:CA:1118:C:OP1	9:CI:9:ARG:HD2	2.15	0.47
47:D1:51:VAL:HG11	47:D1:74:VAL:HG21	1.95	0.47
25:DA:10:G:H2'	25:DA:11:G:C8	2.50	0.47
25:DA:1342:A:H2	25:DA:1396:U:HO2'	1.62	0.47
25:DA:1509(B):A:H2'	25:DA:1510:G:H8	1.79	0.47
1:CA:1493:A:H3'	25:DA:1913:A:N1	2.29	0.47
25:DA:2617:C:H2'	25:DA:2618:G:O4'	2.15	0.47
25:DA:948:G:H21	25:DA:985:C:P	2.37	0.47
26:DB:31:C:H2'	26:DB:32:C:H5'	1.95	0.47
30:DG:106:LEU:O	30:DG:111:LEU:HG	2.15	0.47
34:DO:68:GLU:HB3	34:DO:78:ARG:HB2	1.96	0.47
36:DQ:75:THR:HG21	36:DQ:87:LYS:HZ2	1.79	0.47
36:DQ:11:LYS:NZ	36:DQ:88:GLY:O	2.33	0.47
38:DS:11:LYS:HD3	38:DS:91:PRO:HD3	1.95	0.47
1:AA:221:C:H2'	1:AA:222:U:C6	2.48	0.47
1:AA:811:C:O2'	1:AA:901:A:N1	2.43	0.47
25:BA:484:G:C8	53:B7:37:LYS:HG2	2.49	0.47
25:BA:1974:A:C6	25:BA:1975:A:N1	2.83	0.47
25:BA:2156:A:HO2'	25:BA:2157:A:P	2.38	0.47
25:BA:762:G:H2'	25:BA:763:A:O4'	2.15	0.47
1:CA:1375:A:O2'	7:CG:29:LYS:NZ	2.44	0.47
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.80	0.47
57:CA:3176:PCY:N20	57:CA:3176:PCY:O21	2.48	0.47
1:CA:390:C:H2'	1:CA:391:G:C8	2.50	0.47
1:CA:509:A:O2'	1:CA:510:A:OP1	2.26	0.47
1:CA:300:A:H1'	1:CA:565:U:O2	2.15	0.47
13:CM:91:ARG:NE	13:CM:97:PRO:O	2.48	0.47
15:CO:62:GLN:HE21	15:CO:66:LEU:HD13	1.79	0.47
16:CP:43:LYS:HA	16:CP:48:TRP:HB3	1.96	0.47
23:CX:4:G:H1	23:CX:69:C:H42	1.62	0.47
47:D1:67:ILE:N	47:D1:68:PRO:HD2	2.30	0.47
49:D3:29:ARG:N	49:D3:33:GLN:OE1	2.36	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1639:U:C2'	25:DA:1640:C:H5''	2.44	0.47
25:DA:1697:G:OP2	25:DA:1698:A:O2'	2.21	0.47
25:DA:2261:C:O2'	25:DA:2262:U:H5'	2.15	0.47
25:DA:325:G:H2'	25:DA:326:G:O4'	2.15	0.47
25:DA:864:G:N2	25:DA:913:U:C2	2.83	0.47
25:DA:2019:A:H4'	40:DU:34:LYS:HD2	1.97	0.47
1:AA:1112:C:H1'	3:AC:179:ARG:HG2	1.95	0.47
1:AA:240:C:H2'	1:AA:241:C:C6	2.50	0.47
1:AA:250:A:H4'	1:AA:251:G:O5'	2.15	0.47
4:AD:170:VAL:HG12	4:AD:171:GLY:H	1.80	0.47
6:AF:76:ALA:O	6:AF:80:ARG:HG3	2.14	0.47
10:AJ:5:ARG:HB3	10:AJ:73:ASP:OD1	2.14	0.47
11:AK:20:TYR:HB2	11:AK:31:THR:HG23	1.96	0.47
12:AL:24:VAL:HG12	12:AL:27:LEU:HB2	1.95	0.47
6:AF:62:TRP:CD1	18:AR:35:ARG:HD2	2.50	0.47
25:BA:1552:C:H2'	25:BA:1553:A:H8	1.79	0.47
25:BA:756:U:H2'	25:BA:757:G:C8	2.50	0.47
25:BA:801:C:H2'	25:BA:802:C:C6	2.50	0.47
26:BB:87:G:N2	26:BB:90:A:OP2	2.32	0.47
29:BF:51:THR:HB	29:BF:88:VAL:CG1	2.45	0.47
1:CA:232:G:H1'	1:CA:262:A:N1	2.29	0.47
1:CA:690:G:C6	1:CA:691:G:C6	3.03	0.47
2:CB:207:ALA:O	2:CB:210:SER:HB3	2.15	0.47
4:CD:128:VAL:HG12	4:CD:129:ASN:ND2	2.29	0.47
4:CD:65:ARG:HG2	4:CD:75:PHE:CD1	2.50	0.47
25:DA:1686:C:H2'	25:DA:1687:G:O4'	2.14	0.47
25:DA:172:C:H2'	25:DA:173:G:C8	2.50	0.47
25:DA:1786:A:H1'	25:DA:1938:A:N6	2.29	0.47
25:DA:2590:A:OP2	27:DD:238:GLY:HA2	2.14	0.47
25:DA:528:A:C2'	25:DA:529:A:H5''	2.44	0.47
25:DA:579:G:H2'	25:DA:580:C:C6	2.50	0.47
25:DA:761:A:OP2	61:DA:4073:HOH:O	2.20	0.47
26:DB:119:G:H2'	26:DB:120:A:C8	2.50	0.47
27:DD:124:PRO:HG2	27:DD:129:ASN:HD21	1.79	0.47
32:DI:86:THR:O	32:DI:123:LEU:HD22	2.14	0.47
34:DO:34:THR:OG1	34:DO:35:VAL:N	2.47	0.47
38:DS:34:HIS:ND1	38:DS:53:SER:OG	2.41	0.47
44:DY:44:ILE:HA	44:DY:63:LYS:O	2.13	0.47
45:DZ:145:GLU:HG3	45:DZ:146:ILE:H	1.79	0.47
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.50	0.47
7:AG:27:ILE:HD12	7:AG:40:ALA:HA	1.97	0.47
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.30	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:B2:23:LYS:O	48:B2:27:GLU:HG3	2.14	0.47
25:BA:895:G:C4	25:BA:978:A:H8	2.33	0.47
25:BA:1857:G:H4'	27:BD:242:ARG:CZ	2.45	0.47
31:BH:17:VAL:HG21	31:BH:50:VAL:HG21	1.97	0.47
37:BR:29:LEU:HD12	37:BR:116:LEU:HD11	1.97	0.47
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.14	0.47
4:CD:100:ARG:NH1	4:CD:137:SER:OG	2.48	0.47
20:CT:47:GLY:HA2	20:CT:48:LYS:C	2.36	0.47
1:CA:1326:C:H5''	21:CU:18:TYR:O	2.15	0.47
25:DA:579:G:O2'	25:DA:2019:A:OP1	2.28	0.47
25:DA:67:U:H2'	25:DA:68:G:H8	1.80	0.47
26:DB:11:C:OP2	26:DB:12:C:N4	2.36	0.47
29:DF:29:ASN:N	29:DF:112:MET:HE1	2.30	0.47
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.50	0.47
1:AA:1160:G:C6	1:AA:1161:C:C5	3.03	0.47
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.50	0.47
2:AB:223:ILE:HA	2:AB:226:ARG:HG2	1.97	0.47
3:AC:131:ARG:NH1	3:AC:135:LYS:HE3	2.30	0.47
5:AE:105:VAL:HG21	5:AE:128:PRO:HB3	1.97	0.47
9:AI:99:LEU:HB3	9:AI:101:PHE:CE1	2.50	0.47
13:AM:4:ILE:HG13	13:AM:57:ARG:HA	1.97	0.47
50:B4:68:ARG:HD2	50:B4:68:ARG:HA	1.62	0.47
25:BA:1074:A:H61	25:BA:1171:G:H2'	1.80	0.47
25:BA:555:G:C5	25:BA:2044:U:H5''	2.50	0.47
26:BB:48:A:H4'	38:BS:95:HIS:CD2	2.43	0.47
1:CA:1064:G:H4'	1:CA:1065:U:O5'	2.15	0.47
1:CA:1075:C:H2'	1:CA:1076:C:H5'	1.96	0.47
1:CA:114:U:H2'	1:CA:115:G:C8	2.50	0.47
1:CA:1159:U:O4'	1:CA:1182:G:N2	2.47	0.47
1:CA:1279:A:OP2	10:CJ:9:ARG:NH1	2.48	0.47
1:CA:266:G:H5''	1:CA:268:C:H41	1.79	0.47
1:CA:609:A:C5	1:CA:610:G:C8	3.03	0.47
1:CA:838:G:H1	1:CA:848:C:N4	2.13	0.47
25:DA:1266:G:O4'	42:DW:15:ARG:NH2	2.46	0.47
25:DA:1593:G:H2'	25:DA:1594:G:H8	1.79	0.47
25:DA:2065:C:H2'	25:DA:2066:C:C6	2.50	0.47
25:DA:2408:U:H2'	25:DA:2409:G:C8	2.49	0.47
25:DA:2687:U:H2'	25:DA:2688:U:O4'	2.14	0.47
25:DA:784:A:C8	25:DA:792:G:C5	3.02	0.47
29:DF:18:ARG:HG2	29:DF:19:GLU:H	1.80	0.47
30:DG:72:ARG:HA	30:DG:86:MET:O	2.15	0.47
32:DI:14:ASP:O	32:DI:17:GLN:HB3	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DS:84:GLN:HA	38:DS:111:GLU:O	2.14	0.47
45:DZ:31:ARG:HB2	45:DZ:32:HIS:CD2	2.49	0.47
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.50	0.46
18:AR:58:LEU:HB3	18:AR:62:GLU:HG3	1.97	0.46
25:BA:1217:G:H3'	25:BA:1218:G:H5'	1.98	0.46
25:BA:600:G:O2'	25:BA:1300:A:OP1	2.30	0.46
25:BA:2298:A:H4'	25:BA:2299:A:O5'	2.15	0.46
25:BA:2348:A:H61	46:B0:43:THR:HG22	1.77	0.46
25:BA:2707:C:H2'	25:BA:2708:U:C6	2.50	0.46
25:BA:561:A:H2'	25:BA:562:C:C6	2.50	0.46
43:BX:47:PHE:O	43:BX:49:VAL:HG13	2.15	0.46
1:CA:25:C:H5'	1:CA:524:G:H1'	1.97	0.46
1:CA:838:G:H3'	1:CA:840:C:H41	1.78	0.46
1:CA:948:C:H2'	1:CA:949:A:H8	1.80	0.46
25:DA:128:C:H2'	25:DA:129:C:C6	2.50	0.46
25:DA:2171:A:H1'	25:DA:2172:U:C6	2.50	0.46
25:DA:71:A:H5''	25:DA:73:A:N9	2.31	0.46
25:DA:774:A:H2'	25:DA:774:A:N3	2.30	0.46
37:DR:56:LYS:NZ	37:DR:90:ARG:O	2.47	0.46
45:DZ:61:LEU:HD22	45:DZ:67:LEU:HG	1.97	0.46
45:DZ:95:PRO:HA	45:DZ:130:PRO:HD3	1.97	0.46
1:AA:1003:G:N2	1:AA:1004:A:H1'	2.31	0.46
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.16	0.46
1:AA:165:C:H2'	1:AA:166:G:C8	2.50	0.46
1:AA:67:C:O2'	1:AA:171:A:N3	2.34	0.46
1:AA:407:G:OP1	4:AD:115:ARG:NH2	2.48	0.46
1:AA:452:A:O2'	1:AA:453:A:OP2	2.26	0.46
1:AA:546:G:O2'	1:AA:548:G:O2'	2.27	0.46
1:AA:8:A:N6	4:AD:205:GLU:O	2.48	0.46
2:AB:146:GLN:O	2:AB:150:SER:HB3	2.15	0.46
3:AC:78:GLY:HA3	3:AC:83:ARG:H	1.81	0.46
1:AA:429:U:H3'	4:AD:9:CYS:SG	2.55	0.46
6:AF:100:ASN:HB2	18:AR:28:GLU:HA	1.96	0.46
10:AJ:11:PHE:HE1	10:AJ:67:THR:HG22	1.80	0.46
25:BA:231:G:C8	54:B8:5:LYS:HG2	2.50	0.46
25:BA:1171:G:H5'	55:B9:37:GLY:HA2	1.97	0.46
25:BA:142:G:H1'	43:BX:37:THR:HG21	1.97	0.46
25:BA:1577:C:HO2'	25:BA:1578:C:P	2.37	0.46
25:BA:2158:C:H42	25:BA:2177:G:H1	1.63	0.46
29:BF:129:PHE:CD2	29:BF:163:VAL:HG21	2.50	0.46
1:CA:1173:G:C2'	1:CA:1174:G:H5'	2.44	0.46
1:CA:234:C:H5''	17:CQ:70:ARG:HH21	1.81	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:52:GLU:HG2	2:CB:56:ARG:NH2	2.31	0.46
23:CX:20:U:O2	23:CX:20:U:H2'	2.16	0.46
25:DA:1499:C:H2'	25:DA:1500:G:C8	2.50	0.46
25:DA:2147:G:H2'	25:DA:2148:G:H4'	1.96	0.46
25:DA:2322:A:H2'	25:DA:2323:G:O4'	2.16	0.46
25:DA:262:A:H2'	25:DA:263:C:O4'	2.14	0.46
25:DA:873:G:N2	25:DA:905:U:C2	2.82	0.46
25:DA:90:U:H1'	25:DA:92:A:C8	2.51	0.46
27:DD:71:ASP:HB3	27:DD:103:ARG:NH2	2.30	0.46
25:DA:2848:G:C8	39:DT:97:ALA:HB2	2.51	0.46
42:DW:45:TYR:CZ	42:DW:49:LYS:HE3	2.50	0.46
1:AA:1030(C):G:H2'	1:AA:1030(D):A:C8	2.34	0.46
1:AA:1362:C:H2'	1:AA:1363:C:H5''	1.97	0.46
1:AA:300:A:H1'	1:AA:565:U:O2	2.15	0.46
1:AA:328:C:H4'	1:AA:329:A:H5'	1.97	0.46
7:AG:136:LYS:O	7:AG:140:ASP:HB2	2.15	0.46
13:AM:97:PRO:HG2	13:AM:103:THR:HG22	1.97	0.46
25:BA:105:C:H2'	25:BA:106:U:H6	1.79	0.46
25:BA:2482:G:O6	25:BA:2488:A:O2'	2.25	0.46
25:BA:843:C:H2'	25:BA:844:C:C6	2.51	0.46
25:BA:932:C:H3'	25:BA:933:C:C5'	2.42	0.46
25:BA:956:A:C5	36:BQ:13:GLN:HG3	2.51	0.46
26:BB:76:G:N2	26:BB:101:G:O6	2.45	0.46
28:BE:116:VAL:HG13	28:BE:122:PHE:HB2	1.97	0.46
34:BO:35:VAL:HG11	34:BO:103:ALA:CB	2.41	0.46
1:CA:853:G:H2'	1:CA:854:G:H8	1.80	0.46
4:CD:105:VAL:HG13	4:CD:110:PHE:HB2	1.98	0.46
9:CI:20:ARG:HA	9:CI:21:PRO:HD3	1.82	0.46
25:DA:1710:C:H2'	25:DA:1711:C:C6	2.50	0.46
25:DA:2110:G:OP1	25:DA:2118:U:N3	2.40	0.46
28:DE:13:ARG:HG2	39:DT:58:ASN:HD21	1.81	0.46
31:DH:164:TYR:HB2	31:DH:167:GLU:HB2	1.97	0.46
1:AA:926:G:C6	1:AA:1505:G:C6	3.03	0.46
1:AA:342:C:C2	1:AA:348:G:N2	2.83	0.46
4:AD:164:ALA:O	4:AD:168:ARG:HD3	2.15	0.46
1:AA:975:A:N1	10:AJ:48:THR:HB	2.30	0.46
1:AA:1302:U:H5	13:AM:17:VAL:HG21	1.81	0.46
1:AA:103:C:P	20:AT:17:ARG:HH21	2.37	0.46
25:BA:1452:U:H2'	25:BA:1453:C:C6	2.51	0.46
25:BA:1715:A:H4'	25:BA:1716:A:O5'	2.16	0.46
25:BA:1841:A:H2'	25:BA:1842:G:O4'	2.15	0.46
25:BA:2308:U:OP2	38:BS:9:ARG:NH2	2.45	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BD:61:LEU:O	27:BD:63:ARG:NH1	2.48	0.46
29:BF:33:LEU:HD13	29:BF:112:MET:HE2	1.96	0.46
38:BS:10:ARG:O	38:BS:14:VAL:HG13	2.16	0.46
1:CA:1005:A:OP2	1:CA:1006:C:N4	2.49	0.46
11:CK:99:GLN:O	11:CK:101:SER:N	2.37	0.46
15:CO:5:LYS:NZ	15:CO:5:LYS:H	2.14	0.46
1:CA:1286:A:H2	21:CU:18:TYR:OH	1.99	0.46
25:DA:1916:A:H2'	25:DA:1917:U:O4'	2.15	0.46
25:DA:18:C:H2'	25:DA:19:C:H6	1.79	0.46
25:DA:861:A:C2	25:DA:917:A:C4	3.03	0.46
30:DG:148:MET:HG3	30:DG:148:MET:H	1.47	0.46
30:DG:15:VAL:HG13	30:DG:175:LEU:HD23	1.97	0.46
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.50	0.46
1:AA:79:G:N1	1:AA:90:U:N3	2.63	0.46
2:AB:207:ALA:O	2:AB:210:SER:HB3	2.16	0.46
25:BA:904:C:H4'	46:B0:23:VAL:HG21	1.97	0.46
25:BA:217:A:H2'	25:BA:219:U:O4'	2.16	0.46
25:BA:2372:A:H2'	25:BA:2373:A:O4'	2.15	0.46
25:BA:2859:U:H4'	25:BA:2878:A:C2	2.50	0.46
25:BA:287:G:O2'	25:BA:448:U:OP2	2.23	0.46
25:BA:664:U:H2'	25:BA:665:C:C6	2.51	0.46
28:BE:12:THR:HG21	39:BT:11:GLU:HG2	1.98	0.46
30:BG:126:ASP:OD2	30:BG:130:ASN:ND2	2.48	0.46
32:BI:75:LEU:HD22	32:BI:105:HIS:ND1	2.30	0.46
1:CA:1203:C:H2'	1:CA:1204:A:O4'	2.15	0.46
1:CA:984:C:O5'	1:CA:984:C:H6	1.98	0.46
2:CB:127:ILE:O	2:CB:128:GLU:HB2	2.14	0.46
19:CS:30:LEU:HD11	19:CS:32:LYS:HG3	1.98	0.46
25:DA:570:G:H2'	25:DA:2030:A:C5	2.50	0.46
25:DA:2727:G:O2'	34:DO:70:LYS:NZ	2.48	0.46
25:DA:784:A:OP1	25:DA:2588:G:H5''	2.15	0.46
25:DA:912:C:N4	25:DA:913:U:O4	2.48	0.46
30:DG:173:LEU:HB3	30:DG:178:PHE:CG	2.51	0.46
35:DP:135:LEU:HD23	35:DP:135:LEU:HA	1.73	0.46
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	2.15	0.46
1:AA:401:C:H2'	1:AA:402:G:C8	2.50	0.46
1:AA:433:C:C2'	1:AA:434:U:H5'	2.46	0.46
1:AA:619:U:C2	4:AD:135:LEU:HD22	2.50	0.46
2:AB:156:LYS:HB3	2:AB:156:LYS:HE2	1.72	0.46
10:AJ:5:ARG:HE	10:AJ:5:ARG:HB3	1.53	0.46
20:AT:45:GLN:HB3	20:AT:45:GLN:HE21	1.59	0.46
25:BA:1055:A:OP2	33:BN:37:LYS:NZ	2.44	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1067:A:H3'	25:BA:1067:A:H8	1.81	0.46
25:BA:1081:U:H2'	25:BA:1082:G:C8	2.50	0.46
25:BA:2332:A:H2'	25:BA:2332:A:N3	2.31	0.46
1:CA:1227:A:H3'	1:CA:1227:A:C8	2.51	0.46
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.51	0.46
1:CA:397:A:H3'	1:CA:397:A:N3	2.29	0.46
1:CA:615:C:H2'	1:CA:616:G:O4'	2.16	0.46
1:CA:784:C:H4'	25:DA:1837:C:OP1	2.16	0.46
1:CA:814:A:H2'	1:CA:816:A:H5''	1.97	0.46
5:CE:88:LYS:HB3	5:CE:123:LEU:HB2	1.97	0.46
6:CF:45:LEU:HD12	6:CF:59:TYR:HD2	1.81	0.46
7:CG:111:ARG:HB3	7:CG:113:GLU:OE2	2.16	0.46
7:CG:116:ALA:O	7:CG:120:ILE:HG13	2.15	0.46
25:DA:1131:G:O6	25:DA:2040:C:H1'	2.15	0.46
25:DA:2308:G:H5''	25:DA:2310:A:OP2	2.15	0.46
25:DA:2395:C:O2'	47:D1:30:VAL:HG13	2.15	0.46
25:DA:2577:A:OP2	51:D5:3:LYS:NZ	2.43	0.46
25:DA:1638:C:H4'	25:DA:2710:C:O2	2.16	0.46
25:DA:271(K):U:O2	32:DI:50:ARG:NE	2.49	0.46
38:DS:27:SER:HA	38:DS:88:ASP:HB3	1.98	0.46
1:AA:109:A:H2'	1:AA:326:G:N2	2.31	0.46
17:AQ:5:VAL:HA	17:AQ:59:ILE:O	2.15	0.46
49:B3:19:GLN:OE1	49:B3:52:HIS:NE2	2.40	0.46
50:B4:46:GLN:O	50:B4:46:GLN:HG2	2.16	0.46
52:B6:50:ARG:HB2	52:B6:50:ARG:HE	1.53	0.46
25:BA:1093:G:H2'	25:BA:1156:G:H22	1.81	0.46
25:BA:1790:A:H1'	25:BA:2723:A:C2	2.51	0.46
25:BA:239:G:OP2	54:B8:13:ARG:NH2	2.48	0.46
25:BA:2786:C:H2'	25:BA:2787:C:H6	1.80	0.46
25:BA:2856:G:H2'	25:BA:2857:U:O4'	2.16	0.46
32:BI:6:LEU:HD11	32:BI:37:VAL:HG23	1.98	0.46
33:BN:12:ARG:HH12	33:BN:38:HIS:HE2	1.64	0.46
33:BN:138:LEU:HA	33:BN:138:LEU:HD23	1.72	0.46
1:CA:1256:A:N6	1:CA:1278:U:O2'	2.48	0.46
1:CA:1273:G:H3'	1:CA:1274:G:C8	2.46	0.46
1:CA:1298:C:H2'	7:CG:114:ARG:HH12	1.81	0.46
1:CA:421:U:H6	1:CA:421:U:H5'	1.81	0.46
1:CA:688:G:H2'	1:CA:689:C:C6	2.49	0.46
1:CA:951:G:N3	1:CA:970:C:O2'	2.39	0.46
2:CB:16:HIS:CB	2:CB:210:SER:HB2	2.37	0.46
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	1.98	0.46
25:DA:1651:G:H2'	25:DA:1652:A:O4'	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:658:C:H2'	25:DA:659:C:C6	2.50	0.46
26:DB:19:G:H2'	26:DB:20:C:O4'	2.16	0.46
25:DA:662:G:H5''	35:DP:16:ARG:HG2	1.96	0.46
1:AA:1479:C:H2'	1:AA:1480:G:H8	1.80	0.46
1:AA:820:U:H4'	1:AA:821:G:OP2	2.16	0.46
2:AB:162:ILE:HD11	2:AB:184:VAL:HG22	1.97	0.46
9:AI:24:GLY:HA3	9:AI:57:GLY:HA2	1.97	0.46
25:BA:1159:U:H2'	25:BA:1160:G:C8	2.50	0.46
25:BA:1417:G:H2'	25:BA:1418:U:H5	1.79	0.46
25:BA:223:C:H2'	25:BA:224:U:C6	2.51	0.46
25:BA:555:G:O4'	25:BA:555:G:N3	2.46	0.46
25:BA:794:U:O2	25:BA:2036:A:H1'	2.15	0.46
25:BA:831:A:O4'	27:BD:227:ASN:ND2	2.49	0.46
34:BO:120:GLU:HG2	34:BO:122:LEU:HG	1.98	0.46
36:BQ:68:ILE:HG23	36:BQ:103:MET:HA	1.98	0.46
1:CA:1151:A:N3	10:CJ:39:PRO:HG3	2.31	0.46
1:CA:1301:U:O2'	1:CA:1302:U:H5'	2.16	0.46
1:CA:1374:A:O2'	7:CG:28:ASN:HB3	2.16	0.46
1:CA:171:A:H2'	1:CA:172:A:C8	2.51	0.46
1:CA:978:A:O2'	1:CA:1321:C:N4	2.49	0.46
5:CE:33:VAL:HG13	5:CE:112:LEU:HD12	1.98	0.46
53:D7:18:PHE:CE1	53:D7:22:MET:HG3	2.51	0.46
25:DA:656:G:H2'	25:DA:657:U:O4'	2.14	0.46
26:DB:28:C:H5''	38:DS:31:SER:HB3	1.97	0.46
31:DH:118:PRO:O	31:DH:121:ILE:HB	2.16	0.46
33:DN:99:LEU:HD23	33:DN:99:LEU:HA	1.82	0.46
37:DR:95:THR:HG22	37:DR:116:LEU:HD23	1.98	0.46
39:DT:51:ARG:HG3	39:DT:98:LYS:HD2	1.98	0.46
1:AA:1125:U:H1'	1:AA:1126:U:C6	2.50	0.46
1:AA:130:A:O2'	1:AA:131:C:O5'	2.31	0.46
1:AA:148:G:H1	1:AA:174:C:N4	2.14	0.46
1:AA:189(D):C:O2	1:AA:189(H):G:C6	2.69	0.46
1:AA:833:U:H2'	1:AA:834:C:H6	1.80	0.46
1:AA:542:G:P	4:AD:10:ARG:HH22	2.39	0.46
48:B2:32:LEU:HD13	48:B2:36:ARG:HH11	1.81	0.46
50:B4:33:VAL:HG12	50:B4:35:VAL:H	1.81	0.46
25:BA:1223:C:H2'	25:BA:1224:C:C6	2.51	0.46
25:BA:1633:A:H2'	25:BA:1634:C:C6	2.51	0.46
25:BA:1904:C:H2'	25:BA:1905:G:O4'	2.16	0.46
25:BA:2165:C:H2'	25:BA:2166:U:O4'	2.16	0.46
25:BA:2177:G:C2	25:BA:2178:G:H1'	2.51	0.46
25:BA:2236:G:H4'	25:BA:2238:C:C2	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:553:A:OP2	33:BN:114:ARG:NH1	2.49	0.46
25:BA:624:C:O2'	25:BA:628:C:OP1	2.29	0.46
25:BA:936:C:H2'	25:BA:936:C:OP2	2.15	0.46
25:BA:1823:G:H5'	27:BD:205:VAL:HG13	1.98	0.46
34:BO:68:GLU:HB3	34:BO:78:ARG:HB2	1.97	0.46
35:BP:55:ARG:HG2	35:BP:56:SER:N	2.30	0.46
1:CA:1236:A:O2'	1:CA:1304:G:H4'	2.15	0.46
1:CA:1289:A:OP1	21:CU:9:ARG:NH2	2.48	0.46
1:CA:1509:C:H2'	1:CA:1510:U:O4'	2.15	0.46
1:CA:947:G:H2'	1:CA:948:C:O4'	2.16	0.46
5:CE:35:GLY:HA3	5:CE:112:LEU:HB3	1.98	0.46
7:CG:100:ALA:O	7:CG:104:LEU:HD13	2.15	0.46
9:CI:51:ARG:HG2	9:CI:56:LEU:HD21	1.98	0.46
49:D3:24:LYS:HE3	49:D3:24:LYS:HB2	1.63	0.46
25:DA:195:A:H2'	25:DA:198:C:N4	2.30	0.46
25:DA:2156:G:H3'	25:DA:2157:G:C5	2.51	0.46
26:DB:46:A:C5	26:DB:47:C:C4	3.04	0.46
26:DB:16:G:N2	26:DB:68:C:O2	2.49	0.46
34:DO:23:ARG:HG3	34:DO:24:VAL:N	2.31	0.46
35:DP:96:THR:HG23	35:DP:99:LEU:HD23	1.98	0.46
1:AA:262:A:C6	1:AA:263:A:C6	3.03	0.46
6:AF:68:PRO:HB2	6:AF:71:ARG:HG3	1.97	0.46
9:AI:92:TYR:O	9:AI:96:LEU:HB2	2.16	0.46
25:BA:2186:C:H5	25:BA:2187:G:C4	2.34	0.46
25:BA:211:A:H3'	25:BA:448:U:H5'	1.98	0.46
31:BH:90:LYS:HD3	31:BH:159:GLU:HG2	1.97	0.46
33:BN:73:THR:OG1	33:BN:82:LEU:HD11	2.16	0.46
39:BT:8:LYS:HD3	39:BT:8:LYS:HA	1.77	0.46
1:CA:1220:G:O3'	19:CS:36:ARG:HD3	2.15	0.46
1:CA:202:U:H3'	1:CA:203:U:C6	2.51	0.46
7:CG:22:LEU:HD23	7:CG:63:LYS:HG2	1.98	0.46
1:CA:502:G:OP1	12:CL:118:SER:HB3	2.16	0.46
20:CT:54:LYS:HA	20:CT:57:ARG:NH2	2.31	0.46
23:CX:10:G:N2	23:CX:26:G:H1'	2.31	0.46
25:DA:1547:C:H2'	25:DA:1548:C:H6	1.81	0.46
25:DA:2712:U:OP1	25:DA:2714:G:H4'	2.16	0.46
30:DG:108:ASN:HA	50:D4:37:SER:HB2	1.96	0.46
30:DG:151:ALA:O	30:DG:153:ARG:HD3	2.16	0.46
30:DG:71:THR:N	30:DG:89:GLY:O	2.42	0.46
25:DA:832:G:H5'	35:DP:45:LEU:HD21	1.97	0.46
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.98	0.45
1:AA:1320:C:H2'	1:AA:1321:C:O4'	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1492:A:H2'	1:AA:1493:A:C8	2.50	0.45
1:AA:153:C:H42	1:AA:169:C:H42	1.63	0.45
1:AA:7:G:H5''	1:AA:298:A:O4'	2.16	0.45
57:AA:3191:PCY:C1	57:AA:3191:PCY:H112	2.46	0.45
1:AA:524:G:H2'	1:AA:525:C:C6	2.52	0.45
2:AB:192:SER:O	2:AB:194:PRO:HD3	2.16	0.45
2:AB:82:ARG:NH1	2:AB:86:GLU:OE2	2.49	0.45
50:B4:26:SER:OG	50:B4:27:THR:N	2.49	0.45
25:BA:1501:U:O2'	25:BA:1502:G:N7	2.41	0.45
25:BA:1759:C:H2'	25:BA:1760:U:O4'	2.16	0.45
25:BA:2301:G:OP1	61:BA:4230:HOH:O	2.21	0.45
25:BA:2418:U:H2'	25:BA:2418:U:OP2	2.16	0.45
25:BA:2541:G:H5''	25:BA:2542:A:H5''	1.98	0.45
25:BA:670:C:H5''	25:BA:671:A:OP2	2.16	0.45
33:BN:4:TYR:CD2	40:BU:100:VAL:HG11	2.51	0.45
25:BA:2331:G:H22	38:BS:3:ARG:CZ	2.27	0.45
1:CA:324:G:N1	1:CA:327:A:OP2	2.48	0.45
1:CA:461:A:O2'	1:CA:470:C:H5'	2.15	0.45
1:CA:909:A:H2'	1:CA:910:C:O4'	2.17	0.45
1:CA:9:G:H2'	1:CA:10:A:H8	1.81	0.45
25:DA:1789:A:H2'	25:DA:1790:C:C6	2.51	0.45
25:DA:1913:A:H4'	25:DA:1914:C:O5'	2.15	0.45
25:DA:2238:G:N3	25:DA:2238:G:H2'	2.31	0.45
25:DA:2432:A:H5''	25:DA:2433:A:OP2	2.15	0.45
25:DA:2850:A:N7	25:DA:2868:A:O2'	2.31	0.45
25:DA:2865:U:C4	25:DA:2866:U:C4	3.04	0.45
25:DA:637:A:H2'	35:DP:117:GLU:OE2	2.16	0.45
30:DG:105:LYS:HB3	30:DG:142:PRO:HG3	1.99	0.45
30:DG:44:GLY:N	30:DG:88:ILE:O	2.48	0.45
1:AA:175:C:H2'	1:AA:176:C:C6	2.51	0.45
1:AA:437:U:OP1	4:AD:155:LEU:HD21	2.16	0.45
18:AR:26:LEU:HD23	18:AR:29:PHE:CD2	2.50	0.45
25:BA:1580:G:H3'	25:BA:1581:U:O2	2.15	0.45
25:BA:2556:G:H1'	25:BA:2658:C:H4'	1.98	0.45
25:BA:636:G:O2'	25:BA:640:A:N1	2.45	0.45
33:BN:62:VAL:CG1	33:BN:66:LYS:HB2	2.46	0.45
39:BT:37:GLY:HA2	39:BT:38:ASN:HA	1.64	0.45
40:BU:112:ARG:H	40:BU:112:ARG:HG2	1.57	0.45
45:BZ:158:PRO:HG2	45:BZ:161:VAL:HG11	1.98	0.45
1:CA:1030(C):G:H2'	1:CA:1030(D):A:C8	2.51	0.45
1:CA:1353:G:H2'	1:CA:1354:C:C6	2.51	0.45
1:CA:137:C:H2'	1:CA:138:G:H8	1.82	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:392:G:H2'	1:CA:393:A:C8	2.51	0.45
1:CA:637:G:H2'	1:CA:638:G:C8	2.51	0.45
3:CC:10:PHE:O	3:CC:178:LEU:HD11	2.16	0.45
3:CC:8:ILE:HG23	3:CC:16:ARG:HG2	1.97	0.45
4:CD:60:GLU:OE1	4:CD:199:ASN:N	2.34	0.45
50:D4:62:ARG:HD3	50:D4:62:ARG:H	1.81	0.45
25:DA:108:U:H2'	25:DA:109:G:C8	2.51	0.45
25:DA:1547:C:H2'	25:DA:1548:C:C6	2.52	0.45
25:DA:1970:A:OP1	61:DA:4253:HOH:O	2.21	0.45
25:DA:854:G:H2'	25:DA:855:G:H8	1.78	0.45
32:DI:72:LEU:HA	32:DI:75:LEU:HD22	1.96	0.45
1:AA:1054:C:H4'	1:AA:1055:A:OP1	2.16	0.45
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.16	0.45
5:AE:79:GLU:H	5:AE:79:GLU:HG3	1.47	0.45
9:AI:46:ALA:HB2	9:AI:74:ILE:HG23	1.98	0.45
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.96	0.45
50:B4:68:ARG:HB3	50:B4:69:LYS:H	1.51	0.45
25:BA:1985:U:H4'	25:BA:1986:G:OP1	2.16	0.45
25:BA:552:C:C5	25:BA:2792:U:H2'	2.51	0.45
25:BA:2820:A:N6	25:BA:2900:G:O2'	2.44	0.45
30:BG:58:GLN:HE21	30:BG:58:GLN:HA	1.81	0.45
1:CA:1353:G:H2'	1:CA:1354:C:H6	1.80	0.45
1:CA:580:U:H2'	1:CA:581:G:O4'	2.16	0.45
4:CD:22:LYS:HB2	4:CD:26:CYS:SG	2.56	0.45
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	1.98	0.45
7:CG:113:GLU:CG	7:CG:119:ARG:HG2	2.39	0.45
11:CK:27:ASN:OD1	11:CK:28:THR:N	2.44	0.45
16:CP:19:ILE:HG22	16:CP:36:ILE:HG13	1.98	0.45
18:CR:22:VAL:HA	18:CR:25:THR:HG22	1.98	0.45
25:DA:973:A:C8	25:DA:1188:U:C2	3.04	0.45
25:DA:819:A:C4	25:DA:1189:A:C2	3.05	0.45
25:DA:1214:A:N6	25:DA:1235:G:H1'	2.32	0.45
25:DA:1268:A:OP1	61:DA:4293:HOH:O	2.21	0.45
25:DA:1592:C:H2'	25:DA:1593:G:H8	1.82	0.45
25:DA:1816:G:H3'	27:DD:62:TYR:CE1	2.51	0.45
25:DA:234:C:H2'	25:DA:235:U:C6	2.51	0.45
25:DA:2645:G:N2	25:DA:2767:C:OP2	2.48	0.45
25:DA:2722:G:H2'	25:DA:2723:C:C6	2.51	0.45
25:DA:286:C:H2'	25:DA:287:C:H6	1.81	0.45
25:DA:315:G:H2'	25:DA:316:C:C6	2.52	0.45
25:DA:362:U:O2'	25:DA:363:G:H5'	2.16	0.45
25:DA:729:G:OP2	27:DD:13:ARG:HD3	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:923:C:O5'	25:DA:923:C:H6	1.99	0.45
1:AA:1285:A:O2'	1:AA:1286:A:OP2	2.34	0.45
1:AA:441:A:H3'	1:AA:442:C:C6	2.51	0.45
1:AA:691:G:H2'	1:AA:692:U:C6	2.52	0.45
1:AA:834:C:H2'	1:AA:835:U:C6	2.52	0.45
1:AA:509:A:H5''	4:AD:55:ALA:HB2	1.99	0.45
5:AE:105:VAL:O	5:AE:109:ILE:HD12	2.17	0.45
7:AG:78:ARG:NE	7:AG:154:TYR:O	2.48	0.45
46:B0:36:ILE:HD13	46:B0:58:THR:HG21	1.98	0.45
52:B6:12:GLU:OE2	52:B6:52:VAL:HG21	2.15	0.45
25:BA:734:C:H5''	53:B7:2:LYS:HE2	1.98	0.45
25:BA:1087:C:H42	25:BA:1160:G:H1	1.63	0.45
25:BA:397:G:H8	25:BA:397:G:OP2	1.98	0.45
26:BB:13:A:N1	26:BB:69:G:O2'	2.42	0.45
27:BD:111:LEU:HA	27:BD:111:LEU:HD23	1.86	0.45
27:BD:275:LYS:HB3	27:BD:276:LYS:H	1.41	0.45
30:BG:64:THR:HB	30:BG:94:LEU:HD21	1.99	0.45
32:BI:40:THR:O	32:BI:44:LEU:HB2	2.17	0.45
32:BI:57:ARG:HA	32:BI:60:GLU:HB3	1.97	0.45
2:CB:121:LEU:H	2:CB:125:PRO:HG2	1.80	0.45
3:CC:122:GLU:HA	3:CC:125:GLU:OE1	2.15	0.45
4:CD:108:LEU:HD13	4:CD:174:LEU:HD13	1.98	0.45
1:CA:8:A:N6	4:CD:205:GLU:O	2.47	0.45
5:CE:84:PHE:N	5:CE:87:SER:O	2.48	0.45
1:CA:1222:G:H5'	19:CS:77:THR:HG21	1.99	0.45
25:DA:1509(A):A:H3'	25:DA:1509(B):A:H8	1.82	0.45
25:DA:271(D):G:H2'	25:DA:271(E):U:C6	2.51	0.45
25:DA:2785:C:OP1	28:DE:41:LYS:NZ	2.47	0.45
25:DA:300:A:OP1	44:DY:86:ARG:NH2	2.40	0.45
25:DA:307:G:H2'	25:DA:309:G:OP2	2.17	0.45
25:DA:687:C:N3	25:DA:788:A:H5'	2.31	0.45
25:DA:900:A:O2'	25:DA:901:A:OP1	2.30	0.45
26:DB:16:G:H1	26:DB:68:C:H42	1.63	0.45
26:DB:87:G:N2	26:DB:90:A:OP2	2.45	0.45
1:AA:1371:G:C6	1:AA:1372:U:C4	3.05	0.45
1:AA:162:A:H3'	1:AA:163:C:O4'	2.17	0.45
1:AA:171:A:H2'	1:AA:172:A:C8	2.51	0.45
1:AA:345:C:OP2	39:BT:39:ARG:NH2	2.46	0.45
1:AA:473:G:O2'	1:AA:474:G:H5'	2.17	0.45
1:AA:693:G:H2'	1:AA:694:A:C8	2.51	0.45
2:AB:55:PHE:HD1	2:AB:58:ILE:HD12	1.80	0.45
4:AD:116:GLN:NE2	4:AD:157:LEU:HD11	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.16	0.45
9:AI:55:ALA:HB1	9:AI:59:PHE:CD2	2.52	0.45
11:AK:38:ASN:HA	11:AK:39:PRO:HD3	1.84	0.45
11:AK:70:LYS:HB2	11:AK:70:LYS:HE2	1.71	0.45
48:B2:10:LEU:HD23	48:B2:10:LEU:HA	1.86	0.45
25:BA:354:A:H2	25:BA:1255:A:C2'	2.29	0.45
25:BA:1387:U:OP2	25:BA:1440:U:O2'	2.21	0.45
25:BA:1688:A:H2'	25:BA:1689:G:O4'	2.17	0.45
25:BA:1845:G:H4'	27:BD:51:VAL:HG21	1.97	0.45
25:BA:2357:G:N3	25:BA:2393:C:H2'	2.32	0.45
25:BA:2564:U:C2	25:BA:2566:U:H5'	2.51	0.45
38:BS:87:PHE:HB2	38:BS:112:PHE:CE2	2.52	0.45
25:BA:1057:G:OP2	40:BU:70:ARG:NH2	2.49	0.45
1:CA:1005:A:H3'	1:CA:1006:C:H5''	1.98	0.45
1:CA:21:G:H2'	1:CA:22:G:C8	2.51	0.45
1:CA:587:G:N2	1:CA:754:C:OP2	2.48	0.45
3:CC:79:ARG:H	3:CC:82:GLU:HB3	1.81	0.45
5:CE:12:LEU:O	5:CE:30:ALA:HA	2.17	0.45
25:DA:2436:G:C6	25:DA:2437:U:C4	3.05	0.45
25:DA:2497:A:H5''	61:DA:4062:HOH:O	2.16	0.45
25:DA:1999:C:H4'	25:DA:2723:C:O2	2.17	0.45
25:DA:2836:U:H2'	25:DA:2837:G:C8	2.51	0.45
26:DB:42:C:O2	30:DG:93:THR:N	2.27	0.45
36:DQ:118:LEU:HB2	36:DQ:131:ILE:HD13	1.99	0.45
1:AA:1149:C:H2'	1:AA:1150:U:H6	1.81	0.45
1:AA:1218:C:OP2	14:AN:9:LYS:NZ	2.33	0.45
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.16	0.45
1:AA:444:C:H2'	1:AA:445:G:C8	2.52	0.45
1:AA:537:G:H2'	1:AA:538:G:C8	2.49	0.45
12:AL:124:LYS:HA	12:AL:125:PRO:HD3	1.79	0.45
1:AA:581:G:OP1	15:AO:65:ARG:NH2	2.49	0.45
25:BA:2507:G:H5''	36:BQ:82:ARG:HG2	1.98	0.45
25:BA:776:G:OP2	27:BD:13:ARG:NH1	2.49	0.45
28:BE:24:THR:HG23	28:BE:184:VAL:HG12	1.98	0.45
37:BR:56:LYS:NZ	37:BR:90:ARG:O	2.50	0.45
1:CA:1005:A:HO2'	1:CA:1006:C:P	2.40	0.45
1:CA:1142:G:H3'	1:CA:1143:G:H8	1.81	0.45
1:CA:539:A:OP2	12:CL:115:LYS:NZ	2.50	0.45
1:CA:693:G:H2'	1:CA:694:A:C8	2.52	0.45
1:CA:70:G:H1	1:CA:99:U:H3	1.65	0.45
2:CB:161:ALA:HB1	2:CB:185:ILE:CD1	2.47	0.45
2:CB:169:LYS:HD3	2:CB:169:LYS:O	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:537:G:H5''	12:CL:113:ARG:NH1	2.32	0.45
1:CA:187:C:O2'	20:CT:89:ARG:NH2	2.49	0.45
21:CU:2:GLY:O	21:CU:4:GLY:N	2.49	0.45
50:D4:40:HIS:O	50:D4:44:THR:N	2.43	0.45
25:DA:1197:G:H2'	25:DA:1198:U:C6	2.52	0.45
25:DA:1266:G:O2'	25:DA:2012:G:O6	2.23	0.45
25:DA:1638:C:H5''	25:DA:2710:C:O2'	2.15	0.45
25:DA:414:C:H2'	25:DA:415:A:C8	2.52	0.45
25:DA:443:A:H1'	25:DA:1201:C:O4'	2.17	0.45
31:DH:126:PRO:HD2	31:DH:130:ARG:O	2.17	0.45
31:DH:175:LYS:HB2	31:DH:175:LYS:HE3	1.76	0.45
25:BA:2132:G:O2'	25:BA:2142:G:OP2	2.35	0.45
25:BA:2240:G:OP1	27:BD:261:LYS:NZ	2.34	0.45
25:BA:240:A:C5	25:BA:241:G:H1'	2.51	0.45
25:BA:2902:G:H4'	25:BA:2903:G:O5'	2.17	0.45
1:CA:1125:U:C2	10:CJ:38:ILE:HD12	2.52	0.45
1:CA:1174:G:H2'	1:CA:1175:G:C8	2.51	0.45
2:CB:33:TYR:N	2:CB:41:ILE:O	2.41	0.45
12:CL:24:VAL:HG11	12:CL:27:LEU:HD22	1.98	0.45
19:CS:23:ASN:HA	19:CS:27:GLU:CD	2.37	0.45
25:DA:1002:G:H22	25:DA:1154:G:H1'	1.82	0.45
25:DA:1262:A:H2	51:D5:10:LYS:HD2	1.80	0.45
25:DA:1452:A:O2'	25:DA:1453:U:H2'	2.17	0.45
25:DA:1688:U:H2'	25:DA:1698:A:N6	2.32	0.45
25:DA:1779:U:H2'	61:DA:4760:HOH:O	2.15	0.45
25:DA:2114:A:C2	25:DA:2115:G:H1'	2.52	0.45
25:DA:2224:G:H4'	25:DA:2226:C:C2	2.51	0.45
25:DA:2741:A:H2'	25:DA:2742:C:O4'	2.16	0.45
25:DA:906:G:O2'	36:DQ:67:ARG:NH2	2.39	0.45
30:DG:15:VAL:HG12	30:DG:19:LEU:HD12	1.98	0.45
26:DB:42:C:O2'	30:DG:66:GLN:HG2	2.16	0.45
32:DI:65:ALA:O	32:DI:69:LYS:N	2.49	0.45
34:DO:29:ASN:OD1	34:DO:29:ASN:N	2.49	0.45
37:DR:28:LEU:HD12	37:DR:48:VAL:HG11	1.99	0.45
1:AA:1221:G:H4'	19:AS:53:ASN:O	2.16	0.45
1:AA:303:A:H2'	1:AA:304:U:O4'	2.17	0.45
1:AA:116:A:H61	1:AA:313:A:H1'	1.81	0.45
1:AA:624:C:H2'	1:AA:625:G:H8	1.82	0.45
2:AB:109:SER:HA	2:AB:112:VAL:HG13	1.97	0.45
5:AE:12:LEU:HD22	5:AE:13:ILE:N	2.32	0.45
13:AM:3:ARG:HD2	13:AM:9:ILE:CG1	2.46	0.45
25:BA:1388:A:O2'	25:BA:1390:G:OP2	2.26	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1405:A:N1	25:BA:1418:U:C4	2.85	0.45
25:BA:2660:C:H2'	25:BA:2661:U:C6	2.52	0.45
25:BA:537:G:OP1	25:BA:1280:U:O2'	2.30	0.45
34:BO:34:THR:OG1	34:BO:35:VAL:N	2.50	0.45
25:BA:144:C:H5'	43:BX:2:LYS:HE2	1.99	0.45
25:BA:950:C:H4'	45:BZ:169:GLU:OE2	2.17	0.45
1:CA:113:G:O4'	1:CA:354:G:H4'	2.16	0.45
1:CA:1142:G:C2	1:CA:1143:G:H1'	2.52	0.45
1:CA:1268:A:N3	1:CA:1326:C:O2'	2.47	0.45
1:CA:1353:G:O2'	1:CA:1354:C:H5'	2.15	0.45
1:CA:501:C:H2'	1:CA:502:G:C8	2.51	0.45
1:CA:637:G:H2'	1:CA:638:G:H8	1.82	0.45
1:CA:792:A:H4'	1:CA:793:U:H5''	1.99	0.45
1:CA:993:G:H1	1:CA:1045:C:H42	1.64	0.45
3:CC:3:ASN:N	3:CC:3:ASN:OD1	2.49	0.45
9:CI:46:ALA:HB2	9:CI:74:ILE:HG23	1.98	0.45
10:CJ:22:LYS:O	10:CJ:26:ALA:N	2.50	0.45
12:CL:24:VAL:HG13	12:CL:98:TYR:HE1	1.82	0.45
13:CM:97:PRO:HG2	13:CM:103:THR:HG22	1.99	0.45
1:CA:1228:C:P	13:CM:108:ARG:HH12	2.39	0.45
25:DA:1399:C:C2'	25:DA:1400:G:H5'	2.47	0.45
25:DA:1913:A:H4'	25:DA:1914:C:H5''	1.99	0.45
25:DA:345:A:OP2	25:DA:345:A:H8	1.99	0.45
25:DA:528:A:H2'	25:DA:529:A:H5''	1.98	0.45
26:DB:60:C:H6	26:DB:60:C:O5'	2.00	0.45
26:DB:98:G:H2'	26:DB:99:G:O4'	2.17	0.45
35:DP:38:GLN:HG2	35:DP:45:LEU:H	1.81	0.45
25:DA:631:A:H1'	35:DP:66:GLY:HA2	1.99	0.45
41:DV:89:GLN:HA	41:DV:90:PRO:HD3	1.85	0.45
1:AA:1178:G:N2	1:AA:1181:G:OP2	2.47	0.45
1:AA:942:G:H21	9:AI:124:GLN:NE2	2.15	0.45
2:AB:220:ASP:O	2:AB:223:ILE:HG12	2.17	0.45
4:AD:140:VAL:HG11	4:AD:146:ILE:HD11	1.99	0.45
5:AE:45:PHE:CE2	5:AE:47:LYS:HE3	2.52	0.45
18:AR:74:ARG:HG2	18:AR:80:PRO:O	2.16	0.45
22:AV:16:A:H2'	22:AV:17:U:O4'	2.17	0.45
25:BA:933:C:N3	25:BA:934:A:H8	2.15	0.45
26:BB:66:A:H61	26:BB:108:U:H2'	1.82	0.45
31:BH:3:ARG:HH22	31:BH:66:GLY:HA3	1.82	0.45
39:BT:112:ARG:HG3	39:BT:115:ARG:NH2	2.31	0.45
1:CA:1492:A:H4'	1:CA:1493:A:OP1	2.17	0.45
1:CA:848:C:O5'	1:CA:848:C:H6	2.00	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:953:G:C2	1:CA:954:G:H1'	2.52	0.45
2:CB:44:LEU:H	2:CB:44:LEU:HD22	1.81	0.45
3:CC:140:ARG:HH22	3:CC:141:VAL:HG23	1.82	0.45
5:CE:78:HIS:CD2	5:CE:142:LEU:HD23	2.52	0.45
11:CK:20:TYR:CZ	11:CK:83:ILE:HD12	2.52	0.45
50:D4:48:ARG:O	50:D4:50:VAL:N	2.50	0.45
25:DA:1846:G:H1	25:DA:1894:C:H42	1.65	0.45
25:DA:2135:A:H61	25:DA:2157:G:H21	1.65	0.45
25:DA:2155:G:C5	25:DA:2156:G:H1'	2.52	0.45
25:DA:2207:G:H3'	25:DA:2208:A:H5''	1.98	0.45
25:DA:510:C:H2'	25:DA:511:U:O4'	2.17	0.45
25:DA:515:A:H1'	25:DA:581:C:H1'	1.99	0.45
25:DA:565:C:H2'	25:DA:566:U:O4'	2.17	0.45
26:DB:112:U:H2'	26:DB:113:G:H8	1.81	0.45
26:DB:24:G:H5''	26:DB:25:A:N7	2.32	0.45
35:DP:101:VAL:HA	35:DP:106:LEU:O	2.17	0.45
39:DT:16:ARG:HH11	39:DT:16:ARG:HB3	1.81	0.45
1:AA:1084:G:C5	1:AA:1085:U:C4	3.05	0.45
1:AA:110:C:H2'	1:AA:111:G:O4'	2.16	0.45
1:AA:1267:C:H6	1:AA:1267:C:O5'	1.99	0.45
1:AA:70:G:H2'	1:AA:71:C:C6	2.52	0.45
10:AJ:6:ILE:HA	10:AJ:97:GLU:O	2.17	0.45
16:AP:28:ARG:HG2	16:AP:29:ASP:OD1	2.16	0.45
25:BA:1077:G:H21	55:B9:36:GLN:HE22	1.65	0.45
27:BD:233:HIS:HA	61:BD:3406:HOH:O	2.17	0.45
25:BA:1846:A:P	27:BD:54:ARG:HH22	2.39	0.45
29:BF:125:LEU:HD12	29:BF:194:MET:HB2	1.99	0.45
29:BF:7:TYR:CD2	29:BF:24:LEU:HB2	2.52	0.45
32:BI:9:LEU:HB3	32:BI:12:LEU:HB2	1.99	0.45
1:CA:1002:G:O6	1:CA:1038:C:N3	2.50	0.45
1:CA:130:A:O2'	1:CA:131:C:O5'	2.26	0.45
1:CA:250:A:H4'	1:CA:251:G:O5'	2.16	0.45
1:CA:375:U:C4	1:CA:376:G:N7	2.85	0.45
1:CA:411:A:H2'	1:CA:412:A:H4'	1.99	0.45
1:CA:302:G:O2'	1:CA:556:C:H5''	2.17	0.45
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.99	0.45
12:CL:113:ARG:NH2	61:CL:201:HOH:O	2.50	0.45
19:CS:41:VAL:HG22	19:CS:42:PRO:HD2	1.99	0.45
23:CX:40:C:H2'	23:CX:41:C:C6	2.51	0.45
54:D8:54:GLU:O	54:D8:58:ILE:HG13	2.17	0.45
25:DA:1539:G:H2'	25:DA:1540:U:O4'	2.17	0.45
25:DA:1922:G:H2'	25:DA:1923:U:O4'	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2332:U:O2'	25:DA:2335:A:N3	2.40	0.45
25:DA:2529:G:OP1	31:DH:172:LYS:HE2	2.17	0.45
25:DA:25:U:C4	25:DA:26:G:C6	3.05	0.45
25:DA:940:G:H2'	25:DA:941:A:O4'	2.17	0.45
28:DE:144:ARG:HB3	28:DE:145:LYS:H	1.41	0.45
29:DF:7:TYR:O	29:DF:22:ALA:N	2.50	0.45
37:DR:29:LEU:HD23	37:DR:70:LEU:HD11	1.98	0.45
1:AA:1074:G:O2'	1:AA:1101:A:N1	2.43	0.44
1:AA:137:C:H2'	1:AA:138:G:C8	2.52	0.44
1:AA:538:G:H2'	1:AA:539:A:H8	1.82	0.44
1:AA:54:C:H2'	1:AA:352:C:H41	1.81	0.44
2:AB:102:LEU:HD23	2:AB:182:ILE:HD12	1.99	0.44
2:AB:224:GLN:HA	2:AB:228:GLY:O	2.17	0.44
16:AP:5:ARG:HH11	16:AP:22:THR:HG23	1.82	0.44
25:BA:1577:C:O2'	25:BA:1578:C:P	2.75	0.44
25:BA:1480:A:N6	25:BA:1605:A:H62	2.09	0.44
25:BA:2163:G:O6	25:BA:2172:U:C2	2.67	0.44
29:BF:161:GLU:HG2	29:BF:164:ARG:NH2	2.32	0.44
34:BO:80:ASP:OD2	39:BT:71:GLY:HA3	2.17	0.44
35:BP:82:GLY:HA2	35:BP:113:LYS:O	2.18	0.44
1:CA:1050:G:H1'	1:CA:1214:C:O2	2.17	0.44
1:CA:1347:G:O2'	1:CA:1348:U:OP2	2.33	0.44
1:CA:495:A:H4'	1:CA:496:A:OP1	2.16	0.44
1:CA:964:A:N3	1:CA:969:A:O2'	2.44	0.44
3:CC:63:ASN:HB3	3:CC:98:ASN:HD22	1.82	0.44
8:CH:51:VAL:HG21	8:CH:60:ARG:HH11	1.81	0.44
15:CO:39:LEU:HD13	15:CO:56:LEU:HB2	1.98	0.44
25:DA:2001:A:OP1	37:DR:9:LYS:NZ	2.45	0.44
25:DA:2064:C:H2'	25:DA:2065:C:C6	2.51	0.44
25:DA:2569:G:C2	25:DA:2570:G:C8	3.05	0.44
25:DA:530:G:O4'	25:DA:530:G:N3	2.48	0.44
34:DO:53:LYS:HG2	34:DO:56:ASP:OD1	2.16	0.44
38:DS:84:GLN:HG3	38:DS:111:GLU:OE2	2.17	0.44
25:DA:2318:G:H22	38:DS:3:ARG:NH1	2.15	0.44
1:AA:358:U:H2'	1:AA:359:U:C6	2.52	0.44
1:AA:111:G:HO2'	1:AA:389:A:HO2'	1.63	0.44
1:AA:445:G:H2'	1:AA:446:G:H8	1.82	0.44
1:AA:600:C:O2'	1:AA:601:C:H5'	2.17	0.44
3:AC:123:GLN:HG2	3:AC:128:PHE:CD2	2.53	0.44
5:AE:8:GLU:HG3	5:AE:34:VAL:HG23	1.99	0.44
12:AL:53:ARG:HB3	12:AL:93:LEU:HD11	1.98	0.44
54:B8:61:LEU:O	54:B8:63:PRO:HD3	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1555:C:H4'	25:BA:1556:A:OP2	2.17	0.44
25:BA:227:C:H2'	25:BA:228:U:O4'	2.18	0.44
25:BA:44:G:H5''	25:BA:45:C:OP1	2.17	0.44
27:BD:142:VAL:HG13	27:BD:191:ALA:HB1	1.98	0.44
1:CA:1066:C:H2'	1:CA:1067:A:C8	2.52	0.44
1:CA:1206:G:H4'	3:CC:192:THR:O	2.18	0.44
1:CA:1260:C:O5'	1:CA:1284:C:H4'	2.17	0.44
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.16	0.44
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.33	0.44
1:CA:595:G:H1'	1:CA:596:C:H5	1.82	0.44
1:CA:691:G:H2'	1:CA:692:U:C6	2.52	0.44
7:CG:18:TYR:CD1	7:CG:59:LEU:HB2	2.52	0.44
1:CA:1151:A:O4'	10:CJ:39:PRO:HB2	2.17	0.44
12:CL:60:LEU:HD21	12:CL:66:VAL:HG22	1.99	0.44
14:CN:29:ARG:HD3	14:CN:40:CYS:HB2	1.99	0.44
23:CX:21:A:H5'	23:CX:22:G:OP1	2.17	0.44
25:DA:1038:C:N4	25:DA:1117:G:H1	2.14	0.44
25:DA:1411:C:H2'	25:DA:1412:A:C8	2.52	0.44
25:DA:1592:C:H2'	25:DA:1593:G:C8	2.53	0.44
25:DA:1983:C:H4'	25:DA:2606:C:H4'	1.99	0.44
25:DA:2126:A:N3	25:DA:2127:G:H1'	2.32	0.44
25:DA:2134:A:H3'	25:DA:2135:A:C8	2.52	0.44
25:DA:2144:U:H1'	25:DA:2148:G:H22	1.81	0.44
25:DA:641:C:O2'	25:DA:2350:C:OP1	2.22	0.44
25:DA:26:G:C6	25:DA:27:G:N1	2.86	0.44
25:DA:821:A:N1	61:DA:4375:HOH:O	2.36	0.44
25:DA:866:A:H2'	25:DA:866:A:N3	2.32	0.44
1:AA:1479:C:H2'	1:AA:1480:G:C8	2.52	0.44
1:AA:1494:G:H4'	25:BA:1935:A:C8	2.52	0.44
57:AA:3191:PCY:N16	57:AA:3191:PCY:O5	2.48	0.44
1:AA:442:C:H42	1:AA:492:G:H1	1.64	0.44
4:AD:168:ARG:H	4:AD:168:ARG:HD2	1.80	0.44
10:AJ:78:ASN:C	10:AJ:80:LYS:H	2.20	0.44
11:AK:19:ALA:HB3	11:AK:82:VAL:HA	1.99	0.44
25:BA:1398:U:OP1	61:BA:4203:HOH:O	2.21	0.44
25:BA:1517:G:N2	25:BA:1568:G:OP2	2.30	0.44
25:BA:609:A:N1	25:BA:856:G:O2'	2.44	0.44
27:BD:75:ILE:HD13	27:BD:99:ASP:OD2	2.17	0.44
30:BG:45:GLU:HG2	30:BG:45:GLU:H	1.52	0.44
40:BU:74:LEU:H	40:BU:74:LEU:HD12	1.81	0.44
1:CA:1157:A:C6	1:CA:1180:A:C5	3.05	0.44
1:CA:1058:G:H1	1:CA:1199:U:H3	1.65	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1309:G:N7	13:CM:99:ARG:NH2	2.65	0.44
1:CA:520:A:C2	1:CA:536:C:H1'	2.52	0.44
1:CA:743:U:H2'	1:CA:744:C:C6	2.52	0.44
3:CC:20:SER:HB2	3:CC:40:ARG:NH1	2.32	0.44
3:CC:83:ARG:O	3:CC:87:LEU:HG	2.18	0.44
14:CN:32:SER:OG	14:CN:32:SER:O	2.33	0.44
23:CX:61:C:H2'	23:CX:62:C:C6	2.52	0.44
25:DA:1165:U:H2'	25:DA:1166:C:C6	2.53	0.44
25:DA:1221(A):C:C2	25:DA:1229:G:C2	3.05	0.44
25:DA:1288:U:O2'	25:DA:1647:G:N2	2.50	0.44
25:DA:2332:U:H5'	25:DA:2336:A:N6	2.32	0.44
25:DA:2526:G:H5'	25:DA:2742:C:O2'	2.16	0.44
25:DA:271(E):U:H2'	25:DA:271(F):C:C6	2.53	0.44
25:DA:2832:U:OP2	61:DA:4417:HOH:O	2.20	0.44
25:DA:526:A:OP1	61:DA:4468:HOH:O	2.21	0.44
29:DF:116:ASP:O	29:DF:120:GLU:HG3	2.17	0.44
34:DO:80:ASP:OD2	39:DT:71:GLY:HA3	2.18	0.44
41:DV:85:LYS:HB2	41:DV:85:LYS:HE3	1.72	0.44
44:DY:1:MET:HG2	44:DY:2:ARG:N	2.32	0.44
45:DZ:150:LEU:HD12	45:DZ:150:LEU:HA	1.79	0.44
1:AA:993:G:H1	1:AA:1045:C:H42	1.65	0.44
1:AA:1063:C:OP2	1:AA:1064:G:O2'	2.28	0.44
1:AA:1159:U:O2	1:AA:1160:G:N1	2.50	0.44
1:AA:1325:C:O2'	1:AA:1326:C:H5'	2.17	0.44
1:AA:346:G:OP1	39:BT:41:ARG:NH1	2.49	0.44
1:AA:450:G:OP1	16:AP:43:LYS:NZ	2.51	0.44
1:AA:495:A:N3	1:AA:496:A:H8	2.16	0.44
1:AA:997:U:O2	1:AA:1044:A:N1	2.51	0.44
5:AE:50:GLU:HB2	5:AE:53:LEU:HD13	1.99	0.44
8:AH:51:VAL:HG12	8:AH:52:ASP:N	2.33	0.44
13:AM:84:ILE:HG13	13:AM:85:GLY:CA	2.48	0.44
1:AA:1220:G:N2	19:AS:54:GLY:O	2.41	0.44
25:BA:1314:A:H2'	25:BA:1315:A:O4'	2.17	0.44
25:BA:1911:A:N1	25:BA:2246:G:H1'	2.33	0.44
25:BA:510:C:H2'	25:BA:511:C:C6	2.53	0.44
25:BA:659:C:H2'	25:BA:660:C:C6	2.53	0.44
29:BF:89:VAL:O	61:BF:403:HOH:O	2.21	0.44
1:CA:1157:A:H5'	1:CA:1158:C:N1	2.31	0.44
1:CA:1227:A:H8	1:CA:1227:A:H3'	1.83	0.44
1:CA:501:C:H2'	1:CA:502:G:H8	1.81	0.44
1:CA:600:C:O2'	1:CA:601:C:H5'	2.17	0.44
1:CA:926:G:H5''	1:CA:927:G:O5'	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:32:ILE:HD13	2:CB:40:HIS:CD2	2.52	0.44
15:CO:33:THR:HG21	15:CO:85:LEU:HD22	1.98	0.44
23:CX:12:G:H4'	25:DA:1908:C:O2	2.17	0.44
54:D8:6:THR:HG22	54:D8:63:PRO:HD2	1.99	0.44
25:DA:1270:C:O2'	25:DA:1325:G:H2'	2.17	0.44
25:DA:1815:A:H8	25:DA:1815:A:OP1	2.01	0.44
25:DA:2154:G:N3	25:DA:2154:G:H2'	2.33	0.44
25:DA:2126:A:N1	25:DA:2162:G:H1'	2.33	0.44
25:DA:2274:A:C5	25:DA:2276:G:C8	3.05	0.44
25:DA:2023:G:H5'	25:DA:2617:C:H4'	1.98	0.44
25:DA:792:G:H5''	25:DA:793:A:H5'	2.00	0.44
39:DT:24:PRO:HA	39:DT:49:VAL:HG22	1.98	0.44
40:DU:28:ARG:NH1	40:DU:38:THR:OG1	2.49	0.44
1:AA:194:C:H2'	1:AA:195:A:H5''	2.00	0.44
1:AA:58:C:O2'	1:AA:388:G:N7	2.39	0.44
5:AE:152:ARG:HA	8:AH:64:LYS:HE2	1.99	0.44
19:AS:28:LYS:HE3	19:AS:28:LYS:HB3	1.82	0.44
47:B1:94:LEU:O	47:B1:97:LEU:HB2	2.18	0.44
50:B4:54:GLY:O	50:B4:56:VAL:HA	2.18	0.44
25:BA:2707:C:H2'	25:BA:2708:U:H6	1.83	0.44
25:BA:331:G:N7	61:BA:4427:HOH:O	2.36	0.44
25:BA:347:G:C8	29:BF:171:PRO:HG3	2.53	0.44
25:BA:471:C:O2'	25:BA:472:G:H5'	2.17	0.44
25:BA:611:U:H2'	25:BA:612:C:H6	1.82	0.44
25:BA:185:A:O2'	25:BA:852:G:O6	2.29	0.44
26:BB:14:U:OP2	26:BB:70:C:O2'	2.32	0.44
27:BD:206:LEU:HD22	27:BD:211:ARG:HG2	1.98	0.44
34:BO:36:GLY:HA2	34:BO:106:LEU:HD23	2.00	0.44
35:BP:47:ASP:OD2	35:BP:49:ARG:NH2	2.50	0.44
41:BV:76:LYS:HB2	41:BV:81:TYR:HB3	1.98	0.44
1:CA:1027:C:O2'	1:CA:1034:G:N2	2.51	0.44
2:CB:118:LEU:O	2:CB:122:PHE:HB3	2.17	0.44
4:CD:13:ARG:NH1	4:CD:38:TYR:O	2.50	0.44
5:CE:139:LEU:HA	5:CE:142:LEU:HD12	1.99	0.44
6:CF:25:ILE:HD13	6:CF:82:ARG:HE	1.83	0.44
6:CF:95:GLU:HA	6:CF:96:PRO:HD3	1.89	0.44
24:CY:76:A:H3'	61:DA:4895:HOH:O	2.17	0.44
50:D4:33:VAL:HG12	50:D4:35:VAL:H	1.83	0.44
25:DA:1029:A:N1	25:DA:2465:C:O2'	2.47	0.44
25:DA:2313:C:H2'	25:DA:2314:C:C6	2.52	0.44
26:DB:55:U:O3'	30:DG:27:ASN:ND2	2.51	0.44
39:DT:29:ARG:HB3	39:DT:87:ASP:HB2	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DZ:138:GLU:H	45:DZ:156:LYS:HZ1	1.64	0.44
1:AA:352:C:H4'	1:AA:354:G:OP1	2.18	0.44
1:AA:431:A:H2'	1:AA:432:A:O4'	2.18	0.44
2:AB:114:ARG:O	2:AB:118:LEU:HG	2.18	0.44
3:AC:134:ILE:O	3:AC:138:VAL:HG23	2.17	0.44
14:AN:9:LYS:HG3	14:AN:12:ARG:HH12	1.83	0.44
15:AO:55:GLY:HA2	15:AO:58:MET:CE	2.48	0.44
15:AO:61:GLY:O	15:AO:65:ARG:HG3	2.18	0.44
36:BQ:85:LYS:HG2	46:B0:7:LEU:HB3	1.97	0.44
25:BA:1893:G:H2'	25:BA:1894:G:H8	1.81	0.44
25:BA:2129:C:H2'	25:BA:2130:C:C6	2.53	0.44
25:BA:2162:C:C4	25:BA:2173:G:O6	2.71	0.44
25:BA:27:G:C2	25:BA:537:G:N3	2.86	0.44
25:BA:776:G:C6	27:BD:208:LYS:HB2	2.52	0.44
25:BA:821:A:N3	25:BA:821:A:H2'	2.33	0.44
25:BA:416:G:N1	35:BP:70:GLN:HG3	2.33	0.44
39:BT:106:SER:O	39:BT:110:ILE:HG13	2.17	0.44
43:BX:31:HIS:HA	43:BX:32:PRO:HD3	1.87	0.44
44:BY:1:MET:CE	44:BY:1:MET:H3	2.30	0.44
1:CA:1137:C:O2'	1:CA:1138:G:N2	2.51	0.44
1:CA:1304:G:N2	1:CA:1332:A:OP2	2.41	0.44
1:CA:946:A:H2'	1:CA:947:G:C8	2.53	0.44
4:CD:140:VAL:HG11	4:CD:146:ILE:HD11	1.99	0.44
61:DA:4920:HOH:O	46:D0:4:LYS:NZ	2.50	0.44
49:D3:18:ASP:N	49:D3:18:ASP:OD1	2.51	0.44
25:DA:1927:A:H2'	25:DA:1928:A:C8	2.52	0.44
25:DA:2058:A:N7	61:DA:4182:HOH:O	2.36	0.44
25:DA:2697:G:H2'	25:DA:2698:U:O4'	2.18	0.44
25:DA:602:G:H4'	25:DA:604:G:H4'	2.00	0.44
25:DA:941:A:H2'	25:DA:942:G:O4'	2.18	0.44
26:DB:7:G:H3'	26:DB:8:U:H5"	2.00	0.44
27:DD:169:GLU:OE2	27:DD:174:ILE:HD11	2.18	0.44
30:DG:177:GLY:O	30:DG:179:PRO:HD3	2.18	0.44
31:DH:71:LEU:HA	31:DH:71:LEU:HD12	1.85	0.44
45:DZ:136:PHE:O	45:DZ:137:ILE:HG13	2.17	0.44
1:AA:1030(A):G:H2'	1:AA:1030(C):G:OP2	2.17	0.44
1:AA:1082:G:H2'	1:AA:1083:U:O4'	2.18	0.44
1:AA:1160:G:C5	1:AA:1161:C:C5	3.05	0.44
1:AA:1166:G:N2	1:AA:1169:A:H3'	2.33	0.44
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.53	0.44
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.53	0.44
1:AA:406:G:H21	4:AD:119:GLN:HE22	1.64	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:44:G:H2'	1:AA:45:U:O4'	2.18	0.44
1:AA:714:G:H2'	1:AA:715:A:C8	2.53	0.44
1:AA:745:C:H2'	1:AA:746:A:H8	1.83	0.44
2:AB:17:PHE:CD2	2:AB:44:LEU:HD21	2.49	0.44
4:AD:50:ARG:HA	4:AD:51:PRO:HD3	1.86	0.44
1:AA:1187:G:H5'	9:AI:113:LYS:HE2	1.98	0.44
13:AM:3:ARG:NH2	13:AM:11:ARG:HH21	2.16	0.44
52:B6:14:THR:HG21	52:B6:48:VAL:HG22	1.99	0.44
25:BA:2145:G:H2'	25:BA:2146:G:C8	2.49	0.44
25:BA:2228:G:H2'	25:BA:2229:A:C2	2.53	0.44
25:BA:950:C:H2'	25:BA:951:U:C6	2.53	0.44
25:BA:1925:G:OP1	27:BD:241:PRO:HB2	2.17	0.44
28:BE:55:ASN:HB3	28:BE:58:ARG:HG3	2.00	0.44
29:BF:184:TYR:CE2	29:BF:188:ARG:HD2	2.53	0.44
25:BA:1052:C:O2'	33:BN:106:MET:HB3	2.18	0.44
38:BS:15:ARG:NE	38:BS:88:ASP:OD2	2.50	0.44
1:CA:1034:G:H5''	1:CA:1035:A:OP2	2.18	0.44
1:CA:1381:U:C2'	1:CA:1382:C:H5'	2.48	0.44
2:CB:121:LEU:N	2:CB:125:PRO:HG2	2.33	0.44
15:CO:54:ARG:HH11	15:CO:58:MET:HE1	1.82	0.44
16:CP:51:VAL:HG12	16:CP:53:VAL:N	2.31	0.44
25:DA:1314:C:OP1	61:DA:4448:HOH:O	2.20	0.44
25:DA:2207:G:H8	25:DA:2207:G:P	2.41	0.44
25:DA:2356:C:H2'	25:DA:2357:U:O4'	2.18	0.44
25:DA:2607:G:H2'	25:DA:2608:G:O4'	2.18	0.44
25:DA:67:U:H2'	25:DA:68:G:C8	2.53	0.44
25:DA:815:C:C2	25:DA:1193:G:C2	3.05	0.44
29:DF:36:VAL:HG11	29:DF:183:VAL:HG11	1.99	0.44
29:DF:183:VAL:O	29:DF:187:VAL:HG23	2.17	0.44
35:DP:19:VAL:HG12	35:DP:27:HIS:HB3	1.99	0.44
41:DV:56:SER:OG	41:DV:100:ARG:HD2	2.17	0.44
44:DY:94:LYS:HD3	44:DY:94:LYS:HA	1.81	0.44
45:DZ:131:ARG:HD2	45:DZ:131:ARG:H	1.83	0.44
1:AA:346:G:H3'	1:AA:346:G:N3	2.33	0.44
1:AA:926:G:H5''	1:AA:927:G:O5'	2.18	0.44
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.99	0.44
3:AC:155:GLY:HA3	3:AC:196:LEU:HD22	1.99	0.44
3:AC:58:GLU:HB2	3:AC:65:ALA:HB3	1.99	0.44
13:AM:68:GLY:HA3	30:BG:116:ASP:OD1	2.17	0.44
30:BG:67:LYS:HD3	50:B4:5:ILE:HB	1.99	0.44
53:B7:24:THR:O	53:B7:28:ARG:HG3	2.18	0.44
25:BA:1594:C:H2'	25:BA:1595:C:H6	1.83	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2156:A:O2'	25:BA:2157:A:OP1	2.29	0.44
25:BA:2316:G:H22	25:BA:2324:U:H3	1.65	0.44
25:BA:502:G:H4'	25:BA:527:A:N1	2.33	0.44
25:BA:596:G:O2'	25:BA:597:C:H3'	2.18	0.44
27:BD:79:VAL:O	27:BD:114:GLY:N	2.45	0.44
28:BE:24:THR:HG22	28:BE:186:GLY:O	2.18	0.44
36:BQ:16:ARG:HG2	36:BQ:18:LYS:HG3	2.00	0.44
38:BS:3:ARG:HA	38:BS:3:ARG:HE	1.82	0.44
45:BZ:73:GLN:HB3	45:BZ:87:ASP:HB2	2.00	0.44
1:CA:1134:G:H1	1:CA:1140:C:N4	2.15	0.44
1:CA:1392:G:N2	1:CA:1502:A:H8	2.13	0.44
1:CA:542:G:P	4:CD:10:ARG:HH22	2.40	0.44
25:DA:1344:G:O2'	25:DA:1385:G:H2'	2.17	0.44
25:DA:1531:C:H42	25:DA:1538:G:H1	1.66	0.44
25:DA:807:U:O2'	25:DA:2060:A:N1	2.42	0.44
25:DA:2280:G:N7	61:DA:4535:HOH:O	2.36	0.44
25:DA:2525:G:C2	25:DA:2539:C:C2	3.06	0.44
26:DB:2:C:OP2	26:DB:2:C:H3'	2.18	0.44
26:DB:45:A:C6	26:DB:46:A:C5	3.05	0.44
26:DB:57:A:O4'	30:DG:30:GLU:HG3	2.18	0.44
34:DO:64:ARG:HB2	34:DO:83:ALA:HB3	1.99	0.44
1:AA:1127:G:H5'	1:AA:1280:A:O2'	2.17	0.44
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.18	0.44
4:AD:15:GLU:HG3	4:AD:63:LYS:HE2	1.99	0.44
4:AD:71:SER:OG	4:AD:74:GLN:HB2	2.18	0.44
11:AK:84:VAL:HG11	11:AK:91:ARG:HH11	1.83	0.44
13:AM:14:ARG:H	13:AM:14:ARG:HG3	1.62	0.44
14:AN:53:LEU:HA	14:AN:54:PRO:HD2	1.88	0.44
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.18	0.44
15:AO:74:ASP:HB3	15:AO:77:ARG:HB2	2.00	0.44
19:AS:51:VAL:HG22	19:AS:71:LEU:HD22	1.99	0.44
19:AS:71:LEU:HA	19:AS:71:LEU:HD23	1.89	0.44
25:BA:1405:A:C2	25:BA:1418:U:O4	2.71	0.44
25:BA:2163:G:C6	25:BA:2164:C:C2	3.05	0.44
25:BA:2710:U:H2'	25:BA:2711:C:C6	2.53	0.44
25:BA:2784:C:H2'	25:BA:2785:C:H6	1.82	0.44
25:BA:2859:U:OP2	39:BT:95:ARG:NH1	2.50	0.44
25:BA:2880:C:H2'	25:BA:2881:C:O4'	2.18	0.44
31:BH:7:LEU:HA	31:BH:8:PRO:HD3	1.83	0.44
1:CA:1023:G:C4	1:CA:1024:G:C8	3.05	0.44
1:CA:1254:C:O4'	1:CA:1356:G:H5''	2.18	0.44
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:344:A:H4'	1:CA:345:C:OP2	2.18	0.44
1:CA:589:C:H2'	1:CA:590:C:H5'	1.99	0.44
1:CA:714:G:H2'	1:CA:715:A:C8	2.52	0.44
4:CD:201:GLN:HE22	5:CE:99:GLY:HA2	1.83	0.44
9:CI:81:ILE:O	9:CI:85:LEU:HG	2.18	0.44
10:CJ:67:THR:O	10:CJ:67:THR:OG1	2.33	0.44
19:CS:22:LEU:HB3	19:CS:27:GLU:HG3	1.99	0.44
25:DA:570:G:H2'	25:DA:2030:A:N7	2.33	0.44
25:DA:2029:G:H2'	25:DA:2031:A:OP1	2.18	0.44
25:DA:2080:G:O2'	25:DA:2081:C:H5'	2.17	0.44
25:DA:2117:A:O2'	25:DA:2118:U:H5''	2.18	0.44
25:DA:2236:C:H2'	25:DA:2237:G:O4'	2.18	0.44
25:DA:2376:A:N1	38:DS:87:PHE:HB3	2.33	0.44
25:DA:918:A:H5''	26:DB:98:G:O2'	2.17	0.44
35:DP:7:ARG:HA	35:DP:8:PRO:HD3	1.90	0.44
36:DQ:29:PHE:HB2	36:DQ:105:GLU:OE2	2.18	0.44
1:AA:67:C:H2'	1:AA:68:G:H8	1.78	0.43
1:AA:767:A:H2'	1:AA:768:A:O4'	2.18	0.43
2:AB:51:LEU:HD21	2:AB:201:ILE:HG23	1.99	0.43
3:AC:156:ARG:NH2	3:AC:159:GLY:O	2.51	0.43
11:AK:44:SER:O	11:AK:48:ILE:HD13	2.18	0.43
13:AM:15:VAL:HG22	13:AM:43:THR:O	2.18	0.43
25:BA:1067:A:H8	25:BA:1068:G:H5''	1.82	0.43
25:BA:1056:A:N3	25:BA:1199:C:H1'	2.32	0.43
25:BA:1338:U:H2'	25:BA:1339:C:H6	1.83	0.43
25:BA:320:C:H2'	25:BA:321:C:H6	1.81	0.43
25:BA:515:G:H2'	25:BA:516:G:O4'	2.18	0.43
25:BA:898:U:O2'	49:B3:42:ALA:O	2.36	0.43
26:BB:2:C:H2'	26:BB:3:C:C6	2.53	0.43
29:BF:18:ARG:NH2	29:BF:127:GLU:OE1	2.50	0.43
30:BG:66:GLN:HG3	50:B4:1:MET:HE1	2.00	0.43
31:BH:154:PRO:HB3	31:BH:163:TYR:CZ	2.53	0.43
25:BA:63:A:O3'	43:BX:71:GLY:HA3	2.18	0.43
1:CA:1177:G:H3'	1:CA:1178:G:H8	1.83	0.43
1:CA:1234:C:H1'	1:CA:1364:U:O2	2.18	0.43
1:CA:254:G:OP1	17:CQ:66:SER:OG	2.21	0.43
1:CA:353:A:H8	1:CA:353:A:H5'	1.82	0.43
1:CA:741:G:H2'	1:CA:742:G:O4'	2.18	0.43
8:CH:39:LEU:HB3	8:CH:45:ILE:HG12	1.99	0.43
12:CL:71:PRO:O	12:CL:102:ARG:HD2	2.18	0.43
18:CR:74:ARG:HG3	18:CR:79:LEU:HB2	2.00	0.43
49:D3:4:LEU:O	49:D3:36:VAL:HA	2.17	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2815:C:H5''	51:D5:29:THR:HG21	2.00	0.43
25:DA:1021:A:H3'	25:DA:1021:A:H8	1.83	0.43
25:DA:1550:C:H2'	25:DA:1551:C:C6	2.53	0.43
25:DA:2469:A:H2'	25:DA:2470:G:O4'	2.18	0.43
25:DA:2678:C:H2'	25:DA:2679:A:O4'	2.18	0.43
25:DA:2760:C:H1'	31:DH:139:GLN:HE22	1.83	0.43
25:DA:411:G:C5	35:DP:72:PRO:HB3	2.53	0.43
25:DA:471:A:H2'	25:DA:472:A:O4'	2.17	0.43
25:DA:18:C:O2'	25:DA:554:U:OP1	2.36	0.43
26:DB:105:A:OP1	45:DZ:72:ARG:NH1	2.51	0.43
26:DB:54:G:H21	30:DG:29:TRP:HE1	1.66	0.43
31:DH:5:GLY:HA2	31:DH:69:ARG:HB3	2.00	0.43
44:DY:6:HIS:CD2	44:DY:6:HIS:H	2.36	0.43
45:DZ:33:LEU:HD21	45:DZ:90:VAL:HG21	1.99	0.43
1:AA:1152:A:H5'	10:AJ:13:HIS:CG	2.54	0.43
1:AA:537:G:OP1	12:AL:113:ARG:NH2	2.37	0.43
1:AA:657:G:C2	1:AA:750:G:C5	3.06	0.43
1:AA:860:A:H2'	1:AA:861:G:O4'	2.18	0.43
2:AB:100:GLY:N	2:AB:176:GLU:OE2	2.46	0.43
50:B4:49:PHE:HA	50:B4:49:PHE:HD1	1.69	0.43
25:BA:1810:U:H2'	61:BA:5050:HOH:O	2.18	0.43
28:BE:173:VAL:CG2	28:BE:185:LYS:HB2	2.47	0.43
28:BE:28:ALA:HB3	28:BE:93:VAL:HG12	1.99	0.43
30:BG:17:PRO:HA	30:BG:20:ILE:HD12	2.01	0.43
37:BR:16:HIS:O	37:BR:16:HIS:HD2	2.00	0.43
1:CA:1256:A:H61	1:CA:1278:U:C1'	2.31	0.43
1:CA:1304:G:C6	1:CA:1305:G:N1	2.85	0.43
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.52	0.43
1:CA:685:G:C2	1:CA:686:U:C4	3.06	0.43
1:CA:8:A:H5'	5:CE:101:ILE:HG22	2.01	0.43
1:CA:940:C:H2'	1:CA:941:G:C8	2.53	0.43
1:CA:977:A:H1'	1:CA:982:U:O4	2.18	0.43
13:CM:64:TRP:HB2	13:CM:66:LEU:HD21	1.99	0.43
23:CX:31:G:C5	23:CX:32:5MC:HM52	2.53	0.43
50:D4:40:HIS:HB3	50:D4:43:TYR:HB2	2.00	0.43
25:DA:1021:A:C8	25:DA:1021:A:H3'	2.53	0.43
25:DA:1190:G:O2'	25:DA:1191:G:H5'	2.18	0.43
25:DA:1214:A:H61	25:DA:1235:G:H1'	1.83	0.43
25:DA:2128:C:H2'	25:DA:2129:C:O4'	2.17	0.43
25:DA:2882:A:OP1	37:DR:96:ARG:NE	2.51	0.43
25:DA:332:A:O2'	25:DA:334:C:OP2	2.28	0.43
25:DA:601:C:O2'	25:DA:605:C:H5''	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DG:98:ARG:H	30:DG:98:ARG:HG2	1.40	0.43
31:DH:11:VAL:HG21	31:DH:50:VAL:HG23	2.00	0.43
33:DN:115:ARG:HA	33:DN:118:LYS:HE3	1.99	0.43
45:DZ:10:ARG:NH1	45:DZ:36:LYS:HD2	2.33	0.43
1:AA:1030(B):C:H2'	1:AA:1030(B):C:O2	2.16	0.43
1:AA:1247:U:H3	1:AA:1290:G:H1	1.65	0.43
1:AA:1355:G:H2'	1:AA:1356:G:C8	2.53	0.43
1:AA:628:G:C2'	1:AA:629:G:H5'	2.48	0.43
2:AB:174:VAL:O	2:AB:178:ARG:HB2	2.18	0.43
3:AC:15:THR:HG23	3:AC:181:ASN:HD22	1.84	0.43
4:AD:18:LYS:NZ	4:AD:26:CYS:O	2.32	0.43
4:AD:43:HIS:HA	4:AD:46:LYS:HD3	1.99	0.43
7:AG:51:GLN:O	7:AG:55:GLY:HA2	2.18	0.43
16:AP:75:ARG:O	16:AP:78:GLY:N	2.46	0.43
1:AA:1229:A:O2'	23:AX:30:G:OP1	2.36	0.43
48:B2:28:LYS:HG3	48:B2:53:LEU:HD21	1.99	0.43
52:B6:15:GLU:HG3	52:B6:47:THR:HG23	1.99	0.43
25:BA:1199:C:H2'	25:BA:1200:G:O4'	2.19	0.43
25:BA:1451:U:H2'	25:BA:1452:U:H6	1.83	0.43
25:BA:1576:G:O2'	25:BA:1577:C:H5'	2.17	0.43
25:BA:1576:G:C2'	25:BA:1577:C:H5'	2.48	0.43
25:BA:1756:U:H2'	25:BA:1757:C:C6	2.53	0.43
25:BA:2005:C:H4'	25:BA:2618:C:H4'	1.99	0.43
25:BA:2331:G:C2	38:BS:3:ARG:HA	2.53	0.43
26:BB:8:U:O3'	38:BS:25:ARG:NH2	2.52	0.43
28:BE:111:ARG:HG3	28:BE:160:TYR:CD2	2.54	0.43
28:BE:75:VAL:HG13	28:BE:77:ILE:H	1.83	0.43
30:BG:122:PRO:HG3	30:BG:182:LYS:H	1.83	0.43
31:BH:154:PRO:HB3	31:BH:163:TYR:CE2	2.53	0.43
33:BN:30:ILE:HG22	33:BN:34:LEU:HD22	1.99	0.43
1:AA:1422:G:C5'	34:BO:48:PRO:HB3	2.43	0.43
35:BP:85:LEU:HG	35:BP:115:LEU:O	2.18	0.43
45:BZ:137:ILE:HA	45:BZ:156:LYS:NZ	2.34	0.43
1:CA:1138:G:C5	1:CA:1140:C:H1'	2.53	0.43
1:CA:1178:G:N2	1:CA:1181:G:OP2	2.47	0.43
1:CA:1485:U:H2'	1:CA:1486:G:C8	2.53	0.43
1:CA:560:U:H4'	1:CA:561:U:O5'	2.18	0.43
1:CA:833:U:H2'	1:CA:834:C:H6	1.82	0.43
6:CF:42:GLU:OE1	6:CF:59:TYR:OH	2.33	0.43
23:CX:65:C:H2'	23:CX:66:C:C6	2.54	0.43
24:CY:76:A:H5'	47:D1:30:VAL:HG21	1.99	0.43
49:D3:10:LYS:HB3	49:D3:53:LEU:HA	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1027:A:C6	25:DA:1126:A:C4	3.06	0.43
25:DA:1260:G:C6	25:DA:1261:C:C4	3.07	0.43
25:DA:1530:C:H1'	25:DA:1531:C:OP1	2.18	0.43
25:DA:1654:A:H1'	25:DA:2823:A:H5'	2.00	0.43
25:DA:2136:C:N3	25:DA:2155:G:O6	2.52	0.43
25:DA:746:A:H2'	25:DA:2612:C:H5''	2.00	0.43
25:DA:27:G:HO2'	25:DA:28:A:P	2.40	0.43
25:DA:632:A:H2'	25:DA:633:A:C8	2.53	0.43
25:DA:674:G:O2'	29:DF:74:ARG:HD3	2.19	0.43
27:DD:164:GLN:NE2	27:DD:166:GLN:OE1	2.47	0.43
29:DF:116:ASP:OD2	35:DP:1:MET:N	2.44	0.43
35:DP:95:VAL:HG13	35:DP:125:VAL:HA	2.00	0.43
39:DT:64:ARG:HB2	39:DT:73:GLU:HG2	2.01	0.43
1:AA:1057:G:H2'	1:AA:1058:G:H5'	1.99	0.43
4:AD:187:ARG:NH2	4:AD:193:ASP:OD1	2.46	0.43
7:AG:78:ARG:NH1	7:AG:79:ARG:HD2	2.33	0.43
20:AT:77:ALA:O	20:AT:81:LYS:HG3	2.19	0.43
22:AV:14:A:H2'	22:AV:15:A:H8	1.82	0.43
47:B1:64:ALA:HA	47:B1:67:ILE:HG13	2.00	0.43
49:B3:7:LYS:HE3	49:B3:32:GLN:HE21	1.83	0.43
50:B4:58:ARG:O	50:B4:61:ARG:HB3	2.18	0.43
54:B8:62:LEU:HB3	54:B8:65:GLU:CG	2.48	0.43
25:BA:1314:A:C2	25:BA:2035:A:C4	3.07	0.43
30:BG:16:ARG:O	30:BG:20:ILE:HG13	2.18	0.43
39:BT:23:ARG:HG3	39:BT:120:ARG:NH1	2.33	0.43
44:BY:99:CYS:HB2	44:BY:106:LEU:HD21	2.00	0.43
45:BZ:7:ALA:O	45:BZ:62:PRO:HD3	2.19	0.43
1:CA:1145:C:H4'	1:CA:1146:A:H5'	2.01	0.43
1:CA:1314:C:OP1	19:CS:6:LYS:NZ	2.30	0.43
1:CA:141:A:H1'	1:CA:182:U:O2	2.19	0.43
1:CA:189(C):C:H2'	1:CA:189(D):C:O4'	2.19	0.43
1:CA:950:U:H2'	1:CA:951:G:C8	2.54	0.43
2:CB:144:ARG:NH2	2:CB:148:TYR:OH	2.49	0.43
3:CC:11:ARG:HB3	3:CC:15:THR:HB	2.00	0.43
10:CJ:64:GLU:OE2	10:CJ:66:ARG:NH1	2.51	0.43
12:CL:46:LYS:NZ	12:CL:91:LYS:O	2.42	0.43
25:DA:1220:A:OP2	40:DU:19:LYS:NZ	2.35	0.43
25:DA:1257:C:H2'	25:DA:1258:C:C6	2.53	0.43
25:DA:1614:A:C2	42:DW:93:ALA:HB2	2.53	0.43
25:DA:2349:G:OP1	61:DA:4097:HOH:O	2.21	0.43
25:DA:2695:C:H2'	25:DA:2696:U:H6	1.83	0.43
25:DA:320:A:H4'	25:DA:322:A:C8	2.52	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:720:C:H2'	25:DA:721:C:C6	2.54	0.43
30:DG:121:ASN:HA	30:DG:122:PRO:HD3	1.80	0.43
36:DQ:111:GLU:O	36:DQ:115:MET:HG2	2.18	0.43
38:DS:58:LEU:HD11	38:DS:65:VAL:HG13	2.00	0.43
40:DU:61:TRP:CH2	40:DU:93:LYS:HB2	2.54	0.43
45:DZ:5:LEU:HD21	45:DZ:43:GLU:HB3	1.99	0.43
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.17	0.43
1:AA:522:C:H41	12:AL:53:ARG:NH2	2.16	0.43
1:AA:526:C:OP2	12:AL:91:LYS:HE3	2.19	0.43
1:AA:737:A:H2'	1:AA:738:C:C6	2.53	0.43
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.18	0.43
13:AM:11:ARG:HA	13:AM:45:VAL:HB	2.01	0.43
25:BA:1373:C:O2'	37:BR:105:ARG:NH1	2.43	0.43
25:BA:1553:A:O2'	25:BA:1554:A:O5'	2.25	0.43
25:BA:1686:U:O2'	25:BA:1687:C:H5'	2.19	0.43
25:BA:599:U:H2'	25:BA:600:G:C8	2.54	0.43
25:BA:847:A:H8	25:BA:847:A:OP1	2.00	0.43
25:BA:964:A:H5''	26:BB:98:G:O2'	2.18	0.43
25:BA:2761:A:H5'	31:BH:4:ILE:HD12	2.01	0.43
45:BZ:54:HIS:HD2	45:BZ:99:TYR:O	2.01	0.43
1:CA:1305:G:H5'	21:CU:4:GLY:HA3	2.01	0.43
1:CA:1492:A:H2'	1:CA:1493:A:C4	2.53	0.43
1:CA:598:U:H2'	1:CA:599:C:C6	2.52	0.43
5:CE:50:GLU:HB2	5:CE:53:LEU:HD13	2.00	0.43
13:CM:13:LYS:O	13:CM:45:VAL:HG23	2.19	0.43
14:CN:59:ALA:HB1	14:CN:61:TRP:HZ3	1.82	0.43
49:D3:9:VAL:HG12	49:D3:32:GLN:HE22	1.83	0.43
25:DA:1041:C:H42	25:DA:1114:G:H1	1.66	0.43
25:DA:1153:C:H2'	25:DA:1154:G:O4'	2.19	0.43
25:DA:1292:U:H2'	25:DA:1293:C:H6	1.83	0.43
25:DA:149:A:H2'	25:DA:150:C:O4'	2.19	0.43
25:DA:1803:A:H4'	27:DD:259:THR:HG23	1.99	0.43
25:DA:1932:A:H2'	25:DA:1933:G:O4'	2.18	0.43
25:DA:2051:A:H5'	25:DA:2578:G:O4'	2.19	0.43
25:DA:234:C:H2'	25:DA:235:U:H6	1.84	0.43
25:DA:417:C:H1'	25:DA:2407:G:N2	2.33	0.43
25:DA:2516:G:C6	25:DA:2517:C:C4	3.07	0.43
25:DA:298:G:H5''	25:DA:299:A:OP1	2.18	0.43
25:DA:2572:A:N7	28:DE:145:LYS:HB2	2.34	0.43
35:DP:38:GLN:HG2	35:DP:45:LEU:N	2.33	0.43
42:DW:18:ARG:HG2	42:DW:76:VAL:HB	2.01	0.43
43:DX:20:GLY:HA2	43:DX:23:GLU:OE2	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:100:C:H2'	1:AA:101:A:C8	2.54	0.43
1:AA:1317:C:N3	19:AS:37:ARG:NH2	2.56	0.43
1:AA:162:A:H5''	1:AA:163:C:OP2	2.18	0.43
1:AA:430:A:OP1	4:AD:9:CYS:N	2.41	0.43
1:AA:534:U:H6	1:AA:534:U:O5'	2.02	0.43
1:AA:560:U:H4'	1:AA:561:U:O5'	2.18	0.43
1:AA:796:C:H1'	57:AA:3191:PCY:H92	2.00	0.43
1:AA:1015:A:O3'	14:AN:15:LYS:NZ	2.52	0.43
24:AY:5:G:N2	24:AY:6:G:H1'	2.33	0.43
25:BA:1302:G:O2'	29:BF:75:HIS:HE1	2.02	0.43
25:BA:160:G:O2'	25:BA:161:C:H5'	2.18	0.43
25:BA:1685:C:H5''	25:BA:2722:C:O2'	2.19	0.43
25:BA:197:C:H2'	25:BA:198:C:H6	1.84	0.43
25:BA:504:A:N1	25:BA:525:G:H4'	2.33	0.43
26:BB:75:G:H8	26:BB:75:G:H5''	1.82	0.43
27:BD:71:ASP:HB3	27:BD:103:ARG:NH2	2.27	0.43
30:BG:72:ARG:NH1	30:BG:87:PRO:HG3	2.33	0.43
25:BA:2827:G:OP1	37:BR:99:LYS:HE2	2.19	0.43
38:BS:59:LYS:HE3	38:BS:59:LYS:HB2	1.83	0.43
45:BZ:93:ASP:OD1	45:BZ:94:GLU:N	2.51	0.43
1:CA:1002:G:H3'	1:CA:1003:G:C8	2.53	0.43
1:CA:1371:G:C6	1:CA:1372:U:C4	3.06	0.43
1:CA:1446:U:H4'	1:CA:1447:A:C5	2.52	0.43
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.19	0.43
1:CA:473:G:C2'	1:CA:474:G:H5'	2.48	0.43
2:CB:87:ARG:NH2	2:CB:220:ASP:OD1	2.48	0.43
1:CA:1055:A:N3	3:CC:156:ARG:HD2	2.34	0.43
11:CK:43:SER:HB3	11:CK:68:ALA:HB2	2.01	0.43
14:CN:24:CYS:HB3	14:CN:29:ARG:H	1.83	0.43
19:CS:20:LEU:HA	19:CS:23:ASN:HD22	1.83	0.43
47:D1:86:SER:OG	47:D1:89:GLU:OE2	2.27	0.43
25:DA:1415:U:O2'	25:DA:1417:C:OP1	2.37	0.43
25:DA:2086:U:H2'	25:DA:2087:G:C8	2.53	0.43
25:DA:2135:A:H61	25:DA:2157:G:N2	2.17	0.43
25:DA:2545:G:N3	25:DA:2565:A:H2	2.16	0.43
25:DA:2819:G:H2'	25:DA:2821:A:N7	2.34	0.43
25:DA:649:G:H2'	25:DA:650:C:O4'	2.18	0.43
25:DA:893:C:H5'	25:DA:894:C:OP2	2.19	0.43
25:DA:93:G:H2'	25:DA:94:C:C6	2.54	0.43
26:DB:26:A:O5'	26:DB:26:A:H8	2.02	0.43
26:DB:33:G:C2	26:DB:50:G:C2	3.07	0.43
34:DO:98:VAL:HG22	34:DO:118:ALA:HA	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DP:99:LEU:O	35:DP:103:ALA:N	2.50	0.43
36:DQ:24:GLY:HA2	36:DQ:67:ARG:NH2	2.34	0.43
1:AA:1028:C:H2'	1:AA:1029:C:H4'	2.00	0.43
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.34	0.43
1:AA:1504:G:OP1	1:AA:1507:A:H4'	2.19	0.43
1:AA:164:U:H2'	1:AA:165:C:C6	2.54	0.43
1:AA:479:C:C4	1:AA:480:U:C4	3.06	0.43
1:AA:68:G:C2	1:AA:69:G:H1'	2.54	0.43
2:AB:71:VAL:HG12	2:AB:170:GLU:HG3	2.01	0.43
2:AB:76:GLN:H	2:AB:76:GLN:CD	2.22	0.43
4:AD:128:VAL:HG12	4:AD:129:ASN:ND2	2.33	0.43
4:AD:166:LYS:HB2	4:AD:168:ARG:NH1	2.33	0.43
6:AF:2:ARG:NE	6:AF:69:GLU:HG2	2.34	0.43
19:AS:23:ASN:HA	19:AS:27:GLU:CD	2.39	0.43
30:BG:179:PRO:HG3	50:B4:43:TYR:OH	2.18	0.43
25:BA:1093:G:O2'	25:BA:1094:A:H8	2.01	0.43
25:BA:553:A:C2	25:BA:2064:A:H2'	2.53	0.43
26:BB:78:A:C2	26:BB:100:A:C4	3.06	0.43
29:BF:132:VAL:HG22	29:BF:163:VAL:HG22	2.01	0.43
36:BQ:21:THR:HG21	36:BQ:101:ARG:HD3	2.00	0.43
42:BW:88:ARG:HG3	42:BW:92:ARG:HH21	1.83	0.43
1:CA:1030(A):G:N2	1:CA:1030(D):A:OP2	2.52	0.43
1:CA:399:G:H2'	1:CA:400:C:C6	2.53	0.43
2:CB:178:ARG:NH2	8:CH:68:ARG:HH12	2.16	0.43
6:CF:61:LEU:HD23	6:CF:63:TYR:HE1	1.84	0.43
9:CI:67:GLY:O	9:CI:73:GLN:NE2	2.43	0.43
9:CI:99:LEU:HB3	9:CI:101:PHE:HE2	1.83	0.43
11:CK:38:ASN:HA	11:CK:39:PRO:HD3	1.87	0.43
1:CA:1228:C:H4'	13:CM:116:THR:HA	2.01	0.43
13:CM:13:LYS:HA	13:CM:44:ARG:HH11	1.83	0.43
24:CY:73:A:H2'	24:CY:74:C:O4'	2.18	0.43
50:D4:57:GLU:HA	50:D4:58:ARG:HA	1.82	0.43
54:D8:63:PRO:HG2	54:D8:64:TYR:CD2	2.54	0.43
25:DA:1579:A:H2'	25:DA:1580:A:C8	2.54	0.43
25:DA:2025:C:H2'	25:DA:2026:C:C6	2.54	0.43
25:DA:2031:A:N3	25:DA:2455:G:O2'	2.35	0.43
25:DA:2037:G:O2'	25:DA:2038:G:H5'	2.18	0.43
25:DA:2628:C:H1'	25:DA:2781:A:H2'	2.00	0.43
26:DB:13:A:O2'	26:DB:14:U:H3'	2.19	0.43
27:DD:218:ARG:HB3	27:DD:219:PRO:HD2	2.01	0.43
29:DF:34:TRP:CZ2	35:DP:8:PRO:HG3	2.53	0.43
39:DT:56:GLY:O	39:DT:59:THR:HG22	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1092:A:O5'	1:AA:1092:A:H8	2.01	0.43
1:AA:922:G:H2'	1:AA:923:A:C8	2.54	0.43
1:AA:993:G:H2'	1:AA:995:C:H41	1.82	0.43
2:AB:196:LEU:HD12	2:AB:196:LEU:HA	1.90	0.43
2:AB:211:ILE:O	2:AB:215:LEU:HB2	2.19	0.43
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	2.01	0.43
4:AD:98:GLU:OE1	4:AD:103:ASN:ND2	2.48	0.43
5:AE:90:VAL:O	5:AE:91:LEU:HD13	2.19	0.43
2:AB:178:ARG:HH22	8:AH:68:ARG:HH12	1.65	0.43
1:AA:1351:U:O4	9:AI:118:LYS:NZ	2.51	0.43
12:AL:34:ARG:HG2	12:AL:35:GLY:N	2.34	0.43
14:AN:3:ARG:HA	14:AN:3:ARG:HD2	1.58	0.43
16:AP:4:ILE:N	16:AP:65:GLN:O	2.30	0.43
20:AT:43:LEU:O	20:AT:47:GLY:N	2.44	0.43
25:BA:1440:U:H2'	25:BA:1441:A:O4'	2.19	0.43
25:BA:1587:U:H2'	25:BA:1588:G:O4'	2.18	0.43
25:BA:1797:U:H2'	25:BA:1798:C:H6	1.84	0.43
25:BA:2166:U:H2'	25:BA:2168:C:C5	2.53	0.43
25:BA:2897:U:H2'	25:BA:2898:C:C6	2.52	0.43
29:BF:183:VAL:O	29:BF:187:VAL:HG23	2.19	0.43
32:BI:6:LEU:HG	32:BI:36:ALA:HA	2.01	0.43
42:BW:14:PRO:HG2	42:BW:78:GLU:CG	2.48	0.43
1:CA:1039:C:H2'	1:CA:1040:U:C6	2.54	0.43
1:CA:790:A:N6	1:CA:1498:U:OP1	2.52	0.43
1:CA:582:U:OP1	15:CO:68:ARG:NH1	2.51	0.43
1:CA:617:G:H4'	16:CP:44:THR:O	2.17	0.43
2:CB:187:LEU:HD23	2:CB:201:ILE:HB	2.00	0.43
3:CC:51:GLY:O	3:CC:70:VAL:HA	2.19	0.43
1:CA:406:G:H4'	4:CD:5:ILE:HD11	2.00	0.43
9:CI:99:LEU:HB3	9:CI:101:PHE:CE2	2.54	0.43
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	2.01	0.43
15:CO:69:TYR:O	15:CO:73:GLU:HG2	2.18	0.43
17:CQ:56:VAL:O	17:CQ:77:VAL:HB	2.19	0.43
20:CT:86:ARG:O	20:CT:90:GLN:NE2	2.49	0.43
25:DA:1301:A:H2	25:DA:1626:G:N3	2.17	0.43
25:DA:1508:A:H4'	25:DA:1509(A):A:C4	2.54	0.43
25:DA:151:C:H42	25:DA:175:G:H1	1.67	0.43
25:DA:237:C:H2'	25:DA:238:C:C6	2.53	0.43
25:DA:2872:G:O2'	25:DA:2873:A:H5'	2.19	0.43
25:DA:28:A:O2'	25:DA:583:G:H5'	2.18	0.43
25:DA:764:A:H5'	27:DD:210:GLY:CA	2.49	0.43
25:DA:864:G:C6	25:DA:865:C:N4	2.86	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:52:LEU:O	28:DE:76:ARG:N	2.34	0.43
36:DQ:20:ALA:HB2	45:DZ:79:ARG:HG2	1.99	0.43
38:DS:68:GLN:HE21	38:DS:68:GLN:HA	1.83	0.43
45:DZ:144:LEU:HD23	45:DZ:144:LEU:HA	1.76	0.43
1:AA:1290:G:C4	1:AA:1291:G:C8	3.06	0.43
1:AA:931:C:N4	1:AA:1386:G:H1	2.16	0.43
1:AA:590:C:H2'	1:AA:591:U:C6	2.54	0.43
1:AA:575:G:O2'	1:AA:821:G:OP2	2.28	0.43
10:AJ:8:LEU:HD23	10:AJ:96:ILE:HA	2.01	0.43
19:AS:30:LEU:HD21	19:AS:32:LYS:HG3	2.01	0.43
54:B8:33:ASN:HA	54:B8:36:LYS:HD2	2.01	0.43
25:BA:354:A:H2	25:BA:1255:A:H2'	1.83	0.43
27:BD:5:LYS:HE3	27:BD:5:LYS:HB3	1.57	0.43
30:BG:5:VAL:HG22	30:BG:8:LYS:H	1.84	0.43
40:BU:58:ARG:HA	40:BU:61:TRP:CE3	2.54	0.43
45:BZ:137:ILE:HA	45:BZ:156:LYS:HZ1	1.84	0.43
1:CA:1009:G:C2	1:CA:1010:G:C4	3.07	0.43
1:CA:9:G:H2'	1:CA:10:A:C8	2.54	0.43
1:CA:153:C:H2'	1:CA:154:C:H6	1.83	0.43
1:CA:418:C:H2'	1:CA:419:C:C6	2.53	0.43
12:CL:8:ASN:O	12:CL:12:ARG:HG3	2.19	0.43
13:CM:90:LEU:HD23	13:CM:93:ARG:HE	1.84	0.43
25:DA:1505:C:H2'	25:DA:1506:C:H6	1.84	0.43
1:CA:1493:A:C8	25:DA:1913:A:N1	2.86	0.43
25:DA:2257:U:O2'	25:DA:2258:C:H5'	2.18	0.43
25:DA:2815:C:H2'	25:DA:2816:C:H6	1.82	0.43
25:DA:1188:U:C4'	41:DV:79:VAL:HG22	2.49	0.43
43:DX:35:THR:HB	43:DX:38:GLU:HB2	2.01	0.43
1:AA:271:C:H2'	1:AA:272:C:C6	2.54	0.43
1:AA:299:G:C6	1:AA:300:A:C6	3.07	0.43
1:AA:444:C:H2'	1:AA:445:G:H8	1.84	0.43
1:AA:920:U:H2'	1:AA:921:U:C6	2.54	0.43
3:AC:138:VAL:HG22	3:AC:151:VAL:HG23	2.00	0.43
4:AD:184:LYS:HB3	4:AD:184:LYS:HE2	1.80	0.43
8:AH:29:SER:HB2	8:AH:32:LYS:HG3	2.01	0.43
20:AT:51:GLU:HG3	20:AT:54:LYS:NZ	2.34	0.43
23:AX:61:C:H2'	23:AX:62:C:H6	1.84	0.43
46:B0:43:THR:HG23	46:B0:43:THR:O	2.19	0.43
51:B5:35:GLU:HG3	51:B5:51:TYR:CD2	2.53	0.43
25:BA:2172:U:N3	25:BA:2173:G:N7	2.66	0.43
25:BA:2193:A:H1'	25:BA:2194:U:C6	2.54	0.43
25:BA:2021:C:H4'	25:BA:2736:C:O2	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:411:U:H2'	25:BA:412:C:H6	1.83	0.43
25:BA:543:G:H2'	25:BA:544:U:C6	2.54	0.43
30:BG:41:GLN:C	30:BG:43:LEU:H	2.22	0.43
32:BI:12:LEU:HD23	32:BI:12:LEU:HA	1.71	0.43
25:BA:2116:G:OP1	32:BI:22:LYS:HD2	2.19	0.43
32:BI:72:LEU:O	32:BI:74:ASN:N	2.52	0.43
37:BR:44:LEU:HD22	37:BR:48:VAL:HG23	2.00	0.43
39:BT:24:PRO:HD3	39:BT:52:ILE:HD12	2.00	0.43
1:CA:1008:C:H42	1:CA:1021:G:H1	1.67	0.43
6:CF:9:VAL:HB	6:CF:87:ARG:HB2	1.99	0.43
8:CH:51:VAL:HG11	8:CH:60:ARG:HH12	1.84	0.43
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	2.18	0.43
20:CT:57:ARG:HH22	20:CT:100:ILE:HD12	1.84	0.43
25:DA:1022:G:C6	25:DA:1140:C:C4	3.06	0.43
25:DA:1185:C:H5''	25:DA:1186:G:OP1	2.18	0.43
25:DA:1790:C:H5''	25:DA:1791:A:OP1	2.19	0.43
25:DA:1791:A:H3'	25:DA:1792:G:H8	1.84	0.43
25:DA:829:A:N7	25:DA:2248:C:H5'	2.33	0.43
25:DA:2377:A:H2'	25:DA:2378:A:C8	2.54	0.43
25:DA:749:C:O2	25:DA:1618:A:H2'	2.19	0.43
32:DI:77:LEU:HD11	32:DI:101:LEU:HB2	2.00	0.43
45:DZ:146:ILE:H	45:DZ:146:ILE:HG13	1.62	0.43
45:DZ:53:ILE:HG13	45:DZ:53:ILE:H	1.73	0.43
1:AA:240:C:H2'	1:AA:241:C:H6	1.84	0.42
1:AA:371:G:O2'	1:AA:373:A:N7	2.46	0.42
1:AA:302:G:O2'	1:AA:556:C:H5''	2.19	0.42
1:AA:996:A:H2'	1:AA:997:U:O4'	2.19	0.42
11:AK:20:TYR:CZ	11:AK:83:ILE:HD12	2.54	0.42
25:BA:399:G:H8	47:B1:65:SER:O	2.02	0.42
49:B3:46:ASN:O	49:B3:50:VAL:HG22	2.19	0.42
54:B8:54:GLU:O	54:B8:58:ILE:HG13	2.19	0.42
25:BA:1653:C:H4'	25:BA:1654:A:O5'	2.19	0.42
25:BA:2258:G:H2'	25:BA:2259:A:C8	2.54	0.42
25:BA:284:G:C2	25:BA:285:U:O4	2.72	0.42
30:BG:43:LEU:HD11	30:BG:153:ARG:HG2	2.01	0.42
39:BT:11:GLU:OE1	39:BT:57:PHE:HB3	2.19	0.42
1:CA:1118:C:H1'	1:CA:1179:A:C6	2.54	0.42
1:CA:630:G:O2'	1:CA:631:G:H5'	2.19	0.42
2:CB:170:GLU:O	2:CB:174:VAL:HG23	2.19	0.42
4:CD:153:ARG:NH2	4:CD:180:GLY:O	2.51	0.42
1:CA:1240:U:O2	7:CG:32:ARG:HB2	2.19	0.42
1:CA:742:G:P	15:CO:35:ARG:HH21	2.42	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:D4:14:ILE:HG23	50:D4:31:ILE:HB	2.01	0.42
52:D6:11:LEU:HB2	52:D6:21:TYR:HB2	2.00	0.42
25:DA:699:A:C2	25:DA:1633:G:N3	2.87	0.42
25:DA:1721:G:N3	25:DA:1721:G:H5''	2.34	0.42
25:DA:1878:G:H2'	25:DA:1879:C:C6	2.54	0.42
25:DA:2128:C:H5'	25:DA:2173:A:C2	2.54	0.42
25:DA:2330:G:H2'	25:DA:2331:G:O4'	2.18	0.42
25:DA:2261:C:H1'	25:DA:2388:A:N3	2.34	0.42
25:DA:272(E):G:C2	25:DA:364:C:C2	3.07	0.42
25:DA:818:G:H4'	25:DA:838:C:O3'	2.19	0.42
25:DA:956:G:OP2	36:DQ:14:ARG:NH2	2.50	0.42
25:DA:977:G:N3	25:DA:1001:A:H2	2.16	0.42
25:DA:980:A:C4	25:DA:1136:G:O4'	2.72	0.42
26:DB:16:G:C6	26:DB:69:G:C2	3.07	0.42
27:DD:276:LYS:H	27:DD:276:LYS:HG2	1.63	0.42
29:DF:132:VAL:HA	29:DF:138:GLU:HB3	2.00	0.42
32:DI:69:LYS:O	32:DI:73:GLU:HB2	2.19	0.42
34:DO:52:VAL:HG12	34:DO:94:ARG:HH22	1.84	0.42
25:DA:1227:G:OP1	40:DU:13:LYS:HG2	2.19	0.42
41:DV:64:HIS:CE1	41:DV:92:THR:HG1	2.36	0.42
1:AA:1027:C:H2'	1:AA:1028:C:C5	2.55	0.42
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.19	0.42
1:AA:198:G:O6	1:AA:219:C:N4	2.52	0.42
1:AA:410:G:OP1	4:AD:30:LYS:NZ	2.34	0.42
1:AA:690:G:C6	1:AA:691:G:C6	3.07	0.42
2:AB:209:ARG:HH11	2:AB:209:ARG:HB2	1.84	0.42
7:AG:13:GLN:HA	7:AG:14:PRO:HD3	1.90	0.42
10:AJ:27:ALA:HA	10:AJ:81:THR:CG2	2.49	0.42
12:AL:110:VAL:HG23	12:AL:120:TYR:HB3	2.01	0.42
1:AA:35:G:O2'	12:AL:118:SER:O	2.32	0.42
50:B4:62:ARG:HB2	50:B4:63:TYR:CD1	2.54	0.42
25:BA:1903:C:H2'	25:BA:1904:C:H6	1.83	0.42
25:BA:2320:G:O2'	25:BA:2322:A:N7	2.51	0.42
25:BA:2339:A:H2'	25:BA:2340:A:H8	1.82	0.42
29:BF:53:THR:HB	29:BF:56:GLU:OE2	2.19	0.42
30:BG:120:LEU:HD23	30:BG:120:LEU:HA	1.88	0.42
34:BO:98:VAL:HG22	34:BO:118:ALA:HA	2.01	0.42
35:BP:121:LYS:O	35:BP:123:LEU:N	2.52	0.42
37:BR:72:ASP:O	37:BR:76:VAL:HG23	2.19	0.42
41:BV:18:LEU:HD22	41:BV:19:LYS:N	2.34	0.42
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.19	0.42
1:CA:1183:A:H3'	1:CA:1184:G:H5''	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1355:G:C2'	1:CA:1356:G:H5'	2.48	0.42
1:CA:411:A:C6	1:CA:429:U:C4	3.07	0.42
1:CA:857:C:H2'	1:CA:858:G:O4'	2.18	0.42
1:CA:982:U:N3	1:CA:1223:C:N3	2.67	0.42
2:CB:16:HIS:HB2	2:CB:204:ASN:CB	2.33	0.42
7:CG:16:LEU:H	7:CG:16:LEU:HD22	1.84	0.42
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	2.01	0.42
10:CJ:44:VAL:HG13	10:CJ:66:ARG:HG2	2.01	0.42
15:CO:10:LYS:HE2	15:CO:10:LYS:HB2	1.72	0.42
48:D2:10:LEU:HB3	48:D2:14:ARG:NH1	2.34	0.42
55:D9:17:ILE:HD12	55:D9:17:ILE:HA	1.82	0.42
25:DA:1007:C:OP1	33:DN:35:ARG:NH1	2.49	0.42
25:DA:1337:G:H2'	25:DA:1338:G:O4'	2.19	0.42
25:DA:2335:A:O2'	25:DA:2336:A:H5''	2.20	0.42
25:DA:2647:U:O2'	25:DA:2648:C:H5'	2.19	0.42
25:DA:271(U):G:H2'	25:DA:271(V):G:H8	1.82	0.42
25:DA:2768:C:C4	25:DA:2769:C:C5	3.07	0.42
26:DB:80:U:H2'	26:DB:81:G:C8	2.54	0.42
28:DE:4:ILE:HD11	28:DE:29:GLY:HA2	2.02	0.42
31:DH:28:GLY:HA3	31:DH:79:VAL:HB	2.00	0.42
33:DN:91:LEU:HA	33:DN:95:PRO:HA	2.00	0.42
34:DO:7:TYR:HE1	34:DO:20:MET:HE3	1.83	0.42
35:DP:84:ASN:HB3	35:DP:117:GLU:O	2.19	0.42
42:DW:80:PRO:O	42:DW:100:THR:HB	2.19	0.42
1:AA:657:G:C2	1:AA:658:G:C8	3.07	0.42
10:AJ:45:ARG:HG2	10:AJ:47:PHE:CZ	2.54	0.42
50:B4:54:GLY:O	50:B4:55:ARG:HB2	2.19	0.42
25:BA:805:C:O2'	25:BA:2003:A:N3	2.38	0.42
25:BA:2034:G:OP1	42:BW:11:ARG:NH2	2.44	0.42
25:BA:2023:A:H5''	25:BA:2701:U:H2'	2.00	0.42
25:BA:298:G:H2'	25:BA:299:G:C8	2.54	0.42
25:BA:518:G:H2'	25:BA:519:G:O4'	2.19	0.42
25:BA:895:G:H2'	25:BA:896:A:C8	2.54	0.42
25:BA:1615:G:H5'	27:BD:60:ARG:HA	2.01	0.42
29:BF:116:ASP:O	29:BF:120:GLU:HG3	2.18	0.42
31:BH:9:ILE:HG12	31:BH:69:ARG:HH11	1.82	0.42
37:BR:97:VAL:HG22	37:BR:114:VAL:HG13	2.00	0.42
28:BE:111:ARG:HA	37:BR:1:MET:SD	2.59	0.42
44:BY:55:TYR:CE1	44:BY:61:ILE:HG21	2.55	0.42
45:BZ:79:ARG:HB3	45:BZ:80:ARG:NH1	2.34	0.42
1:CA:1003:G:H2'	1:CA:1004:A:C1'	2.49	0.42
1:CA:392:G:H2'	1:CA:393:A:H8	1.83	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:487:A:H2'	1:CA:488:C:O4'	2.19	0.42
2:CB:147:LYS:HD2	2:CB:148:TYR:CE1	2.54	0.42
2:CB:213:LEU:HD22	2:CB:214:ILE:HD13	2.02	0.42
3:CC:11:ARG:NH2	3:CC:177:THR:O	2.52	0.42
6:CF:14:LEU:HD22	6:CF:18:GLN:HB3	2.02	0.42
9:CI:46:ALA:HA	9:CI:78:LYS:HB2	2.01	0.42
11:CK:65:ALA:HB1	11:CK:98:LEU:HD23	2.02	0.42
12:CL:6:THR:HG23	12:CL:9:GLN:OE1	2.20	0.42
1:CA:1204:A:P	14:CN:3:ARG:HH11	2.42	0.42
14:CN:6:LEU:HA	14:CN:6:LEU:HD12	1.90	0.42
25:DA:1272:A:H3'	25:DA:1273:U:H5''	2.00	0.42
25:DA:1896:G:H2'	25:DA:1897:G:H8	1.84	0.42
25:DA:185:U:H4'	25:DA:218:A:H4'	2.00	0.42
25:DA:2651:C:H2'	25:DA:2652:C:C6	2.54	0.42
27:DD:24:ILE:HD13	27:DD:84:TYR:HB2	2.01	0.42
31:DH:13:LYS:HA	31:DH:14:GLY:HA2	1.76	0.42
35:DP:46:LYS:HE3	35:DP:46:LYS:HB3	1.76	0.42
35:DP:55:ARG:HG2	35:DP:56:SER:O	2.19	0.42
43:DX:35:THR:HG22	43:DX:37:THR:N	2.34	0.42
44:DY:54:LYS:O	44:DY:56:PRO:HD3	2.19	0.42
1:AA:110:C:C2'	1:AA:111:G:H5'	2.48	0.42
1:AA:978:A:O2'	1:AA:1322:C:N3	2.41	0.42
1:AA:102:G:O2'	1:AA:151:A:N3	2.42	0.42
1:AA:348:G:C2'	1:AA:349:A:H5'	2.49	0.42
1:AA:460:G:H21	1:AA:472:A:H62	1.68	0.42
1:AA:595:G:H1'	1:AA:596:C:H5	1.84	0.42
2:AB:166:ASP:OD2	2:AB:169:LYS:HB2	2.19	0.42
3:AC:110:ASN:O	3:AC:141:VAL:HG22	2.19	0.42
3:AC:118:GLN:HG2	3:AC:118:GLN:H	1.62	0.42
3:AC:6:HIS:CD2	3:AC:8:ILE:H	2.34	0.42
4:AD:138:TYR:CE1	4:AD:140:VAL:HA	2.54	0.42
4:AD:188:LEU:H	4:AD:188:LEU:CD2	2.31	0.42
13:AM:3:ARG:HG2	13:AM:8:GLU:HA	2.00	0.42
25:BA:990:A:C4	25:BA:2460:A:C2	3.07	0.42
25:BA:2589:A:H5''	25:BA:2590:G:H5'	2.01	0.42
25:BA:515:G:N7	42:BW:49:LYS:NZ	2.64	0.42
25:BA:704:U:H2'	25:BA:705:C:C6	2.54	0.42
25:BA:992:G:H2'	25:BA:993:G:C8	2.54	0.42
33:BN:75:TYR:CE2	33:BN:77:GLY:HA2	2.55	0.42
25:BA:2032:G:H5''	42:BW:42:ARG:HB2	2.00	0.42
1:CA:1005:A:O2'	1:CA:1006:C:OP1	2.35	0.42
1:CA:1138:G:C6	1:CA:1140:C:H1'	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1261:A:C5	1:CA:1262:C:C4	3.06	0.42
1:CA:1442:G:HO2'	1:CA:1442(A):G:P	2.38	0.42
1:CA:143:A:O3'	1:CA:144:G:H8	2.02	0.42
1:CA:15:G:C4	1:CA:16:A:C8	3.07	0.42
1:CA:767:A:H2'	1:CA:768:A:O4'	2.19	0.42
1:CA:532:A:H5'	3:CC:161:GLU:OE2	2.20	0.42
8:CH:23:SER:HA	8:CH:63:LEU:HD22	2.00	0.42
14:CN:53:LEU:HA	14:CN:54:PRO:HD2	1.92	0.42
16:CP:14:ASN:OD1	16:CP:42:ARG:NH2	2.53	0.42
25:DA:1524:G:N2	25:DA:1525:G:H1'	2.34	0.42
25:DA:921:G:H4'	25:DA:2269:A:C5	2.54	0.42
25:DA:2376:A:H3'	25:DA:2377:A:H8	1.84	0.42
25:DA:251:A:C5	25:DA:252:G:H1'	2.54	0.42
25:DA:348:G:H2'	25:DA:349:G:C8	2.54	0.42
25:DA:372:G:H8	47:D1:65:SER:O	2.02	0.42
25:DA:652(D):C:H42	25:DA:652(U):G:H1	1.66	0.42
25:DA:954:G:C5	25:DA:955:C:C5	3.07	0.42
25:DA:984:A:H5''	25:DA:985:C:H5	1.85	0.42
27:DD:147:LEU:HD13	27:DD:155:LEU:HD21	2.01	0.42
28:DE:115:GLY:O	28:DE:119:ARG:HB2	2.20	0.42
29:DF:196:LEU:HA	29:DF:196:LEU:HD23	1.79	0.42
36:DQ:18:LYS:HE3	36:DQ:18:LYS:HB2	1.75	0.42
45:DZ:117:LEU:HD12	45:DZ:174:VAL:HG22	2.00	0.42
1:AA:1353:G:O2'	1:AA:1354:C:H5'	2.20	0.42
1:AA:1362:C:C2'	1:AA:1363:C:H5''	2.49	0.42
1:AA:439:A:N1	1:AA:496:A:C4	2.78	0.42
1:AA:406:G:N2	4:AD:119:GLN:HE22	2.18	0.42
8:AH:11:THR:HG22	8:AH:15:ASN:HD21	1.83	0.42
47:B1:89:GLU:HG2	47:B1:89:GLU:H	1.47	0.42
54:B8:61:LEU:C	54:B8:63:PRO:HD3	2.40	0.42
25:BA:1077:G:H5''	55:B9:8:LYS:HE3	2.01	0.42
25:BA:1576:G:C6	25:BA:1577:C:N4	2.88	0.42
25:BA:2247:G:H2'	25:BA:2248:C:C6	2.54	0.42
25:BA:2556:G:H2'	25:BA:2557:G:O4'	2.19	0.42
25:BA:2849:G:H5'	37:BR:46:GLY:HA2	2.01	0.42
25:BA:324:A:H2'	25:BA:358:C:H1'	2.02	0.42
25:BA:496:A:H2'	25:BA:497:A:O4'	2.20	0.42
25:BA:672:G:H8	25:BA:672:G:O5'	2.03	0.42
31:BH:69:ARG:HG3	31:BH:70:THR:N	2.33	0.42
39:BT:108:ARG:HH22	39:BT:112:ARG:HH11	1.67	0.42
39:BT:53:ARG:O	39:BT:59:THR:HA	2.20	0.42
43:BX:31:HIS:CD2	43:BX:33:LYS:H	2.37	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1095:U:C4	1:CA:1096:C:C4	3.07	0.42
1:CA:407:G:OP1	4:CD:115:ARG:HD3	2.19	0.42
2:CB:158:LEU:HA	2:CB:159:PRO:HD3	1.85	0.42
8:CH:124:ALA:O	8:CH:128:GLY:N	2.51	0.42
1:CA:1124:G:H5''	10:CJ:35:SER:OG	2.20	0.42
10:CJ:70:ARG:HA	10:CJ:70:ARG:HD3	1.91	0.42
13:CM:57:ARG:NH1	50:D4:34:GLU:HA	2.34	0.42
46:D0:82:ARG:HA	46:D0:83:PRO:HD3	1.79	0.42
25:DA:271(R):G:H5''	47:D1:97:LEU:HD21	2.00	0.42
43:DX:5:TYR:CE1	48:D2:30:ARG:HB2	2.55	0.42
19:CS:68:GLY:H	50:D4:58:ARG:NH1	2.18	0.42
30:DG:67:LYS:HE2	50:D4:5:ILE:HD12	2.01	0.42
55:D9:7:VAL:HG12	55:D9:34:GLN:HB3	2.02	0.42
25:DA:1212:G:C2	25:DA:1236:G:C4	3.07	0.42
25:DA:1262:A:C5	25:DA:1263:U:C5	3.07	0.42
25:DA:1514:U:H2'	25:DA:1515:G:C8	2.55	0.42
25:DA:2365:G:O6	54:D8:39:LYS:HE3	2.19	0.42
25:DA:2365:G:O6	54:D8:43:GLN:NE2	2.52	0.42
25:DA:236:C:H2'	25:DA:237:C:H6	1.85	0.42
25:DA:2531:A:N3	25:DA:2658:C:O2'	2.43	0.42
25:DA:463:G:N2	25:DA:466:A:OP2	2.38	0.42
28:DE:181:LEU:HD12	28:DE:181:LEU:HA	1.86	0.42
36:DQ:110:THR:HG23	36:DQ:113:GLN:OE1	2.20	0.42
42:DW:13:SER:HA	42:DW:14:PRO:HD3	1.91	0.42
1:AA:176:C:H2'	1:AA:177:C:C6	2.54	0.42
1:AA:186:C:H2'	1:AA:187:C:C6	2.54	0.42
1:AA:555:C:H2'	1:AA:556:C:C6	2.55	0.42
1:AA:687:A:N3	1:AA:688:G:H1'	2.34	0.42
2:AB:77:ALA:CB	2:AB:165:VAL:HG11	2.50	0.42
4:AD:134:ASP:O	4:AD:136:PRO:HD3	2.19	0.42
8:AH:82:HIS:CE1	8:AH:84:ARG:HD2	2.55	0.42
54:B8:6:THR:HG23	54:B8:64:TYR:HD2	1.84	0.42
25:BA:1220:U:O3'	25:BA:1221:G:H4'	2.19	0.42
25:BA:180:A:H2'	25:BA:181:C:C6	2.55	0.42
25:BA:1940:A:O2'	25:BA:1942:C:N4	2.53	0.42
25:BA:2170:G:OP2	25:BA:2170:G:H8	2.02	0.42
25:BA:2787:C:H2'	25:BA:2788:A:O4'	2.20	0.42
25:BA:278:G:H2'	25:BA:279:G:H5''	2.02	0.42
25:BA:876:A:N7	25:BA:2260:C:H5'	2.35	0.42
29:BF:140:LEU:HD21	29:BF:170:LEU:HD11	2.01	0.42
31:BH:116:GLU:HA	31:BH:117:PRO:HD3	1.95	0.42
39:BT:124:ASP:O	39:BT:128:GLU:HG3	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BW:2:GLU:OE2	42:BW:72:LYS:NZ	2.36	0.42
1:CA:1032:G:H2'	1:CA:1033:G:C8	2.55	0.42
1:CA:1149:C:O2'	1:CA:1280:A:N1	2.37	0.42
1:CA:988:G:C2	1:CA:989:C:H1'	2.55	0.42
4:CD:173:TRP:CD1	4:CD:174:LEU:HG	2.55	0.42
1:CA:26:A:O2'	4:CD:209:ARG:NH2	2.52	0.42
9:CI:50:LEU:HD21	9:CI:81:ILE:HD12	2.01	0.42
54:D8:23:VAL:HG11	54:D8:47:LYS:HD3	2.00	0.42
25:DA:1005:C:H2'	25:DA:1006:C:H6	1.84	0.42
25:DA:1810:A:H2'	25:DA:1811:G:O4'	2.19	0.42
25:DA:2114:A:O2'	25:DA:2167:U:H1'	2.20	0.42
25:DA:858:U:H1'	25:DA:2268:A:H2'	2.01	0.42
27:DD:142:VAL:CG1	27:DD:191:ALA:HB1	2.49	0.42
31:DH:8:PRO:HB3	31:DH:51:ARG:HG2	2.02	0.42
25:DA:2820:A:C6	37:DR:4:LEU:HD11	2.55	0.42
25:DA:2294:C:P	38:DS:89:ARG:HH22	2.43	0.42
44:DY:90:LEU:HB2	44:DY:92:ASN:HB3	2.01	0.42
1:AA:10:A:OP2	5:AE:126:ARG:HD2	2.20	0.42
1:AA:1125:U:H5''	10:AJ:5:ARG:HH22	1.85	0.42
1:AA:590:C:H2'	1:AA:591:U:H6	1.85	0.42
2:AB:55:PHE:CD1	2:AB:58:ILE:HD12	2.55	0.42
7:AG:28:ASN:HA	7:AG:31:MET:HE2	2.01	0.42
14:AN:2:ALA:HB1	14:AN:6:LEU:HD22	2.01	0.42
15:AO:82:ILE:O	15:AO:86:GLY:N	2.51	0.42
16:AP:39:TYR:CG	16:AP:73:LEU:HD13	2.54	0.42
47:B1:89:GLU:O	47:B1:93:GLU:HG2	2.20	0.42
48:B2:2:LYS:O	48:B2:6:VAL:HG23	2.18	0.42
25:BA:1583:C:H2'	25:BA:1584:G:O4'	2.19	0.42
25:BA:1597:C:OP1	25:BA:1765:U:O2'	2.23	0.42
25:BA:2050:U:H2'	25:BA:2051:G:O4'	2.19	0.42
25:BA:2127:C:H2'	25:BA:2128:G:C8	2.54	0.42
25:BA:2430:A:H2'	25:BA:2431:U:C6	2.54	0.42
25:BA:2648:U:H1'	25:BA:2796:G:N2	2.34	0.42
25:BA:2736:C:H4'	37:BR:1:MET:HG3	2.02	0.42
25:BA:484:G:O2'	25:BA:495:G:O6	2.28	0.42
25:BA:764:G:H2'	25:BA:765:A:O4'	2.20	0.42
29:BF:150:GLY:HA2	29:BF:172:TRP:CD2	2.55	0.42
38:BS:63:THR:HG23	38:BS:100:ALA:HB2	2.01	0.42
44:BY:7:VAL:HG21	44:BY:72:VAL:CG1	2.50	0.42
1:CA:1502:A:H2	1:CA:1505:G:N1	2.13	0.42
7:CG:26:PHE:O	7:CG:30:ILE:HG13	2.19	0.42
2:CB:179:LYS:HG3	8:CH:72:PRO:HG3	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:16:A:N1	23:CX:36:U:C2	2.88	0.42
23:CX:65:C:H2'	23:CX:66:C:H6	1.84	0.42
51:D5:35:GLU:HG3	51:D5:51:TYR:CD2	2.54	0.42
52:D6:40:CYS:HA	52:D6:41:PRO:HD3	1.82	0.42
25:DA:1124:C:H2'	25:DA:1125:G:O4'	2.19	0.42
25:DA:1628:G:H2'	25:DA:1629:U:C6	2.55	0.42
25:DA:2137:C:C2	25:DA:2138:C:H5	2.38	0.42
25:DA:2567:G:H2'	25:DA:2568:C:C6	2.54	0.42
26:DB:94:C:H2'	26:DB:95:C:C6	2.55	0.42
27:DD:146:GLU:HB2	27:DD:189:CYS:HB3	2.02	0.42
27:DD:25:THR:HG21	27:DD:113:VAL:HG11	2.01	0.42
25:DA:805:G:H5''	35:DP:38:GLN:HG3	2.02	0.42
36:DQ:73:PRO:HA	36:DQ:93:TYR:CD1	2.54	0.42
41:DV:39:LEU:HD12	41:DV:47:VAL:HA	2.02	0.42
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.55	0.42
1:AA:179:A:H2'	1:AA:180:U:C6	2.54	0.42
1:AA:91:C:H2'	1:AA:92:C:C6	2.54	0.42
24:AY:5:G:C2	24:AY:69:G:C4	3.07	0.42
49:B3:24:LYS:HE2	49:B3:24:LYS:HB2	1.83	0.42
53:B7:18:PHE:CE2	53:B7:22:MET:HG3	2.55	0.42
25:BA:1432:C:H2'	25:BA:1433:C:C6	2.54	0.42
25:BA:1566:U:H2'	25:BA:1567:G:O4'	2.19	0.42
25:BA:2284:U:H5''	25:BA:2285:A:OP1	2.20	0.42
25:BA:2699:U:H2'	25:BA:2700:U:O4'	2.19	0.42
29:BF:24:LEU:HB3	29:BF:115:ALA:HB2	2.00	0.42
34:BO:21:CYS:HB2	34:BO:39:ILE:HD12	2.02	0.42
43:BX:43:VAL:HG21	43:BX:81:VAL:HG11	2.02	0.42
25:BA:1387:U:O4'	43:BX:57:LEU:HD23	2.19	0.42
1:CA:868:C:H2'	1:CA:869:G:O4'	2.20	0.42
1:CA:890:G:O2'	1:CA:906:G:O6	2.28	0.42
4:CD:125:HIS:HD2	4:CD:152:SER:OG	2.03	0.42
13:CM:20:THR:HA	13:CM:25:ILE:HG22	2.01	0.42
17:CQ:6:LEU:O	17:CQ:58:GLU:HA	2.19	0.42
19:CS:51:VAL:O	19:CS:57:HIS:HA	2.20	0.42
22:CV:14:A:H3'	22:CV:15:A:H8	1.85	0.42
50:D4:40:HIS:HA	50:D4:41:PRO:HD2	1.82	0.42
25:DA:1138:G:O2'	33:DN:105:GLY:HA3	2.19	0.42
25:DA:1978:A:H2'	25:DA:1979:C:O4'	2.20	0.42
25:DA:2298:A:N6	25:DA:2318:G:C8	2.88	0.42
25:DA:2852:G:H2'	25:DA:2853:C:O4'	2.20	0.42
25:DA:300:A:N3	25:DA:319:C:H1'	2.34	0.42
25:DA:266:G:N2	25:DA:427:U:H1'	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:7:G:H2'	25:DA:8:A:H8	1.85	0.42
25:DA:927:G:H2'	25:DA:928:G:O4'	2.20	0.42
26:DB:78:A:C2	26:DB:100:A:C4	3.08	0.42
29:DF:124:LEU:HB3	29:DF:193:VAL:HG22	2.02	0.42
36:DQ:1:MET:HG3	36:DQ:44:ALA:HB1	2.02	0.42
41:DV:62:LEU:HD21	41:DV:95:LEU:HB2	2.01	0.42
43:DX:31:HIS:HA	43:DX:32:PRO:HD3	1.85	0.42
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.55	0.42
1:AA:122:G:H2'	1:AA:123:C:O4'	2.20	0.42
1:AA:1234:C:C2'	1:AA:1235:U:H5'	2.50	0.42
1:AA:763:G:H2'	1:AA:764:C:C6	2.55	0.42
1:AA:92:C:H2'	1:AA:93:G:C8	2.55	0.42
1:AA:997:U:C2'	1:AA:998:G:H5'	2.49	0.42
2:AB:124:SER:HA	2:AB:125:PRO:HA	1.77	0.42
3:AC:32:LEU:HD13	3:AC:59:ARG:HD3	2.01	0.42
6:AF:19:LEU:HD11	6:AF:59:TYR:CE2	2.54	0.42
6:AF:72:VAL:HG23	6:AF:90:VAL:HG11	2.02	0.42
43:BX:60:ARG:NH1	53:B7:47:ARG:HH22	2.17	0.42
25:BA:2161:C:O5'	25:BA:2161:C:H6	2.02	0.42
25:BA:2800:C:H2'	25:BA:2801:C:C6	2.55	0.42
27:BD:79:VAL:HG12	27:BD:113:VAL:HA	2.01	0.42
31:BH:33:LEU:HD23	31:BH:136:ILE:HG13	2.02	0.42
26:BB:91:C:OP1	36:BQ:16:ARG:HG3	2.20	0.42
43:BX:12:VAL:HG21	43:BX:27:THR:HG22	2.02	0.42
1:CA:1080:A:H5''	1:CA:1081:G:OP2	2.20	0.42
1:CA:115:G:H1'	1:CA:116:A:N7	2.34	0.42
1:CA:1328:C:H2'	1:CA:1329:A:O4'	2.19	0.42
1:CA:131:C:H2'	1:CA:132:C:C6	2.54	0.42
1:CA:411:A:C4	1:CA:413:G:O4'	2.72	0.42
1:CA:765:G:N1	1:CA:812:C:O2'	2.40	0.42
1:CA:933:G:C6	1:CA:1385:G:C6	3.08	0.42
1:CA:93:G:O2'	1:CA:96:U:H5'	2.20	0.42
2:CB:177:ALA:HB1	2:CB:182:ILE:HB	2.01	0.42
6:CF:35:ALA:HB2	6:CF:67:MET:HB3	2.01	0.42
8:CH:12:ARG:HD2	8:CH:26:VAL:HG12	2.01	0.42
12:CL:117:ARG:NH2	12:CL:124:LYS:HB2	2.35	0.42
13:CM:25:ILE:HD12	13:CM:66:LEU:HD22	2.02	0.42
18:CR:24:ALA:C	18:CR:26:LEU:H	2.23	0.42
48:D2:16:LEU:HB2	48:D2:21:LEU:HD22	2.02	0.42
25:DA:1359:A:C2	25:DA:1372:U:O4	2.72	0.42
25:DA:1434:A:H61	25:DA:1558:A:H62	1.66	0.42
25:DA:1607:C:H4'	25:DA:1608:A:O5'	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:172:C:H2'	25:DA:173:G:H8	1.84	0.42
25:DA:1849:G:H2'	25:DA:1850:G:H8	1.85	0.42
25:DA:2386:C:H2'	25:DA:2387:U:C6	2.54	0.42
25:DA:2410:G:C2	25:DA:2411:A:H1'	2.54	0.42
25:DA:271(H):G:N3	25:DA:271(I):G:C8	2.88	0.42
25:DA:2849:U:H4'	25:DA:2868:A:C2	2.54	0.42
25:DA:601:C:OP1	29:DF:108:LYS:NZ	2.38	0.42
25:DA:900:A:H2'	25:DA:901:A:C8	2.54	0.42
25:DA:1823:G:OP1	27:DD:54:ARG:NH1	2.53	0.42
27:DD:5:LYS:HE3	27:DD:5:LYS:HB3	1.55	0.42
30:DG:164:GLU:N	30:DG:164:GLU:OE2	2.53	0.42
36:DQ:30:GLY:O	36:DQ:134:ARG:HD3	2.19	0.42
1:AA:1160:G:C6	1:AA:1161:C:H5	2.37	0.42
1:AA:1261:A:H5''	1:AA:1262:C:OP2	2.20	0.42
1:AA:1458:G:OP1	20:AT:35:THR:OG1	2.26	0.42
1:AA:16:A:N1	1:AA:919:A:H2	2.16	0.42
6:AF:94:GLN:HE21	6:AF:94:GLN:HB2	1.62	0.42
7:AG:78:ARG:HB3	7:AG:87:VAL:HG21	2.02	0.42
25:BA:1249:A:H2	25:BA:1287:A:N6	2.12	0.42
25:BA:2149:G:H2'	25:BA:2150:C:O4'	2.20	0.42
25:BA:2605:U:H2'	25:BA:2606:C:C6	2.55	0.42
25:BA:276:C:H2'	25:BA:277:G:O4'	2.20	0.42
25:BA:629:U:H4'	25:BA:705:C:H4'	2.01	0.42
29:BF:167:ALA:HB1	29:BF:173:VAL:HG11	2.02	0.42
29:BF:63:LYS:HE2	29:BF:67:GLN:HB2	2.02	0.42
32:BI:6:LEU:C	32:BI:7:GLU:HG2	2.40	0.42
1:CA:1074:G:C6	1:CA:1075:C:C4	3.08	0.42
1:CA:1492:A:O2'	1:CA:1493:A:O5'	2.32	0.42
1:CA:262:A:H2'	1:CA:263:A:C8	2.55	0.42
1:CA:977:A:O2'	1:CA:979:C:OP2	2.38	0.42
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	2.02	0.42
4:CD:163:GLU:O	4:CD:166:LYS:HG2	2.20	0.42
5:CE:9:LYS:HB2	5:CE:112:LEU:HD11	2.02	0.42
11:CK:43:SER:HA	11:CK:47:VAL:HG21	2.02	0.42
17:CQ:10:VAL:O	17:CQ:53:LEU:HD12	2.19	0.42
25:DA:2355:C:H1'	46:D0:36:ILE:HD12	2.02	0.42
48:D2:35:LEU:HD12	48:D2:53:LEU:HD12	2.01	0.42
25:DA:1410:G:H2'	25:DA:1411:C:H6	1.84	0.42
25:DA:1514:U:H2'	25:DA:1515:G:H8	1.85	0.42
25:DA:2133:G:N2	25:DA:2157:G:H1'	2.35	0.42
25:DA:2337:G:C2	25:DA:2338:G:C8	3.08	0.42
25:DA:2683:C:OP1	39:DT:53:ARG:NH2	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:622:G:H2'	25:DA:623:G:C8	2.52	0.42
25:DA:700:G:H2'	25:DA:701:G:O4'	2.20	0.42
25:DA:736:C:O5'	25:DA:736:C:H6	2.03	0.42
25:DA:2227:A:OP1	27:DD:263:ARG:HD2	2.20	0.42
27:DD:275:LYS:HD3	27:DD:275:LYS:HA	1.65	0.42
29:DF:29:ASN:O	29:DF:33:LEU:HD22	2.20	0.42
1:AA:1137:C:H4'	1:AA:1138:G:N3	2.35	0.41
1:AA:374:A:C6	1:AA:375:U:C4	3.08	0.41
3:AC:6:HIS:HA	3:AC:7:PRO:HD3	1.87	0.41
1:AA:1187:G:H4'	9:AI:111:ARG:HH11	1.85	0.41
6:AF:60:PHE:CE2	18:AR:76:LEU:HD12	2.52	0.41
19:AS:64:GLU:O	19:AS:67:VAL:HG23	2.19	0.41
23:AX:13:C:O2'	25:BA:1946:C:H4'	2.20	0.41
25:BA:1075:A:H5''	36:BQ:128:LYS:HZ3	1.85	0.41
25:BA:1549:U:H2'	25:BA:1550:C:C6	2.55	0.41
25:BA:1821:C:H5''	25:BA:1822:A:OP1	2.20	0.41
25:BA:2255:U:H2'	25:BA:2256:U:H6	1.83	0.41
25:BA:390:G:H2'	25:BA:391:G:H8	1.84	0.41
39:BT:91:ARG:HD2	39:BT:120:ARG:NH1	2.35	0.41
1:CA:1007:C:N3	1:CA:1022:G:C6	2.85	0.41
1:CA:1023:G:C3'	1:CA:1024:G:H8	2.31	0.41
1:CA:1224:G:O2'	1:CA:1322:C:OP1	2.30	0.41
1:CA:510:A:H5''	1:CA:511:C:P	2.59	0.41
1:CA:690:G:H8	1:CA:690:G:O5'	2.03	0.41
1:CA:707:C:H2'	1:CA:708:C:H6	1.83	0.41
1:CA:736:C:H2'	1:CA:737:A:C8	2.55	0.41
12:CL:28:LYS:N	12:CL:29:GLY:HA2	2.34	0.41
18:CR:26:LEU:HD13	18:CR:42:ARG:HH11	1.84	0.41
20:CT:63:ILE:HD13	20:CT:80:ARG:HB3	2.02	0.41
25:DA:1297:C:H5''	61:DA:4283:HOH:O	2.19	0.41
25:DA:2114:A:H2'	25:DA:2114:A:N3	2.35	0.41
25:DA:2494:G:C4	25:DA:2495:G:C8	3.08	0.41
25:DA:2611:U:OP2	25:DA:2611:U:H3'	2.20	0.41
25:DA:774:A:N6	61:DA:4022:HOH:O	2.52	0.41
30:DG:145:THR:OG1	30:DG:146:TYR:N	2.52	0.41
30:DG:41:GLN:C	30:DG:43:LEU:H	2.22	0.41
31:DH:124:GLU:HB2	31:DH:132:ARG:HB3	2.02	0.41
25:DA:2659:G:P	31:DH:158:HIS:HE2	2.43	0.41
31:DH:26:VAL:HG12	31:DH:79:VAL:HG11	2.00	0.41
41:DV:14:VAL:HB	41:DV:96:ILE:HG13	2.02	0.41
43:DX:84:ALA:HB3	43:DX:87:GLN:NE2	2.35	0.41
45:DZ:105:VAL:O	45:DZ:140:ASP:HA	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1075:C:C2'	1:AA:1076:C:H5'	2.50	0.41
1:AA:1226:C:H4'	19:AS:80:TYR:OH	2.21	0.41
1:AA:1424:C:H2'	1:AA:1425:U:O4'	2.20	0.41
1:AA:1492:A:H4'	1:AA:1493:A:OP1	2.20	0.41
1:AA:255:G:H1'	17:AQ:16:GLN:NE2	2.35	0.41
1:AA:399:G:H2'	1:AA:400:C:C6	2.55	0.41
1:AA:875:C:H1'	8:AH:15:ASN:OD1	2.19	0.41
3:AC:121:ALA:O	3:AC:125:GLU:HG3	2.20	0.41
7:AG:51:GLN:HB3	7:AG:51:GLN:HE21	1.69	0.41
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	2.02	0.41
13:AM:81:LEU:HD22	13:AM:88:ARG:HB3	2.02	0.41
23:AX:28:C:C2'	23:AX:29:G:H5'	2.50	0.41
23:AX:47:U:H5'	23:AX:48:C:C5'	2.50	0.41
50:B4:59:PHE:HD1	50:B4:59:PHE:H	1.64	0.41
52:B6:25:LYS:NZ	52:B6:51:GLU:OE2	2.42	0.41
25:BA:1343:C:O2'	25:BA:1348:A:N1	2.48	0.41
25:BA:1563:G:H2'	25:BA:1564:C:C6	2.55	0.41
25:BA:2149:G:N2	25:BA:2195:A:H1'	2.35	0.41
25:BA:2245:U:H2'	25:BA:2246:G:C8	2.55	0.41
25:BA:2342:G:H2'	25:BA:2343:G:O4'	2.20	0.41
25:BA:738:C:H2'	25:BA:739:C:C6	2.55	0.41
28:BE:2:LYS:HG2	28:BE:2:LYS:H	1.61	0.41
29:BF:170:LEU:HA	29:BF:171:PRO:HD3	1.91	0.41
30:BG:66:GLN:HE21	30:BG:92:VAL:CG2	2.33	0.41
35:BP:124:LYS:HA	35:BP:144:GLU:HB3	2.01	0.41
39:BT:56:GLY:O	39:BT:59:THR:HG22	2.20	0.41
1:CA:644:G:H4'	8:CH:92:ARG:NH2	2.35	0.41
1:CA:952:U:H2'	1:CA:953:G:H8	1.84	0.41
2:CB:162:ILE:O	2:CB:185:ILE:HG12	2.20	0.41
3:CC:114:PRO:HA	3:CC:185:GLY:HA3	2.01	0.41
1:CA:8:A:C6	4:CD:209:ARG:HG3	2.55	0.41
10:CJ:35:SER:CB	10:CJ:73:ASP:HB2	2.45	0.41
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.20	0.41
19:CS:9:VAL:HG11	50:D4:61:ARG:HH21	1.84	0.41
52:D6:23:THR:OG1	52:D6:24:GLU:N	2.52	0.41
25:DA:1278:A:H2'	25:DA:1279:G:C8	2.55	0.41
25:DA:1319:G:C6	25:DA:1320:C:N4	2.88	0.41
25:DA:1389:G:C2	25:DA:1390:U:C2	3.08	0.41
25:DA:1704:G:H2'	25:DA:1705:G:O4'	2.21	0.41
25:DA:1791:A:H5'	25:DA:1792:G:OP2	2.20	0.41
25:DA:2019:A:C4'	40:DU:34:LYS:HD2	2.51	0.41
25:DA:2065:C:H2'	25:DA:2066:C:H6	1.84	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2139:C:N4	25:DA:2152:G:H1	2.16	0.41
25:DA:2370:G:H2'	25:DA:2371:G:C8	2.55	0.41
25:DA:255:A:C6	25:DA:256:A:C5	3.08	0.41
25:DA:598:G:H2'	25:DA:599:G:O4'	2.20	0.41
25:DA:616:G:H5'	29:DF:205:ARG:HD2	2.01	0.41
25:DA:7:G:H2'	25:DA:8:A:C8	2.56	0.41
25:DA:855:G:C6	25:DA:856:C:N4	2.89	0.41
34:DO:103:ALA:HB1	34:DO:105:GLU:OE1	2.19	0.41
1:AA:1139:G:N2	1:AA:1143:G:C6	2.89	0.41
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.35	0.41
1:AA:152:A:N6	1:AA:170:U:C2	2.88	0.41
1:AA:266:G:H5'	1:AA:266:G:C8	2.56	0.41
1:AA:616:G:O2'	1:AA:617:G:H5'	2.19	0.41
1:AA:658:G:H2'	1:AA:659:U:H6	1.85	0.41
1:AA:954:G:H21	1:AA:1227:A:N6	2.17	0.41
1:AA:993:G:C2'	1:AA:995:C:H41	2.33	0.41
3:AC:178:LEU:HA	3:AC:178:LEU:HD12	1.82	0.41
9:AI:96:LEU:HA	9:AI:96:LEU:HD23	1.94	0.41
15:AO:39:LEU:O	15:AO:42:HIS:N	2.54	0.41
25:BA:1044:C:H2'	25:BA:1045:U:O4'	2.20	0.41
25:BA:2800:C:H2'	25:BA:2801:C:H6	1.85	0.41
25:BA:67:G:H2'	25:BA:68:C:O4'	2.19	0.41
31:BH:13:LYS:HA	31:BH:14:GLY:HA2	1.80	0.41
32:BI:30:LEU:HD23	32:BI:30:LEU:HA	1.80	0.41
25:BA:2697:G:H5'	34:BO:68:GLU:OE1	2.21	0.41
45:BZ:150:LEU:HA	45:BZ:150:LEU:HD12	1.88	0.41
45:BZ:28:MET:HA	45:BZ:88:PHE:O	2.20	0.41
1:CA:1155:G:H2'	1:CA:1156:G:O4'	2.21	0.41
1:CA:1428:A:H2'	1:CA:1429:C:O4'	2.20	0.41
1:CA:1446:U:O2'	1:CA:1447:A:O5'	2.22	0.41
1:CA:1517:G:H1'	25:DA:1919:A:O3'	2.20	0.41
1:CA:582:U:OP1	15:CO:68:ARG:NH2	2.51	0.41
1:CA:922:G:C6	1:CA:923:A:C6	3.09	0.41
2:CB:16:HIS:CG	2:CB:17:PHE:N	2.87	0.41
2:CB:211:ILE:O	2:CB:215:LEU:HB2	2.20	0.41
7:CG:115:ARG:O	7:CG:119:ARG:HG3	2.20	0.41
7:CG:155:ARG:CZ	7:CG:155:ARG:HB3	2.48	0.41
9:CI:104:ARG:HG2	9:CI:105:ASP:N	2.35	0.41
15:CO:57:LEU:HA	15:CO:57:LEU:HD23	1.86	0.41
25:DA:396:G:O3'	47:D1:44:PRO:HA	2.20	0.41
50:D4:46:GLN:HG3	50:D4:48:ARG:CZ	2.50	0.41
25:DA:1142(A):A:C4	25:DA:1144:G:C8	3.07	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1420:U:O2'	25:DA:1421:G:OP1	2.34	0.41
25:DA:2054:A:OP1	25:DA:2055:C:O2'	2.24	0.41
25:DA:242:G:N2	25:DA:254:G:H2'	2.35	0.41
25:DA:276:A:H5''	25:DA:277:C:H5'	2.02	0.41
25:DA:776:G:N7	25:DA:793:A:O2'	2.49	0.41
26:DB:5:C:N4	26:DB:116:G:H1	2.16	0.41
26:DB:11:C:H3'	26:DB:12:C:C6	2.56	0.41
26:DB:47:C:C4	26:DB:48:A:N7	2.88	0.41
30:DG:18:GLU:OE2	30:DG:21:ARG:NH1	2.53	0.41
25:DA:2547:U:O2	34:DO:23:ARG:NH2	2.53	0.41
39:DT:19:LEU:HD22	39:DT:86:ILE:HG13	2.03	0.41
1:AA:1122:U:H2'	1:AA:1123:A:O4'	2.21	0.41
1:AA:1425:U:H2'	1:AA:1426:C:C6	2.55	0.41
1:AA:376:G:O2'	1:AA:377:G:H5'	2.19	0.41
1:AA:624:C:H2'	1:AA:625:G:C8	2.56	0.41
4:AD:45:GLN:HB3	4:AD:45:GLN:HE21	1.63	0.41
6:AF:45:LEU:HD12	6:AF:59:TYR:HD2	1.85	0.41
8:AH:34:GLU:OE1	8:AH:37:ARG:NH2	2.53	0.41
23:AX:66:C:H2'	23:AX:67:C:O4'	2.21	0.41
54:B8:62:LEU:HB3	54:B8:65:GLU:HG3	2.01	0.41
25:BA:54:G:O2'	25:BA:125:A:N1	2.41	0.41
25:BA:2405:A:O2'	54:B8:13:ARG:NH1	2.51	0.41
25:BA:738:C:H2'	25:BA:739:C:H6	1.86	0.41
25:BA:782:A:N7	25:BA:808:A:H2	2.19	0.41
26:BB:42:C:O2'	30:BG:66:GLN:HG2	2.21	0.41
32:BI:96:ASP:OD1	32:BI:96:ASP:N	2.53	0.41
39:BT:118:ARG:HD2	39:BT:118:ARG:HA	1.57	0.41
39:BT:6:LEU:HD13	39:BT:6:LEU:HA	1.86	0.41
44:BY:90:LEU:HD21	44:BY:96:ILE:HG12	2.02	0.41
1:CA:1077:G:N1	1:CA:1081:G:C6	2.88	0.41
1:CA:1277:C:O2'	1:CA:1279:A:C8	2.69	0.41
1:CA:1314:C:H2'	1:CA:1315:U:C6	2.55	0.41
1:CA:1342:C:O2'	9:CI:124:GLN:HG3	2.21	0.41
1:CA:202:U:H3'	1:CA:203:U:C5	2.56	0.41
1:CA:580:U:H5''	15:CO:58:MET:HG2	2.02	0.41
1:CA:836:G:C6	1:CA:851:G:C6	3.09	0.41
3:CC:181:ASN:ND2	3:CC:204:LEU:HD12	2.34	0.41
5:CE:12:LEU:HD12	5:CE:128:PRO:HB2	2.02	0.41
9:CI:96:LEU:HD23	9:CI:96:LEU:HA	1.98	0.41
10:CJ:57:LYS:HE2	10:CJ:60:ARG:NH2	2.35	0.41
13:CM:29:ARG:HD3	13:CM:64:TRP:CE2	2.56	0.41
1:CA:1316:G:H4'	14:CN:18:VAL:HG13	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:118:A:H1'	25:DA:178:G:O4'	2.20	0.41
25:DA:1282:U:H2'	25:DA:1283:G:O4'	2.21	0.41
25:DA:1652:A:OP1	37:DR:8:ARG:NH1	2.49	0.41
25:DA:2153:G:H3'	25:DA:2154:G:H8	1.85	0.41
25:DA:2134:A:H4'	25:DA:2159:G:H21	1.84	0.41
25:DA:2350:C:H2'	25:DA:2351:G:O4'	2.20	0.41
25:DA:2721:A:O2'	25:DA:2874:C:H5'	2.20	0.41
25:DA:335:C:H2'	25:DA:336:C:H6	1.84	0.41
25:DA:76:C:O3'	48:D2:59:ARG:HG3	2.20	0.41
27:DD:67:PHE:CD1	27:DD:153:ALA:HB3	2.55	0.41
28:DE:33:VAL:HG13	28:DE:89:ASP:HA	2.02	0.41
28:DE:40:GLU:H	28:DE:40:GLU:HG2	1.46	0.41
33:DN:138:LEU:HA	33:DN:138:LEU:HD23	1.74	0.41
39:DT:61:PHE:CE1	39:DT:76:PHE:HB2	2.55	0.41
40:DU:76:TYR:CZ	40:DU:80:ILE:HG13	2.56	0.41
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.55	0.41
1:AA:1279:A:O2'	1:AA:1282:C:N4	2.53	0.41
1:AA:1353:G:H2'	1:AA:1354:C:H6	1.84	0.41
1:AA:633:G:H2'	1:AA:634:C:C6	2.56	0.41
1:AA:637:G:H2'	1:AA:638:G:H8	1.85	0.41
2:AB:158:LEU:HA	2:AB:159:PRO:HD3	1.85	0.41
2:AB:91:PRO:HG2	2:AB:155:LEU:HD23	2.01	0.41
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	2.03	0.41
1:AA:923:A:OP1	5:AE:21:ALA:HB2	2.20	0.41
7:AG:74:GLU:HG2	7:AG:91:VAL:HG22	2.02	0.41
8:AH:56:LYS:HD3	8:AH:56:LYS:HA	1.89	0.41
11:AK:43:SER:HA	11:AK:47:VAL:HG21	2.02	0.41
1:AA:537:G:H5''	12:AL:113:ARG:NH1	2.35	0.41
16:AP:40:ASP:O	16:AP:48:TRP:HB2	2.20	0.41
19:AS:36:ARG:NH1	19:AS:53:ASN:HA	2.35	0.41
20:AT:100:ILE:HG12	20:AT:100:ILE:H	1.69	0.41
25:BA:1765:U:H2'	25:BA:1766:G:O4'	2.21	0.41
26:BB:95:C:H2'	26:BB:96:U:C6	2.54	0.41
29:BF:7:TYR:O	29:BF:21:ALA:HA	2.20	0.41
30:BG:12:TYR:HA	30:BG:16:ARG:HG2	2.02	0.41
31:BH:71:LEU:HA	31:BH:71:LEU:HD12	1.82	0.41
32:BI:77:LEU:HA	32:BI:77:LEU:HD23	1.68	0.41
33:BN:34:LEU:HD12	33:BN:34:LEU:HA	1.94	0.41
37:BR:52:ILE:HD11	37:BR:116:LEU:HD22	2.00	0.41
39:BT:95:ARG:HH11	39:BT:95:ARG:CG	2.28	0.41
42:BW:9:TYR:HA	42:BW:100:THR:CG2	2.51	0.41
45:BZ:157:LEU:HA	45:BZ:158:PRO:HD2	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:44:G:H2'	1:CA:45:U:O4'	2.20	0.41
4:CD:58:LEU:HD22	4:CD:62:GLN:HG2	2.02	0.41
4:CD:94:LEU:HD23	4:CD:97:LEU:HD12	2.01	0.41
5:CE:78:HIS:ND1	8:CH:107:LEU:HD12	2.35	0.41
9:CI:16:ARG:HD3	9:CI:64:THR:HG21	2.00	0.41
10:CJ:27:ALA:HB1	10:CJ:74:ILE:HD13	2.02	0.41
25:DA:1230:C:H2'	25:DA:1231:G:C8	2.54	0.41
25:DA:2118:U:C2	25:DA:2149:G:H1'	2.55	0.41
25:DA:1710:C:H4'	25:DA:2858:C:O2	2.20	0.41
25:DA:460:A:C2	25:DA:470:A:C4	3.09	0.41
25:DA:804:A:H5''	25:DA:805:G:OP1	2.20	0.41
27:DD:124:PRO:HG2	27:DD:129:ASN:ND2	2.35	0.41
37:DR:100:LEU:HA	37:DR:100:LEU:HD12	1.86	0.41
38:DS:15:ARG:O	38:DS:19:LYS:HG2	2.21	0.41
25:DA:328:U:H4'	44:DY:68:HIS:CG	2.55	0.41
1:AA:339:C:H2'	1:AA:340:U:C6	2.56	0.41
7:AG:111:ARG:NH1	7:AG:113:GLU:OE2	2.42	0.41
17:AQ:45:HIS:NE2	17:AQ:47:PRO:HG3	2.36	0.41
25:BA:1188:A:C4	25:BA:1190:G:C8	3.09	0.41
25:BA:2191:A:H2'	25:BA:2191:A:N3	2.36	0.41
25:BA:2568:C:H2'	25:BA:2569:G:O4'	2.21	0.41
25:BA:2592:U:C5	25:BA:2593:G:C6	3.09	0.41
25:BA:2544:G:O2'	25:BA:2669:A:N1	2.49	0.41
27:BD:35:LYS:HB2	27:BD:36:PRO:HD2	2.02	0.41
28:BE:97:LYS:NZ	28:BE:97:LYS:HB3	2.36	0.41
30:BG:3:LEU:HD13	50:B4:25:TYR:CZ	2.55	0.41
40:BU:108:GLU:O	40:BU:112:ARG:HG2	2.21	0.41
40:BU:16:LYS:HE2	40:BU:16:LYS:HB3	1.89	0.41
1:CA:1424:C:H2'	1:CA:1425:U:O4'	2.20	0.41
1:CA:542:G:OP1	4:CD:10:ARG:NH2	2.48	0.41
1:CA:93:G:H2'	1:CA:96:U:O4'	2.20	0.41
1:CA:991:U:O2'	1:CA:992:U:P	2.79	0.41
2:CB:16:HIS:O	2:CB:18:GLY:N	2.53	0.41
4:CD:191:ARG:NE	4:CD:200:GLU:OE2	2.52	0.41
13:CM:40:ASN:HB3	13:CM:43:THR:HG23	2.02	0.41
19:CS:38:SER:HB2	19:CS:71:LEU:HD13	2.03	0.41
49:D3:12:PRO:HB2	49:D3:20:LYS:HG2	2.03	0.41
30:DG:105:LYS:NZ	50:D4:25:TYR:O	2.46	0.41
25:DA:2360:A:H8	25:DA:2360:A:O5'	2.04	0.41
25:DA:2519:U:C6	25:DA:2542:A:N6	2.89	0.41
25:DA:2698:U:H2'	25:DA:2699:C:C6	2.56	0.41
25:DA:984:A:H5''	25:DA:985:C:C5	2.56	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DB:45:A:C4	26:DB:46:A:C8	3.09	0.41
26:DB:66:A:H61	26:DB:108:U:H3'	1.86	0.41
27:DD:127:VAL:HA	27:DD:193:VAL:HG22	2.03	0.41
32:DI:134:PRO:C	32:DI:136:VAL:H	2.24	0.41
35:DP:47:ASP:OD2	35:DP:49:ARG:NH2	2.53	0.41
25:DA:389:G:N1	35:DP:70:GLN:HG3	2.36	0.41
1:AA:115:G:H4'	1:AA:116:A:O5'	2.21	0.41
1:AA:583:A:N6	1:AA:758:G:O2'	2.53	0.41
2:AB:16:HIS:CD2	2:AB:17:PHE:N	2.77	0.41
3:AC:19:GLU:HB3	3:AC:40:ARG:NH2	2.35	0.41
8:AH:7:ALA:O	8:AH:11:THR:OG1	2.28	0.41
1:AA:266:G:O3'	17:AQ:67:LYS:HB2	2.20	0.41
23:AX:19:G:H4'	23:AX:20:U:OP2	2.20	0.41
25:BA:1293:A:OP1	29:BF:95:ARG:NH2	2.50	0.41
25:BA:1467:G:C2	25:BA:1468:G:C8	3.09	0.41
25:BA:645:G:H5'	25:BA:645:G:N3	2.35	0.41
25:BA:7:G:H2'	25:BA:8:A:O4'	2.21	0.41
27:BD:245:PRO:HA	27:BD:246:PRO:HD3	1.90	0.41
29:BF:102:PRO:HB2	29:BF:105:VAL:HG23	2.02	0.41
30:BG:41:GLN:NE2	30:BG:153:ARG:HB3	2.32	0.41
42:BW:25:ARG:NH2	42:BW:74:ALA:O	2.47	0.41
1:CA:1060:C:H2'	1:CA:1061:G:H8	1.85	0.41
1:CA:144:G:H1	1:CA:178:C:H42	1.68	0.41
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.20	0.41
1:CA:170:U:O2'	1:CA:171:A:H5'	2.21	0.41
1:CA:952:U:H2'	1:CA:953:G:C8	2.56	0.41
7:CG:114:ARG:O	7:CG:119:ARG:NH1	2.54	0.41
1:CA:1186:G:H21	14:CN:61:TRP:C	2.23	0.41
15:CO:4:THR:HG1	15:CO:7:GLU:HG3	1.86	0.41
25:DA:1297:C:H2'	25:DA:1298:C:C6	2.55	0.41
25:DA:173:G:C2	25:DA:174:C:C2	3.09	0.41
25:DA:1859:A:N6	25:DA:1883:G:O2'	2.54	0.41
25:DA:2167:U:H2'	25:DA:2168:G:H21	1.85	0.41
25:DA:2371:G:C2	25:DA:2372:G:C8	3.09	0.41
25:DA:2769:C:H2'	25:DA:2770:G:O4'	2.21	0.41
25:DA:724:U:H2'	25:DA:725:G:O4'	2.21	0.41
29:DF:59:TYR:CD2	29:DF:78:ILE:HG13	2.56	0.41
30:DG:39:ILE:HB	30:DG:92:VAL:HG13	2.03	0.41
36:DQ:32:TYR:HB2	36:DQ:106:VAL:HG23	2.02	0.41
42:DW:18:ARG:NH1	42:DW:76:VAL:O	2.52	0.41
43:DX:47:PHE:O	43:DX:49:VAL:HG13	2.21	0.41
1:AA:1064:G:N2	1:AA:1190:G:O2'	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:357:G:O2'	1:AA:358:U:H5'	2.21	0.41
1:AA:400:C:H5''	4:AD:73:ARG:NH2	2.30	0.41
1:AA:632:A:C3'	1:AA:633:G:H5'	2.51	0.41
1:AA:731:G:OP1	1:AA:766:A:H1'	2.20	0.41
3:AC:181:ASN:OD1	3:AC:204:LEU:HB2	2.21	0.41
1:AA:1206:G:O4'	3:AC:194:GLY:HA2	2.21	0.41
5:AE:106:PRO:O	5:AE:110:LEU:HG	2.20	0.41
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.20	0.41
7:AG:65:ALA:O	7:AG:69:VAL:HG23	2.20	0.41
8:AH:124:ALA:O	8:AH:128:GLY:N	2.51	0.41
12:AL:8:ASN:O	12:AL:12:ARG:HG3	2.21	0.41
1:AA:1302:U:OP1	13:AM:13:LYS:HE3	2.20	0.41
13:AM:29:ARG:HD3	13:AM:64:TRP:CE2	2.56	0.41
14:AN:15:LYS:HD2	14:AN:16:PHE:CZ	2.56	0.41
15:AO:7:GLU:H	15:AO:7:GLU:HG3	1.70	0.41
24:AY:4:C:N3	24:AY:70:G:N2	2.69	0.41
55:B9:17:ILE:HD12	55:B9:17:ILE:HA	1.91	0.41
25:BA:1219:A:N3	25:BA:1220:U:H5''	2.35	0.41
25:BA:2184:G:H4'	25:BA:2194:U:H3'	2.02	0.41
25:BA:2227:G:H5'	25:BA:2228:G:N7	2.36	0.41
25:BA:2326:C:H2'	25:BA:2327:G:C8	2.56	0.41
25:BA:2724:U:H1'	25:BA:2725:A:C8	2.56	0.41
25:BA:354:A:O2'	25:BA:355:A:H8	2.03	0.41
25:BA:181:C:O2'	25:BA:849:A:N3	2.46	0.41
25:BA:865:G:H4'	25:BA:885:C:O3'	2.20	0.41
32:BI:117:GLU:HG3	32:BI:117:GLU:H	1.55	0.41
33:BN:99:LEU:HA	33:BN:99:LEU:HD23	1.84	0.41
1:CA:1002:G:N2	1:CA:1039:C:C2	2.89	0.41
1:CA:567:G:O6	12:CL:5:PRO:HD3	2.21	0.41
1:CA:633:G:H2'	1:CA:634:C:C6	2.55	0.41
1:CA:690:G:H2'	1:CA:691:G:O4'	2.20	0.41
1:CA:737:A:H2'	1:CA:738:C:C6	2.56	0.41
2:CB:134:GLU:O	2:CB:137:ARG:HB2	2.21	0.41
2:CB:47:THR:HA	2:CB:202:PRO:HG2	2.02	0.41
4:CD:120:LEU:HB3	4:CD:126:ILE:HD11	2.02	0.41
7:CG:102:ARG:O	7:CG:106:GLN:HG3	2.20	0.41
7:CG:76:ARG:HH11	7:CG:76:ARG:HB2	1.86	0.41
12:CL:53:ARG:HB3	12:CL:93:LEU:HD11	2.03	0.41
13:CM:70:LEU:HD23	13:CM:70:LEU:HA	1.83	0.41
15:CO:39:LEU:HD23	15:CO:39:LEU:HA	1.83	0.41
55:D9:11:CYS:SG	55:D9:13:LYS:HB2	2.60	0.41
25:DA:1472:A:N6	25:DA:1519:G:H1'	2.36	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1526:G:H2'	25:DA:1527:G:O4'	2.21	0.41
25:DA:1659:U:C4	25:DA:1660:C:C5	3.09	0.41
25:DA:1805:U:O2	27:DD:50:THR:HB	2.20	0.41
25:DA:1957:C:H2'	25:DA:1958:C:C6	2.56	0.41
25:DA:2055:C:OP1	25:DA:2056:G:H4'	2.20	0.41
25:DA:2277:G:OP2	46:D0:10:THR:HG21	2.21	0.41
25:DA:2280:G:O6	46:D0:14:ARG:HD2	2.21	0.41
25:DA:2855:C:H2'	25:DA:2856:C:C6	2.56	0.41
25:DA:359:A:H2'	25:DA:360:G:O4'	2.20	0.41
25:DA:590:A:OP1	29:DF:95:ARG:NH1	2.53	0.41
25:DA:718:A:H3'	25:DA:719:C:H6	1.86	0.41
27:DD:26:LYS:NZ	27:DD:30:GLU:OE1	2.53	0.41
29:DF:184:TYR:HE1	35:DP:3:LEU:HD21	1.84	0.41
25:DA:2751:G:H8	31:DH:2:SER:N	2.19	0.41
34:DO:20:MET:HE3	34:DO:44:LYS:HE3	2.03	0.41
34:DO:25:LEU:HD12	34:DO:38:VAL:HG12	2.02	0.41
35:DP:3:LEU:HD12	35:DP:3:LEU:HA	1.88	0.41
44:DY:13:VAL:HB	44:DY:72:VAL:HG13	2.03	0.41
44:DY:7:VAL:HG21	44:DY:72:VAL:HG12	2.03	0.41
45:DZ:30:ASN:HA	45:DZ:89:PHE:HE1	1.85	0.41
1:AA:1161:C:N4	1:AA:1176:A:C6	2.88	0.41
1:AA:991:U:C4	1:AA:1212:U:H1'	2.55	0.41
1:AA:1429:C:H2'	1:AA:1430:C:H6	1.85	0.41
1:AA:341:C:H2'	1:AA:342:C:C6	2.56	0.41
1:AA:991:U:O2'	1:AA:992:U:P	2.78	0.41
3:AC:181:ASN:OD1	3:AC:204:LEU:HD12	2.21	0.41
4:AD:20:TYR:HA	4:AD:26:CYS:SG	2.60	0.41
23:AX:57:A:H2'	23:AX:58:A:H5'	2.02	0.41
25:BA:789:G:H4'	25:BA:1723:A:H5'	2.03	0.41
25:BA:2086:C:H2'	25:BA:2087:C:C6	2.56	0.41
25:BA:2172:U:C2	25:BA:2173:G:N7	2.89	0.41
25:BA:905:U:O2	25:BA:2280:A:H2'	2.20	0.41
27:BD:25:THR:HG21	27:BD:113:VAL:HG11	2.02	0.41
33:BN:58:ASP:OD1	33:BN:58:ASP:N	2.42	0.41
35:BP:148:LEU:H	35:BP:148:LEU:HD23	1.85	0.41
38:BS:34:HIS:O	38:BS:97:ARG:NH2	2.54	0.41
42:BW:9:TYR:HA	42:BW:100:THR:HG23	2.03	0.41
25:BA:1387:U:O4	43:BX:16:LYS:HE2	2.19	0.41
45:BZ:144:LEU:HG	45:BZ:148:ASP:HB2	2.03	0.41
1:CA:1028:C:O2	1:CA:1033:G:C2	2.73	0.41
1:CA:1067:A:H3'	1:CA:1094:G:OP1	2.21	0.41
1:CA:1057:G:C4	1:CA:1204:A:C2	3.08	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1423:G:OP1	34:DO:49:ARG:NH2	2.50	0.41
1:CA:1469:G:H2'	1:CA:1470:G:C8	2.56	0.41
1:CA:1511:G:H2'	1:CA:1512:U:O4'	2.21	0.41
1:CA:358:U:H2'	1:CA:359:U:C6	2.56	0.41
1:CA:604:G:H2'	1:CA:605:U:O4'	2.21	0.41
5:CE:57:LYS:HD3	5:CE:61:TYR:CE2	2.55	0.41
1:CA:1123:A:C2	10:CJ:39:PRO:HD2	2.55	0.41
11:CK:27:ASN:ND2	11:CK:55:LYS:HD2	2.35	0.41
23:CX:53:G:C5	23:CX:54:5MU:H72	2.56	0.41
30:DG:179:PRO:HG3	50:D4:43:TYR:OH	2.20	0.41
25:DA:1668:A:N3	25:DA:1670:C:C4	2.88	0.41
25:DA:2165:G:H2'	25:DA:2166:G:C8	2.56	0.41
25:DA:2540:C:H2'	25:DA:2541:A:O4'	2.21	0.41
25:DA:2658:C:H2'	25:DA:2659:G:O4'	2.20	0.41
25:DA:2747:G:H1'	25:DA:2757:A:H61	1.84	0.41
25:DA:2875:C:OP1	39:DT:3:ARG:NH1	2.52	0.41
25:DA:336:C:O2'	44:DY:35:TYR:OH	2.36	0.41
25:DA:624:C:O2'	25:DA:657:U:H5''	2.20	0.41
25:DA:900:A:H2'	25:DA:901:A:H8	1.85	0.41
25:DA:975(A):G:C2	25:DA:990:A:C8	3.08	0.41
26:DB:33:G:C6	26:DB:34:U:N3	2.89	0.41
27:DD:69:ARG:NH2	27:DD:128:GLY:O	2.53	0.41
29:DF:21:ALA:CB	29:DF:22:ALA:HA	2.44	0.41
30:DG:48:GLU:O	30:DG:51:ARG:HG3	2.21	0.41
35:DP:6:LEU:HA	35:DP:6:LEU:HD23	1.83	0.41
38:DS:57:LYS:HB2	38:DS:57:LYS:HE2	1.89	0.41
1:AA:1002:G:C6	1:AA:1003:G:C2	3.09	0.41
1:AA:1112:C:O2	3:AC:179:ARG:N	2.51	0.41
1:AA:674:G:O2'	1:AA:675:A:H5'	2.21	0.41
1:AA:827:U:H5''	1:AA:828:A:OP2	2.20	0.41
1:AA:972:C:O2'	10:AJ:57:LYS:HB2	2.20	0.41
5:AE:50:GLU:HB2	5:AE:53:LEU:CD1	2.51	0.41
1:AA:836:G:P	18:AR:61:LYS:HZ2	2.44	0.41
23:AX:31:G:N7	23:AX:32:5MC:HM52	2.36	0.41
47:B1:67:ILE:N	47:B1:68:PRO:HD2	2.35	0.41
25:BA:1086:C:H2'	25:BA:1087:C:O4'	2.21	0.41
25:BA:1616:A:H2'	25:BA:1617:A:O4'	2.21	0.41
25:BA:1797:U:H2'	25:BA:1798:C:C6	2.56	0.41
25:BA:1820:A:H2'	25:BA:1821:C:O4'	2.21	0.41
25:BA:2134:G:N2	25:BA:2135:U:H1'	2.36	0.41
25:BA:2148:A:H4'	25:BA:2149:G:OP1	2.21	0.41
25:BA:2162:C:H2'	25:BA:2173:G:H22	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:259:A:N1	25:BA:396:C:H4'	2.36	0.41
25:BA:64:C:H2'	25:BA:65:C:H6	1.86	0.41
39:BT:127:ALA:C	39:BT:129:ARG:N	2.74	0.41
45:BZ:111:VAL:C	45:BZ:113:ALA:N	2.72	0.41
1:CA:1076:C:H6	1:CA:1076:C:H5'	1.85	0.41
1:CA:1014:A:N3	1:CA:1219:U:H1'	2.36	0.41
1:CA:1221:G:O3'	19:CS:77:THR:HG21	2.20	0.41
1:CA:1372:U:H2'	1:CA:1373:G:O4'	2.21	0.41
1:CA:1414:U:H3	1:CA:1486:G:H1	1.69	0.41
1:CA:1508:G:H2'	1:CA:1509:C:O4'	2.20	0.41
1:CA:237:C:H5''	17:CQ:25:ARG:NE	2.36	0.41
1:CA:892:A:H2'	1:CA:893:C:C6	2.56	0.41
3:CC:140:ARG:H	3:CC:140:ARG:HG3	1.47	0.41
3:CC:5:ILE:HG12	3:CC:6:HIS:N	2.36	0.41
5:CE:78:HIS:HE2	5:CE:142:LEU:HA	1.85	0.41
1:CA:1291:G:OP1	7:CG:37:ASN:ND2	2.53	0.41
11:CK:22:HIS:O	11:CK:29:ILE:N	2.33	0.41
16:CP:74:LEU:HG	16:CP:79:VAL:HG21	2.02	0.41
55:D9:2:LYS:HE2	55:D9:31:LYS:O	2.20	0.41
25:DA:1002:G:N2	25:DA:1154:G:H1'	2.36	0.41
25:DA:1596:A:H2'	25:DA:1597:A:O4'	2.21	0.41
25:DA:1894:C:H2'	25:DA:1895:C:H6	1.85	0.41
25:DA:1991:U:C2'	25:DA:1992:G:H5''	2.50	0.41
25:DA:2490:G:H8	25:DA:2490:G:OP2	2.03	0.41
25:DA:2808:U:O2'	25:DA:2809:A:H5'	2.21	0.41
25:DA:36:G:N3	25:DA:450:G:O2'	2.53	0.41
25:DA:45:C:H2'	25:DA:47:C:C6	2.56	0.41
25:DA:708:C:H42	25:DA:723:G:H1	1.69	0.41
26:DB:68:C:H2'	26:DB:69:G:H8	1.86	0.41
30:DG:161:THR:HG22	30:DG:163:ALA:H	1.86	0.41
35:DP:84:ASN:OD1	35:DP:117:GLU:HB2	2.21	0.41
37:DR:36:THR:HG22	37:DR:37:THR:N	2.31	0.41
38:DS:26:LEU:HD22	38:DS:87:PHE:CE1	2.56	0.41
40:DU:112:ARG:H	40:DU:112:ARG:HG2	1.65	0.41
41:DV:12:TYR:CG	41:DV:20:LEU:HD21	2.56	0.41
44:DY:52:SER:HB2	44:DY:53:PRO:HD2	2.02	0.41
45:DZ:159:PRO:HA	45:DZ:161:VAL:N	2.36	0.41
1:AA:35:G:H2'	1:AA:36:C:C6	2.56	0.41
1:AA:434:U:H2'	1:AA:435:C:C6	2.56	0.41
1:AA:438:G:O2'	1:AA:494:U:O4	2.29	0.41
1:AA:509:A:O2'	1:AA:510:A:OP1	2.23	0.41
1:AA:658:G:H5''	15:AO:31:LEU:HD11	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:93:G:O2'	1:AA:96:U:H5'	2.21	0.41
10:AJ:23:ILE:HA	10:AJ:23:ILE:HD12	1.78	0.41
15:AO:74:ASP:CG	15:AO:77:ARG:HG3	2.41	0.41
20:AT:30:LYS:O	20:AT:34:LYS:HG3	2.21	0.41
25:BA:1067:A:C3'	25:BA:1067:A:C8	3.04	0.41
25:BA:1214:G:H1	25:BA:1226:C:H42	1.69	0.41
25:BA:1468:G:H1'	25:BA:1542:A:N1	2.35	0.41
25:BA:2387:G:O6	61:BA:4806:HOH:O	2.22	0.41
25:BA:732:A:C8	25:BA:821:A:C6	3.09	0.41
28:BE:128:SER:OG	28:BE:129:HIS:N	2.54	0.41
29:BF:12:LEU:HB2	29:BF:124:LEU:HD11	2.03	0.41
30:BG:175:LEU:HD12	30:BG:175:LEU:HA	1.96	0.41
34:BO:35:VAL:HG21	34:BO:69:ILE:HD13	2.02	0.41
41:BV:52:VAL:HG22	41:BV:55:ALA:HB3	2.03	0.41
1:CA:1249:C:O4'	9:CI:70:LYS:HE2	2.20	0.41
1:CA:125:U:H2'	1:CA:126:G:C8	2.56	0.41
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.56	0.41
1:CA:49:U:O4	1:CA:365:U:H5	2.04	0.41
8:CH:51:VAL:HG11	8:CH:60:ARG:NH1	2.36	0.41
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.36	0.41
1:CA:1222:G:H5''	19:CS:78:ARG:NH2	2.36	0.41
20:CT:9:ASN:O	20:CT:10:LEU:HB2	2.21	0.41
25:DA:1196:C:C4	25:DA:1197:G:N7	2.89	0.41
25:DA:140:G:N3	25:DA:142:A:N6	2.63	0.41
25:DA:1826:G:H4'	27:DD:242:ARG:NH1	2.36	0.41
25:DA:184:C:H2'	25:DA:185:U:C6	2.56	0.41
25:DA:2078:C:C4	25:DA:2079:U:C4	3.08	0.41
25:DA:2134:A:C8	25:DA:2158:A:N3	2.89	0.41
25:DA:2365:G:P	46:D0:55:ARG:HG2	2.61	0.41
25:DA:342:G:H2'	25:DA:343:C:H6	1.86	0.41
25:DA:603:A:N1	25:DA:625:G:O2'	2.44	0.41
25:DA:760:G:H2'	25:DA:761:A:O4'	2.20	0.41
25:DA:869:G:C4	25:DA:870:A:C8	3.10	0.41
25:DA:918:A:C5	25:DA:919:G:H1'	2.56	0.41
27:DD:132:PRO:HG2	27:DD:135:PHE:CD2	2.56	0.41
29:DF:195:ASP:OD1	29:DF:196:LEU:N	2.54	0.41
30:DG:36:LYS:HG2	30:DG:160:VAL:HB	2.02	0.41
31:DH:117:PRO:HG3	31:DH:123:PHE:CD2	2.56	0.41
31:DH:150:ALA:HA	31:DH:153:LYS:HG3	2.03	0.41
32:DI:101:LEU:O	32:DI:105:HIS:HB2	2.21	0.41
38:DS:54:LEU:O	38:DS:57:LYS:HD3	2.20	0.41
1:AA:1015:A:C6	1:AA:1016:A:C6	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:251:G:C6	1:AA:266:G:C6	3.09	0.40
1:AA:353:A:C8	1:AA:353:A:H5'	2.53	0.40
1:AA:526:C:P	12:AL:91:LYS:HE3	2.61	0.40
2:AB:160:ASP:N	2:AB:160:ASP:OD2	2.52	0.40
2:AB:169:LYS:O	2:AB:169:LYS:HD3	2.21	0.40
7:AG:79:ARG:HB3	7:AG:80:VAL:H	1.59	0.40
15:AO:3:ILE:H	15:AO:3:ILE:HD13	1.86	0.40
19:AS:12:ASP:HB3	19:AS:14:HIS:CD2	2.56	0.40
23:AX:20:U:H5''	23:AX:21:A:OP2	2.21	0.40
24:AY:70:G:C2'	24:AY:71:G:H5'	2.51	0.40
25:BA:160:G:C2'	25:BA:161:C:H5'	2.50	0.40
25:BA:1974:A:OP1	34:BO:42:SER:OG	2.34	0.40
25:BA:2713:C:H2'	25:BA:2714:U:H2'	2.03	0.40
25:BA:2801:C:OP1	28:BE:61:ARG:NH2	2.37	0.40
25:BA:2803:A:N3	25:BA:2803:A:H2'	2.36	0.40
25:BA:556:C:H4'	25:BA:557:A:H5''	2.01	0.40
29:BF:196:LEU:HA	29:BF:196:LEU:HD23	1.90	0.40
36:BQ:34:LEU:HD11	36:BQ:129:THR:HB	2.02	0.40
36:BQ:137:TYR:O	36:BQ:141:GLN:HG2	2.20	0.40
25:BA:795:G:C8	42:BW:89:ALA:HB1	2.56	0.40
44:BY:34:LYS:HG2	44:BY:34:LYS:O	2.21	0.40
45:BZ:129:SER:O	45:BZ:132:ASN:N	2.51	0.40
1:CA:1237:C:O2'	1:CA:1300:G:N1	2.34	0.40
1:CA:397:A:H5'	1:CA:398:C:OP1	2.21	0.40
1:CA:448:A:O5'	1:CA:485:G:N2	2.50	0.40
1:CA:60:A:H4'	1:CA:61:G:O5'	2.20	0.40
1:CA:991:U:O2'	1:CA:992:U:OP2	2.36	0.40
2:CB:188:ALA:HB1	2:CB:192:SER:OG	2.21	0.40
2:CB:54:THR:HG21	2:CB:201:ILE:HD11	2.04	0.40
4:CD:158:ILE:HG22	4:CD:162:LEU:HD12	2.02	0.40
5:CE:41:VAL:HG22	5:CE:113:ALA:HA	2.02	0.40
2:CB:178:ARG:NE	8:CH:74:PRO:HG3	2.36	0.40
16:CP:15:PRO:O	16:CP:16:HIS:ND1	2.54	0.40
16:CP:4:ILE:HA	16:CP:20:VAL:O	2.21	0.40
1:CA:1222:G:H5''	19:CS:78:ARG:HH21	1.85	0.40
20:CT:27:LYS:HA	20:CT:30:LYS:HE2	2.03	0.40
23:CX:3:C:H5'	25:DA:2255:G:O2'	2.21	0.40
46:D0:36:ILE:HD13	46:D0:58:THR:HG21	2.02	0.40
52:D6:16:CYS:SG	52:D6:18:ARG:HD2	2.61	0.40
25:DA:1164:G:H2'	25:DA:1165:U:C6	2.56	0.40
25:DA:940:G:N3	25:DA:1191:G:H4'	2.35	0.40
25:DA:1654:A:C1'	25:DA:2823:A:H5'	2.50	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1666:G:OP1	34:DO:66:LYS:HD3	2.20	0.40
25:DA:2038:G:H2'	25:DA:2039:C:O4'	2.20	0.40
25:DA:2135:A:C5	25:DA:2136:C:N4	2.88	0.40
25:DA:2302:G:C2	25:DA:2303:G:C8	3.09	0.40
25:DA:2507:C:H5''	25:DA:2573:C:N4	2.36	0.40
25:DA:182:A:H2	25:DA:433:C:O2	2.05	0.40
25:DA:830:G:H4'	25:DA:831:G:OP2	2.21	0.40
27:DD:206:LEU:HD23	27:DD:206:LEU:HA	1.83	0.40
27:DD:26:LYS:HE2	27:DD:28:GLU:O	2.21	0.40
28:DE:31:CYS:HA	28:DE:32:PRO:HD2	1.80	0.40
30:DG:49:ASP:N	30:DG:49:ASP:OD1	2.54	0.40
31:DH:98:LEU:HA	31:DH:98:LEU:HD12	1.93	0.40
33:DN:133:GLN:H	33:DN:133:GLN:HG2	1.64	0.40
40:DU:66:ASN:HD21	40:DU:70:ARG:HH21	1.68	0.40
1:AA:1104:G:H2'	1:AA:1105:A:O4'	2.21	0.40
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.56	0.40
1:AA:432:A:H3'	1:AA:433:C:H6	1.86	0.40
2:AB:166:ASP:HB3	2:AB:169:LYS:HB3	2.03	0.40
2:AB:16:HIS:CE1	2:AB:214:ILE:HD11	2.56	0.40
2:AB:90:MET:HA	2:AB:91:PRO:HD3	1.96	0.40
3:AC:118:GLN:HA	3:AC:121:ALA:HB3	2.04	0.40
3:AC:37:GLN:HE21	3:AC:40:ARG:HD2	1.85	0.40
4:AD:100:ARG:HH22	4:AD:118:ARG:HH22	1.69	0.40
4:AD:159:ARG:O	4:AD:163:GLU:HG3	2.21	0.40
5:AE:33:VAL:HG13	5:AE:112:LEU:HD12	2.03	0.40
12:AL:53:ARG:HG2	12:AL:69:TYR:HE1	1.87	0.40
15:AO:67:LEU:HA	15:AO:67:LEU:HD23	1.88	0.40
16:AP:59:TRP:HA	16:AP:62:VAL:HG12	2.02	0.40
19:AS:50:ALA:HA	19:AS:58:VAL:O	2.22	0.40
21:AU:15:ARG:HH11	21:AU:15:ARG:HB2	1.86	0.40
25:BA:1676:G:H2'	25:BA:1677:C:C6	2.57	0.40
25:BA:1699:A:C2'	25:BA:1700:G:H5'	2.51	0.40
25:BA:2199:C:H2'	25:BA:2200:C:O4'	2.21	0.40
25:BA:2455:C:OP1	29:BF:68:LYS:HD3	2.21	0.40
25:BA:2672:A:H2'	25:BA:2673:G:O4'	2.20	0.40
29:BF:33:LEU:HD12	29:BF:33:LEU:HA	1.89	0.40
41:BV:65:GLY:HA3	41:BV:91:TYR:CZ	2.56	0.40
1:CA:1125:U:HO2'	1:CA:1126:U:H2'	1.82	0.40
1:CA:1125:U:H5''	1:CA:1127:G:O6	2.21	0.40
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.86	0.40
1:CA:1499:A:H1'	1:CA:1520:G:H5'	2.03	0.40
1:CA:414:A:C5	1:CA:431:A:C2	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:583:A:H2'	1:CA:584:G:O4'	2.21	0.40
1:CA:791:G:C6	1:CA:792:A:N7	2.88	0.40
7:CG:115:ARG:HG2	7:CG:118:VAL:HG23	2.03	0.40
1:CA:393:A:OP1	16:CP:13:HIS:HE1	2.04	0.40
1:CA:277:C:H5''	17:CQ:68:ARG:NH2	2.37	0.40
17:CQ:65:ILE:HB	17:CQ:69:LYS:HB3	2.02	0.40
19:CS:22:LEU:HB3	19:CS:27:GLU:CG	2.51	0.40
25:DA:1270:C:H5''	25:DA:1271:G:O5'	2.22	0.40
25:DA:1692:U:O2'	25:DA:1693:U:H2'	2.21	0.40
25:DA:2328:A:H2'	25:DA:2329:G:C8	2.55	0.40
25:DA:2397:G:N2	25:DA:2420:C:H1'	2.36	0.40
25:DA:244:A:C2	25:DA:255:A:C4	3.09	0.40
25:DA:2600:A:C6	25:DA:2601:C:N4	2.89	0.40
25:DA:527:C:C4	25:DA:2779:U:H2'	2.56	0.40
25:DA:645:C:O2	25:DA:645:C:H2'	2.21	0.40
25:DA:901:A:H2'	25:DA:902:C:O4'	2.21	0.40
26:DB:94:C:H2'	26:DB:95:C:H6	1.85	0.40
33:DN:38:HIS:CE1	33:DN:39:ARG:HG3	2.56	0.40
38:DS:87:PHE:HB2	38:DS:112:PHE:CE2	2.56	0.40
1:AA:1004:A:C5	1:AA:1037:C:N3	2.89	0.40
1:AA:148:G:H1	1:AA:174:C:H42	1.68	0.40
1:AA:194:C:C2'	1:AA:195:A:H5''	2.52	0.40
1:AA:487:A:H2'	1:AA:488:C:O4'	2.22	0.40
1:AA:998:G:H2'	1:AA:999:C:O4'	2.22	0.40
2:AB:48:MET:HA	2:AB:51:LEU:HD12	2.03	0.40
4:AD:108:LEU:HD12	4:AD:108:LEU:HA	1.64	0.40
10:AJ:49:VAL:HG21	14:AN:41:ARG:O	2.22	0.40
17:AQ:3:LYS:HD2	17:AQ:60:ILE:HD11	2.03	0.40
20:AT:10:LEU:HD13	20:AT:12:ALA:HB2	2.03	0.40
1:AA:966:G:C2	23:AX:34:C:H5'	2.56	0.40
30:BG:179:PRO:HB2	50:B4:42:PHE:HE2	1.86	0.40
25:BA:1540:A:H2'	25:BA:1541:A:C8	2.56	0.40
25:BA:1787:G:H4'	25:BA:1789:G:O4'	2.21	0.40
25:BA:2598:C:OP2	25:BA:2620:G:N1	2.49	0.40
25:BA:2720:G:H1'	37:BR:71:GLN:HE22	1.87	0.40
25:BA:325:G:H1'	25:BA:326:C:C6	2.56	0.40
25:BA:908:A:C2	25:BA:963:A:C4	3.10	0.40
27:BD:183:ARG:HG3	27:BD:270:ILE:HG12	2.03	0.40
35:BP:46:LYS:HE3	35:BP:46:LYS:HB3	1.76	0.40
1:CA:1004:A:N7	1:CA:1037:C:O2	2.54	0.40
1:CA:1148:U:H1'	9:CI:66:ARG:HH12	1.86	0.40
1:CA:1250:A:H2	1:CA:1370:G:H1'	1.87	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:794:A:H4'	1:CA:1521:G:O2'	2.21	0.40
1:CA:109:A:C6	1:CA:326:G:C6	3.10	0.40
1:CA:376:G:O2'	1:CA:377:G:H5'	2.21	0.40
1:CA:577:G:C8	1:CA:816:A:C6	3.10	0.40
1:CA:16:A:N1	1:CA:919:A:H2	2.20	0.40
2:CB:130:ARG:HA	2:CB:131:PRO:HD3	1.91	0.40
4:CD:175:SER:HB3	4:CD:186:LEU:HD11	2.03	0.40
4:CD:173:TRP:CD1	4:CD:189:PRO:HG3	2.57	0.40
9:CI:2:GLU:O	9:CI:20:ARG:HG2	2.21	0.40
9:CI:71:SER:HA	9:CI:74:ILE:HD12	2.04	0.40
12:CL:34:ARG:HB3	12:CL:34:ARG:HE	1.64	0.40
14:CN:45:ARG:O	14:CN:49:HIS:HD2	2.04	0.40
49:D3:23:LEU:HD13	49:D3:50:VAL:HG11	2.02	0.40
25:DA:1222:C:N3	25:DA:1228:G:C2	2.90	0.40
25:DA:2228:G:C5	25:DA:2229:C:C4	3.09	0.40
25:DA:2445:G:OP1	29:DF:74:ARG:NH2	2.47	0.40
25:DA:2842:G:H2'	25:DA:2843:G:O4'	2.22	0.40
25:DA:589:C:H2'	25:DA:590:A:C8	2.56	0.40
25:DA:670:A:H4'	25:DA:671:C:O5'	2.20	0.40
25:DA:839:U:H2'	25:DA:840:C:H6	1.87	0.40
25:DA:956:G:H2'	25:DA:957:A:H2'	2.03	0.40
26:DB:33:G:N3	26:DB:50:G:N2	2.69	0.40
27:DD:20:ASP:OD1	27:DD:21:PHE:N	2.55	0.40
28:DE:55:ASN:HA	28:DE:56:PRO:HD3	1.88	0.40
44:DY:86:ARG:HB2	44:DY:98:VAL:CG2	2.51	0.40
45:DZ:149:SER:HB2	45:DZ:172:ALA:O	2.22	0.40
1:AA:1286:A:C8	1:AA:1287:A:H4'	2.56	0.40
1:AA:1302:U:OP2	13:AM:21:TYR:OH	2.29	0.40
3:AC:47:LEU:HD12	3:AC:68:VAL:HG11	2.02	0.40
4:AD:78:LEU:HA	4:AD:78:LEU:HD23	1.86	0.40
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	2.02	0.40
9:AI:128:ARG:NH2	23:AX:33:U:OP2	2.54	0.40
25:BA:2289:G:P	46:B0:10:THR:HG21	2.62	0.40
52:B6:10:LEU:HG	52:B6:54:ILE:HG13	2.02	0.40
25:BA:1258:A:N3	25:BA:1284:G:O2'	2.46	0.40
25:BA:2304:C:H2'	25:BA:2305:C:C6	2.56	0.40
25:BA:268:G:HO2'	25:BA:269:G:H8	1.65	0.40
25:BA:922:G:O3'	45:BZ:151:HIS:HE1	2.05	0.40
27:BD:164:GLN:NE2	27:BD:166:GLN:OE1	2.53	0.40
27:BD:68:LYS:HD3	27:BD:70:TRP:CZ2	2.57	0.40
30:BG:122:PRO:HD3	30:BG:181:ARG:HG2	2.02	0.40
32:BI:118:LYS:HA	32:BI:119:PRO:HD3	1.93	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BI:47:LEU:O	32:BI:51:ILE:HG13	2.22	0.40
34:BO:10:VAL:HG21	34:BO:16:ALA:HB3	2.03	0.40
38:BS:58:LEU:HD23	38:BS:58:LEU:HA	1.81	0.40
43:BX:57:LEU:HD12	43:BX:78:LYS:HG2	2.03	0.40
45:BZ:146:ILE:HA	45:BZ:147:GLY:HA2	1.61	0.40
1:CA:1105:A:H2'	1:CA:1106:G:H8	1.87	0.40
1:CA:1320:C:H5'	1:CA:1320:C:H6	1.85	0.40
1:CA:1325:C:C2'	1:CA:1326:C:H5'	2.51	0.40
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.36	0.40
1:CA:790:A:C6	1:CA:791:G:C6	3.10	0.40
2:CB:36:ARG:O	2:CB:37:ASN:HB2	2.21	0.40
4:CD:64:LEU:HB2	4:CD:198:VAL:HG11	2.04	0.40
4:CD:25:ARG:NH1	4:CD:30:LYS:HB3	2.36	0.40
1:CA:1251:A:H5''	9:CI:12:GLU:OE1	2.22	0.40
10:CJ:32:ALA:HB1	10:CJ:33:GLN:HG2	2.01	0.40
13:CM:87:TYR:HA	13:CM:90:LEU:HD12	2.04	0.40
19:CS:35:SER:O	19:CS:71:LEU:HD22	2.21	0.40
23:CX:43:A:H2'	23:CX:44:A:C8	2.56	0.40
25:DA:1005:C:C2	25:DA:1143:A:C5	3.10	0.40
25:DA:1291:C:O2'	25:DA:1292:U:H5'	2.21	0.40
25:DA:196:A:N3	25:DA:196:A:H2'	2.37	0.40
25:DA:2080:G:N2	25:DA:2241:A:C4	2.89	0.40
25:DA:2182:G:H2'	25:DA:2183:C:C6	2.56	0.40
25:DA:2748:A:C4	25:DA:2749:A:C8	3.10	0.40
25:DA:384:U:H2'	25:DA:385:C:H6	1.85	0.40
25:DA:528:A:C2	25:DA:2043:C:H4'	2.57	0.40
25:DA:639:U:H2'	25:DA:640:C:C6	2.57	0.40
26:DB:43:C:C4	26:DB:45:A:C6	3.10	0.40
25:DA:764:A:O4'	27:DD:213:ARG:HG3	2.22	0.40
27:DD:245:PRO:HA	27:DD:246:PRO:HD3	1.94	0.40
27:DD:38:LYS:HA	27:DD:38:LYS:HD2	1.99	0.40
27:DD:94:LEU:HD23	27:DD:94:LEU:HA	1.95	0.40
25:DA:2494:G:O2'	36:DQ:80:GLU:HA	2.22	0.40
1:AA:1286:A:H2'	1:AA:1287:A:H4'	2.02	0.40
1:AA:295:C:H2'	1:AA:296:U:O4'	2.21	0.40
3:AC:15:THR:CG2	3:AC:181:ASN:HA	2.51	0.40
4:AD:18:LYS:HE2	4:AD:20:TYR:CZ	2.56	0.40
4:AD:88:VAL:HA	5:AE:97:GLY:HA2	2.03	0.40
6:AF:26:ILE:O	6:AF:30:LEU:HG	2.22	0.40
11:AK:19:ALA:HB3	11:AK:82:VAL:HG22	2.04	0.40
16:AP:59:TRP:HB3	16:AP:64:ALA:HB2	2.03	0.40
23:AX:40:C:H2'	23:AX:41:C:H6	1.87	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B4:55:ARG:HB3	50:B4:56:VAL:O	2.22	0.40
25:BA:1058:U:C5	33:BN:28:THR:HG21	2.56	0.40
25:BA:107:G:H2'	25:BA:108:G:O4'	2.22	0.40
25:BA:1052:C:C2	25:BA:1183:G:N2	2.89	0.40
25:BA:1535:U:HO2'	25:BA:1536:A:H8	1.66	0.40
25:BA:1717:C:O2	28:BE:129:HIS:NE2	2.52	0.40
25:BA:2102:G:OP1	47:B1:35:THR:HG21	2.20	0.40
25:BA:470:C:H4'	29:BF:49:ALA:HB2	2.03	0.40
35:BP:101:VAL:HG22	35:BP:106:LEU:O	2.21	0.40
38:BS:3:ARG:HE	38:BS:3:ARG:CA	2.34	0.40
38:BS:68:GLN:HG2	38:BS:71:ARG:HH12	1.86	0.40
42:BW:13:SER:HA	42:BW:14:PRO:HD3	1.94	0.40
1:CA:1262:C:O2'	1:CA:1263:C:C5'	2.69	0.40
1:CA:1325:C:H4'	21:CU:17:THR:HG21	2.02	0.40
1:CA:1502:A:H5''	1:CA:1504:G:N7	2.37	0.40
1:CA:973:G:H3'	1:CA:974:A:H5''	2.03	0.40
2:CB:74:LYS:HG2	2:CB:74:LYS:H	1.52	0.40
2:CB:7:VAL:HB	2:CB:8:LYS:H	1.66	0.40
2:CB:96:ARG:CZ	2:CB:98:LEU:HD13	2.52	0.40
10:CJ:16:LEU:HD23	10:CJ:16:LEU:HA	1.93	0.40
12:CL:84:LEU:HB2	12:CL:105:TYR:CD2	2.56	0.40
48:D2:3:LEU:HD23	48:D2:3:LEU:HA	1.88	0.40
25:DA:1024:G:H21	25:DA:1144:G:C4'	2.35	0.40
25:DA:118:A:OP2	25:DA:119:A:H2'	2.21	0.40
25:DA:1252:G:C2	25:DA:1253:A:C2	3.09	0.40
25:DA:1297:C:H2'	25:DA:1298:C:H6	1.87	0.40
25:DA:1423:G:H2'	25:DA:1424:G:C8	2.56	0.40
25:DA:1448:G:H21	25:DA:1528(A):A:H2	1.69	0.40
25:DA:1999:C:O2	25:DA:2687:U:O2'	2.32	0.40
25:DA:2023:G:H4'	25:DA:2617:C:O3'	2.22	0.40
25:DA:2240:C:O2'	25:DA:2241:A:H5'	2.21	0.40
25:DA:2648:C:H2'	25:DA:2649:U:H6	1.85	0.40
25:DA:71:A:OP2	25:DA:71:A:H3'	2.21	0.40
25:DA:812:C:H5''	25:DA:1250:G:O2'	2.22	0.40
25:DA:867:C:H2'	25:DA:868:U:H6	1.86	0.40
26:DB:56:G:OP1	30:DG:27:ASN:ND2	2.54	0.40
26:DB:57:A:N3	30:DG:29:TRP:HB3	2.36	0.40
27:DD:71:ASP:HB3	27:DD:103:ARG:HH22	1.87	0.40
27:DD:233:HIS:HA	61:DD:406:HOH:O	2.20	0.40
29:DF:36:VAL:HG11	29:DF:183:VAL:CG1	2.51	0.40
30:DG:135:LEU:HB2	30:DG:155:MET:HG2	2.03	0.40
33:DN:39:ARG:HA	33:DN:40:PRO:HD3	1.90	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DP:81:GLN:NE2	35:DP:105:LEU:O	2.55	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	229/256 (90%)	194 (85%)	24 (10%)	11 (5%)	4	6
2	CB	229/256 (90%)	195 (85%)	24 (10%)	10 (4%)	4	8
3	AC	204/239 (85%)	179 (88%)	23 (11%)	2 (1%)	22	51
3	CC	204/239 (85%)	178 (87%)	23 (11%)	3 (2%)	15	38
4	AD	206/209 (99%)	189 (92%)	15 (7%)	2 (1%)	22	51
4	CD	206/209 (99%)	190 (92%)	14 (7%)	2 (1%)	22	51
5	AE	146/162 (90%)	139 (95%)	5 (3%)	2 (1%)	16	41
5	CE	146/162 (90%)	136 (93%)	8 (6%)	2 (1%)	16	41
6	AF	98/101 (97%)	88 (90%)	10 (10%)	0	100	100
6	CF	98/101 (97%)	91 (93%)	7 (7%)	0	100	100
7	AG	153/156 (98%)	139 (91%)	11 (7%)	3 (2%)	11	28
7	CG	153/156 (98%)	137 (90%)	15 (10%)	1 (1%)	30	62
8	AH	135/138 (98%)	130 (96%)	5 (4%)	0	100	100
8	CH	135/138 (98%)	129 (96%)	5 (4%)	1 (1%)	30	62
9	AI	125/128 (98%)	107 (86%)	14 (11%)	4 (3%)	6	14
9	CI	125/128 (98%)	109 (87%)	12 (10%)	4 (3%)	6	14
10	AJ	95/105 (90%)	80 (84%)	9 (10%)	6 (6%)	2	3
10	CJ	94/105 (90%)	83 (88%)	6 (6%)	5 (5%)	3	5
11	AK	112/129 (87%)	103 (92%)	7 (6%)	2 (2%)	13	31

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
11	CK	112/129 (87%)	101 (90%)	8 (7%)	3 (3%)	8	19
12	AL	120/132 (91%)	111 (92%)	9 (8%)	0	100	100
12	CL	120/132 (91%)	113 (94%)	7 (6%)	0	100	100
13	AM	118/126 (94%)	103 (87%)	13 (11%)	2 (2%)	14	33
13	CM	116/126 (92%)	101 (87%)	11 (10%)	4 (3%)	6	12
14	AN	58/61 (95%)	55 (95%)	3 (5%)	0	100	100
14	CN	58/61 (95%)	55 (95%)	3 (5%)	0	100	100
15	AO	86/89 (97%)	80 (93%)	6 (7%)	0	100	100
15	CO	86/89 (97%)	78 (91%)	7 (8%)	1 (1%)	19	45
16	AP	80/88 (91%)	73 (91%)	7 (9%)	0	100	100
16	CP	80/88 (91%)	74 (92%)	5 (6%)	1 (1%)	18	43
17	AQ	97/105 (92%)	92 (95%)	5 (5%)	0	100	100
17	CQ	97/105 (92%)	90 (93%)	7 (7%)	0	100	100
18	AR	66/88 (75%)	63 (96%)	3 (4%)	0	100	100
18	CR	66/88 (75%)	64 (97%)	1 (2%)	1 (2%)	15	38
19	AS	81/93 (87%)	70 (86%)	11 (14%)	0	100	100
19	CS	81/93 (87%)	68 (84%)	11 (14%)	2 (2%)	9	21
20	AT	94/106 (89%)	82 (87%)	6 (6%)	6 (6%)	2	3
20	CT	94/106 (89%)	84 (89%)	5 (5%)	5 (5%)	3	5
21	AU	21/27 (78%)	17 (81%)	4 (19%)	0	100	100
21	CU	21/27 (78%)	16 (76%)	4 (19%)	1 (5%)	4	6
27	BD	273/276 (99%)	258 (94%)	14 (5%)	1 (0%)	43	76
27	DD	273/276 (99%)	257 (94%)	14 (5%)	2 (1%)	30	62
28	BE	202/206 (98%)	194 (96%)	7 (4%)	1 (0%)	38	70
28	DE	202/206 (98%)	193 (96%)	7 (4%)	2 (1%)	22	51
29	BF	201/210 (96%)	196 (98%)	4 (2%)	1 (0%)	38	70
29	DF	201/210 (96%)	195 (97%)	4 (2%)	2 (1%)	22	51
30	BG	179/182 (98%)	165 (92%)	11 (6%)	3 (2%)	14	33
30	DG	179/182 (98%)	161 (90%)	14 (8%)	4 (2%)	10	25
31	BH	172/180 (96%)	161 (94%)	10 (6%)	1 (1%)	33	66
31	DH	172/180 (96%)	160 (93%)	11 (6%)	1 (1%)	33	66

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
32	BI	144/148 (97%)	129 (90%)	12 (8%)	3 (2%)	11	27
32	DI	144/148 (97%)	130 (90%)	12 (8%)	2 (1%)	16	41
33	BN	138/140 (99%)	135 (98%)	3 (2%)	0	100	100
33	DN	138/140 (99%)	133 (96%)	4 (3%)	1 (1%)	30	62
34	BO	120/122 (98%)	114 (95%)	5 (4%)	1 (1%)	27	58
34	DO	120/122 (98%)	115 (96%)	5 (4%)	0	100	100
35	BP	147/150 (98%)	140 (95%)	6 (4%)	1 (1%)	30	62
35	DP	147/150 (98%)	137 (93%)	9 (6%)	1 (1%)	30	62
36	BQ	139/141 (99%)	132 (95%)	6 (4%)	1 (1%)	30	62
36	DQ	139/141 (99%)	132 (95%)	5 (4%)	2 (1%)	16	41
37	BR	116/118 (98%)	109 (94%)	7 (6%)	0	100	100
37	DR	116/118 (98%)	110 (95%)	5 (4%)	1 (1%)	25	55
38	BS	108/112 (96%)	98 (91%)	9 (8%)	1 (1%)	25	55
38	DS	108/112 (96%)	98 (91%)	9 (8%)	1 (1%)	25	55
39	BT	129/146 (88%)	122 (95%)	5 (4%)	2 (2%)	14	35
39	DT	129/146 (88%)	125 (97%)	4 (3%)	0	100	100
40	BU	114/118 (97%)	113 (99%)	1 (1%)	0	100	100
40	DU	114/118 (97%)	112 (98%)	2 (2%)	0	100	100
41	BV	99/101 (98%)	92 (93%)	5 (5%)	2 (2%)	11	28
41	DV	99/101 (98%)	94 (95%)	4 (4%)	1 (1%)	22	51
42	BW	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
42	DW	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
43	BX	93/96 (97%)	88 (95%)	4 (4%)	1 (1%)	21	49
43	DX	93/96 (97%)	88 (95%)	3 (3%)	2 (2%)	10	25
44	BY	105/110 (96%)	97 (92%)	6 (6%)	2 (2%)	12	29
44	DY	105/110 (96%)	99 (94%)	5 (5%)	1 (1%)	22	51
45	BZ	169/206 (82%)	147 (87%)	18 (11%)	4 (2%)	9	22
45	DZ	172/206 (84%)	154 (90%)	17 (10%)	1 (1%)	33	66
46	B0	81/85 (95%)	76 (94%)	4 (5%)	1 (1%)	19	45
46	D0	81/85 (95%)	76 (94%)	5 (6%)	0	100	100
47	B1	95/98 (97%)	92 (97%)	2 (2%)	1 (1%)	21	49

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
47	D1	95/98 (97%)	92 (97%)	2 (2%)	1 (1%)	21	49
48	B2	68/72 (94%)	68 (100%)	0	0	100	100
48	D2	68/72 (94%)	68 (100%)	0	0	100	100
49	B3	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
49	D3	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
50	B4	67/71 (94%)	50 (75%)	10 (15%)	7 (10%)	1	0
50	D4	67/71 (94%)	53 (79%)	7 (10%)	7 (10%)	1	0
51	B5	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
51	D5	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
52	B6	51/54 (94%)	49 (96%)	1 (2%)	1 (2%)	11	28
52	D6	51/54 (94%)	48 (94%)	3 (6%)	0	100	100
53	B7	46/49 (94%)	45 (98%)	1 (2%)	0	100	100
53	D7	46/49 (94%)	45 (98%)	0	1 (2%)	10	25
54	B8	62/65 (95%)	62 (100%)	0	0	100	100
54	D8	62/65 (95%)	62 (100%)	0	0	100	100
55	B9	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
55	D9	35/37 (95%)	33 (94%)	2 (6%)	0	100	100
All	All	11402/12128 (94%)	10561 (93%)	687 (6%)	154 (1%)	16	41

All (154) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	9	GLU
2	AB	10	LEU
2	AB	125	PRO
4	AD	166	LYS
7	AG	80	VAL
9	AI	44	VAL
9	AI	54	ASP
10	AJ	56	HIS
10	AJ	79	ARG
27	BD	275	LYS
29	BF	130	ALA
30	BG	43	LEU
31	BH	126	PRO
32	BI	107	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	BT	127	ALA
39	BT	128	GLU
47	B1	3	LYS
50	B4	44	THR
50	B4	45	GLY
50	B4	68	ARG
2	CB	16	HIS
2	CB	17	PHE
2	CB	126	GLU
2	CB	231	GLU
3	CC	99	VAL
4	CD	46	LYS
4	CD	166	LYS
9	CI	44	VAL
9	CI	54	ASP
10	CJ	55	LYS
10	CJ	56	HIS
13	CM	67	GLU
13	CM	106	ASN
20	CT	95	ALA
20	CT	99	LEU
29	DF	130	ALA
30	DG	43	LEU
30	DG	47	LYS
30	DG	81	LYS
31	DH	126	PRO
32	DI	10	GLU
36	DQ	60	ARG
41	DV	79	VAL
50	D4	45	GLY
50	D4	49	PHE
50	D4	62	ARG
50	D4	63	TYR
53	D7	46	VAL
2	AB	11	LEU
2	AB	19	HIS
5	AE	85	GLY
7	AG	81	GLY
10	AJ	31	GLY
10	AJ	55	LYS
11	AK	49	GLY
13	AM	67	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	AT	47	GLY
30	BG	47	LYS
30	BG	51	ARG
32	BI	106	GLY
36	BQ	60	ARG
41	BV	79	VAL
41	BV	100	ARG
43	BX	94	GLY
45	BZ	137	ILE
46	B0	13	GLY
50	B4	49	PHE
52	B6	13	CYS
2	CB	8	LYS
2	CB	10	LEU
2	CB	20	GLU
2	CB	121	LEU
3	CC	4	LYS
3	CC	181	ASN
7	CG	55	GLY
8	CH	133	LEU
10	CJ	75	ILE
10	CJ	77	PRO
11	CK	49	GLY
11	CK	100	ALA
19	CS	30	LEU
20	CT	47	GLY
21	CU	3	LYS
27	DD	239	ARG
29	DF	21	ALA
36	DQ	27	VAL
43	DX	94	GLY
2	AB	126	GLU
10	AJ	75	ILE
10	AJ	78	ASN
20	AT	96	GLY
20	AT	100	ILE
20	AT	102	GLY
28	BE	52	LEU
45	BZ	155	LEU
50	B4	55	ARG
50	B4	62	ARG
2	CB	9	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	CB	234	PRO
10	CJ	91	PRO
13	CM	5	ALA
18	CR	25	THR
28	DE	52	LEU
38	DS	84	GLN
50	D4	46	GLN
2	AB	131	PRO
4	AD	164	ALA
9	AI	12	GLU
20	AT	10	LEU
20	AT	95	ALA
32	BI	73	GLU
34	BO	5	GLN
44	BY	54	LYS
45	BZ	152	ALA
50	B4	56	VAL
9	CI	11	LYS
13	CM	4	ILE
19	CS	29	ARG
30	DG	51	ARG
32	DI	135	GLU
35	DP	29	LYS
44	DY	54	LYS
47	D1	3	LYS
2	AB	20	GLU
2	AB	213	LEU
2	AB	227	GLY
2	AB	234	PRO
9	AI	29	ASN
13	AM	4	ILE
35	BP	29	LYS
5	CE	27	ARG
9	CI	12	GLU
20	CT	102	GLY
27	DD	3	VAL
33	DN	2	LYS
37	DR	45	ARG
43	DX	2	LYS
45	DZ	113	ALA
50	D4	55	ARG
3	AC	99	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	AG	4	ARG
16	CP	81	ARG
20	CT	100	ILE
38	BS	60	GLY
15	CO	23	GLY
28	DE	73	GLU
3	AC	66	VAL
44	BY	53	PRO
45	BZ	111	VAL
5	AE	69	VAL
11	AK	105	VAL
50	D4	29	PRO
5	CE	69	VAL
11	CK	105	VAL

5.3.2 Protein sidechains ⓘ

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AB	192/220 (87%)	158 (82%)	34 (18%)	3	7
2	CB	187/220 (85%)	161 (86%)	26 (14%)	5	13
3	AC	143/188 (76%)	134 (94%)	9 (6%)	25	53
3	CC	140/188 (74%)	127 (91%)	13 (9%)	13	29
4	AD	170/181 (94%)	154 (91%)	16 (9%)	13	28
4	CD	173/181 (96%)	158 (91%)	15 (9%)	15	33
5	AE	113/123 (92%)	106 (94%)	7 (6%)	26	54
5	CE	114/123 (93%)	103 (90%)	11 (10%)	12	27
6	AF	83/90 (92%)	79 (95%)	4 (5%)	35	68
6	CF	85/90 (94%)	82 (96%)	3 (4%)	48	80
7	AG	119/127 (94%)	108 (91%)	11 (9%)	13	29
7	CG	120/127 (94%)	113 (94%)	7 (6%)	28	57
8	AH	114/119 (96%)	108 (95%)	6 (5%)	32	62
8	CH	114/119 (96%)	109 (96%)	5 (4%)	39	71

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	AI	90/99 (91%)	79 (88%)	11 (12%)	7	17
9	CI	89/99 (90%)	81 (91%)	8 (9%)	14	31
10	AJ	66/92 (72%)	63 (96%)	3 (4%)	38	70
10	CJ	69/92 (75%)	64 (93%)	5 (7%)	21	45
11	AK	82/99 (83%)	78 (95%)	4 (5%)	35	67
11	CK	83/99 (84%)	79 (95%)	4 (5%)	35	68
12	AL	97/109 (89%)	92 (95%)	5 (5%)	32	63
12	CL	97/109 (89%)	93 (96%)	4 (4%)	41	74
13	AM	91/101 (90%)	83 (91%)	8 (9%)	14	32
13	CM	89/101 (88%)	80 (90%)	9 (10%)	11	24
14	AN	49/50 (98%)	43 (88%)	6 (12%)	7	17
14	CN	49/50 (98%)	42 (86%)	7 (14%)	5	12
15	AO	78/80 (98%)	68 (87%)	10 (13%)	6	15
15	CO	78/80 (98%)	73 (94%)	5 (6%)	25	52
16	AP	69/74 (93%)	59 (86%)	10 (14%)	5	12
16	CP	68/74 (92%)	60 (88%)	8 (12%)	8	18
17	AQ	94/97 (97%)	88 (94%)	6 (6%)	25	52
17	CQ	94/97 (97%)	89 (95%)	5 (5%)	32	62
18	AR	59/77 (77%)	54 (92%)	5 (8%)	15	34
18	CR	59/77 (77%)	55 (93%)	4 (7%)	22	48
19	AS	69/80 (86%)	63 (91%)	6 (9%)	15	33
19	CS	67/80 (84%)	58 (87%)	9 (13%)	6	14
20	AT	70/82 (85%)	62 (89%)	8 (11%)	8	19
20	CT	70/82 (85%)	62 (89%)	8 (11%)	8	19
21	AU	18/22 (82%)	16 (89%)	2 (11%)	9	20
21	CU	18/22 (82%)	17 (94%)	1 (6%)	30	59
27	BD	215/218 (99%)	200 (93%)	15 (7%)	21	47
27	DD	215/218 (99%)	200 (93%)	15 (7%)	21	47
28	BE	164/166 (99%)	150 (92%)	14 (8%)	15	34
28	DE	164/166 (99%)	147 (90%)	17 (10%)	10	23
29	BF	160/166 (96%)	145 (91%)	15 (9%)	13	28

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
29	DF	159/166 (96%)	144 (91%)	15 (9%)	13	28
30	BG	143/156 (92%)	128 (90%)	15 (10%)	10	22
30	DG	142/156 (91%)	128 (90%)	14 (10%)	11	26
31	BH	144/148 (97%)	133 (92%)	11 (8%)	19	41
31	DH	144/148 (97%)	134 (93%)	10 (7%)	22	48
32	BI	110/124 (89%)	88 (80%)	22 (20%)	2	5
32	DI	104/124 (84%)	90 (86%)	14 (14%)	6	13
33	BN	118/119 (99%)	103 (87%)	15 (13%)	6	15
33	DN	118/119 (99%)	106 (90%)	12 (10%)	11	24
34	BO	100/100 (100%)	95 (95%)	5 (5%)	34	66
34	DO	100/100 (100%)	96 (96%)	4 (4%)	42	75
35	BP	115/116 (99%)	105 (91%)	10 (9%)	15	33
35	DP	115/116 (99%)	106 (92%)	9 (8%)	18	40
36	BQ	111/111 (100%)	100 (90%)	11 (10%)	11	26
36	DQ	111/111 (100%)	103 (93%)	8 (7%)	21	45
37	BR	101/101 (100%)	87 (86%)	14 (14%)	5	13
37	DR	101/101 (100%)	88 (87%)	13 (13%)	6	15
38	BS	87/88 (99%)	83 (95%)	4 (5%)	37	70
38	DS	85/88 (97%)	77 (91%)	8 (9%)	13	28
39	BT	115/127 (91%)	106 (92%)	9 (8%)	18	40
39	DT	113/127 (89%)	104 (92%)	9 (8%)	17	37
40	BU	93/94 (99%)	87 (94%)	6 (6%)	24	51
40	DU	93/94 (99%)	87 (94%)	6 (6%)	24	51
41	BV	80/82 (98%)	72 (90%)	8 (10%)	11	25
41	DV	80/82 (98%)	72 (90%)	8 (10%)	11	25
42	BW	90/92 (98%)	85 (94%)	5 (6%)	30	59
42	DW	90/92 (98%)	84 (93%)	6 (7%)	23	49
43	BX	77/78 (99%)	73 (95%)	4 (5%)	32	63
43	DX	77/78 (99%)	73 (95%)	4 (5%)	32	63
44	BY	85/91 (93%)	81 (95%)	4 (5%)	36	69
44	DY	85/91 (93%)	78 (92%)	7 (8%)	17	36

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
45	BZ	145/179 (81%)	131 (90%)	14 (10%)	12	27
45	DZ	145/179 (81%)	132 (91%)	13 (9%)	14	31
46	B0	65/67 (97%)	62 (95%)	3 (5%)	37	70
46	D0	65/67 (97%)	62 (95%)	3 (5%)	37	70
47	B1	80/83 (96%)	74 (92%)	6 (8%)	19	43
47	D1	80/83 (96%)	75 (94%)	5 (6%)	25	53
48	B2	65/67 (97%)	61 (94%)	4 (6%)	26	54
48	D2	65/67 (97%)	60 (92%)	5 (8%)	18	40
49	B3	51/52 (98%)	46 (90%)	5 (10%)	12	26
49	D3	50/52 (96%)	45 (90%)	5 (10%)	11	25
50	B4	60/63 (95%)	51 (85%)	9 (15%)	4	11
50	D4	53/63 (84%)	46 (87%)	7 (13%)	6	14
51	B5	50/52 (96%)	42 (84%)	8 (16%)	3	9
51	D5	50/52 (96%)	47 (94%)	3 (6%)	27	56
52	B6	51/52 (98%)	45 (88%)	6 (12%)	8	18
52	D6	50/52 (96%)	49 (98%)	1 (2%)	68	92
53	B7	41/42 (98%)	38 (93%)	3 (7%)	20	44
53	D7	41/42 (98%)	41 (100%)	0	100	100
54	B8	53/55 (96%)	49 (92%)	4 (8%)	19	43
54	D8	54/55 (98%)	52 (96%)	2 (4%)	45	78
55	B9	34/34 (100%)	33 (97%)	1 (3%)	55	85
55	D9	34/34 (100%)	33 (97%)	1 (3%)	55	85
All	All	9315/10066 (92%)	8513 (91%)	802 (9%)	15	33

All (802) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	7	VAL
2	AB	8	LYS
2	AB	11	LEU
2	AB	15	VAL
2	AB	17	PHE
2	AB	21	ARG
2	AB	24	TRP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AB	39	ILE
2	AB	49	GLU
2	AB	64	ARG
2	AB	67	THR
2	AB	76	GLN
2	AB	80	ILE
2	AB	93	VAL
2	AB	96	ARG
2	AB	112	VAL
2	AB	127	ILE
2	AB	144	ARG
2	AB	145	LEU
2	AB	153	ARG
2	AB	155	LEU
2	AB	156	LYS
2	AB	157	ARG
2	AB	158	LEU
2	AB	160	ASP
2	AB	178	ARG
2	AB	185	ILE
2	AB	200	ILE
2	AB	204	ASN
2	AB	209	ARG
2	AB	215	LEU
2	AB	217	ARG
2	AB	223	ILE
2	AB	230	VAL
3	AC	3	ASN
3	AC	17	ASP
3	AC	21	ARG
3	AC	27	LYS
3	AC	28	GLN
3	AC	29	TYR
3	AC	52	LEU
3	AC	115	LEU
3	AC	178	LEU
4	AD	5	ILE
4	AD	15	GLU
4	AD	19	LEU
4	AD	46	LYS
4	AD	49	ARG
4	AD	53	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	AD	58	LEU
4	AD	65	ARG
4	AD	86	LYS
4	AD	112	VAL
4	AD	127	THR
4	AD	135	LEU
4	AD	158	ILE
4	AD	168	ARG
4	AD	188	LEU
4	AD	193	ASP
5	AE	12	LEU
5	AE	31	LEU
5	AE	34	VAL
5	AE	41	VAL
5	AE	67	VAL
5	AE	79	GLU
5	AE	147	ASP
6	AF	55	ASP
6	AF	69	GLU
6	AF	82	ARG
6	AF	94	GLN
7	AG	8	GLU
7	AG	13	GLN
7	AG	21	VAL
7	AG	32	ARG
7	AG	51	GLN
7	AG	57	GLU
7	AG	76	ARG
7	AG	78	ARG
7	AG	104	LEU
7	AG	115	ARG
7	AG	138	LYS
8	AH	37	ARG
8	AH	50	ARG
8	AH	52	ASP
8	AH	63	LEU
8	AH	133	LEU
8	AH	137	VAL
9	AI	23	ASN
9	AI	27	THR
9	AI	42	ARG
9	AI	53	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	AI	56	LEU
9	AI	81	ILE
9	AI	89	ASN
9	AI	104	ARG
9	AI	108	VAL
9	AI	112	LYS
9	AI	128	ARG
10	AJ	67	THR
10	AJ	84	GLN
10	AJ	96	ILE
11	AK	31	THR
11	AK	48	ILE
11	AK	96	ARG
11	AK	109	VAL
12	AL	33	ARG
12	AL	46	LYS
12	AL	67	THR
12	AL	83	VAL
12	AL	123	LYS
13	AM	4	ILE
13	AM	15	VAL
13	AM	43	THR
13	AM	47	ASP
13	AM	70	LEU
13	AM	73	GLU
13	AM	110	ARG
13	AM	121	LYS
14	AN	7	ILE
14	AN	15	LYS
14	AN	18	VAL
14	AN	32	SER
14	AN	33	VAL
14	AN	50	LYS
15	AO	3	ILE
15	AO	5	LYS
15	AO	26	GLU
15	AO	38	ARG
15	AO	39	LEU
15	AO	41	GLU
15	AO	47	LYS
15	AO	83	GLU
15	AO	84	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
15	AO	88	ARG
16	AP	5	ARG
16	AP	19	ILE
16	AP	20	VAL
16	AP	28	ARG
16	AP	45	THR
16	AP	50	LYS
16	AP	54	GLU
16	AP	60	LEU
16	AP	62	VAL
16	AP	67	THR
17	AQ	6	LEU
17	AQ	14	LYS
17	AQ	49	GLU
17	AQ	53	LEU
17	AQ	63	ARG
17	AQ	74	LEU
18	AR	31	LEU
18	AR	32	ARG
18	AR	38	GLU
18	AR	47	THR
18	AR	76	LEU
19	AS	12	ASP
19	AS	16	LEU
19	AS	28	LYS
19	AS	41	VAL
19	AS	48	THR
19	AS	65	ASN
20	AT	8	ARG
20	AT	13	LEU
20	AT	24	LEU
20	AT	45	GLN
20	AT	62	LEU
20	AT	74	LYS
20	AT	80	ARG
20	AT	84	LEU
21	AU	9	ARG
21	AU	10	ARG
27	BD	3	VAL
27	BD	13	ARG
27	BD	61	LEU
27	BD	94	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
27	BD	103	ARG
27	BD	111	LEU
27	BD	113	VAL
27	BD	142	VAL
27	BD	155	LEU
27	BD	211	ARG
27	BD	221	VAL
27	BD	229	VAL
27	BD	242	ARG
27	BD	257	LEU
27	BD	260	ARG
28	BE	12	THR
28	BE	24	THR
28	BE	73	GLU
28	BE	75	VAL
28	BE	82	ARG
28	BE	89	ASP
28	BE	97	LYS
28	BE	111	ARG
28	BE	116	VAL
28	BE	119	ARG
28	BE	144	ARG
28	BE	163	GLU
28	BE	181	LEU
28	BE	202	LYS
29	BF	24	LEU
29	BF	33	LEU
29	BF	38	ARG
29	BF	53	THR
29	BF	74	ARG
29	BF	88	VAL
29	BF	106	ARG
29	BF	110	LEU
29	BF	125	LEU
29	BF	132	VAL
29	BF	140	LEU
29	BF	170	LEU
29	BF	192	LEU
29	BF	195	ASP
29	BF	197	ASP
30	BG	5	VAL
30	BG	28	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	BG	43	LEU
30	BG	45	GLU
30	BG	58	GLN
30	BG	81	LYS
30	BG	82	LEU
30	BG	86	MET
30	BG	135	LEU
30	BG	140	ILE
30	BG	143	GLU
30	BG	148	MET
30	BG	159	VAL
30	BG	170	ARG
30	BG	175	LEU
31	BH	6	ARG
31	BH	33	LEU
31	BH	41	MET
31	BH	59	ARG
31	BH	69	ARG
31	BH	71	LEU
31	BH	84	SER
31	BH	98	LEU
31	BH	116	GLU
31	BH	122	THR
31	BH	130	ARG
32	BI	9	LEU
32	BI	10	GLU
32	BI	20	ASP
32	BI	38	LEU
32	BI	40	THR
32	BI	43	ASN
32	BI	57	ARG
32	BI	60	GLU
32	BI	61	ARG
32	BI	64	GLU
32	BI	66	GLU
32	BI	68	LEU
32	BI	74	ASN
32	BI	75	LEU
32	BI	77	LEU
32	BI	87	LYS
32	BI	92	VAL
32	BI	96	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	BI	103	ARG
32	BI	116	LEU
32	BI	117	GLU
32	BI	140	LEU
33	BN	5	VAL
33	BN	28	THR
33	BN	33	LEU
33	BN	34	LEU
33	BN	46	VAL
33	BN	48	MET
33	BN	61	ARG
33	BN	62	VAL
33	BN	67	LEU
33	BN	68	GLU
33	BN	83	LYS
33	BN	87	LEU
33	BN	99	LEU
33	BN	120	LEU
33	BN	133	GLN
34	BO	8	LEU
34	BO	18	LYS
34	BO	24	VAL
34	BO	94	ARG
34	BO	108	GLU
35	BP	15	ARG
35	BP	55	ARG
35	BP	56	SER
35	BP	65	ARG
35	BP	77	ARG
35	BP	83	VAL
35	BP	95	VAL
35	BP	98	GLU
35	BP	106	LEU
35	BP	149	GLU
36	BQ	1	MET
36	BQ	5	ARG
36	BQ	7	MET
36	BQ	16	ARG
36	BQ	21	THR
36	BQ	45	GLN
36	BQ	54	MET
36	BQ	75	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
36	BQ	85	LYS
36	BQ	109	VAL
36	BQ	110	THR
37	BR	1	MET
37	BR	6	SER
37	BR	18	LEU
37	BR	24	GLN
37	BR	29	LEU
37	BR	36	THR
37	BR	44	LEU
37	BR	54	LEU
37	BR	60	LEU
37	BR	65	LEU
37	BR	79	LEU
37	BR	102	GLU
37	BR	111	LEU
37	BR	114	VAL
38	BS	20	ARG
38	BS	49	VAL
38	BS	59	LYS
38	BS	110	LEU
39	BT	23	ARG
39	BT	49	VAL
39	BT	53	ARG
39	BT	64	ARG
39	BT	74	ARG
39	BT	93	ARG
39	BT	96	ARG
39	BT	108	ARG
39	BT	118	ARG
40	BU	8	VAL
40	BU	36	ARG
40	BU	74	LEU
40	BU	92	ARG
40	BU	95	LEU
40	BU	104	GLN
41	BV	18	LEU
41	BV	28	GLU
41	BV	43	GLU
41	BV	51	VAL
41	BV	62	LEU
41	BV	79	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
41	BV	95	LEU
41	BV	100	ARG
42	BW	11	ARG
42	BW	17	VAL
42	BW	19	LEU
42	BW	51	LEU
42	BW	107	LEU
43	BX	35	THR
43	BX	66	LEU
43	BX	88	LYS
43	BX	92	LEU
44	BY	1	MET
44	BY	23	ARG
44	BY	43	ASN
44	BY	72	VAL
45	BZ	5	LEU
45	BZ	18	LEU
45	BZ	19	ARG
45	BZ	33	LEU
45	BZ	61	LEU
45	BZ	86	VAL
45	BZ	102	LEU
45	BZ	107	THR
45	BZ	126	VAL
45	BZ	136	PHE
45	BZ	144	LEU
45	BZ	154	ASP
45	BZ	155	LEU
45	BZ	161	VAL
46	B0	14	ARG
46	B0	20	ARG
46	B0	55	ARG
47	B1	21	ARG
47	B1	40	ARG
47	B1	59	THR
47	B1	78	LYS
47	B1	89	GLU
47	B1	95	LEU
48	B2	32	LEU
48	B2	52	ASP
48	B2	64	LEU
48	B2	70	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
49	B3	8	LEU
49	B3	23	LEU
49	B3	29	ARG
49	B3	44	ARG
49	B3	54	VAL
50	B4	3	GLU
50	B4	34	GLU
50	B4	46	GLN
50	B4	48	ARG
50	B4	49	PHE
50	B4	58	ARG
50	B4	59	PHE
50	B4	63	TYR
50	B4	68	ARG
51	B5	6	VAL
51	B5	26	THR
51	B5	29	THR
51	B5	33	CYS
51	B5	36	CYS
51	B5	40	LYS
51	B5	49	CYS
51	B5	60	VAL
52	B6	4	GLU
52	B6	6	ARG
52	B6	18	ARG
52	B6	28	ARG
52	B6	40	CYS
52	B6	48	VAL
53	B7	1	MET
53	B7	24	THR
53	B7	43	THR
54	B8	14	VAL
54	B8	30	ARG
54	B8	31	HIS
54	B8	37	SER
55	B9	27	CYS
2	CB	7	VAL
2	CB	8	LYS
2	CB	11	LEU
2	CB	23	ARG
2	CB	24	TRP
2	CB	35	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	CB	49	GLU
2	CB	67	THR
2	CB	93	VAL
2	CB	94	ASN
2	CB	115	LEU
2	CB	126	GLU
2	CB	128	GLU
2	CB	142	LEU
2	CB	144	ARG
2	CB	154	LEU
2	CB	155	LEU
2	CB	158	LEU
2	CB	175	ARG
2	CB	178	ARG
2	CB	185	ILE
2	CB	187	LEU
2	CB	200	ILE
2	CB	209	ARG
2	CB	215	LEU
2	CB	224	GLN
3	CC	3	ASN
3	CC	21	ARG
3	CC	29	TYR
3	CC	49	SER
3	CC	54	ARG
3	CC	70	VAL
3	CC	105	GLU
3	CC	125	GLU
3	CC	140	ARG
3	CC	152	ILE
3	CC	178	LEU
3	CC	193	TYR
3	CC	196	LEU
4	CD	15	GLU
4	CD	19	LEU
4	CD	31	CYS
4	CD	34	GLU
4	CD	47	ARG
4	CD	58	LEU
4	CD	61	LYS
4	CD	65	ARG
4	CD	86	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	CD	122	ARG
4	CD	135	LEU
4	CD	157	LEU
4	CD	170	VAL
4	CD	194	LEU
4	CD	208	SER
5	CE	10	MET
5	CE	18	ARG
5	CE	31	LEU
5	CE	34	VAL
5	CE	41	VAL
5	CE	71	LEU
5	CE	72	GLN
5	CE	78	HIS
5	CE	79	GLU
5	CE	147	ASP
5	CE	152	ARG
6	CF	28	ARG
6	CF	41	GLU
6	CF	46	ARG
7	CG	9	VAL
7	CG	51	GLN
7	CG	72	ARG
7	CG	76	ARG
7	CG	78	ARG
7	CG	79	ARG
7	CG	155	ARG
8	CH	50	ARG
8	CH	63	LEU
8	CH	84	ARG
8	CH	133	LEU
8	CH	137	VAL
9	CI	14	VAL
9	CI	27	THR
9	CI	81	ILE
9	CI	92	TYR
9	CI	102	LEU
9	CI	104	ARG
9	CI	108	VAL
9	CI	128	ARG
10	CJ	7	LYS
10	CJ	19	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	CJ	21	GLN
10	CJ	38	ILE
10	CJ	67	THR
11	CK	54	ARG
11	CK	96	ARG
11	CK	109	VAL
11	CK	126	ARG
12	CL	33	ARG
12	CL	53	ARG
12	CL	67	THR
12	CL	83	VAL
13	CM	3	ARG
13	CM	15	VAL
13	CM	27	LYS
13	CM	47	ASP
13	CM	49	THR
13	CM	56	LEU
13	CM	70	LEU
13	CM	106	ASN
13	CM	110	ARG
14	CN	3	ARG
14	CN	7	ILE
14	CN	12	ARG
14	CN	18	VAL
14	CN	23	ARG
14	CN	32	SER
14	CN	33	VAL
15	CO	3	ILE
15	CO	5	LYS
15	CO	10	LYS
15	CO	38	ARG
15	CO	41	GLU
16	CP	5	ARG
16	CP	27	LYS
16	CP	28	ARG
16	CP	45	THR
16	CP	60	LEU
16	CP	62	VAL
16	CP	67	THR
16	CP	69	THR
17	CQ	6	LEU
17	CQ	36	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	CQ	53	LEU
17	CQ	63	ARG
17	CQ	74	LEU
18	CR	26	LEU
18	CR	32	ARG
18	CR	47	THR
18	CR	76	LEU
19	CS	12	ASP
19	CS	28	LYS
19	CS	41	VAL
19	CS	48	THR
19	CS	56	GLN
19	CS	64	GLU
19	CS	65	ASN
19	CS	77	THR
19	CS	78	ARG
20	CT	24	LEU
20	CT	30	LYS
20	CT	38	LYS
20	CT	56	MET
20	CT	62	LEU
20	CT	71	THR
20	CT	80	ARG
20	CT	84	LEU
21	CU	10	ARG
27	DD	54	ARG
27	DD	61	LEU
27	DD	94	LEU
27	DD	103	ARG
27	DD	106	ILE
27	DD	111	LEU
27	DD	113	VAL
27	DD	134	ARG
27	DD	155	LEU
27	DD	211	ARG
27	DD	217	ARG
27	DD	221	VAL
27	DD	229	VAL
27	DD	242	ARG
27	DD	257	LEU
28	DE	12	THR
28	DE	21	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	DE	24	THR
28	DE	27	LEU
28	DE	34	VAL
28	DE	40	GLU
28	DE	52	LEU
28	DE	73	GLU
28	DE	75	VAL
28	DE	77	ILE
28	DE	93	VAL
28	DE	116	VAL
28	DE	119	ARG
28	DE	144	ARG
28	DE	163	GLU
28	DE	175	VAL
28	DE	181	LEU
29	DF	24	LEU
29	DF	28	ILE
29	DF	33	LEU
29	DF	38	ARG
29	DF	57	VAL
29	DF	74	ARG
29	DF	88	VAL
29	DF	106	ARG
29	DF	108	LYS
29	DF	110	LEU
29	DF	132	VAL
29	DF	137	LYS
29	DF	170	LEU
29	DF	192	LEU
29	DF	200	GLU
30	DG	5	VAL
30	DG	7	LEU
30	DG	16	ARG
30	DG	36	LYS
30	DG	43	LEU
30	DG	49	ASP
30	DG	58	GLN
30	DG	91	ARG
30	DG	98	ARG
30	DG	136	ARG
30	DG	140	ILE
30	DG	148	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	DG	159	VAL
30	DG	170	ARG
31	DH	3	ARG
31	DH	33	LEU
31	DH	63	SER
31	DH	69	ARG
31	DH	84	SER
31	DH	95	ARG
31	DH	98	LEU
31	DH	136	ILE
31	DH	139	GLN
31	DH	172	LYS
32	DI	9	LEU
32	DI	40	THR
32	DI	43	ASN
32	DI	44	LEU
32	DI	50	ARG
32	DI	68	LEU
32	DI	73	GLU
32	DI	75	LEU
32	DI	77	LEU
32	DI	116	LEU
32	DI	123	LEU
32	DI	140	LEU
32	DI	142	VAL
32	DI	144	VAL
33	DN	5	VAL
33	DN	12	ARG
33	DN	28	THR
33	DN	33	LEU
33	DN	34	LEU
33	DN	46	VAL
33	DN	85	ILE
33	DN	87	LEU
33	DN	99	LEU
33	DN	120	LEU
33	DN	133	GLN
33	DN	137	LYS
34	DO	8	LEU
34	DO	24	VAL
34	DO	69	ILE
34	DO	94	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	DP	15	ARG
35	DP	55	ARG
35	DP	56	SER
35	DP	65	ARG
35	DP	77	ARG
35	DP	83	VAL
35	DP	95	VAL
35	DP	96	THR
35	DP	106	LEU
36	DQ	5	ARG
36	DQ	7	MET
36	DQ	16	ARG
36	DQ	21	THR
36	DQ	45	GLN
36	DQ	60	ARG
36	DQ	85	LYS
36	DQ	109	VAL
37	DR	1	MET
37	DR	18	LEU
37	DR	24	GLN
37	DR	29	LEU
37	DR	44	LEU
37	DR	54	LEU
37	DR	60	LEU
37	DR	65	LEU
37	DR	79	LEU
37	DR	100	LEU
37	DR	102	GLU
37	DR	111	LEU
37	DR	114	VAL
38	DS	20	ARG
38	DS	35	ILE
38	DS	58	LEU
38	DS	68	GLN
38	DS	69	VAL
38	DS	71	ARG
38	DS	75	GLU
38	DS	110	LEU
39	DT	6	LEU
39	DT	16	ARG
39	DT	23	ARG
39	DT	49	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	DT	64	ARG
39	DT	74	ARG
39	DT	96	ARG
39	DT	113	LYS
39	DT	118	ARG
40	DU	8	VAL
40	DU	36	ARG
40	DU	74	LEU
40	DU	83	LEU
40	DU	95	LEU
40	DU	104	GLN
41	DV	18	LEU
41	DV	28	GLU
41	DV	38	LEU
41	DV	57	VAL
41	DV	62	LEU
41	DV	72	VAL
41	DV	79	VAL
41	DV	85	LYS
42	DW	11	ARG
42	DW	15	ARG
42	DW	17	VAL
42	DW	51	LEU
42	DW	60	ASN
42	DW	107	LEU
43	DX	57	LEU
43	DX	88	LYS
43	DX	90	GLU
43	DX	92	LEU
44	DY	1	MET
44	DY	23	ARG
44	DY	43	ASN
44	DY	49	VAL
44	DY	72	VAL
44	DY	91	GLU
44	DY	102	CYS
45	DZ	5	LEU
45	DZ	11	GLU
45	DZ	33	LEU
45	DZ	61	LEU
45	DZ	72	ARG
45	DZ	86	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
45	DZ	97	GLU
45	DZ	126	VAL
45	DZ	136	PHE
45	DZ	154	ASP
45	DZ	155	LEU
45	DZ	156	LYS
45	DZ	161	VAL
46	D0	10	THR
46	D0	14	ARG
46	D0	20	ARG
47	D1	4	VAL
47	D1	21	ARG
47	D1	40	ARG
47	D1	59	THR
47	D1	95	LEU
48	D2	30	ARG
48	D2	40	SER
48	D2	52	ASP
48	D2	53	LEU
48	D2	70	GLN
49	D3	8	LEU
49	D3	23	LEU
49	D3	30	ARG
49	D3	44	ARG
49	D3	54	VAL
50	D4	3	GLU
50	D4	24	THR
50	D4	53	GLU
50	D4	58	ARG
50	D4	63	TYR
50	D4	67	TYR
50	D4	69	LYS
51	D5	29	THR
51	D5	40	LYS
51	D5	59	GLU
52	D6	6	ARG
54	D8	31	HIS
54	D8	37	SER
55	D9	26	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (147) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	16	HIS
2	AB	94	ASN
3	AC	6	HIS
3	AC	28	GLN
3	AC	37	GLN
3	AC	102	ASN
3	AC	104	GLN
3	AC	136	GLN
4	AD	42	GLN
4	AD	45	GLN
4	AD	77	ASN
4	AD	123	HIS
4	AD	125	HIS
5	AE	20	GLN
5	AE	38	GLN
5	AE	56	GLN
5	AE	73	ASN
5	AE	141	GLN
6	AF	94	GLN
6	AF	100	ASN
7	AG	28	ASN
7	AG	51	GLN
7	AG	97	GLN
7	AG	148	ASN
9	AI	23	ASN
9	AI	31	GLN
9	AI	58	HIS
9	AI	73	GLN
9	AI	89	ASN
9	AI	124	GLN
10	AJ	56	HIS
10	AJ	84	GLN
11	AK	93	GLN
11	AK	104	GLN
12	AL	78	GLN
12	AL	99	HIS
14	AN	52	GLN
15	AO	28	GLN
15	AO	46	HIS
16	AP	13	HIS
17	AQ	16	GLN
19	AS	23	ASN
19	AS	47	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
19	AS	65	ASN
19	AS	83	HIS
20	AT	45	GLN
27	BD	87	ASN
27	BD	253	GLN
29	BF	69	HIS
29	BF	169	ASN
29	BF	203	GLN
30	BG	40	ASN
30	BG	41	GLN
30	BG	58	GLN
30	BG	108	ASN
32	BI	43	ASN
32	BI	54	GLN
35	BP	38	GLN
39	BT	123	GLN
40	BU	81	HIS
40	BU	104	GLN
43	BX	31	HIS
45	BZ	55	HIS
45	BZ	73	GLN
45	BZ	151	HIS
48	B2	70	GLN
49	B3	32	GLN
50	B4	46	GLN
52	B6	20	ASN
55	B9	36	GLN
2	CB	40	HIS
2	CB	76	GLN
2	CB	146	GLN
2	CB	224	GLN
3	CC	28	GLN
3	CC	98	ASN
3	CC	102	ASN
3	CC	104	GLN
3	CC	118	GLN
3	CC	136	GLN
4	CD	74	GLN
4	CD	77	ASN
4	CD	123	HIS
4	CD	125	HIS
4	CD	129	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	CD	161	ASN
4	CD	201	GLN
5	CE	20	GLN
5	CE	38	GLN
5	CE	56	GLN
5	CE	78	HIS
5	CE	141	GLN
7	CG	28	ASN
7	CG	51	GLN
7	CG	86	GLN
7	CG	97	GLN
7	CG	109	ASN
7	CG	148	ASN
8	CH	82	HIS
9	CI	58	HIS
9	CI	89	ASN
9	CI	117	HIS
9	CI	124	GLN
10	CJ	13	HIS
11	CK	22	HIS
11	CK	93	GLN
12	CL	78	GLN
12	CL	99	HIS
13	CM	77	ASN
15	CO	9	GLN
15	CO	28	GLN
15	CO	62	GLN
16	CP	13	HIS
17	CQ	16	GLN
19	CS	23	ASN
19	CS	47	HIS
19	CS	57	HIS
19	CS	83	HIS
27	DD	87	ASN
27	DD	164	GLN
27	DD	166	GLN
27	DD	253	GLN
28	DE	85	ASN
29	DF	69	HIS
29	DF	169	ASN
29	DF	203	GLN
30	DG	40	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	DG	41	GLN
30	DG	79	ASN
30	DG	108	ASN
31	DH	139	GLN
35	DP	38	GLN
37	DR	71	GLN
38	DS	68	GLN
40	DU	117	GLN
41	DV	80	GLN
42	DW	60	ASN
43	DX	31	HIS
43	DX	82	GLN
44	DY	43	ASN
45	DZ	32	HIS
45	DZ	34	ASN
45	DZ	55	HIS
45	DZ	151	HIS
48	D2	56	GLN
49	D3	32	GLN
55	D9	36	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1494/1521 (98%)	363 (24%)	26 (1%)
1	CA	1501/1521 (98%)	372 (24%)	32 (2%)
22	AV	7/24 (29%)	0	0
22	CV	4/24 (16%)	1 (25%)	0
23	AX	75/77 (97%)	25 (33%)	0
23	CX	75/77 (97%)	23 (30%)	0
24	AY	16/76 (21%)	7 (43%)	0
24	CY	4/76 (5%)	0	0
25	BA	2814/2915 (96%)	473 (16%)	31 (1%)
25	DA	2791/2915 (95%)	523 (18%)	27 (0%)
26	BB	119/121 (98%)	24 (20%)	0
26	DB	119/121 (98%)	25 (21%)	0
All	All	9019/9468 (95%)	1836 (20%)	116 (1%)

All (1836) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	7	G
1	AA	9	G
1	AA	22	G
1	AA	32	A
1	AA	39	G
1	AA	48	C
1	AA	51	A
1	AA	55	A
1	AA	59	A
1	AA	61	G
1	AA	65	U
1	AA	73	G
1	AA	78	G
1	AA	79	G
1	AA	92	C
1	AA	96	U
1	AA	97	G
1	AA	98	G
1	AA	101	A
1	AA	111	G
1	AA	112	G
1	AA	115	G
1	AA	116	A
1	AA	121	C
1	AA	131	C
1	AA	137	C
1	AA	142	G
1	AA	147	G
1	AA	163	C
1	AA	171	A
1	AA	173	U
1	AA	174	C
1	AA	180	U
1	AA	182	U
1	AA	189(A)	C
1	AA	189(B)	C
1	AA	189(D)	C
1	AA	189(E)	U
1	AA	189(F)	U
1	AA	189(H)	G
1	AA	189(I)	G
1	AA	190	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	195	A
1	AA	197	A
1	AA	199	G
1	AA	200	G
1	AA	201	C
1	AA	202	U
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	219	C
1	AA	247	G
1	AA	251	G
1	AA	256	U
1	AA	257	G
1	AA	266	G
1	AA	267	C
1	AA	277	C
1	AA	289	G
1	AA	301	G
1	AA	321	A
1	AA	328	C
1	AA	332	G
1	AA	343	U
1	AA	344	A
1	AA	347	G
1	AA	348	G
1	AA	351	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	355	C
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	380	G
1	AA	384	G
1	AA	396	G
1	AA	397	A
1	AA	398	C
1	AA	406	G
1	AA	409	G
1	AA	412	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	413	G
1	AA	421	U
1	AA	422	C
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	434	U
1	AA	435	C
1	AA	439	A
1	AA	442	C
1	AA	452	A
1	AA	456	C
1	AA	461	A
1	AA	470	C
1	AA	471	G
1	AA	474	G
1	AA	475	G
1	AA	484	G
1	AA	485	G
1	AA	496	A
1	AA	498	U
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	513	C
1	AA	518	C
1	AA	521	G
1	AA	524	G
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	536	C
1	AA	544	G
1	AA	546	G
1	AA	547	A
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	571	U
1	AA	572	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	573	A
1	AA	576	G
1	AA	587	G
1	AA	590	C
1	AA	591	U
1	AA	592	G
1	AA	595	G
1	AA	596	C
1	AA	602	A
1	AA	629	G
1	AA	630	G
1	AA	632	A
1	AA	633	G
1	AA	641	U
1	AA	644	G
1	AA	653	A
1	AA	656	C
1	AA	658	G
1	AA	665	A
1	AA	673	G
1	AA	687	A
1	AA	688	G
1	AA	693	G
1	AA	695	A
1	AA	705	U
1	AA	711	G
1	AA	723	U
1	AA	724	G
1	AA	731	G
1	AA	749	C
1	AA	752	G
1	AA	753	A
1	AA	755	G
1	AA	759	A
1	AA	772	U
1	AA	773	G
1	AA	774	G
1	AA	777	A
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	802	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	810	C
1	AA	815	A
1	AA	817	C
1	AA	827	U
1	AA	828	A
1	AA	840	C
1	AA	841	U
1	AA	851	G
1	AA	853	G
1	AA	859	A
1	AA	868	C
1	AA	870	U
1	AA	875	C
1	AA	885	G
1	AA	902	G
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	936	C
1	AA	954	G
1	AA	960	U
1	AA	961	U
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	973	G
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	989	C
1	AA	992	U
1	AA	993	G
1	AA	996	A
1	AA	998	G
1	AA	999	C
1	AA	1002	G
1	AA	1004	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1005	A
1	AA	1006	C
1	AA	1007	C
1	AA	1008	C
1	AA	1009	G
1	AA	1020	U
1	AA	1021	G
1	AA	1022	G
1	AA	1024	G
1	AA	1025	U
1	AA	1026	G
1	AA	1027	C
1	AA	1028	C
1	AA	1030(A)	G
1	AA	1030(C)	G
1	AA	1033	G
1	AA	1037	C
1	AA	1043	C
1	AA	1045	C
1	AA	1052	U
1	AA	1054	C
1	AA	1056	U
1	AA	1057	G
1	AA	1058	G
1	AA	1065	U
1	AA	1066	C
1	AA	1067	A
1	AA	1076	C
1	AA	1094	G
1	AA	1095	U
1	AA	1096	C
1	AA	1101	A
1	AA	1108	G
1	AA	1113	C
1	AA	1116	C
1	AA	1121	U
1	AA	1122	U
1	AA	1123	A
1	AA	1124	G
1	AA	1126	U
1	AA	1130	A
1	AA	1132	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1135	U
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1142	G
1	AA	1146	A
1	AA	1152	A
1	AA	1154	G
1	AA	1155	G
1	AA	1157	A
1	AA	1159	U
1	AA	1160	G
1	AA	1163	C
1	AA	1164	G
1	AA	1166	G
1	AA	1174	G
1	AA	1176	A
1	AA	1181	G
1	AA	1182	G
1	AA	1183	A
1	AA	1184	G
1	AA	1196	U
1	AA	1197	G
1	AA	1200	C
1	AA	1202	G
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1216	G
1	AA	1218	C
1	AA	1224	G
1	AA	1227	A
1	AA	1235	U
1	AA	1236	A
1	AA	1238	A
1	AA	1240	U
1	AA	1244	C
1	AA	1246	C
1	AA	1257	U
1	AA	1258	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1260	C
1	AA	1261	A
1	AA	1263	C
1	AA	1265	G
1	AA	1266	G
1	AA	1267	C
1	AA	1270	C
1	AA	1273	G
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1283	G
1	AA	1286	A
1	AA	1287	A
1	AA	1290	G
1	AA	1296	C
1	AA	1299	A
1	AA	1300	G
1	AA	1302	U
1	AA	1305	G
1	AA	1311	G
1	AA	1317	C
1	AA	1320	C
1	AA	1322	C
1	AA	1338	G
1	AA	1347	G
1	AA	1353	G
1	AA	1354	C
1	AA	1355	G
1	AA	1356	G
1	AA	1358	U
1	AA	1360	A
1	AA	1363	C
1	AA	1363(A)	A
1	AA	1364	U
1	AA	1370	G
1	AA	1377	A
1	AA	1379	G
1	AA	1384	C
1	AA	1386	G
1	AA	1387	G
1	AA	1397	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	1402	C
1	AA	1419	G
1	AA	1422	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1442(B)	A
1	AA	1444	C
1	AA	1445	C
1	AA	1447	A
1	AA	1452	C
1	AA	1456	G
1	AA	1487	G
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G
1	AA	1497	G
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1506	U
1	AA	1517	G
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
1	AA	1532	U
23	AX	9	G
23	AX	16	C
23	AX	17	C
23	AX	18	G
23	AX	19	G
23	AX	20	U
23	AX	21	A
23	AX	29	G
23	AX	30	G
23	AX	31	G
23	AX	34	C
23	AX	42	G
23	AX	46	G
23	AX	47	U
23	AX	48	C
23	AX	56	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	AX	58	A
23	AX	60	U
23	AX	61	C
23	AX	63	G
23	AX	65	C
23	AX	67	C
23	AX	68	C
23	AX	69	C
23	AX	76	A
24	AY	5	G
24	AY	67	C
24	AY	68	C
24	AY	69	G
24	AY	70	G
24	AY	71	G
24	AY	74	C
25	BA	10	G
25	BA	12	U
25	BA	13	A
25	BA	34	C
25	BA	45	C
25	BA	54	G
25	BA	62	U
25	BA	70	A
25	BA	73	A
25	BA	74	G
25	BA	83	A
25	BA	116	A
25	BA	117	A
25	BA	118	U
25	BA	123	G
25	BA	124	A
25	BA	137	G
25	BA	149	A
25	BA	155	C
25	BA	161	C
25	BA	170	A
25	BA	171	A
25	BA	185	A
25	BA	186	A
25	BA	188	A
25	BA	190	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	194	G
25	BA	203	G
25	BA	204	G
25	BA	205	A
25	BA	210	A
25	BA	211	A
25	BA	214	A
25	BA	218	A
25	BA	222	A
25	BA	237	G
25	BA	239	G
25	BA	265	U
25	BA	269	G
25	BA	271	U
25	BA	272	U
25	BA	273	G
25	BA	274	U
25	BA	279	G
25	BA	289	G
25	BA	294	C
25	BA	295	C
25	BA	303	C
25	BA	306	A
25	BA	307	A
25	BA	335	A
25	BA	353	G
25	BA	354	A
25	BA	360	C
25	BA	376	G
25	BA	387	G
25	BA	390	G
25	BA	397	G
25	BA	399	G
25	BA	407	U
25	BA	413	G
25	BA	423	G
25	BA	432	U
25	BA	438	G
25	BA	439	A
25	BA	448	U
25	BA	455	A
25	BA	469	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	470	C
25	BA	474	U
25	BA	477	C
25	BA	480	A
25	BA	496	A
25	BA	507	G
25	BA	529	U
25	BA	530	A
25	BA	533	G
25	BA	534	C
25	BA	555	G
25	BA	556	C
25	BA	557	A
25	BA	558	G
25	BA	573	G
25	BA	586	G
25	BA	596	G
25	BA	598	A
25	BA	625	G
25	BA	626	A
25	BA	627	G
25	BA	630	U
25	BA	639	G
25	BA	641	G
25	BA	642	G
25	BA	652	A
25	BA	662	A
25	BA	670	C
25	BA	692	C
25	BA	693	G
25	BA	694	G
25	BA	697	C
25	BA	698	G
25	BA	715	G
25	BA	716	G
25	BA	724	A
25	BA	733	G
25	BA	777	C
25	BA	787	U
25	BA	811	A
25	BA	812	G
25	BA	822	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	823	G
25	BA	829	A
25	BA	831	A
25	BA	832	G
25	BA	837	C
25	BA	839	G
25	BA	852	G
25	BA	858	U
25	BA	859	C
25	BA	866	A
25	BA	874	U
25	BA	875	U
25	BA	906	G
25	BA	908	A
25	BA	913	A
25	BA	924	U
25	BA	927	G
25	BA	929	G
25	BA	930	G
25	BA	931	C
25	BA	932	C
25	BA	933	C
25	BA	934	A
25	BA	935	C
25	BA	936	C
25	BA	937	A
25	BA	938	G
25	BA	940	C
25	BA	942	A
25	BA	943	C
25	BA	946	A
25	BA	953	U
25	BA	956	A
25	BA	957	A
25	BA	961	C
25	BA	977	G
25	BA	986	A
25	BA	990	A
25	BA	991	G
25	BA	1003	U
25	BA	1004	A
25	BA	1006	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	1019	G
25	BA	1020	C
25	BA	1029	A
25	BA	1035	G
25	BA	1042	A
25	BA	1045	U
25	BA	1051	C
25	BA	1054	C
25	BA	1058	U
25	BA	1059	C
25	BA	1068	G
25	BA	1072	U
25	BA	1073	A
25	BA	1079	U
25	BA	1084	C
25	BA	1087	C
25	BA	1090	G
25	BA	1091	A
25	BA	1092	A
25	BA	1093	G
25	BA	1094	A
25	BA	1097	G
25	BA	1153	G
25	BA	1156	G
25	BA	1158	G
25	BA	1175	A
25	BA	1176	U
25	BA	1180	C
25	BA	1181	G
25	BA	1184	G
25	BA	1186	U
25	BA	1195	G
25	BA	1216	G
25	BA	1217	G
25	BA	1218	G
25	BA	1219	A
25	BA	1220	U
25	BA	1221	G
25	BA	1222	A
25	BA	1255	A
25	BA	1256	U
25	BA	1263	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	1265	A
25	BA	1287	A
25	BA	1290	G
25	BA	1296	G
25	BA	1299	A
25	BA	1302	G
25	BA	1317	G
25	BA	1318	A
25	BA	1319	U
25	BA	1346	U
25	BA	1347	A
25	BA	1349	G
25	BA	1360	C
25	BA	1366	C
25	BA	1391	C
25	BA	1398	U
25	BA	1405	A
25	BA	1406	A
25	BA	1411	A
25	BA	1416	C
25	BA	1426	G
25	BA	1430	A
25	BA	1431	G
25	BA	1462	G
25	BA	1463	C
25	BA	1466	U
25	BA	1467	G
25	BA	1474	C
25	BA	1491	A
25	BA	1497	G
25	BA	1501	U
25	BA	1502	G
25	BA	1507	A
25	BA	1514	C
25	BA	1518	A
25	BA	1525	G
25	BA	1529	G
25	BA	1539	C
25	BA	1554	A
25	BA	1555	C
25	BA	1556	A
25	BA	1577	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	1578	C
25	BA	1580	G
25	BA	1581	U
25	BA	1586	G
25	BA	1589	A
25	BA	1601	A
25	BA	1605	A
25	BA	1613	A
25	BA	1616	A
25	BA	1625	U
25	BA	1627	A
25	BA	1628	G
25	BA	1631	C
25	BA	1632	A
25	BA	1654	A
25	BA	1655	A
25	BA	1656	A
25	BA	1694	G
25	BA	1695	C
25	BA	1701	A
25	BA	1711	A
25	BA	1721	G
25	BA	1742	G
25	BA	1743	G
25	BA	1747	A
25	BA	1748	A
25	BA	1750	G
25	BA	1767	A
25	BA	1768	U
25	BA	1776	G
25	BA	1787	G
25	BA	1794	G
25	BA	1795	G
25	BA	1804	A
25	BA	1811	A
25	BA	1813	C
25	BA	1822	A
25	BA	1831	C
25	BA	1832	G
25	BA	1847	G
25	BA	1848	G
25	BA	1859	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	1878	A
25	BA	1879	A
25	BA	1892	G
25	BA	1899	A
25	BA	1900	G
25	BA	1911	A
25	BA	1918	G
25	BA	1922	A
25	BA	1928	G
25	BA	1935	A
25	BA	1936	C
25	BA	1937	U
25	BA	1941	A
25	BA	1951	G
25	BA	1952	G
25	BA	1959	A
25	BA	1960	A
25	BA	1962	U
25	BA	1977	U
25	BA	1985	U
25	BA	1989	C
25	BA	1992	A
25	BA	1993	A
25	BA	1994	A
25	BA	2005	C
25	BA	2014	G
25	BA	2015	U
25	BA	2019	G
25	BA	2023	A
25	BA	2042	A
25	BA	2045	G
25	BA	2053	A
25	BA	2054	G
25	BA	2055	A
25	BA	2061	C
25	BA	2065	C
25	BA	2071	G
25	BA	2074	G
25	BA	2077	C
25	BA	2078	G
25	BA	2082	A
25	BA	2083	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	2084	A
25	BA	2091	G
25	BA	2099	A
25	BA	2115	G
25	BA	2120	U
25	BA	2132	G
25	BA	2133	C
25	BA	2135	U
25	BA	2136	A
25	BA	2137	G
25	BA	2138	G
25	BA	2139	A
25	BA	2141	A
25	BA	2143	G
25	BA	2149	G
25	BA	2152	U
25	BA	2153	G
25	BA	2154	U
25	BA	2155	G
25	BA	2156	A
25	BA	2157	A
25	BA	2158	C
25	BA	2161	C
25	BA	2162	C
25	BA	2163	G
25	BA	2164	C
25	BA	2165	C
25	BA	2167	C
25	BA	2168	C
25	BA	2169	G
25	BA	2174	G
25	BA	2178	G
25	BA	2179	G
25	BA	2180	A
25	BA	2185	C
25	BA	2188	G
25	BA	2189	U
25	BA	2190	G
25	BA	2191	A
25	BA	2194	U
25	BA	2196	C
25	BA	2197	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	2203	G
25	BA	2204	G
25	BA	2206	G
25	BA	2207	C
25	BA	2209	G
25	BA	2210	C
25	BA	2211	U
25	BA	2212	G
25	BA	2213	G
25	BA	2214	G
25	BA	2220	A
25	BA	2227	G
25	BA	2228	G
25	BA	2229	A
25	BA	2230	U
25	BA	2237	A
25	BA	2250	G
25	BA	2251	G
25	BA	2280	A
25	BA	2281	A
25	BA	2285	A
25	BA	2290	A
25	BA	2295	C
25	BA	2299	A
25	BA	2301	G
25	BA	2310	A
25	BA	2317	A
25	BA	2332	A
25	BA	2333	G
25	BA	2337	G
25	BA	2346	G
25	BA	2347	A
25	BA	2348	A
25	BA	2355	C
25	BA	2359	C
25	BA	2362	C
25	BA	2373	A
25	BA	2384	G
25	BA	2391	G
25	BA	2395	G
25	BA	2397	C
25	BA	2418	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	2422	G
25	BA	2426	G
25	BA	2437	A
25	BA	2441	G
25	BA	2442	A
25	BA	2447	A
25	BA	2451	A
25	BA	2453	C
25	BA	2460	A
25	BA	2480	G
25	BA	2481	A
25	BA	2488	A
25	BA	2490	A
25	BA	2499	G
25	BA	2502	G
25	BA	2514	G
25	BA	2517	G
25	BA	2518	U
25	BA	2530	A
25	BA	2541	G
25	BA	2561	G
25	BA	2566	U
25	BA	2576	A
25	BA	2578	A
25	BA	2579	G
25	BA	2585	C
25	BA	2594	G
25	BA	2614	A
25	BA	2621	U
25	BA	2623	U
25	BA	2624	C
25	BA	2641	A
25	BA	2642	G
25	BA	2644	A
25	BA	2653	G
25	BA	2666	A
25	BA	2701	U
25	BA	2702	C
25	BA	2703	C
25	BA	2714	U
25	BA	2715	C
25	BA	2725	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	2726	A
25	BA	2727	G
25	BA	2739	U
25	BA	2746	A
25	BA	2770	A
25	BA	2771	A
25	BA	2774	G
25	BA	2777	A
25	BA	2778	A
25	BA	2779	G
25	BA	2791	A
25	BA	2803	A
25	BA	2804	C
25	BA	2807	C
25	BA	2813	G
25	BA	2818	U
25	BA	2828	G
25	BA	2830	A
25	BA	2831	A
25	BA	2844	G
25	BA	2845	A
25	BA	2846	U
25	BA	2882	G
25	BA	2890	C
25	BA	2901	A
25	BA	2902	G
25	BA	2903	G
26	BB	2	C
26	BB	3	C
26	BB	5	C
26	BB	7	G
26	BB	13	A
26	BB	22	U
26	BB	24	G
26	BB	25	A
26	BB	28	C
26	BB	32	C
26	BB	34	U
26	BB	42	C
26	BB	44	G
26	BB	50	G
26	BB	56	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
26	BB	60	C
26	BB	73	A
26	BB	75	G
26	BB	85	G
26	BB	93	G
26	BB	106	G
26	BB	110	G
26	BB	117	G
26	BB	118	G
1	CA	5	U
1	CA	6	G
1	CA	7	G
1	CA	9	G
1	CA	22	G
1	CA	32	A
1	CA	39	G
1	CA	48	C
1	CA	51	A
1	CA	52	G
1	CA	55	A
1	CA	59	A
1	CA	61	G
1	CA	65	U
1	CA	66	G
1	CA	73	G
1	CA	78	G
1	CA	79	G
1	CA	80	G
1	CA	88	A
1	CA	89	C
1	CA	90	U
1	CA	96	U
1	CA	97	G
1	CA	98	G
1	CA	101	A
1	CA	111	G
1	CA	112	G
1	CA	115	G
1	CA	116	A
1	CA	121	C
1	CA	131	C
1	CA	137	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	142	G
1	CA	146	G
1	CA	147	G
1	CA	157	G
1	CA	163	C
1	CA	171	A
1	CA	173	U
1	CA	174	C
1	CA	180	U
1	CA	182	U
1	CA	189(A)	C
1	CA	189(B)	C
1	CA	189(D)	C
1	CA	189(E)	U
1	CA	189(F)	U
1	CA	189(H)	G
1	CA	189(I)	G
1	CA	190	U
1	CA	195	A
1	CA	197	A
1	CA	200	G
1	CA	201	C
1	CA	202	U
1	CA	203	U
1	CA	204	U
1	CA	216	G
1	CA	217	C
1	CA	219	C
1	CA	247	G
1	CA	251	G
1	CA	256	U
1	CA	257	G
1	CA	266	G
1	CA	267	C
1	CA	277	C
1	CA	289	G
1	CA	301	G
1	CA	321	A
1	CA	328	C
1	CA	332	G
1	CA	344	A
1	CA	347	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	348	G
1	CA	351	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	355	C
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	380	G
1	CA	384	G
1	CA	396	G
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	409	G
1	CA	412	A
1	CA	413	G
1	CA	421	U
1	CA	422	C
1	CA	424	G
1	CA	429	U
1	CA	430	A
1	CA	434	U
1	CA	439	A
1	CA	442	C
1	CA	452	A
1	CA	456	C
1	CA	461	A
1	CA	470	C
1	CA	471	G
1	CA	474	G
1	CA	484	G
1	CA	485	G
1	CA	496	A
1	CA	498	U
1	CA	505	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	513	C
1	CA	518	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	521	G
1	CA	524	G
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	536	C
1	CA	544	G
1	CA	546	G
1	CA	547	A
1	CA	559	A
1	CA	560	U
1	CA	561	U
1	CA	571	U
1	CA	572	A
1	CA	573	A
1	CA	576	G
1	CA	587	G
1	CA	590	C
1	CA	591	U
1	CA	592	G
1	CA	595	G
1	CA	596	C
1	CA	602	A
1	CA	629	G
1	CA	630	G
1	CA	632	A
1	CA	633	G
1	CA	641	U
1	CA	644	G
1	CA	653	A
1	CA	656	C
1	CA	658	G
1	CA	665	A
1	CA	673	G
1	CA	688	G
1	CA	693	G
1	CA	695	A
1	CA	705	U
1	CA	711	G
1	CA	723	U
1	CA	724	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	731	G
1	CA	749	C
1	CA	752	G
1	CA	755	G
1	CA	759	A
1	CA	772	U
1	CA	773	G
1	CA	774	G
1	CA	777	A
1	CA	792	A
1	CA	793	U
1	CA	794	A
1	CA	802	A
1	CA	810	C
1	CA	815	A
1	CA	817	C
1	CA	827	U
1	CA	828	A
1	CA	829	G
1	CA	840	C
1	CA	841	U
1	CA	851	G
1	CA	853	G
1	CA	859	A
1	CA	868	C
1	CA	870	U
1	CA	875	C
1	CA	885	G
1	CA	902	G
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	936	C
1	CA	954	G
1	CA	960	U
1	CA	961	U
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	972	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	973	G
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	989	C
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	996	A
1	CA	998	G
1	CA	999	C
1	CA	1001(A)	G
1	CA	1002	G
1	CA	1004	A
1	CA	1005	A
1	CA	1006	C
1	CA	1007	C
1	CA	1009	G
1	CA	1020	U
1	CA	1021	G
1	CA	1022	G
1	CA	1024	G
1	CA	1025	U
1	CA	1026	G
1	CA	1027	C
1	CA	1028	C
1	CA	1030(A)	G
1	CA	1030(C)	G
1	CA	1032	G
1	CA	1033	G
1	CA	1036	G
1	CA	1037	C
1	CA	1041	A
1	CA	1045	C
1	CA	1050	G
1	CA	1052	U
1	CA	1054	C
1	CA	1055	A
1	CA	1056	U
1	CA	1057	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1058	G
1	CA	1065	U
1	CA	1066	C
1	CA	1067	A
1	CA	1076	C
1	CA	1081	G
1	CA	1084	G
1	CA	1094	G
1	CA	1095	U
1	CA	1096	C
1	CA	1101	A
1	CA	1108	G
1	CA	1113	C
1	CA	1116	C
1	CA	1117	G
1	CA	1122	U
1	CA	1125	U
1	CA	1129	C
1	CA	1130	A
1	CA	1132	C
1	CA	1135	U
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1142	G
1	CA	1146	A
1	CA	1147	C
1	CA	1152	A
1	CA	1154	G
1	CA	1157	A
1	CA	1159	U
1	CA	1160	G
1	CA	1163	C
1	CA	1164	G
1	CA	1174	G
1	CA	1176	A
1	CA	1180	A
1	CA	1181	G
1	CA	1182	G
1	CA	1183	A
1	CA	1184	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1202	G
1	CA	1211	U
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1216	G
1	CA	1218	C
1	CA	1224	G
1	CA	1227	A
1	CA	1235	U
1	CA	1236	A
1	CA	1238	A
1	CA	1240	U
1	CA	1244	C
1	CA	1246	C
1	CA	1252	A
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1260	C
1	CA	1261	A
1	CA	1263	C
1	CA	1265	G
1	CA	1266	G
1	CA	1267	C
1	CA	1270	C
1	CA	1273	G
1	CA	1278	U
1	CA	1279	A
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1283	G
1	CA	1287	A
1	CA	1296	C
1	CA	1300	G
1	CA	1305	G
1	CA	1311	G
1	CA	1317	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1320	C
1	CA	1322	C
1	CA	1338	G
1	CA	1346	A
1	CA	1347	G
1	CA	1353	G
1	CA	1354	C
1	CA	1355	G
1	CA	1356	G
1	CA	1358	U
1	CA	1360	A
1	CA	1363	C
1	CA	1363(A)	A
1	CA	1364	U
1	CA	1370	G
1	CA	1377	A
1	CA	1379	G
1	CA	1384	C
1	CA	1397	C
1	CA	1402	C
1	CA	1419	G
1	CA	1422	G
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1442(B)	A
1	CA	1444	C
1	CA	1445	C
1	CA	1447	A
1	CA	1452	C
1	CA	1456	G
1	CA	1487	G
1	CA	1492	A
1	CA	1493	A
1	CA	1494	G
1	CA	1497	G
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1506	U
1	CA	1517	G
1	CA	1520	G
1	CA	1529	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CA	1530	G
1	CA	1531	A
1	CA	1532	U
22	CV	16	A
23	CX	9	G
23	CX	16	C
23	CX	17	C
23	CX	18	G
23	CX	19	G
23	CX	20	U
23	CX	21	A
23	CX	29	G
23	CX	30	G
23	CX	31	G
23	CX	34	C
23	CX	42	G
23	CX	46	G
23	CX	47	U
23	CX	48	C
23	CX	56	C
23	CX	58	A
23	CX	60	U
23	CX	61	C
23	CX	65	C
23	CX	67	C
23	CX	68	C
23	CX	76	A
25	DA	10	G
25	DA	12	U
25	DA	15	G
25	DA	34	C
25	DA	35	G
25	DA	36	G
25	DA	45	C
25	DA	51	G
25	DA	55	G
25	DA	61	G
25	DA	71	A
25	DA	74	A
25	DA	75	G
25	DA	79	G
25	DA	83	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	84	A
25	DA	90	U
25	DA	94	C
25	DA	95	G
25	DA	100	G
25	DA	102	G
25	DA	118	A
25	DA	119	A
25	DA	120	U
25	DA	125	G
25	DA	139	G
25	DA	141	A
25	DA	149	A
25	DA	154(A)	C
25	DA	157	U
25	DA	173	G
25	DA	181	A
25	DA	182	A
25	DA	196	A
25	DA	199	A
25	DA	205	G
25	DA	214	G
25	DA	215	G
25	DA	216	A
25	DA	221	A
25	DA	222	A
25	DA	228	A
25	DA	229	A
25	DA	233	A
25	DA	248	G
25	DA	250	G
25	DA	271(E)	U
25	DA	271(I)	G
25	DA	271(K)	U
25	DA	271(L)	U
25	DA	271(M)	G
25	DA	271(N)	U
25	DA	271(O)	C
25	DA	272	G
25	DA	272(A)	U
25	DA	272(B)	G
25	DA	277	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	278	A
25	DA	292	C
25	DA	294	A
25	DA	311	A
25	DA	324	A
25	DA	327	G
25	DA	329	G
25	DA	330	A
25	DA	332	A
25	DA	333	G
25	DA	338	G
25	DA	345	A
25	DA	346	A
25	DA	352	G
25	DA	362	U
25	DA	363	G
25	DA	370	G
25	DA	372	G
25	DA	386	G
25	DA	396	G
25	DA	399	G
25	DA	405	U
25	DA	407	G
25	DA	411	G
25	DA	412	A
25	DA	415	A
25	DA	422	A
25	DA	428	A
25	DA	444	C
25	DA	455	C
25	DA	456	C
25	DA	457	A
25	DA	470	A
25	DA	481	G
25	DA	501	A
25	DA	504	U
25	DA	505	A
25	DA	509	C
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	545	G
25	DA	563	G
25	DA	573	G
25	DA	575	A
25	DA	587	C
25	DA	588	U
25	DA	603	A
25	DA	604	G
25	DA	607	U
25	DA	614(B)	G
25	DA	615	G
25	DA	621	A
25	DA	622	G
25	DA	627	A
25	DA	637	A
25	DA	645	C
25	DA	646	A
25	DA	647	G
25	DA	652(B)	A
25	DA	652(C)	G
25	DA	669	G
25	DA	686	G
25	DA	701	G
25	DA	715	G
25	DA	717	G
25	DA	726	G
25	DA	730	C
25	DA	744	G
25	DA	752	A
25	DA	753	C
25	DA	764	A
25	DA	765	G
25	DA	771	G
25	DA	775	G
25	DA	776	G
25	DA	779	U
25	DA	782	A
25	DA	784	A
25	DA	785	G
25	DA	790	C
25	DA	792	G
25	DA	805	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	812	C
25	DA	819	A
25	DA	827	U
25	DA	828	U
25	DA	832	G
25	DA	848	G
25	DA	857	C
25	DA	859	G
25	DA	866	A
25	DA	867	C
25	DA	874	G
25	DA	879	G
25	DA	880	G
25	DA	881	G
25	DA	882	G
25	DA	883	G
25	DA	884	C
25	DA	886	C
25	DA	887	A
25	DA	888	C
25	DA	889	C
25	DA	890	A
25	DA	893	C
25	DA	895	U
25	DA	896	A
25	DA	897	C
25	DA	898	C
25	DA	899	A
25	DA	900	A
25	DA	901	A
25	DA	910	A
25	DA	917	A
25	DA	923	C
25	DA	932	G
25	DA	933	A
25	DA	938	G
25	DA	941	A
25	DA	944	G
25	DA	945	A
25	DA	946	G
25	DA	953	A
25	DA	959	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	961	C
25	DA	963	U
25	DA	974	G
25	DA	975	C
25	DA	983	A
25	DA	996	A
25	DA	1005	C
25	DA	1006	C
25	DA	1012	U
25	DA	1013	C
25	DA	1017	G
25	DA	1018	C
25	DA	1020	A
25	DA	1022	G
25	DA	1026	U
25	DA	1027	A
25	DA	1031	G
25	DA	1033	U
25	DA	1038	C
25	DA	1041	C
25	DA	1042	G
25	DA	1043	C
25	DA	1118	C
25	DA	1130	U
25	DA	1135	C
25	DA	1136	G
25	DA	1139	G
25	DA	1166	C
25	DA	1171	G
25	DA	1205	U
25	DA	1210	A
25	DA	1211	U
25	DA	1212	G
25	DA	1219	G
25	DA	1229	G
25	DA	1233	C
25	DA	1253	A
25	DA	1256	G
25	DA	1271	G
25	DA	1272	A
25	DA	1273	U
25	DA	1300	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	1301	A
25	DA	1312	U
25	DA	1314	C
25	DA	1321	A
25	DA	1352	U
25	DA	1359	A
25	DA	1360	A
25	DA	1365	A
25	DA	1368	G
25	DA	1370	C
25	DA	1373	A
25	DA	1379	A
25	DA	1384	A
25	DA	1385	G
25	DA	1391	U
25	DA	1393	A
25	DA	1400	G
25	DA	1416	G
25	DA	1417	C
25	DA	1419	A
25	DA	1420	U
25	DA	1421	G
25	DA	1427	A
25	DA	1428	C
25	DA	1435	G
25	DA	1437	C
25	DA	1445	A
25	DA	1449	A
25	DA	1450	G
25	DA	1455	G
25	DA	1459	G
25	DA	1460	A
25	DA	1467	C
25	DA	1471	A
25	DA	1478	G
25	DA	1482	G
25	DA	1492	G
25	DA	1493	C
25	DA	1494	A
25	DA	1496	A
25	DA	1497	U
25	DA	1508	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	1509	C
25	DA	1509(A)	A
25	DA	1524	G
25	DA	1528(A)	A
25	DA	1531	C
25	DA	1541	G
25	DA	1542	A
25	DA	1543	C
25	DA	1547	C
25	DA	1554	A
25	DA	1558	A
25	DA	1559	G
25	DA	1566	A
25	DA	1569	A
25	DA	1578	U
25	DA	1583	A
25	DA	1584	C
25	DA	1586	A
25	DA	1598	C
25	DA	1608	A
25	DA	1609	A
25	DA	1610	A
25	DA	1616	A
25	DA	1640	C
25	DA	1648	C
25	DA	1654	A
25	DA	1669	A
25	DA	1674	G
25	DA	1696	G
25	DA	1700	A
25	DA	1701	A
25	DA	1703	G
25	DA	1721	G
25	DA	1722	A
25	DA	1743	C
25	DA	1746	G
25	DA	1756	G
25	DA	1762	A
25	DA	1763	G
25	DA	1764	G
25	DA	1773	A
25	DA	1780	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	1791	A
25	DA	1800	C
25	DA	1801	G
25	DA	1812	A
25	DA	1816	G
25	DA	1828	G
25	DA	1835	G
25	DA	1847	A
25	DA	1848	A
25	DA	1852	C
25	DA	1877	A
25	DA	1900	A
25	DA	1906	G
25	DA	1913	A
25	DA	1914	C
25	DA	1929	G
25	DA	1930	G
25	DA	1936	A
25	DA	1938	A
25	DA	1955	U
25	DA	1963	U
25	DA	1964	G
25	DA	1967	C
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1981	A
25	DA	1984	G
25	DA	1993	U
25	DA	1997	G
25	DA	2020	A
25	DA	2023	G
25	DA	2031	A
25	DA	2033	A
25	DA	2043	C
25	DA	2046	G
25	DA	2055	C
25	DA	2056	G
25	DA	2060	A
25	DA	2061	G
25	DA	2062	A
25	DA	2069	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	2099	U
25	DA	2102	U
25	DA	2105	C
25	DA	2108	C
25	DA	2109	U
25	DA	2110	G
25	DA	2111	C
25	DA	2112	G
25	DA	2115	G
25	DA	2116	G
25	DA	2119	A
25	DA	2122	U
25	DA	2125	G
25	DA	2126	A
25	DA	2127	G
25	DA	2129	C
25	DA	2131	G
25	DA	2132	U
25	DA	2133	G
25	DA	2135	A
25	DA	2136	C
25	DA	2137	C
25	DA	2138	C
25	DA	2140	C
25	DA	2142	C
25	DA	2146	C
25	DA	2148	G
25	DA	2150	U
25	DA	2151	G
25	DA	2153	G
25	DA	2154	G
25	DA	2155	G
25	DA	2157	G
25	DA	2158	A
25	DA	2159	G
25	DA	2163	C
25	DA	2164	C
25	DA	2165	G
25	DA	2166	G
25	DA	2167	U
25	DA	2168	G
25	DA	2169	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	2170	A
25	DA	2172	U
25	DA	2173	A
25	DA	2176	A
25	DA	2178	C
25	DA	2181	G
25	DA	2182	G
25	DA	2185	C
25	DA	2186	G
25	DA	2188	C
25	DA	2189	U
25	DA	2192	G
25	DA	2198	A
25	DA	2206	G
25	DA	2207	G
25	DA	2208	A
25	DA	2218	U
25	DA	2219	G
25	DA	2225	A
25	DA	2238	G
25	DA	2239	G
25	DA	2268	A
25	DA	2275	C
25	DA	2279	G
25	DA	2283	C
25	DA	2287	A
25	DA	2288	A
25	DA	2305	A
25	DA	2308	G
25	DA	2309	A
25	DA	2312	U
25	DA	2319	G
25	DA	2320	A
25	DA	2325	G
25	DA	2328	A
25	DA	2336	A
25	DA	2343	C
25	DA	2347	C
25	DA	2350	C
25	DA	2376	A
25	DA	2383	G
25	DA	2385	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	2388	A
25	DA	2400	G
25	DA	2402	C
25	DA	2406	U
25	DA	2410	G
25	DA	2417	C
25	DA	2419	U
25	DA	2422	A
25	DA	2423	U
25	DA	2425	A
25	DA	2429	G
25	DA	2430	A
25	DA	2432	A
25	DA	2435	A
25	DA	2439	A
25	DA	2441	C
25	DA	2442	C
25	DA	2445	G
25	DA	2448	A
25	DA	2458	G
25	DA	2465	C
25	DA	2474	C
25	DA	2476	A
25	DA	2490	G
25	DA	2492	U
25	DA	2502	G
25	DA	2505	G
25	DA	2518	A
25	DA	2520	C
25	DA	2529	G
25	DA	2554	U
25	DA	2555	U
25	DA	2566	A
25	DA	2567	G
25	DA	2573	C
25	DA	2582	G
25	DA	2592	G
25	DA	2602	A
25	DA	2609	U
25	DA	2611	U
25	DA	2612	C
25	DA	2615	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	2629	A
25	DA	2630	G
25	DA	2654	A
25	DA	2663	G
25	DA	2668	G
25	DA	2669	G
25	DA	2689	U
25	DA	2690	C
25	DA	2691	C
25	DA	2702	U
25	DA	2703	C
25	DA	2712(A)	A
25	DA	2713	A
25	DA	2714	G
25	DA	2726	U
25	DA	2733	A
25	DA	2739	U
25	DA	2751	G
25	DA	2757	A
25	DA	2758	A
25	DA	2764	A
25	DA	2765	A
25	DA	2766	G
25	DA	2778	A
25	DA	2793	G
25	DA	2794	C
25	DA	2802	G
25	DA	2809	A
25	DA	2818	G
25	DA	2820	A
25	DA	2821	A
25	DA	2833	G
25	DA	2834	G
25	DA	2835	A
25	DA	2861	G
25	DA	2866	U
25	DA	2872	G
25	DA	2875	C
25	DA	2879	C
25	DA	2880	C
25	DA	2886	G
25	DA	2892	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	2894	G
25	DA	2895	U
25	DA	2896	C
25	DA	2897	U
26	DB	2	C
26	DB	3	C
26	DB	5	C
26	DB	7	G
26	DB	8	U
26	DB	13	A
26	DB	22	U
26	DB	24	G
26	DB	25	A
26	DB	28	C
26	DB	32	C
26	DB	34	U
26	DB	42	C
26	DB	44	G
26	DB	50	G
26	DB	56	G
26	DB	60	C
26	DB	73	A
26	DB	75	G
26	DB	85	G
26	DB	106	G
26	DB	110	G
26	DB	117	G
26	DB	118	G
26	DB	119	G

All (116) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	115	G
1	AA	266	G
1	AA	347	G
1	AA	429	U
1	AA	509	A
1	AA	532	A
1	AA	560	U
1	AA	687	A
1	AA	748	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	AA	793	U
1	AA	840	C
1	AA	913	A
1	AA	991	U
1	AA	1026	G
1	AA	1064	G
1	AA	1065	U
1	AA	1183	A
1	AA	1201	A
1	AA	1211	U
1	AA	1281	U
1	AA	1285	A
1	AA	1299	A
1	AA	1442	G
1	AA	1446	U
1	AA	1492	A
1	AA	1493	A
25	BA	185	A
25	BA	270	C
25	BA	302	A
25	BA	793	A
25	BA	874	U
25	BA	1019	G
25	BA	1093	G
25	BA	1219	A
25	BA	1220	U
25	BA	1221	G
25	BA	1255	A
25	BA	1286	U
25	BA	1425	A
25	BA	1466	U
25	BA	1577	C
25	BA	1654	A
25	BA	1700	G
25	BA	1710	C
25	BA	2014	G
25	BA	2132	G
25	BA	2156	A
25	BA	2164	C
25	BA	2203	G
25	BA	2205	C
25	BA	2209	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	BA	2418	U
25	BA	2442	A
25	BA	2623	U
25	BA	2701	U
25	BA	2769	U
25	BA	2902	G
1	CA	60	A
1	CA	65	U
1	CA	115	G
1	CA	266	G
1	CA	429	U
1	CA	509	A
1	CA	532	A
1	CA	560	U
1	CA	687	A
1	CA	748	C
1	CA	793	U
1	CA	840	C
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1005	A
1	CA	1064	G
1	CA	1065	U
1	CA	1128	C
1	CA	1129	C
1	CA	1183	A
1	CA	1201	A
1	CA	1211	U
1	CA	1212	U
1	CA	1256	A
1	CA	1279	A
1	CA	1281	U
1	CA	1442	G
1	CA	1446	U
1	CA	1492	A
1	CA	1493	A
1	CA	1531	A
25	DA	195	A
25	DA	249	C
25	DA	271(K)	U
25	DA	277	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	DA	530	G
25	DA	587	C
25	DA	646	A
25	DA	752	A
25	DA	774	A
25	DA	827	U
25	DA	856	C
25	DA	900	A
25	DA	1026	U
25	DA	1210	A
25	DA	1420	U
25	DA	1530	C
25	DA	1558	A
25	DA	1653	G
25	DA	1913	A
25	DA	1992	G
25	DA	2110	G
25	DA	2126	A
25	DA	2134	A
25	DA	2156	G
25	DA	2406	U
25	DA	2689	U
25	DA	2756	U

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

8 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	$\# Z > 2$
23	5MC	AX	32	23	20,22,23	1.81	4 (20%)	26,32,35	1.63	5 (19%)
23	5MU	AX	54	23	20,22,23	1.68	5 (25%)	25,32,35	1.86	3 (12%)
23	PSU	AX	55	23	19,21,22	1.96	4 (21%)	23,30,33	1.21	2 (8%)
23	4SU	AX	8	23	19,21,22	1.76	3 (15%)	23,30,33	36.50	3 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
23	5MC	CX	32	23	20,22,23	1.72	4 (20%)	26,32,35	1.60	4 (15%)
23	5MU	CX	54	23	20,22,23	1.59	5 (25%)	25,32,35	2.07	4 (16%)
23	PSU	CX	55	23	19,21,22	1.88	4 (21%)	23,30,33	1.11	2 (8%)
23	4SU	CX	8	23	19,21,22	1.80	4 (21%)	23,30,33	32.23	2 (8%)

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
23	5MC	AX	32	23	-	0/6/25/26	0/2/2/2
23	5MU	AX	54	23	-	0/6/25/26	0/2/2/2
23	PSU	AX	55	23	-	0/8/25/26	0/2/2/2
23	4SU	AX	8	23	-	0/6/25/26	0/2/2/2
23	5MC	CX	32	23	-	0/6/25/26	0/2/2/2
23	5MU	CX	54	23	-	0/6/25/26	0/2/2/2
23	PSU	CX	55	23	-	0/8/25/26	0/2/2/2
23	4SU	CX	8	23	-	0/6/25/26	0/2/2/2

All (33) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	AX	55	PSU	C5-C1'	-5.02	1.47	1.52
23	AX	32	5MC	C5-C4	4.87	1.49	1.41
23	CX	8	4SU	P-OP1	4.55	1.51	1.46
23	CX	32	5MC	C5-C4	4.38	1.48	1.41
23	CX	54	5MU	P-OP1	4.37	1.51	1.46
23	CX	55	PSU	P-OP1	4.29	1.51	1.46
23	CX	8	4SU	O2-C2	4.26	1.27	1.21
23	AX	8	4SU	P-OP1	4.26	1.51	1.46
23	AX	32	5MC	P-OP1	4.17	1.51	1.46
23	AX	55	PSU	P-OP1	4.15	1.51	1.46
23	CX	32	5MC	P-OP1	4.08	1.51	1.46
23	AX	54	5MU	P-OP1	3.99	1.51	1.46
23	AX	8	4SU	O2-C2	3.99	1.27	1.21
23	CX	55	PSU	C5-C1'	-3.98	1.48	1.52
23	AX	8	4SU	C4-S4	-3.89	1.59	1.67
23	AX	32	5MC	C2-N1	3.55	1.42	1.38
23	CX	54	5MU	C4-C5	3.48	1.48	1.40
23	CX	32	5MC	C2-N1	3.46	1.42	1.38

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	CX	55	PSU	C4-C5	3.40	1.48	1.40
23	AX	54	5MU	C4-C5	3.34	1.48	1.40
23	CX	55	PSU	O2-C2	3.29	1.26	1.21
23	CX	8	4SU	C4-S4	-3.15	1.61	1.67
23	AX	55	PSU	C4-C5	3.07	1.47	1.40
23	AX	54	5MU	O2-C2	3.00	1.25	1.21
23	AX	55	PSU	O2-C2	2.90	1.25	1.21
23	AX	54	5MU	C2-N1	2.85	1.41	1.38
23	AX	54	5MU	C4-N3	-2.78	1.32	1.36
23	CX	8	4SU	C2-N1	2.78	1.41	1.38
23	CX	32	5MC	O2-C2	2.73	1.25	1.21
23	AX	32	5MC	O2-C2	2.68	1.25	1.21
23	CX	54	5MU	O2-C2	2.49	1.25	1.21
23	CX	54	5MU	C4-N3	-2.22	1.33	1.36
23	CX	54	5MU	C2-N1	2.11	1.40	1.38

All (25) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AX	8	4SU	C4-N3-C2	174.98	129.08	121.60
23	CX	8	4SU	C4-N3-C2	154.28	128.20	121.60
23	CX	8	4SU	C2-N1-C1'	9.27	124.02	118.21
23	CX	54	5MU	N3-C2-N1	6.69	121.56	115.97
23	AX	54	5MU	C6-N1-C2	-6.39	120.59	122.41
23	CX	54	5MU	C6-N1-C2	-6.04	120.69	122.41
23	AX	54	5MU	N3-C2-N1	5.35	120.44	115.97
23	CX	32	5MC	C2-N3-C4	4.84	120.14	115.50
23	AX	32	5MC	C2-N3-C4	4.57	119.87	115.50
23	AX	8	4SU	C2-N1-C1'	4.36	120.94	118.21
23	AX	55	PSU	C5-C1'-C2'	-3.96	108.39	115.73
23	AX	32	5MC	C5-C6-N1	-3.67	118.72	122.02
23	CX	32	5MC	C6-N1-C2	3.10	121.08	118.86
23	CX	55	PSU	C5-C1'-C2'	-3.01	110.15	115.73
23	CX	32	5MC	N4-C4-N3	2.96	121.22	116.99
23	CX	54	5MU	C5-C6-N1	-2.88	119.43	122.02
23	CX	32	5MC	C5-C6-N1	-2.66	119.63	122.02
23	AX	54	5MU	C5-C6-N1	-2.60	119.69	122.02
23	AX	32	5MC	C6-N1-C2	2.49	120.65	118.86
23	AX	55	PSU	C4-N3-C2	-2.20	120.89	125.36
23	AX	32	5MC	N4-C4-N3	2.19	120.11	116.99
23	CX	55	PSU	C4-N3-C2	-2.19	120.93	125.36
23	AX	32	5MC	CM5-C5-C4	-2.17	119.24	121.43

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AX	8	4SU	N3-C2-N1	-2.04	114.27	115.97
23	CX	54	5MU	C4-N3-C2	-2.01	121.27	125.39

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 2061 ligands modelled in this entry, 2057 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$
57	PCY	AA	3191	-	42,42,42	1.83	7 (16%)	65,65,65	1.70	11 (16%)
58	SF4	AD	501	4	12,12,12	21.75	12 (100%)	0,24,24	0.00	-
57	PCY	CA	3176	-	42,42,42	1.54	5 (11%)	65,65,65	1.48	9 (13%)
58	SF4	CD	501	4	12,12,12	21.62	12 (100%)	0,24,24	0.00	-

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	PCY	AA	3191	-	-	0/33/67/67	0/3/3/3
58	SF4	AD	501	4	-	0/0/48/48	0/6/5/5
57	PCY	CA	3176	-	-	0/33/67/67	0/3/3/3
58	SF4	CD	501	4	-	0/0/48/48	0/6/5/5

All (36) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	AD	501	SF4	S4-FE2	-23.64	2.17	2.33
58	AD	501	SF4	S2-FE4	-23.63	2.17	2.33
58	AD	501	SF4	S3-FE1	-23.21	2.17	2.33
58	CD	501	SF4	S4-FE1	-23.14	2.17	2.33
58	AD	501	SF4	S1-FE2	-22.82	2.17	2.33
58	CD	501	SF4	S4-FE2	-22.75	2.17	2.33
58	CD	501	SF4	S1-FE3	-22.47	2.18	2.33
58	AD	501	SF4	S1-FE3	-22.07	2.18	2.33
58	CD	501	SF4	S2-FE1	-22.00	2.18	2.33
58	AD	501	SF4	S3-FE4	-21.90	2.18	2.33
58	CD	501	SF4	S3-FE1	-21.37	2.18	2.33
58	CD	501	SF4	S2-FE3	-21.28	2.18	2.33
58	AD	501	SF4	S4-FE3	-21.25	2.19	2.33
58	CD	501	SF4	S3-FE2	-21.16	2.19	2.33
58	CD	501	SF4	S1-FE2	-21.13	2.19	2.33
58	CD	501	SF4	S3-FE4	-21.01	2.19	2.33
58	CD	501	SF4	S1-FE4	-21.00	2.19	2.33
58	CD	501	SF4	S2-FE4	-20.99	2.19	2.33
58	CD	501	SF4	S4-FE3	-20.97	2.19	2.33
58	AD	501	SF4	S3-FE2	-20.85	2.19	2.33
58	AD	501	SF4	S2-FE1	-20.68	2.19	2.33
58	AD	501	SF4	S1-FE4	-20.61	2.19	2.33
58	AD	501	SF4	S2-FE3	-20.03	2.19	2.33
58	AD	501	SF4	S4-FE1	-19.91	2.19	2.33
57	AA	3191	PCY	C34-C30	-5.75	1.39	1.51
57	CA	3176	PCY	C34-C30	-5.45	1.40	1.51
57	AA	3191	PCY	C28-C32	-5.39	1.39	1.49
57	CA	3176	PCY	C28-C32	-4.75	1.40	1.49
57	AA	3191	PCY	C17-N20	4.42	1.51	1.45
57	CA	3176	PCY	C27-C23	-4.06	1.39	1.50
57	AA	3191	PCY	C27-C23	-3.67	1.40	1.50
57	AA	3191	PCY	C3-C6	3.24	1.57	1.52
57	AA	3191	PCY	C18-C15	2.69	1.57	1.51
57	CA	3176	PCY	C17-N20	2.62	1.48	1.45
57	CA	3176	PCY	C22-N20	-2.59	1.34	1.39
57	AA	3191	PCY	C22-N20	-2.55	1.34	1.39

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	AA	3191	PCY	C6-C3-N2	6.04	112.61	107.39
57	CA	3176	PCY	C15-C17-C8	-4.94	94.35	104.27

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	AA	3191	PCY	C8-C17-N20	4.92	121.63	112.80
57	CA	3176	PCY	C18-C15-C17	-3.99	107.11	115.35
57	CA	3176	PCY	C6-C3-N2	3.94	110.80	107.39
57	CA	3176	PCY	C13-C7-C3	-3.94	107.96	115.68
57	AA	3191	PCY	O21-C23-C27	3.86	121.35	112.32
57	AA	3191	PCY	O21-C18-C15	3.60	115.29	108.01
57	AA	3191	PCY	C7-C15-C17	-3.53	99.79	105.03
57	AA	3191	PCY	C7-C3-C8	-3.24	96.73	102.92
57	AA	3191	PCY	C3-C8-C17	-2.95	92.35	103.25
57	CA	3176	PCY	C10-N4-C9	2.59	123.39	115.70
57	AA	3191	PCY	C18-O21-C23	-2.58	110.93	116.57
57	AA	3191	PCY	C10-N4-C9	2.55	123.27	115.70
57	CA	3176	PCY	O19-C15-C17	2.46	116.65	108.46
57	CA	3176	PCY	C7-C15-C17	-2.38	101.49	105.03
57	AA	3191	PCY	C30-C27-C23	2.34	127.43	120.41
57	AA	3191	PCY	O36-C31-C27	-2.17	116.88	121.11
57	CA	3176	PCY	C18-O21-C23	-2.14	111.90	116.57
57	CA	3176	PCY	O36-C31-C27	-2.10	117.01	121.11

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1497/1521 (98%)	0.16	13 (0%) 81 85	40, 76, 97, 113	0
1	CA	1503/1521 (98%)	0.20	62 (4%) 35 40	42, 77, 97, 113	0
2	AB	231/256 (90%)	1.50	72 (31%) 1 1	71, 85, 93, 98	0
2	CB	231/256 (90%)	3.35	147 (63%) 0 0	71, 86, 94, 98	0
3	AC	206/239 (86%)	1.59	75 (36%) 1 1	69, 83, 91, 95	0
3	CC	206/239 (86%)	2.40	118 (57%) 0 0	69, 84, 92, 96	0
4	AD	208/209 (99%)	1.72	70 (33%) 1 1	60, 76, 86, 91	0
4	CD	208/209 (99%)	2.06	94 (45%) 1 0	60, 76, 84, 89	0
5	AE	148/162 (91%)	0.95	20 (13%) 4 4	56, 72, 81, 88	0
5	CE	148/162 (91%)	1.65	52 (35%) 1 1	58, 74, 83, 89	0
6	AF	100/101 (99%)	1.13	25 (25%) 1 1	61, 74, 82, 85	0
6	CF	100/101 (99%)	0.76	17 (17%) 2 2	62, 75, 83, 86	0
7	AG	155/156 (99%)	1.94	59 (38%) 1 1	69, 79, 89, 98	0
7	CG	155/156 (99%)	1.78	59 (38%) 1 1	70, 80, 90, 99	0
8	AH	137/138 (99%)	0.98	21 (15%) 3 3	61, 74, 81, 85	0
8	CH	137/138 (99%)	1.49	45 (32%) 1 1	63, 75, 83, 88	0
9	AI	127/128 (99%)	2.40	66 (51%) 0 0	63, 85, 91, 94	0
9	CI	127/128 (99%)	4.27	98 (77%) 0 0	70, 86, 92, 96	0
10	AJ	97/105 (92%)	2.42	50 (51%) 0 0	73, 87, 94, 97	0
10	CJ	96/105 (91%)	4.61	87 (90%) 0 0	76, 89, 95, 96	0
11	AK	114/129 (88%)	0.80	12 (10%) 7 7	52, 72, 84, 87	0
11	CK	114/129 (88%)	0.33	4 (3%) 42 47	54, 74, 84, 87	0
12	AL	122/132 (92%)	0.89	17 (13%) 4 4	52, 67, 77, 81	0
12	CL	122/132 (92%)	2.28	67 (54%) 0 0	53, 67, 76, 81	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)		Q<0.9	
13	AM	120/126 (95%)	1.10	23 (19%)	2	2	53, 75, 85, 93	0
13	CM	118/126 (93%)	2.73	70 (59%)	0	0	71, 88, 94, 98	0
14	AN	60/61 (98%)	1.79	25 (41%)	1	0	74, 80, 88, 90	0
14	CN	60/61 (98%)	5.70	52 (86%)	0	0	75, 83, 88, 92	0
15	AO	88/89 (98%)	1.22	20 (22%)	1	1	55, 69, 81, 85	0
15	CO	88/89 (98%)	1.48	23 (26%)	1	1	58, 71, 82, 86	0
16	AP	82/88 (93%)	2.67	44 (53%)	0	0	64, 75, 84, 91	0
16	CP	82/88 (93%)	1.91	35 (42%)	1	0	63, 73, 83, 89	0
17	AQ	99/105 (94%)	1.07	25 (25%)	1	1	55, 70, 79, 81	0
17	CQ	99/105 (94%)	1.70	41 (41%)	1	0	58, 71, 80, 84	0
18	AR	68/88 (77%)	1.49	17 (25%)	1	1	62, 74, 84, 89	0
18	CR	68/88 (77%)	1.18	15 (22%)	1	1	64, 74, 84, 91	0
19	AS	83/93 (89%)	1.16	17 (20%)	1	2	75, 85, 93, 94	0
19	CS	83/93 (89%)	3.17	60 (72%)	0	0	78, 87, 93, 96	0
20	AT	96/106 (90%)	1.27	27 (28%)	1	1	63, 72, 82, 87	0
20	CT	96/106 (90%)	1.51	31 (32%)	1	1	61, 73, 82, 87	0
21	AU	23/27 (85%)	0.59	1 (4%)	34	38	71, 77, 79, 81	0
21	CU	23/27 (85%)	2.95	15 (65%)	0	0	72, 79, 81, 83	0
22	AV	8/24 (33%)	1.80	4 (50%)	0	0	62, 89, 94, 97	0
22	CV	5/24 (20%)	1.80	2 (40%)	1	0	65, 73, 91, 96	0
23	AX	76/77 (98%)	0.19	1 (1%)	74	79	40, 71, 88, 98	0
23	CX	76/77 (98%)	-0.18	2 (2%)	53	59	43, 75, 90, 97	0
24	AY	18/76 (23%)	3.66	13 (72%)	0	0	62, 104, 109, 109	0
24	CY	5/76 (6%)	4.76	5 (100%)	0	0	74, 101, 102, 106	0
25	BA	2822/2915 (96%)	0.72	77 (2%)	52	57	18, 41, 91, 109	0
25	DA	2800/2915 (96%)	-0.09	41 (1%)	70	75	22, 45, 91, 112	0
26	BB	120/121 (99%)	0.61	0	100	100	31, 63, 75, 88	0
26	DB	120/121 (99%)	0.16	13 (10%)	6	6	38, 69, 81, 91	0
27	BD	275/276 (99%)	0.82	24 (8%)	10	10	20, 39, 58, 77	0
27	DD	275/276 (99%)	0.74	21 (7%)	14	14	22, 42, 60, 78	0
28	BE	204/206 (99%)	0.71	6 (2%)	49	55	19, 44, 64, 86	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å ²)	Q<0.9
28	DE	204/206 (99%)	0.77	22 (10%)	6 6	22, 48, 66, 86	0
29	BF	203/210 (96%)	0.94	21 (10%)	7 7	21, 50, 74, 91	0
29	DF	203/210 (96%)	1.69	68 (33%)	1 1	24, 55, 77, 90	0
30	BG	181/182 (99%)	0.90	24 (13%)	4 4	55, 71, 83, 96	0
30	DG	181/182 (99%)	2.65	98 (54%)	0 0	60, 75, 84, 95	0
31	BH	174/180 (96%)	0.56	3 (1%)	67 73	45, 64, 75, 84	0
31	DH	174/180 (96%)	1.93	69 (39%)	1 0	53, 68, 79, 86	0
32	BI	146/148 (98%)	2.01	70 (47%)	1 0	48, 75, 84, 88	0
32	DI	146/148 (98%)	1.21	47 (32%)	1 1	51, 75, 84, 88	0
33	BN	140/140 (100%)	0.68	3 (2%)	60 67	28, 45, 69, 79	0
33	DN	140/140 (100%)	1.15	28 (20%)	2 2	33, 49, 71, 81	0
34	BO	122/122 (100%)	0.53	2 (1%)	68 74	31, 45, 63, 70	0
34	DO	122/122 (100%)	0.60	6 (4%)	28 31	34, 48, 64, 70	0
35	BP	149/150 (99%)	0.94	18 (12%)	5 5	18, 53, 74, 82	0
35	DP	149/150 (99%)	1.32	41 (27%)	1 1	20, 56, 76, 84	0
36	BQ	141/141 (100%)	0.73	6 (4%)	34 38	29, 48, 65, 77	0
36	DQ	141/141 (100%)	1.47	42 (29%)	1 1	32, 52, 69, 78	0
37	BR	118/118 (100%)	0.44	1 (0%)	83 87	19, 32, 49, 62	0
37	DR	118/118 (100%)	1.28	27 (22%)	1 1	35, 53, 66, 78	0
38	BS	110/112 (98%)	0.60	9 (8%)	12 12	30, 47, 65, 70	0
38	DS	110/112 (98%)	2.48	50 (45%)	1 0	63, 77, 88, 93	0
39	BT	131/146 (89%)	0.46	4 (3%)	47 52	30, 43, 71, 85	0
39	DT	131/146 (89%)	0.66	8 (6%)	21 22	43, 59, 78, 88	0
40	BU	116/118 (98%)	0.34	1 (0%)	81 85	15, 27, 48, 62	0
40	DU	116/118 (98%)	0.90	15 (12%)	4 4	38, 59, 76, 87	0
41	BV	101/101 (100%)	0.36	2 (1%)	62 68	14, 35, 57, 76	0
41	DV	101/101 (100%)	1.13	20 (19%)	2 2	43, 71, 84, 90	0
42	BW	112/113 (99%)	0.43	3 (2%)	52 57	17, 28, 50, 75	0
42	DW	112/113 (99%)	0.99	13 (11%)	5 6	34, 50, 68, 92	0
43	BX	95/96 (98%)	0.42	2 (2%)	60 67	17, 35, 65, 78	0
43	DX	95/96 (98%)	2.02	40 (42%)	1 0	44, 62, 77, 90	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	BY	107/110 (97%)	0.50	3 (2%) 50 56	28, 47, 67, 85	0
44	DY	107/110 (97%)	2.15	57 (53%) 0 0	51, 72, 83, 88	0
45	BZ	171/206 (83%)	0.64	16 (9%) 9 8	36, 62, 81, 90	0
45	DZ	174/206 (84%)	2.32	94 (54%) 0 0	66, 83, 93, 96	0
46	B0	83/85 (97%)	0.69	7 (8%) 11 12	12, 33, 66, 84	0
46	D0	83/85 (97%)	1.61	25 (30%) 1 1	34, 64, 78, 91	0
47	B1	97/98 (98%)	1.10	16 (16%) 2 3	19, 43, 69, 72	0
47	D1	97/98 (98%)	0.75	9 (9%) 9 9	37, 57, 78, 82	0
48	B2	70/72 (97%)	0.60	3 (4%) 34 38	30, 46, 63, 77	0
48	D2	70/72 (97%)	1.93	31 (44%) 1 0	56, 71, 80, 85	0
49	B3	59/60 (98%)	0.23	1 (1%) 67 73	20, 31, 56, 83	0
49	D3	59/60 (98%)	2.45	33 (55%) 0 0	47, 62, 77, 91	0
50	B4	69/71 (97%)	1.31	19 (27%) 1 1	55, 77, 92, 99	0
50	D4	69/71 (97%)	2.17	30 (43%) 1 0	77, 91, 99, 105	0
51	B5	59/60 (98%)	0.32	1 (1%) 67 73	11, 28, 53, 67	0
51	D5	59/60 (98%)	0.52	3 (5%) 27 30	27, 52, 68, 81	0
52	B6	53/54 (98%)	0.50	1 (1%) 64 70	27, 39, 56, 67	0
52	D6	53/54 (98%)	0.60	5 (9%) 9 8	45, 62, 73, 79	0
53	B7	48/49 (97%)	0.80	6 (12%) 5 5	16, 23, 52, 68	0
53	D7	48/49 (97%)	0.87	8 (16%) 2 3	29, 40, 64, 77	0
54	B8	64/65 (98%)	0.79	4 (6%) 19 21	24, 31, 43, 61	0
54	D8	64/65 (98%)	0.92	6 (9%) 9 8	44, 53, 63, 72	0
55	B9	37/37 (100%)	1.03	6 (16%) 2 3	28, 45, 67, 72	0
55	D9	37/37 (100%)	1.38	11 (29%) 1 1	44, 55, 68, 75	0
All	All	20648/21596 (95%)	0.91	3258 (15%) 3 3	11, 64, 91, 113	0

All (3258) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
13	AM	2	ALA	20.1
2	CB	165	VAL	18.9
10	CJ	47	PHE	15.1
14	CN	25	VAL	14.3
10	CJ	65	LEU	13.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	CJ	63	PHE	13.4
2	CB	70	PHE	13.4
49	D3	60	GLU	13.3
2	CB	163	PHE	13.1
9	AI	47	LEU	13.1
9	CI	6	GLY	12.2
9	AI	19	LEU	11.8
24	AY	1	G	11.6
9	CI	9	ARG	11.3
10	AJ	8	LEU	11.3
25	BA	2154	U	11.3
7	CG	82	GLY	11.3
2	CB	69	LEU	11.2
10	CJ	49	VAL	11.0
30	DG	139	LEU	11.0
9	CI	5	TYR	11.0
14	CN	53	LEU	10.8
14	CN	39	LEU	10.6
2	CB	83	MET	10.5
2	CB	214	ILE	10.5
14	CN	56	VAL	10.4
7	CG	16	LEU	10.4
43	DX	92	LEU	10.3
14	CN	36	PHE	10.3
9	CI	47	LEU	10.2
38	DS	34	HIS	10.2
14	CN	37	PHE	10.2
7	AG	85	TYR	10.0
46	B0	3	HIS	10.0
10	CJ	71	LEU	10.0
10	CJ	67	THR	9.9
13	CM	7	VAL	9.9
9	CI	4	TYR	9.9
14	CN	34	TYR	9.7
9	CI	15	ALA	9.7
2	CB	92	TYR	9.6
2	CB	187	LEU	9.6
10	CJ	6	ILE	9.5
2	CB	200	ILE	9.5
38	DS	58	LEU	9.5
2	CB	81	VAL	9.3
9	CI	19	LEU	9.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	CB	68	ILE	9.2
19	CS	49	ILE	9.1
9	CI	7	THR	9.0
2	CB	215	LEU	9.0
14	CN	50	LYS	9.0
46	B0	5	LYS	9.0
14	CN	38	GLY	9.0
9	CI	21	PRO	9.0
9	CI	76	ALA	8.9
10	CJ	64	GLU	8.9
38	DS	35	ILE	8.9
14	CN	47	LEU	8.9
2	CB	152	PHE	8.8
2	CB	101	MET	8.8
14	CN	8	GLU	8.7
9	CI	45	ALA	8.7
14	CN	58	LYS	8.7
45	DZ	125	LEU	8.7
31	DH	115	VAL	8.7
14	CN	44	LEU	8.6
30	DG	102	PHE	8.6
1	CA	1030(B)	C	8.5
9	CI	46	ALA	8.5
2	CB	228	GLY	8.5
3	AC	201	TYR	8.5
2	CB	162	ILE	8.4
2	CB	77	ALA	8.4
14	CN	35	ARG	8.4
2	CB	188	ALA	8.4
19	CS	31	ILE	8.3
10	CJ	50	ILE	8.3
30	DG	169	ALA	8.2
13	CM	64	TRP	8.2
31	DH	96	ALA	8.1
38	DS	31	SER	8.1
2	CB	164	VAL	8.1
21	CU	6	ARG	8.1
2	CB	232	PRO	8.1
4	AD	180	GLY	8.1
2	CB	201	ILE	8.1
46	B0	7	LEU	8.0
2	CB	218	ALA	8.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	CB	88	ALA	8.0
14	CN	55	GLY	8.0
13	CM	66	LEU	8.0
9	CI	59	PHE	8.0
14	CN	26	ARG	7.9
10	CJ	66	ARG	7.9
9	CI	18	PHE	7.9
9	CI	61	ALA	7.8
2	CB	71	VAL	7.8
2	AB	165	VAL	7.8
10	AJ	47	PHE	7.8
46	B0	4	LYS	7.8
3	CC	184	TYR	7.8
4	CD	164	ALA	7.8
9	AI	46	ALA	7.7
14	CN	11	LYS	7.7
45	DZ	155	LEU	7.7
7	AG	82	GLY	7.7
14	CN	2	ALA	7.7
10	AJ	10	GLY	7.7
30	DG	120	LEU	7.7
3	CC	57	ILE	7.7
9	CI	79	LEU	7.6
13	CM	120	LYS	7.6
9	CI	42	ARG	7.6
9	CI	83	ARG	7.6
16	AP	68	ASP	7.6
10	CJ	20	ALA	7.6
25	BA	2151	C	7.6
35	DP	1	MET	7.6
9	CI	33	PHE	7.6
16	AP	19	ILE	7.6
10	CJ	38	ILE	7.5
9	AI	81	ILE	7.5
50	D4	50	VAL	7.5
14	CN	57	ARG	7.4
36	DQ	104	PHE	7.4
7	AG	78	ARG	7.4
38	DS	57	LYS	7.4
2	CB	229	VAL	7.4
10	CJ	40	LEU	7.4
1	CA	1036	G	7.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	DF	12	LEU	7.4
9	AI	59	PHE	7.4
9	CI	10	ARG	7.4
19	CS	40	ILE	7.4
2	CB	93	VAL	7.3
10	CJ	72	VAL	7.3
4	CD	4	TYR	7.2
12	CL	69	TYR	7.2
4	CD	157	LEU	7.2
10	AJ	66	ARG	7.2
21	CU	14	TRP	7.2
10	AJ	98	ILE	7.2
10	CJ	41	PRO	7.1
14	CN	29	ARG	7.1
13	CM	78	ILE	7.1
7	CG	79	ARG	7.1
31	DH	97	ARG	7.1
16	AP	6	LEU	7.1
10	CJ	48	THR	7.1
30	DG	178	PHE	7.1
30	DG	142	PRO	7.1
9	CI	81	ILE	7.0
3	CC	167	TRP	7.0
2	AB	228	GLY	7.0
13	CM	5	ALA	7.0
30	DG	34	LEU	7.0
2	CB	97	TRP	7.0
20	AT	80	ARG	7.0
9	CI	37	PHE	7.0
14	CN	6	LEU	7.0
38	DS	32	LEU	7.0
38	DS	52	SER	7.0
7	AG	79	ARG	7.0
45	DZ	171	ILE	7.0
30	DG	39	ILE	6.9
19	AS	40	ILE	6.9
3	CC	201	TYR	6.9
50	D4	49	PHE	6.9
19	CS	38	SER	6.9
24	AY	75	C	6.9
10	CJ	26	ALA	6.9
14	CN	10	ALA	6.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
4	CD	156	GLU	6.9
43	DX	91	ALA	6.8
10	CJ	46	ARG	6.8
9	AI	50	LEU	6.8
19	CS	71	LEU	6.8
14	CN	23	ARG	6.8
7	CG	40	ALA	6.8
13	CM	6	GLY	6.8
4	AD	174	LEU	6.8
4	CD	120	LEU	6.8
2	CB	230	VAL	6.8
50	D4	51	ASP	6.7
30	DG	19	LEU	6.7
38	DS	54	LEU	6.7
4	CD	179	GLU	6.7
9	CI	65	VAL	6.7
3	CC	168	ALA	6.7
7	CG	84	ASN	6.7
9	CI	26	VAL	6.7
38	DS	56	LEU	6.7
9	CI	14	VAL	6.7
45	DZ	98	MET	6.6
20	CT	9	ASN	6.6
10	AJ	63	PHE	6.6
14	CN	41	ARG	6.6
10	AJ	71	LEU	6.6
50	D4	56	VAL	6.6
30	DG	141	PHE	6.6
25	DA	229	A	6.6
38	DS	65	VAL	6.6
14	CN	30	ALA	6.6
46	D0	2	ALA	6.6
14	CN	49	HIS	6.6
12	CL	68	ALA	6.6
3	CC	189	ALA	6.6
10	AJ	97	GLU	6.6
45	DZ	161	VAL	6.6
24	AY	2	C	6.6
16	CP	19	ILE	6.6
10	CJ	8	LEU	6.5
2	CB	223	ILE	6.5
1	CA	1257	U	6.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
14	CN	7	ILE	6.5
32	DI	77	LEU	6.5
16	AP	36	ILE	6.5
25	BA	2153	G	6.5
31	DH	107	VAL	6.5
2	CB	211	ILE	6.5
3	CC	134	ILE	6.5
47	B1	98	LEU	6.5
9	CI	66	ARG	6.4
9	CI	49	PRO	6.4
2	CB	67	THR	6.4
24	CY	73	A	6.4
2	AB	196	LEU	6.4
9	CI	106	ALA	6.4
3	CC	6	HIS	6.4
49	D3	2	PRO	6.4
10	CJ	10	GLY	6.4
25	DA	2160	G	6.4
31	DH	128	PRO	6.4
50	D4	43	TYR	6.3
7	AG	156	TRP	6.3
19	CS	41	VAL	6.3
2	CB	66	GLY	6.3
46	B0	6	GLY	6.3
50	D4	40	HIS	6.3
24	CY	74	C	6.3
25	BA	2182	G	6.3
9	CI	17	VAL	6.3
32	BI	35	LEU	6.3
48	D2	1	MET	6.3
38	DS	29	PHE	6.3
7	CG	33	ASP	6.2
43	DX	28	PHE	6.2
16	AP	17	TYR	6.2
4	AD	176	LEU	6.2
9	CI	20	ARG	6.2
9	CI	36	TYR	6.2
29	DF	172	TRP	6.2
13	CM	102	ARG	6.2
12	CL	64	TYR	6.2
2	CB	48	MET	6.2
2	CB	197	VAL	6.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
31	DH	94	TYR	6.2
38	DS	33	LYS	6.1
9	CI	62	TYR	6.1
31	DH	105	LEU	6.1
5	CE	94	ALA	6.1
36	DQ	65	PHE	6.1
19	CS	13	ASP	6.1
14	CN	54	PRO	6.1
31	DH	112	PRO	6.1
2	CB	222	ILE	6.1
30	DG	137	GLU	6.1
19	CS	16	LEU	6.1
13	CM	80	ARG	6.0
14	CN	42	ILE	6.0
7	CG	22	LEU	6.0
10	CJ	34	VAL	6.0
38	DS	60	GLY	6.0
49	D3	29	ARG	6.0
27	BD	276	LYS	6.0
9	CI	114	TYR	6.0
45	DZ	99	TYR	6.0
29	BF	17	ARG	6.0
31	DH	102	ALA	6.0
10	AJ	7	LYS	6.0
3	CC	8	ILE	6.0
8	AH	2	LEU	6.0
19	AS	41	VAL	6.0
19	CS	11	VAL	6.0
4	AD	179	GLU	6.0
3	AC	64	VAL	5.9
4	AD	157	LEU	5.9
14	AN	56	VAL	5.9
45	DZ	96	VAL	5.9
1	CA	1026	G	5.9
10	AJ	67	THR	5.9
30	DG	35	GLU	5.9
45	DZ	5	LEU	5.9
49	D3	26	LEU	5.9
50	D4	45	GLY	5.9
25	BA	1555	C	5.9
4	AD	3	ARG	5.9
2	CB	148	TYR	5.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	AS	39	THR	5.9
2	AB	77	ALA	5.9
9	CI	67	GLY	5.9
10	AJ	11	PHE	5.9
9	CI	64	THR	5.8
13	CM	65	LYS	5.8
4	CD	176	LEU	5.8
19	CS	30	LEU	5.8
13	AM	56	LEU	5.8
19	CS	33	THR	5.8
2	AB	214	ILE	5.8
30	DG	28	VAL	5.8
10	CJ	27	ALA	5.8
10	CJ	100	THR	5.8
14	CN	45	ARG	5.8
45	DZ	139	VAL	5.8
26	DB	25	A	5.8
2	AB	200	ILE	5.8
3	CC	182	ILE	5.8
13	CM	73	GLU	5.8
14	CN	59	ALA	5.8
7	AG	12	LEU	5.8
19	AS	71	LEU	5.8
30	DG	140	ILE	5.8
43	DX	43	VAL	5.8
2	CB	196	LEU	5.8
25	BA	2150	C	5.8
28	DE	1	MET	5.7
7	AG	83	ALA	5.7
45	DZ	121	HIS	5.7
9	CI	115	GLY	5.7
16	AP	39	TYR	5.7
10	CJ	62	HIS	5.7
31	DH	106	THR	5.7
50	B4	64	GLY	5.7
2	AB	215	LEU	5.7
9	CI	50	LEU	5.7
10	CJ	11	PHE	5.7
16	AP	80	PHE	5.7
10	CJ	18	ALA	5.7
12	CL	56	ALA	5.7
13	AM	4	ILE	5.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
25	BA	2152	U	5.7
2	CB	51	LEU	5.7
7	AG	16	LEU	5.7
43	DX	86	GLY	5.7
29	DF	139	PHE	5.7
10	AJ	9	ARG	5.6
7	AG	42	ILE	5.6
12	CL	100	ILE	5.6
2	CB	90	MET	5.6
53	D7	48	LYS	5.6
46	D0	5	LYS	5.6
10	CJ	85	LEU	5.6
32	BI	101	LEU	5.6
30	DG	173	LEU	5.6
25	BA	218	A	5.6
25	BA	2187	G	5.6
2	CB	177	ALA	5.6
7	AG	91	VAL	5.6
10	CJ	61	GLU	5.6
3	CC	19	GLU	5.6
2	CB	31	TYR	5.6
4	AD	170	VAL	5.6
12	AL	91	LYS	5.6
44	DY	61	ILE	5.6
9	CI	8	GLY	5.5
45	DZ	163	LEU	5.5
7	CG	37	ASN	5.5
16	AP	7	ALA	5.5
38	DS	36	TYR	5.5
4	CD	166	LYS	5.5
25	BA	2155	G	5.5
7	AG	154	TYR	5.5
45	DZ	156	LYS	5.5
10	CJ	60	ARG	5.5
25	BA	2137	G	5.5
4	AD	110	PHE	5.5
1	AA	1257	U	5.5
13	CM	60	VAL	5.5
3	CC	39	ILE	5.5
29	DF	146	ALA	5.5
50	D4	42	PHE	5.5
3	CC	142	MET	5.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
8	CH	2	LEU	5.5
12	CL	126	LYS	5.5
31	DH	159	GLU	5.5
19	CS	60	VAL	5.4
29	DF	140	LEU	5.4
3	AC	39	ILE	5.4
9	AI	42	ARG	5.4
3	AC	33	LEU	5.4
7	AG	80	VAL	5.4
9	CI	68	GLY	5.4
12	AL	89	ARG	5.4
31	DH	95	ARG	5.4
13	CM	92	HIS	5.4
32	DI	35	LEU	5.4
49	D3	59	VAL	5.4
1	CA	1149	C	5.4
10	CJ	39	PRO	5.4
24	CY	75	C	5.4
50	D4	52	THR	5.4
9	CI	44	VAL	5.4
14	CN	48	ALA	5.4
31	DH	43	VAL	5.4
9	CI	75	ASP	5.4
50	B4	52	THR	5.4
13	CM	72	ALA	5.4
4	CD	110	PHE	5.4
3	CC	23	TYR	5.4
30	DG	146	TYR	5.4
45	DZ	88	PHE	5.4
42	DW	112	GLY	5.4
7	AG	38	LEU	5.4
3	CC	186	PHE	5.3
24	AY	3	C	5.3
24	AY	74	C	5.3
25	BA	2196	C	5.3
19	CS	4	SER	5.3
26	DB	118	G	5.3
50	D4	67	TYR	5.3
44	DY	44	ILE	5.3
10	CJ	29	ARG	5.3
30	DG	62	LEU	5.3
18	AR	24	ALA	5.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	CM	84	ILE	5.3
7	CG	34	GLY	5.3
10	AJ	69	ASN	5.3
12	CL	120	TYR	5.3
3	CC	149	ALA	5.3
9	AI	41	VAL	5.3
13	CM	98	VAL	5.3
10	CJ	45	ARG	5.3
2	CB	231	GLU	5.3
9	CI	28	VAL	5.3
3	CC	21	ARG	5.3
4	CD	115	ARG	5.3
14	CN	12	ARG	5.3
16	AP	76	GLN	5.3
14	CN	46	GLU	5.3
43	DX	9	LEU	5.3
10	CJ	24	VAL	5.3
16	AP	20	VAL	5.3
44	DY	35	TYR	5.3
44	DY	45	VAL	5.3
49	D3	6	VAL	5.3
38	DS	59	LYS	5.3
10	CJ	43	ARG	5.2
3	CC	151	VAL	5.2
37	DR	47	PHE	5.2
2	CB	233	SER	5.2
22	AV	21	C	5.2
30	DG	86	MET	5.2
10	AJ	65	LEU	5.2
2	CB	186	ALA	5.2
25	BA	2210	C	5.2
4	CD	112	VAL	5.2
9	AI	55	ALA	5.2
32	DI	81	VAL	5.2
16	AP	42	ARG	5.2
38	DS	53	SER	5.2
4	AD	120	LEU	5.2
5	CE	12	LEU	5.2
9	CI	11	LYS	5.2
19	CS	15	LEU	5.2
25	BA	2134	G	5.2
3	CC	37	GLN	5.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	AG	26	PHE	5.2
4	AD	165	MET	5.2
2	AB	187	LEU	5.2
18	AR	25	THR	5.2
9	CI	43	ALA	5.2
7	AG	22	LEU	5.1
3	CC	187	ALA	5.1
8	CH	93	VAL	5.1
31	DH	111	HIS	5.1
44	DY	1	MET	5.1
43	DX	89	ILE	5.1
50	D4	54	GLY	5.1
7	CG	83	ALA	5.1
30	DG	161	THR	5.1
12	CL	32	PHE	5.1
46	D0	3	HIS	5.1
7	AG	84	ASN	5.1
7	CG	32	ARG	5.1
25	BA	2183	C	5.1
16	AP	29	ASP	5.1
31	DH	101	ARG	5.1
3	CC	33	LEU	5.1
10	AJ	72	VAL	5.1
2	AB	221	LEU	5.1
30	DG	138	GLN	5.1
45	DZ	97	GLU	5.1
46	D0	6	GLY	5.1
9	CI	109	VAL	5.0
8	CH	133	LEU	5.0
9	CI	74	ILE	5.0
25	BA	2188	G	5.0
22	CV	14	A	5.0
19	CS	5	LEU	5.0
3	CC	30	ARG	5.0
41	DV	101	GLY	5.0
3	AC	100	ALA	5.0
3	CC	198	VAL	5.0
13	CM	70	LEU	5.0
45	DZ	122	ARG	5.0
2	AB	163	PHE	5.0
2	CB	53	ARG	5.0
25	BA	2186	C	5.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	CJ	12	ASP	5.0
3	CC	138	VAL	5.0
13	CM	34	LEU	5.0
4	AD	167	GLY	5.0
2	CB	96	ARG	5.0
9	AI	17	VAL	5.0
9	AI	26	VAL	5.0
10	CJ	44	VAL	5.0
4	AD	118	ARG	5.0
46	B0	2	ALA	5.0
7	CG	43	PHE	5.0
2	CB	161	ALA	4.9
53	D7	46	VAL	4.9
9	CI	56	LEU	4.9
46	D0	7	LEU	4.9
30	DG	48	GLU	4.9
3	CC	5	ILE	4.9
9	AI	45	ALA	4.9
18	CR	22	VAL	4.9
3	AC	101	LEU	4.9
18	CR	66	LEU	4.9
30	DG	180	PHE	4.9
2	AB	201	ILE	4.9
13	AM	6	GLY	4.9
14	AN	34	TYR	4.9
30	DG	159	VAL	4.9
50	B4	50	VAL	4.9
4	AD	101	LEU	4.9
5	CE	13	ILE	4.9
45	DZ	146	ILE	4.9
5	CE	31	LEU	4.9
4	CD	158	ILE	4.9
13	CM	8	GLU	4.9
2	CB	72	GLY	4.9
10	CJ	37	PRO	4.9
43	DX	49	VAL	4.9
20	AT	74	LYS	4.9
3	CC	12	LEU	4.9
18	CR	43	PHE	4.9
19	CS	12	ASP	4.9
9	AI	64	THR	4.9
21	CU	15	ARG	4.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
37	DR	68	ARG	4.9
4	AD	138	TYR	4.9
1	CA	1202	G	4.9
13	AM	121	LYS	4.9
36	DQ	28	ALA	4.8
4	CD	108	LEU	4.8
15	AO	15	PHE	4.8
38	DS	26	LEU	4.8
30	DG	181	ARG	4.8
2	CB	132	LYS	4.8
4	AD	70	ILE	4.8
10	CJ	51	ARG	4.8
30	DG	108	ASN	4.8
27	DD	38	LYS	4.8
3	AC	169	ALA	4.8
4	AD	102	ASP	4.8
9	AI	51	ARG	4.8
38	DS	97	ARG	4.8
2	CB	7	VAL	4.8
32	BI	38	LEU	4.8
19	CS	43	GLU	4.8
29	DF	28	ILE	4.8
30	DG	136	ARG	4.8
4	CD	161	ASN	4.8
32	DI	12	LEU	4.8
10	CJ	98	ILE	4.8
3	CC	7	PRO	4.8
45	DZ	144	LEU	4.8
30	DG	36	LYS	4.8
3	CC	80	GLY	4.8
36	DQ	33	GLY	4.8
50	D4	44	THR	4.8
9	CI	63	ILE	4.8
49	D3	28	LEU	4.8
7	CG	18	TYR	4.8
43	DX	69	TYR	4.8
17	CQ	10	VAL	4.8
13	CM	4	ILE	4.8
25	BA	2184	G	4.8
50	D4	53	GLU	4.7
14	CN	52	GLN	4.7
16	CP	60	LEU	4.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	AI	78	LYS	4.7
7	CG	78	ARG	4.7
29	DF	193	VAL	4.7
10	CJ	17	ASP	4.7
3	CC	159	GLY	4.7
5	CE	148	VAL	4.7
13	CM	3	ARG	4.7
30	DG	106	LEU	4.7
32	BI	30	LEU	4.7
36	DQ	32	TYR	4.7
14	CN	32	SER	4.7
29	DF	13	SER	4.7
15	CO	87	ILE	4.7
7	CG	2	ALA	4.7
30	DG	160	VAL	4.7
13	AM	120	LYS	4.7
43	DX	68	ARG	4.7
45	DZ	133	ILE	4.7
2	CB	118	LEU	4.7
50	D4	32	TYR	4.7
4	AD	175	SER	4.7
1	CA	1532	U	4.7
4	AD	169	LYS	4.7
32	BI	6	LEU	4.7
18	CR	23	LYS	4.7
2	CB	226	ARG	4.7
16	CP	51	VAL	4.7
50	D4	35	VAL	4.7
32	BI	79	ILE	4.6
45	DZ	59	LEU	4.6
9	CI	82	ALA	4.6
10	CJ	59	SER	4.6
7	CG	80	VAL	4.6
32	DI	92	VAL	4.6
12	CL	99	HIS	4.6
16	AP	48	TRP	4.6
10	CJ	16	LEU	4.6
20	CT	63	ILE	4.6
19	CS	35	SER	4.6
14	AN	37	PHE	4.6
2	CB	79	ASP	4.6
45	DZ	126	VAL	4.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	CJ	68	HIS	4.6
30	DG	29	TRP	4.6
4	AD	146	ILE	4.6
20	CT	30	LYS	4.6
2	AB	118	LEU	4.6
7	AG	101	LEU	4.6
31	DH	148	ILE	4.6
32	BI	107	VAL	4.6
8	CH	94	TYR	4.6
29	DF	148	LEU	4.6
30	BG	106	LEU	4.6
3	CC	117	ALA	4.6
4	CD	198	VAL	4.6
33	DN	140	VAL	4.6
9	CI	88	TYR	4.6
30	DG	133	LEU	4.6
44	DY	106	LEU	4.6
9	CI	77	ILE	4.6
9	CI	105	ASP	4.6
19	CS	66	MET	4.6
7	AG	105	VAL	4.6
30	DG	25	TYR	4.6
9	CI	102	LEU	4.5
30	BG	2	PRO	4.5
44	DY	5	MET	4.5
4	AD	148	VAL	4.5
5	CE	90	VAL	4.5
3	CC	150	LYS	4.5
1	CA	1492	A	4.5
4	CD	5	ILE	4.5
52	D6	54	ILE	4.5
45	DZ	71	VAL	4.5
24	AY	6	G	4.5
2	CB	216	SER	4.5
9	CI	57	GLY	4.5
25	BA	2141	A	4.5
19	CS	69	HIS	4.5
13	CM	105	THR	4.5
9	CI	80	GLY	4.5
24	AY	71	G	4.5
16	CP	9	PHE	4.5
9	CI	16	ARG	4.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	CG	13	GLN	4.5
4	AD	4	TYR	4.5
49	D3	27	GLY	4.5
4	AD	158	ILE	4.5
20	CT	41	ILE	4.5
2	CB	82	ARG	4.5
30	DG	115	ARG	4.5
19	CS	14	HIS	4.5
37	DR	69	ASP	4.5
2	CB	149	LEU	4.5
48	D2	24	LEU	4.5
3	CC	188	LEU	4.5
32	DI	86	THR	4.5
13	CM	97	PRO	4.5
7	CG	23	VAL	4.5
44	DY	90	LEU	4.4
1	CA	1027	C	4.4
46	D0	4	LYS	4.4
4	CD	109	GLY	4.4
19	AS	15	LEU	4.4
29	DF	196	LEU	4.4
25	BA	2192	A	4.4
8	CH	83	ILE	4.4
9	AI	61	ALA	4.4
10	CJ	7	LYS	4.4
50	B4	54	GLY	4.4
2	CB	98	LEU	4.4
4	CD	160	GLN	4.4
9	AI	79	LEU	4.4
2	AB	211	ILE	4.4
10	CJ	74	ILE	4.4
4	CD	168	ARG	4.4
2	CB	155	LEU	4.4
19	AS	16	LEU	4.4
20	AT	72	LEU	4.4
43	DX	1	MET	4.4
44	DY	55	TYR	4.4
3	AC	57	ILE	4.4
21	CU	5	ASP	4.4
2	CB	102	LEU	4.4
9	CI	27	THR	4.4
35	DP	78	PRO	4.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	AJ	46	ARG	4.4
7	CG	15	ASP	4.4
17	CQ	23	VAL	4.4
37	DR	70	LEU	4.4
45	DZ	70	LEU	4.4
4	AD	166	LYS	4.4
13	CM	67	GLU	4.4
7	CG	26	PHE	4.4
7	CG	117	ALA	4.4
13	AM	9	ILE	4.4
10	CJ	13	HIS	4.4
19	CS	9	VAL	4.4
35	DP	79	ARG	4.4
45	DZ	44	PHE	4.4
7	CG	154	TYR	4.4
19	CS	8	GLY	4.4
30	DG	84	LYS	4.4
3	AC	151	VAL	4.4
30	DG	109	VAL	4.4
14	CN	22	THR	4.3
12	CL	28	LYS	4.3
2	CB	32	ILE	4.3
3	CC	77	ILE	4.3
20	CT	80	ARG	4.3
36	DQ	63	LYS	4.3
7	AG	43	PHE	4.3
7	AG	76	ARG	4.3
30	DG	11	TYR	4.3
30	DG	3	LEU	4.3
9	CI	22	GLY	4.3
2	CB	105	PHE	4.3
10	AJ	18	ALA	4.3
4	CD	148	VAL	4.3
30	DG	2	PRO	4.3
4	CD	181	MET	4.3
2	CB	207	ALA	4.3
2	CB	78	GLN	4.3
30	DG	41	GLN	4.3
32	BI	68	LEU	4.3
9	CI	123	PRO	4.3
49	D3	35	ARG	4.3
36	DQ	22	LYS	4.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
4	AD	152	SER	4.3
17	CQ	59	ILE	4.3
31	DH	89	ILE	4.3
19	CS	45	VAL	4.3
29	DF	27	GLU	4.3
37	DR	97	VAL	4.3
1	AA	1030(B)	C	4.3
25	BA	2138	G	4.3
9	AI	33	PHE	4.3
32	BI	36	ALA	4.3
1	CA	1035	A	4.3
4	CD	3	ARG	4.3
31	DH	103	LEU	4.3
32	BI	140	LEU	4.3
16	AP	50	LYS	4.3
9	AI	18	PHE	4.3
29	DF	129	PHE	4.3
25	BA	2167	C	4.3
7	AG	120	ILE	4.3
12	CL	96	VAL	4.3
20	CT	24	LEU	4.3
30	DG	107	LEU	4.3
2	CB	91	PRO	4.2
11	CK	31	THR	4.2
7	CG	42	ILE	4.2
2	CB	57	PHE	4.2
14	AN	59	ALA	4.2
17	CQ	36	ILE	4.2
21	CU	16	GLY	4.2
14	CN	24	CYS	4.2
25	BA	2190	G	4.2
2	AB	101	MET	4.2
9	AI	8	GLY	4.2
12	AL	90	VAL	4.2
30	DG	26	GLN	4.2
30	DG	72	ARG	4.2
3	CC	4	LYS	4.2
9	CI	69	GLY	4.2
9	CI	70	LYS	4.2
44	DY	73	ARG	4.2
19	CS	10	PHE	4.2
4	CD	163	GLU	4.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
12	CL	88	GLY	4.2
3	CC	124	ILE	4.2
30	DG	103	LEU	4.2
32	DI	79	ILE	4.2
9	CI	41	VAL	4.2
25	BA	2200	C	4.2
53	B7	45	ALA	4.2
5	CE	29	GLY	4.2
24	AY	73	A	4.2
8	AH	4	ASP	4.2
19	CS	3	ARG	4.2
46	D0	21	LEU	4.2
7	AG	8	GLU	4.2
9	CI	12	GLU	4.2
30	DG	27	ASN	4.2
45	DZ	138	GLU	4.2
10	CJ	54	PHE	4.2
36	DQ	102	VAL	4.1
48	D2	49	LYS	4.1
14	CN	40	CYS	4.1
42	BW	111	HIS	4.1
4	CD	209	ARG	4.1
5	CE	11	ILE	4.1
16	AP	34	GLU	4.1
28	DE	196	VAL	4.1
35	DP	126	VAL	4.1
2	CB	55	PHE	4.1
44	DY	81	LYS	4.1
8	CH	35	ILE	4.1
8	CH	134	ILE	4.1
41	DV	70	ILE	4.1
9	AI	5	TYR	4.1
30	BG	146	TYR	4.1
5	AE	89	ILE	4.1
13	AM	22	ILE	4.1
29	DF	119	ARG	4.1
48	D2	9	GLN	4.1
44	DY	43	ASN	4.1
7	CG	39	ALA	4.1
29	DF	7	TYR	4.1
4	AD	11	LEU	4.1
2	CB	108	ILE	4.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
4	CD	169	LYS	4.1
25	BA	1221	G	4.1
10	AJ	12	ASP	4.1
30	DG	158	ALA	4.1
32	DI	100	ALA	4.1
31	DH	52	VAL	4.1
25	BA	2181	G	4.1
13	CM	81	LEU	4.1
26	DB	59	A	4.1
4	CD	178	VAL	4.1
10	CJ	78	ASN	4.1
44	DY	6	HIS	4.1
3	CC	38	ARG	4.1
3	CC	170	GLN	4.1
10	CJ	70	ARG	4.1
45	DZ	162	GLU	4.0
2	AB	37	ASN	4.0
4	CD	146	ILE	4.0
12	CL	13	LYS	4.0
30	DG	15	VAL	4.0
45	DZ	170	THR	4.0
4	CD	150	GLU	4.0
50	B4	67	TYR	4.0
16	AP	37	GLY	4.0
21	CU	13	ILE	4.0
51	D5	60	VAL	4.0
14	CN	31	ARG	4.0
1	CA	1030(A)	G	4.0
13	CM	75	ALA	4.0
19	CS	70	LYS	4.0
26	DB	23	G	4.0
38	DS	64	GLU	4.0
2	CB	115	LEU	4.0
3	CC	13	GLY	4.0
10	CJ	69	ASN	4.0
3	AC	134	ILE	4.0
20	CT	88	VAL	4.0
31	DH	45	VAL	4.0
3	AC	139	GLN	4.0
19	CS	50	ALA	4.0
45	DZ	172	ALA	4.0
50	B4	59	PHE	4.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	1116	C	4.0
30	DG	37	VAL	4.0
55	D9	16	VAL	4.0
12	CL	46	LYS	4.0
2	CB	73	THR	4.0
3	AC	65	ALA	4.0
12	CL	30	ALA	4.0
16	AP	49	LEU	4.0
32	BI	34	GLY	4.0
9	CI	25	LYS	4.0
9	CI	87	GLN	4.0
48	D2	8	LYS	4.0
9	AI	4	TYR	4.0
10	CJ	75	ILE	4.0
2	AB	122	PHE	4.0
3	CC	135	LYS	4.0
10	CJ	5	ARG	4.0
50	B4	4	GLY	4.0
44	DY	63	LYS	4.0
45	BZ	165	VAL	4.0
9	CI	51	ARG	4.0
36	DQ	29	PHE	4.0
45	DZ	91	LEU	4.0
27	DD	126	GLN	4.0
25	DA	2159	G	4.0
3	CC	130	VAL	4.0
12	CL	101	VAL	4.0
32	BI	19	VAL	4.0
10	AJ	5	ARG	4.0
21	CU	10	ARG	4.0
9	AI	63	ILE	3.9
17	AQ	11	VAL	3.9
13	CM	88	ARG	3.9
53	D7	47	ARG	3.9
8	CH	87	SER	3.9
19	CS	36	ARG	3.9
28	DE	26	ILE	3.9
25	DA	2111	C	3.9
18	AR	79	LEU	3.9
16	CP	29	ASP	3.9
3	AC	206	GLU	3.9
12	AL	96	VAL	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	AB	78	GLN	3.9
10	AJ	68	HIS	3.9
32	DI	122	GLU	3.9
9	CI	101	PHE	3.9
36	DQ	34	LEU	3.9
2	AB	80	ILE	3.9
14	AN	50	LYS	3.9
27	BD	275	LYS	3.9
18	AR	78	LEU	3.9
8	CH	4	ASP	3.9
36	DQ	136	ALA	3.9
10	CJ	56	HIS	3.9
37	DR	83	ILE	3.9
4	CD	207	TYR	3.9
27	BD	33	LEU	3.9
36	DQ	118	LEU	3.9
38	DS	30	ARG	3.9
2	CB	173	ALA	3.9
9	CI	13	ALA	3.9
13	CM	69	GLU	3.9
16	CP	7	ALA	3.9
44	DY	91	GLU	3.9
3	AC	135	LYS	3.9
8	CH	95	VAL	3.9
17	CQ	9	VAL	3.9
12	CL	85	ILE	3.9
13	CM	99	ARG	3.9
3	CC	20	SER	3.9
5	CE	142	LEU	3.9
30	DG	152	LEU	3.9
32	BI	75	LEU	3.9
15	CO	30	ALA	3.9
38	DS	68	GLN	3.9
35	DP	116	GLY	3.9
45	DZ	124	ILE	3.9
4	CD	206	PHE	3.9
6	CF	45	LEU	3.9
35	DP	3	LEU	3.9
2	CB	167	PRO	3.8
3	AC	202	ILE	3.8
10	CJ	96	ILE	3.8
8	CH	31	PHE	3.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	CJ	21	GLN	3.8
18	AR	40	LEU	3.8
32	DI	30	LEU	3.8
2	CB	29	ALA	3.8
3	CC	71	ALA	3.8
14	CN	51	GLY	3.8
25	DA	1509	C	3.8
3	AC	63	ASN	3.8
13	CM	90	LEU	3.8
20	CT	72	LEU	3.8
1	CA	1150	U	3.8
2	AB	133	LYS	3.8
15	CO	88	ARG	3.8
16	CP	12	LYS	3.8
1	AA	1026	G	3.8
24	AY	5	G	3.8
30	DG	179	PRO	3.8
46	D0	45	PHE	3.8
3	CC	200	ALA	3.8
7	CG	4	ARG	3.8
32	DI	11	ASN	3.8
16	AP	4	ILE	3.8
16	CP	59	TRP	3.8
15	AO	81	LEU	3.8
25	BA	2147	G	3.8
25	DA	2147	G	3.8
35	DP	144	GLU	3.8
36	DQ	5	ARG	3.8
38	DS	55	ALA	3.8
3	AC	199	LYS	3.8
3	CC	153	VAL	3.8
4	AD	112	VAL	3.8
9	AI	75	ASP	3.8
12	CL	70	ILE	3.8
25	BA	2139	A	3.8
16	AP	73	LEU	3.8
50	D4	57	GLU	3.8
45	DZ	164	ALA	3.8
32	BI	25	TYR	3.8
43	DX	5	TYR	3.8
25	BA	2164	C	3.8
48	B2	12	GLU	3.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
8	CH	86	ILE	3.8
45	DZ	57	ILE	3.8
12	CL	72	GLY	3.8
25	BA	2191	A	3.8
55	D9	13	LYS	3.8
2	CB	189	ASP	3.8
2	CB	184	VAL	3.8
25	DA	614(B)	G	3.8
28	DE	195	LEU	3.8
10	CJ	93	GLY	3.8
44	DY	88	LYS	3.8
3	AC	200	ALA	3.8
44	DY	65	ALA	3.8
45	DZ	173	ALA	3.8
3	AC	58	GLU	3.7
8	CH	99	GLU	3.7
2	AB	31	TYR	3.7
2	CB	87	ARG	3.7
3	CC	31	HIS	3.7
41	BV	1	MET	3.7
6	CF	9	VAL	3.7
12	CL	55	VAL	3.7
30	DG	149	VAL	3.7
7	CG	81	GLY	3.7
31	DH	151	ILE	3.7
32	DI	34	GLY	3.7
45	DZ	24	LEU	3.7
1	CA	1131	G	3.7
42	DW	81	ALA	3.7
7	CG	85	TYR	3.7
4	AD	105	VAL	3.7
29	DF	15	SER	3.7
4	AD	135	LEU	3.7
20	CT	36	LEU	3.7
40	DU	88	ILE	3.7
9	AI	48	GLU	3.7
6	AF	53	ALA	3.7
27	DD	2	ALA	3.7
19	CS	76	PRO	3.7
50	B4	66	SER	3.7
2	CB	158	LEU	3.7
17	CQ	7	THR	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	CS	47	HIS	3.7
25	DA	896	A	3.7
32	BI	105	HIS	3.7
49	D3	34	GLU	3.7
49	D3	57	GLU	3.7
7	AG	27	ILE	3.7
30	DG	60	LEU	3.7
8	CH	92	ARG	3.7
36	DQ	68	ILE	3.7
16	AP	35	LYS	3.7
30	DG	182	LYS	3.7
53	B7	48	LYS	3.7
3	AC	168	ALA	3.7
9	CI	72	GLY	3.7
2	AB	71	VAL	3.7
4	CD	47	ARG	3.7
29	DF	114	VAL	3.7
29	DF	206	ILE	3.7
44	DY	75	ILE	3.7
2	CB	122	PHE	3.7
38	DS	37	ALA	3.7
5	CE	73	ASN	3.7
14	AN	15	LYS	3.7
36	DQ	61	GLY	3.7
16	CP	8	ARG	3.7
31	DH	130	ARG	3.7
2	AB	229	VAL	3.7
3	CC	29	TYR	3.7
10	AJ	40	LEU	3.7
3	CC	177	THR	3.7
10	CJ	42	THR	3.7
29	DF	186	ILE	3.7
30	DG	157	ILE	3.7
3	CC	183	ASP	3.7
3	AC	150	LYS	3.7
12	CL	71	PRO	3.7
14	CN	4	LYS	3.7
44	DY	58	GLY	3.7
4	AD	104	VAL	3.7
13	CM	19	LEU	3.7
28	DE	184	VAL	3.7
45	DZ	76	LEU	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	DZ	102	LEU	3.7
53	B7	46	VAL	3.7
4	AD	181	MET	3.7
20	AT	55	ILE	3.7
43	DX	80	ILE	3.7
2	AB	195	ASP	3.6
2	CB	114	ARG	3.6
50	B4	62	ARG	3.6
9	AI	24	GLY	3.6
15	CO	86	GLY	3.6
55	D9	37	GLY	3.6
1	AA	1492	A	3.6
25	BA	2148	A	3.6
2	CB	219	VAL	3.6
4	AD	198	VAL	3.6
12	CL	90	VAL	3.6
16	CP	6	LEU	3.6
25	BA	2160	C	3.6
43	DX	7	VAL	3.6
3	CC	199	LYS	3.6
7	CG	27	ILE	3.6
16	AP	1	MET	3.6
7	CG	156	TRP	3.6
4	CD	186	LEU	3.6
6	AF	25	ILE	3.6
7	AG	25	ALA	3.6
13	AM	5	ALA	3.6
29	DF	167	ALA	3.6
10	CJ	19	SER	3.6
31	DH	116	GLU	3.6
6	AF	61	LEU	3.6
7	AG	21	VAL	3.6
10	CJ	88	LEU	3.6
1	CA	973	G	3.6
3	CC	126	ARG	3.6
19	CS	63	THR	3.6
2	AB	33	TYR	3.6
2	CB	181	PHE	3.6
10	AJ	50	ILE	3.6
13	CM	23	TYR	3.6
32	BI	130	TYR	3.6
9	AI	58	HIS	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	CG	38	LEU	3.6
12	CL	52	LEU	3.6
13	CM	53	VAL	3.6
35	DP	15	ARG	3.6
38	DS	98	VAL	3.6
48	D2	60	LEU	3.6
53	B7	47	ARG	3.6
4	AD	134	ASP	3.6
30	BG	49	ASP	3.6
9	AI	62	TYR	3.6
38	DS	40	ILE	3.6
3	AC	167	TRP	3.6
16	CP	49	LEU	3.6
3	CC	55	VAL	3.6
16	AP	21	VAL	3.6
29	DF	37	VAL	3.6
44	DY	30	VAL	3.6
44	DY	47	LYS	3.6
2	AB	48	MET	3.6
17	CQ	32	TYR	3.6
2	AB	29	ALA	3.6
2	AB	188	ALA	3.6
32	BI	117	GLU	3.6
30	DG	32	PRO	3.6
5	CE	123	LEU	3.6
12	CL	95	GLY	3.6
2	AB	222	ILE	3.6
2	CB	58	ILE	3.6
25	BA	2185	C	3.6
31	DH	72	ILE	3.6
3	AC	23	TYR	3.6
38	DS	92	TYR	3.6
45	DZ	68	PRO	3.6
7	CG	35	LYS	3.6
13	CM	27	LYS	3.6
19	CS	32	LYS	3.6
33	DN	23	LEU	3.6
3	AC	138	VAL	3.6
14	CN	18	VAL	3.6
4	CD	69	GLY	3.6
10	AJ	42	THR	3.6
31	DH	123	PHE	3.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
8	CH	111	ILE	3.5
10	AJ	6	ILE	3.5
2	AB	19	HIS	3.5
25	BA	2133	C	3.5
25	DA	2135	A	3.5
19	CS	48	THR	3.5
3	CC	152	ILE	3.5
30	DG	51	ARG	3.5
7	AG	124	LEU	3.5
30	DG	116	ASP	3.5
47	B1	97	LEU	3.5
1	CA	1037	C	3.5
25	DA	888	C	3.5
6	AF	88	VAL	3.5
16	AP	18	ARG	3.5
1	CA	1251	A	3.5
43	DX	47	PHE	3.5
3	AC	8	ILE	3.5
14	AN	7	ILE	3.5
2	AB	148	TYR	3.5
3	CC	143	GLU	3.5
27	DD	37	LEU	3.5
3	AC	98	ASN	3.5
4	AD	8	VAL	3.5
30	DG	5	VAL	3.5
31	DH	132	ARG	3.5
38	DS	61	ASN	3.5
45	DZ	69	THR	3.5
4	CD	67	ILE	3.5
5	CE	109	ILE	3.5
30	DG	6	ALA	3.5
2	CB	8	LYS	3.5
4	CD	165	MET	3.5
8	CH	9	MET	3.5
38	DS	93	LYS	3.5
13	AM	19	LEU	3.5
29	DF	33	LEU	3.5
48	D2	7	ARG	3.5
15	CO	29	VAL	3.5
14	CN	13	THR	3.5
15	CO	15	PHE	3.5
29	DF	175	THR	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
6	AF	81	ILE	3.5
3	CC	172	ARG	3.5
12	CL	89	ARG	3.5
45	DZ	72	ARG	3.5
50	D4	48	ARG	3.5
9	AI	56	LEU	3.5
10	AJ	93	GLY	3.5
13	CM	95	GLY	3.5
33	DN	116	LEU	3.5
41	BV	101	GLY	3.5
3	CC	22	TRP	3.5
13	CM	77	ASN	3.5
14	CN	33	VAL	3.5
19	AS	9	VAL	3.5
31	DH	129	THR	3.5
2	CB	41	ILE	3.5
3	CC	133	ALA	3.5
8	CH	80	ILE	3.5
9	AI	106	ALA	3.5
9	CI	84	ALA	3.5
15	CO	16	ALA	3.5
43	DX	39	ILE	3.5
44	DY	96	ILE	3.5
32	DI	80	PRO	3.5
45	DZ	82	ARG	3.5
4	CD	6	GLY	3.5
30	DG	131	TYR	3.5
31	DH	164	TYR	3.5
32	BI	90	GLY	3.5
12	CL	84	LEU	3.5
36	DQ	105	GLU	3.5
44	DY	46	LYS	3.5
39	DT	40	THR	3.5
2	CB	185	ILE	3.5
10	AJ	96	ILE	3.5
14	AN	35	ARG	3.5
31	DH	152	ARG	3.5
32	BI	27	ARG	3.5
2	AB	202	PRO	3.5
2	CB	202	PRO	3.5
4	AD	197	PRO	3.5
20	AT	18	GLN	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
4	AD	144	ASP	3.5
31	DH	82	GLY	3.5
8	CH	107	LEU	3.5
18	CR	21	LYS	3.5
20	CT	84	LEU	3.5
4	CD	119	GLN	3.4
4	CD	126	ILE	3.4
20	CT	55	ILE	3.4
31	DH	125	VAL	3.4
2	CB	210	SER	3.4
7	CG	36	LYS	3.4
45	DZ	65	GLN	3.4
2	CB	193	ASP	3.4
6	CF	81	ILE	3.4
17	CQ	44	ALA	3.4
45	DZ	83	PRO	3.4
10	AJ	16	LEU	3.4
20	CT	26	ASN	3.4
29	BF	156	LEU	3.4
12	AL	98	TYR	3.4
30	DG	16	ARG	3.4
55	D9	3	VAL	3.4
9	CI	110	GLU	3.4
45	DZ	114	GLY	3.4
10	AJ	85	LEU	3.4
11	AK	98	LEU	3.4
48	D2	53	LEU	3.4
10	CJ	55	LYS	3.4
13	CM	13	LYS	3.4
45	DZ	4	ARG	3.4
17	CQ	56	VAL	3.4
31	DH	113	VAL	3.4
3	CC	148	GLY	3.4
29	DF	147	GLY	3.4
1	CA	1373	G	3.4
4	AD	147	ALA	3.4
3	CC	131	ARG	3.4
15	AO	34	LEU	3.4
31	DH	98	LEU	3.4
32	DI	38	LEU	3.4
37	DR	42	LYS	3.4
44	DY	95	LYS	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
21	CU	17	THR	3.4
7	AG	58	PRO	3.4
2	CB	94	ASN	3.4
38	DS	73	LEU	3.4
25	BA	2135	U	3.4
4	AD	133	VAL	3.4
16	CP	17	TYR	3.4
32	BI	3	VAL	3.4
44	DY	7	VAL	3.4
3	AC	203	PHE	3.4
16	AP	9	PHE	3.4
20	CT	25	ARG	3.4
3	CC	202	ILE	3.4
29	DF	115	ALA	3.4
32	BI	138	ILE	3.4
10	AJ	64	GLU	3.4
44	BY	91	GLU	3.4
28	DE	5	LEU	3.4
31	DH	87	LEU	3.4
32	BI	116	LEU	3.4
35	DP	112	LEU	3.4
6	CF	89	MET	3.4
29	DF	194	MET	3.4
36	DQ	103	MET	3.4
3	CC	120	VAL	3.4
4	CD	167	GLY	3.4
5	CE	105	VAL	3.4
31	DH	44	VAL	3.4
32	DI	142	VAL	3.4
5	AE	45	PHE	3.4
32	DI	14	ASP	3.4
45	DZ	93	ASP	3.4
29	DF	14	PRO	3.4
30	DG	163	ALA	3.4
33	DN	99	LEU	3.4
31	DH	13	LYS	3.4
3	AC	68	VAL	3.4
20	AT	25	ARG	3.4
30	BG	12	TYR	3.3
45	DZ	128	VAL	3.4
9	CI	52	ALA	3.3
28	BE	195	LEU	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	DF	192	LEU	3.3
16	AP	71	ARG	3.3
25	BA	2189	U	3.3
49	D3	3	ARG	3.3
12	CL	39	VAL	3.3
35	DP	125	VAL	3.3
32	BI	29	TYR	3.3
37	DR	25	ALA	3.3
16	AP	33	ILE	3.3
4	CD	196	LEU	3.3
7	CG	101	LEU	3.3
9	CI	40	LEU	3.3
20	CT	20	LEU	3.3
46	D0	75	LEU	3.3
30	DG	33	ARG	3.3
30	BG	137	GLU	3.3
45	DZ	160	GLY	3.3
3	AC	10	PHE	3.3
4	AD	140	VAL	3.3
10	AJ	44	VAL	3.3
41	DV	74	LYS	3.3
25	BA	2195	A	3.3
2	CB	85	ALA	3.3
29	DF	130	ALA	3.3
10	AJ	4	ILE	3.3
32	BI	31	LEU	3.3
35	DP	85	LEU	3.3
46	D0	37	LEU	3.3
3	AC	35	GLU	3.3
1	CA	1148	U	3.3
11	AK	82	VAL	3.3
19	CS	67	VAL	3.3
32	BI	142	VAL	3.3
35	BP	1	MET	3.3
37	DR	114	VAL	3.3
13	CM	62	ASN	3.3
15	AO	69	TYR	3.3
13	CM	18	ALA	3.3
30	DG	73	ALA	3.3
43	DX	11	PRO	3.3
50	D4	41	PRO	3.3
1	CA	1190	G	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	AC	43	LEU	3.3
15	CO	67	LEU	3.3
29	DF	176	LEU	3.3
9	AI	30	GLY	3.3
16	AP	27	LYS	3.3
30	DG	85	GLY	3.3
1	CA	1038	C	3.3
7	AG	106	GLN	3.3
15	CO	27	VAL	3.3
47	B1	49	VAL	3.3
4	CD	106	TYR	3.3
4	CD	122	ARG	3.3
7	AG	7	ALA	3.3
15	AO	88	ARG	3.3
15	AO	14	GLU	3.3
3	CC	52	LEU	3.3
3	CC	157	ILE	3.3
8	CH	6	ILE	3.3
8	CH	112	LEU	3.3
32	BI	72	LEU	3.3
41	DV	71	LEU	3.3
45	DZ	137	ILE	3.3
49	D3	53	LEU	3.3
4	CD	23	GLY	3.3
7	AG	153	HIS	3.3
31	DH	114	VAL	3.3
32	DI	3	VAL	3.3
16	AP	24	ALA	3.3
54	D8	2	PRO	3.3
32	DI	88	ILE	3.3
49	D3	23	LEU	3.3
49	D3	43	ILE	3.3
3	AC	153	VAL	3.3
5	CE	121	LYS	3.3
9	CI	23	ASN	3.3
10	AJ	49	VAL	3.3
32	DI	85	GLU	3.3
36	DQ	106	VAL	3.3
54	D8	25	MET	3.3
1	CA	996	A	3.3
3	AC	24	ALA	3.3
12	CL	98	TYR	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	CM	42	ALA	3.3
40	DU	48	ALA	3.3
1	CA	1034	G	3.3
2	CB	42	ILE	3.3
4	CD	2	GLY	3.3
17	CQ	53	LEU	3.3
18	AR	76	LEU	3.3
23	CX	70	G	3.3
25	BA	2168	C	3.3
7	CG	62	PHE	3.2
9	AI	7	THR	3.2
31	DH	76	VAL	3.2
36	DQ	35	VAL	3.2
19	AS	44	MET	3.2
10	CJ	53	PRO	3.2
13	CM	101	GLN	3.2
27	BD	126	GLN	3.2
41	DV	65	GLY	3.2
45	DZ	53	ILE	3.2
1	CA	1531	A	3.2
24	CY	72	C	3.2
2	CB	19	HIS	3.2
25	BA	2149	G	3.2
17	CQ	11	VAL	3.2
19	CS	39	THR	3.2
2	CB	123	ALA	3.2
13	CM	56	LEU	3.2
29	DF	166	ALA	3.2
37	DR	29	LEU	3.2
8	CH	122	ARG	3.2
8	CH	135	CYS	3.2
2	CB	95	GLN	3.2
4	CD	56	VAL	3.2
6	AF	54	LYS	3.2
42	BW	112	GLY	3.2
5	CE	53	LEU	3.2
9	CI	54	ASP	3.2
10	AJ	73	ASP	3.2
15	AO	66	LEU	3.2
20	CT	62	LEU	3.2
6	AF	8	ILE	3.2
14	AN	17	LYS	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	D9	15	LYS	3.2
9	CI	24	GLY	3.2
13	CM	103	THR	3.2
48	D2	63	VAL	3.2
44	DY	80	GLY	3.2
10	AJ	45	ARG	3.2
32	BI	1	MET	3.2
50	D4	68	ARG	3.2
1	CA	1308	U	3.2
3	CC	65	ALA	3.2
6	AF	83	ASP	3.2
12	CL	51	ALA	3.2
53	D7	1	MET	3.2
30	DG	144	ILE	3.2
45	DZ	6	LYS	3.2
2	AB	227	GLY	3.2
3	AC	78	GLY	3.2
17	AQ	35	VAL	3.2
18	AR	22	VAL	3.2
30	DG	92	VAL	3.2
30	DG	117	PHE	3.2
38	DS	87	PHE	3.2
3	CC	140	ARG	3.2
13	AM	3	ARG	3.2
3	CC	115	LEU	3.2
5	CE	139	LEU	3.2
9	CI	55	ALA	3.2
35	DP	45	LEU	3.2
8	CH	138	TRP	3.2
1	CA	1250	A	3.2
3	CC	171	GLY	3.2
23	AX	76	A	3.2
46	B0	8	GLY	3.2
9	CI	71	SER	3.2
33	DN	92	ALA	3.2
46	D0	53	MET	3.2
11	AK	29	ILE	3.2
20	AT	90	GLN	3.2
9	CI	92	TYR	3.2
16	AP	32	TYR	3.2
16	CP	39	TYR	3.2
3	CC	9	GLY	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	AS	67	VAL	3.2
20	AT	14	LYS	3.2
25	BA	696	C	3.2
28	BE	75	VAL	3.2
45	DZ	39	VAL	3.2
48	D2	37	PHE	3.2
50	B4	49	PHE	3.2
3	AC	87	LEU	3.2
3	AC	204	LEU	3.2
3	CC	47	LEU	3.2
17	CQ	84	LEU	3.2
32	DI	47	LEU	3.2
40	DU	109	LEU	3.2
47	B1	73	LEU	3.2
3	CC	139	GLN	3.2
25	DA	2144	U	3.2
2	CB	144	ARG	3.2
16	CP	48	TRP	3.2
25	BA	2143	G	3.2
29	DF	142	TRP	3.2
45	DZ	131	ARG	3.2
10	CJ	52	GLY	3.2
20	CT	34	LYS	3.2
17	CQ	57	VAL	3.1
44	DY	72	VAL	3.1
9	CI	60	ASP	3.1
5	CE	119	LEU	3.1
29	DF	32	LEU	3.1
32	DI	101	LEU	3.1
40	DU	20	LEU	3.1
50	D4	46	GLN	3.1
10	AJ	61	GLU	3.1
25	BA	2197	C	3.1
31	DH	124	GLU	3.1
9	AI	120	ARG	3.1
25	BA	2211	U	3.1
4	CD	70	ILE	3.1
43	DX	33	LYS	3.1
7	AG	81	GLY	3.1
1	CA	1310	G	3.1
28	DE	51	PHE	3.1
9	CI	53	VAL	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	CG	59	LEU	3.1
33	DN	26	LEU	3.1
13	CM	76	ALA	3.1
20	AT	79	ARG	3.1
14	CN	27	CYS	3.1
16	CP	33	ILE	3.1
29	DF	160	ASN	3.1
33	DN	85	ILE	3.1
2	AB	97	TRP	3.1
25	DA	645	C	3.1
4	CD	68	TYR	3.1
7	AG	57	GLU	3.1
9	CI	3	GLN	3.1
10	AJ	95	GLU	3.1
1	AA	1447	A	3.1
12	CL	18	VAL	3.1
40	DU	90	VAL	3.1
2	AB	114	ARG	3.1
2	CB	30	ARG	3.1
3	AC	91	LEU	3.1
3	CC	175	LEU	3.1
4	CD	49	ARG	3.1
27	BD	38	LYS	3.1
29	DF	124	LEU	3.1
29	DF	170	LEU	3.1
33	DN	84	LYS	3.1
3	CC	53	ALA	3.1
9	AI	15	ALA	3.1
31	DH	145	ALA	3.1
3	AC	80	GLY	3.1
43	DX	8	ILE	3.1
29	DF	199	TRP	3.1
2	AB	28	PHE	3.1
2	AB	75	LYS	3.1
43	DX	53	LYS	3.1
45	DZ	123	ASP	3.1
9	CI	128	ARG	3.1
12	CL	104	VAL	3.1
13	AM	53	VAL	3.1
49	D3	30	ARG	3.1
3	CC	154	SER	3.1
29	DF	156	LEU	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
20	CT	59	ALA	3.1
29	DF	118	ALA	3.1
1	CA	1289	A	3.1
36	DQ	64	ILE	3.1
19	CS	6	LYS	3.1
19	CS	28	LYS	3.1
3	CC	36	ASP	3.1
2	AB	105	PHE	3.1
6	CF	82	ARG	3.1
9	AI	114	TYR	3.1
25	BA	2174	G	3.1
12	CL	31	PRO	3.1
13	AM	60	VAL	3.1
14	AN	33	VAL	3.1
17	AQ	10	VAL	3.1
33	DN	9	VAL	3.1
9	CI	85	LEU	3.1
45	BZ	70	LEU	3.1
47	B1	2	SER	3.1
49	D3	8	LEU	3.1
8	AH	80	ILE	3.1
2	CB	160	ASP	3.1
2	CB	217	ARG	3.1
3	CC	79	ARG	3.1
32	BI	20	ASP	3.1
50	B4	61	ARG	3.1
25	BA	2157	A	3.1
13	CM	15	VAL	3.1
41	DV	5	VAL	3.1
32	BI	9	LEU	3.1
4	CD	111	ALA	3.1
17	CQ	33	GLY	3.1
25	DA	2120	G	3.1
30	BG	182	LYS	3.1
54	B8	65	GLU	3.1
2	AB	208	ILE	3.1
48	D2	55	ARG	3.1
55	B9	17	ILE	3.1
28	DE	96	PHE	3.1
3	CC	48	TYR	3.1
7	AG	151	TYR	3.1
8	CH	61	VAL	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
21	CU	18	TYR	3.1
9	CI	30	GLY	3.1
11	CK	126	ARG	3.1
12	CL	86	ARG	3.1
42	DW	95	ILE	3.1
16	AP	59	TRP	3.0
17	CQ	37	LYS	3.0
17	CQ	21	VAL	3.0
35	BP	88	LEU	3.0
4	CD	154	ASN	3.0
14	AN	55	GLY	3.0
10	AJ	20	ALA	3.0
29	BF	182	ASN	3.0
3	AC	62	ASP	3.0
5	AE	10	MET	3.0
30	DG	75	LYS	3.0
49	D3	7	LYS	3.0
7	AG	62	PHE	3.0
3	CC	162	GLN	3.0
5	AE	18	ARG	3.0
5	CE	124	GLY	3.0
17	AQ	85	VAL	3.0
11	AK	25	TYR	3.0
31	DH	88	LEU	3.0
25	BA	2212	G	3.0
24	AY	72	C	3.0
43	DX	10	ALA	3.0
4	CD	125	HIS	3.0
3	AC	19	GLU	3.0
7	CG	31	MET	3.0
2	AB	70	PHE	3.0
3	AC	34	LEU	3.0
4	CD	118	ARG	3.0
8	CH	36	LEU	3.0
10	AJ	90	LEU	3.0
12	CL	83	VAL	3.0
4	CD	85	LYS	3.0
9	CI	78	LYS	3.0
55	D9	24	TYR	3.0
19	CS	24	ALA	3.0
45	BZ	164	ALA	3.0
19	AS	13	ASP	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	DZ	55	HIS	3.0
43	DX	60	ARG	3.0
45	DZ	79	ARG	3.0
2	CB	227	GLY	3.0
7	CG	12	LEU	3.0
14	AN	53	LEU	3.0
30	DG	89	GLY	3.0
30	DG	111	LEU	3.0
39	DT	78	LEU	3.0
46	D0	8	GLY	3.0
16	AP	2	VAL	3.0
16	AP	38	TYR	3.0
17	CQ	24	GLU	3.0
19	CS	64	GLU	3.0
2	CB	140	HIS	3.0
2	CB	205	ASP	3.0
25	DA	652(B)	A	3.0
2	CB	76	GLN	3.0
29	DF	205	ARG	3.0
2	CB	133	LYS	3.0
5	CE	125	SER	3.0
6	CF	7	ASN	3.0
7	AG	59	LEU	3.0
25	DA	2129	C	3.0
26	DB	27	C	3.0
29	BF	155	LEU	3.0
31	DH	35	VAL	3.0
31	DH	131	VAL	3.0
32	BI	92	VAL	3.0
38	DS	49	VAL	3.0
34	BO	108	GLU	3.0
8	AH	58	TYR	3.0
9	AI	52	ALA	3.0
4	CD	184	LYS	3.0
35	DP	137	LYS	3.0
45	DZ	120	ILE	3.0
4	AD	155	LEU	3.0
25	BA	2131	U	3.0
28	DE	182	LEU	3.0
5	CE	51	VAL	3.0
29	DF	126	VAL	3.0
32	BI	78	THR	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
36	DQ	97	VAL	3.0
45	DZ	130	PRO	3.0
9	AI	105	ASP	3.0
25	BA	2165	C	3.0
9	CI	104	ARG	3.0
18	AR	42	ARG	3.0
48	D2	56	GLN	3.0
44	DY	89	PHE	3.0
12	CL	45	PRO	3.0
29	DF	181	LEU	3.0
32	BI	12	LEU	3.0
4	AD	128	VAL	3.0
27	BD	117	VAL	3.0
51	B5	60	VAL	3.0
13	CM	79	LYS	3.0
35	DP	120	ALA	3.0
43	DX	79	ALA	3.0
49	D3	25	ALA	3.0
38	DS	7	TYR	3.0
3	CC	81	GLY	2.9
9	CI	48	GLU	2.9
24	AY	4	C	3.0
25	DA	2128	C	3.0
12	CL	7	ILE	2.9
15	AO	87	ILE	2.9
20	CT	33	ILE	2.9
34	DO	69	ILE	2.9
14	AN	16	PHE	2.9
30	BG	102	PHE	2.9
31	DH	109	PHE	2.9
18	CR	85	LEU	2.9
20	AT	30	LYS	2.9
25	BA	2173	G	2.9
4	AD	136	PRO	2.9
30	BG	107	LEU	2.9
32	BI	128	LEU	2.9
48	B2	15	LYS	2.9
48	D2	29	LYS	2.9
43	DX	54	VAL	2.9
2	CB	220	ASP	2.9
43	DX	42	ALA	2.9
6	CF	8	ILE	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
55	D9	26	ILE	2.9
29	DF	202	PHE	2.9
30	DG	23	PHE	2.9
2	CB	137	ARG	2.9
25	DA	652(T)	C	2.9
31	DH	50	VAL	2.9
38	DS	5	THR	2.9
11	AK	81	ASP	2.9
29	BF	27	GLU	2.9
8	CH	128	GLY	2.9
15	CO	36	ILE	2.9
3	CC	59	ARG	2.9
5	CE	24	ARG	2.9
14	AN	36	PHE	2.9
40	DU	98	LEU	2.9
44	DY	60	PHE	2.9
16	AP	41	PRO	2.9
7	AG	61	VAL	2.9
17	CQ	77	VAL	2.9
9	AI	43	ALA	2.9
14	AN	49	HIS	2.9
19	CS	7	LYS	2.9
20	CT	21	LYS	2.9
50	B4	69	LYS	2.9
13	CM	89	GLY	2.9
40	DU	117	GLN	2.9
3	CC	34	LEU	2.9
3	CC	196	LEU	2.9
30	DG	112	PRO	2.9
35	DP	6	LEU	2.9
2	CB	43	ASP	2.9
10	CJ	58	ASP	2.9
5	CE	88	LYS	2.9
10	CJ	97	GLU	2.9
13	CM	82	MET	2.9
14	CN	17	LYS	2.9
28	DE	198	VAL	2.9
35	DP	127	ALA	2.9
35	DP	73	GLY	2.9
1	CA	1357	A	2.9
33	DN	72	TYR	2.9
3	AC	182	ILE	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
48	D2	50	ILE	2.9
2	CB	12	GLU	2.9
17	CQ	22	LEU	2.9
18	CR	62	GLU	2.9
21	CU	20	LYS	2.9
35	BP	149	GLU	2.9
44	DY	4	LYS	2.9
49	B3	60	GLU	2.9
50	B4	65	ASP	2.9
7	CG	9	VAL	2.9
10	CJ	15	THR	2.9
16	CP	21	VAL	2.9
4	AD	125	HIS	2.9
17	CQ	54	GLY	2.9
19	CS	68	GLY	2.9
4	CD	159	ARG	2.9
30	BG	115	ARG	2.9
7	AG	77	SER	2.9
26	DB	26	A	2.9
30	DG	114	ILE	2.9
32	BI	120	ILE	2.9
8	AH	133	LEU	2.9
30	BG	139	LEU	2.9
44	DY	82	PRO	2.9
19	AS	11	VAL	2.9
29	DF	157	VAL	2.9
30	DG	162	THR	2.9
2	AB	207	ALA	2.9
19	CS	34	TRP	2.9
50	B4	68	ARG	2.9
3	AC	26	LYS	2.9
16	CP	76	GLN	2.9
31	DH	2	SER	2.9
47	D1	2	SER	2.9
50	D4	34	GLU	2.9
19	CS	52	TYR	2.9
2	CB	213	LEU	2.9
4	CD	94	LEU	2.9
14	AN	44	LEU	2.9
35	BP	114	ILE	2.9
36	DQ	79	LEU	2.9
4	CD	7	PRO	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	CG	91	VAL	2.9
9	CI	107	ARG	2.9
38	DS	20	ARG	2.9
45	DZ	116	VAL	2.9
49	D3	9	VAL	2.9
25	DA	1536	C	2.9
45	DZ	113	ALA	2.9
35	DP	74	GLU	2.9
47	B1	75	GLU	2.9
8	CH	119	LEU	2.8
13	CM	9	ILE	2.8
14	AN	39	LEU	2.8
32	BI	109	ILE	2.8
39	BT	102	ILE	2.8
45	BZ	99	TYR	2.8
12	CL	48	PRO	2.8
17	CQ	71	PHE	2.8
19	CS	81	ARG	2.8
25	BA	2163	G	2.8
29	DF	93	LYS	2.8
16	CP	20	VAL	2.8
22	AV	20	U	2.8
22	AV	14	A	2.8
3	AC	56	ASP	2.8
3	CC	16	ARG	2.8
3	CC	190	ARG	2.8
4	AD	202	LEU	2.8
4	CD	64	LEU	2.8
4	CD	114	ARG	2.8
6	AF	21	LEU	2.8
17	AQ	59	ILE	2.8
27	DD	217	ARG	2.8
42	DW	23	LEU	2.8
45	DZ	48	PHE	2.8
52	D6	11	LEU	2.8
2	CB	100	GLY	2.8
9	AI	80	GLY	2.8
3	AC	198	VAL	2.8
30	DG	64	THR	2.8
31	DH	24	VAL	2.8
7	AG	121	ALA	2.8
19	CS	44	MET	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	CC	18	TRP	2.8
47	B1	81	LYS	2.8
2	AB	53	ARG	2.8
13	CM	94	ARG	2.8
13	CM	110	ARG	2.8
32	DI	20	ASP	2.8
48	D2	52	ASP	2.8
2	AB	55	PHE	2.8
20	AT	41	ILE	2.8
27	BD	65	ILE	2.8
35	BP	100	LEU	2.8
35	DP	51	PHE	2.8
35	DP	91	PHE	2.8
1	AA	1028	C	2.8
3	CC	155	GLY	2.8
45	DZ	62	PRO	2.8
1	CA	994	A	2.8
26	DB	58	A	2.8
3	AC	66	VAL	2.8
8	AH	93	VAL	2.8
29	DF	154	VAL	2.8
47	D1	53	VAL	2.8
7	AG	100	ALA	2.8
29	DF	128	ALA	2.8
4	AD	137	SER	2.8
16	CP	26	ARG	2.8
55	B9	12	ASP	2.8
2	CB	138	LEU	2.8
3	CC	204	LEU	2.8
8	AH	119	LEU	2.8
29	BF	148	LEU	2.8
35	DP	123	LEU	2.8
1	CA	1030(C)	G	2.8
2	AB	232	PRO	2.8
5	AE	88	LYS	2.8
43	DX	51	VAL	2.8
49	D3	24	LYS	2.8
49	D3	47	VAL	2.8
9	AI	82	ALA	2.8
1	AA	152	A	2.8
13	CM	11	ARG	2.8
17	CQ	75	ARG	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
22	CV	15	A	2.8
10	CJ	84	GLN	2.8
3	AC	81	GLY	2.8
5	AE	91	LEU	2.8
44	DY	67	LEU	2.8
13	AM	25	ILE	2.8
31	DH	9	ILE	2.8
3	AC	4	LYS	2.8
7	AG	18	TYR	2.8
15	AO	84	LYS	2.8
3	AC	173	VAL	2.8
5	CE	16	THR	2.8
7	CG	17	VAL	2.8
8	CH	137	VAL	2.8
9	AI	65	VAL	2.8
10	AJ	62	HIS	2.8
30	DG	70	VAL	2.8
38	DS	69	VAL	2.8
45	DZ	56	VAL	2.8
47	D1	70	VAL	2.8
15	AO	17	ARG	2.8
2	AB	231	GLU	2.8
26	DB	119	G	2.8
44	DY	11	ASP	2.8
1	AA	204	U	2.8
25	DA	2174	C	2.8
25	DA	2803	C	2.8
11	CK	49	GLY	2.8
12	AL	46	LYS	2.8
12	CL	91	LYS	2.8
31	DH	171	LEU	2.8
35	DP	148	LEU	2.8
38	BS	44	LYS	2.8
31	DH	92	ILE	2.8
42	DW	105	VAL	2.8
3	CC	166	GLU	2.8
17	AQ	82	MET	2.8
30	DG	49	ASP	2.8
2	CB	75	LYS	2.8
2	CB	89	GLY	2.8
5	AE	12	LEU	2.8
32	BI	5	LEU	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
48	D2	32	LEU	2.8
3	CC	10	PHE	2.8
4	CD	93	PHE	2.8
5	AE	26	PHE	2.8
26	DB	24	G	2.8
30	BG	141	PHE	2.8
30	BG	178	PHE	2.8
35	DP	130	PHE	2.8
14	AN	26	ARG	2.8
29	DF	191	ARG	2.8
42	DW	92	ARG	2.8
5	AE	50	GLU	2.8
12	CL	24	VAL	2.8
32	BI	39	ALA	2.8
33	DN	57	ALA	2.8
43	DX	2	LYS	2.8
3	CC	197	GLY	2.7
10	CJ	31	GLY	2.7
15	CO	85	LEU	2.7
3	AC	7	PRO	2.7
20	AT	83	ARG	2.7
4	AD	204	ILE	2.7
8	CH	13	ILE	2.7
32	BI	97	ILE	2.7
38	DS	39	ILE	2.7
6	CF	6	VAL	2.7
43	DX	26	TYR	2.7
48	D2	25	VAL	2.7
49	D3	54	VAL	2.7
7	AG	40	ALA	2.7
25	BA	2132	G	2.7
36	DQ	121	ALA	2.7
49	D3	21	ALA	2.7
4	AD	23	GLY	2.7
3	CC	164	ARG	2.7
25	BA	2614	A	2.7
27	BD	133	LEU	2.7
38	DS	110	LEU	2.7
45	DZ	150	LEU	2.7
13	CM	61	GLU	2.7
33	DN	10	GLU	2.7
35	DP	94	GLU	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
12	CL	114	LYS	2.7
16	CP	41	PRO	2.7
32	BI	23	PRO	2.7
3	CC	14	ILE	2.7
29	BF	206	ILE	2.7
2	AB	197	VAL	2.7
4	CD	88	VAL	2.7
27	BD	127	VAL	2.7
29	BF	154	VAL	2.7
2	AB	193	ASP	2.7
50	D4	63	TYR	2.7
3	CC	121	ALA	2.7
32	BI	65	ALA	2.7
4	AD	168	ARG	2.7
34	BO	49	ARG	2.7
4	AD	80	GLU	2.7
53	B7	1	MET	2.7
6	AF	48	LEU	2.7
6	CF	75	LEU	2.7
8	AH	112	LEU	2.7
30	BG	7	LEU	2.7
41	DV	85	LYS	2.7
19	CS	2	PRO	2.7
46	D0	57	PHE	2.7
2	AB	68	ILE	2.7
2	AB	113	HIS	2.7
10	CJ	81	THR	2.7
13	AM	105	THR	2.7
2	CB	174	VAL	2.7
9	CI	108	VAL	2.7
13	CM	40	ASN	2.7
20	AT	71	THR	2.7
44	DY	15	VAL	2.7
47	B1	70	VAL	2.7
5	AE	95	ALA	2.7
6	CF	59	TYR	2.7
7	AG	44	TYR	2.7
18	CR	24	ALA	2.7
19	CS	80	TYR	2.7
2	AB	96	ARG	2.7
4	CD	107	ARG	2.7
12	CL	73	GLU	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	AG	103	TRP	2.7
12	CL	10	LEU	2.7
14	CN	61	TRP	2.7
29	BF	124	LEU	2.7
38	DS	48	LEU	2.7
42	DW	51	LEU	2.7
2	CB	28	PHE	2.7
5	CE	89	ILE	2.7
35	DP	75	ILE	2.7
3	AC	6	HIS	2.7
3	CC	132	ARG	2.7
5	CE	100	VAL	2.7
15	CO	11	VAL	2.7
33	DN	74	ARG	2.7
38	BS	46	VAL	2.7
44	DY	3	VAL	2.7
45	DZ	100	VAL	2.7
28	DE	181	LEU	2.7
41	DV	20	LEU	2.7
35	DP	122	PRO	2.7
2	CB	37	ASN	2.7
3	CC	147	LYS	2.7
7	CG	109	ASN	2.7
9	CI	117	HIS	2.7
10	CJ	23	ILE	2.7
41	DV	99	ILE	2.7
50	B4	5	ILE	2.7
3	CC	165	THR	2.7
9	AI	27	THR	2.7
9	AI	44	VAL	2.7
9	AI	109	VAL	2.7
14	AN	25	VAL	2.7
15	AO	73	GLU	2.7
32	BI	103	ARG	2.7
1	CA	1354	C	2.7
3	AC	25	GLY	2.7
16	CP	79	VAL	2.7
19	CS	82	GLY	2.7
28	DE	25	VAL	2.7
41	DV	72	VAL	2.7
48	D2	6	VAL	2.7
3	CC	180	ALA	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	CB	221	LEU	2.7
3	CC	32	LEU	2.7
8	AH	39	LEU	2.7
12	CL	93	LEU	2.7
25	BA	2175	G	2.7
34	DO	1	MET	2.7
20	AT	34	LYS	2.7
25	BA	302	A	2.7
2	CB	172	ILE	2.7
3	AC	152	ILE	2.7
20	AT	63	ILE	2.7
29	DF	164	ARG	2.7
36	DQ	66	ILE	2.7
3	AC	41	GLY	2.7
16	AP	53	VAL	2.7
20	AT	69	GLY	2.7
54	B8	14	VAL	2.7
7	AG	47	CYS	2.7
43	DX	4	ALA	2.7
1	CA	1030	C	2.7
4	CD	188	LEU	2.7
25	DA	2145	C	2.7
7	AG	90	GLU	2.7
9	AI	9	ARG	2.7
16	AP	81	ARG	2.7
36	DQ	48	GLU	2.7
48	D2	30	ARG	2.7
3	AC	14	ILE	2.7
7	CG	120	ILE	2.7
10	AJ	17	ASP	2.7
12	AL	85	ILE	2.7
12	AL	99	HIS	2.7
29	DF	197	ASP	2.7
17	CQ	8	GLY	2.7
25	DA	1537	G	2.7
1	AA	1493	A	2.7
37	DR	48	VAL	2.7
2	AB	95	GLN	2.7
3	AC	27	LYS	2.7
4	CD	20	TYR	2.6
6	AF	63	TYR	2.6
2	AB	130	ARG	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	AM	108	ARG	2.6
13	CM	91	ARG	2.6
14	AN	57	ARG	2.6
17	CQ	86	GLU	2.6
28	DE	49	LEU	2.6
29	DF	17	ARG	2.6
30	DG	135	LEU	2.6
32	DI	5	LEU	2.6
32	DI	140	LEU	2.6
1	AA	1137	C	2.6
25	DA	2161	C	2.6
2	CB	45	GLN	2.6
10	AJ	100	THR	2.6
2	CB	112	VAL	2.6
5	CE	145	LYS	2.6
15	AO	11	VAL	2.6
43	DX	12	VAL	2.6
46	D0	79	VAL	2.6
29	DF	177	ALA	2.6
27	BD	111	LEU	2.6
2	CB	198	ASP	2.6
9	AI	37	PHE	2.6
2	CB	80	ILE	2.6
12	AL	23	LYS	2.6
7	AG	13	GLN	2.6
10	CJ	33	GLN	2.6
40	DU	17	ILE	2.6
45	DZ	118	GLN	2.6
13	CM	45	VAL	2.6
30	DG	38	VAL	2.6
20	AT	66	ALA	2.6
25	DA	2179	C	2.6
32	DI	19	VAL	2.6
55	D9	25	VAL	2.6
9	AI	16	ARG	2.6
12	AL	86	ARG	2.6
14	AN	20	ALA	2.6
4	AD	108	LEU	2.6
7	CG	99	LEU	2.6
35	DP	138	LEU	2.6
51	D5	58	LEU	2.6
12	AL	32	PHE	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
25	DA	2121	G	2.6
36	DQ	1	MET	2.6
28	DE	197	ILE	2.6
16	AP	5	ARG	2.6
37	DR	41	ALA	2.6
1	CA	1325	C	2.6
52	D6	34	LEU	2.6
3	AC	184	TYR	2.6
4	AD	207	TYR	2.6
4	CD	185	PHE	2.6
7	CG	86	GLN	2.6
9	AI	126	SER	2.6
50	D4	29	PRO	2.6
43	DX	31	HIS	2.6
9	CI	2	GLU	2.6
32	BI	73	GLU	2.6
7	CG	24	THR	2.6
7	CG	41	ARG	2.6
8	AH	13	ILE	2.6
13	AM	57	ARG	2.6
44	DY	2	ARG	2.6
3	CC	173	VAL	2.6
32	DI	37	VAL	2.6
1	CA	1003	G	2.6
7	AG	65	ALA	2.6
25	BA	2122	G	2.6
31	DH	153	LYS	2.6
33	DN	104	LYS	2.6
38	DS	62	LYS	2.6
24	AY	7	A	2.6
6	AF	10	LEU	2.6
8	AH	10	LEU	2.6
32	DI	9	LEU	2.6
48	D2	61	LEU	2.6
8	CH	90	GLY	2.6
9	CI	38	GLN	2.6
9	CI	125	TYR	2.6
10	CJ	89	ASP	2.6
44	DY	74	PRO	2.6
3	AC	179	ARG	2.6
53	B7	23	ARG	2.6
8	AH	83	ILE	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
11	AK	42	TRP	2.6
3	AC	177	THR	2.6
29	DF	9	ILE	2.6
33	DN	70	LYS	2.6
25	BA	288	U	2.6
55	B9	7	VAL	2.6
52	D6	2	ALA	2.6
3	AC	188	LEU	2.6
4	CD	96	LEU	2.6
6	CF	21	LEU	2.6
3	CC	158	GLY	2.6
4	AD	150	GLU	2.6
7	CG	28	ASN	2.6
13	AM	8	GLU	2.6
38	DS	22	GLY	2.6
16	CP	18	ARG	2.6
20	AT	17	ARG	2.6
32	DI	29	TYR	2.6
39	DT	22	PHE	2.6
45	DZ	54	HIS	2.6
10	AJ	48	THR	2.6
16	CP	4	ILE	2.6
27	BD	192	THR	2.6
32	DI	4	ILE	2.6
3	AC	55	VAL	2.6
30	BG	37	VAL	2.6
29	DF	26	ALA	2.6
2	CB	170	GLU	2.6
3	AC	170	GLN	2.6
27	DD	116	GLN	2.6
32	BI	48	GLU	2.6
35	BP	6	LEU	2.6
35	BP	112	LEU	2.6
38	BS	43	GLU	2.6
44	DY	29	GLU	2.6
4	CD	199	ASN	2.6
2	CB	150	SER	2.6
3	AC	97	LYS	2.6
5	CE	152	ARG	2.6
8	CH	125	ARG	2.6
35	DP	124	LYS	2.6
44	DY	97	ARG	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
30	DG	145	THR	2.6
2	AB	15	VAL	2.6
15	CO	45	VAL	2.6
29	DF	127	GLU	2.6
2	AB	213	LEU	2.5
10	AJ	70	ARG	2.5
10	AJ	99	LYS	2.5
19	CS	65	ASN	2.5
27	BD	262	ARG	2.5
36	DQ	37	LEU	2.5
37	DR	113	LEU	2.5
45	DZ	140	ASP	2.5
13	CM	41	PRO	2.5
40	DU	2	PRO	2.5
40	DU	106	PHE	2.5
17	CQ	51	TYR	2.5
19	CS	61	TYR	2.5
9	AI	31	GLN	2.5
10	CJ	92	THR	2.5
19	AS	49	ILE	2.5
29	DF	161	GLU	2.5
35	DP	136	GLU	2.5
3	CC	26	LYS	2.5
12	AL	97	ARG	2.5
13	CM	30	ALA	2.5
16	AP	70	ALA	2.5
18	AR	20	ALA	2.5
45	DZ	37	VAL	2.5
4	AD	194	LEU	2.5
4	CD	21	LEU	2.5
13	CM	16	ASP	2.5
45	DZ	87	ASP	2.5
4	CD	152	SER	2.5
25	BA	572	A	2.5
25	BA	2156	A	2.5
2	CB	33	TYR	2.5
47	B1	71	TYR	2.5
2	CB	212	GLN	2.5
3	AC	166	GLU	2.5
27	DD	276	LYS	2.5
49	D3	33	GLN	2.5
4	CD	17	VAL	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
5	AE	51	VAL	2.5
6	CF	87	ARG	2.5
52	B6	54	ILE	2.5
6	CF	88	VAL	2.5
8	CH	16	ALA	2.5
27	BD	153	ALA	2.5
29	DF	173	VAL	2.5
35	DP	140	ALA	2.5
36	DQ	132	VAL	2.5
3	CC	56	ASP	2.5
12	CL	60	LEU	2.5
16	CP	73	LEU	2.5
16	CP	74	LEU	2.5
29	DF	195	ASP	2.5
10	CJ	99	LYS	2.5
1	CA	1286	A	2.5
20	CT	22	ARG	2.5
25	DA	2133	G	2.5
32	BI	52	ARG	2.5
46	D0	55	ARG	2.5
8	CH	45	ILE	2.5
2	CB	136	VAL	2.5
5	CE	69	VAL	2.5
9	AI	28	VAL	2.5
11	AK	84	VAL	2.5
36	DQ	117	ALA	2.5
38	DS	51	ALA	2.5
45	BZ	141	VAL	2.5
45	BZ	152	ALA	2.5
47	B1	53	VAL	2.5
50	D4	10	VAL	2.5
2	AB	180	LEU	2.5
2	CB	44	LEU	2.5
27	BD	122	ASP	2.5
29	BF	181	LEU	2.5
34	DO	8	LEU	2.5
36	DQ	2	LEU	2.5
10	CJ	30	SER	2.5
7	AG	93	PRO	2.5
17	AQ	24	GLU	2.5
32	BI	7	GLU	2.5
45	DZ	119	GLU	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
3	AC	59	ARG	2.5
2	CB	199	TYR	2.5
37	DR	87	TYR	2.5
47	D1	71	TYR	2.5
50	B4	63	TYR	2.5
50	D4	25	TYR	2.5
19	CS	75	ALA	2.5
20	CT	12	ALA	2.5
29	BF	105	VAL	2.5
42	DW	85	VAL	2.5
45	DZ	152	ALA	2.5
7	AG	99	LEU	2.5
17	CQ	31	LEU	2.5
30	DG	94	LEU	2.5
44	BY	67	LEU	2.5
45	BZ	166	SER	2.5
4	CD	79	PHE	2.5
17	AQ	20	THR	2.5
17	AQ	88	TYR	2.5
38	DS	94	TYR	2.5
4	AD	126	ILE	2.5
47	D1	22	GLY	2.5
7	AG	36	LYS	2.5
5	CE	10	MET	2.5
4	AD	15	GLU	2.5
9	AI	122	ALA	2.5
31	BH	169	VAL	2.5
4	CD	155	LEU	2.5
27	DD	215	LEU	2.5
46	D0	68	GLU	2.5
20	AT	86	ARG	2.5
21	CU	24	ARG	2.5
29	DF	168	ARG	2.5
20	CT	73	HIS	2.5
33	DN	44	PRO	2.5
1	CA	1493	A	2.5
22	AV	15	A	2.5
45	DZ	104	PHE	2.5
25	DA	34	C	2.5
14	CN	15	LYS	2.5
25	DA	883	G	2.5
6	AF	78	GLU	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
38	DS	111	GLU	2.5
41	DV	92	THR	2.5
50	D4	30	GLU	2.5
6	AF	90	VAL	2.5
4	AD	78	LEU	2.5
4	CD	162	LEU	2.5
9	AI	40	LEU	2.5
10	CJ	32	ALA	2.5
17	AQ	9	VAL	2.5
17	CQ	19	VAL	2.5
27	BD	141	VAL	2.5
29	BF	193	VAL	2.5
18	AR	26	LEU	2.5
28	DE	52	LEU	2.5
30	BG	94	LEU	2.5
30	DG	99	MET	2.5
32	DI	107	VAL	2.5
7	AG	86	GLN	2.5
32	BI	114	LEU	2.5
47	B1	80	LEU	2.5
32	BI	8	PRO	2.5
43	DX	85	PRO	2.5
2	CB	139	LYS	2.5
7	CG	30	ILE	2.5
12	AL	64	TYR	2.5
27	DD	118	VAL	2.5
28	BE	77	ILE	2.5
32	DI	25	TYR	2.5
37	DR	21	TYR	2.5
6	AF	9	VAL	2.5
43	DX	30	VAL	2.5
45	DZ	86	VAL	2.5
45	DZ	105	VAL	2.5
1	CA	1154	G	2.4
13	CM	48	LEU	2.4
14	AN	32	SER	2.4
17	CQ	6	LEU	2.4
25	DA	2156	G	2.4
29	DF	125	LEU	2.4
30	DG	7	LEU	2.4
31	BH	2	SER	2.4
32	DI	72	LEU	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	DZ	157	LEU	2.4
12	CL	123	LYS	2.4
3	AC	174	PRO	2.4
8	CH	81	HIS	2.4
28	DE	15	PHE	2.4
48	D2	11	GLU	2.4
55	D9	12	ASP	2.4
3	CC	136	GLN	2.4
5	CE	72	GLN	2.4
31	DH	122	THR	2.4
3	AC	12	LEU	2.4
6	AF	6	VAL	2.4
11	CK	25	TYR	2.4
14	AN	42	ILE	2.4
47	D1	61	ARG	2.4
36	DQ	107	ALA	2.4
49	D3	15	TYR	2.4
10	CJ	90	LEU	2.4
18	AR	31	LEU	2.4
51	D5	57	VAL	2.4
30	DG	47	LYS	2.4
31	DH	160	LYS	2.4
43	DX	29	TRP	2.4
24	CY	76	A	2.4
2	CB	203	GLY	2.4
25	BA	2194	U	2.4
50	B4	17	GLY	2.4
4	AD	139	ARG	2.4
37	DR	40	LYS	2.4
44	DY	26	LYS	2.4
55	B9	13	LYS	2.4
3	AC	175	LEU	2.4
9	AI	102	LEU	2.4
12	CL	27	LEU	2.4
15	CO	82	ILE	2.4
16	AP	64	ALA	2.4
19	CS	62	ILE	2.4
20	AT	33	ILE	2.4
27	DD	153	ALA	2.4
31	DH	144	VAL	2.4
33	DN	60	ILE	2.4
33	DN	71	ILE	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
35	DP	105	LEU	2.4
41	DV	94	LEU	2.4
43	DX	83	VAL	2.4
48	D2	41	ILE	2.4
19	CS	42	PRO	2.4
30	DG	17	PRO	2.4
35	DP	118	GLY	2.4
1	CA	1115	C	2.4
4	AD	184	LYS	2.4
17	AQ	13	ASP	2.4
37	DR	59	ASP	2.4
38	BS	93	LYS	2.4
1	CA	1256	A	2.4
5	CE	144	THR	2.4
36	DQ	129	THR	2.4
1	CA	1120	G	2.4
3	CC	178	LEU	2.4
3	CC	207	VAL	2.4
4	AD	196	LEU	2.4
5	AE	82	VAL	2.4
19	CS	22	LEU	2.4
19	CS	51	VAL	2.4
25	BA	2142	G	2.4
31	DH	46	GLU	2.4
32	BI	59	ALA	2.4
44	DY	85	VAL	2.4
49	D3	36	VAL	2.4
13	CM	21	TYR	2.4
15	CO	63	ARG	2.4
17	CQ	87	LYS	2.4
18	AR	21	LYS	2.4
32	BI	45	LYS	2.4
35	DP	109	GLY	2.4
1	AA	841	U	2.4
5	CE	122	GLU	2.4
8	AH	3	THR	2.4
3	CC	146	ALA	2.4
5	AE	67	VAL	2.4
6	AF	52	ILE	2.4
20	AT	84	LEU	2.4
30	BG	140	ILE	2.4
38	BS	48	LEU	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	BZ	124	ILE	2.4
25	BA	1935	A	2.4
35	DP	110	TYR	2.4
5	AE	15	ARG	2.4
10	CJ	28	ARG	2.4
28	BE	6	GLY	2.4
29	DF	18	ARG	2.4
30	DG	170	ARG	2.4
32	BI	106	GLY	2.4
38	DS	71	ARG	2.4
1	CA	1371	G	2.4
25	BA	2145	G	2.4
2	CB	195	ASP	2.4
44	DY	64	GLU	2.4
10	CJ	87	THR	2.4
18	CR	58	LEU	2.4
20	CT	31	SER	2.4
37	DR	35	THR	2.4
4	CD	121	VAL	2.4
7	AG	70	LYS	2.4
8	CH	26	VAL	2.4
9	AI	74	ILE	2.4
10	CJ	57	LYS	2.4
28	DE	104	VAL	2.4
31	DH	99	VAL	2.4
36	BQ	79	LEU	2.4
54	D8	16	ILE	2.4
4	AD	115	ARG	2.4
7	AG	6	ARG	2.4
13	AM	21	TYR	2.4
14	AN	41	ARG	2.4
12	CL	94	PRO	2.4
30	DG	87	PRO	2.4
49	D3	12	PRO	2.4
6	CF	60	PHE	2.4
11	AK	125	PHE	2.4
19	CS	74	PHE	2.4
2	AB	12	GLU	2.4
2	AB	126	GLU	2.4
31	DH	104	GLU	2.4
20	CT	38	LYS	2.4
1	CA	1001(A)	G	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	1224	G	2.4
43	DX	27	THR	2.4
27	DD	79	VAL	2.4
27	DD	155	LEU	2.4
30	BG	103	LEU	2.4
30	DG	43	LEU	2.4
45	DZ	92	SER	2.4
2	AB	41	ILE	2.4
4	CD	8	VAL	2.4
10	CJ	94	VAL	2.4
15	AO	16	ALA	2.4
32	BI	136	VAL	2.4
35	DP	101	VAL	2.4
18	CR	34	TYR	2.4
36	DQ	30	GLY	2.4
17	CQ	82	MET	2.4
4	CD	98	GLU	2.4
5	CE	28	PHE	2.4
17	AQ	37	LYS	2.4
17	AQ	87	LYS	2.4
4	CD	202	LEU	2.4
5	CE	150	ARG	2.4
8	CH	91	ARG	2.4
31	DH	56	SER	2.4
17	AQ	84	LEU	2.4
32	BI	57	ARG	2.4
45	DZ	52	SER	2.4
37	DR	44	LEU	2.4
3	CC	169	ALA	2.3
7	AG	17	VAL	2.3
11	AK	19	ALA	2.3
27	BD	64	ILE	2.3
29	DF	163	VAL	2.3
32	DI	138	ILE	2.3
46	D0	63	VAL	2.3
1	CA	1309	G	2.3
12	AL	69	TYR	2.3
7	CG	73	MET	2.3
47	D1	81	LYS	2.3
53	D7	18	PHE	2.3
4	AD	132	ARG	2.3
48	D2	51	ARG	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	CA	522	C	2.3
20	CT	37	SER	2.3
2	CB	154	LEU	2.3
25	DA	2146	C	2.3
35	BP	138	LEU	2.3
44	DY	31	LEU	2.3
44	DY	57	GLN	2.3
2	AB	93	VAL	2.3
2	CB	151	GLY	2.3
3	AC	113	ALA	2.3
7	AG	116	ALA	2.3
11	AK	32	ILE	2.3
13	CM	74	VAL	2.3
5	CE	81	GLU	2.3
8	CH	136	GLU	2.3
28	DE	176	ILE	2.3
45	DZ	8	TYR	2.3
45	DZ	101	PRO	2.3
13	CM	108	ARG	2.3
2	CB	109	SER	2.3
2	CB	224	GLN	2.3
17	CQ	12	SER	2.3
25	DA	2100	G	2.3
25	DA	2802	G	2.3
9	AI	99	LEU	2.3
9	AI	116	LYS	2.3
7	CG	25	ALA	2.3
16	AP	30	GLY	2.3
17	AQ	54	GLY	2.3
20	AT	13	LEU	2.3
30	DG	104	GLU	2.3
31	DH	127	GLU	2.3
32	DI	6	LEU	2.3
35	BP	59	LEU	2.3
48	D2	2	LYS	2.3
52	D6	35	GLU	2.3
2	AB	136	VAL	2.3
8	AH	6	ILE	2.3
29	BF	64	ILE	2.3
32	BI	15	VAL	2.3
32	BI	145	VAL	2.3
46	D0	51	VAL	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	DZ	134	PRO	2.3
18	AR	29	PHE	2.3
53	D7	23	ARG	2.3
9	AI	3	GLN	2.3
10	CJ	25	GLU	2.3
41	DV	73	SER	2.3
1	CA	204	U	2.3
18	AR	44	LEU	2.3
32	DI	78	THR	2.3
35	DP	147	LEU	2.3
2	AB	123	ALA	2.3
15	AO	82	ILE	2.3
17	CQ	35	VAL	2.3
27	DD	51	VAL	2.3
32	DI	36	ALA	2.3
45	BZ	126	VAL	2.3
50	D4	31	ILE	2.3
42	DW	111	HIS	2.3
2	CB	131	PRO	2.3
10	CJ	9	ARG	2.3
12	AL	125	PRO	2.3
12	CL	59	ARG	2.3
33	DN	95	PRO	2.3
15	CO	47	LYS	2.3
16	AP	31	LYS	2.3
32	BI	139	GLN	2.3
45	DZ	136	PHE	2.3
25	BA	2201	C	2.3
47	B1	78	LYS	2.3
19	AS	17	GLU	2.3
4	CD	183	GLY	2.3
6	AF	14	LEU	2.3
17	AQ	22	LEU	2.3
37	DR	111	LEU	2.3
38	DS	78	LEU	2.3
46	D0	76	GLY	2.3
3	CC	60	ALA	2.3
5	CE	30	ALA	2.3
5	CE	104	ALA	2.3
16	CP	64	ALA	2.3
17	CQ	73	VAL	2.3
15	AO	74	ASP	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
20	CT	23	ARG	2.3
29	DF	116	ASP	2.3
32	BI	88	ILE	2.3
7	CG	63	LYS	2.3
16	CP	80	PHE	2.3
30	DG	80	PHE	2.3
35	BP	68	GLN	2.3
1	CA	1002	G	2.3
25	DA	2104	G	2.3
30	DG	155	MET	2.3
12	CL	44	THR	2.3
32	DI	31	LEU	2.3
35	BP	105	LEU	2.3
38	BS	24	LEU	2.3
44	DY	83	THR	2.3
8	AH	16	ALA	2.3
9	AI	20	ARG	2.3
12	CL	53	ARG	2.3
8	AH	86	ILE	2.3
12	CL	82	VAL	2.3
15	AO	12	ILE	2.3
17	AQ	83	ASP	2.3
17	CQ	85	VAL	2.3
20	CT	29	LYS	2.3
29	DF	36	VAL	2.3
32	DI	96	ASP	2.3
35	DP	2	LYS	2.3
2	CB	183	PRO	2.3
8	AH	101	PRO	2.3
15	CO	9	GLN	2.3
6	AF	84	ASN	2.3
2	AB	199	TYR	2.3
3	AC	18	TRP	2.3
32	DI	16	GLY	2.3
15	CO	81	LEU	2.3
16	AP	60	LEU	2.3
36	BQ	76	LYS	2.3
46	D0	62	LEU	2.3
1	CA	1372	U	2.3
7	AG	46	ALA	2.3
7	CG	7	ALA	2.3
12	CL	43	VAL	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
29	BF	23	ASP	2.3
36	DQ	36	ALA	2.3
41	DV	33	VAL	2.3
45	DZ	141	VAL	2.3
46	D0	23	VAL	2.3
50	B4	51	ASP	2.3
25	DA	2138	C	2.3
31	DH	58	GLU	2.3
32	BI	4	ILE	2.3
54	B8	23	VAL	2.3
1	CA	995	C	2.3
5	CE	50	GLU	2.3
5	CE	149	GLU	2.3
10	AJ	21	GLN	2.3
45	DZ	169	GLU	2.3
8	AH	5	PRO	2.3
27	BD	135	PHE	2.3
41	DV	75	PHE	2.3
9	AI	57	GLY	2.3
12	CL	105	TYR	2.3
27	DD	275	LYS	2.3
30	BG	100	TRP	2.3
33	DN	83	LYS	2.3
4	CD	73	ARG	2.3
6	AF	86	ARG	2.3
15	CO	68	ARG	2.3
32	BI	33	ARG	2.3
3	CC	43	LEU	2.3
4	AD	21	LEU	2.3
8	CH	127	LEU	2.3
27	BD	37	LEU	2.3
29	BF	192	LEU	2.3
46	D0	59	LEU	2.3
9	AI	54	ASP	2.2
19	AS	12	ASP	2.2
25	BA	2136	A	2.2
26	DB	52	A	2.2
13	CM	51	ALA	2.2
18	AR	39	VAL	2.2
32	DI	144	VAL	2.2
17	CQ	60	ILE	2.2
1	CA	998	G	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
4	CD	30	LYS	2.2
40	DU	79	PHE	2.2
45	DZ	78	LYS	2.2
8	CH	85	ARG	2.2
44	DY	41	GLY	2.2
46	D0	44	ARG	2.2
46	D0	54	GLY	2.2
44	BY	1	MET	2.2
4	AD	162	LEU	2.2
7	CG	129	GLU	2.2
27	BD	155	LEU	2.2
32	BI	58	LEU	2.2
35	DP	88	LEU	2.2
37	BR	10	LEU	2.2
11	AK	87	THR	2.2
33	DN	93	THR	2.2
27	DD	113	VAL	2.2
32	BI	21	VAL	2.2
38	DS	46	VAL	2.2
41	DV	14	VAL	2.2
2	AB	185	ILE	2.2
13	CM	25	ILE	2.2
48	D2	57	ILE	2.2
5	CE	49	PRO	2.2
31	DH	36	PRO	2.2
32	BI	119	PRO	2.2
39	DT	77	PRO	2.2
8	CH	131	GLY	2.2
31	DH	42	ARG	2.2
44	DY	23	ARG	2.2
2	CB	84	GLU	2.2
2	CB	145	LEU	2.2
4	CD	194	LEU	2.2
17	CQ	42	TYR	2.2
17	CQ	98	LEU	2.2
29	DF	20	LEU	2.2
33	BN	72	TYR	2.2
1	CA	1119	C	2.2
1	CA	1023	G	2.2
4	CD	102	ASP	2.2
16	AP	67	THR	2.2
20	CT	35	THR	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
9	CI	58	HIS	2.2
30	DG	31	VAL	2.2
32	DI	21	VAL	2.2
37	DR	73	VAL	2.2
38	DS	72	ALA	2.2
2	AB	194	PRO	2.2
10	CJ	91	PRO	2.2
35	BP	15	ARG	2.2
3	CC	128	PHE	2.2
5	CE	45	PHE	2.2
43	DX	94	GLY	2.2
8	CH	113	SER	2.2
15	CO	14	GLU	2.2
30	BG	35	GLU	2.2
31	DH	86	GLU	2.2
2	AB	44	LEU	2.2
3	AC	32	LEU	2.2
6	AF	79	LEU	2.2
25	BA	2180	A	2.2
30	BG	25	TYR	2.2
38	BS	7	TYR	2.2
48	D2	44	LEU	2.2
53	D7	22	MET	2.2
5	CE	135	THR	2.2
16	CP	22	THR	2.2
33	DN	73	THR	2.2
4	CD	195	ALA	2.2
32	BI	94	ALA	2.2
32	BI	115	ALA	2.2
43	BX	43	VAL	2.2
25	BA	2162	C	2.2
25	BA	2518	U	2.2
36	DQ	4	PRO	2.2
41	DV	36	PRO	2.2
46	D0	36	ILE	2.2
25	BA	2123	G	2.2
2	CB	147	LYS	2.2
17	CQ	14	LYS	2.2
18	CR	76	LEU	2.2
31	DH	7	LEU	2.2
39	DT	114	LEU	2.2
42	DW	94	ASP	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
48	B2	1	MET	2.2
2	CB	171	ALA	2.2
7	AG	32	ARG	2.2
7	CG	10	ARG	2.2
28	BE	19	ARG	2.2
45	BZ	72	ARG	2.2
3	CC	66	VAL	2.2
12	CL	66	VAL	2.2
36	DQ	27	VAL	2.2
4	CD	204	ILE	2.2
5	AE	11	ILE	2.2
10	CJ	82	ILE	2.2
32	BI	71	ILE	2.2
55	B9	26	ILE	2.2
55	D9	17	ILE	2.2
2	CB	17	PHE	2.2
4	AD	75	PHE	2.2
4	CD	86	LYS	2.2
5	AE	28	PHE	2.2
14	CN	16	PHE	2.2
18	AR	43	PHE	2.2
30	DG	58	GLN	2.2
48	D2	54	LYS	2.2
50	D4	66	SER	2.2
1	CA	1320	C	2.2
29	BF	140	LEU	2.2
29	DF	24	LEU	2.2
35	DP	59	LEU	2.2
47	B1	95	LEU	2.2
1	AA	1036	G	2.2
2	AB	73	THR	2.2
5	CE	120	THR	2.2
7	CG	44	TYR	2.2
9	CI	103	THR	2.2
18	CR	25	THR	2.2
30	DG	12	TYR	2.2
50	B4	55	ARG	2.2
2	CB	9	GLU	2.2
4	CD	147	ALA	2.2
5	CE	8	GLU	2.2
34	DO	82	ASN	2.2
44	DY	40	GLU	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
8	AH	26	VAL	2.2
12	CL	58	VAL	2.2
32	BI	127	VAL	2.2
34	DO	38	VAL	2.2
45	BZ	128	VAL	2.2
47	B1	54	ALA	2.2
9	AI	77	ILE	2.2
14	AN	51	GLY	2.2
21	CU	12	LYS	2.2
28	DE	14	ILE	2.2
34	DO	74	GLY	2.2
6	AF	60	PHE	2.2
19	AS	4	SER	2.2
24	AY	76	A	2.2
26	DB	29	A	2.2
4	AD	73	ARG	2.2
6	AF	82	ARG	2.2
12	CL	97	ARG	2.2
30	DG	176	LEU	2.2
32	DI	123	LEU	2.2
40	DU	60	LEU	2.2
43	DX	70	LEU	2.2
45	DZ	61	LEU	2.2
55	D9	9	ARG	2.2
1	CA	526	C	2.2
2	AB	52	GLU	2.2
3	CC	58	GLU	2.2
36	DQ	3	MET	2.2
48	D2	12	GLU	2.2
2	CB	47	THR	2.2
19	CS	77	THR	2.2
27	DD	40	THR	2.2
16	CP	56	ALA	2.2
17	CQ	29	HIS	2.2
31	DH	158	HIS	2.2
39	BT	104	ASN	2.2
3	CC	160	ALA	2.2
3	CC	195	VAL	2.2
4	AD	17	VAL	2.2
5	CE	67	VAL	2.2
7	CG	108	ALA	2.2
42	DW	74	ALA	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
47	D1	28	GLY	2.2
1	CA	506	G	2.2
25	BA	2176	G	2.2
12	CL	118	SER	2.2
25	BA	1466	U	2.2
29	BF	15	SER	2.2
38	DS	12	PHE	2.2
2	CB	130	ARG	2.2
16	AP	28	ARG	2.2
27	BD	263	ARG	2.2
28	DE	174	ASP	2.2
30	BG	51	ARG	2.2
30	DG	95	ARG	2.2
43	BX	65	ARG	2.2
8	CH	123	GLU	2.2
13	CM	50	GLU	2.2
29	BF	12	LEU	2.2
32	BI	47	LEU	2.2
38	DS	101	LEU	2.2
49	D3	37	LEU	2.2
25	BA	2084	A	2.1
44	DY	12	THR	2.1
15	CO	89	GLY	2.1
16	CP	32	TYR	2.1
6	AF	85	VAL	2.1
29	DF	80	ALA	2.1
35	BP	127	ALA	2.1
25	BA	2130	C	2.1
26	DB	28	C	2.1
5	CE	76	ILE	2.1
33	BN	30	ILE	2.1
4	CD	175	SER	2.1
12	CL	81	SER	2.1
3	CC	179	ARG	2.1
17	AQ	71	PHE	2.1
45	DZ	80	ARG	2.1
3	CC	206	GLU	2.1
7	CG	139	GLU	2.1
48	D2	34	GLU	2.1
4	AD	96	LEU	2.1
6	CF	79	LEU	2.1
15	AO	85	LEU	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
25	BA	1847	G	2.1
27	DD	111	LEU	2.1
33	DN	87	LEU	2.1
35	BP	147	LEU	2.1
4	AD	116	GLN	2.1
6	CF	84	ASN	2.1
40	BU	117	GLN	2.1
33	DN	18	ALA	2.1
45	BZ	98	MET	2.1
54	B8	10	ALA	2.1
6	CF	90	VAL	2.1
15	CO	60	VAL	2.1
16	CP	46	PRO	2.1
27	DD	117	VAL	2.1
28	BE	196	VAL	2.1
29	DF	57	VAL	2.1
2	AB	162	ILE	2.1
9	CI	127	LYS	2.1
10	AJ	60	ARG	2.1
18	CR	61	LYS	2.1
20	AT	23	ARG	2.1
31	DH	6	ARG	2.1
32	DI	91	SER	2.1
1	AA	1531	A	2.1
1	CA	975	A	2.1
12	CL	65	GLU	2.1
25	DA	2134	A	2.1
1	CA	48	C	2.1
25	BA	271	U	2.1
3	CC	28	GLN	2.1
4	AD	69	GLY	2.1
39	BT	38	ASN	2.1
21	CU	8	THR	2.1
36	DQ	41	TRP	2.1
5	AE	92	LYS	2.1
20	CT	40	ALA	2.1
33	DN	102	ALA	2.1
9	AI	125	TYR	2.1
12	AL	94	PRO	2.1
28	DE	102	VAL	2.1
36	DQ	137	TYR	2.1
49	D3	55	ARG	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
19	AS	38	SER	2.1
38	DS	112	PHE	2.1
35	BP	148	LEU	2.1
44	DY	14	LEU	2.1
45	BZ	59	LEU	2.1
1	CA	25	C	2.1
13	CM	12	ASN	2.1
26	DB	120	A	2.1
25	DA	2175	C	2.1
25	DA	2178	C	2.1
35	DP	93	GLY	2.1
36	BQ	61	GLY	2.1
12	AL	47	LYS	2.1
12	CL	23	LYS	2.1
2	AB	175	ARG	2.1
8	CH	104	ARG	2.1
12	CL	26	ALA	2.1
16	CP	28	ARG	2.1
17	AQ	7	THR	2.1
20	AT	67	ALA	2.1
20	CT	77	ALA	2.1
37	DR	43	GLU	2.1
44	DY	48	ALA	2.1
5	CE	41	VAL	2.1
7	CG	118	VAL	2.1
13	AM	54	VAL	2.1
14	CN	21	TYR	2.1
17	AQ	28	PRO	2.1
45	DZ	25	PRO	2.1
47	B1	68	PRO	2.1
4	CD	134	ASP	2.1
13	CM	47	ASP	2.1
32	DI	120	ILE	2.1
38	BS	29	PHE	2.1
2	CB	110	GLN	2.1
25	DA	2155	G	2.1
37	DR	24	GLN	2.1
10	CJ	36	GLY	2.1
13	CM	85	GLY	2.1
20	AT	29	LYS	2.1
32	BI	2	LYS	2.1
10	AJ	43	ARG	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
21	CU	22	ARG	2.1
37	DR	118	GLU	2.1
41	DV	15	GLU	2.1
50	D4	55	ARG	2.1
12	CL	67	THR	2.1
28	DE	28	ALA	2.1
31	DH	165	ALA	2.1
4	CD	91	SER	2.1
10	CJ	35	SER	2.1
32	DI	1	MET	2.1
10	AJ	38	ILE	2.1
17	AQ	36	ILE	2.1
27	BD	105	ILE	2.1
31	DH	83	TYR	2.1
15	AO	18	PHE	2.1
18	AR	68	LYS	2.1
36	BQ	85	LYS	2.1
3	CC	87	LEU	2.1
30	DG	90	LEU	2.1
37	DR	18	LEU	2.1
10	AJ	25	GLU	2.1
39	DT	39	ARG	2.1
45	DZ	84	GLU	2.1
50	D4	58	ARG	2.1
18	CR	56	THR	2.1
25	DA	100	G	2.1
45	BZ	69	THR	2.1
40	DU	113	ALA	2.1
2	AB	230	VAL	2.1
16	AP	15	PRO	2.1
29	BF	157	VAL	2.1
44	DY	42	VAL	2.1
45	DZ	95	PRO	2.1
47	B1	51	VAL	2.1
9	CI	116	LYS	2.1
35	DP	68	GLN	2.1
36	DQ	130	LYS	2.1
49	D3	17	LYS	2.1
49	D3	20	LYS	2.1
27	BD	49	ILE	2.1
42	DW	103	ILE	2.1
39	DT	57	PHE	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
17	AQ	98	LEU	2.1
19	CS	20	LEU	2.1
21	AU	11	GLY	2.1
30	BG	136	ARG	2.1
35	BP	90	ARG	2.1
3	AC	181	ASN	2.1
32	DI	74	ASN	2.1
36	BQ	33	GLY	2.1
44	DY	92	ASN	2.1
45	DZ	117	LEU	2.1
25	DA	2132	U	2.1
36	DQ	114	ALA	2.1
43	DX	48	LYS	2.1
45	DZ	7	ALA	2.1
2	AB	131	PRO	2.1
4	CD	105	VAL	2.1
4	CD	170	VAL	2.1
5	AE	66	MET	2.1
5	CE	20	GLN	2.1
10	CJ	73	ASP	2.1
13	AM	7	VAL	2.1
2	CB	209	ARG	2.1
4	CD	27	TYR	2.1
15	CO	3	ILE	2.1
5	AE	24	ARG	2.1
12	CL	113	ARG	2.1
13	AM	61	GLU	2.1
29	BF	19	GLU	2.1
30	DG	88	ILE	2.1
33	BN	71	ILE	2.1
33	DN	117	PHE	2.1
35	BP	98	GLU	2.1
36	DQ	47	ILE	2.1
12	CL	35	GLY	2.1
13	CM	100	GLY	2.1
19	AS	5	LEU	2.1
30	BG	135	LEU	2.1
37	DR	60	LEU	2.1
39	BT	78	LEU	2.1
17	CQ	100	LYS	2.0
25	DA	2136	C	2.0
5	CE	98	THR	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
23	CX	76	A	2.0
16	CP	62	VAL	2.0
27	BD	34	VAL	2.0
27	BD	124	PRO	2.0
32	BI	91	SER	2.0
48	D2	39	ALA	2.0
44	DY	50	ARG	2.0
44	DY	62	GLU	2.0
45	DZ	60	GLU	2.0
54	D8	22	VAL	2.0
7	AG	4	ARG	2.0
8	AH	9	MET	2.0
17	AQ	81	ARG	2.0
20	AT	89	ARG	2.0
35	BP	50	ARG	2.0
36	BQ	10	ARG	2.0
41	DV	21	ARG	2.0
5	CE	118	ILE	2.0
9	AI	6	GLY	2.0
32	DI	126	TYR	2.0
43	DX	18	TYR	2.0
6	AF	98	LEU	2.0
20	CT	14	LYS	2.0
45	BZ	91	LEU	2.0
14	CN	43	CYS	2.0
1	CA	1117	G	2.0
16	CP	16	HIS	2.0
25	BA	2228	G	2.0
11	AK	28	THR	2.0
2	CB	143	GLU	2.0
3	CC	44	GLU	2.0
4	CD	117	ALA	2.0
4	CD	149	ALA	2.0
17	AQ	86	GLU	2.0
20	AT	70	SER	2.0
3	CC	64	VAL	2.0
7	AG	115	ARG	2.0
7	CG	115	ARG	2.0
9	AI	108	VAL	2.0
15	AO	19	PRO	2.0
32	BI	55	ALA	2.0
37	DR	8	ARG	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
45	BZ	39	VAL	2.0
45	DZ	174	VAL	2.0
55	B9	25	VAL	2.0
4	AD	20	TYR	2.0
4	AD	206	PHE	2.0
8	CH	100	ILE	2.0
12	CL	124	LYS	2.0
44	DY	22	GLY	2.0
2	AB	158	LEU	2.0
5	CE	151	LEU	2.0
17	AQ	53	LEU	2.0
48	D2	10	LEU	2.0
3	AC	15	THR	2.0
5	CE	107	ARG	2.0
8	CH	84	ARG	2.0
12	CL	62	SER	2.0
15	AO	77	ARG	2.0
16	CP	44	THR	2.0
19	CS	37	ARG	2.0
31	DH	51	ARG	2.0
40	DU	12	ARG	2.0
45	DZ	45	ASP	2.0
8	AH	129	VAL	2.0
9	AI	86	VAL	2.0
10	AJ	41	PRO	2.0
12	CL	36	VAL	2.0
27	DD	3	VAL	2.0
29	BF	173	VAL	2.0
42	DW	76	VAL	2.0
44	DY	28	LYS	2.0
45	DZ	27	VAL	2.0
5	AE	129	ILE	2.0
29	DF	64	ILE	2.0
33	DN	1	MET	2.0
40	DU	80	ILE	2.0
42	BW	95	ILE	2.0
54	D8	41	ILE	2.0
9	AI	88	TYR	2.0
17	CQ	74	LEU	2.0
32	BI	74	ASN	2.0
39	DT	99	LEU	2.0
41	DV	12	TYR	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
47	D1	98	LEU	2.0
1	CA	523	A	2.0
1	CA	1363(A)	A	2.0
25	BA	990	A	2.0
27	DD	23	GLU	2.0
49	D3	38	GLU	2.0
2	AB	209	ARG	2.0
21	CU	9	ARG	2.0
3	AC	17	ASP	2.0
25	BA	274	U	2.0
38	BS	41	ASP	2.0
54	D8	29	LYS	2.0
3	AC	146	ALA	2.0
13	AM	97	PRO	2.0
18	CR	20	ALA	2.0
27	DD	81	ALA	2.0
53	D7	45	ALA	2.0
31	BH	113	VAL	2.0
33	DN	62	VAL	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
23	PSU	AX	55	20/21	0.15	-	56,70,78,80	0
23	5MU	AX	54	21/22	0.13	-	60,72,80,91	0
23	PSU	CX	55	20/21	0.11	-	56,73,80,86	0
23	5MC	AX	32	21/22	0.17	-	38,59,69,83	0
23	4SU	CX	8	20/21	0.12	-	73,81,98,100	0
23	5MU	CX	54	21/22	0.14	-	69,80,93,106	0
23	5MC	CX	32	21/22	0.16	-	66,75,83,86	0
23	4SU	AX	8	20/21	0.17	-	47,67,77,84	0

6.3 Carbohydrates

There are no carbohydrates in this entry.

6.4 Ligands

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	BB	207	1/1	0.20	-	39,39,39,39	0
56	MG	DA	3098	1/1	0.06	-	57,57,57,57	0
56	MG	BA	3680	1/1	0.06	-	53,53,53,53	0
56	MG	DA	3594	1/1	0.14	-	54,54,54,54	0
56	MG	DA	3463	1/1	0.06	-	32,32,32,32	0
56	MG	DA	3386	1/1	0.07	-	23,23,23,23	0
56	MG	BA	3063	1/1	0.23	-	54,54,54,54	0
56	MG	AF	3001	1/1	0.13	-	56,56,56,56	0
56	MG	DA	3424	1/1	0.09	-	41,41,41,41	0
56	MG	DA	3673	1/1	0.60	-	68,68,68,68	0
56	MG	BA	3631	1/1	0.16	-	49,49,49,49	0
56	MG	DA	3381	1/1	0.12	-	34,34,34,34	0
56	MG	CA	3093	1/1	0.18	-	65,65,65,65	0
56	MG	DA	3537	1/1	0.14	-	58,58,58,58	0
56	MG	BA	3521	1/1	0.28	-	29,29,29,29	0
56	MG	BA	3403	1/1	0.10	-	22,22,22,22	0
56	MG	CA	3026	1/1	0.11	-	55,55,55,55	0
56	MG	BA	3351	1/1	0.20	-	59,59,59,59	0
56	MG	AA	3065	1/1	0.07	-	55,55,55,55	0
56	MG	CA	3151	1/1	0.19	-	60,60,60,60	0
56	MG	DA	3519	1/1	0.11	-	32,32,32,32	0
56	MG	BA	3178	1/1	0.44	-	42,42,42,42	0
56	MG	BA	3125	1/1	0.42	-	49,49,49,49	0
56	MG	CA	3103	1/1	0.15	-	79,79,79,79	0
56	MG	DA	3282	1/1	0.20	-	42,42,42,42	0
56	MG	AA	3126	1/1	0.22	-	57,57,57,57	0
56	MG	BA	3123	1/1	0.23	-	28,28,28,28	0
56	MG	DA	3667	1/1	0.09	-	66,66,66,66	0
56	MG	DA	3096	1/1	0.69	-	48,48,48,48	0
56	MG	AA	3162	1/1	0.12	-	59,59,59,59	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3236	1/1	0.27	-	34,34,34,34	0
56	MG	DA	3066	1/1	0.24	-	47,47,47,47	0
56	MG	DA	3277	1/1	0.18	-	54,54,54,54	0
56	MG	BA	3322	1/1	0.28	-	48,48,48,48	0
56	MG	DA	3668	1/1	1.58	-	51,51,51,51	0
56	MG	BA	3620	1/1	0.17	-	62,62,62,62	0
56	MG	BA	3591	1/1	0.13	-	48,48,48,48	0
56	MG	BA	3627	1/1	0.14	-	57,57,57,57	0
56	MG	BA	3468	1/1	0.15	-	45,45,45,45	0
56	MG	BA	3517	1/1	0.14	-	49,49,49,49	0
56	MG	BA	3660	1/1	0.15	-	51,51,51,51	0
56	MG	BA	3772	1/1	0.17	-	56,56,56,56	0
56	MG	BA	3675	1/1	0.23	-	29,29,29,29	0
56	MG	AA	3002	1/1	0.05	-	63,63,63,63	0
56	MG	DA	3633	1/1	0.08	-	56,56,56,56	0
56	MG	BB	201	1/1	0.09	-	65,65,65,65	0
56	MG	AA	3107	1/1	0.15	-	63,63,63,63	0
56	MG	DA	3037	1/1	0.12	-	34,34,34,34	0
56	MG	AA	3101	1/1	0.23	-	49,49,49,49	0
56	MG	BA	3352	1/1	0.16	-	45,45,45,45	0
56	MG	DA	3082	1/1	0.10	-	40,40,40,40	0
56	MG	BA	3699	1/1	0.12	-	48,48,48,48	0
56	MG	BA	3131	1/1	0.28	-	39,39,39,39	0
56	MG	DA	3280	1/1	0.09	-	62,62,62,62	0
56	MG	BA	3354	1/1	0.14	-	20,20,20,20	0
56	MG	BA	3389	1/1	0.14	-	56,56,56,56	0
56	MG	BA	3562	1/1	0.24	-	44,44,44,44	0
56	MG	BA	3308	1/1	0.11	-	49,49,49,49	0
56	MG	BA	3016	1/1	0.10	-	37,37,37,37	0
56	MG	DA	3255	1/1	0.11	-	62,62,62,62	0
56	MG	DA	3027	1/1	0.36	-	42,42,42,42	0
56	MG	AA	3034	1/1	0.20	-	70,70,70,70	0
56	MG	CA	3157	1/1	0.09	-	61,61,61,61	0
56	MG	AA	3040	1/1	0.20	-	72,72,72,72	0
56	MG	BA	3723	1/1	0.16	-	25,25,25,25	0
56	MG	CA	3042	1/1	0.11	-	70,70,70,70	0
56	MG	DA	3170	1/1	0.25	-	46,46,46,46	0
56	MG	DA	3054	1/1	0.10	-	39,39,39,39	0
56	MG	BA	3736	1/1	0.07	-	42,42,42,42	0
56	MG	DA	3133	1/1	0.11	-	52,52,52,52	0
56	MG	CA	3040	1/1	0.14	-	45,45,45,45	0
56	MG	DA	3488	1/1	0.12	-	51,51,51,51	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3551	1/1	0.17	-	49,49,49,49	0
56	MG	DA	3397	1/1	0.08	-	30,30,30,30	0
56	MG	CE	201	1/1	0.17	-	73,73,73,73	0
56	MG	BA	3764	1/1	0.19	-	44,44,44,44	0
56	MG	CA	3016	1/1	0.17	-	53,53,53,53	0
56	MG	AX	3005	1/1	0.21	-	64,64,64,64	0
56	MG	DA	3399	1/1	0.07	-	55,55,55,55	0
56	MG	BA	3683	1/1	0.11	-	43,43,43,43	0
56	MG	DA	3540	1/1	0.18	-	56,56,56,56	0
56	MG	BA	3293	1/1	0.21	-	40,40,40,40	0
56	MG	DA	3232	1/1	0.13	-	45,45,45,45	0
56	MG	DA	3492	1/1	0.10	-	44,44,44,44	0
56	MG	DA	3420	1/1	0.12	-	40,40,40,40	0
56	MG	DA	3071	1/1	0.17	-	48,48,48,48	0
56	MG	DA	3270	1/1	0.29	-	56,56,56,56	0
56	MG	BA	3406	1/1	0.09	-	32,32,32,32	0
56	MG	BA	3296	1/1	0.19	-	47,47,47,47	0
56	MG	DA	3439	1/1	0.17	-	46,46,46,46	0
56	MG	DA	3299	1/1	0.10	-	40,40,40,40	0
56	MG	DV	3001	1/1	0.17	-	61,61,61,61	0
56	MG	BA	3303	1/1	0.29	-	37,37,37,37	0
56	MG	BA	3373	1/1	0.09	-	42,42,42,42	0
56	MG	DA	3250	1/1	0.21	-	40,40,40,40	0
56	MG	AA	3117	1/1	0.19	-	34,34,34,34	0
56	MG	DA	3573	1/1	0.10	-	27,27,27,27	0
56	MG	DA	3508	1/1	0.06	-	41,41,41,41	0
56	MG	BA	3135	1/1	0.14	-	61,61,61,61	0
56	MG	DA	3631	1/1	0.09	-	57,57,57,57	0
56	MG	DA	3145	1/1	0.14	-	38,38,38,38	0
56	MG	DD	303	1/1	0.50	-	51,51,51,51	0
56	MG	BA	3169	1/1	0.33	-	50,50,50,50	0
56	MG	BA	3552	1/1	0.13	-	46,46,46,46	0
56	MG	DA	3343	1/1	0.17	-	42,42,42,42	0
56	MG	BA	3272	1/1	0.10	-	22,22,22,22	0
56	MG	BA	3440	1/1	0.21	-	29,29,29,29	0
56	MG	BA	3589	1/1	0.10	-	42,42,42,42	0
56	MG	DA	3564	1/1	0.12	-	50,50,50,50	0
56	MG	BA	3503	1/1	0.27	-	64,64,64,64	0
56	MG	BA	3791	1/1	0.18	-	18,18,18,18	0
56	MG	DA	3017	1/1	0.09	-	56,56,56,56	0
56	MG	DA	3406	1/1	0.15	-	33,33,33,33	0
56	MG	CA	3141	1/1	0.20	-	53,53,53,53	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3591	1/1	0.10	-	59,59,59,59	0
56	MG	BA	3228	1/1	0.13	-	56,56,56,56	0
56	MG	BA	3496	1/1	0.06	-	59,59,59,59	0
56	MG	BA	3556	1/1	0.10	-	48,48,48,48	0
56	MG	DF	302	1/1	0.45	-	44,44,44,44	0
56	MG	BA	3735	1/1	0.14	-	20,20,20,20	0
56	MG	DA	3166	1/1	0.19	-	35,35,35,35	0
56	MG	AA	3035	1/1	0.15	-	26,26,26,26	0
56	MG	BA	3345	1/1	0.09	-	28,28,28,28	0
56	MG	BA	3291	1/1	0.12	-	50,50,50,50	0
56	MG	BA	3427	1/1	0.19	-	52,52,52,52	0
56	MG	DA	3219	1/1	0.12	-	36,36,36,36	0
56	MG	CA	3097	1/1	0.17	-	64,64,64,64	0
56	MG	BA	3153	1/1	0.10	-	50,50,50,50	0
56	MG	DA	3602	1/1	0.09	-	51,51,51,51	0
56	MG	DA	3637	1/1	0.07	-	70,70,70,70	0
56	MG	DA	3576	1/1	0.07	-	50,50,50,50	0
56	MG	BA	3298	1/1	0.15	-	49,49,49,49	0
56	MG	DA	3482	1/1	0.12	-	42,42,42,42	0
56	MG	BA	3173	1/1	0.56	-	41,41,41,41	0
56	MG	DA	3496	1/1	0.33	-	35,35,35,35	0
56	MG	BF	307	1/1	0.68	-	40,40,40,40	0
56	MG	AN	502	1/1	0.11	-	56,56,56,56	0
56	MG	DA	3542	1/1	0.14	-	58,58,58,58	0
56	MG	BA	3494	1/1	0.11	-	47,47,47,47	0
56	MG	DA	3153	1/1	0.15	-	38,38,38,38	0
56	MG	CA	3152	1/1	0.14	-	54,54,54,54	0
56	MG	AA	3074	1/1	0.15	-	51,51,51,51	0
56	MG	BA	3023	1/1	0.20	-	35,35,35,35	0
56	MG	BA	3183	1/1	0.14	-	35,35,35,35	0
56	MG	DA	3117	1/1	0.19	-	42,42,42,42	0
56	MG	DA	3186	1/1	0.13	-	54,54,54,54	0
56	MG	BA	3714	1/1	0.32	-	41,41,41,41	0
56	MG	AA	3170	1/1	0.12	-	73,73,73,73	0
56	MG	BA	3663	1/1	0.18	-	65,65,65,65	0
56	MG	BA	3565	1/1	0.09	-	43,43,43,43	0
56	MG	BW	204	1/1	0.52	-	31,31,31,31	0
56	MG	BA	3685	1/1	0.17	-	51,51,51,51	0
56	MG	DU	3002	1/1	0.37	-	52,52,52,52	0
56	MG	BA	3219	1/1	0.11	-	62,62,62,62	0
56	MG	CA	3089	1/1	0.08	-	67,67,67,67	0
56	MG	BA	3693	1/1	0.13	-	74,74,74,74	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3615	1/1	0.09	-	50,50,50,50	0
56	MG	AA	3154	1/1	0.09	-	50,50,50,50	0
56	MG	DB	3009	1/1	0.14	-	58,58,58,58	0
56	MG	BA	3526	1/1	0.20	-	35,35,35,35	0
56	MG	BF	302	1/1	0.19	-	56,56,56,56	0
56	MG	BA	3362	1/1	0.22	-	40,40,40,40	0
56	MG	BA	3196	1/1	0.17	-	40,40,40,40	0
56	MG	DA	3504	1/1	0.08	-	41,41,41,41	0
56	MG	DA	3323	1/1	0.12	-	29,29,29,29	0
56	MG	DA	3070	1/1	0.09	-	51,51,51,51	0
56	MG	BA	3420	1/1	0.30	-	46,46,46,46	0
56	MG	DA	3220	1/1	0.08	-	50,50,50,50	0
56	MG	DA	3445	1/1	0.15	-	50,50,50,50	0
56	MG	BA	3301	1/1	0.09	-	48,48,48,48	0
56	MG	CA	3147	1/1	0.13	-	70,70,70,70	0
56	MG	BA	3460	1/1	0.13	-	58,58,58,58	0
56	MG	BA	3230	1/1	0.41	-	36,36,36,36	0
56	MG	DA	3208	1/1	0.15	-	44,44,44,44	0
56	MG	BA	3702	1/1	0.21	-	53,53,53,53	0
56	MG	BD	3302	1/1	0.41	-	46,46,46,46	0
56	MG	BA	3038	1/1	0.36	-	40,40,40,40	0
56	MG	CA	3127	1/1	0.14	-	65,65,65,65	0
56	MG	DA	3550	1/1	0.14	-	22,22,22,22	0
56	MG	BA	3703	1/1	0.18	-	57,57,57,57	0
56	MG	BA	3337	1/1	0.22	-	46,46,46,46	0
56	MG	BA	3127	1/1	0.23	-	36,36,36,36	0
56	MG	AA	3003	1/1	0.12	-	63,63,63,63	0
56	MG	AA	3028	1/1	0.14	-	49,49,49,49	0
56	MG	BA	3676	1/1	0.15	-	37,37,37,37	0
56	MG	DA	3239	1/1	0.08	-	51,51,51,51	0
56	MG	AA	3017	1/1	0.12	-	69,69,69,69	0
56	MG	DA	3407	1/1	0.07	-	28,28,28,28	0
56	MG	BA	3309	1/1	0.06	-	50,50,50,50	0
56	MG	BA	3198	1/1	0.26	-	28,28,28,28	0
56	MG	DA	3511	1/1	0.08	-	54,54,54,54	0
56	MG	BA	3769	1/1	0.09	-	24,24,24,24	0
56	MG	AA	3156	1/1	0.12	-	67,67,67,67	0
56	MG	BA	3518	1/1	0.15	-	65,65,65,65	0
56	MG	AA	3118	1/1	0.07	-	39,39,39,39	0
56	MG	BA	3053	1/1	0.21	-	23,23,23,23	0
56	MG	BA	3289	1/1	0.37	-	35,35,35,35	0
56	MG	BA	3434	1/1	0.25	-	40,40,40,40	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	3051	1/1	0.15	-	60,60,60,60	0
56	MG	AA	3104	1/1	0.27	-	70,70,70,70	0
56	MG	DA	3158	1/1	0.20	-	30,30,30,30	0
56	MG	BA	3276	1/1	0.13	-	42,42,42,42	0
56	MG	DA	3187	1/1	0.19	-	51,51,51,51	0
56	MG	DW	202	1/1	0.51	-	46,46,46,46	0
56	MG	DA	3226	1/1	0.15	-	57,57,57,57	0
56	MG	BA	3511	1/1	0.21	-	43,43,43,43	0
56	MG	DA	3023	1/1	0.20	-	44,44,44,44	0
56	MG	BA	3648	1/1	0.25	-	65,65,65,65	0
56	MG	DA	3444	1/1	0.12	-	46,46,46,46	0
56	MG	BA	3265	1/1	0.08	-	49,49,49,49	0
56	MG	DA	3580	1/1	0.09	-	46,46,46,46	0
56	MG	CA	3120	1/1	0.07	-	65,65,65,65	0
56	MG	BA	3762	1/1	0.14	-	53,53,53,53	0
56	MG	BA	3019	1/1	0.14	-	39,39,39,39	0
56	MG	BN	3003	1/1	0.20	-	44,44,44,44	0
56	MG	BA	3467	1/1	0.16	-	49,49,49,49	0
56	MG	CA	3092	1/1	0.26	-	61,61,61,61	0
56	MG	BB	209	1/1	0.17	-	69,69,69,69	0
56	MG	B7	102	1/1	0.25	-	28,28,28,28	0
56	MG	BA	3051	1/1	0.19	-	18,18,18,18	0
56	MG	BA	3691	1/1	0.12	-	68,68,68,68	0
56	MG	BA	3009	1/1	0.14	-	25,25,25,25	0
56	MG	BA	3227	1/1	0.16	-	34,34,34,34	0
56	MG	DA	3221	1/1	0.15	-	52,52,52,52	0
56	MG	BA	3040	1/1	0.23	-	52,52,52,52	0
56	MG	BA	3007	1/1	0.08	-	35,35,35,35	0
56	MG	DA	3533	1/1	0.14	-	52,52,52,52	0
56	MG	DA	3152	1/1	0.31	-	62,62,62,62	0
56	MG	BA	3686	1/1	0.11	-	41,41,41,41	0
56	MG	DA	3592	1/1	0.12	-	40,40,40,40	0
56	MG	BA	3747	1/1	0.25	-	33,33,33,33	0
56	MG	BA	3110	1/1	0.16	-	46,46,46,46	0
56	MG	BA	3138	1/1	0.42	-	40,40,40,40	0
56	MG	BA	3186	1/1	0.16	-	47,47,47,47	0
56	MG	DA	3338	1/1	0.17	-	43,43,43,43	0
56	MG	BA	3633	1/1	0.20	-	59,59,59,59	0
56	MG	BA	3766	1/1	0.15	-	59,59,59,59	0
56	MG	BA	3501	1/1	0.11	-	43,43,43,43	0
56	MG	DA	3446	1/1	0.17	-	44,44,44,44	0
56	MG	DA	3326	1/1	0.19	-	47,47,47,47	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DD	307	1/1	0.35	-	50,50,50,50	0
56	MG	DE	305	1/1	0.09	-	38,38,38,38	0
56	MG	BA	3361	1/1	0.14	-	61,61,61,61	0
56	MG	BA	3564	1/1	0.16	-	50,50,50,50	0
56	MG	CA	3133	1/1	0.04	-	45,45,45,45	0
56	MG	AX	3006	1/1	0.12	-	71,71,71,71	0
56	MG	DA	3587	1/1	0.17	-	52,52,52,52	0
56	MG	BA	3207	1/1	0.30	-	44,44,44,44	0
56	MG	B7	105	1/1	0.36	-	46,46,46,46	0
56	MG	DA	3342	1/1	0.10	-	46,46,46,46	0
56	MG	DA	3579	1/1	0.07	-	52,52,52,52	0
56	MG	BA	3761	1/1	0.19	-	53,53,53,53	0
56	MG	BA	3319	1/1	0.16	-	39,39,39,39	0
56	MG	CA	3046	1/1	0.09	-	50,50,50,50	0
56	MG	DA	3408	1/1	0.20	-	51,51,51,51	0
56	MG	BA	3021	1/1	0.13	-	22,22,22,22	0
56	MG	DA	3313	1/1	0.06	-	46,46,46,46	0
56	MG	BA	3746	1/1	0.15	-	55,55,55,55	0
56	MG	AA	3133	1/1	0.22	-	66,66,66,66	0
56	MG	DA	3278	1/1	0.17	-	37,37,37,37	0
56	MG	DA	3303	1/1	0.14	-	55,55,55,55	0
56	MG	BW	203	1/1	0.34	-	37,37,37,37	0
56	MG	DA	3561	1/1	0.19	-	58,58,58,58	0
56	MG	BD	3304	1/1	0.07	-	25,25,25,25	0
56	MG	BA	3493	1/1	0.14	-	49,49,49,49	0
56	MG	BA	3531	1/1	0.27	-	43,43,43,43	0
56	MG	DU	3003	1/1	0.45	-	53,53,53,53	0
56	MG	BU	208	1/1	0.24	-	28,28,28,28	0
56	MG	DA	3296	1/1	0.13	-	35,35,35,35	0
56	MG	DA	3332	1/1	0.11	-	50,50,50,50	0
56	MG	AA	3180	1/1	0.18	-	49,49,49,49	0
56	MG	BA	3722	1/1	0.17	-	17,17,17,17	0
56	MG	BA	3347	1/1	0.15	-	37,37,37,37	0
56	MG	BD	3303	1/1	0.15	-	33,33,33,33	0
56	MG	DA	3356	1/1	0.15	-	37,37,37,37	0
56	MG	BA	3781	1/1	0.26	-	47,47,47,47	0
56	MG	AA	3116	1/1	0.12	-	32,32,32,32	0
56	MG	BA	3257	1/1	0.13	-	54,54,54,54	0
56	MG	BA	3367	1/1	0.16	-	34,34,34,34	0
56	MG	BA	3247	1/1	0.10	-	50,50,50,50	0
56	MG	DA	3364	1/1	0.18	-	57,57,57,57	0
56	MG	AA	3189	1/1	0.27	-	62,62,62,62	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3581	1/1	0.13	-	35,35,35,35	0
56	MG	BA	3251	1/1	0.39	-	52,52,52,52	0
56	MG	CA	3039	1/1	0.20	-	55,55,55,55	0
56	MG	CA	3105	1/1	0.14	-	51,51,51,51	0
56	MG	DA	3534	1/1	0.17	-	67,67,67,67	0
56	MG	BE	306	1/1	1.20	-	93,93,93,93	0
56	MG	DA	3339	1/1	0.18	-	60,60,60,60	0
56	MG	BA	3755	1/1	0.22	-	52,52,52,52	0
56	MG	DA	3383	1/1	0.12	-	31,31,31,31	0
56	MG	BA	3325	1/1	0.12	-	51,51,51,51	0
56	MG	DA	3249	1/1	0.27	-	65,65,65,65	0
56	MG	DA	3658	1/1	0.14	-	55,55,55,55	0
56	MG	BA	3004	1/1	0.13	-	26,26,26,26	0
56	MG	DA	3111	1/1	0.17	-	53,53,53,53	0
56	MG	DA	3606	1/1	0.10	-	48,48,48,48	0
56	MG	CA	3172	1/1	0.09	-	50,50,50,50	0
56	MG	DA	3370	1/1	0.09	-	50,50,50,50	0
56	MG	AA	3088	1/1	0.07	-	42,42,42,42	0
56	MG	DA	3329	1/1	0.13	-	47,47,47,47	0
56	MG	DA	3240	1/1	0.08	-	42,42,42,42	0
56	MG	DA	3670	1/1	0.12	-	49,49,49,49	0
56	MG	BA	3495	1/1	0.17	-	58,58,58,58	0
56	MG	BA	3057	1/1	0.11	-	53,53,53,53	0
56	MG	DA	3168	1/1	0.07	-	47,47,47,47	0
56	MG	CA	3150	1/1	0.10	-	47,47,47,47	0
56	MG	DA	3328	1/1	0.17	-	41,41,41,41	0
56	MG	BA	3248	1/1	0.18	-	52,52,52,52	0
56	MG	BA	3572	1/1	0.15	-	52,52,52,52	0
56	MG	AA	3092	1/1	0.32	-	54,54,54,54	0
56	MG	BA	3341	1/1	0.11	-	43,43,43,43	0
56	MG	DA	3129	1/1	0.17	-	42,42,42,42	0
56	MG	BA	3504	1/1	0.12	-	40,40,40,40	0
56	MG	BA	3190	1/1	0.19	-	50,50,50,50	0
56	MG	BU	207	1/1	0.45	-	29,29,29,29	0
56	MG	AA	3143	1/1	0.12	-	57,57,57,57	0
56	MG	BA	3602	1/1	0.14	-	32,32,32,32	0
56	MG	BA	3498	1/1	0.20	-	43,43,43,43	0
56	MG	BA	3737	1/1	0.13	-	70,70,70,70	0
56	MG	DA	3341	1/1	0.18	-	67,67,67,67	0
56	MG	BA	3553	1/1	0.15	-	53,53,53,53	0
56	MG	BA	3632	1/1	0.21	-	43,43,43,43	0
56	MG	BA	3142	1/1	0.29	-	29,29,29,29	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3621	1/1	0.14	-	39,39,39,39	0
56	MG	BA	3658	1/1	0.12	-	51,51,51,51	0
56	MG	AA	3076	1/1	0.12	-	56,56,56,56	0
56	MG	BA	3567	1/1	0.15	-	45,45,45,45	0
59	ZN	B4	501	1/1	0.09	-	99,99,99,99	0
56	MG	DA	3429	1/1	0.14	-	45,45,45,45	0
56	MG	DA	3535	1/1	0.11	-	59,59,59,59	0
56	MG	DA	3185	1/1	0.07	-	55,55,55,55	0
56	MG	AA	3150	1/1	0.09	-	66,66,66,66	0
56	MG	DA	3209	1/1	0.29	-	46,46,46,46	0
56	MG	BB	212	1/1	0.20	-	42,42,42,42	0
56	MG	DA	3015	1/1	0.47	-	48,48,48,48	0
56	MG	DA	3527	1/1	0.21	-	61,61,61,61	0
56	MG	BA	3202	1/1	0.25	-	38,38,38,38	0
56	MG	BA	3233	1/1	0.11	-	61,61,61,61	0
56	MG	BA	3617	1/1	0.18	-	44,44,44,44	0
56	MG	BQ	204	1/1	0.12	-	43,43,43,43	0
56	MG	DA	3087	1/1	0.29	-	50,50,50,50	0
56	MG	BA	3615	1/1	0.08	-	60,60,60,60	0
56	MG	CA	3020	1/1	0.08	-	46,46,46,46	0
56	MG	DA	3169	1/1	0.14	-	44,44,44,44	0
56	MG	BN	3002	1/1	0.56	-	57,57,57,57	0
56	MG	BA	3365	1/1	0.25	-	37,37,37,37	0
56	MG	BA	3256	1/1	0.20	-	54,54,54,54	0
56	MG	DA	3367	1/1	0.19	-	55,55,55,55	0
56	MG	BA	3080	1/1	0.34	-	51,51,51,51	0
56	MG	DA	3198	1/1	0.13	-	49,49,49,49	0
56	MG	BA	3188	1/1	0.14	-	46,46,46,46	0
56	MG	BA	3717	1/1	0.11	-	54,54,54,54	0
56	MG	DA	3205	1/1	0.20	-	34,34,34,34	0
56	MG	DA	3401	1/1	0.06	-	43,43,43,43	0
56	MG	CA	3071	1/1	0.09	-	57,57,57,57	0
56	MG	DA	3019	1/1	0.10	-	48,48,48,48	0
56	MG	DA	3505	1/1	0.07	-	45,45,45,45	0
56	MG	BD	3301	1/1	0.24	-	37,37,37,37	0
56	MG	DA	3653	1/1	0.17	-	32,32,32,32	0
56	MG	DA	3203	1/1	0.09	-	50,50,50,50	0
56	MG	DA	3644	1/1	0.11	-	40,40,40,40	0
56	MG	DA	3627	1/1	0.12	-	64,64,64,64	0
56	MG	BA	3752	1/1	0.06	-	32,32,32,32	0
56	MG	AA	3165	1/1	0.08	-	49,49,49,49	0
56	MG	CA	3075	1/1	0.19	-	67,67,67,67	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	3050	1/1	0.10	-	77,77,77,77	0
56	MG	DA	3215	1/1	0.15	-	49,49,49,49	0
56	MG	BA	3667	1/1	0.17	-	39,39,39,39	0
56	MG	AA	3085	1/1	0.18	-	66,66,66,66	0
56	MG	B5	101	1/1	0.32	-	39,39,39,39	0
56	MG	BA	3437	1/1	0.15	-	61,61,61,61	0
56	MG	BB	210	1/1	0.21	-	55,55,55,55	0
56	MG	DA	3217	1/1	0.23	-	34,34,34,34	0
56	MG	AA	3023	1/1	0.21	-	48,48,48,48	0
56	MG	DA	3124	1/1	0.08	-	50,50,50,50	0
56	MG	BA	3261	1/1	0.09	-	46,46,46,46	0
56	MG	BA	3343	1/1	0.16	-	30,30,30,30	0
56	MG	AA	3112	1/1	0.21	-	60,60,60,60	0
56	MG	DA	3373	1/1	0.09	-	39,39,39,39	0
56	MG	BB	219	1/1	0.12	-	74,74,74,74	0
56	MG	CA	3053	1/1	0.19	-	55,55,55,55	0
56	MG	AA	3163	1/1	0.17	-	58,58,58,58	0
56	MG	AA	3152	1/1	0.12	-	48,48,48,48	0
56	MG	AA	3033	1/1	0.22	-	58,58,58,58	0
56	MG	BA	3277	1/1	0.35	-	54,54,54,54	0
56	MG	AA	3105	1/1	0.13	-	71,71,71,71	0
56	MG	CA	3012	1/1	0.09	-	51,51,51,51	0
56	MG	DA	3355	1/1	0.15	-	35,35,35,35	0
56	MG	BA	3478	1/1	0.13	-	59,59,59,59	0
56	MG	DD	302	1/1	0.43	-	73,73,73,73	0
56	MG	BA	3569	1/1	0.15	-	56,56,56,56	0
56	MG	BA	3682	1/1	0.29	-	39,39,39,39	0
56	MG	DA	3189	1/1	0.10	-	41,41,41,41	0
56	MG	DA	3110	1/1	0.14	-	64,64,64,64	0
56	MG	BA	3120	1/1	0.20	-	50,50,50,50	0
56	MG	AA	3127	1/1	0.18	-	79,79,79,79	0
56	MG	DA	3134	1/1	0.06	-	48,48,48,48	0
56	MG	BA	3170	1/1	0.15	-	52,52,52,52	0
56	MG	CA	3018	1/1	0.07	-	52,52,52,52	0
56	MG	AA	3010	1/1	0.14	-	63,63,63,63	0
56	MG	DA	3265	1/1	0.21	-	37,37,37,37	0
56	MG	AA	3188	1/1	0.16	-	49,49,49,49	0
56	MG	DA	3049	1/1	0.11	-	53,53,53,53	0
56	MG	BA	3732	1/1	0.15	-	41,41,41,41	0
56	MG	BA	3326	1/1	0.14	-	22,22,22,22	0
56	MG	DA	3297	1/1	0.11	-	24,24,24,24	0
56	MG	BA	3624	1/1	0.11	-	37,37,37,37	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3165	1/1	0.16	-	50,50,50,50	0
56	MG	BA	3638	1/1	0.09	-	56,56,56,56	0
56	MG	AA	3093	1/1	0.13	-	51,51,51,51	0
56	MG	DA	3666	1/1	0.42	-	47,47,47,47	0
56	MG	BA	3327	1/1	0.15	-	37,37,37,37	0
56	MG	BA	3369	1/1	0.17	-	40,40,40,40	0
56	MG	DA	3026	1/1	0.19	-	52,52,52,52	0
56	MG	BA	3054	1/1	0.22	-	43,43,43,43	0
56	MG	AA	3058	1/1	0.09	-	61,61,61,61	0
56	MG	DA	3281	1/1	0.27	-	49,49,49,49	0
56	MG	CA	3082	1/1	0.20	-	73,73,73,73	0
56	MG	DA	3526	1/1	0.28	-	28,28,28,28	0
56	MG	AA	3184	1/1	0.14	-	66,66,66,66	0
56	MG	DA	3547	1/1	0.14	-	45,45,45,45	0
56	MG	BA	3218	1/1	0.18	-	34,34,34,34	0
56	MG	BA	3585	1/1	0.08	-	58,58,58,58	0
56	MG	AA	3073	1/1	0.17	-	71,71,71,71	0
56	MG	AA	3030	1/1	0.12	-	63,63,63,63	0
56	MG	DA	3557	1/1	0.17	-	44,44,44,44	0
56	MG	DA	3487	1/1	0.15	-	37,37,37,37	0
56	MG	DA	3619	1/1	0.17	-	54,54,54,54	0
56	MG	DA	3350	1/1	0.06	-	53,53,53,53	0
56	MG	BA	3618	1/1	0.18	-	56,56,56,56	0
56	MG	CA	3079	1/1	0.11	-	67,67,67,67	0
56	MG	BA	3405	1/1	0.15	-	22,22,22,22	0
56	MG	BA	3255	1/1	0.13	-	41,41,41,41	0
56	MG	DA	3234	1/1	0.23	-	56,56,56,56	0
56	MG	DA	3174	1/1	0.12	-	50,50,50,50	0
56	MG	DA	3628	1/1	0.09	-	47,47,47,47	0
56	MG	DA	3337	1/1	0.11	-	44,44,44,44	0
56	MG	BA	3239	1/1	0.17	-	40,40,40,40	0
56	MG	BA	3330	1/1	0.13	-	52,52,52,52	0
56	MG	BA	3280	1/1	0.09	-	32,32,32,32	0
56	MG	CF	3001	1/1	0.09	-	55,55,55,55	0
56	MG	DA	3626	1/1	0.24	-	56,56,56,56	0
56	MG	BA	3375	1/1	0.11	-	38,38,38,38	0
56	MG	DA	3030	1/1	0.08	-	46,46,46,46	0
56	MG	B8	102	1/1	0.15	-	41,41,41,41	0
56	MG	BA	3109	1/1	0.20	-	56,56,56,56	0
56	MG	DA	3322	1/1	0.12	-	53,53,53,53	0
56	MG	BA	3278	1/1	0.36	-	30,30,30,30	0
56	MG	AA	3044	1/1	0.24	-	55,55,55,55	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3563	1/1	0.08	-	61,61,61,61	0
56	MG	BP	204	1/1	0.36	-	54,54,54,54	0
56	MG	BA	3128	1/1	0.14	-	44,44,44,44	0
56	MG	BA	3763	1/1	0.09	-	39,39,39,39	0
56	MG	BA	3032	1/1	0.35	-	42,42,42,42	0
56	MG	DA	3571	1/1	0.12	-	51,51,51,51	0
56	MG	CA	3107	1/1	0.11	-	77,77,77,77	0
56	MG	BQ	203	1/1	0.39	-	36,36,36,36	0
56	MG	CA	3085	1/1	0.16	-	73,73,73,73	0
56	MG	BA	3022	1/1	0.12	-	25,25,25,25	0
56	MG	DA	3454	1/1	0.08	-	56,56,56,56	0
56	MG	BA	3711	1/1	0.36	-	51,51,51,51	0
56	MG	DA	3005	1/1	0.22	-	26,26,26,26	0
56	MG	BA	3677	1/1	0.14	-	56,56,56,56	0
56	MG	BA	3253	1/1	0.18	-	47,47,47,47	0
56	MG	AA	3144	1/1	0.16	-	59,59,59,59	0
56	MG	BA	3687	1/1	0.22	-	53,53,53,53	0
56	MG	BF	305	1/1	0.10	-	45,45,45,45	0
56	MG	DA	3368	1/1	0.15	-	24,24,24,24	0
56	MG	DW	201	1/1	0.32	-	67,67,67,67	0
56	MG	BA	3290	1/1	0.30	-	50,50,50,50	0
56	MG	B0	101	1/1	0.07	-	55,55,55,55	0
56	MG	DA	3268	1/1	0.17	-	56,56,56,56	0
56	MG	BA	3093	1/1	0.13	-	48,48,48,48	0
56	MG	BA	3482	1/1	0.12	-	42,42,42,42	0
56	MG	AA	3158	1/1	0.07	-	71,71,71,71	0
56	MG	BA	3719	1/1	0.15	-	36,36,36,36	0
56	MG	CA	3066	1/1	0.10	-	47,47,47,47	0
56	MG	DA	3611	1/1	0.18	-	45,45,45,45	0
56	MG	DA	3672	1/1	0.21	-	59,59,59,59	0
56	MG	BA	3299	1/1	0.16	-	44,44,44,44	0
56	MG	CA	3146	1/1	0.13	-	65,65,65,65	0
56	MG	BA	3222	1/1	0.09	-	48,48,48,48	0
56	MG	CA	3159	1/1	0.13	-	71,71,71,71	0
56	MG	DA	3512	1/1	0.05	-	48,48,48,48	0
56	MG	DA	3014	1/1	0.09	-	43,43,43,43	0
56	MG	DA	3648	1/1	0.10	-	31,31,31,31	0
56	MG	BE	305	1/1	0.19	-	19,19,19,19	0
56	MG	AA	3078	1/1	0.07	-	72,72,72,72	0
56	MG	BA	3756	1/1	0.10	-	56,56,56,56	0
56	MG	DA	3318	1/1	0.07	-	33,33,33,33	0
56	MG	BA	3191	1/1	0.09	-	43,43,43,43	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3728	1/1	0.23	-	60,60,60,60	0
56	MG	CA	3008	1/1	0.26	-	60,60,60,60	0
56	MG	DA	3188	1/1	0.10	-	26,26,26,26	0
56	MG	BA	3566	1/1	0.16	-	50,50,50,50	0
56	MG	DA	3138	1/1	0.12	-	63,63,63,63	0
56	MG	AA	3145	1/1	0.13	-	65,65,65,65	0
56	MG	BA	3688	1/1	0.13	-	16,16,16,16	0
56	MG	CX	3002	1/1	0.18	-	81,81,81,81	0
56	MG	BA	3103	1/1	0.16	-	44,44,44,44	0
56	MG	BA	3221	1/1	0.12	-	39,39,39,39	0
56	MG	DA	3430	1/1	0.16	-	52,52,52,52	0
56	MG	DA	3068	1/1	0.20	-	47,47,47,47	0
56	MG	DA	3599	1/1	0.08	-	47,47,47,47	0
56	MG	BA	3249	1/1	0.32	-	40,40,40,40	0
56	MG	BA	3306	1/1	0.24	-	18,18,18,18	0
56	MG	BA	3573	1/1	0.16	-	24,24,24,24	0
56	MG	AA	3070	1/1	0.16	-	65,65,65,65	0
56	MG	BA	3593	1/1	0.17	-	47,47,47,47	0
56	MG	BA	3509	1/1	0.09	-	39,39,39,39	0
56	MG	BA	3212	1/1	0.17	-	26,26,26,26	0
56	MG	DA	3639	1/1	0.07	-	52,52,52,52	0
56	MG	B9	502	1/1	0.17	-	47,47,47,47	0
56	MG	BA	3698	1/1	0.15	-	50,50,50,50	0
56	MG	BA	3180	1/1	0.29	-	46,46,46,46	0
56	MG	DA	3059	1/1	0.12	-	40,40,40,40	0
56	MG	BA	3586	1/1	0.12	-	60,60,60,60	0
56	MG	BA	3376	1/1	0.10	-	43,43,43,43	0
56	MG	AX	3010	1/1	0.06	-	59,59,59,59	0
56	MG	BA	3171	1/1	0.14	-	54,54,54,54	0
56	MG	DA	3400	1/1	0.20	-	56,56,56,56	0
56	MG	BA	3485	1/1	0.18	-	55,55,55,55	0
56	MG	DA	3524	1/1	0.16	-	59,59,59,59	0
56	MG	BA	3461	1/1	0.09	-	62,62,62,62	0
56	MG	BA	3499	1/1	0.22	-	19,19,19,19	0
56	MG	AA	3103	1/1	0.15	-	48,48,48,48	0
56	MG	DA	3192	1/1	0.14	-	57,57,57,57	0
56	MG	BA	3459	1/1	0.18	-	47,47,47,47	0
56	MG	DA	3182	1/1	0.14	-	43,43,43,43	0
56	MG	BA	3316	1/1	0.23	-	25,25,25,25	0
56	MG	DA	3327	1/1	0.10	-	47,47,47,47	0
56	MG	DA	3194	1/1	0.14	-	54,54,54,54	0
56	MG	BA	3393	1/1	0.19	-	22,22,22,22	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3125	1/1	0.17	-	40,40,40,40	0
56	MG	BA	3696	1/1	0.10	-	45,45,45,45	0
56	MG	BA	3608	1/1	0.18	-	34,34,34,34	0
56	MG	AA	3055	1/1	0.18	-	69,69,69,69	0
56	MG	BA	3801	1/1	0.19	-	39,39,39,39	0
56	MG	CA	3140	1/1	0.13	-	75,75,75,75	0
56	MG	DA	3483	1/1	0.12	-	32,32,32,32	0
56	MG	DA	3578	1/1	0.09	-	40,40,40,40	0
56	MG	DA	3106	1/1	0.05	-	52,52,52,52	0
56	MG	DA	3466	1/1	0.27	-	66,66,66,66	0
56	MG	DA	3379	1/1	0.10	-	50,50,50,50	0
56	MG	DA	3651	1/1	0.12	-	40,40,40,40	0
56	MG	BA	3413	1/1	0.17	-	27,27,27,27	0
56	MG	CA	3065	1/1	0.14	-	64,64,64,64	0
56	MG	BA	3174	1/1	0.18	-	50,50,50,50	0
56	MG	DF	304	1/1	0.61	-	40,40,40,40	0
56	MG	BA	3060	1/1	0.25	-	26,26,26,26	0
56	MG	DA	3566	1/1	0.09	-	62,62,62,62	0
56	MG	BA	3049	1/1	0.12	-	34,34,34,34	0
56	MG	BA	3605	1/1	0.16	-	44,44,44,44	0
56	MG	BA	3052	1/1	0.19	-	23,23,23,23	0
56	MG	BA	3425	1/1	0.15	-	48,48,48,48	0
56	MG	BA	3603	1/1	0.16	-	42,42,42,42	0
56	MG	BA	3669	1/1	0.13	-	36,36,36,36	0
56	MG	BG	3002	1/1	0.09	-	50,50,50,50	0
56	MG	DA	3259	1/1	0.18	-	53,53,53,53	0
56	MG	BA	3379	1/1	0.18	-	39,39,39,39	0
56	MG	BA	3651	1/1	0.22	-	52,52,52,52	0
56	MG	B6	102	1/1	0.11	-	51,51,51,51	0
56	MG	DA	3108	1/1	0.11	-	46,46,46,46	0
56	MG	AA	3186	1/1	0.12	-	42,42,42,42	0
56	MG	DA	3052	1/1	0.11	-	26,26,26,26	0
56	MG	CA	3056	1/1	0.11	-	60,60,60,60	0
56	MG	DA	3199	1/1	0.11	-	55,55,55,55	0
56	MG	DA	3378	1/1	0.10	-	34,34,34,34	0
56	MG	DA	3649	1/1	0.20	-	53,53,53,53	0
56	MG	BA	3274	1/1	0.25	-	51,51,51,51	0
56	MG	DA	3123	1/1	0.16	-	52,52,52,52	0
56	MG	B4	502	1/1	0.43	-	77,77,77,77	0
56	MG	AA	3007	1/1	0.15	-	54,54,54,54	0
56	MG	BA	3092	1/1	0.17	-	53,53,53,53	0
56	MG	DA	3319	1/1	0.15	-	52,52,52,52	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3284	1/1	0.21	-	37,37,37,37	0
56	MG	DA	3605	1/1	0.08	-	54,54,54,54	0
56	MG	DA	3372	1/1	0.15	-	24,24,24,24	0
56	MG	DE	304	1/1	0.12	-	40,40,40,40	0
56	MG	AA	3147	1/1	0.14	-	72,72,72,72	0
56	MG	BA	3800	1/1	0.16	-	41,41,41,41	0
56	MG	BA	3284	1/1	0.24	-	33,33,33,33	0
56	MG	DA	3490	1/1	0.07	-	43,43,43,43	0
56	MG	DA	3507	1/1	0.16	-	57,57,57,57	0
56	MG	DA	3590	1/1	0.09	-	66,66,66,66	0
56	MG	DA	3595	1/1	0.07	-	39,39,39,39	0
56	MG	BA	3750	1/1	0.22	-	42,42,42,42	0
56	MG	BA	3075	1/1	0.15	-	21,21,21,21	0
56	MG	BA	3363	1/1	0.09	-	66,66,66,66	0
56	MG	BA	3003	1/1	0.11	-	30,30,30,30	0
56	MG	BA	3705	1/1	0.27	-	28,28,28,28	0
56	MG	BA	3743	1/1	0.14	-	43,43,43,43	0
56	MG	BA	3657	1/1	0.14	-	52,52,52,52	0
56	MG	DA	3586	1/1	0.12	-	39,39,39,39	0
56	MG	BA	3429	1/1	0.16	-	23,23,23,23	0
56	MG	BA	3041	1/1	0.22	-	35,35,35,35	0
56	MG	DA	3459	1/1	0.10	-	44,44,44,44	0
56	MG	BA	3470	1/1	0.18	-	37,37,37,37	0
56	MG	BA	3773	1/1	0.12	-	38,38,38,38	0
56	MG	DA	3427	1/1	0.10	-	45,45,45,45	0
56	MG	DA	3545	1/1	0.11	-	51,51,51,51	0
56	MG	BA	3380	1/1	0.13	-	36,36,36,36	0
56	MG	DA	3645	1/1	0.07	-	38,38,38,38	0
56	MG	DA	3056	1/1	0.12	-	60,60,60,60	0
56	MG	AA	3130	1/1	0.04	-	56,56,56,56	0
56	MG	AA	3129	1/1	0.15	-	70,70,70,70	0
56	MG	BA	3386	1/1	0.17	-	47,47,47,47	0
56	MG	CA	3030	1/1	0.19	-	56,56,56,56	0
56	MG	BA	3058	1/1	0.09	-	27,27,27,27	0
56	MG	DA	3464	1/1	0.09	-	24,24,24,24	0
56	MG	BA	3117	1/1	0.40	-	35,35,35,35	0
56	MG	BB	222	1/1	0.16	-	50,50,50,50	0
56	MG	DA	3244	1/1	0.26	-	59,59,59,59	0
56	MG	BA	3666	1/1	0.17	-	47,47,47,47	0
56	MG	AA	3139	1/1	0.17	-	72,72,72,72	0
56	MG	BA	3806	1/1	0.74	-	33,33,33,33	0
56	MG	BA	3074	1/1	0.18	-	31,31,31,31	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3330	1/1	0.17	-	54,54,54,54	0
56	MG	DA	3380	1/1	0.06	-	35,35,35,35	0
56	MG	BA	3810	1/1	0.21	-	43,43,43,43	0
56	MG	CA	3072	1/1	0.14	-	62,62,62,62	0
56	MG	BA	3318	1/1	0.19	-	25,25,25,25	0
56	MG	BX	102	1/1	0.14	-	36,36,36,36	0
56	MG	DA	3256	1/1	0.14	-	46,46,46,46	0
56	MG	DA	3596	1/1	0.07	-	65,65,65,65	0
56	MG	DA	3565	1/1	0.09	-	45,45,45,45	0
56	MG	BA	3759	1/1	0.07	-	36,36,36,36	0
56	MG	DA	3441	1/1	0.06	-	30,30,30,30	0
56	MG	BA	3536	1/1	0.23	-	36,36,36,36	0
56	MG	BA	3533	1/1	0.17	-	38,38,38,38	0
56	MG	BA	3091	1/1	0.23	-	40,40,40,40	0
56	MG	BA	3549	1/1	0.15	-	36,36,36,36	0
56	MG	DA	3018	1/1	0.18	-	51,51,51,51	0
56	MG	DA	3674	1/1	0.56	-	43,43,43,43	0
56	MG	DA	3181	1/1	0.15	-	54,54,54,54	0
56	MG	BA	3374	1/1	0.12	-	21,21,21,21	0
56	MG	DA	3031	1/1	0.10	-	44,44,44,44	0
56	MG	BA	3765	1/1	0.11	-	53,53,53,53	0
56	MG	BA	3034	1/1	0.17	-	34,34,34,34	0
56	MG	BA	3006	1/1	0.28	-	52,52,52,52	0
56	MG	CA	3029	1/1	0.09	-	58,58,58,58	0
56	MG	DA	3011	1/1	0.51	-	51,51,51,51	0
56	MG	CA	3022	1/1	0.20	-	60,60,60,60	0
56	MG	BA	3635	1/1	0.08	-	51,51,51,51	0
56	MG	CA	3050	1/1	0.12	-	52,52,52,52	0
56	MG	BA	3281	1/1	0.08	-	56,56,56,56	0
56	MG	DA	3387	1/1	0.16	-	39,39,39,39	0
56	MG	DD	306	1/1	0.91	-	48,48,48,48	0
56	MG	DD	308	1/1	1.02	-	72,72,72,72	0
56	MG	DA	3216	1/1	0.11	-	41,41,41,41	0
56	MG	BA	3547	1/1	0.14	-	64,64,64,64	0
56	MG	BU	202	1/1	0.09	-	29,29,29,29	0
56	MG	BA	3513	1/1	0.10	-	43,43,43,43	0
56	MG	CA	3074	1/1	0.12	-	57,57,57,57	0
56	MG	BF	309	1/1	0.07	-	45,45,45,45	0
56	MG	BQ	201	1/1	0.17	-	35,35,35,35	0
56	MG	BA	3297	1/1	0.14	-	46,46,46,46	0
56	MG	BA	3650	1/1	0.12	-	48,48,48,48	0
56	MG	BY	201	1/1	0.25	-	52,52,52,52	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BB	214	1/1	0.19	-	53,53,53,53	0
56	MG	BA	3411	1/1	0.25	-	30,30,30,30	0
56	MG	CA	3145	1/1	0.14	-	68,68,68,68	0
56	MG	BA	3457	1/1	0.16	-	47,47,47,47	0
56	MG	DA	3574	1/1	0.08	-	55,55,55,55	0
56	MG	BA	3047	1/1	0.09	-	43,43,43,43	0
56	MG	BA	3067	1/1	0.15	-	49,49,49,49	0
56	MG	DA	3432	1/1	0.08	-	37,37,37,37	0
56	MG	CJ	5001	1/1	0.30	-	94,94,94,94	0
56	MG	BO	5001	1/1	0.11	-	55,55,55,55	0
56	MG	DA	3269	1/1	0.11	-	54,54,54,54	0
56	MG	BA	3659	1/1	0.17	-	67,67,67,67	0
56	MG	DA	3662	1/1	0.14	-	38,38,38,38	0
56	MG	AA	3122	1/1	0.11	-	80,80,80,80	0
56	MG	BA	3399	1/1	0.16	-	61,61,61,61	0
56	MG	AA	3175	1/1	0.14	-	66,66,66,66	0
56	MG	BA	3577	1/1	0.22	-	18,18,18,18	0
56	MG	DA	3360	1/1	0.13	-	37,37,37,37	0
56	MG	BA	3805	1/1	0.17	-	30,30,30,30	0
56	MG	BA	3050	1/1	0.19	-	46,46,46,46	0
56	MG	DP	202	1/1	0.36	-	55,55,55,55	0
56	MG	BA	3670	1/1	0.09	-	47,47,47,47	0
56	MG	DA	3190	1/1	0.13	-	41,41,41,41	0
56	MG	DA	3073	1/1	0.09	-	55,55,55,55	0
56	MG	BA	3774	1/1	0.09	-	37,37,37,37	0
56	MG	BA	3044	1/1	0.21	-	61,61,61,61	0
56	MG	BA	3776	1/1	0.09	-	48,48,48,48	0
56	MG	BA	3402	1/1	0.12	-	25,25,25,25	0
56	MG	DA	3207	1/1	0.24	-	36,36,36,36	0
56	MG	AA	3080	1/1	0.26	-	71,71,71,71	0
56	MG	CA	3162	1/1	0.07	-	42,42,42,42	0
56	MG	AA	3011	1/1	0.23	-	56,56,56,56	0
56	MG	BA	3028	1/1	0.24	-	52,52,52,52	0
56	MG	BA	3205	1/1	0.43	-	40,40,40,40	0
56	MG	DA	3478	1/1	0.15	-	67,67,67,67	0
56	MG	AA	3032	1/1	0.15	-	59,59,59,59	0
56	MG	CA	3094	1/1	0.19	-	68,68,68,68	0
56	MG	BA	3447	1/1	0.14	-	59,59,59,59	0
56	MG	DA	3048	1/1	0.18	-	51,51,51,51	0
56	MG	BA	3237	1/1	0.25	-	63,63,63,63	0
56	MG	DA	3414	1/1	0.05	-	38,38,38,38	0
56	MG	BA	3505	1/1	0.23	-	33,33,33,33	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	DA	3532	1/1	0.11	-	61,61,61,61	0
56	MG	BA	3273	1/1	0.30	-	41,41,41,41	0
56	MG	CA	3168	1/1	0.13	-	60,60,60,60	0
56	MG	AA	3026	1/1	0.08	-	71,71,71,71	0
56	MG	BA	3606	1/1	0.09	-	67,67,67,67	0
56	MG	BA	3377	1/1	0.10	-	48,48,48,48	0
56	MG	BA	3323	1/1	0.14	-	43,43,43,43	0
56	MG	AA	3113	1/1	0.07	-	67,67,67,67	0
56	MG	DA	3609	1/1	0.12	-	61,61,61,61	0
56	MG	BA	3727	1/1	0.17	-	34,34,34,34	0
56	MG	DA	3650	1/1	0.15	-	46,46,46,46	0
56	MG	BA	3035	1/1	0.45	-	42,42,42,42	0
56	MG	BA	3139	1/1	0.17	-	53,53,53,53	0
56	MG	BA	3245	1/1	0.36	-	61,61,61,61	0
56	MG	DA	3083	1/1	0.17	-	63,63,63,63	0
60	K	AX	3001	1/1	0.17	-	65,65,65,65	0
56	MG	BA	3408	1/1	0.13	-	21,21,21,21	0
56	MG	DA	3308	1/1	0.08	-	49,49,49,49	0
56	MG	CA	3136	1/1	0.11	-	55,55,55,55	0
56	MG	BA	3570	1/1	0.22	-	35,35,35,35	0
56	MG	DA	3233	1/1	0.11	-	40,40,40,40	0
56	MG	AE	201	1/1	0.18	-	64,64,64,64	0
56	MG	AA	3048	1/1	0.20	-	59,59,59,59	0
56	MG	DA	3539	1/1	0.10	-	38,38,38,38	0
56	MG	BA	3744	1/1	0.15	-	61,61,61,61	0
56	MG	AA	3161	1/1	0.15	-	59,59,59,59	0
56	MG	BA	3333	1/1	0.11	-	23,23,23,23	0
56	MG	BB	211	1/1	0.15	-	81,81,81,81	0
60	K	CX	3001	1/1	0.19	-	77,77,77,77	0
56	MG	DA	3396	1/1	0.10	-	47,47,47,47	0
56	MG	DA	3062	1/1	0.18	-	51,51,51,51	0
56	MG	DA	3058	1/1	0.17	-	50,50,50,50	0
56	MG	BA	3481	1/1	0.16	-	44,44,44,44	0
56	MG	DA	3484	1/1	0.16	-	32,32,32,32	0
56	MG	BU	205	1/1	0.28	-	43,43,43,43	0
56	MG	DA	3163	1/1	0.10	-	54,54,54,54	0
56	MG	BB	218	1/1	0.14	-	31,31,31,31	0
56	MG	DA	3135	1/1	0.16	-	46,46,46,46	0
56	MG	BA	3642	1/1	0.15	-	36,36,36,36	0
56	MG	BA	3126	1/1	0.29	-	47,47,47,47	0
56	MG	AA	3054	1/1	0.07	-	62,62,62,62	0
56	MG	DA	3034	1/1	0.13	-	45,45,45,45	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	PCY	AA	3191	40/40	0.31	-	59,86,97,99	0
56	MG	DA	3449	1/1	0.10	-	33,33,33,33	0
56	MG	DA	3469	1/1	0.10	-	53,53,53,53	0
56	MG	CA	3032	1/1	0.08	-	57,57,57,57	0
56	MG	BA	3506	1/1	0.15	-	31,31,31,31	0
56	MG	BA	3760	1/1	0.19	-	43,43,43,43	0
56	MG	BA	3598	1/1	0.31	-	53,53,53,53	0
56	MG	BA	3268	1/1	0.30	-	57,57,57,57	0
58	SF4	AD	501	8/8	0.18	-	62,74,91,95	0
56	MG	DA	3013	1/1	0.07	-	32,32,32,32	0
56	MG	AA	3053	1/1	0.10	-	46,46,46,46	0
56	MG	BA	3582	1/1	0.18	-	19,19,19,19	0
56	MG	BA	3454	1/1	0.12	-	29,29,29,29	0
56	MG	BA	3777	1/1	0.13	-	44,44,44,44	0
56	MG	BA	3065	1/1	0.18	-	41,41,41,41	0
56	MG	DA	3518	1/1	0.08	-	58,58,58,58	0
56	MG	DA	3640	1/1	0.34	-	64,64,64,64	0
56	MG	BA	3027	1/1	0.13	-	45,45,45,45	0
56	MG	CT	3001	1/1	0.14	-	59,59,59,59	0
56	MG	AA	3167	1/1	0.12	-	61,61,61,61	0
56	MG	CA	3045	1/1	0.26	-	68,68,68,68	0
56	MG	BA	3595	1/1	0.73	-	43,43,43,43	0
56	MG	BA	3307	1/1	0.32	-	50,50,50,50	0
56	MG	DA	3076	1/1	0.24	-	39,39,39,39	0
56	MG	BA	3383	1/1	0.18	-	20,20,20,20	0
56	MG	DA	3493	1/1	0.15	-	63,63,63,63	0
56	MG	DA	3211	1/1	0.10	-	53,53,53,53	0
56	MG	AA	3108	1/1	0.14	-	58,58,58,58	0
56	MG	DA	3078	1/1	0.17	-	35,35,35,35	0
56	MG	DN	5001	1/1	0.08	-	54,54,54,54	0
56	MG	BA	3314	1/1	0.09	-	44,44,44,44	0
56	MG	CA	3113	1/1	0.14	-	49,49,49,49	0
56	MG	BA	3407	1/1	0.17	-	40,40,40,40	0
56	MG	DA	3663	1/1	0.14	-	37,37,37,37	0
56	MG	AA	3173	1/1	0.18	-	60,60,60,60	0
56	MG	DA	3395	1/1	0.11	-	33,33,33,33	0
56	MG	CA	3002	1/1	0.08	-	62,62,62,62	0
56	MG	AA	3121	1/1	0.15	-	33,33,33,33	0
56	MG	BA	3444	1/1	0.24	-	43,43,43,43	0
56	MG	CA	3055	1/1	0.16	-	55,55,55,55	0
56	MG	BA	3519	1/1	0.21	-	53,53,53,53	0
56	MG	DA	3632	1/1	0.05	-	50,50,50,50	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	3051	1/1	0.13	-	55,55,55,55	0
56	MG	AA	3102	1/1	0.20	-	64,64,64,64	0
56	MG	BA	3229	1/1	0.18	-	44,44,44,44	0
56	MG	DA	3065	1/1	0.06	-	41,41,41,41	0
56	MG	BA	3077	1/1	0.29	-	29,29,29,29	0
56	MG	BA	3331	1/1	0.23	-	38,38,38,38	0
56	MG	BA	3187	1/1	0.18	-	48,48,48,48	0
56	MG	AA	3187	1/1	0.11	-	54,54,54,54	0
56	MG	BA	3656	1/1	0.14	-	64,64,64,64	0
56	MG	AA	3174	1/1	0.05	-	54,54,54,54	0
56	MG	DA	3053	1/1	0.28	-	37,37,37,37	0
56	MG	AA	3046	1/1	0.12	-	56,56,56,56	0
56	MG	DA	3051	1/1	0.07	-	45,45,45,45	0
56	MG	DA	3090	1/1	0.10	-	48,48,48,48	0
56	MG	DA	3553	1/1	0.10	-	46,46,46,46	0
56	MG	BA	3581	1/1	0.09	-	37,37,37,37	0
56	MG	BB	205	1/1	0.17	-	76,76,76,76	0
56	MG	BA	3465	1/1	0.21	-	47,47,47,47	0
56	MG	DA	3257	1/1	0.18	-	57,57,57,57	0
56	MG	AA	3014	1/1	0.09	-	62,62,62,62	0
56	MG	BA	3486	1/1	0.11	-	22,22,22,22	0
56	MG	BA	3010	1/1	0.17	-	41,41,41,41	0
56	MG	DA	3267	1/1	0.14	-	41,41,41,41	0
56	MG	DA	3495	1/1	0.18	-	39,39,39,39	0
56	MG	CA	3010	1/1	0.05	-	57,57,57,57	0
56	MG	DA	3238	1/1	0.10	-	54,54,54,54	0
56	MG	DA	3290	1/1	0.08	-	46,46,46,46	0
56	MG	BA	3477	1/1	0.10	-	59,59,59,59	0
56	MG	BA	3282	1/1	0.26	-	41,41,41,41	0
56	MG	BA	3232	1/1	0.27	-	51,51,51,51	0
56	MG	DA	3161	1/1	0.16	-	37,37,37,37	0
56	MG	BA	3532	1/1	0.28	-	30,30,30,30	0
56	MG	CA	3109	1/1	0.19	-	41,41,41,41	0
56	MG	BA	3416	1/1	0.21	-	36,36,36,36	0
56	MG	BA	3094	1/1	0.14	-	44,44,44,44	0
56	MG	AA	3089	1/1	0.16	-	57,57,57,57	0
56	MG	CA	3070	1/1	0.08	-	49,49,49,49	0
56	MG	BA	3263	1/1	0.18	-	56,56,56,56	0
56	MG	BA	3215	1/1	0.16	-	47,47,47,47	0
56	MG	AA	3038	1/1	0.22	-	61,61,61,61	0
56	MG	CA	3076	1/1	0.12	-	35,35,35,35	0
56	MG	DA	3641	1/1	0.11	-	49,49,49,49	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3063	1/1	0.08	-	54,54,54,54	0
56	MG	CA	3048	1/1	0.14	-	77,77,77,77	0
56	MG	CA	3037	1/1	0.19	-	46,46,46,46	0
56	MG	BA	3430	1/1	0.14	-	31,31,31,31	0
56	MG	DA	3515	1/1	0.06	-	39,39,39,39	0
56	MG	DA	3064	1/1	0.16	-	56,56,56,56	0
56	MG	BA	3681	1/1	0.14	-	50,50,50,50	0
56	MG	BA	3271	1/1	0.14	-	38,38,38,38	0
56	MG	BA	3678	1/1	0.43	-	35,35,35,35	0
56	MG	DA	3251	1/1	0.07	-	46,46,46,46	0
56	MG	DA	3622	1/1	0.12	-	35,35,35,35	0
56	MG	BA	3645	1/1	0.04	-	50,50,50,50	0
56	MG	BD	3308	1/1	0.46	-	60,60,60,60	0
56	MG	BA	3767	1/1	0.23	-	57,57,57,57	0
56	MG	BA	3487	1/1	0.19	-	23,23,23,23	0
56	MG	BA	3684	1/1	0.17	-	51,51,51,51	0
56	MG	BA	3599	1/1	0.09	-	45,45,45,45	0
56	MG	BA	3258	1/1	0.28	-	61,61,61,61	0
56	MG	BA	3037	1/1	0.49	-	29,29,29,29	0
56	MG	DA	3440	1/1	0.14	-	51,51,51,51	0
56	MG	BA	3592	1/1	0.10	-	64,64,64,64	0
56	MG	BA	3161	1/1	0.30	-	46,46,46,46	0
56	MG	DA	3092	1/1	0.22	-	48,48,48,48	0
56	MG	BA	3646	1/1	0.13	-	57,57,57,57	0
56	MG	BA	3334	1/1	0.14	-	26,26,26,26	0
56	MG	AX	3008	1/1	0.17	-	37,37,37,37	0
56	MG	DA	3567	1/1	0.08	-	57,57,57,57	0
56	MG	BA	3804	1/1	0.12	-	35,35,35,35	0
56	MG	BA	3514	1/1	0.14	-	45,45,45,45	0
56	MG	CA	3062	1/1	0.20	-	67,67,67,67	0
56	MG	DA	3347	1/1	0.12	-	46,46,46,46	0
56	MG	DA	3122	1/1	0.09	-	53,53,53,53	0
56	MG	BR	202	1/1	0.15	-	42,42,42,42	0
56	MG	DA	3210	1/1	0.14	-	53,53,53,53	0
56	MG	DA	3388	1/1	0.13	-	52,52,52,52	0
56	MG	DA	3391	1/1	0.10	-	44,44,44,44	0
56	MG	BA	3455	1/1	0.14	-	32,32,32,32	0
56	MG	AA	3045	1/1	0.30	-	54,54,54,54	0
56	MG	BA	3421	1/1	0.22	-	48,48,48,48	0
56	MG	DA	3157	1/1	0.11	-	42,42,42,42	0
56	MG	BA	3292	1/1	0.22	-	40,40,40,40	0
56	MG	CA	3138	1/1	0.12	-	65,65,65,65	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3372	1/1	0.15	-	56,56,56,56	0
56	MG	AA	3155	1/1	0.18	-	49,49,49,49	0
56	MG	BA	3472	1/1	0.18	-	38,38,38,38	0
56	MG	BA	3048	1/1	0.35	-	47,47,47,47	0
56	MG	BA	3584	1/1	0.19	-	34,34,34,34	0
56	MG	BA	3474	1/1	0.14	-	20,20,20,20	0
56	MG	AA	3176	1/1	0.23	-	57,57,57,57	0
56	MG	DB	3001	1/1	0.09	-	77,77,77,77	0
56	MG	BA	3225	1/1	0.18	-	31,31,31,31	0
56	MG	DA	3334	1/1	0.07	-	45,45,45,45	0
56	MG	BA	3118	1/1	0.53	-	37,37,37,37	0
56	MG	BA	3181	1/1	0.16	-	26,26,26,26	0
56	MG	BA	3106	1/1	0.14	-	44,44,44,44	0
56	MG	DA	3260	1/1	0.10	-	55,55,55,55	0
56	MG	D0	101	1/1	0.11	-	50,50,50,50	0
56	MG	BU	209	1/1	0.44	-	27,27,27,27	0
56	MG	BA	3350	1/1	0.18	-	28,28,28,28	0
56	MG	AM	201	1/1	0.07	-	59,59,59,59	0
56	MG	DA	3276	1/1	0.13	-	54,54,54,54	0
56	MG	BA	3163	1/1	0.33	-	34,34,34,34	0
56	MG	BA	3525	1/1	0.22	-	23,23,23,23	0
56	MG	BA	3193	1/1	0.30	-	62,62,62,62	0
56	MG	BA	3640	1/1	0.18	-	42,42,42,42	0
56	MG	CA	3132	1/1	0.21	-	55,55,55,55	0
56	MG	BA	3671	1/1	0.20	-	59,59,59,59	0
56	MG	BA	3616	1/1	0.16	-	51,51,51,51	0
56	MG	BA	3235	1/1	0.21	-	26,26,26,26	0
56	MG	DA	3024	1/1	0.39	-	37,37,37,37	0
56	MG	BA	3368	1/1	0.19	-	35,35,35,35	0
56	MG	BA	3568	1/1	0.20	-	26,26,26,26	0
56	MG	CA	3059	1/1	0.11	-	75,75,75,75	0
56	MG	DA	3119	1/1	0.07	-	40,40,40,40	0
56	MG	BA	3129	1/1	0.57	-	38,38,38,38	0
56	MG	DA	3144	1/1	0.11	-	39,39,39,39	0
56	MG	DA	3608	1/1	0.14	-	47,47,47,47	0
56	MG	BA	3607	1/1	0.20	-	51,51,51,51	0
56	MG	DA	3617	1/1	0.11	-	45,45,45,45	0
56	MG	BA	3452	1/1	0.26	-	55,55,55,55	0
56	MG	BA	3446	1/1	0.19	-	31,31,31,31	0
56	MG	BA	3133	1/1	0.13	-	48,48,48,48	0
56	MG	CA	3121	1/1	0.13	-	81,81,81,81	0
56	MG	BA	3243	1/1	0.16	-	56,56,56,56	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	3067	1/1	0.19	-	72,72,72,72	0
56	MG	BA	3083	1/1	0.19	-	51,51,51,51	0
56	MG	BA	3557	1/1	0.15	-	37,37,37,37	0
56	MG	DA	3162	1/1	0.17	-	37,37,37,37	0
56	MG	BG	3001	1/1	0.18	-	51,51,51,51	0
56	MG	DA	3503	1/1	0.08	-	31,31,31,31	0
56	MG	BA	3786	1/1	0.25	-	58,58,58,58	0
56	MG	DA	3197	1/1	0.43	-	55,55,55,55	0
56	MG	DA	3489	1/1	0.12	-	45,45,45,45	0
56	MG	BV	202	1/1	0.50	-	33,33,33,33	0
56	MG	CA	3156	1/1	0.17	-	41,41,41,41	0
56	MG	BA	3387	1/1	0.14	-	45,45,45,45	0
56	MG	DA	3241	1/1	0.14	-	48,48,48,48	0
56	MG	DA	3475	1/1	0.11	-	38,38,38,38	0
56	MG	AA	3004	1/1	0.13	-	66,66,66,66	0
56	MG	BA	3336	1/1	0.14	-	50,50,50,50	0
56	MG	BA	3597	1/1	0.09	-	40,40,40,40	0
56	MG	BA	3637	1/1	0.09	-	54,54,54,54	0
56	MG	CA	3100	1/1	0.08	-	69,69,69,69	0
56	MG	DA	3477	1/1	0.08	-	30,30,30,30	0
56	MG	AA	3006	1/1	0.13	-	71,71,71,71	0
56	MG	DA	3544	1/1	0.18	-	39,39,39,39	0
56	MG	BA	3179	1/1	0.23	-	41,41,41,41	0
56	MG	BA	3716	1/1	0.27	-	39,39,39,39	0
56	MG	BA	3535	1/1	0.20	-	31,31,31,31	0
56	MG	BA	3086	1/1	0.46	-	49,49,49,49	0
56	MG	DA	3044	1/1	0.12	-	49,49,49,49	0
56	MG	BA	3438	1/1	0.14	-	21,21,21,21	0
56	MG	DA	3377	1/1	0.09	-	62,62,62,62	0
56	MG	BA	3500	1/1	0.15	-	32,32,32,32	0
56	MG	CA	3119	1/1	0.06	-	51,51,51,51	0
56	MG	CA	3149	1/1	0.23	-	74,74,74,74	0
56	MG	BA	3224	1/1	0.36	-	50,50,50,50	0
56	MG	BA	3706	1/1	0.10	-	63,63,63,63	0
56	MG	BA	3396	1/1	0.12	-	41,41,41,41	0
56	MG	DA	3485	1/1	0.21	-	43,43,43,43	0
56	MG	DA	3655	1/1	1.13	-	74,74,74,74	0
56	MG	DA	3517	1/1	0.07	-	57,57,57,57	0
56	MG	BB	208	1/1	0.08	-	36,36,36,36	0
56	MG	BA	3462	1/1	0.13	-	49,49,49,49	0
56	MG	DA	3394	1/1	0.13	-	40,40,40,40	0
56	MG	DO	5001	1/1	0.09	-	55,55,55,55	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	3099	1/1	0.11	-	58,58,58,58	0
56	MG	BV	204	1/1	0.16	-	47,47,47,47	0
56	MG	AX	3002	1/1	0.20	-	69,69,69,69	0
56	MG	CA	3098	1/1	0.14	-	44,44,44,44	0
56	MG	DV	3003	1/1	0.24	-	55,55,55,55	0
56	MG	DU	3004	1/1	0.11	-	59,59,59,59	0
56	MG	AA	3132	1/1	0.15	-	36,36,36,36	0
56	MG	CA	3077	1/1	0.15	-	61,61,61,61	0
56	MG	BA	3068	1/1	0.17	-	46,46,46,46	0
56	MG	DA	3437	1/1	0.15	-	36,36,36,36	0
56	MG	DA	3107	1/1	0.11	-	43,43,43,43	0
56	MG	BA	3799	1/1	0.53	-	50,50,50,50	0
56	MG	CA	3160	1/1	0.20	-	61,61,61,61	0
56	MG	DA	3335	1/1	0.10	-	43,43,43,43	0
56	MG	DA	3607	1/1	0.24	-	63,63,63,63	0
56	MG	BA	3324	1/1	0.18	-	42,42,42,42	0
56	MG	DA	3552	1/1	0.16	-	36,36,36,36	0
56	MG	BE	301	1/1	0.18	-	27,27,27,27	0
56	MG	DA	3546	1/1	0.09	-	47,47,47,47	0
56	MG	BA	3062	1/1	0.20	-	48,48,48,48	0
56	MG	BA	3370	1/1	0.09	-	27,27,27,27	0
56	MG	DA	3499	1/1	0.07	-	61,61,61,61	0
56	MG	BA	3076	1/1	0.26	-	34,34,34,34	0
56	MG	BA	3611	1/1	0.15	-	45,45,45,45	0
56	MG	CA	3014	1/1	0.15	-	57,57,57,57	0
56	MG	BA	3378	1/1	0.11	-	47,47,47,47	0
56	MG	AA	3056	1/1	0.24	-	54,54,54,54	0
56	MG	DA	3275	1/1	0.12	-	58,58,58,58	0
56	MG	DA	3114	1/1	0.09	-	55,55,55,55	0
56	MG	BA	3366	1/1	0.09	-	42,42,42,42	0
56	MG	DA	3043	1/1	0.10	-	52,52,52,52	0
56	MG	BN	3005	1/1	0.14	-	35,35,35,35	0
56	MG	DA	3376	1/1	0.14	-	51,51,51,51	0
56	MG	BA	3439	1/1	0.12	-	71,71,71,71	0
56	MG	BA	3157	1/1	0.68	-	36,36,36,36	0
56	MG	AA	3138	1/1	0.08	-	73,73,73,73	0
56	MG	BA	3119	1/1	0.17	-	29,29,29,29	0
56	MG	BA	3729	1/1	0.08	-	27,27,27,27	0
56	MG	CA	3038	1/1	0.07	-	63,63,63,63	0
56	MG	DA	3150	1/1	0.15	-	52,52,52,52	0
56	MG	BA	3391	1/1	0.18	-	26,26,26,26	0
56	MG	DQ	3002	1/1	0.17	-	41,41,41,41	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3316	1/1	0.15	-	34,34,34,34	0
56	MG	DA	3657	1/1	0.19	-	56,56,56,56	0
56	MG	CA	3171	1/1	0.13	-	65,65,65,65	0
56	MG	AA	3059	1/1	0.17	-	64,64,64,64	0
56	MG	CA	3102	1/1	0.13	-	49,49,49,49	0
56	MG	BA	3613	1/1	0.15	-	55,55,55,55	0
56	MG	AA	3031	1/1	0.10	-	54,54,54,54	0
56	MG	DA	3113	1/1	0.12	-	50,50,50,50	0
56	MG	DA	3623	1/1	0.14	-	66,66,66,66	0
56	MG	AA	3071	1/1	0.19	-	51,51,51,51	0
56	MG	BA	3749	1/1	0.09	-	29,29,29,29	0
56	MG	BA	3740	1/1	0.13	-	35,35,35,35	0
56	MG	DA	3292	1/1	0.16	-	40,40,40,40	0
56	MG	CA	3024	1/1	0.12	-	58,58,58,58	0
56	MG	DA	3243	1/1	0.12	-	47,47,47,47	0
56	MG	BZ	301	1/1	0.42	-	58,58,58,58	0
56	MG	CA	3175	1/1	0.15	-	46,46,46,46	0
56	MG	BA	3013	1/1	0.15	-	26,26,26,26	0
56	MG	BD	3306	1/1	0.56	-	38,38,38,38	0
56	MG	BE	302	1/1	0.20	-	40,40,40,40	0
56	MG	DA	3264	1/1	0.21	-	50,50,50,50	0
56	MG	AE	203	1/1	0.64	-	73,73,73,73	0
56	MG	BA	3266	1/1	0.16	-	27,27,27,27	0
56	MG	BA	3708	1/1	0.20	-	36,36,36,36	0
56	MG	DA	3541	1/1	0.12	-	40,40,40,40	0
56	MG	B8	101	1/1	0.09	-	36,36,36,36	0
56	MG	DA	3642	1/1	0.07	-	48,48,48,48	0
56	MG	BA	3537	1/1	0.18	-	21,21,21,21	0
56	MG	AA	3077	1/1	0.22	-	54,54,54,54	0
56	MG	DA	3309	1/1	0.26	-	46,46,46,46	0
56	MG	BA	3305	1/1	0.11	-	46,46,46,46	0
56	MG	CA	3165	1/1	0.16	-	60,60,60,60	0
56	MG	DA	3389	1/1	0.09	-	50,50,50,50	0
56	MG	DA	3289	1/1	0.10	-	39,39,39,39	0
56	MG	BA	3471	1/1	0.20	-	27,27,27,27	0
56	MG	DA	3120	1/1	0.12	-	34,34,34,34	0
56	MG	BB	221	1/1	0.12	-	43,43,43,43	0
56	MG	DA	3032	1/1	0.13	-	47,47,47,47	0
56	MG	BA	3644	1/1	0.22	-	50,50,50,50	0
59	ZN	B6	103	1/1	0.14	-	62,62,62,62	0
56	MG	BA	3443	1/1	0.14	-	27,27,27,27	0
56	MG	DA	3028	1/1	0.54	-	45,45,45,45	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3164	1/1	0.20	-	47,47,47,47	0
56	MG	BA	3288	1/1	0.12	-	44,44,44,44	0
56	MG	BA	3497	1/1	0.10	-	44,44,44,44	0
56	MG	BA	3601	1/1	0.12	-	49,49,49,49	0
56	MG	BN	3007	1/1	0.10	-	50,50,50,50	0
56	MG	DA	3450	1/1	0.09	-	41,41,41,41	0
56	MG	BA	3071	1/1	0.14	-	40,40,40,40	0
56	MG	AA	3099	1/1	0.20	-	47,47,47,47	0
56	MG	AA	3067	1/1	0.19	-	72,72,72,72	0
56	MG	BA	3030	1/1	0.13	-	40,40,40,40	0
56	MG	BA	3199	1/1	0.40	-	51,51,51,51	0
56	MG	DA	3436	1/1	0.09	-	70,70,70,70	0
56	MG	BA	3550	1/1	0.13	-	25,25,25,25	0
56	MG	BA	3192	1/1	0.17	-	53,53,53,53	0
56	MG	BA	3294	1/1	0.28	-	67,67,67,67	0
56	MG	CA	3148	1/1	0.12	-	88,88,88,88	0
56	MG	AA	3009	1/1	0.10	-	24,24,24,24	0
56	MG	BA	3502	1/1	0.10	-	20,20,20,20	0
56	MG	DA	3543	1/1	0.17	-	52,52,52,52	0
56	MG	DA	3142	1/1	0.09	-	50,50,50,50	0
56	MG	BA	3652	1/1	0.11	-	61,61,61,61	0
56	MG	DA	3183	1/1	0.11	-	40,40,40,40	0
56	MG	DA	3669	1/1	0.16	-	38,38,38,38	0
56	MG	DB	3003	1/1	0.11	-	56,56,56,56	0
56	MG	DA	3652	1/1	0.14	-	53,53,53,53	0
56	MG	BA	3507	1/1	0.19	-	35,35,35,35	0
56	MG	BA	3226	1/1	0.28	-	25,25,25,25	0
56	MG	BA	3267	1/1	0.10	-	45,45,45,45	0
56	MG	DA	3293	1/1	0.15	-	57,57,57,57	0
56	MG	AA	3169	1/1	0.17	-	73,73,73,73	0
56	MG	BA	3422	1/1	0.15	-	53,53,53,53	0
56	MG	BA	3348	1/1	0.20	-	24,24,24,24	0
56	MG	AA	3018	1/1	0.15	-	50,50,50,50	0
56	MG	DA	3610	1/1	0.14	-	49,49,49,49	0
56	MG	D0	102	1/1	0.10	-	51,51,51,51	0
56	MG	DA	3218	1/1	0.17	-	30,30,30,30	0
56	MG	BA	3059	1/1	0.12	-	49,49,49,49	0
56	MG	AA	3036	1/1	0.23	-	69,69,69,69	0
56	MG	BA	3264	1/1	0.31	-	45,45,45,45	0
56	MG	BA	3020	1/1	0.11	-	36,36,36,36	0
56	MG	DA	3531	1/1	0.14	-	62,62,62,62	0
56	MG	BN	3001	1/1	0.87	-	52,52,52,52	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3671	1/1	0.24	-	37,37,37,37	0
56	MG	DA	3536	1/1	0.11	-	44,44,44,44	0
56	MG	CA	3124	1/1	0.17	-	75,75,75,75	0
56	MG	DA	3079	1/1	0.15	-	32,32,32,32	0
56	MG	BD	3305	1/1	0.25	-	31,31,31,31	0
56	MG	BA	3194	1/1	0.10	-	62,62,62,62	0
56	MG	BA	3783	1/1	0.13	-	43,43,43,43	0
56	MG	CA	3143	1/1	0.18	-	77,77,77,77	0
56	MG	BP	202	1/1	0.11	-	27,27,27,27	0
56	MG	CA	3081	1/1	0.16	-	58,58,58,58	0
56	MG	DA	3155	1/1	0.24	-	38,38,38,38	0
56	MG	DA	3067	1/1	0.10	-	45,45,45,45	0
56	MG	AE	202	1/1	0.07	-	74,74,74,74	0
56	MG	BA	3240	1/1	0.09	-	30,30,30,30	0
56	MG	DA	3204	1/1	0.23	-	50,50,50,50	0
56	MG	DA	3012	1/1	0.09	-	39,39,39,39	0
56	MG	DA	3229	1/1	0.12	-	64,64,64,64	0
56	MG	DA	3660	1/1	0.08	-	28,28,28,28	0
58	SF4	CD	501	8/8	0.15	-	64,77,89,111	0
56	MG	DA	3045	1/1	0.10	-	60,60,60,60	0
56	MG	BA	3409	1/1	0.22	-	21,21,21,21	0
56	MG	CA	3101	1/1	0.08	-	54,54,54,54	0
56	MG	DA	3629	1/1	0.10	-	61,61,61,61	0
56	MG	DA	3656	1/1	0.05	-	57,57,57,57	0
56	MG	DA	3178	1/1	0.16	-	53,53,53,53	0
56	MG	AA	3068	1/1	0.23	-	62,62,62,62	0
56	MG	BP	201	1/1	0.48	-	28,28,28,28	0
56	MG	DA	3665	1/1	0.20	-	48,48,48,48	0
56	MG	DA	3262	1/1	0.12	-	46,46,46,46	0
56	MG	DA	3212	1/1	0.10	-	54,54,54,54	0
56	MG	AA	3115	1/1	0.22	-	45,45,45,45	0
56	MG	DA	3084	1/1	0.12	-	47,47,47,47	0
56	MG	BA	3490	1/1	0.12	-	60,60,60,60	0
56	MG	DA	3435	1/1	0.17	-	55,55,55,55	0
56	MG	BA	3122	1/1	0.52	-	46,46,46,46	0
56	MG	BA	3262	1/1	0.25	-	54,54,54,54	0
56	MG	BU	201	1/1	0.30	-	36,36,36,36	0
56	MG	DA	3467	1/1	0.17	-	48,48,48,48	0
56	MG	DA	3175	1/1	0.33	-	51,51,51,51	0
56	MG	BA	3124	1/1	0.16	-	35,35,35,35	0
56	MG	CA	3129	1/1	0.09	-	69,69,69,69	0
56	MG	BA	3002	1/1	0.15	-	57,57,57,57	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BB	213	1/1	0.22	-	30,30,30,30	0
56	MG	DA	3237	1/1	0.11	-	43,43,43,43	0
56	MG	BA	3159	1/1	0.17	-	40,40,40,40	0
56	MG	BA	3417	1/1	0.15	-	32,32,32,32	0
56	MG	AA	3123	1/1	0.20	-	51,51,51,51	0
56	MG	BA	3424	1/1	0.14	-	55,55,55,55	0
56	MG	DA	3333	1/1	0.05	-	51,51,51,51	0
56	MG	AA	3086	1/1	0.08	-	48,48,48,48	0
56	MG	AA	3057	1/1	0.17	-	66,66,66,66	0
56	MG	CA	3166	1/1	0.11	-	52,52,52,52	0
56	MG	BA	3701	1/1	0.19	-	20,20,20,20	0
56	MG	BB	206	1/1	0.33	-	58,58,58,58	0
56	MG	BA	3543	1/1	0.22	-	23,23,23,23	0
56	MG	BA	3311	1/1	0.15	-	23,23,23,23	0
56	MG	BA	3238	1/1	0.45	-	41,41,41,41	0
56	MG	DA	3455	1/1	0.18	-	46,46,46,46	0
56	MG	AA	3119	1/1	0.05	-	65,65,65,65	0
56	MG	BF	301	1/1	0.52	-	32,32,32,32	0
56	MG	AA	3082	1/1	0.28	-	51,51,51,51	0
56	MG	BA	3541	1/1	0.16	-	55,55,55,55	0
56	MG	BA	3259	1/1	0.24	-	59,59,59,59	0
56	MG	DA	3095	1/1	0.08	-	43,43,43,43	0
56	MG	DA	3010	1/1	0.11	-	45,45,45,45	0
56	MG	BA	3099	1/1	0.23	-	67,67,67,67	0
56	MG	DA	3348	1/1	0.13	-	32,32,32,32	0
56	MG	CA	3069	1/1	0.08	-	59,59,59,59	0
56	MG	BA	3739	1/1	0.25	-	46,46,46,46	0
56	MG	B6	101	1/1	0.20	-	47,47,47,47	0
56	MG	DA	3147	1/1	0.16	-	53,53,53,53	0
56	MG	CX	3003	1/1	0.12	-	58,58,58,58	0
56	MG	DA	3601	1/1	0.08	-	26,26,26,26	0
56	MG	BU	204	1/1	0.34	-	43,43,43,43	0
56	MG	BA	3456	1/1	0.10	-	32,32,32,32	0
56	MG	DA	3325	1/1	0.16	-	37,37,37,37	0
56	MG	DA	3184	1/1	0.08	-	49,49,49,49	0
57	PCY	CA	3176	40/40	0.35	-	72,89,98,102	0
56	MG	BA	3149	1/1	0.29	-	36,36,36,36	0
56	MG	CA	3005	1/1	0.09	-	73,73,73,73	0
56	MG	DA	3481	1/1	0.12	-	24,24,24,24	0
56	MG	DA	3086	1/1	0.22	-	36,36,36,36	0
56	MG	CA	3060	1/1	0.09	-	47,47,47,47	0
56	MG	DA	3457	1/1	0.13	-	43,43,43,43	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	3106	1/1	0.17	-	61,61,61,61	0
56	MG	BA	3554	1/1	0.14	-	24,24,24,24	0
56	MG	DA	3272	1/1	0.09	-	45,45,45,45	0
56	MG	BA	3141	1/1	0.16	-	42,42,42,42	0
56	MG	BA	3033	1/1	0.77	-	42,42,42,42	0
56	MG	BN	3004	1/1	0.61	-	61,61,61,61	0
56	MG	AA	3079	1/1	0.18	-	55,55,55,55	0
56	MG	BA	3419	1/1	0.16	-	25,25,25,25	0
56	MG	BA	3748	1/1	0.25	-	69,69,69,69	0
56	MG	CA	3111	1/1	0.07	-	56,56,56,56	0
56	MG	BA	3216	1/1	0.08	-	62,62,62,62	0
56	MG	DA	3336	1/1	0.10	-	39,39,39,39	0
56	MG	BA	3580	1/1	0.25	-	48,48,48,48	0
56	MG	BA	3039	1/1	0.23	-	58,58,58,58	0
56	MG	BA	3475	1/1	0.11	-	45,45,45,45	0
56	MG	BA	3184	1/1	0.20	-	37,37,37,37	0
56	MG	DA	3081	1/1	0.12	-	48,48,48,48	0
56	MG	DA	3279	1/1	0.10	-	54,54,54,54	0
56	MG	BA	3404	1/1	0.22	-	23,23,23,23	0
56	MG	BA	3803	1/1	0.17	-	33,33,33,33	0
56	MG	DA	3472	1/1	0.13	-	60,60,60,60	0
56	MG	DA	3165	1/1	0.13	-	42,42,42,42	0
56	MG	DA	3139	1/1	0.06	-	41,41,41,41	0
56	MG	DA	3057	1/1	0.22	-	55,55,55,55	0
56	MG	BV	201	1/1	0.55	-	27,27,27,27	0
56	MG	BA	3167	1/1	0.47	-	43,43,43,43	0
56	MG	AA	3098	1/1	0.15	-	71,71,71,71	0
56	MG	BA	3206	1/1	0.20	-	37,37,37,37	0
56	MG	CA	3174	1/1	0.68	-	80,80,80,80	0
56	MG	AA	3134	1/1	0.18	-	65,65,65,65	0
56	MG	BA	3612	1/1	0.16	-	58,58,58,58	0
56	MG	DA	3088	1/1	0.09	-	30,30,30,30	0
56	MG	DA	3179	1/1	0.20	-	57,57,57,57	0
56	MG	BA	3789	1/1	0.26	-	37,37,37,37	0
56	MG	DA	3094	1/1	0.11	-	52,52,52,52	0
56	MG	DA	3549	1/1	0.14	-	32,32,32,32	0
56	MG	BE	304	1/1	0.45	-	43,43,43,43	0
56	MG	CA	3084	1/1	0.13	-	71,71,71,71	0
56	MG	BA	3491	1/1	0.14	-	45,45,45,45	0
56	MG	DA	3304	1/1	0.12	-	40,40,40,40	0
56	MG	AA	3042	1/1	0.10	-	55,55,55,55	0
56	MG	DA	3422	1/1	0.10	-	51,51,51,51	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3462	1/1	0.08	-	31,31,31,31	0
56	MG	DA	3227	1/1	0.23	-	49,49,49,49	0
56	MG	AA	3168	1/1	0.12	-	57,57,57,57	0
56	MG	BA	3201	1/1	0.30	-	41,41,41,41	0
56	MG	DA	3476	1/1	0.21	-	53,53,53,53	0
56	MG	BA	3107	1/1	0.12	-	50,50,50,50	0
56	MG	BA	3270	1/1	0.22	-	40,40,40,40	0
56	MG	BA	3096	1/1	0.29	-	61,61,61,61	0
56	MG	BA	3176	1/1	0.11	-	44,44,44,44	0
56	MG	BA	3355	1/1	0.26	-	28,28,28,28	0
56	MG	CA	3161	1/1	0.05	-	51,51,51,51	0
56	MG	BA	3412	1/1	0.26	-	19,19,19,19	0
56	MG	CA	3036	1/1	0.17	-	72,72,72,72	0
56	MG	DA	3458	1/1	0.07	-	57,57,57,57	0
56	MG	BA	3480	1/1	0.10	-	50,50,50,50	0
56	MG	BA	3451	1/1	0.15	-	31,31,31,31	0
56	MG	BA	3530	1/1	0.19	-	25,25,25,25	0
56	MG	BA	3442	1/1	0.12	-	36,36,36,36	0
56	MG	BA	3358	1/1	0.11	-	40,40,40,40	0
56	MG	BA	3520	1/1	0.13	-	50,50,50,50	0
56	MG	DF	303	1/1	0.13	-	52,52,52,52	0
56	MG	DA	3443	1/1	0.12	-	38,38,38,38	0
56	MG	DA	3585	1/1	0.19	-	43,43,43,43	0
56	MG	AA	3182	1/1	0.25	-	64,64,64,64	0
56	MG	DB	3002	1/1	0.14	-	58,58,58,58	0
56	MG	BA	3643	1/1	0.13	-	58,58,58,58	0
56	MG	BA	3647	1/1	0.16	-	49,49,49,49	0
56	MG	DA	3075	1/1	0.18	-	43,43,43,43	0
56	MG	BA	3458	1/1	0.14	-	66,66,66,66	0
56	MG	DA	3331	1/1	0.07	-	49,49,49,49	0
56	MG	AA	3146	1/1	0.13	-	53,53,53,53	0
56	MG	BA	3542	1/1	0.18	-	20,20,20,20	0
56	MG	BA	3594	1/1	0.17	-	33,33,33,33	0
56	MG	BA	3392	1/1	0.19	-	41,41,41,41	0
56	MG	CA	3155	1/1	0.07	-	76,76,76,76	0
56	MG	CA	3017	1/1	0.14	-	76,76,76,76	0
56	MG	BA	3508	1/1	0.11	-	34,34,34,34	0
56	MG	BA	3121	1/1	0.38	-	45,45,45,45	0
56	MG	CA	3114	1/1	0.19	-	52,52,52,52	0
56	MG	BA	3596	1/1	0.06	-	68,68,68,68	0
56	MG	BA	3042	1/1	0.15	-	41,41,41,41	0
56	MG	AA	3037	1/1	0.21	-	46,46,46,46	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3162	1/1	0.30	-	53,53,53,53	0
56	MG	DA	3548	1/1	0.09	-	55,55,55,55	0
56	MG	BA	3329	1/1	0.19	-	24,24,24,24	0
56	MG	DA	3105	1/1	0.06	-	41,41,41,41	0
56	MG	DA	3635	1/1	0.17	-	47,47,47,47	0
56	MG	AA	3015	1/1	0.09	-	65,65,65,65	0
56	MG	DA	3191	1/1	0.18	-	46,46,46,46	0
56	MG	BA	3143	1/1	0.22	-	39,39,39,39	0
56	MG	BA	3730	1/1	0.18	-	13,13,13,13	0
56	MG	BA	3098	1/1	0.22	-	38,38,38,38	0
56	MG	BA	3055	1/1	0.18	-	55,55,55,55	0
56	MG	BA	3785	1/1	0.07	-	81,81,81,81	0
56	MG	BA	3476	1/1	0.31	-	48,48,48,48	0
56	MG	BA	3269	1/1	0.18	-	42,42,42,42	0
56	MG	AA	3124	1/1	0.07	-	71,71,71,71	0
56	MG	CA	3035	1/1	0.16	-	52,52,52,52	0
56	MG	DA	3254	1/1	0.22	-	35,35,35,35	0
56	MG	DA	3613	1/1	0.07	-	55,55,55,55	0
56	MG	BA	3787	1/1	0.15	-	57,57,57,57	0
56	MG	BB	204	1/1	0.12	-	42,42,42,42	0
56	MG	AA	3151	1/1	0.11	-	56,56,56,56	0
56	MG	DA	3136	1/1	0.19	-	43,43,43,43	0
56	MG	BA	3204	1/1	0.12	-	55,55,55,55	0
56	MG	BY	204	1/1	0.26	-	52,52,52,52	0
56	MG	CA	3126	1/1	0.10	-	57,57,57,57	0
56	MG	BA	3113	1/1	0.31	-	39,39,39,39	0
56	MG	DA	3361	1/1	0.12	-	25,25,25,25	0
56	MG	DA	3470	1/1	0.18	-	31,31,31,31	0
56	MG	BA	3488	1/1	0.18	-	16,16,16,16	0
56	MG	BA	3105	1/1	0.15	-	39,39,39,39	0
56	MG	DA	3572	1/1	0.05	-	68,68,68,68	0
56	MG	BA	3388	1/1	0.21	-	27,27,27,27	0
56	MG	CA	3087	1/1	0.11	-	62,62,62,62	0
56	MG	CA	3167	1/1	0.08	-	47,47,47,47	0
56	MG	BA	3390	1/1	0.20	-	25,25,25,25	0
56	MG	DA	3252	1/1	0.09	-	38,38,38,38	0
56	MG	BA	3066	1/1	0.12	-	52,52,52,52	0
56	MG	DD	305	1/1	0.90	-	39,39,39,39	0
56	MG	BA	3214	1/1	0.20	-	44,44,44,44	0
56	MG	DA	3248	1/1	0.12	-	49,49,49,49	0
56	MG	DA	3423	1/1	0.16	-	56,56,56,56	0
56	MG	DA	3245	1/1	0.10	-	47,47,47,47	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3474	1/1	0.08	-	30,30,30,30	0
56	MG	BA	3718	1/1	0.13	-	53,53,53,53	0
56	MG	BP	203	1/1	0.14	-	49,49,49,49	0
56	MG	BA	3600	1/1	0.16	-	50,50,50,50	0
56	MG	AA	3052	1/1	0.16	-	49,49,49,49	0
56	MG	BA	3797	1/1	0.14	-	19,19,19,19	0
56	MG	BA	3665	1/1	0.13	-	40,40,40,40	0
56	MG	DA	3100	1/1	0.15	-	66,66,66,66	0
56	MG	DV	3002	1/1	0.79	-	48,48,48,48	0
56	MG	DA	3072	1/1	0.09	-	52,52,52,52	0
56	MG	DA	3035	1/1	0.08	-	40,40,40,40	0
56	MG	BA	3397	1/1	0.12	-	25,25,25,25	0
56	MG	DA	3551	1/1	0.05	-	47,47,47,47	0
56	MG	DA	3148	1/1	0.39	-	43,43,43,43	0
56	MG	BA	3428	1/1	0.20	-	36,36,36,36	0
56	MG	BA	3527	1/1	0.17	-	27,27,27,27	0
56	MG	BA	3558	1/1	0.25	-	57,57,57,57	0
56	MG	BA	3623	1/1	0.09	-	33,33,33,33	0
56	MG	CA	3011	1/1	0.09	-	69,69,69,69	0
56	MG	AA	3069	1/1	0.12	-	52,52,52,52	0
56	MG	BA	3690	1/1	0.16	-	52,52,52,52	0
56	MG	BA	3709	1/1	0.25	-	28,28,28,28	0
56	MG	BY	202	1/1	0.14	-	48,48,48,48	0
56	MG	CA	3021	1/1	0.16	-	65,65,65,65	0
56	MG	BA	3045	1/1	0.17	-	38,38,38,38	0
56	MG	BB	215	1/1	0.17	-	35,35,35,35	0
56	MG	AA	3153	1/1	0.19	-	81,81,81,81	0
56	MG	BA	3414	1/1	0.20	-	33,33,33,33	0
56	MG	AA	3109	1/1	0.15	-	67,67,67,67	0
56	MG	CA	3095	1/1	0.08	-	56,56,56,56	0
56	MG	DA	3390	1/1	0.12	-	19,19,19,19	0
56	MG	DA	3560	1/1	0.08	-	47,47,47,47	0
56	MG	BE	303	1/1	0.55	-	32,32,32,32	0
56	MG	AX	3009	1/1	0.18	-	74,74,74,74	0
56	MG	DA	3428	1/1	0.05	-	26,26,26,26	0
56	MG	CA	3001	1/1	0.09	-	59,59,59,59	0
56	MG	DA	3038	1/1	0.15	-	28,28,28,28	0
59	ZN	D6	501	1/1	0.19	-	66,66,66,66	0
56	MG	DB	3006	1/1	0.13	-	60,60,60,60	0
56	MG	DA	3498	1/1	0.06	-	44,44,44,44	0
56	MG	DA	3040	1/1	0.32	-	58,58,58,58	0
56	MG	DA	3569	1/1	0.12	-	59,59,59,59	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	3005	1/1	0.25	-	77,77,77,77	0
56	MG	DA	3003	1/1	0.18	-	48,48,48,48	0
56	MG	CA	3130	1/1	0.15	-	51,51,51,51	0
56	MG	BA	3209	1/1	0.14	-	35,35,35,35	0
56	MG	BN	3006	1/1	0.66	-	47,47,47,47	0
56	MG	DB	3010	1/1	0.14	-	53,53,53,53	0
56	MG	DA	3041	1/1	0.16	-	56,56,56,56	0
56	MG	AA	3066	1/1	0.12	-	58,58,58,58	0
56	MG	BA	3561	1/1	0.17	-	55,55,55,55	0
56	MG	DA	3575	1/1	0.09	-	51,51,51,51	0
56	MG	BA	3734	1/1	0.16	-	18,18,18,18	0
56	MG	BA	3713	1/1	0.22	-	26,26,26,26	0
56	MG	BA	3026	1/1	0.29	-	49,49,49,49	0
56	MG	BA	3302	1/1	0.17	-	24,24,24,24	0
56	MG	BA	3770	1/1	0.11	-	47,47,47,47	0
56	MG	BA	3300	1/1	0.29	-	28,28,28,28	0
56	MG	BF	308	1/1	0.54	-	45,45,45,45	0
56	MG	DA	3636	1/1	0.08	-	52,52,52,52	0
56	MG	DA	3480	1/1	0.11	-	38,38,38,38	0
56	MG	DA	3461	1/1	0.23	-	57,57,57,57	0
56	MG	DA	3647	1/1	0.38	-	53,53,53,53	0
56	MG	AA	3131	1/1	0.15	-	29,29,29,29	0
56	MG	BA	3100	1/1	0.23	-	53,53,53,53	0
56	MG	DA	3500	1/1	0.10	-	51,51,51,51	0
56	MG	DA	3301	1/1	0.08	-	51,51,51,51	0
56	MG	BA	3754	1/1	0.09	-	60,60,60,60	0
56	MG	BA	3172	1/1	0.19	-	52,52,52,52	0
56	MG	CA	3090	1/1	0.22	-	67,67,67,67	0
56	MG	BA	3395	1/1	0.18	-	36,36,36,36	0
56	MG	BA	3692	1/1	0.13	-	51,51,51,51	0
56	MG	DA	3235	1/1	0.17	-	35,35,35,35	0
56	MG	BA	3778	1/1	0.08	-	41,41,41,41	0
56	MG	DA	3137	1/1	0.22	-	43,43,43,43	0
56	MG	BB	217	1/1	0.12	-	41,41,41,41	0
56	MG	DA	3375	1/1	0.12	-	37,37,37,37	0
56	MG	BA	3784	1/1	0.14	-	23,23,23,23	0
56	MG	AA	3020	1/1	0.17	-	71,71,71,71	0
56	MG	DA	3351	1/1	0.13	-	32,32,32,32	0
56	MG	AA	3013	1/1	0.05	-	57,57,57,57	0
56	MG	BA	3441	1/1	0.15	-	32,32,32,32	0
56	MG	BA	3195	1/1	0.20	-	52,52,52,52	0
56	MG	BA	3250	1/1	0.24	-	42,42,42,42	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3042	1/1	0.09	-	46,46,46,46	0
59	ZN	BY	203	1/1	0.17	-	54,54,54,54	0
56	MG	DA	3002	1/1	0.32	-	55,55,55,55	0
56	MG	CA	3154	1/1	0.13	-	54,54,54,54	0
56	MG	AA	3094	1/1	0.12	-	66,66,66,66	0
56	MG	BA	3775	1/1	0.08	-	34,34,34,34	0
56	MG	BA	3559	1/1	0.06	-	59,59,59,59	0
56	MG	BA	3382	1/1	0.11	-	41,41,41,41	0
56	MG	DA	3273	1/1	0.07	-	39,39,39,39	0
56	MG	DA	3173	1/1	0.13	-	51,51,51,51	0
56	MG	AA	3096	1/1	0.22	-	60,60,60,60	0
56	MG	CA	3063	1/1	0.15	-	70,70,70,70	0
56	MG	DA	3431	1/1	0.10	-	64,64,64,64	0
56	MG	BA	3587	1/1	0.09	-	54,54,54,54	0
56	MG	BE	307	1/1	0.08	-	31,31,31,31	0
56	MG	DA	3392	1/1	0.10	-	50,50,50,50	0
56	MG	DA	3638	1/1	0.18	-	42,42,42,42	0
56	MG	AA	3024	1/1	0.20	-	55,55,55,55	0
56	MG	DA	3033	1/1	0.68	-	54,54,54,54	0
56	MG	BB	202	1/1	0.19	-	45,45,45,45	0
56	MG	DA	3167	1/1	0.15	-	38,38,38,38	0
56	MG	DA	3089	1/1	0.14	-	47,47,47,47	0
56	MG	AA	3049	1/1	0.19	-	64,64,64,64	0
56	MG	DB	3008	1/1	0.11	-	64,64,64,64	0
56	MG	DA	3357	1/1	0.08	-	38,38,38,38	0
56	MG	CA	3106	1/1	0.11	-	58,58,58,58	0
56	MG	DA	3502	1/1	0.10	-	48,48,48,48	0
56	MG	DA	3294	1/1	0.07	-	36,36,36,36	0
56	MG	BA	3609	1/1	0.14	-	54,54,54,54	0
56	MG	DA	3104	1/1	0.14	-	39,39,39,39	0
56	MG	BQ	202	1/1	0.14	-	37,37,37,37	0
56	MG	AA	3060	1/1	0.14	-	52,52,52,52	0
56	MG	DA	3271	1/1	0.16	-	51,51,51,51	0
56	MG	BA	3148	1/1	0.09	-	49,49,49,49	0
56	MG	DA	3413	1/1	0.06	-	34,34,34,34	0
56	MG	CA	3108	1/1	0.07	-	52,52,52,52	0
56	MG	BA	3064	1/1	0.15	-	33,33,33,33	0
56	MG	BA	3061	1/1	0.29	-	49,49,49,49	0
56	MG	BA	3731	1/1	0.11	-	26,26,26,26	0
56	MG	BA	3285	1/1	0.10	-	54,54,54,54	0
56	MG	BA	3112	1/1	0.25	-	42,42,42,42	0
56	MG	AA	3008	1/1	0.09	-	56,56,56,56	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	3117	1/1	0.10	-	58,58,58,58	0
56	MG	BA	3244	1/1	0.58	-	39,39,39,39	0
56	MG	BA	3649	1/1	0.10	-	44,44,44,44	0
56	MG	BA	3571	1/1	0.11	-	46,46,46,46	0
59	ZN	D9	501	1/1	0.12	-	65,65,65,65	0
56	MG	DA	3225	1/1	0.11	-	49,49,49,49	0
56	MG	DA	3597	1/1	0.08	-	49,49,49,49	0
56	MG	DA	3055	1/1	0.10	-	54,54,54,54	0
56	MG	BA	3814	1/1	0.36	-	42,42,42,42	0
56	MG	BA	3720	1/1	0.10	-	45,45,45,45	0
56	MG	BA	3724	1/1	0.15	-	25,25,25,25	0
56	MG	DA	3404	1/1	0.09	-	40,40,40,40	0
56	MG	AA	3063	1/1	0.08	-	42,42,42,42	0
56	MG	BA	3079	1/1	0.30	-	49,49,49,49	0
56	MG	AA	3039	1/1	0.13	-	46,46,46,46	0
56	MG	AA	3177	1/1	0.10	-	80,80,80,80	0
56	MG	BA	3177	1/1	0.21	-	44,44,44,44	0
56	MG	DA	3202	1/1	0.49	-	52,52,52,52	0
56	MG	AX	3004	1/1	0.12	-	53,53,53,53	0
56	MG	DG	3001	1/1	0.10	-	57,57,57,57	0
56	MG	DA	3320	1/1	0.16	-	34,34,34,34	0
56	MG	BA	3544	1/1	0.28	-	45,45,45,45	0
56	MG	DA	3509	1/1	0.12	-	55,55,55,55	0
56	MG	DA	3022	1/1	0.07	-	29,29,29,29	0
56	MG	BA	3364	1/1	0.23	-	29,29,29,29	0
56	MG	AA	3083	1/1	0.10	-	53,53,53,53	0
56	MG	BA	3664	1/1	0.18	-	17,17,17,17	0
56	MG	BA	3794	1/1	0.15	-	29,29,29,29	0
56	MG	AA	3166	1/1	0.26	-	74,74,74,74	0
56	MG	BA	3515	1/1	0.16	-	35,35,35,35	0
56	MG	BA	3295	1/1	0.24	-	49,49,49,49	0
56	MG	B5	103	1/1	0.13	-	41,41,41,41	0
56	MG	CA	3006	1/1	0.12	-	59,59,59,59	0
56	MG	DA	3340	1/1	0.13	-	30,30,30,30	0
56	MG	DA	3415	1/1	0.14	-	59,59,59,59	0
56	MG	CA	3142	1/1	0.09	-	81,81,81,81	0
56	MG	D1	101	1/1	0.11	-	50,50,50,50	0
56	MG	DA	3047	1/1	0.07	-	39,39,39,39	0
56	MG	BA	3779	1/1	0.14	-	45,45,45,45	0
56	MG	AA	3159	1/1	0.07	-	59,59,59,59	0
59	ZN	AN	501	1/1	0.14	-	86,86,86,86	0
56	MG	CA	3033	1/1	0.10	-	60,60,60,60	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DQ	3001	1/1	0.05	-	45,45,45,45	0
56	MG	CA	3118	1/1	0.08	-	60,60,60,60	0
56	MG	DA	3258	1/1	0.19	-	51,51,51,51	0
56	MG	CA	3139	1/1	0.16	-	69,69,69,69	0
56	MG	DB	3007	1/1	0.17	-	42,42,42,42	0
56	MG	CA	3019	1/1	0.06	-	62,62,62,62	0
56	MG	BA	3025	1/1	0.09	-	48,48,48,48	0
56	MG	BA	3751	1/1	0.26	-	55,55,55,55	0
56	MG	CA	3170	1/1	0.07	-	53,53,53,53	0
56	MG	CA	3025	1/1	0.23	-	61,61,61,61	0
56	MG	DA	3176	1/1	0.29	-	44,44,44,44	0
56	MG	BA	3529	1/1	0.20	-	25,25,25,25	0
56	MG	BV	203	1/1	0.49	-	31,31,31,31	0
56	MG	DA	3200	1/1	0.10	-	57,57,57,57	0
56	MG	BA	3538	1/1	0.16	-	26,26,26,26	0
56	MG	BA	3545	1/1	0.13	-	36,36,36,36	0
56	MG	BA	3339	1/1	0.19	-	23,23,23,23	0
56	MG	BA	3017	1/1	0.17	-	52,52,52,52	0
56	MG	DA	3060	1/1	0.12	-	48,48,48,48	0
56	MG	DA	3409	1/1	0.13	-	55,55,55,55	0
56	MG	BA	3145	1/1	0.23	-	41,41,41,41	0
56	MG	BA	3753	1/1	0.10	-	27,27,27,27	0
56	MG	DA	3438	1/1	0.15	-	55,55,55,55	0
56	MG	BA	3088	1/1	0.46	-	49,49,49,49	0
56	MG	DA	3523	1/1	0.28	-	52,52,52,52	0
56	MG	BU	203	1/1	0.23	-	27,27,27,27	0
56	MG	DA	3403	1/1	0.06	-	56,56,56,56	0
56	MG	BA	3464	1/1	0.15	-	46,46,46,46	0
56	MG	AA	3019	1/1	0.09	-	66,66,66,66	0
56	MG	DA	3097	1/1	0.21	-	57,57,57,57	0
56	MG	CA	3023	1/1	0.08	-	39,39,39,39	0
56	MG	B3	3001	1/1	0.18	-	38,38,38,38	0
56	MG	DA	3101	1/1	0.20	-	55,55,55,55	0
56	MG	BA	3795	1/1	0.21	-	43,43,43,43	0
56	MG	DB	3005	1/1	0.21	-	48,48,48,48	0
56	MG	BA	3087	1/1	0.49	-	40,40,40,40	0
56	MG	CA	3068	1/1	0.15	-	64,64,64,64	0
56	MG	DA	3363	1/1	0.12	-	49,49,49,49	0
56	MG	BA	3793	1/1	0.35	-	52,52,52,52	0
56	MG	BA	3492	1/1	0.09	-	47,47,47,47	0
56	MG	DA	3521	1/1	0.30	-	55,55,55,55	0
56	MG	DP	201	1/1	0.14	-	58,58,58,58	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3584	1/1	0.14	-	31,31,31,31	0
56	MG	DA	3025	1/1	0.10	-	52,52,52,52	0
56	MG	CA	3061	1/1	0.25	-	64,64,64,64	0
56	MG	BA	3231	1/1	0.14	-	51,51,51,51	0
56	MG	BA	3423	1/1	0.12	-	31,31,31,31	0
56	MG	BA	3275	1/1	0.12	-	34,34,34,34	0
56	MG	DA	3214	1/1	0.13	-	51,51,51,51	0
56	MG	DA	3616	1/1	0.10	-	43,43,43,43	0
56	MG	AA	3171	1/1	0.17	-	67,67,67,67	0
56	MG	BA	3014	1/1	0.23	-	38,38,38,38	0
59	ZN	D5	501	1/1	0.18	-	52,52,52,52	0
56	MG	BA	3449	1/1	0.21	-	32,32,32,32	0
56	MG	BA	3340	1/1	0.08	-	40,40,40,40	0
56	MG	DA	3410	1/1	0.08	-	46,46,46,46	0
56	MG	CA	3135	1/1	0.12	-	63,63,63,63	0
56	MG	CA	3163	1/1	0.08	-	78,78,78,78	0
56	MG	BA	3516	1/1	0.16	-	28,28,28,28	0
56	MG	BA	3152	1/1	0.21	-	42,42,42,42	0
56	MG	DA	3177	1/1	0.10	-	46,46,46,46	0
56	MG	BA	3024	1/1	0.35	-	45,45,45,45	0
56	MG	CA	3004	1/1	0.09	-	67,67,67,67	0
56	MG	BA	3548	1/1	0.14	-	40,40,40,40	0
56	MG	DA	3516	1/1	0.32	-	52,52,52,52	0
56	MG	CA	3125	1/1	0.10	-	63,63,63,63	0
56	MG	BF	303	1/1	0.19	-	43,43,43,43	0
56	MG	BD	3309	1/1	0.13	-	40,40,40,40	0
56	MG	DA	3315	1/1	0.11	-	44,44,44,44	0
56	MG	BA	3560	1/1	0.19	-	38,38,38,38	0
56	MG	BA	3626	1/1	0.16	-	43,43,43,43	0
56	MG	AA	3179	1/1	0.20	-	61,61,61,61	0
56	MG	CA	3047	1/1	0.12	-	59,59,59,59	0
56	MG	CA	3128	1/1	0.18	-	68,68,68,68	0
56	MG	DA	3365	1/1	0.07	-	56,56,56,56	0
56	MG	BA	3466	1/1	0.14	-	44,44,44,44	0
56	MG	BA	3726	1/1	0.09	-	65,65,65,65	0
56	MG	BA	3197	1/1	0.88	-	51,51,51,51	0
56	MG	DA	3143	1/1	0.45	-	36,36,36,36	0
56	MG	BA	3534	1/1	0.15	-	44,44,44,44	0
56	MG	BA	3335	1/1	0.18	-	42,42,42,42	0
56	MG	DA	3589	1/1	0.10	-	53,53,53,53	0
56	MG	AA	3016	1/1	0.16	-	55,55,55,55	0
56	MG	AA	3090	1/1	0.28	-	41,41,41,41	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3352	1/1	0.13	-	27,27,27,27	0
56	MG	BA	3175	1/1	0.39	-	57,57,57,57	0
56	MG	BA	3078	1/1	0.16	-	15,15,15,15	0
56	MG	DA	3149	1/1	0.34	-	37,37,37,37	0
56	MG	BA	3812	1/1	0.32	-	31,31,31,31	0
56	MG	DA	3242	1/1	0.17	-	68,68,68,68	0
56	MG	AA	3084	1/1	0.09	-	62,62,62,62	0
56	MG	AA	3095	1/1	0.11	-	50,50,50,50	0
56	MG	BA	3435	1/1	0.18	-	26,26,26,26	0
56	MG	BA	3712	1/1	0.24	-	29,29,29,29	0
56	MG	B7	104	1/1	0.22	-	64,64,64,64	0
56	MG	BA	3614	1/1	0.19	-	59,59,59,59	0
56	MG	BA	3782	1/1	0.39	-	30,30,30,30	0
56	MG	BA	3510	1/1	0.10	-	42,42,42,42	0
56	MG	AA	3141	1/1	0.24	-	50,50,50,50	0
56	MG	DA	3513	1/1	0.08	-	30,30,30,30	0
56	MG	BA	3710	1/1	0.32	-	28,28,28,28	0
56	MG	DA	3154	1/1	0.18	-	52,52,52,52	0
56	MG	DA	3285	1/1	0.14	-	52,52,52,52	0
56	MG	BA	3018	1/1	0.25	-	63,63,63,63	0
56	MG	CA	3031	1/1	0.09	-	59,59,59,59	0
59	ZN	DY	501	1/1	0.12	-	97,97,97,97	0
56	MG	DA	3583	1/1	0.09	-	56,56,56,56	0
56	MG	BA	3211	1/1	0.22	-	41,41,41,41	0
56	MG	DA	3471	1/1	0.17	-	54,54,54,54	0
56	MG	BA	3031	1/1	0.23	-	28,28,28,28	0
56	MG	DA	3291	1/1	0.12	-	41,41,41,41	0
56	MG	BA	3234	1/1	0.31	-	32,32,32,32	0
56	MG	BA	3385	1/1	0.20	-	41,41,41,41	0
56	MG	CA	3034	1/1	0.11	-	51,51,51,51	0
56	MG	CA	3134	1/1	0.08	-	65,65,65,65	0
56	MG	DA	3426	1/1	0.09	-	39,39,39,39	0
56	MG	DA	3223	1/1	0.20	-	41,41,41,41	0
56	MG	BA	3320	1/1	0.17	-	55,55,55,55	0
56	MG	BA	3359	1/1	0.21	-	40,40,40,40	0
56	MG	DA	3442	1/1	0.09	-	37,37,37,37	0
56	MG	BA	3185	1/1	0.20	-	52,52,52,52	0
56	MG	DA	3354	1/1	0.05	-	48,48,48,48	0
56	MG	BA	3742	1/1	0.28	-	21,21,21,21	0
56	MG	AA	3087	1/1	0.28	-	53,53,53,53	0
56	MG	BA	3151	1/1	0.18	-	37,37,37,37	0
56	MG	DA	3116	1/1	0.13	-	48,48,48,48	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3704	1/1	0.27	-	36,36,36,36	0
56	MG	DA	3099	1/1	0.12	-	45,45,45,45	0
56	MG	BA	3082	1/1	0.18	-	55,55,55,55	0
56	MG	CA	3044	1/1	0.09	-	44,44,44,44	0
56	MG	BA	3790	1/1	0.19	-	29,29,29,29	0
56	MG	DA	3421	1/1	0.07	-	31,31,31,31	0
56	MG	DA	3556	1/1	0.11	-	55,55,55,55	0
56	MG	CA	3137	1/1	0.13	-	50,50,50,50	0
56	MG	DA	3131	1/1	0.07	-	52,52,52,52	0
56	MG	AA	3081	1/1	0.25	-	51,51,51,51	0
56	MG	BA	3483	1/1	0.19	-	41,41,41,41	0
56	MG	BA	3433	1/1	0.16	-	31,31,31,31	0
56	MG	DA	3554	1/1	0.15	-	47,47,47,47	0
56	MG	DA	3473	1/1	0.10	-	30,30,30,30	0
56	MG	BA	3342	1/1	0.09	-	33,33,33,33	0
56	MG	DA	3362	1/1	0.12	-	59,59,59,59	0
56	MG	BA	3484	1/1	0.12	-	51,51,51,51	0
56	MG	DA	3359	1/1	0.15	-	39,39,39,39	0
56	MG	BA	3574	1/1	0.15	-	28,28,28,28	0
56	MG	AA	3148	1/1	0.08	-	58,58,58,58	0
56	MG	BA	3344	1/1	0.23	-	55,55,55,55	0
56	MG	DA	3433	1/1	0.12	-	34,34,34,34	0
56	MG	CA	3112	1/1	0.08	-	56,56,56,56	0
56	MG	BA	3622	1/1	0.14	-	29,29,29,29	0
56	MG	AA	3172	1/1	0.26	-	55,55,55,55	0
56	MG	BA	3147	1/1	0.09	-	41,41,41,41	0
56	MG	DA	3494	1/1	0.30	-	57,57,57,57	0
56	MG	DF	305	1/1	0.44	-	44,44,44,44	0
56	MG	BA	3217	1/1	0.17	-	47,47,47,47	0
56	MG	BA	3208	1/1	0.13	-	19,19,19,19	0
56	MG	BA	3707	1/1	0.10	-	43,43,43,43	0
56	MG	BW	202	1/1	0.13	-	41,41,41,41	0
56	MG	DA	3312	1/1	0.12	-	41,41,41,41	0
56	MG	CA	3052	1/1	0.11	-	69,69,69,69	0
56	MG	BA	3200	1/1	0.14	-	41,41,41,41	0
56	MG	DA	3468	1/1	0.11	-	37,37,37,37	0
56	MG	AA	3021	1/1	0.10	-	62,62,62,62	0
56	MG	BA	3463	1/1	0.11	-	10,10,10,10	0
56	MG	DB	3004	1/1	0.11	-	53,53,53,53	0
56	MG	BA	3636	1/1	0.21	-	52,52,52,52	0
56	MG	DA	3039	1/1	0.12	-	44,44,44,44	0
56	MG	DA	3447	1/1	0.16	-	41,41,41,41	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3619	1/1	0.12	-	33,33,33,33	0
56	MG	DA	3128	1/1	0.41	-	57,57,57,57	0
56	MG	BA	3332	1/1	0.18	-	36,36,36,36	0
56	MG	BA	3796	1/1	0.27	-	47,47,47,47	0
56	MG	BA	3168	1/1	0.22	-	39,39,39,39	0
56	MG	DA	3349	1/1	0.15	-	31,31,31,31	0
56	MG	BA	3808	1/1	0.07	-	40,40,40,40	0
56	MG	DA	3195	1/1	0.28	-	58,58,58,58	0
56	MG	CA	3131	1/1	0.14	-	81,81,81,81	0
56	MG	BA	3668	1/1	0.20	-	48,48,48,48	0
56	MG	BA	3512	1/1	0.29	-	47,47,47,47	0
56	MG	BA	3780	1/1	0.20	-	54,54,54,54	0
56	MG	BA	3097	1/1	0.15	-	52,52,52,52	0
56	MG	BA	3328	1/1	0.12	-	11,11,11,11	0
56	MG	DA	3310	1/1	0.19	-	49,49,49,49	0
56	MG	DA	3193	1/1	0.08	-	46,46,46,46	0
56	MG	DA	3510	1/1	0.18	-	55,55,55,55	0
56	MG	BA	3579	1/1	0.25	-	43,43,43,43	0
56	MG	AA	3029	1/1	0.15	-	43,43,43,43	0
56	MG	BA	3655	1/1	0.13	-	54,54,54,54	0
56	MG	DA	3588	1/1	0.09	-	65,65,65,65	0
56	MG	BA	3160	1/1	0.43	-	40,40,40,40	0
56	MG	AA	3142	1/1	0.08	-	46,46,46,46	0
56	MG	BA	3029	1/1	0.15	-	30,30,30,30	0
56	MG	AA	3120	1/1	0.15	-	49,49,49,49	0
56	MG	CA	3027	1/1	0.21	-	61,61,61,61	0
56	MG	BA	3353	1/1	0.19	-	49,49,49,49	0
56	MG	DE	301	1/1	0.19	-	35,35,35,35	0
56	MG	CA	3088	1/1	0.21	-	66,66,66,66	0
56	MG	AA	3136	1/1	0.14	-	62,62,62,62	0
56	MG	BA	3089	1/1	0.20	-	42,42,42,42	0
59	ZN	CN	501	1/1	0.09	-	103,103,103,103	0
56	MG	B0	104	1/1	0.15	-	41,41,41,41	0
56	MG	DA	3295	1/1	0.09	-	30,30,30,30	0
56	MG	AX	3003	1/1	0.25	-	66,66,66,66	0
56	MG	B7	101	1/1	0.21	-	47,47,47,47	0
56	MG	BA	3310	1/1	0.15	-	42,42,42,42	0
56	MG	BA	3625	1/1	0.06	-	31,31,31,31	0
56	MG	BA	3357	1/1	0.16	-	46,46,46,46	0
56	MG	DA	3614	1/1	0.07	-	61,61,61,61	0
56	MG	BA	3695	1/1	0.27	-	37,37,37,37	0
56	MG	DA	3029	1/1	0.10	-	36,36,36,36	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3140	1/1	0.33	-	44,44,44,44	0
56	MG	BA	3073	1/1	0.17	-	45,45,45,45	0
56	MG	DA	3559	1/1	0.22	-	61,61,61,61	0
56	MG	DA	3562	1/1	0.15	-	72,72,72,72	0
56	MG	B5	105	1/1	0.13	-	66,66,66,66	0
56	MG	AA	3114	1/1	0.14	-	45,45,45,45	0
56	MG	BA	3431	1/1	0.11	-	63,63,63,63	0
56	MG	BA	3733	1/1	0.07	-	46,46,46,46	0
59	ZN	B9	501	1/1	0.15	-	49,49,49,49	0
56	MG	BA	3036	1/1	0.18	-	19,19,19,19	0
56	MG	BA	3610	1/1	0.17	-	39,39,39,39	0
56	MG	BA	3673	1/1	0.15	-	28,28,28,28	0
56	MG	BA	3588	1/1	0.12	-	29,29,29,29	0
56	MG	B7	103	1/1	0.22	-	35,35,35,35	0
56	MG	BA	3220	1/1	0.28	-	40,40,40,40	0
56	MG	BA	3604	1/1	0.24	-	46,46,46,46	0
56	MG	DA	3393	1/1	0.16	-	48,48,48,48	0
56	MG	BD	3307	1/1	0.96	-	56,56,56,56	0
56	MG	B2	3001	1/1	0.23	-	49,49,49,49	0
56	MG	BA	3338	1/1	0.16	-	43,43,43,43	0
56	MG	DA	3222	1/1	0.14	-	46,46,46,46	0
56	MG	BA	3252	1/1	0.14	-	44,44,44,44	0
56	MG	DA	3346	1/1	0.15	-	48,48,48,48	0
56	MG	BA	3286	1/1	0.32	-	41,41,41,41	0
56	MG	BA	3137	1/1	0.44	-	40,40,40,40	0
56	MG	BA	3528	1/1	0.27	-	46,46,46,46	0
56	MG	AA	3137	1/1	0.11	-	42,42,42,42	0
56	MG	BA	3101	1/1	0.10	-	39,39,39,39	0
56	MG	DA	3036	1/1	0.08	-	46,46,46,46	0
56	MG	DA	3306	1/1	0.36	-	35,35,35,35	0
56	MG	DA	3317	1/1	0.13	-	38,38,38,38	0
56	MG	DA	3416	1/1	0.15	-	22,22,22,22	0
56	MG	DA	3093	1/1	0.26	-	54,54,54,54	0
56	MG	BA	3410	1/1	0.26	-	31,31,31,31	0
56	MG	DA	3385	1/1	0.09	-	32,32,32,32	0
56	MG	DA	3570	1/1	0.16	-	59,59,59,59	0
56	MG	BA	3813	1/1	0.11	-	58,58,58,58	0
56	MG	AA	3149	1/1	0.10	-	68,68,68,68	0
56	MG	DA	3664	1/1	0.46	-	50,50,50,50	0
56	MG	DA	3643	1/1	0.16	-	49,49,49,49	0
56	MG	DA	3491	1/1	0.13	-	42,42,42,42	0
56	MG	DA	3582	1/1	0.09	-	64,64,64,64	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3618	1/1	0.05	-	64,64,64,64	0
56	MG	DA	3121	1/1	0.12	-	40,40,40,40	0
56	MG	BU	206	1/1	1.01	-	61,61,61,61	0
56	MG	AA	3061	1/1	0.23	-	54,54,54,54	0
56	MG	AA	3075	1/1	0.29	-	49,49,49,49	0
56	MG	DA	3324	1/1	0.19	-	32,32,32,32	0
56	MG	DA	3274	1/1	0.06	-	54,54,54,54	0
56	MG	DA	3418	1/1	0.08	-	44,44,44,44	0
56	MG	AQ	3001	1/1	0.19	-	52,52,52,52	0
56	MG	AA	3157	1/1	0.15	-	84,84,84,84	0
56	MG	BA	3694	1/1	0.12	-	54,54,54,54	0
56	MG	BA	3012	1/1	0.28	-	33,33,33,33	0
56	MG	DA	3077	1/1	0.11	-	47,47,47,47	0
56	MG	BA	3158	1/1	0.27	-	40,40,40,40	0
56	MG	DA	3302	1/1	0.09	-	32,32,32,32	0
56	MG	BA	3116	1/1	0.10	-	35,35,35,35	0
56	MG	BA	3111	1/1	0.10	-	57,57,57,57	0
56	MG	DA	3538	1/1	0.12	-	44,44,44,44	0
56	MG	BA	3394	1/1	0.19	-	20,20,20,20	0
56	MG	DA	3405	1/1	0.12	-	41,41,41,41	0
56	MG	AA	3001	1/1	0.11	-	77,77,77,77	0
56	MG	AA	3164	1/1	0.15	-	51,51,51,51	0
56	MG	DA	3529	1/1	0.07	-	57,57,57,57	0
56	MG	CA	3009	1/1	0.23	-	66,66,66,66	0
56	MG	BA	3381	1/1	0.12	-	45,45,45,45	0
56	MG	DA	3345	1/1	0.23	-	38,38,38,38	0
56	MG	BA	3539	1/1	0.27	-	29,29,29,29	0
56	MG	AX	3007	1/1	0.15	-	69,69,69,69	0
56	MG	BA	3741	1/1	0.15	-	50,50,50,50	0
56	MG	AA	3135	1/1	0.08	-	60,60,60,60	0
56	MG	DA	3321	1/1	0.09	-	30,30,30,30	0
56	MG	DA	3247	1/1	0.12	-	34,34,34,34	0
56	MG	BF	304	1/1	0.18	-	35,35,35,35	0
56	MG	BA	3674	1/1	0.16	-	55,55,55,55	0
56	MG	BA	3081	1/1	0.12	-	33,33,33,33	0
56	MG	CA	3003	1/1	0.10	-	51,51,51,51	0
56	MG	BA	3807	1/1	0.79	-	66,66,66,66	0
56	MG	BA	3555	1/1	0.16	-	61,61,61,61	0
56	MG	CA	3013	1/1	0.09	-	54,54,54,54	0
56	MG	DA	3646	1/1	0.11	-	54,54,54,54	0
56	MG	BA	3132	1/1	0.25	-	49,49,49,49	0
56	MG	BA	3072	1/1	0.22	-	58,58,58,58	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	3072	1/1	0.17	-	45,45,45,45	0
56	MG	BA	3479	1/1	0.11	-	53,53,53,53	0
56	MG	B0	105	1/1	0.06	-	64,64,64,64	0
56	MG	AD	502	1/1	0.17	-	56,56,56,56	0
56	MG	DD	301	1/1	0.17	-	43,43,43,43	0
56	MG	DA	3050	1/1	0.08	-	37,37,37,37	0
56	MG	CA	3104	1/1	0.10	-	60,60,60,60	0
56	MG	DA	3604	1/1	0.05	-	47,47,47,47	0
56	MG	DA	3196	1/1	0.35	-	45,45,45,45	0
56	MG	DA	3456	1/1	0.16	-	54,54,54,54	0
56	MG	BA	3628	1/1	0.08	-	34,34,34,34	0
56	MG	DA	3091	1/1	0.13	-	46,46,46,46	0
56	MG	BA	3213	1/1	0.15	-	35,35,35,35	0
56	MG	DA	3514	1/1	0.12	-	45,45,45,45	0
56	MG	AA	3097	1/1	0.11	-	71,71,71,71	0
56	MG	AA	3111	1/1	0.07	-	61,61,61,61	0
56	MG	DA	3353	1/1	0.14	-	42,42,42,42	0
56	MG	BA	3798	1/1	0.10	-	51,51,51,51	0
56	MG	BA	3768	1/1	0.11	-	61,61,61,61	0
56	MG	BA	3313	1/1	0.13	-	34,34,34,34	0
56	MG	DA	3577	1/1	0.15	-	49,49,49,49	0
56	MG	CA	3086	1/1	0.14	-	76,76,76,76	0
56	MG	DA	3008	1/1	0.09	-	40,40,40,40	0
56	MG	DA	3001	1/1	0.22	-	40,40,40,40	0
56	MG	DA	3160	1/1	0.23	-	38,38,38,38	0
56	MG	DA	3625	1/1	0.15	-	56,56,56,56	0
56	MG	DA	3283	1/1	0.12	-	43,43,43,43	0
56	MG	DA	3046	1/1	0.13	-	56,56,56,56	0
56	MG	BA	3679	1/1	0.19	-	56,56,56,56	0
56	MG	DA	3506	1/1	0.08	-	40,40,40,40	0
56	MG	BX	101	1/1	0.26	-	36,36,36,36	0
56	MG	BA	3005	1/1	0.15	-	33,33,33,33	0
56	MG	DA	3612	1/1	0.13	-	58,58,58,58	0
56	MG	BA	3469	1/1	0.13	-	41,41,41,41	0
56	MG	BA	3802	1/1	0.28	-	23,23,23,23	0
56	MG	BA	3432	1/1	0.11	-	35,35,35,35	0
56	MG	DA	3213	1/1	0.39	-	46,46,46,46	0
56	MG	BA	3489	1/1	0.30	-	44,44,44,44	0
56	MG	BA	3154	1/1	0.26	-	37,37,37,37	0
56	MG	DA	3398	1/1	0.23	-	52,52,52,52	0
56	MG	BA	3069	1/1	0.17	-	39,39,39,39	0
56	MG	DA	3453	1/1	0.19	-	56,56,56,56	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3639	1/1	0.13	-	54,54,54,54	0
56	MG	DR	5001	1/1	0.10	-	51,51,51,51	0
56	MG	DA	3074	1/1	0.10	-	56,56,56,56	0
56	MG	BA	3260	1/1	0.13	-	42,42,42,42	0
56	MG	DA	3528	1/1	0.07	-	39,39,39,39	0
56	MG	BA	3576	1/1	0.15	-	36,36,36,36	0
56	MG	DA	3451	1/1	0.16	-	20,20,20,20	0
56	MG	AA	3043	1/1	0.08	-	76,76,76,76	0
56	MG	CA	3080	1/1	0.09	-	56,56,56,56	0
56	MG	DA	3659	1/1	0.39	-	39,39,39,39	0
56	MG	DA	3004	1/1	0.10	-	25,25,25,25	0
56	MG	BA	3738	1/1	0.17	-	60,60,60,60	0
56	MG	BA	3426	1/1	0.20	-	20,20,20,20	0
56	MG	DF	301	1/1	0.14	-	47,47,47,47	0
56	MG	DA	3171	1/1	0.12	-	53,53,53,53	0
56	MG	BA	3085	1/1	0.24	-	23,23,23,23	0
56	MG	CE	202	1/1	0.08	-	74,74,74,74	0
56	MG	AA	3027	1/1	0.08	-	46,46,46,46	0
56	MG	BA	3653	1/1	0.13	-	39,39,39,39	0
56	MG	CA	3169	1/1	0.09	-	52,52,52,52	0
56	MG	DA	3630	1/1	0.09	-	51,51,51,51	0
56	MG	BA	3283	1/1	0.20	-	30,30,30,30	0
56	MG	BA	3450	1/1	0.14	-	10,10,10,10	0
56	MG	BA	3287	1/1	0.24	-	28,28,28,28	0
56	MG	BA	3371	1/1	0.17	-	40,40,40,40	0
56	MG	BA	3540	1/1	0.10	-	57,57,57,57	0
56	MG	DA	3130	1/1	0.17	-	54,54,54,54	0
56	MG	BA	3725	1/1	0.18	-	44,44,44,44	0
56	MG	CA	3073	1/1	0.08	-	55,55,55,55	0
56	MG	DA	3448	1/1	0.18	-	45,45,45,45	0
56	MG	DA	3358	1/1	0.14	-	28,28,28,28	0
56	MG	DA	3620	1/1	0.11	-	59,59,59,59	0
56	MG	BA	3130	1/1	0.51	-	41,41,41,41	0
56	MG	BA	3809	1/1	0.11	-	41,41,41,41	0
56	MG	CA	3164	1/1	0.08	-	73,73,73,73	0
56	MG	DA	3344	1/1	0.13	-	46,46,46,46	0
56	MG	DA	3411	1/1	0.21	-	46,46,46,46	0
56	MG	BR	203	1/1	0.33	-	34,34,34,34	0
56	MG	DA	3558	1/1	0.05	-	43,43,43,43	0
56	MG	BA	3166	1/1	0.15	-	46,46,46,46	0
56	MG	BF	306	1/1	0.41	-	30,30,30,30	0
56	MG	BA	3108	1/1	0.24	-	64,64,64,64	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3118	1/1	0.12	-	43,43,43,43	0
56	MG	DA	3141	1/1	0.16	-	46,46,46,46	0
56	MG	AA	3091	1/1	0.14	-	40,40,40,40	0
56	MG	BA	3700	1/1	0.13	-	53,53,53,53	0
56	MG	BA	3246	1/1	0.15	-	47,47,47,47	0
56	MG	DA	3311	1/1	0.14	-	19,19,19,19	0
56	MG	BA	3015	1/1	0.16	-	50,50,50,50	0
56	MG	CA	3054	1/1	0.11	-	70,70,70,70	0
56	MG	BA	3114	1/1	0.13	-	34,34,34,34	0
56	MG	BA	3155	1/1	0.30	-	30,30,30,30	0
56	MG	BA	3360	1/1	0.13	-	21,21,21,21	0
56	MG	DA	3172	1/1	0.13	-	31,31,31,31	0
56	MG	BA	3279	1/1	0.26	-	45,45,45,45	0
56	MG	BA	3312	1/1	0.15	-	35,35,35,35	0
56	MG	DA	3080	1/1	0.09	-	49,49,49,49	0
56	MG	BA	3056	1/1	0.38	-	50,50,50,50	0
56	MG	DA	3224	1/1	0.30	-	47,47,47,47	0
56	MG	BA	3304	1/1	0.09	-	37,37,37,37	0
56	MG	BA	3156	1/1	0.14	-	32,32,32,32	0
56	MG	BA	3630	1/1	0.12	-	43,43,43,43	0
56	MG	CA	3122	1/1	0.14	-	65,65,65,65	0
56	MG	DQ	3003	1/1	0.44	-	52,52,52,52	0
56	MG	DA	3127	1/1	0.11	-	36,36,36,36	0
56	MG	BA	3136	1/1	0.29	-	42,42,42,42	0
56	MG	DA	3236	1/1	0.10	-	42,42,42,42	0
56	MG	AA	3100	1/1	0.12	-	66,66,66,66	0
56	MG	DA	3103	1/1	0.07	-	71,71,71,71	0
56	MG	BA	3436	1/1	0.17	-	17,17,17,17	0
56	MG	AA	3128	1/1	0.17	-	67,67,67,67	0
56	MG	BA	3715	1/1	0.29	-	51,51,51,51	0
56	MG	DA	3298	1/1	0.10	-	55,55,55,55	0
56	MG	D8	5001	1/1	0.17	-	52,52,52,52	0
56	MG	CA	3028	1/1	0.10	-	55,55,55,55	0
56	MG	CA	3057	1/1	0.16	-	52,52,52,52	0
56	MG	CA	3110	1/1	0.12	-	48,48,48,48	0
56	MG	CA	3144	1/1	0.07	-	68,68,68,68	0
56	MG	DA	3266	1/1	0.20	-	56,56,56,56	0
56	MG	DE	303	1/1	0.58	-	62,62,62,62	0
56	MG	AA	3140	1/1	0.17	-	36,36,36,36	0
56	MG	BA	3629	1/1	0.14	-	57,57,57,57	0
56	MG	DA	3286	1/1	0.10	-	54,54,54,54	0
56	MG	DA	3146	1/1	0.14	-	49,49,49,49	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3641	1/1	0.07	-	54,54,54,54	0
56	MG	BA	3164	1/1	0.48	-	35,35,35,35	0
56	MG	BA	3523	1/1	0.24	-	47,47,47,47	0
56	MG	DA	3555	1/1	0.07	-	56,56,56,56	0
56	MG	BA	3400	1/1	0.12	-	34,34,34,34	0
56	MG	CA	3043	1/1	0.14	-	67,67,67,67	0
56	MG	BA	3150	1/1	0.20	-	56,56,56,56	0
56	MG	DA	3021	1/1	0.33	-	40,40,40,40	0
56	MG	BA	3590	1/1	0.10	-	60,60,60,60	0
56	MG	BA	3788	1/1	0.10	-	10,10,10,10	0
56	MG	DA	3661	1/1	0.16	-	54,54,54,54	0
56	MG	BA	3144	1/1	0.21	-	43,43,43,43	0
56	MG	DA	3109	1/1	0.09	-	68,68,68,68	0
56	MG	BA	3349	1/1	0.19	-	49,49,49,49	0
56	MG	BA	3321	1/1	0.19	-	21,21,21,21	0
56	MG	BA	3011	1/1	0.07	-	33,33,33,33	0
56	MG	DA	3452	1/1	0.09	-	37,37,37,37	0
56	MG	BA	3315	1/1	0.24	-	59,59,59,59	0
56	MG	BA	3811	1/1	0.59	-	41,41,41,41	0
56	MG	BA	3203	1/1	0.41	-	38,38,38,38	0
56	MG	AA	3022	1/1	0.06	-	54,54,54,54	0
56	MG	BB	203	1/1	0.24	-	44,44,44,44	0
56	MG	DA	3479	1/1	0.21	-	35,35,35,35	0
56	MG	BA	3522	1/1	0.17	-	16,16,16,16	0
56	MG	DA	3402	1/1	0.11	-	56,56,56,56	0
56	MG	DA	3598	1/1	0.22	-	30,30,30,30	0
56	MG	BA	3008	1/1	0.10	-	26,26,26,26	0
56	MG	DA	3497	1/1	0.10	-	36,36,36,36	0
56	MG	BZ	302	1/1	0.14	-	56,56,56,56	0
56	MG	BA	3095	1/1	0.12	-	30,30,30,30	0
56	MG	CA	3091	1/1	0.20	-	70,70,70,70	0
56	MG	BA	3672	1/1	0.13	-	62,62,62,62	0
56	MG	BA	3241	1/1	0.13	-	45,45,45,45	0
56	MG	BA	3189	1/1	0.20	-	46,46,46,46	0
56	MG	DA	3159	1/1	0.10	-	42,42,42,42	0
56	MG	DA	3600	1/1	0.10	-	43,43,43,43	0
56	MG	BA	3001	1/1	0.14	-	31,31,31,31	0
56	MG	DA	3369	1/1	0.07	-	37,37,37,37	0
56	MG	DU	3001	1/1	0.77	-	55,55,55,55	0
56	MG	DA	3465	1/1	0.20	-	49,49,49,49	0
56	MG	CA	3083	1/1	0.14	-	72,72,72,72	0
56	MG	DA	3246	1/1	0.16	-	31,31,31,31	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	3015	1/1	0.07	-	58,58,58,58	0
56	MG	BA	3046	1/1	0.14	-	34,34,34,34	0
56	MG	AA	3064	1/1	0.11	-	54,54,54,54	0
56	MG	DA	3009	1/1	0.10	-	29,29,29,29	0
56	MG	AA	3185	1/1	0.17	-	61,61,61,61	0
56	MG	AA	3181	1/1	0.15	-	63,63,63,63	0
56	MG	DA	3307	1/1	0.12	-	27,27,27,27	0
56	MG	CA	3116	1/1	0.14	-	54,54,54,54	0
56	MG	DA	3434	1/1	0.13	-	27,27,27,27	0
56	MG	DY	502	1/1	0.08	-	58,58,58,58	0
56	MG	BA	3043	1/1	0.11	-	35,35,35,35	0
56	MG	DA	3568	1/1	0.18	-	66,66,66,66	0
56	MG	BA	3757	1/1	0.13	-	45,45,45,45	0
56	MG	B5	102	1/1	0.45	-	45,45,45,45	0
56	MG	BA	3792	1/1	0.11	-	52,52,52,52	0
56	MG	B0	103	1/1	0.28	-	38,38,38,38	0
56	MG	BA	3090	1/1	0.17	-	27,27,27,27	0
56	MG	AA	3012	1/1	0.13	-	50,50,50,50	0
56	MG	BA	3356	1/1	0.25	-	52,52,52,52	0
56	MG	DA	3102	1/1	0.21	-	49,49,49,49	0
56	MG	BA	3070	1/1	0.13	-	39,39,39,39	0
56	MG	BB	216	1/1	0.10	-	63,63,63,63	0
56	MG	DA	3085	1/1	0.09	-	38,38,38,38	0
56	MG	DA	3253	1/1	0.11	-	47,47,47,47	0
56	MG	DA	3624	1/1	0.42	-	46,46,46,46	0
56	MG	DA	3016	1/1	0.24	-	42,42,42,42	0
56	MG	BA	3418	1/1	0.14	-	34,34,34,34	0
56	MG	DA	3621	1/1	0.23	-	50,50,50,50	0
56	MG	DA	3201	1/1	0.25	-	64,64,64,64	0
56	MG	AA	3110	1/1	0.14	-	46,46,46,46	0
56	MG	DA	3412	1/1	0.12	-	56,56,56,56	0
56	MG	BA	3721	1/1	0.16	-	9,9,9,9	0
56	MG	DA	3156	1/1	0.12	-	50,50,50,50	0
56	MG	DA	3112	1/1	0.14	-	37,37,37,37	0
56	MG	DA	3425	1/1	0.11	-	52,52,52,52	0
56	MG	CA	3041	1/1	0.14	-	62,62,62,62	0
56	MG	DA	3288	1/1	0.08	-	48,48,48,48	0
56	MG	BW	201	1/1	0.19	-	45,45,45,45	0
56	MG	BA	3223	1/1	0.09	-	39,39,39,39	0
59	ZN	B5	104	1/1	0.19	-	82,82,82,82	0
56	MG	DD	304	1/1	0.09	-	33,33,33,33	0
56	MG	DA	3263	1/1	0.27	-	44,44,44,44	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3453	1/1	0.22	-	52,52,52,52	0
56	MG	DA	3603	1/1	0.19	-	55,55,55,55	0
56	MG	DA	3115	1/1	0.12	-	46,46,46,46	0
56	MG	DA	3525	1/1	0.07	-	44,44,44,44	0
56	MG	DA	3654	1/1	0.09	-	50,50,50,50	0
56	MG	DA	3384	1/1	0.15	-	39,39,39,39	0
56	MG	BA	3146	1/1	0.12	-	19,19,19,19	0
56	MG	D3	3001	1/1	0.37	-	60,60,60,60	0
56	MG	BA	3104	1/1	0.27	-	23,23,23,23	0
56	MG	DA	3305	1/1	0.11	-	45,45,45,45	0
56	MG	BA	3473	1/1	0.14	-	52,52,52,52	0
56	MG	BA	3689	1/1	0.15	-	53,53,53,53	0
56	MG	BA	3102	1/1	0.20	-	61,61,61,61	0
56	MG	DA	3417	1/1	0.13	-	62,62,62,62	0
56	MG	BA	3182	1/1	0.18	-	21,21,21,21	0
56	MG	CA	3049	1/1	0.13	-	71,71,71,71	0
56	MG	AA	3160	1/1	0.13	-	54,54,54,54	0
56	MG	B0	102	1/1	0.14	-	50,50,50,50	0
56	MG	DA	3366	1/1	0.12	-	38,38,38,38	0
56	MG	AA	3025	1/1	0.20	-	69,69,69,69	0
56	MG	BB	220	1/1	0.10	-	51,51,51,51	0
56	MG	DA	3261	1/1	0.19	-	36,36,36,36	0
56	MG	CA	3173	1/1	0.09	-	58,58,58,58	0
56	MG	BA	3346	1/1	0.12	-	29,29,29,29	0
56	MG	BA	3445	1/1	0.26	-	48,48,48,48	0
56	MG	BA	3415	1/1	0.15	-	34,34,34,34	0
56	MG	BA	3758	1/1	0.11	-	44,44,44,44	0
56	MG	DA	3371	1/1	0.19	-	22,22,22,22	0
56	MG	BA	3140	1/1	0.36	-	34,34,34,34	0
56	MG	BA	3242	1/1	0.19	-	47,47,47,47	0
56	MG	CA	3158	1/1	0.08	-	75,75,75,75	0
56	MG	DA	3180	1/1	0.48	-	58,58,58,58	0
56	MG	CA	3153	1/1	0.10	-	52,52,52,52	0
56	MG	BA	3524	1/1	0.18	-	53,53,53,53	0
56	MG	BA	3448	1/1	0.21	-	23,23,23,23	0
56	MG	AA	3190	1/1	0.14	-	48,48,48,48	0
56	MG	DA	3314	1/1	0.06	-	45,45,45,45	0
56	MG	BA	3134	1/1	0.19	-	36,36,36,36	0
56	MG	BA	3697	1/1	0.11	-	46,46,46,46	0
56	MG	BR	201	1/1	0.24	-	40,40,40,40	0
56	MG	DA	3231	1/1	0.26	-	38,38,38,38	0
59	ZN	D4	501	1/1	0.07	-	151,151,151,151	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	3078	1/1	0.18	-	64,64,64,64	0
56	MG	BA	3401	1/1	0.19	-	34,34,34,34	0
56	MG	BA	3546	1/1	0.11	-	38,38,38,38	0
56	MG	AA	3041	1/1	0.07	-	64,64,64,64	0
56	MG	BA	3654	1/1	0.12	-	49,49,49,49	0
56	MG	BA	3115	1/1	0.27	-	33,33,33,33	0
56	MG	DA	3460	1/1	0.10	-	42,42,42,42	0
56	MG	DA	3530	1/1	0.14	-	47,47,47,47	0
56	MG	DA	3061	1/1	0.12	-	41,41,41,41	0
56	MG	CA	3096	1/1	0.14	-	65,65,65,65	0
56	MG	BA	3563	1/1	0.10	-	44,44,44,44	0
56	MG	DA	3593	1/1	0.11	-	50,50,50,50	0
56	MG	CA	3115	1/1	0.11	-	60,60,60,60	0
56	MG	DA	3006	1/1	0.13	-	58,58,58,58	0
56	MG	AA	3178	1/1	0.13	-	59,59,59,59	0
56	MG	BA	3662	1/1	0.16	-	52,52,52,52	0
56	MG	BA	3661	1/1	0.11	-	48,48,48,48	0
56	MG	BA	3634	1/1	0.21	-	47,47,47,47	0
56	MG	BA	3084	1/1	0.21	-	33,33,33,33	0
56	MG	BA	3254	1/1	0.14	-	55,55,55,55	0
56	MG	DA	3419	1/1	0.14	-	45,45,45,45	0
56	MG	DE	302	1/1	0.15	-	33,33,33,33	0
56	MG	DA	3132	1/1	0.13	-	54,54,54,54	0
56	MG	CA	3064	1/1	0.07	-	59,59,59,59	0
56	MG	BA	3398	1/1	0.13	-	51,51,51,51	0
56	MG	BA	3384	1/1	0.16	-	63,63,63,63	0
56	MG	BA	3583	1/1	0.15	-	56,56,56,56	0
56	MG	DA	3374	1/1	0.07	-	31,31,31,31	0
56	MG	DA	3069	1/1	0.11	-	55,55,55,55	0
56	MG	DA	3126	1/1	0.23	-	46,46,46,46	0
56	MG	DA	3501	1/1	0.08	-	46,46,46,46	0
56	MG	BA	3317	1/1	0.18	-	41,41,41,41	0
56	MG	DA	3228	1/1	0.14	-	46,46,46,46	0
56	MG	AA	3062	1/1	0.22	-	67,67,67,67	0
56	MG	AA	3125	1/1	0.33	-	72,72,72,72	0
56	MG	DA	3230	1/1	0.10	-	52,52,52,52	0
56	MG	DA	3522	1/1	0.24	-	53,53,53,53	0
56	MG	BA	3575	1/1	0.18	-	27,27,27,27	0
56	MG	DA	3382	1/1	0.12	-	31,31,31,31	0
56	MG	CA	3058	1/1	0.07	-	59,59,59,59	0
56	MG	DA	3287	1/1	0.06	-	39,39,39,39	0
56	MG	DA	3486	1/1	0.25	-	50,50,50,50	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3020	1/1	0.11	-	32,32,32,32	0
56	MG	CA	3123	1/1	0.22	-	67,67,67,67	0
56	MG	BA	3210	1/1	0.24	-	43,43,43,43	0
56	MG	BA	3745	1/1	0.24	-	58,58,58,58	0
56	MG	DA	3520	1/1	0.08	-	44,44,44,44	0
56	MG	BA	3578	1/1	0.19	-	20,20,20,20	0
56	MG	DA	3007	1/1	0.09	-	43,43,43,43	0
56	MG	AA	3047	1/1	0.14	-	63,63,63,63	0
56	MG	DA	3634	1/1	0.23	-	61,61,61,61	0
56	MG	AA	3183	1/1	0.10	-	73,73,73,73	0
56	MG	DA	3206	1/1	0.12	-	46,46,46,46	0
56	MG	BA	3771	1/1	0.18	-	52,52,52,52	0
56	MG	CA	3007	1/1	0.19	-	42,42,42,42	0
56	MG	DA	3151	1/1	0.10	-	33,33,33,33	0
56	MG	DA	3300	1/1	0.17	-	41,41,41,41	0

6.5 Other polymers ⓘ

There are no such residues in this entry.