Full wwPDB EM Validation Report

Mar 25, 2026 – 12:58 PM UTC

PDB ID	:	5JUP / pdb_00005jup
EMDB ID	:	EMD-6644
Title	:	Saccharomyces cerevisiae 80S ribosome bound with elongation factor eEF2-GDP-sordarin and Taura Syndrome Virus IRES, Structure II (mid-rotated 40S subunit)
Authors	:	Abeyrathne, P.; Koh, C.S.; Grant, T.; Grigorieff, N.; Korostelev, A.A.
Deposited on	:	2016-05-10
Resolution	:	3.50 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references (1)) were used in the production of this report:

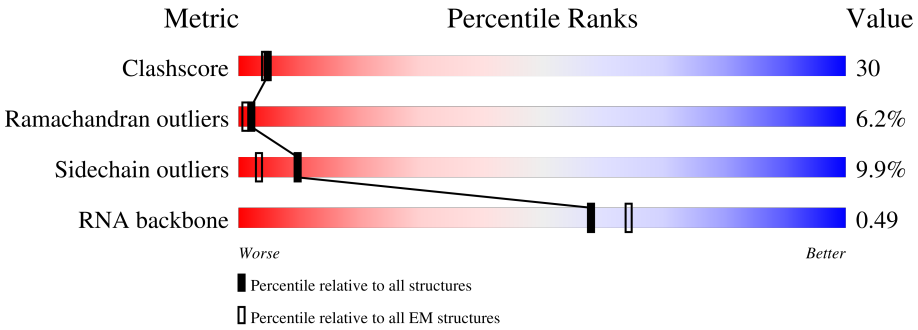
EMDB validation analysis	:	0.0.1.dev132
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4-5-2 with Phenix2.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

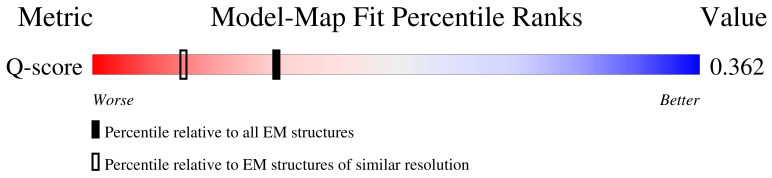
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.50 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.





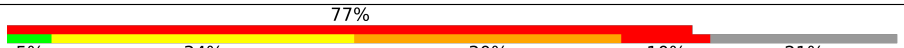
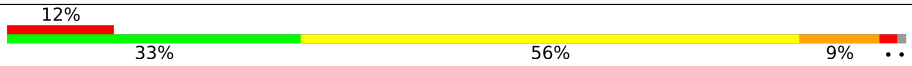
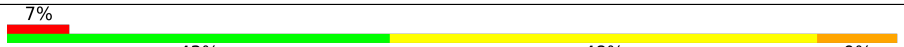
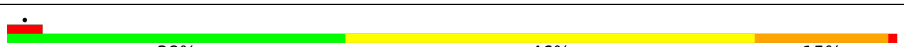
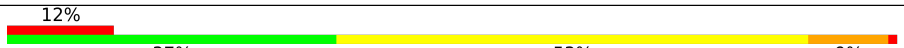
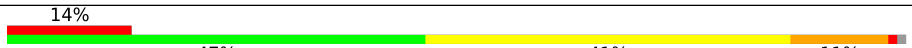
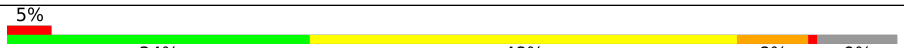
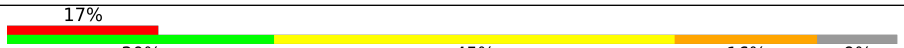
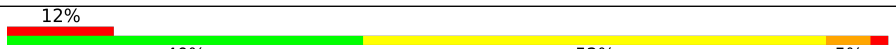
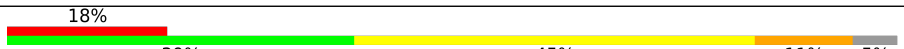
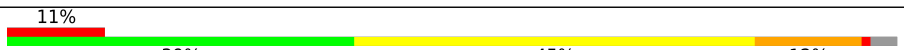
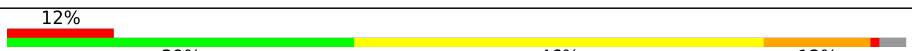
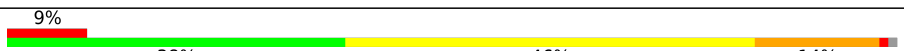
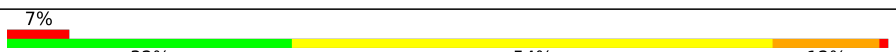
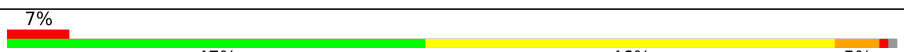
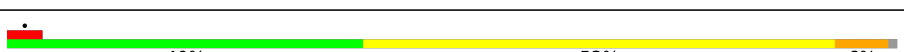
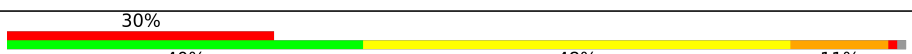
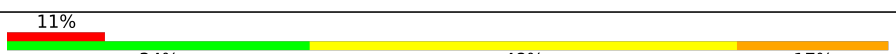
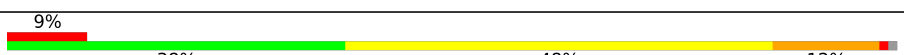
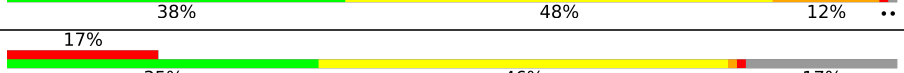
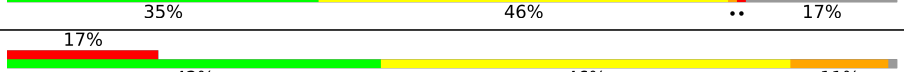
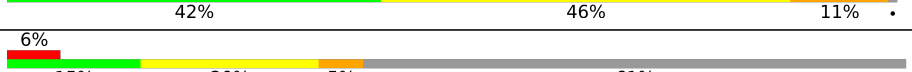
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	15087 (2.80 - 3.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	1798	25% 28% 58% 12%
2	B	3396	6% 31% 54% 11%
3	C	158	34% 52% 14%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
4	D	121	
5	E	217	
6	F	254	
7	G	387	
8	H	362	
9	I	297	
10	J	176	
11	K	244	
12	L	256	
13	M	191	
14	N	221	
15	O	174	
16	P	165	
17	Q	199	
18	R	138	
19	S	204	
20	T	199	
21	U	184	
22	V	186	
23	W	189	
24	X	172	
25	Y	160	
26	Z	121	
27	AA	137	
28	BA	155	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
29	CA	142	19% 27% 44% 15% 15%
30	DA	127	6% 28% 58% 10%
31	EA	136	16% 28% 54% 16%
32	FA	149	38% 51% 9%
33	GA	59	20% 51% 41% 7%
34	HA	105	10% 28% 51% 11% 8%
35	IA	113	11% 51% 39% 6%
36	JA	130	7% 47% 45% 6%
37	KA	107	12% 42% 50% 7%
38	LA	121	17% 26% 54% 12% 7%
39	MA	120	10% 29% 55% 15%
40	NA	100	9% 47% 41% 11%
41	OA	88	8% 42% 49% 6%
42	PA	78	83% 50% 44% 5%
43	QA	51	8% 25% 59% 14%
44	RA	128	15% 19% 6% 59%
45	SA	25	100% 20% 44% 28% 8%
46	TA	106	10% 55% 42%
47	UA	92	17% 47% 42% 9%
48	VA	312	55% 6% 21% 27% 6% 39%
49	WA	319	91% 31% 63% 6%
50	XA	252	52% 27% 45% 8% 18%
51	YA	255	84% 70% 13% 16%
52	ZA	254	21% 30% 50% 5% 15%
53	AB	240	72% 39% 44% 10% 7%

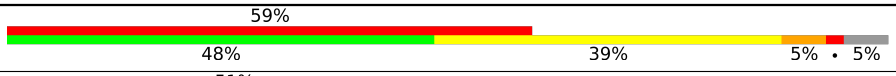
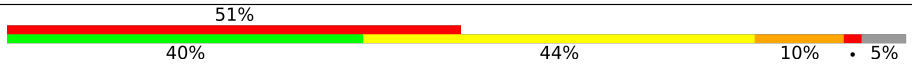
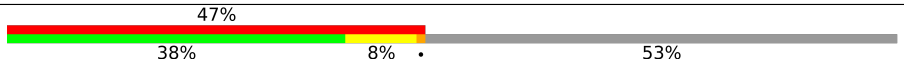
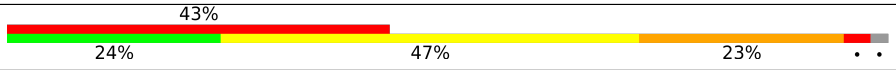
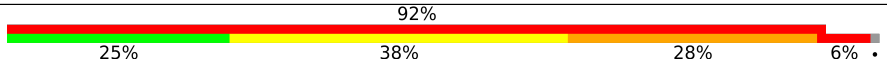
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
54	BB	261	35% 28% 60% 11%
55	CB	225	80% 32% 51% 8% 8%
56	DB	236	48% 35% 55% 5%
57	EB	190	84% 35% 49% 11%
58	FB	200	52% 26% 55% 12% 6%
59	GB	197	25% 32% 51% 10% 6%
60	HB	105	61% 27% 51% 10% 9%
61	IB	156	65% 38% 49% 11%
62	JB	143	87% 73% 12% 13%
63	KB	151	50% 42% 47% 10%
64	LB	137	93% 80% 12% 7%
65	MB	142	68% 30% 40% 15% 14%
66	NB	143	85% 34% 57% 8%
67	OB	136	74% 40% 40% 7% 14%
68	PB	146	78% 37% 51% 10%
69	QB	144	78% 34% 57% 8%
70	RB	121	79% 26% 51% 11% 12%
71	SB	87	40% 38% 52% 9%
72	TB	130	45% 28% 58% 13%
73	UB	145	57% 37% 50% 12%
74	VB	135	42% 34% 53% 13%
75	WB	108	57% 15% 37% 12% 35%
76	XB	119	82% 58% 22% 18%
77	YB	82	57% 45% 49% 5%
78	ZB	67	72% 36% 51% 7% 6%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
79	AC	56	
80	BC	63	
81	CC	152	
82	DC	842	
83	EC	201	

2 Entry composition (i)

There are 86 unique types of molecules in this entry. The entry contains 212656 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	A	1781	36760	16335	6359	12285	1781	0	0

- Molecule 2 is a RNA chain called 25S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	B	3309	70288	31354	12595	23030	3309	0	0

- Molecule 3 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	C	158	3354	1500	586	1110	158	0	0

- Molecule 4 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
4	D	121	2580	1152	461	846	121	0	0

- Molecule 5 is a protein called uL1 (yeast L1).

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	E	171	1359	869	232	251	7	0	0

- Molecule 6 is a protein called uL2 (yeast L2).

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	F	252	1918	1193	389	335	1	0	0

- Molecule 7 is a protein called uL3 (yeast L3).

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	386	Total	C	N	O	S	0	0
			3082	1956	584	534	8		

- Molecule 8 is a protein called uL4 (yeast L4).

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	361	Total	C	N	O	S	0	0
			2750	1730	522	495	3		

- Molecule 9 is a protein called uL18 (yeast L5).

Mol	Chain	Residues	Atoms					AltConf	Trace
9	I	296	Total	C	N	O	S	0	0
			2376	1501	414	459	2		

- Molecule 10 is a protein called eL6 (yeast L6).

Mol	Chain	Residues	Atoms					AltConf	Trace
10	J	175	Total	C	N	O	S	0	0
			1401	902	251	247	1		

- Molecule 11 is a protein called uL30 (yeast L7).

Mol	Chain	Residues	Atoms					AltConf	Trace
11	K	222	Total	C	N	O	S	0	0
			1785	1151	324	309	1		

- Molecule 12 is a protein called eL8 (yeast L8).

Mol	Chain	Residues	Atoms					AltConf	Trace
12	L	233	Total	C	N	O	S	0	0
			1818	1159	326	330	3		

- Molecule 13 is a protein called uL6 (yeast L9).

Mol	Chain	Residues	Atoms					AltConf	Trace
13	M	191	Total	C	N	O	S	0	0
			1519	963	274	278	4		

- Molecule 14 is a protein called uL16 (yeast L10).

Mol	Chain	Residues	Atoms					AltConf	Trace
14	N	211	Total	C	N	O	S	0	0
			1718	1089	325	298	6		

- Molecule 15 is a protein called uL5 (yeast L11).

Mol	Chain	Residues	Atoms					AltConf	Trace
15	O	169	Total	C	N	O	S	0	0
			1354	847	253	250	4		

- Molecule 16 is a protein called uL11 (yeast L12).

Mol	Chain	Residues	Atoms					AltConf	Trace
16	P	94	Total	C	N	O	S	0	0
			723	448	138	135	2		

- Molecule 17 is a protein called eL13 (yeast L13).

Mol	Chain	Residues	Atoms				AltConf	Trace
17	Q	193	Total	C	N	O	0	0
			1543	962	315	266		

- Molecule 18 is a protein called eL14 (yeast L14).

Mol	Chain	Residues	Atoms					AltConf	Trace
18	R	136	Total	C	N	O	S	0	0
			1054	675	199	178	2		

- Molecule 19 is a protein called eL15 (yeast L15).

Mol	Chain	Residues	Atoms					AltConf	Trace
19	S	203	Total	C	N	O	S	0	0
			1721	1077	361	282	1		

- Molecule 20 is a protein called uL13 (yeast L16).

Mol	Chain	Residues	Atoms					AltConf	Trace
20	T	197	Total	C	N	O	S	0	0
			1556	1003	289	263	1		

- Molecule 21 is a protein called uL22 (yeast L17).

Mol	Chain	Residues	Atoms				AltConf	Trace
21	U	183	Total 1443	C 896	N 287	O 260	0	0

- Molecule 22 is a protein called eL18 (yeast L18).

Mol	Chain	Residues	Atoms					AltConf	Trace
22	V	185	Total 1442	C 908	N 290	O 242	S 2	0	0

- Molecule 23 is a protein called eL19 (yeast L19).

Mol	Chain	Residues	Atoms				AltConf	Trace
23	W	188	Total 1522	C 935	N 326	O 261	0	0

- Molecule 24 is a protein called eL20 (yeast L20).

Mol	Chain	Residues	Atoms					AltConf	Trace
24	X	172	Total 1446	C 930	N 267	O 245	S 4	0	0

- Molecule 25 is a protein called eL21 (yeast L21).

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Y	159	Total 1277	C 805	N 246	O 222	S 4	0	0

- Molecule 26 is a protein called eL22 (yeast L22).

Mol	Chain	Residues	Atoms				AltConf	Trace
26	Z	100	Total 796	C 516	N 131	O 149	0	0

- Molecule 27 is a protein called uL14 (yeast L23).

Mol	Chain	Residues	Atoms					AltConf	Trace
27	AA	136	Total 1004	C 628	N 189	O 180	S 7	0	0

- Molecule 28 is a protein called eL24 (yeast L24).

Mol	Chain	Residues	Atoms					AltConf	Trace
28	BA	61	Total	C	N	O	S	0	0
			509	328	100	80	1		

- Molecule 29 is a protein called uL23 (yeast L25).

Mol	Chain	Residues	Atoms					AltConf	Trace
29	CA	121	Total	C	N	O	S	0	0
			969	623	170	174	2		

- Molecule 30 is a protein called uL24 (yeast L26).

Mol	Chain	Residues	Atoms				AltConf	Trace
30	DA	126	Total	C	N	O	0	0
			994	625	192	177		

- Molecule 31 is a protein called eL27 (yeast L27).

Mol	Chain	Residues	Atoms				AltConf	Trace
31	EA	135	Total	C	N	O	0	0
			1093	710	202	181		

- Molecule 32 is a protein called uL15 (yeast L28).

Mol	Chain	Residues	Atoms					AltConf	Trace
32	FA	148	Total	C	N	O	S	0	0
			1174	749	231	191	3		

- Molecule 33 is a protein called eL29 (yeast L29).

Mol	Chain	Residues	Atoms				AltConf	Trace
33	GA	58	Total	C	N	O	0	0
			463	289	100	74		

- Molecule 34 is a protein called eL30 (yeast L30).

Mol	Chain	Residues	Atoms					AltConf	Trace
34	HA	97	Total	C	N	O	S	0	0
			743	479	124	139	1		

- Molecule 35 is a protein called eL31 (yeast L31).

Mol	Chain	Residues	Atoms					AltConf	Trace
35	IA	109	Total	C	N	O	S	0	0
			890	565	168	156	1		

- Molecule 36 is a protein called eL32 (yeast L32).

Mol	Chain	Residues	Atoms					AltConf	Trace
36	JA	127	Total	C	N	O	S	0	0
			1020	647	205	167	1		

- Molecule 37 is a protein called eL33 (yeast L33).

Mol	Chain	Residues	Atoms					AltConf	Trace
37	KA	106	Total	C	N	O	S	0	0
			851	540	165	145	1		

- Molecule 38 is a protein called eL34 (yeast L34).

Mol	Chain	Residues	Atoms					AltConf	Trace
38	LA	112	Total	C	N	O	S	0	0
			881	546	179	152	4		

- Molecule 39 is a protein called uL29 (yeast L35).

Mol	Chain	Residues	Atoms					AltConf	Trace
39	MA	119	Total	C	N	O	S	0	0
			970	615	186	168	1		

- Molecule 40 is a protein called eL36 (yeast L36).

Mol	Chain	Residues	Atoms					AltConf	Trace
40	NA	99	Total	C	N	O	S	0	0
			772	481	156	133	2		

- Molecule 41 is a protein called eL37 (yeast L37).

Mol	Chain	Residues	Atoms					AltConf	Trace
41	OA	87	Total	C	N	O	S	0	0
			682	414	148	115	5		

- Molecule 42 is a protein called eL38 (yeast L38).

Mol	Chain	Residues	Atoms				AltConf	Trace
42	PA	77	Total 613	C 391	N 115	O 107	0	0

- Molecule 43 is a protein called eL39 (yeast L39).

Mol	Chain	Residues	Atoms					AltConf	Trace
43	QA	50	Total 437	C 272	N 97	O 66	S 2	0	0

- Molecule 44 is a protein called eL40 (yeast L40).

Mol	Chain	Residues	Atoms					AltConf	Trace
44	RA	52	Total 418	C 259	N 86	O 68	S 5	0	0

- Molecule 45 is a protein called eL41 (yeast L41).

Mol	Chain	Residues	Atoms					AltConf	Trace
45	SA	25	Total 234	C 142	N 63	O 28	S 1	0	0

- Molecule 46 is a protein called eL42 (yeast L42).

Mol	Chain	Residues	Atoms					AltConf	Trace
46	TA	105	Total 848	C 534	N 170	O 139	S 5	0	0

- Molecule 47 is a protein called eL43 (yeast L43).

Mol	Chain	Residues	Atoms					AltConf	Trace
47	UA	91	Total 695	C 429	N 138	O 122	S 6	0	0

- Molecule 48 is a protein called uL10 (yeast P0).

Mol	Chain	Residues	Atoms					AltConf	Trace
48	VA	189	Total 1473	C 942	N 257	O 270	S 4	0	0

- Molecule 49 is a protein called RACK1 (yeast Asc1).

Mol	Chain	Residues	Atoms					AltConf	Trace
49	WA	318	Total	C	N	O	S	0	0
			2445	1546	419	472	8		

- Molecule 50 is a protein called uS2 (yeast S0).

Mol	Chain	Residues	Atoms					AltConf	Trace
50	XA	206	Total	C	N	O	S	0	0
			1612	1034	285	291	2		

- Molecule 51 is a protein called eS1 (yeast S1).

Mol	Chain	Residues	Atoms				AltConf	Trace
51	YA	214	Total	C	N	O	0	0
			856	428	214	214		

- Molecule 52 is a protein called uS5 (yeast S2).

Mol	Chain	Residues	Atoms					AltConf	Trace
52	ZA	217	Total	C	N	O	S	0	0
			1635	1047	289	297	2		

- Molecule 53 is a protein called uS3 (yeast S3).

Mol	Chain	Residues	Atoms					AltConf	Trace
53	AB	223	Total	C	N	O	S	0	0
			1734	1101	313	314	6		

- Molecule 54 is a protein called eS4 (yeast S4).

Mol	Chain	Residues	Atoms					AltConf	Trace
54	BB	260	Total	C	N	O	S	0	0
			2069	1316	389	361	3		

- Molecule 55 is a protein called uS7 (yeast S5).

Mol	Chain	Residues	Atoms					AltConf	Trace
55	CB	206	Total	C	N	O	S	0	0
			1610	1007	300	300	3		

- Molecule 56 is a protein called eS6 (yeast S6).

Mol	Chain	Residues	Atoms					AltConf	Trace
56	DB	226	Total	C	N	O	S	0	0
			1820	1142	350	325	3		

- Molecule 57 is a protein called eS7 (yeast S7).

Mol	Chain	Residues	Atoms				AltConf	Trace
57	EB	184	Total	C	N	O	0	0
			1481	951	265	265		

- Molecule 58 is a protein called eS8 (yeast S8).

Mol	Chain	Residues	Atoms					AltConf	Trace
58	FB	188	Total	C	N	O	S	0	0
			1490	925	298	265	2		

- Molecule 59 is a protein called uS4 (yeast S9).

Mol	Chain	Residues	Atoms					AltConf	Trace
59	GB	185	Total	C	N	O	S	0	0
			1494	943	289	261	1		

- Molecule 60 is a protein called eS10 (yeast S10).

Mol	Chain	Residues	Atoms					AltConf	Trace
60	HB	96	Total	C	N	O	S	0	0
			817	529	133	153	2		

- Molecule 61 is a protein called uS17 (yeast S11).

Mol	Chain	Residues	Atoms					AltConf	Trace
61	IB	155	Total	C	N	O	S	0	0
			1245	798	235	209	3		

- Molecule 62 is a protein called eS12 (yeast S12).

Mol	Chain	Residues	Atoms				AltConf	Trace
62	JB	124	Total	C	N	O	0	0
			496	248	124	124		

- Molecule 63 is a protein called uS15 (yeast S13).

Mol	Chain	Residues	Atoms					AltConf	Trace
63	KB	150	Total	C	N	O	S	0	0
			1193	759	224	208	2		

- Molecule 64 is a protein called uS11 (yeast S14).

Mol	Chain	Residues	Atoms				AltConf	Trace
64	LB	127	Total	C	N	O	0	0
			508	254	127	127		

- Molecule 65 is a protein called uS19 (yeast S15).

Mol	Chain	Residues	Atoms					AltConf	Trace
65	MB	122	Total	C	N	O	S	0	0
			975	622	182	164	7		

- Molecule 66 is a protein called uS9 (yeast S16).

Mol	Chain	Residues	Atoms				AltConf	Trace
66	NB	141	Total	C	N	O	0	0
			1106	708	203	195		

- Molecule 67 is a protein called eS17 (yeast S17).

Mol	Chain	Residues	Atoms					AltConf	Trace
67	OB	117	Total	C	N	O	S	0	0
			836	515	166	153	2		

- Molecule 68 is a protein called uS13 (yeast S18).

Mol	Chain	Residues	Atoms					AltConf	Trace
68	PB	145	Total	C	N	O	S	0	0
			1193	743	237	211	2		

- Molecule 69 is a protein called eS19 (yeast S19).

Mol	Chain	Residues	Atoms					AltConf	Trace
69	QB	143	Total	C	N	O	S	0	0
			1113	694	208	209	2		

- Molecule 70 is a protein called uS10 (yeast S20).

Mol	Chain	Residues	Atoms					AltConf	Trace
70	RB	107	Total	C	N	O	S	0	0
			856	539	156	160	1		

- Molecule 71 is a protein called eS21 (yeast S21).

Mol	Chain	Residues	Atoms					AltConf	Trace
71	SB	87	Total	C	N	O	S	0	0
			685	420	125	138	2		

- Molecule 72 is a protein called uS8 (yeast S22).

Mol	Chain	Residues	Atoms					AltConf	Trace
72	TB	129	Total	C	N	O	S	0	0
			1022	650	188	181	3		

- Molecule 73 is a protein called uS12 (yeast S23).

Mol	Chain	Residues	Atoms					AltConf	Trace
73	UB	144	Total	C	N	O	S	0	0
			1122	708	220	192	2		

- Molecule 74 is a protein called eS24 (yeast S24).

Mol	Chain	Residues	Atoms				AltConf	Trace
74	VB	134	Total	C	N	O	0	0
			1074	676	208	190		

- Molecule 75 is a protein called eS25 (yeast S25).

Mol	Chain	Residues	Atoms				AltConf	Trace
75	WB	70	Total	C	N	O	0	0
			563	360	104	99		

- Molecule 76 is a protein called eS26 (yeast S26).

Mol	Chain	Residues	Atoms				AltConf	Trace
76	XB	97	Total	C	N	O	0	0
			388	194	97	97		

- Molecule 77 is a protein called eS27 (yeast S27).

Mol	Chain	Residues	Atoms					AltConf	Trace
77	YB	81	Total	C	N	O	S	0	0
			611	382	110	114	5		

- Molecule 78 is a protein called eS28 (yeast S28).

Mol	Chain	Residues	Atoms					AltConf	Trace
78	ZB	63	Total	C	N	O	S	0	0
			498	306	99	92	1		

- Molecule 79 is a protein called uS14 (yeast S29).

Mol	Chain	Residues	Atoms					AltConf	Trace
79	AC	53	Total	C	N	O	S	0	0
			444	275	92	73	4		

- Molecule 80 is a protein called eS30 (yeast S30).

Mol	Chain	Residues	Atoms					AltConf	Trace
80	BC	60	Total	C	N	O	S	0	0
			475	299	98	77	1		

- Molecule 81 is a protein called eS31 (yeast S31).

Mol	Chain	Residues	Atoms				AltConf	Trace
81	CC	71	Total	C	N	O	0	0
			284	142	71	71		

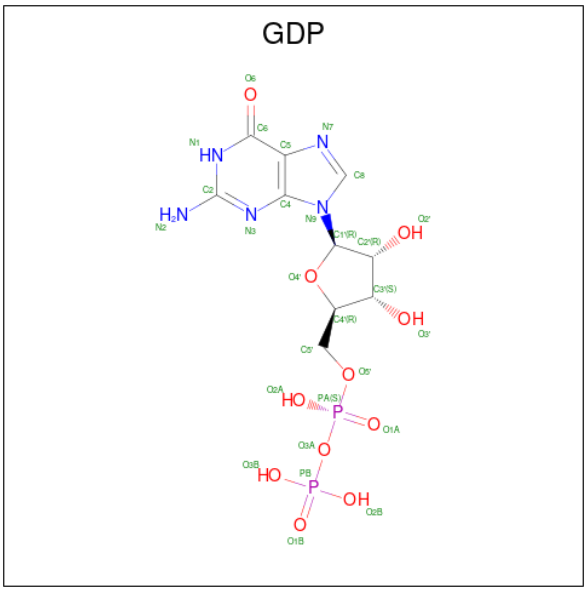
- Molecule 82 is a protein called yeast eEF2.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	DC	824	Total	C	N	O	S	0	0
			6419	4085	1096	1208	30		

- Molecule 83 is a RNA chain called IRES.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	EC	198	Total	C	N	O	P	0	0
			4105	1826	718	1363	198		

- Molecule 84 is GUANOSINE-5'-DIPHOSPHATE (CCD ID: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$).

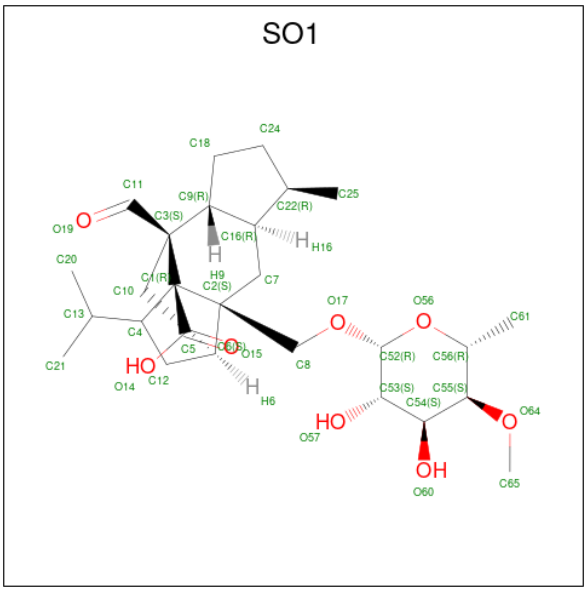


Mol	Chain	Residues	Atoms					AltConf
84	DC	1	Total	C	N	O	P	0
			28	10	5	11	2	

- Molecule 85 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
85	DC	1	Total	Mg	0
			1	1	

- Molecule 86 is [1R-(1.ALPHA.,3A.BETA.,4.BETA.,4A.BETA.,7.BETA.,7A.ALPHA.,8A.BETA.)]8A-[(6-DEOXY-4-O-METHYL-BETA-D-ALTROPYRANOSYLOXY)METHYL]-4-FORMYL-4,4A,5,6,7,7A,8,8A-OCTAHYDRO-7-METHYL-3-(1-METHYLETHYL)-1,4-METHANO-S-INDACENE-3A(1H)-CARBOXYLIC ACID (CCD ID: SO1) (formula: $C_{27}H_{42}O_8$).



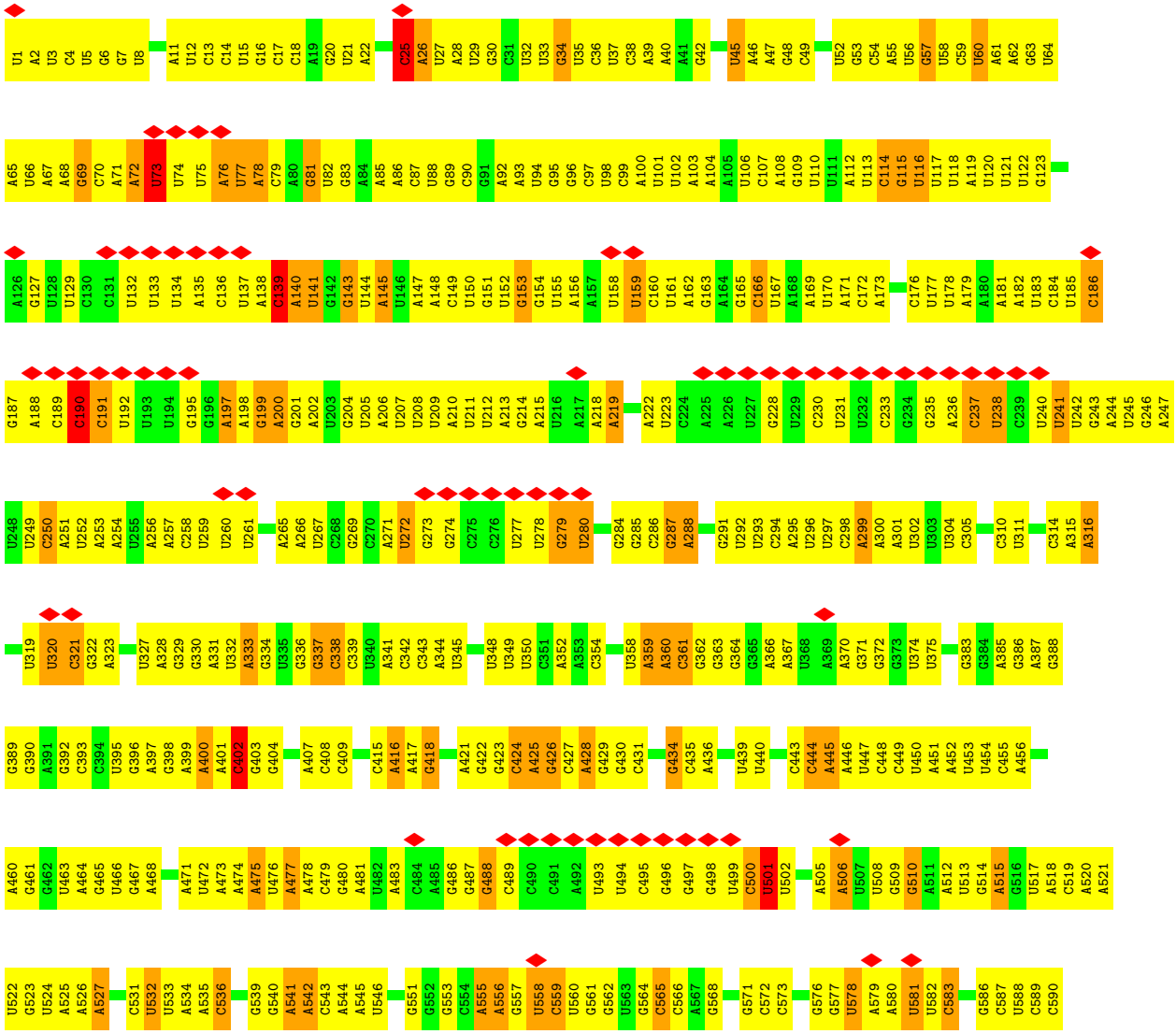
Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
86	DC	1	35	27	8	0

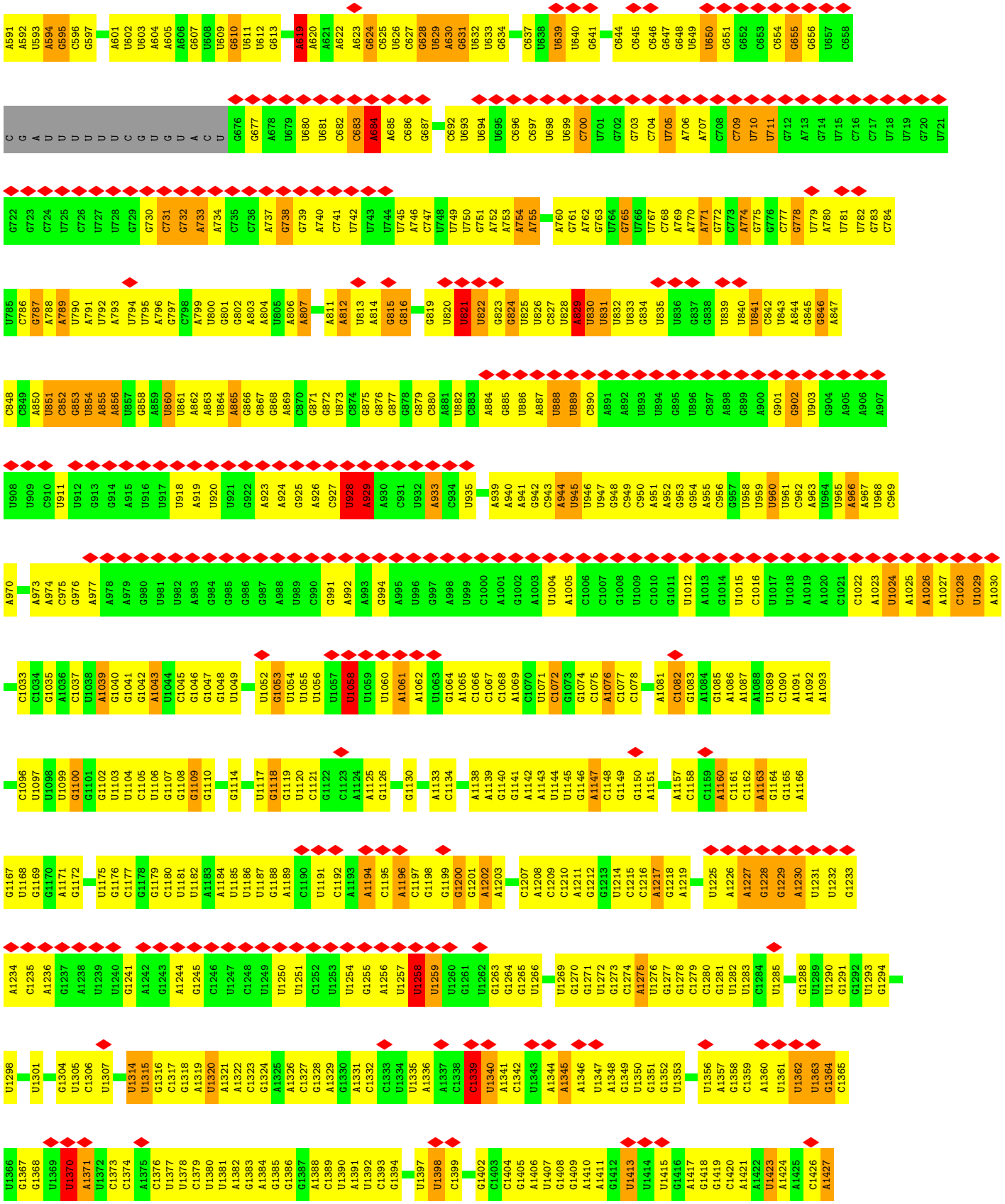
3 Residue-property plots (i)

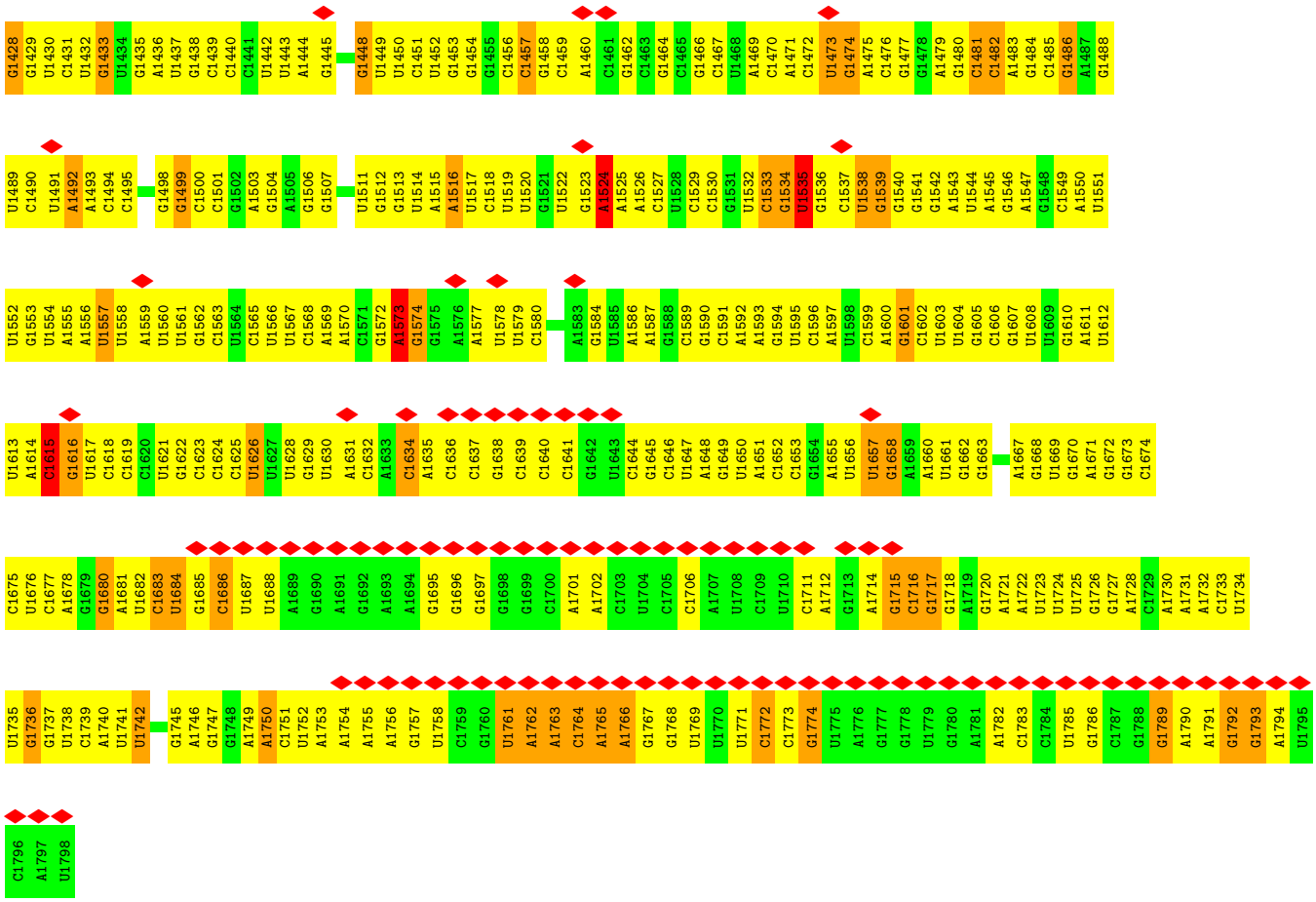
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: 18S ribosomal RNA

Chain A:

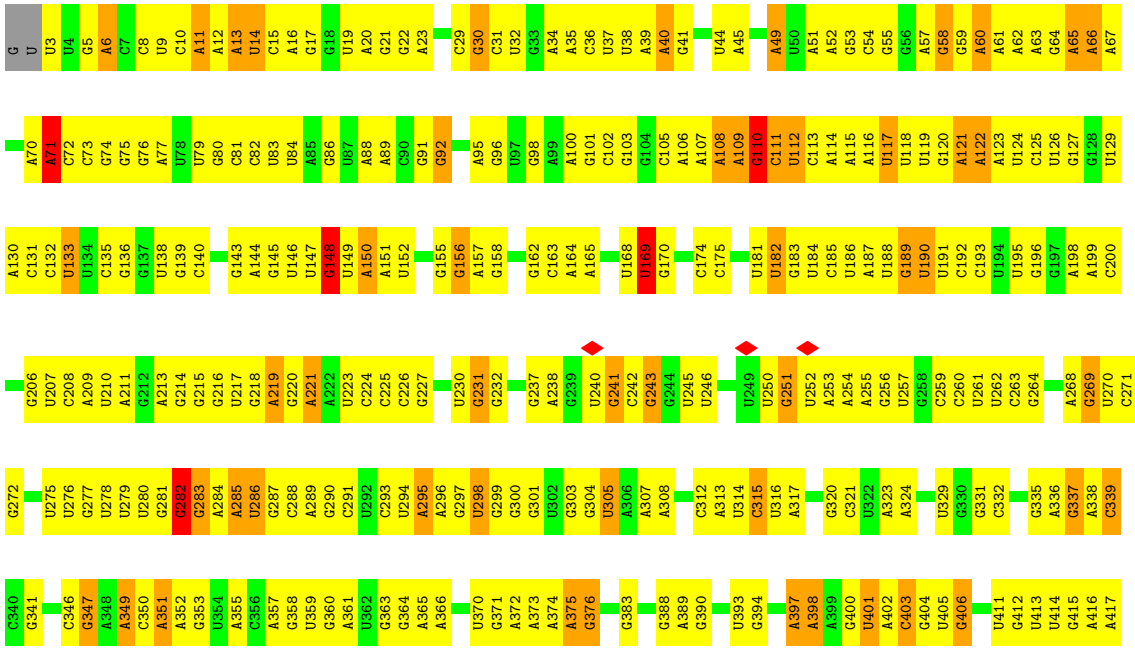


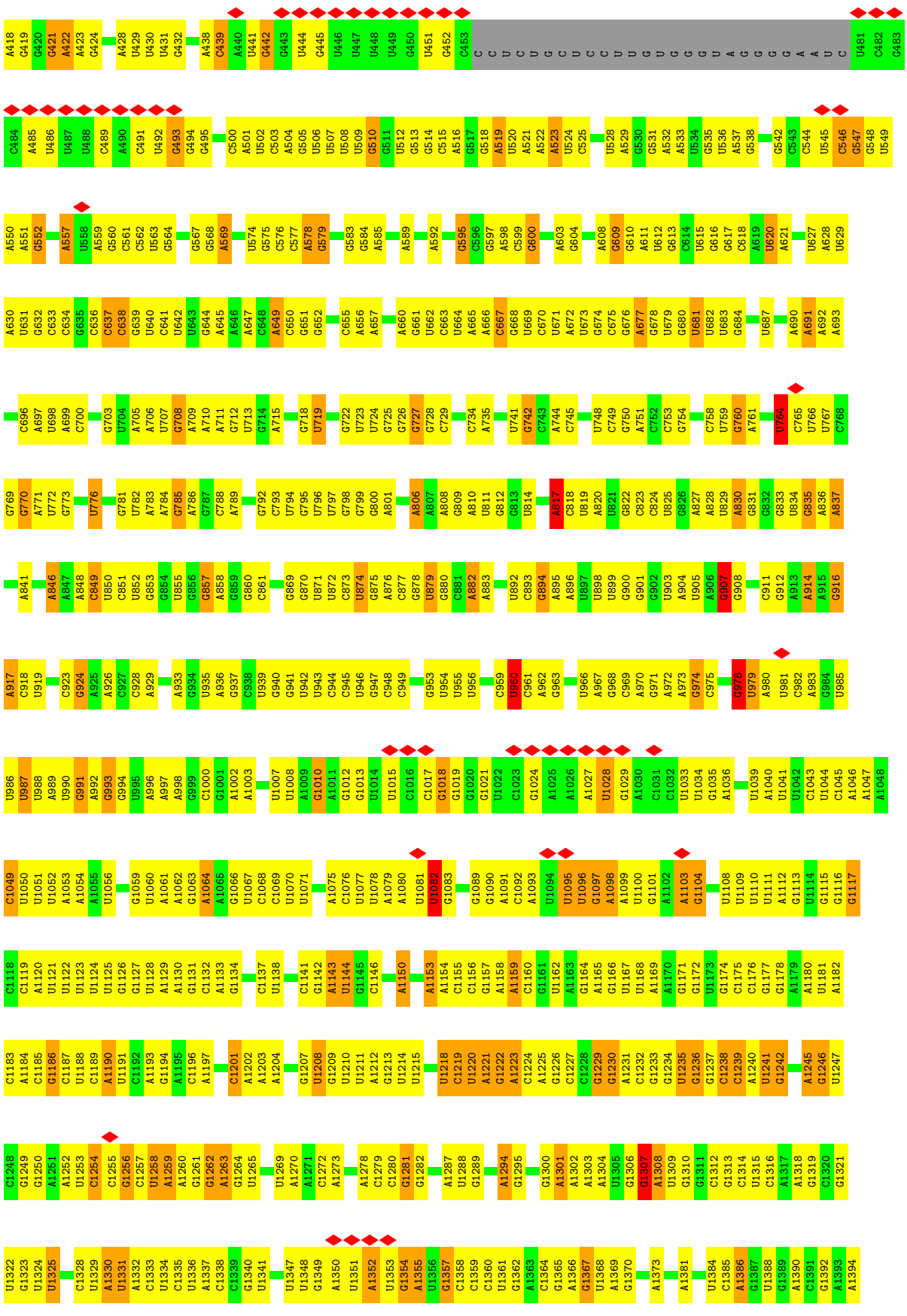

A591 A592 U593 A594 G595 C596 G597 A601 U602 U603 A604 A605 A606 G607 U608 U609 G610 U611 U612 G613 A619 A620 A621 A622 A623 G624 C625 U626 C627 G628 U629 A630 G631 U632 U633 G634 C637 U638 U639 U640 G641 C644 C645 C646 G647 G648 U649 U650 G651 G652 C653 C654 G655 G656 U657 C658
C G G A U U U U U U C G U G U A C U G676 G677 A678 U679 U680 U681 C682 C683 A684 A685 C686 G687 C692 U693 U694 U695 C696 C697 U698 U699 C700 U701 G702 G703 C704 U705 A706 A707 C708 C709 U710 U711 G712 A713 G714 U715 C716 C717 U718 U719 G720 U721
G722 G723 C724 U725 C726 U727 U728 G729 G730 C731 G732 A733 A734 C735 C736 A737 G738 G739 A740 C741 U742 U743 U744 U745 A746 C747 U748 U749 U750 G751 A752 A753 A754 A755 A760 G761 A762 G763 U764 G765 U766 U767 C768 A769 A770 A771 G772 G773 A774 G775 G776 C777 G778 U779 A780 U781 U782 G783 C784
U785 C786 G787 A788 A789 U790 A791 U792 A793 U794 U795 A796 G797 C798 A799 U800 G801 G802 A803 A804 U805 A806 A807 A811 A812 U813 A814 G815 G816 G819 U820 U821 U822 G823 G824 U825 U826 C827 U828 A829 U830 U831 U832 U833 G834 U835 U836 G837 G838 U839 U840 U841 C842 U843 A844 G845 G846 A847
C848 C849 A850 U851 C852 G853 U854 A855 A856 U857 G858 A859 U860 U861 A862 A863 U864 A865 G866 G867 G868 A869 C870 G871 G872 U873 C874 G875 G876 G877 G878 G879 C880 A881 U882 C883 A884 G885 U886 A887 U888 U889 C890 A891 A892 U893 U894 G895 U896 C897 A898 G899 A900 G901 G902 U903 G904 A905 A906 A907
U908 U909 C910 U911 U912 G913 G914 A915 U916 U917 U918 A919 U920 U921 G922 A923 A924 G925 A926 C927 U928 A929 A930 C931 U932 A933 C934 U935 A939 A940 A941 G942 C943 A944 U945 U946 U947 G948 C949 C950 A951 A952 G953 G954 A955 C956 G957 U958 U959 U960 U961 C962 A963 U964 U965 A966 A967 U968 C969
A970 A973 A974 C975 G976 A977 A978 A979 G980 U981 U982 A983 G984 G985 G986 G987 A988 U989 C990 G991 A992 A993 G994 A995 U996 G997 A998 U999 C1000 A1001 G1002 A1003 U1004 A1005 C1006 C1007 G1008 U1009 C1010 G1011 U1012 A1013 G1014 U1015 C1016 U1017 U1018 A1019 A1020 C1021 C1022 A1023 U1024 A1025 A1026 A1027 C1028 U1029 A1030
C1033 C1034 G1035 A1036 C1037 U1038 A1039 G1040 G1041 G1042 A1043 U1044 C1045 G1046 G1047 G1048 U1049 U1052 G1053 U1054 U1055 U1056 U1057 U1058 U1059 U1060 A1061 A1062 U1063 G1064 A1065 C1066 C1067 C1068 A1069 C1070 U1071 C1072 G1073 G1074 C1075 A1076 C1077 C1078 A1081 C1082 G1083 A1084 G1085 A1086 A1087 A1088 U1089 C1090 A1091 A1092 A1093
C1096 U1097 U1098 U1099 G1100 G1101 G1102 U1103 U1104 C1105 U1106 G1107 G1108 G1109 G1110 G1114 U1117 G1118 G1119 U1120 C1121 G1122 C1123 A1124 A1125 G1126 G1130 A1133 C1134 A1138 A1139 G1140 G1141 A1142 A1143 A1144 U1145 G1146 A1147 C1148 G1149 G1150 A1151 A1157 C1158 C1159 A1160 C1161 C1162 A1163 A1088 G1164 G1165 A1166
G1167 U1168 G1169 G1170 A1171 G1172 U1175 G1176 C1177 G1178 G1179 C1180 U1181 U1182 A1183 A1184 U1185 U1186 U1187 G1188 A1189 C1190 U1191 C1192 A1193 A1194 C1195 A1196 C1197 G1198 G1199 G1200 G1201 A1202 A1203 C1207 A1208 C1209 C1210 A1211 G1212 G1213 U1214 C1215 C1216 A1217 G1218 A1219 U1225 A1226 A1227 G1228 G1229 A1230 U1231 U1232 G1233
A1234 C1235 A1236 G1237 A1238 U1239 U1240 G1241 A1242 G1243 A1244 G1245 C1246 U1247 C1248 U1249 U1250 U1251 C1252 U1253 U1254 G1255 A1256 U1257 U1258 U1259 U1260 G1261 U1262 G1263 G1264 G1265 U1266 U1269 G1270 G1271 U1272 G1273 C1274 A1275 U1276 G1277 G1278 C1279 C1280 G1281 U1282 U1283 C1284 U1285 G1288 U1289 U1290 G1291 G1292 U1293 G1294
U1298 U1301 G1304 U1305 C1306 U1307 U1314 U1315 G1316 C1317 G1318 A1319 U1320 A1321 A1322 C1323 G1324 A1325 A1326 C1327 G1328 A1329 G1330 A1331 C1332 C1333 U1334 U1335 A1336 A1337 C1338 C1339 U1340 A1341 C1342 U1343 A1344 A1345 A1346 U1347 A1348 G1349 U1350 G1351 U1352 U1353 U1356 A1357 G1358 C1359 A1360 U1361 U1362 U1363 G1364 C1365
U1366 G1367 G1368 U1369 U1370 A1371 U1372 C1373 C1374 A1375 C1376 U1377 U1378 C1379 U1380 U1381 A1382 G1383 A1384 A1385 G1386 G1387 A1388 C1389 U1390 A1391 U1392 C1393 G1394 U1397 U1398 C1399 G1402 C1403 C1404 C1405 A1406 U1407 G1408 G1409 A1410 A1411 G1412 U1413 U1414 U1415 G1416 A1417 G1418 G1419 C1420 A1421 A1422 U1423 A1424 A1425 C1426 A1427

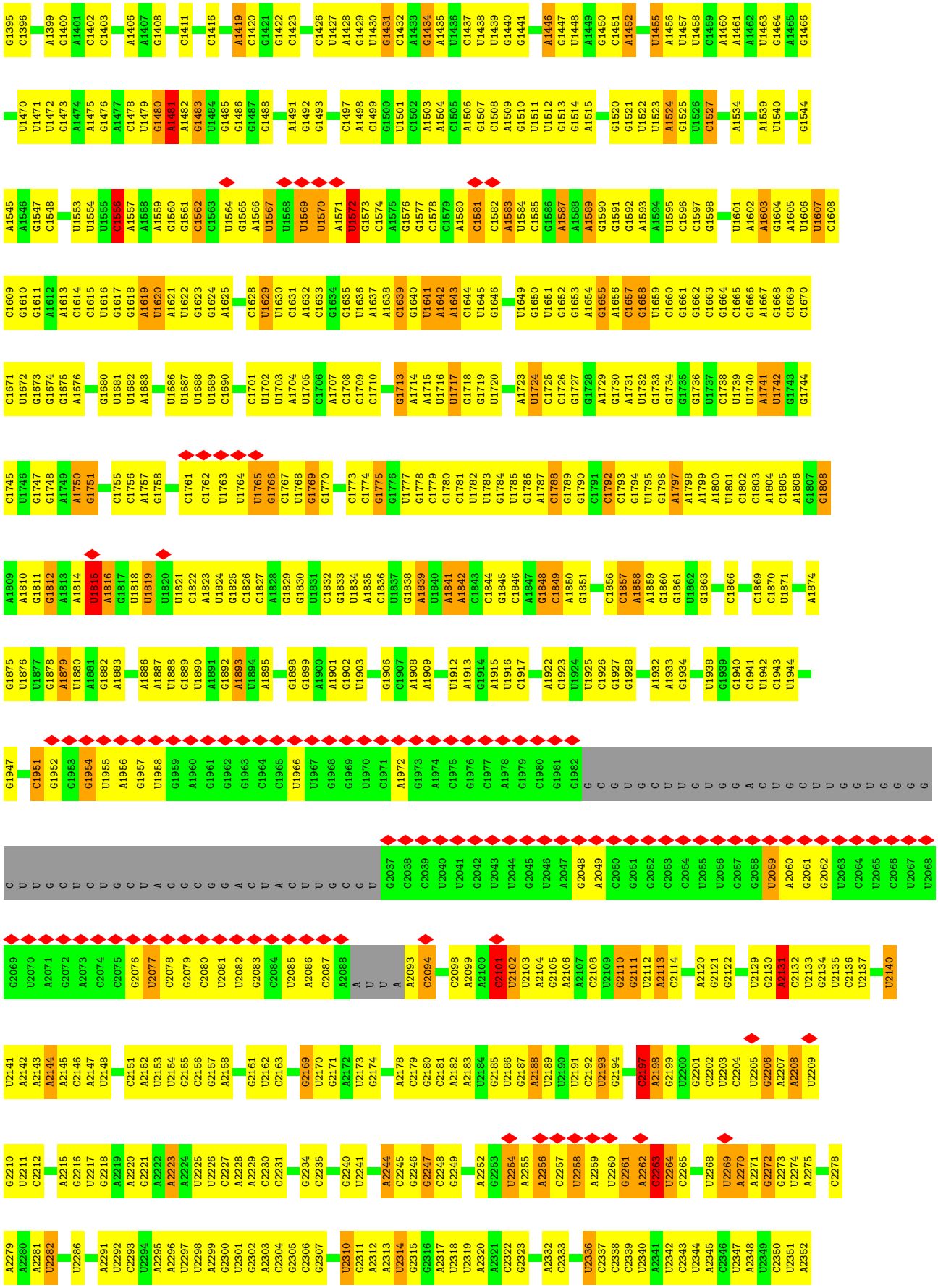


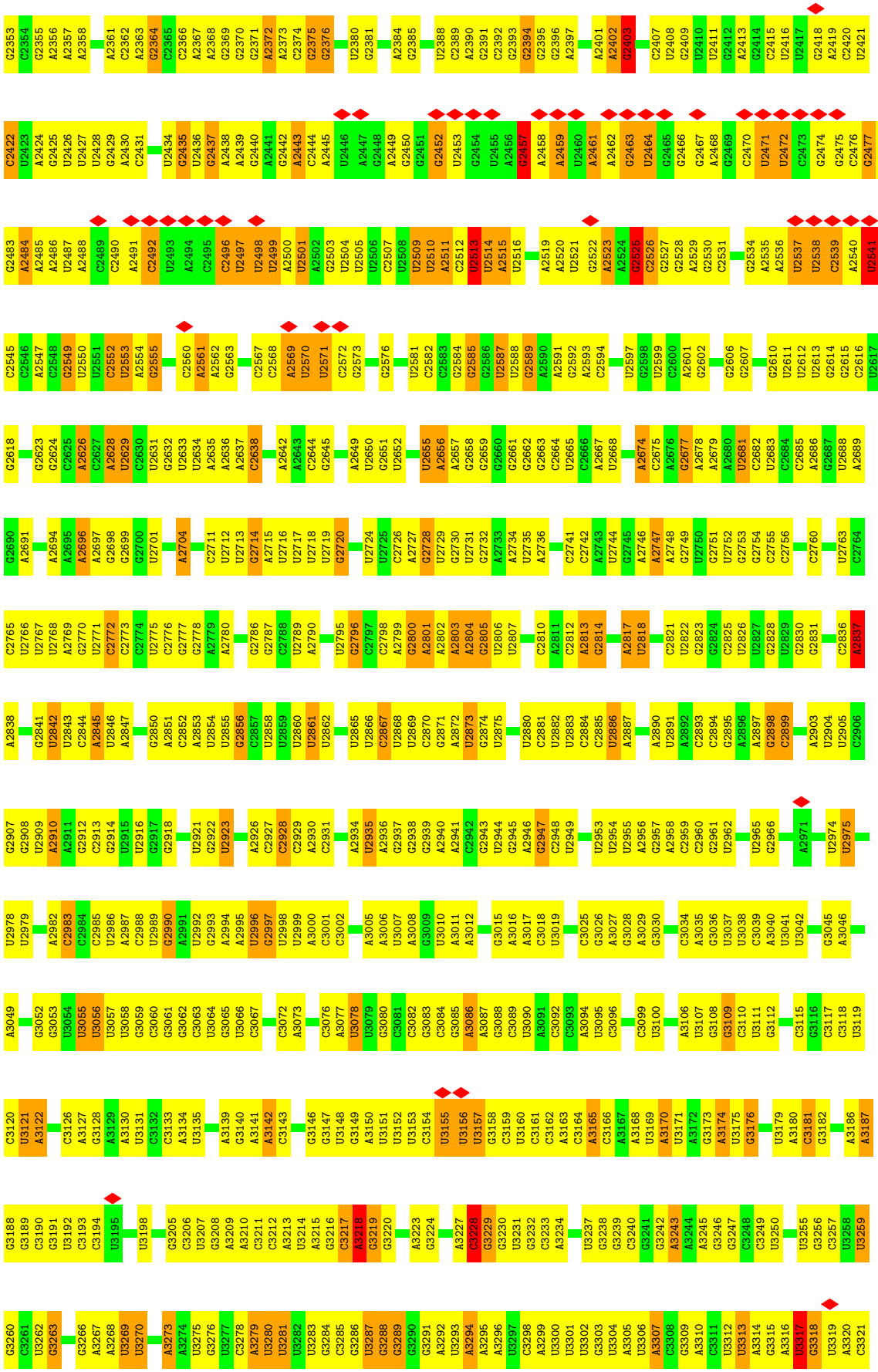
• Molecule 2: 25S ribosomal RNA

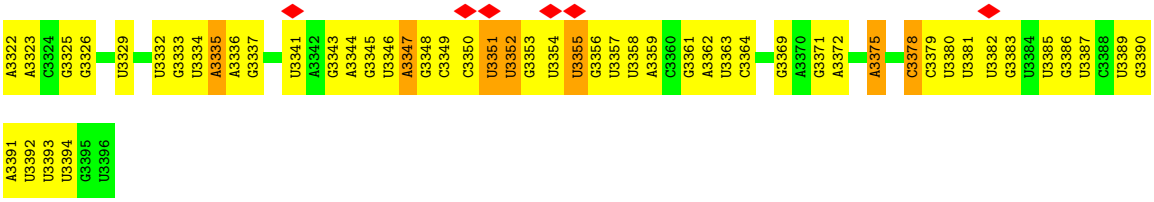
Chain B:





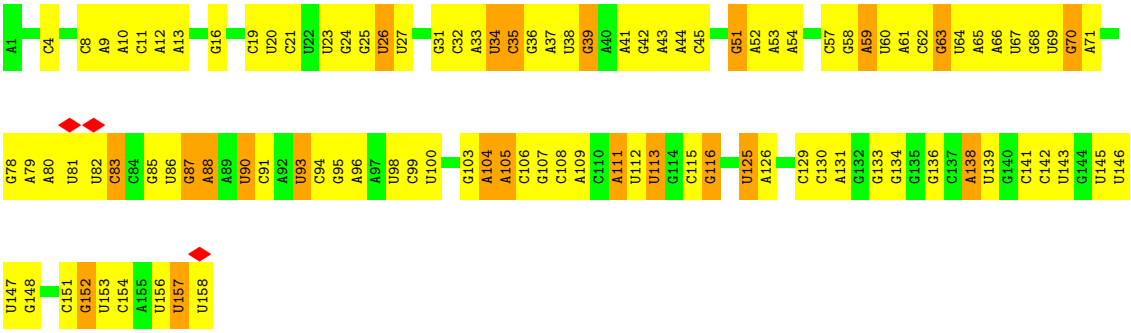






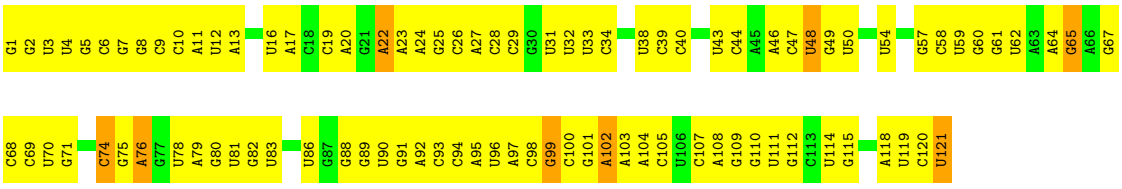
• Molecule 3: 5.8S ribosomal RNA

Chain C:



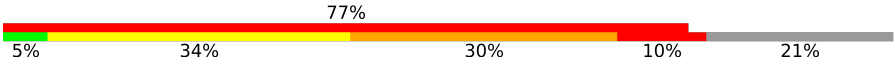
• Molecule 4: 5S ribosomal RNA

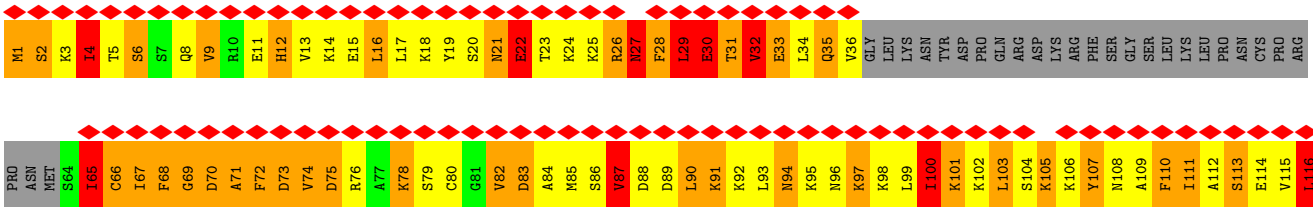
Chain D:

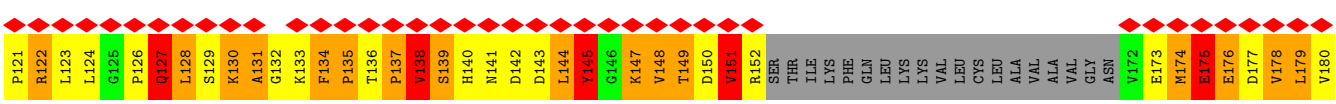


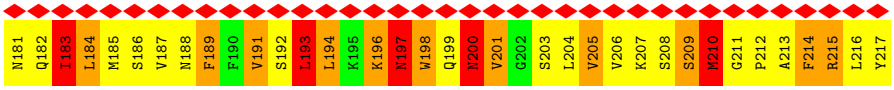
• Molecule 5: uL1 (yeast L1)

Chain E:



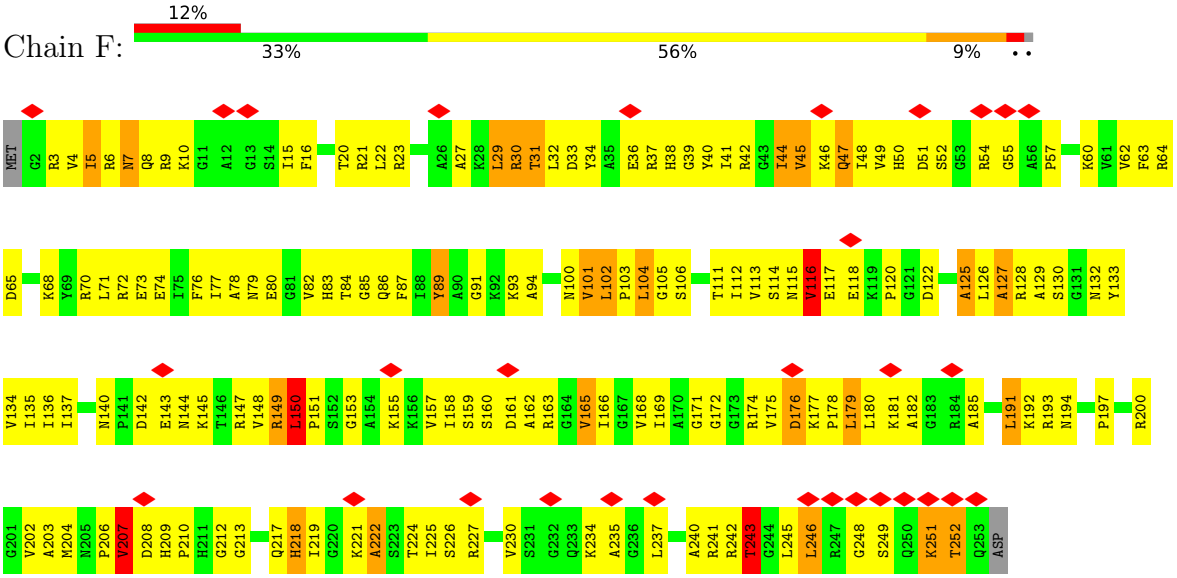






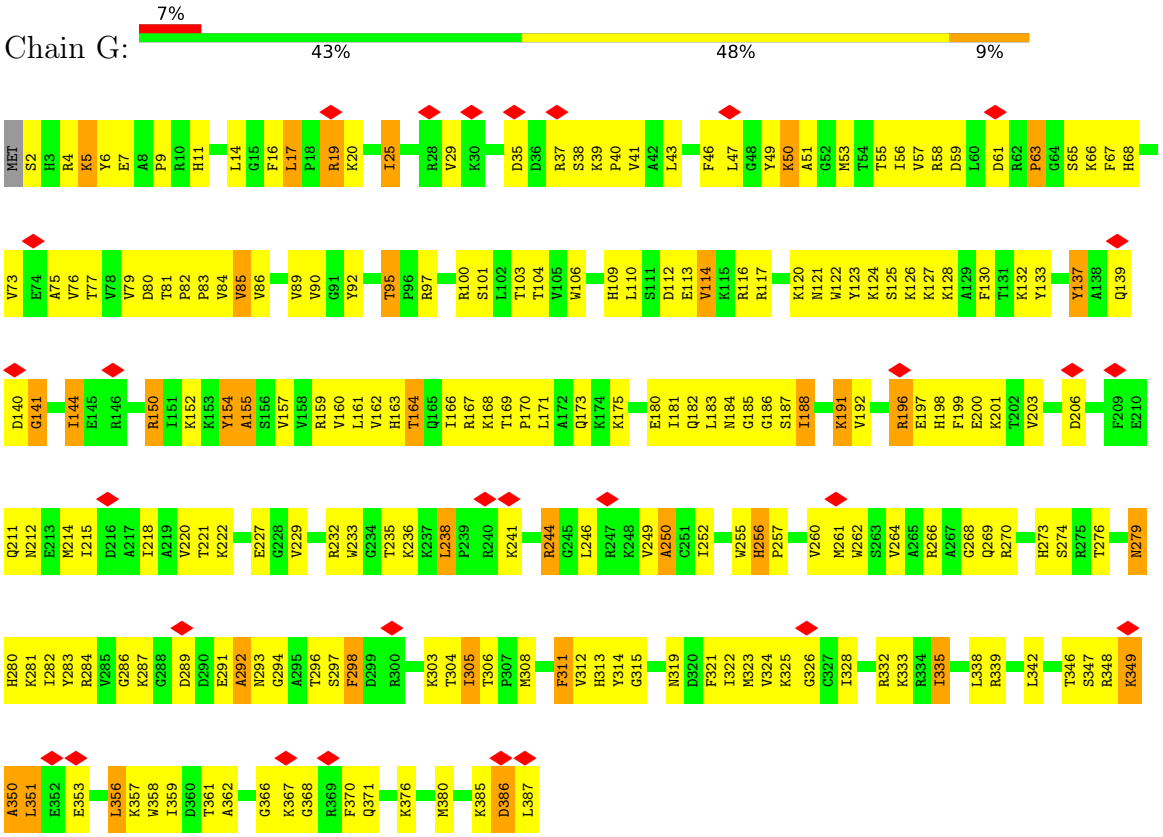
• Molecule 6: uL2 (yeast L2)

Chain F:



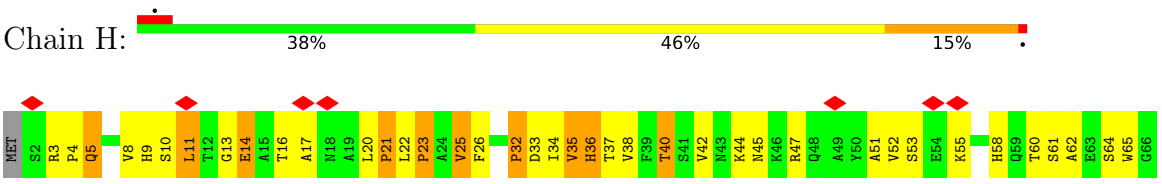
• Molecule 7: uL3 (yeast L3)

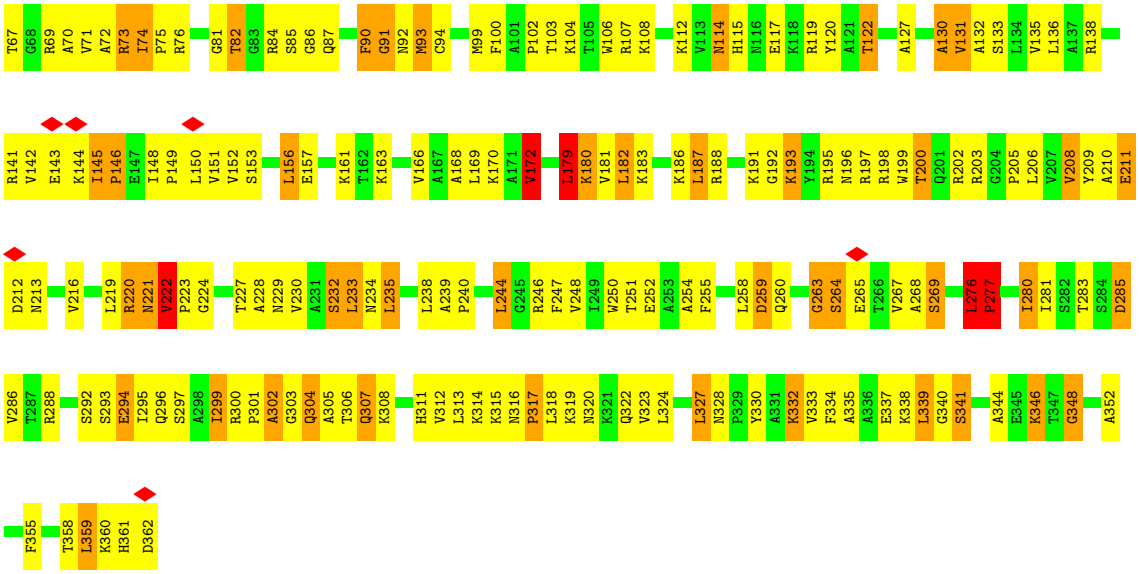
Chain G:



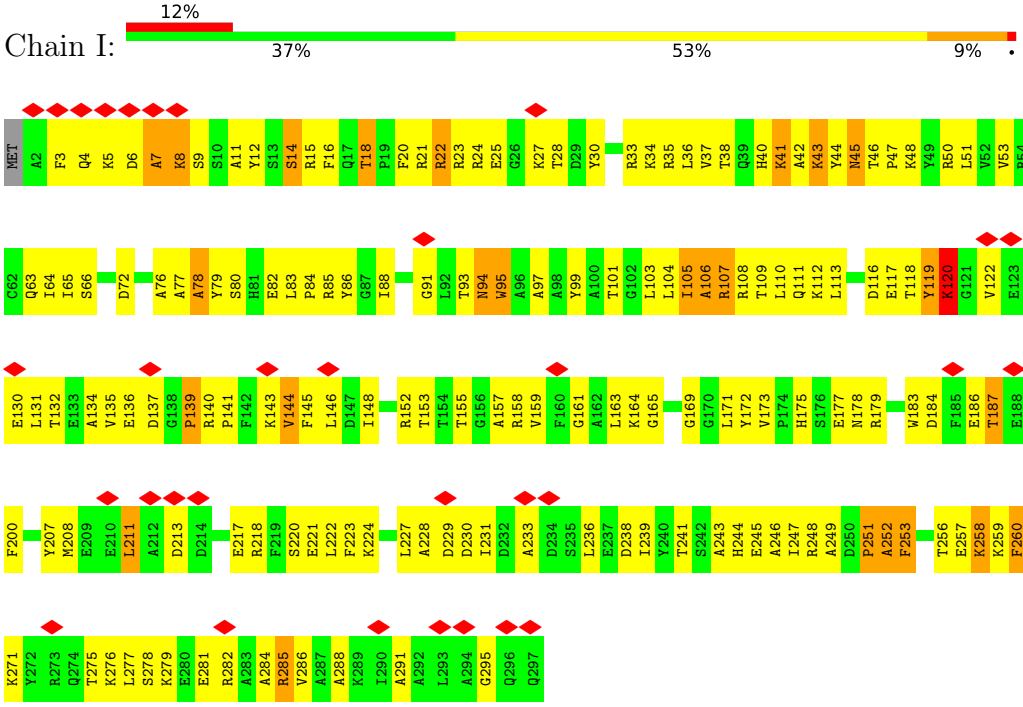
• Molecule 8: uL4 (yeast L4)

Chain H:

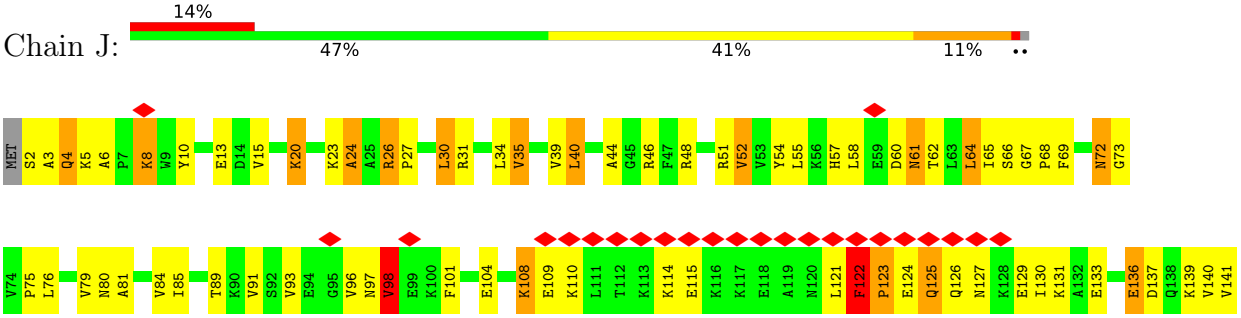


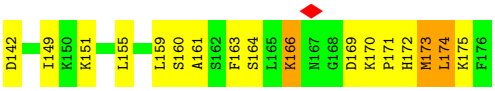


• Molecule 9: uL18 (yeast L5)

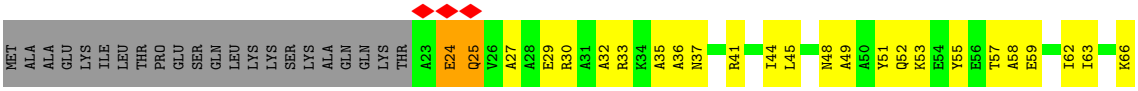


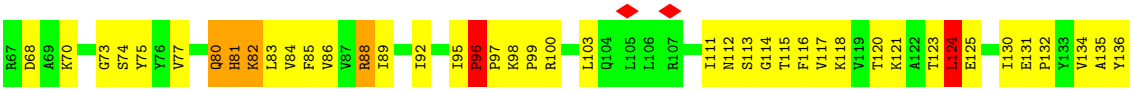
• Molecule 10: eL6 (yeast L6)

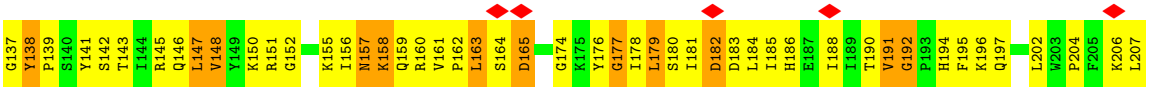


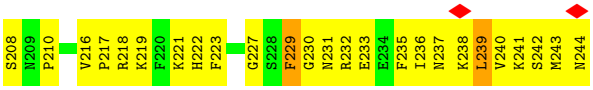


• Molecule 11: uL30 (yeast L7)

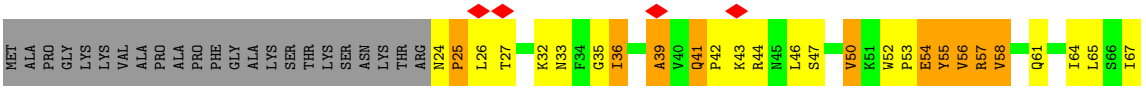


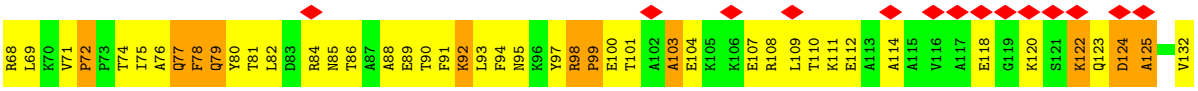


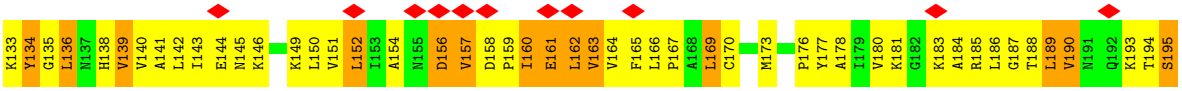


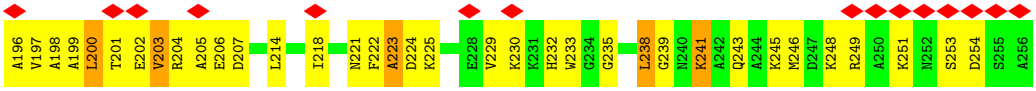


• Molecule 12: eL8 (yeast L8)

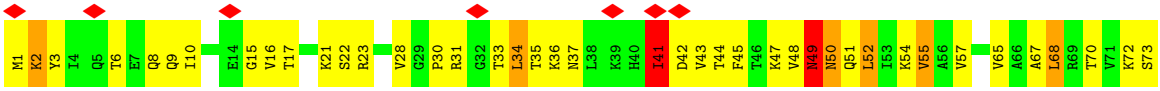


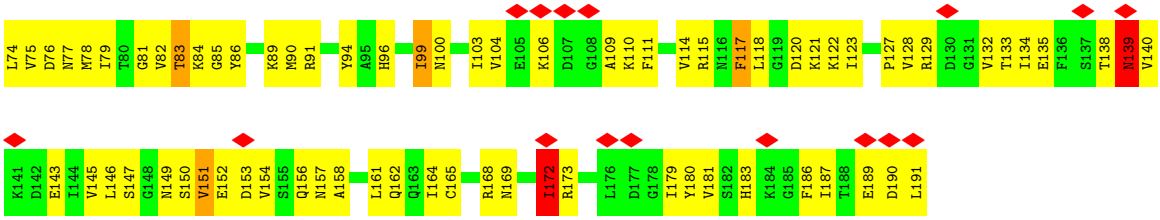




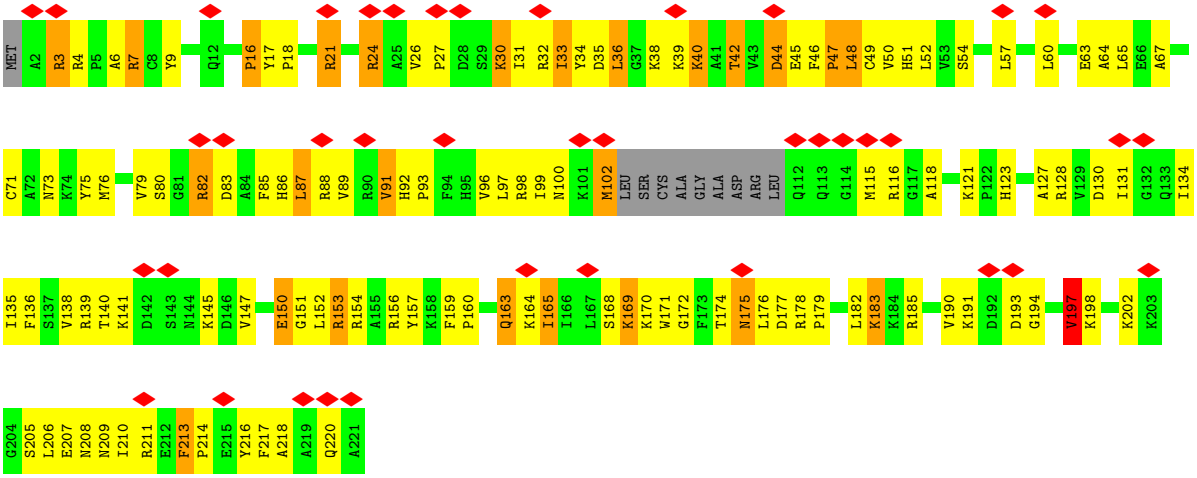


• Molecule 13: uL6 (yeast L9)

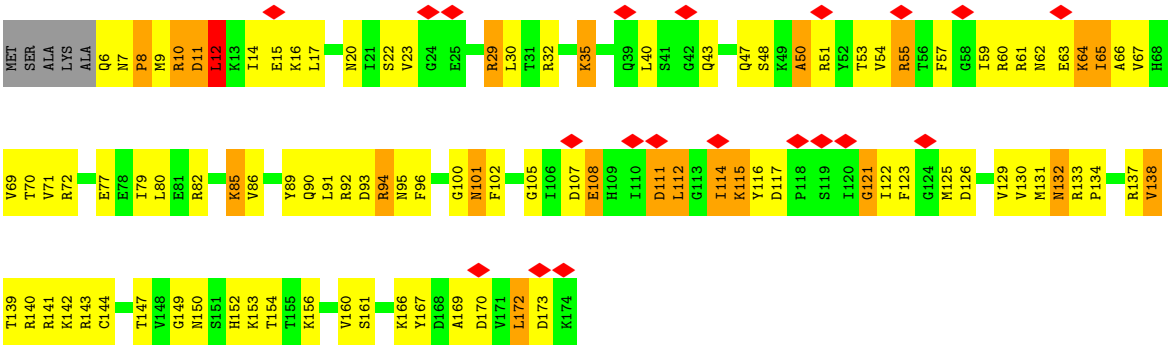




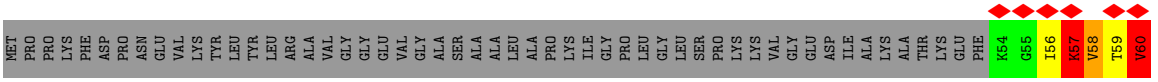
• Molecule 14: uL16 (yeast L10)

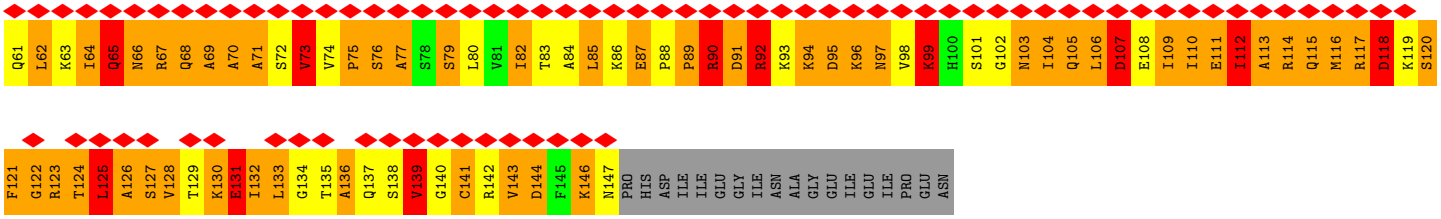


• Molecule 15: uL5 (yeast L11)



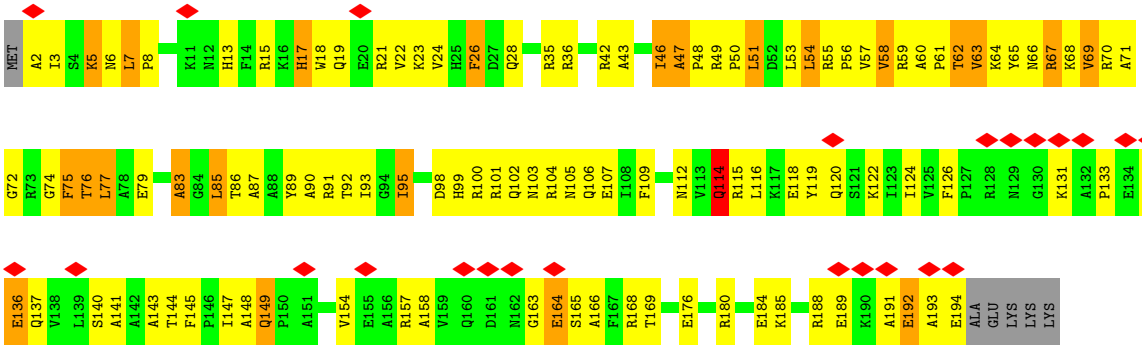
• Molecule 16: uL11 (yeast L12)





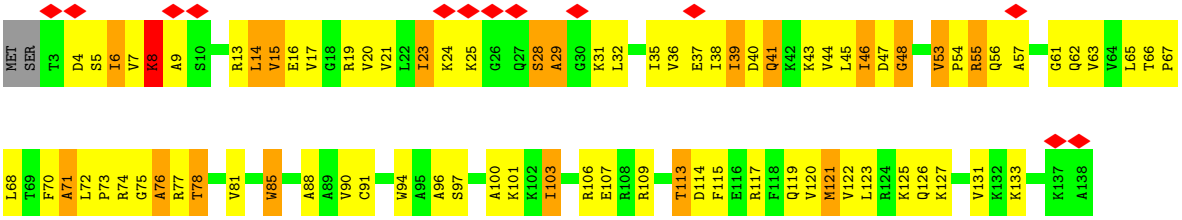
• Molecule 17: eL13 (yeast L13)

Chain Q:



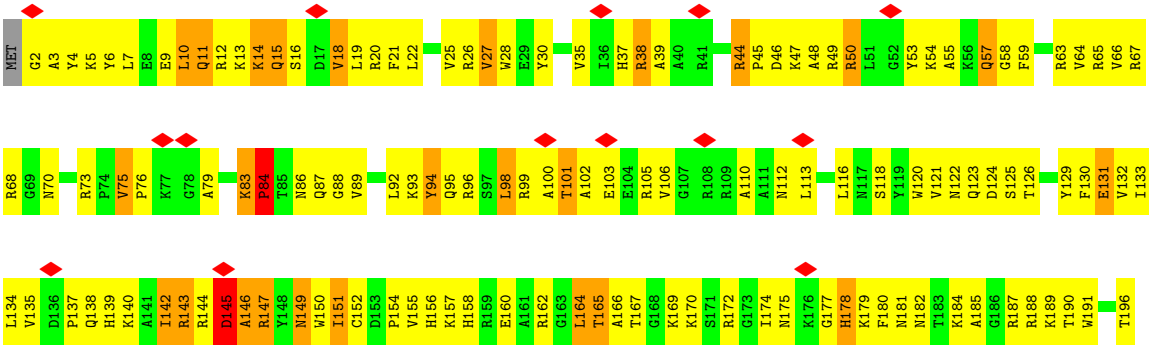
• Molecule 18: eL14 (yeast L14)

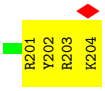
Chain R:



• Molecule 19: eL15 (yeast L15)

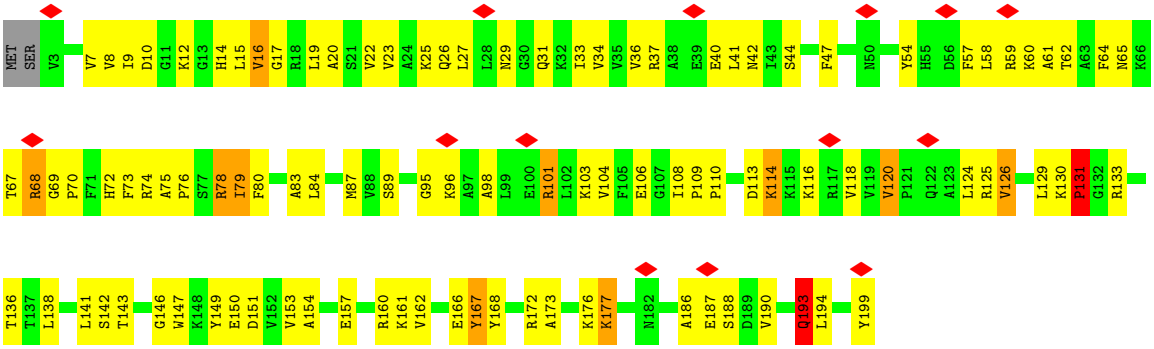
Chain S:





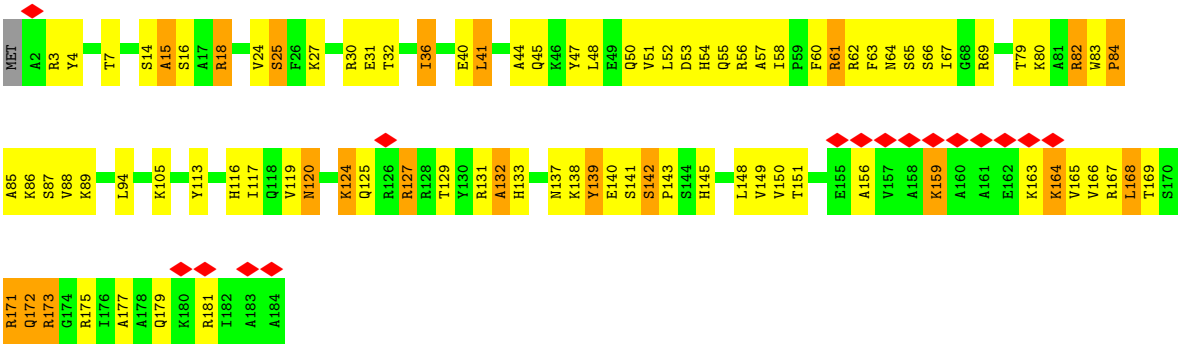
• Molecule 20: uL13 (yeast L16)

Chain T:



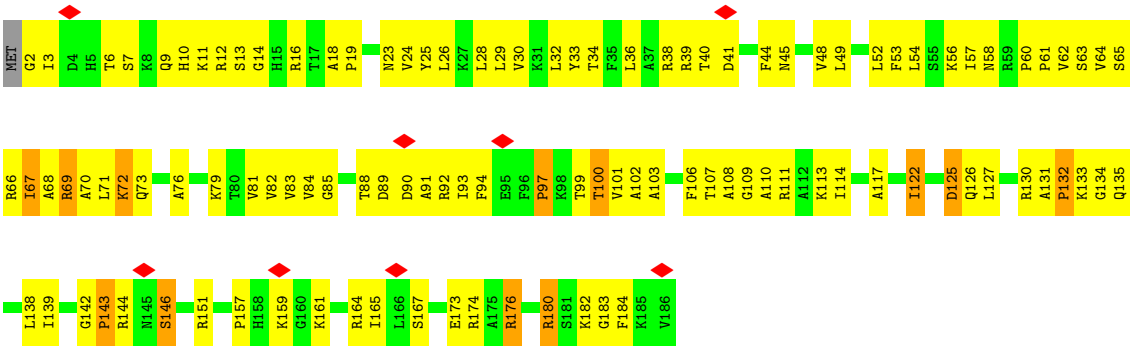
• Molecule 21: uL22 (yeast L17)

Chain U:



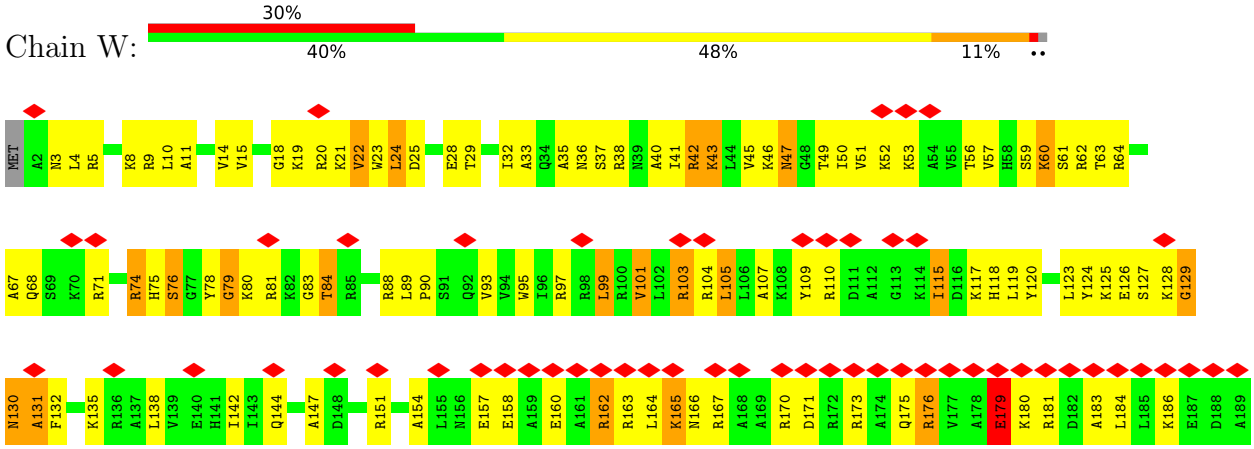
• Molecule 22: eL18 (yeast L18)

Chain V:



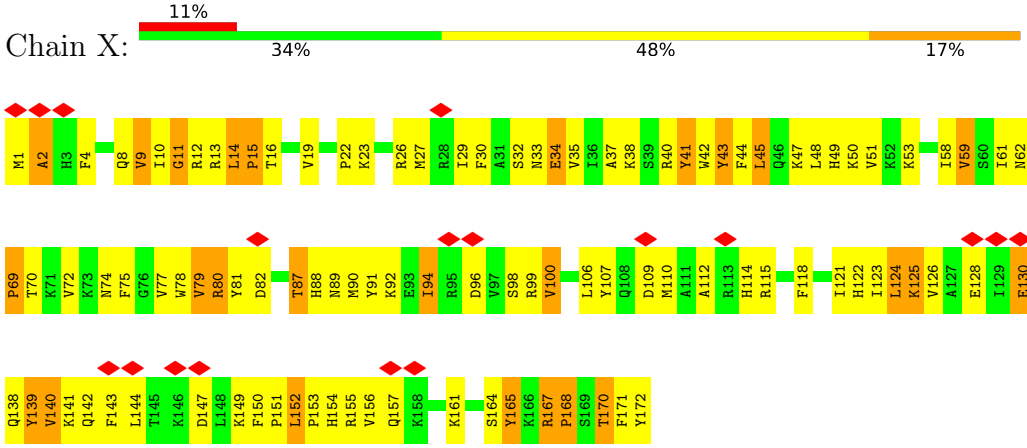
• Molecule 23: eL19 (yeast L19)

Chain W:



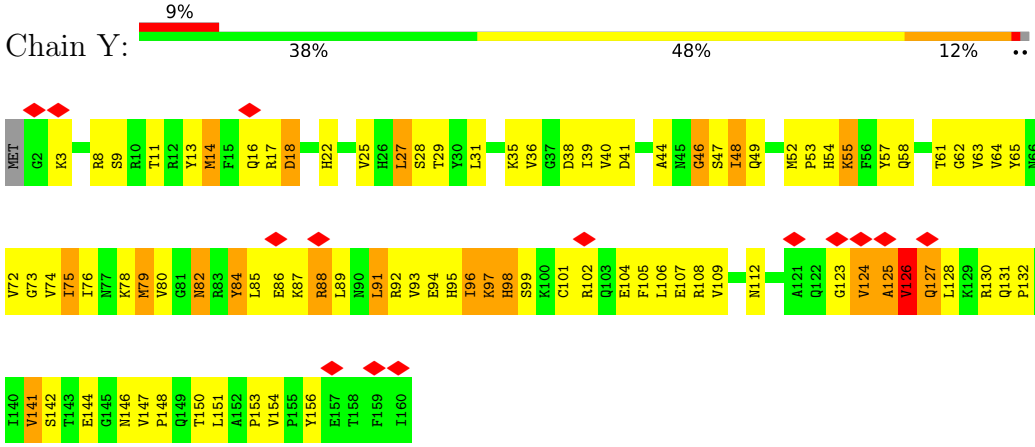
• Molecule 24: eL20 (yeast L20)

Chain X:



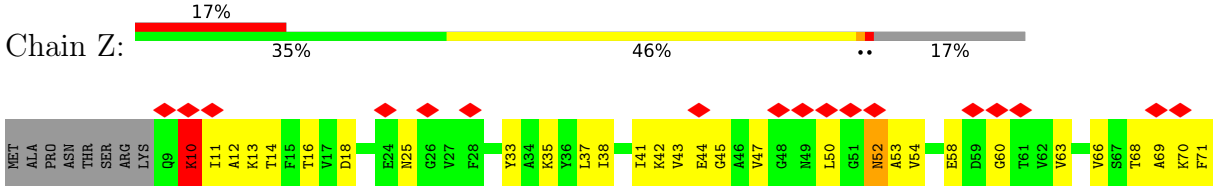
• Molecule 25: eL21 (yeast L21)

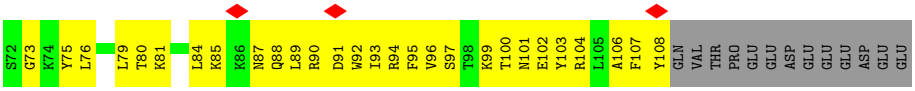
Chain Y:



• Molecule 26: eL22 (yeast L22)

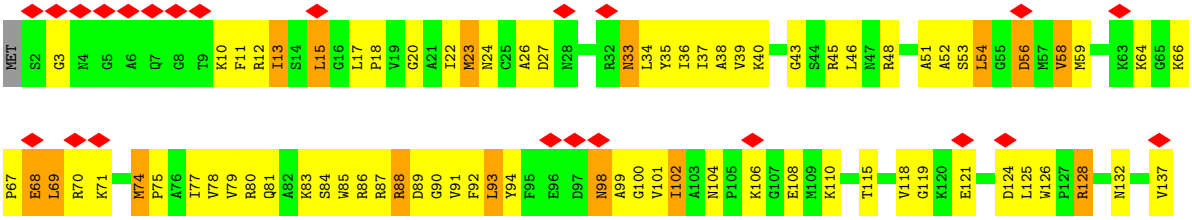
Chain Z:





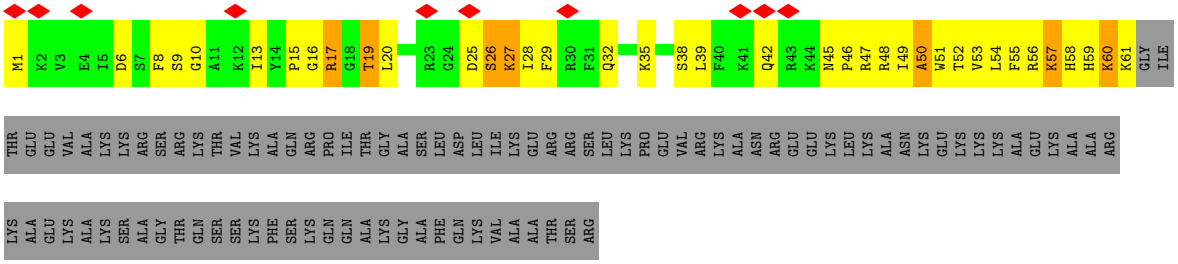
• Molecule 27: uL14 (yeast L23)

Chain AA:



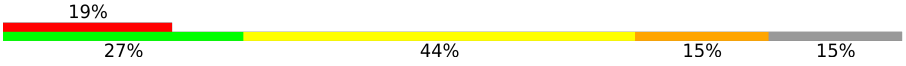
• Molecule 28: eL24 (yeast L24)

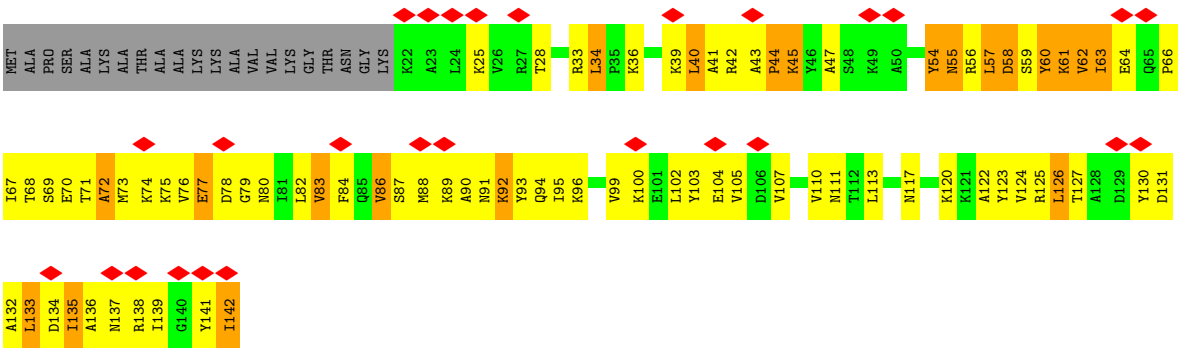
Chain BA:



• Molecule 29: uL23 (yeast L25)

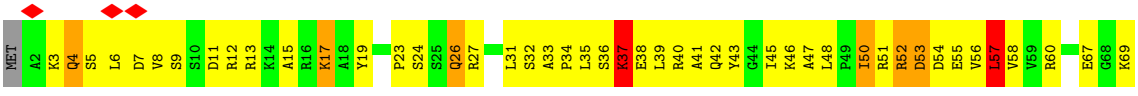
Chain CA:

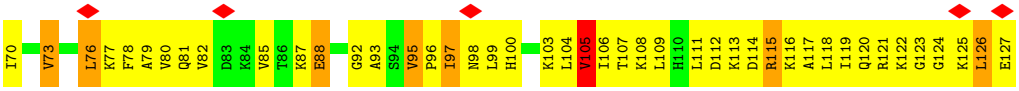




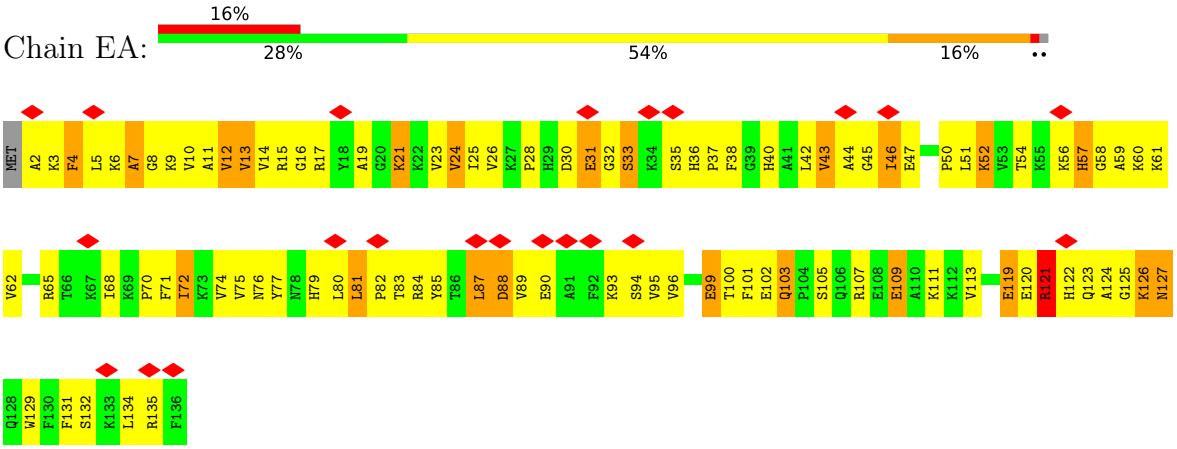
• Molecule 30: uL24 (yeast L26)

Chain DA:

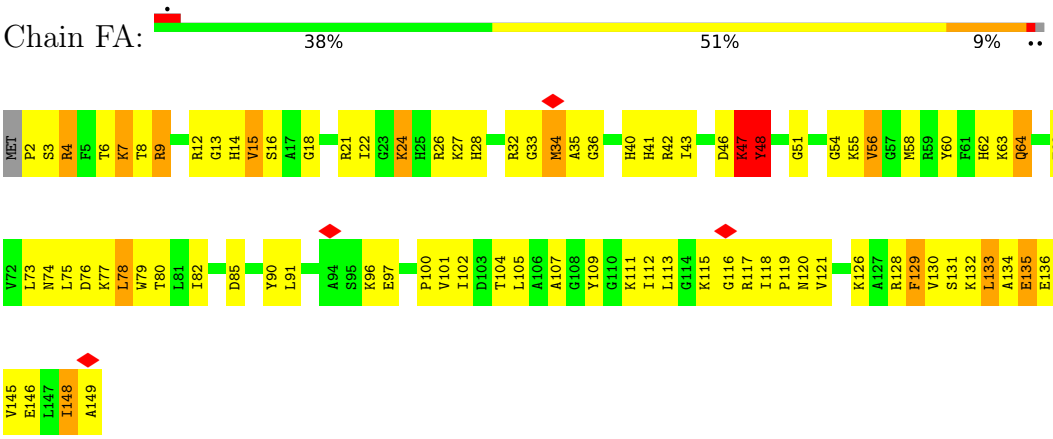




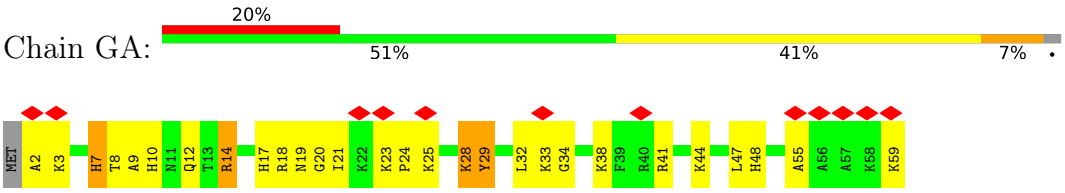
• Molecule 31: eL27 (yeast L27)



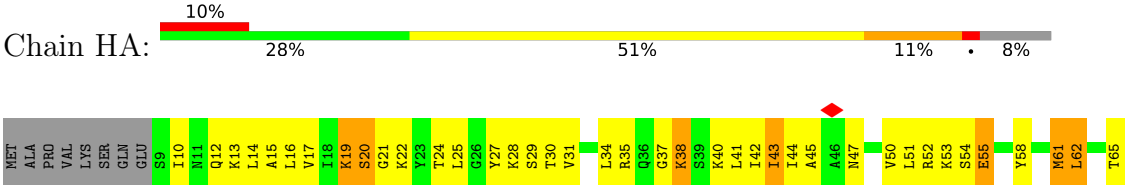
• Molecule 32: uL15 (yeast L28)

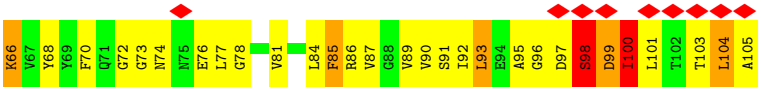


• Molecule 33: eL29 (yeast L29)



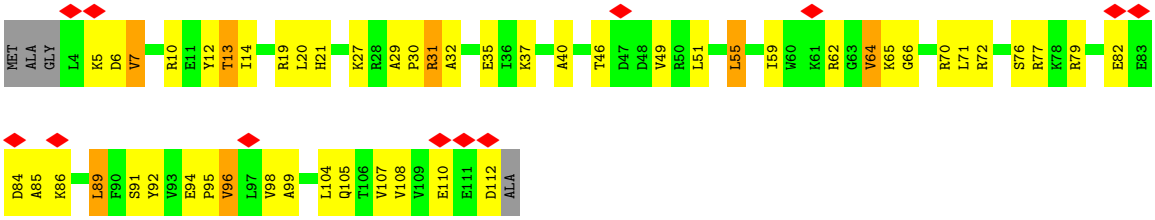
• Molecule 34: eL30 (yeast L30)





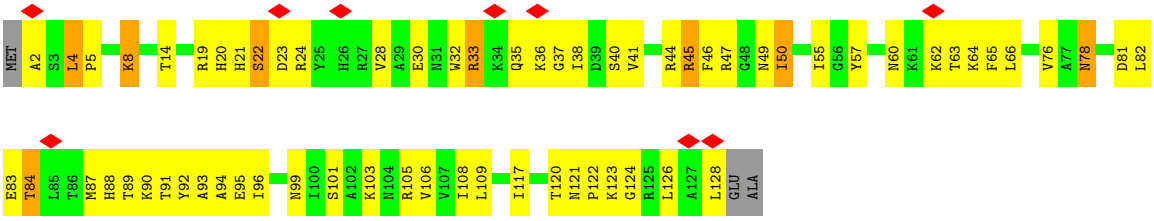
• Molecule 35: eL31 (yeast L31)

Chain IA:



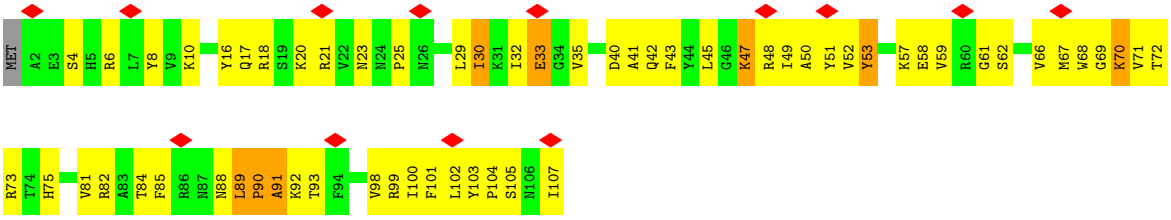
• Molecule 36: eL32 (yeast L32)

Chain JA:



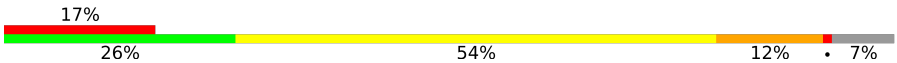
• Molecule 37: eL33 (yeast L33)

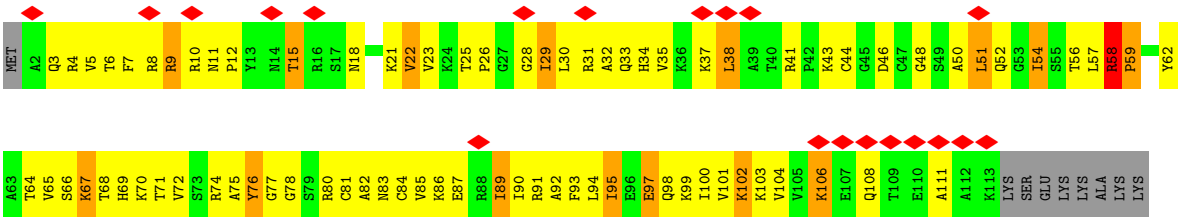
Chain KA:



• Molecule 38: eL34 (yeast L34)

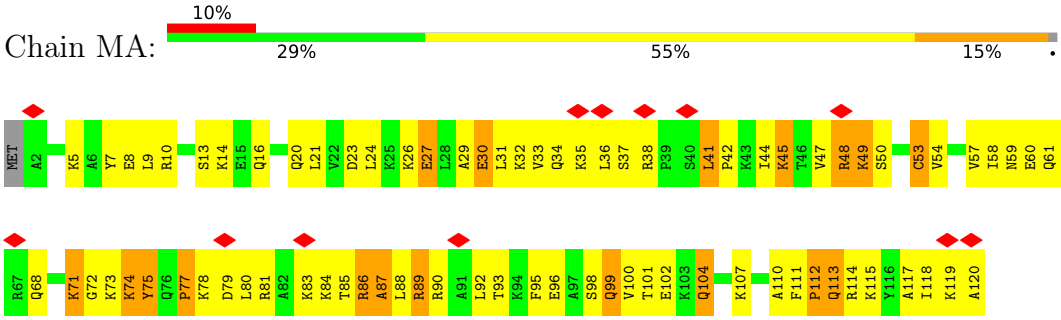
Chain LA:





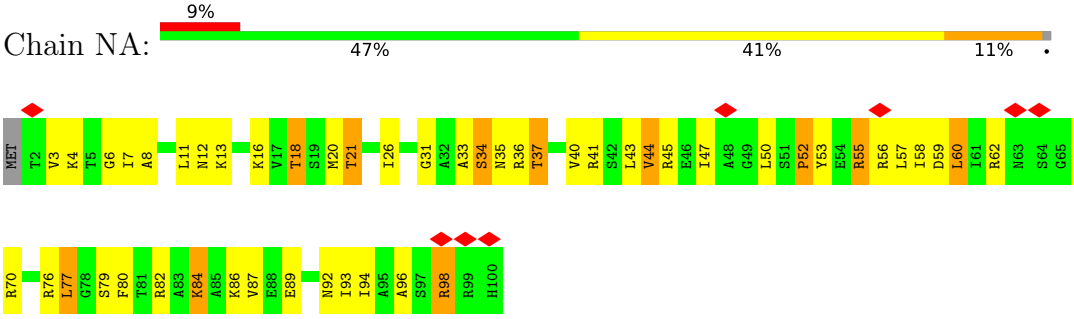
• Molecule 39: uL29 (yeast L35)

Chain MA:



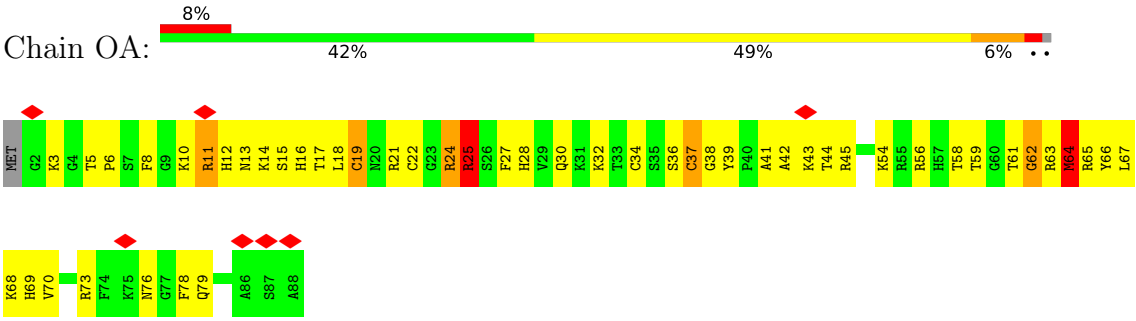
• Molecule 40: eL36 (yeast L36)

Chain NA:



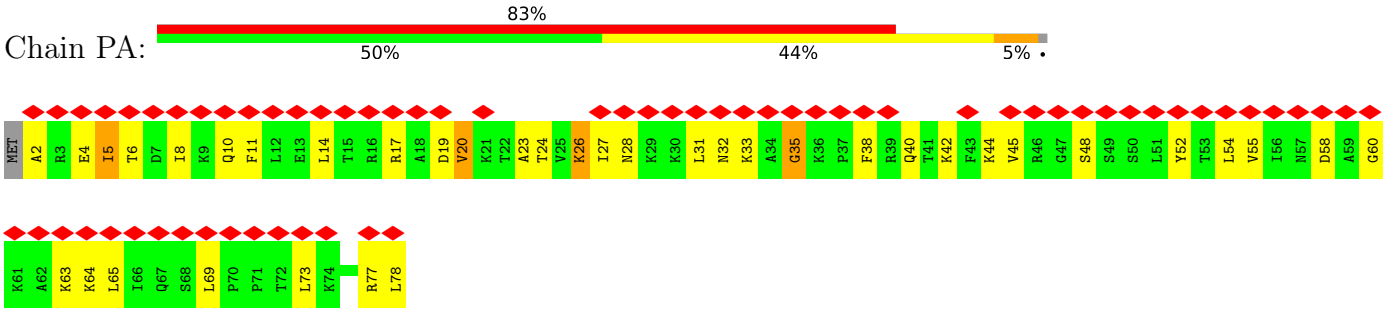
• Molecule 41: eL37 (yeast L37)

Chain OA:



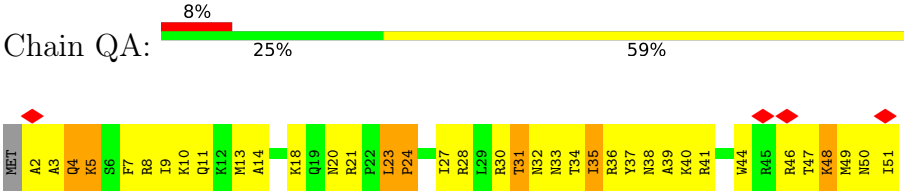
• Molecule 42: eL38 (yeast L38)

Chain PA:



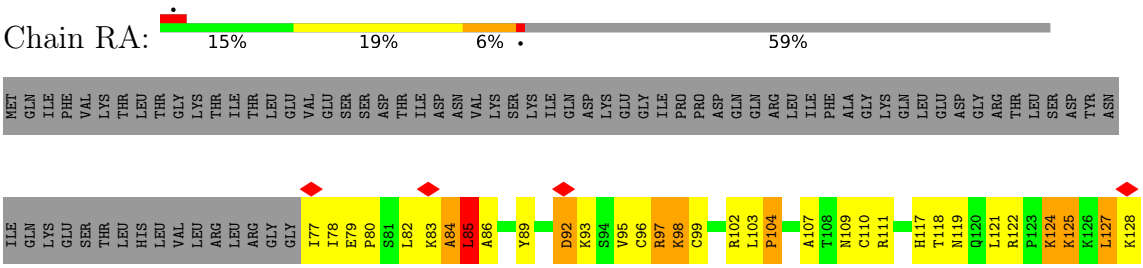
• Molecule 43: eL39 (yeast L39)

Chain QA:



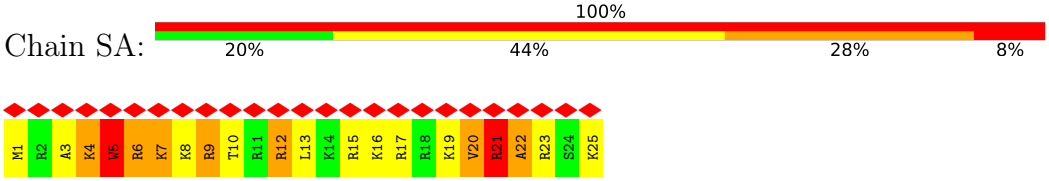
• Molecule 44: eL40 (yeast L40)

Chain RA:



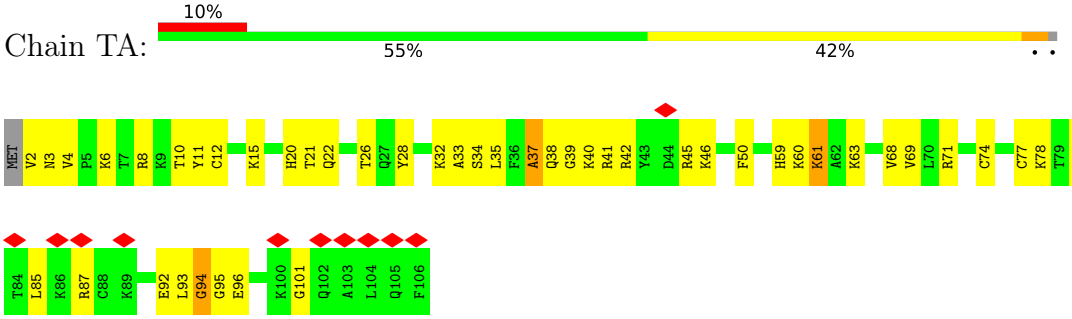
• Molecule 45: eL41 (yeast L41)

Chain SA:



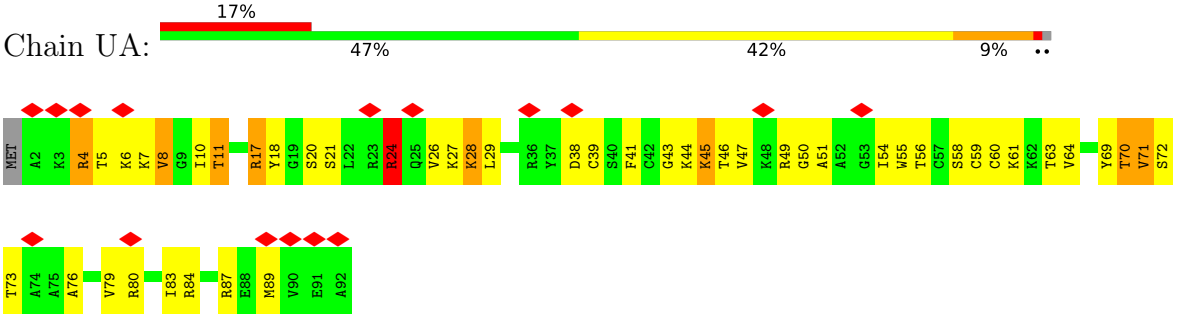
• Molecule 46: eL42 (yeast L42)

Chain TA:



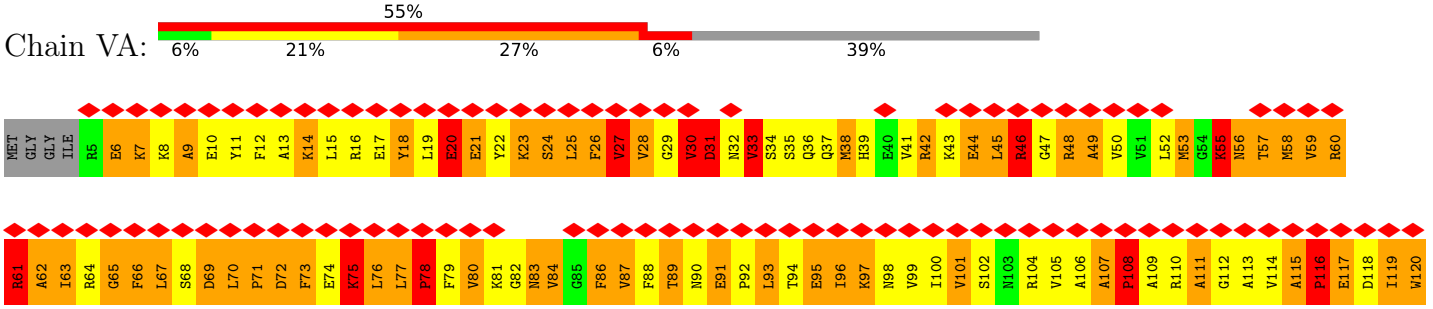
• Molecule 47: eL43 (yeast L43)

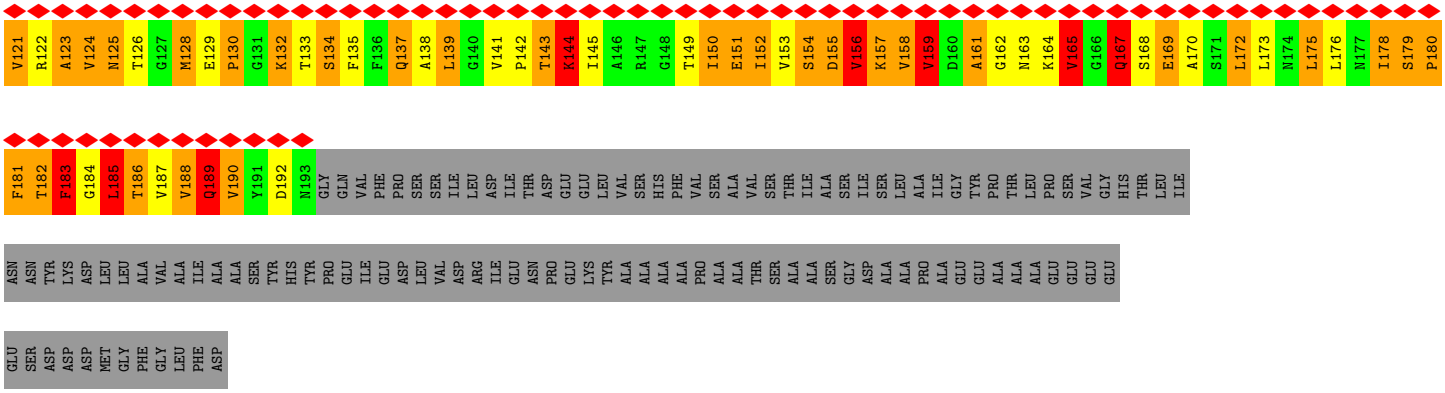
Chain UA:



• Molecule 48: uL10 (yeast P0)

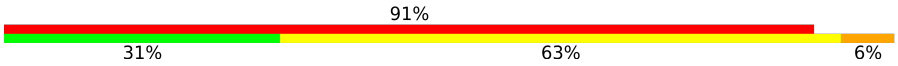
Chain VA:

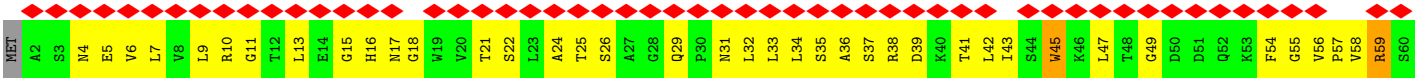


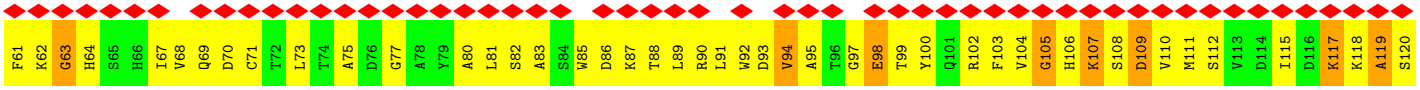


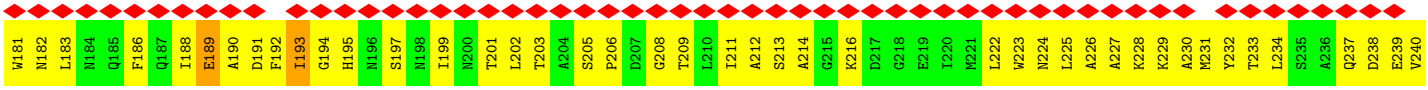
• Molecule 49: RACK1 (yeast Asc1)

Chain WA:



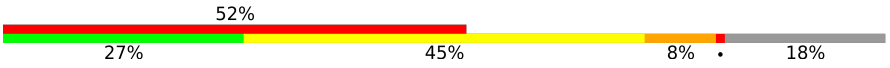


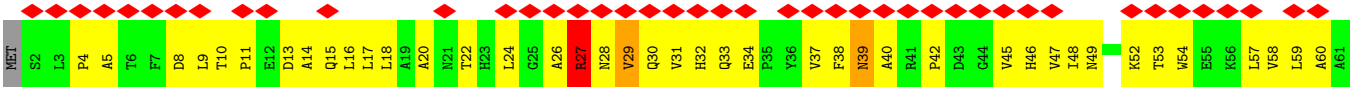


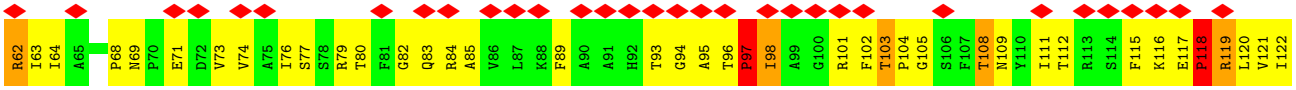


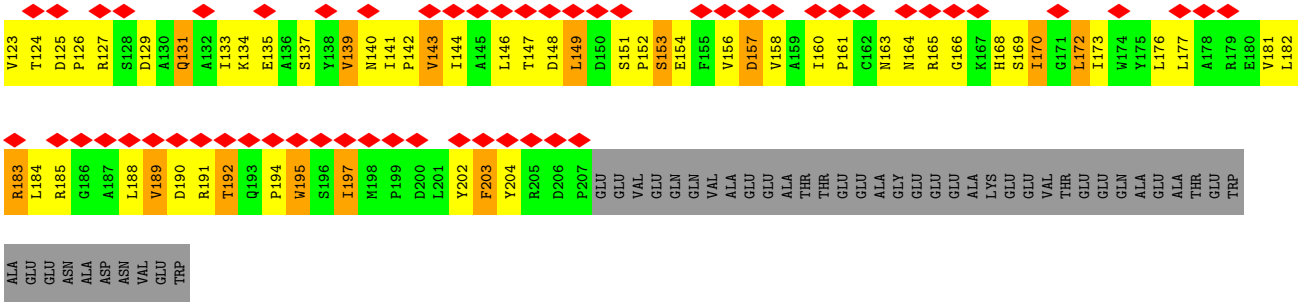
• Molecule 50: uS2 (yeast S0)

Chain XA:



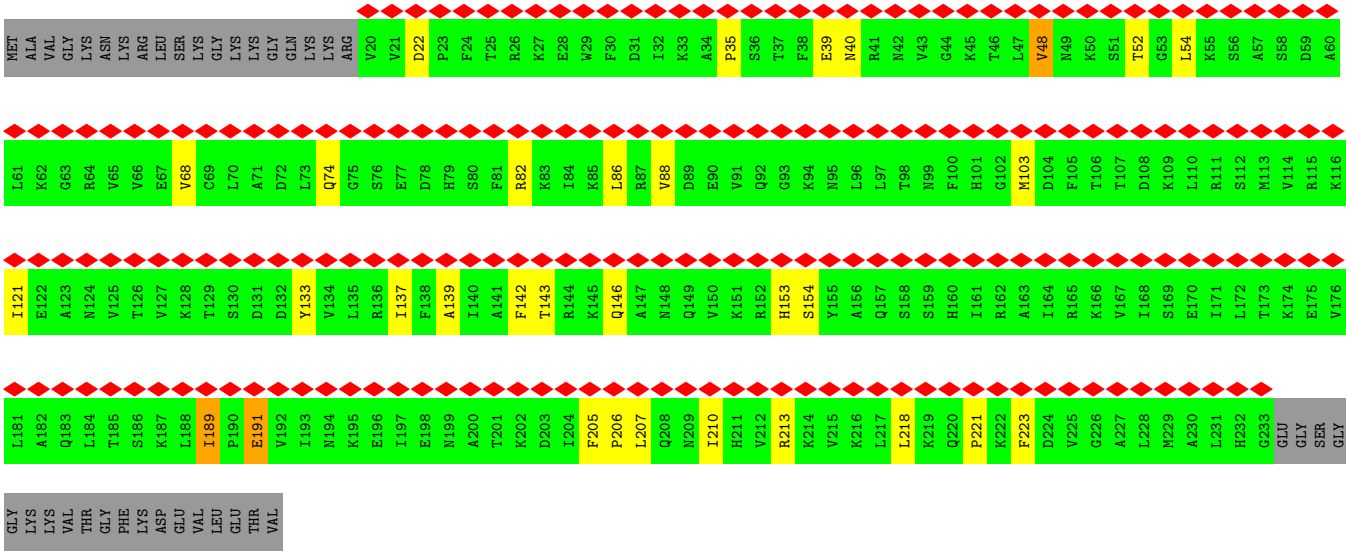






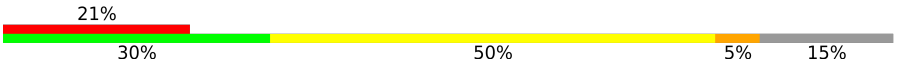
• Molecule 51: eS1 (yeast S1)

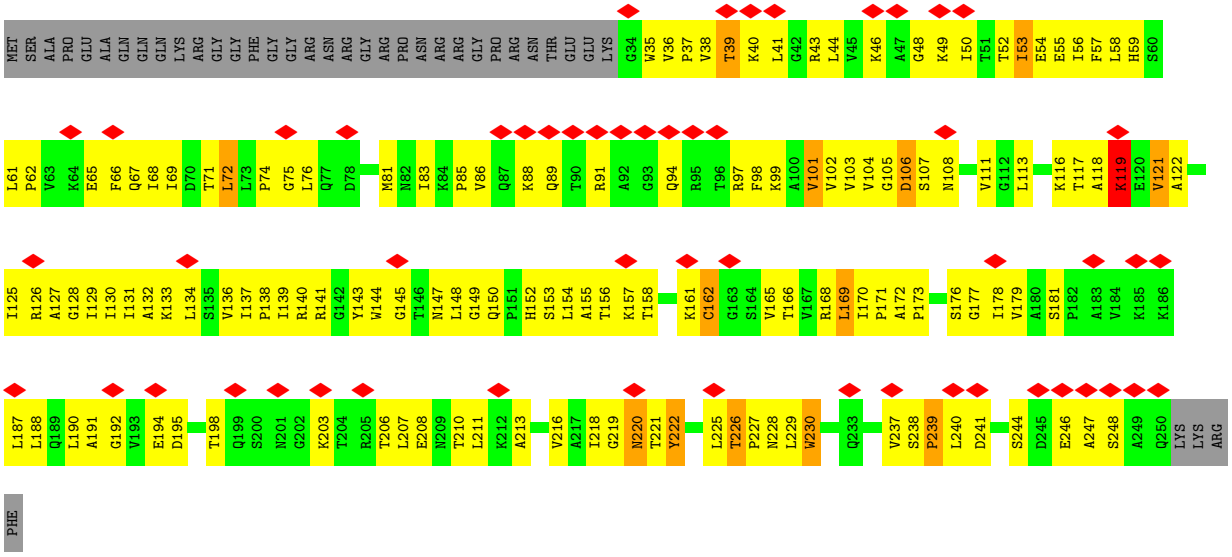
Chain YA:



• Molecule 52: uS5 (yeast S2)

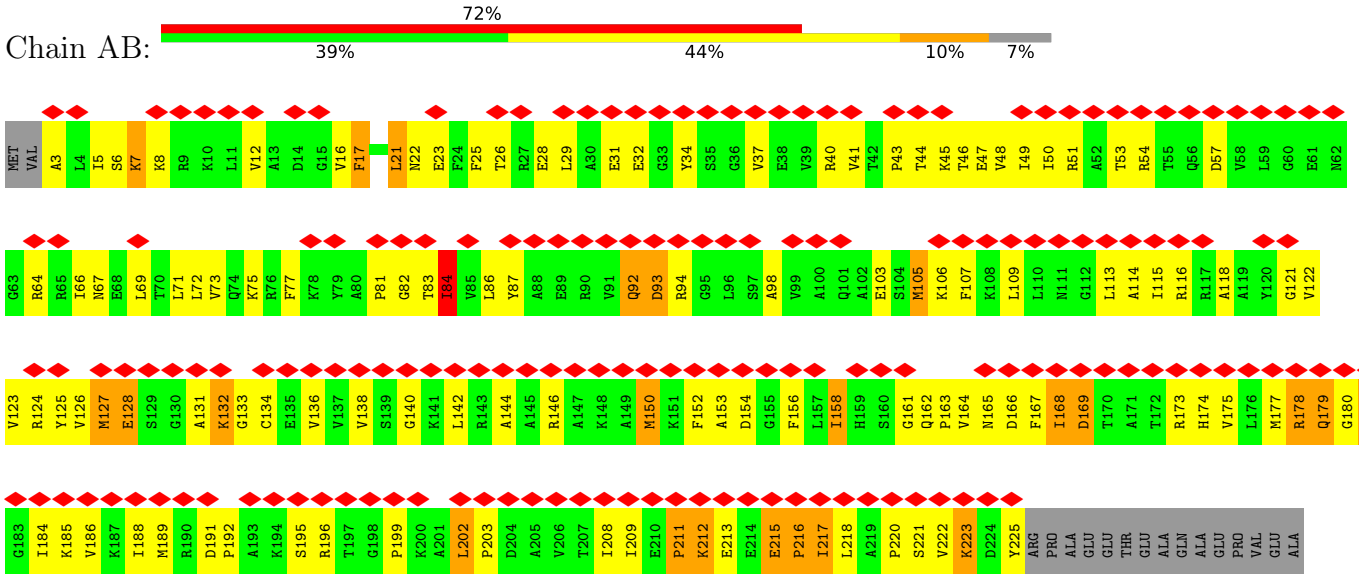
Chain ZA:





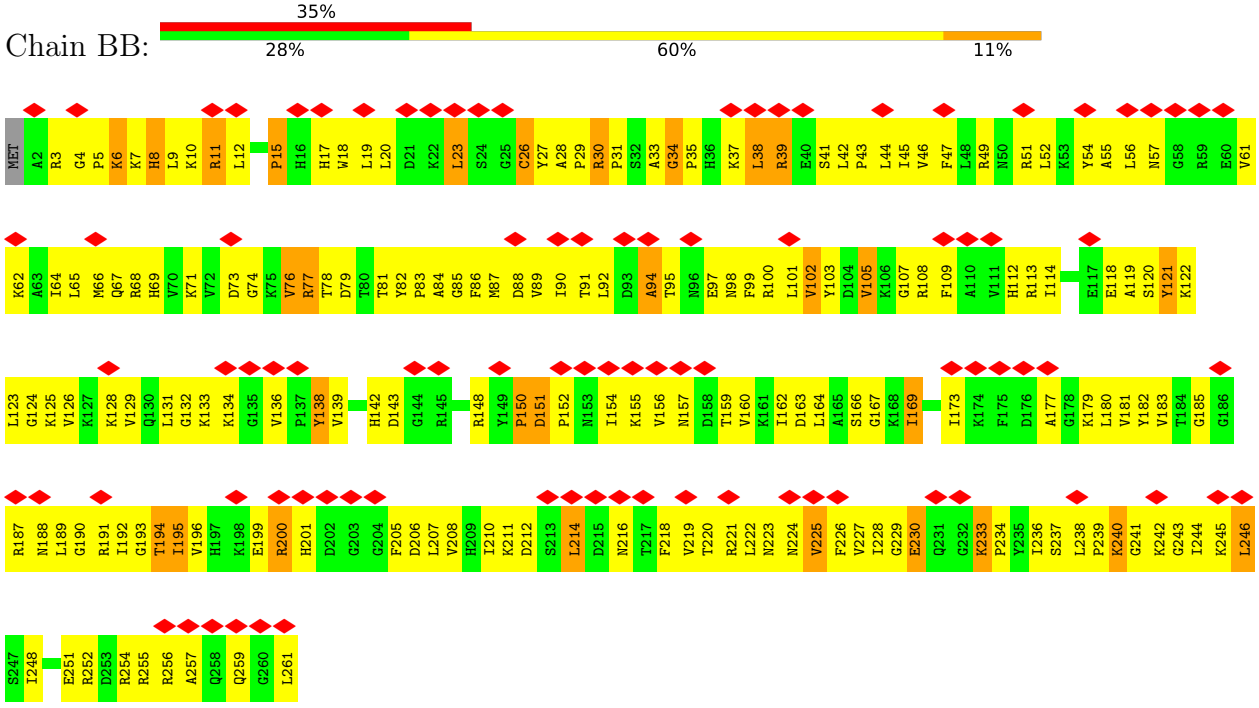
• Molecule 53: uS3 (yeast S3)

Chain AB:



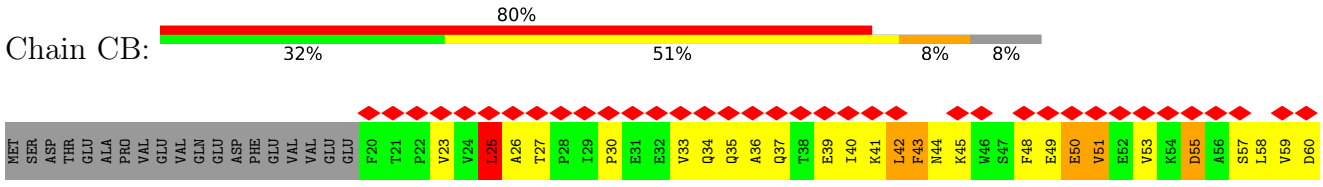
• Molecule 54: eS4 (yeast S4)

Chain BB:



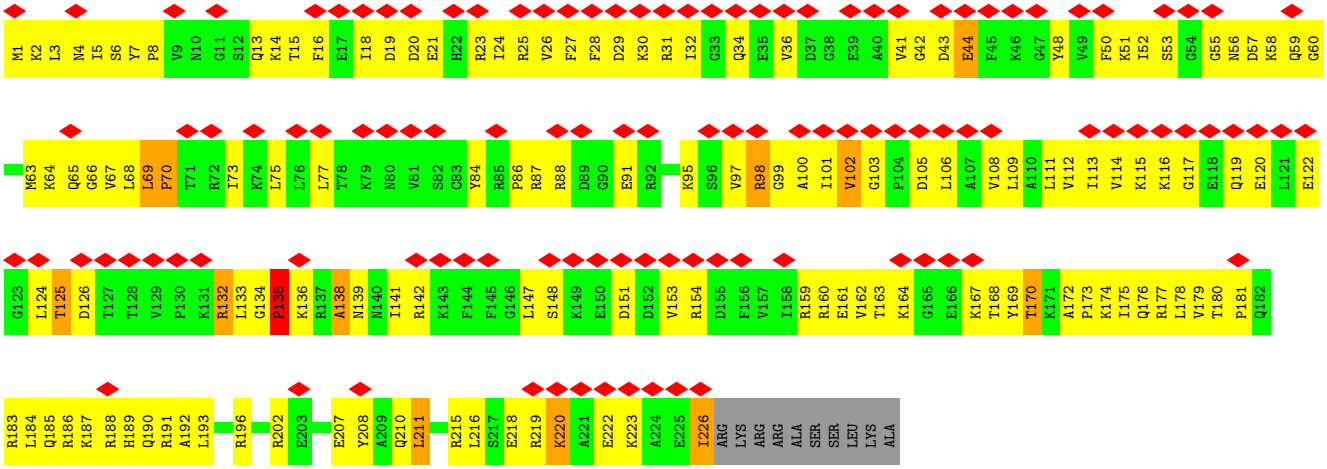
• Molecule 55: uS7 (yeast S5)

Chain CB:



• Molecule 56: eS6 (yeast S6)

Chain DB:

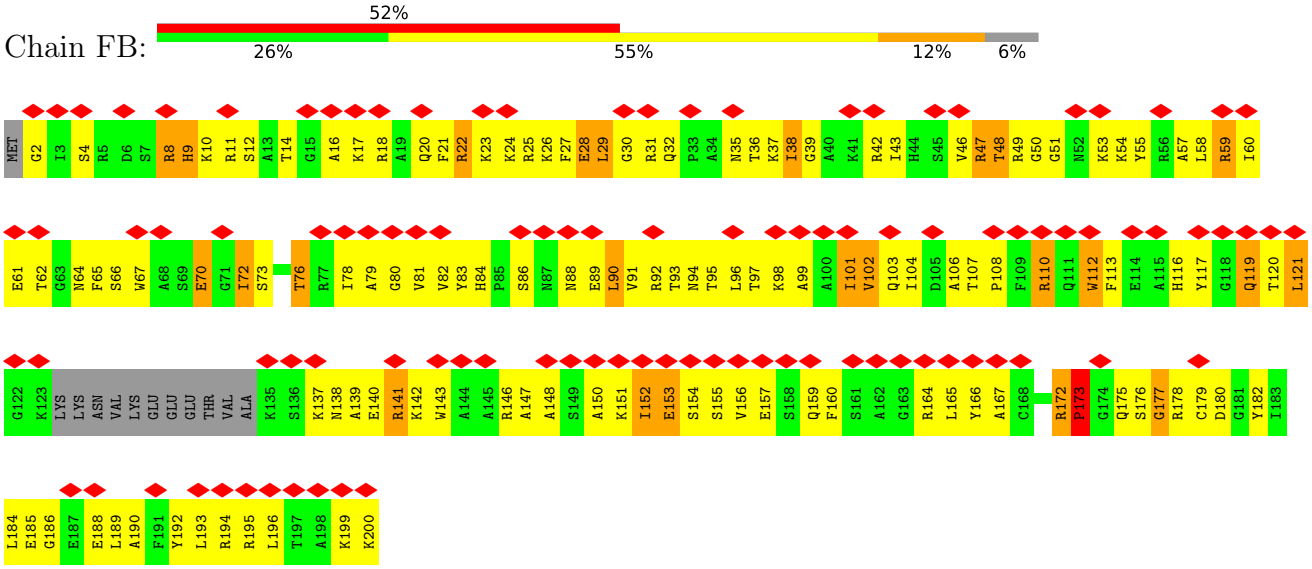


• Molecule 57: eS7 (yeast S7)

Chain EB:

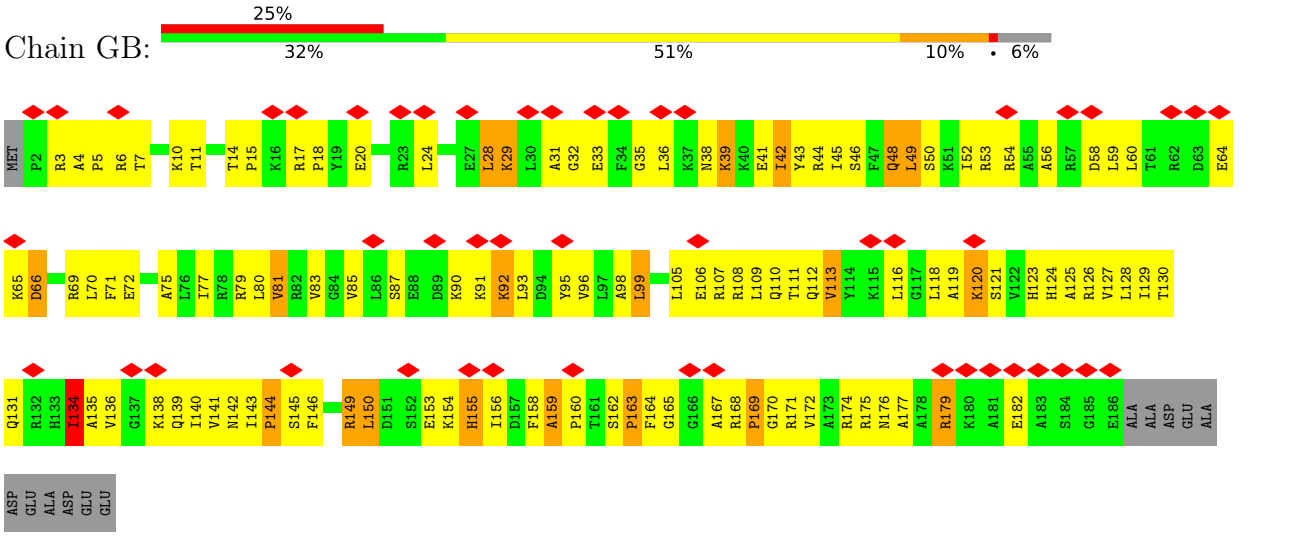
• Molecule 58: eS8 (yeast S8)

Chain FB:



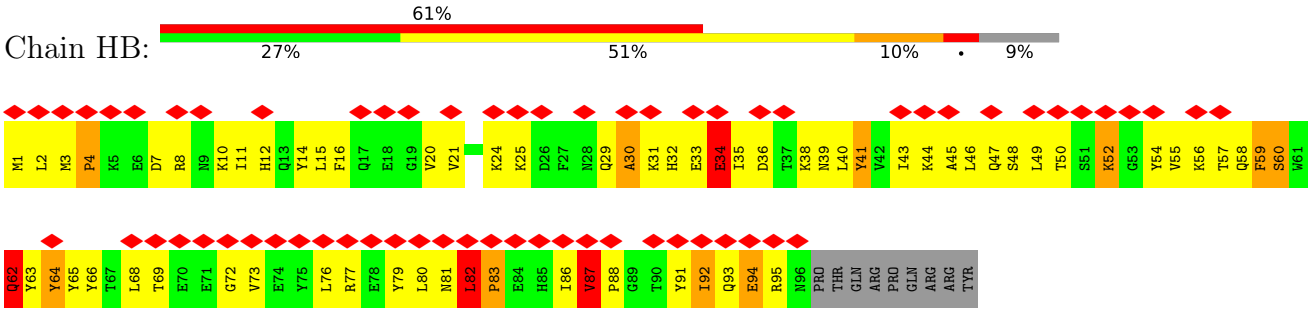
• Molecule 59: uS4 (yeast S9)

Chain GB:



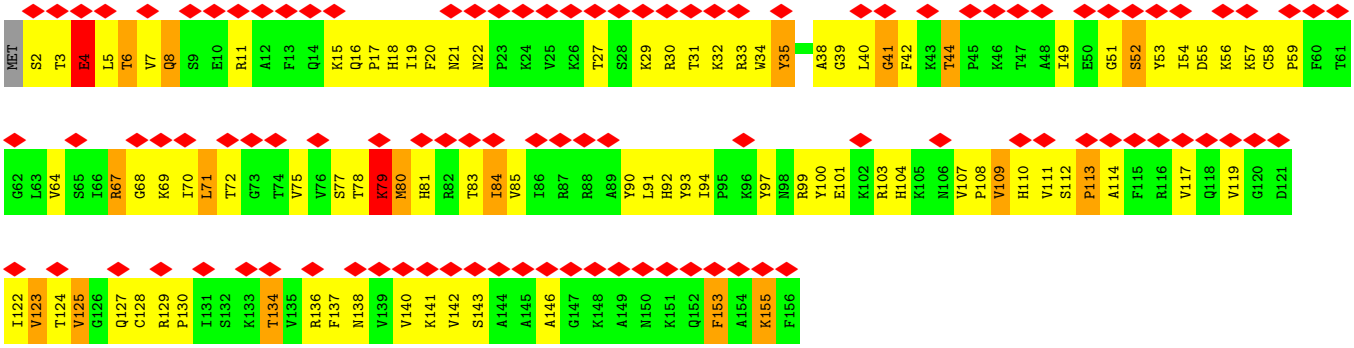
• Molecule 60: eS10 (yeast S10)

Chain HB:



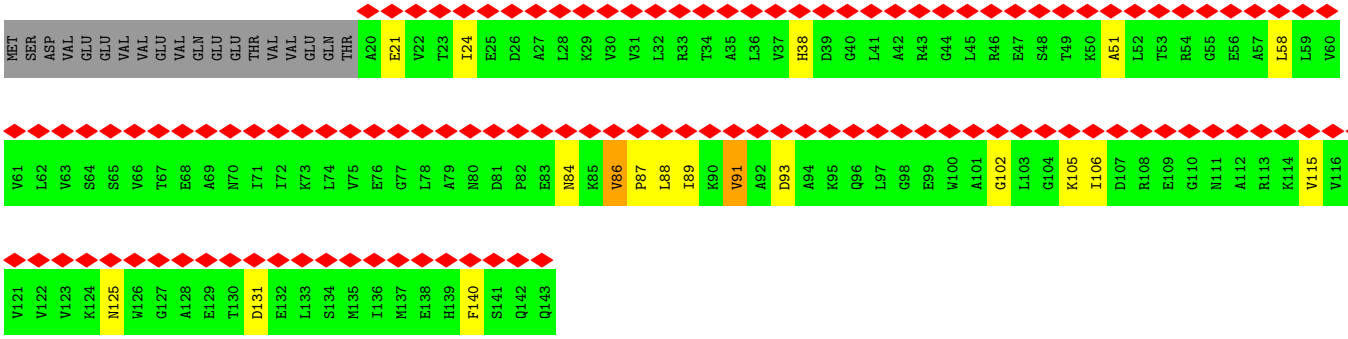
• Molecule 61: uS17 (yeast S11)

Chain IB:



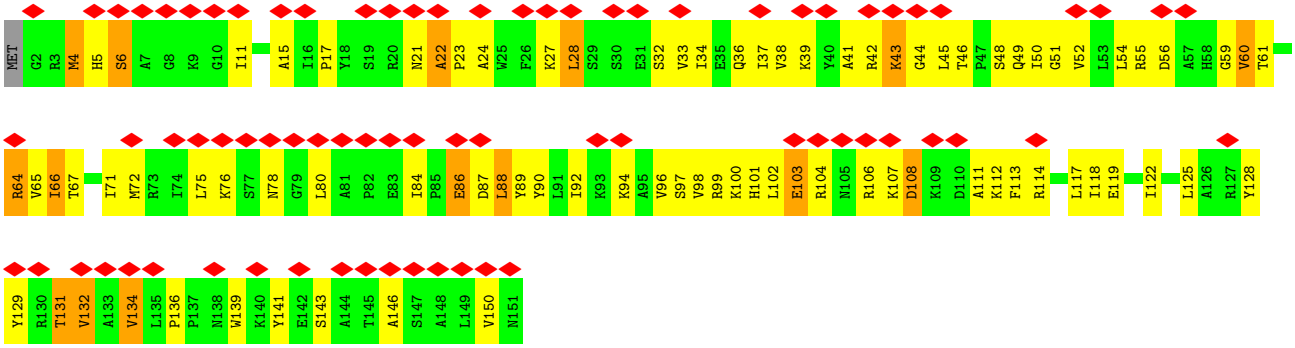
• Molecule 62: eS12 (yeast S12)

Chain JB:



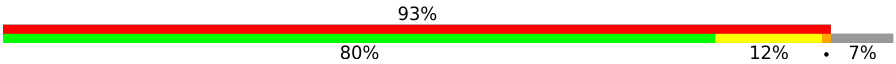
• Molecule 63: uS15 (yeast S13)

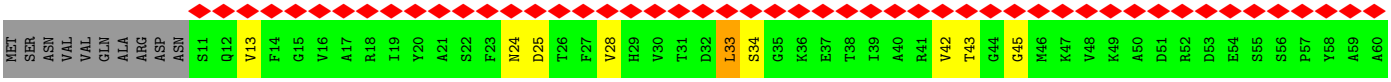
Chain KB:



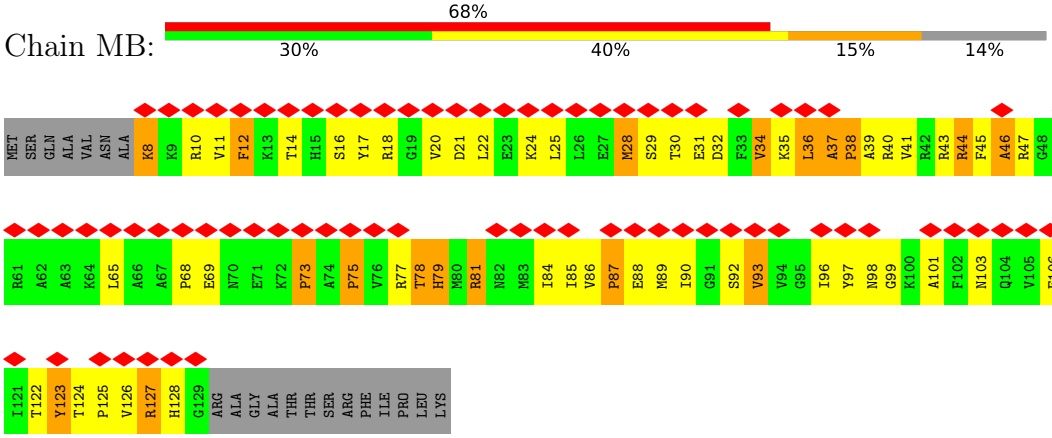
• Molecule 64: uS11 (yeast S14)

Chain LB:

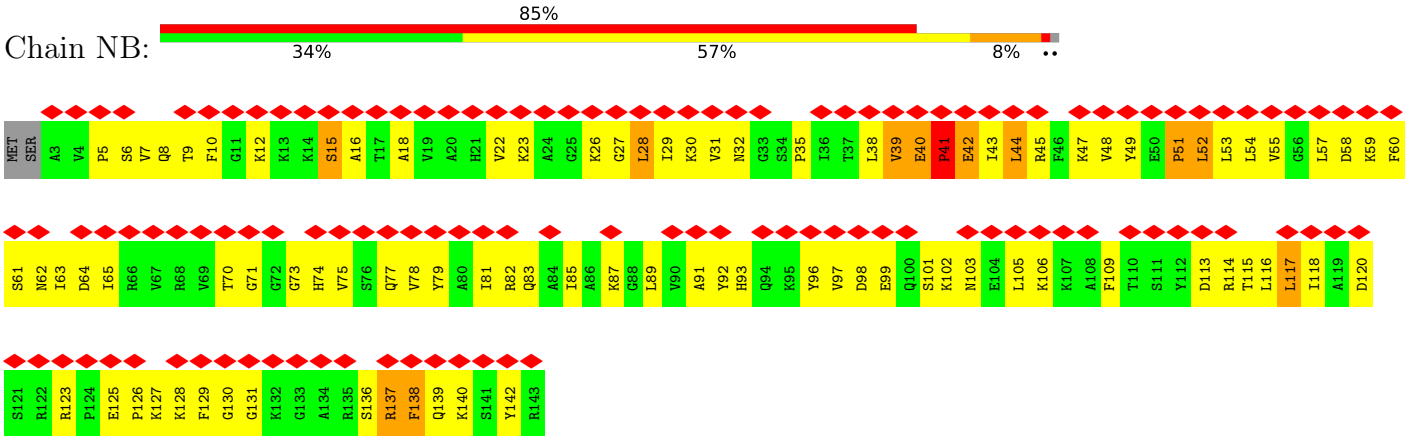




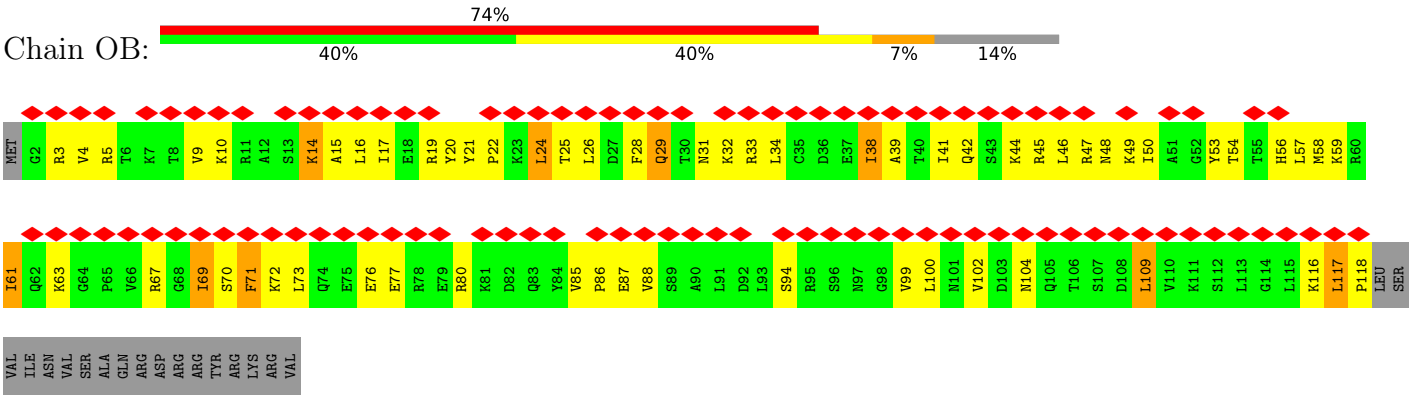
• Molecule 65: uS19 (yeast S15)



• Molecule 66: uS9 (yeast S16)

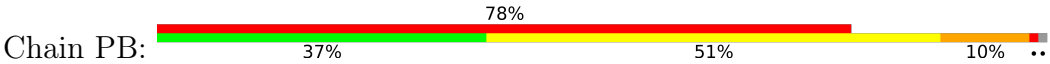


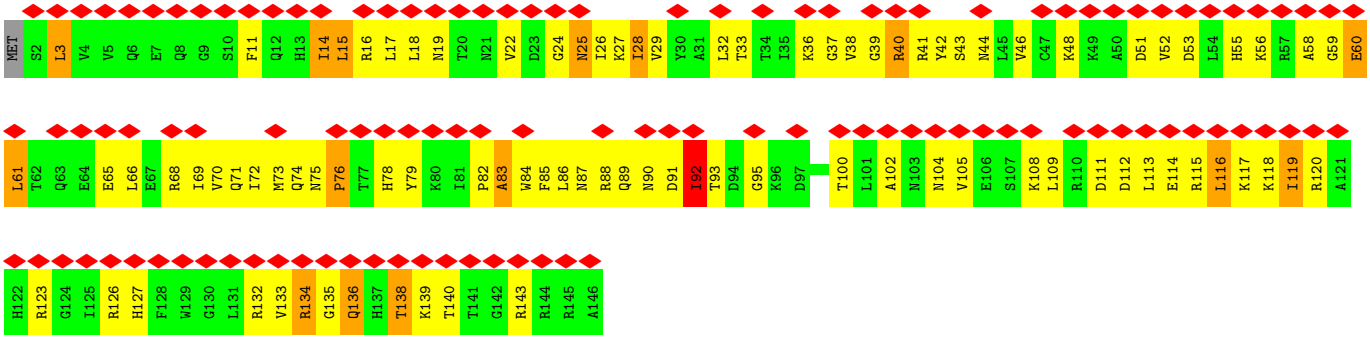
• Molecule 67: eS17 (yeast S17)



• Molecule 68: uS13 (yeast S18)

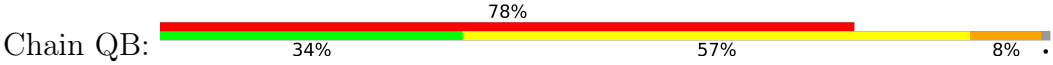
Chain PB:

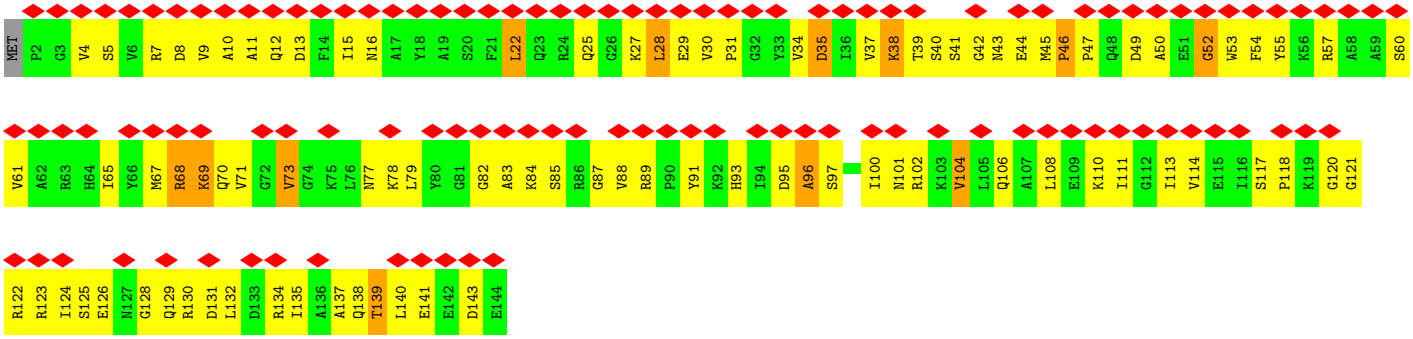




• Molecule 69: eS19 (yeast S19)

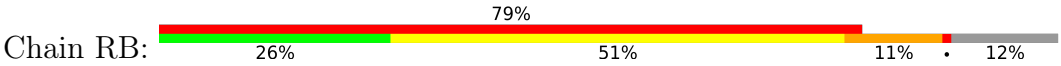
Chain QB:

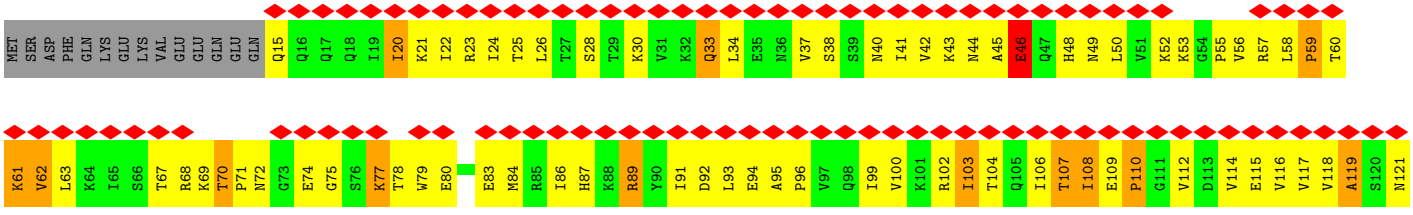




• Molecule 70: uS10 (yeast S20)

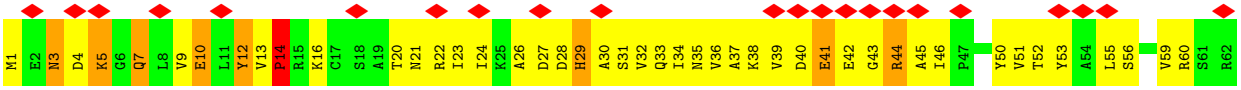
Chain RB:

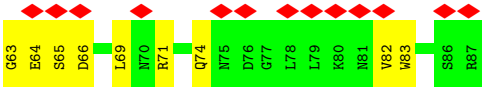




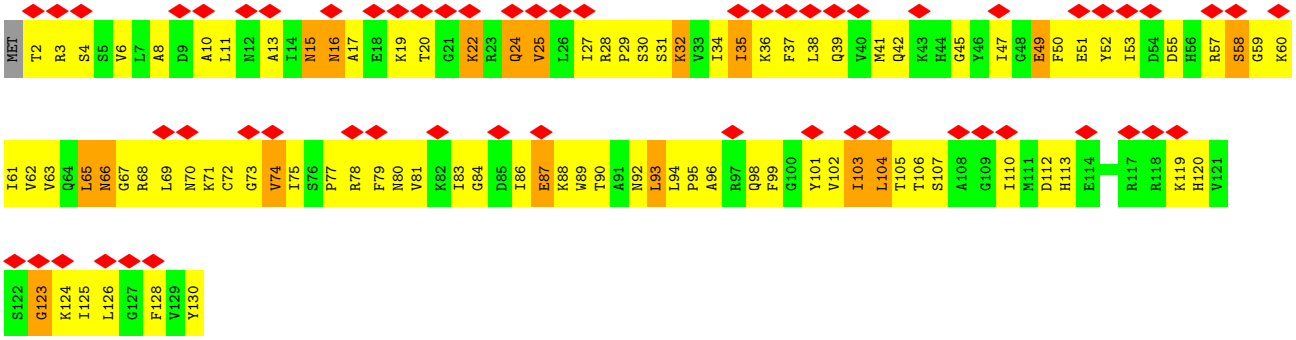
• Molecule 71: eS21 (yeast S21)

Chain SB:

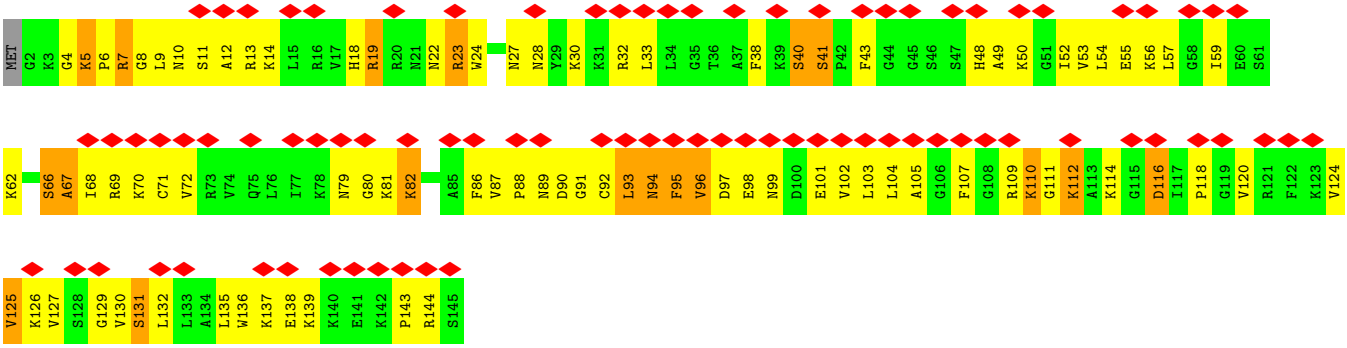




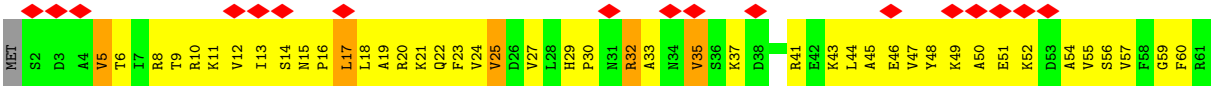
• Molecule 72: uS8 (yeast S22)

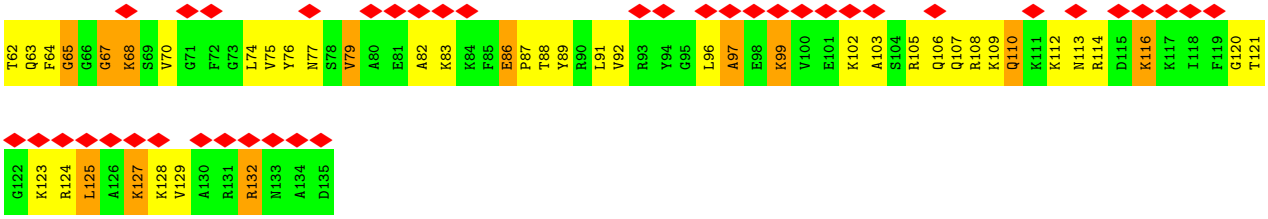


• Molecule 73: uS12 (yeast S23)



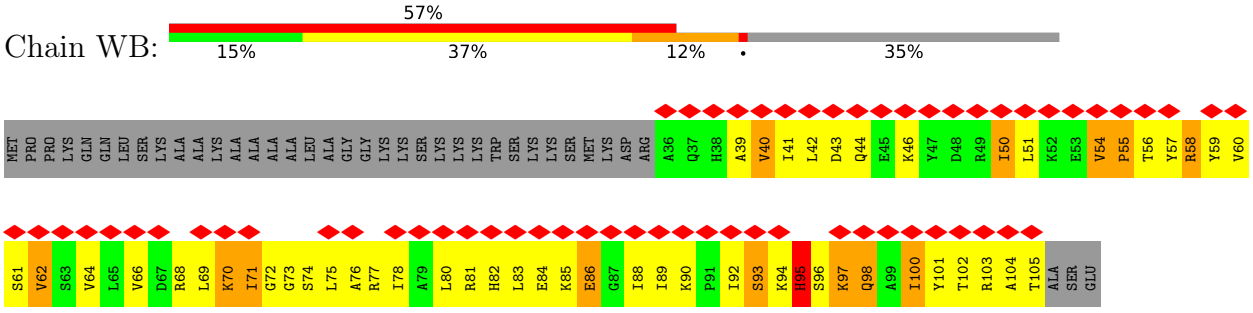
• Molecule 74: eS24 (yeast S24)





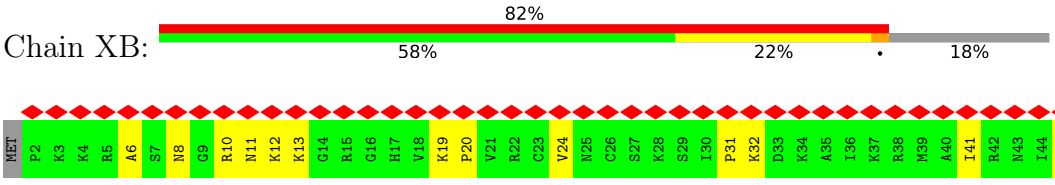
• Molecule 75: eS25 (yeast S25)

Chain WB:



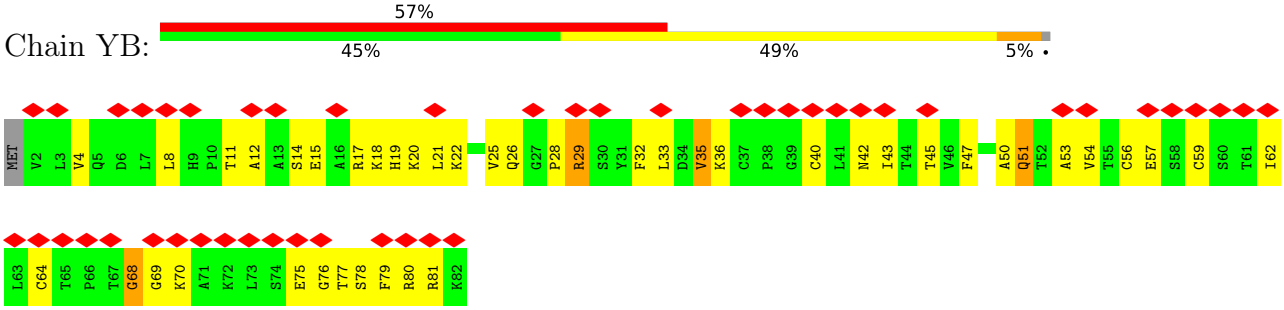
• Molecule 76: eS26 (yeast S26)

Chain XB:



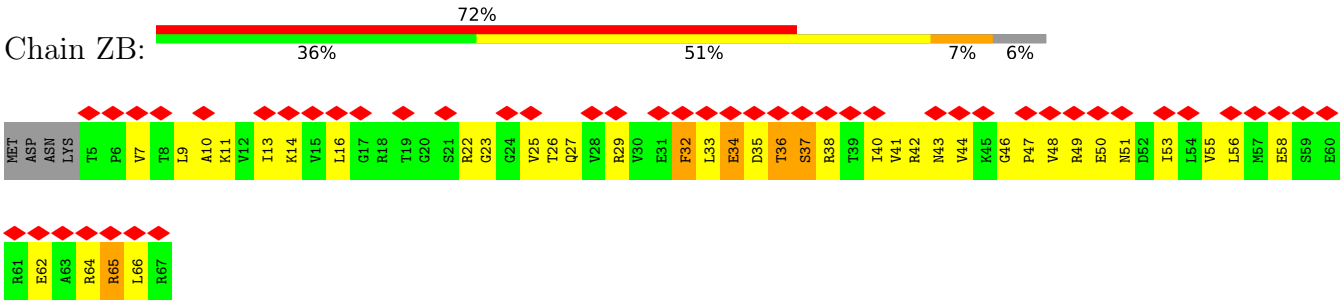
• Molecule 77: eS27 (yeast S27)

Chain YB:



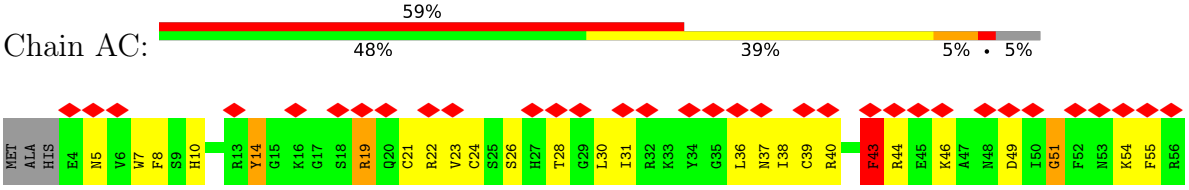
• Molecule 78: eS28 (yeast S28)

Chain ZB:



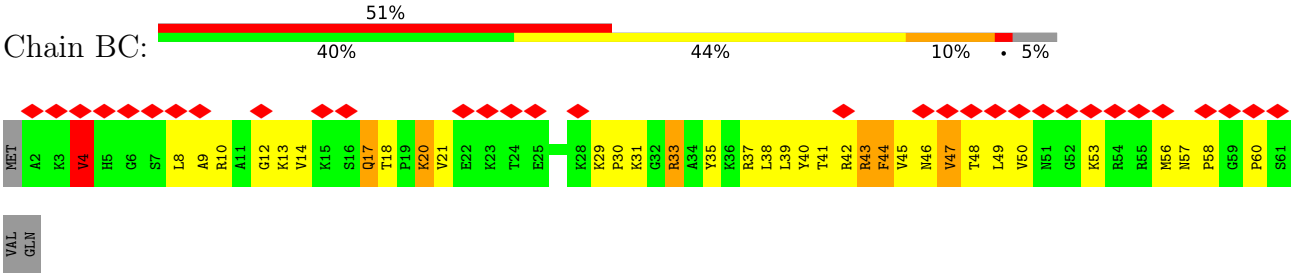
• Molecule 79: uS14 (yeast S29)

Chain AC:



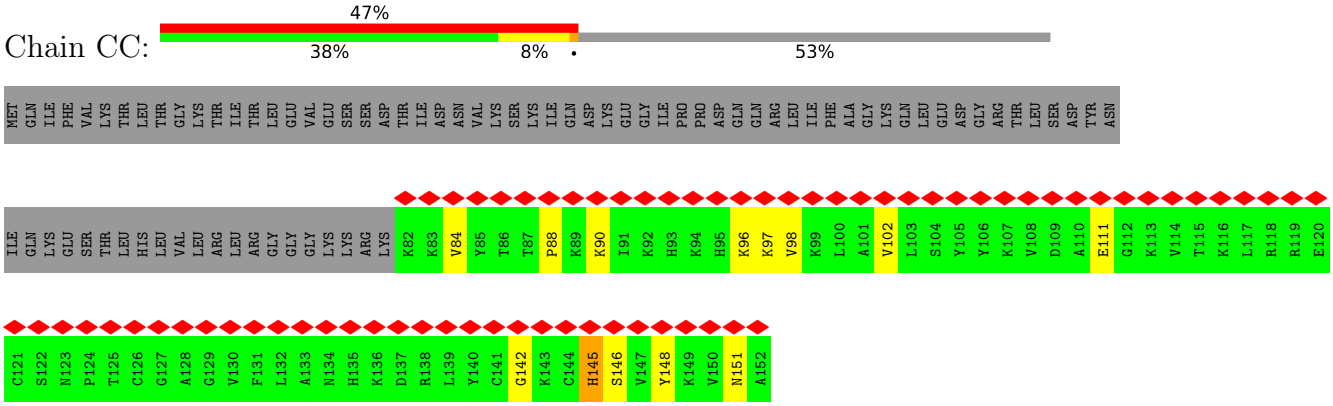
• Molecule 80: eS30 (yeast S30)

Chain BC:



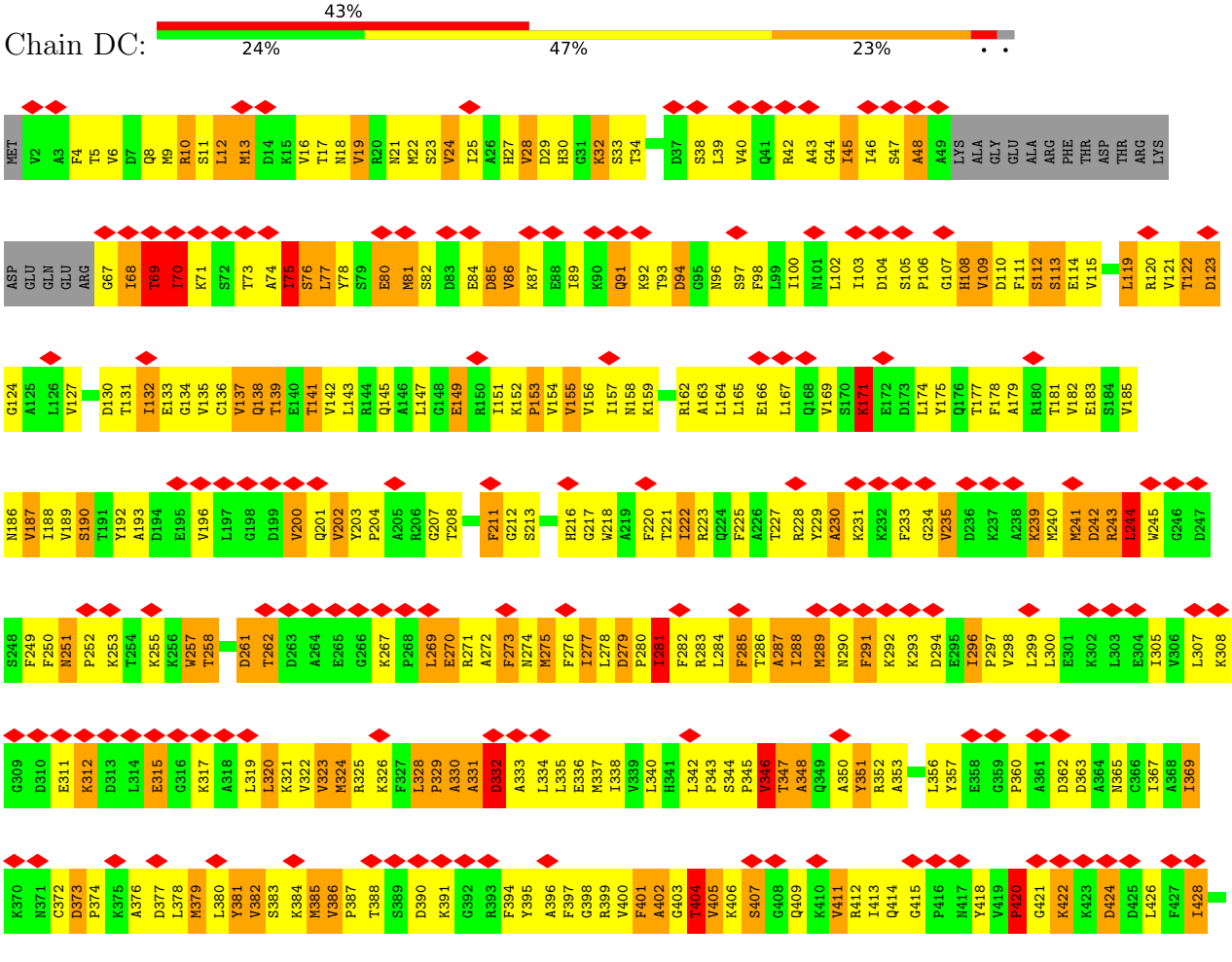
- Molecule 81: eS31 (yeast S31)

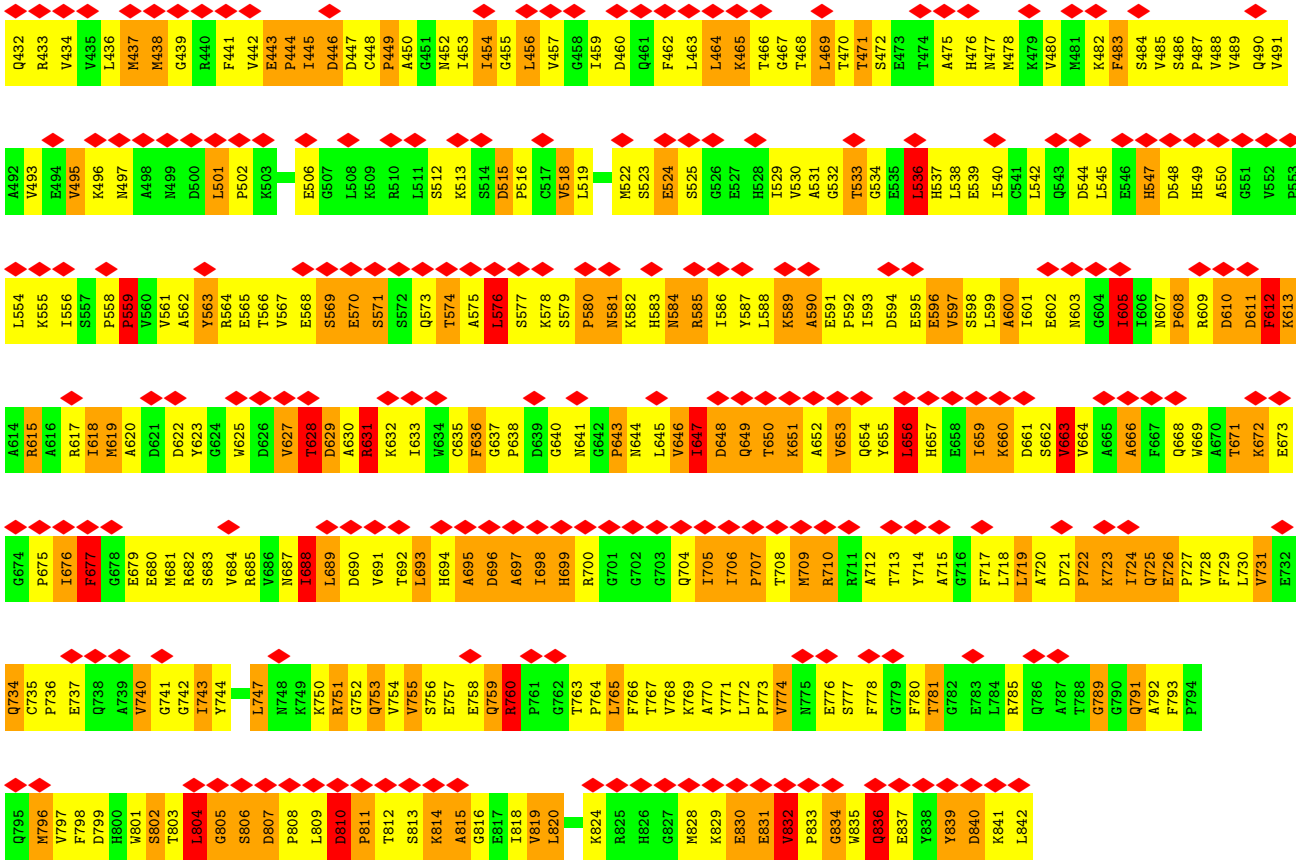
Chain CC:



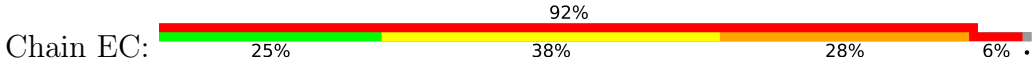
- Molecule 82: yeast eEF2

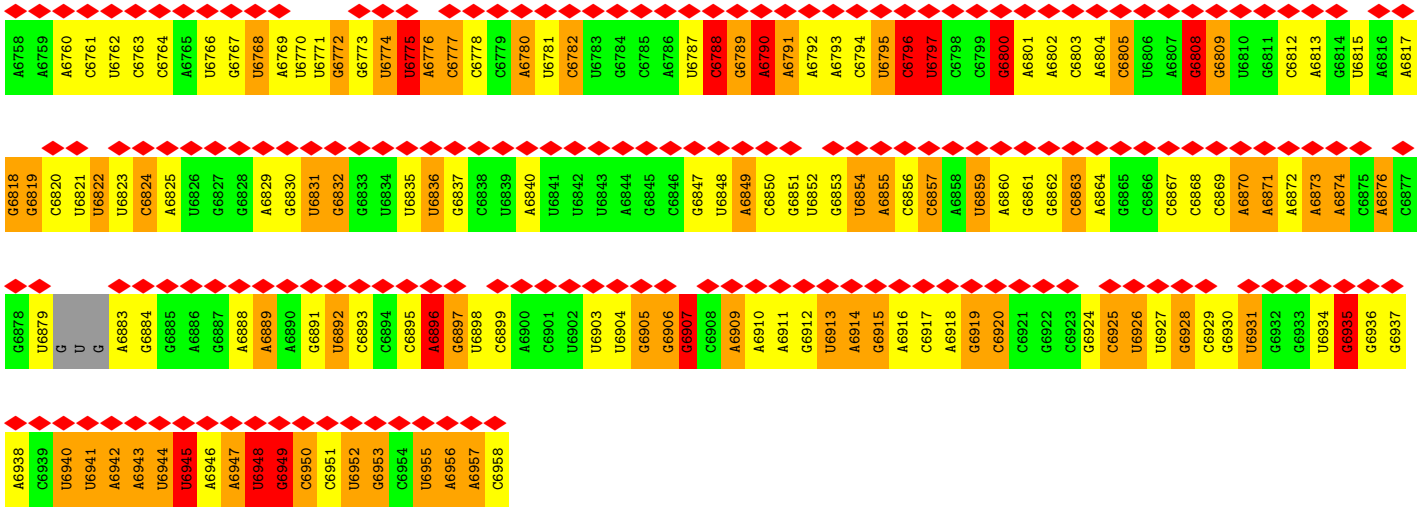
Chain DC:





• Molecule 83: IRES





4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	59570	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	1.4	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.073	Depositor
Minimum map value	-0.027	Depositor
Average map value	-0.002	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.02	Depositor
Map size (Å)	419.84, 419.84, 419.84	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.82, 0.82, 0.82	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: GDP, MG, DDE, SO1

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	A	0.72	0/41014	0.65	33/63809 (0.1%)
2	B	0.66	0/78631	0.65	35/122552 (0.0%)
3	C	0.65	0/3747	0.63	0/5832
4	D	0.65	0/2884	0.59	0/4491
5	E	2.89	181/1377 (13.1%)	1.25	8/1844 (0.4%)
6	F	1.21	5/1952 (0.3%)	1.00	5/2622 (0.2%)
7	G	1.07	2/3153 (0.1%)	0.88	5/4239 (0.1%)
8	H	1.22	6/2802 (0.2%)	1.02	11/3792 (0.3%)
9	I	1.14	1/2426 (0.0%)	1.00	8/3271 (0.2%)
10	J	1.35	3/1425 (0.2%)	1.03	7/1912 (0.4%)
11	K	1.21	1/1822 (0.1%)	1.05	7/2451 (0.3%)
12	L	1.19	3/1850 (0.2%)	1.00	7/2495 (0.3%)
13	M	1.21	2/1540 (0.1%)	0.94	2/2073 (0.1%)
14	N	1.30	3/1754 (0.2%)	0.90	2/2350 (0.1%)
15	O	1.09	0/1375	0.90	2/1842 (0.1%)
16	P	3.02	97/728 (13.3%)	1.35	10/975 (1.0%)
17	Q	1.21	2/1568 (0.1%)	1.02	6/2106 (0.3%)
18	R	1.33	1/1069 (0.1%)	1.03	5/1438 (0.3%)
19	S	1.13	2/1758 (0.1%)	1.03	15/2354 (0.6%)
20	T	1.10	2/1586 (0.1%)	1.04	9/2128 (0.4%)
21	U	1.16	6/1466 (0.4%)	0.93	7/1968 (0.4%)
22	V	1.19	1/1466 (0.1%)	1.00	4/1965 (0.2%)
23	W	1.13	1/1539 (0.1%)	1.13	11/2050 (0.5%)
24	X	1.27	1/1482 (0.1%)	1.06	10/1990 (0.5%)
25	Y	1.28	3/1301 (0.2%)	0.91	3/1743 (0.2%)
26	Z	1.08	2/812 (0.2%)	0.83	3/1099 (0.3%)
27	AA	1.17	0/1019	0.91	1/1369 (0.1%)
28	BA	1.26	0/521	0.90	0/691
29	CA	1.26	0/984	1.00	7/1325 (0.5%)
30	DA	1.31	4/1005 (0.4%)	1.04	5/1341 (0.4%)
31	EA	1.13	0/1119	0.94	2/1497 (0.1%)
32	FA	1.11	1/1205 (0.1%)	0.96	3/1612 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
33	GA	1.15	0/474	0.98	2/629 (0.3%)
34	HA	1.04	0/751	0.95	2/1008 (0.2%)
35	IA	1.06	0/904	0.88	2/1213 (0.2%)
36	JA	1.23	1/1041 (0.1%)	0.94	2/1394 (0.1%)
37	KA	1.06	0/869	1.00	5/1168 (0.4%)
38	LA	1.19	2/891 (0.2%)	1.06	7/1191 (0.6%)
39	MA	1.22	2/979 (0.2%)	0.98	1/1301 (0.1%)
40	NA	1.23	0/779	1.05	2/1034 (0.2%)
41	OA	1.27	3/697 (0.4%)	1.01	1/923 (0.1%)
42	PA	1.29	0/619	0.87	0/826
43	QA	1.16	1/444 (0.2%)	1.05	0/588
44	RA	1.30	1/424 (0.2%)	0.97	4/562 (0.7%)
45	SA	2.26	13/235 (5.5%)	1.32	2/300 (0.7%)
46	TA	1.21	0/861	0.87	1/1136 (0.1%)
47	UA	1.18	0/702	1.03	2/934 (0.2%)
48	VA	2.58	130/1498 (8.7%)	1.61	26/2025 (1.3%)
49	WA	1.43	5/2498 (0.2%)	0.84	3/3398 (0.1%)
50	XA	1.00	0/1653	0.96	9/2261 (0.4%)
51	YA	2.23	18/855 (2.1%)	1.13	4/1067 (0.4%)
52	ZA	1.05	0/1665	0.93	7/2263 (0.3%)
53	AB	1.33	2/1759 (0.1%)	0.90	3/2368 (0.1%)
54	BB	1.24	4/2110 (0.2%)	0.93	7/2839 (0.2%)
55	CB	1.37	1/1630 (0.1%)	0.99	8/2202 (0.4%)
56	DB	1.28	3/1844 (0.2%)	0.94	6/2464 (0.2%)
57	EB	1.39	3/1506 (0.2%)	0.95	3/2028 (0.1%)
58	FB	1.37	3/1515 (0.2%)	0.99	7/2021 (0.3%)
59	GB	1.06	0/1519	1.04	10/2035 (0.5%)
60	HB	1.46	5/837 (0.6%)	0.92	3/1131 (0.3%)
61	IB	1.42	3/1273 (0.2%)	0.90	4/1712 (0.2%)
62	JB	2.13	7/495 (1.4%)	1.21	3/617 (0.5%)
63	KB	1.33	1/1216 (0.1%)	1.00	3/1638 (0.2%)
64	LB	2.06	5/507 (1.0%)	1.12	0/632
65	MB	1.49	3/996 (0.3%)	1.00	4/1335 (0.3%)
66	NB	1.38	0/1126	0.92	0/1510
67	OB	1.17	0/844	1.40	12/1120 (1.1%)
68	PB	1.38	3/1212 (0.2%)	0.89	0/1628
69	QB	1.33	2/1131 (0.2%)	1.00	3/1517 (0.2%)
70	RB	1.49	2/866 (0.2%)	0.93	4/1169 (0.3%)
71	SB	1.08	0/694	0.93	3/935 (0.3%)
72	TB	1.12	1/1039 (0.1%)	0.99	5/1395 (0.4%)
73	UB	1.22	1/1140 (0.1%)	0.94	5/1518 (0.3%)
74	VB	1.23	0/1088	0.99	5/1449 (0.3%)
75	WB	1.38	3/571 (0.5%)	1.01	2/768 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
76	XB	2.18	9/387 (2.3%)	1.26	6/482 (1.2%)
77	YB	1.29	0/621	0.76	0/838
78	ZB	1.39	0/500	0.79	0/670
79	AC	1.34	0/454	0.88	1/602 (0.2%)
80	BC	1.29	0/483	1.02	1/643 (0.2%)
81	CC	1.93	1/283 (0.4%)	0.99	1/352 (0.3%)
82	DC	2.04	204/6521 (3.1%)	1.08	28/8830 (0.3%)
83	EC	1.53	2/4579 (0.0%)	0.94	29/7119 (0.4%)
All	All	1.08	774/227965 (0.3%)	0.81	481/334014 (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	A	0	18
2	B	0	70
3	C	0	4
48	VA	0	2
82	DC	0	1
83	EC	0	9
All	All	0	104

All (774) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	CB	25	LEU	CA-C	12.41	1.58	1.52
16	P	88	PRO	CA-C	11.18	1.62	1.52
5	E	120	VAL	CA-C	9.32	1.62	1.52
16	P	106	LEU	CA-C	8.94	1.62	1.52
48	VA	80	VAL	CA-C	8.80	1.60	1.53
48	VA	145	ILE	CA-CB	8.75	1.64	1.53
26	Z	107	PHE	CA-C	8.71	1.56	1.52
6	F	243	THR	CA-C	8.54	1.64	1.52
16	P	63	LYS	CA-C	8.48	1.63	1.52
62	JB	21	GLU	CA-C	8.43	1.57	1.52
57	EB	62	VAL	CA-C	8.38	1.58	1.52
82	DC	796	MET	SD-CE	8.35	2.00	1.79
16	P	116	MET	CA-C	8.31	1.64	1.52
82	DC	684	VAL	CA-C	8.30	1.60	1.53
16	P	116	MET	SD-CE	8.29	2.00	1.79

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	65	ILE	CA-C	8.27	1.62	1.52
48	VA	150	ILE	CA-C	8.19	1.61	1.52
16	P	74	VAL	CA-C	8.15	1.59	1.52
48	VA	30	VAL	CA-C	8.07	1.63	1.52
5	E	213	ALA	CA-C	8.07	1.61	1.53
5	E	1	MET	SD-CE	8.05	1.99	1.79
16	P	64	ILE	CA-C	8.01	1.60	1.52
48	VA	156	VAL	CA-CB	8.00	1.62	1.54
48	VA	179	SER	CA-C	7.99	1.61	1.52
16	P	87	GLU	CA-C	7.86	1.62	1.52
16	P	143	VAL	CA-CB	7.84	1.62	1.53
82	DC	275	MET	SD-CE	7.83	1.99	1.79
48	VA	63	ILE	CA-C	7.81	1.64	1.52
82	DC	97	SER	CA-C	7.72	1.60	1.53
82	DC	13	MET	SD-CE	7.68	1.98	1.79
16	P	107	ASP	N-CA	7.62	1.56	1.46
16	P	104	ILE	CA-CB	7.59	1.63	1.54
82	DC	706	ILE	CA-C	7.58	1.60	1.52
5	E	3	LYS	CA-C	7.58	1.61	1.53
48	VA	159	VAL	CA-C	7.57	1.61	1.52
5	E	5	THR	CA-C	7.57	1.62	1.52
16	P	75	PRO	CA-C	7.55	1.62	1.52
82	DC	437	MET	SD-CE	7.54	1.98	1.79
5	E	111	ILE	CA-CB	7.52	1.63	1.54
16	P	90	ARG	CA-C	7.52	1.62	1.52
82	DC	684	VAL	CA-CB	7.48	1.61	1.53
16	P	108	GLU	N-CA	7.47	1.55	1.46
65	MB	93	VAL	CA-C	7.46	1.59	1.52
48	VA	132	LYS	CA-C	7.45	1.63	1.52
82	DC	619	MET	SD-CE	7.42	1.98	1.79
16	P	65	GLN	CA-C	7.41	1.61	1.52
48	VA	80	VAL	CA-CB	7.39	1.62	1.53
16	P	107	ASP	CA-C	7.39	1.62	1.52
57	EB	154	LEU	CA-C	7.38	1.57	1.53
82	DC	81	MET	SD-CE	7.31	1.97	1.79
48	VA	165	VAL	CA-C	7.29	1.62	1.52
5	E	138	VAL	CA-CB	7.28	1.64	1.54
5	E	85	MET	SD-CE	7.26	1.97	1.79
48	VA	23	LYS	CA-C	7.26	1.61	1.52
69	QB	46	PRO	CA-C	7.23	1.58	1.52
16	P	73	VAL	CA-C	7.21	1.62	1.52
16	P	103	ASN	CA-C	7.21	1.62	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	191	VAL	CA-CB	7.19	1.63	1.54
5	E	137	PRO	CA-C	7.16	1.62	1.52
5	E	174	MET	SD-CE	7.15	1.97	1.79
5	E	141	ASN	CA-C	7.14	1.62	1.52
5	E	213	ALA	CA-CB	7.12	1.58	1.53
16	P	56	ILE	CA-CB	7.12	1.64	1.54
16	P	105	GLN	CA-C	7.11	1.61	1.52
82	DC	251	ASN	CA-C	7.09	1.59	1.52
5	E	71	ALA	CA-C	7.09	1.61	1.52
16	P	73	VAL	CA-CB	7.07	1.63	1.54
5	E	126	PRO	CA-C	7.06	1.62	1.52
5	E	212	PRO	CA-C	7.06	1.62	1.52
10	J	35	VAL	CA-C	7.05	1.58	1.52
5	E	151	VAL	CA-C	7.03	1.61	1.52
82	DC	522	MET	SD-CE	7.02	1.97	1.79
45	SA	4	LYS	CA-C	7.02	1.62	1.52
5	E	134	PHE	CA-C	7.02	1.61	1.53
5	E	92	LYS	CA-C	7.01	1.62	1.52
18	R	53	VAL	CA-C	7.00	1.58	1.53
5	E	111	ILE	CA-C	6.99	1.61	1.52
5	E	120	VAL	CA-CB	6.98	1.63	1.54
16	P	57	LYS	CA-C	6.97	1.61	1.52
5	E	122	ARG	CA-C	6.96	1.61	1.52
82	DC	279	ASP	CA-C	6.96	1.59	1.52
5	E	199	GLN	CA-C	6.94	1.62	1.52
5	E	114	GLU	CA-C	6.92	1.62	1.52
5	E	177	ASP	CA-C	6.92	1.62	1.52
48	VA	84	VAL	CA-C	6.92	1.60	1.52
16	P	56	ILE	CA-C	6.91	1.61	1.52
82	DC	200	VAL	CA-C	6.91	1.59	1.52
7	G	154	TYR	CA-C	6.90	1.57	1.52
16	P	66	ASN	CA-C	6.90	1.60	1.52
16	P	119	LYS	CA-C	6.90	1.62	1.52
5	E	143	ASP	CA-C	6.90	1.61	1.52
82	DC	443	GLU	CA-C	6.90	1.58	1.52
82	DC	589	LYS	CA-C	6.90	1.60	1.52
48	VA	20	GLU	CA-C	6.89	1.61	1.52
5	E	96	ASN	CA-C	6.88	1.62	1.52
76	XB	97	PRO	CA-C	6.86	1.58	1.52
48	VA	66	PHE	CA-C	6.85	1.61	1.52
5	E	14	LYS	CA-C	6.85	1.61	1.52
5	E	101	LYS	CA-C	6.84	1.61	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	P	121	PHE	CA-C	6.84	1.61	1.52
5	E	191	VAL	CA-C	6.83	1.61	1.52
48	VA	92	PRO	CA-C	6.82	1.61	1.52
48	VA	116	PRO	CA-C	6.82	1.62	1.52
82	DC	350	ALA	CA-C	6.81	1.61	1.53
82	DC	558	PRO	CA-C	6.80	1.58	1.52
5	E	15	GLU	CA-C	6.79	1.62	1.52
5	E	118	LYS	CA-C	6.78	1.61	1.52
16	P	113	ALA	CA-C	6.77	1.61	1.52
16	P	127	SER	CA-C	6.77	1.61	1.52
48	VA	189	GLN	CA-C	6.77	1.61	1.52
5	E	89	ASP	CA-C	6.76	1.61	1.52
5	E	68	PHE	CA-C	6.76	1.60	1.52
5	E	115	VAL	CA-CB	6.75	1.62	1.54
5	E	206	VAL	CA-C	6.75	1.60	1.52
48	VA	168	SER	CA-C	6.75	1.61	1.52
49	WA	56	VAL	CA-C	6.75	1.57	1.52
5	E	192	SER	CA-C	6.75	1.61	1.52
5	E	80	CYS	CA-C	6.74	1.61	1.52
45	SA	21	ARG	CA-C	6.74	1.61	1.52
48	VA	128	MET	SD-CE	6.74	1.96	1.79
16	P	101	SER	CA-C	6.73	1.60	1.52
48	VA	123	ALA	CA-C	6.73	1.60	1.53
16	P	138	SER	CA-C	6.72	1.62	1.52
5	E	196	LYS	CA-C	6.71	1.61	1.52
82	DC	832	VAL	CA-C	6.71	1.59	1.52
5	E	207	LYS	CA-C	6.71	1.60	1.52
48	VA	145	ILE	CA-C	6.71	1.60	1.52
48	VA	53	MET	SD-CE	6.71	1.96	1.79
5	E	184	LEU	CA-C	6.70	1.61	1.52
5	E	208	SER	CA-C	6.70	1.60	1.52
5	E	88	ASP	CA-C	6.69	1.62	1.52
5	E	35	GLN	CA-C	6.67	1.61	1.52
16	P	130	LYS	CA-C	6.67	1.61	1.52
53	AB	168	ILE	CA-CB	6.66	1.60	1.54
82	DC	810	ASP	CA-C	6.66	1.60	1.52
82	DC	123	ASP	CA-C	6.66	1.58	1.52
5	E	79	SER	CA-C	6.66	1.61	1.52
48	VA	114	VAL	CA-CB	6.65	1.61	1.53
48	VA	90	ASN	CA-C	6.64	1.61	1.52
5	E	30	GLU	CA-C	6.63	1.61	1.52
16	P	57	LYS	N-CA	6.63	1.53	1.45

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	VA	121	VAL	CA-CB	6.63	1.62	1.54
16	P	123	ARG	CA-C	6.62	1.61	1.52
48	VA	91	GLU	CA-C	6.62	1.62	1.52
48	VA	190	VAL	CA-CB	6.62	1.63	1.54
54	BB	56	LEU	CA-C	6.62	1.57	1.52
16	P	72	SER	CA-C	6.62	1.61	1.52
16	P	69	ALA	CA-C	6.61	1.61	1.52
16	P	143	VAL	CA-C	6.61	1.59	1.53
48	VA	95	GLU	CA-C	6.61	1.61	1.52
48	VA	159	VAL	CA-CB	6.59	1.62	1.54
16	P	104	ILE	CA-C	6.59	1.61	1.52
5	E	185	MET	SD-CE	6.59	1.96	1.79
16	P	112	ILE	CA-C	6.58	1.62	1.52
48	VA	50	VAL	CA-CB	6.57	1.62	1.54
16	P	64	ILE	CA-CB	6.57	1.60	1.53
82	DC	438	MET	SD-CE	6.57	1.96	1.79
5	E	20	SER	CA-C	6.56	1.61	1.52
5	E	201	VAL	CA-C	6.55	1.60	1.52
16	P	92	ARG	CA-C	6.54	1.61	1.52
82	DC	40	VAL	CA-CB	6.53	1.61	1.54
5	E	149	THR	CA-C	6.53	1.61	1.52
5	E	173	GLU	CA-C	6.52	1.59	1.53
16	P	139	VAL	CA-C	6.52	1.61	1.52
48	VA	89	THR	CA-C	6.52	1.60	1.52
82	DC	69	THR	CA-CB	6.52	1.61	1.52
82	DC	457	VAL	CA-C	6.51	1.60	1.52
5	E	94	ASN	CA-C	6.51	1.61	1.52
16	P	59	THR	CA-C	6.50	1.60	1.53
48	VA	129	GLU	CA-C	6.49	1.61	1.53
82	DC	449	PRO	CA-C	6.49	1.60	1.52
5	E	214	PHE	CA-C	6.48	1.61	1.52
48	VA	165	VAL	CA-CB	6.48	1.63	1.54
32	FA	34	MET	SD-CE	6.48	1.95	1.79
48	VA	30	VAL	CA-CB	6.47	1.63	1.54
5	E	200	ASN	CA-C	6.47	1.61	1.52
16	P	128	VAL	CA-C	6.47	1.60	1.52
16	P	58	VAL	CA-CB	6.46	1.63	1.54
5	E	204	LEU	CA-C	6.46	1.60	1.52
48	VA	153	VAL	CA-CB	6.46	1.62	1.54
5	E	148	VAL	CA-C	6.46	1.60	1.52
16	P	97	ASN	CA-C	6.45	1.60	1.52
5	E	117	ILE	CA-CB	6.45	1.62	1.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	9	VAL	CA-C	6.43	1.60	1.52
5	E	19	TYR	CA-C	6.43	1.62	1.52
5	E	117	ILE	CA-C	6.43	1.60	1.52
5	E	32	VAL	CA-CB	6.42	1.63	1.54
16	P	109	ILE	CA-CB	6.42	1.64	1.54
82	DC	9	MET	SD-CE	6.42	1.95	1.79
5	E	13	VAL	CA-CB	6.42	1.62	1.54
48	VA	178	ILE	CA-CB	6.41	1.61	1.53
48	VA	118	ASP	CA-C	6.41	1.61	1.52
82	DC	666	ALA	CA-C	6.40	1.61	1.52
48	VA	124	VAL	CA-C	6.39	1.60	1.52
82	DC	379	MET	SD-CE	6.39	1.95	1.79
45	SA	3	ALA	CA-C	6.38	1.61	1.52
48	VA	26	PHE	CA-C	6.38	1.60	1.52
16	P	120	SER	CA-C	6.38	1.61	1.52
5	E	2	SER	CA-C	6.36	1.61	1.52
5	E	73	ASP	CA-C	6.36	1.61	1.52
5	E	82	VAL	CA-CB	6.35	1.64	1.54
16	P	115	GLN	CA-C	6.34	1.61	1.52
16	P	79	SER	CA-C	6.33	1.60	1.52
82	DC	245	TRP	CA-C	6.32	1.59	1.52
48	VA	130	PRO	CA-C	6.32	1.61	1.52
6	F	246	LEU	CA-C	6.31	1.61	1.52
5	E	180	VAL	CA-CB	6.30	1.62	1.54
16	P	94	LYS	CA-C	6.30	1.61	1.52
48	VA	178	ILE	CA-C	6.30	1.59	1.52
5	E	74	VAL	CA-C	6.29	1.61	1.52
5	E	182	GLN	CA-C	6.29	1.61	1.52
5	E	183	ILE	CA-CB	6.29	1.61	1.54
21	U	159	LYS	CA-C	6.29	1.57	1.52
48	VA	87	VAL	CA-C	6.29	1.60	1.52
16	P	60	VAL	CA-CB	6.28	1.63	1.54
64	LB	28	VAL	CA-C	6.28	1.58	1.53
82	DC	241	MET	SD-CE	6.28	1.95	1.79
5	E	129	SER	CA-C	6.27	1.61	1.52
62	JB	140	PHE	CA-C	6.27	1.58	1.52
82	DC	704	GLN	CA-C	6.26	1.58	1.52
48	VA	70	LEU	CA-C	6.25	1.60	1.52
48	VA	122	ARG	CA-C	6.25	1.61	1.52
82	DC	590	ALA	CA-C	6.25	1.60	1.52
36	JA	87	MET	SD-CE	6.25	1.95	1.79
5	E	91	LYS	CA-C	6.24	1.61	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	203	SER	CA-C	6.23	1.60	1.52
16	P	68	GLN	CA-C	6.23	1.61	1.52
16	P	109	ILE	CA-C	6.23	1.61	1.52
5	E	24	LYS	CA-C	6.23	1.62	1.53
48	VA	61	ARG	CA-C	6.23	1.61	1.52
48	VA	38	MET	SD-CE	6.22	1.95	1.79
39	MA	83	LYS	CA-C	6.22	1.58	1.53
48	VA	13	ALA	CA-C	6.22	1.60	1.52
16	P	70	ALA	CA-C	6.21	1.60	1.52
5	E	72	PHE	CA-C	6.21	1.61	1.52
82	DC	235	VAL	CA-CB	6.20	1.61	1.53
5	E	86	SER	CA-C	6.20	1.60	1.52
5	E	142	ASP	CA-C	6.20	1.61	1.53
16	P	139	VAL	CA-CB	6.18	1.62	1.54
48	VA	50	VAL	CA-C	6.18	1.60	1.52
5	E	123	LEU	CA-C	6.17	1.59	1.52
5	E	183	ILE	CA-C	6.17	1.59	1.52
82	DC	605	ILE	CA-CB	6.17	1.61	1.55
16	P	58	VAL	CA-C	6.17	1.60	1.52
48	VA	190	VAL	CA-C	6.17	1.59	1.52
5	E	115	VAL	CA-C	6.16	1.61	1.52
17	Q	69	VAL	CA-C	6.16	1.59	1.52
82	DC	656	LEU	CA-C	6.16	1.60	1.52
48	VA	27	VAL	CA-CB	6.16	1.60	1.53
62	JB	86	VAL	CA-C	6.15	1.59	1.52
48	VA	153	VAL	CA-C	6.15	1.61	1.52
56	DB	126	ASP	CA-C	6.15	1.57	1.52
48	VA	33	VAL	CA-CB	6.15	1.62	1.54
82	DC	533	THR	CA-C	6.14	1.59	1.53
48	VA	33	VAL	CA-C	6.14	1.60	1.52
38	LA	9	ARG	CA-C	6.13	1.59	1.53
82	DC	652	ALA	CA-C	6.12	1.60	1.52
48	VA	31	ASP	N-CA	6.11	1.54	1.46
82	DC	619	MET	CA-C	6.11	1.60	1.52
5	E	113	SER	CA-C	6.11	1.60	1.52
45	SA	22	ALA	CA-C	6.10	1.60	1.52
5	E	87	VAL	CA-C	6.08	1.61	1.52
60	HB	59	PHE	CA-C	6.08	1.57	1.52
5	E	140	HIS	CA-C	6.08	1.60	1.52
82	DC	804	LEU	CA-C	6.07	1.60	1.52
5	E	21	ASN	CA-C	6.06	1.60	1.52
82	DC	471	THR	CA-C	6.06	1.59	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DC	243	ARG	CA-C	6.06	1.60	1.53
48	VA	75	LYS	CA-C	6.05	1.60	1.52
82	DC	444	PRO	CA-C	6.05	1.58	1.52
82	DC	258	THR	CA-CB	6.04	1.62	1.53
51	YA	146	GLN	CA-C	6.04	1.60	1.53
5	E	179	LEU	CA-C	6.03	1.61	1.52
82	DC	840	ASP	CA-C	6.03	1.60	1.53
7	G	256	HIS	CA-C	6.03	1.57	1.52
82	DC	820	LEU	CA-C	6.03	1.60	1.52
16	P	91	ASP	CA-C	6.02	1.60	1.52
48	VA	134	SER	CA-C	6.02	1.60	1.52
5	E	70	ASP	CA-C	6.02	1.60	1.52
16	P	132	ILE	CA-CB	6.02	1.61	1.54
51	YA	118	GLN	CA-C	6.02	1.59	1.53
48	VA	152	ILE	CA-CB	6.01	1.61	1.54
82	DC	585	ARG	CA-C	6.01	1.60	1.52
5	E	82	VAL	N-CA	5.99	1.53	1.46
5	E	127	GLN	CA-C	5.99	1.59	1.52
5	E	187	VAL	CA-CB	5.98	1.61	1.54
68	PB	138	THR	CA-CB	5.97	1.59	1.53
5	E	83	ASP	CA-C	5.97	1.60	1.52
48	VA	9	ALA	CA-C	5.96	1.60	1.52
48	VA	58	MET	SD-CE	5.95	1.94	1.79
45	SA	9	ARG	CA-C	5.95	1.60	1.52
48	VA	36	GLN	CA-C	5.95	1.60	1.52
48	VA	99	VAL	CA-CB	5.95	1.60	1.54
82	DC	228	ARG	CA-C	5.95	1.60	1.52
5	E	66	CYS	CA-C	5.94	1.59	1.52
16	P	118	ASP	N-CA	5.94	1.53	1.46
82	DC	660	LYS	CA-C	5.94	1.60	1.52
5	E	105	LYS	CA-C	5.94	1.61	1.52
16	P	121	PHE	N-CA	5.93	1.53	1.46
82	DC	157	ILE	CA-CB	5.93	1.59	1.53
82	DC	709	MET	SD-CE	5.93	1.94	1.79
82	DC	157	ILE	CA-C	5.92	1.58	1.53
82	DC	288	ILE	CA-C	5.91	1.59	1.52
5	E	98	LYS	CA-C	5.91	1.60	1.52
82	DC	382	VAL	CA-CB	5.91	1.59	1.53
48	VA	188	VAL	CA-CB	5.91	1.62	1.54
48	VA	152	ILE	CA-C	5.91	1.59	1.52
16	P	71	ALA	CA-C	5.91	1.59	1.52
48	VA	164	LYS	CA-C	5.91	1.60	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	188	ASN	CA-C	5.90	1.60	1.52
82	DC	648	ASP	CA-C	5.90	1.60	1.52
60	HB	87	VAL	CA-C	5.89	1.59	1.52
5	E	180	VAL	CA-C	5.89	1.60	1.52
82	DC	608	PRO	CA-C	5.88	1.60	1.52
48	VA	99	VAL	CA-C	5.88	1.59	1.52
5	E	148	VAL	CA-CB	5.87	1.61	1.54
82	DC	773	PRO	CA-C	5.87	1.58	1.52
48	VA	167	GLN	CA-C	5.87	1.60	1.52
82	DC	561	VAL	CA-C	5.87	1.59	1.53
5	E	25	LYS	CA-C	5.86	1.59	1.52
82	DC	636	PHE	CA-C	5.86	1.59	1.52
54	BB	230	GLU	CA-C	5.86	1.57	1.53
60	HB	92	ILE	CA-C	5.86	1.57	1.52
14	N	213	PHE	CA-C	5.86	1.57	1.53
70	RB	62	VAL	CA-C	5.85	1.57	1.52
21	U	7	THR	CA-CB	5.85	1.62	1.53
21	U	7	THR	CA-C	5.85	1.59	1.52
48	VA	169	GLU	CA-C	5.85	1.60	1.52
82	DC	649	GLN	CA-C	5.85	1.61	1.52
5	E	128	LEU	CA-C	5.84	1.60	1.52
5	E	92	LYS	N-CA	5.84	1.53	1.46
16	P	82	ILE	CA-C	5.84	1.59	1.52
5	E	74	VAL	CA-CB	5.84	1.61	1.54
48	VA	97	LYS	CA-C	5.83	1.60	1.52
82	DC	829	LYS	CA-C	5.83	1.60	1.52
5	E	201	VAL	CA-CB	5.83	1.61	1.54
16	P	126	ALA	CA-C	5.83	1.60	1.52
16	P	112	ILE	CA-CB	5.83	1.61	1.54
5	E	6	SER	CA-C	5.83	1.60	1.52
82	DC	434	VAL	CA-C	5.83	1.59	1.52
82	DC	442	VAL	CA-CB	5.82	1.60	1.53
82	DC	774	VAL	CA-C	5.82	1.60	1.52
5	E	85	MET	CA-C	5.82	1.59	1.52
48	VA	49	ALA	CA-C	5.81	1.58	1.52
82	DC	46	ILE	CA-C	5.81	1.59	1.52
82	DC	70	ILE	CA-CB	5.81	1.61	1.54
48	VA	119	ILE	CA-C	5.80	1.60	1.52
82	DC	661	ASP	CA-C	5.80	1.60	1.52
58	FB	38	ILE	CA-C	5.79	1.59	1.52
82	DC	75	ILE	CA-CB	5.79	1.61	1.54
82	DC	722	PRO	CA-C	5.78	1.59	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DC	650	THR	CA-CB	5.78	1.61	1.53
11	K	96	PRO	CA-C	5.78	1.57	1.52
82	DC	615	ARG	CA-C	5.78	1.60	1.52
82	DC	663	VAL	CA-CB	5.78	1.60	1.54
16	P	144	ASP	CA-C	5.77	1.60	1.52
16	P	124	THR	N-CA	5.77	1.53	1.46
5	E	151	VAL	CA-CB	5.76	1.62	1.54
82	DC	806	SER	CA-C	5.76	1.59	1.52
5	E	133	LYS	CA-C	5.76	1.61	1.52
16	P	131	GLU	CA-C	5.76	1.60	1.52
82	DC	807	ASP	CA-C	5.76	1.59	1.52
82	DC	337	MET	SD-CE	5.76	1.94	1.79
5	E	135	PRO	CA-C	5.76	1.60	1.52
16	P	117	ARG	N-CA	5.75	1.53	1.46
82	DC	839	TYR	CA-C	5.75	1.59	1.52
82	DC	311	GLU	CA-C	5.75	1.60	1.52
5	E	31	THR	CA-C	5.75	1.59	1.52
5	E	27	ASN	CA-C	5.74	1.60	1.52
5	E	104	SER	CA-C	5.74	1.60	1.52
82	DC	647	ILE	CA-CB	5.74	1.61	1.54
48	VA	87	VAL	CA-CB	5.74	1.62	1.54
48	VA	94	THR	CA-C	5.74	1.60	1.52
5	E	187	VAL	CA-C	5.74	1.60	1.52
5	E	106	LYS	CA-C	5.74	1.60	1.52
5	E	210	MET	SD-CE	5.73	1.93	1.79
82	DC	705	ILE	CA-CB	5.73	1.61	1.54
5	E	33	GLU	CA-C	5.73	1.59	1.52
48	VA	96	ILE	CA-CB	5.72	1.62	1.54
48	VA	185	LEU	CA-C	5.72	1.60	1.52
82	DC	94	ASP	CA-C	5.72	1.59	1.52
82	DC	377	ASP	CA-C	5.72	1.60	1.52
82	DC	273	PHE	CA-C	5.71	1.59	1.52
5	E	67	ILE	CA-C	5.71	1.59	1.52
82	DC	296	ILE	CA-C	5.71	1.58	1.52
5	E	84	ALA	CA-C	5.70	1.59	1.52
82	DC	4	PHE	CA-C	5.70	1.59	1.52
16	P	62	LEU	CA-C	5.70	1.60	1.52
82	DC	77	LEU	CA-C	5.70	1.59	1.52
16	P	59	THR	CA-CB	5.70	1.61	1.53
6	F	5	ILE	CA-CB	5.69	1.59	1.54
48	VA	6	GLU	CA-C	5.69	1.60	1.52
45	SA	8	LYS	CA-C	5.68	1.60	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	VA	25	LEU	CA-C	5.68	1.59	1.52
61	IB	134	THR	CA-C	5.68	1.60	1.52
5	E	186	SER	CA-C	5.68	1.60	1.52
16	P	83	THR	CA-C	5.68	1.59	1.52
45	SA	20	VAL	CA-CB	5.68	1.60	1.54
82	DC	289	MET	SD-CE	5.67	1.93	1.79
82	DC	315	GLU	CA-C	5.67	1.59	1.52
25	Y	96	ILE	CA-C	5.66	1.58	1.52
82	DC	518	VAL	CA-C	5.66	1.59	1.52
5	E	197	ASN	CA-C	5.66	1.60	1.52
8	H	222	VAL	CA-C	5.66	1.58	1.52
48	VA	163	ASN	CA-C	5.66	1.59	1.52
82	DC	372	CYS	CA-C	5.66	1.60	1.52
51	YA	117	TRP	CA-C	5.65	1.59	1.52
5	E	181	ASN	CA-C	5.65	1.60	1.52
82	DC	404	THR	CA-C	5.65	1.59	1.52
82	DC	457	VAL	CA-CB	5.65	1.61	1.54
76	XB	41	ILE	CA-C	5.65	1.58	1.53
5	E	103	LEU	CA-C	5.64	1.60	1.52
82	DC	187	VAL	CA-CB	5.64	1.60	1.54
82	DC	137	VAL	CA-C	5.64	1.59	1.52
82	DC	402	ALA	CA-C	5.63	1.59	1.52
5	E	78	LYS	CA-C	5.63	1.60	1.52
82	DC	646	VAL	CA-CB	5.63	1.61	1.53
54	BB	15	PRO	CA-C	5.62	1.59	1.52
48	VA	175	LEU	CA-C	5.62	1.60	1.52
16	P	128	VAL	CA-CB	5.62	1.61	1.54
48	VA	24	SER	CA-C	5.62	1.59	1.52
16	P	117	ARG	CA-C	5.62	1.60	1.52
82	DC	697	ALA	CA-C	5.61	1.60	1.52
48	VA	94	THR	CA-CB	5.60	1.62	1.53
48	VA	158	VAL	CA-CB	5.59	1.62	1.54
48	VA	7	LYS	CA-C	5.59	1.59	1.52
48	VA	98	ASN	CA-C	5.59	1.59	1.52
48	VA	68	SER	CA-C	5.59	1.60	1.52
82	DC	401	PHE	CA-C	5.59	1.60	1.52
5	E	66	CYS	N-CA	5.59	1.53	1.46
5	E	131	ALA	CA-C	5.59	1.60	1.52
82	DC	653	VAL	CA-C	5.58	1.59	1.52
82	DC	332	ASP	CA-C	5.57	1.60	1.52
5	E	130	LYS	CA-C	5.57	1.59	1.52
5	E	205	VAL	CA-C	5.57	1.59	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	PB	136	GLN	CA-C	5.57	1.59	1.52
82	DC	11	SER	CA-C	5.56	1.60	1.52
48	VA	139	LEU	CA-C	5.56	1.60	1.52
82	DC	312	LYS	CA-C	5.56	1.59	1.52
48	VA	18	TYR	CA-C	5.56	1.59	1.52
5	E	198	TRP	CA-C	5.56	1.60	1.52
5	E	93	LEU	CA-C	5.55	1.60	1.52
5	E	136	THR	CA-CB	5.55	1.62	1.53
48	VA	150	ILE	N-CA	5.55	1.52	1.46
16	P	136	ALA	CA-C	5.55	1.59	1.52
48	VA	188	VAL	CA-C	5.55	1.59	1.52
16	P	110	ILE	CA-C	5.55	1.60	1.52
82	DC	227	THR	CA-C	5.54	1.60	1.52
51	YA	143	THR	CA-C	5.54	1.59	1.52
16	P	80	LEU	CA-C	5.54	1.60	1.52
30	DA	57	LEU	CA-C	5.53	1.58	1.52
48	VA	121	VAL	CA-C	5.53	1.59	1.52
82	DC	591	GLU	CA-C	5.52	1.58	1.52
16	P	74	VAL	CA-CB	5.52	1.61	1.54
82	DC	828	MET	SD-CE	5.52	1.93	1.79
5	E	100	ILE	CA-C	5.52	1.60	1.52
62	JB	91	VAL	CA-C	5.52	1.59	1.52
48	VA	115	ALA	CA-C	5.51	1.60	1.53
82	DC	324	MET	SD-CE	5.51	1.93	1.79
82	DC	613	LYS	CA-C	5.51	1.58	1.53
16	P	77	ALA	CA-C	5.51	1.60	1.52
5	E	174	MET	CA-C	5.51	1.59	1.52
25	Y	135	PRO	CA-C	5.50	1.59	1.52
53	AB	84	ILE	CA-CB	5.50	1.59	1.53
5	E	194	LEU	CA-C	5.49	1.59	1.52
20	T	120	VAL	CA-C	5.49	1.58	1.52
48	VA	77	LEU	CA-C	5.49	1.59	1.52
82	DC	244	LEU	CA-C	5.49	1.60	1.52
5	E	99	LEU	CA-C	5.48	1.59	1.52
82	DC	119	LEU	CA-C	5.48	1.60	1.52
38	LA	58	ARG	CA-C	5.48	1.59	1.52
51	YA	139	ALA	CA-C	5.48	1.59	1.53
41	OA	64	MET	SD-CE	5.47	1.93	1.79
82	DC	689	LEU	CA-C	5.47	1.59	1.52
16	P	69	ALA	N-CA	5.46	1.53	1.46
82	DC	239	LYS	CA-C	5.46	1.60	1.52
5	E	112	ALA	CA-C	5.46	1.58	1.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DC	347	THR	CA-CB	5.46	1.62	1.53
5	E	9	VAL	CA-CB	5.46	1.61	1.54
82	DC	830	GLU	CA-C	5.46	1.60	1.52
5	E	22	GLU	CA-C	5.46	1.60	1.52
5	E	209	SER	CA-C	5.45	1.60	1.52
49	WA	4	ASN	CA-C	5.45	1.58	1.52
48	VA	21	GLU	CA-C	5.45	1.59	1.53
16	P	82	ILE	CA-CB	5.45	1.61	1.54
82	DC	654	GLN	CA-C	5.45	1.59	1.52
13	M	41	ILE	CA-C	5.45	1.59	1.52
76	XB	24	VAL	CA-C	5.45	1.60	1.52
5	E	5	THR	CA-CB	5.44	1.63	1.53
48	VA	14	LYS	CA-C	5.44	1.59	1.52
19	S	137	PRO	CA-C	5.44	1.57	1.52
5	E	82	VAL	CA-C	5.44	1.60	1.53
48	VA	154	SER	CA-C	5.44	1.59	1.52
62	JB	105	LYS	CA-C	5.44	1.57	1.52
48	VA	142	PRO	CA-C	5.44	1.60	1.52
16	P	118	ASP	CA-C	5.43	1.60	1.52
48	VA	141	VAL	CA-C	5.43	1.58	1.52
82	DC	445	ILE	CA-CB	5.43	1.61	1.54
5	E	136	THR	CA-C	5.43	1.59	1.52
65	MB	38	PRO	CA-C	5.43	1.59	1.52
12	L	72	PRO	CA-C	5.42	1.57	1.52
16	P	110	ILE	CA-CB	5.42	1.61	1.54
45	SA	10	THR	CA-C	5.42	1.60	1.52
48	VA	71	PRO	CA-C	5.42	1.60	1.52
51	YA	189	ILE	CA-C	5.42	1.58	1.52
20	T	190	VAL	CA-CB	5.42	1.61	1.54
19	S	44	ARG	CA-C	5.42	1.58	1.52
82	DC	369	ILE	CA-CB	5.42	1.60	1.54
16	P	141	CYS	CA-C	5.42	1.59	1.52
76	XB	12	LYS	CA-C	5.41	1.58	1.52
48	VA	143	THR	CA-C	5.41	1.59	1.52
5	E	4	ILE	CA-CB	5.41	1.61	1.54
48	VA	43	LYS	CA-C	5.41	1.59	1.52
82	DC	841	LYS	CA-C	5.40	1.60	1.53
16	P	99	LYS	CA-C	5.40	1.60	1.52
5	E	176	GLU	CA-C	5.40	1.60	1.52
45	SA	7	LYS	CA-C	5.40	1.59	1.52
48	VA	114	VAL	CA-C	5.40	1.59	1.53
82	DC	190	SER	CA-C	5.40	1.60	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DC	550	ALA	CA-C	5.39	1.58	1.53
82	DC	24	VAL	CA-CB	5.39	1.61	1.54
82	DC	329	PRO	CA-C	5.39	1.59	1.52
49	WA	6	VAL	CA-C	5.39	1.59	1.52
48	VA	46	ARG	CA-C	5.39	1.61	1.52
82	DC	676	ILE	CA-C	5.38	1.59	1.52
82	DC	80	GLU	CA-C	5.38	1.59	1.53
82	DC	832	VAL	CA-CB	5.38	1.61	1.54
82	DC	462	PHE	CA-C	5.37	1.57	1.52
82	DC	713	THR	CA-C	5.37	1.59	1.52
82	DC	650	THR	CA-C	5.37	1.59	1.52
76	XB	13	LYS	CA-C	5.37	1.58	1.52
82	DC	677	PHE	CA-C	5.37	1.59	1.52
51	YA	137	ILE	CA-C	5.36	1.59	1.52
16	P	108	GLU	CA-C	5.36	1.60	1.52
5	E	178	VAL	CA-CB	5.36	1.61	1.54
8	H	276	LEU	CA-C	5.36	1.59	1.52
48	VA	28	VAL	CA-C	5.36	1.59	1.52
82	DC	600	ALA	CA-C	5.36	1.59	1.52
82	DC	350	ALA	CA-CB	5.36	1.59	1.52
5	E	29	LEU	CA-C	5.36	1.59	1.52
70	RB	103	ILE	CA-C	5.36	1.58	1.52
5	E	32	VAL	CA-C	5.35	1.59	1.52
5	E	216	LEU	CA-C	5.35	1.61	1.53
44	RA	98	LYS	CA-C	5.35	1.57	1.52
62	JB	88	LEU	CA-C	5.35	1.59	1.52
82	DC	288	ILE	CA-CB	5.35	1.60	1.54
5	E	138	VAL	CA-C	5.34	1.59	1.52
9	I	18	THR	CA-C	5.34	1.58	1.52
5	E	28	PHE	CA-C	5.34	1.60	1.53
51	YA	86	LEU	CA-C	5.34	1.58	1.53
5	E	26	ARG	CA-C	5.34	1.58	1.52
48	VA	86	PHE	CA-C	5.34	1.59	1.52
43	QA	24	PRO	CA-C	5.33	1.59	1.52
51	YA	218	LEU	CA-C	5.33	1.57	1.52
82	DC	287	ALA	CA-C	5.33	1.59	1.52
16	P	125	LEU	CA-C	5.32	1.59	1.52
48	VA	138	ALA	CA-C	5.32	1.60	1.53
48	VA	113	ALA	CA-C	5.32	1.59	1.52
16	P	114	ARG	CA-C	5.32	1.59	1.52
82	DC	597	VAL	CA-C	5.32	1.59	1.52
60	HB	94	GLU	CA-C	5.31	1.57	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	214	PHE	N-CA	5.31	1.52	1.46
82	DC	202	VAL	CA-CB	5.31	1.60	1.54
16	P	84	ALA	CA-C	5.30	1.60	1.52
48	VA	83	ASN	CA-C	5.30	1.59	1.52
48	VA	117	GLU	CA-C	5.30	1.60	1.53
6	F	165	VAL	CA-C	5.30	1.58	1.52
82	DC	10	ARG	CA-C	5.30	1.59	1.52
82	DC	47	SER	CA-C	5.29	1.59	1.52
48	VA	161	ALA	CA-C	5.29	1.59	1.52
5	E	95	LYS	CA-C	5.29	1.59	1.52
82	DC	627	VAL	CA-C	5.29	1.60	1.52
64	LB	13	VAL	CA-C	5.29	1.59	1.53
45	SA	12	ARG	CA-C	5.29	1.60	1.52
51	YA	119	THR	CA-C	5.28	1.59	1.52
51	YA	121	ILE	CA-C	5.28	1.59	1.52
82	DC	382	VAL	CA-C	5.28	1.58	1.53
48	VA	59	VAL	CA-C	5.28	1.61	1.52
82	DC	570	GLU	CA-C	5.28	1.59	1.52
5	E	11	GLU	CA-C	5.28	1.59	1.52
82	DC	580	PRO	CA-C	5.27	1.59	1.52
16	P	89	PRO	CA-C	5.27	1.60	1.52
14	N	93	PRO	CA-C	5.27	1.57	1.52
82	DC	576	LEU	CA-C	5.27	1.58	1.52
5	E	175	GLU	CA-C	5.27	1.59	1.52
82	DC	76	SER	CA-C	5.26	1.58	1.52
82	DC	705	ILE	CA-C	5.26	1.59	1.52
48	VA	151	GLU	CA-C	5.26	1.59	1.52
82	DC	6	VAL	CA-C	5.26	1.59	1.52
82	DC	695	ALA	CA-C	5.26	1.58	1.52
82	DC	525	SER	CA-C	5.26	1.60	1.52
5	E	20	SER	N-CA	5.25	1.52	1.46
16	P	67	ARG	CA-C	5.25	1.59	1.52
16	P	98	VAL	CA-CB	5.25	1.61	1.54
17	Q	7	LEU	CA-C	5.25	1.58	1.53
5	E	145	TYR	CA-C	5.25	1.59	1.52
51	YA	120	LEU	CA-C	5.24	1.59	1.52
51	YA	68	VAL	CA-C	5.24	1.59	1.52
82	DC	524	GLU	CA-C	5.24	1.59	1.52
61	IB	107	VAL	CA-C	5.24	1.57	1.52
5	E	80	CYS	N-CA	5.23	1.52	1.46
57	EB	155	ASP	N-CA	5.23	1.49	1.46
5	E	210	MET	CA-C	5.23	1.60	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	SA	13	LEU	CA-C	5.23	1.59	1.52
48	VA	180	PRO	CA-C	5.23	1.59	1.52
82	DC	208	THR	CA-C	5.23	1.59	1.52
82	DC	602	GLU	CA-C	5.23	1.59	1.52
82	DC	802	SER	CA-C	5.23	1.58	1.52
5	E	30	GLU	N-CA	5.23	1.52	1.46
5	E	198	TRP	N-CA	5.23	1.52	1.46
51	YA	133	TYR	CA-C	5.23	1.58	1.52
5	E	139	SER	CA-C	5.23	1.59	1.52
48	VA	48	ARG	CA-C	5.22	1.59	1.52
5	E	110	PHE	CA-C	5.22	1.58	1.52
48	VA	158	VAL	CA-C	5.22	1.59	1.52
48	VA	109	ALA	CA-C	5.21	1.59	1.52
82	DC	405	VAL	CA-CB	5.21	1.59	1.53
30	DA	97	ILE	CA-CB	5.21	1.59	1.53
76	XB	92	ARG	CA-C	5.21	1.58	1.52
49	WA	286	GLU	CA-C	5.21	1.57	1.52
82	DC	277	ILE	CA-C	5.21	1.59	1.52
5	E	147	LYS	CA-C	5.21	1.60	1.52
12	L	254	ASP	CA-C	5.21	1.57	1.52
82	DC	596	GLU	CA-C	5.21	1.59	1.52
82	DC	563	TYR	CA-C	5.21	1.58	1.52
82	DC	707	PRO	CA-C	5.21	1.60	1.52
82	DC	811	PRO	CA-C	5.21	1.59	1.52
5	E	65	ILE	CA-CB	5.20	1.62	1.54
5	E	90	LEU	CA-C	5.20	1.59	1.52
82	DC	579	SER	CA-C	5.20	1.60	1.53
82	DC	651	LYS	CA-C	5.20	1.59	1.52
82	DC	330	ALA	CA-C	5.20	1.59	1.52
82	DC	610	ASP	CA-C	5.20	1.60	1.53
82	DC	740	VAL	CA-C	5.20	1.59	1.52
26	Z	10	LYS	CA-C	5.19	1.57	1.52
82	DC	373	ASP	CA-C	5.19	1.58	1.52
82	DC	422	LYS	CA-C	5.19	1.59	1.52
69	QB	114	VAL	CA-C	5.19	1.58	1.52
82	DC	269	LEU	CA-C	5.19	1.59	1.52
45	SA	16	LYS	CA-C	5.19	1.59	1.52
5	E	116	LEU	CA-C	5.18	1.60	1.52
76	XB	96	ALA	CA-C	5.18	1.57	1.52
10	J	91	VAL	CA-C	5.18	1.59	1.52
48	VA	55	LYS	CA-C	5.18	1.59	1.52
21	U	62	ARG	CA-C	5.17	1.57	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DC	211	PHE	CA-C	5.17	1.59	1.52
82	DC	385	MET	SD-CE	5.17	1.92	1.79
5	E	67	ILE	CA-CB	5.17	1.60	1.54
5	E	142	ASP	N-CA	5.17	1.52	1.45
82	DC	43	ALA	CA-C	5.17	1.59	1.53
48	VA	93	LEU	CA-C	5.17	1.59	1.52
82	DC	45	ILE	CA-CB	5.17	1.59	1.54
5	E	75	ASP	CA-C	5.16	1.59	1.52
82	DC	836	GLN	CA-C	5.16	1.59	1.52
82	DC	19	VAL	CA-CB	5.15	1.59	1.53
5	E	8	GLN	CA-C	5.15	1.59	1.52
16	P	76	SER	CA-C	5.15	1.59	1.52
82	DC	75	ILE	CA-C	5.15	1.58	1.52
82	DC	755	VAL	CA-CB	5.15	1.61	1.54
25	Y	79	MET	SD-CE	5.15	1.92	1.79
48	VA	157	LYS	CA-C	5.15	1.59	1.53
48	VA	149	THR	CA-C	5.15	1.59	1.52
82	DC	618	ILE	CA-C	5.15	1.60	1.52
54	BB	225	VAL	CA-C	5.15	1.58	1.53
82	DC	346	VAL	CA-C	5.15	1.59	1.52
82	DC	454	ILE	CA-C	5.14	1.59	1.52
8	H	135	VAL	CA-C	5.14	1.59	1.52
76	XB	6	ALA	CA-C	5.14	1.57	1.52
82	DC	407	SER	CA-C	5.14	1.59	1.52
65	MB	37	ALA	CA-C	5.13	1.59	1.52
82	DC	241	MET	CA-C	5.13	1.59	1.52
5	E	144	LEU	N-CA	5.13	1.52	1.46
21	U	82	ARG	CA-C	5.13	1.59	1.52
56	DB	102	VAL	CA-C	5.13	1.58	1.52
16	P	98	VAL	CA-C	5.13	1.59	1.52
56	DB	98	ARG	CA-C	5.13	1.58	1.52
82	DC	676	ILE	CA-CB	5.13	1.60	1.54
64	LB	33	LEU	CA-C	5.12	1.59	1.52
82	DC	611	ASP	CA-C	5.12	1.59	1.52
82	DC	574	THR	CA-C	5.12	1.59	1.52
82	DC	464	LEU	CA-C	5.12	1.58	1.52
5	E	100	ILE	CA-CB	5.12	1.62	1.54
30	DA	95	VAL	CA-C	5.12	1.58	1.52
63	KB	132	VAL	CA-C	5.12	1.58	1.52
16	P	76	SER	N-CA	5.11	1.52	1.46
48	VA	150	ILE	CA-CB	5.11	1.60	1.53
82	DC	446	ASP	CA-C	5.11	1.59	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DC	428	ILE	CA-C	5.11	1.57	1.53
51	YA	48	VAL	CA-C	5.11	1.59	1.52
76	XB	80	HIS	CA-C	5.11	1.57	1.52
81	CC	151	ASN	CA-C	5.10	1.58	1.52
82	DC	643	PRO	CA-C	5.10	1.59	1.52
82	DC	663	VAL	CA-C	5.10	1.58	1.52
83	EC	6797	U	O5'-C5'	5.10	1.50	1.42
16	P	104	ILE	N-CA	5.10	1.52	1.46
48	VA	78	PRO	CA-C	5.10	1.59	1.52
8	H	145	ILE	CA-C	5.10	1.56	1.52
14	N	197	VAL	CA-C	5.10	1.59	1.52
82	DC	719	LEU	CA-C	5.10	1.59	1.52
5	E	23	THR	CA-C	5.09	1.59	1.52
5	E	206	VAL	CA-CB	5.09	1.61	1.54
64	LB	25	ASP	CA-C	5.09	1.59	1.52
8	H	200	THR	CA-CB	5.09	1.60	1.53
49	WA	157	VAL	CA-C	5.08	1.58	1.52
39	MA	87	ALA	CA-C	5.08	1.59	1.52
22	V	143	PRO	CA-C	5.08	1.58	1.52
5	E	17	LEU	CA-C	5.08	1.59	1.52
82	DC	6	VAL	CA-CB	5.08	1.61	1.54
82	DC	155	VAL	CA-C	5.08	1.58	1.53
82	DC	717	PHE	CA-C	5.08	1.59	1.52
41	OA	70	VAL	CA-C	5.07	1.59	1.52
6	F	252	THR	CA-C	5.07	1.58	1.53
5	E	12	HIS	CA-C	5.07	1.59	1.52
45	SA	19	LYS	CA-C	5.07	1.59	1.52
48	VA	192	ASP	CA-C	5.07	1.58	1.52
75	WB	54	VAL	CA-CB	5.06	1.57	1.54
5	E	107	TYR	CA-C	5.06	1.59	1.52
48	VA	79	PHE	CA-C	5.06	1.59	1.52
82	DC	296	ILE	CA-CB	5.06	1.60	1.54
82	DC	612	PHE	CA-C	5.06	1.59	1.52
61	IB	35	TYR	CA-C	5.06	1.58	1.52
12	L	58	VAL	CA-C	5.06	1.58	1.52
68	PB	119	ILE	CA-C	5.06	1.58	1.52
82	DC	495	VAL	CA-C	5.06	1.59	1.52
82	DC	815	ALA	CA-C	5.06	1.59	1.52
5	E	215	ARG	CA-C	5.05	1.59	1.53
21	U	15	ALA	CA-C	5.05	1.58	1.52
82	DC	281	ILE	CA-C	5.05	1.59	1.52
48	VA	67	LEU	N-CA	5.05	1.52	1.46

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
72	TB	35	ILE	CA-CB	5.05	1.59	1.54
5	E	193	LEU	CA-C	5.05	1.59	1.52
5	E	108	ASN	CA-C	5.04	1.58	1.52
51	YA	142	PHE	CA-C	5.04	1.58	1.52
82	DC	70	ILE	CA-C	5.04	1.59	1.52
5	E	4	ILE	CA-C	5.04	1.59	1.52
82	DC	559	PRO	CA-C	5.04	1.59	1.52
5	E	18	LYS	CA-C	5.04	1.59	1.52
13	M	128	VAL	CA-C	5.04	1.58	1.52
82	DC	672	LYS	CA-C	5.04	1.60	1.52
24	X	41	TYR	CA-C	5.04	1.59	1.52
82	DC	381	TYR	CA-C	5.04	1.58	1.52
48	VA	44	GLU	CA-C	5.03	1.59	1.52
51	YA	205	PHE	CA-C	5.03	1.59	1.52
82	DC	736	PRO	CA-C	5.03	1.58	1.52
48	VA	144	LYS	CA-C	5.03	1.59	1.52
48	VA	120	TRP	CA-C	5.03	1.59	1.52
82	DC	445	ILE	CA-C	5.03	1.59	1.52
5	E	118	LYS	N-CA	5.03	1.52	1.46
10	J	98	VAL	CA-C	5.03	1.59	1.52
75	WB	62	VAL	CA-CB	5.03	1.59	1.54
82	DC	149	GLU	CA-C	5.03	1.59	1.52
41	OA	42	ALA	CA-C	5.02	1.59	1.52
8	H	21	PRO	CA-C	5.02	1.57	1.52
51	YA	88	VAL	CA-C	5.02	1.58	1.52
58	FB	92	ARG	CA-C	5.02	1.59	1.52
60	HB	4	PRO	CA-C	5.02	1.57	1.52
5	E	119	GLN	CA-C	5.02	1.59	1.52
62	JB	58	LEU	CA-C	5.02	1.58	1.52
82	DC	819	VAL	CA-C	5.02	1.58	1.52
16	P	139	VAL	N-CA	5.01	1.52	1.46
48	VA	96	ILE	CA-C	5.01	1.60	1.52
73	UB	116	ASP	CA-C	5.01	1.56	1.52
82	DC	628	THR	CA-CB	5.01	1.61	1.53
83	EC	6948	U	C3'-O3'	5.01	1.49	1.42
23	W	19	LYS	CA-C	5.01	1.59	1.52
30	DA	48	LEU	N-CA	5.01	1.49	1.46
58	FB	173	PRO	CA-C	5.01	1.59	1.52
82	DC	385	MET	CA-C	5.01	1.58	1.53
64	LB	24	ASN	CA-C	5.01	1.58	1.52
48	VA	66	PHE	N-CA	5.00	1.52	1.46
48	VA	110	ARG	CA-C	5.00	1.60	1.52

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
75	WB	54	VAL	CA-C	5.00	1.57	1.52
16	P	124	THR	CA-C	5.00	1.58	1.52
82	DC	262	THR	CA-CB	5.00	1.61	1.53

All (481) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	VA	108	PRO	CB-CA-C	-27.82	69.58	110.20
67	OB	73	LEU	N-CA-C	17.97	137.25	110.30
48	VA	106	ALA	N-CA-C	14.93	131.41	110.06
48	VA	181	PHE	N-CA-C	-12.93	99.26	112.97
48	VA	180	PRO	N-CA-C	12.48	129.96	114.35
24	X	167	ARG	CA-C-N	11.35	134.03	119.84
24	X	167	ARG	C-N-CA	11.35	134.03	119.84
67	OB	71	PHE	N-CA-C	-11.06	100.07	112.57
54	BB	105	VAL	N-CA-C	-10.91	102.72	113.20
6	F	153	GLY	N-CA-C	-10.40	100.13	115.63
67	OB	73	LEU	CA-C-N	9.79	138.32	123.24
67	OB	73	LEU	C-N-CA	9.79	138.32	123.24
80	BC	4	VAL	N-CA-C	-9.56	103.01	113.43
48	VA	107	ALA	N-CA-C	9.23	128.78	109.11
2	B	169	U	C2'-C3'-O3'	9.02	123.02	109.50
18	R	61	GLY	N-CA-C	-8.95	103.60	115.32
8	H	192	GLY	N-CA-C	-8.89	103.40	114.16
48	VA	105	VAL	N-CA-C	8.72	127.47	109.34
2	B	282	G	C2'-C3'-O3'	8.69	126.74	113.70
32	FA	54	GLY	N-CA-C	8.65	120.16	111.95
83	EC	6788	C	N1-C1'-C2'	8.64	124.96	112.00
51	YA	205	PHE	CA-C-N	8.53	130.50	119.84
51	YA	205	PHE	C-N-CA	8.53	130.50	119.84
1	A	1339	C	N1-C1'-C2'	8.52	124.78	112.00
48	VA	62	ALA	N-CA-C	-8.51	101.22	111.69
23	W	60	LYS	N-CA-C	-8.45	102.98	113.20
70	RB	45	ALA	N-CA-C	-8.36	103.94	114.56
83	EC	6948	U	C2'-C3'-O3'	8.27	126.11	113.70
9	I	57	ASN	N-CA-C	-8.18	102.08	113.20
1	A	1370	U	C2'-C3'-O3'	8.13	121.69	109.50
48	VA	60	ARG	N-CA-C	-8.11	103.37	113.18
59	GB	42	ILE	N-CA-C	-8.08	105.24	111.62
24	X	165	TYR	N-CA-C	-7.99	104.68	114.75
57	EB	30	SER	N-CA-C	-7.86	102.65	111.14
48	VA	69	ASP	N-CA-C	-7.80	102.73	111.71

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	VA	106	ALA	CA-C-N	-7.80	110.56	122.42
48	VA	106	ALA	C-N-CA	-7.80	110.56	122.42
52	ZA	177	GLY	N-CA-C	-7.79	103.57	112.29
58	FB	177	GLY	N-CA-C	-7.77	104.59	115.32
24	X	140	VAL	N-CA-C	-7.77	105.61	111.90
82	DC	471	THR	N-CA-C	-7.59	105.97	114.62
5	E	73	ASP	N-CA-C	-7.53	103.07	111.28
1	A	139	C	C2'-C3'-O3'	7.53	120.79	109.50
2	B	2541	U	C2'-C3'-O3'	7.53	120.79	109.50
2	B	1307	G	C2'-C3'-O3'	7.52	120.78	109.50
2	B	2525	G	C2'-C3'-O3'	7.52	124.98	113.70
20	T	110	PRO	N-CA-C	7.52	119.87	110.70
16	P	122	GLY	N-CA-C	7.50	126.44	114.90
48	VA	183	PHE	N-CA-C	-7.46	94.91	110.80
16	P	104	ILE	N-CA-C	7.45	119.06	109.30
48	VA	180	PRO	CB-CA-C	7.45	121.39	110.88
16	P	88	PRO	N-CA-C	7.45	119.79	110.70
1	A	1573	A	C2'-C3'-O3'	7.39	120.59	109.50
8	H	180	LYS	N-CA-C	-7.39	102.92	110.97
2	B	3317	U	C2'-C3'-O3'	7.37	120.56	109.50
10	J	127	ASN	N-CA-C	-7.37	104.24	113.23
48	VA	105	VAL	CA-C-N	-7.36	110.62	122.62
48	VA	105	VAL	C-N-CA	-7.36	110.62	122.62
22	V	159	LYS	N-CA-C	-7.31	104.10	113.16
23	W	101	VAL	N-CA-C	-7.29	104.10	110.74
2	B	3228	C	C2'-C3'-O3'	7.29	120.43	109.50
65	MB	99	GLY	N-CA-C	-7.27	104.46	114.64
23	W	129	GLY	N-CA-C	-7.26	102.80	112.82
2	B	764	U	N1-C1'-C2'	7.25	122.88	112.00
71	SB	13	VAL	CA-C-N	7.22	128.86	119.84
71	SB	13	VAL	C-N-CA	7.22	128.86	119.84
2	B	1481	A	N9-C1'-C2'	7.20	122.80	112.00
56	DB	134	GLY	CA-C-N	7.19	128.83	119.84
56	DB	134	GLY	C-N-CA	7.19	128.83	119.84
48	VA	105	VAL	CB-CA-C	-7.18	99.51	111.29
14	N	175	ASN	N-CA-C	-7.13	104.18	113.17
22	V	146	SER	N-CA-C	-7.09	103.11	114.09
20	T	109	PRO	CA-C-N	7.05	127.64	120.38
20	T	109	PRO	C-N-CA	7.05	127.64	120.38
37	KA	89	LEU	CA-C-N	7.02	126.27	118.97
37	KA	89	LEU	C-N-CA	7.02	126.27	118.97
38	LA	89	ILE	N-CA-C	-6.99	105.03	111.67

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	RA	84	ALA	N-CA-C	-6.98	104.63	113.43
67	OB	77	GLU	N-CA-C	6.97	121.01	112.23
1	A	25	C	C2'-C3'-O3'	6.96	119.93	109.50
83	EC	6945	U	N1-C1'-C2'	6.95	122.43	112.00
2	B	2513	U	C2'-C3'-O3'	6.89	119.83	109.50
59	GB	81	VAL	N-CA-C	-6.88	104.29	111.58
48	VA	98	ASN	N-CA-C	-6.85	103.74	111.07
82	DC	204	PRO	N-CA-C	-6.85	105.03	114.27
83	EC	6907	G	N9-C1'-C2'	6.84	122.25	112.00
72	TB	15	ASN	N-CA-C	-6.83	104.42	112.89
59	GB	179	ARG	N-CA-C	-6.82	104.77	113.23
82	DC	277	ILE	N-CA-C	6.79	116.94	110.42
1	A	453	U	N1-C1'-C2'	6.77	122.16	112.00
16	P	74	VAL	N-CA-C	6.72	115.22	107.89
37	KA	92	LYS	N-CA-C	-6.72	105.19	113.19
20	T	79	ILE	CB-CA-C	-6.72	103.20	111.87
38	LA	98	GLN	N-CA-C	-6.65	105.28	113.19
20	T	101	ARG	N-CA-C	-6.64	105.33	113.50
12	L	77	GLN	N-CA-C	-6.57	104.52	112.54
31	EA	16	GLY	N-CA-C	6.57	118.71	112.08
11	K	123	THR	N-CA-C	-6.56	107.14	114.62
50	XA	5	ALA	N-CA-C	-6.55	106.50	114.75
59	GB	39	LYS	N-CA-C	-6.52	105.32	113.28
5	E	211	GLY	CA-C-N	6.52	127.99	119.84
5	E	211	GLY	C-N-CA	6.52	127.99	119.84
65	MB	79	HIS	N-CA-C	-6.52	105.20	113.02
20	T	57	PHE	N-CA-C	-6.51	105.92	114.31
82	DC	605	ILE	N-CA-C	-6.50	105.49	111.67
1	A	821	U	N1-C1'-C2'	6.50	121.74	112.00
1	A	1772	C	N1-C1'-C2'	6.49	121.73	112.00
76	XB	97	PRO	N-CA-C	6.49	118.62	110.70
41	OA	3	LYS	N-CA-C	-6.49	105.40	113.38
11	K	157	ASN	N-CA-C	-6.46	104.98	112.86
48	VA	182	THR	N-CA-C	6.46	118.68	108.67
19	S	149	ASN	N-CA-C	-6.45	104.30	111.71
30	DA	95	VAL	CA-C-N	6.43	126.38	119.76
30	DA	95	VAL	C-N-CA	6.43	126.38	119.76
14	N	169	LYS	N-CA-C	-6.41	105.33	113.02
82	DC	38	SER	N-CA-C	-6.41	104.95	112.89
9	I	43	LYS	N-CA-C	-6.39	105.64	113.50
82	DC	747	LEU	N-CA-C	-6.38	104.19	112.23
34	HA	104	LEU	N-CA-C	-6.36	105.39	113.02

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	G	349	LYS	N-CA-C	-6.35	104.43	111.36
54	BB	34	GLY	CA-C-N	6.35	125.78	118.85
54	BB	34	GLY	C-N-CA	6.35	125.78	118.85
63	KB	134	VAL	N-CA-C	-6.34	107.68	113.71
76	XB	20	PRO	N-CA-C	6.33	121.16	111.34
83	EC	6949	G	C2'-C3'-O3'	6.33	123.20	113.70
10	J	125	GLN	N-CA-C	6.32	117.35	108.00
5	E	108	ASN	N-CA-C	-6.31	105.60	113.55
83	EC	6830	G	N9-C1'-C2'	6.31	121.46	112.00
2	B	1572	U	N1-C1'-C2'	6.29	121.43	112.00
10	J	173	MET	N-CA-C	-6.29	105.89	112.93
57	EB	62	VAL	CA-C-N	6.26	127.67	119.84
57	EB	62	VAL	C-N-CA	6.26	127.67	119.84
83	EC	6874	A	N9-C1'-C2'	6.25	121.38	112.00
48	VA	56	ASN	N-CA-C	-6.25	105.75	113.19
1	A	829	A	C2'-C3'-O3'	6.25	118.87	109.50
47	UA	43	GLY	N-CA-C	-6.25	107.64	115.08
73	UB	93	LEU	N-CA-C	-6.23	105.53	113.01
12	L	125	ALA	N-CA-C	-6.23	103.80	111.40
83	EC	6840	A	C4'-C3'-O3'	6.21	119.32	110.00
19	S	147	ARG	N-CA-C	-6.21	106.24	113.88
82	DC	141	THR	N-CA-C	-6.20	104.44	111.14
25	Y	46	GLY	N-CA-C	6.20	121.92	113.99
8	H	294	GLU	N-CA-C	-6.19	104.53	111.28
51	YA	22	ASP	CA-C-N	6.15	126.27	119.87
51	YA	22	ASP	C-N-CA	6.15	126.27	119.87
67	OB	73	LEU	CA-C-O	6.14	127.43	120.80
45	SA	5	TRP	N-CA-C	-6.13	105.28	112.89
62	JB	51	ALA	N-CA-C	-6.12	105.85	113.38
8	H	130	ALA	N-CA-C	-6.10	102.31	110.55
2	B	2197	C	C2'-C3'-O3'	6.09	118.64	109.50
45	SA	6	ARG	N-CA-C	-6.09	105.34	112.89
67	OB	73	LEU	O-C-N	6.09	131.41	123.07
83	EC	6854	U	N1-C1'-C2'	6.07	121.11	112.00
19	S	101	THR	N-CA-C	-6.07	104.75	111.36
24	X	109	ASP	N-CA-C	-6.06	105.37	112.89
16	P	111	GLU	N-CA-C	-6.06	104.68	111.28
19	S	83	LYS	CA-C-N	6.05	127.40	119.84
19	S	83	LYS	C-N-CA	6.05	127.40	119.84
82	DC	515	ASP	CA-C-N	6.05	125.53	119.24
82	DC	515	ASP	C-N-CA	6.05	125.53	119.24
2	B	2457	G	N9-C1'-C2'	6.04	121.07	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	K	138	TYR	CA-C-N	6.04	126.25	119.90
11	K	138	TYR	C-N-CA	6.04	126.25	119.90
74	VB	86	GLU	CA-C-N	6.04	126.01	120.03
74	VB	86	GLU	C-N-CA	6.04	126.01	120.03
29	CA	45	LYS	N-CA-C	-6.03	105.88	113.72
8	H	276	LEU	CA-C-N	6.03	127.38	119.84
8	H	276	LEU	C-N-CA	6.03	127.38	119.84
53	AB	21	LEU	N-CA-C	-6.03	104.63	111.14
34	HA	99	ASP	N-CA-C	-6.02	105.90	113.72
83	EC	6909	A	N9-C1'-C2'	6.01	121.02	112.00
26	Z	25	ASN	N-CA-C	-6.01	106.28	113.97
49	WA	11	GLY	N-CA-C	6.01	117.66	111.95
6	F	91	GLY	N-CA-C	6.00	119.88	111.00
2	B	3269	U	C2'-C3'-O3'	6.00	118.50	109.50
8	H	312	VAL	N-CA-C	-6.00	108.01	113.71
56	DB	44	GLU	N-CA-C	-5.99	106.13	113.50
5	E	211	GLY	N-CA-C	5.98	124.55	112.34
60	HB	82	LEU	CA-C-N	5.98	127.31	119.84
60	HB	82	LEU	C-N-CA	5.98	127.31	119.84
9	I	44	TYR	CB-CA-C	-5.97	109.10	117.23
38	LA	58	ARG	CA-C-N	5.97	127.31	119.84
38	LA	58	ARG	C-N-CA	5.97	127.31	119.84
40	NA	55	ARG	N-CA-C	-5.97	104.69	111.14
7	G	293	ASN	N-CA-C	-5.97	105.08	112.90
67	OB	76	GLU	N-CA-C	-5.96	105.59	112.92
2	B	1115	G	N9-C1'-C2'	5.95	120.92	112.00
83	EC	6871	A	N9-C1'-C2'	5.93	120.89	112.00
47	UA	24	ARG	N-CA-C	-5.92	105.72	113.12
55	CB	167	ARG	N-CA-C	-5.92	106.06	113.28
2	B	2801	A	N9-C1'-C2'	5.92	120.88	112.00
38	LA	25	THR	CA-C-N	5.91	126.06	119.32
38	LA	25	THR	C-N-CA	5.91	126.06	119.32
8	H	179	LEU	N-CA-C	-5.90	106.24	113.50
10	J	26	ARG	CA-C-N	5.89	126.23	119.93
10	J	26	ARG	C-N-CA	5.89	126.23	119.93
82	DC	581	ASN	N-CA-C	-5.89	105.59	112.89
1	A	103	A	N9-C1'-C2'	5.88	120.83	112.00
71	SB	29	HIS	N-CA-C	-5.88	105.69	112.92
7	G	66	LYS	N-CA-C	-5.86	106.17	113.15
36	JA	84	THR	N-CA-C	-5.86	106.09	113.18
24	X	68	HIS	CA-C-N	5.86	127.16	119.84
24	X	68	HIS	C-N-CA	5.86	127.16	119.84

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	S	178	HIS	N-CA-C	-5.85	105.63	112.89
19	S	20	ARG	N-CA-C	-5.84	105.25	112.38
2	B	960	U	N1-C1'-C2'	5.83	120.75	112.00
50	XA	165	ARG	N-CA-C	-5.82	106.22	113.15
56	DB	172	ALA	CA-C-N	5.82	126.28	119.99
56	DB	172	ALA	C-N-CA	5.82	126.28	119.99
20	T	40	GLU	N-CA-C	-5.82	105.77	112.92
52	ZA	239	PRO	N-CA-C	-5.81	106.88	114.03
67	OB	61	ILE	N-CA-C	-5.81	103.65	111.44
1	A	1259	U	N1-C1'-C2'	5.81	120.72	112.00
13	M	173	ARG	N-CA-C	-5.80	106.84	114.04
2	B	1556	C	C2'-C3'-O3'	5.80	118.20	109.50
50	XA	192	THR	CB-CA-C	-5.80	108.89	115.79
83	EC	6800	G	N9-C1'-C2'	5.80	120.70	112.00
1	A	279	G	N9-C1'-C2'	5.80	120.69	112.00
82	DC	631	ARG	N-CA-C	-5.80	105.97	113.16
33	GA	19	ASN	N-CA-C	-5.79	106.07	113.02
48	VA	58	MET	N-CA-C	-5.79	106.26	113.38
72	TB	58	SER	N-CA-C	-5.79	108.02	114.62
1	A	1258	U	N1-C1'-C2'	5.79	120.68	112.00
15	O	85	LYS	N-CA-C	-5.75	104.92	111.07
50	XA	108	THR	N-CA-C	-5.74	101.97	110.46
59	GB	29	LYS	N-CA-C	-5.73	104.72	110.97
72	TB	87	GLU	N-CA-C	-5.73	105.12	111.71
21	U	105	LYS	N-CA-C	-5.72	106.28	113.72
11	K	49	ALA	N-CA-C	-5.72	105.13	111.36
1	A	1615	C	C2'-C3'-O3'	5.71	118.07	109.50
1	A	1257	U	N1-C1'-C2'	5.71	120.57	112.00
23	W	107	ALA	N-CA-C	-5.70	106.16	113.23
76	XB	19	LYS	CA-C-N	5.70	126.02	119.92
76	XB	19	LYS	C-N-CA	5.70	126.02	119.92
46	TA	37	ALA	N-CA-C	-5.67	101.65	110.10
58	FB	110	ARG	N-CA-C	-5.67	106.91	113.88
82	DC	86	VAL	N-CA-C	-5.67	106.28	112.80
83	EC	6808	G	N9-C1'-C2'	5.65	122.48	114.00
69	QB	49	ASP	N-CA-C	-5.64	106.75	113.97
12	L	245	LYS	N-CA-C	-5.64	106.23	113.23
70	RB	46	GLU	N-CA-C	-5.64	106.36	113.18
9	I	5	LYS	N-CA-C	-5.61	106.78	113.97
19	S	98	LEU	N-CA-C	-5.61	105.31	111.82
73	UB	111	GLY	N-CA-C	-5.60	102.06	112.37
44	RA	85	LEU	N-CA-C	-5.60	105.32	111.82

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	2464	U	N1-C1'-C2'	5.60	120.40	112.00
2	B	882	A	N9-C1'-C2'	5.60	120.39	112.00
23	W	175	GLN	N-CA-C	-5.60	106.58	113.41
82	DC	834	GLY	N-CA-C	5.59	120.60	112.60
23	W	142	ILE	N-CA-C	-5.59	105.05	110.42
2	B	2101	C	C2'-C3'-O3'	5.58	117.88	109.50
2	B	2263	C	N1-C1'-C2'	5.58	120.38	112.00
69	QB	139	THR	N-CA-C	-5.58	105.27	111.36
17	Q	191	ALA	N-CA-C	-5.58	106.32	113.01
1	A	402	C	N1-C1'-C2'	5.58	120.36	112.00
29	CA	72	ALA	N-CA-C	-5.58	106.83	113.97
48	VA	155	ASP	N-CA-C	-5.57	105.62	113.20
50	XA	89	PHE	N-CA-C	-5.57	105.98	112.89
2	B	285	A	N9-C1'-C2'	5.57	120.35	112.00
67	OB	109	LEU	N-CA-C	-5.56	104.85	111.69
33	GA	55	ALA	N-CA-C	-5.56	106.54	113.38
82	DC	242	ASP	N-CA-C	-5.54	105.16	111.14
73	UB	80	GLY	N-CA-C	-5.54	107.03	115.00
11	K	177	GLY	N-CA-C	-5.54	104.71	111.35
29	CA	74	LYS	N-CA-C	-5.53	105.63	112.38
61	IB	22	ASN	CA-C-N	5.53	125.22	119.64
61	IB	22	ASN	C-N-CA	5.53	125.22	119.64
30	DA	26	GLN	N-CA-C	-5.53	107.08	113.88
1	A	888	U	N1-C1'-C2'	5.52	120.28	112.00
2	B	1352	A	C2'-C3'-O3'	5.52	117.78	109.50
63	KB	103	GLU	N-CA-C	-5.52	106.04	112.89
2	B	1815	U	C2'-C3'-O3'	5.51	117.77	109.50
50	XA	153	SER	N-CA-C	-5.51	106.87	113.21
11	K	124	LEU	N-CA-C	-5.51	105.43	111.82
23	W	176	ARG	N-CA-C	-5.51	105.29	112.23
59	GB	48	GLN	N-CA-C	-5.50	105.18	111.07
20	T	114	LYS	N-CA-C	-5.50	106.53	113.18
2	B	1262	G	N9-C1'-C2'	5.50	120.24	112.00
50	XA	183	ARG	N-CA-C	-5.48	105.46	111.82
2	B	2870	C	N1-C1'-C2'	5.48	120.22	112.00
83	EC	6789	G	N9-C1'-C2'	5.48	120.22	112.00
53	AB	128	GLU	N-CA-C	-5.47	106.10	112.89
61	IB	107	VAL	CA-C-N	5.47	125.47	120.21
61	IB	107	VAL	C-N-CA	5.47	125.47	120.21
82	DC	113	SER	N-CA-C	-5.46	104.74	111.40
1	A	824	G	N9-C1'-C2'	5.45	120.18	112.00
44	RA	78	ILE	N-CA-C	-5.45	107.67	112.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	CB	207	THR	N-CA-C	-5.45	106.63	113.72
75	WB	95	HIS	N-CA-C	5.45	117.54	109.69
17	Q	55	ARG	CA-C-N	5.45	125.44	120.21
17	Q	55	ARG	C-N-CA	5.45	125.44	120.21
17	Q	114	GLN	N-CA-C	-5.45	105.37	112.23
24	X	134	ASP	N-CA-C	-5.44	106.64	113.28
9	I	251	PRO	N-CA-C	-5.44	109.02	114.68
29	CA	61	LYS	N-CA-C	-5.44	106.62	113.20
23	W	127	SER	N-CA-C	-5.43	105.02	111.69
58	FB	141	ARG	N-CA-C	-5.43	105.47	111.71
83	EC	6790	A	N9-C1'-C2'	5.42	120.14	112.00
29	CA	43	ALA	CA-C-N	5.42	126.62	119.84
29	CA	43	ALA	C-N-CA	5.42	126.62	119.84
29	CA	117	ASN	N-CA-C	-5.42	106.62	113.18
81	CC	142	GLY	N-CA-C	5.42	124.39	115.34
83	EC	6952	U	N1-C1'-C2'	5.42	120.13	112.00
12	L	80	TYR	N-CA-C	-5.42	102.31	110.70
72	TB	103	ILE	N-CA-C	5.42	112.00	106.21
82	DC	524	GLU	N-CA-C	-5.42	106.63	113.18
1	A	73	U	N1-C1'-C2'	5.41	122.12	114.00
1	A	683	C	N1-C1'-C2'	5.41	120.11	112.00
48	VA	65	GLY	N-CA-C	-5.41	106.16	113.24
49	WA	283	LYS	N-CA-C	-5.41	108.46	114.62
54	BB	257	ALA	N-CA-C	-5.41	105.30	111.14
55	CB	66	GLN	CA-C-N	5.41	125.31	119.85
55	CB	66	GLN	C-N-CA	5.41	125.31	119.85
48	VA	73	PHE	N-CA-C	-5.40	106.76	113.19
82	DC	719	LEU	N-CA-C	-5.40	107.24	113.88
2	B	2077	U	N1-C1'-C2'	5.40	120.09	112.00
8	H	32	PRO	N-CA-C	-5.40	106.83	113.84
37	KA	90	PRO	N-CA-C	5.39	121.18	113.47
65	MB	44	ARG	N-CA-C	-5.38	106.69	113.20
7	G	120	LYS	N-CA-C	-5.38	106.76	113.38
48	VA	129	GLU	CA-C-N	5.38	126.56	119.84
48	VA	129	GLU	C-N-CA	5.38	126.56	119.84
39	MA	86	ARG	N-CA-C	-5.38	105.42	111.28
21	U	55	GLN	N-CA-C	-5.37	106.89	113.50
52	ZA	240	LEU	N-CA-C	-5.37	107.03	113.21
1	A	929	A	N9-C1'-C2'	5.37	120.05	112.00
82	DC	112	SER	N-CA-C	-5.37	106.50	113.16
55	CB	112	ARG	N-CA-C	-5.37	105.43	111.28
5	E	148	VAL	N-CA-C	-5.36	105.49	110.53

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	JB	38	HIS	N-CA-C	-5.36	106.52	113.16
19	S	106	VAL	N-CA-C	-5.35	106.29	112.98
50	XA	119	ARG	N-CA-C	-5.35	105.79	114.09
2	B	2509	U	N1-C1'-C2'	5.35	120.03	112.00
54	BB	94	ALA	N-CA-C	-5.34	103.09	110.35
21	U	79	THR	N-CA-C	-5.34	106.70	113.43
75	WB	81	ARG	N-CA-C	-5.34	106.52	114.64
18	R	119	GLN	N-CA-C	-5.34	105.54	111.36
1	A	610	G	N9-C1'-C2'	5.33	119.99	112.00
62	JB	87	PRO	N-CA-C	5.32	119.56	111.15
17	Q	26	PHE	N-CA-C	-5.32	106.63	113.23
82	DC	234	GLY	N-CA-C	-5.32	106.70	114.90
55	CB	61	TYR	N-CA-C	-5.32	106.17	113.30
58	FB	172	ARG	CA-C-N	5.32	126.49	119.84
58	FB	172	ARG	C-N-CA	5.32	126.49	119.84
69	QB	104	VAL	N-CA-C	-5.32	105.57	113.39
24	X	168	PRO	N-CA-C	5.32	123.42	112.47
10	J	122	PHE	N-CA-C	5.31	121.56	109.81
6	F	176	ASP	N-CA-C	-5.31	106.48	113.17
19	S	143	ARG	N-CA-C	-5.31	105.90	112.38
82	DC	688	ILE	CB-CA-C	-5.31	105.50	111.23
50	XA	203	PHE	CB-CA-C	-5.31	108.88	115.89
59	GB	177	ALA	N-CA-C	-5.30	105.95	112.90
18	R	85	TRP	N-CA-C	-5.30	105.42	111.14
13	M	151	VAL	CB-CA-C	-5.30	105.10	112.04
10	J	160	SER	N-CA-C	-5.30	106.89	113.19
36	JA	22	SER	N-CA-C	-5.30	106.65	113.01
55	CB	219	ARG	N-CA-C	-5.29	106.08	112.54
73	UB	94	ASN	N-CA-C	-5.29	106.60	113.16
82	DC	107	GLY	N-CA-C	-5.29	104.47	112.41
74	VB	124	ARG	N-CA-C	-5.29	105.56	112.23
6	F	122	ASP	N-CA-C	-5.29	107.01	112.93
1	A	1022	C	C4'-C3'-O3'	5.28	117.92	110.00
12	L	78	PHE	N-CA-C	-5.28	100.70	109.46
16	P	107	ASP	CA-C-N	5.28	129.13	120.63
16	P	107	ASP	C-N-CA	5.28	129.13	120.63
12	L	195	SER	N-CA-C	-5.27	107.87	114.56
18	R	48	GLY	CA-C-N	5.27	124.78	119.19
18	R	48	GLY	C-N-CA	5.27	124.78	119.19
25	Y	154	VAL	CA-C-N	5.27	125.24	120.03
25	Y	154	VAL	C-N-CA	5.27	125.24	120.03
22	V	72	LYS	N-CA-C	-5.27	106.75	114.39

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	GB	28	LEU	N-CA-C	-5.27	105.59	112.23
5	E	104	SER	N-CA-C	-5.26	106.81	113.18
2	B	2837	A	N9-C1'-C2'	5.26	119.89	112.00
65	MB	46	ALA	N-CA-C	-5.25	107.04	113.50
26	Z	53	ALA	N-CA-C	-5.25	106.90	113.72
35	IA	64	VAL	N-CA-C	5.25	115.69	110.23
9	I	4	GLN	N-CA-C	-5.24	106.67	113.16
19	S	15	GLN	N-CA-C	-5.24	107.91	114.56
83	EC	6760	A	N9-C1'-C2'	5.24	119.86	112.00
38	LA	111	ALA	N-CA-C	-5.24	107.27	113.97
1	A	558	U	N1-C1'-C2'	5.23	119.85	112.00
12	L	248	LYS	N-CA-C	-5.23	106.40	112.89
53	AB	26	THR	N-CA-C	-5.23	105.64	112.23
74	VB	116	LYS	N-CA-C	-5.23	106.75	113.23
2	B	978	G	N9-C1'-C2'	5.21	119.82	112.00
76	XB	59	TYR	CA-C-N	5.21	126.36	119.84
76	XB	59	TYR	C-N-CA	5.21	126.36	119.84
56	DB	41	VAL	N-CA-C	-5.21	108.04	113.10
16	P	96	LYS	N-CA-C	-5.21	106.92	113.28
83	EC	6796	C	N1-C1'-C2'	5.21	119.81	112.00
8	H	25	VAL	N-CA-C	-5.21	105.64	110.53
19	S	75	VAL	CA-C-N	5.20	125.44	119.83
19	S	75	VAL	C-N-CA	5.20	125.44	119.83
74	VB	110	GLN	N-CA-C	-5.19	105.70	111.36
1	A	501	U	C2'-C3'-O3'	5.19	121.48	113.70
82	DC	536	LEU	N-CA-C	-5.19	104.69	111.02
82	DC	85	ASP	N-CA-C	-5.19	105.70	112.23
21	U	142	SER	CA-C-N	5.18	126.32	119.84
21	U	142	SER	C-N-CA	5.18	126.32	119.84
23	W	89	LEU	CA-C-N	5.18	125.47	119.93
23	W	89	LEU	C-N-CA	5.18	125.47	119.93
6	F	207	VAL	CB-CA-C	-5.18	105.34	111.97
58	FB	119	GLN	N-CA-C	-5.18	106.20	112.88
55	CB	83	ARG	N-CA-C	-5.17	105.71	112.23
16	P	136	ALA	N-CA-C	-5.17	107.53	113.88
20	T	193	GLN	N-CA-C	-5.16	105.57	111.14
58	FB	90	LEU	N-CA-C	-5.16	106.68	112.87
9	I	120	LYS	N-CA-C	-5.16	107.66	114.31
9	I	211	LEU	N-CA-C	-5.16	108.74	114.62
83	EC	6903	U	N1-C1'-C2'	5.14	119.72	112.00
63	KB	65	VAL	N-CA-C	-5.14	106.32	113.00
83	EC	6949	G	C3'-C2'-O2'	5.14	118.41	110.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	RA	104	PRO	N-CA-C	-5.14	104.43	110.70
2	B	3218	A	C2'-C3'-O3'	5.13	121.40	113.70
40	NA	35	ASN	N-CA-C	-5.13	106.12	112.38
83	EC	6859	U	N1-C1'-C2'	5.13	119.69	112.00
72	TB	16	ASN	N-CA-C	-5.12	106.88	113.23
83	EC	6916	A	N9-C1'-C2'	5.12	119.69	112.00
48	VA	42	ARG	N-CA-C	-5.12	105.88	111.82
1	A	733	A	N9-C1'-C2'	5.12	119.68	112.00
2	B	1878	G	N9-C1'-C2'	5.12	119.68	112.00
67	OB	80	ARG	N-CA-C	-5.12	107.01	113.20
82	DC	760	ARG	CA-C-N	5.11	125.15	119.32
82	DC	760	ARG	C-N-CA	5.11	125.15	119.32
17	Q	83	ALA	N-CA-C	-5.11	106.21	112.90
26	Z	60	GLY	N-CA-C	-5.11	108.61	114.69
31	EA	121	ARG	N-CA-C	-5.11	106.74	112.87
32	FA	9	ARG	N-CA-C	-5.11	105.80	111.36
82	DC	230	ALA	N-CA-C	-5.11	105.84	111.71
60	HB	47	GLN	N-CA-C	-5.09	106.17	112.38
67	OB	94	SER	N-CA-C	-5.09	106.92	113.23
82	DC	789	GLY	N-CA-C	-5.09	102.90	112.22
19	S	142	ILE	N-CA-C	-5.09	107.87	112.96
22	V	6	THR	N-CA-C	-5.09	105.43	111.69
83	EC	6926	U	N1-C1'-C2'	5.09	119.63	112.00
1	A	619	A	N9-C1'-C2'	5.08	119.62	112.00
5	E	212	PRO	N-CA-C	5.08	122.94	112.47
2	B	1416	C	N1-C1'-C2'	5.08	119.62	112.00
1	A	1533	C	N1-C1'-C2'	5.08	119.62	112.00
37	KA	41	ALA	N-CA-C	-5.08	106.25	112.90
8	H	332	LYS	N-CA-C	-5.07	105.22	111.40
73	UB	95	PHE	N-CA-C	-5.07	107.65	113.88
83	EC	6883	A	N9-C1'-C2'	5.06	119.59	112.00
1	A	418	G	N9-C1'-C2'	5.06	119.59	112.00
7	G	350	ALA	N-CA-C	-5.06	102.02	110.17
35	IA	37	LYS	N-CA-C	-5.06	105.89	111.71
54	BB	254	ARG	N-CA-C	-5.06	107.11	113.28
19	S	169	LYS	N-CA-C	-5.06	106.94	113.01
32	FA	47	LYS	N-CA-C	-5.06	100.03	110.80
83	EC	6857	C	N1-C1'-C2'	5.06	119.58	112.00
15	O	93	ASP	N-CA-C	-5.05	105.68	111.14
83	EC	6896	A	C2'-C3'-O3'	5.05	121.28	113.70
83	EC	6775	U	N1-C1'-C2'	5.05	119.58	112.00
2	B	2477	G	N9-C1'-C2'	5.04	119.57	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	DA	7	ASP	N-CA-C	-5.04	106.97	113.23
30	DA	6	LEU	N-CA-C	-5.04	108.39	114.75
83	EC	6795	U	N1-C1'-C2'	5.04	119.57	112.00
24	X	11	GLY	N-CA-C	-5.04	104.26	111.42
21	U	173	ARG	N-CA-C	-5.04	104.78	112.04
23	W	76	SER	N-CA-C	-5.04	107.09	114.39
1	A	440	U	N1-C1'-C2'	5.03	119.55	112.00
49	WA	227	ALA	N-CA-C	-5.03	106.72	114.16
1	A	787	G	N9-C1'-C2'	5.03	119.54	112.00
83	EC	6896	A	C3'-C2'-O2'	5.03	118.24	110.70
70	RB	70	THR	CA-C-N	5.02	124.63	119.56
70	RB	70	THR	C-N-CA	5.02	124.63	119.56
52	ZA	172	ALA	CA-C-N	5.02	124.95	119.78
52	ZA	172	ALA	C-N-CA	5.02	124.95	119.78
52	ZA	226	THR	CA-C-N	5.01	126.11	119.84
52	ZA	226	THR	C-N-CA	5.01	126.11	119.84
54	BB	4	GLY	N-CA-C	5.01	122.57	112.34
16	P	95	ASP	N-CA-C	-5.01	105.48	112.45
82	DC	742	GLY	N-CA-C	5.01	118.94	112.83
1	A	583	C	N1-C1'-C2'	5.01	119.51	112.00
27	AA	110	LYS	N-CA-C	-5.01	107.16	114.12
21	U	172	GLN	N-CA-C	-5.00	107.02	113.23
1	A	190	C	N1-C1'-C2'	5.00	121.50	114.00
59	GB	159	ALA	CA-C-N	5.00	125.02	119.32
59	GB	159	ALA	C-N-CA	5.00	125.02	119.32
79	AC	43	PHE	N-CA-C	-5.00	105.91	111.36

There are no chirality outliers.

All (104) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1058	U	Sidechain
1	A	1147	A	Sidechain
1	A	1157	A	Sidechain
1	A	1339	C	Sidechain
1	A	143	G	Sidechain
1	A	1524	A	Sidechain
1	A	1535	U	Sidechain
1	A	1680	G	Sidechain
1	A	1764	C	Sidechain
1	A	199	G	Sidechain
1	A	207	U	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
1	A	287	G	Sidechain
1	A	447	U	Sidechain
1	A	553	G	Sidechain
1	A	576	G	Sidechain
1	A	60	U	Sidechain
1	A	684	A	Sidechain
1	A	928	U	Sidechain
2	B	1051	U	Sidechain
2	B	1082	U	Sidechain
2	B	110	G	Sidechain
2	B	112	U	Sidechain
2	B	1150	A	Sidechain
2	B	1190	A	Sidechain
2	B	1229	G	Sidechain
2	B	1258	U	Sidechain
2	B	1262	G	Sidechain
2	B	1294	A	Sidechain
2	B	1301	A	Sidechain
2	B	1367	G	Sidechain
2	B	1432	C	Sidechain
2	B	148	G	Sidechain
2	B	1603	A	Sidechain
2	B	1713	G	Sidechain
2	B	1792	C	Sidechain
2	B	1848	G	Sidechain
2	B	1857	C	Sidechain
2	B	1863	G	Sidechain
2	B	1951	C	Sidechain
2	B	2110	G	Sidechain
2	B	2131	A	Sidechain
2	B	2193	U	Sidechain
2	B	221	A	Sidechain
2	B	2262	A	Sidechain
2	B	2286	U	Sidechain
2	B	2314	U	Sidechain
2	B	2376	G	Sidechain
2	B	2403	G	Sidechain
2	B	2457	G	Sidechain
2	B	2501	U	Sidechain
2	B	2510	U	Sidechain
2	B	2626	A	Sidechain
2	B	2655	U	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
2	B	2704	A	Sidechain
2	B	2713	U	Sidechain
2	B	2747	A	Sidechain
2	B	2771	U	Sidechain
2	B	2813	A	Sidechain
2	B	2844	C	Sidechain
2	B	2858	U	Sidechain
2	B	2886	U	Sidechain
2	B	2975	U	Sidechain
2	B	3055	U	Sidechain
2	B	3141	A	Sidechain
2	B	3280	U	Sidechain
2	B	3288	G	Sidechain
2	B	341	G	Sidechain
2	B	349	A	Sidechain
2	B	371	G	Sidechain
2	B	383	G	Sidechain
2	B	400	G	Sidechain
2	B	406	G	Sidechain
2	B	547	G	Sidechain
2	B	57	A	Sidechain
2	B	58	G	Sidechain
2	B	71	A	Sidechain
2	B	760	G	Sidechain
2	B	770	G	Sidechain
2	B	817	A	Sidechain
2	B	835	G	Sidechain
2	B	857	G	Sidechain
2	B	858	A	Sidechain
2	B	882	A	Sidechain
2	B	894	G	Sidechain
2	B	907	G	Sidechain
2	B	924	G	Sidechain
2	B	987	U	Sidechain
2	B	993	G	Sidechain
3	C	26	U	Sidechain
3	C	70	G	Sidechain
3	C	88	A	Sidechain
3	C	93	U	Sidechain
82	DC	623	TYR	Sidechain
83	EC	6770	U	Sidechain
83	EC	6775	U	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
83	EC	6796	C	Sidechain
83	EC	6797	U	Sidechain
83	EC	6812	C	Sidechain
83	EC	6855	A	Sidechain
83	EC	6935	G	Sidechain
83	EC	6945	U	Sidechain
83	EC	6948	U	Sidechain
48	VA	108	PRO	Peptide,Mainchain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	36760	0	18348	1440	0
2	B	70288	0	35262	2388	0
3	C	3354	0	1695	115	0
4	D	2580	0	1304	103	0
5	E	1359	0	1425	114	0
6	F	1918	0	1987	217	0
7	G	3082	0	3165	238	0
8	H	2750	0	2863	237	0
9	I	2376	0	2325	204	0
10	J	1401	0	1501	90	0
11	K	1785	0	1862	144	0
12	L	1818	0	1908	188	0
13	M	1519	0	1587	124	0
14	N	1718	0	1754	138	0
15	O	1354	0	1383	106	0
16	P	723	0	774	129	0
17	Q	1543	0	1608	147	0
18	R	1054	0	1149	90	0
19	S	1721	0	1779	165	0
20	T	1556	0	1659	102	0
21	U	1443	0	1485	101	0
22	V	1442	0	1543	124	0
23	W	1522	0	1617	106	0
24	X	1446	0	1487	159	0
25	Y	1277	0	1323	111	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	Z	796	0	812	40	0
27	AA	1004	0	1048	77	0
28	BA	509	0	537	37	0
29	CA	969	0	1036	85	0
30	DA	994	0	1081	110	0
31	EA	1093	0	1155	110	0
32	FA	1174	0	1215	122	0
33	GA	463	0	491	21	0
34	HA	743	0	797	94	0
35	IA	890	0	938	48	0
36	JA	1020	0	1090	61	0
37	KA	851	0	880	61	0
38	LA	881	0	949	106	0
39	MA	970	0	1078	110	0
40	NA	772	0	849	46	0
41	OA	682	0	687	59	0
42	PA	613	0	682	37	0
43	QA	437	0	475	44	0
44	RA	418	0	459	33	0
45	SA	234	0	284	12	0
46	TA	848	0	918	38	0
47	UA	695	0	738	55	0
48	VA	1473	0	1514	192	0
49	WA	2445	0	2401	219	0
50	XA	1612	0	1623	137	0
51	YA	856	0	226	2	0
52	ZA	1635	0	1723	137	0
53	AB	1734	0	1817	136	0
54	BB	2069	0	2154	268	0
55	CB	1610	0	1675	143	0
56	DB	1820	0	1918	156	0
57	EB	1481	0	1572	134	0
58	FB	1490	0	1525	154	0
59	GB	1494	0	1573	156	0
60	HB	817	0	804	80	0
61	IB	1245	0	1314	111	0
62	JB	496	0	141	0	0
63	KB	1193	0	1255	88	0
64	LB	508	0	151	2	0
65	MB	975	0	1017	95	0
66	NB	1106	0	1166	102	0
67	OB	836	0	827	61	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
68	PB	1193	0	1222	98	0
69	QB	1113	0	1124	92	0
70	RB	856	0	917	92	0
71	SB	685	0	672	67	0
72	TB	1022	0	1060	85	0
73	UB	1122	0	1196	106	0
74	VB	1074	0	1132	113	0
75	WB	563	0	603	60	0
76	XB	388	0	96	3	0
77	YB	611	0	633	42	0
78	ZB	498	0	535	48	0
79	AC	444	0	436	37	0
80	BC	475	0	525	50	0
81	CC	284	0	76	1	0
82	DC	6419	0	6493	680	0
83	EC	4105	0	2063	133	0
84	DC	28	0	12	5	0
85	DC	1	0	0	0	0
86	DC	35	0	42	3	0
All	All	212656	0	156225	11084	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 30.

All (11084) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:EC:6927:U:H3'	83:EC:6928:G:H5'	1.22	1.17
2:B:1235:U:H4'	2:B:1236:G:H5'	1.17	1.14
48:VA:108:PRO:HA	48:VA:179:SER:HA	1.14	1.13
1:A:230:C:H3'	1:A:231:U:H5"	1.31	1.12
58:FB:12:SER:HA	58:FB:18:ARG:HH21	1.10	1.11
48:VA:61:ARG:HA	48:VA:64:ARG:HB3	1.26	1.11
17:Q:47:ALA:HB1	17:Q:48:PRO:HD2	1.23	1.11
34:HA:30:THR:HG22	34:HA:91:SER:HB2	1.32	1.10
83:EC:6930:G:H2'	83:EC:6931:U:H4'	1.29	1.10
2:B:109:A:H4'	2:B:110:G:H5'	1.32	1.10
83:EC:6891:G:H3'	83:EC:6892:U:H5"	1.34	1.10
49:WA:262:VAL:HB	49:WA:272:ASP:HB3	1.32	1.09
1:A:1657:U:H4'	1:A:1658:G:H5"	1.34	1.09
2:B:2457:G:H1'	2:B:2486:A:H61	1.13	1.08

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:285:ARG:HB2	9:I:285:ARG:HH11	1.16	1.08
1:A:71:A:H2'	1:A:72:A:H4'	1.20	1.08
58:FB:79:ALA:HB3	58:FB:103:GLN:HB3	1.35	1.07
1:A:400:A:H4'	1:A:401:A:H5'	1.28	1.07
2:B:2536:A:H3'	2:B:2537:U:H5"	1.12	1.06
14:N:42:THR:HG22	14:N:45:GLU:HG3	1.38	1.06
60:HB:58:GLN:HB2	60:HB:65:TYR:HB2	1.36	1.06
73:UB:96:VAL:HG23	73:UB:97:ASP:H	1.19	1.05
60:HB:87:VAL:H	60:HB:88:PRO:HD3	1.20	1.05
2:B:2076:G:H2'	2:B:2077:U:H5"	1.35	1.05
1:A:348:U:H4'	58:FB:14:THR:HG22	1.38	1.03
19:S:27:VAL:HG23	19:S:122:ASN:HB3	1.35	1.03
83:EC:6905:G:C3'	83:EC:6906:G:H5"	1.87	1.03
2:B:666:A:H2'	2:B:667:C:H5"	1.37	1.03
48:VA:33:VAL:HG22	48:VA:34:SER:H	1.14	1.03
82:DC:733:ILE:HD13	82:DC:743:ILE:HD11	1.36	1.03
1:A:845:G:H2'	1:A:846:G:H5"	1.39	1.02
2:B:1858:A:H5'	38:LA:4:ARG:HG2	1.37	1.02
83:EC:6905:G:H3'	83:EC:6906:G:C5'	1.88	1.02
14:N:174:THR:HG22	14:N:176:LEU:H	1.20	1.02
63:KB:22:ALA:HB1	63:KB:23:PRO:HA	1.40	1.02
53:AB:140:GLY:HA3	53:AB:182:LEU:HG	1.39	1.02
2:B:2476:C:H2'	2:B:2477:G:H4'	1.38	1.01
19:S:58:GLY:HA3	19:S:142:ILE:HD11	1.42	1.01
2:B:1233:G:H4'	16:P:120:SER:HB2	1.42	1.01
2:B:2570:U:H4'	2:B:2571:U:H2'	1.39	1.01
15:O:32:ARG:HH21	15:O:121:GLY:HA3	1.21	1.01
57:EB:126:LEU:HD21	57:EB:152:VAL:HG11	1.43	1.01
13:M:90:MET:HG2	13:M:181:VAL:HA	1.43	1.01
57:EB:91:ILE:HD11	57:EB:129:LEU:HA	1.41	1.01
82:DC:335:LEU:HA	82:DC:338:ILE:HD12	1.40	1.00
66:NB:41:PRO:HB3	66:NB:44:LEU:HD23	1.37	1.00
2:B:438:A:H2'	2:B:439:C:H4'	1.42	1.00
15:O:90:GLN:HB3	15:O:172:LEU:HD11	1.44	1.00
1:A:740:A:H2'	1:A:741:C:H5"	1.44	0.99
3:C:81:U:H4'	3:C:82:U:H5'	1.38	0.99
8:H:276:LEU:HD23	8:H:277:PRO:HD2	1.42	0.99
61:IB:85:VAL:HG22	61:IB:108:PRO:HB3	1.44	0.99
1:A:749:U:H3	1:A:800:U:H3	1.10	0.99
74:VB:54:ALA:HB2	74:VB:79:VAL:HG22	1.40	0.99
70:RB:26:LEU:HB2	70:RB:89:ARG:HB2	1.41	0.99

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:VA:39:HIS:HA	48:VA:42:ARG:HD2	1.40	0.99
9:I:111:GLN:HA	9:I:116:ASP:HB2	1.43	0.99
25:Y:124:VAL:HG12	25:Y:125:ALA:H	1.26	0.98
83:EC:6895:C:H2'	83:EC:6896:A:H5"	1.42	0.98
60:HB:21:VAL:HB	60:HB:66:TYR:HB2	1.45	0.98
2:B:151:A:H5"	39:MA:102:GLU:HG3	1.44	0.98
54:BB:252:ARG:HA	54:BB:255:ARG:HD2	1.42	0.98
1:A:475:A:H5'	80:BC:33:ARG:HH22	1.27	0.98
55:CB:142:PRO:HG3	55:CB:214:LYS:HG2	1.46	0.98
82:DC:164:LEU:HD21	82:DC:174:LEU:HD22	1.46	0.97
21:U:64:ASN:HD22	21:U:80:LYS:HD2	1.25	0.97
2:B:1281:G:H5'	48:VA:55:LYS:HG2	1.45	0.97
2:B:3163:A:H2'	2:B:3164:C:H5"	1.44	0.97
55:CB:64:VAL:HG13	55:CB:130:ILE:HD11	1.47	0.97
78:ZB:10:ALA:HA	78:ZB:32:PHE:HA	1.41	0.97
2:B:3206:C:H5"	2:B:3207:U:H5"	1.45	0.97
31:EA:51:LEU:HB2	31:EA:65:ARG:HD2	1.47	0.97
49:WA:302:PHE:HA	49:WA:312:VAL:HG12	1.45	0.97
2:B:2207:A:H3'	2:B:2208:A:H5"	1.47	0.97
13:M:85:GLY:HA3	13:M:187:ILE:HB	1.45	0.97
2:B:3262:U:H2'	2:B:3263:G:H5"	1.47	0.97
59:GB:60:LEU:HD21	59:GB:93:LEU:HD21	1.47	0.97
60:HB:11:ILE:HA	60:HB:35:ILE:HD13	1.47	0.96
69:QB:37:VAL:HG11	69:QB:100:ILE:HD11	1.43	0.96
2:B:2193:U:H5'	2:B:2194:G:H5'	1.48	0.96
9:I:58:LYS:HB3	9:I:93:THR:HG21	1.46	0.96
16:P:128:VAL:HG12	16:P:132:ILE:HD11	1.46	0.96
1:A:237:C:H5"	1:A:238:U:H5'	1.45	0.96
2:B:2499:U:H2'	2:B:2500:A:H8	1.30	0.96
54:BB:160:VAL:HG13	54:BB:169:ILE:HG23	1.46	0.96
54:BB:191:ARG:HD3	54:BB:245:LYS:HB2	1.46	0.96
13:M:115:ARG:HB3	13:M:123:ILE:HG13	1.48	0.95
18:R:47:ASP:HB2	18:R:55:ARG:HG2	1.43	0.95
28:BA:46:PRO:HB2	28:BA:54:LEU:HD23	1.47	0.95
48:VA:34:SER:HB3	48:VA:37:GLN:HG2	1.48	0.95
57:EB:12:ALA:HB3	57:EB:13:PRO:HD3	1.47	0.95
5:E:120:VAL:HG13	5:E:124:LEU:HD23	1.48	0.95
82:DC:296:ILE:HB	82:DC:297:PRO:HD3	1.47	0.95
9:I:104:LEU:HA	9:I:247:ILE:HG21	1.47	0.95
49:WA:136:ILE:HD13	49:WA:136:ILE:H	1.31	0.95
48:VA:130:PRO:HA	48:VA:150:ILE:HD11	1.48	0.95

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:594:ASP:HB3	82:DC:597:VAL:HG23	1.49	0.95
2:B:2491:A:H2'	2:B:2492:C:H4'	1.50	0.94
30:DA:118:LEU:HA	30:DA:121:ARG:HH11	1.32	0.94
39:MA:104:GLN:HE22	39:MA:107:LYS:HD3	1.31	0.94
1:A:487:G:H2'	1:A:488:G:H5"	1.48	0.94
42:PA:31:LEU:HD21	42:PA:35:GLY:H	1.30	0.94
48:VA:108:PRO:HA	48:VA:179:SER:CA	1.96	0.94
50:XA:170:ILE:H	50:XA:170:ILE:HD12	1.31	0.94
12:L:160:ILE:HD12	12:L:160:ILE:H	1.31	0.94
2:B:1240:A:H3'	2:B:1241:U:H5"	1.46	0.94
32:FA:126:LYS:HB3	32:FA:148:ILE:HD11	1.49	0.94
30:DA:56:VAL:HG23	30:DA:106:ILE:HA	1.47	0.94
83:EC:6905:G:H3'	83:EC:6906:G:H5"	0.96	0.94
41:OA:21:ARG:HD2	41:OA:39:TYR:HB2	1.48	0.94
2:B:1323:G:H4'	24:X:1:MET:HA	1.47	0.93
54:BB:31:PRO:HB2	54:BB:38:LEU:HD22	1.50	0.93
63:KB:33:VAL:HG11	63:KB:66:ILE:HG12	1.47	0.93
3:C:94:C:H5"	41:OA:76:ASN:HD21	1.32	0.93
38:LA:29:ILE:HD11	38:LA:31:ARG:HH21	1.31	0.93
50:XA:63:ILE:HG12	71:SB:36:VAL:HG22	1.50	0.93
29:CA:110:VAL:HG22	29:CA:124:VAL:HG22	1.50	0.93
2:B:149:U:H2'	2:B:150:A:H5"	1.49	0.93
14:N:82:ARG:HB2	14:N:82:ARG:HH11	1.33	0.93
57:EB:27:LEU:HB3	57:EB:84:LYS:HE3	1.48	0.93
54:BB:159:THR:HG23	54:BB:173:ILE:HB	1.50	0.93
65:MB:14:THR:HB	65:MB:22:LEU:HB2	1.47	0.93
83:EC:6927:U:H3'	83:EC:6928:G:C5'	1.97	0.93
4:D:47:C:H2'	4:D:48:U:H5"	1.51	0.93
8:H:230:VAL:HG21	8:H:254:ALA:HB1	1.48	0.93
59:GB:168:ARG:HG3	59:GB:174:ARG:HD2	1.48	0.93
28:BA:57:LYS:HE3	28:BA:57:LYS:HA	1.50	0.93
71:SB:5:LYS:H	71:SB:5:LYS:HD3	1.30	0.93
1:A:911:U:H5"	2:B:2207:A:H5'	1.47	0.93
48:VA:27:VAL:HG12	48:VA:188:VAL:HB	1.50	0.93
1:A:66:U:H1'	56:DB:160:ARG:HH21	1.34	0.93
53:AB:7:LYS:HA	53:AB:7:LYS:HE3	1.51	0.93
82:DC:222:ILE:HD13	82:DC:222:ILE:H	1.30	0.93
2:B:269:G:H5"	19:S:14:LYS:HE2	1.51	0.92
24:X:110:MET:HE3	24:X:110:MET:HA	1.51	0.92
14:N:30:LYS:HD2	14:N:63:GLU:HG2	1.51	0.92
1:A:143:G:H2'	1:A:144:U:H5"	1.48	0.92

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1245:A:H3'	2:B:1246:G:H5"	1.49	0.92
8:H:188:ARG:HH21	8:H:197:ARG:HB2	1.34	0.92
70:RB:69:LYS:HE2	70:RB:80:GLU:HG3	1.48	0.92
2:B:2510:U:O2'	2:B:2511:A:H5'	1.66	0.92
2:B:2536:A:H3'	2:B:2537:U:C5'	1.99	0.92
22:V:62:VAL:HG13	22:V:66:ARG:HG2	1.50	0.92
30:DA:35:LEU:HG	30:DA:47:ALA:HA	1.51	0.92
1:A:505:A:H3'	1:A:506:A:H5"	1.50	0.92
39:MA:85:THR:HG22	39:MA:87:ALA:H	1.32	0.92
68:PB:52:VAL:HG13	68:PB:61:LEU:HD11	1.51	0.92
1:A:1681:A:H1'	56:DB:66:GLY:HA3	1.52	0.92
61:IB:85:VAL:HA	61:IB:108:PRO:HA	1.51	0.92
57:EB:162:ILE:HG22	57:EB:165:LYS:HD2	1.50	0.91
16:P:106:LEU:H	16:P:142:ARG:HG3	1.34	0.91
19:S:18:VAL:HG22	19:S:19:LEU:HD12	1.53	0.91
2:B:1236:G:H2'	16:P:60:VAL:HG22	1.53	0.91
9:I:3:PHE:HB2	9:I:6:ASP:HB2	1.51	0.91
82:DC:288:ILE:HG23	82:DC:319:LEU:HG	1.53	0.91
1:A:839:U:H2'	1:A:840:U:H5"	1.53	0.91
19:S:110:ALA:HB1	19:S:113:LEU:HD23	1.53	0.91
34:HA:17:VAL:HG12	34:HA:100:ILE:HD12	1.50	0.91
1:A:354:C:H5"	58:FB:16:ALA:HB2	1.51	0.91
12:L:75:ILE:HG22	12:L:76:ALA:H	1.35	0.91
27:AA:93:LEU:HD23	27:AA:93:LEU:H	1.35	0.91
40:NA:79:SER:HB3	40:NA:82:ARG:HG2	1.52	0.91
82:DC:653:VAL:HG13	82:DC:693:LEU:HG	1.53	0.91
24:X:48:LEU:HD13	25:Y:151:LEU:HD13	1.53	0.90
5:E:148:VAL:O	5:E:151:VAL:HG12	1.72	0.90
82:DC:278:LEU:HA	82:DC:281:ILE:HD12	1.49	0.90
34:HA:43:ILE:HG13	34:HA:90:VAL:HB	1.50	0.90
72:TB:8:ALA:HA	72:TB:74:VAL:HG11	1.53	0.90
2:B:1386:A:H5"	8:H:141:ARG:HH21	1.37	0.90
13:M:41:ILE:HD11	13:M:67:ALA:HB1	1.53	0.90
2:B:2442:G:H2'	2:B:2443:A:H5"	1.52	0.90
2:B:3174:A:H2'	2:B:3175:U:H5'	1.51	0.90
16:P:123:ARG:HH12	48:VA:42:ARG:HD3	1.36	0.90
2:B:2674:A:H5"	15:O:105:GLY:HA3	1.53	0.90
49:WA:59:ARG:HB2	49:WA:59:ARG:HH11	1.37	0.90
41:OA:63:ARG:O	41:OA:68:LYS:HE3	1.71	0.89
82:DC:216:HIS:HA	82:DC:321:LYS:HD3	1.50	0.89
82:DC:405:VAL:HG12	82:DC:448:CYS:HB3	1.54	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:179:A:H61	56:DB:202:ARG:HH22	1.20	0.89
12:L:98:ARG:HH11	12:L:98:ARG:HB2	1.37	0.89
31:EA:44:ALA:HB1	31:EA:71:PHE:O	1.70	0.89
82:DC:32:LYS:HG3	84:DC:901:GDP:O2B	1.70	0.89
24:X:155:ARG:HH22	24:X:172:TYR:HA	1.37	0.89
49:WA:229:LYS:HA	53:AB:222:VAL:HG11	1.55	0.89
59:GB:85:VAL:HG22	59:GB:107:ARG:HG3	1.51	0.89
82:DC:760:ARG:HB2	82:DC:760:ARG:HH11	1.36	0.89
83:EC:6872:A:H3'	83:EC:6873:A:H5"	1.52	0.89
1:A:1187:U:H2'	1:A:1188:G:H8	1.36	0.89
35:IA:77:ARG:HG2	35:IA:89:LEU:HD21	1.51	0.89
2:B:2476:C:H2'	2:B:2477:G:C4'	2.02	0.89
39:MA:104:GLN:NE2	39:MA:107:LYS:HD3	1.87	0.89
2:B:1256:G:O2'	16:P:123:ARG:HB2	1.71	0.89
13:M:89:LYS:HG2	13:M:145:VAL:HG22	1.53	0.89
49:WA:117:LYS:H	49:WA:117:LYS:HD2	1.36	0.89
82:DC:386:VAL:HG13	82:DC:395:TYR:HB2	1.51	0.89
2:B:1233:G:H4'	16:P:120:SER:CB	2.02	0.89
82:DC:627:VAL:HA	82:DC:630:ALA:HB3	1.54	0.89
5:E:6:SER:HA	5:E:9:VAL:HG12	1.54	0.89
12:L:74:THR:HG21	19:S:18:VAL:HB	1.52	0.89
35:IA:55:LEU:HB2	35:IA:95:PRO:HD3	1.53	0.89
2:B:118:U:H2'	2:B:119:U:H5'	1.55	0.89
11:K:98:LYS:HB3	11:K:99:PRO:HD3	1.55	0.89
82:DC:285:PHE:HA	82:DC:320:LEU:HD11	1.52	0.89
6:F:47:GLN:HA	6:F:84:THR:HG22	1.52	0.89
48:VA:33:VAL:CG2	48:VA:34:SER:H	1.86	0.89
49:WA:42:LEU:HB2	49:WA:61:PHE:HD2	1.34	0.89
1:A:639:U:H5"	57:EB:101:LYS:HB2	1.53	0.88
1:A:992:A:H4'	1:A:1785:U:O2'	1.73	0.88
2:B:1566:A:H3'	2:B:1567:U:H5"	1.52	0.88
48:VA:111:ALA:HB1	48:VA:167:GLN:HA	1.53	0.88
74:VB:27:VAL:HG11	74:VB:35:VAL:HG11	1.54	0.88
1:A:138:A:N6	1:A:266:A:H61	1.71	0.88
1:A:709:C:H42	1:A:730:G:H2'	1.37	0.88
21:U:125:GLN:HB2	21:U:141:SER:HB2	1.55	0.88
44:RA:104:PRO:HD2	44:RA:107:ALA:HB2	1.54	0.88
68:PB:114:GLU:HB3	68:PB:118:LYS:HE2	1.55	0.88
10:J:54:TYR:HA	10:J:65:ILE:HG22	1.52	0.88
36:JA:96:ILE:HB	36:JA:121:ASN:HD21	1.38	0.88
65:MB:98:ASN:HB3	65:MB:103:ASN:HD21	1.38	0.88

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:599:LEU:HG	82:DC:603:ASN:HD21	1.35	0.88
54:BB:150:PRO:HB2	54:BB:154:ILE:HD12	1.55	0.88
1:A:730:G:H21	1:A:731:C:H5"	1.37	0.88
2:B:1259:A:O2'	2:B:1280:C:H4'	1.74	0.88
13:M:129:ARG:HG3	13:M:157:ASN:HD22	1.35	0.88
56:DB:88:ARG:HB3	56:DB:91:GLU:HB2	1.55	0.88
82:DC:27:HIS:CD2	82:DC:136:CYS:HB2	2.08	0.88
24:X:79:VAL:HG23	24:X:90:MET:HG3	1.56	0.88
5:E:191:VAL:HG22	5:E:197:ASN:HD21	1.37	0.88
6:F:177:LYS:HB2	47:UA:29:LEU:HD13	1.55	0.88
15:O:80:LEU:HD12	15:O:129:VAL:HG21	1.56	0.88
1:A:64:U:H2'	1:A:65:A:H5"	1.52	0.88
6:F:80:GLU:HG2	47:UA:76:ALA:HB1	1.56	0.88
39:MA:77:PRO:HB2	39:MA:80:LEU:HG	1.52	0.87
2:B:990:U:H2'	2:B:991:G:H5"	1.55	0.87
9:I:103:LEU:HD13	9:I:169:GLY:HA2	1.54	0.87
30:DA:50:ILE:HD11	30:DA:70:ILE:HG13	1.57	0.87
31:EA:88:ASP:HB2	31:EA:121:ARG:HH21	1.38	0.87
15:O:108:GLU:HG2	15:O:122:ILE:HG23	1.57	0.87
20:T:61:ALA:HA	20:T:70:PRO:HD2	1.55	0.87
28:BA:6:ASP:HB3	28:BA:10:GLY:H	1.36	0.87
39:MA:104:GLN:HA	39:MA:104:GLN:HE21	1.39	0.87
57:EB:64:VAL:HA	57:EB:67:LEU:HD12	1.54	0.87
65:MB:25:LEU:HB3	65:MB:87:PRO:HG2	1.53	0.87
82:DC:693:LEU:HD22	82:DC:700:ARG:HD3	1.56	0.87
52:ZA:44:LEU:HA	52:ZA:49:LYS:HD2	1.57	0.87
56:DB:56:ASN:HB2	56:DB:108:VAL:HB	1.56	0.87
61:IB:77:SER:HB2	61:IB:85:VAL:HB	1.55	0.87
82:DC:44:GLY:HA2	82:DC:77:LEU:HG	1.57	0.87
4:D:27:A:H2'	4:D:28:C:C6	2.10	0.87
83:EC:6912:G:H3'	83:EC:6913:U:H5"	1.55	0.87
7:G:47:LEU:HD12	7:G:335:ILE:HD11	1.57	0.87
55:CB:197:GLU:HG3	55:CB:208:SER:HB2	1.55	0.87
59:GB:93:LEU:O	59:GB:96:VAL:HG22	1.74	0.87
82:DC:578:LYS:HB3	82:DC:585:ARG:HG2	1.57	0.87
17:Q:85:LEU:HD23	17:Q:85:LEU:H	1.40	0.86
48:VA:33:VAL:HG22	48:VA:34:SER:N	1.89	0.86
2:B:666:A:C2'	2:B:667:C:H5"	2.05	0.86
49:WA:38:ARG:HA	49:WA:67:ILE:HG23	1.56	0.86
58:FB:12:SER:HA	58:FB:18:ARG:NH2	1.90	0.86
82:DC:663:VAL:HG13	82:DC:709:MET:HE2	1.56	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:629:U:H3'	1:A:630:A:H5"	1.57	0.86
54:BB:95:THR:HG22	74:VB:16:PRO:HD2	1.55	0.86
61:IB:7:VAL:HG21	61:IB:53:TYR:HB3	1.55	0.86
2:B:1654:A:H2'	2:B:1655:G:H5'	1.57	0.86
2:B:2081:U:H2'	2:B:2082:U:H4'	1.57	0.86
2:B:2821:C:H42	2:B:2869:U:H3	1.21	0.86
30:DA:34:PRO:HA	30:DA:47:ALA:CB	2.04	0.86
63:KB:99:ARG:NH2	63:KB:143:SER:HB2	1.90	0.86
68:PB:15:LEU:HG	68:PB:22:VAL:HB	1.58	0.86
82:DC:338:ILE:O	82:DC:342:LEU:HB2	1.76	0.86
1:A:1319:A:H2'	1:A:1320:U:H5"	1.56	0.86
2:B:2511:A:H2'	2:B:2512:C:C6	2.09	0.86
13:M:41:ILE:HG23	13:M:43:VAL:HG13	1.57	0.86
30:DA:82:VAL:HG12	30:DA:85:VAL:H	1.41	0.86
54:BB:49:ARG:HA	54:BB:55:ALA:HB3	1.56	0.86
82:DC:307:LEU:HB3	82:DC:312:LYS:HG2	1.55	0.86
17:Q:47:ALA:HB1	17:Q:48:PRO:CD	2.06	0.86
19:S:11:GLN:HG2	19:S:44:ARG:CZ	2.06	0.86
72:TB:36:LYS:HB2	72:TB:110:ILE:HD12	1.58	0.86
5:E:90:LEU:HD23	5:E:119:GLN:HB2	1.56	0.85
31:EA:54:THR:HG23	31:EA:56:LYS:H	1.39	0.85
39:MA:89:ARG:HH11	39:MA:89:ARG:HG2	1.38	0.85
74:VB:29:HIS:HB2	74:VB:32:ARG:HB3	1.57	0.85
68:PB:18:LEU:HD21	68:PB:70:VAL:HG13	1.57	0.85
8:H:138:ARG:NH2	8:H:240:PRO:HB2	1.90	0.85
82:DC:489:VAL:HG11	82:DC:538:LEU:HD22	1.59	0.85
1:A:1023:A:H4'	1:A:1024:U:H6	1.38	0.85
2:B:5:G:H2'	2:B:6:A:H5"	1.54	0.85
49:WA:45:TRP:HA	49:WA:57:PRO:HA	1.58	0.85
56:DB:135:PRO:HB3	56:DB:141:ILE:HG12	1.59	0.85
1:A:1454:G:H4'	65:MB:122:THR:HG21	1.57	0.85
36:JA:4:LEU:H	36:JA:4:LEU:HD12	1.40	0.85
1:A:802:G:H21	72:TB:107:SER:HB3	1.40	0.85
53:AB:40:ARG:HB2	53:AB:47:GLU:HB3	1.58	0.85
1:A:463:U:H2'	1:A:464:A:H8	1.39	0.85
2:B:522:A:H3'	2:B:523:A:H5"	1.56	0.85
2:B:1419:A:H5"	8:H:193:LYS:HE2	1.58	0.85
24:X:99:ARG:HH12	24:X:126:VAL:HG12	1.41	0.85
31:EA:87:LEU:HG	31:EA:88:ASP:H	1.39	0.85
48:VA:121:VAL:O	48:VA:155:ASP:HA	1.76	0.85
55:CB:128:ASN:HD22	55:CB:129:PRO:HD2	1.41	0.85

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:39:GLY:HA3	12:L:36:ILE:HG21	1.59	0.84
7:G:356:LEU:H	7:G:356:LEU:HD23	1.40	0.84
25:Y:88:ARG:HH22	33:GA:33:LYS:HB3	1.42	0.84
33:GA:38:LYS:HA	33:GA:41:ARG:HH12	1.41	0.84
36:JA:78:ASN:H	36:JA:78:ASN:HD22	1.21	0.84
56:DB:55:GLY:HA3	56:DB:63:MET:HE3	1.59	0.84
9:I:9:SER:HB2	9:I:12:TYR:HB3	1.59	0.84
12:L:61:GLN:HA	12:L:64:ILE:HD12	1.59	0.84
27:AA:38:ALA:HB3	27:AA:59:MET:HB2	1.59	0.84
53:AB:106:LYS:HD2	53:AB:173:ARG:HD2	1.59	0.84
54:BB:150:PRO:HG2	54:BB:151:ASP:H	1.40	0.84
12:L:151:VAL:O	12:L:177:TYR:HA	1.77	0.84
2:B:148:G:H5"	19:S:55:ALA:CB	2.06	0.84
1:A:56:U:H4'	1:A:57:G:H5'	1.60	0.84
54:BB:73:ASP:HB3	54:BB:164:LEU:HD22	1.56	0.84
6:F:242:ARG:HG3	6:F:243:THR:H	1.43	0.84
28:BA:17:ARG:HG3	28:BA:17:ARG:HH11	1.41	0.84
82:DC:750:LYS:HB3	82:DC:776:GLU:HB3	1.58	0.84
1:A:1435:G:H4'	1:A:1436:A:H5'	1.58	0.84
55:CB:163:SER:HB3	78:ZB:48:VAL:HG22	1.59	0.84
75:WB:93:SER:HB2	75:WB:100:ILE:H	1.41	0.84
82:DC:331:ALA:HB1	82:DC:335:LEU:HD11	1.60	0.84
82:DC:545:LEU:HG	82:DC:554:LEU:HD11	1.59	0.84
17:Q:47:ALA:CB	17:Q:48:PRO:HD2	2.06	0.84
58:FB:102:VAL:HG23	58:FB:167:ALA:HB3	1.60	0.84
82:DC:804:LEU:HD11	82:DC:814:LYS:HD2	1.60	0.84
2:B:2484:A:H4'	5:E:130:LYS:HB2	1.57	0.83
50:XA:26:ALA:HB3	50:XA:30:GLN:HE22	1.42	0.83
54:BB:15:PRO:HD3	54:BB:39:ARG:HH22	1.41	0.83
58:FB:82:VAL:HG23	58:FB:101:ILE:HG22	1.60	0.83
82:DC:241:MET:HA	82:DC:244:LEU:HD12	1.60	0.83
1:A:209:U:H2'	1:A:210:A:C8	2.13	0.83
2:B:1218:U:H3'	2:B:1219:C:H5"	1.58	0.83
2:B:1479:U:H2'	2:B:1480:G:H5'	1.60	0.83
61:IB:122:ILE:H	61:IB:122:ILE:HD12	1.43	0.83
63:KB:99:ARG:HH21	63:KB:143:SER:HB2	1.43	0.83
82:DC:92:LYS:HB3	82:DC:346:VAL:HG11	1.58	0.83
82:DC:656:LEU:O	82:DC:659:ILE:HG12	1.77	0.83
1:A:889:U:H2'	1:A:890:C:H4'	1.59	0.83
2:B:2419:A:H2'	2:B:2420:C:C6	2.13	0.83
82:DC:413:ILE:HG12	82:DC:469:LEU:HD11	1.60	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1056:U:H4'	4:D:82:G:H4'	1.61	0.83
24:X:8:GLN:HB2	24:X:64:ILE:HD11	1.59	0.83
34:HA:78:GLY:O	34:HA:81:VAL:HG22	1.78	0.83
58:FB:8:ARG:HD3	58:FB:21:PHE:HD1	1.44	0.83
71:SB:39:VAL:HA	71:SB:45:ALA:HA	1.60	0.83
2:B:208:C:OP2	8:H:163:LYS:HE3	1.78	0.83
9:I:91:GLY:HA2	9:I:94:ASN:HD21	1.41	0.83
1:A:1542:G:N1	1:A:1568:C:H1'	1.94	0.83
50:XA:144:ILE:HG23	50:XA:158:VAL:HG13	1.61	0.83
65:MB:86:VAL:HG12	65:MB:89:MET:HE3	1.60	0.83
82:DC:84:GLU:HA	82:DC:87:LYS:HB2	1.59	0.83
82:DC:615:ARG:NE	82:DC:633:ILE:HD11	1.94	0.83
1:A:639:U:OP1	57:EB:117:THR:HG23	1.79	0.83
1:A:754:A:H3'	1:A:755:A:H5'	1.58	0.83
2:B:1235:U:C4'	2:B:1236:G:H5'	2.07	0.83
17:Q:74:GLY:HA3	17:Q:98:ASP:HB2	1.60	0.83
19:S:37:HIS:HE1	19:S:63:ARG:HH11	1.26	0.83
31:EA:23:VAL:HG12	31:EA:45:GLY:HA3	1.58	0.83
82:DC:86:VAL:HG13	82:DC:89:ILE:HD12	1.60	0.83
8:H:23:PRO:HG3	8:H:258:LEU:HD23	1.59	0.83
75:WB:92:ILE:HG13	75:WB:100:ILE:HG23	1.60	0.83
24:X:9:VAL:HG13	24:X:61:ILE:HD13	1.59	0.83
48:VA:119:ILE:HG13	48:VA:159:VAL:HG13	1.61	0.83
2:B:2076:G:C2'	2:B:2077:U:H5"	2.09	0.82
23:W:160:GLU:HA	23:W:163:ARG:NE	1.94	0.82
49:WA:238:ASP:HB3	49:WA:257:ALA:HB3	1.59	0.82
57:EB:126:LEU:HD11	57:EB:152:VAL:HG21	1.61	0.82
1:A:1117:U:H2'	1:A:1118:G:H5"	1.61	0.82
2:B:1336:U:H2'	2:B:1337:A:H8	1.41	0.82
23:W:23:TRP:CH2	23:W:25:ASP:HB3	2.14	0.82
48:VA:64:ARG:HH11	48:VA:67:LEU:HD13	1.44	0.82
56:DB:163:THR:HA	56:DB:168:THR:HG22	1.61	0.82
79:AC:31:ILE:HB	79:AC:36:LEU:HD11	1.59	0.82
1:A:1634:C:H5'	83:EC:6955:U:H5	1.45	0.82
2:B:637:C:H2'	2:B:638:C:C6	2.14	0.82
56:DB:77:LEU:HD11	56:DB:95:LYS:HB2	1.61	0.82
1:A:375:U:H5"	73:UB:32:ARG:NH1	1.95	0.82
31:EA:134:LEU:HD13	31:EA:135:ARG:N	1.95	0.82
66:NB:6:SER:HB3	66:NB:23:LYS:HB3	1.62	0.82
67:OB:21:TYR:N	67:OB:22:PRO:HD2	1.94	0.82
82:DC:336:GLU:HG2	82:DC:340:LEU:HD11	1.61	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:UB:52:ILE:HD12	82:DC:502:PRO:HB3	1.60	0.82
82:DC:618:ILE:O	82:DC:622:ASP:HB2	1.78	0.82
9:I:95:TRP:CZ3	9:I:161:GLY:HA2	2.14	0.82
16:P:86:LYS:NZ	16:P:104:ILE:HD11	1.93	0.82
25:Y:36:VAL:HA	25:Y:64:VAL:HG13	1.61	0.82
2:B:1054:A:H5"	2:B:2637:A:H61	1.45	0.82
2:B:2499:U:H2'	2:B:2500:A:C8	2.14	0.82
2:B:2457:G:H1'	2:B:2486:A:N6	1.94	0.82
60:HB:24:LYS:HA	60:HB:63:TYR:HA	1.62	0.82
1:A:625:C:H2'	1:A:626:U:C6	2.15	0.82
1:A:1494:C:H2'	1:A:1495:C:C6	2.15	0.82
2:B:1233:G:N2	16:P:128:VAL:HG13	1.93	0.82
8:H:32:PRO:HG3	8:H:244:LEU:HD11	1.61	0.82
17:Q:92:THR:HG21	39:MA:111:PHE:HB3	1.60	0.82
73:UB:96:VAL:HG23	73:UB:97:ASP:N	1.95	0.82
1:A:960:U:H2'	1:A:961:U:C6	2.14	0.81
2:B:3262:U:C2'	2:B:3263:G:H5"	2.10	0.81
2:B:3273:A:H4'	10:J:44:ALA:CB	2.09	0.81
1:A:533:U:H4'	74:VB:33:ALA:HB2	1.62	0.81
2:B:1234:G:H5"	16:P:118:ASP:HB2	1.62	0.81
2:B:3112:G:O6	2:B:3119:U:H3'	1.79	0.81
1:A:75:U:H3'	1:A:76:A:H5"	1.62	0.81
1:A:463:U:H2'	1:A:464:A:C8	2.14	0.81
1:A:1436:A:H2'	1:A:1437:U:H5'	1.63	0.81
2:B:29:C:OP1	19:S:189:LYS:HB2	1.79	0.81
2:B:1259:A:C5	48:VA:53:MET:HG3	2.15	0.81
9:I:236:LEU:HD12	9:I:239:ILE:HD12	1.60	0.81
16:P:92:ARG:HG3	16:P:93:LYS:H	1.46	0.81
66:NB:128:LYS:HB2	66:NB:137:ARG:HH22	1.42	0.81
74:VB:79:VAL:HG12	74:VB:83:LYS:HE3	1.63	0.81
75:WB:92:ILE:HD11	75:WB:100:ILE:HD12	1.60	0.81
82:DC:223:ARG:HG3	82:DC:241:MET:HE1	1.60	0.81
2:B:2909:U:H3'	2:B:2910:A:H5"	1.63	0.81
15:O:54:VAL:HG11	15:O:57:PHE:CD2	2.15	0.81
61:IB:27:THR:HG21	61:IB:29:LYS:NZ	1.95	0.81
1:A:1227:A:H4'	1:A:1228:G:H5"	1.59	0.81
1:A:1149:G:H1	1:A:1628:U:H3	1.29	0.81
18:R:20:VAL:HG21	18:R:90:VAL:HG21	1.63	0.81
1:A:1231:U:H4'	1:A:1259:U:H1'	1.63	0.81
17:Q:28:GLN:HB3	19:S:201:ARG:HD2	1.62	0.81
57:EB:35:LYS:HG2	57:EB:36:ALA:H	1.45	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HB:87:VAL:N	60:HB:88:PRO:HD3	1.95	0.81
2:B:148:G:H5"	19:S:55:ALA:HB3	1.63	0.81
2:B:1220:U:H4'	2:B:1222:G:H1'	1.61	0.81
5:E:113:SER:HB2	5:E:116:LEU:HG	1.63	0.81
19:S:154:PRO:O	19:S:157:LYS:HG3	1.80	0.81
37:KA:72:THR:HG21	37:KA:84:THR:HG23	1.63	0.81
82:DC:412:ARG:HA	82:DC:428:ILE:HG13	1.63	0.81
82:DC:647:ILE:HG22	82:DC:687:ASN:HA	1.62	0.81
1:A:609:U:O2'	73:UB:23:ARG:HD3	1.81	0.81
49:WA:108:SER:HB2	49:WA:128:ASP:HB3	1.62	0.81
82:DC:571:SER:HA	82:DC:720:ALA:HA	1.62	0.81
1:A:813:U:H3	23:W:163:ARG:HD2	1.46	0.81
1:A:821:U:H3'	1:A:822:U:H4'	1.62	0.81
2:B:1768:U:H2'	2:B:1769:G:H5"	1.62	0.81
10:J:8:LYS:HD3	10:J:8:LYS:H	1.45	0.81
19:S:146:ALA:HA	19:S:149:ASN:HB3	1.61	0.81
39:MA:62:GLN:O	39:MA:66:VAL:HG23	1.81	0.81
50:XA:197:ILE:HD13	50:XA:197:ILE:H	1.44	0.81
82:DC:73:THR:HG22	82:DC:74:ALA:H	1.46	0.81
10:J:129:GLU:HG3	10:J:130:ILE:H	1.44	0.80
25:Y:17:ARG:O	25:Y:18:ASP:HB2	1.79	0.80
39:MA:21:LEU:HG	39:MA:54:VAL:HG11	1.63	0.80
50:XA:109:ASN:ND2	50:XA:111:ILE:HG22	1.96	0.80
61:IB:123:VAL:HG22	61:IB:124:THR:H	1.46	0.80
2:B:3165:A:H61	2:B:3285:C:H42	1.26	0.80
13:M:89:LYS:HE3	13:M:183:HIS:HB3	1.64	0.80
1:A:390:G:O2'	1:A:1731:A:H5"	1.82	0.80
8:H:302:ALA:HA	22:V:39:ARG:HH12	1.46	0.80
22:V:58:ASN:C	22:V:60:PRO:HD3	2.06	0.80
54:BB:194:THR:O	54:BB:195:ILE:HG13	1.80	0.80
1:A:1701:A:C3'	1:A:1702:A:H5"	2.10	0.80
2:B:801:A:H62	17:Q:19:GLN:HE22	1.30	0.80
15:O:32:ARG:NH2	15:O:121:GLY:HA3	1.95	0.80
54:BB:31:PRO:HB2	54:BB:38:LEU:CD2	2.11	0.80
7:G:41:VAL:HA	7:G:185:GLY:HA3	1.60	0.80
25:Y:112:ASN:OD1	25:Y:128:LEU:HB3	1.82	0.80
68:PB:69:ILE:HG22	68:PB:73:MET:HE2	1.62	0.80
1:A:991:G:H4'	1:A:1786:G:H4'	1.62	0.80
18:R:16:GLU:HB3	24:X:149:LYS:HB3	1.61	0.80
22:V:83:VAL:HG12	22:V:85:GLY:H	1.46	0.80
82:DC:495:VAL:HG11	82:DC:501:LEU:HA	1.64	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:148:VAL:HG11	11:K:181:ILE:HD11	1.63	0.80
56:DB:190:GLN:HA	56:DB:193:LEU:HD12	1.62	0.80
57:EB:56:LYS:HB2	57:EB:88:ARG:HH11	1.47	0.80
2:B:2244:A:H5"	6:F:243:THR:HG21	1.64	0.80
2:B:3163:A:C2'	2:B:3164:C:H5"	2.12	0.80
12:L:134:TYR:HD1	12:L:190:VAL:HG13	1.45	0.80
2:B:990:U:H1'	25:Y:101:CYS:HB3	1.62	0.80
50:XA:109:ASN:HD21	50:XA:111:ILE:HG22	1.45	0.80
56:DB:67:VAL:H	56:DB:100:ALA:HB2	1.46	0.80
71:SB:9:VAL:HG22	71:SB:10:GLU:H	1.45	0.80
71:SB:74:GLN:HE22	71:SB:83:TRP:HB3	1.45	0.80
1:A:1485:C:H2'	1:A:1486:G:H4'	1.64	0.79
1:A:1498:G:H3'	1:A:1499:G:H5"	1.62	0.79
65:MB:52:LYS:HB2	65:MB:53:PRO:HD3	1.63	0.79
74:VB:83:LYS:HG2	74:VB:96:LEU:HB3	1.63	0.79
82:DC:13:MET:HE2	82:DC:452:ASN:HB3	1.63	0.79
82:DC:733:ILE:HD13	82:DC:743:ILE:CD1	2.12	0.79
16:P:123:ARG:NH2	48:VA:39:HIS:HB2	1.97	0.79
38:LA:75:ALA:O	38:LA:76:TYR:HB2	1.79	0.79
78:ZB:36:THR:HG23	78:ZB:37:SER:H	1.46	0.79
82:DC:181:THR:O	82:DC:185:VAL:HG23	1.81	0.79
82:DC:239:LYS:HE3	82:DC:243:ARG:HD2	1.64	0.79
1:A:209:U:H2'	1:A:210:A:H8	1.47	0.79
1:A:1201:G:N2	1:A:1600:A:H2'	1.97	0.79
2:B:2549:G:H2'	12:L:33:ASN:HD21	1.46	0.79
41:OA:8:PHE:HD1	41:OA:11:ARG:HD3	1.45	0.79
52:ZA:81:MET:HG2	52:ZA:103:VAL:HG23	1.63	0.79
71:SB:74:GLN:NE2	71:SB:83:TRP:HB3	1.96	0.79
73:UB:6:PRO:HG3	73:UB:14:LYS:HG2	1.62	0.79
82:DC:402:ALA:HA	82:DC:450:ALA:CB	2.12	0.79
2:B:1348:U:H5'	2:B:1355:A:N6	1.98	0.79
43:QA:27:ILE:HG23	43:QA:30:ARG:HE	1.48	0.79
68:PB:15:LEU:HD23	68:PB:15:LEU:H	1.48	0.79
68:PB:92:ILE:HG23	68:PB:93:THR:H	1.47	0.79
82:DC:10:ARG:HE	82:DC:447:ASP:HB2	1.48	0.79
83:EC:6930:G:H2'	83:EC:6931:U:C4'	2.11	0.79
12:L:151:VAL:HG22	12:L:199:ALA:HA	1.64	0.79
13:M:1:MET:HE3	24:X:139:TYR:HA	1.65	0.79
82:DC:207:GLY:HA2	82:DC:222:ILE:HD11	1.65	0.79
82:DC:275:MET:O	82:DC:279:ASP:HB2	1.82	0.79
2:B:707:U:H2'	2:B:708:G:H5"	1.65	0.79

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1220:U:H3'	2:B:1221:A:C2	2.17	0.79
7:G:303:LYS:HD2	7:G:361:THR:HG21	1.62	0.79
12:L:162:LEU:HD11	19:S:45:PRO:HG2	1.63	0.79
30:DA:34:PRO:HA	30:DA:47:ALA:HB2	1.61	0.79
38:LA:57:LEU:HD12	38:LA:62:TYR:CD1	2.17	0.79
50:XA:189:VAL:HG13	50:XA:190:ASP:H	1.47	0.79
1:A:632:U:H5"	73:UB:10:ASN:O	1.83	0.79
1:A:806:A:H3'	1:A:807:A:H5"	1.63	0.79
2:B:268:A:H61	2:B:295:A:H3'	1.46	0.79
2:B:2585:G:N7	12:L:47:SER:HB3	1.97	0.79
72:TB:6:VAL:HG13	72:TB:29:PRO:HD2	1.63	0.79
82:DC:287:ALA:HA	82:DC:292:LYS:HB2	1.65	0.79
1:A:861:U:H3'	1:A:862:A:C8	2.18	0.79
1:A:901:G:H2'	1:A:902:G:H5'	1.61	0.79
1:A:1542:G:H1	1:A:1568:C:H1'	1.48	0.79
2:B:1234:G:N3	16:P:132:ILE:HG12	1.97	0.79
2:B:1719:G:H4'	2:B:1732:U:H4'	1.63	0.79
2:B:2148:U:O2'	6:F:182:ALA:HB2	1.83	0.79
48:VA:26:PHE:CE1	48:VA:190:VAL:HG12	2.18	0.79
72:TB:101:TYR:HA	72:TB:113:HIS:HE1	1.47	0.79
36:JA:103:LYS:O	36:JA:106:VAL:HG12	1.82	0.79
49:WA:42:LEU:HD21	49:WA:82:SER:HB3	1.65	0.79
2:B:2442:G:C2'	2:B:2443:A:H5"	2.12	0.79
11:K:120:THR:HB	25:Y:132:PRO:HB2	1.65	0.79
16:P:65:GLN:HB2	16:P:70:ALA:HA	1.65	0.79
1:A:654:C:H3'	1:A:655:G:H5"	1.65	0.78
1:A:780:A:H1'	74:VB:9:THR:H	1.47	0.78
5:E:65:ILE:HA	5:E:109:ALA:HB3	1.64	0.78
12:L:158:ASP:HB2	12:L:159:PRO:HD3	1.65	0.78
19:S:22:LEU:HD23	19:S:26:ARG:HH22	1.48	0.78
26:Z:58:GLU:HA	26:Z:63:VAL:HA	1.64	0.78
34:HA:98:SER:HB2	34:HA:100:ILE:HD13	1.62	0.78
39:MA:54:VAL:O	39:MA:58:ILE:HG13	1.82	0.78
48:VA:61:ARG:CA	48:VA:64:ARG:HB3	2.09	0.78
1:A:927:C:H2'	1:A:928:U:H4'	1.64	0.78
1:A:1171:A:H2'	1:A:1172:G:C8	2.18	0.78
30:DA:37:LYS:HD3	30:DA:37:LYS:N	1.99	0.78
43:QA:5:LYS:HD3	43:QA:13:MET:HE1	1.66	0.78
71:SB:3:ASN:HD21	71:SB:7:GLN:HB2	1.48	0.78
82:DC:405:VAL:O	82:DC:447:ASP:HA	1.82	0.78
1:A:17:C:H2'	1:A:18:C:C6	2.19	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:211:GLN:HE22	7:G:284:ARG:HA	1.47	0.78
31:EA:24:VAL:O	31:EA:43:VAL:HB	1.83	0.78
71:SB:24:ILE:HD11	71:SB:56:SER:HA	1.64	0.78
82:DC:360:PRO:HB2	82:DC:363:ASP:HB2	1.65	0.78
48:VA:76:LEU:HA	48:VA:189:GLN:HE22	1.48	0.78
61:IB:16:GLN:O	61:IB:19:ILE:HB	1.83	0.78
55:CB:55:ASP:HB2	55:CB:138:THR:HB	1.66	0.78
63:KB:43:LYS:HE3	63:KB:43:LYS:HA	1.64	0.78
1:A:115:G:H21	1:A:334:G:H21	1.29	0.78
1:A:1773:C:H4'	45:SA:4:LYS:HD3	1.65	0.78
2:B:1203:A:H2'	2:B:1204:A:C8	2.18	0.78
2:B:1856:C:H2'	2:B:1857:C:H6	1.48	0.78
18:R:113:THR:HG22	18:R:115:PHE:H	1.49	0.78
23:W:23:TRP:HB3	23:W:51:VAL:HG22	1.63	0.78
55:CB:187:ILE:H	55:CB:187:ILE:HD12	1.49	0.78
82:DC:363:ASP:O	82:DC:367:ILE:HG12	1.83	0.78
82:DC:567:VAL:HG11	82:DC:720:ALA:HB3	1.66	0.78
2:B:3273:A:H4'	10:J:44:ALA:HB1	1.65	0.78
15:O:101:ASN:HB3	15:O:130:VAL:HG23	1.65	0.78
66:NB:40:GLU:HA	66:NB:41:PRO:C	2.09	0.78
82:DC:17:THR:HB	82:DC:93:THR:HA	1.64	0.78
82:DC:659:ILE:HG22	82:DC:700:ARG:HD2	1.64	0.78
1:A:1327:C:H5"	53:AB:158:ILE:HG22	1.66	0.78
1:A:1524:A:H2'	1:A:1525:A:C8	2.19	0.78
5:E:94:ASN:OD1	5:E:124:LEU:HB2	1.83	0.78
7:G:280:HIS:HB3	7:G:324:VAL:HG21	1.65	0.78
48:VA:108:PRO:N	48:VA:179:SER:HB2	1.99	0.78
1:A:814:A:H5"	23:W:170:ARG:HH22	1.46	0.78
12:L:134:TYR:CD1	12:L:190:VAL:HG13	2.19	0.78
23:W:81:ARG:HG2	23:W:88:ARG:CZ	2.14	0.78
82:DC:659:ILE:HG21	82:DC:693:LEU:HD21	1.64	0.78
83:EC:6772:G:H2'	83:EC:6773:G:H4'	1.63	0.78
23:W:28:GLU:O	23:W:32:ILE:HG13	1.84	0.78
53:AB:98:ALA:HB2	53:AB:169:ASP:HB3	1.66	0.78
82:DC:593:ILE:HD11	82:DC:685:ARG:HB2	1.65	0.78
2:B:2567:C:H3'	2:B:2568:C:H5"	1.66	0.77
24:X:154:HIS:ND1	24:X:170:THR:HG21	1.99	0.77
66:NB:49:TYR:O	66:NB:53:LEU:HG	1.84	0.77
74:VB:87:PRO:O	74:VB:91:LEU:HG	1.84	0.77
1:A:189:C:H3'	1:A:190:C:H5"	1.66	0.77
1:A:1187:U:H2'	1:A:1188:G:C8	2.19	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1481:C:H5”	1:A:1482:C:OP1	1.84	0.77
2:B:1336:U:H2’	2:B:1337:A:C8	2.20	0.77
2:B:3349:C:H2’	2:B:3350:C:C6	2.20	0.77
9:I:258:LYS:O	9:I:259:LYS:HB3	1.84	0.77
27:AA:87:ARG:HG3	27:AA:93:LEU:HD21	1.64	0.77
50:XA:126:PRO:HG3	50:XA:147:THR:HG22	1.65	0.77
54:BB:34:GLY:HA3	54:BB:83:PRO:HG3	1.66	0.77
82:DC:271:ARG:HB3	82:DC:274:ASN:HD22	1.48	0.77
5:E:147:LYS:HA	5:E:150:ASP:HB2	1.67	0.77
1:A:144:U:O2’	1:A:145:A:H5’	1.85	0.77
2:B:2244:A:C5’	6:F:243:THR:HG21	2.15	0.77
50:XA:184:LEU:HD23	71:SB:43:GLY:HA2	1.67	0.77
59:GB:112:GLN:HA	59:GB:112:GLN:HE21	1.48	0.77
2:B:2344:U:H2’	2:B:2345:A:C8	2.20	0.77
52:ZA:56:ILE:HG23	52:ZA:61:LEU:HB2	1.65	0.77
59:GB:134:ILE:HA	59:GB:158:PHE:HA	1.67	0.77
77:YB:29:ARG:HB3	77:YB:29:ARG:HH11	1.50	0.77
1:A:154:G:H1’	56:DB:56:ASN:HD22	1.50	0.77
1:A:1755:A:H2’	1:A:1756:A:C8	2.19	0.77
2:B:1822:C:H2’	2:B:1823:A:C8	2.20	0.77
2:B:2261:G:H5’	2:B:2306:C:H41	1.48	0.77
2:B:2497:U:H2’	2:B:2499:U:C5	2.20	0.77
9:I:184:ASP:HB3	9:I:187:THR:HG22	1.65	0.77
10:J:149:ILE:HG23	10:J:155:LEU:HD12	1.67	0.77
25:Y:82:ASN:O	33:GA:21:ILE:HA	1.84	0.77
82:DC:250:PHE:HA	82:DC:257:TRP:HA	1.65	0.77
2:B:2922:G:H3’	2:B:2923:U:H5”	1.67	0.77
19:S:11:GLN:O	19:S:14:LYS:HG3	1.85	0.77
57:EB:30:SER:HB2	57:EB:34:LEU:HD22	1.65	0.77
1:A:396:G:H22	1:A:399:A:H5’	1.48	0.77
6:F:242:ARG:HG3	6:F:243:THR:N	2.00	0.77
16:P:57:LYS:H	16:P:57:LYS:HD3	1.48	0.77
34:HA:54:SER:HB3	38:LA:94:LEU:HD21	1.66	0.77
82:DC:666:ALA:HB3	82:DC:709:MET:HB3	1.67	0.77
9:I:285:ARG:HB2	9:I:285:ARG:NH1	1.97	0.77
49:WA:132:LYS:HA	49:WA:144:LEU:HD23	1.65	0.77
54:BB:124:GLY:HA2	54:BB:142:HIS:HE1	1.48	0.77
82:DC:809:LEU:HA	82:DC:832:VAL:HG21	1.66	0.77
2:B:2259:A:C2’	2:B:2260:U:H5’	2.15	0.77
25:Y:53:PRO:HB3	25:Y:91:LEU:HD22	1.67	0.77
50:XA:109:ASN:O	50:XA:112:THR:HG22	1.85	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:PB:28:ILE:HA	68:PB:58:ALA:HB2	1.64	0.77
1:A:400:A:H4'	1:A:401:A:C5'	2.13	0.76
30:DA:55:GLU:HA	30:DA:69:LYS:HA	1.67	0.76
31:EA:10:VAL:HB	31:EA:83:THR:HG21	1.65	0.76
49:WA:223:TRP:HZ3	53:AB:220:PRO:HB3	1.47	0.76
50:XA:26:ALA:H	50:XA:149:LEU:HD12	1.47	0.76
50:XA:143:VAL:HB	50:XA:156:VAL:HA	1.65	0.76
82:DC:559:PRO:HG2	82:DC:778:PHE:HE1	1.50	0.76
82:DC:730:LEU:HB2	82:DC:799:ASP:HB2	1.65	0.76
1:A:297:U:O2'	54:BB:33:ALA:HA	1.85	0.76
1:A:1201:G:H21	1:A:1600:A:H5'	1.49	0.76
2:B:1940:G:H21	2:B:3362:A:H8	1.28	0.76
6:F:242:ARG:CG	6:F:243:THR:H	1.98	0.76
8:H:281:ILE:HG13	22:V:125:ASP:HB3	1.68	0.76
9:I:58:LYS:HB3	9:I:93:THR:CG2	2.16	0.76
9:I:107:ARG:HH11	9:I:248:ARG:HH12	1.33	0.76
48:VA:39:HIS:HA	48:VA:42:ARG:CD	2.16	0.76
55:CB:117:THR:HG21	55:CB:194:LEU:HD12	1.68	0.76
58:FB:36:THR:HG21	58:FB:173:PRO:HB3	1.67	0.76
72:TB:70:ASN:HB2	72:TB:130:TYR:O	1.85	0.76
1:A:953:G:H2'	1:A:954:G:C8	2.21	0.76
2:B:250:U:H5'	2:B:251:G:H5"	1.67	0.76
2:B:269:G:N2	2:B:294:U:H2'	2.00	0.76
2:B:1234:G:H5"	16:P:118:ASP:CB	2.16	0.76
8:H:188:ARG:NH2	8:H:197:ARG:HB2	1.98	0.76
12:L:165:PHE:HZ	19:S:3:ALA:HB1	1.50	0.76
65:MB:30:THR:HA	65:MB:86:VAL:HG21	1.66	0.76
83:EC:6910:A:H2'	83:EC:6911:A:H5'	1.67	0.76
1:A:513:U:H4'	59:GB:131:GLN:HB3	1.65	0.76
1:A:709:C:N4	1:A:730:G:H2'	2.00	0.76
6:F:104:LEU:HD22	6:F:162:ALA:O	1.85	0.76
19:S:152:CYS:HB2	39:MA:92:LEU:HD21	1.68	0.76
21:U:67:ILE:HG23	21:U:82:ARG:HD2	1.66	0.76
22:V:176:ARG:O	32:FA:51:GLY:HA2	1.86	0.76
49:WA:18:GLY:HA3	49:WA:38:ARG:HB2	1.68	0.76
52:ZA:121:VAL:HG13	52:ZA:122:ALA:H	1.50	0.76
56:DB:132:ARG:HB3	56:DB:133:LEU:HD12	1.68	0.76
61:IB:7:VAL:HG21	61:IB:53:TYR:CB	2.16	0.76
1:A:680:U:H2'	1:A:681:U:H5'	1.68	0.76
2:B:1281:G:C5'	48:VA:55:LYS:HG2	2.15	0.76
2:B:2775:U:H2'	2:B:2776:C:C6	2.20	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2953:U:H2'	2:B:2954:U:H2'	1.67	0.76
9:I:40:HIS:HD2	9:I:42:ALA:H	1.32	0.76
29:CA:67:ILE:H	29:CA:67:ILE:HD12	1.49	0.76
2:B:2131:A:H2'	2:B:2132:C:H5'	1.66	0.76
8:H:38:VAL:O	8:H:42:VAL:HG23	1.86	0.76
2:B:2356:A:H61	2:B:2983:C:H5	1.33	0.76
20:T:98:ALA:HA	20:T:101:ARG:NH1	2.00	0.76
49:WA:41:THR:HG21	49:WA:62:LYS:HG2	1.68	0.76
59:GB:77:ILE:HG21	59:GB:91:LYS:HG3	1.68	0.76
61:IB:16:GLN:HG3	61:IB:54:ILE:HG13	1.66	0.76
63:KB:100:LYS:HD3	63:KB:104:ARG:HH11	1.49	0.76
71:SB:59:VAL:HG13	71:SB:64:GLU:HB2	1.67	0.76
82:DC:588:LEU:HB2	82:DC:687:ASN:O	1.85	0.76
1:A:861:U:H3'	1:A:862:A:H8	1.51	0.76
1:A:1198:G:H3'	1:A:1199:G:H5'	1.67	0.76
1:A:1646:C:H42	1:A:1754:A:H61	1.33	0.76
6:F:89:TYR:HB2	6:F:100:ASN:ND2	2.01	0.76
7:G:229:VAL:HG11	7:G:249:VAL:HG23	1.67	0.76
40:NA:62:ARG:HH12	40:NA:98:ARG:HH11	1.31	0.76
1:A:953:G:H2'	1:A:954:G:H8	1.51	0.76
1:A:1357:A:H2'	1:A:1358:G:C8	2.21	0.76
7:G:37:ARG:HH21	7:G:188:ILE:HG23	1.51	0.76
14:N:82:ARG:HB2	14:N:82:ARG:NH1	2.00	0.76
16:P:60:VAL:O	16:P:75:PRO:HD2	1.86	0.76
31:EA:10:VAL:HB	31:EA:83:THR:CG2	2.15	0.76
39:MA:114:ARG:HG3	39:MA:114:ARG:HH11	1.50	0.76
66:NB:93:HIS:HA	66:NB:97:VAL:HB	1.68	0.76
82:DC:402:ALA:HA	82:DC:450:ALA:HB1	1.66	0.76
2:B:801:A:N6	17:Q:19:GLN:HE22	1.84	0.75
2:B:3312:U:H2'	2:B:3313:U:H5"	1.68	0.75
30:DA:45:ILE:HD11	30:DA:119:ILE:HG23	1.68	0.75
63:KB:22:ALA:HB1	63:KB:23:PRO:CA	2.15	0.75
82:DC:109:VAL:HG12	82:DC:110:ASP:H	1.51	0.75
82:DC:631:ARG:HB3	82:DC:631:ARG:HH11	1.50	0.75
2:B:1259:A:HO2'	2:B:1280:C:H4'	1.47	0.75
2:B:2978:U:O2'	2:B:2979:U:H5'	1.87	0.75
16:P:86:LYS:HZ1	16:P:104:ILE:HD11	1.48	0.75
16:P:124:THR:O	16:P:128:VAL:HG23	1.85	0.75
24:X:154:HIS:CE1	24:X:170:THR:HG21	2.21	0.75
74:VB:50:ALA:HB1	74:VB:54:ALA:HB3	1.69	0.75
75:WB:50:ILE:HG22	75:WB:51:LEU:HD12	1.67	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:824:C:H5”	6:F:21:ARG:HD3	1.67	0.75
2:B:2510:U:HO2’	2:B:2511:A:H5’	1.48	0.75
82:DC:647:ILE:O	82:DC:688:ILE:HG13	1.86	0.75
1:A:162:A:H3’	1:A:163:G:H21	1.52	0.75
2:B:268:A:N6	2:B:295:A:H3’	2.00	0.75
2:B:2909:U:C3’	2:B:2910:A:H5”	2.17	0.75
82:DC:587:TYR:HE2	82:DC:692:THR:HG23	1.49	0.75
1:A:562:G:H21	80:BC:14:VAL:HG11	1.52	0.75
3:C:94:C:H5”	41:OA:76:ASN:ND2	2.02	0.75
9:I:91:GLY:CA	9:I:94:ASN:HD21	1.99	0.75
47:UA:8:VAL:O	47:UA:11:THR:HG22	1.86	0.75
54:BB:89:VAL:HG13	54:BB:114:ILE:HD11	1.69	0.75
54:BB:180:LEU:HD22	54:BB:192:ILE:HG22	1.69	0.75
57:EB:102:PRO:HD3	57:EB:112:ARG:HD3	1.66	0.75
63:KB:4:MET:HG3	63:KB:5:HIS:H	1.51	0.75
1:A:108:A:H2’	1:A:109:G:C8	2.21	0.75
1:A:1757:G:H4’	2:B:2256:A:N1	2.00	0.75
2:B:370:U:H4’	2:B:404:G:H5’	1.67	0.75
12:L:53:PRO:HD2	12:L:56:VAL:HG21	1.67	0.75
23:W:170:ARG:HG2	23:W:173:ARG:HH21	1.51	0.75
2:B:1724:U:H1’	2:B:1725:C:C6	2.21	0.75
2:B:2511:A:H2’	2:B:2512:C:H6	1.51	0.75
2:B:2681:U:H4’	15:O:66:ALA:HB3	1.68	0.75
5:E:68:PHE:HE1	5:E:87:VAL:HA	1.52	0.75
10:J:46:ARG:HH11	10:J:46:ARG:HG3	1.49	0.75
16:P:128:VAL:O	16:P:132:ILE:HG13	1.87	0.75
24:X:41:TYR:HE1	24:X:45:LEU:HD12	1.50	0.75
54:BB:163:ASP:HB3	54:BB:166:SER:O	1.87	0.75
56:DB:57:ASP:HA	56:DB:106:LEU:HA	1.69	0.75
79:AC:21:CYS:CB	79:AC:30:LEU:HD21	2.17	0.75
12:L:24:ASN:N	12:L:25:PRO:HD2	2.00	0.75
14:N:171:TRP:HB2	14:N:178:ARG:HA	1.68	0.75
16:P:109:ILE:HG23	16:P:110:ILE:HD12	1.68	0.75
38:LA:85:VAL:HG12	38:LA:89:ILE:HD11	1.69	0.75
59:GB:28:LEU:HD11	80:BC:40:TYR:HA	1.68	0.75
1:A:375:U:H5”	73:UB:32:ARG:HH12	1.52	0.75
1:A:1551:U:H3’	65:MB:43:ARG:HH21	1.52	0.75
2:B:3243:A:H4’	7:G:95:THR:HB	1.69	0.75
8:H:280:ILE:HD12	22:V:25:TYR:HB2	1.67	0.75
12:L:146:LYS:HB2	12:L:173:MET:HE3	1.67	0.75
14:N:174:THR:HG22	14:N:176:LEU:N	2.00	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:85:LEU:HD11	16:P:106:LEU:HD22	1.69	0.75
24:X:41:TYR:CE1	24:X:45:LEU:HD12	2.21	0.75
39:MA:45:LYS:HA	39:MA:48:ARG:HG2	1.69	0.75
42:PA:28:ASN:HB2	42:PA:40:GLN:HB3	1.69	0.75
48:VA:139:LEU:HD21	48:VA:172:LEU:HD22	1.68	0.75
63:KB:88:LEU:O	63:KB:92:ILE:HG13	1.87	0.75
82:DC:25:ILE:HA	82:DC:142:VAL:HG11	1.69	0.75
82:DC:250:PHE:HB3	82:DC:275:MET:HE1	1.69	0.75
82:DC:445:ILE:HG12	82:DC:446:ASP:H	1.50	0.75
8:H:138:ARG:HH21	8:H:240:PRO:HB2	1.50	0.74
8:H:230:VAL:CG2	8:H:254:ALA:HB1	2.16	0.74
39:MA:74:LYS:O	39:MA:75:TYR:HB2	1.85	0.74
52:ZA:116:LYS:HD3	52:ZA:131:ILE:HD11	1.69	0.74
1:A:855:A:H3'	1:A:856:A:H5"	1.68	0.74
2:B:2476:C:C2	2:B:2477:G:H1'	2.22	0.74
2:B:3280:U:O2'	2:B:3281:U:H5'	1.88	0.74
23:W:162:ARG:HB3	23:W:162:ARG:NH1	2.02	0.74
43:QA:37:TYR:CZ	43:QA:39:ALA:HB2	2.22	0.74
82:DC:559:PRO:HG2	82:DC:778:PHE:CE1	2.21	0.74
2:B:3217:C:C4	2:B:3220:G:H1'	2.22	0.74
56:DB:2:LYS:O	56:DB:108:VAL:HA	1.86	0.74
72:TB:106:THR:HA	72:TB:123:GLY:HA3	1.68	0.74
82:DC:613:LYS:HB2	82:DC:631:ARG:NH2	2.03	0.74
82:DC:644:ASN:HD21	82:DC:681:MET:HB2	1.52	0.74
83:EC:6767:G:H3'	83:EC:6768:U:H5"	1.69	0.74
2:B:1715:A:N7	34:HA:84:LEU:HD22	2.02	0.74
2:B:3358:U:H2'	2:B:3359:A:O4'	1.88	0.74
7:G:144:ILE:H	7:G:144:ILE:HD12	1.50	0.74
31:EA:46:ILE:HA	31:EA:70:PRO:HA	1.68	0.74
57:EB:99:LEU:HG	57:EB:116:ARG:HG2	1.69	0.74
1:A:637:C:OP1	72:TB:32:LYS:HG3	1.85	0.74
1:A:1381:U:H4'	70:RB:59:PRO:HG3	1.69	0.74
2:B:255:A:H2'	2:B:256:G:C8	2.22	0.74
16:P:76:SER:HB2	16:P:116:MET:HB3	1.68	0.74
19:S:22:LEU:HB3	19:S:26:ARG:NH1	2.03	0.74
45:SA:9:ARG:NH1	45:SA:12:ARG:HD2	2.02	0.74
52:ZA:111:VAL:HG13	52:ZA:191:ALA:HA	1.67	0.74
2:B:1249:G:H2'	2:B:1250:G:C8	2.21	0.74
2:B:3149:G:H4'	7:G:130:PHE:CD1	2.22	0.74
2:B:3152:U:O2'	2:B:3153:U:H5'	1.88	0.74
24:X:154:HIS:HA	24:X:170:THR:HB	1.68	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:IB:77:SER:CB	61:IB:85:VAL:HB	2.17	0.74
22:V:94:PHE:CE2	32:FA:119:PRO:HD3	2.22	0.74
58:FB:137:LYS:H	58:FB:137:LYS:HD3	1.50	0.74
67:OB:26:LEU:HD23	67:OB:58:MET:HB3	1.69	0.74
70:RB:28:SER:HB2	70:RB:112:VAL:HG13	1.69	0.74
83:EC:6909:A:H61	83:EC:6948:U:H3	1.35	0.74
1:A:1650:U:H2'	1:A:1651:A:C8	2.22	0.74
14:N:80:SER:HB3	14:N:147:VAL:HG11	1.68	0.74
18:R:74:ARG:HB3	18:R:74:ARG:HH11	1.53	0.74
36:JA:78:ASN:HD22	36:JA:78:ASN:N	1.86	0.74
55:CB:147:THR:O	55:CB:157:ARG:HB3	1.88	0.74
63:KB:108:ASP:HB3	63:KB:111:ALA:HB3	1.70	0.74
71:SB:71:ARG:HG3	77:YB:4:VAL:HG11	1.70	0.74
83:EC:6914:A:H2'	83:EC:6915:G:H5"	1.69	0.74
72:TB:101:TYR:HA	72:TB:113:HIS:CE1	2.22	0.74
1:A:1456:C:OP2	1:A:1457:C:H2'	1.87	0.74
7:G:235:THR:HG21	7:G:249:VAL:HG22	1.70	0.74
17:Q:85:LEU:HD22	17:Q:120:GLN:NE2	2.03	0.74
48:VA:77:LEU:O	48:VA:80:VAL:HG23	1.88	0.74
82:DC:718:LEU:HG	82:DC:834:GLY:HA2	1.68	0.74
1:A:197:A:H61	58:FB:141:ARG:HH22	1.35	0.73
2:B:1730:G:H2'	34:HA:28:LYS:NZ	2.02	0.73
5:E:65:ILE:HG12	5:E:152:ARG:HD3	1.70	0.73
9:I:56:THR:C	9:I:58:LYS:H	1.96	0.73
12:L:140:VAL:HG21	19:S:3:ALA:HB2	1.70	0.73
61:IB:101:GLU:HB3	73:UB:12:ALA:HB3	1.70	0.73
82:DC:593:ILE:CG2	82:DC:597:VAL:HB	2.18	0.73
2:B:1608:C:H5"	29:CA:111:ASN:OD1	1.88	0.73
2:B:1747:G:H4'	42:PA:4:GLU:HG3	1.71	0.73
2:B:2261:G:H5'	2:B:2306:C:N4	2.02	0.73
2:B:2442:G:C3'	2:B:2443:A:H5"	2.18	0.73
19:S:139:HIS:HB3	19:S:142:ILE:HD13	1.70	0.73
29:CA:92:LYS:HG3	29:CA:110:VAL:HB	1.70	0.73
82:DC:190:SER:HB3	82:DC:201:GLN:HE21	1.54	0.73
2:B:749:C:H5"	33:GA:32:LEU:HD12	1.69	0.73
2:B:2259:A:H2'	2:B:2260:U:H5'	1.68	0.73
5:E:138:VAL:HG12	5:E:147:LYS:HD2	1.70	0.73
16:P:146:LYS:O	16:P:147:ASN:HB2	1.86	0.73
57:EB:20:VAL:HA	57:EB:23:ALA:HB3	1.69	0.73
75:WB:90:LYS:HD3	75:WB:105:THR:HG21	1.71	0.73
82:DC:632:LYS:HB3	82:DC:648:ASP:HB3	1.69	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:172:C:H2'	1:A:173:A:C8	2.23	0.73
6:F:77:ILE:HG21	6:F:169:ILE:HD13	1.70	0.73
17:Q:74:GLY:HA3	17:Q:98:ASP:CB	2.18	0.73
30:DA:88:GLU:H	30:DA:88:GLU:CD	1.95	0.73
38:LA:81:CYS:H	38:LA:84:CYS:HG	1.36	0.73
48:VA:20:GLU:HG2	48:VA:69:ASP:OD1	1.89	0.73
50:XA:31:VAL:HB	50:XA:34:GLU:HG2	1.68	0.73
82:DC:593:ILE:HG22	82:DC:597:VAL:HB	1.69	0.73
4:D:47:C:C2'	4:D:48:U:H5"	2.17	0.73
5:E:111:ILE:HD12	5:E:151:VAL:HG21	1.71	0.73
9:I:65:ILE:CG2	9:I:72:ASP:HB3	2.18	0.73
11:K:66:LYS:O	11:K:70:LYS:HB2	1.87	0.73
13:M:91:ARG:HD2	13:M:143:GLU:HB2	1.70	0.73
31:EA:14:VAL:CG1	38:LA:86:LYS:HG3	2.19	0.73
48:VA:32:ASN:OD1	48:VA:184:GLY:HA2	1.88	0.73
48:VA:58:MET:HA	48:VA:61:ARG:HB2	1.69	0.73
59:GB:44:ARG:O	59:GB:48:GLN:HG3	1.88	0.73
70:RB:67:THR:O	70:RB:79:TRP:HA	1.88	0.73
1:A:514:G:H1	1:A:543:C:H5	1.34	0.73
2:B:505:G:H5'	8:H:315:LYS:HG2	1.70	0.73
10:J:20:LYS:HA	10:J:20:LYS:NZ	2.02	0.73
18:R:47:ASP:CB	18:R:55:ARG:HG2	2.17	0.73
57:EB:30:SER:C	57:EB:32:PRO:HD2	2.14	0.73
74:VB:102:LYS:HD2	74:VB:108:ARG:HD3	1.71	0.73
1:A:627:C:H4'	63:KB:117:LEU:HD23	1.69	0.73
2:B:59:G:H2'	3:C:33:A:O2'	1.86	0.73
2:B:2714:G:O6	2:B:2741:C:N3	2.22	0.73
14:N:16:PRO:O	14:N:18:PRO:HD3	1.88	0.73
19:S:64:VAL:HG11	19:S:102:ALA:HB1	1.70	0.73
40:NA:70:ARG:HG2	40:NA:87:VAL:HG21	1.71	0.73
58:FB:107:THR:OG1	58:FB:108:PRO:HD3	1.88	0.73
66:NB:27:GLY:HA2	66:NB:63:ILE:O	1.88	0.73
68:PB:123:ARG:HA	68:PB:133:VAL:HG21	1.70	0.73
73:UB:57:LEU:HD23	73:UB:57:LEU:H	1.54	0.73
1:A:706:A:H61	1:A:732:G:H4'	1.54	0.73
1:A:1163:A:H1'	1:A:1613:U:O2'	1.89	0.73
2:B:2442:G:N2	2:B:2505:U:H3	1.86	0.73
25:Y:44:ALA:HA	25:Y:95:HIS:HB3	1.71	0.73
36:JA:101:SER:O	36:JA:105:ARG:HG3	1.88	0.73
70:RB:52:LYS:HB3	70:RB:93:LEU:HD23	1.70	0.73
74:VB:20:ARG:HD2	74:VB:74:LEU:HD22	1.71	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:143:G:C2'	1:A:144:U:H5"	2.19	0.73
1:A:1053:G:H2'	1:A:1054:U:C6	2.24	0.73
1:A:1075:C:H2'	1:A:1076:A:O4'	1.89	0.73
2:B:516:A:H5"	8:H:344:ALA:HB2	1.70	0.73
2:B:1488:G:H5"	2:B:1838:G:O6	1.89	0.73
2:B:2541:U:H1'	2:B:2542:U:H4'	1.71	0.73
7:G:324:VAL:HG11	7:G:328:ILE:HD11	1.70	0.73
25:Y:124:VAL:HG12	25:Y:125:ALA:N	2.03	0.73
53:AB:45:LYS:HA	53:AB:83:THR:HB	1.69	0.73
69:QB:118:PRO:HD3	69:QB:123:ARG:HH21	1.54	0.73
1:A:626:U:H2'	1:A:627:C:O4'	1.89	0.73
1:A:814:A:H5"	23:W:170:ARG:NH2	2.04	0.73
2:B:1430:U:O4	32:FA:4:ARG:HA	1.89	0.73
48:VA:108:PRO:CA	48:VA:179:SER:HA	2.08	0.73
68:PB:76:PRO:HG3	68:PB:86:LEU:HD21	1.71	0.73
69:QB:70:GLN:HG3	69:QB:121:GLY:HA3	1.69	0.73
6:F:57:PRO:O	6:F:78:ALA:HB3	1.89	0.72
15:O:133:ARG:HB2	15:O:152:HIS:CE1	2.23	0.72
41:OA:76:ASN:HB3	41:OA:79:GLN:HG3	1.69	0.72
57:EB:17:GLU:O	57:EB:21:ALA:HB2	1.89	0.72
2:B:877:C:H2'	2:B:878:G:O4'	1.88	0.72
2:B:1079:A:C6	9:I:113:LEU:HD11	2.24	0.72
12:L:165:PHE:CZ	19:S:3:ALA:HB1	2.24	0.72
16:P:58:VAL:HB	16:P:79:SER:OG	1.90	0.72
29:CA:56:ARG:O	29:CA:57:LEU:HB2	1.89	0.72
83:EC:6836:U:OP1	83:EC:6874:A:H2'	1.87	0.72
1:A:401:A:O2'	1:A:402:C:H4'	1.89	0.72
1:A:845:G:C2'	1:A:846:G:H5"	2.17	0.72
2:B:1338:C:H4'	36:JA:60:ASN:ND2	2.04	0.72
2:B:1750:A:H4'	2:B:1751:G:H5'	1.69	0.72
2:B:2207:A:H3'	2:B:2208:A:C5'	2.18	0.72
7:G:53:MET:HG2	7:G:77:THR:HG22	1.70	0.72
9:I:25:GLU:O	9:I:27:LYS:HG3	1.89	0.72
19:S:58:GLY:HA3	19:S:142:ILE:CD1	2.17	0.72
54:BB:15:PRO:HD3	54:BB:39:ARG:NH2	2.04	0.72
68:PB:126:ARG:HG2	68:PB:133:VAL:HA	1.70	0.72
82:DC:806:SER:HB3	82:DC:813:SER:OG	1.89	0.72
1:A:25:C:H1'	1:A:26:A:OP2	1.88	0.72
1:A:116:U:H2'	1:A:117:U:C6	2.24	0.72
1:A:138:A:H61	1:A:266:A:H61	1.35	0.72
1:A:187:G:OP1	58:FB:139:ALA:HB2	1.88	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1039:U:H2'	2:B:1040:A:C8	2.24	0.72
32:FA:47:LYS:HE2	32:FA:48:TYR:CE2	2.23	0.72
52:ZA:137:ILE:HG13	52:ZA:138:PRO:HD2	1.70	0.72
71:SB:41:GLU:H	71:SB:41:GLU:CD	1.98	0.72
82:DC:406:LYS:HB2	82:DC:409:GLN:HB2	1.72	0.72
4:D:60:G:H2'	4:D:61:G:H8	1.53	0.72
6:F:68:LYS:HZ1	6:F:70:ARG:HD2	1.54	0.72
11:K:151:ARG:HH11	11:K:244:ASN:HD22	1.36	0.72
12:L:163:VAL:HG23	12:L:166:LEU:HD12	1.69	0.72
48:VA:42:ARG:HB3	48:VA:46:ARG:HH21	1.55	0.72
50:XA:148:ASP:HB2	50:XA:164:ASN:ND2	2.05	0.72
55:CB:121:ILE:HG23	55:CB:132:VAL:HG21	1.69	0.72
68:PB:88:ARG:NH2	68:PB:108:LYS:HG3	2.05	0.72
73:UB:54:LEU:HD11	73:UB:82:LYS:HD2	1.72	0.72
1:A:1358:G:H5'	69:QB:126:GLU:HB2	1.71	0.72
9:I:252:ALA:O	9:I:253:PHE:HB3	1.89	0.72
12:L:140:VAL:HG22	12:L:166:LEU:HD21	1.71	0.72
17:Q:57:VAL:HG22	17:Q:147:ILE:CD1	2.19	0.72
23:W:21:LYS:O	23:W:53:LYS:HB2	1.89	0.72
23:W:115:ILE:HG13	23:W:119:LEU:HD23	1.71	0.72
37:KA:50:ALA:HB2	37:KA:68:TRP:CZ3	2.24	0.72
54:BB:95:THR:HA	74:VB:16:PRO:HG2	1.71	0.72
63:KB:99:ARG:O	63:KB:103:GLU:HG2	1.88	0.72
1:A:443:C:H2'	1:A:444:C:O4'	1.89	0.72
1:A:1041:G:H2'	1:A:1042:G:C8	2.24	0.72
1:A:1358:G:H2'	1:A:1359:C:C6	2.24	0.72
49:WA:49:GLY:HA2	49:WA:54:PHE:CD1	2.24	0.72
68:PB:27:LYS:HE2	68:PB:55:HIS:HA	1.70	0.72
72:TB:104:LEU:HA	72:TB:125:ILE:HA	1.69	0.72
79:AC:21:CYS:HB2	79:AC:30:LEU:HD21	1.70	0.72
82:DC:523:SER:HB3	82:DC:529:ILE:HG12	1.72	0.72
1:A:63:G:H4'	1:A:170:U:H5	1.55	0.72
2:B:1641:U:O2'	2:B:1642:A:H3'	1.90	0.72
2:B:2821:C:N4	2:B:2869:U:H3	1.87	0.72
2:B:3028:G:H5"	82:DC:28:VAL:HG11	1.70	0.72
6:F:29:LEU:HD22	6:F:163:ARG:NH1	2.03	0.72
21:U:41:LEU:H	21:U:113:TYR:HA	1.55	0.72
24:X:155:ARG:HB2	24:X:172:TYR:CD2	2.24	0.72
39:MA:85:THR:HG22	39:MA:87:ALA:N	2.04	0.72
48:VA:63:ILE:O	48:VA:66:PHE:HB3	1.90	0.72
55:CB:128:ASN:ND2	55:CB:129:PRO:HD2	2.05	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:QB:13:ASP:HA	69:QB:16:ASN:HD22	1.52	0.72
1:A:1:U:O4	59:GB:54:ARG:HB2	1.90	0.72
1:A:1229:G:H21	1:A:1256:A:H62	1.37	0.72
2:B:1849:C:H6	2:B:1849:C:H5'	1.55	0.72
2:B:2131:A:C2'	2:B:2132:C:H5'	2.20	0.72
2:B:2402:A:H2'	8:H:67:THR:OG1	1.90	0.72
2:B:2836:C:H5	2:B:2852:C:H42	1.38	0.72
4:D:64:A:H5'	4:D:65:G:H5"	1.69	0.72
13:M:189:GLU:C	13:M:191:LEU:H	1.96	0.72
16:P:90:ARG:HD3	16:P:139:VAL:HG11	1.71	0.72
55:CB:63:GLN:HB2	55:CB:88:PRO:HA	1.70	0.72
57:EB:9:LEU:HG	57:EB:17:GLU:HG2	1.70	0.72
74:VB:91:LEU:HD13	74:VB:96:LEU:HB2	1.71	0.72
74:VB:105:ARG:HH11	74:VB:109:LYS:HZ1	1.35	0.72
82:DC:291:PHE:HE1	82:DC:315:GLU:HB3	1.55	0.72
1:A:279:G:H2'	1:A:280:U:H4'	1.70	0.72
1:A:946:U:H2'	1:A:947:U:C6	2.24	0.72
1:A:1319:A:C2'	1:A:1320:U:H5"	2.20	0.72
1:A:1646:C:H2'	1:A:1647:U:C6	2.25	0.72
49:WA:156:VAL:HG12	49:WA:157:VAL:H	1.55	0.72
52:ZA:162:CYS:HB3	52:ZA:213:ALA:HB2	1.70	0.72
66:NB:106:LYS:HA	66:NB:109:PHE:HB2	1.72	0.72
2:B:289:A:H2'	2:B:290:G:H8	1.55	0.71
2:B:1233:G:C4'	16:P:120:SER:HB2	2.19	0.71
2:B:1340:G:H2'	2:B:1341:U:C6	2.24	0.71
6:F:52:SER:HB3	6:F:191:LEU:HD22	1.72	0.71
12:L:163:VAL:CG2	12:L:166:LEU:HD12	2.20	0.71
14:N:45:GLU:O	14:N:141:LYS:HE3	1.89	0.71
15:O:11:ASP:O	15:O:12:LEU:HB2	1.89	0.71
21:U:36:ILE:HD11	21:U:44:ALA:HB1	1.72	0.71
27:AA:66:LYS:HB3	27:AA:69:LEU:HD13	1.71	0.71
52:ZA:35:TRP:HB3	52:ZA:46:LYS:HE2	1.72	0.71
52:ZA:111:VAL:CG1	52:ZA:191:ALA:HA	2.19	0.71
53:AB:109:LEU:HD12	53:AB:175:VAL:HG21	1.72	0.71
63:KB:54:LEU:HB3	63:KB:60:VAL:HB	1.72	0.71
5:E:90:LEU:HD23	5:E:119:GLN:HE21	1.56	0.71
8:H:62:ALA:HB3	8:H:90:PHE:CE2	2.26	0.71
36:JA:63:THR:HA	36:JA:66:LEU:HD12	1.72	0.71
48:VA:97:LYS:HD2	48:VA:100:ILE:HD11	1.70	0.71
55:CB:110:ALA:O	55:CB:114:ILE:HG12	1.90	0.71
63:KB:56:ASP:HB3	77:YB:50:ALA:HB1	1.71	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:VB:88:THR:O	74:VB:92:VAL:HG23	1.90	0.71
82:DC:380:LEU:HG	82:DC:400:VAL:HG22	1.73	0.71
23:W:105:LEU:HD13	23:W:135:LYS:HD2	1.71	0.71
63:KB:132:VAL:HG23	63:KB:134:VAL:HG13	1.72	0.71
69:QB:28:LEU:HD13	69:QB:28:LEU:H	1.53	0.71
82:DC:212:GLY:HA2	82:DC:218:TRP:CZ3	2.26	0.71
82:DC:222:ILE:H	82:DC:222:ILE:CD1	2.03	0.71
2:B:1103:A:H1'	2:B:1104:G:P	2.30	0.71
2:B:1232:C:C5	2:B:1261:G:H2'	2.25	0.71
2:B:2356:A:N6	2:B:2983:C:H5	1.88	0.71
8:H:152:VAL:HG21	8:H:156:LEU:HD12	1.71	0.71
9:I:104:LEU:HA	9:I:247:ILE:CG2	2.19	0.71
14:N:99:ILE:HG22	14:N:123:HIS:HB2	1.72	0.71
19:S:140:LYS:HA	19:S:143:ARG:HB2	1.72	0.71
30:DA:73:VAL:HG22	30:DA:80:VAL:HG23	1.69	0.71
48:VA:97:LYS:O	48:VA:101:VAL:HG23	1.88	0.71
50:XA:76:ILE:O	50:XA:124:THR:HG23	1.89	0.71
73:UB:102:VAL:HG12	73:UB:127:VAL:HG12	1.72	0.71
1:A:109:G:H2'	1:A:110:U:O4'	1.89	0.71
17:Q:189:GLU:HA	17:Q:192:GLU:HG2	1.72	0.71
31:EA:81:LEU:HD13	38:LA:93:PHE:CD2	2.26	0.71
66:NB:131:GLY:HA3	66:NB:136:SER:O	1.90	0.71
2:B:1233:G:H21	16:P:128:VAL:HG13	1.53	0.71
6:F:80:GLU:HG2	47:UA:76:ALA:CB	2.20	0.71
17:Q:106:GLN:NE2	40:NA:20:MET:HE3	2.05	0.71
54:BB:71:LYS:HA	54:BB:76:VAL:O	1.91	0.71
83:EC:6912:G:C3'	83:EC:6913:U:H5"	2.20	0.71
1:A:705:U:H2'	1:A:706:A:H8	1.55	0.71
5:E:109:ALA:HB1	5:E:151:VAL:HG13	1.73	0.71
31:EA:101:PHE:O	31:EA:102:GLU:HB3	1.91	0.71
49:WA:42:LEU:HB2	49:WA:61:PHE:CD2	2.22	0.71
59:GB:134:ILE:HG13	59:GB:135:ALA:N	2.04	0.71
71:SB:24:ILE:HD13	71:SB:31:SER:HB2	1.72	0.71
72:TB:37:PHE:CD2	72:TB:103:ILE:HD13	2.25	0.71
83:EC:6835:U:H2'	83:EC:6876:A:H62	1.56	0.71
1:A:968:U:H5"	1:A:1033:C:O2'	1.91	0.71
1:A:1749:A:H2'	1:A:1750:A:H5"	1.73	0.71
2:B:58:G:H2'	2:B:59:G:C8	2.25	0.71
2:B:1347:U:H5"	8:H:303:GLY:HA3	1.72	0.71
4:D:76:A:H1'	24:X:50:LYS:HE3	1.71	0.71
54:BB:43:PRO:HB2	54:BB:46:VAL:HG23	1.73	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:792:G:H5”	32:FA:2:PRO:HD2	1.72	0.71
6:F:29:LEU:HD22	6:F:163:ARG:HH12	1.54	0.71
31:EA:25:ILE:HG22	31:EA:28:PRO:HD3	1.72	0.71
34:HA:95:ALA:HB2	34:HA:101:LEU:HD11	1.73	0.71
48:VA:61:ARG:HA	48:VA:64:ARG:CB	2.14	0.71
48:VA:172:LEU:O	48:VA:176:LEU:HG	1.91	0.71
49:WA:13:LEU:CD2	49:WA:55:GLY:H	2.04	0.71
65:MB:18:ARG:HG2	68:PB:92:ILE:O	1.90	0.71
82:DC:413:ILE:HA	82:DC:469:LEU:HD12	1.71	0.71
82:DC:722:PRO:HB2	82:DC:808:PRO:HG3	1.72	0.71
1:A:115:G:N2	1:A:334:G:H21	1.89	0.71
19:S:112:ASN:C	19:S:113:LEU:HD22	2.16	0.71
24:X:38:LYS:HD3	24:X:58:ILE:HD13	1.71	0.71
30:DA:111:LEU:HD23	30:DA:116:LYS:HG2	1.72	0.71
54:BB:126:VAL:HG21	54:BB:155:LYS:O	1.91	0.71
54:BB:214:LEU:HD13	54:BB:244:ILE:HG21	1.72	0.71
67:OB:85:VAL:C	67:OB:87:GLU:H	1.99	0.71
71:SB:3:ASN:HD22	71:SB:5:LYS:HE3	1.55	0.71
82:DC:515:ASP:HB3	82:DC:518:VAL:HB	1.73	0.71
2:B:198:A:H2’	2:B:199:A:H5’	1.73	0.70
5:E:100:ILE:HG12	5:E:127:GLN:O	1.91	0.70
6:F:68:LYS:NZ	6:F:70:ARG:HD2	2.06	0.70
12:L:239:GLY:O	12:L:243:GLN:HB2	1.90	0.70
42:PA:32:ASN:HB3	42:PA:38:PHE:HE2	1.56	0.70
56:DB:147:LEU:O	56:DB:151:ASP:HB2	1.89	0.70
66:NB:137:ARG:HA	66:NB:137:ARG:HE	1.55	0.70
73:UB:96:VAL:CG2	73:UB:97:ASP:H	2.00	0.70
75:WB:62:VAL:HG13	75:WB:76:ALA:CB	2.20	0.70
77:YB:21:LEU:HA	77:YB:26:GLN:HB3	1.72	0.70
1:A:1673:G:H2’	1:A:1674:C:C6	2.27	0.70
72:TB:104:LEU:HB2	72:TB:124:LYS:O	1.90	0.70
1:A:474:A:H5”	59:GB:144:PRO:HD2	1.74	0.70
2:B:34:A:H5’	19:S:86:ASN:ND2	2.07	0.70
2:B:760:G:H1’	2:B:770:G:N2	2.06	0.70
2:B:990:U:C2’	2:B:991:G:H5”	2.22	0.70
2:B:3133:C:H2’	2:B:3134:A:O4’	1.91	0.70
34:HA:68:TYR:HB2	34:HA:105:ALA:HB1	1.74	0.70
53:AB:164:VAL:O	53:AB:168:ILE:HG13	1.90	0.70
63:KB:146:ALA:O	63:KB:150:VAL:HG12	1.91	0.70
66:NB:52:LEU:HD23	66:NB:52:LEU:H	1.56	0.70
67:OB:57:LEU:O	67:OB:61:ILE:HG13	1.91	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:RB:68:ARG:HA	70:RB:78:THR:O	1.90	0.70
82:DC:810:ASP:O	82:DC:816:GLY:HA3	1.91	0.70
1:A:976:G:N1	1:A:1023:A:H1'	2.07	0.70
56:DB:69:LEU:O	56:DB:99:GLY:HA3	1.91	0.70
67:OB:41:ILE:HD13	67:OB:50:ILE:HD12	1.73	0.70
82:DC:379:MET:SD	82:DC:470:THR:HG22	2.30	0.70
82:DC:729:PHE:HB2	82:DC:772:LEU:O	1.92	0.70
1:A:78:A:H2'	1:A:79:C:C6	2.27	0.70
1:A:257:A:H1'	58:FB:73:SER:HB2	1.73	0.70
1:A:1318:G:H5"	67:OB:67:ARG:HH12	1.56	0.70
1:A:1617:U:H1'	78:ZB:23:GLY:HA3	1.72	0.70
79:AC:36:LEU:HD12	79:AC:38:ILE:H	1.56	0.70
1:A:38:C:H4'	59:GB:6:ARG:HH21	1.57	0.70
1:A:333:A:H2'	1:A:334:G:C8	2.27	0.70
1:A:1516:A:O2'	1:A:1517:U:H5'	1.92	0.70
2:B:1110:U:H2'	2:B:1111:U:C6	2.26	0.70
2:B:2804:A:H2'	2:B:2805:G:H5"	1.74	0.70
9:I:282:ARG:O	9:I:286:VAL:HG23	1.91	0.70
13:M:41:ILE:HD11	13:M:67:ALA:CB	2.21	0.70
16:P:128:VAL:O	16:P:131:GLU:HG2	1.92	0.70
25:Y:28:SER:HA	25:Y:31:LEU:HD12	1.74	0.70
27:AA:37:ILE:HG13	27:AA:59:MET:O	1.92	0.70
54:BB:122:LYS:HD3	54:BB:164:LEU:HD21	1.73	0.70
69:QB:30:VAL:HB	69:QB:34:VAL:HG11	1.73	0.70
80:BC:42:ARG:O	80:BC:43:ARG:HB2	1.92	0.70
1:A:1217:A:H5"	60:HB:1:MET:HG3	1.74	0.70
2:B:314:U:H2'	2:B:315:C:C6	2.26	0.70
2:B:1833:G:O2'	43:QA:4:GLN:HA	1.92	0.70
4:D:76:A:H5'	4:D:78:U:H1'	1.73	0.70
21:U:65:SER:N	21:U:67:ILE:HD13	2.07	0.70
38:LA:91:ARG:HG2	38:LA:95:ILE:HD11	1.73	0.70
46:TA:68:VAL:HG23	46:TA:85:LEU:HB3	1.73	0.70
48:VA:8:LYS:H	48:VA:8:LYS:HD2	1.56	0.70
50:XA:26:ALA:HB3	50:XA:30:GLN:NE2	2.06	0.70
57:EB:15:GLU:HA	57:EB:18:LEU:HD12	1.72	0.70
1:A:291:G:H2'	1:A:292:U:H5	1.56	0.70
2:B:1596:C:H2'	2:B:1597:C:C6	2.27	0.70
4:D:26:C:H5'	9:I:56:THR:HB	1.73	0.70
12:L:206:GLU:HG3	12:L:207:ASP:H	1.57	0.70
23:W:43:LYS:O	23:W:47:ASN:HB3	1.91	0.70
82:DC:336:GLU:O	82:DC:340:LEU:HG	1.92	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:EC:6891:G:H3'	83:EC:6892:U:C5'	2.16	0.70
1:A:54:C:H2'	1:A:55:A:H8	1.56	0.70
1:A:252:U:H2'	1:A:253:A:C8	2.26	0.70
1:A:869:A:H61	1:A:958:U:H3	1.37	0.70
2:B:1211:U:H2'	2:B:1212:A:C8	2.27	0.70
2:B:2561:A:N1	12:L:32:LYS:HB2	2.07	0.70
12:L:75:ILE:C	12:L:77:GLN:H	2.00	0.70
16:P:92:ARG:HH22	16:P:95:ASP:HB3	1.57	0.70
55:CB:48:PHE:HB3	55:CB:67:PRO:HB3	1.74	0.70
65:MB:126:VAL:HG13	65:MB:127:ARG:H	1.57	0.70
1:A:1117:U:C2'	1:A:1118:G:H5"	2.22	0.70
1:A:1341:A:OP1	49:WA:63:GLY:HA2	1.91	0.70
2:B:1618:G:H2'	2:B:1619:A:H5"	1.73	0.70
2:B:2244:A:OP1	6:F:243:THR:HG23	1.92	0.70
7:G:284:ARG:HB2	7:G:323:MET:HE2	1.72	0.70
32:FA:126:LYS:CB	32:FA:148:ILE:HD11	2.20	0.70
32:FA:129:PHE:N	32:FA:129:PHE:CD2	2.60	0.70
53:AB:32:GLU:HG3	53:AB:57:ASP:HB2	1.74	0.70
57:EB:38:LEU:O	57:EB:38:LEU:HD23	1.92	0.70
59:GB:64:GLU:HA	59:GB:69:ARG:HD3	1.73	0.70
60:HB:30:ALA:O	60:HB:38:LYS:HA	1.92	0.70
82:DC:28:VAL:HG13	82:DC:29:ASP:N	2.07	0.70
1:A:1241:G:H1'	65:MB:78:THR:HA	1.74	0.69
2:B:900:G:H1'	2:B:1589:A:N6	2.07	0.69
2:B:947:G:H5"	36:JA:55:ILE:HB	1.74	0.69
15:O:90:GLN:HB3	15:O:172:LEU:CD1	2.21	0.69
19:S:101:THR:O	19:S:105:ARG:HG3	1.92	0.69
1:A:532:U:H4'	74:VB:62:THR:HG21	1.75	0.69
2:B:1257:C:H1'	16:P:123:ARG:NE	2.07	0.69
2:B:3228:C:H4'	2:B:3229:G:O5'	1.93	0.69
2:B:3346:U:H3	2:B:3359:A:N6	1.89	0.69
7:G:25:ILE:H	7:G:25:ILE:HD13	1.57	0.69
16:P:133:LEU:HA	16:P:137:GLN:CG	2.21	0.69
39:MA:93:THR:HG23	39:MA:96:GLU:OE1	1.92	0.69
82:DC:22:MET:HE3	82:DC:338:ILE:HG12	1.74	0.69
82:DC:601:ILE:HD13	82:DC:643:PRO:HA	1.74	0.69
82:DC:699:DDE:HAC1	83:EC:6952:U:H1'	1.74	0.69
1:A:500:C:H2'	1:A:501:U:O4'	1.92	0.69
2:B:599:C:H3'	2:B:600:G:H5"	1.73	0.69
2:B:3334:U:H4'	2:B:3335:A:H5"	1.73	0.69
12:L:151:VAL:HG13	12:L:198:ALA:O	1.91	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:EA:93:LYS:C	31:EA:93:LYS:HD3	2.17	0.69
56:DB:116:LYS:HE3	56:DB:125:THR:HG22	1.72	0.69
69:QB:124:ILE:HD11	69:QB:128:GLY:HA3	1.72	0.69
83:EC:6855:A:H2'	83:EC:6856:C:C6	2.27	0.69
1:A:238:U:OP1	1:A:834:G:H4'	1.92	0.69
1:A:415:C:H2'	1:A:417:A:N7	2.06	0.69
5:E:67:ILE:HD13	5:E:111:ILE:HD13	1.75	0.69
12:L:178:ALA:HB2	12:L:218:ILE:HD13	1.75	0.69
16:P:130:LYS:HG2	16:P:146:LYS:HG3	1.74	0.69
16:P:135:THR:CG2	16:P:147:ASN:HA	2.23	0.69
18:R:38:ILE:HD11	24:X:150:PHE:CE2	2.27	0.69
49:WA:216:LYS:HA	49:WA:239:GLU:HB2	1.75	0.69
56:DB:211:LEU:H	56:DB:211:LEU:HD22	1.57	0.69
73:UB:93:LEU:O	73:UB:96:VAL:HG22	1.92	0.69
75:WB:54:VAL:HG11	75:WB:88:ILE:HB	1.72	0.69
82:DC:365:ASN:O	82:DC:369:ILE:HG12	1.91	0.69
82:DC:733:ILE:CG2	82:DC:792:ALA:HB1	2.22	0.69
2:B:1040:A:O2'	14:N:198:LYS:HE2	1.91	0.69
8:H:205:PRO:HB3	8:H:247:PHE:HD2	1.55	0.69
17:Q:57:VAL:HG22	17:Q:147:ILE:HD12	1.74	0.69
39:MA:53:CYS:O	39:MA:57:VAL:HG23	1.92	0.69
48:VA:33:VAL:CG2	48:VA:38:MET:HB2	2.23	0.69
58:FB:43:ILE:HG23	58:FB:57:ALA:HA	1.73	0.69
61:IB:155:LYS:HD3	61:IB:155:LYS:H	1.56	0.69
68:PB:100:THR:HG22	68:PB:108:LYS:HG2	1.73	0.69
71:SB:3:ASN:ND2	71:SB:7:GLN:HB2	2.08	0.69
82:DC:138:GLN:O	82:DC:142:VAL:HG23	1.93	0.69
83:EC:6767:G:C3'	83:EC:6768:U:H5"	2.23	0.69
1:A:1139:A:H2'	1:A:1140:G:O4'	1.92	0.69
1:A:1365:C:H5"	66:NB:28:LEU:HD22	1.74	0.69
2:B:2714:G:H4'	2:B:2715:A:H5"	1.75	0.69
6:F:41:ILE:O	6:F:89:TYR:HA	1.92	0.69
15:O:114:ILE:HG22	15:O:115:LYS:H	1.57	0.69
50:XA:85:ALA:HA	50:XA:202:TYR:CD2	2.28	0.69
60:HB:87:VAL:H	60:HB:88:PRO:CD	2.00	0.69
61:IB:53:TYR:OH	61:IB:114:ALA:HB2	1.93	0.69
70:RB:24:ILE:HB	70:RB:91:ILE:HB	1.75	0.69
82:DC:16:VAL:HA	82:DC:19:VAL:CG2	2.22	0.69
82:DC:571:SER:HA	82:DC:720:ALA:CA	2.22	0.69
1:A:148:A:H2'	1:A:149:C:H5'	1.74	0.69
1:A:1370:U:H4'	1:A:1371:A:H5"	1.75	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:528:U:H2'	2:B:529:A:C8	2.27	0.69
5:E:30:GLU:HA	5:E:210:MET:HE1	1.75	0.69
7:G:211:GLN:NE2	7:G:284:ARG:HA	2.07	0.69
11:K:151:ARG:NH1	11:K:244:ASN:HD22	1.91	0.69
48:VA:112:GLY:HA2	48:VA:165:VAL:O	1.93	0.69
57:EB:127:GLU:HA	57:EB:135:ILE:HD11	1.74	0.69
59:GB:72:GLU:HA	59:GB:75:ALA:HB3	1.75	0.69
77:YB:35:VAL:HG22	77:YB:79:PHE:CB	2.21	0.69
1:A:78:A:H1'	56:DB:175:ILE:HG12	1.73	0.69
1:A:845:G:H2'	1:A:846:G:C5'	2.19	0.69
1:A:1171:A:H2'	1:A:1172:G:H8	1.55	0.69
2:B:13:A:H5'	2:B:14:U:OP2	1.93	0.69
2:B:245:U:H2'	2:B:246:U:C6	2.28	0.69
2:B:715:A:OP2	32:FA:113:LEU:HB3	1.93	0.69
2:B:3312:U:H5"	7:G:25:ILE:HD12	1.73	0.69
6:F:72:ARG:CZ	6:F:72:ARG:HB2	2.22	0.69
6:F:137:ILE:HG13	6:F:137:ILE:O	1.93	0.69
9:I:22:ARG:HG2	9:I:28:THR:HB	1.74	0.69
13:M:115:ARG:HH21	13:M:123:ILE:HG12	1.56	0.69
15:O:94:ARG:H	15:O:94:ARG:HD3	1.57	0.69
29:CA:91:ASN:O	29:CA:95:ILE:HG13	1.92	0.69
43:QA:3:ALA:H	43:QA:5:LYS:HZ3	1.39	0.69
43:QA:34:THR:H	43:QA:35:ILE:HD12	1.58	0.69
49:WA:13:LEU:HD21	49:WA:55:GLY:H	1.58	0.69
53:AB:113:LEU:HD23	53:AB:114:ALA:H	1.58	0.69
54:BB:90:ILE:HD11	54:BB:101:LEU:HG	1.75	0.69
65:MB:81:ARG:HB3	65:MB:96:ILE:CG2	2.23	0.69
68:PB:102:ALA:O	68:PB:105:VAL:HG12	1.93	0.69
78:ZB:25:VAL:HG11	78:ZB:66:LEU:HD13	1.74	0.69
80:BC:33:ARG:HB2	80:BC:33:ARG:NH1	2.06	0.69
83:EC:6777:C:N4	83:EC:6813:A:H5"	2.07	0.69
1:A:1214:U:H2'	1:A:1215:C:C6	2.28	0.69
14:N:16:PRO:HG3	14:N:128:ARG:NE	2.07	0.69
49:WA:211:ILE:HD11	49:WA:225:LEU:HD22	1.74	0.69
50:XA:121:VAL:HG23	50:XA:141:ILE:HG21	1.73	0.69
50:XA:125:ASP:OD1	50:XA:127:ARG:HB3	1.93	0.69
54:BB:94:ALA:HB3	74:VB:17:LEU:HB3	1.73	0.69
54:BB:151:ASP:HB3	54:BB:154:ILE:HG13	1.73	0.69
60:HB:82:LEU:HB2	60:HB:86:ILE:HG21	1.74	0.69
2:B:522:A:C3'	2:B:523:A:H5"	2.22	0.69
2:B:994:G:H5'	2:B:2637:A:O2'	1.93	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1565:G:N2	2:B:1574:C:H42	1.90	0.69
2:B:3346:U:H3	2:B:3359:A:H61	1.38	0.69
6:F:48:ILE:O	6:F:48:ILE:HG13	1.91	0.69
16:P:130:LYS:CG	16:P:146:LYS:HG3	2.23	0.69
17:Q:8:PRO:HB3	22:V:164:ARG:HB3	1.74	0.69
19:S:27:VAL:HG23	19:S:122:ASN:CB	2.18	0.69
22:V:100:THR:HG23	22:V:122:ILE:HD13	1.75	0.69
38:LA:57:LEU:HD12	38:LA:62:TYR:HD1	1.58	0.69
53:AB:92:GLN:NE2	53:AB:92:GLN:H	1.91	0.69
53:AB:209:ILE:HB	67:OB:38:ILE:O	1.93	0.69
55:CB:142:PRO:CG	55:CB:214:LYS:HG2	2.22	0.69
82:DC:694:HIS:NE2	83:EC:6907:G:OP1	2.26	0.69
1:A:398:G:H5"	58:FB:49:ARG:HE	1.59	0.68
1:A:479:C:H5'	59:GB:124:HIS:HB2	1.74	0.68
1:A:641:G:H21	57:EB:178:GLY:HA3	1.58	0.68
1:A:1644:C:O2'	1:A:1645:G:H5'	1.93	0.68
2:B:1054:A:H5"	2:B:2637:A:N6	2.07	0.68
2:B:1257:C:H1'	16:P:123:ARG:CZ	2.23	0.68
2:B:1845:G:O2'	41:OA:5:THR:HG22	1.93	0.68
2:B:3099:C:O2'	2:B:3100:U:H5'	1.92	0.68
2:B:3208:G:H5"	2:B:3210:A:O4'	1.92	0.68
16:P:106:LEU:N	16:P:142:ARG:HG3	2.08	0.68
22:V:102:ALA:HA	22:V:122:ILE:O	1.92	0.68
25:Y:78:LYS:HD3	25:Y:87:LYS:HD2	1.73	0.68
44:RA:96:CYS:HA	44:RA:121:LEU:HD23	1.73	0.68
48:VA:97:LYS:HA	48:VA:100:ILE:HG12	1.75	0.68
52:ZA:140:ARG:HD3	52:ZA:222:TYR:CE1	2.28	0.68
78:ZB:11:LYS:HB2	78:ZB:33:LEU:HD21	1.75	0.68
82:DC:760:ARG:HH11	82:DC:760:ARG:CB	2.07	0.68
1:A:739:G:H2'	1:A:740:A:C8	2.28	0.68
1:A:928:U:H5"	1:A:944:A:H3'	1.74	0.68
2:B:505:G:H5"	8:H:315:LYS:HA	1.74	0.68
2:B:2561:A:HO2'	2:B:2562:A:H8	1.41	0.68
4:D:48:U:OP2	9:I:94:ASN:HB3	1.93	0.68
14:N:30:LYS:N	14:N:30:LYS:HE3	2.07	0.68
20:T:34:VAL:HG12	20:T:103:LYS:HB2	1.75	0.68
37:KA:103:TYR:HA	37:KA:104:PRO:C	2.17	0.68
48:VA:108:PRO:N	48:VA:179:SER:CB	2.56	0.68
63:KB:42:ARG:HH21	63:KB:80:LEU:HD21	1.58	0.68
66:NB:125:GLU:HG2	66:NB:126:PRO:HD2	1.74	0.68
69:QB:31:PRO:HD2	69:QB:34:VAL:HB	1.75	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:627:C:H4'	63:KB:117:LEU:CD2	2.23	0.68
1:A:1525:A:H4'	69:QB:83:ALA:HB2	1.76	0.68
2:B:507:U:H2'	2:B:508:U:C6	2.28	0.68
2:B:561:C:H2'	2:B:562:C:H6	1.56	0.68
2:B:1234:G:H2'	2:B:1235:U:C5	2.28	0.68
7:G:286:GLY:HA3	7:G:321:PHE:CE2	2.28	0.68
25:Y:105:PHE:O	25:Y:109:VAL:HG23	1.93	0.68
55:CB:33:VAL:O	55:CB:37:GLN:HG3	1.93	0.68
65:MB:108:ARG:HB3	65:MB:110:GLU:OE1	1.93	0.68
82:DC:653:VAL:HG21	82:DC:691:VAL:HB	1.73	0.68
1:A:1184:A:H4'	1:A:1210:C:H4'	1.76	0.68
1:A:1673:G:H2'	1:A:1674:C:H6	1.58	0.68
2:B:599:C:C3'	2:B:600:G:H5"	2.22	0.68
2:B:627:U:H2'	2:B:628:A:C8	2.29	0.68
2:B:1767:C:H2'	2:B:1768:U:C6	2.28	0.68
2:B:3192:U:H2'	2:B:3193:C:C6	2.28	0.68
5:E:120:VAL:HB	5:E:121:PRO:HD3	1.76	0.68
6:F:65:ASP:HA	6:F:72:ARG:HH21	1.59	0.68
20:T:67:THR:C	20:T:69:GLY:H	2.00	0.68
24:X:66:GLU:HB3	24:X:69:PRO:HG3	1.75	0.68
40:NA:36:ARG:O	40:NA:40:VAL:HG23	1.93	0.68
40:NA:50:LEU:HD23	40:NA:55:ARG:HG2	1.75	0.68
52:ZA:157:LYS:HG2	52:ZA:170:ILE:HG23	1.74	0.68
54:BB:87:MET:HB3	54:BB:122:LYS:HE3	1.76	0.68
54:BB:193:GLY:CA	54:BB:212:ASP:HA	2.22	0.68
56:DB:220:LYS:HE3	56:DB:220:LYS:HA	1.74	0.68
82:DC:463:LEU:HD12	82:DC:464:LEU:H	1.58	0.68
1:A:1316:G:H2'	1:A:1317:C:C6	2.28	0.68
1:A:1459:C:C4	68:PB:139:LYS:HG3	2.28	0.68
1:A:1498:G:C3'	1:A:1499:G:H5"	2.23	0.68
2:B:726:G:H5'	2:B:727:G:OP1	1.94	0.68
2:B:3086:A:H4'	7:G:366:GLY:HA2	1.74	0.68
16:P:133:LEU:HA	16:P:137:GLN:HG2	1.75	0.68
18:R:8:LYS:HA	18:R:8:LYS:HE2	1.74	0.68
24:X:1:MET:HE3	24:X:32:SER:N	2.09	0.68
25:Y:47:SER:C	25:Y:48:ILE:HD13	2.19	0.68
26:Z:96:VAL:HG12	26:Z:97:SER:H	1.57	0.68
80:BC:35:TYR:O	80:BC:39:LEU:HD23	1.94	0.68
82:DC:331:ALA:HB1	82:DC:335:LEU:CD1	2.24	0.68
82:DC:682:ARG:NH1	82:DC:801:TRP:HB2	2.09	0.68
19:S:11:GLN:HG2	19:S:44:ARG:NH2	2.07	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:99:ARG:HG2	24:X:99:ARG:HH11	1.58	0.68
35:IA:72:ARG:HB3	35:IA:96:VAL:HG22	1.76	0.68
49:WA:170:ILE:HG21	49:WA:211:ILE:HD13	1.74	0.68
67:OB:69:ILE:HD13	67:OB:69:ILE:N	2.09	0.68
72:TB:30:SER:HA	72:TB:34:ILE:HD12	1.76	0.68
1:A:875:G:H1	1:A:952:A:H61	1.42	0.68
2:B:20:A:H2'	2:B:21:G:C8	2.29	0.68
2:B:241:G:C2'	2:B:242:C:H5'	2.24	0.68
2:B:1080:A:H5'	9:I:139:PRO:HB3	1.75	0.68
2:B:1478:C:H2'	2:B:1479:U:H6	1.57	0.68
11:K:80:GLN:HE22	25:Y:136:ARG:HH11	1.40	0.68
14:N:75:TYR:HD1	14:N:151:GLY:HA2	1.58	0.68
46:TA:35:LEU:HD23	46:TA:40:LYS:HG2	1.76	0.68
50:XA:37:VAL:HA	50:XA:47:VAL:O	1.94	0.68
54:BB:90:ILE:HG22	54:BB:92:LEU:CD1	2.24	0.68
59:GB:28:LEU:HG	80:BC:43:ARG:NH2	2.08	0.68
61:IB:27:THR:HG21	61:IB:29:LYS:HZ2	1.56	0.68
66:NB:82:ARG:HH22	66:NB:116:LEU:HD13	1.57	0.68
69:QB:137:ALA:O	69:QB:141:GLU:HG2	1.93	0.68
82:DC:489:VAL:CG1	82:DC:538:LEU:HD22	2.23	0.68
1:A:746:A:H2'	1:A:747:C:O4'	1.93	0.68
2:B:207:U:H2'	2:B:208:C:C6	2.28	0.68
2:B:1596:C:H5'	38:LA:8:ARG:HH22	1.57	0.68
2:B:2408:U:O2'	2:B:2409:G:H5'	1.94	0.68
2:B:2476:C:C2'	2:B:2477:G:H4'	2.19	0.68
2:B:2845:A:H2'	2:B:2846:U:O2	1.93	0.68
6:F:72:ARG:HB2	6:F:72:ARG:NH1	2.08	0.68
8:H:232:SER:O	8:H:233:LEU:HB2	1.93	0.68
12:L:166:LEU:HB2	12:L:167:PRO:HD3	1.75	0.68
19:S:120:TRP:HZ2	19:S:123:GLN:HG2	1.57	0.68
30:DA:87:LYS:HB2	30:DA:97:ILE:HD11	1.75	0.68
59:GB:126:ARG:HD3	80:BC:33:ARG:HD2	1.74	0.68
61:IB:92:HIS:HB3	61:IB:103:ARG:HD2	1.74	0.68
1:A:780:A:H8	74:VB:8:ARG:HB3	1.58	0.68
1:A:1232:U:H4'	60:HB:2:LEU:HD21	1.73	0.68
2:B:1748:G:OP1	42:PA:44:LYS:HE2	1.94	0.68
2:B:2504:U:H2'	2:B:2505:U:H5'	1.75	0.68
7:G:260:VAL:HG11	7:G:266:ARG:NH1	2.09	0.68
13:M:103:ILE:HG21	13:M:110:LYS:NZ	2.09	0.68
44:RA:103:LEU:HD11	44:RA:110:CYS:HA	1.76	0.68
57:EB:185:ILE:HD13	57:EB:185:ILE:H	1.59	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:FB:39:GLY:HA2	58:FB:61:GLU:HB3	1.75	0.68
59:GB:141:VAL:HG13	59:GB:143:ILE:HD12	1.75	0.68
59:GB:171:ARG:HH11	59:GB:174:ARG:HG3	1.59	0.68
73:UB:126:LYS:HE2	73:UB:129:GLY:HA2	1.75	0.68
1:A:461:G:H4'	54:BB:26:CYS:SG	2.34	0.68
1:A:513:U:H2'	1:A:514:G:C8	2.29	0.68
2:B:1245:A:H3'	2:B:1246:G:C5'	2.23	0.68
2:B:2655:U:H5'	46:TA:3:ASN:O	1.94	0.68
2:B:2995:A:C3'	2:B:2996:U:H5"	2.23	0.68
7:G:160:VAL:HG23	7:G:183:LEU:HD11	1.75	0.68
7:G:292:ALA:HA	7:G:303:LYS:O	1.93	0.68
10:J:174:LEU:HD13	10:J:175:LYS:H	1.57	0.68
31:EA:13:VAL:HB	31:EA:19:ALA:HA	1.75	0.68
55:CB:158:GLN:HB3	78:ZB:66:LEU:HD21	1.76	0.68
55:CB:215:ASP:HA	55:CB:218:GLU:HG3	1.75	0.68
82:DC:599:LEU:HG	82:DC:603:ASN:ND2	2.08	0.68
2:B:656:A:H2'	2:B:657:A:C8	2.29	0.67
2:B:1261:G:H4'	2:B:1278:A:N1	2.10	0.67
2:B:1348:U:H5'	2:B:1355:A:H62	1.59	0.67
2:B:3193:C:H2'	2:B:3194:C:C6	2.29	0.67
19:S:30:TYR:HE2	19:S:122:ASN:HD22	1.40	0.67
22:V:9:GLN:NE2	22:V:9:GLN:HA	2.09	0.67
40:NA:94:ILE:O	40:NA:98:ARG:HB2	1.94	0.67
48:VA:28:VAL:O	48:VA:84:VAL:HA	1.93	0.67
50:XA:76:ILE:HD13	50:XA:98:ILE:HB	1.75	0.67
54:BB:19:LEU:HD21	54:BB:108:ARG:HD2	1.76	0.67
61:IB:78:THR:HA	61:IB:84:ILE:HG22	1.76	0.67
65:MB:90:ILE:HG12	65:MB:107:ILE:HG22	1.75	0.67
73:UB:14:LYS:O	73:UB:18:HIS:HB2	1.95	0.67
75:WB:74:SER:O	75:WB:78:ILE:HD13	1.94	0.67
75:WB:75:LEU:HA	75:WB:78:ILE:HB	1.76	0.67
82:DC:171:LYS:HG3	82:DC:282:PHE:CE1	2.29	0.67
2:B:1214:U:H2'	2:B:1215:U:O4'	1.93	0.67
2:B:2298:U:O2'	2:B:2299:A:H5'	1.94	0.67
2:B:2724:U:H4'	25:Y:54:HIS:CD2	2.29	0.67
31:EA:21:LYS:H	31:EA:21:LYS:HE2	1.59	0.67
75:WB:72:GLY:O	75:WB:76:ALA:HB2	1.94	0.67
82:DC:103:ILE:HD12	82:DC:122:THR:HG23	1.75	0.67
82:DC:380:LEU:O	82:DC:469:LEU:HB2	1.94	0.67
2:B:3191:G:H5"	20:T:176:LYS:HG3	1.75	0.67
3:C:60:U:O2'	3:C:61:A:H5'	1.93	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:155:VAL:HG23	19:S:156:HIS:ND1	2.10	0.67
22:V:176:ARG:HA	22:V:182:LYS:O	1.95	0.67
29:CA:111:ASN:O	29:CA:123:TYR:HB2	1.92	0.67
30:DA:112:ASP:HB2	30:DA:115:ARG:HB2	1.75	0.67
39:MA:86:ARG:O	39:MA:90:ARG:HG2	1.93	0.67
53:AB:212:LYS:HG2	53:AB:213:GLU:H	1.58	0.67
56:DB:135:PRO:CB	56:DB:141:ILE:HG12	2.24	0.67
1:A:329:G:H5"	58:FB:98:LYS:HB3	1.77	0.67
1:A:521:A:H2'	1:A:522:U:C6	2.29	0.67
1:A:855:A:H3'	1:A:856:A:C5'	2.25	0.67
1:A:1064:G:H2'	1:A:1065:A:C8	2.29	0.67
1:A:1071:U:H2'	1:A:1072:C:C6	2.28	0.67
2:B:2497:U:H4'	2:B:2498:U:C5	2.30	0.67
2:B:3060:C:H2'	2:B:3061:G:H8	1.59	0.67
5:E:117:ILE:O	5:E:121:PRO:HD2	1.94	0.67
7:G:11:HIS:CE1	27:AA:45:ARG:HH22	2.11	0.67
22:V:23:ASN:HB3	22:V:26:LEU:HB3	1.75	0.67
50:XA:49:ASN:HA	67:OB:109:LEU:HD11	1.75	0.67
54:BB:181:VAL:HG21	54:BB:195:ILE:HD11	1.75	0.67
66:NB:30:LYS:HG2	66:NB:35:PRO:HA	1.76	0.67
1:A:1439:C:H2'	1:A:1440:C:H6	1.59	0.67
2:B:992:A:O2'	2:B:993:G:H5'	1.95	0.67
2:B:1768:U:C2'	2:B:1769:G:H5"	2.24	0.67
2:B:2102:U:H2'	2:B:2103:U:C6	2.30	0.67
9:I:34:LYS:HE2	9:I:38:THR:HG21	1.75	0.67
11:K:59:GLU:O	11:K:62:ILE:HG13	1.95	0.67
22:V:176:ARG:O	22:V:176:ARG:HD3	1.94	0.67
24:X:132:THR:C	24:X:134:ASP:H	2.01	0.67
25:Y:57:TYR:OH	25:Y:87:LYS:HD3	1.94	0.67
42:PA:23:ALA:HB3	42:PA:73:LEU:HD21	1.76	0.67
1:A:1186:U:H2'	1:A:1187:U:H5'	1.77	0.67
1:A:1682:U:H4'	56:DB:65:GLN:CD	2.20	0.67
1:A:1715:G:H2'	1:A:1716:C:H4'	1.77	0.67
2:B:1018:G:H1'	83:EC:6925:C:N4	2.09	0.67
2:B:1428:A:OP2	32:FA:2:PRO:HA	1.95	0.67
6:F:115:ASN:HB3	6:F:165:VAL:HG12	1.77	0.67
11:K:150:LYS:HG2	11:K:244:ASN:HD21	1.57	0.67
30:DA:126:LEU:HD22	30:DA:127:GLU:H	1.60	0.67
31:EA:13:VAL:HG23	31:EA:21:LYS:O	1.94	0.67
35:IA:55:LEU:HA	35:IA:95:PRO:HG3	1.76	0.67
46:TA:28:TYR:HB3	46:TA:69:VAL:HB	1.77	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:WA:232:TYR:OH	49:WA:265:LEU:HD12	1.95	0.67
61:IB:80:MET:HG2	61:IB:83:THR:HG23	1.77	0.67
68:PB:72:ILE:HG23	68:PB:79:TYR:HB2	1.76	0.67
1:A:542:A:O2'	1:A:543:C:H2'	1.94	0.67
1:A:1274:C:H42	83:EC:6953:G:H1	1.41	0.67
1:A:1685:G:H2'	1:A:1686:C:H5"	1.75	0.67
2:B:2228:A:H2'	2:B:2229:A:C8	2.30	0.67
2:B:2467:G:H4'	5:E:28:PHE:CD2	2.30	0.67
6:F:40:TYR:HD1	6:F:93:LYS:HB3	1.58	0.67
8:H:205:PRO:HB3	8:H:247:PHE:CD2	2.29	0.67
16:P:114:ARG:NH2	16:P:121:PHE:HB3	2.10	0.67
32:FA:47:LYS:HE2	32:FA:48:TYR:HE2	1.60	0.67
41:OA:14:LYS:HE2	43:QA:51:ILE:HD11	1.74	0.67
46:TA:8:ARG:HD3	46:TA:10:THR:OG1	1.94	0.67
50:XA:31:VAL:HG12	50:XA:33:GLN:H	1.60	0.67
58:FB:65:PHE:CE1	58:FB:167:ALA:HB1	2.30	0.67
61:IB:99:ARG:HH22	73:UB:7:ARG:HG2	1.59	0.67
82:DC:141:THR:O	82:DC:145:GLN:HG3	1.95	0.67
82:DC:147:LEU:HB3	82:DC:192:TYR:O	1.94	0.67
82:DC:178:PHE:O	82:DC:182:VAL:HG23	1.94	0.67
82:DC:336:GLU:C	82:DC:340:LEU:HG	2.20	0.67
83:EC:6872:A:H3'	83:EC:6873:A:C5'	2.25	0.67
1:A:86:A:H2'	1:A:87:C:C6	2.29	0.67
1:A:1410:A:H2'	1:A:1411:A:O4'	1.94	0.67
2:B:1464:G:H1'	2:B:1511:U:O2	1.94	0.67
2:B:2389:C:H5'	21:U:80:LYS:HE2	1.76	0.67
2:B:3286:G:H2'	2:B:3287:U:H5"	1.77	0.67
6:F:113:VAL:HG12	6:F:166:ILE:HD13	1.75	0.67
7:G:46:PHE:CZ	7:G:84:VAL:HG23	2.30	0.67
9:I:22:ARG:HG2	9:I:28:THR:CB	2.25	0.67
9:I:277:LEU:HD21	9:I:285:ARG:HH22	1.58	0.67
11:K:142:SER:O	11:K:146:GLN:HB2	1.95	0.67
14:N:40:LYS:HB2	14:N:40:LYS:NZ	2.09	0.67
31:EA:15:ARG:C	31:EA:19:ALA:HB2	2.20	0.67
38:LA:91:ARG:O	38:LA:95:ILE:HG13	1.94	0.67
39:MA:29:ALA:O	39:MA:33:VAL:HG23	1.95	0.67
43:QA:11:GLN:O	43:QA:14:ALA:HB3	1.94	0.67
50:XA:122:ILE:HG12	50:XA:144:ILE:HD12	1.77	0.67
54:BB:160:VAL:CG1	54:BB:169:ILE:HG23	2.23	0.67
57:EB:117:THR:HG22	57:EB:120:ALA:H	1.58	0.67
65:MB:96:ILE:CG2	65:MB:120:SER:HB2	2.25	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:RB:25:THR:O	70:RB:114:VAL:HA	1.94	0.67
72:TB:28:ARG:HD3	72:TB:60:LYS:HE2	1.74	0.67
82:DC:109:VAL:HG22	82:DC:138:GLN:HG2	1.77	0.67
83:EC:6791:A:H4'	83:EC:6849:A:N3	2.10	0.67
2:B:1233:G:H1'	16:P:121:PHE:HA	1.74	0.67
2:B:1814:A:H4'	2:B:1815:U:H5'	1.75	0.67
2:B:2752:U:H6	2:B:2752:U:H5'	1.60	0.67
2:B:2960:C:H2'	2:B:2961:G:H8	1.60	0.67
2:B:3040:A:H5"	27:AA:12:ARG:HB2	1.76	0.67
2:B:3191:G:H2'	2:B:3192:U:O4'	1.95	0.67
15:O:54:VAL:O	15:O:55:ARG:HB3	1.94	0.67
23:W:8:LYS:HE3	23:W:22:VAL:HG23	1.77	0.67
26:Z:76:LEU:O	26:Z:80:THR:HG23	1.95	0.67
29:CA:136:ALA:O	29:CA:139:ILE:HG22	1.95	0.67
50:XA:182:LEU:HD12	50:XA:195:TRP:HZ2	1.58	0.67
54:BB:193:GLY:HA3	54:BB:212:ASP:HA	1.77	0.67
73:UB:70:LYS:HD2	73:UB:93:LEU:HD11	1.77	0.67
83:EC:6808:G:H1'	83:EC:6809:G:P	2.34	0.67
1:A:1371:A:H1'	1:A:1373:C:OP2	1.95	0.67
1:A:1529:C:OP1	55:CB:112:ARG:HD3	1.95	0.67
2:B:31:C:H4'	19:S:96:ARG:HG3	1.75	0.67
2:B:509:U:H2'	2:B:510:G:H5"	1.77	0.67
2:B:1282:G:H5'	48:VA:83:ASN:HD22	1.60	0.67
2:B:1385:C:HO2'	10:J:2:SER:N	1.93	0.67
6:F:126:LEU:HD13	6:F:150:LEU:HD21	1.77	0.67
13:M:129:ARG:HG3	13:M:157:ASN:ND2	2.08	0.67
28:BA:9:SER:O	28:BA:53:VAL:HB	1.95	0.67
42:PA:42:LYS:HA	42:PA:54:LEU:O	1.95	0.67
49:WA:110:VAL:HG11	49:WA:124:SER:HB2	1.76	0.67
50:XA:139:VAL:HA	52:ZA:62:PRO:HG3	1.77	0.67
54:BB:240:LYS:HD3	54:BB:240:LYS:N	2.09	0.67
59:GB:110:GLN:HE22	59:GB:125:ALA:HB3	1.60	0.67
70:RB:20:ILE:HD11	70:RB:100:VAL:HG21	1.76	0.67
82:DC:73:THR:HB	82:DC:439:GLY:HA2	1.77	0.67
82:DC:334:LEU:O	82:DC:338:ILE:HG13	1.95	0.67
2:B:268:A:O4'	2:B:270:U:H1'	1.95	0.66
2:B:830:A:H2'	2:B:831:G:O4'	1.95	0.66
2:B:2384:A:N1	20:T:96:LYS:HE3	2.10	0.66
2:B:2960:C:H2'	2:B:2961:G:C8	2.29	0.66
14:N:86:HIS:HB3	14:N:139:ARG:CG	2.25	0.66
38:LA:86:LYS:O	38:LA:90:ILE:HG12	1.95	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:WA:246:SER:HB2	49:WA:251:TRP:O	1.95	0.66
53:AB:50:ILE:HD11	53:AB:86:LEU:HD23	1.77	0.66
1:A:683:C:H2'	1:A:684:A:C8	2.30	0.66
2:B:109:A:H4'	2:B:110:G:C5'	2.19	0.66
3:C:64:U:H5'	39:MA:49:LYS:HE2	1.77	0.66
7:G:356:LEU:H	7:G:356:LEU:CD2	2.08	0.66
23:W:90:PRO:O	23:W:93:VAL:HG12	1.94	0.66
30:DA:5:SER:HB3	30:DA:8:VAL:HG12	1.77	0.66
30:DA:34:PRO:HA	30:DA:47:ALA:HB1	1.76	0.66
48:VA:61:ARG:HG2	48:VA:64:ARG:HG2	1.76	0.66
49:WA:17:ASN:HB3	49:WA:39:ASP:HB3	1.76	0.66
59:GB:90:LYS:HD2	59:GB:95:TYR:HB2	1.77	0.66
72:TB:55:ASP:OD1	72:TB:57:ARG:HB2	1.96	0.66
82:DC:289:MET:HG2	82:DC:320:LEU:HD12	1.76	0.66
83:EC:6930:G:C2'	83:EC:6931:U:H4'	2.16	0.66
1:A:591:A:H5"	59:GB:24:LEU:HD11	1.78	0.66
1:A:928:U:H2'	1:A:945:U:OP2	1.95	0.66
2:B:2060:A:H2'	2:B:2061:G:O4'	1.96	0.66
36:JA:19:ARG:HD3	36:JA:28:VAL:HG13	1.76	0.66
37:KA:67:MET:HE3	37:KA:89:LEU:HD23	1.76	0.66
48:VA:12:PHE:HA	48:VA:15:LEU:HD23	1.76	0.66
49:WA:136:ILE:H	49:WA:136:ILE:CD1	2.07	0.66
56:DB:70:PRO:HA	56:DB:98:ARG:HH22	1.61	0.66
61:IB:79:LYS:O	61:IB:80:MET:HB2	1.95	0.66
71:SB:3:ASN:ND2	71:SB:5:LYS:HE3	2.09	0.66
72:TB:42:GLN:HE22	72:TB:49:GLU:HA	1.59	0.66
83:EC:6777:C:H41	83:EC:6813:A:H5"	1.60	0.66
1:A:96:G:H5'	1:A:460:A:O2'	1.96	0.66
1:A:400:A:C4'	1:A:401:A:H5'	2.15	0.66
1:A:1533:C:H2'	1:A:1534:G:C8	2.30	0.66
2:B:393:U:H2'	2:B:394:G:O4'	1.95	0.66
2:B:879:U:O2	2:B:2357:A:H1'	1.94	0.66
2:B:3348:G:H2'	2:B:3349:C:C6	2.31	0.66
11:K:74:SER:OG	25:Y:142:SER:HA	1.95	0.66
12:L:249:ARG:O	12:L:253:SER:HB2	1.95	0.66
18:R:74:ARG:HB3	18:R:74:ARG:NH1	2.10	0.66
23:W:165:LYS:HA	23:W:165:LYS:HE3	1.76	0.66
49:WA:191:ASP:HB2	53:AB:223:LYS:HB2	1.78	0.66
49:WA:209:THR:HA	49:WA:225:LEU:HB3	1.76	0.66
50:XA:120:LEU:HD11	50:XA:144:ILE:HD11	1.75	0.66
53:AB:29:LEU:HD12	53:AB:34:TYR:CD2	2.31	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:AB:133:GLY:HA3	53:AB:156:PHE:O	1.96	0.66
55:CB:30:PRO:O	55:CB:34:GLN:HG3	1.95	0.66
57:EB:180:GLN:C	57:EB:181:ILE:HD12	2.21	0.66
74:VB:105:ARG:NH1	74:VB:109:LYS:HZ1	1.93	0.66
1:A:1060:U:H3'	1:A:1061:A:H5"	1.78	0.66
2:B:2202:C:H5"	6:F:226:SER:HB2	1.76	0.66
2:B:2549:G:H2'	12:L:33:ASN:ND2	2.11	0.66
2:B:2747:A:H5'	9:I:175:HIS:HA	1.77	0.66
7:G:152:LYS:HG2	7:G:192:VAL:HG11	1.76	0.66
53:AB:71:LEU:O	53:AB:75:LYS:HG2	1.94	0.66
1:A:1741:U:H2'	1:A:1742:U:C6	2.31	0.66
3:C:26:U:H2'	3:C:27:U:C6	2.31	0.66
6:F:116:VAL:HG12	6:F:126:LEU:HB2	1.78	0.66
9:I:257:GLU:CD	9:I:257:GLU:H	2.02	0.66
24:X:123:ILE:CG2	24:X:126:VAL:HG21	2.26	0.66
39:MA:10:ARG:HD3	39:MA:57:VAL:HG13	1.77	0.66
54:BB:201:HIS:CD2	54:BB:207:LEU:HG	2.30	0.66
59:GB:60:LEU:HD21	59:GB:93:LEU:CD2	2.25	0.66
68:PB:3:LEU:O	68:PB:3:LEU:HD22	1.96	0.66
1:A:1791:A:H5"	1:A:1792:G:H21	1.61	0.66
2:B:1730:G:H2'	34:HA:28:LYS:HZ1	1.60	0.66
2:B:2157:G:C5	6:F:150:LEU:HD22	2.30	0.66
10:J:54:TYR:OH	10:J:57:HIS:HB2	1.96	0.66
12:L:75:ILE:HG22	12:L:76:ALA:N	2.09	0.66
17:Q:106:GLN:HA	40:NA:20:MET:SD	2.36	0.66
18:R:127:LYS:O	18:R:131:VAL:HG23	1.95	0.66
35:IA:5:LYS:HD2	35:IA:79:ARG:HD3	1.78	0.66
43:QA:23:LEU:HD22	43:QA:24:PRO:HD2	1.76	0.66
70:RB:103:ILE:HA	70:RB:106:ILE:HG22	1.77	0.66
72:TB:36:LYS:CB	72:TB:110:ILE:HD12	2.25	0.66
82:DC:288:ILE:HG23	82:DC:319:LEU:CG	2.24	0.66
82:DC:411:VAL:O	82:DC:428:ILE:HA	1.94	0.66
82:DC:655:TYR:C	82:DC:693:LEU:HD11	2.20	0.66
2:B:181:U:H3'	2:B:182:U:H5"	1.76	0.66
2:B:1838:G:H5"	2:B:1839:A:H5'	1.78	0.66
7:G:367:LYS:HA	28:BA:17:ARG:HH21	1.60	0.66
11:K:148:VAL:CG1	11:K:181:ILE:HD11	2.25	0.66
32:FA:126:LYS:HG2	32:FA:146:GLU:HB2	1.78	0.66
48:VA:27:VAL:HB	48:VA:189:GLN:HB3	1.78	0.66
82:DC:735:CYS:SG	82:DC:740:VAL:HG22	2.36	0.66
2:B:782:U:H2'	2:B:783:A:O4'	1.95	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:929:A:H5”	8:H:61:SER:HB3	1.76	0.66
2:B:2480:A:OP1	5:E:102:LYS:HB2	1.96	0.66
9:I:55:PHE:CZ	9:I:158:ARG:HG3	2.31	0.66
9:I:107:ARG:HH11	9:I:248:ARG:NH1	1.93	0.66
12:L:93:LEU:HD23	12:L:214:LEU:HD22	1.77	0.66
22:V:81:VAL:HG23	22:V:101:VAL:HG13	1.76	0.66
38:LA:104:VAL:O	38:LA:108:GLN:HG3	1.95	0.66
75:WB:62:VAL:HG13	75:WB:76:ALA:HB1	1.76	0.66
2:B:2795:U:OP2	46:TA:63:LYS:HG2	1.96	0.66
6:F:22:LEU:H	6:F:22:LEU:HD12	1.61	0.66
7:G:332:ARG:O	7:G:333:LYS:HB2	1.96	0.66
13:M:129:ARG:CG	13:M:157:ASN:HD22	2.08	0.66
29:CA:75:LYS:HD2	29:CA:123:TYR:HE1	1.61	0.66
52:ZA:165:VAL:HG11	52:ZA:210:THR:HA	1.77	0.66
53:AB:49:ILE:HG23	53:AB:87:TYR:HB2	1.77	0.66
54:BB:79:ASP:HB2	54:BB:82:TYR:HB2	1.77	0.66
57:EB:93:LEU:HD21	57:EB:129:LEU:HD23	1.77	0.66
1:A:1472:C:H2’	1:A:1535:U:C4	2.31	0.65
2:B:537:A:H2’	2:B:538:G:O4’	1.96	0.65
2:B:1322:U:H2’	2:B:1323:G:C8	2.31	0.65
2:B:1804:A:H4’	38:LA:71:THR:HG21	1.77	0.65
2:B:2085:U:H2’	2:B:2086:A:H5’	1.78	0.65
4:D:60:G:H2’	4:D:61:G:C8	2.30	0.65
74:VB:11:LYS:O	74:VB:23:PHE:HA	1.95	0.65
1:A:710:U:H2’	1:A:711:U:H5’	1.78	0.65
2:B:110:G:H5”	17:Q:91:ARG:HD3	1.77	0.65
2:B:224:C:O2’	2:B:225:C:H5’	1.96	0.65
2:B:2392:C:O2’	7:G:266:ARG:NH2	2.28	0.65
2:B:2748:A:H1’	9:I:36:LEU:HD23	1.77	0.65
2:B:3279:A:H5’	2:B:3279:A:H8	1.61	0.65
6:F:130:SER:HB3	6:F:171:GLY:HA3	1.78	0.65
7:G:112:ASP:O	7:G:116:ARG:HG3	1.96	0.65
12:L:98:ARG:HB2	12:L:98:ARG:NH1	2.10	0.65
24:X:78:TRP:CE3	24:X:125:LYS:HB3	2.31	0.65
47:UA:73:THR:HG23	47:UA:76:ALA:H	1.61	0.65
49:WA:59:ARG:HB2	49:WA:59:ARG:NH1	2.10	0.65
54:BB:8:HIS:N	54:BB:30:ARG:HG3	2.10	0.65
59:GB:60:LEU:HD13	59:GB:69:ARG:NH2	2.11	0.65
59:GB:119:ALA:HB2	59:GB:128:LEU:HD12	1.77	0.65
1:A:36:C:H2’	1:A:37:U:C6	2.31	0.65
1:A:1378:U:H1’	66:NB:8:GLN:O	1.95	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1426:C:H3'	1:A:1427:A:C5'	2.27	0.65
7:G:29:VAL:HG13	7:G:218:ILE:HD13	1.77	0.65
8:H:283:THR:HG22	8:H:285:ASP:H	1.62	0.65
11:K:80:GLN:HG3	25:Y:135:PRO:HB2	1.78	0.65
30:DA:114:ASP:HA	30:DA:117:ALA:HB3	1.77	0.65
32:FA:112:ILE:HB	32:FA:130:VAL:HG12	1.77	0.65
38:LA:44:CYS:HB2	38:LA:81:CYS:HB3	1.78	0.65
50:XA:191:ARG:HG3	50:XA:192:THR:H	1.60	0.65
53:AB:217:ILE:HG22	53:AB:218:LEU:H	1.60	0.65
65:MB:32:ASP:O	65:MB:35:LYS:HB2	1.96	0.65
82:DC:45:ILE:HD11	82:DC:78:TYR:HB2	1.79	0.65
82:DC:190:SER:HB3	82:DC:201:GLN:NE2	2.11	0.65
82:DC:336:GLU:HG2	82:DC:340:LEU:CD1	2.27	0.65
83:EC:6762:U:H3	83:EC:6829:A:H61	1.43	0.65
1:A:512:A:H2'	59:GB:131:GLN:NE2	2.10	0.65
1:A:593:U:H4'	1:A:595:G:H4'	1.79	0.65
2:B:208:C:H2'	2:B:209:A:O4'	1.97	0.65
2:B:561:C:H2'	2:B:562:C:C6	2.31	0.65
2:B:1270:A:H5'	82:DC:741:GLY:HA2	1.77	0.65
2:B:2626:A:C4	2:B:2644:C:H5'	2.32	0.65
6:F:77:ILE:CG2	6:F:169:ILE:HD13	2.25	0.65
9:I:21:ARG:HG3	9:I:24:ARG:NH2	2.11	0.65
14:N:91:VAL:HG12	14:N:127:ALA:HB1	1.76	0.65
54:BB:132:GLY:HA3	54:BB:138:TYR:CE2	2.32	0.65
57:EB:67:LEU:HD11	57:EB:94:ALA:CB	2.26	0.65
82:DC:445:ILE:HG12	82:DC:446:ASP:N	2.10	0.65
82:DC:655:TYR:HA	82:DC:657:HIS:CE1	2.31	0.65
1:A:1681:A:C1'	56:DB:66:GLY:HA3	2.25	0.65
2:B:149:U:C2'	2:B:150:A:H5"	2.26	0.65
2:B:279:U:O2'	2:B:280:U:H5'	1.97	0.65
2:B:2178:A:H5"	6:F:132:ASN:ND2	2.11	0.65
7:G:339:ARG:NH1	7:G:342:LEU:HD11	2.11	0.65
8:H:112:LYS:HB2	19:S:202:TYR:HB3	1.79	0.65
11:K:160:ARG:NH2	11:K:206:LYS:HD3	2.12	0.65
16:P:92:ARG:HG3	16:P:93:LYS:N	2.11	0.65
16:P:105:GLN:HA	16:P:142:ARG:HA	1.79	0.65
24:X:74:ASN:O	24:X:128:GLU:HG2	1.96	0.65
31:EA:44:ALA:HB2	31:EA:72:ILE:HG22	1.79	0.65
47:UA:56:THR:HG22	47:UA:63:THR:OG1	1.96	0.65
49:WA:176:LYS:HE3	49:WA:197:SER:HA	1.78	0.65
52:ZA:161:LYS:HG3	52:ZA:166:THR:HG22	1.78	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CB:98:MET:HA	55:CB:103:ASN:HB3	1.78	0.65
65:MB:87:PRO:HG3	65:MB:112:LEU:HD21	1.78	0.65
82:DC:110:ASP:HB3	82:DC:537:HIS:HB2	1.77	0.65
82:DC:653:VAL:CG1	82:DC:693:LEU:HG	2.27	0.65
1:A:1258:U:H4'	60:HB:2:LEU:HD13	1.79	0.65
1:A:1469:A:H2'	1:A:1470:C:C6	2.31	0.65
2:B:271:C:H4'	2:B:317:A:H2	1.61	0.65
2:B:1665:C:H2'	2:B:1666:G:C8	2.31	0.65
7:G:144:ILE:HD12	7:G:144:ILE:N	2.12	0.65
9:I:40:HIS:HB3	9:I:43:LYS:HG3	1.79	0.65
27:AA:80:ARG:HB2	27:AA:99:ALA:HB3	1.78	0.65
30:DA:34:PRO:HG2	30:DA:105:VAL:HA	1.78	0.65
34:HA:47:ASN:ND2	34:HA:74:ASN:HD22	1.95	0.65
38:LA:54:ILE:HG12	38:LA:70:LYS:O	1.96	0.65
50:XA:22:THR:O	50:XA:48:ILE:HD12	1.97	0.65
54:BB:45:ILE:HG13	54:BB:61:VAL:HG11	1.78	0.65
54:BB:86:PHE:O	54:BB:87:MET:HB2	1.95	0.65
56:DB:27:PHE:CE1	56:DB:36:VAL:HG11	2.32	0.65
72:TB:24:GLN:HA	72:TB:63:VAL:O	1.96	0.65
1:A:109:G:H5"	1:A:755:A:OP1	1.97	0.65
1:A:630:A:H3'	1:A:631:G:H8	1.61	0.65
1:A:1118:G:H2'	1:A:1119:G:O4'	1.97	0.65
1:A:1488:G:H3'	1:A:1515:A:H61	1.61	0.65
1:A:1503:A:H2'	1:A:1504:G:O4'	1.95	0.65
2:B:1446:A:N1	2:B:2356:A:H5"	2.12	0.65
13:M:77:ASN:HB3	13:M:151:VAL:HG21	1.78	0.65
38:LA:23:VAL:HG22	38:LA:33:GLN:HB2	1.77	0.65
54:BB:44:LEU:HD21	54:BB:84:ALA:HB3	1.78	0.65
58:FB:47:ARG:HD3	58:FB:51:GLY:HA2	1.79	0.65
82:DC:615:ARG:CD	82:DC:633:ILE:HD11	2.26	0.65
82:DC:806:SER:HB3	82:DC:813:SER:CB	2.26	0.65
1:A:243:G:H2'	1:A:244:A:H5'	1.78	0.65
2:B:1187:C:H2'	2:B:1188:U:H5'	1.79	0.65
2:B:2661:G:H2'	2:B:2662:G:C8	2.31	0.65
8:H:99:MET:HE1	8:H:103:THR:HG23	1.79	0.65
11:K:242:SER:C	11:K:244:ASN:H	2.05	0.65
15:O:140:ARG:NH1	15:O:140:ARG:HB2	2.12	0.65
48:VA:132:LYS:HB3	48:VA:135:PHE:CD1	2.31	0.65
49:WA:161:LYS:HG2	49:WA:164:ASP:HB3	1.78	0.65
68:PB:36:LYS:HB2	68:PB:102:ALA:HA	1.79	0.65
68:PB:112:ASP:O	68:PB:116:LEU:HD23	1.96	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:VB:105:ARG:O	74:VB:109:LYS:HG3	1.97	0.65
1:A:421:A:O2'	1:A:422:G:H5'	1.96	0.65
2:B:617:G:H4'	21:U:171:ARG:HE	1.62	0.65
2:B:883:A:O4'	21:U:133:HIS:HA	1.97	0.65
3:C:104:A:H5'	3:C:105:A:H8	1.62	0.65
7:G:113:GLU:OE1	7:G:167:ARG:HD3	1.97	0.65
8:H:10:SER:HA	8:H:153:SER:HB2	1.78	0.65
29:CA:105:VAL:HG11	29:CA:126:LEU:HD22	1.79	0.65
30:DA:79:ALA:HB1	30:DA:98:ASN:HB3	1.78	0.65
43:QA:21:ARG:NH1	43:QA:24:PRO:HG3	2.12	0.65
49:WA:117:LYS:HD2	49:WA:117:LYS:N	2.09	0.65
52:ZA:69:ILE:HD11	52:ZA:133:LYS:HD2	1.78	0.65
57:EB:99:LEU:HD11	57:EB:116:ARG:HD2	1.79	0.65
58:FB:67:TRP:HB3	58:FB:70:GLU:HB3	1.79	0.65
1:A:1533:C:H4'	1:A:1539:G:C6	2.32	0.65
2:B:224:C:H2'	2:B:225:C:H6	1.62	0.65
2:B:1263:A:N6	16:P:136:ALA:HB2	2.11	0.65
2:B:1781:C:H2'	2:B:1782:U:H6	1.61	0.65
23:W:60:LYS:O	23:W:64:ARG:HG3	1.97	0.65
25:Y:17:ARG:HG2	25:Y:22:HIS:HA	1.79	0.65
31:EA:26:VAL:HG22	31:EA:42:LEU:O	1.97	0.65
34:HA:13:LYS:HB3	34:HA:100:ILE:HG22	1.78	0.65
49:WA:156:VAL:HG12	49:WA:157:VAL:N	2.11	0.65
49:WA:222:LEU:O	49:WA:231:MET:HB2	1.97	0.65
49:WA:230:ALA:HB1	53:AB:220:PRO:HB2	1.80	0.65
54:BB:35:PRO:HB3	54:BB:143:ASP:O	1.97	0.65
67:OB:10:LYS:O	67:OB:14:LYS:HD3	1.97	0.65
1:A:976:G:H3'	1:A:1023:A:C2	2.32	0.64
1:A:1791:A:C5'	1:A:1792:G:H21	2.11	0.64
2:B:1222:G:N7	48:VA:59:VAL:HG11	2.12	0.64
2:B:1429:G:C4	8:H:99:MET:HE2	2.32	0.64
2:B:2278:C:H2'	2:B:2279:A:H5"	1.78	0.64
3:C:98:U:H2'	3:C:99:C:H5'	1.79	0.64
19:S:64:VAL:CG1	19:S:102:ALA:HB1	2.27	0.64
20:T:76:PRO:HB3	20:T:138:LEU:HD23	1.79	0.64
38:LA:100:ILE:O	38:LA:104:VAL:HG23	1.96	0.64
48:VA:144:LYS:HD3	82:DC:203:TYR:HE1	1.61	0.64
54:BB:42:LEU:HB2	54:BB:109:PHE:HD2	1.62	0.64
59:GB:108:ARG:O	59:GB:111:THR:HG22	1.97	0.64
74:VB:83:LYS:HG3	74:VB:96:LEU:HD23	1.78	0.64
78:ZB:50:GLU:O	78:ZB:51:ASN:HB2	1.96	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:593:ILE:CG1	82:DC:685:ARG:HB2	2.27	0.64
2:B:230:U:H2'	2:B:231:G:O4'	1.97	0.64
2:B:375:A:H1'	30:DA:87:LYS:HE2	1.80	0.64
2:B:664:U:H2'	2:B:665:A:C8	2.31	0.64
2:B:784:A:C6	22:V:93:ILE:HG22	2.32	0.64
2:B:2965:U:H5	2:B:2966:G:C5	2.14	0.64
6:F:40:TYR:CD1	6:F:93:LYS:HB3	2.32	0.64
9:I:58:LYS:CB	9:I:93:THR:HG21	2.25	0.64
10:J:46:ARG:HG3	10:J:46:ARG:NH1	2.13	0.64
14:N:52:LEU:HB2	14:N:152:LEU:HD13	1.78	0.64
17:Q:48:PRO:HA	17:Q:137:GLN:CB	2.26	0.64
28:BA:17:ARG:HG3	28:BA:17:ARG:NH1	2.12	0.64
49:WA:17:ASN:HB3	49:WA:39:ASP:CB	2.27	0.64
68:PB:140:THR:HA	68:PB:143:ARG:HH11	1.63	0.64
2:B:83:U:H2'	2:B:84:U:O4'	1.96	0.64
38:LA:80:ARG:HB3	38:LA:84:CYS:SG	2.38	0.64
55:CB:25:LEU:HB3	66:NB:61:SER:HA	1.77	0.64
57:EB:56:LYS:HD2	57:EB:88:ARG:NH1	2.12	0.64
66:NB:82:ARG:HG3	66:NB:82:ARG:HH11	1.62	0.64
1:A:211:U:OP2	61:IB:18:HIS:HA	1.97	0.64
1:A:1407:U:H2'	1:A:1408:G:C8	2.31	0.64
1:A:1773:C:H5'	45:SA:4:LYS:HB3	1.79	0.64
2:B:268:A:N1	2:B:295:A:H5'	2.11	0.64
2:B:3260:G:H4'	18:R:126:GLN:HA	1.79	0.64
6:F:111:THR:HG22	6:F:112:ILE:N	2.11	0.64
17:Q:63:VAL:CG1	32:FA:128:ARG:HH22	2.10	0.64
22:V:88:THR:HA	22:V:107:THR:OG1	1.97	0.64
31:EA:121:ARG:HH12	31:EA:126:LYS:HD3	1.62	0.64
32:FA:26:ARG:HH11	32:FA:26:ARG:HG3	1.62	0.64
37:KA:29:LEU:HD22	37:KA:75:HIS:CD2	2.32	0.64
39:MA:104:GLN:NE2	39:MA:104:GLN:HA	2.12	0.64
40:NA:62:ARG:NH1	40:NA:98:ARG:HH11	1.96	0.64
50:XA:152:PRO:HB2	50:XA:154:GLU:HG2	1.79	0.64
57:EB:126:LEU:HB2	57:EB:173:TYR:OH	1.97	0.64
59:GB:92:LYS:HA	59:GB:92:LYS:HE3	1.79	0.64
61:IB:3:THR:O	61:IB:4:GLU:HG3	1.97	0.64
61:IB:92:HIS:CB	61:IB:103:ARG:HD2	2.26	0.64
70:RB:84:MET:HE2	79:AC:51:GLY:HA3	1.78	0.64
1:A:884:A:H2'	1:A:885:G:C8	2.33	0.64
1:A:1162:C:H4'	78:ZB:22:ARG:HG3	1.79	0.64
1:A:1163:A:H2'	1:A:1164:G:O4'	1.97	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:147:U:O4	12:L:157:VAL:HA	1.96	0.64
2:B:597:G:H2'	2:B:598:A:C8	2.33	0.64
2:B:818:C:H5"	41:OA:10:LYS:HB2	1.79	0.64
2:B:1185:C:H2'	2:B:1186:G:O4'	1.96	0.64
2:B:3215:A:H8	18:R:121:MET:HE1	1.62	0.64
5:E:90:LEU:O	5:E:94:ASN:HB3	1.98	0.64
9:I:105:ILE:O	9:I:109:THR:HG22	1.97	0.64
15:O:115:LYS:HG2	15:O:116:TYR:N	2.11	0.64
17:Q:89:TYR:CE1	17:Q:93:ILE:HG13	2.31	0.64
20:T:98:ALA:HA	20:T:101:ARG:HH11	1.60	0.64
25:Y:17:ARG:HB3	25:Y:22:HIS:CD2	2.32	0.64
52:ZA:101:VAL:HG11	52:ZA:211:LEU:HD12	1.78	0.64
63:KB:84:ILE:HB	63:KB:88:LEU:HD12	1.79	0.64
68:PB:33:THR:HA	68:PB:38:VAL:O	1.97	0.64
72:TB:8:ALA:CA	72:TB:74:VAL:HG11	2.27	0.64
82:DC:388:THR:C	82:DC:390:ASP:H	2.06	0.64
1:A:889:U:H2'	1:A:890:C:C4'	2.27	0.64
1:A:1439:C:H2'	1:A:1440:C:C6	2.33	0.64
2:B:1208:U:H6	2:B:3115:C:H42	1.44	0.64
2:B:1731:A:H2'	2:B:1732:U:O4'	1.98	0.64
2:B:2873:U:O2'	2:B:2874:G:H5'	1.98	0.64
2:B:3156:U:H3'	2:B:3157:U:C5'	2.28	0.64
6:F:128:ARG:HA	6:F:169:ILE:CD1	2.28	0.64
7:G:84:VAL:CG1	7:G:162:VAL:HB	2.28	0.64
19:S:96:ARG:HG2	19:S:96:ARG:HH11	1.63	0.64
22:V:173:GLU:HA	32:FA:51:GLY:O	1.97	0.64
24:X:155:ARG:NH2	24:X:172:TYR:HA	2.09	0.64
48:VA:65:GLY:HA2	48:VA:73:PHE:CD2	2.33	0.64
63:KB:136:PRO:HG2	63:KB:139:TRP:HB2	1.79	0.64
66:NB:73:GLY:O	66:NB:77:GLN:HG3	1.98	0.64
66:NB:109:PHE:CD2	66:NB:117:LEU:HD11	2.32	0.64
82:DC:109:VAL:O	82:DC:111:PHE:N	2.28	0.64
1:A:1301:U:H5'	52:ZA:88:LYS:HE3	1.79	0.64
2:B:5:G:C2'	2:B:6:A:H5"	2.27	0.64
2:B:3223:A:H2'	2:B:3224:G:O4'	1.98	0.64
2:B:3302:U:H3	2:B:3312:U:H3	1.45	0.64
15:O:139:THR:HG22	15:O:147:THR:HA	1.79	0.64
50:XA:14:ALA:O	50:XA:18:LEU:HD13	1.97	0.64
54:BB:206:ASP:HB2	54:BB:222:LEU:CG	2.27	0.64
59:GB:28:LEU:O	59:GB:31:ALA:HB3	1.98	0.64
59:GB:163:PRO:C	59:GB:165:GLY:H	2.05	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:538:LEU:O	82:DC:542:LEU:HG	1.96	0.64
82:DC:648:ASP:HA	82:DC:688:ILE:HD12	1.80	0.64
2:B:139:G:H2'	2:B:140:C:C6	2.33	0.64
2:B:1278:A:H3'	2:B:1279:C:C6	2.33	0.64
2:B:1605:A:OP1	2:B:1835:A:H5"	1.98	0.64
2:B:2818:U:H5'	2:B:2818:U:H6	1.63	0.64
7:G:50:LYS:O	7:G:332:ARG:HA	1.98	0.64
8:H:196:ASN:OD1	30:DA:11:ASP:HA	1.98	0.64
11:K:62:ILE:O	11:K:66:LYS:HG3	1.98	0.64
15:O:40:LEU:HG	15:O:125:MET:HE1	1.79	0.64
17:Q:2:ALA:HB3	32:FA:41:HIS:HE1	1.62	0.64
19:S:140:LYS:O	19:S:144:ARG:HG3	1.98	0.64
53:AB:122:VAL:O	53:AB:126:VAL:HG23	1.98	0.64
54:BB:208:VAL:HB	54:BB:225:VAL:HG21	1.80	0.64
56:DB:70:PRO:HA	56:DB:98:ARG:NH2	2.13	0.64
58:FB:83:TYR:HB3	58:FB:101:ILE:HB	1.80	0.64
58:FB:185:GLU:HA	58:FB:189:LEU:HD22	1.80	0.64
70:RB:26:LEU:HB2	70:RB:89:ARG:CB	2.24	0.64
82:DC:270:GLU:O	82:DC:275:MET:HE3	1.98	0.64
83:EC:6934:U:H2'	83:EC:6935:G:H4'	1.79	0.64
1:A:632:U:O2'	1:A:1103:U:H5"	1.98	0.64
1:A:1225:U:H2'	1:A:1226:A:H5'	1.79	0.64
2:B:217:U:O2'	30:DA:103:LYS:HE2	1.98	0.64
2:B:293:C:O2'	40:NA:76:ARG:HD3	1.98	0.64
2:B:1373:A:OP2	32:FA:7:LYS:HE2	1.98	0.64
2:B:3288:G:HO2'	2:B:3289:G:H8	1.46	0.64
11:K:132:PRO:HA	11:K:229:PHE:CE1	2.32	0.64
36:JA:8:LYS:HA	36:JA:8:LYS:HE3	1.79	0.64
38:LA:41:ARG:O	38:LA:43:LYS:HD3	1.97	0.64
48:VA:107:ALA:C	48:VA:179:SER:HB2	2.23	0.64
57:EB:99:LEU:HB2	57:EB:112:ARG:HD2	1.78	0.64
57:EB:141:ARG:HB2	57:EB:149:ILE:HB	1.78	0.64
61:IB:35:TYR:CB	61:IB:49:ILE:HG12	2.28	0.64
80:BC:14:VAL:HA	80:BC:17:GLN:HG2	1.78	0.64
1:A:199:G:O2'	1:A:200:A:H5'	1.97	0.64
1:A:509:G:H2'	1:A:510:G:C8	2.33	0.64
1:A:839:U:C2'	1:A:840:U:H5"	2.26	0.64
2:B:2186:U:OP2	6:F:200:ARG:HD2	1.98	0.64
2:B:3139:A:O3'	7:G:20:LYS:HD3	1.96	0.64
2:B:3294:A:H2'	2:B:3295:A:O4'	1.98	0.64
2:B:3322:A:H2'	2:B:3323:A:C8	2.33	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:145:ARG:HB3	11:K:145:ARG:NH1	2.12	0.64
17:Q:126:PHE:O	39:MA:114:ARG:HD2	1.97	0.64
19:S:118:SER:HB3	19:S:132:VAL:HG22	1.80	0.64
43:QA:35:ILE:HD12	43:QA:35:ILE:N	2.13	0.64
47:UA:49:ARG:HB2	47:UA:55:TRP:CZ3	2.33	0.64
52:ZA:144:TRP:CZ2	52:ZA:173:PRO:HG3	2.33	0.64
58:FB:43:ILE:HG12	58:FB:60:ILE:HD11	1.79	0.64
58:FB:104:ILE:HD11	58:FB:165:LEU:HD12	1.78	0.64
72:TB:34:ILE:O	72:TB:37:PHE:HB3	1.98	0.64
72:TB:81:VAL:HG11	72:TB:86:ILE:HG23	1.79	0.64
82:DC:73:THR:HG22	82:DC:74:ALA:N	2.12	0.64
83:EC:6857:C:H6	83:EC:6857:C:O5'	1.81	0.64
1:A:629:U:C3'	1:A:630:A:H5"	2.27	0.63
1:A:973:A:H2'	1:A:974:A:C8	2.33	0.63
1:A:1160:A:H2'	1:A:1161:C:C6	2.33	0.63
40:NA:4:LYS:HA	40:NA:12:ASN:HB3	1.80	0.63
42:PA:10:GLN:HE21	42:PA:14:LEU:HD21	1.62	0.63
49:WA:68:VAL:HG11	49:WA:82:SER:HB2	1.79	0.63
50:XA:157:ASP:O	71:SB:66:ASP:HB3	1.98	0.63
55:CB:171:ALA:O	55:CB:175:LEU:HG	1.97	0.63
56:DB:7:TYR:HB2	56:DB:113:ILE:HD12	1.81	0.63
56:DB:108:VAL:HG12	56:DB:109:LEU:N	2.12	0.63
82:DC:635:CYS:SG	82:DC:664:VAL:HG22	2.39	0.63
1:A:54:C:H2'	1:A:55:A:C8	2.33	0.63
1:A:147:A:H2'	1:A:148:A:H8	1.63	0.63
1:A:179:A:N6	56:DB:202:ARG:HH22	1.93	0.63
1:A:1075:C:H3'	1:A:1076:A:H5"	1.79	0.63
1:A:1469:A:H4'	1:A:1541:G:H4'	1.79	0.63
2:B:1146:C:H4'	2:B:1331:U:C5	2.32	0.63
2:B:1785:U:H2'	2:B:1786:G:C8	2.33	0.63
2:B:1818:U:H2'	2:B:1819:U:H5"	1.79	0.63
2:B:2304:C:H2'	2:B:2305:G:H5'	1.78	0.63
7:G:29:VAL:HG13	7:G:218:ILE:CD1	2.28	0.63
8:H:64:SER:HA	8:H:75:PRO:HA	1.79	0.63
8:H:93:MET:HG2	8:H:94:CYS:N	2.12	0.63
9:I:148:ILE:HG12	9:I:159:VAL:HG11	1.80	0.63
59:GB:14:THR:OG1	59:GB:15:PRO:HD2	1.98	0.63
68:PB:40:ARG:HG2	68:PB:40:ARG:HH11	1.63	0.63
82:DC:250:PHE:O	82:DC:269:LEU:HD13	1.99	0.63
83:EC:6824:C:H2'	83:EC:6825:A:C8	2.33	0.63
1:A:386:G:H2'	1:A:387:A:C8	2.33	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1501:C:H41	69:QB:102:ARG:NH2	1.96	0.63
2:B:671:U:H2'	2:B:672:A:H8	1.63	0.63
2:B:1232:C:H5	2:B:1261:G:H2'	1.61	0.63
8:H:235:LEU:HD12	8:H:235:LEU:O	1.98	0.63
34:HA:73:GLY:H	34:HA:76:GLU:CG	2.11	0.63
59:GB:108:ARG:HE	59:GB:145:SER:HA	1.63	0.63
63:KB:34:ILE:O	63:KB:38:VAL:HG23	1.98	0.63
82:DC:113:SER:HB3	82:DC:516:PRO:HB2	1.79	0.63
82:DC:147:LEU:HD11	82:DC:189:VAL:HA	1.81	0.63
82:DC:598:SER:HA	82:DC:601:ILE:HD12	1.79	0.63
1:A:63:G:H4'	1:A:170:U:C5	2.34	0.63
2:B:1064:A:H62	2:B:1096:U:H3	1.46	0.63
2:B:1933:A:H2'	2:B:1934:G:H5'	1.81	0.63
2:B:3111:U:H2'	2:B:3112:G:H5'	1.79	0.63
2:B:3159:C:H2'	2:B:3160:U:C6	2.33	0.63
6:F:29:LEU:HB3	6:F:163:ARG:HH22	1.63	0.63
7:G:256:HIS:HA	7:G:257:PRO:C	2.23	0.63
7:G:296:THR:C	7:G:298:PHE:H	2.06	0.63
9:I:260:PHE:HB3	9:I:264:GLN:HB2	1.79	0.63
20:T:125:ARG:HG3	20:T:129:LEU:HD12	1.80	0.63
30:DA:55:GLU:HB2	30:DA:108:LYS:HB2	1.81	0.63
32:FA:101:VAL:HG12	32:FA:126:LYS:HE2	1.81	0.63
38:LA:57:LEU:HD11	38:LA:65:VAL:HG21	1.80	0.63
40:NA:34:SER:HB3	40:NA:37:THR:HG23	1.81	0.63
52:ZA:126:ARG:O	52:ZA:130:ILE:HD13	1.99	0.63
53:AB:66:ILE:HA	53:AB:69:LEU:HG	1.80	0.63
58:FB:90:LEU:HB3	58:FB:95:THR:HB	1.79	0.63
70:RB:62:VAL:O	70:RB:63:LEU:HD23	1.98	0.63
83:EC:6772:G:H2'	83:EC:6773:G:C4'	2.28	0.63
1:A:479:C:H4'	59:GB:120:LYS:NZ	2.13	0.63
1:A:594:A:H4'	1:A:595:G:H5'	1.79	0.63
2:B:2453:U:H3	2:B:2484:A:N6	1.96	0.63
6:F:5:ILE:HG21	6:F:210:PRO:HD3	1.81	0.63
7:G:332:ARG:HG2	7:G:332:ARG:HH11	1.64	0.63
9:I:9:SER:HB2	9:I:12:TYR:CB	2.29	0.63
10:J:30:LEU:H	10:J:30:LEU:CD2	2.11	0.63
10:J:52:VAL:HB	10:J:67:GLY:HA2	1.81	0.63
50:XA:183:ARG:O	71:SB:43:GLY:HA3	1.98	0.63
52:ZA:89:GLN:HA	52:ZA:94:GLN:HG2	1.80	0.63
63:KB:61:THR:HG22	77:YB:32:PHE:CE2	2.33	0.63
63:KB:99:ARG:HE	63:KB:143:SER:HB3	1.63	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:WB:93:SER:HB2	75:WB:100:ILE:HG22	1.80	0.63
82:DC:536:LEU:O	82:DC:540:ILE:HG12	1.97	0.63
82:DC:750:LYS:HD3	82:DC:776:GLU:O	1.98	0.63
1:A:753:A:H2'	1:A:754:A:O4'	1.99	0.63
1:A:1272:U:H2'	1:A:1275:A:OP2	1.99	0.63
1:A:1316:G:H2'	1:A:1317:C:H6	1.64	0.63
1:A:1451:C:H5"	79:AC:10:HIS:HB3	1.79	0.63
2:B:707:U:C2'	2:B:708:G:H5"	2.28	0.63
2:B:1340:G:H2'	2:B:1341:U:H6	1.63	0.63
2:B:1727:G:H1'	2:B:1731:A:O4'	1.98	0.63
2:B:1875:G:H2'	2:B:1876:U:O4'	1.97	0.63
7:G:215:ILE:CG2	7:G:282:ILE:HD11	2.29	0.63
7:G:350:ALA:O	7:G:351:LEU:HB3	1.97	0.63
24:X:14:LEU:HD11	25:Y:136:ARG:HH21	1.64	0.63
29:CA:58:ASP:O	29:CA:62:VAL:HG23	1.98	0.63
29:CA:83:VAL:HA	29:CA:122:ALA:O	1.99	0.63
29:CA:91:ASN:ND2	29:CA:93:TYR:HB2	2.14	0.63
34:HA:41:LEU:HB3	34:HA:92:ILE:HB	1.81	0.63
42:PA:10:GLN:O	42:PA:14:LEU:HG	1.99	0.63
49:WA:123:ILE:HA	49:WA:132:LYS:O	1.97	0.63
56:DB:178:LEU:HG	56:DB:180:THR:HG23	1.81	0.63
57:EB:69:GLY:HA2	57:EB:72:LYS:HD2	1.81	0.63
61:IB:111:VAL:O	61:IB:111:VAL:HG13	1.99	0.63
69:QB:113:ILE:O	69:QB:124:ILE:HD12	1.99	0.63
71:SB:55:LEU:HD11	71:SB:69:LEU:HG	1.80	0.63
82:DC:42:ARG:HH11	82:DC:42:ARG:HG3	1.64	0.63
82:DC:218:TRP:HB3	82:DC:324:MET:HB3	1.81	0.63
82:DC:418:TYR:HB2	82:DC:424:ASP:O	1.99	0.63
1:A:396:G:H22	1:A:399:A:C5'	2.11	0.63
2:B:2356:A:N6	2:B:2983:C:C5	2.64	0.63
2:B:2477:G:H5"	2:B:2478:C:C5	2.34	0.63
2:B:2768:U:H2'	2:B:2769:A:H8	1.63	0.63
3:C:113:U:H5"	43:QA:7:PHE:HB2	1.79	0.63
7:G:92:TYR:HB2	7:G:157:VAL:CG2	2.29	0.63
7:G:168:LYS:HE3	7:G:319:ASN:OD1	1.98	0.63
7:G:280:HIS:HB3	7:G:324:VAL:CG2	2.29	0.63
8:H:264:SER:OG	8:H:267:VAL:HG22	1.98	0.63
9:I:104:LEU:HD11	9:I:108:ARG:NH2	2.13	0.63
15:O:138:VAL:HA	15:O:141:ARG:NH1	2.13	0.63
19:S:50:ARG:HB3	19:S:50:ARG:HH11	1.63	0.63
31:EA:60:LYS:HB2	31:EA:61:LYS:HE2	1.80	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:GA:38:LYS:HA	33:GA:41:ARG:NH1	2.13	0.63
53:AB:67:ASN:O	53:AB:71:LEU:HG	1.98	0.63
53:AB:212:LYS:HG2	53:AB:213:GLU:N	2.14	0.63
56:DB:2:LYS:O	56:DB:3:LEU:HD23	1.99	0.63
57:EB:43:PHE:HB2	57:EB:61:PHE:O	1.97	0.63
59:GB:92:LYS:O	59:GB:93:LEU:HB3	1.98	0.63
82:DC:659:ILE:CG2	82:DC:700:ARG:HD2	2.29	0.63
1:A:1625:C:H2'	1:A:1626:U:C6	2.34	0.63
2:B:996:A:H2'	2:B:997:A:O4'	1.98	0.63
2:B:2429:G:H2'	2:B:2430:A:C8	2.33	0.63
2:B:2459:A:H61	2:B:2487:U:H3	1.45	0.63
5:E:68:PHE:HB3	5:E:111:ILE:O	1.98	0.63
9:I:267:ALA:O	9:I:271:LYS:HG3	1.99	0.63
11:K:24:GLU:O	11:K:25:GLN:HB3	1.98	0.63
26:Z:33:TYR:O	26:Z:37:LEU:HD13	1.99	0.63
32:FA:47:LYS:HG3	32:FA:48:TYR:CD2	2.34	0.63
34:HA:24:THR:OG1	34:HA:91:SER:HB3	1.97	0.63
48:VA:37:GLN:O	48:VA:41:VAL:HG23	1.99	0.63
50:XA:74:VAL:HA	50:XA:96:THR:O	1.99	0.63
68:PB:123:ARG:HA	68:PB:133:VAL:CG2	2.28	0.63
74:VB:91:LEU:HD22	74:VB:96:LEU:HD13	1.81	0.63
1:A:1368:G:H5"	69:QB:69:LYS:HG2	1.80	0.63
1:A:1438:G:H2'	1:A:1439:C:O4'	1.98	0.63
1:A:1595:U:H5	1:A:1596:C:C4	2.16	0.63
2:B:67:A:C8	2:B:317:A:H1'	2.33	0.63
2:B:524:U:P	18:R:77:ARG:HH22	2.21	0.63
2:B:1654:A:C2'	2:B:1655:G:H5'	2.26	0.63
2:B:1729:A:H3'	2:B:1730:G:H5'	1.80	0.63
2:B:2436:U:H2'	2:B:2437:G:H5"	1.81	0.63
2:B:2439:A:H2'	2:B:2440:G:C8	2.33	0.63
7:G:73:VAL:HG21	27:AA:90:GLY:HA2	1.79	0.63
7:G:323:MET:HE1	7:G:356:LEU:HD13	1.80	0.63
9:I:238:ASP:HA	9:I:241:THR:HB	1.81	0.63
12:L:61:GLN:O	12:L:65:LEU:HD23	1.98	0.63
25:Y:13:TYR:O	25:Y:16:GLN:HG2	1.98	0.63
31:EA:95:VAL:HG11	31:EA:113:VAL:HG11	1.79	0.63
41:OA:64:MET:C	41:OA:66:TYR:H	2.05	0.63
52:ZA:69:ILE:HD11	52:ZA:133:LYS:HB3	1.80	0.63
56:DB:50:PHE:HB3	56:DB:111:LEU:HB3	1.79	0.63
69:QB:83:ALA:HB1	69:QB:91:TYR:HB3	1.80	0.63
82:DC:317:LYS:HD2	82:DC:317:LYS:H	1.64	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:594:ASP:HB3	82:DC:597:VAL:CG2	2.27	0.63
1:A:1561:U:H4'	1:A:1599:C:H4'	1.79	0.62
2:B:1856:C:H2'	2:B:1857:C:C6	2.33	0.62
2:B:2467:G:H4'	5:E:28:PHE:CE2	2.34	0.62
2:B:2837:A:H2'	2:B:2850:G:H22	1.63	0.62
2:B:2995:A:H3'	2:B:2996:U:H5"	1.81	0.62
7:G:39:LYS:HA	7:G:39:LYS:HE2	1.81	0.62
16:P:128:VAL:CG1	16:P:132:ILE:HD11	2.27	0.62
20:T:8:VAL:HA	20:T:34:VAL:HG23	1.80	0.62
30:DA:111:LEU:HD12	30:DA:111:LEU:N	2.13	0.62
31:EA:14:VAL:O	31:EA:19:ALA:HB1	1.99	0.62
39:MA:31:LEU:HD11	39:MA:41:LEU:HD11	1.80	0.62
48:VA:115:ALA:O	48:VA:162:GLY:HA2	1.99	0.62
57:EB:99:LEU:HD21	57:EB:116:ARG:HD3	1.79	0.62
82:DC:159:LYS:HB3	82:DC:162:ARG:HG2	1.81	0.62
82:DC:593:ILE:CD1	82:DC:685:ARG:HB2	2.27	0.62
83:EC:6930:G:H3'	83:EC:6931:U:H5"	1.81	0.62
1:A:740:A:C2'	1:A:741:C:H5"	2.24	0.62
2:B:905:U:O2	2:B:911:C:H5'	1.99	0.62
2:B:1895:A:O2'	2:B:3053:G:H4'	1.99	0.62
2:B:2661:G:H2'	2:B:2662:G:H8	1.64	0.62
2:B:2881:C:H2'	2:B:2882:U:C6	2.34	0.62
15:O:114:ILE:HG22	15:O:115:LYS:N	2.14	0.62
17:Q:124:ILE:HB	39:MA:117:ALA:HB3	1.81	0.62
31:EA:135:ARG:NE	31:EA:135:ARG:HA	2.14	0.62
48:VA:185:LEU:HD23	48:VA:185:LEU:H	1.63	0.62
52:ZA:41:LEU:HD12	52:ZA:68:ILE:HD13	1.81	0.62
54:BB:183:VAL:HG11	54:BB:188:ASN:O	1.99	0.62
74:VB:63:GLN:HE21	74:VB:64:PHE:H	1.46	0.62
1:A:821:U:H3'	1:A:822:U:C4'	2.28	0.62
1:A:976:G:C2	1:A:1023:A:H1'	2.34	0.62
1:A:1681:A:N6	1:A:1720:G:H1'	2.14	0.62
2:B:986:U:O2'	2:B:987:U:H5'	1.99	0.62
2:B:1240:A:C3'	2:B:1241:U:H5"	2.25	0.62
2:B:1665:C:H2'	2:B:1666:G:H8	1.63	0.62
12:L:225:LYS:O	12:L:229:VAL:HG23	2.00	0.62
17:Q:122:LYS:HG3	17:Q:145:PHE:CZ	2.34	0.62
49:WA:80:ALA:O	49:WA:91:LEU:HD12	1.98	0.62
49:WA:264:SER:HB2	49:WA:271:VAL:HG21	1.80	0.62
53:AB:121:GLY:HA2	53:AB:124:ARG:HB3	1.80	0.62
67:OB:32:LYS:HG2	67:OB:47:ARG:HH11	1.63	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:RB:55:PRO:HB3	70:RB:91:ILE:HD11	1.81	0.62
82:DC:307:LEU:HD13	82:DC:312:LYS:HA	1.81	0.62
1:A:86:A:H2'	1:A:87:C:H6	1.64	0.62
2:B:118:U:C2'	2:B:119:U:H5'	2.27	0.62
2:B:1475:A:O2'	2:B:1476:G:H5'	1.98	0.62
2:B:1591:G:H2'	2:B:1592:G:H5'	1.81	0.62
2:B:2662:G:H2'	2:B:2663:G:C8	2.35	0.62
9:I:208:MET:HE3	9:I:223:PHE:HB3	1.81	0.62
11:K:181:ILE:HG23	11:K:182:ASP:N	2.15	0.62
17:Q:48:PRO:HA	17:Q:137:GLN:HB2	1.80	0.62
27:AA:11:PHE:CE2	27:AA:88:ARG:HD2	2.33	0.62
30:DA:11:ASP:OD2	30:DA:13:ARG:HB2	1.99	0.62
34:HA:19:LYS:HA	34:HA:19:LYS:NZ	2.14	0.62
35:IA:31:ARG:HB3	35:IA:31:ARG:HH11	1.64	0.62
38:LA:8:ARG:HD3	38:LA:32:ALA:O	2.00	0.62
49:WA:49:GLY:HA2	49:WA:54:PHE:HD1	1.63	0.62
54:BB:35:PRO:HD2	54:BB:83:PRO:HG2	1.81	0.62
82:DC:131:THR:HG23	82:DC:178:PHE:HE1	1.64	0.62
82:DC:280:PRO:O	82:DC:284:LEU:HG	1.99	0.62
83:EC:6906:G:H3'	83:EC:6907:G:H5"	1.80	0.62
1:A:551:G:H5'	1:A:581:U:H2'	1.81	0.62
2:B:3:U:H3	3:C:156:U:H3	1.46	0.62
2:B:1132:C:H2'	2:B:1133:A:H8	1.65	0.62
2:B:2355:G:H4'	21:U:139:TYR:CE2	2.35	0.62
2:B:3107:U:H2'	2:B:3108:G:C8	2.34	0.62
7:G:4:ARG:HG2	7:G:4:ARG:HH11	1.63	0.62
7:G:305:ILE:HG12	7:G:321:PHE:CE2	2.35	0.62
17:Q:118:GLU:O	17:Q:122:LYS:HG2	1.99	0.62
22:V:176:ARG:C	32:FA:51:GLY:HA2	2.24	0.62
35:IA:46:THR:HG21	35:IA:91:SER:OG	2.00	0.62
49:WA:13:LEU:HD21	49:WA:54:PHE:HB3	1.81	0.62
49:WA:260:ILE:HB	49:WA:274:LEU:HB2	1.81	0.62
56:DB:181:PRO:HA	56:DB:184:LEU:HD12	1.80	0.62
70:RB:63:LEU:HD12	70:RB:84:MET:HB3	1.82	0.62
2:B:841:A:H5'	23:W:125:LYS:O	1.98	0.62
2:B:1764:U:H3'	2:B:1765:U:H5"	1.82	0.62
2:B:3117:C:H2'	2:B:3118:C:H5'	1.81	0.62
6:F:101:VAL:HB	6:F:165:VAL:HA	1.80	0.62
7:G:109:HIS:C	7:G:110:LEU:HD12	2.24	0.62
8:H:62:ALA:HA	8:H:76:ARG:O	1.99	0.62
13:M:76:ASP:HA	13:M:79:ILE:HD12	1.81	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:18:VAL:O	19:S:22:LEU:HD13	1.98	0.62
29:CA:96:LYS:HG3	29:CA:107:VAL:HB	1.81	0.62
39:MA:68:GLN:HA	39:MA:71:LYS:HB2	1.82	0.62
40:NA:56:ARG:O	40:NA:60:LEU:HB2	2.00	0.62
41:OA:69:HIS:O	41:OA:73:ARG:HG3	1.99	0.62
48:VA:96:ILE:O	48:VA:100:ILE:HG23	2.00	0.62
59:GB:96:VAL:HA	59:GB:99:LEU:HD13	1.81	0.62
61:IB:38:ALA:HB3	61:IB:42:PHE:O	2.00	0.62
82:DC:396:ALA:HB3	82:DC:456:LEU:HG	1.81	0.62
82:DC:566:THR:HG21	82:DC:803:THR:HG22	1.82	0.62
82:DC:607:ASN:HB2	82:DC:610:ASP:OD2	1.99	0.62
1:A:591:A:H2'	1:A:592:A:C8	2.35	0.62
2:B:823:C:O2'	2:B:824:C:H5'	1.99	0.62
2:B:3375:A:O2'	2:B:3378:C:H5'	2.00	0.62
11:K:83:LEU:HD13	11:K:84:VAL:N	2.14	0.62
14:N:170:LYS:HD3	14:N:176:LEU:C	2.25	0.62
24:X:34:GLU:O	24:X:37:ALA:HB3	2.00	0.62
28:BA:20:LEU:HD23	28:BA:20:LEU:C	2.24	0.62
48:VA:97:LYS:CD	48:VA:100:ILE:HD11	2.28	0.62
54:BB:68:ARG:HB3	54:BB:76:VAL:CG1	2.29	0.62
82:DC:182:VAL:HG12	82:DC:186:ASN:HD21	1.65	0.62
82:DC:633:ILE:HG22	82:DC:647:ILE:HD12	1.82	0.62
1:A:320:U:C2'	1:A:321:C:H5"	2.29	0.62
1:A:607:G:H5'	1:A:613:G:N2	2.14	0.62
1:A:1133:A:H2'	1:A:1134:C:O4'	1.99	0.62
1:A:1547:A:H1'	68:PB:87:ASN:O	1.99	0.62
2:B:1238:C:H2'	2:B:1239:C:C1'	2.30	0.62
2:B:1497:C:H2'	2:B:1498:A:C8	2.35	0.62
39:MA:104:GLN:HE22	39:MA:107:LYS:CD	2.08	0.62
53:AB:118:ALA:O	53:AB:122:VAL:HG23	1.99	0.62
54:BB:82:TYR:CD1	54:BB:83:PRO:HD2	2.34	0.62
57:EB:46:ILE:HD13	57:EB:60:ILE:HA	1.82	0.62
58:FB:184:LEU:HG	58:FB:189:LEU:HA	1.80	0.62
72:TB:20:THR:OG1	72:TB:22:LYS:HD3	2.00	0.62
79:AC:21:CYS:SG	79:AC:38:ILE:HA	2.39	0.62
82:DC:524:GLU:HG2	82:DC:564:ARG:HH22	1.63	0.62
1:A:252:U:H2'	1:A:253:A:H8	1.64	0.62
1:A:882:U:H3	1:A:946:U:H3	1.46	0.62
1:A:1048:G:H5"	77:YB:68:GLY:HA3	1.82	0.62
2:B:231:G:O2'	2:B:232:G:H5'	2.00	0.62
2:B:744:A:H2'	2:B:745:C:O4'	1.99	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1322:U:H2'	2:B:1323:G:H8	1.65	0.62
2:B:3164:C:O2'	2:B:3165:A:H8	1.82	0.62
2:B:3273:A:H4'	10:J:44:ALA:HB3	1.80	0.62
6:F:21:ARG:NH2	6:F:22:LEU:HD11	2.15	0.62
6:F:128:ARG:HA	6:F:169:ILE:HD12	1.82	0.62
7:G:59:ASP:OD2	7:G:357:LYS:HE2	2.00	0.62
7:G:199:PHE:C	7:G:201:LYS:H	2.07	0.62
15:O:140:ARG:HB2	15:O:140:ARG:HH11	1.64	0.62
23:W:10:LEU:HB2	23:W:41:ILE:HD12	1.81	0.62
30:DA:39:LEU:HD11	30:DA:107:THR:O	2.00	0.62
36:JA:45:ARG:HH11	36:JA:45:ARG:HB2	1.64	0.62
37:KA:98:VAL:HG22	37:KA:99:ARG:H	1.64	0.62
42:PA:8:ILE:HG12	42:PA:54:LEU:HD21	1.81	0.62
50:XA:54:TRP:O	50:XA:58:VAL:HG23	2.00	0.62
54:BB:155:LYS:HE2	54:BB:155:LYS:HA	1.82	0.62
61:IB:33:ARG:HE	61:IB:51:GLY:H	1.48	0.62
82:DC:22:MET:HE3	82:DC:338:ILE:HG23	1.82	0.62
82:DC:529:ILE:HG13	86:DC:903:SO1:H213	1.82	0.62
83:EC:6925:C:H2'	83:EC:6926:U:O4'	1.99	0.62
1:A:821:U:H5'	1:A:822:U:OP2	1.99	0.62
1:A:1142:A:H2'	1:A:1143:A:C8	2.35	0.62
2:B:753:C:H2'	2:B:754:G:H8	1.64	0.62
2:B:1640:G:OP2	38:LA:72:VAL:HG12	2.00	0.62
2:B:1818:U:H2'	2:B:1819:U:O4'	2.00	0.62
2:B:2597:U:O2	19:S:125:SER:HB2	2.00	0.62
2:B:3153:U:O2'	2:B:3154:C:H5'	2.00	0.62
2:B:3262:U:C3'	2:B:3263:G:H5"	2.29	0.62
5:E:120:VAL:HG13	5:E:124:LEU:CD2	2.28	0.62
8:H:138:ARG:HH21	8:H:240:PRO:CB	2.13	0.62
14:N:9:TYR:CD2	14:N:97:LEU:HB3	2.34	0.62
20:T:22:VAL:HG21	20:T:120:VAL:HG11	1.82	0.62
32:FA:119:PRO:O	32:FA:121:VAL:N	2.33	0.62
53:AB:12:VAL:O	53:AB:16:VAL:HG23	2.00	0.62
74:VB:9:THR:HA	74:VB:24:VAL:O	1.99	0.62
82:DC:82:SER:HB3	82:DC:85:ASP:CG	2.24	0.62
82:DC:131:THR:HG21	82:DC:163:ALA:HB2	1.81	0.62
1:A:156:A:H1'	1:A:416:A:C8	2.35	0.61
1:A:562:G:H21	80:BC:14:VAL:CG1	2.12	0.61
1:A:1542:G:C2	1:A:1568:C:H1'	2.34	0.61
1:A:1673:G:H1	1:A:1728:A:H61	1.47	0.61
1:A:1684:U:H3	1:A:1717:G:H1	1.47	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:105:C:H2'	2:B:106:A:H8	1.65	0.61
2:B:1282:G:H4'	48:VA:82:GLY:CA	2.30	0.61
2:B:1764:U:H3'	2:B:1765:U:C5'	2.30	0.61
2:B:3063:C:H2'	2:B:3064:U:C6	2.35	0.61
12:L:178:ALA:HA	12:L:222:PHE:CD2	2.35	0.61
14:N:85:PHE:CB	14:N:140:THR:HG22	2.29	0.61
34:HA:66:LYS:HA	34:HA:66:LYS:HE3	1.81	0.61
36:JA:35:GLN:HA	36:JA:35:GLN:NE2	2.13	0.61
54:BB:71:LYS:HB3	54:BB:76:VAL:HA	1.81	0.61
55:CB:190:ILE:O	55:CB:194:LEU:HB2	2.00	0.61
57:EB:98:ILE:HD13	57:EB:118:LEU:HD22	1.81	0.61
58:FB:25:ARG:O	58:FB:28:GLU:HG2	2.00	0.61
58:FB:110:ARG:HB2	58:FB:160:PHE:CE1	2.34	0.61
59:GB:112:GLN:HA	59:GB:112:GLN:NE2	2.13	0.61
66:NB:103:ASN:HA	66:NB:106:LYS:HZ2	1.65	0.61
82:DC:27:HIS:HB3	82:DC:30:HIS:CD2	2.36	0.61
82:DC:162:ARG:HB3	84:DC:901:GDP:N2	2.15	0.61
1:A:94:U:O2'	54:BB:8:HIS:HB2	2.01	0.61
1:A:448:C:H5'	54:BB:29:PRO:HG3	1.82	0.61
2:B:1211:U:H2'	2:B:1212:A:H8	1.64	0.61
2:B:1313:G:C5'	20:T:83:ALA:HB1	2.30	0.61
2:B:2927:C:H2'	2:B:2928:C:C6	2.35	0.61
4:D:27:A:H2'	4:D:28:C:H6	1.59	0.61
14:N:46:PHE:CD1	14:N:140:THR:HA	2.34	0.61
17:Q:57:VAL:HG23	17:Q:115:ARG:HD2	1.82	0.61
19:S:22:LEU:HB3	19:S:26:ARG:HH12	1.65	0.61
32:FA:12:ARG:HG3	32:FA:12:ARG:HH11	1.64	0.61
32:FA:55:LYS:HZ1	46:TA:42:ARG:HH22	1.48	0.61
54:BB:191:ARG:HD3	54:BB:245:LYS:CB	2.26	0.61
57:EB:182:VAL:HG12	57:EB:183:PHE:N	2.15	0.61
58:FB:84:HIS:CE1	58:FB:86:SER:HB2	2.35	0.61
67:OB:28:PHE:CZ	67:OB:32:LYS:HD3	2.34	0.61
72:TB:78:ARG:HD2	72:TB:126:LEU:CD2	2.30	0.61
82:DC:491:VAL:HA	82:DC:559:PRO:HD3	1.82	0.61
82:DC:722:PRO:CB	82:DC:808:PRO:HG3	2.31	0.61
83:EC:6790:A:H4'	83:EC:6850:C:O2	2.00	0.61
1:A:329:G:H5'	58:FB:99:ALA:HB3	1.82	0.61
1:A:396:G:H3'	58:FB:47:ARG:NH1	2.16	0.61
1:A:1494:C:H2'	1:A:1495:C:C5	2.35	0.61
2:B:631:U:H2'	2:B:632:G:C8	2.34	0.61
2:B:1513:G:O2'	2:B:1514:G:H5'	2.01	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1768:U:C3'	2:B:1769:G:H5"	2.31	0.61
2:B:2429:G:H2'	2:B:2430:A:H8	1.65	0.61
2:B:3232:G:H2'	2:B:3233:C:C6	2.36	0.61
8:H:93:MET:H	8:H:93:MET:HE2	1.64	0.61
17:Q:24:VAL:HB	17:Q:26:PHE:CE2	2.34	0.61
26:Z:89:LEU:HB3	26:Z:93:ILE:HD12	1.81	0.61
45:SA:4:LYS:O	45:SA:7:LYS:HB3	2.00	0.61
49:WA:7:LEU:HG	49:WA:315:VAL:HA	1.82	0.61
54:BB:64:ILE:HD11	74:VB:18:LEU:HD21	1.82	0.61
66:NB:48:VAL:HG21	66:NB:81:ILE:HD11	1.82	0.61
69:QB:100:ILE:O	69:QB:104:VAL:HG23	1.99	0.61
80:BC:20:LYS:HE2	80:BC:21:VAL:N	2.16	0.61
82:DC:189:VAL:O	82:DC:193:ALA:HB2	2.00	0.61
82:DC:613:LYS:HA	82:DC:631:ARG:HG2	1.81	0.61
82:DC:728:VAL:HG21	82:DC:802:SER:HB3	1.82	0.61
1:A:341:A:H2'	1:A:342:C:C6	2.35	0.61
2:B:2681:U:H2'	2:B:2682:C:C6	2.35	0.61
4:D:11:A:H4'	4:D:13:A:C8	2.35	0.61
7:G:356:LEU:HD23	7:G:356:LEU:N	2.13	0.61
9:I:106:ALA:O	9:I:110:LEU:HB2	2.00	0.61
10:J:72:ASN:HD22	10:J:73:GLY:N	1.99	0.61
26:Z:96:VAL:HG12	26:Z:97:SER:N	2.16	0.61
32:FA:82:ILE:HD11	32:FA:102:ILE:HG12	1.82	0.61
50:XA:57:LEU:HG	50:XA:177:LEU:CD2	2.31	0.61
54:BB:91:THR:HG23	54:BB:98:ASN:HD21	1.65	0.61
65:MB:24:LYS:O	65:MB:28:MET:HB2	1.99	0.61
65:MB:87:PRO:HA	65:MB:90:ILE:HG13	1.81	0.61
82:DC:610:ASP:HB2	82:DC:615:ARG:HD3	1.81	0.61
1:A:1472:C:H2'	1:A:1535:U:O4	2.00	0.61
1:A:1533:C:H2'	1:A:1534:G:H8	1.65	0.61
1:A:1630:U:H2'	1:A:1632:C:H5	1.66	0.61
2:B:287:G:OP1	19:S:179:LYS:HD3	2.01	0.61
2:B:795:G:O2'	2:B:796:U:H5'	2.01	0.61
2:B:879:U:O2'	21:U:131:ARG:HB3	2.01	0.61
2:B:2563:G:H5"	12:L:27:THR:CG2	2.30	0.61
4:D:11:A:O2'	4:D:12:U:H3'	2.00	0.61
5:E:68:PHE:CE1	5:E:87:VAL:HA	2.35	0.61
7:G:51:ALA:HA	7:G:314:TYR:CD2	2.35	0.61
8:H:25:VAL:HA	8:H:276:LEU:HD11	1.81	0.61
11:K:176:TYR:HB3	11:K:194:HIS:CG	2.35	0.61
19:S:112:ASN:O	19:S:113:LEU:HD22	2.01	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:38:LYS:CD	24:X:58:ILE:HD13	2.29	0.61
24:X:110:MET:HA	24:X:110:MET:CE	2.21	0.61
49:WA:177:MET:HB3	49:WA:179:LYS:NZ	2.14	0.61
49:WA:229:LYS:HA	53:AB:222:VAL:CG1	2.28	0.61
58:FB:21:PHE:O	58:FB:22:ARG:HG2	2.00	0.61
60:HB:58:GLN:O	60:HB:64:TYR:HA	2.00	0.61
65:MB:90:ILE:HA	65:MB:107:ILE:HB	1.83	0.61
65:MB:93:VAL:HA	65:MB:106:GLU:HA	1.81	0.61
82:DC:638:PRO:HA	82:DC:668:GLN:HE22	1.66	0.61
1:A:208:U:H2'	1:A:209:U:C6	2.35	0.61
1:A:401:A:H1'	54:BB:3:ARG:HH12	1.65	0.61
1:A:1426:C:H3'	1:A:1427:A:H5"	1.82	0.61
1:A:1488:G:H3'	1:A:1515:A:N6	2.14	0.61
1:A:1500:C:H5"	69:QB:102:ARG:HD3	1.81	0.61
2:B:1661:G:H2'	2:B:1662:G:C8	2.36	0.61
2:B:2209:U:H3	2:B:2230:C:H5"	1.65	0.61
2:B:2317:A:C2'	2:B:2318:U:H5'	2.29	0.61
2:B:3060:C:H2'	2:B:3061:G:C8	2.36	0.61
3:C:37:A:H2'	3:C:37:A:N3	2.14	0.61
11:K:44:ILE:HG22	11:K:48:ASN:HD21	1.64	0.61
13:M:91:ARG:HD2	13:M:143:GLU:CB	2.31	0.61
14:N:85:PHE:HB3	14:N:140:THR:HG22	1.83	0.61
47:UA:59:CYS:C	47:UA:61:LYS:H	2.06	0.61
49:WA:179:LYS:HB3	49:WA:188:ILE:HD13	1.81	0.61
50:XA:52:LYS:HE3	71:SB:82:VAL:HG13	1.81	0.61
50:XA:98:ILE:HD11	50:XA:116:LYS:HG3	1.83	0.61
52:ZA:37:PRO:HD3	52:ZA:46:LYS:HD2	1.83	0.61
52:ZA:140:ARG:HG3	52:ZA:155:ALA:HB2	1.83	0.61
54:BB:150:PRO:CG	54:BB:151:ASP:H	2.13	0.61
56:DB:188:ARG:NH1	56:DB:188:ARG:HB2	2.16	0.61
63:KB:86:GLU:HG3	63:KB:87:ASP:H	1.64	0.61
67:OB:21:TYR:N	67:OB:22:PRO:CD	2.63	0.61
82:DC:162:ARG:O	82:DC:166:GLU:HB2	2.01	0.61
1:A:963:A:H4'	63:KB:128:TYR:OH	2.01	0.61
2:B:671:U:H2'	2:B:672:A:C8	2.35	0.61
2:B:1610:G:H2'	2:B:1611:G:O4'	2.01	0.61
2:B:1738:C:O2'	38:LA:52:GLN:HB2	2.01	0.61
2:B:2419:A:H2'	2:B:2420:C:H6	1.65	0.61
7:G:4:ARG:O	7:G:5:LYS:HB3	2.01	0.61
13:M:44:THR:O	13:M:55:VAL:HA	2.00	0.61
18:R:39:ILE:HG22	18:R:40:ASP:N	2.16	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CA:138:ARG:HG2	29:CA:138:ARG:HH21	1.66	0.61
47:UA:17:ARG:HH11	47:UA:18:TYR:HE1	1.49	0.61
52:ZA:237:VAL:HA	71:SB:33:GLN:HE22	1.64	0.61
56:DB:29:ASP:HA	56:DB:101:ILE:CG2	2.30	0.61
73:UB:104:LEU:HD23	73:UB:124:VAL:HA	1.83	0.61
74:VB:29:HIS:HB2	74:VB:32:ARG:CB	2.30	0.61
77:YB:33:LEU:O	77:YB:45:THR:HA	2.00	0.61
82:DC:152:LYS:HG3	82:DC:200:VAL:HG23	1.81	0.61
1:A:158:U:H2'	1:A:160:C:OP2	1.99	0.61
1:A:654:C:H3'	1:A:655:G:C5'	2.30	0.61
1:A:854:U:H2'	1:A:855:A:O4'	2.00	0.61
2:B:242:C:HO2'	2:B:243:G:H8	1.47	0.61
2:B:506:U:H2'	2:B:507:U:O4'	2.00	0.61
2:B:1231:A:O2'	2:B:1278:A:N6	2.33	0.61
2:B:2363:A:H1'	2:B:2376:G:N2	2.15	0.61
2:B:3165:A:N6	2:B:3285:C:H42	1.98	0.61
6:F:89:TYR:HB2	6:F:100:ASN:HD21	1.65	0.61
7:G:166:ILE:HD11	7:G:171:LEU:HD12	1.82	0.61
11:K:151:ARG:HH11	11:K:244:ASN:ND2	1.99	0.61
25:Y:89:LEU:HD13	25:Y:91:LEU:HD21	1.83	0.61
49:WA:64:HIS:NE2	49:WA:90:ARG:HG3	2.16	0.61
49:WA:108:SER:CB	49:WA:128:ASP:HB3	2.31	0.61
54:BB:68:ARG:HB3	54:BB:76:VAL:HG13	1.82	0.61
57:EB:8:ILE:HD13	57:EB:42:GLN:HA	1.83	0.61
73:UB:62:LYS:HG2	73:UB:116:ASP:O	2.00	0.61
73:UB:96:VAL:O	73:UB:97:ASP:HB2	2.00	0.61
82:DC:569:SER:H	82:DC:592:PRO:HG3	1.65	0.61
82:DC:714:TYR:O	82:DC:718:LEU:HD22	2.00	0.61
82:DC:809:LEU:CD1	82:DC:832:VAL:HB	2.30	0.61
1:A:170:U:H5'	1:A:267:U:H4'	1.82	0.61
1:A:300:A:H2'	1:A:301:A:C8	2.35	0.61
1:A:828:U:H2'	1:A:829:A:H5"	1.83	0.61
1:A:1042:G:H2'	1:A:1043:A:H5"	1.83	0.61
2:B:151:A:H5"	39:MA:102:GLU:CG	2.26	0.61
2:B:609:G:H3'	2:B:609:G:N3	2.16	0.61
2:B:1146:C:H4'	2:B:1331:U:C4	2.36	0.61
2:B:1566:A:H2	2:B:1573:G:N7	1.98	0.61
2:B:3267:A:H2'	10:J:69:PHE:CZ	2.36	0.61
7:G:89:VAL:O	7:G:104:THR:HG23	2.01	0.61
13:M:129:ARG:HD3	13:M:153:ASP:OD1	2.00	0.61
19:S:9:GLU:HG2	40:NA:41:ARG:HG2	1.82	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CA:68:THR:CG2	39:MA:36:LEU:HD13	2.31	0.61
44:RA:97:ARG:HE	44:RA:122:ARG:HB3	1.66	0.61
49:WA:68:VAL:CG1	49:WA:82:SER:HB2	2.31	0.61
54:BB:182:TYR:HE2	54:BB:190:GLY:HA2	1.66	0.61
63:KB:64:ARG:HH11	63:KB:64:ARG:HG3	1.65	0.61
65:MB:25:LEU:HB3	65:MB:87:PRO:CG	2.27	0.61
65:MB:37:ALA:HB1	65:MB:38:PRO:HD2	1.83	0.61
68:PB:53:ASP:HB2	68:PB:56:LYS:HB2	1.82	0.61
70:RB:23:ARG:HA	70:RB:91:ILE:O	2.01	0.61
74:VB:60:PHE:HA	74:VB:70:VAL:O	2.00	0.61
82:DC:27:HIS:ND1	82:DC:28:VAL:HG12	2.15	0.61
83:EC:6767:G:H2'	83:EC:6768:U:H5"	1.83	0.61
1:A:292:U:H2'	1:A:293:U:O4'	2.01	0.61
1:A:431:C:H4'	82:DC:391:LYS:HG3	1.83	0.61
1:A:644:C:H2'	1:A:645:C:C6	2.36	0.61
2:B:597:G:OP1	11:K:37:ASN:HB3	2.01	0.61
2:B:1898:G:C2'	2:B:1899:G:H5'	2.30	0.61
9:I:47:PRO:HB2	9:I:66:SER:OG	2.01	0.61
11:K:96:PRO:HB2	11:K:99:PRO:HD2	1.82	0.61
11:K:181:ILE:HG23	11:K:182:ASP:H	1.65	0.61
24:X:141:LYS:HA	24:X:144:LEU:HD12	1.82	0.61
31:EA:81:LEU:HD13	38:LA:93:PHE:HD2	1.65	0.61
32:FA:129:PHE:N	32:FA:129:PHE:HD2	1.99	0.61
33:GA:28:LYS:O	33:GA:29:TYR:HB2	2.00	0.61
36:JA:82:LEU:HD11	36:JA:117:ILE:HD12	1.81	0.61
39:MA:5:LYS:O	39:MA:9:LEU:HD23	2.01	0.61
52:ZA:44:LEU:HB3	52:ZA:49:LYS:HB2	1.83	0.61
56:DB:32:ILE:HD11	56:DB:63:MET:HB3	1.83	0.61
58:FB:97:THR:HA	58:FB:173:PRO:HG2	1.83	0.61
73:UB:56:LYS:HD3	73:UB:98:GLU:HG3	1.83	0.61
1:A:588:U:H2'	1:A:589:C:O4'	2.01	0.60
1:A:1012:U:O3'	6:F:245:LEU:HD22	2.01	0.60
1:A:1029:U:O2'	1:A:1030:A:H5'	2.01	0.60
1:A:1371:A:OP1	1:A:1371:A:H2'	2.01	0.60
2:B:19:U:H4'	19:S:138:GLN:CD	2.26	0.60
2:B:151:A:C5'	39:MA:102:GLU:HG3	2.25	0.60
2:B:1203:A:N6	2:B:1300:G:H2'	2.15	0.60
2:B:1622:U:H2'	2:B:1623:G:C8	2.34	0.60
2:B:2567:C:C3'	2:B:2568:C:H5"	2.31	0.60
2:B:3317:U:H4'	2:B:3318:G:H5'	1.83	0.60
3:C:81:U:C4'	3:C:82:U:H5'	2.25	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:66:CYS:HB2	5:E:107:TYR:CD2	2.35	0.60
6:F:44:ILE:H	6:F:44:ILE:HD12	1.66	0.60
7:G:308:MET:HE1	7:G:370:PHE:HB2	1.82	0.60
12:L:46:LEU:O	12:L:50:VAL:HG13	2.01	0.60
12:L:202:GLU:O	12:L:203:VAL:HB	2.00	0.60
15:O:115:LYS:HG2	15:O:116:TYR:H	1.66	0.60
23:W:99:LEU:HD11	23:W:103:ARG:HD3	1.83	0.60
31:EA:4:PHE:CZ	34:HA:35:ARG:HA	2.35	0.60
36:JA:50:ILE:O	36:JA:50:ILE:HG13	2.01	0.60
49:WA:22:SER:HB3	49:WA:70:ASP:HA	1.82	0.60
50:XA:126:PRO:HG2	50:XA:151:SER:HB3	1.81	0.60
50:XA:170:ILE:HD12	50:XA:170:ILE:N	2.11	0.60
52:ZA:238:SER:HB3	52:ZA:241:ASP:OD2	2.01	0.60
53:AB:32:GLU:HG3	53:AB:57:ASP:CB	2.31	0.60
54:BB:31:PRO:HG2	54:BB:38:LEU:CD1	2.30	0.60
54:BB:123:LEU:HB3	54:BB:159:THR:OG1	2.01	0.60
55:CB:94:THR:HA	55:CB:114:ILE:HD11	1.83	0.60
55:CB:122:ASN:ND2	55:CB:129:PRO:HD3	2.16	0.60
58:FB:42:ARG:O	58:FB:58:LEU:HB2	2.00	0.60
59:GB:59:LEU:HD22	59:GB:69:ARG:HA	1.82	0.60
65:MB:31:GLU:O	65:MB:34:VAL:HG22	2.01	0.60
83:EC:6836:U:H2'	83:EC:6837:G:C8	2.36	0.60
1:A:826:U:H2'	1:A:827:C:C6	2.35	0.60
1:A:1761:U:N3	83:EC:6950:C:H4'	2.15	0.60
2:B:2108:C:H1'	2:B:3344:A:H8	1.66	0.60
2:B:2259:A:H8	2:B:2260:U:C6	2.19	0.60
3:C:94:C:C5'	41:OA:76:ASN:HD21	2.10	0.60
11:K:151:ARG:HD2	11:K:207:LEU:HD23	1.81	0.60
11:K:222:HIS:ND1	11:K:223:PHE:N	2.48	0.60
14:N:75:TYR:CD1	14:N:151:GLY:HA2	2.36	0.60
17:Q:2:ALA:HB3	32:FA:41:HIS:CE1	2.36	0.60
19:S:142:ILE:N	19:S:142:ILE:HD12	2.16	0.60
21:U:64:ASN:HA	21:U:67:ILE:HD13	1.83	0.60
26:Z:33:TYR:CE1	26:Z:37:LEU:HD11	2.36	0.60
26:Z:85:LYS:HD3	26:Z:90:ARG:HG3	1.83	0.60
34:HA:40:LYS:HD3	34:HA:93:LEU:O	2.00	0.60
35:IA:29:ALA:HB3	35:IA:30:PRO:HD3	1.82	0.60
39:MA:71:LYS:HE3	39:MA:72:GLY:N	2.17	0.60
41:OA:24:ARG:O	41:OA:25:ARG:HB2	2.01	0.60
42:PA:32:ASN:HB3	42:PA:38:PHE:CE2	2.36	0.60
48:VA:56:ASN:HA	48:VA:59:VAL:CG2	2.31	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:WA:35:SER:HA	49:WA:71:CYS:SG	2.41	0.60
52:ZA:176:SER:HB2	52:ZA:195:ASP:HB3	1.83	0.60
56:DB:4:ASN:HA	56:DB:15:THR:HG22	1.81	0.60
58:FB:152:ILE:HG21	58:FB:157:GLU:HB2	1.83	0.60
59:GB:108:ARG:O	59:GB:112:GLN:HG2	2.01	0.60
65:MB:81:ARG:HA	65:MB:116:LEU:HB2	1.83	0.60
82:DC:44:GLY:HA2	82:DC:77:LEU:CG	2.31	0.60
82:DC:655:TYR:CE2	82:DC:695:ALA:HA	2.37	0.60
1:A:1556:A:H1'	1:A:1560:U:OP2	2.01	0.60
2:B:1294:A:HO2'	2:B:1295:G:H8	1.50	0.60
2:B:1603:A:H2'	2:B:1604:G:H5'	1.83	0.60
32:FA:133:LEU:HD23	32:FA:137:LYS:HE2	1.82	0.60
39:MA:89:ARG:HH11	39:MA:89:ARG:CG	2.09	0.60
49:WA:47:LEU:HD23	49:WA:55:GLY:HA3	1.82	0.60
55:CB:121:ILE:CG2	55:CB:132:VAL:HG21	2.31	0.60
1:A:160:C:H2'	1:A:161:U:O4'	2.00	0.60
1:A:886:U:H2'	1:A:887:A:C8	2.36	0.60
2:B:80:G:H2'	2:B:81:C:C6	2.36	0.60
2:B:195:U:H2'	2:B:196:G:O4'	2.01	0.60
2:B:1783:U:H2'	2:B:1784:G:C8	2.36	0.60
2:B:1822:C:H2'	2:B:1823:A:H8	1.64	0.60
2:B:2256:A:H1'	82:DC:580:PRO:HB3	1.82	0.60
2:B:2681:U:H2'	2:B:2682:C:H6	1.66	0.60
2:B:2880:U:H1'	7:G:250:ALA:HB3	1.83	0.60
2:B:3180:A:C5'	20:T:116:LYS:HB2	2.32	0.60
10:J:40:LEU:HB3	10:J:84:VAL:HG13	1.84	0.60
17:Q:54:LEU:HD12	17:Q:75:PHE:CZ	2.36	0.60
32:FA:90:TYR:CD1	32:FA:100:PRO:HG3	2.36	0.60
37:KA:18:ARG:HB3	37:KA:23:ASN:HA	1.82	0.60
39:MA:86:ARG:NH1	39:MA:90:ARG:HH12	1.99	0.60
48:VA:104:ARG:O	48:VA:104:ARG:HD3	2.01	0.60
52:ZA:122:ALA:HA	52:ZA:125:ILE:HD12	1.83	0.60
53:AB:161:GLY:C	53:AB:163:PRO:HD2	2.26	0.60
66:NB:140:LYS:HE2	66:NB:142:TYR:CE1	2.36	0.60
67:OB:85:VAL:C	67:OB:87:GLU:N	2.56	0.60
77:YB:12:ALA:HA	77:YB:15:GLU:HB3	1.84	0.60
83:EC:6808:G:H1'	83:EC:6809:G:OP1	2.01	0.60
1:A:1524:A:C2	1:A:1590:G:H1'	2.36	0.60
2:B:355:A:H5'	43:QA:40:LYS:HD2	1.84	0.60
2:B:528:U:H2'	2:B:529:A:H8	1.63	0.60
2:B:1347:U:H2'	2:B:1355:A:N6	2.17	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1565:G:N2	2:B:1574:C:N4	2.49	0.60
2:B:1774:C:H2'	2:B:1775:G:H5"	1.82	0.60
2:B:3006:A:H2'	2:B:3007:U:O4'	2.00	0.60
2:B:3117:C:C2'	2:B:3118:C:H5'	2.32	0.60
5:E:191:VAL:CG2	5:E:197:ASN:HD21	2.12	0.60
9:I:41:LYS:HB3	25:Y:67:VAL:CG1	2.31	0.60
18:R:103:ILE:HA	18:R:106:ARG:NH1	2.16	0.60
23:W:68:GLN:HA	23:W:71:ARG:HD2	1.83	0.60
29:CA:59:SER:O	29:CA:63:ILE:HG22	2.02	0.60
31:EA:21:LYS:HE2	31:EA:21:LYS:N	2.15	0.60
38:LA:8:ARG:HD2	38:LA:31:ARG:HG3	1.81	0.60
39:MA:58:ILE:O	39:MA:62:GLN:HG3	2.02	0.60
41:OA:14:LYS:HE2	43:QA:51:ILE:CD1	2.31	0.60
41:OA:18:LEU:HD11	43:QA:51:ILE:HG21	1.83	0.60
49:WA:169:ILE:O	49:WA:180:ALA:HA	2.01	0.60
52:ZA:137:ILE:CG1	52:ZA:138:PRO:HD2	2.32	0.60
56:DB:88:ARG:HB3	56:DB:91:GLU:CB	2.29	0.60
58:FB:112:TRP:O	58:FB:116:HIS:HB2	2.02	0.60
59:GB:32:GLY:HA3	80:BC:40:TYR:CD1	2.37	0.60
75:WB:62:VAL:O	75:WB:66:VAL:HG23	2.01	0.60
1:A:66:U:C1'	56:DB:160:ARG:HH21	2.11	0.60
1:A:182:A:H2'	1:A:183:U:C6	2.37	0.60
2:B:1564:U:H2'	2:B:1565:G:O4'	2.00	0.60
2:B:3041:U:H2'	2:B:3042:U:C6	2.37	0.60
6:F:117:GLU:OE1	6:F:163:ARG:HB2	2.00	0.60
12:L:152:LEU:HD12	12:L:152:LEU:N	2.16	0.60
15:O:156:LYS:O	15:O:160:VAL:HG23	2.02	0.60
32:FA:21:ARG:NH1	36:JA:38:ILE:HG23	2.16	0.60
48:VA:27:VAL:HG13	48:VA:84:VAL:HG11	1.83	0.60
48:VA:119:ILE:O	48:VA:157:LYS:HA	2.02	0.60
52:ZA:129:ILE:O	52:ZA:133:LYS:HG2	2.02	0.60
54:BB:68:ARG:HD3	54:BB:76:VAL:HG11	1.82	0.60
58:FB:159:GLN:HB2	58:FB:165:LEU:HD23	1.84	0.60
61:IB:35:TYR:CD2	61:IB:49:ILE:HG23	2.37	0.60
66:NB:82:ARG:HH22	66:NB:116:LEU:CD1	2.14	0.60
66:NB:103:ASN:HA	66:NB:106:LYS:NZ	2.16	0.60
73:UB:56:LYS:HE3	80:BC:8:LEU:CD1	2.32	0.60
73:UB:89:ASN:HB2	73:UB:92:CYS:SG	2.42	0.60
1:A:151:G:H21	56:DB:13:GLN:NE2	1.99	0.60
1:A:1426:C:O2'	1:A:1428:G:H5'	2.01	0.60
1:A:1672:G:H2'	1:A:1673:G:C8	2.36	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:250:U:C5'	2:B:251:G:H5"	2.31	0.60
2:B:916:G:N1	6:F:207:VAL:HG11	2.16	0.60
2:B:975:C:P	22:V:16:ARG:HG3	2.42	0.60
2:B:1242:G:N2	82:DC:753:GLN:HA	2.16	0.60
2:B:2549:G:O2'	2:B:2550:U:H5'	2.02	0.60
2:B:2875:U:O2	2:B:2875:U:H2'	2.02	0.60
2:B:3309:G:H2'	2:B:3310:A:H5'	1.84	0.60
7:G:323:MET:HE1	7:G:356:LEU:CD1	2.32	0.60
12:L:57:ARG:O	12:L:61:GLN:HG3	2.02	0.60
13:M:90:MET:HG2	13:M:181:VAL:CA	2.25	0.60
13:M:90:MET:SD	13:M:181:VAL:HG22	2.42	0.60
18:R:21:VAL:HB	18:R:63:VAL:HG22	1.83	0.60
21:U:60:PHE:HB3	21:U:64:ASN:HB3	1.83	0.60
26:Z:37:LEU:O	26:Z:41:ILE:HG13	2.02	0.60
31:EA:103:GLN:O	31:EA:107:ARG:HG3	2.02	0.60
34:HA:43:ILE:HG22	34:HA:68:TYR:O	2.02	0.60
35:IA:76:SER:OG	35:IA:92:TYR:HB3	2.01	0.60
41:OA:5:THR:HA	41:OA:8:PHE:HD2	1.66	0.60
53:AB:29:LEU:HB2	53:AB:34:TYR:HB2	1.82	0.60
61:IB:68:GLY:HA3	61:IB:127:GLN:HB3	1.82	0.60
82:DC:220:PHE:HB3	82:DC:328:LEU:HD13	1.82	0.60
1:A:32:U:C2'	1:A:33:U:H5'	2.31	0.60
1:A:57:G:H2'	1:A:58:U:C6	2.37	0.60
2:B:1781:C:H2'	2:B:1782:U:C6	2.37	0.60
2:B:2445:A:H61	2:B:2501:U:H3	1.49	0.60
2:B:2525:G:H2'	6:F:34:TYR:CE1	2.37	0.60
2:B:2552:C:O2'	34:HA:50:VAL:HG11	2.00	0.60
2:B:2855:U:H2'	2:B:2856:G:O4'	2.01	0.60
5:E:94:ASN:HD21	5:E:124:LEU:HA	1.67	0.60
8:H:23:PRO:C	8:H:25:VAL:H	2.08	0.60
13:M:172:ILE:HD13	13:M:172:ILE:H	1.65	0.60
14:N:216:TYR:O	14:N:217:PHE:HB2	2.02	0.60
18:R:123:LEU:HB2	20:T:194:LEU:HD21	1.84	0.60
26:Z:10:LYS:HE2	26:Z:10:LYS:HA	1.83	0.60
29:CA:131:ASP:O	29:CA:135:ILE:HG22	2.01	0.60
30:DA:45:ILE:HG22	30:DA:46:LYS:N	2.17	0.60
30:DA:50:ILE:HD12	30:DA:80:VAL:HG21	1.84	0.60
30:DA:109:LEU:HD22	30:DA:115:ARG:NH1	2.16	0.60
41:OA:37:CYS:C	41:OA:45:ARG:HB2	2.27	0.60
48:VA:24:SER:HB2	48:VA:89:THR:O	2.01	0.60
52:ZA:107:SER:HA	52:ZA:192:GLY:HA2	1.84	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BB:180:LEU:HD23	54:BB:194:THR:H	1.66	0.60
79:AC:23:VAL:HG23	79:AC:38:ILE:HD12	1.83	0.60
83:EC:6787:U:H2'	83:EC:6788:C:H4'	1.82	0.60
1:A:804:A:C8	72:TB:107:SER:HA	2.37	0.60
1:A:960:U:H2'	1:A:961:U:H6	1.65	0.60
1:A:1579:U:O2'	66:NB:139:GLN:HA	2.01	0.60
1:A:1727:G:H2'	1:A:1728:A:C8	2.36	0.60
2:B:3078:U:H2'	2:B:3078:U:O2	2.01	0.60
3:C:78:G:H2'	3:C:79:A:O4'	2.02	0.60
11:K:44:ILE:HG22	11:K:48:ASN:ND2	2.17	0.60
17:Q:74:GLY:HA3	17:Q:98:ASP:N	2.16	0.60
17:Q:74:GLY:CA	17:Q:98:ASP:HB2	2.29	0.60
22:V:54:LEU:HB3	22:V:58:ASN:HB2	1.84	0.60
22:V:89:ASP:HB2	22:V:110:ALA:N	2.16	0.60
26:Z:38:ILE:O	26:Z:50:LEU:HD11	2.02	0.60
27:AA:26:ALA:HB2	27:AA:80:ARG:HH22	1.66	0.60
52:ZA:140:ARG:HB2	52:ZA:222:TYR:CG	2.36	0.60
55:CB:163:SER:CB	78:ZB:48:VAL:HG22	2.31	0.60
57:EB:168:SER:O	57:EB:172:VAL:HG23	2.02	0.60
61:IB:97:TYR:O	61:IB:99:ARG:HG3	2.01	0.60
74:VB:86:GLU:HB3	74:VB:91:LEU:HD21	1.83	0.60
75:WB:61:SER:H	75:WB:64:VAL:HB	1.67	0.60
77:YB:35:VAL:HG22	77:YB:79:PHE:HB2	1.83	0.60
80:BC:47:VAL:HG22	80:BC:48:THR:H	1.66	0.60
82:DC:405:VAL:CG1	82:DC:448:CYS:HB3	2.30	0.60
1:A:197:A:N6	58:FB:141:ARG:HH22	1.97	0.60
2:B:192:C:H2'	2:B:193:C:C6	2.36	0.60
2:B:1220:U:H1'	2:B:1222:G:C2	2.37	0.60
2:B:1720:U:C4	23:W:124:TYR:CE2	2.90	0.60
9:I:134:ALA:HB2	9:I:141:PRO:HD3	1.82	0.60
11:K:75:TYR:HB2	25:Y:141:VAL:CG2	2.32	0.60
14:N:169:LYS:O	14:N:177:ASP:HA	2.02	0.60
17:Q:3:ILE:HD11	32:FA:34:MET:HA	1.84	0.60
19:S:73:ARG:HB3	19:S:75:VAL:HG22	1.83	0.60
25:Y:88:ARG:NH2	33:GA:34:GLY:H	2.00	0.60
29:CA:105:VAL:HG11	29:CA:126:LEU:CD2	2.31	0.60
34:HA:30:THR:HG21	34:HA:89:VAL:HG22	1.83	0.60
38:LA:5:VAL:HG21	38:LA:32:ALA:N	2.17	0.60
49:WA:91:LEU:HB3	49:WA:100:TYR:HB2	1.83	0.60
49:WA:214:ALA:HB1	49:WA:240:VAL:HB	1.84	0.60
54:BB:201:HIS:NE2	54:BB:207:LEU:HG	2.17	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GB:28:LEU:HD12	80:BC:44:PHE:HD2	1.66	0.60
59:GB:87:SER:OG	59:GB:90:LYS:HB2	2.01	0.60
59:GB:140:ILE:HD12	74:VB:65:GLY:HA2	1.83	0.60
63:KB:99:ARG:NE	63:KB:143:SER:HB3	2.17	0.60
66:NB:83:GLN:HE21	66:NB:87:LYS:HD2	1.66	0.60
70:RB:30:LYS:HB2	70:RB:33:GLN:HB2	1.83	0.60
74:VB:109:LYS:HA	74:VB:112:LYS:HB3	1.83	0.60
74:VB:121:THR:HG21	74:VB:123:LYS:HE3	1.84	0.60
1:A:211:U:H5"	61:IB:20:PHE:HB2	1.84	0.59
1:A:806:A:C3'	1:A:807:A:H5"	2.31	0.59
1:A:1099:U:H5"	72:TB:71:LYS:HZ3	1.67	0.59
1:A:1429:G:H2'	1:A:1430:U:C6	2.37	0.59
1:A:1558:U:H4'	68:PB:135:GLY:HA3	1.84	0.59
2:B:80:G:H2'	2:B:81:C:H6	1.66	0.59
2:B:353:G:N2	2:B:364:G:H2'	2.17	0.59
2:B:1256:G:H4'	16:P:127:SER:HB2	1.84	0.59
2:B:1348:U:H4'	2:B:1349:G:C5'	2.32	0.59
2:B:1446:A:H5"	21:U:65:SER:OG	2.02	0.59
2:B:1471:U:H4'	23:W:4:LEU:H	1.67	0.59
2:B:1566:A:C2	2:B:1573:G:N7	2.69	0.59
2:B:1804:A:H4'	38:LA:71:THR:CG2	2.31	0.59
2:B:2108:C:H1'	2:B:3344:A:C8	2.37	0.59
13:M:86:TYR:O	13:M:147:SER:HA	2.02	0.59
26:Z:50:LEU:HD23	26:Z:54:VAL:HG21	1.83	0.59
30:DA:51:ARG:HG3	30:DA:54:ASP:OD2	2.02	0.59
39:MA:59:ASN:HD21	39:MA:63:ARG:HD2	1.67	0.59
52:ZA:57:PHE:CZ	52:ZA:138:PRO:HD3	2.37	0.59
54:BB:182:TYR:HB2	54:BB:228:ILE:HD13	1.84	0.59
55:CB:200:ASN:O	55:CB:205:SER:HB2	2.02	0.59
57:EB:30:SER:O	57:EB:31:SER:HB2	2.01	0.59
57:EB:98:ILE:HG21	57:EB:118:LEU:HD23	1.84	0.59
61:IB:56:LYS:O	61:IB:64:VAL:HG13	2.02	0.59
61:IB:99:ARG:HH12	73:UB:7:ARG:C	2.10	0.59
69:QB:37:VAL:HG22	69:QB:39:THR:H	1.67	0.59
82:DC:28:VAL:HA	82:DC:108:HIS:H	1.67	0.59
82:DC:633:ILE:HG22	82:DC:647:ILE:CD1	2.30	0.59
1:A:430:G:H2'	1:A:431:C:H6	1.67	0.59
1:A:1590:G:H2'	1:A:1591:C:C6	2.37	0.59
2:B:941:G:O2'	2:B:942:U:H5'	2.02	0.59
2:B:1108:U:H2'	2:B:1109:U:C6	2.37	0.59
2:B:1328:C:H5"	37:KA:75:HIS:CE1	2.37	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2191:U:H2'	2:B:2192:C:O4'	2.02	0.59
2:B:3163:A:C3'	2:B:3164:C:H5"	2.32	0.59
13:M:28:VAL:HG22	13:M:33:THR:HG23	1.84	0.59
15:O:65:ILE:HG23	15:O:66:ALA:N	2.17	0.59
17:Q:46:ILE:HG23	17:Q:49:ARG:HB2	1.83	0.59
39:MA:57:VAL:O	39:MA:61:GLN:HG3	2.02	0.59
47:UA:49:ARG:HB2	47:UA:55:TRP:CE3	2.37	0.59
49:WA:21:THR:HB	49:WA:69:GLN:NE2	2.17	0.59
50:XA:17:LEU:HA	50:XA:172:LEU:HD21	1.84	0.59
53:AB:113:LEU:HD23	53:AB:114:ALA:N	2.17	0.59
54:BB:159:THR:CG2	54:BB:173:ILE:HB	2.27	0.59
54:BB:221:ARG:H	54:BB:224:ASN:HD22	1.50	0.59
73:UB:103:LEU:HD13	73:UB:104:LEU:N	2.17	0.59
82:DC:244:LEU:HD23	82:DC:272:ALA:HB1	1.82	0.59
1:A:730:G:N2	1:A:731:C:H5"	2.15	0.59
1:A:1554:U:H2'	1:A:1555:A:O4'	2.03	0.59
1:A:1606:C:H2'	1:A:1607:G:C8	2.37	0.59
2:B:255:A:H2'	2:B:256:G:H8	1.63	0.59
2:B:629:U:H2'	2:B:630:A:C8	2.37	0.59
2:B:1234:G:O2'	16:P:132:ILE:HD13	2.02	0.59
2:B:1334:U:H2'	2:B:1335:C:C6	2.37	0.59
2:B:1591:G:C2'	2:B:1592:G:H5'	2.32	0.59
11:K:143:THR:HG21	11:K:237:ASN:HA	1.84	0.59
14:N:33:ILE:HD13	14:N:33:ILE:C	2.27	0.59
18:R:123:LEU:HD13	20:T:193:GLN:HB3	1.85	0.59
22:V:30:VAL:HG22	22:V:52:LEU:HD12	1.83	0.59
38:LA:65:VAL:O	38:LA:70:LYS:HE2	2.02	0.59
42:PA:8:ILE:HD13	42:PA:65:LEU:HD11	1.84	0.59
49:WA:85:TRP:HA	49:WA:109:ASP:HB3	1.84	0.59
74:VB:91:LEU:HD22	74:VB:96:LEU:HB2	1.83	0.59
74:VB:105:ARG:HH11	74:VB:109:LYS:NZ	2.01	0.59
82:DC:271:ARG:HB3	82:DC:274:ASN:ND2	2.17	0.59
82:DC:338:ILE:HA	82:DC:342:LEU:HD12	1.84	0.59
82:DC:588:LEU:HD23	82:DC:688:ILE:HG23	1.84	0.59
1:A:87:C:O2'	1:A:169:A:N1	2.35	0.59
1:A:138:A:N6	1:A:266:A:N6	2.47	0.59
1:A:186:C:H2'	1:A:187:G:O4'	2.02	0.59
1:A:304:U:H2'	1:A:305:C:C6	2.36	0.59
1:A:765:G:H1'	1:A:768:C:OP1	2.01	0.59
1:A:1315:U:H5"	1:A:1329:A:N3	2.17	0.59
1:A:1480:G:H4'	69:QB:11:ALA:HB3	1.84	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2086:A:H5"	2:B:2087:C:H5'	1.85	0.59
2:B:2842:U:H5	2:B:2843:U:C5	2.21	0.59
3:C:81:U:H4'	3:C:82:U:C5'	2.23	0.59
10:J:139:LYS:HA	10:J:142:ASP:HB3	1.83	0.59
11:K:208:SER:O	11:K:243:MET:HB3	2.03	0.59
18:R:23:ILE:HG13	18:R:31:LYS:O	2.03	0.59
21:U:64:ASN:HA	21:U:67:ILE:CD1	2.32	0.59
24:X:9:VAL:CG1	24:X:61:ILE:HD13	2.32	0.59
29:CA:63:ILE:HD13	29:CA:64:GLU:N	2.18	0.59
34:HA:52:ARG:HG3	34:HA:52:ARG:HH11	1.67	0.59
38:LA:3:GLN:HG2	38:LA:30:LEU:HB3	1.83	0.59
41:OA:25:ARG:HG3	43:QA:50:ASN:O	2.01	0.59
50:XA:22:THR:HG21	50:XA:173:ILE:HD11	1.83	0.59
52:ZA:144:TRP:CE2	52:ZA:173:PRO:HG3	2.36	0.59
53:AB:168:ILE:HA	53:AB:189:MET:HA	1.85	0.59
57:EB:86:GLN:O	57:EB:87:ASP:HB3	2.00	0.59
59:GB:163:PRO:HB3	59:GB:169:PRO:HA	1.83	0.59
61:IB:27:THR:HG21	61:IB:29:LYS:HZ3	1.67	0.59
82:DC:218:TRP:CB	82:DC:324:MET:HB3	2.32	0.59
83:EC:6947:A:N3	83:EC:6949:G:H5'	2.17	0.59
1:A:572:C:H2'	1:A:573:C:C6	2.38	0.59
2:B:114:A:H2'	2:B:115:A:O4'	2.02	0.59
2:B:289:A:H2'	2:B:290:G:C8	2.36	0.59
2:B:2344:U:H2'	2:B:2345:A:H8	1.66	0.59
2:B:2445:A:N6	2:B:2501:U:H3	2.00	0.59
2:B:3302:U:O2'	2:B:3303:G:H5'	2.03	0.59
9:I:278:SER:OG	9:I:281:GLU:HG3	2.02	0.59
11:K:75:TYR:HB2	25:Y:141:VAL:HG23	1.84	0.59
17:Q:102:GLN:HB2	17:Q:104:ARG:HH12	1.67	0.59
24:X:38:LYS:O	24:X:41:TYR:HB3	2.03	0.59
26:Z:42:LYS:HG2	26:Z:47:VAL:HG13	1.85	0.59
28:BA:6:ASP:C	28:BA:8:PHE:H	2.09	0.59
34:HA:73:GLY:H	34:HA:76:GLU:HG2	1.67	0.59
36:JA:76:VAL:HG21	36:JA:94:ALA:HB1	1.84	0.59
37:KA:20:LYS:HG2	37:KA:21:ARG:NH1	2.17	0.59
49:WA:129:LYS:HB3	49:WA:149:ASP:O	2.02	0.59
50:XA:170:ILE:H	50:XA:170:ILE:CD1	2.07	0.59
52:ZA:178:ILE:HD13	52:ZA:188:LEU:HB3	1.83	0.59
53:AB:138:VAL:HG22	53:AB:184:ILE:HD13	1.85	0.59
55:CB:120:ILE:HG12	75:WB:100:ILE:HG13	1.85	0.59
55:CB:175:LEU:HD23	55:CB:210:ALA:HB2	1.85	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:FB:88:ASN:O	58:FB:91:VAL:HB	2.02	0.59
60:HB:72:GLY:O	60:HB:76:LEU:HD23	2.02	0.59
70:RB:23:ARG:HB3	70:RB:117:VAL:CG1	2.33	0.59
82:DC:243:ARG:NH2	82:DC:257:TRP:HB2	2.18	0.59
82:DC:727:PRO:HD2	82:DC:774:VAL:HG21	1.83	0.59
2:B:82:C:H4'	19:S:204:LYS:HZ2	1.67	0.59
2:B:1601:U:C5	23:W:38:ARG:NH1	2.70	0.59
2:B:1717:U:H2'	2:B:1718:G:C8	2.38	0.59
2:B:2157:G:C4	6:F:150:LEU:HD22	2.38	0.59
2:B:2544:U:H2'	2:B:2545:C:C6	2.38	0.59
7:G:84:VAL:HG12	7:G:162:VAL:HB	1.85	0.59
7:G:283:TYR:CZ	7:G:325:LYS:HB2	2.38	0.59
10:J:30:LEU:H	10:J:30:LEU:HD23	1.66	0.59
13:M:17:THR:OG1	13:M:28:VAL:HB	2.03	0.59
14:N:183:LYS:HB2	14:N:183:LYS:NZ	2.17	0.59
23:W:115:ILE:HD11	23:W:120:TYR:CA	2.33	0.59
24:X:1:MET:HE3	24:X:32:SER:H	1.66	0.59
31:EA:25:ILE:HA	31:EA:43:VAL:CG1	2.32	0.59
49:WA:163:ASP:OD1	49:WA:167:VAL:HG22	2.03	0.59
53:AB:138:VAL:HG22	53:AB:184:ILE:CD1	2.33	0.59
66:NB:10:PHE:HE1	66:NB:12:LYS:HE2	1.65	0.59
73:UB:127:VAL:O	73:UB:130:VAL:HG22	2.02	0.59
1:A:973:A:H2'	1:A:974:A:H8	1.66	0.59
1:A:1549:C:OP2	65:MB:38:PRO:HA	2.02	0.59
2:B:1740:U:H4'	2:B:1741:A:C5'	2.32	0.59
2:B:2452:G:C8	2:B:2461:A:H5"	2.37	0.59
2:B:2553:U:H5"	6:F:87:PHE:HE2	1.68	0.59
2:B:2719:U:H2'	2:B:2720:G:C8	2.36	0.59
5:E:194:LEU:HD22	5:E:196:LYS:HE2	1.85	0.59
8:H:238:LEU:O	8:H:246:ARG:HB2	2.02	0.59
14:N:91:VAL:CG2	14:N:135:ILE:HA	2.33	0.59
17:Q:114:GLN:OE1	17:Q:114:GLN:HA	2.02	0.59
22:V:33:TYR:HA	22:V:36:LEU:HD12	1.84	0.59
24:X:155:ARG:O	24:X:170:THR:HG22	2.02	0.59
27:AA:36:ILE:HG12	27:AA:58:VAL:HG21	1.85	0.59
50:XA:140:ASN:OD1	71:SB:29:HIS:HA	2.03	0.59
54:BB:121:TYR:H	54:BB:164:LEU:HD12	1.68	0.59
54:BB:191:ARG:HH11	54:BB:245:LYS:HB3	1.68	0.59
55:CB:161:ASP:O	78:ZB:44:VAL:HA	2.03	0.59
59:GB:79:ARG:O	59:GB:83:VAL:HG13	2.02	0.59
72:TB:88:LYS:O	72:TB:92:ASN:HB2	2.02	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:617:ARG:NH2	82:DC:627:VAL:HG11	2.18	0.59
83:EC:6819:G:H2'	83:EC:6819:G:N3	2.16	0.59
1:A:204:G:H2'	1:A:205:U:O4'	2.03	0.59
1:A:517:U:O2	1:A:535:A:H2	1.86	0.59
1:A:1735:U:H2'	1:A:1736:G:C8	2.38	0.59
2:B:912:G:C2	2:B:914:A:C2	2.90	0.59
2:B:1190:A:H5'	2:B:1191:U:OP1	2.02	0.59
2:B:1913:A:N3	2:B:2120:A:H2'	2.18	0.59
2:B:1932:A:H2'	2:B:1933:A:H5'	1.85	0.59
2:B:1955:U:H2'	2:B:1956:A:O4'	2.03	0.59
2:B:2408:U:C2'	2:B:2409:G:H5'	2.32	0.59
2:B:3153:U:H3	2:B:3293:U:H3	1.50	0.59
7:G:161:LEU:CD2	7:G:180:GLU:HG2	2.33	0.59
23:W:123:LEU:HD22	23:W:138:LEU:HD21	1.85	0.59
32:FA:73:LEU:HB2	32:FA:109:TYR:CD2	2.38	0.59
38:LA:102:LYS:HB2	38:LA:102:LYS:NZ	2.17	0.59
53:AB:40:ARG:NE	70:RB:110:PRO:HB3	2.18	0.59
53:AB:49:ILE:H	53:AB:49:ILE:HD12	1.68	0.59
54:BB:100:ARG:NH1	54:BB:236:ILE:HG22	2.18	0.59
54:BB:125:LYS:HA	54:BB:159:THR:HA	1.85	0.59
59:GB:66:ASP:O	59:GB:70:LEU:HG	2.02	0.59
80:BC:50:VAL:HA	80:BC:53:LYS:O	2.03	0.59
82:DC:135:VAL:HG11	82:DC:185:VAL:HG22	1.85	0.59
82:DC:454:ILE:HG13	82:DC:455:GLY:H	1.68	0.59
1:A:62:A:H4'	1:A:269:G:H4'	1.84	0.59
1:A:271:A:H61	56:DB:185:GLN:HE22	1.50	0.59
1:A:562:G:N2	80:BC:14:VAL:HG11	2.16	0.59
1:A:1179:G:H21	1:A:1460:A:H61	1.51	0.59
2:B:355:A:H5'	43:QA:40:LYS:CD	2.33	0.59
2:B:784:A:H1'	22:V:65:SER:OG	2.03	0.59
2:B:916:G:H5'	2:B:917:A:OP1	2.03	0.59
2:B:1740:U:H4'	2:B:1741:A:H5"	1.83	0.59
2:B:2230:C:H2'	2:B:2231:C:H5'	1.85	0.59
2:B:2909:U:H2'	2:B:2910:A:H5"	1.84	0.59
2:B:3149:G:H4'	7:G:130:PHE:CE1	2.37	0.59
8:H:106:TRP:CZ2	17:Q:19:GLN:HG2	2.38	0.59
11:K:150:LYS:HG2	11:K:244:ASN:ND2	2.17	0.59
12:L:152:LEU:HD23	12:L:180:VAL:HB	1.85	0.59
20:T:73:PHE:HB3	20:T:78:ARG:HB3	1.83	0.59
22:V:40:THR:O	22:V:41:ASP:HB3	2.02	0.59
30:DA:3:LYS:HE2	30:DA:8:VAL:HG13	1.85	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:LA:74:ARG:HG2	38:LA:74:ARG:HH11	1.67	0.59
48:VA:25:LEU:HD23	48:VA:26:PHE:N	2.18	0.59
50:XA:168:HIS:HB3	50:XA:203:PHE:CZ	2.38	0.59
52:ZA:52:THR:O	52:ZA:55:GLU:HG2	2.03	0.59
58:FB:151:LYS:O	58:FB:151:LYS:HD3	2.02	0.59
63:KB:100:LYS:O	63:KB:104:ARG:HG3	2.03	0.59
68:PB:46:VAL:HG21	68:PB:73:MET:HG2	1.85	0.59
83:EC:6936:G:H2'	83:EC:6937:G:C8	2.37	0.59
1:A:75:U:O2	1:A:76:A:H5"	2.03	0.59
1:A:252:U:H5'	54:BB:131:LEU:O	2.03	0.59
1:A:460:A:H2'	54:BB:27:TYR:OH	2.02	0.59
1:A:648:G:H2'	1:A:649:U:C6	2.37	0.59
1:A:686:C:H2'	1:A:687:G:C8	2.37	0.59
1:A:856:A:C6	57:EB:96:ARG:HB3	2.38	0.59
1:A:925:G:H2'	1:A:926:A:C8	2.38	0.59
2:B:183:G:H2'	2:B:184:U:C6	2.38	0.59
2:B:595:G:N1	2:B:609:G:H5"	2.17	0.59
5:E:179:LEU:O	5:E:183:ILE:HG12	2.02	0.59
9:I:65:ILE:HG21	9:I:72:ASP:HB3	1.83	0.59
11:K:152:GLY:O	11:K:163:LEU:HG	2.03	0.59
13:M:23:ARG:HH21	13:M:42:ASP:H	1.50	0.59
13:M:75:VAL:HA	13:M:78:MET:HE3	1.84	0.59
13:M:180:TYR:CD2	44:RA:86:ALA:HA	2.38	0.59
14:N:17:TYR:HD2	14:N:96:VAL:HB	1.68	0.59
16:P:58:VAL:O	16:P:58:VAL:HG12	2.02	0.59
19:S:146:ALA:HB2	39:MA:99:GLN:O	2.02	0.59
22:V:18:ALA:HB1	22:V:19:PRO:HD2	1.85	0.59
24:X:10:ILE:HD13	25:Y:148:PRO:HB3	1.84	0.59
24:X:11:GLY:HA2	24:X:59:VAL:HG23	1.84	0.59
30:DA:33:ALA:O	30:DA:47:ALA:HB1	2.02	0.59
53:AB:142:LEU:C	53:AB:144:ALA:H	2.11	0.59
53:AB:177:MET:C	53:AB:179:GLN:H	2.09	0.59
56:DB:31:ARG:H	56:DB:34:GLN:NE2	2.01	0.59
57:EB:30:SER:O	57:EB:32:PRO:HD2	2.03	0.59
58:FB:4:SER:OG	58:FB:24:LYS:HD2	2.03	0.59
58:FB:78:ILE:HG22	58:FB:80:GLY:H	1.67	0.59
72:TB:86:ILE:HD12	72:TB:87:GLU:N	2.18	0.59
82:DC:397:PHE:HD1	82:DC:437:MET:HE2	1.68	0.59
1:A:602:U:H2'	1:A:603:U:C6	2.38	0.58
1:A:1443:U:O3'	1:A:1444:A:H8	1.86	0.58
2:B:544:C:H2'	2:B:547:G:N2	2.17	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:660:A:H5”	8:H:100:PHE:CD1	2.38	0.58
2:B:3206:C:C5’	2:B:3207:U:H5”	2.27	0.58
4:D:4:U:H2’	4:D:5:G:C8	2.38	0.58
4:D:6:C:H2’	4:D:7:G:O4’	2.02	0.58
8:H:302:ALA:HA	22:V:39:ARG:NH1	2.15	0.58
9:I:245:GLU:HA	9:I:248:ARG:HB2	1.85	0.58
11:K:80:GLN:HE22	25:Y:136:ARG:NH1	2.00	0.58
11:K:83:LEU:HD12	11:K:139:PRO:CG	2.33	0.58
12:L:135:GLY:O	12:L:139:VAL:HG23	2.02	0.58
13:M:100:ASN:HD22	13:M:115:ARG:HG3	1.67	0.58
13:M:129:ARG:HD2	13:M:157:ASN:HB2	1.86	0.58
19:S:47:LYS:HA	19:S:50:ARG:HG2	1.85	0.58
19:S:93:LYS:O	19:S:94:TYR:HB3	2.02	0.58
23:W:24:LEU:H	23:W:24:LEU:HD12	1.68	0.58
24:X:42:TRP:CZ2	24:X:58:ILE:HG13	2.38	0.58
27:AA:39:VAL:HG22	27:AA:52:ALA:HB2	1.85	0.58
42:PA:31:LEU:CD2	42:PA:35:GLY:H	2.11	0.58
48:VA:132:LYS:O	48:VA:135:PHE:HB2	2.02	0.58
53:AB:195:SER:HB3	53:AB:199:PRO:O	2.03	0.58
55:CB:23:VAL:HG13	66:NB:57:LEU:HB2	1.85	0.58
56:DB:30:LYS:O	56:DB:102:VAL:HG23	2.03	0.58
57:EB:11:GLN:HG3	57:EB:12:ALA:H	1.68	0.58
68:PB:92:ILE:HG23	68:PB:93:THR:N	2.17	0.58
82:DC:288:ILE:HG21	82:DC:320:LEU:HG	1.83	0.58
82:DC:426:LEU:HG	82:DC:428:ILE:HD11	1.85	0.58
1:A:564:G:C2	1:A:578:U:H4’	2.38	0.58
1:A:865:A:H2’	1:A:866:G:O4’	2.03	0.58
1:A:1175:U:H2’	1:A:1176:G:H8	1.66	0.58
2:B:126:U:H2’	2:B:127:G:O4’	2.03	0.58
2:B:313:A:H2’	2:B:314:U:O4’	2.03	0.58
2:B:620:U:H4’	21:U:167:ARG:NE	2.18	0.58
2:B:1171:G:H2’	2:B:1172:G:O4’	2.04	0.58
2:B:1187:C:C2’	2:B:1188:U:H5’	2.33	0.58
2:B:1498:A:H2’	2:B:1499:C:C6	2.38	0.58
6:F:41:ILE:HD11	6:F:63:PHE:HB3	1.83	0.58
7:G:14:LEU:HD22	7:G:262:TRP:CZ3	2.38	0.58
7:G:106:TRP:HB2	7:G:133:TYR:HE2	1.67	0.58
9:I:184:ASP:HB3	9:I:187:THR:CG2	2.34	0.58
10:J:13:GLU:CD	36:JA:88:HIS:HA	2.27	0.58
10:J:67:GLY:HA3	10:J:72:ASN:HD21	1.67	0.58
14:N:33:ILE:HD11	14:N:35:ASP:O	2.03	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:27:LEU:CD2	20:T:101:ARG:HB2	2.33	0.58
20:T:186:ALA:O	20:T:187:GLU:HB3	2.02	0.58
27:AA:11:PHE:CD2	27:AA:88:ARG:HD2	2.37	0.58
31:EA:36:HIS:N	31:EA:37:PRO:HD3	2.17	0.58
35:IA:77:ARG:HG2	35:IA:89:LEU:CD2	2.28	0.58
41:OA:14:LYS:HE3	41:OA:25:ARG:HH21	1.68	0.58
48:VA:108:PRO:CA	48:VA:179:SER:CB	2.81	0.58
49:WA:5:GLU:HB2	49:WA:316:MET:O	2.03	0.58
55:CB:95:ASN:OD1	55:CB:107:LYS:HE3	2.02	0.58
55:CB:148:ARG:HB3	78:ZB:22:ARG:HH22	1.67	0.58
57:EB:155:ASP:O	57:EB:185:ILE:HB	2.02	0.58
66:NB:125:GLU:HG2	66:NB:126:PRO:CD	2.33	0.58
67:OB:17:ILE:HG12	67:OB:24:LEU:HD13	1.84	0.58
72:TB:65:LEU:HD13	72:TB:65:LEU:H	1.66	0.58
82:DC:8:GLN:O	82:DC:12:LEU:HB2	2.03	0.58
1:A:512:A:H2'	59:GB:131:GLN:HE22	1.67	0.58
1:A:518:A:H1'	1:A:534:A:N6	2.18	0.58
1:A:739:G:H2'	1:A:740:A:H8	1.66	0.58
1:A:768:C:H1'	59:GB:143:ILE:HG21	1.85	0.58
1:A:813:U:N3	23:W:163:ARG:HD2	2.18	0.58
1:A:1477:G:H5"	69:QB:45:MET:O	2.03	0.58
2:B:54:C:H5"	2:B:1548:C:H1'	1.84	0.58
2:B:597:G:H2'	2:B:598:A:H8	1.67	0.58
2:B:2255:A:C2	2:B:2262:A:N7	2.71	0.58
2:B:2806:U:H2'	2:B:2807:U:C6	2.38	0.58
2:B:2989:U:H2'	2:B:2990:G:O4'	2.02	0.58
2:B:3010:U:O2'	2:B:3011:A:H2'	2.02	0.58
4:D:4:U:H2'	4:D:5:G:H8	1.66	0.58
7:G:169:THR:CG2	7:G:171:LEU:HG	2.33	0.58
7:G:291:GLU:O	7:G:292:ALA:HB3	2.03	0.58
9:I:236:LEU:HA	9:I:239:ILE:HD12	1.84	0.58
10:J:172:HIS:HA	37:KA:43:PHE:CD2	2.38	0.58
12:L:158:ASP:CB	12:L:159:PRO:HD3	2.33	0.58
13:M:115:ARG:NH2	13:M:123:ILE:HG12	2.19	0.58
41:OA:8:PHE:CD1	41:OA:11:ARG:HD3	2.33	0.58
49:WA:106:HIS:C	49:WA:108:SER:H	2.11	0.58
56:DB:223:LYS:O	56:DB:223:LYS:HD3	2.03	0.58
59:GB:130:THR:HA	59:GB:142:ASN:HB2	1.85	0.58
61:IB:94:ILE:HD12	61:IB:94:ILE:N	2.18	0.58
67:OB:46:LEU:O	67:OB:50:ILE:HG13	2.03	0.58
70:RB:25:THR:HB	70:RB:115:GLU:HB2	1.85	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:633:ILE:HG13	82:DC:633:ILE:O	2.02	0.58
82:DC:666:ALA:HB2	82:DC:706:ILE:HA	1.85	0.58
1:A:230:C:H3'	1:A:231:U:C5'	2.19	0.58
1:A:1515:A:OP2	53:AB:7:LYS:HB2	2.03	0.58
1:A:1579:U:H4'	66:NB:140:LYS:O	2.04	0.58
2:B:1523:U:H5'	29:CA:113:LEU:HB3	1.85	0.58
2:B:1703:U:O2'	2:B:1704:A:H5'	2.02	0.58
2:B:3126:C:H1'	13:M:156:GLN:NE2	2.18	0.58
2:B:3170:A:H2'	2:B:3171:U:C6	2.39	0.58
8:H:288:ARG:HH11	8:H:288:ARG:HG2	1.67	0.58
10:J:66:SER:HB3	10:J:76:LEU:HD23	1.86	0.58
19:S:121:VAL:HG23	19:S:122:ASN:N	2.17	0.58
28:BA:47:ARG:NH1	28:BA:58:HIS:HB2	2.19	0.58
36:JA:20:HIS:O	36:JA:21:HIS:HB2	2.04	0.58
48:VA:119:ILE:CG1	48:VA:159:VAL:HG13	2.32	0.58
48:VA:187:VAL:HG12	48:VA:188:VAL:N	2.18	0.58
56:DB:6:SER:CB	56:DB:13:GLN:HB3	2.33	0.58
56:DB:58:LYS:HG2	56:DB:105:ASP:O	2.02	0.58
57:EB:12:ALA:CB	57:EB:13:PRO:HD3	2.29	0.58
60:HB:38:LYS:HB2	60:HB:41:TYR:HB2	1.84	0.58
67:OB:5:ARG:HG3	67:OB:9:VAL:HG11	1.85	0.58
82:DC:123:ASP:HB3	82:DC:348:ALA:HB1	1.85	0.58
83:EC:6943:A:H3'	83:EC:6944:U:H5"	1.85	0.58
1:A:862:A:C2	1:A:963:A:C4	2.92	0.58
1:A:1053:G:H2'	1:A:1054:U:C5	2.37	0.58
2:B:639:G:OP1	36:JA:40:SER:HB2	2.03	0.58
2:B:2855:U:OP2	14:N:6:ALA:HB3	2.03	0.58
2:B:2947:G:C2	7:G:250:ALA:HB1	2.38	0.58
3:C:133:G:H5"	29:CA:55:ASN:OD1	2.04	0.58
3:C:141:C:H2'	3:C:142:C:C6	2.39	0.58
4:D:93:C:O2'	4:D:94:C:H5'	2.02	0.58
6:F:111:THR:CG2	6:F:112:ILE:N	2.67	0.58
8:H:300:ARG:HB2	8:H:301:PRO:HD2	1.85	0.58
16:P:76:SER:O	16:P:117:ARG:HG2	2.03	0.58
27:AA:53:SER:O	27:AA:56:ASP:HB2	2.02	0.58
28:BA:52:THR:O	28:BA:56:ARG:HG3	2.03	0.58
38:LA:106:LYS:HA	38:LA:106:LYS:HE3	1.86	0.58
41:OA:18:LEU:HD12	41:OA:18:LEU:N	2.18	0.58
49:WA:33:LEU:HB2	49:WA:47:LEU:HG	1.84	0.58
50:XA:168:HIS:HB3	50:XA:203:PHE:CE1	2.38	0.58
52:ZA:38:VAL:HG12	52:ZA:65:GLU:OE1	2.02	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:114:VAL:HG23	56:DB:115:LYS:H	1.68	0.58
56:DB:178:LEU:O	56:DB:183:ARG:HD2	2.03	0.58
68:PB:29:VAL:HG13	68:PB:44:ASN:HA	1.83	0.58
70:RB:53:LYS:HG2	70:RB:92:ASP:HB2	1.85	0.58
82:DC:86:VAL:HA	82:DC:89:ILE:HG13	1.85	0.58
82:DC:135:VAL:HG12	82:DC:139:THR:HG21	1.86	0.58
82:DC:369:ILE:HD11	82:DC:379:MET:HG3	1.84	0.58
2:B:181:U:C3'	2:B:182:U:H5"	2.33	0.58
2:B:1314:C:H5'	20:T:17:GLY:HA3	1.86	0.58
2:B:1818:U:C3'	2:B:1819:U:H5"	2.33	0.58
2:B:2206:G:N2	2:B:2207:A:H62	2.02	0.58
2:B:2749:G:O2'	9:I:35:ARG:HG2	2.03	0.58
2:B:2909:U:C2'	2:B:2910:A:H5"	2.34	0.58
12:L:133:LYS:HB2	12:L:199:ALA:HB3	1.85	0.58
13:M:49:ASN:O	13:M:51:GLN:N	2.37	0.58
18:R:39:ILE:HG22	18:R:40:ASP:H	1.68	0.58
20:T:76:PRO:HD2	20:T:106:GLU:OE2	2.04	0.58
22:V:70:ALA:C	22:V:72:LYS:H	2.12	0.58
23:W:29:THR:HA	23:W:32:ILE:HD12	1.84	0.58
23:W:115:ILE:HD11	23:W:120:TYR:HA	1.85	0.58
25:Y:126:VAL:O	25:Y:127:GLN:HB3	2.03	0.58
53:AB:106:LYS:CD	53:AB:173:ARG:HD2	2.31	0.58
55:CB:128:ASN:O	55:CB:132:VAL:HG23	2.03	0.58
56:DB:139:ASN:HA	56:DB:142:ARG:HB2	1.85	0.58
57:EB:98:ILE:HD11	57:EB:121:VAL:HB	1.85	0.58
82:DC:352:ARG:O	82:DC:356:LEU:HG	2.04	0.58
1:A:1623:C:H2'	1:A:1624:C:H6	1.69	0.58
2:B:188:U:H2'	2:B:223:U:O2'	2.03	0.58
2:B:444:U:H2'	2:B:445:G:C8	2.38	0.58
2:B:1556:C:H3'	2:B:2169:G:N2	2.19	0.58
2:B:1643:A:H2'	2:B:1644:C:C4	2.38	0.58
2:B:1943:C:O2'	2:B:1944:U:H5'	2.03	0.58
2:B:1947:G:H1	2:B:2101:C:H42	1.52	0.58
2:B:2649:A:O2'	2:B:2650:U:H5'	2.03	0.58
3:C:115:C:H2'	3:C:116:G:O4'	2.04	0.58
13:M:133:THR:C	13:M:134:ILE:HD12	2.29	0.58
15:O:89:TYR:CZ	65:MB:8:LYS:HD3	2.38	0.58
27:AA:54:LEU:HB2	27:AA:81:GLN:HB2	1.85	0.58
32:FA:14:HIS:O	32:FA:15:VAL:HB	2.03	0.58
55:CB:166:ARG:O	55:CB:166:ARG:HD3	2.04	0.58
61:IB:21:ASN:HB3	61:IB:31:THR:HG23	1.86	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:KB:129:TYR:O	63:KB:134:VAL:HG22	2.03	0.58
65:MB:32:ASP:HA	65:MB:35:LYS:HD3	1.86	0.58
65:MB:43:ARG:HA	65:MB:46:ALA:HB3	1.84	0.58
72:TB:37:PHE:CE2	72:TB:103:ILE:HG21	2.38	0.58
82:DC:296:ILE:HB	82:DC:297:PRO:CD	2.28	0.58
1:A:1046:G:H2'	1:A:1047:G:H8	1.69	0.58
2:B:666:A:C3'	2:B:667:C:H5"	2.34	0.58
2:B:712:G:H2'	2:B:713:U:C6	2.39	0.58
2:B:727:G:H5"	2:B:978:G:OP1	2.04	0.58
2:B:1348:U:H4'	2:B:1349:G:O5'	2.03	0.58
2:B:1503:A:H2'	2:B:1504:A:O4'	2.04	0.58
2:B:1804:A:H2'	2:B:1805:C:C6	2.39	0.58
2:B:2152:A:H2'	2:B:2153:U:H6	1.68	0.58
2:B:2912:G:O2'	2:B:2913:C:H5'	2.04	0.58
3:C:91:C:H4'	30:DA:24:SER:HB3	1.84	0.58
8:H:219:LEU:O	8:H:220:ARG:C	2.47	0.58
14:N:30:LYS:HE3	14:N:30:LYS:H	1.69	0.58
14:N:36:LEU:CD1	14:N:87:LEU:HB3	2.34	0.58
14:N:170:LYS:HD3	14:N:176:LEU:O	2.04	0.58
15:O:16:LYS:HD3	15:O:72:ARG:NH2	2.19	0.58
19:S:146:ALA:HA	19:S:149:ASN:CB	2.31	0.58
24:X:77:VAL:HG21	24:X:94:ILE:HD11	1.86	0.58
37:KA:90:PRO:O	37:KA:91:ALA:CB	2.51	0.58
48:VA:100:ILE:HD12	48:VA:187:VAL:HG21	1.84	0.58
54:BB:129:VAL:HA	54:BB:139:VAL:HG12	1.86	0.58
55:CB:215:ASP:O	55:CB:218:GLU:HB2	2.03	0.58
70:RB:62:VAL:HG12	70:RB:63:LEU:N	2.19	0.58
72:TB:80:ASN:ND2	72:TB:124:LYS:HG2	2.19	0.58
74:VB:54:ALA:CB	74:VB:79:VAL:HG22	2.25	0.58
2:B:1046:A:H2'	2:B:1049:C:C5	2.38	0.58
2:B:1184:A:H2'	2:B:1185:C:C6	2.39	0.58
2:B:1830:G:H5"	29:CA:92:LYS:HB2	1.86	0.58
2:B:2105:G:O2'	2:B:2106:A:H5'	2.04	0.58
2:B:3139:A:OP1	7:G:274:SER:HB2	2.04	0.58
16:P:64:ILE:O	16:P:71:ALA:HB3	2.03	0.58
19:S:37:HIS:HE1	19:S:63:ARG:NH1	2.00	0.58
23:W:105:LEU:HD13	23:W:135:LYS:CD	2.33	0.58
29:CA:68:THR:HG23	39:MA:36:LEU:HD13	1.85	0.58
32:FA:47:LYS:O	32:FA:48:TYR:HB2	2.03	0.58
50:XA:189:VAL:HG13	50:XA:190:ASP:N	2.18	0.58
57:EB:51:VAL:HG11	57:EB:168:SER:HB2	1.85	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GB:64:GLU:HB2	59:GB:69:ARG:CZ	2.33	0.58
60:HB:16:PHE:HD2	60:HB:76:LEU:HB2	1.67	0.58
61:IB:123:VAL:HG22	61:IB:124:THR:N	2.18	0.58
70:RB:20:ILE:HD13	70:RB:22:ILE:HB	1.85	0.58
74:VB:23:PHE:HE2	74:VB:75:VAL:HG12	1.69	0.58
75:WB:58:ARG:O	75:WB:58:ARG:HD3	2.04	0.58
75:WB:85:LYS:O	75:WB:86:GLU:HB2	2.03	0.58
78:ZB:10:ALA:CA	78:ZB:32:PHE:HA	2.25	0.58
82:DC:653:VAL:HG13	82:DC:693:LEU:CG	2.31	0.58
1:A:435:C:H2'	1:A:436:A:C8	2.39	0.58
1:A:1315:U:H5"	1:A:1329:A:C2	2.38	0.58
1:A:1524:A:H4'	69:QB:93:HIS:CG	2.38	0.58
1:A:1655:A:N6	1:A:1745:G:O2'	2.37	0.58
2:B:928:C:H2'	2:B:929:A:C8	2.39	0.58
2:B:2424:A:N1	6:F:230:VAL:HG21	2.18	0.58
2:B:3110:C:H41	2:B:3120:C:H4'	1.69	0.58
9:I:118:THR:O	9:I:119:TYR:HB2	2.04	0.58
9:I:222:LEU:O	9:I:223:PHE:HB2	2.04	0.58
11:K:135:ALA:O	11:K:236:ILE:HD11	2.03	0.58
12:L:122:LYS:O	12:L:123:GLN:HB3	2.04	0.58
13:M:138:THR:C	13:M:140:VAL:H	2.12	0.58
14:N:9:TYR:CE2	14:N:97:LEU:HB3	2.39	0.58
21:U:138:LYS:HD2	21:U:140:GLU:HG3	1.86	0.58
29:CA:62:VAL:HG13	29:CA:90:ALA:HB2	1.85	0.58
37:KA:101:PHE:HB3	37:KA:103:TYR:CE1	2.39	0.58
48:VA:41:VAL:HA	48:VA:44:GLU:HG2	1.86	0.58
68:PB:74:GLN:HG3	68:PB:75:ASN:N	2.18	0.58
70:RB:62:VAL:HG12	70:RB:63:LEU:H	1.69	0.58
74:VB:125:LEU:O	74:VB:129:VAL:HG23	2.04	0.58
77:YB:36:LYS:HB3	77:YB:43:ILE:HA	1.86	0.58
82:DC:571:SER:CA	82:DC:720:ALA:HA	2.32	0.58
82:DC:629:ASP:HA	82:DC:632:LYS:HB2	1.84	0.58
82:DC:836:GLN:NE2	82:DC:837:GLU:HG2	2.19	0.58
83:EC:6851:G:H2'	83:EC:6852:U:C6	2.39	0.58
1:A:933:A:N1	1:A:944:A:N1	2.52	0.57
1:A:1544:U:H3	1:A:1567:U:H3	1.52	0.57
2:B:288:C:H5"	19:S:170:LYS:O	2.04	0.57
2:B:1631:C:H5"	2:B:1632:A:H5"	1.85	0.57
2:B:2943:G:H2'	2:B:2944:U:O4'	2.04	0.57
3:C:44:A:H2'	3:C:45:C:O4'	2.03	0.57
7:G:114:VAL:HG22	7:G:163:HIS:CE1	2.39	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:74:ILE:HD11	8:H:76:ARG:CZ	2.34	0.57
8:H:181:VAL:HG11	8:H:224:GLY:HA3	1.85	0.57
12:L:98:ARG:HG2	12:L:189:LEU:HA	1.85	0.57
12:L:133:LYS:HG3	12:L:201:THR:HG23	1.84	0.57
13:M:48:VAL:HG12	13:M:52:LEU:O	2.03	0.57
17:Q:90:ALA:HA	17:Q:95:ILE:HD12	1.86	0.57
23:W:10:LEU:HB2	23:W:41:ILE:CD1	2.34	0.57
24:X:40:ARG:NH1	24:X:43:TYR:HE1	2.02	0.57
34:HA:51:LEU:HD11	38:LA:91:ARG:HA	1.85	0.57
39:MA:41:LEU:N	39:MA:42:PRO:HD3	2.19	0.57
42:PA:31:LEU:HD21	42:PA:35:GLY:N	2.10	0.57
44:RA:103:LEU:CD1	44:RA:110:CYS:HA	2.34	0.57
48:VA:26:PHE:CE2	48:VA:93:LEU:HG	2.39	0.57
54:BB:169:ILE:H	54:BB:169:ILE:HD12	1.68	0.57
58:FB:36:THR:CG2	58:FB:173:PRO:HB3	2.34	0.57
66:NB:79:TYR:HA	66:NB:82:ARG:HG2	1.85	0.57
66:NB:92:TYR:O	66:NB:97:VAL:HG23	2.03	0.57
72:TB:72:CYS:O	72:TB:72:CYS:SG	2.62	0.57
75:WB:62:VAL:N	75:WB:80:LEU:HD11	2.19	0.57
2:B:336:A:O2’	2:B:337:G:H5’	2.04	0.57
2:B:597:G:H5’	11:K:41:ARG:HD2	1.86	0.57
2:B:1258:U:H1’	48:VA:42:ARG:NH1	2.18	0.57
2:B:2103:U:H2’	2:B:2104:A:H8	1.70	0.57
2:B:2282:U:H5’	2:B:2282:U:H6	1.69	0.57
2:B:2611:U:H2’	2:B:2612:U:C6	2.39	0.57
2:B:2836:C:H5	2:B:2852:C:N4	2.02	0.57
5:E:134:PHE:HB3	83:EC:6818:G:H1’	1.86	0.57
9:I:108:ARG:O	9:I:111:GLN:HB3	2.04	0.57
10:J:20:LYS:HA	10:J:20:LYS:HZ3	1.68	0.57
20:T:27:LEU:HD22	20:T:101:ARG:HB2	1.86	0.57
31:EA:87:LEU:CG	31:EA:88:ASP:H	2.11	0.57
48:VA:100:ILE:HD12	48:VA:187:VAL:CG2	2.33	0.57
50:XA:188:LEU:HD21	50:XA:195:TRP:HE1	1.67	0.57
59:GB:154:LYS:HE3	59:GB:155:HIS:CE1	2.39	0.57
82:DC:27:HIS:NE2	82:DC:136:CYS:HB2	2.19	0.57
83:EC:6947:A:H2’	83:EC:6949:G:OP1	2.03	0.57
1:A:201:G:O2’	1:A:202:A:H5’	2.05	0.57
1:A:682:C:H2’	1:A:683:C:H5’	1.85	0.57
1:A:1657:U:C4’	1:A:1658:G:H5”	2.24	0.57
2:B:77:A:H5’	17:Q:100:ARG:NH1	2.18	0.57
2:B:1256:G:N2	16:P:121:PHE:O	2.37	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1874:A:O2'	2:B:1875:G:H5'	2.04	0.57
2:B:2570:U:H4'	2:B:2571:U:C2'	2.24	0.57
2:B:2714:G:H4'	2:B:2715:A:C5'	2.33	0.57
2:B:2728:G:O6	25:Y:78:LYS:HE3	2.04	0.57
4:D:47:C:C3'	4:D:48:U:H5"	2.34	0.57
6:F:144:ASN:O	6:F:159:SER:HA	2.05	0.57
7:G:261:MET:O	7:G:264:VAL:HG22	2.04	0.57
8:H:219:LEU:O	8:H:222:VAL:HG12	2.04	0.57
14:N:54:SER:HB2	14:N:135:ILE:HD11	1.87	0.57
22:V:7:SER:HB2	22:V:11:LYS:NZ	2.19	0.57
38:LA:85:VAL:O	38:LA:89:ILE:HG13	2.04	0.57
46:TA:38:GLN:OE1	46:TA:41:ARG:NH2	2.36	0.57
52:ZA:241:ASP:HA	52:ZA:244:SER:HB2	1.86	0.57
54:BB:239:PRO:HB2	54:BB:240:LYS:HD3	1.86	0.57
66:NB:81:ILE:O	66:NB:85:ILE:HG13	2.05	0.57
82:DC:25:ILE:HB	82:DC:127:VAL:HA	1.86	0.57
82:DC:777:SER:HA	82:DC:780:PHE:HB2	1.87	0.57
82:DC:809:LEU:HD13	82:DC:832:VAL:HB	1.87	0.57
83:EC:6767:G:C2'	83:EC:6768:U:H5"	2.35	0.57
1:A:12:U:H2'	1:A:13:C:C6	2.40	0.57
1:A:1198:G:C3'	1:A:1199:G:H5'	2.35	0.57
1:A:1437:U:H4'	53:AB:181:VAL:HG21	1.86	0.57
2:B:568:G:H2'	2:B:569:A:O4'	2.04	0.57
2:B:1635:G:N2	2:B:1637:A:H3'	2.19	0.57
2:B:2305:G:H2'	2:B:2305:G:N3	2.19	0.57
2:B:2442:G:H2'	2:B:2443:A:C5'	2.32	0.57
2:B:2442:G:H22	2:B:2505:U:H3	1.50	0.57
2:B:2748:A:N3	9:I:36:LEU:HG	2.19	0.57
2:B:3278:C:O2	2:B:3278:C:H2'	2.03	0.57
13:M:30:PRO:HD2	13:M:83:THR:HG23	1.86	0.57
25:Y:17:ARG:CG	25:Y:22:HIS:HA	2.34	0.57
25:Y:57:TYR:CD1	25:Y:89:LEU:HD11	2.39	0.57
36:JA:78:ASN:H	36:JA:78:ASN:ND2	1.99	0.57
50:XA:152:PRO:C	50:XA:154:GLU:H	2.12	0.57
53:AB:8:LYS:O	53:AB:12:VAL:HG23	2.03	0.57
53:AB:162:GLN:N	53:AB:163:PRO:CD	2.67	0.57
55:CB:182:ALA:O	55:CB:193:THR:HG21	2.05	0.57
57:EB:126:LEU:HD23	57:EB:135:ILE:HD13	1.86	0.57
59:GB:123:HIS:CE1	80:BC:37:ARG:HG3	2.39	0.57
61:IB:58:CYS:SG	61:IB:59:PRO:HD2	2.44	0.57
65:MB:85:ILE:HD13	65:MB:111:MET:SD	2.45	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
70:RB:69:LYS:CE	70:RB:80:GLU:HG3	2.27	0.57
70:RB:99:ILE:HD12	70:RB:102:ARG:HD3	1.87	0.57
73:UB:56:LYS:O	80:BC:8:LEU:HD21	2.04	0.57
82:DC:315:GLU:HA	82:DC:319:LEU:HD22	1.85	0.57
82:DC:672:LYS:HA	82:DC:680:GLU:HG2	1.86	0.57
1:A:15:U:H2'	1:A:16:G:O4'	2.03	0.57
1:A:1086:A:H2'	1:A:1087:A:C8	2.40	0.57
1:A:1391:A:H2'	1:A:1392:U:C6	2.39	0.57
2:B:442:G:H22	2:B:493:G:H5"	1.69	0.57
2:B:1062:A:H5"	2:B:1063:G:H5'	1.87	0.57
2:B:1128:U:H2'	2:B:1129:A:O4'	2.05	0.57
2:B:2170:U:O2'	2:B:2171:G:H5'	2.05	0.57
2:B:2256:A:C8	82:DC:580:PRO:HB2	2.40	0.57
2:B:3198:U:H1'	13:M:21:LYS:HB2	1.86	0.57
3:C:19:C:H2'	3:C:20:U:C6	2.39	0.57
6:F:202:VAL:HG11	6:F:217:GLN:HB3	1.87	0.57
7:G:80:ASP:OD2	7:G:82:PRO:HD3	2.04	0.57
9:I:109:THR:HA	9:I:112:LYS:HG2	1.85	0.57
17:Q:122:LYS:HG3	17:Q:145:PHE:HZ	1.67	0.57
48:VA:76:LEU:HA	48:VA:189:GLN:NE2	2.16	0.57
56:DB:58:LYS:O	56:DB:59:GLN:HB2	2.05	0.57
56:DB:189:HIS:O	56:DB:193:LEU:HG	2.05	0.57
57:EB:46:ILE:CD1	57:EB:60:ILE:HA	2.34	0.57
58:FB:101:ILE:HD11	58:FB:192:TYR:CD2	2.38	0.57
59:GB:56:ALA:O	59:GB:60:LEU:HD23	2.05	0.57
61:IB:85:VAL:HG22	61:IB:108:PRO:CB	2.28	0.57
63:KB:32:SER:O	63:KB:36:GLN:HG2	2.04	0.57
69:QB:39:THR:O	69:QB:96:ALA:HB1	2.05	0.57
82:DC:433:ARG:HH21	82:DC:444:PRO:HB2	1.70	0.57
82:DC:568:GLU:O	82:DC:569:SER:HB3	2.03	0.57
1:A:489:C:H42	1:A:498:G:H1	1.51	0.57
1:A:505:A:N3	1:A:505:A:H2'	2.20	0.57
1:A:1117:U:H2'	1:A:1118:G:H8	1.70	0.57
2:B:1301:A:H4'	2:B:1302:A:H5"	1.87	0.57
6:F:79:ASN:HD21	6:F:165:VAL:CG2	2.17	0.57
6:F:127:ALA:HB2	6:F:134:VAL:HG13	1.86	0.57
16:P:114:ARG:HH21	16:P:128:VAL:HG11	1.70	0.57
23:W:10:LEU:CB	23:W:41:ILE:HD12	2.34	0.57
25:Y:101:CYS:O	25:Y:104:GLU:HG3	2.03	0.57
30:DA:105:VAL:O	30:DA:105:VAL:HG12	2.04	0.57
48:VA:107:ALA:HB3	48:VA:181:PHE:HB2	1.87	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BB:180:LEU:HA	54:BB:194:THR:HA	1.86	0.57
56:DB:97:VAL:HG12	56:DB:98:ARG:H	1.69	0.57
58:FB:121:LEU:HA	58:FB:157:GLU:OE2	2.04	0.57
59:GB:83:VAL:HG23	59:GB:85:VAL:H	1.68	0.57
61:IB:70:ILE:C	61:IB:71:LEU:HD23	2.29	0.57
73:UB:86:PHE:O	73:UB:124:VAL:HG23	2.04	0.57
75:WB:41:ILE:HG13	75:WB:43:ASP:H	1.69	0.57
80:BC:30:PRO:O	80:BC:31:LYS:HD3	2.04	0.57
82:DC:28:VAL:HG13	82:DC:29:ASP:H	1.68	0.57
82:DC:608:PRO:HA	82:DC:636:PHE:CE2	2.39	0.57
1:A:640:U:H2'	1:A:641:G:O4'	2.05	0.57
1:A:751:G:H2'	1:A:752:A:O4'	2.04	0.57
1:A:767:U:C2	59:GB:143:ILE:HD11	2.39	0.57
1:A:777:C:H4'	54:BB:261:LEU:HD11	1.85	0.57
1:A:969:C:O2'	1:A:1104:U:H4'	2.04	0.57
1:A:1048:G:H5"	77:YB:69:GLY:N	2.20	0.57
1:A:1199:G:C5	79:AC:40:ARG:HD3	2.40	0.57
1:A:1711:C:H2'	1:A:1712:A:O4'	2.03	0.57
2:B:1618:G:C3'	2:B:1619:A:H5"	2.35	0.57
2:B:1762:C:C5	2:B:1763:U:H1'	2.39	0.57
2:B:2436:U:C3'	2:B:2437:G:H5"	2.33	0.57
2:B:2513:U:O2'	2:B:2514:U:H2'	2.04	0.57
12:L:159:PRO:O	12:L:162:LEU:HB2	2.05	0.57
13:M:91:ARG:NH1	44:RA:82:LEU:HD11	2.19	0.57
21:U:125:GLN:CB	21:U:141:SER:HB2	2.32	0.57
23:W:81:ARG:HG2	23:W:88:ARG:NH2	2.19	0.57
24:X:80:ARG:HB2	24:X:124:LEU:HD21	1.85	0.57
44:RA:95:VAL:HG11	44:RA:122:ARG:NH2	2.20	0.57
55:CB:213:LYS:O	55:CB:217:LEU:HG	2.04	0.57
60:HB:24:LYS:HG2	60:HB:25:LYS:H	1.69	0.57
68:PB:133:VAL:HG13	68:PB:134:ARG:N	2.20	0.57
82:DC:655:TYR:HB2	82:DC:693:LEU:HD13	1.86	0.57
82:DC:755:VAL:HG22	82:DC:771:TYR:CD2	2.40	0.57
1:A:298:C:H5"	54:BB:38:LEU:HD23	1.85	0.57
1:A:630:A:H3'	1:A:631:G:C8	2.39	0.57
1:A:1362:U:H1'	1:A:1363:U:O2	2.04	0.57
1:A:1545:A:H2'	1:A:1546:G:C8	2.40	0.57
2:B:221:A:H62	30:DA:103:LYS:HZ1	1.51	0.57
2:B:503:C:H2'	2:B:504:A:H8	1.70	0.57
2:B:595:G:H1	2:B:609:G:H5"	1.69	0.57
2:B:1231:A:H4'	2:B:1261:G:H8	1.70	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:101:LYS:O	5:E:105:LYS:HG3	2.04	0.57
11:K:89:ILE:HG22	11:K:219:LYS:HE3	1.86	0.57
16:P:133:LEU:HD13	16:P:142:ARG:NH2	2.19	0.57
21:U:41:LEU:HD13	21:U:41:LEU:C	2.30	0.57
24:X:19:VAL:O	24:X:19:VAL:HG12	2.04	0.57
27:AA:80:ARG:O	27:AA:98:ASN:HA	2.04	0.57
34:HA:95:ALA:HB2	34:HA:101:LEU:CD1	2.35	0.57
34:HA:98:SER:HB2	34:HA:100:ILE:CD1	2.31	0.57
35:IA:7:VAL:HA	35:IA:77:ARG:O	2.04	0.57
39:MA:114:ARG:HG3	39:MA:114:ARG:NH1	2.18	0.57
53:AB:211:PRO:HG3	67:OB:20:TYR:CE1	2.39	0.57
54:BB:136:VAL:HG11	54:BB:148:ARG:NE	2.19	0.57
54:BB:192:ILE:HD13	54:BB:238:LEU:HD13	1.87	0.57
60:HB:3:MET:HE3	60:HB:8:ARG:HD3	1.85	0.57
60:HB:24:LYS:HG2	60:HB:25:LYS:N	2.20	0.57
61:IB:93:TYR:HB2	61:IB:100:TYR:CE1	2.40	0.57
68:PB:52:VAL:CG1	68:PB:61:LEU:HD11	2.32	0.57
70:RB:61:LYS:HG3	70:RB:86:ILE:HB	1.85	0.57
71:SB:12:TYR:O	71:SB:14:PRO:HD3	2.05	0.57
75:WB:55:PRO:O	75:WB:57:TYR:N	2.38	0.57
75:WB:89:ILE:HD12	75:WB:101:TYR:CD1	2.39	0.57
82:DC:213:SER:HB3	82:DC:218:TRP:NE1	2.19	0.57
1:A:647:G:H1	1:A:687:G:H1	1.52	0.57
1:A:1305:U:H5”	1:A:1306:C:C5	2.40	0.57
2:B:335:G:OP1	30:DA:9:SER:HB2	2.05	0.57
2:B:727:G:H2’	2:B:728:G:O4’	2.04	0.57
2:B:1003:A:H1’	9:I:15:ARG:HE	1.70	0.57
2:B:1108:U:H2’	2:B:1109:U:H6	1.70	0.57
2:B:1221:A:H4’	48:VA:60:ARG:HB2	1.85	0.57
2:B:1662:G:H22	2:B:1787:A:H2	1.50	0.57
2:B:2061:G:H2’	2:B:2062:G:H5’	1.86	0.57
12:L:71:VAL:HG23	12:L:235:GLY:HA3	1.87	0.57
12:L:82:LEU:HD11	12:L:86:THR:HG21	1.87	0.57
13:M:111:PHE:HD1	13:M:127:PRO:HA	1.70	0.57
14:N:17:TYR:CD2	14:N:96:VAL:HB	2.40	0.57
19:S:10:LEU:HD22	40:NA:44:VAL:HG13	1.86	0.57
27:AA:86:ARG:HB2	27:AA:92:PHE:CE1	2.39	0.57
32:FA:28:HIS:CD2	32:FA:32:ARG:HG2	2.40	0.57
34:HA:47:ASN:HD21	34:HA:74:ASN:HD22	1.53	0.57
44:RA:104:PRO:HD2	44:RA:107:ALA:CB	2.31	0.57
48:VA:180:PRO:C	48:VA:182:THR:H	2.12	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:ZA:85:PRO:HA	52:ZA:98:PHE:HD1	1.69	0.57
57:EB:111:LYS:HG3	57:EB:112:ARG:N	2.20	0.57
61:IB:77:SER:HB2	61:IB:85:VAL:CB	2.33	0.57
66:NB:41:PRO:HB3	66:NB:44:LEU:CD2	2.25	0.57
68:PB:32:LEU:HB2	68:PB:43:SER:OG	2.04	0.57
78:ZB:10:ALA:HA	78:ZB:32:PHE:CA	2.25	0.57
82:DC:218:TRP:HB3	82:DC:324:MET:CB	2.35	0.57
82:DC:329:PRO:O	82:DC:332:ASP:HB2	2.04	0.57
82:DC:804:LEU:HD13	82:DC:805:GLY:N	2.20	0.57
1:A:117:U:H2'	1:A:118:U:C6	2.40	0.57
1:A:291:G:H2'	1:A:292:U:C5	2.37	0.57
1:A:633:U:H2'	1:A:634:G:O4'	2.04	0.57
1:A:1045:C:H2'	1:A:1046:G:C8	2.40	0.57
1:A:1527:C:O2'	55:CB:108:LEU:HD12	2.05	0.57
1:A:1652:C:H2'	1:A:1653:C:C6	2.40	0.57
2:B:149:U:H5"	19:S:54:LYS:HG3	1.87	0.57
2:B:289:A:H5'	19:S:95:GLN:O	2.05	0.57
2:B:351:A:H1'	3:C:53:A:O2'	2.04	0.57
2:B:637:C:C2'	2:B:638:C:C6	2.88	0.57
2:B:2163:C:H4'	6:F:7:ASN:O	2.05	0.57
2:B:2244:A:H5'	6:F:243:THR:HG21	1.87	0.57
2:B:2415:C:C5'	6:F:207:VAL:HG13	2.34	0.57
2:B:3028:G:O2'	2:B:3029:A:H5'	2.05	0.57
2:B:3317:U:H1'	2:B:3318:G:OP2	2.05	0.57
2:B:3322:A:H2'	2:B:3323:A:H8	1.68	0.57
5:E:82:VAL:HG12	5:E:83:ASP:H	1.70	0.57
7:G:215:ILE:HG21	7:G:282:ILE:HD11	1.86	0.57
7:G:311:PHE:HB2	7:G:315:GLY:O	2.05	0.57
8:H:132:ALA:HB2	8:H:148:ILE:HD12	1.86	0.57
11:K:27:ALA:HA	11:K:30:ARG:HB3	1.86	0.57
17:Q:95:ILE:HG21	17:Q:116:LEU:HD21	1.86	0.57
20:T:64:PHE:CE1	20:T:68:ARG:HD3	2.40	0.57
24:X:80:ARG:HH21	24:X:80:ARG:HG2	1.69	0.57
27:AA:17:LEU:HD21	27:AA:98:ASN:ND2	2.20	0.57
27:AA:69:LEU:N	27:AA:69:LEU:HD12	2.20	0.57
27:AA:79:VAL:HB	27:AA:118:VAL:HG13	1.86	0.57
41:OA:21:ARG:CD	41:OA:39:TYR:HB2	2.30	0.57
52:ZA:81:MET:HG2	52:ZA:103:VAL:CG2	2.33	0.57
69:QB:77:ASN:HB3	69:QB:95:ASP:HB3	1.87	0.57
69:QB:118:PRO:C	69:QB:120:GLY:H	2.12	0.57
82:DC:352:ARG:C	82:DC:356:LEU:HG	2.30	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:32:U:H2'	1:A:33:U:H5'	1.87	0.56
1:A:514:G:O2'	1:A:515:A:H5'	2.05	0.56
1:A:556:A:N3	1:A:590:C:H1'	2.20	0.56
2:B:307:A:H2'	2:B:308:A:C8	2.40	0.56
2:B:428:A:H2'	2:B:429:U:C6	2.40	0.56
2:B:577:C:O2'	2:B:579:G:H5"	2.04	0.56
2:B:1899:G:H5"	27:AA:20:GLY:O	2.06	0.56
2:B:2563:G:H5"	12:L:27:THR:HG22	1.87	0.56
6:F:64:ARG:HA	6:F:71:LEU:HA	1.87	0.56
9:I:95:TRP:CD1	9:I:158:ARG:HA	2.40	0.56
11:K:58:ALA:O	11:K:62:ILE:HG12	2.05	0.56
19:S:116:LEU:HD13	19:S:135:VAL:HG23	1.87	0.56
20:T:54:TYR:CE2	20:T:58:LEU:HD13	2.40	0.56
31:EA:134:LEU:HD13	31:EA:135:ARG:H	1.68	0.56
32:FA:36:GLY:HA3	32:FA:40:HIS:CE1	2.40	0.56
48:VA:12:PHE:HA	48:VA:15:LEU:CD2	2.34	0.56
49:WA:127:ARG:NH1	67:OB:33:ARG:NH2	2.53	0.56
54:BB:102:VAL:HG13	54:BB:182:TYR:OH	2.05	0.56
68:PB:52:VAL:HG21	68:PB:69:ILE:HD11	1.86	0.56
68:PB:136:GLN:HG2	68:PB:138:THR:HG23	1.86	0.56
70:RB:50:LEU:HD11	70:RB:93:LEU:HD22	1.86	0.56
82:DC:10:ARG:NH1	82:DC:449:PRO:HD3	2.20	0.56
83:EC:6920:C:O5'	83:EC:6920:C:H6	1.88	0.56
1:A:147:A:H2'	1:A:148:A:C8	2.41	0.56
1:A:158:U:O2'	1:A:159:U:H3'	2.04	0.56
1:A:1291:G:H5'	52:ZA:119:LYS:NZ	2.19	0.56
2:B:637:C:H4'	2:B:638:C:OP1	2.05	0.56
2:B:836:A:OP2	47:UA:4:ARG:HD3	2.05	0.56
2:B:1003:A:H1'	9:I:15:ARG:NE	2.19	0.56
2:B:1313:G:H5'	20:T:83:ALA:HB1	1.87	0.56
2:B:1556:C:H3'	2:B:2169:G:H22	1.70	0.56
7:G:227:GLU:HG2	7:G:270:ARG:HD3	1.85	0.56
8:H:181:VAL:O	8:H:182:LEU:CB	2.53	0.56
9:I:22:ARG:HG2	9:I:28:THR:OG1	2.06	0.56
13:M:180:TYR:CE2	44:RA:86:ALA:HA	2.40	0.56
14:N:87:LEU:C	14:N:87:LEU:HD23	2.30	0.56
17:Q:83:ALA:HB2	17:Q:116:LEU:HD13	1.88	0.56
23:W:184:LEU:O	23:W:184:LEU:HD13	2.05	0.56
36:JA:35:GLN:HA	36:JA:35:GLN:HE21	1.69	0.56
43:QA:3:ALA:H	43:QA:5:LYS:NZ	2.03	0.56
49:WA:121:MET:HE1	49:WA:167:VAL:HG21	1.86	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:EC:6940:U:H2'	83:EC:6941:U:H5"	1.87	0.56
1:A:21:U:H2'	1:A:22:A:C8	2.40	0.56
1:A:150:U:H2'	1:A:151:G:O4'	2.04	0.56
1:A:250:C:H2'	1:A:251:A:O4'	2.06	0.56
1:A:583:C:O2	1:A:583:C:H2'	2.05	0.56
1:A:650:U:H2'	1:A:651:G:C8	2.41	0.56
1:A:1081:A:H2'	1:A:1083:G:N7	2.20	0.56
1:A:1319:A:C3'	1:A:1320:U:H5"	2.34	0.56
1:A:1331:A:H2'	1:A:1332:C:H5'	1.87	0.56
1:A:1335:U:H2'	1:A:1336:A:C8	2.40	0.56
1:A:1436:A:C2'	1:A:1437:U:H5'	2.33	0.56
1:A:1543:A:H2'	1:A:1544:U:O4'	2.04	0.56
1:A:1662:G:O2'	1:A:1663:G:H5'	2.05	0.56
2:B:814:U:H5'	41:OA:45:ARG:NH1	2.21	0.56
2:B:1581:C:H2'	2:B:1582:C:H5'	1.86	0.56
2:B:1637:A:H1'	2:B:1709:C:O2'	2.05	0.56
2:B:2244:A:H5"	6:F:243:THR:CG2	2.33	0.56
2:B:2434:U:H4'	2:B:2435:G:H5"	1.87	0.56
2:B:2471:U:C2'	2:B:2472:U:H5"	2.35	0.56
2:B:2664:C:O2'	2:B:2665:U:H5'	2.04	0.56
2:B:3041:U:O2'	27:AA:43:GLY:HA3	2.05	0.56
3:C:51:G:H4'	43:QA:21:ARG:NH1	2.21	0.56
5:E:21:ASN:O	5:E:22:GLU:HB3	2.05	0.56
5:E:111:ILE:HD11	5:E:151:VAL:HG11	1.86	0.56
5:E:152:ARG:HD2	5:E:174:MET:HG2	1.87	0.56
8:H:76:ARG:HD3	8:H:86:GLY:O	2.05	0.56
9:I:56:THR:C	9:I:58:LYS:N	2.63	0.56
9:I:220:SER:O	9:I:224:LYS:HB2	2.04	0.56
9:I:229:ASP:O	9:I:230:ASP:HB3	2.05	0.56
11:K:29:GLU:HA	11:K:32:ALA:HB3	1.87	0.56
12:L:134:TYR:HD1	12:L:190:VAL:CG1	2.18	0.56
15:O:94:ARG:O	15:O:96:PHE:HD2	1.89	0.56
18:R:13:ARG:HD3	18:R:65:LEU:O	2.05	0.56
18:R:14:LEU:HA	24:X:151:PRO:HA	1.86	0.56
21:U:127:ARG:HB2	21:U:127:ARG:HH11	1.69	0.56
22:V:69:ARG:CG	22:V:69:ARG:HH11	2.18	0.56
22:V:102:ALA:HB2	22:V:127:LEU:HD23	1.88	0.56
23:W:24:LEU:HD12	23:W:24:LEU:N	2.20	0.56
25:Y:39:ILE:HG22	25:Y:99:SER:HB2	1.87	0.56
26:Z:80:THR:HG21	26:Z:95:PHE:CE1	2.40	0.56
27:AA:86:ARG:HD2	27:AA:92:PHE:CZ	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DA:88:GLU:CD	30:DA:88:GLU:N	2.63	0.56
31:EA:57:HIS:HB3	31:EA:62:VAL:HG22	1.86	0.56
35:IA:19:ARG:HB3	35:IA:35:GLU:HG2	1.87	0.56
42:PA:42:LYS:HG2	42:PA:55:VAL:HG22	1.86	0.56
43:QA:37:TYR:CE1	43:QA:39:ALA:HB2	2.40	0.56
46:TA:71:ARG:HD3	46:TA:80:ARG:NH2	2.20	0.56
48:VA:33:VAL:HG23	48:VA:38:MET:HB2	1.87	0.56
50:XA:57:LEU:HG	50:XA:177:LEU:HD23	1.87	0.56
52:ZA:52:THR:HB	52:ZA:54:GLU:HG2	1.87	0.56
53:AB:105:MET:HG2	53:AB:122:VAL:HG21	1.86	0.56
53:AB:168:ILE:HG22	53:AB:189:MET:HB2	1.87	0.56
54:BB:43:PRO:HD2	54:BB:46:VAL:HG21	1.87	0.56
55:CB:41:LYS:HD3	66:NB:54:LEU:HD11	1.86	0.56
56:DB:108:VAL:HG12	56:DB:109:LEU:H	1.70	0.56
58:FB:137:LYS:O	58:FB:141:ARG:HG3	2.06	0.56
59:GB:17:ARG:HD2	59:GB:20:GLU:OE1	2.04	0.56
59:GB:119:ALA:C	59:GB:120:LYS:HD3	2.30	0.56
60:HB:15:LEU:HD13	60:HB:21:VAL:HG23	1.86	0.56
63:KB:21:ASN:O	63:KB:22:ALA:HB3	2.05	0.56
63:KB:86:GLU:HG3	63:KB:87:ASP:N	2.20	0.56
65:MB:44:ARG:O	65:MB:44:ARG:HD3	2.05	0.56
82:DC:483:PHE:C	82:DC:485:VAL:H	2.11	0.56
82:DC:700:ARG:HG3	82:DC:705:ILE:HD11	1.86	0.56
83:EC:6780:A:H2'	83:EC:6781:U:H5'	1.87	0.56
1:A:1105:C:H41	73:UB:4:GLY:HA3	1.70	0.56
1:A:1194:A:H2'	1:A:1195:C:O4'	2.05	0.56
1:A:1629:G:O2'	1:A:1765:A:O5'	2.22	0.56
2:B:62:A:H5"	19:S:164:LEU:HD21	1.87	0.56
2:B:822:G:H4'	6:F:194:ASN:HB2	1.86	0.56
2:B:1624:G:H2'	2:B:1625:A:O4'	2.05	0.56
2:B:2130:G:H2'	2:B:2131:A:H4'	1.87	0.56
2:B:2513:U:H4'	2:B:2514:U:OP1	2.05	0.56
2:B:2612:U:H2'	2:B:2613:U:O4'	2.06	0.56
2:B:2988:C:H4'	7:G:260:VAL:O	2.05	0.56
12:L:136:LEU:HD11	12:L:162:LEU:O	2.06	0.56
18:R:85:TRP:HE1	18:R:91:CYS:HB2	1.70	0.56
19:S:50:ARG:HB3	19:S:50:ARG:NH1	2.20	0.56
19:S:190:THR:HG23	19:S:191:TRP:N	2.20	0.56
24:X:1:MET:O	24:X:2:ALA:C	2.49	0.56
25:Y:92:ARG:O	25:Y:94:GLU:N	2.38	0.56
27:AA:23:MET:CE	27:AA:34:LEU:HD12	2.35	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CA:54:TYR:O	29:CA:55:ASN:C	2.49	0.56
31:EA:135:ARG:HA	31:EA:135:ARG:CZ	2.35	0.56
38:LA:29:ILE:HD11	38:LA:31:ARG:NH2	2.11	0.56
54:BB:31:PRO:HA	54:BB:81:THR:HB	1.86	0.56
55:CB:63:GLN:C	55:CB:65:ARG:H	2.13	0.56
56:DB:27:PHE:HE1	56:DB:36:VAL:HG11	1.69	0.56
56:DB:192:ALA:O	56:DB:196:ARG:HB2	2.05	0.56
57:EB:63:PRO:O	57:EB:64:VAL:HB	2.05	0.56
1:A:153:G:H21	56:DB:56:ASN:HD21	1.53	0.56
1:A:505:A:H3'	1:A:506:A:C5'	2.29	0.56
1:A:1352:G:H2'	1:A:1353:U:O4'	2.06	0.56
1:A:1499:G:OP1	69:QB:122:ARG:HD3	2.04	0.56
1:A:1525:A:OP1	69:QB:82:GLY:HA2	2.06	0.56
1:A:1544:U:H5"	68:PB:132:ARG:HD2	1.87	0.56
1:A:1761:U:O2'	1:A:1762:A:OP2	2.20	0.56
2:B:421:G:H3'	2:B:421:G:N3	2.21	0.56
2:B:546:C:H5'	2:B:547:G:O4'	2.06	0.56
2:B:1150:A:N7	2:B:1310:G:H5'	2.20	0.56
2:B:1238:C:H2'	2:B:1239:C:O4'	2.05	0.56
2:B:1801:U:H2'	2:B:1802:C:C6	2.41	0.56
2:B:2154:U:H2'	2:B:2155:G:C8	2.40	0.56
2:B:2836:C:H2'	2:B:2837:A:O4'	2.05	0.56
2:B:3045:G:H2'	2:B:3046:A:O4'	2.05	0.56
4:D:3:U:H2'	4:D:4:U:C6	2.41	0.56
5:E:4:ILE:HD11	5:E:198:TRP:HE3	1.70	0.56
8:H:280:ILE:HD12	22:V:25:TYR:CB	2.34	0.56
8:H:299:ILE:HG13	22:V:39:ARG:HB3	1.87	0.56
9:I:129:TYR:CD2	9:I:177:GLU:HB3	2.41	0.56
14:N:54:SER:HB2	14:N:135:ILE:CD1	2.35	0.56
17:Q:85:LEU:H	17:Q:85:LEU:CD2	2.15	0.56
18:R:7:VAL:O	18:R:7:VAL:HG12	2.04	0.56
19:S:96:ARG:NH2	19:S:100:ALA:HB1	2.21	0.56
25:Y:147:VAL:HG13	25:Y:148:PRO:HD2	1.87	0.56
29:CA:91:ASN:HD21	29:CA:93:TYR:HB2	1.71	0.56
53:AB:40:ARG:HG2	70:RB:110:PRO:HB3	1.88	0.56
56:DB:63:MET:HE2	56:DB:106:LEU:HD22	1.88	0.56
73:UB:107:PHE:C	73:UB:109:ARG:H	2.14	0.56
74:VB:103:ALA:HB1	74:VB:107:GLN:HE21	1.71	0.56
82:DC:636:PHE:HA	82:DC:645:LEU:HD22	1.86	0.56
82:DC:733:ILE:HG22	82:DC:792:ALA:HB1	1.86	0.56
1:A:1241:G:C1'	65:MB:78:THR:HA	2.36	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1762:A:C4	1:A:1782:A:H2'	2.41	0.56
2:B:241:G:H2'	2:B:242:C:H5'	1.87	0.56
2:B:1018:G:H2'	2:B:1019:G:O4'	2.05	0.56
2:B:1439:U:OP1	8:H:87:GLN:HA	2.05	0.56
2:B:1667:A:H2'	2:B:1668:G:C8	2.41	0.56
2:B:1834:U:OP1	43:QA:5:LYS:HE2	2.05	0.56
2:B:1943:C:H5	23:W:74:ARG:NH2	2.03	0.56
2:B:2479:C:H5"	5:E:105:LYS:HD3	1.86	0.56
2:B:2610:G:H2'	2:B:2611:U:O4'	2.05	0.56
2:B:2768:U:H2'	2:B:2769:A:C8	2.40	0.56
2:B:3255:U:H2'	2:B:3256:G:C8	2.41	0.56
4:D:27:A:OP2	9:I:57:ASN:N	2.38	0.56
8:H:195:ARG:O	8:H:196:ASN:HB2	2.05	0.56
17:Q:165:SER:O	32:FA:135:GLU:HG3	2.05	0.56
29:CA:67:ILE:HG22	29:CA:69:SER:H	1.70	0.56
34:HA:44:ILE:HD12	34:HA:53:LYS:HG3	1.87	0.56
48:VA:176:LEU:HB2	48:VA:178:ILE:CD1	2.35	0.56
50:XA:102:PHE:O	50:XA:103:THR:HB	2.04	0.56
57:EB:99:LEU:HD12	57:EB:112:ARG:HG3	1.87	0.56
58:FB:46:VAL:O	58:FB:53:LYS:HA	2.06	0.56
59:GB:53:ARG:CZ	59:GB:53:ARG:HB3	2.34	0.56
69:QB:15:ILE:HD11	69:QB:60:SER:HB2	1.87	0.56
70:RB:21:LYS:O	70:RB:119:ALA:HA	2.05	0.56
82:DC:249:PHE:HB2	82:DC:258:THR:O	2.05	0.56
82:DC:710:ARG:HH11	82:DC:710:ARG:HB2	1.70	0.56
82:DC:722:PRO:HB2	82:DC:808:PRO:CG	2.35	0.56
83:EC:6781:U:H5'	83:EC:6782:C:H5	1.70	0.56
1:A:872:G:H1	1:A:955:A:H61	1.53	0.56
1:A:1099:U:H5"	72:TB:71:LYS:NZ	2.20	0.56
1:A:1519:U:H2'	1:A:1520:U:H5	1.71	0.56
2:B:699:A:H2'	2:B:700:C:O4'	2.06	0.56
2:B:1364:C:O2'	2:B:1365:G:H5'	2.05	0.56
2:B:1481:A:C2	38:LA:4:ARG:HD3	2.41	0.56
2:B:2853:A:H5'	14:N:3:ARG:HH21	1.71	0.56
2:B:3206:C:H5"	2:B:3207:U:C5'	2.29	0.56
12:L:139:VAL:HA	12:L:142:LEU:HD12	1.87	0.56
14:N:48:LEU:O	14:N:139:ARG:HA	2.04	0.56
14:N:60:LEU:HD13	14:N:159:PHE:CD1	2.41	0.56
14:N:156:ARG:HH22	14:N:164:LYS:HA	1.71	0.56
21:U:171:ARG:HG3	21:U:171:ARG:HH11	1.71	0.56
32:FA:73:LEU:HD13	32:FA:109:TYR:CE2	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:SA:1:MET:CE	45:SA:6:ARG:HD3	2.35	0.56
49:WA:87:LYS:HA	49:WA:108:SER:O	2.06	0.56
54:BB:89:VAL:HG11	54:BB:119:ALA:HA	1.86	0.56
54:BB:136:VAL:HG11	54:BB:148:ARG:CZ	2.35	0.56
59:GB:96:VAL:O	59:GB:99:LEU:HD22	2.05	0.56
66:NB:22:VAL:HG13	66:NB:65:ILE:HD13	1.88	0.56
67:OB:20:TYR:C	67:OB:22:PRO:HD2	2.30	0.56
70:RB:70:THR:HG23	70:RB:72:ASN:O	2.06	0.56
80:BC:33:ARG:HB2	80:BC:33:ARG:HH11	1.70	0.56
82:DC:404:THR:HA	82:DC:448:CYS:O	2.06	0.56
1:A:89:G:H2'	1:A:90:C:C6	2.40	0.56
1:A:297:U:H1'	54:BB:33:ALA:HB1	1.87	0.56
1:A:1075:C:C3'	1:A:1076:A:H5"	2.35	0.56
2:B:662:U:H2'	2:B:663:C:C6	2.41	0.56
2:B:1012:G:H2'	2:B:1013:G:O4'	2.05	0.56
2:B:1056:U:H4'	4:D:82:G:C4'	2.35	0.56
2:B:1166:G:O2'	2:B:1167:U:H5'	2.06	0.56
2:B:1324:U:H5'	24:X:2:ALA:HA	1.88	0.56
5:E:76:ARG:HD2	5:E:144:LEU:HB2	1.88	0.56
6:F:104:LEU:C	6:F:106:SER:H	2.14	0.56
10:J:52:VAL:HG23	10:J:66:SER:O	2.06	0.56
12:L:61:GLN:HB2	19:S:28:TRP:CH2	2.40	0.56
12:L:93:LEU:HD23	12:L:214:LEU:CD2	2.36	0.56
12:L:150:LEU:HD22	12:L:176:PRO:O	2.06	0.56
23:W:115:ILE:HD11	23:W:120:TYR:N	2.20	0.56
28:BA:59:HIS:HB3	28:BA:61:LYS:HE2	1.88	0.56
32:FA:104:THR:HG21	32:FA:112:ILE:HD11	1.88	0.56
34:HA:14:LEU:O	34:HA:17:VAL:HG22	2.05	0.56
40:NA:58:ILE:HG13	40:NA:59:ASP:N	2.19	0.56
48:VA:60:ARG:HA	48:VA:63:ILE:HD12	1.88	0.56
48:VA:134:SER:O	48:VA:137:GLN:HB2	2.06	0.56
53:AB:184:ILE:CG2	53:AB:186:VAL:HG23	2.35	0.56
54:BB:206:ASP:HB2	54:BB:222:LEU:HG	1.88	0.56
55:CB:25:LEU:HD23	55:CB:26:ALA:H	1.70	0.56
55:CB:26:ALA:HB2	66:NB:26:LYS:HG3	1.88	0.56
59:GB:170:GLY:O	59:GB:174:ARG:HG2	2.06	0.56
61:IB:27:THR:HG23	61:IB:29:LYS:HG2	1.87	0.56
71:SB:9:VAL:HG22	71:SB:10:GLU:N	2.18	0.56
77:YB:14:SER:O	77:YB:18:LYS:HG3	2.06	0.56
82:DC:175:TYR:HB2	82:DC:274:ASN:OD1	2.05	0.56
83:EC:6943:A:H3'	83:EC:6944:U:C5'	2.35	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:320:U:C3’	1:A:321:C:H5”	2.35	0.56
1:A:1773:C:C5’	45:SA:4:LYS:HB3	2.35	0.56
2:B:38:U:H2’	2:B:39:A:O4’	2.06	0.56
2:B:299:G:H2’	2:B:300:G:H8	1.71	0.56
2:B:631:U:H2’	2:B:632:G:H8	1.70	0.56
2:B:656:A:H2’	2:B:657:A:H8	1.71	0.56
2:B:1307:G:H5”	20:T:60:LYS:NZ	2.20	0.56
2:B:1448:U:H5	2:B:2355:G:C2	2.23	0.56
2:B:1478:C:O2’	2:B:1479:U:H5’	2.05	0.56
2:B:2278:C:C2’	2:B:2279:A:H5”	2.35	0.56
2:B:2471:U:H2’	2:B:2472:U:H5”	1.87	0.56
2:B:2718:U:H2’	2:B:2719:U:O4’	2.05	0.56
6:F:251:LYS:HG3	6:F:252:THR:HG22	1.87	0.56
9:I:119:TYR:CZ	9:I:135:VAL:HG23	2.40	0.56
11:K:95:ILE:HB	11:K:100:ARG:HD2	1.87	0.56
15:O:51:ARG:HB2	15:O:51:ARG:HH21	1.71	0.56
19:S:37:HIS:CE1	19:S:63:ARG:HH11	2.16	0.56
25:Y:96:ILE:O	25:Y:97:LYS:HB3	2.05	0.56
34:HA:70:PHE:CE2	34:HA:77:LEU:HA	2.40	0.56
44:RA:110:CYS:O	44:RA:117:HIS:HA	2.06	0.56
46:TA:10:THR:HG22	46:TA:11:TYR:N	2.20	0.56
50:XA:57:LEU:HD11	50:XA:176:LEU:HB2	1.88	0.56
50:XA:62:ARG:HB3	71:SB:36:VAL:CG1	2.36	0.56
52:ZA:207:LEU:O	52:ZA:208:GLU:C	2.48	0.56
53:AB:22:ASN:HA	53:AB:34:TYR:OH	2.06	0.56
54:BB:6:LYS:H	54:BB:6:LYS:HD2	1.69	0.56
54:BB:114:ILE:HG22	54:BB:237:SER:OG	2.06	0.56
54:BB:219:VAL:HG12	54:BB:220:THR:N	2.21	0.56
59:GB:134:ILE:HA	59:GB:158:PHE:CA	2.35	0.56
80:BC:38:LEU:HD22	80:BC:39:LEU:HD22	1.88	0.56
82:DC:78:TYR:HE2	82:DC:80:GLU:HB2	1.71	0.56
82:DC:110:ASP:HA	82:DC:533:THR:HG21	1.88	0.56
82:DC:677:PHE:CE2	82:DC:819:VAL:HG22	2.41	0.56
1:A:17:C:H2’	1:A:18:C:H6	1.70	0.56
1:A:211:U:O2’	1:A:212:U:H5’	2.06	0.56
1:A:821:U:H3’	1:A:822:U:C5’	2.36	0.56
1:A:1519:U:H2’	1:A:1520:U:C5	2.40	0.56
1:A:1615:C:H4’	1:A:1616:G:O5’	2.06	0.56
2:B:82:C:H4’	19:S:204:LYS:NZ	2.21	0.56
2:B:139:G:H2’	2:B:140:C:H6	1.71	0.56
2:B:1033:U:H2’	2:B:1034:U:C6	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1676:A:P	26:Z:73:GLY:H	2.28	0.56
2:B:2443:A:H2'	2:B:2444:C:O4'	2.06	0.56
2:B:2626:A:N3	2:B:2644:C:H5'	2.21	0.56
3:C:32:C:O2'	3:C:33:A:H5'	2.06	0.56
4:D:48:U:H2'	4:D:49:G:H5'	1.87	0.56
5:E:34:LEU:HD22	5:E:183:ILE:HG23	1.87	0.56
10:J:131:LYS:HG2	10:J:133:GLU:HB3	1.88	0.56
16:P:76:SER:CB	16:P:116:MET:HB3	2.35	0.56
24:X:14:LEU:HD21	25:Y:136:ARG:HE	1.71	0.56
25:Y:39:ILE:CD1	25:Y:102:ARG:HD3	2.36	0.56
27:AA:22:ILE:HA	27:AA:34:LEU:O	2.05	0.56
29:CA:137:ASN:HA	29:CA:141:TYR:O	2.06	0.56
31:EA:119:GLU:O	31:EA:122:HIS:HB3	2.06	0.56
45:SA:5:TRP:HA	45:SA:5:TRP:CE3	2.41	0.56
50:XA:142:PRO:HG3	71:SB:32:VAL:HG21	1.86	0.56
54:BB:219:VAL:O	54:BB:220:THR:HG23	2.06	0.56
56:DB:64:LYS:HB3	56:DB:67:VAL:HG11	1.86	0.56
58:FB:159:GLN:NE2	58:FB:189:LEU:HD21	2.21	0.56
59:GB:90:LYS:HG3	59:GB:95:TYR:CD2	2.41	0.56
59:GB:139:GLN:HE22	74:VB:63:GLN:HG3	1.69	0.56
60:HB:80:LEU:O	60:HB:82:LEU:HG	2.05	0.56
74:VB:30:PRO:C	74:VB:32:ARG:H	2.14	0.56
82:DC:171:LYS:HE3	82:DC:171:LYS:H	1.71	0.56
1:A:152:U:O2'	56:DB:15:THR:HG23	2.06	0.55
1:A:780:A:C8	74:VB:8:ARG:HB3	2.39	0.55
1:A:1504:G:OP1	69:QB:97:SER:HB2	2.06	0.55
2:B:5:G:H2'	2:B:6:A:C5'	2.33	0.55
2:B:1590:G:C8	2:B:1590:G:O5'	2.59	0.55
2:B:1622:U:H2'	2:B:1623:G:H8	1.71	0.55
2:B:1859:A:C2'	2:B:1860:G:H5'	2.35	0.55
2:B:2434:U:H5	2:B:2594:C:OP2	1.89	0.55
2:B:2674:A:C5'	15:O:105:GLY:HA3	2.29	0.55
2:B:2736:A:OP1	25:Y:92:ARG:NH1	2.38	0.55
2:B:3163:A:H2'	2:B:3164:C:C5'	2.30	0.55
2:B:3164:C:HO2'	2:B:3165:A:H8	1.52	0.55
6:F:32:LEU:HG	6:F:163:ARG:HD3	1.88	0.55
9:I:8:LYS:HG3	9:I:12:TYR:HE1	1.70	0.55
13:M:1:MET:HE1	24:X:138:GLN:HG3	1.87	0.55
13:M:85:GLY:HA3	13:M:187:ILE:CB	2.27	0.55
21:U:117:ILE:O	21:U:117:ILE:HG23	2.05	0.55
22:V:100:THR:HG23	22:V:122:ILE:CD1	2.35	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:9:VAL:HG22	24:X:61:ILE:HD13	1.88	0.55
24:X:110:MET:CE	24:X:114:HIS:HB2	2.36	0.55
41:OA:16:HIS:HA	41:OA:27:PHE:O	2.06	0.55
49:WA:214:ALA:HB2	49:WA:243:LEU:HD12	1.87	0.55
53:AB:215:GLU:N	53:AB:216:PRO:CD	2.69	0.55
59:GB:59:LEU:HB3	59:GB:69:ARG:HG3	1.88	0.55
60:HB:1:MET:HE1	60:HB:41:TYR:O	2.06	0.55
66:NB:40:GLU:HA	66:NB:42:GLU:N	2.21	0.55
67:OB:53:TYR:O	67:OB:56:HIS:HB3	2.05	0.55
68:PB:68:ARG:O	68:PB:72:ILE:HG13	2.06	0.55
69:QB:138:GLN:HA	69:QB:141:GLU:CG	2.36	0.55
82:DC:233:PHE:HB3	82:DC:235:VAL:HG23	1.88	0.55
82:DC:420:PRO:HG2	82:DC:476:HIS:CG	2.41	0.55
1:A:52:U:H2'	1:A:53:G:C8	2.42	0.55
1:A:122:U:H2'	1:A:123:G:C8	2.41	0.55
1:A:533:U:H4'	74:VB:33:ALA:CB	2.34	0.55
2:B:269:G:H21	2:B:294:U:H2'	1.69	0.55
2:B:296:A:H61	2:B:317:A:H61	1.52	0.55
2:B:351:A:N6	43:QA:37:TYR:O	2.39	0.55
2:B:1841:A:O2'	2:B:1842:A:H5"	2.06	0.55
2:B:2048:G:H2'	2:B:2049:A:O4'	2.05	0.55
2:B:2728:G:C2	25:Y:80:VAL:HG21	2.41	0.55
2:B:2799:A:H5"	2:B:2800:G:O5'	2.06	0.55
8:H:23:PRO:HD3	8:H:255:PHE:CE1	2.40	0.55
12:L:143:ILE:HD13	12:L:170:CYS:SG	2.45	0.55
14:N:153:ARG:HA	14:N:156:ARG:HD2	1.89	0.55
34:HA:54:SER:C	38:LA:94:LEU:HD11	2.31	0.55
48:VA:26:PHE:HB2	48:VA:87:VAL:HG11	1.88	0.55
52:ZA:65:GLU:HB2	52:ZA:68:ILE:HG13	1.87	0.55
53:AB:164:VAL:HG13	53:AB:168:ILE:CG1	2.37	0.55
58:FB:36:THR:HB	58:FB:57:ALA:O	2.06	0.55
78:ZB:42:ARG:NH1	78:ZB:56:LEU:HD12	2.22	0.55
82:DC:143:LEU:HD23	82:DC:188:ILE:CG2	2.37	0.55
82:DC:428:ILE:HD12	82:DC:428:ILE:N	2.22	0.55
82:DC:797:VAL:O	82:DC:797:VAL:HG13	2.07	0.55
82:DC:835:TRP:O	82:DC:839:TYR:HB2	2.06	0.55
1:A:4:C:H4'	52:ZA:181:SER:HB3	1.88	0.55
1:A:32:U:H3	1:A:468:A:H62	1.54	0.55
1:A:72:A:N6	56:DB:169:TYR:HB2	2.22	0.55
1:A:705:U:H2'	1:A:706:A:C8	2.41	0.55
1:A:1025:A:H2	1:A:1789:G:H1'	1.72	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1027:A:OP2	1:A:1790:A:H4'	2.05	0.55
1:A:1586:A:H1'	1:A:1611:A:N6	2.21	0.55
2:B:76:G:N7	17:Q:101:ARG:HG3	2.21	0.55
2:B:129:U:H2'	2:B:130:A:H8	1.71	0.55
2:B:130:A:H2'	2:B:131:C:C6	2.42	0.55
2:B:296:A:O2'	2:B:297:G:H5'	2.06	0.55
2:B:405:U:H2'	2:B:406:G:H5'	1.88	0.55
2:B:503:C:H2'	2:B:504:A:C8	2.42	0.55
2:B:532:A:O2'	2:B:533:A:H5'	2.06	0.55
2:B:753:C:H2'	2:B:754:G:C8	2.40	0.55
2:B:1100:U:OP2	11:K:196:LYS:HD2	2.05	0.55
2:B:3083:G:H2'	2:B:3084:C:O4'	2.06	0.55
3:C:35:C:OP1	39:MA:85:THR:HG21	2.07	0.55
6:F:116:VAL:CG1	6:F:126:LEU:HB2	2.35	0.55
8:H:346:LYS:C	8:H:348:GLY:H	2.14	0.55
17:Q:126:PHE:CE1	17:Q:133:PRO:HG2	2.42	0.55
24:X:110:MET:HE2	24:X:114:HIS:HB2	1.88	0.55
31:EA:87:LEU:HD13	31:EA:127:ASN:CG	2.31	0.55
44:RA:77:ILE:N	44:RA:77:ILE:HD12	2.21	0.55
49:WA:270:LEU:HD11	49:WA:273:ASP:HB2	1.89	0.55
54:BB:92:LEU:HB2	54:BB:97:GLU:O	2.06	0.55
59:GB:125:ALA:O	59:GB:129:ILE:HG13	2.06	0.55
1:A:522:U:H5"	74:VB:37:LYS:HG3	1.88	0.55
1:A:960:U:H4'	63:KB:51:GLY:C	2.30	0.55
1:A:1636:C:H5"	1:A:1637:C:H2'	1.87	0.55
2:B:12:A:H2'	2:B:13:A:C8	2.42	0.55
2:B:406:G:H1'	3:C:16:G:N2	2.22	0.55
2:B:1613:A:OP1	42:PA:2:ALA:HB2	2.07	0.55
2:B:1618:G:C2'	2:B:1619:A:H5"	2.35	0.55
2:B:2898:G:OP2	2:B:2899:C:H5'	2.06	0.55
2:B:3355:U:O2'	2:B:3356:G:H5"	2.06	0.55
3:C:145:U:O5'	3:C:145:U:H6	1.89	0.55
4:D:31:U:O2'	4:D:32:U:H5'	2.07	0.55
5:E:9:VAL:HA	5:E:12:HIS:HB2	1.88	0.55
11:K:157:ASN:O	11:K:158:LYS:HB3	2.06	0.55
12:L:35:GLY:O	12:L:36:ILE:O	2.24	0.55
12:L:75:ILE:O	12:L:76:ALA:HB3	2.07	0.55
12:L:136:LEU:O	12:L:140:VAL:HG23	2.05	0.55
15:O:57:PHE:HB2	15:O:59:ILE:HG12	1.87	0.55
15:O:96:PHE:CD1	15:O:102:PHE:HB3	2.41	0.55
15:O:131:MET:O	15:O:132:ASN:HB3	2.06	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:166:VAL:HG22	21:U:168:LEU:HG	1.88	0.55
38:LA:43:LYS:HA	38:LA:50:ALA:HA	1.88	0.55
48:VA:121:VAL:HG12	48:VA:156:VAL:O	2.06	0.55
50:XA:118:PRO:HG2	50:XA:141:ILE:HD13	1.89	0.55
59:GB:171:ARG:HA	59:GB:171:ARG:HE	1.72	0.55
61:IB:109:VAL:HG23	61:IB:138:ASN:CA	2.37	0.55
1:A:464:A:H2'	1:A:465:G:H8	1.71	0.55
1:A:789:A:H3'	1:A:790:U:C6	2.41	0.55
1:A:1064:G:H2'	1:A:1065:A:H8	1.70	0.55
1:A:1674:C:H2'	1:A:1675:C:C6	2.41	0.55
2:B:10:C:H2'	2:B:11:A:O4'	2.07	0.55
2:B:168:U:H2'	2:B:169:U:C6	2.42	0.55
2:B:637:C:H2'	2:B:638:C:H6	1.68	0.55
2:B:947:G:C5'	36:JA:55:ILE:HB	2.37	0.55
2:B:1282:G:H8	2:B:1282:G:O5'	1.88	0.55
2:B:2162:U:H2'	2:B:2163:C:O4'	2.07	0.55
2:B:3087:A:H2'	2:B:3088:G:O4'	2.06	0.55
2:B:3162:C:H2'	2:B:3163:A:C8	2.41	0.55
8:H:264:SER:H	8:H:267:VAL:CG2	2.19	0.55
8:H:359:LEU:HD23	8:H:360:LYS:HG3	1.87	0.55
10:J:39:VAL:HG11	10:J:159:LEU:HD21	1.89	0.55
12:L:100:GLU:OE2	12:L:108:ARG:HD3	2.06	0.55
12:L:163:VAL:HG23	12:L:166:LEU:CD1	2.37	0.55
13:M:48:VAL:HG13	13:M:49:ASN:ND2	2.20	0.55
21:U:65:SER:O	21:U:66:SER:HB2	2.06	0.55
24:X:125:LYS:HZ3	24:X:126:VAL:N	2.04	0.55
48:VA:143:THR:HG21	48:VA:150:ILE:HG23	1.89	0.55
49:WA:61:PHE:HB3	49:WA:92:TRP:CE3	2.41	0.55
53:AB:164:VAL:HG13	53:AB:168:ILE:HG12	1.89	0.55
54:BB:179:LYS:O	54:BB:181:VAL:HG23	2.06	0.55
58:FB:104:ILE:CG2	58:FB:167:ALA:HB2	2.36	0.55
82:DC:491:VAL:HB	82:DC:556:ILE:HG23	1.88	0.55
83:EC:6911:A:H2'	83:EC:6912:G:O4'	2.07	0.55
1:A:71:A:C2'	1:A:72:A:H4'	2.14	0.55
1:A:245:U:H2'	1:A:247:A:OP2	2.07	0.55
1:A:344:A:H2'	1:A:345:U:H5'	1.89	0.55
1:A:1196:A:H4'	1:A:1197:C:H5"	1.88	0.55
1:A:1715:G:C3'	1:A:1716:C:H4'	2.37	0.55
2:B:491:C:OP1	10:J:110:LYS:HG2	2.06	0.55
2:B:644:G:H2'	2:B:2372:A:N7	2.22	0.55
2:B:1133:A:O2'	2:B:1134:G:H5'	2.06	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3279:A:O2'	2:B:3280:U:H5'	2.07	0.55
3:C:65:A:C2	3:C:96:A:C5	2.94	0.55
7:G:367:LYS:HA	28:BA:17:ARG:NH2	2.21	0.55
8:H:327:LEU:HB3	11:K:181:ILE:HG21	1.89	0.55
10:J:51:ARG:O	10:J:159:LEU:HD22	2.07	0.55
12:L:154:ALA:HB2	12:L:186:LEU:HD12	1.87	0.55
13:M:1:MET:O	13:M:2:LYS:HB2	2.07	0.55
14:N:38:LYS:HD3	14:N:83:ASP:HB3	1.88	0.55
15:O:23:VAL:O	15:O:65:ILE:HG12	2.07	0.55
15:O:80:LEU:CD1	15:O:129:VAL:HG21	2.33	0.55
17:Q:193:ALA:O	17:Q:194:GLU:HB3	2.06	0.55
49:WA:133:VAL:HG23	49:WA:144:LEU:HD21	1.88	0.55
49:WA:267:PRO:HG2	49:WA:269:TYR:CD1	2.41	0.55
53:AB:73:VAL:HG21	53:AB:86:LEU:HD21	1.89	0.55
53:AB:184:ILE:HG21	53:AB:186:VAL:HG23	1.87	0.55
65:MB:126:VAL:HG13	65:MB:127:ARG:N	2.20	0.55
70:RB:69:LYS:HB2	70:RB:78:THR:HB	1.89	0.55
82:DC:445:ILE:CG1	82:DC:446:ASP:H	2.18	0.55
82:DC:806:SER:HB2	82:DC:815:ALA:H	1.69	0.55
1:A:116:U:H2'	1:A:117:U:C5	2.40	0.55
1:A:147:A:OP2	1:A:166:C:H5	1.90	0.55
1:A:387:A:OP1	58:FB:23:LYS:HE3	2.07	0.55
1:A:749:U:H2'	1:A:750:U:C6	2.42	0.55
1:A:918:U:H2'	1:A:919:A:O4'	2.06	0.55
1:A:976:G:C6	1:A:1023:A:H1'	2.42	0.55
1:A:1370:U:H4'	1:A:1371:A:C5'	2.37	0.55
1:A:1763:A:H5"	1:A:1771:U:H5"	1.88	0.55
2:B:1650:G:O2'	2:B:1651:U:H5'	2.06	0.55
2:B:1915:A:H4'	23:W:83:GLY:O	2.07	0.55
2:B:2364:G:H22	2:B:2396:G:H1'	1.71	0.55
2:B:2882:U:H2'	2:B:2883:U:C6	2.41	0.55
2:B:2989:U:H4'	7:G:266:ARG:HB2	1.89	0.55
2:B:3146:G:H4'	7:G:100:ARG:HD2	1.89	0.55
2:B:3174:A:C2'	2:B:3175:U:H5'	2.31	0.55
6:F:68:LYS:HZ3	6:F:70:ARG:HH11	1.53	0.55
7:G:160:VAL:CG2	7:G:183:LEU:HD11	2.36	0.55
8:H:152:VAL:HG22	8:H:250:TRP:O	2.06	0.55
8:H:263:GLY:HA3	8:H:269:SER:HA	1.87	0.55
9:I:268:GLU:HA	9:I:271:LYS:HE2	1.88	0.55
10:J:170:LYS:O	10:J:174:LEU:HB2	2.07	0.55
12:L:26:LEU:HD11	31:EA:123:GLN:HA	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:110:ILE:HG22	16:P:129:THR:HG21	1.86	0.55
19:S:154:PRO:CB	19:S:157:LYS:HE3	2.36	0.55
22:V:7:SER:HB2	22:V:11:LYS:HZ1	1.71	0.55
29:CA:56:ARG:O	29:CA:57:LEU:CB	2.54	0.55
30:DA:31:LEU:O	30:DA:50:ILE:HG22	2.07	0.55
34:HA:19:LYS:HA	34:HA:19:LYS:HZ3	1.70	0.55
34:HA:51:LEU:CD2	38:LA:87:GLU:HG3	2.37	0.55
35:IA:55:LEU:O	35:IA:55:LEU:HD22	2.07	0.55
49:WA:22:SER:CB	49:WA:70:ASP:HA	2.36	0.55
52:ZA:59:HIS:CD2	52:ZA:239:PRO:HD3	2.42	0.55
54:BB:45:ILE:O	54:BB:49:ARG:HB2	2.07	0.55
69:QB:7:ARG:NH1	69:QB:67:MET:HE3	2.21	0.55
72:TB:78:ARG:HD2	72:TB:126:LEU:HD22	1.87	0.55
82:DC:211:PHE:HB2	82:DC:220:PHE:CE2	2.42	0.55
82:DC:323:VAL:HG12	82:DC:324:MET:HE2	1.87	0.55
82:DC:620:ALA:HA	82:DC:625:TRP:H	1.72	0.55
82:DC:655:TYR:H	82:DC:693:LEU:HD12	1.72	0.55
82:DC:733:ILE:HG21	82:DC:792:ALA:HB1	1.87	0.55
82:DC:734:GLN:NE2	82:DC:767:THR:HB	2.21	0.55
82:DC:806:SER:HB3	82:DC:813:SER:HB2	1.89	0.55
1:A:424:C:H4’	1:A:426:G:OP1	2.07	0.55
1:A:448:C:O3’	54:BB:29:PRO:HA	2.07	0.55
1:A:479:C:H5’	59:GB:124:HIS:CG	2.42	0.55
1:A:887:A:H2’	1:A:888:U:O4’	2.07	0.55
1:A:1068:C:H2’	1:A:1069:A:H8	1.70	0.55
1:A:1357:A:H2’	1:A:1358:G:H8	1.70	0.55
1:A:1681:A:H61	1:A:1720:G:H1’	1.69	0.55
2:B:429:U:O2’	2:B:430:U:H5’	2.07	0.55
2:B:627:U:H2’	2:B:628:A:H8	1.70	0.55
2:B:954:U:H1’	33:GA:12:GLN:NE2	2.22	0.55
2:B:2152:A:O2’	2:B:2153:U:H5’	2.06	0.55
2:B:2934:A:H2’	2:B:2935:U:O4’	2.07	0.55
2:B:3001:C:H2’	2:B:3002:C:O4’	2.06	0.55
3:C:113:U:H5”	43:QA:7:PHE:CB	2.36	0.55
7:G:46:PHE:C	7:G:47:LEU:HD22	2.31	0.55
7:G:332:ARG:HD3	7:G:332:ARG:N	2.22	0.55
8:H:32:PRO:O	8:H:36:HIS:HB2	2.06	0.55
11:K:156:ILE:HD12	11:K:161:VAL:HB	1.88	0.55
17:Q:98:ASP:OD2	17:Q:101:ARG:HB2	2.06	0.55
22:V:88:THR:HG22	22:V:107:THR:HG21	1.87	0.55
25:Y:75:ILE:O	25:Y:75:ILE:HG12	2.07	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CA:80:ASN:ND2	29:CA:126:LEU:HD12	2.21	0.55
31:EA:44:ALA:CB	31:EA:72:ILE:HG22	2.37	0.55
32:FA:70:LYS:N	32:FA:71:PRO:HD3	2.22	0.55
32:FA:76:ASP:HB2	32:FA:115:LYS:HB3	1.88	0.55
32:FA:148:ILE:HG22	32:FA:149:ALA:H	1.70	0.55
49:WA:167:VAL:O	49:WA:183:LEU:HD12	2.06	0.55
52:ZA:38:VAL:HG13	52:ZA:39:THR:HG23	1.89	0.55
59:GB:134:ILE:CA	59:GB:158:PHE:HA	2.36	0.55
63:KB:33:VAL:HG21	63:KB:66:ILE:CG2	2.37	0.55
67:OB:25:THR:O	67:OB:58:MET:HG3	2.07	0.55
82:DC:542:LEU:HD22	82:DC:556:ILE:HD11	1.89	0.55
82:DC:569:SER:N	82:DC:592:PRO:HG3	2.21	0.55
1:A:140:A:H1'	56:DB:179:VAL:HG21	1.88	0.55
1:A:488:G:H2'	1:A:489:C:H5'	1.88	0.55
1:A:846:G:H2'	1:A:847:A:O4'	2.07	0.55
1:A:1060:U:H3'	1:A:1061:A:C5'	2.36	0.55
1:A:1413:U:H5'	67:OB:3:ARG:HH11	1.72	0.55
2:B:79:U:H2'	2:B:80:G:C8	2.42	0.55
2:B:148:G:H1'	2:B:149:U:H5	1.72	0.55
2:B:2260:U:H5"	2:B:2261:G:OP2	2.06	0.55
2:B:2730:G:H2'	2:B:2731:U:H5'	1.89	0.55
2:B:3119:U:H2'	2:B:3121:U:OP1	2.06	0.55
5:E:196:LYS:HB3	5:E:200:ASN:CG	2.32	0.55
7:G:376:LYS:O	7:G:380:MET:HG2	2.07	0.55
8:H:71:VAL:HG22	8:H:72:ALA:H	1.72	0.55
16:P:106:LEU:O	16:P:107:ASP:HB2	2.07	0.55
20:T:113:ASP:OD2	20:T:114:LYS:N	2.40	0.55
32:FA:78:LEU:HD13	32:FA:78:LEU:C	2.32	0.55
49:WA:170:ILE:HG22	49:WA:180:ALA:HB2	1.89	0.55
49:WA:240:VAL:HA	49:WA:255:ALA:O	2.07	0.55
56:DB:5:ILE:HA	56:DB:111:LEU:O	2.06	0.55
56:DB:164:LYS:HB3	56:DB:167:LYS:O	2.06	0.55
58:FB:46:VAL:HG23	58:FB:48:THR:HG23	1.89	0.55
59:GB:141:VAL:HG12	59:GB:143:ILE:H	1.71	0.55
63:KB:37:ILE:HG23	63:KB:50:ILE:HG21	1.89	0.55
69:QB:4:VAL:HG22	69:QB:5:SER:H	1.71	0.55
75:WB:88:ILE:HG23	75:WB:104:ALA:HB2	1.88	0.55
77:YB:33:LEU:HA	77:YB:80:ARG:O	2.07	0.55
79:AC:23:VAL:CG2	79:AC:38:ILE:HD12	2.37	0.55
79:AC:26:SER:O	79:AC:30:LEU:HG	2.07	0.55
82:DC:132:ILE:HD12	82:DC:133:GLU:HG3	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:153:G:N2	56:DB:56:ASN:HD21	2.05	0.55
1:A:343:C:H2'	1:A:344:A:H8	1.72	0.55
1:A:1437:U:H4'	53:AB:181:VAL:HG11	1.89	0.55
1:A:1512:G:H2'	1:A:1513:G:O4'	2.07	0.55
1:A:1535:U:C5	55:CB:185:ARG:HA	2.42	0.55
1:A:1715:G:C2'	1:A:1716:C:H4'	2.37	0.55
2:B:911:C:N4	6:F:3:ARG:HD3	2.22	0.55
2:B:1171:G:H5"	4:D:86:U:N3	2.22	0.55
2:B:1269:U:H1'	2:B:1272:C:H5	1.71	0.55
2:B:2449:A:H2'	2:B:2450:G:H8	1.72	0.55
2:B:2618:G:OP1	14:N:116:ARG:HG3	2.06	0.55
2:B:3312:U:C2'	2:B:3313:U:H5"	2.34	0.55
7:G:41:VAL:HG11	7:G:191:LYS:HA	1.89	0.55
8:H:337:GLU:O	8:H:338:LYS:HB2	2.05	0.55
10:J:172:HIS:HD2	37:KA:40:ASP:HB3	1.71	0.55
22:V:70:ALA:O	22:V:73:GLN:HG3	2.07	0.55
24:X:11:GLY:CA	24:X:59:VAL:HG23	2.37	0.55
47:UA:55:TRP:CZ2	47:UA:70:THR:N	2.75	0.55
49:WA:189:GLU:HA	53:AB:225:TYR:HB2	1.89	0.55
49:WA:267:PRO:HG2	49:WA:269:TYR:CE1	2.41	0.55
54:BB:195:ILE:CG2	54:BB:196:VAL:N	2.69	0.55
71:SB:38:LYS:O	71:SB:46:ILE:HD12	2.06	0.55
82:DC:32:LYS:HE3	82:DC:104:ASP:OD2	2.07	0.55
1:A:75:U:H3'	1:A:76:A:C5'	2.35	0.54
1:A:1089:U:H2'	1:A:1090:C:C6	2.41	0.54
1:A:1591:C:H2'	1:A:1592:A:H8	1.72	0.54
2:B:642:U:OP1	32:FA:22:ILE:HG23	2.07	0.54
2:B:898:U:H2'	2:B:899:U:O4'	2.06	0.54
2:B:1164:G:H2'	2:B:1165:A:C8	2.42	0.54
2:B:1660:C:O2'	2:B:1661:G:H5'	2.07	0.54
2:B:1796:G:H4'	6:F:22:LEU:HD23	1.87	0.54
2:B:2207:A:H2'	2:B:2207:A:N3	2.22	0.54
2:B:3063:C:H2'	2:B:3064:U:H6	1.71	0.54
8:H:181:VAL:O	8:H:182:LEU:HB2	2.06	0.54
8:H:339:LEU:HD13	11:K:52:GLN:HE21	1.72	0.54
9:I:227:LEU:C	9:I:229:ASP:H	2.14	0.54
11:K:210:PRO:HD3	11:K:243:MET:HG2	1.89	0.54
14:N:171:TRP:HA	14:N:178:ARG:HD2	1.88	0.54
16:P:92:ARG:CG	16:P:93:LYS:H	2.17	0.54
17:Q:157:ARG:HG2	17:Q:158:ALA:H	1.72	0.54
23:W:132:PHE:CZ	23:W:138:LEU:HD23	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:X:49:HIS:NE2	25:Y:151:LEU:HD11	2.21	0.54
27:AA:93:LEU:H	27:AA:93:LEU:CD2	2.14	0.54
28:BA:13:ILE:HG12	28:BA:32:GLN:HA	1.88	0.54
34:HA:86:ARG:HD2	47:UA:44:LYS:HE2	1.89	0.54
35:IA:62:ARG:HB2	35:IA:66:GLY:O	2.07	0.54
36:JA:40:SER:O	36:JA:44:ARG:HG3	2.06	0.54
48:VA:97:LYS:HE3	48:VA:101:VAL:HG21	1.89	0.54
48:VA:123:ALA:HB2	48:VA:154:SER:C	2.32	0.54
57:EB:58:LEU:O	57:EB:91:ILE:HG22	2.07	0.54
57:EB:67:LEU:HD11	57:EB:94:ALA:HB2	1.90	0.54
58:FB:46:VAL:HG22	58:FB:54:LYS:O	2.07	0.54
58:FB:84:HIS:ND1	58:FB:86:SER:HB2	2.22	0.54
58:FB:147:ALA:O	58:FB:148:ALA:HB3	2.07	0.54
59:GB:15:PRO:HD3	59:GB:43:TYR:CE1	2.42	0.54
61:IB:110:HIS:HB3	61:IB:138:ASN:ND2	2.22	0.54
66:NB:115:THR:HA	66:NB:118:ILE:O	2.07	0.54
68:PB:38:VAL:HG13	68:PB:42:TYR:HB3	1.90	0.54
70:RB:57:ARG:HG3	70:RB:89:ARG:CZ	2.37	0.54
72:TB:103:ILE:O	72:TB:103:ILE:HG23	2.07	0.54
1:A:20:G:H5'	1:A:571:G:C8	2.43	0.54
1:A:407:A:H2'	1:A:408:C:C6	2.43	0.54
1:A:460:A:H5'	1:A:461:G:OP2	2.08	0.54
1:A:545:A:H4'	1:A:546:U:H5'	1.89	0.54
1:A:767:U:H6	59:GB:141:VAL:HA	1.72	0.54
1:A:959:U:O2	1:A:959:U:H2'	2.07	0.54
1:A:1675:C:H1'	58:FB:32:GLN:NE2	2.22	0.54
2:B:217:U:H4'	30:DA:100:HIS:CD2	2.42	0.54
2:B:1281:G:H5'	48:VA:55:LYS:CG	2.29	0.54
2:B:1818:U:C2'	2:B:1819:U:H5"	2.37	0.54
2:B:2133:U:H2'	2:B:2134:G:O4'	2.06	0.54
7:G:56:ILE:HD13	7:G:76:VAL:HG22	1.88	0.54
7:G:368:GLY:H	28:BA:17:ARG:NH2	2.05	0.54
8:H:222:VAL:HG13	8:H:222:VAL:O	2.08	0.54
11:K:80:GLN:NE2	25:Y:136:ARG:HH11	2.06	0.54
12:L:204:ARG:C	12:L:206:GLU:H	2.15	0.54
15:O:51:ARG:HB2	15:O:51:ARG:NH2	2.23	0.54
18:R:120:VAL:HG11	20:T:199:TYR:CE2	2.42	0.54
20:T:19:LEU:O	20:T:23:VAL:HG23	2.06	0.54
21:U:64:ASN:C	21:U:67:ILE:HD13	2.32	0.54
35:IA:31:ARG:O	35:IA:35:GLU:HB2	2.07	0.54
36:JA:19:ARG:HG2	36:JA:19:ARG:HH11	1.72	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:WA:152:SER:H	49:WA:173:GLY:HA2	1.72	0.54
54:BB:133:LYS:O	54:BB:134:LYS:HB2	2.06	0.54
54:BB:234:PRO:C	54:BB:236:ILE:H	2.14	0.54
55:CB:61:TYR:OH	78:ZB:49:ARG:HD3	2.07	0.54
55:CB:122:ASN:O	55:CB:126:ASP:HA	2.08	0.54
56:DB:20:ASP:HB2	56:DB:23:ARG:HG3	1.89	0.54
61:IB:78:THR:HG21	61:IB:119:VAL:HG22	1.88	0.54
63:KB:27:LYS:HG3	63:KB:28:LEU:HG	1.89	0.54
77:YB:33:LEU:HD23	77:YB:81:ARG:HA	1.90	0.54
82:DC:103:ILE:CD1	82:DC:122:THR:HG23	2.36	0.54
82:DC:158:ASN:OD1	82:DC:213:SER:HA	2.08	0.54
82:DC:385:MET:HE2	82:DC:465:LYS:H	1.72	0.54
82:DC:414:GLN:NE2	82:DC:418:TYR:HE2	2.05	0.54
83:EC:6766:U:H2'	83:EC:6767:G:C8	2.42	0.54
1:A:3:U:H5'	52:ZA:179:VAL:HG12	1.88	0.54
1:A:767:U:C6	59:GB:141:VAL:HA	2.41	0.54
1:A:1085:G:OP2	52:ZA:161:LYS:HE2	2.07	0.54
1:A:1617:U:O2'	1:A:1618:C:H5'	2.06	0.54
1:A:1757:G:H4'	2:B:2256:A:C6	2.41	0.54
2:B:117:U:H5'	12:L:141:ALA:HB3	1.89	0.54
2:B:389:A:H4'	21:U:16:SER:O	2.07	0.54
2:B:641:C:H2'	2:B:642:U:O4'	2.07	0.54
2:B:1116:G:H3'	2:B:1117:G:H5"	1.90	0.54
2:B:1234:G:H1'	16:P:132:ILE:HD13	1.88	0.54
2:B:1366:A:H2'	2:B:1367:G:O4'	2.07	0.54
2:B:1523:U:O2'	2:B:1608:C:H5'	2.08	0.54
2:B:1565:G:H21	2:B:1574:C:H42	1.54	0.54
2:B:3045:G:H4'	7:G:16:PHE:CD2	2.42	0.54
2:B:3192:U:H2'	2:B:3193:C:H6	1.71	0.54
2:B:3231:U:H2'	2:B:3232:G:H8	1.72	0.54
7:G:92:TYR:CE1	7:G:159:ARG:HD2	2.42	0.54
7:G:122:TRP:C	7:G:124:LYS:H	2.16	0.54
8:H:157:GLU:O	8:H:213:ASN:HB2	2.07	0.54
10:J:26:ARG:HB3	10:J:27:PRO:HD2	1.88	0.54
10:J:64:LEU:HD22	10:J:65:ILE:N	2.22	0.54
13:M:6:THR:HG21	13:M:65:VAL:HG13	1.90	0.54
15:O:107:ASP:O	15:O:108:GLU:HB2	2.07	0.54
16:P:87:GLU:HG2	16:P:89:PRO:HD2	1.89	0.54
20:T:67:THR:C	20:T:69:GLY:N	2.65	0.54
29:CA:103:TYR:C	29:CA:105:VAL:H	2.15	0.54
31:EA:54:THR:HG23	31:EA:57:HIS:N	2.22	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:WA:25:THR:HG21	49:WA:295:SER:HA	1.87	0.54
49:WA:123:ILE:HG22	49:WA:133:VAL:HG22	1.89	0.54
53:AB:53:THR:HG21	53:AB:94:ARG:HB3	1.90	0.54
53:AB:109:LEU:CD1	53:AB:175:VAL:HG21	2.37	0.54
55:CB:118:LEU:HD23	55:CB:121:ILE:HD12	1.90	0.54
56:DB:211:LEU:H	56:DB:211:LEU:CD2	2.20	0.54
58:FB:10:LYS:HG3	58:FB:11:ARG:H	1.72	0.54
59:GB:36:LEU:HD21	59:GB:108:ARG:NH1	2.22	0.54
61:IB:94:ILE:HD13	73:UB:12:ALA:CB	2.38	0.54
68:PB:133:VAL:HG13	68:PB:134:ARG:H	1.72	0.54
69:QB:25:GLN:HE21	69:QB:27:LYS:HB2	1.71	0.54
72:TB:42:GLN:NE2	72:TB:49:GLU:HA	2.21	0.54
73:UB:55:GLU:HG3	73:UB:57:LEU:HD22	1.88	0.54
73:UB:70:LYS:HB3	73:UB:93:LEU:HD11	1.88	0.54
82:DC:637:GLY:HA2	82:DC:668:GLN:HE22	1.71	0.54
1:A:789:A:H3'	1:A:790:U:H6	1.73	0.54
1:A:952:A:H2'	1:A:953:G:C8	2.43	0.54
1:A:1454:G:O2'	65:MB:122:THR:HB	2.07	0.54
1:A:1669:U:H2'	1:A:1670:G:O4'	2.07	0.54
1:A:1681:A:N6	1:A:1720:G:O2'	2.41	0.54
2:B:38:U:O5'	2:B:38:U:H6	1.88	0.54
2:B:117:U:H5'	12:L:141:ALA:CB	2.37	0.54
2:B:1160:C:OP1	22:V:2:GLY:N	2.39	0.54
2:B:1259:A:C4	48:VA:53:MET:HG3	2.42	0.54
2:B:1259:A:O4'	48:VA:53:MET:HB2	2.06	0.54
2:B:2470:C:H5'	5:E:26:ARG:HG2	1.89	0.54
2:B:2748:A:H4'	9:I:145:PHE:CG	2.42	0.54
12:L:91:PHE:CZ	12:L:185:ARG:HB3	2.42	0.54
14:N:4:ARG:NH1	14:N:99:ILE:HG13	2.22	0.54
14:N:16:PRO:HG3	14:N:128:ARG:HE	1.72	0.54
16:P:82:ILE:O	16:P:86:LYS:HB2	2.07	0.54
24:X:23:LYS:HA	25:Y:146:ASN:HD22	1.72	0.54
25:Y:124:VAL:CG1	25:Y:125:ALA:H	2.08	0.54
28:BA:38:SER:O	28:BA:42:GLN:HG3	2.07	0.54
37:KA:90:PRO:O	37:KA:91:ALA:HB3	2.07	0.54
38:LA:21:LYS:HB2	38:LA:35:VAL:HG21	1.90	0.54
41:OA:28:HIS:CE1	41:OA:30:GLN:HB2	2.43	0.54
43:QA:9:ILE:HG22	43:QA:13:MET:HE2	1.89	0.54
49:WA:182:ASN:O	49:WA:186:PHE:HA	2.08	0.54
50:XA:82:GLY:HA3	50:XA:170:ILE:HG21	1.89	0.54
54:BB:18:TRP:HB3	54:BB:20:LEU:HG	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BB:34:GLY:HA3	54:BB:83:PRO:CG	2.36	0.54
55:CB:53:VAL:HG23	55:CB:65:ARG:HH12	1.71	0.54
56:DB:84:TYR:HE1	56:DB:86:PRO:HG3	1.72	0.54
65:MB:18:ARG:NH1	68:PB:92:ILE:HA	2.22	0.54
70:RB:100:VAL:O	70:RB:104:THR:HG23	2.07	0.54
75:WB:84:GLU:HA	75:WB:89:ILE:HD11	1.88	0.54
1:A:395:U:H2'	1:A:396:G:O4'	2.07	0.54
1:A:631:G:H2'	1:A:632:U:O4'	2.08	0.54
1:A:1184:A:C4'	1:A:1210:C:H4'	2.37	0.54
1:A:1727:G:H21	58:FB:32:GLN:NE2	2.05	0.54
2:B:271:C:H1'	2:B:295:A:N6	2.23	0.54
2:B:962:A:O2'	2:B:963:G:H5'	2.07	0.54
2:B:981:U:H2'	2:B:982:C:C6	2.43	0.54
2:B:1744:G:H2'	2:B:1745:C:C6	2.43	0.54
2:B:1892:G:C3'	2:B:1893:A:H5"	2.37	0.54
2:B:1925:U:H1'	47:UA:20:SER:HB3	1.90	0.54
2:B:2407:C:H2'	2:B:2408:U:C6	2.42	0.54
2:B:3015:G:H2'	2:B:3016:A:C8	2.42	0.54
2:B:3027:A:C8	82:DC:789:GLY:HA2	2.43	0.54
2:B:3111:U:C2'	2:B:3112:G:H5'	2.37	0.54
5:E:74:VAL:O	5:E:78:LYS:HD2	2.07	0.54
5:E:76:ARG:HD3	5:E:145:TYR:HB2	1.88	0.54
6:F:68:LYS:NZ	6:F:70:ARG:HH11	2.05	0.54
6:F:116:VAL:HG13	6:F:117:GLU:N	2.21	0.54
12:L:160:ILE:H	12:L:160:ILE:CD1	2.06	0.54
14:N:89:VAL:HG13	14:N:136:PHE:CE1	2.43	0.54
21:U:84:PRO:HB2	21:U:87:SER:HB2	1.90	0.54
23:W:38:ARG:HH11	23:W:38:ARG:HG3	1.73	0.54
38:LA:43:LYS:HB3	38:LA:48:GLY:O	2.06	0.54
52:ZA:88:LYS:O	52:ZA:94:GLN:HA	2.07	0.54
52:ZA:152:HIS:O	52:ZA:194:GLU:HB2	2.07	0.54
53:AB:3:ALA:O	53:AB:5:ILE:HG12	2.07	0.54
54:BB:214:LEU:HB2	54:BB:244:ILE:HG23	1.89	0.54
55:CB:88:PRO:HG2	55:CB:91:GLU:HB3	1.88	0.54
58:FB:104:ILE:HG12	58:FB:165:LEU:HB2	1.89	0.54
63:KB:66:ILE:HG23	63:KB:67:THR:HG23	1.89	0.54
65:MB:41:VAL:CG1	65:MB:84:ILE:HG21	2.38	0.54
82:DC:373:ASP:HB2	82:DC:376:ALA:HB2	1.89	0.54
82:DC:737:GLU:HG3	82:DC:764:PRO:O	2.06	0.54
1:A:152:U:H2'	1:A:153:G:H5"	1.88	0.54
1:A:397:A:O2'	58:FB:50:GLY:HA2	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1793:G:O2'	1:A:1794:A:H3'	2.07	0.54
2:B:287:G:H2'	2:B:288:C:C6	2.42	0.54
2:B:599:C:OP1	8:H:332:LYS:HE2	2.07	0.54
2:B:1349:G:H2'	2:B:1349:G:N3	2.22	0.54
2:B:1481:A:C2	2:B:1858:A:H4'	2.43	0.54
2:B:3082:C:H2'	2:B:3083:G:H8	1.72	0.54
2:B:3159:C:H2'	2:B:3160:U:H6	1.72	0.54
3:C:63:G:O2'	39:MA:49:LYS:CE	2.56	0.54
4:D:24:A:H2'	4:D:25:G:O4'	2.07	0.54
5:E:30:GLU:CA	5:E:210:MET:HE1	2.37	0.54
7:G:85:VAL:HG22	7:G:163:HIS:CD2	2.43	0.54
9:I:51:LEU:HB2	9:I:144:VAL:CG2	2.38	0.54
10:J:133:GLU:HG2	10:J:137:ASP:OD2	2.08	0.54
16:P:94:LYS:HA	16:P:97:ASN:HB2	1.88	0.54
25:Y:39:ILE:HD12	25:Y:102:ARG:HD3	1.88	0.54
25:Y:62:GLY:HA3	25:Y:76:ILE:HD13	1.89	0.54
34:HA:45:ALA:HB1	34:HA:72:GLY:O	2.08	0.54
36:JA:91:THR:C	36:JA:92:TYR:HD2	2.15	0.54
48:VA:30:VAL:O	48:VA:31:ASP:HB2	2.08	0.54
50:XA:134:LYS:O	50:XA:137:SER:HB3	2.08	0.54
53:AB:46:THR:HG22	53:AB:48:VAL:HG23	1.88	0.54
54:BB:214:LEU:HD22	54:BB:244:ILE:CG2	2.37	0.54
55:CB:163:SER:O	55:CB:167:ARG:HG3	2.08	0.54
57:EB:62:VAL:H	57:EB:94:ALA:HA	1.71	0.54
61:IB:75:VAL:HG21	61:IB:117:VAL:HG11	1.89	0.54
63:KB:44:GLY:C	63:KB:45:LEU:HD12	2.32	0.54
65:MB:79:HIS:HA	65:MB:97:TYR:HB2	1.88	0.54
69:QB:111:ILE:HG23	69:QB:113:ILE:HG13	1.90	0.54
72:TB:90:THR:HB	72:TB:94:LEU:HD12	1.90	0.54
73:UB:130:VAL:O	73:UB:131:SER:HB3	2.08	0.54
77:YB:35:VAL:HA	77:YB:79:PHE:HA	1.90	0.54
82:DC:74:ALA:HB2	82:DC:103:ILE:HG12	1.89	0.54
82:DC:405:VAL:O	82:DC:405:VAL:HG13	2.07	0.54
82:DC:666:ALA:CB	82:DC:709:MET:HB3	2.35	0.54
1:A:155:U:H4'	56:DB:59:GLN:H	1.72	0.54
1:A:577:G:H5"	1:A:578:U:H5'	1.89	0.54
1:A:762:A:H2'	1:A:763:G:C8	2.42	0.54
1:A:949:C:H2'	1:A:950:C:O4'	2.08	0.54
2:B:305:U:O4	2:B:2786:G:H1'	2.07	0.54
2:B:911:C:H42	6:F:3:ARG:HD3	1.72	0.54
2:B:1234:G:C2	16:P:132:ILE:HG12	2.42	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1254:C:O2	16:P:131:GLU:HB2	2.07	0.54
2:B:1258:U:H1'	48:VA:42:ARG:CZ	2.38	0.54
2:B:1278:A:H3'	2:B:1279:C:H6	1.73	0.54
2:B:1447:G:H5'	21:U:67:ILE:HD11	1.90	0.54
2:B:1479:U:C2'	2:B:1480:G:H5'	2.35	0.54
3:C:146:U:H2'	3:C:147:U:H6	1.71	0.54
5:E:91:LYS:H	5:E:91:LYS:HD3	1.73	0.54
6:F:5:ILE:HD12	6:F:7:ASN:HD21	1.73	0.54
7:G:169:THR:HG22	7:G:171:LEU:HG	1.89	0.54
9:I:91:GLY:HA2	9:I:94:ASN:ND2	2.16	0.54
14:N:213:PHE:N	14:N:214:PRO:HD3	2.23	0.54
18:R:8:LYS:HE2	18:R:8:LYS:CA	2.38	0.54
21:U:30:ARG:HD3	21:U:30:ARG:C	2.33	0.54
22:V:131:ALA:HB1	22:V:135:GLN:H	1.72	0.54
37:KA:48:ARG:HG2	37:KA:48:ARG:HH11	1.73	0.54
38:LA:41:ARG:HG2	38:LA:56:THR:HG21	1.89	0.54
40:NA:40:VAL:O	40:NA:44:VAL:HG23	2.08	0.54
49:WA:178:VAL:HG22	49:WA:199:ILE:HD13	1.90	0.54
49:WA:180:ALA:HB3	49:WA:190:ALA:HB3	1.88	0.54
50:XA:59:LEU:O	50:XA:63:ILE:HG13	2.07	0.54
53:AB:103:GLU:O	53:AB:107:PHE:HB2	2.08	0.54
59:GB:96:VAL:HA	59:GB:99:LEU:CD1	2.38	0.54
60:HB:31:LYS:HD3	60:HB:36:ASP:CG	2.33	0.54
61:IB:109:VAL:HG23	61:IB:138:ASN:HA	1.90	0.54
66:NB:115:THR:HA	66:NB:118:ILE:HG23	1.90	0.54
82:DC:586:ILE:HD12	82:DC:708:THR:HG22	1.89	0.54
1:A:40:A:H62	1:A:467:G:H21	1.56	0.54
1:A:294:C:H2'	1:A:295:A:C8	2.43	0.54
1:A:524:U:H3	1:A:526:A:H3'	1.73	0.54
1:A:1175:U:H2'	1:A:1176:G:C8	2.43	0.54
1:A:1485:C:C2'	1:A:1486:G:H4'	2.34	0.54
2:B:531:G:H2'	2:B:532:A:C8	2.42	0.54
2:B:771:A:H2'	2:B:772:U:O4'	2.08	0.54
2:B:917:A:H2'	2:B:918:C:C6	2.43	0.54
2:B:1764:U:H3'	2:B:1765:U:C4'	2.38	0.54
2:B:2061:G:C2'	2:B:2062:G:H5'	2.37	0.54
2:B:2093:A:H5'	2:B:2094:C:O5'	2.08	0.54
2:B:3230:G:H2'	2:B:3231:U:O4'	2.07	0.54
6:F:112:ILE:HD12	47:UA:79:VAL:HG22	1.88	0.54
7:G:139:GLN:HG3	7:G:139:GLN:O	2.08	0.54
7:G:339:ARG:NE	7:G:342:LEU:HD21	2.23	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:114:ASN:HB2	8:H:117:GLU:OE2	2.08	0.54
9:I:80:SER:C	9:I:82:GLU:H	2.15	0.54
10:J:6:ALA:HB1	10:J:10:TYR:OH	2.08	0.54
12:L:89:GLU:HA	12:L:92:LYS:NZ	2.23	0.54
12:L:241:LYS:C	12:L:243:GLN:H	2.16	0.54
15:O:35:LYS:HE3	15:O:35:LYS:HA	1.90	0.54
17:Q:46:ILE:CG2	17:Q:49:ARG:HB2	2.37	0.54
18:R:114:ASP:HA	18:R:117:ARG:NH1	2.23	0.54
20:T:23:VAL:HG13	20:T:33:ILE:HG21	1.89	0.54
20:T:76:PRO:HG3	20:T:142:SER:OG	2.08	0.54
31:EA:54:THR:HG22	31:EA:57:HIS:CD2	2.43	0.54
34:HA:20:SER:HB3	34:HA:96:GLY:HA3	1.90	0.54
46:TA:92:GLU:HG3	46:TA:92:GLU:O	2.08	0.54
52:ZA:37:PRO:CD	52:ZA:46:LYS:HD2	2.38	0.54
53:AB:162:GLN:HG3	53:AB:166:ASP:OD2	2.08	0.54
54:BB:9:LEU:O	54:BB:27:TYR:HB3	2.08	0.54
55:CB:41:LYS:HD3	66:NB:54:LEU:HD21	1.88	0.54
59:GB:80:LEU:C	59:GB:83:VAL:HG22	2.33	0.54
61:IB:77:SER:O	61:IB:84:ILE:HB	2.08	0.54
63:KB:22:ALA:CB	63:KB:23:PRO:HA	2.25	0.54
66:NB:114:ARG:H	66:NB:116:LEU:HD23	1.71	0.54
68:PB:111:ASP:O	68:PB:115:ARG:HB2	2.08	0.54
69:QB:57:ARG:O	69:QB:61:VAL:HG23	2.08	0.54
82:DC:257:TRP:H	82:DC:257:TRP:CD1	2.25	0.54
82:DC:335:LEU:HA	82:DC:338:ILE:CD1	2.26	0.54
82:DC:637:GLY:O	82:DC:644:ASN:HB2	2.07	0.54
82:DC:715:ALA:HA	82:DC:835:TRP:HA	1.88	0.54
1:A:430:G:H2'	1:A:431:C:C6	2.43	0.54
1:A:1667:A:H2'	1:A:1668:G:H8	1.73	0.54
2:B:221:A:OP1	2:B:221:A:H3'	2.07	0.54
2:B:1220:U:H3'	2:B:1221:A:H2	1.68	0.54
2:B:1388:U:O2'	36:JA:99:ASN:O	2.24	0.54
2:B:1427:U:OP2	32:FA:4:ARG:NH2	2.41	0.54
2:B:1656:A:H4'	2:B:1657:C:O5'	2.06	0.54
2:B:2152:A:H2'	2:B:2153:U:C6	2.43	0.54
2:B:2394:G:H2'	2:B:2395:G:O4'	2.06	0.54
2:B:2752:U:H5'	2:B:2752:U:C6	2.43	0.54
2:B:3198:U:H1'	13:M:21:LYS:CB	2.38	0.54
5:E:72:PHE:HA	5:E:75:ASP:HB3	1.90	0.54
8:H:238:LEU:C	8:H:240:PRO:HD3	2.32	0.54
9:I:34:LYS:C	9:I:34:LYS:HD3	2.33	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:136:GLU:O	10:J:140:VAL:HG23	2.08	0.54
14:N:35:ASP:OD2	14:N:88:ARG:HG3	2.08	0.54
21:U:67:ILE:N	21:U:67:ILE:HD12	2.23	0.54
22:V:90:ASP:C	22:V:92:ARG:H	2.15	0.54
23:W:163:ARG:HG3	23:W:164:LEU:HG	1.90	0.54
25:Y:64:VAL:HG13	25:Y:64:VAL:O	2.07	0.54
37:KA:23:ASN:O	37:KA:25:PRO:HD3	2.07	0.54
46:TA:74:CYS:O	46:TA:78:LYS:HA	2.08	0.54
49:WA:242:SER:HB3	49:WA:292:LEU:HD23	1.90	0.54
54:BB:44:LEU:HD21	54:BB:84:ALA:CB	2.38	0.54
70:RB:22:ILE:HG21	70:RB:100:VAL:HG13	1.88	0.54
82:DC:189:VAL:CG1	82:DC:201:GLN:HG3	2.38	0.54
82:DC:213:SER:HB3	82:DC:216:HIS:HB2	1.90	0.54
1:A:639:U:H5'	57:EB:101:LYS:HD2	1.89	0.54
1:A:1241:G:H1'	65:MB:79:HIS:H	1.73	0.54
1:A:1321:A:H4'	1:A:1322:A:O5'	2.08	0.54
2:B:599:C:H2'	2:B:600:G:H5"	1.90	0.54
2:B:637:C:H2'	2:B:638:C:C5	2.42	0.54
2:B:669:U:H2'	2:B:670:C:O4'	2.08	0.54
2:B:1098:A:O2'	2:B:1099:A:H5'	2.08	0.54
2:B:1269:U:H1'	2:B:1272:C:C5	2.43	0.54
2:B:3371:G:H2'	2:B:3372:A:C8	2.43	0.54
3:C:38:U:C5	39:MA:78:LYS:HD3	2.43	0.54
7:G:296:THR:HG22	7:G:297:SER:N	2.22	0.54
8:H:3:ARG:HH11	8:H:22:LEU:HB2	1.73	0.54
8:H:300:ARG:HH11	8:H:300:ARG:HG3	1.73	0.54
13:M:9:GLN:HB3	13:M:52:LEU:HD21	1.89	0.54
14:N:40:LYS:HB2	14:N:40:LYS:HZ2	1.72	0.54
24:X:40:ARG:HD2	24:X:43:TYR:CD1	2.43	0.54
29:CA:131:ASP:HB3	29:CA:134:ASP:OD2	2.07	0.54
32:FA:70:LYS:HG2	32:FA:70:LYS:O	2.08	0.54
33:GA:23:LYS:HB3	33:GA:24:PRO:HD2	1.90	0.54
47:UA:59:CYS:O	47:UA:60:CYS:SG	2.66	0.54
48:VA:26:PHE:HB2	48:VA:87:VAL:CG1	2.38	0.54
49:WA:150:TRP:HB2	49:WA:174:ASN:HB2	1.90	0.54
49:WA:211:ILE:HG22	49:WA:212:ALA:N	2.23	0.54
50:XA:13:ASP:HA	50:XA:16:LEU:HG	1.90	0.54
50:XA:20:ALA:HA	50:XA:168:HIS:HB2	1.90	0.54
55:CB:107:LYS:O	55:CB:111:VAL:HG23	2.08	0.54
58:FB:43:ILE:HD13	58:FB:177:GLY:O	2.08	0.54
63:KB:50:ILE:HG22	63:KB:71:ILE:HD13	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:XB:84:VAL:O	76:XB:85:ARG:C	2.50	0.54
82:DC:815:ALA:HA	82:DC:818:ILE:HD12	1.90	0.54
83:EC:6909:A:H3'	83:EC:6910:A:C8	2.43	0.54
1:A:285:G:H2'	1:A:286:C:C6	2.43	0.53
1:A:768:C:O4'	59:GB:143:ILE:HD13	2.08	0.53
1:A:854:U:H2'	1:A:855:A:C4'	2.38	0.53
1:A:1207:C:H42	1:A:1456:C:H5	1.56	0.53
1:A:1451:C:H2'	1:A:1452:U:C6	2.42	0.53
2:B:300:G:H2'	2:B:301:G:H8	1.73	0.53
2:B:522:A:H3'	2:B:523:A:C5'	2.35	0.53
2:B:713:U:O2	2:B:754:G:H4'	2.09	0.53
2:B:1015:U:O4'	2:B:1017:C:H2'	2.07	0.53
2:B:2477:G:H2'	2:B:2477:G:N3	2.23	0.53
2:B:2880:U:O2	7:G:250:ALA:HB3	2.08	0.53
2:B:3299:A:H2	2:B:3315:G:H22	1.56	0.53
6:F:42:ARG:HD2	6:F:87:PHE:CG	2.43	0.53
6:F:112:ILE:CD1	47:UA:79:VAL:HG22	2.39	0.53
7:G:106:TRP:HB2	7:G:133:TYR:CE2	2.42	0.53
9:I:51:LEU:HB2	9:I:144:VAL:HG22	1.90	0.53
13:M:16:VAL:HG12	13:M:17:THR:N	2.24	0.53
16:P:132:ILE:O	16:P:136:ALA:HB3	2.07	0.53
17:Q:75:PHE:O	17:Q:76:THR:O	2.25	0.53
39:MA:74:LYS:O	39:MA:74:LYS:HD3	2.08	0.53
41:OA:64:MET:C	41:OA:66:TYR:N	2.66	0.53
52:ZA:53:ILE:HA	52:ZA:72:LEU:HD23	1.90	0.53
55:CB:217:LEU:HA	55:CB:220:VAL:HB	1.89	0.53
60:HB:40:LEU:O	60:HB:40:LEU:HD13	2.08	0.53
66:NB:12:LYS:HA	66:NB:16:ALA:O	2.09	0.53
70:RB:74:GLU:HG3	70:RB:75:GLY:N	2.23	0.53
73:UB:89:ASN:HB3	73:UB:136:TRP:CE2	2.42	0.53
75:WB:93:SER:CB	75:WB:100:ILE:H	2.16	0.53
82:DC:179:ALA:O	82:DC:183:GLU:HG3	2.08	0.53
82:DC:638:PRO:HA	82:DC:668:GLN:NE2	2.21	0.53
82:DC:644:ASN:C	82:DC:645:LEU:HD23	2.33	0.53
1:A:158:U:C2'	1:A:159:U:H3'	2.39	0.53
1:A:646:C:H2'	1:A:647:G:H8	1.74	0.53
2:B:129:U:H2'	2:B:130:A:C8	2.43	0.53
2:B:974:G:H5'	22:V:16:ARG:HG2	1.91	0.53
2:B:1220:U:H3'	2:B:1221:A:N3	2.21	0.53
2:B:1471:U:O2'	2:B:1472:U:H5'	2.09	0.53
2:B:1668:G:H2'	2:B:1669:C:C6	2.44	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2225:U:H2'	2:B:2226:U:C6	2.43	0.53
2:B:2389:C:H1'	21:U:69:ARG:NH2	2.23	0.53
6:F:242:ARG:CG	6:F:243:THR:N	2.63	0.53
22:V:72:LYS:NZ	22:V:72:LYS:HB3	2.23	0.53
24:X:82:ASP:HA	24:X:87:THR:HA	1.89	0.53
25:Y:40:VAL:O	25:Y:61:THR:HG23	2.09	0.53
46:TA:35:LEU:C	46:TA:37:ALA:H	2.15	0.53
54:BB:11:ARG:HH12	54:BB:20:LEU:HB3	1.73	0.53
54:BB:31:PRO:HG2	54:BB:38:LEU:HD13	1.88	0.53
56:DB:2:LYS:HB3	56:DB:108:VAL:HG22	1.89	0.53
82:DC:32:LYS:HD2	82:DC:33:SER:N	2.23	0.53
82:DC:91:GLN:HE21	82:DC:347:THR:H	1.55	0.53
82:DC:488:VAL:HB	82:DC:796:MET:CE	2.39	0.53
82:DC:564:ARG:O	82:DC:725:GLN:HB2	2.07	0.53
82:DC:699:DDE:HAC2	82:DC:699:DDE:HAD2	1.73	0.53
1:A:435:C:OP2	73:UB:50:LYS:HB3	2.08	0.53
1:A:1104:U:OP1	73:UB:14:LYS:HE3	2.09	0.53
1:A:1318:G:H5"	67:OB:67:ARG:NH1	2.21	0.53
2:B:1560:G:H2'	2:B:1561:G:C8	2.42	0.53
2:B:2179:C:N3	6:F:172:GLY:HA2	2.23	0.53
2:B:2317:A:H2'	2:B:2318:U:H5'	1.89	0.53
2:B:2730:G:C2'	2:B:2731:U:H5'	2.37	0.53
2:B:3034:C:H2'	2:B:3035:A:H8	1.73	0.53
2:B:3121:U:H1'	2:B:3122:A:H5"	1.90	0.53
6:F:203:ALA:HA	6:F:217:GLN:HE21	1.73	0.53
6:F:251:LYS:HA	6:F:251:LYS:NZ	2.23	0.53
7:G:332:ARG:HG2	7:G:332:ARG:NH1	2.21	0.53
9:I:131:LEU:HB3	9:I:175:HIS:HE1	1.73	0.53
11:K:156:ILE:HD12	11:K:161:VAL:CB	2.38	0.53
18:R:39:ILE:HB	18:R:43:LYS:O	2.07	0.53
20:T:160:ARG:HB3	20:T:160:ARG:HH11	1.74	0.53
22:V:82:VAL:HG22	22:V:102:ALA:HB3	1.89	0.53
31:EA:75:VAL:HG13	31:EA:80:LEU:HD11	1.91	0.53
34:HA:47:ASN:ND2	34:HA:74:ASN:ND2	2.56	0.53
34:HA:90:VAL:HG12	34:HA:91:SER:H	1.73	0.53
39:MA:90:ARG:HH11	39:MA:90:ARG:HG3	1.74	0.53
46:TA:42:ARG:O	46:TA:45:ARG:HB3	2.08	0.53
49:WA:42:LEU:HD13	49:WA:61:PHE:HB2	1.89	0.53
56:DB:63:MET:HE1	56:DB:106:LEU:HD13	1.89	0.53
57:EB:102:PRO:HD3	57:EB:112:ARG:CD	2.36	0.53
57:EB:127:GLU:HA	57:EB:135:ILE:CD1	2.38	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:EB:140:VAL:O	72:TB:51:GLU:HA	2.09	0.53
61:IB:35:TYR:CG	61:IB:49:ILE:HG12	2.43	0.53
63:KB:64:ARG:HG3	63:KB:64:ARG:NH1	2.23	0.53
67:OB:85:VAL:O	67:OB:87:GLU:N	2.41	0.53
73:UB:107:PHE:CE1	73:UB:114:LYS:HD2	2.43	0.53
82:DC:164:LEU:CD2	82:DC:174:LEU:HD22	2.29	0.53
82:DC:385:MET:HE3	82:DC:513:LYS:HB3	1.90	0.53
1:A:372:G:H1'	1:A:612:U:O2	2.09	0.53
1:A:939:A:H2'	1:A:940:A:C8	2.44	0.53
1:A:1055:U:O2'	1:A:1056:U:H5'	2.08	0.53
1:A:1106:U:O2'	1:A:1107:G:H5'	2.08	0.53
1:A:1423:U:H2'	1:A:1424:A:O4'	2.08	0.53
2:B:576:C:H2'	2:B:577:C:H6	1.73	0.53
2:B:947:G:H2'	2:B:948:C:C6	2.44	0.53
2:B:1078:U:H1'	2:B:1082:U:C2	2.43	0.53
2:B:1301:A:H4'	2:B:1302:A:C5'	2.39	0.53
2:B:1460:A:H2'	2:B:1461:A:C8	2.43	0.53
2:B:2085:U:C3'	2:B:2086:A:H5'	2.39	0.53
2:B:2904:U:H2'	2:B:2905:U:C6	2.43	0.53
7:G:79:VAL:HG13	7:G:79:VAL:O	2.08	0.53
7:G:126:LYS:HB2	7:G:128:LYS:HG2	1.90	0.53
10:J:72:ASN:HD22	10:J:72:ASN:C	2.15	0.53
11:K:145:ARG:HB3	11:K:145:ARG:HH11	1.72	0.53
13:M:47:LYS:HE2	18:R:6:ILE:H	1.74	0.53
15:O:149:GLY:O	15:O:153:LYS:HB2	2.09	0.53
18:R:94:TRP:CE2	18:R:100:ALA:HB2	2.43	0.53
19:S:73:ARG:CZ	19:S:92:LEU:HD21	2.38	0.53
19:S:162:ARG:CB	19:S:162:ARG:HH11	2.20	0.53
22:V:38:ARG:HH21	22:V:39:ARG:HD3	1.73	0.53
24:X:89:ASN:HD21	25:Y:156:TYR:N	2.07	0.53
34:HA:22:LYS:HD2	34:HA:22:LYS:N	2.24	0.53
38:LA:81:CYS:O	38:LA:82:ALA:HB3	2.08	0.53
42:PA:17:ARG:HH22	42:PA:52:TYR:HE2	1.55	0.53
49:WA:10:ARG:HG2	49:WA:314:GLN:HG3	1.89	0.53
65:MB:44:ARG:NH1	65:MB:52:LYS:HD2	2.24	0.53
66:NB:22:VAL:HA	66:NB:64:ASP:O	2.08	0.53
68:PB:24:GLY:O	68:PB:26:ILE:HG12	2.08	0.53
83:EC:6852:U:H2'	83:EC:6853:G:H8	1.74	0.53
83:EC:6941:U:H2'	83:EC:6942:A:H5"	1.89	0.53
83:EC:6951:C:H2'	83:EC:6952:U:C6	2.43	0.53
1:A:1042:G:C3'	1:A:1043:A:H5"	2.38	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1433:G:N7	70:RB:71:PRO:HB3	2.24	0.53
1:A:1524:A:H4'	69:QB:93:HIS:CD2	2.43	0.53
1:A:1569:A:H2'	1:A:1570:A:C8	2.43	0.53
2:B:110:G:H5"	17:Q:91:ARG:CD	2.38	0.53
2:B:911:C:H5"	6:F:15:ILE:HD13	1.90	0.53
2:B:1674:G:H2'	2:B:1675:G:O4'	2.08	0.53
2:B:1757:A:H2'	2:B:1758:G:C8	2.44	0.53
2:B:1845:G:H5"	2:B:1846:C:H5"	1.91	0.53
2:B:1915:A:H2'	2:B:1916:U:C6	2.44	0.53
2:B:1916:U:O2'	2:B:1917:C:H5'	2.08	0.53
2:B:2203:U:H2'	2:B:2204:C:C6	2.43	0.53
2:B:2225:U:H2'	2:B:2226:U:H6	1.73	0.53
2:B:2457:G:H2'	2:B:2459:A:N7	2.22	0.53
2:B:2553:U:H5"	6:F:87:PHE:CE2	2.43	0.53
2:B:2818:U:H5"	33:GA:2:ALA:HB2	1.91	0.53
2:B:3148:U:H2'	2:B:3149:G:H8	1.72	0.53
3:C:57:C:O2'	3:C:58:G:H5'	2.09	0.53
5:E:109:ALA:CB	5:E:151:VAL:HG13	2.38	0.53
7:G:37:ARG:HA	7:G:186:GLY:HA2	1.90	0.53
7:G:86:VAL:HG13	7:G:160:VAL:HG13	1.91	0.53
8:H:119:ARG:HA	8:H:122:THR:OG1	2.08	0.53
8:H:314:LYS:O	8:H:314:LYS:HG3	2.08	0.53
12:L:195:SER:C	12:L:197:VAL:H	2.17	0.53
17:Q:140:SER:HB3	17:Q:143:ALA:HB3	1.90	0.53
27:AA:87:ARG:HE	27:AA:93:LEU:HD11	1.72	0.53
32:FA:90:TYR:CG	32:FA:100:PRO:HG3	2.44	0.53
38:LA:94:LEU:HD23	38:LA:94:LEU:O	2.08	0.53
39:MA:27:GLU:O	39:MA:31:LEU:HB2	2.07	0.53
54:BB:42:LEU:HB2	54:BB:109:PHE:CD2	2.43	0.53
56:DB:211:LEU:O	56:DB:215:ARG:HB2	2.08	0.53
57:EB:10:SER:HB2	57:EB:42:GLN:HE22	1.73	0.53
59:GB:126:ARG:HD3	80:BC:33:ARG:CD	2.38	0.53
60:HB:40:LEU:HA	60:HB:43:ILE:HD12	1.89	0.53
65:MB:29:SER:OG	65:MB:31:GLU:HG2	2.08	0.53
82:DC:378:LEU:HD12	82:DC:403:GLY:HA3	1.91	0.53
82:DC:414:GLN:HE21	82:DC:418:TYR:HE2	1.55	0.53
82:DC:571:SER:HA	82:DC:720:ALA:N	2.24	0.53
1:A:992:A:H5"	1:A:1786:G:O4'	2.08	0.53
1:A:1610:G:H4'	55:CB:98:MET:HE1	1.89	0.53
2:B:40:A:C2	32:FA:40:HIS:CE1	2.96	0.53
2:B:1064:A:H5"	2:B:1066:G:O4'	2.09	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1259:A:H1'	2:B:1280:C:O2'	2.09	0.53
2:B:1480:G:C6	2:B:1871:U:H5"	2.44	0.53
2:B:1966:U:H3	2:B:2049:A:H62	1.57	0.53
2:B:3066:U:H2'	2:B:3067:C:C6	2.44	0.53
2:B:3325:G:H1'	35:IA:105:GLN:HE21	1.74	0.53
3:C:64:U:O2'	3:C:65:A:H5'	2.08	0.53
6:F:55:GLY:HA3	6:F:174:ARG:NE	2.24	0.53
6:F:126:LEU:HD22	6:F:150:LEU:HD21	1.89	0.53
8:H:166:VAL:O	8:H:170:LYS:HB2	2.09	0.53
9:I:220:SER:O	9:I:224:LYS:HE3	2.09	0.53
16:P:123:ARG:NH1	48:VA:42:ARG:HD3	2.14	0.53
21:U:169:THR:OG1	21:U:172:GLN:HB2	2.09	0.53
23:W:4:LEU:O	23:W:5:ARG:C	2.52	0.53
23:W:115:ILE:HD12	23:W:123:LEU:HD12	1.91	0.53
25:Y:79:MET:HB2	25:Y:84:TYR:HE2	1.73	0.53
29:CA:60:TYR:N	29:CA:60:TYR:CD1	2.75	0.53
30:DA:82:VAL:CG1	30:DA:85:VAL:H	2.19	0.53
50:XA:77:SER:HA	50:XA:124:THR:OG1	2.08	0.53
55:CB:30:PRO:HB2	55:CB:33:VAL:HB	1.91	0.53
55:CB:99:MET:N	55:CB:103:ASN:HB3	2.24	0.53
55:CB:187:ILE:HD12	55:CB:187:ILE:N	2.18	0.53
67:OB:19:ARG:HG3	67:OB:20:TYR:HD1	1.74	0.53
73:UB:90:ASP:OD2	80:BC:12:GLY:HA2	2.08	0.53
82:DC:413:ILE:O	82:DC:426:LEU:HA	2.08	0.53
82:DC:836:GLN:CD	82:DC:836:GLN:H	2.17	0.53
1:A:486:G:H2'	1:A:487:G:C8	2.44	0.53
1:A:772:G:N2	1:A:774:A:H1'	2.24	0.53
1:A:801:G:H2'	1:A:802:G:C8	2.43	0.53
1:A:828:U:C3'	1:A:829:A:H5"	2.38	0.53
1:A:847:A:H2'	1:A:848:C:C6	2.44	0.53
1:A:1608:U:OP1	66:NB:15:SER:HB3	2.08	0.53
2:B:79:U:H2'	2:B:80:G:H8	1.72	0.53
2:B:146:U:H5"	2:B:148:G:O4'	2.08	0.53
2:B:583:G:H21	37:KA:42:GLN:HE22	1.57	0.53
2:B:860:G:C5	6:F:181:LYS:HB2	2.43	0.53
2:B:2317:A:O2'	2:B:2318:U:H5'	2.09	0.53
2:B:2615:G:H2'	2:B:2616:C:H6	1.73	0.53
2:B:2736:A:H4'	25:Y:71:SER:CB	2.39	0.53
2:B:3049:A:H5"	7:G:53:MET:HB2	1.91	0.53
7:G:73:VAL:HG21	27:AA:90:GLY:CA	2.38	0.53
7:G:141:GLY:HA2	7:G:144:ILE:HD13	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:148:ILE:HA	8:H:149:PRO:C	2.33	0.53
15:O:15:GLU:HB2	15:O:132:ASN:OD1	2.08	0.53
18:R:36:VAL:HG11	18:R:55:ARG:NH1	2.23	0.53
18:R:45:LEU:HA	18:R:57:ALA:HA	1.90	0.53
23:W:176:ARG:HD2	23:W:176:ARG:N	2.24	0.53
25:Y:11:THR:HB	25:Y:14:MET:HB3	1.90	0.53
30:DA:73:VAL:O	30:DA:73:VAL:HG12	2.08	0.53
37:KA:69:GLY:O	37:KA:70:LYS:HB3	2.08	0.53
38:LA:21:LYS:HE3	38:LA:35:VAL:HG21	1.91	0.53
38:LA:23:VAL:CG2	38:LA:33:GLN:HB2	2.39	0.53
41:OA:54:LYS:O	41:OA:58:THR:HG23	2.08	0.53
54:BB:94:ALA:CB	74:VB:17:LEU:HB3	2.38	0.53
55:CB:112:ARG:HH21	55:CB:115:LYS:HD2	1.73	0.53
56:DB:175:ILE:HB	56:DB:178:LEU:HD22	1.90	0.53
61:IB:109:VAL:HG21	61:IB:125:VAL:HG11	1.89	0.53
72:TB:3:ARG:HG2	72:TB:6:VAL:HA	1.90	0.53
74:VB:50:ALA:HB1	74:VB:54:ALA:CB	2.36	0.53
80:BC:40:TYR:O	80:BC:44:PHE:HB2	2.08	0.53
82:DC:106:PRO:HG3	82:DC:114:GLU:HB2	1.90	0.53
82:DC:127:VAL:CG2	82:DC:153:PRO:HB2	2.38	0.53
1:A:925:G:H2'	1:A:926:A:H8	1.73	0.53
1:A:1331:A:C2'	1:A:1332:C:H5'	2.39	0.53
1:A:1724:U:H2'	1:A:1725:U:C5	2.44	0.53
2:B:70:A:H2	2:B:72:C:H42	1.57	0.53
2:B:519:A:H5"	8:H:355:PHE:HZ	1.74	0.53
2:B:677:A:H4'	2:B:678:G:O5'	2.08	0.53
2:B:2085:U:C2'	2:B:2086:A:H5'	2.37	0.53
2:B:3154:C:H4'	2:B:3155:U:H5'	1.90	0.53
2:B:3231:U:H2'	2:B:3232:G:C8	2.44	0.53
3:C:146:U:H2'	3:C:147:U:C6	2.44	0.53
5:E:94:ASN:HD21	5:E:124:LEU:CA	2.22	0.53
9:I:103:LEU:CD1	9:I:169:GLY:HA2	2.31	0.53
13:M:134:ILE:HD11	13:M:146:LEU:HD23	1.91	0.53
15:O:48:SER:O	15:O:64:LYS:HA	2.09	0.53
16:P:133:LEU:HA	16:P:137:GLN:HG3	1.90	0.53
17:Q:63:VAL:HG12	32:FA:128:ARG:HH22	1.73	0.53
18:R:15:VAL:HG13	24:X:150:PHE:O	2.08	0.53
26:Z:50:LEU:CD2	26:Z:54:VAL:HG21	2.39	0.53
27:AA:84:SER:HA	27:AA:94:TYR:HB3	1.90	0.53
29:CA:92:LYS:HG3	29:CA:110:VAL:CB	2.37	0.53
39:MA:44:ILE:O	39:MA:47:VAL:HG12	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:TA:21:THR:HG22	46:TA:22:GLN:N	2.24	0.53
48:VA:96:ILE:C	48:VA:96:ILE:HD12	2.34	0.53
50:XA:84:ARG:HH21	50:XA:204:TYR:HA	1.74	0.53
56:DB:84:TYR:CE1	56:DB:86:PRO:HG3	2.44	0.53
57:EB:81:LEU:C	57:EB:83:LYS:H	2.15	0.53
73:UB:59:ILE:HB	73:UB:71:CYS:SG	2.48	0.53
74:VB:56:SER:HB3	74:VB:74:LEU:O	2.09	0.53
82:DC:39:LEU:HD21	82:DC:334:LEU:HD12	1.90	0.53
83:EC:6761:C:H2'	83:EC:6762:U:C6	2.44	0.53
83:EC:6892:U:O2	83:EC:6938:A:H2	1.91	0.53
1:A:154:G:H1'	56:DB:56:ASN:ND2	2.21	0.53
1:A:385:A:H5"	58:FB:22:ARG:HB3	1.91	0.53
1:A:455:C:O2'	1:A:456:A:H5'	2.09	0.53
1:A:872:G:N2	1:A:1047:G:H4'	2.24	0.53
1:A:1448:G:H5'	1:A:1448:G:H8	1.73	0.53
1:A:1507:G:OP1	1:A:1551:U:H4'	2.09	0.53
1:A:1605:G:OP2	66:NB:127:LYS:HD3	2.08	0.53
1:A:1614:A:H5'	78:ZB:47:PRO:HG3	1.91	0.53
2:B:655:C:H2'	2:B:656:A:C8	2.44	0.53
2:B:834:U:C2'	2:B:835:G:H5'	2.39	0.53
2:B:1095:U:C2	25:Y:127:GLN:HA	2.44	0.53
2:B:1112:A:H2'	2:B:1113:G:O4'	2.09	0.53
2:B:1221:A:H5'	48:VA:63:ILE:CD1	2.39	0.53
2:B:1708:C:H2'	2:B:1709:C:H6	1.74	0.53
2:B:2217:U:H2'	2:B:2218:G:C8	2.44	0.53
2:B:2822:U:H2'	2:B:2823:G:O4'	2.09	0.53
4:D:13:A:OP1	4:D:111:U:H1'	2.09	0.53
5:E:94:ASN:CG	5:E:124:LEU:HB2	2.34	0.53
9:I:22:ARG:NH2	9:I:28:THR:OG1	2.42	0.53
11:K:145:ARG:HG3	11:K:185:ILE:HD13	1.90	0.53
13:M:8:GLN:HB3	13:M:72:LYS:HG3	1.91	0.53
20:T:73:PHE:CB	20:T:78:ARG:HB3	2.38	0.53
21:U:67:ILE:HD12	21:U:67:ILE:H	1.74	0.53
23:W:162:ARG:HB3	23:W:162:ARG:CZ	2.37	0.53
26:Z:14:THR:HG23	26:Z:66:VAL:HG22	1.89	0.53
31:EA:51:LEU:HD12	31:EA:65:ARG:CD	2.39	0.53
38:LA:22:VAL:HG12	38:LA:30:LEU:HD21	1.91	0.53
39:MA:61:GLN:HA	39:MA:64:GLU:CD	2.34	0.53
47:UA:84:ARG:HG2	47:UA:84:ARG:HH11	1.73	0.53
49:WA:47:LEU:HD23	49:WA:55:GLY:CA	2.39	0.53
54:BB:49:ARG:HD2	54:BB:61:VAL:HG21	1.91	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:51:LYS:O	56:DB:111:LEU:HA	2.09	0.53
74:VB:15:ASN:HB3	74:VB:18:LEU:HB2	1.91	0.53
77:YB:50:ALA:O	77:YB:51:GLN:HB2	2.08	0.53
82:DC:22:MET:HG2	82:DC:338:ILE:HG23	1.91	0.53
82:DC:22:MET:CE	82:DC:338:ILE:HG12	2.38	0.53
82:DC:70:ILE:HG23	82:DC:71:LYS:HG3	1.90	0.53
82:DC:433:ARG:HH21	82:DC:444:PRO:CB	2.22	0.53
82:DC:644:ASN:ND2	82:DC:681:MET:HB2	2.20	0.53
82:DC:695:ALA:HB3	83:EC:6906:G:OP1	2.09	0.53
83:EC:6927:U:H5"	83:EC:6928:G:O4'	2.09	0.53
1:A:243:G:C2'	1:A:244:A:H5'	2.38	0.53
1:A:310:C:H4'	73:UB:33:LEU:HD13	1.89	0.53
1:A:782:U:O4	74:VB:48:TYR:HA	2.08	0.53
1:A:1454:G:H4'	65:MB:122:THR:CG2	2.33	0.53
2:B:1207:G:H5"	44:RA:119:ASN:ND2	2.24	0.53
2:B:1255:C:O2	16:P:131:GLU:HG3	2.09	0.53
2:B:2430:A:H2'	2:B:2431:C:C6	2.43	0.53
9:I:8:LYS:HG3	9:I:12:TYR:CE1	2.44	0.53
15:O:100:GLY:HA3	15:O:154:THR:HG22	1.91	0.53
29:CA:82:LEU:HD13	29:CA:84:PHE:HZ	1.73	0.53
47:UA:38:ASP:HA	47:UA:45:LYS:HA	1.91	0.53
54:BB:51:ARG:HG2	54:BB:51:ARG:HH11	1.73	0.53
56:DB:67:VAL:HG23	56:DB:100:ALA:N	2.23	0.53
58:FB:26:LYS:HD2	58:FB:29:LEU:HD22	1.90	0.53
59:GB:109:LEU:HG	59:GB:146:PHE:HB3	1.91	0.53
60:HB:52:LYS:HG3	60:HB:54:TYR:HE2	1.73	0.53
60:HB:58:GLN:CB	60:HB:65:TYR:HB2	2.25	0.53
65:MB:90:ILE:HG12	65:MB:107:ILE:CG2	2.39	0.53
70:RB:24:ILE:HD13	70:RB:41:ILE:HG21	1.91	0.53
70:RB:38:SER:O	70:RB:42:VAL:HG23	2.09	0.53
70:RB:43:LYS:HA	70:RB:46:GLU:HB2	1.90	0.53
72:TB:29:PRO:HB2	72:TB:58:SER:HB2	1.91	0.53
82:DC:78:TYR:CE2	82:DC:80:GLU:HB2	2.44	0.53
82:DC:189:VAL:HG12	82:DC:201:GLN:HG3	1.91	0.53
82:DC:374:PRO:HA	82:DC:450:ALA:CB	2.38	0.53
82:DC:628:THR:HG22	82:DC:629:ASP:N	2.24	0.53
1:A:34:G:O2'	1:A:35:U:H5'	2.08	0.52
1:A:301:A:H5"	58:FB:27:PHE:CE2	2.44	0.52
1:A:400:A:H61	58:FB:29:LEU:HD13	1.73	0.52
1:A:1686:C:H2'	1:A:1687:U:O4'	2.09	0.52
1:A:1762:A:C2'	1:A:1763:A:H5'	2.39	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:41:G:N2	2:B:2803:A:H62	2.07	0.52
2:B:299:G:H2'	2:B:300:G:C8	2.44	0.52
2:B:1234:G:N2	16:P:131:GLU:HB2	2.23	0.52
2:B:1282:G:H5'	48:VA:83:ASN:ND2	2.23	0.52
2:B:1329:U:OP1	37:KA:17:GLN:HG3	2.09	0.52
2:B:2293:C:OP2	27:AA:71:LYS:HE3	2.08	0.52
2:B:2529:A:H2'	2:B:2530:G:O4'	2.09	0.52
5:E:69:GLY:HA2	5:E:116:LEU:HD11	1.91	0.52
6:F:6:ARG:C	6:F:8:GLN:H	2.18	0.52
8:H:64:SER:CA	8:H:75:PRO:HA	2.38	0.52
13:M:33:THR:HG22	13:M:34:LEU:H	1.74	0.52
13:M:189:GLU:C	13:M:191:LEU:N	2.66	0.52
16:P:128:VAL:HG12	16:P:132:ILE:CD1	2.30	0.52
17:Q:89:TYR:O	17:Q:93:ILE:HG12	2.09	0.52
19:S:187:ARG:O	19:S:190:THR:HG22	2.08	0.52
22:V:92:ARG:HD3	32:FA:76:ASP:OD2	2.09	0.52
23:W:117:LYS:HG3	23:W:118:HIS:CD2	2.43	0.52
46:TA:68:VAL:HG23	46:TA:85:LEU:CB	2.37	0.52
48:VA:10:GLU:O	48:VA:14:LYS:HG3	2.09	0.52
48:VA:30:VAL:HG13	48:VA:31:ASP:N	2.23	0.52
50:XA:105:GLY:HA2	50:XA:135:GLU:OE2	2.09	0.52
52:ZA:111:VAL:HG22	52:ZA:139:ILE:HD11	1.91	0.52
52:ZA:169:LEU:HD21	52:ZA:188:LEU:HD11	1.90	0.52
53:AB:98:ALA:CB	53:AB:169:ASP:HB3	2.39	0.52
60:HB:82:LEU:HB2	60:HB:86:ILE:CG2	2.39	0.52
65:MB:43:ARG:HG2	65:MB:43:ARG:HH11	1.74	0.52
71:SB:5:LYS:HD3	71:SB:5:LYS:N	2.12	0.52
71:SB:56:SER:OG	71:SB:59:VAL:HG23	2.09	0.52
73:UB:24:TRP:HE3	73:UB:30:LYS:HG2	1.75	0.52
80:BC:41:THR:HA	80:BC:45:VAL:HB	1.90	0.52
82:DC:165:LEU:CD1	82:DC:289:MET:HE2	2.39	0.52
82:DC:373:ASP:CB	82:DC:376:ALA:HB2	2.39	0.52
82:DC:650:THR:HG22	82:DC:690:ASP:N	2.24	0.52
82:DC:656:LEU:HA	82:DC:659:ILE:HD13	1.91	0.52
1:A:465:G:H2'	1:A:466:U:H5'	1.91	0.52
1:A:479:C:H5'	59:GB:124:HIS:CB	2.38	0.52
1:A:680:U:C2'	1:A:681:U:H5'	2.36	0.52
1:A:1386:G:H3'	67:OB:44:LYS:HZ1	1.73	0.52
1:A:1602:C:H2'	1:A:1603:U:O4'	2.09	0.52
2:B:12:A:H2	3:C:146:U:H3	1.55	0.52
2:B:117:U:H5	12:L:145:ASN:ND2	2.07	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1313:G:H5"	20:T:83:ALA:HB1	1.90	0.52
2:B:1615:C:H2'	2:B:1616:U:C6	2.43	0.52
2:B:1659:U:H2'	2:B:1660:C:C6	2.45	0.52
2:B:1689:U:O2'	2:B:1690:C:H5'	2.10	0.52
7:G:49:TYR:H	7:G:79:VAL:CG2	2.23	0.52
8:H:136:LEU:HD21	8:H:142:VAL:HG23	1.89	0.52
8:H:145:ILE:HB	8:H:146:PRO:HD2	1.90	0.52
9:I:117:GLU:HG3	9:I:118:THR:N	2.23	0.52
14:N:170:LYS:HA	14:N:176:LEU:O	2.09	0.52
16:P:103:ASN:HA	16:P:141:CYS:HB2	1.90	0.52
17:Q:47:ALA:CB	39:MA:115:LYS:HZ3	2.22	0.52
21:U:15:ALA:O	21:U:150:VAL:HG22	2.08	0.52
24:X:12:ARG:HH11	24:X:22:PRO:CD	2.22	0.52
24:X:80:ARG:HB3	24:X:122:HIS:HB2	1.91	0.52
24:X:132:THR:O	24:X:133:ALA:HB3	2.09	0.52
27:AA:132:ASN:HD22	27:AA:132:ASN:N	2.06	0.52
40:NA:34:SER:OG	40:NA:36:ARG:HB3	2.10	0.52
41:OA:21:ARG:NH2	41:OA:41:ALA:O	2.42	0.52
54:BB:118:GLU:HA	54:BB:121:TYR:CZ	2.44	0.52
54:BB:126:VAL:HG23	54:BB:157:ASN:H	1.73	0.52
56:DB:6:SER:HB3	56:DB:13:GLN:HB3	1.90	0.52
59:GB:119:ALA:O	59:GB:120:LYS:HB2	2.09	0.52
61:IB:16:GLN:CG	61:IB:54:ILE:HG13	2.39	0.52
69:QB:27:LYS:NZ	69:QB:27:LYS:HB3	2.24	0.52
69:QB:65:ILE:HG12	69:QB:71:VAL:HG22	1.91	0.52
71:SB:39:VAL:HG12	71:SB:45:ALA:HB2	1.91	0.52
79:AC:30:LEU:HD22	79:AC:37:ASN:C	2.34	0.52
83:EC:6919:G:H2'	83:EC:6919:G:N3	2.23	0.52
1:A:98:U:H2'	1:A:99:C:C6	2.45	0.52
1:A:258:C:H2'	1:A:259:U:C6	2.44	0.52
1:A:641:G:N2	57:EB:178:GLY:HA3	2.22	0.52
1:A:1315:U:H2'	1:A:1316:G:O4'	2.09	0.52
1:A:1604:U:H4'	70:RB:79:TRP:CE3	2.45	0.52
2:B:320:G:O2'	2:B:321:C:H5'	2.09	0.52
2:B:1259:A:H62	48:VA:38:MET:HG2	1.73	0.52
2:B:1522:U:H3'	29:CA:113:LEU:HD22	1.90	0.52
2:B:1886:A:O2'	2:B:1887:A:H5'	2.10	0.52
2:B:2562:A:H2'	2:B:2563:G:O4'	2.09	0.52
2:B:3181:C:H2'	2:B:3182:G:O4'	2.09	0.52
8:H:40:THR:O	8:H:44:LYS:HG3	2.09	0.52
9:I:12:TYR:CE2	9:I:16:PHE:HD2	2.27	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:143:ILE:HG22	12:L:169:LEU:HD22	1.89	0.52
15:O:32:ARG:HH21	15:O:121:GLY:CA	2.09	0.52
15:O:101:ASN:CB	15:O:130:VAL:HA	2.39	0.52
18:R:25:LYS:HE3	18:R:62:GLN:HG2	1.92	0.52
24:X:43:TYR:HE2	24:X:47:LYS:HE2	1.75	0.52
47:UA:54:ILE:HG23	47:UA:63:THR:HG23	1.92	0.52
49:WA:105:GLY:HA3	49:WA:134:TRP:HZ2	1.74	0.52
49:WA:269:TYR:CE1	49:WA:271:VAL:HG22	2.44	0.52
50:XA:139:VAL:O	50:XA:139:VAL:HG22	2.10	0.52
52:ZA:65:GLU:HB2	52:ZA:68:ILE:CD1	2.39	0.52
54:BB:136:VAL:HG21	54:BB:148:ARG:NH1	2.23	0.52
57:EB:63:PRO:C	57:EB:65:PRO:HD2	2.34	0.52
58:FB:104:ILE:HG23	58:FB:167:ALA:HB2	1.92	0.52
59:GB:17:ARG:HG2	59:GB:17:ARG:HH21	1.74	0.52
59:GB:123:HIS:NE2	80:BC:37:ARG:HG3	2.24	0.52
68:PB:115:ARG:O	68:PB:119:ILE:HB	2.10	0.52
82:DC:92:LYS:HB3	82:DC:346:VAL:CG1	2.34	0.52
82:DC:130:ASP:HB3	82:DC:133:GLU:HB2	1.91	0.52
1:A:332:U:H2’	1:A:334:G:OP2	2.09	0.52
1:A:867:G:H21	63:KB:87:ASP:CG	2.18	0.52
1:A:1035:G:H4’	72:TB:2:THR:HG23	1.91	0.52
1:A:1259:U:O2	1:A:1259:U:H2’	2.09	0.52
2:B:612:U:H2’	2:B:613:G:H8	1.75	0.52
2:B:680:G:H5”	8:H:114:ASN:ND2	2.24	0.52
2:B:829:U:H3	2:B:895:A:H62	1.56	0.52
2:B:2350:C:O2’	2:B:2351:U:H5’	2.10	0.52
2:B:2667:A:H2’	2:B:2668:U:O4’	2.09	0.52
2:B:3084:C:O2’	2:B:3332:U:H5”	2.09	0.52
3:C:131:A:H4’	29:CA:93:TYR:CE2	2.44	0.52
3:C:154:C:H5”	12:L:181:LYS:HG2	1.92	0.52
7:G:232:ARG:HH11	7:G:268:GLY:C	2.17	0.52
7:G:232:ARG:HH11	7:G:269:GLN:N	2.08	0.52
11:K:156:ILE:HG22	11:K:157:ASN:ND2	2.24	0.52
12:L:161:GLU:C	12:L:163:VAL:H	2.17	0.52
14:N:44:ASP:OD2	14:N:185:ARG:HG3	2.09	0.52
14:N:190:VAL:HG22	14:N:197:VAL:HG21	1.90	0.52
19:S:162:ARG:NH1	19:S:162:ARG:HB2	2.24	0.52
22:V:40:THR:OG1	22:V:45:ASN:ND2	2.41	0.52
22:V:81:VAL:CG2	22:V:101:VAL:HG22	2.40	0.52
22:V:110:ALA:O	22:V:114:ILE:HG13	2.09	0.52
30:DA:79:ALA:CB	30:DA:98:ASN:HB3	2.39	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:HA:58:TYR:O	34:HA:61:MET:HG3	2.09	0.52
39:MA:21:LEU:HG	39:MA:54:VAL:CG1	2.36	0.52
48:VA:170:ALA:HA	48:VA:173:LEU:HB2	1.91	0.52
49:WA:70:ASP:HB3	49:WA:112:SER:HA	1.92	0.52
54:BB:34:GLY:CA	54:BB:83:PRO:HG3	2.36	0.52
54:BB:122:LYS:CD	54:BB:164:LEU:HD21	2.40	0.52
57:EB:111:LYS:O	57:EB:112:ARG:CB	2.57	0.52
66:NB:101:SER:O	66:NB:105:LEU:HD13	2.09	0.52
75:WB:71:ILE:HD12	75:WB:76:ALA:HA	1.92	0.52
82:DC:842:LEU:HD22	83:EC:6898:U:O2'	2.10	0.52
83:EC:6898:U:H2'	83:EC:6899:C:C6	2.44	0.52
1:A:1456:C:H3'	1:A:1457:C:C5'	2.40	0.52
1:A:1752:U:H2'	1:A:1753:A:C8	2.44	0.52
2:B:158:G:N2	2:B:264:G:H1'	2.23	0.52
2:B:398:A:C5'	21:U:3:ARG:HG3	2.40	0.52
2:B:419:G:H1	3:C:4:C:H42	1.56	0.52
2:B:903:U:H2'	2:B:904:A:H8	1.75	0.52
2:B:979:U:H3'	2:B:979:U:C6	2.45	0.52
2:B:1064:A:N6	2:B:1096:U:H3	2.08	0.52
2:B:1785:U:H2'	2:B:1786:G:H8	1.75	0.52
2:B:1822:C:H5"	38:LA:66:SER:OG	2.09	0.52
2:B:2394:G:O2'	2:B:2395:G:H5'	2.10	0.52
2:B:2628:A:H3'	2:B:2629:U:H5"	1.92	0.52
2:B:3095:U:H2'	2:B:3096:C:C6	2.45	0.52
6:F:159:SER:C	6:F:161:ASP:H	2.15	0.52
10:J:159:LEU:C	10:J:161:ALA:H	2.16	0.52
10:J:170:LYS:HB3	10:J:172:HIS:CE1	2.45	0.52
11:K:137:GLY:O	11:K:139:PRO:HD3	2.09	0.52
13:M:57:VAL:HG23	13:M:68:LEU:HD23	1.91	0.52
14:N:191:LYS:HG3	14:N:191:LYS:O	2.09	0.52
15:O:108:GLU:HG2	15:O:122:ILE:CG2	2.36	0.52
24:X:13:ARG:HE	24:X:51:VAL:HG22	1.75	0.52
30:DA:104:LEU:O	30:DA:105:VAL:HG23	2.10	0.52
39:MA:98:SER:O	39:MA:99:GLN:C	2.51	0.52
42:PA:77:ARG:O	42:PA:78:LEU:HB2	2.08	0.52
44:RA:96:CYS:HA	44:RA:121:LEU:CD2	2.40	0.52
48:VA:87:VAL:O	48:VA:87:VAL:HG12	2.09	0.52
52:ZA:162:CYS:CB	52:ZA:213:ALA:HB2	2.39	0.52
55:CB:51:VAL:HG11	55:CB:130:ILE:HG12	1.91	0.52
63:KB:23:PRO:O	63:KB:24:ALA:HB3	2.10	0.52
67:OB:45:ARG:HA	67:OB:48:ASN:HD22	1.75	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:SB:10:GLU:HA	71:SB:10:GLU:OE2	2.10	0.52
82:DC:81:MET:HE2	82:DC:81:MET:HA	1.90	0.52
82:DC:587:TYR:HB2	82:DC:690:ASP:HB3	1.92	0.52
82:DC:737:GLU:HA	82:DC:740:VAL:CG2	2.39	0.52
1:A:85:A:H2'	1:A:86:A:O4'	2.09	0.52
1:A:698:U:H2'	1:A:699:U:O4'	2.08	0.52
1:A:959:U:H5'	63:KB:15:ALA:O	2.10	0.52
1:A:1533:C:H4'	1:A:1539:G:N1	2.24	0.52
2:B:547:G:H2'	2:B:548:G:O4'	2.10	0.52
2:B:979:U:H3'	2:B:979:U:H6	1.74	0.52
2:B:1080:A:OP2	9:I:140:ARG:HD2	2.09	0.52
2:B:1347:U:C5'	8:H:303:GLY:HA3	2.38	0.52
2:B:3041:U:H2'	2:B:3042:U:H6	1.72	0.52
3:C:78:G:O2'	3:C:79:A:H5'	2.10	0.52
4:D:29:C:H5"	15:O:134:PRO:HB3	1.91	0.52
5:E:66:CYS:HB2	5:E:107:TYR:CE2	2.45	0.52
6:F:21:ARG:HB3	6:F:22:LEU:HD12	1.91	0.52
9:I:95:TRP:CH2	9:I:161:GLY:HA2	2.45	0.52
10:J:108:LYS:NZ	10:J:108:LYS:HB3	2.24	0.52
12:L:133:LYS:O	12:L:199:ALA:HB3	2.10	0.52
15:O:50:ALA:O	15:O:61:ARG:HA	2.09	0.52
18:R:32:LEU:HD21	18:R:94:TRP:CE2	2.44	0.52
19:S:103:GLU:OE2	19:S:165:THR:HG21	2.09	0.52
21:U:131:ARG:HG3	21:U:137:ASN:OD1	2.09	0.52
30:DA:56:VAL:HG13	30:DA:57:LEU:N	2.24	0.52
31:EA:36:HIS:HB3	31:EA:40:HIS:HB3	1.92	0.52
37:KA:47:LYS:HD2	37:KA:102:LEU:HA	1.91	0.52
48:VA:26:PHE:HE2	48:VA:93:LEU:HG	1.74	0.52
54:BB:91:THR:HA	54:BB:98:ASN:ND2	2.25	0.52
57:EB:28:GLU:O	57:EB:28:GLU:HG2	2.09	0.52
60:HB:39:ASN:O	60:HB:43:ILE:HG13	2.10	0.52
60:HB:86:ILE:H	60:HB:88:PRO:HD3	1.74	0.52
65:MB:41:VAL:HG13	65:MB:84:ILE:HG21	1.92	0.52
66:NB:109:PHE:HB3	66:NB:117:LEU:HD21	1.91	0.52
70:RB:40:ASN:HD21	70:RB:107:THR:HG21	1.74	0.52
74:VB:5:VAL:HG12	74:VB:6:THR:N	2.24	0.52
75:WB:58:ARG:HA	75:WB:103:ARG:HH11	1.74	0.52
75:WB:80:LEU:HB3	75:WB:101:TYR:CE2	2.44	0.52
79:AC:31:ILE:CB	79:AC:36:LEU:HD11	2.34	0.52
82:DC:402:ALA:HA	82:DC:450:ALA:HB2	1.89	0.52
82:DC:562:ALA:HB1	82:DC:564:ARG:HH12	1.74	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:EC:6763:C:H2'	83:EC:6764:C:O4'	2.09	0.52
1:A:831:U:H2'	1:A:832:U:O4'	2.10	0.52
1:A:834:G:H2'	1:A:835:U:C6	2.44	0.52
1:A:1406:A:H2'	1:A:1407:U:C6	2.45	0.52
1:A:1569:A:H2'	1:A:1570:A:H8	1.74	0.52
2:B:17:G:H4'	39:MA:75:TYR:CZ	2.45	0.52
2:B:542:G:H1	2:B:549:U:H3	1.56	0.52
2:B:1186:G:H1'	24:X:112:ALA:CB	2.40	0.52
2:B:1235:U:O4	16:P:132:ILE:HG23	2.10	0.52
2:B:1544:G:H3'	2:B:1545:A:H8	1.74	0.52
2:B:1768:U:H2'	2:B:1769:G:C5'	2.38	0.52
2:B:1879:A:H4'	2:B:1880:U:OP2	2.10	0.52
2:B:2436:U:C2'	2:B:2437:G:H5"	2.39	0.52
2:B:2853:A:H4'	14:N:64:ALA:HA	1.92	0.52
2:B:2922:G:H3'	2:B:2923:U:C5'	2.39	0.52
2:B:3139:A:C2'	2:B:3140:G:H5'	2.39	0.52
3:C:65:A:H2'	3:C:66:A:O4'	2.09	0.52
6:F:114:SER:HB2	6:F:169:ILE:HG13	1.92	0.52
7:G:144:ILE:H	7:G:144:ILE:CD1	2.20	0.52
8:H:26:PHE:HA	8:H:127:ALA:HA	1.92	0.52
8:H:32:PRO:HD2	22:V:24:VAL:HG21	1.92	0.52
8:H:32:PRO:HA	8:H:244:LEU:HD21	1.92	0.52
8:H:138:ARG:HH21	8:H:240:PRO:CG	2.22	0.52
9:I:94:ASN:OD1	9:I:97:ALA:HB2	2.09	0.52
12:L:149:LYS:HB2	12:L:200:LEU:O	2.10	0.52
12:L:150:LEU:HD23	12:L:176:PRO:HB2	1.92	0.52
12:L:178:ALA:HA	12:L:222:PHE:CE2	2.45	0.52
17:Q:115:ARG:HH11	17:Q:115:ARG:HG3	1.74	0.52
20:T:54:TYR:HE2	20:T:58:LEU:HD13	1.74	0.52
21:U:113:TYR:CE2	21:U:151:THR:HB	2.45	0.52
28:BA:57:LYS:HA	28:BA:57:LYS:CE	2.33	0.52
29:CA:77:GLU:C	29:CA:79:GLY:H	2.18	0.52
29:CA:99:VAL:HG13	29:CA:103:TYR:HD2	1.73	0.52
32:FA:132:LYS:O	32:FA:136:GLU:HG3	2.10	0.52
38:LA:75:ALA:O	38:LA:76:TYR:CB	2.56	0.52
44:RA:99:CYS:SG	44:RA:110:CYS:SG	3.07	0.52
44:RA:127:LEU:O	44:RA:127:LEU:HD23	2.09	0.52
49:WA:91:LEU:HD23	49:WA:100:TYR:HB2	1.92	0.52
53:AB:134:CYS:O	53:AB:153:ALA:HA	2.09	0.52
55:CB:57:SER:HB3	78:ZB:53:ILE:HB	1.92	0.52
60:HB:32:HIS:HB2	60:HB:33:GLU:OE1	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:IB:83:THR:HA	61:IB:111:VAL:H	1.74	0.52
65:MB:73:PRO:HG2	65:MB:92:SER:HA	1.91	0.52
67:OB:45:ARG:HG2	67:OB:49:LYS:HD2	1.92	0.52
74:VB:88:THR:HG23	74:VB:89:TYR:N	2.24	0.52
78:ZB:42:ARG:HH11	78:ZB:56:LEU:HD12	1.75	0.52
82:DC:45:ILE:HG22	82:DC:438:MET:HE1	1.91	0.52
82:DC:217:GLY:HA3	82:DC:325:ARG:NH1	2.24	0.52
82:DC:250:PHE:CD2	82:DC:252:PRO:HG3	2.45	0.52
82:DC:381:TYR:O	82:DC:398:GLY:HA3	2.10	0.52
82:DC:699:DDE:CAC	83:EC:6952:U:H1'	2.40	0.52
1:A:1301:U:H5'	52:ZA:88:LYS:CE	2.39	0.52
1:A:1317:C:H2'	1:A:1318:G:O4'	2.10	0.52
1:A:1552:U:H5	65:MB:43:ARG:CZ	2.22	0.52
2:B:75:G:OP1	17:Q:58:VAL:HG22	2.10	0.52
2:B:1049:C:H2'	2:B:1050:U:C6	2.45	0.52
2:B:2677:G:H2'	2:B:2679:A:C2	2.45	0.52
2:B:3268:A:N3	10:J:75:PRO:HB3	2.24	0.52
4:D:100:C:H2'	4:D:101:G:O4'	2.10	0.52
6:F:39:GLY:CA	12:L:36:ILE:HG21	2.34	0.52
8:H:44:LYS:O	8:H:47:ARG:HB2	2.10	0.52
9:I:91:GLY:C	9:I:94:ASN:HD21	2.17	0.52
11:K:179:LEU:H	11:K:179:LEU:HD13	1.74	0.52
13:M:103:ILE:HG21	13:M:110:LYS:HZ2	1.73	0.52
14:N:4:ARG:HD2	14:N:9:TYR:HE1	1.75	0.52
19:S:47:LYS:O	19:S:48:ALA:C	2.53	0.52
24:X:9:VAL:HG13	24:X:61:ILE:CD1	2.35	0.52
30:DA:56:VAL:O	30:DA:67:GLU:HB2	2.10	0.52
32:FA:111:LYS:HA	32:FA:129:PHE:O	2.10	0.52
39:MA:58:ILE:HG22	39:MA:62:GLN:NE2	2.25	0.52
41:OA:5:THR:N	41:OA:6:PRO:HD2	2.25	0.52
49:WA:109:ASP:O	49:WA:127:ARG:HG3	2.09	0.52
53:AB:84:ILE:HG23	53:AB:84:ILE:O	2.09	0.52
53:AB:208:ILE:HG22	53:AB:209:ILE:H	1.75	0.52
54:BB:248:ILE:O	54:BB:252:ARG:HB2	2.10	0.52
60:HB:87:VAL:N	60:HB:88:PRO:CD	2.65	0.52
65:MB:96:ILE:HG21	65:MB:120:SER:HB2	1.91	0.52
69:QB:118:PRO:HD3	69:QB:123:ARG:NH2	2.23	0.52
69:QB:128:GLY:O	69:QB:132:LEU:HD13	2.10	0.52
73:UB:125:VAL:HG12	73:UB:126:LYS:HG3	1.92	0.52
79:AC:21:CYS:CA	79:AC:30:LEU:HD21	2.39	0.52
82:DC:694:HIS:CG	82:DC:695:ALA:H	2.26	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:820:LEU:O	82:DC:824:LYS:HE2	2.10	0.52
83:EC:6772:G:C2'	83:EC:6773:G:H4'	2.36	0.52
1:A:955:A:H2'	1:A:956:C:O4'	2.09	0.52
1:A:1319:A:H3'	1:A:1320:U:C5'	2.40	0.52
1:A:1525:A:H2'	1:A:1526:A:C8	2.45	0.52
1:A:1764:C:H2'	1:A:1767:G:N7	2.25	0.52
2:B:639:G:OP1	36:JA:37:GLY:HA3	2.10	0.52
2:B:980:A:C8	2:B:981:U:H1'	2.44	0.52
2:B:1639:C:H5'	38:LA:52:GLN:HG3	1.92	0.52
2:B:1689:U:H2'	2:B:1690:C:O4'	2.10	0.52
4:D:79:A:H2'	4:D:80:G:O4'	2.09	0.52
8:H:23:PRO:O	8:H:25:VAL:HG23	2.10	0.52
8:H:286:VAL:HG13	22:V:32:LEU:HD13	1.92	0.52
13:M:103:ILE:HG21	13:M:110:LYS:HZ1	1.75	0.52
14:N:65:LEU:HD23	14:N:159:PHE:CZ	2.45	0.52
20:T:72:HIS:O	20:T:74:ARG:HD3	2.10	0.52
22:V:60:PRO:HB2	22:V:142:GLY:HA3	1.91	0.52
26:Z:35:LYS:O	26:Z:38:ILE:HG22	2.10	0.52
26:Z:81:LYS:HA	26:Z:84:LEU:HB2	1.92	0.52
27:AA:10:LYS:HB2	27:AA:125:LEU:HD22	1.91	0.52
34:HA:76:GLU:OE1	34:HA:76:GLU:N	2.39	0.52
35:IA:96:VAL:HG23	35:IA:98:VAL:H	1.74	0.52
48:VA:112:GLY:H	48:VA:165:VAL:HB	1.75	0.52
49:WA:192:PHE:HB3	49:WA:223:TRP:CD2	2.45	0.52
50:XA:169:SER:O	50:XA:173:ILE:HG12	2.10	0.52
54:BB:179:LYS:HG2	54:BB:230:GLU:HA	1.91	0.52
57:EB:49:ILE:HG22	57:EB:175:LYS:HG2	1.92	0.52
57:EB:101:LYS:HA	57:EB:112:ARG:CZ	2.40	0.52
65:MB:96:ILE:HG22	65:MB:120:SER:HB2	1.92	0.52
68:PB:104:ASN:O	68:PB:108:LYS:HD3	2.10	0.52
69:QB:130:ARG:HD3	69:QB:134:ARG:HG3	1.92	0.52
70:RB:23:ARG:HB3	70:RB:117:VAL:HG13	1.92	0.52
70:RB:37:VAL:O	70:RB:41:ILE:HD13	2.10	0.52
70:RB:52:LYS:HA	70:RB:92:ASP:O	2.10	0.52
72:TB:15:ASN:O	72:TB:19:LYS:HB2	2.10	0.52
82:DC:655:TYR:HB2	82:DC:693:LEU:CD1	2.39	0.52
82:DC:727:PRO:HB3	82:DC:798:PHE:CE1	2.45	0.52
1:A:1:U:H3	59:GB:54:ARG:HD3	1.74	0.52
1:A:1058:U:C5	1:A:1061:A:N1	2.78	0.52
1:A:1117:U:C3'	1:A:1118:G:H5"	2.39	0.52
1:A:1165:G:H2'	1:A:1166:A:C8	2.45	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1225:U:C2	1:A:1230:A:H4'	2.46	0.52
1:A:1634:C:H5'	83:EC:6955:U:C5	2.35	0.52
2:B:388:G:H4'	21:U:18:ARG:O	2.10	0.52
2:B:874:U:OP2	7:G:241:LYS:HE3	2.10	0.52
2:B:903:U:H2'	2:B:904:A:C8	2.45	0.52
2:B:1247:U:O5'	2:B:1247:U:H6	1.93	0.52
2:B:1607:U:OP2	2:B:1607:U:H2'	2.09	0.52
2:B:1763:U:H5	2:B:1765:U:O2	1.93	0.52
2:B:2912:G:C2'	2:B:2913:C:H5'	2.40	0.52
11:K:30:ARG:HD2	11:K:33:ARG:HH22	1.75	0.52
12:L:143:ILE:CG2	12:L:169:LEU:HD22	2.39	0.52
18:R:37:GLU:HG2	24:X:72:VAL:HB	1.91	0.52
22:V:9:GLN:HA	22:V:9:GLN:HE21	1.75	0.52
22:V:26:LEU:HD23	22:V:26:LEU:C	2.35	0.52
25:Y:8:ARG:HG2	25:Y:11:THR:OG1	2.10	0.52
27:AA:93:LEU:HD23	27:AA:93:LEU:N	2.16	0.52
36:JA:76:VAL:HG11	36:JA:82:LEU:HD23	1.91	0.52
46:TA:28:TYR:CB	46:TA:69:VAL:HB	2.38	0.52
48:VA:128:MET:HE1	48:VA:175:LEU:HB3	1.91	0.52
50:XA:15:GLN:OE1	67:OB:118:PRO:HD2	2.10	0.52
52:ZA:56:ILE:HA	52:ZA:61:LEU:HD12	1.91	0.52
54:BB:162:ILE:HG22	54:BB:163:ASP:N	2.25	0.52
56:DB:138:ALA:HB2	56:DB:176:GLN:O	2.08	0.52
57:EB:67:LEU:HD11	57:EB:94:ALA:HB1	1.91	0.52
57:EB:126:LEU:CD2	57:EB:135:ILE:HD13	2.40	0.52
58:FB:11:ARG:NH1	58:FB:17:LYS:HG3	2.24	0.52
58:FB:195:ARG:O	58:FB:199:LYS:HG2	2.10	0.52
65:MB:98:ASN:HB3	65:MB:103:ASN:ND2	2.16	0.52
82:DC:421:GLY:C	82:DC:422:LYS:HG3	2.35	0.52
82:DC:700:ARG:CG	82:DC:705:ILE:HD11	2.39	0.52
83:EC:6910:A:C2'	83:EC:6911:A:H5'	2.38	0.52
1:A:777:C:H4'	54:BB:261:LEU:CD1	2.39	0.51
1:A:961:U:H5'	63:KB:71:ILE:HD12	1.92	0.51
1:A:1120:U:H2'	1:A:1121:C:C6	2.45	0.51
1:A:1288:G:N7	1:A:1314:U:H2'	2.24	0.51
1:A:1435:G:C4'	1:A:1436:A:H5'	2.37	0.51
1:A:1657:U:H4'	1:A:1658:G:C5'	2.23	0.51
2:B:155:G:H5"	2:B:156:G:C8	2.45	0.51
2:B:224:C:H2'	2:B:225:C:C6	2.44	0.51
2:B:993:G:N3	2:B:2637:A:H2'	2.25	0.51
2:B:1158:A:H4'	2:B:1330:A:N1	2.24	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2500:A:N3	2:B:2500:A:H2'	2.25	0.51
2:B:2736:A:H4'	25:Y:71:SER:HB2	1.92	0.51
3:C:24:G:N7	30:DA:13:ARG:HD3	2.25	0.51
5:E:82:VAL:HG12	5:E:83:ASP:N	2.25	0.51
7:G:4:ARG:HG2	7:G:4:ARG:NH1	2.25	0.51
7:G:61:ASP:O	7:G:63:PRO:HD3	2.10	0.51
14:N:65:LEU:HD23	14:N:159:PHE:CE1	2.44	0.51
15:O:8:PRO:HG2	15:O:9:MET:H	1.74	0.51
17:Q:102:GLN:HB2	17:Q:104:ARG:NH1	2.25	0.51
20:T:16:VAL:HG12	20:T:17:GLY:N	2.25	0.51
20:T:126:VAL:HG22	24:X:154:HIS:HE1	1.73	0.51
25:Y:67:VAL:HG13	25:Y:72:VAL:HG12	1.92	0.51
26:Z:41:ILE:HD13	26:Z:71:PHE:HE2	1.74	0.51
27:AA:74:MET:HE3	27:AA:102:ILE:HD13	1.91	0.51
48:VA:100:ILE:HG13	48:VA:101:VAL:N	2.24	0.51
49:WA:238:ASP:HB3	49:WA:257:ALA:CB	2.36	0.51
54:BB:47:PHE:CE2	54:BB:52:LEU:HD11	2.45	0.51
65:MB:108:ARG:C	65:MB:110:GLU:H	2.18	0.51
66:NB:102:LYS:O	66:NB:105:LEU:HB2	2.10	0.51
68:PB:40:ARG:HG2	68:PB:40:ARG:NH1	2.24	0.51
75:WB:59:TYR:CZ	75:WB:100:ILE:HG12	2.45	0.51
78:ZB:13:ILE:HD11	78:ZB:29:ARG:HG2	1.92	0.51
82:DC:577:SER:O	82:DC:708:THR:HG23	2.10	0.51
82:DC:578:LYS:HB3	82:DC:585:ARG:CG	2.36	0.51
1:A:112:A:H4'	61:IB:67:ARG:O	2.10	0.51
1:A:445:A:O4'	1:A:525:A:H5'	2.10	0.51
2:B:806:A:H1'	2:B:2812:C:O2'	2.10	0.51
2:B:941:G:H2'	2:B:942:U:O4'	2.10	0.51
2:B:1103:A:H1'	2:B:1104:G:OP1	2.11	0.51
2:B:1214:U:H5'	24:X:90:MET:HA	1.92	0.51
2:B:2746:A:C5'	9:I:178:ASN:HD21	2.23	0.51
2:B:3205:G:H2'	2:B:3206:C:C4	2.45	0.51
2:B:3266:G:H2'	2:B:3267:A:C8	2.46	0.51
8:H:138:ARG:HG2	8:H:138:ARG:HH11	1.75	0.51
8:H:202:ARG:HA	8:H:202:ARG:NE	2.24	0.51
9:I:20:PHE:O	9:I:24:ARG:HG3	2.11	0.51
11:K:82:LYS:H	11:K:82:LYS:HD2	1.75	0.51
12:L:165:PHE:O	12:L:169:LEU:HB2	2.11	0.51
12:L:204:ARG:HB3	12:L:206:GLU:HG2	1.92	0.51
12:L:206:GLU:HG3	12:L:207:ASP:N	2.23	0.51
13:M:138:THR:HG22	13:M:139:ASN:H	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:86:LYS:HZ2	16:P:104:ILE:HD11	1.73	0.51
18:R:72:LEU:HD21	18:R:76:ALA:CB	2.40	0.51
19:S:48:ALA:C	19:S:53:TYR:HB3	2.36	0.51
24:X:77:VAL:HG21	24:X:94:ILE:CD1	2.39	0.51
24:X:137:ARG:HG2	24:X:139:TYR:CZ	2.45	0.51
29:CA:103:TYR:O	29:CA:104:GLU:HB2	2.10	0.51
31:EA:96:VAL:HG13	31:EA:100:THR:HG21	1.92	0.51
40:NA:8:ALA:O	40:NA:13:LYS:HB2	2.10	0.51
46:TA:45:ARG:HH11	46:TA:45:ARG:HG3	1.75	0.51
50:XA:80:THR:HA	50:XA:83:GLN:HG3	1.91	0.51
52:ZA:102:VAL:HG21	52:ZA:128:GLY:HA3	1.90	0.51
63:KB:94:LYS:O	63:KB:97:SER:HB3	2.11	0.51
63:KB:128:TYR:O	63:KB:131:THR:HB	2.11	0.51
82:DC:42:ARG:HG3	82:DC:42:ARG:NH1	2.25	0.51
82:DC:804:LEU:CD1	82:DC:805:GLY:H	2.21	0.51
1:A:1207:C:H4'	1:A:1208:A:O5'	2.10	0.51
1:A:1680:G:H1'	1:A:1721:A:N6	2.25	0.51
1:A:1695:G:H21	1:A:1706:C:H41	1.56	0.51
2:B:655:C:H2'	2:B:656:A:H8	1.75	0.51
2:B:846:A:N3	2:B:846:A:H2'	2.25	0.51
2:B:1233:G:O3'	16:P:120:SER:HB2	2.10	0.51
2:B:1438:U:O5'	2:B:1438:U:H6	1.93	0.51
2:B:2555:G:N3	38:LA:92:ALA:HA	2.24	0.51
7:G:252:ILE:O	7:G:264:VAL:HG11	2.10	0.51
8:H:169:LEU:O	8:H:172:VAL:HG12	2.10	0.51
9:I:93:THR:HG23	9:I:93:THR:O	2.10	0.51
9:I:217:GLU:O	9:I:221:GLU:HG3	2.11	0.51
10:J:89:THR:HG21	18:R:115:PHE:HB2	1.92	0.51
11:K:131:GLU:HG3	11:K:230:GLY:HA2	1.92	0.51
14:N:159:PHE:HB2	14:N:163:GLN:HE22	1.76	0.51
17:Q:149:GLN:CD	17:Q:149:GLN:H	2.17	0.51
18:R:121:MET:O	18:R:125:LYS:HG2	2.10	0.51
20:T:130:LYS:O	20:T:131:PRO:C	2.52	0.51
21:U:116:HIS:O	21:U:148:LEU:HA	2.11	0.51
29:CA:86:VAL:HG11	29:CA:95:ILE:HD11	1.93	0.51
47:UA:50:GLY:O	47:UA:54:ILE:HB	2.11	0.51
48:VA:12:PHE:CZ	48:VA:60:ARG:HG3	2.46	0.51
53:AB:168:ILE:HG22	53:AB:189:MET:CB	2.40	0.51
54:BB:55:ALA:HB1	54:BB:61:VAL:HG22	1.92	0.51
57:EB:56:LYS:HB2	57:EB:88:ARG:NH1	2.23	0.51
57:EB:150:GLN:HB2	57:EB:181:ILE:HG13	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:MB:16:SER:HB2	65:MB:20:VAL:N	2.23	0.51
65:MB:40:ARG:HA	65:MB:40:ARG:HE	1.75	0.51
67:OB:16:LEU:HD21	67:OB:39:ALA:HB2	1.91	0.51
73:UB:6:PRO:O	73:UB:8:GLY:N	2.43	0.51
73:UB:86:PHE:HB2	73:UB:120:VAL:HG11	1.92	0.51
78:ZB:9:LEU:HD22	78:ZB:55:VAL:HG22	1.92	0.51
82:DC:73:THR:CG2	82:DC:74:ALA:H	2.22	0.51
82:DC:155:VAL:H	82:DC:202:VAL:HG21	1.76	0.51
1:A:93:A:N6	1:A:396:G:H1'	2.26	0.51
1:A:121:U:H2'	1:A:122:U:C6	2.45	0.51
1:A:448:C:H2'	1:A:449:C:C6	2.44	0.51
1:A:1106:U:H2'	1:A:1107:G:H8	1.74	0.51
2:B:105:C:H2'	2:B:106:A:C8	2.45	0.51
2:B:877:C:O2'	2:B:880:G:H1'	2.10	0.51
2:B:1187:C:H2'	2:B:1188:U:C5'	2.40	0.51
2:B:1234:G:H21	16:P:132:ILE:HG12	1.73	0.51
2:B:1719:G:C4'	2:B:1732:U:H4'	2.39	0.51
2:B:1888:U:H2'	2:B:1889:G:O4'	2.10	0.51
2:B:2282:U:O2	2:B:2310:U:H4'	2.10	0.51
2:B:2599:U:H5"	19:S:70:ASN:OD1	2.09	0.51
2:B:3335:A:H5'	2:B:3335:A:H8	1.75	0.51
7:G:56:ILE:O	7:G:73:VAL:HA	2.11	0.51
8:H:259:ASP:OD1	8:H:264:SER:HB3	2.10	0.51
9:I:187:THR:HG23	9:I:189:GLU:H	1.76	0.51
17:Q:6:ASN:HD22	22:V:164:ARG:HH11	1.57	0.51
22:V:83:VAL:O	22:V:103:ALA:HA	2.11	0.51
26:Z:87:ASN:HB2	26:Z:89:LEU:HD11	1.92	0.51
30:DA:56:VAL:HG22	30:DA:57:LEU:H	1.75	0.51
42:PA:58:ASP:C	42:PA:60:GLY:H	2.19	0.51
49:WA:131:ILE:HB	49:WA:144:LEU:HB2	1.91	0.51
49:WA:191:ASP:O	53:AB:222:VAL:HA	2.10	0.51
50:XA:74:VAL:HG23	50:XA:118:PRO:HB3	1.92	0.51
50:XA:79:ARG:HH21	50:XA:166:GLY:CA	2.24	0.51
50:XA:117:GLU:OE1	52:ZA:40:LYS:HG3	2.10	0.51
52:ZA:99:LYS:HA	52:ZA:117:THR:HA	1.92	0.51
56:DB:2:LYS:HD3	56:DB:15:THR:HB	1.91	0.51
56:DB:114:VAL:HG23	56:DB:115:LYS:N	2.26	0.51
58:FB:184:LEU:HD11	58:FB:188:GLU:HB3	1.92	0.51
59:GB:175:ARG:HD2	59:GB:175:ARG:O	2.10	0.51
61:IB:90:TYR:CE2	61:IB:104:HIS:HA	2.45	0.51
63:KB:52:VAL:HG22	63:KB:55:ARG:NH2	2.26	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:KB:84:ILE:HD11	63:KB:89:TYR:HD2	1.75	0.51
67:OB:71:PHE:O	67:OB:72:LYS:HB2	2.11	0.51
75:WB:100:ILE:HD13	75:WB:101:TYR:N	2.25	0.51
82:DC:16:VAL:HA	82:DC:19:VAL:HG21	1.92	0.51
82:DC:754:VAL:HG13	82:DC:769:LYS:O	2.10	0.51
83:EC:6771:U:H2'	83:EC:6772:G:H4'	1.91	0.51
1:A:218:A:N6	1:A:844:A:H1'	2.25	0.51
1:A:271:A:N6	56:DB:185:GLN:HE22	2.09	0.51
1:A:1182:U:O2	1:A:1185:U:H5"	2.11	0.51
1:A:1761:U:H3	83:EC:6950:C:H4'	1.74	0.51
2:B:65:A:H4'	2:B:66:A:O5'	2.11	0.51
2:B:278:U:H2'	2:B:279:U:C6	2.46	0.51
2:B:1189:C:H42	2:B:1315:U:H1'	1.74	0.51
2:B:1233:G:H4'	16:P:120:SER:C	2.35	0.51
2:B:1254:C:O2	16:P:131:GLU:CB	2.58	0.51
2:B:1835:A:P	38:LA:10:ARG:HH22	2.34	0.51
2:B:2103:U:H2'	2:B:2104:A:C8	2.46	0.51
2:B:2185:G:OP1	6:F:202:VAL:HG23	2.10	0.51
2:B:2716:U:H5"	46:TA:83:LEU:HD11	1.90	0.51
2:B:3139:A:H2'	2:B:3140:G:H5'	1.93	0.51
8:H:333:VAL:O	8:H:337:GLU:HG2	2.11	0.51
13:M:86:TYR:CZ	13:M:151:VAL:HG22	2.45	0.51
16:P:111:GLU:OE1	16:P:126:ALA:HB2	2.10	0.51
19:S:94:TYR:CZ	19:S:96:ARG:HB2	2.45	0.51
32:FA:68:PHE:O	32:FA:69:TRP:C	2.54	0.51
47:UA:71:VAL:HG23	47:UA:72:SER:H	1.74	0.51
49:WA:112:SER:HB2	49:WA:153:GLN:HG2	1.91	0.51
49:WA:172:ALA:HB1	49:WA:199:ILE:HG21	1.93	0.51
52:ZA:37:PRO:HG2	52:ZA:43:ARG:HG2	1.92	0.51
54:BB:10:LYS:HA	54:BB:27:TYR:HA	1.92	0.51
54:BB:30:ARG:HG2	54:BB:30:ARG:HH11	1.74	0.51
63:KB:17:PRO:HG3	77:YB:28:PRO:HD3	1.92	0.51
70:RB:42:VAL:HG22	70:RB:55:PRO:HG3	1.93	0.51
72:TB:65:LEU:HD13	72:TB:65:LEU:N	2.26	0.51
82:DC:28:VAL:CG1	82:DC:29:ASP:N	2.73	0.51
1:A:329:G:H2'	1:A:330:G:H8	1.76	0.51
1:A:699:U:H2'	1:A:700:C:C6	2.45	0.51
1:A:1066:C:H2'	1:A:1067:C:C6	2.46	0.51
1:A:1203:A:H61	1:A:1553:G:H1'	1.76	0.51
1:A:1208:A:H2	1:A:1209:C:C6	2.29	0.51
1:A:1335:U:H2'	1:A:1336:A:H8	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1345:A:H2'	1:A:1348:A:H62	1.75	0.51
1:A:1363:U:O2	1:A:1363:U:H2'	2.09	0.51
1:A:1380:U:H2'	1:A:1381:U:C6	2.46	0.51
1:A:1474:G:H2'	1:A:1475:A:H8	1.75	0.51
1:A:1591:C:H2'	1:A:1592:A:C8	2.45	0.51
1:A:1649:G:H2'	1:A:1650:U:C6	2.45	0.51
2:B:837:A:OP1	47:UA:5:THR:HG23	2.11	0.51
2:B:939:U:H1'	2:B:2814:G:OP1	2.11	0.51
2:B:1232:C:C2'	2:B:1233:G:H5'	2.41	0.51
2:B:1643:A:H8	2:B:1644:C:N3	2.09	0.51
2:B:1741:A:H2'	2:B:1742:U:H5'	1.93	0.51
2:B:1779:C:H6	2:B:1779:C:O5'	1.93	0.51
2:B:1818:U:H3'	2:B:1819:U:H5"	1.93	0.51
2:B:1870:C:OP1	2:B:3077:A:H5'	2.11	0.51
2:B:2264:U:H2'	2:B:2265:C:C6	2.46	0.51
2:B:2501:U:H3'	2:B:2501:U:H6	1.75	0.51
2:B:2588:U:H2'	2:B:2589:G:C8	2.44	0.51
2:B:3062:G:C2'	2:B:3063:C:H5'	2.41	0.51
2:B:3095:U:H2'	2:B:3096:C:H6	1.76	0.51
2:B:3362:A:H2'	2:B:3363:U:O4'	2.11	0.51
10:J:39:VAL:CG1	10:J:159:LEU:HD21	2.41	0.51
11:K:145:ARG:HA	11:K:185:ILE:HD13	1.93	0.51
11:K:161:VAL:HG13	11:K:162:PRO:HD2	1.92	0.51
12:L:156:ASP:HB3	12:L:183:LYS:HB3	1.93	0.51
21:U:4:TYR:OH	21:U:18:ARG:HB3	2.11	0.51
24:X:78:TRP:HA	24:X:90:MET:O	2.10	0.51
31:EA:60:LYS:HB2	31:EA:61:LYS:CE	2.40	0.51
34:HA:86:ARG:HD2	47:UA:44:LYS:CE	2.40	0.51
34:HA:95:ALA:HB1	34:HA:100:ILE:CD1	2.40	0.51
35:IA:46:THR:HG23	35:IA:49:VAL:HG22	1.93	0.51
37:KA:10:LYS:O	37:KA:33:GLU:HB2	2.11	0.51
42:PA:5:ILE:HG22	42:PA:6:THR:H	1.76	0.51
47:UA:54:ILE:HG23	47:UA:63:THR:CG2	2.41	0.51
49:WA:255:ALA:HB2	49:WA:292:LEU:HD13	1.90	0.51
52:ZA:40:LYS:O	52:ZA:44:LEU:HG	2.11	0.51
52:ZA:143:TYR:CD2	52:ZA:147:ASN:HA	2.46	0.51
55:CB:121:ILE:HG21	55:CB:129:PRO:HA	1.92	0.51
58:FB:152:ILE:O	58:FB:153:GLU:HB2	2.11	0.51
59:GB:79:ARG:HH11	59:GB:79:ARG:HG3	1.75	0.51
65:MB:36:LEU:N	65:MB:36:LEU:HD23	2.26	0.51
72:TB:65:LEU:HD22	72:TB:65:LEU:O	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:VB:83:LYS:CG	74:VB:96:LEU:HD23	2.41	0.51
82:DC:217:GLY:HA3	82:DC:325:ARG:HH12	1.76	0.51
82:DC:343:PRO:HB2	82:DC:348:ALA:HB2	1.93	0.51
83:EC:6789:G:H22	83:EC:6809:G:H1'	1.74	0.51
1:A:70:C:H2'	1:A:71:A:C8	2.46	0.51
1:A:179:A:H61	56:DB:202:ARG:NH2	2.00	0.51
1:A:692:C:H2'	1:A:693:U:C6	2.45	0.51
1:A:760:A:H2'	1:A:761:G:O4'	2.11	0.51
1:A:767:U:N3	59:GB:143:ILE:HD11	2.24	0.51
1:A:1263:G:H2'	1:A:1264:G:O4'	2.10	0.51
1:A:1557:U:H5'	65:MB:115:TYR:CD2	2.45	0.51
1:A:1601:G:N2	69:QB:88:VAL:HG22	2.25	0.51
2:B:124:U:H2'	2:B:125:C:C6	2.46	0.51
2:B:824:C:H2'	2:B:825:U:C6	2.46	0.51
2:B:1232:C:H2'	2:B:1233:G:H5'	1.93	0.51
2:B:1254:C:H4'	16:P:135:THR:HG21	1.93	0.51
2:B:2129:U:H2'	2:B:2130:G:C8	2.45	0.51
2:B:2530:G:O2'	2:B:2531:C:H5'	2.11	0.51
4:D:94:C:H2'	4:D:95:A:H8	1.74	0.51
5:E:97:LYS:HB3	5:E:101:LYS:HZ2	1.76	0.51
13:M:100:ASN:HD22	13:M:115:ARG:CG	2.24	0.51
18:R:123:LEU:HB2	20:T:194:LEU:CD2	2.41	0.51
20:T:67:THR:O	20:T:69:GLY:N	2.43	0.51
20:T:116:LYS:NZ	24:X:165:TYR:HB3	2.25	0.51
29:CA:142:ILE:OXT	29:CA:142:ILE:HD13	2.11	0.51
53:AB:123:VAL:HG11	53:AB:154:ASP:HB3	1.93	0.51
58:FB:172:ARG:O	58:FB:175:GLN:HB2	2.10	0.51
67:OB:44:LYS:HG2	67:OB:48:ASN:HD21	1.76	0.51
78:ZB:42:ARG:CD	78:ZB:62:GLU:HA	2.40	0.51
82:DC:615:ARG:HD2	82:DC:633:ILE:HD11	1.92	0.51
83:EC:6928:G:H2'	83:EC:6929:C:C5	2.46	0.51
1:A:45:U:O2'	1:A:46:A:H2'	2.11	0.51
1:A:329:G:H2'	1:A:330:G:C8	2.45	0.51
1:A:1184:A:H2'	1:A:1185:U:H4'	1.93	0.51
1:A:1216:C:C2	1:A:1444:A:C2	2.99	0.51
1:A:1623:C:H2'	1:A:1624:C:C6	2.45	0.51
2:B:1272:C:C2'	2:B:1273:A:H5'	2.40	0.51
2:B:1832:C:H4'	3:C:113:U:H5'	1.93	0.51
2:B:2140:U:H2'	2:B:2141:U:H5'	1.91	0.51
2:B:2182:A:O2'	2:B:2183:A:H5'	2.09	0.51
2:B:2361:A:H2'	2:B:2362:C:C6	2.46	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2528:G:H2'	2:B:2529:A:O4'	2.10	0.51
2:B:2584:G:H2'	2:B:2585:G:H4'	1.93	0.51
2:B:2941:A:OP1	7:G:255:TRP:HB3	2.10	0.51
2:B:3029:A:H2'	2:B:3030:G:O4'	2.11	0.51
9:I:157:ALA:C	9:I:159:VAL:N	2.69	0.51
10:J:171:PRO:HA	10:J:174:LEU:HB2	1.93	0.51
12:L:95:ASN:C	12:L:97:TYR:H	2.18	0.51
13:M:165:CYS:SG	13:M:179:ILE:HD12	2.51	0.51
20:T:22:VAL:HG23	20:T:23:VAL:N	2.26	0.51
27:AA:18:PRO:HA	27:AA:51:ALA:HA	1.92	0.51
32:FA:148:ILE:HG22	32:FA:149:ALA:N	2.25	0.51
38:LA:51:LEU:HD23	38:LA:54:ILE:HB	1.93	0.51
52:ZA:169:LEU:CD2	52:ZA:188:LEU:HD11	2.41	0.51
54:BB:118:GLU:HA	54:BB:121:TYR:CE1	2.45	0.51
54:BB:152:PRO:HG3	56:DB:208:TYR:OH	2.10	0.51
58:FB:113:PHE:CZ	58:FB:152:ILE:HG12	2.45	0.51
58:FB:178:ARG:HG3	58:FB:178:ARG:HH21	1.75	0.51
67:OB:59:LYS:O	67:OB:63:LYS:HG2	2.10	0.51
70:RB:34:LEU:HD11	70:RB:89:ARG:HD2	1.92	0.51
71:SB:34:ILE:HB	71:SB:53:TYR:HB2	1.92	0.51
73:UB:86:PHE:HE1	73:UB:88:PRO:HA	1.76	0.51
73:UB:95:PHE:CE1	73:UB:135:LEU:HB3	2.46	0.51
1:A:237:C:H5"	1:A:238:U:C5'	2.30	0.51
1:A:480:G:H2'	1:A:481:A:O4'	2.11	0.51
1:A:737:A:HO2'	1:A:738:G:H8	1.57	0.51
1:A:1039:A:O2'	1:A:1040:G:H5"	2.11	0.51
1:A:1552:U:H2'	1:A:1553:G:O4'	2.11	0.51
2:B:190:U:C4	30:DA:60:ARG:NH1	2.79	0.51
2:B:769:G:C2'	2:B:770:G:H5'	2.41	0.51
2:B:1638:A:H5'	31:EA:15:ARG:NH2	2.25	0.51
2:B:1814:A:H5"	2:B:1816:A:H1'	1.93	0.51
2:B:1941:C:O2'	2:B:1942:U:H5'	2.11	0.51
2:B:2108:C:O4'	2:B:3344:A:H1'	2.10	0.51
2:B:2884:C:O2'	2:B:2885:C:H5'	2.10	0.51
2:B:3393:U:H2'	2:B:3394:U:C6	2.46	0.51
3:C:111:A:OP1	41:OA:32:LYS:HE3	2.11	0.51
6:F:251:LYS:HA	6:F:251:LYS:HZ2	1.75	0.51
8:H:334:PHE:CD1	8:H:339:LEU:HD12	2.46	0.51
11:K:136:TYR:O	11:K:231:ASN:HA	2.10	0.51
14:N:86:HIS:HB3	14:N:139:ARG:HG2	1.93	0.51
15:O:54:VAL:O	15:O:55:ARG:CB	2.58	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:38:ILE:HA	18:R:44:VAL:HG12	1.93	0.51
22:V:76:ALA:HA	22:V:79:LYS:HG3	1.92	0.51
25:Y:97:LYS:HG3	25:Y:97:LYS:O	2.10	0.51
27:AA:54:LEU:HD11	27:AA:119:GLY:HA3	1.92	0.51
31:EA:51:LEU:CB	31:EA:65:ARG:HD2	2.32	0.51
42:PA:26:LYS:HE2	42:PA:27:ILE:H	1.76	0.51
47:UA:28:LYS:HB2	47:UA:28:LYS:NZ	2.26	0.51
50:XA:62:ARG:HD3	71:SB:39:VAL:HG13	1.93	0.51
59:GB:163:PRO:HD3	59:GB:169:PRO:O	2.10	0.51
67:OB:14:LYS:HG3	67:OB:69:ILE:HD12	1.93	0.51
77:YB:11:THR:O	77:YB:15:GLU:HB2	2.11	0.51
82:DC:610:ASP:HB3	82:DC:615:ARG:HB2	1.91	0.51
82:DC:757:GLU:HG3	82:DC:768:VAL:HG13	1.91	0.51
82:DC:804:LEU:HD11	82:DC:814:LYS:HB2	1.92	0.51
83:EC:6800:G:H2'	83:EC:6801:A:N7	2.24	0.51
1:A:249:U:H3'	1:A:250:C:C5'	2.41	0.51
1:A:272:U:H2'	1:A:273:G:C8	2.46	0.51
1:A:628:G:H1	1:A:969:C:H3'	1.75	0.51
1:A:1048:G:N2	1:A:1071:U:H1'	2.26	0.51
1:A:1290:U:H2'	1:A:1291:G:C8	2.46	0.51
2:B:500:C:H4'	10:J:80:ASN:OD1	2.11	0.51
2:B:955:U:OP1	33:GA:7:HIS:HB2	2.11	0.51
2:B:1133:A:C2'	2:B:1134:G:H5'	2.41	0.51
2:B:1234:G:N2	16:P:132:ILE:HG12	2.26	0.51
2:B:1282:G:H4'	48:VA:82:GLY:C	2.36	0.51
2:B:2275:A:N6	2:B:2311:G:H1'	2.26	0.51
2:B:2897:A:H5"	44:RA:125:LYS:HB2	1.93	0.51
2:B:3085:G:H5'	2:B:3332:U:OP1	2.11	0.51
7:G:92:TYR:HB2	7:G:157:VAL:HG22	1.92	0.51
7:G:238:LEU:H	7:G:238:LEU:HD22	1.77	0.51
8:H:65:TRP:CE3	8:H:71:VAL:HG11	2.47	0.51
9:I:218:ARG:C	9:I:220:SER:H	2.19	0.51
12:L:57:ARG:C	12:L:61:GLN:HE21	2.17	0.51
19:S:14:LYS:NZ	19:S:14:LYS:HB2	2.25	0.51
20:T:27:LEU:C	20:T:29:ASN:H	2.20	0.51
22:V:131:ALA:HB1	22:V:135:GLN:N	2.25	0.51
24:X:68:HIS:C	24:X:70:THR:H	2.19	0.51
27:AA:91:VAL:HG23	27:AA:93:LEU:HD22	1.93	0.51
49:WA:193:ILE:HG22	49:WA:194:GLY:H	1.75	0.51
50:XA:60:ALA:O	50:XA:64:ILE:HG13	2.10	0.51
50:XA:182:LEU:HB3	50:XA:188:LEU:HD23	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:AB:53:THR:CG2	53:AB:94:ARG:HB3	2.41	0.51
54:BB:177:ALA:HB1	54:BB:196:VAL:O	2.10	0.51
55:CB:33:VAL:HG22	55:CB:45:LYS:NZ	2.26	0.51
59:GB:49:LEU:CD1	59:GB:53:ARG:HD3	2.41	0.51
63:KB:33:VAL:HG21	63:KB:66:ILE:HG23	1.93	0.51
68:PB:41:ARG:HD3	69:QB:44:GLU:O	2.11	0.51
74:VB:129:VAL:O	74:VB:132:ARG:HB3	2.10	0.51
1:A:449:C:H5"	54:BB:30:ARG:HB2	1.93	0.50
1:A:687:G:H5'	72:TB:119:LYS:HE2	1.93	0.50
1:A:762:A:HO2'	59:GB:71:PHE:HZ	1.59	0.50
1:A:1164:G:H2'	1:A:1165:G:H8	1.75	0.50
1:A:1489:U:O2'	1:A:1492:A:H1'	2.11	0.50
1:A:1572:G:H5"	1:A:1574:G:N2	2.26	0.50
1:A:1667:A:H2'	1:A:1668:G:C8	2.46	0.50
2:B:276:U:H2'	2:B:277:G:C8	2.47	0.50
2:B:516:A:H5"	8:H:344:ALA:CB	2.41	0.50
2:B:1472:U:H2'	2:B:1473:G:H8	1.76	0.50
2:B:2356:A:H61	2:B:2983:C:H41	1.57	0.50
2:B:3117:C:H2'	2:B:3118:C:C5'	2.40	0.50
2:B:3315:G:P	7:G:116:ARG:HH22	2.33	0.50
6:F:242:ARG:CD	6:F:243:THR:H	2.23	0.50
7:G:55:THR:C	7:G:56:ILE:HD12	2.36	0.50
7:G:220:VAL:HA	7:G:273:HIS:O	2.12	0.50
8:H:322:GLN:OE1	8:H:322:GLN:HA	2.11	0.50
12:L:41:GLN:HG3	12:L:44:ARG:NH1	2.26	0.50
17:Q:54:LEU:HD12	17:Q:75:PHE:HZ	1.74	0.50
19:S:13:LYS:C	19:S:15:GLN:H	2.19	0.50
20:T:124:LEU:HD12	20:T:125:ARG:H	1.76	0.50
22:V:89:ASP:HB2	22:V:109:GLY:C	2.35	0.50
24:X:12:ARG:HH11	24:X:22:PRO:HD2	1.76	0.50
24:X:138:GLN:HA	24:X:141:LYS:HB3	1.93	0.50
38:LA:37:LYS:HE3	38:LA:58:ARG:NH1	2.26	0.50
47:UA:73:THR:HG22	47:UA:76:ALA:HB3	1.93	0.50
53:AB:223:LYS:HD2	53:AB:223:LYS:N	2.26	0.50
56:DB:7:TYR:HD2	56:DB:8:PRO:HD2	1.76	0.50
59:GB:28:LEU:HG	80:BC:43:ARG:HH21	1.73	0.50
78:ZB:14:LYS:HA	78:ZB:50:GLU:HG2	1.93	0.50
78:ZB:26:THR:O	78:ZB:44:VAL:HG22	2.11	0.50
1:A:166:C:H5'	1:A:167:U:OP2	2.11	0.50
1:A:448:C:O2'	1:A:449:C:H5'	2.10	0.50
1:A:1393:C:H2'	1:A:1394:G:C8	2.46	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1507:G:H5'	1:A:1551:U:H5'	1.93	0.50
2:B:253:A:H2'	2:B:254:A:C8	2.46	0.50
2:B:360:G:H2'	2:B:361:A:C8	2.46	0.50
2:B:764:U:O2	2:B:764:U:H2'	2.10	0.50
2:B:1730:G:O6	34:HA:29:SER:N	2.44	0.50
2:B:2415:C:H5"	6:F:207:VAL:HG13	1.94	0.50
2:B:2634:U:O2	2:B:2645:G:C6	2.64	0.50
2:B:2772:C:H4'	2:B:2773:C:H5'	1.92	0.50
3:C:36:G:C5	39:MA:86:ARG:HD3	2.46	0.50
8:H:34:ILE:O	8:H:38:VAL:HG23	2.12	0.50
9:I:99:TYR:CD1	9:I:99:TYR:C	2.89	0.50
11:K:176:TYR:HB3	11:K:194:HIS:CD2	2.46	0.50
12:L:55:TYR:CE2	12:L:56:VAL:HG22	2.46	0.50
15:O:112:LEU:HD23	15:O:112:LEU:H	1.77	0.50
19:S:190:THR:CG2	19:S:191:TRP:N	2.73	0.50
26:Z:94:ARG:HG3	26:Z:94:ARG:O	2.09	0.50
31:EA:25:ILE:HA	31:EA:43:VAL:HG12	1.93	0.50
39:MA:37:SER:O	39:MA:38:ARG:HG3	2.10	0.50
39:MA:86:ARG:HG2	39:MA:90:ARG:HH12	1.77	0.50
49:WA:110:VAL:CG1	49:WA:124:SER:HB2	2.40	0.50
49:WA:223:TRP:CZ3	53:AB:220:PRO:HB3	2.37	0.50
53:AB:158:ILE:HD13	53:AB:158:ILE:H	1.75	0.50
55:CB:58:LEU:HB3	55:CB:62:VAL:HG21	1.93	0.50
60:HB:14:TYR:HB3	60:HB:35:ILE:HD11	1.94	0.50
65:MB:81:ARG:HB3	65:MB:96:ILE:HG22	1.93	0.50
66:NB:41:PRO:O	66:NB:42:GLU:HB3	2.11	0.50
82:DC:617:ARG:HH21	82:DC:627:VAL:HG11	1.75	0.50
83:EC:6771:U:H4'	83:EC:6819:G:H1	1.76	0.50
1:A:36:C:H2'	1:A:37:U:H6	1.76	0.50
1:A:117:U:H2'	1:A:118:U:H6	1.76	0.50
1:A:218:A:H3'	1:A:219:A:H5"	1.93	0.50
1:A:299:A:O2'	54:BB:5:PRO:HG3	2.11	0.50
1:A:778:G:H1	74:VB:10:ARG:HA	1.76	0.50
1:A:1060:U:H2'	1:A:1061:A:H4'	1.93	0.50
1:A:1624:C:H2'	1:A:1625:C:C6	2.46	0.50
2:B:750:G:H2'	2:B:751:A:H8	1.77	0.50
2:B:1132:C:H2'	2:B:1133:A:C8	2.45	0.50
2:B:1395:G:H2'	2:B:1396:C:C6	2.46	0.50
2:B:1786:G:H2'	2:B:1787:A:C8	2.47	0.50
2:B:2185:G:C6	2:B:2186:U:C4	2.99	0.50
2:B:2217:U:H2'	2:B:2218:G:H8	1.75	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:49:G:H4'	4:D:50:U:O4'	2.10	0.50
7:G:232:ARG:HB3	7:G:233:TRP:CD1	2.46	0.50
9:I:101:THR:O	9:I:104:LEU:HB3	2.11	0.50
12:L:99:PRO:HD3	12:L:132:VAL:HG12	1.94	0.50
12:L:159:PRO:HB2	12:L:162:LEU:HD12	1.93	0.50
15:O:60:ARG:NH1	15:O:60:ARG:HB2	2.26	0.50
22:V:18:ALA:HA	22:V:53:PHE:CE1	2.47	0.50
24:X:106:LEU:C	24:X:106:LEU:HD13	2.37	0.50
28:BA:45:ASN:HB3	28:BA:48:ARG:HG3	1.92	0.50
31:EA:36:HIS:CD2	31:EA:74:VAL:HG11	2.46	0.50
48:VA:56:ASN:HA	48:VA:59:VAL:HG23	1.93	0.50
49:WA:86:ASP:O	49:WA:87:LYS:HB2	2.11	0.50
49:WA:136:ILE:HD13	49:WA:136:ILE:N	2.13	0.50
50:XA:26:ALA:N	50:XA:149:LEU:HD12	2.19	0.50
50:XA:157:ASP:HA	71:SB:65:SER:OG	2.11	0.50
52:ZA:225:LEU:HD22	72:TB:67:GLY:O	2.12	0.50
54:BB:15:PRO:HD2	54:BB:18:TRP:CZ3	2.46	0.50
65:MB:34:VAL:HA	65:MB:37:ALA:HB3	1.94	0.50
67:OB:41:ILE:CD1	67:OB:50:ILE:HD12	2.40	0.50
68:PB:52:VAL:HG12	68:PB:53:ASP:N	2.27	0.50
71:SB:36:VAL:O	71:SB:51:VAL:HG23	2.11	0.50
73:UB:91:GLY:C	73:UB:93:LEU:H	2.19	0.50
74:VB:29:HIS:ND1	74:VB:67:GLY:HA2	2.25	0.50
74:VB:45:ALA:HB1	74:VB:50:ALA:O	2.11	0.50
74:VB:47:VAL:HG23	74:VB:48:TYR:CD2	2.46	0.50
82:DC:669:TRP:C	82:DC:710:ARG:HH22	2.20	0.50
82:DC:682:ARG:HH11	82:DC:801:TRP:HB2	1.76	0.50
1:A:344:A:C2'	1:A:345:U:H5'	2.41	0.50
1:A:768:C:C1'	59:GB:143:ILE:HD13	2.42	0.50
1:A:828:U:C2'	1:A:829:A:H5"	2.41	0.50
1:A:1215:C:O2'	1:A:1216:C:H5'	2.11	0.50
1:A:1273:G:H4'	1:A:1274:C:H3'	1.93	0.50
1:A:1638:G:H2'	1:A:1639:C:C6	2.47	0.50
2:B:634:C:H4'	36:JA:47:ARG:HH11	1.77	0.50
2:B:761:A:C2	2:B:771:A:H1'	2.47	0.50
2:B:784:A:H2'	22:V:69:ARG:CZ	2.41	0.50
2:B:1795:U:C4	47:UA:51:ALA:HA	2.45	0.50
2:B:1892:G:H2'	2:B:1893:A:H5"	1.94	0.50
2:B:2234:G:H2'	2:B:2235:C:O4'	2.11	0.50
2:B:3154:C:O5'	2:B:3154:C:H6	1.93	0.50
7:G:106:TRP:CH2	7:G:161:LEU:HD13	2.46	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:23:PRO:HA	8:H:259:ASP:OD2	2.11	0.50
8:H:182:LEU:HD12	8:H:223:PRO:HB2	1.93	0.50
8:H:304:GLN:O	8:H:306:THR:N	2.45	0.50
9:I:135:VAL:HG12	9:I:136:GLU:H	1.76	0.50
10:J:60:ASP:OD1	10:J:62:THR:HG23	2.11	0.50
11:K:196:LYS:HB3	11:K:197:GLN:NE2	2.26	0.50
12:L:72:PRO:HB2	12:L:74:THR:HG22	1.93	0.50
14:N:206:LEU:O	14:N:210:ILE:HG13	2.12	0.50
18:R:21:VAL:HB	18:R:63:VAL:CG2	2.41	0.50
19:S:3:ALA:O	19:S:6:TYR:HB2	2.12	0.50
19:S:157:LYS:O	19:S:158:HIS:C	2.55	0.50
21:U:64:ASN:CA	21:U:67:ILE:HD13	2.41	0.50
23:W:158:GLU:O	23:W:162:ARG:HB2	2.12	0.50
32:FA:26:ARG:HG3	32:FA:26:ARG:NH1	2.25	0.50
34:HA:10:ILE:HG12	34:HA:68:TYR:HE2	1.75	0.50
49:WA:9:LEU:HA	49:WA:313:TRP:CD1	2.46	0.50
49:WA:97:GLY:O	49:WA:98:GLU:O	2.29	0.50
52:ZA:121:VAL:HG11	83:EC:6958:C:O2'	2.11	0.50
52:ZA:187:LEU:O	52:ZA:191:ALA:HB2	2.12	0.50
54:BB:211:LYS:O	54:BB:211:LYS:HG3	2.10	0.50
55:CB:99:MET:O	55:CB:100:ASN:HB2	2.09	0.50
56:DB:161:GLU:HA	56:DB:170:THR:HA	1.94	0.50
57:EB:111:LYS:O	57:EB:112:ARG:HB3	2.11	0.50
58:FB:9:HIS:CD2	58:FB:10:LYS:H	2.29	0.50
61:IB:55:ASP:C	61:IB:57:LYS:H	2.19	0.50
73:UB:110:LYS:NZ	73:UB:110:LYS:HB3	2.25	0.50
74:VB:63:GLN:HG3	74:VB:64:PHE:N	2.27	0.50
82:DC:276:PHE:O	82:DC:280:PRO:HD3	2.11	0.50
82:DC:727:PRO:HB2	82:DC:774:VAL:HG11	1.92	0.50
1:A:107:C:H1'	1:A:362:G:O2'	2.12	0.50
1:A:152:U:C3'	1:A:153:G:H5"	2.41	0.50
1:A:483:A:C2	1:A:505:A:H1'	2.46	0.50
1:A:799:A:H4'	54:BB:201:HIS:CE1	2.47	0.50
1:A:1542:G:N2	1:A:1568:C:H1'	2.26	0.50
1:A:1545:A:H2'	1:A:1546:G:H8	1.76	0.50
2:B:36:C:H2'	2:B:37:U:H5'	1.93	0.50
2:B:76:G:C8	17:Q:101:ARG:HG3	2.46	0.50
2:B:599:C:C2'	2:B:600:G:H5"	2.41	0.50
2:B:1165:A:O2'	2:B:1166:G:H5'	2.11	0.50
2:B:1261:G:N7	48:VA:35:SER:HB2	2.27	0.50
2:B:1359:C:H2'	2:B:1360:C:C6	2.46	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1569:U:H5	2:B:1570:U:H3	1.58	0.50
2:B:1870:C:H1'	2:B:3066:U:O2'	2.11	0.50
2:B:2985:C:H2'	2:B:2986:U:C6	2.46	0.50
2:B:3298:C:H2'	2:B:3299:A:H8	1.76	0.50
3:C:52:A:H2'	3:C:53:A:H5'	1.94	0.50
4:D:109:G:OP1	9:I:279:LYS:HG3	2.12	0.50
14:N:218:ALA:C	14:N:220:GLN:H	2.18	0.50
22:V:106:PHE:HD2	22:V:111:ARG:HH21	1.60	0.50
24:X:10:ILE:HG12	24:X:26:ARG:HA	1.92	0.50
25:Y:3:LYS:HA	25:Y:3:LYS:HE2	1.94	0.50
28:BA:25:ASP:O	28:BA:26:SER:HB2	2.12	0.50
29:CA:72:ALA:O	29:CA:75:LYS:HB2	2.11	0.50
30:DA:52:ARG:O	30:DA:70:ILE:HB	2.10	0.50
36:JA:123:LYS:HA	36:JA:126:LEU:HD12	1.94	0.50
49:WA:297:ASP:OD2	49:WA:299:GLN:HB2	2.11	0.50
54:BB:100:ARG:HH12	54:BB:236:ILE:HG22	1.75	0.50
54:BB:124:GLY:H	54:BB:160:VAL:H	1.60	0.50
55:CB:26:ALA:HB3	66:NB:28:LEU:HA	1.92	0.50
55:CB:142:PRO:HA	55:CB:214:LYS:HE2	1.93	0.50
56:DB:98:ARG:HD3	56:DB:99:GLY:N	2.26	0.50
58:FB:184:LEU:CD1	58:FB:188:GLU:HB3	2.41	0.50
59:GB:28:LEU:HD12	80:BC:44:PHE:CD2	2.46	0.50
60:HB:60:SER:HB3	60:HB:65:TYR:HE2	1.76	0.50
63:KB:50:ILE:O	63:KB:54:LEU:HG	2.12	0.50
73:UB:112:LYS:HE2	73:UB:112:LYS:N	2.26	0.50
78:ZB:43:ASN:ND2	78:ZB:66:LEU:HD12	2.27	0.50
79:AC:36:LEU:CD1	79:AC:38:ILE:H	2.24	0.50
82:DC:69:THR:O	82:DC:69:THR:HG22	2.12	0.50
82:DC:418:TYR:O	82:DC:477:ASN:ND2	2.45	0.50
83:EC:6889:A:H1'	83:EC:6914:A:OP1	2.12	0.50
83:EC:6898:U:H2'	83:EC:6899:C:H6	1.77	0.50
1:A:92:A:OP2	1:A:93:A:C2	2.65	0.50
1:A:218:A:H61	1:A:844:A:H1'	1.76	0.50
1:A:332:U:H5'	58:FB:30:GLY:HA2	1.94	0.50
1:A:852:C:H3'	1:A:852:C:OP2	2.11	0.50
1:A:1350:U:H2'	1:A:1351:G:C8	2.46	0.50
1:A:1371:A:N3	1:A:1373:C:H5"	2.27	0.50
2:B:760:G:H1'	2:B:770:G:H22	1.75	0.50
2:B:824:C:H2'	2:B:825:U:O4'	2.12	0.50
2:B:869:G:O2'	2:B:870:G:H5'	2.12	0.50
2:B:1128:U:H5'	14:N:4:ARG:NH2	2.27	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1237:G:H2'	2:B:1237:G:N3	2.26	0.50
2:B:1278:A:H3'	2:B:1279:C:C5	2.46	0.50
2:B:1766:G:OP2	23:W:46:LYS:HE2	2.11	0.50
2:B:2561:A:O2'	2:B:2562:A:H8	1.95	0.50
2:B:2615:G:H2'	2:B:2616:C:O4'	2.10	0.50
2:B:3344:A:N6	2:B:3361:G:O2'	2.45	0.50
5:E:29:LEU:HD23	5:E:29:LEU:H	1.76	0.50
6:F:133:TYR:HD2	6:F:168:VAL:HG23	1.76	0.50
7:G:196:ARG:HA	7:G:199:PHE:CE1	2.47	0.50
8:H:136:LEU:HD13	8:H:143:GLU:HG3	1.94	0.50
9:I:200:PHE:HE1	9:I:244:HIS:NE2	2.10	0.50
11:K:77:VAL:HG23	25:Y:141:VAL:HG22	1.92	0.50
11:K:156:ILE:HD12	11:K:161:VAL:HG21	1.92	0.50
17:Q:149:GLN:H	17:Q:149:GLN:NE2	2.09	0.50
18:R:23:ILE:HA	18:R:63:VAL:HG23	1.93	0.50
33:GA:14:ARG:HD3	33:GA:18:ARG:HD3	1.94	0.50
33:GA:17:HIS:HA	33:GA:20:GLY:HA2	1.92	0.50
35:IA:12:TYR:O	35:IA:72:ARG:HD2	2.11	0.50
45:SA:12:ARG:O	45:SA:15:ARG:HB3	2.11	0.50
48:VA:108:PRO:HA	48:VA:179:SER:CB	2.42	0.50
48:VA:172:LEU:HG	48:VA:173:LEU:N	2.26	0.50
49:WA:264:SER:O	49:WA:268:GLN:HA	2.12	0.50
57:EB:27:LEU:HD23	57:EB:84:LYS:HG3	1.93	0.50
63:KB:118:ILE:O	63:KB:122:ILE:HG13	2.11	0.50
72:TB:17:ALA:HB2	72:TB:25:VAL:HG11	1.93	0.50
82:DC:34:THR:HG23	84:DC:901:GDP:O1A	2.11	0.50
82:DC:115:VAL:O	82:DC:119:LEU:HG	2.11	0.50
1:A:610:G:H21	73:UB:19:ARG:NH1	2.10	0.50
1:A:646:C:H2'	1:A:647:G:C8	2.46	0.50
1:A:902:G:H2'	1:A:903:U:C6	2.47	0.50
1:A:1168:U:H2'	1:A:1169:G:O4'	2.12	0.50
1:A:1532:U:H3'	75:WB:77:ARG:HH22	1.76	0.50
2:B:748:U:H2'	2:B:749:C:C6	2.46	0.50
2:B:1272:C:H2'	2:B:1273:A:H5'	1.93	0.50
2:B:1509:A:C6	2:B:1510:G:C6	3.00	0.50
2:B:1643:A:H2'	2:B:1644:C:C2	2.47	0.50
2:B:2425:G:H2'	2:B:2426:U:O4'	2.10	0.50
2:B:3237:U:H2'	2:B:3238:G:C8	2.47	0.50
5:E:68:PHE:H	5:E:111:ILE:HB	1.76	0.50
14:N:185:ARG:HA	14:N:190:VAL:HG11	1.93	0.50
21:U:127:ARG:HH11	21:U:127:ARG:CB	2.24	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:58:ASN:O	22:V:60:PRO:HD3	2.11	0.50
30:DA:79:ALA:HA	30:DA:99:LEU:O	2.10	0.50
31:EA:54:THR:HG23	31:EA:56:LYS:N	2.18	0.50
47:UA:24:ARG:HB3	47:UA:24:ARG:NH1	2.26	0.50
48:VA:65:GLY:HA2	48:VA:73:PHE:HD2	1.75	0.50
49:WA:88:THR:HG22	49:WA:104:VAL:HA	1.92	0.50
49:WA:122:ILE:O	49:WA:133:VAL:HA	2.11	0.50
49:WA:228:LYS:O	53:AB:222:VAL:HG21	2.12	0.50
54:BB:129:VAL:HG13	54:BB:129:VAL:O	2.11	0.50
58:FB:156:VAL:HG21	58:FB:185:GLU:OE2	2.12	0.50
80:BC:41:THR:HA	80:BC:45:VAL:CG2	2.42	0.50
82:DC:286:THR:O	82:DC:290:ASN:HB2	2.11	0.50
82:DC:501:LEU:N	82:DC:502:PRO:CD	2.74	0.50
82:DC:608:PRO:HB2	82:DC:609:ARG:NH1	2.27	0.50
1:A:156:A:H1'	1:A:416:A:N7	2.27	0.50
1:A:911:U:H5"	2:B:2207:A:C5'	2.31	0.50
1:A:1104:U:OP2	73:UB:6:PRO:HB3	2.12	0.50
1:A:1291:G:H22	1:A:1324:G:N2	2.10	0.50
1:A:1498:G:H2'	1:A:1499:G:O4'	2.12	0.50
2:B:101:G:O2'	2:B:102:C:H5'	2.12	0.50
2:B:501:A:H2'	2:B:502:U:C6	2.47	0.50
2:B:674:G:H2'	2:B:675:C:O4'	2.12	0.50
2:B:1844:C:H1'	41:OA:8:PHE:O	2.12	0.50
2:B:2186:U:O2'	2:B:2187:G:H5'	2.12	0.50
2:B:2479:C:H5"	5:E:105:LYS:CD	2.42	0.50
2:B:2717:U:O2'	2:B:2718:U:H5'	2.12	0.50
2:B:2946:A:H2'	2:B:2982:A:N7	2.27	0.50
4:D:5:G:O2'	9:I:63:GLN:NE2	2.45	0.50
9:I:34:LYS:HA	25:Y:27:LEU:HD21	1.94	0.50
12:L:78:PHE:O	12:L:79:GLN:CB	2.59	0.50
25:Y:92:ARG:C	25:Y:94:GLU:H	2.18	0.50
29:CA:61:LYS:O	29:CA:87:SER:HB2	2.12	0.50
29:CA:62:VAL:HG13	29:CA:90:ALA:CB	2.42	0.50
29:CA:96:LYS:HG3	29:CA:107:VAL:CB	2.42	0.50
33:GA:28:LYS:O	33:GA:29:TYR:CB	2.60	0.50
35:IA:13:THR:HA	35:IA:71:LEU:O	2.12	0.50
49:WA:24:ALA:HB2	49:WA:71:CYS:O	2.12	0.50
50:XA:62:ARG:HE	71:SB:39:VAL:HG22	1.77	0.50
52:ZA:67:GLN:O	52:ZA:71:THR:HG23	2.12	0.50
54:BB:173:ILE:N	54:BB:173:ILE:HD12	2.27	0.50
56:DB:103:GLY:H	56:DB:106:LEU:HD11	1.77	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:FB:113:PHE:HZ	58:FB:152:ILE:HG12	1.77	0.50
59:GB:153:GLU:HA	59:GB:156:ILE:HD11	1.93	0.50
69:QB:70:GLN:HB2	69:QB:122:ARG:N	2.27	0.50
77:YB:29:ARG:HH11	77:YB:29:ARG:CB	2.23	0.50
83:EC:6771:U:H3	83:EC:6822:U:H5"	1.77	0.50
1:A:72:A:H3'	1:A:73:U:H5"	1.94	0.50
1:A:337:G:H1'	1:A:339:C:OP2	2.10	0.50
1:A:374:U:H2'	1:A:375:U:C6	2.47	0.50
1:A:911:U:H5'	2:B:2206:G:H1'	1.94	0.50
1:A:1413:U:H5'	67:OB:3:ARG:NH1	2.27	0.50
1:A:1450:U:O2'	79:AC:8:PHE:HA	2.12	0.50
1:A:1530:C:OP2	75:WB:95:HIS:HB2	2.12	0.50
1:A:1749:A:H2'	1:A:1750:A:C5'	2.40	0.50
2:B:793:C:H2'	2:B:794:U:O4'	2.12	0.50
2:B:914:A:C2	6:F:204:MET:SD	3.05	0.50
2:B:946:U:O2'	2:B:947:G:H5'	2.12	0.50
2:B:1254:C:O2'	16:P:131:GLU:HA	2.12	0.50
2:B:2353:G:H5"	21:U:86:LYS:HB2	1.94	0.50
2:B:3356:G:O5'	2:B:3356:G:H8	1.94	0.50
2:B:3380:U:O2'	2:B:3381:U:H5'	2.12	0.50
5:E:90:LEU:HD23	5:E:119:GLN:CB	2.37	0.50
5:E:113:SER:HB2	5:E:116:LEU:CG	2.40	0.50
7:G:359:ILE:HD12	7:G:359:ILE:N	2.27	0.50
8:H:8:VAL:HG12	8:H:9:HIS:N	2.27	0.50
8:H:352:ALA:CB	11:K:73:GLY:HA2	2.42	0.50
9:I:55:PHE:CE2	9:I:158:ARG:HG3	2.47	0.50
13:M:3:TYR:CD2	13:M:65:VAL:HG21	2.46	0.50
13:M:90:MET:CG	13:M:181:VAL:HA	2.30	0.50
13:M:91:ARG:HD2	13:M:143:GLU:CG	2.42	0.50
14:N:48:LEU:HD13	14:N:50:VAL:HG23	1.94	0.50
17:Q:148:ALA:O	17:Q:149:GLN:C	2.54	0.50
22:V:26:LEU:O	22:V:30:VAL:HG23	2.12	0.50
22:V:63:SER:O	22:V:66:ARG:HB3	2.12	0.50
23:W:8:LYS:HG3	23:W:22:VAL:HG21	1.94	0.50
24:X:12:ARG:HD2	24:X:22:PRO:HD2	1.93	0.50
25:Y:27:LEU:HD12	25:Y:31:LEU:HD21	1.93	0.50
27:AA:20:GLY:HA2	27:AA:35:TYR:CE1	2.46	0.50
31:EA:10:VAL:O	31:EA:83:THR:HG22	2.12	0.50
31:EA:61:LYS:HD3	31:EA:61:LYS:N	2.26	0.50
46:TA:6:LYS:NZ	46:TA:94:GLY:HA2	2.27	0.50
49:WA:307:ASP:O	49:WA:309:VAL:HG23	2.12	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:EB:102:PRO:CD	57:EB:112:ARG:HD3	2.39	0.50
72:TB:68:ARG:HG2	72:TB:68:ARG:HH11	1.76	0.50
82:DC:293:LYS:HA	82:DC:296:ILE:HD12	1.92	0.50
82:DC:496:LYS:HG3	82:DC:554:LEU:O	2.12	0.50
82:DC:807:ASP:HB3	82:DC:810:ASP:HB2	1.93	0.50
1:A:218:A:H3'	1:A:219:A:C5'	2.41	0.49
1:A:320:U:O2'	1:A:321:C:H5"	2.12	0.49
1:A:1332:C:P	67:OB:45:ARG:HD3	2.52	0.49
1:A:1376:C:C2'	1:A:1377:U:H5'	2.42	0.49
2:B:110:G:H5"	17:Q:91:ARG:NE	2.28	0.49
2:B:584:G:H2'	2:B:585:A:C8	2.47	0.49
2:B:693:A:H4'	8:H:234:ASN:OD1	2.12	0.49
2:B:797:U:H2'	2:B:798:G:C8	2.47	0.49
2:B:907:G:H2'	2:B:926:A:H62	1.77	0.49
2:B:939:U:H2'	2:B:940:G:H8	1.77	0.49
2:B:1132:C:O2'	2:B:1133:A:H5'	2.12	0.49
2:B:1230:G:H4'	48:VA:33:VAL:HG13	1.93	0.49
2:B:1369:A:H2'	2:B:1370:G:H5'	1.93	0.49
2:B:1730:G:H2'	34:HA:28:LYS:HZ2	1.76	0.49
2:B:1764:U:H3'	2:B:1765:U:H4'	1.92	0.49
2:B:2147:A:O3'	6:F:197:PRO:HB2	2.12	0.49
2:B:2787:G:H1'	32:FA:58:MET:HE2	1.93	0.49
2:B:3106:A:H2'	2:B:3107:U:O4'	2.12	0.49
2:B:3109:G:O2'	2:B:3110:C:H5'	2.11	0.49
2:B:3249:C:C2'	2:B:3250:U:H5'	2.42	0.49
2:B:3383:G:H21	35:IA:105:GLN:NE2	2.10	0.49
6:F:94:ALA:HB1	6:F:100:ASN:HD22	1.76	0.49
6:F:128:ARG:CA	6:F:169:ILE:HD12	2.42	0.49
7:G:332:ARG:HD3	7:G:332:ARG:H	1.77	0.49
11:K:112:ASN:HB3	11:K:207:LEU:O	2.12	0.49
12:L:50:VAL:HG23	12:L:52:TRP:NE1	2.27	0.49
17:Q:43:ALA:HB2	17:Q:51:LEU:HD21	1.93	0.49
19:S:93:LYS:O	19:S:94:TYR:CB	2.60	0.49
21:U:16:SER:OG	21:U:149:VAL:HG22	2.12	0.49
23:W:115:ILE:CG1	23:W:119:LEU:HD23	2.42	0.49
24:X:12:ARG:CZ	24:X:15:PRO:HG3	2.42	0.49
24:X:77:VAL:O	24:X:91:TYR:HA	2.12	0.49
26:Z:38:ILE:HG12	26:Z:50:LEU:HD13	1.93	0.49
36:JA:19:ARG:HD3	36:JA:28:VAL:CG1	2.41	0.49
39:MA:5:LYS:HB3	39:MA:7:TYR:CD2	2.47	0.49
42:PA:5:ILE:HD12	42:PA:5:ILE:H	1.77	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:PA:24:THR:O	42:PA:44:LYS:HB2	2.11	0.49
44:RA:124:LYS:O	44:RA:125:LYS:C	2.55	0.49
61:IB:90:TYR:O	61:IB:91:LEU:HD23	2.11	0.49
69:QB:22:LEU:HD12	69:QB:28:LEU:HB3	1.93	0.49
69:QB:131:ASP:HA	69:QB:134:ARG:HB2	1.94	0.49
73:UB:57:LEU:HB2	80:BC:4:VAL:HG13	1.94	0.49
82:DC:84:GLU:O	82:DC:87:LYS:HB3	2.11	0.49
82:DC:488:VAL:HB	82:DC:796:MET:HE2	1.93	0.49
1:A:158:U:H3'	1:A:159:U:H5"	1.94	0.49
1:A:445:A:H2'	1:A:446:A:H8	1.77	0.49
1:A:446:A:N6	1:A:461:G:H21	2.09	0.49
1:A:804:A:N9	72:TB:107:SER:HA	2.27	0.49
1:A:1516:A:H8	70:RB:58:LEU:CD2	2.25	0.49
2:B:1408:G:P	36:JA:33:ARG:HH22	2.35	0.49
2:B:1707:A:C6	2:B:1708:C:C4	3.01	0.49
2:B:2631:U:H2'	2:B:2632:G:H8	1.76	0.49
2:B:3259:U:C6	2:B:3259:U:H5'	2.48	0.49
5:E:73:ASP:HA	5:E:144:LEU:HD22	1.93	0.49
6:F:177:LYS:HD3	47:UA:69:TYR:CZ	2.46	0.49
8:H:107:ARG:HG2	8:H:108:LYS:H	1.76	0.49
8:H:264:SER:H	8:H:267:VAL:HG23	1.76	0.49
11:K:138:TYR:CD2	11:K:233:GLU:HA	2.47	0.49
11:K:222:HIS:HA	11:K:229:PHE:O	2.11	0.49
12:L:118:GLU:C	12:L:120:LYS:H	2.19	0.49
13:M:23:ARG:NH2	13:M:42:ASP:H	2.10	0.49
13:M:168:ARG:O	13:M:169:ASN:HB2	2.11	0.49
15:O:91:LEU:O	15:O:92:ARG:HD3	2.12	0.49
16:P:89:PRO:O	16:P:94:LYS:HE2	2.12	0.49
19:S:150:TRP:CH2	19:S:151:ILE:HG12	2.47	0.49
20:T:8:VAL:HA	20:T:34:VAL:CG2	2.42	0.49
21:U:50:GLN:OE1	21:U:56:ARG:HD3	2.12	0.49
30:DA:40:ARG:HG3	30:DA:45:ILE:O	2.12	0.49
32:FA:9:ARG:HH12	32:FA:12:ARG:HH12	1.60	0.49
36:JA:20:HIS:HB2	36:JA:50:ILE:HD11	1.93	0.49
39:MA:50:SER:O	39:MA:54:VAL:HG23	2.11	0.49
41:OA:64:MET:O	41:OA:66:TYR:N	2.45	0.49
56:DB:24:ILE:HG22	56:DB:28:PHE:CE2	2.47	0.49
58:FB:58:LEU:O	58:FB:59:ARG:O	2.30	0.49
68:PB:16:ARG:NH1	68:PB:19:ASN:HA	2.27	0.49
69:QB:118:PRO:CD	69:QB:123:ARG:HH21	2.24	0.49
70:RB:57:ARG:HG3	70:RB:89:ARG:HD3	1.94	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:TB:53:ILE:HG22	72:TB:60:LYS:O	2.11	0.49
72:TB:80:ASN:HD22	72:TB:124:LYS:HG2	1.78	0.49
73:UB:124:VAL:HG12	73:UB:125:VAL:N	2.26	0.49
80:BC:35:TYR:CE1	80:BC:39:LEU:HD21	2.47	0.49
82:DC:385:MET:HE2	82:DC:465:LYS:N	2.27	0.49
83:EC:6859:U:O2	83:EC:6871:A:H2	1.94	0.49
1:A:57:G:H2'	1:A:58:U:O4'	2.11	0.49
1:A:165:G:H2'	1:A:166:C:C1'	2.42	0.49
1:A:393:C:OP2	58:FB:2:GLY:HA3	2.12	0.49
1:A:815:G:H2'	1:A:815:G:N3	2.28	0.49
1:A:1593:A:H2'	1:A:1594:G:H8	1.78	0.49
1:A:1661:U:H2'	1:A:1662:G:C8	2.48	0.49
2:B:260:C:H2'	2:B:261:U:O4'	2.12	0.49
2:B:1236:G:C8	16:P:60:VAL:HG13	2.47	0.49
2:B:1402:C:O2'	2:B:1403:C:H5'	2.12	0.49
2:B:1525:G:H1'	2:B:1829:G:C2	2.47	0.49
2:B:2442:G:H3'	2:B:2443:A:H5"	1.93	0.49
5:E:120:VAL:CB	5:E:121:PRO:HD3	2.40	0.49
8:H:58:HIS:HA	8:H:90:PHE:HE1	1.77	0.49
8:H:93:MET:HG2	8:H:94:CYS:H	1.77	0.49
11:K:59:GLU:O	11:K:63:ILE:HG12	2.12	0.49
11:K:86:VAL:HG22	11:K:136:TYR:HB3	1.93	0.49
15:O:53:THR:HG23	15:O:60:ARG:HA	1.94	0.49
15:O:71:VAL:HG11	15:O:79:ILE:HD12	1.93	0.49
16:P:122:GLY:O	16:P:123:ARG:HD3	2.12	0.49
16:P:123:ARG:CZ	48:VA:39:HIS:HB2	2.42	0.49
17:Q:63:VAL:HG12	32:FA:128:ARG:NH2	2.27	0.49
17:Q:63:VAL:HG12	32:FA:128:ARG:HH12	1.77	0.49
17:Q:180:ARG:HG2	17:Q:180:ARG:HH11	1.76	0.49
18:R:122:VAL:O	18:R:126:GLN:HG3	2.12	0.49
19:S:35:VAL:HG13	19:S:65:ARG:HG2	1.93	0.49
25:Y:11:THR:CB	25:Y:14:MET:HB3	2.42	0.49
30:DA:36:SER:O	30:DA:37:LYS:C	2.55	0.49
32:FA:148:ILE:O	40:NA:7:ILE:HA	2.13	0.49
46:TA:37:ALA:O	46:TA:38:GLN:C	2.54	0.49
50:XA:79:ARG:O	50:XA:83:GLN:HG3	2.11	0.49
52:ZA:121:VAL:O	52:ZA:125:ILE:HG13	2.11	0.49
58:FB:66:SER:HA	58:FB:72:ILE:O	2.12	0.49
58:FB:84:HIS:CD2	58:FB:90:LEU:HD12	2.47	0.49
59:GB:179:ARG:HA	59:GB:182:GLU:HG2	1.93	0.49
60:HB:15:LEU:HD13	60:HB:21:VAL:CG2	2.43	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:MB:119:PHE:HD1	68:PB:120:ARG:O	1.95	0.49
69:QB:28:LEU:HD22	69:QB:29:GLU:N	2.27	0.49
72:TB:95:PRO:HB2	72:TB:99:PHE:CE1	2.47	0.49
74:VB:106:GLN:O	74:VB:110:GLN:HG3	2.11	0.49
77:YB:56:CYS:HB2	77:YB:59:CYS:O	2.12	0.49
82:DC:147:LEU:HD12	82:DC:192:TYR:HB2	1.93	0.49
82:DC:212:GLY:HA2	82:DC:218:TRP:CE3	2.47	0.49
82:DC:250:PHE:HB3	82:DC:275:MET:CE	2.40	0.49
82:DC:356:LEU:O	82:DC:478:MET:HB3	2.12	0.49
82:DC:382:VAL:HA	82:DC:398:GLY:HA3	1.94	0.49
83:EC:6892:U:O2	83:EC:6938:A:C2	2.64	0.49
1:A:479:C:H4’	59:GB:120:LYS:HZ2	1.77	0.49
1:A:804:A:H1’	72:TB:106:THR:O	2.12	0.49
1:A:1721:A:H2’	1:A:1722:A:H8	1.77	0.49
2:B:665:A:H2’	2:B:666:A:O4’	2.12	0.49
2:B:834:U:H2’	2:B:835:G:H5’	1.95	0.49
2:B:1233:G:H21	16:P:128:VAL:CG1	2.24	0.49
2:B:1259:A:N6	48:VA:38:MET:HE2	2.27	0.49
2:B:1565:G:H22	2:B:1574:C:N4	2.11	0.49
2:B:1652:G:O2’	2:B:1653:G:H5’	2.11	0.49
2:B:1832:C:C4’	3:C:113:U:H5’	2.42	0.49
2:B:1941:C:OP2	23:W:74:ARG:HG2	2.12	0.49
3:C:125:U:O2	3:C:125:U:H3’	2.11	0.49
4:D:94:C:H2’	4:D:95:A:C8	2.47	0.49
6:F:113:VAL:HG12	6:F:166:ILE:CD1	2.42	0.49
9:I:77:ALA:O	9:I:78:ALA:HB2	2.12	0.49
10:J:40:LEU:HD11	10:J:54:TYR:HB2	1.94	0.49
17:Q:180:ARG:O	17:Q:184:GLU:HG3	2.12	0.49
30:DA:27:ARG:NE	30:DA:78:PHE:CZ	2.64	0.49
49:WA:127:ARG:HD3	49:WA:150:TRP:CZ3	2.47	0.49
50:XA:129:ASP:C	50:XA:131:GLN:N	2.70	0.49
58:FB:117:TYR:CG	58:FB:150:ALA:HB2	2.48	0.49
59:GB:80:LEU:O	59:GB:83:VAL:HG22	2.12	0.49
61:IB:155:LYS:H	61:IB:155:LYS:CD	2.23	0.49
66:NB:6:SER:HA	66:NB:22:VAL:O	2.12	0.49
67:OB:29:GLN:O	67:OB:32:LYS:HB3	2.12	0.49
67:OB:34:LEU:O	67:OB:38:ILE:HG22	2.12	0.49
68:PB:115:ARG:NH1	68:PB:116:LEU:HD21	2.27	0.49
73:UB:92:CYS:HA	73:UB:95:PHE:HD2	1.77	0.49
77:YB:54:VAL:HG23	77:YB:64:CYS:SG	2.52	0.49
82:DC:25:ILE:CG2	82:DC:127:VAL:HG13	2.43	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:418:TYR:OH	82:DC:420:PRO:HA	2.12	0.49
83:EC:6791:A:H4'	83:EC:6849:A:C2	2.47	0.49
1:A:448:C:H4'	54:BB:28:ALA:C	2.37	0.49
1:A:1144:U:H2'	1:A:1145:U:C6	2.47	0.49
1:A:1305:U:H5"	1:A:1306:C:H5	1.77	0.49
1:A:1500:C:H5'	69:QB:106:GLN:NE2	2.28	0.49
1:A:1611:A:H2'	1:A:1612:U:O4'	2.11	0.49
1:A:1635:A:H5"	1:A:1638:G:H4'	1.95	0.49
1:A:1733:C:H2'	1:A:1734:U:C6	2.47	0.49
2:B:1077:U:H1'	2:B:1083:G:N2	2.28	0.49
2:B:1566:A:H3'	2:B:1567:U:C5'	2.33	0.49
2:B:1926:C:O2'	47:UA:6:LYS:HD3	2.13	0.49
2:B:2804:A:C2'	2:B:2805:G:H5"	2.40	0.49
4:D:33:U:O2'	4:D:34:C:H5'	2.13	0.49
6:F:6:ARG:O	6:F:8:GLN:N	2.46	0.49
10:J:172:HIS:CD2	37:KA:40:ASP:HB3	2.48	0.49
11:K:160:ARG:CZ	11:K:206:LYS:HD3	2.43	0.49
12:L:78:PHE:O	12:L:79:GLN:HG3	2.12	0.49
12:L:122:LYS:H	12:L:122:LYS:HD3	1.77	0.49
20:T:76:PRO:HA	20:T:79:ILE:HD12	1.94	0.49
23:W:11:ALA:HB1	23:W:50:ILE:HG21	1.95	0.49
23:W:164:LEU:HD22	23:W:167:ARG:CZ	2.43	0.49
24:X:14:LEU:O	24:X:16:THR:HG23	2.13	0.49
25:Y:48:ILE:HD13	25:Y:48:ILE:N	2.27	0.49
27:AA:90:GLY:HA3	28:BA:16:GLY:HA2	1.94	0.49
32:FA:75:LEU:O	32:FA:76:ASP:C	2.55	0.49
37:KA:85:PHE:CE2	37:KA:89:LEU:HG	2.46	0.49
43:QA:5:LYS:CD	43:QA:13:MET:HE1	2.39	0.49
43:QA:35:ILE:HD12	43:QA:35:ILE:H	1.78	0.49
49:WA:203:THR:O	49:WA:211:ILE:HA	2.12	0.49
55:CB:82:PHE:CZ	78:ZB:49:ARG:HB3	2.48	0.49
56:DB:177:ARG:HA	56:DB:183:ARG:NH1	2.26	0.49
61:IB:17:PRO:C	61:IB:19:ILE:H	2.20	0.49
69:QB:54:PHE:CZ	69:QB:104:VAL:HG22	2.48	0.49
73:UB:79:ASN:HB3	73:UB:81:LYS:HG3	1.94	0.49
74:VB:59:GLY:O	74:VB:60:PHE:HB2	2.13	0.49
82:DC:16:VAL:HA	82:DC:19:VAL:HG23	1.94	0.49
82:DC:381:TYR:CB	82:DC:401:PHE:HE2	2.25	0.49
82:DC:588:LEU:HB3	82:DC:688:ILE:HA	1.95	0.49
82:DC:612:PHE:CD2	82:DC:612:PHE:N	2.80	0.49
83:EC:6762:U:H3	83:EC:6829:A:N6	2.06	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:396:G:H3'	58:FB:47:ARG:HH11	1.78	0.49
1:A:887:A:O2'	1:A:888:U:H5'	2.11	0.49
1:A:1072:C:H4'	63:KB:11:ILE:HD11	1.94	0.49
1:A:1538:U:O2'	1:A:1539:G:H2'	2.11	0.49
1:A:1549:C:H3'	65:MB:39:ALA:HB2	1.95	0.49
1:A:1685:G:C2'	1:A:1686:C:H5"	2.42	0.49
1:A:1727:G:H21	58:FB:32:GLN:CD	2.21	0.49
2:B:283:G:OP1	46:TA:45:ARG:NH2	2.44	0.49
2:B:296:A:N6	2:B:317:A:H61	2.11	0.49
2:B:1194:G:H21	2:B:1319:G:C4'	2.26	0.49
2:B:1281:G:H2'	2:B:1281:G:N3	2.28	0.49
2:B:1384:U:H5'	8:H:138:ARG:HH12	1.77	0.49
2:B:1782:U:H2'	2:B:1783:U:O4'	2.11	0.49
2:B:1805:C:H2'	2:B:1806:A:H8	1.77	0.49
2:B:2137:U:OP2	2:B:2142:A:N6	2.42	0.49
2:B:2204:C:O3'	6:F:251:LYS:HE2	2.13	0.49
2:B:3000:A:H2'	2:B:3001:C:C6	2.46	0.49
3:C:82:U:O2	3:C:82:U:C2'	2.60	0.49
5:E:149:THR:C	5:E:151:VAL:H	2.19	0.49
6:F:116:VAL:HG22	6:F:117:GLU:H	1.77	0.49
8:H:208:VAL:HG12	8:H:230:VAL:HG23	1.95	0.49
12:L:43:LYS:HD2	29:CA:28:THR:HB	1.95	0.49
12:L:133:LYS:CB	12:L:199:ALA:HB3	2.41	0.49
12:L:185:ARG:HA	12:L:188:THR:HG23	1.95	0.49
17:Q:65:TYR:C	17:Q:67:ARG:H	2.21	0.49
18:R:16:GLU:HB3	24:X:149:LYS:CB	2.38	0.49
21:U:36:ILE:CD1	21:U:44:ALA:HB1	2.42	0.49
23:W:115:ILE:CD1	23:W:123:LEU:HD12	2.42	0.49
23:W:183:ALA:HA	23:W:186:LYS:HB3	1.94	0.49
25:Y:41:ASP:HB3	25:Y:97:LYS:O	2.13	0.49
30:DA:38:GLU:O	30:DA:42:GLN:HG2	2.13	0.49
49:WA:87:LYS:HE3	49:WA:107:LYS:HA	1.94	0.49
57:EB:24:PHE:HE2	57:EB:77:LEU:HD21	1.78	0.49
61:IB:99:ARG:HH12	73:UB:7:ARG:CA	2.25	0.49
65:MB:84:ILE:HG22	65:MB:85:ILE:H	1.77	0.49
73:UB:48:HIS:HD2	73:UB:105:ALA:HB2	1.78	0.49
73:UB:57:LEU:H	73:UB:57:LEU:CD2	2.22	0.49
74:VB:43:LYS:O	74:VB:46:GLU:HG2	2.13	0.49
77:YB:35:VAL:HG22	77:YB:79:PHE:HB3	1.94	0.49
82:DC:381:TYR:HB3	82:DC:401:PHE:CE2	2.48	0.49
1:A:320:U:O2'	1:A:321:C:H6	1.94	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:333:A:H8	58:FB:49:ARG:HB3	1.78	0.49
1:A:401:A:H1'	54:BB:3:ARG:NH1	2.28	0.49
1:A:774:A:C2'	1:A:775:G:H5'	2.42	0.49
1:A:1042:G:C2'	1:A:1043:A:H5"	2.42	0.49
2:B:216:G:H4'	30:DA:19:TYR:CE2	2.48	0.49
2:B:225:C:H4'	30:DA:32:SER:O	2.12	0.49
2:B:262:U:H2'	2:B:263:C:O4'	2.12	0.49
2:B:303:G:H5"	2:B:304:G:H5"	1.94	0.49
2:B:615:U:H2'	2:B:616:G:H8	1.77	0.49
2:B:835:G:H1'	2:B:857:G:N2	2.28	0.49
2:B:1103:A:N6	22:V:9:GLN:HE22	2.10	0.49
2:B:1381:A:H5"	8:H:197:ARG:NH1	2.28	0.49
2:B:1859:A:O2'	2:B:1860:G:H5'	2.13	0.49
2:B:2513:U:O2'	2:B:2514:U:C6	2.66	0.49
2:B:2681:U:H1'	15:O:22:SER:OG	2.12	0.49
2:B:3180:A:H5'	20:T:116:LYS:HB2	1.94	0.49
3:C:41:A:O2'	41:OA:59:THR:HG22	2.12	0.49
3:C:63:G:OP2	3:C:90:U:H4'	2.12	0.49
3:C:82:U:O2	3:C:82:U:H2'	2.12	0.49
5:E:127:GLN:O	5:E:130:LYS:HE2	2.13	0.49
6:F:204:MET:HB3	6:F:208:ASP:CB	2.41	0.49
7:G:305:ILE:HD12	7:G:306:THR:H	1.78	0.49
9:I:157:ALA:C	9:I:159:VAL:H	2.20	0.49
11:K:233:GLU:OE1	24:X:35:VAL:HG22	2.13	0.49
12:L:90:THR:HG21	12:L:152:LEU:HD21	1.93	0.49
13:M:72:LYS:C	13:M:72:LYS:HD3	2.38	0.49
14:N:36:LEU:HD12	14:N:87:LEU:HB3	1.94	0.49
14:N:57:LEU:HB2	14:N:131:ILE:HG13	1.94	0.49
14:N:75:TYR:CE2	14:N:79:VAL:HG21	2.48	0.49
14:N:208:ASN:HA	14:N:211:ARG:HG3	1.95	0.49
21:U:168:LEU:H	21:U:168:LEU:HD12	1.78	0.49
22:V:122:ILE:HG23	22:V:126:GLN:HB2	1.94	0.49
27:AA:23:MET:HE2	27:AA:34:LEU:HD12	1.93	0.49
27:AA:74:MET:HE3	27:AA:102:ILE:HB	1.94	0.49
34:HA:51:LEU:HD22	38:LA:87:GLU:HG3	1.93	0.49
38:LA:56:THR:O	38:LA:57:LEU:HG	2.13	0.49
48:VA:144:LYS:HD3	82:DC:203:TYR:CE1	2.45	0.49
49:WA:228:LYS:C	53:AB:222:VAL:HG21	2.37	0.49
49:WA:292:LEU:HA	49:WA:303:ALA:HA	1.95	0.49
50:XA:62:ARG:HB3	71:SB:36:VAL:HG13	1.94	0.49
65:MB:17:TYR:O	68:PB:93:THR:HA	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:QB:13:ASP:HA	69:QB:16:ASN:ND2	2.24	0.49
72:TB:104:LEU:HD13	72:TB:104:LEU:H	1.77	0.49
74:VB:44:LEU:HD22	74:VB:48:TYR:HE2	1.78	0.49
77:YB:32:PHE:CE1	77:YB:47:PHE:HB2	2.48	0.49
82:DC:638:PRO:HD3	82:DC:671:THR:HB	1.94	0.49
82:DC:737:GLU:HA	82:DC:740:VAL:HG23	1.95	0.49
1:A:778:G:H22	74:VB:10:ARG:HG2	1.78	0.49
1:A:1258:U:H4'	60:HB:2:LEU:CD1	2.42	0.49
1:A:1682:U:H4'	56:DB:65:GLN:NE2	2.28	0.49
2:B:118:U:C5	2:B:119:U:C4	3.00	0.49
2:B:1333:C:OP1	22:V:2:GLY:N	2.45	0.49
2:B:1427:U:H5	32:FA:4:ARG:CZ	2.25	0.49
2:B:1823:A:O2'	2:B:1824:U:H5'	2.13	0.49
2:B:2841:G:H2'	2:B:2898:G:N2	2.28	0.49
2:B:2867:C:O2'	2:B:2868:U:H5'	2.12	0.49
2:B:2894:C:H2'	2:B:2895:G:C8	2.48	0.49
2:B:3188:G:H2'	2:B:3189:G:H8	1.78	0.49
3:C:24:G:OP2	30:DA:13:ARG:HD2	2.12	0.49
4:D:96:U:H2'	4:D:97:A:H8	1.78	0.49
6:F:10:LYS:HG2	6:F:16:PHE:CD1	2.47	0.49
6:F:89:TYR:O	6:F:100:ASN:HA	2.12	0.49
7:G:53:MET:HE3	7:G:77:THR:CG2	2.43	0.49
12:L:139:VAL:O	12:L:143:ILE:HG13	2.13	0.49
14:N:89:VAL:HG22	14:N:136:PHE:CE1	2.47	0.49
17:Q:75:PHE:O	17:Q:79:GLU:HB2	2.12	0.49
18:R:37:GLU:OE2	18:R:74:ARG:HD2	2.13	0.49
20:T:162:VAL:O	20:T:166:GLU:HG3	2.13	0.49
22:V:67:ILE:HG22	22:V:68:ALA:N	2.26	0.49
24:X:29:ILE:HG22	24:X:30:PHE:N	2.28	0.49
31:EA:14:VAL:C	31:EA:19:ALA:HB1	2.37	0.49
32:FA:79:TRP:NE1	32:FA:119:PRO:HD2	2.27	0.49
38:LA:97:GLU:C	38:LA:99:LYS:H	2.21	0.49
49:WA:128:ASP:C	49:WA:129:LYS:HG2	2.38	0.49
49:WA:287:PRO:HA	49:WA:306:THR:OG1	2.13	0.49
52:ZA:49:LYS:CE	52:ZA:246:GLU:HB3	2.43	0.49
52:ZA:229:LEU:HD11	71:SB:14:PRO:HD2	1.93	0.49
53:AB:184:ILE:HG22	53:AB:185:LYS:N	2.28	0.49
54:BB:41:SER:HB2	54:BB:83:PRO:HA	1.94	0.49
54:BB:163:ASP:O	54:BB:164:LEU:HB2	2.12	0.49
55:CB:59:VAL:O	55:CB:60:ASP:HB2	2.13	0.49
56:DB:219:ARG:HD2	56:DB:219:ARG:O	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:EB:114:ARG:HB2	57:EB:114:ARG:HH11	1.76	0.49
58:FB:159:GLN:CB	58:FB:165:LEU:HD23	2.43	0.49
59:GB:29:LYS:O	59:GB:33:GLU:HG3	2.13	0.49
63:KB:141:TYR:CE1	63:KB:146:ALA:HB2	2.48	0.49
82:DC:378:LEU:HD22	82:DC:409:GLN:OE1	2.13	0.49
82:DC:483:PHE:O	82:DC:484:SER:HB3	2.13	0.49
1:A:770:A:H3'	1:A:771:A:H5"	1.94	0.49
1:A:1200:G:H4'	1:A:1201:G:H5"	1.95	0.49
1:A:1304:G:H5'	1:A:1322:A:OP2	2.13	0.49
1:A:1453:G:H4'	65:MB:81:ARG:HD2	1.94	0.49
1:A:1586:A:H2'	1:A:1587:A:O4'	2.13	0.49
2:B:114:A:H1'	19:S:50:ARG:HA	1.95	0.49
2:B:1214:U:OP1	24:X:91:TYR:HB3	2.12	0.49
2:B:1239:C:H3'	2:B:1240:A:H8	1.78	0.49
2:B:1456:A:N1	35:IA:64:VAL:HG13	2.27	0.49
2:B:1577:G:C2	2:B:1578:C:H1'	2.48	0.49
2:B:1596:C:H5'	38:LA:8:ARG:NH2	2.26	0.49
2:B:1798:A:H2'	2:B:1799:A:C8	2.48	0.49
2:B:2355:G:OP1	21:U:141:SER:HA	2.12	0.49
2:B:2527:G:O2'	2:B:2528:G:H5'	2.13	0.49
6:F:41:ILE:CD1	6:F:63:PHE:HB3	2.43	0.49
6:F:145:LYS:HA	6:F:158:ILE:O	2.13	0.49
9:I:135:VAL:HG12	9:I:136:GLU:N	2.27	0.49
10:J:30:LEU:HD23	10:J:30:LEU:N	2.28	0.49
11:K:217:PRO:HG2	11:K:218:ARG:H	1.78	0.49
13:M:86:TYR:CE2	13:M:151:VAL:HG22	2.48	0.49
14:N:85:PHE:HA	14:N:139:ARG:O	2.11	0.49
24:X:123:ILE:HG22	24:X:126:VAL:HG21	1.94	0.49
32:FA:75:LEU:HD12	32:FA:137:LYS:HD2	1.94	0.49
36:JA:2:ALA:O	36:JA:90:LYS:HA	2.12	0.49
49:WA:130:THR:C	49:WA:131:ILE:HG13	2.38	0.49
49:WA:211:ILE:HG22	49:WA:212:ALA:H	1.78	0.49
50:XA:79:ARG:HH21	50:XA:166:GLY:HA2	1.77	0.49
50:XA:142:PRO:HB3	71:SB:34:ILE:HD11	1.95	0.49
54:BB:229:GLY:HA3	54:BB:233:LYS:O	2.13	0.49
56:DB:48:TYR:CE1	56:DB:125:THR:HG21	2.48	0.49
56:DB:141:ILE:HB	56:DB:153:VAL:HG21	1.95	0.49
63:KB:141:TYR:HE1	63:KB:146:ALA:HB2	1.78	0.49
69:QB:125:SER:O	69:QB:129:GLN:HG3	2.13	0.49
74:VB:96:LEU:O	74:VB:97:ALA:HB2	2.12	0.49
1:A:96:G:H1	1:A:387:A:H61	1.61	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:555:A:H2'	1:A:556:A:C8	2.48	0.49
1:A:1485:C:H3'	1:A:1486:G:H5"	1.95	0.49
2:B:245:U:H2'	2:B:246:U:H6	1.74	0.49
2:B:291:C:O5'	2:B:291:C:H6	1.96	0.49
2:B:776:U:O4	2:B:2719:U:O2	2.31	0.49
2:B:810:A:H2'	2:B:811:U:C6	2.48	0.49
2:B:1237:G:N2	16:P:136:ALA:HA	2.28	0.49
2:B:1539:A:H2'	2:B:1540:U:H5'	1.95	0.49
2:B:2282:U:H5'	2:B:2282:U:C6	2.47	0.49
2:B:2466:G:H2'	2:B:2467:G:H5'	1.95	0.49
2:B:2480:A:H2'	2:B:2481:G:H5'	1.94	0.49
4:D:61:G:H4'	9:I:275:THR:O	2.13	0.49
4:D:114:U:H2'	4:D:115:G:H8	1.77	0.49
5:E:110:PHE:H	5:E:151:VAL:HG22	1.78	0.49
7:G:150:ARG:HG2	7:G:150:ARG:HH11	1.78	0.49
9:I:55:PHE:HE2	9:I:159:VAL:HG22	1.78	0.49
11:K:83:LEU:HD12	11:K:139:PRO:HG3	1.95	0.49
14:N:153:ARG:C	14:N:153:ARG:HE	2.20	0.49
22:V:157:PRO:HD3	32:FA:47:LYS:HB2	1.95	0.49
24:X:80:ARG:HD2	24:X:122:HIS:ND1	2.28	0.49
27:AA:26:ALA:HB2	27:AA:80:ARG:NH2	2.27	0.49
32:FA:148:ILE:CG2	32:FA:149:ALA:H	2.26	0.49
37:KA:66:VAL:CG1	37:KA:67:MET:N	2.76	0.49
37:KA:98:VAL:HG22	37:KA:99:ARG:N	2.26	0.49
39:MA:41:LEU:O	39:MA:44:ILE:HG22	2.12	0.49
40:NA:45:ARG:HH22	40:NA:93:ILE:HG13	1.78	0.49
53:AB:17:PHE:HB2	53:AB:77:PHE:CE1	2.47	0.49
54:BB:42:LEU:HD23	54:BB:43:PRO:O	2.13	0.49
56:DB:108:VAL:CG1	56:DB:109:LEU:H	2.26	0.49
58:FB:196:LEU:O	58:FB:200:LYS:HB2	2.12	0.49
60:HB:10:LYS:HB3	60:HB:35:ILE:CG2	2.43	0.49
63:KB:41:ALA:C	63:KB:43:LYS:H	2.21	0.49
66:NB:45:ARG:HG3	66:NB:49:TYR:CE2	2.48	0.49
67:OB:46:LEU:HA	67:OB:49:LYS:HD3	1.95	0.49
72:TB:83:ILE:HG23	72:TB:83:ILE:O	2.12	0.49
74:VB:20:ARG:HB3	74:VB:76:TYR:CE2	2.47	0.49
80:BC:49:LEU:HD23	80:BC:49:LEU:H	1.77	0.49
82:DC:25:ILE:HD12	82:DC:142:VAL:HG12	1.95	0.49
82:DC:244:LEU:HA	82:DC:272:ALA:HB3	1.93	0.49
82:DC:584:ASN:HB3	82:DC:692:THR:O	2.12	0.49
83:EC:6831:U:H2'	83:EC:6832:G:O4'	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:15:U:C2'	1:A:16:G:H5'	2.43	0.48
1:A:59:C:H5'	1:A:452:A:H8	1.77	0.48
1:A:328:A:H2'	1:A:329:G:H8	1.78	0.48
1:A:824:G:H2'	1:A:824:G:N3	2.28	0.48
1:A:1217:A:C4'	60:HB:44:LYS:HG3	2.43	0.48
1:A:1291:G:H5'	52:ZA:119:LYS:HZ1	1.76	0.48
1:A:1593:A:H2'	1:A:1594:G:C8	2.47	0.48
2:B:181:U:H2'	2:B:182:U:C4'	2.42	0.48
2:B:352:A:H61	2:B:365:A:H5"	1.78	0.48
2:B:801:A:N6	17:Q:19:GLN:NE2	2.58	0.48
2:B:1239:C:H3'	2:B:1240:A:C8	2.47	0.48
2:B:1312:C:O2	20:T:87:MET:HG3	2.12	0.48
2:B:1324:U:C5'	24:X:2:ALA:HA	2.43	0.48
2:B:1507:G:H1'	21:U:139:TYR:CE1	2.47	0.48
2:B:1566:A:H8	2:B:1566:A:O5'	1.96	0.48
2:B:1825:G:H5"	42:PA:48:SER:OG	2.12	0.48
2:B:2461:A:C2	2:B:2485:A:H2'	2.48	0.48
2:B:3029:A:H8	2:B:3029:A:O5'	1.94	0.48
6:F:30:ARG:O	6:F:31:THR:C	2.56	0.48
6:F:192:LYS:HB3	6:F:193:ARG:CZ	2.43	0.48
10:J:31:ARG:HH11	10:J:34:LEU:HD13	1.78	0.48
11:K:115:THR:CG2	11:K:204:PRO:HA	2.43	0.48
11:K:136:TYR:CE2	11:K:231:ASN:HB2	2.48	0.48
12:L:193:LYS:O	12:L:194:THR:HG23	2.13	0.48
17:Q:50:PRO:CG	17:Q:141:ALA:HB2	2.42	0.48
22:V:89:ASP:OD1	22:V:113:LYS:HD3	2.13	0.48
23:W:59:SER:C	23:W:61:SER:H	2.21	0.48
27:AA:13:ILE:HG22	27:AA:85:TRP:CD1	2.47	0.48
31:EA:9:LYS:HD2	31:EA:83:THR:O	2.13	0.48
31:EA:44:ALA:CB	31:EA:72:ILE:HA	2.43	0.48
39:MA:21:LEU:CG	39:MA:54:VAL:HG11	2.39	0.48
39:MA:58:ILE:HG22	39:MA:62:GLN:HE21	1.76	0.48
39:MA:112:PRO:O	39:MA:113:GLN:C	2.55	0.48
42:PA:11:PHE:HA	42:PA:14:LEU:HD12	1.95	0.48
48:VA:101:VAL:HG13	48:VA:186:THR:CG2	2.43	0.48
49:WA:90:ARG:HD3	49:WA:99:THR:OG1	2.13	0.48
53:AB:17:PHE:O	53:AB:21:LEU:HG	2.13	0.48
54:BB:193:GLY:HA2	54:BB:212:ASP:HA	1.93	0.48
56:DB:136:LYS:HG3	56:DB:173:PRO:CB	2.43	0.48
57:EB:10:SER:HB2	57:EB:42:GLN:NE2	2.28	0.48
82:DC:379:MET:HE3	82:DC:478:MET:HE2	1.94	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:387:PRO:HA	82:DC:394:PHE:HA	1.95	0.48
82:DC:515:ASP:O	82:DC:518:VAL:HG12	2.13	0.48
82:DC:697:ALA:HA	82:DC:700:ARG:HB3	1.95	0.48
1:A:473:A:H4'	1:A:768:C:O2	2.13	0.48
1:A:559:C:H4'	80:BC:60:PRO:HG3	1.95	0.48
1:A:769:A:H2'	1:A:770:A:C8	2.48	0.48
1:A:815:G:O6	61:IB:146:ALA:HB3	2.13	0.48
1:A:1015:U:H5"	1:A:1016:C:OP2	2.13	0.48
1:A:1176:G:H2'	1:A:1177:C:C6	2.48	0.48
1:A:1557:U:O2'	1:A:1558:U:H2'	2.14	0.48
1:A:1565:C:H4'	68:PB:85:PHE:CD1	2.48	0.48
1:A:1711:C:H2'	1:A:1712:A:C1'	2.43	0.48
2:B:1523:U:O5'	2:B:1523:U:H6	1.96	0.48
2:B:1638:A:H5"	2:B:1639:C:OP2	2.13	0.48
2:B:1943:C:H2'	2:B:1944:U:H6	1.76	0.48
2:B:2463:G:OP1	2:B:2485:A:H1'	2.13	0.48
2:B:2478:C:H2'	2:B:2479:C:C5	2.48	0.48
2:B:2914:G:H5'	7:G:9:PRO:HG3	1.95	0.48
2:B:3110:C:H1'	13:M:156:GLN:OE1	2.13	0.48
4:D:74:C:H2'	4:D:75:G:C8	2.48	0.48
5:E:67:ILE:HD13	5:E:111:ILE:CD1	2.41	0.48
5:E:97:LYS:HD2	5:E:101:LYS:NZ	2.27	0.48
7:G:152:LYS:HG2	7:G:192:VAL:CG1	2.41	0.48
8:H:5:GLN:HE22	8:H:21:PRO:HB3	1.77	0.48
14:N:210:ILE:HA	14:N:217:PHE:CE2	2.48	0.48
16:P:146:LYS:H	16:P:146:LYS:HD2	1.78	0.48
24:X:9:VAL:HG13	24:X:61:ILE:HB	1.94	0.48
24:X:132:THR:C	24:X:134:ASP:N	2.69	0.48
28:BA:6:ASP:C	28:BA:8:PHE:N	2.71	0.48
32:FA:60:TYR:CD2	32:FA:63:LYS:HE2	2.48	0.48
34:HA:38:LYS:HA	34:HA:38:LYS:NZ	2.28	0.48
36:JA:45:ARG:HB2	36:JA:45:ARG:NH1	2.28	0.48
49:WA:81:LEU:HD23	49:WA:91:LEU:HA	1.95	0.48
50:XA:129:ASP:O	50:XA:133:ILE:HD13	2.13	0.48
56:DB:162:VAL:HG13	56:DB:162:VAL:O	2.13	0.48
57:EB:112:ARG:O	57:EB:112:ARG:HG2	2.13	0.48
58:FB:81:VAL:HG22	58:FB:96:LEU:HD23	1.95	0.48
82:DC:162:ARG:HB2	82:DC:166:GLU:OE2	2.12	0.48
82:DC:394:PHE:HB2	82:DC:460:ASP:OD2	2.14	0.48
1:A:94:U:H4'	54:BB:6:LYS:HA	1.95	0.48
1:A:478:A:H2'	1:A:479:C:C6	2.49	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:826:U:H2'	1:A:827:C:H6	1.77	0.48
1:A:1214:U:H2'	1:A:1215:C:H6	1.76	0.48
1:A:1326:A:H2'	1:A:1327:C:C6	2.49	0.48
1:A:1483:A:C5'	66:NB:71:GLY:HA2	2.44	0.48
1:A:1529:C:H2'	1:A:1530:C:C6	2.47	0.48
2:B:8:C:H2'	2:B:9:U:O4'	2.12	0.48
2:B:321:C:H5"	19:S:150:TRP:CZ3	2.49	0.48
2:B:1168:U:O2'	2:B:1169:A:H5'	2.13	0.48
2:B:1329:U:OP2	37:KA:82:ARG:NH2	2.46	0.48
2:B:1814:A:H5"	2:B:1816:A:O2'	2.13	0.48
2:B:2059:U:O2'	2:B:2060:A:H5'	2.13	0.48
2:B:2332:A:H2'	2:B:2333:C:O4'	2.13	0.48
2:B:2526:C:O5'	2:B:2526:C:H6	1.96	0.48
6:F:47:GLN:HE22	6:F:60:LYS:HG3	1.78	0.48
9:I:86:TYR:OH	9:I:251:PRO:HA	2.12	0.48
11:K:150:LYS:CG	11:K:244:ASN:HD21	2.25	0.48
12:L:75:ILE:CG2	12:L:76:ALA:H	2.17	0.48
15:O:89:TYR:O	15:O:90:GLN:HG3	2.12	0.48
18:R:103:ILE:HA	18:R:106:ARG:HH11	1.78	0.48
25:Y:9:SER:O	25:Y:55:LYS:HE2	2.12	0.48
28:BA:46:PRO:C	28:BA:48:ARG:H	2.20	0.48
29:CA:39:LYS:NZ	29:CA:39:LYS:HB3	2.28	0.48
30:DA:126:LEU:HD22	30:DA:127:GLU:N	2.28	0.48
37:KA:51:TYR:HA	37:KA:98:VAL:HG23	1.95	0.48
39:MA:85:THR:OG1	39:MA:88:LEU:HD12	2.14	0.48
45:SA:5:TRP:HA	45:SA:5:TRP:HE3	1.76	0.48
52:ZA:111:VAL:O	52:ZA:136:VAL:HA	2.13	0.48
52:ZA:153:SER:C	52:ZA:154:LEU:HD12	2.39	0.48
53:AB:127:MET:HA	53:AB:127:MET:HE3	1.94	0.48
54:BB:90:ILE:HD11	54:BB:101:LEU:CD1	2.43	0.48
57:EB:118:LEU:C	57:EB:118:LEU:HD13	2.39	0.48
61:IB:57:LYS:HA	61:IB:64:VAL:HG11	1.96	0.48
65:MB:81:ARG:HB3	65:MB:96:ILE:HG23	1.95	0.48
66:NB:129:PHE:O	66:NB:129:PHE:HD1	1.96	0.48
68:PB:61:LEU:HD12	68:PB:65:GLU:CB	2.43	0.48
69:QB:131:ASP:HA	69:QB:134:ARG:HG3	1.95	0.48
70:RB:69:LYS:CG	70:RB:78:THR:HB	2.43	0.48
73:UB:70:LYS:HB3	73:UB:93:LEU:HD21	1.95	0.48
82:DC:567:VAL:HB	82:DC:720:ALA:O	2.12	0.48
82:DC:728:VAL:HG21	82:DC:802:SER:CB	2.43	0.48
82:DC:730:LEU:HD22	82:DC:799:ASP:OD2	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:109:G:C2'	1:A:110:U:H5'	2.42	0.48
1:A:366:A:O2'	1:A:367:A:H5'	2.13	0.48
1:A:1506:G:H4'	1:A:1550:A:O2'	2.13	0.48
2:B:525:C:OP2	18:R:77:ARG:NE	2.46	0.48
2:B:615:U:H2'	2:B:616:G:C8	2.49	0.48
2:B:637:C:O2'	2:B:638:C:O5'	2.31	0.48
2:B:1221:A:H5'	48:VA:63:ILE:HD11	1.95	0.48
2:B:1682:U:C6	26:Z:85:LYS:HG2	2.49	0.48
2:B:1787:A:H2'	2:B:1788:C:O4'	2.13	0.48
2:B:1793:C:C4	6:F:179:LEU:HD13	2.48	0.48
2:B:1800:A:H2'	2:B:1801:U:O4'	2.14	0.48
2:B:1898:G:H2'	2:B:1899:G:H5'	1.95	0.48
2:B:2076:G:C3'	2:B:2077:U:H5"	2.42	0.48
2:B:2215:A:H2'	2:B:2216:G:O4'	2.13	0.48
2:B:2390:A:H2'	2:B:2391:G:O4'	2.12	0.48
2:B:2650:U:O2'	2:B:2651:G:H5'	2.13	0.48
2:B:2766:U:O2'	2:B:2767:U:H5'	2.14	0.48
2:B:3127:A:H2'	2:B:3128:G:O4'	2.12	0.48
5:E:130:LYS:HG3	5:E:131:ALA:N	2.28	0.48
8:H:295:ILE:C	8:H:297:SER:H	2.21	0.48
8:H:334:PHE:HA	8:H:339:LEU:HD12	1.94	0.48
9:I:256:THR:C	9:I:258:LYS:H	2.21	0.48
19:S:116:LEU:HD13	19:S:135:VAL:CG2	2.42	0.48
20:T:118:VAL:HB	24:X:164:SER:O	2.14	0.48
21:U:164:LYS:HG3	21:U:164:LYS:O	2.13	0.48
24:X:8:GLN:HB2	24:X:64:ILE:CD1	2.37	0.48
26:Z:33:TYR:OH	26:Z:80:THR:HG22	2.14	0.48
29:CA:133:LEU:HD22	29:CA:137:ASN:HD21	1.77	0.48
30:DA:53:ASP:HB3	30:DA:69:LYS:HE3	1.95	0.48
32:FA:79:TRP:HE1	32:FA:119:PRO:HD2	1.78	0.48
44:RA:103:LEU:HB3	44:RA:104:PRO:CD	2.43	0.48
50:XA:129:ASP:C	50:XA:131:GLN:H	2.22	0.48
52:ZA:65:GLU:HB2	52:ZA:68:ILE:HD11	1.94	0.48
52:ZA:144:TRP:HB2	52:ZA:152:HIS:HE1	1.78	0.48
54:BB:44:LEU:HG	54:BB:82:TYR:HB3	1.96	0.48
54:BB:64:ILE:CD1	74:VB:18:LEU:HD21	2.44	0.48
54:BB:199:GLU:HB2	54:BB:207:LEU:O	2.14	0.48
55:CB:93:LEU:HA	55:CB:96:SER:HB2	1.94	0.48
55:CB:147:THR:HG22	55:CB:158:GLN:O	2.13	0.48
59:GB:113:VAL:HG12	59:GB:125:ALA:HB1	1.94	0.48
59:GB:135:ALA:HA	59:GB:139:GLN:O	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:IB:69:LYS:HB3	61:IB:71:LEU:HD21	1.95	0.48
69:QB:40:SER:OG	69:QB:96:ALA:HA	2.12	0.48
73:UB:132:LEU:O	73:UB:136:TRP:HB2	2.14	0.48
75:WB:62:VAL:HA	75:WB:76:ALA:HB1	1.95	0.48
77:YB:62:ILE:HD11	77:YB:64:CYS:O	2.13	0.48
82:DC:270:GLU:HB3	82:DC:275:MET:HB2	1.94	0.48
82:DC:723:LYS:HG3	82:DC:724:ILE:H	1.79	0.48
1:A:374:U:O2'	1:A:603:U:H5"	2.13	0.48
1:A:871:G:H2'	1:A:872:G:C8	2.49	0.48
1:A:1473:U:H5"	55:CB:190:ILE:HG12	1.95	0.48
1:A:1516:A:H8	70:RB:58:LEU:HD22	1.78	0.48
1:A:1525:A:H2'	1:A:1526:A:H8	1.78	0.48
1:A:1579:U:H2'	1:A:1580:C:C6	2.49	0.48
1:A:1681:A:H2'	1:A:1682:U:O4'	2.13	0.48
2:B:308:A:H5'	2:B:2223:A:O2'	2.12	0.48
2:B:953:G:H2'	2:B:1117:G:H5"	1.96	0.48
2:B:1258:U:C1'	48:VA:42:ARG:HH12	2.25	0.48
2:B:2553:U:C4	38:LA:95:ILE:HG23	2.48	0.48
2:B:2711:C:H2'	2:B:2712:U:O4'	2.13	0.48
2:B:2897:A:O2'	2:B:2898:G:H2'	2.12	0.48
2:B:2940:A:OP2	7:G:2:SER:N	2.46	0.48
2:B:2987:A:H2'	2:B:2988:C:C6	2.48	0.48
2:B:3045:G:H4'	7:G:16:PHE:CE2	2.48	0.48
2:B:3249:C:O2'	2:B:3250:U:H5'	2.13	0.48
4:D:76:A:O3'	24:X:50:LYS:HD3	2.14	0.48
5:E:16:LEU:HD11	5:E:32:VAL:HG22	1.95	0.48
8:H:45:ASN:C	8:H:47:ARG:H	2.21	0.48
9:I:61:ILE:HG23	9:I:79:TYR:CE1	2.48	0.48
11:K:136:TYR:HE2	11:K:231:ASN:HD22	1.60	0.48
13:M:47:LYS:HE2	18:R:5:SER:HB2	1.95	0.48
14:N:178:ARG:N	14:N:179:PRO:HD2	2.29	0.48
23:W:160:GLU:HA	23:W:163:ARG:CD	2.44	0.48
25:Y:91:LEU:HD12	25:Y:96:ILE:HD13	1.95	0.48
38:LA:64:THR:HG22	38:LA:64:THR:O	2.12	0.48
47:UA:47:VAL:HG13	47:UA:56:THR:O	2.13	0.48
50:XA:119:ARG:CG	52:ZA:40:LYS:HE2	2.44	0.48
52:ZA:116:LYS:HG2	52:ZA:127:ALA:HB1	1.94	0.48
54:BB:107:GLY:HA2	54:BB:189:LEU:HG	1.95	0.48
56:DB:87:ARG:HG3	56:DB:87:ARG:HH11	1.79	0.48
59:GB:93:LEU:C	59:GB:93:LEU:HD23	2.38	0.48
68:PB:134:ARG:HB2	68:PB:136:GLN:HE22	1.77	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:5:THR:HA	82:DC:48:ALA:HA	1.95	0.48
82:DC:23:SER:HB3	82:DC:103:ILE:HB	1.94	0.48
82:DC:483:PHE:O	82:DC:485:VAL:HG23	2.14	0.48
1:A:101:U:H2'	1:A:102:U:H5'	1.95	0.48
1:A:222:A:H2'	1:A:223:U:H5'	1.95	0.48
1:A:230:C:C3'	1:A:231:U:H5"	2.21	0.48
1:A:310:C:H2'	1:A:311:U:O4'	2.13	0.48
1:A:449:C:O2'	1:A:450:U:H5'	2.14	0.48
1:A:919:A:H2'	1:A:920:U:C5	2.49	0.48
1:A:1675:C:H1'	58:FB:32:GLN:HE22	1.79	0.48
2:B:734:C:H2'	2:B:735:A:O4'	2.14	0.48
2:B:1258:U:H2'	2:B:1259:A:H3'	1.94	0.48
2:B:1470:U:O2'	2:B:1512:U:H4'	2.13	0.48
2:B:2369:G:H2'	2:B:2370:G:C8	2.48	0.48
2:B:2510:U:O2'	2:B:2511:A:H8	1.96	0.48
2:B:2613:U:O2	2:B:2804:A:N7	2.47	0.48
2:B:2681:U:H4'	15:O:66:ALA:CB	2.42	0.48
2:B:2928:C:O2'	2:B:2929:C:H5'	2.13	0.48
2:B:3382:U:O2'	2:B:3383:G:H5'	2.14	0.48
2:B:3386:G:H2'	2:B:3387:U:C6	2.49	0.48
3:C:67:U:H2'	3:C:68:G:C8	2.49	0.48
3:C:107:G:H4'	3:C:138:A:H5'	1.94	0.48
7:G:84:VAL:HG11	7:G:162:VAL:HB	1.95	0.48
8:H:74:ILE:HD11	8:H:76:ARG:NH2	2.28	0.48
8:H:193:LYS:HB2	8:H:193:LYS:NZ	2.28	0.48
9:I:91:GLY:O	9:I:97:ALA:HB2	2.13	0.48
11:K:221:LYS:O	11:K:227:GLY:HA3	2.14	0.48
12:L:160:ILE:O	12:L:164:VAL:HG13	2.13	0.48
13:M:84:LYS:HB3	13:M:186:PHE:HD2	1.77	0.48
16:P:57:LYS:HE2	16:P:79:SER:HB3	1.95	0.48
16:P:94:LYS:HB3	16:P:99:LYS:HG2	1.95	0.48
20:T:125:ARG:HG3	20:T:129:LEU:CD1	2.44	0.48
37:KA:29:LEU:C	37:KA:30:ILE:HD13	2.39	0.48
46:TA:12:CYS:SG	46:TA:77:CYS:SG	3.11	0.48
47:UA:55:TRP:HZ2	47:UA:70:THR:N	2.12	0.48
48:VA:75:LYS:O	48:VA:75:LYS:HD3	2.14	0.48
48:VA:185:LEU:HD23	48:VA:185:LEU:N	2.28	0.48
49:WA:83:ALA:HA	49:WA:89:LEU:CD2	2.44	0.48
50:XA:142:PRO:HG3	71:SB:32:VAL:CG2	2.44	0.48
54:BB:31:PRO:HG2	54:BB:38:LEU:HD11	1.95	0.48
54:BB:181:VAL:HG11	54:BB:225:VAL:HG13	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BB:185:GLY:N	54:BB:189:LEU:HD13	2.28	0.48
55:CB:57:SER:O	55:CB:58:LEU:HB2	2.13	0.48
58:FB:38:ILE:CD1	58:FB:80:GLY:HA2	2.44	0.48
65:MB:75:PRO:HA	65:MB:93:VAL:HB	1.96	0.48
70:RB:23:ARG:HG3	70:RB:91:ILE:O	2.14	0.48
72:TB:73:GLY:HA3	72:TB:128:PHE:CZ	2.48	0.48
72:TB:90:THR:C	72:TB:92:ASN:H	2.22	0.48
82:DC:86:VAL:HA	82:DC:89:ILE:CD1	2.43	0.48
82:DC:112:SER:CB	82:DC:485:VAL:HG21	2.43	0.48
82:DC:131:THR:HG21	82:DC:163:ALA:CB	2.42	0.48
82:DC:428:ILE:HD12	82:DC:428:ILE:H	1.78	0.48
82:DC:463:LEU:HD21	82:DC:467:GLY:HA3	1.95	0.48
82:DC:534:GLY:O	82:DC:537:HIS:HB3	2.14	0.48
1:A:332:U:H5"	58:FB:31:ARG:NH2	2.27	0.48
1:A:586:G:H2'	1:A:587:C:O4'	2.14	0.48
1:A:644:C:H2'	1:A:645:C:H6	1.78	0.48
1:A:851:U:H1'	23:W:173:ARG:HD3	1.95	0.48
1:A:1087:A:H5'	1:A:1298:U:O4	2.14	0.48
2:B:100:A:H4'	19:S:181:ASN:OD1	2.14	0.48
2:B:289:A:C5'	19:S:95:GLN:O	2.61	0.48
2:B:1039:U:H2'	2:B:1040:A:H8	1.77	0.48
2:B:2108:C:C1'	2:B:3344:A:H1'	2.43	0.48
2:B:2153:U:O2'	2:B:2154:U:H5'	2.14	0.48
7:G:199:PHE:O	7:G:200:GLU:HB2	2.12	0.48
12:L:122:LYS:HD3	12:L:122:LYS:N	2.28	0.48
14:N:4:ARG:HD2	14:N:9:TYR:CE1	2.48	0.48
15:O:59:ILE:HG21	15:O:65:ILE:HD12	1.96	0.48
15:O:86:VAL:HG22	15:O:111:ASP:O	2.13	0.48
22:V:81:VAL:HG12	22:V:138:LEU:HD12	1.96	0.48
26:Z:41:ILE:HD13	26:Z:71:PHE:CE2	2.48	0.48
31:EA:52:LYS:O	31:EA:65:ARG:NH1	2.46	0.48
37:KA:58:GLU:HG3	37:KA:62:SER:C	2.38	0.48
48:VA:20:GLU:HA	48:VA:69:ASP:OD2	2.13	0.48
52:ZA:149:GLY:O	52:ZA:150:GLN:HB2	2.13	0.48
54:BB:45:ILE:O	54:BB:49:ARG:CB	2.62	0.48
56:DB:108:VAL:CG1	56:DB:109:LEU:N	2.76	0.48
60:HB:60:SER:HB3	60:HB:65:TYR:CE2	2.49	0.48
61:IB:39:GLY:O	61:IB:41:GLY:N	2.47	0.48
70:RB:87:HIS:HB3	70:RB:89:ARG:HH12	1.79	0.48
73:UB:43:PHE:CZ	73:UB:49:ALA:HB3	2.49	0.48
76:XB:74:CYS:O	76:XB:76:SER:N	2.41	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:18:ASN:HA	82:DC:98:PHE:CD1	2.48	0.48
82:DC:75:ILE:HD12	82:DC:75:ILE:N	2.29	0.48
82:DC:308:LYS:HA	82:DC:312:LYS:HE3	1.95	0.48
82:DC:758:GLU:O	82:DC:759:GLN:HB3	2.14	0.48
1:A:93:A:C8	1:A:398:G:H2'	2.49	0.48
1:A:112:A:O2'	1:A:113:U:H5'	2.13	0.48
1:A:119:A:H2'	1:A:120:U:H5'	1.95	0.48
1:A:1042:G:H2'	1:A:1043:A:C5'	2.44	0.48
1:A:1373:C:H2'	1:A:1374:C:C6	2.48	0.48
1:A:1382:A:O2'	1:A:1383:G:H8	1.97	0.48
2:B:185:C:H2'	2:B:186:U:O4'	2.14	0.48
2:B:264:G:H22	40:NA:26:ILE:HD11	1.79	0.48
2:B:275:U:H2'	2:B:276:U:C6	2.48	0.48
2:B:833:G:H5"	23:W:84:THR:HG21	1.96	0.48
2:B:1231:A:H4'	2:B:1261:G:C8	2.49	0.48
2:B:1613:A:H2'	2:B:1614:C:O4'	2.13	0.48
2:B:1892:G:H3'	2:B:1893:A:H5"	1.96	0.48
2:B:2143:A:C6	2:B:2145:A:H1'	2.49	0.48
2:B:2748:A:H4'	9:I:145:PHE:CD2	2.49	0.48
2:B:3305:A:H2'	2:B:3306:U:O4'	2.14	0.48
7:G:212:ASN:OD1	7:G:353:GLU:HA	2.13	0.48
7:G:339:ARG:CD	7:G:342:LEU:HD21	2.44	0.48
9:I:252:ALA:O	9:I:253:PHE:CB	2.61	0.48
12:L:41:GLN:HG3	12:L:42:PRO:HD2	1.96	0.48
13:M:49:ASN:HD22	13:M:49:ASN:N	2.11	0.48
13:M:172:ILE:H	13:M:172:ILE:CD1	2.27	0.48
18:R:68:LEU:HD11	18:R:94:TRP:HA	1.96	0.48
25:Y:35:LYS:O	25:Y:38:ASP:HB2	2.14	0.48
27:AA:12:ARG:HG3	27:AA:12:ARG:HH11	1.78	0.48
30:DA:51:ARG:O	30:DA:52:ARG:O	2.31	0.48
30:DA:80:VAL:HG11	30:DA:104:LEU:HD11	1.95	0.48
36:JA:76:VAL:HA	36:JA:81:ASP:OD1	2.14	0.48
37:KA:18:ARG:CB	37:KA:23:ASN:HA	2.44	0.48
52:ZA:153:SER:OG	52:ZA:171:PRO:HA	2.13	0.48
54:BB:179:LYS:O	54:BB:180:LEU:C	2.57	0.48
57:EB:46:ILE:HA	57:EB:59:ALA:O	2.13	0.48
57:EB:86:GLN:HG2	57:EB:87:ASP:H	1.79	0.48
61:IB:34:TRP:CG	61:IB:35:TYR:N	2.82	0.48
67:OB:29:GLN:NE2	67:OB:29:GLN:H	2.12	0.48
68:PB:16:ARG:HH12	68:PB:19:ASN:HA	1.78	0.48
82:DC:123:ASP:O	82:DC:151:ILE:HG23	2.12	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:300:LEU:HD11	82:DC:307:LEU:HG	1.95	0.48
82:DC:386:VAL:CG1	82:DC:397:PHE:HB2	2.43	0.48
82:DC:448:CYS:SG	82:DC:454:ILE:HB	2.53	0.48
82:DC:734:GLN:HG3	82:DC:765:LEU:HD21	1.95	0.48
83:EC:6914:A:H2'	83:EC:6915:G:C5'	2.43	0.48
1:A:246:G:H21	61:IB:39:GLY:HA3	1.79	0.48
1:A:518:A:C2	1:A:519:C:H5	2.32	0.48
1:A:923:A:H4'	6:F:137:ILE:HD12	1.96	0.48
2:B:208:C:C2'	2:B:209:A:H5'	2.44	0.48
2:B:359:U:H4'	2:B:817:A:N6	2.28	0.48
2:B:1240:A:H3'	2:B:1241:U:C5'	2.32	0.48
2:B:1422:G:H2'	2:B:1423:C:C6	2.49	0.48
2:B:1475:A:C2'	2:B:1476:G:H5'	2.44	0.48
2:B:1478:C:H2'	2:B:1479:U:C6	2.46	0.48
2:B:1520:G:O2'	2:B:1521:G:H5'	2.14	0.48
2:B:1729:A:H3'	2:B:1730:G:C5'	2.44	0.48
2:B:2085:U:H3'	2:B:2086:A:H5'	1.95	0.48
3:C:43:A:OP2	41:OA:62:GLY:HA2	2.14	0.48
5:E:68:PHE:CE2	5:E:90:LEU:HD22	2.49	0.48
5:E:68:PHE:O	5:E:111:ILE:HG22	2.14	0.48
9:I:164:LYS:HE3	9:I:195:LEU:HD21	1.96	0.48
9:I:247:ILE:C	9:I:249:ALA:N	2.70	0.48
11:K:156:ILE:HD12	11:K:161:VAL:CG2	2.43	0.48
11:K:156:ILE:C	11:K:158:LYS:N	2.72	0.48
12:L:156:ASP:C	12:L:157:VAL:HG23	2.39	0.48
12:L:222:PHE:O	12:L:223:ALA:C	2.56	0.48
14:N:174:THR:HG22	14:N:175:ASN:N	2.29	0.48
17:Q:165:SER:H	32:FA:139:ARG:HH12	1.61	0.48
19:S:68:ARG:HG3	19:S:126:THR:O	2.13	0.48
22:V:9:GLN:HE21	22:V:9:GLN:CA	2.26	0.48
22:V:122:ILE:N	22:V:122:ILE:HD12	2.29	0.48
24:X:98:SER:OG	24:X:100:VAL:HG13	2.14	0.48
32:FA:47:LYS:O	32:FA:48:TYR:CB	2.62	0.48
38:LA:7:PHE:CE1	38:LA:18:ASN:ND2	2.82	0.48
43:QA:36:ARG:CZ	43:QA:36:ARG:HB3	2.43	0.48
47:UA:7:LYS:HG3	47:UA:8:VAL:N	2.29	0.48
52:ZA:69:ILE:C	52:ZA:69:ILE:HD12	2.39	0.48
54:BB:87:MET:HB3	54:BB:122:LYS:CE	2.42	0.48
63:KB:88:LEU:HD13	63:KB:88:LEU:C	2.38	0.48
65:MB:86:VAL:CG1	65:MB:89:MET:HE3	2.36	0.48
66:NB:59:LYS:HD2	66:NB:93:HIS:NE2	2.28	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:UB:103:LEU:HB3	73:UB:126:LYS:H	1.79	0.48
80:BC:42:ARG:HA	80:BC:46:ASN:OD1	2.13	0.48
82:DC:112:SER:HB2	82:DC:485:VAL:HG21	1.95	0.48
82:DC:143:LEU:HD23	82:DC:188:ILE:HB	1.96	0.48
1:A:315:A:H4'	1:A:316:A:H4'	1.96	0.48
1:A:1042:G:H2'	1:A:1043:A:O4'	2.14	0.48
1:A:1177:C:H4'	1:A:1189:A:N1	2.29	0.48
1:A:1250:U:O2'	1:A:1251:U:H5'	2.13	0.48
1:A:1364:G:O2'	66:NB:26:LYS:HE3	2.14	0.48
1:A:1534:G:C8	75:WB:73:GLY:HA3	2.48	0.48
1:A:1589:C:H2'	1:A:1590:G:C8	2.49	0.48
2:B:641:C:OP1	32:FA:21:ARG:HB2	2.14	0.48
2:B:945:C:H2'	2:B:946:U:C6	2.49	0.48
2:B:1059:G:O2'	2:B:1060:U:H5'	2.14	0.48
2:B:1159:A:O2'	2:B:1160:C:H5"	2.13	0.48
2:B:1359:C:H2'	2:B:1360:C:H6	1.78	0.48
2:B:1501:U:H3	2:B:1515:A:H61	1.61	0.48
2:B:1616:U:H2'	2:B:1617:G:O4'	2.13	0.48
2:B:1640:G:H2'	2:B:1641:U:C6	2.47	0.48
2:B:1819:U:H6	2:B:1819:U:C5'	2.27	0.48
2:B:2229:A:H2'	2:B:2230:C:O4'	2.13	0.48
2:B:2263:C:O2'	2:B:2264:U:OP1	2.30	0.48
2:B:2491:A:O3'	5:E:205:VAL:HG21	2.14	0.48
2:B:2861:U:H2'	2:B:2862:U:O4'	2.14	0.48
4:D:4:U:H5"	4:D:26:C:O2'	2.14	0.48
4:D:48:U:H1'	9:I:222:LEU:HD22	1.96	0.48
5:E:87:VAL:CG2	5:E:116:LEU:HD22	2.44	0.48
7:G:6:TYR:HB3	27:AA:46:LEU:HD13	1.96	0.48
7:G:11:HIS:HB3	7:G:233:TRP:O	2.13	0.48
7:G:199:PHE:C	7:G:201:LYS:N	2.70	0.48
9:I:18:THR:HB	9:I:24:ARG:HD3	1.96	0.48
9:I:76:ALA:CB	9:I:109:THR:HB	2.44	0.48
10:J:81:ALA:O	10:J:84:VAL:HB	2.13	0.48
11:K:232:ARG:HD2	11:K:236:ILE:HD12	1.96	0.48
14:N:51:HIS:NE2	14:N:168:SER:HB2	2.29	0.48
16:P:57:LYS:HD3	16:P:57:LYS:N	2.23	0.48
17:Q:48:PRO:HA	17:Q:137:GLN:HB3	1.95	0.48
23:W:76:SER:O	23:W:81:ARG:HD2	2.13	0.48
29:CA:95:ILE:O	29:CA:99:VAL:HG23	2.13	0.48
38:LA:74:ARG:NH2	38:LA:82:ALA:HA	2.29	0.48
49:WA:54:PHE:CD2	49:WA:312:VAL:HG21	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:WA:177:MET:HB3	49:WA:179:LYS:HZ2	1.79	0.48
53:AB:49:ILE:HD12	53:AB:49:ILE:N	2.29	0.48
54:BB:12:LEU:HD11	59:GB:5:PRO:HD3	1.96	0.48
54:BB:219:VAL:HG12	54:BB:220:THR:H	1.78	0.48
54:BB:251:GLU:O	54:BB:255:ARG:HG3	2.14	0.48
55:CB:217:LEU:O	55:CB:221:ALA:HB2	2.14	0.48
56:DB:77:LEU:HD13	56:DB:84:TYR:HB2	1.96	0.48
70:RB:77:LYS:HA	70:RB:77:LYS:HE3	1.96	0.48
78:ZB:62:GLU:HG3	78:ZB:62:GLU:O	2.14	0.48
82:DC:91:GLN:NE2	82:DC:347:THR:HB	2.28	0.48
82:DC:384:LYS:HG2	82:DC:397:PHE:HD2	1.79	0.48
1:A:141:U:H4'	1:A:266:A:H2	1.79	0.47
1:A:564:G:H4'	1:A:566:C:C2	2.49	0.47
1:A:1328:G:OP1	53:AB:158:ILE:HB	2.14	0.47
1:A:1577:A:H2'	1:A:1578:U:O4'	2.14	0.47
1:A:1741:U:H2'	1:A:1742:U:H6	1.77	0.47
2:B:70:A:N1	2:B:313:A:O2'	2.41	0.47
2:B:88:A:H2'	2:B:89:A:O4'	2.13	0.47
2:B:650:C:H2'	2:B:651:G:C8	2.49	0.47
2:B:1103:A:C1'	2:B:1104:G:P	3.00	0.47
2:B:1153:A:O2'	2:B:1154:A:H5'	2.14	0.47
2:B:1203:A:N3	2:B:2855:U:O2'	2.44	0.47
2:B:1261:G:N7	48:VA:35:SER:CB	2.77	0.47
2:B:2401:A:OP1	8:H:70:ALA:HB2	2.13	0.47
2:B:2812:C:H2'	2:B:2813:A:C8	2.48	0.47
2:B:3335:A:H5'	2:B:3335:A:C8	2.49	0.47
4:D:101:G:C2'	4:D:102:A:H5"	2.44	0.47
6:F:6:ARG:C	6:F:8:GLN:N	2.70	0.47
6:F:49:VAL:HG22	6:F:50:HIS:H	1.80	0.47
6:F:70:ARG:C	6:F:71:LEU:HD12	2.39	0.47
8:H:198:ARG:O	8:H:198:ARG:HG2	2.14	0.47
8:H:352:ALA:HB3	11:K:73:GLY:HA2	1.96	0.47
10:J:23:LYS:O	10:J:24:ALA:HB2	2.13	0.47
12:L:82:LEU:HG	12:L:86:THR:HB	1.94	0.47
19:S:75:VAL:HB	19:S:79:ALA:O	2.14	0.47
20:T:160:ARG:HB3	20:T:160:ARG:NH1	2.29	0.47
21:U:175:ARG:O	21:U:179:GLN:HB2	2.14	0.47
34:HA:20:SER:HB3	34:HA:96:GLY:CA	2.44	0.47
38:LA:5:VAL:HG21	38:LA:31:ARG:C	2.39	0.47
38:LA:9:ARG:HG3	38:LA:34:HIS:NE2	2.29	0.47
52:ZA:150:GLN:HA	52:ZA:150:GLN:OE1	2.13	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:ZA:239:PRO:C	52:ZA:241:ASP:H	2.22	0.47
78:ZB:41:VAL:O	78:ZB:42:ARG:HD2	2.14	0.47
82:DC:27:HIS:HB3	82:DC:30:HIS:CG	2.49	0.47
82:DC:110:ASP:HA	82:DC:533:THR:CG2	2.44	0.47
82:DC:119:LEU:HB3	82:DC:151:ILE:HD12	1.95	0.47
82:DC:539:GLU:HA	82:DC:542:LEU:HD12	1.96	0.47
82:DC:608:PRO:HG2	82:DC:641:ASN:HA	1.96	0.47
83:EC:6892:U:H2'	83:EC:6893:C:C6	2.48	0.47
1:A:189:C:H3'	1:A:190:C:C5'	2.42	0.47
1:A:295:A:O2'	1:A:296:U:H5'	2.14	0.47
1:A:1219:A:H62	1:A:1264:G:H21	1.62	0.47
1:A:1462:G:C8	68:PB:143:ARG:NH2	2.82	0.47
1:A:1556:A:C6	1:A:1560:U:H1'	2.49	0.47
1:A:1749:A:C2'	1:A:1750:A:H5"	2.43	0.47
2:B:1175:C:O2	20:T:87:MET:HG2	2.14	0.47
2:B:1335:C:O5'	2:B:1335:C:H6	1.97	0.47
2:B:1348:U:H5"	2:B:1349:G:C8	2.50	0.47
2:B:1761:C:H4'	2:B:1763:U:C4	2.49	0.47
2:B:1870:C:H5"	2:B:3076:C:O2'	2.14	0.47
2:B:2389:C:H2'	2:B:2390:A:C8	2.49	0.47
2:B:2569:A:H1'	2:B:2570:U:H5	1.78	0.47
2:B:3320:A:H2'	2:B:3321:C:C6	2.48	0.47
3:C:39:G:H1'	3:C:105:A:N1	2.30	0.47
8:H:74:ILE:HB	8:H:75:PRO:HD2	1.96	0.47
15:O:6:GLN:HG3	15:O:7:ASN:N	2.29	0.47
15:O:61:ARG:HG2	15:O:62:ASN:ND2	2.30	0.47
17:Q:164:GLU:O	17:Q:165:SER:HB3	2.13	0.47
18:R:7:VAL:O	18:R:8:LYS:C	2.57	0.47
21:U:84:PRO:O	21:U:88:VAL:HG23	2.14	0.47
23:W:38:ARG:NH1	23:W:38:ARG:HG3	2.29	0.47
23:W:45:VAL:HG22	23:W:50:ILE:HB	1.96	0.47
27:AA:87:ARG:NH2	27:AA:137:VAL:HG21	2.29	0.47
29:CA:83:VAL:HG12	29:CA:122:ALA:O	2.14	0.47
35:IA:10:ARG:HB2	35:IA:12:TYR:CE2	2.48	0.47
36:JA:32:TRP:HZ3	36:JA:50:ILE:HD12	1.80	0.47
41:OA:25:ARG:NH1	43:QA:50:ASN:HB3	2.29	0.47
49:WA:64:HIS:CE1	49:WA:90:ARG:HG3	2.48	0.47
49:WA:179:LYS:HG2	49:WA:191:ASP:OD1	2.14	0.47
49:WA:232:TYR:HH	49:WA:265:LEU:HD12	1.79	0.47
49:WA:309:VAL:HG12	49:WA:310:ILE:N	2.29	0.47
50:XA:125:ASP:C	50:XA:127:ARG:H	2.21	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:ZA:38:VAL:HG22	52:ZA:39:THR:H	1.79	0.47
54:BB:39:ARG:HA	54:BB:39:ARG:NE	2.29	0.47
54:BB:77:ARG:NE	54:BB:77:ARG:HA	2.28	0.47
54:BB:126:VAL:HG23	54:BB:157:ASN:N	2.28	0.47
54:BB:193:GLY:O	54:BB:194:THR:C	2.57	0.47
54:BB:240:LYS:HD3	54:BB:240:LYS:H	1.78	0.47
58:FB:153:GLU:OE1	58:FB:186:GLY:HA2	2.13	0.47
59:GB:179:ARG:O	59:GB:182:GLU:HG3	2.14	0.47
61:IB:128:CYS:SG	61:IB:138:ASN:HB3	2.54	0.47
65:MB:110:GLU:HB2	68:PB:119:ILE:HD11	1.96	0.47
67:OB:10:LYS:HG2	67:OB:53:TYR:CE1	2.49	0.47
69:QB:70:GLN:HB2	69:QB:122:ARG:H	1.77	0.47
73:UB:92:CYS:O	73:UB:95:PHE:HB2	2.14	0.47
74:VB:92:VAL:HG22	74:VB:99:LYS:HB2	1.96	0.47
75:WB:77:ARG:NH1	75:WB:77:ARG:HB2	2.30	0.47
82:DC:5:THR:HA	82:DC:48:ALA:CB	2.44	0.47
82:DC:468:THR:HG23	82:DC:478:MET:SD	2.54	0.47
1:A:97:C:O4’	1:A:426:G:H4’	2.14	0.47
1:A:115:G:N2	1:A:334:G:N2	2.61	0.47
1:A:188:A:N7	1:A:197:A:C2	2.82	0.47
1:A:370:A:H2’	1:A:371:G:O4’	2.14	0.47
1:A:532:U:H2’	1:A:533:U:O4’	2.14	0.47
1:A:765:G:H1	59:GB:149:ARG:HG3	1.79	0.47
1:A:1023:A:C4’	1:A:1024:U:H6	2.19	0.47
1:A:1072:C:OP1	77:YB:22:LYS:HD2	2.14	0.47
1:A:1483:A:H4’	66:NB:71:GLY:HA2	1.96	0.47
1:A:1656:U:O5’	1:A:1657:U:H5”	2.14	0.47
2:B:758:C:H2’	2:B:759:U:H5’	1.95	0.47
2:B:1010:G:H4’	14:N:40:LYS:CG	2.44	0.47
2:B:1479:U:N3	2:B:1483:G:N2	2.62	0.47
2:B:1783:U:H2’	2:B:1784:G:H8	1.79	0.47
2:B:1838:G:H5”	2:B:1839:A:C5’	2.43	0.47
2:B:2394:G:O5’	7:G:252:ILE:HG22	2.15	0.47
2:B:2587:U:H2’	2:B:2588:U:C6	2.49	0.47
2:B:2838:A:N6	2:B:2850:G:O2’	2.47	0.47
2:B:3034:C:O2’	13:M:122:LYS:HD2	2.14	0.47
2:B:3343:G:H2’	2:B:3361:G:N2	2.29	0.47
2:B:3379:C:H4’	7:G:315:GLY:HA2	1.95	0.47
3:C:133:G:H2’	3:C:134:G:C8	2.49	0.47
4:D:23:A:H1’	4:D:121:U:O3’	2.14	0.47
4:D:97:A:H2’	4:D:98:C:C6	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:118:A:H2'	4:D:119:U:O4'	2.13	0.47
7:G:180:GLU:C	7:G:181:ILE:HG13	2.39	0.47
7:G:362:ALA:HB1	7:G:368:GLY:HA3	1.96	0.47
8:H:286:VAL:HG21	22:V:28:LEU:HB3	1.95	0.47
8:H:338:LYS:O	8:H:340:GLY:N	2.47	0.47
13:M:34:LEU:CD2	13:M:35:THR:H	2.27	0.47
14:N:150:GLU:O	14:N:154:ARG:HB2	2.13	0.47
19:S:65:ARG:HB2	19:S:129:TYR:CD1	2.49	0.47
20:T:26:GLN:O	20:T:31:GLN:HB3	2.15	0.47
20:T:147:TRP:CZ3	20:T:150:GLU:HA	2.49	0.47
23:W:162:ARG:HB3	23:W:162:ARG:HH11	1.76	0.47
24:X:14:LEU:HD23	24:X:15:PRO:HD2	1.96	0.47
28:BA:19:THR:HG22	28:BA:20:LEU:H	1.79	0.47
29:CA:86:VAL:HG21	29:CA:95:ILE:HG12	1.96	0.47
40:NA:45:ARG:HG3	40:NA:45:ARG:HH11	1.79	0.47
43:QA:47:THR:HG22	43:QA:48:LYS:O	2.14	0.47
48:VA:125:ASN:HA	48:VA:151:GLU:HA	1.96	0.47
61:IB:8:GLN:OE1	61:IB:8:GLN:HA	2.14	0.47
61:IB:72:THR:HG22	61:IB:124:THR:OG1	2.13	0.47
61:IB:99:ARG:NH1	73:UB:7:ARG:HA	2.28	0.47
69:QB:131:ASP:C	69:QB:134:ARG:HB2	2.38	0.47
74:VB:5:VAL:O	74:VB:6:THR:HB	2.13	0.47
82:DC:284:LEU:HD12	82:DC:324:MET:HE1	1.97	0.47
1:A:5:U:H2'	1:A:6:G:H8	1.80	0.47
1:A:154:G:H21	56:DB:60:GLY:HA3	1.78	0.47
1:A:165:G:H2'	1:A:166:C:O4'	2.14	0.47
1:A:211:U:C2'	1:A:212:U:H5'	2.43	0.47
1:A:328:A:H2'	1:A:329:G:C8	2.49	0.47
1:A:348:U:C4'	58:FB:14:THR:HG22	2.27	0.47
1:A:397:A:H4'	58:FB:51:GLY:N	2.30	0.47
1:A:869:A:H5"	63:KB:90:TYR:CD2	2.49	0.47
2:B:111:C:H2'	2:B:112:U:H5'	1.96	0.47
2:B:519:A:H5"	8:H:355:PHE:CZ	2.49	0.47
2:B:1123:U:H2'	2:B:1124:U:O4'	2.13	0.47
2:B:1129:A:N6	14:N:115:MET:HE1	2.30	0.47
2:B:1213:G:H2'	2:B:1214:U:C6	2.49	0.47
2:B:2146:C:O2'	2:B:2147:A:H5'	2.14	0.47
2:B:2497:U:H3'	2:B:2497:U:H6	1.79	0.47
2:B:2765:C:O3'	46:TA:39:GLY:HA3	2.14	0.47
2:B:3037:U:O2'	2:B:3038:U:H5'	2.14	0.47
7:G:161:LEU:HD23	7:G:180:GLU:HG2	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:339:ARG:HD2	7:G:342:LEU:HD21	1.96	0.47
8:H:219:LEU:HD12	8:H:227:THR:CG2	2.45	0.47
11:K:183:ASP:O	11:K:186:HIS:HB3	2.14	0.47
12:L:162:LEU:CD1	19:S:45:PRO:HG2	2.41	0.47
14:N:33:ILE:HD13	14:N:34:TYR:N	2.28	0.47
14:N:49:CYS:SG	14:N:51:HIS:CE1	3.07	0.47
17:Q:105:ASN:OD1	17:Q:107:GLU:HB2	2.14	0.47
19:S:39:ALA:HB1	19:S:63:ARG:NH2	2.30	0.47
22:V:16:ARG:HD2	22:V:53:PHE:O	2.14	0.47
28:BA:27:LYS:HG2	28:BA:29:PHE:CZ	2.50	0.47
35:IA:55:LEU:HB2	35:IA:95:PRO:CD	2.36	0.47
38:LA:3:GLN:CG	38:LA:30:LEU:HB3	2.45	0.47
40:NA:21:THR:HG23	40:NA:21:THR:O	2.14	0.47
43:QA:49:MET:O	43:QA:50:ASN:HB2	2.15	0.47
47:UA:7:LYS:HG3	47:UA:8:VAL:H	1.78	0.47
48:VA:182:THR:O	48:VA:183:PHE:HB2	2.13	0.47
49:WA:91:LEU:O	49:WA:99:THR:HA	2.14	0.47
49:WA:208:GLY:O	49:WA:225:LEU:HD23	2.15	0.47
49:WA:241:PHE:HB2	49:WA:290:VAL:O	2.13	0.47
52:ZA:44:LEU:HD21	52:ZA:247:ALA:HB2	1.96	0.47
53:AB:17:PHE:C	53:AB:17:PHE:CD1	2.92	0.47
55:CB:41:LYS:HD2	55:CB:69:PHE:CE2	2.50	0.47
55:CB:62:VAL:HA	55:CB:89:ILE:CG2	2.44	0.47
57:EB:181:ILE:HG22	57:EB:182:VAL:N	2.28	0.47
58:FB:190:ALA:HB1	58:FB:194:ARG:NH1	2.29	0.47
61:IB:55:ASP:OD2	61:IB:58:CYS:HB2	2.13	0.47
63:KB:11:ILE:O	77:YB:21:LEU:HD11	2.14	0.47
63:KB:119:GLU:O	63:KB:122:ILE:HB	2.14	0.47
65:MB:57:MET:HE2	65:MB:88:GLU:HG2	1.95	0.47
66:NB:60:PHE:CE1	66:NB:89:LEU:HD13	2.49	0.47
67:OB:20:TYR:CG	67:OB:38:ILE:HD12	2.49	0.47
74:VB:13:ILE:HB	74:VB:22:GLN:CG	2.44	0.47
82:DC:130:ASP:CB	82:DC:133:GLU:HB2	2.44	0.47
82:DC:230:ALA:HA	82:DC:235:VAL:O	2.15	0.47
82:DC:365:ASN:CG	82:DC:475:ALA:HB2	2.39	0.47
82:DC:600:ALA:HA	82:DC:605:ILE:HD12	1.95	0.47
1:A:61:A:H2'	1:A:62:A:H5'	1.94	0.47
1:A:258:C:O2'	1:A:259:U:H5'	2.14	0.47
1:A:327:U:O5'	1:A:327:U:H6	1.98	0.47
1:A:560:U:H2'	1:A:561:G:C8	2.50	0.47
1:A:802:G:H3'	1:A:803:A:C8	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1045:C:H2'	1:A:1046:G:H8	1.76	0.47
1:A:1271:G:H2'	1:A:1272:U:C6	2.50	0.47
1:A:1621:U:H2'	1:A:1622:G:C8	2.49	0.47
2:B:12:A:H4'	29:CA:34:LEU:HD11	1.96	0.47
2:B:254:A:H2'	2:B:255:A:C8	2.49	0.47
2:B:876:A:H5"	2:B:1890:U:H5"	1.96	0.47
2:B:1162:U:H4'	36:JA:57:TYR:CE1	2.50	0.47
2:B:1258:U:C1'	48:VA:42:ARG:NH1	2.77	0.47
2:B:1306:G:C5	20:T:62:THR:HA	2.50	0.47
2:B:1571:A:H2'	2:B:1572:U:H4'	1.96	0.47
2:B:1662:G:O2'	2:B:1663:C:H5'	2.13	0.47
2:B:1701:C:H2'	2:B:1702:U:O4'	2.14	0.47
2:B:1836:C:H41	43:QA:3:ALA:HB2	1.80	0.47
2:B:2301:U:O2'	2:B:2302:G:H5'	2.15	0.47
2:B:3300:U:H2'	2:B:3301:U:H5'	1.96	0.47
7:G:385:LYS:O	7:G:387:LEU:N	2.47	0.47
9:I:218:ARG:C	9:I:220:SER:N	2.72	0.47
13:M:120:ASP:C	13:M:122:LYS:H	2.22	0.47
15:O:10:ARG:O	15:O:10:ARG:HD3	2.15	0.47
15:O:94:ARG:HG2	15:O:95:ASN:N	2.28	0.47
17:Q:115:ARG:HG3	17:Q:115:ARG:NH1	2.29	0.47
17:Q:157:ARG:HG2	17:Q:158:ALA:N	2.29	0.47
19:S:120:TRP:HA	19:S:130:PHE:CD1	2.49	0.47
27:AA:104:ASN:HD21	27:AA:106:LYS:HB2	1.79	0.47
32:FA:13:GLY:O	36:JA:36:LYS:HG3	2.14	0.47
34:HA:55:GLU:N	38:LA:94:LEU:HD11	2.29	0.47
39:MA:13:SER:O	39:MA:16:GLN:HB2	2.14	0.47
41:OA:12:HIS:ND1	41:OA:13:ASN:N	2.61	0.47
49:WA:188:ILE:HG13	49:WA:189:GLU:N	2.29	0.47
53:AB:162:GLN:NE2	53:AB:165:ASN:HB2	2.29	0.47
55:CB:123:VAL:HG13	75:WB:102:THR:HG22	1.96	0.47
55:CB:124:LEU:C	55:CB:126:ASP:H	2.22	0.47
58:FB:8:ARG:HD3	58:FB:21:PHE:CD1	2.35	0.47
58:FB:35:ASN:O	58:FB:37:LYS:HE3	2.14	0.47
59:GB:49:LEU:HD13	59:GB:49:LEU:C	2.39	0.47
60:HB:92:ILE:O	60:HB:92:ILE:HG23	2.15	0.47
66:NB:52:LEU:HD12	66:NB:57:LEU:HD22	1.96	0.47
66:NB:130:GLY:HA2	66:NB:138:PHE:CE2	2.49	0.47
69:QB:89:ARG:HH11	69:QB:89:ARG:HG3	1.79	0.47
71:SB:23:ILE:HG22	71:SB:24:ILE:N	2.29	0.47
72:TB:35:ILE:CD1	72:TB:61:ILE:HD11	2.44	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:TB:35:ILE:HD11	72:TB:61:ILE:HD11	1.96	0.47
82:DC:86:VAL:HA	82:DC:89:ILE:CG1	2.44	0.47
82:DC:575:ALA:O	82:DC:587:TYR:HA	2.15	0.47
82:DC:612:PHE:N	82:DC:612:PHE:HD2	2.12	0.47
82:DC:643:PRO:HG3	82:DC:682:ARG:HG3	1.95	0.47
82:DC:649:GLN:HB2	82:DC:688:ILE:O	2.15	0.47
82:DC:659:ILE:O	82:DC:663:VAL:HB	2.14	0.47
83:EC:6936:G:H2'	83:EC:6937:G:H8	1.77	0.47
1:A:165:G:H2'	1:A:166:C:C4'	2.45	0.47
1:A:449:C:H5"	54:BB:30:ARG:CB	2.44	0.47
1:A:1048:G:H5"	77:YB:69:GLY:H	1.78	0.47
1:A:1203:A:N6	1:A:1553:G:H1'	2.30	0.47
1:A:1376:C:O2'	1:A:1377:U:H5'	2.13	0.47
1:A:1481:C:H2'	69:QB:79:LEU:HD12	1.95	0.47
1:A:1498:G:H2'	1:A:1499:G:C4'	2.44	0.47
1:A:1646:C:H2'	1:A:1647:U:H6	1.76	0.47
1:A:1739:C:H2'	1:A:1740:A:C8	2.50	0.47
2:B:1239:C:H2'	2:B:1240:A:O4'	2.13	0.47
2:B:1507:G:N3	2:B:1507:G:H5'	2.30	0.47
2:B:1818:U:H2'	2:B:1819:U:C5'	2.43	0.47
2:B:1938:U:O2'	23:W:79:GLY:HA3	2.15	0.47
2:B:2133:U:C2'	2:B:2134:G:H5'	2.44	0.47
2:B:2228:A:H2'	2:B:2229:A:H8	1.78	0.47
2:B:2322:C:O2'	2:B:2323:G:H5'	2.14	0.47
2:B:3015:G:H2'	2:B:3016:A:H8	1.79	0.47
2:B:3270:U:C5	10:J:46:ARG:HD2	2.49	0.47
6:F:105:GLY:CA	6:F:160:SER:HB3	2.45	0.47
7:G:4:ARG:HD3	7:G:7:GLU:HA	1.97	0.47
7:G:84:VAL:HG13	7:G:163:HIS:O	2.14	0.47
7:G:159:ARG:HG2	7:G:182:GLN:HA	1.97	0.47
7:G:252:ILE:HD11	7:G:266:ARG:CD	2.45	0.47
7:G:286:GLY:HA3	7:G:321:PHE:CD2	2.50	0.47
8:H:168:ALA:O	8:H:172:VAL:HB	2.15	0.47
9:I:40:HIS:HB3	9:I:43:LYS:CG	2.44	0.47
11:K:150:LYS:HG3	11:K:151:ARG:HG2	1.96	0.47
12:L:75:ILE:C	12:L:77:GLN:N	2.67	0.47
15:O:166:LYS:O	15:O:167:TYR:HB2	2.14	0.47
17:Q:2:ALA:HB1	32:FA:33:GLY:O	2.15	0.47
18:R:70:PHE:HB2	18:R:88:ALA:CB	2.45	0.47
21:U:53:ASP:O	21:U:54:HIS:HB2	2.15	0.47
21:U:67:ILE:CD1	21:U:67:ILE:H	2.27	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:29:LEU:O	22:V:32:LEU:HB3	2.13	0.47
23:W:78:TYR:C	23:W:80:LYS:H	2.22	0.47
24:X:12:ARG:O	24:X:13:ARG:C	2.56	0.47
28:BA:35:LYS:O	28:BA:39:LEU:HD23	2.15	0.47
34:HA:30:THR:O	34:HA:34:LEU:HD13	2.15	0.47
35:IA:107:VAL:HG12	35:IA:108:VAL:N	2.29	0.47
37:KA:100:ILE:O	37:KA:100:ILE:HG22	2.14	0.47
39:MA:59:ASN:ND2	39:MA:63:ARG:HD2	2.28	0.47
49:WA:109:ASP:HB2	49:WA:127:ARG:NE	2.30	0.47
49:WA:233:THR:C	49:WA:234:LEU:HD12	2.39	0.47
52:ZA:86:VAL:O	52:ZA:97:ARG:HB2	2.15	0.47
53:AB:84:ILE:HD13	53:AB:84:ILE:C	2.39	0.47
54:BB:214:LEU:HD22	54:BB:244:ILE:HG22	1.97	0.47
58:FB:48:THR:HG21	58:FB:54:LYS:HE3	1.97	0.47
59:GB:54:ARG:HG2	59:GB:54:ARG:HH21	1.79	0.47
60:HB:8:ARG:HG3	60:HB:79:TYR:CE2	2.50	0.47
60:HB:11:ILE:HA	60:HB:35:ILE:CD1	2.34	0.47
67:OB:70:SER:C	67:OB:72:LYS:H	2.22	0.47
71:SB:20:THR:O	71:SB:21:ASN:HB2	2.14	0.47
82:DC:262:THR:HA	82:DC:267:LYS:O	2.14	0.47
82:DC:378:LEU:HA	82:DC:403:GLY:HA3	1.97	0.47
1:A:32:U:O2'	1:A:33:U:H5'	2.14	0.47
1:A:189:C:C3'	1:A:190:C:H5"	2.42	0.47
1:A:208:U:H2'	1:A:209:U:H6	1.78	0.47
1:A:273:G:H2'	1:A:274:G:O4'	2.14	0.47
1:A:333:A:C8	58:FB:49:ARG:HB3	2.50	0.47
1:A:961:U:H2'	1:A:962:C:C6	2.50	0.47
1:A:1160:A:H2'	1:A:1161:C:H6	1.79	0.47
1:A:1420:C:H2'	1:A:1421:A:H5'	1.95	0.47
1:A:1426:C:H3'	1:A:1427:A:H4'	1.97	0.47
1:A:1619:C:N3	78:ZB:22:ARG:HA	2.29	0.47
2:B:331:G:H2'	2:B:332:C:C6	2.50	0.47
2:B:532:A:H2	2:B:560:G:H22	1.61	0.47
2:B:551:A:O2'	2:B:552:G:H8	1.97	0.47
2:B:673:U:H2'	2:B:674:G:C8	2.49	0.47
2:B:792:G:H5"	32:FA:2:PRO:CD	2.44	0.47
2:B:1000:C:C2	2:B:1045:C:N4	2.82	0.47
2:B:1033:U:H2'	2:B:1034:U:H6	1.78	0.47
2:B:1256:G:O4'	16:P:128:VAL:HG22	2.14	0.47
2:B:1609:C:O5'	2:B:1609:C:H6	1.98	0.47
2:B:1708:C:H2'	2:B:1709:C:C6	2.48	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1818:U:H2'	2:B:1819:U:C4'	2.45	0.47
2:B:1825:G:H5"	42:PA:48:SER:CB	2.45	0.47
2:B:1826:C:O2'	2:B:1827:C:H5'	2.15	0.47
2:B:1925:U:C1'	47:UA:20:SER:HB3	2.44	0.47
2:B:2085:U:H3'	2:B:2086:A:C5'	2.44	0.47
2:B:2549:G:C2'	12:L:33:ASN:ND2	2.76	0.47
2:B:2696:A:H2'	2:B:2697:A:O4'	2.15	0.47
2:B:2747:A:O2'	2:B:2748:A:H5'	2.14	0.47
2:B:2890:A:O2'	2:B:2891:U:H5'	2.14	0.47
2:B:3275:U:O5'	2:B:3275:U:H6	1.97	0.47
2:B:3386:G:H5"	35:IA:10:ARG:HH21	1.80	0.47
3:C:61:A:OP1	39:MA:49:LYS:HE3	2.15	0.47
3:C:78:G:C2'	3:C:79:A:H5'	2.45	0.47
4:D:40:C:O2'	15:O:72:ARG:HD2	2.15	0.47
5:E:68:PHE:CZ	5:E:90:LEU:HB2	2.50	0.47
6:F:79:ASN:HD21	6:F:165:VAL:HG21	1.78	0.47
6:F:83:HIS:HB3	47:UA:64:VAL:HG22	1.97	0.47
6:F:111:THR:CG2	6:F:112:ILE:H	2.28	0.47
7:G:63:PRO:HG3	7:G:68:HIS:CE1	2.50	0.47
7:G:261:MET:HA	20:T:64:PHE:HA	1.95	0.47
7:G:339:ARG:CZ	7:G:342:LEU:HD11	2.45	0.47
9:I:83:LEU:HB3	9:I:88:ILE:HB	1.97	0.47
9:I:186:GLU:O	9:I:187:THR:HB	2.15	0.47
11:K:229:PHE:C	11:K:229:PHE:CD1	2.92	0.47
12:L:68:ARG:NH2	12:L:239:GLY:HA2	2.30	0.47
16:P:146:LYS:O	16:P:147:ASN:CB	2.59	0.47
17:Q:87:ALA:C	17:Q:89:TYR:H	2.23	0.47
19:S:96:ARG:HG2	19:S:96:ARG:NH1	2.28	0.47
20:T:167:TYR:CD1	20:T:167:TYR:C	2.93	0.47
20:T:173:ALA:O	20:T:177:LYS:HB2	2.15	0.47
21:U:150:VAL:HG23	21:U:150:VAL:O	2.15	0.47
28:BA:52:THR:OG1	28:BA:55:PHE:HB3	2.14	0.47
29:CA:25:LYS:N	29:CA:25:LYS:HD2	2.30	0.47
33:GA:41:ARG:O	33:GA:44:LYS:HB3	2.15	0.47
35:IA:86:LYS:H	35:IA:86:LYS:HD2	1.80	0.47
39:MA:20:GLN:HA	39:MA:23:ASP:OD2	2.14	0.47
41:OA:38:GLY:O	41:OA:39:TYR:C	2.58	0.47
43:QA:31:THR:O	43:QA:32:ASN:HB2	2.14	0.47
48:VA:29:GLY:CA	48:VA:84:VAL:HG22	2.44	0.47
49:WA:276:PRO:HG3	49:WA:305:TYR:CE1	2.50	0.47
50:XA:184:LEU:HA	71:SB:44:ARG:N	2.29	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:ZA:65:GLU:HB2	52:ZA:68:ILE:CG1	2.44	0.47
52:ZA:154:LEU:HD12	52:ZA:154:LEU:N	2.30	0.47
52:ZA:170:ILE:N	52:ZA:170:ILE:HD12	2.29	0.47
53:AB:25:PHE:HB3	53:AB:29:LEU:HG	1.95	0.47
54:BB:15:PRO:HG2	54:BB:18:TRP:CD2	2.50	0.47
54:BB:212:ASP:OD1	54:BB:216:ASN:HB2	2.14	0.47
55:CB:174:LEU:HB3	55:CB:210:ALA:HA	1.97	0.47
59:GB:85:VAL:CG2	59:GB:107:ARG:HG3	2.35	0.47
67:OB:10:LYS:HG2	67:OB:53:TYR:HE1	1.79	0.47
70:RB:26:LEU:C	70:RB:34:LEU:HD21	2.39	0.47
70:RB:57:ARG:HG3	70:RB:89:ARG:NE	2.29	0.47
70:RB:91:ILE:HG22	70:RB:92:ASP:N	2.30	0.47
71:SB:40:ASP:HB3	71:SB:46:ILE:HD11	1.96	0.47
74:VB:63:GLN:NE2	74:VB:64:PHE:H	2.10	0.47
75:WB:59:TYR:CD2	75:WB:60:VAL:N	2.83	0.47
78:ZB:44:VAL:HG21	78:ZB:48:VAL:HG21	1.96	0.47
82:DC:123:ASP:HB3	82:DC:348:ALA:CB	2.45	0.47
82:DC:565:GLU:O	82:DC:681:MET:HA	2.14	0.47
82:DC:595:GLU:O	82:DC:599:LEU:HB2	2.13	0.47
83:EC:6940:U:H2'	83:EC:6941:U:C5'	2.44	0.47
1:A:78:A:C2	56:DB:178:LEU:HD23	2.50	0.47
1:A:100:A:O2'	1:A:101:U:H5'	2.15	0.47
1:A:140:A:H4'	1:A:141:U:H5'	1.96	0.47
1:A:190:C:C4	1:A:191:C:H5	2.32	0.47
1:A:256:A:H2'	1:A:257:A:O4'	2.15	0.47
1:A:319:U:H4'	1:A:323:A:C8	2.50	0.47
1:A:604:A:H2'	1:A:605:A:O4'	2.14	0.47
1:A:762:A:H2'	1:A:763:G:H8	1.79	0.47
1:A:856:A:N6	57:EB:96:ARG:HB3	2.30	0.47
1:A:1077:C:H2'	1:A:1078:C:C6	2.50	0.47
1:A:1384:A:H2'	1:A:1385:G:C8	2.50	0.47
1:A:1715:G:H3'	1:A:1716:C:H4'	1.97	0.47
2:B:412:G:O2'	2:B:413:U:H5'	2.14	0.47
2:B:608:A:H5'	8:H:322:GLN:HB3	1.97	0.47
2:B:1189:C:N4	2:B:1315:U:H1'	2.30	0.47
2:B:1307:G:C2	2:B:1308:A:C2	3.02	0.47
2:B:1361:U:H2'	2:B:1362:G:C8	2.49	0.47
2:B:2154:U:H2'	2:B:2155:G:H8	1.80	0.47
2:B:2656:A:C5	2:B:2658:G:C8	3.02	0.47
2:B:2855:U:H2'	2:B:2856:G:H5"	1.97	0.47
2:B:2880:U:H1'	7:G:250:ALA:CB	2.44	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2930:A:H2'	2:B:2931:C:C6	2.50	0.47
2:B:3018:C:H2'	2:B:3019:U:O4'	2.14	0.47
3:C:8:C:O2'	3:C:9:A:H5'	2.15	0.47
4:D:108:A:H2'	4:D:109:G:H8	1.79	0.47
6:F:128:ARG:C	6:F:169:ILE:HD12	2.39	0.47
7:G:169:THR:HG23	7:G:170:PRO:HD2	1.95	0.47
7:G:284:ARG:HB3	7:G:323:MET:HB3	1.97	0.47
7:G:313:HIS:O	7:G:333:LYS:HE3	2.14	0.47
8:H:53:SER:C	8:H:55:LYS:H	2.22	0.47
8:H:330:TYR:O	8:H:333:VAL:HG12	2.14	0.47
9:I:88:ILE:HG12	9:I:239:ILE:HG22	1.96	0.47
9:I:106:ALA:HA	9:I:171:LEU:HD21	1.97	0.47
12:L:100:GLU:HG2	12:L:104:GLU:OE1	2.15	0.47
14:N:190:VAL:HG22	14:N:197:VAL:CG2	2.45	0.47
16:P:130:LYS:HG3	16:P:146:LYS:HG3	1.94	0.47
18:R:21:VAL:HG12	18:R:65:LEU:HD23	1.96	0.47
18:R:54:PRO:O	18:R:56:GLN:HG2	2.15	0.47
19:S:18:VAL:O	19:S:21:PHE:HB3	2.15	0.47
22:V:132:PRO:C	22:V:134:GLY:H	2.23	0.47
34:HA:16:LEU:HD22	34:HA:100:ILE:HD13	1.97	0.47
38:LA:97:GLU:O	38:LA:101:VAL:HG23	2.15	0.47
40:NA:89:GLU:O	40:NA:92:ASN:HB2	2.15	0.47
49:WA:37:SER:HB3	49:WA:39:ASP:OD1	2.14	0.47
49:WA:180:ALA:O	49:WA:188:ILE:HD12	2.15	0.47
50:XA:139:VAL:HG13	50:XA:141:ILE:HG13	1.95	0.47
56:DB:50:PHE:HA	56:DB:112:VAL:O	2.15	0.47
57:EB:24:PHE:CE2	57:EB:77:LEU:HD21	2.50	0.47
60:HB:50:THR:HG22	60:HB:55:VAL:O	2.14	0.47
72:TB:89:TRP:O	72:TB:93:LEU:HD22	2.15	0.47
74:VB:105:ARG:NH1	74:VB:109:LYS:NZ	2.61	0.47
82:DC:121:VAL:CG1	82:DC:383:SER:HB2	2.45	0.47
82:DC:545:LEU:HA	82:DC:549:HIS:HB2	1.95	0.47
82:DC:781:THR:O	82:DC:785:ARG:HG3	2.15	0.47
1:A:148:A:C2'	1:A:149:C:H5'	2.44	0.47
1:A:284:G:O2'	1:A:285:G:H5'	2.14	0.47
1:A:363:G:O2'	1:A:364:G:H5'	2.14	0.47
1:A:475:A:H3'	1:A:476:U:C6	2.50	0.47
1:A:774:A:H2'	1:A:775:G:H5'	1.97	0.47
1:A:819:G:H1'	1:A:853:G:H2'	1.97	0.47
1:A:1068:C:H2'	1:A:1069:A:C8	2.50	0.47
1:A:1146:G:H21	1:A:1635:A:H2	1.63	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1184:A:H2'	1:A:1185:U:C4'	2.45	0.47
2:B:70:A:H3'	2:B:71:A:C8	2.50	0.47
2:B:231:G:C2'	2:B:232:G:H5'	2.45	0.47
2:B:264:G:N2	40:NA:26:ILE:HG12	2.30	0.47
2:B:948:C:H2'	2:B:949:C:C6	2.50	0.47
2:B:1941:C:H2'	2:B:1942:U:H6	1.80	0.47
2:B:2244:A:H2'	2:B:2245:C:H6	1.80	0.47
2:B:2296:A:H2'	2:B:2297:U:H5'	1.97	0.47
2:B:2318:U:H2'	2:B:2319:U:O4'	2.15	0.47
2:B:2817:A:H4'	2:B:2818:U:OP2	2.15	0.47
2:B:3296:A:OP2	7:G:121:ASN:HB2	2.15	0.47
5:E:103:LEU:O	5:E:107:TYR:HB2	2.15	0.47
5:E:134:PHE:HE2	5:E:137:PRO:HD3	1.80	0.47
6:F:22:LEU:HD12	6:F:22:LEU:N	2.27	0.47
6:F:219:ILE:HD12	6:F:219:ILE:N	2.30	0.47
7:G:49:TYR:H	7:G:79:VAL:HG22	1.79	0.47
8:H:210:ALA:HB2	8:H:254:ALA:HA	1.97	0.47
13:M:3:TYR:HD2	13:M:65:VAL:HG21	1.80	0.47
14:N:49:CYS:HA	14:N:138:VAL:O	2.15	0.47
15:O:133:ARG:HB2	15:O:152:HIS:HE1	1.77	0.47
18:R:47:ASP:CG	18:R:55:ARG:HG2	2.40	0.47
19:S:13:LYS:O	19:S:16:SER:OG	2.29	0.47
19:S:129:TYR:CD2	19:S:129:TYR:N	2.82	0.47
22:V:143:PRO:HB2	22:V:146:SER:HB2	1.97	0.47
30:DA:126:LEU:CD2	30:DA:127:GLU:H	2.26	0.47
35:IA:5:LYS:O	35:IA:6:ASP:HB2	2.15	0.47
37:KA:20:LYS:HG2	37:KA:21:ARG:HH12	1.80	0.47
38:LA:38:LEU:N	38:LA:38:LEU:HD12	2.30	0.47
49:WA:122:ILE:HD12	49:WA:135:THR:O	2.15	0.47
49:WA:216:LYS:HA	49:WA:239:GLU:CB	2.43	0.47
50:XA:108:THR:O	50:XA:109:ASN:HB3	2.15	0.47
54:BB:90:ILE:CD1	54:BB:101:LEU:HG	2.45	0.47
54:BB:122:LYS:HG3	54:BB:162:ILE:HD12	1.96	0.47
55:CB:70:VAL:HG21	66:NB:47:LYS:HB2	1.97	0.47
55:CB:195:ALA:HA	55:CB:198:LEU:HD12	1.97	0.47
58:FB:9:HIS:CG	58:FB:10:LYS:H	2.33	0.47
61:IB:127:GLN:HA	61:IB:137:PHE:CD1	2.49	0.47
65:MB:34:VAL:HG11	65:MB:45:PHE:CD2	2.50	0.47
65:MB:43:ARG:HG2	65:MB:43:ARG:NH1	2.30	0.47
66:NB:92:TYR:O	66:NB:96:TYR:HB2	2.14	0.47
70:RB:40:ASN:ND2	70:RB:107:THR:HG21	2.29	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:TB:69:LEU:HD11	72:TB:72:CYS:HB3	1.97	0.47
82:DC:91:GLN:HE22	82:DC:344:SER:H	1.63	0.47
82:DC:743:ILE:O	82:DC:747:LEU:HD23	2.15	0.47
83:EC:6772:G:N2	83:EC:6776:A:C8	2.83	0.47
1:A:14:C:H5"	52:ZA:203:LYS:HD3	1.96	0.47
1:A:72:A:H62	56:DB:169:TYR:HB2	1.78	0.47
1:A:297:U:OP1	54:BB:37:LYS:HD3	2.15	0.47
1:A:327:U:H2'	1:A:328:A:C8	2.50	0.47
1:A:765:G:N1	59:GB:149:ARG:HG3	2.30	0.47
1:A:940:A:H2'	1:A:941:A:C8	2.49	0.47
1:A:1117:U:H2'	1:A:1118:G:C8	2.47	0.47
2:B:1134:G:O2'	2:B:2642:A:N3	2.36	0.47
2:B:1171:G:H5"	4:D:86:U:H3	1.80	0.47
2:B:1859:A:H8	2:B:1859:A:O5'	1.98	0.47
2:B:1861:G:H5"	23:W:63:THR:HG21	1.97	0.47
2:B:2268:U:C5	2:B:2269:U:H1'	2.50	0.47
2:B:2322:C:C2'	2:B:2323:G:H5'	2.45	0.47
2:B:2581:U:H2'	2:B:2582:C:O4'	2.14	0.47
2:B:2728:G:N1	25:Y:80:VAL:HG21	2.29	0.47
2:B:3094:A:H2'	2:B:3095:U:C6	2.49	0.47
5:E:16:LEU:HD21	5:E:32:VAL:CG1	2.45	0.47
5:E:26:ARG:O	5:E:27:ASN:HB2	2.14	0.47
6:F:105:GLY:HA3	6:F:160:SER:HB3	1.97	0.47
8:H:229:ASN:O	8:H:230:VAL:C	2.57	0.47
11:K:210:PRO:CD	11:K:243:MET:HG2	2.45	0.47
13:M:115:ARG:C	13:M:117:PHE:H	2.22	0.47
13:M:117:PHE:CD1	13:M:118:LEU:HD12	2.50	0.47
14:N:52:LEU:HD12	14:N:152:LEU:HB3	1.97	0.47
18:R:28:SER:O	18:R:29:ALA:HB3	2.14	0.47
18:R:70:PHE:O	18:R:71:ALA:C	2.58	0.47
19:S:99:ARG:HG3	19:S:130:PHE:CD1	2.50	0.47
24:X:68:HIS:O	24:X:70:THR:N	2.46	0.47
26:Z:18:ASP:HB2	26:Z:104:ARG:HB3	1.97	0.47
26:Z:75:TYR:O	26:Z:79:LEU:HD12	2.15	0.47
27:AA:53:SER:HA	27:AA:81:GLN:NE2	2.30	0.47
29:CA:113:LEU:HD12	29:CA:113:LEU:O	2.14	0.47
34:HA:55:GLU:HA	38:LA:94:LEU:HD11	1.96	0.47
38:LA:82:ALA:O	38:LA:85:VAL:HB	2.15	0.47
41:OA:22:CYS:SG	41:OA:37:CYS:SG	3.12	0.47
43:QA:38:ASN:ND2	43:QA:41:ARG:HD3	2.29	0.47
48:VA:27:VAL:CG1	48:VA:188:VAL:HB	2.35	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:VA:116:PRO:O	48:VA:161:ALA:HB1	2.14	0.47
49:WA:85:TRP:HB3	67:OB:33:ARG:HH12	1.80	0.47
54:BB:129:VAL:HG12	54:BB:156:VAL:CG2	2.45	0.47
56:DB:177:ARG:HA	56:DB:183:ARG:HH12	1.79	0.47
57:EB:20:VAL:O	57:EB:24:PHE:HB2	2.14	0.47
57:EB:98:ILE:CG2	57:EB:118:LEU:HD23	2.45	0.47
58:FB:93:THR:O	58:FB:94:ASN:HB2	2.15	0.47
59:GB:41:GLU:HB3	59:GB:44:ARG:HH21	1.79	0.47
60:HB:25:LYS:HD2	60:HB:59:PHE:CZ	2.50	0.47
66:NB:41:PRO:O	66:NB:42:GLU:CB	2.62	0.47
66:NB:48:VAL:HG22	66:NB:48:VAL:O	2.14	0.47
67:OB:5:ARG:CG	67:OB:9:VAL:HG11	2.45	0.47
68:PB:16:ARG:HH12	68:PB:19:ASN:C	2.23	0.47
74:VB:9:THR:HG21	74:VB:48:TYR:OH	2.15	0.47
78:ZB:7:VAL:HG13	78:ZB:55:VAL:HG11	1.97	0.47
82:DC:171:LYS:HG3	82:DC:282:PHE:CZ	2.50	0.47
82:DC:287:ALA:CA	82:DC:292:LYS:HB2	2.42	0.47
82:DC:387:PRO:O	82:DC:388:THR:HG23	2.15	0.47
1:A:531:C:H3’	1:A:532:U:H5”	1.97	0.46
1:A:568:G:H4’	73:UB:90:ASP:HA	1.96	0.46
1:A:873:U:O2’	1:A:1047:G:H5”	2.14	0.46
1:A:1042:G:H2’	1:A:1043:A:C4’	2.45	0.46
1:A:1182:U:H4’	65:MB:124:THR:OG1	2.15	0.46
1:A:1319:A:H3’	1:A:1320:U:H5”	1.96	0.46
1:A:1656:U:H3’	1:A:1657:U:H5”	1.96	0.46
2:B:51:A:H2’	2:B:52:A:O4’	2.15	0.46
2:B:70:A:H3’	2:B:71:A:H8	1.80	0.46
2:B:132:C:HO2’	2:B:133:U:H6	1.64	0.46
2:B:147:U:C4	12:L:157:VAL:HG13	2.50	0.46
2:B:174:C:H2’	2:B:175:C:C6	2.50	0.46
2:B:346:C:C2	3:C:25:G:H4’	2.50	0.46
2:B:485:A:H2’	2:B:486:U:C6	2.50	0.46
2:B:824:C:H5”	6:F:21:ARG:CD	2.41	0.46
2:B:1385:C:H5”	2:B:1386:A:OP2	2.15	0.46
2:B:1580:A:H1’	2:B:1581:C:C5	2.50	0.46
2:B:1619:A:C2	2:B:1826:C:C2	3.03	0.46
2:B:3187:A:H2	2:B:3205:G:H22	1.60	0.46
2:B:3300:U:C2’	2:B:3301:U:H5’	2.46	0.46
4:D:96:U:H5”	24:X:43:TYR:OH	2.15	0.46
4:D:104:A:H2’	4:D:105:C:H5’	1.98	0.46
4:D:120:C:H2’	9:I:265:TYR:CE1	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:130:ALA:O	8:H:131:VAL:HB	2.15	0.46
9:I:122:VAL:HG12	9:I:125:VAL:H	1.80	0.46
11:K:55:TYR:CE2	11:K:141:TYR:CE2	3.03	0.46
11:K:74:SER:CB	25:Y:142:SER:HA	2.45	0.46
11:K:116:PHE:O	11:K:117:VAL:HG23	2.13	0.46
11:K:137:GLY:HA3	11:K:236:ILE:HB	1.98	0.46
14:N:57:LEU:HD23	14:N:57:LEU:O	2.16	0.46
18:R:19:ARG:NH2	18:R:67:PRO:HA	2.30	0.46
19:S:178:HIS:CE1	19:S:179:LYS:HG3	2.50	0.46
31:EA:32:GLY:O	31:EA:33:SER:C	2.56	0.46
31:EA:77:TYR:HB3	34:HA:35:ARG:HD2	1.97	0.46
32:FA:91:LEU:HD11	32:FA:119:PRO:HG3	1.96	0.46
36:JA:4:LEU:H	36:JA:4:LEU:CD1	2.18	0.46
36:JA:21:HIS:CE1	36:JA:24:ARG:HD2	2.50	0.46
36:JA:82:LEU:C	36:JA:84:THR:H	2.24	0.46
38:LA:81:CYS:N	38:LA:84:CYS:HG	2.10	0.46
39:MA:93:THR:C	39:MA:95:PHE:N	2.71	0.46
42:PA:5:ILE:HD12	42:PA:5:ILE:N	2.30	0.46
48:VA:41:VAL:HA	48:VA:44:GLU:CG	2.44	0.46
48:VA:123:ALA:HA	48:VA:152:ILE:HB	1.96	0.46
53:AB:66:ILE:HD13	53:AB:69:LEU:HD11	1.97	0.46
55:CB:116:HIS:O	55:CB:120:ILE:HG13	2.15	0.46
56:DB:97:VAL:HG12	56:DB:98:ARG:N	2.29	0.46
57:EB:14:THR:O	57:EB:18:LEU:HG	2.15	0.46
57:EB:56:LYS:HD2	57:EB:88:ARG:HH12	1.80	0.46
66:NB:52:LEU:HD12	66:NB:57:LEU:CD2	2.45	0.46
67:OB:116:LYS:C	67:OB:117:LEU:HD13	2.40	0.46
82:DC:613:LYS:HB2	82:DC:631:ARG:CZ	2.44	0.46
1:A:98:U:C4	1:A:99:C:N4	2.83	0.46
1:A:596:C:H2'	1:A:597:G:H8	1.80	0.46
1:A:862:A:H2	1:A:963:A:C4	2.33	0.46
1:A:1277:G:H21	53:AB:174:HIS:CE1	2.33	0.46
1:A:1543:A:H1'	1:A:1569:A:C2	2.51	0.46
2:B:189:G:H2'	2:B:224:C:OP2	2.15	0.46
2:B:985:U:H2'	2:B:986:U:C6	2.49	0.46
2:B:992:A:C2'	2:B:993:G:H5'	2.45	0.46
2:B:1597:C:H2'	2:B:1598:G:H8	1.80	0.46
2:B:2211:U:H2'	2:B:2212:C:H5'	1.97	0.46
2:B:2478:C:H2'	2:B:2479:C:C6	2.50	0.46
2:B:3089:C:H2'	2:B:3090:U:O4'	2.14	0.46
2:B:3237:U:H3	2:B:3250:U:H3	1.63	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3356:G:H2'	2:B:3357:U:O4'	2.16	0.46
3:C:53:A:H2'	3:C:54:A:C8	2.50	0.46
4:D:46:A:O2'	4:D:47:C:H5'	2.15	0.46
5:E:90:LEU:CD2	5:E:119:GLN:HE21	2.26	0.46
6:F:150:LEU:HB3	6:F:151:PRO:CD	2.46	0.46
7:G:55:THR:O	7:G:56:ILE:HD12	2.15	0.46
8:H:65:TRP:HE3	8:H:71:VAL:HG11	1.80	0.46
13:M:50:ASN:HD21	18:R:4:ASP:HB3	1.80	0.46
14:N:205:SER:HB3	14:N:208:ASN:OD1	2.15	0.46
16:P:87:GLU:O	16:P:91:ASP:HB2	2.16	0.46
17:Q:13:HIS:ND1	17:Q:13:HIS:N	2.63	0.46
19:S:45:PRO:O	19:S:49:ARG:HB2	2.15	0.46
19:S:47:LYS:O	19:S:50:ARG:HG2	2.15	0.46
19:S:121:VAL:CG2	19:S:129:TYR:HB2	2.44	0.46
23:W:8:LYS:HD2	23:W:24:LEU:HD11	1.97	0.46
23:W:154:ALA:O	23:W:157:GLU:HB3	2.16	0.46
24:X:67:ALA:C	24:X:69:PRO:HD3	2.41	0.46
27:AA:84:SER:HA	27:AA:93:LEU:O	2.15	0.46
27:AA:87:ARG:NE	27:AA:93:LEU:HD11	2.30	0.46
31:EA:58:GLY:O	31:EA:60:LYS:N	2.48	0.46
47:UA:47:VAL:HA	47:UA:56:THR:O	2.14	0.46
47:UA:80:ARG:O	47:UA:84:ARG:HB2	2.15	0.46
49:WA:205:SER:HB2	49:WA:206:PRO:CD	2.45	0.46
54:BB:90:ILE:HD11	54:BB:101:LEU:CG	2.42	0.46
55:CB:94:THR:HA	55:CB:114:ILE:CD1	2.45	0.46
55:CB:108:LEU:HA	55:CB:111:VAL:HB	1.96	0.46
57:EB:159:VAL:O	57:EB:163:ASP:HB2	2.16	0.46
61:IB:6:THR:O	61:IB:7:VAL:HG12	2.16	0.46
63:KB:84:ILE:HD11	63:KB:89:TYR:CD2	2.50	0.46
82:DC:166:GLU:C	82:DC:167:LEU:HD12	2.41	0.46
82:DC:225:PHE:CE2	82:DC:277:ILE:HG23	2.51	0.46
82:DC:352:ARG:HB3	82:DC:356:LEU:HD11	1.98	0.46
82:DC:398:GLY:O	82:DC:453:ILE:HG23	2.15	0.46
83:EC:6803:C:H2'	83:EC:6805:C:H5"	1.96	0.46
1:A:11:A:O2'	1:A:12:U:H5'	2.15	0.46
1:A:338:C:H2'	1:A:339:C:C6	2.49	0.46
1:A:407:A:H2'	1:A:408:C:H6	1.80	0.46
1:A:475:A:H5'	80:BC:33:ARG:NH2	2.11	0.46
1:A:685:A:H2'	1:A:686:C:O4'	2.14	0.46
1:A:948:G:H2'	1:A:949:C:C6	2.50	0.46
1:A:1026:A:H5"	1:A:1028:C:N4	2.30	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1397:U:H2'	1:A:1398:U:H5"	1.96	0.46
2:B:148:G:H1'	2:B:149:U:C5	2.50	0.46
2:B:211:A:OP1	8:H:220:ARG:HG2	2.15	0.46
2:B:283:G:OP2	2:B:285:A:H4'	2.15	0.46
2:B:286:U:O5'	2:B:286:U:H6	1.97	0.46
2:B:401:U:H4'	2:B:403:C:C2	2.50	0.46
2:B:645:A:H1'	2:B:647:A:OP2	2.16	0.46
2:B:651:G:C6	2:B:652:G:C6	3.04	0.46
2:B:1221:A:H4'	48:VA:60:ARG:CB	2.45	0.46
2:B:1231:A:H5"	2:B:1232:C:H5'	1.97	0.46
2:B:1287:A:O2'	2:B:1288:U:O4'	2.30	0.46
2:B:1304:A:N6	2:B:2860:U:H5"	2.31	0.46
2:B:1390:A:N3	2:B:1390:A:H2'	2.30	0.46
2:B:2154:U:H4'	6:F:240:ALA:CB	2.46	0.46
2:B:2347:U:H2'	2:B:2348:A:O4'	2.16	0.46
2:B:2461:A:H2	2:B:2486:A:H5'	1.81	0.46
2:B:2482:U:H2'	2:B:2483:G:O4'	2.15	0.46
2:B:2904:U:H2'	2:B:2905:U:H6	1.81	0.46
2:B:3017:A:H5'	27:AA:3:GLY:HA2	1.98	0.46
2:B:3355:U:C3'	2:B:3356:G:H5"	2.45	0.46
3:C:91:C:C4'	30:DA:24:SER:HB3	2.45	0.46
6:F:112:ILE:HG23	6:F:133:TYR:HB2	1.96	0.46
6:F:224:THR:HA	6:F:237:LEU:O	2.16	0.46
11:K:157:ASN:O	11:K:158:LYS:CB	2.63	0.46
12:L:79:GLN:C	12:L:81:THR:H	2.24	0.46
14:N:48:LEU:HD22	14:N:49:CYS:N	2.29	0.46
15:O:65:ILE:CG2	15:O:66:ALA:N	2.78	0.46
20:T:186:ALA:C	20:T:188:SER:H	2.24	0.46
25:Y:14:MET:HE2	25:Y:58:GLN:HG2	1.97	0.46
31:EA:105:SER:O	31:EA:109:GLU:HB2	2.15	0.46
35:IA:14:ILE:O	35:IA:70:ARG:HA	2.15	0.46
48:VA:18:TYR:HB2	48:VA:88:PHE:CE2	2.50	0.46
49:WA:201:THR:CG2	49:WA:214:ALA:HB3	2.44	0.46
52:ZA:53:ILE:H	52:ZA:53:ILE:HG13	1.52	0.46
54:BB:124:GLY:HA2	54:BB:142:HIS:CE1	2.39	0.46
57:EB:153:LEU:HA	57:EB:184:GLU:O	2.15	0.46
61:IB:51:GLY:O	61:IB:52:SER:HB3	2.16	0.46
63:KB:28:LEU:HD22	63:KB:32:SER:OG	2.15	0.46
71:SB:37:ALA:HB3	71:SB:45:ALA:HB1	1.97	0.46
78:ZB:16:LEU:CD1	78:ZB:41:VAL:HG13	2.45	0.46
82:DC:804:LEU:CD1	82:DC:805:GLY:N	2.78	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:809:LEU:HD12	82:DC:832:VAL:HB	1.97	0.46
1:A:359:A:C2	73:UB:38:PHE:HB3	2.50	0.46
1:A:400:A:N6	58:FB:29:LEU:HD13	2.30	0.46
1:A:565:C:H5	1:A:577:G:OP2	1.97	0.46
1:A:1146:G:O3'	52:ZA:91:ARG:HA	2.15	0.46
1:A:1234:A:H4'	81:CC:145:HIS:O	2.15	0.46
2:B:192:C:H2'	2:B:193:C:H6	1.81	0.46
2:B:500:C:OP1	37:KA:104:PRO:HG3	2.15	0.46
2:B:808:A:O2'	2:B:2413:A:H5'	2.15	0.46
2:B:911:C:H3'	6:F:9:ARG:NH1	2.30	0.46
2:B:1089:G:O2'	2:B:1090:G:H5'	2.15	0.46
2:B:1246:G:O2'	2:B:1264:G:H2'	2.16	0.46
2:B:1591:G:H2'	2:B:1592:G:C5'	2.45	0.46
2:B:2271:A:H2'	2:B:2272:G:O4'	2.15	0.46
2:B:2421:U:H2'	2:B:2422:C:O4'	2.15	0.46
2:B:2436:U:H3'	2:B:2437:G:H5"	1.97	0.46
2:B:2561:A:C2	12:L:32:LYS:HD2	2.51	0.46
2:B:3026:G:N2	2:B:3029:A:OP2	2.48	0.46
2:B:3036:G:O2'	2:B:3037:U:H5'	2.16	0.46
2:B:3055:U:H1'	2:B:3057:U:OP2	2.16	0.46
3:C:98:U:C2'	3:C:99:C:H5'	2.44	0.46
5:E:67:ILE:HA	5:E:111:ILE:HB	1.97	0.46
6:F:33:ASP:O	6:F:37:ARG:HG2	2.16	0.46
6:F:206:PRO:HG3	6:F:213:GLY:HA3	1.97	0.46
8:H:180:LYS:NZ	8:H:202:ARG:HB3	2.31	0.46
8:H:219:LEU:O	8:H:221:ASN:N	2.48	0.46
9:I:65:ILE:HG22	9:I:72:ASP:HB3	1.95	0.46
9:I:105:ILE:O	9:I:105:ILE:HD13	2.14	0.46
9:I:217:GLU:O	9:I:220:SER:HB2	2.16	0.46
10:J:84:VAL:HG12	10:J:85:ILE:N	2.30	0.46
11:K:233:GLU:HG3	24:X:35:VAL:HG22	1.98	0.46
12:L:69:LEU:HD12	12:L:69:LEU:N	2.30	0.46
14:N:9:TYR:HB3	14:N:97:LEU:HD22	1.97	0.46
34:HA:27:TYR:CE1	34:HA:52:ARG:HG3	2.49	0.46
37:KA:51:TYR:CE2	37:KA:53:TYR:HB3	2.51	0.46
39:MA:62:GLN:O	39:MA:65:ALA:HB3	2.16	0.46
47:UA:71:VAL:HG23	47:UA:72:SER:N	2.30	0.46
48:VA:187:VAL:CG1	48:VA:188:VAL:N	2.78	0.46
54:BB:120:SER:O	54:BB:121:TYR:HB3	2.16	0.46
55:CB:95:ASN:C	55:CB:97:LEU:H	2.24	0.46
55:CB:121:ILE:CG2	55:CB:129:PRO:HA	2.44	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:EB:182:VAL:CG1	57:EB:183:PHE:N	2.78	0.46
60:HB:59:PHE:CD2	60:HB:62:GLN:HA	2.50	0.46
63:KB:41:ALA:CB	63:KB:75:LEU:HG	2.46	0.46
66:NB:7:VAL:HG21	66:NB:91:ALA:HB3	1.97	0.46
66:NB:35:PRO:O	66:NB:38:LEU:HG	2.15	0.46
71:SB:37:ALA:HB1	71:SB:45:ALA:O	2.15	0.46
75:WB:68:ARG:HD3	83:EC:6867:C:H1'	1.98	0.46
82:DC:32:LYS:HG3	84:DC:901:GDP:PB	2.54	0.46
82:DC:493:VAL:HG21	82:DC:530:VAL:HG21	1.96	0.46
82:DC:764:PRO:O	82:DC:766:PHE:N	2.49	0.46
1:A:115:G:OP1	61:IB:67:ARG:HD2	2.15	0.46
1:A:448:C:H5'	54:BB:29:PRO:CG	2.43	0.46
1:A:509:G:H2'	1:A:510:G:N9	2.29	0.46
1:A:968:U:H4'	1:A:1033:C:O2	2.14	0.46
1:A:1046:G:H2'	1:A:1047:G:C8	2.49	0.46
1:A:1356:U:H2'	1:A:1357:A:C8	2.51	0.46
1:A:1477:G:O2'	69:QB:47:PRO:HA	2.15	0.46
2:B:242:C:O2'	2:B:243:G:H8	1.98	0.46
2:B:405:U:C2'	2:B:406:G:H5'	2.44	0.46
2:B:998:A:H4'	4:D:103:A:C2	2.50	0.46
2:B:1091:A:H2'	2:B:1092:C:O4'	2.16	0.46
2:B:1121:U:C4	2:B:1122:U:C4	3.04	0.46
2:B:1234:G:H22	16:P:131:GLU:HB2	1.81	0.46
2:B:1604:G:H4'	2:B:1835:A:H4'	1.98	0.46
2:B:1657:C:C5	2:B:1797:A:H5"	2.49	0.46
2:B:1744:G:H2'	2:B:1745:C:H6	1.78	0.46
2:B:1803:C:H2'	2:B:1804:A:C8	2.50	0.46
2:B:2147:A:OP1	6:F:200:ARG:HG3	2.16	0.46
2:B:2356:A:H61	2:B:2983:C:N4	2.12	0.46
2:B:2415:C:O2'	2:B:2416:U:H5'	2.16	0.46
2:B:2812:C:H2'	2:B:2813:A:H8	1.81	0.46
2:B:3117:C:O2'	2:B:3118:C:H5'	2.14	0.46
3:C:23:U:C4'	30:DA:17:LYS:HG2	2.46	0.46
6:F:20:THR:HG23	6:F:20:THR:O	2.14	0.46
6:F:219:ILE:HD12	6:F:219:ILE:H	1.80	0.46
7:G:338:LEU:H	7:G:338:LEU:HD22	1.80	0.46
8:H:359:LEU:HD23	8:H:359:LEU:C	2.41	0.46
9:I:33:ARG:NH1	9:I:37:VAL:HG21	2.30	0.46
11:K:174:GLY:HA2	11:K:177:GLY:O	2.15	0.46
12:L:89:GLU:HA	12:L:92:LYS:HZ3	1.80	0.46
15:O:54:VAL:HG11	15:O:57:PHE:CG	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:114:ARG:HG3	16:P:129:THR:HG23	1.98	0.46
18:R:13:ARG:O	18:R:14:LEU:C	2.58	0.46
20:T:84:LEU:HD23	20:T:84:LEU:C	2.40	0.46
21:U:24:VAL:HG11	21:U:87:SER:HA	1.97	0.46
22:V:2:GLY:C	22:V:3:ILE:HD12	2.41	0.46
23:W:67:ALA:O	23:W:71:ARG:HG3	2.16	0.46
32:FA:2:PRO:C	32:FA:4:ARG:H	2.23	0.46
32:FA:126:LYS:HB3	32:FA:148:ILE:CD1	2.33	0.46
34:HA:86:ARG:HG2	34:HA:86:ARG:HH11	1.81	0.46
34:HA:103:THR:HG22	34:HA:104:LEU:HD12	1.97	0.46
38:LA:11:ASN:HD21	38:LA:15:THR:HG21	1.81	0.46
48:VA:9:ALA:O	48:VA:12:PHE:HB2	2.16	0.46
48:VA:60:ARG:HD2	48:VA:60:ARG:O	2.16	0.46
49:WA:209:THR:HB	49:WA:226:ALA:N	2.30	0.46
53:AB:98:ALA:HA	53:AB:188:ILE:HD12	1.97	0.46
57:EB:98:ILE:HG13	57:EB:121:VAL:HG21	1.98	0.46
59:GB:105:LEU:N	59:GB:105:LEU:HD12	2.30	0.46
65:MB:52:LYS:HB2	65:MB:53:PRO:CD	2.41	0.46
69:QB:4:VAL:HG22	69:QB:5:SER:N	2.31	0.46
73:UB:40:SER:O	73:UB:41:SER:O	2.33	0.46
74:VB:41:ARG:HH21	74:VB:52:LYS:HB3	1.80	0.46
75:WB:80:LEU:HD22	75:WB:101:TYR:CD2	2.51	0.46
82:DC:17:THR:HG21	82:DC:92:LYS:HG2	1.98	0.46
82:DC:28:VAL:CG1	82:DC:29:ASP:H	2.27	0.46
82:DC:155:VAL:HG12	82:DC:156:VAL:N	2.30	0.46
82:DC:293:LYS:HA	82:DC:296:ILE:CD1	2.45	0.46
82:DC:565:GLU:CD	82:DC:676:ILE:HB	2.41	0.46
1:A:140:A:C3'	1:A:141:U:H5'	2.45	0.46
1:A:144:U:HO2'	1:A:145:A:H8	1.64	0.46
1:A:387:A:H4'	1:A:389:G:OP2	2.16	0.46
1:A:752:A:H2	1:A:797:G:H1	1.59	0.46
1:A:792:U:H2'	1:A:793:A:O4'	2.16	0.46
1:A:872:G:H21	1:A:1047:G:H4'	1.80	0.46
1:A:941:A:C5	1:A:942:G:H1'	2.50	0.46
1:A:1042:G:H3'	1:A:1043:A:H5"	1.98	0.46
1:A:1511:U:H2'	1:A:1512:G:C8	2.51	0.46
1:A:1530:C:OP1	75:WB:95:HIS:HA	2.16	0.46
1:A:1533:C:H5	75:WB:77:ARG:HH21	1.61	0.46
1:A:1645:G:H22	1:A:1756:A:H2	1.63	0.46
2:B:103:G:H4'	17:Q:65:TYR:CE2	2.50	0.46
2:B:563:U:H2'	2:B:564:G:H8	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:785:G:O4'	22:V:92:ARG:NH1	2.48	0.46
2:B:1223:A:H8	2:B:1223:A:OP2	1.98	0.46
2:B:1427:U:O2'	2:B:1428:A:H5'	2.16	0.46
2:B:2525:G:H3'	6:F:34:TYR:HD1	1.79	0.46
2:B:3336:A:H2'	2:B:3337:G:O4'	2.15	0.46
5:E:209:SER:O	5:E:210:MET:HB3	2.14	0.46
8:H:106:TRP:HZ2	17:Q:19:GLN:HG2	1.81	0.46
8:H:203:ARG:HD3	8:H:203:ARG:HA	1.79	0.46
9:I:107:ARG:H	9:I:107:ARG:HG2	1.57	0.46
9:I:143:LYS:HG2	9:I:172:TYR:HD1	1.81	0.46
10:J:96:VAL:HG13	10:J:141:VAL:HG22	1.97	0.46
10:J:125:GLN:HB3	10:J:126:GLN:H	1.57	0.46
11:K:147:LEU:O	11:K:150:LYS:N	2.49	0.46
12:L:109:LEU:HA	12:L:112:GLU:HG2	1.97	0.46
12:L:150:LEU:HD13	12:L:151:VAL:N	2.30	0.46
13:M:103:ILE:HD11	13:M:134:ILE:HG22	1.96	0.46
15:O:143:ARG:HG2	15:O:144:CYS:SG	2.56	0.46
16:P:110:ILE:HA	16:P:113:ALA:HB3	1.96	0.46
17:Q:60:ALA:HA	17:Q:61:PRO:HD3	1.81	0.46
21:U:179:GLN:C	21:U:181:ARG:H	2.24	0.46
22:V:56:LYS:O	22:V:56:LYS:HG2	2.16	0.46
22:V:151:ARG:O	22:V:161:LYS:HD2	2.15	0.46
23:W:97:ARG:O	23:W:101:VAL:HG23	2.15	0.46
25:Y:29:THR:O	25:Y:29:THR:HG22	2.15	0.46
31:EA:13:VAL:CB	31:EA:19:ALA:HA	2.43	0.46
46:TA:10:THR:CG2	46:TA:11:TYR:N	2.79	0.46
49:WA:69:GLN:HG2	49:WA:111:MET:SD	2.56	0.46
49:WA:251:TRP:HA	49:WA:263:PHE:O	2.15	0.46
52:ZA:218:ILE:HD12	52:ZA:219:GLY:N	2.31	0.46
53:AB:66:ILE:HA	53:AB:69:LEU:CD1	2.45	0.46
53:AB:167:PHE:CE1	53:AB:192:PRO:HA	2.51	0.46
58:FB:101:ILE:HD11	58:FB:192:TYR:CG	2.50	0.46
60:HB:1:MET:HE3	60:HB:3:MET:HB3	1.97	0.46
66:NB:29:ILE:HA	66:NB:65:ILE:HB	1.98	0.46
66:NB:114:ARG:H	66:NB:116:LEU:CD2	2.29	0.46
74:VB:48:TYR:O	74:VB:49:LYS:HB2	2.16	0.46
79:AC:36:LEU:HD12	79:AC:37:ASN:N	2.31	0.46
82:DC:369:ILE:HG23	82:DC:401:PHE:HB3	1.96	0.46
82:DC:378:LEU:HD22	82:DC:409:GLN:CD	2.41	0.46
82:DC:733:ILE:H	82:DC:733:ILE:HD12	1.80	0.46
1:A:139:C:C5	1:A:176:C:H1'	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:461:G:H5'	54:BB:27:TYR:OH	2.16	0.46
1:A:803:A:C4	57:EB:104:ARG:HG3	2.51	0.46
1:A:812:A:H5'	1:A:858:G:H22	1.81	0.46
1:A:1026:A:H1'	1:A:1790:A:H1'	1.97	0.46
1:A:1360:A:H2'	1:A:1361:U:O4'	2.16	0.46
1:A:1740:A:H2'	1:A:1741:U:C6	2.51	0.46
2:B:116:A:OP2	19:S:2:GLY:HA2	2.16	0.46
2:B:225:C:H2'	2:B:226:C:C6	2.51	0.46
2:B:284:A:H5"	2:B:285:A:O4'	2.15	0.46
2:B:287:G:H5'	19:S:179:LYS:O	2.16	0.46
2:B:1238:C:OP1	16:P:79:SER:OG	2.29	0.46
2:B:1429:G:N2	8:H:99:MET:HB3	2.30	0.46
2:B:1507:G:C8	21:U:129:THR:HG22	2.51	0.46
2:B:1619:A:H8	2:B:1619:A:H5'	1.81	0.46
2:B:1639:C:H5'	38:LA:52:GLN:OE1	2.16	0.46
2:B:1639:C:H2'	2:B:1640:G:H8	1.80	0.46
2:B:2147:A:H2'	2:B:2148:U:O4'	2.16	0.46
2:B:2415:C:H5'	6:F:207:VAL:HG13	1.96	0.46
2:B:2463:G:H5'	2:B:2464:U:OP2	2.15	0.46
2:B:2746:A:N7	9:I:153:THR:HG23	2.31	0.46
2:B:2860:U:H1'	2:B:2938:G:H4'	1.97	0.46
2:B:3146:G:O2'	2:B:3147:G:H5'	2.15	0.46
2:B:3209:A:OP2	24:X:161:LYS:HD2	2.16	0.46
3:C:12:A:OP1	21:U:3:ARG:HD3	2.15	0.46
5:E:109:ALA:HB1	5:E:151:VAL:CG1	2.44	0.46
6:F:120:PRO:HA	6:F:162:ALA:HA	1.98	0.46
7:G:14:LEU:C	7:G:16:PHE:H	2.24	0.46
8:H:193:LYS:HB2	8:H:193:LYS:HZ2	1.80	0.46
9:I:6:ASP:O	9:I:7:ALA:C	2.59	0.46
11:K:80:GLN:O	11:K:81:HIS:C	2.58	0.46
12:L:55:TYR:CE2	12:L:56:VAL:CG2	2.99	0.46
12:L:81:THR:OG1	12:L:82:LEU:N	2.48	0.46
13:M:138:THR:C	13:M:139:ASN:CG	2.84	0.46
14:N:47:PRO:HD2	14:N:140:THR:O	2.15	0.46
16:P:112:ILE:O	16:P:115:GLN:HB2	2.15	0.46
20:T:54:TYR:O	20:T:58:LEU:HB2	2.16	0.46
22:V:62:VAL:CG1	22:V:66:ARG:HG2	2.35	0.46
24:X:139:TYR:CD2	24:X:140:VAL:HG23	2.51	0.46
28:BA:50:ALA:HA	28:BA:55:PHE:CE1	2.51	0.46
30:DA:3:LYS:HG3	30:DA:8:VAL:CG1	2.46	0.46
35:IA:46:THR:HG21	35:IA:91:SER:CB	2.46	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:LA:91:ARG:O	38:LA:92:ALA:C	2.59	0.46
48:VA:26:PHE:CE2	48:VA:96:ILE:HD11	2.51	0.46
48:VA:52:LEU:HB2	48:VA:86:PHE:HB2	1.96	0.46
49:WA:10:ARG:HA	49:WA:10:ARG:NE	2.31	0.46
52:ZA:227:PRO:HA	52:ZA:230:TRP:HB2	1.98	0.46
54:BB:18:TRP:CB	54:BB:20:LEU:HG	2.45	0.46
54:BB:95:THR:HG23	74:VB:17:LEU:HG	1.98	0.46
55:CB:27:THR:HG23	66:NB:29:ILE:H	1.81	0.46
55:CB:51:VAL:HG21	55:CB:130:ILE:HD13	1.97	0.46
55:CB:89:ILE:HG13	55:CB:90:ILE:N	2.31	0.46
56:DB:188:ARG:HB2	56:DB:188:ARG:HH11	1.81	0.46
58:FB:104:ILE:HD11	58:FB:106:ALA:HA	1.97	0.46
58:FB:159:GLN:HE22	58:FB:189:LEU:HD21	1.81	0.46
59:GB:129:ILE:O	59:GB:142:ASN:HA	2.15	0.46
60:HB:3:MET:HB2	60:HB:4:PRO:HD2	1.98	0.46
60:HB:52:LYS:HG3	60:HB:54:TYR:CE2	2.51	0.46
61:IB:2:SER:O	61:IB:113:PRO:HB3	2.15	0.46
68:PB:89:GLN:C	68:PB:91:ASP:H	2.24	0.46
70:RB:74:GLU:HG3	70:RB:75:GLY:H	1.79	0.46
72:TB:51:GLU:OE2	77:YB:8:LEU:HD22	2.16	0.46
77:YB:35:VAL:HA	77:YB:78:SER:O	2.15	0.46
77:YB:40:CYS:C	77:YB:42:ASN:H	2.23	0.46
78:ZB:9:LEU:O	78:ZB:32:PHE:HB2	2.15	0.46
80:BC:38:LEU:O	80:BC:42:ARG:HB2	2.16	0.46
82:DC:27:HIS:CD2	82:DC:138:GLN:HB2	2.50	0.46
82:DC:103:ILE:HD13	82:DC:121:VAL:HG23	1.96	0.46
82:DC:332:ASP:O	82:DC:336:GLU:HB2	2.16	0.46
82:DC:396:ALA:HB3	82:DC:456:LEU:O	2.15	0.46
1:A:88:U:H4'	1:A:171:A:O4'	2.16	0.46
1:A:641:G:H21	57:EB:178:GLY:CA	2.24	0.46
1:A:1061:A:H3'	1:A:1062:A:N3	2.30	0.46
1:A:1202:A:H2'	1:A:1456:C:N4	2.31	0.46
1:A:1419:G:H2'	1:A:1420:C:O4'	2.15	0.46
1:A:1483:A:H1'	1:A:1607:G:O2'	2.15	0.46
1:A:1534:G:H21	55:CB:187:ILE:HG22	1.81	0.46
2:B:138:U:H2'	2:B:139:G:H8	1.81	0.46
2:B:151:A:H2'	2:B:152:U:H5'	1.98	0.46
2:B:257:U:H5"	17:Q:86:THR:HG21	1.98	0.46
2:B:567:G:H2'	2:B:568:G:C8	2.51	0.46
2:B:629:U:H2'	2:B:630:A:H8	1.79	0.46
2:B:795:G:C2'	2:B:796:U:H5'	2.46	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1035:G:H3'	2:B:1036:A:H8	1.81	0.46
2:B:1133:A:H1'	2:B:2618:G:O6	2.16	0.46
2:B:1226:G:H2'	2:B:1227:C:C6	2.51	0.46
2:B:1349:G:H2'	2:B:1350:A:C8	2.51	0.46
2:B:2994:A:H2'	2:B:2995:A:O4'	2.15	0.46
2:B:3049:A:C2	7:G:75:ALA:HB2	2.50	0.46
2:B:3072:C:C2'	2:B:3073:A:H5'	2.45	0.46
2:B:3082:C:H2'	2:B:3083:G:C8	2.50	0.46
2:B:3295:A:H2'	2:B:3296:A:C8	2.50	0.46
4:D:8:G:H2'	4:D:9:C:C6	2.50	0.46
4:D:61:G:O2'	4:D:62:U:H5'	2.15	0.46
7:G:347:SER:C	7:G:349:LYS:H	2.24	0.46
10:J:104:GLU:HG2	10:J:104:GLU:O	2.15	0.46
10:J:159:LEU:C	10:J:161:ALA:N	2.74	0.46
10:J:166:LYS:HE2	37:KA:4:SER:OG	2.16	0.46
12:L:33:ASN:O	12:L:39:ALA:HB3	2.16	0.46
13:M:31:ARG:HB3	13:M:82:VAL:C	2.41	0.46
18:R:75:GLY:O	18:R:76:ALA:C	2.59	0.46
22:V:76:ALA:HA	22:V:79:LYS:HD2	1.98	0.46
34:HA:13:LYS:O	34:HA:16:LEU:HB3	2.15	0.46
34:HA:77:LEU:O	34:HA:81:VAL:HG13	2.16	0.46
37:KA:69:GLY:HA3	37:KA:85:PHE:CD1	2.51	0.46
38:LA:54:ILE:HD11	38:LA:78:GLY:HA3	1.97	0.46
44:RA:82:LEU:C	44:RA:84:ALA:H	2.22	0.46
48:VA:45:LEU:HD13	48:VA:49:ALA:HB3	1.98	0.46
49:WA:147:HIS:ND1	49:WA:151:VAL:HG22	2.30	0.46
49:WA:177:MET:HB3	49:WA:179:LYS:HZ3	1.80	0.46
54:BB:206:ASP:HB2	54:BB:222:LEU:HD21	1.96	0.46
56:DB:207:GLU:HA	56:DB:210:GLN:NE2	2.31	0.46
57:EB:35:LYS:HG2	57:EB:36:ALA:N	2.24	0.46
57:EB:130:VAL:HA	57:EB:162:ILE:CD1	2.46	0.46
60:HB:10:LYS:HB3	60:HB:35:ILE:HG23	1.97	0.46
60:HB:29:GLN:HB3	60:HB:39:ASN:HB2	1.97	0.46
60:HB:56:LYS:O	60:HB:66:TYR:HA	2.16	0.46
64:LB:130:GLY:HA3	64:LB:134:GLY:HA2	1.98	0.46
68:PB:11:PHE:CZ	68:PB:59:GLY:HA3	2.51	0.46
69:QB:15:ILE:CD1	69:QB:60:SER:HB2	2.45	0.46
72:TB:10:ALA:HB1	72:TB:27:ILE:HD12	1.98	0.46
73:UB:13:ARG:NH1	73:UB:13:ARG:HB2	2.30	0.46
73:UB:68:ILE:HG22	73:UB:69:ARG:N	2.31	0.46
74:VB:51:GLU:O	74:VB:55:VAL:HG23	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:257:TRP:H	82:DC:257:TRP:HD1	1.62	0.46
82:DC:294:ASP:O	82:DC:298:VAL:HG21	2.16	0.46
83:EC:6847:G:H2'	83:EC:6847:G:N3	2.31	0.46
1:A:32:U:H2'	1:A:33:U:C5'	2.45	0.46
1:A:66:U:H6	56:DB:173:PRO:HG3	1.81	0.46
1:A:834:G:H2'	1:A:835:U:C5	2.51	0.46
2:B:943:U:OP1	32:FA:15:VAL:HA	2.15	0.46
2:B:1439:U:H2'	2:B:1440:G:O4'	2.16	0.46
2:B:1764:U:C3'	2:B:1765:U:H5"	2.46	0.46
2:B:2366:C:O2'	2:B:2367:A:H5'	2.15	0.46
2:B:2549:G:N7	12:L:33:ASN:HA	2.31	0.46
2:B:3325:G:O2'	2:B:3326:G:H5'	2.15	0.46
5:E:34:LEU:O	5:E:35:GLN:HG3	2.15	0.46
6:F:135:ILE:O	6:F:137:ILE:HG23	2.16	0.46
8:H:4:PRO:HD2	8:H:22:LEU:HD12	1.97	0.46
8:H:99:MET:SD	8:H:102:PRO:HA	2.56	0.46
8:H:318:LEU:HD13	11:K:146:GLN:NE2	2.30	0.46
8:H:337:GLU:HB2	8:H:339:LEU:HG	1.97	0.46
11:K:242:SER:C	11:K:244:ASN:N	2.74	0.46
13:M:45:PHE:HA	13:M:54:LYS:O	2.16	0.46
15:O:14:ILE:HG23	15:O:129:VAL:CG1	2.46	0.46
17:Q:63:VAL:HG12	32:FA:128:ARG:NH1	2.30	0.46
17:Q:98:ASP:CG	17:Q:101:ARG:HB2	2.40	0.46
17:Q:114:GLN:O	17:Q:118:GLU:HG3	2.16	0.46
20:T:74:ARG:HG3	20:T:146:GLY:HA3	1.97	0.46
21:U:177:ALA:O	21:U:181:ARG:HB2	2.16	0.46
24:X:155:ARG:NH2	24:X:171:PHE:O	2.49	0.46
29:CA:135:ILE:O	29:CA:135:ILE:HD13	2.16	0.46
34:HA:55:GLU:HA	38:LA:94:LEU:CD1	2.45	0.46
39:MA:32:LYS:C	39:MA:34:GLN:N	2.74	0.46
48:VA:30:VAL:HG22	48:VA:31:ASP:H	1.81	0.46
48:VA:154:SER:C	48:VA:156:VAL:H	2.24	0.46
48:VA:165:VAL:HG13	48:VA:169:GLU:OE1	2.16	0.46
50:XA:31:VAL:C	50:XA:33:GLN:H	2.24	0.46
52:ZA:57:PHE:CD1	71:SB:26:ALA:HB2	2.50	0.46
54:BB:90:ILE:HG22	54:BB:92:LEU:HD13	1.98	0.46
54:BB:95:THR:HA	74:VB:16:PRO:CG	2.45	0.46
54:BB:206:ASP:HB2	54:BB:222:LEU:HD11	1.97	0.46
55:CB:149:VAL:HG13	55:CB:156:ARG:HD2	1.98	0.46
58:FB:103:GLN:HG2	58:FB:164:ARG:HB3	1.97	0.46
61:IB:57:LYS:HA	61:IB:64:VAL:CG1	2.46	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:KB:107:LYS:HA	63:KB:107:LYS:HD2	1.78	0.46
68:PB:33:THR:HG22	68:PB:39:GLY:C	2.41	0.46
72:TB:31:SER:O	72:TB:35:ILE:HG12	2.15	0.46
72:TB:52:TYR:HE1	72:TB:59:GLY:HA3	1.80	0.46
74:VB:41:ARG:HA	74:VB:44:LEU:HB2	1.98	0.46
82:DC:111:PHE:O	82:DC:115:VAL:HG23	2.15	0.46
82:DC:369:ILE:HD13	82:DC:402:ALA:CB	2.45	0.46
82:DC:415:GLY:O	82:DC:418:TYR:HB3	2.15	0.46
1:A:198:A:H3'	1:A:199:G:C8	2.51	0.46
1:A:397:A:H5"	58:FB:47:ARG:NE	2.31	0.46
1:A:448:C:H2'	1:A:449:C:H6	1.81	0.46
1:A:487:G:H2'	1:A:488:G:C5'	2.31	0.46
1:A:535:A:H2'	1:A:536:C:C6	2.51	0.46
1:A:877:G:H4'	1:A:942:G:N2	2.30	0.46
1:A:962:C:O5'	1:A:962:C:H6	1.99	0.46
1:A:1186:U:C2'	1:A:1187:U:H5'	2.43	0.46
1:A:1557:U:H3	65:MB:81:ARG:HE	1.64	0.46
2:B:20:A:C6	2:B:21:G:C6	3.04	0.46
2:B:49:A:N6	19:S:187:ARG:HD2	2.31	0.46
2:B:103:G:H4'	17:Q:65:TYR:CD2	2.51	0.46
2:B:208:C:O2'	2:B:209:A:H5'	2.17	0.46
2:B:1028:U:H3'	2:B:1029:G:H5"	1.98	0.46
2:B:1230:G:O3'	48:VA:34:SER:HA	2.16	0.46
2:B:1506:A:H1'	2:B:1848:G:C6	2.51	0.46
2:B:1547:G:H2'	2:B:1548:C:H6	1.81	0.46
2:B:2135:U:O5'	2:B:2135:U:H6	1.99	0.46
2:B:3110:C:H2'	2:B:3111:U:O4'	2.16	0.46
3:C:64:U:C5'	39:MA:49:LYS:HG3	2.45	0.46
4:D:1:G:C2	4:D:2:G:N7	2.84	0.46
7:G:35:ASP:HA	7:G:184:ASN:ND2	2.30	0.46
8:H:141:ARG:HH11	8:H:141:ARG:HG2	1.80	0.46
8:H:307:GLN:HA	8:H:307:GLN:HE21	1.81	0.46
12:L:47:SER:O	12:L:50:VAL:HG22	2.16	0.46
12:L:140:VAL:HG21	19:S:3:ALA:CB	2.41	0.46
14:N:209:ASN:O	14:N:217:PHE:HE2	1.99	0.46
15:O:94:ARG:C	15:O:96:PHE:H	2.24	0.46
19:S:99:ARG:HH22	19:S:166:ALA:HB3	1.80	0.46
24:X:40:ARG:O	24:X:43:TYR:HB3	2.15	0.46
26:Z:84:LEU:HD21	26:Z:93:ILE:HG21	1.98	0.46
27:AA:66:LYS:HB3	27:AA:69:LEU:CD1	2.43	0.46
28:BA:49:ILE:HG22	28:BA:51:TRP:CD1	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:HA:70:PHE:CD2	34:HA:77:LEU:HD13	2.51	0.46
36:JA:49:ASN:O	36:JA:50:ILE:C	2.59	0.46
46:TA:32:LYS:O	46:TA:34:SER:N	2.49	0.46
47:UA:59:CYS:C	47:UA:61:LYS:N	2.74	0.46
48:VA:77:LEU:HB3	48:VA:78:PRO:CD	2.46	0.46
48:VA:97:LYS:HA	48:VA:100:ILE:CG1	2.45	0.46
49:WA:98:GLU:HG2	49:WA:99:THR:N	2.31	0.46
49:WA:128:ASP:O	49:WA:129:LYS:HG2	2.16	0.46
50:XA:98:ILE:HG21	50:XA:102:PHE:CB	2.46	0.46
50:XA:147:THR:HB	50:XA:151:SER:HB2	1.97	0.46
54:BB:67:GLN:HE21	54:BB:69:HIS:CD2	2.33	0.46
56:DB:180:THR:O	56:DB:184:LEU:HG	2.16	0.46
57:EB:35:LYS:CG	57:EB:36:ALA:H	2.24	0.46
68:PB:25:ASN:HB2	75:WB:40:VAL:HG11	1.98	0.46
70:RB:69:LYS:CB	70:RB:78:THR:HB	2.44	0.46
71:SB:20:THR:HB	71:SB:22:ARG:HG3	1.97	0.46
74:VB:12:VAL:C	74:VB:13:ILE:HD12	2.40	0.46
82:DC:45:ILE:HG13	82:DC:78:TYR:N	2.31	0.46
82:DC:222:ILE:HG12	82:DC:223:ARG:N	2.31	0.46
82:DC:750:LYS:O	82:DC:751:ARG:C	2.58	0.46
83:EC:6796:C:H2'	83:EC:6797:U:C5	2.51	0.46
1:A:593:U:OP2	59:GB:39:LYS:HE2	2.16	0.45
1:A:775:G:C6	1:A:786:C:N4	2.85	0.45
1:A:976:G:H3'	1:A:1023:A:H2	1.78	0.45
1:A:1459:C:N4	68:PB:139:LYS:HG3	2.30	0.45
2:B:144:A:H2'	2:B:145:G:O4'	2.16	0.45
2:B:213:A:H2'	2:B:214:G:H5'	1.97	0.45
2:B:509:U:C2'	2:B:510:G:H5"	2.46	0.45
2:B:823:C:C2'	2:B:824:C:H5'	2.46	0.45
2:B:873:C:H2'	2:B:875:G:O4'	2.15	0.45
2:B:1024:G:H21	2:B:1027:A:H62	1.62	0.45
2:B:1603:A:H5'	23:W:9:ARG:HH12	1.81	0.45
2:B:2615:G:H2'	2:B:2616:C:C6	2.50	0.45
2:B:2728:G:N7	25:Y:87:LYS:HE2	2.32	0.45
2:B:3325:G:H5'	35:IA:104:LEU:O	2.15	0.45
3:C:64:U:H5"	39:MA:49:LYS:HG3	1.98	0.45
5:E:175:GLU:HB3	5:E:178:VAL:HG23	1.97	0.45
6:F:29:LEU:HD23	6:F:76:PHE:CZ	2.51	0.45
8:H:23:PRO:C	8:H:25:VAL:N	2.73	0.45
8:H:45:ASN:OD1	19:S:202:TYR:HE2	1.99	0.45
9:I:159:VAL:C	9:I:161:GLY:H	2.23	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:164:LYS:CE	9:I:195:LEU:HD21	2.46	0.45
14:N:168:SER:C	14:N:170:LYS:H	2.24	0.45
20:T:19:LEU:O	20:T:20:ALA:C	2.59	0.45
22:V:174:ARG:HG2	22:V:174:ARG:HH11	1.80	0.45
25:Y:39:ILE:CG2	25:Y:99:SER:HB2	2.46	0.45
27:AA:27:ASP:HB3	27:AA:101:VAL:HG12	1.98	0.45
29:CA:76:VAL:HG13	29:CA:132:ALA:HB1	1.98	0.45
29:CA:96:LYS:CG	29:CA:107:VAL:HB	2.46	0.45
30:DA:13:ARG:O	30:DA:17:LYS:HB2	2.16	0.45
31:EA:12:VAL:HG23	31:EA:81:LEU:HB3	1.98	0.45
39:MA:60:GLU:O	39:MA:64:GLU:HG2	2.15	0.45
43:QA:38:ASN:HD22	43:QA:41:ARG:HD3	1.81	0.45
48:VA:165:VAL:HG11	48:VA:170:ALA:HB2	1.98	0.45
49:WA:61:PHE:HB3	49:WA:92:TRP:CZ3	2.51	0.45
50:XA:85:ALA:HA	50:XA:202:TYR:HD2	1.80	0.45
52:ZA:85:PRO:HA	52:ZA:98:PHE:CD1	2.51	0.45
54:BB:133:LYS:H	54:BB:133:LYS:HD2	1.80	0.45
54:BB:180:LEU:N	54:BB:194:THR:HA	2.32	0.45
55:CB:37:GLN:HB3	66:NB:53:LEU:HD22	1.98	0.45
55:CB:49:GLU:O	55:CB:51:VAL:HG23	2.16	0.45
55:CB:76:ARG:HD3	55:CB:76:ARG:N	2.31	0.45
56:DB:103:GLY:O	56:DB:106:LEU:HG	2.16	0.45
58:FB:38:ILE:HD13	58:FB:80:GLY:HA2	1.98	0.45
59:GB:17:ARG:HG2	59:GB:17:ARG:NH2	2.31	0.45
66:NB:113:ASP:OD2	66:NB:118:ILE:HG21	2.15	0.45
74:VB:110:GLN:HB3	74:VB:114:ARG:NH2	2.31	0.45
75:WB:39:ALA:HA	75:WB:70:LYS:O	2.16	0.45
1:A:69:G:H2'	1:A:70:C:H5'	1.98	0.45
1:A:166:C:H3'	1:A:167:U:H6	1.80	0.45
1:A:1107:G:H3'	1:A:1108:G:N2	2.31	0.45
1:A:1181:U:H1'	1:A:1458:G:N2	2.31	0.45
1:A:1319:A:C3'	1:A:1320:U:C5'	2.94	0.45
1:A:1435:G:C2	60:HB:59:PHE:HB2	2.51	0.45
2:B:61:A:H2'	2:B:62:A:O4'	2.16	0.45
2:B:66:A:H5"	2:B:316:U:OP1	2.15	0.45
2:B:216:G:O2'	2:B:217:U:H5'	2.17	0.45
2:B:628:A:H2'	2:B:629:U:O4'	2.16	0.45
2:B:698:U:H2'	2:B:699:A:O4'	2.16	0.45
2:B:1481:A:N3	38:LA:4:ARG:HD3	2.31	0.45
2:B:1559:A:C2	2:B:1582:C:H2'	2.52	0.45
2:B:1625:A:H4'	2:B:1643:A:C6	2.52	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1762:C:H5	2:B:1763:U:H1'	1.79	0.45
2:B:1805:C:H2'	2:B:1806:A:C8	2.51	0.45
2:B:2210:G:H2'	2:B:2211:U:C6	2.51	0.45
2:B:2254:U:H3'	2:B:2254:U:H6	1.81	0.45
2:B:2352:A:H5"	21:U:83:TRP:O	2.16	0.45
2:B:2519:A:O2'	2:B:2520:A:H5'	2.16	0.45
2:B:2881:C:H2'	2:B:2882:U:H6	1.78	0.45
2:B:3385:U:H2'	2:B:3386:G:O4'	2.15	0.45
3:C:69:U:H2'	3:C:70:G:O4'	2.17	0.45
6:F:46:LYS:CD	6:F:62:VAL:HG11	2.46	0.45
7:G:296:THR:HG22	7:G:298:PHE:N	2.32	0.45
10:J:55:LEU:HB2	10:J:64:LEU:HD13	1.98	0.45
10:J:114:LYS:HG3	10:J:115:GLU:N	2.30	0.45
11:K:103:LEU:HD21	11:K:130:ILE:HB	1.97	0.45
11:K:111:ILE:C	11:K:113:SER:H	2.25	0.45
15:O:63:GLU:O	15:O:64:LYS:O	2.35	0.45
23:W:14:VAL:HG13	23:W:15:VAL:HG23	1.98	0.45
25:Y:8:ARG:HG3	25:Y:8:ARG:NH2	2.31	0.45
28:BA:17:ARG:NH1	28:BA:17:ARG:CG	2.76	0.45
29:CA:102:LEU:O	29:CA:103:TYR:CD1	2.69	0.45
30:DA:3:LYS:HG3	30:DA:8:VAL:HG11	1.96	0.45
31:EA:3:LYS:O	31:EA:5:LEU:N	2.48	0.45
31:EA:32:GLY:O	31:EA:33:SER:O	2.34	0.45
32:FA:60:TYR:CG	32:FA:63:LYS:HE2	2.50	0.45
34:HA:86:ARG:HG2	34:HA:86:ARG:NH1	2.31	0.45
37:KA:49:ILE:HG23	37:KA:100:ILE:HD12	1.97	0.45
48:VA:52:LEU:HB3	48:VA:86:PHE:HD2	1.81	0.45
49:WA:83:ALA:HA	49:WA:89:LEU:HD22	1.97	0.45
50:XA:29:VAL:O	50:XA:29:VAL:HG13	2.16	0.45
50:XA:153:SER:HB2	71:SB:66:ASP:OD2	2.16	0.45
53:AB:168:ILE:HA	53:AB:188:ILE:O	2.16	0.45
54:BB:155:LYS:HE2	54:BB:155:LYS:CA	2.46	0.45
55:CB:63:GLN:HG3	55:CB:87:CYS:C	2.41	0.45
55:CB:162:VAL:HG13	55:CB:167:ARG:HG2	1.96	0.45
56:DB:34:GLN:O	56:DB:52:ILE:HG13	2.16	0.45
57:EB:70:PHE:O	57:EB:74:GLN:HB2	2.15	0.45
59:GB:107:ARG:NH2	59:GB:150:LEU:H	2.14	0.45
59:GB:116:LEU:HG	59:GB:118:LEU:HD13	1.98	0.45
65:MB:108:ARG:HB2	65:MB:110:GLU:HG2	1.98	0.45
66:NB:35:PRO:HG3	69:QB:8:ASP:HA	1.99	0.45
68:PB:3:LEU:HD13	68:PB:3:LEU:H	1.81	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:SB:35:ASN:OD1	71:SB:52:THR:HG22	2.16	0.45
73:UB:92:CYS:HA	73:UB:95:PHE:CD2	2.52	0.45
77:YB:36:LYS:O	77:YB:77:THR:HB	2.16	0.45
82:DC:244:LEU:HD23	82:DC:272:ALA:CB	2.45	0.45
82:DC:487:PRO:HA	82:DC:532:GLY:O	2.16	0.45
82:DC:515:ASP:HB3	82:DC:518:VAL:CB	2.44	0.45
82:DC:628:THR:HG22	82:DC:629:ASP:OD1	2.17	0.45
1:A:244:A:H4'	54:BB:129:VAL:HG13	1.98	0.45
1:A:310:C:H4'	73:UB:33:LEU:CD1	2.47	0.45
1:A:508:U:O2'	1:A:509:G:H5'	2.17	0.45
1:A:609:U:H4'	1:A:610:G:O5'	2.16	0.45
1:A:1186:U:OP2	1:A:1456:C:H4'	2.16	0.45
1:A:1388:A:H4'	1:A:1389:C:O4'	2.16	0.45
1:A:1407:U:H2'	1:A:1408:G:H8	1.78	0.45
1:A:1504:G:O3'	69:QB:41:SER:HB3	2.17	0.45
1:A:1763:A:H5"	1:A:1771:U:C5'	2.46	0.45
2:B:213:A:H2	30:DA:9:SER:O	1.99	0.45
2:B:1239:C:OP1	16:P:57:LYS:HE3	2.16	0.45
2:B:1524:A:C6	2:B:1527:C:N3	2.84	0.45
2:B:1638:A:H5'	31:EA:15:ARG:HH21	1.81	0.45
2:B:1763:U:C5	2:B:1765:U:O2	2.69	0.45
2:B:2178:A:H5"	6:F:132:ASN:HD21	1.80	0.45
2:B:2227:C:H2'	2:B:2228:A:C8	2.51	0.45
2:B:2380:U:H2'	2:B:2381:G:O4'	2.17	0.45
2:B:2632:G:O2'	2:B:2633:U:H5'	2.17	0.45
2:B:3035:A:H1'	13:M:121:LYS:O	2.17	0.45
4:D:57:G:H2'	4:D:58:C:H6	1.81	0.45
5:E:111:ILE:HG23	5:E:138:VAL:HG21	1.98	0.45
7:G:232:ARG:NH1	7:G:268:GLY:HA3	2.31	0.45
8:H:20:LEU:HD11	8:H:252:GLU:HG2	1.98	0.45
8:H:114:ASN:HB2	8:H:117:GLU:CG	2.45	0.45
10:J:129:GLU:HG3	10:J:130:ILE:N	2.23	0.45
11:K:53:LYS:O	11:K:57:THR:HG23	2.17	0.45
14:N:76:MET:HB2	14:N:85:PHE:CE2	2.51	0.45
16:P:94:LYS:HB2	16:P:99:LYS:HE2	1.99	0.45
18:R:97:SER:O	18:R:101:LYS:HG3	2.16	0.45
21:U:169:THR:O	21:U:173:ARG:HG3	2.16	0.45
27:AA:17:LEU:HB2	27:AA:52:ALA:O	2.16	0.45
30:DA:45:ILE:HG22	30:DA:46:LYS:H	1.80	0.45
31:EA:93:LYS:HD3	31:EA:94:SER:N	2.32	0.45
41:OA:18:LEU:HD12	41:OA:18:LEU:H	1.81	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:VA:29:GLY:HA2	48:VA:84:VAL:HG22	1.98	0.45
49:WA:167:VAL:O	49:WA:183:LEU:HB2	2.16	0.45
55:CB:85:ALA:C	55:CB:87:CYS:H	2.24	0.45
57:EB:12:ALA:HB3	57:EB:13:PRO:CD	2.34	0.45
57:EB:27:LEU:HB2	57:EB:80:GLU:CD	2.41	0.45
58:FB:9:HIS:CG	58:FB:10:LYS:N	2.84	0.45
66:NB:83:GLN:HE21	66:NB:87:LYS:CD	2.29	0.45
82:DC:127:VAL:HG21	82:DC:153:PRO:HB2	1.98	0.45
82:DC:810:ASP:C	82:DC:812:THR:H	2.24	0.45
1:A:7:G:H2'	1:A:8:U:H5"	1.98	0.45
1:A:82:U:H2'	1:A:83:G:O4'	2.16	0.45
1:A:449:C:H2'	1:A:450:U:C6	2.52	0.45
1:A:923:A:H4'	6:F:137:ILE:CD1	2.46	0.45
2:B:8:C:H2'	2:B:9:U:C6	2.52	0.45
2:B:603:A:H2'	2:B:604:G:O4'	2.17	0.45
2:B:620:U:H4'	21:U:167:ARG:HE	1.79	0.45
2:B:994:G:H1'	2:B:1053:A:N6	2.32	0.45
2:B:1052:U:H2'	2:B:1053:A:O4'	2.15	0.45
2:B:1261:G:H4'	2:B:1278:A:C2	2.52	0.45
2:B:1360:C:O2'	2:B:1361:U:H5'	2.16	0.45
2:B:1866:C:O2	2:B:1866:C:C2'	2.64	0.45
2:B:2585:G:C5	12:L:47:SER:HB3	2.52	0.45
2:B:2974:U:H2'	2:B:2975:U:C6	2.50	0.45
2:B:2993:G:H2'	2:B:3142:A:N6	2.32	0.45
4:D:49:G:N3	4:D:50:U:H5	2.13	0.45
5:E:87:VAL:HG22	5:E:119:GLN:OE1	2.16	0.45
7:G:77:THR:HG23	7:G:326:GLY:O	2.16	0.45
7:G:137:TYR:HA	7:G:144:ILE:HD11	1.99	0.45
8:H:209:TYR:O	8:H:230:VAL:HG23	2.16	0.45
9:I:55:PHE:CD1	9:I:60:ILE:HG12	2.52	0.45
12:L:152:LEU:HD13	12:L:198:ALA:HB3	1.98	0.45
13:M:90:MET:HE3	13:M:181:VAL:N	2.32	0.45
14:N:49:CYS:HB2	14:N:172:GLY:O	2.16	0.45
15:O:94:ARG:C	15:O:96:PHE:N	2.74	0.45
19:S:67:ARG:HD3	19:S:126:THR:HG23	1.99	0.45
22:V:3:ILE:HD12	22:V:3:ILE:N	2.30	0.45
23:W:129:GLY:O	23:W:130:ASN:C	2.60	0.45
27:AA:40:LYS:HD3	27:AA:59:MET:HE3	1.99	0.45
27:AA:77:ILE:HD13	27:AA:126:TRP:CD2	2.51	0.45
29:CA:40:LEU:HD12	29:CA:41:ALA:N	2.31	0.45
30:DA:111:LEU:HD22	30:DA:116:LYS:HZ3	1.80	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:FA:129:PHE:HD2	32:FA:129:PHE:H	1.64	0.45
33:GA:8:THR:C	33:GA:10:HIS:H	2.23	0.45
35:IA:64:VAL:HG23	35:IA:65:LYS:H	1.82	0.45
37:KA:72:THR:OG1	37:KA:73:ARG:HG2	2.16	0.45
39:MA:49:LYS:HD2	39:MA:49:LYS:HA	1.79	0.45
39:MA:89:ARG:CG	39:MA:89:ARG:NH1	2.73	0.45
48:VA:7:LYS:HA	48:VA:10:GLU:HG2	1.98	0.45
48:VA:72:ASP:C	48:VA:74:GLU:H	2.25	0.45
50:XA:146:LEU:HD23	50:XA:160:ILE:HD12	1.99	0.45
52:ZA:104:VAL:HG22	52:ZA:132:ALA:HB1	1.98	0.45
54:BB:85:GLY:N	54:BB:88:ASP:OD2	2.47	0.45
54:BB:90:ILE:HG22	54:BB:92:LEU:HD11	1.96	0.45
54:BB:95:THR:CG2	74:VB:17:LEU:HG	2.47	0.45
56:DB:64:LYS:O	56:DB:67:VAL:HG22	2.17	0.45
59:GB:172:VAL:O	59:GB:176:ASN:HB2	2.16	0.45
61:IB:125:VAL:HG21	61:IB:137:PHE:HB3	1.97	0.45
61:IB:125:VAL:CG2	61:IB:137:PHE:HB3	2.46	0.45
66:NB:137:ARG:HG3	66:NB:138:PHE:H	1.80	0.45
82:DC:388:THR:C	82:DC:390:ASP:N	2.74	0.45
82:DC:585:ARG:HD3	82:DC:587:TYR:OH	2.16	0.45
82:DC:785:ARG:HG2	82:DC:785:ARG:HH11	1.80	0.45
1:A:525:A:H2'	1:A:526:A:C8	2.51	0.45
1:A:977:A:H61	1:A:1774:G:H1'	1.82	0.45
1:A:1125:A:H2'	1:A:1126:G:O4'	2.16	0.45
1:A:1450:U:H2'	1:A:1451:C:C6	2.51	0.45
1:A:1483:A:N3	1:A:1607:G:O2'	2.42	0.45
2:B:67:A:N7	2:B:317:A:H1'	2.32	0.45
2:B:300:G:H2'	2:B:301:G:C8	2.51	0.45
2:B:429:U:H4'	37:KA:88:ASN:O	2.16	0.45
2:B:947:G:H2'	2:B:948:C:H6	1.80	0.45
2:B:998:A:H4'	4:D:103:A:N3	2.32	0.45
2:B:1063:G:C6	25:Y:109:VAL:HG13	2.52	0.45
2:B:1141:C:H2'	2:B:1142:G:O4'	2.17	0.45
2:B:1224:C:H2'	2:B:1225:A:O4'	2.16	0.45
2:B:1664:G:H2'	2:B:1665:C:O4'	2.16	0.45
2:B:1670:C:O2'	2:B:1671:C:H5'	2.16	0.45
2:B:2244:A:H2'	2:B:2245:C:C6	2.52	0.45
2:B:2711:C:O2'	2:B:2744:U:H5"	2.17	0.45
2:B:3283:U:H2'	2:B:3284:G:C8	2.52	0.45
7:G:214:MET:HE3	7:G:279:ASN:CG	2.42	0.45
8:H:138:ARG:HG2	8:H:138:ARG:NH1	2.31	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:133:LYS:HG3	12:L:201:THR:CG2	2.47	0.45
12:L:144:GLU:O	12:L:173:MET:HE2	2.17	0.45
13:M:150:SER:O	13:M:154:VAL:HG23	2.16	0.45
17:Q:3:ILE:CD1	32:FA:34:MET:HA	2.45	0.45
19:S:122:ASN:O	19:S:129:TYR:HD2	2.00	0.45
19:S:155:VAL:HG23	19:S:156:HIS:CE1	2.52	0.45
21:U:51:VAL:HA	21:U:56:ARG:O	2.17	0.45
23:W:109:TYR:HB3	23:W:115:ILE:HG22	1.97	0.45
24:X:140:VAL:C	24:X:142:GLN:N	2.74	0.45
25:Y:82:ASN:HA	33:GA:21:ILE:HD13	1.99	0.45
25:Y:139:ARG:HD2	25:Y:139:ARG:N	2.31	0.45
29:CA:100:LYS:O	29:CA:100:LYS:HD3	2.17	0.45
29:CA:105:VAL:HA	29:CA:130:TYR:CE2	2.52	0.45
30:DA:37:LYS:HD3	30:DA:37:LYS:H	1.76	0.45
30:DA:77:LYS:O	30:DA:78:PHE:HB2	2.16	0.45
39:MA:5:LYS:HB2	39:MA:8:GLU:HG3	1.97	0.45
40:NA:11:LEU:H	40:NA:11:LEU:HD22	1.81	0.45
44:RA:96:CYS:C	44:RA:98:LYS:H	2.25	0.45
52:ZA:85:PRO:HB2	83:EC:6956:A:H61	1.82	0.45
52:ZA:178:ILE:HD13	52:ZA:188:LEU:CB	2.46	0.45
54:BB:73:ASP:CB	54:BB:164:LEU:HD22	2.38	0.45
54:BB:99:PHE:CE1	54:BB:113:ARG:HG2	2.51	0.45
55:CB:120:ILE:HD11	75:WB:98:GLN:NE2	2.31	0.45
59:GB:163:PRO:C	59:GB:165:GLY:N	2.73	0.45
61:IB:142:VAL:HG12	61:IB:143:SER:N	2.30	0.45
66:NB:82:ARG:HG3	66:NB:82:ARG:NH1	2.28	0.45
68:PB:84:TRP:C	68:PB:86:LEU:H	2.25	0.45
71:SB:59:VAL:CG1	71:SB:64:GLU:HB2	2.42	0.45
73:UB:126:LYS:HB3	73:UB:129:GLY:HA2	1.98	0.45
82:DC:155:VAL:HG23	82:DC:202:VAL:CG2	2.47	0.45
82:DC:229:TYR:HB2	82:DC:240:MET:HE2	1.99	0.45
82:DC:608:PRO:HA	82:DC:636:PHE:CD2	2.52	0.45
82:DC:694:HIS:CE1	83:EC:6907:G:OP1	2.70	0.45
83:EC:6869:C:H2'	83:EC:6870:A:H5'	1.97	0.45
1:A:300:A:H2'	1:A:301:A:O4'	2.17	0.45
1:A:1278:G:H2'	1:A:1279:C:O4'	2.16	0.45
1:A:1610:G:H5"	55:CB:107:LYS:HB2	1.98	0.45
2:B:16:A:O2'	29:CA:45:LYS:HE2	2.16	0.45
2:B:215:G:H5"	30:DA:12:ARG:HG3	1.99	0.45
2:B:308:A:H5"	40:NA:80:PHE:CD1	2.50	0.45
2:B:988:U:H2'	2:B:989:A:O4'	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1129:A:O2'	2:B:1130:A:H5'	2.17	0.45
2:B:1755:C:H2'	2:B:1756:C:O4'	2.16	0.45
2:B:1786:G:H2'	2:B:1787:A:O4'	2.17	0.45
2:B:1825:G:H5"	42:PA:48:SER:HB2	1.98	0.45
2:B:2079:G:H2'	2:B:2080:C:O4'	2.16	0.45
2:B:2601:A:H2'	2:B:2602:G:H8	1.82	0.45
2:B:2804:A:C3'	2:B:2805:G:H5"	2.47	0.45
2:B:2852:C:O2'	14:N:67:ALA:HB2	2.17	0.45
2:B:3215:A:O5'	18:R:121:MET:HE1	2.17	0.45
4:D:39:C:O2'	15:O:43:GLN:HB3	2.17	0.45
6:F:79:ASN:HD21	6:F:165:VAL:HG22	1.82	0.45
7:G:65:SER:C	7:G:67:PHE:H	2.24	0.45
7:G:161:LEU:HD21	7:G:180:GLU:HG2	1.98	0.45
8:H:91:GLY:HA3	8:H:93:MET:HE3	1.98	0.45
8:H:181:VAL:HG12	8:H:182:LEU:N	2.30	0.45
8:H:265:GLU:CD	8:H:265:GLU:H	2.24	0.45
9:I:243:ALA:O	9:I:247:ILE:HG13	2.17	0.45
11:K:115:THR:HG22	11:K:204:PRO:HA	1.98	0.45
12:L:133:LYS:HB2	12:L:199:ALA:CB	2.47	0.45
18:R:45:LEU:HD11	18:R:55:ARG:HD2	1.98	0.45
19:S:58:GLY:C	19:S:59:PHE:HD2	2.24	0.45
19:S:162:ARG:CB	19:S:162:ARG:NH1	2.80	0.45
20:T:22:VAL:O	20:T:26:GLN:HG2	2.15	0.45
20:T:89:SER:O	20:T:95:GLY:HA3	2.17	0.45
26:Z:97:SER:HA	26:Z:103:TYR:HA	1.99	0.45
28:BA:28:ILE:HD12	28:BA:28:ILE:N	2.32	0.45
30:DA:23:PRO:HG2	30:DA:26:GLN:HB2	1.99	0.45
30:DA:97:ILE:O	30:DA:99:LEU:HG	2.17	0.45
38:LA:74:ARG:HG2	38:LA:74:ARG:NH1	2.32	0.45
50:XA:53:THR:HA	50:XA:161:PRO:HG2	1.98	0.45
50:XA:195:TRP:CD2	50:XA:197:ILE:HD11	2.51	0.45
52:ZA:58:LEU:HA	71:SB:12:TYR:HE1	1.81	0.45
57:EB:63:PRO:O	57:EB:64:VAL:CB	2.64	0.45
61:IB:112:SER:C	61:IB:114:ALA:H	2.25	0.45
65:MB:41:VAL:HG13	65:MB:84:ILE:HG13	1.98	0.45
68:PB:61:LEU:HA	68:PB:65:GLU:OE1	2.16	0.45
69:QB:77:ASN:HB3	69:QB:95:ASP:CB	2.46	0.45
75:WB:68:ARG:HH11	75:WB:68:ARG:HG3	1.82	0.45
82:DC:25:ILE:HG23	82:DC:142:VAL:HG12	1.98	0.45
82:DC:32:LYS:HD2	82:DC:32:LYS:C	2.42	0.45
82:DC:243:ARG:CZ	82:DC:257:TRP:HB2	2.46	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:374:PRO:HA	82:DC:450:ALA:HB3	1.98	0.45
82:DC:646:VAL:HG12	82:DC:688:ILE:HD11	1.97	0.45
82:DC:727:PRO:HB2	82:DC:774:VAL:CG1	2.46	0.45
1:A:319:U:H4'	1:A:323:A:N9	2.32	0.45
1:A:425:A:H5'	1:A:425:A:H8	1.82	0.45
1:A:478:A:C4'	59:GB:127:VAL:HG21	2.46	0.45
1:A:777:C:H2'	1:A:778:G:H5"	1.99	0.45
1:A:816:G:H2'	1:A:816:G:N3	2.32	0.45
1:A:1175:U:H3	1:A:1464:G:H1	1.64	0.45
1:A:1179:G:H2'	1:A:1180:C:O4'	2.17	0.45
1:A:1273:G:N7	1:A:1431:C:H5"	2.32	0.45
1:A:1276:U:O2'	1:A:1277:G:H5'	2.17	0.45
1:A:1529:C:H1'	69:QB:12:GLN:OE1	2.17	0.45
1:A:1721:A:O2'	56:DB:64:LYS:HE3	2.17	0.45
2:B:62:A:C2'	2:B:63:A:H5'	2.47	0.45
2:B:107:A:H2'	2:B:108:A:O4'	2.16	0.45
2:B:110:G:H5"	17:Q:91:ARG:HE	1.81	0.45
2:B:718:G:H3'	2:B:719:U:C5'	2.46	0.45
2:B:1460:A:H5'	35:IA:51:LEU:O	2.17	0.45
2:B:1768:U:H2'	2:B:1769:G:O4'	2.16	0.45
2:B:2651:G:C4	2:B:2796:G:C2	3.04	0.45
2:B:2921:U:H2'	2:B:2923:U:H5"	1.98	0.45
2:B:2943:G:C8	7:G:2:SER:HB3	2.51	0.45
2:B:3107:U:H2'	2:B:3108:G:H8	1.79	0.45
2:B:3110:C:H41	2:B:3120:C:C4'	2.28	0.45
2:B:3111:U:H2'	2:B:3112:G:C5'	2.45	0.45
2:B:3213:A:H2'	2:B:3214:U:O4'	2.16	0.45
3:C:66:A:H5'	39:MA:10:ARG:HH22	1.82	0.45
6:F:49:VAL:HG22	6:F:50:HIS:N	2.31	0.45
7:G:169:THR:HG22	7:G:171:LEU:H	1.81	0.45
7:G:221:THR:HG22	7:G:222:LYS:N	2.31	0.45
7:G:232:ARG:HH11	7:G:268:GLY:CA	2.29	0.45
9:I:30:TYR:HA	9:I:33:ARG:HB3	1.98	0.45
11:K:83:LEU:HD12	11:K:139:PRO:HG2	1.98	0.45
15:O:11:ASP:C	15:O:133:ARG:HG2	2.42	0.45
15:O:101:ASN:HB3	15:O:130:VAL:HA	1.98	0.45
16:P:117:ARG:O	16:P:118:ASP:C	2.60	0.45
17:Q:124:ILE:HD11	39:MA:120:ALA:H	1.82	0.45
20:T:168:TYR:O	20:T:172:ARG:N	2.49	0.45
21:U:36:ILE:HD12	21:U:36:ILE:HA	1.77	0.45
24:X:114:HIS:O	24:X:115:ARG:C	2.59	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:EA:14:VAL:HG11	38:LA:86:LYS:HG3	1.97	0.45
32:FA:64:GLN:HE21	32:FA:64:GLN:H	1.64	0.45
34:HA:70:PHE:HE2	34:HA:77:LEU:HA	1.81	0.45
34:HA:87:VAL:O	34:HA:87:VAL:HG13	2.17	0.45
35:IA:105:GLN:O	35:IA:107:VAL:HG23	2.15	0.45
44:RA:92:ASP:O	44:RA:93:LYS:HG2	2.16	0.45
47:UA:46:THR:HB	47:UA:58:SER:HB2	1.99	0.45
50:XA:63:ILE:CG1	71:SB:36:VAL:HG22	2.35	0.45
52:ZA:148:LEU:HD12	59:GB:90:LYS:NZ	2.32	0.45
52:ZA:168:ARG:O	52:ZA:198:THR:HA	2.17	0.45
53:AB:217:ILE:HG22	53:AB:218:LEU:N	2.29	0.45
54:BB:246:LEU:HD12	54:BB:246:LEU:N	2.32	0.45
58:FB:55:TYR:HB2	58:FB:176:SER:O	2.17	0.45
59:GB:153:GLU:HA	59:GB:156:ILE:CD1	2.46	0.45
61:IB:27:THR:CG2	61:IB:29:LYS:HG2	2.47	0.45
61:IB:33:ARG:NH1	61:IB:52:SER:H	2.15	0.45
63:KB:84:ILE:HB	63:KB:88:LEU:CD1	2.43	0.45
66:NB:93:HIS:HB3	66:NB:102:LYS:HB2	1.98	0.45
70:RB:87:HIS:HB3	70:RB:89:ARG:NH1	2.32	0.45
72:TB:53:ILE:HD11	77:YB:25:VAL:CG2	2.47	0.45
79:AC:21:CYS:HA	79:AC:30:LEU:HD21	1.99	0.45
79:AC:43:PHE:C	79:AC:43:PHE:CD1	2.95	0.45
79:AC:46:LYS:HA	79:AC:49:ASP:HB2	1.98	0.45
80:BC:29:LYS:HB3	80:BC:30:PRO:HD2	1.98	0.45
82:DC:44:GLY:HA2	82:DC:77:LEU:CD1	2.47	0.45
82:DC:141:THR:HG23	82:DC:793:PHE:CZ	2.51	0.45
82:DC:143:LEU:HD21	82:DC:189:VAL:HG23	1.98	0.45
82:DC:630:ALA:HA	82:DC:633:ILE:HG23	1.97	0.45
1:A:58:U:O2'	1:A:451:A:H1'	2.17	0.45
1:A:472:U:H2'	1:A:473:A:H8	1.81	0.45
1:A:524:U:H1'	1:A:527:A:N7	2.31	0.45
1:A:941:A:H2'	1:A:942:G:H5'	1.98	0.45
1:A:1639:C:C2'	1:A:1640:C:H5'	2.46	0.45
1:A:1735:U:H2'	1:A:1736:G:C1'	2.47	0.45
1:A:1763:A:H5"	1:A:1771:U:H4'	1.98	0.45
2:B:429:U:H2'	2:B:430:U:H6	1.82	0.45
2:B:500:C:O2'	2:B:501:A:H5'	2.17	0.45
2:B:525:C:OP1	18:R:77:ARG:HG2	2.16	0.45
2:B:979:U:C6	2:B:979:U:C3'	2.99	0.45
2:B:1069:C:O2'	2:B:1070:U:H5'	2.16	0.45
2:B:1281:G:H21	48:VA:83:ASN:HD21	1.65	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1472:U:H2'	2:B:1473:G:C8	2.52	0.45
2:B:1481:A:O2'	2:B:1858:A:N3	2.47	0.45
2:B:1509:A:H2'	2:B:1510:G:C8	2.52	0.45
2:B:1633:C:C5	31:EA:17:ARG:NH1	2.84	0.45
2:B:2854:U:H2'	2:B:2855:U:C6	2.51	0.45
2:B:3005:A:H5"	20:T:149:TYR:OH	2.17	0.45
5:E:30:GLU:HA	5:E:210:MET:CE	2.45	0.45
6:F:65:ASP:HB2	6:F:72:ARG:HE	1.81	0.45
7:G:218:ILE:HG12	7:G:276:THR:HG23	1.99	0.45
10:J:20:LYS:HA	10:J:20:LYS:HZ2	1.78	0.45
12:L:107:GLU:HG2	12:L:111:LYS:HE2	1.97	0.45
12:L:203:VAL:HG22	12:L:204:ARG:H	1.82	0.45
15:O:29:ARG:HD3	15:O:123:PHE:HE1	1.81	0.45
17:Q:76:THR:OG1	17:Q:79:GLU:HG3	2.17	0.45
21:U:27:LYS:HG2	21:U:63:PHE:CD1	2.51	0.45
21:U:30:ARG:HA	21:U:119:VAL:HG11	1.98	0.45
29:CA:70:GLU:C	29:CA:72:ALA:H	2.25	0.45
30:DA:51:ARG:O	30:DA:54:ASP:OD2	2.35	0.45
34:HA:42:ILE:O	34:HA:42:ILE:HG13	2.17	0.45
34:HA:77:LEU:HD23	34:HA:87:VAL:O	2.17	0.45
35:IA:62:ARG:O	35:IA:66:GLY:HA3	2.16	0.45
43:QA:20:ASN:OD1	43:QA:20:ASN:O	2.34	0.45
49:WA:93:ASP:C	49:WA:95:ALA:H	2.25	0.45
49:WA:250:TYR:O	49:WA:264:SER:HA	2.16	0.45
52:ZA:116:LYS:HB2	52:ZA:131:ILE:HD12	1.98	0.45
53:AB:92:GLN:H	53:AB:92:GLN:HE21	1.63	0.45
53:AB:133:GLY:HA2	53:AB:154:ASP:O	2.17	0.45
54:BB:15:PRO:HB3	54:BB:39:ARG:NH1	2.32	0.45
54:BB:128:LYS:O	54:BB:139:VAL:HA	2.17	0.45
54:BB:181:VAL:HG21	54:BB:195:ILE:CD1	2.44	0.45
54:BB:241:GLY:C	54:BB:243:GLY:H	2.25	0.45
55:CB:98:MET:HB2	55:CB:103:ASN:O	2.17	0.45
57:EB:97:ARG:O	57:EB:98:ILE:HB	2.15	0.45
59:GB:109:LEU:CG	59:GB:146:PHE:HB3	2.47	0.45
60:HB:7:ASP:HA	60:HB:10:LYS:HD2	1.99	0.45
67:OB:25:THR:H	67:OB:31:ASN:HD21	1.65	0.45
72:TB:11:LEU:HB3	72:TB:72:CYS:SG	2.57	0.45
74:VB:12:VAL:HA	74:VB:23:PHE:HB3	1.99	0.45
79:AC:19:ARG:HG3	79:AC:19:ARG:O	2.17	0.45
82:DC:443:GLU:HA	82:DC:444:PRO:HD3	1.75	0.45
82:DC:463:LEU:HD11	82:DC:466:THR:O	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:578:LYS:HE2	82:DC:582:LYS:CG	2.47	0.45
83:EC:6862:G:N2	83:EC:6863:C:H41	2.15	0.45
1:A:472:U:H5"	59:GB:11:THR:HG23	1.98	0.45
1:A:860:U:H4'	57:EB:114:ARG:HB3	1.98	0.45
1:A:1104:U:O2'	1:A:1105:C:H5'	2.17	0.45
1:A:1419:G:H1'	79:AC:55:PHE:O	2.17	0.45
1:A:1610:G:C5'	55:CB:107:LYS:HB2	2.47	0.45
2:B:221:A:H62	30:DA:103:LYS:NZ	2.12	0.45
2:B:576:C:H2'	2:B:577:C:C6	2.51	0.45
2:B:676:G:N2	22:V:61:PRO:HG3	2.32	0.45
2:B:758:C:C2'	2:B:759:U:H5'	2.47	0.45
2:B:822:G:O2'	2:B:823:C:H5'	2.17	0.45
2:B:1263:A:C6	16:P:136:ALA:HB2	2.52	0.45
2:B:1717:U:H2'	2:B:1718:G:H8	1.80	0.45
2:B:2113:A:N7	2:B:2114:C:C4	2.85	0.45
2:B:2846:U:O2	2:B:2846:U:O4'	2.33	0.45
2:B:2958:A:H2'	2:B:2959:C:C6	2.52	0.45
2:B:3176:G:OP1	37:KA:6:ARG:HB2	2.17	0.45
5:E:196:LYS:HB3	5:E:200:ASN:OD1	2.16	0.45
7:G:116:ARG:O	7:G:175:LYS:HE2	2.17	0.45
7:G:162:VAL:O	7:G:163:HIS:HB3	2.17	0.45
7:G:305:ILE:HG12	7:G:321:PHE:CZ	2.52	0.45
8:H:180:LYS:HZ3	8:H:202:ARG:HB3	1.82	0.45
11:K:164:SER:O	11:K:165:ASP:HB2	2.17	0.45
12:L:41:GLN:HG3	12:L:44:ARG:HH12	1.82	0.45
12:L:139:VAL:O	12:L:142:LEU:HB2	2.17	0.45
13:M:94:TYR:HB3	13:M:99:ILE:HG13	1.99	0.45
13:M:132:VAL:HG22	13:M:134:ILE:CD1	2.46	0.45
15:O:95:ASN:O	15:O:102:PHE:HB2	2.17	0.45
15:O:143:ARG:HG2	15:O:144:CYS:N	2.32	0.45
16:P:114:ARG:CG	16:P:129:THR:HG23	2.46	0.45
17:Q:56:PRO:HG3	17:Q:74:GLY:O	2.17	0.45
18:R:74:ARG:HH11	18:R:74:ARG:CB	2.26	0.45
19:S:26:ARG:O	19:S:27:VAL:C	2.60	0.45
19:S:88:GLY:HA3	46:TA:50:PHE:CE2	2.52	0.45
20:T:34:VAL:HG23	20:T:34:VAL:O	2.16	0.45
21:U:48:LEU:HD22	21:U:88:VAL:HG13	1.97	0.45
25:Y:14:MET:SD	25:Y:58:GLN:HG2	2.57	0.45
27:AA:23:MET:HE1	27:AA:100:GLY:HA3	1.99	0.45
32:FA:9:ARG:NH1	32:FA:12:ARG:HH12	2.15	0.45
32:FA:79:TRP:CD1	32:FA:119:PRO:HD2	2.52	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:HA:66:LYS:HE3	34:HA:66:LYS:CA	2.46	0.45
34:HA:86:ARG:NE	47:UA:44:LYS:HG2	2.32	0.45
35:IA:20:LEU:O	35:IA:21:HIS:C	2.59	0.45
37:KA:71:VAL:HG13	37:KA:81:VAL:HB	1.99	0.45
40:NA:86:LYS:O	40:NA:89:GLU:HB3	2.16	0.45
42:PA:20:VAL:CG1	42:PA:45:VAL:HB	2.46	0.45
48:VA:108:PRO:CA	48:VA:179:SER:HB3	2.47	0.45
49:WA:115:ILE:HG23	49:WA:115:ILE:O	2.17	0.45
50:XA:17:LEU:HA	50:XA:172:LEU:CD2	2.46	0.45
50:XA:71:GLU:O	50:XA:96:THR:HG22	2.15	0.45
53:AB:202:LEU:H	53:AB:202:LEU:HD22	1.81	0.45
55:CB:146:THR:OG1	55:CB:220:VAL:HG12	2.17	0.45
59:GB:49:LEU:HD11	59:GB:53:ARG:HD3	1.99	0.45
59:GB:96:VAL:CA	59:GB:99:LEU:HD13	2.46	0.45
60:HB:68:LEU:HD11	60:HB:72:GLY:HA3	1.98	0.45
63:KB:102:LEU:HD11	63:KB:112:LYS:HA	1.99	0.45
65:MB:43:ARG:HH12	65:MB:47:ARG:HD3	1.82	0.45
67:OB:53:TYR:O	67:OB:57:LEU:HG	2.16	0.45
69:QB:28:LEU:H	69:QB:28:LEU:CD1	2.26	0.45
70:RB:94:GLU:O	70:RB:95:ALA:HB2	2.17	0.45
75:WB:66:VAL:HG13	75:WB:72:GLY:HA2	1.99	0.45
82:DC:653:VAL:CG2	82:DC:691:VAL:HB	2.45	0.45
82:DC:797:VAL:O	82:DC:798:PHE:C	2.59	0.45
1:A:205:U:O2'	1:A:206:A:H5'	2.17	0.45
1:A:398:G:OP1	58:FB:49:ARG:HD2	2.17	0.45
1:A:524:U:N3	1:A:526:A:H3'	2.31	0.45
1:A:1269:U:O2	1:A:1269:U:H2'	2.16	0.45
2:B:20:A:C6	2:B:21:G:O6	2.70	0.45
2:B:83:U:H4'	2:B:700:C:O2'	2.17	0.45
2:B:692:A:C2'	2:B:693:A:H5'	2.47	0.45
2:B:982:C:O2'	2:B:983:A:H5'	2.16	0.45
2:B:986:U:C2'	2:B:987:U:H5'	2.47	0.45
2:B:1369:A:C2'	2:B:1370:G:H5'	2.47	0.45
2:B:1498:A:H1'	2:B:1602:A:H2	1.82	0.45
2:B:1635:G:N2	2:B:1638:A:OP2	2.40	0.45
2:B:1954:G:H2'	2:B:1955:U:O4'	2.17	0.45
2:B:2220:A:H2'	2:B:2221:G:O4'	2.17	0.45
2:B:2682:C:O2'	2:B:2683:U:H5'	2.17	0.45
2:B:2697:A:H2'	2:B:2698:G:C8	2.52	0.45
2:B:2916:U:C2	2:B:2935:U:C4	3.05	0.45
4:D:33:U:H2'	4:D:34:C:O4'	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:136:ILE:O	6:F:136:ILE:HG22	2.17	0.45
6:F:225:ILE:HG21	6:F:234:LYS:HA	1.99	0.45
9:I:60:ILE:HG22	9:I:61:ILE:N	2.32	0.45
10:J:58:LEU:HD21	10:J:101:PHE:O	2.17	0.45
11:K:239:LEU:HD13	11:K:239:LEU:O	2.17	0.45
12:L:78:PHE:O	12:L:79:GLN:CG	2.65	0.45
12:L:94:PHE:CZ	12:L:152:LEU:HD11	2.52	0.45
14:N:182:LEU:HD22	14:N:185:ARG:HH11	1.82	0.45
15:O:51:ARG:O	15:O:61:ARG:HG3	2.17	0.45
15:O:102:PHE:CD1	15:O:102:PHE:C	2.95	0.45
22:V:165:ILE:HD13	22:V:173:GLU:OE2	2.17	0.45
25:Y:9:SER:O	25:Y:55:LYS:CE	2.65	0.45
28:BA:6:ASP:OD2	28:BA:9:SER:N	2.49	0.45
32:FA:77:LYS:O	32:FA:79:TRP:N	2.50	0.45
35:IA:110:GLU:CD	35:IA:110:GLU:H	2.24	0.45
37:KA:16:TYR:O	37:KA:18:ARG:HG2	2.16	0.45
39:MA:85:THR:HG22	39:MA:86:ARG:N	2.30	0.45
48:VA:62:ALA:HA	48:VA:77:LEU:HD11	1.98	0.45
48:VA:97:LYS:O	48:VA:100:ILE:HG12	2.17	0.45
48:VA:172:LEU:HD12	48:VA:176:LEU:HD11	1.98	0.45
50:XA:164:ASN:C	50:XA:166:GLY:H	2.24	0.45
53:AB:124:ARG:O	53:AB:128:GLU:HB2	2.17	0.45
54:BB:49:ARG:HD2	54:BB:61:VAL:CG2	2.47	0.45
55:CB:50:GLU:HB2	55:CB:51:VAL:H	1.63	0.45
55:CB:117:THR:HG21	55:CB:194:LEU:CD1	2.44	0.45
56:DB:68:LEU:H	56:DB:100:ALA:HB3	1.82	0.45
58:FB:121:LEU:HG	58:FB:157:GLU:CG	2.46	0.45
58:FB:138:ASN:HA	58:FB:141:ARG:HE	1.82	0.45
70:RB:69:LYS:HG3	70:RB:78:THR:HB	1.99	0.45
73:UB:53:VAL:O	73:UB:99:ASN:HA	2.16	0.45
82:DC:405:VAL:HG12	82:DC:448:CYS:CB	2.36	0.45
82:DC:660:LYS:O	82:DC:664:VAL:HG23	2.17	0.45
1:A:5:U:H2'	1:A:6:G:C8	2.52	0.44
1:A:11:A:C2'	1:A:12:U:H5'	2.47	0.44
1:A:29:U:H2'	1:A:30:G:C8	2.52	0.44
1:A:155:U:H4'	56:DB:59:GLN:N	2.32	0.44
1:A:350:U:O2	1:A:970:A:H2	2.01	0.44
1:A:541:A:O2'	1:A:542:A:H4'	2.17	0.44
1:A:1104:U:P	73:UB:6:PRO:HB3	2.57	0.44
1:A:1280:C:H2'	1:A:1281:G:H8	1.83	0.44
1:A:1448:G:H5'	1:A:1448:G:C8	2.53	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1639:C:H2'	1:A:1640:C:H5'	1.99	0.44
2:B:284:A:OP2	46:TA:41:ARG:NE	2.51	0.44
2:B:741:U:H2'	2:B:742:G:O4'	2.17	0.44
2:B:960:U:O2'	2:B:961:C:H5'	2.17	0.44
2:B:1137:C:H2'	2:B:1138:U:C6	2.52	0.44
2:B:1164:G:H2'	2:B:1165:A:H8	1.81	0.44
2:B:1628:C:H5"	2:B:1629:U:O2'	2.16	0.44
2:B:1682:U:C5	26:Z:85:LYS:HG2	2.52	0.44
2:B:1908:A:H2'	2:B:1909:A:O4'	2.16	0.44
2:B:2131:A:H2'	2:B:2132:C:C5'	2.42	0.44
2:B:2841:G:H1'	2:B:2847:A:H61	1.82	0.44
2:B:3312:U:C3'	2:B:3313:U:H5"	2.47	0.44
3:C:35:C:O5'	3:C:35:C:H6	2.00	0.44
3:C:129:C:H2'	3:C:130:C:C6	2.52	0.44
4:D:82:G:H2'	4:D:83:U:O4'	2.17	0.44
5:E:189:PHE:O	5:E:193:LEU:HB2	2.17	0.44
7:G:114:VAL:O	7:G:117:ARG:HB3	2.18	0.44
8:H:16:THR:HG22	8:H:17:ALA:N	2.32	0.44
8:H:233:LEU:HA	8:H:233:LEU:HD23	1.67	0.44
9:I:260:PHE:HB3	9:I:264:GLN:CB	2.46	0.44
11:K:89:ILE:HG12	11:K:134:VAL:HA	1.99	0.44
13:M:117:PHE:O	13:M:118:LEU:HB2	2.17	0.44
13:M:138:THR:C	13:M:140:VAL:N	2.75	0.44
14:N:99:ILE:CG2	14:N:123:HIS:HB2	2.43	0.44
17:Q:24:VAL:HG11	17:Q:26:PHE:CZ	2.53	0.44
17:Q:47:ALA:HB2	39:MA:115:LYS:NZ	2.32	0.44
18:R:32:LEU:HD11	18:R:94:TRP:CD1	2.52	0.44
19:S:118:SER:HB2	19:S:131:GLU:O	2.18	0.44
20:T:47:PHE:HE2	20:T:141:LEU:HA	1.82	0.44
20:T:65:ASN:OD1	20:T:67:THR:HB	2.16	0.44
21:U:120:ASN:H	21:U:120:ASN:HD22	1.63	0.44
22:V:83:VAL:HG12	22:V:85:GLY:N	2.24	0.44
24:X:75:PHE:HB2	24:X:94:ILE:O	2.17	0.44
24:X:142:GLN:C	24:X:144:LEU:H	2.25	0.44
25:Y:108:ARG:NE	25:Y:130:ARG:HE	2.14	0.44
27:AA:54:LEU:HA	27:AA:78:VAL:CG1	2.46	0.44
36:JA:64:LYS:O	36:JA:65:PHE:HB2	2.17	0.44
37:KA:8:TYR:CE2	37:KA:99:ARG:HG2	2.52	0.44
38:LA:26:PRO:C	38:LA:28:GLY:N	2.72	0.44
39:MA:100:VAL:HG22	39:MA:101:THR:N	2.32	0.44
48:VA:133:THR:OG1	48:VA:150:ILE:HD11	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:XA:191:ARG:HD2	50:XA:191:ARG:HA	1.78	0.44
55:CB:48:PHE:CD1	55:CB:67:PRO:HA	2.52	0.44
58:FB:59:ARG:C	58:FB:60:ILE:HG13	2.42	0.44
60:HB:46:LEU:HB2	60:HB:66:TYR:CZ	2.52	0.44
60:HB:94:GLU:HG3	60:HB:95:ARG:HG3	1.98	0.44
63:KB:45:LEU:O	63:KB:49:GLN:HB2	2.17	0.44
68:PB:88:ARG:HH21	68:PB:108:LYS:HG3	1.78	0.44
73:UB:130:VAL:HG11	73:UB:143:PRO:HD3	1.99	0.44
74:VB:76:TYR:HB2	74:VB:82:ALA:HB2	1.99	0.44
82:DC:250:PHE:CZ	82:DC:255:LYS:HA	2.52	0.44
82:DC:351:TYR:CD1	82:DC:352:ARG:HG3	2.52	0.44
82:DC:754:VAL:HG12	82:DC:756:SER:O	2.16	0.44
82:DC:798:PHE:CE2	86:DC:903:SO1:H22	2.52	0.44
1:A:237:C:C5’	1:A:238:U:H5’	2.32	0.44
1:A:787:G:H3’	1:A:788:A:C8	2.52	0.44
1:A:833:U:H5’	1:A:834:G:H5”	1.98	0.44
1:A:1109:G:O2’	1:A:1110:G:H5’	2.17	0.44
1:A:1449:U:H2’	1:A:1450:U:C6	2.52	0.44
1:A:1544:U:H5”	68:PB:132:ARG:CD	2.48	0.44
1:A:1715:G:H8	1:A:1715:G:O5’	2.00	0.44
2:B:86:G:H22	2:B:98:G:H3’	1.83	0.44
2:B:492:U:H3’	2:B:493:G:H5’	1.99	0.44
2:B:968:G:H2’	2:B:969:C:C6	2.52	0.44
2:B:1447:G:N7	21:U:27:LYS:HB2	2.33	0.44
2:B:1603:A:N6	29:CA:71:THR:HG21	2.32	0.44
2:B:1725:C:H2’	2:B:1726:C:C6	2.52	0.44
2:B:2206:G:H2’	2:B:2206:G:N3	2.32	0.44
2:B:3007:U:H2’	2:B:3008:A:C8	2.52	0.44
3:C:90:U:H6	3:C:90:U:H5’	1.81	0.44
5:E:132:GLY:C	83:EC:6818:G:H4’	2.42	0.44
6:F:45:VAL:HG13	6:F:85:GLY:H	1.82	0.44
6:F:204:MET:HB3	6:F:208:ASP:HB3	1.99	0.44
7:G:358:TRP:HZ2	7:G:371:GLN:CD	2.26	0.44
10:J:67:GLY:N	10:J:68:PRO:HA	2.32	0.44
12:L:101:THR:HG23	12:L:103:ALA:HB3	1.98	0.44
16:P:111:GLU:HG3	16:P:125:LEU:HB2	1.97	0.44
17:Q:180:ARG:HG3	17:Q:184:GLU:OE2	2.17	0.44
18:R:78:THR:O	18:R:81:VAL:HB	2.17	0.44
19:S:202:TYR:O	19:S:203:ARG:C	2.60	0.44
20:T:9:ILE:HG22	20:T:10:ASP:O	2.17	0.44
23:W:11:ALA:HA	23:W:14:VAL:HG12	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:63:VAL:O	25:Y:74:VAL:HA	2.18	0.44
27:AA:85:TRP:O	27:AA:92:PHE:HA	2.17	0.44
31:EA:35:SER:C	31:EA:37:PRO:HD3	2.42	0.44
38:LA:85:VAL:O	38:LA:86:LYS:C	2.59	0.44
42:PA:14:LEU:O	42:PA:20:VAL:HG21	2.16	0.44
43:QA:18:LYS:C	43:QA:20:ASN:H	2.25	0.44
48:VA:38:MET:HE3	48:VA:42:ARG:HH21	1.81	0.44
50:XA:45:VAL:HG12	50:XA:46:HIS:N	2.33	0.44
52:ZA:216:VAL:O	52:ZA:220:ASN:HB2	2.18	0.44
53:AB:7:LYS:HA	53:AB:7:LYS:CE	2.35	0.44
54:BB:23:LEU:HD22	59:GB:4:ALA:HB1	1.99	0.44
56:DB:136:LYS:HG3	56:DB:173:PRO:HB3	1.99	0.44
56:DB:211:LEU:HD22	56:DB:211:LEU:N	2.28	0.44
57:EB:131:PHE:CD1	57:EB:131:PHE:C	2.96	0.44
58:FB:140:GLU:HA	58:FB:143:TRP:CE3	2.52	0.44
60:HB:46:LEU:O	60:HB:50:THR:HG23	2.18	0.44
66:NB:39:VAL:HG12	66:NB:41:PRO:HB2	1.98	0.44
68:PB:15:LEU:HD23	68:PB:15:LEU:N	2.26	0.44
70:RB:25:THR:HB	70:RB:115:GLU:H	1.82	0.44
73:UB:103:LEU:HD12	73:UB:125:VAL:HB	1.99	0.44
80:BC:30:PRO:HG2	80:BC:35:TYR:CD2	2.51	0.44
82:DC:576:LEU:O	82:DC:576:LEU:HG	2.17	0.44
82:DC:650:THR:HG22	82:DC:690:ASP:CA	2.48	0.44
1:A:152:U:H3’	1:A:153:G:H5”	1.98	0.44
1:A:177:U:H1’	56:DB:191:ARG:HH11	1.81	0.44
1:A:333:A:OP2	58:FB:54:LYS:NZ	2.49	0.44
1:A:403:G:H2’	1:A:403:G:N3	2.33	0.44
1:A:823:G:H5”	1:A:824:G:H8	1.83	0.44
1:A:1043:A:H61	1:A:1075:C:H42	1.65	0.44
1:A:1049:U:H4’	77:YB:70:LYS:HE3	1.99	0.44
1:A:1217:A:H4’	60:HB:44:LYS:HG3	2.00	0.44
1:A:1459:C:N4	68:PB:139:LYS:HE2	2.32	0.44
2:B:92:G:O5’	46:TA:46:LYS:HE3	2.18	0.44
2:B:217:U:O5’	2:B:217:U:H6	2.01	0.44
2:B:250:U:H5	2:B:251:G:N7	2.14	0.44
2:B:284:A:H4’	2:B:285:A:N3	2.32	0.44
2:B:364:G:OP1	8:H:60:THR:HG23	2.17	0.44
2:B:532:A:H2’	2:B:533:A:C8	2.53	0.44
2:B:667:C:H2’	2:B:668:G:H8	1.82	0.44
2:B:1119:C:O2’	2:B:1120:A:H5’	2.17	0.44
2:B:1212:A:H1’	24:X:114:HIS:HE2	1.82	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1212:A:O2'	2:B:1213:G:H5'	2.17	0.44
2:B:1288:U:H1'	2:B:1289:G:C8	2.53	0.44
2:B:1457:U:O2'	2:B:1458:U:H5'	2.17	0.44
2:B:1595:U:C2	2:B:1596:C:C5	3.06	0.44
2:B:1649:U:H2'	2:B:1650:G:O4'	2.18	0.44
2:B:1886:A:O4'	2:B:3307:A:H5'	2.17	0.44
2:B:2270:A:O2'	2:B:2271:A:H5'	2.17	0.44
2:B:2560:C:N4	31:EA:56:LYS:HE2	2.33	0.44
2:B:2563:G:H5"	12:L:27:THR:HG23	2.00	0.44
2:B:2659:G:H4'	2:B:2751:G:O2'	2.17	0.44
2:B:2674:A:H2'	2:B:2675:C:O4'	2.16	0.44
2:B:2825:C:O5'	2:B:2825:C:H6	2.01	0.44
2:B:2907:G:O2'	2:B:2908:G:H5'	2.17	0.44
2:B:3386:G:O2'	2:B:3387:U:H5'	2.18	0.44
3:C:31:G:O2'	3:C:32:C:H5'	2.17	0.44
3:C:142:C:H2'	3:C:143:U:C6	2.53	0.44
4:D:64:A:OP1	14:N:206:LEU:HB3	2.17	0.44
5:E:94:ASN:ND2	5:E:124:LEU:HD13	2.32	0.44
6:F:142:ASP:C	6:F:144:ASN:H	2.25	0.44
6:F:209:HIS:CE1	6:F:235:ALA:HB1	2.52	0.44
8:H:34:ILE:O	8:H:35:VAL:C	2.59	0.44
8:H:359:LEU:CD2	8:H:360:LYS:HG3	2.47	0.44
12:L:143:ILE:O	12:L:173:MET:HG3	2.17	0.44
13:M:34:LEU:HD22	13:M:35:THR:H	1.81	0.44
13:M:138:THR:HG22	13:M:139:ASN:N	2.32	0.44
18:R:45:LEU:HD12	18:R:46:ILE:N	2.32	0.44
19:S:151:ILE:HD13	19:S:151:ILE:HA	1.74	0.44
24:X:27:MET:HE2	24:X:44:PHE:CB	2.48	0.44
25:Y:104:GLU:O	25:Y:107:GLU:HB2	2.17	0.44
28:BA:47:ARG:HH11	28:BA:58:HIS:HB2	1.82	0.44
33:GA:24:PRO:O	33:GA:25:LYS:HB3	2.17	0.44
40:NA:70:ARG:NH1	40:NA:84:LYS:HG2	2.32	0.44
41:OA:63:ARG:O	41:OA:64:MET:HB2	2.17	0.44
47:UA:17:ARG:C	47:UA:18:TYR:CD1	2.95	0.44
49:WA:150:TRP:O	49:WA:173:GLY:HA3	2.17	0.44
50:XA:112:THR:O	50:XA:115:PHE:HB2	2.17	0.44
55:CB:27:THR:CG2	66:NB:29:ILE:H	2.29	0.44
55:CB:88:PRO:HG2	55:CB:91:GLU:CB	2.46	0.44
58:FB:47:ARG:HD2	58:FB:47:ARG:C	2.42	0.44
60:HB:33:GLU:O	60:HB:34:GLU:HB2	2.18	0.44
61:IB:72:THR:HA	61:IB:124:THR:HA	1.98	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:KB:41:ALA:HB1	63:KB:75:LEU:HG	2.00	0.44
65:MB:122:THR:O	65:MB:123:TYR:HB3	2.18	0.44
67:OB:15:ALA:O	67:OB:19:ARG:HG2	2.17	0.44
74:VB:13:ILE:HB	74:VB:22:GLN:NE2	2.33	0.44
75:WB:62:VAL:HG13	75:WB:76:ALA:HB3	1.98	0.44
75:WB:82:HIS:O	75:WB:85:LYS:HE2	2.16	0.44
80:BC:30:PRO:HG2	80:BC:35:TYR:HD2	1.82	0.44
82:DC:22:MET:HA	82:DC:124:GLY:O	2.17	0.44
82:DC:357:TYR:HH	82:DC:476:HIS:H	1.63	0.44
82:DC:523:SER:HB2	86:DC:903:SO1:C21	2.46	0.44
82:DC:649:GLN:OE1	82:DC:687:ASN:HB3	2.17	0.44
82:DC:734:GLN:HE22	82:DC:767:THR:HB	1.81	0.44
82:DC:807:ASP:OD1	82:DC:809:LEU:HB3	2.17	0.44
1:A:27:U:O2'	1:A:28:A:H5'	2.17	0.44
1:A:109:G:O2'	1:A:110:U:H5'	2.17	0.44
1:A:297:U:O2	54:BB:33:ALA:HB1	2.17	0.44
1:A:471:A:O3'	59:GB:10:LYS:HA	2.17	0.44
1:A:520:A:H2'	1:A:521:A:O4'	2.18	0.44
1:A:867:G:H21	63:KB:87:ASP:HB3	1.81	0.44
1:A:1149:G:N3	1:A:1765:A:H1'	2.32	0.44
1:A:1211:A:H2'	1:A:1212:G:O4'	2.17	0.44
1:A:1551:U:C5	65:MB:43:ARG:NE	2.85	0.44
1:A:1741:U:H2'	1:A:1742:U:O4'	2.17	0.44
1:A:1791:A:C5'	1:A:1792:G:N2	2.80	0.44
2:B:214:G:H2'	2:B:215:G:H8	1.83	0.44
2:B:419:G:H1	3:C:4:C:N4	2.15	0.44
2:B:637:C:O2'	2:B:638:C:O4'	2.29	0.44
2:B:1096:U:H4'	2:B:1097:G:O4'	2.16	0.44
2:B:1196:C:H5"	2:B:1197:A:OP1	2.18	0.44
2:B:1448:U:C5	2:B:2355:G:N2	2.85	0.44
2:B:1803:C:H2'	2:B:1804:A:H8	1.83	0.44
2:B:2734:A:O2'	2:B:2735:U:H5'	2.17	0.44
2:B:3016:A:H2'	2:B:3017:A:C8	2.53	0.44
2:B:3038:U:H2'	2:B:3039:C:O4'	2.17	0.44
2:B:3065:G:H2'	2:B:3066:U:O4'	2.18	0.44
2:B:3072:C:H2'	2:B:3073:A:H5'	1.98	0.44
6:F:52:SER:HB3	6:F:191:LEU:CD2	2.44	0.44
6:F:117:GLU:HB2	6:F:162:ALA:HB1	1.99	0.44
7:G:154:TYR:O	7:G:155:ALA:C	2.59	0.44
8:H:361:HIS:CD2	8:H:362:ASP:H	2.34	0.44
12:L:74:THR:HG23	12:L:75:ILE:N	2.32	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:115:GLN:HE21	16:P:125:LEU:HD21	1.83	0.44
19:S:147:ARG:HG3	19:S:147:ARG:NH1	2.31	0.44
20:T:14:HIS:CD2	20:T:19:LEU:HD13	2.52	0.44
20:T:36:VAL:HB	20:T:108:ILE:HG12	1.98	0.44
21:U:31:GLU:OE2	21:U:31:GLU:HA	2.18	0.44
22:V:69:ARG:HH11	22:V:69:ARG:HG2	1.82	0.44
22:V:127:LEU:HD13	22:V:127:LEU:O	2.17	0.44
23:W:130:ASN:CG	23:W:131:ALA:H	2.25	0.44
25:Y:8:ARG:HG3	25:Y:8:ARG:HH21	1.83	0.44
26:Z:99:LYS:HB2	26:Z:102:GLU:OE1	2.17	0.44
27:AA:23:MET:HB3	27:AA:98:ASN:HB2	2.00	0.44
29:CA:88:MET:SD	29:CA:120:LYS:HB2	2.57	0.44
30:DA:60:ARG:HB2	30:DA:103:LYS:HB3	2.00	0.44
31:EA:84:ARG:HG3	31:EA:85:TYR:N	2.32	0.44
35:IA:71:LEU:HD23	35:IA:71:LEU:HA	1.85	0.44
40:NA:11:LEU:HD22	40:NA:11:LEU:N	2.32	0.44
41:OA:44:THR:O	41:OA:45:ARG:C	2.60	0.44
50:XA:119:ARG:HG2	52:ZA:40:LYS:HE2	2.00	0.44
53:AB:66:ILE:HA	53:AB:69:LEU:CG	2.45	0.44
53:AB:146:ARG:HH21	53:AB:146:ARG:HG3	1.83	0.44
54:BB:107:GLY:CA	54:BB:189:LEU:HG	2.47	0.44
55:CB:44:ASN:O	55:CB:45:LYS:HB2	2.17	0.44
55:CB:216:GLU:C	55:CB:218:GLU:H	2.26	0.44
58:FB:39:GLY:O	58:FB:59:ARG:HB3	2.18	0.44
59:GB:135:ALA:HB1	59:GB:139:GLN:N	2.32	0.44
61:IB:109:VAL:HA	61:IB:137:PHE:O	2.17	0.44
65:MB:60:LEU:C	65:MB:60:LEU:HD13	2.42	0.44
70:RB:24:ILE:HD12	70:RB:91:ILE:HG21	1.99	0.44
82:DC:110:ASP:C	82:DC:112:SER:H	2.26	0.44
82:DC:365:ASN:HD21	82:DC:472:SER:HB3	1.82	0.44
82:DC:598:SER:OG	82:DC:683:SER:HA	2.18	0.44
82:DC:760:ARG:NH1	82:DC:763:THR:OG1	2.51	0.44
1:A:52:U:H2'	1:A:53:G:H8	1.82	0.44
1:A:427:C:H2'	1:A:428:A:O4'	2.18	0.44
1:A:603:U:H2'	1:A:604:A:H8	1.82	0.44
1:A:762:A:H2'	1:A:763:G:O4'	2.17	0.44
1:A:901:G:C2'	1:A:902:G:H5'	2.40	0.44
1:A:1371:A:C2	1:A:1373:C:H5"	2.52	0.44
1:A:1489:U:H2'	1:A:1514:U:O4	2.18	0.44
1:A:1524:A:H2'	1:A:1525:A:H8	1.72	0.44
1:A:1731:A:H2'	1:A:1732:A:O4'	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1791:A:H5'	1:A:1792:G:N2	2.33	0.44
2:B:22:G:C2'	2:B:23:A:H5'	2.47	0.44
2:B:35:A:O2'	2:B:36:C:H5'	2.16	0.44
2:B:417:A:H2'	2:B:418:A:C8	2.53	0.44
2:B:649:A:H2'	2:B:650:C:C6	2.53	0.44
2:B:676:G:H22	22:V:61:PRO:HG3	1.83	0.44
2:B:772:U:O2'	2:B:773:G:H5'	2.17	0.44
2:B:852:U:H2'	2:B:853:G:H8	1.83	0.44
2:B:941:G:C2'	2:B:942:U:H5'	2.47	0.44
2:B:1245:A:C3'	2:B:1246:G:C5'	2.94	0.44
2:B:1249:G:H2'	2:B:1250:G:H8	1.78	0.44
2:B:1315:U:C6	20:T:44:SER:HB2	2.51	0.44
2:B:1321:G:O2'	2:B:1322:U:H5'	2.17	0.44
2:B:1448:U:H4'	21:U:66:SER:HB2	2.00	0.44
2:B:1849:C:H5'	2:B:1849:C:C6	2.43	0.44
2:B:2157:G:N3	6:F:126:LEU:HD22	2.33	0.44
2:B:2392:C:H1'	7:G:266:ARG:NH2	2.33	0.44
2:B:2746:A:C6	9:I:148:ILE:HD12	2.52	0.44
2:B:3058:U:H3'	2:B:3058:U:O2	2.17	0.44
3:C:34:U:H5'	41:OA:78:PHE:CZ	2.52	0.44
3:C:63:G:O2'	39:MA:49:LYS:HE3	2.16	0.44
3:C:103:G:C6	3:C:105:A:C6	3.05	0.44
4:D:90:U:H2'	4:D:91:G:O4'	2.17	0.44
7:G:56:ILE:HD13	7:G:76:VAL:CG2	2.48	0.44
7:G:305:ILE:HD12	7:G:305:ILE:N	2.32	0.44
8:H:299:ILE:HG23	8:H:300:ARG:O	2.18	0.44
8:H:330:TYR:CD1	8:H:333:VAL:HG11	2.52	0.44
9:I:11:ALA:O	9:I:14:SER:HB3	2.17	0.44
9:I:247:ILE:O	9:I:251:PRO:HD3	2.18	0.44
10:J:85:ILE:HA	37:KA:107:ILE:OXT	2.17	0.44
14:N:197:VAL:HG22	14:N:198:LYS:H	1.82	0.44
15:O:94:ARG:H	15:O:94:ARG:CD	2.26	0.44
17:Q:77:LEU:N	17:Q:77:LEU:HD23	2.32	0.44
17:Q:99:HIS:CE1	17:Q:100:ARG:HB3	2.53	0.44
19:S:38:ARG:HH11	19:S:38:ARG:HG3	1.83	0.44
19:S:177:GLY:O	19:S:184:LYS:HE2	2.17	0.44
35:IA:55:LEU:HD11	35:IA:59:ILE:HD11	1.99	0.44
36:JA:105:ARG:HD3	36:JA:124:GLY:O	2.18	0.44
38:LA:5:VAL:HG22	38:LA:6:THR:O	2.17	0.44
40:NA:77:LEU:HD11	40:NA:86:LYS:HE3	1.99	0.44
45:SA:17:ARG:HA	45:SA:20:VAL:HG23	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:WA:178:VAL:HG21	49:WA:213:SER:HB3	1.99	0.44
49:WA:224:ASN:HD22	49:WA:231:MET:HG2	1.82	0.44
52:ZA:106:ASP:C	52:ZA:108:ASN:H	2.26	0.44
52:ZA:218:ILE:HD12	52:ZA:218:ILE:C	2.42	0.44
53:AB:43:PRO:HD3	70:RB:108:ILE:HG21	1.99	0.44
54:BB:193:GLY:O	54:BB:210:ILE:HG22	2.17	0.44
54:BB:194:THR:O	54:BB:195:ILE:CG1	2.60	0.44
55:CB:117:THR:O	55:CB:121:ILE:HG13	2.18	0.44
56:DB:186:ARG:O	56:DB:189:HIS:HB3	2.18	0.44
57:EB:86:GLN:HG2	57:EB:87:ASP:N	2.33	0.44
58:FB:157:GLU:O	58:FB:160:PHE:HB2	2.17	0.44
68:PB:76:PRO:C	68:PB:78:HIS:H	2.25	0.44
71:SB:3:ASN:OD1	71:SB:9:VAL:HB	2.18	0.44
79:AC:40:ARG:O	79:AC:44:ARG:HG3	2.17	0.44
82:DC:212:GLY:HA2	82:DC:218:TRP:CH2	2.51	0.44
82:DC:719:LEU:HD21	82:DC:835:TRP:CD2	2.52	0.44
83:EC:6948:U:O2'	83:EC:6949:G:O5'	2.36	0.44
1:A:788:A:C5	54:BB:19:LEU:HD22	2.52	0.44
1:A:924:A:H2'	1:A:925:G:C8	2.53	0.44
1:A:947:U:H2'	1:A:948:G:C8	2.52	0.44
1:A:1158:C:H1'	1:A:1161:C:H41	1.82	0.44
1:A:1489:U:H6	1:A:1492:A:C2	2.35	0.44
1:A:1538:U:H3'	1:A:1538:U:OP2	2.18	0.44
2:B:707:U:C3'	2:B:708:G:H5"	2.48	0.44
2:B:708:G:H2'	2:B:710:A:N7	2.33	0.44
2:B:946:U:H2'	2:B:947:G:H8	1.82	0.44
2:B:980:A:H8	2:B:981:U:C1'	2.30	0.44
2:B:1064:A:N7	2:B:1096:U:O2	2.51	0.44
2:B:1324:U:H2'	2:B:1325:U:O4'	2.17	0.44
2:B:1810:A:H2'	2:B:1811:G:O4'	2.17	0.44
2:B:2102:U:H2'	2:B:2103:U:H6	1.78	0.44
2:B:2110:G:O2'	2:B:2111:G:H5"	2.17	0.44
2:B:2182:A:C2'	2:B:2183:A:H5'	2.48	0.44
2:B:2274:U:O2'	2:B:2275:A:H5'	2.18	0.44
2:B:2338:C:H3'	2:B:2339:C:H2'	1.99	0.44
2:B:2402:A:N6	8:H:73:ARG:HH22	2.15	0.44
2:B:2549:G:C5	12:L:33:ASN:HA	2.52	0.44
2:B:2948:C:H2'	2:B:2949:U:O4'	2.18	0.44
2:B:2958:A:H2'	2:B:2959:C:H6	1.82	0.44
4:D:91:G:H2'	4:D:92:A:C8	2.52	0.44
6:F:62:VAL:HB	6:F:73:GLU:HG2	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:209:HIS:CG	6:F:210:PRO:HD2	2.51	0.44
8:H:120:TYR:CD1	8:H:120:TYR:C	2.96	0.44
9:I:40:HIS:CD2	9:I:42:ALA:HB3	2.52	0.44
12:L:146:LYS:HB2	12:L:173:MET:CE	2.43	0.44
17:Q:189:GLU:CA	17:Q:192:GLU:HG2	2.44	0.44
21:U:51:VAL:HG11	21:U:58:ILE:HG12	2.00	0.44
22:V:52:LEU:HD23	22:V:84:VAL:CG1	2.48	0.44
22:V:97:PRO:O	22:V:117:ALA:HB1	2.18	0.44
22:V:183:GLY:O	22:V:184:PHE:HB3	2.18	0.44
24:X:42:TRP:O	24:X:43:TYR:C	2.61	0.44
26:Z:43:VAL:O	26:Z:45:GLY:N	2.50	0.44
30:DA:118:LEU:HA	30:DA:121:ARG:NH1	2.16	0.44
31:EA:54:THR:HG23	31:EA:57:HIS:H	1.82	0.44
31:EA:54:THR:HG22	31:EA:57:HIS:CG	2.53	0.44
34:HA:84:LEU:O	34:HA:85:PHE:O	2.35	0.44
35:IA:55:LEU:HD13	35:IA:55:LEU:C	2.43	0.44
45:SA:21:ARG:O	45:SA:25:LYS:HB3	2.17	0.44
47:UA:83:ILE:O	47:UA:87:ARG:HB2	2.18	0.44
48:VA:180:PRO:C	48:VA:182:THR:N	2.73	0.44
49:WA:34:LEU:HD22	49:WA:73:LEU:HG	2.00	0.44
49:WA:255:ALA:HB2	49:WA:292:LEU:HD22	1.98	0.44
52:ZA:156:THR:HB	72:TB:95:PRO:HB3	1.99	0.44
53:AB:72:LEU:HD23	60:HB:20:VAL:HG13	2.00	0.44
54:BB:52:LEU:HD13	54:BB:54:TYR:CE2	2.53	0.44
54:BB:89:VAL:HG13	54:BB:114:ILE:CD1	2.44	0.44
54:BB:191:ARG:NH2	54:BB:218:PHE:CD2	2.85	0.44
69:QB:85:SER:HB2	69:QB:91:TYR:CE2	2.53	0.44
71:SB:28:ASP:OD2	71:SB:30:ALA:HB3	2.18	0.44
71:SB:60:ARG:HA	71:SB:65:SER:HB2	1.98	0.44
78:ZB:34:GLU:O	78:ZB:35:ASP:HB3	2.17	0.44
82:DC:438:MET:HB2	82:DC:441:PHE:HB2	2.00	0.44
1:A:213:A:H2'	1:A:214:G:O4'	2.18	0.44
1:A:1402:G:H5'	67:OB:4:VAL:HG22	2.00	0.44
1:A:1404:C:H2'	1:A:1405:G:C8	2.53	0.44
1:A:1419:G:H4'	79:AC:54:LYS:HE3	2.00	0.44
1:A:1638:G:OP2	83:EC:6952:U:C5	2.71	0.44
1:A:1721:A:H2'	1:A:1722:A:C8	2.52	0.44
2:B:30:G:H4'	19:S:172:ARG:HG2	2.00	0.44
2:B:423:A:H2'	2:B:424:G:O4'	2.18	0.44
2:B:504:A:H2'	2:B:505:G:C8	2.52	0.44
2:B:514:G:H2'	2:B:515:C:O4'	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:692:A:H2'	2:B:693:A:O4'	2.17	0.44
2:B:709:A:H1'	2:B:2787:G:O2'	2.18	0.44
2:B:1096:U:H6	2:B:1096:U:O5'	2.00	0.44
2:B:1434:G:O2'	2:B:1435:A:H5'	2.18	0.44
2:B:1503:A:O2'	2:B:1504:A:H5'	2.18	0.44
2:B:1504:A:N1	2:B:1515:A:O2'	2.45	0.44
2:B:1705:U:H3'	2:B:1705:U:H6	1.83	0.44
2:B:2685:C:O2'	2:B:2686:A:H5'	2.17	0.44
2:B:3151:U:H4'	2:B:3294:A:O4'	2.17	0.44
6:F:140:ASN:C	6:F:142:ASP:H	2.25	0.44
6:F:178:PRO:HD2	47:UA:26:VAL:HG22	1.99	0.44
7:G:35:ASP:OD1	7:G:184:ASN:HA	2.18	0.44
10:J:60:ASP:O	10:J:61:ASN:HB2	2.18	0.44
11:K:240:VAL:C	11:K:242:SER:N	2.75	0.44
13:M:65:VAL:C	13:M:67:ALA:H	2.25	0.44
13:M:189:GLU:O	13:M:190:ASP:HB3	2.18	0.44
14:N:24:ARG:O	14:N:26:VAL:HG13	2.18	0.44
14:N:75:TYR:O	14:N:79:VAL:HG23	2.18	0.44
16:P:121:PHE:CD1	16:P:128:VAL:HG21	2.53	0.44
17:Q:47:ALA:CB	17:Q:48:PRO:CD	2.78	0.44
19:S:172:ARG:NH2	19:S:174:ILE:HD12	2.32	0.44
22:V:69:ARG:CG	22:V:69:ARG:NH1	2.78	0.44
23:W:88:ARG:HG2	23:W:88:ARG:HH11	1.82	0.44
24:X:89:ASN:CG	25:Y:156:TYR:H	2.24	0.44
25:Y:28:SER:HA	25:Y:31:LEU:CD1	2.47	0.44
27:AA:87:ARG:O	27:AA:88:ARG:C	2.61	0.44
29:CA:63:ILE:HG23	29:CA:63:ILE:O	2.17	0.44
30:DA:41:ALA:C	30:DA:43:TYR:H	2.26	0.44
43:QA:28:ARG:HA	43:QA:33:ASN:OD1	2.16	0.44
52:ZA:36:VAL:H	52:ZA:46:LYS:HE3	1.81	0.44
52:ZA:102:VAL:HG11	52:ZA:129:ILE:HA	2.00	0.44
53:AB:116:ARG:HD3	83:EC:6957:A:O3'	2.18	0.44
54:BB:64:ILE:CG1	74:VB:18:LEU:HD21	2.47	0.44
55:CB:33:VAL:HA	55:CB:45:LYS:HE2	2.00	0.44
55:CB:63:GLN:CB	55:CB:88:PRO:HA	2.43	0.44
56:DB:23:ARG:NH2	56:DB:23:ARG:HG2	2.32	0.44
68:PB:53:ASP:CB	68:PB:56:LYS:HB2	2.47	0.44
69:QB:131:ASP:O	69:QB:134:ARG:HB2	2.18	0.44
71:SB:1:MET:O	71:SB:9:VAL:HG12	2.17	0.44
72:TB:77:PRO:HD2	72:TB:79:PHE:CZ	2.53	0.44
74:VB:47:VAL:HG23	74:VB:48:TYR:CE2	2.53	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:121:VAL:HB	82:DC:453:ILE:HG12	1.99	0.44
82:DC:165:LEU:HD11	82:DC:289:MET:HE2	1.99	0.44
82:DC:397:PHE:CD1	82:DC:437:MET:HE2	2.51	0.44
83:EC:6768:U:H2'	83:EC:6769:A:O4'	2.18	0.44
1:A:811:A:H4'	1:A:814:A:C8	2.53	0.44
1:A:1332:C:H4'	53:AB:203:PRO:HG2	2.00	0.44
1:A:1342:C:H5"	49:WA:102:ARG:NH1	2.32	0.44
2:B:45:A:N3	2:B:95:A:H2	2.16	0.44
2:B:681:U:OP1	8:H:115:HIS:HB2	2.17	0.44
2:B:1220:U:H4'	2:B:1222:G:C1'	2.41	0.44
2:B:1672:U:O2'	2:B:1673:G:H5'	2.17	0.44
2:B:2180:G:H2'	2:B:2181:C:C6	2.53	0.44
2:B:3355:U:C2'	2:B:3356:G:H5"	2.47	0.44
3:C:41:A:HO2'	41:OA:59:THR:HG22	1.83	0.44
8:H:11:LEU:HD21	8:H:156:LEU:CA	2.48	0.44
8:H:191:LYS:C	8:H:193:LYS:N	2.73	0.44
8:H:320:ASN:HB3	8:H:323:VAL:HG12	1.99	0.44
8:H:358:THR:HG21	25:Y:148:PRO:HD2	2.00	0.44
9:I:30:TYR:CD2	9:I:33:ARG:HD3	2.53	0.44
9:I:155:THR:HB	9:I:179:ARG:HD3	1.99	0.44
13:M:132:VAL:HG22	13:M:134:ILE:HD11	2.00	0.44
18:R:15:VAL:HG12	18:R:65:LEU:HD11	1.99	0.44
19:S:67:ARG:O	19:S:98:LEU:HD21	2.17	0.44
19:S:73:ARG:NE	19:S:92:LEU:HD21	2.32	0.44
22:V:127:LEU:HD13	22:V:127:LEU:C	2.43	0.44
30:DA:41:ALA:O	30:DA:125:LYS:HE3	2.17	0.44
31:EA:6:LYS:O	31:EA:7:ALA:O	2.36	0.44
31:EA:11:ALA:HB1	31:EA:80:LEU:HD22	2.00	0.44
41:OA:27:PHE:HA	41:OA:34:CYS:HA	2.00	0.44
42:PA:20:VAL:O	42:PA:20:VAL:HG12	2.17	0.44
49:WA:61:PHE:CE1	49:WA:97:GLY:HA2	2.53	0.44
52:ZA:111:VAL:HG12	52:ZA:190:LEU:O	2.17	0.44
53:AB:31:GLU:O	53:AB:54:ARG:HD2	2.18	0.44
54:BB:234:PRO:C	54:BB:236:ILE:N	2.76	0.44
61:IB:54:ILE:HG22	61:IB:55:ASP:N	2.33	0.44
66:NB:64:ASP:O	66:NB:65:ILE:HD13	2.18	0.44
68:PB:83:ALA:O	68:PB:86:LEU:HB2	2.18	0.44
72:TB:29:PRO:O	72:TB:30:SER:HB3	2.17	0.44
73:UB:62:LYS:CE	73:UB:118:PRO:HB3	2.48	0.44
73:UB:88:PRO:HD2	73:UB:124:VAL:HB	1.98	0.44
78:ZB:14:LYS:HD2	78:ZB:50:GLU:OE2	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:352:ARG:HB3	82:DC:356:LEU:HD21	1.99	0.44
82:DC:570:GLU:HA	82:DC:590:ALA:O	2.18	0.44
82:DC:574:THR:HA	82:DC:589:LYS:HG3	2.00	0.44
82:DC:601:ILE:HG21	82:DC:643:PRO:HA	1.99	0.44
82:DC:693:LEU:CD2	82:DC:700:ARG:HD3	2.37	0.44
1:A:200:A:H2'	1:A:201:G:O4'	2.17	0.44
1:A:260:U:O4	58:FB:42:ARG:HA	2.17	0.44
1:A:358:U:O2'	1:A:360:A:H5"	2.18	0.44
1:A:446:A:H5"	54:BB:57:ASN:HB3	2.00	0.44
1:A:966:A:H2'	1:A:967:A:C8	2.53	0.44
1:A:1281:G:O2'	1:A:1282:U:H5'	2.17	0.44
1:A:1345:A:O2'	1:A:1346:A:H5"	2.18	0.44
1:A:1419:G:H4'	79:AC:54:LYS:CE	2.48	0.44
1:A:1483:A:C2	1:A:1607:G:H1'	2.53	0.44
1:A:1644:C:H1'	2:B:2255:A:C2	2.53	0.44
2:B:241:G:O2'	2:B:242:C:H5'	2.17	0.44
2:B:271:C:O2	40:NA:82:ARG:NH2	2.51	0.44
2:B:1007:U:H2'	2:B:1008:U:C5	2.53	0.44
2:B:1212:A:H2'	2:B:1213:G:O4'	2.18	0.44
2:B:1359:C:O2'	2:B:1360:C:H5'	2.17	0.44
2:B:1431:G:N7	32:FA:9:ARG:NH2	2.66	0.44
2:B:2202:C:H2'	2:B:2203:U:O4'	2.18	0.44
2:B:2481:G:N7	5:E:101:LYS:HD3	2.33	0.44
2:B:2909:U:H2'	2:B:2910:A:C5'	2.47	0.44
2:B:3351:U:H2'	2:B:3352:U:H5"	1.99	0.44
2:B:3363:U:O2'	2:B:3364:C:H5'	2.17	0.44
4:D:39:C:N3	15:O:70:THR:HG23	2.33	0.44
5:E:4:ILE:HD13	5:E:4:ILE:N	2.33	0.44
6:F:179:LEU:HD23	6:F:185:ALA:HB2	2.00	0.44
7:G:43:LEU:HD12	7:G:183:LEU:HD23	1.99	0.44
7:G:89:VAL:HG22	7:G:90:VAL:N	2.32	0.44
7:G:368:GLY:H	28:BA:17:ARG:HH22	1.66	0.44
8:H:181:VAL:HG11	8:H:224:GLY:CA	2.48	0.44
9:I:144:VAL:HG13	9:I:173:VAL:HG22	2.00	0.44
12:L:109:LEU:HA	12:L:112:GLU:CG	2.47	0.44
12:L:225:LYS:C	12:L:229:VAL:HG23	2.43	0.44
15:O:40:LEU:O	15:O:40:LEU:HD13	2.17	0.44
17:Q:124:ILE:HD11	39:MA:120:ALA:N	2.33	0.44
17:Q:144:THR:HG21	39:MA:118:ILE:HG21	1.99	0.44
20:T:37:ARG:HH11	20:T:161:LYS:HZ1	1.64	0.44
24:X:90:MET:HE1	24:X:92:LYS:HE2	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:11:THR:CA	25:Y:14:MET:HB3	2.48	0.44
27:AA:24:ASN:O	27:AA:99:ALA:HA	2.18	0.44
30:DA:85:VAL:O	30:DA:85:VAL:HG12	2.18	0.44
31:EA:25:ILE:HA	31:EA:43:VAL:HB	2.00	0.44
35:IA:27:LYS:C	35:IA:30:PRO:HD2	2.43	0.44
48:VA:16:ARG:HG3	48:VA:64:ARG:NH1	2.33	0.44
49:WA:118:LYS:O	49:WA:119:ALA:HB3	2.18	0.44
50:XA:73:VAL:HB	50:XA:95:ALA:HB1	2.00	0.44
52:ZA:148:LEU:HA	71:SB:4:ASP:HB2	1.99	0.44
53:AB:71:LEU:HB2	60:HB:20:VAL:HG21	2.00	0.44
54:BB:51:ARG:HG2	54:BB:51:ARG:NH1	2.33	0.44
54:BB:156:VAL:O	54:BB:157:ASN:HB2	2.18	0.44
58:FB:76:THR:HG22	58:FB:108:PRO:HG2	2.00	0.44
58:FB:117:TYR:CD1	58:FB:150:ALA:HB2	2.53	0.44
58:FB:199:LYS:NZ	61:IB:11:ARG:HH12	2.16	0.44
60:HB:45:ALA:O	60:HB:48:SER:HB3	2.18	0.44
60:HB:59:PHE:CE2	60:HB:62:GLN:HA	2.52	0.44
61:IB:97:TYR:CD2	61:IB:97:TYR:N	2.86	0.44
66:NB:97:VAL:HG12	66:NB:98:ASP:N	2.33	0.44
66:NB:106:LYS:NZ	66:NB:106:LYS:HB2	2.33	0.44
69:QB:10:ALA:HB3	69:QB:13:ASP:OD2	2.17	0.44
69:QB:37:VAL:O	69:QB:46:PRO:HB3	2.18	0.44
70:RB:50:LEU:CD1	70:RB:93:LEU:HD22	2.48	0.44
72:TB:104:LEU:O	72:TB:104:LEU:HD22	2.18	0.44
73:UB:48:HIS:HB3	73:UB:104:LEU:O	2.18	0.44
82:DC:91:GLN:HE21	82:DC:347:THR:HB	1.83	0.44
82:DC:221:THR:HG23	82:DC:333:ALA:HB1	2.00	0.44
82:DC:261:ASP:O	82:DC:269:LEU:HG	2.18	0.44
82:DC:365:ASN:ND2	82:DC:475:ALA:HB2	2.33	0.44
82:DC:421:GLY:O	82:DC:422:LYS:HG3	2.18	0.44
82:DC:426:LEU:HG	82:DC:428:ILE:CD1	2.46	0.44
82:DC:676:ILE:HG22	82:DC:677:PHE:HD2	1.83	0.44
1:A:287:G:N2	1:A:288:A:H1'	2.32	0.43
1:A:499:U:H2'	1:A:500:C:O5'	2.17	0.43
1:A:531:C:C3'	1:A:532:U:H5"	2.48	0.43
1:A:803:A:C2	57:EB:104:ARG:HG3	2.53	0.43
1:A:1185:U:O5'	1:A:1186:U:H5"	2.17	0.43
1:A:1196:A:H1'	1:A:1602:C:O2'	2.17	0.43
1:A:1241:G:C5'	65:MB:77:ARG:HB2	2.48	0.43
1:A:1281:G:O2'	70:RB:75:GLY:HA2	2.18	0.43
1:A:1339:C:O2	1:A:1339:C:H2'	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1479:A:H4'	69:QB:15:ILE:HD13	2.00	0.43
1:A:1572:G:H5"	1:A:1574:G:H21	1.82	0.43
1:A:1652:C:H2'	1:A:1653:C:H6	1.80	0.43
2:B:361:A:C2	2:B:928:C:O4'	2.71	0.43
2:B:524:U:OP1	18:R:77:ARG:NH2	2.44	0.43
2:B:784:A:H1'	22:V:65:SER:CB	2.48	0.43
2:B:945:C:O2'	2:B:1406:A:H1'	2.18	0.43
2:B:971:G:H2'	2:B:972:A:C8	2.52	0.43
2:B:1230:G:C4'	48:VA:33:VAL:HG13	2.47	0.43
2:B:1306:G:C6	20:T:62:THR:HA	2.53	0.43
2:B:1357:G:H2'	2:B:1358:C:C6	2.52	0.43
2:B:1629:U:O2'	2:B:1630:U:H4'	2.18	0.43
2:B:2186:U:H2'	2:B:2187:G:O4'	2.16	0.43
2:B:2960:C:O2'	2:B:2961:G:H5'	2.17	0.43
2:B:3010:U:HO2'	2:B:3011:A:H2'	1.83	0.43
2:B:3062:G:H2'	2:B:3063:C:H5'	1.99	0.43
7:G:215:ILE:HG23	7:G:282:ILE:HD11	1.98	0.43
11:K:44:ILE:CG2	11:K:48:ASN:HD21	2.30	0.43
11:K:158:LYS:O	11:K:159:GLN:C	2.61	0.43
12:L:150:LEU:HD13	12:L:150:LEU:C	2.42	0.43
17:Q:6:ASN:HD22	22:V:164:ARG:NH1	2.15	0.43
17:Q:77:LEU:HD21	17:Q:99:HIS:HA	1.99	0.43
18:R:77:ARG:O	18:R:78:THR:C	2.59	0.43
19:S:38:ARG:C	19:S:38:ARG:HD3	2.43	0.43
19:S:50:ARG:HH11	19:S:50:ARG:CB	2.31	0.43
20:T:80:PHE:HD2	20:T:104:VAL:HG11	1.83	0.43
29:CA:138:ARG:HG2	29:CA:138:ARG:NH2	2.31	0.43
30:DA:27:ARG:HG2	30:DA:78:PHE:CE1	2.53	0.43
30:DA:27:ARG:NH1	30:DA:76:LEU:HA	2.32	0.43
30:DA:95:VAL:HG13	30:DA:96:PRO:HD2	2.00	0.43
36:JA:82:LEU:C	36:JA:82:LEU:HD13	2.43	0.43
37:KA:32:ILE:HB	37:KA:35:VAL:CG2	2.48	0.43
48:VA:19:LEU:HG	48:VA:88:PHE:HZ	1.82	0.43
48:VA:101:VAL:HG13	48:VA:186:THR:HG21	2.00	0.43
50:XA:93:THR:HG22	50:XA:181:VAL:HG21	1.99	0.43
54:BB:11:ARG:HA	54:BB:28:ALA:HB2	2.00	0.43
54:BB:15:PRO:HB3	54:BB:39:ARG:HH12	1.82	0.43
54:BB:162:ILE:HG22	54:BB:163:ASP:H	1.83	0.43
54:BB:191:ARG:NH1	54:BB:245:LYS:HD3	2.33	0.43
55:CB:35:GLN:O	55:CB:39:GLU:HB2	2.18	0.43
55:CB:77:TYR:CE2	55:CB:87:CYS:HB2	2.53	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:73:ILE:HD12	56:DB:75:LEU:HD21	1.98	0.43
56:DB:190:GLN:O	56:DB:193:LEU:HB2	2.18	0.43
57:EB:139:ARG:HB3	72:TB:51:GLU:CG	2.48	0.43
59:GB:105:LEU:O	59:GB:111:THR:HG21	2.18	0.43
63:KB:4:MET:HG3	63:KB:5:HIS:N	2.27	0.43
63:KB:5:HIS:O	63:KB:6:SER:HB3	2.18	0.43
65:MB:96:ILE:HG21	65:MB:116:LEU:O	2.18	0.43
69:QB:9:VAL:HG13	69:QB:139:THR:HG21	2.00	0.43
69:QB:40:SER:CB	69:QB:96:ALA:HA	2.48	0.43
69:QB:52:GLY:HA2	69:QB:55:TYR:CD2	2.53	0.43
70:RB:26:LEU:HD23	70:RB:114:VAL:CG2	2.48	0.43
74:VB:67:GLY:O	74:VB:68:LYS:HB2	2.18	0.43
78:ZB:41:VAL:CG1	78:ZB:64:ARG:HD3	2.48	0.43
79:AC:22:ARG:HH11	79:AC:38:ILE:HD11	1.83	0.43
82:DC:185:VAL:O	82:DC:189:VAL:HG23	2.17	0.43
82:DC:577:SER:O	82:DC:585:ARG:HA	2.19	0.43
1:A:868:G:H1'	63:KB:87:ASP:HB3	2.00	0.43
1:A:1254:U:H2'	1:A:1255:G:O4'	2.18	0.43
1:A:1282:U:H2'	1:A:1283:U:C6	2.53	0.43
1:A:1323:C:H5'	50:XA:103:THR:HG23	1.99	0.43
1:A:1450:U:O5'	1:A:1450:U:H6	2.01	0.43
1:A:1595:U:H5	1:A:1596:C:C5	2.37	0.43
2:B:365:A:H2'	2:B:366:A:O4'	2.18	0.43
2:B:550:A:O2'	2:B:551:A:H5'	2.18	0.43
2:B:683:U:H2'	2:B:684:G:O4'	2.17	0.43
2:B:724:U:C2'	2:B:725:G:H5'	2.48	0.43
2:B:1018:G:H1'	83:EC:6925:C:H42	1.81	0.43
2:B:1360:C:H1'	8:H:307:GLN:HG3	2.00	0.43
2:B:1553:U:H4'	2:B:1554:U:H5'	1.99	0.43
2:B:1764:U:O5'	2:B:1765:U:H5"	2.18	0.43
2:B:1789:G:O2'	2:B:1790:G:H5'	2.18	0.43
2:B:1838:G:H5"	2:B:1839:A:O4'	2.18	0.43
2:B:2426:U:H2'	2:B:2427:U:C6	2.53	0.43
2:B:2624:G:O2'	2:B:2626:A:N6	2.52	0.43
2:B:3052:G:H2'	2:B:3053:G:H8	1.82	0.43
2:B:3192:U:C2	2:B:3193:C:C5	3.06	0.43
4:D:59:U:H2'	4:D:60:G:C8	2.52	0.43
5:E:4:ILE:HD13	5:E:4:ILE:H	1.83	0.43
6:F:114:SER:C	6:F:116:VAL:N	2.74	0.43
6:F:218:HIS:HD1	6:F:218:HIS:C	2.25	0.43
8:H:82:THR:HG22	8:H:85:SER:HB3	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:106:TRP:CE3	17:Q:22:VAL:HG11	2.53	0.43
8:H:209:TYR:HA	8:H:251:THR:OG1	2.19	0.43
9:I:136:GLU:O	9:I:137:ASP:HB3	2.18	0.43
9:I:258:LYS:O	9:I:259:LYS:CB	2.61	0.43
9:I:259:LYS:O	9:I:260:PHE:CB	2.66	0.43
9:I:284:ALA:O	9:I:288:ALA:HB2	2.17	0.43
12:L:54:GLU:O	12:L:58:VAL:HG23	2.18	0.43
14:N:152:LEU:C	14:N:154:ARG:N	2.75	0.43
18:R:109:ARG:CZ	20:T:199:TYR:CE1	3.00	0.43
21:U:94:LEU:C	21:U:94:LEU:HD23	2.43	0.43
23:W:20:ARG:NH1	23:W:21:LYS:HE2	2.32	0.43
23:W:23:TRP:HB3	23:W:51:VAL:CG2	2.43	0.43
30:DA:17:LYS:C	30:DA:19:TYR:H	2.27	0.43
31:EA:46:ILE:HD12	31:EA:47:GLU:N	2.33	0.43
31:EA:46:ILE:HD12	31:EA:47:GLU:C	2.43	0.43
31:EA:99:GLU:HG3	31:EA:100:THR:N	2.33	0.43
32:FA:74:ASN:HB3	32:FA:113:LEU:HB2	2.00	0.43
38:LA:26:PRO:C	38:LA:28:GLY:H	2.26	0.43
39:MA:34:GLN:HG2	39:MA:38:ARG:HH22	1.84	0.43
39:MA:54:VAL:HG12	39:MA:58:ILE:HD11	2.00	0.43
52:ZA:218:ILE:HA	52:ZA:221:THR:HG23	1.99	0.43
54:BB:15:PRO:HB2	54:BB:17:HIS:CD2	2.53	0.43
54:BB:180:LEU:CA	54:BB:194:THR:HA	2.48	0.43
55:CB:118:LEU:HD22	55:CB:129:PRO:HB2	2.00	0.43
56:DB:14:LYS:HE3	56:DB:16:PHE:CE1	2.52	0.43
56:DB:31:ARG:H	56:DB:34:GLN:HE22	1.64	0.43
61:IB:5:LEU:O	61:IB:7:VAL:N	2.51	0.43
66:NB:51:PRO:HG2	66:NB:52:LEU:HD23	2.00	0.43
70:RB:40:ASN:O	70:RB:44:ASN:HB2	2.17	0.43
72:TB:96:ALA:C	72:TB:98:GLN:H	2.26	0.43
73:UB:4:GLY:O	73:UB:5:LYS:C	2.62	0.43
79:AC:40:ARG:HH11	79:AC:40:ARG:HG3	1.82	0.43
82:DC:25:ILE:HG23	82:DC:142:VAL:CG1	2.48	0.43
82:DC:290:ASN:O	82:DC:291:PHE:HB2	2.18	0.43
82:DC:381:TYR:HB3	82:DC:401:PHE:HE2	1.82	0.43
83:EC:6888:A:OP1	83:EC:6936:G:H5"	2.17	0.43
1:A:332:U:OP1	58:FB:31:ARG:HB2	2.18	0.43
1:A:336:G:H2'	1:A:338:C:H5	1.83	0.43
1:A:830:U:O2	1:A:830:U:O4'	2.36	0.43
1:A:1345:A:H1'	70:RB:56:VAL:HG21	2.00	0.43
1:A:1629:G:H5"	1:A:1794:A:OP2	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1660:A:H5'	27:AA:67:PRO:HG2	1.99	0.43
2:B:109:A:H8	2:B:109:A:OP1	2.01	0.43
2:B:298:U:OP2	40:NA:33:ALA:HB2	2.18	0.43
2:B:422:A:C2	2:B:2363:A:H4'	2.54	0.43
2:B:451:U:H2'	2:B:452:G:H8	1.82	0.43
2:B:850:U:H2'	2:B:851:C:H6	1.82	0.43
2:B:1440:G:O2'	2:B:1441:G:H5'	2.18	0.43
2:B:1714:A:N6	2:B:1730:G:H1'	2.33	0.43
2:B:2550:U:O2	2:B:2550:U:O4'	2.36	0.43
2:B:2726:C:O2	2:B:2726:C:O5'	2.35	0.43
2:B:2746:A:H5"	9:I:178:ASN:HD21	1.83	0.43
2:B:2756:C:O4'	25:Y:49:GLN:HG2	2.18	0.43
2:B:2873:U:H5	2:B:2941:A:C2	2.36	0.43
2:B:3227:A:O2'	18:R:133:LYS:HE2	2.19	0.43
4:D:76:A:H3'	4:D:76:A:OP2	2.19	0.43
5:E:9:VAL:HB	5:E:36:VAL:O	2.19	0.43
7:G:171:LEU:CD2	7:G:333:LYS:HG2	2.49	0.43
10:J:3:ALA:O	10:J:4:GLN:HB2	2.18	0.43
11:K:85:PHE:CD1	11:K:240:VAL:HG21	2.54	0.43
11:K:147:LEU:O	11:K:148:VAL:C	2.61	0.43
11:K:235:PHE:CZ	24:X:33:ASN:HB2	2.54	0.43
12:L:122:LYS:C	12:L:124:ASP:H	2.25	0.43
14:N:100:ASN:O	14:N:102:MET:HE2	2.18	0.43
15:O:112:LEU:HD23	15:O:112:LEU:N	2.32	0.43
16:P:62:LEU:O	16:P:73:VAL:HG12	2.17	0.43
19:S:19:LEU:C	19:S:21:PHE:N	2.75	0.43
19:S:150:TRP:CZ3	19:S:151:ILE:HG12	2.53	0.43
20:T:84:LEU:HD23	20:T:84:LEU:O	2.18	0.43
25:Y:17:ARG:O	25:Y:18:ASP:CB	2.59	0.43
29:CA:64:GLU:O	29:CA:66:PRO:HD3	2.18	0.43
29:CA:75:LYS:HD2	29:CA:123:TYR:CE1	2.49	0.43
32:FA:3:SER:HA	32:FA:6:THR:OG1	2.18	0.43
34:HA:25:LEU:HD22	34:HA:87:VAL:HG11	2.00	0.43
37:KA:103:TYR:HA	37:KA:105:SER:N	2.33	0.43
39:MA:85:THR:CB	39:MA:88:LEU:HD12	2.48	0.43
42:PA:5:ILE:HG22	42:PA:6:THR:N	2.33	0.43
48:VA:97:LYS:CA	48:VA:100:ILE:HG12	2.47	0.43
49:WA:131:ILE:O	49:WA:144:LEU:HB2	2.18	0.43
49:WA:311:ARG:HG3	49:WA:311:ARG:HH11	1.82	0.43
52:ZA:139:ILE:N	52:ZA:139:ILE:HD12	2.32	0.43
54:BB:41:SER:HB2	54:BB:83:PRO:CA	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:BB:126:VAL:CG2	54:BB:155:LYS:O	2.63	0.43
55:CB:99:MET:O	55:CB:99:MET:HG3	2.18	0.43
55:CB:186:ASN:ND2	55:CB:188:LYS:HB2	2.33	0.43
57:EB:131:PHE:N	57:EB:132:PRO:HD2	2.33	0.43
57:EB:152:VAL:O	57:EB:183:PHE:HA	2.18	0.43
61:IB:99:ARG:NH1	73:UB:7:ARG:C	2.76	0.43
66:NB:39:VAL:HG12	66:NB:40:GLU:N	2.33	0.43
75:WB:76:ALA:O	75:WB:80:LEU:HG	2.18	0.43
82:DC:159:LYS:HD3	82:DC:162:ARG:HD2	2.00	0.43
82:DC:740:VAL:O	82:DC:743:ILE:CG2	2.66	0.43
1:A:54:C:C2	1:A:55:A:C8	3.07	0.43
1:A:152:U:C2'	1:A:153:G:H5"	2.47	0.43
1:A:241:U:H5'	56:DB:216:LEU:CD1	2.49	0.43
1:A:298:C:C5'	54:BB:38:LEU:HD23	2.47	0.43
1:A:397:A:H2'	1:A:398:G:H5'	1.99	0.43
1:A:522:U:C2'	1:A:523:G:H5'	2.48	0.43
1:A:1061:A:H3'	1:A:1062:A:C2	2.53	0.43
1:A:1336:A:O2'	66:NB:123:ARG:HG2	2.18	0.43
1:A:1345:A:C1'	70:RB:56:VAL:HG21	2.49	0.43
1:A:1553:G:H2'	1:A:1555:A:OP2	2.18	0.43
1:A:1573:A:H1'	1:A:1574:G:OP2	2.18	0.43
1:A:1680:G:N2	1:A:1720:G:H2'	2.33	0.43
2:B:207:U:H2'	2:B:208:C:H6	1.82	0.43
2:B:363:G:OP2	41:OA:56:ARG:NH2	2.51	0.43
2:B:589:A:N6	2:B:610:G:H1'	2.34	0.43
2:B:1120:A:H2'	2:B:1121:U:H6	1.82	0.43
2:B:1323:G:H4'	24:X:1:MET:CA	2.33	0.43
2:B:1334:U:H1'	11:K:208:SER:HB2	2.00	0.43
2:B:1560:G:H2'	2:B:1561:G:H8	1.83	0.43
2:B:1861:G:C5'	23:W:63:THR:HG21	2.48	0.43
2:B:1901:A:H2'	2:B:1902:G:H5'	2.00	0.43
2:B:2133:U:O4	2:B:2147:A:H2	2.01	0.43
2:B:2342:U:O2'	2:B:2343:C:H5'	2.19	0.43
2:B:2789:U:H2'	2:B:2790:A:C8	2.53	0.43
2:B:3218:A:H5'	2:B:3218:A:H8	1.83	0.43
4:D:26:C:H3'	4:D:27:A:H8	1.82	0.43
7:G:19:ARG:HG3	7:G:273:HIS:CE1	2.53	0.43
8:H:11:LEU:HD21	8:H:156:LEU:CB	2.48	0.43
8:H:209:TYR:C	8:H:254:ALA:HB2	2.44	0.43
9:I:34:LYS:C	9:I:36:LEU:H	2.26	0.43
9:I:159:VAL:C	9:I:161:GLY:N	2.75	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:51:HIS:HB3	14:N:134:ILE:HG23	2.00	0.43
14:N:75:TYR:CD2	14:N:79:VAL:HG21	2.53	0.43
16:P:102:GLY:HA3	16:P:140:GLY:N	2.32	0.43
17:Q:48:PRO:HD2	39:MA:115:LYS:HD3	1.99	0.43
17:Q:163:GLY:HA2	32:FA:139:ARG:NH2	2.34	0.43
19:S:46:ASP:HB2	19:S:50:ARG:NH2	2.33	0.43
21:U:36:ILE:HD11	21:U:44:ALA:CB	2.45	0.43
22:V:11:LYS:C	22:V:13:SER:H	2.26	0.43
23:W:147:ALA:O	23:W:151:ARG:HG3	2.17	0.43
29:CA:62:VAL:HG12	29:CA:63:ILE:N	2.32	0.43
31:EA:120:GLU:C	31:EA:122:HIS:N	2.76	0.43
32:FA:32:ARG:O	32:FA:35:ALA:HB2	2.19	0.43
32:FA:55:LYS:HZ1	46:TA:42:ARG:NH2	2.16	0.43
48:VA:108:PRO:O	48:VA:108:PRO:HG2	2.17	0.43
49:WA:91:LEU:HD23	49:WA:100:TYR:CB	2.48	0.43
49:WA:156:VAL:CG1	49:WA:157:VAL:H	2.27	0.43
53:AB:132:LYS:HD3	53:AB:191:ASP:OD2	2.18	0.43
56:DB:3:LEU:O	56:DB:15:THR:HA	2.18	0.43
56:DB:23:ARG:HG2	56:DB:23:ARG:HH21	1.82	0.43
57:EB:46:ILE:HD12	57:EB:60:ILE:HG12	2.00	0.43
57:EB:67:LEU:HD21	57:EB:94:ALA:HB2	1.99	0.43
60:HB:77:ARG:HG3	60:HB:82:LEU:O	2.18	0.43
66:NB:109:PHE:CB	66:NB:117:LEU:HD21	2.49	0.43
68:PB:48:LYS:NZ	69:QB:35:ASP:O	2.48	0.43
72:TB:38:LEU:HA	72:TB:41:MET:HG3	2.01	0.43
73:UB:137:LYS:O	73:UB:139:LYS:N	2.51	0.43
74:VB:13:ILE:HD12	74:VB:13:ILE:N	2.33	0.43
82:DC:182:VAL:HG12	82:DC:186:ASN:ND2	2.33	0.43
82:DC:344:SER:O	82:DC:345:PRO:C	2.60	0.43
1:A:253:A:O2'	1:A:254:A:H5'	2.19	0.43
1:A:770:A:H3'	1:A:771:A:C5'	2.48	0.43
1:A:889:U:C2'	1:A:890:C:H4'	2.41	0.43
1:A:1392:U:H2'	1:A:1393:C:H6	1.84	0.43
2:B:107:A:O2'	2:B:324:A:N3	2.46	0.43
2:B:415:G:O2'	2:B:416:A:H5'	2.18	0.43
2:B:900:G:H2'	2:B:901:G:C8	2.53	0.43
2:B:907:G:C5	2:B:926:A:C8	3.07	0.43
2:B:1306:G:H4'	20:T:59:ARG:O	2.18	0.43
2:B:1388:U:H1'	36:JA:99:ASN:HD22	1.84	0.43
2:B:1723:A:OP1	23:W:128:LYS:HE3	2.18	0.43
2:B:1941:C:H2'	2:B:1942:U:C6	2.52	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2181:C:H5"	6:F:193:ARG:CZ	2.48	0.43
2:B:2227:C:H2'	2:B:2228:A:H8	1.83	0.43
2:B:2340:U:OP1	7:G:236:LYS:HD3	2.19	0.43
2:B:2470:C:H6	2:B:2471:U:H5	1.66	0.43
2:B:2893:C:H2'	2:B:2894:C:O4'	2.19	0.43
2:B:3187:A:C2	24:X:171:PHE:HB3	2.54	0.43
2:B:3344:A:H2	2:B:3361:G:H21	1.64	0.43
3:C:24:G:O2'	3:C:25:G:H5'	2.18	0.43
3:C:152:G:H2'	3:C:153:U:O4'	2.18	0.43
4:D:10:C:N3	9:I:20:PHE:HB3	2.34	0.43
4:D:69:C:O2'	4:D:70:U:H5'	2.18	0.43
4:D:80:G:H2'	4:D:81:U:O4'	2.19	0.43
6:F:74:GLU:CD	6:F:74:GLU:N	2.76	0.43
6:F:82:VAL:HA	6:F:86:GLN:OE1	2.19	0.43
6:F:177:LYS:HA	6:F:178:PRO:HD3	1.88	0.43
8:H:84:ARG:O	8:H:87:GLN:HB2	2.18	0.43
10:J:30:LEU:CD2	10:J:30:LEU:N	2.81	0.43
10:J:65:ILE:O	10:J:76:LEU:HA	2.18	0.43
12:L:238:LEU:HD22	12:L:238:LEU:N	2.34	0.43
15:O:90:GLN:HG2	15:O:170:ASP:HB2	2.00	0.43
16:P:85:LEU:CD1	16:P:106:LEU:HD22	2.46	0.43
17:Q:58:VAL:HG12	17:Q:70:ARG:O	2.18	0.43
17:Q:92:THR:HG21	39:MA:111:PHE:CB	2.41	0.43
21:U:82:ARG:C	21:U:84:PRO:HD3	2.43	0.43
24:X:167:ARG:HA	24:X:168:PRO:HD2	1.71	0.43
25:Y:134:GLN:HB3	25:Y:135:PRO:HD2	2.01	0.43
27:AA:87:ARG:O	27:AA:89:ASP:N	2.51	0.43
31:EA:36:HIS:NE2	31:EA:74:VAL:HG11	2.33	0.43
35:IA:40:ALA:CB	35:IA:49:VAL:HG11	2.49	0.43
37:KA:91:ALA:C	37:KA:93:THR:H	2.25	0.43
38:LA:46:ASP:OD2	38:LA:80:ARG:HD2	2.18	0.43
39:MA:95:PHE:O	39:MA:99:GLN:HG2	2.18	0.43
41:OA:24:ARG:O	41:OA:25:ARG:CB	2.67	0.43
43:QA:21:ARG:HH12	43:QA:24:PRO:HG3	1.79	0.43
43:QA:49:MET:HG3	43:QA:51:ILE:H	1.84	0.43
47:UA:50:GLY:O	47:UA:51:ALA:HB3	2.19	0.43
52:ZA:226:THR:OG1	52:ZA:227:PRO:HD2	2.19	0.43
53:AB:209:ILE:HG22	67:OB:38:ILE:HG13	2.00	0.43
54:BB:30:ARG:HG2	54:BB:30:ARG:NH1	2.32	0.43
54:BB:86:PHE:CE1	54:BB:87:MET:HG2	2.54	0.43
57:EB:16:LEU:O	57:EB:19:GLN:HB2	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:FB:46:VAL:CG2	58:FB:54:LYS:HB3	2.48	0.43
60:HB:50:THR:HG21	60:HB:57:THR:OG1	2.18	0.43
61:IB:55:ASP:C	61:IB:57:LYS:N	2.76	0.43
69:QB:102:ARG:O	69:QB:106:GLN:HG3	2.18	0.43
73:UB:130:VAL:O	73:UB:131:SER:CB	2.65	0.43
77:YB:53:ALA:HB1	77:YB:62:ILE:HD12	2.00	0.43
80:BC:39:LEU:O	80:BC:40:TYR:C	2.61	0.43
1:A:92:A:C8	1:A:93:A:H2	2.37	0.43
1:A:106:U:H2'	1:A:107:C:O4'	2.18	0.43
1:A:250:C:C2'	1:A:251:A:H5'	2.49	0.43
1:A:328:A:OP2	61:IB:56:LYS:HE2	2.18	0.43
1:A:374:U:H2'	1:A:375:U:H6	1.83	0.43
1:A:1042:G:H22	1:A:1076:A:H2	1.65	0.43
1:A:1164:G:H2'	1:A:1165:G:C8	2.51	0.43
1:A:1265:G:H2'	1:A:1266:U:C6	2.53	0.43
1:A:1341:A:H2'	1:A:1342:C:H6	1.84	0.43
1:A:1506:G:H2'	1:A:1507:G:C8	2.54	0.43
2:B:31:C:H2'	2:B:32:U:C6	2.54	0.43
2:B:138:U:O2'	2:B:139:G:H5'	2.18	0.43
2:B:189:G:O2'	2:B:190:U:H4'	2.19	0.43
2:B:388:G:H2'	2:B:389:A:O4'	2.19	0.43
2:B:504:A:O2'	8:H:315:LYS:HE2	2.18	0.43
2:B:759:U:C2'	2:B:760:G:H5'	2.49	0.43
2:B:817:A:H8	41:OA:15:SER:HG	1.63	0.43
2:B:824:C:O2'	2:B:1534:A:N3	2.45	0.43
2:B:955:U:H2'	2:B:956:U:C6	2.54	0.43
2:B:1303:A:C2	2:B:2937:G:N2	2.86	0.43
2:B:1597:C:H2'	2:B:1598:G:C8	2.54	0.43
2:B:1620:U:H2'	2:B:1621:A:C8	2.54	0.43
2:B:2662:G:H2'	2:B:2663:G:H8	1.80	0.43
2:B:3239:G:O2'	2:B:3240:C:H5'	2.19	0.43
5:E:66:CYS:HB2	5:E:107:TYR:HD2	1.80	0.43
7:G:86:VAL:HB	7:G:198:HIS:O	2.18	0.43
7:G:188:ILE:O	7:G:192:VAL:HG12	2.18	0.43
8:H:145:ILE:HD12	8:H:150:LEU:HD12	1.99	0.43
9:I:86:TYR:HD1	9:I:246:ALA:HB1	1.83	0.43
9:I:291:ALA:O	9:I:295:GLY:HA3	2.18	0.43
14:N:51:HIS:HE2	14:N:168:SER:HB2	1.84	0.43
14:N:156:ARG:NH2	14:N:164:LYS:HA	2.32	0.43
16:P:105:GLN:HA	16:P:142:ARG:CA	2.47	0.43
17:Q:35:ARG:HB2	17:Q:35:ARG:HH11	1.83	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:157:GLU:O	20:T:161:LYS:HG3	2.18	0.43
23:W:41:ILE:HG23	23:W:50:ILE:HD12	1.99	0.43
26:Z:100:THR:O	26:Z:101:ASN:HB2	2.18	0.43
32:FA:78:LEU:C	32:FA:80:THR:H	2.26	0.43
34:HA:51:LEU:HD22	38:LA:87:GLU:CG	2.49	0.43
38:LA:80:ARG:HA	38:LA:80:ARG:HD3	1.88	0.43
48:VA:8:LYS:H	48:VA:8:LYS:CD	2.29	0.43
50:XA:98:ILE:HG21	50:XA:102:PHE:HA	2.01	0.43
53:AB:40:ARG:HG2	70:RB:110:PRO:CB	2.48	0.43
53:AB:150:MET:HB2	53:AB:152:PHE:HE2	1.82	0.43
55:CB:211:ILE:O	55:CB:215:ASP:HB2	2.18	0.43
56:DB:48:TYR:OH	56:DB:125:THR:HG21	2.19	0.43
57:EB:142:TYR:C	57:EB:143:LEU:HD22	2.43	0.43
58:FB:121:LEU:HG	58:FB:157:GLU:HG2	2.00	0.43
61:IB:64:VAL:HG12	61:IB:129:ARG:HD3	2.00	0.43
61:IB:81:HIS:O	61:IB:83:THR:HG22	2.19	0.43
68:PB:66:LEU:O	68:PB:70:VAL:HG23	2.18	0.43
70:RB:26:LEU:HD23	70:RB:114:VAL:HG22	1.99	0.43
70:RB:118:VAL:O	70:RB:119:ALA:HB3	2.18	0.43
72:TB:50:PHE:HA	72:TB:62:VAL:O	2.19	0.43
73:UB:48:HIS:CD2	73:UB:105:ALA:HB2	2.54	0.43
73:UB:54:LEU:HD11	73:UB:82:LYS:CD	2.46	0.43
74:VB:44:LEU:HA	74:VB:47:VAL:HG22	1.98	0.43
78:ZB:65:ARG:CZ	78:ZB:65:ARG:HA	2.49	0.43
79:AC:24:CYS:SG	79:AC:39:CYS:SG	3.13	0.43
82:DC:696:ASP:C	82:DC:698:ILE:H	2.26	0.43
83:EC:6774:U:H3’	83:EC:6775:U:H5”	2.00	0.43
1:A:454:U:H4’	54:BB:62:LYS:HE3	2.01	0.43
1:A:1340:U:H5	66:NB:9:THR:HA	1.84	0.43
1:A:1417:A:H2’	1:A:1418:G:O4’	2.19	0.43
1:A:1442:U:H2’	1:A:1443:U:O4’	2.18	0.43
1:A:1567:U:H2’	1:A:1568:C:H5’	2.01	0.43
1:A:1617:U:C1’	78:ZB:23:GLY:HA3	2.47	0.43
2:B:74:G:H5”	17:Q:104:ARG:HE	1.83	0.43
2:B:91:G:N2	2:B:95:A:OP2	2.49	0.43
2:B:287:G:H2’	2:B:288:C:H6	1.79	0.43
2:B:677:A:N1	2:B:703:G:O2’	2.49	0.43
2:B:972:A:O2’	2:B:973:A:H5’	2.18	0.43
2:B:1100:U:H2’	2:B:1101:G:O4’	2.19	0.43
2:B:1128:U:H5’	14:N:4:ARG:HH21	1.83	0.43
2:B:1316:C:OP2	20:T:133:ARG:HG3	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1370:G:OP1	32:FA:18:GLY:HA2	2.19	0.43
2:B:1638:A:O2'	38:LA:52:GLN:NE2	2.51	0.43
2:B:1799:A:H8	2:B:1799:A:O5'	2.02	0.43
2:B:1898:G:O2'	2:B:1899:G:H5'	2.18	0.43
2:B:2319:U:H2'	2:B:2320:A:C8	2.54	0.43
2:B:2591:A:O2'	2:B:2592:G:H5'	2.19	0.43
2:B:2812:C:O2'	2:B:2813:A:H5'	2.19	0.43
3:C:93:U:H2'	3:C:94:C:O4'	2.19	0.43
4:D:107:C:H2'	4:D:108:A:H8	1.83	0.43
6:F:30:ARG:HB3	6:F:36:GLU:OE1	2.19	0.43
8:H:328:ASN:C	8:H:330:TYR:H	2.25	0.43
11:K:132:PRO:HA	11:K:229:PHE:CD1	2.53	0.43
13:M:31:ARG:HD2	13:M:81:GLY:O	2.19	0.43
14:N:31:ILE:HG23	14:N:31:ILE:O	2.19	0.43
14:N:79:VAL:HG12	14:N:147:VAL:HG13	2.01	0.43
14:N:185:ARG:HA	14:N:190:VAL:CG1	2.49	0.43
15:O:114:ILE:CG2	15:O:115:LYS:H	2.29	0.43
19:S:135:VAL:HG13	19:S:142:ILE:HG21	2.01	0.43
20:T:10:ASP:HA	20:T:36:VAL:HG23	2.01	0.43
20:T:27:LEU:HD22	20:T:98:ALA:O	2.18	0.43
25:Y:39:ILE:HD12	25:Y:102:ARG:HB2	2.01	0.43
27:AA:33:ASN:C	27:AA:33:ASN:HD22	2.24	0.43
27:AA:45:ARG:HB3	27:AA:48:ARG:HB3	2.00	0.43
30:DA:35:LEU:CD1	30:DA:45:ILE:HB	2.49	0.43
34:HA:30:THR:HG22	34:HA:91:SER:CB	2.23	0.43
34:HA:41:LEU:O	34:HA:92:ILE:N	2.50	0.43
34:HA:54:SER:HB3	38:LA:94:LEU:CD2	2.41	0.43
37:KA:47:LYS:HA	37:KA:103:TYR:O	2.17	0.43
49:WA:13:LEU:HD22	49:WA:55:GLY:H	1.82	0.43
49:WA:192:PHE:HB3	49:WA:223:TRP:CE2	2.54	0.43
50:XA:11:PRO:O	50:XA:15:GLN:HG3	2.19	0.43
50:XA:148:ASP:HB2	50:XA:164:ASN:CG	2.43	0.43
52:ZA:117:THR:HG23	52:ZA:117:THR:O	2.19	0.43
52:ZA:129:ILE:HG23	52:ZA:133:LYS:HE3	2.01	0.43
54:BB:95:THR:N	74:VB:16:PRO:HB2	2.32	0.43
54:BB:181:VAL:HG13	54:BB:226:PHE:N	2.32	0.43
55:CB:36:ALA:HB1	55:CB:42:LEU:CD2	2.48	0.43
55:CB:142:PRO:HD2	55:CB:170:GLN:CD	2.44	0.43
57:EB:162:ILE:C	57:EB:164:TYR:H	2.27	0.43
59:GB:7:THR:HG23	59:GB:7:THR:O	2.18	0.43
59:GB:32:GLY:HA3	80:BC:40:TYR:CE1	2.52	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:KB:56:ASP:HB2	77:YB:54:VAL:HG22	2.00	0.43
68:PB:14:ILE:HA	68:PB:22:VAL:O	2.17	0.43
68:PB:92:ILE:HD13	68:PB:93:THR:N	2.34	0.43
68:PB:105:VAL:O	68:PB:109:LEU:HB2	2.18	0.43
68:PB:133:VAL:O	68:PB:135:GLY:N	2.52	0.43
70:RB:63:LEU:O	70:RB:83:GLU:HA	2.19	0.43
73:UB:66:SER:O	73:UB:67:ALA:HB2	2.17	0.43
78:ZB:9:LEU:O	78:ZB:32:PHE:CB	2.66	0.43
82:DC:17:THR:CG2	82:DC:92:LYS:HG2	2.49	0.43
82:DC:174:LEU:O	82:DC:177:THR:HB	2.18	0.43
82:DC:529:ILE:HD12	82:DC:559:PRO:HB3	2.00	0.43
82:DC:547:HIS:ND1	82:DC:547:HIS:N	2.66	0.43
1:A:879:G:H2'	1:A:880:C:O4'	2.19	0.43
1:A:1485:C:H3'	1:A:1486:G:C5'	2.48	0.43
1:A:1629:G:H5"	1:A:1794:A:P	2.59	0.43
1:A:1685:G:C3'	1:A:1686:C:H5"	2.48	0.43
1:A:1762:A:H2'	1:A:1763:A:H5'	2.00	0.43
2:B:198:A:C6	2:B:219:A:C5	3.07	0.43
2:B:257:U:C5'	17:Q:86:THR:HG21	2.49	0.43
2:B:848:A:C5	2:B:849:C:H1'	2.54	0.43
2:B:1237:G:H21	16:P:136:ALA:HA	1.83	0.43
2:B:1609:C:OP1	29:CA:125:ARG:HD2	2.19	0.43
2:B:2317:A:H2'	2:B:2318:U:C5'	2.49	0.43
2:B:2375:G:H4'	2:B:2376:G:OP1	2.17	0.43
2:B:2479:C:O3'	5:E:102:LYS:HD3	2.19	0.43
2:B:2903:A:H2'	2:B:2904:U:O4'	2.18	0.43
2:B:3007:U:H2'	2:B:3008:A:H8	1.83	0.43
2:B:3217:C:O2	2:B:3217:C:C2'	2.66	0.43
3:C:42:G:OP2	41:OA:64:MET:N	2.50	0.43
5:E:193:LEU:HD23	5:E:194:LEU:HG	2.01	0.43
6:F:30:ARG:HD2	6:F:30:ARG:C	2.43	0.43
6:F:102:LEU:HD12	6:F:102:LEU:N	2.34	0.43
7:G:57:VAL:O	7:G:58:ARG:HB3	2.19	0.43
8:H:212:ASP:OD1	8:H:216:VAL:HG22	2.18	0.43
9:I:33:ARG:NH1	9:I:33:ARG:HG3	2.34	0.43
9:I:40:HIS:HB3	9:I:43:LYS:CD	2.48	0.43
9:I:134:ALA:CB	9:I:141:PRO:HD3	2.46	0.43
9:I:155:THR:HB	9:I:179:ARG:CD	2.49	0.43
10:J:166:LYS:O	10:J:169:ASP:HB2	2.19	0.43
13:M:106:LYS:O	13:M:109:ALA:HB2	2.19	0.43
14:N:153:ARG:O	14:N:157:TYR:CE1	2.71	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:96:PHE:HB3	15:O:156:LYS:HG3	2.00	0.43
17:Q:168:ARG:HA	17:Q:168:ARG:HD2	1.84	0.43
18:R:47:ASP:OD2	18:R:48:GLY:N	2.52	0.43
19:S:57:GLN:O	19:S:142:ILE:HD11	2.18	0.43
23:W:105:LEU:CD1	23:W:135:LYS:HD2	2.46	0.43
25:Y:46:GLY:HA2	25:Y:52:MET:CE	2.49	0.43
25:Y:78:LYS:CB	25:Y:87:LYS:HD2	2.47	0.43
32:FA:62:HIS:CG	32:FA:62:HIS:O	2.71	0.43
37:KA:45:LEU:HD23	37:KA:71:VAL:CG1	2.49	0.43
40:NA:4:LYS:C	40:NA:6:GLY:H	2.25	0.43
41:OA:19:CYS:SG	41:OA:34:CYS:SG	3.12	0.43
44:RA:93:LYS:HD2	44:RA:102:ARG:HG2	2.01	0.43
46:TA:59:HIS:O	46:TA:61:LYS:N	2.46	0.43
48:VA:121:VAL:O	48:VA:155:ASP:CA	2.58	0.43
49:WA:36:ALA:HB2	49:WA:71:CYS:HB3	2.01	0.43
49:WA:278:PHE:HB3	49:WA:281:TYR:CD1	2.53	0.43
53:AB:41:VAL:HG13	53:AB:41:VAL:O	2.18	0.43
54:BB:89:VAL:HG11	54:BB:119:ALA:CA	2.48	0.43
54:BB:94:ALA:O	54:BB:95:THR:OG1	2.25	0.43
55:CB:98:MET:CA	55:CB:103:ASN:HB3	2.47	0.43
57:EB:182:VAL:HG12	57:EB:183:PHE:H	1.81	0.43
59:GB:116:LEU:O	59:GB:118:LEU:HD13	2.19	0.43
59:GB:134:ILE:H	59:GB:158:PHE:HA	1.84	0.43
59:GB:159:ALA:HB1	59:GB:160:PRO:HD2	2.00	0.43
63:KB:98:VAL:HA	63:KB:101:HIS:HB3	2.01	0.43
67:OB:58:MET:HA	67:OB:61:ILE:HD12	2.00	0.43
70:RB:22:ILE:HD11	70:RB:116:VAL:HG12	2.00	0.43
72:TB:86:ILE:HA	72:TB:89:TRP:HB2	1.99	0.43
74:VB:14:SER:O	74:VB:16:PRO:HD3	2.18	0.43
74:VB:75:VAL:HG13	74:VB:75:VAL:O	2.18	0.43
75:WB:84:GLU:CA	75:WB:89:ILE:HD11	2.49	0.43
75:WB:95:HIS:HE1	75:WB:98:GLN:HB2	1.84	0.43
82:DC:296:ILE:CB	82:DC:297:PRO:HD3	2.30	0.43
82:DC:453:ILE:N	82:DC:453:ILE:HD12	2.33	0.43
1:A:1:U:C5	59:GB:50:SER:HB3	2.54	0.43
1:A:14:C:OP2	52:ZA:206:THR:HG21	2.19	0.43
1:A:16:G:H2'	1:A:17:C:C6	2.53	0.43
1:A:218:A:N1	1:A:830:U:C5	2.86	0.43
1:A:320:U:H3'	1:A:321:C:H5"	1.99	0.43
1:A:450:U:O2'	1:A:451:A:H5'	2.18	0.43
1:A:531:C:H2'	1:A:532:U:H5"	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:958:U:OP1	77:YB:20:LYS:HD3	2.18	0.43
1:A:1082:C:C2'	1:A:1083:G:H5'	2.49	0.43
1:A:1166:A:O2'	1:A:1587:A:H4'	2.19	0.43
1:A:1639:C:H2'	1:A:1640:C:C5'	2.49	0.43
2:B:53:G:H4'	2:B:812:G:H4'	2.01	0.43
2:B:143:G:O2'	2:B:144:A:H5'	2.19	0.43
2:B:289:A:C2	19:S:93:LYS:HG3	2.53	0.43
2:B:349:A:C2	3:C:24:G:C8	3.07	0.43
2:B:355:A:H5'	43:QA:40:LYS:HD3	2.01	0.43
2:B:749:C:H2'	2:B:750:G:O4'	2.19	0.43
2:B:1411:C:H4'	36:JA:95:GLU:OE2	2.19	0.43
2:B:1419:A:N7	8:H:187:LEU:HD13	2.34	0.43
2:B:1602:A:OP1	23:W:37:SER:HA	2.18	0.43
2:B:2061:G:O2'	2:B:2062:G:H5'	2.18	0.43
2:B:2133:U:H2'	2:B:2134:G:H5'	2.00	0.43
2:B:2442:G:N2	2:B:2505:U:N3	2.60	0.43
2:B:2730:G:H2'	2:B:2731:U:C5'	2.49	0.43
2:B:2769:A:O2'	2:B:2770:G:H5'	2.18	0.43
2:B:2890:A:H61	2:B:2913:C:H42	1.65	0.43
2:B:3120:C:C5	44:RA:111:ARG:CZ	3.01	0.43
2:B:3152:U:H5'	2:B:3294:A:H5"	2.00	0.43
2:B:3283:U:H2'	2:B:3284:G:H8	1.84	0.43
3:C:21:C:OP1	8:H:193:LYS:HD2	2.19	0.43
3:C:27:U:H4'	8:H:51:ALA:HB3	2.00	0.43
3:C:145:U:H2'	3:C:146:U:O4'	2.19	0.43
3:C:152:G:C2	3:C:153:U:H1'	2.54	0.43
4:D:8:G:H2'	4:D:9:C:H6	1.82	0.43
9:I:57:ASN:HD22	9:I:57:ASN:HA	1.59	0.43
12:L:42:PRO:HD2	12:L:44:ARG:HH12	1.82	0.43
16:P:114:ARG:HH22	16:P:121:PHE:HB3	1.79	0.43
17:Q:74:GLY:N	17:Q:98:ASP:HB2	2.33	0.43
18:R:15:VAL:O	24:X:149:LYS:HA	2.18	0.43
25:Y:102:ARG:O	25:Y:106:LEU:HD23	2.18	0.43
30:DA:5:SER:HB3	30:DA:8:VAL:CG1	2.46	0.43
32:FA:12:ARG:HG3	32:FA:12:ARG:NH1	2.33	0.43
36:JA:22:SER:HB2	36:JA:30:GLU:HA	2.01	0.43
36:JA:96:ILE:HD11	36:JA:109:LEU:HD23	2.00	0.43
42:PA:58:ASP:C	42:PA:60:GLY:N	2.76	0.43
43:QA:23:LEU:HB2	43:QA:38:ASN:HB2	2.00	0.43
46:TA:77:CYS:C	46:TA:78:LYS:HG2	2.44	0.43
55:CB:100:ASN:N	55:CB:103:ASN:HB2	2.33	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:EB:93:LEU:HD23	57:EB:128:ASP:HB3	2.01	0.43
60:HB:31:LYS:HD3	60:HB:36:ASP:OD1	2.19	0.43
63:KB:78:ASN:HB3	63:KB:80:LEU:HD23	2.01	0.43
65:MB:10:ARG:C	65:MB:12:PHE:H	2.25	0.43
66:NB:77:GLN:O	66:NB:81:ILE:HG23	2.18	0.43
80:BC:38:LEU:HD23	80:BC:38:LEU:C	2.44	0.43
82:DC:577:SER:HB2	82:DC:712:ALA:HB2	2.00	0.43
82:DC:601:ILE:CD1	82:DC:643:PRO:HA	2.46	0.43
82:DC:754:VAL:HA	82:DC:770:ALA:HA	2.01	0.43
1:A:341:A:H2'	1:A:342:C:H6	1.82	0.43
1:A:589:C:C1'	80:BC:57:ASN:HB2	2.49	0.43
1:A:1687:U:H2'	1:A:1688:U:O4'	2.19	0.43
2:B:250:U:H5"	2:B:251:G:H2'	2.01	0.43
2:B:286:U:H2'	2:B:287:G:C8	2.54	0.43
2:B:1220:U:H1'	2:B:1222:G:N3	2.33	0.43
2:B:1333:C:O5'	2:B:1333:C:H6	2.02	0.43
2:B:1471:U:H4'	23:W:3:ASN:HA	2.01	0.43
2:B:1580:A:N6	29:CA:33:ARG:HG2	2.34	0.43
2:B:2302:G:H2'	2:B:2303:A:O4'	2.18	0.43
2:B:2719:U:H2'	2:B:2720:G:H8	1.80	0.43
2:B:2732:G:H4'	2:B:2760:C:H4'	2.00	0.43
2:B:2898:G:H3'	2:B:2899:C:C5'	2.49	0.43
2:B:3187:A:H5'	13:M:22:SER:HA	2.00	0.43
2:B:3329:U:O5'	2:B:3329:U:H6	2.01	0.43
2:B:3379:C:H2'	2:B:3380:U:O4'	2.19	0.43
7:G:47:LEU:HB2	7:G:164:THR:HG23	2.01	0.43
7:G:82:PRO:O	7:G:83:PRO:C	2.62	0.43
7:G:283:TYR:OH	7:G:325:LYS:HD2	2.18	0.43
8:H:179:LEU:HD22	8:H:183:LYS:HD2	2.01	0.43
8:H:295:ILE:C	8:H:297:SER:N	2.75	0.43
9:I:279:LYS:O	9:I:279:LYS:HD3	2.19	0.43
10:J:122:PHE:HA	10:J:123:PRO:HA	1.75	0.43
12:L:55:TYR:CD2	12:L:56:VAL:N	2.86	0.43
12:L:136:LEU:HD22	19:S:3:ALA:CB	2.49	0.43
12:L:230:LYS:NZ	40:NA:47:ILE:HA	2.33	0.43
17:Q:164:GLU:OE1	17:Q:164:GLU:HA	2.19	0.43
19:S:30:TYR:HE2	19:S:122:ASN:ND2	2.12	0.43
21:U:124:LYS:HA	21:U:143:PRO:HD3	2.01	0.43
22:V:122:ILE:CD1	22:V:122:ILE:N	2.82	0.43
23:W:8:LYS:HD2	23:W:24:LEU:CD1	2.49	0.43
26:Z:89:LEU:CB	26:Z:93:ILE:HD12	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:CA:47:ALA:O	39:MA:77:PRO:HG3	2.18	0.43
30:DA:51:ARG:O	30:DA:52:ARG:C	2.61	0.43
31:EA:33:SER:C	31:EA:35:SER:H	2.26	0.43
34:HA:17:VAL:HG13	34:HA:100:ILE:HG21	2.01	0.43
34:HA:43:ILE:HG13	34:HA:90:VAL:CB	2.37	0.43
35:IA:85:ALA:O	35:IA:86:LYS:C	2.62	0.43
36:JA:21:HIS:ND1	36:JA:24:ARG:HD2	2.34	0.43
48:VA:52:LEU:CB	48:VA:86:PHE:HD2	2.32	0.43
49:WA:242:SER:HB3	49:WA:292:LEU:CD2	2.49	0.43
49:WA:305:TYR:HB3	49:WA:307:ASP:OD1	2.19	0.43
50:XA:71:GLU:HA	50:XA:94:GLY:O	2.19	0.43
50:XA:191:ARG:CG	50:XA:192:THR:H	2.30	0.43
54:BB:212:ASP:OD2	54:BB:216:ASN:HB2	2.19	0.43
55:CB:79:ASN:N	55:CB:79:ASN:HD22	2.17	0.43
55:CB:189:THR:OG1	55:CB:192:GLU:HG3	2.18	0.43
58:FB:49:ARG:HG2	58:FB:49:ARG:HH11	1.83	0.43
59:GB:126:ARG:CZ	59:GB:144:PRO:HG2	2.49	0.43
60:HB:54:TYR:HB3	60:HB:72:GLY:HA2	2.01	0.43
61:IB:78:THR:O	61:IB:79:LYS:C	2.62	0.43
65:MB:126:VAL:HG22	65:MB:128:HIS:HD2	1.84	0.43
66:NB:5:PRO:O	66:NB:23:LYS:HA	2.18	0.43
66:NB:99:GLU:O	66:NB:102:LYS:HB3	2.19	0.43
68:PB:133:VAL:O	68:PB:134:ARG:C	2.62	0.43
72:TB:51:GLU:CD	77:YB:8:LEU:HD13	2.44	0.43
74:VB:41:ARG:NH2	74:VB:52:LYS:HB3	2.34	0.43
82:DC:67:GLY:O	82:DC:68:ILE:HG23	2.19	0.43
82:DC:445:ILE:CG1	82:DC:446:ASP:N	2.79	0.43
82:DC:581:ASN:O	82:DC:582:LYS:HB2	2.18	0.43
82:DC:726:GLU:OE2	82:DC:802:SER:O	2.37	0.43
1:A:120:U:H2'	1:A:121:U:H5'	2.01	0.42
1:A:833:U:C5'	1:A:834:G:H5"	2.49	0.42
1:A:1082:C:H2'	1:A:1083:G:H5'	2.01	0.42
1:A:1107:G:H3'	1:A:1108:G:H21	1.83	0.42
1:A:1186:U:H2'	1:A:1187:U:C5'	2.48	0.42
1:A:1527:C:H5'	55:CB:106:LYS:HD3	2.00	0.42
2:B:13:A:C5'	2:B:14:U:OP2	2.63	0.42
2:B:15:C:H3'	2:B:15:C:OP1	2.19	0.42
2:B:164:A:H2'	2:B:165:A:O4'	2.18	0.42
2:B:279:U:H2'	2:B:280:U:C6	2.54	0.42
2:B:303:G:H5"	2:B:304:G:C5'	2.49	0.42
2:B:404:G:C6	2:B:405:U:C2	3.06	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:835:G:N3	2:B:857:G:C2	2.87	0.42
2:B:1079:A:C4	9:I:113:LEU:HD21	2.54	0.42
2:B:1190:A:C5	2:B:1193:A:H1'	2.53	0.42
2:B:1349:G:N2	2:B:1350:A:H62	2.17	0.42
2:B:1819:U:H6	2:B:1819:U:H5'	1.83	0.42
2:B:1887:A:H2'	2:B:1888:U:H5'	2.00	0.42
2:B:1972:A:OP1	42:PA:64:LYS:HD3	2.19	0.42
2:B:2623:G:H2'	2:B:2624:G:O4'	2.19	0.42
2:B:2818:U:C5'	33:GA:2:ALA:HB2	2.49	0.42
2:B:3259:U:H5'	2:B:3259:U:H6	1.84	0.42
3:C:59:A:N1	3:C:100:U:H1'	2.34	0.42
4:D:88:G:H2'	4:D:89:G:O4'	2.19	0.42
5:E:1:MET:HE1	5:E:198:TRP:CZ3	2.54	0.42
5:E:120:VAL:CG1	5:E:124:LEU:HD23	2.34	0.42
6:F:51:ASP:HB3	6:F:54:ARG:HB3	2.00	0.42
7:G:347:SER:O	7:G:348:ARG:CB	2.67	0.42
8:H:295:ILE:O	8:H:297:SER:N	2.52	0.42
9:I:211:LEU:C	9:I:213:ASP:H	2.27	0.42
10:J:31:ARG:NH1	10:J:34:LEU:HD13	2.34	0.42
11:K:75:TYR:O	25:Y:141:VAL:HG23	2.18	0.42
12:L:241:LYS:C	12:L:243:GLN:N	2.76	0.42
13:M:138:THR:O	13:M:140:VAL:N	2.51	0.42
13:M:158:ALA:O	13:M:161:LEU:HB2	2.19	0.42
14:N:21:ARG:HH11	14:N:21:ARG:HG3	1.84	0.42
15:O:152:HIS:O	15:O:152:HIS:ND1	2.45	0.42
18:R:72:LEU:HD21	18:R:76:ALA:HB3	2.00	0.42
22:V:102:ALA:CB	22:V:127:LEU:HD23	2.48	0.42
23:W:74:ARG:O	23:W:75:HIS:HB2	2.18	0.42
23:W:166:ASN:O	23:W:170:ARG:HG3	2.18	0.42
24:X:125:LYS:HZ3	24:X:125:LYS:C	2.27	0.42
24:X:139:TYR:HD2	24:X:140:VAL:HG23	1.84	0.42
31:EA:81:LEU:HD22	38:LA:93:PHE:HE2	1.84	0.42
31:EA:107:ARG:O	31:EA:111:LYS:HG3	2.17	0.42
33:GA:8:THR:HG23	33:GA:8:THR:O	2.18	0.42
35:IA:29:ALA:HB2	35:IA:64:VAL:HA	2.01	0.42
37:KA:43:PHE:O	37:KA:43:PHE:CG	2.72	0.42
39:MA:93:THR:OG1	39:MA:96:GLU:HG3	2.19	0.42
48:VA:97:LYS:HA	48:VA:100:ILE:CD1	2.49	0.42
50:XA:102:PHE:CZ	50:XA:104:PRO:HA	2.54	0.42
54:BB:35:PRO:HB3	54:BB:143:ASP:C	2.44	0.42
56:DB:42:GLY:C	56:DB:44:GLU:H	2.27	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:EB:8:ILE:HG23	57:EB:43:PHE:CE2	2.53	0.42
57:EB:181:ILE:CG2	57:EB:182:VAL:N	2.82	0.42
59:GB:95:TYR:O	59:GB:99:LEU:HD13	2.19	0.42
68:PB:56:LYS:HG2	68:PB:60:GLU:HG3	2.01	0.42
78:ZB:56:LEU:HG	78:ZB:58:GLU:O	2.19	0.42
82:DC:132:ILE:H	82:DC:132:ILE:HG13	1.59	0.42
82:DC:488:VAL:HG23	82:DC:489:VAL:N	2.34	0.42
82:DC:578:LYS:HG2	82:DC:840:ASP:CB	2.48	0.42
82:DC:629:ASP:O	82:DC:647:ILE:HG13	2.19	0.42
82:DC:706:ILE:HB	82:DC:707:PRO:HD3	2.01	0.42
83:EC:6851:G:H2'	83:EC:6852:U:H6	1.83	0.42
1:A:48:G:H2'	1:A:49:C:O4'	2.19	0.42
1:A:67:A:O2'	1:A:69:G:H5"	2.18	0.42
1:A:392:G:H4'	1:A:1672:G:H21	1.84	0.42
1:A:463:U:C2	1:A:464:A:C8	3.07	0.42
1:A:639:U:C2	57:EB:100:PRO:HA	2.54	0.42
1:A:842:C:H2'	1:A:843:U:O4'	2.19	0.42
1:A:1100:G:H1'	73:UB:7:ARG:NH2	2.35	0.42
1:A:1235:C:N4	1:A:1236:A:H62	2.17	0.42
1:A:1382:A:H5"	70:RB:60:THR:H	1.83	0.42
1:A:1392:U:H2'	1:A:1393:C:C6	2.53	0.42
1:A:1545:A:H2	1:A:1566:U:O2	2.02	0.42
1:A:1681:A:C2'	1:A:1682:U:H5'	2.49	0.42
2:B:75:G:OP1	17:Q:58:VAL:CG2	2.66	0.42
2:B:79:U:OP1	19:S:185:ALA:HB2	2.19	0.42
2:B:209:A:H4'	2:B:211:A:C8	2.54	0.42
2:B:423:A:O5'	2:B:423:A:H8	2.02	0.42
2:B:523:A:H2'	2:B:524:U:O4'	2.19	0.42
2:B:651:G:H2'	2:B:652:G:O4'	2.19	0.42
2:B:661:G:P	32:FA:12:ARG:HH21	2.42	0.42
2:B:675:C:O2'	2:B:679:U:H5"	2.20	0.42
2:B:750:G:H2'	2:B:751:A:C8	2.54	0.42
2:B:894:G:H4'	2:B:895:A:O4'	2.19	0.42
2:B:1427:U:C5	32:FA:4:ARG:CZ	3.02	0.42
2:B:1639:C:H5'	38:LA:52:GLN:CD	2.43	0.42
2:B:1912:U:H2'	2:B:1913:A:O4'	2.19	0.42
2:B:2746:A:H5'	9:I:178:ASN:ND2	2.34	0.42
2:B:2865:U:O2'	2:B:2866:U:H5'	2.19	0.42
2:B:2947:G:OP2	2:B:2947:G:H4'	2.18	0.42
3:C:57:C:H4'	3:C:63:G:C8	2.54	0.42
3:C:157:U:H2'	3:C:158:U:H5'	2.00	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:109:G:H2'	4:D:110:G:O4'	2.19	0.42
6:F:129:ALA:HB3	6:F:132:ASN:HD22	1.84	0.42
6:F:145:LYS:HB3	6:F:157:VAL:CG2	2.48	0.42
8:H:132:ALA:O	8:H:133:SER:C	2.62	0.42
8:H:235:LEU:HD12	8:H:235:LEU:C	2.43	0.42
12:L:94:PHE:HB3	12:L:189:LEU:HD13	2.00	0.42
13:M:10:ILE:O	13:M:52:LEU:HA	2.19	0.42
13:M:81:GLY:HA2	13:M:86:TYR:CD2	2.54	0.42
17:Q:64:LYS:HA	32:FA:69:TRP:CE3	2.54	0.42
18:R:106:ARG:HH11	18:R:106:ARG:HG2	1.84	0.42
19:S:121:VAL:CG2	19:S:122:ASN:N	2.82	0.42
25:Y:64:VAL:HA	25:Y:73:GLY:O	2.18	0.42
26:Z:93:ILE:HA	26:Z:106:ALA:O	2.19	0.42
27:AA:70:ARG:HH11	27:AA:70:ARG:HG2	1.84	0.42
36:JA:93:ALA:HB1	36:JA:120:THR:HG23	2.01	0.42
48:VA:30:VAL:HG13	48:VA:31:ASP:H	1.84	0.42
48:VA:133:THR:HG21	82:DC:187:VAL:HG21	2.01	0.42
52:ZA:141:ARG:HD3	52:ZA:192:GLY:O	2.18	0.42
58:FB:117:TYR:HB3	58:FB:119:GLN:HG2	2.02	0.42
65:MB:20:VAL:CG2	65:MB:36:LEU:HD11	2.49	0.42
68:PB:33:THR:HG22	68:PB:39:GLY:O	2.18	0.42
70:RB:57:ARG:HG3	70:RB:89:ARG:CD	2.49	0.42
73:UB:110:LYS:NZ	73:UB:110:LYS:CB	2.83	0.42
77:YB:14:SER:HA	77:YB:17:ARG:CG	2.49	0.42
80:BC:46:ASN:O	80:BC:47:VAL:HG12	2.19	0.42
82:DC:307:LEU:CB	82:DC:312:LYS:HG2	2.38	0.42
82:DC:577:SER:C	82:DC:708:THR:HG23	2.43	0.42
82:DC:737:GLU:HG2	82:DC:766:PHE:HD2	1.84	0.42
83:EC:6771:U:C2'	83:EC:6772:G:H4'	2.49	0.42
1:A:448:C:H4'	54:BB:28:ALA:O	2.19	0.42
1:A:829:A:N6	1:A:844:A:N6	2.68	0.42
2:B:60:A:H2'	2:B:61:A:C8	2.54	0.42
2:B:985:U:H2'	2:B:986:U:H6	1.85	0.42
2:B:1070:U:H2'	2:B:1071:U:O4'	2.19	0.42
2:B:1182:A:O2'	2:B:1183:C:H5'	2.19	0.42
2:B:1287:A:O2'	2:B:1288:U:H5'	2.20	0.42
2:B:1308:A:C8	2:B:1308:A:OP2	2.72	0.42
2:B:1324:U:H5'	24:X:2:ALA:CA	2.49	0.42
2:B:1481:A:H1'	2:B:1483:G:C5	2.54	0.42
2:B:1493:G:O6	43:QA:2:ALA:HB2	2.19	0.42
2:B:1583:A:H3'	2:B:1584:U:C6	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1639:C:O2'	2:B:1640:G:H5'	2.19	0.42
2:B:1658:G:H2'	2:B:1659:U:O4'	2.19	0.42
2:B:2189:U:O3'	47:UA:21:SER:HB2	2.19	0.42
2:B:2488:A:H2	5:E:27:ASN:HD21	1.66	0.42
2:B:2501:U:H3'	2:B:2501:U:C6	2.55	0.42
2:B:2523:A:H62	12:L:57:ARG:HD2	1.84	0.42
2:B:2798:C:H5"	2:B:2800:G:H5'	2.01	0.42
2:B:2938:G:O2'	2:B:2939:G:H5'	2.19	0.42
2:B:3233:C:H2'	2:B:3234:A:C8	2.54	0.42
3:C:4:C:H5'	21:U:61:ARG:HB2	2.01	0.42
3:C:42:G:O2'	3:C:43:A:H5'	2.19	0.42
4:D:19:C:H2'	4:D:20:A:H8	1.85	0.42
5:E:94:ASN:HD21	5:E:124:LEU:CB	2.33	0.42
6:F:117:GLU:HA	6:F:125:ALA:HB3	2.01	0.42
6:F:142:ASP:O	6:F:143:GLU:HB2	2.18	0.42
7:G:196:ARG:HG3	7:G:197:GLU:N	2.32	0.42
8:H:208:VAL:HA	8:H:228:ALA:O	2.18	0.42
9:I:48:LYS:HE3	9:I:48:LYS:HB2	1.92	0.42
9:I:222:LEU:O	9:I:223:PHE:CB	2.68	0.42
10:J:64:LEU:HD22	10:J:65:ILE:H	1.84	0.42
11:K:141:TYR:CD1	11:K:141:TYR:C	2.96	0.42
13:M:6:THR:HG21	13:M:65:VAL:CG1	2.50	0.42
14:N:208:ASN:HA	14:N:211:ARG:CD	2.49	0.42
17:Q:109:PHE:CD2	40:NA:20:MET:HE1	2.53	0.42
18:R:37:GLU:HG2	24:X:72:VAL:CB	2.49	0.42
19:S:118:SER:CB	19:S:132:VAL:HG22	2.47	0.42
25:Y:57:TYR:CG	25:Y:89:LEU:HD11	2.54	0.42
25:Y:65:TYR:CD2	25:Y:75:ILE:HG22	2.55	0.42
30:DA:4:GLN:HA	30:DA:4:GLN:HE21	1.85	0.42
38:LA:94:LEU:HD23	38:LA:94:LEU:C	2.43	0.42
49:WA:178:VAL:HG21	49:WA:223:TRP:HE1	1.85	0.42
53:AB:43:PRO:O	53:AB:44:THR:HB	2.18	0.42
54:BB:139:VAL:HG23	54:BB:139:VAL:O	2.20	0.42
55:CB:166:ARG:HG3	78:ZB:46:GLY:HA3	2.01	0.42
56:DB:1:MET:HE2	56:DB:106:LEU:HB2	2.02	0.42
56:DB:13:GLN:HA	56:DB:124:LEU:CD1	2.49	0.42
56:DB:132:ARG:C	56:DB:133:LEU:HD12	2.44	0.42
57:EB:8:ILE:HD12	57:EB:43:PHE:CD2	2.53	0.42
59:GB:109:LEU:O	59:GB:113:VAL:HB	2.19	0.42
60:HB:29:GLN:O	60:HB:30:ALA:C	2.61	0.42
67:OB:16:LEU:HD22	67:OB:38:ILE:HD13	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:SB:39:VAL:HG12	71:SB:45:ALA:CB	2.49	0.42
73:UB:55:GLU:HA	73:UB:98:GLU:HG2	1.99	0.42
74:VB:5:VAL:HA	74:VB:29:HIS:HA	2.01	0.42
78:ZB:27:GLN:HA	78:ZB:43:ASN:HA	2.00	0.42
82:DC:325:ARG:C	82:DC:329:PRO:HG3	2.45	0.42
82:DC:386:VAL:HA	82:DC:387:PRO:HD3	1.84	0.42
82:DC:515:ASP:HB3	82:DC:518:VAL:CG1	2.49	0.42
82:DC:570:GLU:HG2	82:DC:589:LYS:HB3	2.02	0.42
82:DC:724:ILE:HG23	82:DC:815:ALA:HB1	2.00	0.42
83:EC:6888:A:N7	83:EC:6938:A:N6	2.67	0.42
1:A:94:U:H2'	1:A:95:G:C5'	2.49	0.42
1:A:184:C:H2'	1:A:185:U:O4'	2.18	0.42
1:A:253:A:OP1	54:BB:133:LYS:HA	2.18	0.42
1:A:941:A:O2'	1:A:977:A:O4'	2.31	0.42
1:A:1075:C:H2'	1:A:1076:A:C4'	2.50	0.42
1:A:1114:G:N2	1:A:1130:G:H2'	2.34	0.42
1:A:1270:G:O2'	1:A:1271:G:H5'	2.20	0.42
1:A:1485:C:H2'	1:A:1486:G:C4'	2.43	0.42
1:A:1604:U:OP1	66:NB:130:GLY:N	2.52	0.42
2:B:271:C:H2'	2:B:272:G:O4'	2.19	0.42
2:B:575:G:O2'	2:B:576:C:H5'	2.19	0.42
2:B:901:G:OP1	41:OA:12:HIS:HE1	2.01	0.42
2:B:1680:G:H2'	2:B:1681:U:C6	2.55	0.42
2:B:2098:C:O2'	2:B:2099:A:H5'	2.19	0.42
2:B:2497:U:O2'	2:B:2498:U:H6	2.02	0.42
2:B:2594:C:O5'	2:B:2594:C:H6	2.02	0.42
2:B:2907:G:H2'	2:B:2908:G:H8	1.84	0.42
2:B:2982:A:O3'	2:B:2983:C:O2	2.38	0.42
2:B:3393:U:O2'	2:B:3394:U:H5'	2.18	0.42
3:C:71:A:N6	3:C:87:G:H1'	2.34	0.42
3:C:138:A:C2	3:C:139:U:C2	3.07	0.42
4:D:110:G:O2'	4:D:111:U:H5'	2.19	0.42
7:G:17:LEU:HD11	7:G:233:TRP:HH2	1.84	0.42
8:H:333:VAL:HG13	8:H:334:PHE:N	2.33	0.42
9:I:236:LEU:HA	9:I:239:ILE:CD1	2.49	0.42
10:J:40:LEU:HD22	10:J:84:VAL:HG11	2.02	0.42
10:J:44:ALA:C	10:J:48:ARG:HB3	2.45	0.42
10:J:97:ASN:O	10:J:98:VAL:HG12	2.19	0.42
12:L:72:PRO:HA	12:L:233:TRP:CZ3	2.54	0.42
12:L:190:VAL:CG1	12:L:190:VAL:O	2.68	0.42
13:M:37:ASN:OD1	13:M:37:ASN:C	2.62	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:67:ALA:O	13:M:70:THR:HB	2.20	0.42
13:M:82:VAL:O	13:M:82:VAL:HG13	2.19	0.42
14:N:159:PHE:HA	14:N:160:PRO:HD2	1.90	0.42
15:O:9:MET:HA	15:O:9:MET:HE3	1.99	0.42
17:Q:95:ILE:HG21	17:Q:116:LEU:CD2	2.49	0.42
18:R:19:ARG:HD2	18:R:66:THR:O	2.19	0.42
20:T:42:ASN:HA	20:T:136:THR:O	2.18	0.42
21:U:57:ALA:HB2	21:U:83:TRP:NE1	2.34	0.42
22:V:48:VAL:HG23	22:V:139:ILE:HD11	2.01	0.42
22:V:107:THR:O	22:V:108:ALA:C	2.62	0.42
25:Y:92:ARG:C	25:Y:94:GLU:N	2.78	0.42
31:EA:10:VAL:HG23	31:EA:85:TYR:O	2.20	0.42
31:EA:54:THR:H	31:EA:57:HIS:HB2	1.85	0.42
32:FA:48:TYR:N	32:FA:48:TYR:HD2	2.17	0.42
32:FA:105:LEU:HD13	32:FA:128:ARG:HD2	2.01	0.42
32:FA:112:ILE:HG22	32:FA:134:ALA:HB1	2.02	0.42
36:JA:45:ARG:HH11	36:JA:45:ARG:CB	2.30	0.42
39:MA:31:LEU:O	39:MA:34:GLN:HB2	2.19	0.42
48:VA:11:TYR:CE2	48:VA:57:THR:HB	2.54	0.42
48:VA:96:ILE:HD12	48:VA:97:LYS:N	2.35	0.42
49:WA:45:TRP:CE3	49:WA:57:PRO:HD3	2.55	0.42
54:BB:126:VAL:HG23	54:BB:156:VAL:HA	2.02	0.42
54:BB:150:PRO:CG	54:BB:151:ASP:N	2.79	0.42
54:BB:206:ASP:HB2	54:BB:222:LEU:CD2	2.49	0.42
58:FB:89:GLU:C	58:FB:91:VAL:N	2.75	0.42
58:FB:166:TYR:HB2	58:FB:189:LEU:HD11	2.01	0.42
58:FB:190:ALA:HB1	58:FB:194:ARG:HH12	1.85	0.42
66:NB:31:VAL:O	66:NB:32:ASN:HB2	2.19	0.42
66:NB:82:ARG:NH2	66:NB:116:LEU:HD13	2.30	0.42
69:QB:78:LYS:HG3	69:QB:95:ASP:OD1	2.19	0.42
82:DC:240:MET:O	82:DC:244:LEU:HG	2.20	0.42
82:DC:280:PRO:N	82:DC:283:ARG:HH21	2.18	0.42
82:DC:399:ARG:HA	82:DC:453:ILE:HG13	2.01	0.42
1:A:197:A:H2'	1:A:198:A:C8	2.54	0.42
1:A:218:A:N1	1:A:830:U:H5	2.17	0.42
1:A:460:A:H3'	1:A:461:G:H8	1.85	0.42
1:A:590:C:H5"	80:BC:56:MET:SD	2.59	0.42
1:A:682:C:C2'	1:A:683:C:H5'	2.49	0.42
1:A:753:A:H5"	54:BB:221:ARG:HH21	1.85	0.42
1:A:777:C:H5	74:VB:10:ARG:NH1	2.17	0.42
1:A:855:A:C2'	1:A:856:A:H3'	2.49	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1409:G:H2'	1:A:1411:A:OP2	2.20	0.42
1:A:1546:G:H2'	1:A:1547:A:C8	2.55	0.42
1:A:1551:U:H3'	65:MB:43:ARG:NH2	2.26	0.42
1:A:1572:G:H1'	55:CB:185:ARG:NH1	2.35	0.42
1:A:1622:G:O2'	1:A:1623:C:H5"	2.20	0.42
1:A:1624:C:H2'	1:A:1625:C:H6	1.83	0.42
2:B:44:U:H2'	2:B:45:A:O4'	2.19	0.42
2:B:96:G:H4'	17:Q:15:ARG:HE	1.84	0.42
2:B:268:A:C5	19:S:12:ARG:HD3	2.54	0.42
2:B:335:G:N2	2:B:691:A:N6	2.67	0.42
2:B:609:G:OP2	8:H:315:LYS:HD2	2.20	0.42
2:B:729:C:OP1	22:V:44:PHE:HB2	2.20	0.42
2:B:973:A:H2'	2:B:974:G:O4'	2.19	0.42
2:B:1256:G:O5'	16:P:127:SER:HB3	2.20	0.42
2:B:1313:G:O2'	2:B:1314:C:H5'	2.19	0.42
2:B:1347:U:H2'	2:B:1355:A:H61	1.84	0.42
2:B:1739:U:H1'	38:LA:41:ARG:CZ	2.49	0.42
2:B:2101:C:O2'	2:B:2102:U:H5"	2.18	0.42
2:B:2185:G:H5"	6:F:202:VAL:CG2	2.49	0.42
2:B:2197:C:H4'	2:B:2198:A:O5'	2.19	0.42
2:B:2246:G:H2'	2:B:2247:G:H8	1.84	0.42
2:B:2336:U:H2'	2:B:2337:C:O4'	2.20	0.42
2:B:2537:U:O2	2:B:2543:U:O4	2.38	0.42
2:B:2538:U:H5'	2:B:2539:C:C5	2.55	0.42
2:B:2821:C:H2'	2:B:2822:U:H6	1.85	0.42
2:B:2926:A:H2'	2:B:2927:C:O4'	2.20	0.42
2:B:3217:C:N3	2:B:3220:G:H1'	2.33	0.42
5:E:87:VAL:HG21	5:E:116:LEU:HD22	2.02	0.42
6:F:21:ARG:C	6:F:23:ARG:H	2.26	0.42
6:F:221:LYS:O	6:F:222:ALA:C	2.62	0.42
7:G:312:VAL:C	7:G:314:TYR:H	2.27	0.42
8:H:65:TRP:HB3	8:H:69:ARG:HD3	2.01	0.42
8:H:141:ARG:HG2	8:H:141:ARG:NH1	2.34	0.42
8:H:179:LEU:HD23	8:H:179:LEU:HA	1.87	0.42
8:H:334:PHE:HA	8:H:339:LEU:CD1	2.50	0.42
8:H:340:GLY:O	8:H:341:SER:HB3	2.19	0.42
11:K:207:LEU:HB3	11:K:243:MET:O	2.20	0.42
15:O:17:LEU:HD13	15:O:129:VAL:CG2	2.50	0.42
17:Q:8:PRO:CB	22:V:164:ARG:HB3	2.48	0.42
17:Q:47:ALA:CB	39:MA:115:LYS:NZ	2.82	0.42
22:V:144:ARG:C	22:V:146:SER:H	2.27	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:78:LYS:HD3	25:Y:87:LYS:CD	2.47	0.42
26:Z:13:LYS:HE2	26:Z:13:LYS:HB3	1.88	0.42
27:AA:89:ASP:OD1	27:AA:91:VAL:HG22	2.19	0.42
28:BA:26:SER:O	28:BA:27:LYS:C	2.62	0.42
29:CA:72:ALA:C	29:CA:73:MET:HE2	2.44	0.42
31:EA:30:ASP:O	31:EA:31:GLU:C	2.62	0.42
31:EA:38:PHE:CD2	31:EA:76:ASN:ND2	2.87	0.42
32:FA:46:ASP:O	32:FA:47:LYS:CB	2.67	0.42
34:HA:19:LYS:O	34:HA:20:SER:HB2	2.19	0.42
39:MA:5:LYS:HB3	39:MA:7:TYR:HD2	1.81	0.42
44:RA:95:VAL:HB	44:RA:122:ARG:NH1	2.35	0.42
49:WA:238:ASP:HB2	49:WA:256:THR:HB	1.99	0.42
53:AB:48:VAL:O	53:AB:86:LEU:HA	2.20	0.42
53:AB:177:MET:C	53:AB:179:GLN:N	2.77	0.42
55:CB:112:ARG:NH2	55:CB:115:LYS:HD2	2.34	0.42
57:EB:14:THR:HB	57:EB:17:GLU:CB	2.49	0.42
57:EB:59:ALA:HA	57:EB:91:ILE:CG2	2.50	0.42
58:FB:36:THR:HB	58:FB:57:ALA:C	2.44	0.42
61:IB:140:VAL:O	61:IB:141:LYS:HB2	2.19	0.42
65:MB:75:PRO:HG3	65:MB:93:VAL:HB	2.01	0.42
67:OB:17:ILE:HD11	67:OB:54:THR:HB	2.01	0.42
70:RB:95:ALA:HB1	70:RB:96:PRO:HD2	2.01	0.42
73:UB:70:LYS:HD2	73:UB:93:LEU:CD1	2.48	0.42
74:VB:57:VAL:HG22	74:VB:60:PHE:HE2	1.84	0.42
82:DC:17:THR:HA	82:DC:346:VAL:HG21	2.01	0.42
82:DC:489:VAL:O	82:DC:531:ALA:HA	2.19	0.42
83:EC:6859:U:C2	83:EC:6871:A:H2	2.37	0.42
83:EC:6891:G:H5'	83:EC:6892:U:OP2	2.19	0.42
1:A:534:A:C8	1:A:535:A:C8	3.08	0.42
1:A:629:U:O4'	2:B:846:A:N7	2.52	0.42
1:A:929:A:H1'	64:LB:123:SER:CA	2.50	0.42
1:A:959:U:O2	1:A:959:U:C2'	2.68	0.42
1:A:1241:G:H5"	65:MB:77:ARG:HB2	2.00	0.42
1:A:1567:U:H5"	68:PB:36:LYS:HA	2.02	0.42
2:B:855:U:H5"	23:W:95:TRP:CD1	2.54	0.42
2:B:880:G:C8	21:U:132:ALA:CB	3.02	0.42
2:B:1222:G:H3'	48:VA:56:ASN:ND2	2.35	0.42
2:B:1239:C:H5"	16:P:57:LYS:HG3	2.02	0.42
2:B:1253:U:H3'	2:B:1254:C:H5'	2.01	0.42
2:B:1256:G:C1'	16:P:128:VAL:HG22	2.50	0.42
2:B:1259:A:H5'	48:VA:53:MET:O	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1765:U:H5'	23:W:43:LYS:HD2	2.00	0.42
2:B:2818:U:H5'	2:B:2818:U:C6	2.49	0.42
2:B:3287:U:H6	2:B:3287:U:H5'	1.85	0.42
2:B:3306:U:H2'	2:B:3307:A:H5"	2.01	0.42
4:D:9:C:H2'	4:D:10:C:H5'	2.02	0.42
5:E:205:VAL:HG12	5:E:215:ARG:HD3	2.02	0.42
6:F:114:SER:O	6:F:115:ASN:C	2.62	0.42
6:F:148:VAL:HG23	6:F:149:ARG:N	2.34	0.42
7:G:296:THR:CG2	7:G:297:SER:N	2.82	0.42
7:G:305:ILE:HD12	7:G:306:THR:N	2.33	0.42
14:N:21:ARG:HG3	14:N:21:ARG:NH1	2.34	0.42
16:P:127:SER:O	16:P:131:GLU:OE1	2.37	0.42
17:Q:93:ILE:HB	17:Q:95:ILE:HD11	2.00	0.42
20:T:47:PHE:CE2	20:T:141:LEU:HA	2.54	0.42
24:X:80:ARG:HH21	24:X:80:ARG:CG	2.31	0.42
32:FA:96:LYS:O	32:FA:97:GLU:HB2	2.20	0.42
38:LA:38:LEU:N	38:LA:38:LEU:CD1	2.82	0.42
41:OA:22:CYS:SG	41:OA:37:CYS:HB3	2.60	0.42
41:OA:24:ARG:HD2	41:OA:36:SER:CB	2.49	0.42
46:TA:95:GLY:O	46:TA:96:GLU:HB2	2.18	0.42
47:UA:26:VAL:O	47:UA:27:LYS:C	2.62	0.42
48:VA:173:LEU:HD22	48:VA:178:ILE:HD13	2.01	0.42
49:WA:156:VAL:CG1	49:WA:157:VAL:N	2.81	0.42
53:AB:168:ILE:C	53:AB:168:ILE:HD12	2.45	0.42
54:BB:47:PHE:CD1	54:BB:101:LEU:HD21	2.54	0.42
58:FB:43:ILE:HG23	58:FB:57:ALA:CA	2.47	0.42
61:IB:108:PRO:HG3	61:IB:134:THR:OG1	2.20	0.42
65:MB:20:VAL:O	65:MB:25:LEU:HG	2.20	0.42
67:OB:32:LYS:HG2	67:OB:47:ARG:NH1	2.31	0.42
73:UB:107:PHE:O	73:UB:109:ARG:N	2.51	0.42
74:VB:113:ASN:HA	74:VB:116:LYS:HD3	2.02	0.42
75:WB:92:ILE:HG13	75:WB:100:ILE:CG2	2.41	0.42
82:DC:73:THR:HB	82:DC:439:GLY:CA	2.49	0.42
82:DC:317:LYS:H	82:DC:317:LYS:CD	2.31	0.42
82:DC:633:ILE:HG22	82:DC:647:ILE:HD11	2.02	0.42
82:DC:729:PHE:CE2	82:DC:796:MET:HB3	2.55	0.42
1:A:67:A:C2	1:A:69:G:H1'	2.55	0.42
1:A:71:A:C2	1:A:81:G:C2	3.08	0.42
1:A:114:C:N3	1:A:247:A:H2'	2.35	0.42
1:A:454:U:OP2	54:BB:66:MET:HE1	2.19	0.42
1:A:1367:G:H2'	1:A:1368:G:C8	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1378:U:H2'	1:A:1379:C:O4'	2.18	0.42
1:A:1454:G:H5'	65:MB:81:ARG:CZ	2.49	0.42
1:A:1628:U:H5'	76:XB:87:ARG:O	2.19	0.42
1:A:1677:C:H2'	1:A:1678:A:O4'	2.18	0.42
1:A:1738:U:H2'	1:A:1739:C:C6	2.55	0.42
2:B:595:G:H5'	8:H:308:LYS:NZ	2.35	0.42
2:B:675:C:H2'	2:B:676:G:O4'	2.19	0.42
2:B:819:U:H2'	2:B:820:A:H8	1.84	0.42
2:B:1254:C:C4'	16:P:135:THR:HG21	2.50	0.42
2:B:1447:G:C8	21:U:27:LYS:HB2	2.55	0.42
2:B:1455:U:O2'	2:B:1456:A:C8	2.73	0.42
2:B:1463:U:H2'	2:B:1464:G:O4'	2.19	0.42
2:B:1845:G:C2	2:B:1851:G:C5	3.07	0.42
2:B:2240:G:O2'	2:B:2241:U:H5'	2.20	0.42
2:B:2275:A:H1'	2:B:2312:A:N6	2.34	0.42
2:B:2295:A:C6	2:B:2296:A:N1	2.88	0.42
2:B:2300:G:O2'	2:B:2301:U:H5'	2.20	0.42
2:B:3186:A:H1'	13:M:43:VAL:O	2.20	0.42
2:B:3273:A:OP1	10:J:79:VAL:HG23	2.19	0.42
2:B:3393:U:H2'	2:B:3394:U:H6	1.83	0.42
6:F:44:ILE:O	6:F:62:VAL:HG12	2.20	0.42
8:H:13:GLY:O	8:H:14:GLU:O	2.37	0.42
8:H:209:TYR:HD2	8:H:211:GLU:N	2.17	0.42
8:H:288:ARG:HG2	8:H:288:ARG:NH1	2.34	0.42
9:I:30:TYR:HD2	9:I:33:ARG:HD3	1.85	0.42
9:I:164:LYS:HG3	9:I:195:LEU:HD11	2.02	0.42
10:J:55:LEU:HB2	10:J:64:LEU:CD1	2.49	0.42
14:N:48:LEU:HD22	14:N:49:CYS:H	1.85	0.42
16:P:67:ARG:HD2	16:P:67:ARG:HA	1.92	0.42
17:Q:135:ALA:O	17:Q:136:GLU:HG2	2.20	0.42
19:S:4:TYR:O	19:S:5:LYS:C	2.61	0.42
19:S:121:VAL:HG23	19:S:129:TYR:HB2	2.01	0.42
23:W:14:VAL:CG2	23:W:42:ARG:HD3	2.49	0.42
24:X:10:ILE:O	24:X:59:VAL:HB	2.20	0.42
24:X:12:ARG:HG2	24:X:59:VAL:HG22	2.01	0.42
30:DA:19:TYR:CD1	30:DA:19:TYR:C	2.98	0.42
30:DA:117:ALA:HA	30:DA:120:GLN:CG	2.50	0.42
31:EA:84:ARG:HA	34:HA:62:LEU:HD21	2.02	0.42
32:FA:16:SER:OG	32:FA:21:ARG:HB3	2.19	0.42
34:HA:31:VAL:O	34:HA:35:ARG:HG3	2.19	0.42
34:HA:55:GLU:CA	38:LA:94:LEU:HD11	2.50	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:JA:105:ARG:HA	36:JA:108:ILE:HD12	2.00	0.42
36:JA:123:LYS:HA	36:JA:126:LEU:CD1	2.49	0.42
37:KA:50:ALA:HB2	37:KA:68:TRP:CE3	2.55	0.42
38:LA:10:ARG:O	38:LA:12:PRO:HD3	2.20	0.42
39:MA:34:GLN:HB3	39:MA:38:ARG:CZ	2.50	0.42
54:BB:163:ASP:OD1	54:BB:166:SER:HB2	2.20	0.42
56:DB:21:GLU:O	56:DB:25:ARG:HG3	2.19	0.42
56:DB:218:GLU:O	56:DB:222:GLU:HB2	2.19	0.42
57:EB:9:LEU:O	57:EB:10:SER:HB3	2.20	0.42
59:GB:38:ASN:HB2	59:GB:41:GLU:HG3	2.02	0.42
59:GB:60:LEU:HD22	59:GB:60:LEU:N	2.34	0.42
59:GB:109:LEU:HD23	59:GB:109:LEU:HA	1.94	0.42
65:MB:25:LEU:HD13	65:MB:112:LEU:HD11	2.01	0.42
72:TB:28:ARG:CG	72:TB:29:PRO:HA	2.50	0.42
73:UB:43:PHE:HE2	73:UB:48:HIS:HA	1.84	0.42
75:WB:40:VAL:O	75:WB:75:LEU:HD11	2.20	0.42
82:DC:143:LEU:HD21	82:DC:189:VAL:CG2	2.50	0.42
82:DC:171:LYS:HA	82:DC:282:PHE:CZ	2.54	0.42
82:DC:250:PHE:HD2	82:DC:275:MET:SD	2.43	0.42
82:DC:270:GLU:HG2	82:DC:275:MET:HA	2.02	0.42
82:DC:283:ARG:HB3	82:DC:299:LEU:HD21	2.01	0.42
82:DC:346:VAL:HG12	82:DC:347:THR:N	2.35	0.42
82:DC:369:ILE:HD13	82:DC:402:ALA:HB3	2.02	0.42
82:DC:725:GLN:HG3	82:DC:803:THR:HG22	2.02	0.42
1:A:994:G:OP1	1:A:1005:A:H5'	2.19	0.42
1:A:1105:C:H2'	1:A:1106:U:C6	2.55	0.42
1:A:1293:U:H2'	1:A:1294:G:H8	1.85	0.42
1:A:1717:G:H2'	1:A:1718:G:C8	2.55	0.42
2:B:95:A:H8	2:B:95:A:O5'	2.03	0.42
2:B:215:G:O2'	2:B:216:G:H5'	2.20	0.42
2:B:405:U:O5'	2:B:405:U:H6	2.02	0.42
2:B:411:U:C2	3:C:13:A:C2	3.08	0.42
2:B:1108:U:O2'	2:B:1109:U:H5'	2.20	0.42
2:B:1388:U:O4	8:H:186:LYS:HD2	2.20	0.42
2:B:1479:U:H3	2:B:1483:G:N2	2.17	0.42
2:B:1584:U:H2'	2:B:1585:C:H6	1.85	0.42
2:B:2140:U:C2'	2:B:2141:U:H5'	2.50	0.42
2:B:2198:A:C5	2:B:2199:G:C8	3.08	0.42
2:B:2394:G:C5'	7:G:252:ILE:HG22	2.50	0.42
2:B:2436:U:O5'	2:B:2436:U:H6	2.02	0.42
2:B:2491:A:H2'	2:B:2492:C:C4'	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2701:U:OP1	25:Y:22:HIS:HB3	2.20	0.42
2:B:3351:U:H2'	2:B:3352:U:C5'	2.50	0.42
7:G:39:LYS:HB3	7:G:40:PRO:CD	2.49	0.42
7:G:266:ARG:HA	7:G:266:ARG:HD2	1.84	0.42
8:H:188:ARG:HA	8:H:200:THR:HG22	2.01	0.42
10:J:121:LEU:HB3	10:J:124:GLU:HB2	2.02	0.42
11:K:191:VAL:O	11:K:192:GLY:O	2.38	0.42
15:O:23:VAL:O	15:O:65:ILE:CG1	2.68	0.42
16:P:105:GLN:HG3	16:P:143:VAL:CG2	2.50	0.42
16:P:143:VAL:O	16:P:146:LYS:HD2	2.19	0.42
17:Q:3:ILE:HD11	32:FA:34:MET:CA	2.50	0.42
19:S:100:ALA:HB2	19:S:167:THR:HG21	2.02	0.42
21:U:67:ILE:HG23	21:U:82:ARG:CD	2.43	0.42
21:U:119:VAL:HG13	21:U:119:VAL:O	2.19	0.42
23:W:165:LYS:C	23:W:166:ASN:HD22	2.27	0.42
27:AA:68:GLU:C	27:AA:69:LEU:HD12	2.44	0.42
29:CA:82:LEU:HB3	29:CA:84:PHE:CZ	2.55	0.42
30:DA:36:SER:O	30:DA:38:GLU:N	2.53	0.42
30:DA:122:LYS:C	30:DA:124:GLY:H	2.28	0.42
37:KA:49:ILE:HD11	37:KA:71:VAL:CG2	2.49	0.42
41:OA:25:ARG:HD2	41:OA:25:ARG:O	2.19	0.42
46:TA:35:LEU:C	46:TA:37:ALA:N	2.78	0.42
48:VA:18:TYR:HB2	48:VA:88:PHE:CZ	2.55	0.42
49:WA:234:LEU:HD12	49:WA:234:LEU:N	2.35	0.42
54:BB:239:PRO:O	54:BB:240:LYS:C	2.63	0.42
56:DB:2:LYS:CD	56:DB:15:THR:HB	2.50	0.42
56:DB:3:LEU:O	56:DB:15:THR:HG22	2.19	0.42
59:GB:106:GLU:O	59:GB:106:GLU:HG3	2.20	0.42
61:IB:32:LYS:HG2	61:IB:33:ARG:N	2.34	0.42
61:IB:136:ARG:HG3	61:IB:136:ARG:NH1	2.35	0.42
65:MB:25:LEU:CD1	65:MB:112:LEU:HD11	2.50	0.42
68:PB:61:LEU:HD12	68:PB:65:GLU:HB3	2.01	0.42
74:VB:24:VAL:HG12	74:VB:25:VAL:N	2.34	0.42
74:VB:55:VAL:HA	74:VB:75:VAL:HG23	2.02	0.42
74:VB:127:LYS:HE2	74:VB:128:LYS:HD2	2.00	0.42
75:WB:77:ARG:CB	75:WB:77:ARG:HH11	2.32	0.42
78:ZB:56:LEU:HD23	78:ZB:56:LEU:H	1.83	0.42
79:AC:37:ASN:O	79:AC:38:ILE:HD13	2.19	0.42
79:AC:43:PHE:C	79:AC:43:PHE:HD1	2.28	0.42
80:BC:38:LEU:CD2	80:BC:39:LEU:HD22	2.50	0.42
82:DC:27:HIS:NE2	82:DC:138:GLN:HB2	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DC:251:ASN:C	82:DC:253:LYS:H	2.28	0.42
82:DC:351:TYR:CE1	82:DC:352:ARG:HG3	2.55	0.42
82:DC:655:TYR:O	82:DC:659:ILE:HG23	2.20	0.42
1:A:85:A:O2'	74:VB:120:GLY:HA2	2.19	0.42
1:A:330:G:H2'	1:A:331:A:O4'	2.20	0.42
1:A:396:G:O2'	1:A:398:G:N7	2.49	0.42
1:A:518:A:H1'	1:A:534:A:H61	1.82	0.42
1:A:631:G:C6	1:A:969:C:O2	2.73	0.42
1:A:959:U:OP2	63:KB:15:ALA:HB3	2.19	0.42
1:A:975:C:H2'	1:A:976:G:O4'	2.19	0.42
1:A:1172:G:H21	69:QB:88:VAL:HG23	1.85	0.42
1:A:1656:U:H3'	1:A:1657:U:C5'	2.50	0.42
1:A:1765:A:H3'	1:A:1766:A:H5"	2.02	0.42
2:B:73:C:C2	17:Q:59:ARG:CD	3.03	0.42
2:B:130:A:C5	2:B:131:C:C4	3.08	0.42
2:B:284:A:H4'	2:B:285:A:C2	2.54	0.42
2:B:286:U:H2'	2:B:287:G:O4'	2.19	0.42
2:B:413:U:O2'	2:B:414:U:H5'	2.20	0.42
2:B:722:G:C2'	2:B:723:U:H5'	2.50	0.42
2:B:1584:U:H2'	2:B:1585:C:C6	2.54	0.42
2:B:1636:U:O2	2:B:1710:C:H4'	2.20	0.42
2:B:1707:A:C2	2:B:1708:C:C2	3.08	0.42
2:B:2154:U:H4'	6:F:240:ALA:HB2	2.02	0.42
2:B:2304:C:C2'	2:B:2305:G:H5'	2.45	0.42
2:B:2355:G:H4'	21:U:139:TYR:CD2	2.55	0.42
2:B:2427:U:H2'	2:B:2428:U:C6	2.55	0.42
2:B:2541:U:C1'	2:B:2542:U:H4'	2.45	0.42
2:B:2635:A:H4'	2:B:2636:A:O5'	2.19	0.42
2:B:2939:G:H2'	2:B:2940:A:O4'	2.19	0.42
2:B:3218:A:O2'	2:B:3219:G:OP2	2.31	0.42
2:B:3348:G:H2'	2:B:3349:C:H6	1.80	0.42
3:C:37:A:N7	3:C:104:A:N7	2.67	0.42
4:D:67:G:H2'	4:D:68:C:O4'	2.20	0.42
5:E:210:MET:O	5:E:210:MET:HG2	2.20	0.42
9:I:155:THR:CA	9:I:179:ARG:HD2	2.50	0.42
12:L:78:PHE:HZ	12:L:164:VAL:HA	1.85	0.42
12:L:92:LYS:NZ	12:L:92:LYS:HB3	2.34	0.42
12:L:156:ASP:CG	12:L:183:LYS:HD3	2.45	0.42
14:N:9:TYR:CD1	14:N:9:TYR:N	2.88	0.42
14:N:98:ARG:HA	14:N:121:LYS:O	2.20	0.42
14:N:193:ASP:H	14:N:197:VAL:HA	1.85	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:128:VAL:C	16:P:131:GLU:HG2	2.45	0.42
17:Q:17:HIS:ND1	17:Q:17:HIS:N	2.67	0.42
17:Q:56:PRO:HB2	17:Q:112:ASN:HD21	1.85	0.42
19:S:38:ARG:HD3	19:S:39:ALA:N	2.35	0.42
19:S:39:ALA:HB1	19:S:63:ARG:HH22	1.85	0.42
19:S:158:HIS:HB3	19:S:160:GLU:OE2	2.20	0.42
20:T:9:ILE:O	20:T:36:VAL:HG22	2.20	0.42
23:W:21:LYS:HA	23:W:53:LYS:HD2	2.02	0.42
27:AA:54:LEU:HD21	27:AA:121:GLU:HB2	2.02	0.42
31:EA:15:ARG:HD3	31:EA:79:HIS:CE1	2.55	0.42
31:EA:57:HIS:HB3	31:EA:62:VAL:CG2	2.50	0.42
31:EA:96:VAL:HA	31:EA:100:THR:HG21	2.01	0.42
32:FA:42:ARG:HG3	32:FA:43:ILE:N	2.34	0.42
34:HA:65:THR:HG22	34:HA:66:LYS:N	2.33	0.42
34:HA:84:LEU:O	34:HA:85:PHE:C	2.62	0.42
40:NA:4:LYS:O	40:NA:16:LYS:HD3	2.19	0.42
49:WA:205:SER:HB3	49:WA:245:PHE:CE2	2.55	0.42
49:WA:209:THR:HB	49:WA:226:ALA:HB2	2.01	0.42
50:XA:97:PRO:C	50:XA:98:ILE:HG13	2.45	0.42
52:ZA:49:LYS:C	52:ZA:50:ILE:HG13	2.45	0.42
54:BB:105:VAL:HA	54:BB:190:GLY:O	2.20	0.42
59:GB:36:LEU:HD21	59:GB:108:ARG:HH12	1.85	0.42
59:GB:163:PRO:O	59:GB:164:PHE:HB2	2.20	0.42
60:HB:87:VAL:HG22	60:HB:87:VAL:O	2.19	0.42
66:NB:49:TYR:C	66:NB:51:PRO:HD2	2.45	0.42
67:OB:28:PHE:CE2	67:OB:32:LYS:HD3	2.55	0.42
69:QB:38:LYS:CE	69:QB:38:LYS:H	2.32	0.42
69:QB:40:SER:HB3	69:QB:43:ASN:HD22	1.83	0.42
69:QB:108:LEU:HA	69:QB:111:ILE:HG22	2.02	0.42
72:TB:90:THR:HG22	72:TB:102:VAL:CG2	2.49	0.42
73:UB:93:LEU:C	73:UB:96:VAL:HG22	2.45	0.42
75:WB:54:VAL:HB	75:WB:55:PRO:HD3	2.02	0.42
82:DC:24:VAL:O	82:DC:105:SER:HB3	2.19	0.42
82:DC:281:ILE:HA	82:DC:284:LEU:HD12	2.02	0.42
1:A:210:A:H2'	1:A:211:U:C6	2.55	0.42
1:A:1278:G:H2'	1:A:1279:C:C6	2.55	0.42
1:A:1647:U:H2'	1:A:1648:A:O4'	2.20	0.42
2:B:11:A:C2	3:C:148:G:C4	3.08	0.42
2:B:131:C:H2'	2:B:132:C:O4'	2.20	0.42
2:B:271:C:H4'	2:B:317:A:C2	2.48	0.42
2:B:308:A:H8	2:B:308:A:O5'	2.03	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:632:G:H2'	2:B:633:C:O4'	2.20	0.42
2:B:682:U:H5"	2:B:683:U:H5	1.84	0.42
2:B:809:G:O2'	2:B:810:A:H5'	2.20	0.42
2:B:822:G:H1'	6:F:15:ILE:HB	2.00	0.42
2:B:1238:C:H2'	2:B:1239:C:H1'	2.02	0.42
2:B:2161:G:C5	2:B:2162:U:C5	3.08	0.42
2:B:2259:A:C8	2:B:2260:U:C6	3.05	0.42
2:B:2496:C:H5'	2:B:2497:U:OP1	2.19	0.42
2:B:2527:G:H2'	2:B:2528:G:C8	2.54	0.42
2:B:2894:C:H2'	2:B:2895:G:H8	1.85	0.42
2:B:2997:G:O2'	2:B:2998:U:H5'	2.20	0.42
2:B:3157:U:C4'	2:B:3158:G:H8	2.32	0.42
2:B:3161:C:H6	2:B:3161:C:O5'	2.02	0.42
2:B:3230:G:C2'	2:B:3231:U:H5'	2.50	0.42
4:D:64:A:P	14:N:206:LEU:HB3	2.60	0.42
7:G:324:VAL:HG11	7:G:328:ILE:CD1	2.43	0.42
7:G:368:GLY:N	28:BA:17:ARG:NH2	2.68	0.42
8:H:36:HIS:O	8:H:37:THR:C	2.62	0.42
8:H:58:HIS:HA	8:H:90:PHE:CE1	2.54	0.42
9:I:80:SER:C	9:I:82:GLU:N	2.78	0.42
9:I:105:ILE:HD13	9:I:105:ILE:C	2.45	0.42
9:I:257:GLU:CD	9:I:257:GLU:N	2.76	0.42
9:I:285:ARG:HH11	9:I:285:ARG:CB	2.06	0.42
11:K:158:LYS:HD3	11:K:158:LYS:C	2.44	0.42
12:L:33:ASN:OD1	12:L:33:ASN:C	2.62	0.42
15:O:14:ILE:CG2	15:O:129:VAL:HG13	2.49	0.42
17:Q:5:LYS:HB2	17:Q:7:LEU:HG	2.02	0.42
18:R:72:LEU:HA	18:R:73:PRO:HD3	1.86	0.42
19:S:189:LYS:O	19:S:190:THR:C	2.62	0.42
20:T:167:TYR:CD1	20:T:168:TYR:N	2.88	0.42
26:Z:12:ALA:HA	26:Z:68:THR:HB	2.01	0.42
30:DA:95:VAL:HA	30:DA:96:PRO:HD3	1.88	0.42
31:EA:68:ILE:HG22	31:EA:70:PRO:HD3	2.02	0.42
32:FA:75:LEU:HA	32:FA:78:LEU:HB2	2.02	0.42
33:GA:47:LEU:O	33:GA:48:HIS:C	2.63	0.42
34:HA:51:LEU:HD12	34:HA:51:LEU:HA	1.87	0.42
36:JA:4:LEU:HD11	36:JA:91:THR:HA	2.00	0.42
38:LA:68:THR:O	38:LA:71:THR:O	2.37	0.42
40:NA:53:TYR:CE1	40:NA:76:ARG:HG2	2.54	0.42
48:VA:173:LEU:CD2	48:VA:178:ILE:HD13	2.50	0.42
49:WA:278:PHE:CE1	49:WA:286:GLU:HB3	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:XA:197:ILE:HD13	50:XA:197:ILE:N	2.22	0.42
51:YA:52:THR:C	51:YA:54:LEU:H	2.28	0.42
52:ZA:57:PHE:HD1	71:SB:26:ALA:HB2	1.85	0.42
52:ZA:66:PHE:N	52:ZA:134:LEU:HD21	2.35	0.42
59:GB:36:LEU:CD2	59:GB:108:ARG:HH12	2.33	0.42
59:GB:43:TYR:HA	59:GB:46:SER:OG	2.19	0.42
59:GB:119:ALA:HB2	59:GB:128:LEU:CD1	2.45	0.42
61:IB:34:TRP:CG	61:IB:35:TYR:H	2.38	0.42
61:IB:53:TYR:C	61:IB:54:ILE:HD12	2.45	0.42
65:MB:38:PRO:C	65:MB:40:ARG:H	2.28	0.42
66:NB:59:LYS:HD2	66:NB:93:HIS:CE1	2.55	0.42
73:UB:33:LEU:HD23	73:UB:33:LEU:HA	1.82	0.42
73:UB:43:PHE:CE1	73:UB:49:ALA:HB3	2.54	0.42
74:VB:15:ASN:HA	74:VB:16:PRO:HD3	1.87	0.42
79:AC:5:ASN:HA	79:AC:7:TRP:CZ3	2.54	0.42
82:DC:45:ILE:CD1	82:DC:78:TYR:HB2	2.47	0.42
82:DC:175:TYR:CE2	82:DC:271:ARG:NH1	2.88	0.42
82:DC:465:LYS:HE2	82:DC:512:SER:O	2.20	0.42
1:A:140:A:OP2	56:DB:187:LYS:HE2	2.20	0.41
1:A:477:A:H2	1:A:512:A:C2	2.38	0.41
1:A:1232:U:H2'	1:A:1233:G:O4'	2.20	0.41
1:A:1350:U:H2'	1:A:1351:G:H8	1.82	0.41
1:A:1484:G:H1	1:A:1591:C:H1'	1.85	0.41
1:A:1572:G:H2'	1:A:1572:G:N3	2.35	0.41
1:A:1630:U:O3'	1:A:1631:A:H2'	2.20	0.41
2:B:259:C:O2'	2:B:260:C:H5'	2.20	0.41
2:B:372:A:H2'	2:B:373:A:C8	2.55	0.41
2:B:546:C:H4'	2:B:547:G:C2	2.55	0.41
2:B:806:A:H5"	2:B:936:A:H61	1.85	0.41
2:B:827:A:O2'	2:B:828:A:H5'	2.20	0.41
2:B:852:U:H2'	2:B:853:G:C8	2.54	0.41
2:B:911:C:H3'	6:F:9:ARG:HH11	1.85	0.41
2:B:949:C:O5'	2:B:949:C:H6	2.03	0.41
2:B:1125:U:O2'	2:B:1126:G:H5'	2.20	0.41
2:B:1156:C:O5'	2:B:1156:C:H6	2.03	0.41
2:B:1632:A:C4	2:B:1644:C:C2	3.07	0.41
2:B:1777:U:O2'	2:B:1778:G:H5'	2.20	0.41
2:B:1859:A:H2'	2:B:1860:G:H5'	2.01	0.41
2:B:2370:G:H2'	2:B:2371:G:O4'	2.19	0.41
2:B:2610:G:C2	2:B:2611:U:C2	3.07	0.41
2:B:2633:U:H2'	2:B:2634:U:O4'	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2746:A:C8	9:I:153:THR:HG23	2.55	0.41
2:B:2999:U:O2'	2:B:3296:A:H5'	2.20	0.41
2:B:3188:G:H2'	2:B:3189:G:C8	2.54	0.41
2:B:3298:C:H2'	2:B:3299:A:C8	2.55	0.41
2:B:3309:G:C2'	2:B:3310:A:H5'	2.48	0.41
2:B:3379:C:O2'	2:B:3380:U:H5'	2.20	0.41
4:D:48:U:C2'	4:D:49:G:H5'	2.50	0.41
4:D:70:U:H2'	4:D:71:G:O4'	2.20	0.41
6:F:55:GLY:C	6:F:130:SER:OG	2.63	0.41
9:I:111:GLN:OE1	9:I:252:ALA:HA	2.20	0.41
10:J:30:LEU:O	10:J:31:ARG:C	2.63	0.41
13:M:180:TYR:HB2	44:RA:85:LEU:HD11	2.00	0.41
14:N:27:PRO:HG3	14:N:123:HIS:O	2.20	0.41
15:O:47:GLN:HA	15:O:67:VAL:HA	2.02	0.41
20:T:153:VAL:O	20:T:154:ALA:C	2.62	0.41
21:U:120:ASN:ND2	21:U:145:HIS:HB2	2.35	0.41
21:U:165:VAL:HG13	21:U:165:VAL:O	2.20	0.41
22:V:10:HIS:CD2	22:V:10:HIS:N	2.88	0.41
22:V:12:ARG:HE	22:V:12:ARG:HB2	1.63	0.41
27:AA:108:GLU:HG3	27:AA:128:ARG:HG2	2.01	0.41
30:DA:46:LYS:O	30:DA:47:ALA:HB2	2.20	0.41
30:DA:58:VAL:HG22	30:DA:99:LEU:HD13	2.00	0.41
47:UA:55:TRP:CZ2	47:UA:70:THR:C	2.98	0.41
48:VA:16:ARG:HG3	48:VA:64:ARG:HH12	1.84	0.41
49:WA:32:LEU:HD11	49:WA:94:VAL:HG11	2.01	0.41
49:WA:47:LEU:HD22	49:WA:54:PHE:CD2	2.55	0.41
49:WA:73:LEU:HD22	49:WA:77:GLY:O	2.19	0.41
50:XA:13:ASP:O	50:XA:17:LEU:HD13	2.20	0.41
50:XA:57:LEU:O	50:XA:57:LEU:HD23	2.20	0.41
50:XA:76:ILE:HG22	50:XA:77:SER:N	2.35	0.41
52:ZA:147:ASN:HB3	71:SB:3:ASN:HA	2.00	0.41
53:AB:25:PHE:HA	53:AB:28:GLU:HB3	2.01	0.41
54:BB:62:LYS:O	54:BB:66:MET:HG2	2.20	0.41
54:BB:200:ARG:O	54:BB:201:HIS:HB2	2.19	0.41
58:FB:172:ARG:HB3	58:FB:175:GLN:HG3	2.01	0.41
59:GB:179:ARG:C	59:GB:182:GLU:HG3	2.45	0.41
60:HB:40:LEU:HD13	60:HB:40:LEU:C	2.45	0.41
60:HB:50:THR:HG22	60:HB:55:VAL:HG13	2.02	0.41
63:KB:114:ARG:O	63:KB:118:ILE:HG13	2.20	0.41
65:MB:50:THR:O	65:MB:52:LYS:HG3	2.20	0.41
65:MB:107:ILE:HA	65:MB:111:MET:SD	2.60	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:PB:15:LEU:HB2	68:PB:16:ARG:H	1.77	0.41
69:QB:140:LEU:HA	69:QB:143:ASP:HB2	2.02	0.41
72:TB:47:ILE:HD12	72:TB:47:ILE:O	2.20	0.41
74:VB:86:GLU:HA	74:VB:87:PRO:HD3	1.78	0.41
82:DC:103:ILE:CD1	82:DC:121:VAL:HG23	2.50	0.41
82:DC:244:LEU:O	82:DC:273:PHE:HB2	2.20	0.41
82:DC:647:ILE:HG12	82:DC:685:ARG:HH21	1.85	0.41
82:DC:718:LEU:HA	82:DC:722:PRO:CG	2.50	0.41
83:EC:6820:C:H2'	83:EC:6821:U:C5	2.55	0.41
1:A:398:G:H5"	58:FB:49:ARG:NE	2.30	0.41
1:A:806:A:H2'	1:A:807:A:O4'	2.21	0.41
1:A:884:A:C2	1:A:928:U:O2	2.72	0.41
1:A:965:U:H3'	1:A:966:A:H5'	2.02	0.41
1:A:1147:A:H2'	1:A:1148:C:O4'	2.20	0.41
1:A:1179:G:H2'	1:A:1180:C:C6	2.55	0.41
1:A:1191:U:H2'	1:A:1192:C:C6	2.54	0.41
1:A:1648:A:H2'	1:A:1649:G:C8	2.55	0.41
2:B:55:G:OP1	41:OA:43:LYS:HE3	2.21	0.41
2:B:67:A:N1	2:B:300:G:O2'	2.50	0.41
2:B:398:A:H5"	21:U:3:ARG:HG3	2.02	0.41
2:B:987:U:H2'	2:B:988:U:C6	2.55	0.41
2:B:989:A:H2'	2:B:990:U:O4'	2.21	0.41
2:B:990:U:C3'	2:B:991:G:H5"	2.49	0.41
2:B:1209:G:H2'	2:B:1210:U:O4'	2.20	0.41
2:B:1448:U:H5	2:B:2355:G:N2	2.19	0.41
2:B:1522:U:H4'	2:B:1523:U:OP2	2.19	0.41
2:B:1892:G:C2'	2:B:1893:A:H5"	2.50	0.41
2:B:1933:A:C2'	2:B:1934:G:H5'	2.49	0.41
2:B:2352:A:OP1	21:U:82:ARG:HB3	2.20	0.41
2:B:2475:G:H2'	2:B:2476:C:O4'	2.20	0.41
2:B:2515:A:H2'	2:B:2516:U:O4'	2.20	0.41
6:F:130:SER:HB3	6:F:171:GLY:CA	2.47	0.41
6:F:177:LYS:HB2	47:UA:29:LEU:CD1	2.38	0.41
7:G:122:TRP:C	7:G:124:LYS:N	2.78	0.41
7:G:294:GLY:O	7:G:303:LYS:HE2	2.20	0.41
11:K:98:LYS:HB3	11:K:99:PRO:CD	2.40	0.41
11:K:186:HIS:C	11:K:188:ILE:N	2.76	0.41
12:L:24:ASN:N	12:L:25:PRO:CD	2.79	0.41
13:M:161:LEU:O	13:M:162:GLN:C	2.63	0.41
15:O:15:GLU:HB3	15:O:130:VAL:HG13	2.02	0.41
15:O:17:LEU:HD13	15:O:129:VAL:HG22	2.01	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:U:14:SER:HB3	21:U:149:VAL:HG13	2.01	0.41
22:V:133:LYS:HB2	22:V:135:GLN:CD	2.45	0.41
23:W:35:ALA:HB1	23:W:40:ALA:HB3	2.03	0.41
23:W:179:GLU:O	23:W:180:LYS:HB2	2.20	0.41
31:EA:26:VAL:HG12	31:EA:89:VAL:CG2	2.49	0.41
31:EA:129:TRP:C	31:EA:131:PHE:N	2.77	0.41
32:FA:78:LEU:C	32:FA:80:THR:N	2.77	0.41
44:RA:122:ARG:O	44:RA:122:ARG:HG3	2.19	0.41
46:TA:71:ARG:CD	46:TA:80:ARG:NH2	2.83	0.41
48:VA:143:THR:CG2	48:VA:150:ILE:HG23	2.49	0.41
49:WA:59:ARG:HD3	49:WA:97:GLY:N	2.34	0.41
49:WA:93:ASP:HB2	49:WA:100:TYR:CE1	2.54	0.41
49:WA:201:THR:OG1	49:WA:242:SER:HA	2.20	0.41
50:XA:39:ASN:HD22	50:XA:40:ALA:H	1.67	0.41
50:XA:126:PRO:CG	50:XA:151:SER:HB3	2.48	0.41
53:AB:49:ILE:HG13	53:AB:87:TYR:HD2	1.85	0.41
53:AB:162:GLN:N	53:AB:163:PRO:HD2	2.34	0.41
54:BB:107:GLY:HA3	54:BB:189:LEU:HD23	2.02	0.41
54:BB:206:ASP:HB2	54:BB:222:LEU:CD1	2.48	0.41
55:CB:41:LYS:HD2	55:CB:69:PHE:CZ	2.55	0.41
55:CB:43:PHE:CG	55:CB:44:ASN:N	2.88	0.41
56:DB:2:LYS:CG	56:DB:15:THR:HB	2.50	0.41
56:DB:56:ASN:O	56:DB:106:LEU:HB3	2.20	0.41
56:DB:77:LEU:CD1	56:DB:95:LYS:HB2	2.42	0.41
60:HB:16:PHE:HE2	60:HB:73:VAL:O	2.03	0.41
63:KB:39:LYS:HE3	63:KB:39:LYS:HB2	1.92	0.41
63:KB:92:ILE:O	63:KB:96:VAL:HG23	2.19	0.41
69:QB:57:ARG:HH21	69:QB:101:ASN:HD21	1.67	0.41
75:WB:80:LEU:HD13	75:WB:101:TYR:CE2	2.55	0.41
75:WB:83:LEU:O	75:WB:89:ILE:HG12	2.20	0.41
1:A:401:A:H3'	1:A:402:C:H5"	2.02	0.41
1:A:472:U:H2'	1:A:473:A:C8	2.56	0.41
1:A:601:A:H2'	1:A:602:U:O4'	2.21	0.41
1:A:1203:A:H62	1:A:1597:A:H2	1.68	0.41
2:B:71:A:OP1	17:Q:62:THR:HG22	2.20	0.41
2:B:339:C:H5'	2:B:339:C:H6	1.85	0.41
2:B:715:A:N6	2:B:782:U:H5'	2.35	0.41
2:B:1067:U:H2'	2:B:1068:C:C6	2.55	0.41
2:B:1185:C:H3'	2:B:1186:G:H5"	2.01	0.41
2:B:1232:C:O2'	2:B:1233:G:H5'	2.20	0.41
2:B:1439:U:H2'	2:B:1440:G:C8	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1561:G:N2	2:B:1562:C:C2	2.89	0.41
2:B:1774:C:C2'	2:B:1775:G:H5"	2.48	0.41
2:B:1833:G:H5"	43:QA:10:LYS:HD2	2.02	0.41
2:B:1940:G:N2	2:B:3362:A:C8	2.85	0.41
2:B:2462:A:H4'	2:B:2485:A:H2	1.86	0.41
2:B:2697:A:H2'	2:B:2698:G:H8	1.84	0.41
2:B:2828:G:OP1	14:N:7:ARG:NH1	2.53	0.41
2:B:2830:G:H2'	2:B:2831:G:C8	2.55	0.41
2:B:3346:U:H2'	2:B:3347:A:C8	2.55	0.41
3:C:108:C:O5'	3:C:108:C:H6	2.03	0.41
4:D:7:G:P	9:I:50:ARG:HH22	2.43	0.41
4:D:48:U:O2	4:D:50:U:C4	2.74	0.41
4:D:97:A:OP1	24:X:43:TYR:CD1	2.74	0.41
5:E:132:GLY:CA	83:EC:6818:G:H4'	2.51	0.41
6:F:30:ARG:HG3	6:F:36:GLU:OE1	2.20	0.41
6:F:118:GLU:HA	6:F:158:ILE:HG21	2.01	0.41
8:H:317:PRO:C	8:H:319:LYS:H	2.26	0.41
9:I:45:ASN:HD22	9:I:45:ASN:HA	1.62	0.41
10:J:8:LYS:H	10:J:8:LYS:CD	2.17	0.41
11:K:118:LYS:HB2	11:K:195:PHE:CD1	2.55	0.41
11:K:233:GLU:HG3	24:X:35:VAL:CG2	2.50	0.41
12:L:93:LEU:CD2	12:L:214:LEU:HD22	2.47	0.41
13:M:100:ASN:HD22	13:M:115:ARG:CD	2.33	0.41
14:N:171:TRP:O	14:N:174:THR:OG1	2.35	0.41
15:O:20:ASN:O	15:O:126:ASP:HB2	2.19	0.41
17:Q:63:VAL:CG1	32:FA:128:ARG:NH2	2.79	0.41
24:X:12:ARG:CD	24:X:22:PRO:HD2	2.50	0.41
24:X:43:TYR:C	24:X:43:TYR:CD2	2.98	0.41
24:X:107:TYR:CE1	24:X:118:PHE:HD1	2.39	0.41
28:BA:20:LEU:C	28:BA:20:LEU:CD2	2.92	0.41
28:BA:60:LYS:HD3	28:BA:60:LYS:HA	1.94	0.41
31:EA:2:ALA:O	34:HA:37:GLY:HA3	2.20	0.41
32:FA:48:TYR:CD2	32:FA:48:TYR:N	2.88	0.41
35:IA:96:VAL:HG23	35:IA:98:VAL:HB	2.01	0.41
37:KA:53:TYR:HD1	37:KA:53:TYR:H	1.68	0.41
46:TA:26:THR:OG1	46:TA:71:ARG:HB3	2.19	0.41
48:VA:100:ILE:HG13	48:VA:101:VAL:CG2	2.50	0.41
50:XA:84:ARG:NH2	50:XA:204:TYR:HA	2.35	0.41
53:AB:178:ARG:H	53:AB:178:ARG:HG2	1.68	0.41
55:CB:77:TYR:CD2	55:CB:87:CYS:HB2	2.55	0.41
55:CB:200:ASN:HB3	55:CB:205:SER:HB3	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:DB:179:VAL:O	56:DB:179:VAL:HG13	2.20	0.41
56:DB:207:GLU:O	56:DB:210:GLN:HB2	2.21	0.41
57:EB:181:ILE:HD12	57:EB:181:ILE:N	2.35	0.41
57:EB:185:ILE:H	57:EB:185:ILE:CD1	2.32	0.41
58:FB:81:VAL:HG21	58:FB:95:THR:O	2.20	0.41
61:IB:44:THR:HG23	61:IB:44:THR:O	2.20	0.41
61:IB:125:VAL:HA	61:IB:140:VAL:HG12	2.01	0.41
65:MB:75:PRO:CA	65:MB:93:VAL:HB	2.50	0.41
69:QB:135:ILE:C	69:QB:135:ILE:HD12	2.45	0.41
71:SB:1:MET:SD	71:SB:10:GLU:HB3	2.60	0.41
72:TB:45:GLY:O	72:TB:68:ARG:HD2	2.21	0.41
82:DC:115:VAL:HG11	82:DC:145:GLN:OE1	2.20	0.41
82:DC:300:LEU:HG	82:DC:305:ILE:O	2.20	0.41
82:DC:438:MET:HB2	82:DC:441:PHE:CB	2.51	0.41
82:DC:612:PHE:HB2	82:DC:631:ARG:O	2.20	0.41
82:DC:747:LEU:HD12	82:DC:752:GLY:HA3	2.02	0.41
1:A:348:U:H2'	1:A:349:U:H5'	2.01	0.41
1:A:428:A:H2'	1:A:429:G:H5'	2.02	0.41
1:A:624:G:C6	1:A:976:G:N1	2.89	0.41
1:A:761:G:O2'	1:A:762:A:H5'	2.21	0.41
1:A:778:G:H2'	1:A:779:U:H5'	2.01	0.41
1:A:811:A:H2	1:A:816:G:C2	2.39	0.41
1:A:1102:G:H2'	1:A:1103:U:O4'	2.20	0.41
1:A:1346:A:H5'	1:A:1348:A:N7	2.35	0.41
1:A:1498:G:OP2	69:QB:73:VAL:HB	2.20	0.41
1:A:1746:A:H2'	1:A:1747:G:O4'	2.20	0.41
2:B:818:C:H5"	41:OA:10:LYS:CB	2.46	0.41
2:B:880:G:C8	21:U:132:ALA:HB2	2.55	0.41
2:B:1100:U:P	11:K:196:LYS:HD2	2.60	0.41
2:B:1184:A:H2'	2:B:1185:C:H6	1.83	0.41
2:B:1201:C:H6	2:B:1201:C:H5'	1.85	0.41
2:B:1214:U:OP1	24:X:91:TYR:N	2.54	0.41
2:B:1394:A:H4'	2:B:1420:C:H4'	2.02	0.41
2:B:1485:G:C2	2:B:1486:G:C4	3.08	0.41
2:B:1523:U:H5'	29:CA:113:LEU:CB	2.49	0.41
2:B:1724:U:H1'	2:B:1725:C:C5	2.56	0.41
2:B:1869:C:H4'	2:B:3077:A:O2'	2.20	0.41
2:B:2357:A:H2'	2:B:2358:A:C8	2.56	0.41
2:B:2678:A:C2	83:EC:6924:G:H1'	2.55	0.41
2:B:3072:C:H2'	2:B:3073:A:O4'	2.21	0.41
2:B:3256:G:H2'	2:B:3257:C:O4'	2.19	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3314:A:O5'	2:B:3314:A:H8	2.04	0.41
6:F:155:LYS:HD2	6:F:155:LYS:O	2.20	0.41
6:F:180:LEU:HD11	47:UA:26:VAL:HG21	2.03	0.41
6:F:202:VAL:CG1	6:F:217:GLN:HB3	2.50	0.41
7:G:150:ARG:HG2	7:G:150:ARG:NH1	2.35	0.41
11:K:81:HIS:C	11:K:83:LEU:H	2.28	0.41
11:K:121:LYS:O	11:K:125:GLU:HG2	2.21	0.41
11:K:180:SER:OG	11:K:183:ASP:HB2	2.21	0.41
17:Q:60:ALA:O	17:Q:66:ASN:HA	2.20	0.41
21:U:18:ARG:HA	21:U:94:LEU:HD11	2.03	0.41
24:X:81:TYR:CE1	24:X:88:HIS:HB2	2.54	0.41
24:X:90:MET:CE	24:X:92:LYS:HE2	2.50	0.41
24:X:107:TYR:CE1	24:X:121:ILE:HG21	2.55	0.41
24:X:155:ARG:HD3	24:X:172:TYR:CE2	2.56	0.41
30:DA:15:ALA:C	30:DA:17:LYS:N	2.76	0.41
30:DA:121:ARG:C	30:DA:123:GLY:H	2.27	0.41
31:EA:123:GLN:O	31:EA:124:ALA:HB3	2.20	0.41
32:FA:6:THR:HG22	32:FA:8:THR:H	1.85	0.41
32:FA:126:LYS:HE3	32:FA:126:LYS:HB2	1.90	0.41
34:HA:90:VAL:HG12	34:HA:91:SER:N	2.34	0.41
34:HA:95:ALA:HB1	34:HA:100:ILE:HD11	2.01	0.41
37:KA:52:VAL:HG21	37:KA:99:ARG:NE	2.35	0.41
39:MA:32:LYS:O	39:MA:35:LYS:N	2.52	0.41
40:NA:66:GLU:O	40:NA:70:ARG:HG3	2.21	0.41
43:QA:3:ALA:O	43:QA:4:GLN:HG3	2.21	0.41
48:VA:77:LEU:HB3	48:VA:78:PRO:HD3	2.03	0.41
49:WA:88:THR:HG22	49:WA:103:PHE:O	2.21	0.41
49:WA:161:LYS:O	49:WA:161:LYS:HG3	2.21	0.41
49:WA:176:LYS:HE3	49:WA:197:SER:CA	2.49	0.41
50:XA:84:ARG:HG2	50:XA:84:ARG:NH1	2.35	0.41
52:ZA:139:ILE:HG22	52:ZA:141:ARG:HG2	2.02	0.41
53:AB:51:ARG:NH1	53:AB:51:ARG:HB2	2.35	0.41
58:FB:159:GLN:HB2	58:FB:165:LEU:CD2	2.50	0.41
61:IB:128:CYS:SG	61:IB:138:ASN:CB	3.08	0.41
67:OB:17:ILE:HG12	67:OB:24:LEU:CD1	2.48	0.41
68:PB:70:VAL:HA	68:PB:73:MET:HE3	2.02	0.41
74:VB:91:LEU:HD13	74:VB:96:LEU:CB	2.44	0.41
74:VB:96:LEU:HD12	74:VB:96:LEU:N	2.36	0.41
79:AC:14:TYR:CD1	79:AC:14:TYR:N	2.88	0.41
80:BC:50:VAL:HG12	80:BC:53:LYS:O	2.20	0.41
82:DC:322:VAL:HA	82:DC:325:ARG:HD2	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:EC:6863:C:H42	83:EC:6867:C:H41	1.68	0.41
1:A:185:U:H2'	1:A:186:C:H5"	2.01	0.41
1:A:540:G:H4'	1:A:541:A:H2'	2.01	0.41
1:A:629:U:H2'	1:A:630:A:C4'	2.50	0.41
1:A:795:U:C5	1:A:796:A:N7	2.88	0.41
1:A:841:U:H2'	1:A:842:C:C6	2.55	0.41
1:A:855:A:H2'	1:A:856:A:H3'	2.02	0.41
1:A:872:G:H2'	1:A:873:U:O4'	2.20	0.41
1:A:1199:G:C6	79:AC:40:ARG:HD3	2.55	0.41
1:A:1208:A:C2	1:A:1209:C:C6	3.08	0.41
1:A:1359:C:N4	1:A:1360:A:C2	2.89	0.41
1:A:1562:G:H2'	1:A:1563:C:C6	2.56	0.41
1:A:1673:G:H1	1:A:1728:A:N6	2.14	0.41
1:A:1680:G:H1'	1:A:1721:A:H62	1.85	0.41
2:B:62:A:O2'	2:B:63:A:H5'	2.20	0.41
2:B:237:G:H2'	2:B:238:A:O4'	2.19	0.41
2:B:512:U:O2'	2:B:513:G:H5'	2.21	0.41
2:B:536:U:H3	2:B:557:A:H62	1.67	0.41
2:B:710:A:H2'	2:B:711:A:C8	2.55	0.41
2:B:2173:U:H2'	2:B:2174:G:C8	2.55	0.41
2:B:2254:U:C2	2:B:2261:G:O6	2.73	0.41
2:B:2512:C:H2'	2:B:2513:U:C6	2.55	0.41
2:B:2825:C:C5	2:B:2826:U:C5	3.09	0.41
2:B:3078:U:O2	2:B:3078:U:C2'	2.68	0.41
2:B:3168:A:C2'	2:B:3169:U:H5'	2.51	0.41
2:B:3346:U:O5'	2:B:3346:U:H6	2.04	0.41
3:C:43:A:H2'	3:C:44:A:H8	1.85	0.41
6:F:37:ARG:HG3	6:F:38:HIS:CD2	2.55	0.41
6:F:80:GLU:CG	47:UA:76:ALA:HB1	2.37	0.41
6:F:159:SER:C	6:F:161:ASP:N	2.78	0.41
7:G:125:SER:C	7:G:127:LYS:H	2.27	0.41
7:G:212:ASN:O	7:G:281:LYS:HG3	2.20	0.41
8:H:187:LEU:HD23	8:H:188:ARG:H	1.86	0.41
8:H:281:ILE:HG13	22:V:125:ASP:CB	2.44	0.41
9:I:45:ASN:O	9:I:46:THR:C	2.63	0.41
9:I:83:LEU:N	9:I:84:PRO:CD	2.84	0.41
10:J:149:ILE:C	10:J:151:LYS:H	2.28	0.41
16:P:110:ILE:CG2	16:P:129:THR:HG21	2.51	0.41
17:Q:42:ARG:O	17:Q:46:ILE:HB	2.21	0.41
18:R:85:TRP:NE1	18:R:90:VAL:HG13	2.35	0.41
19:S:21:PHE:O	19:S:25:VAL:HG23	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:16:VAL:O	20:T:17:GLY:C	2.64	0.41
23:W:88:ARG:HG2	23:W:88:ARG:NH1	2.36	0.41
24:X:14:LEU:HA	24:X:15:PRO:HD3	1.93	0.41
27:AA:132:ASN:N	27:AA:132:ASN:ND2	2.69	0.41
29:CA:91:ASN:H	29:CA:94:GLN:HB2	1.85	0.41
30:DA:117:ALA:HA	30:DA:120:GLN:HG3	2.01	0.41
41:OA:67:LEU:C	41:OA:69:HIS:N	2.76	0.41
48:VA:9:ALA:HA	48:VA:12:PHE:CD2	2.55	0.41
48:VA:61:ARG:O	48:VA:61:ARG:HD2	2.20	0.41
49:WA:152:SER:O	49:WA:153:GLN:HG3	2.20	0.41
54:BB:41:SER:O	54:BB:43:PRO:HD3	2.20	0.41
55:CB:79:ASN:HD22	55:CB:79:ASN:H	1.67	0.41
55:CB:134:VAL:O	55:CB:138:THR:HG23	2.19	0.41
56:DB:3:LEU:HG	56:DB:18:ILE:HG13	2.02	0.41
56:DB:133:LEU:HD12	56:DB:133:LEU:N	2.36	0.41
57:EB:182:VAL:CG1	57:EB:183:PHE:H	2.34	0.41
58:FB:38:ILE:HG12	58:FB:96:LEU:HD11	2.02	0.41
58:FB:138:ASN:HA	58:FB:141:ARG:NE	2.36	0.41
58:FB:155:SER:O	58:FB:159:GLN:HG3	2.20	0.41
58:FB:193:LEU:C	58:FB:193:LEU:HD23	2.45	0.41
59:GB:136:VAL:O	59:GB:136:VAL:HG12	2.20	0.41
60:HB:1:MET:HE2	60:HB:45:ALA:HB2	2.01	0.41
60:HB:12:HIS:CD2	60:HB:76:LEU:HD13	2.56	0.41
63:KB:113:PHE:CE1	63:KB:117:LEU:HD11	2.55	0.41
66:NB:62:ASN:OD1	66:NB:63:ILE:HG23	2.20	0.41
67:OB:85:VAL:O	67:OB:88:VAL:N	2.54	0.41
68:PB:71:GLN:HA	68:PB:74:GLN:HG2	2.02	0.41
69:QB:52:GLY:HA2	69:QB:55:TYR:HD2	1.85	0.41
69:QB:67:MET:HB3	69:QB:68:ARG:HH21	1.86	0.41
69:QB:85:SER:C	69:QB:87:GLY:H	2.29	0.41
70:RB:43:LYS:HA	70:RB:43:LYS:HD2	1.90	0.41
72:TB:68:ARG:HG2	72:TB:68:ARG:NH1	2.35	0.41
73:UB:56:LYS:HE3	80:BC:8:LEU:HD13	2.03	0.41
73:UB:110:LYS:HB3	73:UB:110:LYS:HZ3	1.84	0.41
74:VB:82:ALA:O	74:VB:86:GLU:HG2	2.20	0.41
82:DC:485:VAL:HG12	82:DC:533:THR:HG23	2.02	0.41
83:EC:6888:A:P	83:EC:6936:G:H5"	2.61	0.41
1:A:38:C:C2'	1:A:39:A:H5'	2.51	0.41
1:A:138:A:H62	1:A:266:A:N6	2.18	0.41
1:A:140:A:C4'	1:A:141:U:H5'	2.50	0.41
1:A:198:A:H3'	1:A:199:G:H8	1.84	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:222:A:C2'	1:A:223:U:H5'	2.51	0.41
1:A:241:U:H5'	56:DB:216:LEU:HD11	2.01	0.41
1:A:478:A:H4'	59:GB:127:VAL:HG21	2.01	0.41
1:A:479:C:OP1	59:GB:121:SER:HB3	2.20	0.41
1:A:603:U:H2'	1:A:604:A:C8	2.55	0.41
1:A:790:U:O2'	1:A:791:A:H5'	2.20	0.41
1:A:840:U:O2'	1:A:841:U:H6	2.04	0.41
1:A:867:G:H21	63:KB:87:ASP:CB	2.33	0.41
1:A:994:G:OP1	1:A:1004:U:H5'	2.20	0.41
1:A:1158:C:O2'	1:A:1161:C:H5	2.03	0.41
1:A:1448:G:C2'	1:A:1449:U:H5'	2.50	0.41
1:A:1448:G:H2'	1:A:1449:U:H5'	2.02	0.41
1:A:1630:U:C2'	1:A:1632:C:H5	2.31	0.41
1:A:1727:G:N2	58:FB:32:GLN:HE22	2.18	0.41
2:B:1316:C:OP1	20:T:129:LEU:HA	2.21	0.41
2:B:1826:C:P	42:PA:48:SER:HB3	2.61	0.41
2:B:2291:A:O2'	2:B:2292:U:H5'	2.21	0.41
2:B:2992:U:H1'	21:U:69:ARG:NH1	2.36	0.41
2:B:3150:A:OP1	7:G:132:LYS:HB2	2.20	0.41
2:B:3216:G:O6	2:B:3259:U:H2'	2.20	0.41
2:B:3291:G:O2'	2:B:3292:A:H5'	2.21	0.41
2:B:3391:A:H2'	2:B:3392:U:C6	2.56	0.41
3:C:83:C:H1'	3:C:85:G:H21	1.85	0.41
4:D:49:G:N7	9:I:58:LYS:CG	2.84	0.41
5:E:71:ALA:C	5:E:73:ASP:H	2.28	0.41
5:E:191:VAL:HA	5:E:197:ASN:ND2	2.35	0.41
6:F:41:ILE:HG12	6:F:42:ARG:N	2.36	0.41
6:F:112:ILE:O	6:F:112:ILE:HG22	2.21	0.41
6:F:166:ILE:HD13	6:F:166:ILE:HA	1.94	0.41
7:G:19:ARG:HG3	7:G:273:HIS:NE2	2.35	0.41
7:G:46:PHE:HE2	7:G:81:THR:HB	1.86	0.41
7:G:92:TYR:CE2	7:G:101:SER:HB3	2.56	0.41
7:G:95:THR:C	7:G:97:ARG:H	2.28	0.41
7:G:244:ARG:HG3	7:G:244:ARG:O	2.19	0.41
8:H:238:LEU:HD23	8:H:238:LEU:HA	1.84	0.41
9:I:33:ARG:HG3	9:I:33:ARG:HH11	1.86	0.41
9:I:50:ARG:O	9:I:64:ILE:HA	2.20	0.41
9:I:207:TYR:O	9:I:211:LEU:HB2	2.21	0.41
13:M:147:SER:HB2	13:M:187:ILE:CG1	2.50	0.41
15:O:14:ILE:HG12	15:O:131:MET:SD	2.60	0.41
17:Q:119:TYR:HA	17:Q:145:PHE:CZ	2.56	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:84:PRO:HA	19:S:87:GLN:HG3	2.02	0.41
23:W:117:LYS:HG3	23:W:118:HIS:HD2	1.85	0.41
29:CA:63:ILE:HD13	29:CA:63:ILE:C	2.44	0.41
31:EA:17:ARG:HE	31:EA:17:ARG:HB3	1.58	0.41
32:FA:131:SER:HB3	32:FA:134:ALA:HB2	2.03	0.41
35:IA:29:ALA:O	35:IA:32:ALA:HB3	2.20	0.41
35:IA:70:ARG:HH21	35:IA:70:ARG:HG3	1.86	0.41
35:IA:107:VAL:HG12	35:IA:108:VAL:H	1.85	0.41
37:KA:53:TYR:N	37:KA:53:TYR:CD1	2.88	0.41
38:LA:95:ILE:HG13	38:LA:95:ILE:H	1.71	0.41
39:MA:26:LYS:O	39:MA:30:GLU:HB2	2.20	0.41
39:MA:74:LYS:HD3	39:MA:74:LYS:C	2.46	0.41
41:OA:25:ARG:O	41:OA:25:ARG:CD	2.68	0.41
41:OA:28:HIS:HE1	41:OA:30:GLN:HB2	1.85	0.41
50:XA:76:ILE:HB	50:XA:123:VAL:HG12	2.03	0.41
52:ZA:74:PRO:C	52:ZA:76:LEU:H	2.28	0.41
54:BB:210:ILE:HD11	54:BB:225:VAL:CG2	2.50	0.41
54:BB:256:ARG:O	54:BB:259:GLN:HG2	2.19	0.41
58:FB:12:SER:N	58:FB:18:ARG:HE	2.18	0.41
59:GB:110:GLN:HA	59:GB:129:ILE:HD11	2.02	0.41
60:HB:69:THR:O	60:HB:73:VAL:HG23	2.21	0.41
60:HB:82:LEU:CB	60:HB:86:ILE:HG21	2.45	0.41
61:IB:32:LYS:HG2	61:IB:33:ARG:H	1.85	0.41
68:PB:92:ILE:CG2	68:PB:93:THR:H	2.24	0.41
68:PB:104:ASN:O	68:PB:108:LYS:HB2	2.20	0.41
68:PB:119:ILE:O	68:PB:120:ARG:HB2	2.19	0.41
70:RB:53:LYS:CG	70:RB:92:ASP:HB2	2.51	0.41
79:AC:21:CYS:HB2	79:AC:30:LEU:CD2	2.43	0.41
79:AC:40:ARG:HG3	79:AC:40:ARG:NH1	2.36	0.41
79:AC:43:PHE:HD1	79:AC:43:PHE:O	2.03	0.41
82:DC:324:MET:C	82:DC:326:LYS:H	2.29	0.41
82:DC:586:ILE:HD12	82:DC:708:THR:CG2	2.50	0.41
82:DC:592:PRO:HA	82:DC:683:SER:O	2.21	0.41
82:DC:650:THR:HG22	82:DC:689:LEU:C	2.46	0.41
82:DC:650:THR:HG22	82:DC:690:ASP:HA	2.02	0.41
83:EC:6835:U:H2'	83:EC:6876:A:N6	2.29	0.41
1:A:1586:A:H61	1:A:1610:G:H1'	1.86	0.41
1:A:1682:U:O2'	1:A:1683:C:H5'	2.21	0.41
2:B:83:U:O2'	2:B:84:U:H5'	2.21	0.41
2:B:671:U:O2'	2:B:672:A:H5'	2.20	0.41
2:B:788:C:H2'	2:B:789:A:O4'	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:825:U:O2'	2:B:1587:A:H2	2.03	0.41
2:B:871:U:H2'	2:B:872:U:O4'	2.20	0.41
2:B:966:U:H2'	2:B:967:A:C8	2.56	0.41
2:B:1079:A:H2'	2:B:1080:A:C8	2.55	0.41
2:B:1126:G:H2'	2:B:1127:G:O4'	2.21	0.41
2:B:1261:G:N7	48:VA:35:SER:OG	2.51	0.41
2:B:1479:U:O4	2:B:1480:G:C2	2.74	0.41
2:B:1481:A:C4'	2:B:1481:A:OP1	2.69	0.41
2:B:1663:C:O2'	2:B:1664:G:H5'	2.19	0.41
2:B:1675:G:N2	2:B:1773:C:C4	2.89	0.41
2:B:1957:G:H2'	2:B:1958:U:O4'	2.20	0.41
2:B:2135:U:O2'	2:B:2136:C:H5'	2.21	0.41
2:B:2638:C:O5'	2:B:2638:C:H6	2.04	0.41
2:B:2698:G:H2'	2:B:2699:G:O4'	2.21	0.41
2:B:2955:U:O2'	2:B:2956:A:H5'	2.20	0.41
2:B:2961:G:H2'	2:B:2962:U:C6	2.56	0.41
2:B:3025:C:OP1	13:M:96:HIS:HB2	2.21	0.41
2:B:3099:C:H42	2:B:3135:U:H3	1.69	0.41
2:B:3157:U:O4'	2:B:3158:G:C8	2.74	0.41
2:B:3164:C:O2'	2:B:3165:A:O5'	2.39	0.41
2:B:3211:C:C4	2:B:3212:C:C5	3.09	0.41
2:B:3391:A:H2'	2:B:3392:U:H6	1.86	0.41
4:D:16:U:H2'	4:D:17:A:O4'	2.20	0.41
8:H:254:ALA:O	8:H:255:PHE:C	2.63	0.41
9:I:146:LEU:HD22	9:I:163:LEU:HD13	2.03	0.41
9:I:177:GLU:O	9:I:183:TRP:CE3	2.73	0.41
11:K:35:ALA:O	11:K:36:ALA:C	2.63	0.41
11:K:114:GLY:O	11:K:115:THR:HG23	2.21	0.41
12:L:114:ALA:HA	12:L:118:GLU:OE1	2.20	0.41
12:L:118:GLU:C	12:L:120:LYS:N	2.79	0.41
15:O:12:LEU:HD23	15:O:133:ARG:NE	2.36	0.41
16:P:64:ILE:HG13	16:P:71:ALA:HB3	2.02	0.41
16:P:133:LEU:HG	16:P:137:GLN:HG3	2.03	0.41
18:R:16:GLU:O	18:R:17:VAL:C	2.62	0.41
19:S:6:TYR:O	19:S:10:LEU:HB2	2.19	0.41
20:T:41:LEU:O	20:T:138:LEU:HB2	2.21	0.41
24:X:10:ILE:O	24:X:59:VAL:N	2.54	0.41
24:X:99:ARG:HH11	24:X:99:ARG:CG	2.28	0.41
27:AA:33:ASN:ND2	27:AA:64:LYS:HB3	2.35	0.41
29:CA:80:ASN:CG	29:CA:126:LEU:CD1	2.93	0.41
29:CA:110:VAL:CG2	29:CA:124:VAL:HG22	2.35	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DA:109:LEU:HD22	30:DA:115:ARG:HH12	1.84	0.41
32:FA:46:ASP:O	32:FA:47:LYS:HG2	2.20	0.41
32:FA:82:ILE:HD11	32:FA:102:ILE:CG1	2.51	0.41
32:FA:104:THR:O	32:FA:107:ALA:HB3	2.21	0.41
36:JA:120:THR:C	36:JA:122:PRO:HD3	2.46	0.41
38:LA:95:ILE:O	38:LA:99:LYS:N	2.53	0.41
40:NA:53:TYR:CD1	40:NA:76:ARG:HG2	2.55	0.41
48:VA:77:LEU:N	48:VA:78:PRO:HD2	2.36	0.41
49:WA:16:HIS:CE1	49:WA:43:ILE:HB	2.56	0.41
49:WA:106:HIS:C	49:WA:108:SER:N	2.78	0.41
49:WA:229:LYS:HA	53:AB:222:VAL:CB	2.50	0.41
50:XA:39:ASN:O	50:XA:47:VAL:HG23	2.20	0.41
50:XA:69:ASN:C	50:XA:71:GLU:H	2.29	0.41
52:ZA:207:LEU:HA	52:ZA:207:LEU:HD23	1.87	0.41
54:BB:65:LEU:HB3	54:BB:78:THR:OG1	2.20	0.41
56:DB:68:LEU:N	56:DB:100:ALA:HB3	2.36	0.41
56:DB:226:ILE:H	56:DB:226:ILE:HG13	1.76	0.41
60:HB:48:SER:O	60:HB:52:LYS:HD2	2.20	0.41
66:NB:75:VAL:HA	66:NB:78:VAL:HG23	2.03	0.41
68:PB:28:ILE:C	68:PB:28:ILE:HD13	2.46	0.41
68:PB:132:ARG:NE	68:PB:132:ARG:HA	2.36	0.41
70:RB:52:LYS:HB3	70:RB:93:LEU:CD2	2.44	0.41
71:SB:41:GLU:CD	71:SB:41:GLU:N	2.74	0.41
73:UB:116:ASP:O	73:UB:118:PRO:HD3	2.21	0.41
77:YB:56:CYS:HB3	77:YB:57:GLU:H	1.69	0.41
82:DC:158:ASN:O	82:DC:159:LYS:HB2	2.21	0.41
82:DC:348:ALA:C	82:DC:352:ARG:HD3	2.45	0.41
82:DC:573:GLN:C	82:DC:589:LYS:HE2	2.46	0.41
82:DC:723:LYS:HG3	82:DC:724:ILE:N	2.35	0.41
83:EC:6896:A:H4'	83:EC:6897:G:OP1	2.21	0.41
1:A:94:U:H2'	1:A:95:G:H5'	2.03	0.41
1:A:118:U:H4'	1:A:397:A:H1'	2.03	0.41
1:A:251:A:H2'	1:A:252:U:O4'	2.21	0.41
1:A:330:G:O2'	1:A:331:A:H5'	2.21	0.41
1:A:619:A:C5'	1:A:1141:G:H4'	2.50	0.41
1:A:782:U:H3	74:VB:48:TYR:HD1	1.68	0.41
1:A:1348:A:H61	1:A:1377:U:H3	1.68	0.41
1:A:1486:G:C6	1:A:1522:U:C5	3.09	0.41
1:A:1641:C:H4'	45:SA:1:MET:HB2	2.02	0.41
1:A:1724:U:H2'	1:A:1725:U:C6	2.55	0.41
2:B:270:U:C4	2:B:271:C:C5	3.08	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:451:U:H2'	2:B:452:G:C8	2.55	0.41
2:B:800:G:O6	8:H:104:LYS:HE3	2.21	0.41
2:B:970:A:H8	2:B:970:A:O5'	2.03	0.41
2:B:1043:C:O2'	2:B:1044:U:H5'	2.21	0.41
2:B:1138:U:O3'	11:K:97:PRO:HD3	2.21	0.41
2:B:1156:C:H2'	2:B:1157:G:O4'	2.20	0.41
2:B:1313:G:O2'	2:B:1318:A:N1	2.50	0.41
2:B:1646:G:H1'	2:B:1808:G:N2	2.36	0.41
2:B:1833:G:C5	2:B:1834:U:N3	2.89	0.41
2:B:1922:A:H2'	2:B:1923:C:O4'	2.20	0.41
2:B:2480:A:C2'	2:B:2481:G:H5'	2.50	0.41
2:B:2512:C:H2'	2:B:2513:U:O4'	2.20	0.41
2:B:2688:U:O2'	9:I:16:PHE:HA	2.21	0.41
2:B:3215:A:H8	18:R:121:MET:CE	2.31	0.41
3:C:111:A:O2'	3:C:112:U:H5'	2.20	0.41
4:D:3:U:H2'	4:D:4:U:H6	1.83	0.41
4:D:39:C:O2	15:O:69:VAL:HA	2.21	0.41
9:I:103:LEU:HD21	9:I:248:ARG:NE	2.36	0.41
10:J:40:LEU:HB3	10:J:84:VAL:CG1	2.50	0.41
11:K:132:PRO:HA	11:K:229:PHE:CZ	2.55	0.41
12:L:61:GLN:HB2	19:S:28:TRP:HH2	1.84	0.41
12:L:203:VAL:HG22	12:L:204:ARG:N	2.36	0.41
12:L:203:VAL:CG2	12:L:207:ASP:HB2	2.51	0.41
18:R:37:GLU:HG3	18:R:38:ILE:N	2.35	0.41
19:S:37:HIS:CE1	19:S:63:ARG:HB3	2.55	0.41
22:V:33:TYR:O	22:V:34:THR:C	2.63	0.41
24:X:124:LEU:O	24:X:126:VAL:HG23	2.21	0.41
26:Z:93:ILE:H	26:Z:93:ILE:HG13	1.67	0.41
29:CA:42:ARG:C	29:CA:44:PRO:HD3	2.46	0.41
40:NA:45:ARG:NH2	40:NA:93:ILE:HG13	2.36	0.41
44:RA:127:LEU:HD21	44:RA:128:LYS:HE2	2.03	0.41
47:UA:39:CYS:C	47:UA:41:PHE:H	2.29	0.41
49:WA:10:ARG:CG	49:WA:314:GLN:HG3	2.51	0.41
50:XA:153:SER:O	71:SB:63:GLY:HA2	2.20	0.41
52:ZA:161:LYS:HG2	52:ZA:162:CYS:N	2.36	0.41
54:BB:183:VAL:HG12	54:BB:185:GLY:H	1.86	0.41
55:CB:157:ARG:N	55:CB:157:ARG:HD2	2.36	0.41
58:FB:142:LYS:O	58:FB:146:ARG:HG3	2.21	0.41
59:GB:28:LEU:HD22	59:GB:31:ALA:HB3	2.02	0.41
59:GB:48:GLN:O	59:GB:52:ILE:HG13	2.21	0.41
61:IB:21:ASN:CB	61:IB:31:THR:HG23	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:PB:100:THR:HB	68:PB:105:VAL:HA	2.03	0.41
68:PB:113:LEU:O	68:PB:117:LYS:HB2	2.21	0.41
70:RB:40:ASN:OD1	70:RB:44:ASN:ND2	2.53	0.41
70:RB:55:PRO:HA	70:RB:91:ILE:HG12	2.02	0.41
73:UB:18:HIS:O	73:UB:22:ASN:ND2	2.53	0.41
73:UB:56:LYS:HA	73:UB:72:VAL:HG12	2.03	0.41
75:WB:61:SER:C	75:WB:80:LEU:HD11	2.46	0.41
78:ZB:16:LEU:HD11	78:ZB:41:VAL:HG13	2.03	0.41
78:ZB:40:ILE:HG22	78:ZB:41:VAL:N	2.36	0.41
82:DC:25:ILE:HA	82:DC:142:VAL:CG1	2.46	0.41
82:DC:109:VAL:C	82:DC:111:PHE:N	2.77	0.41
82:DC:288:ILE:HG23	82:DC:319:LEU:CD2	2.51	0.41
82:DC:386:VAL:HG12	82:DC:397:PHE:HB2	2.02	0.41
82:DC:456:LEU:HD12	82:DC:459:ILE:HD11	2.03	0.41
82:DC:612:PHE:O	82:DC:631:ARG:HA	2.21	0.41
82:DC:836:GLN:HE21	82:DC:837:GLU:HG2	1.86	0.41
83:EC:6951:C:H2'	83:EC:6952:U:H6	1.86	0.41
1:A:15:U:H2'	1:A:16:G:H5'	2.03	0.41
1:A:96:G:H4'	1:A:460:A:O3'	2.21	0.41
1:A:166:C:H3'	1:A:167:U:C6	2.55	0.41
1:A:235:G:H2'	1:A:236:A:O4'	2.21	0.41
1:A:333:A:C8	58:FB:49:ARG:HG2	2.56	0.41
1:A:396:G:N2	1:A:399:A:H5'	2.26	0.41
1:A:416:A:H5'	1:A:417:A:N7	2.36	0.41
1:A:545:A:H1'	1:A:546:U:C6	2.56	0.41
1:A:645:C:H2'	1:A:646:C:O4'	2.20	0.41
1:A:648:G:H2'	1:A:649:U:O4'	2.21	0.41
1:A:782:U:O2	1:A:782:U:O4'	2.38	0.41
1:A:1332:C:O2'	53:AB:162:GLN:HB3	2.20	0.41
1:A:1451:C:H2'	1:A:1452:U:H6	1.84	0.41
1:A:1676:U:H1'	1:A:1726:G:N2	2.35	0.41
1:A:1751:C:H2'	1:A:1752:U:C6	2.56	0.41
1:A:1751:C:H2'	1:A:1752:U:O4'	2.21	0.41
2:B:5:G:C3'	2:B:6:A:H5"	2.51	0.41
2:B:52:A:N3	2:B:811:U:O2'	2.50	0.41
2:B:162:G:O2'	2:B:163:C:H5'	2.21	0.41
2:B:206:G:N2	2:B:207:U:H1'	2.36	0.41
2:B:211:A:H3'	8:H:221:ASN:OD1	2.20	0.41
2:B:226:C:H2'	2:B:227:G:O4'	2.21	0.41
2:B:298:U:H5'	40:NA:31:GLY:O	2.21	0.41
2:B:357:A:H2'	2:B:358:G:O4'	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:394:G:N2	2:B:397:A:C8	2.89	0.41
2:B:519:A:OP1	24:X:62:ASN:HB3	2.20	0.41
2:B:574:U:C2'	2:B:575:G:H5'	2.51	0.41
2:B:618:C:H5'	21:U:169:THR:HG22	2.03	0.41
2:B:640:U:OP2	36:JA:37:GLY:HA2	2.20	0.41
2:B:892:U:O2'	2:B:893:C:H5'	2.21	0.41
2:B:935:U:H6	2:B:935:U:O5'	2.04	0.41
2:B:975:C:OP1	22:V:16:ARG:HG3	2.21	0.41
2:B:1079:A:H4'	9:I:140:ARG:O	2.21	0.41
2:B:1174:G:H1'	2:B:1318:A:N7	2.36	0.41
2:B:1212:A:H1'	24:X:114:HIS:NE2	2.35	0.41
2:B:1234:G:C5'	16:P:118:ASP:O	2.69	0.41
2:B:1237:G:H21	16:P:136:ALA:C	2.29	0.41
2:B:1258:U:H1'	48:VA:42:ARG:NH2	2.36	0.41
2:B:1260:A:N7	2:B:1261:G:C6	2.89	0.41
2:B:1419:A:C8	8:H:187:LEU:HD13	2.56	0.41
2:B:1602:A:N7	2:B:1603:A:C6	2.88	0.41
2:B:1733:G:H2'	2:B:1734:G:C8	2.55	0.41
2:B:1792:C:O2'	2:B:1794:G:H2'	2.21	0.41
2:B:1815:U:H1'	2:B:1816:A:OP2	2.21	0.41
2:B:1833:G:C2'	2:B:1834:U:H5'	2.51	0.41
2:B:2151:C:C2'	2:B:2152:A:H5'	2.51	0.41
2:B:2156:C:H2'	2:B:2178:A:H61	1.85	0.41
2:B:2157:G:O6	2:B:2178:A:H2'	2.21	0.41
2:B:2185:G:C5	2:B:2186:U:C4	3.09	0.41
2:B:2188:A:C2'	2:B:2189:U:H5'	2.51	0.41
2:B:2256:A:H3'	2:B:2256:A:N3	2.34	0.41
2:B:2258:U:H6	2:B:2258:U:H3'	1.86	0.41
2:B:2403:G:OP1	2:B:2403:G:H4'	2.21	0.41
2:B:2534:G:H2'	2:B:2535:A:O4'	2.21	0.41
2:B:2716:U:O2'	2:B:2717:U:H5'	2.21	0.41
2:B:2772:C:H4'	2:B:2773:C:C5'	2.51	0.41
2:B:2830:G:H2'	2:B:2831:G:H8	1.86	0.41
2:B:2869:U:O2'	2:B:2873:U:OP1	2.38	0.41
2:B:2885:C:O2'	2:B:2886:U:H5'	2.21	0.41
2:B:3119:U:H4'	44:RA:104:PRO:HG2	2.03	0.41
2:B:3165:A:H2'	2:B:3166:C:C6	2.55	0.41
3:C:10:A:H2'	3:C:11:C:C6	2.56	0.41
3:C:38:U:C6	39:MA:78:LYS:HB3	2.55	0.41
3:C:58:G:O2'	3:C:99:C:H4'	2.21	0.41
3:C:59:A:H3'	3:C:59:A:OP2	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:71:A:O4'	3:C:88:A:C2	2.74	0.41
4:D:19:C:H2'	4:D:20:A:C8	2.56	0.41
6:F:94:ALA:HB1	6:F:100:ASN:ND2	2.35	0.41
6:F:221:LYS:O	6:F:222:ALA:O	2.39	0.41
7:G:39:LYS:HE2	7:G:39:LYS:CA	2.50	0.41
7:G:53:MET:HE3	7:G:77:THR:HG22	2.01	0.41
7:G:114:VAL:HG22	7:G:163:HIS:NE2	2.35	0.41
7:G:117:ARG:O	7:G:117:ARG:HD3	2.21	0.41
8:H:145:ILE:HD12	8:H:150:LEU:CD1	2.50	0.41
8:H:193:LYS:NZ	8:H:193:LYS:CB	2.84	0.41
8:H:209:TYR:HA	8:H:251:THR:CG2	2.50	0.41
8:H:210:ALA:HB2	8:H:254:ALA:CA	2.50	0.41
8:H:334:PHE:CG	8:H:339:LEU:HD12	2.56	0.41
9:I:99:TYR:O	9:I:165:GLY:HA3	2.21	0.41
9:I:107:ARG:HH12	9:I:120:LYS:HA	1.86	0.41
10:J:89:THR:HG21	18:R:115:PHE:CB	2.51	0.41
11:K:51:TYR:O	11:K:52:GLN:C	2.62	0.41
11:K:120:THR:O	11:K:124:LEU:HB2	2.21	0.41
11:K:233:GLU:CG	24:X:35:VAL:HG22	2.51	0.41
12:L:85:ASN:O	12:L:88:ALA:HB3	2.21	0.41
12:L:154:ALA:HB2	12:L:196:ALA:HA	2.03	0.41
12:L:184:ALA:O	12:L:187:GLY:N	2.54	0.41
13:M:129:ARG:C	13:M:132:VAL:HG12	2.45	0.41
13:M:172:ILE:HD13	13:M:172:ILE:N	2.33	0.41
14:N:36:LEU:O	14:N:86:HIS:HD2	2.01	0.41
14:N:165:ILE:HD13	14:N:165:ILE:N	2.35	0.41
14:N:178:ARG:HB2	14:N:179:PRO:HD3	2.02	0.41
14:N:178:ARG:HB2	14:N:179:PRO:CD	2.51	0.41
14:N:182:LEU:CD2	14:N:185:ARG:HH11	2.34	0.41
15:O:167:TYR:C	15:O:169:ALA:N	2.78	0.41
17:Q:185:LYS:O	17:Q:188:ARG:HB3	2.20	0.41
18:R:113:THR:HG22	18:R:115:PHE:N	2.27	0.41
19:S:7:LEU:HB3	19:S:46:ASP:HB3	2.02	0.41
19:S:73:ARG:NH1	19:S:86:ASN:O	2.53	0.41
19:S:75:VAL:HA	19:S:76:PRO:HD3	1.82	0.41
19:S:142:ILE:C	19:S:144:ARG:N	2.77	0.41
19:S:180:PHE:C	19:S:182:ASN:N	2.79	0.41
20:T:75:ALA:O	20:T:79:ILE:HG13	2.21	0.41
21:U:14:SER:HB3	21:U:149:VAL:CG1	2.51	0.41
21:U:47:TYR:OH	21:U:58:ILE:HD13	2.20	0.41
21:U:142:SER:HA	21:U:143:PRO:HD3	1.82	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:V:90:ASP:O	22:V:92:ARG:N	2.53	0.41
23:W:41:ILE:O	23:W:42:ARG:C	2.63	0.41
23:W:78:TYR:O	23:W:80:LYS:N	2.50	0.41
23:W:126:GLU:O	23:W:131:ALA:HB3	2.20	0.41
24:X:131:LYS:O	24:X:134:ASP:HB2	2.21	0.41
27:AA:59:MET:HE1	27:AA:75:PRO:HG3	2.02	0.41
30:DA:57:LEU:HD22	30:DA:58:VAL:N	2.35	0.41
30:DA:73:VAL:CG2	30:DA:80:VAL:HG23	2.45	0.41
30:DA:81:GLN:HB3	30:DA:96:PRO:HB3	2.03	0.41
31:EA:4:PHE:HZ	34:HA:35:ARG:HA	1.83	0.41
34:HA:14:LEU:O	34:HA:15:ALA:C	2.64	0.41
36:JA:32:TRP:CG	36:JA:33:ARG:N	2.89	0.41
37:KA:69:GLY:HA2	37:KA:85:PHE:HA	2.03	0.41
38:LA:69:HIS:C	38:LA:71:THR:N	2.78	0.41
39:MA:73:LYS:O	39:MA:73:LYS:HG3	2.20	0.41
39:MA:78:LYS:HG2	39:MA:81:ARG:NH1	2.36	0.41
39:MA:110:ALA:C	39:MA:112:PRO:HD3	2.46	0.41
42:PA:73:LEU:HD23	42:PA:73:LEU:O	2.21	0.41
44:RA:109:ASN:HA	44:RA:118:THR:O	2.20	0.41
48:VA:18:TYR:O	48:VA:22:TYR:CD2	2.73	0.41
49:WA:176:LYS:HG2	49:WA:197:SER:C	2.46	0.41
49:WA:255:ALA:CB	49:WA:292:LEU:HD22	2.51	0.41
50:XA:27:ARG:HB3	50:XA:28:ASN:H	1.57	0.41
50:XA:62:ARG:HD2	71:SB:36:VAL:HG12	2.02	0.41
50:XA:68:PRO:HG2	52:ZA:244:SER:CB	2.51	0.41
50:XA:73:VAL:HB	50:XA:95:ALA:CB	2.51	0.41
53:AB:208:ILE:HG22	53:AB:209:ILE:N	2.34	0.41
54:BB:82:TYR:CG	54:BB:83:PRO:HD2	2.55	0.41
54:BB:126:VAL:HG11	54:BB:154:ILE:HG22	2.02	0.41
54:BB:182:TYR:O	54:BB:226:PHE:HB3	2.21	0.41
54:BB:192:ILE:HG23	54:BB:228:ILE:HD11	2.02	0.41
55:CB:73:THR:HG22	55:CB:75:GLY:H	1.86	0.41
56:DB:160:ARG:O	56:DB:170:THR:HA	2.21	0.41
59:GB:105:LEU:HD12	59:GB:105:LEU:H	1.86	0.41
60:HB:82:LEU:HA	60:HB:83:PRO:HD2	1.77	0.41
61:IB:122:ILE:H	61:IB:122:ILE:CD1	2.19	0.41
63:KB:33:VAL:HG21	63:KB:66:ILE:HG21	2.03	0.41
63:KB:106:ARG:HH21	63:KB:106:ARG:HG2	1.86	0.41
65:MB:60:LEU:HD13	65:MB:60:LEU:O	2.21	0.41
66:NB:81:ILE:HG13	66:NB:82:ARG:N	2.35	0.41
69:QB:42:GLY:HA2	69:QB:84:LYS:HG3	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:QB:111:ILE:HD13	69:QB:113:ILE:HD11	2.02	0.41
69:QB:117:SER:OG	69:QB:118:PRO:HD2	2.21	0.41
70:RB:109:GLU:HA	70:RB:110:PRO:HD2	1.86	0.41
71:SB:43:GLY:O	71:SB:44:ARG:C	2.64	0.41
72:TB:105:THR:OG1	72:TB:126:LEU:HG	2.19	0.41
73:UB:56:LYS:CD	73:UB:98:GLU:HG3	2.50	0.41
74:VB:19:ALA:C	74:VB:77:ASN:HD22	2.28	0.41
74:VB:25:VAL:HB	74:VB:60:PHE:CZ	2.56	0.41
74:VB:86:GLU:CB	74:VB:91:LEU:HD21	2.50	0.41
75:WB:62:VAL:HG23	75:WB:80:LEU:HD12	2.01	0.41
78:ZB:32:PHE:CE2	78:ZB:38:ARG:HB3	2.56	0.41
78:ZB:38:ARG:HH11	78:ZB:40:ILE:HG12	1.86	0.41
82:DC:21:ASN:C	82:DC:122:THR:HG22	2.46	0.41
82:DC:82:SER:HB3	82:DC:85:ASP:OD1	2.20	0.41
82:DC:86:VAL:HA	82:DC:89:ILE:HD12	2.02	0.41
82:DC:220:PHE:CB	82:DC:328:LEU:HD13	2.51	0.41
82:DC:222:ILE:HG12	82:DC:223:ARG:H	1.85	0.41
82:DC:288:ILE:CG2	82:DC:319:LEU:HG	2.36	0.41
82:DC:544:ASP:O	82:DC:548:ASP:HB2	2.21	0.41
82:DC:563:TYR:HA	82:DC:725:GLN:O	2.21	0.41
82:DC:571:SER:HA	82:DC:719:LEU:C	2.46	0.41
82:DC:731:VAL:HB	82:DC:796:MET:HG2	2.03	0.41
82:DC:804:LEU:HD11	82:DC:814:LYS:CB	2.50	0.41
83:EC:6859:U:O2’	83:EC:6860:A:H8	2.03	0.41
83:EC:6912:G:H3’	83:EC:6913:U:C5’	2.38	0.41
1:A:55:A:N1	1:A:403:G:H1’	2.36	0.41
1:A:93:A:H62	1:A:396:G:H1’	1.86	0.41
1:A:181:A:H2’	1:A:182:A:C4	2.56	0.41
1:A:450:U:H5”	54:BB:7:LYS:HD2	2.01	0.41
1:A:625:C:O2’	1:A:939:A:H1’	2.21	0.41
1:A:774:A:N3	1:A:774:A:H3’	2.36	0.41
1:A:889:U:H3’	1:A:889:U:H6	1.86	0.41
1:A:1087:A:H5’	1:A:1298:U:C4	2.56	0.41
1:A:1348:A:H2’	1:A:1349:G:C8	2.55	0.41
1:A:1553:G:N2	1:A:1555:A:H3’	2.36	0.41
1:A:1579:U:O2’	66:NB:139:GLN:HG3	2.21	0.41
2:B:22:G:O2’	2:B:23:A:H5’	2.20	0.41
2:B:121:A:C4	12:L:108:ARG:NH1	2.88	0.41
2:B:155:G:H21	40:NA:26:ILE:HG21	1.86	0.41
2:B:281:G:C6	2:B:282:G:C6	3.09	0.41
2:B:347:G:C2	2:B:353:G:C5	3.09	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:634:C:H5”	37:KA:21:ARG:HB3	2.02	0.41
2:B:651:G:O2’	2:B:652:G:H5’	2.20	0.41
2:B:916:G:H1	6:F:207:VAL:HG11	1.84	0.41
2:B:1060:U:O2’	2:B:1061:A:H5’	2.22	0.41
2:B:1066:G:H2’	2:B:1067:U:C6	2.56	0.41
2:B:1143:A:H5’	2:B:1368:U:H1’	2.03	0.41
2:B:1381:A:C2	2:B:1426:C:C2	3.09	0.41
2:B:1585:C:H5”	3:C:109:A:O2’	2.21	0.41
2:B:1908:A:C2	2:B:2336:U:H5’	2.56	0.41
2:B:2143:A:O2’	2:B:2144:A:H8	2.04	0.41
2:B:2470:C:C5’	5:E:26:ARG:HG2	2.51	0.41
2:B:2674:A:H5”	15:O:105:GLY:CA	2.37	0.41
2:B:3055:U:O3’	2:B:3056:U:H3’	2.21	0.41
4:D:22:A:H2’	4:D:23:A:C8	2.56	0.41
4:D:104:A:C2’	4:D:105:C:H5’	2.51	0.41
5:E:124:LEU:CD1	5:E:128:LEU:HB2	2.51	0.41
6:F:137:ILE:O	6:F:147:ARG:O	2.39	0.41
6:F:204:MET:HB3	6:F:208:ASP:HB2	2.02	0.41
7:G:6:TYR:CB	27:AA:46:LEU:HD13	2.50	0.41
7:G:14:LEU:HA	7:G:17:LEU:HD13	2.01	0.41
7:G:46:PHE:CE2	7:G:81:THR:HB	2.56	0.41
10:J:163:PHE:CG	10:J:164:SER:N	2.89	0.41
11:K:88:ARG:HA	11:K:134:VAL:HG12	2.03	0.41
11:K:186:HIS:NE2	11:K:190:THR:HG21	2.36	0.41
12:L:41:GLN:CA	12:L:41:GLN:HE21	2.34	0.41
15:O:14:ILE:HD12	15:O:77:GLU:HG2	2.02	0.41
15:O:137:ARG:O	15:O:141:ARG:HB3	2.21	0.41
18:R:14:LEU:HD12	24:X:149:LYS:HB2	2.03	0.41
20:T:177:LYS:HA	20:T:177:LYS:HE2	2.03	0.41
21:U:4:TYR:CE1	21:U:16:SER:HB3	2.56	0.41
21:U:32:THR:HG21	21:U:87:SER:HB3	2.03	0.41
22:V:49:LEU:C	22:V:49:LEU:HD13	2.45	0.41
22:V:88:THR:HG22	22:V:107:THR:CG2	2.51	0.41
24:X:9:VAL:HG22	24:X:61:ILE:CD1	2.51	0.41
24:X:26:ARG:O	25:Y:150:THR:HA	2.21	0.41
24:X:45:LEU:C	24:X:47:LYS:H	2.29	0.41
29:CA:96:LYS:HG3	29:CA:107:VAL:CG1	2.52	0.41
31:EA:102:GLU:OE2	31:EA:103:GLN:HB2	2.21	0.41
31:EA:120:GLU:C	31:EA:122:HIS:H	2.29	0.41
34:HA:98:SER:HB3	34:HA:99:ASP:H	1.62	0.41
39:MA:86:ARG:NH1	39:MA:90:ARG:NH1	2.67	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:MA:110:ALA:O	39:MA:112:PRO:HD3	2.21	0.41
46:TA:2:VAL:HG23	46:TA:3:ASN:N	2.36	0.41
48:VA:30:VAL:HG12	48:VA:83:ASN:O	2.21	0.41
49:WA:132:LYS:CA	49:WA:144:LEU:HD23	2.45	0.41
51:YA:189:ILE:C	51:YA:191:GLU:H	2.29	0.41
52:ZA:118:ALA:C	52:ZA:119:LYS:HG2	2.46	0.41
52:ZA:121:VAL:HG13	52:ZA:122:ALA:N	2.27	0.41
53:AB:212:LYS:HB3	53:AB:212:LYS:NZ	2.35	0.41
54:BB:233:LYS:HE3	54:BB:234:PRO:HD2	2.02	0.41
56:DB:188:ARG:HA	56:DB:191:ARG:HB2	2.02	0.41
58:FB:96:LEU:HD13	58:FB:179:CYS:SG	2.61	0.41
66:NB:10:PHE:HA	66:NB:18:ALA:O	2.21	0.41
68:PB:11:PHE:HZ	68:PB:25:ASN:H	1.67	0.41
70:RB:22:ILE:O	70:RB:22:ILE:HG23	2.21	0.41
73:UB:57:LEU:HD23	73:UB:57:LEU:N	2.29	0.41
80:BC:41:THR:HA	80:BC:45:VAL:CB	2.51	0.41
82:DC:607:ASN:HA	82:DC:608:PRO:HD3	1.77	0.41
82:DC:737:GLU:HA	82:DC:740:VAL:HG21	2.03	0.41
1:A:144:U:C2'	1:A:145:A:H5'	2.50	0.40
1:A:166:C:O2	56:DB:133:LEU:HD13	2.21	0.40
1:A:581:U:O2	1:A:581:U:H3'	2.20	0.40
1:A:603:U:O2'	1:A:604:A:H5'	2.20	0.40
1:A:626:U:H2'	1:A:627:C:H6	1.86	0.40
1:A:928:U:H5'	1:A:944:A:H2'	2.02	0.40
1:A:1231:U:C4'	1:A:1259:U:H1'	2.43	0.40
1:A:1506:G:H2'	1:A:1507:G:H8	1.85	0.40
1:A:1714:A:H2'	1:A:1715:G:N7	2.36	0.40
2:B:220:G:H1'	8:H:199:TRP:HH2	1.86	0.40
2:B:696:C:H2'	2:B:697:A:H8	1.86	0.40
2:B:706:A:H2'	2:B:707:U:O4'	2.21	0.40
2:B:953:G:C8	2:B:1117:G:C8	3.09	0.40
2:B:974:G:C8	22:V:14:GLY:O	2.74	0.40
2:B:1325:U:H5"	2:B:1325:U:H6	1.86	0.40
2:B:1451:C:OP1	2:B:1452:A:C8	2.74	0.40
2:B:1927:G:N2	2:B:1928:G:C8	2.90	0.40
2:B:2130:G:N2	2:B:2132:C:H5"	2.36	0.40
2:B:2254:U:H1'	2:B:2263:C:N4	2.36	0.40
2:B:2415:C:H5"	6:F:207:VAL:CG1	2.50	0.40
2:B:2957:G:C2'	2:B:2958:A:H5'	2.51	0.40
2:B:3027:A:N1	82:DC:785:ARG:HB3	2.36	0.40
2:B:3386:G:H2'	2:B:3387:U:H6	1.86	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:64:A:N1	14:N:202:LYS:HD3	2.36	0.40
6:F:5:ILE:HD12	6:F:7:ASN:ND2	2.35	0.40
10:J:139:LYS:H	10:J:139:LYS:HG3	1.73	0.40
12:L:74:THR:O	12:L:77:GLN:HG2	2.21	0.40
13:M:68:LEU:C	13:M:70:THR:N	2.77	0.40
13:M:91:ARG:NH2	44:RA:82:LEU:HD21	2.36	0.40
13:M:115:ARG:HE	13:M:123:ILE:CG1	2.34	0.40
13:M:180:TYR:HB2	44:RA:85:LEU:CD1	2.50	0.40
13:M:180:TYR:HB3	44:RA:89:TYR:CD2	2.56	0.40
14:N:51:HIS:CD2	14:N:168:SER:HB2	2.56	0.40
17:Q:163:GLY:HA2	32:FA:139:ARG:HH22	1.85	0.40
17:Q:176:GLU:O	17:Q:180:ARG:HB2	2.21	0.40
20:T:78:ARG:HG3	20:T:78:ARG:NH1	2.37	0.40
21:U:85:ALA:O	21:U:89:LYS:HG3	2.21	0.40
22:V:13:SER:OG	22:V:14:GLY:N	2.55	0.40
24:X:29:ILE:CG2	24:X:30:PHE:N	2.84	0.40
24:X:40:ARG:CZ	24:X:43:TYR:CE1	3.04	0.40
24:X:78:TRP:O	24:X:124:LEU:HB2	2.21	0.40
24:X:152:LEU:HD23	24:X:152:LEU:HA	1.76	0.40
26:Z:90:ARG:O	26:Z:91:ASP:HB3	2.21	0.40
30:DA:121:ARG:C	30:DA:123:GLY:N	2.80	0.40
31:EA:90:GLU:HA	31:EA:93:LYS:HB2	2.03	0.40
32:FA:73:LEU:HD22	32:FA:109:TYR:CG	2.56	0.40
34:HA:51:LEU:HD11	38:LA:91:ARG:CA	2.51	0.40
37:KA:66:VAL:HG12	37:KA:67:MET:N	2.35	0.40
46:TA:93:LEU:HD23	46:TA:94:GLY:N	2.36	0.40
48:VA:18:TYR:O	48:VA:22:TYR:HD2	2.04	0.40
48:VA:48:ARG:HD3	48:VA:48:ARG:HA	1.66	0.40
49:WA:59:ARG:HD3	49:WA:97:GLY:CA	2.51	0.40
49:WA:201:THR:HG21	49:WA:242:SER:CA	2.51	0.40
49:WA:201:THR:HG23	49:WA:214:ALA:HB3	2.03	0.40
50:XA:108:THR:O	50:XA:109:ASN:CB	2.68	0.40
50:XA:185:ARG:HD3	50:XA:185:ARG:HA	1.96	0.40
54:BB:112:HIS:ND1	54:BB:239:PRO:HB3	2.36	0.40
54:BB:246:LEU:HB2	54:BB:251:GLU:HG3	2.02	0.40
56:DB:7:TYR:HA	56:DB:8:PRO:HD2	1.97	0.40
56:DB:174:LYS:HD2	56:DB:175:ILE:N	2.36	0.40
59:GB:39:LYS:HA	59:GB:42:ILE:HD12	2.02	0.40
60:HB:3:MET:CE	60:HB:8:ARG:HD3	2.50	0.40
60:HB:16:PHE:CE1	60:HB:82:LEU:HD13	2.56	0.40
70:RB:67:THR:HB	79:AC:40:ARG:HB2	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:UB:19:ARG:O	73:UB:23:ARG:N	2.54	0.40
75:WB:46:LYS:O	75:WB:50:ILE:HG13	2.20	0.40
82:DC:76:SER:HA	82:DC:100:ILE:O	2.21	0.40
1:A:77:U:H1'	56:DB:159:ARG:NH1	2.35	0.40
1:A:94:U:C5	1:A:95:G:C8	3.09	0.40
1:A:257:A:O2'	58:FB:64:ASN:ND2	2.54	0.40
1:A:361:C:H6	1:A:361:C:H5'	1.86	0.40
1:A:466:U:H2'	1:A:467:G:O4'	2.22	0.40
1:A:592:A:O2'	1:A:593:U:H5'	2.20	0.40
1:A:634:G:H4'	72:TB:4:SER:HA	2.02	0.40
1:A:831:U:C2'	1:A:832:U:H5'	2.50	0.40
1:A:1281:G:H5'	70:RB:78:THR:CG2	2.50	0.40
1:A:1466:G:H2'	1:A:1467:C:C6	2.55	0.40
1:A:1605:G:H2'	1:A:1606:C:C6	2.57	0.40
2:B:118:U:H3	2:B:122:A:H5"	1.85	0.40
2:B:268:A:H3'	2:B:268:A:OP1	2.20	0.40
2:B:277:G:C6	2:B:289:A:N1	2.89	0.40
2:B:335:G:C6	2:B:336:A:C5	3.09	0.40
2:B:431:U:H2'	2:B:432:G:C8	2.57	0.40
2:B:662:U:OP1	32:FA:8:THR:HG21	2.21	0.40
2:B:814:U:H5'	41:OA:45:ARG:HH12	1.85	0.40
2:B:1109:U:H2'	2:B:1110:U:O4'	2.20	0.40
2:B:1253:U:C3'	2:B:1254:C:H5'	2.51	0.40
2:B:1466:G:C5	2:B:1511:U:C4	3.08	0.40
2:B:1491:A:O2'	2:B:1492:G:H5'	2.21	0.40
2:B:1686:U:O2	2:B:1688:U:H1'	2.22	0.40
2:B:1812:G:O2'	2:B:1818:U:H4'	2.21	0.40
2:B:2181:C:H5"	6:F:193:ARG:NH2	2.36	0.40
2:B:2521:U:H4'	6:F:31:THR:HG21	2.03	0.40
2:B:2529:A:O2'	2:B:2530:G:H5'	2.21	0.40
2:B:2727:A:H3'	2:B:2728:G:H4'	2.04	0.40
2:B:2998:U:H2'	2:B:2999:U:C6	2.57	0.40
2:B:3150:A:H4'	7:G:128:LYS:O	2.21	0.40
3:C:36:G:N2	3:C:37:A:N1	2.69	0.40
3:C:83:C:H4'	3:C:83:C:OP1	2.20	0.40
5:E:130:LYS:HG3	5:E:131:ALA:H	1.86	0.40
8:H:151:VAL:HG22	8:H:255:PHE:CD2	2.56	0.40
9:I:21:ARG:HG2	9:I:21:ARG:HH11	1.87	0.40
9:I:107:ARG:O	9:I:111:GLN:HB2	2.21	0.40
11:K:55:TYR:CE2	11:K:141:TYR:HE2	2.39	0.40
12:L:123:GLN:C	12:L:125:ALA:H	2.28	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:154:ALA:HB2	12:L:186:LEU:CD1	2.51	0.40
13:M:8:GLN:HG2	13:M:68:LEU:HD12	2.03	0.40
13:M:73:SER:O	13:M:77:ASN:ND2	2.55	0.40
19:S:154:PRO:HB3	19:S:157:LYS:HE3	2.03	0.40
21:U:65:SER:O	21:U:66:SER:CB	2.68	0.40
21:U:120:ASN:HD22	21:U:120:ASN:N	2.18	0.40
27:AA:15:LEU:HA	27:AA:53:SER:HB3	2.03	0.40
30:DA:45:ILE:CG2	30:DA:46:LYS:N	2.82	0.40
30:DA:82:VAL:HB	30:DA:85:VAL:HB	2.02	0.40
31:EA:7:ALA:C	31:EA:89:VAL:HG11	2.46	0.40
34:HA:96:GLY:O	34:HA:97:ASP:HB2	2.21	0.40
48:VA:112:GLY:HA2	48:VA:165:VAL:C	2.44	0.40
49:WA:5:GLU:HA	49:WA:318:ALA:H	1.85	0.40
49:WA:85:TRP:CG	49:WA:127:ARG:HH22	2.40	0.40
49:WA:173:GLY:O	49:WA:199:ILE:HB	2.21	0.40
49:WA:202:LEU:HD23	49:WA:202:LEU:H	1.86	0.40
52:ZA:76:LEU:HD11	52:ZA:105:GLY:HA2	2.03	0.40
53:AB:211:PRO:HB2	53:AB:212:LYS:H	1.57	0.40
54:BB:133:LYS:HD2	54:BB:133:LYS:N	2.36	0.40
55:CB:146:THR:HG22	55:CB:157:ARG:HB3	2.03	0.40
56:DB:175:ILE:CB	56:DB:178:LEU:HD22	2.51	0.40
58:FB:152:ILE:HB	58:FB:153:GLU:H	1.62	0.40
59:GB:134:ILE:N	59:GB:158:PHE:HA	2.36	0.40
61:IB:17:PRO:C	61:IB:19:ILE:N	2.79	0.40
63:KB:66:ILE:HG22	63:KB:67:THR:N	2.35	0.40
63:KB:102:LEU:HD21	63:KB:111:ALA:HB3	2.03	0.40
68:PB:90:ASN:O	68:PB:95:GLY:HA2	2.21	0.40
75:WB:96:SER:O	75:WB:97:LYS:CB	2.68	0.40
78:ZB:27:GLN:HG2	78:ZB:43:ASN:OD1	2.21	0.40
82:DC:45:ILE:CG1	82:DC:78:TYR:HB2	2.51	0.40
82:DC:81:MET:C	82:DC:96:ASN:HD22	2.29	0.40
82:DC:162:ARG:HB3	84:DC:901:GDP:HN21	1.82	0.40
82:DC:233:PHE:HB3	82:DC:235:VAL:CG2	2.52	0.40
82:DC:789:GLY:C	82:DC:791:GLN:H	2.29	0.40
82:DC:806:SER:CB	82:DC:813:SER:HB2	2.49	0.40
1:A:107:C:H5"	1:A:383:G:O2'	2.22	0.40
1:A:409:C:H4'	1:A:1732:A:O3'	2.20	0.40
1:A:639:U:H3	57:EB:100:PRO:HA	1.86	0.40
1:A:788:A:C6	54:BB:19:LEU:HD13	2.56	0.40
1:A:1037:C:H4'	72:TB:13:ALA:HB2	2.02	0.40
1:A:1072:C:H4'	77:YB:19:HIS:CD2	2.56	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1184:A:H3'	1:A:1185:U:H5"	2.03	0.40
1:A:1722:A:H3'	1:A:1723:U:H6	1.86	0.40
2:B:130:A:H61	2:B:138:U:H3	1.68	0.40
2:B:500:C:H2'	2:B:501:A:H8	1.86	0.40
2:B:578:A:H2'	8:H:334:PHE:CD2	2.56	0.40
2:B:918:C:O2'	2:B:919:U:H5'	2.20	0.40
2:B:1304:A:H61	2:B:2860:U:H5"	1.86	0.40
2:B:1450:G:C6	2:B:2355:G:N2	2.90	0.40
2:B:1638:A:N1	2:B:1736:G:O2'	2.48	0.40
2:B:1643:A:H2'	2:B:1644:C:N3	2.37	0.40
2:B:1658:G:O4'	2:B:1796:G:H2'	2.20	0.40
2:B:1845:G:H3'	2:B:1846:C:H5"	2.04	0.40
2:B:1902:G:C6	2:B:1903:U:C2	3.10	0.40
2:B:2351:U:H2'	2:B:2352:A:C8	2.56	0.40
2:B:2438:A:H2'	2:B:2439:A:C8	2.57	0.40
2:B:2512:C:C4	2:B:2513:U:C4	3.09	0.40
2:B:2837:A:O2'	2:B:2838:A:C8	2.74	0.40
2:B:2890:A:N1	2:B:2913:C:N3	2.69	0.40
2:B:2929:C:C4	2:B:2930:A:N7	2.89	0.40
2:B:3064:U:H2'	2:B:3065:G:C8	2.57	0.40
2:B:3089:C:O2'	2:B:3090:U:H5'	2.21	0.40
3:C:8:C:H2'	3:C:9:A:C8	2.57	0.40
4:D:43:U:C5	4:D:44:C:C5	3.09	0.40
4:D:79:A:C2	4:D:102:A:C4	3.10	0.40
4:D:93:C:C2'	4:D:94:C:H5'	2.51	0.40
4:D:98:C:H2'	4:D:99:G:H5"	2.03	0.40
4:D:114:U:H2'	4:D:115:G:C8	2.55	0.40
6:F:65:ASP:CA	6:F:72:ARG:HH21	2.31	0.40
7:G:92:TYR:HB2	7:G:157:VAL:HG23	2.00	0.40
8:H:141:ARG:NH1	8:H:180:LYS:HD3	2.36	0.40
8:H:317:PRO:HB3	8:H:324:LEU:HA	2.03	0.40
9:I:259:LYS:O	9:I:260:PHE:HB2	2.21	0.40
11:K:92:ILE:HD11	22:V:2:GLY:O	2.22	0.40
11:K:131:GLU:HB3	11:K:132:PRO:HD3	2.02	0.40
11:K:177:GLY:O	11:K:178:ILE:C	2.63	0.40
12:L:188:THR:C	12:L:190:VAL:H	2.30	0.40
14:N:76:MET:H	14:N:76:MET:HG3	1.59	0.40
14:N:179:PRO:HA	14:N:182:LEU:HD12	2.03	0.40
16:P:86:LYS:NZ	16:P:104:ILE:CD1	2.77	0.40
16:P:135:THR:HG23	16:P:147:ASN:HA	2.01	0.40
17:Q:6:ASN:HB3	22:V:164:ARG:HH11	1.86	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:165:SER:O	17:Q:166:ALA:HB3	2.21	0.40
18:R:94:TRP:C	18:R:96:ALA:N	2.80	0.40
19:S:121:VAL:HG22	19:S:129:TYR:C	2.46	0.40
20:T:15:LEU:O	20:T:16:VAL:C	2.65	0.40
20:T:116:LYS:HZ3	24:X:165:TYR:HB3	1.84	0.40
24:X:151:PRO:C	24:X:153:PRO:HD3	2.46	0.40
31:EA:58:GLY:O	31:EA:62:VAL:HG23	2.21	0.40
31:EA:127:ASN:O	31:EA:131:PHE:HD1	2.05	0.40
37:KA:45:LEU:HD23	37:KA:71:VAL:HG12	2.03	0.40
38:LA:38:LEU:CD1	38:LA:38:LEU:H	2.34	0.40
39:MA:31:LEU:HD23	39:MA:47:VAL:HG11	2.03	0.40
40:NA:60:LEU:HD11	40:NA:68:ARG:CZ	2.51	0.40
47:UA:84:ARG:HG2	47:UA:84:ARG:NH1	2.34	0.40
53:AB:167:PHE:HE1	53:AB:195:SER:HB2	1.86	0.40
54:BB:183:VAL:CG1	54:BB:189:LEU:HA	2.51	0.40
55:CB:73:THR:HG21	55:CB:77:TYR:HE1	1.87	0.40
58:FB:78:ILE:HA	58:FB:103:GLN:O	2.20	0.40
58:FB:110:ARG:C	58:FB:112:TRP:H	2.30	0.40
65:MB:50:THR:O	65:MB:51:SER:C	2.64	0.40
69:QB:40:SER:HB3	69:QB:43:ASN:ND2	2.36	0.40
69:QB:138:GLN:HA	69:QB:141:GLU:HG3	2.02	0.40
70:RB:70:THR:HA	70:RB:71:PRO:HD3	1.88	0.40
71:SB:16:LYS:HA	71:SB:23:ILE:HA	2.04	0.40
72:TB:80:ASN:HD22	72:TB:80:ASN:HA	1.65	0.40
74:VB:27:VAL:O	74:VB:68:LYS:HA	2.22	0.40
77:YB:14:SER:HA	77:YB:17:ARG:HG2	2.04	0.40
82:DC:403:GLY:H	82:DC:450:ALA:HB2	1.86	0.40
82:DC:659:ILE:CG2	82:DC:693:LEU:HD21	2.43	0.40
82:DC:729:PHE:CE1	82:DC:774:VAL:HG12	2.56	0.40
83:EC:6808:G:C1'	83:EC:6809:G:P	3.05	0.40
1:A:64:U:C2'	1:A:65:A:H5"	2.36	0.40
1:A:149:C:H2'	1:A:150:U:C6	2.55	0.40
1:A:1404:C:H2'	1:A:1405:G:H8	1.84	0.40
1:A:1671:A:H61	1:A:1730:A:H1'	1.86	0.40
1:A:1737:G:H2'	1:A:1738:U:O4'	2.21	0.40
1:A:1739:C:H2'	1:A:1740:A:H8	1.87	0.40
2:B:63:A:H2'	2:B:64:G:O4'	2.22	0.40
2:B:312:C:H2'	2:B:313:A:H8	1.87	0.40
2:B:797:U:H5"	17:Q:2:ALA:O	2.21	0.40
2:B:911:C:O2'	2:B:912:G:H5'	2.22	0.40
2:B:1144:U:O2	2:B:1159:A:N7	2.54	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1312:C:H2'	2:B:1313:G:O4'	2.21	0.40
2:B:1354:G:O6	2:B:1358:C:H5'	2.22	0.40
2:B:1618:G:H2'	2:B:1619:A:O4'	2.21	0.40
2:B:1653:G:H2'	2:B:1654:A:O4'	2.21	0.40
2:B:1882:G:O2'	2:B:1883:A:H5'	2.21	0.40
2:B:2265:C:O5'	2:B:2265:C:H6	2.04	0.40
2:B:2310:U:H2'	2:B:2311:G:C8	2.56	0.40
2:B:2343:C:O2'	2:B:2344:U:H5'	2.20	0.40
2:B:2367:A:H2'	2:B:2368:A:O4'	2.22	0.40
2:B:2754:G:C3'	2:B:2755:C:H5"	2.52	0.40
2:B:2763:U:H4'	22:V:176:ARG:HG3	2.03	0.40
2:B:3000:A:H2'	2:B:3001:C:H6	1.87	0.40
2:B:3255:U:H2'	2:B:3256:G:H8	1.84	0.40
2:B:3332:U:H2'	2:B:3333:G:O4'	2.21	0.40
3:C:64:U:H2'	3:C:65:A:H8	1.85	0.40
4:D:24:A:H2'	4:D:25:G:C8	2.57	0.40
7:G:252:ILE:HD11	7:G:266:ARG:HD3	2.02	0.40
10:J:172:HIS:HB3	37:KA:43:PHE:HD2	1.86	0.40
10:J:174:LEU:CD1	10:J:175:LYS:H	2.32	0.40
12:L:33:ASN:O	12:L:39:ALA:CB	2.69	0.40
12:L:163:VAL:HG22	12:L:166:LEU:HD12	2.03	0.40
16:P:110:ILE:HG21	16:P:142:ARG:HH22	1.87	0.40
19:S:9:GLU:CG	40:NA:41:ARG:HG2	2.49	0.40
19:S:145:ASP:O	19:S:147:ARG:N	2.46	0.40
20:T:12:LYS:C	24:X:167:ARG:HH22	2.30	0.40
20:T:143:THR:HG21	20:T:150:GLU:OE1	2.20	0.40
22:V:165:ILE:HG13	22:V:167:SER:H	1.87	0.40
23:W:28:GLU:HG3	23:W:49:THR:HG23	2.02	0.40
23:W:99:LEU:HD11	23:W:103:ARG:CD	2.49	0.40
24:X:40:ARG:NH1	24:X:43:TYR:CE1	2.85	0.40
30:DA:111:LEU:N	30:DA:111:LEU:CD1	2.83	0.40
31:EA:10:VAL:HG12	31:EA:11:ALA:N	2.35	0.40
32:FA:47:LYS:C	32:FA:48:TYR:CD2	2.99	0.40
32:FA:104:THR:CG2	32:FA:112:ILE:HD11	2.51	0.40
34:HA:84:LEU:C	34:HA:85:PHE:O	2.64	0.40
37:KA:6:ARG:HG2	37:KA:8:TYR:O	2.21	0.40
38:LA:21:LYS:HE3	38:LA:35:VAL:CG2	2.51	0.40
38:LA:102:LYS:HB2	38:LA:102:LYS:HZ3	1.82	0.40
50:XA:163:ASN:HB3	50:XA:169:SER:OG	2.20	0.40
52:ZA:238:SER:HA	52:ZA:239:PRO:HD3	1.93	0.40
53:AB:215:GLU:H	53:AB:216:PRO:CD	2.34	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CB:148:ARG:HD2	55:CB:157:ARG:HG3	2.03	0.40
57:EB:35:LYS:O	57:EB:37:GLU:HG2	2.21	0.40
57:EB:139:ARG:HG3	57:EB:139:ARG:HH11	1.87	0.40
58:FB:89:GLU:C	58:FB:91:VAL:H	2.29	0.40
61:IB:35:TYR:HB2	61:IB:49:ILE:HG12	2.01	0.40
61:IB:97:TYR:H	61:IB:97:TYR:HD2	1.68	0.40
63:KB:76:LYS:C	63:KB:76:LYS:HD2	2.47	0.40
73:UB:137:LYS:C	73:UB:139:LYS:N	2.79	0.40
74:VB:22:GLN:O	74:VB:23:PHE:HB3	2.22	0.40
82:DC:638:PRO:C	82:DC:640:GLY:H	2.29	0.40
82:DC:682:ARG:HH11	82:DC:801:TRP:CB	2.35	0.40
83:EC:6767:G:O5'	83:EC:6767:G:H8	2.03	0.40
83:EC:6945:U:H5'	83:EC:6946:A:OP2	2.22	0.40
83:EC:6948:U:H2'	83:EC:6949:G:C8	2.56	0.40
1:A:42:G:N1	1:A:434:G:N2	2.69	0.40
1:A:333:A:H8	58:FB:49:ARG:CB	2.35	0.40
1:A:473:A:N6	1:A:474:A:C6	2.90	0.40
1:A:595:G:H2'	1:A:596:C:C6	2.56	0.40
1:A:942:G:H2'	1:A:943:C:O4'	2.22	0.40
1:A:1231:U:H4'	1:A:1259:U:C1'	2.41	0.40
1:A:1475:A:H2'	1:A:1476:C:C6	2.56	0.40
2:B:64:G:O2'	2:B:77:A:N3	2.50	0.40
2:B:374:A:N3	2:B:376:G:H5"	2.36	0.40
2:B:524:U:H5"	18:R:77:ARG:NH1	2.37	0.40
2:B:687:U:OP2	17:Q:36:ARG:NH2	2.55	0.40
2:B:992:A:O3'	25:Y:58:GLN:NE2	2.54	0.40
2:B:1175:C:O2'	2:B:1176:C:H5'	2.21	0.40
2:B:1208:U:H6	2:B:3115:C:N4	2.16	0.40
2:B:1639:C:H4'	2:B:1738:C:H5'	2.03	0.40
2:B:1740:U:O2	2:B:1741:A:H2	2.03	0.40
2:B:1784:G:H2'	2:B:1785:U:O4'	2.21	0.40
2:B:1825:G:H4'	42:PA:19:ASP:OD1	2.22	0.40
2:B:1874:A:C2'	2:B:1875:G:H5'	2.51	0.40
2:B:2104:A:H2'	2:B:2105:G:C8	2.56	0.40
2:B:2351:U:H2'	2:B:2352:A:H8	1.87	0.40
2:B:2746:A:C5'	9:I:178:ASN:ND2	2.84	0.40
2:B:3062:G:C6	2:B:3063:C:C4	3.10	0.40
2:B:3190:C:H2'	2:B:3191:G:C8	2.56	0.40
2:B:3213:A:C6	2:B:3214:U:C5	3.09	0.40
2:B:3334:U:H4'	2:B:3335:A:C5'	2.47	0.40
4:D:5:G:H1'	9:I:63:GLN:HE22	1.86	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:3:ARG:HG2	6:F:4:VAL:N	2.36	0.40
6:F:227:ARG:HD3	6:F:227:ARG:HA	1.89	0.40
7:G:169:THR:HG23	7:G:314:TYR:OH	2.22	0.40
7:G:281:LYS:NZ	7:G:351:LEU:H	2.19	0.40
8:H:239:ALA:N	8:H:240:PRO:HD3	2.37	0.40
8:H:258:LEU:O	8:H:259:ASP:C	2.64	0.40
15:O:82:ARG:O	15:O:85:LYS:HB3	2.22	0.40
15:O:92:ARG:HB3	15:O:94:ARG:NH1	2.37	0.40
17:Q:56:PRO:O	17:Q:71:ALA:HA	2.21	0.40
20:T:126:VAL:O	20:T:126:VAL:HG13	2.21	0.40
23:W:62:ARG:HH21	23:W:62:ARG:HG3	1.87	0.40
24:X:27:MET:HE1	25:Y:153:PRO:HD3	2.02	0.40
24:X:138:GLN:OE1	24:X:141:LYS:HE3	2.21	0.40
29:CA:77:GLU:C	29:CA:79:GLY:N	2.80	0.40
31:EA:50:PRO:HA	31:EA:65:ARG:O	2.22	0.40
36:JA:41:VAL:HB	36:JA:46:PHE:CD2	2.57	0.40
39:MA:24:LEU:O	39:MA:27:GLU:HB2	2.20	0.40
39:MA:86:ARG:HG2	39:MA:90:ARG:NH1	2.36	0.40
48:VA:73:PHE:C	48:VA:75:LYS:H	2.29	0.40
49:WA:26:SER:OG	49:WA:29:GLN:HG2	2.22	0.40
49:WA:201:THR:CB	49:WA:242:SER:HA	2.51	0.40
49:WA:274:LEU:HD13	49:WA:313:TRP:CE3	2.57	0.40
49:WA:316:MET:HE2	49:WA:316:MET:HA	2.03	0.40
50:XA:18:LEU:N	50:XA:18:LEU:HD12	2.37	0.40
52:ZA:38:VAL:O	52:ZA:39:THR:O	2.39	0.40
53:AB:64:ARG:O	53:AB:67:ASN:HB3	2.21	0.40
53:AB:142:LEU:C	53:AB:144:ALA:N	2.78	0.40
53:AB:177:MET:HB2	53:AB:180:GLY:H	1.86	0.40
53:AB:217:ILE:O	53:AB:218:LEU:HB2	2.22	0.40
55:CB:73:THR:HG21	55:CB:77:TYR:CE1	2.57	0.40
55:CB:100:ASN:O	55:CB:102:ARG:N	2.50	0.40
55:CB:142:PRO:HD2	55:CB:170:GLN:OE1	2.22	0.40
56:DB:119:GLN:HG3	56:DB:120:GLU:H	1.86	0.40
57:EB:27:LEU:HD22	57:EB:80:GLU:HG2	2.04	0.40
57:EB:39:ARG:N	57:EB:40:PRO:CD	2.85	0.40
63:KB:42:ARG:HE	63:KB:80:LEU:HD11	1.86	0.40
70:RB:118:VAL:O	70:RB:118:VAL:HG13	2.21	0.40
74:VB:21:LYS:O	74:VB:74:LEU:HA	2.22	0.40
82:DC:277:ILE:O	82:DC:280:PRO:HD2	2.20	0.40
82:DC:400:VAL:HG23	82:DC:452:ASN:O	2.21	0.40
82:DC:631:ARG:HB3	82:DC:631:ARG:NH1	2.29	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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
5	E	165/217 (76%)	128 (78%)	27 (16%)	10 (6%)	1 12
6	F	250/254 (98%)	175 (70%)	61 (24%)	14 (6%)	1 13
7	G	384/387 (99%)	305 (79%)	64 (17%)	15 (4%)	2 20
8	H	359/362 (99%)	255 (71%)	70 (20%)	34 (10%)	0 6
9	I	294/297 (99%)	217 (74%)	58 (20%)	19 (6%)	1 11
10	J	173/176 (98%)	131 (76%)	34 (20%)	8 (5%)	2 17
11	K	220/244 (90%)	171 (78%)	40 (18%)	9 (4%)	2 19
12	L	231/256 (90%)	168 (73%)	44 (19%)	19 (8%)	0 8
13	M	189/191 (99%)	140 (74%)	39 (21%)	10 (5%)	1 14
14	N	207/221 (94%)	161 (78%)	36 (17%)	10 (5%)	2 16
15	O	167/174 (96%)	126 (75%)	26 (16%)	15 (9%)	0 7
16	P	92/165 (56%)	65 (71%)	20 (22%)	7 (8%)	1 8
17	Q	191/199 (96%)	142 (74%)	40 (21%)	9 (5%)	2 17
18	R	134/138 (97%)	107 (80%)	16 (12%)	11 (8%)	0 8
19	S	201/204 (98%)	150 (75%)	45 (22%)	6 (3%)	3 25
20	T	195/199 (98%)	158 (81%)	33 (17%)	4 (2%)	5 31
21	U	181/184 (98%)	150 (83%)	24 (13%)	7 (4%)	2 20
22	V	183/186 (98%)	133 (73%)	43 (24%)	7 (4%)	2 20
23	W	186/189 (98%)	153 (82%)	26 (14%)	7 (4%)	2 20
24	X	170/172 (99%)	131 (77%)	28 (16%)	11 (6%)	1 11
25	Y	157/160 (98%)	124 (79%)	21 (13%)	12 (8%)	1 8
26	Z	98/121 (81%)	72 (74%)	21 (21%)	5 (5%)	1 15

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
27	AA	134/137 (98%)	114 (85%)	19 (14%)	1 (1%)	18 51
28	BA	59/155 (38%)	47 (80%)	7 (12%)	5 (8%)	0 7
29	CA	119/142 (84%)	92 (77%)	19 (16%)	8 (7%)	1 11
30	DA	124/127 (98%)	88 (71%)	30 (24%)	6 (5%)	2 16
31	EA	133/136 (98%)	95 (71%)	27 (20%)	11 (8%)	0 7
32	FA	146/149 (98%)	105 (72%)	30 (20%)	11 (8%)	1 9
33	GA	56/59 (95%)	43 (77%)	10 (18%)	3 (5%)	1 14
34	HA	95/105 (90%)	71 (75%)	19 (20%)	5 (5%)	1 14
35	IA	107/113 (95%)	89 (83%)	14 (13%)	4 (4%)	2 21
36	JA	125/130 (96%)	102 (82%)	20 (16%)	3 (2%)	4 29
37	KA	104/107 (97%)	89 (86%)	10 (10%)	5 (5%)	2 16
38	LA	110/121 (91%)	87 (79%)	18 (16%)	5 (4%)	2 17
39	MA	117/120 (98%)	91 (78%)	19 (16%)	7 (6%)	1 12
40	NA	97/100 (97%)	70 (72%)	18 (19%)	9 (9%)	0 6
41	OA	85/88 (97%)	59 (69%)	20 (24%)	6 (7%)	1 10
42	PA	75/78 (96%)	61 (81%)	11 (15%)	3 (4%)	2 19
43	QA	48/51 (94%)	37 (77%)	8 (17%)	3 (6%)	1 12
44	RA	50/128 (39%)	39 (78%)	5 (10%)	6 (12%)	0 4
45	SA	23/25 (92%)	21 (91%)	1 (4%)	1 (4%)	2 18
46	TA	103/106 (97%)	78 (76%)	19 (18%)	6 (6%)	1 13
47	UA	89/92 (97%)	74 (83%)	13 (15%)	2 (2%)	5 30
48	VA	187/312 (60%)	138 (74%)	32 (17%)	17 (9%)	0 7
49	WA	316/319 (99%)	230 (73%)	73 (23%)	13 (4%)	2 19
50	XA	204/252 (81%)	147 (72%)	42 (21%)	15 (7%)	1 9
51	YA	212/255 (83%)	150 (71%)	46 (22%)	16 (8%)	1 9
52	ZA	215/254 (85%)	160 (74%)	47 (22%)	8 (4%)	2 21
53	AB	221/240 (92%)	168 (76%)	40 (18%)	13 (6%)	1 12
54	BB	258/261 (99%)	183 (71%)	61 (24%)	14 (5%)	1 14
55	CB	204/225 (91%)	155 (76%)	39 (19%)	10 (5%)	1 16
56	DB	224/236 (95%)	172 (77%)	42 (19%)	10 (4%)	2 17
57	EB	182/190 (96%)	124 (68%)	39 (21%)	19 (10%)	0 5

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
58	FB	184/200 (92%)	136 (74%)	33 (18%)	15 (8%)	0 8
59	GB	183/197 (93%)	142 (78%)	28 (15%)	13 (7%)	1 10
60	HB	94/105 (90%)	66 (70%)	19 (20%)	9 (10%)	0 6
61	IB	153/156 (98%)	97 (63%)	42 (28%)	14 (9%)	0 6
62	JB	122/143 (85%)	80 (66%)	31 (25%)	11 (9%)	0 7
63	KB	148/151 (98%)	118 (80%)	23 (16%)	7 (5%)	2 17
64	LB	125/137 (91%)	85 (68%)	30 (24%)	10 (8%)	1 8
65	MB	120/142 (84%)	82 (68%)	21 (18%)	17 (14%)	0 3
66	NB	139/143 (97%)	109 (78%)	21 (15%)	9 (6%)	1 11
67	OB	115/136 (85%)	85 (74%)	23 (20%)	7 (6%)	1 12
68	PB	143/146 (98%)	111 (78%)	22 (15%)	10 (7%)	1 10
69	QB	141/144 (98%)	120 (85%)	15 (11%)	6 (4%)	2 18
70	RB	105/121 (87%)	79 (75%)	21 (20%)	5 (5%)	2 16
71	SB	85/87 (98%)	61 (72%)	17 (20%)	7 (8%)	0 8
72	TB	127/130 (98%)	92 (72%)	29 (23%)	6 (5%)	2 17
73	UB	142/145 (98%)	98 (69%)	29 (20%)	15 (11%)	0 5
74	VB	132/135 (98%)	100 (76%)	26 (20%)	6 (4%)	2 17
75	WB	68/108 (63%)	51 (75%)	7 (10%)	10 (15%)	0 3
76	XB	95/119 (80%)	56 (59%)	26 (27%)	13 (14%)	0 3
77	YB	79/82 (96%)	53 (67%)	22 (28%)	4 (5%)	1 15
78	ZB	61/67 (91%)	44 (72%)	15 (25%)	2 (3%)	3 23
79	AC	51/56 (91%)	44 (86%)	6 (12%)	1 (2%)	6 32
80	BC	58/63 (92%)	34 (59%)	18 (31%)	6 (10%)	0 5
81	CC	69/152 (45%)	44 (64%)	14 (20%)	11 (16%)	0 2
82	DC	819/842 (97%)	628 (77%)	144 (18%)	47 (6%)	1 13
All	All	12207/13416 (91%)	9156 (75%)	2296 (19%)	755 (6%)	2 12

All (755) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	E	2	SER
5	E	120	VAL
5	E	135	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	E	175	GLU
6	F	222	ALA
6	F	248	GLY
6	F	249	SER
7	G	38	SER
7	G	187	SER
7	G	246	LEU
8	H	14	GLU
8	H	82	THR
8	H	146	PRO
8	H	220	ARG
8	H	221	ASN
8	H	268	ALA
8	H	269	SER
8	H	293	SER
8	H	339	LEU
8	H	341	SER
9	I	7	ALA
9	I	233	ALA
11	K	158	LYS
11	K	163	LEU
12	L	36	ILE
12	L	39	ALA
12	L	54	GLU
12	L	163	VAL
12	L	203	VAL
12	L	223	ALA
13	M	50	ASN
14	N	145	LYS
15	O	8	PRO
15	O	11	ASP
15	O	12	LEU
15	O	65	ILE
15	O	114	ILE
15	O	173	ASP
16	P	69	ALA
16	P	144	ASP
17	Q	72	GLY
17	Q	76	THR
18	R	39	ILE
18	R	78	THR
19	S	124	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	T	16	VAL
24	X	59	VAL
24	X	130	GLU
25	Y	18	ASP
25	Y	93	VAL
25	Y	124	VAL
28	BA	26	SER
29	CA	36	LYS
29	CA	57	LEU
29	CA	77	GLU
30	DA	52	ARG
30	DA	53	ASP
30	DA	92	GLY
31	EA	7	ALA
31	EA	31	GLU
31	EA	33	SER
32	FA	120	ASN
33	GA	29	TYR
34	HA	20	SER
34	HA	85	PHE
37	KA	59	VAL
38	LA	59	PRO
38	LA	76	TYR
39	MA	119	LYS
41	OA	25	ARG
43	QA	4	GLN
46	TA	60	LYS
48	VA	30	VAL
48	VA	55	LYS
48	VA	116	PRO
48	VA	183	PHE
49	WA	98	GLU
49	WA	120	SER
50	XA	4	PRO
53	AB	221	SER
54	BB	76	VAL
54	BB	103	TYR
54	BB	150	PRO
54	BB	194	THR
54	BB	195	ILE
54	BB	200	ARG
55	CB	51	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
55	CB	63	GLN
55	CB	64	VAL
55	CB	78	ALA
55	CB	81	ARG
55	CB	100	ASN
57	EB	6	ALA
57	EB	7	LYS
57	EB	31	SER
57	EB	32	PRO
57	EB	64	VAL
57	EB	112	ARG
58	FB	9	HIS
58	FB	22	ARG
58	FB	120	THR
59	GB	98	ALA
59	GB	134	ILE
60	HB	30	ALA
60	HB	83	PRO
60	HB	87	VAL
61	IB	6	THR
61	IB	8	GLN
61	IB	52	SER
62	JB	86	VAL
62	JB	91	VAL
62	JB	131	ASP
63	KB	4	MET
64	LB	43	THR
64	LB	127	ARG
65	MB	69	GLU
65	MB	101	ALA
65	MB	125	PRO
66	NB	15	SER
66	NB	41	PRO
66	NB	42	GLU
66	NB	138	PHE
68	PB	61	LEU
68	PB	82	PRO
68	PB	83	ALA
68	PB	92	ILE
68	PB	134	ARG
69	QB	69	LYS
69	QB	73	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
69	QB	96	ALA
70	RB	49	ASN
71	SB	44	ARG
72	TB	66	ASN
73	UB	41	SER
74	VB	97	ALA
75	WB	44	GLN
75	WB	56	THR
75	WB	86	GLU
75	WB	94	LYS
76	XB	47	ALA
78	ZB	37	SER
80	BC	9	ALA
80	BC	43	ARG
80	BC	47	VAL
81	CC	88	PRO
81	CC	96	LYS
81	CC	146	SER
82	DC	28	VAL
82	DC	330	ALA
82	DC	346	VAL
82	DC	351	TYR
82	DC	420	PRO
82	DC	569	SER
82	DC	677	PHE
82	DC	759	GLN
82	DC	765	LEU
5	E	22	GLU
6	F	116	VAL
6	F	125	ALA
6	F	212	GLY
6	F	243	THR
6	F	246	LEU
7	G	140	ASP
7	G	155	ALA
7	G	244	ARG
7	G	279	ASN
8	H	5	GLN
8	H	81	GLY
8	H	91	GLY
8	H	172	VAL
8	H	263	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	H	264	SER
8	H	292	SER
8	H	302	ALA
8	H	304	GLN
8	H	305	ALA
9	I	59	ASP
9	I	231	ILE
9	I	252	ALA
9	I	260	PHE
10	J	4	GLN
11	K	192	GLY
12	L	25	PRO
12	L	79	GLN
12	L	99	PRO
12	L	156	ASP
12	L	162	LEU
13	M	15	GLY
13	M	117	PHE
14	N	39	LYS
14	N	194	GLY
14	N	197	VAL
15	O	50	ALA
15	O	55	ARG
15	O	64	LYS
15	O	94	ARG
16	P	107	ASP
17	Q	47	ALA
17	Q	62	THR
18	R	9	ALA
18	R	41	GLN
18	R	71	ALA
20	T	68	ARG
21	U	25	SER
21	U	41	LEU
21	U	156	ALA
22	V	91	ALA
22	V	99	THR
22	V	176	ARG
23	W	18	GLY
23	W	57	VAL
23	W	130	ASN
23	W	131	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
24	X	69	PRO
25	Y	97	LYS
26	Z	69	ALA
28	BA	50	ALA
29	CA	78	ASP
30	DA	37	LYS
30	DA	93	ALA
30	DA	105	VAL
31	EA	4	PHE
31	EA	59	ALA
31	EA	132	SER
32	FA	24	LYS
32	FA	56	VAL
32	FA	78	LEU
32	FA	116	GLY
32	FA	117	ARG
33	GA	3	LYS
34	HA	21	GLY
34	HA	98	SER
35	IA	82	GLU
35	IA	99	ALA
36	JA	50	ILE
36	JA	83	GLU
37	KA	91	ALA
38	LA	77	GLY
39	MA	75	TYR
39	MA	99	GLN
39	MA	113	GLN
40	NA	18	THR
40	NA	96	ALA
41	OA	65	ARG
44	RA	92	ASP
44	RA	124	LYS
45	SA	22	ALA
46	TA	33	ALA
46	TA	94	GLY
48	VA	31	ASP
49	WA	94	VAL
49	WA	249	ARG
50	XA	139	VAL
51	YA	35	PRO
51	YA	82	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
51	YA	191	GLU
52	ZA	39	THR
53	AB	93	ASP
53	AB	211	PRO
53	AB	216	PRO
54	BB	26	CYS
54	BB	167	GLY
55	CB	43	PHE
55	CB	79	ASN
56	DB	117	GLY
56	DB	148	SER
57	EB	98	ILE
57	EB	113	PRO
57	EB	156	SER
57	EB	166	LEU
58	FB	28	GLU
58	FB	48	THR
58	FB	59	ARG
58	FB	62	THR
58	FB	70	GLU
58	FB	153	GLU
59	GB	18	PRO
59	GB	99	LEU
59	GB	138	LYS
59	GB	169	PRO
60	HB	60	SER
60	HB	64	TYR
60	HB	81	ASN
60	HB	93	GLN
61	IB	40	LEU
61	IB	80	MET
63	KB	6	SER
63	KB	22	ALA
64	LB	34	SER
64	LB	114	ARG
65	MB	21	ASP
65	MB	51	SER
66	NB	39	VAL
67	OB	24	LEU
68	PB	25	ASN
70	RB	107	THR
71	SB	14	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
73	UB	5	LYS
73	UB	11	SER
73	UB	40	SER
73	UB	67	ALA
73	UB	96	VAL
73	UB	138	GLU
73	UB	144	ARG
74	VB	5	VAL
74	VB	68	LYS
75	WB	55	PRO
76	XB	63	ALA
76	XB	85	ARG
76	XB	89	ARG
77	YB	75	GLU
78	ZB	36	THR
80	BC	10	ARG
80	BC	58	PRO
81	CC	111	GLU
82	DC	48	ALA
82	DC	91	GLN
82	DC	171	LYS
82	DC	257	TRP
82	DC	332	ASP
82	DC	348	ALA
82	DC	353	ALA
82	DC	407	SER
82	DC	424	ASP
82	DC	482	LYS
82	DC	497	ASN
82	DC	555	LYS
82	DC	571	SER
82	DC	751	ARG
5	E	27	ASN
5	E	30	GLU
5	E	138	VAL
7	G	5	LYS
7	G	50	LYS
7	G	386	ASP
8	H	36	HIS
8	H	131	VAL
8	H	277	PRO
8	H	296	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	H	335	ALA
9	I	78	ALA
9	I	119	TYR
9	I	130	GLU
9	I	139	PRO
9	I	258	LYS
10	J	61	ASN
11	K	80	GLN
11	K	81	HIS
11	K	148	VAL
11	K	165	ASP
12	L	139	VAL
12	L	205	ALA
13	M	2	LYS
13	M	49	ASN
13	M	99	ILE
13	M	139	ASN
14	N	118	ALA
15	O	132	ASN
16	P	77	ALA
16	P	118	ASP
17	Q	18	TRP
17	Q	51	LEU
17	Q	75	PHE
17	Q	136	GLU
18	R	28	SER
18	R	76	ALA
19	S	94	TYR
20	T	131	PRO
21	U	132	ALA
23	W	179	GLU
24	X	2	ALA
24	X	4	PHE
24	X	53	LYS
24	X	124	LEU
24	X	143	PHE
24	X	157	GLN
25	Y	69	LYS
25	Y	98	HIS
26	Z	44	GLU
26	Z	52	ASN
27	AA	88	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	CA	55	ASN
32	FA	27	LYS
32	FA	47	LYS
32	FA	48	TYR
33	GA	9	ALA
35	IA	84	ASP
37	KA	47	LYS
37	KA	70	LYS
39	MA	84	LYS
40	NA	52	PRO
41	OA	11	ARG
44	RA	125	LYS
46	TA	15	LYS
46	TA	87	ARG
48	VA	111	ALA
48	VA	137	GLN
49	WA	63	GLY
49	WA	75	ALA
49	WA	107	LYS
50	XA	27	ARG
50	XA	118	PRO
50	XA	157	ASP
51	YA	39	GLU
51	YA	48	VAL
51	YA	206	PRO
51	YA	213	ARG
51	YA	221	PRO
51	YA	223	PHE
52	ZA	145	GLY
53	AB	131	ALA
53	AB	217	ILE
54	BB	121	TYR
56	DB	135	PRO
57	EB	12	ALA
57	EB	63	PRO
57	EB	97	ARG
57	EB	178	GLY
58	FB	152	ILE
58	FB	154	SER
59	GB	35	GLY
59	GB	150	LEU
59	GB	167	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
61	IB	30	ARG
61	IB	79	LYS
62	JB	106	ILE
62	JB	125	ASN
64	LB	42	VAL
64	LB	45	GLY
65	MB	12	PHE
65	MB	53	PRO
65	MB	68	PRO
65	MB	73	PRO
65	MB	123	TYR
65	MB	127	ARG
66	NB	74	HIS
69	QB	50	ALA
73	UB	7	ARG
73	UB	28	ASN
73	UB	125	VAL
75	WB	70	LYS
76	XB	11	ASN
76	XB	32	LYS
76	XB	48	ALA
76	XB	62	TYR
77	YB	68	GLY
81	CC	90	LYS
82	DC	134	GLY
82	DC	465	LYS
82	DC	673	GLU
82	DC	804	LEU
82	DC	830	GLU
82	DC	831	GLU
6	F	7	ASN
6	F	31	THR
6	F	127	ALA
7	G	123	TYR
7	G	141	GLY
7	G	250	ALA
8	H	11	LEU
8	H	233	LEU
8	H	311	HIS
8	H	317	PRO
9	I	132	THR
10	J	24	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	J	109	GLU
11	K	96	PRO
12	L	67	ILE
12	L	103	ALA
12	L	138	HIS
12	L	157	VAL
13	M	36	LYS
13	M	152	GLU
14	N	16	PRO
15	O	101	ASN
15	O	121	GLY
15	O	172	LEU
16	P	68	GLN
18	R	8	LYS
19	S	84	PRO
19	S	146	ALA
22	V	71	LEU
22	V	97	PRO
24	X	147	ASP
25	Y	82	ASN
25	Y	125	ALA
28	BA	60	LYS
37	KA	61	GLY
38	LA	67	LYS
39	MA	14	LYS
40	NA	34	SER
43	QA	46	ARG
44	RA	79	GLU
47	UA	8	VAL
48	VA	6	GLU
48	VA	102	SER
49	WA	15	GLY
49	WA	119	ALA
50	XA	9	LEU
50	XA	29	VAL
50	XA	97	PRO
51	YA	74	GLN
51	YA	103	MET
51	YA	153	HIS
52	ZA	162	CYS
53	AB	196	ARG
54	BB	240	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
55	CB	50	GLU
55	CB	127	GLN
56	DB	43	ASP
56	DB	53	SER
56	DB	69	LEU
56	DB	122	GLU
57	EB	13	PRO
57	EB	87	ASP
59	GB	65	LYS
60	HB	34	GLU
60	HB	62	GLN
61	IB	4	GLU
61	IB	41	GLY
62	JB	93	ASP
63	KB	28	LEU
63	KB	59	GLY
64	LB	33	LEU
65	MB	11	VAL
65	MB	52	LYS
66	NB	51	PRO
67	OB	42	GLN
67	OB	102	VAL
69	QB	53	TRP
70	RB	59	PRO
71	SB	7	GLN
71	SB	10	GLU
71	SB	12	TYR
72	TB	22	LYS
72	TB	93	LEU
74	VB	65	GLY
75	WB	97	LYS
76	XB	8	ASN
76	XB	31	PRO
76	XB	59	TYR
77	YB	51	GLN
80	BC	13	LYS
81	CC	98	VAL
81	CC	102	VAL
82	DC	331	ALA
82	DC	432	GLN
82	DC	483	PHE
6	F	27	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	F	150	LEU
6	F	175	VAL
7	G	63	PRO
7	G	292	ALA
8	H	90	PHE
8	H	348	GLY
9	I	106	ALA
9	I	125	VAL
9	I	228	ALA
10	J	122	PHE
10	J	123	PRO
12	L	241	LYS
13	M	172	ILE
18	R	6	ILE
18	R	14	LEU
19	S	145	ASP
21	U	40	GLU
21	U	84	PRO
21	U	164	LYS
23	W	33	ALA
24	X	15	PRO
25	Y	127	GLN
25	Y	144	GLU
26	Z	11	ILE
28	BA	27	LYS
31	EA	8	GLY
31	EA	103	GLN
32	FA	148	ILE
36	JA	5	PRO
40	NA	3	VAL
40	NA	43	LEU
41	OA	37	CYS
41	OA	64	MET
42	PA	20	VAL
42	PA	33	LYS
43	QA	44	TRP
44	RA	97	ARG
48	VA	33	VAL
48	VA	76	LEU
48	VA	78	PRO
49	WA	237	GLN
50	XA	39	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	XA	103	THR
50	XA	149	LEU
51	YA	40	ASN
51	YA	207	LEU
52	ZA	119	LYS
52	ZA	121	VAL
52	ZA	248	SER
53	AB	6	SER
53	AB	215	GLU
54	BB	39	ARG
54	BB	74	GLY
56	DB	138	ALA
57	EB	144	VAL
58	FB	173	PRO
59	GB	144	PRO
62	JB	102	GLY
63	KB	60	VAL
67	OB	100	LEU
67	OB	104	ASN
68	PB	14	ILE
70	RB	119	ALA
71	SB	42	GLU
73	UB	27	ASN
75	WB	93	SER
81	CC	97	LYS
81	CC	145	HIS
82	DC	108	HIS
82	DC	109	VAL
82	DC	169	VAL
82	DC	231	LYS
82	DC	285	PHE
82	DC	486	SER
82	DC	583	HIS
82	DC	805	GLY
82	DC	814	LYS
5	E	32	VAL
8	H	232	SER
9	I	14	SER
9	I	53	VAL
9	I	187	THR
9	I	253	PHE
11	K	147	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	L	124	ASP
14	N	7	ARG
14	N	24	ARG
14	N	207	GLU
15	O	108	GLU
17	Q	5	LYS
18	R	29	ALA
20	T	126	VAL
22	V	180	ARG
25	Y	123	GLY
25	Y	126	VAL
26	Z	92	TRP
29	CA	89	LYS
31	EA	82	PRO
31	EA	87	LEU
32	FA	15	VAL
34	HA	100	ILE
40	NA	44	VAL
40	NA	77	LEU
41	OA	62	GLY
48	VA	75	LYS
49	WA	189	GLU
49	WA	276	PRO
50	XA	42	PRO
51	YA	154	SER
53	AB	132	LYS
54	BB	205	PHE
56	DB	70	PRO
56	DB	154	ARG
57	EB	145	GLY
58	FB	102	VAL
58	FB	112	TRP
61	IB	153	PHE
62	JB	84	ASN
65	MB	75	PRO
65	MB	78	THR
68	PB	37	GLY
68	PB	60	GLU
71	SB	27	ASP
72	TB	75	ILE
72	TB	84	GLY
73	UB	66	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
73	UB	112	LYS
73	UB	131	SER
76	XB	10	ARG
79	AC	51	GLY
81	CC	148	TYR
82	DC	244	LEU
82	DC	291	PHE
8	H	23	PRO
10	J	15	VAL
10	J	98	VAL
22	V	132	PRO
35	IA	7	VAL
39	MA	112	PRO
40	NA	21	THR
42	PA	35	GLY
46	TA	101	GLY
48	VA	47	GLY
49	WA	105	GLY
50	XA	98	ILE
52	ZA	48	GLY
52	ZA	75	GLY
53	AB	82	GLY
57	EB	162	ILE
59	GB	162	SER
64	LB	75	GLY
64	LB	87	GLY
66	NB	40	GLU
67	OB	99	VAL
69	QB	52	GLY
74	VB	35	VAL
75	WB	71	ILE
76	XB	45	VAL
81	CC	84	VAL
82	DC	281	ILE
82	DC	675	PRO
8	H	222	VAL
23	W	79	GLY
44	RA	80	PRO
47	UA	71	VAL
48	VA	165	VAL
51	YA	210	ILE
61	IB	84	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
61	IB	130	PRO
65	MB	109	PRO
74	VB	67	GLY
14	N	47	PRO
19	S	89	VAL
29	CA	62	VAL
48	VA	71	PRO
48	VA	158	VAL
58	FB	101	ILE
61	IB	123	VAL
62	JB	89	ILE
62	JB	115	VAL
64	LB	118	VAL
70	RB	110	PRO
82	DC	811	PRO
28	BA	15	PRO
29	CA	44	PRO
31	EA	125	GLY
50	XA	189	VAL
50	XA	194	PRO
53	AB	37	VAL
53	AB	81	PRO
54	BB	151	ASP
59	GB	163	PRO
61	IB	113	PRO
63	KB	46	THR
65	MB	87	PRO
66	NB	55	VAL
67	OB	86	PRO
68	PB	76	PRO
72	TB	123	GLY
75	WB	40	VAL
82	DC	559	PRO
5	E	69	GLY
16	P	134	GLY
38	LA	29	ILE
62	JB	24	ILE
77	YB	76	GLY

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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
5	E	157/198 (79%)	129 (82%)	28 (18%)	2 10
6	F	194/196 (99%)	174 (90%)	20 (10%)	7 28
7	G	322/323 (100%)	292 (91%)	30 (9%)	8 31
8	H	288/289 (100%)	250 (87%)	38 (13%)	4 20
9	I	244/245 (100%)	226 (93%)	18 (7%)	13 37
10	J	152/153 (99%)	136 (90%)	16 (10%)	6 27
11	K	186/205 (91%)	168 (90%)	18 (10%)	8 30
12	L	191/208 (92%)	166 (87%)	25 (13%)	4 20
13	M	171/171 (100%)	156 (91%)	15 (9%)	9 32
14	N	180/187 (96%)	157 (87%)	23 (13%)	4 21
15	O	147/150 (98%)	134 (91%)	13 (9%)	9 32
16	P	81/136 (60%)	64 (79%)	17 (21%)	1 6
17	Q	154/159 (97%)	132 (86%)	22 (14%)	3 18
18	R	107/109 (98%)	94 (88%)	13 (12%)	5 22
19	S	175/176 (99%)	154 (88%)	21 (12%)	5 23
20	T	160/162 (99%)	152 (95%)	8 (5%)	22 48
21	U	145/146 (99%)	131 (90%)	14 (10%)	8 30
22	V	150/151 (99%)	141 (94%)	9 (6%)	17 44
23	W	153/154 (99%)	131 (86%)	22 (14%)	3 18
24	X	156/156 (100%)	137 (88%)	19 (12%)	5 22
25	Y	136/137 (99%)	120 (88%)	16 (12%)	5 23
26	Z	87/107 (81%)	81 (93%)	6 (7%)	14 39
27	AA	104/105 (99%)	87 (84%)	17 (16%)	2 14
28	BA	54/129 (42%)	50 (93%)	4 (7%)	13 37
29	CA	105/118 (89%)	91 (87%)	14 (13%)	4 20
30	DA	109/110 (99%)	97 (89%)	12 (11%)	6 26

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
31	EA	115/116 (99%)	98 (85%)	17 (15%)	3	17
32	FA	118/119 (99%)	106 (90%)	12 (10%)	7	28
33	GA	46/47 (98%)	42 (91%)	4 (9%)	9	33
34	HA	81/88 (92%)	70 (86%)	11 (14%)	3	19
35	IA	96/97 (99%)	89 (93%)	7 (7%)	13	38
36	JA	109/111 (98%)	99 (91%)	10 (9%)	8	32
37	KA	90/91 (99%)	86 (96%)	4 (4%)	25	51
38	LA	95/103 (92%)	81 (85%)	14 (15%)	3	17
39	MA	104/105 (99%)	91 (88%)	13 (12%)	4	22
40	NA	81/82 (99%)	74 (91%)	7 (9%)	10	33
41	OA	70/71 (99%)	65 (93%)	5 (7%)	13	38
42	PA	68/69 (99%)	64 (94%)	4 (6%)	18	44
43	QA	45/46 (98%)	39 (87%)	6 (13%)	4	20
44	RA	47/116 (40%)	44 (94%)	3 (6%)	16	42
45	SA	23/23 (100%)	20 (87%)	3 (13%)	4	21
46	TA	90/91 (99%)	87 (97%)	3 (3%)	33	58
47	UA	71/72 (99%)	62 (87%)	9 (13%)	4	21
48	VA	160/254 (63%)	131 (82%)	29 (18%)	2	10
49	WA	261/262 (100%)	243 (93%)	18 (7%)	14	39
50	XA	173/210 (82%)	157 (91%)	16 (9%)	8	32
52	ZA	176/205 (86%)	163 (93%)	13 (7%)	13	37
53	AB	182/195 (93%)	162 (89%)	20 (11%)	6	26
54	BB	221/222 (100%)	204 (92%)	17 (8%)	12	37
55	CB	173/191 (91%)	158 (91%)	15 (9%)	9	33
56	DB	193/201 (96%)	184 (95%)	9 (5%)	23	49
57	EB	165/170 (97%)	154 (93%)	11 (7%)	15	41
58	FB	150/161 (93%)	140 (93%)	10 (7%)	15	41
59	GB	158/166 (95%)	146 (92%)	12 (8%)	12	37
60	HB	89/98 (91%)	82 (92%)	7 (8%)	11	36
61	IB	136/137 (99%)	126 (93%)	10 (7%)	13	37
63	KB	127/128 (99%)	117 (92%)	10 (8%)	11	36

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
65	MB	103/118 (87%)	96 (93%)	7 (7%)	14 40
66	NB	117/119 (98%)	107 (92%)	10 (8%)	10 34
67	OB	82/124 (66%)	77 (94%)	5 (6%)	17 43
68	PB	128/129 (99%)	119 (93%)	9 (7%)	14 39
69	QB	115/116 (99%)	109 (95%)	6 (5%)	21 47
70	RB	100/114 (88%)	90 (90%)	10 (10%)	7 28
71	SB	74/74 (100%)	69 (93%)	5 (7%)	14 40
72	TB	110/111 (99%)	98 (89%)	12 (11%)	6 26
73	UB	119/120 (99%)	111 (93%)	8 (7%)	15 41
74	VB	112/113 (99%)	104 (93%)	8 (7%)	13 38
75	WB	61/89 (68%)	54 (88%)	7 (12%)	5 24
77	YB	70/71 (99%)	68 (97%)	2 (3%)	37 60
78	ZB	56/60 (93%)	53 (95%)	3 (5%)	20 46
79	AC	47/49 (96%)	43 (92%)	4 (8%)	10 34
80	BC	51/54 (94%)	45 (88%)	6 (12%)	5 23
82	DC	699/714 (98%)	615 (88%)	84 (12%)	5 23
All	All	9865/10602 (93%)	8892 (90%)	973 (10%)	10 29

All (973) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	E	4	ILE
5	E	16	LEU
5	E	29	LEU
5	E	31	THR
5	E	32	VAL
5	E	33	GLU
5	E	65	ILE
5	E	70	ASP
5	E	87	VAL
5	E	97	LYS
5	E	100	ILE
5	E	116	LEU
5	E	122	ARG
5	E	127	GLN
5	E	139	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	E	145	TYR
5	E	151	VAL
5	E	176	GLU
5	E	183	ILE
5	E	184	LEU
5	E	189	PHE
5	E	193	LEU
5	E	197	ASN
5	E	200	ASN
5	E	201	VAL
5	E	210	MET
5	E	214	PHE
5	E	217	TYR
6	F	29	LEU
6	F	30	ARG
6	F	44	ILE
6	F	45	VAL
6	F	47	GLN
6	F	89	TYR
6	F	101	VAL
6	F	102	LEU
6	F	103	PRO
6	F	104	LEU
6	F	116	VAL
6	F	149	ARG
6	F	150	LEU
6	F	176	ASP
6	F	179	LEU
6	F	191	LEU
6	F	207	VAL
6	F	218	HIS
6	F	241	ARG
6	F	251	LYS
7	G	17	LEU
7	G	19	ARG
7	G	25	ILE
7	G	85	VAL
7	G	95	THR
7	G	103	THR
7	G	114	VAL
7	G	137	TYR
7	G	144	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	G	150	ARG
7	G	164	THR
7	G	173	GLN
7	G	188	ILE
7	G	191	LYS
7	G	196	ARG
7	G	203	VAL
7	G	206	ASP
7	G	238	LEU
7	G	287	LYS
7	G	289	ASP
7	G	298	PHE
7	G	304	THR
7	G	305	ILE
7	G	311	PHE
7	G	322	ILE
7	G	335	ILE
7	G	346	THR
7	G	351	LEU
7	G	356	LEU
7	G	386	ASP
8	H	33	ASP
8	H	35	VAL
8	H	40	THR
8	H	52	VAL
8	H	73	ARG
8	H	74	ILE
8	H	92	ASN
8	H	93	MET
8	H	114	ASN
8	H	122	THR
8	H	144	LYS
8	H	156	LEU
8	H	161	LYS
8	H	172	VAL
8	H	179	LEU
8	H	182	LEU
8	H	187	LEU
8	H	193	LYS
8	H	206	LEU
8	H	208	VAL
8	H	211	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	H	235	LEU
8	H	244	LEU
8	H	248	VAL
8	H	259	ASP
8	H	260	GLN
8	H	276	LEU
8	H	277	PRO
8	H	280	ILE
8	H	285	ASP
8	H	294	GLU
8	H	299	ILE
8	H	307	GLN
8	H	313	LEU
8	H	316	ASN
8	H	327	LEU
8	H	346	LYS
8	H	359	LEU
9	I	8	LYS
9	I	22	ARG
9	I	23	ARG
9	I	41	LYS
9	I	45	ASN
9	I	57	ASN
9	I	85	ARG
9	I	94	ASN
9	I	95	TRP
9	I	105	ILE
9	I	107	ARG
9	I	120	LYS
9	I	144	VAL
9	I	152	ARG
9	I	194	LEU
9	I	198	TYR
9	I	276	LYS
9	I	285	ARG
10	J	5	LYS
10	J	8	LYS
10	J	20	LYS
10	J	30	LEU
10	J	35	VAL
10	J	40	LEU
10	J	52	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	J	64	LEU
10	J	72	ASN
10	J	93	VAL
10	J	98	VAL
10	J	108	LYS
10	J	136	GLU
10	J	166	LYS
10	J	173	MET
10	J	174	LEU
11	K	24	GLU
11	K	25	GLN
11	K	45	LEU
11	K	68	ASP
11	K	82	LYS
11	K	88	ARG
11	K	124	LEU
11	K	155	LYS
11	K	179	LEU
11	K	182	ASP
11	K	184	LEU
11	K	191	VAL
11	K	202	LEU
11	K	216	VAL
11	K	229	PHE
11	K	238	LYS
11	K	239	LEU
11	K	241	LYS
12	L	41	GLN
12	L	50	VAL
12	L	55	TYR
12	L	56	VAL
12	L	57	ARG
12	L	84	ARG
12	L	92	LYS
12	L	98	ARG
12	L	110	THR
12	L	122	LYS
12	L	134	TYR
12	L	136	LEU
12	L	152	LEU
12	L	160	ILE
12	L	161	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	L	169	LEU
12	L	189	LEU
12	L	190	VAL
12	L	200	LEU
12	L	221	ASN
12	L	224	ASP
12	L	232	HIS
12	L	238	LEU
12	L	246	MET
12	L	251	LYS
13	M	34	LEU
13	M	41	ILE
13	M	49	ASN
13	M	52	LEU
13	M	55	VAL
13	M	68	LEU
13	M	74	LEU
13	M	83	THR
13	M	104	VAL
13	M	114	VAL
13	M	135	GLU
13	M	139	ASN
13	M	149	ASN
13	M	164	ILE
13	M	172	ILE
14	N	3	ARG
14	N	21	ARG
14	N	30	LYS
14	N	32	ARG
14	N	33	ILE
14	N	36	LEU
14	N	40	LYS
14	N	42	THR
14	N	44	ASP
14	N	48	LEU
14	N	71	CYS
14	N	73	ASN
14	N	82	ARG
14	N	87	LEU
14	N	91	VAL
14	N	92	HIS
14	N	102	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	N	130	ASP
14	N	150	GLU
14	N	153	ARG
14	N	163	GLN
14	N	165	ILE
14	N	183	LYS
15	O	10	ARG
15	O	12	LEU
15	O	29	ARG
15	O	30	LEU
15	O	35	LYS
15	O	111	ASP
15	O	112	LEU
15	O	115	LYS
15	O	117	ASP
15	O	138	VAL
15	O	142	LYS
15	O	150	ASN
15	O	161	SER
16	P	57	LYS
16	P	60	VAL
16	P	61	GLN
16	P	65	GLN
16	P	66	ASN
16	P	73	VAL
16	P	85	LEU
16	P	90	ARG
16	P	92	ARG
16	P	96	LYS
16	P	99	LYS
16	P	112	ILE
16	P	125	LEU
16	P	131	GLU
16	P	133	LEU
16	P	139	VAL
16	P	146	LYS
17	Q	17	HIS
17	Q	21	ARG
17	Q	23	LYS
17	Q	46	ILE
17	Q	53	LEU
17	Q	54	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	Q	58	VAL
17	Q	63	VAL
17	Q	67	ARG
17	Q	68	LYS
17	Q	69	VAL
17	Q	77	LEU
17	Q	85	LEU
17	Q	95	ILE
17	Q	103	ASN
17	Q	114	GLN
17	Q	131	LYS
17	Q	149	GLN
17	Q	154	VAL
17	Q	164	GLU
17	Q	169	THR
17	Q	192	GLU
18	R	8	LYS
18	R	15	VAL
18	R	23	ILE
18	R	24	LYS
18	R	35	ILE
18	R	41	GLN
18	R	46	ILE
18	R	53	VAL
18	R	55	ARG
18	R	103	ILE
18	R	107	GLU
18	R	113	THR
18	R	121	MET
19	S	10	LEU
19	S	11	GLN
19	S	14	LYS
19	S	18	VAL
19	S	27	VAL
19	S	38	ARG
19	S	50	ARG
19	S	57	GLN
19	S	66	VAL
19	S	83	LYS
19	S	84	PRO
19	S	131	GLU
19	S	133	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
19	S	134	LEU
19	S	145	ASP
19	S	151	ILE
19	S	164	LEU
19	S	165	THR
19	S	175	ASN
19	S	188	ARG
19	S	196	THR
20	T	7	VAL
20	T	25	LYS
20	T	78	ARG
20	T	131	PRO
20	T	151	ASP
20	T	167	TYR
20	T	177	LYS
20	T	193	GLN
21	U	18	ARG
21	U	25	SER
21	U	36	ILE
21	U	45	GLN
21	U	52	LEU
21	U	61	ARG
21	U	120	ASN
21	U	124	LYS
21	U	127	ARG
21	U	139	TYR
21	U	159	LYS
21	U	163	LYS
21	U	168	LEU
21	U	171	ARG
22	V	57	ILE
22	V	64	VAL
22	V	67	ILE
22	V	69	ARG
22	V	100	THR
22	V	122	ILE
22	V	125	ASP
22	V	130	ARG
22	V	180	ARG
23	W	22	VAL
23	W	24	LEU
23	W	36	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	W	42	ARG
23	W	43	LYS
23	W	47	ASN
23	W	52	LYS
23	W	56	THR
23	W	74	ARG
23	W	84	THR
23	W	99	LEU
23	W	103	ARG
23	W	104	ARG
23	W	105	LEU
23	W	110	ARG
23	W	115	ILE
23	W	144	GLN
23	W	162	ARG
23	W	165	LYS
23	W	171	ASP
23	W	179	GLU
23	W	181	ARG
24	X	9	VAL
24	X	14	LEU
24	X	34	GLU
24	X	43	TYR
24	X	45	LEU
24	X	79	VAL
24	X	80	ARG
24	X	87	THR
24	X	94	ILE
24	X	96	ASP
24	X	100	VAL
24	X	125	LYS
24	X	130	GLU
24	X	131	LYS
24	X	137	ARG
24	X	139	TYR
24	X	152	LEU
24	X	156	VAL
24	X	170	THR
25	Y	14	MET
25	Y	25	VAL
25	Y	27	LEU
25	Y	48	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
25	Y	55	LYS
25	Y	75	ILE
25	Y	84	TYR
25	Y	85	LEU
25	Y	86	GLU
25	Y	88	ARG
25	Y	91	LEU
25	Y	98	HIS
25	Y	126	VAL
25	Y	131	GLN
25	Y	137	GLU
25	Y	141	VAL
26	Z	10	LYS
26	Z	16	THR
26	Z	52	ASN
26	Z	70	LYS
26	Z	88	GLN
26	Z	108	TYR
27	AA	13	ILE
27	AA	15	LEU
27	AA	23	MET
27	AA	33	ASN
27	AA	54	LEU
27	AA	56	ASP
27	AA	58	VAL
27	AA	68	GLU
27	AA	69	LEU
27	AA	74	MET
27	AA	83	LYS
27	AA	93	LEU
27	AA	98	ASN
27	AA	102	ILE
27	AA	115	THR
27	AA	124	ASP
27	AA	128	ARG
28	BA	1	MET
28	BA	17	ARG
28	BA	19	THR
28	BA	57	LYS
29	CA	34	LEU
29	CA	40	LEU
29	CA	54	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
29	CA	58	ASP
29	CA	60	TYR
29	CA	63	ILE
29	CA	83	VAL
29	CA	86	VAL
29	CA	92	LYS
29	CA	126	LEU
29	CA	127	THR
29	CA	133	LEU
29	CA	135	ILE
29	CA	142	ILE
30	DA	4	GLN
30	DA	17	LYS
30	DA	37	LYS
30	DA	50	ILE
30	DA	57	LEU
30	DA	73	VAL
30	DA	76	LEU
30	DA	88	GLU
30	DA	105	VAL
30	DA	113	LYS
30	DA	115	ARG
30	DA	126	LEU
31	EA	12	VAL
31	EA	13	VAL
31	EA	21	LYS
31	EA	24	VAL
31	EA	43	VAL
31	EA	46	ILE
31	EA	52	LYS
31	EA	57	HIS
31	EA	72	ILE
31	EA	81	LEU
31	EA	88	ASP
31	EA	99	GLU
31	EA	109	GLU
31	EA	119	GLU
31	EA	121	ARG
31	EA	126	LYS
31	EA	127	ASN
32	FA	4	ARG
32	FA	7	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
32	FA	24	LYS
32	FA	48	TYR
32	FA	56	VAL
32	FA	64	GLN
32	FA	85	ASP
32	FA	118	ILE
32	FA	129	PHE
32	FA	133	LEU
32	FA	135	GLU
32	FA	145	VAL
33	GA	7	HIS
33	GA	14	ARG
33	GA	28	LYS
33	GA	59	LYS
34	HA	12	GLN
34	HA	19	LYS
34	HA	38	LYS
34	HA	43	ILE
34	HA	55	GLU
34	HA	61	MET
34	HA	62	LEU
34	HA	66	LYS
34	HA	93	LEU
34	HA	98	SER
34	HA	100	ILE
35	IA	13	THR
35	IA	31	ARG
35	IA	55	LEU
35	IA	89	LEU
35	IA	94	GLU
35	IA	96	VAL
35	IA	112	ASP
36	JA	4	LEU
36	JA	8	LYS
36	JA	14	THR
36	JA	23	ASP
36	JA	33	ARG
36	JA	45	ARG
36	JA	62	LYS
36	JA	78	ASN
36	JA	89	THR
36	JA	128	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
37	KA	30	ILE
37	KA	33	GLU
37	KA	53	TYR
37	KA	57	LYS
38	LA	15	THR
38	LA	22	VAL
38	LA	38	LEU
38	LA	51	LEU
38	LA	54	ILE
38	LA	58	ARG
38	LA	59	PRO
38	LA	67	LYS
38	LA	83	ASN
38	LA	95	ILE
38	LA	97	GLU
38	LA	102	LYS
38	LA	103	LYS
38	LA	106	LYS
39	MA	27	GLU
39	MA	30	GLU
39	MA	41	LEU
39	MA	45	LYS
39	MA	48	ARG
39	MA	49	LYS
39	MA	53	CYS
39	MA	71	LYS
39	MA	74	LYS
39	MA	77	PRO
39	MA	79	ASP
39	MA	89	ARG
39	MA	104	GLN
40	NA	18	THR
40	NA	37	THR
40	NA	52	PRO
40	NA	57	LEU
40	NA	60	LEU
40	NA	84	LYS
40	NA	98	ARG
41	OA	17	THR
41	OA	19	CYS
41	OA	24	ARG
41	OA	25	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
41	OA	61	THR
42	PA	5	ILE
42	PA	26	LYS
42	PA	63	LYS
42	PA	69	LEU
43	QA	5	LYS
43	QA	8	ARG
43	QA	23	LEU
43	QA	31	THR
43	QA	35	ILE
43	QA	48	LYS
44	RA	83	LYS
44	RA	85	LEU
44	RA	127	LEU
45	SA	5	TRP
45	SA	21	ARG
45	SA	23	ARG
46	TA	4	VAL
46	TA	20	HIS
46	TA	61	LYS
47	UA	4	ARG
47	UA	10	ILE
47	UA	11	THR
47	UA	17	ARG
47	UA	24	ARG
47	UA	28	LYS
47	UA	45	LYS
47	UA	70	THR
47	UA	89	MET
48	VA	17	GLU
48	VA	20	GLU
48	VA	21	GLU
48	VA	23	LYS
48	VA	27	VAL
48	VA	45	LEU
48	VA	46	ARG
48	VA	55	LYS
48	VA	57	THR
48	VA	61	ARG
48	VA	70	LEU
48	VA	72	ASP
48	VA	81	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
48	VA	91	GLU
48	VA	95	GLU
48	VA	101	VAL
48	VA	117	GLU
48	VA	120	TRP
48	VA	124	VAL
48	VA	125	ASN
48	VA	126	THR
48	VA	144	LYS
48	VA	156	VAL
48	VA	159	VAL
48	VA	167	GLN
48	VA	172	LEU
48	VA	185	LEU
48	VA	186	THR
48	VA	189	GLN
49	WA	31	ASN
49	WA	45	TRP
49	WA	58	VAL
49	WA	59	ARG
49	WA	109	ASP
49	WA	117	LYS
49	WA	131	ILE
49	WA	136	ILE
49	WA	137	LYS
49	WA	165	ASP
49	WA	175	ASP
49	WA	181	TRP
49	WA	193	ILE
49	WA	195	HIS
49	WA	248	ASN
49	WA	265	LEU
49	WA	266	ASP
49	WA	268	GLN
50	XA	8	ASP
50	XA	10	THR
50	XA	24	LEU
50	XA	27	ARG
50	XA	32	HIS
50	XA	38	PHE
50	XA	62	ARG
50	XA	97	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	XA	101	ARG
50	XA	118	PRO
50	XA	131	GLN
50	XA	143	VAL
50	XA	170	ILE
50	XA	172	LEU
50	XA	195	TRP
50	XA	197	ILE
52	ZA	53	ILE
52	ZA	72	LEU
52	ZA	83	ILE
52	ZA	101	VAL
52	ZA	106	ASP
52	ZA	113	LEU
52	ZA	119	LYS
52	ZA	158	THR
52	ZA	169	LEU
52	ZA	220	ASN
52	ZA	222	TYR
52	ZA	228	ASN
52	ZA	230	TRP
53	AB	7	LYS
53	AB	17	PHE
53	AB	23	GLU
53	AB	84	ILE
53	AB	92	GLN
53	AB	93	ASP
53	AB	105	MET
53	AB	115	ILE
53	AB	125	TYR
53	AB	127	MET
53	AB	136	VAL
53	AB	150	MET
53	AB	158	ILE
53	AB	169	ASP
53	AB	178	ARG
53	AB	179	GLN
53	AB	181	VAL
53	AB	202	LEU
53	AB	212	LYS
53	AB	223	LYS
54	BB	6	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
54	BB	8	HIS
54	BB	11	ARG
54	BB	23	LEU
54	BB	30	ARG
54	BB	38	LEU
54	BB	77	ARG
54	BB	102	VAL
54	BB	138	TYR
54	BB	169	ILE
54	BB	187	ARG
54	BB	214	LEU
54	BB	223	ASN
54	BB	227	VAL
54	BB	233	LYS
54	BB	242	LYS
54	BB	246	LEU
55	CB	25	LEU
55	CB	40	ILE
55	CB	42	LEU
55	CB	55	ASP
55	CB	84	LYS
55	CB	92	ARG
55	CB	109	LYS
55	CB	130	ILE
55	CB	144	GLU
55	CB	149	VAL
55	CB	156	ARG
55	CB	157	ARG
55	CB	187	ILE
55	CB	194	LEU
55	CB	215	ASP
56	DB	19	ASP
56	DB	26	VAL
56	DB	125	THR
56	DB	132	ARG
56	DB	135	PRO
56	DB	170	THR
56	DB	211	LEU
56	DB	220	LYS
56	DB	226	ILE
57	EB	8	ILE
57	EB	42	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
57	EB	63	PRO
57	EB	98	ILE
57	EB	114	ARG
57	EB	117	THR
57	EB	124	LYS
57	EB	128	ASP
57	EB	166	LEU
57	EB	173	TYR
57	EB	185	ILE
58	FB	8	ARG
58	FB	20	GLN
58	FB	29	LEU
58	FB	47	ARG
58	FB	72	ILE
58	FB	76	THR
58	FB	121	LEU
58	FB	173	PRO
58	FB	180	ASP
58	FB	182	TYR
59	GB	3	ARG
59	GB	45	ILE
59	GB	49	LEU
59	GB	58	ASP
59	GB	66	ASP
59	GB	81	VAL
59	GB	92	LYS
59	GB	113	VAL
59	GB	120	LYS
59	GB	134	ILE
59	GB	149	ARG
59	GB	155	HIS
60	HB	34	GLU
60	HB	41	TYR
60	HB	49	LEU
60	HB	52	LYS
60	HB	62	GLN
60	HB	82	LEU
60	HB	91	TYR
61	IB	4	GLU
61	IB	15	LYS
61	IB	44	THR
61	IB	67	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
61	IB	71	LEU
61	IB	79	LYS
61	IB	109	VAL
61	IB	125	VAL
61	IB	153	PHE
61	IB	155	LYS
63	KB	43	LYS
63	KB	48	SER
63	KB	64	ARG
63	KB	66	ILE
63	KB	72	MET
63	KB	86	GLU
63	KB	88	LEU
63	KB	108	ASP
63	KB	125	LEU
63	KB	131	THR
65	MB	8	LYS
65	MB	28	MET
65	MB	34	VAL
65	MB	36	LEU
65	MB	65	LEU
65	MB	81	ARG
65	MB	110	GLU
66	NB	28	LEU
66	NB	41	PRO
66	NB	43	ILE
66	NB	44	LEU
66	NB	52	LEU
66	NB	58	ASP
66	NB	70	THR
66	NB	117	LEU
66	NB	120	ASP
66	NB	137	ARG
67	OB	14	LYS
67	OB	29	GLN
67	OB	38	ILE
67	OB	69	ILE
67	OB	117	LEU
68	PB	3	LEU
68	PB	15	LEU
68	PB	17	LEU
68	PB	28	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
68	PB	40	ARG
68	PB	51	ASP
68	PB	92	ILE
68	PB	116	LEU
68	PB	127	HIS
69	QB	22	LEU
69	QB	28	LEU
69	QB	35	ASP
69	QB	38	LYS
69	QB	68	ARG
69	QB	110	LYS
70	RB	15	GLN
70	RB	20	ILE
70	RB	33	GLN
70	RB	46	GLU
70	RB	48	HIS
70	RB	61	LYS
70	RB	77	LYS
70	RB	89	ARG
70	RB	108	ILE
70	RB	121	ASN
71	SB	3	ASN
71	SB	5	LYS
71	SB	14	PRO
71	SB	41	GLU
71	SB	50	TYR
72	TB	16	ASN
72	TB	24	GLN
72	TB	25	VAL
72	TB	32	LYS
72	TB	39	GLN
72	TB	49	GLU
72	TB	65	LEU
72	TB	66	ASN
72	TB	74	VAL
72	TB	104	LEU
72	TB	112	ASP
72	TB	120	HIS
73	UB	9	LEU
73	UB	19	ARG
73	UB	23	ARG
73	UB	82	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
73	UB	87	VAL
73	UB	94	ASN
73	UB	101	GLU
73	UB	110	LYS
74	VB	17	LEU
74	VB	25	VAL
74	VB	32	ARG
74	VB	79	VAL
74	VB	99	LYS
74	VB	125	LEU
74	VB	127	LYS
74	VB	132	ARG
75	WB	42	LEU
75	WB	50	ILE
75	WB	58	ARG
75	WB	69	LEU
75	WB	95	HIS
75	WB	98	GLN
75	WB	100	ILE
77	YB	29	ARG
77	YB	35	VAL
78	ZB	32	PHE
78	ZB	34	GLU
78	ZB	65	ARG
79	AC	14	TYR
79	AC	19	ARG
79	AC	28	THR
79	AC	43	PHE
80	BC	4	VAL
80	BC	17	GLN
80	BC	18	THR
80	BC	20	LYS
80	BC	33	ARG
80	BC	44	PHE
82	DC	12	LEU
82	DC	32	LYS
82	DC	68	ILE
82	DC	69	THR
82	DC	70	ILE
82	DC	75	ILE
82	DC	94	ASP
82	DC	102	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
82	DC	120	ARG
82	DC	122	THR
82	DC	132	ILE
82	DC	137	VAL
82	DC	138	GLN
82	DC	139	THR
82	DC	149	GLU
82	DC	153	PRO
82	DC	154	VAL
82	DC	171	LYS
82	DC	196	VAL
82	DC	222	ILE
82	DC	242	ASP
82	DC	261	ASP
82	DC	270	GLU
82	DC	320	LEU
82	DC	323	VAL
82	DC	328	LEU
82	DC	362	ASP
82	DC	386	VAL
82	DC	404	THR
82	DC	411	VAL
82	DC	420	PRO
82	DC	436	LEU
82	DC	456	LEU
82	DC	469	LEU
82	DC	471	THR
82	DC	480	VAL
82	DC	490	GLN
82	DC	501	LEU
82	DC	506	GLU
82	DC	519	LEU
82	DC	536	LEU
82	DC	547	HIS
82	DC	576	LEU
82	DC	584	ASN
82	DC	596	GLU
82	DC	605	ILE
82	DC	611	ASP
82	DC	612	PHE
82	DC	619	MET
82	DC	628	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
82	DC	629	ASP
82	DC	631	ARG
82	DC	647	ILE
82	DC	651	LYS
82	DC	656	LEU
82	DC	659	ILE
82	DC	662	SER
82	DC	663	VAL
82	DC	671	THR
82	DC	679	GLU
82	DC	688	ILE
82	DC	693	LEU
82	DC	696	ASP
82	DC	698	ILE
82	DC	710	ARG
82	DC	721	ASP
82	DC	723	LYS
82	DC	724	ILE
82	DC	725	GLN
82	DC	726	GLU
82	DC	731	VAL
82	DC	733	ILE
82	DC	734	GLN
82	DC	743	ILE
82	DC	744	TYR
82	DC	753	GLN
82	DC	760	ARG
82	DC	781	THR
82	DC	791	GLN
82	DC	810	ASP
82	DC	831	GLU
82	DC	832	VAL
82	DC	833	PRO
82	DC	836	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (302) such sidechains are listed below:

Mol	Chain	Res	Type
5	E	12	HIS
5	E	21	ASN
5	E	94	ASN
5	E	108	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	E	119	GLN
5	E	188	ASN
5	E	197	ASN
6	F	38	HIS
6	F	47	GLN
6	F	79	ASN
6	F	100	ASN
6	F	132	ASN
6	F	140	ASN
6	F	209	HIS
6	F	217	GLN
6	F	253	GLN
7	G	3	HIS
7	G	11	HIS
7	G	68	HIS
7	G	165	GLN
7	G	182	GLN
7	G	184	ASN
7	G	198	HIS
7	G	211	GLN
8	H	5	GLN
8	H	48	GLN
8	H	114	ASN
8	H	234	ASN
8	H	260	GLN
8	H	291	ASN
8	H	307	GLN
8	H	316	ASN
8	H	361	HIS
9	I	32	GLN
9	I	40	HIS
9	I	45	ASN
9	I	63	GLN
9	I	90	HIS
9	I	94	ASN
9	I	264	GLN
10	J	72	ASN
10	J	167	ASN
10	J	172	HIS
11	K	52	GLN
11	K	61	ASN
11	K	146	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
11	K	157	ASN
11	K	194	HIS
11	K	244	ASN
12	L	24	ASN
12	L	41	GLN
12	L	61	GLN
12	L	79	GLN
12	L	137	ASN
12	L	145	ASN
12	L	155	ASN
13	M	49	ASN
13	M	50	ASN
13	M	59	ASN
13	M	100	ASN
13	M	116	ASN
13	M	157	ASN
14	N	12	GLN
14	N	55	ASN
14	N	162	GLN
14	N	163	GLN
14	N	220	GLN
15	O	62	ASN
16	P	65	GLN
16	P	103	ASN
16	P	115	GLN
17	Q	6	ASN
17	Q	19	GLN
17	Q	25	HIS
17	Q	106	GLN
17	Q	112	ASN
17	Q	120	GLN
17	Q	129	ASN
17	Q	137	GLN
17	Q	149	GLN
18	R	41	GLN
18	R	126	GLN
19	S	11	GLN
19	S	37	HIS
19	S	86	ASN
19	S	123	GLN
20	T	26	GLN
20	T	42	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	U	64	ASN
21	U	96	GLN
21	U	120	ASN
21	U	145	HIS
21	U	172	GLN
22	V	9	GLN
22	V	10	HIS
22	V	15	HIS
22	V	23	ASN
22	V	45	ASN
22	V	158	HIS
23	W	3	ASN
23	W	34	GLN
23	W	118	HIS
24	X	46	GLN
24	X	63	GLN
24	X	68	HIS
24	X	108	GLN
24	X	154	HIS
25	Y	22	HIS
25	Y	49	GLN
25	Y	58	GLN
25	Y	95	HIS
25	Y	127	GLN
25	Y	146	ASN
27	AA	33	ASN
27	AA	47	ASN
27	AA	132	ASN
29	CA	80	ASN
29	CA	137	ASN
30	DA	4	GLN
30	DA	66	GLN
30	DA	81	GLN
30	DA	98	ASN
31	EA	36	HIS
31	EA	78	ASN
31	EA	106	GLN
32	FA	11	HIS
33	GA	6	ASN
33	GA	10	HIS
33	GA	12	GLN
33	GA	42	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
34	HA	47	ASN
35	IA	57	GLN
35	IA	105	GLN
36	JA	6	HIS
36	JA	20	HIS
36	JA	31	ASN
36	JA	52	GLN
36	JA	60	ASN
36	JA	78	ASN
36	JA	104	ASN
37	KA	17	GLN
37	KA	24	ASN
37	KA	42	GLN
37	KA	75	HIS
37	KA	87	ASN
37	KA	106	ASN
38	LA	18	ASN
38	LA	52	GLN
38	LA	98	GLN
39	MA	59	ASN
39	MA	76	GLN
39	MA	104	GLN
39	MA	113	GLN
40	NA	91	ASN
41	OA	57	HIS
41	OA	76	ASN
42	PA	10	GLN
42	PA	28	ASN
43	QA	20	ASN
43	QA	32	ASN
43	QA	38	ASN
46	TA	47	GLN
46	TA	59	HIS
46	TA	82	GLN
46	TA	99	GLN
47	UA	32	GLN
47	UA	34	HIS
48	VA	37	GLN
48	VA	56	ASN
48	VA	83	ASN
48	VA	189	GLN
49	WA	4	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
49	WA	31	ASN
49	WA	69	GLN
49	WA	101	GLN
49	WA	224	ASN
49	WA	237	GLN
50	XA	23	HIS
50	XA	33	GLN
50	XA	39	ASN
50	XA	109	ASN
50	XA	164	ASN
50	XA	168	HIS
52	ZA	89	GLN
52	ZA	147	ASN
52	ZA	152	HIS
53	AB	22	ASN
53	AB	92	GLN
53	AB	162	GLN
53	AB	174	HIS
54	BB	67	GLN
54	BB	98	ASN
54	BB	197	HIS
54	BB	209	HIS
54	BB	224	ASN
54	BB	231	GLN
54	BB	258	GLN
55	CB	79	ASN
55	CB	86	GLN
55	CB	100	ASN
55	CB	103	ASN
55	CB	122	ASN
55	CB	128	ASN
55	CB	131	GLN
56	DB	4	ASN
56	DB	34	GLN
56	DB	56	ASN
56	DB	185	GLN
56	DB	190	GLN
56	DB	199	GLN
56	DB	210	GLN
57	EB	22	GLN
57	EB	42	GLN
57	EB	74	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
57	EB	108	GLN
57	EB	180	GLN
58	FB	32	GLN
58	FB	44	HIS
58	FB	88	ASN
58	FB	103	GLN
59	GB	112	GLN
59	GB	131	GLN
60	HB	9	ASN
60	HB	47	GLN
60	HB	85	HIS
60	HB	96	ASN
61	IB	21	ASN
61	IB	81	HIS
61	IB	110	HIS
61	IB	150	ASN
63	KB	49	GLN
63	KB	62	GLN
63	KB	69	ASN
63	KB	105	ASN
63	KB	151	ASN
65	MB	98	ASN
65	MB	103	ASN
65	MB	104	GLN
65	MB	128	HIS
66	NB	77	GLN
66	NB	83	GLN
66	NB	100	GLN
66	NB	103	ASN
67	OB	29	GLN
67	OB	48	ASN
68	PB	75	ASN
68	PB	78	HIS
68	PB	103	ASN
68	PB	136	GLN
69	QB	16	ASN
69	QB	25	GLN
69	QB	43	ASN
69	QB	93	HIS
69	QB	106	GLN
69	QB	138	GLN
70	RB	40	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
70	RB	44	ASN
70	RB	72	ASN
70	RB	98	GLN
71	SB	3	ASN
71	SB	7	GLN
71	SB	33	GLN
71	SB	74	GLN
72	TB	24	GLN
72	TB	42	GLN
72	TB	64	GLN
72	TB	80	ASN
73	UB	22	ASN
73	UB	48	HIS
73	UB	75	GLN
73	UB	89	ASN
74	VB	15	ASN
74	VB	63	GLN
74	VB	77	ASN
74	VB	107	GLN
74	VB	133	ASN
77	YB	5	GLN
77	YB	42	ASN
77	YB	51	GLN
79	AC	27	HIS
79	AC	53	ASN
82	DC	18	ASN
82	DC	91	GLN
82	DC	96	ASN
82	DC	186	ASN
82	DC	224	GLN
82	DC	259	ASN
82	DC	349	GLN
82	DC	365	ASN
82	DC	414	GLN
82	DC	497	ASN
82	DC	537	HIS
82	DC	583	HIS
82	DC	603	ASN
82	DC	704	GLN
82	DC	734	GLN
82	DC	748	ASN
82	DC	753	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
82	DC	759	GLN
82	DC	775	ASN
82	DC	791	GLN
82	DC	836	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A	1676/1798 (93%)	327 (19%)	11 (0%)
2	B	3265/3396 (96%)	538 (16%)	31 (0%)
3	C	157/158 (99%)	26 (16%)	0
4	D	120/121 (99%)	11 (9%)	0
83	EC	186/201 (92%)	77 (41%)	5 (2%)
All	All	5404/5674 (95%)	979 (18%)	47 (0%)

All (979) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A	2	A
1	A	25	C
1	A	26	A
1	A	34	G
1	A	45	U
1	A	47	A
1	A	57	G
1	A	60	U
1	A	68	A
1	A	69	G
1	A	72	A
1	A	73	U
1	A	74	U
1	A	76	A
1	A	77	U
1	A	78	A
1	A	81	G
1	A	104	A
1	A	114	C
1	A	115	G
1	A	116	U
1	A	127	G
1	A	129	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	132	U
1	A	133	U
1	A	134	U
1	A	135	A
1	A	136	C
1	A	137	U
1	A	140	A
1	A	141	U
1	A	145	A
1	A	153	G
1	A	159	U
1	A	166	C
1	A	178	U
1	A	186	C
1	A	190	C
1	A	191	C
1	A	192	U
1	A	195	G
1	A	197	A
1	A	200	A
1	A	215	A
1	A	219	A
1	A	228	G
1	A	233	C
1	A	237	C
1	A	238	U
1	A	240	U
1	A	241	U
1	A	242	U
1	A	250	C
1	A	261	U
1	A	265	A
1	A	272	U
1	A	277	U
1	A	278	U
1	A	280	U
1	A	288	A
1	A	299	A
1	A	302	U
1	A	314	C
1	A	316	A
1	A	320	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	321	C
1	A	322	G
1	A	333	A
1	A	337	G
1	A	338	C
1	A	352	A
1	A	359	A
1	A	360	A
1	A	361	C
1	A	388	G
1	A	400	A
1	A	402	C
1	A	404	G
1	A	416	A
1	A	418	G
1	A	423	G
1	A	424	C
1	A	425	A
1	A	426	G
1	A	428	A
1	A	434	G
1	A	439	U
1	A	444	C
1	A	445	A
1	A	475	A
1	A	477	A
1	A	488	G
1	A	493	U
1	A	494	U
1	A	495	C
1	A	496	G
1	A	497	G
1	A	500	C
1	A	502	U
1	A	506	A
1	A	510	G
1	A	515	A
1	A	527	A
1	A	532	U
1	A	536	C
1	A	539	G
1	A	541	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	542	A
1	A	544	A
1	A	555	A
1	A	556	A
1	A	557	G
1	A	558	U
1	A	559	C
1	A	565	C
1	A	578	U
1	A	579	A
1	A	580	A
1	A	581	U
1	A	582	U
1	A	594	A
1	A	595	G
1	A	611	U
1	A	619	A
1	A	620	A
1	A	622	A
1	A	623	A
1	A	624	G
1	A	628	G
1	A	629	U
1	A	630	A
1	A	631	G
1	A	639	U
1	A	650	U
1	A	655	G
1	A	656	G
1	A	677	G
1	A	684	A
1	A	694	U
1	A	696	C
1	A	697	C
1	A	700	C
1	A	703	G
1	A	704	C
1	A	705	U
1	A	707	A
1	A	709	C
1	A	710	U
1	A	711	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	731	C
1	A	732	G
1	A	733	A
1	A	734	A
1	A	738	G
1	A	742	U
1	A	745	U
1	A	754	A
1	A	755	A
1	A	765	G
1	A	771	A
1	A	774	A
1	A	778	G
1	A	781	U
1	A	783	G
1	A	784	C
1	A	789	A
1	A	794	U
1	A	807	A
1	A	812	A
1	A	815	G
1	A	816	G
1	A	820	U
1	A	821	U
1	A	822	U
1	A	825	U
1	A	830	U
1	A	831	U
1	A	841	U
1	A	846	G
1	A	850	A
1	A	851	U
1	A	852	C
1	A	853	G
1	A	854	U
1	A	855	A
1	A	856	A
1	A	860	U
1	A	863	A
1	A	864	U
1	A	865	A
1	A	876	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	889	U
1	A	902	G
1	A	928	U
1	A	929	A
1	A	933	A
1	A	935	U
1	A	944	A
1	A	945	U
1	A	951	A
1	A	960	U
1	A	966	A
1	A	1024	U
1	A	1026	A
1	A	1028	C
1	A	1029	U
1	A	1039	A
1	A	1043	A
1	A	1052	U
1	A	1053	G
1	A	1058	U
1	A	1061	A
1	A	1072	C
1	A	1074	G
1	A	1076	A
1	A	1082	C
1	A	1091	A
1	A	1092	A
1	A	1093	A
1	A	1096	C
1	A	1097	U
1	A	1100	G
1	A	1109	G
1	A	1118	G
1	A	1138	A
1	A	1150	G
1	A	1151	A
1	A	1160	A
1	A	1163	A
1	A	1167	G
1	A	1194	A
1	A	1196	A
1	A	1200	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1202	A
1	A	1217	A
1	A	1218	G
1	A	1227	A
1	A	1228	G
1	A	1229	G
1	A	1230	A
1	A	1244	A
1	A	1245	G
1	A	1258	U
1	A	1275	A
1	A	1285	U
1	A	1307	U
1	A	1314	U
1	A	1315	U
1	A	1320	U
1	A	1340	U
1	A	1345	A
1	A	1347	U
1	A	1362	U
1	A	1363	U
1	A	1364	G
1	A	1370	U
1	A	1371	A
1	A	1390	U
1	A	1398	U
1	A	1399	C
1	A	1413	U
1	A	1415	U
1	A	1423	U
1	A	1427	A
1	A	1428	G
1	A	1432	U
1	A	1433	G
1	A	1445	G
1	A	1448	G
1	A	1457	C
1	A	1471	A
1	A	1473	U
1	A	1474	G
1	A	1481	C
1	A	1482	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1486	G
1	A	1490	C
1	A	1491	U
1	A	1492	A
1	A	1493	A
1	A	1499	G
1	A	1516	A
1	A	1518	C
1	A	1523	G
1	A	1524	A
1	A	1534	G
1	A	1535	U
1	A	1536	G
1	A	1537	C
1	A	1538	U
1	A	1539	G
1	A	1540	G
1	A	1557	U
1	A	1559	A
1	A	1573	A
1	A	1574	G
1	A	1584	G
1	A	1601	G
1	A	1616	G
1	A	1626	U
1	A	1634	C
1	A	1657	U
1	A	1658	G
1	A	1683	C
1	A	1684	U
1	A	1686	C
1	A	1697	G
1	A	1715	G
1	A	1716	C
1	A	1717	G
1	A	1736	G
1	A	1742	U
1	A	1750	A
1	A	1758	U
1	A	1761	U
1	A	1762	A
1	A	1763	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1765	A
1	A	1766	A
1	A	1768	G
1	A	1769	U
1	A	1772	C
1	A	1774	G
1	A	1783	C
1	A	1789	G
1	A	1792	G
1	A	1793	G
2	B	6	A
2	B	11	A
2	B	13	A
2	B	14	U
2	B	30	G
2	B	40	A
2	B	49	A
2	B	60	A
2	B	66	A
2	B	71	A
2	B	92	G
2	B	108	A
2	B	109	A
2	B	110	G
2	B	111	C
2	B	113	C
2	B	117	U
2	B	120	G
2	B	121	A
2	B	122	A
2	B	123	A
2	B	133	U
2	B	135	C
2	B	136	G
2	B	148	G
2	B	150	A
2	B	156	G
2	B	157	A
2	B	169	U
2	B	170	G
2	B	182	U
2	B	187	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	189	G
2	B	190	U
2	B	191	U
2	B	200	C
2	B	210	U
2	B	218	G
2	B	219	A
2	B	231	G
2	B	240	U
2	B	241	G
2	B	243	G
2	B	251	G
2	B	252	U
2	B	269	G
2	B	283	G
2	B	286	U
2	B	295	A
2	B	298	U
2	B	305	U
2	B	315	C
2	B	323	A
2	B	329	U
2	B	337	G
2	B	338	A
2	B	339	C
2	B	347	G
2	B	350	C
2	B	351	A
2	B	375	A
2	B	376	G
2	B	390	G
2	B	397	A
2	B	398	A
2	B	401	U
2	B	402	A
2	B	403	C
2	B	421	G
2	B	422	A
2	B	439	C
2	B	441	U
2	B	442	G
2	B	489	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	493	G
2	B	494	G
2	B	495	G
2	B	510	G
2	B	518	G
2	B	519	A
2	B	520	U
2	B	521	A
2	B	523	A
2	B	535	G
2	B	545	U
2	B	546	C
2	B	552	G
2	B	557	A
2	B	559	A
2	B	569	A
2	B	578	A
2	B	579	G
2	B	592	A
2	B	595	G
2	B	600	G
2	B	609	G
2	B	611	A
2	B	620	U
2	B	621	A
2	B	636	C
2	B	637	C
2	B	638	C
2	B	649	A
2	B	667	C
2	B	677	A
2	B	681	U
2	B	690	A
2	B	691	A
2	B	705	A
2	B	708	G
2	B	719	U
2	B	727	G
2	B	742	G
2	B	764	U
2	B	765	C
2	B	766	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	767	U
2	B	776	U
2	B	781	G
2	B	785	G
2	B	786	A
2	B	799	G
2	B	806	A
2	B	817	A
2	B	830	A
2	B	837	A
2	B	846	A
2	B	849	C
2	B	861	C
2	B	874	U
2	B	879	U
2	B	896	A
2	B	907	G
2	B	908	G
2	B	914	A
2	B	916	G
2	B	917	A
2	B	923	C
2	B	924	G
2	B	933	A
2	B	937	G
2	B	944	C
2	B	959	C
2	B	960	U
2	B	974	G
2	B	979	U
2	B	991	G
2	B	1002	A
2	B	1010	G
2	B	1018	G
2	B	1021	G
2	B	1028	U
2	B	1041	U
2	B	1047	A
2	B	1049	C
2	B	1064	A
2	B	1075	A
2	B	1076	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	1081	U
2	B	1082	U
2	B	1093	A
2	B	1095	U
2	B	1096	U
2	B	1097	G
2	B	1098	A
2	B	1103	A
2	B	1104	G
2	B	1117	G
2	B	1131	G
2	B	1143	A
2	B	1144	U
2	B	1153	A
2	B	1155	C
2	B	1159	A
2	B	1177	G
2	B	1178	G
2	B	1180	A
2	B	1181	U
2	B	1186	G
2	B	1201	C
2	B	1202	A
2	B	1208	U
2	B	1218	U
2	B	1219	C
2	B	1220	U
2	B	1221	A
2	B	1222	G
2	B	1223	A
2	B	1229	G
2	B	1230	G
2	B	1235	U
2	B	1236	G
2	B	1238	C
2	B	1239	C
2	B	1241	U
2	B	1242	G
2	B	1245	A
2	B	1246	G
2	B	1252	A
2	B	1254	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	1256	G
2	B	1259	A
2	B	1263	A
2	B	1265	U
2	B	1281	G
2	B	1307	G
2	B	1308	A
2	B	1309	U
2	B	1325	U
2	B	1330	A
2	B	1331	U
2	B	1332	A
2	B	1351	U
2	B	1352	A
2	B	1353	U
2	B	1354	G
2	B	1355	A
2	B	1357	G
2	B	1386	A
2	B	1392	G
2	B	1399	A
2	B	1400	G
2	B	1419	A
2	B	1431	G
2	B	1434	G
2	B	1437	C
2	B	1446	A
2	B	1452	A
2	B	1455	U
2	B	1480	G
2	B	1481	A
2	B	1482	A
2	B	1483	G
2	B	1508	C
2	B	1524	A
2	B	1527	C
2	B	1556	C
2	B	1557	A
2	B	1562	C
2	B	1567	U
2	B	1569	U
2	B	1570	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	1572	U
2	B	1576	G
2	B	1581	C
2	B	1583	A
2	B	1587	A
2	B	1589	A
2	B	1593	A
2	B	1606	U
2	B	1607	U
2	B	1619	A
2	B	1620	U
2	B	1629	U
2	B	1639	C
2	B	1641	U
2	B	1642	A
2	B	1643	A
2	B	1645	U
2	B	1655	G
2	B	1657	C
2	B	1658	G
2	B	1683	A
2	B	1687	U
2	B	1713	G
2	B	1716	U
2	B	1717	U
2	B	1724	U
2	B	1741	A
2	B	1742	U
2	B	1750	A
2	B	1751	G
2	B	1765	U
2	B	1766	G
2	B	1769	G
2	B	1770	G
2	B	1775	G
2	B	1780	G
2	B	1788	C
2	B	1797	A
2	B	1808	G
2	B	1812	G
2	B	1816	A
2	B	1819	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	1821	U
2	B	1839	A
2	B	1841	A
2	B	1842	A
2	B	1849	C
2	B	1850	A
2	B	1858	A
2	B	1879	A
2	B	1893	A
2	B	1906	G
2	B	1951	C
2	B	1952	G
2	B	1954	G
2	B	2059	U
2	B	2078	C
2	B	2083	G
2	B	2094	C
2	B	2102	U
2	B	2111	G
2	B	2112	U
2	B	2113	A
2	B	2121	G
2	B	2122	G
2	B	2131	A
2	B	2140	U
2	B	2144	A
2	B	2158	A
2	B	2169	G
2	B	2188	A
2	B	2198	A
2	B	2201	G
2	B	2205	U
2	B	2206	G
2	B	2208	A
2	B	2223	A
2	B	2244	A
2	B	2247	G
2	B	2248	C
2	B	2249	G
2	B	2252	A
2	B	2254	U
2	B	2256	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	2257	C
2	B	2258	U
2	B	2261	G
2	B	2263	C
2	B	2264	U
2	B	2269	U
2	B	2270	A
2	B	2272	G
2	B	2273	G
2	B	2281	A
2	B	2282	U
2	B	2307	G
2	B	2310	U
2	B	2313	A
2	B	2314	U
2	B	2315	G
2	B	2336	U
2	B	2364	G
2	B	2372	A
2	B	2373	A
2	B	2374	C
2	B	2375	G
2	B	2385	G
2	B	2388	U
2	B	2393	G
2	B	2394	G
2	B	2397	A
2	B	2402	A
2	B	2403	G
2	B	2411	U
2	B	2418	G
2	B	2422	C
2	B	2435	G
2	B	2437	G
2	B	2443	A
2	B	2452	G
2	B	2458	A
2	B	2459	A
2	B	2461	A
2	B	2463	G
2	B	2468	A
2	B	2471	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	2472	U
2	B	2474	G
2	B	2484	A
2	B	2490	C
2	B	2492	C
2	B	2496	C
2	B	2497	U
2	B	2498	U
2	B	2499	U
2	B	2503	G
2	B	2507	C
2	B	2509	U
2	B	2511	A
2	B	2513	U
2	B	2514	U
2	B	2515	A
2	B	2522	G
2	B	2523	A
2	B	2525	G
2	B	2526	C
2	B	2537	U
2	B	2538	U
2	B	2539	C
2	B	2540	A
2	B	2541	U
2	B	2542	U
2	B	2547	A
2	B	2549	G
2	B	2552	C
2	B	2553	U
2	B	2554	A
2	B	2555	G
2	B	2561	A
2	B	2569	A
2	B	2570	U
2	B	2571	U
2	B	2572	C
2	B	2573	G
2	B	2576	G
2	B	2585	G
2	B	2587	U
2	B	2589	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	2593	A
2	B	2606	G
2	B	2607	G
2	B	2614	G
2	B	2628	A
2	B	2629	U
2	B	2638	C
2	B	2652	U
2	B	2656	A
2	B	2657	A
2	B	2674	A
2	B	2677	G
2	B	2681	U
2	B	2689	A
2	B	2691	A
2	B	2694	A
2	B	2696	A
2	B	2704	A
2	B	2714	G
2	B	2720	G
2	B	2728	G
2	B	2729	U
2	B	2742	C
2	B	2753	G
2	B	2772	C
2	B	2777	G
2	B	2778	G
2	B	2780	A
2	B	2796	G
2	B	2800	G
2	B	2801	A
2	B	2802	A
2	B	2803	A
2	B	2804	A
2	B	2805	G
2	B	2810	C
2	B	2814	G
2	B	2817	A
2	B	2818	U
2	B	2837	A
2	B	2842	U
2	B	2845	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	2851	A
2	B	2856	G
2	B	2861	U
2	B	2867	C
2	B	2871	G
2	B	2872	A
2	B	2873	U
2	B	2887	A
2	B	2898	G
2	B	2899	C
2	B	2910	A
2	B	2918	G
2	B	2923	U
2	B	2928	C
2	B	2935	U
2	B	2936	A
2	B	2945	G
2	B	2947	G
2	B	2983	C
2	B	2990	G
2	B	2996	U
2	B	2997	G
2	B	3012	A
2	B	3056	U
2	B	3059	G
2	B	3078	U
2	B	3080	G
2	B	3086	A
2	B	3092	C
2	B	3109	G
2	B	3122	A
2	B	3130	A
2	B	3131	U
2	B	3142	A
2	B	3143	C
2	B	3155	U
2	B	3156	U
2	B	3157	U
2	B	3165	A
2	B	3170	A
2	B	3173	G
2	B	3174	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	3176	G
2	B	3179	U
2	B	3181	C
2	B	3187	A
2	B	3217	C
2	B	3218	A
2	B	3219	G
2	B	3229	G
2	B	3242	G
2	B	3243	A
2	B	3245	A
2	B	3246	G
2	B	3247	G
2	B	3259	U
2	B	3263	G
2	B	3270	U
2	B	3273	A
2	B	3276	G
2	B	3279	A
2	B	3281	U
2	B	3287	U
2	B	3289	G
2	B	3294	A
2	B	3304	U
2	B	3307	A
2	B	3313	U
2	B	3316	A
2	B	3317	U
2	B	3318	G
2	B	3319	U
2	B	3335	A
2	B	3341	U
2	B	3345	G
2	B	3347	A
2	B	3351	U
2	B	3352	U
2	B	3353	G
2	B	3354	U
2	B	3355	U
2	B	3369	G
2	B	3375	A
2	B	3378	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	B	3389	U
2	B	3390	G
3	C	34	U
3	C	35	C
3	C	39	G
3	C	51	G
3	C	59	A
3	C	62	C
3	C	63	G
3	C	80	A
3	C	83	C
3	C	86	U
3	C	87	G
3	C	90	U
3	C	95	G
3	C	104	A
3	C	105	A
3	C	106	C
3	C	111	A
3	C	113	U
3	C	116	G
3	C	125	U
3	C	126	A
3	C	136	G
3	C	138	A
3	C	151	C
3	C	152	G
3	C	157	U
4	D	22	A
4	D	38	U
4	D	48	U
4	D	54	U
4	D	65	G
4	D	74	C
4	D	76	A
4	D	99	G
4	D	102	A
4	D	112	G
4	D	121	U
83	EC	6768	U
83	EC	6772	G
83	EC	6774	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
83	EC	6775	U
83	EC	6776	A
83	EC	6777	C
83	EC	6778	C
83	EC	6780	A
83	EC	6782	C
83	EC	6788	C
83	EC	6790	A
83	EC	6791	A
83	EC	6792	A
83	EC	6793	A
83	EC	6794	C
83	EC	6795	U
83	EC	6797	U
83	EC	6800	G
83	EC	6802	A
83	EC	6804	A
83	EC	6805	C
83	EC	6809	G
83	EC	6815	U
83	EC	6817	A
83	EC	6818	G
83	EC	6819	G
83	EC	6822	U
83	EC	6823	U
83	EC	6824	C
83	EC	6831	U
83	EC	6832	G
83	EC	6836	U
83	EC	6848	U
83	EC	6849	A
83	EC	6854	U
83	EC	6861	G
83	EC	6863	C
83	EC	6864	A
83	EC	6868	C
83	EC	6870	A
83	EC	6873	A
83	EC	6876	A
83	EC	6879	U
83	EC	6884	G
83	EC	6889	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
83	EC	6892	U
83	EC	6896	A
83	EC	6897	G
83	EC	6904	U
83	EC	6905	G
83	EC	6906	G
83	EC	6907	G
83	EC	6913	U
83	EC	6914	A
83	EC	6915	G
83	EC	6917	C
83	EC	6918	A
83	EC	6919	G
83	EC	6920	C
83	EC	6925	C
83	EC	6928	G
83	EC	6931	U
83	EC	6935	G
83	EC	6940	U
83	EC	6941	U
83	EC	6942	A
83	EC	6943	A
83	EC	6944	U
83	EC	6945	U
83	EC	6947	A
83	EC	6948	U
83	EC	6949	G
83	EC	6950	C
83	EC	6953	G
83	EC	6955	U
83	EC	6956	A
83	EC	6957	A

All (47) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A	25	C
1	A	139	C
1	A	501	U
1	A	555	A
1	A	829	A
1	A	1344	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1370	U
1	A	1481	C
1	A	1573	A
1	A	1615	C
1	A	1696	G
2	B	65	A
2	B	169	U
2	B	282	G
2	B	518	G
2	B	637	C
2	B	916	G
2	B	978	G
2	B	1103	A
2	B	1144	U
2	B	1307	G
2	B	1331	U
2	B	1352	A
2	B	1481	A
2	B	1556	C
2	B	1815	U
2	B	2101	C
2	B	2197	C
2	B	2248	C
2	B	2263	C
2	B	2281	A
2	B	2372	A
2	B	2513	U
2	B	2525	G
2	B	2541	U
2	B	2818	U
2	B	3121	U
2	B	3218	A
2	B	3228	C
2	B	3242	G
2	B	3269	U
2	B	3317	U
83	EC	6808	G
83	EC	6876	A
83	EC	6896	A
83	EC	6948	U
83	EC	6949	G

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

1 non-standard protein/DNA/RNA residue is 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	$\#\|Z\| > 2$
82	DDE	DC	699	82	18,20,21	2.65	6 (33%)	17,28,30	2.09	5 (29%)

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
82	DDE	DC	699	82	-	5/20/21/23	0/1/1/1

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DC	699	DDE	CD2-CG	7.93	1.53	1.36
82	DC	699	DDE	CBW-CBI	4.78	1.61	1.53
82	DC	699	DDE	CB-CG	3.04	1.58	1.49
82	DC	699	DDE	CBW-NCB	2.86	1.60	1.54
82	DC	699	DDE	CAT-CE1	2.36	1.53	1.49
82	DC	699	DDE	OAG-CBI	2.16	1.27	1.23

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
82	DC	699	DDE	CAU-CAT-CE1	6.02	136.85	114.38
82	DC	699	DDE	CD2-NE2-CE1	2.81	109.90	107.55
82	DC	699	DDE	CAU-CBW-CBI	-2.66	106.01	111.22
82	DC	699	DDE	CD2-CG-ND1	-2.38	104.07	108.87
82	DC	699	DDE	OAG-CBI-NAD	2.14	126.82	123.04

There are no chirality outliers.

All (5) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
82	DC	699	DDE	O-C-CA-CB
82	DC	699	DDE	OAG-CBI-CBW-NCB
82	DC	699	DDE	OAG-CBI-CBW-CAU
82	DC	699	DDE	CA-CB-CG-CD2
82	DC	699	DDE	CA-CB-CG-ND1

There are no ring outliers.

1 monomer is involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
82	DC	699	DDE	3	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 3 ligands modelled in this entry, 1 is monoatomic - leaving 2 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
86	SO1	DC	903	-	34,39,39	2.29	16 (47%)	38,64,64	2.06	10 (26%)
84	GDP	DC	901	85	29,30,30	1.69	4 (13%)	45,47,47	1.79	13 (28%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
86	SO1	DC	903	-	-	2/21/104/104	0/7/5/5

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
84	GDP	DC	901	85	-	0/16/32/32	0/3/3/3

All (20) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
84	DC	901	GDP	PA-O3A	4.90	1.64	1.59
84	DC	901	GDP	PB-O1B	3.96	1.62	1.50
86	DC	903	SO1	O17-C52	3.91	1.46	1.40
86	DC	903	SO1	O56-C52	-3.73	1.32	1.41
86	DC	903	SO1	C1-C5	3.72	1.59	1.50
86	DC	903	SO1	C10-C6	3.61	1.60	1.53
86	DC	903	SO1	C12-C6	3.55	1.61	1.53
86	DC	903	SO1	C12-C4	3.42	1.61	1.54
86	DC	903	SO1	C55-C56	3.33	1.58	1.52
86	DC	903	SO1	C7-C2	3.20	1.59	1.54
84	DC	901	GDP	PA-O1A	3.17	1.61	1.50
86	DC	903	SO1	C8-C2	3.12	1.59	1.53
86	DC	903	SO1	C4-C13	2.82	1.60	1.54
84	DC	901	GDP	C2-N2	2.62	1.40	1.34
86	DC	903	SO1	C53-C54	2.61	1.59	1.52
86	DC	903	SO1	C52-C53	2.49	1.59	1.52
86	DC	903	SO1	C7-C16	2.23	1.56	1.53
86	DC	903	SO1	O64-C55	2.18	1.48	1.42
86	DC	903	SO1	O56-C56	2.13	1.49	1.44
86	DC	903	SO1	O14-C5	2.03	1.37	1.30

All (23) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	DC	903	SO1	C12-C6-C10	-6.22	103.05	107.92
86	DC	903	SO1	C25-C22-C24	4.99	129.50	113.64
84	DC	901	GDP	C2-N3-C4	4.58	120.19	112.30
84	DC	901	GDP	C5-C4-N3	-4.40	121.39	128.39
86	DC	903	SO1	C10-C6-C2	3.61	108.39	104.12
86	DC	903	SO1	C1-C4-C13	3.44	122.04	118.36
84	DC	901	GDP	N9-C4-N3	3.40	132.75	125.95
86	DC	903	SO1	C61-C56-C55	-3.22	108.60	113.39
84	DC	901	GDP	O2A-PA-O1A	3.11	126.90	112.44
86	DC	903	SO1	C18-C9-C16	-2.89	99.77	103.72
84	DC	901	GDP	C8-N7-C5	2.81	109.26	104.26
86	DC	903	SO1	C7-C2-C6	2.57	116.96	112.05
84	DC	901	GDP	C6-C5-N7	2.52	134.88	130.29

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
86	DC	903	SO1	C12-C6-C2	-2.39	101.38	105.09
84	DC	901	GDP	O4'-C4'-C3'	2.36	109.84	105.15
84	DC	901	GDP	C2-N1-C6	-2.29	120.96	125.11
84	DC	901	GDP	C5-C6-N1	2.28	119.05	113.25
84	DC	901	GDP	O6-C6-C5	-2.26	120.56	126.53
84	DC	901	GDP	C3'-C2'-C1'	2.20	105.63	101.46
84	DC	901	GDP	O5'-PA-O1A	-2.20	100.23	108.94
84	DC	901	GDP	N9-C8-N7	-2.04	109.62	113.40
86	DC	903	SO1	C24-C18-C9	-2.02	101.19	105.14
86	DC	903	SO1	O64-C55-C56	2.00	111.83	107.70

There are no chirality outliers.

All (2) torsion outliers are listed below:

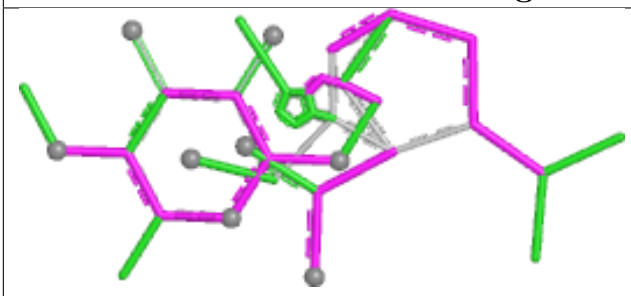
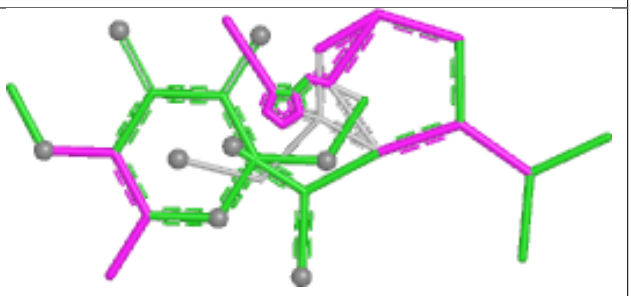
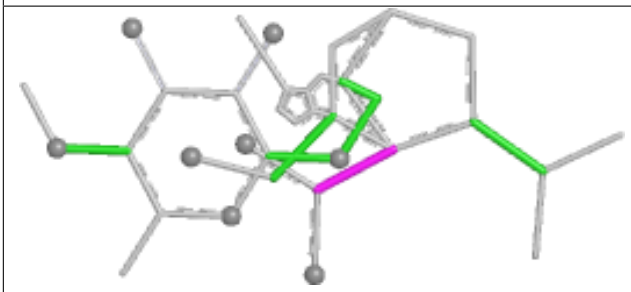
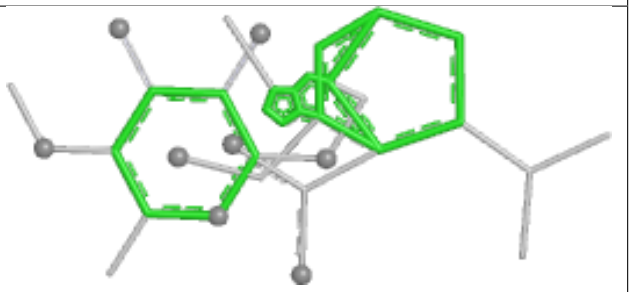
Mol	Chain	Res	Type	Atoms
86	DC	903	SO1	C2-C1-C5-O14
86	DC	903	SO1	C2-C1-C5-O15

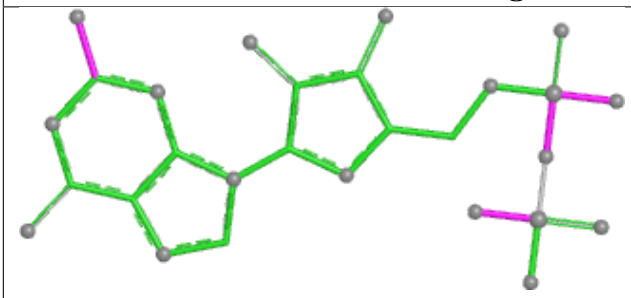
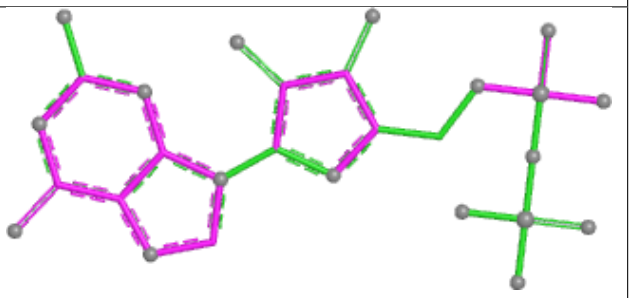
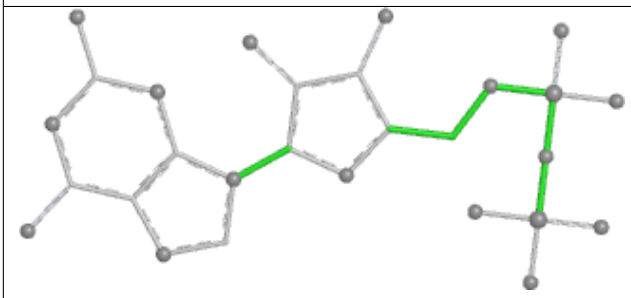
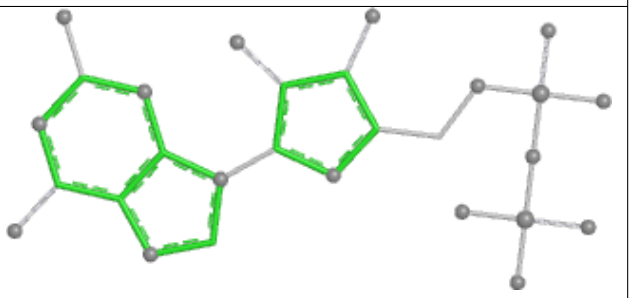
There are no ring outliers.

2 monomers are involved in 8 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
86	DC	903	SO1	3	0
84	DC	901	GDP	5	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand SO1 DC 903	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP DC 901	
 Bond lengths	 Bond angles
 Torsions	 Rings

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.

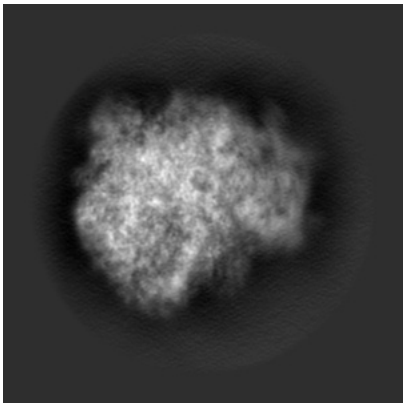
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-6644. These allow visual inspection of the internal detail of the map and identification of artifacts.

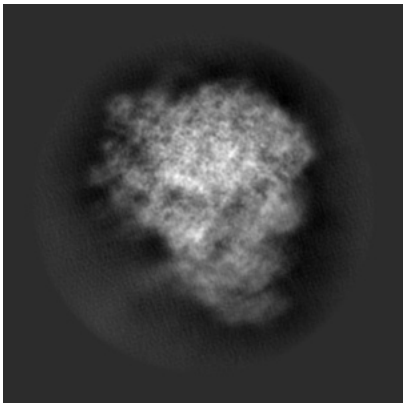
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

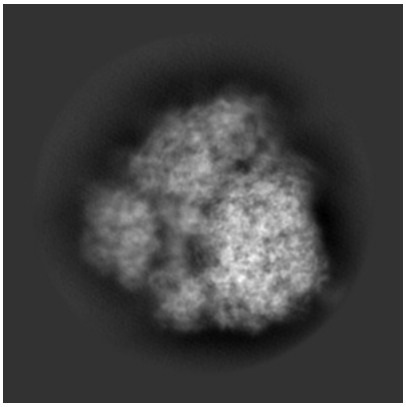
6.1.1 Primary map



X



Y

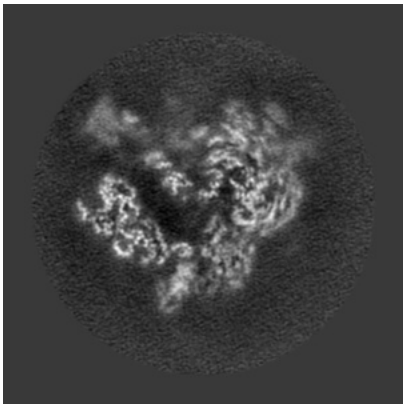


Z

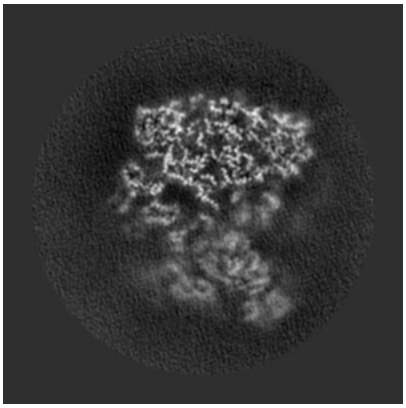
The images above show the map projected in three orthogonal directions.

6.2 Central slices

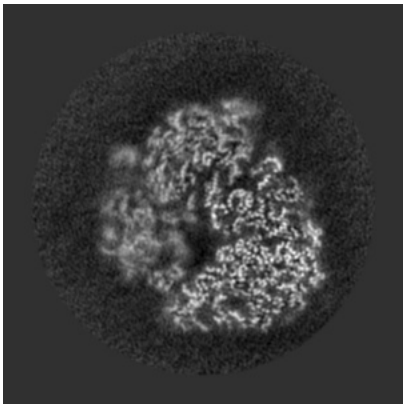
6.2.1 Primary map



X Index: 256



Y Index: 256

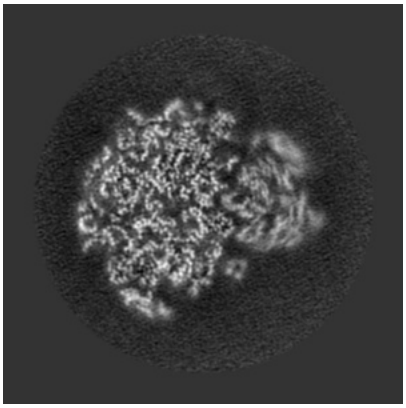


Z Index: 256

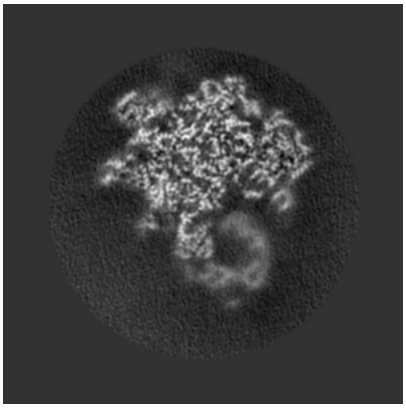
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

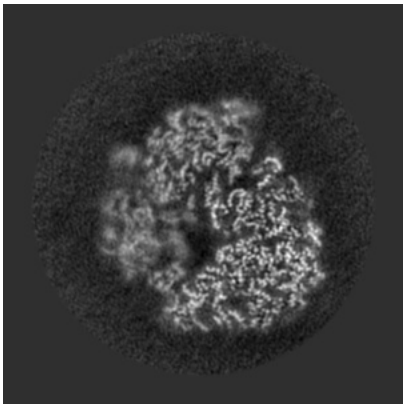
6.3.1 Primary map



X Index: 290



Y Index: 163

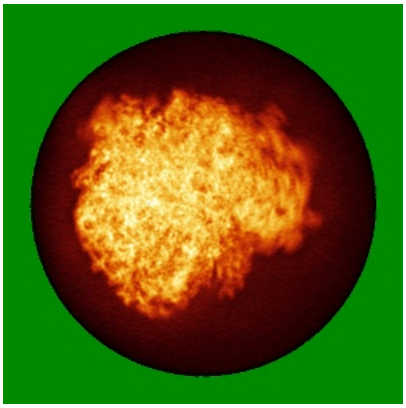


Z Index: 255

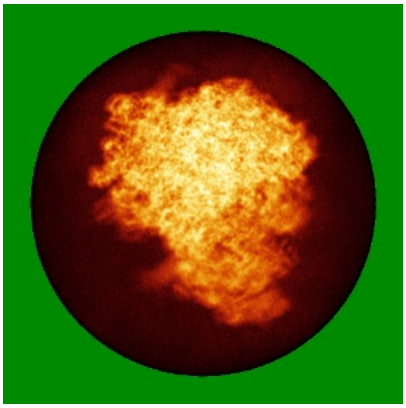
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

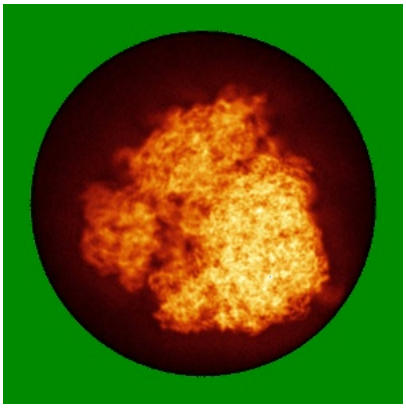
6.4.1 Primary map



X



Y



Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.02. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

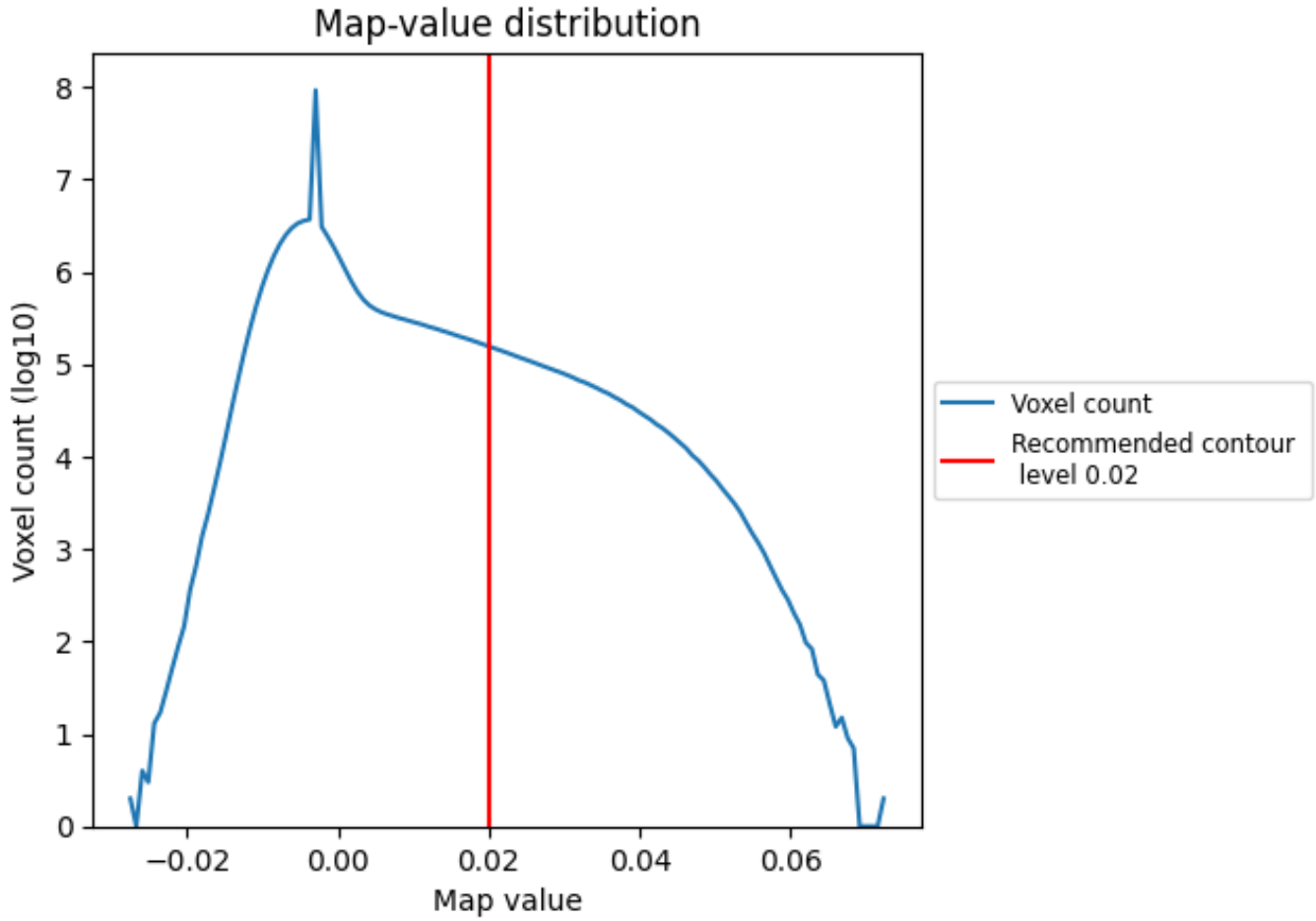
6.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

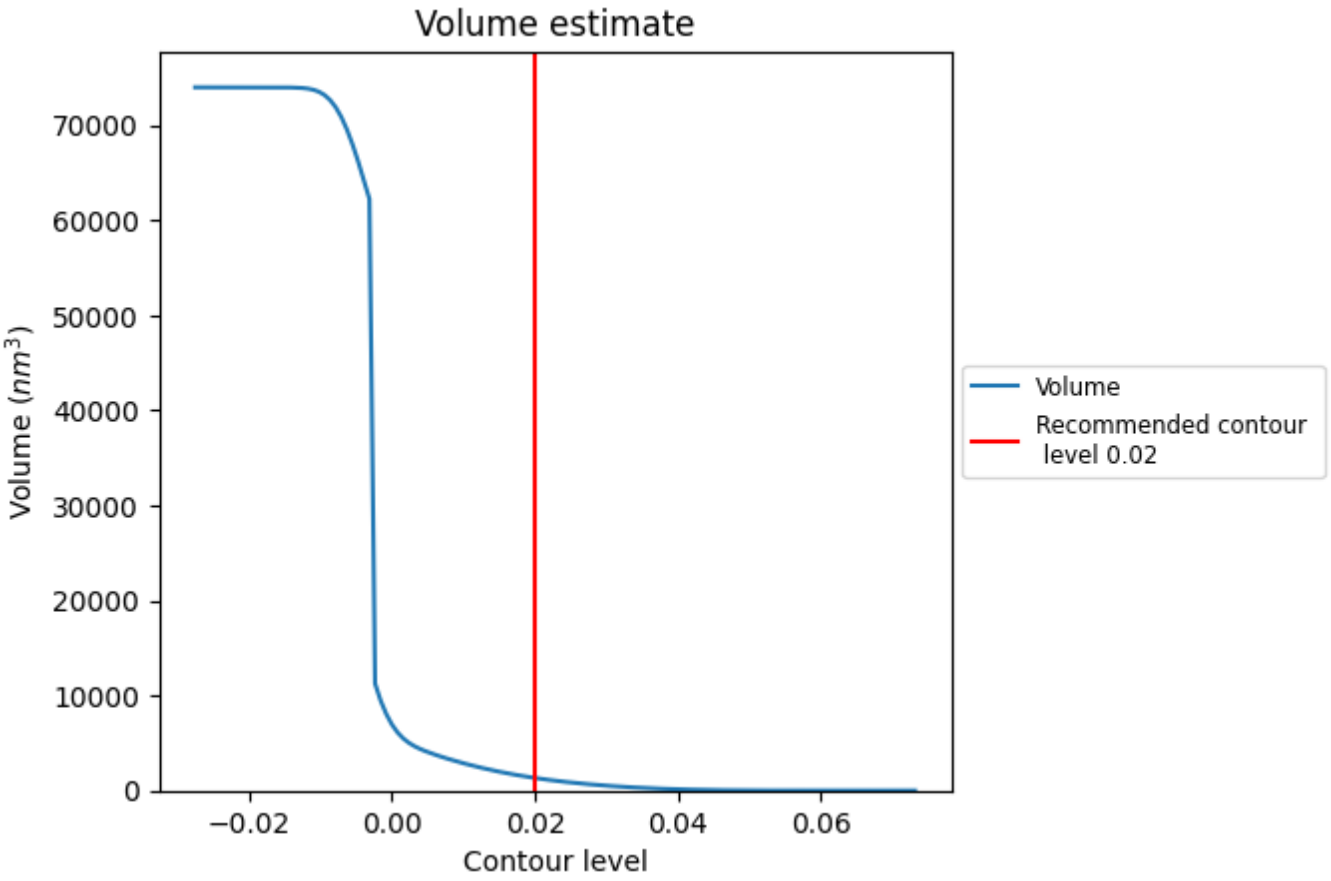
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

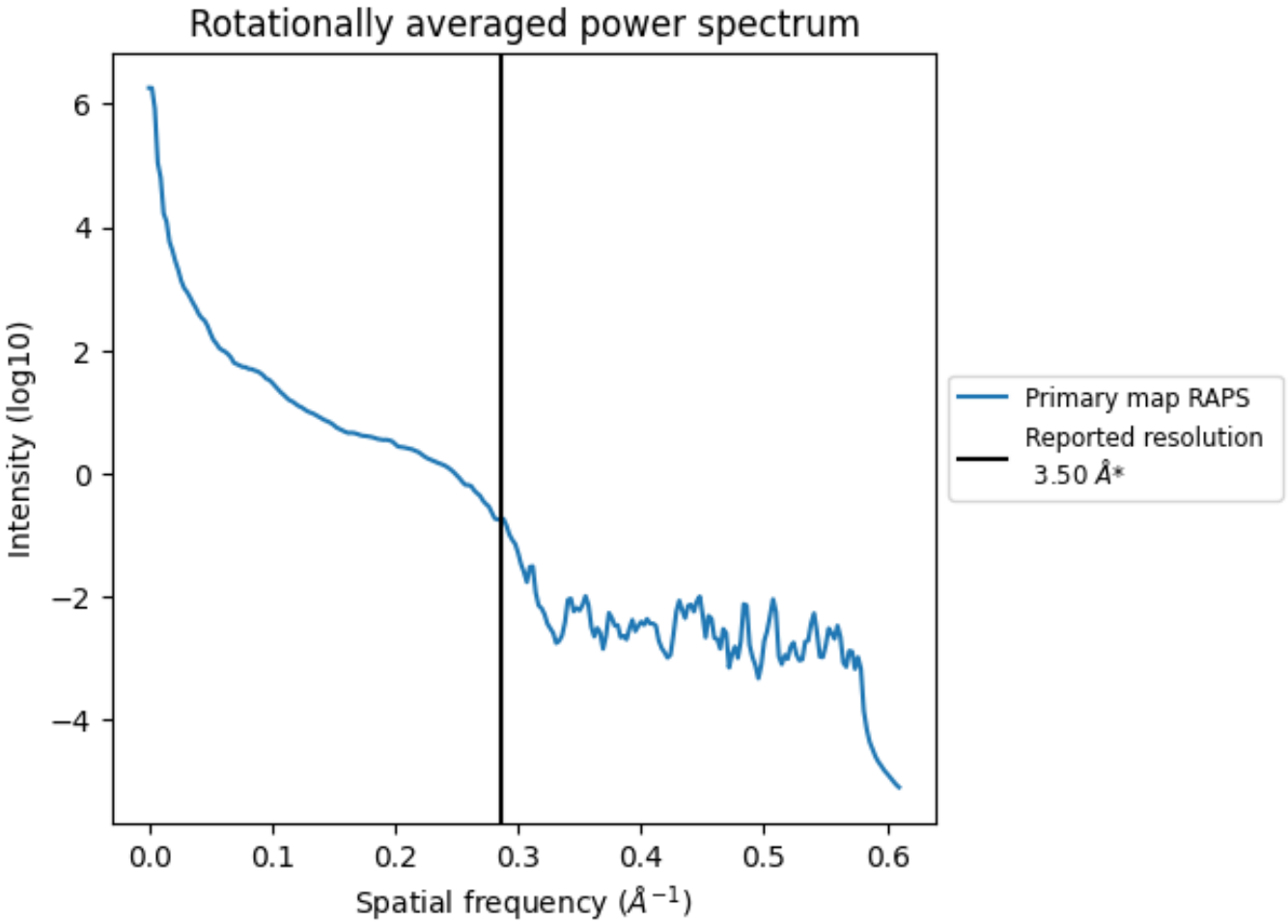
7.2 Volume estimate



The volume at the recommended contour level is 1328 nm^3; this corresponds to an approximate mass of 1200 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.286 Å^{-1}

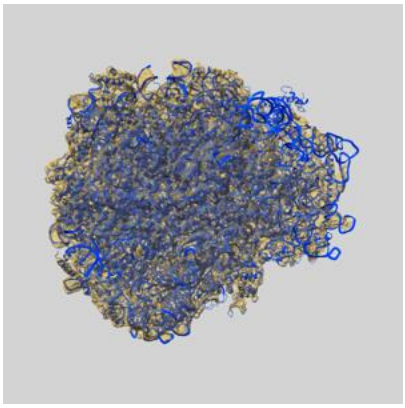
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

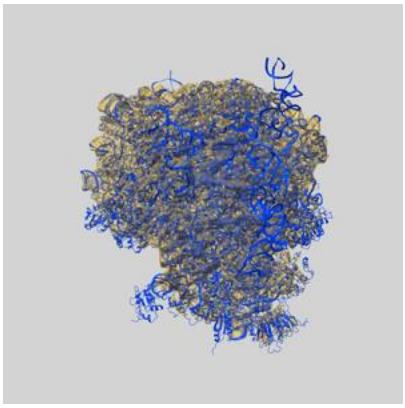
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-6644 and PDB model 5JUP. Per-residue inclusion information can be found in section 3 on page 21.

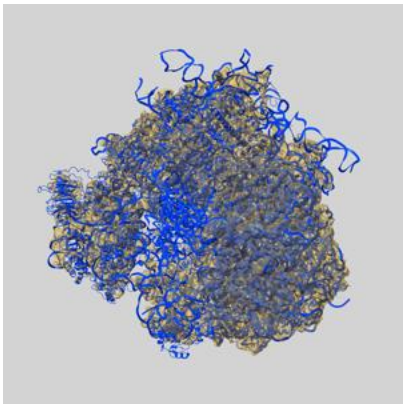
9.1 Map-model overlay



X



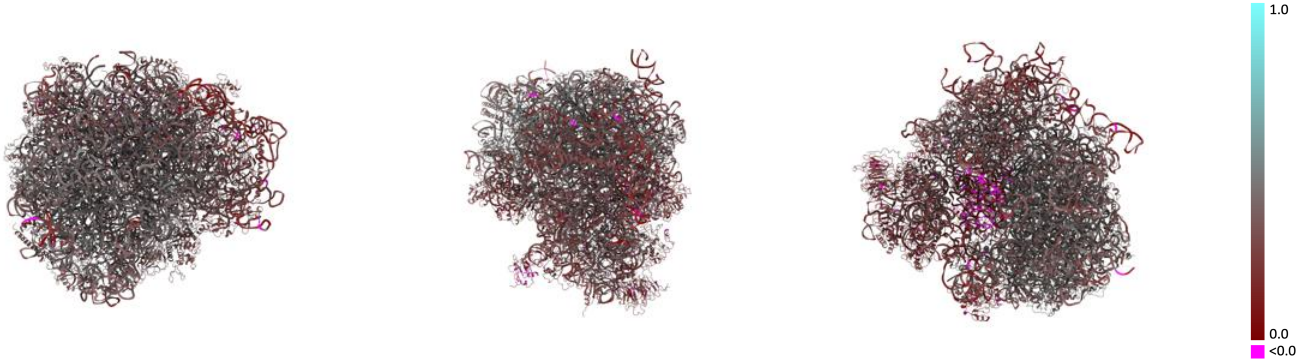
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.02 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

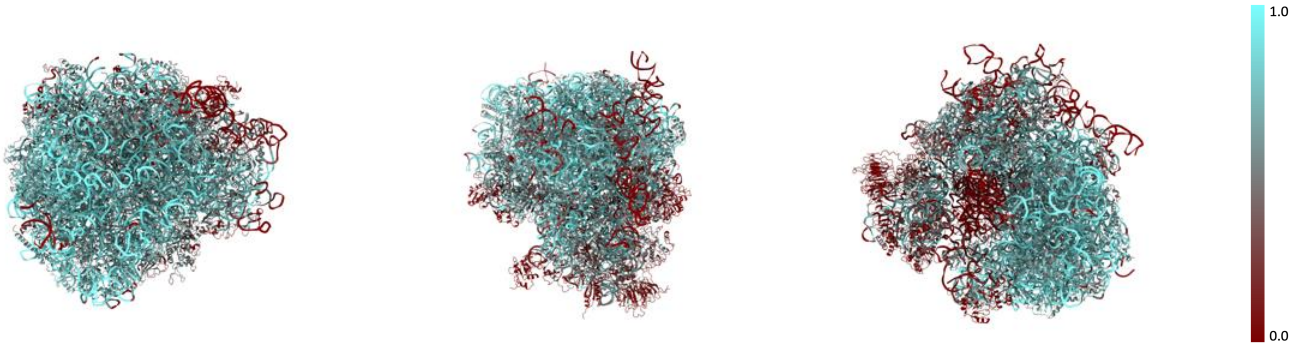
9.2 Q-score mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

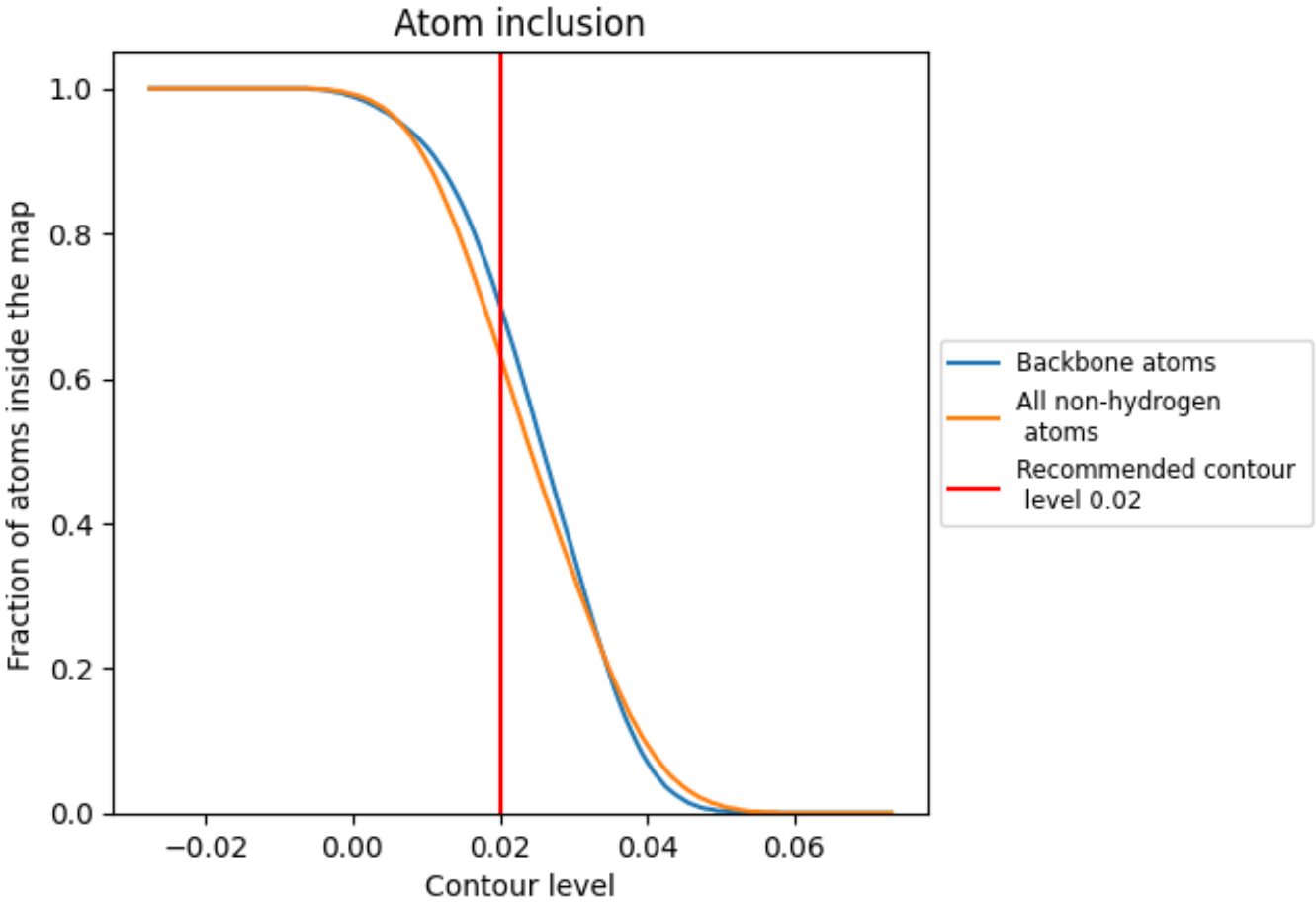
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.02).

9.4 Atom inclusion (i)



At the recommended contour level, 70% of all backbone atoms, 63% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.02) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6330	0.3620
A	0.6430	0.3080
AA	0.5450	0.4530
AB	0.2350	0.3110
AC	0.3690	0.3020
B	0.8560	0.4010
BA	0.6150	0.4350
BB	0.5190	0.3280
BC	0.3490	0.3350
C	0.8950	0.4130
CA	0.5560	0.4100
CB	0.1770	0.2580
CC	0.0000	0.1720
D	0.9470	0.3960
DA	0.6790	0.4090
DB	0.4000	0.2980
DC	0.4300	0.3220
E	0.0300	0.2420
EA	0.5750	0.3780
EB	0.1380	0.3160
EC	0.1210	0.2040
F	0.6110	0.4330
FA	0.6960	0.4450
FB	0.4060	0.3340
G	0.6590	0.4470
GA	0.6120	0.4240
GB	0.5330	0.3340
H	0.7050	0.4390
HA	0.6550	0.3880
HB	0.2920	0.2580
I	0.6570	0.3720
IA	0.6720	0.4330
IB	0.3190	0.3480
J	0.6010	0.3960
JA	0.6730	0.4560

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
JB	0.0000	0.1650
K	0.6730	0.4200
KA	0.6180	0.4520
KB	0.4070	0.3250
L	0.5950	0.3770
LA	0.5800	0.4110
LB	0.0000	0.1200
M	0.6180	0.4160
MA	0.6190	0.3790
MB	0.2060	0.2590
N	0.5790	0.4060
NA	0.6720	0.3970
NB	0.1640	0.2610
O	0.6150	0.3640
OA	0.6650	0.4450
OB	0.1730	0.2620
P	0.0930	0.1920
PA	0.1620	0.3450
PB	0.1870	0.2730
Q	0.6870	0.4160
QA	0.6800	0.4420
QB	0.2340	0.2730
R	0.6740	0.4040
RA	0.6730	0.4290
RB	0.1010	0.3020
S	0.6450	0.4320
SA	0.0000	0.1530
SB	0.4660	0.3660
T	0.6380	0.4300
TA	0.6380	0.4430
TB	0.4400	0.3670
U	0.6790	0.4440
UA	0.5780	0.4140
UB	0.3740	0.3860
V	0.7170	0.4420
VA	0.0970	0.2630
VB	0.4520	0.2820
W	0.5080	0.3770
WA	0.1040	0.2650
WB	0.1340	0.2470
X	0.6310	0.4300
XA	0.3140	0.3290

Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
XB	0.0000	0.1230
Y	0.6530	0.4420
YA	0.0000	0.1290
YB	0.3320	0.3360
Z	0.5550	0.3800
ZA	0.5150	0.3800
ZB	0.2150	0.2810