



Full wwPDB EM Validation Report ⓘ

Oct 5, 2024 – 11:22 AM EDT

PDB ID : 5KPW
EMDB ID : EMD-8281
Title : Structure of RelA bound to ribosome in presence of A/R tRNA (Structure III)
Authors : Loveland, A.B.; Bah, E.; Madireddy, R.; Zhang, Y.; Brilot, A.F.; Grigorieff, N.; Korostelev, A.A.
Deposited on : 2016-07-05
Resolution : 3.90 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:

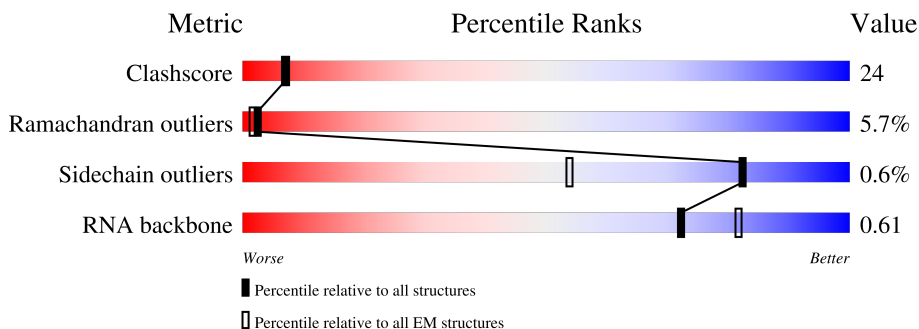
EMDB validation analysis : 0.0.1.dev113
MolProbity : 4.02b-467
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.39

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 3.90 Å.

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



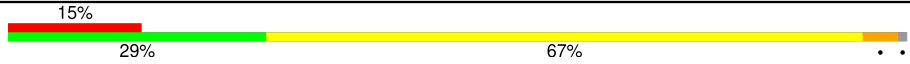


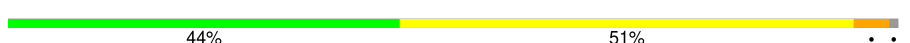

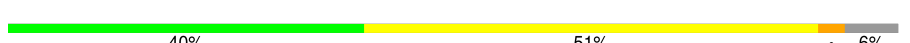


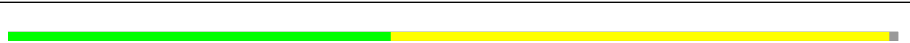
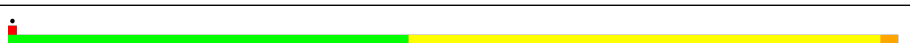
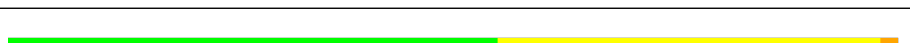
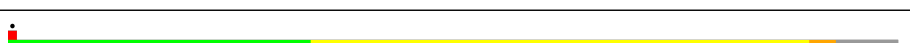

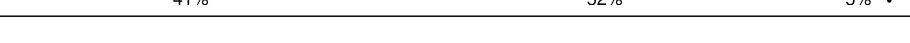
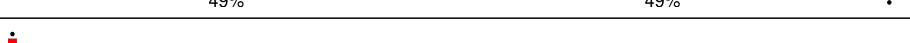
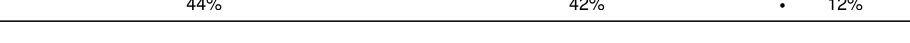
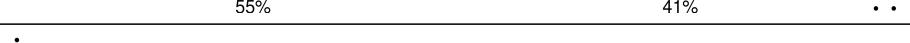
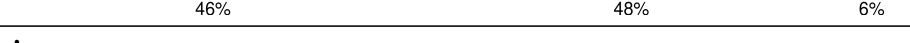
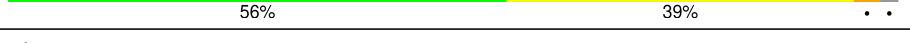

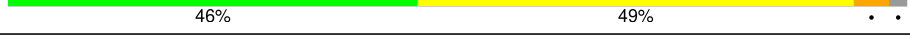




Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415
RNA backbone	6643	2191

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	A	273	58% (green), 40% (yellow), 2% (orange), 2% (red), 0% (grey)
2	B	209	46% (green), 50% (yellow), 4% (orange), 0% (red), 0% (grey)
3	C	201	48% (green), 49% (yellow), 2% (orange), 1% (red), 0% (grey)
4	D	179	41% (green), 54% (yellow), 3% (orange), 2% (red), 0% (grey)
5	E	177	50% (green), 48% (yellow), 2% (orange), 0% (red), 0% (grey)
6	F	149	17% (red), 40% (green), 54% (yellow), 5% (orange), 0% (grey)
7	G	165	18% (red), 17% (orange), 52% (green), 10% (yellow), 21% (grey)


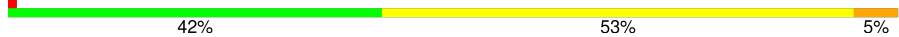

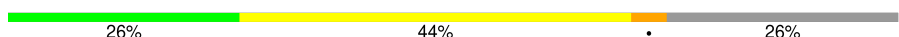


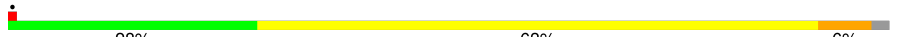
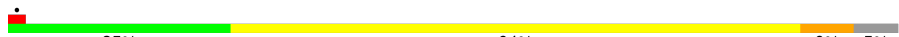
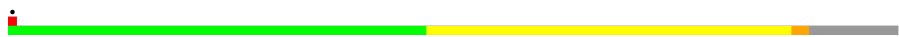

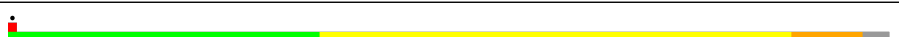
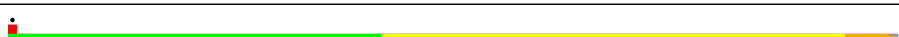

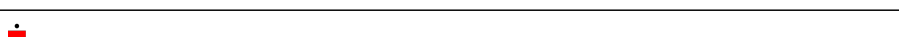
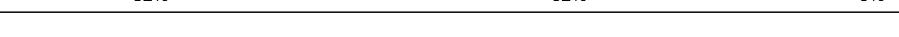
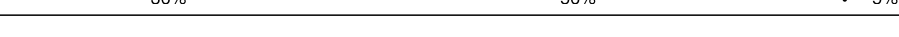



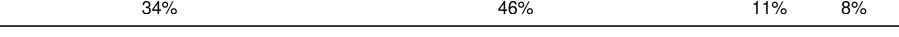


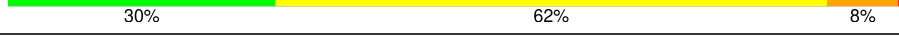

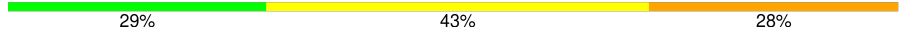
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
8	H	142	
9	I	142	
10	J	123	
11	K	144	
12	L	136	
13	M	127	
14	N	117	
15	O	115	
16	P	118	
17	Q	103	
18	R	110	
19	S	100	
20	T	104	
21	U	94	
22	V	85	
23	W	78	
24	X	63	
25	Y	59	
26	Z	70	
27	1	57	
28	2	55	
29	3	46	
30	4	65	
31	5	38	
32	6	241	

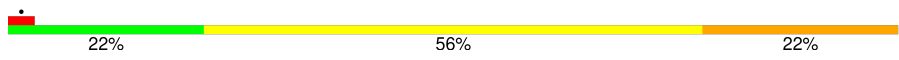
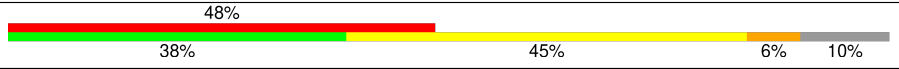
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
33	7	233	
34	8	206	
35	9	167	
36	10	135	
37	11	179	
38	12	130	
39	13	130	
40	14	103	
41	15	129	
42	16	124	
43	17	118	
44	18	101	
45	19	89	
46	20	82	
47	21	84	
48	22	75	
49	23	92	
50	24	87	
51	25	71	
52	26	1539	
53	27	2903	
54	28	120	
55	29	20	
56	30	76	
57	31	77	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
58	32	77	 22% 56% 22%
59	33	750	 38% 48% 45% 6% 10%

2 Entry composition [i](#)

There are 59 unique types of molecules in this entry. The entry contains 154603 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 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	271	2082	1288	423	364	7	0	0

- Molecule 2 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	209	1565	979	288	294	4	0	0

- Molecule 3 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	201	1552	974	283	290	5	0	0

- Molecule 4 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	D	177	1410	899	249	256	6	0	0

- Molecule 5 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	E	176	1323	832	243	246	2	0	0

- Molecule 6 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	F	149	1111	699	197	214	1	0	0

- Molecule 7 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	G	131	988	625	175	183	5	0	0

- Molecule 8 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	H	141	1032	651	179	196	6	0	0

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	I	142	1129	714	212	199	4	0	0

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
10	J	122	938	587	180	165	6	0	0

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
11	K	143	1045	649	206	189	1	0	0

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	L	136	1074	686	205	177	6	0	0

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	M	120	960	593	196	166	5	0	0

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				AltConf	Trace
14	N	116	Total	C	N	O	0	0
			892	552	178	162		

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	O	114	Total	C	N	O	S	0	0
			917	574	179	163	1		

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms				AltConf	Trace
16	P	117	Total	C	N	O	0	0
			947	604	192	151		

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Q	103	Total	C	N	O	S	0	0
			816	516	153	145	2		

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	R	110	Total	C	N	O	S	0	0
			857	532	166	156	3		

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	S	93	Total	C	N	O	S	0	0
			738	466	139	131	2		

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				AltConf	Trace
20	T	102	Total	C	N	O	0	0
			779	492	146	141		

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	U	94	Total	C	N	O	S	0	0
			753	479	137	134	3		

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	V	75	Total	C	N	O	S	0	0
			575	356	116	102	1		

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	W	77	Total	C	N	O	S	0	0
			625	388	129	106	2		

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	X	63	Total	C	N	O	S	0	0
			509	313	99	95	2		

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Y	58	Total	C	N	O	S	0	0
			449	281	87	79	2		

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	Z	66	Total	C	N	O	S	0	0
			522	323	99	94	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
27	1	56	Total	C	N	O	S	0	0
			444	269	94	80	1		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
28	2	50	Total	C	N	O	0	0
			409	263	75	71		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
29	3	46	Total	C	N	O	S	0	0
			377	228	90	57	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
30	4	64	Total	C	N	O	S	0	0
			504	323	105	74	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
31	5	38	Total	C	N	O	S	0	0
			302	185	65	48	4		

- Molecule 32 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	6	218	Total	C	N	O	S	0	0
			1704	1081	305	311	7		

- Molecule 33 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	7	206	Total	C	N	O	S	0	0
			1624	1028	305	288	3		

- Molecule 34 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	8	205	Total	C	N	O	S	0	0
			1643	1026	315	298	4		

- Molecule 35 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
35	9	157	1156	719	218	213	6	0	0

- Molecule 36 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
36	10	100	817	515	148	148	6	0	0

- Molecule 37 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
37	11	151	1181	735	227	215	4	0	0

- Molecule 38 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
38	12	129	979	616	173	184	6	0	0

- Molecule 39 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
39	13	127	1022	634	206	179	3	0	0

- Molecule 40 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
40	14	98	786	493	150	142	1	0	0

- Molecule 41 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
41	15	116	869	535	173	158	3	0	0

- Molecule 42 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
42	16	123	955	590	196	165	4	0	0

- Molecule 43 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
43	17	114	883	546	178	156	3	0	0

- Molecule 44 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
44	18	100	805	499	164	139	3	0	0

- Molecule 45 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
45	19	88	714	439	144	130	1	0	0

- Molecule 46 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
46	20	82	649	406	128	114	1	0	0

- Molecule 47 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
47	21	80	648	411	121	113	3	0	0

- Molecule 48 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
48	22	65	535	339	100	95	1	0	0

- Molecule 49 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	23	79	Total	C	N	O	S	0	0
			637	408	120	107	2		

- Molecule 50 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	24	85	Total	C	N	O	S	0	0
			665	411	137	114	3		

- Molecule 51 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	25	65	Total	C	N	O	S	0	0
			544	335	117	91	1		

- Molecule 52 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	26	1539	Total	C	N	O	P	0	0
			33016	14725	6052	10700	1539		

- Molecule 53 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	27	2903	Total	C	N	O	P	0	0
			62322	27801	11468	20150	2903		

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
27	747	C	U	conflict	GB 802133627
27	1847	G	A	conflict	GB 802133627

- Molecule 54 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	28	120	Total	C	N	O	P	0	0
			2572	1145	471	836	120		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
28	120	A	-	conflict	GB 1028475309

- Molecule 55 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
55	29	20	432	195	86	132	19	0	0

- Molecule 56 is a RNA chain called A-site tRNAPhe.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
56	30	76	1623	723	290	534	76	0	0

- Molecule 57 is a RNA chain called P-site tRNAfMet.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
57	31	77	1644	732	297	538	77	0	0

- Molecule 58 is a RNA chain called E-site tRNAfMet.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
58	32	77	1643	732	297	537	77	0	0

- Molecule 59 is a protein called GTP pyrophosphokinase.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
59	33	675	4911	3070	904	915	22	0	0

There are 7 discrepancies between the modelled and reference sequences:

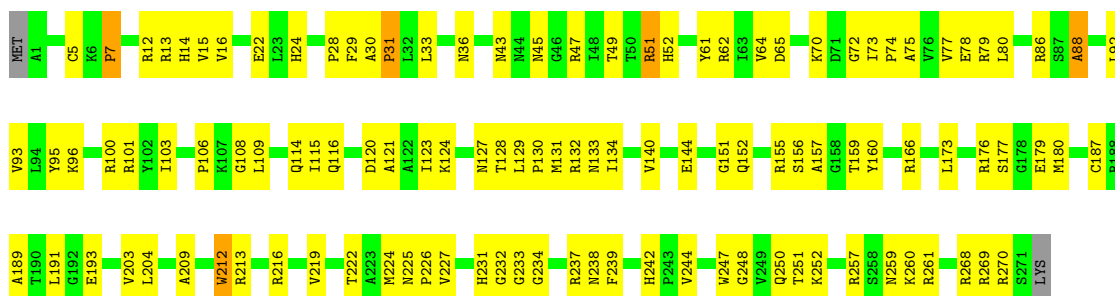
Chain	Residue	Modelled	Actual	Comment	Reference
33	-5	MET	-	expression tag	UNP P0AG20
33	-4	HIS	-	expression tag	UNP P0AG20
33	-3	HIS	-	expression tag	UNP P0AG20
33	-2	HIS	-	expression tag	UNP P0AG20
33	-1	HIS	-	expression tag	UNP P0AG20
33	0	HIS	-	expression tag	UNP P0AG20
33	1	HIS	-	expression tag	UNP P0AG20

3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

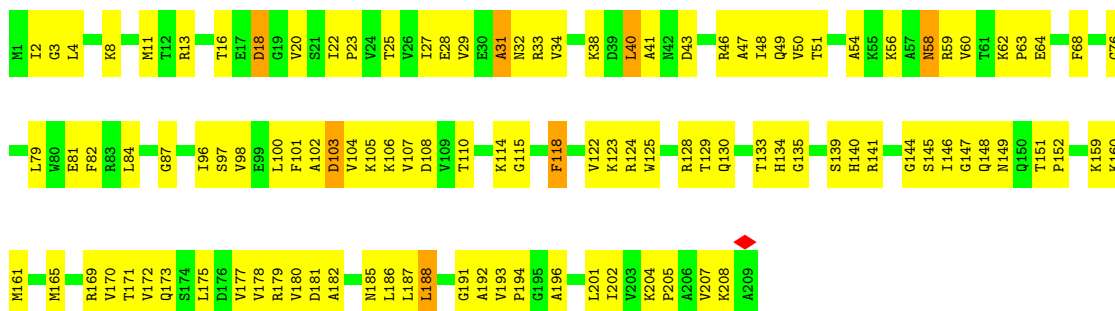
• Molecule 1: 50S ribosomal protein L2

Chain A: 



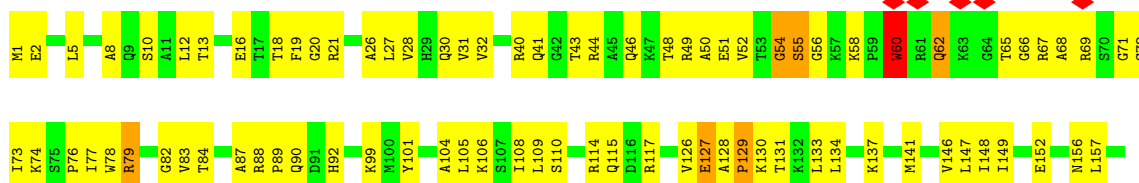
• Molecule 2: 50S ribosomal protein L3

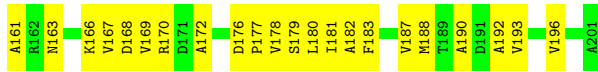
Chain B: 



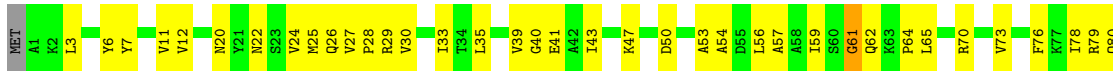
• Molecule 3: 50S ribosomal protein L4

Chain C: 

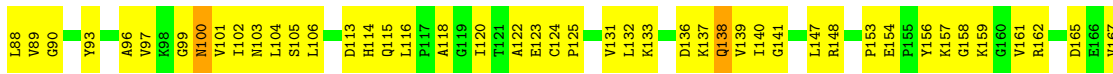
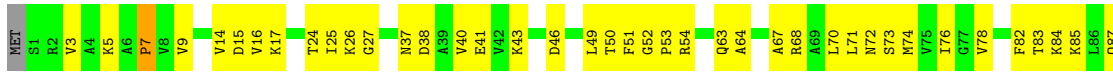




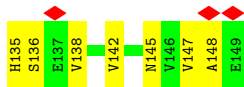
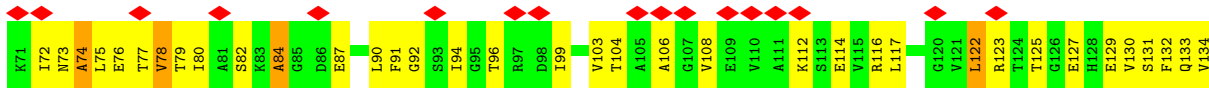
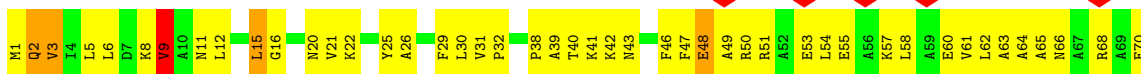
• Molecule 4: 50S ribosomal protein L5



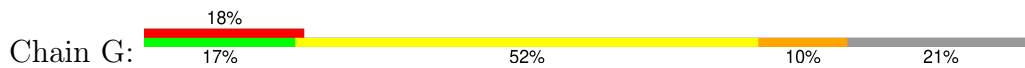
• Molecule 5: 50S ribosomal protein L6

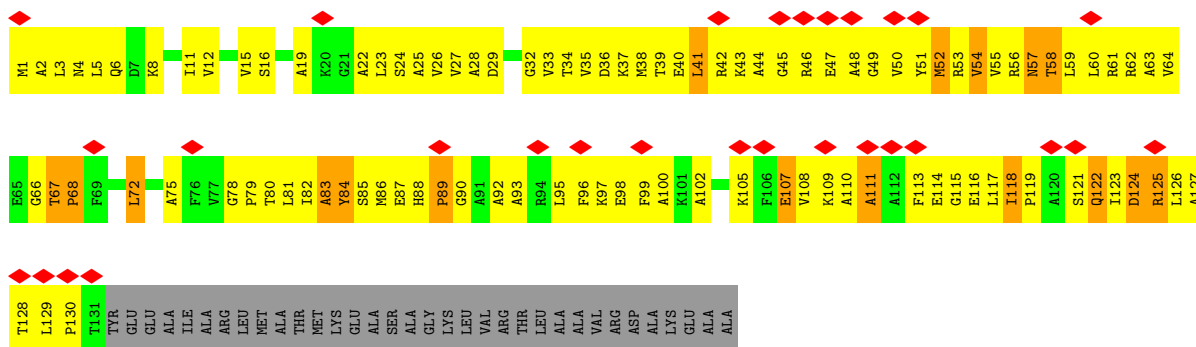


• Molecule 6: 50S ribosomal protein L9

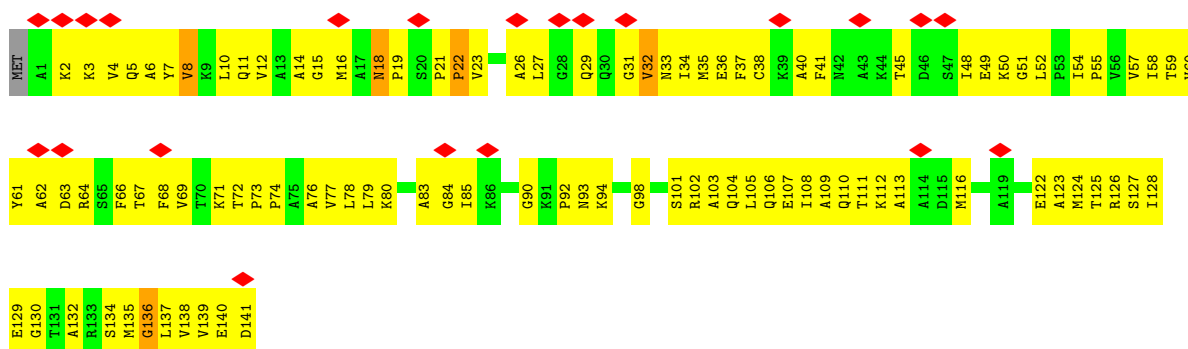
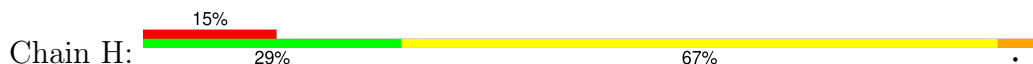


• Molecule 7: 50S ribosomal protein L10

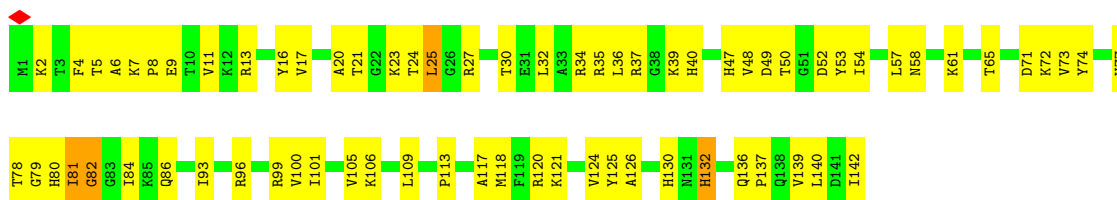




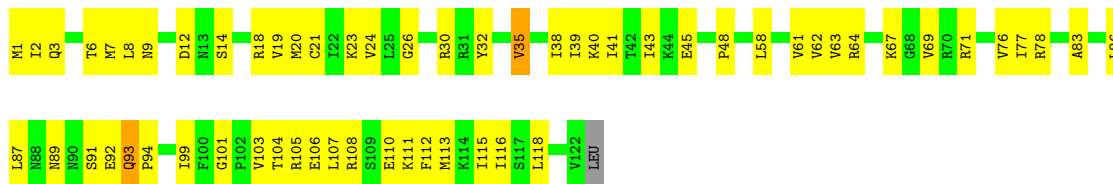
• Molecule 8: 50S ribosomal protein L11



• Molecule 9: 50S ribosomal protein L13

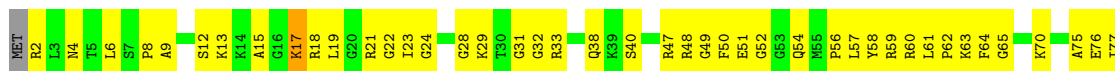


• Molecule 10: 50S ribosomal protein L14



• Molecule 11: 50S ribosomal protein L15





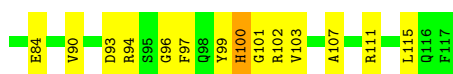
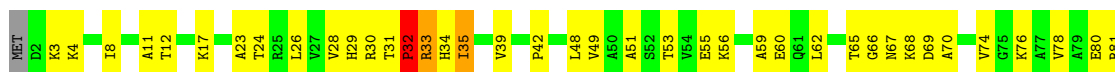
• Molecule 12: 50S ribosomal protein L16



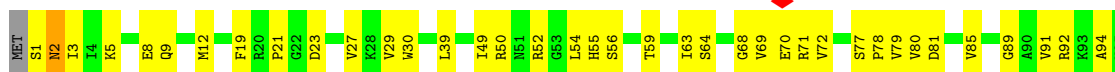
• Molecule 13: 50S ribosomal protein L17



• Molecule 14: 50S ribosomal protein L18

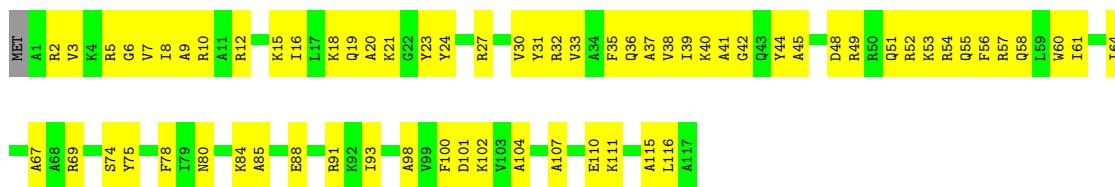


• Molecule 15: 50S ribosomal protein L19



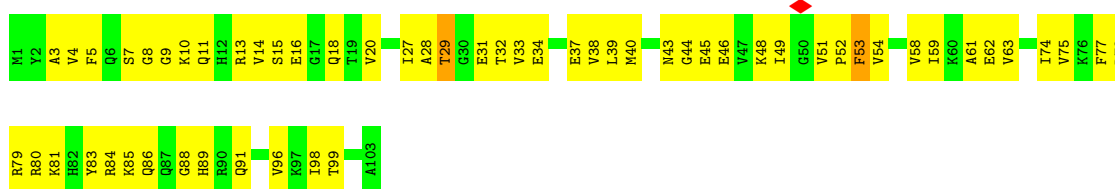
• Molecule 16: 50S ribosomal protein L20

Chain P:  43% 56%



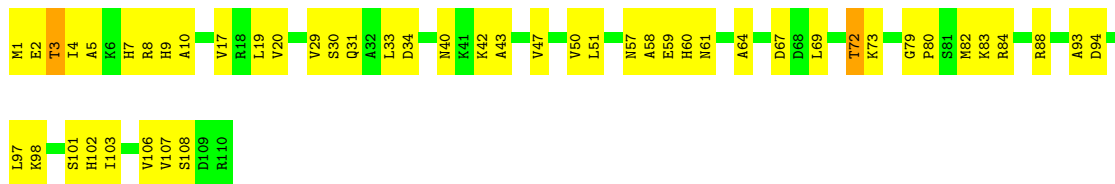
- Molecule 17: 50S ribosomal protein L21

Chain Q:  45% 53%



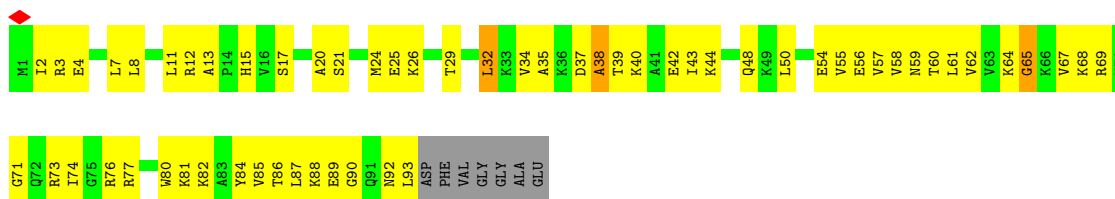
- Molecule 18: 50S ribosomal protein L22

Chain R:  55% 43%



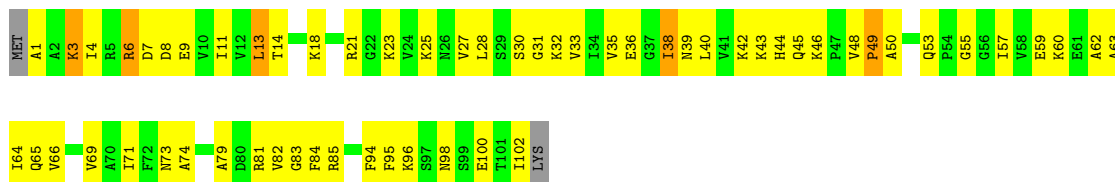
- Molecule 19: 50S ribosomal protein L23

Chain S:  34% 56% 7%

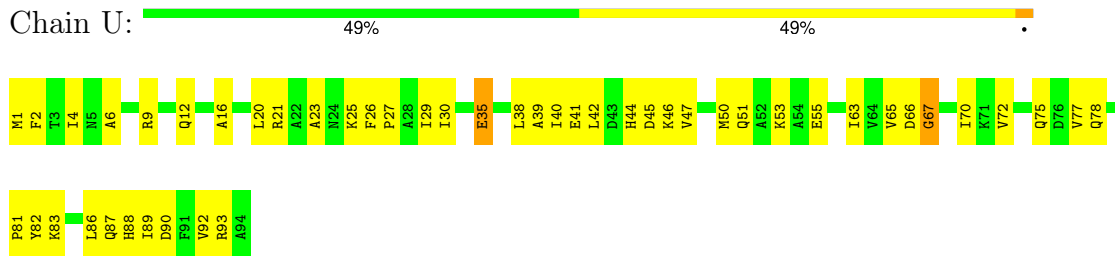


- Molecule 20: 50S ribosomal protein L24

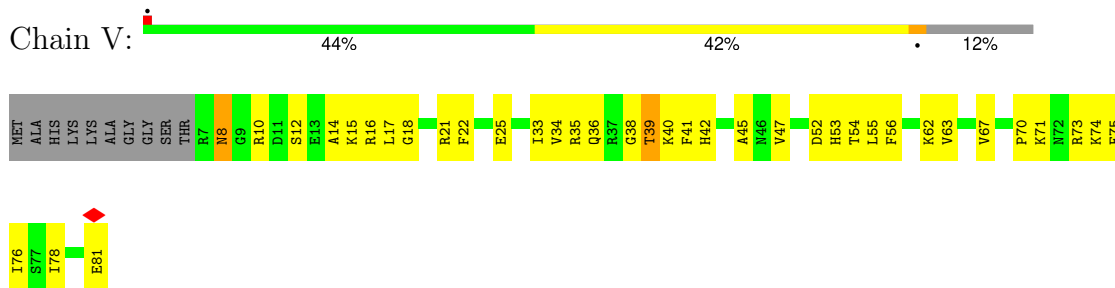
Chain T:  41% 52% 5%



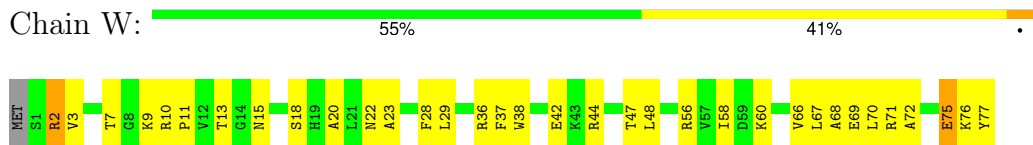
- Molecule 21: 50S ribosomal protein L25



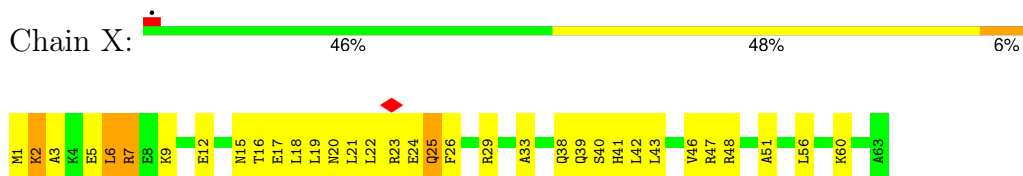
- Molecule 22: 50S ribosomal protein L27



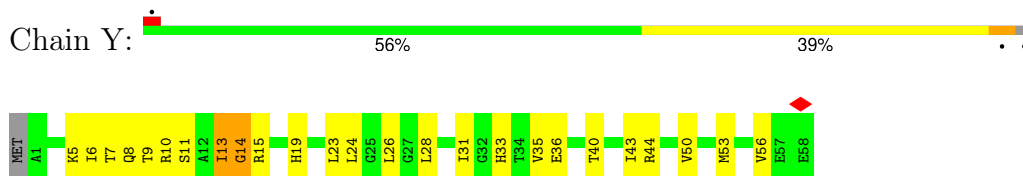
- Molecule 23: 50S ribosomal protein L28



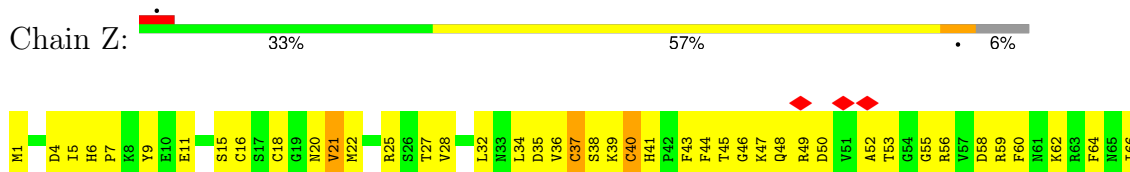
- Molecule 24: 50S ribosomal protein L29



- Molecule 25: 50S ribosomal protein L30



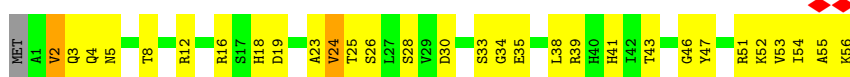
- Molecule 26: 50S ribosomal protein L31



PRO
GLY
SER
LYS

- Molecule 27: 50S ribosomal protein L32

Chain 1: 



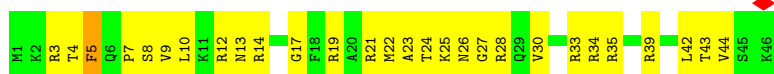
- Molecule 28: 50S ribosomal protein L33

Chain 2: 



- Molecule 29: 50S ribosomal protein L34

Chain 3: 



- Molecule 30: 50S ribosomal protein L35

Chain 4: 



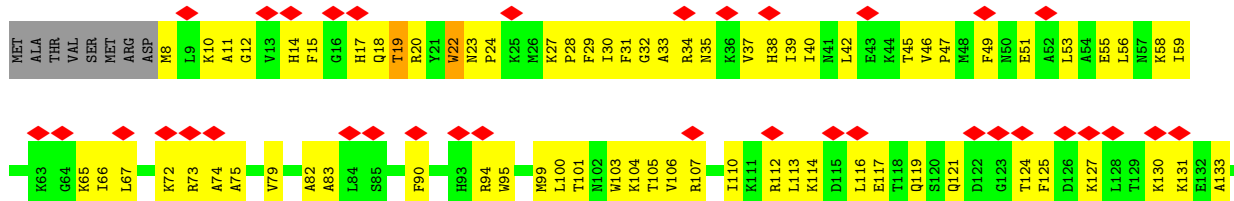
- Molecule 31: 50S ribosomal protein L36

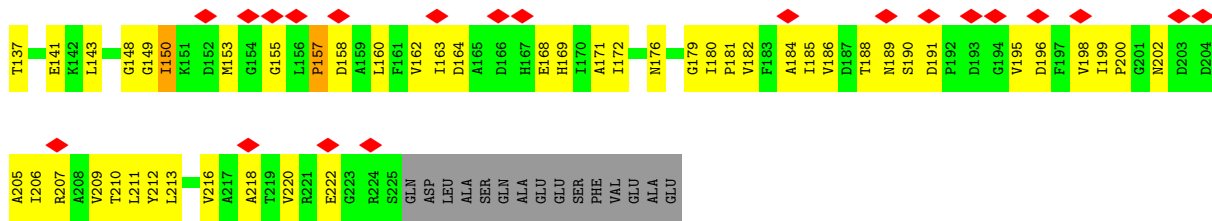
Chain 5: 



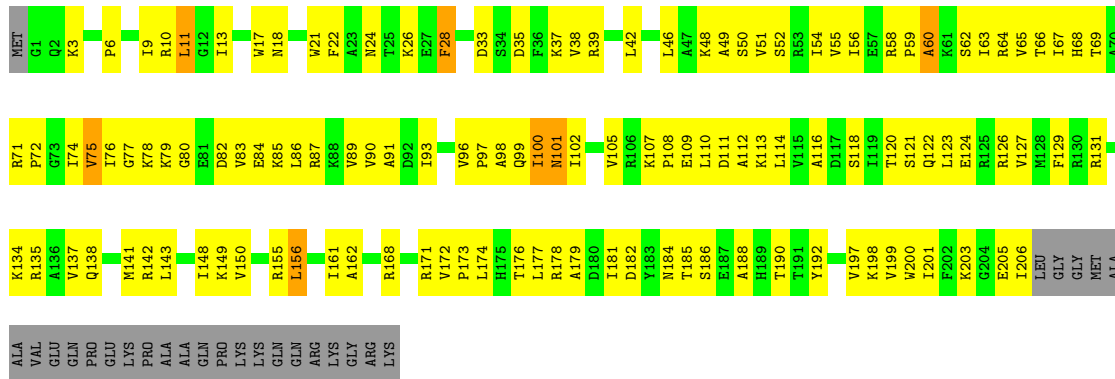
- Molecule 32: 30S ribosomal protein S2

Chain 6: 

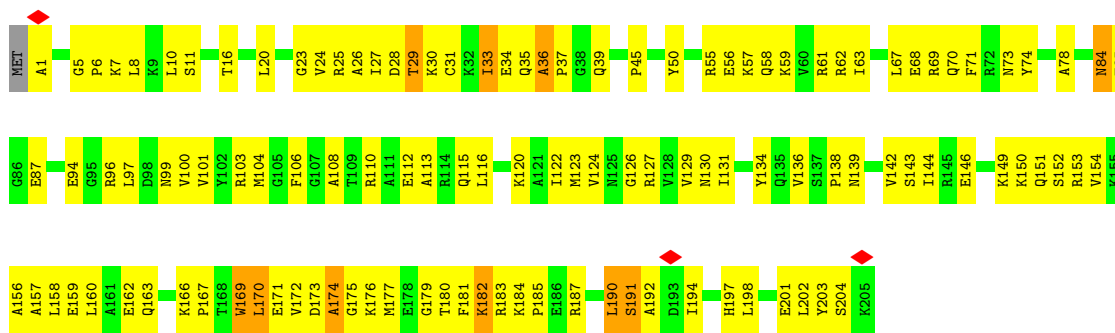




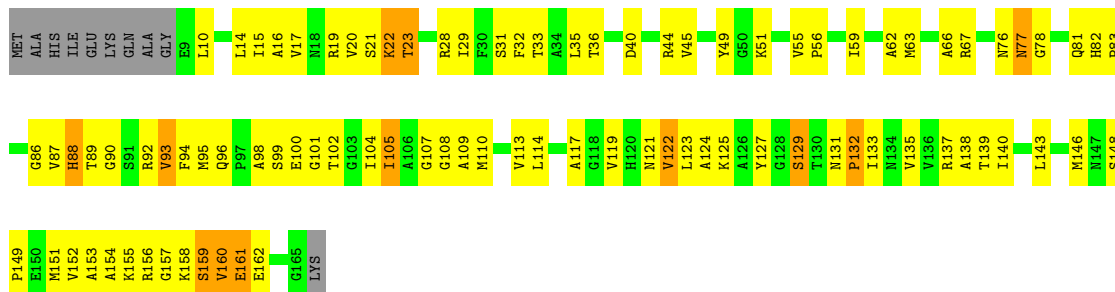
• Molecule 33: 30S ribosomal protein S3



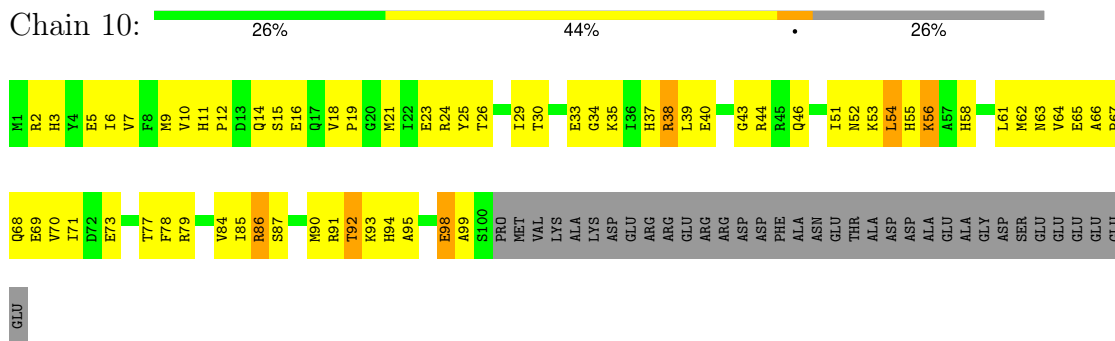
• Molecule 34: 30S ribosomal protein S4



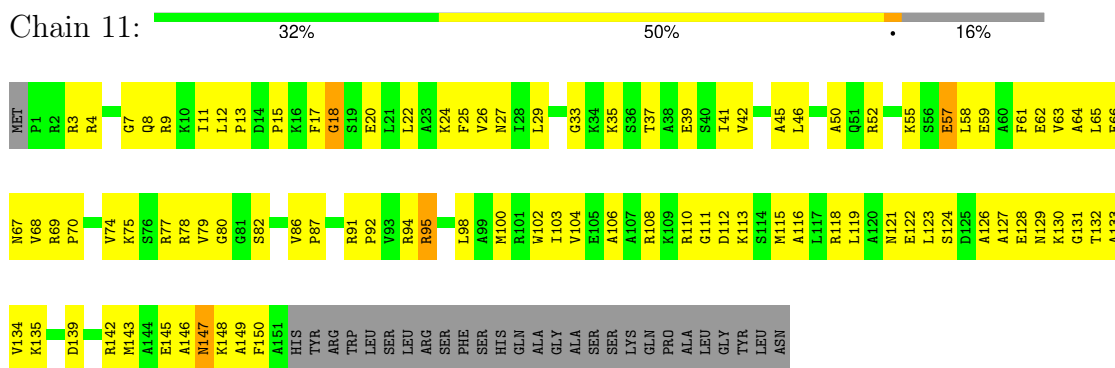
• Molecule 35: 30S ribosomal protein S5



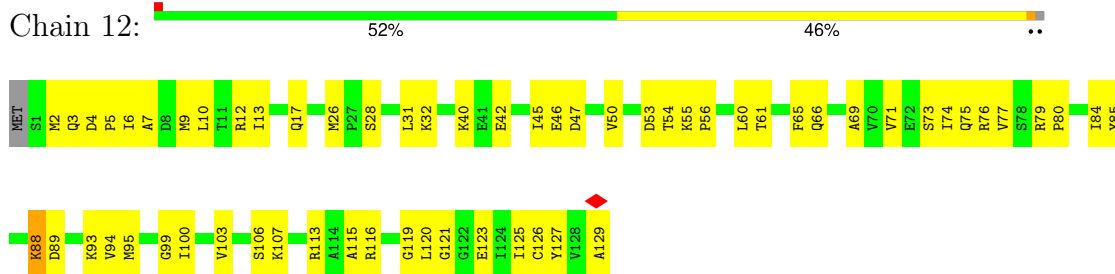
• Molecule 36: 30S ribosomal protein S6



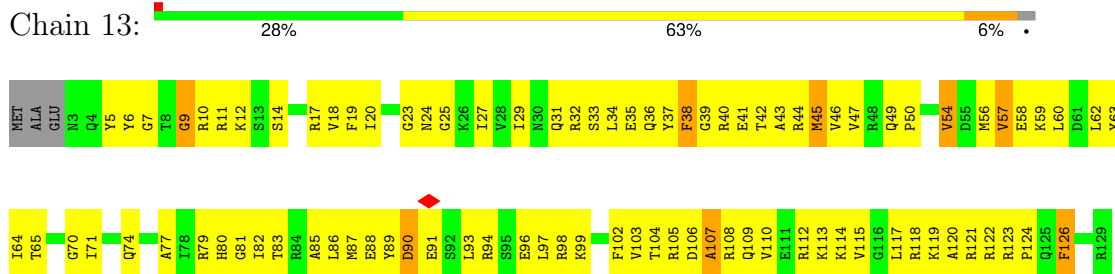
• Molecule 37: 30S ribosomal protein S7



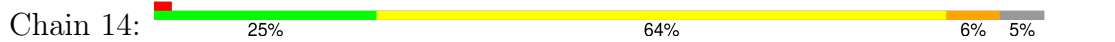
• Molecule 38: 30S ribosomal protein S8

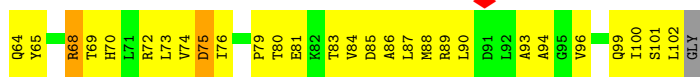


• Molecule 39: 30S ribosomal protein S9



• Molecule 40: 30S ribosomal protein S10

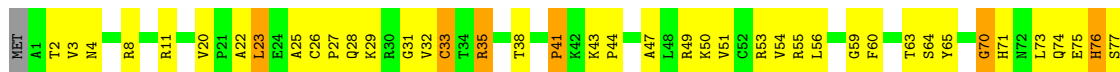




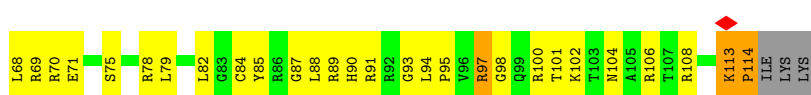
• Molecule 41: 30S ribosomal protein S11



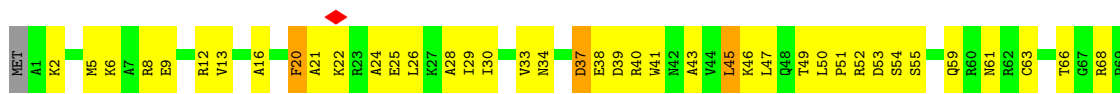
• Molecule 42: 30S ribosomal protein S12



• Molecule 43: 30S ribosomal protein S13



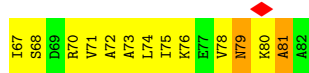
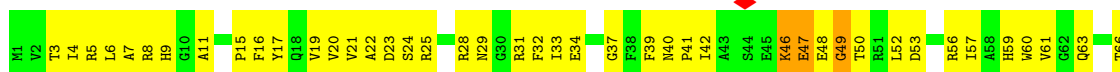
• Molecule 44: 30S ribosomal protein S14



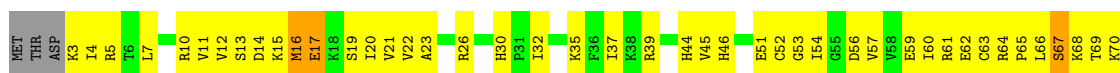
• Molecule 45: 30S ribosomal protein S15



• Molecule 46: 30S ribosomal protein S16



• Molecule 47: 30S ribosomal protein S17



• Molecule 48: 30S ribosomal protein S18



• Molecule 49: 30S ribosomal protein S19



• Molecule 50: 30S ribosomal protein S20



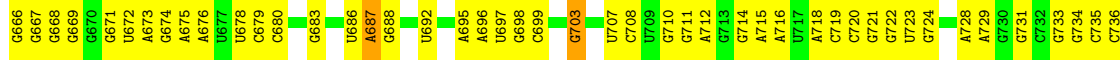
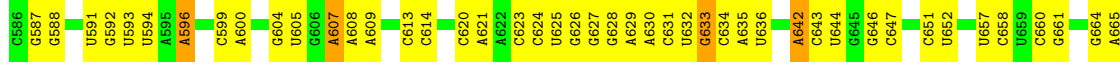
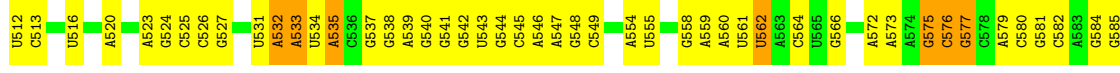
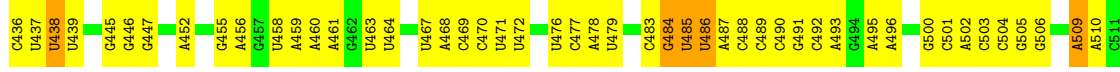
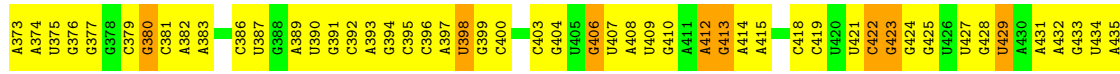
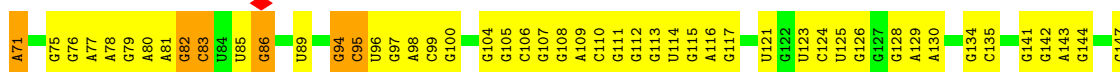
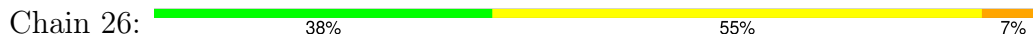


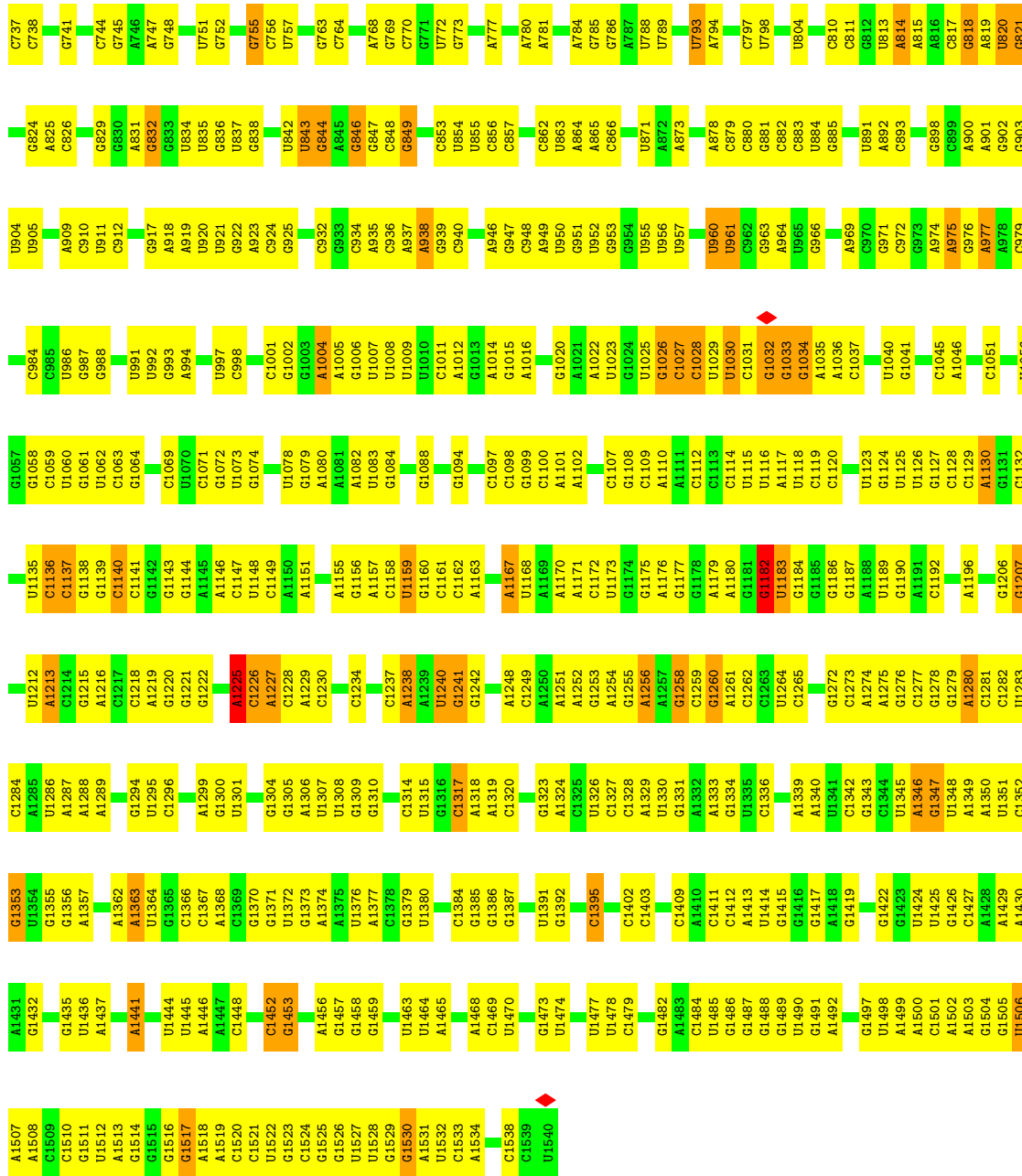
A86

• Molecule 51: 30S ribosomal protein S21

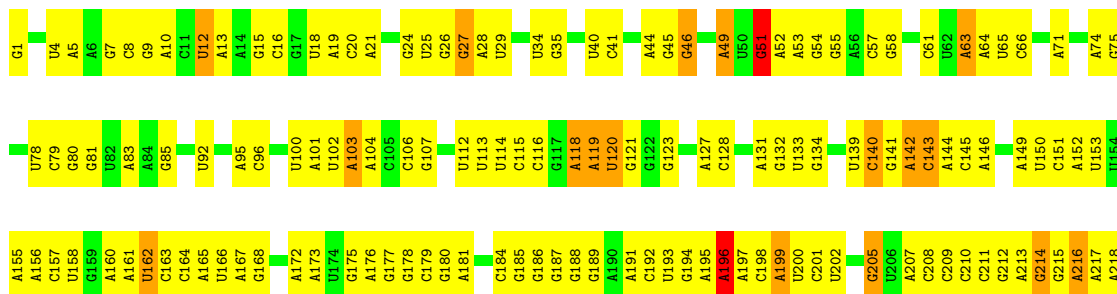


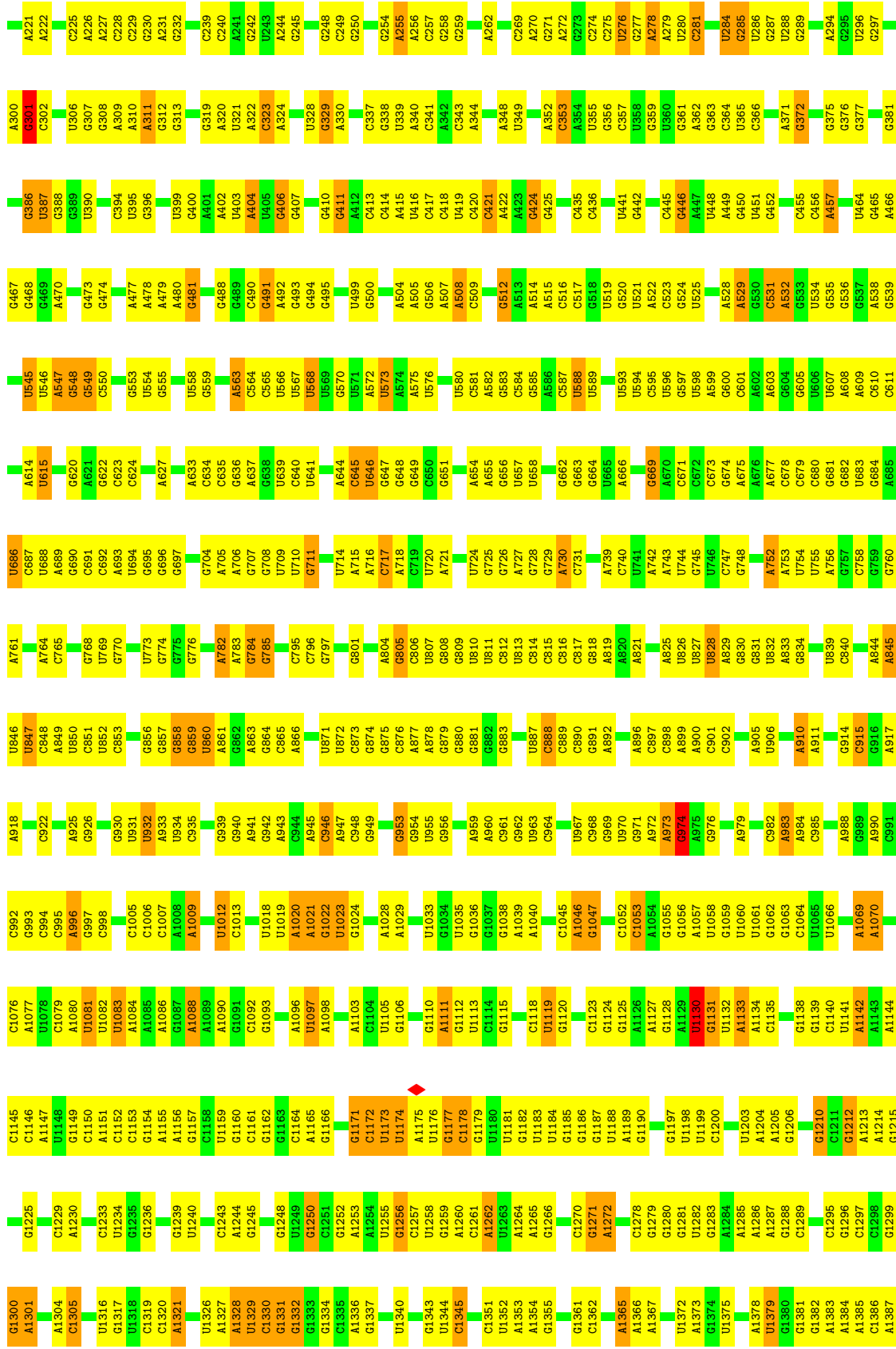
• Molecule 52: 16S ribosomal RNA



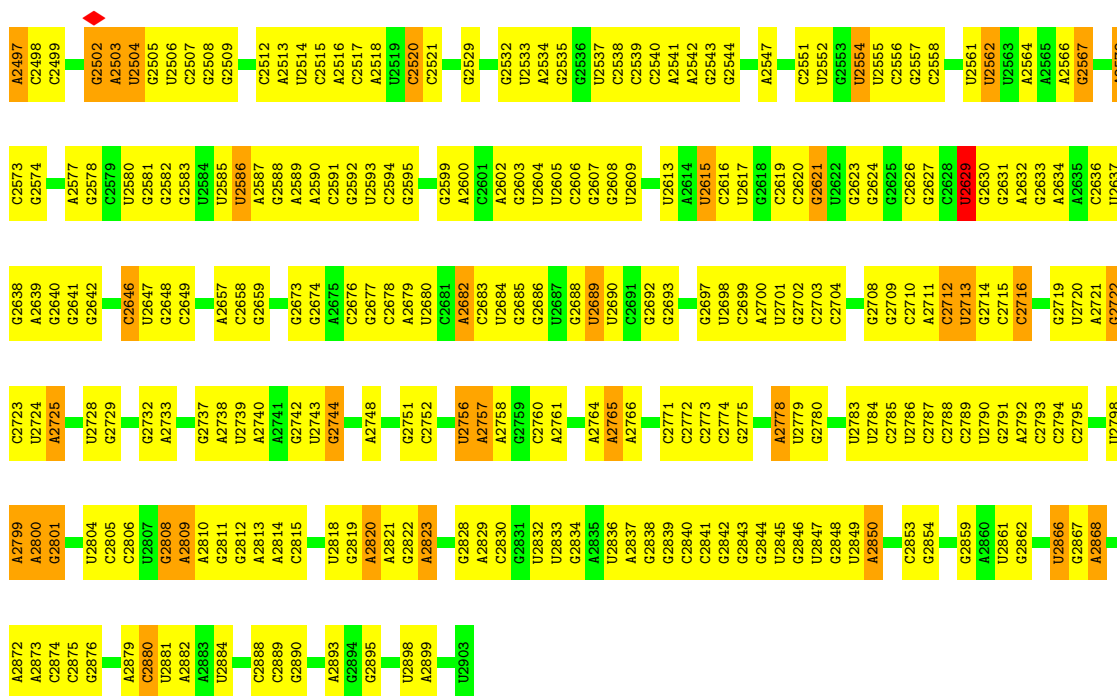


● Molecule 53: 23S ribosomal RNA

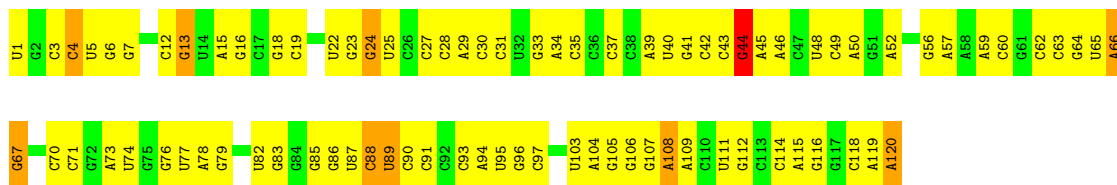
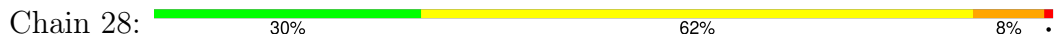




A2418	U2419	C2420	U2423	C2424	A2425	G2428	U2429	A2430	A2435	A2439	C2440	U2441	C2442	C2443	G2444	G2447	A2448	U2449	A2450	A2453	G2454	C2455	U2457	C2458	A2459	A2460	A2461	C2462	G2464	C2465	G2472	C2475	A2476	U2478	A2478	U2479	C2480	G2481	A2482	C2483	G2488	U2489	C2490	U2491	U2492	C2493	G2494							
U2348	G2349	C2350	A2352	G2353	C2354	G2355	U2356	G2357	A2358	C2359	G2361	C2362	G2363	C2364	G2365	A2366	C2367	A2368	G2369	U2370	G2371	C2372	G2373	C2374	C2380	A2381	G2382	C2383	U2384	C2385	A2388	G2389	U2390	G2391	A2392	U2393	C2394	U2401	U2402	C2403	U2404	A2405	C2406	U2407	U2408	G2409	G2410	A2411	C2412	U2413	G2414	C2415	G2416	C2417
G2277	A2278	A2281	C2282	G2283	A2284	C2285	G2286	A2287	A2288	G2289	U2291	U2292	G2293	C2294	C2295	U2296	A2297	A2298	U2299	C2300	C2301	U2302	U2305	G2308	A2309	C2310	A2311	U2312	C2313	A2314	G2315	C2316	A2317	G2318	C2319	U2320	U2321	A2322	C2323	U2324	G2325	C2326	A2327	U2328	U2329	G2330	U2334	C2342	U2343	U2344	G2345	A2346	C2347	
G2186	G2187	U2189	C2191	G2192	U2197	A2198	A2199	C2200	U2203	G2204	C2208	U2209	U2210	A2211	C2215	G2216	U2220	G2221	C2222	G2223	G2224	C2225	C2226	U2229	G2230	U2231	C2232	U2233	G2234	G2238	U2239	U2240	G2242	U2243	U2244	U2245	G2246	C2247	C2248	U2249	C2261	U2262	A2266	A2267	A2268	U2272	G2273	A2274	U2275					
G2126	A2127	G2128	C2129	U2130	U2131	G2132	A2133	A2134	A2135	U2136	U2137	U2138	U2139	G2140	G2141	A2142	C2143	C2144	C2145	A2146	A2147	U2148	U2149	C2150	U2151	C2152	C2153	A2154	U2155	C2156	G2157	A2158	G2159	C2160	C2161	A2163	C2164	U2165	U2166	U2167	A2168	C2169	A2170	U2171	U2172	C2173	C2174	C2175	A2176	U2180	U2182	A2183	U2184	U2185
A2052	G2053	A2054	C2055	G2056	A2059	A2060	G2061	A2062	C2063	G2064	C2065	G2066	G2067	U2068	G2069	A2070	C2072	U2071	A2080	U2081	G2087	A2088	G2093	A2094	C2095	C2096	A2097	U2098	U2099	C2103	C2104	U2105	U2106	G2107	A2108	U2109	G2110	A2110	G2111	U2112	U2113	A2114	G2115	C2116	A2117	U2118	U2119	U2122	G2123					
G1980	A1981	U1982	G1989	C1990	U1991	G1992	C1995	U1996	C1997	A1998	C1999	C2000	G2001	C2008	A2009	G2010	U2011	A2019	A2020	C2021	U2022	C2023	C2024	C2025	U2026	G2027	U2028	G2029	A2030	A2031	G2032	U2034	G2035	C2036	A2037	G2038	U2039	U2040	A2042	C2043	G2046	G2048	U2049	A2051										
U1818	A1821	G1824	U1825	G1826	U1827	G1828	A1829	C1836	U1837	C1838	G1842	C1843	C1844	G1845	U1846	G1847	A1848	G1849	U1850	U1851	U1852	A1853	U1854	G1857	A1858	G1863	U1864	U1865	A1866	G1867	C1868	G1869	C1870	A1871	G1872	U1873	C1874	G1875	A1876	C1877	U1878	C1879	U1880	C1881	U1882	U1883	G1884	A1885	G1888	C1893	C1894			
U1744	A1745	A1746	U1747	U1748	A1749	A1757	U1758	U1764	U1765	G1766	G1770	C1771	A1772	A1773	C1774	U1775	U1776	U1779	U1780	U1781	U1782	A1783	A1784	A1785	C1788	U1789	C1790	A1791	C1795	U1796	U1797	U1798	G1799	C1800	A1801	A1802	C1803	C1804	U1805	C1806	G1807	A1808	A1809	A1810	U1811	U1812	U1813	G1814	A1815	C1816	U1817			
C1656	U1657	C1658	U1662	G1663	A1664	U1665	G1666	U1667	A1668	C1670	U1671	A1672	G1673	C1674	U1675	A1676	A1679	U1680	G1681	G1682	U1683	C1684	A1685	C1686	U1689	U1690	C1691	A1692	U1693	G1694	C1695	U1696	G1697	A1698	G1699	G1702	C1703	C1704	A1705	U1709	U1710	A1713	U1714	G1715	A1722	U1729	C1730	G1731	C1732	U1738	A1739	G1740		
C1558	U1559	G1560	C1561	U1562	U1563	A1564	C1565	U1566	A1567	G1568	A1570	A1571	C1572	C1573	U1574	C1575	U1576	A1580	A1591	C1592	U1593	G1510	U1511	A1512	C1513	U1514	A1515	U1516	U1520	G1521	A1528	G1529	A1535	C1536	U1539	G1540	U1541	U1542	G1543	A1544	U1545	G1546	C1547	A1548	U1549	C1550	A1551							
G1388	U1394	G1395	U1396	C1399	U1400	A1403	C1404	U1405	U1406	U1411	U1412	G1416	C1417	G1418	A1427	G1428	G1429	A1431	U1432	A1433	A1434	C1435	U1436	U1437	U1438	A1439	U1440	G1441	U1442	U1443	G1444	G1445	C1446	C1447	G1448	A1453	C1454	G1455	U1458	G1459	U1460	C1461	G1462	G1464	G1465	U1466	A1469							



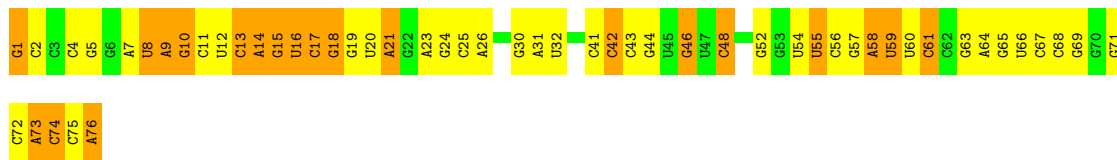
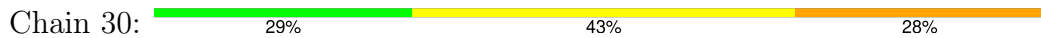
• Molecule 54: 5S ribosomal RNA



• Molecule 55: mRNA

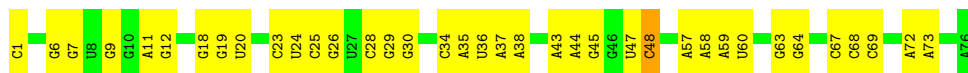


• Molecule 56: A-site tRNA^{Phe}

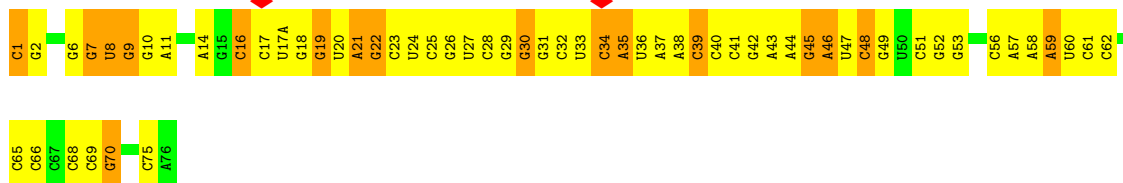


• Molecule 57: P-site tRNA^{fMet}

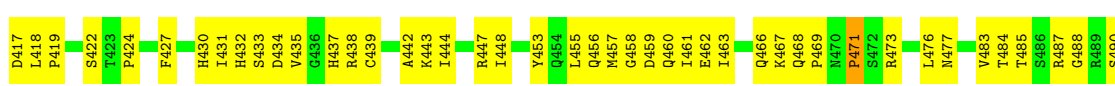
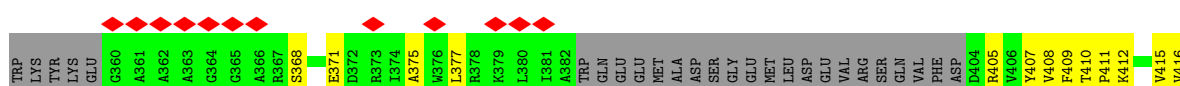
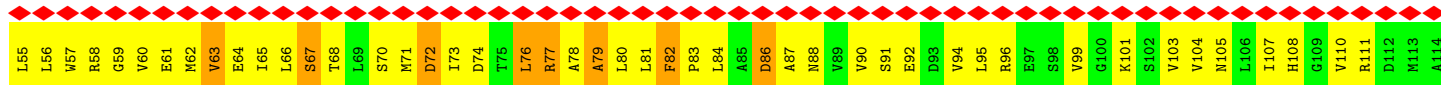


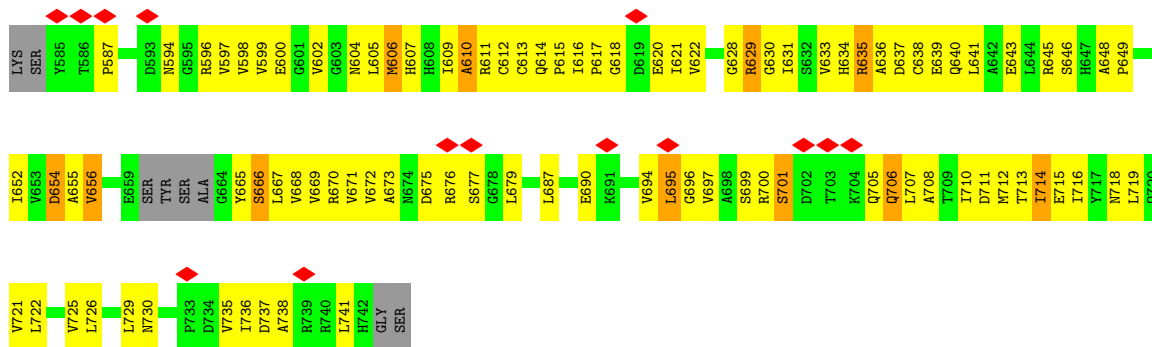


• Molecule 58: E-site tRNAfMet



• Molecule 59: GTP pyrophosphokinase





4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	77862	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 ($e^-/\text{\AA}^2$)	1.6	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	2200	Depositor
Magnification	30488	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.469	Depositor
Minimum map value	-0.137	Depositor
Average map value	-0.006	Depositor
Map value standard deviation	0.041	Depositor
Recommended contour level	0.1	Depositor
Map size (\AA)	393.6, 393.6, 393.6	wwPDB
Map dimensions	480, 480, 480	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	0.82, 0.82, 0.82	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.29	0/2121	0.64	0/2852
2	B	0.33	0/1586	0.62	0/2134
3	C	0.34	0/1571	0.62	0/2113
4	D	0.34	0/1434	0.58	0/1926
5	E	0.30	0/1343	0.62	0/1816
6	F	0.36	0/1122	0.68	0/1515
7	G	0.41	0/1001	0.74	1/1350 (0.1%)
8	H	0.38	0/1046	0.72	1/1410 (0.1%)
9	I	0.30	0/1152	0.61	0/1551
10	J	0.30	0/947	0.63	0/1268
11	K	0.30	0/1054	0.66	0/1403
12	L	0.33	0/1093	0.59	0/1460
13	M	0.32	0/973	0.63	0/1301
14	N	0.28	0/902	0.57	0/1209
15	O	0.32	0/929	0.61	0/1242
16	P	0.32	0/960	0.56	0/1278
17	Q	0.35	0/829	0.67	1/1107 (0.1%)
18	R	0.27	0/864	0.65	0/1156
19	S	0.30	0/744	0.61	0/994
20	T	0.35	0/787	0.69	0/1051
21	U	0.32	0/766	0.58	0/1025
22	V	0.34	0/582	0.60	0/769
23	W	0.34	0/635	0.63	0/848
24	X	0.31	0/510	0.59	0/677
25	Y	0.30	0/453	0.55	0/605
26	Z	0.37	0/531	0.91	3/709 (0.4%)
27	1	0.28	0/450	0.56	0/599
28	2	0.32	0/416	0.57	0/554
29	3	0.35	0/380	0.58	0/498
30	4	0.32	0/513	0.61	0/676
31	5	0.29	0/303	0.63	0/397
32	6	0.37	0/1735	0.60	0/2338
33	7	0.32	0/1651	0.60	0/2225
34	8	0.32	0/1665	0.60	0/2227

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
35	9	0.31	0/1169	0.70	1/1573 (0.1%)
36	10	0.34	0/835	0.64	0/1128
37	11	0.29	0/1195	0.60	0/1602
38	12	0.31	0/989	0.60	0/1326
39	13	0.33	0/1034	0.66	0/1375
40	14	0.31	0/796	0.62	0/1077
41	15	0.33	0/885	0.68	0/1195
42	16	0.33	0/969	0.73	0/1300
43	17	0.28	0/892	0.63	0/1193
44	18	0.40	0/817	0.58	0/1088
45	19	0.28	0/722	0.55	0/964
46	20	0.35	0/659	0.64	1/884 (0.1%)
47	21	0.33	0/657	0.66	0/881
48	22	0.34	0/544	0.67	0/731
49	23	0.33	0/652	0.62	0/877
50	24	0.29	0/671	0.55	0/888
51	25	0.38	0/550	0.73	0/728
52	26	0.38	1/36967 (0.0%)	0.70	5/57666 (0.0%)
53	27	0.39	1/69801 (0.0%)	0.70	5/108894 (0.0%)
54	28	0.36	1/2876 (0.0%)	0.70	1/4483 (0.0%)
55	29	0.84	0/486	0.70	0/757
56	30	0.50	1/1813 (0.1%)	0.74	0/2823
57	31	0.37	1/1836 (0.1%)	0.68	0/2859
58	32	0.80	2/1835 (0.1%)	0.74	1/2857 (0.0%)
59	33	0.66	6/4985 (0.1%)	1.08	38/6770 (0.6%)
All	All	0.39	13/167683 (0.0%)	0.70	58/250202 (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
52	26	0	9
53	27	0	22
56	30	0	1
59	33	0	2
All	All	0	34

All (13) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	33	156	ARG	CZ-NH2	-10.64	1.19	1.33
59	33	152	LYS	CD-CE	-7.75	1.31	1.51
59	33	17	PRO	CA-CB	-7.24	1.39	1.53
52	26	2	A	OP3-P	-7.10	1.52	1.61
58	32	1	C	OP3-P	-7.09	1.52	1.61
53	27	1	G	OP3-P	-7.00	1.52	1.61
57	31	1	C	OP3-P	-6.96	1.52	1.61
54	28	1	U	OP3-P	-6.94	1.52	1.61
56	30	1	G	OP3-P	-6.92	1.52	1.61
59	33	20	TRP	NE1-CE2	-6.60	1.28	1.37
59	33	20	TRP	CG-CD1	-6.12	1.28	1.36
58	32	39	C	N1-C2	5.39	1.45	1.40
59	33	20	TRP	CD2-CE2	-5.16	1.35	1.41

All (58) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	33	156	ARG	NE-CZ-NH1	19.60	130.10	120.30
59	33	156	ARG	NH1-CZ-NH2	-13.76	104.26	119.40
59	33	17	PRO	N-CA-CB	-11.19	89.87	103.30
59	33	17	PRO	CA-CB-CG	10.30	124.37	104.80
59	33	63	VAL	CG1-CB-CG2	-9.24	96.11	110.90
59	33	156	ARG	NE-CZ-NH2	-9.01	115.79	120.30
26	Z	18	CYS	CA-CB-SG	8.90	130.03	114.00
59	33	152	LYS	CD-CE-NZ	8.56	131.38	111.70
59	33	38	THR	CA-CB-CG2	-8.37	100.68	112.40
59	33	332	LYS	CA-CB-CG	8.36	131.80	113.40
59	33	197	GLU	OE1-CD-OE2	-8.23	113.42	123.30
59	33	232	PHE	CD1-CE1-CZ	7.80	129.46	120.10
59	33	24	LEU	CB-CG-CD2	-7.71	97.90	111.00
59	33	327	LEU	CD1-CG-CD2	-7.28	88.66	110.50
59	33	152	LYS	CB-CG-CD	-7.26	92.73	111.60
59	33	17	PRO	CB-CA-C	-6.91	94.74	112.00
59	33	169	ASP	CB-CG-OD1	6.63	124.26	118.30
26	Z	40	CYS	CA-CB-SG	6.62	125.92	114.00
35	9	101	GLY	N-CA-C	-6.58	96.66	113.10
59	33	86	ASP	CB-CG-OD1	-6.38	112.56	118.30
59	33	351	VAL	CB-CA-C	6.36	123.48	111.40
59	33	225	ARG	NE-CZ-NH2	-6.15	117.22	120.30
59	33	170	GLU	OE1-CD-OE2	6.05	130.57	123.30
59	33	76	LEU	N-CA-CB	-5.97	98.47	110.40
59	33	79	ALA	CB-CA-C	5.91	118.97	110.10
59	33	77	ARG	NE-CZ-NH2	5.84	123.22	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	27	974	G	N9-C1'-C2'	5.83	121.57	114.00
59	33	149	VAL	CA-CB-CG1	-5.82	102.17	110.90
59	33	471	PRO	N-CA-CB	5.78	110.23	103.30
46	20	46	LYS	N-CA-C	-5.66	95.72	111.00
53	27	2287	A	N9-C1'-C2'	5.62	121.31	114.00
59	33	469	PRO	N-CA-CB	5.60	110.02	103.30
59	33	82	PHE	CB-CG-CD2	5.60	124.72	120.80
59	33	587	PRO	N-CA-CB	5.59	110.01	103.30
26	Z	21	VAL	N-CA-C	-5.59	95.91	111.00
52	26	1182	G	N9-C1'-C2'	5.55	121.22	114.00
53	27	1130	U	C2'-C3'-O3'	5.50	122.50	113.70
59	33	293	LEU	CB-CG-CD1	-5.49	101.67	111.00
53	27	2504	U	O4'-C1'-N1	5.45	112.56	108.20
59	33	490	SER	N-CA-C	-5.45	96.30	111.00
54	28	44	G	N9-C1'-C2'	5.38	120.99	114.00
59	33	243	GLU	OE1-CD-OE2	5.35	129.72	123.30
53	27	301	G	N9-C1'-C2'	5.30	120.89	114.00
59	33	225	ARG	NE-CZ-NH1	5.30	122.95	120.30
52	26	1225	A	N9-C1'-C2'	5.27	120.85	114.00
59	33	232	PHE	CG-CD1-CE1	-5.26	115.01	120.80
59	33	210	GLU	CA-CB-CG	-5.26	101.83	113.40
52	26	1256	A	N9-C1'-C2'	5.24	120.82	114.00
59	33	67	SER	O-C-N	-5.23	114.33	122.70
52	26	818	G	N9-C1'-C2'	5.15	120.70	114.00
7	G	107	GLU	N-CA-C	-5.10	97.24	111.00
8	H	5	GLN	N-CA-C	-5.06	97.33	111.00
17	Q	44	GLY	N-CA-C	-5.05	100.47	113.10
59	33	197	GLU	CG-CD-OE2	5.05	128.41	118.30
59	33	161	ARG	NE-CZ-NH1	5.05	122.82	120.30
52	26	1363	A	N9-C1'-C2'	5.05	120.56	114.00
59	33	77	ARG	NE-CZ-NH1	-5.02	117.79	120.30
58	32	1	C	OP1-P-OP2	-5.00	112.10	119.60

There are no chirality outliers.

All (34) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
52	26	1026	G	Sidechain
52	26	1167	A	Sidechain
52	26	1182	G	Sidechain
52	26	1504	G	Sidechain
52	26	159	G	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
52	26	380	G	Sidechain
52	26	820	U	Sidechain
52	26	898	G	Sidechain
52	26	938	A	Sidechain
53	27	1081	U	Sidechain
53	27	1171	G	Sidechain
53	27	1328	A	Sidechain
53	27	1331	G	Sidechain
53	27	1647	U	Sidechain
53	27	1713	A	Sidechain
53	27	1814	G	Sidechain
53	27	1828	G	Sidechain
53	27	1937	A	Sidechain
53	27	196	A	Sidechain
53	27	2124	G	Sidechain
53	27	214	G	Sidechain
53	27	2210	U	Sidechain
53	27	2401	U	Sidechain
53	27	2475	C	Sidechain
53	27	2629	U	Sidechain
53	27	27	G	Sidechain
53	27	2725	A	Sidechain
53	27	2751	G	Sidechain
53	27	446	G	Sidechain
53	27	51	G	Sidechain
53	27	512	G	Sidechain
56	30	15	G	Sidechain
59	33	156	ARG	Sidechain
59	33	41	TYR	Sidechain

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	A	2082	0	2157	111	0
2	B	1565	0	1616	100	0
3	C	1552	0	1619	102	0
4	D	1410	0	1447	120	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	E	1323	0	1374	77	0
6	F	1111	0	1148	93	0
7	G	988	0	1025	135	0
8	H	1032	0	1088	109	0
9	I	1129	0	1162	65	0
10	J	938	0	1012	64	0
11	K	1045	0	1117	88	0
12	L	1074	0	1157	62	0
13	M	960	0	1000	65	0
14	N	892	0	923	51	0
15	O	917	0	965	61	0
16	P	947	0	1022	72	0
17	Q	816	0	839	54	0
18	R	857	0	922	45	0
19	S	738	0	807	51	0
20	T	779	0	834	55	0
21	U	753	0	780	37	0
22	V	575	0	592	31	0
23	W	625	0	655	32	0
24	X	509	0	543	40	0
25	Y	449	0	491	25	0
26	Z	522	0	521	41	0
27	1	444	0	461	36	0
28	2	409	0	440	17	0
29	3	377	0	418	35	0
30	4	504	0	574	32	0
31	5	302	0	343	28	0
32	6	1704	0	1732	100	0
33	7	1624	0	1699	126	0
34	8	1643	0	1710	136	0
35	9	1156	0	1199	80	0
36	10	817	0	808	68	0
37	11	1181	0	1240	65	0
38	12	979	0	1034	59	0
39	13	1022	0	1070	118	0
40	14	786	0	828	83	0
41	15	869	0	878	65	0
42	16	955	0	1019	65	0
43	17	883	0	944	85	0
44	18	805	0	847	62	0
45	19	714	0	737	26	0
46	20	649	0	666	62	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
47	21	648	0	691	50	0
48	22	535	0	552	40	0
49	23	637	0	665	52	0
50	24	665	0	714	42	0
51	25	544	0	579	72	0
52	26	33016	0	16617	892	0
53	27	62322	0	31345	1639	0
54	28	2572	0	1302	90	0
55	29	432	0	218	13	0
56	30	1623	0	821	66	0
57	31	1644	0	836	26	0
58	32	1643	0	836	76	0
59	33	4911	0	4550	616	0
All	All	154603	0	105189	6144	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 24.

All (6144) 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)
52:26:484:G:H4'	52:26:485:U:H5'	1.23	1.18
59:33:17:PRO:HB3	59:33:39:TRP:NE1	1.57	1.18
51:25:20:ARG:HH22	52:26:1538:C:H1'	1.05	1.13
59:33:65:ILE:HG21	59:33:157:ILE:HD11	1.31	1.11
59:33:188:ARG:HH12	59:33:377:LEU:HA	1.08	1.11
59:33:188:ARG:NH1	59:33:377:LEU:HA	1.67	1.10
53:27:45:G:H5''	53:27:46:G:H5'	1.25	1.09
59:33:63:VAL:HG11	59:33:80:LEU:HG	1.34	1.08
53:27:1172:C:H2'	53:27:1173:U:H4'	1.15	1.08
59:33:24:LEU:HD21	59:33:70:SER:HA	1.19	1.08
9:I:32:LEU:HD11	9:I:54:ILE:HG21	1.35	1.07
53:27:2109:U:H2'	53:27:2110:G:H4'	1.35	1.07
56:30:54:U:H3'	56:30:55:U:H5''	1.34	1.06
41:15:30:ILE:HD13	41:15:45:THR:HG22	1.38	1.06
51:25:66:ARG:HG3	52:26:1099:G:H4'	1.38	1.06
35:9:107:GLY:HA3	52:26:9:G:H5'	1.32	1.06
33:7:63:ILE:HG23	33:7:98:ALA:HA	1.36	1.05
43:17:8:ILE:H	43:17:9:PRO:CD	1.70	1.05
12:L:12:MET:HA	53:27:910:A:H62	1.18	1.04
59:33:188:ARG:HH11	59:33:377:LEU:CB	1.70	1.04

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:59:GLY:HA2	59:33:82:PHE:CE1	1.93	1.04
29:3:34:ARG:HE	29:3:39:ARG:HD2	1.18	1.03
1:A:116:GLN:HE21	1:A:121:ALA:HA	1.24	1.02
8:H:113:ALA:HA	8:H:116:MET:HB2	1.41	1.02
14:N:17:LYS:HZ1	53:27:2380:C:H5'	1.23	1.02
7:G:34:THR:HG21	53:27:1057:A:H1'	1.42	1.01
59:33:77:ARG:HH12	59:33:103:VAL:HG21	1.24	1.01
52:26:1033:G:H3'	52:26:1034:G:H5''	1.43	1.00
33:7:107:LYS:HD2	33:7:143:LEU:HD21	1.44	1.00
59:33:31:SER:HB3	59:33:73:ILE:HG21	1.38	1.00
56:30:18:G:H1	56:30:55:U:H1'	1.27	0.99
59:33:232:PHE:CE1	59:33:329:PRO:HD2	1.97	0.99
52:26:1259:C:H3'	52:26:1260:G:H5''	1.43	0.99
59:33:188:ARG:NH1	59:33:377:LEU:CB	2.26	0.98
39:13:11:ARG:HH21	39:13:108:ARG:HH21	1.10	0.98
59:33:66:LEU:HD12	59:33:79:ALA:HB2	1.44	0.98
51:25:20:ARG:NH2	52:26:1538:C:H1'	1.79	0.97
59:33:188:ARG:NH1	59:33:377:LEU:CA	2.28	0.97
59:33:188:ARG:HH12	59:33:377:LEU:CA	1.78	0.97
46:20:46:LYS:HG3	46:20:47:GLU:H	1.26	0.96
6:F:84:ALA:HB2	6:F:90:LEU:HD12	1.48	0.96
43:17:18:LEU:HD12	43:17:33:LEU:HD11	1.47	0.96
59:33:44:GLN:HB3	59:33:45:GLN:HB2	1.46	0.96
34:8:36:ALA:H	34:8:37:PRO:HD3	1.32	0.95
59:33:49:HIS:HB3	59:33:50:PRO:HD2	1.47	0.95
59:33:327:LEU:HA	59:33:332:LYS:HA	1.49	0.95
59:33:617:PRO:HB2	59:33:719:LEU:HD11	1.46	0.95
59:33:95:LEU:O	59:33:99:VAL:HG12	1.67	0.94
42:16:32:VAL:HA	42:16:78:VAL:HG12	1.49	0.94
53:27:1326:U:H2'	53:27:1327:A:H8	1.30	0.94
34:8:172:VAL:HG22	34:8:174:ALA:H	1.29	0.94
53:27:1172:C:C2'	53:27:1173:U:H4'	1.97	0.94
59:33:169:ASP:O	59:33:170:GLU:HG3	1.67	0.94
8:H:101:SER:HB2	8:H:104:GLN:HG3	1.48	0.94
53:27:1304:A:H2'	53:27:1305:C:H5''	1.50	0.93
59:33:62:MET:CE	59:33:79:ALA:HA	1.97	0.93
8:H:29:GLN:HE22	53:27:1096:A:H61	1.16	0.93
53:27:1300:G:H4'	53:27:1301:A:H5'	1.48	0.93
7:G:82:ILE:HG22	7:G:83:ALA:H	1.31	0.92
52:26:167:A:H2'	52:26:168:G:H5''	1.51	0.92
4:D:161:SER:HB3	4:D:164:GLU:HG3	1.52	0.91

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:7:96:VAL:HB	33:7:97:PRO:HD2	1.52	0.91
33:7:171:ARG:HG2	33:7:173:PRO:HD3	1.52	0.91
59:33:38:THR:HG21	59:33:77:ARG:HB3	1.53	0.91
37:11:149:ALA:HB1	41:15:58:THR:HG21	1.51	0.90
59:33:214:ILE:HD11	59:33:260:TRP:HE3	1.35	0.90
52:26:235:C:H2'	52:26:236:A:H8	1.36	0.89
52:26:484:G:H4'	52:26:485:U:C5'	2.02	0.89
59:33:432:HIS:HB3	59:33:435:VAL:HG23	1.52	0.89
27:1:46:GLY:HA3	27:1:54:ILE:HB	1.52	0.89
47:21:46:HIS:HB2	47:21:70:LYS:HD3	1.52	0.89
53:27:2800:A:H3'	53:27:2801:G:H5'	1.52	0.89
3:C:108:ILE:HD11	3:C:181:ILE:HG23	1.54	0.89
31:5:1:MET:HG3	31:5:2:LYS:H	1.36	0.89
47:21:64:ARG:HD2	52:26:264:C:H4'	1.55	0.89
8:H:15:GLY:HA3	8:H:50:LYS:HD2	1.54	0.88
53:27:1702:G:H2'	53:27:1703:G:H5''	1.56	0.88
2:B:122:VAL:HG21	2:B:141:ARG:HH21	1.37	0.88
59:33:24:LEU:CD2	59:33:70:SER:HA	2.02	0.88
59:33:82:PHE:CG	59:33:83:PRO:HD3	2.08	0.88
21:U:75:GLN:HB2	21:U:92:VAL:HG23	1.54	0.88
59:33:81:LEU:HA	59:33:84:LEU:HD13	1.54	0.88
51:25:66:ARG:HG3	52:26:1099:G:C4'	2.03	0.87
53:27:581:C:H2'	53:27:582:A:C8	2.09	0.87
53:27:1172:C:H2'	53:27:1173:U:C4'	2.04	0.87
7:G:28:ALA:HB3	7:G:111:ALA:HB3	1.55	0.87
12:L:29:GLY:HA2	12:L:106:ASP:HB2	1.57	0.87
59:33:143:VAL:HG22	59:33:145:ASP:H	1.37	0.87
59:33:225:ARG:HD2	59:33:276:VAL:HG13	1.56	0.87
1:A:156:SER:HB2	53:27:1818:U:H5'	1.57	0.87
59:33:175:ALA:HA	59:33:178:CYS:SG	2.14	0.87
59:33:300:TYR:CE1	59:33:329:PRO:HD3	2.10	0.87
59:33:63:VAL:HG11	59:33:80:LEU:CG	2.05	0.87
11:K:62:PRO:HB2	30:4:29:ARG:HH11	1.39	0.86
53:27:2156:G:H2'	53:27:2157:G:H5'	1.56	0.86
43:17:65:GLU:HG3	43:17:66:GLY:H	1.40	0.86
59:33:20:TRP:CE2	59:33:63:VAL:HB	2.10	0.86
4:D:28:PRO:HB3	4:D:159:ALA:HB2	1.56	0.86
59:33:96:ARG:HG2	59:33:104:VAL:HG11	1.54	0.86
59:33:74:ASP:HA	59:33:77:ARG:NH2	1.91	0.86
59:33:284:GLU:OE2	59:33:341:LYS:HE2	1.74	0.86
5:E:37:ASN:ND2	5:E:63:GLN:HE21	1.74	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:53:ARG:HB3	7:G:86:MET:H	1.41	0.86
59:33:375:ALA:HB1	59:33:457:MET:CE	2.06	0.86
40:14:40:ILE:HD12	40:14:73:LEU:HD22	1.58	0.85
21:U:9:ARG:HD3	21:U:39:ALA:HB1	1.58	0.85
33:7:155:ARG:HE	33:7:192:TYR:HB3	1.41	0.85
59:33:62:MET:HE3	59:33:79:ALA:HA	1.59	0.85
59:33:91:SER:O	59:33:94:VAL:HG12	1.76	0.85
59:33:61:GLU:O	59:33:64:GLU:HG2	1.76	0.85
20:T:3:LYS:HD2	20:T:82:VAL:HB	1.58	0.85
56:30:7:A:H3'	56:30:8:U:H5''	1.56	0.85
59:33:20:TRP:CH2	59:33:76:LEU:HB3	2.11	0.85
26:Z:11:GLU:HA	26:Z:25:ARG:HA	1.58	0.84
33:7:64:ARG:HG2	33:7:99:GLN:HB2	1.57	0.84
52:26:235:C:H2'	52:26:236:A:C8	2.12	0.84
48:22:41:SER:HB3	48:22:51:GLN:HE21	1.42	0.84
43:17:8:ILE:H	43:17:9:PRO:HD3	1.42	0.84
49:23:76:THR:HG21	52:26:1221:G:O3'	1.77	0.84
59:33:17:PRO:HG3	59:33:39:TRP:CZ2	2.12	0.84
8:H:98:GLY:HA3	8:H:137:LEU:HD13	1.58	0.84
20:T:14:THR:HB	53:27:310:A:H5''	1.59	0.84
59:33:197:GLU:HG2	59:33:201:TYR:CE2	2.12	0.84
39:13:40:ARG:HA	39:13:44:ARG:HD3	1.60	0.84
7:G:118:ILE:H	7:G:119:PRO:HD2	1.43	0.83
34:8:120:LYS:HE2	52:26:439:U:H5''	1.60	0.83
34:8:173:ASP:HB3	34:8:176:LYS:HB2	1.59	0.83
14:N:17:LYS:NZ	53:27:2380:C:H5'	1.93	0.83
15:O:91:VAL:HG21	15:O:96:LEU:HD11	1.60	0.83
53:27:1709:U:H2'	53:27:1710:G:H8	1.42	0.83
43:17:3:ILE:HG22	43:17:56:ARG:HG2	1.59	0.83
59:33:65:ILE:HG21	59:33:157:ILE:CD1	2.09	0.83
24:X:2:LYS:HE3	53:27:102:U:H1'	1.60	0.83
40:14:7:ARG:HD3	40:14:75:ASP:HB2	1.59	0.83
59:33:293:LEU:HD12	59:33:322:ILE:HG21	1.59	0.83
7:G:25:ALA:HA	7:G:115:GLY:HA2	1.60	0.83
53:27:2277:G:H2'	53:27:2278:A:H5''	1.59	0.83
2:B:4:LEU:HD11	2:B:100:LEU:HD21	1.60	0.83
59:33:24:LEU:HD21	59:33:70:SER:CA	2.07	0.83
43:17:113:LYS:HB2	43:17:114:PRO:HD3	1.61	0.83
59:33:408:VAL:HA	59:33:458:GLY:HA2	1.61	0.83
35:9:104:ILE:HD11	35:9:119:VAL:HG23	1.59	0.82
39:13:33:SER:HB3	39:13:36:GLN:HG2	1.60	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:132:ARG:HG2	1:A:166:ARG:HE	1.45	0.82
52:26:412:A:H62	52:26:431:A:H61	1.25	0.82
23:W:71:ARG:HB3	23:W:77:TYR:HE2	1.44	0.82
59:33:30:LYS:O	59:33:33:GLU:HG2	1.79	0.82
35:9:16:ALA:HB3	35:9:35:LEU:HB3	1.59	0.82
53:27:1906:G:H2'	53:27:1907:G:H5''	1.61	0.82
5:E:123:GLU:HG3	5:E:125:PRO:HD3	1.61	0.82
44:18:13:VAL:HA	44:18:59:GLN:HE22	1.42	0.82
25:Y:8:GLN:HB2	25:Y:28:LEU:HD23	1.62	0.82
54:28:3:C:H2'	54:28:4:C:H5''	1.61	0.82
44:18:68:ARG:NH1	44:18:70:HIS:HB2	1.95	0.82
41:15:23:HIS:HB3	41:15:30:ILE:HG23	1.62	0.82
16:P:3:VAL:HG22	53:27:1199:U:H1'	1.62	0.81
35:9:14:LEU:HA	35:9:36:THR:HG22	1.63	0.81
56:30:14:A:H2'	56:30:15:G:H8	1.44	0.81
58:32:34:C:H3'	58:32:35:A:H5''	1.61	0.81
24:X:6:LEU:HD13	24:X:56:LEU:HD22	1.62	0.81
53:27:955:U:H5	53:27:962:G:H1	1.28	0.81
59:33:43:LEU:HG	59:33:44:GLN:OE1	1.80	0.81
40:14:57:VAL:HG22	40:14:58:ASN:H	1.46	0.81
53:27:2267:A:H5''	53:27:2268:A:H5'	1.61	0.81
59:33:147:ARG:HA	59:33:150:VAL:HG12	1.60	0.81
34:8:170:LEU:HA	34:8:182:LYS:H	1.46	0.81
53:27:1796:U:H2'	53:27:1797:G:H8	1.45	0.81
53:27:2636:C:H2'	53:27:2637:U:C6	2.16	0.81
58:32:69:C:H2'	58:32:70:G:H5''	1.60	0.81
38:12:3:GLN:HE22	52:26:755:G:H21	1.27	0.81
53:27:2457:U:H5	53:27:2494:G:H1	1.26	0.81
12:L:20:LEU:HD13	21:U:81:PRO:HG2	1.63	0.81
17:Q:49:ILE:HB	17:Q:51:VAL:O	1.81	0.80
53:27:1872:A:H2'	53:27:1873:G:O4'	1.82	0.80
7:G:41:LEU:HD11	53:27:1082:U:H4'	1.62	0.80
52:26:112:G:H21	52:26:354:G:H5'	1.45	0.80
53:27:274:C:H2'	53:27:275:C:H5'	1.63	0.80
59:33:58:ARG:O	59:33:61:GLU:HG2	1.81	0.80
49:23:58:PRO:HG2	59:33:631:ILE:HG13	1.64	0.80
52:26:960:U:H4'	52:26:961:U:O5'	1.80	0.80
6:F:84:ALA:HA	6:F:91:PHE:HB2	1.63	0.80
26:Z:58:ASP:O	26:Z:62:LYS:HG2	1.81	0.80
34:8:27:ILE:HD12	34:8:27:ILE:H	1.47	0.80
37:11:12:LEU:HD12	37:11:13:PRO:HD2	1.63	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:167:A:C2'	52:26:168:G:H5''	2.12	0.80
8:H:126:ARG:HB3	53:27:1080:A:H4'	1.64	0.80
7:G:59:LEU:HG	7:G:61:ARG:H	1.47	0.80
34:8:36:ALA:N	34:8:37:PRO:HD3	1.95	0.80
41:15:118:ASN:HB2	52:26:718:A:H5'	1.63	0.80
53:27:310:A:O2'	53:27:311:A:H5''	1.82	0.80
53:27:1664:A:H61	53:27:1996:C:H42	1.26	0.80
59:33:45:GLN:HG2	59:33:46:THR:HG23	1.63	0.80
11:K:108:ALA:HB3	11:K:125:LEU:HG	1.63	0.80
38:12:28:SER:HB3	38:12:56:PRO:HB2	1.64	0.80
53:27:581:C:H2'	53:27:582:A:H8	1.47	0.80
42:16:109:ARG:NH1	52:26:537:G:H5''	1.96	0.79
33:7:59:PRO:HB3	40:14:94:ALA:HB2	1.64	0.79
47:21:22:VAL:HG21	47:21:60:ILE:HD11	1.64	0.79
3:C:129:PRO:HG3	3:C:156:ASN:HA	1.64	0.79
15:O:52:ARG:NH2	53:27:2720:U:H5''	1.98	0.79
40:14:30:LYS:HA	40:14:34:ALA:HA	1.63	0.79
59:33:59:GLY:HA2	59:33:82:PHE:CZ	2.18	0.79
59:33:77:ARG:NH1	59:33:103:VAL:HG21	1.98	0.79
7:G:82:ILE:HG22	7:G:83:ALA:N	1.97	0.79
49:23:10:ILE:HD12	49:23:15:LEU:HB2	1.63	0.79
27:1:51:ARG:HB3	27:1:53:VAL:HG13	1.65	0.79
46:20:5:ARG:HB2	52:26:376:G:H5''	1.65	0.79
55:29:7:G:H2'	55:29:8:A:C8	2.17	0.79
20:T:71:ILE:HD13	20:T:82:VAL:HG22	1.62	0.79
1:A:177:SER:O	1:A:270:ARG:HG3	1.82	0.79
2:B:151:THR:HB	2:B:152:PRO:HD3	1.64	0.79
8:H:35:MET:HG3	8:H:36:GLU:H	1.48	0.79
11:K:76:GLU:OE1	11:K:111:ILE:HD11	1.83	0.79
40:14:29:ALA:HB1	40:14:76:ILE:HD11	1.65	0.79
53:27:1857:G:H1'	53:27:1885:A:N6	1.98	0.79
7:G:88:HIS:HB3	7:G:89:PRO:HD3	1.65	0.78
51:25:5:VAL:HG22	51:25:7:GLU:H	1.48	0.78
53:27:528:A:C2	53:27:2042:A:H2'	2.18	0.78
33:7:101:ASN:C	33:7:102:ILE:HD12	2.04	0.78
34:8:58:GLN:O	34:8:62:ARG:HG2	1.84	0.78
44:18:81:ILE:H	44:18:81:ILE:HD12	1.49	0.78
52:26:422:C:H4'	52:26:423:G:C2	2.19	0.78
52:26:1088:G:H21	52:26:1167:A:H61	1.31	0.78
53:27:1597:A:H5''	53:27:1598:A:H5'	1.65	0.78
52:26:813:U:H2'	52:26:814:A:H5''	1.63	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:594:U:H2'	53:27:595:C:C6	2.19	0.78
53:27:176:A:H3'	53:27:177:G:H21	1.49	0.78
4:D:105:ILE:HD12	4:D:138:PRO:HG2	1.63	0.78
39:13:114:LYS:HB2	39:13:117:LEU:HD12	1.66	0.78
50:24:28:ARG:HH12	52:26:1437:A:H5''	1.49	0.78
59:33:159:HIS:O	59:33:163:VAL:HB	1.84	0.78
59:33:293:LEU:HD11	59:33:307:PHE:CE2	2.19	0.78
7:G:23:LEU:HD13	7:G:118:ILE:HB	1.66	0.78
11:K:63:LYS:HD3	53:27:2394:C:H5''	1.66	0.78
59:33:57:TRP:O	59:33:60:VAL:HG22	1.84	0.78
17:Q:61:ALA:HA	17:Q:99:THR:H	1.49	0.78
24:X:21:LEU:HA	24:X:25:GLN:HB3	1.66	0.77
59:33:63:VAL:HG12	59:33:79:ALA:HB3	1.66	0.77
59:33:232:PHE:HE1	59:33:329:PRO:HD2	1.45	0.77
59:33:292:ALA:O	59:33:296:VAL:HG13	1.84	0.77
2:B:2:ILE:HG13	2:B:3:GLY:H	1.49	0.77
13:M:118:ARG:HH12	27:1:55:ALA:HB1	1.48	0.77
52:26:1306:A:N6	52:26:1331:G:H1'	1.98	0.77
59:33:17:PRO:HB3	59:33:39:TRP:CE2	2.20	0.77
59:33:416:VAL:HG21	59:33:430:HIS:CE1	2.20	0.77
2:B:148:GLN:HB2	2:B:152:PRO:HG2	1.67	0.77
34:8:33:ILE:HG23	34:8:34:GLU:H	1.48	0.77
43:17:38:ILE:HG13	43:17:55:LEU:HD11	1.66	0.77
53:27:2629:U:O2'	53:27:2630:G:H5''	1.84	0.77
3:C:105:LEU:HD21	3:C:177:PRO:HG3	1.66	0.77
21:U:9:ARG:HH21	21:U:12:GLN:HA	1.48	0.77
53:27:2048:G:H3'	53:27:2049:G:H5''	1.66	0.77
59:33:20:TRP:HH2	59:33:76:LEU:HB3	1.50	0.77
59:33:621:ILE:HG22	59:33:635:ARG:HA	1.66	0.77
35:9:114:LEU:HD23	35:9:122:VAL:HG21	1.67	0.77
53:27:760:G:H2'	53:27:761:A:O4'	1.84	0.77
59:33:293:LEU:HD11	59:33:307:PHE:HE2	1.49	0.77
1:A:30:ALA:HB3	1:A:31:PRO:HD3	1.67	0.77
59:33:43:LEU:HA	59:33:56:LEU:HD12	1.65	0.77
59:33:327:LEU:HD23	59:33:332:LYS:CB	2.15	0.77
29:3:10:LEU:HG	29:3:14:ARG:HH22	1.50	0.76
14:N:24:THR:HG22	14:N:42:PRO:HD3	1.65	0.76
58:32:16:C:O2'	58:32:17:C:H5'	1.86	0.76
4:D:140:ILE:HG22	4:D:142:TYR:H	1.50	0.76
42:16:119:LYS:HB2	52:26:37:U:OP1	1.85	0.76
50:24:65:LEU:HD23	50:24:66:ILE:HG12	1.66	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:28:30:C:H2'	54:28:31:C:H5'	1.66	0.76
25:Y:40:THR:HG22	25:Y:43:ILE:HG12	1.66	0.76
59:33:65:ILE:HG12	59:33:161:ARG:NH2	2.00	0.76
8:H:106:GLN:O	8:H:110:GLN:HG3	1.84	0.76
39:13:57:VAL:HG23	39:13:59:LYS:HE3	1.67	0.76
48:22:70:THR:HG23	48:22:71:ASP:H	1.48	0.76
53:27:1173:U:C6	53:27:1174:U:H1'	2.20	0.76
1:A:36:ASN:HB2	1:A:61:TYR:HB2	1.67	0.76
13:M:30:ARG:HG3	13:M:75:ILE:HD11	1.68	0.76
59:33:101:LYS:HE3	59:33:105:ASN:HD21	1.51	0.76
59:33:31:SER:CB	59:33:73:ILE:HG21	2.16	0.76
59:33:410:THR:HG22	59:33:427:PHE:HZ	1.51	0.76
17:Q:27:ILE:HG13	17:Q:33:VAL:HG11	1.66	0.76
52:26:484:G:C4'	52:26:485:U:H5'	2.11	0.76
52:26:950:U:H2'	52:26:951:G:H8	1.50	0.76
52:26:1026:G:H1	52:26:1035:A:H61	1.33	0.76
53:27:704:G:H2'	53:27:726:G:H22	1.49	0.76
56:30:41:C:H2'	56:30:42:C:H5''	1.68	0.76
59:33:17:PRO:HG3	59:33:39:TRP:HZ2	1.46	0.76
33:7:46:LEU:HB3	33:7:49:ALA:HB3	1.68	0.75
53:27:279:A:N6	53:27:361:G:H1'	2.00	0.75
23:W:58:ILE:HG12	23:W:66:VAL:HG21	1.68	0.75
52:26:352:C:H4'	52:26:354:G:OP1	1.86	0.75
11:K:93:ASN:O	11:K:95:LEU:N	2.19	0.75
32:6:8:MET:HE2	32:6:10:LYS:HE3	1.67	0.75
52:26:501:C:H2'	52:26:502:A:H8	1.50	0.75
53:27:1539:U:H2'	53:27:1540:G:C8	2.20	0.75
56:30:55:U:H2'	56:30:57:G:OP2	1.86	0.75
59:33:20:TRP:CD1	59:33:64:GLU:HA	2.20	0.75
59:33:617:PRO:HD2	59:33:719:LEU:HD21	1.68	0.75
41:15:88:PRO:HD3	51:25:28:LEU:HD23	1.69	0.75
42:16:26:CYS:HB2	42:16:29:LYS:HG2	1.68	0.75
52:26:476:U:H2'	52:26:477:C:C6	2.20	0.75
53:27:742:A:H2'	53:27:743:A:C8	2.21	0.75
59:33:99:VAL:HG13	59:33:103:VAL:HB	1.67	0.75
8:H:101:SER:HA	8:H:141:ASP:HA	1.69	0.75
10:J:108:ARG:HA	10:J:116:ILE:HD11	1.68	0.75
14:N:3:LYS:HE2	54:28:46:A:H5''	1.67	0.75
41:15:108:ASN:HB3	51:25:6:ARG:HB3	1.68	0.75
3:C:76:PRO:HG3	3:C:84:THR:HG22	1.68	0.75
21:U:72:VAL:HG12	21:U:93:ARG:HA	1.67	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:16:43:LYS:HE2	55:29:21:C:H5'	1.68	0.75
53:27:1807:G:H2'	53:27:1808:A:H5'	1.68	0.75
7:G:33:VAL:HG12	7:G:35:VAL:H	1.51	0.75
54:28:65:U:H3'	54:28:108:A:H61	1.51	0.75
59:33:43:LEU:HG	59:33:44:GLN:CD	2.07	0.75
59:33:66:LEU:CD1	59:33:79:ALA:HB2	2.17	0.75
59:33:226:GLU:O	59:33:229:ILE:HG12	1.87	0.75
59:33:279:VAL:CG1	59:33:336:ILE:HG12	2.17	0.75
2:B:124:ARG:HE	2:B:125:TRP:HE1	1.33	0.75
7:G:52:MET:HG2	53:27:1083:U:OP1	1.86	0.75
47:21:45:VAL:HG21	47:21:60:ILE:HD13	1.69	0.75
52:26:1144:G:H21	52:26:1146:A:H62	1.33	0.75
53:27:2286:G:H5''	53:27:2287:A:OP1	1.87	0.75
13:M:73:ASN:HA	13:M:76:VAL:HG12	1.68	0.74
19:S:25:GLU:HG3	19:S:26:LYS:H	1.51	0.74
19:S:35:ALA:HB3	19:S:38:ALA:HB2	1.68	0.74
34:8:104:MET:HE3	34:8:170:LEU:HD22	1.69	0.74
52:26:427:U:H4'	52:26:541:G:H5''	1.69	0.74
59:33:20:TRP:CZ2	59:33:63:VAL:HB	2.22	0.74
5:E:154:GLU:HG2	5:E:156:TYR:H	1.51	0.74
53:27:145:C:H2'	53:27:146:A:C8	2.23	0.74
58:32:29:G:H3'	58:32:30:G:H5''	1.68	0.74
53:27:833:A:H2'	53:27:834:G:H8	1.51	0.74
31:5:37:GLN:HE21	53:27:1125:G:C5'	2.00	0.74
52:26:884:U:H4'	52:26:885:G:H5''	1.68	0.74
53:27:1709:U:H2'	53:27:1710:G:C8	2.23	0.74
56:30:15:G:H3'	56:30:16:U:H5''	1.70	0.74
59:33:20:TRP:HD1	59:33:64:GLU:HA	1.52	0.74
36:10:38:ARG:HB3	36:10:63:ASN:HD22	1.51	0.74
52:26:176:C:H3'	52:26:177:G:H21	1.53	0.74
20:T:81:ARG:HG3	20:T:96:LYS:HD3	1.67	0.74
33:7:149:LYS:HD2	33:7:168:ARG:HD3	1.68	0.74
59:33:59:GLY:HA2	59:33:82:PHE:HE1	1.45	0.74
59:33:183:ALA:HB3	59:33:184:PRO:HD3	1.68	0.74
42:16:86:VAL:HG21	42:16:89:LEU:HB2	1.69	0.74
58:32:19:G:H5''	58:32:20:U:H5	1.51	0.74
59:33:27:THR:HG23	59:33:28:SER:H	1.52	0.74
59:33:315:LYS:HB3	59:33:316:PRO:HD2	1.68	0.74
6:F:50:ARG:HH12	6:F:54:LEU:HD22	1.53	0.74
42:16:27:PRO:O	42:16:28:GLN:HG3	1.87	0.74
53:27:2638:G:H1'	53:27:2778:A:N6	2.03	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:160:LEU:HD12	59:33:198:LEU:CD2	2.18	0.74
5:E:85:LYS:HG2	5:E:131:VAL:HG22	1.69	0.73
8:H:33:ASN:HB2	8:H:66:PHE:HE2	1.53	0.73
53:27:1261:C:H2'	53:27:1262:A:H5''	1.68	0.73
53:27:2561:U:H2'	53:27:2562:U:H5''	1.70	0.73
4:D:3:LEU:HD13	4:D:100:GLU:HB2	1.69	0.73
13:M:28:LEU:HD23	13:M:48:VAL:HG21	1.70	0.73
52:26:1391:U:H2'	52:26:1392:G:C8	2.24	0.73
53:27:118:A:H5'	53:27:119:A:H8	1.53	0.73
53:27:548:G:H2'	53:27:549:G:H4'	1.70	0.73
54:28:95:U:H2'	54:28:96:G:H8	1.52	0.73
56:30:7:A:H3'	56:30:8:U:C5'	2.16	0.73
59:33:160:LEU:HD12	59:33:198:LEU:HD22	1.69	0.73
27:1:54:ILE:HG23	27:1:56:LYS:H	1.53	0.73
53:27:720:U:H2'	53:27:721:A:C8	2.24	0.73
53:27:2095:A:H3'	53:27:2096:C:H5''	1.69	0.73
53:27:2166:U:H2'	53:27:2167:U:H5'	1.71	0.73
53:27:2287:A:O2'	53:27:2288:A:H2'	1.88	0.73
33:7:102:ILE:HD12	33:7:102:ILE:N	2.02	0.73
41:15:33:ILE:HD12	41:15:73:VAL:HG21	1.70	0.73
42:16:109:ARG:HH11	52:26:537:G:H5''	1.51	0.73
7:G:54:VAL:HG21	7:G:83:ALA:HB1	1.71	0.73
54:28:115:A:H2'	54:28:116:G:C8	2.23	0.73
53:27:1825:U:H2'	53:27:1826:G:C8	2.23	0.73
54:28:13:G:H21	54:28:16:G:H1'	1.53	0.73
59:33:17:PRO:HB3	59:33:39:TRP:CD1	2.23	0.73
59:33:96:ARG:HG2	59:33:104:VAL:CG1	2.18	0.73
4:D:144:LYS:HD2	4:D:144:LYS:N	2.04	0.73
36:10:68:GLN:O	36:10:71:ILE:HG22	1.88	0.73
51:25:35:GLU:O	51:25:37:TYR:N	2.21	0.73
52:26:501:C:H2'	52:26:502:A:C8	2.24	0.73
52:26:948:C:H2'	52:26:949:A:H8	1.54	0.73
59:33:241:LYS:HD3	59:33:246:LYS:NZ	2.04	0.73
12:L:50:ARG:HD2	12:L:65:ILE:HD11	1.69	0.73
59:33:153:LEU:O	59:33:157:ILE:HG23	1.88	0.73
3:C:40:ARG:HD2	3:C:92:HIS:CG	2.23	0.73
16:P:10:ARG:NH2	53:27:514:A:H5'	2.02	0.73
52:26:328:C:H4'	52:26:329:A:H5'	1.71	0.73
43:17:100:ARG:NH2	52:26:950:U:H3'	2.04	0.73
50:24:9:ARG:HG2	52:26:108:G:N1	2.03	0.73
52:26:70:U:H2'	52:26:94:G:N7	2.04	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:718:ASN:HB2	59:33:721:VAL:HG23	1.70	0.73
2:B:118:PHE:HB2	53:27:2823:A:OP1	1.89	0.72
40:14:80:THR:HB	40:14:83:THR:HB	1.71	0.72
52:26:1352:C:H2'	52:26:1353:G:C8	2.24	0.72
5:E:88:LEU:HD22	5:E:161:VAL:HG22	1.69	0.72
9:I:35:ARG:NE	9:I:140:LEU:HD21	2.04	0.72
23:W:71:ARG:HB3	23:W:77:TYR:CE2	2.24	0.72
59:33:407:TYR:HA	59:33:417:ASP:HA	1.70	0.72
52:26:1516:G:H2'	52:26:1518:A:OP2	1.90	0.72
53:27:2493:U:H3'	53:27:2494:G:H5''	1.71	0.72
14:N:3:LYS:CE	54:28:46:A:H5''	2.19	0.72
41:15:63:GLN:HG3	41:15:98:ALA:HB2	1.71	0.72
5:E:15:ASP:HB3	5:E:26:LYS:HB3	1.71	0.72
33:7:150:VAL:HG12	33:7:199:VAL:HG23	1.72	0.72
59:33:279:VAL:HG11	59:33:336:ILE:HG12	1.70	0.72
6:F:51:ARG:HA	6:F:54:LEU:HB3	1.70	0.72
50:24:66:ILE:HG23	50:24:70:LYS:HD3	1.71	0.72
53:27:144:A:H2'	53:27:145:C:C6	2.25	0.72
59:33:96:ARG:HE	59:33:104:VAL:HG21	1.52	0.72
4:D:118:ALA:HB1	4:D:166:ARG:HE	1.54	0.72
10:J:48:PRO:HB3	52:26:1422:G:H5'	1.72	0.72
34:8:36:ALA:H	34:8:37:PRO:CD	2.03	0.72
37:11:67:ASN:HB3	37:11:129:ASN:HB3	1.71	0.72
39:13:35:GLU:HB3	39:13:40:ARG:CZ	2.20	0.72
52:26:1323:G:H2'	52:26:1324:A:C8	2.25	0.72
7:G:23:LEU:HD11	7:G:119:PRO:HD3	1.71	0.72
11:K:70:LYS:HD2	53:27:633:A:H5''	1.71	0.72
11:K:79:LEU:H	11:K:113:ALA:HB3	1.54	0.72
30:4:18:LYS:HB2	53:27:651:G:H5'	1.72	0.72
39:13:14:SER:OG	39:13:74:GLN:HA	1.88	0.72
53:27:1857:G:N2	53:27:1884:G:H2'	2.05	0.72
59:33:54:LEU:HB2	59:33:57:TRP:CD1	2.25	0.72
59:33:82:PHE:CD2	59:33:83:PRO:HD3	2.25	0.72
4:D:91:ARG:HA	4:D:95:MET:HB3	1.70	0.72
11:K:90:VAL:HG13	11:K:95:LEU:HD11	1.72	0.72
51:25:67:THR:HG23	52:26:1167:A:H62	1.55	0.72
52:26:607:A:H2'	52:26:608:A:C8	2.25	0.72
52:26:1409:C:H4'	53:27:1915:U:O4	1.90	0.72
53:27:12:U:H2'	53:27:13:A:H5'	1.71	0.72
53:27:679:C:H2'	53:27:680:C:C6	2.25	0.72
53:27:973:A:H5'	53:27:1188:U:H1'	1.72	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1:28:SER:HB2	27:1:39:ARG:HD2	1.72	0.71
4:D:30:VAL:HG22	4:D:95:MET:HE1	1.71	0.71
5:E:41:GLU:HB2	5:E:54:ARG:HG3	1.71	0.71
38:12:10:LEU:HD22	38:12:74:ILE:HD11	1.72	0.71
48:22:11:ARG:HG2	48:22:15:GLU:HG2	1.72	0.71
53:27:2297:A:N1	53:27:2321:U:C5	2.58	0.71
59:33:615:PRO:HB3	59:33:635:ARG:HB2	1.72	0.71
4:D:33:ILE:HG12	4:D:155:ILE:HG12	1.71	0.71
39:13:91:GLU:HA	39:13:94:ARG:HB2	1.72	0.71
52:26:714:G:H2'	52:26:715:A:C8	2.25	0.71
59:33:64:GLU:O	59:33:68:THR:HG23	1.90	0.71
59:33:82:PHE:CD1	59:33:83:PRO:HD3	2.25	0.71
59:33:225:ARG:CD	59:33:276:VAL:HG13	2.19	0.71
59:33:327:LEU:HD23	59:33:332:LYS:CA	2.20	0.71
59:33:327:LEU:HD23	59:33:332:LYS:HA	1.71	0.71
3:C:41:GLN:HG2	3:C:43:THR:HG23	1.71	0.71
59:33:293:LEU:O	59:33:296:VAL:HG22	1.90	0.71
59:33:676:ARG:HA	59:33:679:LEU:HB2	1.71	0.71
52:26:403:C:H2'	52:26:404:G:H8	1.56	0.71
5:E:37:ASN:HD22	5:E:63:GLN:HE21	1.39	0.71
6:F:2:GLN:HB3	6:F:39:ALA:HB3	1.73	0.71
16:P:100:PHE:HD2	17:Q:13:ARG:HH12	1.39	0.71
24:X:16:THR:HA	24:X:19:LEU:HD12	1.73	0.71
7:G:118:ILE:H	7:G:119:PRO:CD	2.03	0.71
15:O:105:LYS:O	15:O:108:ARG:HG2	1.89	0.71
20:T:44:HIS:HA	20:T:57:ILE:HG22	1.73	0.71
53:27:279:A:H61	53:27:361:G:H1'	1.55	0.71
53:27:863:A:H2'	53:27:864:G:H8	1.54	0.71
59:33:517:GLU:HA	59:33:521:ILE:HA	1.73	0.71
8:H:130:GLY:HA3	53:27:1079:C:O2	1.90	0.71
27:1:30:ASP:HB3	27:1:35:GLU:H	1.56	0.71
47:21:16:MET:HG3	47:21:19:SER:OG	1.89	0.71
7:G:117:LEU:HB2	7:G:122:GLN:HE21	1.56	0.71
53:27:53:A:H2'	53:27:54:G:O4'	1.91	0.71
53:27:891:G:H2'	53:27:892:A:H8	1.55	0.71
2:B:172:VAL:HG12	2:B:175:LEU:HD11	1.73	0.71
21:U:4:ILE:HD11	21:U:63:ILE:HG12	1.72	0.71
22:V:47:VAL:HG21	22:V:76:ILE:O	1.91	0.71
53:27:596:U:H2'	53:27:597:G:C8	2.26	0.71
59:33:66:LEU:HD12	59:33:79:ALA:CB	2.19	0.71
59:33:286:LEU:HD21	59:33:343:MET:CE	2.21	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:47:VAL:O	13:M:50:PRO:HD2	1.91	0.70
52:26:1033:G:H3'	52:26:1034:G:C5'	2.19	0.70
53:27:2799:A:H2'	53:27:2800:A:H5'	1.71	0.70
59:33:88:ASN:HD22	59:33:90:VAL:HG13	1.54	0.70
59:33:416:VAL:HG21	59:33:430:HIS:NE2	2.06	0.70
1:A:62:ARG:O	1:A:64:VAL:HG23	1.92	0.70
52:26:1062:U:H2'	52:26:1063:C:C6	2.25	0.70
3:C:77:ILE:HG13	3:C:78:TRP:HD1	1.55	0.70
4:D:56:LEU:HD22	4:D:88:VAL:HG21	1.73	0.70
4:D:87:LYS:HD2	53:27:2313:C:H5''	1.73	0.70
32:6:18:GLN:HB3	32:6:188:THR:HB	1.72	0.70
36:10:79:ARG:NH2	52:26:671:G:O2'	2.24	0.70
40:14:7:ARG:HB3	40:14:101:SER:HB2	1.73	0.70
17:Q:14:VAL:HG23	17:Q:18:GLN:HE21	1.55	0.70
53:27:2788:C:H2'	53:27:2789:C:C6	2.27	0.70
52:26:516:U:H5	52:26:533:A:H62	1.36	0.70
53:27:2134:A:H4'	53:27:2159:G:H21	1.56	0.70
2:B:2:ILE:HD11	2:B:100:LEU:HD22	1.74	0.70
20:T:42:LYS:HB2	53:27:499:U:H4'	1.74	0.70
31:5:37:GLN:HE21	53:27:1125:G:H5''	1.55	0.70
34:8:101:VAL:HG11	34:8:116:LEU:HD23	1.72	0.70
46:20:4:ILE:HG12	46:20:21:VAL:HG22	1.74	0.70
52:26:413:G:N2	52:26:428:G:H1'	2.06	0.70
59:33:31:SER:HB3	59:33:73:ILE:CG2	2.17	0.70
59:33:39:TRP:CH2	59:33:43:LEU:HD22	2.27	0.70
1:A:209:ALA:HA	1:A:212:TRP:NE1	2.07	0.70
19:S:25:GLU:HG3	19:S:26:LYS:N	2.07	0.70
32:6:105:THR:HG21	52:26:1072:G:H21	1.57	0.70
33:7:131:ARG:HA	33:7:134:LYS:HE3	1.72	0.70
34:8:28:ASP:O	34:8:30:LYS:N	2.24	0.70
53:27:844:A:H2'	53:27:845:A:H5''	1.73	0.70
59:33:132:VAL:HG11	59:33:136:ARG:HB2	1.73	0.70
5:E:27:GLY:HA3	5:E:78:VAL:HB	1.72	0.70
46:20:21:VAL:HG21	46:20:60:TRP:CD1	2.27	0.70
46:20:31:ARG:HB2	52:26:310:G:H5''	1.73	0.70
10:J:18:ARG:HB2	10:J:45:GLU:HB2	1.74	0.70
27:1:5:ASN:ND2	53:27:2020:A:H62	1.89	0.70
29:3:10:LEU:HD11	29:3:14:ARG:HH12	1.56	0.70
37:11:58:LEU:HD12	37:11:59:GLU:N	2.07	0.70
52:26:673:A:H2'	52:26:674:G:C8	2.27	0.70
58:32:8:U:H5'	58:32:49:G:H5'	1.74	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:32:24:U:H2'	58:32:25:C:C6	2.26	0.70
30:4:15:LYS:HE2	30:4:19:GLY:HA2	1.73	0.70
36:10:73:GLU:O	36:10:77:THR:HG23	1.91	0.70
46:20:46:LYS:HE2	46:20:48:GLU:HB3	1.73	0.70
52:26:279:A:H5'	52:26:281:G:H5'	1.74	0.70
56:30:54:U:C3'	56:30:55:U:H5''	2.18	0.70
8:H:23:VAL:HA	8:H:26:ALA:HB3	1.73	0.69
8:H:57:VAL:HB	8:H:69:VAL:HB	1.74	0.69
13:M:79:LEU:HG	13:M:83:LEU:HD12	1.72	0.69
24:X:17:GLU:HA	24:X:20:ASN:HD22	1.57	0.69
46:20:70:ARG:HG3	52:26:375:U:H5''	1.74	0.69
53:27:296:U:H2'	53:27:297:G:C8	2.27	0.69
54:28:65:U:H3'	54:28:108:A:N6	2.07	0.69
59:33:225:ARG:O	59:33:229:ILE:HG23	1.92	0.69
3:C:149:ILE:HD11	3:C:172:ALA:HA	1.73	0.69
10:J:76:VAL:H	15:O:72:VAL:HG22	1.57	0.69
37:11:110:ARG:NH2	37:11:121:ASN:HB3	2.07	0.69
44:18:68:ARG:HH12	44:18:70:HIS:HB2	1.54	0.69
53:27:567:U:H2'	53:27:568:U:O4'	1.92	0.69
53:27:2771:C:H2'	53:27:2772:C:H6	1.56	0.69
3:C:148:ILE:HG21	3:C:157:LEU:HD21	1.73	0.69
15:O:59:THR:HG22	15:O:72:VAL:HG12	1.74	0.69
52:26:458:U:H2'	52:26:459:A:C8	2.27	0.69
53:27:2243:U:H2'	53:27:2244:U:H6	1.56	0.69
59:33:65:ILE:CD1	59:33:161:ARG:HH21	2.05	0.69
9:I:7:LYS:HE3	53:27:538:A:H5''	1.74	0.69
53:27:284:U:H2'	53:27:285:G:H5''	1.74	0.69
53:27:955:U:H5	53:27:962:G:N1	1.89	0.69
9:I:17:VAL:HG13	9:I:137:PRO:HB2	1.75	0.69
15:O:63:ILE:HA	15:O:68:GLY:HA2	1.72	0.69
33:7:120:THR:HG23	33:7:188:ALA:HA	1.74	0.69
43:17:33:LEU:HD23	43:17:40:GLU:HA	1.74	0.69
52:26:946:A:H2'	52:26:947:G:H8	1.57	0.69
53:27:917:A:H5''	53:27:2268:A:H61	1.56	0.69
53:27:1060:U:C2	53:27:1062:G:H5'	2.27	0.69
53:27:2508:G:H2'	53:27:2509:G:H8	1.57	0.69
59:33:77:ARG:HH12	59:33:99:VAL:CG2	2.04	0.69
59:33:274:PHE:CD1	59:33:277:ARG:NH1	2.60	0.69
2:B:149:ASN:HB3	53:27:2572:A:OP2	1.92	0.69
7:G:82:ILE:CG2	7:G:83:ALA:H	2.05	0.69
34:8:158:LEU:HD21	34:8:174:ALA:HB1	1.75	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:148:G:H2'	52:26:149:A:H5''	1.75	0.69
53:27:2329:U:H2'	53:27:2330:G:C8	2.27	0.69
48:22:13:THR:HG21	48:22:20:ILE:HD11	1.74	0.69
59:33:74:ASP:HA	59:33:77:ARG:CZ	2.22	0.69
7:G:11:ILE:HD11	7:G:63:ALA:HA	1.75	0.69
19:S:44:LYS:HG2	19:S:55:VAL:HG11	1.75	0.69
30:4:26:ALA:HB3	53:27:2361:G:H5'	1.75	0.69
35:9:82:HIS:HB2	35:9:83:PRO:HD2	1.74	0.69
38:12:5:PRO:HB2	38:12:32:LYS:NZ	2.08	0.69
38:12:73:SER:HB3	38:12:129:ALA:HB3	1.73	0.69
44:18:80:ARG:O	44:18:83:VAL:HG12	1.93	0.69
52:26:1259:C:C3'	52:26:1260:G:H5''	2.19	0.69
53:27:704:G:H2'	53:27:726:G:N2	2.08	0.69
53:27:1304:A:C2'	53:27:1305:C:H5''	2.22	0.69
54:28:95:U:H2'	54:28:96:G:C8	2.28	0.69
3:C:117:ARG:HH12	11:K:2:ARG:HG2	1.56	0.69
4:D:84:ILE:HD11	53:27:2311:A:N3	2.08	0.69
6:F:16:GLY:HA2	6:F:47:PHE:CE2	2.28	0.69
39:13:32:ARG:HB3	39:13:36:GLN:HE21	1.58	0.69
57:31:48:C:H2'	57:31:59:A:H4'	1.75	0.69
52:26:613:C:H2'	52:26:614:C:C6	2.28	0.69
52:26:848:C:H2'	52:26:849:G:H5''	1.74	0.69
59:33:27:THR:HG23	59:33:31:SER:HB2	1.75	0.69
33:7:71:ARG:HE	33:7:74:ILE:HD12	1.56	0.68
1:A:238:ASN:HD21	53:27:2595:G:H1	1.40	0.68
46:20:78:VAL:HG13	46:20:79:ASN:N	2.08	0.68
52:26:1097:C:H2'	52:26:1098:C:C6	2.28	0.68
52:26:1512:U:H2'	52:26:1513:A:H8	1.57	0.68
53:27:1702:G:C2'	53:27:1703:G:H5''	2.22	0.68
53:27:2070:A:H2'	53:27:2071:A:C8	2.29	0.68
7:G:33:VAL:N	53:27:1055:G:H4'	2.07	0.68
12:L:41:LEU:HD22	12:L:124:LEU:HD22	1.74	0.68
15:O:8:GLU:O	15:O:12:MET:HG3	1.93	0.68
59:33:44:GLN:CB	59:33:45:GLN:HB2	2.21	0.68
59:33:157:ILE:O	59:33:161:ARG:HG2	1.93	0.68
24:X:3:ALA:HA	24:X:6:LEU:HB3	1.74	0.68
41:15:19:VAL:HG22	41:15:82:GLU:HB2	1.74	0.68
43:17:54:THR:O	43:17:58:GLU:HB2	1.93	0.68
52:26:946:A:H2'	52:26:947:G:C8	2.29	0.68
59:33:241:LYS:HG3	59:33:246:LYS:HD3	1.76	0.68
53:27:1165:A:H2'	53:27:1166:G:H8	1.57	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:21:VAL:HG21	6:F:26:ALA:HB2	1.75	0.68
6:F:63:ALA:HB1	6:F:135:HIS:HE2	1.58	0.68
7:G:95:LEU:HA	7:G:98:GLU:HG2	1.76	0.68
8:H:60:VAL:CG1	8:H:64:ARG:HA	2.24	0.68
14:N:4:LYS:O	14:N:8:ILE:HG13	1.93	0.68
21:U:4:ILE:HD12	21:U:4:ILE:O	1.93	0.68
43:17:8:ILE:H	43:17:9:PRO:HD2	1.58	0.68
53:27:1395:A:O2'	53:27:1396:U:H5''	1.93	0.68
53:27:1594:U:H2'	53:27:1595:C:C6	2.29	0.68
54:28:48:U:H2'	54:28:49:C:H6	1.59	0.68
59:33:62:MET:HE2	59:33:82:PHE:CD1	2.29	0.68
9:I:6:ALA:HB1	9:I:11:VAL:HG21	1.74	0.68
12:L:32:GLY:O	12:L:131:VAL:HG22	1.94	0.68
14:N:80:GLU:O	14:N:84:GLU:HG3	1.94	0.68
32:6:34:ARG:HG3	32:6:35:ASN:H	1.59	0.68
41:15:111:ASP:HB2	51:25:16:ARG:HH12	1.59	0.68
45:19:45:HIS:C	45:19:47:LYS:H	1.97	0.68
52:26:1143:G:H2'	52:26:1144:G:H8	1.58	0.68
53:27:118:A:H5'	53:27:119:A:C8	2.29	0.68
53:27:161:A:H3'	53:27:162:U:H5''	1.76	0.68
59:33:39:TRP:CA	59:33:80:LEU:HD13	2.23	0.68
16:P:84:LYS:NZ	16:P:116:LEU:HA	2.08	0.68
34:8:59:LYS:NZ	34:8:194:ILE:HG22	2.09	0.68
36:10:54:LEU:HD12	36:10:54:LEU:O	1.93	0.68
39:13:11:ARG:NH2	39:13:108:ARG:HH21	1.88	0.68
52:26:1135:U:H4'	52:26:1136:C:H5	1.58	0.68
53:27:419:U:H2'	53:27:420:C:H6	1.59	0.68
53:27:807:U:H2'	53:27:808:G:C8	2.29	0.68
53:27:1062:G:H2'	53:27:1063:G:H8	1.59	0.68
16:P:5:ARG:HD2	53:27:1250:G:H5''	1.76	0.68
43:17:114:PRO:HD2	52:26:1228:C:H5'	1.76	0.68
59:33:63:VAL:HG12	59:33:79:ALA:CB	2.24	0.68
32:6:32:GLY:HA2	32:6:39:ILE:H	1.59	0.68
40:14:8:ILE:HB	40:14:74:VAL:HB	1.74	0.68
1:A:74:PRO:HD2	1:A:96:LYS:HD3	1.76	0.67
4:D:141:ASP:HB2	4:D:144:LYS:HB2	1.75	0.67
21:U:9:ARG:NH1	21:U:27:PRO:HB3	2.10	0.67
42:16:99:GLY:HA3	42:16:117:GLY:HA3	1.76	0.67
48:22:38:ILE:H	48:22:38:ILE:HD12	1.58	0.67
53:27:121:G:H4'	53:27:149:A:H5'	1.76	0.67
53:27:2208:C:H2'	53:27:2209:G:C8	2.28	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2443:C:H2'	53:27:2444:G:H8	1.59	0.67
8:H:2:LYS:HG3	8:H:61:TYR:HA	1.75	0.67
8:H:123:ALA:HB1	53:27:1081:U:H5''	1.74	0.67
44:18:50:LEU:HB3	44:18:51:PRO:HD2	1.76	0.67
50:24:4:LYS:O	50:24:6:ALA:N	2.27	0.67
52:26:539:A:H2'	52:26:540:G:C8	2.29	0.67
52:26:1162:C:H2'	52:26:1163:A:H8	1.60	0.67
53:27:176:A:H3'	53:27:177:G:N2	2.09	0.67
53:27:2591:C:H2'	53:27:2592:G:C8	2.28	0.67
59:33:210:GLU:HG3	59:33:260:TRP:CH2	2.29	0.67
4:D:125:GLY:HA2	4:D:162:ASP:HA	1.74	0.67
13:M:38:LEU:HB3	13:M:39:PRO:HD3	1.74	0.67
20:T:6:ARG:N	53:27:85:G:OP1	2.20	0.67
23:W:36:ARG:HA	23:W:47:THR:HA	1.77	0.67
48:22:9:PHE:HZ	48:22:11:ARG:HE	1.42	0.67
53:27:992:C:H2'	53:27:993:G:H8	1.59	0.67
59:33:20:TRP:CD1	59:33:63:VAL:HG23	2.30	0.67
59:33:38:THR:HG21	59:33:77:ARG:CB	2.23	0.67
4:D:135:ILE:HG22	4:D:140:ILE:HG21	1.76	0.67
22:V:33:ILE:HG22	22:V:34:VAL:HG23	1.77	0.67
14:N:51:ALA:HB3	14:N:78:VAL:HG22	1.77	0.67
34:8:8:LEU:HD21	34:8:31:CYS:HA	1.77	0.67
39:13:18:VAL:HG11	39:13:82:ILE:HA	1.77	0.67
49:23:29:PRO:HD3	59:33:600:GLU:OE1	1.95	0.67
52:26:1218:C:H2'	52:26:1219:A:C8	2.29	0.67
53:27:1023:U:H3'	53:27:1024:G:H8	1.59	0.67
3:C:148:ILE:HD13	3:C:187:VAL:HG11	1.76	0.67
27:1:46:GLY:CA	27:1:54:ILE:HB	2.25	0.67
34:8:71:PHE:HA	34:8:74:TYR:HD2	1.59	0.67
39:13:83:THR:HG21	39:13:102:PHE:HB3	1.76	0.67
52:26:1477:U:H2'	52:26:1478:U:C6	2.30	0.67
53:27:310:A:C2'	53:27:311:A:H5''	2.25	0.67
53:27:507:A:H5''	53:27:508:A:C5'	2.24	0.67
59:33:609:ILE:HG23	59:33:615:PRO:HG2	1.76	0.67
6:F:112:LYS:HE2	53:27:2220:U:H5''	1.75	0.67
46:20:78:VAL:HG13	46:20:79:ASN:H	1.59	0.67
52:26:1219:A:H2'	52:26:1220:G:C8	2.30	0.67
54:28:115:A:H2'	54:28:116:G:H8	1.60	0.67
59:33:95:LEU:HD13	59:33:107:ILE:HD12	1.77	0.67
59:33:666:SER:HA	59:33:715:GLU:HA	1.77	0.67
2:B:122:VAL:HG21	2:B:141:ARG:NH2	2.08	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:84:LYS:HG2	5:E:140:ILE:HD13	1.76	0.66
38:12:65:PHE:CD2	38:12:66:GLN:HG3	2.30	0.66
47:21:56:ASP:HB3	47:21:81:ALA:H	1.60	0.66
52:26:17:U:H2'	52:26:18:C:C6	2.31	0.66
53:27:20:C:H2'	53:27:21:A:H8	1.60	0.66
53:27:215:G:H4'	53:27:216:A:H4'	1.77	0.66
53:27:570:G:H2'	53:27:2030:A:N7	2.09	0.66
53:27:599:A:H2'	53:27:600:G:C8	2.30	0.66
53:27:1906:G:C2'	53:27:1907:G:H5''	2.24	0.66
53:27:2156:G:C2'	53:27:2157:G:H5'	2.23	0.66
53:27:2391:G:H2'	53:27:2424:C:H41	1.60	0.66
29:3:8:SER:O	29:3:10:LEU:N	2.28	0.66
42:16:115:LYS:O	42:16:116:TYR:HB2	1.96	0.66
53:27:1565:C:O2'	53:27:1566:A:H2'	1.94	0.66
53:27:2098:U:H2'	53:27:2099:U:H5'	1.78	0.66
53:27:2462:C:H1'	53:27:2491:U:O4	1.95	0.66
6:F:94:ILE:HB	6:F:122:LEU:HB2	1.77	0.66
8:H:102:ARG:O	8:H:106:GLN:HG3	1.96	0.66
35:9:160:VAL:HG13	35:9:161:GLU:H	1.60	0.66
39:13:34:LEU:HD13	39:13:47:VAL:HG11	1.77	0.66
39:13:119:LYS:HG3	39:13:122:ARG:HB3	1.76	0.66
52:26:225:C:H2'	52:26:226:G:H5''	1.77	0.66
52:26:398:U:H2'	52:26:399:G:C8	2.30	0.66
56:30:18:G:H22	56:30:55:U:H6	1.43	0.66
1:A:159:THR:HG23	1:A:176:ARG:HG3	1.75	0.66
2:B:56:LYS:NZ	53:27:2830:C:H5''	2.11	0.66
5:E:116:LEU:HD11	5:E:122:ALA:HB2	1.76	0.66
7:G:37:LYS:HE3	7:G:52:MET:HG3	1.76	0.66
28:2:14:ALA:HB2	28:2:46:VAL:HG21	1.77	0.66
40:14:15:HIS:HA	40:14:18:ILE:HG22	1.78	0.66
52:26:963:G:H2'	52:26:964:A:H8	1.59	0.66
53:27:269:C:H2'	53:27:270:A:H8	1.59	0.66
59:33:281:ILE:HD11	59:33:338:ILE:HG13	1.78	0.66
4:D:91:ARG:CA	4:D:95:MET:HB3	2.25	0.66
52:26:231:U:H2'	52:26:232:G:H8	1.59	0.66
52:26:1512:U:H2'	52:26:1513:A:C8	2.30	0.66
53:27:242:G:N2	53:27:254:G:H2'	2.10	0.66
59:33:218:LEU:HD21	59:33:259:ILE:HD13	1.78	0.66
3:C:48:THR:HG23	3:C:88:ARG:HH11	1.59	0.66
29:3:12:ARG:NE	29:3:44:VAL:HG21	2.10	0.66
34:8:27:ILE:HD12	34:8:27:ILE:N	2.10	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:10:12:PRO:HB3	36:10:44:ARG:HH11	1.61	0.66
53:27:648:G:H2'	53:27:649:G:H8	1.61	0.66
53:27:1105:U:H2'	53:27:1106:G:H8	1.58	0.66
53:27:2038:G:H2'	53:27:2039:U:O4'	1.96	0.66
53:27:2277:G:C2'	53:27:2278:A:H5''	2.26	0.66
53:27:2557:G:H2'	53:27:2558:C:C6	2.30	0.66
58:32:32:C:H2'	58:32:33:U:O4'	1.95	0.66
59:33:281:ILE:HD11	59:33:338:ILE:CG1	2.26	0.66
10:J:30:ARG:HG3	53:27:2674:G:H4'	1.78	0.66
33:7:178:ARG:HH21	52:26:1112:C:H4'	1.61	0.66
38:12:3:GLN:NE2	52:26:755:G:H21	1.93	0.66
39:13:109:GLN:O	52:26:1347:G:H5''	1.96	0.66
46:20:71:VAL:O	46:20:75:ILE:HG13	1.96	0.66
53:27:1843:C:H2'	53:27:1844:C:C6	2.31	0.66
53:27:2286:G:H4'	53:27:2287:A:O4'	1.96	0.66
11:K:132:ARG:HG3	11:K:142:ILE:HD12	1.77	0.66
14:N:55:GLU:HG2	54:28:116:G:H5'	1.76	0.66
16:P:36:GLN:HE21	53:27:1252:G:H1	1.43	0.66
22:V:36:GLN:NE2	22:V:39:THR:HA	2.11	0.66
26:Z:5:ILE:HG13	26:Z:6:HIS:N	2.09	0.66
33:7:134:LYS:O	33:7:138:GLN:HG3	1.96	0.66
39:13:46:VAL:HA	39:13:49:GLN:HG3	1.77	0.66
43:17:28:ARG:NH2	43:17:62:PHE:HB2	2.11	0.66
58:32:69:C:H2'	58:32:70:G:C5'	2.26	0.66
7:G:41:LEU:O	7:G:44:ALA:HB3	1.96	0.66
12:L:135:VAL:HG12	12:L:136:MET:HG3	1.77	0.66
26:Z:45:THR:HA	26:Z:48:GLN:HB3	1.78	0.66
29:3:13:ASN:O	29:3:17:GLY:N	2.28	0.66
32:6:206:ILE:O	32:6:209:VAL:HG22	1.96	0.66
33:7:118:SER:O	33:7:122:GLN:HG3	1.96	0.66
49:23:31:ARG:HD2	59:33:602:VAL:HG23	1.78	0.66
52:26:950:U:H2'	52:26:951:G:C8	2.31	0.66
52:26:1513:A:H2'	52:26:1514:G:H8	1.60	0.66
59:33:491:LYS:O	59:33:494:ALA:HB3	1.96	0.66
1:A:180:MET:HB2	1:A:268:ARG:HB3	1.76	0.66
8:H:116:MET:HG2	53:27:1059:G:H4'	1.78	0.66
9:I:35:ARG:HG2	9:I:40:HIS:CD2	2.31	0.66
50:24:53:MET:O	50:24:56:ILE:HG22	1.96	0.66
52:26:769:G:H4'	52:26:1513:A:H4'	1.77	0.66
52:26:1206:G:C3'	52:26:1207:G:H5''	2.27	0.66
53:27:78:U:H2'	53:27:79:C:C6	2.31	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2840:C:H2'	53:27:2841:C:C6	2.31	0.66
59:33:179:THR:HG21	59:33:206:LEU:HD12	1.77	0.66
4:D:73:VAL:H	4:D:78:ILE:HD11	1.61	0.65
7:G:37:LYS:O	7:G:41:LEU:HB2	1.96	0.65
32:6:79:VAL:HG22	32:6:213:LEU:HD21	1.78	0.65
41:15:121:ARG:NH2	51:25:35:GLU:HG2	2.11	0.65
52:26:82:G:H3'	52:26:83:C:H5'	1.77	0.65
53:27:596:U:H2'	53:27:597:G:H8	1.59	0.65
56:30:54:U:H3'	56:30:55:U:C5'	2.18	0.65
9:I:57:LEU:HD11	9:I:130:HIS:HD2	1.60	0.65
30:4:44:ARG:N	30:4:45:PRO:HD2	2.11	0.65
40:14:6:ILE:HA	40:14:102:LEU:HD23	1.78	0.65
52:26:477:C:H2'	52:26:478:A:H8	1.60	0.65
53:27:1796:U:H2'	53:27:1797:G:C8	2.30	0.65
53:27:2122:U:H3	53:27:2176:A:H61	1.44	0.65
53:27:2861:U:H2'	53:27:2862:G:H8	1.59	0.65
59:33:325:VAL:HG22	59:33:335:GLU:HG2	1.78	0.65
59:33:473:ARG:O	59:33:477:ASN:N	2.26	0.65
11:K:120:VAL:H	11:K:140:GLY:HA2	1.60	0.65
16:P:18:LYS:HA	16:P:21:LYS:HD3	1.79	0.65
29:3:42:LEU:HD23	29:3:43:THR:HG23	1.77	0.65
41:15:58:THR:HG22	41:15:60:PHE:H	1.60	0.65
47:21:62:GLU:OE2	52:26:235:C:H1'	1.95	0.65
53:27:742:A:H2'	53:27:743:A:H8	1.61	0.65
8:H:103:ALA:O	8:H:107:GLU:HG3	1.96	0.65
19:S:57:VAL:HG12	19:S:86:THR:OG1	1.95	0.65
43:17:43:LYS:HB2	43:17:46:GLU:HG2	1.79	0.65
52:26:1179:A:H2'	52:26:1180:A:O4'	1.97	0.65
52:26:1513:A:H2'	52:26:1514:G:C8	2.32	0.65
53:27:507:A:H5''	53:27:508:A:H5''	1.79	0.65
53:27:1213:A:N6	53:27:1236:G:H1'	2.10	0.65
53:27:1541:C:H2'	53:27:1542:U:C6	2.31	0.65
53:27:2592:G:H2'	53:27:2593:U:O4'	1.97	0.65
59:33:35:LEU:HD11	59:33:73:ILE:HA	1.78	0.65
2:B:3:GLY:C	2:B:4:LEU:HD12	2.17	0.65
50:24:34:VAL:HG11	50:24:78:LEU:HD21	1.78	0.65
53:27:879:G:H2'	53:27:880:G:C8	2.31	0.65
59:33:645:ARG:HA	59:33:652:ILE:HD11	1.77	0.65
36:10:10:VAL:HG22	36:10:84:VAL:HG22	1.77	0.65
52:26:880:C:H2'	52:26:881:G:H8	1.61	0.65
53:27:2345:G:N3	53:27:2381:A:H2'	2.12	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2591:C:H2'	53:27:2592:G:H8	1.59	0.65
8:H:124:MET:HE2	8:H:124:MET:HA	1.78	0.65
32:6:198:VAL:HG22	32:6:200:PRO:HD3	1.78	0.65
32:6:216:VAL:O	32:6:220:VAL:HG23	1.96	0.65
34:8:104:MET:CE	34:8:170:LEU:HD22	2.27	0.65
36:10:11:HIS:HD2	36:10:12:PRO:HD2	1.62	0.65
52:26:882:C:O2'	52:26:883:C:H5'	1.96	0.65
52:26:1143:G:H2'	52:26:1144:G:C8	2.32	0.65
52:26:1206:G:H3'	52:26:1207:G:H5''	1.79	0.65
53:27:2292:U:H2'	53:27:2293:G:H8	1.62	0.65
59:33:39:TRP:CZ3	59:33:43:LEU:HD22	2.32	0.65
59:33:673:ALA:O	59:33:707:LEU:HG	1.97	0.65
2:B:34:VAL:HG22	2:B:50:VAL:HG12	1.77	0.65
22:V:67:VAL:HG12	22:V:74:LYS:HG2	1.79	0.65
26:Z:1:MET:HA	54:28:44:G:OP2	1.96	0.65
52:26:487:A:H2'	52:26:488:C:O4'	1.97	0.65
52:26:813:U:C2'	52:26:814:A:H5''	2.27	0.65
59:33:20:TRP:NE1	59:33:63:VAL:C	2.50	0.65
1:A:213:ARG:HH22	53:27:1566:A:H5'	1.61	0.65
12:L:35:ALA:HB2	12:L:102:LEU:HD11	1.77	0.65
53:27:729:G:H2'	53:27:1775:U:H1'	1.77	0.65
53:27:784:G:H5'	53:27:785:G:OP1	1.97	0.65
53:27:1096:A:H3'	53:27:1097:U:H5''	1.78	0.65
53:27:2243:U:H2'	53:27:2244:U:C6	2.32	0.65
53:27:2636:C:H2'	53:27:2637:U:H6	1.61	0.65
58:32:57:A:O2'	58:32:58:A:H5'	1.97	0.65
59:33:73:ILE:O	59:33:77:ARG:HG3	1.96	0.65
6:F:32:PRO:HA	23:W:38:TRP:CD1	2.32	0.65
9:I:32:LEU:CD1	9:I:54:ILE:HG21	2.19	0.65
16:P:24:TYR:HE2	53:27:2020:A:H4'	1.61	0.65
53:27:1443:U:H2'	53:27:1444:G:H8	1.60	0.65
56:30:23:A:H2'	56:30:24:G:H8	1.62	0.65
23:W:60:LYS:HD2	53:27:372:G:H5''	1.78	0.64
25:Y:5:LYS:HG2	25:Y:36:GLU:HG2	1.78	0.64
34:8:187:ARG:HD2	34:8:190:LEU:HD11	1.78	0.64
39:13:17:ARG:HH12	52:26:1147:C:H1'	1.61	0.64
46:20:46:LYS:HG3	46:20:47:GLU:N	2.07	0.64
52:26:418:C:H2'	52:26:419:C:C6	2.32	0.64
52:26:747:A:H2'	52:26:748:G:O4'	1.96	0.64
52:26:1130:A:H61	52:26:1144:G:H1'	1.60	0.64
53:27:284:U:H3	53:27:356:G:H1	1.45	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2267:A:H5''	53:27:2268:A:C5'	2.27	0.64
59:33:16:ASP:OD1	59:33:17:PRO:HD2	1.96	0.64
59:33:17:PRO:CB	59:33:39:TRP:NE1	2.50	0.64
13:M:56:LYS:HD2	13:M:94:TYR:OH	1.98	0.64
43:17:8:ILE:N	43:17:9:PRO:CD	2.49	0.64
52:26:70:U:H5''	52:26:71:A:OP1	1.97	0.64
52:26:920:U:H2'	52:26:921:U:C6	2.32	0.64
52:26:1097:C:H2'	52:26:1098:C:H6	1.60	0.64
54:28:37:C:H42	54:28:49:C:H1'	1.61	0.64
59:33:285:ARG:HG3	59:33:288:ASP:H	1.61	0.64
1:A:144:GLU:HA	1:A:151:GLY:HA2	1.77	0.64
5:E:51:PHE:CZ	5:E:68:ARG:HA	2.32	0.64
12:L:71:LYS:HB3	12:L:93:VAL:O	1.97	0.64
20:T:35:VAL:HB	20:T:38:ILE:HG13	1.80	0.64
34:8:57:LYS:O	34:8:61:ARG:HG2	1.96	0.64
38:12:93:LYS:HB3	38:12:116:ARG:HH22	1.62	0.64
47:21:26:ARG:HG2	47:21:39:ARG:O	1.96	0.64
52:26:309:A:H2'	52:26:310:G:H8	1.62	0.64
53:27:720:U:H2'	53:27:721:A:H8	1.62	0.64
53:27:863:A:H2'	53:27:864:G:C8	2.31	0.64
53:27:1794:A:H2'	53:27:1795:C:H6	1.62	0.64
59:33:443:LYS:HB2	59:33:462:GLU:HB2	1.80	0.64
2:B:40:LEU:HD13	2:B:46:ARG:HG3	1.80	0.64
29:3:25:LYS:NZ	53:27:210:C:H5''	2.12	0.64
41:15:39:ASN:HD22	52:26:683:G:H21	1.45	0.64
59:33:17:PRO:HB3	59:33:39:TRP:HE1	1.59	0.64
17:Q:32:THR:HA	17:Q:62:GLU:HA	1.78	0.64
23:W:15:ASN:HD22	53:27:381:G:H5''	1.61	0.64
40:14:88:MET:O	40:14:89:ARG:HG2	1.98	0.64
52:26:1170:A:H2'	52:26:1171:A:O4'	1.97	0.64
53:27:2039:U:H2'	53:27:2040:G:C8	2.33	0.64
54:28:48:U:H2'	54:28:49:C:C6	2.32	0.64
56:30:21:A:H62	56:30:46:G:H2'	1.61	0.64
59:33:58:ARG:HD3	59:33:159:HIS:CE1	2.32	0.64
40:14:53:ILE:HG13	44:18:84:ARG:HD2	1.79	0.64
51:25:36:PHE:O	51:25:38:GLU:N	2.29	0.64
51:25:67:THR:HA	52:26:1167:A:C5	2.32	0.64
52:26:79:G:H2'	52:26:80:A:H8	1.62	0.64
59:33:54:LEU:HB2	59:33:57:TRP:NE1	2.13	0.64
16:P:12:ARG:O	16:P:15:LYS:HB3	1.98	0.64
19:S:65:GLY:HA3	19:S:77:ARG:O	1.98	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:18:45:LEU:CG	49:23:12:LEU:HD21	2.27	0.64
44:18:45:LEU:HG	49:23:12:LEU:HD21	1.80	0.64
53:27:1283:G:H1'	53:27:1329:U:O2	1.98	0.64
53:27:2692:G:H2'	53:27:2693:G:H8	1.63	0.64
59:33:147:ARG:HA	59:33:150:VAL:CG1	2.28	0.64
59:33:466:GLN:HG2	59:33:467:LYS:HG2	1.80	0.64
33:7:63:ILE:HG23	33:7:98:ALA:CA	2.22	0.64
52:26:664:G:H22	52:26:741:G:H1	1.45	0.64
52:26:843:U:OP1	52:26:844:G:H5'	1.98	0.64
52:26:902:G:H2'	52:26:903:G:H8	1.61	0.64
53:27:45:G:H5''	53:27:46:G:C5'	2.15	0.64
53:27:49:A:H2'	53:27:49:A:N3	2.13	0.64
53:27:833:A:H2'	53:27:834:G:C8	2.32	0.64
53:27:2538:C:H2'	53:27:2539:C:H6	1.63	0.64
54:28:66:A:N1	54:28:107:G:H2'	2.11	0.64
59:33:600:GLU:HG3	59:33:654:ASP:OD1	1.96	0.64
4:D:147:ARG:HG2	4:D:148:VAL:N	2.13	0.64
13:M:96:ARG:HG3	53:27:2882:A:H5'	1.80	0.64
16:P:10:ARG:HH22	53:27:514:A:H5'	1.62	0.64
32:6:22:TRP:CD1	32:6:22:TRP:N	2.65	0.64
43:17:16:ILE:H	43:17:16:ILE:HD12	1.63	0.64
44:18:80:ARG:NH1	44:18:81:ILE:HG13	2.13	0.64
49:23:49:ALA:HB1	49:23:56:HIS:HB3	1.78	0.64
51:25:48:LYS:HG3	52:26:723:U:OP1	1.98	0.64
52:26:412:A:N6	52:26:431:A:H61	1.95	0.64
56:30:18:G:H5''	56:30:58:A:C2	2.33	0.64
59:33:240:MET:O	59:33:243:GLU:HG2	1.98	0.64
6:F:84:ALA:HB1	6:F:90:LEU:HA	1.78	0.64
52:26:193:C:H2'	52:26:194:C:C6	2.32	0.64
52:26:744:C:H2'	52:26:745:G:C8	2.33	0.64
52:26:1304:G:H1'	52:26:1333:A:H61	1.63	0.64
53:27:1040:A:H2	53:27:1115:G:H22	1.46	0.64
53:27:1331:G:C2'	53:27:1332:G:H5''	2.28	0.64
53:27:1936:A:H2	53:27:1943:U:H3	1.44	0.64
59:33:232:PHE:CZ	59:33:329:PRO:HD2	2.33	0.64
2:B:133:THR:HG22	53:27:1993:U:H4'	1.80	0.63
37:11:131:GLY:O	37:11:134:VAL:HG22	1.96	0.63
51:25:5:VAL:HG21	51:25:7:GLU:HG3	1.78	0.63
52:26:1088:G:N2	52:26:1167:A:H61	1.94	0.63
53:27:813:U:H2'	53:27:814:C:C6	2.32	0.63
53:27:844:A:C2'	53:27:845:A:H5''	2.28	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2246:G:H2'	53:27:2247:A:C8	2.33	0.63
54:28:3:C:C2'	54:28:4:C:H5''	2.27	0.63
34:8:23:GLY:HA3	34:8:160:LEU:HD11	1.80	0.63
35:9:114:LEU:O	35:9:119:VAL:HG22	1.98	0.63
38:12:42:GLU:HG2	38:12:100:ILE:HG21	1.79	0.63
52:26:1506:U:O2'	52:26:1507:A:H5'	1.98	0.63
53:27:1203:U:H3'	53:27:1204:A:H2'	1.79	0.63
53:27:2638:G:H1'	53:27:2778:A:H61	1.62	0.63
53:27:2710:C:H2'	53:27:2711:A:C8	2.33	0.63
28:2:20:TYR:OH	53:27:2348:U:H5'	1.98	0.63
39:13:19:PHE:HB2	39:13:63:TYR:O	1.99	0.63
52:26:484:G:C5	52:26:486:U:H1'	2.32	0.63
53:27:1258:U:H2'	53:27:1259:G:C8	2.32	0.63
59:33:17:PRO:CB	59:33:39:TRP:CE2	2.81	0.63
59:33:88:ASN:ND2	59:33:90:VAL:HG13	2.13	0.63
1:A:78:GLU:HG3	1:A:79:ARG:HG2	1.79	0.63
4:D:142:TYR:CE2	43:17:8:ILE:HG12	2.34	0.63
21:U:53:LYS:HB3	21:U:55:GLU:OE1	1.99	0.63
37:11:13:PRO:HB2	37:11:18:GLY:HA2	1.80	0.63
39:13:40:ARG:CA	39:13:44:ARG:HD3	2.28	0.63
52:26:224:U:H2'	52:26:225:C:C6	2.33	0.63
53:27:598:U:H2'	53:27:599:A:H8	1.63	0.63
53:27:1038:G:H2'	53:27:1039:A:C8	2.34	0.63
56:30:41:C:C2'	56:30:42:C:H5''	2.29	0.63
56:30:72:C:H2'	56:30:73:A:C8	2.33	0.63
58:32:58:A:H1'	58:32:60:U:C5	2.32	0.63
59:33:282:VAL:HG12	59:33:341:LYS:HG2	1.80	0.63
2:B:27:ILE:HD12	2:B:187:LEU:HD23	1.80	0.63
21:U:21:ARG:NE	21:U:87:GLN:HG3	2.13	0.63
29:3:12:ARG:HE	29:3:44:VAL:HG21	1.64	0.63
31:5:36:ARG:HG2	31:5:37:GLN:N	2.13	0.63
41:15:64:VAL:HA	41:15:67:GLU:OE1	1.98	0.63
53:27:2327:A:H2'	53:27:2328:A:C8	2.33	0.63
54:28:24:G:H1'	54:28:27:C:H42	1.64	0.63
59:33:77:ARG:NH1	59:33:99:VAL:CG2	2.61	0.63
59:33:300:TYR:CZ	59:33:329:PRO:HD3	2.33	0.63
8:H:60:VAL:HG13	8:H:64:ARG:HA	1.79	0.63
10:J:64:ARG:HH12	10:J:101:GLY:HA3	1.64	0.63
13:M:29:VAL:HB	13:M:75:ILE:HD12	1.79	0.63
15:O:103:THR:HA	15:O:107:ALA:HB2	1.81	0.63
22:V:15:LYS:HB2	22:V:17:LEU:HD11	1.81	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y:6:ILE:HG22	25:Y:56:VAL:HA	1.80	0.63
27:1:24:VAL:O	27:1:26:SER:N	2.32	0.63
30:4:61:LEU:O	30:4:61:LEU:HD12	1.99	0.63
32:6:153:MET:SD	32:6:157:PRO:HG3	2.39	0.63
36:10:5:GLU:HG3	36:10:63:ASN:OD1	1.98	0.63
37:11:65:LEU:O	37:11:68:VAL:HG12	1.99	0.63
41:15:51:PHE:HD1	41:15:55:ARG:HB3	1.63	0.63
53:27:807:U:H2'	53:27:808:G:H8	1.63	0.63
53:27:851:C:H2'	53:27:852:U:C6	2.33	0.63
53:27:967:U:H2'	53:27:968:C:C6	2.33	0.63
53:27:2646:C:H2'	53:27:2647:U:O4'	1.98	0.63
53:27:2789:C:H2'	53:27:2893:A:N7	2.14	0.63
53:27:2800:A:H3'	53:27:2801:G:C5'	2.25	0.63
59:33:611:ARG:HA	59:33:614:GLN:NE2	2.14	0.63
2:B:108:ASP:OD2	2:B:207:VAL:HG12	1.99	0.63
8:H:78:LEU:HB2	8:H:108:ILE:HG23	1.81	0.63
29:3:35:ARG:HE	29:3:42:LEU:HD11	1.62	0.63
34:8:190:LEU:HD12	34:8:190:LEU:O	1.98	0.63
46:20:75:ILE:O	46:20:79:ASN:N	2.31	0.63
53:27:639:U:H2'	53:27:640:C:C6	2.33	0.63
53:27:2048:G:C3'	53:27:2049:G:H5''	2.28	0.63
53:27:2861:U:H2'	53:27:2862:G:C8	2.34	0.63
59:33:274:PHE:HB3	59:33:333:THR:HB	1.80	0.63
59:33:286:LEU:HD21	59:33:343:MET:HE1	1.80	0.63
59:33:599:VAL:O	59:33:602:VAL:HG12	1.97	0.63
2:B:106:LYS:HA	2:B:175:LEU:O	1.98	0.63
11:K:51:GLU:O	53:27:833:A:H1'	1.97	0.63
21:U:1:MET:HG3	21:U:2:PHE:H	1.64	0.63
34:8:33:ILE:HG23	34:8:34:GLU:N	2.13	0.63
49:23:10:ILE:HD11	49:23:15:LEU:HD22	1.80	0.63
52:26:491:G:O2'	52:26:492:C:H5'	1.99	0.63
52:26:1530:G:H2'	52:26:1531:A:C8	2.33	0.63
53:27:879:G:H2'	53:27:880:G:H8	1.62	0.63
53:27:1295:C:H2'	53:27:1296:G:H8	1.63	0.63
53:27:1775:U:H2'	53:27:1776:G:O4'	1.98	0.63
53:27:2246:G:H2'	53:27:2247:A:H8	1.63	0.63
59:33:18:GLU:O	59:33:21:ILE:HG12	1.98	0.63
59:33:62:MET:CE	59:33:82:PHE:CD1	2.82	0.63
11:K:33:ARG:HD2	11:K:40:SER:HA	1.80	0.63
13:M:29:VAL:HG12	13:M:78:LYS:HD3	1.81	0.63
33:7:59:PRO:HG2	33:7:62:SER:HB3	1.78	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:167:A:C3'	52:26:168:G:H5''	2.29	0.63
53:27:2144:G:H4'	53:27:2145:C:H3'	1.81	0.63
53:27:2457:U:H5	53:27:2494:G:N1	1.97	0.63
54:28:62:C:H2'	54:28:63:C:H6	1.64	0.63
54:28:119:A:C2	54:28:120:A:H1'	2.34	0.63
59:33:29:GLN:HA	59:33:32:CYS:SG	2.39	0.63
59:33:432:HIS:HB3	59:33:435:VAL:CG2	2.25	0.63
59:33:676:ARG:HG3	59:33:677:SER:H	1.63	0.63
3:C:2:GLU:HB3	3:C:13:THR:HG22	1.80	0.62
7:G:60:LEU:HD13	7:G:79:PRO:HB3	1.80	0.62
8:H:124:MET:O	8:H:128:ILE:HG12	1.98	0.62
53:27:172:A:H2'	53:27:173:A:C8	2.34	0.62
53:27:873:C:H2'	53:27:874:G:H8	1.62	0.62
53:27:1326:U:H2'	53:27:1327:A:C8	2.22	0.62
59:33:154:ALA:O	59:33:157:ILE:HG12	1.98	0.62
59:33:293:LEU:CD1	59:33:322:ILE:HG21	2.29	0.62
32:6:113:LEU:HD13	32:6:143:LEU:HB3	1.82	0.62
43:17:10:ASP:HB3	43:17:45:SER:HB3	1.81	0.62
51:25:25:ALA:CB	55:29:9:G:H4'	2.29	0.62
53:27:1146:C:H2'	53:27:1147:A:H8	1.62	0.62
2:B:47:ALA:HA	2:B:84:LEU:HG	1.81	0.62
4:D:139:GLU:CD	4:D:139:GLU:H	2.02	0.62
6:F:3:VAL:HG22	6:F:38:PRO:HA	1.82	0.62
6:F:135:HIS:HB3	6:F:138:VAL:H	1.64	0.62
15:O:96:LEU:HB3	15:O:99:LEU:HD13	1.80	0.62
33:7:161:ILE:HG13	33:7:161:ILE:O	1.97	0.62
33:7:174:LEU:HA	33:7:181:ILE:HD11	1.81	0.62
36:10:38:ARG:HD3	36:10:98:GLU:H	1.64	0.62
46:20:46:LYS:CG	46:20:47:GLU:H	2.07	0.62
52:26:79:G:H2'	52:26:80:A:C8	2.34	0.62
53:27:1176:U:H2'	53:27:1177:G:C8	2.33	0.62
59:33:409:PHE:HA	59:33:415:VAL:HA	1.81	0.62
29:3:10:LEU:CG	29:3:14:ARG:HH22	2.11	0.62
33:7:122:GLN:HB3	33:7:127:VAL:HG11	1.80	0.62
35:9:95:MET:HG2	35:9:124:ALA:CB	2.29	0.62
53:27:296:U:H2'	53:27:297:G:H8	1.64	0.62
53:27:528:A:H2	53:27:2042:A:H2'	1.64	0.62
53:27:992:C:H2'	53:27:993:G:C8	2.35	0.62
53:27:2047:C:H2'	53:27:2048:G:H8	1.64	0.62
53:27:2593:U:H2'	53:27:2594:C:C6	2.35	0.62
1:A:16:VAL:HB	1:A:203:VAL:HG22	1.81	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:161:SER:HB3	4:D:164:GLU:CG	2.29	0.62
31:5:25:VAL:HB	31:5:35:GLN:HG2	1.80	0.62
46:20:22:ALA:HA	46:20:33:ILE:HG13	1.80	0.62
53:27:1266:G:H22	53:27:2012:G:H2'	1.64	0.62
56:30:18:G:H5''	56:30:58:A:H2	1.63	0.62
10:J:76:VAL:H	15:O:72:VAL:CG2	2.12	0.62
16:P:2:ARG:HD2	53:27:1248:G:C2	2.35	0.62
52:26:1062:U:H2'	52:26:1063:C:C5	2.33	0.62
53:27:1300:G:H4'	53:27:1301:A:C5'	2.27	0.62
59:33:96:ARG:HG2	59:33:104:VAL:CB	2.30	0.62
4:D:89:THR:CG2	4:D:91:ARG:HH11	2.13	0.62
41:15:126:ARG:NH2	52:26:692:U:H5''	2.14	0.62
52:26:80:A:H61	52:26:89:U:H3	1.46	0.62
52:26:177:G:H2'	52:26:178:C:C6	2.35	0.62
52:26:447:G:H1'	52:26:487:A:H61	1.65	0.62
53:27:1447:C:H2'	53:27:1448:G:H8	1.64	0.62
53:27:1869:G:H2'	53:27:1871:A:OP1	2.00	0.62
59:33:63:VAL:HG11	59:33:80:LEU:CD2	2.29	0.62
59:33:79:ALA:O	59:33:82:PHE:CD1	2.53	0.62
59:33:232:PHE:HE1	59:33:329:PRO:CD	2.11	0.62
7:G:114:GLU:HB3	7:G:122:GLN:HB3	1.82	0.62
10:J:87:LEU:HA	10:J:94:PRO:HA	1.80	0.62
32:6:32:GLY:HA3	32:6:38:HIS:HA	1.80	0.62
33:7:63:ILE:CG2	33:7:98:ALA:HA	2.23	0.62
33:7:76:ILE:HA	33:7:83:VAL:HG23	1.82	0.62
46:20:70:ARG:O	46:20:74:LEU:HG	1.99	0.62
49:23:77:ARG:HD2	52:26:1225:A:H1'	1.81	0.62
53:27:1197:G:H2'	53:27:1198:U:C6	2.35	0.62
54:28:78:A:H2'	54:28:79:G:O4'	1.99	0.62
59:33:42:CYS:HA	59:33:84:LEU:HD21	1.81	0.62
3:C:134:LEU:HD23	3:C:161:ALA:HB2	1.81	0.62
4:D:142:TYR:O	4:D:145:VAL:HG22	1.99	0.62
18:R:83:LYS:HG2	18:R:97:LEU:HD22	1.82	0.62
33:7:108:PRO:HA	33:7:114:LEU:HD12	1.82	0.62
52:26:16:A:O2'	52:26:17:U:H5'	1.99	0.62
52:26:82:G:H3'	52:26:83:C:C5'	2.29	0.62
53:27:1164:C:H2'	53:27:1165:A:C8	2.35	0.62
53:27:1794:A:H2'	53:27:1795:C:C6	2.35	0.62
6:F:64:ALA:O	6:F:68:ARG:HG3	2.00	0.62
10:J:77:ILE:HG12	15:O:71:ARG:HG3	1.81	0.62
32:6:46:VAL:HB	32:6:47:PRO:HD3	1.82	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:6:67:LEU:HD11	32:6:157:PRO:HG2	1.82	0.62
35:9:98:ALA:HB2	35:9:123:LEU:HG	1.80	0.62
35:9:156:ARG:O	35:9:158:LYS:N	2.31	0.62
40:14:50:THR:HG22	40:14:62:ARG:HD3	1.81	0.62
45:19:88:ARG:HD3	53:27:714:U:C6	2.35	0.62
53:27:2297:A:N1	53:27:2321:U:H5	1.96	0.62
59:33:210:GLU:CG	59:33:260:TRP:CH2	2.83	0.62
4:D:82:TYR:CD1	4:D:83:PRO:HD2	2.35	0.61
34:8:158:LEU:O	34:8:162:GLU:HG2	2.00	0.61
41:15:126:ARG:O	51:25:34:ARG:NH2	2.33	0.61
52:26:584:G:H2'	52:26:585:G:H8	1.65	0.61
53:27:2515:C:H2'	53:27:2516:A:H8	1.64	0.61
54:28:30:C:C2'	54:28:31:C:H5'	2.30	0.61
59:33:694:VAL:HG12	59:33:714:ILE:HG22	1.82	0.61
12:L:33:LEU:HB2	12:L:117:PHE:CD1	2.35	0.61
17:Q:77:PHE:HD1	17:Q:84:ARG:HB3	1.64	0.61
20:T:43:LYS:HB2	20:T:60:LYS:HE2	1.80	0.61
39:13:5:TYR:HB2	39:13:20:ILE:HG23	1.81	0.61
52:26:3:A:H1'	52:26:613:C:H1'	1.81	0.61
52:26:396:C:H2'	52:26:397:A:H5''	1.83	0.61
53:27:2133:G:H2'	53:27:2157:G:O2'	2.00	0.61
53:27:2183:A:H2'	53:27:2184:A:H8	1.63	0.61
1:A:5:CYS:SG	1:A:12:ARG:HD2	2.41	0.61
13:M:100:CYS:H	13:M:111:ALA:HA	1.64	0.61
14:N:53:THR:HG21	14:N:65:THR:O	2.01	0.61
17:Q:15:SER:O	17:Q:18:GLN:HG2	2.00	0.61
19:S:44:LYS:HA	19:S:55:VAL:HG21	1.82	0.61
32:6:186:VAL:HG11	32:6:195:VAL:HG21	1.81	0.61
35:9:108:GLY:H	52:26:9:G:H4'	1.64	0.61
36:10:29:ILE:HG13	36:10:30:THR:N	2.15	0.61
43:17:89:ARG:NH2	43:17:95:PRO:HG2	2.15	0.61
44:18:45:LEU:HD21	49:23:12:LEU:HD21	1.83	0.61
52:26:687:A:N3	52:26:688:G:H1'	2.15	0.61
53:27:1266:G:N2	53:27:2012:G:H2'	2.15	0.61
58:32:7:G:H2'	58:32:49:G:C8	2.34	0.61
59:33:62:MET:HE2	59:33:79:ALA:HA	1.81	0.61
59:33:62:MET:SD	59:33:155:GLU:OE1	2.58	0.61
1:A:86:ARG:HG2	1:A:86:ARG:HH11	1.65	0.61
7:G:117:LEU:HD13	7:G:122:GLN:HG3	1.82	0.61
11:K:51:GLU:CG	11:K:56:PRO:HA	2.31	0.61
35:9:133:ILE:H	35:9:133:ILE:HD12	1.66	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:10:23:GLU:HA	36:10:26:THR:HG22	1.81	0.61
52:26:112:G:N2	52:26:354:G:H5'	2.15	0.61
52:26:986:U:H2'	52:26:987:G:C8	2.35	0.61
53:27:2171:A:C2'	53:27:2172:U:H5'	2.30	0.61
2:B:105:LYS:O	2:B:177:VAL:HG12	2.00	0.61
2:B:146:ILE:HG13	2:B:147:GLY:H	1.66	0.61
7:G:99:PHE:HA	7:G:102:ALA:HB3	1.83	0.61
7:G:126:LEU:HB3	7:G:128:THR:HG23	1.83	0.61
8:H:76:ALA:O	8:H:80:LYS:HG3	2.00	0.61
14:N:51:ALA:HB3	14:N:78:VAL:CG2	2.30	0.61
17:Q:5:PHE:O	17:Q:11:GLN:HA	2.00	0.61
19:S:80:TRP:CZ3	19:S:82:LYS:HB2	2.34	0.61
21:U:1:MET:HG3	21:U:2:PHE:N	2.16	0.61
37:11:58:LEU:O	37:11:61:PHE:HB3	2.01	0.61
37:11:74:VAL:HG13	37:11:143:MET:HB3	1.82	0.61
39:13:126:PHE:O	52:26:1342:C:H4'	1.99	0.61
51:25:3:ILE:N	51:25:19:LYS:HZ2	1.99	0.61
52:26:737:C:H2'	52:26:738:C:C6	2.35	0.61
52:26:1032:G:H3'	52:26:1032:G:N3	2.15	0.61
52:26:1527:U:O2'	52:26:1528:U:H5'	2.00	0.61
53:27:112:U:H2'	53:27:113:U:H5'	1.81	0.61
53:27:464:U:H2'	53:27:465:G:O4'	2.01	0.61
53:27:1881:C:H2'	53:27:1882:U:O4'	2.00	0.61
59:33:96:ARG:NE	59:33:104:VAL:HG21	2.15	0.61
59:33:147:ARG:O	59:33:150:VAL:HG12	1.99	0.61
4:D:130:GLY:HA3	53:27:2305:U:H5''	1.82	0.61
37:11:145:GLU:HA	37:11:148:LYS:HB2	1.82	0.61
46:20:21:VAL:HG12	46:20:33:ILE:HD12	1.82	0.61
47:21:45:VAL:HG22	47:21:72:TRP:HB2	1.82	0.61
52:26:477:C:H2'	52:26:478:A:C8	2.36	0.61
52:26:607:A:H2'	52:26:608:A:H8	1.62	0.61
52:26:1412:C:H2'	52:26:1413:A:C8	2.35	0.61
53:27:145:C:H2'	53:27:146:A:H8	1.64	0.61
53:27:1261:C:C2'	53:27:1262:A:H5''	2.31	0.61
8:H:3:LYS:HG2	8:H:4:VAL:HG23	1.82	0.61
13:M:103:ARG:HB2	13:M:110:MET:HG3	1.83	0.61
18:R:42:LYS:HB2	53:27:2010:G:H5''	1.82	0.61
32:6:104:LYS:HE2	52:26:1073:U:H4'	1.82	0.61
53:27:889:C:H2'	53:27:890:C:C6	2.35	0.61
53:27:1680:U:H2'	53:27:1681:G:O4'	2.01	0.61
56:30:41:C:C3'	56:30:42:C:H5''	2.30	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:175:ALA:O	59:33:178:CYS:SG	2.59	0.61
4:D:56:LEU:HA	4:D:59:ILE:HD12	1.81	0.61
7:G:28:ALA:HB1	7:G:81:LEU:HG	1.82	0.61
9:I:39:LYS:HD2	53:27:1007:C:OP1	2.00	0.61
13:M:72:ASP:OD2	13:M:74:GLU:HB3	1.99	0.61
41:15:109:ILE:HD12	51:25:16:ARG:HE	1.64	0.61
42:16:27:PRO:HG2	52:26:363:A:C2	2.35	0.61
52:26:27:G:H2'	52:26:28:A:C8	2.35	0.61
52:26:855:U:H2'	52:26:856:C:C6	2.36	0.61
53:27:876:C:H2'	53:27:877:A:O4'	2.01	0.61
53:27:910:A:H2'	53:27:911:A:C8	2.36	0.61
53:27:1440:U:H2'	53:27:1441:G:C8	2.36	0.61
53:27:1848:A:H2'	53:27:1849:G:O4'	2.01	0.61
53:27:2130:U:H5'	53:27:2159:G:H1	1.64	0.61
53:27:2515:C:H2'	53:27:2516:A:C8	2.36	0.61
53:27:2698:U:H2'	53:27:2699:C:C6	2.35	0.61
59:33:281:ILE:HG13	59:33:338:ILE:HG23	1.83	0.61
1:A:24:HIS:CD2	1:A:79:ARG:HE	2.18	0.61
2:B:125:TRP:CG	2:B:160:LYS:HB3	2.36	0.61
7:G:124:ASP:O	7:G:126:LEU:N	2.31	0.61
35:9:121:ASN:O	35:9:122:VAL:HG22	2.01	0.61
40:14:7:ARG:HA	40:14:75:ASP:HA	1.83	0.61
51:25:38:GLU:HB2	52:26:1526:G:OP2	2.01	0.61
52:26:631:C:H3'	52:26:632:U:H5'	1.83	0.61
54:28:66:A:H5''	54:28:67:G:OP1	2.01	0.61
59:33:409:PHE:HB2	59:33:415:VAL:HG12	1.83	0.61
2:B:101:PHE:O	2:B:103:ASP:N	2.32	0.61
7:G:23:LEU:CD1	7:G:119:PRO:HD3	2.31	0.61
8:H:77:VAL:O	8:H:80:LYS:HB2	2.01	0.61
16:P:88:GLU:HG2	17:Q:52:PRO:HB3	1.82	0.61
33:7:156:LEU:HD12	33:7:156:LEU:O	1.99	0.61
48:22:17:VAL:HG22	48:22:18:GLN:H	1.66	0.61
52:26:399:G:H2'	52:26:400:C:C6	2.36	0.61
52:26:864:A:H2'	52:26:865:A:C8	2.36	0.61
53:27:534:U:H2'	53:27:535:G:H8	1.64	0.61
53:27:548:G:H2'	53:27:549:G:C4'	2.31	0.61
7:G:3:LEU:HD12	7:G:5:LEU:H	1.66	0.60
7:G:32:GLY:C	53:27:1055:G:H4'	2.21	0.60
33:7:123:LEU:HD21	33:7:129:PHE:HB3	1.83	0.60
44:18:84:ARG:NH1	44:18:88:MET:HG3	2.15	0.60
52:26:46:G:OP1	52:26:307:C:H4'	2.01	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:410:G:H2'	52:26:429:U:C5	2.36	0.60
53:27:184:C:H2'	53:27:185:G:C8	2.35	0.60
53:27:859:G:H1'	53:27:860:U:H5	1.65	0.60
59:33:730:ASN:ND2	59:33:738:ALA:HB3	2.16	0.60
3:C:62:GLN:HA	3:C:67:ARG:HD3	1.83	0.60
3:C:137:LYS:O	3:C:141:MET:N	2.34	0.60
8:H:125:THR:O	8:H:129:GLU:HG3	2.01	0.60
9:I:80:HIS:O	9:I:82:GLY:N	2.34	0.60
9:I:136:GLN:HE21	53:27:2899:A:H5'	1.66	0.60
32:6:137:THR:O	32:6:141:GLU:HG3	2.00	0.60
37:11:7:GLY:O	37:11:9:ARG:N	2.34	0.60
41:15:44:ALA:HB3	41:15:69:CYS:HB2	1.82	0.60
52:26:1033:G:C2	52:26:1034:G:H1'	2.37	0.60
53:27:508:A:H3'	53:27:509:C:H5'	1.82	0.60
53:27:1070:A:H2'	53:27:1097:U:OP1	2.01	0.60
53:27:2215:C:H2'	53:27:2216:G:H8	1.67	0.60
59:33:161:ARG:O	59:33:162:GLU:HG2	2.01	0.60
1:A:216:ARG:HH11	1:A:216:ARG:HG3	1.66	0.60
9:I:96:ARG:HH11	9:I:99:ARG:HD3	1.66	0.60
12:L:3:GLN:HG3	12:L:92:TRP:NE1	2.16	0.60
40:14:59:LYS:HE3	52:26:972:C:O3'	2.01	0.60
42:16:120:ARG:HG2	52:26:37:U:H5''	1.83	0.60
53:27:394:C:H2'	53:27:395:U:O4'	2.01	0.60
53:27:494:G:O2'	53:27:495:G:H5'	2.01	0.60
53:27:1295:C:H2'	53:27:1296:G:C8	2.35	0.60
59:33:61:GLU:HA	59:33:64:GLU:OE1	2.01	0.60
9:I:21:THR:HG23	9:I:61:LYS:HE3	1.83	0.60
11:K:48:ARG:HD3	53:27:666:A:H4'	1.83	0.60
53:27:547:A:H4'	53:27:548:G:N7	2.17	0.60
53:27:1062:G:H2'	53:27:1063:G:C8	2.36	0.60
59:33:49:HIS:HB3	59:33:50:PRO:CD	2.28	0.60
20:T:27:VAL:HG22	20:T:28:LEU:N	2.15	0.60
41:15:92:ARG:HG3	41:15:93:GLU:H	1.66	0.60
52:26:1345:U:H5''	52:26:1346:A:OP1	2.00	0.60
53:27:1542:U:H2'	53:27:1543:G:O4'	2.01	0.60
53:27:2319:G:H4'	53:27:2321:U:O4	2.01	0.60
59:33:61:GLU:OE2	59:33:158:ALA:HB1	2.00	0.60
4:D:90:LEU:HD12	4:D:90:LEU:O	2.02	0.60
6:F:73:ASN:HA	6:F:108:VAL:HG21	1.82	0.60
8:H:27:LEU:HD22	8:H:32:VAL:HB	1.84	0.60
14:N:49:VAL:HG11	14:N:81:ARG:HB2	1.83	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:6:56:LEU:HD23	32:6:59:ILE:HD11	1.81	0.60
34:8:169:TRP:CD1	34:8:185:PRO:HG3	2.37	0.60
52:26:1219:A:H2'	52:26:1220:G:H8	1.66	0.60
53:27:554:U:H2'	53:27:555:G:O4'	2.02	0.60
53:27:1344:U:H3'	53:27:1345:C:H5'	1.84	0.60
54:28:119:A:H2'	54:28:120:A:H4'	1.83	0.60
56:30:16:U:O2'	56:30:60:U:H1'	2.02	0.60
1:A:43:ASN:HB3	1:A:49:THR:HG21	1.82	0.60
3:C:31:VAL:HG21	3:C:104:ALA:HB2	1.83	0.60
3:C:192:ALA:O	3:C:196:VAL:HG23	2.02	0.60
52:26:918:A:H2'	52:26:919:A:C8	2.35	0.60
53:27:1664:A:H61	53:27:1996:C:N4	1.97	0.60
54:28:62:C:H2'	54:28:63:C:C6	2.37	0.60
56:30:76:A:H8	59:33:410:THR:HG21	1.67	0.60
59:33:267:ASN:H	59:33:267:ASN:HD22	1.49	0.60
26:Z:20:ASN:HB2	26:Z:39:LYS:HE3	1.82	0.60
34:8:151:GLN:O	34:8:153:ARG:N	2.35	0.60
35:9:105:ILE:HG13	35:9:105:ILE:O	2.01	0.60
52:26:264:C:H2'	52:26:265:G:O4'	2.02	0.60
52:26:379:C:H2'	52:26:380:G:C8	2.37	0.60
52:26:455:G:H2'	52:26:456:A:C8	2.37	0.60
52:26:695:A:H2'	52:26:696:A:C8	2.37	0.60
53:27:657:U:H2'	53:27:658:U:C6	2.37	0.60
56:30:4:C:H2'	56:30:5:G:H8	1.67	0.60
59:33:286:LEU:O	59:33:289:CYS:SG	2.54	0.60
1:A:204:LEU:HD22	1:A:209:ALA:HB1	1.81	0.60
1:A:244:VAL:HG12	1:A:250:GLN:HA	1.83	0.60
3:C:79:ARG:HH21	53:27:448:U:H5'	1.66	0.60
4:D:141:ASP:HB3	4:D:144:LYS:HD3	1.83	0.60
17:Q:85:LYS:HE3	53:27:815:C:OP2	2.01	0.60
25:Y:9:THR:HG23	25:Y:10:ARG:HG3	1.84	0.60
36:10:44:ARG:HA	36:10:58:HIS:HA	1.83	0.60
39:13:122:ARG:HB2	52:26:1349:A:H5''	1.82	0.60
42:16:27:PRO:C	42:16:28:GLN:HG3	2.21	0.60
52:26:1225:A:H5'	52:26:1226:C:OP2	2.02	0.60
53:27:607:U:O4	53:27:620:G:H5'	2.02	0.60
58:32:1:C:H2'	58:32:2:G:C8	2.37	0.60
9:I:113:PRO:HD2	53:27:558:U:OP1	2.02	0.60
39:13:27:ILE:HA	39:13:62:LEU:HD11	1.84	0.60
40:14:6:ILE:HD11	40:14:79:PRO:HA	1.83	0.60
52:26:793:U:H5'	52:26:794:A:H5''	1.82	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:164:C:H2'	53:27:165:A:O4'	2.02	0.60
53:27:2070:A:H2'	53:27:2071:A:H8	1.65	0.60
53:27:2153:C:H2'	53:27:2154:A:C8	2.37	0.60
56:30:43:C:O2'	56:30:44:G:H5'	2.01	0.60
56:30:76:A:H2'	59:33:431:ILE:HD13	1.84	0.60
59:33:74:ASP:OD1	59:33:103:VAL:HG22	2.02	0.60
18:R:1:MET:HG3	18:R:2:GLU:H	1.66	0.59
23:W:2:ARG:HD2	23:W:29:LEU:HD22	1.84	0.59
36:10:55:HIS:O	36:10:56:LYS:HB2	2.02	0.59
46:20:61:VAL:HG21	46:20:67:ILE:HD11	1.84	0.59
53:27:580:U:H2'	53:27:581:C:C6	2.37	0.59
59:33:147:ARG:CA	59:33:150:VAL:HG12	2.29	0.59
2:B:16:THR:OG1	2:B:20:VAL:HB	2.03	0.59
8:H:11:GLN:HE21	8:H:55:PRO:HB3	1.67	0.59
11:K:17:LYS:HD3	53:27:663:G:H5''	1.83	0.59
19:S:29:THR:HG23	19:S:85:VAL:C	2.22	0.59
31:5:3:VAL:HG21	53:27:2539:C:H5'	1.83	0.59
33:7:63:ILE:HG21	33:7:96:VAL:HG23	1.84	0.59
40:14:40:ILE:HB	40:14:73:LEU:HB3	1.83	0.59
52:26:21:G:H2'	52:26:22:G:C8	2.36	0.59
52:26:129:A:H1'	52:26:130:A:C8	2.37	0.59
52:26:177:G:H2'	52:26:178:C:H6	1.67	0.59
53:27:871:U:H2'	53:27:872:U:C6	2.37	0.59
53:27:1139:G:O2'	53:27:1140:C:H5'	2.02	0.59
2:B:81:GLU:OE1	53:27:2636:C:H4'	2.01	0.59
2:B:122:VAL:CG2	2:B:141:ARG:HH21	2.12	0.59
7:G:8:LYS:HG2	53:27:1046:A:C6	2.37	0.59
20:T:40:LEU:HD22	20:T:59:GLU:HB3	1.83	0.59
22:V:34:VAL:HG12	22:V:36:GLN:H	1.67	0.59
34:8:120:LYS:HG2	34:8:130:ASN:HB2	1.84	0.59
47:21:19:SER:HB3	47:21:70:LYS:NZ	2.18	0.59
52:26:1478:U:H2'	52:26:1479:C:C6	2.38	0.59
53:27:547:A:H5''	53:27:548:G:OP1	2.03	0.59
53:27:889:C:H2'	53:27:890:C:H6	1.66	0.59
59:33:615:PRO:HB3	59:33:635:ARG:CB	2.32	0.59
3:C:110:SER:O	3:C:114:ARG:HG3	2.03	0.59
24:X:42:LEU:O	24:X:46:VAL:HG23	2.02	0.59
27:1:2:VAL:HG12	27:1:3:GLN:H	1.66	0.59
32:6:83:ALA:CB	32:6:90:PHE:HB3	2.33	0.59
52:26:85:U:H5''	52:26:86:G:O4'	2.03	0.59
52:26:104:G:H2'	52:26:105:G:H8	1.66	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:1118:U:H2'	52:26:1119:C:C6	2.37	0.59
59:33:63:VAL:CG1	59:33:80:LEU:HG	2.20	0.59
8:H:60:VAL:HG12	8:H:61:TYR:H	1.67	0.59
13:M:90:ARG:HH12	13:M:116:VAL:HG11	1.67	0.59
18:R:93:ALA:HB2	53:27:1614:A:N1	2.17	0.59
43:17:18:LEU:CD1	43:17:33:LEU:HD11	2.28	0.59
52:26:884:U:H4'	52:26:885:G:C5'	2.32	0.59
53:27:1444:G:H2'	53:27:1445:G:H8	1.66	0.59
53:27:1506:U:H2'	53:27:1507:C:C6	2.37	0.59
53:27:2221:G:O2'	53:27:2222:C:H5'	2.02	0.59
3:C:58:LYS:HD3	3:C:62:GLN:HB2	1.85	0.59
5:E:153:PRO:HG3	5:E:161:VAL:O	2.02	0.59
8:H:73:PRO:HG2	8:H:78:LEU:HD21	1.85	0.59
9:I:81:ILE:HG23	9:I:82:GLY:N	2.17	0.59
14:N:11:ALA:HB2	14:N:96:GLY:N	2.17	0.59
17:Q:79:ARG:HE	17:Q:80:ARG:HH21	1.51	0.59
33:7:199:VAL:HG22	33:7:201:ILE:HD11	1.83	0.59
37:11:15:PRO:HA	39:13:45:MET:SD	2.43	0.59
38:12:80:PRO:HG2	52:26:878:A:H5''	1.84	0.59
39:13:123:ARG:HD3	39:13:124:PRO:HD2	1.83	0.59
41:15:83:VAL:HB	41:15:109:ILE:HA	1.84	0.59
41:15:111:ASP:CB	51:25:19:LYS:HZ1	2.14	0.59
53:27:2116:G:O6	53:27:2165:C:H1'	2.02	0.59
59:33:204:ARG:HG3	59:33:211:TYR:CD2	2.36	0.59
3:C:1:MET:HG2	3:C:16:GLU:HA	1.85	0.59
17:Q:10:LYS:NZ	53:27:994:C:H1'	2.18	0.59
20:T:3:LYS:CD	20:T:82:VAL:HB	2.32	0.59
35:9:51:LYS:HZ2	52:26:1080:A:P	2.26	0.59
52:26:269:C:H2'	52:26:270:A:C8	2.37	0.59
52:26:715:A:H2'	52:26:716:A:C8	2.38	0.59
52:26:737:C:H2'	52:26:738:C:H6	1.68	0.59
52:26:1256:A:H1'	52:26:1258:G:C5	2.36	0.59
52:26:1379:G:O2'	52:26:1380:U:H5'	2.01	0.59
4:D:61:GLY:HA3	4:D:94:ARG:NH1	2.17	0.59
6:F:53:GLU:HA	6:F:57:LYS:HE3	1.85	0.59
16:P:48:ASP:HA	16:P:51:GLN:CB	2.33	0.59
44:18:45:LEU:CD2	49:23:12:LEU:HD21	2.33	0.59
46:20:8:ARG:HD3	46:20:17:TYR:CE1	2.38	0.59
47:21:64:ARG:HD2	52:26:264:C:C4'	2.31	0.59
53:27:215:G:C4'	53:27:216:A:H4'	2.32	0.59
53:27:1297:C:OP1	53:27:2710:C:H4'	2.01	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:240:MET:HB3	59:33:295:ILE:HD12	1.84	0.59
8:H:32:VAL:HG13	8:H:64:ARG:HD2	1.84	0.59
8:H:49:GLU:HG3	8:H:52:LEU:HD12	1.84	0.59
19:S:73:ARG:HH11	53:27:456:C:H2'	1.68	0.59
22:V:22:PHE:CD2	53:27:922:C:H1'	2.38	0.59
37:11:80:GLY:HA3	55:29:12:A:O2'	2.01	0.59
39:13:112:ARG:NH1	39:13:114:LYS:HG2	2.17	0.59
42:16:109:ARG:HB2	42:16:118:VAL:HG21	1.85	0.59
49:23:51:HIS:HA	49:23:56:HIS:HA	1.84	0.59
50:24:6:ALA:O	50:24:9:ARG:HB3	2.02	0.59
51:25:28:LEU:O	51:25:32:ARG:HB3	2.01	0.59
52:26:246:A:H4'	52:26:247:G:OP1	2.03	0.59
53:27:644:A:C2	53:27:2369:A:H1'	2.38	0.59
53:27:897:C:H2'	53:27:898:C:C6	2.38	0.59
53:27:1863:G:H2'	53:27:1864:U:O4'	2.03	0.59
59:33:65:ILE:HG12	59:33:161:ARG:HH21	1.65	0.59
59:33:697:VAL:HG22	59:33:712:MET:HE1	1.84	0.59
2:B:62:LYS:HB3	2:B:63:PRO:HD3	1.85	0.59
2:B:115:GLY:O	13:M:3:HIS:NE2	2.36	0.59
7:G:4:ASN:O	7:G:8:LYS:HG3	2.03	0.59
8:H:14:ALA:HB1	8:H:49:GLU:O	2.03	0.59
8:H:60:VAL:HG12	8:H:61:TYR:N	2.18	0.59
13:M:55:ALA:HA	13:M:80:PHE:HE1	1.68	0.59
18:R:4:ILE:HG22	18:R:106:VAL:HG22	1.84	0.59
35:9:22:LYS:HB3	35:9:29:ILE:HG22	1.85	0.59
52:26:166:U:H2'	52:26:167:A:C8	2.38	0.59
53:27:64:A:H2'	53:27:65:U:C6	2.38	0.59
53:27:2368:C:H2'	53:27:2369:A:H8	1.68	0.59
53:27:2512:C:H2'	53:27:2513:A:O4'	2.03	0.59
53:27:2800:A:C2	53:27:2895:G:H1'	2.38	0.59
57:31:6:G:O2'	57:31:7:G:H5'	2.03	0.59
7:G:27:VAL:HG23	7:G:110:ALA:HB1	1.85	0.58
17:Q:45:GLU:CD	17:Q:46:GLU:H	2.06	0.58
32:6:30:ILE:HG22	32:6:40:ILE:HG12	1.85	0.58
41:15:63:GLN:HG3	41:15:98:ALA:CB	2.32	0.58
41:15:97:ARG:HH12	51:25:13:VAL:HG23	1.68	0.58
53:27:419:U:H2'	53:27:420:C:C6	2.38	0.58
59:33:641:LEU:O	59:33:645:ARG:HG3	2.02	0.58
1:A:7:PRO:HB3	1:A:13:ARG:HG3	1.85	0.58
12:L:12:MET:HG2	12:L:72:PRO:HG2	1.84	0.58
32:6:65:LYS:HD3	32:6:153:MET:HG3	1.84	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:8:36:ALA:N	34:8:37:PRO:CD	2.62	0.58
46:20:40:ASN:HD22	46:20:46:LYS:NZ	2.01	0.58
52:26:707:U:H2'	52:26:708:C:C6	2.38	0.58
53:27:1387:A:H2'	53:27:1388:G:H8	1.68	0.58
53:27:1464:G:H2'	53:27:1465:G:C8	2.38	0.58
59:33:39:TRP:HA	59:33:80:LEU:HD13	1.85	0.58
1:A:24:HIS:CG	1:A:79:ARG:HE	2.20	0.58
8:H:23:VAL:HA	8:H:26:ALA:CB	2.32	0.58
22:V:35:ARG:HD2	22:V:54:THR:HG23	1.83	0.58
32:6:162:VAL:HG12	32:6:164:ASP:H	1.68	0.58
35:9:110:MET:HG3	35:9:139:THR:HG21	1.83	0.58
40:14:12:ALA:HB2	40:14:96:VAL:HG22	1.85	0.58
40:14:65:TYR:HA	44:18:98:ALA:H	1.66	0.58
50:24:23:ARG:HH12	52:26:176:C:H4'	1.67	0.58
52:26:98:A:H2'	52:26:99:C:C6	2.38	0.58
53:27:848:C:H2'	53:27:849:A:H8	1.68	0.58
53:27:1499:C:H2'	53:27:1500:G:H8	1.68	0.58
53:27:2215:C:H2'	53:27:2216:G:C8	2.38	0.58
53:27:2508:G:H1	53:27:2580:U:H3	1.52	0.58
59:33:79:ALA:O	59:33:82:PHE:CE1	2.57	0.58
4:D:147:ARG:HG2	4:D:148:VAL:H	1.68	0.58
6:F:3:VAL:HA	6:F:38:PRO:HA	1.85	0.58
13:M:63:ARG:HD2	13:M:80:PHE:CE2	2.37	0.58
41:15:27:ASN:HB3	41:15:56:LYS:NZ	2.19	0.58
48:22:40:PRO:HA	52:26:720:C:H5''	1.86	0.58
52:26:234:C:H2'	52:26:235:C:C6	2.39	0.58
52:26:593:U:H2'	52:26:594:U:C6	2.38	0.58
53:27:817:C:H2'	53:27:818:G:O4'	2.02	0.58
53:27:832:U:H2'	53:27:833:A:C8	2.39	0.58
59:33:179:THR:HG21	59:33:206:LEU:CD1	2.34	0.58
3:C:69:ARG:HH21	53:27:2502:G:H22	1.49	0.58
7:G:47:GLU:HB3	7:G:51:TYR:HE2	1.68	0.58
39:13:35:GLU:HA	39:13:39:GLY:HA3	1.85	0.58
42:16:28:GLN:HE22	52:26:34:C:H1'	1.69	0.58
49:23:77:ARG:HH11	52:26:1222:G:H5''	1.68	0.58
52:26:1006:G:H2'	52:26:1007:U:C6	2.39	0.58
52:26:1517:G:C2'	52:26:1518:A:H5'	2.33	0.58
53:27:1771:C:H2'	53:27:1772:A:C8	2.38	0.58
54:28:29:A:H2'	54:28:30:C:C6	2.38	0.58
59:33:224:ASP:O	59:33:228:TYR:CD1	2.55	0.58
3:C:65:THR:HB	3:C:67:ARG:HG3	1.85	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:5:LEU:HD22	6:F:12:LEU:HD11	1.85	0.58
9:I:8:PRO:HG3	9:I:48:VAL:HG13	1.84	0.58
9:I:57:LEU:HD21	9:I:130:HIS:HB3	1.86	0.58
33:7:109:GLU:HB2	33:7:143:LEU:HD13	1.85	0.58
39:13:115:VAL:HG21	40:14:62:ARG:HB2	1.85	0.58
52:26:20:U:H2'	52:26:21:G:O4'	2.03	0.58
53:27:2508:G:H2'	53:27:2509:G:C8	2.38	0.58
53:27:2537:U:H2'	53:27:2538:C:C6	2.38	0.58
59:33:61:GLU:HA	59:33:64:GLU:CD	2.24	0.58
59:33:634:HIS:ND1	59:33:641:LEU:HB2	2.17	0.58
5:E:25:ILE:HD12	5:E:74:MET:CB	2.34	0.58
36:10:18:VAL:HG11	36:10:58:HIS:NE2	2.18	0.58
40:14:59:LYS:HD3	40:14:62:ARG:NH2	2.19	0.58
42:16:43:LYS:HB3	42:16:44:PRO:HD3	1.85	0.58
53:27:1204:A:H4'	53:27:1205:A:H5''	1.84	0.58
53:27:2808:G:H5'	53:27:2809:A:OP1	2.03	0.58
59:33:16:ASP:OD2	59:33:17:PRO:HG2	2.04	0.58
59:33:65:ILE:HD13	59:33:157:ILE:CD1	2.33	0.58
59:33:81:LEU:CA	59:33:84:LEU:HD13	2.33	0.58
59:33:155:GLU:O	59:33:159:HIS:CD2	2.56	0.58
1:A:74:PRO:HA	1:A:116:GLN:HB3	1.86	0.58
4:D:134:GLN:OE1	4:D:149:ARG:HB2	2.03	0.58
7:G:11:ILE:HG13	53:27:1046:A:H2	1.69	0.58
34:8:96:ARG:O	34:8:100:VAL:HG23	2.04	0.58
50:24:2:ASN:OD1	50:24:3:ILE:N	2.34	0.58
52:26:81:A:HO2'	52:26:82:G:H8	1.52	0.58
53:27:140:C:O2	53:27:140:C:H2'	2.03	0.58
53:27:2682:A:O2'	53:27:2683:C:H5'	2.03	0.58
53:27:2756:U:H1'	53:27:2757:A:H5''	1.86	0.58
53:27:2805:C:H2'	53:27:2806:C:H6	1.68	0.58
59:33:30:LYS:HD2	59:33:33:GLU:OE2	2.03	0.58
59:33:157:ILE:HG22	59:33:198:LEU:HD21	1.83	0.58
1:A:270:ARG:NH2	53:27:1798:U:OP2	2.35	0.58
4:D:73:VAL:HG22	4:D:78:ILE:HD11	1.85	0.58
11:K:103:ILE:HD12	53:27:259:G:H4'	1.84	0.58
17:Q:45:GLU:CG	17:Q:46:GLU:H	2.16	0.58
34:8:122:ILE:HD12	34:8:144:ILE:HG13	1.85	0.58
36:10:7:VAL:HG22	36:10:61:LEU:HG	1.85	0.58
41:15:23:HIS:HB3	41:15:30:ILE:CG2	2.34	0.58
53:27:598:U:H2'	53:27:599:A:C8	2.39	0.58
53:27:1434:A:H2'	53:27:1435:G:C8	2.39	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:243:GLU:CD	59:33:295:ILE:HG21	2.25	0.58
2:B:13:ARG:HH11	15:O:55:HIS:HA	1.69	0.58
7:G:8:LYS:HG2	53:27:1046:A:N6	2.19	0.58
7:G:29:ASP:O	7:G:81:LEU:HD21	2.04	0.58
9:I:117:ALA:HA	9:I:120:ARG:HH21	1.68	0.58
16:P:107:ALA:O	17:Q:48:LYS:HE3	2.04	0.58
32:6:182:VAL:HG23	32:6:196:ASP:H	1.68	0.58
52:26:398:U:H2'	52:26:399:G:H8	1.68	0.58
52:26:1162:C:H2'	52:26:1163:A:C8	2.39	0.58
53:27:214:G:H2'	53:27:215:G:C8	2.38	0.58
53:27:839:U:H2'	53:27:840:C:C6	2.38	0.58
53:27:1385:A:H1'	53:27:1386:C:C6	2.38	0.58
53:27:1440:U:H2'	53:27:1441:G:H8	1.68	0.58
53:27:2786:U:H2'	53:27:2787:C:H6	1.69	0.58
56:30:21:A:N6	56:30:46:G:H2'	2.19	0.58
59:33:65:ILE:CG1	59:33:161:ARG:HH21	2.17	0.58
59:33:616:ILE:O	59:33:618:GLY:N	2.36	0.58
59:33:672:VAL:CG1	59:33:707:LEU:HD21	2.34	0.58
7:G:58:THR:HB	7:G:82:ILE:HB	1.86	0.57
20:T:6:ARG:H	53:27:85:G:P	2.25	0.57
33:7:96:VAL:HB	33:7:97:PRO:CD	2.30	0.57
34:8:56:GLU:HG3	34:8:198:LEU:CD1	2.33	0.57
36:10:6:ILE:HD11	36:10:71:ILE:CD1	2.34	0.57
40:14:56:HIS:O	40:14:57:VAL:HG12	2.04	0.57
47:21:14:ASP:O	47:21:16:MET:N	2.37	0.57
52:26:540:G:H2'	52:26:541:G:C8	2.39	0.57
52:26:955:U:H2'	52:26:956:U:H6	1.68	0.57
53:27:1320:C:O2'	53:27:1321:A:H5''	2.03	0.57
53:27:2732:G:O2'	53:27:2733:A:H5'	2.03	0.57
59:33:232:PHE:CE1	59:33:329:PRO:CD	2.81	0.57
29:3:35:ARG:HG3	29:3:35:ARG:HH11	1.67	0.57
33:7:122:GLN:O	33:7:127:VAL:HG12	2.04	0.57
43:17:65:GLU:CG	43:17:66:GLY:H	2.10	0.57
52:26:309:A:H2'	52:26:310:G:C8	2.40	0.57
52:26:321:A:O2'	52:26:322:C:H5'	2.03	0.57
52:26:407:U:H2'	52:26:408:A:C8	2.39	0.57
52:26:672:U:H2'	52:26:673:A:C8	2.38	0.57
52:26:1259:C:H3'	52:26:1260:G:C5'	2.28	0.57
53:27:488:G:N2	53:27:491:G:H5''	2.18	0.57
56:30:25:C:H2'	56:30:26:A:O4'	2.03	0.57
58:32:51:C:H2'	58:32:52:G:O4'	2.04	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:294:GLY:O	59:33:298:THR:HG23	2.04	0.57
3:C:55:SER:HB3	53:27:468:G:H5''	1.86	0.57
5:E:25:ILE:HD12	5:E:74:MET:HB2	1.85	0.57
35:9:20:VAL:HG23	35:9:31:SER:HB2	1.86	0.57
35:9:110:MET:HG3	35:9:139:THR:CG2	2.34	0.57
41:15:15:VAL:HG12	41:15:76:TYR:HB3	1.86	0.57
52:26:229:U:H2'	52:26:230:G:H8	1.69	0.57
52:26:1028:C:H2'	52:26:1029:U:O4'	2.04	0.57
52:26:1280:A:O2'	52:26:1281:C:H5'	2.03	0.57
53:27:2715:C:H2'	53:27:2716:C:O4'	2.04	0.57
53:27:2799:A:C2'	53:27:2800:A:H5'	2.34	0.57
1:A:224:MET:O	1:A:232:GLY:HA3	2.05	0.57
2:B:29:VAL:O	2:B:185:ASN:HB3	2.05	0.57
19:S:59:ASN:HB2	19:S:84:TYR:HB2	1.86	0.57
22:V:15:LYS:HB2	22:V:17:LEU:CD1	2.34	0.57
32:6:162:VAL:HG12	32:6:163:ILE:H	1.68	0.57
42:16:88:ASP:HB2	52:26:523:A:N1	2.20	0.57
45:19:86:LEU:O	45:19:87:ARG:HB2	2.03	0.57
46:20:76:LYS:HA	46:20:79:ASN:ND2	2.19	0.57
53:27:44:A:H2'	53:27:45:G:O4'	2.04	0.57
53:27:1924:C:H2'	53:27:1925:C:C6	2.39	0.57
59:33:281:ILE:CD1	59:33:338:ILE:HG13	2.34	0.57
59:33:461:ILE:CG2	59:33:463:ILE:HG23	2.34	0.57
4:D:26:GLN:HE21	54:28:57:A:H4'	1.70	0.57
10:J:14:SER:OG	10:J:86:LEU:HD12	2.04	0.57
12:L:50:ARG:HG3	12:L:51:ARG:N	2.19	0.57
34:8:122:ILE:HG23	34:8:143:SER:O	2.05	0.57
52:26:460:A:H2'	52:26:461:A:C8	2.40	0.57
52:26:788:U:H2'	52:26:789:U:O4'	2.04	0.57
52:26:1306:A:H62	52:26:1331:G:H1'	1.69	0.57
53:27:1165:A:H2'	53:27:1166:G:C8	2.38	0.57
53:27:1210:G:OP1	53:27:1212:G:H5'	2.03	0.57
53:27:2087:G:H2'	53:27:2088:A:H8	1.69	0.57
53:27:2888:C:H2'	53:27:2889:C:C6	2.40	0.57
59:33:197:GLU:HG2	59:33:201:TYR:CZ	2.39	0.57
5:E:17:LYS:HB2	5:E:24:THR:HB	1.85	0.57
29:3:34:ARG:HD3	53:27:467:G:OP2	2.04	0.57
34:8:181:PHE:HZ	34:8:184:LYS:HA	1.70	0.57
35:9:55:VAL:HG23	35:9:56:PRO:HD3	1.86	0.57
38:12:5:PRO:HB2	38:12:32:LYS:HZ2	1.69	0.57
40:14:10:LEU:HD12	40:14:10:LEU:O	2.05	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:5:U:H4'	52:26:6:G:C4	2.40	0.57
53:27:946:C:H2'	53:27:947:A:H8	1.70	0.57
53:27:1278:C:H2'	53:27:1279:G:H8	1.70	0.57
53:27:2148:G:H2'	53:27:2149:U:C6	2.38	0.57
59:33:86:ASP:OD1	59:33:111:ARG:HD2	2.04	0.57
59:33:228:TYR:HB2	59:33:277:ARG:HH21	1.68	0.57
59:33:279:VAL:HG13	59:33:336:ILE:HG23	1.85	0.57
3:C:99:LYS:NZ	53:27:601:C:H4'	2.20	0.57
4:D:22:ASN:N	4:D:26:GLN:OE1	2.37	0.57
7:G:53:ARG:HD2	7:G:86:MET:HB2	1.86	0.57
11:K:78:ARG:CZ	11:K:113:ALA:HB1	2.35	0.57
35:9:94:PHE:O	35:9:124:ALA:HA	2.04	0.57
37:11:74:VAL:CG1	37:11:143:MET:HB3	2.34	0.57
52:26:4:U:H2'	52:26:6:G:OP1	2.04	0.57
52:26:166:U:H2'	52:26:167:A:H8	1.70	0.57
52:26:314:C:O2'	52:26:315:A:H5'	2.05	0.57
53:27:441:U:O2'	53:27:442:G:H5'	2.05	0.57
53:27:891:G:H2'	53:27:892:A:C8	2.39	0.57
53:27:1066:U:O2	53:27:1069:A:H2'	2.03	0.57
53:27:1857:G:H21	53:27:1884:G:H2'	1.70	0.57
53:27:1874:C:H2'	53:27:1875:G:O4'	2.05	0.57
53:27:1936:A:H2	53:27:1943:U:N3	2.02	0.57
59:33:74:ASP:CA	59:33:77:ARG:NH2	2.66	0.57
59:33:241:LYS:HD3	59:33:246:LYS:HZ3	1.69	0.57
6:F:99:ILE:HD13	6:F:117:LEU:HD11	1.87	0.57
16:P:84:LYS:HZ1	16:P:116:LEU:HA	1.67	0.57
19:S:37:ASP:CG	19:S:38:ALA:H	2.08	0.57
32:6:185:ILE:HD12	32:6:199:ILE:HB	1.85	0.57
37:11:24:LYS:HA	37:11:27:ASN:HD22	1.67	0.57
46:20:78:VAL:O	46:20:80:LYS:N	2.38	0.57
50:24:41:GLY:HA2	50:24:85:LEU:HD11	1.86	0.57
52:26:194:C:O2'	52:26:195:A:H5'	2.04	0.57
52:26:697:U:H2'	52:26:698:G:H5'	1.86	0.57
53:27:609:A:H2'	53:27:610:C:O4'	2.04	0.57
53:27:1520:U:H2'	53:27:1521:G:O4'	2.05	0.57
53:27:1683:U:H2'	53:27:1684:G:C8	2.39	0.57
53:27:2281:A:O2'	53:27:2282:G:H5'	2.04	0.57
53:27:2393:U:H2'	53:27:2394:C:O4'	2.04	0.57
53:27:2805:C:H2'	53:27:2806:C:C6	2.39	0.57
59:33:154:ALA:HA	59:33:157:ILE:CD1	2.34	0.57
2:B:82:PHE:HE1	2:B:202:ILE:HG23	1.69	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:133:LEU:O	3:C:137:LYS:HG3	2.04	0.57
27:1:18:HIS:ND1	53:27:2046:G:H1'	2.20	0.57
32:6:95:TRP:CZ3	32:6:171:ALA:HA	2.39	0.57
34:8:171:GLU:HB3	34:8:180:THR:HB	1.87	0.57
39:13:35:GLU:H	39:13:35:GLU:CD	2.09	0.57
40:14:65:TYR:C	44:18:98:ALA:HB2	2.25	0.57
41:15:111:ASP:HB2	51:25:16:ARG:NH1	2.20	0.57
45:19:88:ARG:HD3	53:27:714:U:H6	1.70	0.57
53:27:172:A:H2'	53:27:173:A:H8	1.70	0.57
53:27:1511:G:H2'	53:27:1512:C:C6	2.39	0.57
59:33:24:LEU:HD22	59:33:67:SER:HA	1.87	0.57
59:33:267:ASN:HD22	59:33:267:ASN:N	2.03	0.57
9:I:52:ASP:O	9:I:54:ILE:HD12	2.04	0.57
34:8:8:LEU:HD21	34:8:31:CYS:CA	2.34	0.57
34:8:10:LEU:HD13	34:8:62:ARG:HD2	1.86	0.57
37:11:58:LEU:HD12	37:11:59:GLU:H	1.70	0.57
48:22:17:VAL:HG22	48:22:18:GLN:N	2.19	0.57
49:23:18:VAL:O	49:23:22:VAL:HG23	2.05	0.57
52:26:338:A:H2'	52:26:339:C:O4'	2.04	0.57
52:26:1004:A:H2'	52:26:1005:A:O4'	2.04	0.57
53:27:492:A:H2'	53:27:493:G:O4'	2.04	0.57
59:33:34:CYS:SG	59:33:77:ARG:HD3	2.45	0.57
4:D:104:THR:O	26:Z:38:SER:HB3	2.05	0.56
7:G:27:VAL:O	7:G:83:ALA:N	2.38	0.56
11:K:62:PRO:HB2	30:4:29:ARG:NH1	2.15	0.56
13:M:72:ASP:OD2	13:M:75:ILE:HG12	2.04	0.56
15:O:52:ARG:HG2	15:O:52:ARG:HH11	1.70	0.56
18:R:82:MET:HB3	18:R:84:ARG:NH2	2.20	0.56
31:5:36:ARG:HD2	53:27:2742:G:OP1	2.05	0.56
34:8:103:ARG:O	34:8:167:PRO:HG2	2.05	0.56
39:13:56:MET:H	39:13:59:LYS:HD2	1.68	0.56
52:26:408:A:H2'	52:26:409:U:O4'	2.04	0.56
52:26:437:U:O2'	52:26:438:U:H5'	2.04	0.56
52:26:628:G:H2'	52:26:629:A:C8	2.39	0.56
52:26:666:G:H2'	52:26:667:G:H8	1.69	0.56
53:27:20:C:H2'	53:27:21:A:C8	2.38	0.56
53:27:704:G:H1'	53:27:727:A:N6	2.20	0.56
53:27:1331:G:O2'	53:27:1332:G:H5''	2.04	0.56
53:27:2588:G:H2'	53:27:2589:A:O4'	2.04	0.56
53:27:2648:G:H2'	53:27:2649:C:O4'	2.05	0.56
56:30:12:U:C2	56:30:13:C:H1'	2.40	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:61:GLU:C	59:33:64:GLU:HG2	2.24	0.56
59:33:210:GLU:CD	59:33:260:TRP:CH2	2.78	0.56
59:33:214:ILE:HD11	59:33:260:TRP:CE3	2.28	0.56
59:33:236:LEU:O	59:33:240:MET:HG2	2.04	0.56
59:33:243:GLU:OE2	59:33:295:ILE:HG21	2.05	0.56
1:A:75:ALA:HB2	1:A:95:TYR:CD1	2.39	0.56
10:J:91:SER:O	10:J:93:GLN:HG3	2.05	0.56
14:N:53:THR:HG22	14:N:65:THR:HB	1.87	0.56
32:6:94:ARG:HE	52:26:1100:C:P	2.29	0.56
32:6:212:TYR:O	32:6:216:VAL:HG23	2.05	0.56
35:9:153:ALA:O	35:9:158:LYS:HA	2.05	0.56
53:27:1118:C:H2'	53:27:1119:U:O4'	2.05	0.56
53:27:1685:C:H2'	53:27:1686:C:H6	1.71	0.56
53:27:2162:G:H2'	53:27:2163:A:O4'	2.05	0.56
53:27:2692:G:H2'	53:27:2693:G:C8	2.40	0.56
1:A:173:LEU:O	1:A:180:MET:HA	2.05	0.56
3:C:134:LEU:CD2	3:C:161:ALA:HB2	2.35	0.56
6:F:103:VAL:HG11	6:F:132:PHE:HE2	1.70	0.56
9:I:117:ALA:HA	9:I:120:ARG:NH2	2.20	0.56
9:I:124:VAL:HG12	9:I:125:TYR:N	2.21	0.56
10:J:2:ILE:HG23	10:J:6:THR:HG21	1.87	0.56
10:J:35:VAL:HG22	10:J:69:VAL:HB	1.86	0.56
11:K:95:LEU:HG	11:K:100:ILE:HD11	1.87	0.56
12:L:125:PRO:HG2	12:L:126:ILE:H	1.71	0.56
14:N:56:LYS:O	14:N:60:GLU:HG3	2.05	0.56
16:P:36:GLN:NE2	53:27:1252:G:H22	2.03	0.56
28:2:34:GLU:HG2	28:2:49:LYS:HG2	1.87	0.56
33:7:77:GLY:HA3	33:7:82:ASP:HB2	1.86	0.56
33:7:84:GLU:O	33:7:87:ARG:HB3	2.04	0.56
41:15:109:ILE:HD12	51:25:16:ARG:NE	2.21	0.56
42:16:32:VAL:O	42:16:33:CYS:HB3	2.04	0.56
43:17:7:ASN:ND2	43:17:17:ALA:O	2.37	0.56
43:17:94:LEU:HB3	43:17:95:PRO:HD2	1.85	0.56
52:26:229:U:H2'	52:26:230:G:C8	2.40	0.56
52:26:403:C:H2'	52:26:404:G:C8	2.39	0.56
52:26:632:U:H3'	52:26:633:G:H5'	1.87	0.56
52:26:1342:C:H2'	52:26:1343:G:C8	2.40	0.56
53:27:208:C:H2'	53:27:209:C:C6	2.40	0.56
53:27:679:C:H2'	53:27:680:C:H6	1.70	0.56
53:27:873:C:H2'	53:27:874:G:C8	2.39	0.56
53:27:1052:C:H2'	53:27:1053:C:H5'	1.87	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:1052:C:C2'	53:27:1053:C:H5'	2.36	0.56
53:27:1092:C:H2'	53:27:1093:G:O4'	2.05	0.56
53:27:1097:U:H2'	53:27:1098:A:O4'	2.05	0.56
53:27:1152:C:H2'	53:27:1153:C:H6	1.70	0.56
53:27:1197:G:H2'	53:27:1198:U:H6	1.70	0.56
53:27:1352:U:O2'	53:27:1353:A:H5'	2.05	0.56
53:27:2737:G:H2'	53:27:2738:A:C8	2.40	0.56
58:32:60:U:H2'	58:32:61:C:C5	2.41	0.56
59:33:20:TRP:HE1	59:33:63:VAL:C	2.07	0.56
59:33:47:GLN:OE1	59:33:55:LEU:HD13	2.04	0.56
59:33:229:ILE:HG22	59:33:277:ARG:HG3	1.87	0.56
59:33:239:GLU:CB	59:33:299:HIS:CE1	2.88	0.56
59:33:676:ARG:CA	59:33:679:LEU:HB2	2.35	0.56
5:E:93:TYR:CD1	5:E:106:LEU:HA	2.41	0.56
13:M:3:HIS:ND1	53:27:2820:A:H4'	2.20	0.56
16:P:55:GLN:O	16:P:58:GLN:HB3	2.05	0.56
28:2:16:THR:OG1	28:2:41:VAL:HG11	2.05	0.56
40:14:53:ILE:HG13	44:18:84:ARG:CD	2.35	0.56
49:23:55:GLN:NE2	59:33:594:ASN:HD21	2.03	0.56
52:26:721:G:H4'	52:26:722:G:O4'	2.05	0.56
52:26:994:A:C8	52:26:1216:A:H4'	2.40	0.56
53:27:208:C:H2'	53:27:209:C:H6	1.71	0.56
53:27:1118:C:H3'	53:27:1119:U:H5''	1.87	0.56
53:27:1765:U:H2'	53:27:1766:G:H8	1.70	0.56
59:33:95:LEU:HD13	59:33:107:ILE:CD1	2.35	0.56
59:33:610:ALA:HB2	59:33:634:HIS:HA	1.88	0.56
6:F:22:LYS:CD	53:27:2093:G:H5'	2.35	0.56
14:N:74:VAL:O	14:N:78:VAL:HG23	2.05	0.56
32:6:124:THR:HB	32:6:127:LYS:HB2	1.88	0.56
33:7:71:ARG:O	33:7:75:VAL:HG23	2.06	0.56
40:14:41:PRO:HB2	52:26:1151:A:H1'	1.87	0.56
41:15:27:ASN:HB3	41:15:56:LYS:HZ3	1.71	0.56
53:27:1076:C:H2'	53:27:1077:A:H8	1.70	0.56
59:33:34:CYS:SG	59:33:77:ARG:CD	2.94	0.56
59:33:96:ARG:HE	59:33:104:VAL:CG2	2.18	0.56
59:33:541:GLU:HA	59:33:544:ALA:HB3	1.86	0.56
59:33:635:ARG:O	59:33:641:LEU:HD13	2.05	0.56
4:D:120:SER:HB2	4:D:127:TYR:CE1	2.40	0.56
5:E:97:VAL:HG23	5:E:124:CYS:SG	2.46	0.56
9:I:30:THR:HG21	53:27:1005:C:O2'	2.06	0.56
10:J:23:LYS:NZ	53:27:2562:U:H1'	2.20	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:79:LEU:HB3	11:K:115:GLU:O	2.06	0.56
34:8:70:GLN:O	34:8:73:ASN:HB3	2.05	0.56
40:14:10:LEU:HD11	40:14:72:ARG:HB2	1.87	0.56
40:14:36:VAL:HG22	40:14:38:GLY:H	1.71	0.56
43:17:28:ARG:HH21	43:17:62:PHE:HB2	1.70	0.56
52:26:211:G:H2'	52:26:212:G:H5'	1.88	0.56
52:26:335:C:H2'	52:26:336:A:H8	1.71	0.56
53:27:796:C:H2'	53:27:797:G:H8	1.70	0.56
53:27:2296:U:H5''	53:27:2297:A:OP1	2.06	0.56
58:32:48:C:H2'	58:32:59:A:C1'	2.36	0.56
58:32:48:C:H2'	58:32:59:A:C4'	2.36	0.56
59:33:427:PHE:CE2	59:33:461:ILE:HG13	2.41	0.56
1:A:65:ASP:HB3	1:A:101:ARG:HD3	1.86	0.56
1:A:124:LYS:HB3	1:A:127:ASN:HD22	1.71	0.56
4:D:98:PHE:HD1	4:D:101:ARG:HH11	1.54	0.56
10:J:38:ILE:HD11	10:J:112:PHE:HZ	1.70	0.56
15:O:2:ASN:ND2	53:27:2876:G:H5''	2.20	0.56
16:P:80:ASN:HB2	53:27:1151:A:O2'	2.06	0.56
17:Q:88:GLY:HA3	53:27:1225:G:OP1	2.06	0.56
20:T:3:LYS:HZ2	20:T:84:PHE:HE2	1.53	0.56
24:X:9:LYS:HB3	24:X:12:GLU:OE1	2.06	0.56
31:5:1:MET:HE1	53:27:2742:G:H5''	1.86	0.56
34:8:56:GLU:HG3	34:8:198:LEU:HD12	1.86	0.56
34:8:94:GLU:HA	34:8:99:ASN:ND2	2.21	0.56
36:10:67:PRO:HB2	36:10:69:GLU:OE1	2.06	0.56
39:13:6:TYR:CG	39:13:7:GLY:N	2.74	0.56
43:17:79:LEU:HD22	43:17:84:CYS:SG	2.46	0.56
48:22:54:LEU:O	48:22:58:ILE:HG12	2.05	0.56
52:26:170:U:O2'	52:26:171:A:H5'	2.05	0.56
52:26:825:A:H2'	52:26:826:C:C6	2.41	0.56
52:26:1160:G:H22	52:26:1176:A:H2	1.52	0.56
53:27:157:C:H2'	53:27:158:U:O4'	2.04	0.56
53:27:257:C:H2'	53:27:258:G:O4'	2.05	0.56
53:27:845:A:H3'	53:27:845:A:N3	2.21	0.56
53:27:1080:A:H2'	53:27:1081:U:H6	1.71	0.56
53:27:1177:G:H2'	53:27:1178:C:O4'	2.06	0.56
53:27:1186:G:H2'	53:27:1187:G:H8	1.71	0.56
53:27:2771:C:H2'	53:27:2772:C:C6	2.40	0.56
56:30:7:A:C3'	56:30:8:U:H5''	2.33	0.56
59:33:613:CYS:HB3	59:33:638:CYS:SG	2.46	0.56
16:P:2:ARG:HB2	53:27:1248:G:C5	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:38:ILE:HG22	20:T:39:ASN:N	2.21	0.56
20:T:48:VAL:O	20:T:53:GLN:HB3	2.06	0.56
30:4:51:LYS:HA	30:4:54:LEU:HB2	1.87	0.56
31:5:36:ARG:CG	31:5:37:GLN:N	2.69	0.56
32:6:74:ALA:HB1	32:6:206:ILE:HG22	1.87	0.56
32:6:100:LEU:HA	32:6:103:TRP:HB2	1.88	0.56
35:9:95:MET:HG2	35:9:124:ALA:HB2	1.87	0.56
36:10:78:PHE:HB3	36:10:87:SER:OG	2.05	0.56
52:26:489:C:H2'	52:26:490:C:C6	2.41	0.56
52:26:948:C:H2'	52:26:949:A:C8	2.37	0.56
52:26:1140:C:H2'	52:26:1141:C:C6	2.41	0.56
52:26:1432:G:H1'	52:26:1468:A:N6	2.20	0.56
53:27:286:U:H2'	53:27:287:G:H8	1.70	0.56
53:27:947:A:H2'	53:27:948:C:C6	2.40	0.56
53:27:1177:G:H2'	53:27:1178:C:C1'	2.35	0.56
53:27:1447:C:H2'	53:27:1448:G:C8	2.40	0.56
53:27:2131:U:OP1	53:27:2133:G:H4'	2.05	0.56
59:33:286:LEU:HD21	59:33:343:MET:HE3	1.87	0.56
59:33:410:THR:HG22	59:33:427:PHE:CZ	2.37	0.56
2:B:115:GLY:N	53:27:2821:A:OP2	2.38	0.56
5:E:49:LEU:HD13	5:E:71:LEU:HD23	1.87	0.56
8:H:2:LYS:HE3	8:H:62:ALA:H	1.70	0.56
8:H:109:ALA:HB2	8:H:128:ILE:HG13	1.88	0.56
33:7:42:LEU:HD21	33:7:67:ILE:HD11	1.86	0.56
52:26:70:U:H4'	52:26:71:A:H8	1.69	0.56
52:26:736:C:H2'	52:26:737:C:C6	2.40	0.56
52:26:1088:G:H21	52:26:1167:A:N6	2.02	0.56
53:27:150:U:H2'	53:27:151:C:C6	2.41	0.56
53:27:176:A:O2'	53:27:177:G:H5'	2.06	0.56
59:33:17:PRO:CG	59:33:39:TRP:CZ2	2.88	0.56
59:33:155:GLU:O	59:33:159:HIS:HD2	1.89	0.56
1:A:51:ARG:O	1:A:52:HIS:ND1	2.39	0.56
9:I:71:ASP:O	9:I:73:VAL:N	2.39	0.56
16:P:38:VAL:O	16:P:41:ALA:HB3	2.06	0.56
18:R:59:GLU:HA	18:R:64:ALA:HA	1.88	0.56
35:9:59:ILE:O	35:9:63:MET:HG2	2.06	0.56
35:9:160:VAL:HG13	35:9:161:GLU:N	2.20	0.56
36:10:37:HIS:O	36:10:39:LEU:N	2.39	0.56
44:18:6:LYS:O	44:18:9:GLU:HB3	2.07	0.56
52:26:67:C:H2'	52:26:68:G:C8	2.41	0.56
53:27:280:U:H2'	53:27:281:C:C6	2.41	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:1827:U:O2'	53:27:1828:G:H5'	2.06	0.56
53:27:1912:A:N7	53:27:1917:U:O4	2.39	0.56
2:B:56:LYS:HZ1	53:27:2830:C:H5''	1.69	0.55
4:D:108:PRO:HG2	26:Z:38:SER:HA	1.88	0.55
6:F:42:LYS:HB3	6:F:46:PHE:CZ	2.41	0.55
11:K:51:GLU:HG3	11:K:56:PRO:HA	1.87	0.55
11:K:54:GLN:HE21	53:27:2428:G:N2	2.04	0.55
25:Y:13:ILE:HG22	25:Y:14:GLY:N	2.21	0.55
36:10:2:ARG:NE	36:10:68:GLN:HE21	2.03	0.55
37:11:87:PRO:HG3	37:11:148:LYS:HA	1.87	0.55
52:26:1248:A:H2'	52:26:1249:C:C6	2.41	0.55
53:27:645:C:H2'	53:27:647:G:N7	2.21	0.55
53:27:745:G:O2'	53:27:748:G:H1'	2.06	0.55
53:27:1146:C:H2'	53:27:1147:A:C8	2.41	0.55
53:27:2443:C:H2'	53:27:2444:G:C8	2.41	0.55
53:27:2552:U:H2'	53:27:2554:U:H5''	1.87	0.55
53:27:2673:G:H2'	53:27:2674:G:H8	1.71	0.55
53:27:2684:U:H2'	53:27:2685:G:O4'	2.06	0.55
58:32:39:C:H2'	58:32:40:C:C6	2.41	0.55
59:33:424:PRO:O	59:33:427:PHE:HB3	2.06	0.55
5:E:72:ASN:O	5:E:76:ILE:HG12	2.06	0.55
6:F:80:ILE:HG22	6:F:82:SER:H	1.71	0.55
24:X:15:ASN:O	24:X:19:LEU:HG	2.06	0.55
33:7:54:ILE:HG22	33:7:67:ILE:HG23	1.88	0.55
34:8:11:SER:HB2	34:8:16:THR:O	2.06	0.55
34:8:33:ILE:HG12	34:8:34:GLU:N	2.22	0.55
34:8:71:PHE:HA	34:8:74:TYR:CD2	2.40	0.55
43:17:13:HIS:CE1	52:26:1296:C:H5'	2.41	0.55
52:26:1299:A:H2'	52:26:1301:U:H1'	1.87	0.55
53:27:644:A:H2'	53:27:645:C:O4'	2.06	0.55
53:27:1133:A:H4'	53:27:1134:A:H5''	1.87	0.55
55:29:17:U:H2'	55:29:18:G:C8	2.41	0.55
59:33:101:LYS:HA	59:33:104:VAL:HG12	1.87	0.55
1:A:213:ARG:NH2	53:27:1566:A:H5'	2.20	0.55
1:A:216:ARG:HG3	1:A:216:ARG:NH1	2.22	0.55
4:D:39:VAL:HG12	4:D:85:GLY:HA2	1.87	0.55
6:F:104:THR:HA	6:F:108:VAL:O	2.05	0.55
12:L:69:PRO:HA	12:L:94:ALA:HB2	1.89	0.55
19:S:8:LEU:HD22	24:X:22:LEU:HA	1.87	0.55
19:S:12:ARG:HD2	24:X:29:ARG:HH21	1.71	0.55
19:S:15:HIS:H	19:S:32:LEU:HA	1.71	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:6:51:GLU:O	32:6:55:GLU:HG2	2.07	0.55
40:14:9:ARG:O	40:14:99:GLN:HB2	2.07	0.55
41:15:116:PRO:HB3	52:26:676:A:H1'	1.87	0.55
52:26:151:A:H2'	52:26:152:A:O4'	2.05	0.55
52:26:220:G:O2'	52:26:221:C:H5'	2.06	0.55
52:26:1026:G:N2	52:26:1027:C:N4	2.55	0.55
53:27:225:C:H2'	53:27:226:A:O4'	2.05	0.55
53:27:1105:U:H2'	53:27:1106:G:C8	2.40	0.55
53:27:1843:C:H2'	53:27:1844:C:H6	1.70	0.55
53:27:2834:G:H2'	53:27:2879:A:H61	1.71	0.55
4:D:114:ARG:HH21	26:Z:47:LYS:HG2	1.71	0.55
5:E:165:ASP:OD1	5:E:165:ASP:N	2.35	0.55
7:G:58:THR:HG21	7:G:83:ALA:N	2.21	0.55
8:H:3:LYS:O	8:H:7:TYR:HB2	2.07	0.55
25:Y:11:SER:OG	25:Y:13:ILE:HG13	2.07	0.55
33:7:63:ILE:CG2	33:7:96:VAL:HG23	2.36	0.55
34:8:143:SER:C	34:8:144:ILE:HD12	2.27	0.55
39:13:6:TYR:O	39:13:85:ALA:HA	2.07	0.55
39:13:112:ARG:HH11	39:13:114:LYS:HG2	1.71	0.55
50:24:29:THR:HG21	52:26:1458:G:OP1	2.07	0.55
52:26:593:U:H2'	52:26:594:U:H6	1.70	0.55
52:26:904:U:H2'	52:26:905:U:C6	2.41	0.55
53:27:1045:C:OP1	53:27:1046:A:H3'	2.06	0.55
56:30:18:G:N1	56:30:55:U:H1'	2.11	0.55
2:B:192:ALA:HB1	53:27:2680:U:H4'	1.88	0.55
6:F:62:LEU:HA	6:F:65:ALA:HB3	1.88	0.55
6:F:76:GLU:HB3	6:F:142:VAL:HG22	1.86	0.55
8:H:35:MET:HG3	8:H:36:GLU:N	2.19	0.55
9:I:140:LEU:HG	9:I:142:ILE:HG22	1.89	0.55
16:P:75:TYR:O	16:P:78:PHE:HB3	2.07	0.55
21:U:78:GLN:O	21:U:87:GLN:HB3	2.06	0.55
39:13:33:SER:HB3	39:13:36:GLN:CG	2.34	0.55
40:14:15:HIS:HB3	40:14:70:HIS:CD2	2.42	0.55
52:26:1484:C:H2'	52:26:1485:U:O4'	2.07	0.55
53:27:796:C:H2'	53:27:797:G:C8	2.42	0.55
53:27:1330:C:O2'	53:27:1331:G:H5'	2.06	0.55
53:27:1825:U:H2'	53:27:1826:G:H8	1.68	0.55
53:27:1866:A:H2'	53:27:1867:G:O4'	2.06	0.55
53:27:2873:A:O2'	53:27:2874:C:H5'	2.07	0.55
7:G:64:VAL:HG22	7:G:78:GLY:HA3	1.88	0.55
15:O:23:ASP:HA	15:O:89:GLY:H	1.72	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:2:ILE:HG12	53:27:144:A:H5'	1.89	0.55
25:Y:28:LEU:HD11	25:Y:35:VAL:HG11	1.88	0.55
30:4:5:THR:HG22	30:4:62:PRO:HD2	1.89	0.55
30:4:63:TYR:CE2	53:27:242:G:H5''	2.42	0.55
32:6:162:VAL:HG12	32:6:163:ILE:N	2.22	0.55
33:7:69:THR:HG21	33:7:75:VAL:HG21	1.89	0.55
37:11:104:VAL:O	37:11:108:ARG:HG2	2.06	0.55
39:13:44:ARG:HG3	39:13:45:MET:N	2.22	0.55
39:13:98:ARG:HH12	52:26:1180:A:P	2.30	0.55
52:26:579:A:H2'	52:26:580:C:H6	1.71	0.55
52:26:1045:C:H2'	52:26:1046:A:O4'	2.07	0.55
52:26:1395:C:H5'	52:26:1395:C:H6	1.71	0.55
53:27:1443:U:H2'	53:27:1444:G:C8	2.41	0.55
3:C:52:VAL:HG21	3:C:82:GLY:H	1.71	0.55
3:C:105:LEU:HA	3:C:108:ILE:HG22	1.89	0.55
3:C:163:ASN:OD1	53:27:323:C:H5''	2.06	0.55
4:D:76:PHE:HE2	53:27:2310:C:H2'	1.71	0.55
11:K:78:ARG:NH1	11:K:113:ALA:HB1	2.22	0.55
19:S:62:VAL:HG22	19:S:81:LYS:HG3	1.89	0.55
29:3:34:ARG:NE	29:3:39:ARG:HD2	2.04	0.55
35:9:152:VAL:HG12	35:9:155:LYS:HE2	1.89	0.55
38:12:94:VAL:HB	38:12:99:GLY:O	2.06	0.55
44:18:20:PHE:O	44:18:21:ALA:HB3	2.05	0.55
53:27:352:A:H2'	53:27:353:C:C6	2.42	0.55
53:27:2074:U:H2'	53:27:2075:U:C6	2.42	0.55
53:27:2127:G:H2'	53:27:2128:G:O4'	2.06	0.55
57:31:28:C:H2'	57:31:29:G:H8	1.71	0.55
59:33:38:THR:OG1	59:33:80:LEU:HD12	2.07	0.55
59:33:71:MET:O	59:33:76:LEU:HD13	2.07	0.55
59:33:92:GLU:O	59:33:96:ARG:HG3	2.07	0.55
59:33:456:GLN:OE1	59:33:456:GLN:N	2.39	0.55
59:33:596:ARG:NH1	59:33:609:ILE:HD11	2.21	0.55
3:C:40:ARG:HD2	3:C:92:HIS:CD2	2.42	0.55
15:O:105:LYS:HB3	15:O:108:ARG:NH2	2.21	0.55
35:9:131:ASN:H	35:9:135:VAL:HG13	1.72	0.55
42:16:38:THR:HG22	42:16:50:LYS:HA	1.88	0.55
45:19:87:ARG:HG3	45:19:88:ARG:H	1.71	0.55
47:21:44:HIS:HB2	47:21:69:THR:O	2.06	0.55
51:25:44:ARG:NH2	51:25:48:LYS:HD3	2.20	0.55
52:26:576:C:OP2	52:26:577:G:H5''	2.06	0.55
52:26:1391:U:H2'	52:26:1392:G:H8	1.67	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:1413:A:H2	52:26:1487:G:H22	1.55	0.55
53:27:2638:G:HO2'	53:27:2639:A:H8	1.52	0.55
56:30:10:G:H2'	56:30:11:C:C6	2.42	0.55
2:B:4:LEU:HD23	2:B:29:VAL:HG11	1.88	0.55
8:H:74:PRO:HG3	53:27:1060:U:H5'	1.88	0.55
13:M:55:ALA:HA	13:M:80:PHE:CE1	2.42	0.55
22:V:55:LEU:HD12	22:V:76:ILE:HD12	1.89	0.55
26:Z:37:CYS:HB2	26:Z:40:CYS:H	1.72	0.55
34:8:63:ILE:O	34:8:110:ARG:HD2	2.06	0.55
46:20:3:THR:HG22	46:20:66:THR:OG1	2.07	0.55
47:21:67:SER:HA	52:26:265:G:H4'	1.89	0.55
50:24:28:ARG:NH1	52:26:1437:A:H5''	2.19	0.55
53:27:49:A:H5'	53:27:51:G:O4'	2.07	0.55
53:27:1930:G:H2'	53:27:1968:G:H1	1.71	0.55
10:J:7:MET:HB3	10:J:18:ARG:HH21	1.72	0.55
12:L:41:LEU:HA	12:L:45:GLN:OE1	2.06	0.55
12:L:96:ILE:HG21	12:L:126:ILE:CD1	2.36	0.55
17:Q:38:VAL:HG13	17:Q:54:VAL:HB	1.88	0.55
32:6:17:HIS:HD2	32:6:37:VAL:HG11	1.72	0.55
36:10:2:ARG:HE	36:10:68:GLN:HE21	1.54	0.55
52:26:337:G:H2'	52:26:338:A:C8	2.42	0.55
53:27:844:A:C3'	53:27:845:A:H5''	2.36	0.55
53:27:1281:G:H2'	53:27:1282:U:C6	2.42	0.55
53:27:1437:C:H2'	53:27:1438:U:C6	2.42	0.55
53:27:1739:A:H2'	53:27:1740:G:O4'	2.07	0.55
53:27:2813:A:H2'	53:27:2814:A:C8	2.42	0.55
3:C:131:THR:HG23	53:27:321:U:H5''	1.88	0.54
6:F:94:ILE:HD12	6:F:122:LEU:HB3	1.89	0.54
7:G:2:ALA:HB3	7:G:6:GLN:HG3	1.88	0.54
12:L:110:GLU:OE2	12:L:114:ARG:HD2	2.05	0.54
16:P:54:ARG:HE	53:27:1155:A:H5''	1.72	0.54
32:6:103:TRP:CZ3	32:6:107:ARG:HD3	2.42	0.54
32:6:172:ILE:O	32:6:176:ASN:HB2	2.08	0.54
52:26:471:U:H2'	52:26:472:U:C6	2.42	0.54
52:26:1498:U:H6	52:26:1499:A:H62	1.54	0.54
53:27:507:A:H5''	53:27:508:A:H5'	1.89	0.54
53:27:704:G:H1'	53:27:727:A:H61	1.72	0.54
53:27:849:A:H2'	53:27:850:U:C6	2.42	0.54
53:27:2183:A:H2'	53:27:2184:A:C8	2.42	0.54
53:27:2520:C:O2'	53:27:2521:C:H5'	2.07	0.54
53:27:2809:A:H2'	53:27:2810:A:C8	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:101:PHE:O	2:B:104:VAL:HG22	2.07	0.54
5:E:116:LEU:HD13	5:E:120:ILE:O	2.07	0.54
6:F:66:ASN:HB3	6:F:134:VAL:O	2.08	0.54
9:I:47:HIS:ND1	9:I:48:VAL:HG23	2.22	0.54
12:L:29:GLY:CA	12:L:106:ASP:HB2	2.34	0.54
16:P:40:LYS:HE3	16:P:44:TYR:CE2	2.42	0.54
20:T:39:ASN:HB3	20:T:62:ALA:HB3	1.88	0.54
23:W:37:PHE:HE2	23:W:48:LEU:HD12	1.72	0.54
23:W:37:PHE:CE2	23:W:48:LEU:HD12	2.43	0.54
29:3:24:THR:HG23	29:3:27:GLY:H	1.72	0.54
34:8:84:ASN:HB3	34:8:87:GLU:HB3	1.89	0.54
43:17:65:GLU:HG3	43:17:66:GLY:N	2.18	0.54
44:18:45:LEU:HG	49:23:12:LEU:CD2	2.36	0.54
52:26:218:U:H2'	52:26:219:U:O4'	2.07	0.54
52:26:368:U:O4	59:33:447:ARG:HA	2.07	0.54
52:26:977:A:H3'	52:26:977:A:N3	2.22	0.54
53:27:356:G:H2'	53:27:357:C:C6	2.42	0.54
53:27:1387:A:H2'	53:27:1388:G:C8	2.42	0.54
53:27:1989:G:H2'	53:27:1990:C:O4'	2.07	0.54
53:27:2098:U:C2'	53:27:2099:U:H5'	2.37	0.54
53:27:2715:C:H3'	53:27:2716:C:H5''	1.89	0.54
1:A:22:GLU:HB3	1:A:80:LEU:HD12	1.90	0.54
3:C:148:ILE:HB	3:C:169:VAL:HG13	1.89	0.54
11:K:77:ILE:HG12	11:K:109:LYS:O	2.07	0.54
19:S:67:VAL:HG22	19:S:76:ARG:HD2	1.89	0.54
52:26:524:G:H2'	52:26:525:C:C6	2.43	0.54
52:26:880:C:H2'	52:26:881:G:C8	2.42	0.54
52:26:1301:U:H2'	52:26:1301:U:O2	2.06	0.54
52:26:1458:G:H2'	52:26:1459:G:H8	1.70	0.54
53:27:809:G:H2'	53:27:810:U:C6	2.42	0.54
53:27:1138:G:H2'	53:27:1139:G:O4'	2.08	0.54
53:27:1664:A:N6	53:27:1996:C:H42	2.01	0.54
53:27:2122:U:O2'	53:27:2123:G:H5'	2.07	0.54
53:27:2155:U:H2'	53:27:2156:G:O4'	2.06	0.54
59:33:30:LYS:HD2	59:33:33:GLU:CD	2.28	0.54
1:A:128:THR:HG23	1:A:189:ALA:O	2.08	0.54
6:F:40:THR:H	6:F:43:ASN:HD22	1.54	0.54
7:G:67:THR:H	7:G:68:PRO:CD	2.20	0.54
8:H:14:ALA:N	8:H:52:LEU:O	2.40	0.54
8:H:40:ALA:HB1	8:H:68:PHE:CE2	2.43	0.54
27:1:30:ASP:OD2	27:1:33:SER:N	2.39	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1:38:LEU:HD23	27:1:39:ARG:N	2.23	0.54
33:7:21:TRP:CE2	44:18:93:PRO:HG2	2.43	0.54
39:13:43:ALA:O	39:13:46:VAL:HG22	2.07	0.54
42:16:98:ARG:HE	42:16:106:VAL:CG2	2.20	0.54
53:27:196:A:H61	53:27:831:G:H21	1.55	0.54
53:27:2134:A:H2'	53:27:2135:A:O4'	2.06	0.54
57:31:18:G:N2	57:31:57:A:H2'	2.23	0.54
59:33:639:GLU:O	59:33:643:GLU:HG3	2.08	0.54
2:B:146:ILE:HG13	2:B:147:GLY:N	2.22	0.54
4:D:64:PRO:HA	4:D:88:VAL:HG22	1.89	0.54
8:H:101:SER:HA	8:H:141:ASP:OD1	2.08	0.54
13:M:69:ARG:O	13:M:71:ARG:N	2.37	0.54
16:P:55:GLN:NE2	53:27:559:G:H1'	2.23	0.54
31:5:7:VAL:HB	31:5:35:GLN:HE21	1.72	0.54
35:9:45:VAL:CG2	35:9:117:ALA:HA	2.37	0.54
39:13:10:ARG:HE	52:26:1149:C:P	2.30	0.54
42:16:28:GLN:HE22	52:26:34:C:C1'	2.21	0.54
52:26:57:G:H2'	52:26:58:C:C6	2.43	0.54
52:26:579:A:H2'	52:26:580:C:C6	2.42	0.54
53:27:18:U:H2'	53:27:19:A:C8	2.42	0.54
53:27:2208:C:H2'	53:27:2209:G:H8	1.71	0.54
54:28:119:A:H3'	54:28:120:A:H5''	1.89	0.54
1:A:257:ARG:HG2	1:A:257:ARG:HH11	1.73	0.54
9:I:7:LYS:O	9:I:11:VAL:HG23	2.08	0.54
10:J:92:GLU:O	10:J:93:GLN:O	2.25	0.54
19:S:8:LEU:HD23	19:S:50:LEU:HD11	1.90	0.54
21:U:25:LYS:HB3	21:U:41:GLU:OE2	2.07	0.54
21:U:42:LEU:HD13	21:U:47:VAL:HG21	1.90	0.54
29:3:35:ARG:NH1	53:27:53:A:C2	2.75	0.54
35:9:23:THR:HA	35:9:28:ARG:HA	1.89	0.54
35:9:108:GLY:O	35:9:110:MET:N	2.39	0.54
49:23:28:LYS:HA	59:33:600:GLU:OE1	2.07	0.54
52:26:81:A:H61	52:26:86:G:H22	1.54	0.54
52:26:381:C:H2'	52:26:382:A:O4'	2.08	0.54
53:27:677:A:H2'	53:27:678:C:C6	2.42	0.54
53:27:828:U:H2'	53:27:829:A:C8	2.43	0.54
53:27:990:A:N6	53:27:1186:G:H1'	2.22	0.54
53:27:1239:G:H2'	53:27:1240:U:O4'	2.08	0.54
53:27:1434:A:H2'	53:27:1435:G:H8	1.73	0.54
53:27:1903:G:H2'	53:27:1904:G:H8	1.72	0.54
53:27:2024:G:OP2	53:27:2034:U:H4'	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:28:56:G:H4'	54:28:57:A:H8	1.72	0.54
59:33:210:GLU:HB3	59:33:260:TRP:CZ3	2.43	0.54
59:33:407:TYR:HB3	59:33:417:ASP:OD1	2.08	0.54
1:A:75:ALA:O	1:A:115:ILE:HG13	2.07	0.54
11:K:59:ARG:HD2	53:27:250:G:H4'	1.89	0.54
24:X:56:LEU:O	24:X:60:LYS:HG2	2.08	0.54
32:6:206:ILE:O	32:6:210:THR:HG23	2.08	0.54
44:18:80:ARG:HA	44:18:83:VAL:HG12	1.89	0.54
46:20:9:HIS:O	46:20:16:PHE:HB3	2.08	0.54
49:23:43:MET:HA	49:23:46:LEU:HD12	1.88	0.54
52:26:672:U:H2'	52:26:673:A:H8	1.73	0.54
53:27:917:A:H5''	53:27:2268:A:N6	2.21	0.54
53:27:1057:A:O2'	53:27:1058:U:H5'	2.07	0.54
53:27:1694:C:H6	53:27:1694:C:H5'	1.72	0.54
53:27:2233:U:H2'	53:27:2234:G:C8	2.43	0.54
54:28:33:G:H2'	54:28:34:A:O4'	2.07	0.54
56:30:56:C:H2'	56:30:57:G:O4'	2.08	0.54
58:32:48:C:H5''	58:32:59:A:H4'	1.90	0.54
59:33:134:ASN:O	59:33:135:VAL:HB	2.08	0.54
59:33:668:VAL:HA	59:33:712:MET:O	2.08	0.54
6:F:79:THR:OG1	6:F:145:ASN:HB3	2.08	0.54
7:G:123:ILE:O	7:G:124:ASP:HB2	2.08	0.54
52:26:599:C:H2'	52:26:600:A:H8	1.72	0.54
52:26:1031:C:H5'	52:26:1033:G:H1'	1.88	0.54
53:27:528:A:C8	53:27:528:A:H3'	2.43	0.54
53:27:580:U:H2'	53:27:581:C:H6	1.73	0.54
53:27:897:C:H4'	59:33:700:ARG:HH22	1.73	0.54
53:27:1005:C:O5'	53:27:1005:C:H6	1.91	0.54
53:27:1464:G:H2'	53:27:1465:G:H8	1.73	0.54
53:27:2087:G:H2'	53:27:2088:A:C8	2.42	0.54
53:27:2144:G:C5'	53:27:2145:C:H3'	2.38	0.54
59:33:135:VAL:HG22	59:33:136:ARG:HG2	1.90	0.54
59:33:158:ALA:O	59:33:161:ARG:O	2.26	0.54
59:33:240:MET:HB3	59:33:295:ILE:CD1	2.38	0.54
59:33:281:ILE:HG13	59:33:338:ILE:HA	1.90	0.54
59:33:308:ASP:OD2	59:33:310:TYR:CZ	2.61	0.54
2:B:180:VAL:O	2:B:182:ALA:N	2.41	0.54
7:G:117:LEU:HB2	7:G:122:GLN:NE2	2.23	0.54
10:J:6:THR:H	10:J:20:MET:HG3	1.73	0.54
11:K:49:GLY:HA2	30:4:56:LEU:HD11	1.89	0.54
11:K:77:ILE:HG12	11:K:110:VAL:HA	1.88	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:31:THR:HG23	54:28:29:A:OP2	2.07	0.54
16:P:111:LYS:HG2	17:Q:48:LYS:HD2	1.88	0.54
25:Y:6:ILE:O	25:Y:35:VAL:HG12	2.07	0.54
33:7:66:THR:HA	33:7:101:ASN:O	2.08	0.54
39:13:108:ARG:HG3	52:26:1347:G:O5'	2.08	0.54
40:14:65:TYR:HB3	44:18:95:LEU:HD11	1.90	0.54
47:21:26:ARG:NH2	52:26:237:G:H5''	2.23	0.54
47:21:68:LYS:O	52:26:254:G:OP1	2.25	0.54
50:24:66:ILE:HD12	50:24:70:LYS:HD3	1.90	0.54
53:27:1914:C:H3'	53:27:1914:C:O2	2.07	0.54
56:30:41:C:H2'	56:30:42:C:C5'	2.37	0.54
2:B:48:ILE:HG23	2:B:84:LEU:HD11	1.89	0.54
12:L:123:LYS:HE3	53:27:2483:C:N3	2.23	0.54
16:P:85:ALA:HB2	16:P:115:ALA:HB2	1.89	0.54
26:Z:60:PHE:CE2	49:23:41:PRO:HD3	2.43	0.54
32:6:55:GLU:O	32:6:58:LYS:HB3	2.08	0.54
39:13:37:TYR:O	39:13:38:PHE:HB3	2.08	0.54
42:16:33:CYS:HA	42:16:54:VAL:HA	1.90	0.54
43:17:101:THR:HG22	52:26:1226:C:H2'	1.90	0.54
46:20:59:HIS:O	46:20:63:GLN:HG3	2.08	0.54
52:26:95:C:H2'	52:26:96:U:C6	2.43	0.54
52:26:427:U:H2'	52:26:428:G:C8	2.43	0.54
52:26:599:C:H2'	52:26:600:A:C8	2.42	0.54
52:26:865:A:H2'	52:26:866:C:C6	2.42	0.54
52:26:1342:C:H2'	52:26:1343:G:H8	1.73	0.54
53:27:362:A:H3'	53:27:363:G:H8	1.72	0.54
53:27:576:U:H4'	53:27:2502:G:N7	2.23	0.54
53:27:1076:C:H2'	53:27:1077:A:C8	2.42	0.54
53:27:1730:C:H5'	53:27:1731:G:OP1	2.08	0.54
53:27:1803:A:H2'	53:27:1804:C:O4'	2.07	0.54
53:27:2318:G:H2'	53:27:2319:G:O4'	2.08	0.54
59:33:60:VAL:O	59:33:63:VAL:HG22	2.08	0.54
59:33:456:GLN:HG2	59:33:457:MET:N	2.22	0.54
2:B:170:VAL:HG23	2:B:194:PRO:CG	2.38	0.53
4:D:33:ILE:HG13	4:D:95:MET:HE3	1.88	0.53
5:E:43:LYS:HB2	5:E:50:THR:OG1	2.08	0.53
9:I:17:VAL:HG22	9:I:139:VAL:HA	1.90	0.53
11:K:126:ARG:HH22	53:27:634:C:H5''	1.73	0.53
12:L:78:LEU:HD23	12:L:79:ALA:N	2.24	0.53
13:M:2:ARG:HH11	13:M:2:ARG:HG2	1.73	0.53
16:P:56:PHE:CZ	53:27:536:G:H4'	2.43	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Z:41:HIS:ND1	26:Z:43:PHE:HB3	2.24	0.53
32:6:169:HIS:HA	32:6:172:ILE:HG12	1.90	0.53
33:7:185:THR:HG23	33:7:197:VAL:O	2.09	0.53
37:11:45:ALA:HB2	37:11:116:ALA:HA	1.89	0.53
38:12:80:PRO:HG2	52:26:878:A:C5'	2.38	0.53
39:13:25:GLY:HA2	39:13:60:LEU:O	2.08	0.53
49:23:50:VAL:N	49:23:56:HIS:O	2.41	0.53
50:24:53:MET:HA	50:24:56:ILE:HG22	1.91	0.53
52:26:413:G:H21	52:26:428:G:H1'	1.71	0.53
52:26:434:U:H2'	52:26:435:A:C8	2.42	0.53
52:26:1155:A:H2'	52:26:1156:G:O4'	2.08	0.53
53:27:52:A:O2'	53:27:53:A:H5'	2.07	0.53
53:27:167:A:H2'	53:27:168:G:O4'	2.08	0.53
53:27:1144:A:H2'	53:27:1145:C:C6	2.44	0.53
53:27:2898:U:H2'	53:27:2899:A:C8	2.42	0.53
54:28:3:C:C3'	54:28:4:C:H5''	2.38	0.53
54:28:49:C:H2'	54:28:50:A:C8	2.43	0.53
58:32:27:U:H3	58:32:43:A:H61	1.56	0.53
58:32:59:A:H2'	58:32:60:U:O4'	2.08	0.53
59:33:405:ARG:HG3	59:33:419:PRO:HA	1.90	0.53
3:C:168:ASP:HB3	3:C:183:PHE:HE2	1.73	0.53
6:F:74:ALA:O	6:F:76:GLU:HG3	2.08	0.53
11:K:8:PRO:HD3	53:27:1244:A:H4'	1.89	0.53
12:L:42:THR:HA	12:L:93:VAL:HG12	1.89	0.53
16:P:20:ALA:HB1	16:P:23:TYR:CD2	2.43	0.53
18:R:31:GLN:HA	18:R:34:ASP:OD2	2.08	0.53
24:X:39:GLN:HA	53:27:95:A:O2'	2.08	0.53
39:13:34:LEU:HG	39:13:39:GLY:HA3	1.90	0.53
39:13:62:LEU:HD12	39:13:62:LEU:O	2.09	0.53
43:17:10:ASP:O	43:17:11:HIS:HB2	2.08	0.53
52:26:208:U:H5'	52:26:209:U:OP1	2.09	0.53
52:26:1082:A:H2'	52:26:1083:U:O4'	2.08	0.53
53:27:402:A:H2'	53:27:403:U:H5'	1.90	0.53
53:27:1061:U:O4'	53:27:1070:A:H1'	2.07	0.53
53:27:2372:U:H2'	53:27:2373:G:C8	2.44	0.53
59:33:31:SER:O	59:33:35:LEU:HD13	2.09	0.53
2:B:28:GLU:HG2	2:B:28:GLU:O	2.08	0.53
2:B:48:ILE:HG23	2:B:84:LEU:HD21	1.90	0.53
3:C:148:ILE:HD13	3:C:187:VAL:CG1	2.36	0.53
4:D:140:ILE:H	4:D:140:ILE:HD12	1.73	0.53
7:G:56:ARG:HG2	53:27:1084:A:O4'	2.09	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:61:VAL:HG12	10:J:87:LEU:HD11	1.90	0.53
35:9:137:ARG:NH1	52:26:1078:U:H4'	2.23	0.53
36:10:18:VAL:HG12	36:10:19:PRO:HD3	1.90	0.53
39:13:46:VAL:O	39:13:79:ARG:HG3	2.08	0.53
39:13:56:MET:O	39:13:58:GLU:N	2.40	0.53
39:13:113:LYS:HG3	52:26:1368:A:OP2	2.08	0.53
43:17:21:ILE:HB	43:17:24:VAL:HG11	1.89	0.53
47:21:74:LEU:HD23	47:21:75:VAL:N	2.23	0.53
52:26:106:C:H2'	52:26:107:G:O4'	2.07	0.53
52:26:1136:C:H5''	52:26:1137:C:OP2	2.08	0.53
52:26:1524:C:H2'	52:26:1525:G:C8	2.43	0.53
53:27:522:A:H2'	53:27:523:C:C6	2.44	0.53
53:27:553:G:H2'	53:27:554:U:O4'	2.08	0.53
53:27:1906:G:C3'	53:27:1907:G:H5''	2.38	0.53
53:27:2720:U:H2'	53:27:2721:A:O4'	2.07	0.53
59:33:20:TRP:HD1	59:33:64:GLU:CA	2.21	0.53
2:B:191:GLY:HA3	53:27:2729:G:O2'	2.08	0.53
9:I:34:ARG:NH1	9:I:40:HIS:HB3	2.23	0.53
11:K:132:ARG:HA	11:K:142:ILE:HD11	1.90	0.53
12:L:16:ARG:HH11	53:27:953:G:H5''	1.74	0.53
15:O:39:LEU:HD11	15:O:81:ASP:HB2	1.91	0.53
21:U:70:ILE:HG22	21:U:72:VAL:HG13	1.90	0.53
28:2:38:PHE:HB2	28:2:45:HIS:CE1	2.43	0.53
34:8:27:ILE:H	34:8:27:ILE:CD1	2.18	0.53
35:9:81:GLN:HE21	35:9:149:PRO:HD2	1.74	0.53
46:20:76:LYS:HD3	46:20:79:ASN:HD21	1.72	0.53
52:26:848:C:C2'	52:26:849:G:H5''	2.38	0.53
53:27:1562:U:H2'	53:27:1563:U:O4'	2.07	0.53
53:27:2095:A:C3'	53:27:2096:C:H5''	2.37	0.53
53:27:2126:A:H2'	53:27:2162:G:N2	2.23	0.53
53:27:2241:A:H2'	53:27:2242:G:C8	2.43	0.53
53:27:2266:A:H4'	53:27:2267:A:N3	2.24	0.53
58:32:6:G:H2'	58:32:7:G:O4'	2.09	0.53
59:33:43:LEU:HD13	59:33:56:LEU:HD13	1.89	0.53
59:33:553:LEU:O	59:33:555:GLN:N	2.40	0.53
59:33:721:VAL:O	59:33:725:VAL:HG23	2.09	0.53
10:J:21:CYS:HA	10:J:41:ILE:HG22	1.90	0.53
15:O:55:HIS:CE1	53:27:2682:A:H4'	2.44	0.53
16:P:40:LYS:HE3	16:P:44:TYR:HE2	1.73	0.53
16:P:48:ASP:HA	16:P:51:GLN:HB3	1.90	0.53
32:6:101:THR:HG23	52:26:1074:G:O2'	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:9:143:LEU:O	35:9:146:MET:HB3	2.08	0.53
44:18:68:ARG:HH12	44:18:70:HIS:CB	2.21	0.53
47:21:61:ARG:HG2	47:21:75:VAL:CG2	2.39	0.53
48:22:41:SER:CB	48:22:51:GLN:HE21	2.20	0.53
52:26:252:U:O2	52:26:252:U:H2'	2.08	0.53
52:26:447:G:H1'	52:26:487:A:N6	2.24	0.53
52:26:484:G:N7	52:26:486:U:H1'	2.23	0.53
53:27:312:G:H2'	53:27:313:G:H8	1.74	0.53
53:27:1399:C:H2'	53:27:1400:U:C6	2.44	0.53
53:27:1925:C:O2'	53:27:1926:U:H5'	2.08	0.53
54:28:64:G:H2'	54:28:65:U:C6	2.44	0.53
55:29:6:G:H2'	55:29:7:G:O4'	2.08	0.53
57:31:63:G:H2'	57:31:64:G:H8	1.73	0.53
59:33:96:ARG:CG	59:33:104:VAL:HG21	2.39	0.53
59:33:368:SER:CB	59:33:460:GLN:NE2	2.72	0.53
3:C:73:ILE:HG13	3:C:78:TRP:CE3	2.44	0.53
4:D:114:ARG:HH11	43:17:70:ARG:CZ	2.22	0.53
8:H:14:ALA:HB3	8:H:52:LEU:H	1.74	0.53
9:I:93:ILE:HD13	9:I:100:VAL:HG21	1.90	0.53
29:3:26:ASN:O	29:3:30:VAL:HG23	2.08	0.53
33:7:76:ILE:HA	33:7:83:VAL:CG2	2.39	0.53
33:7:190:THR:HG22	33:7:192:TYR:H	1.74	0.53
39:13:20:ILE:HA	39:13:62:LEU:HA	1.90	0.53
42:16:49:ARG:NH1	52:26:523:A:H61	2.07	0.53
49:23:39:ILE:HB	49:23:66:VAL:O	2.08	0.53
51:25:45:LYS:HE3	52:26:723:U:C1'	2.39	0.53
52:26:979:C:H1'	52:26:1317:C:H41	1.73	0.53
52:26:1452:C:H4'	52:26:1453:G:N2	2.24	0.53
52:26:1510:C:H2'	52:26:1511:G:C8	2.43	0.53
53:27:415:A:H2'	53:27:416:U:C6	2.43	0.53
53:27:635:C:H2'	53:27:636:G:C8	2.44	0.53
53:27:1077:A:C2	53:27:1088:A:H2'	2.44	0.53
53:27:1111:A:O2'	53:27:1112:G:H4'	2.09	0.53
53:27:1287:A:H3'	53:27:1288:G:N2	2.22	0.53
53:27:1666:G:C2'	53:27:1667:G:H5'	2.38	0.53
53:27:2229:U:H2'	53:27:2230:G:H8	1.73	0.53
53:27:2607:G:H2'	53:27:2608:G:O4'	2.08	0.53
53:27:2898:U:H2'	53:27:2899:A:H8	1.74	0.53
56:30:4:C:H2'	56:30:5:G:C8	2.44	0.53
59:33:20:TRP:CZ2	59:33:76:LEU:CG	2.92	0.53
1:A:257:ARG:HD2	1:A:269:ARG:NH1	2.23	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:44:ALA:O	7:G:49:GLY:N	2.42	0.53
8:H:33:ASN:HB2	8:H:66:PHE:CE2	2.39	0.53
24:X:41:HIS:CD2	53:27:96:C:H4'	2.43	0.53
29:3:21:ARG:HG2	29:3:21:ARG:HH21	1.74	0.53
34:8:26:ALA:O	34:8:28:ASP:N	2.41	0.53
34:8:169:TRP:NE1	34:8:170:LEU:HD23	2.24	0.53
38:12:77:VAL:HG12	38:12:84:ILE:HD12	1.90	0.53
50:24:30:PHE:O	50:24:34:VAL:HG23	2.09	0.53
51:25:5:VAL:CG2	51:25:7:GLU:HG3	2.38	0.53
51:25:67:THR:HG23	52:26:1167:A:N6	2.23	0.53
52:26:392:C:H2'	52:26:393:A:H8	1.74	0.53
52:26:1240:U:H5''	52:26:1241:G:OP2	2.09	0.53
52:26:1294:G:H2'	52:26:1295:U:C6	2.43	0.53
52:26:1517:G:H2'	52:26:1518:A:H5'	1.90	0.53
53:27:825:A:H2'	53:27:826:U:C6	2.43	0.53
53:27:973:A:H5'	53:27:1188:U:C1'	2.38	0.53
53:27:1056:G:H4'	53:27:1086:A:C8	2.44	0.53
53:27:1279:G:H2'	53:27:1280:G:H8	1.73	0.53
53:27:2292:U:H2'	53:27:2293:G:C8	2.42	0.53
59:33:47:GLN:CD	59:33:55:LEU:HD13	2.29	0.53
59:33:160:LEU:CD1	59:33:198:LEU:HD22	2.38	0.53
6:F:22:LYS:HD3	53:27:2093:G:H5'	1.90	0.53
7:G:1:MET:HG3	7:G:2:ALA:N	2.24	0.53
7:G:110:ALA:HB3	7:G:113:PHE:CG	2.44	0.53
8:H:78:LEU:HD12	8:H:108:ILE:HG23	1.89	0.53
43:17:26:LYS:O	43:17:29:SER:HB3	2.09	0.53
52:26:12:U:H4'	52:26:526:C:H4'	1.91	0.53
52:26:664:G:N2	52:26:741:G:H1	2.07	0.53
52:26:810:C:H2'	52:26:811:C:O4'	2.09	0.53
52:26:1520:C:H2'	52:26:1521:C:H6	1.73	0.53
53:27:49:A:C6	53:27:177:G:C5	2.96	0.53
53:27:167:A:C2	53:27:168:G:H1'	2.44	0.53
53:27:1563:U:H2'	53:27:1564:C:C6	2.43	0.53
53:27:2630:G:H2'	53:27:2631:G:H8	1.73	0.53
58:32:19:G:H5''	58:32:20:U:C5	2.39	0.53
58:32:48:C:H2'	58:32:59:A:H4'	1.91	0.53
2:B:49:GLN:NE2	2:B:79:LEU:HD13	2.24	0.53
5:E:154:GLU:HG2	5:E:156:TYR:N	2.23	0.53
7:G:48:ALA:HB3	7:G:51:TYR:HD2	1.73	0.53
8:H:21:PRO:HB2	8:H:22:PRO:HD3	1.90	0.53
14:N:35:ILE:HG23	14:N:35:ILE:O	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:16:GLU:HA	17:Q:98:ILE:HG21	1.90	0.53
26:Z:56:ARG:HG3	49:23:64:GLU:O	2.09	0.53
32:6:15:PHE:O	32:6:40:ILE:HB	2.09	0.53
35:9:104:ILE:CD1	35:9:119:VAL:HG23	2.35	0.53
37:11:100:MET:O	37:11:104:VAL:HG23	2.09	0.53
38:12:4:ASP:HB2	38:12:80:PRO:HG3	1.89	0.53
38:12:95:MET:SD	38:12:129:ALA:HB1	2.49	0.53
39:13:11:ARG:H	39:13:77:ALA:HB2	1.74	0.53
42:16:49:ARG:NH1	42:16:88:ASP:OD2	2.42	0.53
47:21:30:HIS:HB2	47:21:37:ILE:HD11	1.91	0.53
53:27:1702:G:C3'	53:27:1703:G:H5''	2.39	0.53
53:27:2679:A:H2'	53:27:2680:U:O4'	2.09	0.53
59:33:27:THR:HG23	59:33:28:SER:N	2.22	0.53
59:33:427:PHE:CZ	59:33:461:ILE:HG13	2.43	0.53
59:33:434:ASP:O	59:33:438:ARG:HG2	2.09	0.53
2:B:58:ASN:N	2:B:60:VAL:HG12	2.23	0.53
3:C:65:THR:HG22	3:C:66:GLY:H	1.74	0.53
4:D:112:ASP:OD1	43:17:65:GLU:HG3	2.08	0.53
11:K:126:ARG:HH22	53:27:634:C:C5'	2.22	0.53
14:N:33:ARG:HG3	54:28:52:A:H62	1.73	0.53
20:T:39:ASN:OD1	20:T:64:ILE:HB	2.09	0.53
25:Y:9:THR:HG22	25:Y:53:MET:C	2.30	0.53
34:8:173:ASP:O	34:8:175:GLY:N	2.42	0.53
38:12:4:ASP:OD2	38:12:7:ALA:HB2	2.08	0.53
47:21:17:GLU:OE1	52:26:273:U:H1'	2.09	0.53
52:26:463:U:H2'	52:26:464:U:O4'	2.09	0.53
52:26:626:G:H2'	52:26:627:G:C8	2.44	0.53
53:27:355:U:H2'	53:27:356:G:H8	1.73	0.53
53:27:386:G:H3'	53:27:387:U:H5''	1.90	0.53
53:27:1086:A:H4'	53:27:1103:A:C2	2.43	0.53
53:27:1444:G:H2'	53:27:1445:G:C8	2.44	0.53
59:33:35:LEU:HD11	59:33:73:ILE:CA	2.39	0.53
59:33:73:ILE:HG13	59:33:74:ASP:N	2.24	0.53
59:33:444:ILE:HB	59:33:459:ASP:OD2	2.09	0.53
59:33:620:GLU:O	59:33:621:ILE:HG23	2.08	0.53
1:A:62:ARG:HH11	1:A:62:ARG:HG3	1.74	0.52
7:G:2:ALA:HB3	7:G:6:GLN:CG	2.39	0.52
10:J:9:ASN:O	10:J:83:ALA:HA	2.09	0.52
11:K:33:ARG:CD	11:K:40:SER:HA	2.39	0.52
16:P:80:ASN:CG	53:27:1151:A:H4'	2.30	0.52
18:R:47:VAL:O	18:R:50:VAL:HB	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:59:GLU:HA	18:R:64:ALA:CB	2.39	0.52
27:1:30:ASP:HB3	27:1:35:GLU:N	2.22	0.52
29:3:25:LYS:HZ1	53:27:210:C:H5'	1.74	0.52
32:6:104:LYS:CE	52:26:1073:U:H4'	2.39	0.52
33:7:90:VAL:O	33:7:93:ILE:HB	2.09	0.52
33:7:113:LYS:HB2	33:7:184:ASN:ND2	2.24	0.52
37:11:75:LYS:O	37:11:86:VAL:N	2.40	0.52
44:18:61:ASN:HB3	44:18:72:PHE:CE2	2.43	0.52
51:25:33:ARG:HH11	51:25:34:ARG:HG2	1.74	0.52
53:27:1141:U:H4'	53:27:1142:A:O4'	2.09	0.52
53:27:1744:A:H3'	53:27:1745:A:C8	2.44	0.52
53:27:1773:A:H2'	53:27:1774:C:O4'	2.08	0.52
53:27:2167:U:H2'	53:27:2169:A:OP2	2.09	0.52
53:27:2658:C:H2'	53:27:2659:G:O4'	2.08	0.52
59:33:59:GLY:O	59:33:63:VAL:HG13	2.09	0.52
59:33:81:LEU:CD2	59:33:84:LEU:HD22	2.38	0.52
59:33:99:VAL:CG2	59:33:103:VAL:HG21	2.39	0.52
59:33:210:GLU:CD	59:33:260:TRP:CZ3	2.83	0.52
59:33:375:ALA:HB1	59:33:457:MET:HE2	1.88	0.52
3:C:54:GLY:O	3:C:56:GLY:N	2.42	0.52
6:F:75:LEU:HD12	6:F:76:GLU:N	2.24	0.52
8:H:109:ALA:O	8:H:113:ALA:HB3	2.09	0.52
13:M:86:ARG:HG2	13:M:117:ASP:OD2	2.09	0.52
16:P:49:ARG:HG2	16:P:49:ARG:HH11	1.74	0.52
21:U:26:PHE:HZ	21:U:47:VAL:HG11	1.74	0.52
32:6:8:MET:HG3	32:6:10:LYS:H	1.74	0.52
33:7:89:VAL:O	33:7:93:ILE:HG13	2.09	0.52
33:7:116:ALA:HB1	33:7:186:SER:HB3	1.91	0.52
33:7:148:ILE:O	33:7:168:ARG:HA	2.10	0.52
43:17:67:ASP:HA	43:17:70:ARG:HH11	1.75	0.52
47:21:56:ASP:OD1	47:21:56:ASP:N	2.42	0.52
50:24:53:MET:O	50:24:57:VAL:HG12	2.09	0.52
52:26:147:G:H2'	52:26:148:G:C8	2.45	0.52
52:26:628:G:H2'	52:26:629:A:H8	1.74	0.52
53:27:189:G:H2'	53:27:205:G:N2	2.24	0.52
53:27:1301:A:H2'	53:27:1301:A:N3	2.24	0.52
53:27:2699:C:H2'	53:27:2700:A:C8	2.44	0.52
59:33:63:VAL:HG21	59:33:80:LEU:HD21	1.90	0.52
59:33:156:ARG:O	59:33:160:LEU:HG	2.09	0.52
10:J:1:MET:HB2	10:J:67:LYS:HG2	1.91	0.52
12:L:96:ILE:HG21	12:L:126:ILE:HD13	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:60:TRP:O	16:P:64:ILE:HG13	2.10	0.52
29:3:35:ARG:HH12	53:27:53:A:H2	1.53	0.52
33:7:172:VAL:HG12	33:7:174:LEU:CD1	2.39	0.52
34:8:57:LYS:HB2	34:8:202:LEU:HD13	1.90	0.52
37:11:39:GLU:OE1	39:13:42:THR:HG22	2.09	0.52
41:15:88:PRO:HD3	51:25:28:LEU:CD2	2.39	0.52
46:20:15:PRO:HG2	46:20:41:PRO:HG3	1.90	0.52
51:25:25:ALA:O	51:25:29:ALA:HB3	2.09	0.52
52:26:356:A:N3	52:26:368:U:O2'	2.42	0.52
52:26:686:U:O4	52:26:703:G:H2'	2.09	0.52
53:27:271:G:H1'	53:27:272:A:C8	2.45	0.52
53:27:764:A:O2'	53:27:765:C:H5'	2.08	0.52
53:27:1082:U:H2'	53:27:1083:U:O4'	2.09	0.52
53:27:1279:G:H2'	53:27:1280:G:C8	2.44	0.52
53:27:1351:C:H2'	53:27:1352:U:C6	2.43	0.52
53:27:2166:U:C2'	53:27:2167:U:H5'	2.40	0.52
59:33:169:ASP:O	59:33:169:ASP:OD1	2.28	0.52
59:33:210:GLU:OE1	59:33:260:TRP:CZ3	2.62	0.52
4:D:80:GLN:NE2	4:D:81:GLY:H	2.06	0.52
10:J:104:THR:HG22	10:J:106:GLU:H	1.74	0.52
16:P:10:ARG:HH22	53:27:514:A:C5'	2.21	0.52
36:10:2:ARG:HD2	36:10:68:GLN:HG3	1.91	0.52
36:10:18:VAL:CG1	36:10:19:PRO:HD3	2.40	0.52
37:11:3:ARG:HB3	37:11:4:ARG:NH1	2.25	0.52
38:12:85:TYR:CE1	38:12:123:GLU:HB2	2.44	0.52
41:15:43:TRP:HZ3	41:15:45:THR:HG23	1.74	0.52
48:22:35:SER:HB3	51:25:3:ILE:HG13	1.91	0.52
48:22:59:LYS:HD3	52:26:734:G:O2'	2.10	0.52
52:26:358:U:H2'	52:26:359:G:C8	2.44	0.52
53:27:1149:G:H2'	53:27:1150:C:C6	2.44	0.52
53:27:1336:A:H2'	53:27:1337:G:C8	2.44	0.52
56:30:13:C:H2'	56:30:14:A:H5''	1.91	0.52
56:30:23:A:H2'	56:30:24:G:C8	2.44	0.52
59:33:63:VAL:HA	59:33:79:ALA:CB	2.39	0.52
4:D:175:PRO:O	4:D:176:PHE:HB2	2.10	0.52
5:E:51:PHE:CE1	5:E:71:LEU:HD22	2.44	0.52
7:G:51:TYR:HB2	7:G:53:ARG:NH2	2.24	0.52
10:J:61:VAL:H	10:J:87:LEU:HD13	1.75	0.52
10:J:91:SER:O	10:J:92:GLU:HB2	2.10	0.52
12:L:64:TRP:HB2	12:L:104:GLU:HB2	1.91	0.52
17:Q:20:VAL:O	17:Q:96:VAL:HG22	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:88:ARG:HD2	18:R:94:ASP:OD2	2.09	0.52
35:9:137:ARG:HH12	52:26:1078:U:H4'	1.75	0.52
39:13:54:VAL:HG12	39:13:93:LEU:HD22	1.90	0.52
41:15:111:ASP:HB2	51:25:19:LYS:HZ1	1.75	0.52
52:26:698:G:H2'	52:26:699:C:C6	2.45	0.52
53:27:1499:C:H2'	53:27:1500:G:C8	2.44	0.52
53:27:2623:G:H2'	53:27:2624:G:H8	1.74	0.52
53:27:2677:G:H2'	53:27:2678:C:C6	2.44	0.52
53:27:2840:C:H2'	53:27:2841:C:H6	1.74	0.52
59:33:643:GLU:O	59:33:646:SER:HB3	2.10	0.52
2:B:2:ILE:HG13	2:B:3:GLY:N	2.21	0.52
6:F:65:ALA:HA	6:F:68:ARG:HH11	1.75	0.52
6:F:68:ARG:O	6:F:72:ILE:HG13	2.09	0.52
8:H:101:SER:HB2	8:H:104:GLN:CG	2.31	0.52
13:M:37:THR:HA	13:M:110:MET:HA	1.91	0.52
18:R:82:MET:HB2	18:R:98:LYS:HB2	1.91	0.52
20:T:11:ILE:HA	20:T:21:ARG:HA	1.91	0.52
24:X:39:GLN:O	24:X:42:LEU:HB3	2.09	0.52
26:Z:66:ILE:HD11	44:18:41:TRP:N	2.25	0.52
41:15:82:GLU:HG3	41:15:108:ASN:OD1	2.10	0.52
52:26:77:A:H2'	52:26:78:A:O4'	2.10	0.52
52:26:206:C:H2'	52:26:207:C:C6	2.44	0.52
52:26:432:A:H2'	52:26:433:G:O4'	2.10	0.52
52:26:1251:A:H2'	52:26:1252:A:C8	2.44	0.52
53:27:284:U:C2'	53:27:285:G:H5''	2.40	0.52
53:27:547:A:H4'	53:27:548:G:C5	2.45	0.52
53:27:2114:A:O2'	53:27:2167:U:H4'	2.09	0.52
53:27:2328:A:H2'	53:27:2329:U:C6	2.45	0.52
53:27:2888:C:H2'	53:27:2889:C:H6	1.74	0.52
56:30:9:A:H62	56:30:23:A:H62	1.58	0.52
57:31:57:A:H2'	57:31:58:A:H5'	1.92	0.52
59:33:231:GLU:O	59:33:235:HIS:CD2	2.63	0.52
59:33:443:LYS:HA	59:33:448:ILE:HA	1.91	0.52
2:B:8:LYS:HB2	2:B:201:LEU:HD11	1.91	0.52
3:C:60:TRP:HE3	3:C:62:GLN:N	2.08	0.52
8:H:79:LEU:HD11	8:H:132:ALA:HA	1.92	0.52
15:O:105:LYS:HG2	52:26:1432:G:O5'	2.09	0.52
18:R:20:VAL:HG11	18:R:47:VAL:HG11	1.92	0.52
21:U:46:LYS:O	21:U:50:MET:HG2	2.10	0.52
32:6:27:LYS:N	32:6:28:PRO:CD	2.72	0.52
33:7:63:ILE:O	33:7:63:ILE:HG13	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:8:156:ALA:O	34:8:159:GLU:HG2	2.10	0.52
35:9:107:GLY:CA	52:26:9:G:H5'	2.24	0.52
39:13:25:GLY:HA3	39:13:58:GLU:HA	1.90	0.52
44:18:47:LEU:HD21	52:26:1317:C:H4'	1.91	0.52
46:20:76:LYS:HA	46:20:79:ASN:HD21	1.74	0.52
50:24:23:ARG:NH1	52:26:176:C:H5''	2.23	0.52
53:27:52:A:C6	53:27:118:A:C2	2.97	0.52
53:27:207:A:H2'	53:27:208:C:O4'	2.10	0.52
53:27:1181:U:H2'	53:27:1182:G:C8	2.44	0.52
59:33:43:LEU:O	59:33:44:GLN:HB2	2.08	0.52
59:33:43:LEU:CD2	59:33:44:GLN:HE22	2.22	0.52
59:33:72:ASP:OD1	59:33:74:ASP:N	2.43	0.52
59:33:281:ILE:CG1	59:33:338:ILE:HG13	2.40	0.52
59:33:327:LEU:CD2	59:33:332:LYS:CB	2.87	0.52
3:C:69:ARG:HH21	53:27:2502:G:N2	2.06	0.52
10:J:76:VAL:HG12	15:O:72:VAL:HG21	1.91	0.52
13:M:19:ALA:O	13:M:22:ARG:HB3	2.10	0.52
16:P:88:GLU:CG	17:Q:52:PRO:HB3	2.40	0.52
35:9:135:VAL:O	35:9:139:THR:HG23	2.10	0.52
47:21:63:CYS:SG	47:21:64:ARG:N	2.83	0.52
48:22:17:VAL:O	48:22:18:GLN:HB2	2.10	0.52
53:27:57:C:H2'	53:27:58:G:O4'	2.09	0.52
53:27:811:U:O2	53:27:1250:G:H2'	2.09	0.52
53:27:914:G:H5'	53:27:915:C:OP2	2.10	0.52
53:27:2073:C:H2'	53:27:2074:U:H6	1.75	0.52
58:32:38:A:H2'	58:32:39:C:C6	2.45	0.52
59:33:27:THR:CG2	59:33:28:SER:H	2.20	0.52
59:33:58:ARG:NH1	59:33:159:HIS:ND1	2.58	0.52
59:33:147:ARG:C	59:33:150:VAL:HG12	2.30	0.52
59:33:606:MET:HB3	59:33:630:GLY:HA3	1.92	0.52
59:33:722:LEU:O	59:33:726:LEU:HG	2.09	0.52
4:D:102:LEU:HD12	4:D:106:ALA:HB3	1.90	0.52
7:G:39:THR:HB	7:G:105:LYS:CE	2.39	0.52
7:G:78:GLY:N	7:G:79:PRO:HD2	2.25	0.52
15:O:2:ASN:O	15:O:5:LYS:HB3	2.09	0.52
16:P:36:GLN:NE2	53:27:564:C:H1'	2.25	0.52
19:S:74:ILE:HD12	19:S:74:ILE:O	2.10	0.52
20:T:13:LEU:O	20:T:18:LYS:HG3	2.09	0.52
32:6:130:LYS:O	32:6:133:ALA:HB3	2.10	0.52
32:6:160:LEU:HD23	32:6:182:VAL:HG12	1.92	0.52
36:10:91:ARG:HH21	48:22:60:ARG:HH22	1.58	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:15:28:ASN:OD1	41:15:56:LYS:HD2	2.10	0.52
41:15:124:LYS:HD3	52:26:780:A:H5''	1.92	0.52
44:18:13:VAL:CA	44:18:59:GLN:HE22	2.19	0.52
51:25:25:ALA:HB3	55:29:9:G:H4'	1.90	0.52
52:26:489:C:H2'	52:26:490:C:H6	1.74	0.52
53:27:364:C:H2'	53:27:365:U:C6	2.45	0.52
53:27:1198:U:H2'	53:27:1199:U:C6	2.44	0.52
53:27:1882:U:H2'	53:27:1883:U:C6	2.44	0.52
53:27:2405:G:H2'	53:27:2411:A:H62	1.74	0.52
54:28:70:C:H2'	54:28:71:C:C6	2.45	0.52
59:33:35:LEU:HD11	59:33:73:ILE:CB	2.40	0.52
59:33:39:TRP:N	59:33:80:LEU:HD13	2.25	0.52
59:33:697:VAL:HG13	59:33:712:MET:HE2	1.92	0.52
4:D:24:VAL:O	4:D:27:VAL:HG12	2.10	0.52
6:F:127:GLU:HG3	6:F:145:ASN:HA	1.91	0.52
11:K:103:ILE:CD1	53:27:259:G:H4'	2.40	0.52
42:16:41:PRO:HB3	42:16:88:ASP:OD2	2.10	0.52
52:26:70:U:H4'	52:26:71:A:C8	2.45	0.52
52:26:900:A:H2'	52:26:901:A:C8	2.45	0.52
52:26:1119:C:O2'	52:26:1120:C:H5'	2.10	0.52
52:26:1276:G:H2'	52:26:1277:C:O4'	2.10	0.52
52:26:1327:C:H2'	52:26:1328:C:C6	2.44	0.52
53:27:286:U:H2'	53:27:287:G:C8	2.44	0.52
53:27:934:U:H2'	53:27:935:C:C6	2.45	0.52
53:27:984:A:H5''	53:27:985:C:OP2	2.10	0.52
53:27:1979:U:O2'	53:27:1980:G:H5'	2.10	0.52
53:27:2028:U:H2'	53:27:2029:G:C8	2.44	0.52
56:30:71:G:H2'	56:30:72:C:C6	2.45	0.52
59:33:20:TRP:CG	59:33:63:VAL:HG23	2.45	0.52
59:33:371:GLU:O	59:33:407:TYR:OH	2.28	0.52
1:A:259:ASN:OD1	1:A:261:ARG:HB3	2.10	0.51
7:G:53:ARG:HG3	7:G:86:MET:HB2	1.92	0.51
13:M:37:THR:HG21	13:M:40:LYS:NZ	2.26	0.51
13:M:63:ARG:HA	13:M:80:PHE:HE2	1.74	0.51
15:O:5:LYS:O	15:O:9:GLN:HB2	2.11	0.51
16:P:107:ALA:O	16:P:110:GLU:HB2	2.10	0.51
19:S:92:ASN:OD1	19:S:93:LEU:N	2.43	0.51
32:6:82:ALA:HB2	32:6:213:LEU:HD23	1.93	0.51
34:8:131:ILE:HG22	34:8:134:TYR:N	2.26	0.51
36:10:6:ILE:HB	36:10:62:MET:HB2	1.92	0.51
41:15:111:ASP:HB3	51:25:19:LYS:HZ1	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:23:9:PHE:HE2	49:23:36:ARG:HD3	1.75	0.51
52:26:1432:G:H1'	52:26:1468:A:H62	1.75	0.51
53:27:971:G:H2'	53:27:972:A:O4'	2.09	0.51
53:27:1056:G:H5''	53:27:1057:A:O4'	2.10	0.51
53:27:2290:G:H2'	53:27:2291:U:O4'	2.10	0.51
53:27:2841:C:H2'	53:27:2842:G:H8	1.75	0.51
54:28:41:G:N3	54:28:41:G:H2'	2.25	0.51
57:31:23:C:H2'	57:31:24:U:C6	2.45	0.51
59:33:221:ARG:CZ	59:33:273:LEU:HD11	2.40	0.51
59:33:241:LYS:HD3	59:33:246:LYS:HZ2	1.75	0.51
1:A:248:GLY:HA3	53:27:2239:G:H5'	1.91	0.51
6:F:90:LEU:HD21	6:F:94:ILE:HG13	1.92	0.51
6:F:125:THR:HG21	6:F:148:ALA:HB2	1.92	0.51
11:K:85:VAL:CG1	11:K:94:THR:HG22	2.40	0.51
13:M:30:ARG:HG3	13:M:75:ILE:CD1	2.39	0.51
13:M:45:ARG:O	13:M:49:GLU:HG3	2.09	0.51
24:X:12:GLU:CD	24:X:12:GLU:H	2.13	0.51
33:7:112:ALA:HB2	33:7:182:ASP:O	2.10	0.51
33:7:116:ALA:HB1	33:7:186:SER:CB	2.40	0.51
34:8:181:PHE:CZ	34:8:184:LYS:HA	2.45	0.51
37:11:50:ALA:HA	37:11:55:LYS:O	2.10	0.51
38:12:45:ILE:HD13	38:12:60:LEU:HD22	1.91	0.51
39:13:97:LEU:HB3	39:13:103:VAL:HG13	1.93	0.51
40:14:80:THR:HB	40:14:83:THR:CB	2.39	0.51
41:15:33:ILE:CD1	41:15:73:VAL:HG21	2.38	0.51
42:16:80:LEU:HB3	42:16:97:VAL:HB	1.91	0.51
52:26:225:C:C2'	52:26:226:G:H5''	2.40	0.51
52:26:846:G:H2'	52:26:847:G:H8	1.75	0.51
52:26:939:G:H2'	52:26:940:C:C6	2.45	0.51
53:27:704:G:HO2'	53:27:705:A:H8	1.57	0.51
53:27:857:G:H2'	53:27:858:G:C1'	2.41	0.51
53:27:864:G:O2'	53:27:865:C:H5'	2.10	0.51
53:27:2412:A:H2'	53:27:2413:G:O4'	2.10	0.51
53:27:2845:U:H2'	53:27:2846:G:C8	2.46	0.51
56:30:48:C:C2	56:30:59:U:H1'	2.46	0.51
59:33:65:ILE:HD11	59:33:161:ARG:HH21	1.73	0.51
59:33:227:HIS:O	59:33:231:GLU:HG3	2.09	0.51
3:C:16:GLU:O	3:C:20:GLY:N	2.40	0.51
7:G:100:ALA:CB	7:G:125:ARG:HD2	2.41	0.51
9:I:35:ARG:HA	9:I:40:HIS:CD2	2.46	0.51
14:N:35:ILE:HD12	14:N:102:ARG:HB3	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:79:ARG:NE	17:Q:80:ARG:HH21	2.08	0.51
19:S:39:THR:O	19:S:43:ILE:HG13	2.11	0.51
25:Y:40:THR:CG2	25:Y:43:ILE:HG12	2.36	0.51
29:3:10:LEU:HD11	29:3:14:ARG:NH1	2.23	0.51
39:13:114:LYS:HD3	52:26:1187:G:C5'	2.40	0.51
39:13:122:ARG:HH11	52:26:1343:G:H1'	1.76	0.51
46:20:4:ILE:O	46:20:71:VAL:HG21	2.11	0.51
52:26:298:A:H2'	52:26:299:G:O4'	2.10	0.51
52:26:1241:G:H2'	52:26:1242:G:H8	1.74	0.51
53:27:693:A:H2'	53:27:694:U:C6	2.45	0.51
53:27:2291:U:O2'	53:27:2374:C:H1'	2.11	0.51
53:27:2786:U:O2'	53:27:2787:C:H5'	2.10	0.51
56:30:58:A:H1'	56:30:61:C:N4	2.26	0.51
59:33:99:VAL:HG21	59:33:103:VAL:HG11	1.93	0.51
59:33:175:ALA:CA	59:33:178:CYS:SG	2.94	0.51
4:D:104:THR:HA	26:Z:38:SER:HB3	1.92	0.51
5:E:154:GLU:OE1	5:E:157:LYS:HB2	2.09	0.51
6:F:73:ASN:ND2	6:F:76:GLU:HG2	2.26	0.51
9:I:8:PRO:HG3	9:I:48:VAL:CG1	2.41	0.51
14:N:31:THR:O	14:N:32:PRO:C	2.48	0.51
15:O:108:ARG:HD2	52:26:1463:U:OP1	2.11	0.51
39:13:70:GLY:O	39:13:74:GLN:HG3	2.10	0.51
46:20:3:THR:HG23	46:20:24:SER:HB3	1.92	0.51
48:22:41:SER:HB3	48:22:51:GLN:HG2	1.92	0.51
52:26:1282:C:H2'	52:26:1283:U:C6	2.46	0.51
53:27:1188:U:O2'	53:27:1189:A:H5'	2.11	0.51
53:27:1540:G:O2'	53:27:1541:C:H5'	2.11	0.51
53:27:1642:G:H2'	53:27:1643:G:O4'	2.10	0.51
53:27:1846:G:H5''	53:27:1847:G:OP2	2.10	0.51
53:27:1956:U:H2'	53:27:1957:C:H5'	1.91	0.51
53:27:2047:C:H2'	53:27:2048:G:C8	2.45	0.51
53:27:2620:C:H2'	53:27:2621:G:O4'	2.10	0.51
54:28:30:C:H2'	54:28:31:C:C5'	2.39	0.51
2:B:179:ARG:HB3	2:B:188:LEU:HD12	1.92	0.51
4:D:89:THR:O	54:28:43:C:H1'	2.11	0.51
7:G:44:ALA:HA	7:G:51:TYR:CE2	2.46	0.51
8:H:80:LYS:O	8:H:84:GLY:N	2.41	0.51
13:M:60:VAL:O	13:M:64:ARG:HG2	2.10	0.51
14:N:28:VAL:HG22	14:N:29:HIS:N	2.26	0.51
20:T:31:GLY:O	20:T:66:VAL:HG23	2.11	0.51
39:13:121:ARG:HH12	52:26:1345:U:H5''	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:1182:G:O2'	52:26:1183:U:H5''	2.11	0.51
52:26:1339:A:H2'	52:26:1340:A:O4'	2.10	0.51
53:27:27:G:N2	53:27:512:G:H1'	2.24	0.51
53:27:473:G:O2'	53:27:474:G:H5'	2.11	0.51
53:27:1923:U:H5''	57:31:24:U:O2'	2.11	0.51
53:27:2822:G:H2'	53:27:2823:A:H5''	1.92	0.51
57:31:24:U:H2'	57:31:25:C:C6	2.46	0.51
59:33:43:LEU:CD1	59:33:56:LEU:HD13	2.40	0.51
59:33:221:ARG:NH2	59:33:273:LEU:HD11	2.24	0.51
4:D:126:ASN:OD1	4:D:156:THR:HA	2.10	0.51
5:E:90:GLY:HA3	5:E:93:TYR:CE2	2.45	0.51
8:H:4:VAL:N	8:H:7:TYR:HD2	2.08	0.51
9:I:11:VAL:HG11	9:I:50:THR:HG22	1.92	0.51
10:J:76:VAL:O	15:O:72:VAL:HG22	2.11	0.51
14:N:4:LYS:HE2	14:N:8:ILE:HD11	1.93	0.51
22:V:52:ASP:O	22:V:53:HIS:HB2	2.11	0.51
27:1:5:ASN:HD22	53:27:2020:A:H62	1.56	0.51
32:6:179:GLY:C	32:6:180:ILE:HD12	2.30	0.51
35:9:10:LEU:HD11	35:9:67:ARG:HG2	1.91	0.51
35:9:105:ILE:HD11	35:9:123:LEU:CD2	2.41	0.51
38:12:53:ASP:O	38:12:56:PRO:HG3	2.10	0.51
38:12:115:ALA:O	38:12:119:GLY:N	2.44	0.51
40:14:65:TYR:OH	44:18:84:ARG:HG3	2.10	0.51
43:17:6:ILE:HD11	43:17:65:GLU:CD	2.31	0.51
46:20:67:ILE:CG2	46:20:71:VAL:HB	2.41	0.51
51:25:13:VAL:CG1	51:25:15:LEU:HG	2.40	0.51
52:26:286:C:H2'	52:26:287:U:C6	2.46	0.51
52:26:516:U:H5	52:26:533:A:N6	2.07	0.51
52:26:1206:G:H2'	52:26:1207:G:H5''	1.91	0.51
52:26:1305:G:HO2'	52:26:1306:A:H8	1.58	0.51
52:26:1355:G:H2'	52:26:1356:G:H8	1.76	0.51
53:27:848:C:H2'	53:27:849:A:C8	2.45	0.51
53:27:942:G:H2'	53:27:943:A:O4'	2.11	0.51
53:27:1020:A:H1'	53:27:1021:A:OP2	2.11	0.51
53:27:1901:A:H2'	53:27:1902:C:C6	2.45	0.51
53:27:2792:A:C2	53:27:2793:C:H1'	2.46	0.51
53:27:2836:U:H2'	53:27:2837:A:C8	2.45	0.51
53:27:2841:C:H2'	53:27:2842:G:C8	2.46	0.51
54:28:65:U:C3'	54:28:108:A:H61	2.21	0.51
59:33:179:THR:HG23	59:33:202:CYS:HB3	1.92	0.51
3:C:115:GLN:HB3	3:C:117:ARG:HG3	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:70:LEU:HD11	53:27:2758:A:C2	2.45	0.51
5:E:70:LEU:O	5:E:74:MET:HG3	2.11	0.51
7:G:54:VAL:HG13	7:G:54:VAL:O	2.10	0.51
7:G:97:LYS:NZ	7:G:127:ALA:HB2	2.25	0.51
17:Q:5:PHE:HA	17:Q:39:LEU:HD13	1.92	0.51
27:1:8:THR:HB	53:27:2020:A:H5'	1.92	0.51
34:8:131:ILE:HG13	52:26:620:C:C6	2.46	0.51
38:12:77:VAL:HG23	38:12:126:CYS:HA	1.93	0.51
51:25:20:ARG:NH2	52:26:1538:C:O2	2.44	0.51
52:26:225:C:C3'	52:26:226:G:H5''	2.41	0.51
52:26:1329:A:O2'	52:26:1330:U:H5'	2.11	0.51
53:27:176:A:C2'	53:27:177:G:H5'	2.41	0.51
53:27:191:A:H2'	53:27:192:C:C6	2.46	0.51
53:27:970:U:H2'	53:27:971:G:C8	2.46	0.51
53:27:2105:U:H2'	53:27:2106:U:O4'	2.10	0.51
53:27:2743:U:H2'	53:27:2744:G:O4'	2.11	0.51
53:27:2832:U:H1'	53:27:2834:G:C2	2.44	0.51
58:32:29:G:H2'	58:32:30:G:O4'	2.10	0.51
59:33:20:TRP:CZ2	59:33:76:LEU:HG	2.46	0.51
59:33:204:ARG:HG3	59:33:211:TYR:CE2	2.46	0.51
59:33:305:ASP:O	59:33:305:ASP:OD1	2.29	0.51
59:33:736:ILE:HG13	59:33:737:ASP:N	2.25	0.51
1:A:204:LEU:HD21	1:A:213:ARG:HE	1.76	0.51
6:F:62:LEU:HA	6:F:65:ALA:CB	2.41	0.51
14:N:8:ILE:O	14:N:12:THR:HG23	2.10	0.51
19:S:39:THR:OG1	19:S:42:GLU:HG3	2.11	0.51
27:1:12:ARG:HD2	27:1:16:ARG:CZ	2.41	0.51
35:9:45:VAL:HG21	35:9:117:ALA:HA	1.92	0.51
37:11:66:GLU:HA	37:11:69:ARG:HG3	1.93	0.51
40:14:99:GLN:C	40:14:100:ILE:HD12	2.31	0.51
44:18:5:MET:HE1	44:18:8:ARG:HD2	1.93	0.51
52:26:26:A:N6	52:26:558:G:H1'	2.25	0.51
52:26:319:G:H2'	52:26:320:A:H8	1.75	0.51
52:26:374:A:H2'	52:26:375:U:C6	2.46	0.51
52:26:936:C:H2'	52:26:937:A:O4'	2.11	0.51
53:27:435:C:H2'	53:27:436:C:H5'	1.93	0.51
53:27:669:G:N3	53:27:669:G:H2'	2.26	0.51
53:27:859:G:O2'	53:27:860:U:P	2.67	0.51
53:27:946:C:H2'	53:27:947:A:C8	2.46	0.51
53:27:1386:C:H2'	53:27:1387:A:C8	2.45	0.51
53:27:1693:U:H3'	53:27:1694:C:H5'	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2514:U:H2'	53:27:2515:C:C6	2.46	0.51
57:31:28:C:H2'	57:31:29:G:C8	2.46	0.51
59:33:20:TRP:CD1	59:33:64:GLU:CA	2.90	0.51
59:33:327:LEU:HD23	59:33:332:LYS:HB2	1.93	0.51
6:F:8:LYS:O	6:F:9:VAL:HG12	2.11	0.51
6:F:87:GLU:OE1	36:10:21:MET:HG2	2.10	0.51
15:O:52:ARG:HH22	53:27:2720:U:H5''	1.73	0.51
33:7:120:THR:HG23	33:7:188:ALA:CA	2.41	0.51
35:9:93:VAL:HG22	35:9:110:MET:HE2	1.92	0.51
39:13:114:LYS:HE2	39:13:117:LEU:CD1	2.41	0.51
48:22:17:VAL:HG13	48:22:18:GLN:HG2	1.92	0.51
50:24:23:ARG:HH12	52:26:176:C:H5''	1.76	0.51
53:27:127:A:H5''	53:27:128:C:O4'	2.10	0.51
53:27:1023:U:H5'	53:27:1024:G:OP2	2.11	0.51
53:27:1913:A:H4'	53:27:1914:C:C5'	2.41	0.51
53:27:2055:C:H5'	53:27:2056:G:H5''	1.92	0.51
53:27:2488:G:H2'	53:27:2489:U:C6	2.46	0.51
54:28:114:C:H2'	54:28:115:A:H8	1.76	0.51
58:32:41:C:H2'	58:32:42:G:H8	1.76	0.51
59:33:43:LEU:HA	59:33:56:LEU:CD1	2.39	0.51
59:33:488:GLY:O	59:33:492:ILE:N	2.44	0.51
1:A:159:THR:HG22	1:A:160:TYR:N	2.26	0.51
2:B:114:LYS:HD3	53:27:2723:C:OP1	2.11	0.51
4:D:30:VAL:HG22	4:D:95:MET:CE	2.41	0.51
5:E:136:ASP:OD2	5:E:139:VAL:HG23	2.11	0.51
5:E:167:VAL:O	5:E:167:VAL:HG13	2.11	0.51
6:F:76:GLU:O	6:F:142:VAL:HG13	2.12	0.51
7:G:23:LEU:HB3	7:G:92:ALA:HB2	1.92	0.51
14:N:70:ALA:O	14:N:74:VAL:HG23	2.11	0.51
31:5:1:MET:HG3	31:5:2:LYS:N	2.17	0.51
32:6:18:GLN:CB	32:6:188:THR:HB	2.41	0.51
32:6:105:THR:HG21	52:26:1072:G:N2	2.26	0.51
32:6:184:ALA:O	32:6:199:ILE:HD12	2.11	0.51
33:7:10:ARG:HH11	33:7:10:ARG:HG3	1.76	0.51
33:7:178:ARG:HE	52:26:1112:C:H1'	1.74	0.51
34:8:59:LYS:HZ2	34:8:194:ILE:HG22	1.76	0.51
36:10:91:ARG:NH2	48:22:60:ARG:HH22	2.09	0.51
40:14:65:TYR:HD1	44:18:97:LYS:HA	1.76	0.51
44:18:72:PHE:CE1	44:18:77:GLY:HA2	2.46	0.51
50:24:28:ARG:O	50:24:32:LYS:HG2	2.10	0.51
52:26:813:U:H2'	52:26:814:A:C5'	2.39	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:1424:U:H2'	52:26:1425:U:C6	2.46	0.51
52:26:1520:C:H2'	52:26:1521:C:C6	2.46	0.51
53:27:445:C:O2'	53:27:446:G:H5'	2.11	0.51
53:27:1270:C:H5''	53:27:1271:G:O5'	2.12	0.51
53:27:1709:U:O2'	53:27:2859:G:H1'	2.11	0.51
53:27:2111:U:H1'	53:27:2145:C:H1'	1.92	0.51
53:27:2811:G:H2'	53:27:2812:G:C8	2.46	0.51
59:33:42:CYS:HB2	59:33:84:LEU:HD11	1.91	0.51
5:E:40:VAL:HG21	5:E:64:ALA:HA	1.92	0.50
8:H:106:GLN:HG2	8:H:125:THR:OG1	2.10	0.50
10:J:78:ARG:O	15:O:69:VAL:HG13	2.10	0.50
11:K:19:LEU:HD11	11:K:31:GLY:HA3	1.93	0.50
11:K:58:TYR:O	30:4:12:ARG:HD2	2.10	0.50
27:1:5:ASN:HB2	53:27:2022:U:O4	2.11	0.50
28:2:25:ASN:HD22	53:27:2285:C:P	2.34	0.50
33:7:60:ALA:C	33:7:62:SER:H	2.14	0.50
35:9:125:LYS:HG2	35:9:127:TYR:CE1	2.46	0.50
38:12:12:ARG:NH2	52:26:826:C:H5'	2.26	0.50
39:13:11:ARG:H	39:13:77:ALA:CB	2.24	0.50
52:26:1429:A:H2'	52:26:1430:A:C8	2.46	0.50
53:27:274:C:C2'	53:27:275:C:H5'	2.39	0.50
53:27:516:C:H2'	53:27:517:C:C6	2.46	0.50
53:27:1186:G:H8	53:27:1186:G:O5'	1.93	0.50
53:27:1287:A:H3'	53:27:1288:G:H21	1.76	0.50
53:27:2163:A:H2'	53:27:2164:C:H5'	1.92	0.50
59:33:65:ILE:HD13	59:33:157:ILE:HG13	1.93	0.50
3:C:65:THR:HG22	3:C:66:GLY:N	2.26	0.50
4:D:79:ARG:HH21	4:D:79:ARG:HG2	1.75	0.50
7:G:47:GLU:HB3	7:G:51:TYR:CE2	2.46	0.50
7:G:102:ALA:HA	7:G:105:LYS:HD3	1.93	0.50
17:Q:5:PHE:HB3	17:Q:38:VAL:HA	1.94	0.50
17:Q:81:LYS:HE3	53:27:973:A:OP2	2.11	0.50
22:V:62:LYS:O	22:V:78:ILE:HG23	2.11	0.50
29:3:42:LEU:CD2	29:3:43:THR:HG23	2.40	0.50
31:5:5:ALA:O	31:5:38:GLY:HA3	2.12	0.50
32:6:83:ALA:HB3	32:6:90:PHE:HD2	1.76	0.50
32:6:206:ILE:HG13	32:6:207:ARG:N	2.27	0.50
35:9:93:VAL:HG22	35:9:110:MET:CE	2.41	0.50
39:13:27:ILE:HG21	39:13:34:LEU:HB2	1.93	0.50
47:21:45:VAL:HG13	47:21:72:TRP:C	2.31	0.50
52:26:1347:G:C2'	52:26:1348:U:OP2	2.59	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:52:A:C5	53:27:118:A:C2	2.99	0.50
53:27:648:G:H2'	53:27:649:G:C8	2.44	0.50
53:27:1159:U:O2'	53:27:1160:G:H5'	2.11	0.50
53:27:1343:G:H2'	53:27:1384:A:H2	1.76	0.50
53:27:1666:G:H2'	53:27:1667:G:H5'	1.93	0.50
59:33:20:TRP:CZ2	59:33:76:LEU:CB	2.94	0.50
59:33:333:THR:O	59:33:335:GLU:N	2.45	0.50
59:33:566:LYS:HA	59:33:569:ALA:HB3	1.92	0.50
3:C:88:ARG:O	3:C:90:GLN:N	2.44	0.50
4:D:7:TYR:OH	4:D:29:ARG:HB3	2.12	0.50
6:F:46:PHE:HB3	6:F:51:ARG:NH1	2.26	0.50
8:H:23:VAL:O	8:H:23:VAL:HG22	2.11	0.50
34:8:201:GLU:O	34:8:204:SER:HB2	2.11	0.50
37:11:110:ARG:NH1	37:11:122:GLU:HA	2.26	0.50
39:13:20:ILE:HG21	39:13:85:ALA:HB1	1.93	0.50
43:17:93:GLY:HA2	43:17:108:ARG:HH12	1.76	0.50
52:26:1148:U:C2'	52:26:1149:C:H5'	2.42	0.50
52:26:1426:G:H2'	52:26:1427:C:C6	2.46	0.50
53:27:217:A:H2'	53:27:218:A:O4'	2.11	0.50
53:27:753:A:O2'	53:27:754:U:H5'	2.12	0.50
53:27:852:U:H2'	53:27:853:C:H6	1.76	0.50
53:27:1550:C:H2'	53:27:1551:A:C8	2.46	0.50
53:27:2632:A:H2'	53:27:2633:G:H8	1.76	0.50
53:27:2773:C:H2'	53:27:2774:C:C6	2.45	0.50
1:A:28:PRO:CG	1:A:33:LEU:HD21	2.41	0.50
3:C:56:GLY:O	3:C:72:SER:HA	2.12	0.50
4:D:137:PHE:HB2	4:D:140:ILE:HD13	1.92	0.50
7:G:23:LEU:HD21	7:G:119:PRO:HB3	1.93	0.50
12:L:86:LYS:HE3	53:27:956:G:OP2	2.12	0.50
13:M:2:ARG:HG2	13:M:2:ARG:NH1	2.26	0.50
13:M:63:ARG:HD2	13:M:80:PHE:CD2	2.46	0.50
15:O:2:ASN:HD21	53:27:2876:G:H5''	1.75	0.50
18:R:19:LEU:HD11	27:1:19:ASP:O	2.12	0.50
21:U:9:ARG:HH11	21:U:27:PRO:HB3	1.76	0.50
22:V:70:PRO:HA	54:28:12:C:N3	2.27	0.50
31:5:37:GLN:NE2	53:27:1125:G:H5''	2.24	0.50
32:6:83:ALA:HB2	32:6:90:PHE:HB3	1.93	0.50
34:8:57:LYS:HD2	34:8:203:TYR:OH	2.10	0.50
38:12:106:SER:HA	52:26:642:A:N7	2.26	0.50
46:20:39:PHE:HA	46:20:50:THR:HG23	1.93	0.50
46:20:40:ASN:HD22	46:20:46:LYS:HZ1	1.59	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:197:A:C6	52:26:221:C:H4'	2.45	0.50
52:26:797:C:H2'	52:26:798:U:C6	2.47	0.50
53:27:54:G:N2	53:27:55:G:H1'	2.26	0.50
53:27:709:U:H2'	53:27:710:U:C6	2.46	0.50
53:27:2688:G:H1'	53:27:2721:A:N6	2.27	0.50
59:33:101:LYS:O	59:33:104:VAL:HG12	2.12	0.50
59:33:741:LEU:HD23	59:33:741:LEU:C	2.31	0.50
1:A:156:SER:HB2	53:27:1818:U:C5'	2.37	0.50
4:D:3:LEU:CD1	4:D:100:GLU:HB2	2.41	0.50
4:D:91:ARG:C	4:D:95:MET:HB3	2.32	0.50
5:E:87:GLN:HE21	5:E:162:ARG:HD2	1.76	0.50
7:G:118:ILE:N	7:G:119:PRO:CD	2.69	0.50
15:O:63:ILE:HA	15:O:68:GLY:CA	2.38	0.50
29:3:19:ARG:O	29:3:23:ALA:N	2.45	0.50
32:6:10:LYS:HB3	32:6:211:LEU:HD11	1.93	0.50
32:6:95:TRP:CH2	32:6:99:MET:HB3	2.47	0.50
34:8:8:LEU:HD21	34:8:31:CYS:HB3	1.92	0.50
34:8:194:ILE:O	34:8:194:ILE:HG13	2.11	0.50
36:10:6:ILE:HD11	36:10:71:ILE:HD11	1.93	0.50
37:11:110:ARG:HH12	37:11:122:GLU:HA	1.76	0.50
39:13:104:THR:HG22	39:13:106:ASP:H	1.76	0.50
40:14:57:VAL:O	40:14:58:ASN:HB2	2.12	0.50
49:23:25:GLY:O	49:23:27:LYS:HG2	2.10	0.50
52:26:148:G:C2'	52:26:149:A:H5''	2.40	0.50
52:26:853:C:H2'	52:26:854:U:O4'	2.12	0.50
52:26:1435:G:H2'	52:26:1436:U:C6	2.47	0.50
53:27:40:U:H2'	53:27:41:C:C6	2.46	0.50
53:27:195:A:H2'	53:27:198:C:N4	2.27	0.50
53:27:1173:U:H6	53:27:1174:U:H1'	1.75	0.50
53:27:2055:C:H5'	53:27:2056:G:C5'	2.41	0.50
53:27:2358:A:H2'	53:27:2359:C:O4'	2.11	0.50
53:27:2372:U:H2'	53:27:2373:G:H8	1.76	0.50
53:27:2699:C:H2'	53:27:2700:A:H8	1.76	0.50
59:33:55:LEU:HD23	59:33:55:LEU:C	2.32	0.50
59:33:95:LEU:CD1	59:33:107:ILE:HD12	2.41	0.50
59:33:296:VAL:HG23	59:33:297:HIS:CD2	2.47	0.50
59:33:340:THR:OG1	59:33:343:MET:HG3	2.12	0.50
59:33:671:VAL:O	59:33:671:VAL:HG13	2.11	0.50
1:A:52:HIS:CE1	53:27:1824:G:OP2	2.65	0.50
3:C:5:LEU:HD11	3:C:12:LEU:HD23	1.94	0.50
5:E:100:ASN:ND2	5:E:115:GLN:HE22	2.10	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:44:ALA:O	7:G:48:ALA:N	2.45	0.50
8:H:90:GLY:HA2	53:27:1064:C:H1'	1.94	0.50
9:I:84:ILE:O	9:I:84:ILE:HG23	2.11	0.50
10:J:24:VAL:HG13	10:J:39:ILE:HG22	1.94	0.50
15:O:77:SER:OG	15:O:79:VAL:HG12	2.11	0.50
17:Q:61:ALA:HA	17:Q:99:THR:N	2.23	0.50
26:Z:66:ILE:HG23	26:Z:66:ILE:O	2.12	0.50
36:10:35:LYS:HB3	36:10:65:GLU:HB3	1.94	0.50
41:15:71:ASP:O	41:15:73:VAL:HG22	2.11	0.50
42:16:115:LYS:O	42:16:116:TYR:CB	2.60	0.50
44:18:89:ARG:HD2	44:18:91:GLU:OE1	2.12	0.50
52:26:190:A:C5	52:26:191:G:H1'	2.46	0.50
52:26:305:G:H5''	52:26:306:A:OP1	2.12	0.50
52:26:545:C:O2'	52:26:549:C:H5''	2.11	0.50
53:27:878:A:H3'	53:27:879:G:H8	1.77	0.50
53:27:890:C:H2'	53:27:891:G:O4'	2.11	0.50
53:27:1784:A:H4'	53:27:1785:A:C5'	2.41	0.50
53:27:2026:U:O5'	53:27:2026:U:H6	1.95	0.50
53:27:2461:A:H1'	53:27:2492:U:N3	2.26	0.50
53:27:2540:C:H2'	53:27:2541:A:O4'	2.11	0.50
53:27:2631:G:O2'	53:27:2632:A:H5'	2.12	0.50
54:28:85:G:H2'	54:28:86:G:H8	1.76	0.50
54:28:104:A:H2'	54:28:105:G:O4'	2.11	0.50
59:33:645:ARG:HG2	59:33:652:ILE:HD13	1.92	0.50
1:A:28:PRO:HB2	1:A:33:LEU:HD11	1.94	0.50
1:A:86:ARG:HG2	1:A:86:ARG:NH1	2.27	0.50
7:G:72:LEU:H	7:G:72:LEU:HD12	1.75	0.50
10:J:113:MET:HA	10:J:116:ILE:HD12	1.93	0.50
19:S:8:LEU:HD13	24:X:21:LEU:HB2	1.93	0.50
21:U:44:HIS:HD1	21:U:45:ASP:N	2.10	0.50
34:8:29:THR:O	34:8:31:CYS:N	2.36	0.50
36:10:3:HIS:O	36:10:92:THR:HA	2.12	0.50
36:10:30:THR:HA	36:10:34:GLY:H	1.77	0.50
37:11:78:ARG:HA	37:11:82:SER:O	2.12	0.50
43:17:38:ILE:HG22	43:17:39:ALA:N	2.26	0.50
44:18:25:GLU:HA	44:18:28:ALA:HB3	1.94	0.50
46:20:3:THR:CG2	46:20:24:SER:HB3	2.41	0.50
46:20:25:ARG:O	52:26:110:C:O2'	2.30	0.50
52:26:104:G:H2'	52:26:105:G:C8	2.45	0.50
52:26:437:U:C2'	52:26:438:U:H5'	2.42	0.50
52:26:1324:A:O4'	52:26:1362:A:H4'	2.12	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:348:A:H2'	53:27:349:U:O4'	2.12	0.50
53:27:418:C:H2'	53:27:419:U:C6	2.47	0.50
53:27:1548:A:H2'	53:27:1549:A:C8	2.46	0.50
53:27:1571:A:H2'	53:27:1572:A:C8	2.46	0.50
53:27:2097:A:H2'	53:27:2098:U:C6	2.47	0.50
53:27:2174:C:H2'	53:27:2175:C:H5'	1.94	0.50
53:27:2273:A:H2'	53:27:2274:A:C8	2.47	0.50
53:27:2329:U:H2'	53:27:2330:G:H8	1.75	0.50
53:27:2478:A:H2'	53:27:2479:U:O4'	2.11	0.50
54:28:5:U:H2'	54:28:6:G:H8	1.76	0.50
56:30:43:C:H2'	56:30:44:G:O4'	2.12	0.50
59:33:29:GLN:O	59:33:32:CYS:SG	2.62	0.50
59:33:38:THR:HG21	59:33:77:ARG:HD2	1.93	0.50
4:D:65:LEU:HD13	54:28:42:C:C5	2.47	0.50
6:F:58:LEU:HA	6:F:61:VAL:HG22	1.92	0.50
12:L:86:LYS:HG3	53:27:956:G:P	2.51	0.50
13:M:4:ARG:HB3	53:27:2722:G:H4'	1.94	0.50
24:X:21:LEU:HA	24:X:25:GLN:CB	2.39	0.50
33:7:102:ILE:N	33:7:102:ILE:CD1	2.71	0.50
33:7:174:LEU:HB2	52:26:1108:G:OP1	2.12	0.50
38:12:53:ASP:CG	38:12:54:THR:H	2.14	0.50
52:26:219:U:H2'	52:26:220:G:H8	1.75	0.50
52:26:1417:G:H2'	52:26:1482:G:N2	2.27	0.50
53:27:269:C:H2'	53:27:270:A:C8	2.44	0.50
53:27:386:G:H3'	53:27:387:U:C5'	2.41	0.50
53:27:1361:G:H2'	53:27:1362:C:C6	2.47	0.50
53:27:1496:A:H2'	53:27:1498:C:C4	2.47	0.50
53:27:1593:A:H2'	53:27:1594:U:C6	2.47	0.50
53:27:1679:A:H2'	53:27:1680:U:C6	2.46	0.50
53:27:1697:G:H4'	53:27:1978:A:H5''	1.93	0.50
53:27:2366:A:H2'	53:27:2367:G:O4'	2.12	0.50
54:28:13:G:N2	54:28:16:G:H1'	2.26	0.50
54:28:82:U:H2'	54:28:83:G:C8	2.46	0.50
58:32:16:C:O2	58:32:60:U:H4'	2.10	0.50
58:32:68:C:H2'	58:32:69:C:C6	2.47	0.50
59:33:198:LEU:O	59:33:202:CYS:SG	2.70	0.50
59:33:228:TYR:HB2	59:33:277:ARG:NH2	2.26	0.50
1:A:144:GLU:HB2	1:A:187:CYS:HB3	1.94	0.50
6:F:47:PHE:HA	6:F:51:ARG:HB2	1.93	0.50
7:G:43:LYS:HD2	7:G:98:GLU:HG3	1.94	0.50
7:G:118:ILE:N	7:G:119:PRO:HD2	2.19	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:109:ALA:O	8:H:113:ALA:CB	2.59	0.50
11:K:51:GLU:HG2	11:K:56:PRO:HA	1.93	0.50
11:K:89:VAL:HG21	11:K:123:ARG:NH2	2.27	0.50
17:Q:28:ALA:O	17:Q:31:GLU:HG3	2.12	0.50
17:Q:45:GLU:CG	17:Q:46:GLU:N	2.75	0.50
17:Q:88:GLY:H	53:27:1225:G:H5'	1.75	0.50
19:S:34:VAL:HG22	19:S:81:LYS:O	2.12	0.50
23:W:11:PRO:HA	23:W:28:PHE:O	2.12	0.50
30:4:35:LYS:HG2	30:4:39:ARG:NH2	2.27	0.50
38:12:3:GLN:NE2	52:26:755:G:N2	2.60	0.50
38:12:93:LYS:HE2	38:12:116:ARG:HH12	1.76	0.50
43:17:16:ILE:HD12	43:17:16:ILE:N	2.26	0.50
52:26:623:C:H2'	52:26:624:C:H6	1.76	0.50
53:27:28:A:H2'	53:27:29:U:C6	2.47	0.50
53:27:175:G:H2'	53:27:176:A:C8	2.47	0.50
53:27:519:U:H2'	53:27:520:G:H8	1.77	0.50
53:27:1233:C:H2'	53:27:1234:U:H6	1.77	0.50
53:27:1287:A:O2'	53:27:1288:G:H5'	2.12	0.50
53:27:2261:C:O2'	53:27:2262:U:H5'	2.12	0.50
53:27:2298:A:H2'	53:27:2299:U:O4'	2.12	0.50
53:27:2345:G:H5'	53:27:2347:C:O4'	2.12	0.50
53:27:2573:C:H5''	53:27:2574:G:H5''	1.94	0.50
53:27:2682:A:H61	53:27:2728:U:H1'	1.76	0.50
53:27:2834:G:O6	53:27:2879:A:H2'	2.12	0.50
54:28:3:C:H2'	54:28:4:C:C5'	2.39	0.50
59:33:226:GLU:HA	59:33:229:ILE:CD1	2.42	0.50
59:33:239:GLU:HG3	59:33:299:HIS:CE1	2.47	0.50
5:E:51:PHE:HE1	5:E:71:LEU:HD22	1.77	0.49
8:H:29:GLN:NE2	53:27:1096:A:H61	1.98	0.49
12:L:79:ALA:HA	53:27:2494:G:O2'	2.12	0.49
16:P:51:GLN:NE2	16:P:54:ARG:HH11	2.10	0.49
17:Q:8:GLY:O	17:Q:10:LYS:HE3	2.12	0.49
23:W:68:ALA:O	23:W:71:ARG:HG2	2.12	0.49
33:7:155:ARG:O	33:7:156:LEU:O	2.29	0.49
34:8:116:LEU:HD11	34:8:122:ILE:HD11	1.93	0.49
34:8:146:GLU:HA	34:8:149:LYS:HB3	1.94	0.49
35:9:15:ILE:HG12	35:9:35:LEU:O	2.11	0.49
39:13:98:ARG:HA	39:13:103:VAL:HG22	1.94	0.49
42:16:53:ARG:NE	42:16:63:THR:HG22	2.27	0.49
42:16:119:LYS:HB2	52:26:37:U:P	2.52	0.49
43:17:68:LEU:O	43:17:71:GLU:HB3	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:23:30:LEU:HB2	49:23:48:ILE:HG22	1.92	0.49
52:26:217:C:H2'	52:26:218:U:C6	2.47	0.49
52:26:955:U:H2'	52:26:956:U:C6	2.46	0.49
52:26:1502:A:C8	52:26:1505:G:N2	2.77	0.49
53:27:499:U:H2'	53:27:500:G:O4'	2.11	0.49
53:27:534:U:H2'	53:27:535:G:C8	2.46	0.49
53:27:1096:A:C3'	53:27:1097:U:H5''	2.42	0.49
53:27:1171:G:H1'	53:27:1179:G:N2	2.26	0.49
53:27:1669:A:H2'	53:27:1670:C:H5'	1.94	0.49
59:33:65:ILE:HD13	59:33:157:ILE:HD11	1.93	0.49
59:33:154:ALA:HA	59:33:157:ILE:HG12	1.94	0.49
2:B:110:THR:OG1	2:B:171:THR:HG23	2.12	0.49
3:C:44:ARG:HD3	3:C:46:GLN:HE22	1.75	0.49
5:E:138:GLN:HG3	5:E:139:VAL:N	2.25	0.49
6:F:5:LEU:HD23	6:F:15:LEU:N	2.28	0.49
7:G:55:VAL:HA	53:27:1084:A:H5'	1.94	0.49
11:K:101:ILE:HB	11:K:105:ILE:HG13	1.93	0.49
12:L:5:LYS:O	12:L:6:ARG:O	2.30	0.49
26:Z:44:PHE:CD1	26:Z:45:THR:HG23	2.47	0.49
32:6:153:MET:HE1	32:6:157:PRO:HG3	1.94	0.49
34:8:74:TYR:OH	34:8:96:ARG:NH1	2.45	0.49
35:9:89:THR:HG22	35:9:90:GLY:N	2.27	0.49
35:9:98:ALA:CB	35:9:123:LEU:HG	2.41	0.49
37:11:142:ARG:O	37:11:146:ALA:HB3	2.12	0.49
39:13:41:GLU:O	39:13:44:ARG:HG2	2.13	0.49
40:14:59:LYS:HD2	52:26:972:C:OP2	2.12	0.49
42:16:3:VAL:HG13	42:16:4:ASN:N	2.27	0.49
52:26:382:A:H2'	52:26:383:A:C8	2.46	0.49
52:26:1234:C:H1'	52:26:1364:U:O2	2.12	0.49
52:26:1372:U:H2'	52:26:1373:G:O4'	2.12	0.49
53:27:198:C:H4'	53:27:2243:U:O2'	2.12	0.49
53:27:508:A:H3'	53:27:509:C:C5'	2.42	0.49
53:27:688:U:H2'	53:27:689:A:H8	1.77	0.49
53:27:1077:A:H2	53:27:1088:A:H2'	1.78	0.49
53:27:1082:U:H2'	53:27:1083:U:C4'	2.42	0.49
53:27:1790:C:H2'	53:27:1791:A:C5	2.47	0.49
54:28:27:C:H2'	54:28:28:C:C6	2.47	0.49
54:28:49:C:H2'	54:28:50:A:H8	1.78	0.49
58:32:60:U:H2'	58:32:61:C:C6	2.47	0.49
59:33:99:VAL:HG22	59:33:103:VAL:HG21	1.93	0.49
59:33:195:LYS:O	59:33:199:GLU:HG3	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:515:GLU:HA	59:33:518:HIS:CB	2.42	0.49
59:33:718:ASN:HB2	59:33:721:VAL:CG2	2.41	0.49
5:E:82:PHE:CE2	5:E:137:LYS:HB2	2.47	0.49
9:I:24:THR:HG21	9:I:27:ARG:HD2	1.93	0.49
10:J:18:ARG:HD3	10:J:45:GLU:OE1	2.13	0.49
13:M:99:LYS:O	27:1:41:HIS:HA	2.13	0.49
29:3:22:MET:SD	29:3:28:ARG:HG2	2.52	0.49
34:8:112:GLU:HB2	52:26:408:A:H5'	1.95	0.49
39:13:83:THR:HB	39:13:97:LEU:HD23	1.94	0.49
39:13:108:ARG:HG2	52:26:1347:G:O4'	2.12	0.49
49:23:10:ILE:HD13	49:23:40:PHE:CE2	2.47	0.49
52:26:560:A:H5'	52:26:566:G:N2	2.28	0.49
53:27:878:A:H1'	53:27:900:A:C6	2.48	0.49
53:27:1487:U:H2'	53:27:1488:C:C6	2.47	0.49
53:27:2000:C:H2'	53:27:2001:C:C6	2.47	0.49
53:27:2224:G:H4'	53:27:2226:C:C2	2.47	0.49
58:32:19:G:H2'	58:32:20:U:C5	2.47	0.49
58:32:22:G:O2'	58:32:23:C:H5'	2.13	0.49
58:32:43:A:H2'	58:32:44:A:O4'	2.13	0.49
1:A:219:VAL:HG21	53:27:782:A:C8	2.48	0.49
2:B:186:LEU:HD21	15:O:3:ILE:HG21	1.94	0.49
3:C:5:LEU:HD13	3:C:10:SER:O	2.12	0.49
4:D:140:ILE:HD12	4:D:140:ILE:N	2.27	0.49
5:E:9:VAL:O	5:E:9:VAL:HG13	2.12	0.49
5:E:103:ASN:HA	5:E:113:ASP:OD1	2.13	0.49
7:G:33:VAL:HB	7:G:36:ASP:OD2	2.12	0.49
10:J:78:ARG:HB2	15:O:70:GLU:CG	2.42	0.49
12:L:4:PRO:HG3	12:L:68:PHE:HE2	1.78	0.49
12:L:86:LYS:HG3	53:27:956:G:OP1	2.12	0.49
14:N:62:LEU:HD13	14:N:70:ALA:HA	1.95	0.49
16:P:57:ARG:NH1	53:27:1154:G:OP2	2.46	0.49
32:6:117:GLU:O	32:6:121:GLN:HG2	2.12	0.49
35:9:100:GLU:C	35:9:102:THR:N	2.65	0.49
37:11:68:VAL:HG21	37:11:133:ALA:HB1	1.93	0.49
43:17:113:LYS:CB	43:17:114:PRO:HD3	2.39	0.49
46:20:67:ILE:HG22	46:20:68:SER:O	2.11	0.49
51:25:65:ARG:O	51:25:66:ARG:HB2	2.12	0.49
52:26:37:U:H2'	52:26:38:G:C8	2.47	0.49
52:26:343:U:O2'	52:26:344:A:H2'	2.12	0.49
52:26:1318:A:H2'	52:26:1319:A:H5'	1.94	0.49
53:27:610:C:H2'	53:27:611:C:H6	1.77	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:783:A:H2'	53:27:784:G:H5'	1.95	0.49
53:27:1177:G:H2'	53:27:1178:C:H1'	1.93	0.49
53:27:2772:C:H2'	53:27:2773:C:C6	2.48	0.49
59:33:20:TRP:CZ2	59:33:76:LEU:HB3	2.45	0.49
59:33:60:VAL:HA	59:33:63:VAL:HG22	1.94	0.49
2:B:25:THR:HG21	2:B:193:VAL:HG22	1.95	0.49
5:E:122:ALA:HA	5:E:132:LEU:HA	1.95	0.49
7:G:35:VAL:O	7:G:39:THR:HG23	2.12	0.49
7:G:38:MET:HA	7:G:41:LEU:HD12	1.94	0.49
8:H:92:PRO:CA	8:H:136:GLY:HA3	2.42	0.49
9:I:9:GLU:OE2	53:27:539:G:H4'	2.13	0.49
11:K:50:PHE:CE2	11:K:52:GLY:HA2	2.48	0.49
29:3:3:ARG:NH1	53:27:752:A:OP1	2.45	0.49
33:7:3:LYS:HA	52:26:1190:G:OP1	2.11	0.49
36:10:51:ILE:HD13	36:10:86:ARG:NH1	2.28	0.49
41:15:85:VAL:HG23	41:15:111:ASP:OD1	2.12	0.49
49:23:56:HIS:O	49:23:57:VAL:C	2.50	0.49
51:25:28:LEU:HA	51:25:31:VAL:HG12	1.94	0.49
52:26:917:G:H2'	52:26:918:A:C8	2.47	0.49
52:26:1304:G:H1'	52:26:1333:A:N6	2.27	0.49
53:27:825:A:H2'	53:27:826:U:O4'	2.12	0.49
53:27:1722:A:N6	53:27:1738:G:H1'	2.28	0.49
53:27:2180:U:O2'	58:32:17(A):U:H1'	2.12	0.49
53:27:2301:C:H2'	53:27:2302:U:C6	2.47	0.49
58:32:18:G:H1'	58:32:58:A:C2	2.47	0.49
59:33:35:LEU:HA	59:33:77:ARG:HG2	1.92	0.49
59:33:154:ALA:C	59:33:157:ILE:HG12	2.33	0.49
1:A:234:GLY:HA3	1:A:238:ASN:HB3	1.93	0.49
2:B:123:LYS:HG2	2:B:165:MET:SD	2.52	0.49
3:C:149:ILE:HG23	3:C:149:ILE:O	2.12	0.49
4:D:73:VAL:H	4:D:78:ILE:CD1	2.24	0.49
6:F:79:THR:HG22	6:F:147:VAL:HG23	1.94	0.49
15:O:69:VAL:HG12	15:O:70:GLU:N	2.28	0.49
21:U:30:ILE:HB	21:U:38:LEU:HB3	1.95	0.49
26:Z:58:ASP:OD1	26:Z:59:ARG:N	2.40	0.49
33:7:48:LYS:O	33:7:71:ARG:NH2	2.46	0.49
34:8:1:ALA:HB2	52:26:404:G:O6	2.12	0.49
34:8:108:ALA:HB3	34:8:112:GLU:OE1	2.13	0.49
39:13:35:GLU:HA	39:13:39:GLY:CA	2.43	0.49
41:15:29:THR:HG21	41:15:62:ALA:HB2	1.94	0.49
44:18:8:ARG:CD	44:18:12:ARG:HH21	2.26	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:20:20:VAL:HG23	46:20:34:GLU:O	2.13	0.49
52:26:106:C:O2'	52:26:107:G:H5'	2.13	0.49
52:26:407:U:H2'	52:26:408:A:H8	1.78	0.49
52:26:591:U:H2'	52:26:592:G:H8	1.77	0.49
52:26:624:C:H2'	52:26:625:U:O4'	2.12	0.49
53:27:106:C:H2'	53:27:107:G:C8	2.48	0.49
53:27:310:A:H2'	53:27:311:A:H5''	1.94	0.49
53:27:545:U:O2	53:27:545:U:H2'	2.13	0.49
53:27:608:A:H2'	53:27:609:A:C8	2.47	0.49
53:27:888:C:H2'	53:27:889:C:O4'	2.12	0.49
53:27:2538:C:H2'	53:27:2539:C:C6	2.47	0.49
54:28:70:C:H2'	54:28:71:C:H6	1.77	0.49
2:B:114:LYS:HE2	2:B:196:ALA:HB2	1.93	0.49
3:C:28:VAL:O	3:C:32:VAL:HG12	2.12	0.49
5:E:5:LYS:C	5:E:7:PRO:HD3	2.32	0.49
5:E:89:VAL:HG21	5:E:162:ARG:NH1	2.27	0.49
6:F:75:LEU:HD12	6:F:77:THR:H	1.78	0.49
10:J:35:VAL:HG11	10:J:106:GLU:HB3	1.94	0.49
11:K:21:ARG:HH21	11:K:21:ARG:HG3	1.78	0.49
19:S:17:SER:H	19:S:20:ALA:HB3	1.78	0.49
32:6:185:ILE:HG23	32:6:185:ILE:O	2.12	0.49
33:7:39:ARG:HD3	33:7:54:ILE:CD1	2.42	0.49
33:7:176:THR:O	33:7:179:ALA:HB3	2.12	0.49
39:13:45:MET:HG2	39:13:46:VAL:N	2.28	0.49
39:13:56:MET:O	39:13:57:VAL:C	2.50	0.49
39:13:119:LYS:O	39:13:121:ARG:N	2.46	0.49
45:19:32:THR:HA	45:19:62:ARG:NH1	2.27	0.49
52:26:376:G:O2'	52:26:377:G:H5'	2.13	0.49
53:27:481:G:H1'	53:27:506:G:N2	2.28	0.49
53:27:956:G:N2	53:27:959:A:H3'	2.28	0.49
53:27:1199:U:H2'	53:27:1200:C:C6	2.48	0.49
53:27:1428:C:C5	53:27:1569:A:H5''	2.48	0.49
53:27:1838:C:N4	53:27:1898:U:H2'	2.28	0.49
53:27:2632:A:H2'	53:27:2633:G:C8	2.48	0.49
59:33:86:ASP:OD1	59:33:111:ARG:CD	2.61	0.49
59:33:304:PRO:O	59:33:305:ASP:HB3	2.12	0.49
3:C:44:ARG:HD2	3:C:87:ALA:CB	2.42	0.49
4:D:107:VAL:HB	4:D:108:PRO:HD3	1.95	0.49
6:F:26:ALA:HA	6:F:30:LEU:HB2	1.94	0.49
12:L:41:LEU:HG	12:L:96:ILE:HG13	1.94	0.49
13:M:2:ARG:HG2	13:M:2:ARG:O	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:80:ASN:OD1	53:27:1151:A:H4'	2.13	0.49
17:Q:3:ALA:HA	17:Q:40:MET:O	2.13	0.49
17:Q:37:GLU:O	17:Q:39:LEU:HD12	2.13	0.49
29:3:21:ARG:O	29:3:27:GLY:HA3	2.12	0.49
30:4:5:THR:HG23	30:4:63:TYR:HD2	1.77	0.49
32:6:119:GLN:O	32:6:125:PHE:HB3	2.13	0.49
33:7:76:ILE:O	33:7:82:ASP:HB2	2.12	0.49
37:11:46:LEU:HD21	37:11:57:GLU:HB3	1.94	0.49
43:17:75:SER:O	43:17:78:ARG:HB3	2.12	0.49
52:26:952:U:H2'	52:26:953:G:H8	1.77	0.49
52:26:1069:C:O2'	52:26:1192:C:H1'	2.13	0.49
52:26:1206:G:C2'	52:26:1207:G:H5''	2.43	0.49
53:27:281:C:H42	53:27:359:G:N2	2.11	0.49
53:27:1548:A:H2'	53:27:1549:A:H8	1.77	0.49
53:27:1801:A:H5''	53:27:2203:U:O2'	2.12	0.49
53:27:2025:C:H2'	53:27:2026:U:C6	2.47	0.49
53:27:2407:A:H2'	53:27:2408:U:C6	2.48	0.49
53:27:2590:A:H61	53:27:2604:U:H3	1.61	0.49
53:27:2619:C:H2'	53:27:2620:C:C6	2.47	0.49
53:27:2697:G:H2'	53:27:2698:U:O4'	2.13	0.49
59:33:134:ASN:C	59:33:135:VAL:HG12	2.33	0.49
59:33:435:VAL:O	59:33:439:CYS:HB2	2.13	0.49
3:C:49:ARG:O	3:C:74:LYS:HE2	2.13	0.49
6:F:50:ARG:NH1	6:F:54:LEU:HD22	2.23	0.49
7:G:3:LEU:HD12	7:G:5:LEU:N	2.27	0.49
8:H:94:LYS:HD2	53:27:1076:C:O3'	2.12	0.49
12:L:12:MET:HA	53:27:910:A:N6	2.04	0.49
13:M:49:GLU:OE1	53:27:2839:G:H4'	2.13	0.49
14:N:32:PRO:HD2	54:28:29:A:OP2	2.13	0.49
23:W:13:THR:CG2	53:27:188:G:H5'	2.41	0.49
24:X:20:ASN:O	24:X:24:GLU:HB2	2.13	0.49
28:2:3:GLY:N	53:27:2283:C:H5'	2.27	0.49
29:3:10:LEU:HD23	53:27:770:G:H5''	1.94	0.49
32:6:110:ILE:HG22	32:6:114:LYS:HE3	1.94	0.49
34:8:8:LEU:HD21	34:8:31:CYS:CB	2.42	0.49
35:9:63:MET:O	35:9:66:ALA:HB3	2.13	0.49
36:10:15:SER:O	36:10:18:VAL:HG12	2.12	0.49
43:17:100:ARG:HH22	52:26:950:U:H3'	1.76	0.49
45:19:45:HIS:O	45:19:47:LYS:N	2.45	0.49
50:24:7:LYS:O	50:24:10:ALA:HB3	2.13	0.49
52:26:371:A:H2'	52:26:372:C:O4'	2.11	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:548:G:O2'	52:26:549:C:H5'	2.12	0.49
52:26:856:C:O2'	52:26:857:C:H5'	2.12	0.49
52:26:1032:G:H21	52:26:1033:G:H4'	1.78	0.49
52:26:1326:U:H2'	52:26:1327:C:C6	2.47	0.49
52:26:1402:C:H2'	52:26:1403:C:O4'	2.13	0.49
53:27:662:G:H2'	53:27:663:G:H8	1.78	0.49
53:27:2382:G:H8	53:27:2382:G:OP2	1.95	0.49
53:27:2440:C:H5''	53:27:2587:A:H4'	1.95	0.49
53:27:2721:A:H2'	53:27:2722:G:H8	1.77	0.49
59:33:56:LEU:O	59:33:60:VAL:HG13	2.13	0.49
59:33:107:ILE:HG13	59:33:108:HIS:N	2.27	0.49
2:B:13:ARG:NH1	15:O:55:HIS:HA	2.28	0.49
3:C:26:ALA:HB1	11:K:9:ALA:HB2	1.94	0.49
6:F:84:ALA:CA	6:F:91:PHE:HB2	2.39	0.49
10:J:58:LEU:HD11	10:J:86:LEU:HD22	1.93	0.49
11:K:102:GLY:O	11:K:105:ILE:HG12	2.13	0.49
21:U:29:ILE:HG13	21:U:30:ILE:N	2.28	0.49
31:5:23:ILE:HB	31:5:38:GLY:OXT	2.13	0.49
32:6:19:THR:OG1	32:6:20:ARG:N	2.46	0.49
34:8:123:MET:HB2	34:8:127:ARG:C	2.33	0.49
38:12:9:MET:HG3	38:12:26:MET:SD	2.53	0.49
39:13:54:VAL:CG1	39:13:93:LEU:HD22	2.43	0.49
39:13:105:ARG:NH1	39:13:107:ALA:HA	2.28	0.49
43:17:85:TYR:O	43:17:88:LEU:HB3	2.13	0.49
44:18:33:VAL:O	44:18:33:VAL:HG23	2.13	0.49
48:22:16:GLY:O	48:22:17:VAL:HG12	2.13	0.49
52:26:1256:A:H1'	52:26:1258:G:C4	2.48	0.49
52:26:1258:G:H2'	52:26:1259:C:C6	2.48	0.49
53:27:8:C:H2'	53:27:9:G:C8	2.48	0.49
53:27:821:A:H61	53:27:972:A:C2'	2.26	0.49
53:27:955:U:H5	53:27:962:G:C6	2.31	0.49
53:27:2346:A:H3'	53:27:2347:C:C5'	2.43	0.49
53:27:2461:A:H2'	53:27:2462:C:C6	2.48	0.49
53:27:2605:U:H2'	53:27:2606:C:C6	2.47	0.49
56:30:41:C:H2'	56:30:42:C:O4'	2.13	0.49
56:30:48:C:OP1	56:30:48:C:H2'	2.13	0.49
59:33:20:TRP:CZ2	59:33:76:LEU:HD23	2.48	0.49
59:33:327:LEU:HD23	59:33:332:LYS:HB3	1.93	0.49
1:A:77:VAL:HG21	1:A:109:LEU:HD21	1.94	0.48
3:C:48:THR:OG1	3:C:51:GLU:HG3	2.12	0.48
3:C:126:VAL:HG22	3:C:127:GLU:N	2.27	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:53:ARG:CG	7:G:86:MET:HB2	2.43	0.48
12:L:61:GLY:HA3	12:L:108:VAL:HG13	1.94	0.48
14:N:17:LYS:HZ1	53:27:2380:C:C5'	2.10	0.48
15:O:8:GLU:HA	15:O:54:LEU:HD22	1.93	0.48
32:6:22:TRP:CZ3	32:6:24:PRO:HA	2.48	0.48
36:10:35:LYS:HG2	36:10:37:HIS:CE1	2.47	0.48
38:12:85:TYR:HE1	38:12:123:GLU:HB2	1.78	0.48
46:20:6:LEU:HB3	46:20:17:TYR:HB3	1.94	0.48
46:20:8:ARG:HG2	46:20:28:ARG:CZ	2.43	0.48
46:20:70:ARG:HD3	52:26:452:A:H8	1.77	0.48
49:23:29:PRO:HB3	49:23:47:THR:O	2.13	0.48
52:26:126:G:H5'	52:26:633:G:N2	2.28	0.48
52:26:643:C:H2'	52:26:644:U:C6	2.48	0.48
52:26:1226:C:H4'	52:26:1227:A:OP1	2.12	0.48
52:26:1305:G:O2'	52:26:1306:A:H8	1.95	0.48
53:27:198:C:C2'	53:27:199:A:H5''	2.43	0.48
53:27:1564:C:H2'	53:27:1565:C:O4'	2.12	0.48
53:27:2423:U:O2'	53:27:2425:A:H2'	2.13	0.48
53:27:2623:G:H2'	53:27:2624:G:C8	2.48	0.48
53:27:2721:A:H2'	53:27:2722:G:C8	2.48	0.48
58:32:23:C:H2'	58:32:24:U:O4'	2.13	0.48
58:32:69:C:C2'	58:32:70:G:H5''	2.37	0.48
59:33:598:VAL:HB	59:33:656:VAL:HG21	1.94	0.48
59:33:672:VAL:HB	59:33:737:ASP:HB3	1.94	0.48
1:A:226:PRO:HD3	1:A:233:GLY:HA2	1.95	0.48
3:C:68:ALA:HA	53:27:1255:U:C5	2.47	0.48
6:F:99:ILE:CG2	6:F:130:VAL:HG11	2.43	0.48
9:I:17:VAL:CG2	9:I:139:VAL:HA	2.42	0.48
11:K:9:ALA:HB3	11:K:12:SER:HB2	1.95	0.48
14:N:56:LYS:HA	14:N:59:ALA:HB3	1.94	0.48
19:S:48:GLN:HG3	19:S:55:VAL:HG23	1.94	0.48
37:11:103:ILE:HG21	37:11:123:LEU:HD21	1.95	0.48
39:13:10:ARG:O	39:13:105:ARG:CZ	2.62	0.48
40:14:59:LYS:HD3	40:14:62:ARG:HH22	1.78	0.48
43:17:10:ASP:C	43:17:12:LYS:H	2.17	0.48
46:20:78:VAL:O	46:20:81:ALA:N	2.46	0.48
52:26:358:U:H2'	52:26:359:G:H8	1.77	0.48
52:26:604:G:H2'	52:26:605:U:O4'	2.14	0.48
52:26:1034:G:H2'	52:26:1035:A:C8	2.47	0.48
52:26:1261:A:H2'	52:26:1262:C:H5'	1.95	0.48
53:27:198:C:H2'	53:27:199:A:H5''	1.94	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:449:A:H2'	53:27:450:G:O4'	2.13	0.48
53:27:888:C:O2'	53:27:889:C:H5'	2.13	0.48
53:27:1487:U:H2'	53:27:1488:C:H6	1.79	0.48
53:27:1946:U:H2'	53:27:1947:C:C6	2.48	0.48
53:27:2185:U:H2'	53:27:2186:G:C8	2.48	0.48
59:33:73:ILE:HG13	59:33:74:ASP:H	1.78	0.48
59:33:226:GLU:C	59:33:229:ILE:HG12	2.33	0.48
59:33:228:TYR:CD2	59:33:277:ARG:NH2	2.81	0.48
59:33:333:THR:O	59:33:333:THR:HG22	2.13	0.48
1:A:252:LYS:HE2	53:27:1825:U:O2'	2.13	0.48
2:B:23:PRO:HB3	53:27:2682:A:C2	2.48	0.48
5:E:14:VAL:HG13	5:E:27:GLY:HA2	1.95	0.48
5:E:156:TYR:O	5:E:170:THR:HG23	2.13	0.48
30:4:44:ARG:N	30:4:45:PRO:CD	2.76	0.48
32:6:75:ALA:O	32:6:79:VAL:HG23	2.13	0.48
33:7:83:VAL:HG13	33:7:100:ILE:HG21	1.96	0.48
40:14:53:ILE:HG22	40:14:61:ALA:O	2.12	0.48
49:23:55:GLN:HE22	59:33:594:ASN:HD21	1.61	0.48
50:24:42:ASP:CG	50:24:45:ALA:HB3	2.33	0.48
52:26:98:A:H2'	52:26:99:C:H6	1.77	0.48
52:26:113:G:H2'	52:26:114:U:C6	2.48	0.48
52:26:1206:G:H2'	52:26:1207:G:O4'	2.14	0.48
52:26:1436:U:H2'	52:26:1437:A:C8	2.48	0.48
52:26:1527:U:H2'	52:26:1528:U:C6	2.48	0.48
53:27:100:U:H4'	53:27:101:A:O4'	2.13	0.48
53:27:395:U:H2'	53:27:396:G:C8	2.49	0.48
53:27:564:C:H2'	53:27:565:C:C6	2.47	0.48
53:27:1183:U:H2'	53:27:1184:U:C6	2.48	0.48
53:27:1528:A:H2'	53:27:1529:G:H5'	1.94	0.48
54:28:5:U:H2'	54:28:6:G:C8	2.48	0.48
54:28:37:C:N4	54:28:49:C:H1'	2.27	0.48
54:28:94:A:H2'	54:28:95:U:O4'	2.13	0.48
57:31:29:G:H2'	57:31:30:G:H8	1.79	0.48
59:33:63:VAL:HA	59:33:79:ALA:HB3	1.94	0.48
59:33:456:GLN:HG2	59:33:457:MET:H	1.78	0.48
59:33:506:LEU:O	59:33:509:ARG:CB	2.62	0.48
59:33:694:VAL:HG23	59:33:694:VAL:O	2.14	0.48
1:A:123:ILE:HG23	1:A:191:LEU:HD13	1.95	0.48
2:B:3:GLY:HA2	2:B:204:LYS:HA	1.94	0.48
2:B:133:THR:HG23	2:B:134:HIS:N	2.27	0.48
5:E:140:ILE:HD12	5:E:141:GLY:N	2.28	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:24:SER:HB3	7:G:87:GLU:HG3	1.95	0.48
7:G:58:THR:HG21	7:G:82:ILE:C	2.33	0.48
15:O:1:SER:N	53:27:2875:C:O3'	2.46	0.48
19:S:54:GLU:H	19:S:54:GLU:CD	2.17	0.48
19:S:60:THR:OG1	19:S:81:LYS:HE2	2.13	0.48
35:9:95:MET:HG2	35:9:124:ALA:HB1	1.95	0.48
36:10:24:ARG:NH1	36:10:24:ARG:O	2.47	0.48
39:13:105:ARG:HH11	39:13:105:ARG:HG3	1.78	0.48
45:19:45:HIS:C	45:19:47:LYS:N	2.65	0.48
46:20:19:VAL:HG12	46:20:37:GLY:C	2.34	0.48
47:21:57:VAL:HG12	47:21:78:VAL:HG23	1.95	0.48
52:26:715:A:H2'	52:26:716:A:H8	1.78	0.48
52:26:1356:G:H2'	52:26:1357:A:C8	2.48	0.48
53:27:601:C:O2'	53:27:605:G:H5''	2.13	0.48
53:27:1419:A:H5'	53:27:1420:A:OP2	2.12	0.48
53:27:1485:U:H2'	53:27:1486:U:C6	2.49	0.48
53:27:1873:G:O2'	53:27:1874:C:H5'	2.14	0.48
53:27:2080:A:H2'	53:27:2081:U:O4'	2.13	0.48
53:27:2171:A:H2'	53:27:2172:U:H5'	1.95	0.48
53:27:2708:G:O2'	53:27:2709:G:H5'	2.13	0.48
10:J:48:PRO:HB3	52:26:1422:G:C5'	2.43	0.48
15:O:94:ALA:HB2	53:27:2848:G:C8	2.48	0.48
20:T:32:LYS:HB3	20:T:63:ALA:HB1	1.95	0.48
28:2:9:LYS:HG3	28:2:19:PHE:CD1	2.48	0.48
29:3:5:PHE:CD2	29:3:7:PRO:HD3	2.48	0.48
32:6:218:ALA:O	32:6:222:GLU:HG3	2.14	0.48
33:7:39:ARG:HD3	33:7:54:ILE:HD11	1.96	0.48
35:9:89:THR:HG23	52:26:864:A:H4'	1.96	0.48
38:12:9:MET:O	38:12:13:ILE:HG13	2.13	0.48
42:16:35:ARG:HH11	42:16:35:ARG:HG3	1.77	0.48
52:26:458:U:H2'	52:26:459:A:H8	1.77	0.48
52:26:1252:A:H2'	52:26:1253:G:O4'	2.13	0.48
53:27:847:U:O2	53:27:847:U:H2'	2.14	0.48
53:27:1021:A:H2'	53:27:1022:G:H4'	1.95	0.48
53:27:1023:U:O2	53:27:1023:U:H2'	2.13	0.48
53:27:1590:A:H2'	53:27:1591:A:C8	2.48	0.48
53:27:2457:U:O2'	53:27:2458:G:H5'	2.13	0.48
59:33:210:GLU:OE1	59:33:260:TRP:HZ3	1.96	0.48
59:33:424:PRO:HD3	59:33:453:TYR:O	2.12	0.48
1:A:28:PRO:HG3	1:A:62:ARG:HH21	1.78	0.48
1:A:106:PRO:HG2	1:A:109:LEU:HB2	1.96	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:172:PHE:O	4:D:174:PHE:N	2.47	0.48
6:F:53:GLU:O	6:F:57:LYS:HD2	2.13	0.48
7:G:39:THR:O	7:G:42:ARG:HB3	2.13	0.48
8:H:93:ASN:N	8:H:136:GLY:HA3	2.29	0.48
8:H:112:LYS:O	8:H:116:MET:N	2.47	0.48
12:L:53:MET:HG3	12:L:116:ALA:HB1	1.96	0.48
16:P:30:VAL:HG12	16:P:33:VAL:H	1.77	0.48
17:Q:49:ILE:HD12	17:Q:53:PHE:N	2.29	0.48
18:R:7:HIS:HB2	18:R:50:VAL:HG22	1.95	0.48
20:T:32:LYS:NZ	53:27:478:A:H4'	2.28	0.48
26:Z:59:ARG:O	26:Z:62:LYS:HB2	2.13	0.48
33:7:76:ILE:HB	33:7:80:GLY:HA2	1.94	0.48
34:8:154:VAL:O	34:8:157:ALA:HB3	2.13	0.48
36:10:69:GLU:O	36:10:73:GLU:HG3	2.12	0.48
39:13:105:ARG:HB3	52:26:1179:A:O2'	2.13	0.48
46:20:7:ALA:O	46:20:8:ARG:HB3	2.13	0.48
47:21:20:ILE:HG22	47:21:45:VAL:O	2.13	0.48
47:21:60:ILE:HG22	47:21:72:TRP:HE3	1.77	0.48
48:22:71:ASP:OD1	48:22:72:ARG:N	2.45	0.48
52:26:37:U:H2'	52:26:38:G:H8	1.78	0.48
52:26:630:A:H2'	52:26:631:C:O4'	2.13	0.48
52:26:1140:C:H2'	52:26:1141:C:H6	1.79	0.48
53:27:2590:A:H2'	53:27:2591:C:C6	2.48	0.48
58:32:8:U:H1'	58:32:21:A:C2	2.48	0.48
58:32:10:G:N7	58:32:45:G:H4'	2.29	0.48
59:33:281:ILE:HG13	59:33:281:ILE:O	2.14	0.48
3:C:101:TYR:HE1	3:C:177:PRO:HG2	1.79	0.48
6:F:1:MET:H2	6:F:20:ASN:HA	1.79	0.48
7:G:42:ARG:O	7:G:46:ARG:HB2	2.14	0.48
7:G:87:GLU:OE2	7:G:96:PHE:HA	2.14	0.48
12:L:23:GLY:O	12:L:100:LYS:HA	2.14	0.48
16:P:16:ILE:O	16:P:19:GLN:HB3	2.14	0.48
32:6:30:ILE:HA	32:6:40:ILE:HA	1.95	0.48
35:9:96:GLN:HG2	35:9:98:ALA:H	1.78	0.48
38:12:5:PRO:HB2	38:12:32:LYS:HZ1	1.79	0.48
38:12:50:VAL:HG22	38:12:50:VAL:O	2.14	0.48
42:16:11:ARG:HD2	52:26:562:U:H1'	1.94	0.48
44:18:26:LEU:HA	44:18:30:ILE:HD12	1.96	0.48
45:19:3:SER:O	45:19:7:THR:HG23	2.13	0.48
51:25:11:PHE:O	51:25:14:ALA:N	2.46	0.48
52:26:67:C:H2'	52:26:68:G:H8	1.79	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:1125:U:H2'	52:26:1126:U:H2'	1.94	0.48
52:26:1254:A:H2'	52:26:1255:G:C8	2.49	0.48
53:27:528:A:H3'	53:27:528:A:H8	1.78	0.48
53:27:710:U:H2'	53:27:711:G:C8	2.49	0.48
53:27:1591:A:H2'	53:27:1592:C:C6	2.47	0.48
53:27:1730:C:H4'	53:27:1731:G:O5'	2.13	0.48
56:30:73:A:H2'	56:30:74:C:O4'	2.13	0.48
58:32:25:C:H2'	58:32:26:G:H8	1.78	0.48
58:32:26:G:O6	58:32:44:A:N1	2.47	0.48
4:D:92:GLY:O	4:D:95:MET:HG2	2.13	0.48
6:F:16:GLY:HA2	6:F:47:PHE:HE2	1.74	0.48
11:K:112:LEU:HD13	11:K:130:GLY:O	2.13	0.48
13:M:100:CYS:SG	13:M:101:GLY:N	2.87	0.48
15:O:105:LYS:O	15:O:108:ARG:NH2	2.47	0.48
32:6:35:ASN:O	32:6:37:VAL:HG23	2.14	0.48
34:8:169:TRP:CG	34:8:185:PRO:HG3	2.48	0.48
37:11:77:ARG:HG2	37:11:78:ARG:N	2.29	0.48
39:13:56:MET:N	39:13:59:LYS:HD2	2.28	0.48
41:15:63:GLN:O	41:15:66:ALA:HB3	2.14	0.48
44:18:61:ASN:HB3	44:18:72:PHE:CD2	2.49	0.48
44:18:63:CYS:HB2	44:18:79:SER:HB2	1.94	0.48
47:21:5:ARG:HH12	47:21:7:LEU:CD1	2.26	0.48
52:26:41:G:H2'	52:26:42:G:H8	1.79	0.48
52:26:855:U:H2'	52:26:856:C:H6	1.75	0.48
52:26:1128:C:H2'	52:26:1129:C:H5'	1.96	0.48
53:27:65:U:H2'	53:27:66:C:C6	2.48	0.48
53:27:306:U:H2'	53:27:307:G:O4'	2.14	0.48
53:27:404:A:H1'	53:27:406:G:C4	2.49	0.48
53:27:689:A:H2'	53:27:690:G:C8	2.48	0.48
53:27:970:U:H2'	53:27:971:G:H8	1.79	0.48
53:27:1484:U:H2'	53:27:1485:U:H6	1.79	0.48
53:27:2001:C:H1'	53:27:2689:U:C4	2.49	0.48
53:27:2786:U:H2'	53:27:2787:C:C6	2.48	0.48
58:32:34:C:H3'	58:32:35:A:C5'	2.40	0.48
59:33:20:TRP:HZ2	59:33:76:LEU:HG	1.77	0.48
59:33:101:LYS:HA	59:33:104:VAL:CG1	2.43	0.48
59:33:243:GLU:OE1	59:33:295:ILE:HG21	2.14	0.48
59:33:267:ASN:N	59:33:267:ASN:ND2	2.62	0.48
59:33:612:CYS:SG	59:33:634:HIS:NE2	2.87	0.48
2:B:148:GLN:O	53:27:2052:A:H4'	2.14	0.48
4:D:144:LYS:N	4:D:144:LYS:CD	2.76	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:102:ILE:HG22	5:E:104:LEU:HG	1.94	0.48
8:H:102:ARG:HA	8:H:105:LEU:HD12	1.95	0.48
8:H:138:VAL:HB	8:H:140:GLU:HG3	1.96	0.48
16:P:7:VAL:HG13	16:P:8:ILE:N	2.29	0.48
22:V:42:HIS:HB2	22:V:75:PHE:CD1	2.48	0.48
30:4:6:VAL:HG12	30:4:8:GLY:H	1.79	0.48
34:8:124:VAL:HA	34:8:142:VAL:HA	1.96	0.48
38:12:54:THR:C	38:12:56:PRO:HD3	2.34	0.48
38:12:88:LYS:HZ2	38:12:89:ASP:HB3	1.79	0.48
40:14:33:GLY:O	40:14:34:ALA:HB3	2.14	0.48
41:15:126:ARG:HH12	52:26:797:C:P	2.36	0.48
43:17:33:LEU:CD2	43:17:40:GLU:HA	2.44	0.48
44:18:16:ALA:HA	44:18:54:SER:O	2.14	0.48
52:26:181:A:N6	52:26:194:C:H2'	2.29	0.48
52:26:478:A:N3	52:26:479:U:H1'	2.28	0.48
52:26:545:C:H2'	52:26:546:A:O4'	2.13	0.48
52:26:784:A:H2'	52:26:785:G:C8	2.49	0.48
52:26:891:U:O2'	52:26:892:A:H5'	2.13	0.48
52:26:1366:C:H2'	52:26:1367:C:C6	2.49	0.48
53:27:201:C:O2'	53:27:202:U:H5'	2.14	0.48
53:27:1858:A:C2	53:27:1885:A:H1'	2.49	0.48
59:33:35:LEU:HD21	59:33:76:LEU:HD22	1.95	0.48
59:33:62:MET:SD	59:33:155:GLU:HB2	2.53	0.48
59:33:79:ALA:O	59:33:82:PHE:HD1	1.96	0.48
59:33:99:VAL:CG1	59:33:103:VAL:HB	2.39	0.48
4:D:35:LEU:HG	4:D:153:ILE:HG12	1.96	0.48
4:D:47:LYS:HA	4:D:50:ASP:OD2	2.14	0.48
8:H:92:PRO:HB3	8:H:136:GLY:N	2.28	0.48
9:I:142:ILE:HG23	9:I:142:ILE:OXT	2.14	0.48
12:L:76:LYS:HE2	53:27:956:G:H5''	1.96	0.48
14:N:31:THR:HG23	14:N:32:PRO:HD2	1.96	0.48
16:P:104:ALA:O	16:P:107:ALA:HB3	2.14	0.48
21:U:55:GLU:H	21:U:55:GLU:CD	2.17	0.48
29:3:35:ARG:NE	29:3:42:LEU:HD11	2.26	0.48
32:6:34:ARG:HG3	32:6:35:ASN:N	2.27	0.48
33:7:110:LEU:HB3	33:7:203:LYS:NZ	2.29	0.48
35:9:55:VAL:N	35:9:56:PRO:HD2	2.29	0.48
35:9:151:MET:O	35:9:154:ALA:HB3	2.14	0.48
40:14:10:LEU:CD1	40:14:72:ARG:HB2	2.44	0.48
41:15:44:ALA:CB	41:15:69:CYS:HB2	2.43	0.48
48:22:37:LYS:HG2	52:26:719:C:O2'	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:23:51:HIS:ND1	49:23:55:GLN:O	2.45	0.48
49:23:55:GLN:HE22	59:33:594:ASN:ND2	2.11	0.48
52:26:848:C:C3'	52:26:849:G:H5''	2.44	0.48
53:27:24:G:H2'	53:27:25:U:C6	2.49	0.48
53:27:939:G:H2'	53:27:940:G:H8	1.79	0.48
53:27:1255:U:H5''	53:27:1256:G:H5''	1.96	0.48
53:27:1336:A:H2'	53:27:1337:G:H8	1.78	0.48
53:27:2060:A:H5'	53:27:2061:G:OP2	2.14	0.48
53:27:2406:A:N3	53:27:2406:A:H2'	2.28	0.48
53:27:2480:C:H2'	53:27:2481:G:O4'	2.14	0.48
58:32:65:C:H2'	58:32:66:C:C6	2.49	0.48
3:C:73:ILE:HG13	3:C:78:TRP:CZ3	2.49	0.47
4:D:101:ARG:HH22	26:Z:9:TYR:HE1	1.61	0.47
7:G:8:LYS:O	7:G:12:VAL:HG23	2.14	0.47
7:G:59:LEU:HD21	53:27:1047:G:H8	1.78	0.47
8:H:27:LEU:HD21	8:H:33:ASN:O	2.14	0.47
8:H:134:SER:HB3	53:27:1088:A:N1	2.29	0.47
10:J:32:TYR:OH	53:27:1996:C:C5	2.67	0.47
10:J:71:ARG:HH12	10:J:105:ARG:HB3	1.77	0.47
24:X:1:MET:O	24:X:5:GLU:HG3	2.14	0.47
24:X:48:ARG:O	24:X:51:ALA:HB3	2.14	0.47
30:4:32:LEU:HB3	30:4:40:LYS:HD3	1.96	0.47
34:8:120:LYS:CE	52:26:439:U:H5''	2.36	0.47
34:8:131:ILE:HG13	52:26:620:C:N1	2.29	0.47
34:8:191:SER:O	34:8:192:ALA:HB3	2.14	0.47
36:10:38:ARG:HH12	36:10:40:GLU:HA	1.79	0.47
40:14:22:THR:O	40:14:26:VAL:HG23	2.14	0.47
40:14:86:ALA:O	40:14:90:LEU:HD12	2.14	0.47
49:23:57:VAL:HG13	49:23:57:VAL:O	2.14	0.47
52:26:510:A:N3	52:26:543:U:H1'	2.29	0.47
52:26:987:G:H2'	52:26:988:G:H8	1.79	0.47
52:26:1355:G:H2'	52:26:1356:G:C8	2.49	0.47
52:26:1464:U:H2'	52:26:1465:A:C8	2.49	0.47
53:27:1182:G:H2'	53:27:1183:U:O4'	2.14	0.47
59:33:333:THR:O	59:33:333:THR:CG2	2.61	0.47
59:33:375:ALA:CB	59:33:457:MET:CE	2.87	0.47
1:A:52:HIS:C	1:A:216:ARG:HB3	2.34	0.47
1:A:160:TYR:HB3	1:A:193:GLU:CB	2.44	0.47
4:D:11:VAL:HG22	4:D:171:ALA:HB1	1.94	0.47
5:E:93:TYR:HD1	5:E:106:LEU:HA	1.77	0.47
7:G:60:LEU:HD12	7:G:64:VAL:HG11	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:54:ILE:HG13	8:H:71:LYS:O	2.14	0.47
11:K:143:GLU:HG3	11:K:144:GLU:N	2.29	0.47
16:P:16:ILE:HG13	16:P:31:TYR:HE1	1.80	0.47
16:P:58:GLN:HE21	53:27:1009:A:H5''	1.78	0.47
20:T:65:GLN:NE2	53:27:328:U:H4'	2.28	0.47
22:V:38:GLY:HA2	53:27:2330:G:H21	1.79	0.47
24:X:19:LEU:O	24:X:23:ARG:HB2	2.14	0.47
29:3:12:ARG:HE	29:3:44:VAL:CG2	2.27	0.47
34:8:138:PRO:HA	34:8:181:PHE:HD2	1.78	0.47
35:9:77:ASN:CG	35:9:78:GLY:H	2.17	0.47
37:11:94:ARG:O	37:11:98:LEU:HD13	2.14	0.47
39:13:17:ARG:HB2	39:13:65:THR:OG1	2.14	0.47
39:13:18:VAL:HG21	39:13:81:GLY:HA3	1.96	0.47
41:15:71:ASP:C	41:15:73:VAL:H	2.17	0.47
41:15:121:ARG:HE	51:25:35:GLU:HB2	1.76	0.47
42:16:49:ARG:HH12	52:26:523:A:H61	1.61	0.47
42:16:110:LYS:HD2	42:16:110:LYS:N	2.29	0.47
49:23:53:GLY:HA2	52:26:1220:G:H21	1.78	0.47
52:26:824:G:H2'	52:26:825:A:H8	1.79	0.47
52:26:1001:C:H2'	52:26:1002:G:C8	2.49	0.47
52:26:1282:C:H2'	52:26:1283:U:H6	1.78	0.47
53:27:905:A:O2'	53:27:906:U:H5'	2.14	0.47
53:27:1185:G:H5''	53:27:1186:G:OP1	2.13	0.47
53:27:1655:A:H2'	53:27:1656:C:O4'	2.14	0.47
53:27:1999:C:O2'	53:27:2000:C:H5'	2.13	0.47
53:27:2112:G:H5''	53:27:2113:U:C5	2.49	0.47
53:27:2561:U:C2'	53:27:2562:U:H5''	2.39	0.47
56:30:67:C:H2'	56:30:68:C:H6	1.80	0.47
59:33:96:ARG:HG2	59:33:104:VAL:HB	1.96	0.47
59:33:101:LYS:C	59:33:104:VAL:HG12	2.34	0.47
59:33:621:ILE:HG13	59:33:655:ALA:HB1	1.96	0.47
59:33:666:SER:H	59:33:715:GLU:HA	1.79	0.47
3:C:12:LEU:HD11	3:C:193:VAL:HG11	1.96	0.47
3:C:71:GLY:HA3	53:27:675:A:OP1	2.14	0.47
5:E:137:LYS:O	5:E:140:ILE:HG13	2.14	0.47
6:F:47:PHE:O	6:F:48:GLU:C	2.52	0.47
6:F:55:GLU:O	6:F:58:LEU:HB2	2.15	0.47
8:H:60:VAL:HA	8:H:66:PHE:CA	2.44	0.47
8:H:92:PRO:HB3	8:H:136:GLY:HA3	1.96	0.47
16:P:45:ALA:O	16:P:49:ARG:HG3	2.14	0.47
16:P:93:ILE:HG21	17:Q:4:VAL:HG11	1.95	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:S:12:ARG:HH11	24:X:29:ARG:NH2	2.12	0.47
23:W:11:PRO:HG3	23:W:29:LEU:HD23	1.95	0.47
26:Z:15:SER:HB2	26:Z:21:VAL:HA	1.96	0.47
39:13:11:ARG:N	39:13:77:ALA:HB2	2.30	0.47
46:20:73:ALA:O	46:20:76:LYS:HB2	2.14	0.47
50:24:34:VAL:HG22	50:24:49:ALA:HB1	1.96	0.47
52:26:668:G:H2'	52:26:669:G:H8	1.79	0.47
52:26:1015:G:H2'	52:26:1016:A:O4'	2.13	0.47
52:26:1109:C:H2'	52:26:1110:A:O4'	2.13	0.47
53:27:231:A:H2'	53:27:232:G:O4'	2.14	0.47
53:27:1070:A:C2	53:27:1097:U:H4'	2.49	0.47
53:27:1411:U:H2'	53:27:1412:U:C6	2.50	0.47
53:27:1575:C:H2'	53:27:1576:U:O4'	2.13	0.47
53:27:1765:U:H2'	53:27:1766:G:C8	2.49	0.47
53:27:1955:U:C5	53:27:2552:U:H1'	2.49	0.47
53:27:2811:G:H2'	53:27:2812:G:H8	1.79	0.47
56:30:18:G:N2	56:30:57:G:H3'	2.28	0.47
59:33:41:TYR:OH	59:33:94:VAL:HG22	2.13	0.47
59:33:177:GLU:HG3	59:33:181:ILE:HD12	1.95	0.47
59:33:326:VAL:HG22	59:33:334:VAL:HG13	1.96	0.47
1:A:29:PHE:CZ	1:A:100:ARG:HD2	2.49	0.47
5:E:114:HIS:CD2	5:E:147:LEU:HD21	2.48	0.47
7:G:24:SER:OG	7:G:87:GLU:N	2.47	0.47
7:G:57:ASN:HB2	7:G:62:ARG:CD	2.44	0.47
10:J:99:ILE:HD13	10:J:115:ILE:HG23	1.97	0.47
10:J:108:ARG:HA	10:J:116:ILE:CD1	2.40	0.47
12:L:7:THR:HG22	12:L:8:LYS:N	2.30	0.47
17:Q:49:ILE:HD12	17:Q:52:PRO:HA	1.97	0.47
18:R:69:LEU:HD12	18:R:108:SER:O	2.14	0.47
19:S:64:LYS:N	19:S:64:LYS:HD2	2.28	0.47
30:4:30:HIS:ND1	30:4:31:ILE:HG13	2.30	0.47
32:6:153:MET:HG2	32:6:155:GLY:O	2.13	0.47
33:7:198:LYS:HE3	52:26:1058:G:OP1	2.14	0.47
38:12:88:LYS:NZ	38:12:89:ASP:HB3	2.29	0.47
39:13:9:GLY:HA2	39:13:80:HIS:ND1	2.29	0.47
40:14:7:ARG:CD	40:14:75:ASP:HB2	2.39	0.47
44:18:68:ARG:HD3	44:18:79:SER:OG	2.14	0.47
46:20:67:ILE:HG23	46:20:71:VAL:HB	1.96	0.47
47:21:59:GLU:OE1	47:21:76:ARG:HD3	2.15	0.47
50:24:42:ASP:O	50:24:46:ALA:N	2.45	0.47
51:25:36:PHE:CE1	51:25:40:PRO:HG3	2.48	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:34:C:H2'	52:26:35:G:C8	2.49	0.47
52:26:258:G:H2'	52:26:259:G:O4'	2.14	0.47
52:26:1376:U:H2'	52:26:1377:A:C8	2.49	0.47
53:27:887:U:C5	59:33:629:ARG:NH2	2.82	0.47
53:27:1161:C:H2'	53:27:1162:G:H8	1.78	0.47
53:27:1827:U:C2'	53:27:1828:G:H5'	2.44	0.47
53:27:2415:G:H2'	53:27:2416:C:H6	1.79	0.47
53:27:2561:U:H2'	53:27:2562:U:C5'	2.41	0.47
53:27:2577:A:H5''	53:27:2578:G:H5'	1.96	0.47
56:30:72:C:H2'	56:30:73:A:H8	1.76	0.47
59:33:16:ASP:CG	59:33:17:PRO:HD2	2.34	0.47
59:33:81:LEU:HD22	59:33:84:LEU:HD22	1.96	0.47
59:33:210:GLU:HB3	59:33:260:TRP:CE3	2.50	0.47
1:A:222:THR:O	1:A:232:GLY:HA2	2.15	0.47
2:B:4:LEU:HD13	2:B:101:PHE:CE2	2.49	0.47
5:E:123:GLU:HB3	5:E:131:VAL:O	2.14	0.47
7:G:40:GLU:CG	7:G:52:MET:HE1	2.44	0.47
10:J:111:LYS:HG3	10:J:112:PHE:CD2	2.49	0.47
19:S:29:THR:HG23	19:S:85:VAL:O	2.14	0.47
19:S:56:GLU:HB3	19:S:86:THR:OG1	2.15	0.47
20:T:7:ASP:HB3	20:T:23:LYS:HZ1	1.78	0.47
33:7:100:ILE:HG23	33:7:102:ILE:HD11	1.95	0.47
34:8:5:GLY:O	34:8:7:LYS:N	2.48	0.47
34:8:78:ALA:O	34:8:85:THR:HG23	2.13	0.47
34:8:183:ARG:HG2	34:8:183:ARG:HH11	1.79	0.47
35:9:148:SER:HB3	35:9:151:MET:HG3	1.96	0.47
39:13:122:ARG:NH1	52:26:1343:G:H1'	2.30	0.47
47:21:13:SER:HB3	47:21:21:VAL:CG1	2.44	0.47
50:24:23:ARG:HH12	52:26:176:C:C4'	2.28	0.47
52:26:372:C:H42	52:26:389:A:H62	1.62	0.47
52:26:1008:U:H2'	52:26:1009:U:C6	2.49	0.47
53:27:123:G:H5''	53:27:1375:U:O2'	2.14	0.47
53:27:1679:A:H2'	53:27:1680:U:H6	1.80	0.47
53:27:1893:C:H2'	53:27:1894:C:H5'	1.96	0.47
53:27:2586:U:H2'	53:27:2587:A:C8	2.49	0.47
59:33:101:LYS:HE3	59:33:105:ASN:ND2	2.25	0.47
59:33:226:GLU:HA	59:33:229:ILE:HG12	1.97	0.47
59:33:605:LEU:O	59:33:607:HIS:N	2.41	0.47
59:33:695:LEU:HB2	59:33:713:THR:OG1	2.14	0.47
1:A:116:GLN:NE2	1:A:121:ALA:HA	2.09	0.47
1:A:152:GLN:HB2	53:27:1818:U:C4	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2:ILE:HD12	2:B:96:ILE:HD13	1.96	0.47
7:G:29:ASP:C	7:G:81:LEU:HD21	2.35	0.47
7:G:53:ARG:O	7:G:54:VAL:HB	2.15	0.47
10:J:64:ARG:HH12	10:J:101:GLY:CA	2.26	0.47
14:N:76:LYS:O	14:N:80:GLU:HG2	2.15	0.47
19:S:87:LEU:HD12	19:S:87:LEU:O	2.14	0.47
24:X:18:LEU:O	24:X:22:LEU:HB3	2.15	0.47
28:2:47:ILE:HG22	28:2:48:TYR:N	2.30	0.47
32:6:83:ALA:HB3	32:6:90:PHE:HB3	1.96	0.47
34:8:149:LYS:HG2	34:8:150:LYS:N	2.29	0.47
39:13:114:LYS:HD3	52:26:1187:G:H5''	1.96	0.47
41:15:42:GLY:HA3	41:15:73:VAL:CG1	2.44	0.47
43:17:8:ILE:N	43:17:9:PRO:HD3	2.20	0.47
47:21:19:SER:CB	47:21:70:LYS:HZ1	2.27	0.47
51:25:13:VAL:HG13	51:25:15:LEU:HG	1.96	0.47
52:26:1040:U:H2'	52:26:1041:G:H8	1.79	0.47
52:26:1118:U:H2'	52:26:1119:C:H6	1.76	0.47
52:26:1273:C:H2'	52:26:1274:A:H5'	1.96	0.47
53:27:1435:G:O2'	53:27:1436:G:H5'	2.14	0.47
53:27:2410:G:H2'	53:27:2411:A:O4'	2.15	0.47
53:27:2554:U:H2'	53:27:2555:U:C6	2.49	0.47
53:27:2765:A:H5'	53:27:2766:A:OP2	2.15	0.47
54:28:106:G:H2'	54:28:107:G:O4'	2.14	0.47
56:30:58:A:N3	56:30:60:U:H5	2.12	0.47
1:A:140:VAL:HG12	1:A:191:LEU:HD23	1.97	0.47
2:B:11:MET:HG2	2:B:25:THR:HA	1.97	0.47
4:D:33:ILE:HG13	4:D:95:MET:CE	2.45	0.47
4:D:109:ARG:HH22	4:D:138:PRO:HA	1.79	0.47
6:F:125:THR:HG22	6:F:125:THR:O	2.15	0.47
7:G:53:ARG:O	7:G:85:SER:HA	2.15	0.47
7:G:80:THR:O	7:G:82:ILE:HG12	2.15	0.47
8:H:83:ALA:HB3	8:H:85:ILE:HG12	1.96	0.47
10:J:64:ARG:NH1	10:J:101:GLY:HA3	2.29	0.47
10:J:104:THR:O	10:J:107:LEU:HB3	2.15	0.47
12:L:42:THR:OG1	12:L:45:GLN:HG3	2.15	0.47
18:R:79:GLY:H	18:R:101:SER:HA	1.78	0.47
20:T:73:ASN:O	20:T:74:ALA:HB3	2.15	0.47
21:U:16:ALA:O	21:U:20:LEU:HG	2.14	0.47
25:Y:7:THR:HG23	25:Y:33:HIS:O	2.15	0.47
26:Z:11:GLU:CA	26:Z:25:ARG:HA	2.39	0.47
28:2:42:VAL:O	28:2:42:VAL:HG12	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:4:63:TYR:CD2	53:27:242:G:H5''	2.49	0.47
32:6:79:VAL:HA	32:6:213:LEU:HD23	1.96	0.47
32:6:168:GLU:OE1	32:6:168:GLU:N	2.47	0.47
33:7:39:ARG:HH21	33:7:56:ILE:HG12	1.80	0.47
34:8:172:VAL:HG22	34:8:174:ALA:N	2.13	0.47
34:8:197:HIS:O	34:8:201:GLU:HG2	2.14	0.47
36:10:29:ILE:HD12	36:10:64:VAL:HG21	1.96	0.47
39:13:41:GLU:O	39:13:44:ARG:NH1	2.48	0.47
40:14:15:HIS:O	40:14:18:ILE:HG22	2.15	0.47
40:14:45:ARG:HB3	40:14:47:GLU:OE1	2.15	0.47
40:14:81:GLU:O	40:14:84:VAL:HG12	2.14	0.47
42:16:51:VAL:HG23	42:16:64:SER:O	2.15	0.47
43:17:27:THR:HG21	52:26:1328:C:H5''	1.96	0.47
47:21:11:VAL:CG2	47:21:20:ILE:HD11	2.45	0.47
48:22:38:ILE:HD12	48:22:38:ILE:N	2.29	0.47
52:26:36:C:H2'	52:26:37:U:O4'	2.13	0.47
52:26:171:A:H2'	52:26:172:A:C8	2.50	0.47
52:26:769:G:O2'	52:26:770:C:H5'	2.14	0.47
52:26:1171:A:H2'	52:26:1172:C:C6	2.50	0.47
52:26:1333:A:H2'	52:26:1334:G:O4'	2.14	0.47
52:26:1413:A:O2'	52:26:1414:U:H5'	2.15	0.47
53:27:7:G:H2'	53:27:8:C:C6	2.50	0.47
53:27:65:U:H2'	53:27:66:C:H6	1.80	0.47
53:27:80:G:O2'	53:27:81:G:H5'	2.15	0.47
53:27:493:G:H2'	53:27:494:G:O4'	2.14	0.47
53:27:743:A:O2'	53:27:744:U:H5'	2.14	0.47
53:27:814:C:H2'	53:27:815:C:H6	1.79	0.47
53:27:839:U:H2'	53:27:840:C:H6	1.78	0.47
53:27:974:G:H8	53:27:990:A:H62	1.61	0.47
53:27:979:A:H2'	53:27:982:C:H42	1.80	0.47
53:27:1045:C:H1'	53:27:1047:G:N1	2.29	0.47
53:27:1299:G:H5''	53:27:1300:G:H5''	1.97	0.47
53:27:1433:A:H2'	53:27:1434:A:C8	2.49	0.47
53:27:1779:U:OP2	53:27:1784:A:N6	2.44	0.47
53:27:1901:A:H2'	53:27:1902:C:H6	1.78	0.47
53:27:2106:U:H2'	53:27:2107:G:H8	1.79	0.47
53:27:2125:G:H2'	53:27:2173:A:N1	2.29	0.47
53:27:2346:A:H3'	53:27:2347:C:H5'	1.96	0.47
53:27:2415:G:H2'	53:27:2416:C:C6	2.50	0.47
53:27:2566:A:H4'	53:27:2567:G:H5''	1.96	0.47
53:27:2715:C:C3'	53:27:2716:C:H5''	2.44	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2785:C:H2'	53:27:2786:U:C6	2.49	0.47
57:31:44:A:O2'	57:31:45:G:H5'	2.15	0.47
59:33:51:ASP:HB2	59:33:164:LYS:HD2	1.96	0.47
59:33:239:GLU:HB2	59:33:299:HIS:CE1	2.49	0.47
59:33:466:GLN:O	59:33:467:LYS:HD2	2.15	0.47
59:33:534:TYR:C	59:33:536:PHE:N	2.68	0.47
59:33:665:TYR:HA	59:33:716:ILE:O	2.14	0.47
59:33:670:ARG:NE	59:33:741:LEU:HD12	2.30	0.47
2:B:31:ALA:HA	2:B:97:SER:HA	1.97	0.47
7:G:57:ASN:HB2	7:G:62:ARG:HD3	1.96	0.47
8:H:2:LYS:HE3	8:H:62:ALA:N	2.29	0.47
8:H:60:VAL:HA	8:H:66:PHE:HA	1.96	0.47
10:J:6:THR:HG23	53:27:1666:G:H4'	1.96	0.47
15:O:89:GLY:O	15:O:112:ARG:HG3	2.15	0.47
16:P:8:ILE:HG13	16:P:9:ALA:N	2.30	0.47
20:T:14:THR:CB	53:27:310:A:H5''	2.39	0.47
20:T:73:ASN:HA	20:T:95:PHE:CE1	2.50	0.47
25:Y:13:ILE:O	25:Y:15:ARG:N	2.48	0.47
25:Y:19:HIS:CD2	25:Y:50:VAL:HG12	2.50	0.47
27:1:2:VAL:HG12	27:1:3:GLN:N	2.30	0.47
35:9:107:GLY:HA2	52:26:8:A:H1'	1.97	0.47
36:10:46:GLN:HA	36:10:56:LYS:HA	1.96	0.47
41:15:43:TRP:HA	41:15:69:CYS:SG	2.55	0.47
42:16:3:VAL:HG21	47:21:35:LYS:HB2	1.96	0.47
44:18:43:ALA:C	44:18:45:LEU:H	2.17	0.47
44:18:55:SER:HB2	52:26:1317:C:OP1	2.14	0.47
48:22:11:ARG:CG	48:22:15:GLU:HG2	2.44	0.47
52:26:979:C:H1'	52:26:1317:C:N4	2.30	0.47
52:26:1148:U:H2'	52:26:1149:C:H5'	1.95	0.47
53:27:1405:U:H2'	53:27:1406:U:C6	2.50	0.47
56:30:41:C:H3'	56:30:42:C:H5''	1.95	0.47
58:32:30:G:H2'	58:32:31:G:C8	2.50	0.47
59:33:24:LEU:HD12	59:33:24:LEU:N	2.30	0.47
59:33:49:HIS:NE2	59:33:55:LEU:HG	2.30	0.47
59:33:315:LYS:HB2	59:33:319:TYR:HB3	1.97	0.47
59:33:667:LEU:C	59:33:667:LEU:HD12	2.35	0.47
3:C:148:ILE:HB	3:C:169:VAL:HA	1.97	0.47
4:D:104:THR:HG21	26:Z:22:MET:SD	2.54	0.47
4:D:114:ARG:NH2	26:Z:47:LYS:HG2	2.29	0.47
8:H:79:LEU:HD23	8:H:79:LEU:O	2.14	0.47
9:I:101:ILE:O	9:I:105:VAL:HG23	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:19:LEU:HD23	53:27:587:C:C2	2.50	0.47
15:O:39:LEU:HD11	15:O:81:ASP:CB	2.44	0.47
21:U:38:LEU:HG	21:U:40:ILE:HG12	1.97	0.47
25:Y:24:LEU:HD11	53:27:930:G:O2'	2.15	0.47
32:6:158:ASP:O	32:6:181:PRO:HD2	2.15	0.47
34:8:202:LEU:C	34:8:202:LEU:HD23	2.34	0.47
39:13:35:GLU:HB3	39:13:40:ARG:NH1	2.29	0.47
44:18:52:ARG:HD2	52:26:1317:C:C4	2.50	0.47
49:23:9:PHE:CE2	52:26:1318:A:H4'	2.50	0.47
52:26:123:U:H2'	52:26:124:C:C6	2.50	0.47
52:26:469:C:H2'	52:26:470:C:O4'	2.15	0.47
52:26:1412:C:H2'	52:26:1413:A:H8	1.80	0.47
53:27:691:C:H2'	53:27:692:C:C6	2.50	0.47
53:27:858:G:O2'	53:27:859:G:OP1	2.29	0.47
53:27:1258:U:H2'	53:27:1259:G:H8	1.76	0.47
53:27:1366:A:H2'	53:27:1367:A:O4'	2.15	0.47
53:27:1484:U:H2'	53:27:1485:U:C6	2.50	0.47
53:27:2139:U:H2'	53:27:2140:G:C8	2.50	0.47
53:27:2503:A:O2'	53:27:2504:U:H5''	2.14	0.47
53:27:2837:A:H2'	53:27:2838:G:C8	2.50	0.47
57:31:25:C:H2'	57:31:26:G:H8	1.79	0.47
59:33:27:THR:CG2	59:33:31:SER:HB2	2.45	0.47
4:D:7:TYR:HA	4:D:11:VAL:CG2	2.44	0.47
6:F:114:GLU:HB3	6:F:133:GLN:O	2.14	0.47
7:G:99:PHE:HA	7:G:102:ALA:CB	2.45	0.47
12:L:21:ALA:CB	12:L:100:LYS:HB2	2.45	0.47
12:L:78:LEU:HD23	12:L:79:ALA:HB2	1.97	0.47
13:M:31:HIS:C	13:M:33:ILE:H	2.18	0.47
27:1:39:ARG:CZ	53:27:2884:U:H3	2.28	0.47
31:5:25:VAL:O	31:5:34:LYS:HA	2.14	0.47
37:11:13:PRO:HB3	37:11:20:GLU:HG2	1.97	0.47
37:11:139:ASP:O	37:11:143:MET:HG2	2.15	0.47
38:12:40:LYS:HD3	38:12:47:ASP:HA	1.96	0.47
39:13:54:VAL:HG11	39:13:93:LEU:HD13	1.97	0.47
40:14:12:ALA:CB	40:14:96:VAL:HG22	2.43	0.47
43:17:46:GLU:HG3	43:17:47:LEU:N	2.30	0.47
45:19:46:LYS:HA	45:19:52:ARG:NH2	2.30	0.47
51:25:20:ARG:NH1	55:29:7:G:N2	2.63	0.47
51:25:34:ARG:HB3	51:25:36:PHE:HD2	1.80	0.47
52:26:176:C:H3'	52:26:177:G:N2	2.26	0.47
52:26:505:G:OP2	52:26:535:A:H5'	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:1157:A:H4'	52:26:1158:C:O5'	2.14	0.47
52:26:1172:C:H2'	52:26:1173:U:C6	2.50	0.47
53:27:141:G:H5'	53:27:142:A:OP2	2.15	0.47
53:27:524:G:H2'	53:27:525:U:C6	2.50	0.47
53:27:584:C:H2'	53:27:585:G:C8	2.50	0.47
53:27:845:A:N7	53:27:847:U:H1'	2.30	0.47
53:27:1035:U:H2'	53:27:1036:G:H8	1.79	0.47
53:27:1130:U:O2'	53:27:1131:G:OP1	2.24	0.47
53:27:1935:G:H1'	53:27:1964:G:N2	2.29	0.47
53:27:2124:G:N3	53:27:2124:G:H2'	2.30	0.47
53:27:2266:A:H4'	53:27:2267:A:C2	2.50	0.47
53:27:2615:U:H2'	53:27:2616:C:H6	1.80	0.47
54:28:28:C:H2'	54:28:29:A:C8	2.50	0.47
59:33:20:TRP:HZ3	59:33:35:LEU:HB3	1.79	0.47
59:33:82:PHE:CD2	59:33:83:PRO:CD	2.98	0.47
2:B:54:ALA:HA	2:B:76:GLY:HA2	1.96	0.46
4:D:116:LEU:O	4:D:176:PHE:HA	2.15	0.46
5:E:157:LYS:HD2	53:27:2658:C:O3'	2.15	0.46
11:K:58:TYR:CE1	11:K:59:ARG:HG3	2.49	0.46
29:3:35:ARG:HG3	29:3:35:ARG:NH1	2.29	0.46
31:5:1:MET:CG	31:5:2:LYS:N	2.77	0.46
32:6:31:PHE:O	32:6:39:ILE:HB	2.15	0.46
33:7:91:ALA:HB1	33:7:96:VAL:O	2.15	0.46
34:8:100:VAL:HG21	34:8:136:VAL:HG21	1.95	0.46
35:9:113:VAL:HG11	35:9:139:THR:OG1	2.14	0.46
43:17:25:GLY:N	52:26:1329:A:OP1	2.48	0.46
52:26:478:A:C2	52:26:479:U:H1'	2.50	0.46
52:26:1221:G:H2'	52:26:1222:G:C8	2.49	0.46
52:26:1264:U:H2'	52:26:1265:C:C6	2.50	0.46
53:27:103:A:H2'	53:27:104:A:O4'	2.15	0.46
53:27:709:U:H2'	53:27:710:U:H6	1.81	0.46
53:27:769:U:H2'	53:27:770:G:H8	1.79	0.46
53:27:1080:A:O2'	53:27:1081:U:H5'	2.15	0.46
53:27:2604:U:H2'	53:27:2605:U:C6	2.51	0.46
54:28:73:A:H3'	54:28:74:U:H6	1.78	0.46
58:32:59:A:C2'	58:32:60:U:H5'	2.45	0.46
59:33:58:ARG:NH1	59:33:159:HIS:CE1	2.83	0.46
2:B:135:GLY:HA2	53:27:743:A:OP1	2.15	0.46
3:C:78:TRP:HA	53:27:1257:C:H1'	1.96	0.46
5:E:123:GLU:HB3	5:E:131:VAL:HB	1.97	0.46
6:F:99:ILE:HG21	6:F:130:VAL:HG11	1.96	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:36:LEU:HD22	9:I:121:LYS:HB2	1.97	0.46
12:L:16:ARG:NH1	53:27:953:G:H5''	2.30	0.46
15:O:77:SER:O	15:O:80:VAL:HG22	2.16	0.46
19:S:11:LEU:HB2	24:X:26:PHE:HE1	1.80	0.46
20:T:82:VAL:HG12	20:T:83:GLY:N	2.30	0.46
22:V:40:LYS:HG3	22:V:41:PHE:CD2	2.49	0.46
32:6:112:ARG:O	32:6:116:LEU:HB2	2.14	0.46
33:7:200:TRP:C	33:7:201:ILE:HD12	2.36	0.46
36:10:9:MET:HA	36:10:58:HIS:O	2.15	0.46
36:10:90:MET:HE2	48:22:60:ARG:HD3	1.96	0.46
39:13:105:ARG:HH12	39:13:107:ALA:HA	1.79	0.46
41:15:117:HIS:CD2	52:26:675:A:H1'	2.50	0.46
42:16:23:LEU:O	42:16:26:CYS:HB3	2.16	0.46
47:21:44:HIS:NE2	52:26:276:G:H4'	2.30	0.46
48:22:25:ILE:O	48:22:29:LYS:HB2	2.15	0.46
48:22:28:LEU:HD21	48:22:58:ILE:HD13	1.97	0.46
51:25:32:ARG:HH12	51:25:33:ARG:HD3	1.80	0.46
52:26:631:C:C3'	52:26:632:U:H5'	2.46	0.46
52:26:1036:A:H3'	52:26:1037:C:C6	2.50	0.46
52:26:1148:U:H2'	52:26:1149:C:O4'	2.15	0.46
53:27:477:A:H2'	53:27:478:A:C8	2.50	0.46
53:27:706:A:H2'	53:27:707:G:O4'	2.16	0.46
53:27:852:U:H2'	53:27:853:C:C6	2.49	0.46
53:27:901:C:H2'	53:27:902:C:O4'	2.15	0.46
53:27:2813:A:H2'	53:27:2814:A:H8	1.80	0.46
56:30:64:A:H2'	56:30:65:G:C8	2.51	0.46
59:33:96:ARG:HG3	59:33:104:VAL:HG21	1.97	0.46
59:33:228:TYR:CB	59:33:277:ARG:NH2	2.78	0.46
59:33:710:ILE:H	59:33:710:ILE:HD12	1.80	0.46
1:A:216:ARG:NH2	53:27:690:G:H4'	2.30	0.46
5:E:157:LYS:HD2	53:27:2659:G:P	2.54	0.46
12:L:50:ARG:HD2	12:L:65:ILE:CD1	2.43	0.46
14:N:30:ARG:HB3	14:N:97:PHE:CE1	2.51	0.46
20:T:66:VAL:HA	20:T:69:VAL:HG22	1.97	0.46
24:X:24:GLU:O	24:X:25:GLN:C	2.53	0.46
26:Z:20:ASN:HB2	26:Z:37:CYS:HB3	1.96	0.46
26:Z:66:ILE:HD11	44:18:40:ARG:HB3	1.97	0.46
34:8:113:ALA:O	34:8:116:LEU:HB3	2.15	0.46
35:9:40:ASP:HB3	35:9:44:ARG:HB2	1.97	0.46
37:11:61:PHE:O	37:11:65:LEU:N	2.47	0.46
37:11:79:VAL:O	55:29:12:A:H4'	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:16:50:LYS:HD2	42:16:50:LYS:N	2.30	0.46
43:17:38:ILE:HD11	43:17:51:GLN:HB3	1.97	0.46
43:17:65:GLU:CG	43:17:66:GLY:N	2.77	0.46
49:23:65:MET:O	49:23:66:VAL:HG23	2.16	0.46
50:24:79:THR:HA	50:24:82:ILE:HG12	1.96	0.46
52:26:114:U:H2'	52:26:115:G:C8	2.50	0.46
52:26:587:G:O2'	52:26:588:G:H5'	2.15	0.46
53:27:516:C:H2'	53:27:517:C:H6	1.79	0.46
53:27:959:A:H2'	53:27:960:A:C8	2.50	0.46
53:27:1023:U:H3'	53:27:1024:G:C8	2.45	0.46
53:27:1271:G:O3'	53:27:1272:A:H4'	2.14	0.46
53:27:1842:G:H2'	53:27:1843:C:C6	2.51	0.46
53:27:2342:C:H2'	53:27:2343:U:O4'	2.16	0.46
53:27:2685:G:H2'	53:27:2686:G:H8	1.80	0.46
53:27:2837:A:H2'	53:27:2838:G:H8	1.80	0.46
58:32:26:G:H1	58:32:44:A:H2	1.63	0.46
59:33:44:GLN:HA	59:33:45:GLN:HA	1.66	0.46
59:33:427:PHE:CE2	59:33:461:ILE:HG21	2.51	0.46
59:33:649:PRO:HA	59:33:652:ILE:HD12	1.97	0.46
7:G:107:GLU:C	7:G:109:LYS:H	2.18	0.46
8:H:59:THR:O	8:H:66:PHE:HA	2.16	0.46
11:K:57:LEU:HD13	11:K:60:ARG:NH1	2.30	0.46
12:L:28:PHE:N	12:L:104:GLU:OE1	2.45	0.46
12:L:83:GLY:O	12:L:84:LYS:HB2	2.16	0.46
13:M:73:ASN:HA	13:M:76:VAL:CG1	2.41	0.46
18:R:82:MET:HB3	18:R:84:ARG:HH22	1.80	0.46
30:4:51:LYS:HA	30:4:54:LEU:CB	2.46	0.46
40:14:43:PRO:HG3	52:26:1280:A:O4'	2.15	0.46
52:26:222:C:H2'	52:26:223:A:H8	1.79	0.46
52:26:335:C:H2'	52:26:336:A:C8	2.50	0.46
52:26:396:C:C2'	52:26:397:A:H5''	2.44	0.46
52:26:714:G:H2'	52:26:715:A:H8	1.76	0.46
52:26:1272:G:H2'	52:26:1273:C:C6	2.50	0.46
52:26:1273:C:C2'	52:26:1274:A:H5'	2.46	0.46
53:27:479:A:H4'	53:27:480:A:OP1	2.15	0.46
53:27:782:A:H5'	53:27:783:A:C2	2.50	0.46
53:27:1056:G:H4'	53:27:1086:A:H8	1.80	0.46
53:27:1259:G:H2'	53:27:1260:A:C8	2.50	0.46
53:27:2065:C:H2'	53:27:2066:C:C6	2.50	0.46
57:31:37:A:H2'	57:31:38:A:O4'	2.16	0.46
58:32:38:A:H2'	58:32:39:C:O4'	2.14	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:43:LEU:HG	59:33:44:GLN:NE2	2.30	0.46
1:A:15:VAL:HA	1:A:204:LEU:O	2.15	0.46
1:A:65:ASP:CB	1:A:101:ARG:HD3	2.46	0.46
3:C:48:THR:HG23	3:C:88:ARG:NH1	2.29	0.46
3:C:55:SER:OG	3:C:56:GLY:N	2.47	0.46
3:C:178:VAL:O	3:C:182:ALA:HB2	2.16	0.46
4:D:115:GLY:O	4:D:116:LEU:HD12	2.15	0.46
7:G:11:ILE:CD1	7:G:63:ALA:HA	2.44	0.46
11:K:89:VAL:HG21	11:K:123:ARG:HH21	1.80	0.46
11:K:118:THR:O	11:K:120:VAL:HG23	2.15	0.46
17:Q:83:TYR:CE1	53:27:1187:G:H5''	2.51	0.46
19:S:44:LYS:O	19:S:48:GLN:HG3	2.15	0.46
19:S:67:VAL:HG22	19:S:76:ARG:CD	2.45	0.46
22:V:42:HIS:CD2	22:V:73:ARG:HD3	2.50	0.46
26:Z:15:SER:HA	26:Z:20:ASN:O	2.15	0.46
31:5:1:MET:CE	53:27:2742:G:H5''	2.45	0.46
32:6:186:VAL:CG2	32:6:198:VAL:HG23	2.46	0.46
33:7:42:LEU:HD21	33:7:67:ILE:CD1	2.45	0.46
34:8:61:ARG:NH1	34:8:68:GLU:HB2	2.31	0.46
34:8:78:ALA:C	34:8:85:THR:HG23	2.36	0.46
35:9:108:GLY:O	35:9:109:ALA:HB3	2.15	0.46
36:10:25:TYR:O	36:10:29:ILE:HG12	2.15	0.46
37:11:62:GLU:HA	37:11:65:LEU:HB3	1.97	0.46
37:11:115:MET:HG2	52:26:1240:U:OP1	2.15	0.46
38:12:77:VAL:HG23	38:12:127:TYR:H	1.80	0.46
38:12:113:ARG:HA	38:12:116:ARG:HG2	1.97	0.46
40:14:51:VAL:HB	44:18:80:ARG:HB2	1.97	0.46
40:14:57:VAL:HG22	40:14:58:ASN:N	2.23	0.46
43:17:33:LEU:HD12	43:17:33:LEU:N	2.31	0.46
47:21:11:VAL:HG12	47:21:12:VAL:N	2.31	0.46
50:24:65:LEU:CD2	50:24:66:ILE:HG12	2.42	0.46
51:25:45:LYS:HE3	52:26:723:U:H1'	1.97	0.46
51:25:67:THR:HA	52:26:1167:A:C6	2.50	0.46
52:26:313:A:H2'	52:26:314:C:C6	2.50	0.46
53:27:193:U:H2'	53:27:194:G:H8	1.79	0.46
53:27:588:U:H2'	53:27:589:U:C6	2.51	0.46
53:27:1123:C:H2'	53:27:1124:G:H8	1.80	0.46
53:27:1399:C:H2'	53:27:1400:U:H6	1.79	0.46
53:27:1558:C:O4'	53:27:1560:G:C8	2.69	0.46
53:27:1880:U:H2'	53:27:1881:C:C6	2.51	0.46
54:28:3:C:H3'	54:28:4:C:H5''	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:38:THR:HG21	59:33:77:ARG:CG	2.46	0.46
59:33:599:VAL:HG21	59:33:631:ILE:HD13	1.97	0.46
1:A:45:ASN:O	53:27:773:U:H5'	2.15	0.46
5:E:70:LEU:O	5:E:73:SER:HB3	2.15	0.46
10:J:71:ARG:NH1	10:J:105:ARG:HB3	2.30	0.46
11:K:110:VAL:O	11:K:111:ILE:HB	2.15	0.46
13:M:96:ARG:HA	53:27:2881:U:O2'	2.16	0.46
26:Z:20:ASN:CB	26:Z:37:CYS:HB3	2.46	0.46
32:6:148:GLY:O	32:6:150:ILE:N	2.46	0.46
35:9:76:ASN:O	35:9:77:ASN:C	2.53	0.46
36:10:90:MET:CE	48:22:60:ARG:HD3	2.46	0.46
38:12:79:ARG:HB3	52:26:878:A:OP1	2.15	0.46
47:21:19:SER:HB3	47:21:70:LYS:HZ1	1.80	0.46
52:26:163:C:H2'	52:26:164:G:O4'	2.16	0.46
52:26:406:G:H1'	52:26:495:A:N1	2.31	0.46
52:26:414:A:H2'	52:26:415:A:O4'	2.15	0.46
53:27:310:A:O2'	53:27:311:A:H2'	2.16	0.46
53:27:528:A:H2	53:27:2043:C:H5'	1.80	0.46
53:27:2556:C:H2'	53:27:2557:G:H5'	1.97	0.46
54:28:3:C:O5'	54:28:3:C:H6	1.99	0.46
54:28:29:A:H2'	54:28:30:C:O4'	2.15	0.46
56:30:18:G:H21	56:30:57:G:H3'	1.81	0.46
59:33:35:LEU:HD11	59:33:73:ILE:HG22	1.98	0.46
59:33:108:HIS:CE1	59:33:111:ARG:HH21	2.32	0.46
59:33:434:ASP:HA	59:33:437:HIS:HB2	1.97	0.46
1:A:28:PRO:HG3	1:A:33:LEU:HD21	1.97	0.46
3:C:52:VAL:O	3:C:74:LYS:HE3	2.15	0.46
3:C:68:ALA:HA	53:27:1255:U:C6	2.51	0.46
4:D:79:ARG:HG2	4:D:79:ARG:NH2	2.31	0.46
5:E:64:ALA:O	5:E:67:ALA:HB3	2.15	0.46
7:G:50:VAL:O	7:G:50:VAL:HG12	2.15	0.46
7:G:59:LEU:HB3	7:G:62:ARG:HB2	1.96	0.46
8:H:11:GLN:HG2	8:H:55:PRO:HA	1.97	0.46
15:O:52:ARG:HG2	15:O:52:ARG:NH1	2.29	0.46
19:S:88:LYS:O	19:S:90:GLY:N	2.48	0.46
24:X:39:GLN:HB3	24:X:41:HIS:CE1	2.49	0.46
37:11:13:PRO:HB3	37:11:20:GLU:CG	2.46	0.46
39:13:70:GLY:HA3	52:26:1371:G:O3'	2.15	0.46
41:15:110:THR:CA	51:25:16:ARG:HH22	2.29	0.46
44:18:84:ARG:HH12	44:18:88:MET:HG3	1.81	0.46
46:20:6:LEU:HB3	46:20:17:TYR:CD1	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:20:53:ASP:OD2	46:20:56:ARG:HB2	2.16	0.46
48:22:12:PHE:O	48:22:14:ALA:N	2.49	0.46
52:26:148:G:H2'	52:26:149:A:C5'	2.44	0.46
52:26:502:A:H2'	52:26:503:C:O4'	2.16	0.46
52:26:620:C:H2'	52:26:621:A:O4'	2.16	0.46
52:26:755:G:O5'	52:26:755:G:H8	1.98	0.46
53:27:285:G:H2'	53:27:286:U:O4'	2.16	0.46
53:27:564:C:H2'	53:27:565:C:H6	1.79	0.46
53:27:856:G:H2'	53:27:857:G:C8	2.50	0.46
53:27:878:A:H2'	53:27:878:A:N3	2.30	0.46
53:27:1214:A:H2'	53:27:1215:G:O4'	2.15	0.46
53:27:1404:C:H2'	53:27:1405:U:C6	2.51	0.46
53:27:2144:G:H5''	53:27:2145:C:H3'	1.98	0.46
53:27:2232:C:C2'	53:27:2233:U:H5'	2.46	0.46
53:27:2291:U:H2'	53:27:2292:U:C6	2.49	0.46
53:27:2439:A:H1'	53:27:2587:A:OP1	2.16	0.46
53:27:2481:G:HO2'	53:27:2482:A:H8	1.60	0.46
53:27:2884:U:O2	53:27:2884:U:H3'	2.16	0.46
54:28:66:A:H61	54:28:107:G:H3'	1.80	0.46
58:32:53:G:H21	58:32:62:C:H1'	1.80	0.46
58:32:53:G:N2	58:32:62:C:H1'	2.29	0.46
59:33:161:ARG:O	59:33:162:GLU:CG	2.63	0.46
59:33:229:ILE:HG13	59:33:230:GLU:N	2.31	0.46
59:33:232:PHE:O	59:33:236:LEU:HG	2.16	0.46
59:33:303:LEU:HD12	59:33:304:PRO:HD2	1.97	0.46
59:33:327:LEU:CD2	59:33:332:LYS:HB3	2.45	0.46
59:33:640:GLN:HA	59:33:643:GLU:HG3	1.97	0.46
2:B:4:LEU:HB3	2:B:32:ASN:HD21	1.80	0.46
2:B:48:ILE:HG13	2:B:48:ILE:O	2.14	0.46
2:B:146:ILE:HG22	2:B:159:LYS:HZ2	1.81	0.46
3:C:179:SER:HA	3:C:182:ALA:HB3	1.97	0.46
14:N:29:HIS:NE2	54:28:7:G:H5''	2.31	0.46
14:N:94:ARG:HB3	14:N:97:PHE:O	2.16	0.46
16:P:48:ASP:HA	16:P:51:GLN:HB2	1.97	0.46
19:S:59:ASN:CB	19:S:84:TYR:HB2	2.46	0.46
32:6:49:PHE:O	32:6:53:LEU:HG	2.15	0.46
33:7:13:ILE:CD1	33:7:177:LEU:HB3	2.46	0.46
33:7:86:LEU:HA	33:7:89:VAL:HG22	1.98	0.46
33:7:111:ASP:HB3	33:7:114:LEU:HD12	1.97	0.46
34:8:7:LYS:O	34:8:20:LEU:HD12	2.15	0.46
34:8:115:GLN:HG3	34:8:116:LEU:N	2.30	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:10:91:ARG:HH21	48:22:60:ARG:NH2	2.14	0.46
42:16:31:GLY:O	42:16:78:VAL:HA	2.15	0.46
42:16:81:ILE:HD13	42:16:96:THR:HA	1.98	0.46
44:18:70:HIS:O	44:18:71:GLY:C	2.54	0.46
46:20:78:VAL:CG1	46:20:79:ASN:N	2.76	0.46
52:26:410:G:C6	52:26:429:U:H1'	2.50	0.46
52:26:538:G:H2'	52:26:539:A:H8	1.81	0.46
53:27:284:U:H2'	53:27:285:G:C5'	2.45	0.46
53:27:424:G:H2'	53:27:425:G:O4'	2.16	0.46
53:27:515:A:H2'	53:27:516:C:H5'	1.98	0.46
53:27:755:U:H2'	53:27:756:A:C8	2.51	0.46
53:27:1111:A:H2'	53:27:1112:G:H4'	1.98	0.46
53:27:1285:A:H2'	53:27:1286:A:H5'	1.98	0.46
53:27:1979:U:C2'	53:27:1980:G:H5'	2.46	0.46
59:33:271:ASP:O	59:33:275:ASP:HB2	2.16	0.46
59:33:617:PRO:HB2	59:33:719:LEU:CD1	2.34	0.46
59:33:618:GLY:C	59:33:620:GLU:H	2.19	0.46
59:33:726:LEU:HA	59:33:729:LEU:HD12	1.98	0.46
1:A:132:ARG:CD	1:A:166:ARG:HH21	2.29	0.46
5:E:101:VAL:HG22	5:E:115:GLN:NE2	2.30	0.46
16:P:91:ARG:HH22	53:27:998:C:P	2.39	0.46
19:S:4:GLU:HA	19:S:7:LEU:HB2	1.98	0.46
23:W:9:LYS:HG2	53:27:396:G:OP1	2.15	0.46
35:9:87:VAL:HG22	35:9:88:HIS:N	2.30	0.46
38:12:17:GLN:NE2	38:12:69:ALA:HB1	2.31	0.46
42:16:106:VAL:HB	42:16:109:ARG:HG3	1.98	0.46
44:18:80:ARG:HH11	44:18:80:ARG:HG3	1.81	0.46
52:26:657:U:O2'	52:26:658:C:H5'	2.16	0.46
52:26:924:C:H2'	52:26:925:G:C8	2.51	0.46
52:26:1414:U:H2'	52:26:1415:G:H8	1.81	0.46
53:27:645:C:H2'	53:27:647:G:C8	2.51	0.46
53:27:724:U:H2'	53:27:725:G:O4'	2.16	0.46
53:27:809:G:O2'	53:27:810:U:H5'	2.15	0.46
53:27:1910:G:O2'	53:27:1911:U:H5'	2.16	0.46
53:27:2054:A:OP1	53:27:2055:C:H4'	2.16	0.46
53:27:2582:G:O2'	53:27:2583:G:H5'	2.16	0.46
53:27:2616:C:H2'	53:27:2617:U:H6	1.81	0.46
53:27:2834:G:H2'	53:27:2879:A:N6	2.30	0.46
58:32:42:G:H2'	58:32:43:A:H8	1.81	0.46
59:33:668:VAL:HG22	59:33:713:THR:HA	1.98	0.46
59:33:670:ARG:HG3	59:33:711:ASP:OD1	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:25:THR:HG21	2:B:193:VAL:CG2	2.46	0.46
2:B:38:LYS:HA	2:B:43:ASP:OD2	2.16	0.46
3:C:146:VAL:O	3:C:167:VAL:HG13	2.15	0.46
3:C:147:LEU:HD11	3:C:170:ARG:CD	2.46	0.46
3:C:176:ASP:OD1	3:C:179:SER:HB2	2.16	0.46
6:F:42:LYS:HB3	6:F:46:PHE:CE2	2.51	0.46
7:G:26:VAL:HG23	7:G:113:PHE:HA	1.98	0.46
8:H:55:PRO:HG2	8:H:71:LYS:HB2	1.96	0.46
14:N:100:HIS:H	14:N:103:VAL:HG23	1.81	0.46
21:U:9:ARG:NH2	21:U:12:GLN:HA	2.25	0.46
21:U:29:ILE:HG13	21:U:30:ILE:H	1.80	0.46
21:U:86:LEU:N	21:U:86:LEU:HD12	2.30	0.46
23:W:20:ALA:HB3	23:W:22:ASN:OD1	2.15	0.46
31:5:2:LYS:HE2	31:5:4:ARG:HD3	1.98	0.46
33:7:11:LEU:HD13	33:7:17:TRP:HE1	1.80	0.46
35:9:159:SER:O	35:9:162:GLU:N	2.42	0.46
37:11:145:GLU:C	37:11:147:ASN:H	2.19	0.46
38:12:12:ARG:HG2	52:26:826:C:H4'	1.98	0.46
42:16:20:VAL:HG23	42:16:20:VAL:O	2.15	0.46
44:18:66:THR:HG23	44:18:82:LYS:HG3	1.98	0.46
45:19:44:GLU:HG3	45:19:45:HIS:CG	2.51	0.46
45:19:47:LYS:O	45:19:49:HIS:N	2.47	0.46
50:24:13:SER:HB2	52:26:323:U:H1'	1.98	0.46
52:26:96:U:H2'	52:26:97:G:H8	1.81	0.46
52:26:396:C:C3'	52:26:397:A:H5''	2.46	0.46
52:26:505:G:H2'	52:26:506:G:H8	1.81	0.46
52:26:559:A:H4'	52:26:560:A:H3'	1.98	0.46
52:26:608:A:H2'	52:26:609:A:C8	2.51	0.46
52:26:763:G:H2'	52:26:764:C:C6	2.51	0.46
52:26:848:C:H2'	52:26:849:G:C5'	2.45	0.46
52:26:1025:U:O3'	52:26:1026:G:H8	1.98	0.46
52:26:1032:G:N2	52:26:1033:G:H4'	2.31	0.46
52:26:1458:G:H2'	52:26:1459:G:C8	2.49	0.46
53:27:388:G:N7	53:27:390:U:H2'	2.31	0.46
53:27:599:A:H2'	53:27:600:G:H8	1.77	0.46
53:27:690:G:H2'	53:27:691:C:C6	2.51	0.46
53:27:1854:A:N6	53:27:1888:G:H1'	2.31	0.46
53:27:2159:G:H2'	53:27:2160:C:C5	2.52	0.46
53:27:2229:U:H2'	53:27:2230:G:C8	2.51	0.46
53:27:2630:G:H2'	53:27:2631:G:C8	2.50	0.46
53:27:2679:A:O2'	53:27:2680:U:H5'	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:28:93:C:H2'	54:28:94:A:C8	2.50	0.46
57:31:63:G:H2'	57:31:64:G:C8	2.51	0.46
59:33:410:THR:CG2	59:33:427:PHE:HZ	2.27	0.46
1:A:62:ARG:NH2	53:27:1568:G:OP2	2.46	0.45
6:F:79:THR:HG23	6:F:145:ASN:HB3	1.98	0.45
6:F:84:ALA:HA	6:F:91:PHE:CB	2.41	0.45
7:G:96:PHE:CE2	7:G:126:LEU:HB2	2.51	0.45
20:T:4:ILE:HD13	20:T:71:ILE:HG23	1.98	0.45
22:V:10:ARG:HH11	22:V:10:ARG:HG3	1.82	0.45
22:V:25:GLU:O	22:V:63:VAL:HG23	2.15	0.45
33:7:205:GLU:HG3	33:7:206:ILE:N	2.30	0.45
39:13:27:ILE:HA	39:13:62:LEU:CD1	2.46	0.45
40:14:15:HIS:O	40:14:19:ASP:HB2	2.15	0.45
49:23:14:LEU:HD12	49:23:32:THR:HG21	1.97	0.45
52:26:162:A:H2'	52:26:163:C:O4'	2.15	0.45
53:27:362:A:H3'	53:27:363:G:C8	2.51	0.45
53:27:375:G:O2'	53:27:376:G:H5'	2.16	0.45
53:27:805:G:H22	53:27:828:U:H5''	1.80	0.45
53:27:898:C:H2'	53:27:899:A:H5'	1.97	0.45
53:27:1057:A:C2'	53:27:1058:U:H5'	2.46	0.45
53:27:1112:G:H2'	53:27:1113:U:C6	2.51	0.45
53:27:1427:A:H4'	53:27:1428:C:O4'	2.15	0.45
53:27:1877:A:H2'	53:27:1878:G:O4'	2.16	0.45
53:27:2037:A:H2'	53:27:2038:G:C8	2.51	0.45
53:27:2152:G:H2'	53:27:2153:C:O4'	2.17	0.45
53:27:2316:G:H2'	53:27:2317:A:C8	2.51	0.45
53:27:2657:A:H2'	53:27:2658:C:H5'	1.98	0.45
53:27:2719:G:H5'	53:27:2847:U:OP1	2.16	0.45
53:27:2794:C:H2'	53:27:2795:C:C6	2.50	0.45
59:33:65:ILE:CG1	59:33:161:ARG:NH2	2.75	0.45
59:33:157:ILE:HG13	59:33:158:ALA:N	2.31	0.45
59:33:240:MET:HA	59:33:243:GLU:HG2	1.98	0.45
2:B:128:ARG:HG2	53:27:2512:C:OP1	2.16	0.45
6:F:90:LEU:CD2	6:F:94:ILE:HG13	2.46	0.45
10:J:63:VAL:HG23	10:J:107:LEU:HD22	1.99	0.45
14:N:26:LEU:HB2	14:N:90:VAL:HG21	1.98	0.45
16:P:27:ARG:HH11	16:P:37:ALA:HB2	1.80	0.45
16:P:49:ARG:HG2	16:P:49:ARG:NH1	2.31	0.45
16:P:84:LYS:HZ3	16:P:116:LEU:HA	1.79	0.45
34:8:103:ARG:HD3	34:8:103:ARG:HA	1.68	0.45
34:8:106:PHE:HE1	34:8:177:MET:HA	1.82	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:11:112:ASP:HB2	37:11:118:ARG:HG2	1.99	0.45
41:15:17:ASP:HA	41:15:80:ASN:O	2.16	0.45
42:16:31:GLY:HA3	42:16:54:VAL:CG1	2.46	0.45
43:17:62:PHE:O	43:17:64:VAL:HG13	2.17	0.45
46:20:6:LEU:HD13	46:20:17:TYR:CG	2.50	0.45
46:20:11:ALA:HA	52:26:44:A:OP1	2.17	0.45
47:21:10:ARG:O	47:21:22:VAL:HG13	2.17	0.45
50:24:53:MET:HG3	50:24:54:GLN:N	2.30	0.45
51:25:13:VAL:O	51:25:15:LEU:N	2.42	0.45
52:26:265:G:H2'	52:26:267:C:H5	1.82	0.45
52:26:987:G:H2'	52:26:988:G:C8	2.52	0.45
52:26:1030:U:H2'	52:26:1032:G:H22	1.81	0.45
52:26:1213:A:C2	52:26:1215:G:H1'	2.51	0.45
52:26:1326:U:H2'	52:26:1327:C:H6	1.81	0.45
53:27:457:A:H61	53:27:470:A:H5''	1.80	0.45
53:27:491:G:N3	53:27:491:G:H2'	2.31	0.45
53:27:640:C:H2'	53:27:641:U:C6	2.51	0.45
53:27:1174:U:H2'	53:27:1175:A:H4'	1.98	0.45
53:27:2450:A:OP1	53:27:2497:A:H2'	2.15	0.45
53:27:2843:G:O2'	53:27:2844:G:H5'	2.16	0.45
59:33:276:VAL:O	59:33:276:VAL:HG22	2.16	0.45
7:G:11:ILE:O	7:G:15:VAL:HG23	2.16	0.45
8:H:6:ALA:HB3	8:H:60:VAL:HG21	1.99	0.45
14:N:31:THR:HG23	54:28:29:A:P	2.56	0.45
18:R:17:VAL:HA	18:R:43:ALA:HB1	1.98	0.45
18:R:83:LYS:HG2	18:R:97:LEU:CD2	2.46	0.45
19:S:32:LEU:O	19:S:32:LEU:HD12	2.17	0.45
20:T:27:VAL:CB	20:T:33:VAL:HG12	2.47	0.45
20:T:32:LYS:HA	20:T:64:ILE:O	2.17	0.45
31:5:12:ARG:HG2	31:5:12:ARG:HH21	1.81	0.45
34:8:127:ARG:O	34:8:129:VAL:HG23	2.17	0.45
37:11:45:ALA:HB1	37:11:119:LEU:HD22	1.99	0.45
46:20:72:ALA:O	46:20:75:ILE:HB	2.17	0.45
52:26:306:A:O2'	52:26:307:C:H5'	2.17	0.45
52:26:1230:C:H5'	57:31:30:G:H5''	1.99	0.45
52:26:1237:C:OP1	52:26:1238:A:H1'	2.16	0.45
52:26:1463:U:H2'	52:26:1464:U:C6	2.52	0.45
53:27:155:A:H2'	53:27:156:A:C8	2.51	0.45
53:27:165:A:H2'	53:27:166:U:C6	2.52	0.45
53:27:343:C:H2'	53:27:344:A:H5'	1.97	0.45
53:27:399:U:H2'	53:27:400:G:C8	2.52	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:623:C:H2'	53:27:624:C:C6	2.51	0.45
53:27:883:G:H5'	59:33:611:ARG:HD3	1.98	0.45
53:27:1264:A:O3'	53:27:2615:U:H5'	2.16	0.45
53:27:1550:C:H2'	53:27:1551:A:H8	1.81	0.45
53:27:2024:G:H2'	53:27:2025:C:O4'	2.15	0.45
53:27:2059:A:N6	53:27:2503:A:H2'	2.31	0.45
53:27:2070:A:H2'	53:27:2071:A:O4'	2.17	0.45
53:27:2142:A:H2'	53:27:2143:C:H5'	1.98	0.45
53:27:2196:C:O2'	53:27:2197:U:H5'	2.15	0.45
53:27:2282:G:H4'	53:27:2389:G:O2'	2.17	0.45
54:28:111:U:H2'	54:28:112:G:C8	2.51	0.45
59:33:56:LEU:HD23	59:33:56:LEU:C	2.37	0.45
59:33:221:ARG:NE	59:33:224:ASP:OD2	2.49	0.45
1:A:79:ARG:NH1	1:A:92:LEU:HD23	2.31	0.45
12:L:75:GLU:HB2	12:L:90:GLU:HG3	1.98	0.45
14:N:31:THR:O	14:N:33:ARG:N	2.49	0.45
16:P:2:ARG:HA	53:27:1248:G:O2'	2.17	0.45
16:P:35:PHE:CZ	16:P:39:ILE:HD11	2.51	0.45
18:R:59:GLU:HA	18:R:64:ALA:CA	2.47	0.45
20:T:11:ILE:HG21	20:T:79:ALA:HB2	1.99	0.45
20:T:71:ILE:CD1	20:T:82:VAL:HG22	2.41	0.45
30:4:20:GLY:HA3	30:4:48:MET:HE1	1.98	0.45
31:5:37:GLN:HE21	53:27:1125:G:H5'	1.78	0.45
34:8:190:LEU:O	34:8:192:ALA:N	2.49	0.45
35:9:49:TYR:O	35:9:62:ALA:HB2	2.17	0.45
35:9:100:GLU:C	35:9:102:THR:H	2.19	0.45
52:26:58:C:O2'	52:26:59:A:H5'	2.17	0.45
52:26:109:A:C6	52:26:326:G:C6	3.05	0.45
52:26:584:G:H2'	52:26:585:G:C8	2.48	0.45
52:26:1147:C:H2'	52:26:1148:U:C6	2.52	0.45
53:27:323:C:H2'	53:27:1205:A:N1	2.31	0.45
53:27:758:C:O2	53:27:758:C:H2'	2.15	0.45
53:27:816:C:H2'	53:27:817:C:C6	2.51	0.45
53:27:1365:A:H2'	53:27:1365:A:N3	2.31	0.45
53:27:1428:C:C4	53:27:1569:A:H5''	2.50	0.45
53:27:1744:A:H3'	53:27:1745:A:H8	1.81	0.45
53:27:2059:A:H2'	53:27:2503:A:N1	2.31	0.45
53:27:2322:A:H2'	53:27:2323:G:O4'	2.16	0.45
53:27:2393:U:O2'	53:27:2394:C:H5'	2.16	0.45
53:27:2516:A:O2'	53:27:2517:C:H5'	2.17	0.45
56:30:17:C:H3'	56:30:19:G:OP1	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:42:CYS:CB	59:33:84:LEU:HD11	2.47	0.45
59:33:285:ARG:HE	59:33:287:GLN:HB3	1.81	0.45
59:33:433:SER:O	59:33:437:HIS:N	2.46	0.45
1:A:159:THR:HG22	1:A:160:TYR:H	1.82	0.45
3:C:147:LEU:HB2	3:C:183:PHE:HD2	1.81	0.45
7:G:67:THR:N	7:G:68:PRO:CD	2.79	0.45
12:L:76:LYS:NZ	12:L:82:MET:HA	2.31	0.45
16:P:67:ALA:HB2	16:P:98:ALA:HB1	1.99	0.45
18:R:107:VAL:HG13	18:R:107:VAL:O	2.16	0.45
20:T:7:ASP:HB3	20:T:23:LYS:NZ	2.32	0.45
22:V:8:ASN:HD21	53:27:2277:G:H3'	1.81	0.45
25:Y:5:LYS:HA	25:Y:35:VAL:O	2.17	0.45
25:Y:40:THR:CG2	25:Y:43:ILE:H	2.30	0.45
26:Z:36:VAL:HG23	26:Z:36:VAL:O	2.17	0.45
32:6:24:PRO:HG3	52:26:829:G:O2'	2.17	0.45
32:6:153:MET:CE	32:6:157:PRO:HG3	2.46	0.45
34:8:96:ARG:HB2	34:8:99:ASN:CB	2.47	0.45
35:9:152:VAL:HA	35:9:155:LYS:HG2	1.98	0.45
36:10:67:PRO:HG2	36:10:70:VAL:HG23	1.98	0.45
36:10:69:GLU:H	36:10:69:GLU:CD	2.19	0.45
37:11:3:ARG:HB2	52:26:932:C:OP1	2.16	0.45
38:12:103:VAL:HG23	38:12:123:GLU:O	2.16	0.45
39:13:49:GLN:N	39:13:50:PRO:HD2	2.31	0.45
42:16:27:PRO:O	42:16:28:GLN:CG	2.62	0.45
47:21:70:LYS:NZ	52:26:254:G:O3'	2.45	0.45
52:26:52:C:H2'	52:26:53:A:C8	2.52	0.45
52:26:554:A:H2'	52:26:555:U:C6	2.52	0.45
52:26:596:A:H5'	52:26:596:A:H8	1.82	0.45
53:27:580:U:O2'	53:27:581:C:H5'	2.16	0.45
53:27:918:A:H4'	54:28:97:C:O2	2.17	0.45
53:27:1111:A:C2'	53:27:1112:G:H4'	2.46	0.45
53:27:1351:C:H2'	53:27:1352:U:H6	1.81	0.45
53:27:1495:A:O5'	53:27:1495:A:H8	1.99	0.45
53:27:1656:C:H2'	53:27:1657:U:C6	2.52	0.45
53:27:1695:G:H2'	53:27:1696:G:O4'	2.16	0.45
53:27:1869:G:H3'	53:27:1870:C:C5'	2.46	0.45
53:27:1923:U:H2'	53:27:1924:C:C6	2.51	0.45
53:27:2016:U:H2'	53:27:2017:U:C6	2.51	0.45
53:27:2773:C:H2'	53:27:2774:C:H6	1.82	0.45
57:31:44:A:H2'	57:31:45:G:O4'	2.17	0.45
59:33:101:LYS:CA	59:33:104:VAL:HG12	2.47	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:123:ALA:O	8:H:126:ARG:HB2	2.17	0.45
12:L:34:LYS:HD3	21:U:81:PRO:O	2.17	0.45
13:M:20:MET:HG3	13:M:21:PHE:N	2.32	0.45
14:N:100:HIS:HD2	54:28:48:U:H4'	1.80	0.45
17:Q:9:GLY:O	53:27:996:A:H1'	2.17	0.45
18:R:60:HIS:HD1	18:R:61:ASN:N	2.14	0.45
20:T:27:VAL:CG2	20:T:28:LEU:N	2.79	0.45
20:T:71:ILE:HD12	20:T:95:PHE:CD1	2.52	0.45
22:V:21:ARG:HB3	22:V:33:ILE:HG23	1.97	0.45
28:2:29:LYS:HD2	53:27:2286:G:OP1	2.16	0.45
31:5:11:CYS:SG	31:5:12:ARG:N	2.83	0.45
33:7:51:VAL:HA	33:7:69:THR:OG1	2.15	0.45
38:12:106:SER:HA	52:26:642:A:C8	2.51	0.45
42:16:47:ALA:HB1	52:26:520:A:OP2	2.17	0.45
43:17:16:ILE:H	43:17:16:ILE:CD1	2.29	0.45
43:17:102:LYS:HG3	52:26:1226:C:C4	2.52	0.45
52:26:332:G:O2'	52:26:333:U:H5'	2.17	0.45
52:26:424:G:O2'	52:26:425:G:H5'	2.16	0.45
52:26:831:A:H2'	52:26:832:G:O4'	2.17	0.45
52:26:1347:G:H2'	52:26:1348:U:OP2	2.17	0.45
52:26:1444:U:H2'	52:26:1445:U:C6	2.51	0.45
52:26:1502:A:H8	52:26:1505:G:N2	2.15	0.45
53:27:239:C:H2'	53:27:240:C:O4'	2.17	0.45
53:27:2112:G:N3	53:27:2112:G:H2'	2.31	0.45
53:27:2458:G:H1'	53:27:2460:U:O4	2.16	0.45
58:32:33:U:H2'	58:32:36:U:OP2	2.16	0.45
59:33:259:ILE:O	59:33:263:MET:HG3	2.16	0.45
1:A:86:ARG:NH1	1:A:155:ARG:HH21	2.15	0.45
1:A:257:ARG:HG2	1:A:257:ARG:NH1	2.31	0.45
3:C:60:TRP:HB3	3:C:67:ARG:HH12	1.82	0.45
4:D:130:GLY:HA2	4:D:152:ASP:HA	1.98	0.45
5:E:41:GLU:N	5:E:54:ARG:HB2	2.30	0.45
6:F:134:VAL:HG22	6:F:138:VAL:O	2.16	0.45
7:G:34:THR:HG21	53:27:1057:A:C1'	2.30	0.45
8:H:60:VAL:HA	8:H:66:PHE:HB3	1.99	0.45
12:L:38:ARG:HG3	12:L:98:PRO:HD3	1.99	0.45
13:M:1:MET:HA	53:27:1654:A:OP2	2.17	0.45
15:O:112:ARG:O	15:O:113:LEU:HB2	2.16	0.45
16:P:32:ARG:HG3	53:27:1252:G:N3	2.32	0.45
20:T:45:GLN:HB3	20:T:55:GLY:O	2.17	0.45
21:U:23:ALA:O	21:U:25:LYS:HG3	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1:39:ARG:NH2	53:27:2884:U:H3	2.15	0.45
27:1:54:ILE:HG23	27:1:56:LYS:N	2.27	0.45
32:6:103:TRP:HA	32:6:106:VAL:HB	1.98	0.45
33:7:62:SER:HA	33:7:97:PRO:HG2	1.97	0.45
41:15:39:ASN:ND2	52:26:683:G:H21	2.12	0.45
41:15:71:ASP:C	41:15:73:VAL:N	2.70	0.45
43:17:52:ILE:HG22	43:17:56:ARG:NH1	2.31	0.45
52:26:781:A:OP1	52:26:1523:G:H5'	2.17	0.45
52:26:1015:G:H1'	52:26:1218:C:O2'	2.17	0.45
52:26:1456:A:H2'	52:26:1457:G:O4'	2.17	0.45
53:27:25:U:H2'	53:27:26:G:O4'	2.16	0.45
53:27:301:G:H1'	53:27:302:C:C6	2.52	0.45
53:27:1505:A:H2'	53:27:1506:U:O4'	2.17	0.45
53:27:2073:C:O2'	53:27:2074:U:H5'	2.16	0.45
53:27:2272:U:H5''	53:27:2273:A:OP1	2.17	0.45
53:27:2321:U:H5''	53:27:2322:A:OP2	2.17	0.45
53:27:2417:C:H2'	53:27:2418:A:H8	1.82	0.45
53:27:2689:U:O2	53:27:2713:U:H5''	2.17	0.45
59:33:456:GLN:CG	59:33:457:MET:H	2.28	0.45
59:33:501:ARG:O	59:33:505:ILE:N	2.50	0.45
2:B:27:ILE:HG22	2:B:29:VAL:HG23	1.98	0.45
3:C:108:ILE:HG23	3:C:109:LEU:HD12	1.99	0.45
4:D:73:VAL:O	4:D:78:ILE:HG13	2.16	0.45
4:D:112:ASP:CG	43:17:66:GLY:HA3	2.37	0.45
7:G:43:LYS:HA	7:G:46:ARG:HB3	1.99	0.45
7:G:53:ARG:HB3	7:G:86:MET:N	2.21	0.45
7:G:67:THR:HB	7:G:68:PRO:HD3	1.98	0.45
7:G:107:GLU:HG2	7:G:109:LYS:O	2.16	0.45
8:H:10:LEU:CD1	8:H:26:ALA:HA	2.47	0.45
14:N:28:VAL:HG12	14:N:93:ASP:O	2.16	0.45
16:P:57:ARG:O	16:P:61:ILE:HG13	2.17	0.45
20:T:82:VAL:O	20:T:96:LYS:HD2	2.17	0.45
22:V:45:ALA:O	22:V:47:VAL:HG23	2.16	0.45
26:Z:46:GLY:HA2	26:Z:49:ARG:HH21	1.81	0.45
33:7:50:SER:HB2	33:7:71:ARG:HH12	1.81	0.45
34:8:142:VAL:HG13	34:8:179:GLY:HA3	1.98	0.45
34:8:143:SER:OG	34:8:144:ILE:N	2.50	0.45
40:14:45:ARG:HB2	40:14:69:THR:HB	1.98	0.45
48:22:52:ARG:O	48:22:56:ARG:HG3	2.17	0.45
52:26:785:G:O2'	52:26:786:G:H5'	2.16	0.45
52:26:1301:U:O2	52:26:1301:U:C2'	2.64	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:962:G:H2'	53:27:963:U:C6	2.52	0.45
53:27:1080:A:H2'	53:27:1081:U:C6	2.52	0.45
53:27:1176:U:H2'	53:27:1177:G:N7	2.31	0.45
53:27:1354:A:H2'	53:27:1355:G:O4'	2.17	0.45
53:27:1484:U:O2'	53:27:1485:U:H5'	2.17	0.45
53:27:1877:A:H2'	53:27:1878:G:C8	2.52	0.45
53:27:2020:A:O2'	53:27:2021:C:H5'	2.17	0.45
59:33:30:LYS:C	59:33:33:GLU:HG2	2.37	0.45
59:33:424:PRO:HB3	59:33:455:LEU:HD21	1.98	0.45
2:B:145:SER:O	53:27:2512:C:H1'	2.17	0.45
4:D:89:THR:HG22	4:D:91:ARG:HH11	1.82	0.45
15:O:50:ARG:HG3	15:O:50:ARG:HH11	1.81	0.45
16:P:56:PHE:HZ	53:27:536:G:H4'	1.80	0.45
20:T:85:ARG:HB3	20:T:94:PHE:CE2	2.52	0.45
23:W:15:ASN:HD22	53:27:381:G:C5'	2.30	0.45
34:8:96:ARG:HB2	34:8:99:ASN:HB2	1.99	0.45
36:10:84:VAL:O	36:10:84:VAL:HG12	2.17	0.45
37:11:11:ILE:HD12	37:11:11:ILE:N	2.32	0.45
37:11:26:VAL:HG22	37:11:42:VAL:HG21	1.97	0.45
41:15:71:ASP:O	41:15:72:ALA:HB3	2.17	0.45
51:25:44:ARG:HD2	51:25:47:ALA:HB3	1.99	0.45
52:26:744:C:H2'	52:26:745:G:H8	1.79	0.45
52:26:938:A:H1'	52:26:1376:U:O2'	2.17	0.45
52:26:1011:C:H2'	52:26:1012:A:H8	1.80	0.45
52:26:1107:C:C4	52:26:1108:G:C8	3.05	0.45
53:27:364:C:H2'	53:27:365:U:H6	1.80	0.45
53:27:673:C:O2'	53:27:674:G:H5'	2.17	0.45
53:27:696:G:O2'	53:27:697:G:H5'	2.16	0.45
53:27:708:G:H2'	53:27:709:U:C6	2.52	0.45
53:27:1278:C:H2'	53:27:1279:G:C8	2.52	0.45
53:27:2066:C:O2'	53:27:2067:G:H5'	2.17	0.45
53:27:2455:G:H2'	53:27:2456:C:C6	2.52	0.45
53:27:2534:A:H2'	53:27:2535:G:O4'	2.17	0.45
53:27:2641:G:H2'	53:27:2642:G:H8	1.80	0.45
54:28:4:C:C5'	54:28:4:C:H6	2.30	0.45
54:28:85:G:H2'	54:28:86:G:C8	2.52	0.45
57:31:34:C:H2'	57:31:35:A:C8	2.52	0.45
59:33:233:VAL:O	59:33:237:ARG:HG3	2.17	0.45
59:33:293:LEU:HD23	59:33:293:LEU:C	2.37	0.45
59:33:696:GLY:N	59:33:713:THR:OG1	2.48	0.45
1:A:259:ASN:C	1:A:261:ARG:H	2.19	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:49:GLN:HE22	2:B:79:LEU:HD13	1.82	0.45
8:H:12:VAL:HG11	8:H:37:PHE:CE2	2.52	0.45
8:H:33:ASN:HB3	8:H:35:MET:HG3	1.98	0.45
9:I:113:PRO:HG3	53:27:529:A:OP2	2.17	0.45
9:I:136:GLN:HE21	53:27:2899:A:C5'	2.29	0.45
11:K:22:GLY:H	53:27:811:U:H2'	1.82	0.45
18:R:57:ASN:OD1	53:27:495:G:H1'	2.17	0.45
31:5:14:CYS:SG	31:5:33:HIS:ND1	2.90	0.45
32:6:23:ASN:ND2	32:6:190:SER:O	2.39	0.45
33:7:22:PHE:HA	40:14:13:PHE:CE2	2.52	0.45
34:8:169:TRP:CE2	34:8:185:PRO:HG3	2.51	0.45
37:11:132:THR:O	37:11:135:LYS:HB3	2.16	0.45
42:16:32:VAL:HB	42:16:55:ARG:HB3	1.99	0.45
51:25:67:THR:O	52:26:1167:A:C8	2.70	0.45
52:26:40:C:H2'	52:26:41:G:H8	1.82	0.45
52:26:41:G:H2'	52:26:42:G:C8	2.52	0.45
52:26:125:U:H2'	52:26:126:G:O4'	2.17	0.45
52:26:1007:U:H2'	52:26:1008:U:H6	1.82	0.45
53:27:53:A:C8	53:27:54:G:C8	3.05	0.45
53:27:275:C:H2'	53:27:276:U:H4'	1.98	0.45
53:27:532:A:N1	53:27:2020:A:H1'	2.32	0.45
53:27:593:U:H2'	53:27:594:U:C6	2.52	0.45
53:27:1178:C:H2'	53:27:1179:G:C8	2.51	0.45
53:27:1675:C:H2'	53:27:1676:A:O4'	2.17	0.45
53:27:1721:G:HO2'	53:27:1722:A:H8	1.61	0.45
53:27:1812:U:H2'	53:27:1813:G:C8	2.51	0.45
53:27:1930:G:C2'	53:27:1931:U:OP2	2.65	0.45
53:27:2221:G:C2'	53:27:2222:C:H5'	2.47	0.45
53:27:2294:G:H2'	53:27:2295:C:H6	1.81	0.45
53:27:2453:A:H2'	53:27:2454:G:H8	1.82	0.45
57:31:68:C:H2'	57:31:69:C:C6	2.52	0.45
59:33:191:ILE:CG2	59:33:194:LEU:HD13	2.47	0.45
59:33:639:GLU:H	59:33:639:GLU:CD	2.20	0.45
1:A:103:ILE:HD12	1:A:103:ILE:O	2.17	0.44
3:C:190:ALA:O	3:C:193:VAL:HB	2.17	0.44
7:G:37:LYS:HZ1	7:G:52:MET:HE3	1.82	0.44
14:N:100:HIS:H	14:N:103:VAL:CG2	2.31	0.44
19:S:13:ALA:HB1	24:X:33:ALA:HB1	1.98	0.44
31:5:1:MET:CG	31:5:2:LYS:H	2.08	0.44
33:7:173:PRO:HB2	33:7:176:THR:OG1	2.17	0.44
39:13:34:LEU:CD1	39:13:47:VAL:HG11	2.46	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:13:105:ARG:HG2	52:26:1118:U:H5'	1.99	0.44
41:15:122:PRO:HB2	51:25:33:ARG:HA	1.98	0.44
51:25:5:VAL:HB	51:25:18:PHE:CE2	2.51	0.44
51:25:20:ARG:NH1	55:29:7:G:H22	2.15	0.44
51:25:36:PHE:HD1	51:25:40:PRO:HD3	1.82	0.44
52:26:1123:U:O2'	52:26:1124:G:H5'	2.16	0.44
52:26:1255:G:H2'	52:26:1279:G:H1	1.82	0.44
53:27:1036:G:C6	53:27:1120:G:C6	3.05	0.44
53:27:1161:C:H2'	53:27:1162:G:C8	2.52	0.44
53:27:1326:U:H5'	53:27:2011:U:H1'	1.99	0.44
53:27:1429:G:H2'	53:27:1430:G:H8	1.82	0.44
53:27:2048:G:H1'	53:27:2823:A:N6	2.32	0.44
53:27:2814:A:H2'	53:27:2815:C:C6	2.51	0.44
54:28:64:G:H2'	54:28:65:U:H6	1.82	0.44
56:30:48:C:P	56:30:48:C:H6	2.40	0.44
59:33:47:GLN:HE22	59:33:87:ALA:HB1	1.82	0.44
59:33:274:PHE:CE1	59:33:277:ARG:NH1	2.85	0.44
2:B:59:ARG:HH11	53:27:2830:C:H3'	1.82	0.44
2:B:124:ARG:NE	2:B:125:TRP:HE1	2.10	0.44
3:C:148:ILE:HA	3:C:187:VAL:HG13	1.98	0.44
4:D:134:GLN:HB3	4:D:149:ARG:O	2.17	0.44
4:D:139:GLU:HG2	26:Z:27:THR:HG22	1.97	0.44
5:E:157:LYS:HB2	5:E:159:LYS:HG3	1.98	0.44
6:F:90:LEU:HD22	6:F:123:ARG:HA	1.99	0.44
8:H:2:LYS:HB3	8:H:7:TYR:CE2	2.52	0.44
11:K:75:ALA:HB2	11:K:105:ILE:HD12	1.98	0.44
21:U:51:GLN:OE1	21:U:86:LEU:HD21	2.17	0.44
22:V:14:ALA:HB2	53:27:2272:U:OP2	2.18	0.44
29:3:30:VAL:HA	29:3:33:ARG:NH2	2.32	0.44
32:6:29:PHE:CG	32:6:200:PRO:HG2	2.52	0.44
33:7:82:ASP:O	33:7:85:LYS:HB3	2.17	0.44
34:8:139:ASN:N	34:8:181:PHE:O	2.49	0.44
35:9:86:GLY:O	35:9:138:ALA:HB1	2.17	0.44
37:11:33:GLY:O	37:11:35:LYS:N	2.44	0.44
39:13:24:ASN:OD1	39:13:25:GLY:N	2.50	0.44
41:15:21:HIS:CD2	52:26:707:U:H5''	2.52	0.44
52:26:185:U:H2'	52:26:186:C:C6	2.52	0.44
52:26:543:U:H2'	52:26:544:G:C8	2.52	0.44
52:26:1426:G:H2'	52:26:1427:C:H6	1.83	0.44
53:27:570:G:H2'	53:27:2030:A:C8	2.52	0.44
53:27:1111:A:C2	53:27:1112:G:H1'	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2314:A:H2'	53:27:2315:G:C8	2.52	0.44
53:27:2472:G:H2'	53:27:2475:C:H42	1.82	0.44
53:27:2849:U:H4'	53:27:2850:A:H5'	1.99	0.44
56:30:13:C:H2'	56:30:13:C:O2	2.16	0.44
59:33:20:TRP:CD1	59:33:64:GLU:N	2.85	0.44
59:33:161:ARG:C	59:33:162:GLU:HG2	2.37	0.44
59:33:334:VAL:HG13	59:33:334:VAL:O	2.18	0.44
1:A:132:ARG:HG2	1:A:166:ARG:NE	2.22	0.44
3:C:19:PHE:O	3:C:110:SER:HA	2.18	0.44
7:G:22:ALA:HB3	7:G:88:HIS:HA	1.98	0.44
11:K:82:LEU:HD23	11:K:82:LEU:C	2.38	0.44
13:M:69:ARG:O	13:M:70:THR:OG1	2.33	0.44
13:M:92:GLY:O	53:27:2880:C:H1'	2.17	0.44
18:R:69:LEU:HG	18:R:107:VAL:CG2	2.48	0.44
21:U:65:VAL:O	21:U:67:GLY:N	2.50	0.44
36:10:29:ILE:HG13	36:10:30:THR:H	1.81	0.44
36:10:35:LYS:NZ	36:10:37:HIS:HE1	2.14	0.44
38:12:12:ARG:HH11	38:12:26:MET:CB	2.30	0.44
42:16:113:ARG:HH21	42:16:120:ARG:CD	2.30	0.44
43:17:108:ARG:HH11	43:17:108:ARG:HG3	1.82	0.44
52:26:483:C:H2'	52:26:484:G:C8	2.52	0.44
52:26:843:U:OP2	52:26:846:G:N3	2.50	0.44
53:27:211:C:H2'	53:27:212:G:C8	2.52	0.44
53:27:230:G:O2'	53:27:231:A:H5'	2.17	0.44
53:27:478:A:N1	53:27:500:G:H4'	2.33	0.44
53:27:1458:U:H4'	53:27:1459:G:C4	2.52	0.44
53:27:2093:G:N7	53:27:2225:A:H2'	2.32	0.44
53:27:2168:G:H1'	58:32:56:C:N3	2.32	0.44
53:27:2171:A:O2'	53:27:2172:U:H5'	2.16	0.44
53:27:2673:G:H2'	53:27:2674:G:C8	2.51	0.44
56:30:13:C:H2'	56:30:14:A:C5'	2.47	0.44
56:30:14:A:H2'	56:30:15:G:C8	2.36	0.44
58:32:19:G:H3'	58:32:20:U:C6	2.53	0.44
59:33:20:TRP:NE1	59:33:63:VAL:O	2.45	0.44
2:B:58:ASN:H	2:B:60:VAL:HG12	1.81	0.44
4:D:62:GLN:HE21	4:D:88:VAL:HG13	1.82	0.44
6:F:63:ALA:HB1	6:F:135:HIS:NE2	2.31	0.44
7:G:23:LEU:HD21	7:G:119:PRO:CG	2.47	0.44
8:H:16:MET:HE1	8:H:51:GLY:HA2	1.99	0.44
8:H:41:PHE:CE1	8:H:45:THR:HG21	2.53	0.44
10:J:32:TYR:OH	53:27:1996:C:H5	2.01	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:22:GLY:O	11:K:28:GLY:HA3	2.17	0.44
18:R:5:ALA:O	18:R:50:VAL:HG13	2.17	0.44
18:R:43:ALA:O	18:R:47:VAL:HG12	2.17	0.44
27:1:54:ILE:HG12	27:1:56:LYS:HB3	1.99	0.44
33:7:22:PHE:HA	40:14:13:PHE:HE2	1.81	0.44
38:12:17:GLN:HG3	38:12:71:VAL:HB	2.00	0.44
42:16:70:GLY:O	42:16:98:ARG:NH2	2.50	0.44
44:18:38:GLU:O	44:18:41:TRP:HB3	2.18	0.44
45:19:35:ILE:HD13	45:19:59:VAL:HG22	2.00	0.44
50:24:54:GLN:HG2	52:26:193:C:H4'	1.99	0.44
51:25:3:ILE:CA	51:25:19:LYS:HZ2	2.31	0.44
52:26:354:G:O2'	52:26:355:C:H5'	2.16	0.44
52:26:591:U:H2'	52:26:592:G:C8	2.51	0.44
52:26:1417:G:N2	52:26:1482:G:H2'	2.33	0.44
53:27:150:U:H2'	53:27:151:C:H6	1.81	0.44
53:27:488:G:H1'	53:27:492:A:N6	2.32	0.44
53:27:857:G:H2'	53:27:858:G:O4'	2.17	0.44
53:27:968:C:H2'	53:27:969:G:H8	1.81	0.44
53:27:1372:U:O2'	53:27:1373:A:H5'	2.18	0.44
53:27:2701:U:H3'	53:27:2702:G:H5''	1.99	0.44
54:28:12:C:H1'	54:28:15:A:C2	2.53	0.44
55:29:20:U:H2'	55:29:21:C:C6	2.53	0.44
57:31:35:A:H2'	57:31:36:U:C6	2.53	0.44
59:33:60:VAL:O	59:33:63:VAL:CG2	2.64	0.44
59:33:325:VAL:HG12	59:33:332:LYS:O	2.18	0.44
59:33:411:PRO:HD3	59:33:461:ILE:O	2.18	0.44
4:D:139:GLU:HA	26:Z:28:VAL:HG11	2.00	0.44
8:H:12:VAL:HG11	8:H:37:PHE:CZ	2.53	0.44
11:K:109:LYS:HA	11:K:126:ARG:O	2.18	0.44
11:K:123:ARG:HA	11:K:144:GLU:OXT	2.17	0.44
11:K:132:ARG:HA	11:K:142:ILE:CD1	2.47	0.44
12:L:35:ALA:HB1	12:L:126:ILE:HD12	1.98	0.44
15:O:1:SER:O	15:O:3:ILE:N	2.51	0.44
20:T:1:ALA:N	53:27:83:A:H5''	2.32	0.44
24:X:2:LYS:CE	53:27:102:U:H1'	2.41	0.44
32:6:42:LEU:HA	32:6:45:THR:HB	2.00	0.44
33:7:24:ASN:O	33:7:28:PHE:HB2	2.18	0.44
33:7:131:ARG:HD3	33:7:135:ARG:HH21	1.83	0.44
34:8:123:MET:SD	34:8:126:GLY:HA2	2.57	0.44
42:16:49:ARG:HB3	42:16:65:TYR:HE1	1.82	0.44
42:16:73:LEU:CD2	42:16:79:ILE:HD13	2.48	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:20:78:VAL:CG1	46:20:79:ASN:H	2.26	0.44
52:26:189:A:H2'	52:26:190:A:C8	2.53	0.44
52:26:319:G:H2'	52:26:320:A:C8	2.52	0.44
52:26:460:A:H2'	52:26:461:A:H8	1.81	0.44
52:26:1071:C:H2'	52:26:1072:G:H8	1.83	0.44
52:26:1128:C:C2'	52:26:1129:C:H5'	2.47	0.44
53:27:115:C:O2'	53:27:116:C:H5'	2.17	0.44
53:27:329:G:O4'	53:27:477:A:H1'	2.18	0.44
53:27:449:A:O2'	53:27:450:G:H5'	2.16	0.44
53:27:825:A:H2'	53:27:826:U:H6	1.82	0.44
53:27:1259:G:H2'	53:27:1260:A:H8	1.82	0.44
53:27:1405:U:O2'	53:27:1406:U:H5'	2.17	0.44
53:27:1494:A:H2'	53:27:1495:A:C8	2.52	0.44
53:27:2114:A:H3'	53:27:2115:G:O4'	2.17	0.44
53:27:2289:G:H2'	53:27:2290:G:H8	1.82	0.44
53:27:2419:U:H2'	53:27:2420:C:C6	2.53	0.44
53:27:2533:U:H2'	53:27:2534:A:O4'	2.17	0.44
54:28:114:C:H2'	54:28:115:A:C8	2.52	0.44
57:31:67:C:H2'	57:31:68:C:C6	2.53	0.44
58:32:9:G:H2'	58:32:11:A:H62	1.82	0.44
59:33:78:ALA:CB	59:33:151:ILE:HD13	2.47	0.44
59:33:172:VAL:CG2	59:33:176:LYS:HE2	2.48	0.44
59:33:279:VAL:HG13	59:33:336:ILE:HA	1.99	0.44
59:33:293:LEU:HD11	59:33:307:PHE:CZ	2.51	0.44
59:33:466:GLN:HG2	59:33:467:LYS:N	2.33	0.44
59:33:634:HIS:HB3	59:33:641:LEU:HD12	1.99	0.44
1:A:47:ARG:NH2	53:27:774:G:H5''	2.33	0.44
2:B:129:THR:HG22	2:B:130:GLN:O	2.18	0.44
2:B:161:MET:CE	53:27:2050:C:H1'	2.48	0.44
6:F:65:ALA:CA	6:F:68:ARG:HH11	2.30	0.44
6:F:70:GLU:HB2	6:F:134:VAL:HG11	1.99	0.44
6:F:84:ALA:HA	6:F:91:PHE:N	2.32	0.44
11:K:57:LEU:HD13	11:K:60:ARG:HH12	1.82	0.44
19:S:69:ARG:HA	19:S:74:ILE:HA	2.00	0.44
20:T:25:LYS:HD3	20:T:36:GLU:OE2	2.18	0.44
30:4:51:LYS:HE3	30:4:51:LYS:HB2	1.81	0.44
34:8:29:THR:C	34:8:31:CYS:N	2.71	0.44
34:8:33:ILE:HG12	34:8:34:GLU:H	1.81	0.44
34:8:151:GLN:HG3	52:26:437:U:H5''	1.98	0.44
51:25:36:PHE:CD1	51:25:40:PRO:HG3	2.53	0.44
52:26:291:U:O2'	52:26:292:G:H5'	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:575:G:O2'	52:26:821:G:H5'	2.17	0.44
52:26:1441:A:H2'	52:26:1441:A:N3	2.32	0.44
52:26:1488:G:H2'	52:26:1489:G:H8	1.81	0.44
52:26:1490:U:O2'	52:26:1491:G:H5'	2.18	0.44
53:27:280:U:H2'	53:27:281:C:N1	2.32	0.44
53:27:570:G:OP1	53:27:972:A:H4'	2.17	0.44
53:27:860:U:H2'	53:27:861:A:H8	1.82	0.44
53:27:1079:C:H2'	53:27:1080:A:C8	2.53	0.44
53:27:1444:G:C4	53:27:1445:G:C8	3.06	0.44
53:27:1936:A:H3'	53:27:1937:A:H5'	1.99	0.44
53:27:2114:A:N3	53:27:2114:A:H2'	2.33	0.44
54:28:18:G:H2'	54:28:19:C:C6	2.52	0.44
58:32:41:C:H2'	58:32:42:G:C8	2.52	0.44
59:33:214:ILE:HG21	59:33:214:ILE:HD13	1.78	0.44
1:A:28:PRO:HG3	1:A:62:ARG:NH2	2.33	0.44
6:F:29:PHE:HB2	53:27:2198:A:N3	2.33	0.44
7:G:40:GLU:OE2	7:G:43:LYS:HD3	2.16	0.44
7:G:54:VAL:HB	7:G:84:TYR:O	2.18	0.44
7:G:88:HIS:HB3	7:G:89:PRO:CD	2.41	0.44
8:H:27:LEU:HD11	8:H:34:ILE:N	2.33	0.44
8:H:102:ARG:NH1	8:H:139:VAL:O	2.51	0.44
13:M:117:ASP:O	13:M:118:ARG:HB2	2.17	0.44
16:P:57:ARG:HH21	16:P:91:ARG:CZ	2.30	0.44
17:Q:34:GLU:HA	17:Q:59:ILE:O	2.18	0.44
22:V:16:ARG:HD3	53:27:2356:U:O3'	2.18	0.44
23:W:69:GLU:O	23:W:72:ALA:HB3	2.18	0.44
25:Y:11:SER:HB2	53:27:988:A:H3'	2.00	0.44
32:6:180:ILE:HD12	32:6:180:ILE:N	2.32	0.44
33:7:108:PRO:HA	33:7:114:LEU:CD1	2.45	0.44
37:11:91:ARG:O	37:11:95:ARG:N	2.47	0.44
49:23:69:LYS:HE3	52:26:1319:A:H5''	1.99	0.44
51:25:20:ARG:NH1	52:26:1538:C:O2	2.50	0.44
52:26:285:C:H2'	52:26:286:C:C6	2.53	0.44
52:26:1127:G:O2'	52:26:1128:C:H5'	2.18	0.44
52:26:1251:A:O2'	52:26:1370:G:H5'	2.18	0.44
53:27:156:A:H2'	53:27:157:C:C6	2.52	0.44
53:27:406:G:H2'	53:27:407:G:C8	2.52	0.44
53:27:656:G:H2'	53:27:657:U:O4'	2.18	0.44
53:27:948:C:OP1	53:27:962:G:OP1	2.35	0.44
53:27:1824:G:H2'	53:27:1825:U:O4'	2.18	0.44
53:27:2849:U:H1'	53:27:2866:U:O2	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:63:VAL:CG1	59:33:80:LEU:N	2.80	0.44
59:33:240:MET:HB2	59:33:245:VAL:HG13	2.00	0.44
4:D:100:GLU:C	4:D:102:LEU:H	2.21	0.44
6:F:5:LEU:HD23	6:F:15:LEU:H	1.82	0.44
7:G:45:GLY:HA2	7:G:49:GLY:HA2	1.99	0.44
10:J:19:VAL:HG12	10:J:43:ILE:HA	2.00	0.44
11:K:4:ASN:O	53:27:1243:C:HI'	2.17	0.44
17:Q:45:GLU:HG3	17:Q:46:GLU:H	1.82	0.44
25:Y:23:LEU:HD11	25:Y:53:MET:SD	2.57	0.44
26:Z:55:GLY:O	26:Z:56:ARG:HD2	2.18	0.44
30:4:8:GLY:O	30:4:12:ARG:NH2	2.50	0.44
30:4:14:LYS:HB2	30:4:22:LYS:HG2	2.00	0.44
32:6:206:ILE:HG13	32:6:207:ARG:H	1.81	0.44
33:7:64:ARG:HG2	33:7:99:GLN:CB	2.38	0.44
33:7:178:ARG:HH21	52:26:1112:C:C4'	2.29	0.44
39:13:89:TYR:HB2	39:13:93:LEU:CD1	2.47	0.44
39:13:89:TYR:HB2	39:13:93:LEU:HD12	1.99	0.44
43:17:10:ASP:CB	43:17:45:SER:HB3	2.46	0.44
44:18:80:ARG:NH1	44:18:80:ARG:HG3	2.33	0.44
45:19:45:HIS:O	45:19:46:LYS:HB2	2.18	0.44
47:21:51:GLU:HG3	47:21:51:GLU:O	2.17	0.44
49:23:35:ARG:HE	49:23:71:GLY:HA2	1.81	0.44
52:26:909:A:H2'	52:26:910:C:O4'	2.18	0.44
53:27:466:A:N3	53:27:683:U:H1'	2.32	0.44
53:27:521:U:H2'	53:27:522:A:C8	2.53	0.44
53:27:566:U:H2'	53:27:567:U:O4'	2.18	0.44
53:27:715:A:H8	53:27:715:A:OP1	2.00	0.44
53:27:834:G:H1'	53:27:2358:A:N3	2.33	0.44
53:27:947:A:H2'	53:27:948:C:H6	1.83	0.44
53:27:969:G:H2'	53:27:970:U:O4'	2.18	0.44
53:27:1047:G:N2	53:27:1110:G:H2'	2.33	0.44
53:27:1528:A:C2'	53:27:1529:G:H5'	2.48	0.44
53:27:1971:U:H5'	53:27:1972:G:H5''	1.99	0.44
53:27:2163:A:C2'	53:27:2164:C:H5'	2.47	0.44
53:27:2417:C:H2'	53:27:2418:A:C8	2.52	0.44
53:27:2626:C:H2'	53:27:2627:G:C8	2.53	0.44
53:27:2846:G:H2'	53:27:2847:U:O4'	2.17	0.44
59:33:20:TRP:CE2	59:33:63:VAL:CB	2.93	0.44
4:D:61:GLY:O	26:Z:7:PRO:HD2	2.18	0.44
4:D:91:ARG:HG2	54:28:43:C:O2'	2.18	0.44
6:F:6:LEU:HD23	6:F:6:LEU:O	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:40:THR:HB	6:F:43:ASN:ND2	2.33	0.44
9:I:47:HIS:CE1	9:I:48:VAL:HG23	2.52	0.44
12:L:35:ALA:O	12:L:99:GLY:N	2.46	0.44
13:M:55:ALA:HB2	13:M:79:LEU:HD23	1.99	0.44
16:P:5:ARG:HD2	53:27:1250:G:C5'	2.44	0.44
19:S:61:LEU:C	19:S:61:LEU:HD12	2.37	0.44
20:T:42:LYS:HG3	53:27:499:U:H5''	2.00	0.44
21:U:6:ALA:HB1	21:U:40:ILE:CG2	2.48	0.44
24:X:43:LEU:HD21	24:X:47:ARG:HH22	1.83	0.44
29:3:10:LEU:CD1	29:3:14:ARG:HH22	2.31	0.44
33:7:11:LEU:HD13	33:7:17:TRP:NE1	2.33	0.44
34:8:101:VAL:HG13	34:8:106:PHE:HB2	2.00	0.44
36:10:92:THR:OG1	36:10:93:LYS:N	2.51	0.44
37:11:128:GLU:HG3	37:11:130:LYS:HG2	2.00	0.44
38:12:55:LYS:N	38:12:56:PRO:HD3	2.32	0.44
45:19:23:SER:OG	45:19:26:VAL:HG23	2.18	0.44
50:24:23:ARG:HH12	52:26:176:C:C5'	2.29	0.44
52:26:629:A:H2'	52:26:630:A:O4'	2.18	0.44
52:26:837:U:H2'	52:26:838:G:H8	1.83	0.44
53:27:149:A:H2'	53:27:150:U:C6	2.53	0.44
53:27:151:C:H2'	53:27:152:A:H8	1.82	0.44
53:27:634:C:H6	53:27:634:C:O5'	2.01	0.44
53:27:1495:A:H2'	53:27:1496:A:O4'	2.18	0.44
53:27:2588:G:O2'	53:27:2589:A:H5'	2.18	0.44
54:28:39:A:H2'	54:28:40:U:C6	2.52	0.44
59:33:438:ARG:HD2	59:33:466:GLN:C	2.38	0.44
3:C:31:VAL:HG21	3:C:104:ALA:CB	2.47	0.43
7:G:59:LEU:CD2	53:27:1047:G:H2'	2.48	0.43
20:T:6:ARG:HB2	53:27:85:G:P	2.58	0.43
32:6:74:ALA:CB	32:6:206:ILE:HG22	2.48	0.43
34:8:33:ILE:O	34:8:34:GLU:C	2.56	0.43
34:8:96:ARG:O	34:8:100:VAL:N	2.48	0.43
39:13:25:GLY:N	39:13:58:GLU:O	2.51	0.43
39:13:41:GLU:OE1	39:13:41:GLU:N	2.51	0.43
40:14:44:THR:OG1	52:26:1151:A:H5''	2.18	0.43
40:14:53:ILE:HG23	52:26:1060:U:H4'	2.00	0.43
40:14:62:ARG:NH2	52:26:1366:C:O2'	2.51	0.43
43:17:66:GLY:O	43:17:69:ARG:HB2	2.17	0.43
44:18:13:VAL:HA	44:18:59:GLN:NE2	2.19	0.43
47:21:3:LYS:C	47:21:4:ILE:HG13	2.39	0.43
49:23:68:HIS:HB3	49:23:72:GLU:OE1	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:231:U:H2'	52:26:232:G:C8	2.45	0.43
53:27:4:U:H2'	53:27:5:A:H8	1.84	0.43
53:27:131:A:H2'	53:27:132:G:C8	2.53	0.43
53:27:337:C:H2'	53:27:338:G:O4'	2.18	0.43
53:27:339:U:O5'	53:27:339:U:H6	2.01	0.43
53:27:983:A:N6	53:27:984:A:C2	2.86	0.43
53:27:1092:C:O2'	53:27:1093:G:H5'	2.18	0.43
53:27:1379:U:C6	53:27:1379:U:OP1	2.71	0.43
53:27:1745:A:O2'	53:27:1746:A:H5'	2.18	0.43
53:27:1784:A:H4'	53:27:1785:A:O5'	2.18	0.43
53:27:2030:A:C2	53:27:2499:C:H5''	2.53	0.43
54:28:82:U:H2'	54:28:83:G:H8	1.83	0.43
56:30:30:G:H2'	56:30:31:A:C8	2.53	0.43
59:33:24:LEU:CD1	59:33:67:SER:O	2.66	0.43
59:33:210:GLU:OE1	59:33:210:GLU:HA	2.17	0.43
59:33:241:LYS:CD	59:33:246:LYS:HZ3	2.30	0.43
59:33:300:TYR:CE1	59:33:329:PRO:CD	2.92	0.43
59:33:634:HIS:CE1	59:33:640:GLN:HB2	2.53	0.43
3:C:176:ASP:HA	3:C:177:PRO:HD3	1.90	0.43
4:D:56:LEU:HD22	4:D:88:VAL:CG2	2.46	0.43
4:D:114:ARG:HH11	43:17:70:ARG:NH1	2.16	0.43
6:F:40:THR:O	6:F:42:LYS:N	2.51	0.43
7:G:53:ARG:HD3	7:G:53:ARG:HA	1.63	0.43
10:J:6:THR:O	10:J:20:MET:HA	2.17	0.43
10:J:41:ILE:C	10:J:41:ILE:HD12	2.39	0.43
11:K:13:LYS:HG3	53:27:1245:G:OP1	2.18	0.43
11:K:48:ARG:NH1	30:4:6:VAL:HG23	2.34	0.43
14:N:66:GLY:C	14:N:102:ARG:HD3	2.38	0.43
19:S:68:LYS:HD3	19:S:68:LYS:HA	1.86	0.43
26:Z:16:CYS:HB3	26:Z:34:LEU:HB2	2.00	0.43
27:1:12:ARG:HD2	27:1:16:ARG:NH2	2.33	0.43
29:3:25:LYS:NZ	53:27:211:C:P	2.92	0.43
33:7:96:VAL:CB	33:7:97:PRO:HD2	2.31	0.43
35:9:32:PHE:O	35:9:51:LYS:HA	2.18	0.43
36:10:43:GLY:HA2	36:10:58:HIS:CE1	2.53	0.43
37:11:106:ALA:HB1	37:11:132:THR:HB	2.00	0.43
39:13:117:LEU:CD2	39:13:123:ARG:HE	2.31	0.43
39:13:118:ARG:H	39:13:124:PRO:HD3	1.82	0.43
40:14:86:ALA:C	40:14:90:LEU:HD12	2.39	0.43
41:15:85:VAL:HG22	41:15:111:ASP:HA	2.00	0.43
47:21:19:SER:HB3	47:21:70:LYS:HZ3	1.83	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:23:35:ARG:HG2	49:23:50:VAL:CG1	2.48	0.43
50:24:41:GLY:HA2	50:24:85:LEU:HD21	2.00	0.43
50:24:44:ALA:O	50:24:47:GLN:HB3	2.18	0.43
52:26:112:G:H21	52:26:354:G:C5'	2.21	0.43
52:26:148:G:C3'	52:26:149:A:H5''	2.47	0.43
52:26:296:U:H2'	52:26:297:G:C8	2.53	0.43
52:26:1144:G:N2	52:26:1146:A:H62	2.08	0.43
52:26:1486:G:H2'	52:26:1487:G:O4'	2.19	0.43
52:26:1518:A:H2'	52:26:1519:A:O4'	2.18	0.43
52:26:1520:C:O2'	52:26:1521:C:H5'	2.18	0.43
53:27:15:G:O2'	53:27:16:C:H5'	2.19	0.43
53:27:410:G:OP1	53:27:411:G:H5'	2.18	0.43
53:27:622:G:H2'	53:27:623:C:C6	2.53	0.43
53:27:1028:A:H2'	53:27:1029:A:C8	2.53	0.43
53:27:2285:C:O2'	53:27:2287:A:H1'	2.17	0.43
53:27:2314:A:H2'	53:27:2315:G:H8	1.83	0.43
53:27:2832:U:H1'	53:27:2834:G:N3	2.33	0.43
53:27:2889:C:H2'	53:27:2890:G:O4'	2.19	0.43
54:28:77:U:O2'	54:28:78:A:H5'	2.17	0.43
58:32:29:G:C3'	58:32:30:G:H5''	2.41	0.43
1:A:237:ARG:HG3	53:27:2591:C:OP1	2.18	0.43
2:B:151:THR:HB	2:B:152:PRO:CD	2.43	0.43
3:C:99:LYS:HZ3	53:27:601:C:H4'	1.81	0.43
9:I:65:THR:HG1	53:27:1141:U:H6	1.64	0.43
15:O:8:GLU:HB3	15:O:54:LEU:HB2	2.01	0.43
18:R:7:HIS:ND1	18:R:10:ALA:HB2	2.33	0.43
23:W:42:GLU:HB2	23:W:44:ARG:HG2	2.00	0.43
24:X:20:ASN:O	24:X:24:GLU:N	2.49	0.43
40:14:15:HIS:HA	40:14:18:ILE:CG2	2.47	0.43
43:17:67:ASP:HA	43:17:70:ARG:NH1	2.33	0.43
50:24:48:LYS:HA	50:24:51:ASN:HD22	1.83	0.43
52:26:751:U:C2'	52:26:752:G:H5'	2.48	0.43
52:26:1186:G:H2'	52:26:1187:G:O4'	2.19	0.43
52:26:1314:C:H2'	52:26:1315:U:C6	2.53	0.43
52:26:1453:G:H3'	52:26:1453:G:N3	2.33	0.43
53:27:365:U:H2'	53:27:366:C:O4'	2.18	0.43
53:27:465:G:H21	53:27:684:G:H1'	1.83	0.43
53:27:1316:U:H2'	53:27:1317:G:H8	1.83	0.43
53:27:1846:G:H2'	53:27:1847:G:H1'	2.01	0.43
58:32:48:C:H2'	58:32:59:A:H1'	2.01	0.43
59:33:61:GLU:HA	59:33:64:GLU:HG2	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:621:ILE:HG13	59:33:655:ALA:CB	2.48	0.43
59:33:670:ARG:HA	59:33:711:ASP:OD1	2.18	0.43
4:D:152:ASP:OD1	4:D:152:ASP:N	2.50	0.43
5:E:154:GLU:O	5:E:158:GLY:HA2	2.18	0.43
6:F:49:ALA:O	6:F:53:GLU:HB3	2.18	0.43
6:F:96:THR:HA	6:F:99:ILE:HD12	2.00	0.43
11:K:79:LEU:HB2	11:K:114:GLY:H	1.83	0.43
15:O:23:ASP:OD1	15:O:89:GLY:N	2.52	0.43
16:P:57:ARG:HD2	53:27:997:G:OP2	2.18	0.43
17:Q:34:GLU:HB3	17:Q:58:VAL:HG22	2.00	0.43
26:Z:47:LYS:O	26:Z:50:ASP:HB3	2.18	0.43
37:11:92:PRO:O	37:11:95:ARG:HB3	2.18	0.43
42:16:85:ARG:HG2	42:16:87:LYS:H	1.82	0.43
43:17:15:VAL:CG2	43:17:40:GLU:HB2	2.49	0.43
43:17:56:ARG:O	43:17:59:VAL:HG22	2.19	0.43
43:17:114:PRO:HD2	52:26:1228:C:C5'	2.45	0.43
49:23:9:PHE:CE2	49:23:36:ARG:HD3	2.53	0.43
51:25:11:PHE:O	51:25:13:VAL:N	2.52	0.43
51:25:64:ALA:O	51:25:65:ARG:CB	2.66	0.43
52:26:383:A:H8	52:26:383:A:O5'	2.01	0.43
52:26:710:G:O2'	52:26:711:G:H5'	2.19	0.43
52:26:1064:G:O2'	52:26:1190:G:N2	2.51	0.43
52:26:1073:U:H2'	52:26:1074:G:H8	1.83	0.43
52:26:1116:U:O2'	52:26:1117:A:H5'	2.19	0.43
52:26:1254:A:H2'	52:26:1255:G:H8	1.84	0.43
53:27:814:C:H2'	53:27:815:C:C6	2.52	0.43
53:27:925:A:H2'	53:27:926:G:C8	2.54	0.43
53:27:1495:A:H2'	53:27:1496:A:C8	2.54	0.43
53:27:1801:A:H5''	53:27:2203:U:H2'	1.99	0.43
53:27:1956:U:C2'	53:27:1957:C:H5'	2.47	0.43
53:27:2151:U:H2'	53:27:2152:G:C8	2.54	0.43
53:27:2604:U:H2'	53:27:2605:U:H6	1.83	0.43
53:27:2853:C:H2'	53:27:2854:G:H8	1.83	0.43
54:28:118:C:H2'	54:28:119:A:C8	2.52	0.43
56:30:76:A:O4'	59:33:412:LYS:HG3	2.19	0.43
59:33:99:VAL:HG11	59:33:103:VAL:CG1	2.48	0.43
59:33:286:LEU:CD2	59:33:343:MET:HE1	2.48	0.43
59:33:666:SER:CA	59:33:715:GLU:HA	2.48	0.43
3:C:21:ARG:HD2	3:C:106:LYS:HE2	2.00	0.43
3:C:90:GLN:HE21	3:C:92:HIS:CD2	2.37	0.43
4:D:97:GLU:OE1	26:Z:25:ARG:HB2	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:129:LEU:N	7:G:130:PRO:HD3	2.32	0.43
9:I:124:VAL:CG1	9:I:125:TYR:N	2.82	0.43
11:K:38:GLN:HB2	53:27:831:G:O2'	2.17	0.43
13:M:48:VAL:O	13:M:51:LEU:N	2.50	0.43
13:M:106:ASP:OD2	53:27:1287:A:N7	2.51	0.43
16:P:42:GLY:HA3	17:Q:75:VAL:HG21	2.00	0.43
18:R:29:VAL:HG23	18:R:69:LEU:O	2.18	0.43
19:S:57:VAL:HG22	19:S:58:VAL:H	1.84	0.43
20:T:94:PHE:HA	20:T:102:ILE:HG13	2.00	0.43
23:W:15:ASN:ND2	53:27:381:G:H5''	2.32	0.43
23:W:70:LEU:HD23	23:W:70:LEU:HA	1.80	0.43
34:8:1:ALA:N	34:8:67:LEU:HD11	2.34	0.43
34:8:149:LYS:O	34:8:150:LYS:HG2	2.19	0.43
36:10:46:GLN:NE2	36:10:56:LYS:HG3	2.34	0.43
40:14:55:PRO:HD3	52:26:1059:C:O2'	2.18	0.43
52:26:910:C:H2'	52:26:911:U:H6	1.84	0.43
52:26:1175:G:O2'	52:26:1176:A:H5'	2.18	0.43
53:27:528:A:C8	53:27:528:A:C3'	3.00	0.43
53:27:1432:G:O2'	53:27:1433:A:H5'	2.19	0.43
53:27:1683:U:H2'	53:27:1684:G:H8	1.82	0.43
53:27:2231:U:H2'	53:27:2232:C:C6	2.54	0.43
53:27:2739:U:O2'	53:27:2740:A:H5'	2.19	0.43
1:A:52:HIS:HA	1:A:216:ARG:HB3	2.00	0.43
1:A:52:HIS:HB2	1:A:216:ARG:O	2.18	0.43
1:A:225:ASN:HD21	53:27:784:G:P	2.42	0.43
1:A:227:VAL:HG11	53:27:784:G:C2	2.54	0.43
2:B:107:VAL:HG12	2:B:205:PRO:HA	2.00	0.43
3:C:188:MET:SD	3:C:193:VAL:HG22	2.59	0.43
5:E:3:VAL:HG12	5:E:68:ARG:HD3	2.00	0.43
7:G:59:LEU:HD21	53:27:1047:G:H2'	2.00	0.43
8:H:45:THR:HB	8:H:48:ILE:HB	2.01	0.43
11:K:77:ILE:CG1	11:K:110:VAL:HA	2.48	0.43
11:K:95:LEU:CG	11:K:100:ILE:HD11	2.48	0.43
13:M:12:ARG:HD3	13:M:16:HIS:CE1	2.53	0.43
15:O:98:TYR:CE1	15:O:99:LEU:HD12	2.54	0.43
33:7:6:PRO:O	33:7:9:ILE:HG22	2.19	0.43
33:7:69:THR:C	33:7:105:VAL:HG12	2.38	0.43
34:8:29:THR:C	34:8:31:CYS:H	2.19	0.43
34:8:160:LEU:O	34:8:163:GLN:HG3	2.19	0.43
35:9:17:VAL:HA	35:9:33:THR:O	2.17	0.43
35:9:19:ARG:HA	35:9:31:SER:O	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:13:98:ARG:HA	39:13:103:VAL:CG2	2.48	0.43
40:14:39:PRO:HA	40:14:73:LEU:O	2.19	0.43
44:18:100:TRP:OXT	52:26:1187:G:H1'	2.18	0.43
46:20:23:ASP:OD1	52:26:229:U:O2'	2.36	0.43
52:26:208:U:H1'	52:26:212:G:N2	2.33	0.43
52:26:486:U:O2	52:26:486:U:H2'	2.18	0.43
52:26:711:G:O2'	52:26:712:A:H5'	2.18	0.43
52:26:1011:C:H2'	52:26:1012:A:C8	2.54	0.43
52:26:1429:A:H2'	52:26:1430:A:H8	1.83	0.43
52:26:1498:U:N3	55:29:17:U:H5''	2.34	0.43
53:27:40:U:H2'	53:27:41:C:H6	1.83	0.43
53:27:832:U:H2'	53:27:833:A:H8	1.83	0.43
53:27:1127:A:H2'	53:27:1128:G:H5''	2.00	0.43
53:27:1903:G:H2'	53:27:1904:G:C8	2.51	0.43
53:27:2071:A:H2'	53:27:2072:C:C6	2.53	0.43
53:27:2352:A:H2'	53:27:2353:G:H5'	2.00	0.43
56:30:74:C:H2'	59:33:431:ILE:O	2.18	0.43
58:32:19:G:C5'	58:32:20:U:H5	2.25	0.43
59:33:442:ALA:CB	59:33:463:ILE:HA	2.48	0.43
1:A:131:MET:HA	1:A:134:ILE:HD12	2.00	0.43
2:B:173:GLN:HE22	2:B:208:LYS:NZ	2.16	0.43
3:C:149:ILE:HG23	3:C:188:MET:HA	1.99	0.43
4:D:70:ARG:C	4:D:80:GLN:HE22	2.22	0.43
5:E:25:ILE:HG22	5:E:78:VAL:HG21	2.01	0.43
5:E:83:THR:OG1	5:E:133:LYS:HG2	2.18	0.43
11:K:65:GLY:HA2	53:27:2415:G:H4'	2.01	0.43
11:K:112:LEU:HD22	11:K:130:GLY:HA3	1.99	0.43
13:M:103:ARG:HG2	13:M:105:GLY:H	1.84	0.43
18:R:69:LEU:HG	18:R:107:VAL:HG22	2.00	0.43
34:8:35:GLN:O	34:8:36:ALA:HB2	2.18	0.43
36:10:38:ARG:HD3	36:10:98:GLU:N	2.31	0.43
39:13:114:LYS:HD3	52:26:1187:G:H5'	2.00	0.43
40:14:40:ILE:HD13	52:26:1125:U:C6	2.53	0.43
40:14:68:ARG:HH22	52:26:1115:U:P	2.42	0.43
47:21:64:ARG:CD	52:26:264:C:H4'	2.36	0.43
50:24:9:ARG:HG2	52:26:108:G:C2	2.54	0.43
52:26:116:A:H2'	52:26:117:G:O4'	2.18	0.43
52:26:254:G:O2'	52:26:255:G:H5'	2.18	0.43
52:26:634:C:H2'	52:26:635:A:C8	2.54	0.43
52:26:911:U:H2'	52:26:912:C:C6	2.53	0.43
52:26:1350:A:H2'	52:26:1351:U:C6	2.53	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:1413:A:H2'	52:26:1414:U:O4'	2.19	0.43
53:27:549:G:H2'	53:27:550:C:H6	1.84	0.43
53:27:813:U:H2'	53:27:814:C:H6	1.83	0.43
53:27:1038:G:H2'	53:27:1039:A:H8	1.82	0.43
53:27:1509:A:H2'	53:27:1510:G:C8	2.54	0.43
53:27:1662:U:H2'	53:27:1663:G:C8	2.54	0.43
53:27:1704:C:H2'	53:27:1705:A:C8	2.54	0.43
53:27:2041:U:O2'	53:27:2042:A:H5'	2.18	0.43
53:27:2564:A:OP1	53:27:2648:G:H4'	2.18	0.43
53:27:2756:U:C1'	53:27:2757:A:H5''	2.47	0.43
53:27:2774:C:H2'	53:27:2775:G:O4'	2.19	0.43
53:27:2839:G:H2'	53:27:2840:C:O4'	2.19	0.43
59:33:621:ILE:O	59:33:655:ALA:HB3	2.19	0.43
2:B:68:PHE:CZ	2:B:79:LEU:HD21	2.54	0.43
6:F:29:PHE:HB2	53:27:2198:A:C4	2.53	0.43
9:I:30:THR:HG23	53:27:1006:C:O4'	2.19	0.43
12:L:3:GLN:HG3	12:L:92:TRP:CE2	2.54	0.43
12:L:50:ARG:HG3	12:L:51:ARG:H	1.83	0.43
13:M:12:ARG:HD3	13:M:16:HIS:CG	2.54	0.43
16:P:52:ARG:HG3	16:P:53:LYS:N	2.33	0.43
16:P:74:SER:O	16:P:78:PHE:HB2	2.18	0.43
23:W:22:ASN:HA	53:27:200:U:H5''	2.01	0.43
23:W:56:ARG:HH11	23:W:56:ARG:HG3	1.84	0.43
24:X:38:GLN:O	53:27:95:A:H4'	2.19	0.43
25:Y:8:GLN:HG2	25:Y:31:ILE:HG22	2.01	0.43
28:2:13:SER:OG	28:2:47:ILE:HB	2.18	0.43
33:7:142:ARG:HG3	33:7:143:LEU:N	2.33	0.43
33:7:162:ALA:HB2	52:26:1056:U:H4'	2.00	0.43
34:8:149:LYS:HG2	34:8:177:MET:HE1	2.00	0.43
36:10:66:ALA:HB1	36:10:67:PRO:HD2	2.00	0.43
37:11:64:ALA:O	37:11:126:ALA:HB1	2.19	0.43
38:12:107:LYS:HG2	38:12:120:LEU:HD13	2.00	0.43
39:13:54:VAL:HG21	39:13:86:LEU:HD13	2.00	0.43
42:16:113:ARG:HB2	42:16:118:VAL:O	2.19	0.43
47:21:56:ASP:HB3	47:21:81:ALA:N	2.32	0.43
48:22:35:SER:HA	48:22:71:ASP:OD2	2.19	0.43
48:22:38:ILE:HD12	48:22:62:ARG:NH2	2.34	0.43
52:26:134:G:H2'	52:26:135:C:O4'	2.19	0.43
52:26:646:G:O2'	52:26:647:C:H5'	2.19	0.43
52:26:848:C:H2'	52:26:849:G:O4'	2.18	0.43
52:26:1084:G:H5'	52:26:1102:A:OP2	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:768:G:N2	53:27:1379:U:O2'	2.52	0.43
53:27:1229:C:H2'	53:27:1230:A:C8	2.53	0.43
53:27:1807:G:C2'	53:27:1808:A:H5'	2.45	0.43
53:27:2107:G:C2	53:27:2108:A:H1'	2.54	0.43
53:27:2142:A:C2'	53:27:2143:C:H5'	2.49	0.43
53:27:2615:U:O5'	53:27:2615:U:H6	2.01	0.43
57:31:43:A:H2'	57:31:44:A:C8	2.54	0.43
59:33:65:ILE:HD13	59:33:157:ILE:CG1	2.48	0.43
59:33:175:ALA:O	59:33:179:THR:HG23	2.19	0.43
59:33:197:GLU:CG	59:33:201:TYR:CZ	3.02	0.43
1:A:75:ALA:N	1:A:114:GLN:HE22	2.16	0.43
1:A:75:ALA:HB1	1:A:93:VAL:HG12	2.01	0.43
4:D:54:ALA:O	4:D:57:ALA:HB3	2.18	0.43
11:K:23:ILE:HD12	11:K:24:GLY:N	2.34	0.43
11:K:48:ARG:CD	53:27:666:A:H4'	2.48	0.43
11:K:61:LEU:O	30:4:12:ARG:NE	2.52	0.43
14:N:67:ASN:OD1	14:N:67:ASN:N	2.51	0.43
14:N:107:ALA:O	14:N:111:ARG:HG3	2.18	0.43
16:P:69:ARG:NH1	53:27:1012:U:OP2	2.50	0.43
16:P:100:PHE:O	16:P:102:LYS:N	2.52	0.43
26:Z:50:ASP:O	26:Z:53:THR:HG23	2.19	0.43
34:8:185:PRO:HB2	34:8:190:LEU:HD23	2.00	0.43
35:9:129:SER:HB2	52:26:20:U:OP2	2.18	0.43
36:10:30:THR:HA	36:10:34:GLY:N	2.34	0.43
39:13:29:ILE:HG23	39:13:29:ILE:O	2.19	0.43
40:14:61:ALA:HB2	52:26:1061:G:C5'	2.48	0.43
43:17:93:GLY:HA2	43:17:108:ARG:HH22	1.83	0.43
51:25:32:ARG:NH1	51:25:33:ARG:HD3	2.34	0.43
52:26:202:G:H2'	52:26:203:G:O4'	2.19	0.43
52:26:478:A:H2'	52:26:479:U:O4'	2.19	0.43
52:26:862:C:O2'	52:26:863:U:H5'	2.18	0.43
52:26:984:C:O5'	52:26:984:C:H6	2.01	0.43
52:26:1051:C:H6	52:26:1051:C:O5'	2.01	0.43
52:26:1079:G:H2'	52:26:1080:A:C8	2.53	0.43
52:26:1189:U:H2'	52:26:1190:G:H5'	2.00	0.43
52:26:1228:C:H2'	52:26:1229:A:H8	1.83	0.43
52:26:1347:G:H22	52:26:1374:A:P	2.42	0.43
53:27:106:C:H2'	53:27:107:G:H8	1.83	0.43
53:27:255:A:H2'	53:27:256:A:O4'	2.18	0.43
53:27:932:U:H5'	53:27:933:A:C8	2.54	0.43
53:27:1264:A:N7	53:27:1265:A:C5	2.86	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:1821:A:H8	53:27:1821:A:O5'	2.02	0.43
53:27:1880:U:H2'	53:27:1881:C:H6	1.83	0.43
53:27:1931:U:H2'	53:27:1932:A:H8	1.82	0.43
53:27:2008:C:H2'	53:27:2009:A:H8	1.84	0.43
53:27:2027:G:O2'	53:27:2028:U:H5'	2.19	0.43
53:27:2423:U:H1'	53:27:2425:A:C5	2.54	0.43
56:30:10:G:H22	56:30:26:A:H1'	1.84	0.43
57:31:58:A:H2	57:31:60:U:HO2'	1.66	0.43
59:33:173:LEU:HD23	59:33:173:LEU:C	2.38	0.43
59:33:177:GLU:O	59:33:181:ILE:HB	2.18	0.43
59:33:281:ILE:HG12	59:33:338:ILE:HG13	1.99	0.43
59:33:622:VAL:HG23	59:33:636:ALA:HA	2.00	0.43
2:B:144:GLY:O	2:B:145:SER:C	2.57	0.43
3:C:8:ALA:O	3:C:10:SER:N	2.45	0.43
4:D:28:PRO:HB2	4:D:168:LEU:HD22	2.01	0.43
7:G:72:LEU:H	7:G:72:LEU:CD1	2.32	0.43
12:L:57:VAL:O	12:L:58:LYS:HB2	2.17	0.43
17:Q:29:THR:O	17:Q:63:VAL:HB	2.19	0.43
23:W:18:SER:CB	53:27:2080:A:H4'	2.49	0.43
28:2:5:ARG:NH1	28:2:25:ASN:N	2.66	0.43
28:2:6:GLU:OE2	28:2:26:LYS:HD3	2.18	0.43
33:7:18:ASN:O	33:7:55:VAL:HA	2.18	0.43
34:8:97:LEU:CB	34:8:134:TYR:HB3	2.48	0.43
35:9:159:SER:OG	35:9:162:GLU:HB3	2.19	0.43
38:12:42:GLU:HG2	38:12:100:ILE:HD13	2.01	0.43
42:16:56:LEU:HB2	42:16:59:GLY:O	2.19	0.43
45:19:70:LYS:HB2	45:19:77:TYR:CD1	2.54	0.43
48:22:13:THR:CG2	48:22:20:ILE:HD11	2.43	0.43
52:26:728:A:H2'	52:26:729:A:C8	2.54	0.43
52:26:1386:G:O2'	52:26:1387:G:H5'	2.19	0.43
52:26:1488:G:H2'	52:26:1489:G:C8	2.54	0.43
53:27:420:C:H2'	53:27:421:C:C6	2.53	0.43
53:27:948:C:H2'	53:27:949:G:H8	1.83	0.43
53:27:1175:A:H5'	53:27:1176:U:H5'	2.01	0.43
53:27:1403:A:H2'	53:27:1404:C:O4'	2.18	0.43
53:27:2442:C:O2'	53:27:2443:C:H5'	2.18	0.43
57:31:72:A:H2'	57:31:73:A:O4'	2.19	0.43
59:33:78:ALA:HB1	59:33:151:ILE:HD13	2.00	0.43
59:33:701:SER:HA	59:33:708:ALA:HA	2.01	0.43
1:A:73:ILE:HG12	53:27:1490:A:N1	2.34	0.42
3:C:40:ARG:HD2	3:C:92:HIS:ND1	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:105:LEU:CD2	3:C:177:PRO:HG3	2.42	0.42
4:D:25:MET:HB3	54:28:57:A:C4	2.53	0.42
8:H:11:GLN:NE2	8:H:55:PRO:HB3	2.34	0.42
16:P:32:ARG:HH11	53:27:1252:G:H4'	1.84	0.42
23:W:3:VAL:HG12	23:W:10:ARG:HB3	2.02	0.42
24:X:43:LEU:O	24:X:46:VAL:HB	2.19	0.42
31:5:27:CYS:SG	31:5:29:ALA:HB3	2.59	0.42
33:7:126:ARG:HH12	33:7:192:TYR:HE2	1.67	0.42
34:8:8:LEU:CD2	34:8:31:CYS:HA	2.47	0.42
34:8:68:GLU:HB3	52:26:546:A:P	2.59	0.42
39:13:85:ALA:C	39:13:87:MET:H	2.22	0.42
49:23:51:HIS:CD2	49:23:53:GLY:H	2.37	0.42
50:24:50:PHE:HA	50:24:53:MET:HG2	2.00	0.42
52:26:633:G:H2'	52:26:634:C:C6	2.53	0.42
52:26:1030:U:H5''	52:26:1031:C:OP2	2.19	0.42
52:26:1220:G:O2'	52:26:1221:G:H5'	2.19	0.42
52:26:1309:G:H2'	52:26:1310:G:C8	2.54	0.42
53:27:372:G:N2	53:27:400:G:H2'	2.34	0.42
53:27:1572:A:O2'	53:27:1573:G:H5'	2.18	0.42
53:27:1906:G:OP2	53:27:1930:G:H8	2.01	0.42
53:27:1916:A:H2'	53:27:1917:U:O4'	2.18	0.42
53:27:2676:C:H2'	53:27:2677:G:H8	1.84	0.42
53:27:2849:U:H4'	53:27:2868:A:C2	2.54	0.42
59:33:24:LEU:CD2	59:33:67:SER:O	2.67	0.42
59:33:197:GLU:CG	59:33:201:TYR:CE2	2.92	0.42
59:33:628:GLY:O	59:33:630:GLY:N	2.52	0.42
1:A:123:ILE:HA	1:A:191:LEU:CD1	2.49	0.42
1:A:222:THR:HG22	1:A:239:PHE:CD1	2.54	0.42
2:B:18:ASP:N	2:B:18:ASP:OD1	2.51	0.42
2:B:130:GLN:NE2	53:27:2578:G:H21	2.16	0.42
3:C:76:PRO:CG	3:C:84:THR:HG22	2.46	0.42
4:D:109:ARG:HD2	4:D:136:ILE:O	2.19	0.42
8:H:19:PRO:HG2	8:H:21:PRO:HD2	2.01	0.42
13:M:46:ARG:HG3	53:27:2839:G:OP1	2.18	0.42
15:O:94:ALA:HB2	53:27:2848:G:H8	1.83	0.42
22:V:56:PHE:CZ	53:27:2365:G:H4'	2.54	0.42
25:Y:6:ILE:HD12	25:Y:26:LEU:HD13	2.01	0.42
39:13:121:ARG:HH11	39:13:121:ARG:HG3	1.84	0.42
44:18:80:ARG:HG3	44:18:81:ILE:N	2.34	0.42
52:26:66:A:H4'	52:26:173:U:C5	2.54	0.42
52:26:312:C:H2'	52:26:313:A:C8	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:533:A:O2'	52:26:534:U:H5''	2.19	0.42
52:26:836:G:H2'	52:26:837:U:O4'	2.19	0.42
52:26:1305:G:H22	52:26:1331:G:H2'	1.84	0.42
52:26:1307:U:H2'	52:26:1308:U:C6	2.55	0.42
52:26:1356:G:O2'	52:26:1357:A:H5'	2.19	0.42
52:26:1507:A:H2'	52:26:1508:A:C8	2.54	0.42
53:27:18:U:H2'	53:27:19:A:H8	1.84	0.42
53:27:152:A:H2'	53:27:153:U:C6	2.54	0.42
53:27:634:C:H2'	53:27:635:C:O4'	2.19	0.42
53:27:1331:G:H2'	53:27:1332:G:C5'	2.50	0.42
53:27:1545:A:H2'	53:27:1546:G:O4'	2.19	0.42
53:27:1851:U:H2'	53:27:1852:U:O4'	2.19	0.42
53:27:2136:G:H2'	53:27:2137:U:C6	2.54	0.42
56:30:31:A:H2'	56:30:32:U:O4'	2.18	0.42
59:33:62:MET:HE1	59:33:82:PHE:CD1	2.52	0.42
59:33:103:VAL:O	59:33:107:ILE:HG23	2.18	0.42
59:33:194:LEU:O	59:33:198:LEU:HG	2.19	0.42
59:33:232:PHE:HE1	59:33:329:PRO:CG	2.32	0.42
59:33:260:TRP:NE1	59:33:264:GLN:NE2	2.67	0.42
59:33:274:PHE:HB3	59:33:333:THR:CB	2.47	0.42
59:33:597:VAL:HG21	59:33:633:VAL:HG21	2.00	0.42
59:33:648:ALA:HA	59:33:649:PRO:HD2	1.92	0.42
2:B:64:GLU:OE2	53:27:2634:A:H4'	2.19	0.42
4:D:159:ALA:HB1	4:D:164:GLU:HB2	2.00	0.42
5:E:37:ASN:HD22	5:E:63:GLN:NE2	2.10	0.42
5:E:97:VAL:HG21	5:E:122:ALA:O	2.19	0.42
6:F:78:VAL:HG11	6:F:106:ALA:HB2	2.01	0.42
7:G:25:ALA:HA	7:G:115:GLY:CA	2.41	0.42
9:I:25:LEU:HB3	53:27:1140:C:OP1	2.19	0.42
11:K:18:ARG:HH11	11:K:18:ARG:HG3	1.84	0.42
12:L:29:GLY:O	12:L:133:LYS:HD3	2.19	0.42
13:M:31:HIS:O	13:M:33:ILE:N	2.52	0.42
19:S:40:LYS:HG3	53:27:1599:U:OP1	2.19	0.42
26:Z:5:ILE:HG13	26:Z:6:HIS:H	1.82	0.42
28:2:34:GLU:HA	28:2:48:TYR:O	2.18	0.42
38:12:3:GLN:HE22	52:26:755:G:N2	2.06	0.42
40:14:29:ALA:CA	40:14:87:LEU:HD21	2.49	0.42
40:14:61:ALA:HB2	52:26:1061:G:H5'	2.01	0.42
43:17:38:ILE:CD1	43:17:51:GLN:HB3	2.50	0.42
47:21:4:ILE:O	47:21:4:ILE:HD12	2.19	0.42
52:26:110:C:H2'	52:26:111:G:O4'	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:26:543:U:H2'	52:26:544:G:H8	1.83	0.42
52:26:921:U:H2'	52:26:922:G:O4'	2.19	0.42
52:26:974:A:H4'	52:26:975:A:H3'	2.01	0.42
53:27:413:C:O5'	53:27:413:C:H6	2.03	0.42
53:27:1018:U:H2'	53:27:1019:U:H6	1.84	0.42
53:27:1515:A:H2'	53:27:1516:G:O4'	2.18	0.42
53:27:1672:A:C2	53:27:2582:G:H5'	2.54	0.42
53:27:1846:G:H2'	53:27:1847:G:C1'	2.49	0.42
53:27:2014:A:H2'	53:27:2015:A:C8	2.54	0.42
53:27:2361:G:O2'	53:27:2362:C:H5'	2.17	0.42
58:32:9:G:H2'	58:32:11:A:N7	2.35	0.42
58:32:37:A:H2'	58:32:38:A:O4'	2.19	0.42
59:33:43:LEU:CG	59:33:44:GLN:OE1	2.59	0.42
59:33:368:SER:CB	59:33:460:GLN:HE21	2.32	0.42
3:C:50:ALA:HB2	53:27:801:G:C8	2.55	0.42
3:C:137:LYS:O	3:C:141:MET:HG3	2.20	0.42
4:D:7:TYR:O	4:D:12:VAL:HG23	2.19	0.42
4:D:173:ASP:O	4:D:174:PHE:O	2.37	0.42
5:E:25:ILE:HD12	5:E:74:MET:HB3	2.01	0.42
7:G:16:SER:O	7:G:19:ALA:HB3	2.19	0.42
9:I:34:ARG:HH12	9:I:40:HIS:HB3	1.83	0.42
10:J:61:VAL:HG22	10:J:62:VAL:O	2.19	0.42
10:J:67:LYS:HA	10:J:67:LYS:HD2	1.87	0.42
10:J:99:ILE:HD12	10:J:118:LEU:HB2	2.00	0.42
11:K:111:ILE:HG22	11:K:113:ALA:N	2.34	0.42
13:M:74:GLU:HA	53:27:1453:A:N1	2.35	0.42
14:N:23:ALA:C	14:N:42:PRO:HG3	2.40	0.42
31:5:22:VAL:CG1	31:5:36:ARG:HG3	2.50	0.42
32:6:131:LYS:NZ	52:26:1159:U:OP1	2.52	0.42
33:7:78:LYS:O	33:7:79:LYS:HB2	2.20	0.42
34:8:33:ILE:CG2	34:8:34:GLU:H	2.21	0.42
35:9:92:ARG:HB2	35:9:127:TYR:HB2	2.00	0.42
39:13:24:ASN:OD1	39:13:58:GLU:HB3	2.19	0.42
40:14:18:ILE:O	40:14:21:ALA:HB3	2.19	0.42
52:26:390:U:H2'	52:26:391:G:H8	1.84	0.42
52:26:503:C:H2'	52:26:504:C:H6	1.85	0.42
53:27:52:A:C6	53:27:118:A:N3	2.87	0.42
53:27:646:U:O4	53:27:2368:C:H1'	2.19	0.42
53:27:1469:A:H2'	53:27:1470:A:C8	2.55	0.42
53:27:1909:C:H2'	53:27:1910:G:C8	2.53	0.42
53:27:2287:A:HO2'	53:27:2288:A:H2'	1.81	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2677:G:H2'	53:27:2678:C:H6	1.84	0.42
53:27:2784:U:H2'	53:27:2785:C:C6	2.54	0.42
53:27:2853:C:H2'	53:27:2854:G:C8	2.54	0.42
58:32:21:A:H62	58:32:46:A:H2'	1.84	0.42
58:32:30:G:O2'	58:32:31:G:H5'	2.19	0.42
59:33:18:GLU:O	59:33:21:ILE:CG1	2.68	0.42
59:33:61:GLU:HA	59:33:64:GLU:CG	2.49	0.42
59:33:191:ILE:HG22	59:33:194:LEU:HD13	1.99	0.42
59:33:424:PRO:HA	59:33:455:LEU:HD11	2.01	0.42
7:G:72:LEU:HD12	7:G:72:LEU:N	2.34	0.42
8:H:79:LEU:HD22	8:H:135:MET:SD	2.59	0.42
10:J:71:ARG:HA	10:J:71:ARG:HD3	1.82	0.42
12:L:1:MET:C	12:L:2:LEU:HD12	2.40	0.42
12:L:51:ARG:NH1	59:33:706:GLN:HE22	2.17	0.42
15:O:52:ARG:HH21	53:27:2720:U:H5''	1.79	0.42
16:P:111:LYS:CG	17:Q:48:LYS:HD2	2.49	0.42
17:Q:78:ARG:H	17:Q:83:TYR:HD2	1.68	0.42
18:R:107:VAL:O	18:R:107:VAL:HG22	2.19	0.42
20:T:7:ASP:CA	20:T:23:LYS:HZ1	2.33	0.42
22:V:62:LYS:HG2	22:V:81:GLU:O	2.20	0.42
23:W:67:LEU:HD23	23:W:77:TYR:CD1	2.54	0.42
32:6:18:GLN:HG2	32:6:189:ASN:H	1.85	0.42
33:7:21:TRP:CB	33:7:58:ARG:HB2	2.50	0.42
33:7:110:LEU:HG	33:7:143:LEU:HD22	2.02	0.42
34:8:70:GLN:HG2	34:8:74:TYR:CE2	2.54	0.42
39:13:29:ILE:HA	39:13:64:ILE:O	2.20	0.42
40:14:22:THR:O	40:14:25:ILE:HG22	2.19	0.42
41:15:43:TRP:CZ3	41:15:45:THR:HG23	2.54	0.42
41:15:92:ARG:HG3	41:15:93:GLU:N	2.31	0.42
43:17:17:ALA:O	43:17:20:SER:HB2	2.20	0.42
43:17:28:ARG:CZ	43:17:62:PHE:HB2	2.50	0.42
48:22:33:THR:HG22	48:22:37:LYS:HB3	2.02	0.42
50:24:33:LYS:O	50:24:37:ALA:N	2.49	0.42
52:26:214:C:H2'	52:26:215:C:C6	2.54	0.42
52:26:660:C:H2'	52:26:661:G:O4'	2.19	0.42
52:26:820:U:N3	52:26:873:A:N7	2.68	0.42
52:26:1376:U:O5'	52:26:1376:U:H6	2.03	0.42
53:27:228:C:H42	53:27:417:C:H1'	1.84	0.42
53:27:244:A:H2'	53:27:245:G:O4'	2.18	0.42
53:27:883:G:O3'	59:33:611:ARG:HB2	2.20	0.42
53:27:1328:A:H2'	53:27:1330:C:C5	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:1559:U:H5''	53:27:1560:G:OP2	2.19	0.42
53:27:2348:U:O2'	53:27:2349:G:H5'	2.19	0.42
53:27:2616:C:H2'	53:27:2617:U:C6	2.54	0.42
53:27:2719:G:O2'	53:27:2720:U:H5'	2.19	0.42
53:27:2790:U:H5'	53:27:2893:A:N7	2.33	0.42
59:33:146:PHE:O	59:33:149:VAL:HG22	2.19	0.42
59:33:418:LEU:HD23	59:33:418:LEU:HA	1.90	0.42
2:B:124:ARG:HD3	2:B:161:MET:O	2.19	0.42
5:E:70:LEU:HD11	53:27:2758:A:H2	1.84	0.42
6:F:5:LEU:HD21	6:F:9:VAL:HB	2.01	0.42
6:F:8:LYS:HD3	6:F:60:GLU:OE1	2.20	0.42
7:G:41:LEU:HD11	53:27:1082:U:O2'	2.19	0.42
11:K:64:PHE:HZ	30:4:14:LYS:HG2	1.84	0.42
11:K:126:ARG:NH2	53:27:634:C:H5''	2.35	0.42
17:Q:49:ILE:CG2	17:Q:54:VAL:HA	2.50	0.42
25:Y:19:HIS:HD2	25:Y:50:VAL:HG12	1.84	0.42
37:11:29:LEU:HD23	37:11:29:LEU:C	2.40	0.42
43:17:65:GLU:O	43:17:68:LEU:HB3	2.20	0.42
46:20:75:ILE:O	46:20:79:ASN:ND2	2.52	0.42
49:23:79:TYR:CZ	52:26:1226:C:H4'	2.55	0.42
50:24:45:ALA:O	50:24:48:LYS:HB3	2.19	0.42
51:25:5:VAL:HG22	51:25:6:ARG:N	2.35	0.42
51:25:19:LYS:N	51:25:19:LYS:HD2	2.33	0.42
52:26:49:U:O2'	52:26:50:A:H2'	2.19	0.42
52:26:394:G:O2'	52:26:395:C:H5'	2.19	0.42
52:26:409:U:H2'	52:26:410:G:C8	2.54	0.42
52:26:651:C:H2'	52:26:652:U:C6	2.54	0.42
52:26:763:G:H2'	52:26:764:C:H6	1.84	0.42
52:26:797:C:H2'	52:26:798:U:H6	1.84	0.42
52:26:923:A:H2'	52:26:924:C:O4'	2.18	0.42
52:26:1176:A:H2'	52:26:1177:G:C8	2.55	0.42
53:27:532:A:H2'	53:27:532:A:N3	2.35	0.42
53:27:633:A:H2'	53:27:634:C:H5'	2.01	0.42
53:27:680:C:H2'	53:27:681:G:H8	1.85	0.42
53:27:1340:U:H4'	53:27:1394:U:O2'	2.20	0.42
53:27:1858:A:H1'	53:27:1885:A:C2	2.54	0.42
53:27:1915:U:H2'	53:27:1916:A:O4'	2.20	0.42
53:27:1981:A:H3'	53:27:1982:U:C5'	2.49	0.42
53:27:2095:A:H5'	53:27:2096:C:OP2	2.20	0.42
53:27:2112:G:H5''	53:27:2113:U:H5	1.85	0.42
53:27:2173:A:O2'	53:27:2174:C:H5'	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2352:A:C2'	53:27:2353:G:H5'	2.49	0.42
53:27:2428:G:H5''	53:27:2429:G:OP1	2.19	0.42
54:28:66:A:C5'	54:28:67:G:OP1	2.66	0.42
54:28:88:C:H5''	54:28:89:U:OP1	2.19	0.42
58:32:14:A:C2	58:32:22:G:H1'	2.55	0.42
59:33:84:LEU:HB3	59:33:90:VAL:HG21	2.01	0.42
59:33:241:LYS:CD	59:33:246:LYS:NZ	2.77	0.42
59:33:666:SER:HA	59:33:714:ILE:O	2.19	0.42
2:B:130:GLN:NE2	53:27:2578:G:N2	2.67	0.42
6:F:135:HIS:ND1	6:F:136:SER:N	2.67	0.42
8:H:122:GLU:O	8:H:126:ARG:HG2	2.20	0.42
13:M:24:MET:SD	13:M:44:LEU:HD22	2.59	0.42
13:M:94:TYR:O	13:M:116:VAL:HG23	2.20	0.42
17:Q:45:GLU:HG3	17:Q:46:GLU:N	2.35	0.42
20:T:25:LYS:HD2	20:T:25:LYS:HA	1.69	0.42
23:W:15:ASN:OD1	23:W:23:ALA:HB1	2.19	0.42
25:Y:40:THR:O	25:Y:44:ARG:HG2	2.19	0.42
33:7:35:ASP:O	33:7:38:VAL:HG22	2.19	0.42
33:7:35:ASP:O	33:7:39:ARG:HG2	2.19	0.42
33:7:72:PRO:O	33:7:76:ILE:HG12	2.19	0.42
35:9:148:SER:OG	35:9:149:PRO:HD2	2.20	0.42
36:10:9:MET:HG3	36:10:85:ILE:HD12	2.01	0.42
39:13:31:GLN:HB2	39:13:32:ARG:NH1	2.34	0.42
42:16:11:ARG:HD2	52:26:562:U:O2	2.20	0.42
42:16:74:GLN:O	42:16:76:HIS:N	2.53	0.42
53:27:1086:A:H4'	53:27:1103:A:H2	1.84	0.42
53:27:1152:C:H2'	53:27:1153:C:C6	2.52	0.42
53:27:1999:C:H5''	53:27:2723:C:O2'	2.20	0.42
53:27:2139:U:H2'	53:27:2140:G:N7	2.34	0.42
53:27:2542:A:H4'	53:27:2543:G:C8	2.54	0.42
53:27:2626:C:H2'	53:27:2627:G:H8	1.84	0.42
53:27:2712:C:O2'	53:27:2713:U:OP1	2.28	0.42
58:32:37:A:C2'	58:32:38:A:H5'	2.50	0.42
59:33:72:ASP:O	59:33:76:LEU:HD13	2.20	0.42
59:33:248:GLU:HG2	59:33:250:TYR:CD2	2.54	0.42
59:33:293:LEU:C	59:33:296:VAL:HG22	2.39	0.42
59:33:326:VAL:HG22	59:33:334:VAL:CG1	2.50	0.42
1:A:242:HIS:CD2	53:27:1842:G:H1'	2.55	0.42
4:D:61:GLY:HA3	4:D:94:ARG:HH11	1.82	0.42
4:D:76:PHE:HE1	53:27:2308:G:C6	2.38	0.42
6:F:103:VAL:HG11	6:F:132:PHE:CE2	2.51	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:24:SER:O	7:G:116:GLU:HG3	2.20	0.42
7:G:37:LYS:HE2	53:27:1083:U:O3'	2.20	0.42
8:H:107:GLU:HA	8:H:110:GLN:HG3	2.02	0.42
9:I:74:TYR:O	9:I:86:GLN:HA	2.20	0.42
9:I:77:HIS:C	9:I:79:GLY:H	2.22	0.42
19:S:8:LEU:CD2	24:X:22:LEU:HA	2.49	0.42
20:T:30:SER:OG	20:T:32:LYS:HB2	2.20	0.42
21:U:88:HIS:HE1	21:U:90:ASP:OD1	2.03	0.42
23:W:10:ARG:HB2	23:W:11:PRO:CD	2.50	0.42
27:1:47:TYR:HA	27:1:51:ARG:O	2.19	0.42
33:7:137:VAL:O	33:7:141:MET:HB2	2.20	0.42
34:8:69:ARG:N	52:26:546:A:OP1	2.38	0.42
35:9:148:SER:O	35:9:151:MET:HB2	2.19	0.42
39:13:14:SER:HB3	39:13:77:ALA:HB2	2.02	0.42
41:15:126:ARG:HH22	52:26:692:U:H5''	1.85	0.42
43:17:106:ARG:HH22	52:26:1228:C:P	2.43	0.42
46:20:22:ALA:HB2	46:20:32:PHE:HB2	2.02	0.42
52:26:52:C:H2'	52:26:53:A:H8	1.84	0.42
52:26:459:A:H2'	52:26:460:A:C8	2.54	0.42
52:26:532:A:H3'	52:26:533:A:C5'	2.49	0.42
53:27:300:A:N3	53:27:319:G:H1'	2.35	0.42
53:27:522:A:H2'	53:27:523:C:H6	1.84	0.42
53:27:615:U:H6	53:27:615:U:O5'	2.03	0.42
53:27:953:G:C2	53:27:954:G:C8	3.07	0.42
53:27:1257:C:H6	53:27:1257:C:O5'	2.02	0.42
53:27:1496:A:H2'	53:27:1498:C:N4	2.35	0.42
53:27:1976:U:HO2'	53:27:1977:A:H8	1.62	0.42
53:27:2606:C:O2'	53:27:2607:G:H5'	2.19	0.42
53:27:2678:C:H2'	53:27:2679:A:O4'	2.19	0.42
53:27:2765:A:H3'	53:27:2765:A:N3	2.35	0.42
59:33:279:VAL:HG12	59:33:335:GLU:O	2.20	0.42
59:33:338:ILE:HD12	59:33:338:ILE:N	2.34	0.42
1:A:179:GLU:OE2	1:A:269:ARG:HA	2.19	0.42
1:A:259:ASN:O	1:A:260:LYS:HB2	2.20	0.42
4:D:53:ALA:O	4:D:64:PRO:HG3	2.20	0.42
4:D:135:ILE:C	4:D:135:ILE:HD12	2.40	0.42
6:F:25:TYR:CZ	6:F:30:LEU:HD21	2.55	0.42
9:I:13:ARG:HD3	9:I:121:LYS:HE3	2.01	0.42
18:R:3:THR:HG21	18:R:58:ALA:N	2.35	0.42
18:R:82:MET:HB3	18:R:84:ARG:CZ	2.50	0.42
24:X:41:HIS:CG	24:X:42:LEU:N	2.88	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:4:38:LYS:HG2	30:4:42:HIS:CD2	2.55	0.42
34:8:169:TRP:CD2	34:8:185:PRO:HG3	2.55	0.42
34:8:187:ARG:O	34:8:190:LEU:HG	2.20	0.42
36:10:33:GLU:HG3	36:10:33:GLU:O	2.19	0.42
36:10:90:MET:HE1	48:22:22:TYR:CE2	2.55	0.42
37:11:37:THR:O	37:11:41:ILE:HG13	2.19	0.42
39:13:11:ARG:O	39:13:14:SER:HB3	2.20	0.42
39:13:27:ILE:CG2	39:13:34:LEU:HB2	2.49	0.42
40:14:49:PHE:O	40:14:64:GLN:HA	2.19	0.42
40:14:84:VAL:HG13	40:14:85:ASP:N	2.34	0.42
41:15:15:VAL:HG13	41:15:78:ILE:HG12	2.01	0.42
41:15:39:ASN:HD22	52:26:683:G:N2	2.14	0.42
42:16:113:ARG:HH21	42:16:120:ARG:HD2	1.85	0.42
42:16:120:ARG:NH1	52:26:500:G:H5'	2.35	0.42
43:17:87:GLY:HA2	43:17:90:HIS:HD2	1.84	0.42
44:18:20:PHE:C	44:18:22:LYS:H	2.23	0.42
46:20:19:VAL:HG12	46:20:37:GLY:O	2.19	0.42
51:25:46:ARG:HH12	51:25:50:SER:N	2.18	0.42
52:26:186:C:H2'	52:26:187:G:O4'	2.19	0.42
52:26:879:C:O2'	52:26:880:C:H5'	2.20	0.42
52:26:902:G:H2'	52:26:903:G:C8	2.48	0.42
52:26:1040:U:H2'	52:26:1041:G:C8	2.55	0.42
52:26:1100:C:H2'	52:26:1102:A:O5'	2.19	0.42
52:26:1114:C:O2'	52:26:1115:U:H5'	2.20	0.42
52:26:1521:C:H2'	52:26:1522:U:C6	2.55	0.42
53:27:262:A:H5'	53:27:610:C:O2'	2.20	0.42
53:27:488:G:H1'	53:27:492:A:H61	1.84	0.42
53:27:531:C:C5	53:27:2035:G:C2	3.08	0.42
53:27:728:G:O2'	53:27:730:A:H8	2.02	0.42
53:27:795:C:H2'	53:27:796:C:C6	2.55	0.42
53:27:948:C:H2'	53:27:949:G:C8	2.54	0.42
53:27:956:G:H22	53:27:959:A:H3'	1.83	0.42
53:27:963:U:O2'	53:27:964:C:H5'	2.19	0.42
53:27:1625:C:H2'	53:27:1626:A:O4'	2.19	0.42
53:27:2079:U:H2'	53:27:2080:A:H5''	2.01	0.42
53:27:2134:A:H1'	53:27:2158:A:H4'	2.02	0.42
53:27:2354:C:H2'	53:27:2355:G:C8	2.55	0.42
53:27:2760:C:O2'	53:27:2761:A:H5'	2.19	0.42
59:33:18:GLU:HA	59:33:21:ILE:CD1	2.50	0.42
59:33:315:LYS:CB	59:33:316:PRO:HD2	2.42	0.42
59:33:634:HIS:ND1	59:33:634:HIS:O	2.53	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:148:ILE:HG13	3:C:169:VAL:HG22	2.01	0.42
4:D:30:VAL:HG23	4:D:155:ILE:CG2	2.50	0.42
5:E:51:PHE:CD2	5:E:68:ARG:HB2	2.54	0.42
5:E:99:GLY:O	5:E:100:ASN:HB3	2.20	0.42
8:H:72:THR:CG2	8:H:111:THR:HG22	2.50	0.42
9:I:136:GLN:NE2	53:27:2899:A:H5'	2.33	0.42
13:M:118:ARG:HH12	27:1:55:ALA:CB	2.26	0.42
14:N:33:ARG:O	14:N:34:HIS:HB2	2.19	0.42
14:N:69:ASP:OD1	14:N:69:ASP:N	2.53	0.42
17:Q:89:HIS:HE1	17:Q:91:GLN:HB2	1.84	0.42
19:S:2:ILE:O	19:S:2:ILE:HG13	2.19	0.42
21:U:82:TYR:CE1	21:U:83:LYS:HG3	2.55	0.42
24:X:3:ALA:HA	24:X:6:LEU:CB	2.47	0.42
32:6:202:ASN:CG	32:6:205:ALA:HB2	2.40	0.42
33:7:76:ILE:CA	33:7:83:VAL:HG23	2.49	0.42
33:7:155:ARG:NE	33:7:192:TYR:HB3	2.20	0.42
34:8:131:ILE:HG21	52:26:620:C:H1'	2.01	0.42
34:8:187:ARG:HH12	34:8:192:ALA:HA	1.83	0.42
36:10:37:HIS:CD2	36:10:95:ALA:HB1	2.54	0.42
36:10:39:LEU:O	36:10:39:LEU:HD23	2.20	0.42
37:11:94:ARG:HG2	37:11:98:LEU:HD13	2.01	0.42
39:13:88:GLU:C	39:13:90:ASP:H	2.22	0.42
47:21:66:LEU:O	47:21:67:SER:HB3	2.20	0.42
50:24:3:ILE:HG23	50:24:7:LYS:NZ	2.35	0.42
50:24:57:VAL:HG13	50:24:58:ASP:N	2.35	0.42
50:24:60:GLN:HE21	50:24:65:LEU:HD13	1.85	0.42
50:24:66:ILE:CG2	50:24:70:LYS:HD3	2.47	0.42
52:26:379:C:H2'	52:26:380:G:H8	1.83	0.42
52:26:735:C:H2'	52:26:736:C:H6	1.84	0.42
53:27:179:C:O2'	53:27:180:G:H5'	2.20	0.42
53:27:520:G:H2'	53:27:521:U:C6	2.55	0.42
53:27:717:C:H2'	53:27:718:A:H5'	2.02	0.42
53:27:769:U:H2'	53:27:770:G:C8	2.54	0.42
53:27:1282:U:H2'	53:27:1283:G:O4'	2.19	0.42
53:27:1801:A:H5''	53:27:2203:U:C2'	2.50	0.42
53:27:2055:C:H5'	53:27:2056:G:O5'	2.20	0.42
53:27:2685:G:H2'	53:27:2686:G:C8	2.54	0.42
59:33:135:VAL:HA	59:33:138:MET:HB3	2.02	0.42
59:33:405:ARG:HG3	59:33:419:PRO:CA	2.48	0.42
2:B:13:ARG:HA	2:B:22:ILE:O	2.20	0.41
3:C:177:PRO:HA	3:C:180:LEU:HD12	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:E:154:GLU:HB3	5:E:159:LYS:N	2.35	0.41
6:F:116:ARG:C	6:F:117:LEU:HD12	2.41	0.41
8:H:2:LYS:NZ	8:H:62:ALA:HB2	2.35	0.41
8:H:18:ASN:HA	8:H:38:CYS:SG	2.59	0.41
8:H:27:LEU:HD12	8:H:27:LEU:C	2.40	0.41
10:J:61:VAL:HG12	10:J:87:LEU:CD1	2.50	0.41
11:K:19:LEU:HD11	11:K:31:GLY:CA	2.49	0.41
12:L:54:THR:HA	12:L:57:VAL:HG22	2.01	0.41
13:M:63:ARG:HA	13:M:80:PHE:CE2	2.53	0.41
16:P:49:ARG:O	16:P:53:LYS:NZ	2.49	0.41
17:Q:63:VAL:HA	17:Q:96:VAL:HG12	2.02	0.41
18:R:79:GLY:N	18:R:101:SER:HA	2.35	0.41
21:U:77:VAL:HG23	21:U:89:ILE:HG12	2.02	0.41
24:X:5:GLU:O	24:X:7:ARG:N	2.51	0.41
25:Y:56:VAL:O	25:Y:56:VAL:HG13	2.20	0.41
27:1:47:TYR:CE1	27:1:52:LYS:HG2	2.55	0.41
30:4:9:ALA:HB1	30:4:61:LEU:HD23	2.02	0.41
33:7:56:ILE:HD13	33:7:65:VAL:HG13	2.02	0.41
35:9:20:VAL:CG2	35:9:31:SER:HB2	2.49	0.41
35:9:21:SER:OG	52:26:16:A:H5'	2.20	0.41
40:14:37:ARG:HD2	52:26:1125:U:OP1	2.20	0.41
43:17:87:GLY:O	43:17:90:HIS:HB2	2.20	0.41
43:17:94:LEU:C	43:17:108:ARG:HG2	2.40	0.41
43:17:108:ARG:HG3	43:17:108:ARG:NH1	2.35	0.41
47:21:30:HIS:CD2	47:21:32:ILE:H	2.37	0.41
52:26:26:A:H62	52:26:558:G:H1'	1.84	0.41
52:26:51:A:C2	52:26:116:A:H1'	2.55	0.41
52:26:1082:A:H8	52:26:1082:A:O5'	2.03	0.41
52:26:1500:A:O2'	52:26:1501:C:H5'	2.19	0.41
53:27:112:U:C2'	53:27:113:U:H5'	2.49	0.41
53:27:210:C:H2'	53:27:211:C:C6	2.55	0.41
53:27:340:A:H2'	53:27:341:C:O4'	2.20	0.41
53:27:492:A:O5'	53:27:492:A:H8	2.03	0.41
53:27:681:G:H2'	53:27:682:G:O4'	2.20	0.41
53:27:1123:C:H2'	53:27:1124:G:C8	2.55	0.41
53:27:1916:A:H8	53:27:1916:A:O5'	2.03	0.41
53:27:2543:G:H2'	53:27:2544:G:C8	2.55	0.41
53:27:2828:G:O2'	53:27:2829:A:H5'	2.20	0.41
58:32:16:C:O4'	58:32:59:A:C2	2.74	0.41
59:33:152:LYS:HD2	59:33:152:LYS:HA	1.76	0.41
59:33:154:ALA:CA	59:33:157:ILE:HG12	2.50	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:292:ALA:HA	59:33:295:ILE:HG12	2.02	0.41
59:33:669:VAL:HG13	59:33:669:VAL:O	2.20	0.41
59:33:735:VAL:CG1	59:33:738:ALA:HB2	2.50	0.41
2:B:34:VAL:HA	2:B:50:VAL:HA	2.01	0.41
3:C:27:LEU:O	3:C:30:GLN:HB3	2.20	0.41
4:D:101:ARG:HG3	4:D:105:ILE:HD11	2.01	0.41
6:F:29:PHE:O	6:F:32:PRO:HG2	2.19	0.41
7:G:53:ARG:CD	7:G:86:MET:HB2	2.50	0.41
8:H:107:GLU:HA	8:H:110:GLN:CG	2.50	0.41
9:I:16:TYR:CD1	9:I:140:LEU:HB2	2.55	0.41
9:I:20:ALA:HA	9:I:23:LYS:HG3	2.01	0.41
10:J:26:GLY:HA3	10:J:30:ARG:HD2	2.01	0.41
11:K:109:LYS:HD2	11:K:126:ARG:O	2.20	0.41
13:M:18:GLN:NE2	13:M:22:ARG:NH1	2.69	0.41
15:O:92:ARG:HG3	53:27:2849:U:OP2	2.21	0.41
33:7:58:ARG:HH11	33:7:58:ARG:HG3	1.85	0.41
33:7:84:GLU:HA	33:7:87:ARG:HB3	2.01	0.41
33:7:101:ASN:CA	33:7:102:ILE:HD12	2.49	0.41
33:7:121:SER:O	33:7:124:GLU:HB3	2.19	0.41
39:13:88:GLU:HG3	39:13:89:TYR:N	2.35	0.41
40:14:32:THR:CG2	40:14:83:THR:HG23	2.51	0.41
42:16:25:ALA:O	42:16:27:PRO:HD3	2.20	0.41
47:21:5:ARG:HD2	52:26:636:U:OP1	2.19	0.41
49:23:5:LYS:O	49:23:6:LYS:HD3	2.20	0.41
51:25:41:THR:O	51:25:45:LYS:HB2	2.20	0.41
52:26:24:U:H2'	52:26:25:C:H6	1.85	0.41
52:26:201:G:H2'	52:26:202:G:O4'	2.19	0.41
52:26:304:U:H2'	52:26:305:G:O4'	2.20	0.41
52:26:338:A:H2	52:26:351:G:H22	1.66	0.41
52:26:678:U:H2'	52:26:679:C:C6	2.55	0.41
52:26:679:C:H2'	52:26:680:C:H6	1.84	0.41
52:26:697:U:C2'	52:26:698:G:H5'	2.49	0.41
52:26:1220:G:H2'	52:26:1221:G:O4'	2.20	0.41
52:26:1299:A:C2'	52:26:1301:U:H1'	2.49	0.41
53:27:288:U:H2'	53:27:289:G:C8	2.55	0.41
53:27:622:G:O2'	53:27:623:C:H5'	2.19	0.41
53:27:783:A:H2'	53:27:784:G:C5'	2.50	0.41
53:27:1088:A:H2'	53:27:1088:A:N3	2.35	0.41
53:27:1381:G:H2'	53:27:1382:G:H5'	2.02	0.41
53:27:1748:C:H2'	53:27:1749:A:C8	2.55	0.41
53:27:2544:G:H1'	53:27:2646:C:H5'	2.01	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2724:U:H2'	53:27:2725:A:C8	2.55	0.41
58:32:21:A:C2	58:32:48:C:H1'	2.55	0.41
58:32:35:A:H2'	58:32:36:U:O4'	2.20	0.41
59:33:77:ARG:NH1	59:33:99:VAL:HG23	2.34	0.41
59:33:172:VAL:HG13	59:33:173:LEU:N	2.34	0.41
59:33:419:PRO:O	59:33:422:SER:HB2	2.20	0.41
1:A:121:ALA:HB3	1:A:129:LEU:HD23	2.01	0.41
1:A:129:LEU:HD13	1:A:133:ASN:HB2	2.02	0.41
2:B:110:THR:HG21	2:B:169:ARG:NE	2.36	0.41
5:E:3:VAL:CG1	5:E:68:ARG:HD3	2.50	0.41
9:I:81:ILE:CG2	9:I:82:GLY:N	2.82	0.41
12:L:78:LEU:O	12:L:79:ALA:HB3	2.21	0.41
15:O:19:PHE:HB3	15:O:85:VAL:CG2	2.50	0.41
18:R:8:ARG:HG3	53:27:494:G:H5'	2.02	0.41
18:R:94:ASP:OD2	53:27:2014:A:H5'	2.20	0.41
25:Y:5:LYS:HE3	25:Y:36:GLU:OE2	2.20	0.41
27:1:3:GLN:HA	53:27:2615:U:C2	2.55	0.41
32:6:12:GLY:H	32:6:14:HIS:CE1	2.38	0.41
32:6:95:TRP:CZ2	32:6:99:MET:HB3	2.55	0.41
34:8:131:ILE:HG13	52:26:620:C:C2	2.55	0.41
34:8:169:TRP:CD1	34:8:170:LEU:HD23	2.55	0.41
37:11:22:LEU:O	37:11:25:PHE:HB3	2.19	0.41
38:12:4:ASP:CG	38:12:80:PRO:HD3	2.41	0.41
40:14:6:ILE:HA	40:14:102:LEU:CD2	2.48	0.41
40:14:37:ARG:O	52:26:1124:G:H5''	2.20	0.41
43:17:4:ALA:O	43:17:6:ILE:HG13	2.20	0.41
44:18:21:ALA:H	44:18:24:ALA:HB2	1.85	0.41
45:19:22:GLY:O	52:26:751:U:H1'	2.20	0.41
45:19:44:GLU:HG3	45:19:45:HIS:CD2	2.55	0.41
46:20:20:VAL:CG2	46:20:21:VAL:N	2.83	0.41
46:20:23:ASP:C	46:20:25:ARG:N	2.72	0.41
46:20:29:ASN:O	52:26:309:A:H5''	2.20	0.41
52:26:113:G:H1'	52:26:354:G:H5''	2.02	0.41
52:26:222:C:H2'	52:26:223:A:C8	2.55	0.41
52:26:735:C:H2'	52:26:736:C:C6	2.55	0.41
53:27:143:C:O2	53:27:143:C:H2'	2.20	0.41
53:27:242:G:H21	53:27:254:G:H2'	1.84	0.41
53:27:1394:U:H4'	53:27:1603:A:H4'	2.02	0.41
53:27:1638:C:H4'	53:27:2710:C:O2	2.20	0.41
53:27:1682:G:C4	53:27:1757:A:H1'	2.55	0.41
53:27:1770:G:H4'	53:27:1938:A:OP1	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:1869:G:H3'	53:27:1870:C:H5''	2.02	0.41
53:27:2641:G:H2'	53:27:2642:G:C8	2.55	0.41
53:27:2703:C:H2'	53:27:2704:C:C6	2.55	0.41
56:30:68:C:H2'	56:30:69:G:O4'	2.18	0.41
58:32:17:C:OP1	58:32:17(A):U:H3'	2.20	0.41
59:33:231:GLU:O	59:33:235:HIS:HD2	2.03	0.41
59:33:302:HIS:HE1	59:33:325:VAL:H	1.66	0.41
59:33:616:ILE:HD12	59:33:618:GLY:N	2.35	0.41
1:A:14:HIS:O	1:A:203:VAL:HG21	2.21	0.41
4:D:39:VAL:O	4:D:41:GLU:N	2.40	0.41
4:D:95:MET:O	4:D:99:PHE:HB2	2.21	0.41
4:D:97:GLU:OE2	26:Z:25:ARG:HD3	2.20	0.41
4:D:126:ASN:OD1	4:D:156:THR:HG23	2.20	0.41
8:H:8:VAL:O	8:H:58:ILE:O	2.39	0.41
10:J:40:LYS:HD3	53:27:2562:U:OP1	2.21	0.41
32:6:23:ASN:ND2	32:6:191:ASP:HA	2.35	0.41
33:7:149:LYS:O	33:7:200:TRP:HE3	2.03	0.41
36:10:52:ASN:O	36:10:53:LYS:HB2	2.21	0.41
39:13:57:VAL:HB	39:13:59:LYS:HG3	2.02	0.41
43:17:21:ILE:HG22	43:17:22:TYR:O	2.19	0.41
43:17:82:LEU:HD13	49:23:64:GLU:HB2	2.02	0.41
45:19:35:ILE:HG23	45:19:55:LEU:HD11	2.02	0.41
47:21:26:ARG:CZ	52:26:237:G:H5''	2.50	0.41
52:26:75:G:H2'	52:26:76:G:O4'	2.21	0.41
52:26:581:G:HO2'	52:26:582:C:H6	1.66	0.41
52:26:1288:A:H2'	52:26:1289:A:O4'	2.21	0.41
53:27:151:C:H2'	53:27:152:A:C8	2.55	0.41
53:27:197:A:H4'	53:27:2069:G:OP2	2.20	0.41
53:27:523:C:H2'	53:27:524:G:H8	1.85	0.41
53:27:804:A:H2'	53:27:806:C:C4	2.55	0.41
53:27:1319:C:H1'	53:27:1334:G:N2	2.35	0.41
53:27:1498:C:H2'	53:27:1499:C:C6	2.56	0.41
53:27:1672:A:C6	53:27:1673:G:C6	3.08	0.41
53:27:2162:G:H4'	53:27:2173:A:H5''	2.03	0.41
53:27:2464:G:H2'	53:27:2465:C:C6	2.55	0.41
53:27:2557:G:H2'	53:27:2558:C:H6	1.82	0.41
53:27:2818:U:H2'	53:27:2819:G:C8	2.56	0.41
59:33:699:SER:HA	59:33:710:ILE:HA	2.03	0.41
5:E:15:ASP:OD1	5:E:16:VAL:N	2.53	0.41
5:E:52:GLY:O	5:E:54:ARG:N	2.54	0.41
7:G:63:ALA:HB1	7:G:84:TYR:HE2	1.85	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:I:4:PHE:CG	9:I:5:THR:N	2.89	0.41
9:I:53:TYR:C	9:I:54:ILE:HD12	2.41	0.41
9:I:106:LYS:HA	9:I:109:LEU:HD12	2.02	0.41
11:K:62:PRO:HG2	30:4:24:LYS:HB3	2.01	0.41
11:K:101:ILE:HG13	11:K:102:GLY:N	2.35	0.41
20:T:8:ASP:OD1	20:T:9:GLU:N	2.54	0.41
23:W:7:THR:OG1	23:W:9:LYS:HG3	2.19	0.41
33:7:148:ILE:HG13	33:7:200:TRP:O	2.21	0.41
34:8:50:TYR:HD2	52:26:509:A:H5''	1.86	0.41
34:8:106:PHE:CE1	34:8:177:MET:HA	2.55	0.41
40:14:44:THR:HG22	40:14:45:ARG:O	2.21	0.41
40:14:65:TYR:CD1	44:18:97:LYS:HA	2.55	0.41
42:16:28:GLN:OE1	42:16:80:LEU:HD21	2.21	0.41
47:21:22:VAL:HG12	47:21:23:ALA:O	2.19	0.41
47:21:52:CYS:SG	47:21:53:GLY:N	2.94	0.41
48:22:21:ASP:OD2	48:22:23:LYS:HB2	2.20	0.41
51:25:54:ARG:O	51:25:58:LYS:HG3	2.20	0.41
53:27:545:U:H3'	53:27:546:U:O4'	2.21	0.41
53:27:878:A:H3'	53:27:879:G:C8	2.56	0.41
53:27:878:A:H1'	53:27:900:A:N1	2.35	0.41
53:27:901:C:H2'	53:27:902:C:C6	2.55	0.41
53:27:1028:A:N6	53:27:1125:G:H2'	2.36	0.41
53:27:1173:U:H3'	53:27:1174:U:C4'	2.51	0.41
53:27:1513:U:H2'	53:27:1514:G:O4'	2.20	0.41
53:27:1921:G:O2'	53:27:1922:G:H5'	2.20	0.41
58:32:21:A:C8	58:32:47:U:H1'	2.54	0.41
59:33:136:ARG:NH1	59:33:136:ARG:HG3	2.36	0.41
59:33:671:VAL:HA	59:33:737:ASP:O	2.20	0.41
59:33:676:ARG:H	59:33:676:ARG:HG2	1.74	0.41
2:B:33:ARG:HG3	2:B:51:THR:CG2	2.51	0.41
3:C:115:GLN:CB	3:C:117:ARG:HG3	2.51	0.41
4:D:99:PHE:O	4:D:102:LEU:HB3	2.21	0.41
5:E:93:TYR:HA	5:E:105:SER:O	2.21	0.41
5:E:148:ARG:HA	5:E:161:VAL:HG11	2.02	0.41
6:F:31:VAL:N	6:F:32:PRO:HD2	2.36	0.41
8:H:2:LYS:HD2	8:H:7:TYR:OH	2.21	0.41
8:H:112:LYS:O	8:H:116:MET:HG3	2.21	0.41
9:I:93:ILE:CD1	9:I:100:VAL:HG21	2.49	0.41
9:I:132:HIS:CD2	53:27:7:G:H5'	2.55	0.41
10:J:2:ILE:HD12	10:J:8:LEU:HD21	2.02	0.41
11:K:131:ALA:O	11:K:135:ILE:HG13	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:67:ASN:O	14:N:70:ALA:N	2.54	0.41
15:O:79:VAL:HG13	15:O:80:VAL:N	2.34	0.41
19:S:21:SER:O	19:S:24:MET:HB3	2.20	0.41
27:1:43:THR:HG23	27:1:47:TYR:O	2.21	0.41
32:6:104:LYS:NZ	52:26:1073:U:H4'	2.36	0.41
34:8:123:MET:O	34:8:142:VAL:HG23	2.20	0.41
36:10:12:PRO:HB3	36:10:44:ARG:NH1	2.32	0.41
37:11:70:PRO:HB3	37:11:102:TRP:CH2	2.56	0.41
38:12:46:GLU:O	38:12:61:THR:HB	2.20	0.41
39:13:110:VAL:HG23	39:13:110:VAL:O	2.20	0.41
42:16:84:GLY:O	42:16:95:HIS:CE1	2.74	0.41
49:23:13:HIS:NE2	52:26:1014:A:H4'	2.36	0.41
52:26:12:U:C3'	52:26:13:U:H5''	2.51	0.41
52:26:40:C:H2'	52:26:41:G:C8	2.55	0.41
52:26:142:G:H2'	52:26:143:A:O4'	2.20	0.41
52:26:922:G:H2'	52:26:923:A:C8	2.55	0.41
52:26:952:U:H2'	52:26:953:G:C8	2.55	0.41
52:26:1510:C:H2'	52:26:1511:G:H8	1.86	0.41
53:27:226:A:H2'	53:27:227:A:O4'	2.21	0.41
53:27:279:A:H2'	53:27:280:U:H5'	2.02	0.41
53:27:880:G:O2'	53:27:881:G:H5'	2.21	0.41
53:27:976:G:H4'	53:27:1156:A:N7	2.35	0.41
53:27:1305:C:C5'	53:27:1305:C:H6	2.34	0.41
53:27:2144:G:C4'	53:27:2145:C:H3'	2.51	0.41
53:27:2370:G:H2'	53:27:2371:G:C8	2.55	0.41
53:27:2423:U:H5'	53:27:2424:C:C5'	2.51	0.41
53:27:2700:A:H2'	53:27:2701:U:C6	2.55	0.41
55:29:14:A:N6	58:32:35:A:H61	2.19	0.41
59:33:67:SER:CB	59:33:76:LEU:HD21	2.50	0.41
59:33:160:LEU:HD12	59:33:198:LEU:HD23	1.97	0.41
59:33:252:ARG:HD3	59:33:280:ARG:NH2	2.35	0.41
59:33:300:TYR:CD1	59:33:328:GLY:HA2	2.55	0.41
59:33:634:HIS:O	59:33:635:ARG:O	2.38	0.41
1:A:88:ALA:HA	1:A:157:ALA:HB2	2.02	0.41
10:J:78:ARG:HB2	15:O:70:GLU:HG2	2.03	0.41
14:N:115:LEU:HD12	14:N:115:LEU:HA	1.84	0.41
15:O:29:VAL:HG12	15:O:30:TRP:O	2.21	0.41
15:O:59:THR:HG22	15:O:72:VAL:CG1	2.48	0.41
17:Q:4:VAL:HG22	17:Q:13:ARG:HA	2.02	0.41
17:Q:11:GLN:OE1	17:Q:11:GLN:N	2.53	0.41
22:V:17:LEU:HB3	22:V:18:GLY:H	1.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1:39:ARG:C	27:1:41:HIS:H	2.24	0.41
37:11:86:VAL:HG13	37:11:150:PHE:HB2	2.02	0.41
40:14:100:ILE:HD12	40:14:100:ILE:N	2.35	0.41
44:18:46:LYS:O	44:18:49:THR:HB	2.21	0.41
45:19:48:ASP:CG	45:19:51:SER:HB2	2.41	0.41
46:20:5:ARG:CB	52:26:376:G:H5'	2.44	0.41
46:20:52:LEU:HD11	46:20:57:ILE:HD11	2.03	0.41
47:21:74:LEU:HD23	47:21:74:LEU:C	2.41	0.41
48:22:58:ILE:O	48:22:62:ARG:HG3	2.20	0.41
52:26:13:U:O2'	52:26:14:U:H5'	2.21	0.41
52:26:246:A:O2'	52:26:247:G:O5'	2.21	0.41
52:26:445:G:N2	52:26:446:G:H1'	2.36	0.41
52:26:1161:C:H2'	52:26:1162:C:C6	2.56	0.41
53:27:464:U:H1'	53:27:686:U:H5	1.85	0.41
53:27:567:U:H2'	53:27:568:U:C4'	2.50	0.41
53:27:1328:A:H2'	53:27:1330:C:C4	2.56	0.41
53:27:1331:G:H2'	53:27:1332:G:H5''	2.00	0.41
53:27:1789:A:H2'	53:27:1790:C:O4'	2.20	0.41
53:27:2008:C:H2'	53:27:2009:A:C8	2.56	0.41
53:27:2196:C:H2'	53:27:2197:U:C6	2.56	0.41
53:27:2507:C:C2	53:27:2583:G:C2	3.08	0.41
59:33:38:THR:CG2	59:33:77:ARG:HD2	2.49	0.41
59:33:57:TRP:C	59:33:60:VAL:HG22	2.41	0.41
1:A:130:PRO:HA	1:A:187:CYS:O	2.21	0.41
4:D:43:ILE:HG21	4:D:78:ILE:HG22	2.03	0.41
8:H:7:TYR:CD1	8:H:60:VAL:HB	2.55	0.41
9:I:49:ASP:OD2	9:I:118:MET:HA	2.21	0.41
10:J:12:ASP:OD2	10:J:86:LEU:N	2.53	0.41
12:L:7:THR:HG22	12:L:8:LYS:H	1.84	0.41
13:M:96:ARG:NH1	13:M:116:VAL:HG13	2.34	0.41
15:O:52:ARG:H	15:O:56:SER:HB3	1.86	0.41
18:R:73:LYS:HB2	18:R:106:VAL:HB	2.02	0.41
20:T:46:LYS:HB2	20:T:46:LYS:HE3	1.84	0.41
22:V:42:HIS:HB2	22:V:75:PHE:CE1	2.56	0.41
22:V:71:LYS:C	22:V:73:ARG:H	2.23	0.41
23:W:13:THR:HG21	53:27:188:G:H5'	2.03	0.41
31:5:1:MET:HE3	53:27:2742:G:OP1	2.21	0.41
33:7:126:ARG:NH1	33:7:192:TYR:HE2	2.19	0.41
36:10:92:THR:HG23	36:10:93:LYS:H	1.85	0.41
39:13:96:GLU:O	39:13:99:LYS:HB3	2.21	0.41
42:16:8:ARG:NH2	52:26:880:C:OP1	2.47	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:19:54:GLY:O	45:19:57:ARG:HB3	2.20	0.41
52:26:492:C:H2'	52:26:493:A:C8	2.55	0.41
52:26:542:G:H2'	52:26:543:U:C6	2.56	0.41
52:26:956:U:O2'	52:26:957:U:H5'	2.20	0.41
52:26:1411:C:H2'	52:26:1412:C:C6	2.56	0.41
53:27:15:G:H1	53:27:525:U:H3	1.68	0.41
53:27:414:C:H2'	53:27:415:A:C8	2.56	0.41
53:27:714:U:H2'	53:27:716:A:N7	2.36	0.41
53:27:890:C:C2'	53:27:891:G:H5'	2.50	0.41
53:27:1059:G:H2'	53:27:1060:U:C6	2.56	0.41
53:27:1173:U:H2'	53:27:1176:U:O2	2.20	0.41
53:27:1233:C:H2'	53:27:1234:U:C6	2.54	0.41
53:27:1483:G:H1'	53:27:1509:A:H2	1.85	0.41
53:27:1657:U:O2'	53:27:1658:C:H5'	2.21	0.41
53:27:1796:U:O2'	53:27:1797:G:H5'	2.21	0.41
53:27:2137:U:H2'	53:27:2138:G:H8	1.84	0.41
53:27:2389:G:H5''	53:27:2390:U:O4'	2.20	0.41
53:27:2710:C:H2'	53:27:2711:A:H8	1.82	0.41
53:27:2804:U:H2'	53:27:2805:C:C6	2.56	0.41
54:28:87:U:H5''	54:28:88:C:OP2	2.20	0.41
56:30:66:U:H2'	56:30:67:C:C6	2.56	0.41
1:A:209:ALA:HA	1:A:212:TRP:CE2	2.56	0.41
1:A:219:VAL:HA	53:27:1789:A:OP1	2.20	0.41
1:A:270:ARG:HB3	1:A:270:ARG:CZ	2.51	0.41
2:B:8:LYS:HD2	2:B:193:VAL:CG2	2.51	0.41
3:C:32:VAL:HG11	11:K:6:LEU:CD1	2.51	0.41
3:C:41:GLN:HG2	3:C:43:THR:CG2	2.45	0.41
4:D:3:LEU:HA	4:D:6:TYR:HB3	2.03	0.41
6:F:48:GLU:HG2	6:F:49:ALA:N	2.35	0.41
7:G:11:ILE:CG2	7:G:66:GLY:HA3	2.51	0.41
7:G:28:ALA:HB2	7:G:82:ILE:HA	2.02	0.41
8:H:63:ASP:O	8:H:64:ARG:HB2	2.21	0.41
10:J:35:VAL:CG1	10:J:106:GLU:HB3	2.51	0.41
10:J:64:ARG:HH12	10:J:101:GLY:C	2.24	0.41
10:J:76:VAL:HG12	15:O:72:VAL:CG2	2.51	0.41
11:K:48:ARG:NH2	30:4:4:LYS:O	2.54	0.41
13:M:12:ARG:HD3	13:M:16:HIS:ND1	2.36	0.41
14:N:39:VAL:HG23	14:N:48:LEU:HB2	2.03	0.41
15:O:27:VAL:HG12	15:O:29:VAL:HG23	2.02	0.41
15:O:104:GLY:HA3	52:26:1432:G:OP1	2.20	0.41
20:T:32:LYS:HZ1	53:27:478:A:H4'	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:W:36:ARG:N	53:27:2200:C:OP1	2.53	0.41
28:2:38:PHE:HB2	28:2:45:HIS:NE2	2.36	0.41
29:3:4:THR:HA	53:27:687:C:H5'	2.03	0.41
32:6:42:LEU:O	32:6:46:VAL:HG23	2.20	0.41
32:6:75:ALA:HB1	32:6:163:ILE:HG12	2.03	0.41
33:7:162:ALA:CB	52:26:1056:U:H4'	2.51	0.41
34:8:25:ARG:HD3	52:26:410:G:OP2	2.21	0.41
34:8:55:ARG:HA	34:8:55:ARG:HD3	1.73	0.41
34:8:170:LEU:HB2	34:8:171:GLU:H	1.75	0.41
35:9:55:VAL:HG23	35:9:56:PRO:CD	2.49	0.41
36:10:14:GLN:C	36:10:16:GLU:N	2.73	0.41
37:11:119:LEU:HD23	37:11:119:LEU:C	2.41	0.41
38:12:53:ASP:N	38:12:53:ASP:OD1	2.53	0.41
38:12:75:GLN:O	38:12:126:CYS:HB2	2.21	0.41
42:16:20:VAL:C	42:16:22:ALA:H	2.24	0.41
42:16:23:LEU:HD12	42:16:23:LEU:HA	1.74	0.41
43:17:2:ARG:HB3	43:17:56:ARG:HH21	1.86	0.41
43:17:7:ASN:HD22	43:17:20:SER:HB2	1.85	0.41
43:17:28:ARG:O	43:17:32:ILE:HG12	2.20	0.41
44:18:26:LEU:HD23	44:18:30:ILE:HD12	2.02	0.41
49:23:13:HIS:ND1	49:23:14:LEU:N	2.68	0.41
52:26:207:C:H42	52:26:212:G:H1	1.69	0.41
52:26:212:G:H2'	52:26:213:G:H8	1.86	0.41
52:26:338:A:O2'	52:26:339:C:H5'	2.21	0.41
52:26:538:G:H2'	52:26:539:A:C8	2.55	0.41
52:26:698:G:H2'	52:26:699:C:H6	1.84	0.41
52:26:834:U:H2'	52:26:835:U:C6	2.56	0.41
52:26:846:G:H2'	52:26:847:G:C8	2.55	0.41
52:26:918:A:H2'	52:26:919:A:O4'	2.20	0.41
52:26:997:U:C2'	52:26:998:C:H5'	2.51	0.41
52:26:1022:A:H2'	52:26:1023:U:O4'	2.21	0.41
52:26:1469:C:H2'	52:26:1470:U:O4'	2.21	0.41
52:26:1473:G:H2'	52:26:1474:U:C6	2.55	0.41
52:26:1486:G:H2'	52:26:1487:G:C8	2.55	0.41
52:26:1524:C:H2'	52:26:1525:G:H8	1.86	0.41
53:27:119:A:H4'	53:27:120:U:H5'	2.02	0.41
53:27:213:A:H2'	53:27:214:G:C8	2.56	0.41
53:27:355:U:H2'	53:27:356:G:C8	2.55	0.41
53:27:572:A:H5''	53:27:573:U:OP2	2.20	0.41
53:27:594:U:H2'	53:27:595:C:H6	1.79	0.41
53:27:730:A:O2'	53:27:731:C:H5'	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:1118:C:C3'	53:27:1119:U:H5''	2.49	0.41
53:27:1127:A:C2'	53:27:1128:G:H5''	2.51	0.41
53:27:1280:G:O2'	53:27:1281:G:H5'	2.21	0.41
53:27:1343:G:H2'	53:27:1343:G:N3	2.36	0.41
53:27:1566:A:O2'	53:27:1567:G:H5'	2.21	0.41
53:27:1916:A:H2'	53:27:1917:U:O2	2.20	0.41
53:27:1930:G:H2'	53:27:1931:U:OP2	2.21	0.41
53:27:2136:G:H21	53:27:2156:G:N2	2.19	0.41
53:27:2543:G:H2'	53:27:2544:G:H8	1.86	0.41
53:27:2543:G:N3	53:27:2765:A:H2'	2.36	0.41
53:27:2581:G:N3	53:27:2581:G:H2'	2.36	0.41
53:27:2599:G:H2'	53:27:2600:A:C8	2.55	0.41
53:27:2626:C:H2'	53:27:2627:G:O4'	2.20	0.41
54:28:76:G:O2'	54:28:77:U:H5'	2.20	0.41
56:30:54:U:H6	56:30:54:U:O5'	2.03	0.41
57:31:25:C:H2'	57:31:26:G:O4'	2.20	0.41
59:33:104:VAL:O	59:33:107:ILE:HG12	2.20	0.41
59:33:443:LYS:HG2	59:33:448:ILE:HG13	2.03	0.41
59:33:594:ASN:HB3	59:33:604:ASN:ND2	2.36	0.41
59:33:635:ARG:HG2	59:33:636:ALA:N	2.36	0.41
1:A:51:ARG:HG3	53:27:1824:G:OP1	2.20	0.41
2:B:170:VAL:HG23	2:B:194:PRO:HG3	2.03	0.41
4:D:114:ARG:NH1	43:17:70:ARG:HD2	2.36	0.41
4:D:116:LEU:HD13	4:D:175:PRO:CB	2.51	0.41
7:G:40:GLU:HG2	7:G:52:MET:HE1	2.03	0.41
9:I:30:THR:HB	53:27:1012:U:O4	2.21	0.41
10:J:2:ILE:HG22	10:J:3:GLN:N	2.36	0.41
11:K:110:VAL:CG2	11:K:127:VAL:HG22	2.50	0.41
13:M:85:PRO:HA	13:M:88:ALA:HB2	2.03	0.41
15:O:77:SER:HA	15:O:78:PRO:HD3	1.92	0.41
22:V:12:SER:HB3	53:27:2262:U:OP2	2.21	0.41
24:X:17:GLU:O	24:X:20:ASN:HB2	2.21	0.41
27:1:5:ASN:HD21	53:27:2019:A:H62	1.68	0.41
33:7:67:ILE:O	33:7:102:ILE:HG23	2.21	0.41
33:7:131:ARG:O	33:7:134:LYS:HG2	2.21	0.41
37:11:25:PHE:HD1	37:11:100:MET:HB3	1.85	0.41
37:11:63:VAL:O	37:11:67:ASN:ND2	2.54	0.41
38:12:6:ILE:HD11	38:12:31:LEU:HD23	2.02	0.41
39:13:46:VAL:HA	39:13:49:GLN:CG	2.49	0.41
40:14:29:ALA:HA	40:14:87:LEU:HD21	2.02	0.41
41:15:110:THR:CG2	51:25:4:LYS:HG3	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:17:88:LEU:HA	43:17:91:ARG:HE	1.85	0.41
45:19:27:GLN:O	45:19:31:LEU:HG	2.21	0.41
45:19:88:ARG:NH2	53:27:715:A:OP2	2.54	0.41
46:20:48:GLU:CD	46:20:49:GLY:H	2.23	0.41
51:25:16:ARG:C	51:25:18:PHE:H	2.23	0.41
52:26:374:A:H2'	52:26:375:U:H6	1.85	0.41
52:26:418:C:H2'	52:26:419:C:H6	1.84	0.41
52:26:512:U:H2'	52:26:513:C:C6	2.56	0.41
52:26:768:A:OP1	52:26:804:U:H4'	2.21	0.41
52:26:772:U:H2'	52:26:773:G:H8	1.86	0.41
52:26:952:U:O2'	52:26:953:G:H5'	2.21	0.41
52:26:1218:C:H2'	52:26:1219:A:H8	1.82	0.41
52:26:1348:U:O4	52:26:1374:A:C8	2.74	0.41
53:27:4:U:H2'	53:27:5:A:C8	2.56	0.41
53:27:133:U:O2'	53:27:134:G:H5'	2.21	0.41
53:27:186:G:H2'	53:27:187:G:H8	1.85	0.41
53:27:523:C:H2'	53:27:524:G:C8	2.56	0.41
53:27:582:A:H2'	53:27:583:G:C8	2.56	0.41
53:27:1144:A:H2'	53:27:1145:C:H6	1.84	0.41
53:27:1806:C:H2'	53:27:1807:G:O4'	2.20	0.41
53:27:2033:A:H1'	53:27:2035:G:OP2	2.21	0.41
53:27:2232:C:O2'	53:27:2233:U:H5'	2.21	0.41
53:27:2296:U:H4'	53:27:2297:A:O5'	2.21	0.41
53:27:2818:U:H2'	53:27:2819:G:H8	1.86	0.41
54:28:22:U:H2'	54:28:23:G:C8	2.56	0.41
54:28:105:G:H2'	54:28:106:G:H8	1.86	0.41
56:30:8:U:C2	56:30:14:A:N7	2.89	0.41
56:30:30:G:H2'	56:30:31:A:H8	1.86	0.41
59:33:81:LEU:HD23	59:33:84:LEU:HD22	2.02	0.41
59:33:267:ASN:HB2	59:33:268:LEU:H	1.69	0.41
59:33:571:GLU:O	59:33:574:ALA:HB3	2.21	0.41
1:A:155:ARG:HH22	53:27:1817:G:P	2.45	0.40
2:B:4:LEU:HD12	2:B:4:LEU:N	2.36	0.40
2:B:129:THR:HG23	2:B:140:HIS:O	2.21	0.40
4:D:115:GLY:C	4:D:116:LEU:HD12	2.42	0.40
5:E:96:ALA:HA	5:E:124:CYS:SG	2.61	0.40
8:H:59:THR:HB	8:H:67:THR:HB	2.02	0.40
8:H:127:SER:HA	53:27:1080:A:H1'	2.04	0.40
9:I:37:ARG:HH21	53:27:1007:C:H5''	1.86	0.40
11:K:120:VAL:N	11:K:140:GLY:HA2	2.34	0.40
12:L:21:ALA:HB2	12:L:97:GLN:HB2	2.02	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:100:CYS:HB2	13:M:112:TYR:CD2	2.56	0.40
17:Q:5:PHE:HE1	17:Q:7:SER:HB2	1.86	0.40
18:R:9:HIS:H	18:R:102:HIS:CE1	2.39	0.40
18:R:72:THR:OG1	18:R:108:SER:HB3	2.21	0.40
20:T:8:ASP:N	20:T:23:LYS:HZ1	2.18	0.40
21:U:35:GLU:HB2	21:U:93:ARG:NH1	2.36	0.40
23:W:75:GLU:O	23:W:76:LYS:HG2	2.22	0.40
26:Z:56:ARG:NH2	49:23:64:GLU:O	2.53	0.40
31:5:30:GLU:HA	31:5:31:PRO:HD3	1.95	0.40
33:7:21:TRP:HB2	33:7:58:ARG:HB2	2.02	0.40
33:7:33:ASP:O	33:7:37:LYS:HG3	2.21	0.40
33:7:52:SER:HB3	33:7:68:HIS:O	2.21	0.40
33:7:174:LEU:HA	33:7:181:ILE:CD1	2.50	0.40
36:10:46:GLN:HA	36:10:56:LYS:HG2	2.04	0.40
38:12:10:LEU:CD2	38:12:74:ILE:HD11	2.46	0.40
38:12:76:ARG:HH12	38:12:125:ILE:HG23	1.86	0.40
38:12:121:GLY:C	52:26:599:C:H4'	2.42	0.40
39:13:90:ASP:HB3	39:13:91:GLU:H	1.69	0.40
41:15:22:ILE:HD13	41:15:95:THR:CG2	2.51	0.40
44:18:20:PHE:O	44:18:21:ALA:CB	2.69	0.40
49:23:62:THR:O	49:23:65:MET:HG2	2.22	0.40
51:25:65:ARG:HD2	52:26:1088:G:H4'	2.02	0.40
52:26:386:C:C2'	52:26:387:U:H5'	2.50	0.40
52:26:756:C:H2'	52:26:757:U:O4'	2.21	0.40
52:26:1126:U:O2	52:26:1280:A:H2'	2.21	0.40
52:26:1229:A:H2'	52:26:1230:C:C6	2.56	0.40
52:26:1531:A:O2'	52:26:1532:U:H5'	2.21	0.40
53:27:1454:C:O2'	53:27:1455:G:H8	2.03	0.40
53:27:1788:C:O2'	53:27:1789:A:H5'	2.21	0.40
53:27:2039:U:H2'	53:27:2040:G:H8	1.80	0.40
53:27:2070:A:O2'	53:27:2071:A:H5'	2.20	0.40
53:27:2173:A:H2'	53:27:2173:A:N3	2.36	0.40
53:27:2244:U:H2'	53:27:2245:U:O4'	2.21	0.40
53:27:2364:C:H2'	53:27:2365:G:O4'	2.21	0.40
54:28:103:U:O2'	54:28:104:A:H5'	2.20	0.40
56:30:41:C:H2'	56:30:42:C:C4'	2.51	0.40
58:32:10:G:N3	58:32:10:G:H2'	2.35	0.40
59:33:35:LEU:HD12	59:33:35:LEU:N	2.36	0.40
59:33:39:TRP:O	59:33:42:CYS:SG	2.71	0.40
59:33:281:ILE:CG1	59:33:338:ILE:HG23	2.49	0.40
59:33:303:LEU:HA	59:33:304:PRO:HD3	1.97	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:488:GLY:O	59:33:491:LYS:N	2.54	0.40
2:B:149:ASN:HB3	53:27:2572:A:P	2.62	0.40
3:C:52:VAL:HG13	53:27:452:G:OP1	2.21	0.40
3:C:99:LYS:HZ1	53:27:601:C:H4'	1.86	0.40
4:D:3:LEU:N	4:D:3:LEU:HD12	2.36	0.40
7:G:61:ARG:HD3	7:G:61:ARG:HA	1.89	0.40
8:H:124:MET:HA	8:H:124:MET:CE	2.48	0.40
11:K:109:LYS:HA	11:K:109:LYS:HD2	1.99	0.40
13:M:9:GLN:O	13:M:17:ARG:HD3	2.21	0.40
16:P:54:ARG:HG3	53:27:1155:A:OP1	2.20	0.40
18:R:4:ILE:CG2	18:R:106:VAL:HG22	2.50	0.40
18:R:17:VAL:HG11	18:R:103:ILE:HG12	2.02	0.40
18:R:33:LEU:HD23	18:R:51:LEU:HD23	2.01	0.40
18:R:80:PRO:HD3	18:R:102:HIS:NE2	2.37	0.40
20:T:27:VAL:HG23	20:T:33:VAL:HG12	2.04	0.40
24:X:48:ARG:HG3	24:X:48:ARG:HH11	1.86	0.40
31:5:25:VAL:HB	31:5:35:GLN:CG	2.48	0.40
32:6:83:ALA:HB3	32:6:90:PHE:CD2	2.55	0.40
33:7:86:LEU:O	33:7:90:VAL:HG23	2.22	0.40
34:8:97:LEU:HB2	34:8:134:TYR:HB3	2.03	0.40
35:9:76:ASN:N	35:9:81:GLN:OE1	2.54	0.40
35:9:159:SER:O	35:9:160:VAL:C	2.60	0.40
36:10:91:ARG:N	52:26:737:C:OP1	2.54	0.40
38:12:10:LEU:HA	38:12:13:ILE:HD12	2.03	0.40
38:12:12:ARG:HH21	52:26:826:C:H5'	1.85	0.40
39:13:45:MET:O	39:13:49:GLN:HG3	2.20	0.40
40:14:19:ASP:O	40:14:22:THR:HB	2.22	0.40
40:14:46:LYS:HD2	40:14:48:ARG:HH12	1.86	0.40
43:17:100:ARG:HH21	52:26:950:U:H3'	1.83	0.40
44:18:30:ILE:O	44:18:40:ARG:HG3	2.21	0.40
52:26:24:U:H2'	52:26:25:C:C6	2.56	0.40
52:26:56:U:H2'	52:26:57:G:C8	2.57	0.40
52:26:149:A:H2'	52:26:150:U:O4'	2.20	0.40
52:26:184:G:H4'	52:26:224:U:O3'	2.21	0.40
52:26:435:A:H2'	52:26:436:C:O4'	2.22	0.40
52:26:1073:U:H2'	52:26:1074:G:C8	2.57	0.40
53:27:118:A:OP2	53:27:119:A:H2'	2.21	0.40
53:27:308:G:N2	53:27:309:A:N3	2.69	0.40
53:27:739:A:H1'	53:27:740:C:H5	1.86	0.40
53:27:1502:A:H2'	53:27:1503:A:O4'	2.21	0.40
53:27:1836:C:O2'	53:27:1837:C:H5'	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2551:C:H2'	53:27:2552:U:O4'	2.21	0.40
53:27:2783:U:H2'	53:27:2784:U:C6	2.55	0.40
53:27:2832:U:O2	53:27:2832:U:H2'	2.22	0.40
54:28:59:A:H2'	54:28:60:C:O4'	2.22	0.40
58:32:18:G:C1'	58:32:58:A:C2	3.05	0.40
59:33:54:LEU:HB2	59:33:57:TRP:HE1	1.84	0.40
59:33:232:PHE:HE1	59:33:329:PRO:HG2	1.86	0.40
1:A:115:ILE:C	1:A:115:ILE:HD12	2.41	0.40
1:A:247:TRP:CD2	53:27:1805:A:H5''	2.57	0.40
3:C:128:ALA:O	3:C:130:LYS:N	2.54	0.40
4:D:27:VAL:O	4:D:27:VAL:HG13	2.21	0.40
5:E:37:ASN:HD21	5:E:63:GLN:HE21	1.63	0.40
7:G:67:THR:H	7:G:68:PRO:HD2	1.86	0.40
9:I:58:ASN:HA	9:I:126:ALA:O	2.21	0.40
14:N:67:ASN:H	14:N:70:ALA:HB3	1.85	0.40
18:R:29:VAL:HG12	18:R:30:SER:N	2.37	0.40
20:T:94:PHE:HB2	20:T:100:GLU:C	2.41	0.40
34:8:57:LYS:HD2	34:8:203:TYR:CZ	2.56	0.40
45:19:79:GLN:HA	45:19:82:GLU:OE2	2.21	0.40
45:19:87:ARG:HD3	45:19:87:ARG:HA	1.81	0.40
46:20:42:ILE:HD12	46:20:42:ILE:O	2.22	0.40
48:22:11:ARG:HD2	48:22:14:ALA:HB3	2.02	0.40
48:22:36:GLY:O	48:22:70:THR:HA	2.21	0.40
52:26:128:G:O2'	52:26:129:A:H5'	2.22	0.40
52:26:286:C:H2'	52:26:287:U:H6	1.86	0.40
52:26:720:C:H2'	52:26:721:G:C8	2.56	0.40
52:26:837:U:H2'	52:26:838:G:C8	2.57	0.40
52:26:1026:G:H21	52:26:1027:C:N4	2.18	0.40
52:26:1251:A:H2'	52:26:1252:A:O4'	2.21	0.40
52:26:1424:U:H2'	52:26:1425:U:H6	1.85	0.40
53:27:28:A:H2'	53:27:29:U:H6	1.85	0.40
53:27:185:G:H2'	53:27:186:G:H8	1.85	0.40
53:27:376:G:H2'	53:27:377:G:H8	1.86	0.40
53:27:570:G:H22	53:27:2499:C:H5'	1.85	0.40
53:27:1810:A:H2'	53:27:1811:G:O4'	2.22	0.40
53:27:2540:C:O2'	53:27:2541:A:H5'	2.22	0.40
53:27:2582:G:N2	53:27:2583:G:H1'	2.36	0.40
53:27:2881:U:H2'	53:27:2882:A:C8	2.56	0.40
58:32:30:G:H2'	58:32:31:G:H8	1.86	0.40
59:33:43:LEU:HD21	59:33:44:GLN:HE22	1.85	0.40
59:33:110:VAL:HG13	59:33:152:LYS:HD3	2.04	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:134:ASN:O	59:33:135:VAL:CB	2.68	0.40
59:33:705:GLN:O	59:33:707:LEU:N	2.55	0.40
3:C:130:LYS:HA	3:C:130:LYS:HD2	1.88	0.40
5:E:37:ASN:OD1	5:E:38:ASP:N	2.55	0.40
8:H:92:PRO:CB	8:H:136:GLY:HA3	2.51	0.40
9:I:78:THR:OG1	9:I:80:HIS:HB3	2.21	0.40
17:Q:83:TYR:CZ	53:27:1187:G:H5''	2.56	0.40
22:V:38:GLY:HA2	53:27:2330:G:N3	2.36	0.40
24:X:40:SER:HB2	53:27:61:C:O4'	2.22	0.40
27:1:16:ARG:HA	27:1:19:ASP:OD2	2.22	0.40
27:1:38:LEU:HD22	27:1:41:HIS:ND1	2.37	0.40
28:2:9:LYS:O	28:2:51:ALA:HB3	2.21	0.40
32:6:17:HIS:CG	32:6:18:GLN:H	2.38	0.40
34:8:151:GLN:OE1	34:8:151:GLN:HA	2.21	0.40
39:13:121:ARG:NH1	52:26:1345:U:H5''	2.37	0.40
42:16:71:HIS:HA	42:16:98:ARG:HH12	1.87	0.40
43:17:97:ARG:NE	52:26:1309:G:OP2	2.50	0.40
44:18:37:ASP:OD2	44:18:39:ASP:HB3	2.21	0.40
48:22:23:LYS:C	48:22:25:ILE:H	2.25	0.40
49:23:13:HIS:O	49:23:17:LYS:HB2	2.21	0.40
49:23:41:PRO:O	49:23:44:ILE:HG13	2.22	0.40
52:26:772:U:H2'	52:26:773:G:C8	2.56	0.40
52:26:892:A:C5	52:26:893:C:C4	3.09	0.40
52:26:1261:A:H1'	52:26:1283:U:H5''	2.02	0.40
52:26:1326:U:O2'	52:26:1327:C:H5'	2.22	0.40
52:26:1478:U:H2'	52:26:1479:C:H6	1.85	0.40
53:27:63:A:O2'	53:27:64:A:H5'	2.21	0.40
53:27:277:G:O3'	53:27:278:A:H3'	2.21	0.40
53:27:587:C:C5	53:27:671:C:H1'	2.56	0.40
53:27:1289:C:O2'	53:27:1330:C:H4'	2.22	0.40
53:27:1331:G:C2'	53:27:1332:G:C5'	2.98	0.40
53:27:1465:G:H2'	53:27:1466:U:O4'	2.22	0.40
53:27:1670:C:H2'	53:27:1671:U:O4'	2.21	0.40
53:27:1883:U:H2'	53:27:1884:G:O4'	2.22	0.40
53:27:2078:C:H2'	53:27:2079:U:C6	2.57	0.40
53:27:2079:U:H2'	53:27:2080:A:O4'	2.21	0.40
53:27:2248:C:H2'	53:27:2249:U:O4'	2.21	0.40
58:32:18:G:C4	58:32:58:A:N1	2.89	0.40
59:33:215:ALA:O	59:33:219:HIS:ND1	2.53	0.40
59:33:285:ARG:CZ	59:33:288:ASP:OD1	2.70	0.40
59:33:292:ALA:O	59:33:295:ILE:HG12	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:33:348:GLU:C	59:33:349:LEU:HD12	2.42	0.40
1:A:222:THR:HA	1:A:232:GLY:H	1.85	0.40
1:A:225:ASN:ND2	53:27:784:G:O5'	2.54	0.40
1:A:244:VAL:HA	1:A:251:THR:HG22	2.03	0.40
2:B:4:LEU:HD13	2:B:101:PHE:CZ	2.56	0.40
3:C:163:ASN:ND2	53:27:320:A:N3	2.69	0.40
6:F:26:ALA:HA	6:F:30:LEU:HD12	2.03	0.40
6:F:26:ALA:O	6:F:31:VAL:HG23	2.22	0.40
6:F:129:GLU:OE2	6:F:131:SER:N	2.54	0.40
7:G:3:LEU:HD12	7:G:4:ASN:N	2.36	0.40
9:I:7:LYS:HA	9:I:8:PRO:HD3	1.83	0.40
11:K:32:GLY:HA2	53:27:1190:G:H5''	2.03	0.40
12:L:34:LYS:HA	12:L:101:VAL:HA	2.02	0.40
15:O:19:PHE:CD1	15:O:49:ILE:HD11	2.55	0.40
17:Q:74:ILE:O	17:Q:86:GLN:HA	2.21	0.40
18:R:1:MET:HG3	18:R:2:GLU:N	2.34	0.40
19:S:38:ALA:HA	19:S:42:GLU:OE1	2.22	0.40
27:1:46:GLY:HA3	27:1:54:ILE:HD12	2.02	0.40
30:4:34:LYS:HE2	30:4:34:LYS:HB3	1.79	0.40
32:6:59:ILE:HD12	32:6:66:ILE:HD12	2.03	0.40
34:8:138:PRO:HA	34:8:181:PHE:CD2	2.56	0.40
37:11:124:SER:O	37:11:127:ALA:HB3	2.21	0.40
40:14:11:LYS:HA	40:14:18:ILE:HD11	2.04	0.40
42:16:101:LEU:HB3	42:16:102:ASP:H	1.57	0.40
45:19:88:ARG:HD3	53:27:714:U:C5	2.57	0.40
51:25:46:ARG:HH11	51:25:49:ALA:HB3	1.86	0.40
52:26:331:G:OP1	52:26:332:G:H8	2.05	0.40
52:26:359:G:H2'	52:26:360:G:O4'	2.21	0.40
52:26:393:A:H5'	52:26:483:C:O2'	2.21	0.40
52:26:397:A:H3'	52:26:397:A:N3	2.36	0.40
52:26:575:G:H4'	52:26:576:C:O5'	2.21	0.40
52:26:1260:G:OP1	52:26:1284:C:H4'	2.22	0.40
52:26:1384:C:H2'	52:26:1385:G:C8	2.57	0.40
53:27:160:A:H2'	53:27:161:A:C8	2.56	0.40
53:27:531:C:O2'	53:27:563:A:H5''	2.20	0.40
53:27:644:A:N1	53:27:2369:A:H1'	2.36	0.40
53:27:874:G:O2'	53:27:875:G:H5'	2.22	0.40
53:27:876:C:C2'	53:27:877:A:H5'	2.50	0.40
53:27:1416:G:H2'	53:27:1417:C:C6	2.56	0.40
53:27:2060:A:N3	53:27:2060:A:H3'	2.36	0.40
53:27:2103:C:H2'	53:27:2104:C:C6	2.57	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:27:2297:A:H62	53:27:2319:G:H1'	1.86	0.40
53:27:2493:U:C3'	53:27:2494:G:H5''	2.44	0.40
53:27:2532:G:H4'	53:27:2657:A:C2	2.56	0.40
53:27:2639:A:H2'	53:27:2640:G:O4'	2.22	0.40
56:30:1:G:H2'	56:30:2:C:C6	2.56	0.40
57:31:11:A:O2'	57:31:12:G:H5'	2.22	0.40
58:32:28:C:H2'	58:32:29:G:H8	1.87	0.40
58:32:59:A:H2'	58:32:60:U:H5'	2.04	0.40
59:33:154:ALA:HA	59:33:157:ILE:CG1	2.52	0.40
59:33:221:ARG:HB3	59:33:273:LEU:HD21	2.02	0.40
59:33:286:LEU:HA	59:33:289:CYS:SG	2.61	0.40
59:33:326:VAL:CG2	59:33:334:VAL:CG1	2.99	0.40
59:33:438:ARG:HD3	59:33:467:LYS:O	2.22	0.40
59:33:670:ARG:HB2	59:33:741:LEU:HD12	2.04	0.40
59:33:687:LEU:HA	59:33:690:GLU:CD	2.42	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	A	269/273 (98%)	226 (84%)	34 (13%)	9 (3%)	3	25
2	B	207/209 (99%)	165 (80%)	29 (14%)	13 (6%)	1	16
3	C	199/201 (99%)	164 (82%)	23 (12%)	12 (6%)	1	16
4	D	175/179 (98%)	140 (80%)	27 (15%)	8 (5%)	2	20
5	E	174/177 (98%)	145 (83%)	22 (13%)	7 (4%)	2	22
6	F	147/149 (99%)	119 (81%)	16 (11%)	12 (8%)	1	11
7	G	129/165 (78%)	92 (71%)	17 (13%)	20 (16%)	0	3
8	H	139/142 (98%)	106 (76%)	27 (19%)	6 (4%)	2	21

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	I	140/142 (99%)	127 (91%)	7 (5%)	6 (4%)	2	21
10	J	120/123 (98%)	101 (84%)	14 (12%)	5 (4%)	2	21
11	K	141/144 (98%)	116 (82%)	16 (11%)	9 (6%)	1	15
12	L	134/136 (98%)	110 (82%)	20 (15%)	4 (3%)	3	27
13	M	118/127 (93%)	99 (84%)	14 (12%)	5 (4%)	2	21
14	N	114/117 (97%)	92 (81%)	16 (14%)	6 (5%)	1	18
15	O	112/115 (97%)	88 (79%)	20 (18%)	4 (4%)	3	24
16	P	115/118 (98%)	108 (94%)	5 (4%)	2 (2%)	7	36
17	Q	101/103 (98%)	82 (81%)	16 (16%)	3 (3%)	3	27
18	R	108/110 (98%)	85 (79%)	19 (18%)	4 (4%)	2	23
19	S	91/100 (91%)	73 (80%)	13 (14%)	5 (6%)	1	18
20	T	100/104 (96%)	80 (80%)	13 (13%)	7 (7%)	1	14
21	U	92/94 (98%)	76 (83%)	13 (14%)	3 (3%)	3	25
22	V	73/85 (86%)	64 (88%)	7 (10%)	2 (3%)	4	29
23	W	75/78 (96%)	67 (89%)	6 (8%)	2 (3%)	4	29
24	X	61/63 (97%)	52 (85%)	5 (8%)	4 (7%)	1	15
25	Y	56/59 (95%)	50 (89%)	4 (7%)	2 (4%)	3	24
26	Z	64/70 (91%)	50 (78%)	9 (14%)	5 (8%)	1	12
27	1	54/57 (95%)	42 (78%)	6 (11%)	6 (11%)	0	6
28	2	48/55 (87%)	41 (85%)	6 (12%)	1 (2%)	5	33
29	3	44/46 (96%)	35 (80%)	7 (16%)	2 (4%)	2	20
30	4	62/65 (95%)	51 (82%)	6 (10%)	5 (8%)	1	11
31	5	36/38 (95%)	26 (72%)	6 (17%)	4 (11%)	0	6
32	6	216/241 (90%)	177 (82%)	31 (14%)	8 (4%)	2	23
33	7	204/233 (88%)	172 (84%)	26 (13%)	6 (3%)	3	27
34	8	203/206 (98%)	158 (78%)	30 (15%)	15 (7%)	1	13
35	9	155/167 (93%)	116 (75%)	25 (16%)	14 (9%)	0	10
36	10	98/135 (73%)	76 (78%)	15 (15%)	7 (7%)	1	14
37	11	149/179 (83%)	123 (83%)	17 (11%)	9 (6%)	1	16
38	12	127/130 (98%)	112 (88%)	13 (10%)	2 (2%)	8	37
39	13	125/130 (96%)	98 (78%)	17 (14%)	10 (8%)	1	12

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	14	96/103 (93%)	77 (80%)	11 (12%)	8 (8%)	0	11
41	15	114/129 (88%)	92 (81%)	18 (16%)	4 (4%)	3	24
42	16	121/124 (98%)	98 (81%)	11 (9%)	12 (10%)	0	8
43	17	112/118 (95%)	90 (80%)	11 (10%)	11 (10%)	0	8
44	18	98/101 (97%)	71 (72%)	20 (20%)	7 (7%)	1	14
45	19	86/89 (97%)	73 (85%)	8 (9%)	5 (6%)	1	16
46	20	80/82 (98%)	64 (80%)	12 (15%)	4 (5%)	1	19
47	21	78/84 (93%)	53 (68%)	19 (24%)	6 (8%)	1	12
48	22	63/75 (84%)	48 (76%)	9 (14%)	6 (10%)	0	9
49	23	77/92 (84%)	60 (78%)	13 (17%)	4 (5%)	1	18
50	24	83/87 (95%)	75 (90%)	5 (6%)	3 (4%)	3	24
51	25	63/71 (89%)	44 (70%)	9 (14%)	10 (16%)	0	3
59	33	663/750 (88%)	550 (83%)	78 (12%)	35 (5%)	1	18
All	All	6509/6970 (93%)	5299 (81%)	841 (13%)	369 (6%)	2	17

All (369) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	18	ASP
2	B	181	ASP
2	B	188	LEU
3	C	55	SER
3	C	127	GLU
4	D	175	PRO
5	E	46	ASP
5	E	100	ASN
6	F	9	VAL
6	F	48	GLU
6	F	74	ALA
7	G	54	VAL
7	G	57	ASN
7	G	67	THR
7	G	83	ALA
7	G	111	ALA
7	G	124	ASP
8	H	8	VAL
8	H	18	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	H	22	PRO
9	I	2	LYS
9	I	81	ILE
10	J	89	ASN
11	K	15	ALA
11	K	94	THR
12	L	6	ARG
12	L	69	PRO
13	M	59	SER
13	M	117	ASP
16	P	101	ASP
18	R	67	ASP
19	S	3	ARG
20	T	6	ARG
20	T	49	PRO
24	X	2	LYS
24	X	25	GLN
25	Y	13	ILE
26	Z	35	ASP
27	1	25	THR
29	3	9	VAL
31	5	12	ARG
32	6	19	THR
33	7	11	LEU
33	7	156	LEU
34	8	29	THR
34	8	33	ILE
34	8	36	ALA
34	8	84	ASN
34	8	152	SER
34	8	166	LYS
34	8	169	TRP
34	8	174	ALA
35	9	77	ASN
35	9	105	ILE
35	9	122	VAL
35	9	159	SER
35	9	160	VAL
36	10	38	ARG
37	11	8	GLN
37	11	57	GLU
39	13	38	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	13	57	VAL
39	13	107	ALA
39	13	120	ALA
40	14	57	VAL
41	15	125	LYS
42	16	76	HIS
43	17	8	ILE
43	17	97	ARG
43	17	104	ASN
44	18	53	ASP
45	19	87	ARG
47	21	15	LYS
48	22	13	THR
48	22	17	VAL
50	24	5	SER
51	25	7	GLU
51	25	36	PHE
59	33	72	ASP
59	33	134	ASN
59	33	135	VAL
59	33	170	GLU
59	33	471	PRO
59	33	483	VAL
59	33	487	ARG
59	33	521	ILE
59	33	533	ARG
59	33	552	ARG
59	33	629	ARG
59	33	635	ARG
59	33	666	SER
1	A	72	GLY
1	A	88	ALA
1	A	120	ASP
2	B	58	ASN
2	B	98	VAL
2	B	118	PHE
3	C	60	TRP
4	D	20	ASN
4	D	40	GLY
6	F	2	GLN
6	F	84	ALA
7	G	52	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	G	84	TYR
7	G	122	GLN
7	G	125	ARG
8	H	31	GLY
8	H	32	VAL
8	H	136	GLY
9	I	25	LEU
9	I	72	LYS
10	J	35	VAL
10	J	93	GLN
10	J	110	GLU
11	K	17	LYS
11	K	29	LYS
11	K	93	ASN
11	K	111	ILE
11	K	113	ALA
13	M	99	LYS
14	N	101	GLY
15	O	64	SER
15	O	112	ARG
16	P	6	GLY
17	Q	29	THR
19	S	71	GLY
19	S	89	GLU
21	U	35	GLU
23	W	2	ARG
23	W	75	GLU
24	X	7	ARG
26	Z	4	ASP
26	Z	52	ALA
27	1	23	ALA
27	1	24	VAL
31	5	2	LYS
32	6	72	LYS
32	6	73	ARG
32	6	150	ILE
33	7	60	ALA
34	8	24	VAL
34	8	182	LYS
34	8	190	LEU
35	9	22	LYS
35	9	132	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
35	9	157	GLY
36	10	86	ARG
36	10	99	ALA
37	11	52	ARG
38	12	88	LYS
39	13	12	LYS
39	13	23	GLY
39	13	71	ILE
40	14	68	ARG
42	16	41	PRO
42	16	60	PHE
42	16	70	GLY
42	16	75	GLU
42	16	77	SER
42	16	88	ASP
43	17	2	ARG
43	17	6	ILE
43	17	39	ALA
43	17	40	GLU
47	21	16	MET
49	23	66	VAL
50	24	6	ALA
50	24	76	ALA
51	25	65	ARG
59	33	468	GLN
59	33	476	LEU
59	33	551	ILE
59	33	706	GLN
1	A	51	ARG
2	B	31	ALA
2	B	102	ALA
2	B	103	ASP
2	B	139	SER
2	B	178	VAL
3	C	79	ARG
3	C	129	PRO
4	D	142	TYR
4	D	173	ASP
4	D	174	PHE
5	E	118	ALA
5	E	175	LYS
6	F	15	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	G	72	LEU
7	G	75	ALA
7	G	89	PRO
7	G	90	GLY
7	G	93	ALA
9	I	132	HIS
10	J	103	VAL
11	K	115	GLU
12	L	59	ARG
12	L	125	PRO
13	M	32	GLU
15	O	2	ASN
17	Q	53	PHE
18	R	40	ASN
19	S	38	ALA
20	T	98	ASN
21	U	66	ASP
27	1	2	VAL
29	3	5	PHE
30	4	3	ILE
30	4	27	ASN
30	4	29	ARG
30	4	63	TYR
31	5	11	CYS
31	5	29	ALA
32	6	11	ALA
32	6	33	ALA
34	8	6	PRO
34	8	191	SER
35	9	23	THR
35	9	99	SER
35	9	129	SER
36	10	94	HIS
37	11	18	GLY
37	11	111	GLY
37	11	147	ASN
39	13	90	ASP
41	15	94	SER
42	16	2	THR
42	16	23	LEU
42	16	35	ARG
44	18	2	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
44	18	20	PHE
44	18	29	ILE
45	19	72	LYS
46	20	79	ASN
46	20	81	ALA
47	21	17	GLU
48	22	71	ASP
51	25	8	ASN
51	25	13	VAL
51	25	34	ARG
51	25	37	TYR
51	25	64	ALA
51	25	66	ARG
59	33	267	ASN
59	33	334	VAL
59	33	485	THR
59	33	509	ARG
59	33	522	SER
59	33	553	LEU
59	33	610	ALA
59	33	654	ASP
59	33	695	LEU
1	A	70	LYS
3	C	18	THR
3	C	62	GLN
6	F	3	VAL
6	F	11	ASN
6	F	41	LYS
6	F	122	LEU
7	G	58	THR
11	K	47	ARG
14	N	100	HIS
18	R	3	THR
18	R	72	THR
20	T	13	LEU
20	T	50	ALA
32	6	149	GLY
33	7	28	PHE
35	9	93	VAL
36	10	98	GLU
37	11	17	PHE
37	11	113	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
38	12	2	MET
40	14	34	ALA
40	14	47	GLU
40	14	75	ASP
44	18	37	ASP
45	19	45	HIS
48	22	18	GLN
48	22	36	GLY
48	22	70	THR
49	23	57	VAL
59	33	52	ALA
59	33	484	THR
59	33	568	SER
59	33	606	MET
59	33	637	ASP
59	33	701	SER
1	A	231	HIS
2	B	41	ALA
2	B	87	GLY
3	C	83	VAL
3	C	152	GLU
3	C	166	LYS
4	D	84	ILE
5	E	174	LYS
14	N	68	LYS
14	N	99	TYR
17	Q	43	ASN
19	S	65	GLY
22	V	8	ASN
22	V	39	THR
24	X	6	LEU
27	1	4	GLN
32	6	157	PRO
33	7	26	LYS
34	8	39	GLN
35	9	88	HIS
36	10	54	LEU
37	11	95	ARG
39	13	54	VAL
40	14	93	ALA
41	15	88	PRO
42	16	33	CYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
42	16	108	ASP
43	17	65	GLU
44	18	71	GLY
45	19	2	LEU
49	23	26	ASP
51	25	12	ASP
1	A	31	PRO
7	G	118	ILE
7	G	121	SER
13	M	106	ASP
20	T	3	LYS
21	U	67	GLY
26	Z	32	LEU
26	Z	64	PHE
30	4	31	ILE
36	10	56	LYS
43	17	98	GLY
44	18	34	ASN
46	20	47	GLU
46	20	49	GLY
47	21	65	PRO
47	21	67	SER
59	33	44	GLN
59	33	675	ASP
3	C	54	GLY
5	E	7	PRO
9	I	82	GLY
25	Y	14	GLY
27	1	34	GLY
40	14	42	LEU
41	15	73	VAL
45	19	85	GLY
1	A	7	PRO
1	A	108	GLY
6	F	92	GLY
7	G	68	PRO
14	N	32	PRO
14	N	35	ILE
43	17	24	VAL
3	C	89	PRO
5	E	53	PRO
15	O	21	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
20	T	38	ILE
28	2	41	VAL
33	7	75	VAL
47	21	54	ILE
49	23	10	ILE
4	D	61	GLY
6	F	78	VAL
7	G	108	VAL
34	8	45	PRO
39	13	9	GLY
59	33	656	VAL
35	9	140	ILE
40	14	33	GLY
43	17	113	LYS

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	216/218 (99%)	215 (100%)	1 (0%)	86	90
2	B	164/164 (100%)	163 (99%)	1 (1%)	84	88
3	C	165/165 (100%)	164 (99%)	1 (1%)	84	88
4	D	148/150 (99%)	146 (99%)	2 (1%)	62	75
5	E	137/138 (99%)	136 (99%)	1 (1%)	81	86
6	F	114/114 (100%)	113 (99%)	1 (1%)	75	83
7	G	100/123 (81%)	99 (99%)	1 (1%)	73	81
8	H	109/110 (99%)	109 (100%)	0	100	100
9	I	116/116 (100%)	116 (100%)	0	100	100
10	J	103/104 (99%)	103 (100%)	0	100	100
11	K	102/103 (99%)	102 (100%)	0	100	100
12	L	109/109 (100%)	109 (100%)	0	100	100
13	M	100/103 (97%)	99 (99%)	1 (1%)	73	81

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
14	N	86/87 (99%)	84 (98%)	2 (2%)	45	64
15	O	99/100 (99%)	99 (100%)	0	100	100
16	P	89/90 (99%)	89 (100%)	0	100	100
17	Q	84/84 (100%)	84 (100%)	0	100	100
18	R	93/93 (100%)	93 (100%)	0	100	100
19	S	80/84 (95%)	79 (99%)	1 (1%)	65	76
20	T	83/85 (98%)	82 (99%)	1 (1%)	67	78
21	U	78/78 (100%)	78 (100%)	0	100	100
22	V	57/63 (90%)	57 (100%)	0	100	100
23	W	67/68 (98%)	67 (100%)	0	100	100
24	X	55/55 (100%)	55 (100%)	0	100	100
25	Y	48/49 (98%)	48 (100%)	0	100	100
26	Z	59/62 (95%)	58 (98%)	1 (2%)	56	72
27	1	47/48 (98%)	47 (100%)	0	100	100
28	2	45/49 (92%)	45 (100%)	0	100	100
29	3	38/38 (100%)	38 (100%)	0	100	100
30	4	51/52 (98%)	51 (100%)	0	100	100
31	5	34/34 (100%)	34 (100%)	0	100	100
32	6	180/199 (90%)	179 (99%)	1 (1%)	84	88
33	7	170/190 (90%)	168 (99%)	2 (1%)	67	78
34	8	172/173 (99%)	171 (99%)	1 (1%)	84	88
35	9	119/126 (94%)	117 (98%)	2 (2%)	56	72
36	10	87/116 (75%)	86 (99%)	1 (1%)	70	79
37	11	124/147 (84%)	124 (100%)	0	100	100
38	12	104/105 (99%)	104 (100%)	0	100	100
39	13	105/107 (98%)	103 (98%)	2 (2%)	52	70
40	14	86/90 (96%)	86 (100%)	0	100	100
41	15	89/99 (90%)	89 (100%)	0	100	100
42	16	103/104 (99%)	103 (100%)	0	100	100
43	17	92/96 (96%)	91 (99%)	1 (1%)	70	79
44	18	83/84 (99%)	81 (98%)	2 (2%)	44	63

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
45	19	76/77 (99%)	76 (100%)	0	100	100
46	20	65/65 (100%)	65 (100%)	0	100	100
47	21	74/78 (95%)	74 (100%)	0	100	100
48	22	56/65 (86%)	55 (98%)	1 (2%)	54	71
49	23	70/79 (89%)	70 (100%)	0	100	100
50	24	65/66 (98%)	65 (100%)	0	100	100
51	25	55/61 (90%)	55 (100%)	0	100	100
59	33	452/635 (71%)	449 (99%)	3 (1%)	81	86
All	All	5303/5698 (93%)	5273 (99%)	30 (1%)	82	88

All (30) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	212	TRP
2	B	40	LEU
3	C	60	TRP
4	D	103	ILE
4	D	175	PRO
5	E	138	GLN
6	F	9	VAL
7	G	41	LEU
13	M	37	THR
14	N	32	PRO
14	N	33	ARG
19	S	32	LEU
20	T	49	PRO
26	Z	37	CYS
32	6	22	TRP
33	7	100	ILE
33	7	101	ASN
34	8	170	LEU
35	9	132	PRO
35	9	161	GLU
36	10	92	THR
39	13	45	MET
39	13	126	PHE
43	17	114	PRO
44	18	45	LEU
44	18	81	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
48	22	12	PHE
59	33	267	ASN
59	33	338	ILE
59	33	714	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (94) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	114	GLN
1	A	116	GLN
1	A	127	ASN
2	B	49	GLN
2	B	130	GLN
2	B	173	GLN
3	C	94	GLN
3	C	156	ASN
4	D	51	ASN
4	D	62	GLN
4	D	80	GLN
5	E	47	ASN
5	E	63	GLN
5	E	72	ASN
5	E	87	GLN
5	E	115	GLN
6	F	28	ASN
6	F	43	ASN
6	F	119	ASN
7	G	122	GLN
8	H	11	GLN
8	H	29	GLN
8	H	30	GLN
8	H	42	ASN
9	I	136	GLN
13	M	18	GLN
14	N	100	HIS
15	O	6	GLN
15	O	11	GLN
16	P	36	GLN
16	P	51	GLN
16	P	55	GLN
16	P	58	GLN
16	P	71	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	Q	18	GLN
17	Q	43	ASN
17	Q	66	HIS
17	Q	89	HIS
20	T	73	ASN
22	V	8	ASN
23	W	15	ASN
24	X	20	ASN
24	X	58	ASN
26	Z	61	ASN
27	1	5	ASN
29	3	13	ASN
31	5	35	GLN
31	5	37	GLN
32	6	17	HIS
32	6	18	GLN
32	6	38	HIS
32	6	167	HIS
32	6	177	ASN
34	8	70	GLN
35	9	42	ASN
35	9	134	ASN
36	10	11	HIS
36	10	37	HIS
37	11	27	ASN
37	11	121	ASN
37	11	129	ASN
38	12	17	GLN
38	12	20	ASN
39	13	36	GLN
39	13	74	GLN
39	13	109	GLN
40	14	58	ASN
41	15	28	ASN
41	15	39	ASN
42	16	28	GLN
42	16	45	ASN
46	20	9	HIS
46	20	26	ASN
46	20	29	ASN
46	20	40	ASN
46	20	79	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
47	21	30	HIS
47	21	46	HIS
48	22	18	GLN
48	22	51	GLN
48	22	73	HIS
50	24	51	ASN
50	24	60	GLN
50	24	83	ASN
59	33	88	ASN
59	33	235	HIS
59	33	264	GLN
59	33	267	ASN
59	33	432	HIS
59	33	594	ASN
59	33	604	ASN
59	33	614	GLN
59	33	706	GLN
59	33	730	ASN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
52	26	1538/1539 (99%)	178 (11%)	5 (0%)
53	27	2902/2903 (99%)	379 (13%)	17 (0%)
54	28	119/120 (99%)	15 (12%)	1 (0%)
55	29	19/20 (95%)	3 (15%)	0
56	30	75/76 (98%)	22 (29%)	1 (1%)
57	31	76/77 (98%)	5 (6%)	0
58	32	76/77 (98%)	16 (21%)	0
All	All	4805/4812 (99%)	618 (12%)	24 (0%)

All (618) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
52	26	4	U
52	26	9	G
52	26	13	U
52	26	22	G
52	26	32	A
52	26	39	G
52	26	47	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	26	48	C
52	26	50	A
52	26	51	A
52	26	71	A
52	26	82	G
52	26	83	C
52	26	86	G
52	26	94	G
52	26	95	C
52	26	100	G
52	26	121	U
52	26	141	G
52	26	144	G
52	26	149	A
52	26	168	G
52	26	183	C
52	26	184	G
52	26	209	U
52	26	210	C
52	26	211	G
52	26	212	G
52	26	226	G
52	26	240	G
52	26	247	G
52	26	251	G
52	26	266	G
52	26	267	C
52	26	279	A
52	26	280	C
52	26	281	G
52	26	289	G
52	26	306	A
52	26	328	C
52	26	330	C
52	26	345	C
52	26	352	C
52	26	354	G
52	26	367	U
52	26	369	G
52	26	372	C
52	26	373	A
52	26	398	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	26	406	G
52	26	412	A
52	26	413	G
52	26	421	U
52	26	422	C
52	26	423	G
52	26	429	U
52	26	467	U
52	26	468	A
52	26	484	G
52	26	485	U
52	26	486	U
52	26	496	A
52	26	509	A
52	26	527	G
52	26	531	U
52	26	532	A
52	26	533	A
52	26	535	A
52	26	547	A
52	26	561	U
52	26	562	U
52	26	564	C
52	26	572	A
52	26	573	A
52	26	575	G
52	26	576	C
52	26	577	G
52	26	596	A
52	26	607	A
52	26	633	G
52	26	642	A
52	26	665	A
52	26	687	A
52	26	703	G
52	26	724	G
52	26	731	G
52	26	733	G
52	26	755	G
52	26	777	A
52	26	793	U
52	26	814	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	26	815	A
52	26	817	C
52	26	818	G
52	26	819	A
52	26	821	G
52	26	832	G
52	26	842	U
52	26	843	U
52	26	844	G
52	26	846	G
52	26	849	G
52	26	871	U
52	26	934	C
52	26	935	A
52	26	960	U
52	26	961	U
52	26	966	G
52	26	969	A
52	26	971	G
52	26	975	A
52	26	976	G
52	26	977	A
52	26	991	U
52	26	992	U
52	26	993	G
52	26	1004	A
52	26	1020	G
52	26	1027	C
52	26	1028	C
52	26	1030	U
52	26	1032	G
52	26	1033	G
52	26	1034	G
52	26	1094	G
52	26	1101	A
52	26	1130	A
52	26	1132	C
52	26	1136	C
52	26	1137	C
52	26	1138	G
52	26	1139	G
52	26	1140	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	26	1159	U
52	26	1168	U
52	26	1183	U
52	26	1184	G
52	26	1196	A
52	26	1207	G
52	26	1212	U
52	26	1213	A
52	26	1225	A
52	26	1226	C
52	26	1227	A
52	26	1238	A
52	26	1240	U
52	26	1241	G
52	26	1258	G
52	26	1260	G
52	26	1275	A
52	26	1278	G
52	26	1280	A
52	26	1286	U
52	26	1287	A
52	26	1300	G
52	26	1317	C
52	26	1320	C
52	26	1336	C
52	26	1346	A
52	26	1347	G
52	26	1353	G
52	26	1363	A
52	26	1395	C
52	26	1419	G
52	26	1441	A
52	26	1446	A
52	26	1448	C
52	26	1452	C
52	26	1453	G
52	26	1492	A
52	26	1497	G
52	26	1503	A
52	26	1506	U
52	26	1517	G
52	26	1529	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	26	1530	G
52	26	1533	C
52	26	1534	A
53	27	10	A
53	27	12	U
53	27	34	U
53	27	35	G
53	27	46	G
53	27	49	A
53	27	51	G
53	27	63	A
53	27	71	A
53	27	74	A
53	27	75	G
53	27	92	U
53	27	103	A
53	27	114	U
53	27	118	A
53	27	119	A
53	27	120	U
53	27	139	U
53	27	140	C
53	27	142	A
53	27	143	C
53	27	162	U
53	27	163	C
53	27	178	G
53	27	181	A
53	27	196	A
53	27	199	A
53	27	205	G
53	27	216	A
53	27	221	A
53	27	222	A
53	27	229	C
53	27	248	G
53	27	249	C
53	27	255	A
53	27	276	U
53	27	278	A
53	27	281	C
53	27	284	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	27	285	G
53	27	294	A
53	27	301	G
53	27	311	A
53	27	322	A
53	27	323	C
53	27	324	A
53	27	329	G
53	27	330	A
53	27	353	C
53	27	371	A
53	27	372	G
53	27	386	G
53	27	387	U
53	27	404	A
53	27	406	G
53	27	411	G
53	27	422	A
53	27	424	G
53	27	451	U
53	27	455	C
53	27	457	A
53	27	481	G
53	27	491	G
53	27	504	A
53	27	505	A
53	27	508	A
53	27	529	A
53	27	531	C
53	27	532	A
53	27	545	U
53	27	547	A
53	27	548	G
53	27	549	G
53	27	563	A
53	27	568	U
53	27	573	U
53	27	575	A
53	27	588	U
53	27	603	A
53	27	614	A
53	27	615	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	27	627	A
53	27	637	A
53	27	645	C
53	27	646	U
53	27	654	A
53	27	655	A
53	27	664	G
53	27	669	G
53	27	686	U
53	27	695	G
53	27	711	G
53	27	717	C
53	27	730	A
53	27	747	C
53	27	752	A
53	27	776	G
53	27	782	A
53	27	784	G
53	27	785	G
53	27	805	G
53	27	812	C
53	27	819	A
53	27	827	U
53	27	828	U
53	27	830	G
53	27	845	A
53	27	846	U
53	27	847	U
53	27	858	G
53	27	859	G
53	27	860	U
53	27	866	A
53	27	888	C
53	27	896	A
53	27	910	A
53	27	915	C
53	27	931	U
53	27	932	U
53	27	941	A
53	27	945	A
53	27	946	C
53	27	953	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	27	961	C
53	27	973	A
53	27	974	G
53	27	983	A
53	27	995	C
53	27	996	A
53	27	1009	A
53	27	1012	U
53	27	1013	C
53	27	1021	A
53	27	1022	G
53	27	1023	U
53	27	1033	U
53	27	1046	A
53	27	1047	G
53	27	1053	C
53	27	1069	A
53	27	1070	A
53	27	1083	U
53	27	1088	A
53	27	1090	A
53	27	1097	U
53	27	1111	A
53	27	1119	U
53	27	1130	U
53	27	1131	G
53	27	1132	U
53	27	1133	A
53	27	1135	C
53	27	1142	A
53	27	1157	G
53	27	1172	C
53	27	1173	U
53	27	1174	U
53	27	1177	G
53	27	1178	C
53	27	1206	G
53	27	1210	G
53	27	1212	G
53	27	1250	G
53	27	1253	A
53	27	1256	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	27	1262	A
53	27	1271	G
53	27	1272	A
53	27	1300	G
53	27	1301	A
53	27	1305	C
53	27	1321	A
53	27	1329	U
53	27	1330	C
53	27	1332	G
53	27	1345	C
53	27	1365	A
53	27	1378	A
53	27	1379	U
53	27	1383	A
53	27	1395	A
53	27	1416	G
53	27	1419	A
53	27	1420	A
53	27	1428	C
53	27	1461	C
53	27	1482	G
53	27	1490	A
53	27	1498	C
53	27	1504	A
53	27	1515	A
53	27	1524	G
53	27	1535	A
53	27	1536	C
53	27	1560	G
53	27	1569	A
53	27	1578	U
53	27	1584	U
53	27	1608	A
53	27	1611	C
53	27	1616	A
53	27	1617	C
53	27	1647	U
53	27	1648	U
53	27	1674	G
53	27	1694	C
53	27	1698	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	27	1699	G
53	27	1703	G
53	27	1715	G
53	27	1729	U
53	27	1730	C
53	27	1731	G
53	27	1732	C
53	27	1738	G
53	27	1758	U
53	27	1764	C
53	27	1773	A
53	27	1780	A
53	27	1782	U
53	27	1791	A
53	27	1800	C
53	27	1801	A
53	27	1808	A
53	27	1816	C
53	27	1829	A
53	27	1847	G
53	27	1858	A
53	27	1871	A
53	27	1901	A
53	27	1906	G
53	27	1907	G
53	27	1913	A
53	27	1929	G
53	27	1930	G
53	27	1937	A
53	27	1938	A
53	27	1955	U
53	27	1967	C
53	27	1970	A
53	27	1971	U
53	27	1972	G
53	27	1982	U
53	27	1991	U
53	27	1993	U
53	27	1997	C
53	27	2022	U
53	27	2023	C
53	27	2031	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	27	2036	C
53	27	2043	C
53	27	2049	G
53	27	2055	C
53	27	2056	G
53	27	2060	A
53	27	2061	G
53	27	2062	A
53	27	2063	C
53	27	2069	G
53	27	2072	C
53	27	2080	A
53	27	2095	A
53	27	2096	C
53	27	2098	U
53	27	2110	G
53	27	2111	U
53	27	2113	U
53	27	2115	G
53	27	2118	U
53	27	2119	A
53	27	2124	G
53	27	2127	G
53	27	2131	U
53	27	2132	U
53	27	2133	G
53	27	2137	U
53	27	2145	C
53	27	2147	A
53	27	2148	G
53	27	2159	G
53	27	2162	G
53	27	2171	A
53	27	2172	U
53	27	2173	A
53	27	2182	U
53	27	2189	U
53	27	2198	A
53	27	2204	G
53	27	2211	A
53	27	2225	A
53	27	2238	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	27	2239	G
53	27	2243	U
53	27	2268	A
53	27	2278	A
53	27	2283	C
53	27	2287	A
53	27	2297	A
53	27	2305	U
53	27	2309	A
53	27	2319	G
53	27	2325	G
53	27	2327	A
53	27	2334	U
53	27	2350	C
53	27	2357	G
53	27	2382	G
53	27	2383	G
53	27	2385	C
53	27	2388	A
53	27	2402	U
53	27	2403	C
53	27	2406	A
53	27	2423	U
53	27	2424	C
53	27	2429	G
53	27	2430	A
53	27	2435	A
53	27	2441	U
53	27	2447	G
53	27	2448	A
53	27	2476	A
53	27	2494	G
53	27	2497	A
53	27	2498	C
53	27	2502	G
53	27	2503	A
53	27	2505	G
53	27	2506	U
53	27	2518	A
53	27	2520	C
53	27	2529	G
53	27	2547	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	27	2554	U
53	27	2562	U
53	27	2567	G
53	27	2572	A
53	27	2585	U
53	27	2586	U
53	27	2602	A
53	27	2603	G
53	27	2609	U
53	27	2613	U
53	27	2615	U
53	27	2621	G
53	27	2629	U
53	27	2646	C
53	27	2682	A
53	27	2689	U
53	27	2690	U
53	27	2713	U
53	27	2714	G
53	27	2716	C
53	27	2722	G
53	27	2744	G
53	27	2748	A
53	27	2752	C
53	27	2757	A
53	27	2764	A
53	27	2765	A
53	27	2778	A
53	27	2779	U
53	27	2780	G
53	27	2791	G
53	27	2798	U
53	27	2799	A
53	27	2800	A
53	27	2801	G
53	27	2808	G
53	27	2809	A
53	27	2820	A
53	27	2823	A
53	27	2833	U
53	27	2850	A
53	27	2866	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	27	2867	G
53	27	2868	A
53	27	2872	A
53	27	2880	C
54	28	4	C
54	28	13	G
54	28	24	G
54	28	25	U
54	28	35	C
54	28	44	G
54	28	45	A
54	28	67	G
54	28	88	C
54	28	89	U
54	28	90	C
54	28	91	C
54	28	108	A
54	28	109	A
54	28	120	A
55	29	8	A
55	29	12	A
55	29	13	A
56	30	8	U
56	30	9	A
56	30	10	G
56	30	13	C
56	30	14	A
56	30	16	U
56	30	17	C
56	30	18	G
56	30	20	U
56	30	21	A
56	30	42	C
56	30	46	G
56	30	48	C
56	30	52	G
56	30	55	U
56	30	58	A
56	30	59	U
56	30	61	C
56	30	63	G
56	30	74	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
56	30	75	C
56	30	76	A
57	31	9	G
57	31	19	G
57	31	20	U
57	31	47	U
57	31	48	C
58	32	7	G
58	32	8	U
58	32	9	G
58	32	16	C
58	32	19	G
58	32	21	A
58	32	22	G
58	32	30	G
58	32	34	C
58	32	35	A
58	32	45	G
58	32	46	A
58	32	48	C
58	32	59	A
58	32	70	G
58	32	75	C

All (24) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
52	26	246	A
52	26	438	U
52	26	561	U
52	26	960	U
52	26	1240	U
53	27	139	U
53	27	421	C
53	27	490	C
53	27	858	G
53	27	859	G
53	27	1020	A
53	27	1130	U
53	27	1378	A
53	27	1694	C
53	27	1730	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
53	27	1857	G
53	27	2286	G
53	27	2296	U
53	27	2326	C
53	27	2712	C
53	27	2756	U
53	27	2808	G
54	28	66	A
56	30	73	A

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](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

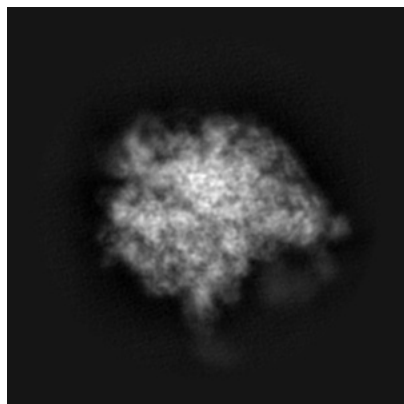
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-8281. These allow visual inspection of the internal detail of the map and identification of artifacts.

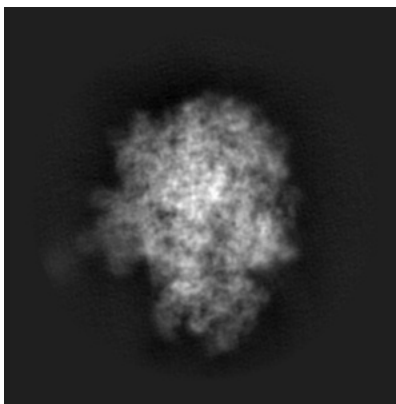
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

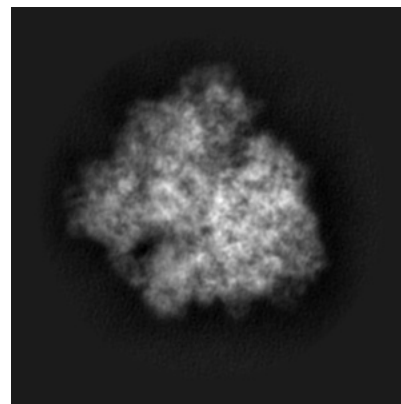
6.1.1 Primary map



X

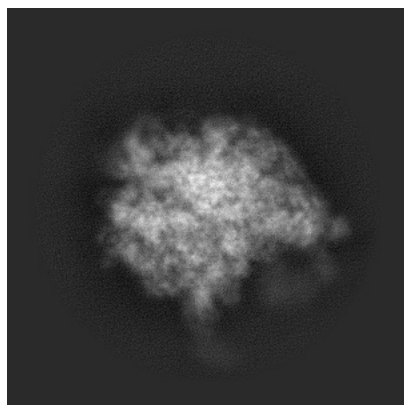


Y

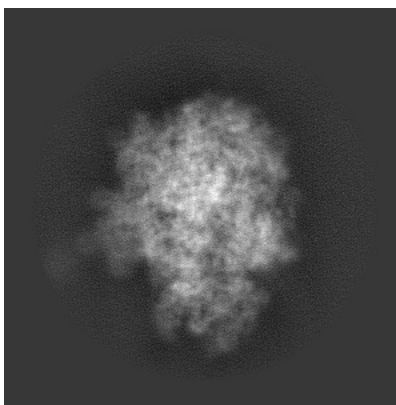


Z

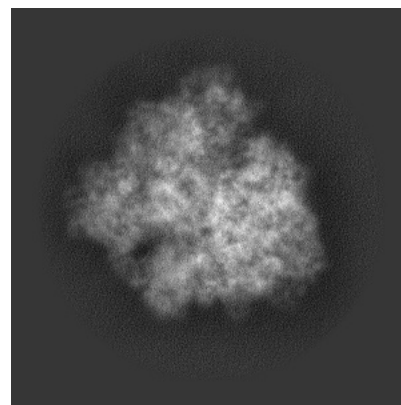
6.1.2 Raw map



X



Y

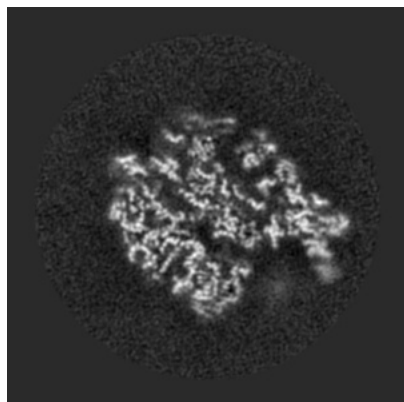


Z

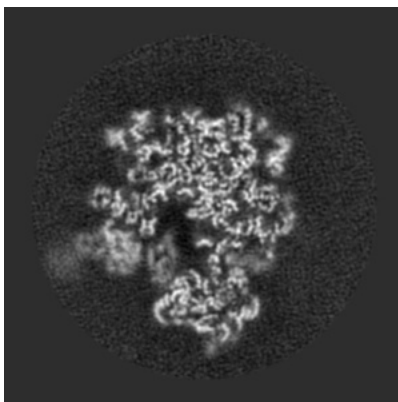
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

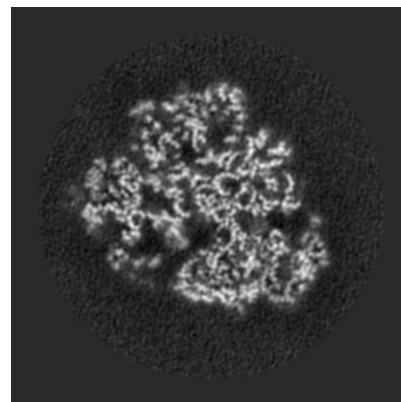
6.2.1 Primary map



X Index: 240

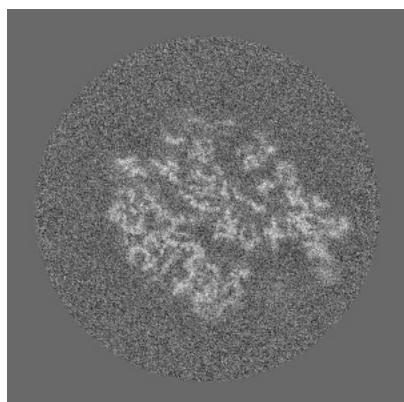


Y Index: 240

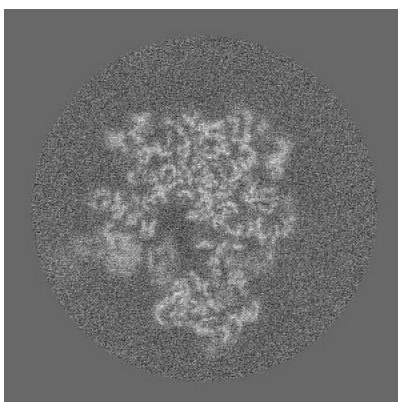


Z Index: 240

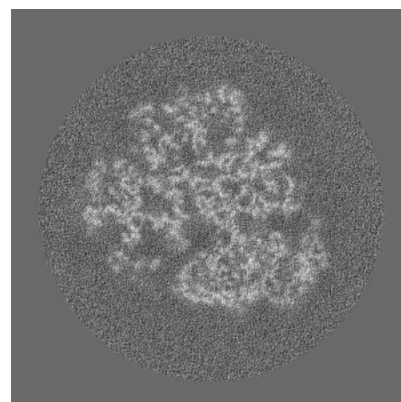
6.2.2 Raw map



X Index: 240



Y Index: 240

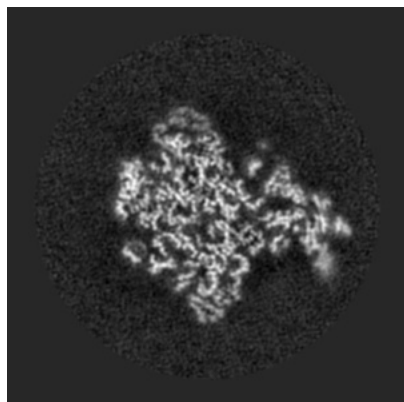


Z Index: 240

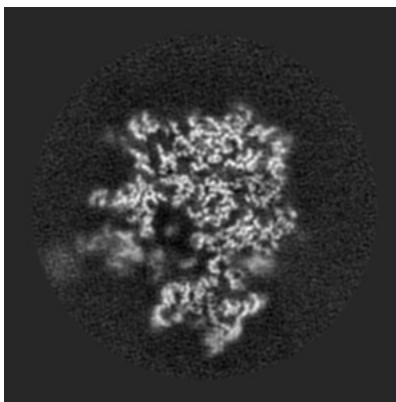
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

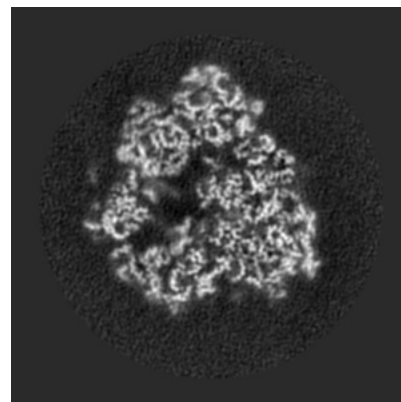
6.3.1 Primary map



X Index: 249

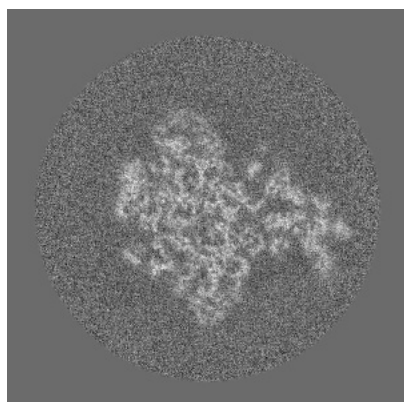


Y Index: 247

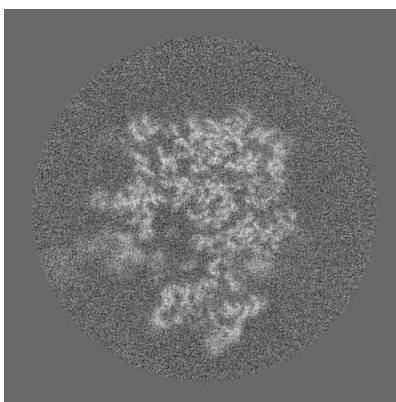


Z Index: 220

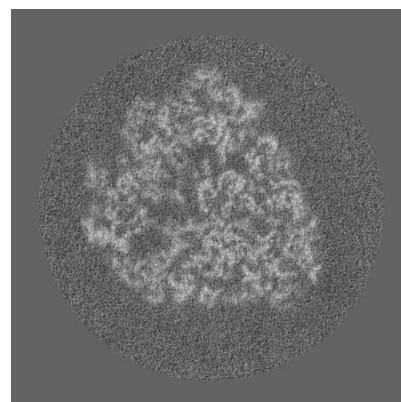
6.3.2 Raw map



X Index: 249



Y Index: 247

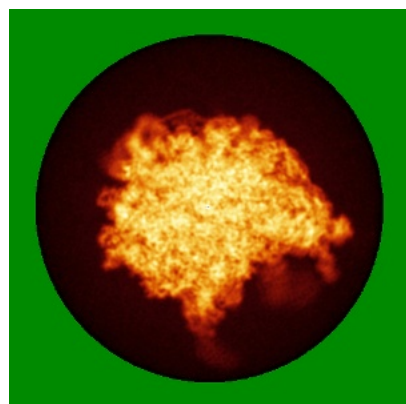


Z Index: 227

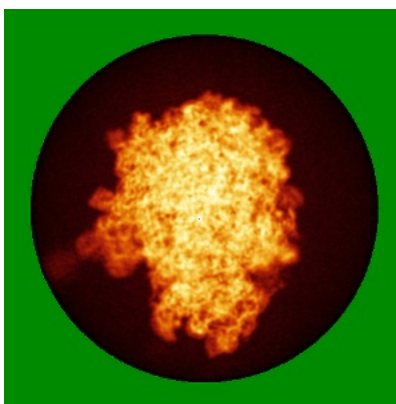
The images above show the largest variance slices of the map in three orthogonal directions.

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

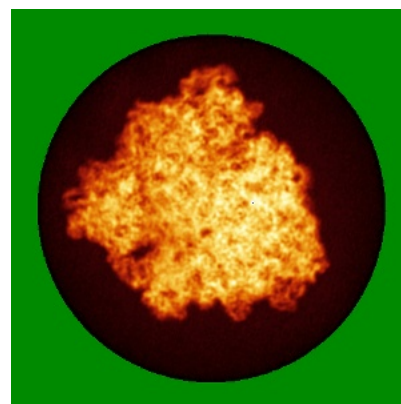
6.4.1 Primary map



X

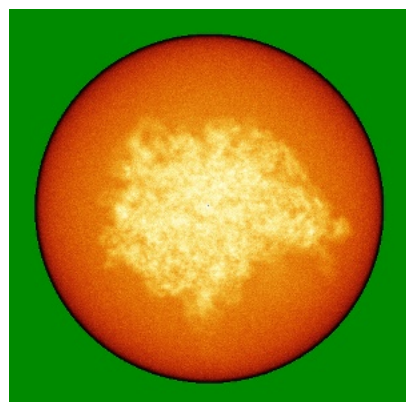


Y

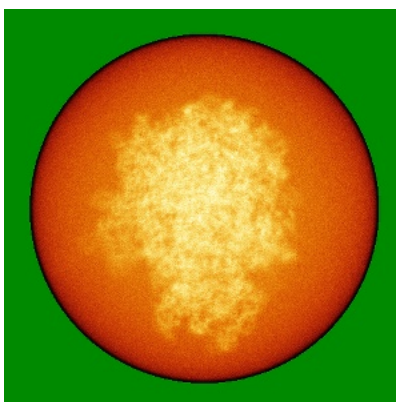


Z

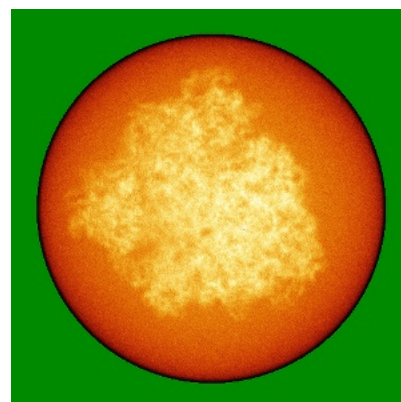
6.4.2 Raw map



X



Y



Z

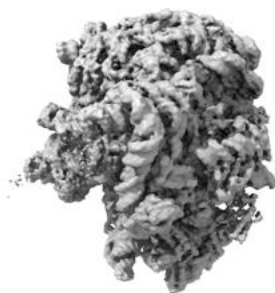
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



X



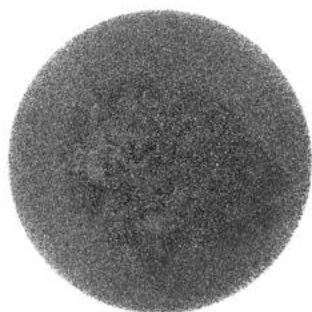
Y



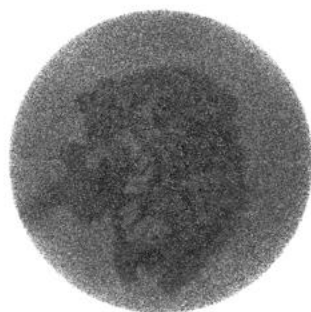
Z

The images above show the 3D surface view of the map at the recommended contour level 0.1. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

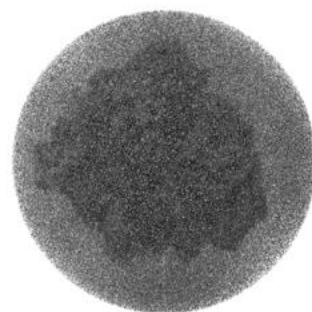
6.5.2 Raw map



X



Y



Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

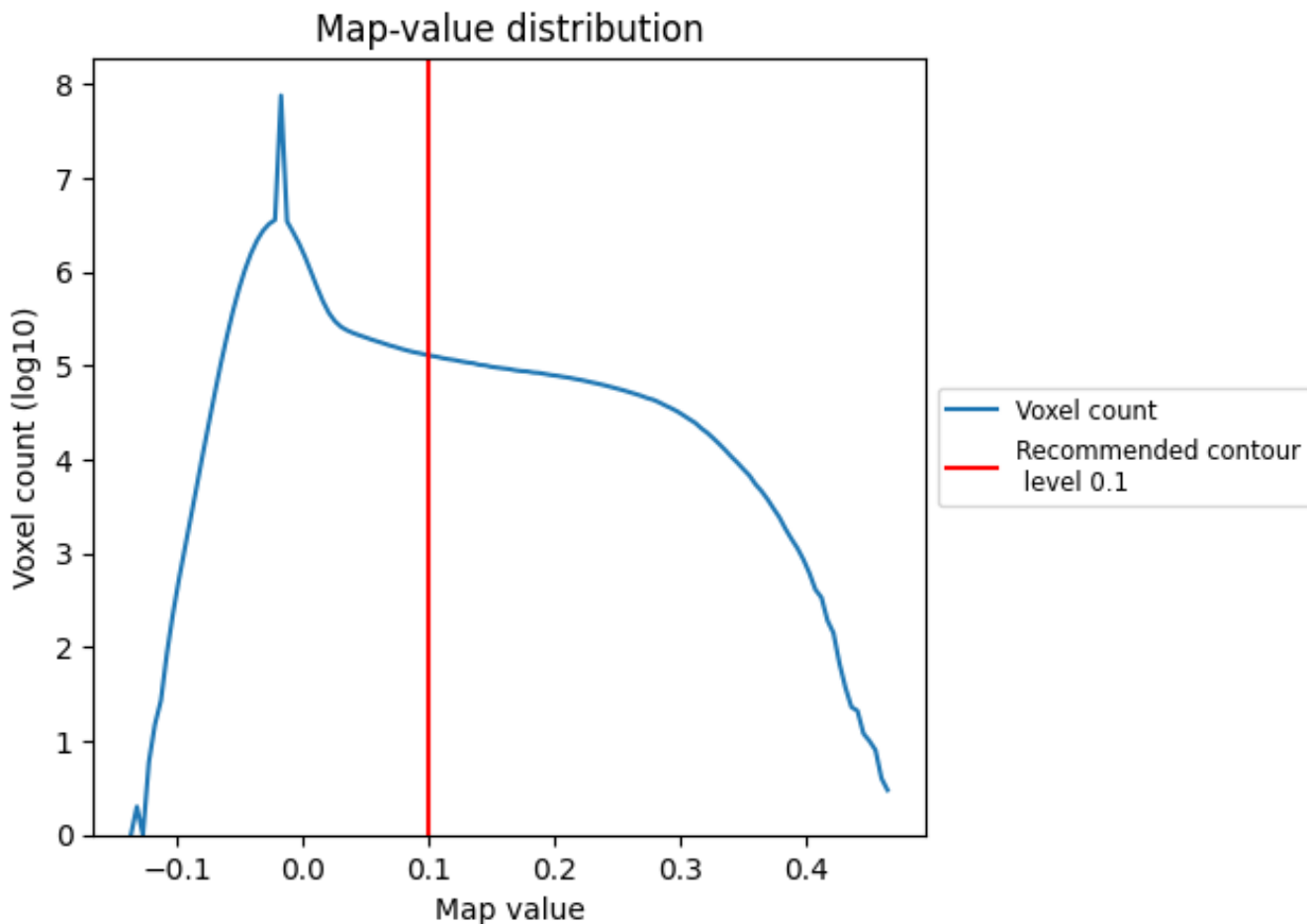
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

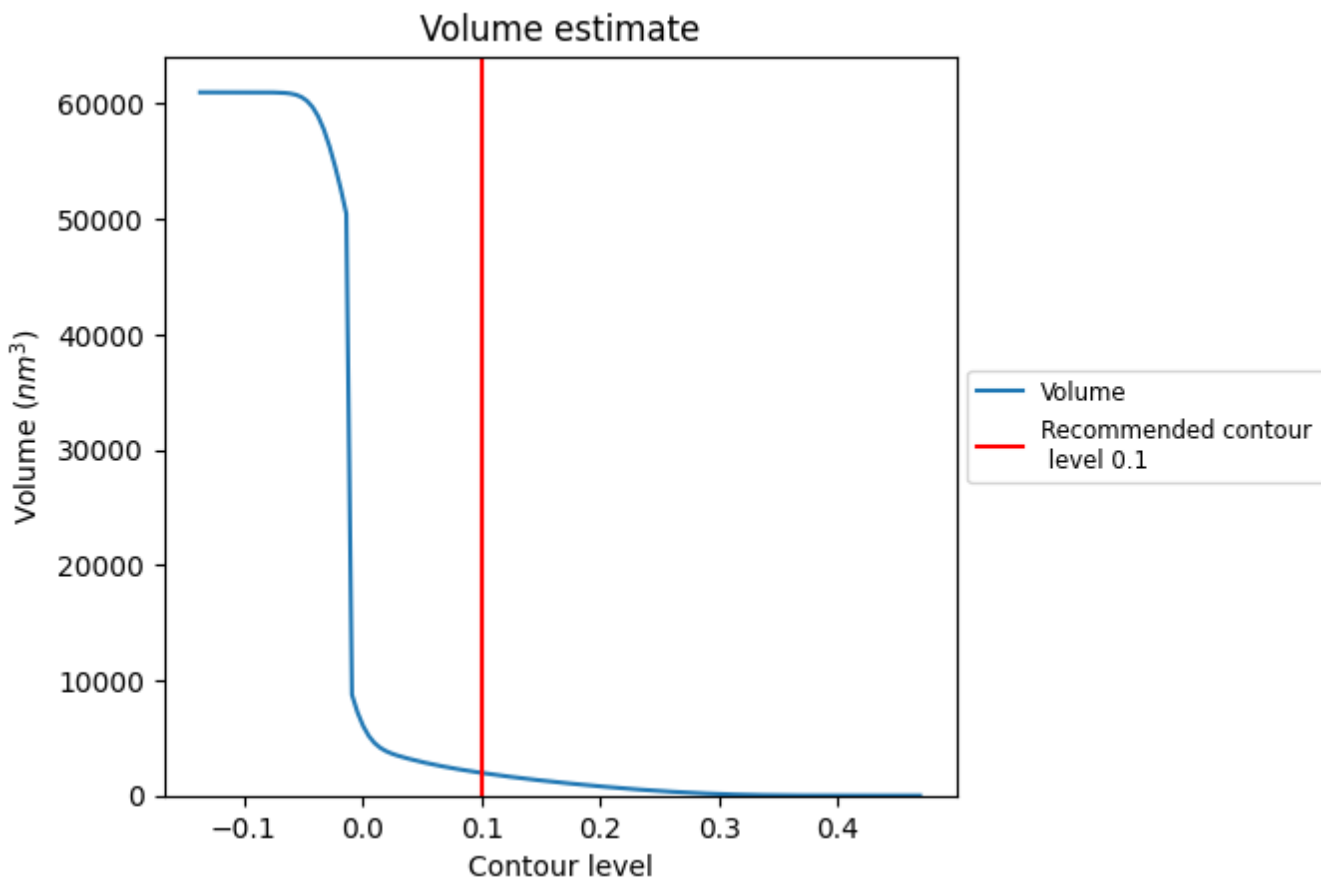
This section contains the results of statistical analysis of the map.

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.

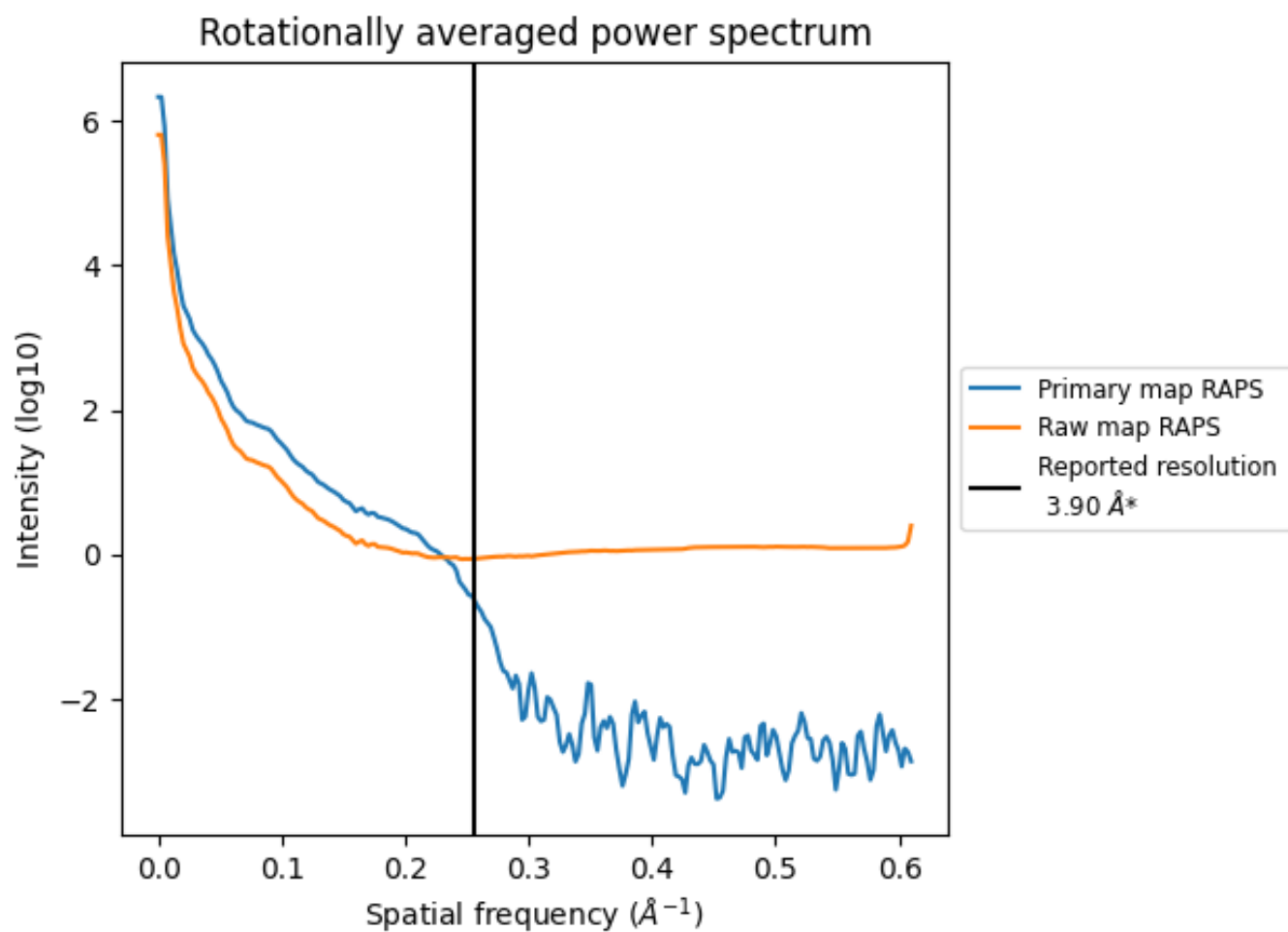
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1970 nm³; this corresponds to an approximate mass of 1779 kDa.

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

7.3 Rotationally averaged power spectrum i

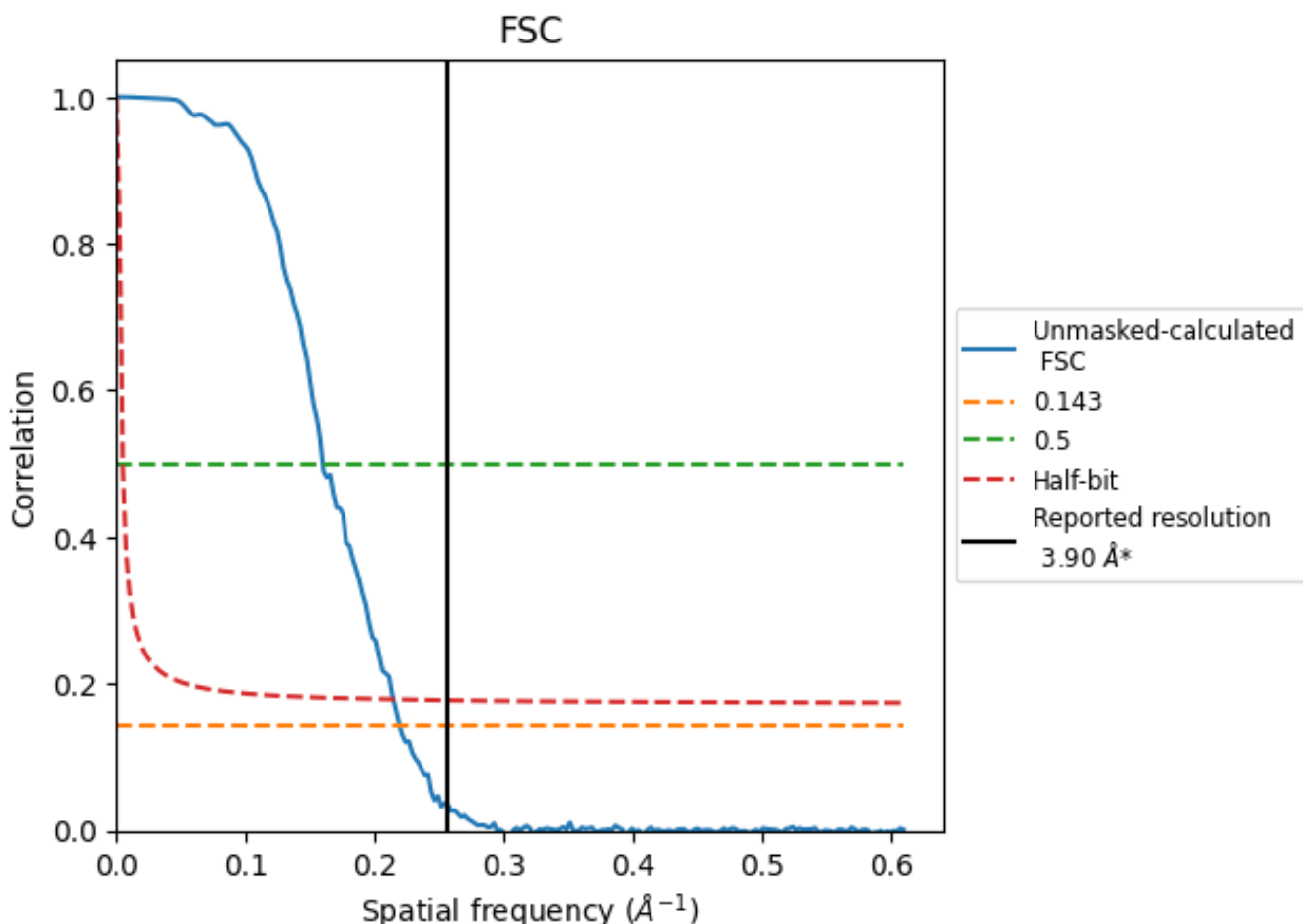


*Reported resolution corresponds to spatial frequency of 0.256 Å⁻¹

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 0.256 Å⁻¹

8.2 Resolution estimates [i](#)

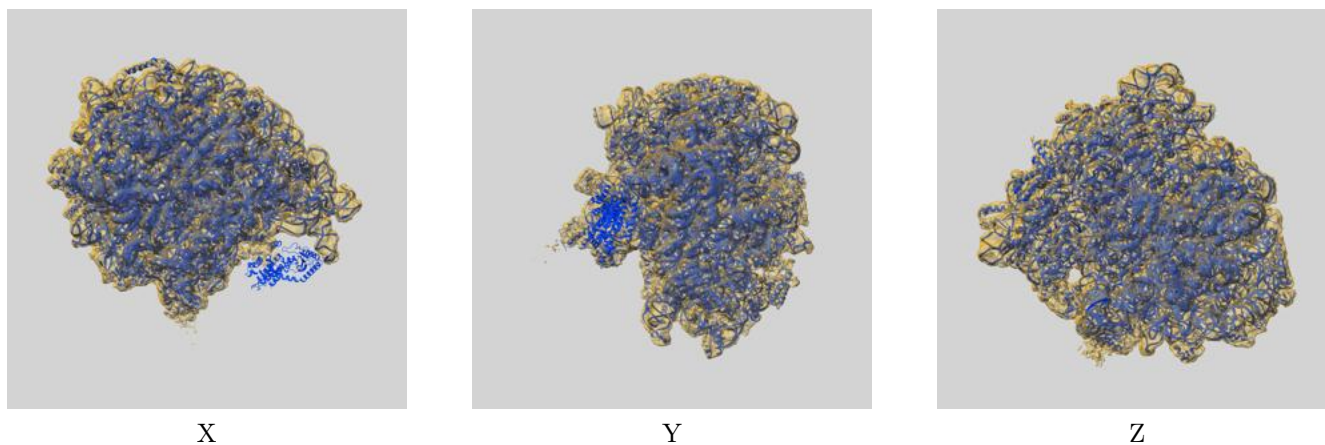
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.90	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	4.57	6.27	4.67

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.57 differs from the reported value 3.9 by more than 10 %

9 Map-model fit [i](#)

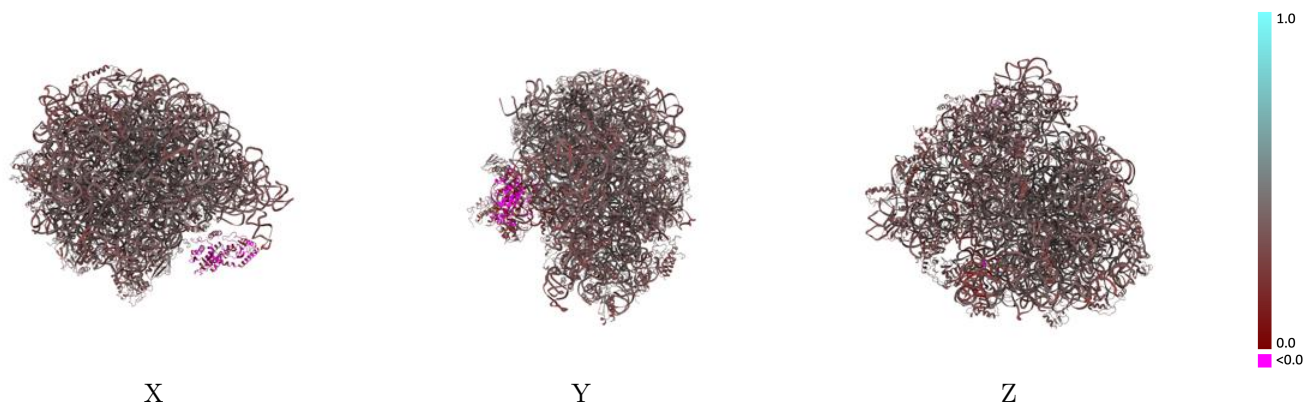
This section contains information regarding the fit between EMDB map EMD-8281 and PDB model 5KPW. Per-residue inclusion information can be found in section 3 on page 15.

9.1 Map-model overlay [i](#)



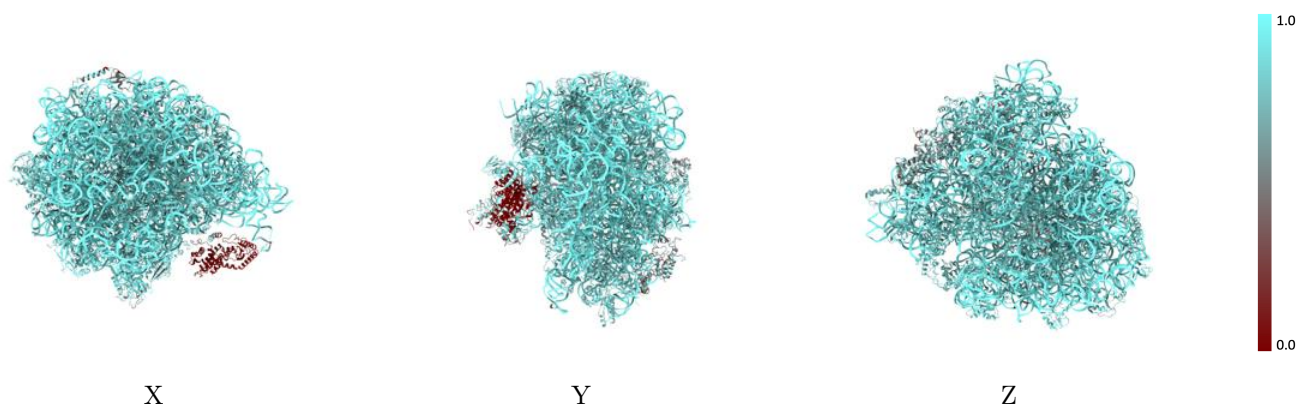
The images above show the 3D surface view of the map at the recommended contour level 0.1 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



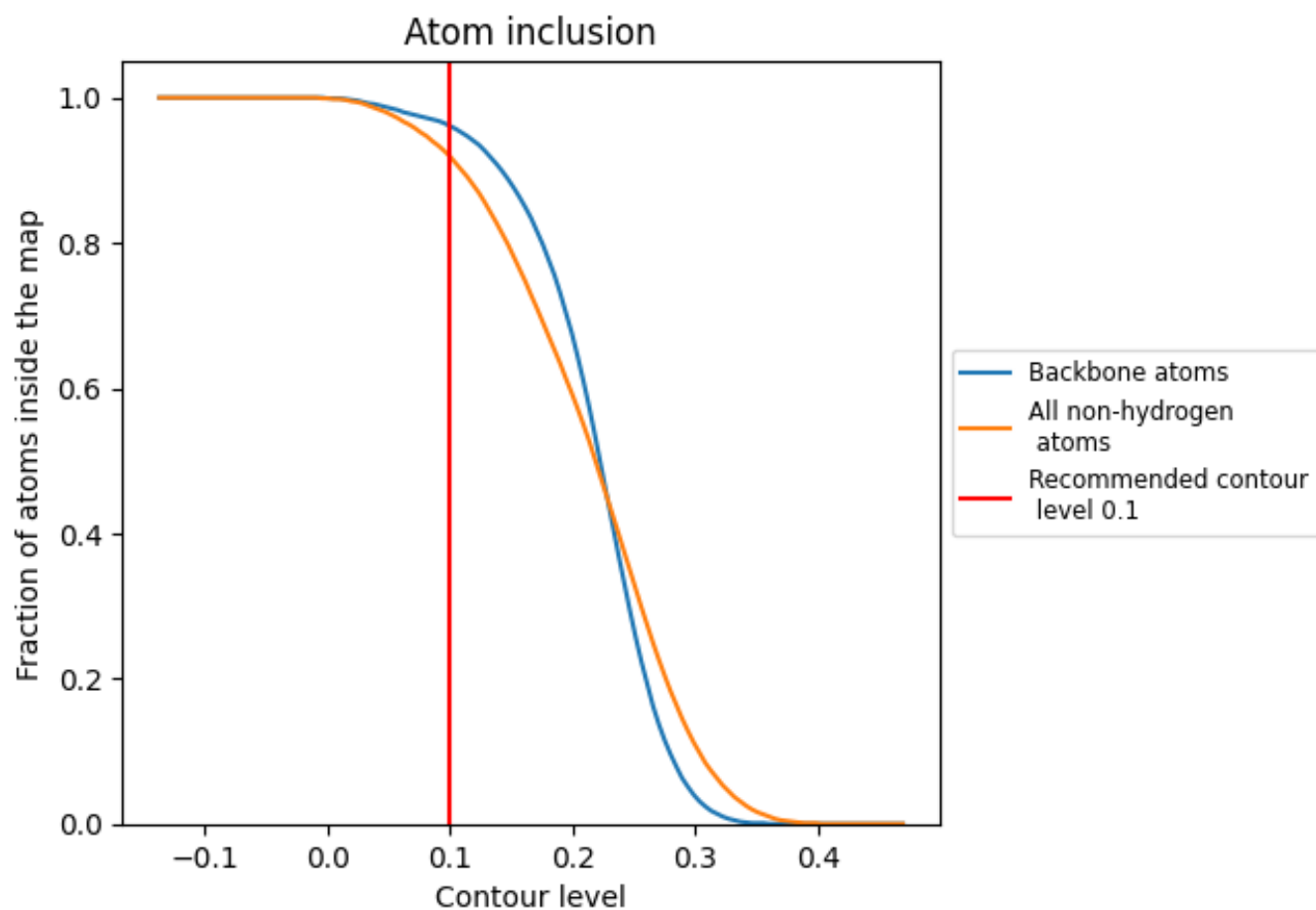
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.1).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 96% of all backbone atoms, 92% 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 (0.1) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9190	 0.3600
1	 0.8440	 0.3830
10	 0.8520	 0.3570
11	 0.8530	 0.3410
12	 0.8480	 0.3770
13	 0.8630	 0.3510
14	 0.7740	 0.3480
15	 0.8750	 0.3720
16	 0.7990	 0.3750
17	 0.8680	 0.3440
18	 0.8460	 0.3530
19	 0.8750	 0.3420
2	 0.7780	 0.3950
20	 0.8630	 0.3510
21	 0.8430	 0.3880
22	 0.8850	 0.3700
23	 0.8550	 0.3630
24	 0.8510	 0.3280
25	 0.7660	 0.3170
26	 0.9890	 0.3690
27	 0.9910	 0.3740
28	 0.9910	 0.3710
29	 0.9190	 0.3190
3	 0.8560	 0.3660
30	 0.9530	 0.2700
31	 0.9640	 0.3630
32	 0.9030	 0.2480
33	 0.3880	 0.1660
4	 0.8210	 0.3880
5	 0.8390	 0.4000
6	 0.5300	 0.3380
7	 0.8090	 0.3710
8	 0.8180	 0.3340
9	 0.8630	 0.3840
A	 0.8620	 0.4020



Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
B	 0.8370	 0.4050
C	 0.7890	 0.3530
D	 0.8470	 0.3540
E	 0.8740	 0.3750
F	 0.6540	 0.3290
G	 0.6510	 0.2630
H	 0.7020	 0.2650
I	 0.8520	 0.3730
J	 0.7790	 0.4090
K	 0.8600	 0.3860
L	 0.8130	 0.3990
M	 0.8830	 0.3800
N	 0.8880	 0.3660
O	 0.8370	 0.3940
P	 0.8620	 0.3550
Q	 0.8600	 0.3920
R	 0.8060	 0.3840
S	 0.8500	 0.3670
T	 0.8580	 0.3600
U	 0.8470	 0.3850
V	 0.8300	 0.3930
W	 0.8590	 0.3700
X	 0.8290	 0.3120
Y	 0.8470	 0.3870
Z	 0.8530	 0.3420