



Full wwPDB EM Validation Report ⓘ

Mar 30, 2026 – 03:31 AM UTC

PDB ID : 6ZQC / pdb_00006zqc
EMDB ID : EMD-11359
Title : Cryo-EM structure of the 90S pre-ribosome from *Saccharomyces cerevisiae*, state Pre-A1
Authors : Cheng, J.; Lau, B.; Venuta, G.L.; Berninghausen, O.; Hurt, E.; Beckmann, R.
Deposited on : 2020-07-09
Resolution : 3.80 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 ⓘ symbol.

The types of validation reports are described at

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

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

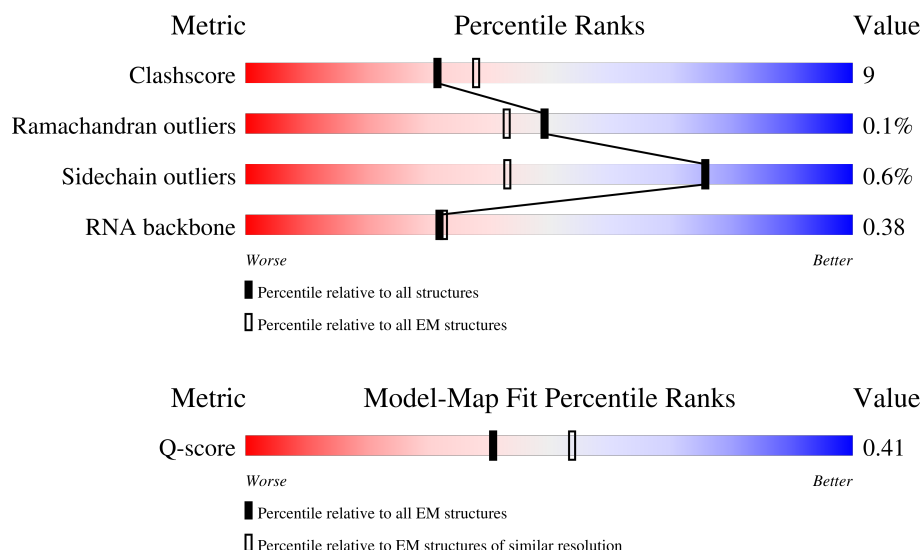
EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data 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 3.80 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.



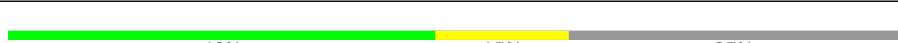
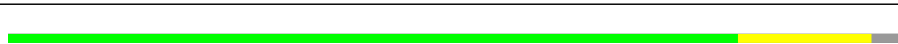
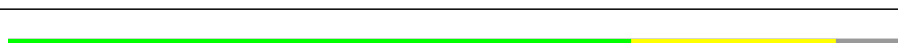
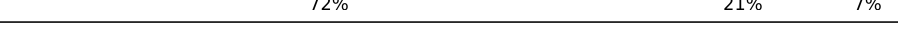
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	10198 (3.30 - 4.30)

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 $\leq 5\%$. 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	CA	327	
1	CB	327	
2	DA	255	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
3	JA	1056	
3	JB	1056	
4	UA	923	
5	UB	810	
6	UC	610	
7	UD	776	
8	UE	643	
9	UF	440	
10	UG	554	
11	UH	713	
12	UI	575	
13	UJ	1769	
14	UK	250	
15	UL	943	
16	UM	817	
17	UN	899	
18	UO	513	
19	UP	214	
20	UQ	896	
21	UR	594	
22	US	552	
23	UT	2493	
24	UU	939	
25	UV	1237	
26	UX	189	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
27	UZ	274	
28	CD	504	
29	CE	511	
30	CF	126	
30	CG	126	
31	CH	573	
32	CI	183	
33	CJ	290	
34	CK	593	
35	CL	1183	
36	CM	367	
37	CN	297	
38	JC	707	
39	JF	252	
39	JG	252	
40	JH	483	
41	JI	1729	
42	JJ	274	
43	JK	534	
44	JM	217	
45	JN	346	
46	JO	316	
47	JP	489	
48	JQ	206	
49	DE	261	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
50	DF	225	
51	DG	236	
52	DH	190	
53	DI	200	
54	DJ	197	
55	DL	156	
56	DN	151	
57	DO	137	
58	DQ	143	
59	DS	146	
60	DW	130	
61	DX	145	
62	DY	135	
63	Db	82	
64	Dc	67	
65	D2	700	
66	D3	1808	
67	D4	333	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
70	GTP	CL	2001	-	-	X	-

2 Entry composition [i](#)

There are 70 unique types of molecules in this entry. The entry contains 234757 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 protein called rRNA 2'-O-methyltransferase fibrillarin.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	CA	242	Total	C	N	O	S	0	0
			1881	1193	338	340	10		
1	CB	228	Total	C	N	O	S	0	0
			1782	1131	320	321	10		

- Molecule 2 is a protein called 40S ribosomal protein S1-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	DA	240	Total	C	N	O	S	0	0
			1912	1209	354	345	4		

- Molecule 3 is a protein called RNA cytidine acetyltransferase.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	JA	812	Total	C	N	O	S	0	0
			5916	3745	1044	1102	25		
3	JB	835	Total	C	N	O		0	0
			4132	2462	835	835			

- Molecule 4 is a protein called Periodic tryptophan protein 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	UA	834	Total	C	N	O	S	0	0
			6635	4223	1140	1253	19		

- Molecule 5 is a protein called Nucleolar complex protein 14.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	UB	507	Total	C	N	O	S	0	0
			3734	2367	663	695	9		

- Molecule 6 is a protein called Something about silencing protein 10.

Mol	Chain	Residues	Atoms				AltConf	Trace
6	UC	128	Total	C	N	O		
			1026	633	204	189	0	0

- Molecule 7 is a protein called U3 small nucleolar RNA-associated protein 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	UD	675	Total	C	N	O	S		
			5361	3395	929	1015	22	0	0

- Molecule 8 is a protein called U3 small nucleolar RNA-associated protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	UE	475	Total	C	N	O	S		
			3772	2400	649	710	13	0	0

- Molecule 9 is a protein called U3 small nucleolar RNA-associated protein 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	UF	293	Total	C	N	O	S		
			2487	1605	435	434	13	0	0

- Molecule 10 is a protein called U3 small nucleolar RNA-associated protein 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	UG	533	Total	C	N	O	S		
			4218	2646	758	802	12	0	0

- Molecule 11 is a protein called U3 small nucleolar RNA-associated protein 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	UH	442	Total	C	N	O	S		
			2701	1680	494	524	3	0	0

- Molecule 12 is a protein called U3 small nucleolar RNA-associated protein 9.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	UI	104	Total	C	N	O	S		
			860	556	152	150	2	0	0

- Molecule 13 is a protein called U3 small nucleolar RNA-associated protein 10.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	UJ	1116	Total	C	N	O	S	0	0
			8961	5802	1468	1666	25		

- Molecule 14 is a protein called U3 small nucleolar RNA-associated protein 11.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	UK	242	Total	C	N	O	S	0	0
			2021	1254	389	371	7		

- Molecule 15 is a protein called U3 small nucleolar RNA-associated protein 12.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	UL	842	Total	C	N	O	S	0	0
			6726	4303	1129	1267	27		

- Molecule 16 is a protein called U3 small nucleolar RNA-associated protein 13.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	UM	762	Total	C	N	O	S	0	0
			5969	3785	1007	1149	28		

- Molecule 17 is a protein called U3 small nucleolar RNA-associated protein 14.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	UN	147	Total	C	N	O	S	0	0
			1227	765	233	227	2		

- Molecule 18 is a protein called U3 small nucleolar RNA-associated protein 15.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	UO	493	Total	C	N	O	S	0	0
			3911	2462	702	735	12		

- Molecule 19 is a protein called Bud site selection protein 21.

Mol	Chain	Residues	Atoms				AltConf	Trace
19	UP	60	Total	C	N	O	0	0
			495	310	101	84		

- Molecule 20 is a protein called NET1-associated nuclear protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	UQ	832	Total	C	N	O	S	0	0
			6662	4236	1124	1283	19		

- Molecule 21 is a protein called U3 small nucleolar RNA-associated protein 18.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	UR	482	Total	C	N	O	S	0	0
			3799	2405	669	715	10		

- Molecule 22 is a protein called Nucleolar complex protein 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	US	494	Total	C	N	O	S	0	0
			3622	2326	617	667	12		

- Molecule 23 is a protein called U3 small nucleolar RNA-associated protein 20.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	UT	2255	Total	C	N	O	S	0	0
			17290	11076	2927	3235	52		

- Molecule 24 is a protein called U3 small nucleolar RNA-associated protein 21.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	UU	848	Total	C	N	O	S	0	0
			6678	4241	1149	1267	21		

- Molecule 25 is a protein called U3 small nucleolar RNA-associated protein 22.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	UV	1081	Total	C	N	O	S	0	0
			8736	5681	1440	1591	24		

- Molecule 26 is a protein called rRNA-processing protein FCF1.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	UX	174	Total	C	N	O	S	0	0
			1395	890	255	240	10		

- Molecule 27 is a protein called Ribosome biogenesis protein UTP30.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	UZ	247	Total	C	N	O	S	0	0
			2006	1284	356	358	8		

- Molecule 28 is a protein called Nucleolar protein 56.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	CD	380	Total	C	N	O	S	0	0
			2994	1898	513	574	9		

- Molecule 29 is a protein called Nucleolar protein 58.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	CE	435	Total	C	N	O	S	0	0
			3325	2093	571	653	8		

- Molecule 30 is a protein called 13 kDa ribonucleoprotein-associated protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	CF	123	Total	C	N	O	S	0	0
			931	594	160	173	4		
30	CG	123	Total	C	N	O	S	0	0
			928	591	160	173	4		

- Molecule 31 is a protein called Ribosomal RNA-processing protein 9.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	CH	465	Total	C	N	O	S	0	0
			3725	2365	653	697	10		

- Molecule 32 is a protein called U3 small nucleolar ribonucleoprotein protein IMP3.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	CI	182	Total	C	N	O	S	0	0
			1530	967	287	269	7		

- Molecule 33 is a protein called U3 small nucleolar ribonucleoprotein protein IMP4.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	CJ	282	Total	C	N	O	S	0	0
			2296	1441	430	418	7		

- Molecule 34 is a protein called U3 small nucleolar RNA-associated protein MPP10.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	CK	207	Total	C	N	O	S	0	0
			1667	1034	297	332	4		

- Molecule 35 is a protein called Ribosome biogenesis protein BMS1.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	CL	781	Total	C	N	O	S	0	0
			6332	4063	1122	1117	30		

- Molecule 36 is a protein called RNA 3'-terminal phosphate cyclase-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	CM	360	Total	C	N	O	S	0	0
			2781	1781	473	516	11		

- Molecule 37 is a protein called Ribosomal RNA-processing protein 7.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	CN	232	Total	C	N	O	S	0	0
			1893	1213	322	351	7		

- Molecule 38 is a protein called Ribosome biogenesis protein ENP2.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	JC	354	Total	C	N	O	S	0	0
			2845	1795	489	552	9		

- Molecule 39 is a protein called Ribosomal RNA small subunit methyltransferase NEP1.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	JF	216	Total	C	N	O	S	0	0
			1701	1079	296	315	11		
39	JG	230	Total	C	N	O	S	0	0
			1799	1142	313	333	11		

- Molecule 40 is a protein called Essential nuclear protein 1.

Mol	Chain	Residues	Atoms				AltConf	Trace
40	JH	261	Total	C	N	O	0	0
			1295	773	261	261		

- Molecule 41 is a protein called rRNA biogenesis protein RRP5.

Mol	Chain	Residues	Atoms				AltConf	Trace
41	Jl	265	Total	C	N	O	0	0
			1314	784	265	265		

- Molecule 42 is a protein called Pre-rRNA-processing protein PNO1.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	JJ	182	Total	C	N	O	S	0	0
			1442	923	259	256	4		

- Molecule 43 is a protein called Protein BFR2.

Mol	Chain	Residues	Atoms				AltConf	Trace
43	JK	42	Total	C	N	O	0	0
			334	213	54	67		

- Molecule 44 is a protein called rRNA-processing protein FCF2.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	JM	135	Total	C	N	O	S	0	0
			1137	721	211	201	4		

- Molecule 45 is a protein called Protein FAF1.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	JN	186	Total	C	N	O	S	0	0
			1428	879	287	259	3		

- Molecule 46 is a protein called KRR1 small subunit processome component.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	JO	230	Total	C	N	O	S	0	0
			1876	1203	330	332	11		

- Molecule 47 is a protein called Protein SOF1.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	JP	461	Total	C	N	O	S	0	0
			3765	2354	686	709	16		

- Molecule 48 is a protein called Regulator of rDNA transcription protein 14.

Mol	Chain	Residues	Atoms				AltConf	Trace
48	JQ	63	Total	C	N	O	0	0
			381	234	69	78		

- Molecule 49 is a protein called 40S ribosomal protein S4-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	DE	245	Total	C	N	O	S	0	0
			1944	1245	360	336	3		

- Molecule 50 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	DF	213	Total	C	N	O	S	0	0
			1669	1045	307	314	3		

- Molecule 51 is a protein called 40S ribosomal protein S6-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	DG	218	Total	C	N	O	S	0	0
			1755	1102	337	313	3		

- Molecule 52 is a protein called 40S ribosomal protein S7-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
52	DH	184	Total	C	N	O	0	0
			1481	951	265	265		

- Molecule 53 is a protein called 40S ribosomal protein S8-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	DI	177	Total	C	N	O	S	0	0
			1399	869	279	249	2		

- Molecule 54 is a protein called 40S ribosomal protein S9-A.

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

- Molecule 55 is a protein called 40S ribosomal protein S11-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	DL	140	Total	C	N	O	S	0	0
			1129	724	215	187	3		

- Molecule 56 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	DN	150	Total	C	N	O	S	0	0
			1192	759	224	207	2		

- Molecule 57 is a protein called 40S ribosomal protein S14-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	DO	120	Total	C	N	O	S	0	0
			881	544	167	167	3		

- Molecule 58 is a protein called 40S ribosomal protein S16-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
58	DQ	125	Total	C	N	O	0	0
			973	625	174	174		

- Molecule 59 is a protein called 40S ribosomal protein S18-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
59	DS	104	Total	C	N	O	0	0
			516	308	104	104		

- Molecule 60 is a protein called 40S ribosomal protein S22-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	DW	129	Total	C	N	O	S	0	0
			1021	650	188	180	3		

- Molecule 61 is a protein called 40S ribosomal protein S23-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	DX	103	Total	C	N	O	S	0	0
			786	503	144	137	2		

- Molecule 62 is a protein called 40S ribosomal protein S24-A.

Mol	Chain	Residues	Atoms				AltConf	Trace
62	DY	134	Total	C	N	O	0	0
			1073	676	208	189		

- Molecule 63 is a protein called 40S ribosomal protein S27-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	Db	81	Total	C	N	O	S	0	0
			610	382	110	113	5		

- Molecule 64 is a protein called 40S ribosomal protein S28-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	Dc	63	Total	C	N	O	S	0	0
			497	306	99	91	1		

- Molecule 65 is a RNA chain called 5ETS RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	D2	446	Total	C	N	O	P	0	0
			9508	4250	1682	3130	446		

- Molecule 66 is a RNA chain called 18S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	D3	1327	Total	C	N	O	P	0	0
			28287	12644	5022	9294	1327		

- Molecule 67 is a RNA chain called U3 snoRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	D4	230	Total	C	N	O	P	0	0
			4872	2181	844	1617	230		

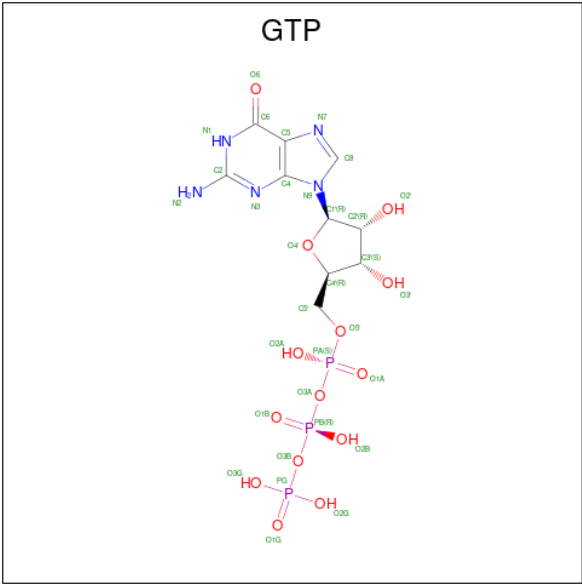
- Molecule 68 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
68	UX	1	Total	Zn	0
			1	1	
68	Db	1	Total	Zn	0
			1	1	

- Molecule 69 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
69	UX	1	Total	Mg	0
			1	1	
69	CL	1	Total	Mg	0
			1	1	

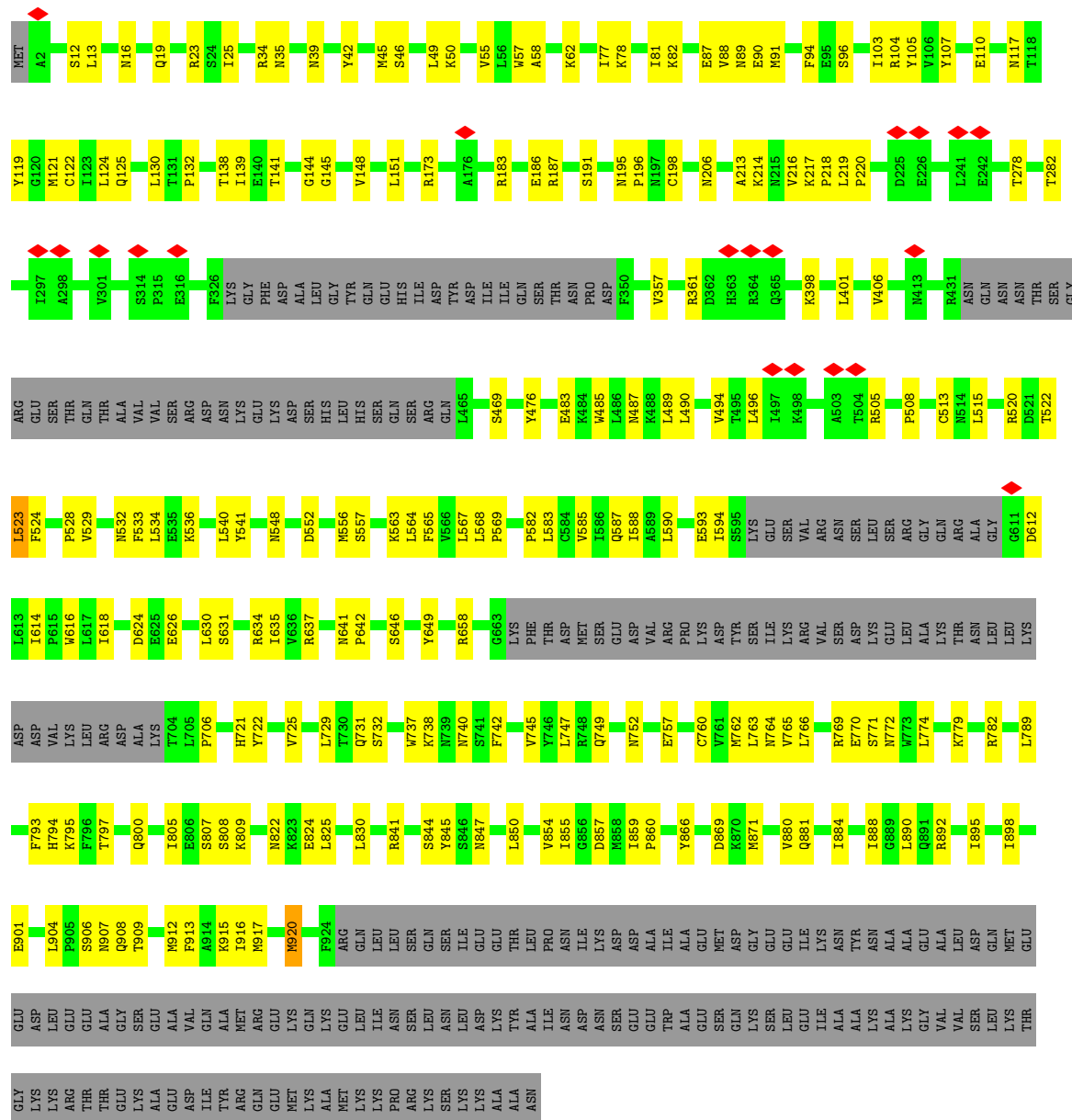
- Molecule 70 is GUANOSINE-5'-TRIPHOSPHATE (CCD ID: GTP) (formula: C₁₀H₁₆N₅O₁₄P₃).



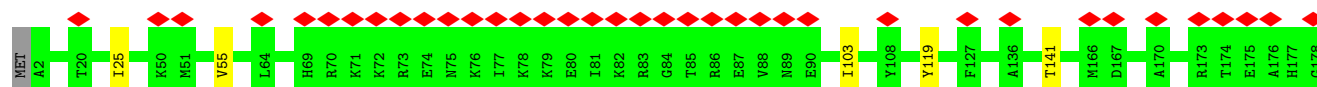
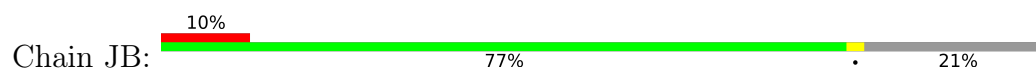
Mol	Chain	Residues	Atoms					AltConf
70	CL	1	Total	C	N	O	P	0
			32	10	5	14	3	

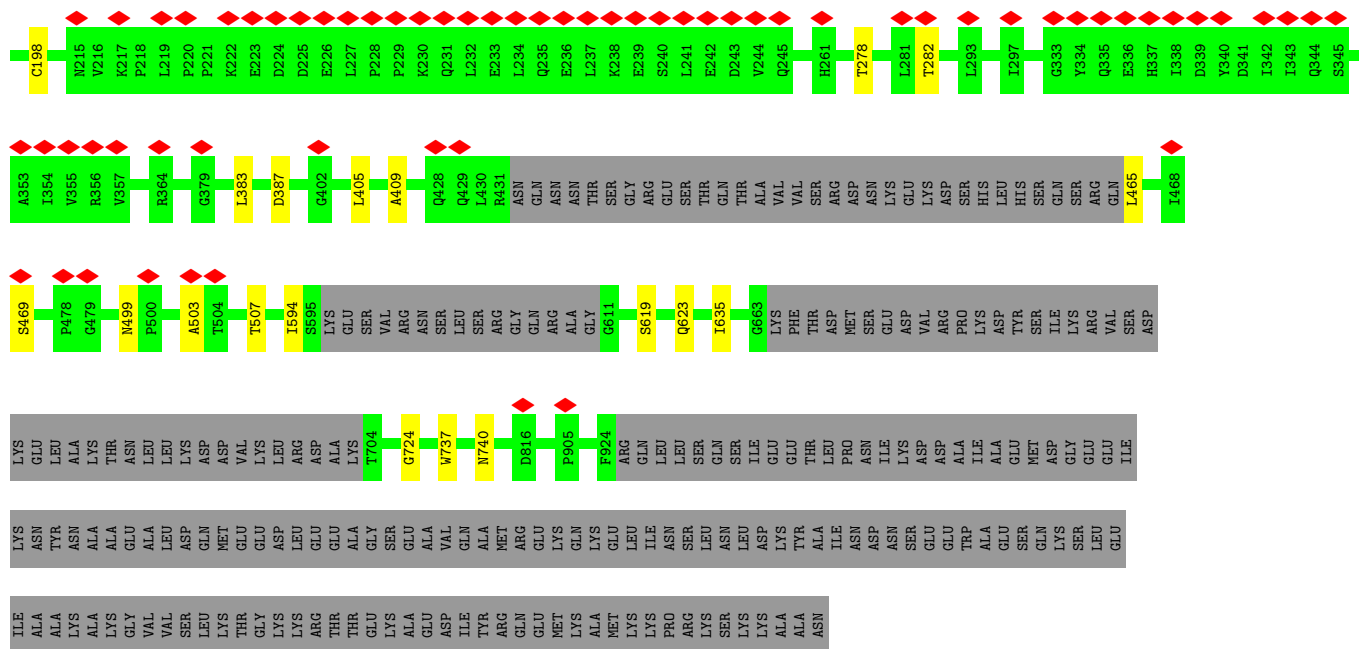


• Molecule 3: RNA cytidine acetyltransferase



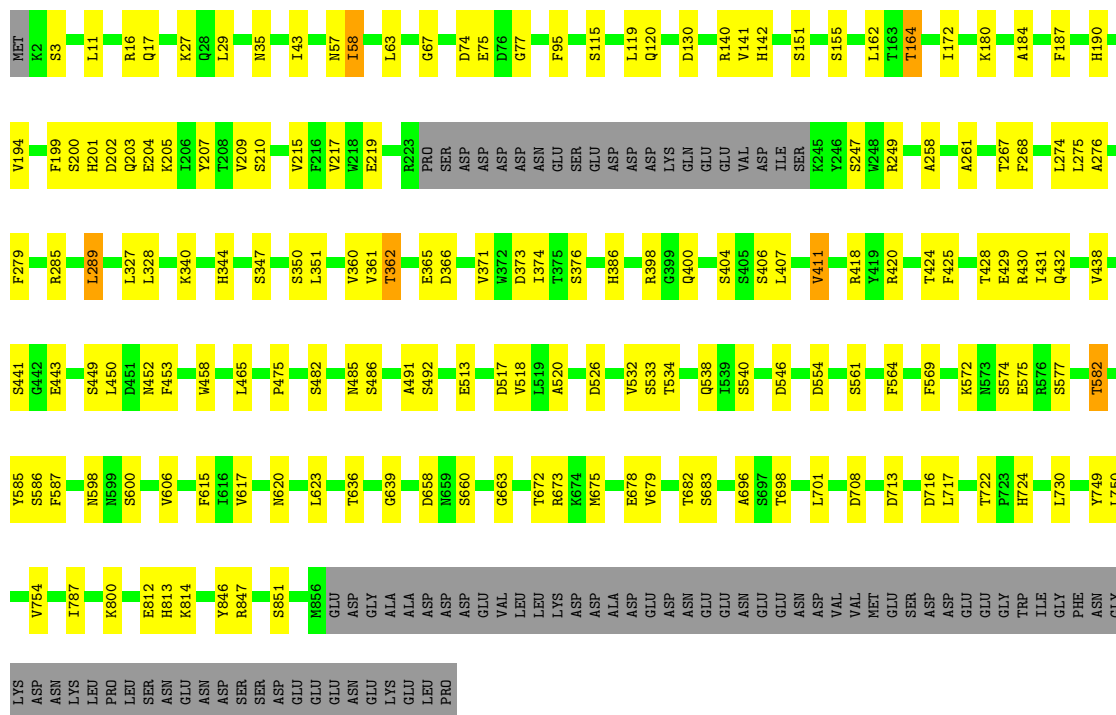
• Molecule 3: RNA cytidine acetyltransferase





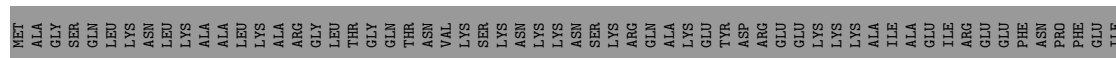
• Molecule 4: Periodic tryptophan protein 2

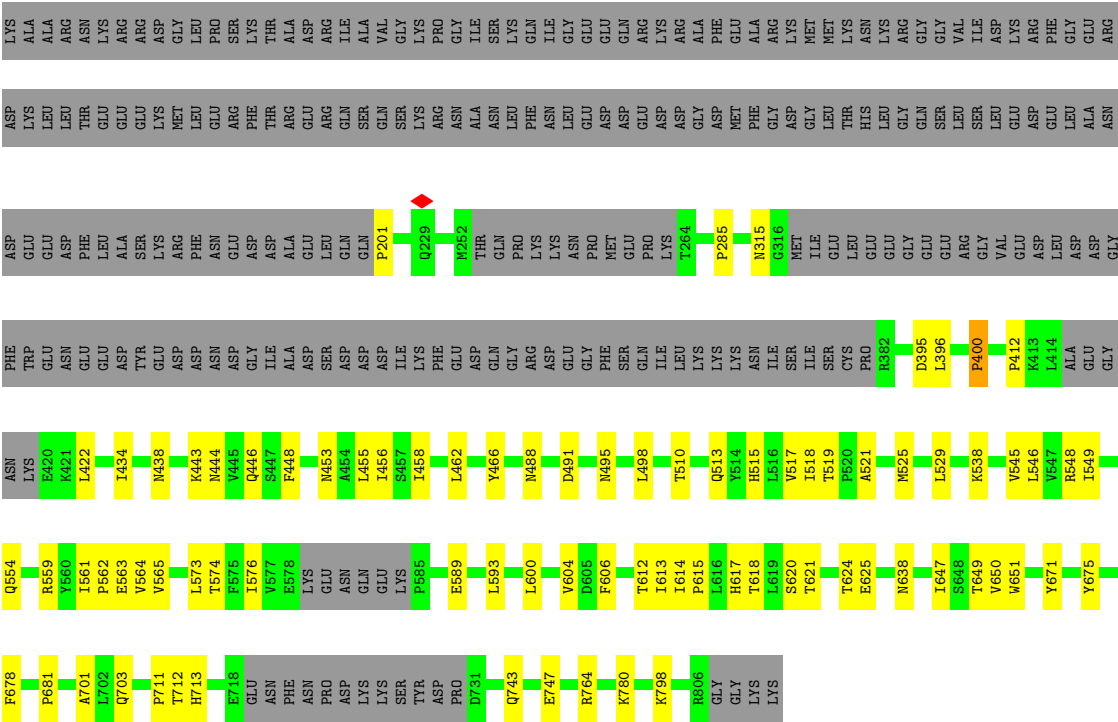
Chain UA: 72% 18% 10%



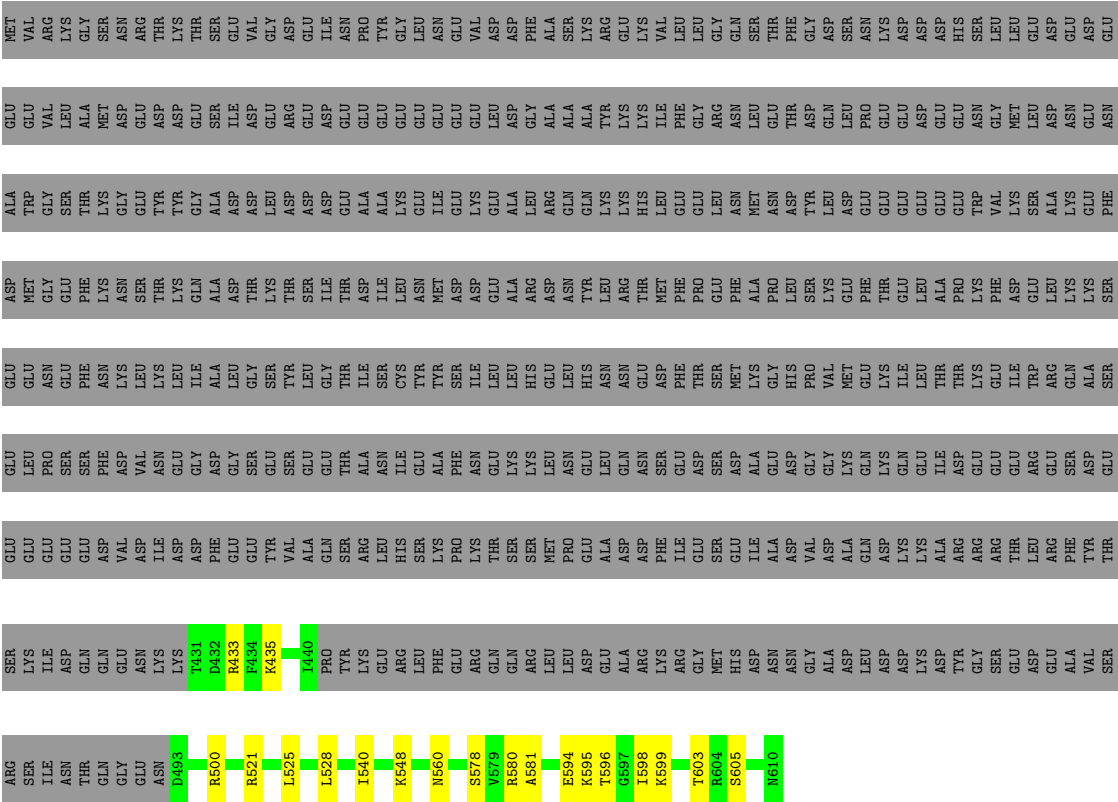
• Molecule 5: Nucleolar complex protein 14

Chain UB: 52% 10% 37%





● Molecule 6: Something about silencing protein 10



● Molecule 7: U3 small nucleolar RNA-associated protein 4

App Type	Percentage
Shopping app	64%
Social media app	23%
Productivity app	13%



Response	Percentage
Best for the country	57%
Not the best for the country	16%
Don't know	26%



GLU	T362	THR	N198	MET
ASP	V363	ASN	K201	S2
PRO	I367	PRO	V202	R5
ARG	T368	A264	I265	E9
TYR	I371	R266	I206	Q10
LYS	K372	L271	I207	C11
ILE	TYR	L271	ARG	G11
LEU	MET	Y265	GLU	M15
ASP	PRO	Y265	GLN	Y29
LEU	VAL	H289	GLU	V29
ILE	GLU	K290	LEU	K34
SER	LYS	GLY	ASP	K35
LYS	LEU	TYR	MET	R36
LEU	ASP	TYR	GLN	T37
ILE	ASP	ALA	ASN	D38
ASP	ASP	ILE	GLU	D38
GLN	GLN	S296	GLN	H41
LEU	LEU	S296	LYS	R42
LEU	GLN	I302	ASN	R42
LEU	LEU	I302	ASN	S49
SER	SER	K306	GLN	I60
VAL	VAL	E307	ALA	S49
LYS	LYS	T308	ALA	I60
LYS	LYS	LYS	PRO	D85
TYR	TYR	Y319	ASP	D85
PHE	PHE	I320	GLU	Q105
ALA	ALA	I320	GLU	Q105
TYR	TYR	F323	LYS	N122
ILE	ILE	ASP	SER	N122
SER	SER	GLU	HIS	K128
SER	SER	GLU	LEU	K128
LYS	LYS	PHE	GLN	K128
LEU	LEU	LEU	VAL	N143
ASP	ASP	LEU	VAL	N143
SER	SER	ASP	PRO	V144
ALA	ALA	LEU	SER	D145
SER	SER	E350	THR	D145
R331	R331	R331	THR	I146
VAL	VAL	D332	GLY	I146
LYS	LYS	I335	ASP	R165
SER	SER	I335	ASP	R165
LEU	LEU	V338	SER	N166
LYS	LYS	V338	SER	N166
ASN	ASN	ASN	MET	I167
GLU	GLU	N344	MET	I167
TYR	TYR	ASP	LYS	F168
ARG	ARG	MET	ASP	Q169
SER	SER	TYR	LYS	Q169
TYR	TYR	ASP	LEU	L172
LEU	LEU	ASP	GLU	R173
LEU	LEU	TYR	LEU	R173
LYS	LYS	ASP	PRO	V178
LYS	LYS	LEU	GLU	V178
LEU	LEU	GLN	ALA	L181
ASN	ASN	LEU	ASP	L181
ASN	ASN	ARG	ASP	Y185
TYR	TYR	LYS	ILE	V186
LEU	LEU	ASP	SER	V186
LEU	LEU	ASP	VAL	E189
LYS	LYS	LEU	LEU	L190
LYS	LYS	P356	GLY	N191
MET	MET	E357	ASN	F192
ASN	ASN	L358	ALA	I193
ALA	ALA	L358	ALA	I193

- | | | |
|------|------|------|
| I324 | R140 | MET |
| T327 | E147 | GLY |
| L345 | L148 | HIS |
| S351 | F149 | LYS |
| G356 | L150 | ASN |
| S357 | H151 | GLY |
| R364 | E152 | HIS |
| L372 | T153 | ARG |
| E379 | L160 | ARG |
| F386 | Q161 | GLN |
| D388 | V168 | ILE |
| I398 | K171 | K13 |
| I402 | K172 | T25 |
| V403 | Y173 | Y26 |
| P404 | D178 | THR |
| G405 | E183 | ASN |
| A406 | L184 | ALA |
| A409 | H185 | LYS |
| N410 | R186 | ASN |
| L444 | L187 | ASN |
| D445 | G212 | THR |
| P446 | L224 | HIS |
| K464 | E227 | Q36 |
| N480 | L228 | I49 |
| D482 | R229 | Y53 |
| I483 | T230 | L67 |
| P484 | N241 | L74 |
| L497 | N244 | Q88 |
| R502 | A245 | D96 |
| R515 | V246 | L108 |
| D544 | N253 | P113 |
| R552 | L258 | I116 |
| F553 | M263 | N121 |
| G554 | P264 | G122 |
| | L267 | T123 |
| | V268 | H124 |
| | T292 | I127 |
| | R296 | T128 |
| | S297 | G29 |
| | M298 | H130 |
| | L315 | K131 |
| | | G132 |
| | | H133 |
| | | V134 |
| | | A135 |

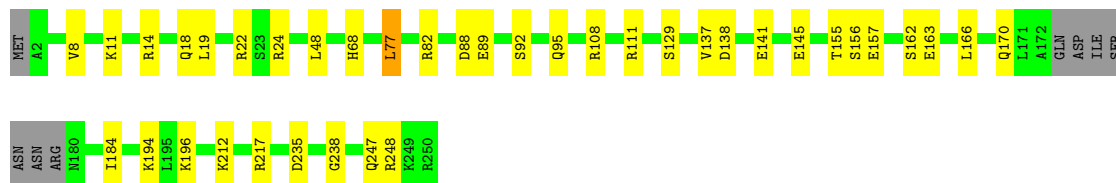
- | | | | | |
|-----|-----|------|------|-----|
| LEU | ALA | S185 | I69 | MET |
| LYS | VAL | F201 | P70 | PRO |
| PRO | ILE | K202 | S71 | SER |
| LEU | ASN | | | LEU |
| PHE | SER | | A77 | SER |
| ASP | GLU | D214 | | GLN |
| ASP | LYS | | A80 | PRO |
| LYS | SER | F231 | | PHE |
| ASP | HIS | | G83 | ARG |
| ILE | ASN | P235 | GLN | LEU |
| ASN | SER | | A85 | ALA |
| ASP | LYS | D238 | | THR |
| LYS | THR | | D88 | LEU |
| ARG | ILE | P258 | | PRO |
| VAL | ALA | | A93 | LYS |
| LYS | ILE | S264 | SER | ILE |
| CYS | GLY | | THR | ALA |
| ASN | ILE | I267 | ASP | SER |
| ASP | SER | | ASP | LEU |
| VAL | THR | F272 | GLU | SER |
| SER | LYS | F273 | ALA | LEU |
| GLY | ASN | N274 | ASN | ASN |
| ASP | GLY | | ASN | PHE |
| SER | PRO | Y279 | GLU | SER |
| ASN | ASN | | LYS | LEU |
| VAL | PRO | Y285 | THR | GLN |
| PRO | THR | | ILE | ALA |
| VAL | SER | Y293 | ASN | D27 |
| LEU | SER | | THR | Y28 |
| LEU | LEU | | GLN | Y29 |
| HIS | LEU | P298 | LYS | R30 |
| CYS | GLU | H299 | LYS | V31 |
| ASN | ILE | | ARG | A32 |
| GLU | ILE | Q304 | ASN | ASP |
| VAL | ASN | | GLY | GLY |
| ILE | ILE | F308 | VAL | THR |
| GLU | ASP | P309 | GLU | PHE |
| LYS | VAL | | ILE | ASN |
| LEU | GLY | P316 | TRP | GLU |
| SER | THR | | ALA | SER |
| ALA | ASN | P325 | PHE | THR |
| LEU | THR | | GLY | ASN |
| LEU | LEU | R330 | L120 | ASN |
| ASP | LYS | | | ILE |
| ASN | ASP | Y340 | Y127 | THR |
| ASP | SER | L341 | | LEU |
| ILE | LEU | | L147 | GLY |
| THR | GLY | L350 | SER | ILE |
| SER | LYS | | GLU | SER |
| PHE | SER | L355 | SER | GLY |
| ASP | PHE | T356 | ASP | |
| ASP | GLN | H357 | ILE | R50 |
| ILE | VAL | V358 | D153 | S51 |
| PHE | GLY | | | |
| PHE | ASN | LYS | Y167 | I56 |
| LYS | ASN | THR | K168 | I57 |
| GLU | ASN | PHE | | R58 |
| LEU | GLN | ASN | P59 | |
| LEU | SER | LEU | A173 | T60 |
| LYS | SER | LEU | | P61 |
| ILE | VAL | LYS | I180 | |
| R58 | THR | LYS | | R62 |





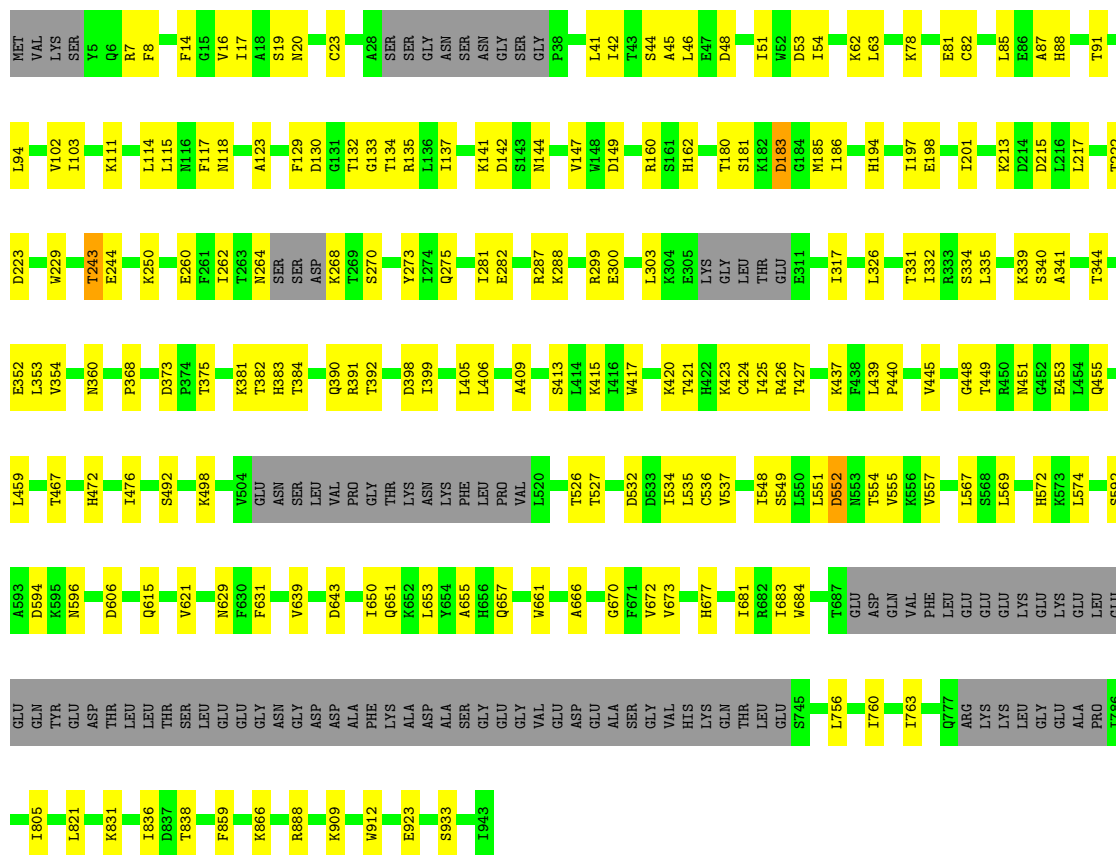
- Molecule 14: U3 small nucleolar RNA-associated protein 11

Chain UK:  82% 15%



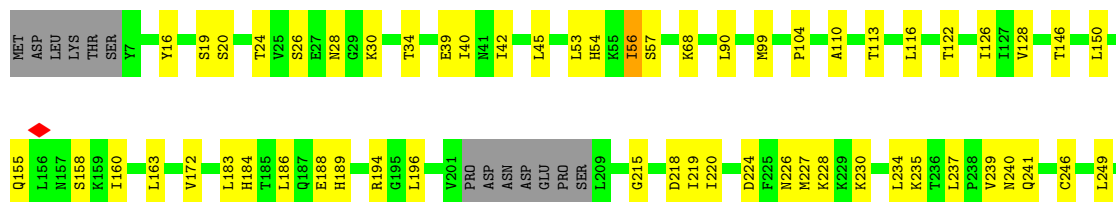
- Molecule 15: U3 small nucleolar RNA-associated protein 12

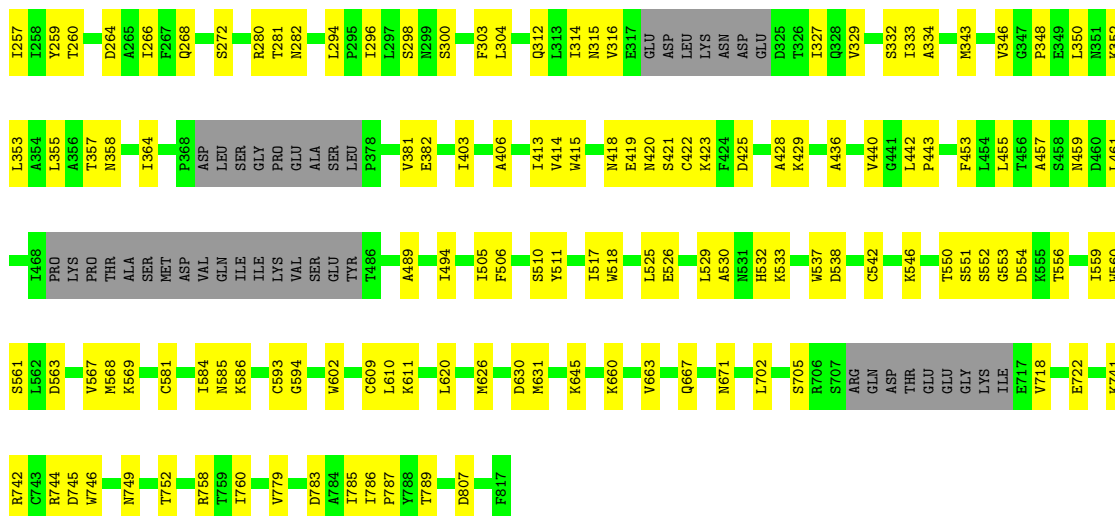
Chain UL:  69% 20% 11%



- Molecule 16: U3 small nucleolar RNA-associated protein 13

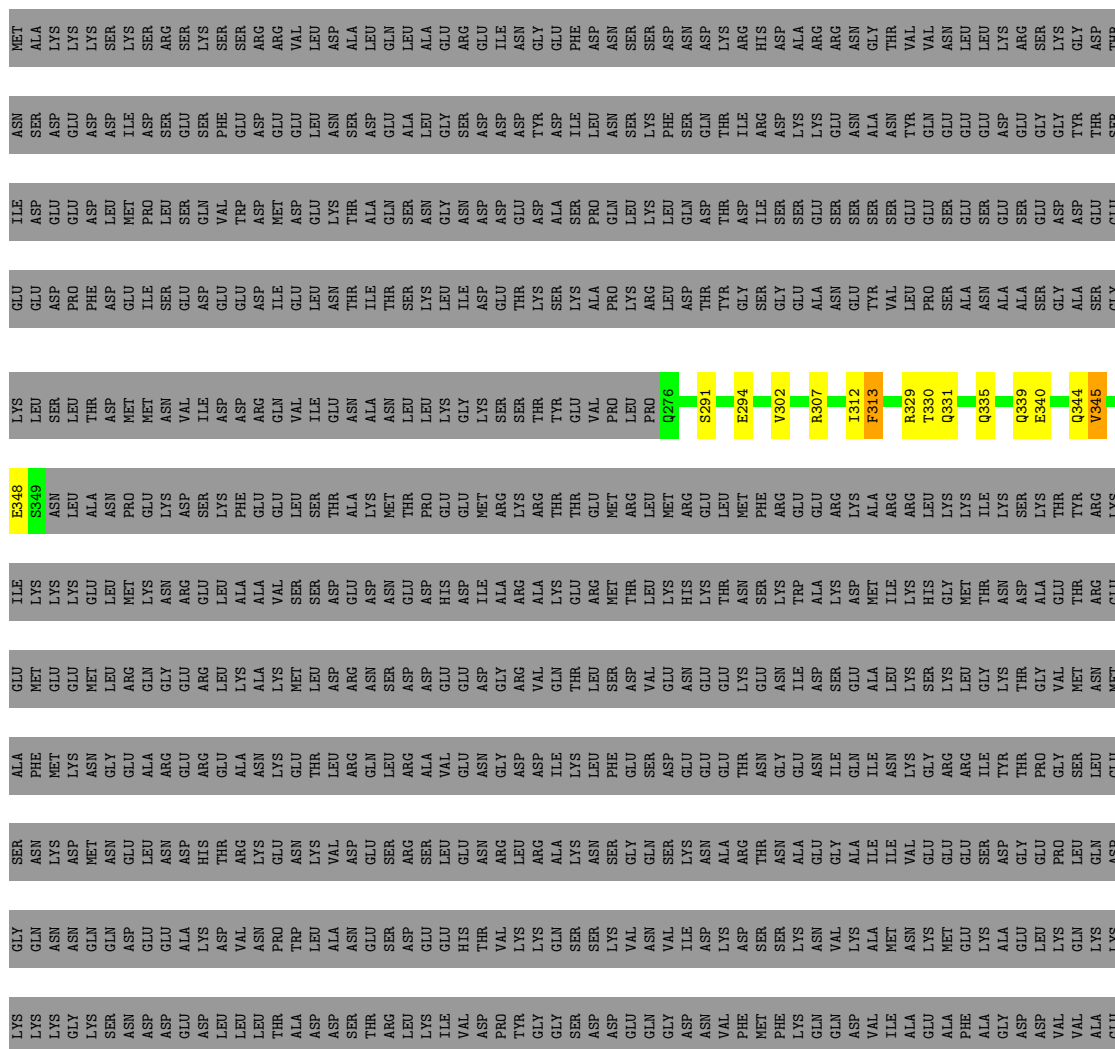
Chain UM:  70% 23% 7%



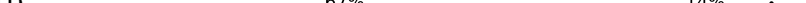


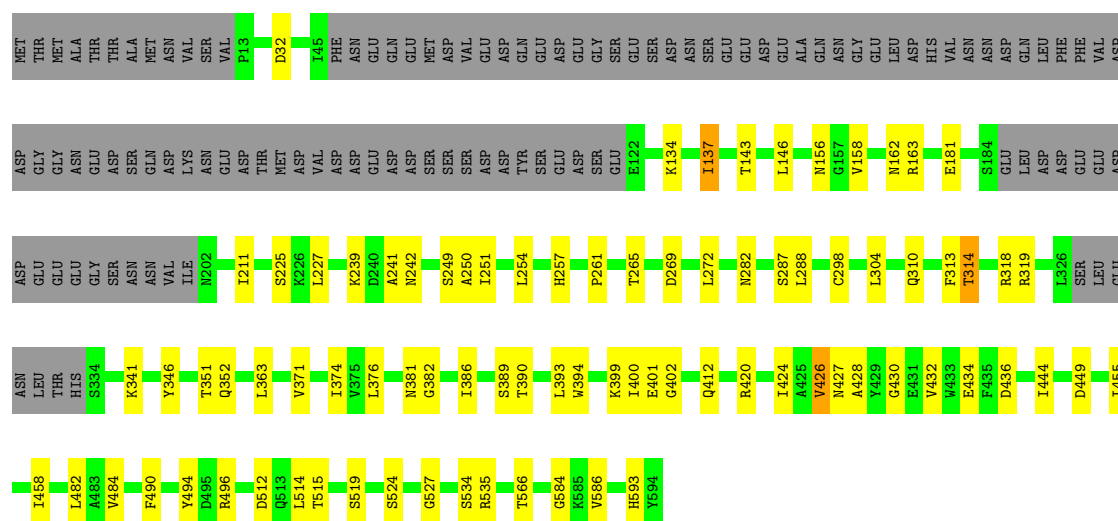
• Molecule 17: U3 small nucleolar RNA-associated protein 14

Chain UN: 13% . 84%

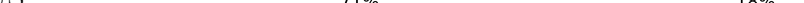


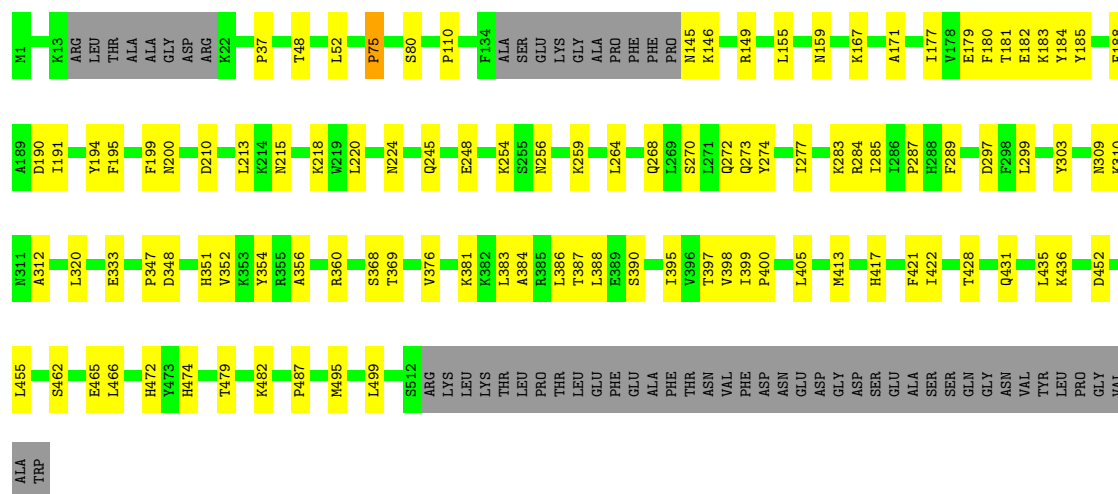
- Molecule 21: U3 small nucleolar RNA-associated protein 18

Chain UR: 



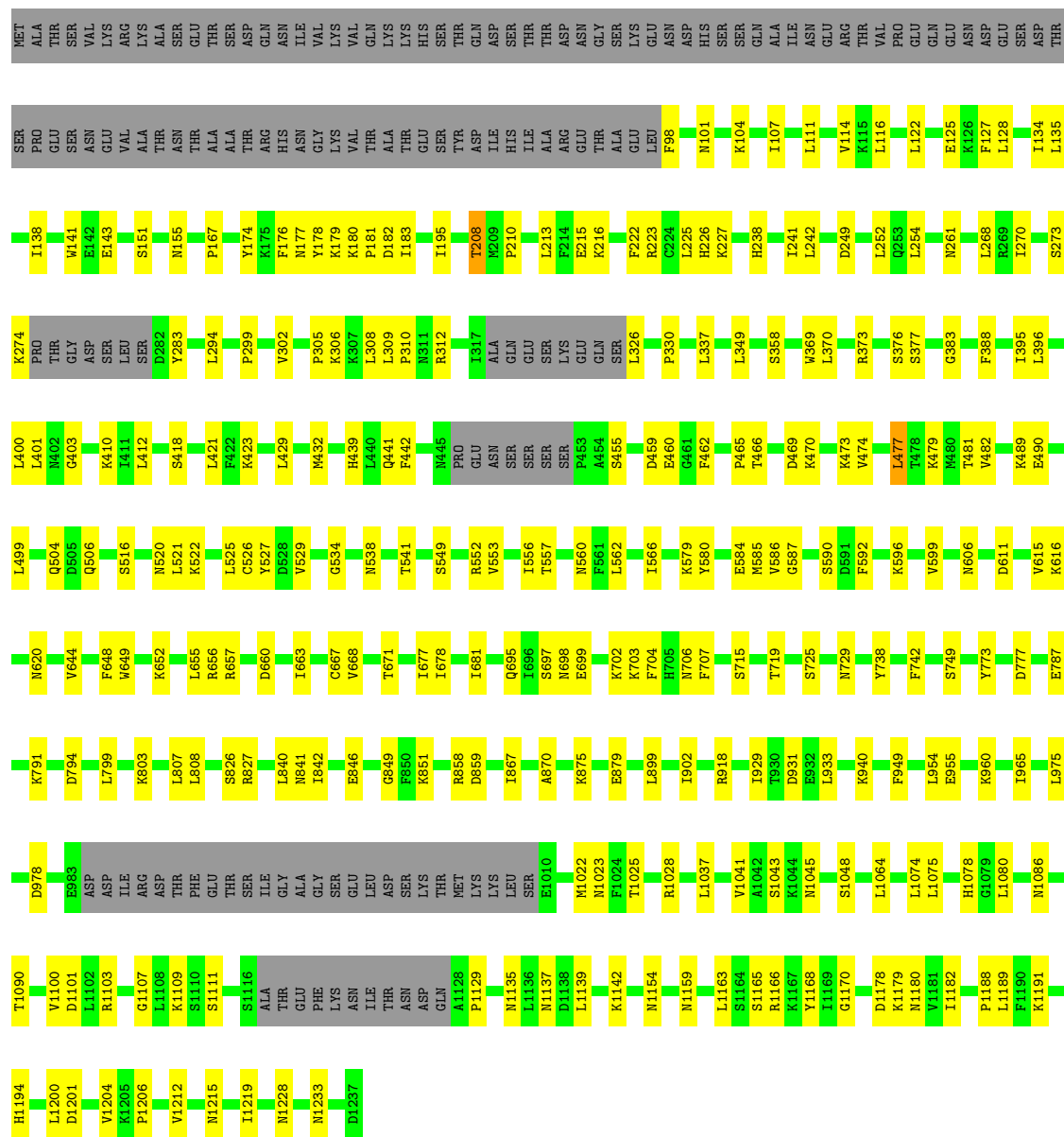
- Molecule 22: Nucleolar complex protein 4

Chain US:  71% 18% 11%



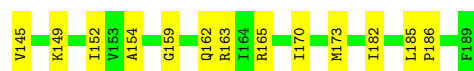
Chain UT:





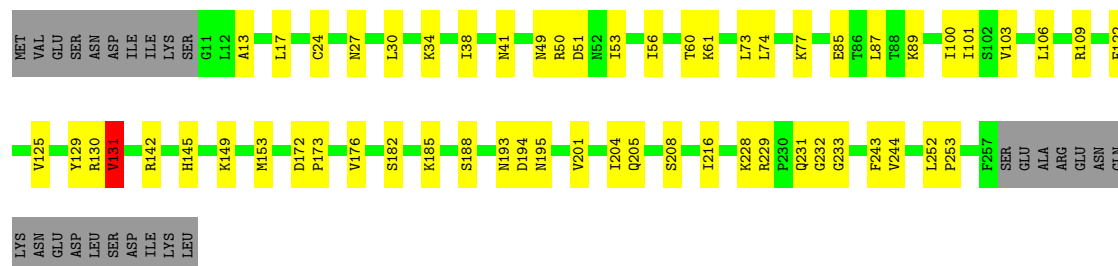
- Molecule 26: rRNA-processing protein FCF1





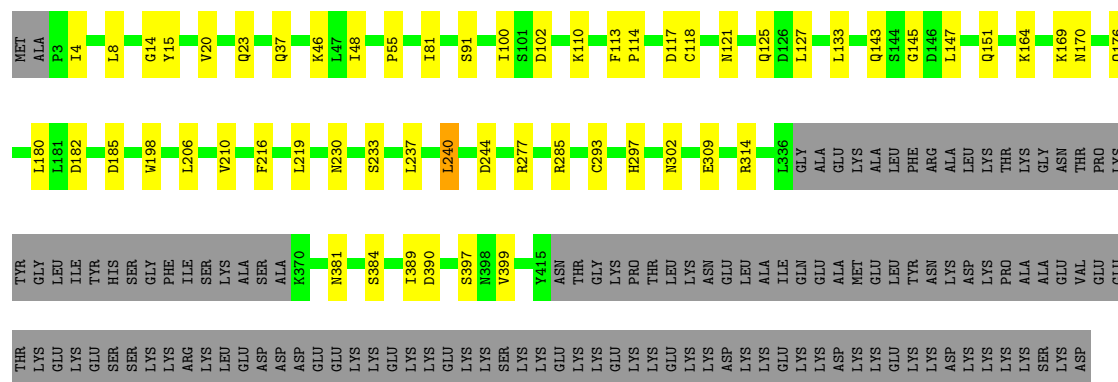
• Molecule 27: Ribosome biogenesis protein UTP30

Chain UZ: 69% 21% 10%



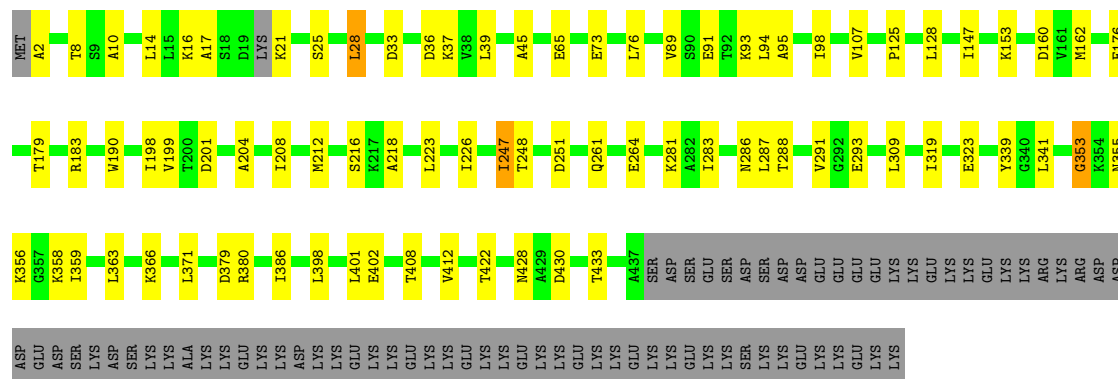
• Molecule 28: Nucleolar protein 56

Chain CD: 64% 11% 25%



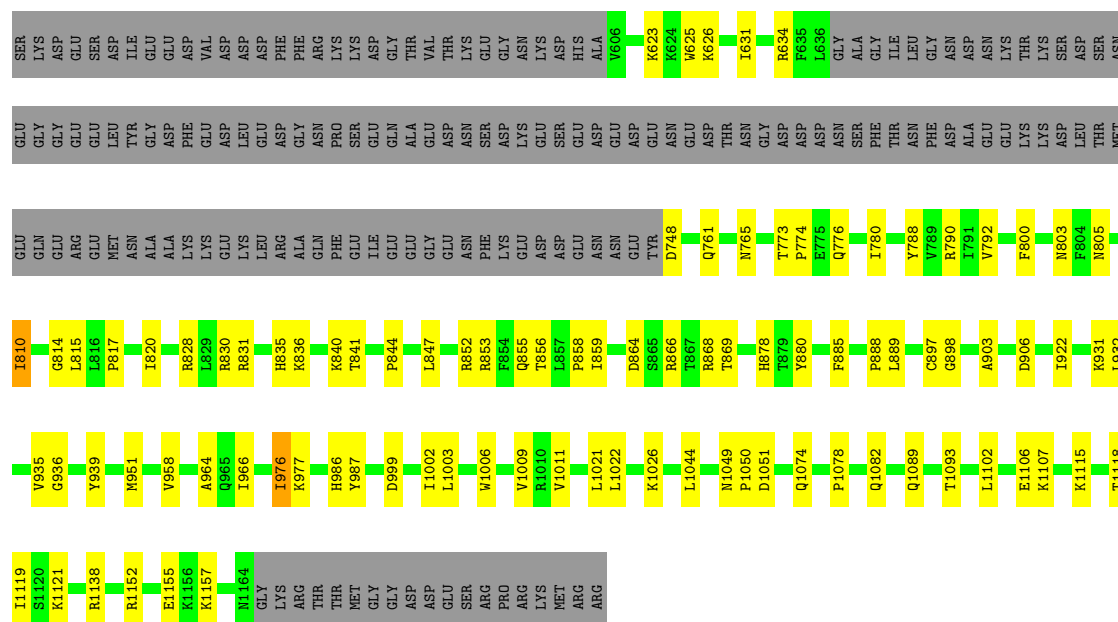
• Molecule 29: Nucleolar protein 58

Chain CE: 69% 15% 15%



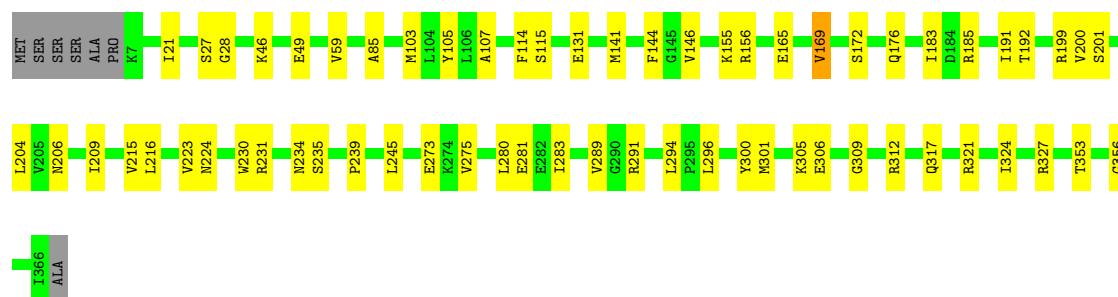
• Molecule 30: 13 kDa ribonucleoprotein-associated protein

Chain CF: 87% 10% 3%



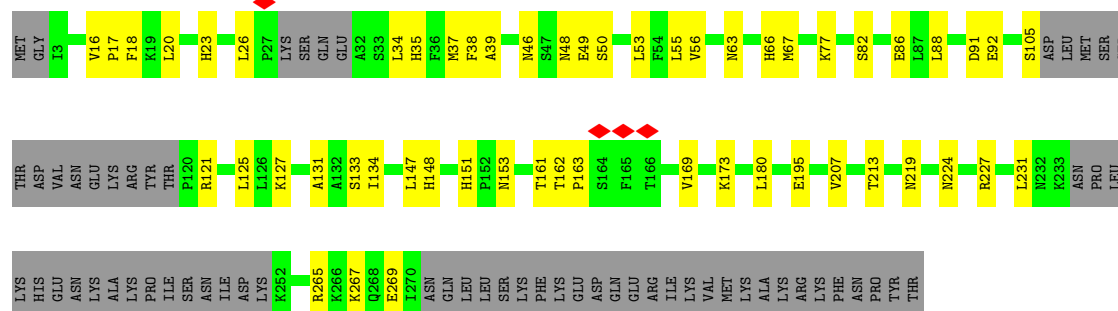
- Molecule 36: RNA 3'-terminal phosphate cyclase-like protein

Chain CM: 81% 17% .



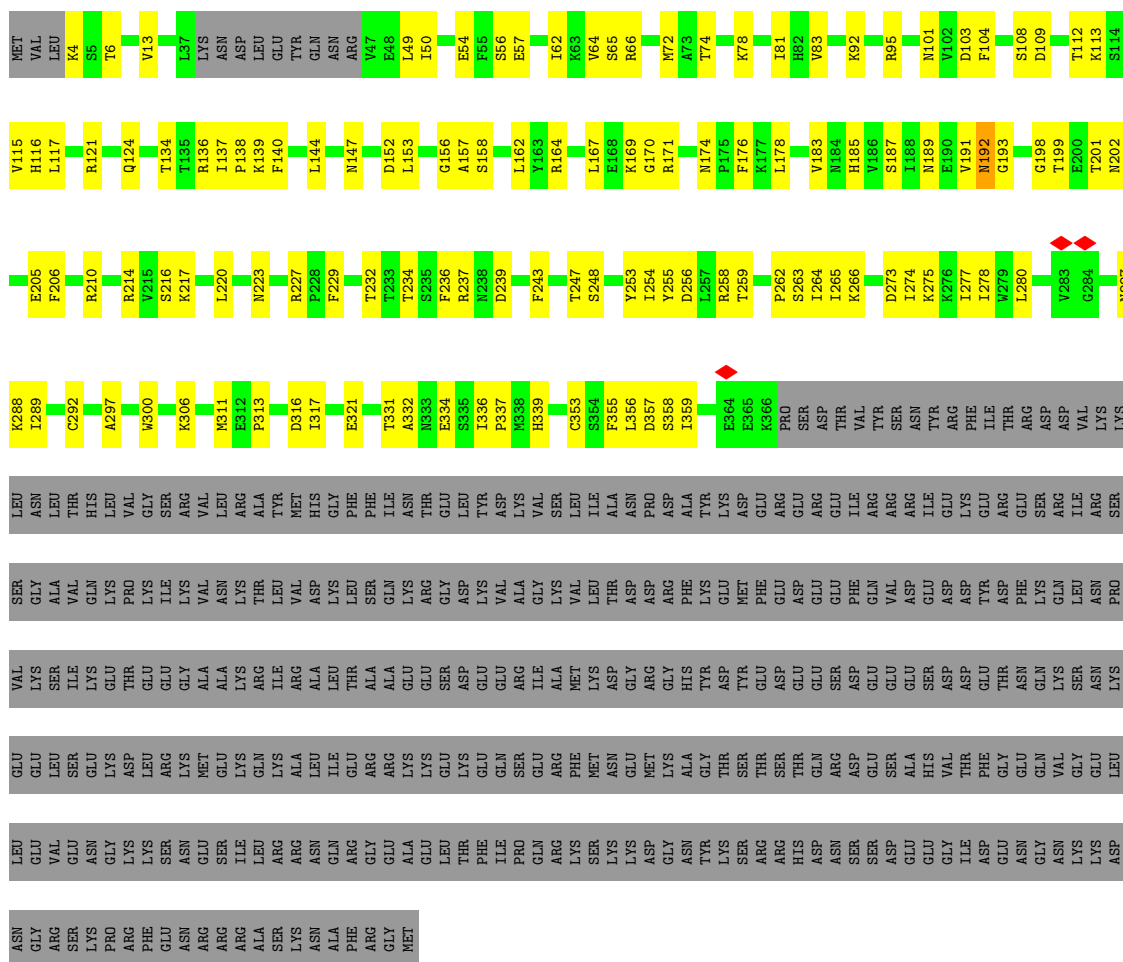
- Molecule 37: Ribosomal RNA-processing protein 7

Chain CN: 60% 18% 22%

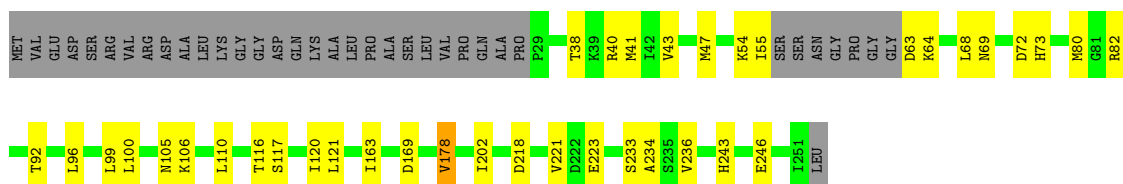


- Molecule 38: Ribosome biogenesis protein ENP2

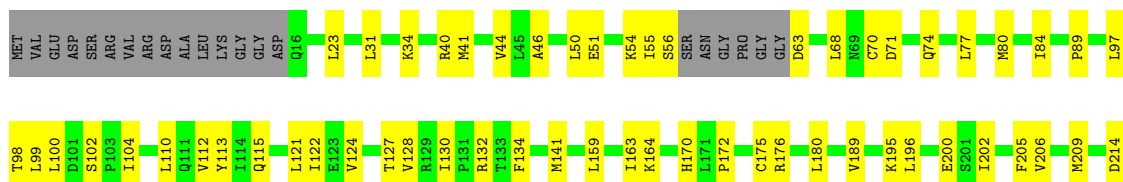
Chain JC: 33% 17% 50%



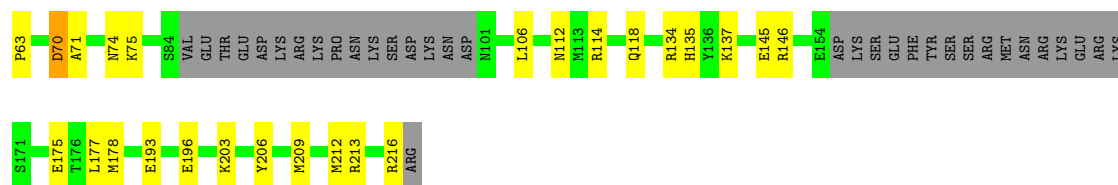
- Molecule 39: Ribosomal RNA small subunit methyltransferase NEP1



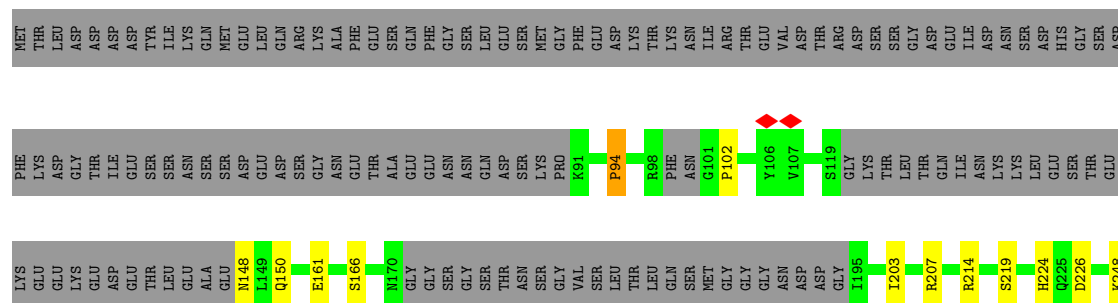
- Molecule 39: Ribosomal RNA small subunit methyltransferase NEP1



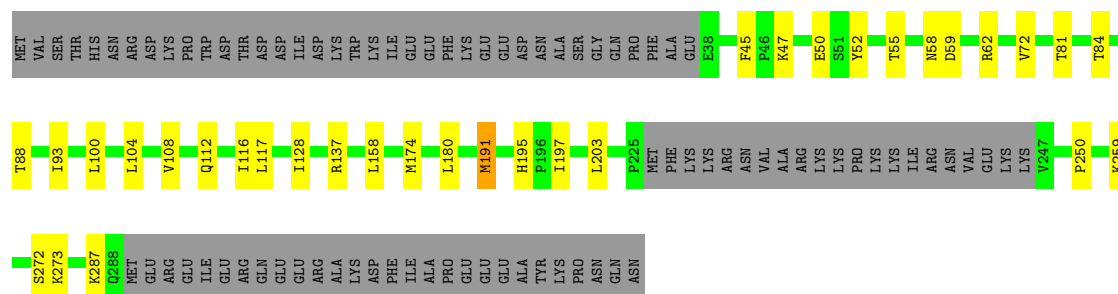




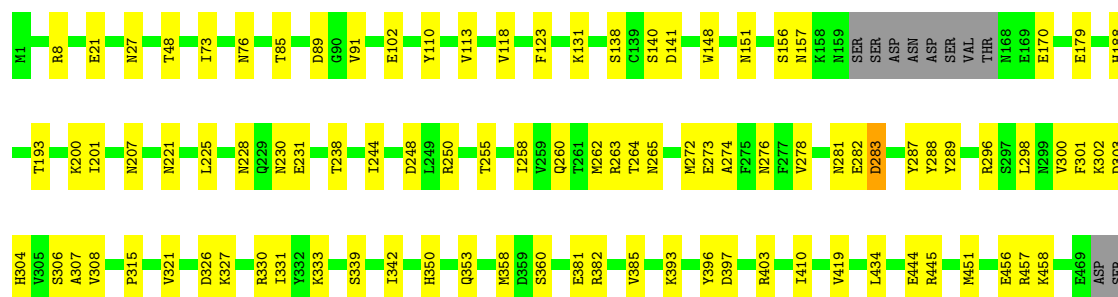
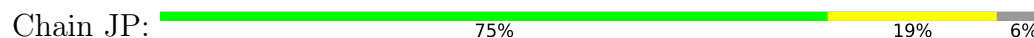
• Molecule 45: Protein FAF1

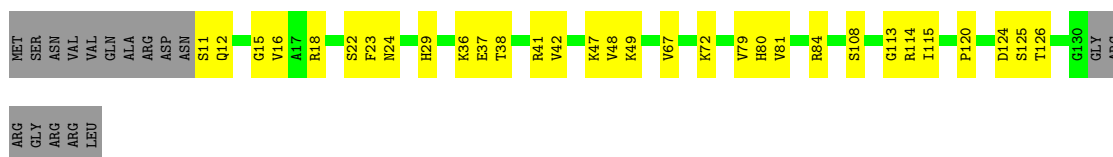


• Molecule 46: KRR1 small subunit processome component



• Molecule 47: Protein SOF1





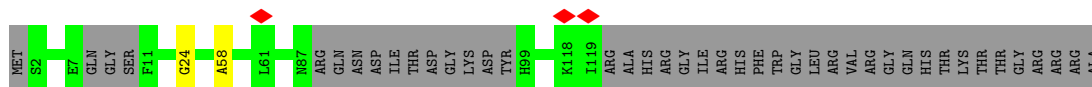
- Molecule 58: 40S ribosomal protein S16-A

Chain DQ: 75% 11% 13%



- Molecule 59: 40S ribosomal protein S18-A

Chain DS: 70% 29%



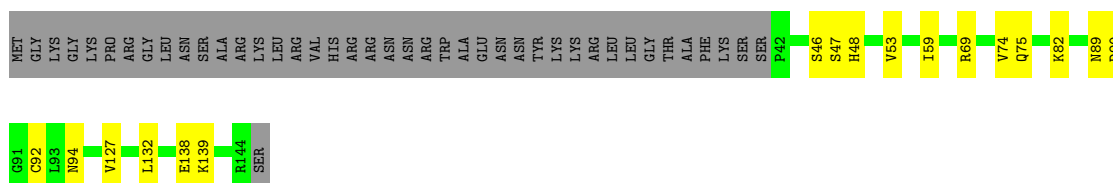
- Molecule 60: 40S ribosomal protein S22-A

Chain DW: 86% 13%



- Molecule 61: 40S ribosomal protein S23-A

Chain DX: 59% 12% 29%



- Molecule 62: 40S ribosomal protein S24-A

Chain DY: 76% 23%



- Molecule 63: 40S ribosomal protein S27-A

Chain Db: 88% 11%



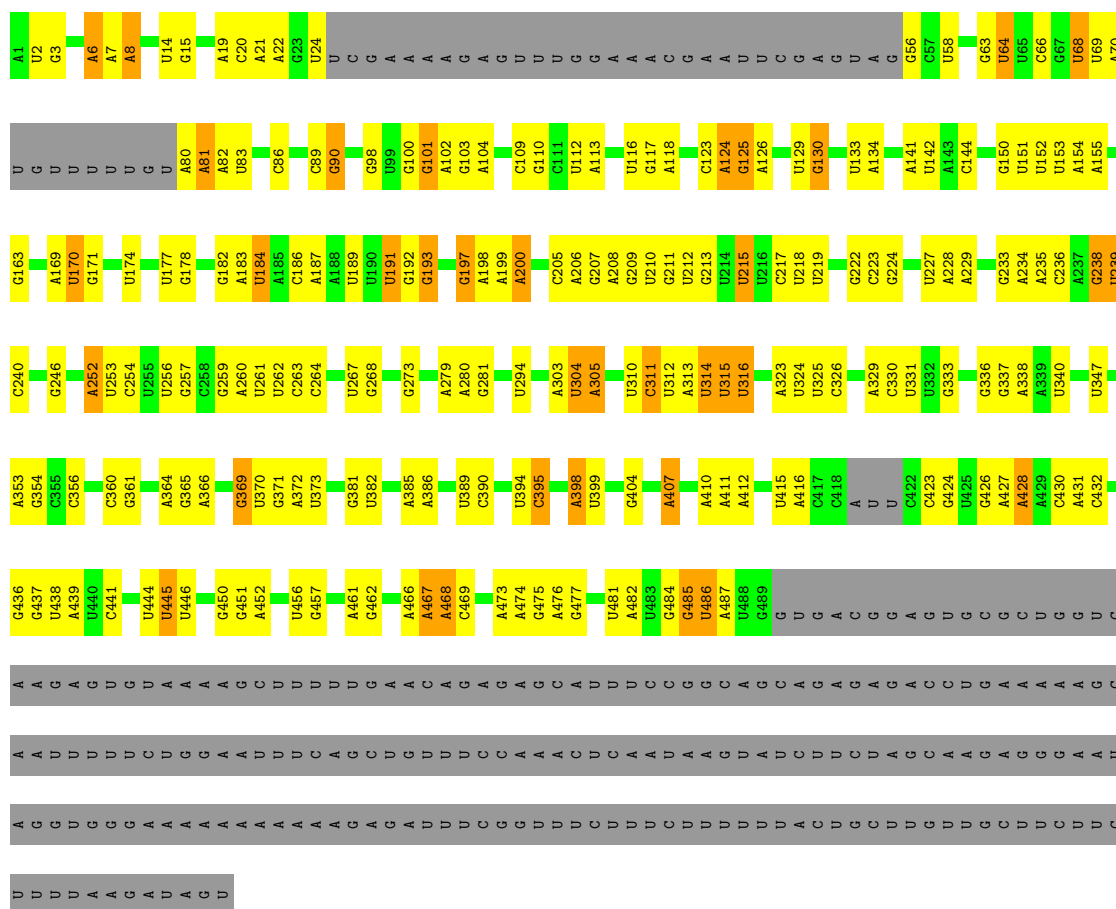
- Molecule 64: 40S ribosomal protein S28-A

Chain Dc: 79% 15% 6%



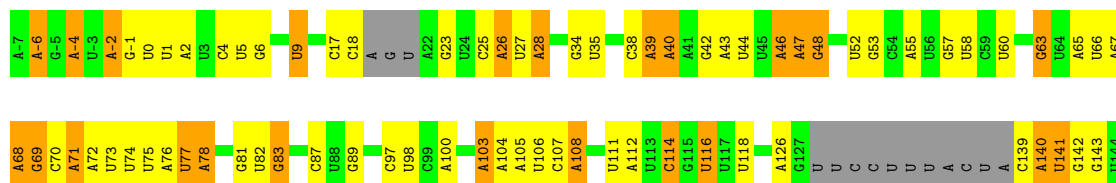
- Molecule 65: 5ETS RNA

Chain D2: 33% 25% 5% 36%

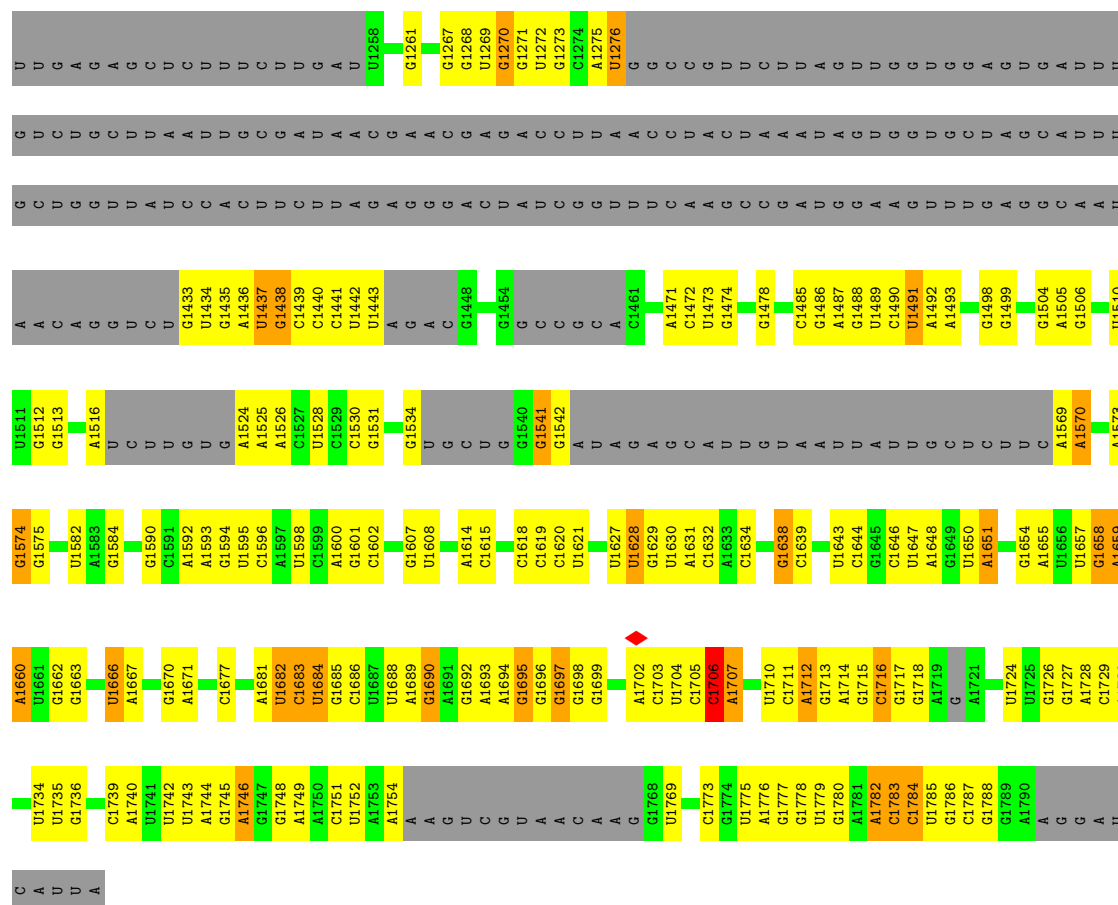


- Molecule 66: 18S rRNA

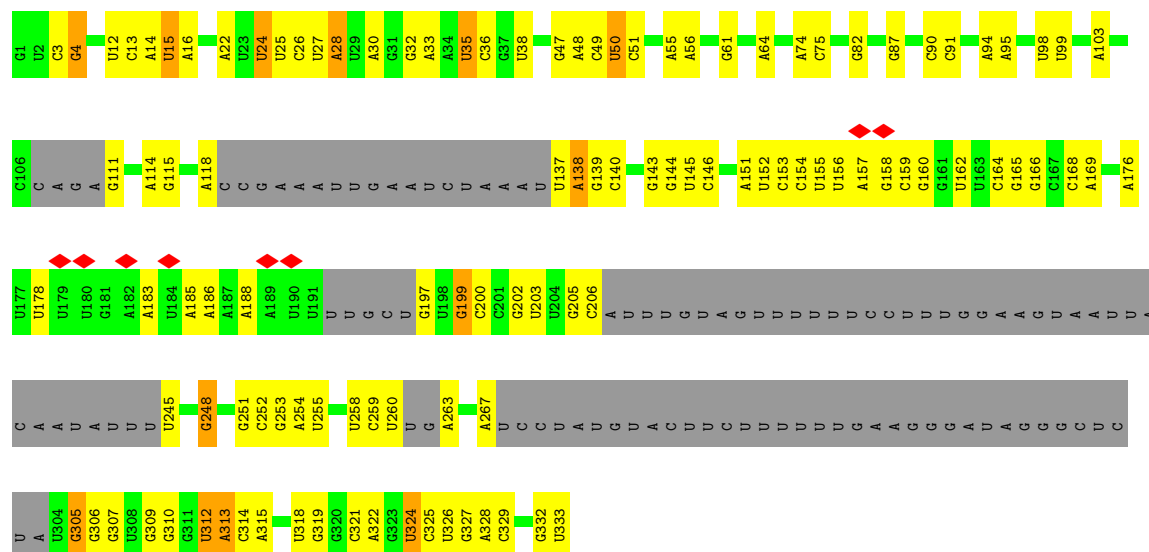
Chain D3: 32% 32% 9% 27%







• Molecule 67: U3 snoRNA



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	43601	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 ($e^-/\text{\AA}^2$)	44	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	0.212	Depositor
Minimum map value	-0.128	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.006	Depositor
Recommended contour level	0.01	Depositor
Map size (Å)	508.32, 508.32, 508.32	wwPDB
Map dimensions	480, 480, 480	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.059, 1.059, 1.059	Depositor

5 Model quality

5.1 Standard geometry

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

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	CA	0.48	0/1917	0.61	0/2588
1	CB	0.30	0/1815	0.56	0/2448
2	DA	0.39	0/1937	0.59	0/2593
3	JA	0.22	0/6021	0.59	2/8176 (0.0%)
3	JB	0.24	0/4128	0.62	1/5747 (0.0%)
4	UA	0.56	0/6780	0.72	4/9175 (0.0%)
5	UB	0.26	0/3787	0.66	4/5126 (0.1%)
6	UC	0.39	0/1034	0.56	0/1365
7	UD	0.35	0/5461	0.60	0/7395
8	UE	0.38	0/3840	0.60	0/5208
9	UF	0.31	0/2538	0.51	0/3405
10	UG	0.55	0/4302	0.68	2/5805 (0.0%)
11	UH	0.30	1/2716 (0.0%)	0.76	7/3721 (0.2%)
12	UI	0.22	0/875	0.53	0/1176
13	UJ	0.30	0/9111	0.58	1/12323 (0.0%)
14	UK	0.39	0/2047	0.55	0/2711
15	UL	0.29	0/6857	0.58	0/9253
16	UM	0.28	0/6070	0.56	2/8216 (0.0%)
17	UN	0.41	0/1252	0.58	1/1688 (0.1%)
18	UO	0.37	0/3993	0.58	0/5413
19	UP	0.24	0/499	0.51	0/659
20	UQ	0.32	0/6794	0.56	0/9203
21	UR	0.51	0/3883	0.63	2/5265 (0.0%)
22	US	0.28	0/3703	0.66	3/5053 (0.1%)
23	UT	0.23	0/17584	0.57	2/23824 (0.0%)
24	UU	0.50	0/6815	0.63	0/9213
25	UV	0.23	0/8945	0.50	2/12097 (0.0%)
26	UX	0.51	0/1418	0.63	0/1906
27	UZ	0.27	0/2041	0.62	3/2745 (0.1%)
28	CD	0.35	0/3041	0.51	0/4098
29	CE	0.32	0/3362	0.54	1/4533 (0.0%)
30	CF	0.43	0/944	0.56	0/1284

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
30	CG	0.44	0/941	0.63	0/1281
31	CH	0.34	0/3798	0.58	0/5113
32	CI	0.62	0/1559	0.74	0/2097
33	CJ	0.50	0/2337	0.69	1/3148 (0.0%)
34	CK	0.38	0/1685	0.59	1/2261 (0.0%)
35	CL	0.40	0/6471	0.58	0/8708
36	CM	0.30	0/2832	0.49	0/3825
37	CN	0.21	0/1934	0.46	0/2604
38	JC	0.22	0/2908	0.64	0/3938
39	JF	0.21	0/1727	0.49	0/2329
39	JG	0.30	0/1828	0.57	0/2470
40	JH	0.13	0/1293	0.38	0/1801
41	JI	0.24	0/1313	0.56	0/1830
42	JJ	0.27	0/1469	0.55	0/1980
43	JK	0.20	0/342	0.54	0/462
44	JM	0.33	0/1156	0.53	0/1536
45	JN	0.42	0/1435	0.68	1/1907 (0.1%)
46	JO	0.40	0/1910	0.61	0/2569
47	JP	0.56	0/3844	0.71	2/5174 (0.0%)
48	JQ	0.32	0/385	0.74	0/529
49	DE	0.27	0/1985	0.55	0/2675
50	DF	0.45	0/1690	0.64	2/2285 (0.1%)
51	DG	0.21	0/1779	0.51	0/2379
52	DH	0.28	0/1506	0.56	0/2028
53	DI	0.20	0/1422	0.50	0/1899
54	DJ	0.46	0/1519	0.61	2/2035 (0.1%)
55	DL	0.19	0/1155	0.51	0/1557
56	DN	0.34	0/1215	0.51	0/1638
57	DO	0.39	0/892	0.53	0/1202
58	DQ	0.55	0/990	0.69	0/1335
59	DS	0.22	0/513	0.53	0/711
60	DW	0.45	0/1038	0.58	0/1395
61	DX	0.45	0/798	0.63	0/1065
62	DY	0.37	0/1087	0.51	0/1449
63	Db	0.38	0/620	0.51	0/838
64	Dc	0.42	0/499	0.61	0/670
65	D2	0.37	0/10633	0.45	1/16564 (0.0%)
66	D3	0.34	0/31617	0.46	3/49213 (0.0%)
67	D4	0.37	0/5436	0.44	0/8446
All	All	0.36	1/243071 (0.0%)	0.56	50/338358 (0.0%)

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
3	JA	0	1
4	UA	0	1
11	UH	0	1
15	UL	0	2
16	UM	0	6
17	UN	0	1
23	UT	0	2
24	UU	0	1
25	UV	0	1
28	CD	0	1
31	CH	0	1
34	CK	0	1
46	JO	0	1
47	JP	0	2
58	DQ	0	1
All	All	0	23

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	UH	83	GLY	C-O	6.00	1.30	1.24

All (50) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	DF	162	VAL	CA-C-N	10.74	137.01	120.68
50	DF	162	VAL	C-N-CA	10.74	137.01	120.68
11	UH	520	PRO	CA-N-CD	-8.87	99.58	112.00
27	UZ	208	SER	CA-C-N	8.70	125.72	120.24
27	UZ	208	SER	C-N-CA	8.70	125.72	120.24
11	UH	316	PRO	N-CA-CB	7.69	110.25	102.17
45	JN	94	PRO	N-CA-CB	7.42	111.04	103.25
5	UB	400	PRO	N-CA-CB	7.41	111.37	103.52
3	JA	130	LEU	CA-C-N	7.38	139.57	122.31
3	JA	130	LEU	C-N-CA	7.38	139.57	122.31
22	US	110	PRO	N-CA-CB	7.35	110.97	103.25
11	UH	309	PRO	N-CA-CB	7.35	110.97	103.25
11	UH	325	PRO	N-CA-CB	7.22	110.83	103.25
22	US	75	PRO	N-CA-CB	7.20	110.81	103.25
11	UH	258	PRO	N-CA-CB	7.09	110.69	103.25

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	UH	235	PRO	N-CA-CB	7.08	110.69	103.25
11	UH	298	PRO	N-CA-CB	7.05	110.65	103.25
5	UB	412	PRO	N-CA-CB	6.88	110.48	103.25
25	UV	208	THR	CA-C-N	6.88	131.14	120.68
25	UV	208	THR	C-N-CA	6.88	131.14	120.68
5	UB	285	PRO	N-CA-CB	6.80	110.39	103.25
5	UB	201	PRO	N-CA-CB	6.75	110.42	103.00
22	US	37	PRO	N-CA-CB	6.37	110.58	103.44
4	UA	438	VAL	CA-C-N	6.21	129.52	120.51
4	UA	438	VAL	C-N-CA	6.21	129.52	120.51
27	UZ	131	VAL	N-CA-C	-5.96	107.48	113.20
66	D3	1158	C	N3-C4-N4	-5.94	100.18	118.00
66	D3	1706	C	C4'-C3'-O3'	5.91	121.87	113.00
10	UG	264	PRO	CA-C-N	5.89	139.12	122.21
10	UG	264	PRO	C-N-CA	5.89	139.12	122.21
3	JB	594	ILE	N-CA-C	-5.72	107.17	112.83
66	D3	1706	C	O4'-C4'-C3'	-5.70	98.30	104.00
4	UA	623	LEU	CA-C-N	-5.49	113.72	122.17
4	UA	623	LEU	C-N-CA	-5.49	113.72	122.17
23	UT	1359	GLU	CA-C-N	5.40	131.85	121.54
23	UT	1359	GLU	C-N-CA	5.40	131.85	121.54
21	UR	426	VAL	CA-C-N	5.36	130.48	120.95
21	UR	426	VAL	C-N-CA	5.36	130.48	120.95
54	DJ	161	THR	CA-C-N	5.30	129.51	121.03
54	DJ	161	THR	C-N-CA	5.30	129.51	121.03
16	UM	594	GLY	CA-C-N	5.29	130.84	120.99
16	UM	594	GLY	C-N-CA	5.29	130.84	120.99
34	CK	454	VAL	N-CA-C	5.21	120.17	109.34
65	D2	311	C	P-O3'-C3'	5.19	127.98	120.20
13	UJ	85	VAL	N-CA-C	-5.19	108.78	113.71
33	CJ	157	PHE	N-CA-C	5.18	121.26	109.81
17	UN	313	PHE	N-CA-C	5.17	121.24	109.81
47	JP	283	ASP	CA-C-N	5.17	130.18	122.74
47	JP	283	ASP	C-N-CA	5.17	130.18	122.74
29	CE	353	GLY	N-CA-C	5.09	116.35	111.67

There are no chirality outliers.

All (23) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	CD	240	LEU	Peptide
31	CH	340	GLY	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
34	CK	453	SER	Peptide
58	DQ	12	LYS	Peptide
3	JA	46	SER	Peptide
46	JO	191	MET	Peptide
47	JP	102	GLU	Peptide
47	JP	301	PHE	Peptide
4	UA	289	LEU	Peptide
11	UH	532	PHE	Peptide
15	UL	183	ASP	Peptide
15	UL	552	ASP	Peptide
16	UM	218	ASP	Peptide
16	UM	421	SER	Peptide
16	UM	457	ALA	Peptide
16	UM	529	LEU	Peptide
16	UM	530	ALA	Peptide
16	UM	705	SER	Peptide
17	UN	312	ILE	Peptide
23	UT	1926	PHE	Peptide
23	UT	706	LEU	Peptide
24	UU	857	PRO	Peptide
25	UV	697	SER	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	CA	1881	0	1928	25	0
1	CB	1782	0	1826	32	0
2	DA	1912	0	2023	36	0
3	JA	5916	0	5463	137	0
3	JB	4132	0	1819	12	0
4	UA	6635	0	6525	108	0
5	UB	3734	0	3432	50	0
6	UC	1026	0	1080	17	0
7	UD	5361	0	5364	122	0
8	UE	3772	0	3806	72	0
9	UF	2487	0	2533	37	0
10	UG	4218	0	4223	60	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
11	UH	2701	0	1951	54	0
12	UI	860	0	922	15	0
13	UJ	8961	0	9273	182	0
14	UK	2021	0	2098	31	0
15	UL	6726	0	6764	121	0
16	UM	5969	0	6006	120	0
17	UN	1227	0	1223	21	0
18	UO	3911	0	3906	75	0
19	UP	495	0	561	13	0
20	UQ	6662	0	6588	141	0
21	UR	3799	0	3783	61	0
22	US	3622	0	3214	69	0
23	UT	17290	0	16616	387	0
24	UU	6678	0	6652	102	0
25	UV	8736	0	8850	162	0
26	UX	1395	0	1473	25	0
27	UZ	2006	0	2118	38	0
28	CD	2994	0	3018	43	0
29	CE	3325	0	3414	54	0
30	CF	931	0	983	8	0
30	CG	928	0	976	20	0
31	CH	3725	0	3746	51	0
32	CI	1530	0	1572	33	0
33	CJ	2296	0	2325	43	0
34	CK	1667	0	1701	30	0
35	CL	6332	0	6515	139	0
36	CM	2781	0	2878	36	0
37	CN	1893	0	1875	35	0
38	JC	2845	0	2761	87	0
39	JF	1701	0	1767	23	0
39	JG	1799	0	1872	48	0
40	JH	1295	0	570	3	0
41	JI	1314	0	610	0	0
42	JJ	1442	0	1513	29	0
43	JK	334	0	313	11	0
44	JM	1137	0	1188	23	0
45	JN	1428	0	1425	18	0
46	JO	1876	0	1968	23	0
47	JP	3765	0	3714	67	0
48	JQ	381	0	255	5	0
49	DE	1944	0	2030	44	0
50	DF	1669	0	1724	24	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
51	DG	1755	0	1846	48	0
52	DH	1481	0	1572	42	0
53	DI	1399	0	1431	42	0
54	DJ	1494	0	1573	18	0
55	DL	1129	0	1196	32	0
56	DN	1192	0	1255	17	0
57	DO	881	0	910	24	0
58	DQ	973	0	1029	14	0
59	DS	516	0	222	1	0
60	DW	1021	0	1060	15	0
61	DX	786	0	843	13	0
62	DY	1073	0	1132	24	0
63	Db	610	0	631	7	0
64	Dc	497	0	535	6	0
65	D2	9508	0	4781	120	0
66	D3	28287	0	14259	499	0
67	D4	4872	0	2469	66	0
68	Db	1	0	0	0	0
68	UX	1	0	0	0	0
69	CL	1	0	0	0	0
69	UX	1	0	0	0	0
70	CL	32	0	12	25	0
All	All	234757	0	209489	3802	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 9.

All (3802) 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)
35:CL:210:VAL:HG21	70:CL:2001:GTP:C5	1.53	1.43
35:CL:210:VAL:CG2	70:CL:2001:GTP:C5	2.05	1.39
52:DH:27:LEU:CD2	52:DH:84:LYS:HZ2	1.38	1.36
52:DH:27:LEU:CD2	52:DH:84:LYS:NZ	1.88	1.35
4:UA:77:GLY:HA3	4:UA:95:PHE:O	1.30	1.32
10:UG:132:GLY:HA3	10:UG:150:LEU:O	1.20	1.30
35:CL:286:THR:O	35:CL:297:SER:HA	1.15	1.30
11:UH:341:LEU:HA	11:UH:358:VAL:O	1.13	1.27
35:CL:81:GLY:HA2	70:CL:2001:GTP:O1A	1.30	1.27
66:D3:1654:G:N2	66:D3:1746:A:H62	1.35	1.24
66:D3:1654:G:H21	66:D3:1746:A:N6	1.36	1.23

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:UU:228:GLY:HA3	24:UU:246:ILE:O	1.08	1.21
11:UH:520:PRO:CG	11:UH:523:LEU:HD12	1.71	1.19
21:UR:382:GLY:HA3	21:UR:400:ILE:O	1.43	1.18
52:DH:27:LEU:HD23	52:DH:84:LYS:NZ	1.52	1.17
35:CL:210:VAL:HG21	70:CL:2001:GTP:N7	1.57	1.17
35:CL:81:GLY:CA	70:CL:2001:GTP:O1A	1.93	1.16
66:D3:1541:G:N2	66:D3:1570:A:C6	2.13	1.16
16:UM:30:LYS:HA	16:UM:45:LEU:O	1.44	1.15
66:D3:1541:G:C2	66:D3:1570:A:N6	2.14	1.15
11:UH:520:PRO:HG2	11:UH:523:LEU:CG	1.76	1.15
66:D3:1689:A:N6	66:D3:1713:G:C2	2.15	1.14
11:UH:520:PRO:HG2	11:UH:523:LEU:HG	1.26	1.10
35:CL:210:VAL:HG23	70:CL:2001:GTP:C6	1.87	1.10
52:DH:27:LEU:HD23	52:DH:84:LYS:HZ1	0.98	1.10
52:DH:27:LEU:HD21	52:DH:84:LYS:NZ	1.56	1.10
66:D3:1043:A:H61	66:D3:1075:C:N4	1.47	1.09
66:D3:1655:A:N6	66:D3:1745:G:H1	1.50	1.08
8:UE:244:ILE:O	8:UE:255:ILE:HA	1.53	1.06
66:D3:1541:G:N2	66:D3:1569:A:C6	2.24	1.06
35:CL:286:THR:O	35:CL:297:SER:CA	2.03	1.06
67:D4:95:A:N6	67:D4:321:C:H42	1.54	1.05
66:D3:1646:C:N4	66:D3:1754:A:H61	1.54	1.05
35:CL:82:LYS:HG2	70:CL:2001:GTP:O1B	1.55	1.05
66:D3:1677:C:N4	66:D3:1724:U:H3	1.54	1.04
11:UH:520:PRO:HG3	11:UH:523:LEU:HD12	1.36	1.04
24:UU:228:GLY:CA	24:UU:246:ILE:O	2.04	1.03
67:D4:95:A:H61	67:D4:321:C:N4	1.53	1.03
18:UO:279:GLY:HA3	18:UO:298:PHE:O	1.59	1.03
66:D3:118:U:H3	66:D3:298:C:N4	1.56	1.02
66:D3:1043:A:N6	66:D3:1075:C:H42	1.57	1.01
11:UH:520:PRO:CG	11:UH:523:LEU:CD1	2.39	1.01
65:D2:467:A:H61	67:D4:49:C:N4	1.58	1.01
66:D3:1646:C:H42	66:D3:1754:A:N6	1.59	1.01
35:CL:81:GLY:C	70:CL:2001:GTP:O1A	2.04	1.00
66:D3:105:A:H62	66:D3:308:C:N4	1.59	1.00
4:UA:77:GLY:CA	4:UA:95:PHE:O	2.10	1.00
66:D3:1541:G:C2	66:D3:1569:A:N6	2.31	0.99
66:D3:269:G:O6	66:D3:287:G:C6	2.16	0.98
23:UT:1090:ARG:O	23:UT:1094:PHE:HB2	1.61	0.98
11:UH:341:LEU:CA	11:UH:358:VAL:O	2.10	0.98
66:D3:105:A:H62	66:D3:308:C:H42	0.99	0.96

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CL:82:LYS:N	70:CL:2001:GTP:O1B	1.98	0.96
66:D3:273:G:H1	66:D3:283:U:H3	0.98	0.96
67:D4:205:G:N1	67:D4:245:U:C2	2.33	0.96
22:US:146:LYS:HG2	22:US:149:ARG:HH21	1.27	0.96
65:D2:467:A:H61	67:D4:49:C:H42	1.11	0.95
35:CL:210:VAL:HG23	70:CL:2001:GTP:C5	1.96	0.95
25:UV:143:GLU:HA	25:UV:176:PHE:O	1.67	0.94
66:D3:895:G:H1	66:D3:917:U:H3	0.97	0.94
35:CL:210:VAL:HG21	70:CL:2001:GTP:C8	2.02	0.94
10:UG:132:GLY:CA	10:UG:150:LEU:O	2.15	0.94
22:US:146:LYS:HE3	65:D2:124:A:H4'	1.47	0.93
11:UH:520:PRO:HD2	11:UH:523:LEU:HB2	1.47	0.93
66:D3:271:A:N1	66:D3:285:G:C6	2.37	0.93
66:D3:1655:A:H61	66:D3:1745:G:H1	1.10	0.93
65:D2:467:A:N6	67:D4:49:C:H42	1.66	0.92
35:CL:210:VAL:HG21	70:CL:2001:GTP:C4	2.03	0.92
66:D3:625:C:H42	66:D3:974:A:H61	1.04	0.91
66:D3:625:C:H42	66:D3:974:A:N6	1.68	0.91
65:D2:182:G:H1	65:D2:215:U:H3	0.93	0.90
66:D3:625:C:N4	66:D3:974:A:H61	1.69	0.89
35:CL:210:VAL:CG2	70:CL:2001:GTP:N7	2.26	0.89
11:UH:520:PRO:CD	11:UH:523:LEU:HD12	2.03	0.89
38:JC:189:ASN:O	38:JC:193:GLY:HA2	1.73	0.89
1:CB:125:VAL:O	1:CB:138:LYS:HA	1.73	0.88
52:DH:27:LEU:HD21	52:DH:84:LYS:HZ2	0.73	0.87
7:UD:354:LYS:O	7:UD:374:THR:HA	1.75	0.87
65:D2:178:G:H1	65:D2:219:U:H3	0.88	0.87
11:UH:520:PRO:CD	11:UH:523:LEU:HB2	2.05	0.87
16:UM:30:LYS:CA	16:UM:45:LEU:O	2.22	0.87
11:UH:520:PRO:HG3	11:UH:523:LEU:CD1	2.03	0.87
66:D3:1689:A:C6	66:D3:1713:G:C2	2.62	0.87
66:D3:105:A:N6	66:D3:308:C:H42	1.72	0.86
66:D3:540:G:C2	66:D3:542:A:N6	2.43	0.86
66:D3:175:G:N2	66:D3:266:A:C4	2.44	0.86
66:D3:1699:G:H21	66:D3:1702:A:N6	1.74	0.86
66:D3:1541:G:C2	66:D3:1570:A:C6	2.58	0.85
66:D3:1270:G:N2	66:D3:1441:C:C2	2.45	0.85
11:UH:520:PRO:CG	11:UH:523:LEU:CG	2.54	0.85
66:D3:1699:G:H21	66:D3:1702:A:H62	1.24	0.84
35:CL:81:GLY:HA2	70:CL:2001:GTP:PA	2.17	0.84
18:UO:279:GLY:CA	18:UO:298:PHE:O	2.26	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:D3:540:G:N2	66:D3:542:A:H62	1.75	0.83
35:CL:210:VAL:CG2	70:CL:2001:GTP:C6	2.53	0.83
7:UD:397:SER:O	7:UD:421:THR:HA	1.79	0.82
60:DW:2:THR:N	66:D3:967:A:HO2'	1.78	0.82
21:UR:382:GLY:CA	21:UR:400:ILE:O	2.28	0.82
66:D3:331:A:H61	66:D3:338:C:N4	1.78	0.82
66:D3:48:G:C6	66:D3:432:G:N2	2.48	0.81
66:D3:153:G:H1	66:D3:161:U:H3	0.85	0.81
24:UU:484:ILE:O	24:UU:497:LYS:HA	1.79	0.81
66:D3:118:U:H3	66:D3:298:C:H42	0.81	0.81
33:CJ:29:ARG:HD3	33:CJ:59:ASP:HB3	1.62	0.80
23:UT:476:LEU:HB3	23:UT:518:MET:HE1	1.63	0.80
66:D3:331:A:N6	66:D3:338:C:H42	1.80	0.80
66:D3:1689:A:N6	66:D3:1713:G:N2	2.30	0.80
66:D3:175:G:C2	66:D3:266:A:C5	2.70	0.79
66:D3:1043:A:H61	66:D3:1075:C:H42	0.83	0.79
66:D3:1655:A:N6	66:D3:1745:G:N1	2.24	0.79
66:D3:1541:G:N2	66:D3:1570:A:N6	2.27	0.78
66:D3:540:G:N2	66:D3:542:A:N6	2.32	0.78
66:D3:1689:A:C6	66:D3:1713:G:N2	2.51	0.78
65:D2:184:U:H3	65:D2:213:G:H1	0.82	0.78
66:D3:175:G:N2	66:D3:266:A:C5	2.52	0.78
66:D3:1646:C:H42	66:D3:1754:A:H61	0.80	0.78
67:D4:154:C:O2	67:D4:160:G:N2	2.17	0.78
23:UT:302:PHE:O	23:UT:306:LEU:HB3	1.84	0.77
66:D3:269:G:C6	66:D3:287:G:C6	2.72	0.77
37:CN:169:VAL:O	37:CN:173:LYS:HB2	1.85	0.77
66:D3:410:A:H2	66:D3:423:G:H1	1.30	0.77
66:D3:39:A:H5''	66:D3:39:A:H8	1.50	0.77
66:D3:69:G:O6	66:D3:83:G:C2	2.37	0.76
67:D4:154:C:N3	67:D4:160:G:N1	2.33	0.76
66:D3:1699:G:N2	66:D3:1702:A:H62	1.82	0.76
66:D3:1061:A:H2'	66:D3:1062:A:H4'	1.67	0.76
51:DG:2:LYS:HB3	51:DG:108:VAL:HG12	1.66	0.76
66:D3:58:U:O2	66:D3:452:A:N7	2.19	0.75
35:CL:82:LYS:CG	70:CL:2001:GTP:O1B	2.34	0.75
66:D3:1775:U:H3	66:D3:1786:G:H1	0.81	0.75
67:D4:95:A:H61	67:D4:321:C:H42	0.80	0.75
23:UT:1710:LEU:O	23:UT:1714:SER:HB3	1.88	0.74
52:DH:27:LEU:CD2	52:DH:84:LYS:HZ1	1.72	0.74
35:CL:72:VAL:HG12	35:CL:137:LEU:HB3	1.67	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:UQ:875:MET:O	20:UQ:879:ILE:HB	1.88	0.74
24:UU:125:GLY:HA2	29:CE:430:ASP:HA	1.68	0.74
3:JA:587:GLN:HB3	3:JA:637:ARG:HB3	1.69	0.74
66:D3:1689:A:N6	66:D3:1713:G:N1	2.35	0.74
10:UG:187:LEU:HA	32:CI:23:GLN:HE22	1.53	0.74
29:CE:28:LEU:HD12	29:CE:33:ASP:HB2	1.70	0.74
8:UE:246:VAL:O	8:UE:253:LEU:HA	1.88	0.73
16:UM:414:VAL:HB	16:UM:428:ALA:HB3	1.70	0.73
3:JB:282:THR:O	3:JB:469:SER:HA	1.88	0.73
7:UD:97:ARG:HH12	19:UP:190:LEU:HD13	1.53	0.73
58:DQ:94:GLN:HB2	58:DQ:102:LYS:HG3	1.70	0.73
35:CL:156:LEU:HD13	35:CL:197:GLU:HG2	1.70	0.73
18:UO:108:TYR:HB3	18:UO:117:LEU:H	1.53	0.72
22:US:146:LYS:HG2	22:US:149:ARG:NH2	2.02	0.72
27:UZ:103:VAL:HG21	27:UZ:131:VAL:HG11	1.71	0.72
54:DJ:126:ARG:NH1	66:D3:475:A:OP2	2.22	0.72
2:DA:141:ALA:HA	2:DA:209:ASN:O	1.90	0.71
66:D3:1541:G:N1	66:D3:1570:A:N6	2.37	0.71
23:UT:2086:ILE:O	23:UT:2090:ALA:HB2	1.90	0.71
30:CF:38:ASN:ND2	67:D4:82:G:N7	2.38	0.71
13:UJ:1606:LYS:HA	13:UJ:1609:ILE:HD12	1.73	0.71
9:UF:11:CYS:SG	9:UF:36:ARG:NH2	2.64	0.71
11:UH:520:PRO:HD3	11:UH:523:LEU:HD12	1.72	0.71
33:CJ:35:ALA:O	33:CJ:39:GLY:HA2	1.91	0.71
66:D3:48:G:C6	66:D3:432:G:C2	2.78	0.71
10:UG:183:GLU:OE2	32:CI:41:ARG:NH2	2.23	0.71
23:UT:436:PHE:HA	23:UT:439:VAL:HG12	1.71	0.70
35:CL:293:VAL:HG13	35:CL:1022:LEU:HD21	1.73	0.70
49:DE:178:GLY:H	49:DE:195:ILE:HG13	1.55	0.70
66:D3:821:U:O2	66:D3:852:C:N3	2.24	0.70
66:D3:634:G:C2	66:D3:966:A:C6	2.80	0.70
4:UA:577:SER:HB2	4:UA:598:ASN:HB3	1.72	0.70
66:D3:331:A:N6	66:D3:338:C:N4	2.38	0.70
39:JG:44:VAL:HG12	39:JG:113:TYR:HB2	1.74	0.70
4:UA:482:SER:O	4:UA:486:SER:HA	1.92	0.70
24:UU:392:ARG:NH2	67:D4:64:A:OP2	2.24	0.69
52:DH:80:GLU:O	52:DH:84:LYS:HG2	1.92	0.69
66:D3:271:A:C2	66:D3:285:G:C2	2.80	0.69
13:UJ:684:TYR:O	13:UJ:688:PHE:HB2	1.93	0.69
28:CD:100:ILE:HG22	28:CD:102:ASP:H	1.56	0.69
4:UA:430:ARG:HD2	34:CK:460:PRO:HA	1.73	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DO:124:ASP:OD2	66:D3:885:G:N2	2.26	0.69
21:UR:436:ASP:HB3	21:UR:444:ILE:HD11	1.75	0.69
65:D2:24:U:N3	65:D2:56:G:N1	2.41	0.69
3:JA:25:ILE:O	3:JA:198:CYS:HA	1.93	0.69
4:UA:582:THR:HG21	4:UA:683:SER:HA	1.75	0.69
13:UJ:1397:GLN:HA	13:UJ:1400:ILE:HD12	1.75	0.69
32:CI:29:ASP:OD2	32:CI:41:ARG:NH1	2.25	0.69
49:DE:100:ARG:HG3	49:DE:114:ILE:HG13	1.75	0.69
50:DF:157:ARG:HB2	50:DF:224:ASN:HD21	1.58	0.69
8:UE:126:PHE:HB2	8:UE:140:PHE:HB3	1.73	0.69
33:CJ:223:THR:O	33:CJ:233:VAL:HA	1.92	0.69
66:D3:654:C:H42	66:D3:680:U:H3	1.41	0.68
7:UD:265:TRP:HA	7:UD:272:LEU:HA	1.74	0.68
24:UU:59:GLN:HG2	24:UU:71:VAL:HG23	1.74	0.68
4:UA:35:ASN:HD21	4:UA:620:ASN:HB2	1.57	0.68
25:UV:238:HIS:HA	25:UV:241:ILE:HD12	1.75	0.68
23:UT:276:SER:HB2	23:UT:320:THR:HG21	1.75	0.68
23:UT:437:LEU:O	23:UT:764:ARG:NH1	2.25	0.68
3:JA:548:ASN:HD21	3:JA:637:ARG:HH12	1.41	0.68
23:UT:1899:LEU:HD12	23:UT:1914:THR:HG23	1.76	0.68
30:CG:33:LEU:HD11	30:CG:100:ALA:HB1	1.75	0.68
47:JP:140:SER:OG	47:JP:141:ASP:N	2.26	0.68
47:JP:273:GLU:OE1	47:JP:276:ASN:ND2	2.27	0.68
23:UT:1951:THR:HG21	23:UT:1986:VAL:HG12	1.75	0.68
53:DI:172:ARG:HE	53:DI:175:GLN:HG3	1.59	0.67
15:UL:300:GLU:HA	15:UL:303:LEU:HD12	1.74	0.67
23:UT:1957:GLN:HG2	23:UT:1998:LEU:HB2	1.76	0.67
26:UX:149:LYS:HA	26:UX:170:ILE:HD11	1.75	0.67
20:UQ:325:GLN:NE2	21:UR:346:TYR:O	2.28	0.67
22:US:479:THR:HA	22:US:482:LYS:HD2	1.76	0.67
67:D4:154:C:C2	67:D4:160:G:N2	2.62	0.67
20:UQ:118:VAL:HB	20:UQ:130:LYS:HB2	1.76	0.67
23:UT:1159:ARG:HA	23:UT:1208:MET:HE1	1.76	0.67
66:D3:479:C:O2	66:D3:510:G:N2	2.28	0.67
66:D3:1541:G:N1	66:D3:1569:A:N6	2.42	0.67
1:CA:236:MET:HG3	28:CD:133:LEU:HA	1.75	0.67
23:UT:1632:LEU:HD23	23:UT:1633:PRO:HD3	1.77	0.67
27:UZ:77:LYS:HD2	27:UZ:130:ARG:HD2	1.76	0.67
39:JG:164:LYS:HB2	66:D3:1575:G:H5'	1.76	0.67
27:UZ:142:ARG:HH22	66:D3:1513:G:H3'	1.60	0.67
36:CM:306:GLU:HA	36:CM:356:GLY:O	1.95	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:UA:538:GLN:NE2	4:UA:554:ASP:OD1	2.28	0.67
21:UR:426:VAL:HG22	21:UR:432:VAL:HG22	1.77	0.66
32:CI:138:VAL:HG22	32:CI:158:VAL:HG12	1.76	0.66
39:JG:100:LEU:HD12	39:JG:130:ILE:HD11	1.77	0.66
10:UG:108:LEU:HD21	13:UJ:4:LEU:HD13	1.78	0.66
43:JK:485:TRP:HB2	43:JK:490:ILE:HD11	1.78	0.66
45:JN:265:SER:O	45:JN:273:ARG:NH1	2.28	0.66
3:JA:747:LEU:O	3:JA:749:GLN:NE2	2.28	0.66
44:JM:114:ARG:O	44:JM:118:GLN:HB3	1.96	0.66
66:D3:1276:U:N3	66:D3:1433:G:C6	2.64	0.66
16:UM:348:PRO:HD2	16:UM:419:GLU:HG3	1.77	0.66
23:UT:1244:LEU:HD11	23:UT:1280:LEU:HD13	1.75	0.66
25:UV:403:GLY:HA2	25:UV:410:LYS:HA	1.77	0.66
15:UL:17:ILE:HB	15:UL:360:ASN:HB3	1.78	0.66
15:UL:424:CYS:SG	15:UL:425:ILE:N	2.68	0.66
23:UT:497:ILE:HA	23:UT:500:LEU:HD12	1.77	0.66
38:JC:206:PHE:HB2	38:JC:216:SER:HB3	1.77	0.66
53:DI:8:ARG:HH22	66:D3:106:U:H5'	1.59	0.66
8:UE:447:SER:OG	8:UE:448:ASN:N	2.28	0.66
66:D3:269:G:C6	66:D3:287:G:N1	2.63	0.66
4:UA:673:ARG:HB2	4:UA:675:MET:HE3	1.76	0.66
10:UG:386:PHE:O	47:JP:8:ARG:NH2	2.29	0.66
23:UT:969:SER:O	23:UT:972:LEU:C	2.39	0.66
23:UT:1671:VAL:HG22	23:UT:1713:SER:HB2	1.76	0.66
35:CL:1021:LEU:HA	35:CL:1026:LYS:HG2	1.78	0.66
36:CM:155:LYS:HE3	36:CM:165:GLU:HG3	1.77	0.66
15:UL:137:ILE:HG23	15:UL:147:VAL:HG22	1.77	0.66
51:DG:33:GLY:HA2	51:DG:51:LYS:HZ3	1.61	0.66
65:D2:467:A:N6	67:D4:49:C:N4	2.33	0.66
10:UG:152:GLU:HB3	10:UG:171:LYS:HB2	1.77	0.65
33:CJ:60:GLN:OE1	45:JN:207:ARG:NH1	2.29	0.65
49:DE:212:ASP:O	49:DE:215:ASP:N	2.28	0.65
3:JA:16:ASN:HD21	3:JA:218:PRO:HA	1.60	0.65
18:UO:86:SER:O	18:UO:98:ALA:HA	1.95	0.65
28:CD:198:TRP:NE1	29:CE:162:MET:SD	2.67	0.65
29:CE:212:MET:HE3	29:CE:218:ALA:HB2	1.77	0.65
39:JG:104:ILE:HG23	39:JG:110:LEU:HD22	1.78	0.65
3:JA:82:LYS:HB3	62:DY:114:ARG:HD3	1.77	0.65
7:UD:37:ARG:HD2	7:UD:756:GLU:HB2	1.78	0.65
23:UT:38:VAL:HG21	23:UT:53:GLN:HG3	1.77	0.65
23:UT:1640:CYS:HB3	23:UT:1680:THR:HG21	1.79	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:JA:658:ARG:HH22	3:JA:766:LEU:HB2	1.62	0.65
1:CB:111:MET:SD	1:CB:216:ASN:ND2	2.70	0.65
23:UT:1298:LEU:HB3	23:UT:1301:ILE:HB	1.78	0.65
8:UE:191:VAL:HA	8:UE:206:ALA:HA	1.79	0.65
15:UL:213:LYS:HD3	15:UL:215:ASP:H	1.61	0.65
20:UQ:586:SER:HB3	20:UQ:597:LYS:HD3	1.78	0.65
24:UU:579:ARG:NH1	24:UU:614:LEU:O	2.29	0.65
66:D3:1779:U:O2	66:D3:1782:A:N7	2.29	0.65
4:UA:518:VAL:HG12	4:UA:534:THR:HG22	1.77	0.65
23:UT:1515:ALA:HA	23:UT:1518:MET:HG2	1.78	0.65
23:UT:1866:SER:HB3	23:UT:1907:ASN:HD22	1.61	0.65
3:JA:122:CYS:HB2	3:JA:148:VAL:HG12	1.79	0.65
66:D3:625:C:N3	66:D3:974:A:N1	2.44	0.65
3:JA:107:TYR:HB2	3:JA:110:GLU:HG2	1.78	0.65
9:UF:368:THR:HA	9:UF:371:ILE:HD12	1.79	0.65
66:D3:753:A:N1	66:D3:797:G:C6	2.64	0.65
16:UM:126:ILE:HD11	16:UM:150:LEU:HD21	1.79	0.65
23:UT:1992:GLU:O	23:UT:1996:GLN:NE2	2.29	0.65
49:DE:185:GLY:H	49:DE:224:ASN:HB3	1.62	0.65
20:UQ:408:THR:HG21	20:UQ:488:LEU:HB3	1.79	0.64
52:DH:44:LYS:HG3	52:DH:63:PRO:HD3	1.80	0.64
20:UQ:368:ASP:HB3	20:UQ:389:LEU:HD22	1.78	0.64
7:UD:420:LEU:HD11	7:UD:462:VAL:HG21	1.78	0.64
2:DA:27:LYS:HG2	2:DA:49:ASN:HA	1.78	0.64
27:UZ:49:ASN:HA	27:UZ:193:ASN:HD21	1.61	0.64
28:CD:169:LYS:NZ	28:CD:390:ASP:O	2.31	0.64
28:CD:176:GLN:OE1	29:CE:183:ARG:NH1	2.31	0.64
33:CJ:282:ARG:NH2	66:D3:560:U:OP2	2.31	0.64
8:UE:285:ASP:OD1	8:UE:285:ASP:N	2.31	0.64
22:US:179:GLU:OE2	22:US:183:LYS:NZ	2.31	0.64
28:CD:4:ILE:HG23	28:CD:20:VAL:HG21	1.79	0.64
66:D3:1542:G:N7	66:D3:1569:A:N6	2.45	0.64
11:UH:520:PRO:HG2	11:UH:523:LEU:CB	2.27	0.64
23:UT:255:MET:HE1	23:UT:275:LEU:HD11	1.79	0.64
25:UV:586:VAL:O	25:UV:611:ASP:N	2.29	0.64
66:D3:369:A:C6	66:D3:373:G:C2	2.86	0.64
4:UA:361:VAL:HG22	4:UA:371:VAL:HG22	1.80	0.64
38:JC:353:CYS:HB2	38:JC:356:LEU:HD13	1.79	0.64
66:D3:821:U:H3	66:D3:852:C:N4	1.95	0.64
15:UL:8:PHE:H	15:UL:651:GLN:HE22	1.46	0.64
23:UT:225:GLN:HG3	23:UT:228:LEU:H	1.61	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:JC:121:ARG:NH2	66:D3:341:A:OP1	2.31	0.64
23:UT:1101:GLN:HE21	66:D3:200:A:H2'	1.62	0.64
66:D3:48:G:H5''	66:D3:425:A:H61	1.63	0.64
10:UG:128:THR:HG22	10:UG:134:VAL:HG22	1.80	0.63
13:UJ:1667:VAL:HG13	13:UJ:1710:ALA:HA	1.79	0.63
23:UT:443:PRO:O	23:UT:449:ARG:NH2	2.31	0.63
27:UZ:56:ILE:HD11	48:JQ:193:PRO:HD2	1.80	0.63
43:JK:472:ILE:HA	43:JK:475:TYR:HB2	1.80	0.63
46:JO:116:ILE:HD13	46:JO:174:MET:HG3	1.80	0.63
66:D3:1671:A:N6	66:D3:1730:A:O2'	2.32	0.63
7:UD:550:VAL:HG23	7:UD:563:LEU:HB2	1.79	0.63
26:UX:162:GLN:OE1	26:UX:165:ARG:NH1	2.32	0.63
38:JC:331:THR:OG1	38:JC:339:HIS:O	2.15	0.63
39:JF:55:ILE:O	39:JF:63:ASP:HA	1.98	0.63
23:UT:1818:LEU:HD22	23:UT:1872:ALA:HB2	1.79	0.63
66:D3:317:C:N3	66:D3:348:U:O4	2.31	0.63
66:D3:329:G:H2'	66:D3:330:G:C8	2.33	0.63
4:UA:520:ALA:HB3	4:UA:533:SER:HB3	1.79	0.63
14:UK:92:SER:H	14:UK:95:GLN:HE21	1.47	0.63
38:JC:6:THR:HG23	38:JC:13:VAL:H	1.62	0.63
65:D2:426:G:H21	65:D2:428:A:H8	1.47	0.63
7:UD:156:LEU:HD23	7:UD:170:ILE:HD11	1.80	0.63
16:UM:631:MET:HG2	16:UM:645:LYS:HG3	1.80	0.63
24:UU:323:VAL:HG13	24:UU:343:LEU:HD22	1.81	0.63
65:D2:2:U:HO2'	65:D2:69:U:HO2'	1.43	0.63
1:CA:248:ASP:OD2	1:CA:251:ARG:NH2	2.32	0.63
35:CL:304:LEU:O	35:CL:788:TYR:HB3	1.99	0.63
47:JP:302:LYS:NZ	47:JP:456:GLU:OE2	2.32	0.63
66:D3:1276:U:C4	66:D3:1433:G:C6	2.86	0.63
8:UE:23:ALA:HB1	21:UR:261:PRO:HG3	1.80	0.63
22:US:180:PHE:O	22:US:184:TYR:HB3	1.98	0.63
28:CD:143:GLN:NE2	28:CD:145:GLY:O	2.32	0.63
38:JC:280:LEU:HD11	38:JC:289:ILE:HG12	1.80	0.63
50:DF:143:ARG:NH1	64:Dc:57:MET:SD	2.72	0.63
65:D2:6:A:N6	65:D2:8:A:N3	2.47	0.63
23:UT:1298:LEU:HD22	23:UT:1301:ILE:HD13	1.81	0.62
54:DJ:108:ARG:HH12	54:DJ:110:GLN:HE21	1.44	0.62
54:DJ:109:LEU:HB2	54:DJ:146:PHE:HB3	1.81	0.62
65:D2:116:U:H3	65:D2:130:G:H1	1.47	0.62
65:D2:484:G:N2	65:D2:486:U:O2'	2.32	0.62
6:UC:580:ARG:NH1	26:UX:49:SER:O	2.31	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:UT:1397:ILE:O	23:UT:1401:ASN:ND2	2.33	0.62
28:CD:277:ARG:NH2	29:CE:261:GLN:OE1	2.32	0.62
30:CG:95:ARG:NH1	67:D4:253:G:OP2	2.32	0.62
66:D3:214:G:H21	66:D3:251:A:H62	1.46	0.62
66:D3:821:U:H3	66:D3:852:C:H42	1.46	0.62
13:UJ:550:TYR:O	13:UJ:553:SER:C	2.43	0.62
13:UJ:615:ASN:HD21	13:UJ:617:LYS:HG2	1.64	0.62
23:UT:367:ARG:HB2	23:UT:403:LEU:HD13	1.80	0.62
23:UT:408:VAL:O	23:UT:411:PHE:C	2.42	0.62
30:CG:28:ALA:HB2	30:CG:33:LEU:HD23	1.81	0.62
33:CJ:172:MET:HB2	33:CJ:175:ASP:HB2	1.82	0.62
66:D3:1684:U:H3	66:D3:1717:G:H1	1.47	0.62
10:UG:229:ARG:NH1	65:D2:329:A:OP1	2.33	0.62
20:UQ:680:ALA:HB2	20:UQ:750:LEU:HD22	1.81	0.62
23:UT:707:PRO:O	23:UT:775:ARG:NH1	2.30	0.62
66:D3:764:U:H3	66:D3:772:G:H1	1.46	0.62
66:D3:1697:G:H2'	66:D3:1698:G:H8	1.65	0.62
4:UA:482:SER:OG	4:UA:485:ASN:OD1	2.15	0.62
31:CH:545:LYS:NZ	67:D4:251:G:N7	2.48	0.62
9:UF:143:ASN:HB3	9:UF:146:ILE:HG22	1.82	0.62
22:US:352:VAL:HG13	22:US:354:TYR:H	1.65	0.62
47:JP:298:LEU:O	47:JP:457:ARG:NH1	2.33	0.62
59:DS:24:GLY:HA2	59:DS:58:ALA:HB3	1.81	0.62
66:D3:654:C:N4	66:D3:680:U:H3	1.96	0.62
66:D3:1273:G:O6	66:D3:1437:U:O2	2.17	0.62
2:DA:214:LYS:NZ	66:D3:886:U:OP1	2.32	0.62
11:UH:520:PRO:CG	11:UH:523:LEU:HG	2.17	0.62
13:UJ:753:ALA:HB1	13:UJ:791:VAL:HG11	1.82	0.62
15:UL:45:ALA:HB3	15:UL:48:ASP:HB3	1.81	0.62
23:UT:482:ARG:HA	23:UT:485:ILE:HD12	1.81	0.62
23:UT:718:PRO:HD3	23:UT:758:ILE:HG13	1.82	0.62
28:CD:180:LEU:HD13	29:CE:183:ARG:HG2	1.82	0.62
66:D3:683:C:H2'	66:D3:684:A:H8	1.64	0.62
5:UB:538:LYS:HG2	5:UB:624:THR:HB	1.82	0.62
18:UO:79:ARG:NH1	66:D3:1534:G:N7	2.48	0.62
23:UT:12:LYS:NZ	66:D3:60:U:OP2	2.32	0.62
25:UV:151:SER:O	25:UV:155:ASN:ND2	2.33	0.62
45:JN:224:HIS:NE2	67:D4:15:U:OP2	2.33	0.62
56:DN:55:ARG:NH1	56:DN:56:ASP:OD1	2.33	0.62
66:D3:39:A:H8	66:D3:39:A:C5'	2.11	0.62
38:JC:72:MET:HG2	38:JC:83:VAL:HG22	1.82	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:D2:24:U:O2	65:D2:56:G:N2	2.33	0.62
14:UK:22:ARG:NH2	35:CL:999:ASP:O	2.33	0.62
20:UQ:690:ASN:ND2	20:UQ:749:ASP:O	2.33	0.62
23:UT:180:LEU:HD22	23:UT:192:SER:HB3	1.80	0.62
47:JP:151:ASN:ND2	47:JP:170:GLU:OE1	2.33	0.62
66:D3:175:G:C2	66:D3:266:A:N7	2.68	0.62
66:D3:205:U:O2	66:D3:263:C:N4	2.33	0.62
66:D3:369:A:N6	66:D3:373:G:C6	2.68	0.62
11:UH:520:PRO:HD2	11:UH:520:PRO:O	1.99	0.61
13:UJ:407:PHE:O	13:UJ:410:ILE:O	2.17	0.61
26:UX:86:MET:HG3	26:UX:173:MET:HE1	1.82	0.61
66:D3:153:G:O6	66:D3:161:U:O4	2.18	0.61
67:D4:168:C:H2'	67:D4:169:A:H8	1.65	0.61
3:JA:822:ASN:HD22	3:JA:869:ASP:HB2	1.64	0.61
3:JA:844:SER:HA	3:JA:847:ASN:HD22	1.65	0.61
13:UJ:1692:VAL:O	13:UJ:1695:MET:C	2.43	0.61
15:UL:448:GLY:HA3	15:UL:476:ILE:HD11	1.82	0.61
16:UM:24:THR:HG21	16:UM:68:LYS:HA	1.81	0.61
23:UT:1600:THR:O	23:UT:1609:ARG:NH2	2.32	0.61
27:UZ:122:PHE:O	27:UZ:149:LYS:NZ	2.34	0.61
38:JC:202:ASN:HB3	38:JC:220:LEU:HA	1.81	0.61
66:D3:410:A:N1	66:D3:423:G:O6	2.34	0.61
11:UH:558:CYS:O	11:UH:585:ARG:NH1	2.31	0.61
12:UI:502:ARG:NH2	18:UO:509:GLN:OE1	2.33	0.61
17:UN:294:GLU:OE1	47:JP:250:ARG:NH2	2.33	0.61
20:UQ:19:LYS:HB2	20:UQ:49:ASN:HD22	1.66	0.61
64:Dc:20:GLY:O	64:Dc:65:ARG:NE	2.32	0.61
66:D3:69:G:O6	66:D3:83:G:N2	2.33	0.61
66:D3:545:A:O2'	66:D3:546:U:O4'	2.16	0.61
42:JJ:187:VAL:HG13	42:JJ:251:ILE:HD11	1.82	0.61
61:DX:89:ASN:O	61:DX:92:CYS:N	2.33	0.61
66:D3:1272:U:O2	66:D3:1438:G:O6	2.19	0.61
5:UB:538:LYS:HD2	5:UB:625:GLU:HG3	1.82	0.61
21:UR:430:GLY:HA2	21:UR:455:ILE:HD12	1.81	0.61
23:UT:582:LEU:HD11	23:UT:608:MET:HE3	1.81	0.61
25:UV:1188:PRO:HA	25:UV:1191:LYS:HB2	1.83	0.61
38:JC:56:SER:HA	38:JC:336:ILE:HG23	1.81	0.61
24:UU:430:ILE:HB	24:UU:443:TRP:HB2	1.83	0.61
66:D3:1273:G:O6	66:D3:1437:U:C2	2.54	0.61
38:JC:178:LEU:HD23	38:JC:183:VAL:HG22	1.82	0.61
66:D3:1695:G:H1	66:D3:1707:A:H61	1.47	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:111:MET:SD	1:CA:216:ASN:ND2	2.73	0.61
15:UL:103:ILE:HB	15:UL:117:PHE:HB2	1.82	0.61
26:UX:103:MET:HE3	26:UX:127:ARG:HH21	1.65	0.61
4:UA:347:SER:HB2	4:UA:365:GLU:HB2	1.82	0.61
4:UA:716:ASP:OD1	24:UU:576:ARG:NH1	2.34	0.61
13:UJ:675:ASN:ND2	13:UJ:684:TYR:OH	2.33	0.61
20:UQ:474:THR:HG21	20:UQ:493:PRO:HB2	1.81	0.61
38:JC:258:ARG:HB3	43:JK:497:LEU:HD23	1.82	0.61
3:JA:278:THR:HA	3:JA:406:VAL:O	2.01	0.61
3:JA:612:ASP:O	3:JA:616:TRP:HB2	2.00	0.61
4:UA:58:ILE:HA	4:UA:74:ASP:HA	1.83	0.61
19:UP:204:ARG:HH21	65:D2:170:U:H4'	1.64	0.61
20:UQ:200:ASN:ND2	20:UQ:262:MET:O	2.33	0.61
22:US:381:LYS:NZ	22:US:462:SER:O	2.33	0.61
33:CJ:184:GLU:OE2	66:D3:1159:C:N4	2.33	0.61
7:UD:202:ILE:HD11	7:UD:267:PHE:HE2	1.66	0.60
11:UH:272:PHE:HA	11:UH:279:TYR:HA	1.83	0.60
33:CJ:235:GLN:HB3	33:CJ:250:VAL:O	2.01	0.60
66:D3:48:G:O6	66:D3:432:G:C2	2.54	0.60
66:D3:188:A:OP2	66:D3:189:C:N4	2.34	0.60
66:D3:1270:G:C2	66:D3:1441:C:O2	2.54	0.60
7:UD:57:ILE:HA	7:UD:341:SER:HA	1.82	0.60
13:UJ:1737:LEU:HG	23:UT:31:ALA:HB1	1.83	0.60
20:UQ:283:VAL:HA	20:UQ:289:GLN:O	2.01	0.60
23:UT:1099:LEU:HB2	23:UT:1142:VAL:HG22	1.83	0.60
23:UT:1644:ARG:NH2	23:UT:1680:THR:O	2.33	0.60
27:UZ:194:ASP:OD2	66:D3:1499:G:N2	2.33	0.60
65:D2:20:C:H2'	65:D2:21:A:H8	1.66	0.60
66:D3:657:U:O2	66:D3:677:G:O6	2.19	0.60
1:CB:267:VAL:HG11	1:CB:298:ILE:HD12	1.82	0.60
13:UJ:348:ILE:HD13	13:UJ:373:ILE:HG13	1.81	0.60
16:UM:241:GLN:NE2	16:UM:260:THR:OG1	2.34	0.60
20:UQ:745:ILE:O	20:UQ:754:LEU:N	2.34	0.60
38:JC:254:ILE:O	38:JC:263:SER:N	2.35	0.60
47:JP:188:HIS:HB3	47:JP:193:THR:HB	1.83	0.60
66:D3:271:A:C2	66:D3:285:G:N1	2.70	0.60
2:DA:82:ARG:NH1	2:DA:188:LEU:O	2.34	0.60
3:JA:789:LEU:HD23	3:JA:793:PHE:HE1	1.66	0.60
11:UH:659:THR:HG21	12:UI:507:ARG:HD2	1.83	0.60
35:CL:1121:LYS:NZ	65:D2:446:U:OP1	2.33	0.60
36:CM:141:MET:HG2	36:CM:300:TYR:HE2	1.66	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:CN:91:ASP:O	37:CN:121:ARG:NH1	2.35	0.60
3:JA:520:ARG:NH1	3:JA:556:MET:O	2.35	0.60
14:UK:248:ARG:NH1	21:UR:514:LEU:O	2.34	0.60
16:UM:745:ASP:OD2	34:CK:508:ARG:NH1	2.35	0.60
20:UQ:96:ILE:HG12	20:UQ:108:THR:HG21	1.82	0.60
20:UQ:108:THR:HG22	20:UQ:118:VAL:HG22	1.83	0.60
27:UZ:38:ILE:HG22	27:UZ:244:VAL:HG12	1.84	0.60
49:DE:197:HIS:NE2	49:DE:199:GLU:OE2	2.32	0.60
10:UG:123:THR:HG23	10:UG:124:HIS:HD2	1.65	0.60
18:UO:5:ARG:NH1	65:D2:86:C:O2'	2.34	0.60
28:CD:4:ILE:H	28:CD:23:GLN:HE21	1.48	0.60
35:CL:1138:ARG:NH1	66:D3:492:A:OP2	2.34	0.60
47:JP:306:SER:OG	47:JP:307:ALA:N	2.35	0.60
3:JA:658:ARG:HH12	3:JA:766:LEU:H	1.50	0.60
4:UA:386:HIS:HE2	4:UA:404:SER:HG	1.49	0.60
13:UJ:1749:ARG:O	13:UJ:1753:VAL:HB	2.02	0.60
15:UL:425:ILE:HG22	15:UL:426:ARG:HG2	1.82	0.60
18:UO:301:PRO:HG2	18:UO:323:SER:HB2	1.84	0.60
23:UT:1811:ILE:HD11	23:UT:1875:LEU:HD21	1.82	0.60
29:CE:323:GLU:OE2	67:D4:324:U:N3	2.35	0.60
33:CJ:281:ILE:HG22	33:CJ:284:ALA:HB2	1.82	0.60
38:JC:162:LEU:HB2	38:JC:176:PHE:HB2	1.84	0.60
4:UA:344:HIS:NE2	4:UA:366:ASP:OD2	2.34	0.60
5:UB:529:LEU:HD23	5:UB:563:GLU:HB3	1.84	0.60
11:UH:645:ILE:HD11	11:UH:649:SER:HB3	1.83	0.60
18:UO:2:SER:OG	18:UO:3:THR:N	2.33	0.60
33:CJ:74:ASP:OD2	33:CJ:201:ARG:NH1	2.35	0.60
66:D3:244:A:H61	66:D3:250:C:N4	1.98	0.60
66:D3:369:A:N1	66:D3:373:G:C2	2.69	0.60
3:JA:104:ARG:NH2	3:JA:105:TYR:O	2.34	0.60
10:UG:116:ILE:HD11	10:UG:398:ILE:HG23	1.84	0.60
25:UV:867:ILE:HD11	25:UV:879:GLU:HG2	1.84	0.60
39:JG:41:MET:O	39:JG:110:LEU:HA	2.02	0.60
66:D3:1677:C:N3	66:D3:1724:U:O2	2.34	0.60
66:D3:1695:G:H1	66:D3:1707:A:N6	2.00	0.60
9:UF:320:ILE:HD11	9:UF:338:VAL:HG11	1.82	0.60
21:UR:401:GLU:O	21:UR:427:ASN:ND2	2.35	0.60
23:UT:522:LEU:HA	23:UT:525:ILE:HG12	1.84	0.60
33:CJ:187:PRO:HB3	33:CJ:220:ARG:HE	1.67	0.60
47:JP:321:VAL:HG22	47:JP:331:ILE:HG12	1.84	0.60
8:UE:484:LEU:HD22	8:UE:498:LEU:HG	1.84	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:UL:23:CYS:HB2	15:UL:41:LEU:HD11	1.85	0.59
30:CF:46:ARG:NH1	67:D4:326:U:OP1	2.34	0.59
30:CG:106:ASP:OD1	30:CG:106:ASP:N	2.35	0.59
37:CN:18:PHE:HB2	37:CN:35:HIS:HB3	1.83	0.59
61:DX:46:SER:OG	61:DX:47:SER:N	2.35	0.59
17:UN:890:VAL:HG23	47:JP:358:MET:HB3	1.85	0.59
3:JA:769:ARG:NH2	3:JA:770:GLU:O	2.34	0.59
13:UJ:733:MET:N	13:UJ:733:MET:SD	2.74	0.59
16:UM:718:VAL:HG21	16:UM:722:GLU:HG2	1.84	0.59
23:UT:13:ARG:NH1	62:DY:86:GLU:O	2.31	0.59
13:UJ:1705:LEU:HB3	13:UJ:1709:ARG:HH12	1.68	0.59
23:UT:1410:LEU:HD23	23:UT:1413:VAL:H	1.67	0.59
29:CE:65:GLU:O	29:CE:93:LYS:NZ	2.35	0.59
29:CE:355:ASN:ND2	29:CE:402:GLU:OE1	2.32	0.59
37:CN:20:LEU:HD11	37:CN:35:HIS:HB2	1.84	0.59
47:JP:228:ASN:ND2	47:JP:230:ASN:O	2.36	0.59
67:D4:164:C:H2'	67:D4:165:G:H8	1.67	0.59
11:UH:31:VAL:HA	11:UH:355:LEU:H	1.66	0.59
22:US:181:THR:HA	22:US:185:TYR:HB3	1.84	0.59
28:CD:110:LYS:HD2	47:JP:157:ASN:HB2	1.84	0.59
29:CE:359:ILE:HG13	29:CE:398:LEU:HD13	1.83	0.59
35:CL:623:LYS:HA	35:CL:626:LYS:HE2	1.84	0.59
50:DF:206:SER:O	50:DF:212:LYS:NZ	2.36	0.59
66:D3:1270:G:C2	66:D3:1441:C:C2	2.90	0.59
13:UJ:131:ASN:OD1	13:UJ:131:ASN:N	2.35	0.59
20:UQ:400:GLN:HE21	20:UQ:421:LYS:HB2	1.67	0.59
21:UR:227:LEU:O	21:UR:593:HIS:NE2	2.36	0.59
24:UU:542:LEU:HD12	24:UU:546:ILE:HD11	1.85	0.59
32:CI:40:ASN:OD1	32:CI:40:ASN:N	2.34	0.59
35:CL:828:ARG:NH1	61:DX:94:ASN:O	2.36	0.59
57:DO:114:ARG:NH1	57:DO:115:ILE:O	2.35	0.59
62:DY:124:ARG:NH2	66:D3:151:G:O6	2.34	0.59
66:D3:325:G:H2'	66:D3:326:G:C8	2.37	0.59
66:D3:1775:U:O4	66:D3:1786:G:O6	2.20	0.59
13:UJ:228:ASP:N	13:UJ:228:ASP:OD1	2.35	0.59
13:UJ:556:LYS:O	13:UJ:592:ARG:NH2	2.36	0.59
16:UM:559:ILE:HB	16:UM:569:LYS:HB2	1.84	0.59
22:US:155:LEU:HD11	22:US:177:ILE:HG12	1.84	0.59
23:UT:798:PRO:O	23:UT:802:ASN:ND2	2.34	0.59
24:UU:737:LEU:HG	42:JJ:269:ARG:HH21	1.66	0.59
24:UU:841:SER:HB3	24:UU:842:PRO:HD2	1.83	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:JJ:204:ARG:NH1	42:JJ:250:LEU:O	2.36	0.59
66:D3:1655:A:H61	66:D3:1745:G:N2	2.01	0.59
7:UD:436:ASP:N	7:UD:436:ASP:OD1	2.35	0.59
7:UD:563:LEU:O	13:UJ:639:ARG:NH1	2.36	0.59
16:UM:760:ILE:HD11	16:UM:785:ILE:HD13	1.84	0.59
32:CI:66:PRO:HG3	45:JN:207:ARG:HH11	1.67	0.59
47:JP:262:MET:HG3	47:JP:283:ASP:HB3	1.85	0.59
66:D3:634:G:N2	66:D3:966:A:C5	2.70	0.59
66:D3:1541:G:C2	66:D3:1569:A:C6	2.80	0.59
67:D4:205:G:C2	67:D4:245:U:O2	2.56	0.59
2:DA:48:VAL:HG22	2:DA:64:ARG:HH21	1.67	0.59
6:UC:548:LYS:HA	61:DX:139:LYS:HE2	1.85	0.59
16:UM:413:ILE:HG22	16:UM:429:LYS:HA	1.84	0.59
20:UQ:366:ASN:ND2	20:UQ:368:ASP:OD1	2.36	0.59
23:UT:215:VAL:HA	23:UT:218:LYS:HD2	1.85	0.59
23:UT:267:SER:OG	23:UT:313:ARG:NH1	2.36	0.59
25:UV:1101:ASP:HB2	25:UV:1233:ASN:HB3	1.84	0.59
35:CL:555:MET:O	36:CM:327:ARG:NH2	2.35	0.59
57:DO:38:THR:HG21	66:D3:895:G:H21	1.67	0.59
3:JB:383:LEU:HA	3:JB:405:LEU:O	2.03	0.59
7:UD:192:THR:OG1	7:UD:242:TRP:O	2.21	0.59
23:UT:1289:ILE:HD13	23:UT:1305:VAL:HG21	1.84	0.59
31:CH:518:LYS:NZ	67:D4:248:G:OP2	2.36	0.59
37:CN:63:ASN:OD1	37:CN:66:HIS:ND1	2.33	0.59
39:JF:80:MET:SD	39:JF:82:ARG:NH2	2.76	0.59
10:UG:364:ARG:NH2	65:D2:316:U:OP1	2.35	0.58
20:UQ:73:LEU:HD23	20:UQ:129:PRO:HG2	1.85	0.58
21:UR:242:ASN:HB2	21:UR:586:VAL:HG22	1.85	0.58
33:CJ:193:ASN:HB3	33:CJ:226:ASN:HB3	1.84	0.58
4:UA:362:THR:HG21	4:UA:701:LEU:HD11	1.85	0.58
13:UJ:1370:TYR:HA	13:UJ:1373:ILE:HG12	1.84	0.58
38:JC:185:HIS:HD1	38:JC:234:THR:HG1	1.49	0.58
66:D3:23:G:N1	66:D3:603:U:C2	2.71	0.58
66:D3:871:G:H2'	66:D3:872:G:C8	2.38	0.58
7:UD:116:SER:OG	7:UD:126:TRP:NE1	2.34	0.58
7:UD:392:VAL:HG13	7:UD:401:ILE:HG12	1.85	0.58
8:UE:549:CYS:HB2	11:UH:678:LEU:HD21	1.85	0.58
23:UT:1098:ASN:ND2	66:D3:199:G:O2'	2.37	0.58
29:CE:8:THR:HG23	29:CE:10:ALA:H	1.68	0.58
33:CJ:150:THR:HA	33:CJ:167:LEU:O	2.03	0.58
35:CL:82:LYS:NZ	70:CL:2001:GTP:O2B	2.34	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:JJ:114:THR:HG23	42:JJ:115:LYS:HG3	1.85	0.58
65:D2:174:U:H3	65:D2:222:G:H1	1.51	0.58
67:D4:205:G:N2	67:D4:245:U:O2	2.36	0.58
13:UJ:1539:MET:HE3	13:UJ:1540:ASN:H	1.67	0.58
66:D3:472:U:O2'	66:D3:768:C:O2	2.16	0.58
7:UD:264:PHE:HB2	7:UD:274:GLN:HB2	1.84	0.58
10:UG:130:ARG:NH2	10:UG:379:GLU:OE1	2.36	0.58
15:UL:334:SER:OG	15:UL:335:LEU:N	2.35	0.58
23:UT:100:GLU:HA	23:UT:103:LEU:HB2	1.84	0.58
23:UT:1293:ARG:NH2	23:UT:1302:SER:OG	2.36	0.58
25:UV:268:LEU:HB2	25:UV:294:LEU:HB2	1.84	0.58
29:CE:125:PRO:HA	29:CE:128:LEU:HD13	1.85	0.58
66:D3:516:G:C6	66:D3:537:G:C2	2.92	0.58
5:UB:444:ASN:H	5:UB:446:GLN:HE21	1.51	0.58
16:UM:749:ASN:ND2	34:CK:511:ASN:O	2.36	0.58
23:UT:1515:ALA:HB3	23:UT:1554:PRO:HG2	1.85	0.58
35:CL:166:ARG:NH1	35:CL:231:LYS:O	2.36	0.58
53:DI:5:ARG:NH1	66:D3:336:G:O6	2.37	0.58
53:DI:8:ARG:HA	53:DI:18:ARG:HH11	1.69	0.58
55:DL:109:VAL:HG22	55:DL:137:PHE:HB2	1.85	0.58
65:D2:184:U:O4	65:D2:213:G:O6	2.22	0.58
66:D3:369:A:C6	66:D3:373:G:N1	2.72	0.58
2:DA:152:ARG:NE	66:D3:934:C:N3	2.47	0.58
25:UV:534:GLY:H	25:UV:606:ASN:HB3	1.68	0.58
29:CE:160:ASP:OD1	29:CE:160:ASP:N	2.36	0.58
35:CL:903:ALA:HB3	35:CL:906:ASP:HB2	1.86	0.58
35:CL:966:ILE:HG22	35:CL:1003:LEU:HD12	1.86	0.58
35:CL:1107:LYS:HG3	65:D2:412:A:H5''	1.86	0.58
51:DG:93:LYS:NZ	66:D3:405:C:OP1	2.37	0.58
66:D3:395:U:H3	66:D3:399:A:H62	1.52	0.58
3:JA:794:HIS:HB3	3:JA:795:LYS:HD2	1.85	0.58
10:UG:123:THR:OG1	10:UG:140:ARG:NH2	2.37	0.58
16:UM:415:TRP:HA	16:UM:425:ASP:O	2.03	0.58
22:US:399:ILE:HG13	22:US:400:PRO:HD3	1.86	0.58
38:JC:170:GLY:O	43:JK:469:GLN:NE2	2.34	0.58
66:D3:365:G:O5'	66:D3:757:A:N6	2.36	0.58
3:JA:845:TYR:HB3	3:JA:917:MET:HE3	1.85	0.58
7:UD:106:ASN:H	7:UD:153:GLN:HG2	1.68	0.58
8:UE:200:GLU:HG2	8:UE:218:HIS:HE1	1.68	0.58
15:UL:197:ILE:HG22	15:UL:198:GLU:HG3	1.86	0.58
23:UT:1100:GLN:NE2	66:D3:186:C:O2'	2.37	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:CM:231:ARG:NH2	66:D3:1132:A:O2'	2.37	0.58
46:JO:58:ASN:HD22	65:D2:347:U:H5''	1.69	0.58
62:DY:83:LYS:NZ	62:DY:96:LEU:O	2.37	0.58
62:DY:131:ARG:NH2	66:D3:153:G:OP2	2.35	0.58
38:JC:164:ARG:NH2	38:JC:174:ASN:O	2.36	0.57
52:DH:58:LEU:O	52:DH:91:ILE:HB	2.04	0.57
57:DO:24:ASN:ND2	66:D3:902:G:OP2	2.35	0.57
66:D3:1705:C:C4	66:D3:1706:C:N4	2.72	0.57
3:JA:860:PRO:HB3	3:JA:892:ARG:HH21	1.69	0.57
3:JB:55:VAL:O	3:JB:103:ILE:HA	2.04	0.57
15:UL:382:THR:O	15:UL:383:HIS:C	2.46	0.57
25:UV:529:VAL:HA	25:UV:695:GLN:O	2.04	0.57
29:CE:98:ILE:HD11	29:CE:107:VAL:HG21	1.86	0.57
36:CM:85:ALA:HA	36:CM:115:SER:O	2.04	0.57
39:JG:55:ILE:O	39:JG:63:ASP:N	2.37	0.57
52:DH:80:GLU:HA	52:DH:83:LYS:HD2	1.86	0.57
66:D3:753:A:C2	66:D3:797:G:C6	2.92	0.57
1:CA:240:VAL:HG13	1:CA:261:LEU:HD13	1.86	0.57
3:JA:722:TYR:HA	3:JA:765:VAL:HG22	1.86	0.57
4:UA:328:LEU:HD12	4:UA:340:LYS:HG3	1.86	0.57
6:UC:599:LYS:NZ	66:D3:498:G:OP1	2.37	0.57
16:UM:155:GLN:HB2	16:UM:158:SER:HB3	1.86	0.57
23:UT:1083:TYR:HE2	23:UT:1125:ASP:HB2	1.69	0.57
38:JC:124:GLN:HG2	38:JC:134:THR:HG23	1.85	0.57
65:D2:436:G:H2'	65:D2:437:G:C8	2.40	0.57
1:CB:258:HIS:ND1	1:CB:320:TYR:OH	2.38	0.57
13:UJ:559:ASN:ND2	13:UJ:595:THR:O	2.37	0.57
15:UL:760:ILE:HG13	15:UL:831:LYS:HB3	1.85	0.57
20:UQ:682:ASN:HB2	20:UQ:689:ILE:HD11	1.86	0.57
21:UR:319:ARG:NH1	65:D2:89:C:OP1	2.36	0.57
23:UT:498:ILE:HD12	23:UT:501:LEU:HD12	1.86	0.57
23:UT:654:THR:HG21	23:UT:691:LYS:HD3	1.85	0.57
32:CI:29:ASP:N	32:CI:29:ASP:OD1	2.37	0.57
38:JC:121:ARG:HG3	38:JC:140:PHE:HA	1.85	0.57
39:JG:56:SER:HG	39:JG:63:ASP:N	2.02	0.57
51:DG:3:LEU:O	51:DG:15:THR:HA	2.05	0.57
66:D3:1677:C:H42	66:D3:1724:U:H3	0.74	0.57
1:CA:242:ALA:HB2	1:CA:253:ILE:HD11	1.87	0.57
3:JA:540:LEU:HD23	3:JA:585:VAL:HG12	1.86	0.57
5:UB:422:LEU:HD21	5:UB:462:LEU:HD22	1.85	0.57
6:UC:595:LYS:O	44:JM:134:ARG:NH1	2.37	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CH:70:TYR:OH	31:CH:169:LYS:NZ	2.36	0.57
33:CJ:164:GLN:NE2	33:CJ:260:GLU:OE2	2.37	0.57
35:CL:830:ARG:NH2	35:CL:831:ARG:O	2.38	0.57
54:DJ:106:GLU:HA	54:DJ:111:THR:HG21	1.86	0.57
55:DL:16:GLN:NE2	55:DL:61:THR:O	2.38	0.57
55:DL:47:THR:HG23	55:DL:114:ALA:HB1	1.86	0.57
18:UO:59:SER:HB3	18:UO:62:ARG:HB3	1.86	0.57
53:DI:48:THR:OG1	66:D3:333:A:OP1	2.21	0.57
4:UA:730:LEU:HD21	4:UA:754:VAL:HG23	1.87	0.57
1:CB:155:ILE:HD11	1:CB:162:LEU:HD13	1.86	0.57
16:UM:537:TRP:HD1	16:UM:553:GLY:HA2	1.69	0.57
20:UQ:340:ILE:HG12	20:UQ:359:GLN:HB3	1.87	0.57
22:US:348:ASP:O	22:US:352:VAL:HB	2.04	0.57
23:UT:1375:ILE:O	23:UT:1379:ASN:ND2	2.36	0.57
36:CM:183:ILE:O	36:CM:312:ARG:NH1	2.36	0.57
37:CN:37:MET:HE2	37:CN:55:LEU:HD12	1.86	0.57
38:JC:185:HIS:ND1	38:JC:234:THR:OG1	2.37	0.57
44:JM:145:GLU:HG2	44:JM:146:ARG:HG3	1.86	0.57
13:UJ:701:SER:HA	13:UJ:704:LYS:HD2	1.87	0.57
13:UJ:1749:ARG:NH2	23:UT:35:GLU:O	2.38	0.57
22:US:224:ASN:O	22:US:284:ARG:NH2	2.38	0.57
25:UV:526:CYS:O	25:UV:698:ASN:ND2	2.37	0.57
26:UX:182:ILE:HD12	26:UX:185:LEU:HB2	1.85	0.57
31:CH:157:LEU:HD23	31:CH:191:SER:HB2	1.87	0.57
51:DG:58:LYS:HG3	51:DG:59:GLN:HG3	1.85	0.57
51:DG:138:ALA:HA	51:DG:141:ILE:HD12	1.87	0.57
55:DL:129:ARG:NH1	66:D3:335:U:O2'	2.38	0.57
66:D3:1043:A:N6	66:D3:1075:C:N4	2.31	0.57
7:UD:485:LYS:HA	7:UD:498:VAL:O	2.04	0.57
13:UJ:1616:VAL:HB	13:UJ:1662:ILE:HD11	1.87	0.57
20:UQ:371:PHE:HB2	20:UQ:385:ILE:HB	1.87	0.57
21:UR:449:ASP:OD1	21:UR:494:TYR:OH	2.16	0.57
25:UV:656:ARG:HH11	25:UV:668:VAL:HG21	1.70	0.57
35:CL:817:PRO:HA	35:CL:820:ILE:HG22	1.86	0.57
52:DH:9:LEU:HD13	52:DH:12:ALA:H	1.69	0.57
66:D3:872:G:N2	66:D3:956:C:O2	2.38	0.57
66:D3:876:G:O6	66:D3:935:U:O2	2.22	0.57
4:UA:406:SER:OG	4:UA:407:LEU:N	2.35	0.57
7:UD:399:VAL:HB	7:UD:420:LEU:HB2	1.86	0.57
13:UJ:661:ILE:HG22	13:UJ:663:SER:H	1.69	0.57
23:UT:408:VAL:O	23:UT:411:PHE:O	2.23	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:CK:488:SER:OG	34:CK:489:SER:N	2.36	0.57
36:CM:176:GLN:HE21	36:CM:305:LYS:HD3	1.68	0.57
66:D3:657:U:O2	66:D3:677:G:C6	2.58	0.57
5:UB:396:LEU:O	5:UB:400:PRO:N	2.38	0.56
18:UO:377:ASP:OD1	21:UR:341:LYS:NZ	2.34	0.56
23:UT:862:ASN:HB3	23:UT:865:VAL:HG22	1.88	0.56
23:UT:1662:SER:O	23:UT:1665:LEU:C	2.47	0.56
53:DI:27:PHE:O	66:D3:333:A:N6	2.37	0.56
62:DY:105:ARG:NH2	66:D3:458:G:OP2	2.38	0.56
10:UG:324:ILE:HD13	10:UG:345:LEU:HD21	1.86	0.56
19:UP:208:ARG:HG2	19:UP:210:ALA:H	1.69	0.56
20:UQ:426:ARG:NH2	65:D2:68:U:O2	2.37	0.56
20:UQ:443:ASN:O	20:UQ:447:LYS:N	2.38	0.56
25:UV:552:ARG:O	25:UV:556:ILE:HA	2.05	0.56
32:CI:179:ASP:HB2	58:DQ:7:VAL:HG23	1.88	0.56
34:CK:453:SER:O	34:CK:455:HIS:N	2.36	0.56
49:DE:48:LEU:HD11	49:DE:70:VAL:HG21	1.86	0.56
52:DH:97:ARG:HH12	66:D3:694:U:H2'	1.69	0.56
55:DL:84:ILE:HD12	55:DL:111:VAL:HG11	1.87	0.56
1:CA:228:GLN:O	1:CA:231:ARG:NH2	2.39	0.56
3:JA:49:LEU:HD22	35:CL:304:LEU:HD23	1.87	0.56
1:CB:288:ARG:HE	7:UD:121:THR:HG21	1.70	0.56
7:UD:427:ASN:HB2	7:UD:444:ARG:HD3	1.87	0.56
10:UG:552:ARG:NH2	25:UV:791:LYS:O	2.38	0.56
13:UJ:696:LEU:O	13:UJ:699:ARG:NH1	2.37	0.56
16:UM:552:SER:OG	16:UM:553:GLY:N	2.38	0.56
17:UN:879:ILE:HD12	47:JP:396:TYR:HA	1.88	0.56
20:UQ:726:GLN:HA	20:UQ:739:TYR:HA	1.87	0.56
23:UT:46:HIS:HB3	23:UT:112:GLN:HE21	1.70	0.56
35:CL:889:LEU:HD22	35:CL:922:ILE:HG23	1.88	0.56
35:CL:1051:ASP:OD1	35:CL:1051:ASP:N	2.36	0.56
46:JO:250:PRO:HG3	56:DN:106:ARG:HG2	1.87	0.56
55:DL:36:LYS:NZ	55:DL:59:PRO:O	2.37	0.56
66:D3:868:G:H1	66:D3:960:U:H3	1.51	0.56
11:UH:587:LEU:HD21	11:UH:636:GLN:HB3	1.87	0.56
13:UJ:671:LEU:HD22	13:UJ:719:SER:HB2	1.86	0.56
13:UJ:1750:THR:O	13:UJ:1754:LYS:HB2	2.05	0.56
16:UM:294:LEU:HB2	16:UM:303:PHE:HB2	1.86	0.56
23:UT:1279:ASN:HA	23:UT:1282:VAL:HG22	1.88	0.56
24:UU:160:THR:OG1	24:UU:163:GLN:NE2	2.36	0.56
35:CL:831:ARG:NH2	35:CL:835:HIS:O	2.38	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:JP:123:PHE:HA	47:JP:207:ASN:HD21	1.69	0.56
66:D3:1582:U:C4	66:D3:1614:A:C8	2.94	0.56
66:D3:1734:U:O2'	66:D3:1735:U:H5'	2.05	0.56
1:CB:110:ASN:HD21	1:CB:142:ARG:HD3	1.71	0.56
10:UG:292:THR:HG22	10:UG:298:MET:HB2	1.86	0.56
15:UL:439:LEU:HD12	15:UL:440:PRO:HD2	1.88	0.56
29:CE:366:LYS:NZ	67:D4:82:G:OP1	2.37	0.56
32:CI:137:ARG:NH2	32:CI:139:GLY:O	2.39	0.56
38:JC:147:ASN:HB3	38:JC:152:ASP:HB3	1.86	0.56
49:DE:148:ARG:HH22	51:DG:201:GLN:HE22	1.53	0.56
51:DG:1:MET:HE1	51:DG:106:LEU:HB3	1.86	0.56
15:UL:275:GLN:NE2	15:UL:339:LYS:O	2.38	0.56
23:UT:440:ASP:HA	23:UT:449:ARG:HD2	1.87	0.56
29:CE:430:ASP:N	29:CE:430:ASP:OD1	2.34	0.56
38:JC:62:ILE:HG13	38:JC:332:ALA:HB2	1.87	0.56
39:JF:41:MET:O	39:JF:110:LEU:HA	2.06	0.56
52:DH:55:LYS:HB3	52:DH:89:HIS:HE1	1.70	0.56
55:DL:73:GLY:HA3	55:DL:86:ILE:HD12	1.87	0.56
55:DL:132:SER:OG	66:D3:326:G:OP2	2.24	0.56
62:DY:37:LYS:HG2	62:DY:57:VAL:HG23	1.88	0.56
6:UC:560:ASN:HD22	66:D3:477:A:H5'	1.70	0.56
15:UL:390:GLN:NE2	15:UL:413:SER:OG	2.39	0.56
20:UQ:172:ARG:NH2	20:UQ:174:TYR:OH	2.39	0.56
20:UQ:426:ARG:NH1	65:D2:70:A:OP1	2.39	0.56
31:CH:234:GLY:O	31:CH:259:LYS:NZ	2.37	0.56
66:D3:271:A:N1	66:D3:285:G:N1	2.54	0.56
10:UG:357:SER:HA	10:UG:364:ARG:HD3	1.87	0.56
13:UJ:166:ASN:ND2	29:CE:408:THR:O	2.38	0.56
13:UJ:1704:LYS:NZ	13:UJ:1739:ASP:OD2	2.39	0.56
15:UL:453:GLU:OE2	15:UL:455:GLN:NE2	2.38	0.56
23:UT:1034:TYR:OH	23:UT:1090:ARG:NH2	2.38	0.56
25:UV:210:PRO:HD2	25:UV:213:LEU:HD23	1.88	0.56
25:UV:1109:LYS:NZ	25:UV:1170:GLY:O	2.36	0.56
31:CH:224:SER:OG	31:CH:229:GLU:OE2	2.24	0.56
47:JP:76:ASN:HA	47:JP:118:VAL:HG11	1.88	0.56
65:D2:182:G:H2'	65:D2:183:A:H8	1.71	0.56
66:D3:689:G:H2'	66:D3:690:G:C8	2.41	0.56
66:D3:1658:G:N2	66:D3:1743:U:O2	2.35	0.56
4:UA:517:ASP:OD1	4:UA:517:ASP:N	2.35	0.56
5:UB:620:SER:O	5:UB:624:THR:OG1	2.20	0.56
8:UE:277:LYS:HG2	8:UE:324:ASN:HA	1.87	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:UF:191:ASN:ND2	44:JM:63:PRO:O	2.34	0.56
10:UG:502:ARG:NH2	65:D2:369:G:N7	2.53	0.56
15:UL:287:ARG:NH2	15:UL:326:LEU:O	2.38	0.56
23:UT:286:ALA:O	23:UT:329:LYS:NZ	2.39	0.56
35:CL:82:LYS:CA	70:CL:2001:GTP:O1B	2.53	0.56
35:CL:880:TYR:HD2	61:DX:94:ASN:HB3	1.70	0.56
38:JC:278:ILE:HG22	38:JC:289:ILE:HB	1.87	0.56
47:JP:73:ILE:HB	47:JP:353:GLN:HG2	1.88	0.56
52:DH:70:PHE:O	52:DH:74:GLN:HB2	2.05	0.56
52:DH:97:ARG:NE	52:DH:98:ILE:O	2.38	0.56
56:DN:130:ARG:NH1	56:DN:139:TRP:O	2.39	0.56
60:DW:2:THR:HG23	66:D3:967:A:H4'	1.88	0.56
8:UE:495:GLN:O	8:UE:499:ASN:ND2	2.38	0.56
13:UJ:262:VAL:HG23	13:UJ:301:LYS:HG2	1.88	0.56
16:UM:268:GLN:HG2	16:UM:280:ARG:HG2	1.87	0.56
32:CI:11:LYS:NZ	67:D4:26:C:OP1	2.35	0.56
39:JF:100:LEU:O	39:JF:105:ASN:ND2	2.37	0.56
66:D3:195:G:H2'	66:D3:196:G:C8	2.41	0.56
8:UE:259:PRO:O	8:UE:273:LYS:NZ	2.36	0.55
13:UJ:728:GLU:HB3	13:UJ:734:ILE:HD13	1.87	0.55
18:UO:29:GLN:OE1	18:UO:332:LYS:NZ	2.40	0.55
20:UQ:59:THR:HG23	20:UQ:61:GLN:HB2	1.88	0.55
20:UQ:283:VAL:HG12	20:UQ:290:ILE:HG22	1.88	0.55
23:UT:653:LYS:NZ	23:UT:654:THR:O	2.38	0.55
24:UU:362:GLN:HB3	24:UU:381:ARG:HH22	1.71	0.55
35:CL:67:PRO:O	35:CL:114:ARG:NH2	2.39	0.55
35:CL:830:ARG:NH1	61:DX:138:GLU:OE2	2.39	0.55
44:JM:203:LYS:O	44:JM:206:TYR:N	2.36	0.55
53:DI:113:PHE:O	53:DI:117:TYR:HB2	2.06	0.55
57:DO:22:SER:OG	57:DO:23:PHE:N	2.37	0.55
65:D2:474:A:H2'	65:D2:475:G:H8	1.72	0.55
66:D3:1486:G:O6	66:D3:1487:A:N6	2.39	0.55
2:DA:47:LEU:O	2:DA:64:ARG:NH2	2.38	0.55
3:JA:850:LEU:HD13	3:JA:854:VAL:HB	1.86	0.55
16:UM:552:SER:OG	16:UM:554:ASP:OD1	2.22	0.55
27:UZ:24:CYS:HA	27:UZ:30:LEU:HB3	1.87	0.55
43:JK:459:SER:OG	43:JK:460:LYS:N	2.38	0.55
44:JM:71:ALA:O	44:JM:75:LYS:CB	2.54	0.55
53:DI:16:ALA:HB2	66:D3:354:C:H5''	1.88	0.55
67:D4:205:G:C2	67:D4:245:U:C2	2.93	0.55
1:CB:257:SER:HA	1:CB:261:LEU:HD23	1.87	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:UC:521:ARG:NH2	35:CL:1044:LEU:O	2.39	0.55
8:UE:148:LEU:HA	8:UE:167:SER:HB3	1.88	0.55
15:UL:144:ASN:HB3	15:UL:160:ARG:HG3	1.87	0.55
23:UT:340:ILE:HA	23:UT:343:ILE:HD12	1.88	0.55
25:UV:773:TYR:HE1	25:UV:1142:LYS:HD2	1.70	0.55
35:CL:130:ASP:OD1	35:CL:853:ARG:NH2	2.40	0.55
38:JC:57:GLU:O	53:DI:42:ARG:NH1	2.37	0.55
55:DL:104:HIS:ND1	66:D3:351:C:O2	2.40	0.55
7:UD:640:ILE:HD11	7:UD:749:SER:HA	1.87	0.55
13:UJ:600:LEU:HB3	13:UJ:604:LEU:HB2	1.87	0.55
15:UL:114:LEU:HG	15:UL:115:LEU:HD23	1.87	0.55
15:UL:673:VAL:HG22	15:UL:683:ILE:HG12	1.87	0.55
16:UM:585:ASN:ND2	16:UM:630:ASP:OD1	2.39	0.55
22:US:356:ALA:O	22:US:360:ARG:NH2	2.39	0.55
29:CE:358:LYS:HD2	29:CE:401:LEU:HD21	1.89	0.55
31:CH:164:GLN:HE22	31:CH:528:GLU:HG2	1.71	0.55
32:CI:94:ILE:HG12	33:CJ:58:TYR:HB3	1.88	0.55
3:JA:55:VAL:HG12	3:JA:121:MET:HB3	1.89	0.55
11:UH:545:ARG:HG2	11:UH:574:ARG:HH22	1.72	0.55
13:UJ:760:PHE:O	13:UJ:768:LYS:NZ	2.38	0.55
23:UT:1275:PHE:O	23:UT:1281:ARG:NH1	2.35	0.55
23:UT:1598:LEU:O	23:UT:1609:ARG:NH1	2.40	0.55
39:JF:106:LYS:NZ	39:JG:231:PRO:O	2.35	0.55
51:DG:70:PRO:HA	51:DG:98:ARG:HH22	1.70	0.55
55:DL:33:ARG:HH11	55:DL:61:THR:HG21	1.72	0.55
57:DO:29:HIS:HD2	57:DO:41:ARG:HG3	1.71	0.55
4:UA:708:ASP:OD1	4:UA:708:ASP:N	2.36	0.55
1:CB:181:VAL:HA	1:CB:184:VAL:HG12	1.88	0.55
5:UB:554:GLN:OE1	5:UB:559:ARG:N	2.39	0.55
18:UO:371:GLU:OE1	21:UR:287:SER:OG	2.23	0.55
33:CJ:121:ASN:ND2	66:D3:1608:U:O4	2.39	0.55
60:DW:24:GLN:OE1	60:DW:64:GLN:NE2	2.38	0.55
65:D2:228:A:H2'	65:D2:229:A:C8	2.41	0.55
66:D3:147:A:OP2	66:D3:166:C:N4	2.39	0.55
66:D3:1688:U:H3	66:D3:1713:G:H22	1.53	0.55
7:UD:477:LEU:HB2	7:UD:489:CYS:HB3	1.88	0.55
13:UJ:1499:ILE:HA	13:UJ:1502:LYS:HD2	1.89	0.55
16:UM:506:PHE:O	16:UM:517:ILE:HA	2.07	0.55
25:UV:1107:GLY:HA2	25:UV:1178:ASP:HB3	1.89	0.55
60:DW:56:HIS:O	66:D3:861:U:O2'	2.23	0.55
3:JA:87:GLU:HB2	3:JA:90:GLU:HG3	1.89	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:UD:476:LYS:HE2	7:UD:491:CYS:HA	1.88	0.55
10:UG:296:ARG:NH1	10:UG:315:LEU:O	2.39	0.55
13:UJ:364:ASN:N	13:UJ:364:ASN:OD1	2.39	0.55
13:UJ:1485:VAL:HB	13:UJ:1531:ILE:HD11	1.89	0.55
66:D3:340:U:H2'	66:D3:341:A:H8	1.72	0.55
66:D3:1512:G:H2'	66:D3:1513:G:C8	2.42	0.55
3:JA:515:LEU:HD11	3:JA:565:PHE:HB3	1.88	0.55
4:UA:350:SER:OG	4:UA:351:LEU:N	2.39	0.55
4:UA:482:SER:O	4:UA:486:SER:CA	2.55	0.55
15:UL:19:SER:OG	15:UL:20:ASN:N	2.35	0.55
16:UM:787:PRO:HG3	34:CK:495:ILE:HD11	1.87	0.55
20:UQ:144:VAL:HG22	20:UQ:153:ILE:HG12	1.88	0.55
22:US:386:LEU:O	22:US:390:SER:HB2	2.06	0.55
24:UU:488:ASN:O	24:UU:492:GLY:HA2	2.07	0.55
24:UU:847:LEU:HD13	42:JJ:269:ARG:HB3	1.89	0.55
25:UV:707:PHE:O	25:UV:918:ARG:NH1	2.40	0.55
35:CL:210:VAL:CG2	70:CL:2001:GTP:C4	2.78	0.55
35:CL:864:ASP:OD2	35:CL:868:ARG:NH1	2.39	0.55
66:D3:323:A:O2'	66:D3:346:G:N2	2.40	0.55
66:D3:924:A:H2'	66:D3:925:G:C8	2.42	0.55
11:UH:120:LEU:N	11:UH:168:LYS:O	2.40	0.55
22:US:215:ASN:HB3	22:US:218:LYS:HD3	1.88	0.55
24:UU:76:THR:OG1	24:UU:78:SER:O	2.24	0.55
30:CG:7:LYS:NZ	30:CG:62:GLU:OE2	2.36	0.55
66:D3:1697:G:H2'	66:D3:1698:G:C8	2.41	0.55
3:JA:742:PHE:HB3	3:JA:762:MET:HB3	1.89	0.54
4:UA:155:SER:OG	4:UA:203:GLN:NE2	2.39	0.54
7:UD:484:SER:O	7:UD:500:LEU:HB2	2.07	0.54
13:UJ:162:ASN:HD22	29:CE:412:VAL:HA	1.71	0.54
23:UT:898:LYS:HB2	53:DI:75:LYS:HZ3	1.73	0.54
24:UU:825:SER:HG	24:UU:863:TRP:CD1	2.25	0.54
35:CL:935:VAL:HG22	35:CL:1002:ILE:HG22	1.89	0.54
53:DI:31:ARG:HB2	53:DI:56:ARG:HH22	1.72	0.54
11:UH:27:ASP:N	11:UH:357:HIS:O	2.40	0.54
13:UJ:73:LEU:HD13	13:UJ:121:LEU:HD21	1.88	0.54
23:UT:1648:GLU:OE2	23:UT:1651:ARG:NH1	2.40	0.54
25:UV:177:ASN:HD21	25:UV:179:LYS:HG2	1.71	0.54
25:UV:949:PHE:O	25:UV:960:LYS:NZ	2.40	0.54
42:JJ:117:TYR:HA	42:JJ:120:LEU:HD12	1.89	0.54
49:DE:116:ASP:OD1	49:DE:116:ASP:N	2.38	0.54
51:DG:14:LYS:HD2	51:DG:123:GLY:HA3	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:DH:159:VAL:O	52:DH:163:ASP:HB2	2.07	0.54
55:DL:17:PRO:HG2	66:D3:249:U:H3	1.73	0.54
66:D3:48:G:C5	66:D3:432:G:N2	2.75	0.54
66:D3:1111:G:H2'	66:D3:1112:G:C8	2.42	0.54
66:D3:1202:A:H3'	66:D3:1203:A:H8	1.72	0.54
4:UA:215:VAL:HG11	4:UA:289:LEU:HD11	1.88	0.54
5:UB:453:ASN:HA	5:UB:456:ILE:HD12	1.90	0.54
7:UD:155:LYS:HG3	7:UD:169:ASP:HB3	1.90	0.54
8:UE:436:THR:OG1	22:US:297:ASP:OD2	2.24	0.54
11:UH:592:ARG:HE	11:UH:640:LEU:HD21	1.72	0.54
13:UJ:136:LEU:O	13:UJ:140:LEU:HB2	2.08	0.54
13:UJ:194:SER:HB2	24:UU:335:VAL:HG11	1.88	0.54
16:UM:30:LYS:HA	16:UM:45:LEU:C	2.27	0.54
23:UT:1171:VAL:HA	23:UT:1174:ILE:HD12	1.89	0.54
23:UT:1616:LEU:HD22	23:UT:1635:ILE:HD13	1.87	0.54
30:CF:62:GLU:HA	30:CF:65:LEU:HB2	1.89	0.54
35:CL:951:MET:SD	35:CL:987:TYR:OH	2.58	0.54
38:JC:103:ASP:HB3	38:JC:117:LEU:HB3	1.90	0.54
53:DI:38:ILE:HG13	53:DI:96:LEU:HD11	1.88	0.54
53:DI:116:HIS:O	53:DI:146:ARG:NH1	2.40	0.54
66:D3:1270:G:H2'	66:D3:1271:G:C8	2.42	0.54
5:UB:589:GLU:O	22:US:310:LYS:NZ	2.40	0.54
14:UK:11:LYS:NZ	66:D3:573:C:OP1	2.40	0.54
25:UV:177:ASN:HB3	25:UV:213:LEU:HD13	1.89	0.54
32:CI:42:GLU:O	32:CI:46:LYS:HG2	2.07	0.54
38:JC:121:ARG:NH1	38:JC:137:ILE:O	2.40	0.54
38:JC:237:ARG:HH22	38:JC:288:LYS:HG3	1.72	0.54
45:JN:249:ARG:HH12	45:JN:281:LYS:HE3	1.72	0.54
49:DE:133:LYS:HE3	49:DE:134:LYS:HG3	1.89	0.54
66:D3:23:G:C6	66:D3:603:U:N3	2.75	0.54
66:D3:377:G:H5''	66:D3:378:A:H5'	1.87	0.54
3:JA:731:GLN:NE2	3:JA:732:SER:OG	2.40	0.54
4:UA:29:LEU:HD21	4:UA:327:LEU:HD21	1.89	0.54
5:UB:701:ALA:HA	22:US:417:HIS:HB2	1.90	0.54
9:UF:41:HIS:NE2	47:JP:21:GLU:O	2.33	0.54
16:UM:26:SER:OG	16:UM:28:ASN:O	2.26	0.54
20:UQ:167:SER:OG	65:D2:64:U:OP2	2.25	0.54
23:UT:220:GLU:HG3	23:UT:268:PRO:HG3	1.88	0.54
23:UT:1127:PHE:HB3	23:UT:1130:ALA:HB3	1.89	0.54
24:UU:354:SER:O	24:UU:631:ASN:ND2	2.41	0.54
36:CM:155:LYS:HG2	36:CM:234:ASN:HA	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:JC:223:ASN:HB3	38:JC:229:PHE:HE1	1.73	0.54
49:DE:98:ASN:HB2	49:DE:114:ILE:O	2.07	0.54
51:DG:191:ARG:NH1	66:D3:177:U:O2'	2.41	0.54
55:DL:66:ILE:O	66:D3:246:G:N2	2.41	0.54
65:D2:182:G:H2'	65:D2:183:A:C8	2.43	0.54
66:D3:1276:U:C4	66:D3:1433:G:O6	2.61	0.54
66:D3:1739:C:H2'	66:D3:1740:A:H8	1.71	0.54
66:D3:1782:A:OP2	66:D3:1783:C:N4	2.35	0.54
1:CA:142:ARG:NH1	1:CA:186:ASP:OD2	2.40	0.54
3:JB:25:ILE:O	3:JB:198:CYS:HA	2.08	0.54
5:UB:562:PRO:HA	5:UB:565:VAL:HG12	1.89	0.54
11:UH:665:GLN:HA	11:UH:668:ILE:HG22	1.89	0.54
13:UJ:563:LEU:HD11	13:UJ:600:LEU:HD12	1.90	0.54
18:UO:216:GLU:N	18:UO:229:CYS:O	2.36	0.54
20:UQ:869:MET:SD	67:D4:332:G:N2	2.76	0.54
23:UT:462:ARG:NH2	23:UT:463:ASP:OD1	2.40	0.54
24:UU:605:LEU:HD12	24:UU:628:VAL:HG11	1.90	0.54
3:JA:505:ARG:NH1	3:JA:646:SER:OG	2.41	0.54
1:CB:210:MET:HE3	1:CB:217:ILE:HD13	1.89	0.54
7:UD:417:VAL:HG11	7:UD:460:LEU:HD13	1.88	0.54
21:UR:242:ASN:ND2	21:UR:584:GLY:O	2.40	0.54
25:UV:1178:ASP:N	25:UV:1178:ASP:OD1	2.40	0.54
5:UB:703:GLN:HE22	22:US:487:PRO:HA	1.72	0.54
13:UJ:1634:ARG:NH2	67:D4:154:C:O2'	2.41	0.54
16:UM:532:HIS:NE2	16:UM:554:ASP:OD1	2.41	0.54
28:CD:244:ASP:OD1	28:CD:244:ASP:N	2.37	0.54
28:CD:302:ASN:ND2	28:CD:397:SER:O	2.33	0.54
52:DH:127:GLU:OE2	56:DN:21:ASN:ND2	2.41	0.54
2:DA:71:ALA:HB2	2:DA:80:SER:HA	1.88	0.54
21:UR:249:SER:OG	21:UR:250:ALA:N	2.41	0.54
23:UT:1106:LEU:HD11	23:UT:1150:ILE:HG12	1.89	0.54
25:UV:180:LYS:HD3	25:UV:181:PRO:HD2	1.89	0.54
25:UV:182:ASP:HB2	25:UV:208:THR:HB	1.90	0.54
49:DE:136:VAL:HG21	49:DE:148:ARG:HE	1.73	0.54
60:DW:24:GLN:HA	60:DW:63:VAL:O	2.07	0.54
16:UM:561:SER:HB3	16:UM:568:MET:HE3	1.90	0.54
22:US:146:LYS:HE3	65:D2:124:A:C4'	2.30	0.54
24:UU:131:SER:HB3	24:UU:170:LEU:HD11	1.89	0.54
25:UV:309:LEU:HB2	25:UV:312:ARG:HG2	1.90	0.54
25:UV:794:ASP:OD1	25:UV:858:ARG:NH2	2.39	0.54
30:CG:25:GLN:NE2	31:CH:323:ASP:OD1	2.41	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:JF:47:MET:HE3	39:JF:117:SER:HA	1.89	0.54
47:JP:263:ARG:HG3	47:JP:282:GLU:HG3	1.90	0.54
53:DI:62:THR:HG21	53:DI:75:LYS:HE3	1.90	0.54
58:DQ:22:VAL:HG22	58:DQ:65:ILE:HG12	1.90	0.54
64:Dc:16:LEU:HD21	64:Dc:29:ARG:HG3	1.90	0.54
65:D2:423:C:H2'	65:D2:424:G:H8	1.71	0.54
66:D3:273:G:O6	66:D3:283:U:O4	2.26	0.54
66:D3:318:U:O2	66:D3:346:G:N2	2.38	0.54
4:UA:814:LYS:NZ	24:UU:939:ALA:O	2.38	0.53
5:UB:422:LEU:HD13	5:UB:466:TYR:HE2	1.73	0.53
15:UL:299:ARG:HD3	15:UL:317:ILE:HG23	1.90	0.53
22:US:495:MET:O	22:US:499:LEU:HB2	2.07	0.53
23:UT:731:SER:O	23:UT:737:ARG:NH2	2.41	0.53
23:UT:1211:ILE:HD12	23:UT:1216:VAL:HG21	1.90	0.53
24:UU:93:ALA:HB2	24:UU:121:LEU:HD13	1.90	0.53
25:UV:401:LEU:O	25:UV:410:LYS:NZ	2.36	0.53
25:UV:870:ALA:O	25:UV:875:LYS:NZ	2.38	0.53
25:UV:1043:SER:OG	25:UV:1045:ASN:OD1	2.26	0.53
28:CD:110:LYS:HE3	47:JP:157:ASN:HD22	1.74	0.53
29:CE:287:LEU:HD13	29:CE:371:LEU:HG	1.90	0.53
52:DH:34:LEU:HA	52:DH:37:GLU:HB2	1.90	0.53
54:DJ:148:VAL:HG11	54:DJ:156:ILE:HD11	1.90	0.53
61:DX:47:SER:OG	61:DX:48:HIS:ND1	2.39	0.53
67:D4:49:C:C4	67:D4:50:U:O4	2.61	0.53
3:JA:23:ARG:HG2	3:JA:145:GLY:H	1.73	0.53
1:CB:249:GLN:NE2	1:CB:270:SER:O	2.41	0.53
21:UR:32:ASP:OD1	21:UR:32:ASP:N	2.41	0.53
23:UT:1119:TYR:HE2	23:UT:1157:ILE:HG13	1.71	0.53
28:CD:297:HIS:NE2	28:CD:309:GLU:OE2	2.42	0.53
30:CG:96:PRO:HD3	31:CH:552:TRP:HA	1.89	0.53
51:DG:4:ASN:HB3	51:DG:110:ALA:HA	1.91	0.53
53:DI:172:ARG:NH1	66:D3:330:G:OP2	2.41	0.53
66:D3:233:C:H4'	66:D3:234:G:H5''	1.91	0.53
66:D3:1726:G:H2'	66:D3:1727:G:C8	2.43	0.53
7:UD:488:ILE:O	7:UD:495:VAL:HA	2.07	0.53
15:UL:421:THR:OG1	15:UL:423:LYS:NZ	2.41	0.53
23:UT:1529:ARG:HG2	23:UT:1533:MET:HE3	1.90	0.53
31:CH:304:ILE:HG12	31:CH:338:THR:HG21	1.90	0.53
35:CL:773:THR:HG23	35:CL:774:PRO:HD3	1.90	0.53
37:CN:207:VAL:HG22	37:CN:213:THR:HG22	1.90	0.53
44:JM:71:ALA:O	44:JM:75:LYS:HB2	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:JM:213:ARG:NH1	66:D3:1491:U:OP2	2.40	0.53
51:DG:132:ARG:NH1	66:D3:149:C:O2'	2.42	0.53
51:DG:193:LEU:O	51:DG:197:ASN:ND2	2.41	0.53
66:D3:331:A:N1	66:D3:338:C:N3	2.56	0.53
3:JA:82:LYS:HE2	62:DY:114:ARG:HD3	1.91	0.53
3:JA:483:GLU:O	3:JA:487:ASN:ND2	2.41	0.53
5:UB:649:THR:HG23	5:UB:650:VAL:HG23	1.90	0.53
7:UD:226:LEU:O	7:UD:227:HIS:ND1	2.41	0.53
15:UL:532:ASP:OD2	15:UL:552:ASP:N	2.39	0.53
20:UQ:322:SER:HA	20:UQ:333:PHE:HB3	1.90	0.53
23:UT:1405:GLY:O	23:UT:1414:GLN:NE2	2.41	0.53
24:UU:496:LYS:HG2	50:DF:18:GLU:HG2	1.90	0.53
25:UV:725:SER:O	25:UV:729:ASN:ND2	2.41	0.53
27:UZ:231:GLN:NE2	48:JQ:189:PRO:O	2.41	0.53
30:CG:95:ARG:HD3	30:CG:96:PRO:HD2	1.89	0.53
49:DE:101:LEU:HD11	49:DE:109:PHE:HB3	1.90	0.53
4:UA:575:GLU:N	4:UA:575:GLU:OE1	2.42	0.53
7:UD:522:SER:HB3	7:UD:529:ASN:HD21	1.74	0.53
16:UM:510:SER:OG	16:UM:511:TYR:N	2.40	0.53
21:UR:346:TYR:HE2	21:UR:393:LEU:HD23	1.73	0.53
21:UR:381:ASN:OD1	21:UR:381:ASN:N	2.41	0.53
23:UT:1205:ILE:HG12	23:UT:1210:PHE:HE1	1.74	0.53
24:UU:51:VAL:HG12	24:UU:60:ILE:HG12	1.90	0.53
27:UZ:229:ARG:HA	27:UZ:233:GLY:H	1.72	0.53
45:JN:267:VAL:HG11	45:JN:273:ARG:HA	1.88	0.53
55:DL:125:VAL:HG12	55:DL:139:VAL:HA	1.89	0.53
66:D3:70:C:H2'	66:D3:71:A:H8	1.73	0.53
66:D3:269:G:O6	66:D3:287:G:O6	2.27	0.53
66:D3:369:A:N6	66:D3:373:G:N1	2.56	0.53
2:DA:241:GLY:HA3	25:UV:656:ARG:HB3	1.90	0.53
4:UA:120:GLN:HG2	4:UA:141:VAL:HG22	1.90	0.53
5:UB:576:ILE:HD13	5:UB:671:TYR:CZ	2.44	0.53
6:UC:578:SER:OG	66:D3:489:C:O2	2.25	0.53
9:UF:165:ARG:NH1	9:UF:189:GLU:OE1	2.41	0.53
13:UJ:699:ARG:HH21	13:UJ:744:ASP:HB2	1.74	0.53
13:UJ:1692:VAL:O	13:UJ:1695:MET:O	2.25	0.53
14:UK:111:ARG:HE	14:UK:212:LYS:HB2	1.74	0.53
15:UL:406:LEU:HD13	15:UL:445:VAL:HG12	1.89	0.53
21:UR:427:ASN:OD1	21:UR:428:ALA:N	2.42	0.53
23:UT:431:LYS:NZ	23:UT:750:TYR:O	2.32	0.53
25:UV:396:LEU:HD21	25:UV:429:LEU:HD21	1.91	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CJ:101:SER:OG	33:CJ:116:ARG:NH2	2.42	0.53
35:CL:805:ASN:OD1	35:CL:1026:LYS:NZ	2.35	0.53
37:CN:219:ASN:ND2	66:D3:1056:U:O2	2.34	0.53
39:JG:175:CYS:SG	39:JG:176:ARG:N	2.82	0.53
66:D3:1592:A:H2'	66:D3:1593:A:H8	1.74	0.53
67:D4:153:C:H2'	67:D4:154:C:C6	2.43	0.53
6:UC:594:GLU:HG3	6:UC:598:ILE:HD11	1.91	0.53
13:UJ:705:SER:O	13:UJ:709:ASN:ND2	2.41	0.53
18:UO:257:CYS:SG	18:UO:258:LEU:N	2.82	0.53
23:UT:139:ALA:HA	23:UT:142:PHE:HB2	1.90	0.53
23:UT:1441:LEU:O	23:UT:1468:ARG:NH2	2.41	0.53
25:UV:1189:LEU:O	25:UV:1194:HIS:NE2	2.42	0.53
37:CN:46:ASN:ND2	37:CN:48:ASN:OD1	2.41	0.53
51:DG:68:LEU:HG	51:DG:101:ILE:HD11	1.91	0.53
54:DJ:6:ARG:NH1	66:D3:38:C:O3'	2.41	0.53
65:D2:20:C:H2'	65:D2:21:A:C8	2.42	0.53
66:D3:231:U:O2'	66:D3:233:C:OP2	2.24	0.53
7:UD:117:ILE:HD11	7:UD:144:ILE:HB	1.91	0.53
7:UD:481:ILE:HB	7:UD:485:LYS:HG3	1.89	0.53
8:UE:443:GLN:HE22	22:US:333:GLU:H	1.57	0.53
8:UE:492:THR:OG1	8:UE:533:ARG:NH2	2.42	0.53
9:UF:173:ARG:NH2	17:UN:335:GLN:OE1	2.39	0.53
10:UG:552:ARG:NH1	37:CN:195:GLU:OE2	2.39	0.53
22:US:397:THR:HG22	22:US:499:LEU:HA	1.90	0.53
23:UT:1358:LYS:O	23:UT:1364:ARG:NH1	2.42	0.53
31:CH:164:GLN:NE2	31:CH:528:GLU:O	2.41	0.53
38:JC:223:ASN:HD21	38:JC:227:ARG:HB2	1.74	0.53
42:JJ:98:LYS:HG2	42:JJ:138:GLU:HG2	1.89	0.53
66:D3:855:A:OP2	66:D3:859:A:N6	2.42	0.53
66:D3:1662:G:H2'	66:D3:1663:G:C8	2.44	0.53
3:JA:808:SER:OG	3:JA:809:LYS:NZ	2.42	0.53
1:CB:166:PRO:HA	1:CB:188:VAL:HA	1.90	0.53
1:CB:184:VAL:HA	1:CB:187:VAL:HG12	1.91	0.53
7:UD:450:VAL:HG13	7:UD:465:LEU:HB2	1.91	0.53
10:UG:241:ASN:O	10:UG:245:ALA:N	2.41	0.53
11:UH:71:SER:HA	11:UH:77:ALA:HA	1.91	0.53
15:UL:472:HIS:CE1	15:UL:492:SER:HG	2.27	0.53
18:UO:127:THR:HA	18:UO:144:SER:HA	1.89	0.53
23:UT:870:LEU:HD11	23:UT:888:LEU:HB3	1.91	0.53
25:UV:369:TRP:HE3	25:UV:370:LEU:HD22	1.73	0.53
25:UV:1103:ARG:HG2	25:UV:1179:LYS:HG2	1.91	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CH:523:LYS:O	31:CH:541:ALA:HA	2.09	0.53
47:JP:238:THR:HG1	47:JP:264:THR:HG1	1.56	0.53
62:DY:41:ARG:NH2	62:DY:52:LYS:O	2.41	0.53
66:D3:114:C:N4	66:D3:245:U:O2	2.41	0.53
66:D3:540:G:C2	66:D3:542:A:C6	2.96	0.53
67:D4:3:C:H2'	67:D4:4:G:H8	1.74	0.53
1:CA:160:ASP:HB2	6:UC:603:THR:HG21	1.91	0.53
3:JA:81:ILE:HD11	3:JA:88:VAL:HA	1.91	0.53
3:JA:614:ILE:HD11	3:JA:634:ARG:HD3	1.90	0.53
4:UA:115:SER:O	4:UA:115:SER:OG	2.21	0.53
15:UL:78:LYS:NZ	15:UL:657:GLN:O	2.37	0.53
19:UP:194:LYS:HD2	19:UP:199:ILE:HG13	1.91	0.53
20:UQ:467:GLN:HE22	20:UQ:470:TYR:HB2	1.74	0.53
29:CE:379:ASP:OD1	29:CE:379:ASP:N	2.34	0.53
35:CL:82:LYS:H	70:CL:2001:GTP:PB	2.32	0.53
35:CL:840:LYS:NZ	66:D3:578:U:OP2	2.42	0.53
38:JC:169:LYS:HE3	38:JC:171:ARG:HB2	1.91	0.53
47:JP:201:ILE:HD12	47:JP:225:LEU:HD22	1.91	0.53
3:JA:906:SER:OG	3:JA:907:ASN:N	2.42	0.52
5:UB:647:ILE:HA	5:UB:651:TRP:HB2	1.90	0.52
9:UF:198:ASN:HA	9:UF:201:LYS:HD3	1.90	0.52
13:UJ:44:ASP:OD1	13:UJ:45:TYR:N	2.39	0.52
13:UJ:1358:CYS:HA	13:UJ:1361:VAL:HG12	1.90	0.52
14:UK:235:ASP:O	14:UK:238:GLY:N	2.32	0.52
15:UL:135:ARG:HH21	15:UL:149:ASP:HB3	1.74	0.52
23:UT:465:PHE:HA	23:UT:468:ALA:HB2	1.91	0.52
23:UT:1386:GLU:HA	23:UT:1389:LYS:HG2	1.90	0.52
32:CI:162:ASP:OD1	32:CI:162:ASP:N	2.42	0.52
35:CL:858:PRO:HA	35:CL:885:PHE:HB3	1.90	0.52
35:CL:869:THR:O	35:CL:869:THR:OG1	2.28	0.52
39:JF:121:LEU:HB3	39:JF:163:ILE:O	2.09	0.52
39:JG:97:LEU:HD11	39:JG:132:ARG:HG2	1.91	0.52
39:JG:164:LYS:O	39:JG:170:HIS:NE2	2.41	0.52
44:JM:112:ASN:HD21	67:D4:87:G:H22	1.55	0.52
56:DN:87:ASP:N	56:DN:87:ASP:OD1	2.42	0.52
3:JA:881:GLN:HE22	3:JA:915:LYS:HB2	1.74	0.52
7:UD:374:THR:OG1	7:UD:375:VAL:N	2.41	0.52
10:UG:160:LEU:HD12	10:UG:161:GLN:HG2	1.91	0.52
13:UJ:193:THR:HG22	13:UJ:241:ILE:HD12	1.91	0.52
16:UM:746:TRP:O	16:UM:752:THR:OG1	2.28	0.52
20:UQ:244:ILE:HD12	20:UQ:283:VAL:HG11	1.91	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:UT:492:GLN:HE22	23:UT:495:GLU:HB2	1.74	0.52
23:UT:969:SER:HA	23:UT:972:LEU:HB2	1.90	0.52
23:UT:1616:LEU:HD22	23:UT:1635:ILE:HG21	1.91	0.52
25:UV:978:ASP:N	25:UV:978:ASP:OD1	2.41	0.52
26:UX:69:THR:HG22	26:UX:106:LEU:HG	1.90	0.52
38:JC:115:VAL:HG21	38:JC:153:LEU:HD11	1.91	0.52
38:JC:136:ARG:NH1	66:D3:340:U:OP1	2.42	0.52
45:JN:226:ASP:N	45:JN:226:ASP:OD1	2.38	0.52
57:DO:79:VAL:O	57:DO:113:GLY:N	2.33	0.52
3:JA:173:ARG:HH22	3:JA:183:ARG:HG2	1.74	0.52
8:UE:184:PHE:HE1	8:UE:220:GLY:HA2	1.73	0.52
13:UJ:1553:ARG:O	13:UJ:1557:ASP:HB2	2.10	0.52
15:UL:449:THR:OG1	15:UL:451:ASN:O	2.26	0.52
18:UO:440:GLU:O	18:UO:444:ASN:ND2	2.41	0.52
20:UQ:141:LEU:HD21	20:UQ:144:VAL:HG23	1.91	0.52
23:UT:122:LEU:HA	23:UT:125:TYR:HB3	1.92	0.52
23:UT:1383:ASN:HB3	23:UT:1386:GLU:HG2	1.91	0.52
24:UU:28:ARG:NH1	24:UU:383:ASP:OD2	2.37	0.52
54:DJ:119:ALA:HB1	54:DJ:124:HIS:HB3	1.91	0.52
66:D3:1692:G:C6	66:D3:1710:U:N3	2.77	0.52
3:JA:183:ARG:NH1	3:JA:557:SER:O	2.37	0.52
4:UA:428:THR:OG1	4:UA:429:GLU:OE1	2.26	0.52
13:UJ:724:VAL:O	13:UJ:755:ARG:NH2	2.43	0.52
16:UM:403:ILE:HG13	16:UM:415:TRP:HB2	1.91	0.52
23:UT:969:SER:O	23:UT:972:LEU:O	2.28	0.52
23:UT:1610:MET:HB2	23:UT:1657:THR:HG21	1.91	0.52
47:JP:281:ASN:HD22	47:JP:287:TYR:HE2	1.55	0.52
66:D3:193:U:H2'	66:D3:194:U:H2'	1.90	0.52
66:D3:1541:G:N2	66:D3:1569:A:N1	2.55	0.52
3:JA:125:GLN:HA	3:JA:151:LEU:HD13	1.92	0.52
8:UE:65:TRP:HA	8:UE:76:ILE:HG22	1.91	0.52
14:UK:166:LEU:HD23	14:UK:170:GLN:HB3	1.92	0.52
16:UM:602:TRP:HB3	16:UM:609:CYS:HA	1.91	0.52
16:UM:786:ILE:O	16:UM:789:THR:OG1	2.27	0.52
18:UO:200:SER:OG	18:UO:201:SER:N	2.43	0.52
20:UQ:616:SER:HA	20:UQ:664:LEU:HD11	1.91	0.52
23:UT:1017:LEU:HD22	23:UT:1022:VAL:HG21	1.92	0.52
25:UV:490:GLU:OE1	25:UV:580:TYR:OH	2.26	0.52
28:CD:170:ASN:HD21	29:CE:190:TRP:HE1	1.57	0.52
29:CE:339:TYR:HE1	29:CE:356:LYS:HB3	1.74	0.52
40:JH:399:ILE:HA	40:JH:409:ALA:HB1	1.91	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:DG:31:ARG:HE	51:DG:34:GLN:HE22	1.58	0.52
51:DG:57:ASP:HA	51:DG:106:LEU:HA	1.92	0.52
55:DL:123:VAL:HG12	55:DL:142:VAL:HA	1.92	0.52
66:D3:1655:A:N6	66:D3:1745:G:H22	2.08	0.52
8:UE:440:ILE:HD11	8:UE:452:LEU:HD11	1.91	0.52
9:UF:169:GLN:NE2	9:UF:185:TYR:OH	2.43	0.52
13:UJ:600:LEU:HD23	13:UJ:603:LYS:HE2	1.92	0.52
13:UJ:1516:PHE:HB2	13:UJ:1521:ILE:HD11	1.92	0.52
15:UL:181:SER:OG	15:UL:183:ASP:OD1	2.28	0.52
15:UL:381:LYS:HE2	15:UL:384:THR:HG21	1.90	0.52
16:UM:226:ASN:HD21	16:UM:228:LYS:HE3	1.73	0.52
18:UO:244:LYS:NZ	18:UO:247:GLU:OE1	2.42	0.52
21:UR:272:LEU:HD11	21:UR:314:THR:HG21	1.91	0.52
23:UT:1493:VAL:HG11	23:UT:1547:LEU:HD11	1.90	0.52
23:UT:1661:ILE:O	23:UT:1665:LEU:HB2	2.09	0.52
24:UU:743:ARG:NH2	34:CK:482:LEU:O	2.32	0.52
25:UV:441:GLN:HE22	25:UV:470:LYS:H	1.56	0.52
27:UZ:173:PRO:HA	27:UZ:176:VAL:HG22	1.90	0.52
28:CD:48:ILE:HD11	28:CD:127:LEU:HD13	1.91	0.52
35:CL:1157:LYS:NZ	67:D4:13:C:OP2	2.35	0.52
37:CN:38:PHE:HB2	37:CN:56:VAL:HB	1.91	0.52
38:JC:112:THR:HG23	38:JC:113:LYS:HG3	1.91	0.52
47:JP:327:LYS:HG2	47:JP:350:HIS:H	1.74	0.52
54:DJ:143:ILE:HG22	54:DJ:145:SER:H	1.75	0.52
3:JA:541:TYR:O	3:JA:637:ARG:NH1	2.43	0.52
3:JA:841:ARG:NH1	3:JA:854:VAL:O	2.42	0.52
5:UB:443:LYS:HB2	5:UB:448:PHE:HB2	1.91	0.52
8:UE:443:GLN:HE21	18:UO:252:ASN:HD21	1.56	0.52
14:UK:196:LYS:NZ	65:D2:424:G:OP2	2.33	0.52
15:UL:149:ASP:OD1	15:UL:149:ASP:N	2.42	0.52
22:US:254:LYS:NZ	22:US:287:PRO:O	2.36	0.52
23:UT:30:PRO:HA	23:UT:33:ASN:HB3	1.92	0.52
27:UZ:204:ILE:HG13	27:UZ:205:GLN:HG3	1.92	0.52
52:DH:6:ALA:HA	52:DH:9:LEU:HG	1.92	0.52
3:JA:884:ILE:HD12	3:JA:898:ILE:HD12	1.90	0.52
8:UE:234:GLU:HB3	8:UE:247:THR:HB	1.90	0.52
10:UG:263:MET:HE1	17:UN:834:LYS:HB2	1.90	0.52
12:UI:436:THR:HA	12:UI:439:LYS:HG2	1.92	0.52
13:UJ:646:ASN:HB2	13:UJ:649:VAL:HB	1.91	0.52
20:UQ:363:ASN:ND2	20:UQ:366:ASN:O	2.34	0.52
20:UQ:623:PHE:HE2	20:UQ:664:LEU:HD13	1.74	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:UT:1372:MET:HA	23:UT:1375:ILE:HD12	1.92	0.52
47:JP:260:GLN:NE2	47:JP:289:TYR:OH	2.37	0.52
53:DI:64:ASN:O	53:DI:180:ASP:HA	2.10	0.52
58:DQ:42:GLU:OE1	66:D3:1528:U:O2'	2.26	0.52
66:D3:1140:G:H2'	66:D3:1141:G:C8	2.45	0.52
66:D3:1690:G:C2	66:D3:1712:A:N1	2.77	0.52
66:D3:1785:U:H2'	66:D3:1786:G:H8	1.75	0.52
5:UB:495:ASN:HD22	5:UB:618:THR:HA	1.75	0.52
5:UB:600:LEU:O	5:UB:675:TYR:OH	2.28	0.52
7:UD:491:CYS:O	7:UD:530:ARG:NH2	2.43	0.52
13:UJ:1492:SER:OG	13:UJ:1493:ALA:N	2.43	0.52
15:UL:7:ARG:HH11	15:UL:651:GLN:HE21	1.56	0.52
15:UL:130:ASP:O	15:UL:134:THR:N	2.43	0.52
15:UL:606:ASP:OD1	15:UL:606:ASP:N	2.41	0.52
21:UR:134:LYS:HA	21:UR:156:ASN:HA	1.92	0.52
23:UT:262:ALA:HB1	23:UT:272:VAL:HG12	1.92	0.52
23:UT:803:ASP:OD1	23:UT:828:ARG:NH2	2.43	0.52
34:CK:297:LEU:HD12	34:CK:301:GLU:HG2	1.92	0.52
39:JF:38:THR:OG1	39:JF:40:ARG:NH2	2.42	0.52
57:DO:41:ARG:NH2	66:D3:896:U:O2	2.41	0.52
23:UT:51:PHE:HZ	23:UT:67:ALA:HA	1.75	0.52
35:CL:286:THR:O	35:CL:297:SER:CB	2.56	0.52
36:CM:114:PHE:O	36:CM:169:VAL:HA	2.10	0.52
38:JC:248:SER:HA	38:JC:273:ASP:HA	1.92	0.52
49:DE:68:ARG:HE	49:DE:76:VAL:HG11	1.75	0.52
58:DQ:58:ASP:OD1	58:DQ:58:ASP:N	2.43	0.52
65:D2:466:A:N6	67:D4:51:C:N4	2.58	0.52
66:D3:760:A:H3'	66:D3:761:G:H4'	1.90	0.52
6:UC:580:ARG:HD2	26:UX:49:SER:HA	1.92	0.51
7:UD:127:ASP:HB2	7:UD:134:LEU:HB2	1.93	0.51
12:UI:437:ILE:HG12	12:UI:452:LEU:HD11	1.92	0.51
13:UJ:1380:LEU:HD21	13:UJ:1400:ILE:HA	1.93	0.51
20:UQ:311:TYR:OH	21:UR:394:TRP:O	2.25	0.51
23:UT:318:LEU:HA	23:UT:321:ILE:HD12	1.92	0.51
23:UT:322:VAL:O	23:UT:368:ASN:ND2	2.40	0.51
25:UV:252:LEU:HB3	25:UV:270:ILE:HD11	1.91	0.51
31:CH:180:LYS:NZ	31:CH:181:ASN:OD1	2.43	0.51
50:DF:133:VAL:HG22	50:DF:198:LEU:HD13	1.92	0.51
66:D3:368:U:O2	66:D3:373:G:N2	2.43	0.51
1:CA:297:ARG:HH11	1:CA:322:ARG:HG3	1.75	0.51
2:DA:4:GLY:HA3	57:DO:49:LYS:HG3	1.91	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:JA:920:MET:SD	3:JA:920:MET:N	2.83	0.51
1:CB:105:LEU:HD21	1:CB:143:VAL:HG23	1.93	0.51
7:UD:374:THR:OG1	7:UD:757:ARG:NH1	2.42	0.51
7:UD:385:ASN:HD21	7:UD:387:GLU:HB2	1.75	0.51
15:UL:222:THR:OG1	15:UL:223:ASP:OD1	2.27	0.51
22:US:179:GLU:HA	22:US:182:GLU:HG3	1.92	0.51
25:UV:1135:ASN:OD1	25:UV:1137:ASN:ND2	2.43	0.51
66:D3:207:U:O4	66:D3:258:C:N3	2.43	0.51
3:JA:219:LEU:HD12	3:JA:220:PRO:HD2	1.92	0.51
3:JA:513:CYS:HB3	3:JA:567:LEU:HD11	1.92	0.51
4:UA:658:ASP:N	4:UA:658:ASP:OD1	2.43	0.51
7:UD:586:THR:O	7:UD:589:ASN:N	2.44	0.51
13:UJ:698:ASN:ND2	13:UJ:701:SER:OG	2.44	0.51
23:UT:492:GLN:NE2	23:UT:495:GLU:OE1	2.42	0.51
23:UT:765:ARG:HE	23:UT:768:THR:HG21	1.75	0.51
23:UT:1617:VAL:HA	23:UT:1620:VAL:HG12	1.92	0.51
38:JC:78:LYS:HA	53:DI:32:GLN:HG2	1.92	0.51
45:JN:166:SER:HB2	46:JO:158:LEU:HD21	1.92	0.51
49:DE:49:ARG:NH2	66:D3:448:C:OP2	2.43	0.51
51:DG:78:THR:HG22	51:DG:92:ARG:HG3	1.91	0.51
55:DL:57:LYS:NZ	66:D3:327:U:OP2	2.43	0.51
65:D2:338:A:O2'	65:D2:340:U:O4	2.26	0.51
66:D3:311:U:C2	66:D3:314:C:N4	2.79	0.51
1:CA:304:LEU:HD12	6:UC:605:SER:HB3	1.92	0.51
3:JB:278:THR:O	3:JB:465:LEU:HA	2.11	0.51
3:JB:635:ILE:N	3:JB:724:GLY:O	2.44	0.51
15:UL:629:ASN:HD22	15:UL:643:ASP:HA	1.75	0.51
16:UM:552:SER:HB3	16:UM:556:THR:O	2.11	0.51
18:UO:432:TYR:O	18:UO:470:TYR:OH	2.29	0.51
27:UZ:34:LYS:HE2	27:UZ:204:ILE:HD11	1.93	0.51
33:CJ:93:SER:OG	33:CJ:94:ARG:N	2.34	0.51
65:D2:116:U:O2	65:D2:130:G:N2	2.36	0.51
66:D3:161:U:H2'	66:D3:162:A:H8	1.75	0.51
66:D3:505:A:N6	66:D3:586:G:N7	2.44	0.51
3:JA:35:ASN:O	3:JA:39:ASN:ND2	2.44	0.51
1:CB:198:GLU:O	1:CB:221:ILE:HA	2.11	0.51
7:UD:290:THR:OG1	7:UD:291:ASP:N	2.44	0.51
8:UE:281:ILE:HG12	8:UE:328:VAL:HB	1.93	0.51
13:UJ:366:ILE:HA	13:UJ:369:LEU:HD12	1.92	0.51
18:UO:31:THR:HG22	18:UO:32:SER:H	1.74	0.51
18:UO:90:ARG:NH2	18:UO:137:ASN:O	2.44	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:UQ:362:GLU:HB2	20:UQ:454:ILE:HD11	1.91	0.51
22:US:384:ALA:O	22:US:387:THR:OG1	2.23	0.51
23:UT:418:GLN:HE21	23:UT:451:VAL:HG13	1.75	0.51
31:CH:256:ARG:NH2	31:CH:282:GLU:OE1	2.44	0.51
42:JJ:239:HIS:ND1	42:JJ:270:LEU:HD21	2.25	0.51
52:DH:7:LYS:O	52:DH:42:GLN:NE2	2.44	0.51
52:DH:103:SER:OG	52:DH:104:ARG:N	2.43	0.51
65:D2:178:G:O6	65:D2:219:U:O4	2.29	0.51
65:D2:398:A:H2'	65:D2:399:U:C6	2.46	0.51
11:UH:80:ALA:HA	11:UH:88:ASP:HA	1.92	0.51
13:UJ:1581:LYS:O	13:UJ:1585:ASN:ND2	2.44	0.51
15:UL:264:ASN:HD22	15:UL:268:LYS:HB3	1.74	0.51
20:UQ:363:ASN:ND2	20:UQ:368:ASP:OD2	2.43	0.51
20:UQ:710:LEU:HD22	20:UQ:722:LEU:HD22	1.91	0.51
21:UR:251:ILE:O	21:UR:566:THR:OG1	2.27	0.51
23:UT:1592:PRO:HA	23:UT:1595:SER:HB2	1.92	0.51
24:UU:270:SER:HA	24:UU:293:GLU:HG3	1.92	0.51
35:CL:288:VAL:HG12	35:CL:814:GLY:HA2	1.92	0.51
66:D3:1524:A:H2'	66:D3:1525:A:C8	2.46	0.51
66:D3:1541:G:N2	66:D3:1570:A:N1	2.56	0.51
3:JA:913:PHE:HA	3:JA:916:ILE:HD12	1.92	0.51
7:UD:87:GLN:HB3	7:UD:378:TYR:CD2	2.45	0.51
7:UD:232:ASP:HB3	21:UR:381:ASN:HD21	1.76	0.51
8:UE:504:TRP:HA	8:UE:507:ILE:HD12	1.93	0.51
16:UM:30:LYS:CB	16:UM:45:LEU:O	2.58	0.51
16:UM:350:LEU:HB3	16:UM:626:MET:HE2	1.92	0.51
23:UT:356:ASP:N	23:UT:356:ASP:OD1	2.42	0.51
23:UT:636:ARG:NH2	66:D3:165:G:O3'	2.39	0.51
23:UT:666:LEU:HG	23:UT:681:VAL:HG13	1.92	0.51
23:UT:1147:ILE:HD13	23:UT:1150:ILE:HD12	1.93	0.51
23:UT:1463:GLN:HA	23:UT:1466:ILE:HD12	1.91	0.51
23:UT:1609:ARG:HA	23:UT:1612:ILE:HD12	1.93	0.51
39:JG:98:THR:O	39:JG:102:SER:OG	2.29	0.51
47:JP:360:SER:O	47:JP:360:SER:OG	2.23	0.51
62:DY:61:ARG:NH2	66:D3:530:C:O2	2.33	0.51
66:D3:103:A:N7	66:D3:358:U:O4	2.44	0.51
2:DA:11:LYS:HG3	2:DA:12:GLY:H	1.76	0.51
8:UE:167:SER:O	8:UE:167:SER:OG	2.25	0.51
9:UF:5:ARG:O	9:UF:9:GLU:HG2	2.10	0.51
9:UF:332:ASP:N	9:UF:332:ASP:OD1	2.41	0.51
13:UJ:135:LEU:HD23	13:UJ:155:ILE:HD11	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:UJ:636:ASP:OD1	13:UJ:636:ASP:N	2.44	0.51
13:UJ:1768:LEU:HB3	23:UT:32:ARG:HG2	1.91	0.51
15:UL:643:ASP:HB2	15:UL:650:ILE:HD11	1.91	0.51
15:UL:888:ARG:HH22	16:UM:807:ASP:HB2	1.74	0.51
23:UT:67:ALA:O	23:UT:71:GLU:CB	2.59	0.51
23:UT:1738:TYR:HA	66:D3:803:A:H1'	1.91	0.51
25:UV:299:PRO:HD2	25:UV:302:VAL:HG11	1.93	0.51
25:UV:469:ASP:O	25:UV:473:LYS:N	2.43	0.51
29:CE:283:ILE:O	29:CE:380:ARG:NH1	2.43	0.51
42:JJ:265:THR:HG23	42:JJ:269:ARG:HH11	1.75	0.51
66:D3:1202:A:N6	66:D3:1210:C:O2'	2.44	0.51
66:D3:1592:A:H2'	66:D3:1593:A:C8	2.45	0.51
4:UA:376:SER:O	4:UA:376:SER:OG	2.29	0.51
13:UJ:1451:LYS:HE2	13:UJ:1496:GLN:HE21	1.74	0.51
13:UJ:1544:PHE:O	13:UJ:1548:PHE:N	2.41	0.51
16:UM:418:ASN:HB2	16:UM:423:LYS:HB3	1.92	0.51
23:UT:32:ARG:NH1	23:UT:242:SER:O	2.44	0.51
23:UT:1143:LYS:HB3	23:UT:1146:VAL:HG23	1.93	0.51
23:UT:1292:GLY:HA2	23:UT:1298:LEU:HD12	1.92	0.51
24:UU:356:ILE:HD12	24:UU:366:MET:HE1	1.92	0.51
25:UV:358:SER:OG	25:UV:418:SER:OG	2.29	0.51
27:UZ:56:ILE:HA	27:UZ:188:SER:HA	1.92	0.51
38:JC:65:SER:OG	38:JC:109:ASP:O	2.28	0.51
42:JJ:93:LYS:HB3	42:JJ:143:PRO:HB3	1.93	0.51
51:DG:171:LYS:NZ	66:D3:68:A:OP2	2.43	0.51
52:DH:56:LYS:O	52:DH:89:HIS:ND1	2.42	0.51
66:D3:208:U:N3	66:D3:258:C:O2	2.44	0.51
7:UD:232:ASP:N	7:UD:232:ASP:OD1	2.44	0.51
9:UF:202:VAL:HG13	44:JM:55:ILE:HD13	1.93	0.51
16:UM:188:GLU:O	25:UV:657:ARG:NH1	2.43	0.51
17:UN:865:ILE:HD11	47:JP:403:ARG:HD2	1.91	0.51
21:UR:434:GLU:OE2	21:UR:496:ARG:NH1	2.38	0.51
23:UT:1057:GLN:HA	23:UT:1060:LYS:HG2	1.92	0.51
24:UU:390:SER:OG	67:D4:64:A:OP1	2.27	0.51
27:UZ:109:ARG:HH12	66:D3:1478:G:P	2.34	0.51
29:CE:73:GLU:HA	29:CE:76:LEU:HG	1.93	0.51
38:JC:253:TYR:HE1	38:JC:265:ILE:HG23	1.76	0.51
49:DE:105:VAL:HG21	49:DE:245:LYS:HB3	1.92	0.51
51:DG:133:LEU:HD12	66:D3:148:A:H61	1.76	0.51
53:DI:31:ARG:HH12	53:DI:48:THR:HG22	1.74	0.51
54:DJ:136:VAL:HG22	54:DJ:156:ILE:HG12	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:D3:1658:G:H1	66:D3:1743:U:H3	1.59	0.51
66:D3:1698:G:N1	66:D3:1704:U:C2	2.79	0.51
3:JB:737:TRP:O	3:JB:740:ASN:C	2.54	0.50
20:UQ:133:LYS:H	20:UQ:183:LYS:HE3	1.75	0.50
27:UZ:73:LEU:HB3	27:UZ:125:VAL:HG12	1.92	0.50
30:CG:19:GLN:OE1	30:CG:120:LYS:NZ	2.42	0.50
36:CM:103:MET:O	36:CM:107:ALA:HB2	2.11	0.50
38:JC:300:TRP:HA	38:JC:306:LYS:O	2.11	0.50
51:DG:87:ARG:NH1	66:D3:159:U:O2	2.44	0.50
66:D3:1541:G:N2	66:D3:1570:A:C5	2.76	0.50
1:CA:171:LEU:HB3	1:CA:240:VAL:HG12	1.93	0.50
1:CB:308:PRO:HG3	14:UK:129:SER:HA	1.92	0.50
7:UD:395:SER:OG	7:UD:396:GLU:N	2.45	0.50
10:UG:25:THR:OG1	17:UN:862:ARG:NH2	2.44	0.50
11:UH:536:ARG:HA	11:UH:540:LEU:HD23	1.93	0.50
13:UJ:1404:PHE:HD2	13:UJ:1422:VAL:HG13	1.76	0.50
13:UJ:1605:LEU:HD12	13:UJ:1650:SER:HB2	1.93	0.50
16:UM:281:THR:HA	16:UM:327:ILE:HB	1.93	0.50
21:UR:402:GLY:HA3	21:UR:427:ASN:HD21	1.77	0.50
31:CH:242:VAL:HG23	31:CH:253:THR:HG22	1.92	0.50
35:CL:254:HIS:HB2	35:CL:257:LEU:HB2	1.92	0.50
52:DH:162:ILE:HA	52:DH:165:LYS:HD2	1.92	0.50
65:D2:205:C:H2'	65:D2:206:A:C8	2.46	0.50
66:D3:161:U:H2'	66:D3:162:A:C8	2.46	0.50
66:D3:268:C:N3	66:D3:288:A:C6	2.78	0.50
66:D3:390:G:H2'	66:D3:391:A:C8	2.47	0.50
67:D4:205:G:H22	67:D4:245:U:H1'	1.76	0.50
3:JA:765:VAL:HB	3:JA:774:LEU:HD11	1.92	0.50
11:UH:671:ARG:NH2	12:UI:450:ASN:OD1	2.43	0.50
14:UK:217:ARG:NH1	65:D2:260:A:O4'	2.44	0.50
15:UL:217:LEU:HB3	15:UL:229:TRP:HB2	1.92	0.50
16:UM:787:PRO:HB2	34:CK:492:PRO:HG3	1.93	0.50
20:UQ:113:ASN:O	20:UQ:133:LYS:NZ	2.45	0.50
23:UT:18:SER:OG	23:UT:19:PHE:N	2.45	0.50
23:UT:544:ASN:HA	23:UT:547:ASN:HD22	1.77	0.50
24:UU:135:ASN:HD21	24:UU:167:ILE:H	1.59	0.50
25:UV:840:LEU:O	25:UV:851:LYS:HA	2.11	0.50
28:CD:15:TYR:HB2	28:CD:81:ILE:HD13	1.94	0.50
31:CH:241:THR:HG23	31:CH:286:LEU:HD12	1.93	0.50
33:CJ:223:THR:HG21	34:CK:369:ILE:HD11	1.94	0.50
66:D3:67:A:O2'	66:D3:69:G:OP1	2.25	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:D3:829:A:O2'	66:D3:832:U:O4	2.24	0.50
3:JA:587:GLN:NE2	3:JA:588:ILE:O	2.44	0.50
9:UF:49:SER:OG	9:UF:50:ILE:N	2.45	0.50
10:UG:244:ASN:HB3	10:UG:246:VAL:HG22	1.94	0.50
10:UG:482:ASP:N	10:UG:482:ASP:OD1	2.42	0.50
20:UQ:437:THR:O	20:UQ:709:ARG:NH1	2.43	0.50
23:UT:417:LEU:HD11	23:UT:451:VAL:HG11	1.94	0.50
23:UT:971:ARG:NH1	23:UT:996:ARG:O	2.44	0.50
23:UT:1626:ASP:O	23:UT:1630:ASN:ND2	2.45	0.50
35:CL:748:ASP:N	35:CL:748:ASP:OD1	2.44	0.50
36:CM:199:ARG:HB2	36:CM:239:PRO:HB3	1.94	0.50
49:DE:240:LYS:HA	49:DE:242:LYS:HE2	1.93	0.50
1:CA:186:ASP:OD1	1:CA:214:ARG:NH1	2.43	0.50
3:JA:631:SER:O	3:JA:721:HIS:ND1	2.41	0.50
3:JB:387:ASP:HA	3:JB:409:ALA:HB3	1.93	0.50
5:UB:678:PHE:HB3	5:UB:681:PRO:HD2	1.93	0.50
13:UJ:576:ILE:HG13	13:UJ:579:ARG:HH22	1.76	0.50
13:UJ:1686:ILE:HA	13:UJ:1689:LYS:HZ1	1.76	0.50
18:UO:90:ARG:HB2	18:UO:95:LEU:O	2.11	0.50
18:UO:358:GLN:O	18:UO:362:ARG:HB3	2.11	0.50
20:UQ:720:ILE:HG12	20:UQ:745:ILE:HG23	1.92	0.50
22:US:191:ILE:O	22:US:195:PHE:HB2	2.12	0.50
23:UT:899:ASP:OD1	23:UT:899:ASP:N	2.32	0.50
23:UT:1718:VAL:HA	23:UT:1721:ILE:HG22	1.93	0.50
23:UT:1957:GLN:NE2	23:UT:1995:ARG:O	2.45	0.50
25:UV:469:ASP:HB3	25:UV:474:VAL:HG22	1.93	0.50
35:CL:300:GLN:HB2	35:CL:792:VAL:HG12	1.92	0.50
51:DG:155:ASP:N	51:DG:155:ASP:OD1	2.41	0.50
55:DL:37:ASN:O	66:D3:247:A:O2'	2.27	0.50
65:D2:228:A:H2'	65:D2:229:A:H8	1.76	0.50
66:D3:895:G:O6	66:D3:917:U:O4	2.29	0.50
1:CA:110:ASN:OD1	1:CA:142:ARG:NH1	2.43	0.50
3:JA:528:PRO:O	3:JA:532:ASN:ND2	2.45	0.50
10:UG:186:ARG:HH21	32:CI:45:HIS:CE1	2.29	0.50
11:UH:541:LEU:HD23	11:UH:565:GLU:HB3	1.92	0.50
13:UJ:681:ALA:O	13:UJ:685:SER:HB3	2.11	0.50
17:UN:291:SER:OG	47:JP:248:ASP:OD2	2.28	0.50
18:UO:144:SER:OG	18:UO:145:ASP:N	2.44	0.50
23:UT:1362:ALA:O	23:UT:1366:ASN:ND2	2.44	0.50
24:UU:389:MET:HE3	24:UU:448:LYS:HA	1.94	0.50
25:UV:305:PRO:HA	25:UV:308:LEU:HB3	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CH:230:ASN:HB3	31:CH:275:PRO:HB3	1.92	0.50
31:CH:457:GLU:OE1	31:CH:460:ARG:NH1	2.45	0.50
33:CJ:218:SER:OG	33:CJ:219:GLU:N	2.43	0.50
46:JO:52:TYR:O	46:JO:55:THR:OG1	2.28	0.50
57:DO:84:ARG:HH21	57:DO:120:PRO:HG2	1.76	0.50
3:JA:398:LYS:O	3:JA:401:LEU:C	2.54	0.50
3:JA:824:GLU:HG3	3:JA:825:LEU:HD23	1.93	0.50
4:UA:27:LYS:HD3	4:UA:43:ILE:HD12	1.93	0.50
13:UJ:611:ILE:HD12	13:UJ:612:PRO:HD2	1.93	0.50
13:UJ:1590:ILE:HA	13:UJ:1593:TYR:HD2	1.77	0.50
15:UL:415:LYS:NZ	15:UL:427:THR:OG1	2.45	0.50
16:UM:741:LYS:HG3	16:UM:744:ARG:HH21	1.77	0.50
17:UN:845:SER:OG	17:UN:846:ALA:N	2.44	0.50
23:UT:1352:LEU:HA	23:UT:1355:ILE:HG22	1.92	0.50
23:UT:1710:LEU:O	23:UT:1714:SER:CB	2.58	0.50
24:UU:627:ASN:ND2	24:UU:647:THR:OG1	2.43	0.50
25:UV:965:ILE:HD11	25:UV:1064:LEU:HD21	1.93	0.50
35:CL:1118:THR:OG1	65:D2:445:U:O2'	2.28	0.50
36:CM:191:ILE:HB	36:CM:223:VAL:HG22	1.94	0.50
39:JF:236:VAL:HG21	39:JG:102:SER:HA	1.92	0.50
61:DX:75:GLN:HA	61:DX:82:LYS:HA	1.93	0.50
66:D3:1169:G:N1	66:D3:1575:G:OP2	2.44	0.50
7:UD:87:GLN:HB3	7:UD:378:TYR:HD2	1.76	0.50
10:UG:127:ILE:HG12	10:UG:135:ALA:HB3	1.94	0.50
12:UI:481:HIS:O	12:UI:484:SER:OG	2.26	0.50
16:UM:122:THR:HA	16:UM:146:THR:HG23	1.93	0.50
16:UM:667:GLN:NE2	16:UM:671:ASN:OD1	2.45	0.50
18:UO:3:THR:OG1	18:UO:4:ALA:N	2.42	0.50
22:US:167:LYS:O	22:US:272:GLN:NE2	2.45	0.50
23:UT:478:GLU:OE1	23:UT:482:ARG:NH2	2.45	0.50
23:UT:1206:THR:HB	23:UT:1249:LEU:HD13	1.93	0.50
24:UU:715:GLN:NE2	24:UU:717:ASP:O	2.44	0.50
31:CH:240:LEU:HB2	31:CH:255:GLY:HA2	1.94	0.50
35:CL:86:ILE:HD11	35:CL:117:PHE:HB3	1.94	0.50
36:CM:200:VAL:HG12	36:CM:201:SER:H	1.76	0.50
37:CN:50:SER:O	37:CN:127:LYS:NZ	2.41	0.50
38:JC:313:PRO:HG2	38:JC:317:ILE:HD11	1.92	0.50
39:JG:70:CYS:SG	39:JG:71:ASP:N	2.85	0.50
45:JN:257:ALA:O	45:JN:260:GLY:O	2.30	0.50
51:DG:33:GLY:H	51:DG:52:ILE:HB	1.76	0.50
52:DH:15:GLU:HA	52:DH:18:LEU:HD12	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:DL:40:LEU:HD21	55:DL:70:ILE:HD11	1.93	0.50
56:DN:63:ALA:HA	56:DN:66:ILE:HG22	1.93	0.50
65:D2:404:G:N2	65:D2:452:A:OP2	2.39	0.50
66:D3:538:A:H5'	66:D3:543:C:H41	1.77	0.50
66:D3:1171:A:H2'	66:D3:1172:G:H8	1.77	0.50
67:D4:309:G:H2'	67:D4:310:G:H8	1.75	0.50
3:JA:904:LEU:HD21	3:JA:908:GLN:HB2	1.94	0.50
13:UJ:89:GLU:OE1	13:UJ:89:GLU:N	2.45	0.50
13:UJ:170:SER:OG	13:UJ:171:GLU:N	2.43	0.50
23:UT:544:ASN:OD1	23:UT:547:ASN:ND2	2.44	0.50
23:UT:597:ARG:HG3	23:UT:626:GLU:OE2	2.11	0.50
24:UU:128:LEU:HB2	24:UU:150:PRO:HG2	1.92	0.50
29:CE:288:THR:HG23	29:CE:293:GLU:HG3	1.93	0.50
30:CG:87:LEU:O	30:CG:91:CYS:HB2	2.12	0.50
33:CJ:103:PHE:HB2	33:CJ:172:MET:HE1	1.94	0.50
34:CK:295:LYS:NZ	35:CL:262:GLY:O	2.44	0.50
35:CL:164:MET:O	35:CL:233:ARG:NH1	2.40	0.50
35:CL:1118:THR:HG1	65:D2:445:U:HO2'	1.58	0.50
38:JC:138:PRO:HG2	43:JK:464:LEU:HB2	1.92	0.50
66:D3:1270:G:H2'	66:D3:1271:G:H8	1.76	0.50
3:JA:42:TYR:HA	3:JA:45:MET:HB2	1.93	0.49
4:UA:585:TYR:HE1	4:UA:606:VAL:HG21	1.77	0.49
4:UA:717:LEU:O	24:UU:576:ARG:NH2	2.38	0.49
14:UK:184:ILE:HD12	65:D2:427:A:H5'	1.93	0.49
15:UL:335:LEU:HD13	15:UL:391:ARG:HH21	1.76	0.49
20:UQ:17:GLY:HA3	20:UQ:50:ASN:HD21	1.76	0.49
21:UR:181:GLU:OE1	24:UU:242:ARG:NH1	2.35	0.49
23:UT:232:LEU:HB2	23:UT:274:LEU:HD21	1.93	0.49
23:UT:1825:SER:OG	23:UT:1865:ASN:OD1	2.23	0.49
28:CD:206:LEU:HD11	28:CD:219:LEU:HD13	1.94	0.49
30:CF:64:LEU:HD23	30:CF:98:ILE:HD12	1.94	0.49
31:CH:156:ASN:ND2	31:CH:546:GLU:OE1	2.45	0.49
33:CJ:113:ASN:OD1	33:CJ:211:ASN:ND2	2.45	0.49
39:JG:180:LEU:HD12	39:JG:206:VAL:HG22	1.94	0.49
46:JO:272:SER:OG	46:JO:273:LYS:N	2.45	0.49
50:DF:125:THR:HG22	50:DF:127:GLN:HG2	1.93	0.49
55:DL:57:LYS:O	55:DL:138:ASN:ND2	2.44	0.49
66:D3:236:A:H2	66:D3:238:U:H3	1.60	0.49
3:JA:825:LEU:HD12	3:JA:830:LEU:HD21	1.94	0.49
3:JA:895:ILE:HA	3:JA:898:ILE:HG12	1.94	0.49
8:UE:128:GLN:OE1	8:UE:138:GLN:NE2	2.45	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:UH:576:ARG:HB2	11:UH:578:LEU:HG	1.94	0.49
23:UT:77:LEU:HD23	23:UT:80:ILE:HD12	1.94	0.49
23:UT:1379:ASN:HB3	23:UT:1428:THR:HA	1.93	0.49
23:UT:1780:ARG:NH2	23:UT:1860:ASN:OD1	2.45	0.49
25:UV:520:ASN:ND2	25:UV:955:GLU:OE2	2.45	0.49
34:CK:530:ARG:NH1	66:D3:1643:U:OP2	2.36	0.49
39:JF:54:LYS:NZ	39:JF:63:ASP:O	2.46	0.49
52:DH:97:ARG:NH1	66:D3:694:U:O2	2.45	0.49
56:DN:2:GLY:N	66:D3:866:G:OP1	2.45	0.49
66:D3:331:A:N1	66:D3:338:C:C4	2.80	0.49
3:JA:173:ARG:NH2	3:JA:186:GLU:OE1	2.45	0.49
4:UA:172:ILE:HG13	4:UA:187:PHE:HE2	1.76	0.49
7:UD:425:ASP:OD2	7:UD:444:ARG:NH1	2.45	0.49
8:UE:450:HIS:O	8:UE:454:GLU:HB2	2.12	0.49
9:UF:178:VAL:HG12	9:UF:181:LEU:H	1.78	0.49
15:UL:194:HIS:ND1	15:UL:194:HIS:O	2.45	0.49
23:UT:692:ASP:HB3	23:UT:695:LEU:HB2	1.94	0.49
35:CL:179:SER:O	35:CL:182:THR:OG1	2.26	0.49
39:JF:69:ASN:OD1	39:JF:72:ASP:N	2.43	0.49
66:D3:851:U:H1'	66:D3:852:C:H5	1.77	0.49
66:D3:939:A:H2'	66:D3:940:A:C8	2.47	0.49
15:UL:180:THR:HG22	15:UL:186:ILE:HG12	1.94	0.49
16:UM:68:LYS:HE2	16:UM:110:ALA:H	1.78	0.49
20:UQ:38:SER:OG	20:UQ:39:GLN:N	2.46	0.49
20:UQ:469:ASN:ND2	20:UQ:539:THR:O	2.46	0.49
23:UT:114:CYS:O	23:UT:117:LEU:O	2.30	0.49
23:UT:1352:LEU:O	23:UT:1356:ASN:ND2	2.45	0.49
23:UT:1425:VAL:HA	23:UT:1434:PHE:HB3	1.93	0.49
27:UZ:27:ASN:HB3	27:UZ:30:LEU:HB2	1.94	0.49
33:CJ:219:GLU:O	33:CJ:237:VAL:HA	2.12	0.49
34:CK:350:THR:O	34:CK:350:THR:OG1	2.30	0.49
35:CL:1050:PRO:HG2	66:D3:1505:A:H4'	1.93	0.49
39:JF:43:VAL:HG21	39:JF:99:LEU:HD13	1.95	0.49
66:D3:754:A:H2	66:D3:792:U:H3'	1.77	0.49
66:D3:1170:G:O6	66:D3:1574:G:C6	2.65	0.49
66:D3:1776:A:H2'	66:D3:1777:G:H8	1.77	0.49
3:JA:282:THR:O	3:JA:469:SER:HA	2.13	0.49
1:CB:165:ALA:HB3	1:CB:168:LYS:HG3	1.95	0.49
9:UF:289:HIS:CG	29:CE:216:SER:HB3	2.47	0.49
13:UJ:1521:ILE:HA	13:UJ:1524:ILE:HD12	1.94	0.49
23:UT:75:GLN:HG3	31:CH:125:VAL:HG21	1.93	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:UV:135:LEU:HD13	25:UV:183:ILE:HG13	1.94	0.49
30:CG:33:LEU:HD13	30:CG:102:ILE:HD13	1.94	0.49
35:CL:1093:THR:OG1	65:D2:246:G:OP1	2.30	0.49
36:CM:146:VAL:HG23	36:CM:172:SER:HB2	1.94	0.49
37:CN:131:ALA:HA	37:CN:134:ILE:HG22	1.94	0.49
53:DI:153:GLU:HB3	53:DI:156:VAL:HG22	1.95	0.49
65:D2:117:G:H2'	65:D2:118:A:H8	1.77	0.49
66:D3:40:A:H62	66:D3:467:G:H21	1.59	0.49
66:D3:237:C:O2'	66:D3:239:C:OP2	2.30	0.49
66:D3:390:G:H2'	66:D3:391:A:H8	1.77	0.49
67:D4:202:G:H2'	67:D4:203:U:H6	1.78	0.49
4:UA:17:GLN:NE2	4:UA:75:GLU:OE2	2.41	0.49
4:UA:205:LYS:NZ	4:UA:219:GLU:OE1	2.42	0.49
1:CB:173:LEU:HD11	1:CB:256:ASN:HD22	1.77	0.49
8:UE:471:ARG:NH1	22:US:297:ASP:OD2	2.45	0.49
12:UI:413:GLU:HG3	12:UI:415:GLU:H	1.78	0.49
15:UL:183:ASP:OD1	15:UL:183:ASP:N	2.43	0.49
16:UM:300:SER:OG	16:UM:315:ASN:ND2	2.43	0.49
18:UO:150:ARG:HB3	18:UO:160:PRO:HB3	1.93	0.49
23:UT:1243:ILE:HA	23:UT:1246:ILE:HD12	1.93	0.49
23:UT:1463:GLN:OE1	23:UT:1467:LYS:NZ	2.37	0.49
23:UT:1681:LEU:HG	23:UT:1686:GLN:HB3	1.95	0.49
23:UT:1899:LEU:HD11	23:UT:1917:ILE:HD11	1.95	0.49
35:CL:936:GLY:HA3	35:CL:951:MET:HG3	1.93	0.49
37:CN:92:GLU:O	37:CN:121:ARG:NH2	2.40	0.49
45:JN:148:ASN:N	45:JN:150:GLN:OE1	2.45	0.49
53:DI:47:ARG:NH1	66:D3:397:A:OP2	2.39	0.49
65:D2:2:U:H2'	65:D2:3:G:H8	1.77	0.49
66:D3:23:G:N1	66:D3:603:U:N3	2.61	0.49
67:D4:314:C:H2'	67:D4:315:A:C8	2.47	0.49
67:D4:314:C:H2'	67:D4:315:A:H8	1.76	0.49
3:JA:805:ILE:O	3:JA:809:LYS:NZ	2.45	0.49
7:UD:433:LEU:HD12	7:UD:478:VAL:HG13	1.93	0.49
10:UG:212:GLY:O	10:UG:230:THR:HB	2.12	0.49
15:UL:498:LYS:HG2	15:UL:527:THR:HG22	1.95	0.49
17:UN:329:ARG:HH22	17:UN:339:GLN:HB3	1.76	0.49
23:UT:1001:VAL:O	23:UT:1005:ASN:ND2	2.46	0.49
26:UX:186:PRO:O	54:DJ:23:ARG:NH2	2.46	0.49
28:CD:277:ARG:NH1	29:CE:264:GLU:OE1	2.45	0.49
33:CJ:157:PHE:O	33:CJ:159:HIS:N	2.45	0.49
38:JC:192:ASN:HB3	43:JK:485:TRP:HZ3	1.77	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:JG:41:MET:HG3	39:JG:202:ILE:HG23	1.94	0.49
65:D2:360:C:N4	65:D2:366:A:N6	2.61	0.49
66:D3:1699:G:N2	66:D3:1702:A:C5	2.80	0.49
3:JA:12:SER:O	3:JA:16:ASN:ND2	2.46	0.49
7:UD:63:SER:OG	7:UD:687:PHE:O	2.30	0.49
7:UD:65:LEU:O	7:UD:66:ARG:NH1	2.40	0.49
7:UD:509:GLN:HB3	7:UD:558:ARG:HH22	1.78	0.49
8:UE:462:GLU:OE2	8:UE:504:TRP:NE1	2.43	0.49
11:UH:293:TYR:HA	11:UH:304:GLN:HA	1.94	0.49
14:UK:14:ARG:O	66:D3:574:G:N1	2.39	0.49
16:UM:304:LEU:HB2	16:UM:312:GLN:HB2	1.94	0.49
16:UM:343:MET:HG3	16:UM:353:LEU:HD21	1.95	0.49
20:UQ:443:ASN:O	20:UQ:447:LYS:HA	2.12	0.49
21:UR:458:ILE:HD11	21:UR:482:LEU:HD11	1.93	0.49
23:UT:26:LEU:HD11	23:UT:149:GLU:HB2	1.94	0.49
30:CG:23:VAL:HG11	30:CG:117:VAL:HG11	1.94	0.49
32:CI:163:ASN:HD21	32:CI:182:PHE:HD2	1.60	0.49
35:CL:74:VAL:HG23	35:CL:119:GLU:HA	1.93	0.49
57:DO:16:VAL:HG12	57:DO:80:HIS:HB2	1.93	0.49
66:D3:39:A:H5'	66:D3:39:A:C8	2.40	0.49
66:D3:271:A:C6	66:D3:285:G:C6	3.01	0.49
66:D3:505:A:O2'	66:D3:585:A:N6	2.31	0.49
4:UA:130:ASP:OD2	24:UU:25:SER:OG	2.24	0.49
10:UG:113:PRO:HB2	10:UG:379:GLU:HG3	1.95	0.49
16:UM:518:TRP:HA	16:UM:526:GLU:H	1.78	0.49
16:UM:537:TRP:CD1	16:UM:553:GLY:HA2	2.48	0.49
18:UO:34:GLN:HB2	18:UO:71:ARG:HH21	1.78	0.49
21:UR:535:ARG:HD3	65:D2:234:A:C4	2.48	0.49
23:UT:886:ASP:O	23:UT:890:ASN:ND2	2.39	0.49
53:DI:27:PHE:HB2	66:D3:333:A:N6	2.28	0.49
65:D2:212:U:H2'	65:D2:213:G:H8	1.77	0.49
65:D2:238:G:H4'	65:D2:239:U:H5'	1.95	0.49
65:D2:398:A:H2'	65:D2:399:U:H6	1.77	0.49
65:D2:415:U:H2'	65:D2:416:A:C8	2.48	0.49
66:D3:1666:U:H2'	66:D3:1667:A:C8	2.47	0.49
2:DA:87:ARG:NH2	2:DA:89:ASP:OD2	2.46	0.49
4:UA:11:LEU:O	4:UA:701:LEU:HB2	2.12	0.49
8:UE:334:TRP:CD1	8:UE:335:ASN:HB2	2.48	0.49
8:UE:369:PHE:HE1	20:UQ:599:ILE:HG21	1.78	0.49
8:UE:526:LEU:HD23	18:UO:508:LEU:HD21	1.95	0.49
11:UH:536:ARG:O	11:UH:540:LEU:HB2	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:UL:373:ASP:OD1	15:UL:373:ASP:N	2.43	0.49
15:UL:421:THR:HG23	15:UL:423:LYS:HG2	1.95	0.49
18:UO:107:VAL:HG13	18:UO:118:LEU:HB3	1.94	0.49
23:UT:1332:ILE:O	23:UT:1373:LYS:NZ	2.41	0.49
23:UT:1713:SER:O	23:UT:1713:SER:OG	2.31	0.49
23:UT:1783:LEU:HD23	47:JP:179:GLU:HG3	1.95	0.49
24:UU:30:ILE:HD12	24:UU:653:ILE:HG13	1.95	0.49
25:UV:127:PHE:HD1	25:UV:283:TYR:HB3	1.78	0.49
30:CG:49:SER:HA	30:CG:103:THR:HA	1.95	0.49
34:CK:480:GLN:HE22	34:CK:482:LEU:HB2	1.78	0.49
51:DG:51:LYS:NZ	51:DG:52:ILE:O	2.45	0.49
66:D3:540:G:O2'	66:D3:542:A:OP2	2.25	0.49
66:D3:1684:U:H2'	66:D3:1685:G:H8	1.77	0.49
3:JA:144:GLY:HA3	3:JA:476:TYR:HB3	1.94	0.48
5:UB:515:HIS:HD2	5:UB:517:VAL:H	1.61	0.48
7:UD:382:VAL:HG11	7:UD:755:ILE:HD13	1.94	0.48
11:UH:167:TYR:CB	11:UH:180:ILE:O	2.61	0.48
14:UK:247:GLN:NE2	21:UR:515:THR:OG1	2.44	0.48
23:UT:256:SER:O	23:UT:260:HIS:ND1	2.42	0.48
23:UT:1149:PRO:HA	23:UT:1152:GLU:HG2	1.95	0.48
35:CL:45:ARG:NH2	66:D3:28:A:OP1	2.46	0.48
38:JC:81:ILE:HD11	38:JC:95:ARG:HD2	1.93	0.48
53:DI:87:ASN:ND2	66:D3:341:A:O2'	2.47	0.48
55:DL:92:HIS:HB3	55:DL:101:GLU:HB2	1.94	0.48
57:DO:15:GLY:O	57:DO:79:VAL:HA	2.13	0.48
65:D2:116:U:H2'	65:D2:117:G:H8	1.78	0.48
66:D3:250:C:H2'	66:D3:251:A:C8	2.48	0.48
66:D3:806:A:H2'	66:D3:807:A:C8	2.48	0.48
3:JA:117:ASN:O	3:JA:141:THR:OG1	2.32	0.48
8:UE:128:GLN:HB3	8:UE:138:GLN:HG3	1.95	0.48
8:UE:473:LYS:HD3	8:UE:476:LEU:HD23	1.95	0.48
13:UJ:1352:LEU:HA	13:UJ:1355:ILE:HG22	1.95	0.48
13:UJ:1533:ASN:HA	13:UJ:1536:VAL:HG22	1.96	0.48
13:UJ:1555:ALA:O	13:UJ:1571:ARG:NH1	2.45	0.48
15:UL:572:HIS:ND1	15:UL:592:SER:OG	2.46	0.48
18:UO:165:THR:OG1	18:UO:166:GLY:N	2.45	0.48
20:UQ:24:ASN:ND2	20:UQ:369:TYR:OH	2.45	0.48
22:US:210:ASP:HA	22:US:213:LEU:HG	1.96	0.48
23:UT:279:TRP:HE1	23:UT:321:ILE:HA	1.78	0.48
23:UT:636:ARG:HA	23:UT:639:THR:HG22	1.95	0.48
23:UT:1011:LEU:HA	53:DI:115:ALA:HB1	1.94	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:UV:423:LYS:HE3	25:UV:499:LEU:HB3	1.95	0.48
33:CJ:100:LEU:HD22	33:CJ:144:GLU:HB3	1.95	0.48
35:CL:83:THR:HB	70:CL:2001:GTP:O2A	2.13	0.48
42:JJ:174:LEU:HA	42:JJ:180:LEU:HD12	1.95	0.48
47:JP:393:LYS:NZ	47:JP:397:ASP:OD2	2.38	0.48
51:DG:132:ARG:HE	66:D3:68:A:N6	2.11	0.48
66:D3:230:C:H2'	66:D3:231:U:H4'	1.94	0.48
66:D3:895:G:H2'	66:D3:896:U:C6	2.48	0.48
3:JA:357:VAL:O	3:JA:361:ARG:CB	2.61	0.48
3:JA:635:ILE:HB	3:JA:725:VAL:HG12	1.95	0.48
3:JA:797:THR:HG22	3:JA:800:GLN:H	1.77	0.48
4:UA:482:SER:O	4:UA:486:SER:N	2.45	0.48
13:UJ:588:LEU:HA	13:UJ:591:LYS:HG2	1.95	0.48
13:UJ:1519:ASN:OD1	13:UJ:1519:ASN:N	2.45	0.48
22:US:386:LEU:O	22:US:390:SER:CB	2.60	0.48
24:UU:703:ASN:HA	24:UU:706:ASP:HB2	1.94	0.48
25:UV:715:SER:O	25:UV:719:THR:OG1	2.21	0.48
26:UX:154:ALA:HA	26:UX:173:MET:O	2.13	0.48
39:JG:176:ARG:NH2	39:JG:200:GLU:OE2	2.44	0.48
51:DG:28:PHE:HA	51:DG:102:VAL:HG13	1.95	0.48
52:DH:51:VAL:HG23	52:DH:53:GLY:H	1.78	0.48
58:DQ:97:VAL:HG12	58:DQ:98:ASP:H	1.79	0.48
66:D3:647:G:H22	66:D3:687:G:H22	1.60	0.48
66:D3:1052:U:H2'	66:D3:1053:G:C8	2.48	0.48
3:JA:494:VAL:HG22	3:JA:496:LEU:H	1.77	0.48
13:UJ:1361:VAL:HG22	13:UJ:1365:LYS:HE3	1.96	0.48
13:UJ:1608:PHE:O	13:UJ:1657:ASN:ND2	2.45	0.48
15:UL:923:GLU:OE1	42:JJ:264:ARG:NH1	2.45	0.48
16:UM:300:SER:HB2	16:UM:316:VAL:HG22	1.95	0.48
18:UO:426:LYS:NZ	20:UQ:487:GLU:OE2	2.38	0.48
23:UT:268:PRO:HB2	23:UT:271:SER:H	1.78	0.48
23:UT:269:GLU:HA	23:UT:272:VAL:HG22	1.95	0.48
24:UU:638:GLY:O	24:UU:656:ASN:ND2	2.46	0.48
39:JF:178:VAL:HA	39:JF:223:GLU:O	2.14	0.48
49:DE:233:LYS:NZ	49:DE:234:PRO:O	2.46	0.48
65:D2:192:G:H2'	65:D2:193:G:C8	2.48	0.48
66:D3:244:A:N1	66:D3:250:C:N3	2.61	0.48
3:JA:89:ASN:ND2	35:CL:91:ARG:HB3	2.28	0.48
3:JA:590:LEU:HD13	3:JA:594:ILE:HG23	1.94	0.48
8:UE:5:VAL:HG23	8:UE:306:LEU:HD11	1.96	0.48
13:UJ:226:ASN:ND2	67:D4:333:U:O2'	2.46	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:UJ:1493:ALA:O	13:UJ:1497:SER:OG	2.30	0.48
15:UL:44:SER:HB2	15:UL:82:CYS:HB3	1.95	0.48
16:UM:532:HIS:CD2	16:UM:533:LYS:H	2.31	0.48
18:UO:40:ASN:HB2	18:UO:60:SER:HB3	1.95	0.48
20:UQ:469:ASN:OD1	20:UQ:470:TYR:N	2.47	0.48
22:US:348:ASP:N	22:US:348:ASP:OD1	2.44	0.48
23:UT:731:SER:OG	23:UT:732:SER:N	2.46	0.48
24:UU:396:LYS:HE3	24:UU:402:VAL:HG22	1.95	0.48
33:CJ:92:THR:HG21	33:CJ:96:PRO:HB3	1.95	0.48
38:JC:116:HIS:NE2	38:JC:124:GLN:HB2	2.29	0.48
39:JG:31:LEU:HD13	39:JG:40:ARG:HE	1.79	0.48
39:JG:228:SER:OG	39:JG:230:TYR:O	2.30	0.48
47:JP:393:LYS:NZ	67:D4:35:U:O2	2.45	0.48
51:DG:187:LYS:NZ	66:D3:140:A:OP2	2.41	0.48
66:D3:428:A:N3	66:D3:440:U:O2'	2.35	0.48
3:JA:866:TYR:HA	3:JA:871:MET:HB2	1.96	0.48
4:UA:164:THR:HG23	4:UA:194:VAL:HB	1.96	0.48
13:UJ:381:ARG:NH2	20:UQ:848:GLU:OE2	2.44	0.48
13:UJ:407:PHE:O	13:UJ:410:ILE:C	2.56	0.48
16:UM:742:ARG:NH1	34:CK:506:GLU:OE2	2.47	0.48
26:UX:67:ILE:HD11	26:UX:96:PRO:HB2	1.96	0.48
31:CH:313:SER:OG	31:CH:314:GLN:N	2.44	0.48
32:CI:85:MET:HE2	34:CK:452:SER:HB2	1.95	0.48
33:CJ:196:THR:OG1	33:CJ:197:ALA:N	2.46	0.48
47:JP:288:TYR:O	47:JP:298:LEU:N	2.46	0.48
66:D3:329:G:H2'	66:D3:330:G:H8	1.79	0.48
1:CA:264:GLN:HA	1:CA:320:TYR:O	2.13	0.48
3:JA:593:GLU:N	3:JA:631:SER:OG	2.45	0.48
4:UA:432:GLN:HE22	34:CK:455:HIS:HA	1.79	0.48
8:UE:319:TRP:HA	8:UE:322:ILE:HG12	1.96	0.48
11:UH:520:PRO:CG	11:UH:523:LEU:HB2	2.43	0.48
13:UJ:716:PHE:O	13:UJ:719:SER:OG	2.27	0.48
22:US:347:PRO:O	22:US:351:HIS:ND1	2.42	0.48
23:UT:593:ASP:HB2	23:UT:596:ILE:HG22	1.95	0.48
24:UU:173:LEU:HD23	24:UU:214:PRO:HB3	1.96	0.48
24:UU:894:ASP:N	24:UU:894:ASP:OD1	2.46	0.48
25:UV:104:LYS:HD3	25:UV:107:ILE:HD11	1.96	0.48
31:CH:561:ASN:ND2	67:D4:251:G:O6	2.47	0.48
38:JC:139:LYS:HB2	38:JC:157:ALA:HB1	1.95	0.48
39:JF:233:SER:OG	39:JF:234:ALA:N	2.47	0.48
39:JG:121:LEU:HB3	39:JG:163:ILE:O	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:JM:70:ASP:O	44:JM:74:ASN:ND2	2.47	0.48
49:DE:11:ARG:HH21	49:DE:24:SER:HB3	1.78	0.48
65:D2:24:U:O4	65:D2:56:G:O6	2.31	0.48
66:D3:69:G:C6	66:D3:83:G:N2	2.82	0.48
66:D3:1688:U:H2'	66:D3:1689:A:H8	1.79	0.48
7:UD:272:LEU:HD21	21:UR:399:LYS:HD3	1.95	0.48
16:UM:542:CYS:O	16:UM:546:LYS:HA	2.14	0.48
16:UM:563:ASP:OD1	16:UM:563:ASP:N	2.46	0.48
18:UO:105:VAL:HG22	18:UO:120:ILE:HB	1.95	0.48
21:UR:257:HIS:HE2	21:UR:310:GLN:HG2	1.79	0.48
23:UT:96:ASN:HD21	23:UT:131:THR:HG22	1.78	0.48
23:UT:957:LYS:HB3	23:UT:959:PRO:HD2	1.96	0.48
23:UT:1402:ILE:HG13	23:UT:1417:TYR:HD1	1.79	0.48
23:UT:1543:GLN:HA	23:UT:1546:GLN:HE21	1.79	0.48
26:UX:90:LEU:HD21	26:UX:182:ILE:HG21	1.95	0.48
37:CN:86:GLU:H	37:CN:127:LYS:HB3	1.79	0.48
46:JO:259:LYS:NZ	66:D3:631:G:OP1	2.45	0.48
47:JP:89:ASP:HB3	47:JP:91:VAL:HG12	1.96	0.48
51:DG:148:SER:OG	51:DG:149:LYS:N	2.45	0.48
66:D3:1650:U:H2'	66:D3:1651:A:C8	2.49	0.48
1:CA:226:HIS:HB3	1:CA:229:LYS:HB2	1.96	0.48
11:UH:569:GLU:O	11:UH:572:SER:OG	2.31	0.48
15:UL:629:ASN:ND2	15:UL:643:ASP:OD1	2.47	0.48
16:UM:116:LEU:HD12	16:UM:128:VAL:HG12	1.95	0.48
16:UM:300:SER:O	16:UM:315:ASN:ND2	2.46	0.48
16:UM:346:VAL:HG13	16:UM:352:LYS:HB2	1.96	0.48
16:UM:702:LEU:HD11	16:UM:758:ARG:HG3	1.96	0.48
22:US:309:ASN:HB3	22:US:312:ALA:HB3	1.96	0.48
23:UT:190:ARG:HG3	23:UT:234:ILE:HG12	1.96	0.48
23:UT:480:TYR:O	23:UT:484:ILE:HG12	2.13	0.48
23:UT:1464:ARG:HA	23:UT:1467:LYS:HZ3	1.78	0.48
23:UT:1592:PRO:O	23:UT:1595:SER:C	2.57	0.48
24:UU:759:PHE:HB3	24:UU:762:LEU:HD13	1.96	0.48
25:UV:114:VAL:HG22	25:UV:195:ILE:HB	1.96	0.48
25:UV:273:SER:OG	25:UV:274:LYS:N	2.47	0.48
36:CM:289:VAL:HG11	36:CM:294:LEU:HD13	1.96	0.48
37:CN:77:LYS:HE2	37:CN:147:LEU:HD22	1.96	0.48
42:JJ:265:THR:HG23	42:JJ:269:ARG:NH1	2.29	0.48
53:DI:25:ARG:NH2	66:D3:386:G:OP2	2.46	0.48
56:DN:76:LYS:NZ	66:D3:859:A:N1	2.50	0.48
66:D3:252:U:H2'	66:D3:253:A:H8	1.79	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:D3:806:A:H2'	66:D3:807:A:H8	1.78	0.48
4:UA:16:ARG:HH11	4:UA:57:ASN:HD21	1.60	0.48
4:UA:202:ASP:OD1	4:UA:202:ASP:N	2.47	0.48
4:UA:209:VAL:HG22	4:UA:215:VAL:HG22	1.95	0.48
15:UL:275:GLN:HA	15:UL:281:ILE:HG12	1.95	0.48
15:UL:426:ARG:HD2	15:UL:459:LEU:HA	1.95	0.48
16:UM:334:ALA:HB3	16:UM:381:VAL:HG21	1.96	0.48
21:UR:146:LEU:HD22	21:UR:163:ARG:HB3	1.96	0.48
32:CI:24:ASP:O	32:CI:26:GLY:N	2.47	0.48
44:JM:58:ASN:HA	44:JM:61:LYS:HG2	1.96	0.48
49:DE:21:ASP:OD1	49:DE:21:ASP:N	2.45	0.48
66:D3:467:G:H8	66:D3:467:G:O5'	1.97	0.48
66:D3:539:G:H1'	66:D3:540:G:H21	1.79	0.48
7:UD:532:ASN:OD1	7:UD:546:GLY:N	2.47	0.47
7:UD:554:ASP:O	7:UD:558:ARG:HA	2.13	0.47
8:UE:444:ALA:HB2	8:UE:452:LEU:HD23	1.96	0.47
18:UO:378:LYS:NZ	65:D2:90:G:OP1	2.35	0.47
20:UQ:60:ARG:NH2	20:UQ:381:SER:O	2.47	0.47
22:US:48:THR:O	22:US:52:LEU:N	2.41	0.47
25:UV:111:LEU:HA	25:UV:114:VAL:HG12	1.96	0.47
42:JJ:148:ASP:N	42:JJ:148:ASP:OD1	2.46	0.47
54:DJ:93:LEU:HA	54:DJ:96:VAL:HG12	1.94	0.47
4:UA:398:ARG:HD2	4:UA:400:GLN:HE21	1.79	0.47
8:UE:488:ILE:HG13	8:UE:498:LEU:HD23	1.97	0.47
10:UG:388:ASP:OD1	10:UG:388:ASP:N	2.46	0.47
18:UO:394:GLN:OE1	18:UO:396:LYS:NZ	2.38	0.47
20:UQ:255:ASN:ND2	65:D2:81:A:OP1	2.40	0.47
23:UT:61:ALA:HB2	49:DE:96:ASN:HD21	1.79	0.47
23:UT:279:TRP:O	23:UT:283:SER:OG	2.25	0.47
23:UT:675:SER:HA	23:UT:678:TRP:HB2	1.96	0.47
23:UT:1941:VAL:HA	23:UT:1944:ILE:HG12	1.96	0.47
24:UU:78:SER:OG	24:UU:79:SER:N	2.46	0.47
25:UV:465:PRO:HB2	25:UV:477:LEU:HB2	1.96	0.47
32:CI:15:LYS:HD3	67:D4:24:U:H5'	1.97	0.47
33:CJ:278:ARG:HG2	33:CJ:281:ILE:HD12	1.96	0.47
37:CN:17:PRO:HG2	37:CN:148:HIS:CD2	2.49	0.47
38:JC:108:SER:OG	38:JC:109:ASP:N	2.46	0.47
39:JF:218:ASP:HA	39:JF:221:VAL:HG12	1.95	0.47
39:JG:77:LEU:HA	39:JG:80:MET:HE2	1.95	0.47
47:JP:278:VAL:HA	47:JP:287:TYR:O	2.14	0.47
66:D3:58:U:H3	66:D3:452:A:H62	1.62	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:DA:87:ARG:O	2:DA:99:ASN:N	2.47	0.47
2:DA:131:ASP:HB2	2:DA:133:TYR:HD2	1.79	0.47
4:UA:636:THR:OG1	4:UA:639:GLY:O	2.31	0.47
3:JB:507:THR:O	38:JC:258:ARG:NH1	2.47	0.47
5:UB:613:ILE:HG13	5:UB:615:PRO:HD3	1.95	0.47
7:UD:237:GLU:OE2	19:UP:208:ARG:NE	2.47	0.47
7:UD:383:LEU:HD13	7:UD:433:LEU:HD23	1.95	0.47
9:UF:285:TYR:HD2	9:UF:308:THR:HG22	1.79	0.47
15:UL:81:GLU:N	15:UL:81:GLU:OE2	2.47	0.47
17:UN:340:GLU:O	17:UN:344:GLN:HG3	2.14	0.47
21:UR:519:SER:O	21:UR:519:SER:OG	2.31	0.47
22:US:200:ASN:HD22	22:US:256:ASN:HA	1.78	0.47
23:UT:99:ASP:O	23:UT:103:LEU:N	2.47	0.47
23:UT:524:LYS:NZ	23:UT:553:ASN:O	2.47	0.47
23:UT:760:THR:HA	23:UT:763:GLU:HG3	1.96	0.47
23:UT:891:LEU:HD21	23:UT:901:ILE:HD11	1.96	0.47
23:UT:1314:SER:HA	23:UT:1320:ASP:HB2	1.96	0.47
23:UT:1665:LEU:HD13	23:UT:1669:TYR:HB3	1.95	0.47
24:UU:120:HIS:NE2	24:UU:168:VAL:O	2.47	0.47
24:UU:176:TYR:HB3	24:UU:179:LYS:HB2	1.97	0.47
24:UU:579:ARG:NH1	24:UU:615:PRO:O	2.42	0.47
25:UV:929:ILE:HG23	25:UV:933:LEU:HD23	1.97	0.47
36:CM:321:ARG:HA	36:CM:324:ILE:HG22	1.97	0.47
38:JC:205:GLU:HG2	38:JC:214:ARG:HH11	1.78	0.47
38:JC:210:ARG:NH1	43:JK:487:ASP:OD2	2.46	0.47
39:JG:44:VAL:HA	39:JG:113:TYR:O	2.13	0.47
46:JO:100:LEU:HD22	46:JO:117:LEU:HD22	1.96	0.47
65:D2:182:G:O6	65:D2:215:U:O4	2.32	0.47
65:D2:223:C:H2'	65:D2:224:G:C8	2.48	0.47
65:D2:415:U:H2'	65:D2:416:A:H8	1.79	0.47
66:D3:1714:A:H2'	66:D3:1715:G:C8	2.50	0.47
7:UD:145:TRP:NE1	7:UD:161:ASP:OD1	2.41	0.47
7:UD:222:MET:HE3	7:UD:222:MET:HB2	1.79	0.47
8:UE:11:ASP:OD1	8:UE:11:ASP:N	2.46	0.47
10:UG:96:ASP:N	10:UG:96:ASP:OD1	2.44	0.47
15:UL:536:CYS:SG	15:UL:537:VAL:N	2.87	0.47
16:UM:220:ILE:HB	16:UM:237:LEU:HB2	1.96	0.47
16:UM:364:ILE:HB	16:UM:382:GLU:HB2	1.96	0.47
18:UO:366:TYR:OH	18:UO:371:GLU:OE2	2.31	0.47
20:UQ:510:TYR:OH	20:UQ:527:HIS:ND1	2.31	0.47
24:UU:370:SER:O	24:UU:373:ARG:N	2.45	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:UV:1023:ASN:ND2	25:UV:1048:SER:O	2.47	0.47
28:CD:91:SER:OG	28:CD:114:PRO:O	2.32	0.47
29:CE:21:LYS:O	29:CE:25:SER:OG	2.26	0.47
29:CE:291:VAL:HG12	29:CE:363:LEU:HD11	1.95	0.47
38:JC:205:GLU:OE1	38:JC:217:LYS:NZ	2.41	0.47
38:JC:254:ILE:HB	38:JC:264:ILE:HB	1.96	0.47
42:JJ:241:ARG:HG2	42:JJ:244:ARG:HH22	1.78	0.47
49:DE:195:ILE:HG22	49:DE:210:ILE:HG12	1.97	0.47
66:D3:103:A:O3'	66:D3:308:C:N4	2.47	0.47
66:D3:389:G:H2'	66:D3:390:G:C8	2.50	0.47
66:D3:1695:G:H2'	66:D3:1696:G:C8	2.50	0.47
4:UA:190:HIS:ND1	4:UA:210:SER:HB3	2.28	0.47
1:CB:294:ARG:NH2	19:UP:182:SER:O	2.48	0.47
13:UJ:771:ILE:O	13:UJ:775:ILE:HG12	2.14	0.47
15:UL:87:ALA:HB2	15:UL:94:LEU:HD13	1.96	0.47
18:UO:456:ALA:HA	18:UO:459:VAL:HG12	1.97	0.47
20:UQ:200:ASN:HD22	20:UQ:262:MET:HB2	1.77	0.47
26:UX:69:THR:HG23	26:UX:102:VAL:HG13	1.96	0.47
31:CH:540:LEU:HD23	31:CH:540:LEU:HA	1.81	0.47
32:CI:113:VAL:HG22	32:CI:124:ILE:HD11	1.95	0.47
35:CL:289:HIS:HB2	35:CL:815:LEU:HD11	1.95	0.47
46:JO:128:ILE:HB	46:JO:191:MET:HG3	1.96	0.47
47:JP:265:ASN:ND2	47:JP:308:VAL:O	2.41	0.47
66:D3:562:G:N2	66:D3:565:C:OP2	2.34	0.47
66:D3:641:G:N1	66:D3:693:U:N3	2.62	0.47
66:D3:1541:G:C2	66:D3:1570:A:N1	2.82	0.47
67:D4:12:U:H2'	67:D4:13:C:C6	2.49	0.47
8:UE:525:SER:HB2	18:UO:17:PRO:HG2	1.95	0.47
13:UJ:359:ASP:OD1	13:UJ:361:SER:OG	2.29	0.47
13:UJ:788:THR:HA	13:UJ:791:VAL:HG22	1.95	0.47
13:UJ:1452:GLU:HA	13:UJ:1455:LYS:HD2	1.96	0.47
20:UQ:661:THR:HB	20:UQ:673:ALA:HB3	1.97	0.47
22:US:245:GLN:HB3	22:US:248:GLU:HG3	1.95	0.47
23:UT:403:LEU:HD12	23:UT:404:SER:HB3	1.97	0.47
23:UT:428:GLN:HB2	23:UT:431:LYS:HB2	1.96	0.47
23:UT:1856:THR:HG21	47:JP:110:TYR:CZ	2.49	0.47
24:UU:44:LEU:HD21	24:UU:88:HIS:HD2	1.79	0.47
25:UV:562:LEU:O	25:UV:566:ILE:HG12	2.15	0.47
28:CD:381:ASN:O	28:CD:384:SER:OG	2.28	0.47
31:CH:189:THR:OG1	31:CH:197:THR:OG1	2.32	0.47
32:CI:137:ARG:HA	32:CI:142:LEU:HA	1.95	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:JC:334:GLU:O	53:DI:42:ARG:NH1	2.47	0.47
44:JM:106:LEU:O	44:JM:146:ARG:NH1	2.42	0.47
49:DE:166:SER:OG	49:DE:167:GLY:N	2.48	0.47
57:DO:42:VAL:HG22	57:DO:67:VAL:HG23	1.97	0.47
62:DY:128:LYS:NZ	66:D3:153:G:N7	2.62	0.47
66:D3:1150:G:H2'	66:D3:1151:A:H8	1.80	0.47
66:D3:1437:U:H2'	66:D3:1438:G:C8	2.49	0.47
3:JA:523:LEU:HD21	3:JA:534:LEU:HD21	1.96	0.47
3:JA:533:PHE:HE1	3:JA:582:PRO:HG3	1.78	0.47
3:JA:747:LEU:HD13	3:JA:760:CYS:HB2	1.97	0.47
4:UA:360:VAL:HG23	4:UA:374:ILE:HD11	1.97	0.47
7:UD:354:LYS:O	7:UD:374:THR:CA	2.56	0.47
8:UE:29:VAL:HG22	8:UE:51:LEU:HB3	1.97	0.47
10:UG:356:GLY:HA3	65:D2:315:U:H5'	1.96	0.47
11:UH:542:SER:HA	11:UH:545:ARG:HD2	1.97	0.47
13:UJ:726:PRO:HB3	13:UJ:762:SER:HB2	1.96	0.47
13:UJ:1533:ASN:HD22	13:UJ:1585:ASN:HD21	1.63	0.47
13:UJ:1536:VAL:HA	13:UJ:1539:MET:HB2	1.96	0.47
15:UL:53:ASP:OD1	15:UL:54:ILE:N	2.46	0.47
15:UL:666:ALA:HB3	15:UL:670:GLY:H	1.80	0.47
16:UM:226:ASN:HD22	16:UM:230:LYS:HB3	1.78	0.47
16:UM:226:ASN:HB2	16:UM:230:LYS:O	2.15	0.47
16:UM:453:PHE:HE2	16:UM:455:LEU:HB2	1.78	0.47
18:UO:51:HIS:O	18:UO:53:HIS:ND1	2.39	0.47
20:UQ:40:ASP:OD2	20:UQ:42:ARG:NH1	2.48	0.47
20:UQ:359:GLN:NE2	20:UQ:359:GLN:O	2.47	0.47
22:US:195:PHE:O	22:US:199:PHE:HB2	2.15	0.47
23:UT:15:ARG:NH1	66:D3:82:U:OP1	2.48	0.47
23:UT:294:VAL:HG22	23:UT:298:MET:HE3	1.95	0.47
23:UT:515:THR:HA	23:UT:518:MET:HG2	1.95	0.47
23:UT:674:PHE:O	23:UT:678:TRP:N	2.42	0.47
23:UT:782:MET:HE2	23:UT:782:MET:HB3	1.83	0.47
23:UT:1680:THR:HG23	23:UT:1681:LEU:HD13	1.97	0.47
23:UT:1710:LEU:HD12	23:UT:1760:ASN:HB3	1.97	0.47
25:UV:1165:SER:OG	25:UV:1166:ARG:N	2.47	0.47
27:UZ:50:ARG:NH2	66:D3:1510:U:OP1	2.48	0.47
27:UZ:87:LEU:HD11	27:UZ:176:VAL:HG21	1.96	0.47
29:CE:353:GLY:H	29:CE:356:LYS:HD2	1.80	0.47
33:CJ:164:GLN:HB2	33:CJ:260:GLU:HG2	1.96	0.47
33:CJ:287:LYS:HG2	33:CJ:290:LEU:HD12	1.95	0.47
39:JG:44:VAL:HG23	39:JG:205:PHE:HA	1.95	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:JJ:239:HIS:CE1	42:JJ:270:LEU:HD21	2.49	0.47
47:JP:281:ASN:ND2	47:JP:283:ASP:OD1	2.47	0.47
47:JP:457:ARG:HH21	66:D3:-4:A:H2'	1.80	0.47
50:DF:118:LEU:HD22	50:DF:129:PRO:HB2	1.96	0.47
65:D2:123:C:H3'	65:D2:124:A:C8	2.49	0.47
66:D3:97:C:H2'	66:D3:98:U:C6	2.50	0.47
66:D3:107:C:H2'	66:D3:108:A:H8	1.78	0.47
66:D3:973:A:H2'	66:D3:974:A:H8	1.79	0.47
66:D3:1682:U:HO2'	66:D3:1683:C:H6	1.63	0.47
5:UB:434:ILE:O	5:UB:438:ASN:ND2	2.47	0.47
7:UD:157:SER:OG	7:UD:195:TRP:NE1	2.47	0.47
10:UG:480:ASN:OD1	10:UG:515:ARG:NE	2.43	0.47
14:UK:108:ARG:NH2	67:D4:326:U:OP1	2.48	0.47
15:UL:201:ILE:HG13	16:UM:663:VAL:HG11	1.97	0.47
20:UQ:443:ASN:O	20:UQ:447:LYS:CA	2.63	0.47
23:UT:832:LEU:HB3	23:UT:868:LEU:HB3	1.96	0.47
23:UT:895:THR:HG23	23:UT:896:LEU:HD23	1.97	0.47
23:UT:978:PHE:CE2	23:UT:1024:GLN:HG3	2.50	0.47
23:UT:1983:LEU:HA	23:UT:1986:VAL:HG22	1.97	0.47
25:UV:538:ASN:OD1	25:UV:541:THR:OG1	2.33	0.47
28:CD:185:ASP:OD1	28:CD:285:ARG:NE	2.48	0.47
38:JC:101:ASN:HD21	38:JC:104:PHE:HB3	1.79	0.47
44:JM:70:ASP:OD1	44:JM:70:ASP:N	2.48	0.47
50:DF:223:SER:OG	50:DF:224:ASN:N	2.46	0.47
62:DY:89:TYR:OH	62:DY:90:ARG:NH2	2.47	0.47
66:D3:269:G:C6	66:D3:287:G:C2	3.02	0.47
66:D3:271:A:C2	66:D3:285:G:C6	3.02	0.47
2:DA:32:ILE:HD11	2:DA:43:VAL:HG13	1.97	0.47
7:UD:595:ASN:H	7:UD:611:LEU:HA	1.79	0.47
9:UF:38:ASP:OD2	9:UF:42:ARG:NH1	2.46	0.47
13:UJ:759:ILE:O	13:UJ:763:LEU:HB2	2.15	0.47
16:UM:660:LYS:HE3	16:UM:660:LYS:HB2	1.75	0.47
17:UN:886:LYS:NZ	65:D2:485:G:O2'	2.34	0.47
24:UU:593:PHE:HE1	24:UU:614:LEU:HD11	1.79	0.47
24:UU:717:ASP:HB2	24:UU:720:LEU:HD13	1.96	0.47
25:UV:1200:LEU:HD23	25:UV:1204:VAL:HG11	1.97	0.47
32:CI:85:MET:HE1	34:CK:448:LEU:HD22	1.97	0.47
35:CL:246:ALA:HB3	35:CL:810:ILE:HG13	1.97	0.47
35:CL:776:GLN:HA	35:CL:780:ILE:HG12	1.96	0.47
43:JK:462:ARG:HH11	66:D3:341:A:H5'	1.79	0.47
66:D3:288:A:H2'	66:D3:289:U:C6	2.50	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:D3:683:C:H2'	66:D3:684:A:C8	2.48	0.47
3:JA:25:ILE:HG23	3:JA:198:CYS:HB3	1.97	0.47
3:JA:62:LYS:HD3	3:JA:62:LYS:HA	1.75	0.47
3:JA:117:ASN:ND2	3:JA:119:TYR:OH	2.48	0.47
3:JA:729:LEU:HD12	3:JA:747:LEU:HD13	1.97	0.47
4:UA:200:SER:OG	4:UA:201:HIS:N	2.46	0.47
8:UE:56:SER:O	8:UE:56:SER:OG	2.29	0.47
14:UK:48:LEU:HD23	14:UK:48:LEU:HA	1.75	0.47
16:UM:150:LEU:HD23	16:UM:163:LEU:HD11	1.96	0.47
22:US:413:MET:HG2	39:JG:23:LEU:HD12	1.97	0.47
23:UT:1178:CYS:HA	23:UT:1181:ILE:HG22	1.97	0.47
25:UV:306:LYS:HZ2	25:UV:473:LYS:HE2	1.79	0.47
25:UV:525:LEU:O	25:UV:616:LYS:HA	2.14	0.47
35:CL:859:ILE:HD12	35:CL:1011:VAL:HG22	1.97	0.47
37:CN:16:VAL:HB	37:CN:37:MET:HB3	1.96	0.47
38:JC:140:PHE:O	38:JC:158:SER:N	2.48	0.47
39:JG:112:VAL:HG23	39:JG:124:VAL:HB	1.97	0.47
64:Dc:40:ILE:HG22	64:Dc:42:ARG:HG2	1.97	0.47
65:D2:2:U:H2'	65:D2:3:G:C8	2.49	0.47
66:D3:306:U:H2'	66:D3:307:G:C8	2.49	0.47
66:D3:753:A:C6	66:D3:797:G:O6	2.68	0.47
3:JA:196:PRO:O	3:JA:213:ALA:N	2.45	0.46
10:UG:258:LEU:HD13	10:UG:268:VAL:HG13	1.97	0.46
10:UG:351:SER:O	10:UG:351:SER:OG	2.31	0.46
11:UH:57:ILE:O	11:UH:70:PRO:HA	2.15	0.46
11:UH:679:ILE:HD11	12:UI:456:LEU:HD21	1.96	0.46
13:UJ:357:ARG:NH1	13:UJ:358:TYR:OH	2.48	0.46
15:UL:88:HIS:HD2	15:UL:91:THR:HG23	1.80	0.46
20:UQ:497:ASP:HB2	20:UQ:510:TYR:HB3	1.97	0.46
20:UQ:663:LYS:HE3	20:UQ:712:THR:HA	1.96	0.46
20:UQ:704:ASN:N	20:UQ:704:ASN:OD1	2.47	0.46
23:UT:140:ILE:HD11	23:UT:188:LEU:HG	1.98	0.46
23:UT:264:THR:O	23:UT:267:SER:OG	2.28	0.46
23:UT:1631:PHE:O	23:UT:1634:SER:OG	2.32	0.46
28:CD:237:LEU:O	28:CD:240:LEU:C	2.58	0.46
30:CG:54:MET:O	30:CG:80:PHE:HA	2.15	0.46
35:CL:931:LYS:HB2	35:CL:1006:TRP:CZ3	2.50	0.46
37:CN:227:ARG:O	37:CN:231:LEU:HG	2.15	0.46
38:JC:191:VAL:HA	43:JK:484:LYS:HD3	1.95	0.46
49:DE:134:LYS:N	66:D3:253:A:OP1	2.48	0.46
56:DN:64:ARG:NH2	66:D3:862:A:OP2	2.47	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:DY:61:ARG:HA	62:DY:61:ARG:HD2	1.69	0.46
65:D2:112:U:H2'	65:D2:113:A:C8	2.49	0.46
65:D2:210:U:H2'	65:D2:211:G:C8	2.50	0.46
66:D3:631:G:O6	66:D3:968:U:O2	2.32	0.46
66:D3:1142:A:H3'	66:D3:1143:A:C8	2.50	0.46
66:D3:1775:U:O2	66:D3:1786:G:N2	2.41	0.46
2:DA:32:ILE:HG22	2:DA:96:LEU:HD12	1.97	0.46
5:UB:521:ALA:O	5:UB:525:MET:HG2	2.14	0.46
8:UE:53:LEU:HD13	8:UE:58:LEU:HD12	1.97	0.46
8:UE:280:GLN:HB3	8:UE:288:LYS:HE2	1.97	0.46
13:UJ:745:TYR:CE2	13:UJ:747:GLN:HB3	2.50	0.46
13:UJ:1619:ARG:NH2	13:UJ:1654:GLN:O	2.48	0.46
16:UM:104:PRO:O	16:UM:122:THR:OG1	2.27	0.46
18:UO:182:HIS:ND1	18:UO:197:ASP:OD1	2.49	0.46
23:UT:1888:THR:HG22	23:UT:1890:SER:H	1.80	0.46
24:UU:416:ALA:HB3	24:UU:433:ALA:HB3	1.97	0.46
33:CJ:211:ASN:OD1	33:CJ:212:ALA:N	2.44	0.46
35:CL:761:GLN:O	35:CL:765:ASN:ND2	2.36	0.46
36:CM:206:ASN:HA	36:CM:209:ILE:HG12	1.96	0.46
64:Dc:37:SER:OG	64:Dc:38:ARG:N	2.49	0.46
64:Dc:65:ARG:HD3	64:Dc:67:ARG:HH11	1.80	0.46
65:D2:21:A:H2'	65:D2:22:A:C8	2.50	0.46
65:D2:360:C:N4	65:D2:366:A:H61	2.14	0.46
1:CB:293:LEU:HB3	1:CB:298:ILE:HB	1.97	0.46
8:UE:145:CYS:HB3	8:UE:148:LEU:HD11	1.96	0.46
24:UU:488:ASN:O	24:UU:492:GLY:CA	2.63	0.46
24:UU:639:ASP:N	24:UU:639:ASP:OD1	2.39	0.46
29:CE:286:ASN:HD22	29:CE:386:ILE:HB	1.80	0.46
34:CK:380:ASP:OD1	34:CK:380:ASP:N	2.47	0.46
35:CL:977:LYS:NZ	66:D3:1598:U:OP2	2.41	0.46
53:DI:34:ALA:HB2	53:DI:56:ARG:HD3	1.97	0.46
67:D4:309:G:H2'	67:D4:310:G:C8	2.50	0.46
1:CA:195:TYR:HD1	1:CA:218:ILE:HG12	1.80	0.46
3:JA:529:VAL:HA	3:JA:532:ASN:HD22	1.80	0.46
5:UB:455:LEU:HA	5:UB:458:ILE:HD12	1.98	0.46
6:UC:525:LEU:HD13	6:UC:528:LEU:HD12	1.96	0.46
13:UJ:196:LEU:HD23	13:UJ:196:LEU:HA	1.75	0.46
15:UL:54:ILE:HG22	15:UL:383:HIS:HB3	1.98	0.46
15:UL:340:SER:OG	15:UL:341:ALA:N	2.48	0.46
17:UN:302:VAL:HG21	47:JP:273:GLU:HA	1.96	0.46
18:UO:125:HIS:HB3	18:UO:145:ASP:HB2	1.96	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:UT:37:ARG:NH2	23:UT:40:ASP:OD2	2.38	0.46
23:UT:437:LEU:HB2	23:UT:484:ILE:HG21	1.97	0.46
23:UT:498:ILE:HA	23:UT:501:LEU:HG	1.96	0.46
23:UT:559:ASN:ND2	23:UT:599:GLU:OE1	2.49	0.46
23:UT:1013:THR:N	53:DI:115:ALA:O	2.44	0.46
23:UT:1340:SER:O	23:UT:1344:TRP:N	2.45	0.46
23:UT:1489:ILE:HG23	23:UT:1507:THR:HB	1.98	0.46
24:UU:847:LEU:HD11	42:JJ:266:VAL:HG23	1.96	0.46
30:CF:52:ILE:HD13	30:CF:101:SER:HB2	1.97	0.46
35:CL:162:HIS:HE1	35:CL:897:CYS:HB3	1.80	0.46
36:CM:215:VAL:HG21	36:CM:273:GLU:HA	1.97	0.46
37:CN:23:HIS:HB3	37:CN:26:LEU:HB2	1.97	0.46
40:JH:260:TYR:HA	40:JH:306:ALA:HB2	1.96	0.46
42:JJ:94:PHE:HA	42:JJ:141:THR:O	2.15	0.46
50:DF:39:GLU:OE1	50:DF:41:LYS:NZ	2.47	0.46
61:DX:53:VAL:HA	61:DX:74:VAL:HG12	1.98	0.46
62:DY:51:GLU:HG3	62:DY:53:ASP:H	1.80	0.46
66:D3:817:A:N6	66:D3:854:U:O4	2.49	0.46
66:D3:1068:C:H2'	66:D3:1069:A:C8	2.51	0.46
66:D3:1776:A:H2'	66:D3:1777:G:C8	2.50	0.46
2:DA:143:THR:HA	2:DA:207:LEU:HA	1.98	0.46
3:JA:770:GLU:HG3	3:JA:772:ASN:HD21	1.80	0.46
7:UD:34:HIS:NE2	7:UD:751:GLU:OE1	2.45	0.46
7:UD:282:ASP:OD1	7:UD:282:ASP:N	2.41	0.46
7:UD:314:SER:OG	7:UD:319:ARG:O	2.27	0.46
15:UL:467:THR:O	15:UL:467:THR:OG1	2.34	0.46
16:UM:16:TYR:HB2	16:UM:34:THR:HB	1.98	0.46
18:UO:404:ALA:HB2	18:UO:417:VAL:HG11	1.97	0.46
23:UT:30:PRO:O	23:UT:33:ASN:C	2.58	0.46
23:UT:1520:TRP:HE1	23:UT:1587:LYS:HE3	1.80	0.46
24:UU:656:ASN:HB3	24:UU:659:GLN:H	1.81	0.46
25:UV:521:LEU:HD22	25:UV:960:LYS:HG3	1.97	0.46
33:CJ:72:GLN:OE1	33:CJ:73:VAL:N	2.49	0.46
35:CL:634:ARG:HD2	36:CM:185:ARG:HD3	1.96	0.46
37:CN:88:LEU:HB2	37:CN:125:LEU:HB2	1.98	0.46
38:JC:359:ILE:HD11	51:DG:68:LEU:HD21	1.96	0.46
51:DG:183:ARG:NH1	66:D3:267:U:OP1	2.45	0.46
3:JA:191:SER:HB2	3:JA:485:TRP:HE1	1.80	0.46
4:UA:513:GLU:O	58:DQ:114:ARG:NH1	2.47	0.46
7:UD:548:GLY:O	7:UD:566:LEU:N	2.40	0.46
8:UE:28:ARG:HA	8:UE:51:LEU:O	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:UL:260:GLU:HB3	15:UL:273:TYR:CE1	2.50	0.46
23:UT:12:LYS:HE2	23:UT:12:LYS:HB3	1.73	0.46
23:UT:363:ALA:HB1	23:UT:403:LEU:HD21	1.97	0.46
23:UT:723:GLY:HA3	23:UT:751:SER:HB2	1.98	0.46
23:UT:1188:LYS:HE3	23:UT:1188:LYS:HB3	1.84	0.46
23:UT:1559:LEU:HA	23:UT:1562:VAL:HG22	1.97	0.46
23:UT:1944:ILE:HA	23:UT:1947:VAL:HG22	1.97	0.46
26:UX:145:VAL:HG13	26:UX:170:ILE:HG13	1.98	0.46
28:CD:182:ASP:OD1	28:CD:314:ARG:NH2	2.49	0.46
39:JG:77:LEU:HD22	39:JG:84:ILE:HG13	1.97	0.46
66:D3:163:G:OP2	66:D3:163:G:N2	2.39	0.46
66:D3:1150:G:H2'	66:D3:1151:A:C8	2.50	0.46
66:D3:1707:A:H8	66:D3:1707:A:O5'	1.99	0.46
66:D3:1748:G:H2'	66:D3:1749:A:H8	1.80	0.46
3:JA:552:ASP:OD1	3:JA:552:ASP:N	2.47	0.46
4:UA:247:SER:H	4:UA:249:ARG:NH1	2.14	0.46
4:UA:267:THR:HG22	4:UA:276:ALA:HB3	1.97	0.46
7:UD:146:SER:OG	7:UD:147:ILE:N	2.49	0.46
8:UE:481:LEU:HD22	8:UE:502:VAL:HG23	1.97	0.46
9:UF:358:LEU:O	9:UF:362:THR:OG1	2.33	0.46
14:UK:24:ARG:HD3	44:JM:216:ARG:HD3	1.98	0.46
15:UL:535:LEU:HD11	15:UL:551:LEU:HD12	1.98	0.46
18:UO:147:ARG:NH1	18:UO:168:THR:O	2.46	0.46
20:UQ:455:SER:O	20:UQ:455:SER:OG	2.30	0.46
20:UQ:721:ALA:N	20:UQ:744:ILE:O	2.42	0.46
23:UT:233:LEU:O	23:UT:237:THR:OG1	2.28	0.46
23:UT:386:LEU:HD11	23:UT:420:PHE:HB2	1.97	0.46
23:UT:535:ASN:HB3	23:UT:537:LEU:HD23	1.98	0.46
23:UT:974:TYR:CG	23:UT:1024:GLN:HB3	2.51	0.46
31:CH:160:ILE:HG22	31:CH:523:LYS:HB3	1.98	0.46
36:CM:230:TRP:O	36:CM:235:SER:OG	2.33	0.46
38:JC:156:GLY:HA2	38:JC:162:LEU:HA	1.96	0.46
42:JJ:146:THR:OG1	42:JJ:148:ASP:OD1	2.34	0.46
42:JJ:183:GLU:HG2	42:JJ:240:ILE:HD12	1.98	0.46
44:JM:50:SER:OG	44:JM:51:LYS:N	2.46	0.46
47:JP:381:GLU:O	47:JP:382:ARG:NH1	2.43	0.46
49:DE:41:SER:OG	49:DE:42:LEU:N	2.49	0.46
55:DL:40:LEU:HD13	66:D3:246:G:N3	2.30	0.46
55:DL:94:ILE:HA	55:DL:95:PRO:HD3	1.80	0.46
66:D3:107:C:H2'	66:D3:108:A:C8	2.50	0.46
66:D3:1068:C:H2'	66:D3:1069:A:H8	1.81	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:UA:420:ARG:NH2	34:CK:494:GLU:OE2	2.38	0.46
14:UK:82:ARG:CZ	35:CL:1089:GLN:HB3	2.46	0.46
20:UQ:719:ASN:HD21	20:UQ:746:PHE:HB2	1.80	0.46
21:UR:249:SER:N	21:UR:269:ASP:OD2	2.48	0.46
21:UR:376:LEU:HG	21:UR:386:ILE:HG12	1.97	0.46
23:UT:1405:GLY:HA3	23:UT:1417:TYR:CZ	2.50	0.46
24:UU:234:ASN:OD1	24:UU:235:MET:N	2.48	0.46
25:UV:222:PHE:HD2	25:UV:225:LEU:HD11	1.80	0.46
25:UV:249:ASP:N	25:UV:249:ASP:OD1	2.48	0.46
25:UV:400:LEU:HB3	25:UV:412:LEU:HD23	1.97	0.46
25:UV:584:GLU:OE1	25:UV:616:LYS:NZ	2.44	0.46
25:UV:749:SER:OG	25:UV:787:GLU:OE1	2.32	0.46
27:UZ:60:THR:HG23	27:UZ:61:LYS:HG2	1.97	0.46
27:UZ:142:ARG:HD2	27:UZ:145:HIS:HD2	1.81	0.46
28:CD:389:ILE:HG22	30:CG:62:GLU:HB2	1.98	0.46
29:CE:198:ILE:HG22	29:CE:199:VAL:HG13	1.98	0.46
31:CH:442:ILE:HA	31:CH:472:PRO:HA	1.97	0.46
35:CL:170:VAL:HG12	35:CL:205:PHE:HB2	1.96	0.46
60:DW:53:ILE:HD13	63:Db:24:LEU:HD11	1.98	0.46
66:D3:793:A:H2	66:D3:796:A:H3'	1.80	0.46
66:D3:1276:U:C2	66:D3:1433:G:N1	2.84	0.46
66:D3:1739:C:H2'	66:D3:1740:A:C8	2.50	0.46
67:D4:94:A:H2'	67:D4:95:A:H8	1.80	0.46
1:CA:239:CYS:SG	1:CA:240:VAL:N	2.89	0.46
3:JA:752:ASN:ND2	3:JA:757:GLU:O	2.49	0.46
7:UD:186:GLN:HG2	7:UD:188:ALA:H	1.81	0.46
7:UD:519:THR:OG1	7:UD:520:LYS:N	2.49	0.46
7:UD:649:TRP:HB3	7:UD:654:ILE:HG23	1.97	0.46
13:UJ:210:LEU:HD21	13:UJ:253:CYS:HA	1.97	0.46
15:UL:912:TRP:CG	16:UM:779:VAL:HG21	2.51	0.46
18:UO:188:SER:OG	18:UO:191:GLY:O	2.33	0.46
20:UQ:586:SER:OG	20:UQ:587:PHE:N	2.46	0.46
23:UT:1224:LEU:HD23	23:UT:1227:ILE:HD11	1.98	0.46
23:UT:1335:GLY:O	23:UT:1337:LYS:NZ	2.49	0.46
25:UV:376:SER:O	25:UV:388:PHE:N	2.49	0.46
35:CL:866:ARG:CZ	61:DX:69:ARG:HH12	2.28	0.46
36:CM:200:VAL:HG12	36:CM:204:LEU:HD13	1.97	0.46
42:JJ:158:PHE:CD2	42:JJ:175:LEU:HB2	2.51	0.46
47:JP:138:SER:HB3	47:JP:148:TRP:HE1	1.81	0.46
49:DE:163:ASP:OD1	49:DE:166:SER:N	2.49	0.46
55:DL:94:ILE:HD13	55:DL:99:ARG:HH12	1.81	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DW:31:SER:HB2	60:DW:34:ILE:HG13	1.98	0.46
65:D2:394:U:H5''	65:D2:395:C:H5'	1.98	0.46
66:D3:410:A:H2'	66:D3:411:C:C6	2.51	0.46
66:D3:1151:A:H2'	66:D3:1152:A:H8	1.81	0.46
66:D3:1272:U:O2	66:D3:1438:G:C6	2.68	0.46
2:DA:127:VAL:HG11	2:DA:173:THR:HA	1.97	0.46
3:JA:34:ARG:HB3	3:JA:94:PHE:CG	2.51	0.46
7:UD:449:LYS:HD2	7:UD:449:LYS:HA	1.83	0.46
7:UD:581:SER:OG	7:UD:582:VAL:N	2.49	0.46
13:UJ:798:ASP:HB3	13:UJ:801:ILE:HD12	1.98	0.46
14:UK:155:THR:OG1	14:UK:156:SER:N	2.45	0.46
15:UL:14:PHE:HB2	15:UL:681:ILE:HB	1.97	0.46
16:UM:505:ILE:HD12	16:UM:517:ILE:HD11	1.98	0.46
16:UM:532:HIS:NE2	16:UM:552:SER:OG	2.44	0.46
23:UT:494:THR:HA	23:UT:497:ILE:HG12	1.98	0.46
23:UT:899:ASP:HA	23:UT:902:THR:HG22	1.98	0.46
23:UT:1083:TYR:CE2	23:UT:1125:ASP:HB2	2.50	0.46
23:UT:1199:LEU:O	23:UT:1203:VAL:HG23	2.16	0.46
25:UV:481:THR:OG1	25:UV:482:VAL:N	2.49	0.46
28:CD:4:ILE:HG22	28:CD:23:GLN:HE21	1.80	0.46
35:CL:98:LEU:HD12	35:CL:98:LEU:HA	1.79	0.46
38:JC:74:THR:HG21	38:JC:101:ASN:HB3	1.98	0.46
39:JG:189:VAL:HG21	39:JG:241:PHE:HA	1.98	0.46
51:DG:79:LYS:HG2	51:DG:86:PRO:HB3	1.97	0.46
58:DQ:94:GLN:HG3	58:DQ:102:LYS:HE2	1.96	0.46
66:D3:162:A:H3'	66:D3:163:G:H21	1.81	0.46
3:JA:195:ASN:HB2	3:JA:485:TRP:CD1	2.51	0.45
4:UA:431:ILE:HG21	4:UA:452:ASN:HB2	1.97	0.45
4:UA:722:THR:HG22	4:UA:724:HIS:H	1.81	0.45
9:UF:320:ILE:HG23	9:UF:335:ILE:HD12	1.98	0.45
16:UM:264:ASP:HB2	16:UM:266:ILE:HG12	1.98	0.45
18:UO:420:GLU:OE1	18:UO:424:ARG:NE	2.49	0.45
21:UR:254:LEU:HD21	21:UR:586:VAL:HG11	1.97	0.45
23:UT:299:TYR:O	23:UT:303:ASN:ND2	2.49	0.45
23:UT:1605:THR:O	23:UT:1609:ARG:N	2.50	0.45
24:UU:228:GLY:O	24:UU:245:LYS:HA	2.16	0.45
25:UV:803:LYS:NZ	25:UV:859:ASP:OD1	2.40	0.45
25:UV:1086:ASN:O	25:UV:1090:THR:HG23	2.16	0.45
25:UV:1100:VAL:HB	25:UV:1182:ILE:HB	1.98	0.45
26:UX:98:ILE:HG21	26:UX:103:MET:HE2	1.98	0.45
32:CI:90:THR:HG22	32:CI:92:SER:H	1.80	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CJ:200:LYS:HA	33:CJ:203:VAL:HG12	1.99	0.45
35:CL:366:MET:HE3	35:CL:366:MET:HB3	1.84	0.45
60:DW:4:SER:OG	60:DW:9:ASP:OD1	2.33	0.45
65:D2:217:C:H2'	65:D2:218:U:H6	1.79	0.45
66:D3:389:G:H2'	66:D3:390:G:H8	1.81	0.45
66:D3:651:G:H2'	66:D3:652:G:C8	2.52	0.45
4:UA:663:GLY:HA3	32:CI:147:ALA:O	2.16	0.45
13:UJ:54:LYS:HB2	13:UJ:54:LYS:HE3	1.77	0.45
13:UJ:1408:ILE:HG21	13:UJ:1444:ILE:HG22	1.98	0.45
15:UL:763:ILE:HD13	15:UL:838:THR:HG21	1.97	0.45
16:UM:239:VAL:HG11	16:UM:241:GLN:HE21	1.81	0.45
16:UM:551:SER:N	16:UM:581:CYS:SG	2.90	0.45
17:UN:330:THR:OG1	17:UN:331:GLN:OE1	2.25	0.45
18:UO:215:VAL:HA	18:UO:230:GLY:HA3	1.98	0.45
20:UQ:124:LYS:HA	20:UQ:124:LYS:HD2	1.77	0.45
20:UQ:278:GLY:HA2	20:UQ:300:VAL:HG23	1.98	0.45
20:UQ:773:ASP:OD1	20:UQ:773:ASP:N	2.48	0.45
22:US:145:ASN:OD1	22:US:194:TYR:CE1	2.69	0.45
23:UT:55:LYS:NZ	23:UT:71:GLU:OE2	2.44	0.45
23:UT:673:ARG:HH12	23:UT:773:LEU:HB2	1.81	0.45
23:UT:1544:ALA:O	23:UT:1548:ILE:HG12	2.16	0.45
24:UU:592:ASP:OD1	24:UU:593:PHE:N	2.46	0.45
28:CD:14:GLY:HA3	28:CD:55:PRO:HA	1.98	0.45
32:CI:123:THR:OG1	32:CI:126:ASP:OD2	2.33	0.45
52:DH:76:LYS:HA	52:DH:76:LYS:HD2	1.73	0.45
63:Db:6:ASP:OD1	63:Db:7:LEU:N	2.48	0.45
65:D2:361:G:N2	65:D2:364:A:OP2	2.49	0.45
66:D3:39:A:C5'	66:D3:39:A:C8	2.96	0.45
66:D3:1706:C:H2'	66:D3:1707:A:C4	2.50	0.45
3:JA:898:ILE:HA	3:JA:901:GLU:HG3	1.98	0.45
4:UA:202:ASP:O	4:UA:204:GLU:N	2.40	0.45
4:UA:351:LEU:HD13	4:UA:696:ALA:HB2	1.99	0.45
1:CB:103:GLU:HA	14:UK:194:LYS:HE3	1.98	0.45
5:UB:701:ALA:HB1	22:US:422:ILE:HD11	1.99	0.45
10:UG:53:TYR:HD1	17:UN:863:MET:HB2	1.82	0.45
13:UJ:1697:ALA:HB2	13:UJ:1735:GLU:HB3	1.98	0.45
16:UM:406:ALA:HB2	16:UM:440:VAL:HG13	1.97	0.45
18:UO:315:ASN:OD1	18:UO:315:ASN:N	2.48	0.45
20:UQ:437:THR:HB	20:UQ:709:ARG:HD2	1.97	0.45
22:US:299:LEU:HA	22:US:299:LEU:HD23	1.82	0.45
22:US:421:PHE:HA	22:US:435:LEU:HD11	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:UT:725:ASN:OD1	23:UT:747:TRP:NE1	2.47	0.45
24:UU:307:GLN:NE2	29:CE:422:THR:O	2.49	0.45
35:CL:1152:ARG:O	35:CL:1155:GLU:HG3	2.16	0.45
39:JG:89:PRO:HG2	39:JG:134:PHE:HZ	1.81	0.45
46:JO:137:ARG:NE	66:D3:1027:A:OP1	2.50	0.45
47:JP:306:SER:HB3	47:JP:326:ASP:HB2	1.99	0.45
47:JP:444:GLU:OE1	66:D3:1069:A:O2'	2.22	0.45
52:DH:48:GLU:HG2	52:DH:56:LYS:HD3	1.98	0.45
57:DO:120:PRO:HB3	66:D3:887:A:H5''	1.97	0.45
58:DQ:12:LYS:HZ2	58:DQ:17:THR:HG23	1.82	0.45
66:D3:69:G:C6	66:D3:83:G:C2	3.03	0.45
66:D3:272:U:O2'	66:D3:273:G:O4'	2.31	0.45
67:D4:305:G:H2'	67:D4:306:G:C8	2.51	0.45
3:JA:568:LEU:HD12	3:JA:569:PRO:HD2	1.99	0.45
3:JA:737:TRP:O	3:JA:740:ASN:C	2.60	0.45
4:UA:847:ARG:O	4:UA:851:SER:HB3	2.16	0.45
1:CB:228:GLN:HE21	1:CB:259:MET:HE1	1.81	0.45
7:UD:355:THR:OG1	7:UD:372:MET:O	2.27	0.45
9:UF:331:ARG:O	9:UF:335:ILE:HG12	2.17	0.45
10:UG:388:ASP:HB2	10:UG:403:VAL:O	2.16	0.45
12:UI:447:ASN:HD21	12:UI:449:GLU:HB3	1.81	0.45
14:UK:18:GLN:OE1	14:UK:19:LEU:N	2.50	0.45
14:UK:68:HIS:CE1	32:CI:169:THR:HG21	2.51	0.45
15:UL:405:LEU:HD11	15:UL:673:VAL:HG11	1.99	0.45
23:UT:1367:ALA:O	23:UT:1371:ILE:HG12	2.15	0.45
38:JC:236:PHE:HA	38:JC:243:PHE:HA	1.98	0.45
39:JG:189:VAL:HG13	39:JG:244:GLY:HA3	1.99	0.45
49:DE:183:VAL:HG13	49:DE:190:GLY:H	1.82	0.45
51:DG:118:GLU:OE1	51:DG:119:GLN:NE2	2.50	0.45
51:DG:160:ARG:NE	66:D3:66:U:O2	2.38	0.45
52:DH:35:LYS:O	52:DH:39:ARG:HB2	2.16	0.45
60:DW:32:LYS:HE3	60:DW:32:LYS:HB2	1.57	0.45
65:D2:191:U:H2'	65:D2:192:G:C8	2.51	0.45
66:D3:183:U:H2'	66:D3:184:C:C6	2.52	0.45
4:UA:546:ASP:OD1	4:UA:546:ASP:N	2.34	0.45
5:UB:498:LEU:HD11	5:UB:545:VAL:HG11	1.99	0.45
8:UE:536:LEU:HD22	18:UO:453:VAL:HG12	1.97	0.45
9:UF:302:ILE:O	9:UF:306:LYS:HG3	2.17	0.45
10:UG:67:LEU:HB3	10:UG:410:ASN:HD22	1.82	0.45
12:UI:458:TRP:HA	12:UI:461:THR:HG22	1.99	0.45
22:US:368:SER:OG	22:US:369:THR:N	2.49	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:UT:117:LEU:HD22	23:UT:120:ASP:HB2	1.98	0.45
24:UU:480:SER:O	24:UU:480:SER:OG	2.32	0.45
25:UV:592:PHE:HB3	25:UV:599:VAL:HG22	1.98	0.45
25:UV:777:ASP:OD1	25:UV:1168:TYR:OH	2.30	0.45
27:UZ:172:ASP:HA	27:UZ:173:PRO:HD3	1.83	0.45
31:CH:235:HIS:ND1	31:CH:257:ASP:OD2	2.36	0.45
31:CH:365:PRO:HA	31:CH:368:LEU:HD12	1.98	0.45
33:CJ:241:THR:OG1	33:CJ:244:GLY:O	2.25	0.45
49:DE:91:THR:HG23	49:DE:98:ASN:ND2	2.32	0.45
57:DO:49:LYS:HE3	57:DO:49:LYS:HB2	1.81	0.45
66:D3:70:C:H2'	66:D3:71:A:C8	2.51	0.45
7:UD:554:ASP:O	7:UD:558:ARG:N	2.50	0.45
7:UD:768:ALA:O	19:UP:214:GLY:N	2.44	0.45
13:UJ:683:SER:OG	13:UJ:684:TYR:N	2.49	0.45
13:UJ:1762:GLU:OE1	13:UJ:1766:ARG:NH1	2.49	0.45
15:UL:639:VAL:HB	15:UL:653:LEU:HB2	1.98	0.45
18:UO:136:ASP:OD1	18:UO:137:ASN:N	2.49	0.45
18:UO:373:ILE:HB	21:UR:288:LEU:HD12	1.97	0.45
20:UQ:510:TYR:HE1	20:UQ:527:HIS:HB3	1.82	0.45
21:UR:156:ASN:OD1	21:UR:156:ASN:N	2.47	0.45
22:US:283:LYS:HG3	22:US:284:ARG:HG3	1.98	0.45
23:UT:438:GLU:HA	23:UT:764:ARG:HH12	1.82	0.45
23:UT:518:MET:O	23:UT:522:LEU:HG	2.16	0.45
23:UT:1024:GLN:OE1	23:UT:1024:GLN:N	2.45	0.45
23:UT:1905:SER:OG	23:UT:1906:GLU:N	2.49	0.45
25:UV:138:ILE:HD12	25:UV:238:HIS:HB3	1.99	0.45
25:UV:1022:MET:HA	25:UV:1025:THR:HG22	1.99	0.45
25:UV:1206:PRO:HA	25:UV:1212:VAL:HA	1.97	0.45
28:CD:118:CYS:O	47:JP:156:SER:OG	2.31	0.45
30:CF:54:MET:HE1	30:CF:68:PRO:HG3	1.99	0.45
38:JC:355:PHE:O	38:JC:358:SER:OG	2.31	0.45
42:JJ:193:LEU:HD22	42:JJ:197:HIS:HB3	1.99	0.45
49:DE:202:ASP:OD1	49:DE:202:ASP:N	2.45	0.45
53:DI:99:ALA:H	53:DI:170:SER:HA	1.80	0.45
1:CA:128:PRO:HB3	1:CA:136:PRO:HG3	1.99	0.45
3:JA:789:LEU:HD12	3:JA:890:LEU:HD22	1.98	0.45
7:UD:76:ILE:HD13	7:UD:102:LEU:HD21	1.99	0.45
7:UD:575:ILE:HA	7:UD:582:VAL:HG12	1.99	0.45
13:UJ:747:GLN:HA	13:UJ:750:ASN:HD22	1.82	0.45
13:UJ:1348:LYS:HD2	13:UJ:1392:LEU:HD23	1.98	0.45
13:UJ:1380:LEU:HD12	13:UJ:1383:ALA:HB3	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:UM:235:LYS:NZ	16:UM:272:SER:O	2.48	0.45
16:UM:584:ILE:HG23	16:UM:586:LYS:H	1.82	0.45
20:UQ:334:LEU:HD23	20:UQ:337:LEU:HD11	1.99	0.45
22:US:213:LEU:HD13	22:US:268:GLN:HG3	1.99	0.45
22:US:466:LEU:HD23	22:US:466:LEU:HA	1.75	0.45
23:UT:237:THR:O	23:UT:241:THR:HG22	2.16	0.45
23:UT:513:ASN:HA	23:UT:516:LYS:HD2	1.99	0.45
23:UT:1083:TYR:CE1	23:UT:1121:PHE:HB3	2.52	0.45
23:UT:1304:LEU:HD11	23:UT:1346:PRO:HB2	1.97	0.45
25:UV:98:PHE:HA	25:UV:101:ASN:HD22	1.82	0.45
25:UV:141:TRP:CD1	25:UV:178:TYR:HB3	2.51	0.45
31:CH:207:ARG:HD3	67:D4:197:G:H21	1.82	0.45
35:CL:304:LEU:O	35:CL:788:TYR:CB	2.65	0.45
38:JC:54:GLU:HA	38:JC:337:PRO:HA	1.97	0.45
38:JC:357:ASP:OD1	38:JC:357:ASP:N	2.46	0.45
50:DF:72:HIS:O	50:DF:72:HIS:ND1	2.49	0.45
65:D2:474:A:H2'	65:D2:475:G:C8	2.50	0.45
66:D3:185:U:H2'	66:D3:186:C:C6	2.51	0.45
66:D3:209:U:H2'	66:D3:210:A:C8	2.52	0.45
3:JA:195:ASN:HB3	3:JA:198:CYS:SG	2.57	0.45
4:UA:586:SER:OG	4:UA:587:PHE:N	2.50	0.45
8:UE:528:SER:O	8:UE:532:ARG:HG2	2.17	0.45
10:UG:228:LEU:HD22	10:UG:264:PRO:HA	1.99	0.45
13:UJ:681:ALA:O	13:UJ:685:SER:CB	2.64	0.45
14:UK:156:SER:OG	14:UK:157:GLU:N	2.49	0.45
15:UL:756:LEU:HD12	15:UL:805:ILE:HD13	1.97	0.45
16:UM:172:VAL:HG13	16:UM:186:LEU:HB2	1.98	0.45
20:UQ:204:ASN:ND2	20:UQ:266:ASN:HB3	2.32	0.45
20:UQ:265:ASP:OD1	20:UQ:266:ASN:N	2.50	0.45
23:UT:668:GLY:O	23:UT:672:VAL:HG23	2.17	0.45
23:UT:1927:SER:OG	23:UT:1928:ASP:N	2.49	0.45
25:UV:587:GLY:HA3	25:UV:611:ASP:H	1.82	0.45
25:UV:678:ILE:H	25:UV:678:ILE:HD12	1.82	0.45
29:CE:201:ASP:OD1	29:CE:204:ALA:N	2.46	0.45
39:JG:54:LYS:NZ	39:JG:56:SER:OG	2.49	0.45
65:D2:210:U:H2'	65:D2:211:G:H8	1.82	0.45
66:D3:116:U:O2'	66:D3:333:A:O2'	2.35	0.45
66:D3:641:G:N2	66:D3:693:U:O2	2.50	0.45
66:D3:843:U:H2'	66:D3:844:A:C8	2.51	0.45
7:UD:61:THR:HG21	7:UD:681:ILE:HD12	1.98	0.45
16:UM:57:SER:O	16:UM:57:SER:OG	2.34	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:UO:233:ASN:HD22	18:UO:247:GLU:HG3	1.82	0.45
20:UQ:66:LEU:HG	20:UQ:125:LEU:HD11	1.98	0.45
20:UQ:531:PHE:HD2	20:UQ:545:THR:HB	1.82	0.45
20:UQ:690:ASN:ND2	20:UQ:751:SER:OG	2.49	0.45
22:US:190:ASP:OD1	22:US:190:ASP:N	2.49	0.45
23:UT:1157:ILE:HD11	23:UT:1170:LEU:HD11	1.99	0.45
25:UV:846:GLU:OE1	25:UV:846:GLU:N	2.49	0.45
26:UX:22:ASP:OD1	26:UX:23:GLN:N	2.49	0.45
36:CM:46:LYS:N	36:CM:49:GLU:OE1	2.50	0.45
47:JP:73:ILE:HG12	47:JP:85:THR:HG22	1.98	0.45
47:JP:296:ARG:HG2	47:JP:458:LYS:HE2	1.99	0.45
50:DF:80:LYS:O	66:D3:1615:C:N4	2.49	0.45
60:DW:46:TYR:HB3	60:DW:69:LEU:HD13	1.98	0.45
66:D3:118:U:O2	66:D3:298:C:N3	2.50	0.45
2:DA:138:PHE:HB3	2:DA:213:ARG:HH21	1.81	0.45
5:UB:495:ASN:ND2	5:UB:621:THR:OG1	2.42	0.45
6:UC:580:ARG:HG2	6:UC:581:ALA:H	1.82	0.45
9:UF:15:MET:HG3	9:UF:29:VAL:HG13	1.99	0.45
10:UG:133:HIS:NE2	10:UG:147:GLU:OE2	2.46	0.45
15:UL:42:ILE:HG12	15:UL:51:ILE:HB	1.98	0.45
15:UL:46:LEU:HD22	15:UL:657:GLN:HE22	1.82	0.45
15:UL:621:VAL:HA	15:UL:631:PHE:O	2.17	0.45
23:UT:133:ILE:HG22	23:UT:180:LEU:HD12	1.98	0.45
23:UT:315:LEU:HD21	23:UT:357:LYS:HB3	1.99	0.45
24:UU:310:ILE:O	24:UU:321:GLU:HA	2.17	0.45
25:UV:432:MET:HE3	25:UV:432:MET:HB3	1.85	0.45
50:DF:76:ARG:NH2	58:DQ:122:ARG:HG2	2.32	0.45
57:DO:11:SER:OG	57:DO:12:GLN:N	2.50	0.45
58:DQ:71:GLY:O	58:DQ:77:GLN:NE2	2.40	0.45
65:D2:189:U:C2	65:D2:209:G:N1	2.85	0.45
65:D2:198:A:H3'	65:D2:199:A:H8	1.81	0.45
66:D3:70:C:N3	66:D3:82:U:O2	2.50	0.45
66:D3:1275:A:C2	66:D3:1435:G:C2	3.05	0.45
66:D3:1530:C:H2'	66:D3:1531:G:H8	1.80	0.45
1:CB:91:HIS:HB2	1:CB:96:VAL:O	2.17	0.44
1:CB:220:ILE:HD11	1:CB:233:LEU:HD22	2.00	0.44
5:UB:548:ARG:NH1	5:UB:638:ASN:OD1	2.37	0.44
7:UD:183:LEU:HD22	7:UD:223:GLY:HA2	1.99	0.44
7:UD:741:LEU:HA	7:UD:756:GLU:HA	1.99	0.44
9:UF:105:GLN:NE2	9:UF:105:GLN:O	2.50	0.44
20:UQ:377:SER:OG	20:UQ:378:ASP:N	2.48	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:UR:239:LYS:O	21:UR:282:ASN:ND2	2.50	0.44
23:UT:1896:ILE:HD13	23:UT:1929:GLU:HG3	1.98	0.44
25:UV:1228:ASN:OD1	25:UV:1228:ASN:N	2.50	0.44
38:JC:316:ASP:OD1	38:JC:317:ILE:N	2.50	0.44
49:DE:233:LYS:HA	49:DE:233:LYS:HD2	1.78	0.44
54:DJ:7:THR:HG23	66:D3:770:A:H5''	1.99	0.44
55:DL:49:ILE:HG13	55:DL:50:GLU:HG2	1.98	0.44
56:DN:20:ARG:HE	60:DW:56:HIS:CE1	2.35	0.44
65:D2:426:G:C2	65:D2:428:A:H5''	2.52	0.44
66:D3:467:G:O5'	66:D3:467:G:C8	2.70	0.44
66:D3:753:A:N1	66:D3:797:G:O6	2.50	0.44
66:D3:809:A:H2'	66:D3:810:G:H4'	2.00	0.44
2:DA:207:LEU:HB2	2:DA:210:ILE:HD11	1.99	0.44
3:JA:50:LYS:HD2	3:JA:50:LYS:HA	1.79	0.44
4:UA:373:ASP:OD1	4:UA:374:ILE:N	2.46	0.44
8:UE:333:ASN:N	8:UE:333:ASN:OD1	2.50	0.44
8:UE:469:ILE:HG21	8:UE:505:CYS:HA	1.99	0.44
11:UH:309:PRO:HA	11:UH:330:ARG:HA	1.99	0.44
20:UQ:312:LEU:HB2	20:UQ:326:LEU:HD11	1.99	0.44
20:UQ:850:GLU:HA	20:UQ:853:ILE:HD12	1.99	0.44
24:UU:548:ALA:O	24:UU:560:LEU:HA	2.17	0.44
25:UV:181:PRO:HG2	25:UV:183:ILE:HD11	1.99	0.44
25:UV:644:VAL:O	25:UV:648:PHE:HB2	2.17	0.44
25:UV:940:LYS:HG3	25:UV:975:LEU:HD11	1.98	0.44
26:UX:97:LEU:HB3	26:UX:128:LEU:HD22	2.00	0.44
30:CG:58:CYS:SG	30:CG:64:LEU:HD22	2.57	0.44
35:CL:830:ARG:HB3	35:CL:880:TYR:CD1	2.52	0.44
38:JC:237:ARG:NH1	38:JC:287:ASN:O	2.50	0.44
38:JC:274:ILE:HA	38:JC:292:CYS:HA	1.99	0.44
38:JC:274:ILE:HG22	38:JC:292:CYS:HB2	1.99	0.44
49:DE:211:LYS:HA	49:DE:216:ASN:O	2.17	0.44
51:DG:139:ASN:HD21	66:D3:142:G:H5''	1.81	0.44
55:DL:85:VAL:HA	55:DL:108:PRO:HA	1.98	0.44
60:DW:60:LYS:NZ	63:Db:24:LEU:O	2.32	0.44
65:D2:466:A:H2'	65:D2:467:A:C8	2.52	0.44
66:D3:1647:U:H2'	66:D3:1648:A:H8	1.81	0.44
66:D3:1696:G:H2'	66:D3:1697:G:H1'	1.99	0.44
5:UB:703:GLN:HB3	22:US:417:HIS:ND1	2.32	0.44
7:UD:310:ASN:OD1	20:UQ:289:GLN:NE2	2.51	0.44
7:UD:776:PHE:HB3	20:UQ:486:PHE:CD1	2.52	0.44
10:UG:172:LYS:HD3	10:UG:173:TYR:CZ	2.53	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:UH:539:ASN:OD1	11:UH:542:SER:OG	2.28	0.44
11:UH:548:PRO:HA	11:UH:576:ARG:HH12	1.82	0.44
13:UJ:121:LEU:HD23	13:UJ:121:LEU:HA	1.83	0.44
13:UJ:539:LEU:HA	13:UJ:542:ILE:HG22	2.00	0.44
16:UM:314:ILE:HG22	16:UM:329:VAL:HA	1.98	0.44
20:UQ:318:GLU:OE1	20:UQ:318:GLU:N	2.38	0.44
20:UQ:323:LEU:O	20:UQ:331:GLN:HA	2.17	0.44
20:UQ:712:THR:HG22	20:UQ:766:ILE:HG22	2.00	0.44
20:UQ:723:VAL:HG23	20:UQ:742:ARG:HB2	1.98	0.44
23:UT:117:LEU:HD23	23:UT:117:LEU:HA	1.86	0.44
23:UT:878:ASN:OD1	23:UT:878:ASN:N	2.48	0.44
23:UT:1381:LYS:HB3	23:UT:1386:GLU:HG3	1.99	0.44
25:UV:652:LYS:HG3	25:UV:667:CYS:HB2	1.99	0.44
25:UV:655:LEU:HD11	25:UV:663:ILE:HG22	2.00	0.44
28:CD:210:VAL:HG23	28:CD:216:PHE:HD1	1.82	0.44
35:CL:82:LYS:HG2	70:CL:2001:GTP:PB	2.55	0.44
39:JG:40:ARG:NH1	39:JG:172:PRO:HG3	2.32	0.44
39:JG:214:ASP:OD1	39:JG:214:ASP:N	2.45	0.44
47:JP:342:ILE:HD13	47:JP:419:VAL:HG12	1.99	0.44
65:D2:178:G:N2	65:D2:219:U:O2	2.33	0.44
66:D3:23:G:C2	66:D3:603:U:C2	3.05	0.44
66:D3:269:G:C5	66:D3:287:G:C2	3.06	0.44
66:D3:336:G:H3'	66:D3:338:C:H5	1.82	0.44
66:D3:340:U:H2'	66:D3:341:A:C8	2.52	0.44
66:D3:1688:U:H3	66:D3:1713:G:N2	2.16	0.44
66:D3:1787:C:H2'	66:D3:1788:G:C8	2.52	0.44
3:JA:82:LYS:HB3	3:JA:82:LYS:HE2	1.83	0.44
4:UA:475:PRO:O	4:UA:492:SER:HB2	2.17	0.44
4:UA:812:GLU:OE1	4:UA:813:HIS:NE2	2.50	0.44
5:UB:573:LEU:HD12	5:UB:573:LEU:HA	1.83	0.44
10:UG:185:HIS:ND1	32:CI:24:ASP:OD2	2.50	0.44
11:UH:595:ILE:HG22	11:UH:599:MET:HE2	1.98	0.44
18:UO:120:ILE:HG12	18:UO:157:ALA:HB1	1.99	0.44
20:UQ:774:PHE:O	20:UQ:785:VAL:HA	2.18	0.44
23:UT:641:ARG:O	23:UT:645:VAL:HG23	2.18	0.44
24:UU:21:SER:OG	24:UU:22:LYS:N	2.50	0.44
25:UV:373:ARG:O	25:UV:516:SER:OG	2.36	0.44
28:CD:46:LYS:NZ	65:D2:485:G:OP2	2.50	0.44
28:CD:117:ASP:OD2	47:JP:131:LYS:NZ	2.50	0.44
29:CE:319:ILE:HD13	29:CE:319:ILE:HA	1.84	0.44
31:CH:168:ASN:ND2	31:CH:171:THR:H	2.16	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CL:631:ILE:HD12	35:CL:631:ILE:HA	1.87	0.44
35:CL:964:ALA:H	35:CL:976:ILE:HG23	1.83	0.44
35:CL:1115:LYS:O	35:CL:1119:ILE:HG12	2.17	0.44
39:JG:128:VAL:HG23	39:JG:159:LEU:HD13	1.99	0.44
46:JO:84:THR:HB	46:JO:88:THR:HG21	2.00	0.44
51:DG:48:TYR:OH	51:DG:119:GLN:O	2.23	0.44
51:DG:173:PRO:O	66:D3:78:A:O2'	2.35	0.44
53:DI:56:ARG:NH2	66:D3:332:U:OP1	2.44	0.44
66:D3:145:A:O2'	66:D3:146:U:O5'	2.33	0.44
66:D3:1705:C:N4	66:D3:1706:C:N4	2.66	0.44
66:D3:1751:C:H2'	66:D3:1752:U:C6	2.53	0.44
67:D4:168:C:H2'	67:D4:169:A:C8	2.48	0.44
67:D4:312:U:H2'	67:D4:313:A:C8	2.53	0.44
1:CA:258:HIS:ND1	1:CA:320:TYR:OH	2.45	0.44
3:JA:569:PRO:HD3	3:JA:583:LEU:HG	1.99	0.44
7:UD:325:ASN:N	7:UD:325:ASN:OD1	2.51	0.44
10:UG:224:LEU:HD21	10:UG:227:GLU:HG3	1.99	0.44
10:UG:484:PRO:HG2	10:UG:497:LEU:HD23	2.00	0.44
13:UJ:491:TYR:HE2	13:UJ:528:ARG:HB3	1.83	0.44
13:UJ:549:LYS:HE3	13:UJ:549:LYS:HB3	1.84	0.44
15:UL:183:ASP:O	15:UL:185:MET:N	2.50	0.44
20:UQ:713:CYS:HA	20:UQ:719:ASN:HA	1.98	0.44
23:UT:448:VAL:HA	23:UT:451:VAL:HG23	2.00	0.44
23:UT:769:THR:OG1	23:UT:770:TYR:N	2.51	0.44
23:UT:1247:LEU:HG	23:UT:1287:LEU:HD22	2.00	0.44
23:UT:1277:GLU:HB3	23:UT:1280:LEU:HB2	2.00	0.44
23:UT:1398:LEU:HA	23:UT:1401:ASN:HD21	1.82	0.44
23:UT:1706:LYS:HD2	23:UT:1706:LYS:HA	1.80	0.44
23:UT:1743:LYS:HA	23:UT:1746:LYS:HG2	2.00	0.44
24:UU:538:GLY:HA3	24:UU:575:GLN:NE2	2.32	0.44
25:UV:174:TYR:HE2	25:UV:227:LYS:HG3	1.82	0.44
25:UV:215:GLU:OE1	25:UV:223:ARG:NH1	2.40	0.44
28:CD:147:LEU:O	28:CD:151:GLN:HG2	2.18	0.44
31:CH:284:LEU:HD22	31:CH:300:ALA:HB2	1.99	0.44
31:CH:529:SER:OG	31:CH:530:GLY:N	2.50	0.44
38:JC:239:ASP:N	38:JC:239:ASP:OD1	2.49	0.44
46:JO:72:VAL:HG22	46:JO:81:THR:HB	1.98	0.44
49:DE:45:ILE:HB	49:DE:80:THR:HG22	1.99	0.44
53:DI:35:ASN:O	53:DI:37:LYS:NZ	2.35	0.44
58:DQ:73:GLY:O	58:DQ:77:GLN:HB2	2.17	0.44
66:D3:554:C:H5	66:D3:571:G:C2	2.36	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:D3:1151:A:H2'	66:D3:1152:A:C8	2.53	0.44
1:CA:210:MET:HE3	1:CA:210:MET:HB3	1.62	0.44
3:JA:556:MET:HE2	3:JA:556:MET:HB3	1.91	0.44
7:UD:336:ILE:HG12	7:UD:349:SER:HB3	1.99	0.44
7:UD:689:ASN:OD1	7:UD:689:ASN:N	2.50	0.44
9:UF:186:VAL:HG21	9:UF:319:TYR:HE2	1.82	0.44
13:UJ:307:LYS:HA	13:UJ:307:LYS:HD2	1.83	0.44
13:UJ:684:TYR:O	13:UJ:688:PHE:CB	2.62	0.44
13:UJ:1355:ILE:HG21	13:UJ:1399:ALA:HB1	2.00	0.44
15:UL:368:PRO:O	15:UL:375:THR:OG1	2.34	0.44
18:UO:263:ASN:OD1	18:UO:269:GLN:NE2	2.50	0.44
19:UP:156:LYS:HA	19:UP:159:LYS:HG2	1.99	0.44
23:UT:1253:ASN:ND2	23:UT:1255:ASN:OD1	2.49	0.44
24:UU:176:TYR:OH	24:UU:219:ASP:OD1	2.31	0.44
34:CK:529:ARG:NH2	66:D3:1754:A:N7	2.60	0.44
36:CM:59:VAL:HG21	36:CM:103:MET:HE1	1.99	0.44
39:JG:104:ILE:N	39:JG:246:GLU:OE2	2.51	0.44
44:JM:193:GLU:O	44:JM:196:GLU:HG3	2.18	0.44
50:DF:207:THR:O	50:DF:207:THR:OG1	2.34	0.44
52:DH:38:LEU:HA	52:DH:41:LEU:HD13	1.99	0.44
53:DI:24:LYS:NZ	66:D3:400:A:N7	2.55	0.44
54:DJ:2:PRO:HA	66:D3:380:U:H4'	1.99	0.44
57:DO:18:ARG:NH1	66:D3:918:U:O3'	2.50	0.44
65:D2:19:A:H2'	65:D2:20:C:C6	2.53	0.44
66:D3:114:C:N3	66:D3:247:A:C6	2.86	0.44
66:D3:1080:U:H2'	66:D3:1081:A:H8	1.83	0.44
66:D3:1775:U:H2'	66:D3:1776:A:C8	2.53	0.44
67:D4:111:G:O6	67:D4:260:U:O4	2.36	0.44
3:JA:508:PRO:O	3:JA:649:TYR:OH	2.35	0.44
3:JA:880:VAL:O	3:JA:884:ILE:HG12	2.18	0.44
3:JA:909:THR:HA	3:JA:912:MET:HE3	2.00	0.44
1:CB:156:MET:HE2	1:CB:156:MET:HB3	1.88	0.44
5:UB:604:VAL:HG13	5:UB:606:PHE:HD2	1.82	0.44
8:UE:461:ASP:O	8:UE:465:ILE:HG12	2.18	0.44
13:UJ:550:TYR:O	13:UJ:553:SER:O	2.36	0.44
15:UL:415:LYS:HE2	15:UL:415:LYS:HB2	1.87	0.44
16:UM:593:CYS:HB3	16:UM:620:LEU:HG	1.99	0.44
20:UQ:681:ILE:HG12	20:UQ:688:VAL:HG22	1.99	0.44
23:UT:1012:ARG:HB3	53:DI:116:HIS:HA	1.99	0.44
26:UX:65:VAL:HA	26:UX:152:ILE:O	2.18	0.44
29:CE:89:VAL:HG11	29:CE:95:ALA:HB2	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:CG:118:LYS:HA	30:CG:121:ILE:HD12	2.00	0.44
33:CJ:143:HIS:HB2	33:CJ:151:SER:HB3	2.00	0.44
35:CL:120:CYS:HB3	35:CL:131:ILE:HG13	1.98	0.44
39:JG:46:ALA:HA	39:JG:115:GLN:HB3	1.99	0.44
44:JM:209:MET:HA	44:JM:212:MET:HE2	2.00	0.44
47:JP:231:GLU:OE2	47:JP:250:ARG:NH1	2.33	0.44
62:DY:12:VAL:HA	62:DY:23:PHE:HB3	2.00	0.44
2:DA:42:ASN:OD1	2:DA:42:ASN:N	2.51	0.44
3:JA:214:LYS:HE2	3:JA:214:LYS:HB3	1.83	0.44
3:JA:522:THR:HG21	3:JA:706:PRO:HG2	1.99	0.44
7:UD:49:LEU:HD22	7:UD:69:ILE:HG12	1.99	0.44
16:UM:99:MET:HE2	16:UM:99:MET:HB3	1.89	0.44
16:UM:436:ALA:O	16:UM:459:ASN:N	2.51	0.44
20:UQ:334:LEU:HA	20:UQ:335:PRO:HD3	1.69	0.44
23:UT:640:ILE:HD11	51:DG:10:ASN:HA	1.99	0.44
25:UV:439:HIS:HE1	25:UV:460:GLU:HB2	1.83	0.44
26:UX:90:LEU:HD12	26:UX:94:CYS:SG	2.57	0.44
30:CG:22:ASP:OD1	31:CH:342:ARG:NH2	2.47	0.44
39:JF:243:HIS:ND1	39:JF:246:GLU:OE1	2.46	0.44
49:DE:187:ARG:NH2	66:D3:790:U:OP1	2.37	0.44
53:DI:81:VAL:HG11	53:DI:94:ASN:HA	2.00	0.44
3:JA:888:ILE:HD11	3:JA:898:ILE:HD13	2.00	0.44
8:UE:365:SER:OG	8:UE:366:GLY:N	2.51	0.44
10:UG:49:ILE:HG21	17:UN:860:SER:HA	1.99	0.44
10:UG:178:ASP:OD2	26:UX:24:ARG:NH1	2.40	0.44
13:UJ:314:GLN:OE1	13:UJ:357:ARG:NE	2.51	0.44
13:UJ:616:PRO:O	13:UJ:620:GLU:HG2	2.18	0.44
13:UJ:1547:LEU:O	13:UJ:1551:LEU:HG	2.17	0.44
15:UL:162:HIS:CG	15:UL:181:SER:HG	2.33	0.44
16:UM:560:TRP:CD1	16:UM:567:VAL:HA	2.53	0.44
23:UT:704:ILE:HD13	23:UT:704:ILE:HA	1.89	0.44
24:UU:327:SER:OG	24:UU:336:VAL:O	2.29	0.44
25:UV:527:TYR:HB2	25:UV:615:VAL:HB	2.00	0.44
25:UV:738:TYR:O	25:UV:742:PHE:HB2	2.18	0.44
33:CJ:196:THR:HG23	33:CJ:199:GLY:H	1.82	0.44
38:JC:4:LYS:HE2	38:JC:359:ILE:HG22	2.00	0.44
44:JM:175:GLU:HA	44:JM:178:MET:HG2	2.00	0.44
56:DN:124:ARG:NH1	66:D3:966:A:OP2	2.51	0.44
3:JA:187:ARG:NH1	3:JA:489:LEU:O	2.43	0.43
3:JA:782:ARG:HH21	3:JA:809:LYS:HE3	1.83	0.43
4:UA:63:LEU:HD11	4:UA:67:GLY:HA2	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:UA:450:LEU:HA	4:UA:475:PRO:HB3	2.00	0.43
10:UG:409:ALA:O	47:JP:8:ARG:NH1	2.49	0.43
11:UH:185:SER:HA	11:UH:201:PHE:HA	1.99	0.43
11:UH:520:PRO:CD	11:UH:520:PRO:O	2.64	0.43
13:UJ:1492:SER:O	13:UJ:1495:SER:OG	2.33	0.43
13:UJ:1595:THR:HA	13:UJ:1598:LEU:HG	1.98	0.43
15:UL:574:LEU:HD12	15:UL:594:ASP:HB3	2.00	0.43
15:UL:866:LYS:HB3	15:UL:866:LYS:HE2	1.66	0.43
16:UM:442:LEU:HA	16:UM:443:PRO:HD3	1.89	0.43
20:UQ:386:ASN:HD21	20:UQ:389:LEU:HD11	1.83	0.43
20:UQ:558:THR:O	20:UQ:558:THR:OG1	2.36	0.43
21:UR:351:THR:OG1	21:UR:352:GLN:N	2.50	0.43
23:UT:28:ILE:HD11	23:UT:191:PHE:CD1	2.54	0.43
23:UT:132:LEU:HD23	23:UT:132:LEU:HA	1.81	0.43
23:UT:201:ARG:O	23:UT:250:LYS:NZ	2.38	0.43
24:UU:880:LEU:HD23	24:UU:880:LEU:HA	1.80	0.43
25:UV:134:ILE:HG23	25:UV:242:LEU:HD12	1.99	0.43
25:UV:773:TYR:CE1	25:UV:1142:LYS:HD2	2.52	0.43
28:CD:4:ILE:H	28:CD:23:GLN:NE2	2.12	0.43
28:CD:397:SER:OG	28:CD:399:VAL:HG12	2.18	0.43
35:CL:847:LEU:HA	35:CL:898:GLY:HA2	1.99	0.43
38:JC:66:ARG:HB3	38:JC:109:ASP:HA	1.99	0.43
38:JC:256:ASP:HB2	38:JC:259:THR:HG22	2.00	0.43
43:JK:490:ILE:HA	43:JK:493:PHE:HB3	1.99	0.43
49:DE:37:LYS:NZ	49:DE:40:GLU:OE2	2.45	0.43
52:DH:78:THR:HG22	52:DH:92:PHE:HE1	1.83	0.43
54:DJ:10:LYS:HE3	54:DJ:10:LYS:HB3	1.87	0.43
54:DJ:152:SER:OG	66:D3:766:U:O4	2.30	0.43
66:D3:242:U:H2'	66:D3:243:G:C8	2.53	0.43
7:UD:95:LYS:NZ	7:UD:96:ASP:OD2	2.37	0.43
7:UD:238:SER:O	7:UD:238:SER:OG	2.33	0.43
7:UD:285:CYS:HB2	7:UD:298:ALA:HB3	2.00	0.43
8:UE:543:LEU:HD22	18:UO:460:ALA:HA	1.99	0.43
9:UF:144:VAL:HG12	9:UF:181:LEU:HD22	2.00	0.43
12:UI:463:LYS:HA	12:UI:463:LYS:HD3	1.91	0.43
13:UJ:768:LYS:HE2	13:UJ:768:LYS:HB2	1.76	0.43
16:UM:194:ARG:HA	16:UM:194:ARG:HD2	1.83	0.43
20:UQ:182:LYS:HD3	20:UQ:182:LYS:HA	1.83	0.43
23:UT:897:PHE:O	23:UT:900:GLU:HG3	2.17	0.43
24:UU:378:PHE:HA	24:UU:386:SER:HB2	1.99	0.43
37:CN:82:SER:OG	37:CN:133:SER:O	2.28	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:JC:144:LEU:HD11	38:JC:153:LEU:HD12	2.00	0.43
39:JG:51:GLU:HB3	39:JG:68:LEU:HD12	1.99	0.43
42:JJ:103:PRO:HA	42:JJ:106:MET:HB3	1.99	0.43
56:DN:66:ILE:HG23	56:DN:67:THR:HG23	1.99	0.43
4:UA:411:VAL:HG13	4:UA:425:PHE:HB2	2.01	0.43
4:UA:749:TYR:CE1	24:UU:708:ASN:HB2	2.53	0.43
5:UB:488:ASN:ND2	5:UB:491:ASP:HB2	2.34	0.43
5:UB:612:THR:HG23	5:UB:614:ILE:H	1.83	0.43
7:UD:554:ASP:O	7:UD:558:ARG:CA	2.66	0.43
10:UG:244:ASN:HD21	10:UG:444:LEU:HA	1.82	0.43
18:UO:139:ILE:HD11	18:UO:151:LEU:HD23	1.99	0.43
20:UQ:308:ASP:N	20:UQ:308:ASP:OD1	2.51	0.43
20:UQ:488:LEU:HD23	20:UQ:488:LEU:HA	1.88	0.43
20:UQ:623:PHE:HD1	20:UQ:632:ILE:HG12	1.83	0.43
23:UT:155:LEU:HD23	23:UT:155:LEU:HA	1.83	0.43
23:UT:315:LEU:O	23:UT:319:THR:HG23	2.18	0.43
23:UT:550:GLU:OE1	23:UT:588:ASN:ND2	2.48	0.43
23:UT:1140:GLN:O	23:UT:1188:LYS:NZ	2.36	0.43
24:UU:115:ASP:OD1	24:UU:115:ASP:N	2.48	0.43
24:UU:484:ILE:HB	24:UU:498:TYR:HB2	2.00	0.43
26:UX:52:PHE:HB3	26:UX:55:TYR:HB3	2.00	0.43
27:UZ:228:LYS:O	27:UZ:232:GLY:N	2.44	0.43
32:CI:68:ASP:HB3	32:CI:71:ARG:HB3	2.00	0.43
35:CL:72:VAL:HG23	35:CL:117:PHE:HA	1.99	0.43
35:CL:82:LYS:CB	70:CL:2001:GTP:O1B	2.66	0.43
38:JC:153:LEU:HD23	38:JC:167:LEU:HD11	2.00	0.43
50:DF:25:LEU:HD13	50:DF:29:ILE:HD12	2.00	0.43
51:DG:185:GLN:HA	51:DG:188:ARG:HE	1.83	0.43
55:DL:83:THR:HG22	55:DL:110:HIS:HA	2.01	0.43
57:DO:47:LYS:HD2	57:DO:47:LYS:HA	1.63	0.43
65:D2:208:A:H2'	65:D2:209:G:C8	2.53	0.43
66:D3:647:G:H1	66:D3:687:G:H1	1.66	0.43
1:CB:198:GLU:OE2	1:CB:199:PHE:N	2.48	0.43
7:UD:250:THR:O	7:UD:252:GLN:N	2.51	0.43
7:UD:569:PHE:O	7:UD:586:THR:OG1	2.26	0.43
8:UE:349:ASP:OD1	8:UE:349:ASP:N	2.40	0.43
8:UE:443:GLN:HE21	18:UO:252:ASN:ND2	2.17	0.43
9:UF:172:LEU:HD13	9:UF:172:LEU:HA	1.87	0.43
10:UG:445:ASP:HA	10:UG:446:PRO:HD3	1.87	0.43
11:UH:676:TRP:CD1	12:UI:486:LEU:HB2	2.53	0.43
13:UJ:180:ILE:HD11	13:UJ:219:ASN:HD22	1.84	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:UJ:1686:ILE:O	13:UJ:1690:LEU:HG	2.17	0.43
16:UM:183:LEU:HB3	16:UM:184:HIS:CD2	2.53	0.43
16:UM:332:SER:OG	16:UM:381:VAL:O	2.33	0.43
21:UR:346:TYR:CE2	21:UR:393:LEU:HD23	2.51	0.43
22:US:285:ILE:O	22:US:289:PHE:N	2.51	0.43
22:US:472:HIS:CD2	22:US:474:HIS:H	2.35	0.43
25:UV:557:THR:OG1	25:UV:560:ASN:OD1	2.36	0.43
25:UV:699:GLU:HA	25:UV:702:LYS:HB2	2.00	0.43
38:JC:205:GLU:HG2	38:JC:214:ARG:HD3	2.00	0.43
51:DG:185:GLN:HE22	66:D3:271:A:H61	1.66	0.43
52:DH:40:PRO:HG2	52:DH:41:LEU:HD12	1.99	0.43
55:DL:88:ARG:HE	55:DL:88:ARG:HB3	1.69	0.43
67:D4:165:G:H2'	67:D4:166:G:H8	1.83	0.43
4:UA:119:LEU:HD23	4:UA:142:HIS:HD2	1.83	0.43
8:UE:444:ALA:O	8:UE:447:SER:C	2.62	0.43
12:UI:413:GLU:HB3	12:UI:416:ILE:HG12	2.00	0.43
13:UJ:1586:LEU:HD23	13:UJ:1590:ILE:HG13	1.99	0.43
16:UM:189:HIS:CD2	16:UM:215:GLY:HA3	2.53	0.43
18:UO:229:CYS:HB2	18:UO:258:LEU:HD12	1.99	0.43
23:UT:582:LEU:HD23	23:UT:657:LEU:HD13	2.00	0.43
23:UT:914:LYS:HD3	23:UT:914:LYS:HA	1.77	0.43
23:UT:1605:THR:HB	23:UT:1608:GLU:HB2	2.00	0.43
25:UV:671:THR:HG22	25:UV:677:ILE:HD11	1.99	0.43
27:UZ:244:VAL:HG22	27:UZ:252:LEU:HB2	2.01	0.43
31:CH:334:GLU:HB3	31:CH:352:PRO:HD3	2.00	0.43
37:CN:39:ALA:HB1	37:CN:53:LEU:HD11	1.99	0.43
39:JG:180:LEU:HD23	39:JG:180:LEU:HA	1.84	0.43
47:JP:221:ASN:OD1	47:JP:221:ASN:N	2.51	0.43
47:JP:296:ARG:HE	47:JP:296:ARG:HB2	1.39	0.43
65:D2:117:G:H2'	65:D2:118:A:C8	2.53	0.43
66:D3:214:G:N2	66:D3:251:A:H62	2.15	0.43
3:JA:13:LEU:HD12	3:JA:216:VAL:HG21	2.01	0.43
3:JA:563:LYS:H	3:JA:587:GLN:HE22	1.66	0.43
4:UA:418:ARG:NH1	66:D3:1634:C:OP1	2.37	0.43
6:UC:500:ARG:HD3	6:UC:500:ARG:HA	1.78	0.43
11:UH:565:GLU:OE1	11:UH:565:GLU:N	2.48	0.43
16:UM:610:LEU:HD23	16:UM:611:LYS:HG3	2.00	0.43
20:UQ:147:SER:OG	20:UQ:148:GLU:OE2	2.37	0.43
20:UQ:262:MET:HE3	20:UQ:262:MET:HB3	1.89	0.43
22:US:428:THR:HG23	22:US:431:GLN:H	1.83	0.43
23:UT:1737:ASN:ND2	66:D3:803:A:N3	2.65	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:UV:441:GLN:O	25:UV:455:SER:HA	2.18	0.43
25:UV:1075:LEU:HD11	25:UV:1080:LEU:HD13	1.98	0.43
26:UX:112:LYS:NZ	45:JN:303:GLU:O	2.51	0.43
29:CE:153:LYS:HD3	29:CE:153:LYS:HA	1.70	0.43
30:CF:42:LYS:NZ	67:D4:327:G:O6	2.44	0.43
35:CL:866:ARG:HH11	61:DX:59:ILE:HD11	1.84	0.43
37:CN:46:ASN:HD22	37:CN:49:GLU:HB2	1.84	0.43
39:JF:116:THR:HG22	39:JF:120:ILE:H	1.83	0.43
57:DO:81:VAL:HG23	57:DO:115:ILE:HA	2.01	0.43
60:DW:44:HIS:HD2	60:DW:101:TYR:CZ	2.37	0.43
65:D2:208:A:H2'	65:D2:209:G:H8	1.82	0.43
66:D3:326:G:H2'	66:D3:327:U:H6	1.84	0.43
66:D3:884:A:H2'	66:D3:885:G:C8	2.54	0.43
66:D3:1041:G:H2'	66:D3:1042:G:C8	2.53	0.43
66:D3:1130:G:H21	66:D3:1138:A:H62	1.66	0.43
1:CA:259:MET:HE3	1:CA:259:MET:HB3	1.95	0.43
4:UA:151:SER:HB3	4:UA:164:THR:HB	2.01	0.43
7:UD:476:LYS:HG3	7:UD:491:CYS:HB3	2.00	0.43
10:UG:88:GLN:HE22	10:UG:402:ILE:H	1.67	0.43
10:UG:327:THR:OG1	10:UG:406:ALA:O	2.29	0.43
10:UG:410:ASN:O	47:JP:27:ASN:ND2	2.49	0.43
11:UH:610:PHE:O	11:UH:614:ILE:HG12	2.19	0.43
15:UL:123:ALA:HB3	15:UL:141:LYS:HD2	2.01	0.43
15:UL:132:THR:OG1	15:UL:133:GLY:N	2.51	0.43
15:UL:596:ASN:OD1	15:UL:596:ASN:N	2.52	0.43
16:UM:39:GLU:HA	16:UM:56:ILE:O	2.18	0.43
19:UP:205:TRP:O	19:UP:208:ARG:NH2	2.51	0.43
20:UQ:18:GLY:HA2	20:UQ:388:PRO:HD2	2.00	0.43
20:UQ:561:LEU:HD12	20:UQ:562:PRO:HD2	2.00	0.43
21:UR:304:LEU:HD23	21:UR:371:VAL:HG21	2.00	0.43
22:US:452:ASP:HB3	22:US:455:LEU:HB2	2.00	0.43
23:UT:538:LEU:HD22	23:UT:571:LEU:HD22	2.00	0.43
23:UT:850:LEU:O	23:UT:854:LEU:HG	2.19	0.43
23:UT:1055:ARG:O	23:UT:1059:LEU:HG	2.18	0.43
25:UV:376:SER:OG	25:UV:377:SER:N	2.51	0.43
25:UV:412:LEU:HD12	25:UV:421:LEU:HD23	1.99	0.43
25:UV:592:PHE:HD2	25:UV:596:LYS:HB2	1.84	0.43
31:CH:335:ARG:HA	31:CH:349:TRP:O	2.19	0.43
35:CL:275:LEU:HD23	35:CL:275:LEU:HA	1.82	0.43
35:CL:631:ILE:HD11	36:CM:283:ILE:HG22	2.00	0.43
35:CL:1157:LYS:HB2	35:CL:1157:LYS:HE3	1.88	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:JG:214:ASP:O	39:JG:224:LYS:NZ	2.39	0.43
47:JP:445:ARG:HE	47:JP:451:MET:HB3	1.83	0.43
54:DJ:107:ARG:HA	54:DJ:107:ARG:HD2	1.80	0.43
60:DW:93:LEU:HD23	60:DW:93:LEU:HA	1.86	0.43
63:Db:29:ARG:HA	63:Db:29:ARG:HD3	1.80	0.43
65:D2:123:C:H3'	65:D2:124:A:H8	1.84	0.43
66:D3:1689:A:C5	66:D3:1713:G:N2	2.86	0.43
2:DA:43:VAL:HG21	2:DA:68:VAL:HG11	2.00	0.43
2:DA:78:ASP:OD1	2:DA:78:ASP:N	2.43	0.43
3:JA:536:LYS:HA	3:JA:536:LYS:HD2	1.87	0.43
5:UB:573:LEU:HD23	5:UB:593:LEU:HD21	1.99	0.43
5:UB:743:GLN:O	5:UB:747:GLU:HG3	2.19	0.43
7:UD:74:GLY:HA2	7:UD:99:ILE:HG12	2.01	0.43
7:UD:199:ASP:HA	7:UD:215:ALA:O	2.19	0.43
8:UE:367:ASP:O	8:UE:528:SER:OG	2.33	0.43
9:UF:144:VAL:HG11	9:UF:178:VAL:HG11	2.01	0.43
9:UF:206:ILE:HD11	44:JM:52:PHE:HZ	1.82	0.43
13:UJ:1497:SER:OG	13:UJ:1539:MET:SD	2.65	0.43
14:UK:77:LEU:HD23	35:CL:1074:GLN:HE22	1.83	0.43
14:UK:156:SER:HB2	65:D2:205:C:O2'	2.19	0.43
16:UM:246:CYS:HA	16:UM:259:TYR:O	2.19	0.43
19:UP:207:ASN:OD1	19:UP:213:LYS:NZ	2.30	0.43
20:UQ:40:ASP:O	20:UQ:42:ARG:N	2.48	0.43
23:UT:1228:LEU:HD12	23:UT:1271:LEU:HG	1.99	0.43
23:UT:1328:PHE:O	23:UT:1332:ILE:HG12	2.18	0.43
23:UT:1777:LEU:HB3	23:UT:1864:LEU:HG	2.00	0.43
23:UT:2000:PHE:HA	23:UT:2003:LEU:HD12	2.01	0.43
25:UV:349:LEU:HD21	25:UV:395:ILE:HD13	2.00	0.43
25:UV:439:HIS:ND1	25:UV:460:GLU:O	2.51	0.43
31:CH:437:ARG:C	31:CH:439:ALA:H	2.26	0.43
35:CL:844:PRO:HB2	35:CL:855:GLN:HE21	1.83	0.43
36:CM:245:LEU:HD12	36:CM:275:VAL:HG12	2.01	0.43
38:JC:49:LEU:HG	38:JC:356:LEU:HD11	2.01	0.43
38:JC:199:THR:HG22	38:JC:201:THR:H	1.83	0.43
53:DI:86:SER:OG	53:DI:87:ASN:N	2.51	0.43
55:DL:71:LEU:HD12	55:DL:88:ARG:HD2	2.01	0.43
65:D2:407:A:C6	65:D2:450:G:N1	2.87	0.43
66:D3:305:C:H2'	66:D3:306:U:C6	2.54	0.43
67:D4:202:G:H2'	67:D4:203:U:C6	2.54	0.43
4:UA:846:TYR:HE1	24:UU:909:LEU:HB3	1.84	0.43
1:CB:163:PHE:CG	1:CB:266:GLY:HA3	2.53	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:UE:176:GLU:HG2	8:UE:177:GLU:HG3	2.01	0.43
13:UJ:215:CYS:SG	20:UQ:875:MET:HB2	2.59	0.43
13:UJ:1453:VAL:O	13:UJ:1457:LEU:HG	2.19	0.43
13:UJ:1510:PHE:O	13:UJ:1514:SER:HB3	2.18	0.43
15:UL:118:ASN:OD1	15:UL:118:ASN:N	2.48	0.43
20:UQ:381:SER:O	20:UQ:381:SER:OG	2.37	0.43
22:US:395:ILE:O	22:US:399:ILE:HG12	2.19	0.43
23:UT:947:ILE:HA	23:UT:950:ILE:HG22	2.01	0.43
23:UT:1180:LYS:HA	23:UT:1180:LYS:HD3	1.83	0.43
23:UT:1309:ASN:HA	23:UT:1312:SER:HB2	2.00	0.43
24:UU:611:THR:HB	24:UU:621:ASP:HB3	2.01	0.43
29:CE:309:LEU:HG	29:CE:371:LEU:HD13	2.00	0.43
31:CH:437:ARG:HB3	31:CH:438:ILE:H	1.66	0.43
35:CL:92:ARG:HG3	35:CL:221:LEU:HD22	2.00	0.43
47:JP:230:ASN:HB2	47:JP:274:ALA:HB2	2.00	0.43
49:DE:127:LYS:HE3	49:DE:127:LYS:HB2	1.90	0.43
55:DL:125:VAL:HG12	55:DL:139:VAL:HG12	2.01	0.43
66:D3:415:C:N4	66:D3:419:G:O6	2.51	0.43
66:D3:1440:C:H2'	66:D3:1441:C:C6	2.53	0.43
66:D3:1748:G:H2'	66:D3:1749:A:C8	2.53	0.43
2:DA:128:LYS:HE2	2:DA:128:LYS:HB3	1.83	0.43
7:UD:130:THR:HG22	7:UD:530:ARG:HH22	1.84	0.43
13:UJ:562:THR:HG23	13:UJ:563:LEU:HD12	1.99	0.43
13:UJ:623:LEU:HD23	13:UJ:623:LEU:HA	1.90	0.43
14:UK:137:VAL:HG12	14:UK:138:ASP:H	1.84	0.43
15:UL:534:ILE:HD12	15:UL:548:ILE:HG23	2.01	0.43
16:UM:19:SER:OG	16:UM:20:SER:N	2.52	0.43
16:UM:357:THR:OG1	16:UM:358:ASN:N	2.51	0.43
16:UM:494:ILE:HA	16:UM:510:SER:HA	2.01	0.43
20:UQ:112:ASN:ND2	20:UQ:113:ASN:OD1	2.52	0.43
20:UQ:279:VAL:HG13	20:UQ:294:LYS:HG2	2.00	0.43
21:UR:158:VAL:O	21:UR:162:ASN:ND2	2.38	0.43
23:UT:67:ALA:O	23:UT:71:GLU:HB2	2.19	0.43
23:UT:536:ASN:HA	23:UT:539:LYS:HD3	2.00	0.43
23:UT:707:PRO:HD3	23:UT:774:ILE:HD11	2.01	0.43
23:UT:954:PRO:HB3	23:UT:1011:LEU:HB2	2.00	0.43
23:UT:1537:LYS:HD2	23:UT:1539:ASN:HB3	2.01	0.43
23:UT:1940:LYS:HD3	23:UT:1940:LYS:HA	1.80	0.43
24:UU:318:SER:OG	24:UU:320:LYS:NZ	2.52	0.43
25:UV:216:LYS:HA	25:UV:216:LYS:HD3	1.79	0.43
25:UV:308:LEU:HD21	25:UV:337:LEU:HB2	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:UV:383:GLY:HA3	25:UV:585:MET:HG2	2.00	0.43
25:UV:899:LEU:HD23	25:UV:902:ILE:HD11	2.00	0.43
28:CD:293:CYS:HA	28:CD:309:GLU:HG2	2.00	0.43
34:CK:330:VAL:HG21	35:CL:932:LEU:HD12	2.00	0.43
38:JC:266:LYS:HD3	38:JC:266:LYS:HA	1.85	0.43
49:DE:238:LEU:HD13	49:DE:238:LEU:HA	1.86	0.43
52:DH:97:ARG:HA	52:DH:97:ARG:HD2	1.94	0.43
65:D2:212:U:H2'	65:D2:213:G:C8	2.54	0.43
65:D2:436:G:H2'	65:D2:437:G:H8	1.82	0.43
65:D2:456:U:H2'	65:D2:457:G:C8	2.54	0.43
66:D3:244:A:N6	66:D3:250:C:N4	2.64	0.43
66:D3:1717:G:H2'	66:D3:1718:G:C8	2.54	0.43
67:D4:74:A:H2'	67:D4:75:C:C6	2.54	0.43
2:DA:185:THR:O	2:DA:189:ILE:HG12	2.19	0.42
3:JA:78:LYS:HA	3:JA:81:ILE:HG22	1.99	0.42
3:JA:217:LYS:HE3	3:JA:217:LYS:HB3	1.84	0.42
4:UA:27:LYS:CD	4:UA:43:ILE:HD12	2.49	0.42
4:UA:458:TRP:HA	4:UA:465:LEU:HA	2.00	0.42
5:UB:315:ASN:O	5:UB:513:GLN:NE2	2.52	0.42
9:UF:128:LYS:HE3	9:UF:128:LYS:HB2	1.85	0.42
13:UJ:1531:ILE:HD12	13:UJ:1531:ILE:HA	1.84	0.42
13:UJ:1710:ALA:O	13:UJ:1714:ILE:HG12	2.19	0.42
18:UO:133:HIS:HB2	18:UO:139:ILE:HG23	2.01	0.42
20:UQ:120:ASN:N	20:UQ:120:ASN:OD1	2.52	0.42
22:US:191:ILE:HD12	22:US:191:ILE:HA	1.85	0.42
23:UT:1930:SER:O	23:UT:1934:PHE:HB2	2.19	0.42
27:UZ:74:LEU:HB3	27:UZ:100:ILE:HD13	2.00	0.42
29:CE:16:LYS:HB2	29:CE:45:ALA:HB2	2.00	0.42
29:CE:208:ILE:HG13	29:CE:226:ILE:HG21	2.01	0.42
30:CF:44:LEU:HD13	30:CF:70:LEU:HB2	2.01	0.42
33:CJ:169:ASN:HD22	33:CJ:255:GLU:HG3	1.84	0.42
35:CL:137:LEU:HD12	35:CL:166:ARG:HB2	2.01	0.42
35:CL:625:TRP:NE1	36:CM:281:GLU:OE1	2.40	0.42
35:CL:1102:LEU:HD22	35:CL:1106:GLU:HG3	2.00	0.42
38:JC:297:ALA:HB3	38:JC:311:MET:HG3	2.01	0.42
39:JF:92:THR:O	39:JF:96:LEU:HG	2.19	0.42
40:JH:271:THR:O	40:JH:275:SER:CB	2.67	0.42
52:DH:23:ALA:O	52:DH:27:LEU:HG	2.18	0.42
66:D3:793:A:N6	66:D3:798:C:H41	2.16	0.42
7:UD:287:THR:HG22	7:UD:296:PHE:HB2	2.01	0.42
13:UJ:314:GLN:HG2	13:UJ:353:ARG:HB3	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:UJ:1423:LEU:HA	13:UJ:1426:ILE:HG22	2.01	0.42
17:UN:894:LEU:O	47:JP:230:ASN:ND2	2.52	0.42
23:UT:790:GLU:HG3	23:UT:841:ILE:HD12	2.02	0.42
23:UT:1981:TYR:OH	23:UT:1985:ARG:NH2	2.52	0.42
24:UU:909:LEU:HD23	24:UU:909:LEU:HA	1.84	0.42
27:UZ:201:VAL:HG11	27:UZ:216:ILE:HD11	2.00	0.42
31:CH:456:ASP:HB2	31:CH:459:LEU:HB2	2.01	0.42
32:CI:120:MET:HE1	32:CI:159:THR:HA	2.01	0.42
36:CM:21:ILE:HD13	36:CM:21:ILE:HA	1.92	0.42
37:CN:63:ASN:H	37:CN:66:HIS:HB2	1.84	0.42
39:JF:68:LEU:HD13	39:JF:73:HIS:HE1	1.83	0.42
42:JJ:205:ILE:O	42:JJ:212:THR:OG1	2.37	0.42
66:D3:142:G:N1	66:D3:174:U:O2	2.52	0.42
66:D3:542:A:HO2'	66:D3:543:C:C5'	2.31	0.42
2:DA:61:LEU:HD23	2:DA:61:LEU:HA	1.76	0.42
3:JA:206:ASN:OD1	3:JA:206:ASN:N	2.46	0.42
3:JA:845:TYR:CD2	3:JA:855:ILE:HG13	2.54	0.42
4:UA:201:HIS:NE2	24:UU:765:GLU:OE1	2.52	0.42
1:CB:297:ARG:HH11	1:CB:323:SER:HB3	1.84	0.42
6:UC:433:ARG:H	6:UC:435:LYS:HZ2	1.67	0.42
8:UE:461:ASP:HB3	8:UE:464:VAL:HG23	2.01	0.42
13:UJ:152:LEU:HD23	13:UJ:152:LEU:HA	1.88	0.42
13:UJ:377:ARG:HE	13:UJ:414:LEU:HD22	1.83	0.42
16:UM:224:ASP:HB2	16:UM:234:LEU:HD21	2.01	0.42
20:UQ:141:LEU:HA	20:UQ:155:THR:HG22	2.01	0.42
20:UQ:484:VAL:HG23	20:UQ:485:ARG:H	1.85	0.42
22:US:220:LEU:HD21	22:US:277:ILE:HG13	2.01	0.42
23:UT:29:GLU:HB2	23:UT:32:ARG:HD2	2.02	0.42
23:UT:867:LYS:HG3	23:UT:892:LEU:HD22	2.01	0.42
25:UV:116:LEU:HD23	25:UV:116:LEU:HA	1.84	0.42
25:UV:310:PRO:HB3	25:UV:330:PRO:HB3	2.01	0.42
25:UV:326:LEU:HD12	25:UV:326:LEU:HA	1.93	0.42
25:UV:842:ILE:O	25:UV:849:GLY:HA2	2.18	0.42
27:UZ:51:ASP:OD1	27:UZ:51:ASP:N	2.52	0.42
31:CH:195:GLN:HE21	31:CH:213:TYR:HD2	1.65	0.42
34:CK:538:LYS:HD3	66:D3:1628:U:H3	1.84	0.42
35:CL:302:GLU:HB2	35:CL:790:ARG:HG2	2.00	0.42
37:CN:180:LEU:HD12	37:CN:180:LEU:HA	1.89	0.42
38:JC:198:GLY:HA3	38:JC:234:THR:HG21	2.01	0.42
46:JO:93:ILE:HD12	46:JO:93:ILE:HA	1.89	0.42
51:DG:159:ARG:NH1	66:D3:77:U:O4'	2.52	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:D2:133:U:H2'	65:D2:134:A:C8	2.53	0.42
66:D3:26:A:H2'	66:D3:27:U:C6	2.54	0.42
66:D3:780:A:OP1	66:D3:781:U:O2'	2.32	0.42
66:D3:1654:G:H2'	66:D3:1655:A:H8	1.84	0.42
3:JA:23:ARG:NH1	3:JA:139:ILE:O	2.52	0.42
10:UG:74:LEU:HD13	10:UG:404:PRO:HG2	2.02	0.42
11:UH:231:PHE:HA	11:UH:238:ASP:HA	2.01	0.42
13:UJ:88:LYS:HE2	13:UJ:88:LYS:HB3	1.81	0.42
13:UJ:104:LEU:HD23	13:UJ:104:LEU:HA	1.90	0.42
15:UL:88:HIS:HB2	15:UL:129:PHE:CZ	2.55	0.42
17:UN:307:ARG:HD3	66:D3:-6:A:C5	2.54	0.42
17:UN:313:PHE:HE2	17:UN:883:ILE:HG12	1.84	0.42
20:UQ:616:SER:OG	20:UQ:618:ASP:OD1	2.32	0.42
21:UR:389:SER:OG	21:UR:390:THR:N	2.53	0.42
23:UT:268:PRO:O	23:UT:271:SER:OG	2.34	0.42
23:UT:528:LYS:HE2	23:UT:528:LYS:HB3	1.85	0.42
23:UT:874:LEU:HD13	23:UT:874:LEU:HA	1.84	0.42
23:UT:884:TYR:HE2	23:UT:913:ILE:HG23	1.83	0.42
23:UT:1683:ARG:HA	23:UT:1683:ARG:HD2	1.88	0.42
25:UV:143:GLU:CA	25:UV:176:PHE:O	2.54	0.42
25:UV:254:LEU:HD11	25:UV:268:LEU:HD12	2.01	0.42
25:UV:441:GLN:NE2	25:UV:442:PHE:O	2.52	0.42
25:UV:462:PHE:HB2	25:UV:466:THR:HG21	2.01	0.42
29:CE:91:GLU:HB3	29:CE:94:LEU:HB2	2.02	0.42
37:CN:66:HIS:CE1	37:CN:161:THR:H	2.37	0.42
37:CN:267:LYS:HE3	37:CN:267:LYS:HB3	1.80	0.42
39:JG:209:MET:HE3	39:JG:209:MET:HB2	1.97	0.42
45:JN:292:LYS:N	66:D3:9:U:OP2	2.49	0.42
66:D3:338:C:H2'	66:D3:339:C:C6	2.55	0.42
66:D3:761:G:H2'	66:D3:762:A:C8	2.54	0.42
66:D3:886:U:H2'	66:D3:887:A:H8	1.84	0.42
3:JA:779:LYS:HZ3	3:JA:782:ARG:HE	1.65	0.42
5:UB:574:THR:HB	5:UB:593:LEU:HD12	2.01	0.42
7:UD:37:ARG:HH11	7:UD:758:ASN:HD21	1.65	0.42
7:UD:88:GLU:OE1	7:UD:527:TYR:OH	2.32	0.42
8:UE:460:ARG:HA	8:UE:460:ARG:HD2	1.91	0.42
13:UJ:167:PHE:CE2	13:UJ:178:THR:HG21	2.55	0.42
13:UJ:241:ILE:O	13:UJ:245:LEU:HB2	2.20	0.42
13:UJ:741:LEU:HA	13:UJ:742:ASN:HA	1.61	0.42
13:UJ:743:SER:HB2	13:UJ:748:LEU:HD22	2.02	0.42
15:UL:62:LYS:O	15:UL:111:LYS:NZ	2.48	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:UL:392:THR:HG23	15:UL:409:ALA:HB1	2.02	0.42
15:UL:536:CYS:HB3	15:UL:549:SER:HB3	2.01	0.42
20:UQ:537:ASN:OD1	20:UQ:537:ASN:N	2.53	0.42
22:US:303:TYR:CZ	22:US:320:LEU:HD13	2.54	0.42
23:UT:689:TYR:CE2	23:UT:785:ILE:HG12	2.53	0.42
23:UT:1203:VAL:HG21	23:UT:1242:LYS:HB3	2.02	0.42
23:UT:1467:LYS:HE2	23:UT:1467:LYS:HB2	1.81	0.42
23:UT:1529:ARG:O	23:UT:1533:MET:HG3	2.18	0.42
24:UU:342:TYR:OH	24:UU:345:SER:OG	2.22	0.42
25:UV:122:LEU:HA	25:UV:125:GLU:HG3	2.01	0.42
25:UV:125:GLU:HA	25:UV:128:LEU:HG	2.01	0.42
32:CI:141:ASN:OD1	32:CI:141:ASN:N	2.52	0.42
35:CL:800:PHE:HB2	35:CL:1022:LEU:HD22	2.02	0.42
37:CN:17:PRO:HB3	37:CN:34:LEU:HD12	2.02	0.42
39:JF:80:MET:HB3	39:JF:82:ARG:HD3	2.01	0.42
46:JO:112:GLN:HB3	46:JO:174:MET:HE1	2.00	0.42
46:JO:203:LEU:HD23	46:JO:203:LEU:HA	1.81	0.42
62:DY:131:ARG:HH22	66:D3:153:G:P	2.42	0.42
66:D3:244:A:N1	66:D3:250:C:C4	2.88	0.42
66:D3:467:G:C8	66:D3:467:G:OP2	2.72	0.42
66:D3:680:U:H3	66:D3:682:C:H41	1.68	0.42
66:D3:1115:U:H2'	66:D3:1116:A:H8	1.85	0.42
67:D4:165:G:H2'	67:D4:166:G:C8	2.54	0.42
1:CA:253:ILE:HD13	1:CA:253:ILE:HA	1.78	0.42
3:JA:91:MET:SD	3:JA:96:SER:OG	2.74	0.42
1:CB:248:ASP:OD1	1:CB:248:ASP:N	2.45	0.42
5:UB:712:THR:O	5:UB:713:HIS:ND1	2.53	0.42
5:UB:764:ARG:NH1	34:CK:353:PRO:HG2	2.35	0.42
8:UE:247:THR:HG21	8:UE:292:TYR:HA	2.02	0.42
15:UL:344:THR:O	15:UL:352:GLU:HB2	2.20	0.42
16:UM:355:LEU:HD23	16:UM:355:LEU:HA	1.87	0.42
21:UR:490:PHE:CE1	21:UR:512:ASP:HB3	2.54	0.42
23:UT:706:LEU:HD23	23:UT:706:LEU:HA	1.84	0.42
23:UT:1321:PHE:O	23:UT:1325:LEU:HG	2.20	0.42
23:UT:1387:ALA:O	23:UT:1391:ILE:HG12	2.19	0.42
23:UT:1863:LEU:HD12	23:UT:1863:LEU:HA	1.90	0.42
25:UV:516:SER:HA	25:UV:522:LYS:HD2	2.01	0.42
25:UV:1139:LEU:HD23	25:UV:1139:LEU:HA	1.87	0.42
29:CE:176:GLU:HA	29:CE:179:THR:HG22	2.01	0.42
31:CH:160:ILE:HA	31:CH:188:TYR:O	2.20	0.42
31:CH:301:ASP:O	31:CH:303:LYS:NZ	2.40	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:CI:63:LEU:HD23	32:CI:63:LEU:HA	1.85	0.42
33:CJ:78:ALA:O	34:CK:384:ARG:NH1	2.39	0.42
34:CK:452:SER:O	34:CK:452:SER:OG	2.28	0.42
35:CL:803:ASN:O	35:CL:1026:LYS:NZ	2.48	0.42
35:CL:939:TYR:CE1	35:CL:986:HIS:HD2	2.37	0.42
37:CN:265:ARG:O	37:CN:269:GLU:HG3	2.20	0.42
38:JC:247:THR:OG1	38:JC:248:SER:N	2.39	0.42
39:JG:74:GLN:HG2	39:JG:84:ILE:HG12	2.01	0.42
39:JG:84:ILE:H	39:JG:84:ILE:HD12	1.84	0.42
51:DG:7:TYR:O	51:DG:11:GLY:N	2.53	0.42
51:DG:121:LEU:HD23	51:DG:121:LEU:HA	1.89	0.42
51:DG:139:ASN:ND2	66:D3:143:G:OP2	2.53	0.42
62:DY:41:ARG:HG2	62:DY:55:VAL:HG13	2.01	0.42
66:D3:48:G:O6	66:D3:432:G:N2	2.49	0.42
66:D3:326:G:H2'	66:D3:327:U:C6	2.55	0.42
3:JA:859:ILE:HD12	3:JA:888:ILE:HG22	2.02	0.42
4:UA:713:ASP:N	4:UA:713:ASP:OD1	2.51	0.42
8:UE:254:GLU:HB3	8:UE:275:SER:HB2	2.01	0.42
9:UF:122:ASN:OD1	9:UF:122:ASN:N	2.52	0.42
16:UM:40:ILE:HB	16:UM:56:ILE:HG23	2.02	0.42
16:UM:226:ASN:CB	16:UM:230:LYS:O	2.67	0.42
19:UP:159:LYS:HA	19:UP:162:THR:HG22	2.02	0.42
21:UR:211:ILE:HD13	21:UR:211:ILE:HA	1.87	0.42
22:US:171:ALA:HA	22:US:273:GLN:HE22	1.85	0.42
23:UT:991:LEU:HA	23:UT:994:ILE:HG12	2.01	0.42
23:UT:1334:ASP:HA	23:UT:1335:GLY:HA3	1.64	0.42
25:UV:649:TRP:HH2	25:UV:681:ILE:HD11	1.85	0.42
25:UV:975:LEU:HB3	25:UV:1041:VAL:HG12	2.00	0.42
25:UV:1159:ASN:ND2	25:UV:1200:LEU:O	2.53	0.42
26:UX:159:GLY:O	26:UX:163:ARG:HG3	2.19	0.42
27:UZ:101:ILE:HG21	27:UZ:106:LEU:HD13	2.01	0.42
32:CI:71:ARG:NH2	33:CJ:61:SER:HB2	2.34	0.42
35:CL:105:ILE:HG13	35:CL:356:ALA:HB2	2.01	0.42
50:DF:35:GLN:O	50:DF:38:THR:OG1	2.29	0.42
50:DF:77:TYR:HD1	50:DF:83:ARG:HG3	1.84	0.42
56:DN:91:LEU:HD23	56:DN:91:LEU:HA	1.92	0.42
67:D4:263:A:C6	67:D4:309:G:C2	3.07	0.42
3:JA:520:ARG:HA	3:JA:523:LEU:HB3	2.01	0.42
4:UA:180:LYS:O	4:UA:184:ALA:HB2	2.20	0.42
7:UD:52:SER:OG	7:UD:53:HIS:N	2.52	0.42
7:UD:353:GLU:HG3	7:UD:355:THR:HG22	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:UE:253:LEU:HA	8:UE:253:LEU:HD12	1.73	0.42
10:UG:121:ASN:HB2	10:UG:123:THR:HG22	2.01	0.42
15:UL:933:SER:O	15:UL:933:SER:OG	2.31	0.42
20:UQ:226:SER:HA	20:UQ:237:LEU:O	2.19	0.42
20:UQ:598:LYS:HB3	20:UQ:638:PHE:CE2	2.55	0.42
20:UQ:768:TRP:CZ3	20:UQ:770:TYR:HA	2.54	0.42
21:UR:298:CYS:HA	21:UR:313:PHE:O	2.20	0.42
23:UT:395:GLU:HG2	23:UT:746:ILE:HG22	2.02	0.42
23:UT:459:LEU:HD22	23:UT:462:ARG:HH11	1.83	0.42
23:UT:1724:ASN:HA	23:UT:1729:ALA:HB3	2.01	0.42
24:UU:758:PHE:HE1	42:JJ:221:ARG:HA	1.85	0.42
25:UV:373:ARG:HD3	25:UV:373:ARG:HA	1.76	0.42
25:UV:459:ASP:OD1	25:UV:459:ASP:N	2.48	0.42
25:UV:702:LYS:HB3	25:UV:702:LYS:HE2	1.79	0.42
29:CE:33:ASP:OD1	29:CE:37:LYS:NZ	2.49	0.42
29:CE:247:ILE:HG22	29:CE:251:ASP:HB2	2.02	0.42
31:CH:257:ASP:OD1	31:CH:257:ASP:N	2.36	0.42
31:CH:331:LEU:HD23	31:CH:331:LEU:HA	1.77	0.42
45:JN:252:LYS:O	45:JN:256:GLU:HG2	2.19	0.42
50:DF:142:PRO:HG3	50:DF:170:GLN:HG2	2.02	0.42
52:DH:99:LEU:HD13	52:DH:116:ARG:HB3	2.02	0.42
53:DI:20:GLN:NE2	53:DI:22:ARG:O	2.41	0.42
55:DL:46:LYS:HA	55:DL:49:ILE:HG12	2.02	0.42
55:DL:132:SER:HB2	55:DL:135:VAL:HG12	2.01	0.42
61:DX:132:LEU:HD23	61:DX:132:LEU:HA	1.81	0.42
62:DY:20:ARG:NH2	62:DY:22:GLN:OE1	2.49	0.42
62:DY:110:GLN:HB3	62:DY:114:ARG:HH12	1.84	0.42
63:Db:38:PRO:HA	63:Db:41:LEU:HD23	2.01	0.42
66:D3:230:C:N3	66:D3:236:A:N6	2.67	0.42
66:D3:1777:G:H2'	66:D3:1778:G:C8	2.55	0.42
2:DA:144:ARG:HB3	2:DA:208:GLN:HB3	2.02	0.42
3:JA:138:THR:HA	3:JA:141:THR:HG22	2.01	0.42
3:JB:119:TYR:N	3:JB:141:THR:O	2.48	0.42
9:UF:363:VAL:O	9:UF:367:ILE:HG13	2.20	0.42
13:UJ:1528:VAL:HA	13:UJ:1531:ILE:HG22	2.02	0.42
15:UL:102:VAL:HG12	15:UL:118:ASN:HB3	2.00	0.42
15:UL:332:ILE:HD12	15:UL:353:LEU:HD12	2.01	0.42
16:UM:42:ILE:O	16:UM:53:LEU:N	2.52	0.42
18:UO:128:HIS:CD2	18:UO:172:ARG:HE	2.38	0.42
20:UQ:208:LEU:HD23	20:UQ:230:LEU:HD21	2.01	0.42
20:UQ:469:ASN:HD22	20:UQ:539:THR:HG22	1.84	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:UR:241:ALA:HA	21:UR:282:ASN:HD22	1.84	0.42
23:UT:316:LYS:O	23:UT:319:THR:OG1	2.34	0.42
23:UT:978:PHE:CZ	23:UT:1027:ILE:HD11	2.54	0.42
23:UT:1173:LEU:HD23	23:UT:1173:LEU:HA	1.90	0.42
23:UT:1265:TYR:CZ	23:UT:1298:LEU:HD21	2.55	0.42
23:UT:1707:HIS:CE1	23:UT:1805:ASP:HB2	2.55	0.42
23:UT:1930:SER:HA	23:UT:1934:PHE:HD2	1.83	0.42
23:UT:1988:PRO:HA	23:UT:1991:ASN:HB2	2.02	0.42
28:CD:230:ASN:N	28:CD:233:SER:OG	2.52	0.42
35:CL:844:PRO:HA	35:CL:856:THR:O	2.20	0.42
38:JC:255:TYR:HA	38:JC:262:PRO:HA	2.01	0.42
46:JO:104:LEU:HD23	46:JO:104:LEU:HA	1.89	0.42
49:DE:99:PHE:HD2	49:DE:111:VAL:HB	1.85	0.42
52:DH:4:PRO:HA	52:DH:7:LYS:HE2	2.01	0.42
52:DH:51:VAL:HG23	52:DH:53:GLY:N	2.35	0.42
54:DJ:11:THR:HG23	66:D3:472:U:H5''	2.02	0.42
56:DN:112:LYS:NZ	66:D3:975:C:OP1	2.53	0.42
65:D2:411:A:H2'	65:D2:412:A:C8	2.55	0.42
66:D3:114:C:C2	66:D3:247:A:C6	3.08	0.42
66:D3:319:U:H4'	66:D3:323:A:C5	2.55	0.42
67:D4:306:G:H2'	67:D4:307:G:H8	1.85	0.42
3:JA:16:ASN:HA	3:JA:19:GLN:HG2	2.01	0.42
3:JA:626:GLU:O	3:JA:630:LEU:HG	2.20	0.42
3:JA:658:ARG:HH12	3:JA:766:LEU:N	2.13	0.42
4:UA:207:TYR:HD1	4:UA:217:VAL:HG22	1.85	0.42
4:UA:258:ALA:HB1	4:UA:261:ALA:HB3	2.02	0.42
4:UA:561:SER:OG	4:UA:577:SER:OG	2.25	0.42
1:CB:253:ILE:HG13	1:CB:269:ILE:HD12	2.01	0.42
3:JB:499:ASN:O	3:JB:503:ALA:N	2.53	0.42
8:UE:516:ILE:HD12	8:UE:517:PRO:HD2	2.01	0.42
13:UJ:570:ALA:HB1	13:UJ:582:VAL:HG11	2.01	0.42
14:UK:89:GLU:H	14:UK:89:GLU:HG3	1.64	0.42
15:UL:282:GLU:HG2	15:UL:331:THR:HG22	2.01	0.42
15:UL:555:VAL:HB	15:UL:569:LEU:HB2	2.02	0.42
15:UL:821:LEU:HD12	15:UL:859:PHE:HD2	1.85	0.42
20:UQ:311:TYR:HA	20:UQ:324:TRP:O	2.19	0.42
20:UQ:663:LYS:HD3	20:UQ:713:CYS:SG	2.60	0.42
21:UR:458:ILE:HG13	21:UR:484:VAL:HG22	2.01	0.42
23:UT:212:VAL:HG21	23:UT:258:LEU:HD13	2.02	0.42
23:UT:462:ARG:O	23:UT:466:VAL:HG23	2.20	0.42
26:UX:173:MET:HB2	26:UX:182:ILE:HG22	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:CH:354:GLU:OE1	62:DY:8:ARG:NH1	2.53	0.42
32:CI:108:ARG:HB2	32:CI:113:VAL:HG11	2.01	0.42
34:CK:511:ASN:ND2	66:D3:1638:G:O2'	2.53	0.42
36:CM:309:GLY:O	36:CM:353:THR:HA	2.19	0.42
37:CN:105:SER:O	37:CN:224:ASN:ND2	2.53	0.42
56:DN:142:GLU:HG3	56:DN:143:SER:H	1.85	0.42
63:Db:59:CYS:SG	63:Db:61:THR:OG1	2.71	0.42
66:D3:23:G:C2	66:D3:603:U:O2	2.72	0.42
66:D3:322:G:O6	66:D3:344:A:N6	2.52	0.42
66:D3:1694:A:O2'	66:D3:1695:G:H5'	2.20	0.42
2:DA:61:LEU:HD13	2:DA:96:LEU:HD21	2.01	0.41
2:DA:130:SER:HB3	2:DA:180:THR:HG22	2.02	0.41
3:JA:841:ARG:HH12	3:JA:857:ASP:HB2	1.85	0.41
7:UD:248:PRO:HD2	7:UD:292:ASN:HD21	1.85	0.41
7:UD:609:SER:O	7:UD:609:SER:OG	2.36	0.41
8:UE:179:LYS:HE3	8:UE:179:LYS:HB2	1.85	0.41
9:UF:34:LYS:O	9:UF:37:THR:OG1	2.33	0.41
9:UF:85:ASP:OD1	9:UF:85:ASP:N	2.50	0.41
15:UL:912:TRP:CD2	16:UM:779:VAL:HG21	2.55	0.41
18:UO:182:HIS:CE1	18:UO:199:ARG:HH11	2.38	0.41
20:UQ:379:LEU:HD23	20:UQ:379:LEU:HA	1.81	0.41
23:UT:167:VAL:HG22	23:UT:204:PRO:HD3	2.02	0.41
23:UT:211:PHE:O	23:UT:215:VAL:HG23	2.20	0.41
23:UT:228:LEU:O	23:UT:232:LEU:HG	2.19	0.41
23:UT:559:ASN:HA	23:UT:562:VAL:HG12	2.01	0.41
23:UT:1112:TRP:CD1	23:UT:1118:LEU:HD13	2.55	0.41
23:UT:1273:LYS:HE2	23:UT:1349:PHE:HB2	2.01	0.41
23:UT:1511:ILE:HD13	23:UT:1514:LEU:HD21	2.00	0.41
24:UU:110:LEU:HD12	24:UU:110:LEU:HA	1.79	0.41
24:UU:125:GLY:HA3	29:CE:433:THR:HB	2.02	0.41
33:CJ:53:GLN:NE2	45:JN:219:SER:OG	2.42	0.41
35:CL:271:ILE:HD13	35:CL:271:ILE:HA	1.93	0.41
36:CM:280:LEU:HD23	36:CM:280:LEU:HA	1.90	0.41
49:DE:181:VAL:HG12	49:DE:227:VAL:HG22	2.02	0.41
57:DO:125:SER:OG	57:DO:126:THR:N	2.52	0.41
65:D2:263:C:H2'	65:D2:264:C:C6	2.55	0.41
66:D3:175:G:N3	66:D3:266:A:C6	2.88	0.41
66:D3:752:A:H2	66:D3:797:G:H22	1.66	0.41
3:JA:89:ASN:HD22	35:CL:91:ARG:HB3	1.86	0.41
4:UA:660:SER:HA	4:UA:672:THR:HA	2.02	0.41
7:UD:479:LYS:HD3	7:UD:479:LYS:HA	1.80	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:UH:340:TYR:O	11:UH:358:VAL:O	2.38	0.41
13:UJ:157:LEU:HA	13:UJ:158:PRO:HD3	1.91	0.41
13:UJ:531:ILE:HD11	13:UJ:566:CYS:HB3	2.01	0.41
13:UJ:1686:ILE:HG22	13:UJ:1689:LYS:HZ1	1.85	0.41
15:UL:655:ALA:HB2	15:UL:684:TRP:CH2	2.55	0.41
20:UQ:895:LEU:HD23	20:UQ:895:LEU:HA	1.83	0.41
23:UT:512:ASP:O	23:UT:515:THR:OG1	2.36	0.41
23:UT:653:LYS:HA	23:UT:653:LYS:HD2	1.83	0.41
23:UT:1120:GLN:O	23:UT:1124:TYR:HB2	2.20	0.41
25:UV:489:LYS:HE2	25:UV:489:LYS:HB3	1.95	0.41
25:UV:931:ASP:OD1	25:UV:931:ASP:N	2.52	0.41
27:UZ:243:PHE:HD1	27:UZ:253:PRO:HA	1.85	0.41
35:CL:270:ALA:HA	35:CL:792:VAL:HA	2.02	0.41
35:CL:281:PRO:HG2	35:CL:286:THR:HG21	2.02	0.41
35:CL:548:ASN:O	35:CL:552:LEU:HG	2.20	0.41
36:CM:131:GLU:OE2	36:CM:156:ARG:NH2	2.53	0.41
39:JF:169:ASP:OD1	39:JF:169:ASP:N	2.50	0.41
39:JG:99:LEU:HD23	39:JG:99:LEU:HA	1.94	0.41
47:JP:48:THR:HG21	47:JP:410:ILE:HG23	2.02	0.41
52:DH:47:ARG:NH1	66:D3:642:G:O3'	2.53	0.41
57:DO:36:LYS:NZ	57:DO:37:GLU:OE2	2.53	0.41
62:DY:34:ASN:ND2	62:DY:62:THR:OG1	2.53	0.41
65:D2:197:G:N2	65:D2:200:A:OP2	2.35	0.41
65:D2:407:A:N1	65:D2:450:G:C2	2.88	0.41
3:JA:763:LEU:HD12	3:JA:764:ASN:H	1.85	0.41
4:UA:279:PHE:HE2	4:UA:285:ARG:HG3	1.85	0.41
4:UA:491:ALA:HB1	4:UA:518:VAL:HG21	2.02	0.41
4:UA:564:PHE:CZ	4:UA:678:GLU:HG2	2.56	0.41
7:UD:626:TRP:CD1	7:UD:734:PHE:HZ	2.38	0.41
8:UE:463:ARG:HG3	8:UE:466:ARG:HH21	1.85	0.41
13:UJ:1591:THR:O	13:UJ:1595:THR:HG23	2.20	0.41
13:UJ:1619:ARG:O	13:UJ:1623:ILE:HG12	2.19	0.41
22:US:376:VAL:HG13	22:US:405:LEU:HD13	2.01	0.41
22:US:395:ILE:HA	22:US:398:VAL:HG12	2.03	0.41
23:UT:335:LYS:HA	23:UT:335:LYS:HD3	1.93	0.41
23:UT:1204:SER:O	23:UT:1208:MET:HG2	2.20	0.41
23:UT:1326:SER:HA	23:UT:1329:LYS:HE2	2.02	0.41
23:UT:1511:ILE:HA	23:UT:1514:LEU:HG	2.02	0.41
23:UT:1606:ILE:H	23:UT:1606:ILE:HD12	1.85	0.41
23:UT:1641:GLN:HA	23:UT:1644:ARG:HB3	2.01	0.41
23:UT:1646:LYS:O	23:UT:1651:ARG:NH2	2.39	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:CJ:139:LEU:HB2	33:CJ:157:PHE:CE2	2.54	0.41
36:CM:105:TYR:HE1	36:CM:296:LEU:HA	1.85	0.41
47:JP:303:ASP:OD2	47:JP:339:SER:N	2.42	0.41
47:JP:315:PRO:HG2	47:JP:360:SER:HB2	2.02	0.41
49:DE:87:MET:HE2	49:DE:87:MET:HB3	1.77	0.41
50:DF:81:ARG:NH2	66:D3:1615:C:OP1	2.37	0.41
50:DF:99:MET:HB3	50:DF:99:MET:HE3	1.87	0.41
53:DI:123:LYS:HE2	53:DI:123:LYS:HB2	1.94	0.41
55:DL:104:HIS:O	55:DL:105:LYS:NZ	2.36	0.41
66:D3:1115:U:H2'	66:D3:1116:A:C8	2.56	0.41
5:UB:546:LEU:HA	5:UB:549:ILE:HG22	2.02	0.41
7:UD:585:ILE:HA	7:UD:590:LYS:O	2.20	0.41
8:UE:126:PHE:HE2	8:UE:165:VAL:HG11	1.84	0.41
10:UG:267:LEU:HD23	10:UG:267:LEU:HA	1.90	0.41
13:UJ:108:LYS:HB2	13:UJ:114:THR:HG21	2.02	0.41
13:UJ:1590:ILE:HG22	13:UJ:1593:TYR:HB2	2.02	0.41
14:UK:88:ASP:OD1	14:UK:88:ASP:N	2.52	0.41
16:UM:42:ILE:HG21	16:UM:90:LEU:HD21	2.02	0.41
18:UO:51:HIS:HB3	18:UO:53:HIS:CE1	2.55	0.41
20:UQ:90:LYS:NZ	20:UQ:144:VAL:O	2.53	0.41
20:UQ:658:GLU:O	20:UQ:675:ARG:N	2.53	0.41
22:US:188:PHE:HB2	22:US:191:ILE:HG22	2.02	0.41
22:US:388:LEU:HD13	22:US:465:GLU:HA	2.03	0.41
24:UU:321:GLU:O	24:UU:343:LEU:HB3	2.20	0.41
25:UV:1165:SER:OG	25:UV:1180:ASN:OD1	2.38	0.41
27:UZ:41:ASN:HA	27:UZ:195:ASN:O	2.20	0.41
27:UZ:142:ARG:NH2	66:D3:1513:G:H3'	2.32	0.41
31:CH:223:THR:OG1	31:CH:224:SER:N	2.52	0.41
37:CN:16:VAL:N	37:CN:37:MET:O	2.45	0.41
46:JO:47:LYS:O	46:JO:50:GLU:HB3	2.20	0.41
47:JP:200:LYS:HE2	47:JP:200:LYS:HB2	1.94	0.41
53:DI:107:THR:HA	53:DI:110:ARG:HB3	2.02	0.41
65:D2:125:G:H2'	65:D2:126:A:H8	1.84	0.41
66:D3:46:A:H4'	66:D3:47:A:H5'	2.01	0.41
66:D3:647:G:N2	66:D3:687:G:H22	2.18	0.41
67:D4:137:U:H2'	67:D4:138:A:C8	2.56	0.41
1:CA:151:LEU:HD13	1:CA:241:PHE:HE2	1.85	0.41
3:JA:524:PHE:HZ	3:JA:556:MET:HG3	1.85	0.41
3:JA:745:VAL:HG21	3:JA:763:LEU:HD23	2.01	0.41
5:UB:711:PRO:O	39:JG:127:THR:OG1	2.32	0.41
7:UD:250:THR:HG21	7:UD:309:GLN:HE22	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:UE:184:PHE:CE1	8:UE:220:GLY:HA2	2.55	0.41
9:UF:193:ILE:HG13	9:UF:266:ARG:HB3	2.02	0.41
13:UJ:297:LEU:HA	13:UJ:297:LEU:HD23	1.83	0.41
13:UJ:646:ASN:OD1	13:UJ:646:ASN:N	2.51	0.41
15:UL:437:LYS:HD3	15:UL:437:LYS:HA	1.82	0.41
17:UN:345:VAL:HA	17:UN:348:GLU:HB2	2.01	0.41
18:UO:402:ASP:OD2	18:UO:434:ARG:NH2	2.54	0.41
20:UQ:512:ILE:HD11	20:UQ:514:TYR:CZ	2.56	0.41
22:US:270:SER:O	22:US:274:TYR:HB2	2.20	0.41
23:UT:233:LEU:HB2	23:UT:274:LEU:HD11	2.03	0.41
23:UT:1475:GLN:HE22	23:UT:1517:HIS:HA	1.85	0.41
23:UT:1557:GLU:O	23:UT:1561:ILE:HG12	2.20	0.41
25:UV:1037:LEU:HD12	25:UV:1037:LEU:HA	1.87	0.41
34:CK:430:LEU:HD12	45:JN:203:ILE:HD12	2.02	0.41
35:CL:548:ASN:HB3	35:CL:551:LYS:HG2	2.02	0.41
35:CL:1078:PRO:O	35:CL:1082:GLN:HG3	2.21	0.41
36:CM:192:THR:HA	36:CM:224:ASN:O	2.20	0.41
37:CN:162:THR:HA	37:CN:163:PRO:HD3	1.91	0.41
39:JG:34:LYS:HD3	39:JG:34:LYS:HA	1.81	0.41
51:DG:109:LEU:HD23	51:DG:109:LEU:HA	1.86	0.41
52:DH:21:ALA:O	52:DH:25:VAL:HG23	2.20	0.41
65:D2:217:C:H2'	65:D2:218:U:C6	2.54	0.41
66:D3:63:G:O2'	66:D3:170:U:OP1	2.38	0.41
66:D3:312:A:H62	66:D3:352:A:H1'	1.86	0.41
66:D3:333:A:O2'	66:D3:334:G:O4'	2.33	0.41
66:D3:1715:G:H2'	66:D3:1716:C:C6	2.55	0.41
66:D3:1744:A:H2'	66:D3:1745:G:C8	2.55	0.41
3:JA:77:ILE:HD13	3:JA:77:ILE:HA	1.94	0.41
3:JA:641:ASN:HA	3:JA:642:PRO:HD3	1.94	0.41
3:JA:805:ILE:O	3:JA:809:LYS:HG2	2.20	0.41
4:UA:140:ARG:HD2	4:UA:142:HIS:CE1	2.56	0.41
4:UA:162:LEU:HD22	4:UA:199:PHE:CE2	2.55	0.41
4:UA:453:PHE:HB3	4:UA:475:PRO:HA	2.03	0.41
1:CB:91:HIS:NE2	14:UK:163:GLU:O	2.52	0.41
5:UB:510:THR:HG23	5:UB:518:ILE:HG21	2.02	0.41
7:UD:87:GLN:H	7:UD:378:TYR:HE2	1.68	0.41
7:UD:468:ASP:OD1	7:UD:468:ASP:N	2.53	0.41
10:UG:133:HIS:HD2	10:UG:149:PHE:CE1	2.38	0.41
11:UH:588:GLN:HG3	20:UQ:606:HIS:HB3	2.02	0.41
13:UJ:491:TYR:O	13:UJ:495:LEU:HG	2.21	0.41
13:UJ:560:ILE:HG23	13:UJ:563:LEU:HD13	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:UJ:1472:VAL:O	13:UJ:1476:LEU:HG	2.21	0.41
15:UL:420:LYS:HA	15:UL:420:LYS:HD3	1.80	0.41
17:UN:894:LEU:HD22	47:JP:272:MET:HA	2.02	0.41
18:UO:413:LEU:O	18:UO:417:VAL:HG23	2.21	0.41
23:UT:294:VAL:HA	23:UT:297:VAL:HG22	2.02	0.41
23:UT:305:SER:O	23:UT:305:SER:OG	2.36	0.41
23:UT:2004:LYS:HA	23:UT:2004:LYS:HD2	1.92	0.41
25:UV:807:LEU:HD23	25:UV:807:LEU:HA	1.89	0.41
28:CD:100:ILE:HD13	28:CD:100:ILE:HA	1.88	0.41
29:CE:2:ALA:HB3	29:CE:17:ALA:HB3	2.02	0.41
30:CG:43:THR:HG22	30:CG:48:ILE:HD11	2.02	0.41
36:CM:27:SER:OG	36:CM:28:GLY:N	2.54	0.41
38:JC:277:ILE:HA	38:JC:289:ILE:O	2.21	0.41
39:JF:41:MET:HG3	39:JF:202:ILE:HG23	2.02	0.41
46:JO:180:LEU:HD23	46:JO:180:LEU:HA	1.86	0.41
52:DH:151:LYS:HB2	52:DH:151:LYS:HE3	1.84	0.41
53:DI:199:LYS:HE3	53:DI:199:LYS:HB3	1.97	0.41
55:DL:56:LYS:HE3	55:DL:56:LYS:HB2	1.92	0.41
65:D2:112:U:H2'	65:D2:113:A:H8	1.83	0.41
65:D2:186:C:H2'	65:D2:187:A:C8	2.55	0.41
66:D3:114:C:N3	66:D3:247:A:C5	2.89	0.41
66:D3:919:A:H2'	66:D3:920:U:C6	2.56	0.41
66:D3:1582:U:C2	66:D3:1614:A:N7	2.88	0.41
66:D3:1728:A:H2'	66:D3:1729:C:C6	2.56	0.41
2:DA:88:VAL:HG22	2:DA:98:THR:HG22	2.03	0.41
3:JA:618:ILE:HD12	3:JA:618:ILE:HA	1.91	0.41
3:JA:738:LYS:HD2	3:JA:807:SER:HB3	2.02	0.41
4:UA:787:ILE:HD12	4:UA:787:ILE:HA	1.87	0.41
5:UB:515:HIS:HB3	5:UB:518:ILE:HB	2.02	0.41
13:UJ:308:GLY:HA2	21:UR:225:SER:HB3	2.02	0.41
13:UJ:740:ALA:O	13:UJ:743:SER:OG	2.37	0.41
13:UJ:1392:LEU:O	13:UJ:1396:LEU:HG	2.20	0.41
15:UL:288:LYS:HE2	15:UL:288:LYS:HB2	1.87	0.41
15:UL:415:LYS:HB3	15:UL:417:TRP:HE1	1.85	0.41
15:UL:552:ASP:O	15:UL:554:THR:N	2.54	0.41
15:UL:557:VAL:HB	15:UL:567:LEU:HB3	2.02	0.41
20:UQ:318:GLU:O	20:UQ:320:VAL:N	2.53	0.41
20:UQ:458:GLN:HE21	20:UQ:467:GLN:HG3	1.85	0.41
21:UR:363:LEU:HD12	21:UR:374:ILE:HD13	2.03	0.41
23:UT:259:LEU:HD23	23:UT:263:LEU:HD23	2.02	0.41
23:UT:1508:GLN:HB3	23:UT:1550:GLN:HG3	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:UU:188:VAL:H	24:UU:202:SER:HG	1.64	0.41
27:UZ:101:ILE:HD12	27:UZ:101:ILE:HA	1.92	0.41
31:CH:205:SER:OG	31:CH:206:LYS:N	2.54	0.41
31:CH:333:MET:HE2	31:CH:333:MET:HB3	1.89	0.41
37:CN:151:HIS:CE1	37:CN:153:ASN:HB3	2.56	0.41
38:JC:83:VAL:O	38:JC:92:LYS:N	2.54	0.41
38:JC:144:LEU:HD21	38:JC:153:LEU:HD12	2.01	0.41
53:DI:74:LYS:HD2	53:DI:74:LYS:HA	1.91	0.41
58:DQ:29:ILE:HG23	58:DQ:65:ILE:HB	2.02	0.41
62:DY:10:ARG:NH1	62:DY:26:ASP:OD2	2.49	0.41
66:D3:52:U:H2'	66:D3:53:G:C8	2.54	0.41
66:D3:87:C:O2'	66:D3:169:A:N1	2.43	0.41
66:D3:872:G:H2'	66:D3:873:U:O4'	2.21	0.41
66:D3:1692:G:N2	66:D3:1693:A:C4	2.88	0.41
66:D3:1706:C:H2'	66:D3:1707:A:C5	2.56	0.41
66:D3:1734:U:C2'	66:D3:1735:U:H5'	2.50	0.41
67:D4:94:A:H2'	67:D4:95:A:C8	2.56	0.41
4:UA:268:PHE:HA	4:UA:274:LEU:O	2.21	0.41
4:UA:441:SER:O	4:UA:443:GLU:N	2.52	0.41
4:UA:572:LYS:HE3	4:UA:572:LYS:HB3	1.83	0.41
4:UA:679:VAL:HA	4:UA:698:THR:HG21	2.02	0.41
9:UF:50:ILE:HD13	9:UF:50:ILE:HA	1.89	0.41
9:UF:167:ILE:HD13	9:UF:167:ILE:HA	1.89	0.41
15:UL:326:LEU:HD23	15:UL:326:LEU:HA	1.88	0.41
15:UL:341:ALA:HA	15:UL:354:VAL:O	2.21	0.41
16:UM:196:LEU:HD12	16:UM:196:LEU:HA	1.91	0.41
18:UO:391:ASN:HD21	18:UO:403:ASN:HD22	1.69	0.41
18:UO:449:GLY:O	18:UO:455:SER:OG	2.25	0.41
19:UP:166:LEU:HD12	19:UP:166:LEU:HA	1.90	0.41
19:UP:206:LEU:HD23	19:UP:206:LEU:HA	1.83	0.41
20:UQ:171:TYR:HD1	20:UQ:171:TYR:HA	1.74	0.41
20:UQ:343:ASP:HB3	20:UQ:357:ILE:HD13	2.02	0.41
21:UR:424:ILE:HG23	21:UR:434:GLU:HG2	2.03	0.41
22:US:199:PHE:HE2	22:US:264:LEU:HD11	1.85	0.41
23:UT:997:MET:O	23:UT:1001:VAL:HG23	2.20	0.41
23:UT:1471:GLU:O	23:UT:1517:HIS:NE2	2.53	0.41
25:UV:703:LYS:HA	25:UV:706:ASN:HD22	1.85	0.41
25:UV:826:SER:OG	25:UV:827:ARG:N	2.53	0.41
25:UV:1028:ARG:HA	25:UV:1028:ARG:HD3	1.75	0.41
25:UV:1074:LEU:HD12	25:UV:1078:HIS:HD2	1.85	0.41
25:UV:1159:ASN:HD22	25:UV:1201:ASP:HB3	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:CL:105:ILE:HG23	35:CL:117:PHE:HB2	2.01	0.41
42:JJ:117:TYR:CD1	42:JJ:118:PRO:HD3	2.56	0.41
46:JO:287:LYS:HB3	46:JO:287:LYS:HE3	1.88	0.41
47:JP:333:LYS:HB3	47:JP:333:LYS:HE3	1.84	0.41
50:DF:206:SER:O	50:DF:206:SER:OG	2.30	0.41
50:DF:213:LYS:HA	50:DF:213:LYS:HD3	1.85	0.41
53:DI:64:ASN:HB3	53:DI:180:ASP:CG	2.46	0.41
65:D2:410:A:H2'	65:D2:411:A:C8	2.56	0.41
66:D3:269:G:C5	66:D3:287:G:N1	2.89	0.41
2:DA:47:LEU:HD23	2:DA:47:LEU:HA	1.91	0.41
4:UA:3:SER:O	4:UA:3:SER:OG	2.34	0.41
4:UA:386:HIS:NE2	4:UA:404:SER:OG	2.40	0.41
3:JB:619:SER:HA	3:JB:623:GLN:HA	2.03	0.41
5:UB:615:PRO:HB2	5:UB:617:HIS:CE1	2.56	0.41
7:UD:213:TRP:NE1	7:UD:225:LEU:HB3	2.36	0.41
7:UD:310:ASN:ND2	20:UQ:289:GLN:OE1	2.53	0.41
7:UD:530:ARG:HD3	7:UD:530:ARG:HA	1.81	0.41
8:UE:168:HIS:H	8:UE:191:VAL:HG13	1.86	0.41
10:UG:113:PRO:HB2	10:UG:379:GLU:CG	2.51	0.41
13:UJ:314:GLN:HE22	13:UJ:357:ARG:HD3	1.85	0.41
13:UJ:345:ASP:N	13:UJ:345:ASP:OD1	2.52	0.41
13:UJ:752:ALA:O	13:UJ:756:LEU:HG	2.21	0.41
15:UL:574:LEU:HD23	15:UL:574:LEU:HA	1.88	0.41
16:UM:226:ASN:OD1	16:UM:227:MET:N	2.54	0.41
18:UO:12:LYS:HB2	18:UO:12:LYS:HE3	1.80	0.41
18:UO:390:ARG:HE	18:UO:394:GLN:HE22	1.69	0.41
20:UQ:397:LYS:H	20:UQ:397:LYS:HG2	1.53	0.41
21:UR:412:GLN:OE1	21:UR:420:ARG:NH1	2.54	0.41
22:US:259:LYS:HD2	22:US:259:LYS:HA	1.71	0.41
22:US:383:LEU:HD23	22:US:383:LEU:HA	1.86	0.41
23:UT:199:LEU:HD23	23:UT:199:LEU:HA	1.84	0.41
23:UT:356:ASP:HB3	23:UT:747:TRP:CZ3	2.56	0.41
23:UT:772:ILE:HG23	23:UT:773:LEU:HD22	2.03	0.41
23:UT:1112:TRP:HA	23:UT:1118:LEU:HB3	2.02	0.41
24:UU:442:THR:OG1	24:UU:453:TRP:O	2.38	0.41
24:UU:468:MET:HE2	24:UU:468:MET:HB3	1.84	0.41
24:UU:817:PHE:CE1	24:UU:833:LEU:HD11	2.56	0.41
24:UU:894:ASP:OD2	42:JJ:258:LYS:NZ	2.52	0.41
25:UV:167:PRO:HD3	25:UV:226:HIS:CE1	2.56	0.41
25:UV:261:ASN:ND2	25:UV:590:SER:OG	2.54	0.41
25:UV:504:GLN:O	25:UV:506:GLN:NE2	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:UZ:13:ALA:O	27:UZ:17:LEU:HG	2.20	0.41
27:UZ:182:SER:O	27:UZ:185:LYS:HG2	2.21	0.41
28:CD:37:GLN:OE1	47:JP:385:VAL:N	2.51	0.41
29:CE:147:ILE:HD12	29:CE:147:ILE:HA	1.91	0.41
29:CE:208:ILE:HG12	29:CE:223:LEU:HD23	2.03	0.41
29:CE:248:THR:OG1	29:CE:251:ASP:OD2	2.38	0.41
31:CH:407:MET:HG3	31:CH:413:PHE:HB3	2.02	0.41
33:CJ:124:MET:HE2	33:CJ:266:LEU:HD11	2.02	0.41
35:CL:157:ASN:O	35:CL:161:HIS:ND1	2.54	0.41
35:CL:280:LEU:HD12	35:CL:281:PRO:HD2	2.03	0.41
37:CN:67:MET:HE2	37:CN:67:MET:HB3	1.73	0.41
38:JC:164:ARG:HH12	38:JC:174:ASN:HB3	1.86	0.41
45:JN:161:GLU:OE1	45:JN:214:ARG:NE	2.51	0.41
45:JN:248:LYS:HA	45:JN:248:LYS:HD2	1.80	0.41
47:JP:304:HIS:CE1	47:JP:330:ARG:HG2	2.56	0.41
48:JQ:127:ARG:O	48:JQ:131:LEU:CB	2.69	0.41
49:DE:49:ARG:HH11	49:DE:49:ARG:HD3	1.74	0.41
56:DN:136:PRO:HG2	56:DN:139:TRP:HB2	2.03	0.41
65:D2:80:A:O2'	65:D2:81:A:O4'	2.32	0.41
65:D2:314:U:O2'	65:D2:315:U:OP1	2.33	0.41
65:D2:467:A:N1	65:D2:468:A:N6	2.69	0.41
66:D3:805:U:H2'	66:D3:806:A:H8	1.84	0.41
66:D3:1158:C:N4	66:D3:1164:G:N1	2.68	0.41
67:D4:199:G:H2'	67:D4:200:C:C6	2.55	0.41
2:DA:77:GLU:HA	2:DA:80:SER:HB3	2.03	0.41
4:UA:327:LEU:HD12	4:UA:328:LEU:H	1.86	0.41
1:CB:171:LEU:HB3	1:CB:240:VAL:HG22	2.02	0.41
6:UC:596:THR:HG22	44:JM:137:LYS:HG3	2.02	0.41
7:UD:213:TRP:CD1	7:UD:225:LEU:HB3	2.55	0.41
13:UJ:1441:ILE:HA	13:UJ:1444:ILE:HG12	2.03	0.41
18:UO:71:ARG:HD2	18:UO:331:THR:HG21	2.03	0.41
18:UO:212:ASP:OD1	18:UO:212:ASP:N	2.50	0.41
22:US:159:ASN:OD1	22:US:159:ASN:N	2.54	0.41
23:UT:67:ALA:O	23:UT:71:GLU:HB3	2.21	0.41
23:UT:383:ASN:O	23:UT:387:THR:HG23	2.21	0.41
23:UT:829:ASN:ND2	23:UT:864:ASP:OD2	2.50	0.41
23:UT:961:ILE:O	23:UT:965:LEU:HG	2.21	0.41
23:UT:1084:ALA:HA	23:UT:1087:VAL:HG22	2.02	0.41
23:UT:1381:LYS:HA	23:UT:1382:PRO:HD3	1.96	0.41
23:UT:1394:LEU:HA	23:UT:1398:LEU:HG	2.02	0.41
23:UT:1415:SER:HA	23:UT:1418:VAL:HG12	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:UU:452:ARG:H	24:UU:452:ARG:HG2	1.70	0.41
24:UU:500:LEU:HD11	24:UU:539:LYS:HE2	2.03	0.41
25:UV:525:LEU:HD23	25:UV:525:LEU:HA	1.92	0.41
25:UV:549:SER:O	25:UV:553:VAL:HG23	2.21	0.41
27:UZ:53:ILE:HD12	27:UZ:153:MET:HE3	2.01	0.41
27:UZ:85:GLU:O	27:UZ:89:LYS:HB2	2.20	0.41
28:CD:121:ASN:O	28:CD:125:GLN:HG2	2.21	0.41
31:CH:464:LEU:HD23	31:CH:464:LEU:HA	1.92	0.41
34:CK:524:ASP:HA	34:CK:527:ARG:HG2	2.03	0.41
48:JQ:183:ARG:HG3	48:JQ:184:TYR:CD2	2.56	0.41
49:DE:37:LYS:HE2	49:DE:37:LYS:HB3	1.93	0.41
50:DF:102:ARG:NH2	66:D3:1471:A:N7	2.69	0.41
53:DI:56:ARG:HH21	66:D3:332:U:P	2.43	0.41
57:DO:29:HIS:CD2	57:DO:41:ARG:HG3	2.55	0.41
61:DX:82:LYS:HE2	61:DX:82:LYS:HB3	1.94	0.41
62:DY:112:LYS:NZ	66:D3:55:A:OP1	2.33	0.41
65:D2:252:A:H1'	65:D2:254:C:C4	2.56	0.41
66:D3:89:G:C6	66:D3:452:A:N6	2.89	0.41
66:D3:646:C:H2'	66:D3:647:G:C8	2.56	0.41
66:D3:1784:C:H2'	66:D3:1785:U:C6	2.56	0.41
4:UA:569:PHE:CE1	4:UA:574:SER:HB2	2.56	0.40
4:UA:750:LEU:HA	4:UA:750:LEU:HD23	1.88	0.40
7:UD:128:LEU:HB2	7:UD:526:PRO:HG2	2.03	0.40
7:UD:212:ILE:HB	7:UD:227:HIS:HB2	2.03	0.40
7:UD:261:SER:OG	7:UD:262:ILE:N	2.54	0.40
7:UD:291:ASP:N	7:UD:291:ASP:OD1	2.52	0.40
10:UG:464:LYS:HG3	66:D3:-2:A:C6	2.56	0.40
12:UI:471:LYS:HG2	12:UI:472:ASP:H	1.85	0.40
13:UJ:348:ILE:O	13:UJ:352:THR:HG23	2.21	0.40
13:UJ:575:SER:HB2	13:UJ:578:VAL:HB	2.02	0.40
13:UJ:585:ILE:O	13:UJ:589:ILE:HG12	2.21	0.40
13:UJ:657:GLN:O	13:UJ:661:ILE:HG12	2.22	0.40
13:UJ:670:LEU:O	13:UJ:674:LEU:HG	2.21	0.40
13:UJ:715:HIS:HA	13:UJ:718:ARG:HB2	2.04	0.40
14:UK:141:GLU:O	14:UK:145:GLU:HB2	2.21	0.40
15:UL:909:LYS:NZ	16:UM:783:ASP:OD1	2.50	0.40
16:UM:538:ASP:O	16:UM:550:THR:HA	2.21	0.40
16:UM:584:ILE:HG23	16:UM:586:LYS:N	2.36	0.40
23:UT:136:LEU:HD23	23:UT:136:LEU:HA	1.90	0.40
23:UT:864:ASP:OD1	23:UT:865:VAL:N	2.53	0.40
25:UV:462:PHE:HD2	25:UV:466:THR:HG21	1.86	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:UV:704:PHE:HB3	25:UV:954:LEU:HD23	2.02	0.40
25:UV:841:ASN:ND2	25:UV:851:LYS:HB3	2.35	0.40
25:UV:1111:SER:HA	25:UV:1129:PRO:HG3	2.01	0.40
28:CD:170:ASN:HD21	29:CE:190:TRP:NE1	2.17	0.40
34:CK:326:LEU:HD11	35:CL:1009:VAL:HG12	2.02	0.40
35:CL:207:LEU:HD12	35:CL:215:TYR:HB3	2.03	0.40
35:CL:210:VAL:HG21	70:CL:2001:GTP:N9	2.27	0.40
38:JC:64:VAL:H	38:JC:321:GLU:CD	2.29	0.40
38:JC:187:SER:OG	38:JC:234:THR:O	2.33	0.40
39:JG:195:LYS:HD2	39:JG:195:LYS:HA	1.87	0.40
50:DF:26:ALA:N	58:DQ:27:GLY:O	2.53	0.40
51:DG:131:LYS:HE3	66:D3:166:C:H4'	2.01	0.40
51:DG:194:LYS:HA	51:DG:197:ASN:HD21	1.86	0.40
52:DH:74:GLN:O	52:DH:78:THR:HG23	2.22	0.40
65:D2:100:G:H2'	65:D2:101:G:O4'	2.21	0.40
65:D2:125:G:H2'	65:D2:126:A:C8	2.56	0.40
65:D2:189:U:O2	65:D2:209:G:C2	2.74	0.40
65:D2:389:U:H2'	65:D2:390:C:C6	2.56	0.40
66:D3:1643:U:H2'	66:D3:1644:C:H6	1.86	0.40
1:CA:163:PHE:CG	1:CA:266:GLY:HA3	2.56	0.40
2:DA:2:ALA:N	57:DO:48:VAL:O	2.54	0.40
2:DA:36:SER:OG	2:DA:231:LEU:O	2.34	0.40
2:DA:70:LEU:HD12	2:DA:70:LEU:HA	1.92	0.40
3:JA:624:ASP:OD1	3:JA:624:ASP:N	2.54	0.40
4:UA:275:LEU:HD22	4:UA:289:LEU:HD22	2.02	0.40
4:UA:432:GLN:O	4:UA:449:SER:HB2	2.21	0.40
7:UD:149:ILE:HG22	7:UD:156:LEU:HB3	2.04	0.40
7:UD:248:PRO:HD2	7:UD:292:ASN:ND2	2.36	0.40
8:UE:441:LEU:HD12	8:UE:456:VAL:HG11	2.03	0.40
13:UJ:235:VAL:HG22	13:UJ:264:PHE:CE2	2.57	0.40
13:UJ:1583:GLN:HE22	13:UJ:1629:SER:HB3	1.87	0.40
13:UJ:1633:ASP:HB2	13:UJ:1638:TRP:HE1	1.85	0.40
13:UJ:1662:ILE:HA	13:UJ:1665:TYR:HD2	1.86	0.40
14:UK:8:VAL:HG11	35:CL:878:HIS:HD2	1.86	0.40
14:UK:162:SER:OG	14:UK:163:GLU:N	2.54	0.40
16:UM:30:LYS:C	16:UM:45:LEU:H	2.29	0.40
16:UM:42:ILE:HD12	16:UM:54:HIS:CE1	2.56	0.40
18:UO:2:SER:HB2	20:UQ:334:LEU:HG	2.03	0.40
18:UO:303:LEU:HA	18:UO:303:LEU:HD23	1.82	0.40
20:UQ:319:LYS:HD3	20:UQ:339:GLY:H	1.87	0.40
21:UR:318:ARG:HH11	21:UR:318:ARG:HD3	1.76	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:UT:762:ILE:HD13	23:UT:762:ILE:HA	1.96	0.40
23:UT:1231:LYS:HB2	23:UT:1231:LYS:HE2	1.93	0.40
23:UT:1519:SER:OG	23:UT:1521:ASN:OD1	2.33	0.40
23:UT:1783:LEU:HD12	23:UT:1783:LEU:HA	1.84	0.40
24:UU:44:LEU:HA	24:UU:44:LEU:HD23	1.72	0.40
24:UU:377:SER:O	24:UU:377:SER:OG	2.33	0.40
24:UU:847:LEU:HG	42:JJ:242:MET:HE3	2.03	0.40
25:UV:808:LEU:HD23	25:UV:808:LEU:HA	1.86	0.40
27:UZ:129:TYR:CE2	48:JQ:187:LEU:HD22	2.56	0.40
33:CJ:109:LEU:HD23	33:CJ:109:LEU:HA	1.89	0.40
36:CM:144:PHE:HZ	36:CM:301:MET:HG3	1.86	0.40
38:JC:232:THR:OG1	38:JC:274:ILE:O	2.31	0.40
39:JG:50:LEU:HD22	39:JG:141:MET:HG2	2.03	0.40
45:JN:326:ILE:O	45:JN:330:SER:OG	2.25	0.40
46:JO:59:ASP:OD1	46:JO:62:ARG:NH2	2.36	0.40
46:JO:116:ILE:HD12	46:JO:116:ILE:HA	1.77	0.40
49:DE:209:HIS:CD2	49:DE:219:VAL:HG22	2.57	0.40
67:D4:98:U:H2'	67:D4:99:U:H6	1.87	0.40
67:D4:258:U:H2'	67:D4:259:C:C6	2.56	0.40
2:DA:73:LEU:HD12	2:DA:73:LEU:HA	1.90	0.40
3:JA:132:PRO:HB3	3:JA:490:LEU:HD11	2.03	0.40
3:JA:563:LYS:NZ	3:JA:564:LEU:H	2.20	0.40
4:UA:532:VAL:HG12	4:UA:540:SER:HB2	2.02	0.40
4:UA:600:SER:HA	4:UA:615:PHE:O	2.22	0.40
4:UA:800:LYS:HG3	24:UU:928:PHE:CE2	2.56	0.40
5:UB:515:HIS:O	5:UB:519:THR:OG1	2.40	0.40
5:UB:780:LYS:HE2	5:UB:780:LYS:HB2	1.92	0.40
5:UB:798:LYS:HE2	5:UB:798:LYS:HB3	1.84	0.40
6:UC:540:ILE:HD12	35:CL:148:PHE:HB3	2.03	0.40
7:UD:361:LEU:HD23	7:UD:361:LEU:HA	1.89	0.40
7:UD:382:VAL:HG22	7:UD:393:SER:HB2	2.02	0.40
7:UD:757:ARG:NH1	7:UD:759:PRO:HG3	2.37	0.40
13:UJ:1666:LEU:O	13:UJ:1670:ILE:HG12	2.21	0.40
15:UL:63:LEU:HD11	15:UL:111:LYS:HB2	2.03	0.40
15:UL:142:ASP:N	15:UL:142:ASP:OD1	2.54	0.40
15:UL:262:ILE:O	15:UL:270:SER:OG	2.35	0.40
15:UL:398:ASP:OD1	15:UL:399:ILE:N	2.53	0.40
15:UL:661:TRP:HE1	15:UL:677:HIS:HB2	1.86	0.40
16:UM:230:LYS:HB3	16:UM:230:LYS:HE2	1.98	0.40
20:UQ:861:GLU:HG3	21:UR:227:LEU:HD11	2.02	0.40
22:US:436:LYS:HA	22:US:436:LYS:HD3	1.76	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:UT:642:ILE:HD13	23:UT:642:ILE:HA	1.86	0.40
23:UT:1432:THR:HA	23:UT:1435:GLU:HG2	2.02	0.40
23:UT:1681:LEU:HD23	23:UT:1690:LEU:HB2	2.03	0.40
23:UT:1811:ILE:HG21	23:UT:1879:VAL:HG21	2.03	0.40
24:UU:520:CYS:SG	24:UU:549:MET:HB2	2.62	0.40
25:UV:799:LEU:HG	25:UV:803:LYS:HE3	2.02	0.40
35:CL:210:VAL:HG22	70:CL:2001:GTP:N7	2.28	0.40
35:CL:852:ARG:HD2	35:CL:888:PRO:HG3	2.02	0.40
35:CL:1049:ASN:HD22	35:CL:1049:ASN:HA	1.78	0.40
36:CM:291:ARG:HG2	36:CM:317:GLN:HG2	2.02	0.40
38:JC:275:LYS:HA	38:JC:275:LYS:HD2	1.75	0.40
39:JF:64:LYS:HD2	39:JF:64:LYS:HA	1.92	0.40
39:JG:113:TYR:HA	39:JG:122:ILE:O	2.21	0.40
44:JM:177:LEU:HD12	44:JM:177:LEU:HA	1.93	0.40
47:JP:244:ILE:HB	47:JP:258:ILE:HG23	2.03	0.40
47:JP:434:LEU:HG	63:Db:3:LEU:HD13	2.03	0.40
49:DE:118:GLU:OE2	49:DE:237:SER:N	2.41	0.40
51:DG:1:MET:HG3	51:DG:24:ILE:HG12	2.03	0.40
51:DG:105:ASP:OD1	51:DG:105:ASP:N	2.51	0.40
54:DJ:144:PRO:HD2	66:D3:474:A:H5'	2.03	0.40
60:DW:69:LEU:HD12	60:DW:69:LEU:HA	1.91	0.40
62:DY:121:THR:HG23	62:DY:123:LYS:HG2	2.03	0.40
65:D2:133:U:H2'	65:D2:134:A:H8	1.87	0.40
65:D2:438:U:H2'	65:D2:439:A:C8	2.56	0.40
66:D3:405:C:H2'	66:D3:406:U:H6	1.86	0.40
66:D3:1659:A:H2'	66:D3:1660:A:C8	2.56	0.40
1:CA:110:ASN:HD22	1:CA:113:PRO:HA	1.85	0.40
3:JA:57:TRP:HB2	3:JA:103:ILE:HD11	2.03	0.40
3:JA:58:ALA:HB3	3:JA:124:LEU:HD13	2.04	0.40
15:UL:243:THR:HG22	15:UL:244:GLU:H	1.86	0.40
16:UM:281:THR:OG1	16:UM:282:ASN:N	2.55	0.40
16:UM:296:ILE:C	16:UM:298:SER:H	2.29	0.40
16:UM:461:LEU:O	16:UM:489:ALA:N	2.52	0.40
18:UO:135:GLN:HG3	18:UO:181:PRO:HB3	2.04	0.40
20:UQ:232:ASP:OD1	20:UQ:232:ASP:N	2.55	0.40
20:UQ:240:PRO:O	20:UQ:243:SER:OG	2.33	0.40
20:UQ:499:LYS:HD3	20:UQ:499:LYS:HA	1.95	0.40
20:UQ:579:ASN:HD21	65:D2:7:A:N6	2.19	0.40
21:UR:137:ILE:O	21:UR:143:THR:OG1	2.31	0.40
21:UR:534:SER:OG	21:UR:535:ARG:N	2.55	0.40
23:UT:59:LEU:HD23	23:UT:59:LEU:HA	1.91	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:UT:1377:PHE:HA	23:UT:1380:GLU:HB2	2.04	0.40
23:UT:1918:LEU:HD23	23:UT:1918:LEU:HA	1.97	0.40
24:UU:284:ILE:HG12	24:UU:337:VAL:HG21	2.03	0.40
24:UU:435:LYS:HE2	24:UU:435:LYS:HB2	1.89	0.40
24:UU:626:ASP:OD1	24:UU:626:ASP:N	2.54	0.40
25:UV:377:SER:O	25:UV:479:LYS:NZ	2.41	0.40
25:UV:1154:ASN:HD21	25:UV:1163:LEU:H	1.69	0.40
28:CD:164:LYS:HE2	28:CD:164:LYS:HB2	1.95	0.40
29:CE:36:ASP:HA	29:CE:39:LEU:HB3	2.02	0.40
29:CE:281:LYS:HG2	29:CE:288:THR:HG21	2.03	0.40
31:CH:553:ILE:HD13	31:CH:553:ILE:HA	1.88	0.40
35:CL:836:LYS:HD2	35:CL:836:LYS:HA	1.94	0.40
35:CL:841:THR:HG23	35:CL:859:ILE:HA	2.02	0.40
35:CL:958:VAL:HG13	35:CL:976:ILE:HD11	2.03	0.40
46:JO:195:HIS:CG	46:JO:197:ILE:HG22	2.57	0.40
49:DE:214:LEU:HD23	49:DE:244:ILE:HG23	2.03	0.40
50:DF:100:ASN:HD22	50:DF:103:ASN:ND2	2.20	0.40
53:DI:65:PHE:HA	53:DI:181:GLY:O	2.21	0.40
56:DN:64:ARG:HH22	66:D3:862:A:H8	1.69	0.40
65:D2:304:U:H5'	65:D2:305:A:C8	2.56	0.40
66:D3:111:U:H2'	66:D3:112:A:C8	2.56	0.40
5:UB:561:ILE:HG22	5:UB:564:VAL:H	1.86	0.40
7:UD:288:THR:OG1	7:UD:289:ASP:N	2.54	0.40
8:UE:250:ASP:OD1	8:UE:250:ASP:N	2.52	0.40
12:UI:489:SER:O	12:UI:492:ILE:HG22	2.21	0.40
13:UJ:295:ALA:HA	13:UJ:298:THR:HG22	2.03	0.40
13:UJ:328:ASP:O	13:UJ:331:SER:OG	2.35	0.40
13:UJ:1384:SER:HB3	13:UJ:1400:ILE:HD13	2.04	0.40
13:UJ:1696:LYS:HD2	13:UJ:1696:LYS:HA	1.85	0.40
15:UL:111:LYS:HB2	15:UL:111:LYS:HE3	1.87	0.40
15:UL:250:LYS:HA	15:UL:250:LYS:HD2	1.85	0.40
16:UM:239:VAL:HG12	16:UM:240:ASN:H	1.86	0.40
16:UM:249:LEU:HB2	16:UM:257:ILE:HG13	2.03	0.40
16:UM:312:GLN:HB3	16:UM:329:VAL:HG21	2.03	0.40
16:UM:518:TRP:HB3	16:UM:525:LEU:HA	2.03	0.40
18:UO:20:THR:HG21	18:UO:28:ARG:NH2	2.36	0.40
20:UQ:20:PRO:HA	20:UQ:48:PHE:HD1	1.87	0.40
21:UR:524:SER:HB2	21:UR:527:GLY:H	1.87	0.40
23:UT:673:ARG:HG2	23:UT:678:TRP:HZ2	1.86	0.40
23:UT:1338:SER:HA	23:UT:1377:PHE:HE1	1.86	0.40
23:UT:1591:TYR:HE1	23:UT:1616:LEU:HD21	1.86	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:UU:364:HIS:CD2	24:UU:381:ARG:HG3	2.56	0.40
25:UV:579:LYS:HE2	25:UV:620:ASN:HA	2.04	0.40
25:UV:660:ASP:OD1	25:UV:660:ASP:N	2.47	0.40
25:UV:1215:ASN:O	25:UV:1219:ILE:HG12	2.22	0.40
26:UX:67:ILE:HG21	26:UX:67:ILE:HD13	1.88	0.40
28:CD:113:PHE:HA	28:CD:114:PRO:HD3	1.90	0.40
30:CG:59:GLU:HA	30:CG:60:PRO:HA	1.96	0.40
32:CI:94:ILE:HG13	32:CI:97:LEU:HD23	2.02	0.40
35:CL:38:LYS:HD2	66:D3:376:C:H5'	2.03	0.40
39:JG:196:LEU:HD11	39:JG:202:ILE:HB	2.04	0.40
42:JJ:126:LEU:HD11	42:JJ:141:THR:HB	2.03	0.40
44:JM:57:THR:HG23	44:JM:61:LYS:HZ2	1.86	0.40
46:JO:45:PHE:HE1	46:JO:50:GLU:HB2	1.87	0.40
49:DE:82:TYR:HA	49:DE:83:PRO:HD3	1.97	0.40
57:DO:72:LYS:NZ	57:DO:108:SER:O	2.55	0.40
66:D3:141:U:H3	66:D3:267:U:P	2.44	0.40
66:D3:343:C:H2'	66:D3:344:A:C8	2.56	0.40
66:D3:876:G:O6	66:D3:935:U:C2	2.75	0.40
67:D4:27:U:H4'	67:D4:28:A:C8	2.56	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	
1	CA	238/327 (73%)	220 (92%)	18 (8%)	0	100	100
1	CB	224/327 (68%)	208 (93%)	16 (7%)	0	100	100
2	DA	236/255 (92%)	217 (92%)	19 (8%)	0	100	100
3	JA	802/1056 (76%)	735 (92%)	67 (8%)	0	100	100
3	JB	827/1056 (78%)	758 (92%)	69 (8%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	UA	830/923 (90%)	758 (91%)	72 (9%)	0	100	100
5	UB	495/810 (61%)	470 (95%)	24 (5%)	1 (0%)	43	73
6	UC	124/610 (20%)	112 (90%)	12 (10%)	0	100	100
7	UD	663/776 (85%)	599 (90%)	64 (10%)	0	100	100
8	UE	465/643 (72%)	412 (89%)	53 (11%)	0	100	100
9	UF	283/440 (64%)	276 (98%)	7 (2%)	0	100	100
10	UG	529/554 (96%)	481 (91%)	48 (9%)	0	100	100
11	UH	426/713 (60%)	345 (81%)	58 (14%)	23 (5%)	1	16
12	UI	100/575 (17%)	97 (97%)	3 (3%)	0	100	100
13	UJ	1092/1769 (62%)	1030 (94%)	62 (6%)	0	100	100
14	UK	238/250 (95%)	219 (92%)	19 (8%)	0	100	100
15	UL	828/943 (88%)	752 (91%)	75 (9%)	1 (0%)	48	79
16	UM	750/817 (92%)	674 (90%)	74 (10%)	2 (0%)	36	67
17	UN	143/899 (16%)	132 (92%)	11 (8%)	0	100	100
18	UO	489/513 (95%)	446 (91%)	43 (9%)	0	100	100
19	UP	58/214 (27%)	55 (95%)	3 (5%)	0	100	100
20	UQ	820/896 (92%)	750 (92%)	70 (8%)	0	100	100
21	UR	474/594 (80%)	434 (92%)	40 (8%)	0	100	100
22	US	488/552 (88%)	445 (91%)	41 (8%)	2 (0%)	30	62
23	UT	2213/2493 (89%)	2086 (94%)	127 (6%)	0	100	100
24	UU	842/939 (90%)	776 (92%)	66 (8%)	0	100	100
25	UV	1069/1237 (86%)	1020 (95%)	49 (5%)	0	100	100
26	UX	170/189 (90%)	161 (95%)	9 (5%)	0	100	100
27	UZ	245/274 (89%)	225 (92%)	20 (8%)	0	100	100
28	CD	376/504 (75%)	358 (95%)	18 (5%)	0	100	100
29	CE	431/511 (84%)	397 (92%)	34 (8%)	0	100	100
30	CF	121/126 (96%)	115 (95%)	6 (5%)	0	100	100
30	CG	121/126 (96%)	116 (96%)	5 (4%)	0	100	100
31	CH	459/573 (80%)	419 (91%)	37 (8%)	3 (1%)	18	51
32	CI	180/183 (98%)	167 (93%)	13 (7%)	0	100	100
33	CJ	278/290 (96%)	249 (90%)	29 (10%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
34	CK	203/593 (34%)	186 (92%)	16 (8%)	1 (0%)	24	57
35	CL	771/1183 (65%)	731 (95%)	40 (5%)	0	100	100
36	CM	358/367 (98%)	342 (96%)	16 (4%)	0	100	100
37	CN	224/297 (75%)	204 (91%)	20 (9%)	0	100	100
38	JC	350/707 (50%)	313 (89%)	37 (11%)	0	100	100
39	JF	212/252 (84%)	203 (96%)	9 (4%)	0	100	100
39	JG	226/252 (90%)	217 (96%)	9 (4%)	0	100	100
40	JH	257/483 (53%)	248 (96%)	9 (4%)	0	100	100
41	JI	263/1729 (15%)	255 (97%)	8 (3%)	0	100	100
42	JJ	180/274 (66%)	171 (95%)	9 (5%)	0	100	100
43	JK	40/534 (8%)	33 (82%)	7 (18%)	0	100	100
44	JM	129/217 (59%)	122 (95%)	7 (5%)	0	100	100
45	JN	178/346 (51%)	162 (91%)	14 (8%)	2 (1%)	11	41
46	JO	226/316 (72%)	212 (94%)	14 (6%)	0	100	100
47	JP	457/489 (94%)	427 (93%)	30 (7%)	0	100	100
48	JQ	59/206 (29%)	54 (92%)	5 (8%)	0	100	100
49	DE	243/261 (93%)	227 (93%)	16 (7%)	0	100	100
50	DF	211/225 (94%)	195 (92%)	16 (8%)	0	100	100
51	DG	216/236 (92%)	205 (95%)	11 (5%)	0	100	100
52	DH	182/190 (96%)	171 (94%)	11 (6%)	0	100	100
53	DI	173/200 (86%)	162 (94%)	11 (6%)	0	100	100
54	DJ	183/197 (93%)	172 (94%)	11 (6%)	0	100	100
55	DL	138/156 (88%)	129 (94%)	9 (6%)	0	100	100
56	DN	148/151 (98%)	140 (95%)	8 (5%)	0	100	100
57	DO	118/137 (86%)	111 (94%)	7 (6%)	0	100	100
58	DQ	123/143 (86%)	115 (94%)	8 (6%)	0	100	100
59	DS	98/146 (67%)	89 (91%)	9 (9%)	0	100	100
60	DW	127/130 (98%)	111 (87%)	16 (13%)	0	100	100
61	DX	101/145 (70%)	89 (88%)	11 (11%)	1 (1%)	12	43
62	DY	132/135 (98%)	129 (98%)	3 (2%)	0	100	100
63	Db	79/82 (96%)	75 (95%)	4 (5%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
64	Dc	61/67 (91%)	56 (92%)	5 (8%)	0	100	100
All	All	24593/34803 (71%)	22770 (93%)	1787 (7%)	36 (0%)	49	79

All (36) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
11	UH	59	PRO
11	UH	61	PRO
11	UH	68	PRO
11	UH	70	PRO
11	UH	235	PRO
11	UH	258	PRO
11	UH	285	TYR
11	UH	309	PRO
11	UH	325	PRO
22	US	75	PRO
31	CH	438	ILE
34	CK	454	VAL
45	JN	94	PRO
5	UB	395	ASP
11	UH	31	VAL
11	UH	56	ILE
11	UH	299	HIS
11	UH	533	PRO
61	DX	90	ASP
11	UH	51	SER
11	UH	127	TYR
11	UH	264	SER
11	UH	274	ASN
11	UH	350	LEU
31	CH	439	ALA
11	UH	202	LYS
15	UL	615	GLN
16	UM	420	ASN
11	UH	298	PRO
11	UH	308	PHE
16	UM	422	CYS
22	US	80	SER
11	UH	29	VAL
31	CH	437	ARG
45	JN	102	PRO
11	UH	267	ILE

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	
1	CA	202/240 (84%)	200 (99%)	2 (1%)	68	74
1	CB	192/240 (80%)	189 (98%)	3 (2%)	55	68
2	DA	212/224 (95%)	211 (100%)	1 (0%)	81	81
3	JA	555/934 (59%)	552 (100%)	3 (0%)	81	81
4	UA	730/812 (90%)	721 (99%)	9 (1%)	63	72
5	UB	344/732 (47%)	344 (100%)	0	100	100
6	UC	107/538 (20%)	107 (100%)	0	100	100
7	UD	615/713 (86%)	614 (100%)	1 (0%)	87	87
8	UE	428/574 (75%)	423 (99%)	5 (1%)	63	72
9	UF	277/414 (67%)	275 (99%)	2 (1%)	76	77
10	UG	462/480 (96%)	452 (98%)	10 (2%)	45	63
11	UH	152/657 (23%)	150 (99%)	2 (1%)	61	71
12	UI	99/533 (19%)	99 (100%)	0	100	100
13	UJ	1031/1633 (63%)	1023 (99%)	8 (1%)	73	76
14	UK	226/234 (97%)	225 (100%)	1 (0%)	84	83
15	UL	747/832 (90%)	741 (99%)	6 (1%)	73	76
16	UM	668/719 (93%)	663 (99%)	5 (1%)	76	77
17	UN	137/808 (17%)	136 (99%)	1 (1%)	76	77
18	UO	437/454 (96%)	431 (99%)	6 (1%)	59	70
19	UP	57/196 (29%)	57 (100%)	0	100	100
20	UQ	769/826 (93%)	767 (100%)	2 (0%)	86	84
21	UR	425/529 (80%)	422 (99%)	3 (1%)	76	77
22	US	332/506 (66%)	332 (100%)	0	100	100
23	UT	1787/2307 (78%)	1779 (100%)	8 (0%)	84	83
24	UU	743/819 (91%)	738 (99%)	5 (1%)	76	77
25	UV	986/1125 (88%)	985 (100%)	1 (0%)	88	89

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	UX	156/169 (92%)	153 (98%)	3 (2%)	50	66
27	UZ	230/256 (90%)	229 (100%)	1 (0%)	84	83
28	CD	326/435 (75%)	325 (100%)	1 (0%)	86	84
29	CE	353/433 (82%)	348 (99%)	5 (1%)	59	70
30	CF	102/104 (98%)	102 (100%)	0	100	100
30	CG	101/104 (97%)	100 (99%)	1 (1%)	68	74
31	CH	406/503 (81%)	404 (100%)	2 (0%)	81	81
32	CI	171/172 (99%)	168 (98%)	3 (2%)	51	67
33	CJ	251/258 (97%)	248 (99%)	3 (1%)	63	72
34	CK	187/535 (35%)	186 (100%)	1 (0%)	81	81
35	CL	690/1039 (66%)	687 (100%)	3 (0%)	84	83
36	CM	307/312 (98%)	305 (99%)	2 (1%)	76	77
37	CN	212/274 (77%)	212 (100%)	0	100	100
38	JC	318/636 (50%)	316 (99%)	2 (1%)	78	79
39	JF	195/222 (88%)	194 (100%)	1 (0%)	81	81
39	JG	206/222 (93%)	206 (100%)	0	100	100
42	JJ	158/238 (66%)	158 (100%)	0	100	100
43	JK	35/482 (7%)	35 (100%)	0	100	100
44	JM	124/200 (62%)	122 (98%)	2 (2%)	55	68
45	JN	141/304 (46%)	141 (100%)	0	100	100
46	JO	210/289 (73%)	209 (100%)	1 (0%)	81	81
47	JP	416/443 (94%)	413 (99%)	3 (1%)	76	77
48	JQ	22/192 (12%)	22 (100%)	0	100	100
49	DE	209/222 (94%)	208 (100%)	1 (0%)	81	81
50	DF	180/191 (94%)	180 (100%)	0	100	100
51	DG	187/201 (93%)	187 (100%)	0	100	100
52	DH	165/170 (97%)	165 (100%)	0	100	100
53	DI	142/161 (88%)	142 (100%)	0	100	100
54	DJ	158/166 (95%)	158 (100%)	0	100	100
55	DL	125/137 (91%)	125 (100%)	0	100	100
56	DN	127/128 (99%)	127 (100%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
57	DO	91/105 (87%)	91 (100%)	0	100	100
58	DQ	105/119 (88%)	104 (99%)	1 (1%)	68	74
60	DW	110/111 (99%)	110 (100%)	0	100	100
61	DX	85/120 (71%)	84 (99%)	1 (1%)	63	72
62	DY	112/113 (99%)	112 (100%)	0	100	100
63	Db	70/71 (99%)	70 (100%)	0	100	100
64	Dc	56/60 (93%)	56 (100%)	0	100	100
All	All	19959/27976 (71%)	19838 (99%)	121 (1%)	76	79

All (121) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	CA	218	ILE
1	CA	244	VAL
2	DA	126	THR
3	JA	523	LEU
3	JA	771	SER
3	JA	920	MET
4	UA	58	ILE
4	UA	164	THR
4	UA	362	THR
4	UA	411	VAL
4	UA	424	THR
4	UA	526	ASP
4	UA	582	THR
4	UA	617	VAL
4	UA	682	THR
1	CB	107	VAL
1	CB	240	VAL
1	CB	280	VAL
7	UD	428	ILE
8	UE	29	VAL
8	UE	124	ASP
8	UE	153	ILE
8	UE	248	THR
8	UE	310	THR
9	UF	85	ASP
9	UF	271	LEU
10	UG	96	ASP
10	UG	116	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	UG	128	THR
10	UG	153	THR
10	UG	168	VAL
10	UG	253	ASN
10	UG	268	VAL
10	UG	372	LEU
10	UG	398	ILE
10	UG	544	ASP
11	UH	540	LEU
11	UH	582	ILE
13	UJ	131	ASN
13	UJ	147	VAL
13	UJ	228	ASP
13	UJ	343	VAL
13	UJ	364	ASN
13	UJ	571	LEU
13	UJ	637	ILE
13	UJ	1590	ILE
14	UK	77	LEU
15	UL	16	VAL
15	UL	85	LEU
15	UL	243	THR
15	UL	526	THR
15	UL	672	VAL
15	UL	836	ILE
16	UM	56	ILE
16	UM	113	THR
16	UM	160	ILE
16	UM	219	ILE
16	UM	333	ILE
17	UN	345	VAL
18	UO	42	VAL
18	UO	105	VAL
18	UO	107	VAL
18	UO	173	THR
18	UO	215	VAL
18	UO	273	ILE
20	UQ	399	ILE
20	UQ	867	VAL
21	UR	137	ILE
21	UR	265	THR
21	UR	314	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	UT	243	THR
23	UT	315	LEU
23	UT	899	ASP
23	UT	1207	GLU
23	UT	1623	LEU
23	UT	1681	LEU
23	UT	1705	LEU
23	UT	1910	VAL
24	UU	126	ASP
24	UU	183	VAL
24	UU	323	VAL
24	UU	485	THR
24	UU	644	THR
25	UV	477	LEU
26	UX	47	VAL
26	UX	59	ILE
26	UX	65	VAL
27	UZ	131	VAL
28	CD	8	LEU
29	CE	14	LEU
29	CE	28	LEU
29	CE	247	ILE
29	CE	341	LEU
29	CE	428	ASN
30	CG	79	VAL
31	CH	141	LEU
31	CH	325	VAL
32	CI	5	LEU
32	CI	40	ASN
32	CI	87	VAL
33	CJ	92	THR
33	CJ	153	THR
33	CJ	265	THR
34	CK	345	LEU
35	CL	306	ASP
35	CL	810	ILE
35	CL	976	ILE
36	CM	169	VAL
36	CM	216	LEU
38	JC	50	ILE
38	JC	192	ASN
39	JF	178	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
44	JM	70	ASP
44	JM	135	HIS
46	JO	108	VAL
47	JP	113	VAL
47	JP	255	THR
47	JP	300	VAL
49	DE	78	THR
58	DQ	7	VAL
61	DX	127	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (384) such sidechains are listed below:

Mol	Chain	Res	Type
1	CA	93	HIS
2	DA	101	HIS
2	DA	194	ASN
2	DA	211	HIS
2	DA	232	HIS
3	JA	16	ASN
3	JA	117	ASN
3	JA	125	GLN
3	JA	487	ASN
3	JA	512	GLN
3	JA	532	ASN
3	JA	587	GLN
3	JA	731	GLN
3	JA	772	ASN
3	JA	822	ASN
3	JA	847	ASN
3	JA	881	GLN
3	JA	894	ASN
4	UA	45	ASN
4	UA	120	GLN
4	UA	139	HIS
4	UA	142	HIS
4	UA	203	GLN
4	UA	306	ASN
4	UA	400	GLN
4	UA	432	GLN
4	UA	597	ASN
4	UA	707	ASN
4	UA	734	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	CB	110	ASN
1	CB	226	HIS
1	CB	228	GLN
1	CB	256	ASN
5	UB	446	GLN
5	UB	495	ASN
5	UB	552	GLN
5	UB	617	HIS
5	UB	683	ASN
5	UB	686	ASN
5	UB	703	GLN
6	UC	513	HIS
6	UC	573	GLN
7	UD	53	HIS
7	UD	87	GLN
7	UD	106	ASN
7	UD	136	ASN
7	UD	140	ASN
7	UD	381	ASN
7	UD	385	ASN
7	UD	454	GLN
7	UD	483	ASN
7	UD	533	HIS
7	UD	567	ASN
7	UD	595	ASN
7	UD	632	ASN
7	UD	642	ASN
8	UE	32	GLN
8	UE	82	ASN
8	UE	218	HIS
8	UE	360	ASN
8	UE	443	GLN
8	UE	491	GLN
8	UE	493	HIS
8	UE	509	HIS
8	UE	527	HIS
9	UF	169	GLN
9	UF	175	ASN
9	UF	289	HIS
10	UG	17	ASN
10	UG	78	ASN
10	UG	88	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	UG	124	HIS
10	UG	244	ASN
10	UG	248	HIS
10	UG	394	HIS
10	UG	400	ASN
10	UG	417	ASN
10	UG	447	ASN
10	UG	531	HIS
10	UG	532	GLN
11	UH	560	ASN
11	UH	564	ASN
11	UH	575	ASN
11	UH	608	GLN
11	UH	609	ASN
12	UI	447	ASN
13	UJ	7	GLN
13	UJ	15	ASN
13	UJ	86	GLN
13	UJ	116	HIS
13	UJ	162	ASN
13	UJ	166	ASN
13	UJ	224	ASN
13	UJ	226	ASN
13	UJ	615	ASN
13	UJ	673	ASN
13	UJ	698	ASN
13	UJ	709	ASN
13	UJ	722	ASN
13	UJ	750	ASN
13	UJ	807	ASN
13	UJ	1360	GLN
13	UJ	1390	ASN
13	UJ	1447	ASN
13	UJ	1496	GLN
13	UJ	1585	ASN
14	UK	31	HIS
14	UK	45	GLN
14	UK	68	HIS
14	UK	95	GLN
14	UK	105	ASN
14	UK	144	ASN
14	UK	153	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	UK	216	GLN
14	UK	247	GLN
15	UL	88	HIS
15	UL	172	GLN
15	UL	264	ASN
15	UL	276	ASN
15	UL	388	GLN
15	UL	390	GLN
15	UL	403	ASN
15	UL	553	ASN
15	UL	626	GLN
15	UL	629	ASN
15	UL	651	GLN
15	UL	881	ASN
15	UL	901	ASN
15	UL	903	GLN
15	UL	916	HIS
16	UM	13	ASN
16	UM	41	ASN
16	UM	89	HIS
16	UM	187	GLN
16	UM	189	HIS
16	UM	241	GLN
16	UM	315	ASN
16	UM	328	GLN
16	UM	459	ASN
16	UM	490	HIS
16	UM	522	ASN
16	UM	576	ASN
16	UM	667	GLN
16	UM	753	HIS
16	UM	757	GLN
16	UM	798	ASN
17	UN	836	ASN
18	UO	39	HIS
18	UO	133	HIS
18	UO	137	ASN
18	UO	403	ASN
18	UO	502	GLN
20	UQ	24	ASN
20	UQ	39	GLN
20	UQ	49	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	UQ	50	ASN
20	UQ	112	ASN
20	UQ	115	HIS
20	UQ	200	ASN
20	UQ	269	GLN
20	UQ	270	GLN
20	UQ	400	GLN
20	UQ	401	GLN
20	UQ	410	ASN
20	UQ	540	ASN
20	UQ	579	ASN
20	UQ	624	HIS
20	UQ	666	ASN
20	UQ	690	ASN
20	UQ	699	ASN
20	UQ	719	ASN
20	UQ	825	GLN
20	UQ	846	ASN
20	UQ	878	ASN
21	UR	20	GLN
21	UR	159	HIS
21	UR	206	ASN
21	UR	224	ASN
21	UR	245	HIS
21	UR	282	ASN
21	UR	322	HIS
21	UR	348	HIS
21	UR	385	ASN
21	UR	388	HIS
21	UR	438	ASN
21	UR	522	GLN
22	US	174	ASN
22	US	200	ASN
22	US	228	HIS
22	US	245	GLN
22	US	266	ASN
22	US	290	HIS
22	US	404	ASN
22	US	434	ASN
23	UT	46	HIS
23	UT	75	GLN
23	UT	96	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	UT	112	GLN
23	UT	207	ASN
23	UT	227	ASN
23	UT	248	HIS
23	UT	303	ASN
23	UT	378	HIS
23	UT	398	GLN
23	UT	418	GLN
23	UT	471	ASN
23	UT	492	GLN
23	UT	544	ASN
23	UT	547	ASN
23	UT	611	GLN
23	UT	644	ASN
23	UT	687	ASN
23	UT	754	ASN
23	UT	802	ASN
23	UT	975	ASN
23	UT	980	ASN
23	UT	1098	ASN
23	UT	1100	GLN
23	UT	1101	GLN
23	UT	1193	ASN
23	UT	1212	GLN
23	UT	1236	GLN
23	UT	1309	ASN
23	UT	1356	ASN
23	UT	1357	ASN
23	UT	1379	ASN
23	UT	1385	ASN
23	UT	1401	ASN
23	UT	1475	GLN
23	UT	1546	GLN
23	UT	1618	ASN
23	UT	1630	ASN
23	UT	1907	ASN
24	UU	86	HIS
24	UU	88	HIS
24	UU	135	ASN
24	UU	163	GLN
24	UU	178	ASN
24	UU	291	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
24	UU	349	HIS
24	UU	514	ASN
24	UU	575	GLN
24	UU	649	ASN
25	UV	101	ASN
25	UV	120	HIS
25	UV	177	ASN
25	UV	197	GLN
25	UV	199	ASN
25	UV	221	ASN
25	UV	261	ASN
25	UV	402	ASN
25	UV	414	HIS
25	UV	441	GLN
25	UV	514	ASN
25	UV	602	ASN
25	UV	620	ASN
25	UV	683	ASN
25	UV	705	HIS
25	UV	706	ASN
25	UV	729	ASN
25	UV	841	ASN
25	UV	1078	HIS
25	UV	1148	GLN
25	UV	1154	ASN
25	UV	1159	ASN
25	UV	1199	ASN
26	UX	29	GLN
26	UX	46	GLN
26	UX	148	HIS
27	UZ	52	ASN
27	UZ	145	HIS
27	UZ	193	ASN
27	UZ	221	ASN
28	CD	23	GLN
28	CD	95	ASN
28	CD	125	GLN
28	CD	151	GLN
28	CD	170	ASN
28	CD	189	ASN
28	CD	213	ASN
28	CD	270	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	CD	334	GLN
29	CE	30	GLN
29	CE	249	GLN
30	CF	45	ASN
30	CG	32	GLN
30	CG	113	GLN
31	CH	156	ASN
31	CH	164	GLN
31	CH	195	GLN
31	CH	419	ASN
31	CH	525	GLN
32	CI	23	GLN
32	CI	37	HIS
32	CI	116	HIS
32	CI	163	ASN
33	CJ	26	GLN
33	CJ	164	GLN
34	CK	296	ASN
34	CK	526	ASN
35	CL	157	ASN
35	CL	173	HIS
35	CL	222	ASN
35	CL	239	ASN
35	CL	254	HIS
35	CL	276	HIS
35	CL	548	ASN
35	CL	770	GLN
35	CL	803	ASN
35	CL	944	ASN
35	CL	1049	ASN
35	CL	1065	ASN
36	CM	152	HIS
36	CM	176	GLN
36	CM	220	GLN
37	CN	90	ASN
37	CN	135	ASN
37	CN	136	ASN
37	CN	139	ASN
37	CN	148	HIS
37	CN	187	HIS
37	CN	197	GLN
37	CN	224	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	JC	51	GLN
38	JC	60	ASN
38	JC	88	ASN
38	JC	147	ASN
38	JC	150	ASN
38	JC	160	ASN
38	JC	174	ASN
39	JF	53	HIS
39	JF	73	HIS
39	JF	115	GLN
39	JF	165	ASN
39	JG	73	HIS
39	JG	111	GLN
39	JG	165	ASN
39	JG	243	HIS
42	JJ	142	ASN
44	JM	74	ASN
45	JN	271	GLN
46	JO	58	ASN
46	JO	151	ASN
46	JO	217	ASN
46	JO	284	GLN
47	JP	20	GLN
47	JP	81	ASN
47	JP	134	ASN
47	JP	168	ASN
47	JP	183	GLN
47	JP	207	ASN
47	JP	260	GLN
47	JP	281	ASN
47	JP	406	HIS
47	JP	466	HIS
48	JQ	182	HIS
49	DE	67	GLN
49	DE	96	ASN
49	DE	98	ASN
49	DE	153	ASN
50	DF	103	ASN
50	DF	104	ASN
50	DF	186	ASN
51	DG	56	ASN
51	DG	139	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
51	DG	185	GLN
51	DG	197	ASN
52	DH	5	GLN
53	DI	32	GLN
53	DI	87	ASN
53	DI	94	ASN
55	DL	16	GLN
55	DL	106	ASN
56	DN	5	HIS
56	DN	105	ASN
56	DN	138	ASN
60	DW	44	HIS
60	DW	80	ASN
60	DW	113	HIS
62	DY	34	ASN
63	Db	5	GLN
63	Db	9	HIS
63	Db	19	HIS
63	Db	26	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
65	D2	443/700 (63%)	121 (27%)	6 (1%)
66	D3	1303/1808 (72%)	442 (33%)	22 (1%)
67	D4	223/333 (66%)	63 (28%)	4 (1%)
All	All	1969/2841 (69%)	626 (31%)	32 (1%)

All (626) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
65	D2	6	A
65	D2	8	A
65	D2	14	U
65	D2	15	G
65	D2	58	U
65	D2	63	G
65	D2	64	U
65	D2	66	C
65	D2	68	U
65	D2	82	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
65	D2	83	U
65	D2	90	G
65	D2	98	G
65	D2	101	G
65	D2	102	A
65	D2	103	G
65	D2	104	A
65	D2	109	C
65	D2	110	G
65	D2	124	A
65	D2	125	G
65	D2	129	U
65	D2	130	G
65	D2	141	A
65	D2	142	U
65	D2	144	C
65	D2	150	G
65	D2	151	U
65	D2	152	U
65	D2	153	U
65	D2	154	A
65	D2	155	A
65	D2	163	G
65	D2	169	A
65	D2	170	U
65	D2	171	G
65	D2	177	U
65	D2	184	U
65	D2	191	U
65	D2	193	G
65	D2	197	G
65	D2	200	A
65	D2	207	G
65	D2	215	U
65	D2	227	U
65	D2	233	G
65	D2	235	A
65	D2	236	C
65	D2	238	G
65	D2	239	U
65	D2	240	C
65	D2	252	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
65	D2	253	U
65	D2	256	U
65	D2	257	G
65	D2	259	G
65	D2	261	U
65	D2	262	U
65	D2	267	U
65	D2	268	G
65	D2	273	G
65	D2	279	A
65	D2	280	A
65	D2	281	G
65	D2	294	U
65	D2	303	A
65	D2	304	U
65	D2	305	A
65	D2	310	U
65	D2	311	C
65	D2	312	U
65	D2	313	A
65	D2	314	U
65	D2	315	U
65	D2	316	U
65	D2	323	A
65	D2	324	U
65	D2	325	U
65	D2	326	C
65	D2	330	C
65	D2	331	U
65	D2	333	G
65	D2	336	G
65	D2	337	G
65	D2	353	A
65	D2	354	G
65	D2	356	C
65	D2	365	G
65	D2	369	G
65	D2	370	U
65	D2	371	G
65	D2	372	A
65	D2	373	U
65	D2	381	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
65	D2	382	U
65	D2	385	A
65	D2	386	A
65	D2	395	C
65	D2	398	A
65	D2	407	A
65	D2	428	A
65	D2	430	C
65	D2	431	A
65	D2	432	C
65	D2	441	C
65	D2	444	U
65	D2	445	U
65	D2	451	G
65	D2	461	A
65	D2	462	G
65	D2	467	A
65	D2	468	A
65	D2	469	C
65	D2	473	A
65	D2	476	A
65	D2	477	G
65	D2	481	U
65	D2	482	A
65	D2	485	G
65	D2	486	U
65	D2	487	A
66	D3	-6	A
66	D3	-4	A
66	D3	-1	G
66	D3	1	U
66	D3	2	A
66	D3	4	C
66	D3	5	U
66	D3	6	G
66	D3	9	U
66	D3	17	C
66	D3	18	C
66	D3	25	C
66	D3	26	A
66	D3	28	A
66	D3	34	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	35	U
66	D3	39	A
66	D3	40	A
66	D3	42	G
66	D3	43	A
66	D3	44	U
66	D3	46	A
66	D3	47	A
66	D3	48	G
66	D3	57	G
66	D3	63	G
66	D3	65	A
66	D3	68	A
66	D3	69	G
66	D3	71	A
66	D3	72	A
66	D3	73	U
66	D3	74	U
66	D3	75	U
66	D3	76	A
66	D3	77	U
66	D3	78	A
66	D3	81	G
66	D3	83	G
66	D3	100	A
66	D3	103	A
66	D3	104	A
66	D3	108	A
66	D3	114	C
66	D3	116	U
66	D3	126	A
66	D3	140	A
66	D3	141	U
66	D3	145	A
66	D3	146	U
66	D3	150	U
66	D3	153	G
66	D3	156	A
66	D3	159	U
66	D3	160	C
66	D3	172	C
66	D3	176	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	184	C
66	D3	186	C
66	D3	187	G
66	D3	188	A
66	D3	190	C
66	D3	191	C
66	D3	192	U
66	D3	193	U
66	D3	194	U
66	D3	195	G
66	D3	197	A
66	D3	198	A
66	D3	199	G
66	D3	203	U
66	D3	207	U
66	D3	216	U
66	D3	231	U
66	D3	232	U
66	D3	233	C
66	D3	234	G
66	D3	237	C
66	D3	238	U
66	D3	239	C
66	D3	240	U
66	D3	243	G
66	D3	244	A
66	D3	246	G
66	D3	247	A
66	D3	249	U
66	D3	250	C
66	D3	258	C
66	D3	261	U
66	D3	263	C
66	D3	266	A
66	D3	267	U
66	D3	271	A
66	D3	272	U
66	D3	273	G
66	D3	274	G
66	D3	275	C
66	D3	277	U
66	D3	278	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	279	G
66	D3	280	U
66	D3	281	G
66	D3	282	C
66	D3	288	A
66	D3	299	A
66	D3	302	U
66	D3	303	U
66	D3	305	C
66	D3	312	A
66	D3	313	U
66	D3	314	C
66	D3	315	A
66	D3	316	A
66	D3	317	C
66	D3	320	U
66	D3	321	C
66	D3	323	A
66	D3	324	U
66	D3	330	G
66	D3	333	A
66	D3	335	U
66	D3	336	G
66	D3	337	G
66	D3	338	C
66	D3	341	A
66	D3	342	C
66	D3	343	C
66	D3	344	A
66	D3	345	U
66	D3	346	G
66	D3	349	U
66	D3	350	U
66	D3	351	C
66	D3	352	A
66	D3	355	G
66	D3	359	A
66	D3	360	A
66	D3	361	C
66	D3	371	G
66	D3	373	G
66	D3	374	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	375	U
66	D3	378	A
66	D3	379	U
66	D3	380	U
66	D3	381	C
66	D3	383	G
66	D3	387	A
66	D3	388	G
66	D3	389	G
66	D3	393	C
66	D3	399	A
66	D3	400	A
66	D3	402	C
66	D3	407	A
66	D3	408	C
66	D3	410	A
66	D3	416	A
66	D3	417	A
66	D3	418	G
66	D3	423	G
66	D3	424	C
66	D3	425	A
66	D3	426	G
66	D3	428	A
66	D3	435	C
66	D3	438	A
66	D3	439	U
66	D3	444	C
66	D3	448	C
66	D3	452	A
66	D3	460	A
66	D3	461	G
66	D3	464	A
66	D3	467	G
66	D3	468	A
66	D3	475	A
66	D3	477	A
66	D3	482	U
66	D3	486	G
66	D3	487	G
66	D3	496	G
66	D3	501	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	505	A
66	D3	506	A
66	D3	510	G
66	D3	511	A
66	D3	515	A
66	D3	518	A
66	D3	519	C
66	D3	520	A
66	D3	525	A
66	D3	527	A
66	D3	536	C
66	D3	538	A
66	D3	542	A
66	D3	543	C
66	D3	545	A
66	D3	548	G
66	D3	551	G
66	D3	552	G
66	D3	557	G
66	D3	563	U
66	D3	564	G
66	D3	565	C
66	D3	570	A
66	D3	575	C
66	D3	576	G
66	D3	578	U
66	D3	579	A
66	D3	580	A
66	D3	584	C
66	D3	585	A
66	D3	586	G
66	D3	587	C
66	D3	594	A
66	D3	595	G
66	D3	635	A
66	D3	639	U
66	D3	640	U
66	D3	647	G
66	D3	649	U
66	D3	650	U
66	D3	653	C
66	D3	655	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	656	G
66	D3	657	U
66	D3	658	C
66	D3	677	G
66	D3	678	A
66	D3	679	U
66	D3	680	U
66	D3	681	U
66	D3	682	C
66	D3	685	A
66	D3	691	C
66	D3	692	C
66	D3	693	U
66	D3	695	U
66	D3	752	A
66	D3	755	A
66	D3	756	A
66	D3	757	A
66	D3	758	U
66	D3	761	G
66	D3	762	A
66	D3	763	G
66	D3	764	U
66	D3	765	G
66	D3	766	U
66	D3	767	U
66	D3	768	C
66	D3	771	A
66	D3	774	A
66	D3	775	G
66	D3	777	C
66	D3	778	G
66	D3	780	A
66	D3	781	U
66	D3	782	U
66	D3	783	G
66	D3	784	C
66	D3	785	U
66	D3	786	C
66	D3	788	A
66	D3	793	A
66	D3	794	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	795	U
66	D3	796	A
66	D3	803	A
66	D3	804	A
66	D3	810	G
66	D3	818	C
66	D3	819	G
66	D3	820	U
66	D3	821	U
66	D3	822	U
66	D3	826	U
66	D3	832	U
66	D3	834	G
66	D3	835	U
66	D3	839	U
66	D3	840	U
66	D3	841	U
66	D3	844	A
66	D3	847	A
66	D3	851	U
66	D3	853	G
66	D3	855	A
66	D3	863	A
66	D3	864	U
66	D3	875	G
66	D3	876	G
66	D3	896	U
66	D3	898	A
66	D3	906	A
66	D3	912	U
66	D3	913	G
66	D3	914	G
66	D3	915	A
66	D3	921	U
66	D3	926	A
66	D3	931	C
66	D3	932	U
66	D3	933	A
66	D3	935	U
66	D3	942	G
66	D3	944	A
66	D3	948	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	951	A
66	D3	960	U
66	D3	966	A
66	D3	969	C
66	D3	970	A
66	D3	971	A
66	D3	1029	U
66	D3	1031	U
66	D3	1033	C
66	D3	1036	A
66	D3	1038	U
66	D3	1040	G
66	D3	1042	G
66	D3	1043	A
66	D3	1044	U
66	D3	1053	G
66	D3	1058	U
66	D3	1060	U
66	D3	1061	A
66	D3	1062	A
66	D3	1063	U
66	D3	1064	G
66	D3	1072	C
66	D3	1075	C
66	D3	1079	U
66	D3	1113	A
66	D3	1119	G
66	D3	1122	G
66	D3	1126	G
66	D3	1127	G
66	D3	1128	C
66	D3	1132	A
66	D3	1133	A
66	D3	1136	U
66	D3	1143	A
66	D3	1145	U
66	D3	1146	G
66	D3	1149	G
66	D3	1158	C
66	D3	1159	C
66	D3	1160	A
66	D3	1167	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	1178	G
66	D3	1203	A
66	D3	1204	A
66	D3	1205	C
66	D3	1206	U
66	D3	1207	C
66	D3	1208	A
66	D3	1217	A
66	D3	1218	G
66	D3	1219	A
66	D3	1261	G
66	D3	1267	G
66	D3	1268	G
66	D3	1269	U
66	D3	1270	G
66	D3	1276	U
66	D3	1434	U
66	D3	1436	A
66	D3	1437	U
66	D3	1438	G
66	D3	1439	C
66	D3	1442	U
66	D3	1443	U
66	D3	1472	C
66	D3	1473	U
66	D3	1474	G
66	D3	1485	C
66	D3	1488	G
66	D3	1489	U
66	D3	1490	C
66	D3	1491	U
66	D3	1492	A
66	D3	1493	A
66	D3	1498	G
66	D3	1504	G
66	D3	1506	G
66	D3	1516	A
66	D3	1526	A
66	D3	1541	G
66	D3	1570	A
66	D3	1573	A
66	D3	1574	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	1584	G
66	D3	1590	G
66	D3	1595	U
66	D3	1596	C
66	D3	1600	A
66	D3	1601	G
66	D3	1602	C
66	D3	1607	G
66	D3	1618	C
66	D3	1619	C
66	D3	1621	U
66	D3	1627	U
66	D3	1628	U
66	D3	1629	G
66	D3	1630	U
66	D3	1631	A
66	D3	1632	C
66	D3	1638	G
66	D3	1639	C
66	D3	1651	A
66	D3	1657	U
66	D3	1658	G
66	D3	1659	A
66	D3	1660	A
66	D3	1666	U
66	D3	1670	G
66	D3	1681	A
66	D3	1682	U
66	D3	1683	C
66	D3	1684	U
66	D3	1686	C
66	D3	1690	G
66	D3	1695	G
66	D3	1697	G
66	D3	1703	C
66	D3	1706	C
66	D3	1707	A
66	D3	1711	C
66	D3	1712	A
66	D3	1716	C
66	D3	1736	G
66	D3	1742	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	1746	A
66	D3	1769	U
66	D3	1773	C
66	D3	1780	G
66	D3	1782	A
66	D3	1783	C
66	D3	1784	C
67	D4	4	G
67	D4	14	A
67	D4	15	U
67	D4	16	A
67	D4	22	A
67	D4	24	U
67	D4	25	U
67	D4	28	A
67	D4	30	A
67	D4	32	G
67	D4	33	A
67	D4	35	U
67	D4	36	C
67	D4	38	U
67	D4	47	G
67	D4	48	A
67	D4	50	U
67	D4	55	A
67	D4	56	A
67	D4	61	G
67	D4	90	C
67	D4	91	C
67	D4	103	A
67	D4	114	A
67	D4	115	G
67	D4	118	A
67	D4	138	A
67	D4	139	G
67	D4	140	C
67	D4	144	G
67	D4	145	U
67	D4	146	C
67	D4	151	A
67	D4	152	U
67	D4	155	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
67	D4	156	U
67	D4	157	A
67	D4	158	G
67	D4	159	C
67	D4	162	U
67	D4	176	A
67	D4	178	U
67	D4	183	A
67	D4	185	A
67	D4	186	A
67	D4	188	A
67	D4	199	G
67	D4	206	C
67	D4	248	G
67	D4	252	C
67	D4	254	A
67	D4	255	U
67	D4	267	A
67	D4	305	G
67	D4	312	U
67	D4	313	A
67	D4	318	U
67	D4	319	G
67	D4	322	A
67	D4	324	U
67	D4	325	C
67	D4	328	A
67	D4	329	C

All (32) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
65	D2	81	A
65	D2	82	A
65	D2	311	C
65	D2	314	U
65	D2	325	U
65	D2	468	A
66	D3	-2	A
66	D3	0	U
66	D3	1	U
66	D3	39	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
66	D3	72	A
66	D3	139	C
66	D3	278	U
66	D3	417	A
66	D3	545	A
66	D3	579	A
66	D3	586	G
66	D3	691	C
66	D3	782	U
66	D3	912	U
66	D3	1057	U
66	D3	1491	U
66	D3	1573	A
66	D3	1594	G
66	D3	1620	C
66	D3	1638	G
66	D3	1657	U
66	D3	1706	C
67	D4	143	G
67	D4	151	A
67	D4	157	A
67	D4	318	U

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 5 ligands modelled in this entry, 4 are monoatomic - leaving 1 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	$\# Z > 2$
70	GTP	CL	2001	69	33,34,34	1.16	3 (9%)	50,54,54	1.74	7 (14%)

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
70	GTP	CL	2001	69	-	4/22/38/38	0/3/3/3

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
70	CL	2001	GTP	C5-C4	3.13	1.47	1.38
70	CL	2001	GTP	C6-N1	-2.51	1.34	1.38
70	CL	2001	GTP	C5-N7	-2.12	1.34	1.39

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	CL	2001	GTP	C5-C4-N3	-6.21	118.51	128.39
70	CL	2001	GTP	C2-N3-C4	5.08	121.05	112.30
70	CL	2001	GTP	N9-C4-N3	4.59	135.14	125.95
70	CL	2001	GTP	C6-C5-N7	3.22	136.14	130.29
70	CL	2001	GTP	C4-C5-N7	-2.56	106.61	110.67
70	CL	2001	GTP	C3'-C2'-C1'	2.34	105.88	101.46
70	CL	2001	GTP	O6-C6-C5	-2.09	121.02	126.53

There are no chirality outliers.

All (4) torsion outliers are listed below:

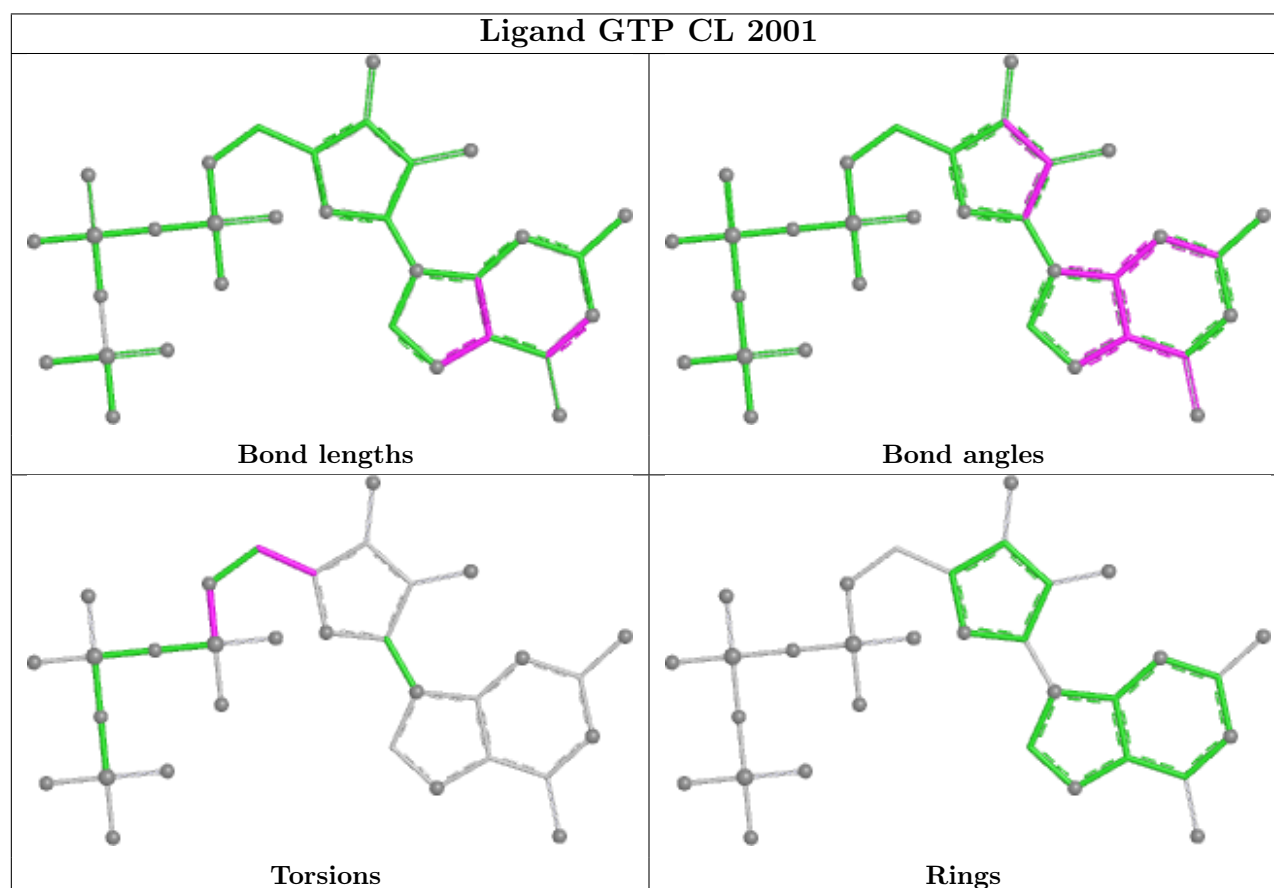
Mol	Chain	Res	Type	Atoms
70	CL	2001	GTP	C5'-O5'-PA-O3A
70	CL	2001	GTP	C5'-O5'-PA-O2A
70	CL	2001	GTP	C3'-C4'-C5'-O5'
70	CL	2001	GTP	O4'-C4'-C5'-O5'

There are no ring outliers.

1 monomer is involved in 25 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
70	CL	2001	GTP	25	0

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



5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

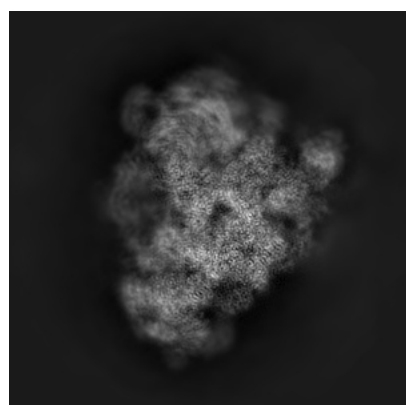
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-11359. These allow visual inspection of the internal detail of the map and identification of artifacts.

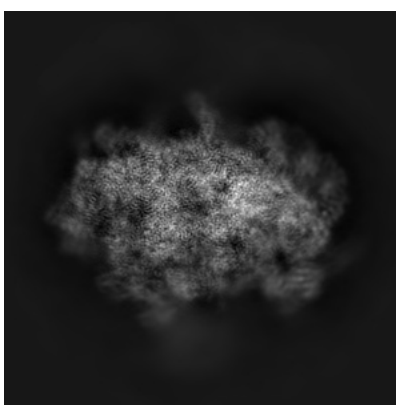
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

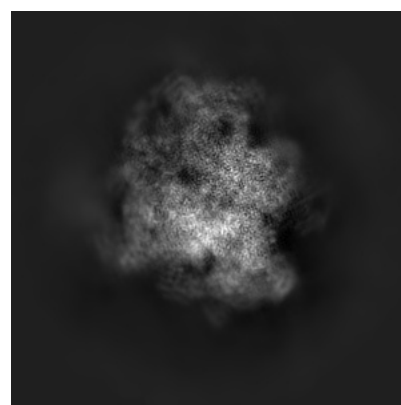
6.1.1 Primary map



X



Y

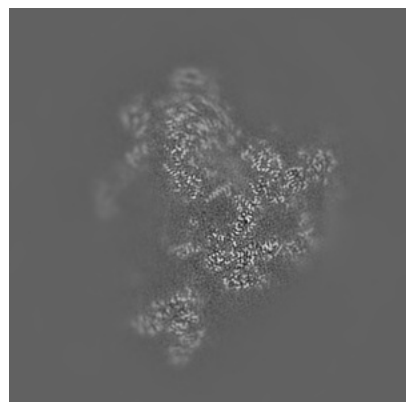


Z

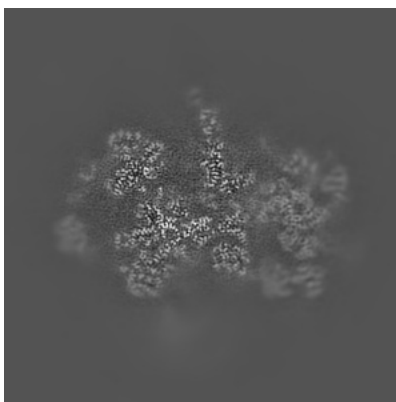
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

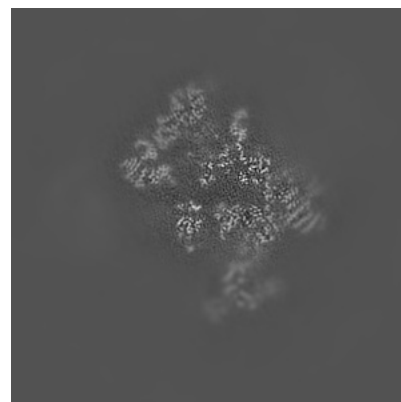
6.2.1 Primary map



X Index: 240



Y Index: 240

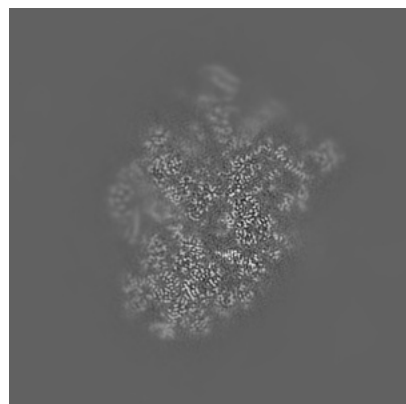


Z Index: 240

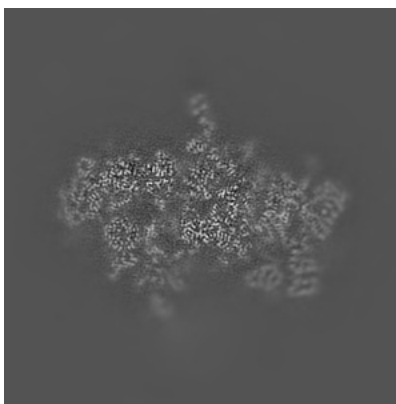
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

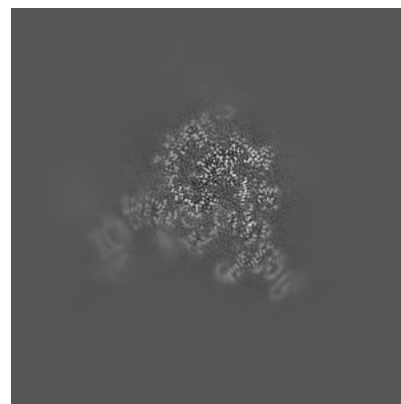
6.3.1 Primary map



X Index: 281



Y Index: 221

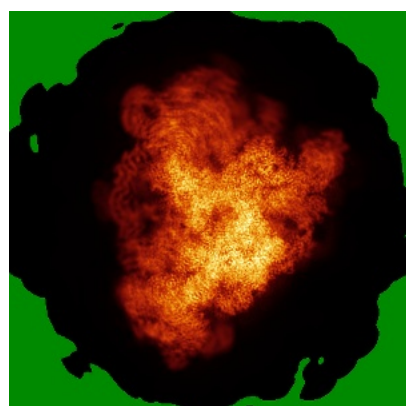


Z Index: 183

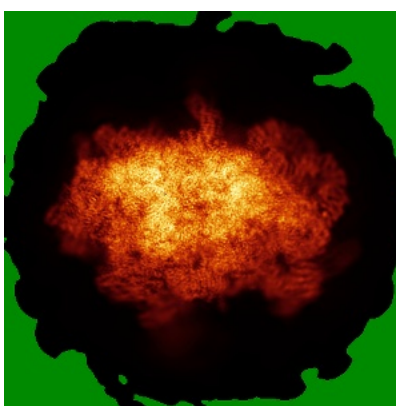
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

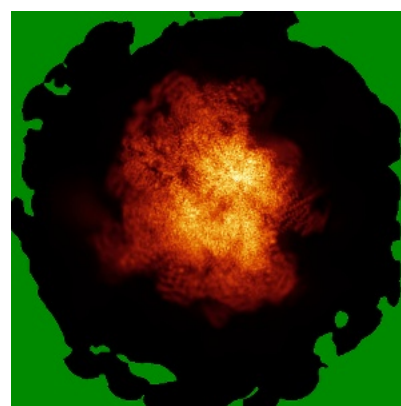
6.4.1 Primary map



X



Y

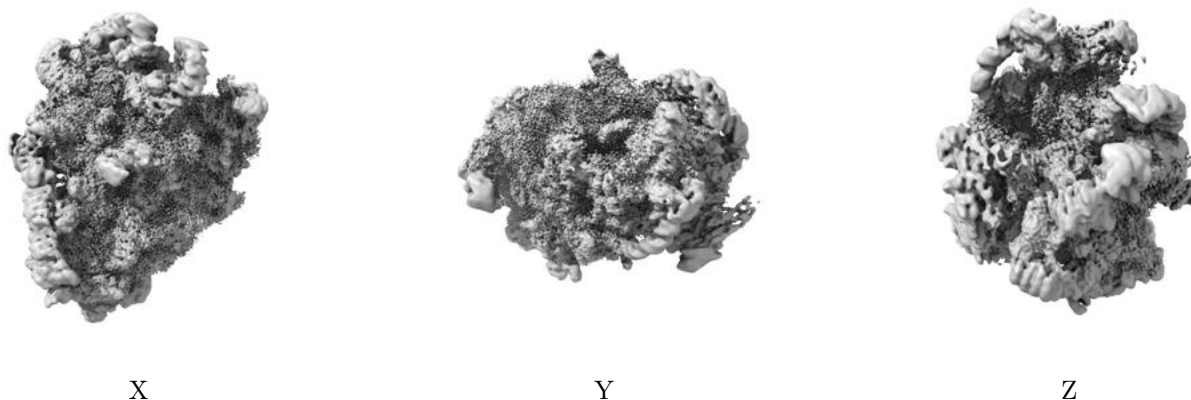


Z

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



The images above show the 3D surface view of the map at the recommended contour level 0.01. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

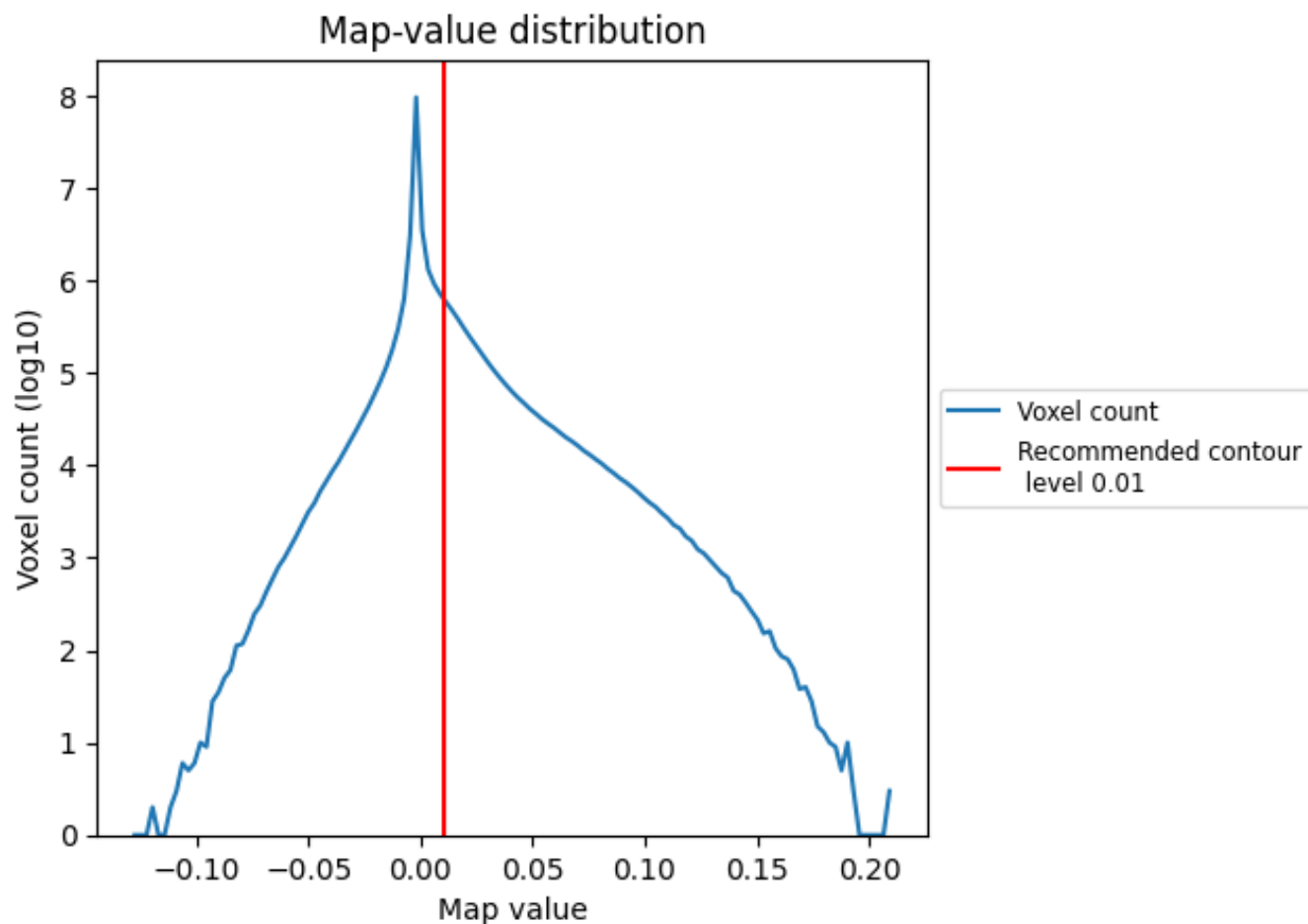
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

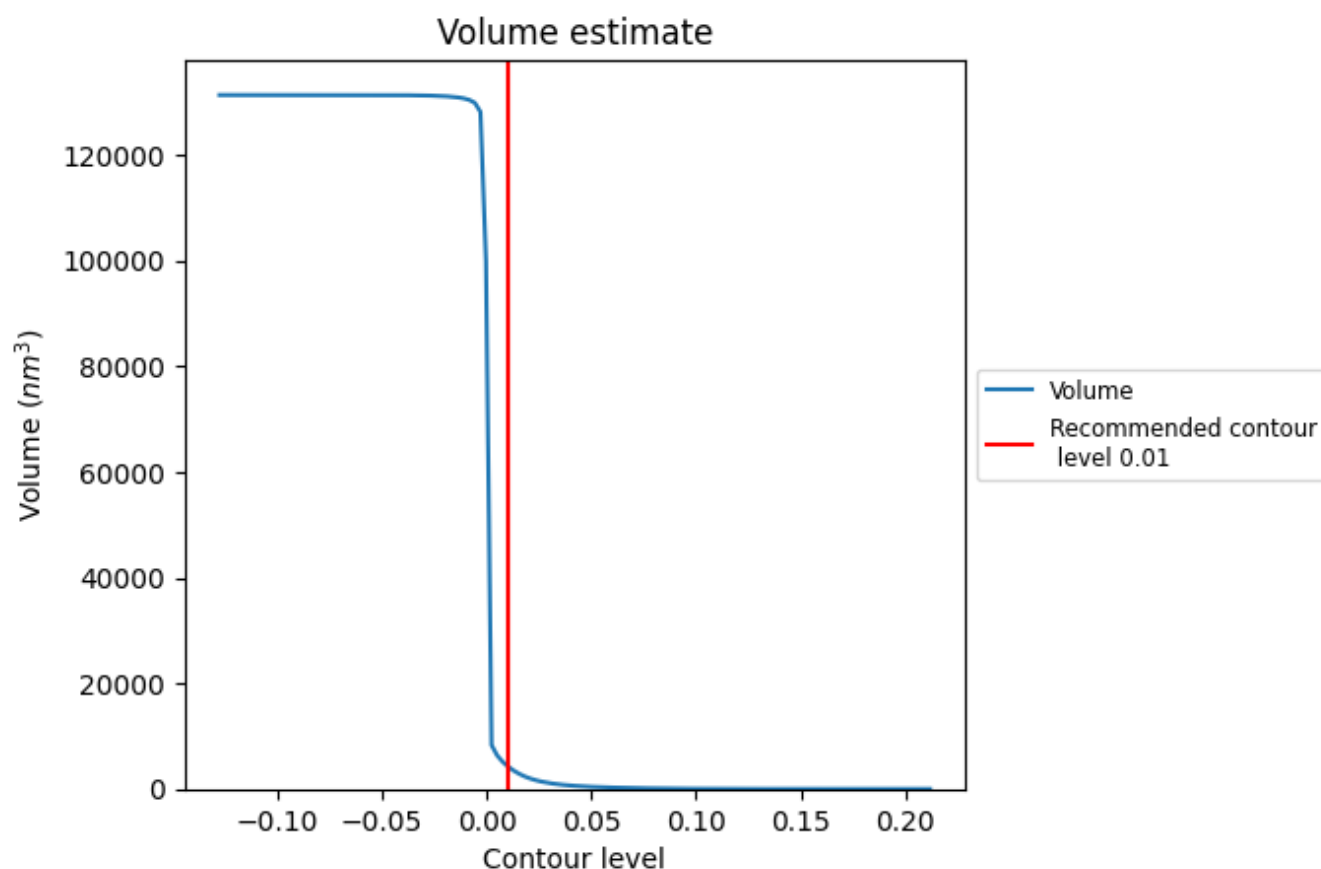
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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.

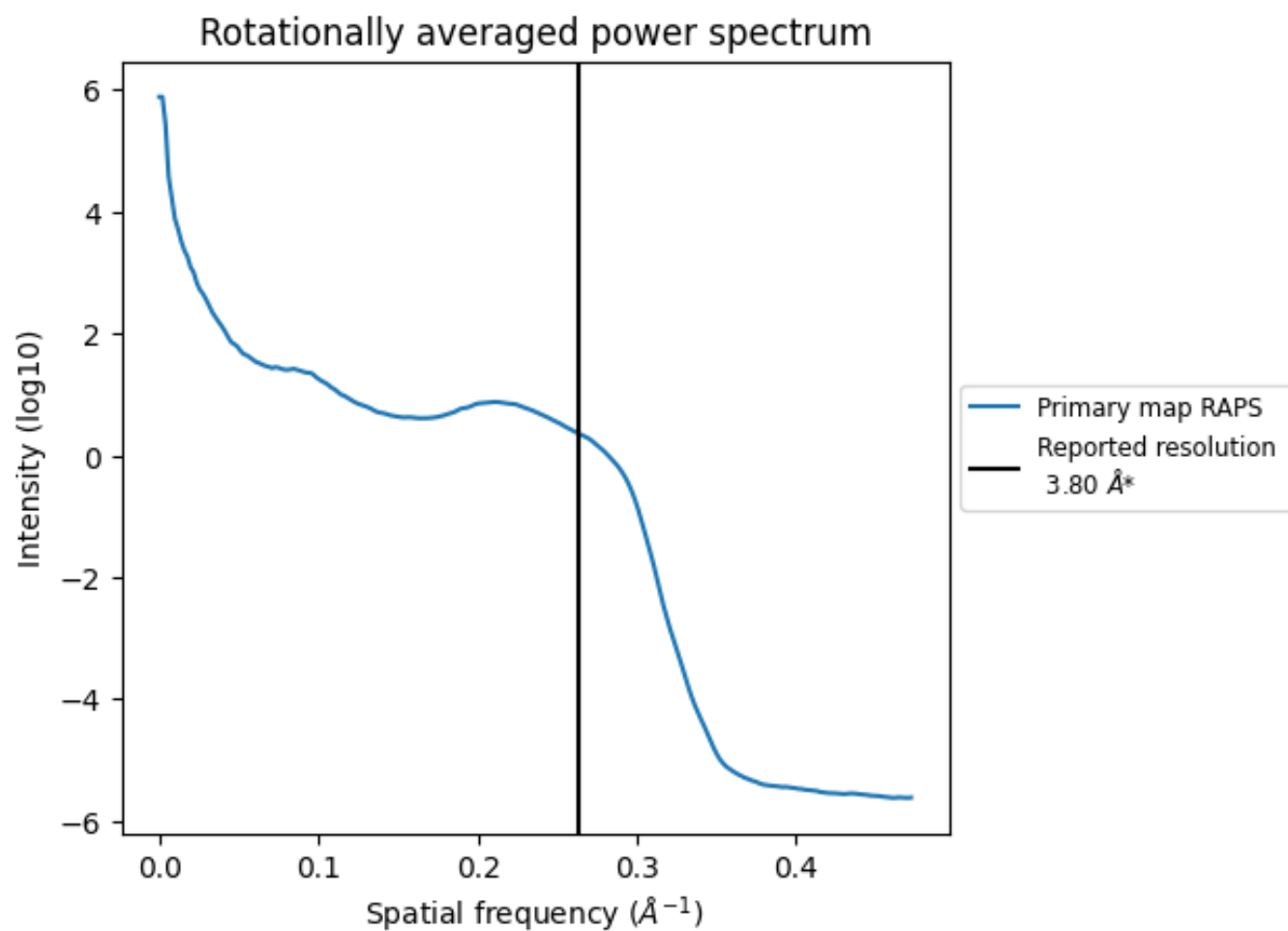
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 4324 nm^3 ; this corresponds to an approximate mass of 3906 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 ⓘ

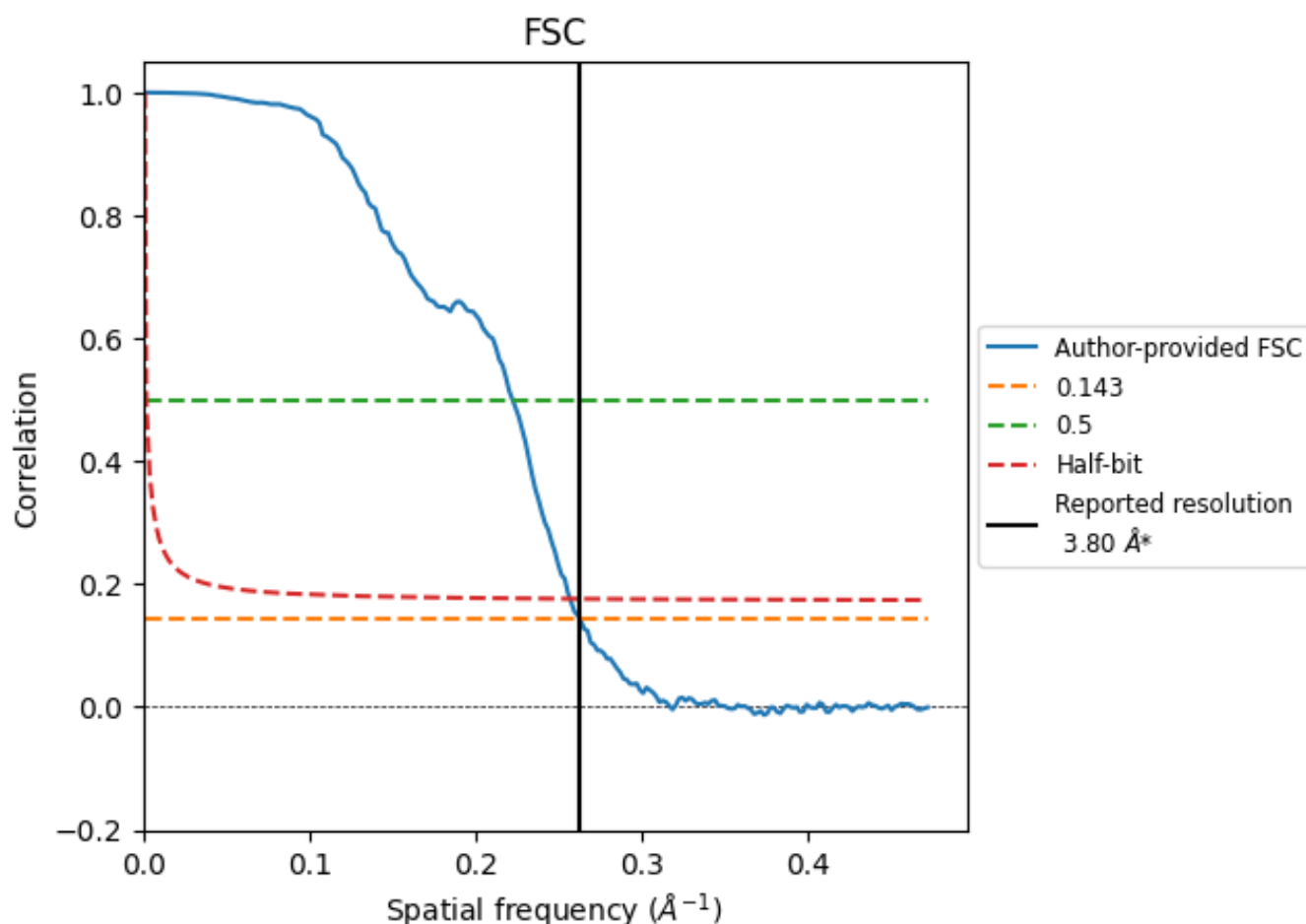


*Reported resolution corresponds to spatial frequency of 0.263 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.263 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

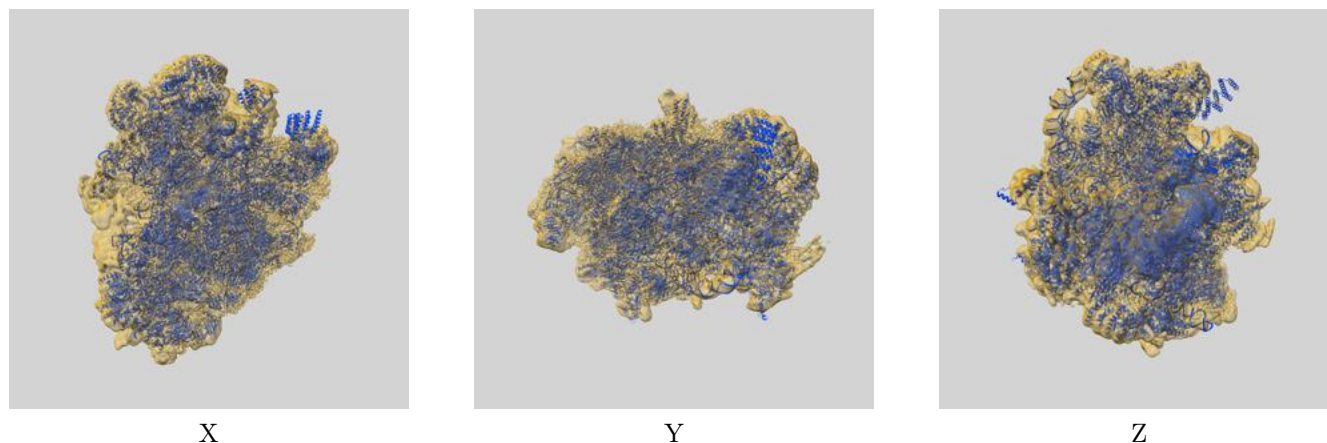
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.80	-	-
Author-provided FSC curve	3.80	4.49	3.89
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

9 Map-model fit [i](#)

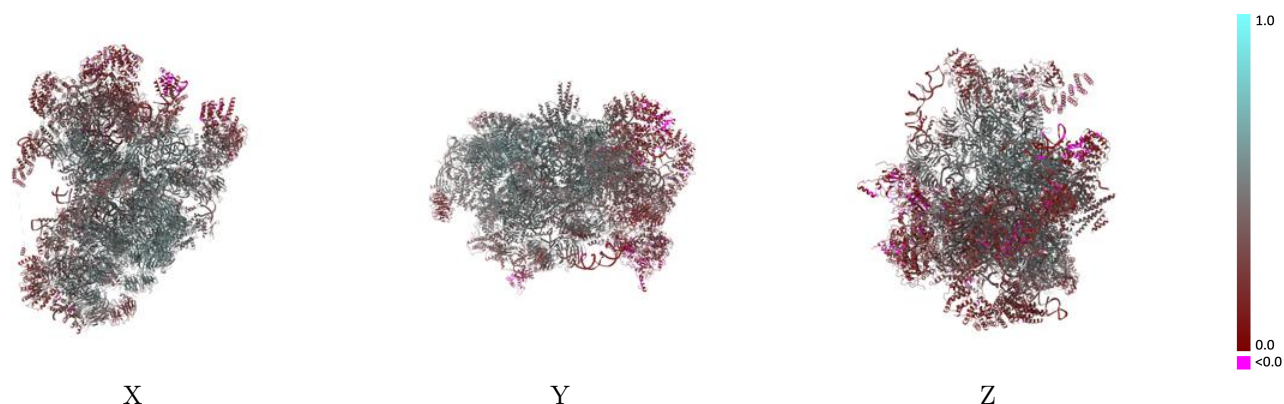
This section contains information regarding the fit between EMDB map EMD-11359 and PDB model 6ZQC. Per-residue inclusion information can be found in section 3 on page 17.

9.1 Map-model overlay [i](#)



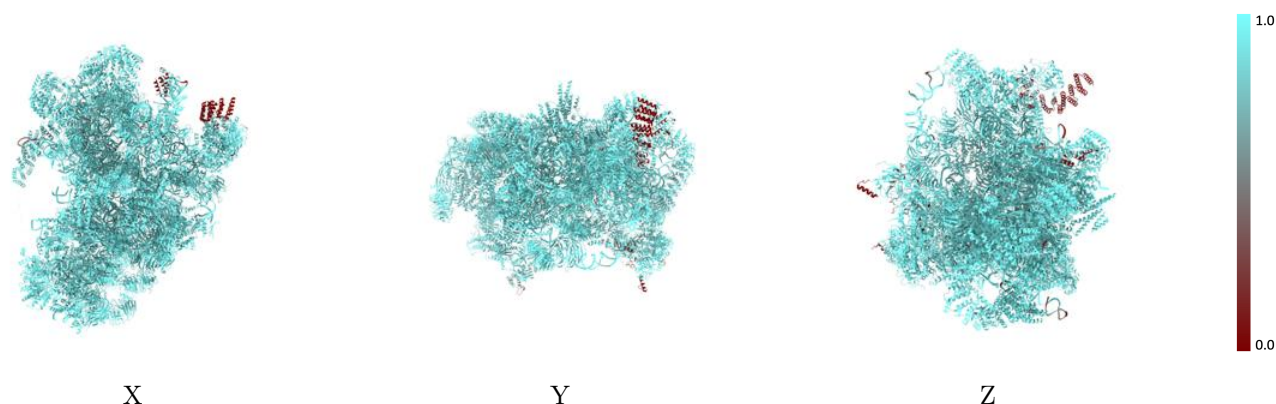
The images above show the 3D surface view of the map at the recommended contour level 0.01 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



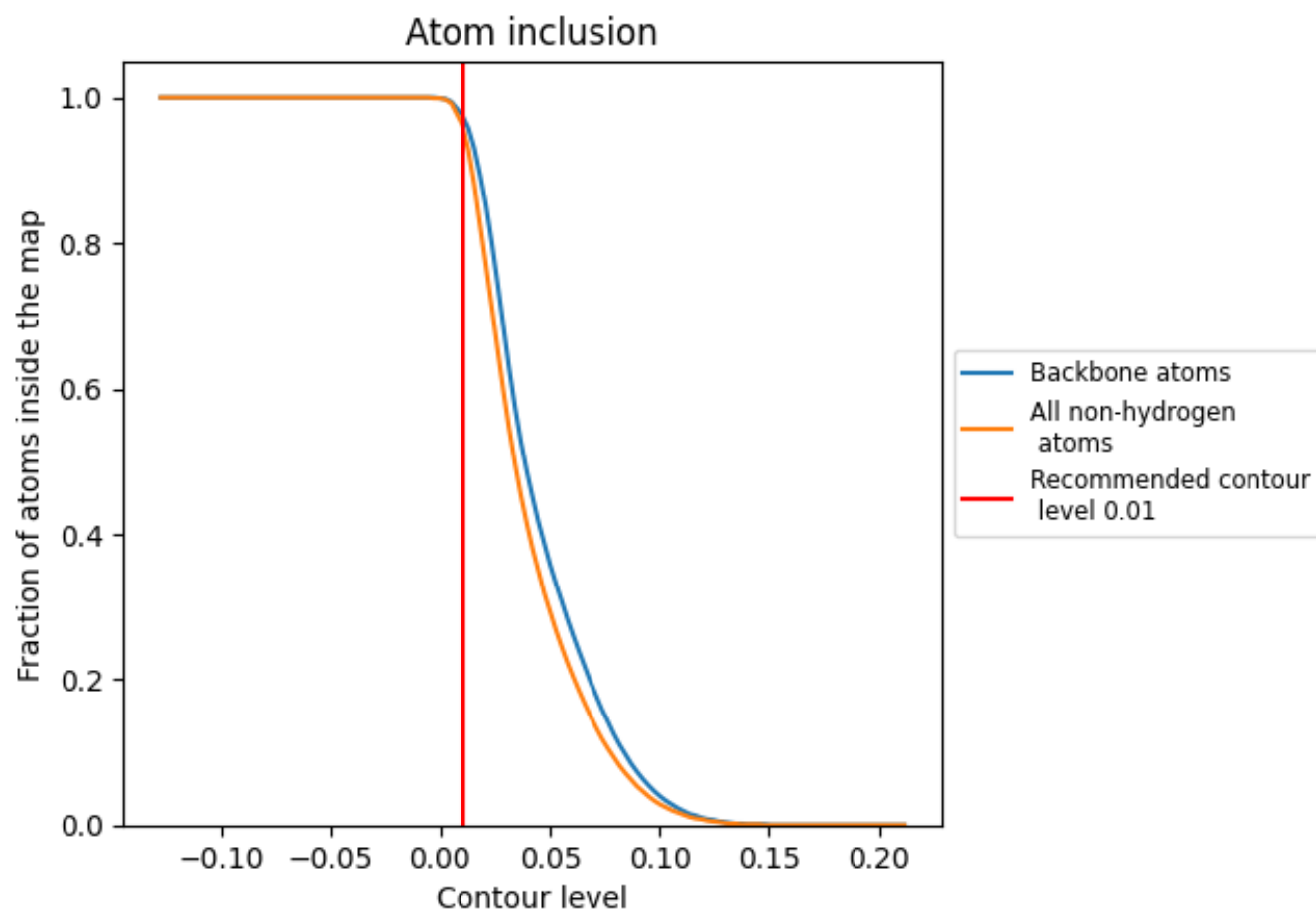
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 [i](#)



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 (0.01).

9.4 Atom inclusion [i](#)



At the recommended contour level, 98% of all backbone atoms, 96% 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 (0.01) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9630	 0.4100
CA	 0.9800	 0.5280
CB	 0.9720	 0.4530
CD	 0.9790	 0.4550
CE	 0.9690	 0.4250
CF	 0.9880	 0.5300
CG	 0.9790	 0.5190
CH	 0.9840	 0.4790
CI	 0.9790	 0.5590
CJ	 0.9760	 0.5240
CK	 0.9690	 0.4920
CL	 0.9790	 0.4900
CM	 0.9750	 0.4690
CN	 0.9520	 0.3260
D2	 0.9820	 0.4330
D3	 0.9730	 0.3830
D4	 0.9420	 0.4140
DA	 0.9650	 0.4940
DE	 0.9680	 0.4160
DF	 0.9790	 0.5210
DG	 0.9450	 0.3320
DH	 0.9390	 0.3600
DI	 0.9620	 0.2980
DJ	 0.9740	 0.5200
DL	 0.9570	 0.3380
DN	 0.9680	 0.4820
DO	 0.9790	 0.5000
DQ	 0.9730	 0.5490
DS	 0.9380	 0.3330
DW	 0.9750	 0.5320
DX	 0.9760	 0.5200
DY	 0.9860	 0.5030
Db	 0.9870	 0.5290
Dc	 0.9810	 0.5220
JA	 0.9270	 0.2550



Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
JB	 0.8650	 0.1600
JC	 0.9410	 0.2480
JF	 0.9660	 0.3720
JG	 0.9690	 0.4620
JH	 0.8600	 0.1180
JI	 0.2280	 0.1810
JJ	 0.9770	 0.4310
JK	 0.9420	 0.2260
JM	 0.9640	 0.4550
JN	 0.9710	 0.5090
JO	 0.9730	 0.4970
JP	 0.9820	 0.5460
JQ	 0.9840	 0.4020
UA	 0.9860	 0.5560
UB	 0.9650	 0.3190
UC	 0.9730	 0.4750
UD	 0.9800	 0.4500
UE	 0.9810	 0.4820
UF	 0.9750	 0.4240
UG	 0.9840	 0.5410
UH	 0.9800	 0.2630
UI	 0.9670	 0.3210
UJ	 0.9570	 0.3340
UK	 0.9790	 0.4920
UL	 0.9770	 0.4350
UM	 0.9700	 0.4210
UN	 0.9550	 0.4720
UO	 0.9810	 0.4900
UP	 0.9630	 0.4240
UQ	 0.9830	 0.4610
UR	 0.9810	 0.5350
US	 0.9710	 0.3450
UT	 0.9490	 0.2540
UU	 0.9870	 0.5400
UV	 0.9690	 0.3510
UX	 0.9820	 0.5500
UZ	 0.9780	 0.4170