



Full wwPDB EM Validation Report ⓘ

Mar 20, 2026 – 04:46 AM UTC

PDB ID : 7AOR / pdb_00007aor
EMDB ID : EMD-11846
Title : mt-SSU from Trypanosoma cruzi in complex with mt-IF-3.
Authors : Soufari, H.; Waltz, F.; Parrot, C.; Bochler, A.; Hashem, Y.
Deposited on : 2020-10-15
Resolution : 3.50 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

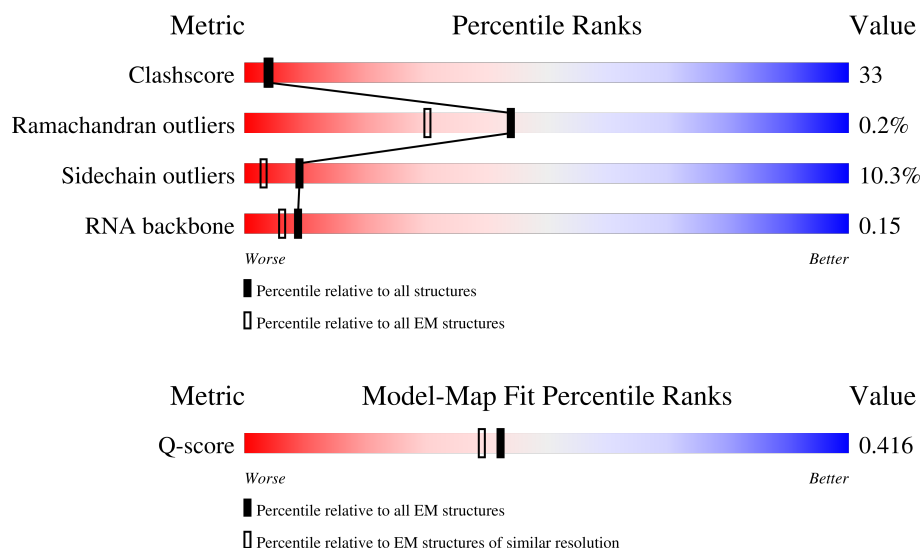
EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data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

1 Overall quality at a glance

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

The reported resolution of this entry is 3.50 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	13950 (3.00 - 4.00)

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	u	874	
2	s	180	
3	r	500	

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Mol	Chain	Length	Quality of chain
4	n	172	
5	h	166	
6	e	818	
7	az	163	
8	ay	218	
9	ax	172	
10	aw	186	
11	au	247	
12	ak	314	
13	aj	396	
14	ag	581	
15	af	677	
16	ae	678	
17	l	714	
18	ac	1152	
19	ab	1175	
20	ad	810	
21	m	319	
22	i	429	
23	f	325	
24	c	285	
25	d	445	
26	ba	217	
27	av	237	
28	at	259	

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Mol	Chain	Length	Quality of chain
29	ar	268	
30	aq	299	
31	ap	277	
32	ao	283	
33	ai	410	
34	an	293	
35	z	1181	
36	y	449	
37	x	345	
38	w	186	
39	v	215	
40	bb	238	
41	t	256	
42	al	308	
43	q	442	
44	p	308	
45	Ca	603	
46	g	193	
47	j	189	
48	b	160	
49	bd	90	
50	a	434	
51	bc	376	
52	aa	1827	
53	k	309	

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Mol	Chain	Length	Quality of chain
54	be	82	
55	as	261	
56	2	8129	
56	A	8129	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
57	GTP	r	901	-	-	X	-

2 Entry composition [i](#)

There are 60 unique types of molecules in this entry. The entry contains 173743 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 mS35.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	u	697	Total	C	N	O	S	0	0
			5597	3524	1014	1035	24		

- Molecule 2 is a protein called mS33.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	s	165	Total	C	N	O	S	0	0
			1351	851	249	242	9		

- Molecule 3 is a protein called mS29.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	r	465	Total	C	N	O	S	0	0
			3806	2451	655	681	19		

- Molecule 4 is a protein called uS19.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	n	142	Total	C	N	O	S	0	0
			1169	760	203	201	5		

- Molecule 5 is a protein called uS14m.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	h	157	Total	C	N	O	S	0	0
			1324	842	252	222	8		

- Molecule 6 is a protein called uS10m.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	e	810	Total	C	N	O	S	0	0
			6577	4157	1153	1237	30		

- Molecule 7 is a protein called mS72.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	az	154	Total	C	N	O	S	0	0
			1292	828	243	217	4		

- Molecule 8 is a protein called mS71.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	ay	141	Total	C	N	O	S	0	0
			1200	765	229	202	4		

- Molecule 9 is a protein called mS70.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	ax	161	Total	C	N	O	S	0	0
			1366	868	263	228	7		

- Molecule 10 is a protein called mS69.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	aw	160	Total	C	N	O	S	0	0
			1338	851	251	232	4		

- Molecule 11 is a protein called Rhodanese domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	au	239	Total	C	N	O	S	0	0
			2069	1331	371	357	10		

- Molecule 12 is a protein called mS58.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	ak	230	Total	C	N	O	S	0	0
			1865	1174	345	338	8		

- Molecule 13 is a protein called mS57.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	aj	315	Total	C	N	O	S	0	0
			2590	1667	450	459	14		

- Molecule 14 is a protein called mS55.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	ag	548	Total	C	N	O	S	0	0
			4472	2804	838	806	24		

- Molecule 15 is a protein called mS54.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	af	558	Total	C	N	O	S	0	0
			4590	2897	829	838	26		

- Molecule 16 is a protein called mS53.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	ae	574	Total	C	N	O	S	0	0
			4634	2918	862	833	21		

- Molecule 17 is a protein called mS52.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	l	588	Total	C	N	O	S	0	0
			4821	3070	855	880	16		

- Molecule 18 is a protein called mS50.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	ac	1125	Total	C	N	O	S	0	0
			8864	5568	1581	1682	33		

- Molecule 19 is a protein called mS49.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	ab	1110	Total	C	N	O	S	0	0
			9094	5669	1697	1697	31		

- Molecule 20 is a protein called mS51.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	ad	801	Total	C	N	O	S	0	0
			6610	4182	1197	1186	45		

- Molecule 21 is a protein called bS18m.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	m	232	Total	C	N	O	S	0	0
			1940	1234	356	344	6		

- Molecule 22 is a protein called uS15m.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	i	360	Total	C	N	O	S	0	0
			2970	1890	543	522	15		

- Molecule 23 is a protein called uS11m.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	f	233	Total	C	N	O	S	0	0
			1917	1195	358	354	10		

- Molecule 24 is a protein called uS8m.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	c	263	Total	C	N	O	S	0	0
			2169	1358	417	384	10		

- Molecule 25 is a protein called uS9m.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	d	445	Total	C	N	O	S	0	0
			3538	2229	635	657	17		

- Molecule 26 is a protein called mS73.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	ba	83	Total	C	N	O	S	0	0
			706	460	115	127	4		

- Molecule 27 is a protein called mS68.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	av	213	Total	C	N	O	S	0	0
			1752	1102	310	333	7		

- Molecule 28 is a protein called mS66.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	at	242	Total	C	N	O	S	0	0
			1946	1216	364	352	14		

- Molecule 29 is a protein called AKAP7_NLS domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	ar	255	Total	C	N	O	S	0	0
			2061	1303	382	368	8		

- Molecule 30 is a protein called mS63.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	aq	198	Total	C	N	O	S	0	0
			1701	1092	304	297	8		

- Molecule 31 is a protein called mS62.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	ap	222	Total	C	N	O	S	0	0
			1796	1109	329	344	14		

- Molecule 32 is a protein called mS61.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	ao	252	Total	C	N	O	S	0	0
			2062	1305	383	362	12		

- Molecule 33 is a protein called mS56.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	ai	390	Total	C	N	O	S	0	0
			3205	2046	554	592	13		

- Molecule 34 is a protein called mS60.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	an	293	Total	C	N	O	S	0	0
			2422	1533	458	419	12		

- Molecule 35 is a protein called mS47.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	z	1071	Total	C	N	O	S	0	0
			8630	5428	1553	1612	37		

- Molecule 36 is a protein called Sod_Fe_C domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	y	253	Total	C	N	O	S	0	0
			1983	1260	360	350	13		

- Molecule 37 is a protein called Superoxide dismutase, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	x	252	Total	C	N	O	S	0	0
			2016	1294	353	364	5		

- Molecule 38 is a protein called Protein FYV4, mitochondrial.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	w	175	Total	C	N	O	S	0	0
			1479	945	261	267	6		

- Molecule 39 is a protein called mS37.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	v	196	Total	C	N	O	S	0	0
			1567	964	306	288	9		

- Molecule 40 is a protein called mS38.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	bb	110	Total	C	N	O	S	0	0
			905	580	182	141	2		

- Molecule 41 is a protein called Trafficking protein particle complex subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	t	226	Total	C	N	O	S	0	0
			1797	1138	317	336	6		

- Molecule 42 is a protein called mS59.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	al	292	Total	C	N	O	S	0	0
			2372	1500	444	415	13		

- Molecule 43 is a protein called mS26.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	q	214	Total	C	N	O	S	0	0
			1840	1169	335	330	6		

- Molecule 44 is a protein called mS23.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	p	242	Total	C	N	O	S	0	0
			1998	1264	362	364	8		

- Molecule 45 is a protein called mS22.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	Ca	592	Total	C	N	O	S	0	0
			5070	3247	913	890	20		

- Molecule 46 is a protein called bS21m.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	g	184	Total	C	N	O	S	0	0
			1544	975	300	258	11		

- Molecule 47 is a protein called bS16m.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	j	180	Total	C	N	O	S	0	0
			1501	963	280	251	7		

- Molecule 48 is a protein called bS6m.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	b	150	Total	C	N	O	S	0	0
			1271	810	228	227	6		

- Molecule 49 is a protein called MURF5.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	bd	50	Total	C	N	O	S	0	0
			430	296	65	68	1		

- Molecule 50 is a protein called Ribosomal_S5_C domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	a	425	Total	C	N	O	S	0	0
			3436	2177	633	610	16		

- Molecule 51 is a protein called mt-iF3.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	bc	151	Total	C	N	O	S	0	0
			1247	792	229	220	6		

- Molecule 52 is a protein called mS48.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	aa	1558	Total	C	N	O	S	0	0
			12549	7926	2247	2337	39		

- Molecule 53 is a protein called 30S Ribosomal protein S17-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	k	190	Total	C	N	O	S	0	0
			1577	1009	301	258	9		

- Molecule 54 is a protein called Ribosome protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	be	79	Total	C	N	O	S	0	0
			665	459	101	97	8		

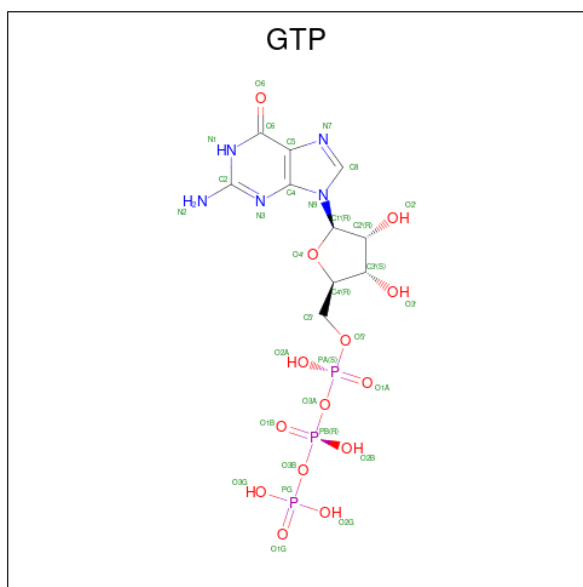
- Molecule 55 is a protein called mS65.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	as	252	Total	C	N	O	S	0	0
			2024	1305	356	353	10		

- Molecule 56 is a RNA chain called RNA (478-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
56	A	143	Total	C	N	O	P	0	0
			3030	1364	522	1001	143		
56	2	470	Total	C	N	O	P	0	0
			9932	4470	1690	3302	470		

- Molecule 57 is GUANOSINE-5'-TRIPHOSPHATE (CCD ID: GTP) (formula: $C_{10}H_{16}N_5O_{14}P_3$).

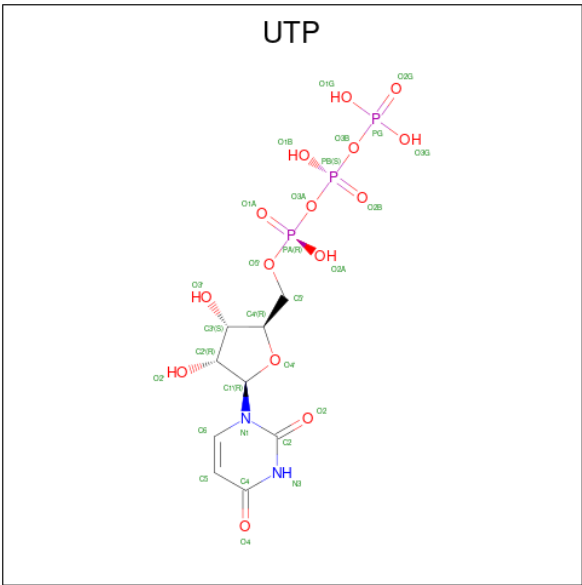


Mol	Chain	Residues	Atoms					AltConf
57	r	1	Total	C	N	O	P	0
			32	10	5	14	3	

- Molecule 58 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
58	r	1	Total	Mg	0
			1	1	

- Molecule 59 is URIDINE 5'-TRIPHOSPHATE (CCD ID: UTP) (formula: $C_9H_{15}N_2O_{15}P_3$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
59	aj	1	Total	C	N	O	P	0
			29	9	2	15	3	

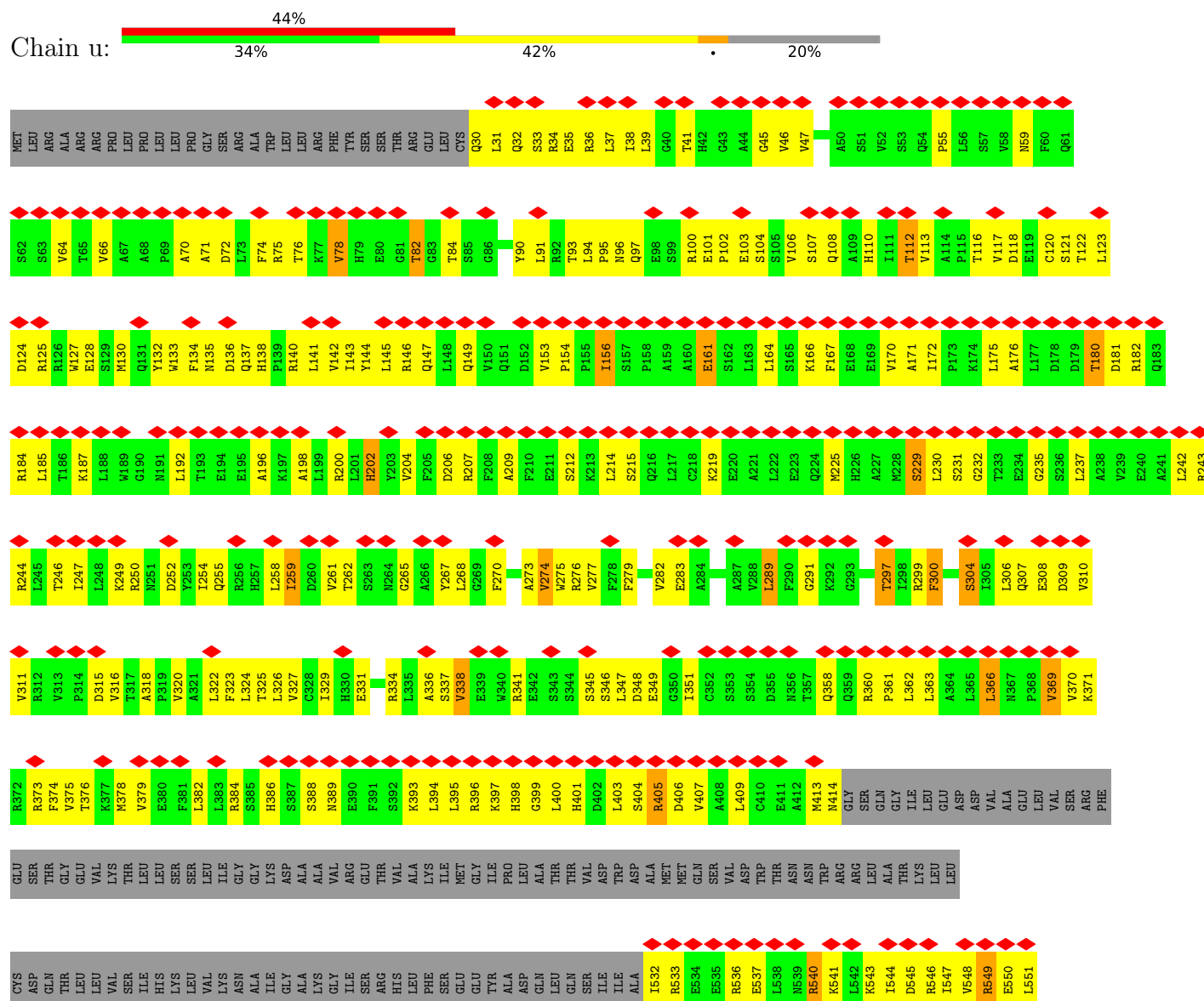
- Molecule 60 is ZINC ION (CCD ID: ZN) (formula: Zn).

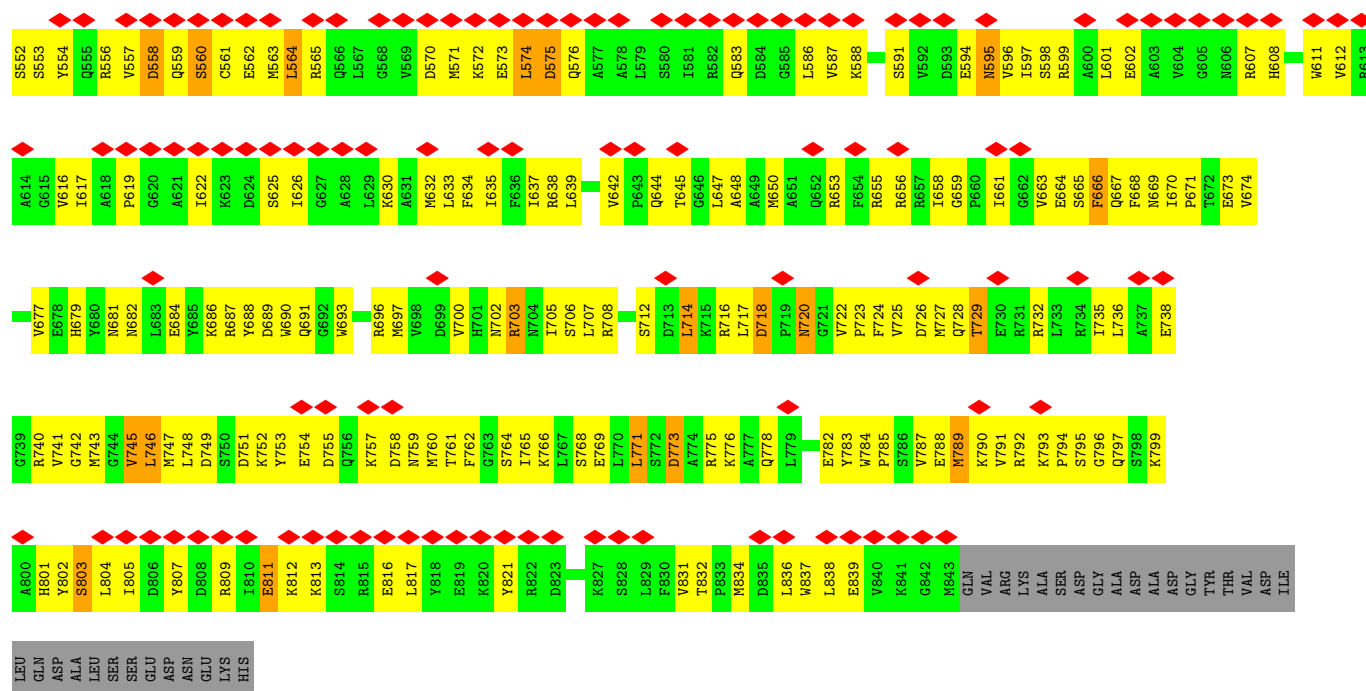
Mol	Chain	Residues	Atoms		AltConf
60	at	2	Total	Zn	0
			2	2	
60	y	1	Total	Zn	0
			1	1	
60	aa	1	Total	Zn	0
			1	1	

3 Residue-property plots

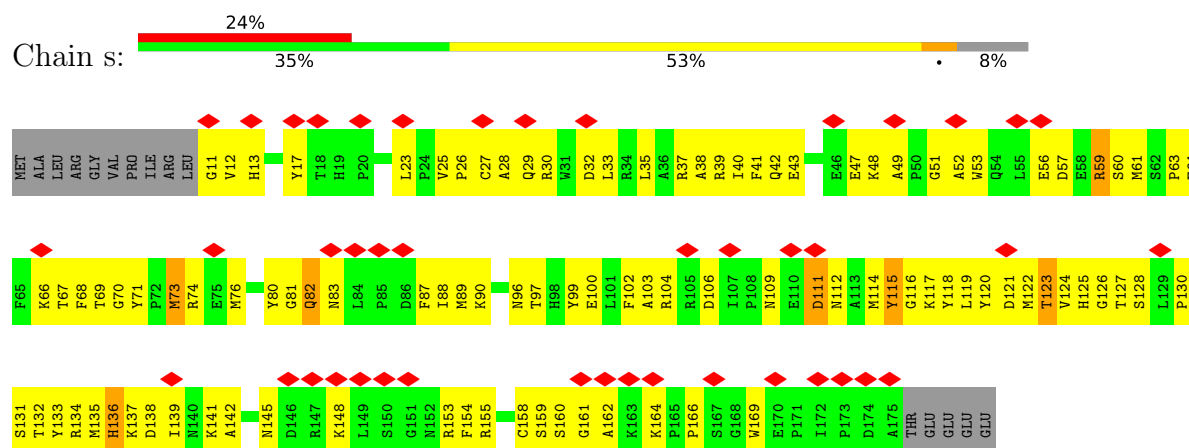
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: mS35

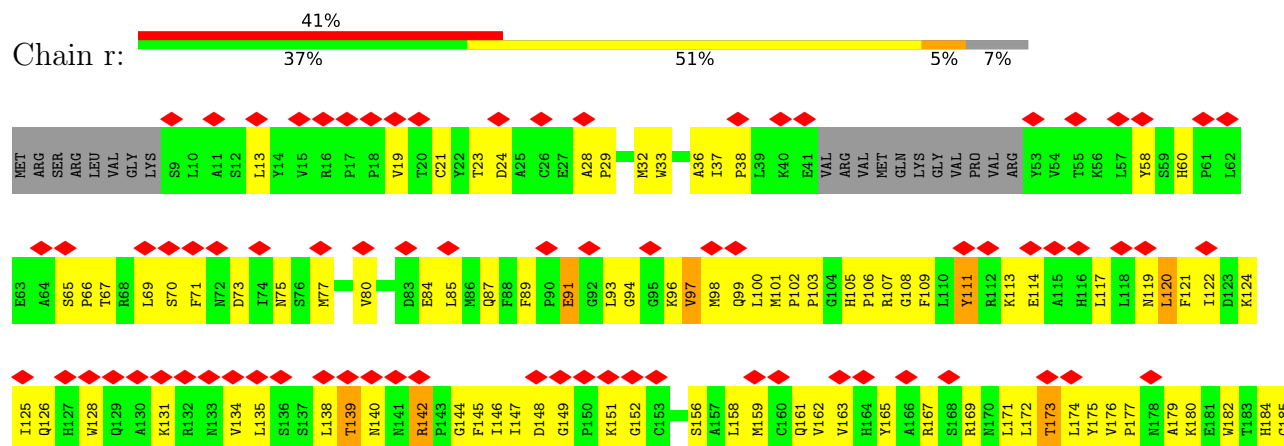




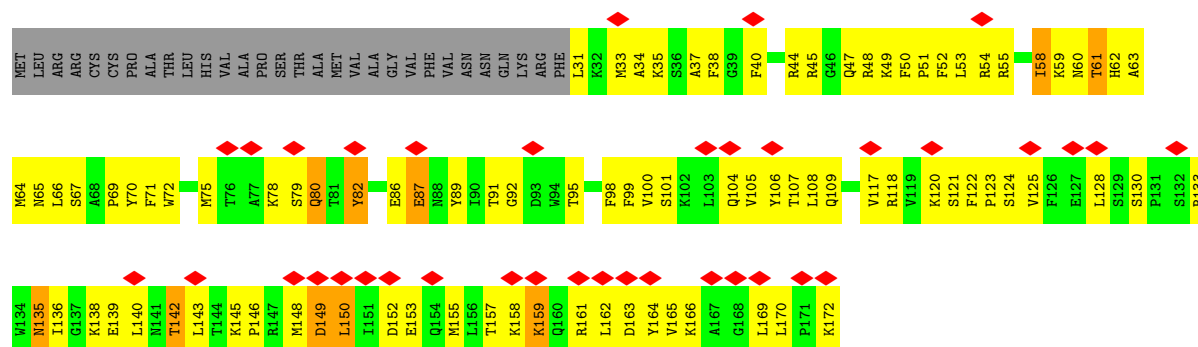
• Molecule 2: mS33



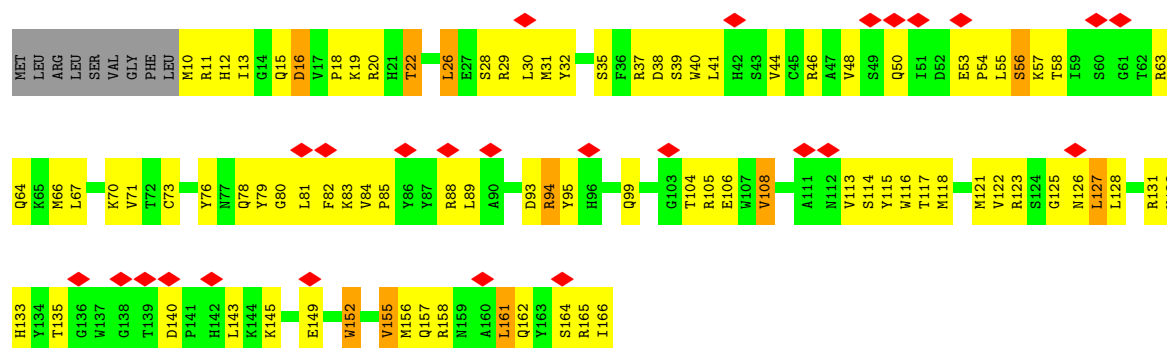
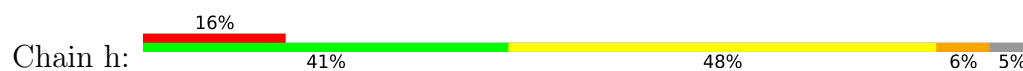
• Molecule 3: mS29



- Molecule 4: uS19



- Molecule 5: uS14m

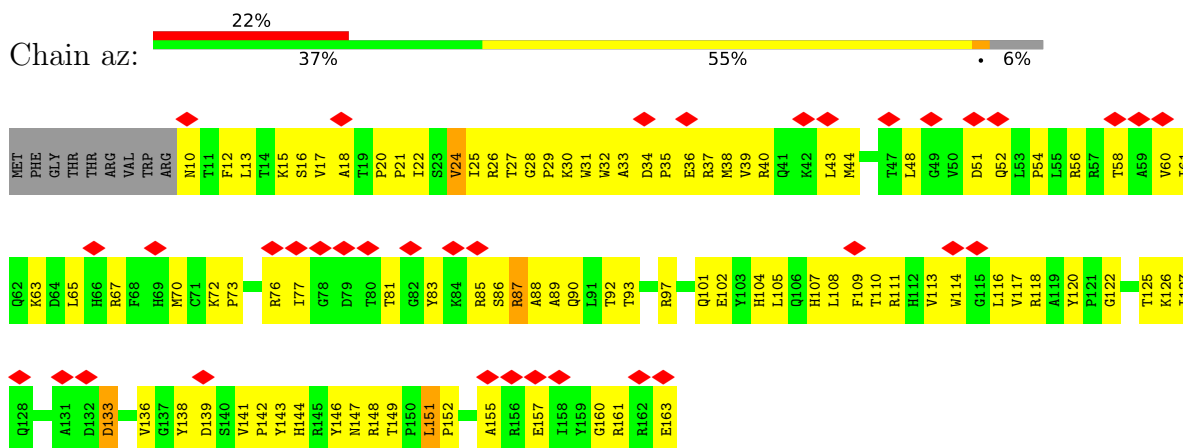


• Molecule 6: uS10m

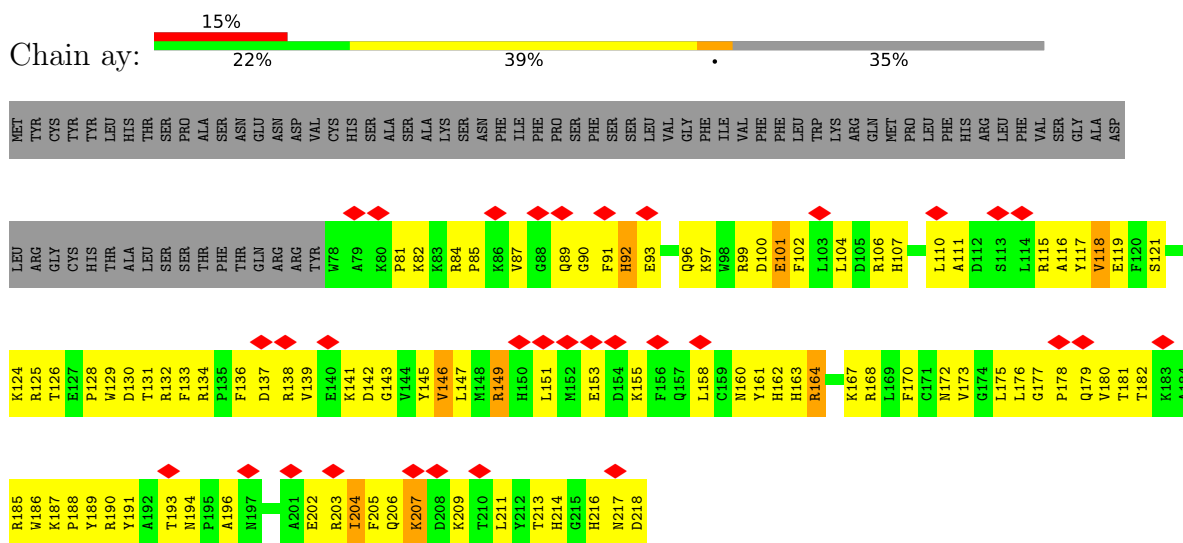
Chain e:



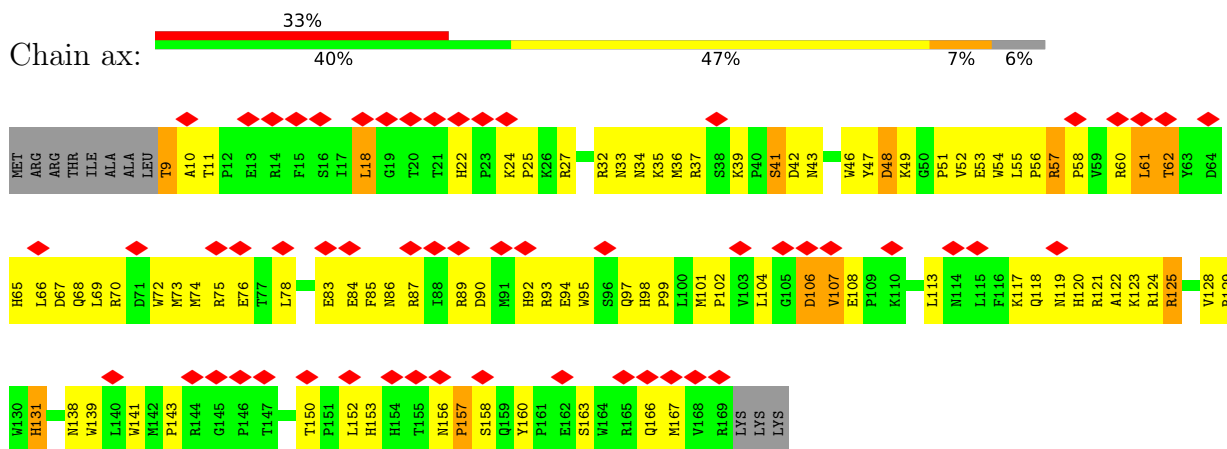
- Molecule 7: mS72



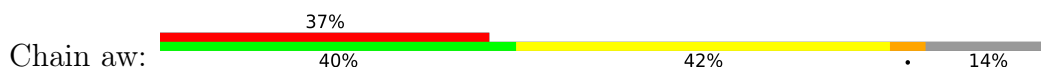
- Molecule 8: mS71

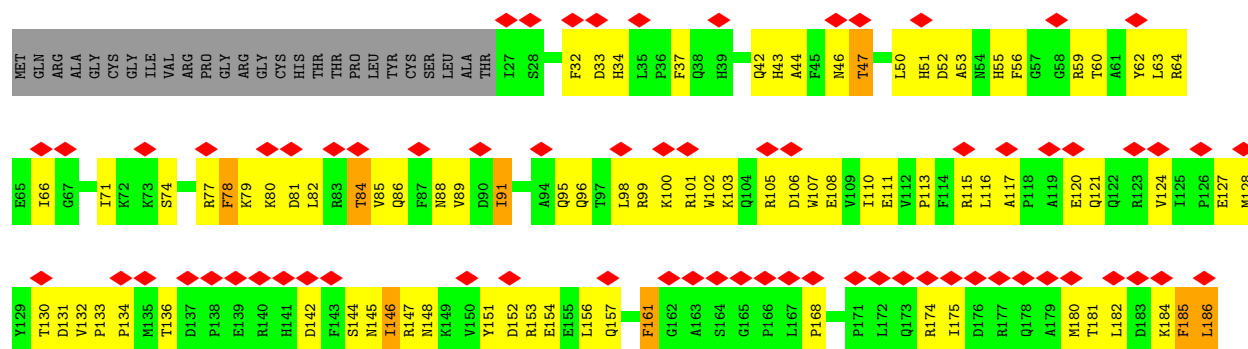


- Molecule 9: mS70

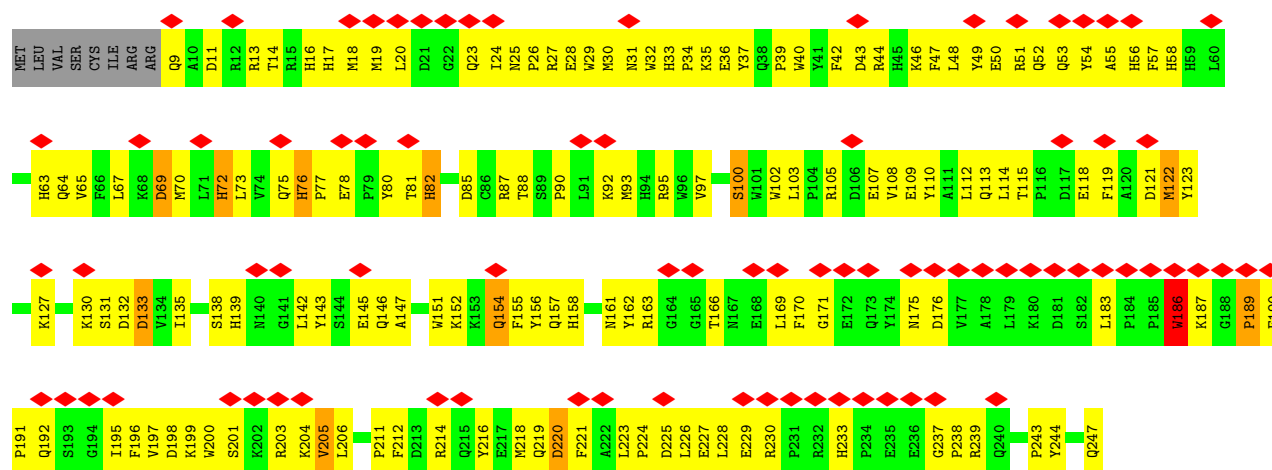


- Molecule 10: mS69

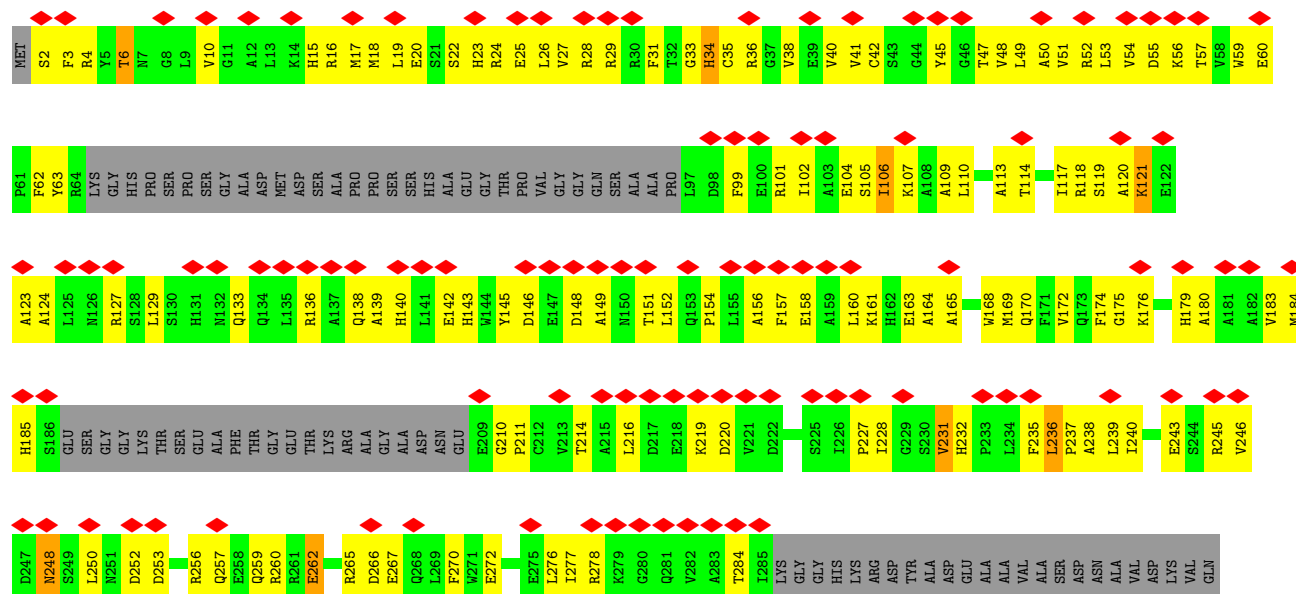




• Molecule 11: Rhodanese domain-containing protein

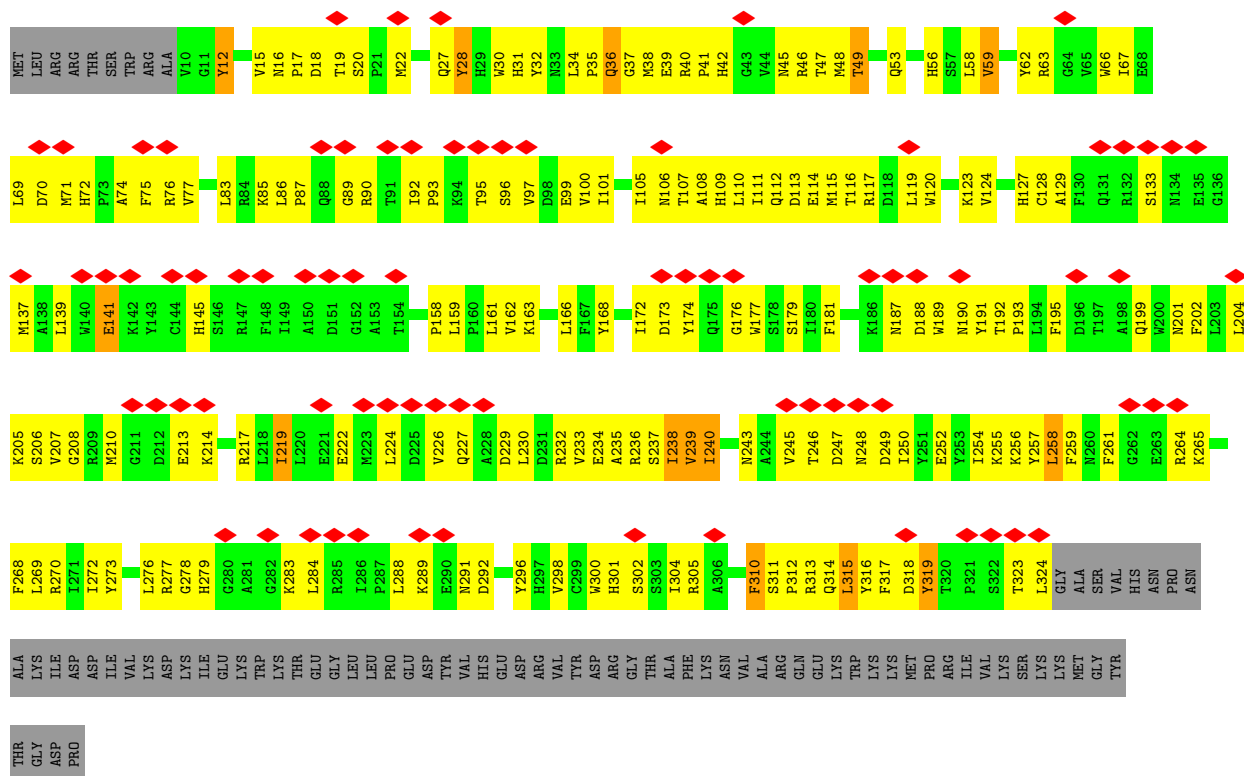


• Molecule 12: mS58

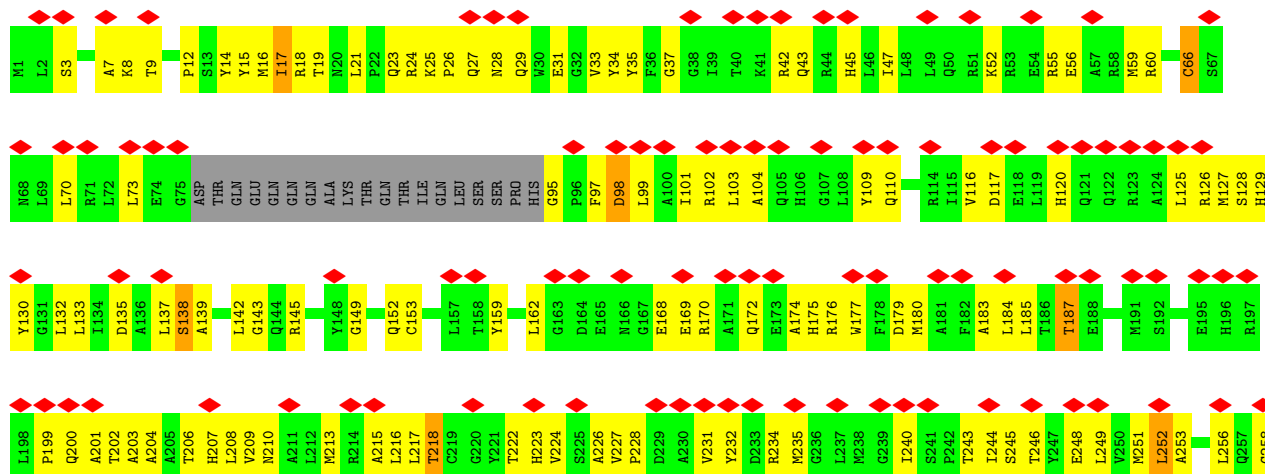
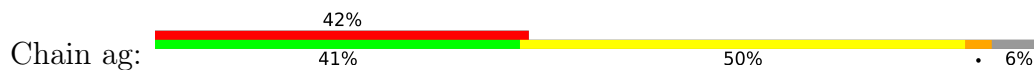


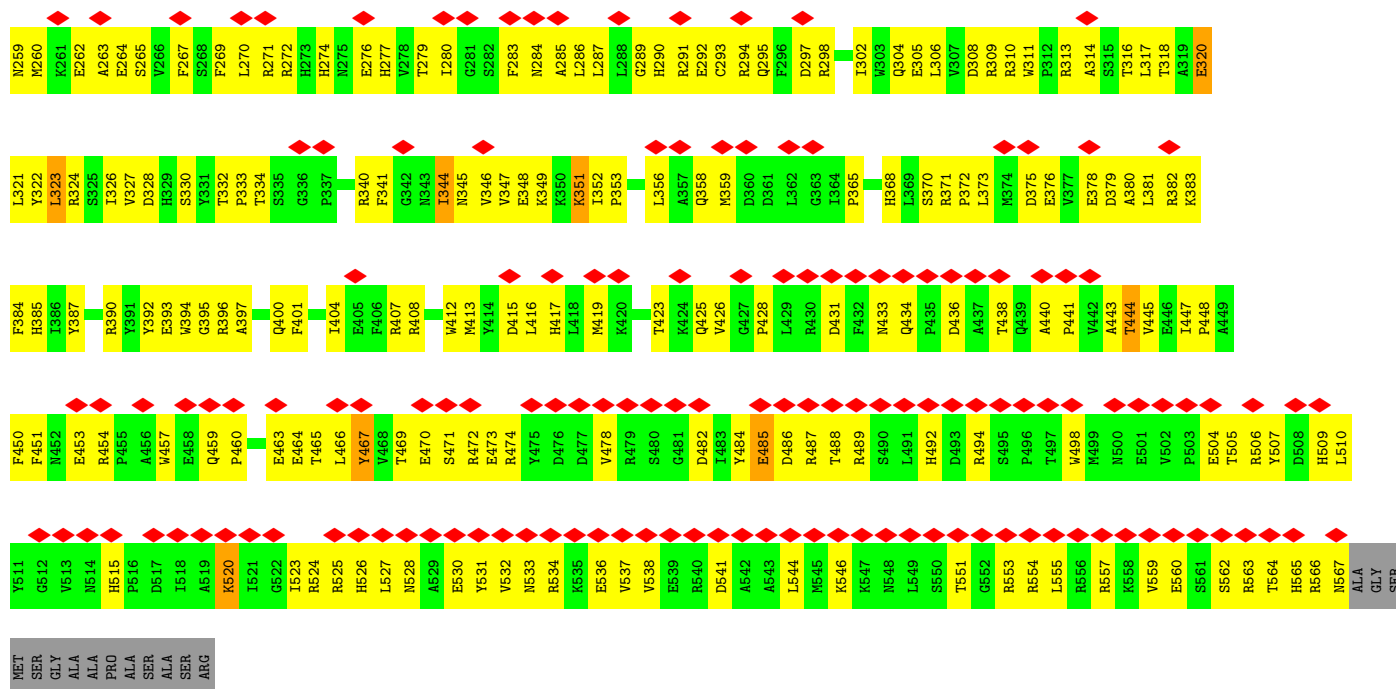
LEU
ARG
PHE
THR
GLN

• Molecule 13: mS57

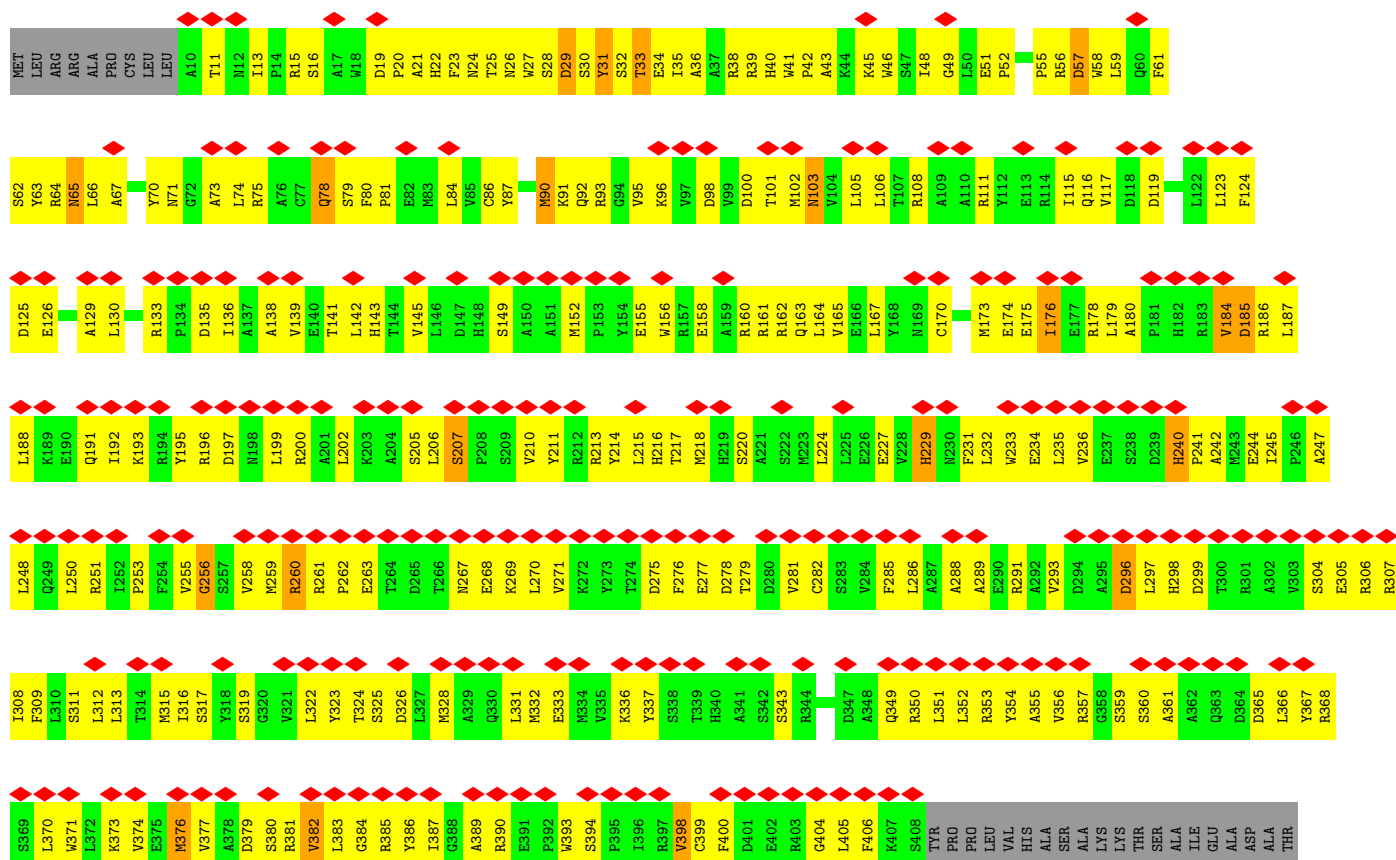


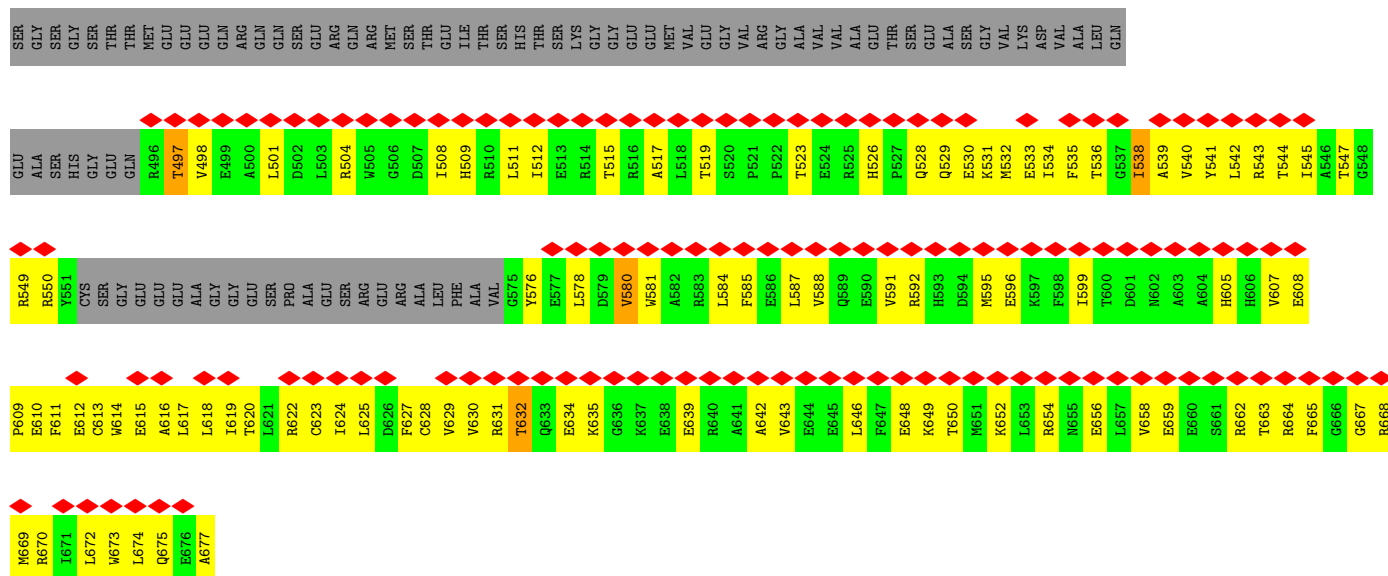
• Molecule 14: mS55



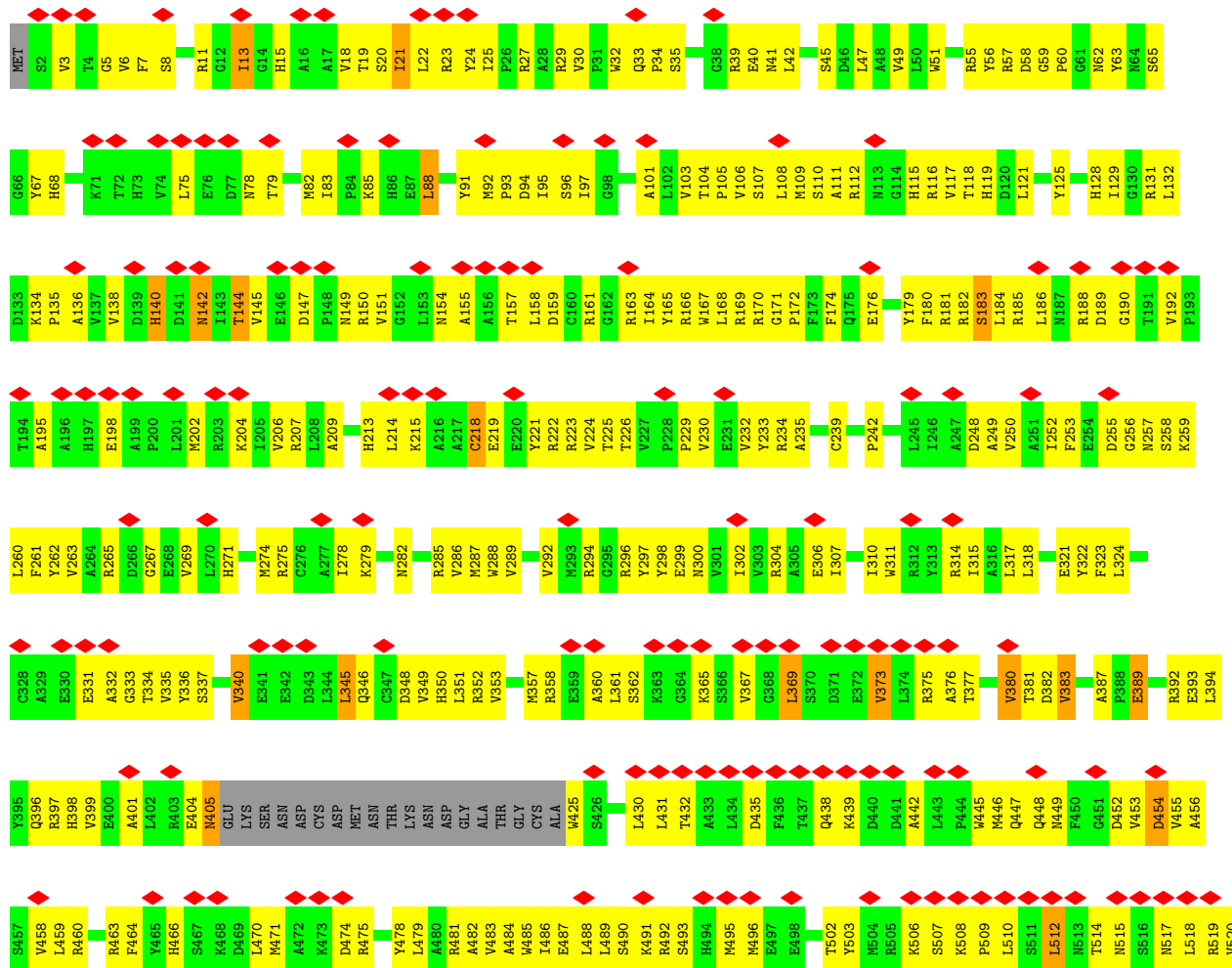


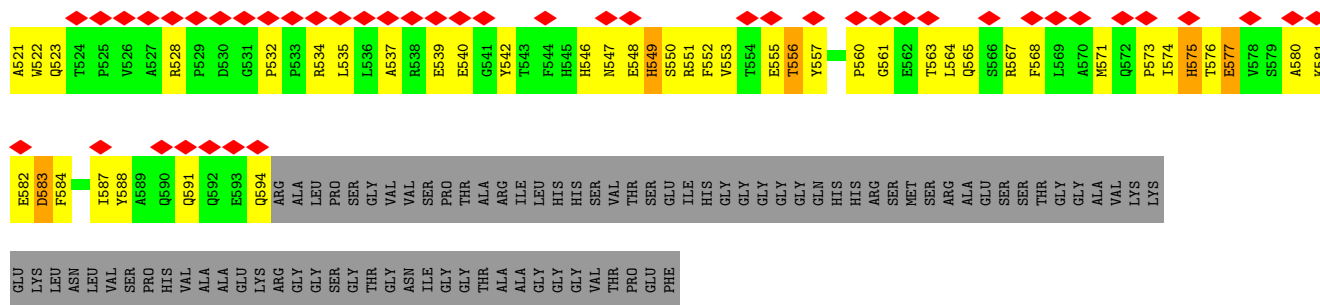
• Molecule 15: mS54





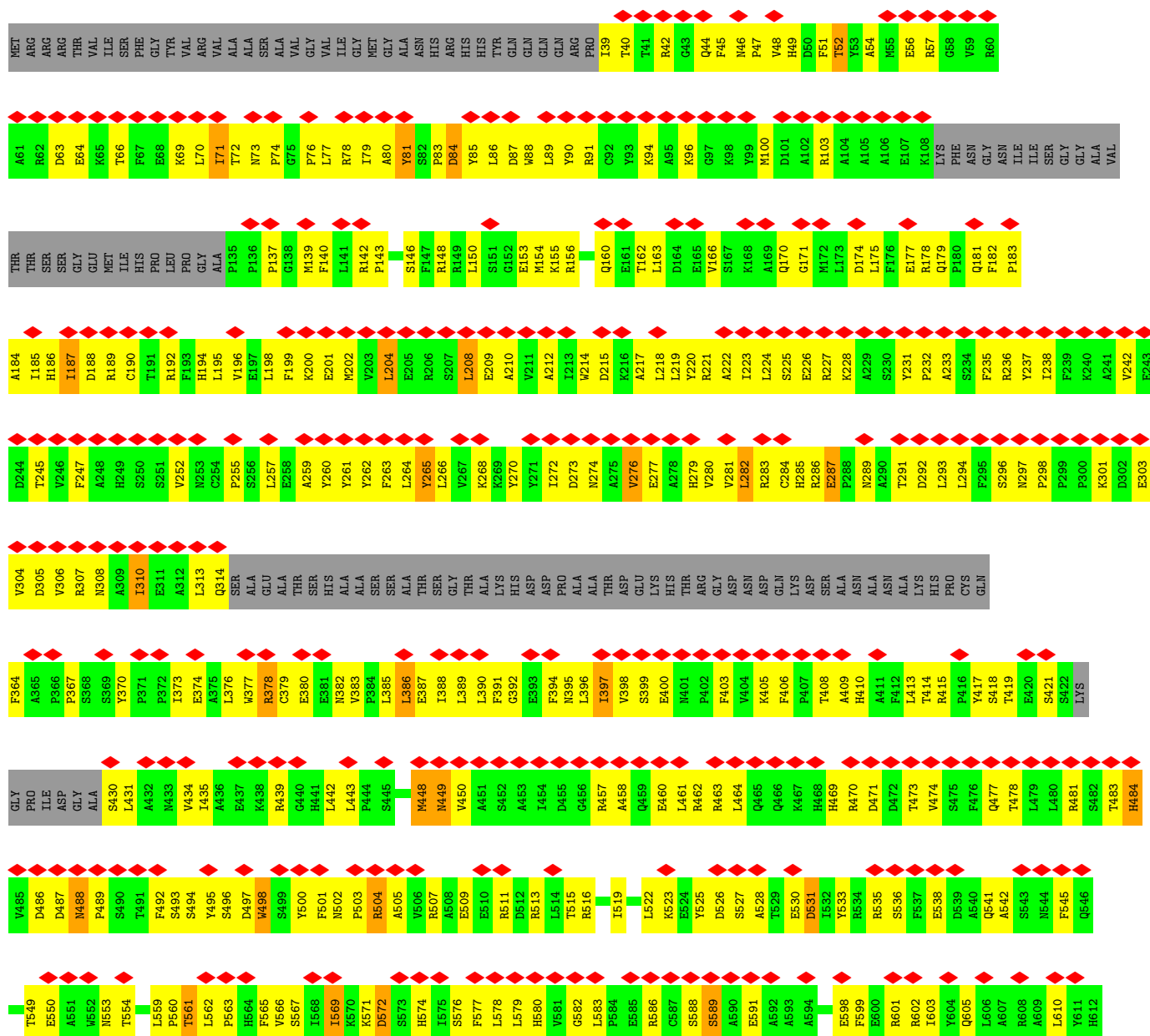
• Molecule 16: mS53

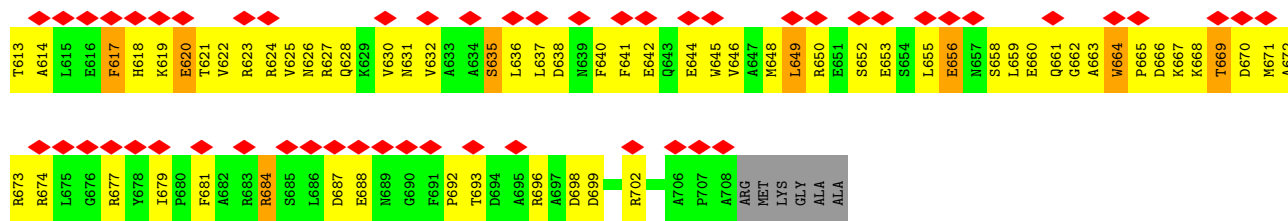




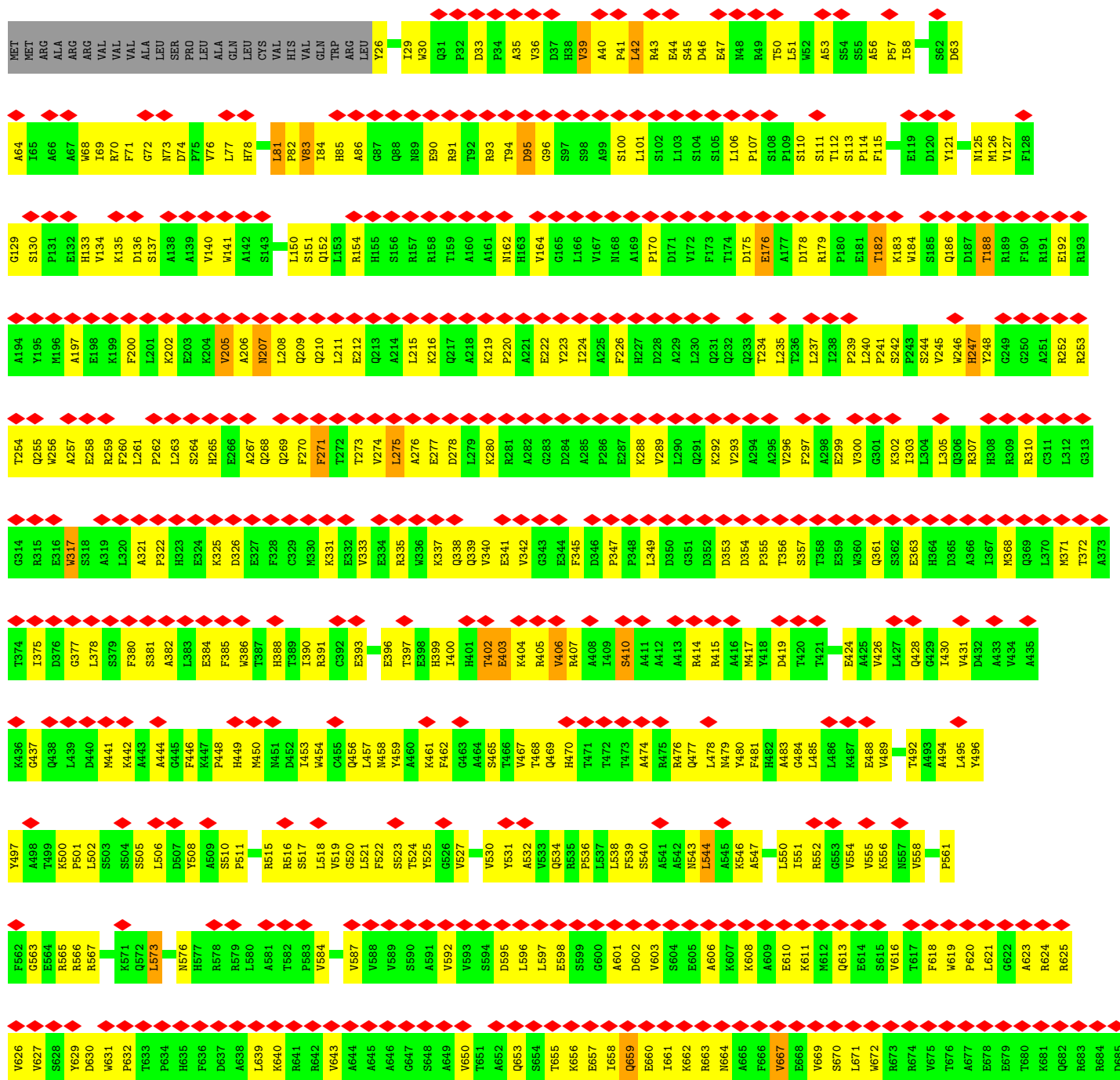
Molecule 17: mS52

Chain 1:

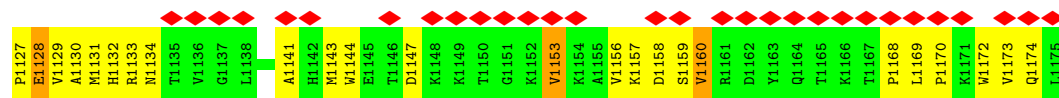




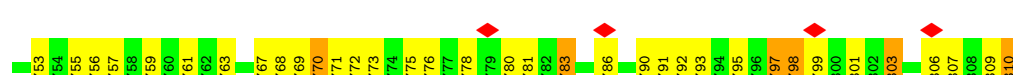
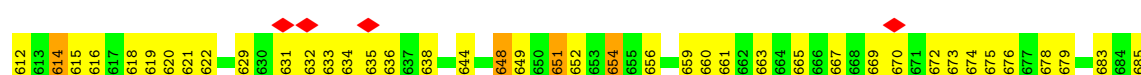
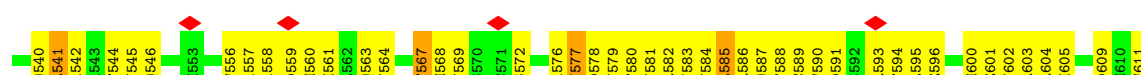
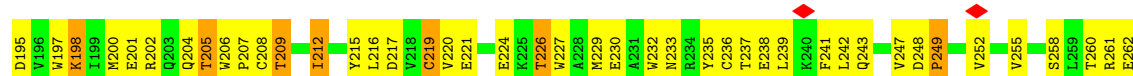
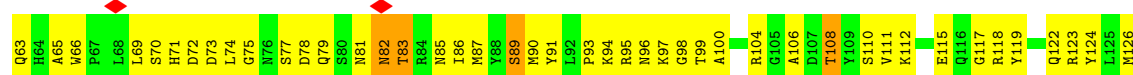
• Molecule 18: mS50



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I1002	D1003	Q1004	W1005	T1006	R1007	F1008	D1009	N1010	S1011	R1012	A1013	D1014	M1015	F1016	R1017	P1018	L1019	S1022	H1023	R1024	R1025	E1026	Y1027	I1028	H1029	G1030	G1031	M1032	W1033	H1034	R1035	Y1036	T1037	P1038	W1039	E1040	Y1041	L1042	A1043	V1044	Q1045	E1046	A1047	D1048	Q1049	P1050	L1051	I1052	A1053	E1054	Q1055	T1056	R1057	E1058	E1059	R1060	I1061	G1062		
G869	L870	Y871	W872	R873	A874	R875	R876	H877	V878	C879	N880	N881	A882	N883	C884	S885	R886	I887	V888	S889	S890	P891	Q892	Y895	I896	V897	A898	D900	R901	Q902	P903	F904	F905	N906	P907	F908	P909	R910	L911	V912	R913	V914	S918	D919	V922	E923	E924	L927	A928	N929	I930	M931	T932	V933	T996	K997	Q998	I999	T1000	E1001
R936	E941	R942	T943	V944	G945	D946	E947	S948	R949	R950	P953	A954	S955	L956	R957	Y958	I960	D961	Y1027	S963	D964	E968	K969	S970	S971	K972	G973	E974	F976	L977	D978	K979	Y980	T981	A982	A983	R984	T985	S986	E987	V988	A989	A990	G991	R992	Y993	T996	K997	Q998	I999	T1000	E1001								
P316	T317	A318	T319	V320	P321	S322	F323	E324	A325	I326	S327	K329	A330	F331	R332	N334	T335	V336	R337	D338	H339	P340	T341	E344	E345	L346	T347	Q348	E349	V351	D352	T353	I354	R355	T356	S357	R358	E359	A360	S361	E362	W363	Q364	R365	E366	Q367	R369	A370	Q371	F373	L375	G376								
R377	Q378	G379	A380	L381	V382	Q383	D384	G385	G386	P387	D388	K389	R390	T391	K393	K394	H395	V396	N397	D398	R399	R400	I401	M402	D403	A404	M405	F406	F407	R408	S409	D410	A411	Y412	R413	K414	T415	Q416	T417	D418	E419	H420	W421	M422	F423	Y424	M425	R426	Q427	D428	T429	T430	H431	D368	G432	V433	A434	H435	L436	
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D627	E628	M629	G630	T631	A632	D633	T634	R635	E636	N637	V638	L639	S640	S641	R642	Y643	F644	Q705	N645	R646	L647	L648	M650	E651	G652	F653	Q654	N655	R656	L657	G658	R659	A660	F661	N662	Q663	N664	V665	S666	G667	K668	A669	P670	E671	F672	V673	Q675	V676	M677	Q678	P679	P680	E681	V682	L683	R684	H685	F686		
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L749	T750	Y751	S752	A753	K754	A755	F756	E757	R758	E759	L760	A761	A762	A763	K764	G765	N766	T767	S768	H769	I770	I771	W772	V773	E774	G775	Q776	A777	R778	L780	R781	N782	P782	D783	S784	E785	R786	F787	V788	Y789	F790	L791	S792	V793	R794	L795	E796	S797	Q798	E799	V800	L801	D802	H803	T804	D805	E806	A807	F808	
G809	R810	Y811	E812	L813	E814	L815	L816	P817	R818	R819	V820	N821	H822	N823	C824	S825	Y826	G827	I828	C829	D830	Y831	A832	Y833	N834	R835	C836	N837	Y838	I839	E840	T841	Q842	D843	V844	I845	E846	E847	E848	Q849	A851	S852	C853	E854	E855	G856	W857	P858	T861	H862	A863	D864	L866	R867	A868					
G869	L870	Y871	W872	R873	A874	R875	R876	H877	V878	C879	N880	N881	A882	N883	C884	S885	R886	I887	V888	S889	S890	P891	Q892	Y895	I896	V897	A898	D900	R901	Q902	P903	F904	F905	N906	P907	F908	P909	R910	L911	V912	R913	V914	S918	D919	V922	E923	E924	L927	A928	N929	I930	M931	T932	V933	T996	K997	Q998	I999	T1000	E1001

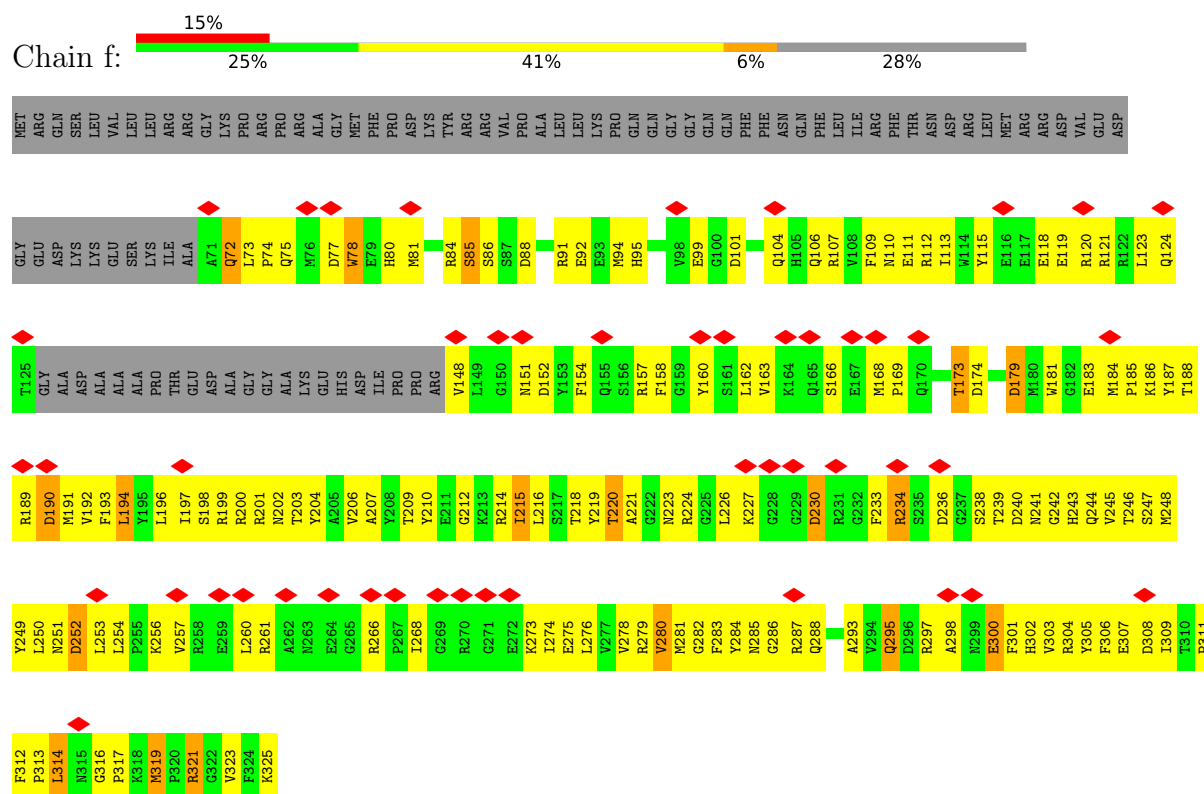


• Molecule 20: mS51

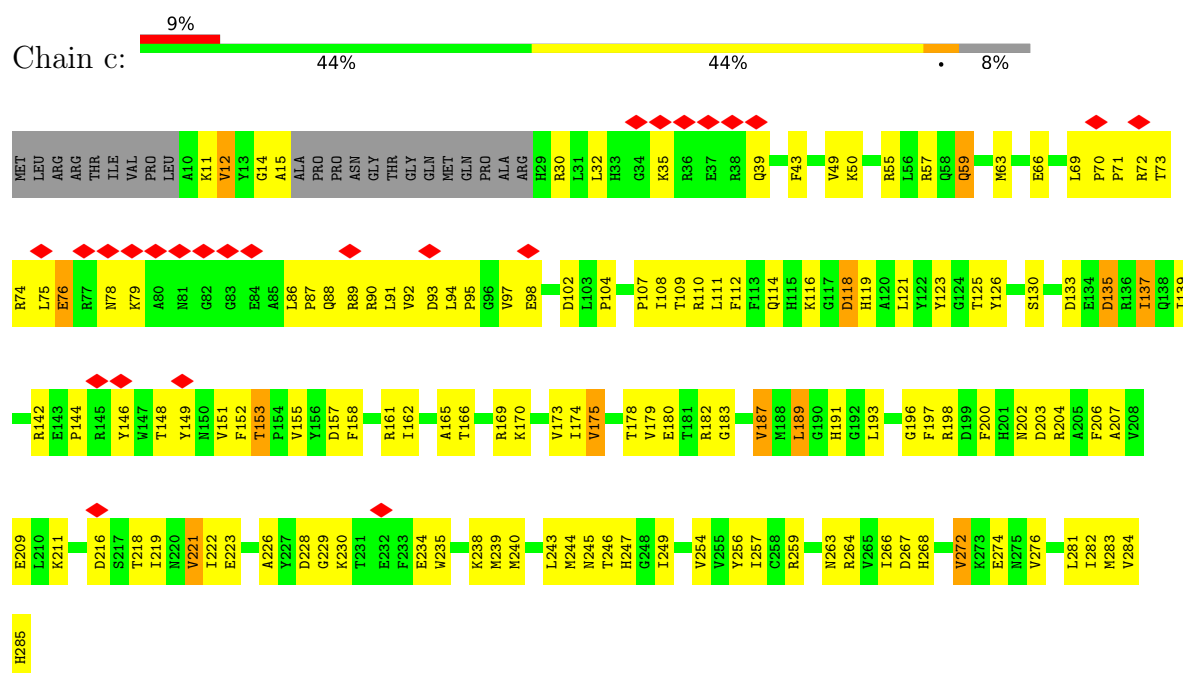


Chain m:

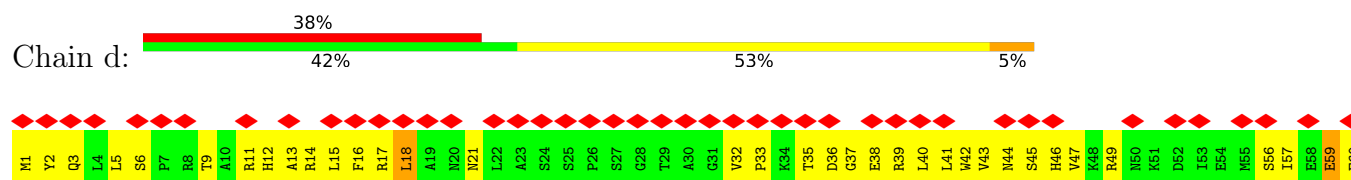


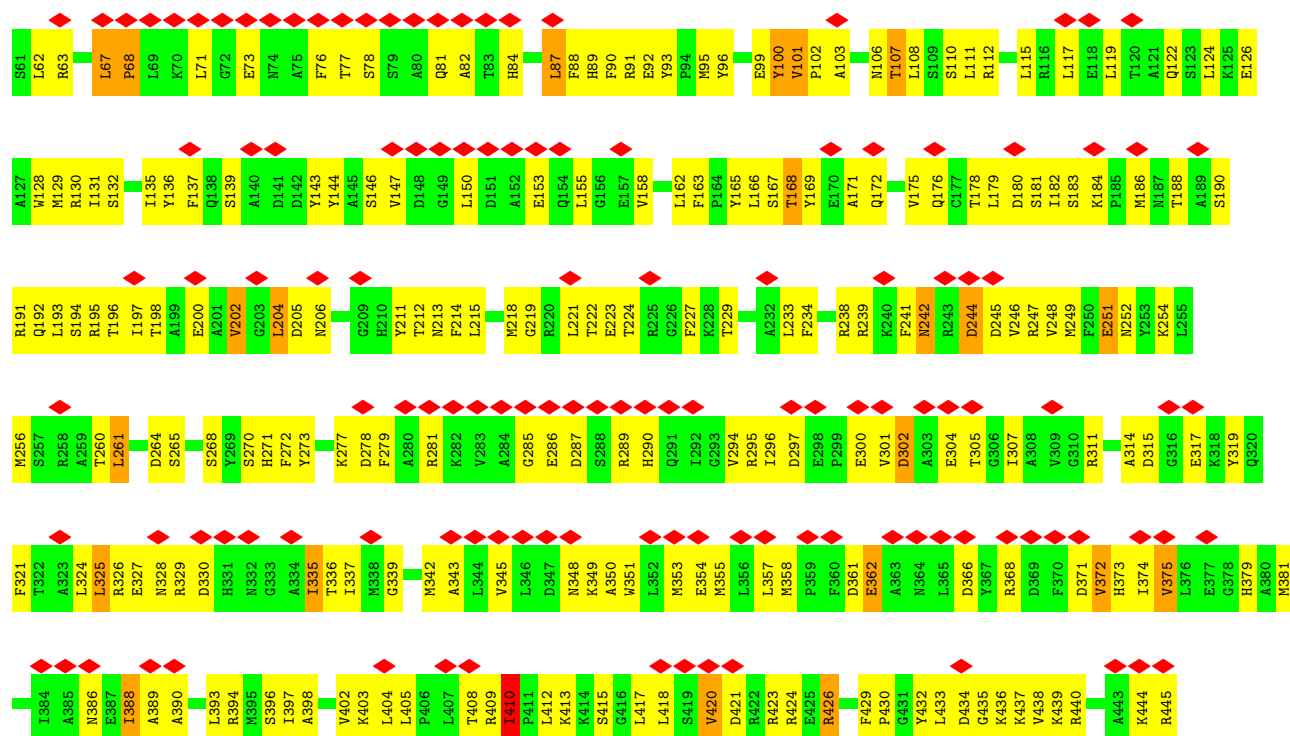


• Molecule 24: uS8m

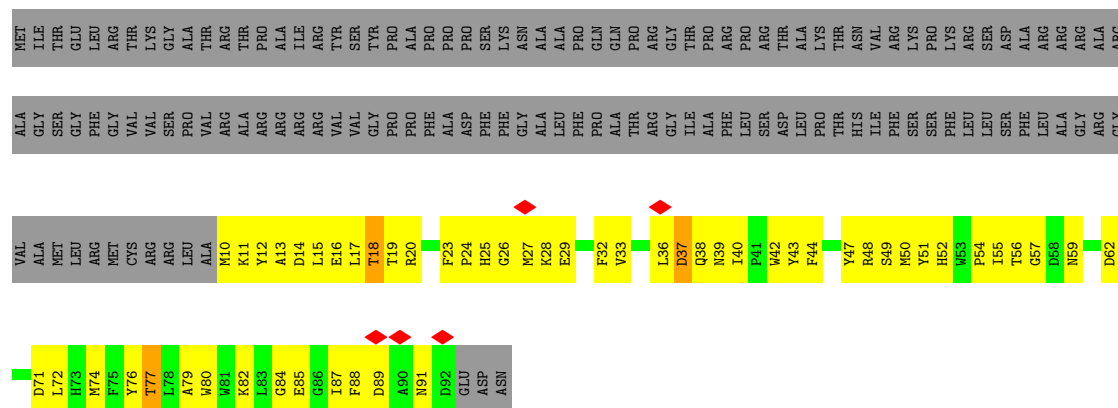


• Molecule 25: uS9m

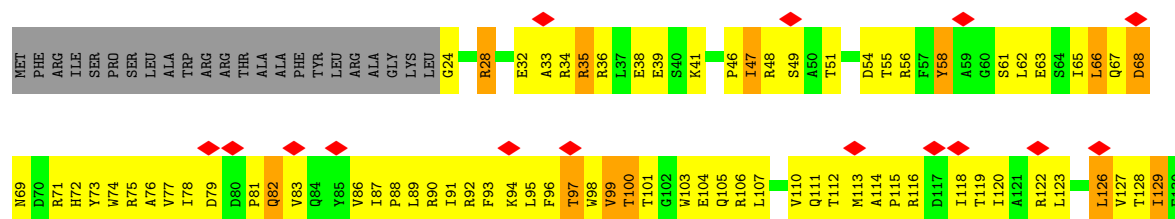


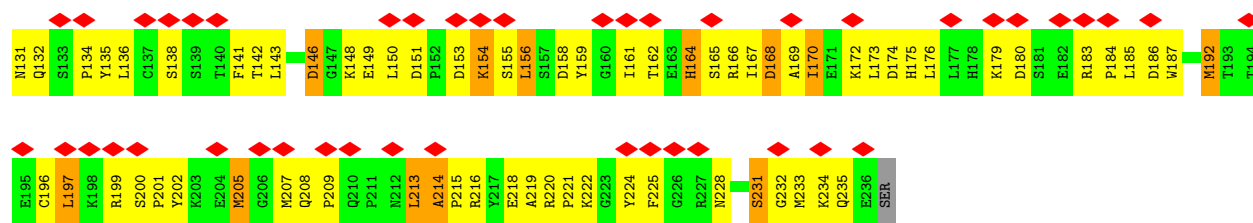


• Molecule 26: mS73

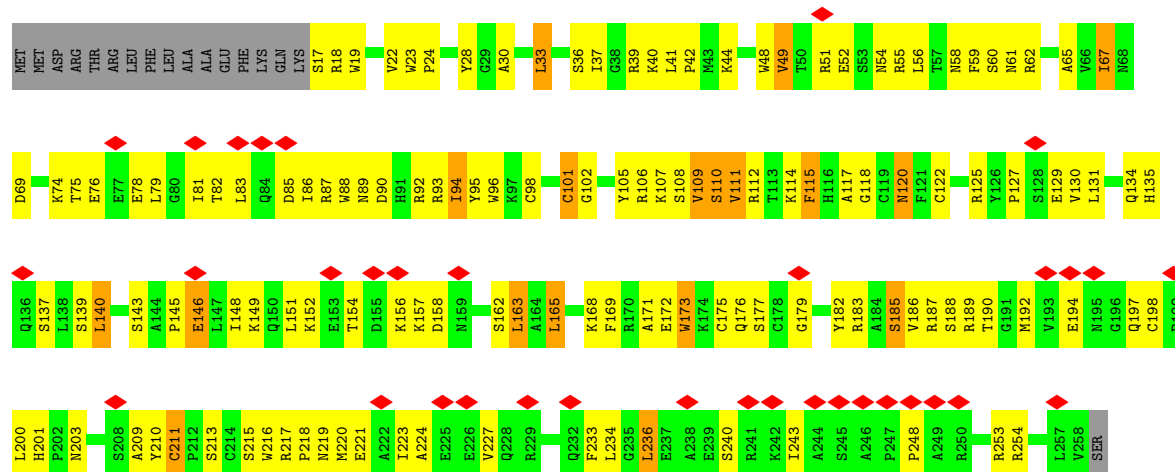
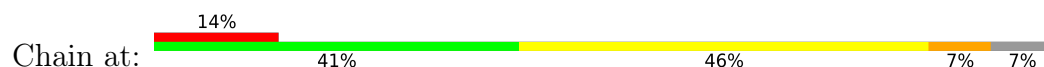


• Molecule 27: mS68

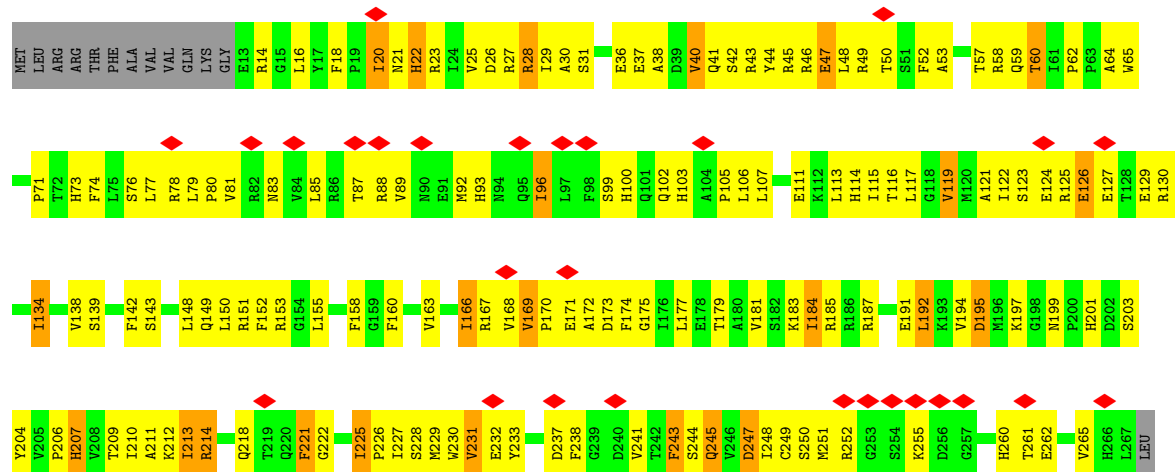




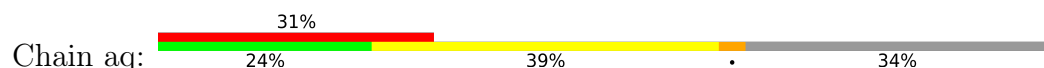
• Molecule 28: mS66

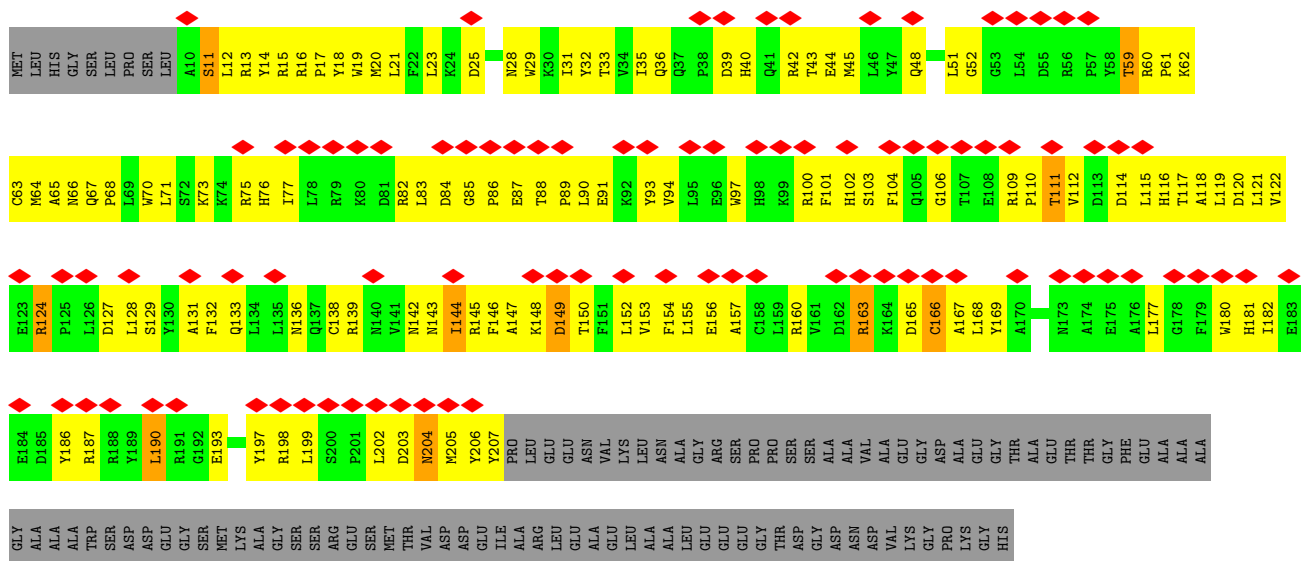


• Molecule 29: AKAP7_NLS domain-containing protein

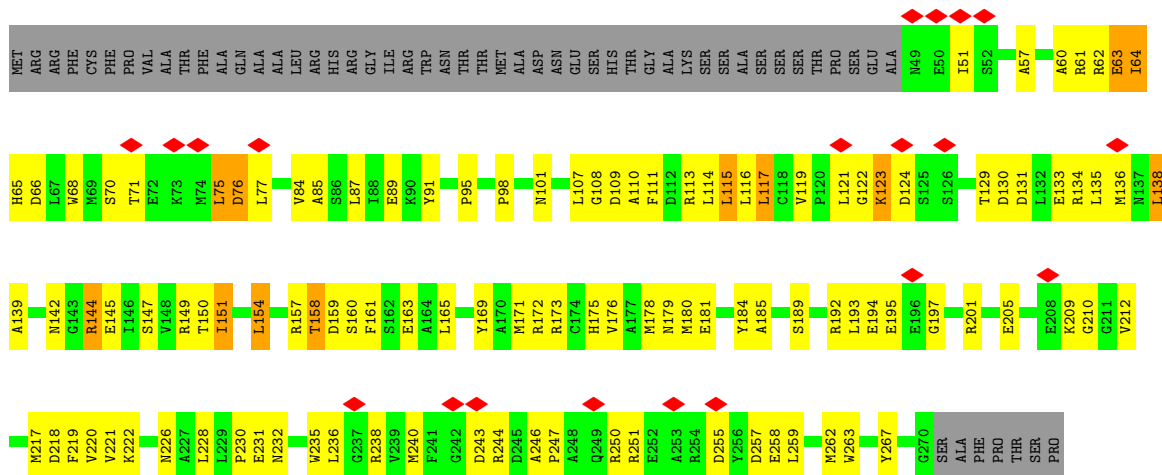
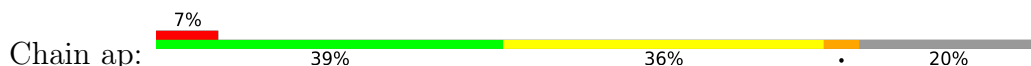


• Molecule 30: mS63

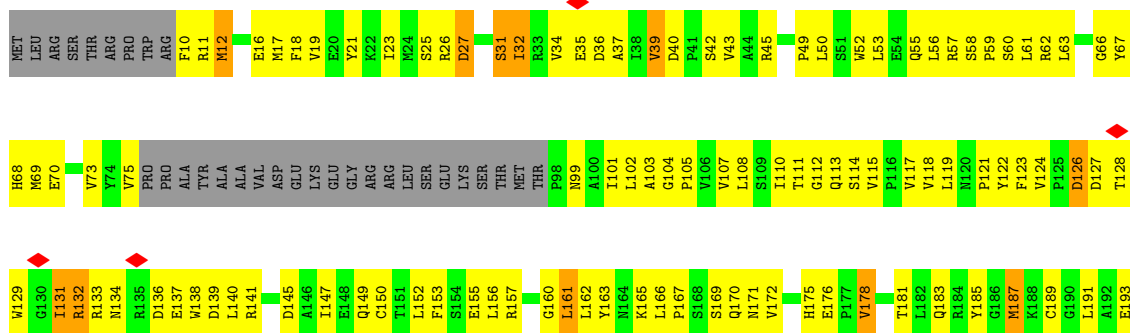


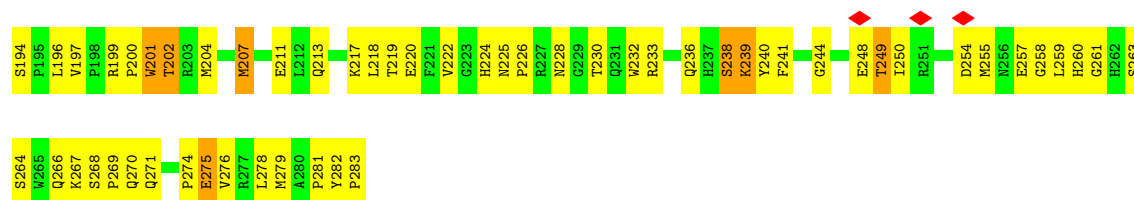


• Molecule 31: mS62

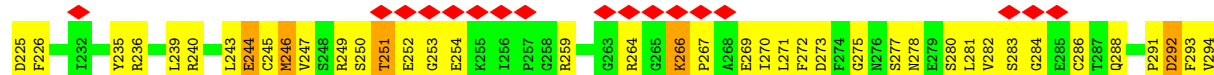
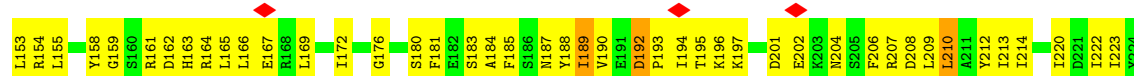
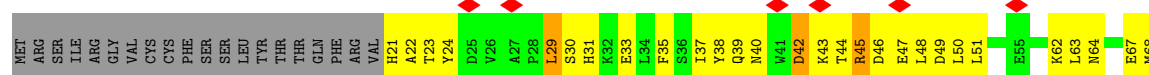


• Molecule 32: mS61

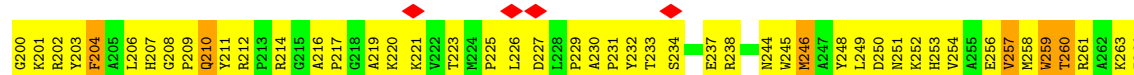
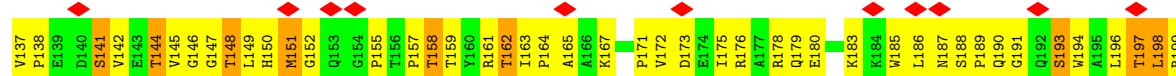




• Molecule 33: mS56

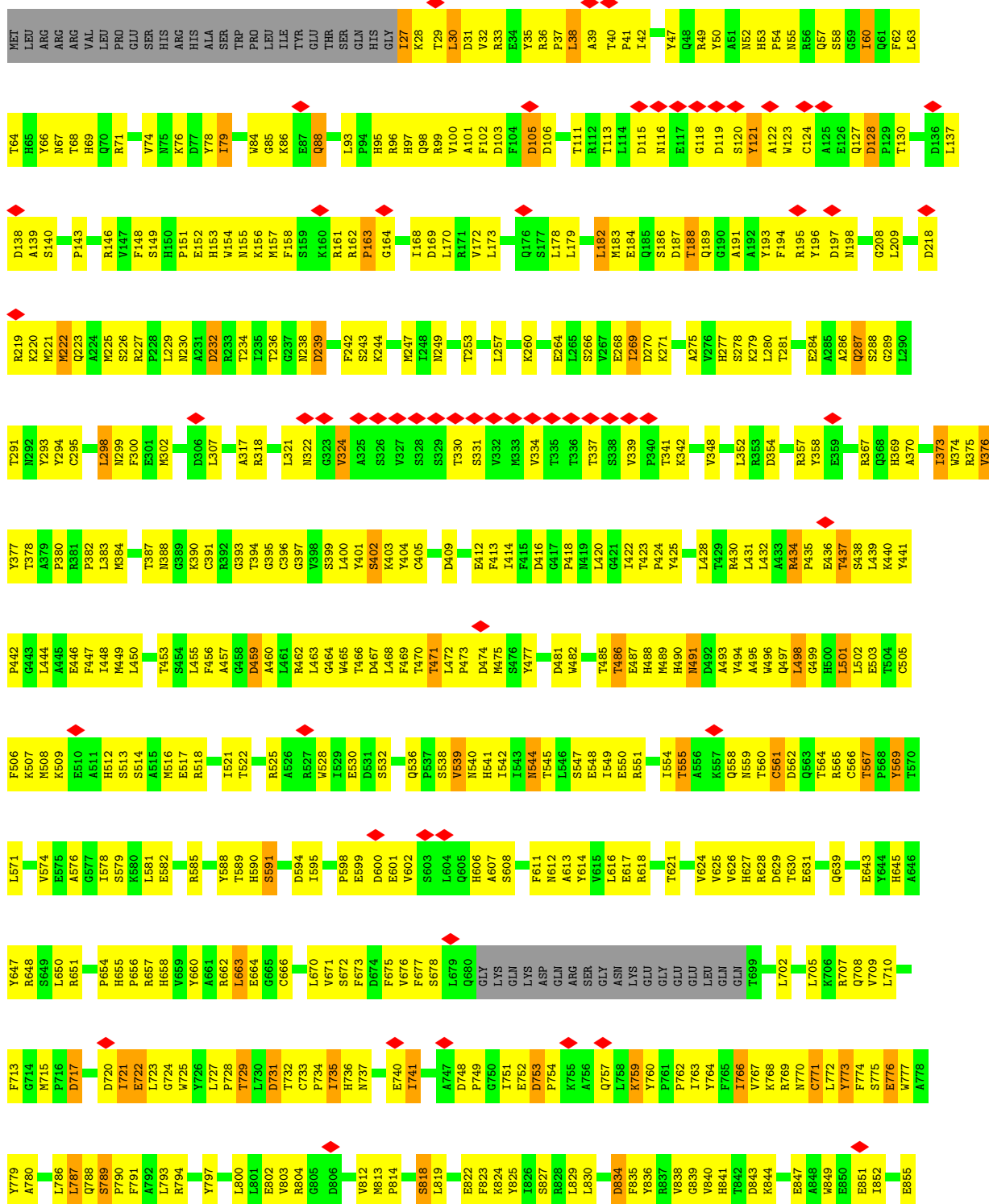


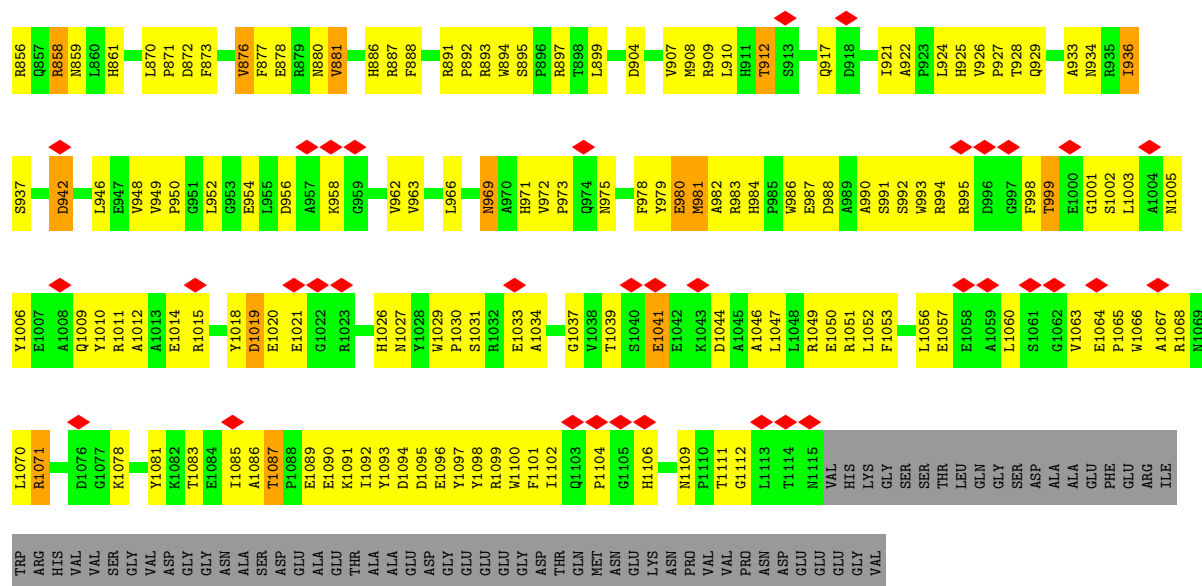
• Molecule 34: mS60



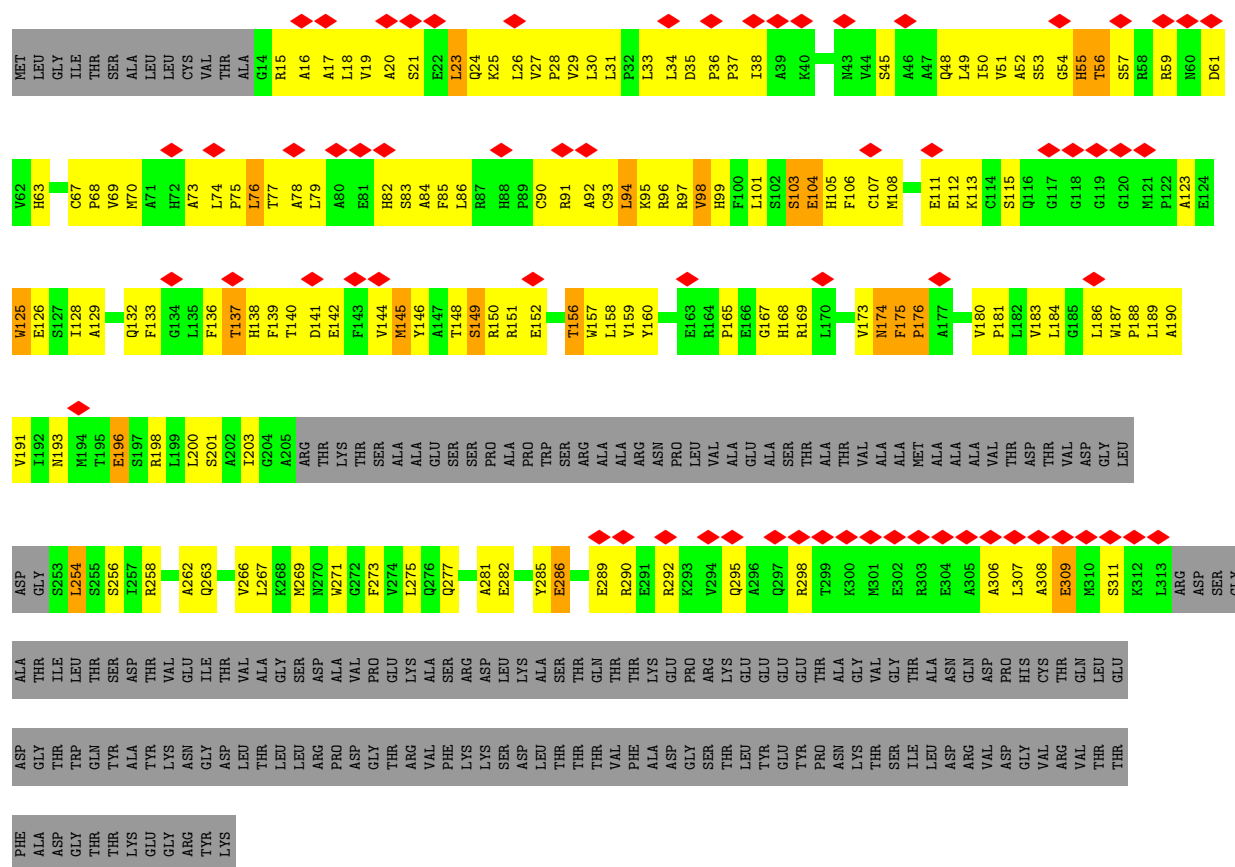
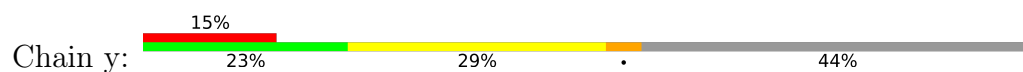


• Molecule 35: mS47



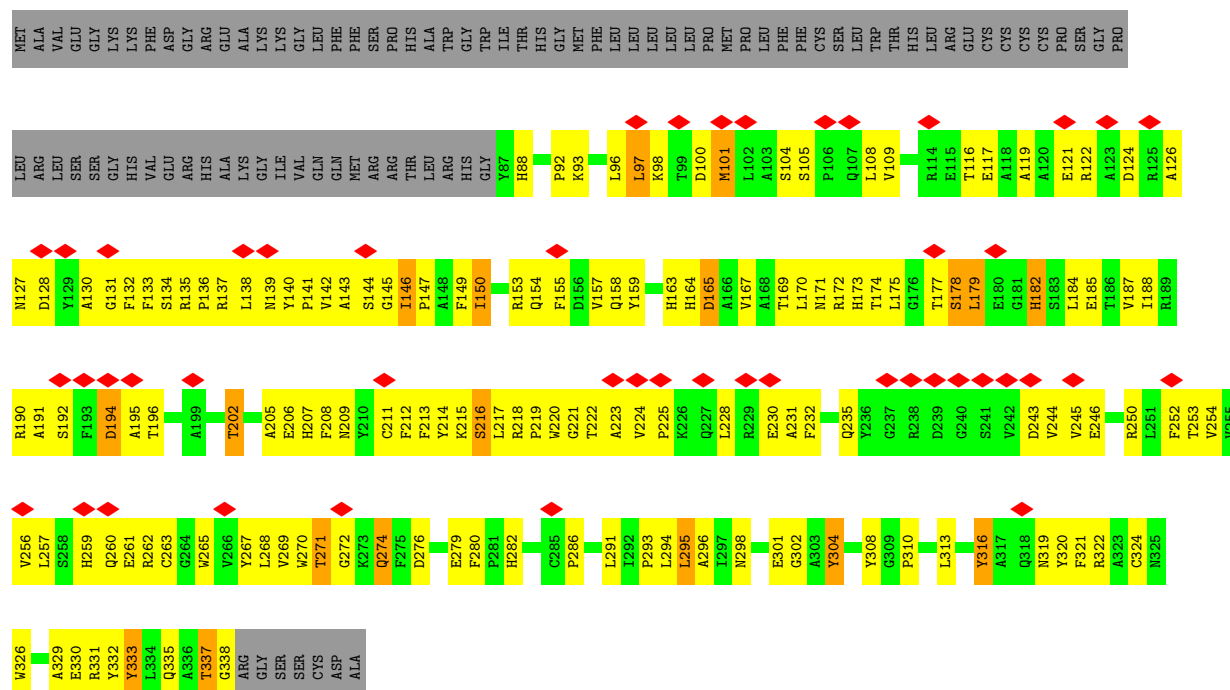


• Molecule 36: Sod_Fe_C domain-containing protein

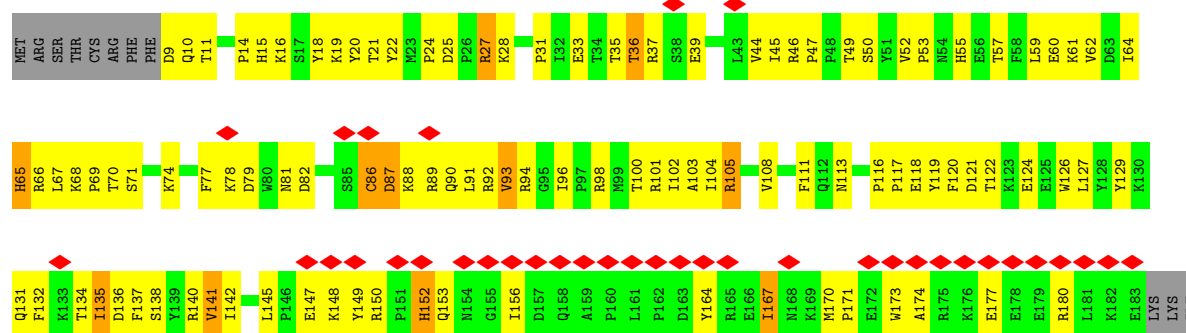


• Molecule 37: Superoxide dismutase, putative

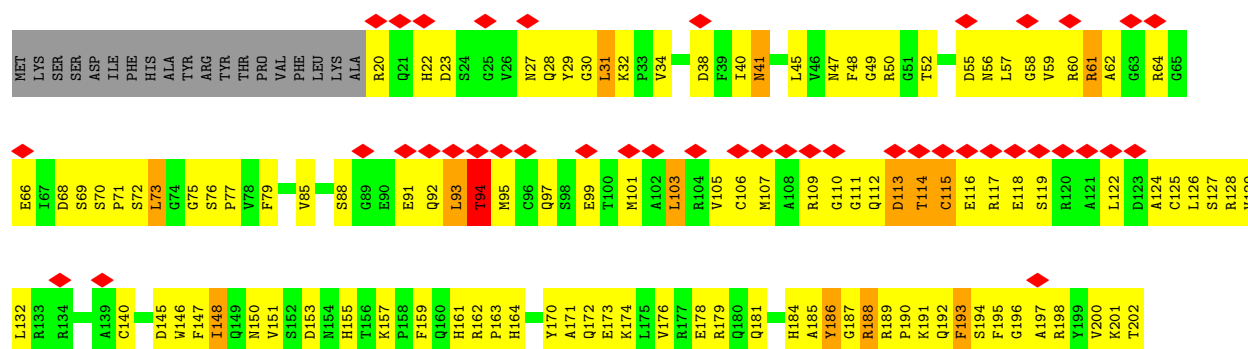


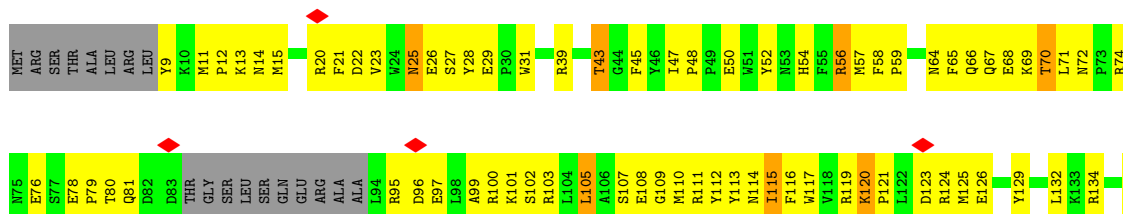


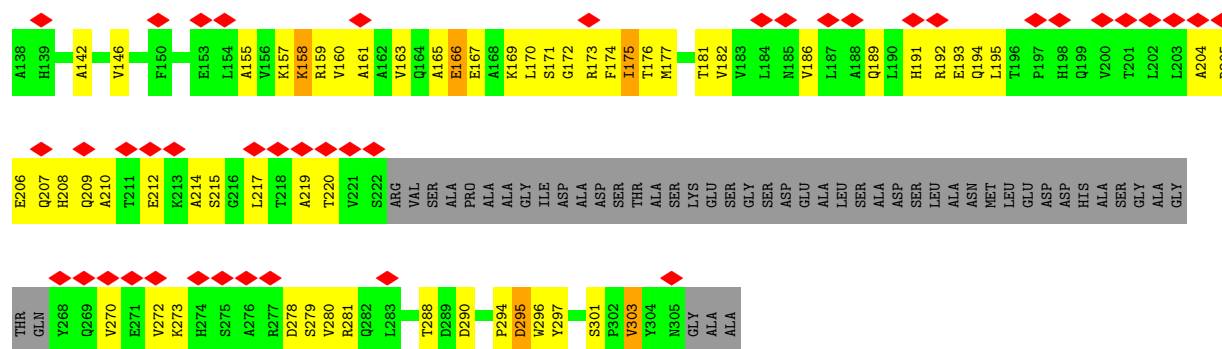
• Molecule 38: Protein FYV4, mitochondrial



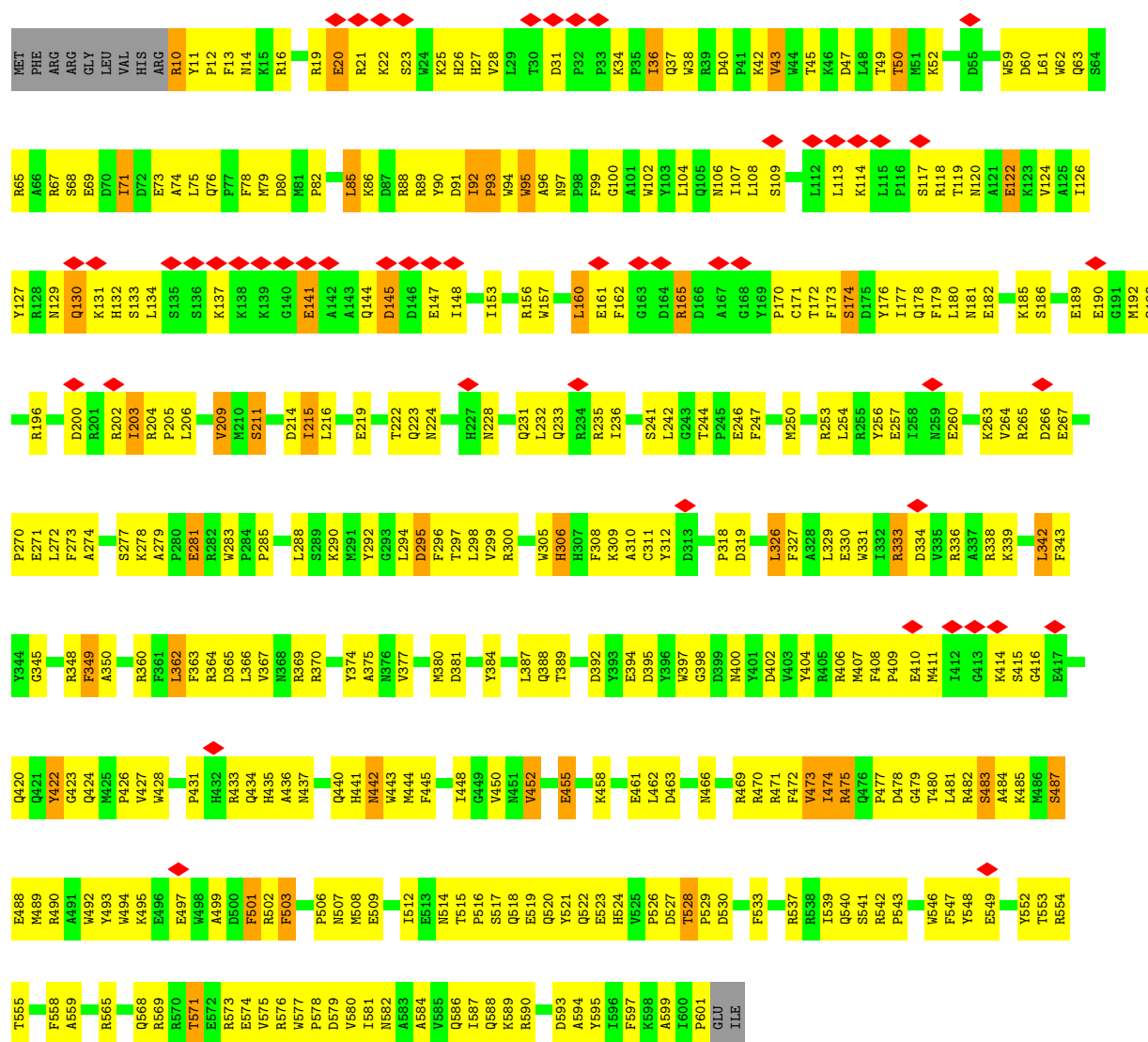
• Molecule 39: mS37





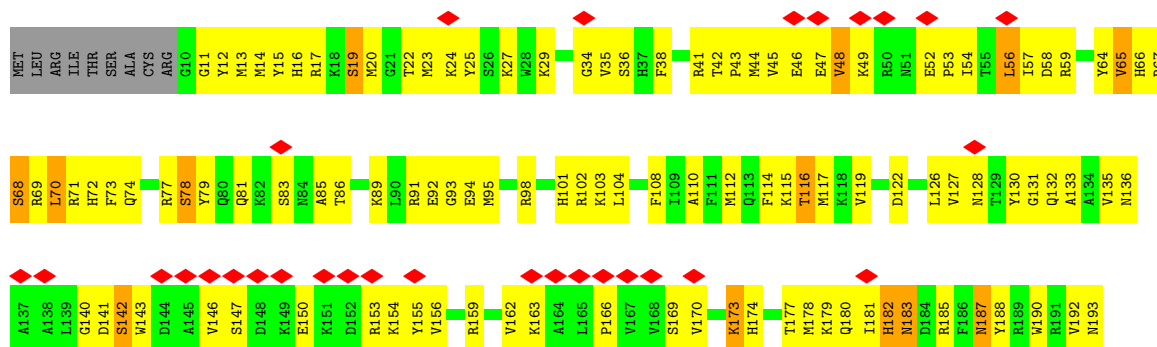


• Molecule 45: mS22

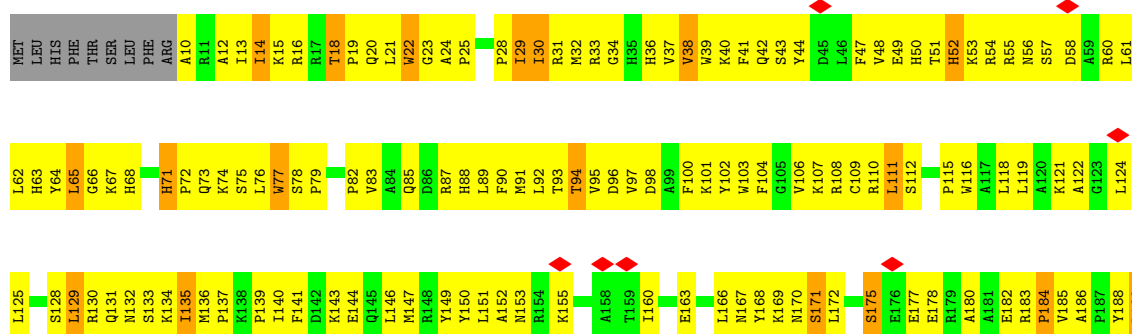


• Molecule 46: bS21m

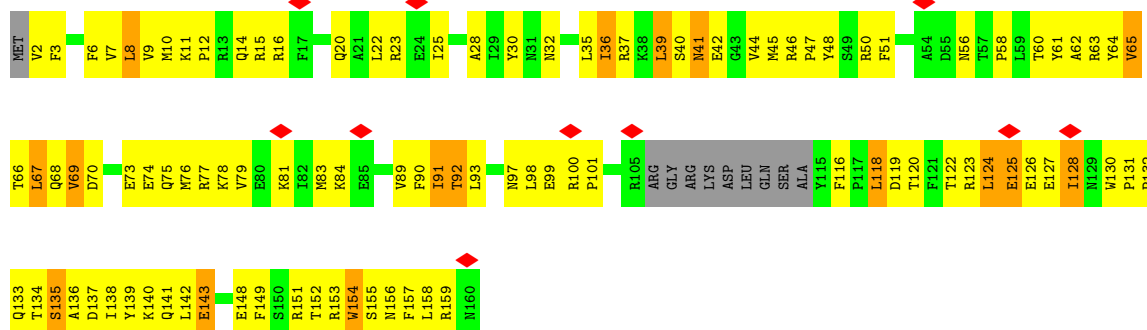




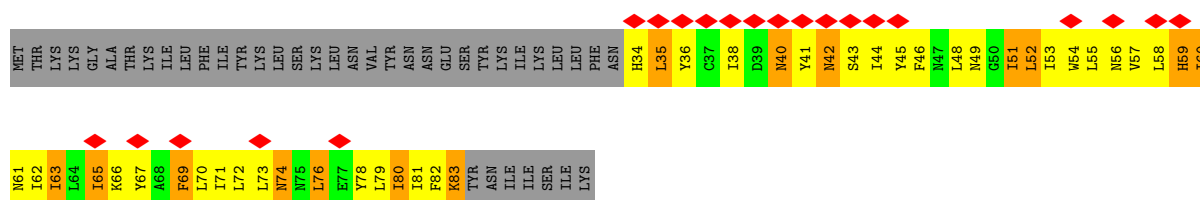
• Molecule 47: bS16m



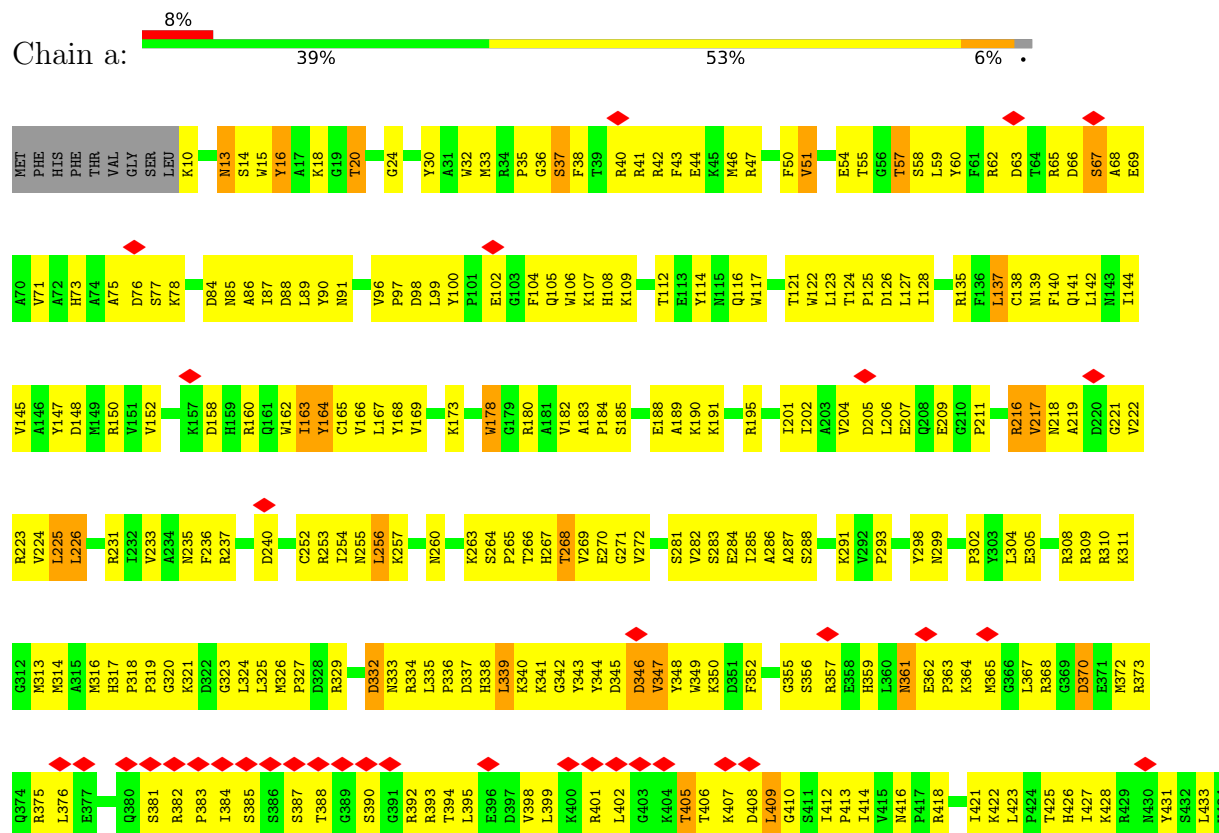
• Molecule 48: bS6m



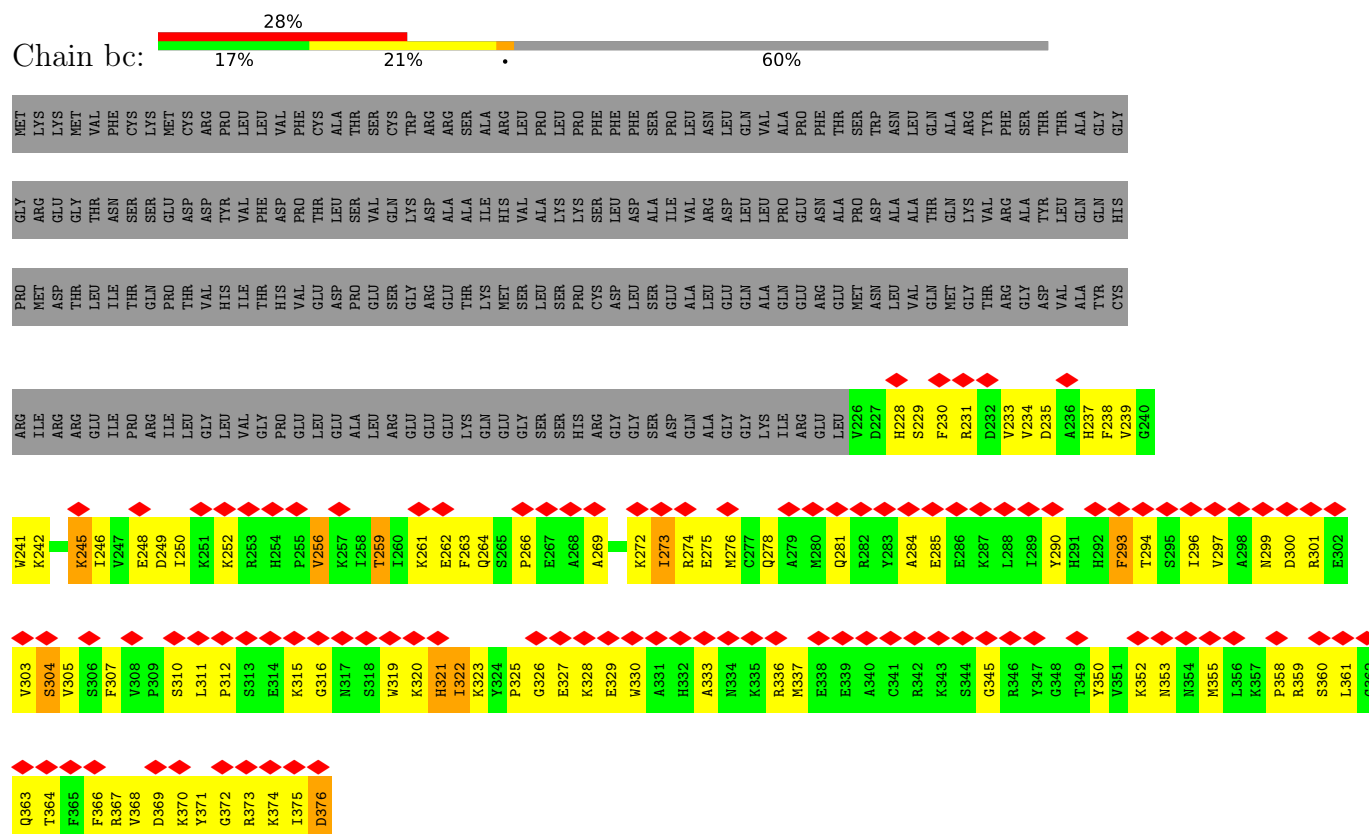
• Molecule 49: MURF5



• Molecule 50: Ribosomal_S5_C domain-containing protein



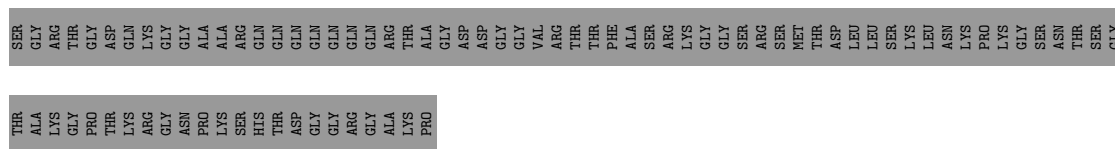
• Molecule 51: mt-iF3



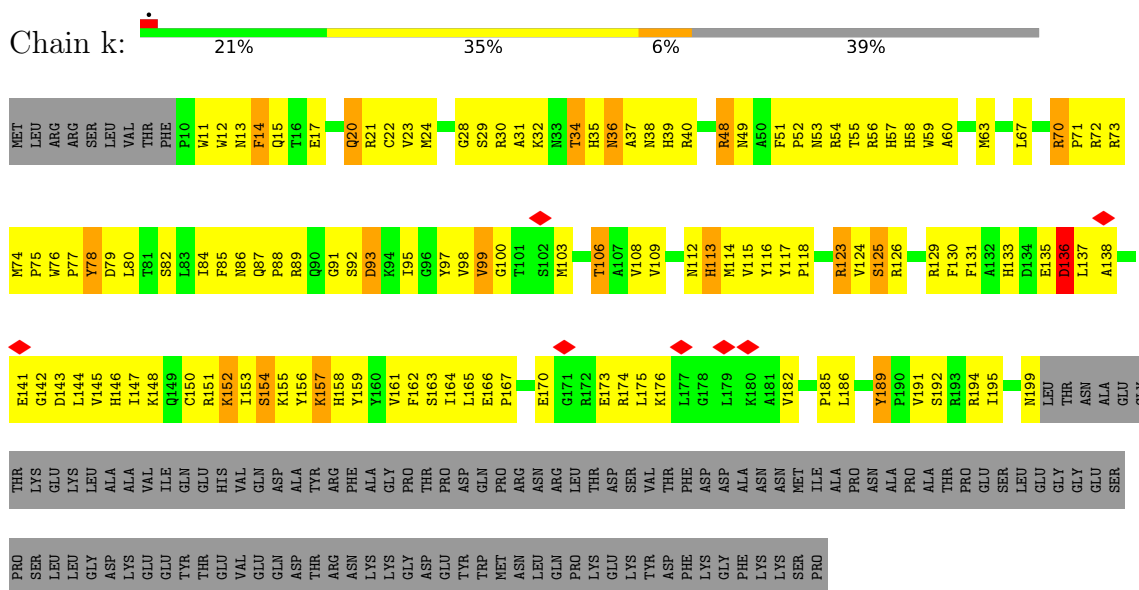
Chain aa: 14% 35% 44% 7% 15%



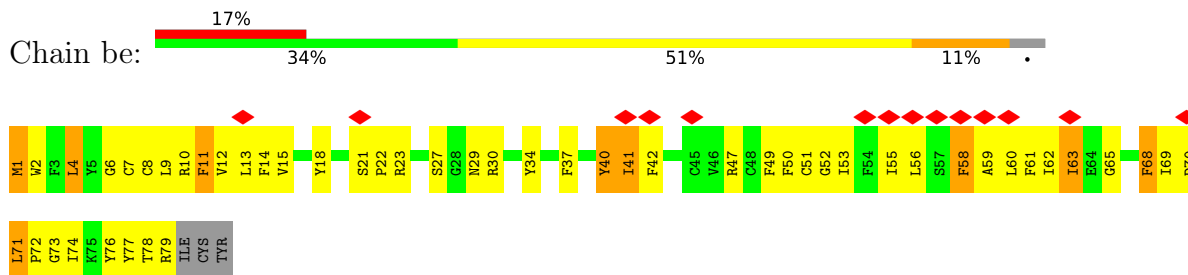




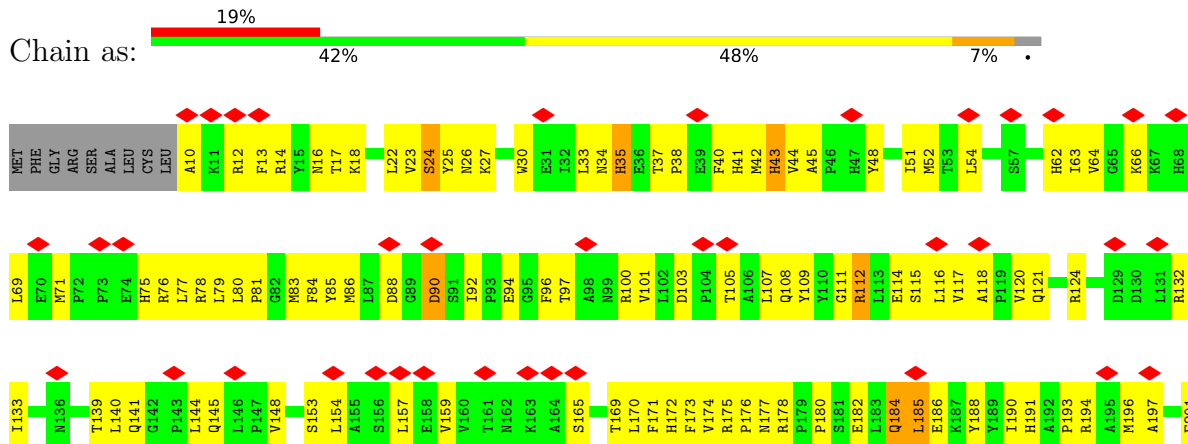
- Molecule 53: 30S Ribosomal protein S17-like protein



- Molecule 54: Ribosome protein S12



- Molecule 55: mS65



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A C A U A U U A A A A A U A U
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4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	148180	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TALOS ARCTICA	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	60	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON III (4k x 4k)	Depositor
Maximum map value	0.306	Depositor
Minimum map value	-0.176	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.012	Depositor
Recommended contour level	0.04	Depositor
Map size (Å)	428.40002, 428.40002, 428.40002	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.19, 1.19, 1.19	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	u	0.82	6/5704 (0.1%)	0.60	0/7702
2	s	0.41	0/1391	0.58	0/1880
3	r	0.35	0/3925	0.58	1/5331 (0.0%)
4	n	0.38	0/1202	0.59	0/1618
5	h	0.43	0/1364	0.55	0/1842
6	e	0.57	2/6771 (0.0%)	0.71	6/9218 (0.1%)
7	az	0.39	0/1334	0.66	0/1811
8	ay	0.35	0/1236	0.56	0/1663
9	ax	0.31	0/1415	0.56	0/1923
10	aw	0.38	0/1376	0.58	0/1862
11	au	0.39	0/2151	0.57	0/2920
12	ak	0.34	0/1905	0.61	0/2572
13	aj	0.37	0/2665	0.60	2/3618 (0.1%)
14	ag	0.39	0/4572	0.58	0/6180
15	af	0.33	0/4689	0.60	1/6342 (0.0%)
16	ae	0.35	0/4746	0.58	1/6439 (0.0%)
17	l	0.31	0/4950	0.59	1/6705 (0.0%)
18	ac	0.29	0/9073	0.56	0/12323
19	ab	0.36	0/9319	0.60	0/12610
20	ad	0.57	0/6805	0.68	3/9217 (0.0%)
21	m	0.63	1/1998 (0.1%)	0.71	2/2707 (0.1%)
22	i	0.51	0/3048	0.67	0/4110
23	f	0.42	0/1958	0.61	0/2631
24	c	0.72	0/2216	0.73	1/2984 (0.0%)
25	d	0.45	1/3611 (0.0%)	0.62	0/4871
26	ba	0.64	0/734	0.68	0/996
27	av	0.44	0/1795	0.70	1/2432 (0.0%)
28	at	0.47	1/1992 (0.1%)	0.64	0/2686
29	ar	0.45	0/2109	0.61	0/2852
30	aq	0.36	0/1751	0.59	0/2374
31	ap	0.48	0/1826	0.62	0/2453
32	ao	0.61	0/2119	0.67	0/2871

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
33	ai	0.56	0/3273	0.65	0/4412
34	an	0.60	0/2484	0.69	0/3357
35	z	0.73	2/8856 (0.0%)	0.69	3/12020 (0.0%)
36	y	0.39	0/2030	0.65	1/2751 (0.0%)
37	x	0.53	0/2075	0.69	0/2825
38	w	0.44	0/1524	0.68	2/2066 (0.1%)
39	v	0.62	0/1603	0.75	0/2154
40	bb	0.47	0/926	0.66	0/1230
41	t	1.14	7/1846 (0.4%)	0.66	0/2511
42	al	0.58	0/2430	0.66	0/3275
43	q	0.60	0/1892	0.68	0/2551
44	p	0.58	0/2047	0.66	0/2762
45	Ca	1.00	7/5233 (0.1%)	0.69	2/7083 (0.0%)
46	g	0.53	0/1580	0.65	0/2113
47	j	0.60	0/1546	0.79	2/2090 (0.1%)
48	b	0.51	0/1299	0.69	1/1751 (0.1%)
49	bd	0.50	0/441	0.74	0/601
50	a	0.68	0/3523	0.70	2/4759 (0.0%)
51	bc	0.29	0/1278	0.54	0/1711
52	aa	0.45	0/12863	0.62	0/17416
53	k	0.65	0/1624	0.80	0/2192
54	be	0.46	0/690	0.71	0/934
55	as	1.11	1/2088 (0.0%)	0.68	1/2844 (0.0%)
56	2	0.50	0/11110	0.60	0/17276
56	A	0.35	0/3392	0.50	0/5275
All	All	0.54	28/179403 (0.0%)	0.64	33/245702 (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
1	u	0	1
6	e	0	2
11	au	0	3
15	af	0	1
17	l	0	2
20	ad	0	3
25	d	0	2
27	av	0	1
29	ar	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
32	ao	0	2
33	ai	0	1
39	v	0	2
45	Ca	0	2
49	bd	0	2
52	aa	0	1
53	k	0	3
54	be	0	1
All	All	0	30

All (28) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	as	236	MET	SD-CE	46.72	2.96	1.79
35	z	1071	ARG	CD-NE	35.62	1.96	1.46
45	Ca	95	TRP	CE3-CZ3	31.82	2.34	1.38
1	u	666	PHE	CE2-CZ	28.17	2.23	1.38
1	u	666	PHE	CD2-CE2	25.44	2.15	1.38
1	u	666	PHE	CD1-CE1	24.47	2.12	1.38
45	Ca	95	TRP	CE2-CZ2	23.48	1.89	1.39
1	u	666	PHE	CE1-CZ	23.40	2.08	1.38
45	Ca	95	TRP	CZ3-CH2	23.01	1.98	1.40
6	e	444	ASP	C-N	22.93	1.67	1.33
41	t	46	TYR	CD1-CE1	22.37	2.05	1.38
41	t	46	TYR	CD2-CE2	22.15	2.05	1.38
6	e	445	GLY	N-CA	19.74	1.74	1.45
45	Ca	95	TRP	CD2-CE2	18.34	1.72	1.41
41	t	46	TYR	CE1-CZ	18.05	1.81	1.38
1	u	666	PHE	CG-CD1	17.87	1.76	1.38
1	u	666	PHE	CG-CD2	17.79	1.76	1.38
45	Ca	95	TRP	CZ2-CH2	17.75	1.71	1.37
41	t	46	TYR	CE2-CZ	16.79	1.78	1.38
45	Ca	95	TRP	CD2-CE3	16.74	1.67	1.40
35	z	1071	ARG	NE-CZ	16.18	1.50	1.33
41	t	46	TYR	CG-CD1	15.01	1.70	1.39
41	t	46	TYR	CG-CD2	14.91	1.70	1.39
21	m	70	ARG	C-N	-9.88	1.17	1.33
45	Ca	501	PHE	CA-C	-9.75	1.39	1.52
28	at	22	VAL	C-N	-7.09	1.23	1.33
41	t	190	PRO	CA-C	-5.46	1.48	1.51
25	d	410	ILE	CA-CB	-5.40	1.51	1.54

All (33) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	e	444	ASP	CA-C-N	22.37	165.26	121.41
6	e	444	ASP	C-N-CA	22.37	165.26	121.41
35	z	1071	ARG	CD-NE-CZ	21.34	154.28	124.40
55	as	236	MET	CG-SD-CE	12.27	127.90	100.90
6	e	749	PRO	CA-C-N	11.55	142.89	120.94
6	e	749	PRO	C-N-CA	11.55	142.89	120.94
20	ad	354	HIS	CA-C-N	-8.26	105.25	120.94
20	ad	354	HIS	C-N-CA	-8.26	105.25	120.94
36	y	125	TRP	N-CA-C	-7.85	102.74	113.18
13	aj	15	VAL	CA-C-N	-7.78	108.52	122.28
13	aj	15	VAL	C-N-CA	-7.78	108.52	122.28
24	c	97	VAL	N-CA-C	-7.58	106.51	113.71
35	z	1071	ARG	NE-CZ-NH1	7.43	128.93	121.50
21	m	142	MET	CA-C-N	-7.41	110.82	121.20
21	m	142	MET	C-N-CA	-7.41	110.82	121.20
16	ae	21	ILE	N-CA-C	-7.06	106.61	113.53
38	w	141	VAL	CA-C-N	-6.91	117.61	122.59
38	w	141	VAL	C-N-CA	-6.91	117.61	122.59
45	Ca	95	TRP	CE3-CZ3-CH2	-6.67	112.43	121.10
35	z	1071	ARG	CG-CD-NE	6.41	126.09	112.00
3	r	350	ASN	N-CA-C	-5.59	107.09	114.31
50	a	178	TRP	CA-C-N	-5.37	118.00	121.65
50	a	178	TRP	C-N-CA	-5.37	118.00	121.65
15	af	256	GLY	N-CA-C	5.36	119.13	112.64
6	e	18	THR	CB-CA-C	-5.33	101.85	114.16
6	e	447	VAL	N-CA-C	5.30	116.77	111.00
20	ad	726	MET	N-CA-C	5.26	117.70	111.33
47	j	184	PRO	N-CA-C	5.18	118.74	111.33
48	b	128	ILE	N-CA-C	-5.18	105.35	111.00
45	Ca	209	VAL	N-CA-C	-5.13	107.98	112.90
17	l	449	ASN	N-CA-C	-5.09	106.41	113.18
27	av	99	VAL	N-CA-C	-5.01	101.86	109.78
47	j	77	TRP	N-CA-C	-5.00	107.04	114.64

There are no chirality outliers.

All (30) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
45	Ca	422	TYR	Peptide
45	Ca	93	PRO	Peptide
52	aa	129	LEU	Peptide

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Mol	Chain	Res	Type	Group
20	ad	520	SER	Peptide
20	ad	725	PRO	Peptide
20	ad	82	ASN	Peptide
15	af	184	VAL	Peptide
33	ai	266	LYS	Peptide
32	ao	132	ARG	Peptide
32	ao	201	TRP	Peptide
29	ar	195	ASP	Peptide
11	au	154	GLN	Peptide
11	au	186	TRP	Peptide
11	au	187	LYS	Peptide
27	av	213	LEU	Peptide
49	bd	42	ASN	Peptide
49	bd	63	ILE	Peptide
54	be	40	TYR	Peptide
25	d	290	HIS	Peptide
25	d	67	LEU	Peptide
6	e	15	ARG	Peptide
6	e	18	THR	Peptide
53	k	123	ARG	Peptide
53	k	136	ASP	Peptide
53	k	150	CYS	Peptide
17	l	448	MET	Peptide
17	l	662	GLY	Peptide
1	u	229	SER	Peptide
39	v	113	ASP	Peptide
39	v	114	THR	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	u	5597	0	5628	451	0
2	s	1351	0	1315	135	0
3	r	3806	0	3680	306	0
4	n	1169	0	1188	100	0
5	h	1324	0	1304	107	0
6	e	6577	0	6289	569	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	az	1292	0	1287	130	0
8	ay	1200	0	1190	117	0
9	ax	1366	0	1342	115	0
10	aw	1338	0	1322	114	0
11	au	2069	0	1936	158	0
12	ak	1865	0	1836	140	0
13	aj	2590	0	2552	198	0
14	ag	4472	0	4434	338	0
15	af	4590	0	4545	354	0
16	ae	4634	0	4582	342	0
17	l	4821	0	4706	384	0
18	ac	8864	0	8621	548	0
19	ab	9094	0	8739	721	0
20	ad	6610	0	6371	583	0
21	m	1940	0	1882	169	0
22	i	2970	0	2976	273	0
23	f	1917	0	1854	192	0
24	c	2169	0	2146	128	0
25	d	3538	0	3515	309	0
26	ba	706	0	645	66	0
27	av	1752	0	1705	177	0
28	at	1946	0	1927	143	0
29	ar	2061	0	2058	153	0
30	aq	1701	0	1658	119	0
31	ap	1796	0	1747	92	0
32	ao	2062	0	2042	148	0
33	ai	3205	0	3206	180	0
34	an	2422	0	2434	293	0
35	z	8630	0	8339	668	0
36	y	1983	0	1989	139	0
37	x	2016	0	1932	180	0
38	w	1479	0	1458	129	0
39	v	1567	0	1500	164	0
40	bb	905	0	968	84	0
41	t	1797	0	1752	186	0
42	al	2372	0	2374	195	0
43	q	1840	0	1783	195	0
44	p	1998	0	1965	147	0
45	Ca	5070	0	4897	453	0
46	g	1544	0	1564	141	0
47	j	1501	0	1517	200	0
48	b	1271	0	1263	125	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
49	bd	430	0	448	95	0
50	a	3436	0	3427	283	0
51	bc	1247	0	1249	84	0
52	aa	12549	0	12207	961	0
53	k	1577	0	1587	158	0
54	be	665	0	668	54	0
55	as	2024	0	2025	190	0
56	2	9932	0	4972	685	0
56	A	3030	0	1513	200	0
57	r	32	0	11	10	0
58	r	1	0	0	0	0
59	aj	29	0	10	8	0
60	aa	1	0	0	0	0
60	at	2	0	0	0	0
60	y	1	0	0	0	0
All	All	173743	0	164080	11055	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 33.

All (11055) 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)
1:u:666:PHE:CD2	1:u:666:PHE:CG	1.76	1.70
41:t:46:TYR:CZ	41:t:46:TYR:CE2	1.78	1.68
1:u:666:PHE:CG	1:u:666:PHE:CD1	1.76	1.60
41:t:46:TYR:CZ	41:t:46:TYR:CE1	1.81	1.60
45:Ca:95:TRP:CE2	45:Ca:95:TRP:CZ2	1.89	1.56
35:z:1071:ARG:NE	45:Ca:95:TRP:CZ3	1.73	1.53
45:Ca:95:TRP:CZ3	45:Ca:95:TRP:CH2	1.98	1.51
6:e:445:GLY:N	6:e:445:GLY:CA	1.74	1.50
41:t:46:TYR:CE1	41:t:46:TYR:CD1	2.05	1.43
41:t:46:TYR:CE2	41:t:46:TYR:CD2	2.05	1.43
35:z:1071:ARG:NE	45:Ca:95:TRP:CE3	1.86	1.43
1:u:666:PHE:CE1	1:u:666:PHE:CZ	2.08	1.39
1:u:666:PHE:CD1	1:u:666:PHE:CE1	2.12	1.38
35:z:1071:ARG:NE	45:Ca:95:TRP:CH2	1.91	1.36
1:u:666:PHE:CD2	1:u:666:PHE:CE2	2.15	1.35
1:u:666:PHE:CE2	6:e:445:GLY:N	1.97	1.32
1:u:666:PHE:CD2	6:e:445:GLY:N	2.00	1.29
35:z:1071:ARG:NE	35:z:1071:ARG:CD	1.96	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:666:PHE:CD1	6:e:445:GLY:N	2.01	1.28
35:z:1071:ARG:NE	45:Ca:95:TRP:CE2	2.01	1.28
1:u:666:PHE:CZ	1:u:666:PHE:CE2	2.23	1.27
35:z:1071:ARG:NE	45:Ca:95:TRP:CZ2	2.01	1.27
1:u:666:PHE:CZ	6:e:445:GLY:N	2.04	1.25
1:u:666:PHE:CE1	6:e:445:GLY:N	2.04	1.24
35:z:1071:ARG:NE	45:Ca:95:TRP:CD2	2.03	1.24
1:u:666:PHE:CG	6:e:445:GLY:N	2.05	1.21
41:t:46:TYR:CD2	55:as:236:MET:SD	2.34	1.20
41:t:46:TYR:CD1	55:as:236:MET:SD	2.36	1.19
41:t:46:TYR:CE2	55:as:236:MET:SD	2.35	1.18
41:t:46:TYR:CE1	55:as:236:MET:SD	2.38	1.16
45:Ca:95:TRP:CZ3	45:Ca:95:TRP:CE3	2.34	1.15
41:t:46:TYR:CG	55:as:236:MET:SD	2.40	1.14
35:z:1071:ARG:CD	45:Ca:95:TRP:CE2	2.31	1.14
41:t:46:TYR:CZ	55:as:236:MET:SD	2.40	1.13
41:t:46:TYR:CE1	55:as:236:MET:CE	2.32	1.12
41:t:46:TYR:CZ	55:as:236:MET:CE	2.32	1.12
41:t:46:TYR:CE2	55:as:236:MET:CE	2.35	1.09
35:z:1071:ARG:CD	45:Ca:95:TRP:CD2	2.36	1.09
41:t:46:TYR:CD1	55:as:236:MET:CE	2.38	1.06
41:t:46:TYR:CD2	55:as:236:MET:CE	2.39	1.05
35:z:1071:ARG:HD2	45:Ca:95:TRP:CE2	1.91	1.04
35:z:1071:ARG:CZ	45:Ca:95:TRP:CE2	2.40	1.03
35:z:1071:ARG:CZ	45:Ca:95:TRP:CD2	2.42	1.02
1:u:666:PHE:CE2	6:e:444:ASP:C	2.38	1.02
52:aa:841:VAL:O	52:aa:845:TYR:HB2	1.59	1.01
15:af:19:ASP:HB3	15:af:22:HIS:HB2	1.42	1.00
35:z:1071:ARG:CD	45:Ca:95:TRP:CE3	2.45	0.99
13:aj:313:ARG:O	13:aj:317:PHE:HB2	1.61	0.99
1:u:725:VAL:HG13	1:u:729:THR:HB	1.41	0.98
19:ab:246:ILE:HG23	19:ab:405:MET:HE1	1.46	0.98
36:y:144:VAL:HG11	36:y:263:GLN:HG3	1.45	0.98
41:t:46:TYR:CG	55:as:236:MET:CE	2.46	0.97
14:ag:557:ARG:HH11	17:l:83:PRO:HD2	1.29	0.97
17:l:281:VAL:O	17:l:285:HIS:HB3	1.62	0.97
1:u:666:PHE:CZ	6:e:444:ASP:C	2.43	0.97
43:q:36:ARG:NH1	43:q:39:MET:SD	2.37	0.97
31:ap:238:ARG:O	43:q:129:ARG:NH2	1.98	0.96
43:q:58:ARG:NH2	47:j:109:CYS:O	1.97	0.96
20:ad:108:THR:OG1	20:ad:705:GLN:NE2	1.98	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:55:ASN:ND2	39:v:186:TYR:OH	2.00	0.95
41:t:46:TYR:CE1	55:as:236:MET:HE2	2.01	0.95
22:i:425:ARG:NH2	56:2:123:U:O2'	1.98	0.94
22:i:425:ARG:NH2	56:2:128:A:O2'	2.00	0.94
22:i:131:LYS:O	22:i:135:GLU:HB2	1.68	0.94
6:e:83:LEU:HD21	49:bd:70:LEU:HB3	1.45	0.94
33:ai:259:ARG:HB2	33:ai:273:ASP:HB3	1.50	0.94
6:e:122:ARG:HH12	19:ab:911:LEU:H	1.15	0.93
17:l:217:ALA:HA	17:l:389:LEU:HD21	1.51	0.93
23:f:200:ARG:NH1	46:g:79:TYR:OH	2.01	0.93
35:z:1071:ARG:CZ	45:Ca:95:TRP:CE3	2.50	0.93
29:ar:114:HIS:HE2	29:ar:116:THR:HG1	0.98	0.93
52:aa:369:ARG:NH2	56:2:204:U:OP2	2.00	0.93
53:k:106:THR:OG1	53:k:157:LYS:NZ	2.01	0.93
41:t:46:TYR:CE2	55:as:236:MET:HE3	2.04	0.93
20:ad:274:PHE:HE2	22:i:329:GLU:HB2	1.34	0.92
22:i:428:PRO:HD3	56:2:123:U:H5''	1.50	0.92
23:f:203:THR:HG21	23:f:286:GLY:HA3	1.51	0.92
47:j:33:ARG:HH22	47:j:53:LYS:HD3	1.33	0.92
14:ag:537:VAL:HG13	17:l:137:PRO:HB2	1.52	0.91
20:ad:675:LEU:HB2	45:Ca:423:GLY:H	1.35	0.91
35:z:1071:ARG:CD	45:Ca:95:TRP:CZ2	2.54	0.91
45:Ca:60:ASP:HB2	45:Ca:63:GLN:HE21	1.36	0.91
52:aa:299:LEU:HD21	52:aa:309:LEU:HB2	1.53	0.91
22:i:372:MET:HE3	27:av:129:ILE:HG12	1.49	0.91
18:ac:878:LEU:HD13	18:ac:882:ARG:HH21	1.36	0.91
15:af:176:ILE:O	15:af:180:ALA:HB2	1.70	0.90
35:z:658:HIS:NE2	35:z:672:SER:OG	2.04	0.90
1:u:666:PHE:CZ	6:e:445:GLY:CA	2.54	0.90
56:2:590:A:H2'	56:2:591:A:C8	2.07	0.90
17:l:185:ILE:HB	17:l:394:PHE:HB3	1.54	0.89
56:2:125:U:O2	56:2:127:G:N2	2.06	0.89
14:ag:287:LEU:HD21	14:ag:322:TYR:HB2	1.54	0.89
40:bb:188:ARG:HD2	40:bb:191:LEU:HD12	1.55	0.89
56:A:517:U:OP1	56:A:519:U:N3	2.04	0.89
21:m:69:HIS:O	21:m:101:GLN:NE2	2.06	0.89
1:u:653:ARG:HH11	14:ag:309:ARG:HA	1.38	0.89
34:an:40:TYR:OH	50:a:309:ARG:NH2	2.04	0.89
37:x:267:TYR:HB2	37:x:280:PHE:HE2	1.37	0.89
56:2:337:U:H5'	56:2:356:U:H4'	1.54	0.89
20:ad:86:ILE:O	20:ad:90:MET:HB3	1.73	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:1144:LEU:HA	52:aa:1162:LEU:HD21	1.54	0.89
20:ad:472:THR:HG23	20:ad:475:ALA:H	1.35	0.88
25:d:394:ARG:HD3	25:d:417:LEU:HD22	1.55	0.88
38:w:98:ARG:NH2	56:2:42:A:N3	2.22	0.88
52:aa:1195:GLY:HA3	52:aa:1431:MET:HG3	1.55	0.88
24:c:238:LYS:NZ	56:2:11:U:OP2	2.06	0.88
20:ad:663:GLU:HG2	45:Ca:428:TRP:HA	1.52	0.88
52:aa:336:VAL:HG11	52:aa:420:GLN:HB3	1.55	0.88
52:aa:337:HIS:HD2	52:aa:339:ASP:H	1.22	0.88
22:i:128:ARG:NH2	22:i:165:HIS:O	2.06	0.87
20:ad:242:LEU:HD11	20:ad:248:ASP:HA	1.57	0.87
24:c:72:ARG:NH1	56:2:3:A:OP1	2.08	0.87
28:at:96:TRP:NE1	28:at:107:LYS:O	2.07	0.87
52:aa:267:ILE:O	52:aa:271:TYR:HB2	1.73	0.87
20:ad:687:LEU:HD11	43:q:72:ASN:HB3	1.54	0.87
56:A:469:A:N3	56:A:470:G:N2	2.21	0.87
56:2:233:C:N4	56:2:245:G:OP2	2.08	0.87
10:aw:145:ASN:HB3	10:aw:148:ASN:HB2	1.56	0.87
42:al:221:ARG:NH1	42:al:253:PHE:O	2.06	0.87
16:ae:202:MET:HG3	16:ae:229:PRO:HD2	1.57	0.87
45:Ca:300:ARG:NH2	45:Ca:330:GLU:OE2	2.07	0.87
47:j:31:ARG:NH1	47:j:49:GLU:OE1	2.08	0.87
14:ag:305:GLU:HB3	14:ag:309:ARG:HH21	1.40	0.87
3:r:38:PRO:HG3	25:d:59:GLU:HA	1.56	0.87
14:ag:441:PRO:HA	49:bd:46:PHE:HB3	1.57	0.87
33:ai:247:VAL:HG12	33:ai:254:GLU:HG3	1.55	0.87
35:z:1071:ARG:HD3	45:Ca:95:TRP:CD2	2.10	0.87
37:x:322:ARG:NH2	52:aa:1177:PHE:O	2.08	0.87
52:aa:407:THR:HG22	52:aa:409:ARG:H	1.40	0.87
52:aa:515:ARG:NH1	52:aa:885:GLU:O	2.07	0.87
22:i:98:ASN:OD1	22:i:101:GLY:N	2.08	0.86
35:z:1071:ARG:NH1	45:Ca:95:TRP:CE2	2.44	0.86
37:x:262:ARG:NH2	37:x:310:PRO:O	2.08	0.86
39:v:47:ASN:HD22	56:2:387:U:H4'	1.39	0.86
56:2:551:G:H1	56:2:585:U:H3	1.17	0.86
8:ay:211:LEU:HB2	8:ay:217:ASN:HD22	1.39	0.86
9:ax:43:ASN:O	9:ax:57:ARG:NH2	2.08	0.86
15:af:376:MET:N	15:af:376:MET:SD	2.48	0.86
47:j:36:HIS:NE2	56:2:186:U:OP2	2.08	0.86
1:u:666:PHE:HE2	6:e:447:VAL:N	1.72	0.86
8:ay:145:TYR:HD1	8:ay:149:ARG:HH12	1.24	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:2:2:A:H1'	56:2:3:A:H5''	1.57	0.86
19:ab:250:LEU:HD13	19:ab:397:ASN:HD22	1.41	0.86
20:ad:206:TRP:HD1	20:ad:282:VAL:HG11	1.41	0.86
6:e:410:GLN:HE22	19:ab:1057:ARG:HH22	1.24	0.85
50:a:392:ARG:HH22	52:aa:1686:ARG:HA	1.40	0.85
56:2:49:U:O2	56:2:53:A:N6	2.09	0.85
6:e:18:THR:N	49:bd:43:SER:O	2.09	0.85
24:c:69:LEU:O	24:c:74:ARG:NH2	2.08	0.85
35:z:567:THR:O	35:z:768:LYS:NZ	2.09	0.85
40:bb:169:ARG:NH1	56:2:598:U:OP2	2.09	0.85
20:ad:97:LYS:NZ	56:2:142:U:OP1	2.08	0.85
20:ad:202:ARG:NH1	52:aa:216:TYR:O	2.09	0.85
23:f:186:LYS:O	23:f:304:ARG:NH2	2.10	0.85
35:z:418:PRO:HD3	35:z:424:PRO:HD3	1.58	0.85
56:2:60:A:O2'	56:2:154:G:OP1	1.95	0.85
21:m:73:ASP:OD2	25:d:211:TYR:OH	1.95	0.85
39:v:211:LEU:O	56:2:357:A:N6	2.10	0.85
22:i:327:CYS:SG	22:i:328:VAL:N	2.49	0.85
35:z:440:LYS:NZ	35:z:462:ARG:O	2.09	0.85
26:ba:19:THR:OG1	35:z:1102:ILE:O	1.95	0.84
47:j:66:GLY:HA3	47:j:94:THR:O	1.76	0.84
20:ad:332:PRO:HG3	27:av:81:PRO:HD3	1.59	0.84
50:a:387:SER:H	52:aa:1242:LYS:HZ1	1.23	0.84
51:bc:249:ASP:HA	51:bc:252:LYS:HZ3	1.42	0.84
53:k:152:LYS:NZ	53:k:155:LYS:O	2.10	0.84
6:e:546:PRO:HB3	6:e:552:ILE:HG13	1.60	0.84
5:h:11:ARG:HG3	16:ae:6:VAL:HG11	1.59	0.84
20:ad:261:ARG:NH2	22:i:313:THR:OG1	2.09	0.84
35:z:1071:ARG:HD3	45:Ca:95:TRP:CE3	2.11	0.84
39:v:210:ARG:O	56:2:357:A:N6	2.09	0.84
48:b:7:VAL:O	48:b:92:THR:HA	1.76	0.84
51:bc:300:ASP:HB3	51:bc:301:ARG:HE	1.42	0.84
19:ab:742:HIS:HD1	19:ab:745:THR:HG1	1.24	0.84
20:ad:685:HIS:NE2	20:ad:689:PHE:O	2.11	0.84
56:2:236:G:HO2'	56:2:251:U:HO2'	1.23	0.84
56:2:324:A:O2'	56:2:325:A:O5'	1.96	0.84
26:ba:82:LYS:NZ	45:Ca:157:TRP:O	2.11	0.84
1:u:666:PHE:HE2	6:e:447:VAL:H	1.22	0.84
6:e:122:ARG:NH1	19:ab:909:PRO:O	2.11	0.84
35:z:1071:ARG:CD	45:Ca:95:TRP:CZ3	2.61	0.84
38:w:113:ASN:ND2	56:2:181:A:OP1	2.10	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:aq:116:HIS:HE1	30:aq:150:THR:HG22	1.41	0.83
34:an:286:ASN:ND2	37:x:88:HIS:O	2.10	0.83
20:ad:16:ARG:NH2	50:a:255:ASN:OD1	2.11	0.83
26:ba:14:ASP:OD2	45:Ca:165:ARG:NH2	2.11	0.83
35:z:729:THR:OG1	35:z:731:ASP:OD1	1.95	0.83
43:q:141:ARG:HE	48:b:123:ARG:HH12	1.26	0.83
51:bc:360:SER:OG	54:be:21:SER:OG	1.95	0.83
56:A:443:U:O4	56:A:446:C:N4	2.10	0.83
6:e:163:ASP:OD1	25:d:49:ARG:NH2	2.11	0.83
23:f:319:MET:H	46:g:81:GLN:HB2	1.43	0.83
56:2:107:U:H2'	56:2:108:A:C8	2.12	0.83
45:Ca:295:ASP:OD1	45:Ca:295:ASP:N	2.09	0.83
15:af:196:ARG:HB3	15:af:200:ARG:HH11	1.44	0.83
18:ac:662:LYS:HA	18:ac:755:LEU:HD12	1.61	0.83
29:ar:158:PHE:HB2	29:ar:163:VAL:HB	1.58	0.83
39:v:178:GLU:O	39:v:181:GLN:N	2.11	0.83
1:u:93:THR:HG23	19:ab:467:VAL:HB	1.61	0.83
45:Ca:336:ARG:NH2	45:Ca:392:ASP:OD1	2.11	0.83
18:ac:819:GLN:HE22	18:ac:826:LYS:HD2	1.41	0.83
35:z:468:LEU:HD21	35:z:502:LEU:HD22	1.60	0.83
42:al:165:ARG:NH1	42:al:168:GLU:OE2	2.11	0.83
29:ar:227:ILE:O	29:ar:231:VAL:HB	1.79	0.82
52:aa:1089:HIS:CD2	52:aa:1091:THR:H	1.96	0.82
1:u:666:PHE:CE1	6:e:445:GLY:CA	2.62	0.82
52:aa:573:LEU:HA	52:aa:576:LYS:HD2	1.61	0.82
24:c:110:ARG:NH2	24:c:135:ASP:OD2	2.10	0.82
35:z:1071:ARG:HH12	45:Ca:93:PRO:C	1.86	0.82
45:Ca:270:PRO:HB2	45:Ca:273:PHE:HB2	1.61	0.82
1:u:334:ARG:HH22	1:u:625:SER:HB2	1.45	0.82
39:v:210:ARG:HH22	56:2:357:A:H2'	1.42	0.82
9:ax:93:ARG:NH2	9:ax:160:TYR:OH	2.11	0.82
21:m:138:ARG:HG2	46:g:44:MET:HG2	1.60	0.82
52:aa:1489:ILE:HD12	52:aa:1600:LEU:HD13	1.61	0.82
37:x:319:ASN:OD1	37:x:322:ARG:NH1	2.13	0.82
1:u:265:GLY:HA2	1:u:268:LEU:HD12	1.60	0.82
20:ad:261:ARG:NH1	53:k:165:LEU:O	2.11	0.82
30:aq:143:ASN:HD22	41:t:142:ASN:H	1.23	0.82
38:w:19:LYS:NZ	56:2:201:A:OP2	2.13	0.82
50:a:367:LEU:HD11	50:a:375:ARG:HH21	1.44	0.82
17:l:78:ARG:O	17:l:186:HIS:HB2	1.79	0.82
41:t:46:TYR:CG	55:as:236:MET:HE1	2.14	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:561:CYS:SG	35:z:562:ASP:N	2.53	0.82
54:be:69:ILE:HG13	54:be:71:LEU:H	1.43	0.82
1:u:666:PHE:CE2	6:e:445:GLY:CA	2.62	0.82
20:ad:290:ARG:NH1	20:ad:331:GLU:OE1	2.12	0.82
40:bb:129:ARG:N	56:2:363:A:N7	2.27	0.82
43:q:44:GLU:OE1	43:q:47:ARG:NH2	2.13	0.82
35:z:1071:ARG:CZ	45:Ca:95:TRP:CZ2	2.63	0.81
45:Ca:129:ASN:HB3	45:Ca:137:LYS:HE2	1.60	0.81
15:af:324:THR:HG22	15:af:326:ASP:H	1.45	0.81
17:l:286:ARG:NH2	17:l:370:TYR:OH	2.13	0.81
39:v:193:PHE:HD2	39:v:197:ALA:HB1	1.43	0.81
52:aa:537:THR:HG23	52:aa:539:ARG:H	1.43	0.81
3:r:101:MET:HB3	3:r:107:ARG:HD2	1.63	0.81
5:h:106:GLU:HA	5:h:115:TYR:HB3	1.60	0.81
6:e:72:SER:OG	6:e:79:MET:SD	2.39	0.81
10:aw:64:ARG:NH2	56:A:503:A:OP2	2.11	0.81
15:af:48:ILE:HD11	15:af:73:ALA:HB2	1.61	0.81
15:af:614:TRP:HA	15:af:617:LEU:HD12	1.63	0.81
16:ae:116:ARG:NH1	16:ae:179:TYR:OH	2.13	0.81
20:ad:679:TRP:O	47:j:101:LYS:NZ	2.11	0.81
27:av:219:ALA:HB1	30:aq:19:TRP:HB3	1.60	0.81
37:x:265:TRP:O	37:x:280:PHE:HB2	1.81	0.81
42:al:264:ARG:HG3	56:A:397:U:H3	1.45	0.81
52:aa:98:GLN:NE2	56:2:139:U:O3'	2.14	0.81
43:q:217:GLN:NE2	43:q:218:PRO:O	2.13	0.81
56:2:108:A:H2'	56:2:109:A:H8	1.44	0.81
6:e:199:PRO:O	25:d:326:ARG:NH2	2.13	0.81
16:ae:380:VAL:HA	16:ae:383:VAL:HG12	1.63	0.81
25:d:192:GLN:HG2	25:d:195:ARG:HH12	1.44	0.81
37:x:296:ALA:O	37:x:320:TYR:OH	1.99	0.81
47:j:108:ARG:O	56:2:77:A:O2'	1.99	0.81
20:ad:292:ARG:HH12	20:ad:327:THR:HG23	1.44	0.81
35:z:1071:ARG:NH1	45:Ca:95:TRP:CD2	2.48	0.81
18:ac:317:TRP:HE1	18:ac:419:ASP:HA	1.46	0.81
26:ba:40:ILE:HD13	45:Ca:580:VAL:HG21	1.62	0.81
30:aq:109:ARG:NH1	30:aq:143:ASN:O	2.12	0.81
20:ad:654:LEU:HD11	47:j:147:MET:HG2	1.63	0.81
23:f:154:PHE:HA	23:f:157:ARG:HB2	1.63	0.81
8:ay:125:ARG:NH2	8:ay:218:ASP:OD1	2.12	0.80
19:ab:482:ASN:OD1	19:ab:487:ARG:NH2	2.13	0.80
20:ad:135:ARG:HH22	27:av:66:LEU:HD11	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:2:108:A:H2'	56:2:109:A:C8	2.17	0.80
36:y:76:LEU:HB3	37:x:260:GLN:HE21	1.45	0.80
52:aa:1537:ASP:HA	52:aa:1540:LYS:HE3	1.62	0.80
1:u:666:PHE:CZ	6:e:444:ASP:O	2.35	0.80
6:e:754:ASN:HB3	10:aw:111:GLU:HB2	1.62	0.80
10:aw:77:ARG:NH2	56:A:409:A:N1	2.28	0.80
20:ad:38:ARG:NH2	52:aa:95:THR:O	2.13	0.80
35:z:1005:ASN:ND2	52:aa:887:TRP:O	2.13	0.80
14:ag:553:ARG:NH1	19:ab:336:VAL:O	2.14	0.80
20:ad:238:GLU:OE1	33:ai:21:HIS:N	2.15	0.80
25:d:147:VAL:HB	25:d:150:LEU:HD13	1.62	0.80
18:ac:998:ASN:ND2	18:ac:1004:GLU:OE1	2.11	0.80
41:t:45:GLU:HB2	55:as:248:SER:HB2	1.62	0.80
50:a:385:SER:OG	52:aa:1242:LYS:NZ	2.14	0.80
52:aa:432:ASN:HA	52:aa:435:ARG:HE	1.45	0.80
34:an:152:GLY:HA2	37:x:143:ALA:HB2	1.62	0.80
34:an:185:TRP:CE2	34:an:191:GLY:HA2	2.17	0.80
13:aj:255:LYS:NZ	18:ac:29:ILE:O	2.13	0.80
19:ab:232:HIS:HA	19:ab:235:ARG:HD2	1.64	0.80
19:ab:308:GLU:HA	19:ab:311:ARG:HG2	1.62	0.80
23:f:78:TRP:CZ3	44:p:170:LEU:HD22	2.17	0.80
46:g:11:GLY:HA3	56:2:313:A:H62	1.47	0.80
3:r:100:LEU:HD21	3:r:456:ILE:HD11	1.63	0.80
6:e:20:MET:HG3	42:al:31:PRO:HG3	1.63	0.80
6:e:212:GLU:OE1	10:aw:148:ASN:ND2	2.13	0.80
17:l:204:LEU:HG	19:ab:153:ARG:HH12	1.47	0.80
22:i:340:ASP:OD1	29:ar:58:ARG:NH2	2.15	0.80
6:e:367:GLU:O	6:e:812:SER:OG	1.99	0.80
8:ay:209:LYS:O	56:A:512:G:N2	2.15	0.80
36:y:90:CYS:SG	36:y:91:ARG:N	2.55	0.80
39:v:60:ARG:HB2	44:p:14:ASN:HB2	1.62	0.80
1:u:723:PRO:O	1:u:778:GLN:NE2	2.14	0.80
20:ad:140:ASN:OD1	56:2:86:G:N2	2.14	0.80
20:ad:638:GLU:OE2	20:ad:649:ARG:NH1	2.15	0.80
42:al:177:ARG:NH2	44:p:76:GLU:O	2.15	0.80
46:g:14:MET:HA	46:g:19:SER:HB3	1.61	0.80
19:ab:102:TYR:HE2	19:ab:201:LEU:HA	1.46	0.79
43:q:62:LYS:HG3	47:j:106:VAL:HG22	1.62	0.79
34:an:110:GLU:HA	34:an:113:ILE:HD12	1.65	0.79
34:an:158:THR:OG1	52:aa:1438:ARG:NH2	2.15	0.79
37:x:322:ARG:HH12	52:aa:1180:GLY:H	1.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:a:334:ARG:HE	52:aa:1156:ARG:HH21	1.30	0.79
10:aw:50:LEU:HD23	56:A:499:U:H5'	1.65	0.79
16:ae:397:ARG:NH2	16:ae:487:GLU:OE2	2.15	0.79
28:at:19:TRP:HE1	56:2:187:A:H2'	1.47	0.79
53:k:154:SER:OG	53:k:155:LYS:N	2.10	0.79
11:au:230:ARG:NH2	16:ae:24:TYR:OH	2.16	0.79
17:l:192:ARG:NH2	17:l:378:ARG:O	2.15	0.79
46:g:46:GLU:HB3	46:g:57:ILE:HD11	1.63	0.79
22:i:372:MET:HE1	27:av:128:THR:HG22	1.64	0.79
45:Ca:216:LEU:HD11	45:Ca:233:GLN:HG3	1.65	0.79
56:2:28:U:O2	56:2:239:G:N2	2.16	0.79
17:l:631:ASN:O	17:l:635:SER:OG	1.99	0.79
22:i:264:ARG:NH1	22:i:300:TYR:O	2.15	0.79
22:i:181:TYR:OH	43:q:143:GLN:NE2	2.15	0.79
32:ao:266:GLN:N	32:ao:271:GLN:OE1	2.14	0.79
35:z:279:LYS:NZ	35:z:497:GLN:OE1	2.16	0.79
47:j:47:PHE:HA	47:j:65:LEU:HB2	1.63	0.79
1:u:656:ARG:HH22	14:ag:304:GLN:HB3	1.47	0.79
2:s:73:MET:HE1	5:h:157:GLN:HB2	1.64	0.79
3:r:80:VAL:HG11	3:r:85:LEU:HD13	1.65	0.79
13:aj:46:ARG:NH2	14:ag:35:TYR:OH	2.15	0.79
35:z:198:ASN:ND2	43:q:125:GLU:OE1	2.14	0.79
52:aa:743:LEU:HB3	52:aa:761:LEU:HB2	1.65	0.79
14:ag:371:ARG:HH22	16:ae:297:TYR:HB2	1.47	0.79
16:ae:508:LYS:HG2	16:ae:509:PRO:HD2	1.63	0.79
24:c:116:LYS:O	24:c:123:TYR:OH	1.99	0.79
34:an:27:GLN:NE2	35:z:994:ARG:H	1.79	0.79
16:ae:107:SER:OG	16:ae:222:ARG:NH2	2.15	0.79
20:ad:200:MET:O	20:ad:205:THR:OG1	1.99	0.79
37:x:206:GLU:HA	37:x:209:ASN:HD22	1.47	0.79
46:g:132:GLN:NE2	46:g:136:ASN:OD1	2.14	0.79
3:r:122:ILE:HD11	3:r:162:VAL:HG13	1.63	0.78
19:ab:268:GLN:O	19:ab:480:HIS:NE2	2.15	0.78
20:ad:517:VAL:HB	20:ad:527:ARG:HB2	1.63	0.78
34:an:216:ALA:O	34:an:220:LYS:NZ	2.15	0.78
41:t:48:PRO:HG2	41:t:52:LEU:HD13	1.63	0.78
45:Ca:552:TYR:OH	52:aa:950:LYS:NZ	2.15	0.78
52:aa:1512:THR:HG23	52:aa:1514:ASN:HD21	1.48	0.78
56:2:289:U:H3'	56:2:290:G:H21	1.46	0.78
17:l:661:GLN:HG3	17:l:663:ALA:HA	1.65	0.78
18:ac:576:ASN:HB2	18:ac:727:ALA:HB2	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:ab:876:ARG:H	19:ab:892:GLN:HE22	1.31	0.78
20:ad:35:GLN:OE1	52:aa:95:THR:OG1	2.00	0.78
35:z:1049:ARG:HA	35:z:1053:PHE:HD2	1.48	0.78
14:ag:348:GLU:OE2	14:ag:351:LYS:NZ	2.15	0.78
16:ae:204:LYS:HG3	16:ae:207:ARG:HH22	1.49	0.78
16:ae:507:SER:HB3	16:ae:519:ARG:HG2	1.65	0.78
18:ac:947:LEU:HA	18:ac:1049:LEU:HD21	1.63	0.78
20:ad:795:PHE:HB2	20:ad:801:GLN:HE21	1.48	0.78
22:i:115:GLN:OE1	22:i:233:ARG:NH2	2.16	0.78
23:f:163:VAL:HG23	48:b:136:ALA:HB1	1.63	0.78
24:c:32:LEU:HG	32:ao:101:ILE:HG13	1.65	0.78
25:d:129:MET:SD	25:d:136:TYR:OH	2.40	0.78
35:z:720:ASP:OD1	35:z:771:CYS:N	2.16	0.78
4:n:60:ASN:ND2	56:A:489:A:OP2	2.15	0.78
11:au:80:TYR:OH	17:l:553:ASN:ND2	2.16	0.78
17:l:473:THR:HG22	17:l:477:GLN:HE21	1.47	0.78
29:ar:21:ASN:O	29:ar:45:ARG:NH1	2.15	0.78
32:ao:281:PRO:O	50:a:114:TYR:OH	2.00	0.78
22:i:421:TRP:NE1	56:2:106:U:OP1	2.16	0.78
27:av:174:ASP:O	55:as:177:ASN:ND2	2.12	0.78
34:an:178:ARG:HE	52:aa:1546:THR:HG22	1.48	0.78
39:v:60:ARG:NH1	44:p:13:LYS:O	2.15	0.78
39:v:191:LYS:NZ	56:2:336:U:OP1	2.13	0.78
11:au:133:ASP:N	11:au:133:ASP:OD1	2.13	0.78
20:ad:541:LEU:HD13	20:ad:567:THR:HG21	1.66	0.78
56:2:319:U:H2'	56:2:320:A:H8	1.47	0.78
17:l:583:LEU:HA	17:l:648:MET:HE3	1.65	0.78
20:ad:206:TRP:HB3	20:ad:282:VAL:HG21	1.66	0.78
35:z:1009:GLN:HE21	52:aa:895:TYR:HD1	1.31	0.78
40:bb:163:ARG:NH1	56:2:572:A:OP1	2.15	0.78
6:e:150:ASN:HD21	6:e:208:CYS:HB2	1.45	0.78
7:az:111:ARG:NH1	9:ax:53:GLU:OE1	2.17	0.78
12:ak:262:GLU:HG2	18:ac:1069:LYS:HE3	1.66	0.78
17:l:486:ASP:HB3	17:l:488:ASN:HB3	1.66	0.78
20:ad:61:GLN:HB2	47:j:67:LYS:HD2	1.64	0.78
24:c:142:ARG:NH2	35:z:66:TYR:O	2.17	0.78
25:d:169:TYR:OH	37:x:276:ASP:OD2	2.00	0.78
30:aq:67:GLN:HG3	30:aq:68:PRO:HD2	1.66	0.78
3:r:99:GLN:HE22	3:r:456:ILE:HG21	1.47	0.78
18:ac:208:LEU:HB3	18:ac:508:TYR:HB3	1.64	0.78
18:ac:248:TYR:HD2	18:ac:256:TRP:HB2	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:271:PHE:CE1	18:ac:441:MET:HA	2.19	0.78
19:ab:489:LEU:HD13	19:ab:958:ARG:HD2	1.66	0.78
24:c:126:TYR:O	24:c:204:ARG:NH1	2.16	0.78
31:ap:131:ASP:OD1	31:ap:134:ARG:NH2	2.17	0.78
34:an:54:ARG:HB2	34:an:58:GLY:HA2	1.66	0.78
34:an:171:PRO:O	34:an:175:ILE:HG12	1.83	0.78
37:x:142:VAL:HG21	37:x:155:PHE:CD2	2.19	0.78
56:2:143:U:O2	56:2:271:A:N6	2.13	0.78
6:e:15:ARG:NH2	14:ag:423:THR:O	2.17	0.78
11:au:75:GLN:HE21	18:ac:42:LEU:HG	1.49	0.78
16:ae:285:ARG:HH21	19:ab:1060:ASN:HD21	1.31	0.78
20:ad:163:LEU:O	20:ad:166:ILE:N	2.17	0.78
27:av:216:ARG:HB2	56:2:161:G:O6	1.82	0.78
35:z:96:ARG:HB2	44:p:74:ARG:HH21	1.48	0.78
1:u:172:ILE:HG22	1:u:182:ARG:HE	1.47	0.77
52:aa:364:ARG:NH2	56:2:205:A:OP1	2.17	0.77
52:aa:1149:HIS:ND1	52:aa:1153:GLU:OE2	2.17	0.77
28:at:101:CYS:SG	28:at:102:GLY:N	2.57	0.77
14:ag:280:ILE:HG12	14:ag:314:ALA:HA	1.65	0.77
31:ap:267:TYR:O	35:z:662:ARG:NH1	2.18	0.77
35:z:397:GLY:O	35:z:401:TYR:HB2	1.84	0.77
35:z:1071:ARG:CD	45:Ca:95:TRP:CH2	2.68	0.77
52:aa:1089:HIS:HD2	52:aa:1092:CYS:H	1.31	0.77
56:2:340:U:H4'	56:2:341:A:H2'	1.64	0.77
18:ac:749:LEU:HB3	18:ac:763:LEU:HD23	1.64	0.77
19:ab:822:HIS:O	19:ab:825:ASN:N	2.17	0.77
26:ba:55:ILE:HG13	26:ba:59:ASN:HB2	1.67	0.77
37:x:271:THR:OG1	37:x:274:GLN:O	2.02	0.77
38:w:92:ARG:NE	56:2:188:U:OP2	2.16	0.77
48:b:152:THR:OG1	48:b:156:ASN:ND2	2.17	0.77
6:e:287:GLU:OE2	14:ag:271:ARG:NH1	2.18	0.77
11:au:155:PHE:HB2	19:ab:403:ASP:HB3	1.67	0.77
18:ac:126:MET:HE3	18:ac:531:TYR:HB2	1.67	0.77
19:ab:1107:GLN:NE2	19:ab:1174:GLN:O	2.17	0.77
20:ad:11:ARG:NH2	40:bb:145:TYR:O	2.17	0.77
20:ad:70:SER:O	28:at:28:TYR:OH	2.01	0.77
33:ai:194:ILE:HA	33:ai:196:LYS:HE3	1.66	0.77
37:x:142:VAL:HG21	37:x:155:PHE:HD2	1.49	0.77
1:u:616:VAL:HG12	1:u:617:ILE:HG23	1.64	0.77
4:n:51:PRO:HG2	4:n:54:ARG:HB3	1.67	0.77
14:ag:117:ASP:OD1	14:ag:176:ARG:NH2	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:m:123:LYS:NZ	48:b:132:PRO:O	2.15	0.77
52:aa:1494:ASN:HB3	52:aa:1498:HIS:HE1	1.48	0.77
53:k:154:SER:OG	56:2:108:A:OP1	2.03	0.77
20:ad:78:ASP:O	38:w:28:LYS:NZ	2.18	0.77
32:ao:18:PHE:HA	32:ao:37:ALA:O	1.84	0.77
34:an:276:GLU:HG2	35:z:436:GLU:HG3	1.66	0.77
56:2:132:G:H2'	56:2:133:A:H8	1.49	0.77
20:ad:274:PHE:CE2	22:i:329:GLU:HB2	2.18	0.77
21:m:227:GLU:OE1	25:d:78:SER:OG	2.03	0.77
31:ap:151:ILE:HB	31:ap:171:MET:HE1	1.67	0.77
32:ao:248:GLU:HG2	32:ao:267:LYS:HE2	1.67	0.77
35:z:814:PRO:O	35:z:818:SER:HB3	1.85	0.77
36:y:50:ILE:HD11	36:y:103:SER:HA	1.65	0.77
40:bb:167:ARG:NH1	56:2:571:A:OP1	2.18	0.77
55:as:252:ARG:HB3	55:as:255:LEU:HB2	1.66	0.77
1:u:406:ASP:HA	1:u:409:LEU:HG	1.67	0.77
1:u:666:PHE:CE1	6:e:444:ASP:C	2.62	0.77
26:ba:29:GLU:HA	49:bd:35:LEU:HD23	1.66	0.77
33:ai:87:GLU:OE2	52:aa:197:TYR:OH	2.02	0.77
52:aa:1343:SER:HA	52:aa:1348:PHE:HA	1.65	0.77
9:ax:46:TRP:HE3	9:ax:49:LYS:HD3	1.48	0.76
18:ac:786:GLY:N	18:ac:801:SER:O	2.14	0.76
24:c:139:ILE:HD11	24:c:174:ILE:HG22	1.65	0.76
37:x:188:ILE:O	37:x:192:SER:HB2	1.84	0.76
41:t:10:ARG:NH2	56:2:77:A:OP2	2.16	0.76
52:aa:520:MET:HG2	52:aa:563:ALA:HB2	1.67	0.76
56:2:96:U:O2	56:2:132:G:N2	2.17	0.76
23:f:311:PRO:HG3	46:g:14:MET:HB3	1.67	0.76
36:y:165:PRO:HA	36:y:169:ARG:HG3	1.65	0.76
19:ab:370:ALA:HA	19:ab:375:LEU:HB2	1.67	0.76
34:an:212:ARG:NH1	34:an:219:ALA:O	2.17	0.76
50:a:376:LEU:HD22	52:aa:1039:GLU:HG2	1.66	0.76
52:aa:102:MET:N	52:aa:102:MET:SD	2.59	0.76
53:k:89:ARG:NH1	56:2:90:A:N1	2.30	0.76
56:2:394:A:N7	56:2:539:A:N6	2.32	0.76
3:r:146:ILE:HA	3:r:355:THR:O	1.85	0.76
6:e:445:GLY:CA	6:e:445:GLY:H	1.98	0.76
19:ab:1121:MET:HE2	19:ab:1124:PHE:HB3	1.67	0.76
56:2:134:U:O2'	56:2:136:G:OP1	2.04	0.76
15:af:296:ASP:OD2	25:d:11:ARG:NH2	2.18	0.76
17:l:496:SER:O	19:ab:92:ARG:NH2	2.19	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:454:TRP:O	18:ac:458:ASN:ND2	2.16	0.76
24:c:89:ARG:O	35:z:357:ARG:NH1	2.19	0.76
35:z:1019:ASP:OD1	35:z:1019:ASP:N	2.15	0.76
2:s:123:THR:O	14:ag:408:ARG:NH2	2.18	0.76
19:ab:1040:GLU:HG3	19:ab:1041:TRP:CD1	2.20	0.76
25:d:15:LEU:HD13	25:d:46:HIS:HB3	1.68	0.76
40:bb:133:LYS:O	40:bb:161:LYS:NZ	2.19	0.76
41:t:46:TYR:CZ	55:as:236:MET:HE3	2.19	0.76
52:aa:953:TYR:O	52:aa:957:HIS:HB3	1.85	0.76
6:e:146:MET:HE1	10:aw:133:PRO:HG2	1.67	0.76
20:ad:126:MET:HE3	53:k:86:ASN:HD22	1.49	0.76
24:c:263:ASN:ND2	52:aa:178:ASN:O	2.18	0.76
30:aq:15:ARG:NH2	38:w:136:ASP:OD1	2.17	0.76
34:an:40:TYR:OH	45:Ca:381:ASP:OD2	2.03	0.76
45:Ca:582:ASN:HD22	45:Ca:586:GLN:HG2	1.49	0.76
1:u:647:LEU:HA	1:u:650:MET:HE2	1.68	0.76
1:u:666:PHE:CD1	6:e:445:GLY:CA	2.68	0.76
6:e:388:GLU:O	6:e:391:THR:OG1	2.02	0.76
11:au:211:PRO:HA	13:aj:324:LEU:HB2	1.68	0.76
12:ak:18:MET:HG2	18:ac:1085:LEU:HD21	1.68	0.76
14:ag:441:PRO:HA	49:bd:46:PHE:CB	2.15	0.76
20:ad:499:THR:H	20:ad:502:ASN:ND2	1.82	0.76
32:ao:185:TYR:O	52:aa:435:ARG:NH1	2.18	0.76
46:g:85:ALA:HB2	56:2:609:A:H5"	1.68	0.76
50:a:349:TRP:NE1	50:a:352:PHE:HA	2.01	0.76
54:be:71:LEU:HD12	54:be:72:PRO:HD2	1.65	0.76
5:h:53:GLU:OE2	6:e:464:ARG:NH1	2.19	0.76
17:l:439:ARG:HG2	19:ab:184:LEU:HG	1.65	0.76
18:ac:844:CYS:HB2	18:ac:854:VAL:HG11	1.68	0.76
19:ab:91:TYR:HE1	19:ab:314:ARG:HG2	1.51	0.76
19:ab:899:TYR:OH	19:ab:910:ARG:NH1	2.19	0.76
1:u:124:ASP:HA	1:u:144:TYR:HE2	1.50	0.76
2:s:82:GLN:NE2	56:A:508:A:OP2	2.18	0.76
6:e:137:PRO:O	6:e:217:TYR:OH	2.04	0.76
23:f:91:ARG:NH1	23:f:92:GLU:OE2	2.19	0.76
29:ar:92:MET:HE1	29:ar:210:ILE:HG12	1.68	0.76
40:bb:207:GLU:HG3	40:bb:210:LEU:HB3	1.67	0.76
48:b:76:MET:HE3	48:b:77:ARG:HE	1.51	0.76
52:aa:109:HIS:CD2	52:aa:136:TYR:H	2.03	0.76
3:r:205:ARG:NH2	8:ay:142:ASP:OD2	2.18	0.75
18:ac:244:SER:OG	18:ac:399:HIS:N	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:x:298:ASN:O	37:x:316:TYR:OH	2.01	0.75
1:u:135:ASN:ND2	1:u:137:GLN:O	2.19	0.75
2:s:59:ARG:NH2	10:aw:33:ASP:OD1	2.20	0.75
3:r:294:ASP:HA	3:r:329:PRO:HA	1.66	0.75
7:az:37:ARG:HH21	7:az:38:MET:HG2	1.51	0.75
19:ab:633:ASP:OD2	19:ab:635:ARG:NH2	2.18	0.75
30:aq:73:LYS:NZ	30:aq:104:PHE:O	2.17	0.75
52:aa:672:ASP:HB3	52:aa:675:HIS:HB2	1.67	0.75
53:k:63:MET:SD	53:k:70:ARG:NH1	2.60	0.75
56:2:107:U:H2'	56:2:108:A:H8	1.48	0.75
56:2:583:A:H1'	56:2:602:A:H2'	1.68	0.75
19:ab:842:GLN:HA	19:ab:845:ILE:HD12	1.67	0.75
20:ad:678:PRO:O	45:Ca:471:ARG:NH1	2.19	0.75
33:ai:137:ARG:HG2	33:ai:142:VAL:HG22	1.69	0.75
48:b:28:ALA:O	48:b:32:ASN:ND2	2.18	0.75
50:a:66:ASP:OD1	50:a:69:GLU:N	2.18	0.75
1:u:708:ARG:NH1	6:e:230:GLU:OE2	2.19	0.75
2:s:116:GLY:HA3	56:A:419:U:H5'	1.68	0.75
6:e:692:TYR:HB3	19:ab:1174:GLN:HE21	1.51	0.75
17:l:42:ARG:HD3	17:l:497:ASP:HB3	1.68	0.75
17:l:699:ASP:OD1	17:l:702:ARG:NH2	2.18	0.75
21:m:162:LYS:NZ	56:2:316:A:N1	2.27	0.75
21:m:180:PHE:HA	21:m:183:GLN:HG2	1.68	0.75
34:an:26:ARG:NH1	45:Ca:271:GLU:OE1	2.18	0.75
38:w:122:THR:HG23	56:2:45:G:H1	1.51	0.75
47:j:29:ILE:N	47:j:49:GLU:O	2.13	0.75
20:ad:118:ARG:HG2	20:ad:691:ASP:HB2	1.69	0.75
20:ad:727:GLU:HB3	20:ad:732:ARG:HE	1.51	0.75
35:z:589:THR:O	35:z:590:HIS:ND1	2.19	0.75
37:x:104:SER:HA	37:x:108:LEU:HD23	1.68	0.75
42:al:45:LYS:HG2	42:al:48:GLN:HE22	1.51	0.75
45:Ca:487:SER:OG	52:aa:306:ASP:OD2	2.03	0.75
50:a:334:ARG:NH1	50:a:335:LEU:O	2.18	0.75
56:2:359:G:OP1	56:2:360:C:N4	2.20	0.75
1:u:34:ARG:HH22	15:af:21:ALA:HA	1.52	0.75
1:u:666:PHE:CE1	6:e:445:GLY:HA2	2.21	0.75
1:u:742:GLY:HA3	6:e:227:PHE:CD2	2.21	0.75
6:e:68:GLN:NE2	6:e:87:ARG:O	2.16	0.75
8:ay:129:TRP:HA	8:ay:186:TRP:HA	1.68	0.75
12:ak:107:LYS:HG3	18:ac:1003:ALA:HB3	1.69	0.75
15:af:59:LEU:O	25:d:295:ARG:NH1	2.18	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:232:LEU:HD11	49:bd:34:HIS:HA	1.69	0.75
56:2:564:U:H3	56:2:570:A:N6	1.84	0.75
2:s:47:GLU:OE1	6:e:464:ARG:NH1	2.19	0.75
17:l:178:ARG:NH2	17:l:182:PHE:O	2.17	0.75
17:l:261:TYR:HB3	17:l:310:ILE:HD11	1.68	0.75
35:z:52:ASN:HB3	40:bb:146:PRO:HB3	1.69	0.75
56:2:3:A:H3'	56:2:4:A:H8	1.50	0.75
56:2:87:U:O2'	56:2:88:A:OP1	2.03	0.75
4:n:130:SER:OG	8:ay:100:ASP:OD1	2.04	0.75
32:ao:153:PHE:HB3	52:aa:955:ARG:HB2	1.66	0.75
34:an:283:ARG:HH12	37:x:124:ASP:CG	1.94	0.75
35:z:663:LEU:HD11	35:z:769:ARG:HH11	1.51	0.75
43:q:87:GLN:NE2	43:q:87:GLN:O	2.20	0.75
9:ax:42:ASP:OD1	9:ax:129:ARG:NE	2.20	0.75
9:ax:48:ASP:OD1	9:ax:48:ASP:N	2.19	0.75
20:ad:194:ARG:NH1	47:j:182:GLU:OE1	2.19	0.75
20:ad:742:LYS:HE3	20:ad:746:ARG:HD2	1.67	0.75
33:ai:286:CYS:SG	33:ai:316:ARG:NH1	2.60	0.75
36:y:150:ARG:NE	36:y:152:GLU:O	2.19	0.75
48:b:42:GLU:HB2	48:b:64:TYR:HB2	1.69	0.75
50:a:84:ASP:OD1	50:a:310:ARG:NH2	2.20	0.75
55:as:12:ARG:NH2	56:2:85:U:O5'	2.20	0.75
5:h:155:VAL:HG21	6:e:805:ASN:HD21	1.51	0.74
8:ay:102:PHE:HA	9:ax:18:LEU:HD22	1.69	0.74
15:af:176:ILE:O	15:af:180:ALA:CB	2.35	0.74
17:l:489:PRO:HB3	19:ab:329:LYS:HB3	1.69	0.74
27:av:86:VAL:HA	27:av:115:PRO:HA	1.69	0.74
28:at:85:ASP:O	28:at:92:ARG:NH2	2.19	0.74
51:bc:296:ILE:HD11	51:bc:325:PRO:HG3	1.67	0.74
1:u:549:ARG:O	1:u:549:ARG:NH2	2.20	0.74
6:e:317:ASP:OD1	6:e:320:GLU:N	2.17	0.74
12:ak:169:MET:HA	12:ak:172:VAL:HG22	1.68	0.74
13:aj:40:ARG:HD2	14:ag:448:PRO:HD3	1.70	0.74
30:aq:60:ARG:NH1	30:aq:65:ALA:O	2.20	0.74
36:y:200:LEU:HD11	37:x:302:GLY:HA2	1.67	0.74
41:t:28:LYS:O	55:as:253:ARG:NH1	2.19	0.74
50:a:362:GLU:OE1	52:aa:1149:HIS:NE2	2.19	0.74
50:a:390:SER:O	50:a:393:ARG:NH2	2.20	0.74
6:e:36:ASN:OD1	6:e:36:ASN:N	2.18	0.74
6:e:491:TRP:HE1	6:e:514:GLU:HA	1.49	0.74
18:ac:1123:GLN:HA	18:ac:1125:LYS:HE2	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:354:HIS:HA	27:av:233:MET:HA	1.68	0.74
20:ad:504:LEU:HA	20:ad:507:LEU:HD12	1.67	0.74
20:ad:563:GLN:O	20:ad:567:THR:OG1	2.05	0.74
22:i:242:ASN:OD1	22:i:245:ASN:ND2	2.20	0.74
52:aa:1445:VAL:HG11	52:aa:1531:ASP:HB3	1.69	0.74
2:s:89:MET:HB3	19:ab:1084:ARG:HE	1.53	0.74
2:s:160:SER:O	2:s:164:LYS:HB3	1.87	0.74
3:r:249:TRP:O	3:r:261:ARG:NH1	2.19	0.74
7:az:17:VAL:HB	10:aw:44:ALA:HB2	1.69	0.74
14:ag:18:ARG:NH1	56:A:449:G:O6	2.20	0.74
15:af:350:ARG:HG3	15:af:353:ARG:HH21	1.51	0.74
23:f:234:ARG:NH2	46:g:188:TYR:OH	2.19	0.74
25:d:131:ILE:HD11	44:p:181:THR:HG23	1.70	0.74
27:av:89:LEU:N	27:av:112:THR:O	2.20	0.74
29:ar:125:ARG:NH2	29:ar:126:GLU:OE2	2.19	0.74
37:x:218:ARG:NH2	52:aa:1110:LYS:O	2.16	0.74
38:w:120:PHE:HB3	43:q:13:ARG:HB3	1.67	0.74
1:u:106:VAL:O	6:e:283:ARG:NH2	2.21	0.74
2:s:30:ARG:HD3	2:s:33:LEU:HD12	1.67	0.74
11:au:145:GLU:OE1	11:au:161:ASN:ND2	2.20	0.74
22:i:287:LEU:O	22:i:300:TYR:OH	2.01	0.74
52:aa:396:THR:OG1	52:aa:406:HIS:NE2	2.20	0.74
6:e:158:LEU:HA	6:e:161:ILE:HG13	1.68	0.74
23:f:201:ARG:NH1	56:2:305:A:OP2	2.20	0.74
29:ar:212:LYS:O	29:ar:214:ARG:NH1	2.20	0.74
18:ac:1035:HIS:CD2	18:ac:1039:ASN:HD21	2.05	0.74
19:ab:740:LEU:HD21	19:ab:780:LEU:HD22	1.68	0.74
27:av:156:LEU:HA	27:av:161:ILE:HD12	1.69	0.74
34:an:202:ARG:HH12	34:an:206:LEU:HD11	1.52	0.74
35:z:823:PHE:O	35:z:827:SER:OG	2.04	0.74
35:z:1010:TYR:HE1	45:Ca:124:VAL:HG13	1.52	0.74
36:y:92:ALA:HA	36:y:95:LYS:HB2	1.69	0.74
18:ac:750:ASP:HB2	18:ac:763:LEU:HD21	1.69	0.74
29:ar:59:GLN:OE1	29:ar:60:THR:N	2.20	0.74
35:z:188:THR:OG1	35:z:189:GLN:N	2.19	0.74
35:z:467:ASP:OD1	50:a:65:ARG:NH2	2.21	0.74
45:Ca:68:SER:OG	52:aa:374:GLN:OE1	2.05	0.74
20:ad:11:ARG:NH2	40:bb:147:TYR:O	2.20	0.74
20:ad:330:PRO:HG3	20:ad:382:PHE:HA	1.70	0.74
23:f:283:PHE:O	46:g:71:ARG:NH2	2.18	0.74
33:ai:236:ARG:NH2	33:ai:275:GLY:O	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:an:133:GLU:OE1	50:a:340:LYS:NZ	2.18	0.74
39:v:64:ARG:NH2	42:al:262:GLU:OE1	2.21	0.74
49:bd:51:ILE:HG12	49:bd:53:ILE:HD11	1.70	0.74
1:u:346:SER:N	1:u:349:GLU:OE1	2.21	0.74
1:u:671:PRO:O	6:e:438:ARG:NH2	2.21	0.74
7:az:113:VAL:HG13	9:ax:69:LEU:HD13	1.68	0.74
7:az:163:GLU:HG2	8:ay:134:ARG:HE	1.53	0.74
20:ad:364:ARG:NH2	55:as:180:PRO:O	2.21	0.74
28:at:227:VAL:HG22	28:at:233:PHE:HB2	1.68	0.74
34:an:2:GLU:OE1	50:a:317:HIS:NE2	2.20	0.74
35:z:27:ILE:N	56:2:373:A:OP1	2.21	0.74
2:s:64:GLU:OE1	6:e:215:TYR:OH	2.04	0.73
3:r:398:PRO:HB2	3:r:400:GLN:HE22	1.53	0.73
9:ax:58:PRO:HG2	10:aw:44:ALA:HA	1.70	0.73
12:ak:59:TRP:HE1	17:l:665:PRO:HD2	1.53	0.73
13:aj:47:THR:O	18:ac:1146:GLN:NE2	2.21	0.73
14:ag:98:ASP:OD2	14:ag:102:ARG:NH2	2.21	0.73
17:l:71:ILE:HD11	17:l:89:LEU:HD23	1.69	0.73
19:ab:182:GLN:HG2	19:ab:699:LYS:HD2	1.70	0.73
20:ad:69:LEU:HD22	47:j:73:GLN:HG3	1.70	0.73
20:ad:165:MET:O	20:ad:170:PHE:HB2	1.88	0.73
31:ap:221:VAL:HG11	33:ai:294:VAL:HG21	1.69	0.73
39:v:188:ARG:NH2	56:2:364:U:OP1	2.21	0.73
50:a:222:VAL:HG21	50:a:267:HIS:HB3	1.70	0.73
52:aa:688:CYS:HB3	52:aa:695:GLU:HA	1.70	0.73
55:as:243:ALA:HA	55:as:253:ARG:HD2	1.70	0.73
1:u:697:MET:HA	2:s:96:ASN:HD21	1.53	0.73
13:aj:17:PRO:HB2	14:ag:26:PRO:HB3	1.68	0.73
19:ab:766:ASN:OD1	19:ab:769:HIS:ND1	2.21	0.73
24:c:137:ILE:HD12	35:z:100:VAL:HG12	1.71	0.73
52:aa:651:SER:HA	52:aa:805:ILE:HB	1.69	0.73
52:aa:668:VAL:HB	52:aa:681:LEU:HB2	1.70	0.73
1:u:666:PHE:CD2	6:e:445:GLY:CA	2.71	0.73
10:aw:63:LEU:HD21	10:aw:88:ASN:HD22	1.53	0.73
15:af:216:HIS:HA	15:af:291:ARG:HD3	1.69	0.73
15:af:544:THR:OG1	15:af:550:ARG:NH1	2.21	0.73
29:ar:134:ILE:HG13	29:ar:192:LEU:HD11	1.70	0.73
33:ai:40:ASN:O	33:ai:45:ARG:NH1	2.20	0.73
45:Ca:580:VAL:O	56:2:260:U:O2'	2.06	0.73
50:a:319:PRO:O	50:a:321:LYS:NZ	2.22	0.73
51:bc:361:LEU:HD12	51:bc:368:VAL:HG21	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:e:154:PRO:HG3	6:e:202:ARG:HH21	1.51	0.73
13:aj:87:PRO:HB3	13:aj:92:ILE:HG22	1.70	0.73
14:ag:328:ASP:OD1	18:ac:1150:TRP:NE1	2.21	0.73
14:ag:563:ARG:HH11	17:l:273:ASP:HB2	1.52	0.73
19:ab:890:SER:O	19:ab:892:GLN:NE2	2.21	0.73
20:ad:21:ARG:HH21	56:2:273:A:H3'	1.53	0.73
35:z:487:GLU:HB2	44:p:59:PRO:HG3	1.70	0.73
35:z:736:HIS:N	35:z:740:GLU:OE1	2.17	0.73
39:v:146:TRP:HE1	42:al:230:THR:HG22	1.53	0.73
11:au:27:ARG:NH2	13:aj:319:TYR:O	2.21	0.73
13:aj:115:MET:HE3	13:aj:158:PRO:HB3	1.70	0.73
17:l:287:GLU:OE1	17:l:289:ASN:ND2	2.20	0.73
18:ac:929:VAL:HG22	18:ac:932:ARG:HH12	1.54	0.73
19:ab:116:HIS:NE2	19:ab:687:THR:HG22	2.03	0.73
35:z:786:LEU:HD12	35:z:886:HIS:HD2	1.53	0.73
35:z:658:HIS:HB3	35:z:762:PRO:HA	1.69	0.73
37:x:235:GLN:NE2	37:x:274:GLN:OE1	2.22	0.73
3:r:356:CYS:SG	3:r:357:THR:N	2.61	0.73
5:h:19:LYS:O	5:h:22:THR:OG1	2.07	0.73
12:ak:163:GLU:HB2	12:ak:210:GLY:HA2	1.70	0.73
42:al:268:HIS:H	42:al:271:SER:HB3	1.54	0.73
56:2:200:A:O2'	56:2:201:A:OP1	2.05	0.73
19:ab:961:ASP:HA	19:ab:996:THR:HA	1.70	0.73
23:f:119:GLU:OE2	46:g:159:ARG:NH1	2.21	0.73
24:c:247:HIS:ND1	24:c:247:HIS:O	2.21	0.73
24:c:254:VAL:HG13	24:c:285:HIS:HB3	1.70	0.73
1:u:735:ILE:O	2:s:37:ARG:NH2	2.21	0.73
2:s:118:TYR:N	56:A:419:U:OP1	2.21	0.73
2:s:137:LYS:HG2	56:A:441:G:C8	2.24	0.73
5:h:116:TRP:NE1	56:A:473:U:OP2	2.18	0.73
22:i:301:TRP:HB3	53:k:97:TYR:CD1	2.24	0.73
27:av:123:LEU:HD12	27:av:126:LEU:HD22	1.71	0.73
32:ao:225:ASN:ND2	50:a:18:LYS:O	2.22	0.73
35:z:975:ASN:HD22	52:aa:971:TRP:HB2	1.52	0.73
37:x:220:TRP:HB3	52:aa:1112:ALA:HB2	1.71	0.73
39:v:95:MET:HB2	39:v:129:VAL:HG22	1.70	0.73
5:h:81:LEU:HD23	5:h:83:LYS:HD3	1.71	0.73
17:l:71:ILE:HG12	17:l:81:TYR:HE2	1.52	0.73
18:ac:302:LYS:HA	18:ac:305:LEU:HD12	1.70	0.73
52:aa:509:LYS:O	52:aa:898:LYS:NZ	2.21	0.73
1:u:611:TRP:NE1	1:u:638:ARG:HG2	2.03	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:f:285:ASN:HD21	46:g:174:HIS:H	1.36	0.72
30:aq:48:GLN:OE1	30:aq:67:GLN:NE2	2.23	0.72
35:z:999:THR:HG22	52:aa:900:LYS:HB3	1.71	0.72
1:u:666:PHE:CE2	6:e:445:GLY:C	2.67	0.72
3:r:478:LEU:HG	25:d:67:LEU:HD23	1.69	0.72
7:az:81:THR:HG21	39:v:122:LEU:HD11	1.71	0.72
20:ad:248:ASP:HB2	20:ad:249:PRO:HD3	1.71	0.72
20:ad:339:ARG:NH2	56:2:85:U:O2	2.20	0.72
29:ar:14:ARG:NH2	56:2:115:A:OP1	2.18	0.72
30:aq:18:TYR:OH	41:t:37:ARG:NH2	2.21	0.72
34:an:167:LYS:NZ	50:a:342:GLY:O	2.18	0.72
37:x:194:ASP:OD1	37:x:194:ASP:N	2.21	0.72
43:q:11:GLN:HA	56:2:178:A:C8	2.24	0.72
55:as:100:ARG:NH1	55:as:101:VAL:O	2.22	0.72
19:ab:82:LEU:O	19:ab:85:GLN:NE2	2.22	0.72
20:ad:60:ASN:HA	20:ad:63:GLN:HG3	1.70	0.72
20:ad:135:ARG:NE	27:av:72:HIS:O	2.20	0.72
23:f:106:GLN:HE21	23:f:110:ASN:H	1.35	0.72
34:an:292:ARG:HE	37:x:137:ARG:HB2	1.55	0.72
35:z:727:LEU:HD13	35:z:731:ASP:HB2	1.71	0.72
52:aa:701:LEU:HD21	52:aa:724:GLU:HB3	1.71	0.72
52:aa:1653:SER:OG	52:aa:1654:ASP:OD1	2.07	0.72
1:u:717:LEU:HA	1:u:723:PRO:HA	1.70	0.72
8:ay:202:GLU:OE2	8:ay:206:GLN:NE2	2.22	0.72
12:ak:48:VAL:O	18:ac:1032:ARG:NH1	2.22	0.72
52:aa:464:HIS:CD2	52:aa:465:PRO:HD2	2.23	0.72
15:af:136:ILE:HA	15:af:139:VAL:HG12	1.70	0.72
16:ae:298:TYR:HA	16:ae:302:ILE:HD12	1.69	0.72
18:ac:205:VAL:HG12	18:ac:210:GLN:HG2	1.71	0.72
18:ac:245:VAL:O	18:ac:253:ARG:NE	2.14	0.72
18:ac:933:ALA:HB1	18:ac:941:TRP:HD1	1.54	0.72
20:ad:792:ARG:HH21	20:ad:806:THR:HA	1.54	0.72
21:m:170:LEU:HD13	43:q:180:VAL:HG11	1.72	0.72
31:ap:195:GLU:OE2	33:ai:329:ARG:NH1	2.22	0.72
43:q:148:ILE:HG21	48:b:37:ARG:HD3	1.71	0.72
52:aa:1310:LYS:HZ1	52:aa:1312:ARG:HE	1.36	0.72
1:u:571:MET:HG2	1:u:573:GLU:HG2	1.71	0.72
3:r:279:LEU:O	3:r:350:ASN:ND2	2.21	0.72
7:az:16:SER:O	56:A:518:G:N2	2.23	0.72
14:ag:298:ARG:HH11	15:af:15:ARG:HH21	1.37	0.72
17:l:142:ARG:NH1	18:ac:121:TYR:O	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:ab:749:LEU:HD12	19:ab:778:TYR:HE1	1.54	0.72
21:m:51:ARG:HD2	44:p:20:ARG:HH12	1.55	0.72
21:m:125:ASN:ND2	48:b:130:TRP:O	2.21	0.72
27:av:207:MET:HG3	27:av:208:GLN:HG2	1.71	0.72
32:ao:26:ARG:HH12	32:ao:62:ARG:HD3	1.54	0.72
33:ai:176:GLY:HA3	33:ai:210:LEU:HD11	1.70	0.72
34:an:19:HIS:HD2	34:an:231:PRO:HB3	1.52	0.72
40:bb:129:ARG:O	56:2:363:A:N6	2.22	0.72
45:Ca:144:GLN:HE21	52:aa:896:THR:HG21	1.54	0.72
47:j:65:LEU:HD11	47:j:100:PHE:HB2	1.71	0.72
16:ae:470:LEU:HD22	16:ae:474:ASP:HB2	1.72	0.72
18:ac:176:GLU:HA	18:ac:179:ARG:HH22	1.53	0.72
22:i:77:TYR:HE2	40:bb:237:GLN:HE21	1.38	0.72
27:av:214:ALA:HB3	27:av:215:PRO:HD3	1.72	0.72
43:q:152:PRO:HG2	43:q:155:ARG:HG3	1.71	0.72
52:aa:703:ARG:HE	52:aa:774:SER:HB3	1.54	0.72
1:u:653:ARG:NH2	6:e:295:ASP:OD2	2.22	0.72
7:az:118:ARG:NH2	7:az:163:GLU:OE1	2.20	0.72
8:ay:130:ASP:N	8:ay:185:ARG:O	2.20	0.72
16:ae:25:ILE:O	56:A:435:G:N1	2.22	0.72
19:ab:113:ILE:HD13	19:ab:313:LEU:HD23	1.71	0.72
20:ad:50:TRP:CZ3	52:aa:98:GLN:HA	2.25	0.72
26:ba:56:THR:OG1	45:Ca:507:ASN:ND2	2.23	0.72
42:al:16:ALA:HB3	42:al:18:ARG:HG3	1.72	0.72
42:al:136:ASP:O	42:al:139:SER:OG	2.05	0.72
45:Ca:571:THR:O	56:2:30:U:O2'	2.07	0.72
56:2:172:A:H3'	56:2:173:A:N3	2.05	0.72
6:e:49:ASP:O	6:e:56:ARG:NH1	2.22	0.72
6:e:187:ARG:NH2	15:af:130:LEU:O	2.20	0.72
13:aj:279:HIS:NE2	16:ae:13:ILE:O	2.20	0.72
18:ac:405:ARG:NH2	18:ac:465:SER:OG	2.22	0.72
25:d:128:TRP:NE1	25:d:135:ILE:O	2.23	0.72
25:d:252:ASN:ND2	25:d:278:ASP:OD1	2.23	0.72
32:ao:27:ASP:OD1	32:ao:27:ASP:N	2.17	0.72
32:ao:204:MET:O	45:Ca:309:LYS:NZ	2.22	0.72
35:z:151:PRO:O	35:z:155:ASN:ND2	2.22	0.72
38:w:149:TYR:CD1	38:w:150:ARG:HG2	2.24	0.72
42:al:263:ARG:O	42:al:264:ARG:NH2	2.22	0.72
50:a:87:ILE:HG13	50:a:88:ASP:H	1.54	0.72
52:aa:752:LEU:HD12	52:aa:756:TYR:HB2	1.71	0.72
6:e:253:ASP:OD1	6:e:401:ARG:NH2	2.23	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:ay:190:ARG:NH2	56:A:504:U:O4	2.23	0.72
29:ar:21:ASN:ND2	56:2:111:A:N7	2.38	0.72
35:z:647:TYR:CZ	35:z:651:ARG:HD2	2.25	0.72
36:y:52:ALA:HB2	44:p:294:PRO:HG3	1.71	0.72
37:x:216:SER:HB3	37:x:295:LEU:HD22	1.72	0.72
52:aa:565:THR:HG22	52:aa:567:SER:H	1.54	0.72
56:2:232:G:N1	56:2:248:A:OP1	2.14	0.72
6:e:80:THR:OG1	6:e:82:HIS:O	2.07	0.71
16:ae:557:TYR:HA	16:ae:573:PRO:HA	1.72	0.71
22:i:261:HIS:O	22:i:303:TYR:OH	2.08	0.71
30:aq:116:HIS:CE1	30:aq:150:THR:HG22	2.25	0.71
32:ao:134:ASN:HB2	32:ao:137:GLU:HG3	1.71	0.71
35:z:725:TRP:CZ2	35:z:748:ASP:HB2	2.25	0.71
52:aa:1651:HIS:O	52:aa:1655:ASN:HB2	1.90	0.71
55:as:246:PRO:O	55:as:259:HIS:ND1	2.23	0.71
56:2:590:A:H2'	56:2:591:A:H8	1.55	0.71
1:u:413:MET:O	1:u:540:ARG:NH2	2.21	0.71
1:u:666:PHE:HZ	6:e:448:PHE:C	1.98	0.71
4:n:44:ARG:NH1	56:A:495:U:OP1	2.23	0.71
8:ay:164:ARG:HH11	19:ab:1131:MET:HE1	1.55	0.71
18:ac:1000:THR:HG23	18:ac:1002:ALA:H	1.54	0.71
41:t:46:TYR:CD2	55:as:236:MET:HE1	2.23	0.71
41:t:112:ARG:NH2	41:t:182:PRO:O	2.22	0.71
56:2:320:A:H3'	56:2:321:A:C8	2.25	0.71
3:r:432:HIS:HA	3:r:471:ARG:HE	1.54	0.71
14:ag:104:ALA:HB1	14:ag:137:LEU:HA	1.71	0.71
16:ae:393:GLU:HG3	16:ae:483:VAL:HG21	1.73	0.71
28:at:224:ALA:HB2	41:t:230:VAL:HG12	1.72	0.71
35:z:1071:ARG:CZ	45:Ca:95:TRP:CZ3	2.72	0.71
36:y:21:SER:O	36:y:25:LYS:NZ	2.23	0.71
45:Ca:214:ASP:OD2	45:Ca:253:ARG:NH2	2.22	0.71
47:j:18:THR:O	47:j:18:THR:OG1	2.05	0.71
50:a:373:ARG:NH2	50:a:409:LEU:O	2.24	0.71
53:k:100:GLY:H	53:k:141:GLU:HG2	1.54	0.71
56:2:107:U:O2'	56:2:108:A:H5'	1.89	0.71
12:ak:236:LEU:HD11	18:ac:71:PHE:HA	1.73	0.71
14:ag:179:ASP:HB3	17:l:664:TRP:HA	1.70	0.71
14:ag:453:GLU:O	19:ab:1025:ARG:NH2	2.24	0.71
20:ad:221:GLU:O	20:ad:406:ARG:NH1	2.24	0.71
22:i:162:THR:HG22	22:i:164:ARG:H	1.53	0.71
23:f:157:ARG:NH1	48:b:143:GLU:OE2	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:c:245:ASN:ND2	56:2:13:A:OP1	2.23	0.71
34:an:115:LYS:HB3	52:aa:977:VAL:HG13	1.70	0.71
34:an:203:TYR:CE1	52:aa:1549:ARG:HD3	2.26	0.71
40:bb:145:TYR:O	40:bb:147:TYR:N	2.23	0.71
54:be:23:ARG:NH1	56:2:575:U:OP1	2.23	0.71
7:az:102:GLU:HA	7:az:105:LEU:HD12	1.72	0.71
14:ag:203:ALA:O	14:ag:207:HIS:ND1	2.23	0.71
21:m:179:TRP:O	21:m:183:GLN:NE2	2.18	0.71
22:i:245:ASN:N	22:i:245:ASN:OD1	2.22	0.71
42:al:40:THR:HG22	49:bd:57:VAL:HG11	1.71	0.71
45:Ca:381:ASP:OD2	50:a:309:ARG:NH2	2.24	0.71
48:b:100:ARG:NH1	56:2:319:U:O2	2.22	0.71
52:aa:1045:SER:HA	52:aa:1048:LEU:HB2	1.72	0.71
12:ak:243:GLU:OE1	18:ac:70:ARG:NH2	2.14	0.71
13:aj:277:ARG:NH1	13:aj:292:ASP:OD1	2.24	0.71
16:ae:68:HIS:HB3	16:ae:82:MET:HE1	1.72	0.71
16:ae:448:GLN:OE1	16:ae:449:ASN:ND2	2.23	0.71
18:ac:459:TYR:OH	18:ac:483:ALA:O	2.08	0.71
20:ad:691:ASP:N	20:ad:691:ASP:OD1	2.17	0.71
30:aq:157:ALA:HA	30:aq:160:ARG:HD2	1.72	0.71
34:an:274:LEU:HD22	34:an:279:GLN:HG3	1.73	0.71
52:aa:1512:THR:O	52:aa:1514:ASN:ND2	2.23	0.71
1:u:753:TYR:O	1:u:759:ASN:ND2	2.24	0.71
19:ab:106:ASN:HB2	19:ab:114:SER:HB2	1.71	0.71
19:ab:651:GLU:O	19:ab:655:ASN:ND2	2.23	0.71
19:ab:867:ARG:HH12	19:ab:870:LEU:HD13	1.55	0.71
20:ad:362:ASN:OD1	20:ad:363:GLY:N	2.23	0.71
26:ba:27:MET:HA	32:ao:236:GLN:HE22	1.56	0.71
36:y:145:MET:HE2	44:p:159:ARG:HH11	1.56	0.71
41:t:99:ASN:OD1	41:t:100:ILE:N	2.23	0.71
51:bc:250:ILE:HG12	51:bc:256:VAL:HG21	1.72	0.71
4:n:62:HIS:O	4:n:65:ASN:ND2	2.24	0.71
6:e:488:GLY:O	6:e:493:ARG:NH2	2.23	0.71
17:l:39:ILE:O	17:l:44:GLN:NE2	2.21	0.71
17:l:46:ASN:ND2	17:l:174:ASP:OD2	2.22	0.71
34:an:41:GLU:OE1	34:an:45:ARG:NH1	2.19	0.71
35:z:442:PRO:HG2	35:z:530:GLU:HG3	1.72	0.71
35:z:1051:ARG:NH1	52:aa:885:GLU:OE1	2.23	0.71
38:w:98:ARG:HH21	56:2:187:A:H4'	1.54	0.71
3:r:466:ARG:N	25:d:354:GLU:OE1	2.23	0.71
10:aw:44:ALA:H	10:aw:47:THR:HG23	1.54	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:ae:557:TYR:O	19:ab:717:ARG:NH2	2.22	0.71
27:av:61:SER:OG	56:2:89:U:OP2	2.08	0.71
28:at:52:GLU:O	28:at:58:ASN:ND2	2.24	0.71
36:y:99:HIS:O	36:y:103:SER:OG	2.08	0.71
54:be:47:ARG:NH1	54:be:73:GLY:O	2.22	0.71
13:aj:45:ASN:ND2	19:ab:1049:GLN:OE1	2.23	0.71
13:aj:236:ARG:NH2	59:aj:401:UTP:O1B	2.23	0.71
15:af:65:ASN:ND2	25:d:294:VAL:O	2.23	0.71
15:af:529:GLN:HE22	15:af:608:GLU:H	1.38	0.71
29:ar:124:GLU:HA	29:ar:127:GLU:HB2	1.71	0.71
34:an:203:TYR:HE1	52:aa:1549:ARG:HD3	1.56	0.71
45:Ca:380:MET:O	50:a:308:ARG:NH1	2.18	0.71
49:bd:34:HIS:N	49:bd:36:TYR:HH	1.88	0.71
6:e:459:THR:OG1	6:e:461:ASP:OD2	2.08	0.70
10:aw:59:ARG:NH1	10:aw:95:GLN:OE1	2.23	0.70
16:ae:136:ALA:O	16:ae:182:ARG:NH2	2.23	0.70
16:ae:349:VAL:HG23	16:ae:377:THR:HG21	1.73	0.70
22:i:164:ARG:HG2	22:i:205:ALA:HB2	1.73	0.70
23:f:214:ARG:NH1	56:2:298:C:O2'	2.24	0.70
28:at:211:CYS:O	28:at:215:SER:OG	2.09	0.70
31:ap:240:MET:HG2	35:z:195:ARG:HE	1.56	0.70
43:q:195:GLU:HG2	43:q:216:HIS:HA	1.70	0.70
1:u:34:ARG:NH1	15:af:20:PRO:O	2.19	0.70
1:u:398:HIS:HB3	1:u:563:MET:HE1	1.73	0.70
6:e:115:GLU:OE2	6:e:119:GLN:NE2	2.24	0.70
13:aj:67:ILE:O	13:aj:123:LYS:NZ	2.23	0.70
14:ag:404:ILE:HG12	14:ag:416:LEU:HD11	1.73	0.70
18:ac:567:ARG:NH2	18:ac:916:GLY:O	2.23	0.70
22:i:96:LEU:HD12	22:i:240:LEU:HD23	1.72	0.70
27:av:97:THR:HG22	27:av:104:GLU:HB2	1.72	0.70
40:bb:162:HIS:NE2	56:2:603:A:N7	2.38	0.70
53:k:35:HIS:O	53:k:38:ASN:ND2	2.24	0.70
56:2:132:G:H2'	56:2:133:A:C8	2.25	0.70
56:2:194:A:H2'	56:2:195:A:H2'	1.72	0.70
1:u:666:PHE:CE2	6:e:447:VAL:N	2.57	0.70
3:r:142:ARG:NH2	10:aw:174:ARG:O	2.23	0.70
14:ag:183:ALA:O	14:ag:187:THR:OG1	2.08	0.70
17:l:42:ARG:N	17:l:494:SER:O	2.24	0.70
29:ar:170:PRO:HA	29:ar:174:PHE:HB2	1.73	0.70
35:z:239:ASP:OD1	35:z:239:ASP:N	2.23	0.70
56:A:445:C:H5'	56:A:480:C:H41	1.57	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:716:ARG:O	1:u:724:PHE:N	2.24	0.70
1:u:718:ASP:OD2	1:u:775:ARG:NH1	2.24	0.70
6:e:138:PHE:HB3	6:e:141:ALA:HB3	1.73	0.70
15:af:384:GLY:HA2	15:af:387:ILE:HD12	1.73	0.70
20:ad:21:ARG:NH2	56:2:274:A:N7	2.38	0.70
20:ad:294:VAL:O	20:ad:298:MET:HG2	1.92	0.70
29:ar:255:LYS:HE3	29:ar:260:HIS:HB2	1.73	0.70
39:v:27:ASN:HB3	39:v:32:LYS:HG3	1.72	0.70
39:v:201:LYS:NZ	56:2:358:U:OP1	2.24	0.70
44:p:119:ARG:NH1	44:p:123:ASP:OD2	2.24	0.70
46:g:142:SER:OG	46:g:154:LYS:NZ	2.18	0.70
47:j:37:VAL:HG12	47:j:38:VAL:H	1.56	0.70
4:n:44:ARG:NE	56:A:410:U:OP1	2.21	0.70
6:e:341:ASN:ND2	19:ab:859:PRO:O	2.24	0.70
18:ac:660:GLU:HB3	18:ac:663:ARG:HH21	1.56	0.70
20:ad:58:ALA:HB3	20:ad:61:GLN:HE21	1.57	0.70
20:ad:631:GLU:CD	20:ad:635:ARG:HE	1.99	0.70
23:f:200:ARG:NH2	46:g:180:GLN:HG3	2.07	0.70
40:bb:209:ASP:N	40:bb:209:ASP:OD1	2.21	0.70
56:2:263:A:O2'	56:2:264:A:O4'	2.09	0.70
4:n:45:ARG:HG3	6:e:387:LEU:HD11	1.74	0.70
6:e:421:ILE:HA	6:e:424:TRP:CD1	2.27	0.70
8:ay:124:LYS:HG3	8:ay:161:TYR:HD2	1.57	0.70
9:ax:32:ARG:HG3	56:A:407:U:H5'	1.74	0.70
11:au:114:LEU:O	11:au:127:LYS:NZ	2.25	0.70
14:ag:566:ARG:HG3	17:l:398:VAL:HG22	1.73	0.70
15:af:517:ALA:O	15:af:531:LYS:NZ	2.23	0.70
17:l:252:VAL:HG21	18:ac:603:VAL:HG22	1.72	0.70
30:aq:156:GLU:HB3	30:aq:160:ARG:HH21	1.56	0.70
34:an:57:GLU:OE1	34:an:59:ARG:NH2	2.24	0.70
36:y:125:TRP:HB2	36:y:275:LEU:HD22	1.74	0.70
52:aa:1127:HIS:HD2	52:aa:1670:LEU:HD11	1.56	0.70
1:u:666:PHE:CD2	6:e:444:ASP:C	2.69	0.70
9:ax:60:ARG:NH2	10:aw:44:ALA:O	2.25	0.70
17:l:374:GLU:O	17:l:378:ARG:HB2	1.91	0.70
18:ac:1143:THR:OG1	18:ac:1145:ASP:OD1	2.09	0.70
19:ab:728:VAL:HG11	19:ab:791:LEU:HD22	1.74	0.70
20:ad:466:ARG:HD3	20:ad:476:LEU:HD11	1.72	0.70
23:f:314:LEU:O	35:z:162:ARG:NH1	2.25	0.70
34:an:104:ARG:NH2	34:an:107:GLU:OE1	2.23	0.70
34:an:245:TRP:CD1	34:an:245:TRP:H	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:1005:ASN:HD21	52:aa:888:VAL:HG12	1.56	0.70
42:al:208:THR:HG21	42:al:213:ALA:HB3	1.73	0.70
42:al:263:ARG:NH2	42:al:264:ARG:O	2.24	0.70
46:g:16:HIS:O	46:g:19:SER:OG	2.10	0.70
15:af:357:ARG:NH2	15:af:361:ALA:O	2.24	0.70
17:l:567:SER:O	17:l:571:LYS:N	2.25	0.70
18:ac:844:CYS:SG	18:ac:848:ARG:NH1	2.65	0.70
26:ba:11:LYS:HG2	45:Ca:89:ARG:HB3	1.74	0.70
34:an:145:VAL:HG13	52:aa:1100:GLU:HG2	1.74	0.70
1:u:666:PHE:CG	6:e:445:GLY:CA	2.75	0.70
1:u:773:ASP:OD1	2:s:39:ARG:NH2	2.23	0.70
16:ae:202:MET:HE1	16:ae:224:VAL:HG22	1.74	0.70
22:i:206:MET:HE3	22:i:210:ARG:HH22	1.56	0.70
41:t:115:ARG:HG2	41:t:131:THR:HG23	1.73	0.70
44:p:14:ASN:O	44:p:14:ASN:ND2	2.25	0.70
52:aa:458:LEU:O	52:aa:462:THR:OG1	2.07	0.70
6:e:16:MET:HG2	49:bd:44:ILE:HB	1.74	0.70
7:az:144:HIS:HB3	7:az:148:ARG:N	2.06	0.70
11:au:239:ARG:O	11:au:247:GLN:NE2	2.24	0.70
19:ab:621:HIS:HB3	19:ab:625:LEU:HD21	1.73	0.70
19:ab:738:VAL:HG11	19:ab:760:LEU:HD21	1.74	0.70
20:ad:124:TYR:HB2	43:q:84:LYS:HA	1.74	0.70
20:ad:224:GLU:OE2	47:j:183:ARG:NH2	2.23	0.70
20:ad:582:ARG:HB3	55:as:194:ARG:HE	1.56	0.70
27:av:75:ARG:HG3	27:av:77:VAL:HG22	1.74	0.70
34:an:256:GLU:O	34:an:260:THR:OG1	2.10	0.70
35:z:664:GLU:HG2	35:z:766:ILE:HB	1.74	0.70
35:z:790:PRO:HB3	35:z:899:LEU:HG	1.72	0.70
38:w:15:HIS:ND1	56:2:31:U:OP1	2.25	0.70
41:t:46:TYR:CZ	55:as:236:MET:HG3	2.27	0.70
43:q:185:LEU:H	43:q:185:LEU:HD12	1.57	0.70
50:a:20:THR:OG1	50:a:231:ARG:NH2	2.22	0.70
52:aa:477:ASN:OD1	52:aa:477:ASN:N	2.24	0.70
52:aa:620:SER:O	52:aa:623:SER:OG	2.08	0.70
1:u:655:ARG:NH1	6:e:408:PRO:O	2.25	0.69
15:af:29:ASP:OD1	15:af:29:ASP:N	2.17	0.69
20:ad:261:ARG:HH22	22:i:313:THR:HG1	1.36	0.69
20:ad:648:THR:HA	41:t:211:PHE:CD2	2.26	0.69
50:a:66:ASP:HB3	50:a:69:GLU:HB3	1.74	0.69
52:aa:1416:VAL:HA	52:aa:1419:ILE:HD12	1.74	0.69
55:as:71:MET:H	55:as:76:ARG:NH1	1.89	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:s:25:VAL:HG13	10:aw:115:ARG:HH21	1.57	0.69
5:h:15:GLN:HG3	56:A:416:U:H3	1.56	0.69
7:az:32:TRP:O	7:az:37:ARG:NH2	2.24	0.69
17:l:624:ARG:O	17:l:628:GLN:NE2	2.22	0.69
18:ac:96:GLY:HA3	18:ac:101:LEU:HA	1.75	0.69
19:ab:251:ARG:HD2	19:ab:257:ARG:HH21	1.55	0.69
28:at:215:SER:O	28:at:219:ASN:ND2	2.25	0.69
31:ap:115:LEU:HA	31:ap:135:LEU:HD13	1.73	0.69
35:z:986:TRP:HH2	52:aa:902:PHE:HA	1.56	0.69
55:as:63:ILE:HD12	55:as:86:MET:HE3	1.74	0.69
6:e:18:THR:O	49:bd:43:SER:N	2.20	0.69
6:e:462:HIS:O	6:e:472:TRP:NE1	2.25	0.69
7:az:44:MET:HE3	7:az:109:PHE:HB3	1.72	0.69
18:ac:1035:HIS:O	18:ac:1039:ASN:ND2	2.26	0.69
19:ab:331:PHE:CD1	19:ab:350:VAL:HG21	2.28	0.69
19:ab:534:HIS:NE2	19:ab:636:GLU:OE2	2.24	0.69
20:ad:391:HIS:O	20:ad:395:GLU:HG2	1.92	0.69
21:m:207:HIS:O	21:m:211:ASN:ND2	2.25	0.69
22:i:246:ASN:ND2	39:v:214:ASN:O	2.24	0.69
22:i:363:TYR:HA	22:i:366:ARG:HD2	1.75	0.69
23:f:78:TRP:CH2	36:y:173:VAL:HG21	2.28	0.69
30:aq:136:ASN:OD1	41:t:86:THR:OG1	2.07	0.69
32:ao:176:GLU:OE1	32:ao:181:THR:OG1	2.10	0.69
45:Ca:490:ARG:NH2	52:aa:302:PHE:O	2.25	0.69
46:g:53:PRO:HG2	46:g:56:LEU:HB2	1.74	0.69
50:a:382:ARG:HG2	50:a:383:PRO:HD2	1.74	0.69
3:r:374:GLU:HA	9:ax:62:THR:HG23	1.74	0.69
6:e:32:PRO:HB2	6:e:40:THR:HG23	1.74	0.69
6:e:643:ASN:ND2	6:e:656:ARG:O	2.25	0.69
15:af:236:VAL:HG12	15:af:258:VAL:HG21	1.74	0.69
16:ae:234:ARG:HG2	16:ae:269:VAL:HG22	1.74	0.69
22:i:218:THR:HA	22:i:223:VAL:HG11	1.73	0.69
47:j:68:HIS:ND1	47:j:93:THR:OG1	2.25	0.69
50:a:325:LEU:HD12	52:aa:989:LEU:HB3	1.75	0.69
14:ag:168:GLU:OE1	14:ag:168:GLU:N	2.20	0.69
14:ag:440:ALA:N	49:bd:46:PHE:O	2.24	0.69
14:ag:524:ARG:HE	14:ag:534:ARG:HH22	1.40	0.69
17:l:177:GLU:OE1	17:l:179:GLN:NE2	2.18	0.69
18:ac:414:ARG:HE	18:ac:457:LEU:HA	1.58	0.69
19:ab:738:VAL:HG23	19:ab:751:VAL:HG23	1.75	0.69
29:ar:20:ILE:HA	29:ar:23:ARG:HB2	1.72	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:ao:108:LEU:HB3	32:ao:117:VAL:HG23	1.72	0.69
35:z:465:TRP:O	50:a:65:ARG:NH1	2.24	0.69
45:Ca:45:THR:OG1	45:Ca:50:THR:O	2.11	0.69
52:aa:873:ARG:NH1	52:aa:876:GLU:OE1	2.25	0.69
55:as:69:LEU:HD21	55:as:71:MET:HB2	1.74	0.69
6:e:623:ASP:OD1	6:e:627:THR:OG1	2.11	0.69
11:au:64:GLN:NE2	18:ac:1116:ALA:O	2.25	0.69
12:ak:260:ARG:NH1	18:ac:50:THR:OG1	2.17	0.69
15:af:349:GLN:OE1	15:af:390:ARG:NH2	2.26	0.69
16:ae:490:SER:O	16:ae:493:SER:OG	2.09	0.69
17:l:74:PRO:O	17:l:189:ARG:NH1	2.26	0.69
24:c:86:LEU:HD12	24:c:87:PRO:HD2	1.73	0.69
25:d:402:VAL:HG13	25:d:409:ARG:HB2	1.75	0.69
33:ai:40:ASN:OD1	33:ai:45:ARG:NH1	2.25	0.69
35:z:827:SER:HB2	35:z:921:ILE:HD13	1.75	0.69
39:v:210:ARG:HD2	39:v:214:ASN:HB3	1.74	0.69
52:aa:228:LEU:HA	52:aa:236:THR:HG22	1.73	0.69
3:r:292:SER:O	3:r:293:HIS:ND1	2.25	0.69
8:ay:101:GLU:HA	8:ay:104:LEU:HB2	1.75	0.69
13:aj:31:HIS:O	13:aj:36:GLN:NE2	2.24	0.69
14:ag:235:MET:HG2	14:ag:240:ILE:HB	1.73	0.69
23:f:250:LEU:HD13	23:f:297:ARG:HG3	1.75	0.69
29:ar:57:THR:OG1	29:ar:167:ARG:NH2	2.26	0.69
34:an:272:ARG:HH22	35:z:464:GLY:HA3	1.58	0.69
40:bb:207:GLU:O	40:bb:211:SER:OG	2.10	0.69
42:al:46:GLU:HA	49:bd:57:VAL:HG13	1.75	0.69
6:e:371:ARG:NH2	6:e:805:ASN:O	2.26	0.69
6:e:699:ASP:OD1	6:e:699:ASP:N	2.26	0.69
17:l:215:ASP:OD1	17:l:286:ARG:NH2	2.25	0.69
18:ac:993:ALA:HA	18:ac:1007:THR:O	1.92	0.69
20:ad:108:THR:OG1	20:ad:108:THR:O	2.05	0.69
20:ad:319:GLU:OE1	20:ad:440:ARG:NH2	2.24	0.69
20:ad:459:SER:HA	20:ad:462:LEU:HD12	1.75	0.69
35:z:855:GLU:OE1	35:z:859:ASN:ND2	2.25	0.69
40:bb:229:ARG:NH2	56:2:360:C:O2	2.24	0.69
41:t:25:LYS:O	55:as:253:ARG:NH2	2.26	0.69
47:j:185:VAL:HG12	47:j:186:ALA:H	1.57	0.69
50:a:10:LYS:N	56:2:11:U:O4'	2.26	0.69
52:aa:863:THR:HB	52:aa:866:ARG:HB3	1.74	0.69
54:be:79:ARG:NH2	56:2:265:U:O2	2.26	0.69
55:as:84:PHE:HD1	55:as:172:HIS:HB2	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:e:290:THR:HG23	6:e:292:GLY:H	1.57	0.69
11:au:28:GLU:OE1	11:au:31:ASN:ND2	2.25	0.69
14:ag:264:GLU:OE2	14:ag:290:HIS:NE2	2.25	0.69
17:l:45:PHE:H	19:ab:335:THR:HG21	1.58	0.69
19:ab:279:ASP:O	19:ab:282:ARG:N	2.26	0.69
19:ab:870:LEU:HD12	19:ab:871:PRO:HD2	1.73	0.69
20:ad:271:LYS:NZ	52:aa:196:ARG:O	2.26	0.69
25:d:314:ALA:HB1	25:d:388:ILE:HG22	1.75	0.69
27:av:87:ILE:O	27:av:114:ALA:N	2.20	0.69
27:av:228:ASN:ND2	27:av:235:GLN:OE1	2.26	0.69
33:ai:46:ASP:HB3	33:ai:49:ASP:HB2	1.74	0.69
35:z:222:MET:HE3	35:z:477:TYR:HD1	1.57	0.69
35:z:387:THR:OG1	35:z:399:SER:OG	2.11	0.69
41:t:23:GLY:O	43:q:47:ARG:NH2	2.26	0.69
5:h:105:ARG:HH21	25:d:430:PRO:HB3	1.58	0.69
10:aw:80:LYS:HG2	56:A:499:U:H5	1.58	0.69
14:ag:265:SER:HB2	16:ae:546:HIS:H	1.57	0.69
15:af:215:LEU:HD23	15:af:288:ALA:HB2	1.74	0.69
18:ac:197:ALA:O	18:ac:202:LYS:N	2.26	0.69
18:ac:779:GLU:HA	18:ac:809:GLN:HA	1.74	0.69
21:m:70:ARG:N	21:m:74:GLU:OE2	2.26	0.69
37:x:271:THR:HA	37:x:291:LEU:HD22	1.75	0.69
39:v:75:GLY:N	39:v:153:ASP:OD2	2.26	0.69
43:q:70:ARG:NH1	47:j:170:ASN:OD1	2.19	0.69
47:j:25:PRO:HD2	56:2:164:G:N2	2.08	0.69
50:a:231:ARG:NH2	56:2:16:U:O4	2.18	0.69
50:a:341:LYS:HB2	50:a:365:MET:HE1	1.74	0.69
3:r:216:ARG:NH1	3:r:244:TYR:OH	2.26	0.68
4:n:80:GLN:NE2	6:e:710:GLU:OE1	2.26	0.68
13:aj:233:VAL:O	13:aj:265:LYS:NZ	2.26	0.68
16:ae:159:ASP:N	56:A:417:A:OP1	2.25	0.68
18:ac:220:PRO:HG3	18:ac:262:PRO:HD3	1.74	0.68
20:ad:298:MET:O	20:ad:302:MET:HG2	1.93	0.68
20:ad:524:GLY:O	20:ad:603:ARG:NH2	2.27	0.68
28:at:182:TYR:OH	28:at:189:ARG:NH1	2.26	0.68
34:an:269:LYS:NZ	50:a:324:LEU:O	2.25	0.68
35:z:656:PRO:HB3	35:z:676:VAL:HG22	1.75	0.68
1:u:741:VAL:HA	1:u:746:LEU:HA	1.73	0.68
3:r:380:ASN:ND2	9:ax:67:ASP:OD2	2.24	0.68
13:aj:40:ARG:HE	14:ag:341:PHE:HE1	1.39	0.68
15:af:100:ASP:HA	15:af:103:ASN:ND2	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:af:123:LEU:HD21	19:ab:977:LEU:HD11	1.74	0.68
20:ad:386:ASP:HA	20:ad:389:LEU:HD12	1.76	0.68
35:z:467:ASP:OD2	50:a:62:ARG:NH1	2.24	0.68
50:a:255:ASN:HB3	50:a:260:ASN:HB2	1.75	0.68
52:aa:279:GLU:HG3	52:aa:280:PHE:HD1	1.59	0.68
5:h:37:ARG:HG3	16:ae:115:HIS:CD2	2.27	0.68
9:ax:124:ARG:NH2	56:A:404:U:OP2	2.26	0.68
12:ak:245:ARG:NH2	18:ac:63:ASP:OD1	2.25	0.68
22:i:364:TYR:OH	56:2:111:A:OP1	2.11	0.68
25:d:102:PRO:O	44:p:103:ARG:NH1	2.26	0.68
32:ao:278:LEU:HD12	44:p:45:PHE:CZ	2.28	0.68
35:z:834:ASP:OD1	35:z:895:SER:N	2.20	0.68
35:z:1089:GLU:HA	35:z:1093:TYR:HB2	1.75	0.68
37:x:132:PHE:HB2	37:x:175:LEU:HD21	1.75	0.68
49:bd:55:LEU:O	49:bd:57:VAL:N	2.26	0.68
52:aa:925:LYS:NZ	52:aa:956:THR:O	2.27	0.68
52:aa:1318:LEU:HD12	52:aa:1323:LEU:HD12	1.75	0.68
3:r:122:ILE:HA	3:r:125:ILE:HG12	1.76	0.68
6:e:617:GLU:OE1	6:e:631:ARG:NH1	2.25	0.68
23:f:179:ASP:HA	43:q:182:GLN:HG3	1.76	0.68
35:z:149:SER:H	35:z:153:HIS:CD2	2.11	0.68
50:a:336:PRO:HG2	50:a:339:LEU:HB2	1.75	0.68
52:aa:358:ASP:HB3	52:aa:361:THR:HB	1.74	0.68
52:aa:1480:ASN:H	52:aa:1483:LEU:HD12	1.59	0.68
1:u:103:GLU:OE2	6:e:283:ARG:NH1	2.26	0.68
2:s:49:ALA:O	6:e:763:GLN:NE2	2.24	0.68
12:ak:36:ARG:O	12:ak:63:TYR:OH	2.11	0.68
12:ak:146:ASP:O	18:ac:970:ARG:NH1	2.27	0.68
19:ab:292:TYR:OH	19:ab:664:ASN:ND2	2.26	0.68
32:ao:157:ARG:NH2	52:aa:952:GLU:OE2	2.27	0.68
45:Ca:14:ASN:HB2	54:be:52:GLY:HA2	1.74	0.68
45:Ca:40:ASP:HB3	45:Ca:43:VAL:HG12	1.74	0.68
52:aa:636:PHE:HB3	52:aa:807:GLY:HA3	1.75	0.68
1:u:834:MET:HA	1:u:838:LEU:HB3	1.76	0.68
3:r:192:THR:HG21	3:r:260:ASP:HA	1.76	0.68
4:n:121:SER:OG	8:ay:99:ARG:NH1	2.27	0.68
5:h:38:ASP:OD1	16:ae:112:ARG:NH2	2.26	0.68
11:au:14:THR:O	13:aj:313:ARG:NH1	2.27	0.68
11:au:48:LEU:HA	11:au:51:ARG:HD3	1.76	0.68
17:l:527:SER:HB3	18:ac:958:HIS:CE1	2.29	0.68
20:ad:581:VAL:HG11	41:t:195:THR:HA	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:i:246:ASN:HD22	56:2:333:U:H5''	1.59	0.68
24:c:12:VAL:HG22	32:ao:34:VAL:HG22	1.73	0.68
34:an:24:SER:O	34:an:27:GLN:N	2.26	0.68
35:z:1071:ARG:HD2	45:Ca:95:TRP:CZ2	2.29	0.68
36:y:181:PRO:HB3	36:y:186:LEU:HD12	1.73	0.68
42:al:273:TYR:OH	56:A:467:A:N6	2.26	0.68
47:j:51:THR:OG1	47:j:52:HIS:N	2.23	0.68
52:aa:871:GLU:CD	52:aa:871:GLU:H	2.01	0.68
55:as:54:LEU:HD22	55:as:188:TYR:HB3	1.75	0.68
1:u:113:VAL:HG11	16:ae:549:HIS:HE1	1.59	0.68
1:u:132:TYR:CE1	1:u:140:ARG:HD2	2.29	0.68
1:u:307:GLN:NE2	1:u:712:SER:OG	2.27	0.68
3:r:439:ARG:NH1	25:d:361:ASP:OD1	2.27	0.68
4:n:69:PRO:HB2	19:ab:1127:PRO:HD3	1.75	0.68
7:az:141:VAL:HG22	7:az:143:TYR:H	1.57	0.68
15:af:599:ILE:HA	15:af:607:VAL:HG11	1.76	0.68
18:ac:973:ARG:O	18:ac:977:THR:OG1	2.09	0.68
19:ab:149:ARG:HA	19:ab:152:LEU:HD12	1.74	0.68
19:ab:1127:PRO:HA	19:ab:1131:MET:HB2	1.75	0.68
20:ad:325:THR:O	20:ad:385:ASN:ND2	2.27	0.68
21:m:88:THR:HA	21:m:91:ASP:HB2	1.75	0.68
22:i:420:ARG:NE	56:2:105:G:O2'	2.19	0.68
25:d:12:HIS:CD2	25:d:47:VAL:HG21	2.29	0.68
39:v:103:LEU:HD13	39:v:106:CYS:HB3	1.75	0.68
55:as:225:LEU:HD23	55:as:226:PRO:HD2	1.74	0.68
1:u:642:VAL:O	1:u:716:ARG:NH1	2.27	0.68
15:af:125:ASP:O	15:af:129:ALA:N	2.26	0.68
16:ae:105:PRO:HG2	16:ae:108:LEU:HG	1.76	0.68
18:ac:56:ALA:HB2	18:ac:539:PHE:HB3	1.75	0.68
18:ac:847:LEU:HD23	18:ac:852:LEU:HD13	1.76	0.68
19:ab:489:LEU:HB3	19:ab:583:ASP:HB2	1.74	0.68
21:m:82:ARG:NH1	21:m:91:ASP:OD2	2.27	0.68
23:f:261:ARG:HA	23:f:266:ARG:HH21	1.58	0.68
35:z:242:PHE:HB3	35:z:279:LYS:HG3	1.74	0.68
36:y:16:ALA:HA	36:y:20:ALA:HB3	1.76	0.68
41:t:28:LYS:NZ	41:t:32:ASP:O	2.25	0.68
42:al:169:SER:OG	44:p:64:ASN:ND2	2.25	0.68
44:p:176:THR:HG22	44:p:177:MET:H	1.58	0.68
51:bc:248:GLU:OE2	51:bc:252:LYS:NZ	2.26	0.68
51:bc:369:ASP:OD1	51:bc:373:ARG:N	2.26	0.68
52:aa:172:PRO:HG2	52:aa:185:ASP:H	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:ag:135:ASP:O	14:ag:138:SER:OG	2.12	0.68
16:ae:265:ARG:NH2	16:ae:300:ASN:OD1	2.27	0.68
17:l:200:LYS:HA	17:l:204:LEU:HB3	1.76	0.68
19:ab:531:TYR:OH	19:ab:601:MET:O	2.10	0.68
21:m:55:ARG:HH21	44:p:67:GLN:HB3	1.58	0.68
25:d:264:ASP:O	25:d:270:SER:OG	2.08	0.68
30:aq:89:PRO:HB2	30:aq:121:LEU:HB3	1.76	0.68
30:aq:146:PHE:HB3	30:aq:150:THR:HG21	1.76	0.68
35:z:157:MET:HE2	35:z:158:PHE:HE1	1.59	0.68
35:z:753:ASP:OD1	35:z:753:ASP:N	2.24	0.68
40:bb:173:TYR:HA	56:2:567:A:C2	2.28	0.68
41:t:46:TYR:CZ	55:as:236:MET:CG	2.77	0.68
42:al:85:GLU:OE1	42:al:210:ARG:NH1	2.25	0.68
43:q:178:ASN:HD21	43:q:184:PRO:HD3	1.59	0.68
1:u:72:ASP:HB3	17:l:620:GLU:HG3	1.76	0.68
1:u:696:ARG:NH2	1:u:754:GLU:OE1	2.27	0.68
7:az:97:ARG:NH1	9:ax:106:ASP:OD2	2.26	0.68
11:au:190:PHE:CD1	11:au:191:PRO:HD2	2.29	0.68
14:ag:344:ILE:HD11	19:ab:1044:VAL:HG23	1.75	0.68
14:ag:390:ARG:O	14:ag:394:TRP:HB3	1.93	0.68
17:l:84:ASP:OD1	17:l:84:ASP:N	2.27	0.68
22:i:425:ARG:NH1	56:2:128:A:O3'	2.22	0.68
27:av:38:GLU:HG2	29:ar:64:ALA:HB2	1.76	0.68
29:ar:14:ARG:NH1	56:2:115:A:OP2	2.18	0.68
32:ao:75:VAL:O	32:ao:99:ASN:ND2	2.26	0.68
33:ai:355:ASP:OD1	33:ai:355:ASP:N	2.24	0.68
43:q:102:ARG:NH1	52:aa:190:GLU:O	2.27	0.68
52:aa:179:ASN:HB2	52:aa:183:SER:O	1.94	0.68
52:aa:263:LEU:HG	52:aa:291:PHE:HE2	1.59	0.68
54:be:63:ILE:HG23	54:be:76:TYR:HB3	1.74	0.68
1:u:242:LEU:O	1:u:246:THR:HG23	1.93	0.67
3:r:70:SER:HB2	25:d:3:GLN:HG2	1.75	0.67
17:l:233:ALA:HA	17:l:236:ARG:HG3	1.76	0.67
17:l:307:ARG:HH11	17:l:364:PHE:HA	1.59	0.67
17:l:513:ARG:HA	17:l:516:ARG:HH21	1.59	0.67
45:Ca:126:ILE:HA	45:Ca:141:GLU:OE2	1.94	0.67
50:a:401:ARG:HH21	52:aa:1694:ARG:HH12	1.42	0.67
1:u:291:GLY:O	1:u:299:ARG:NH2	2.27	0.67
1:u:565:ARG:HH22	1:u:571:MET:H	1.40	0.67
3:r:300:PRO:O	6:e:734:TYR:OH	2.06	0.67
6:e:558:ALA:HB3	6:e:569:LEU:HD22	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:ax:117:LYS:NZ	56:A:524:A:OP2	2.27	0.67
12:ak:243:GLU:HG3	18:ac:70:ARG:HH12	1.58	0.67
14:ag:45:HIS:ND1	18:ac:1101:ASP:O	2.27	0.67
18:ac:414:ARG:HH21	18:ac:457:LEU:HB3	1.59	0.67
19:ab:936:ARG:NH1	19:ab:942:ARG:O	2.28	0.67
27:av:34:ARG:NH1	27:av:38:GLU:OE2	2.27	0.67
35:z:270:ASP:HB3	35:z:375:ARG:HD2	1.75	0.67
35:z:462:ARG:NH2	35:z:517:GLU:OE2	2.26	0.67
35:z:1047:LEU:O	35:z:1051:ARG:HG2	1.94	0.67
38:w:66:ARG:HD3	38:w:126:TRP:HZ3	1.57	0.67
42:al:46:GLU:HG3	42:al:47:LYS:HG3	1.75	0.67
56:2:3:A:H3'	56:2:4:A:C8	2.29	0.67
1:u:166:LYS:O	1:u:170:VAL:N	2.25	0.67
3:r:152:GLY:HA3	3:r:451:ASN:HD21	1.59	0.67
15:af:87:TYR:HA	15:af:90:MET:HG2	1.77	0.67
16:ae:282:ASN:HB3	16:ae:285:ARG:HB2	1.76	0.67
16:ae:446:MET:SD	16:ae:455:VAL:HG11	2.34	0.67
20:ad:586:ARG:NH2	41:t:196:ASP:OD1	2.28	0.67
22:i:341:LEU:O	27:av:48:ARG:NH2	2.27	0.67
34:an:61:GLU:HG3	35:z:952:LEU:HD13	1.75	0.67
37:x:147:PRO:HA	52:aa:1186:PRO:HD2	1.75	0.67
37:x:235:GLN:HE22	37:x:274:GLN:HB2	1.58	0.67
40:bb:153:LEU:HD13	40:bb:157:PHE:HE2	1.59	0.67
52:aa:144:GLU:HG2	53:k:77:PRO:HG2	1.75	0.67
52:aa:432:ASN:HB2	52:aa:435:ARG:HH21	1.60	0.67
52:aa:1048:LEU:HB3	52:aa:1052:GLY:HA2	1.77	0.67
52:aa:1671:ALA:HA	52:aa:1674:LEU:HD12	1.76	0.67
55:as:77:LEU:HD23	55:as:77:LEU:H	1.57	0.67
55:as:202:ASN:OD1	55:as:202:ASN:N	2.28	0.67
1:u:112:THR:OG1	1:u:135:ASN:ND2	2.27	0.67
1:u:533:ARG:HA	1:u:536:ARG:HH21	1.59	0.67
6:e:232:THR:OG1	6:e:238:HIS:O	2.13	0.67
8:ay:130:ASP:OD2	8:ay:132:ARG:NE	2.27	0.67
11:au:233:HIS:HB3	11:au:238:PRO:HA	1.77	0.67
18:ac:814:ILE:HG21	18:ac:878:LEU:HD21	1.77	0.67
24:c:267:ASP:OD1	24:c:267:ASP:N	2.26	0.67
27:av:101:THR:HB	27:av:222:LYS:HD3	1.76	0.67
27:av:105:GLN:O	55:as:30:TRP:N	2.19	0.67
30:aq:177:LEU:HD13	41:t:86:THR:HG21	1.75	0.67
34:an:106:MET:HE2	50:a:316:MET:HE3	1.76	0.67
35:z:962:VAL:HG22	35:z:963:VAL:HG23	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:526:PRO:HB3	52:aa:369:ARG:HD3	1.77	0.67
50:a:334:ARG:HE	52:aa:1156:ARG:NH2	1.92	0.67
52:aa:424:ARG:NH2	52:aa:459:LEU:O	2.27	0.67
56:2:73:U:H1'	56:2:74:G:H3'	1.75	0.67
5:h:58:THR:HA	6:e:675:GLN:HE21	1.58	0.67
10:aw:186:LEU:HD21	15:af:662:ARG:HH11	1.59	0.67
11:au:11:ASP:OD2	11:au:13:ARG:NE	2.24	0.67
15:af:350:ARG:HA	15:af:353:ARG:HE	1.59	0.67
16:ae:119:HIS:NE2	16:ae:144:THR:O	2.26	0.67
17:l:603:ILE:HA	17:l:637:LEU:HD11	1.77	0.67
22:i:80:ARG:HG2	56:2:596:U:OP1	1.95	0.67
25:d:137:PHE:CD1	25:d:183:SER:HB3	2.29	0.67
37:x:218:ARG:HE	52:aa:1210:ILE:HD11	1.59	0.67
41:t:24:SER:OG	43:q:51:GLU:OE2	2.13	0.67
45:Ca:200:ASP:OD1	45:Ca:204:ARG:NH1	2.28	0.67
51:bc:311:LEU:HB3	51:bc:312:PRO:HD3	1.74	0.67
1:u:588:LYS:NZ	1:u:591:SER:OG	2.28	0.67
3:r:303:ASP:HB3	3:r:318:ILE:HD13	1.77	0.67
7:az:31:TRP:HA	7:az:34:ASP:HB2	1.77	0.67
12:ak:35:CYS:C	17:l:665:PRO:HB2	2.19	0.67
13:aj:193:PRO:HA	13:aj:226:VAL:HG13	1.76	0.67
17:l:519:ILE:HA	17:l:522:LEU:HD12	1.74	0.67
18:ac:781:ARG:CZ	18:ac:804:PHE:HB3	2.25	0.67
19:ab:148:GLN:HE22	19:ab:164:LEU:HD11	1.58	0.67
19:ab:173:HIS:O	19:ab:215:GLN:NE2	2.23	0.67
23:f:204:TYR:HB3	23:f:220:THR:HG23	1.75	0.67
25:d:281:ARG:HH22	25:d:285:GLY:HA3	1.59	0.67
27:av:174:ASP:OD2	55:as:178:ARG:NH1	2.27	0.67
36:y:68:PRO:HB2	36:y:74:LEU:HB2	1.77	0.67
46:g:94:GLU:OE2	46:g:98:ARG:NH2	2.27	0.67
52:aa:626:ILE:HA	52:aa:635:VAL:HA	1.74	0.67
56:2:185:A:OP1	56:2:186:U:O2'	2.08	0.67
1:u:279:PHE:HB3	19:ab:880:MET:HG3	1.76	0.67
4:n:140:LEU:HA	4:n:143:LEU:HD12	1.76	0.67
10:aw:51:HIS:O	10:aw:64:ARG:NH1	2.27	0.67
15:af:386:TYR:OH	15:af:398:VAL:O	2.11	0.67
25:d:412:LEU:HD22	25:d:417:LEU:HD12	1.77	0.67
35:z:618:ARG:HD2	43:q:218:PRO:HD2	1.76	0.67
39:v:77:PRO:HB3	39:v:155:HIS:HE1	1.58	0.67
52:aa:112:ARG:NH2	53:k:88:PRO:O	2.26	0.67
52:aa:829:ARG:H	52:aa:829:ARG:HD2	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:583:GLN:HA	1:u:586:LEU:HD13	1.76	0.67
3:r:453:GLN:NE2	3:r:457:ASP:OD2	2.27	0.67
6:e:74:TYR:HA	42:al:288:TRP:CD2	2.29	0.67
6:e:317:ASP:CG	6:e:319:GLU:H	2.02	0.67
7:az:144:HIS:HD2	7:az:146:TYR:H	1.41	0.67
11:au:43:ASP:HB3	11:au:51:ARG:HG2	1.75	0.67
15:af:615:GLU:OE1	25:d:5:LEU:N	2.23	0.67
25:d:163:PHE:HB2	25:d:166:LEU:HD13	1.77	0.67
27:av:151:ASP:OD1	55:as:78:ARG:NH2	2.27	0.67
35:z:227:ARG:HE	56:2:2:A:H61	1.41	0.67
46:g:23:MET:SD	56:2:301:A:O2'	2.53	0.67
53:k:53:ASN:OD1	53:k:54:ARG:N	2.26	0.67
7:az:151:LEU:HD23	7:az:152:PRO:HD2	1.76	0.67
10:aw:34:HIS:N	10:aw:86:GLN:HE22	1.93	0.67
11:au:95:ARG:NH2	18:ac:477:GLN:OE1	2.28	0.67
12:ak:175:GLY:O	12:ak:248:ASN:ND2	2.28	0.67
15:af:98:ASP:OD1	15:af:101:THR:N	2.27	0.67
17:l:409:ALA:O	17:l:413:LEU:HB2	1.95	0.67
19:ab:772:MET:N	19:ab:772:MET:SD	2.68	0.67
20:ad:227:TRP:HE1	47:j:183:ARG:HB3	1.60	0.67
20:ad:578:ASP:OD1	20:ad:582:ARG:NE	2.24	0.67
22:i:291:ASN:OD1	22:i:294:THR:OG1	2.13	0.67
23:f:319:MET:HG2	46:g:81:GLN:HB2	1.76	0.67
29:ar:163:VAL:HG22	29:ar:212:LYS:HG3	1.75	0.67
36:y:51:VAL:HG11	44:p:296:TRP:HE1	1.60	0.67
41:t:210:PRO:HA	55:as:257:TRP:CG	2.30	0.67
44:p:12:PRO:HB2	44:p:15:MET:HB2	1.77	0.67
52:aa:1158:PRO:HG2	52:aa:1163:LEU:HD12	1.77	0.67
56:2:320:A:OP2	56:2:321:A:N6	2.27	0.67
1:u:96:ASN:ND2	19:ab:462:VAL:O	2.27	0.67
5:h:94:ARG:NH2	5:h:95:TYR:OH	2.26	0.67
7:az:56:ARG:O	7:az:60:VAL:HG23	1.95	0.67
17:l:262:TYR:HD1	17:l:364:PHE:HB3	1.60	0.67
18:ac:561:PRO:HB2	18:ac:565:ARG:HH12	1.59	0.67
20:ad:118:ARG:HB3	20:ad:119:TYR:CD2	2.29	0.67
25:d:273:TYR:O	25:d:277:LYS:HB2	1.95	0.67
35:z:569:TYR:CZ	35:z:734:PRO:HB3	2.30	0.67
47:j:79:PRO:HG3	52:aa:298:ALA:HB2	1.75	0.67
48:b:123:ARG:HG3	48:b:127:GLU:CD	2.19	0.67
56:2:132:G:C2	56:2:133:A:C5	2.83	0.67
1:u:689:ASP:HB3	16:ae:169:ARG:HB3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:n:133:ARG:HG3	19:ab:1160:VAL:HG22	1.77	0.66
6:e:216:GLU:OE2	10:aw:147:ARG:NH1	2.28	0.66
20:ad:355:SER:OG	27:av:234:LYS:NZ	2.27	0.66
20:ad:484:LEU:HD22	20:ad:496:GLU:HB2	1.76	0.66
21:m:73:ASP:O	21:m:76:LEU:N	2.28	0.66
22:i:135:GLU:O	31:ap:226:ASN:ND2	2.26	0.66
25:d:101:VAL:O	44:p:103:ARG:NH1	2.28	0.66
35:z:656:PRO:HA	35:z:676:VAL:HA	1.76	0.66
35:z:838:VAL:HG13	35:z:876:VAL:HA	1.75	0.66
52:aa:136:TYR:OH	52:aa:144:GLU:OE2	2.13	0.66
6:e:16:MET:HB3	49:bd:43:SER:C	2.21	0.66
6:e:67:ASP:OD1	6:e:67:ASP:N	2.27	0.66
6:e:623:ASP:OD2	6:e:631:ARG:NH2	2.26	0.66
18:ac:474:ALA:O	18:ac:476:ARG:NH1	2.28	0.66
21:m:125:ASN:OD1	21:m:127:LYS:HG2	1.95	0.66
32:ao:57:ARG:HE	32:ao:66:GLY:HA3	1.59	0.66
4:n:169:LEU:O	9:ax:22:HIS:ND1	2.29	0.66
10:aw:42:GLN:O	10:aw:47:THR:OG1	2.12	0.66
11:au:24:ILE:HB	11:au:206:LEU:HD21	1.77	0.66
25:d:386:ASN:OD1	25:d:389:ALA:N	2.21	0.66
29:ar:114:HIS:NE2	29:ar:116:THR:OG1	2.15	0.66
34:an:284:PRO:HG3	35:z:509:LYS:HG2	1.77	0.66
36:y:133:PHE:CE1	36:y:139:PHE:HB2	2.30	0.66
41:t:10:ARG:N	56:2:79:A:OP2	2.28	0.66
45:Ca:348:ARG:NH1	50:a:209:GLU:OE1	2.28	0.66
45:Ca:472:PHE:HB2	45:Ca:484:ALA:HB2	1.77	0.66
46:g:79:TYR:HB2	46:g:183:ASN:HD21	1.58	0.66
51:bc:273:ILE:HD12	51:bc:305:VAL:HG13	1.76	0.66
56:2:48:U:H2'	56:2:49:U:H5'	1.76	0.66
4:n:55:ARG:O	5:h:88:ARG:NH1	2.28	0.66
14:ag:457:TRP:HZ3	19:ab:258:GLU:HG3	1.59	0.66
15:af:199:LEU:HD23	15:af:202:LEU:HD12	1.78	0.66
15:af:580:VAL:HG13	15:af:581:TRP:HD1	1.59	0.66
19:ab:781:ARG:HB3	19:ab:784:SER:HB2	1.77	0.66
20:ad:749:GLU:HB2	33:ai:147:ARG:HH11	1.59	0.66
21:m:75:GLN:O	21:m:79:ASN:ND2	2.23	0.66
27:av:106:ARG:NH1	55:as:27:LYS:O	2.28	0.66
33:ai:24:TYR:HA	33:ai:73:LEU:HD11	1.77	0.66
35:z:836:TYR:HA	35:z:840:VAL:HG23	1.77	0.66
35:z:926:VAL:HG13	35:z:927:PRO:HD3	1.76	0.66
38:w:101:ARG:HA	38:w:104:ILE:HD12	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:444:MET:HG3	45:Ca:474:ILE:HG12	1.76	0.66
50:a:54:GLU:O	50:a:57:THR:OG1	2.12	0.66
54:be:73:GLY:HA2	56:2:378:A:H5'	1.77	0.66
1:u:702:ASN:OD1	6:e:811:ARG:NH2	2.29	0.66
13:aj:217:ARG:NH1	13:aj:249:ASP:O	2.28	0.66
15:af:32:SER:HB2	19:ab:487:ARG:HH12	1.60	0.66
15:af:67:ALA:HB1	15:af:98:ASP:OD2	1.96	0.66
15:af:233:TRP:NE1	15:af:251:ARG:O	2.28	0.66
15:af:610:GLU:HG3	15:af:612:GLU:H	1.61	0.66
16:ae:181:ARG:NH2	56:A:423:A:OP2	2.28	0.66
17:l:44:GLN:NE2	17:l:46:ASN:OD1	2.22	0.66
18:ac:1120:HIS:HD2	18:ac:1122:GLU:H	1.44	0.66
19:ab:717:ARG:HH12	19:ab:809:GLY:HA2	1.61	0.66
27:av:149:GLU:OE1	55:as:78:ARG:NH1	2.29	0.66
27:av:154:LYS:HE2	27:av:158:ASP:HB3	1.77	0.66
35:z:279:LYS:NZ	35:z:488:HIS:O	2.18	0.66
35:z:435:PRO:O	35:z:439:LEU:HG	1.96	0.66
41:t:120:GLU:HA	41:t:123:GLU:HG2	1.78	0.66
45:Ca:508:MET:HG2	45:Ca:558:PHE:HB3	1.76	0.66
52:aa:695:GLU:N	52:aa:698:ASP:OD2	2.28	0.66
56:2:96:U:H3	56:2:132:G:H1	1.43	0.66
1:u:306:LEU:HD13	19:ab:883:ASN:HA	1.75	0.66
5:h:57:LYS:O	6:e:675:GLN:NE2	2.28	0.66
6:e:235:ASP:HB3	19:ab:928:ALA:HB1	1.77	0.66
6:e:779:TRP:CD1	10:aw:99:ARG:HD2	2.31	0.66
13:aj:111:ILE:O	13:aj:117:ARG:NH1	2.28	0.66
14:ag:126:ARG:HE	14:ag:129:HIS:CE1	2.14	0.66
16:ae:32:TRP:CD1	16:ae:32:TRP:H	2.12	0.66
16:ae:294:ARG:NH1	16:ae:294:ARG:O	2.28	0.66
29:ar:250:SER:HB3	29:ar:262:GLU:HG3	1.78	0.66
34:an:17:ALA:O	52:aa:999:ASN:ND2	2.29	0.66
43:q:17:ASN:ND2	43:q:29:THR:O	2.28	0.66
43:q:177:LEU:HB3	43:q:181:GLY:HA2	1.77	0.66
1:u:666:PHE:CE2	6:e:444:ASP:O	2.49	0.66
1:u:720:ASN:HB2	1:u:722:VAL:HG22	1.78	0.66
3:r:128:TRP:HD1	3:r:280:PRO:HB3	1.61	0.66
17:l:457:ARG:O	17:l:461:LEU:HG	1.96	0.66
19:ab:550:VAL:HB	19:ab:553:GLU:HB3	1.77	0.66
19:ab:976:PHE:O	19:ab:979:LYS:NZ	2.28	0.66
23:f:185:PRO:HG3	46:g:45:VAL:HG11	1.77	0.66
33:ai:204:ASN:OD1	33:ai:207:ARG:N	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:339:VAL:HG12	35:z:341:THR:H	1.60	0.66
35:z:994:ARG:O	35:z:995:ARG:NH1	2.29	0.66
36:y:151:ARG:HG2	37:x:202:THR:HG21	1.76	0.66
44:p:206:GLU:OE1	44:p:207:GLN:NE2	2.29	0.66
52:aa:571:GLU:O	52:aa:575:LEU:HG	1.96	0.66
52:aa:765:CYS:O	52:aa:769:HIS:ND1	2.22	0.66
4:n:69:PRO:HB3	8:ay:117:TYR:CZ	2.31	0.66
5:h:156:MET:HE2	6:e:793:HIS:CD2	2.30	0.66
11:au:72:HIS:CE1	11:au:76:HIS:HB2	2.30	0.66
13:aj:53:GLN:OE1	13:aj:232:ARG:NH1	2.23	0.66
13:aj:90:ARG:NH2	16:ae:261:PHE:O	2.29	0.66
14:ag:259:ASN:ND2	14:ag:262:GLU:OE1	2.29	0.66
18:ac:126:MET:HE2	18:ac:530:VAL:HG13	1.76	0.66
18:ac:940:TRP:O	18:ac:1045:ARG:NH1	2.28	0.66
20:ad:201:GLU:O	20:ad:204:GLN:N	2.24	0.66
30:aq:112:VAL:HG21	30:aq:147:ALA:H	1.61	0.66
39:v:202:THR:HG1	56:2:338:U:H3	1.44	0.66
41:t:18:SER:OG	41:t:24:SER:OG	2.13	0.66
47:j:66:GLY:CA	47:j:94:THR:O	2.43	0.66
52:aa:125:SER:OG	52:aa:126:ARG:N	2.28	0.66
5:h:28:SER:HA	5:h:31:MET:HE3	1.78	0.66
16:ae:40:GLU:OE1	16:ae:41:ASN:ND2	2.29	0.66
20:ad:135:ARG:NH2	27:av:66:LEU:HD11	2.10	0.66
32:ao:255:MET:O	50:a:190:LYS:NZ	2.20	0.66
34:an:185:TRP:O	34:an:191:GLY:HA3	1.96	0.66
39:v:47:ASN:ND2	56:2:387:U:H4'	2.11	0.66
41:t:51:VAL:HG12	43:q:20:SER:HA	1.78	0.66
44:p:189:GLN:HA	44:p:192:ARG:HB2	1.78	0.66
56:2:287:A:N7	56:2:322:A:N6	2.44	0.66
12:ak:228:ILE:HG22	12:ak:239:LEU:HD13	1.78	0.66
17:l:578:LEU:HA	17:l:582:GLY:HA3	1.77	0.66
18:ac:780:CYS:N	18:ac:808:PHE:O	2.19	0.66
22:i:78:PRO:HG3	40:bb:175:LEU:HD12	1.76	0.66
34:an:25:GLU:OE2	34:an:251:ASN:ND2	2.24	0.66
35:z:984:HIS:HE1	35:z:986:TRP:CE2	2.14	0.66
38:w:46:ARG:NH1	38:w:111:PHE:O	2.28	0.66
41:t:11:ARG:NH1	55:as:10:ALA:O	2.26	0.66
52:aa:986:GLU:O	52:aa:990:ARG:HG2	1.96	0.66
8:ay:128:PRO:HD2	8:ay:129:TRP:CZ3	2.31	0.65
15:af:143:HIS:HA	15:af:164:LEU:HD21	1.79	0.65
15:af:399:CYS:HB2	15:af:511:LEU:HB3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:ae:435:ASP:HB3	16:ae:438:GLN:HB2	1.77	0.65
20:ad:450:HIS:O	20:ad:487:LYS:NZ	2.30	0.65
24:c:110:ARG:HA	35:z:221:MET:HE3	1.78	0.65
35:z:244:LYS:HD2	35:z:278:SER:HB2	1.77	0.65
39:v:145:ASP:OD1	42:al:249:ARG:NH2	2.28	0.65
46:g:147:SER:HB3	46:g:150:GLU:HG2	1.76	0.65
52:aa:474:LEU:HB3	52:aa:538:LYS:HD3	1.78	0.65
3:r:394:SER:HB3	3:r:396:PHE:HD1	1.59	0.65
7:az:120:TYR:OH	7:az:157:GLU:OE1	2.13	0.65
11:au:121:ASP:OD1	14:ag:524:ARG:HB3	1.96	0.65
14:ag:554:ARG:HB3	19:ab:338:ASP:HA	1.78	0.65
15:af:25:THR:HG23	15:af:26:ASN:ND2	2.11	0.65
15:af:65:ASN:HD21	25:d:295:ARG:HA	1.62	0.65
18:ac:767:TYR:HE2	18:ac:814:ILE:HD11	1.61	0.65
20:ad:445:LEU:HB3	20:ad:449:MET:HB2	1.79	0.65
22:i:425:ARG:HH21	56:2:123:U:HO2'	1.41	0.65
24:c:189:LEU:HD13	24:c:196:GLY:HA2	1.78	0.65
26:ba:24:PRO:HD3	26:ba:80:TRP:CD1	2.31	0.65
33:ai:352:THR:HG23	33:ai:353:TYR:HD1	1.62	0.65
34:an:92:LEU:HG	35:z:936:ILE:HG13	1.77	0.65
35:z:613:ALA:HB1	35:z:628:ARG:HG2	1.78	0.65
37:x:163:HIS:HD1	37:x:214:TYR:HE2	1.43	0.65
37:x:267:TYR:HB2	37:x:280:PHE:CE2	2.25	0.65
38:w:89:ARG:NH1	56:2:185:A:OP2	2.30	0.65
43:q:41:LYS:HD3	43:q:42:GLN:HE22	1.61	0.65
45:Ca:431:PRO:HA	45:Ca:434:GLN:HB3	1.77	0.65
1:u:32:GLN:HA	19:ab:508:ARG:HE	1.61	0.65
1:u:395:LEU:HD23	1:u:563:MET:HE3	1.79	0.65
1:u:687:ARG:NH2	14:ag:27:GLN:OE1	2.27	0.65
3:r:28:ALA:O	3:r:33:TRP:NE1	2.28	0.65
6:e:99:ARG:NH2	25:d:297:ASP:OD2	2.29	0.65
7:az:83:TYR:HA	39:v:112:GLN:HA	1.79	0.65
15:af:93:ARG:O	15:af:95:VAL:N	2.25	0.65
16:ae:464:PHE:O	16:ae:481:ARG:NH1	2.27	0.65
18:ac:629:TYR:O	18:ac:759:GLN:NE2	2.25	0.65
19:ab:871:PRO:HA	19:ab:895:VAL:HG12	1.77	0.65
22:i:333:SER:OG	22:i:334:ARG:N	2.29	0.65
35:z:53:HIS:O	35:z:57:GLN:NE2	2.27	0.65
35:z:138:ASP:OD1	35:z:140:SER:N	2.28	0.65
48:b:12:PRO:HD3	48:b:62:ALA:HA	1.76	0.65
52:aa:439:GLU:HB3	52:aa:445:ILE:HG12	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:1017:TRP:CZ3	52:aa:1067:ILE:HG12	2.31	0.65
52:aa:1524:LEU:O	52:aa:1633:ARG:NH1	2.27	0.65
55:as:252:ARG:NH2	56:2:81:U:OP1	2.29	0.65
5:h:84:VAL:HG21	56:A:486:C:H4'	1.78	0.65
6:e:260:ALA:O	6:e:264:CYS:HB2	1.97	0.65
7:az:104:HIS:HE1	9:ax:52:VAL:HB	1.61	0.65
18:ac:261:LEU:O	18:ac:265:HIS:ND1	2.29	0.65
20:ad:786:ASP:O	32:ao:232:TRP:NE1	2.25	0.65
21:m:237:ARG:HE	44:p:194:GLN:HB2	1.61	0.65
22:i:227:LYS:NZ	56:2:323:U:O4	2.30	0.65
23:f:230:ASP:OD1	23:f:230:ASP:N	2.29	0.65
25:d:218:MET:O	25:d:222:THR:OG1	2.13	0.65
25:d:374:ILE:HG21	25:d:393:LEU:HD22	1.76	0.65
44:p:182:VAL:O	44:p:186:VAL:HG23	1.97	0.65
52:aa:362:PRO:O	52:aa:365:LYS:NZ	2.24	0.65
52:aa:648:VAL:HG11	52:aa:805:ILE:HG21	1.77	0.65
53:k:79:ASP:CG	53:k:80:LEU:H	2.03	0.65
56:2:148:C:O2'	56:2:270:U:OP1	2.15	0.65
12:ak:23:HIS:NE2	12:ak:45:TYR:OH	2.28	0.65
12:ak:232:HIS:ND1	18:ac:1074:TYR:OH	2.24	0.65
17:l:185:ILE:O	17:l:395:ASN:ND2	2.30	0.65
18:ac:396:GLU:OE2	18:ac:500:LYS:NZ	2.27	0.65
19:ab:422:ASN:HB3	19:ab:425:MET:HB2	1.78	0.65
19:ab:662:MET:HE3	19:ab:824:LEU:HD13	1.77	0.65
26:ba:10:MET:HE2	45:Ca:91:ASP:HB3	1.79	0.65
37:x:294:LEU:HD21	37:x:333:TYR:HB2	1.78	0.65
52:aa:579:ILE:HG23	52:aa:582:ARG:HH21	1.60	0.65
55:as:105:THR:HA	55:as:108:GLN:HE21	1.61	0.65
2:s:104:ARG:NH2	16:ae:170:ARG:O	2.26	0.65
3:r:409:PHE:O	3:r:413:THR:OG1	2.11	0.65
5:h:18:PRO:O	56:A:442:A:O2'	2.13	0.65
13:aj:110:LEU:HD23	16:ae:361:LEU:HD23	1.79	0.65
14:ag:200:GLN:OE1	16:ae:588:TYR:OH	2.12	0.65
14:ag:384:PHE:O	19:ab:1051:LEU:N	2.29	0.65
18:ac:331:LYS:HG2	18:ac:349:LEU:HD22	1.79	0.65
18:ac:653:GLN:HA	18:ac:656:LYS:HG2	1.78	0.65
19:ab:114:SER:OG	19:ab:684:ARG:NH1	2.30	0.65
24:c:55:ARG:HH12	24:c:59:GLN:NE2	1.93	0.65
27:av:87:ILE:N	27:av:114:ALA:O	2.24	0.65
27:av:218:GLU:N	27:av:218:GLU:OE2	2.27	0.65
28:at:79:LEU:HD21	28:at:95:TYR:HE1	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:j:32:MET:HE1	47:j:118:LEU:HD22	1.79	0.65
52:aa:460:ASP:OD1	52:aa:544:ARG:NH1	2.29	0.65
56:2:260:U:H4'	56:2:261:U:H5'	1.79	0.65
1:u:207:ARG:HA	1:u:250:ARG:HH12	1.61	0.65
2:s:97:THR:HG23	2:s:99:TYR:H	1.62	0.65
6:e:623:ASP:CG	6:e:631:ARG:HH22	2.05	0.65
13:aj:71:MET:O	13:aj:76:ARG:NH1	2.30	0.65
15:af:36:ALA:HB2	19:ab:491:TYR:CZ	2.32	0.65
17:l:419:THR:OG1	19:ab:88:LYS:NZ	2.29	0.65
20:ad:216:LEU:O	20:ad:220:VAL:HG23	1.96	0.65
20:ad:424:VAL:O	20:ad:428:ARG:NH2	2.29	0.65
28:at:175:CYS:SG	28:at:176:GLN:N	2.70	0.65
35:z:590:HIS:NE2	48:b:151:ARG:HA	2.12	0.65
38:w:66:ARG:HD3	38:w:126:TRP:CZ3	2.30	0.65
45:Ca:209:VAL:O	45:Ca:253:ARG:NH1	2.29	0.65
1:u:96:ASN:OD1	1:u:97:GLN:NE2	2.29	0.65
1:u:635:ILE:O	1:u:639:LEU:HG	1.97	0.65
2:s:41:PHE:O	2:s:43:GLU:N	2.29	0.65
3:r:277:LYS:NZ	3:r:347:ASP:O	2.24	0.65
4:n:91:THR:OG1	5:h:76:TYR:O	2.14	0.65
6:e:381:ASP:OD1	6:e:381:ASP:N	2.30	0.65
8:ay:181:THR:OG1	56:A:503:A:N6	2.30	0.65
13:aj:300:TRP:HZ2	18:ac:26:TYR:HB2	1.62	0.65
16:ae:567:ARG:NH2	19:ab:663:GLY:O	2.30	0.65
17:l:215:ASP:OD1	17:l:370:TYR:OH	2.15	0.65
19:ab:794:ARG:NH2	19:ab:795:LEU:O	2.29	0.65
20:ad:207:PRO:HD2	20:ad:235:TYR:CE1	2.31	0.65
33:ai:125:ASN:ND2	35:z:339:VAL:O	2.30	0.65
34:an:274:LEU:HB3	34:an:279:GLN:HB2	1.78	0.65
35:z:702:LEU:HB2	35:z:741:ILE:HD11	1.77	0.65
35:z:1097:TYR:HB2	45:Ca:82:PRO:HD3	1.79	0.65
52:aa:831:VAL:HG13	52:aa:858:PRO:HG3	1.79	0.65
52:aa:1199:PRO:HG2	52:aa:1212:ALA:HA	1.77	0.65
56:A:522:A:H2'	56:A:523:U:O4'	1.97	0.65
1:u:33:SER:H	19:ab:508:ARG:HH21	1.44	0.65
1:u:545:ASP:O	1:u:546:ARG:NH2	2.30	0.65
1:u:644:GLN:OE1	1:u:669:ASN:N	2.29	0.65
1:u:655:ARG:NH1	6:e:241:GLU:OE1	2.29	0.65
2:s:69:THR:HB	2:s:73:MET:HE3	1.79	0.65
6:e:262:ASP:OD2	6:e:426:HIS:NE2	2.29	0.65
14:ag:138:SER:HB3	14:ag:215:ALA:HA	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:af:370:LEU:O	15:af:373:LYS:HE3	1.96	0.65
16:ae:278:ILE:HG23	16:ae:322:TYR:HD1	1.61	0.65
16:ae:571:MET:H	19:ab:821:ASN:ND2	1.95	0.65
35:z:617:GLU:OE2	35:z:618:ARG:N	2.27	0.65
35:z:1100:TRP:HZ2	45:Ca:76:GLN:HG3	1.62	0.65
52:aa:939:ASP:OD1	52:aa:940:ARG:N	2.30	0.65
52:aa:1541:ALA:HA	52:aa:1544:ILE:HD12	1.78	0.65
56:2:286:A:H1'	56:2:287:A:C8	2.32	0.65
6:e:496:GLN:HE21	6:e:660:GLU:HG3	1.62	0.65
7:az:16:SER:HB3	9:ax:58:PRO:HD2	1.79	0.65
13:aj:113:ASP:OD2	13:aj:116:THR:OG1	2.15	0.65
14:ag:560:GLU:O	14:ag:567:ASN:ND2	2.30	0.65
15:af:262:PRO:HG3	15:af:275:ASP:HB3	1.79	0.65
15:af:311:SER:O	15:af:315:MET:HG2	1.96	0.65
17:l:204:LEU:HD12	19:ab:153:ARG:HH22	1.62	0.65
20:ad:124:TYR:CE2	20:ad:126:MET:HB3	2.31	0.65
20:ad:731:GLN:CD	24:c:89:ARG:HA	2.22	0.65
21:m:118:PRO:HB2	35:z:178:LEU:HG	1.77	0.65
23:f:200:ARG:HE	46:g:180:GLN:NE2	1.94	0.65
29:ar:199:ASN:OD1	33:ai:24:TYR:OH	2.15	0.65
34:an:25:GLU:CD	34:an:25:GLU:H	2.04	0.65
41:t:127:ASP:HB3	41:t:153:HIS:CD2	2.32	0.65
55:as:240:GLU:OE1	55:as:240:GLU:N	2.25	0.65
2:s:83:ASN:OD1	4:n:82:TYR:OH	2.15	0.64
6:e:149:ALA:O	6:e:202:ARG:NH1	2.29	0.64
15:af:550:ARG:O	25:d:2:TYR:OH	2.15	0.64
16:ae:149:ASN:HB3	16:ae:151:VAL:HG13	1.78	0.64
18:ac:554:VAL:HG21	18:ac:704:LEU:HD22	1.79	0.64
28:at:201:HIS:HD2	28:at:203:ASN:H	1.46	0.64
33:ai:42:ASP:HB3	33:ai:45:ARG:CZ	2.27	0.64
35:z:847:GLU:O	35:z:851:GLU:HG3	1.97	0.64
37:x:213:PHE:CE1	37:x:217:LEU:HD21	2.33	0.64
39:v:113:ASP:OD1	39:v:114:THR:N	2.31	0.64
47:j:19:PRO:HB3	56:2:57:U:H2'	1.78	0.64
50:a:158:ASP:OD1	50:a:160:ARG:NE	2.26	0.64
52:aa:654:VAL:HG12	52:aa:804:GLN:HB2	1.79	0.64
3:r:322:PRO:HA	8:ay:172:ASN:HD21	1.63	0.64
18:ac:834:ASP:OD2	18:ac:867:ASN:ND2	2.29	0.64
19:ab:1130:ALA:HB1	19:ab:1133:ARG:HB2	1.79	0.64
20:ad:674:GLU:CD	28:at:254:ARG:H	2.05	0.64
24:c:108:ILE:HD11	35:z:208:GLY:HA3	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:av:51:THR:OG1	29:ar:58:ARG:NH1	2.30	0.64
34:an:92:LEU:HD11	35:z:933:ALA:HA	1.78	0.64
39:v:31:LEU:HD13	39:v:58:GLY:HA3	1.78	0.64
45:Ca:398:GLY:HA3	45:Ca:503:PHE:CE1	2.33	0.64
47:j:24:ALA:HB3	47:j:25:PRO:HD3	1.80	0.64
3:r:75:ASN:ND2	25:d:45:SER:OG	2.29	0.64
6:e:85:ASP:OD2	19:ab:1012:ARG:NH2	2.27	0.64
18:ac:240:LEU:HD21	18:ac:495:LEU:HD23	1.80	0.64
19:ab:499:ARG:HH21	19:ab:941:GLU:HB3	1.62	0.64
23:f:191:MET:HG2	23:f:275:GLU:HB3	1.79	0.64
23:f:303:VAL:O	46:g:48:VAL:HG11	1.97	0.64
28:at:52:GLU:OE1	28:at:55:ARG:NH1	2.31	0.64
41:t:100:ILE:HG13	41:t:171:TRP:CD1	2.32	0.64
45:Ca:132:HIS:HB2	50:a:349:TRP:HH2	1.63	0.64
52:aa:1147:SER:HA	52:aa:1150:GLU:HG2	1.79	0.64
55:as:35:HIS:H	55:as:35:HIS:CD2	2.15	0.64
1:u:172:ILE:HG23	1:u:185:LEU:HD22	1.79	0.64
3:r:202:ASP:OD2	8:ay:138:ARG:NH1	2.30	0.64
3:r:290:LEU:HD21	3:r:361:PHE:HE1	1.61	0.64
6:e:400:PHE:O	6:e:401:ARG:NH1	2.29	0.64
14:ag:252:LEU:HD13	14:ag:285:ALA:HA	1.79	0.64
16:ae:104:THR:HG22	16:ae:116:ARG:HA	1.78	0.64
18:ac:43:ARG:NH1	18:ac:44:GLU:OE1	2.31	0.64
19:ab:763:ALA:HA	19:ab:769:HIS:HA	1.79	0.64
20:ad:352:VAL:O	20:ad:360:GLY:N	2.23	0.64
35:z:789:SER:HB2	35:z:894:TRP:CD2	2.33	0.64
39:v:109:ARG:NH2	39:v:115:CYS:SG	2.70	0.64
41:t:100:ILE:HG13	41:t:171:TRP:CG	2.32	0.64
45:Ca:517:SER:OG	45:Ca:518:GLN:N	2.29	0.64
48:b:136:ALA:O	48:b:140:LYS:NZ	2.30	0.64
56:2:121:A:H8	56:2:121:A:OP2	1.78	0.64
2:s:106:ASP:OD2	5:h:94:ARG:NH1	2.30	0.64
19:ab:429:THR:HG23	19:ab:462:VAL:HG13	1.80	0.64
19:ab:964:ASP:OD2	19:ab:969:LYS:N	2.26	0.64
20:ad:520:SER:HB3	20:ad:523:LYS:HG3	1.79	0.64
25:d:420:VAL:HG11	42:al:305:MET:HB3	1.80	0.64
35:z:1030:PRO:HB2	35:z:1034:ALA:HB3	1.80	0.64
36:y:148:THR:HG23	36:y:258:ARG:HG3	1.77	0.64
37:x:140:TYR:OH	37:x:214:TYR:O	2.11	0.64
45:Ca:127:TYR:OH	45:Ca:131:LYS:NZ	2.31	0.64
52:aa:804:GLN:HB2	52:aa:818:ARG:HD2	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:775:ARG:NH2	1:u:778:GLN:OE1	2.31	0.64
6:e:755:VAL:HG22	10:aw:110:ILE:HG12	1.80	0.64
7:az:40:ARG:NE	9:ax:61:LEU:O	2.30	0.64
11:au:206:LEU:HD22	11:au:212:PHE:HE2	1.63	0.64
13:aj:85:LYS:HB3	13:aj:95:THR:HG21	1.78	0.64
15:af:211:TYR:OH	15:af:234:GLU:OE2	2.14	0.64
15:af:526:HIS:HB3	15:af:530:GLU:HG3	1.79	0.64
19:ab:337:ARG:HG2	19:ab:339:HIS:H	1.62	0.64
19:ab:749:LEU:HD12	19:ab:778:TYR:CE1	2.32	0.64
23:f:219:TYR:HB2	23:f:249:TYR:HD1	1.62	0.64
34:an:1:MET:SD	34:an:39:LYS:NZ	2.68	0.64
36:y:76:LEU:HB3	37:x:260:GLN:NE2	2.12	0.64
46:g:155:TYR:HB3	46:g:159:ARG:NH2	2.12	0.64
1:u:394:LEU:HA	1:u:397:LYS:HD3	1.80	0.64
1:u:748:LEU:HB3	5:h:166:ILE:HG13	1.79	0.64
3:r:270:MET:O	3:r:274:SER:OG	2.14	0.64
6:e:421:ILE:HG22	6:e:424:TRP:HE1	1.63	0.64
13:aj:232:ARG:NE	56:A:428:A:OP2	2.29	0.64
14:ag:139:ALA:HB1	14:ag:142:LEU:HB3	1.79	0.64
16:ae:447:GLN:HE22	16:ae:454:ASP:HA	1.63	0.64
19:ab:728:VAL:HA	19:ab:793:VAL:HA	1.78	0.64
20:ad:776:PRO:HB3	50:a:32:TRP:CD2	2.33	0.64
32:ao:121:PRO:HG2	32:ao:123:PHE:HE1	1.61	0.64
35:z:220:LYS:HG3	35:z:477:TYR:CD2	2.32	0.64
50:a:152:VAL:HG21	50:a:162:TRP:CD2	2.33	0.64
52:aa:335:TYR:OH	52:aa:342:PRO:O	2.12	0.64
3:r:94:GLY:HA3	3:r:156:SER:OG	1.96	0.64
6:e:362:TYR:CZ	6:e:404:ILE:HD13	2.33	0.64
7:az:29:PRO:HB2	56:A:531:G:C2	2.32	0.64
7:az:104:HIS:CE1	9:ax:52:VAL:HB	2.33	0.64
10:aw:34:HIS:HB2	10:aw:89:VAL:HG21	1.79	0.64
12:ak:121:LYS:HD2	12:ak:152:LEU:HB2	1.80	0.64
18:ac:208:LEU:HD23	18:ac:508:TYR:HD1	1.61	0.64
20:ad:217:ASP:OD1	20:ad:297:ARG:NH1	2.30	0.64
20:ad:683:VAL:HG13	47:j:98:ASP:HB3	1.79	0.64
20:ad:727:GLU:HG3	20:ad:732:ARG:HH11	1.63	0.64
29:ar:130:ARG:HD3	29:ar:194:VAL:HG22	1.79	0.64
30:aq:13:ARG:NH1	56:2:55:U:OP1	2.30	0.64
32:ao:170:GLN:NE2	52:aa:446:CYS:SG	2.70	0.64
34:an:245:TRP:HZ2	50:a:108:HIS:HA	1.61	0.64
35:z:227:ARG:NE	56:2:2:A:H61	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:y:149:SER:HB3	44:p:160:VAL:HG13	1.79	0.64
39:v:205:TYR:HB3	56:2:358:U:P	2.38	0.64
46:g:185:ARG:HH12	46:g:190:TRP:HA	1.62	0.64
53:k:91:GLY:O	53:k:159:TYR:OH	2.14	0.64
55:as:13:PHE:HA	56:2:74:G:H5''	1.79	0.64
1:u:283:GLU:HG3	19:ab:880:MET:HG2	1.80	0.64
1:u:682:ASN:ND2	6:e:422:ARG:O	2.31	0.64
15:af:64:ARG:HD3	15:af:96:LYS:HG2	1.78	0.64
16:ae:515:ASN:HB2	16:ae:518:LEU:HD13	1.80	0.64
17:l:42:ARG:O	17:l:484:HIS:NE2	2.30	0.64
19:ab:785:GLU:OE1	19:ab:786:ARG:N	2.31	0.64
20:ad:86:ILE:O	20:ad:90:MET:CB	2.44	0.64
21:m:202:LYS:O	21:m:206:GLU:HG3	1.97	0.64
23:f:88:ASP:OD1	23:f:91:ARG:NH2	2.30	0.64
23:f:94:MET:HE2	44:p:155:ALA:HB2	1.79	0.64
27:av:146:ASP:O	55:as:184:GLN:NE2	2.31	0.64
35:z:399:SER:OG	35:z:405:CYS:SG	2.56	0.64
35:z:459:ASP:N	35:z:459:ASP:OD1	2.29	0.64
35:z:1071:ARG:CZ	45:Ca:95:TRP:CH2	2.79	0.64
38:w:14:PRO:HD2	56:2:263:A:OP1	1.98	0.64
39:v:93:LEU:O	39:v:95:MET:N	2.31	0.64
46:g:79:TYR:OH	56:2:304:U:OP1	2.15	0.64
48:b:74:GLU:OE1	48:b:75:GLN:NE2	2.31	0.64
52:aa:1083:HIS:HD2	52:aa:1092:CYS:SG	2.21	0.64
56:2:17:G:O2'	56:2:18:U:OP2	2.16	0.64
1:u:276:ARG:NH1	19:ab:877:HIS:O	2.31	0.64
8:ay:203:ARG:HH22	8:ay:218:ASP:HB3	1.62	0.64
12:ak:176:LYS:HA	12:ak:248:ASN:HD21	1.63	0.64
15:af:247:ALA:O	15:af:307:ARG:NH1	2.31	0.64
16:ae:129:ILE:O	16:ae:163:ARG:NH1	2.30	0.64
16:ae:571:MET:H	19:ab:821:ASN:HD21	1.46	0.64
19:ab:157:SER:O	19:ab:161:ARG:HB2	1.98	0.64
19:ab:479:ARG:HB2	19:ab:480:HIS:HD2	1.63	0.64
23:f:209:THR:O	23:f:212:GLY:N	2.24	0.64
33:ai:113:ILE:HD11	33:ai:144:LYS:HB3	1.80	0.64
37:x:163:HIS:ND1	37:x:214:TYR:HE2	1.96	0.64
42:al:272:ALA:O	42:al:275:THR:OG1	2.16	0.64
43:q:60:VAL:HG22	43:q:63:ARG:HH21	1.63	0.64
46:g:25:TYR:O	56:2:311:U:O2'	2.15	0.64
49:bd:48:LEU:HG	49:bd:49:ASN:N	2.13	0.64
50:a:406:THR:HG23	50:a:407:LYS:HD3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:352:ARG:NH2	52:aa:356:GLU:OE2	2.31	0.64
4:n:63:ALA:HA	4:n:75:MET:HE2	1.80	0.63
13:aj:277:ARG:HG3	16:ae:18:VAL:HG22	1.78	0.63
13:aj:314:GLN:HE22	16:ae:29:ARG:HG3	1.63	0.63
22:i:74:TRP:NE1	22:i:86:PRO:HG3	2.14	0.63
29:ar:14:ARG:HH22	56:2:115:A:P	2.20	0.63
29:ar:78:ARG:NH2	29:ar:247:ASP:OD2	2.25	0.63
33:ai:62:LYS:NZ	52:aa:213:GLU:OE2	2.32	0.63
34:an:138:PRO:O	34:an:141:SER:OG	2.14	0.63
35:z:450:LEU:HD11	35:z:797:TYR:HD2	1.64	0.63
39:v:94:THR:HA	39:v:97:GLN:HB3	1.80	0.63
41:t:37:ARG:NH1	55:as:26:ASN:OD1	2.30	0.63
45:Ca:541:SER:HB2	52:aa:380:TRP:CH2	2.33	0.63
47:j:28:PRO:HB2	47:j:109:CYS:HB3	1.80	0.63
7:az:76:ARG:NH1	56:A:534:A:O2'	2.31	0.63
7:az:118:ARG:HH12	7:az:160:GLY:H	1.43	0.63
7:az:144:HIS:CB	7:az:149:THR:H	2.11	0.63
11:au:13:ARG:NH1	13:aj:318:ASP:OD1	2.27	0.63
11:au:122:MET:SD	14:ag:506:ARG:NH1	2.72	0.63
14:ag:209:VAL:HG21	14:ag:240:ILE:HG21	1.80	0.63
15:af:276:PHE:O	15:af:279:THR:OG1	2.11	0.63
17:l:488:ASN:ND2	17:l:489:PRO:O	2.31	0.63
18:ac:698:VAL:HG22	18:ac:704:LEU:HB3	1.80	0.63
20:ad:32:SER:OG	53:k:116:TYR:OH	2.12	0.63
22:i:80:ARG:NH2	40:bb:232:PRO:O	2.21	0.63
22:i:82:ASN:OD1	40:bb:129:ARG:HB3	1.99	0.63
26:ba:39:ASN:ND2	56:2:225:A:OP1	2.31	0.63
29:ar:99:SER:HG	29:ar:100:HIS:CE1	2.16	0.63
36:y:187:TRP:CD1	36:y:281:ALA:HB2	2.34	0.63
38:w:96:ILE:O	38:w:101:ARG:NH1	2.31	0.63
40:bb:186:MET:SD	40:bb:186:MET:N	2.60	0.63
49:bd:71:ILE:HG23	49:bd:83:LYS:HG3	1.79	0.63
52:aa:546:VAL:O	52:aa:550:ILE:HG12	1.98	0.63
52:aa:637:ASP:OD1	52:aa:638:THR:N	2.32	0.63
53:k:76:TRP:O	53:k:114:MET:HB3	1.98	0.63
1:u:601:LEU:HD11	1:u:617:ILE:HD13	1.81	0.63
2:s:137:LYS:HE2	56:A:441:G:H3'	1.81	0.63
3:r:196:GLY:O	3:r:332:ARG:NH2	2.30	0.63
15:af:540:VAL:HG13	15:af:543:ARG:HE	1.63	0.63
17:l:198:LEU:HA	17:l:201:GLU:HG2	1.81	0.63
23:f:226:LEU:HD21	23:f:244:GLN:HG2	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:d:60:GLU:OE1	25:d:63:ARG:NH1	2.30	0.63
27:av:97:THR:HG21	27:av:106:ARG:HE	1.64	0.63
29:ar:29:ILE:HD13	29:ar:40:VAL:HG11	1.79	0.63
30:aq:103:SER:O	41:t:139:ARG:NH2	2.28	0.63
31:ap:76:ASP:N	31:ap:76:ASP:OD1	2.28	0.63
35:z:786:LEU:HB3	35:z:888:PHE:HZ	1.62	0.63
39:v:85:VAL:HG21	39:v:140:CYS:HB2	1.79	0.63
39:v:215:LYS:NZ	56:2:337:U:O4	2.31	0.63
50:a:253:ARG:NH1	50:a:256:LEU:O	2.32	0.63
50:a:299:ASN:O	50:a:302:PRO:HD2	1.97	0.63
55:as:14:ARG:HG2	55:as:14:ARG:HH11	1.62	0.63
56:2:253:U:C2	56:2:254:A:C8	2.87	0.63
3:r:173:THR:HG23	3:r:282:VAL:HB	1.81	0.63
16:ae:549:HIS:O	19:ab:552:ASN:ND2	2.32	0.63
18:ac:310:ARG:NE	18:ac:363:GLU:OE2	2.32	0.63
18:ac:991:LEU:HG	18:ac:1026:VAL:HG11	1.80	0.63
19:ab:105:ARG:HA	19:ab:113:ILE:HA	1.81	0.63
19:ab:600:TYR:O	19:ab:643:TYR:OH	2.11	0.63
20:ad:460:VAL:HA	20:ad:463:GLU:HG2	1.81	0.63
22:i:379:ARG:O	22:i:383:ARG:HG2	1.98	0.63
31:ap:258:GLU:O	31:ap:262:MET:HG3	1.98	0.63
33:ai:169:LEU:HD22	33:ai:213:ILE:HD11	1.79	0.63
35:z:264:GLU:O	35:z:268:GLU:HG2	1.99	0.63
35:z:481:ASP:OD1	35:z:482:TRP:N	2.32	0.63
35:z:725:TRP:HZ2	35:z:748:ASP:HB2	1.62	0.63
50:a:329:ARG:NH2	52:aa:991:ASP:OD2	2.18	0.63
52:aa:743:LEU:O	52:aa:761:LEU:N	2.27	0.63
52:aa:1283:SER:HB3	52:aa:1286:LEU:HD13	1.81	0.63
56:2:222:A:H2'	56:2:223:G:C8	2.33	0.63
1:u:648:ALA:HB1	1:u:661:ILE:HD12	1.79	0.63
4:n:109:GLN:OE1	4:n:109:GLN:N	2.31	0.63
8:ay:128:PRO:O	8:ay:187:LYS:N	2.24	0.63
11:au:29:TRP:O	11:au:37:TYR:OH	2.17	0.63
12:ak:133:GLN:HB3	18:ac:1096:PRO:HD2	1.80	0.63
13:aj:258:LEU:HG	13:aj:301:HIS:HD2	1.62	0.63
15:af:213:ARG:NH2	15:af:216:HIS:O	2.31	0.63
17:l:231:TYR:HB3	17:l:235:PHE:HB2	1.80	0.63
17:l:307:ARG:HA	17:l:310:ILE:HG22	1.80	0.63
20:ad:230:GLU:OE2	47:j:184:PRO:HG2	1.98	0.63
20:ad:292:ARG:NH1	20:ad:385:ASN:OD1	2.31	0.63
21:m:9:TYR:HD2	35:z:787:LEU:HD21	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:i:231:LYS:HE2	22:i:255:THR:HG21	1.81	0.63
26:ba:37:ASP:OD1	26:ba:37:ASP:N	2.25	0.63
30:aq:33:THR:O	30:aq:36:GLN:NE2	2.29	0.63
32:ao:50:LEU:HD12	32:ao:123:PHE:HB3	1.81	0.63
34:an:172:VAL:HG12	34:an:176:ARG:HH11	1.64	0.63
35:z:571:LEU:HB2	35:z:733:CYS:SG	2.38	0.63
35:z:786:LEU:HD12	35:z:886:HIS:CD2	2.32	0.63
43:q:154:SER:O	43:q:157:GLN:NE2	2.32	0.63
55:as:80:LEU:HA	55:as:83:MET:HE3	1.80	0.63
3:r:296:HIS:CD2	8:ay:177:GLY:HA3	2.34	0.63
6:e:43:PHE:HA	42:al:284:ILE:HB	1.79	0.63
8:ay:205:PHE:HB3	56:A:515:U:C5	2.33	0.63
11:au:92:LYS:NZ	11:au:175:ASN:O	2.31	0.63
16:ae:323:PHE:HB3	16:ae:332:ALA:HB2	1.80	0.63
34:an:63:VAL:HG23	35:z:966:LEU:HD13	1.80	0.63
36:y:45:SER:HA	44:p:303:VAL:HA	1.79	0.63
39:v:193:PHE:CD2	39:v:197:ALA:HB1	2.31	0.63
42:al:279:ARG:NH1	42:al:297:PRO:O	2.31	0.63
55:as:25:TYR:OH	56:2:162:U:OP2	2.09	0.63
1:u:630:LYS:HG2	1:u:634:PHE:CZ	2.34	0.63
6:e:16:MET:HE2	49:bd:43:SER:HA	1.81	0.63
6:e:541:LEU:HD22	6:e:598:LEU:HB2	1.79	0.63
13:aj:38:MET:HE1	19:ab:1045:GLN:HG3	1.80	0.63
59:aj:401:UTP:O3'	56:A:431:U:O4	2.17	0.63
16:ae:183:SER:HB2	16:ae:184:LEU:HD12	1.79	0.63
19:ab:75:LEU:O	19:ab:209:ARG:NH2	2.31	0.63
19:ab:604:SER:OG	19:ab:635:ARG:NE	2.32	0.63
20:ad:175:VAL:HA	20:ad:178:ILE:HD12	1.80	0.63
25:d:84:HIS:CE1	39:v:128:ARG:HH21	2.17	0.63
27:av:200:SER:OG	27:av:201:PRO:HD3	1.99	0.63
28:at:65:ALA:HB3	52:aa:279:GLU:HG2	1.79	0.63
45:Ca:442:ASN:OD1	45:Ca:477:PRO:HD3	1.99	0.63
47:j:29:ILE:HD11	47:j:112:SER:HB2	1.81	0.63
52:aa:1123:ASP:N	52:aa:1123:ASP:OD1	2.31	0.63
55:as:18:LYS:NZ	56:2:165:A:OP1	2.30	0.63
1:u:740:ARG:NH2	5:h:165:ARG:O	2.31	0.63
12:ak:176:LYS:HD3	12:ak:248:ASN:HD21	1.64	0.63
22:i:94:ARG:NH1	56:2:333:U:OP1	2.32	0.63
23:f:107:ARG:NH2	25:d:93:TYR:O	2.29	0.63
34:an:38:ASN:ND2	34:an:116:GLN:OE1	2.31	0.63
35:z:499:GLY:O	35:z:503:GLU:HG2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:v:193:PHE:CZ	56:2:357:A:H5''	2.34	0.63
42:al:111:TYR:HE1	42:al:255:ARG:HD2	1.63	0.63
42:al:121:PHE:CE2	42:al:217:GLU:HB2	2.33	0.63
43:q:32:LEU:HB3	43:q:36:ARG:HB2	1.80	0.63
45:Ca:442:ASN:ND2	47:j:85:GLN:O	2.29	0.63
55:as:241:ARG:NH2	56:2:178:A:OP2	2.31	0.63
56:2:2:A:O2'	56:2:3:A:OP2	2.14	0.63
56:2:210:A:N3	56:2:211:A:N6	2.46	0.63
1:u:540:ARG:HG2	1:u:541:LYS:HD3	1.80	0.63
12:ak:27:VAL:HG22	12:ak:45:TYR:HE1	1.64	0.63
14:ag:333:PRO:HG3	19:ab:427:GLN:HB2	1.81	0.63
14:ag:365:PRO:HD3	16:ae:287:MET:HE3	1.81	0.63
23:f:216:LEU:HD22	23:f:256:LYS:HE3	1.81	0.63
33:ai:225:ASP:HB3	33:ai:235:TYR:HA	1.80	0.63
34:an:161:ARG:HH12	52:aa:1195:GLY:C	2.07	0.63
37:x:172:ARG:O	44:p:157:LYS:NZ	2.31	0.63
41:t:46:TYR:CD1	55:as:236:MET:HE2	2.32	0.63
47:j:72:PRO:O	47:j:89:LEU:HD13	1.99	0.63
50:a:102:GLU:OE1	50:a:105:GLN:NE2	2.32	0.63
52:aa:1452:ALA:O	52:aa:1502:TYR:OH	2.14	0.63
53:k:24:MET:HE1	53:k:28:GLY:C	2.24	0.63
55:as:182:GLU:O	55:as:184:GLN:NE2	2.31	0.63
4:n:87:GLU:O	4:n:104:GLN:NE2	2.32	0.62
6:e:295:ASP:OD1	6:e:295:ASP:N	2.24	0.62
6:e:384:PHE:HA	6:e:387:LEU:HD12	1.81	0.62
11:au:27:ARG:HH22	13:aj:319:TYR:HD1	1.47	0.62
19:ab:208:ASP:OD2	19:ab:210:PHE:HB2	1.99	0.62
20:ad:238:GLU:OE2	33:ai:69:ARG:NH2	2.32	0.62
28:at:185:SER:HB2	28:at:188:SER:H	1.63	0.62
37:x:159:TYR:HA	37:x:214:TYR:OH	1.99	0.62
46:g:68:SER:O	46:g:68:SER:OG	2.14	0.62
50:a:381:SER:HA	50:a:418:ARG:NH2	2.14	0.62
52:aa:341:CYS:HB2	52:aa:373:HIS:ND1	2.14	0.62
52:aa:1111:ASP:OD2	52:aa:1219:TYR:OH	2.07	0.62
52:aa:1537:ASP:HA	52:aa:1540:LYS:HB2	1.80	0.62
53:k:98:VAL:HG22	53:k:109:VAL:HG22	1.79	0.62
1:u:666:PHE:CE2	6:e:446:SER:N	2.66	0.62
1:u:753:TYR:HE1	19:ab:1079:PRO:HG3	1.64	0.62
6:e:51:PHE:CD1	6:e:52:PRO:HD2	2.34	0.62
9:ax:10:ALA:HB2	19:ab:1158:ASP:HB2	1.80	0.62
18:ac:1028:LYS:HA	18:ac:1031:LEU:HD12	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:ab:496:PRO:HB2	19:ab:500:ASP:HB2	1.81	0.62
19:ab:1111:THR:HG1	19:ab:1113:TRP:CD1	2.18	0.62
20:ad:603:ARG:O	55:as:218:ARG:NH2	2.32	0.62
23:f:73:LEU:HD21	25:d:165:TYR:HE2	1.64	0.62
26:ba:42:TRP:CD1	45:Ca:575:VAL:HG21	2.34	0.62
27:av:112:THR:HG21	27:av:127:VAL:HG22	1.81	0.62
32:ao:12:MET:SD	32:ao:12:MET:N	2.72	0.62
52:aa:735:GLU:H	52:aa:741:TRP:CD1	2.16	0.62
53:k:36:ASN:ND2	56:2:140:U:O2	2.32	0.62
4:n:33:MET:HE3	4:n:157:THR:HG21	1.80	0.62
8:ay:211:LEU:HB2	8:ay:217:ASN:ND2	2.10	0.62
13:aj:176:GLY:O	13:aj:179:SER:OG	2.17	0.62
17:l:154:MET:HG3	18:ac:86:ALA:HB3	1.81	0.62
18:ac:928:ARG:HG2	18:ac:932:ARG:HH21	1.62	0.62
20:ad:755:GLU:HG2	32:ao:31:SER:HB3	1.81	0.62
21:m:144:PRO:HA	35:z:163:PRO:HB3	1.81	0.62
25:d:171:ALA:O	25:d:175:VAL:HG23	1.99	0.62
25:d:296:ILE:HD11	25:d:410:ILE:HD11	1.79	0.62
27:av:155:SER:N	27:av:158:ASP:OD2	2.30	0.62
32:ao:163:TYR:HA	32:ao:166:LEU:HD12	1.80	0.62
35:z:55:ASN:HD22	39:v:171:ALA:HB1	1.64	0.62
35:z:627:HIS:HB3	35:z:630:THR:HB	1.80	0.62
36:y:113:LYS:HB3	36:y:273:PHE:CE1	2.34	0.62
42:al:69:LEU:HD11	42:al:78:LEU:HG	1.82	0.62
52:aa:696:HIS:CE1	52:aa:788:VAL:HG11	2.35	0.62
52:aa:1028:ASN:ND2	52:aa:1043:ILE:O	2.31	0.62
55:as:71:MET:H	55:as:76:ARG:HH11	1.44	0.62
56:2:142:U:O2	56:2:147:G:O6	2.17	0.62
56:2:554:C:H1'	56:2:583:A:C2	2.34	0.62
1:u:35:GLU:HA	1:u:39:LEU:HD12	1.81	0.62
1:u:76:THR:OG1	17:l:702:ARG:NH2	2.32	0.62
2:s:159:SER:OG	16:ae:5:GLY:HA3	1.99	0.62
6:e:306:ARG:O	6:e:313:PRO:HG3	1.99	0.62
11:au:87:ARG:HB2	11:au:93:MET:HE2	1.80	0.62
11:au:105:ARG:NH1	11:au:105:ARG:O	2.32	0.62
11:au:186:TRP:HA	11:au:186:TRP:CE3	2.33	0.62
14:ag:566:ARG:NH2	17:l:399:SER:OG	2.27	0.62
16:ae:556:THR:OG1	19:ab:812:GLU:OE1	2.16	0.62
18:ac:817:LEU:HD11	18:ac:847:LEU:HA	1.82	0.62
19:ab:341:THR:HG23	19:ab:346:LEU:HB2	1.79	0.62
19:ab:594:ARG:HB3	19:ab:599:VAL:HG22	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:792:ARG:NH2	20:ad:806:THR:HA	2.14	0.62
21:m:48:TYR:H	44:p:67:GLN:NE2	1.97	0.62
23:f:221:ALA:HA	23:f:245:VAL:HG21	1.81	0.62
25:d:175:VAL:O	25:d:179:LEU:HG	1.99	0.62
26:ba:71:ASP:OD1	45:Ca:196:ARG:NH2	2.32	0.62
27:av:94:LYS:HG2	55:as:30:TRP:HZ3	1.65	0.62
29:ar:131:LEU:HD11	29:ar:262:GLU:HB3	1.80	0.62
29:ar:192:LEU:O	29:ar:194:VAL:N	2.30	0.62
32:ao:117:VAL:HG12	32:ao:149:GLN:HB2	1.79	0.62
33:ai:341:GLU:OE1	33:ai:341:GLU:N	2.32	0.62
35:z:612:ASN:ND2	48:b:126:GLU:OE1	2.32	0.62
52:aa:227:GLN:HB3	52:aa:235:LEU:HD21	1.82	0.62
54:be:29:ASN:N	56:2:235:A:OP2	2.32	0.62
2:s:109:ASN:HB3	2:s:112:ASN:HD22	1.64	0.62
3:r:427:TRP:NE1	3:r:462:GLU:OE2	2.24	0.62
6:e:385:THR:N	56:A:496:U:OP2	2.29	0.62
6:e:509:ASN:OD1	6:e:522:ASN:N	2.30	0.62
10:aw:52:ASP:OD1	10:aw:53:ALA:N	2.27	0.62
14:ag:116:VAL:HG21	14:ag:177:TRP:CZ2	2.35	0.62
14:ag:533:ASN:HB2	14:ag:536:GLU:HB2	1.81	0.62
15:af:28:SER:HB3	19:ab:501:PHE:HB2	1.80	0.62
15:af:31:TYR:OH	19:ab:478:PHE:HB2	1.98	0.62
16:ae:350:HIS:HA	16:ae:353:VAL:HG12	1.81	0.62
16:ae:456:ALA:O	16:ae:460:ARG:NE	2.32	0.62
17:l:91:ARG:HA	17:l:94:LYS:HD2	1.81	0.62
17:l:387:GLU:O	17:l:391:PHE:HB2	2.00	0.62
19:ab:1006:THR:N	19:ab:1009:ASP:OD2	2.32	0.62
20:ad:100:ALA:HB3	56:2:12:C:H42	1.63	0.62
21:m:168:ILE:HG21	48:b:93:LEU:HB2	1.81	0.62
27:av:106:ARG:HA	55:as:30:TRP:HB2	1.81	0.62
31:ap:64:ILE:HD11	31:ap:114:LEU:HD22	1.82	0.62
38:w:15:HIS:HE2	38:w:18:TYR:HH	1.45	0.62
41:t:47:VAL:HG11	41:t:118:ARG:CZ	2.30	0.62
42:al:206:GLY:HA3	52:aa:1068:ARG:NH2	2.14	0.62
48:b:47:PRO:HD2	48:b:60:THR:O	1.99	0.62
52:aa:394:ARG:O	52:aa:398:ASP:HB2	2.00	0.62
52:aa:422:LYS:HA	52:aa:458:LEU:HD11	1.82	0.62
52:aa:1235:PRO:HA	52:aa:1359:GLY:HA2	1.80	0.62
54:be:55:ILE:HG13	54:be:56:LEU:H	1.64	0.62
15:af:206:LEU:HB3	15:af:211:TYR:CE2	2.34	0.62
17:l:687:ASP:OD1	17:l:688:GLU:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:ab:376:GLY:O	19:ab:378:GLN:NE2	2.32	0.62
19:ab:1052:ILE:N	19:ab:1055:GLN:OE1	2.32	0.62
20:ad:587:GLN:HB2	55:as:191:HIS:CE1	2.34	0.62
30:aq:143:ASN:HB3	41:t:141:GLY:HA3	1.82	0.62
41:t:27:MET:HG2	55:as:241:ARG:HH22	1.64	0.62
41:t:130:VAL:HG11	41:t:163:ILE:HG13	1.82	0.62
52:aa:1567:PHE:N	52:aa:1586:VAL:O	2.21	0.62
56:2:75:A:C6	56:2:76:A:C5	2.86	0.62
3:r:33:TRP:HB2	3:r:37:ILE:HD13	1.82	0.62
6:e:37:SER:HB2	39:v:50:ARG:HD2	1.80	0.62
10:aw:34:HIS:H	10:aw:86:GLN:HE22	1.46	0.62
14:ag:245:SER:HA	14:ag:248:GLU:HG2	1.80	0.62
15:af:179:LEU:HD21	15:af:187:LEU:HB3	1.80	0.62
16:ae:591:GLN:O	16:ae:594:GLN:NE2	2.33	0.62
18:ac:400:ILE:HG21	18:ac:461:LYS:HG3	1.80	0.62
20:ad:382:PHE:O	27:av:36:ARG:NH2	2.31	0.62
22:i:335:SER:OG	53:k:136:ASP:OD1	2.16	0.62
23:f:181:TRP:HE1	48:b:46:ARG:HB3	1.65	0.62
25:d:15:LEU:HD12	25:d:47:VAL:HG23	1.81	0.62
28:at:42:PRO:HG3	56:2:200:A:H2'	1.81	0.62
35:z:373:ILE:HD13	35:z:397:GLY:HA3	1.82	0.62
36:y:156:THR:HG23	36:y:174:ASN:HB3	1.82	0.62
47:j:82:PRO:HB3	52:aa:262:ARG:HD3	1.81	0.62
51:bc:312:PRO:HG2	51:bc:315:LYS:HG3	1.82	0.62
52:aa:1480:ASN:HA	52:aa:1568:ILE:HB	1.80	0.62
52:aa:1523:SER:OG	52:aa:1524:LEU:N	2.30	0.62
3:r:262:GLN:O	3:r:266:VAL:HG23	2.00	0.62
9:ax:139:TRP:CD1	9:ax:141:TRP:HE1	2.17	0.62
19:ab:1017:ARG:NE	19:ab:1037:THR:O	2.32	0.62
20:ad:153:THR:HB	20:ad:157:GLU:HG3	1.82	0.62
20:ad:330:PRO:HB3	20:ad:381:ARG:O	2.00	0.62
24:c:144:PRO:HG2	24:c:151:VAL:HA	1.81	0.62
31:ap:212:VAL:HG21	33:ai:270:ILE:HD11	1.81	0.62
32:ao:10:PHE:HD2	52:aa:964:ARG:HH21	1.48	0.62
34:an:54:ARG:HA	34:an:60:VAL:O	2.00	0.62
41:t:23:GLY:HA3	56:2:178:A:H5''	1.82	0.62
42:al:206:GLY:H	52:aa:1068:ARG:NH1	1.98	0.62
42:al:269:ILE:HG13	42:al:270:MET:N	2.15	0.62
52:aa:522:ARG:N	52:aa:558:GLY:O	2.29	0.62
52:aa:1138:GLU:O	52:aa:1425:ARG:NH2	2.33	0.62
56:2:293:A:H2'	56:2:294:A:C8	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:n:165:VAL:HG21	4:n:172:LYS:HE2	1.82	0.62
16:ae:112:ARG:NH1	16:ae:117:VAL:O	2.30	0.62
17:l:560:PRO:HB3	17:l:614:ALA:HB1	1.81	0.62
19:ab:659:ARG:HH12	19:ab:836:GLY:HA2	1.65	0.62
20:ad:11:ARG:HH21	40:bb:145:TYR:HB3	1.65	0.62
22:i:118:MET:SD	22:i:233:ARG:NH1	2.65	0.62
29:ar:183:LYS:O	29:ar:187:ARG:HG2	2.00	0.62
34:an:149:LEU:HD11	52:aa:1103:ARG:HD3	1.82	0.62
35:z:334:VAL:HG22	35:z:352:LEU:HD22	1.82	0.62
41:t:47:VAL:HG12	41:t:48:PRO:HD2	1.81	0.62
45:Ca:512:ILE:HD13	45:Ca:520:GLN:HE21	1.63	0.62
1:u:104:SER:HB2	1:u:106:VAL:HG22	1.81	0.62
1:u:143:ILE:O	1:u:147:GLN:HG3	1.99	0.62
1:u:323:PHE:O	1:u:327:VAL:HG23	2.00	0.62
1:u:732:ARG:HH21	1:u:776:LYS:HD2	1.64	0.62
2:s:48:LYS:NZ	6:e:713:THR:OG1	2.33	0.62
3:r:420:GLY:O	3:r:425:LEU:N	2.32	0.62
13:aj:270:ARG:HD2	13:aj:302:SER:OG	1.99	0.62
15:af:43:ALA:H	25:d:254:LYS:HZ1	1.46	0.62
15:af:74:LEU:HD21	15:af:86:CYS:HB3	1.80	0.62
15:af:143:HIS:HE1	15:af:202:LEU:HG	1.64	0.62
15:af:305:GLU:HA	15:af:308:ILE:HG12	1.81	0.62
15:af:587:LEU:O	15:af:591:VAL:HG23	2.00	0.62
17:l:143:PRO:HG3	18:ac:140:VAL:HG11	1.82	0.62
17:l:242:VAL:HA	17:l:388:ILE:HD11	1.82	0.62
18:ac:703:PRO:O	18:ac:707:VAL:HG23	2.00	0.62
18:ac:1036:ASP:HA	18:ac:1039:ASN:HD22	1.65	0.62
19:ab:675:GLN:O	19:ab:697:TYR:OH	2.17	0.62
20:ad:792:ARG:HG3	45:Ca:533:PHE:HE2	1.65	0.62
22:i:291:ASN:HD21	22:i:294:THR:HG23	1.65	0.62
24:c:148:THR:HG23	24:c:149:TYR:HD1	1.65	0.62
35:z:396:CYS:SG	35:z:413:PHE:HB3	2.40	0.62
35:z:1037:GLY:O	45:Ca:120:ASN:ND2	2.32	0.62
35:z:1099:ARG:NH1	45:Ca:80:ASP:OD2	2.33	0.62
45:Ca:65:ARG:NH2	45:Ca:80:ASP:OD1	2.31	0.62
54:be:11:PHE:HE1	54:be:60:LEU:HB2	1.64	0.62
55:as:76:ARG:HH22	55:as:94:GLU:HB3	1.64	0.62
56:2:319:U:H2'	56:2:320:A:C8	2.33	0.62
6:e:18:THR:HG23	49:bd:45:TYR:CG	2.34	0.61
14:ag:260:MET:HE3	14:ag:289:GLY:HA3	1.82	0.61
16:ae:255:ASP:OD2	19:ab:1072:TYR:N	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:584:VAL:HG13	18:ac:630:ASP:H	1.65	0.61
19:ab:537:GLN:OE1	19:ab:575:ASP:N	2.19	0.61
20:ad:612:ALA:HB2	20:ad:644:ILE:HB	1.80	0.61
21:m:74:GLU:OE1	42:al:232:TRP:NE1	2.26	0.61
22:i:215:ASP:N	22:i:215:ASP:OD1	2.31	0.61
33:ai:356:LYS:NZ	33:ai:381:LEU:O	2.32	0.61
45:Ca:441:HIS:HD2	47:j:91:MET:HE2	1.63	0.61
50:a:60:TYR:O	50:a:85:ASN:ND2	2.28	0.61
12:ak:276:LEU:HD21	14:ag:526:HIS:HB2	1.83	0.61
13:aj:66:TRP:HH2	13:aj:89:GLY:HA2	1.66	0.61
14:ag:120:HIS:HB2	14:ag:130:TYR:OH	2.00	0.61
15:af:333:GLU:HB2	15:af:385:ARG:HH11	1.64	0.61
20:ad:28:MET:HA	24:c:239:MET:HE3	1.80	0.61
20:ad:372:LEU:HG	20:ad:559:ASP:HB3	1.82	0.61
20:ad:674:GLU:OE2	28:at:254:ARG:N	2.32	0.61
21:m:146:ASP:OD2	46:g:102:ARG:NH1	2.33	0.61
32:ao:194:SER:HB2	52:aa:936:VAL:HG13	1.82	0.61
35:z:420:LEU:HD21	35:z:843:ASP:HB3	1.82	0.61
35:z:472:LEU:HD23	42:al:178:GLU:HB3	1.82	0.61
35:z:598:PRO:HA	35:z:639:GLN:HE22	1.64	0.61
56:2:41:A:H2'	56:2:42:A:O4'	2.00	0.61
14:ag:431:ASP:OD2	14:ag:434:GLN:N	2.32	0.61
16:ae:324:LEU:HD11	16:ae:489:LEU:HG	1.82	0.61
17:l:162:THR:O	17:l:166:VAL:HG23	2.00	0.61
18:ac:453:ILE:O	18:ac:457:LEU:HG	2.00	0.61
20:ad:232:TRP:CD1	33:ai:189:ILE:HG13	2.35	0.61
22:i:349:LEU:HD22	53:k:137:LEU:HD13	1.81	0.61
23:f:240:ASP:OD1	23:f:241:ASN:N	2.33	0.61
35:z:444:LEU:HD11	35:z:448:ILE:HD11	1.82	0.61
45:Ca:190:GLU:HA	45:Ca:193:GLN:HG3	1.82	0.61
45:Ca:433:ARG:NH2	47:j:129:LEU:O	2.32	0.61
49:bd:51:ILE:HG23	49:bd:62:ILE:HB	1.81	0.61
50:a:40:ARG:NH2	50:a:98:ASP:OD2	2.33	0.61
50:a:355:GLY:HA3	50:a:375:ARG:HH22	1.63	0.61
52:aa:491:SER:OG	52:aa:494:GLN:HB3	2.00	0.61
52:aa:1607:LYS:HG2	52:aa:1608:THR:H	1.66	0.61
3:r:189:TRP:CD2	3:r:190:PRO:HD2	2.36	0.61
6:e:497:ARG:O	6:e:529:ARG:NE	2.33	0.61
59:aj:401:UTP:O2'	56:A:431:U:N3	2.32	0.61
15:af:394:SER:O	15:af:504:ARG:NH2	2.32	0.61
17:l:143:PRO:HB2	18:ac:136:ASP:HB3	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:206:TRP:CD1	20:ad:282:VAL:HG11	2.30	0.61
20:ad:241:PHE:O	20:ad:243:GLN:NE2	2.28	0.61
20:ad:734:TYR:HD2	20:ad:738:TRP:HB3	1.65	0.61
23:f:95:HIS:NE2	23:f:99:GLU:OE2	2.34	0.61
27:av:87:ILE:HD11	27:av:116:ARG:HG2	1.82	0.61
35:z:654:PRO:HA	35:z:678:SER:HA	1.82	0.61
46:g:89:LYS:NZ	56:2:611:U:O4	2.28	0.61
50:a:121:THR:HB	50:a:128:ILE:HD11	1.82	0.61
52:aa:468:LEU:HB2	52:aa:531:TYR:CZ	2.35	0.61
56:2:73:U:N3	56:2:75:A:N7	2.47	0.61
2:s:27:CYS:SG	2:s:29:GLN:NE2	2.73	0.61
3:r:33:TRP:HE3	3:r:37:ILE:HB	1.65	0.61
3:r:163:VAL:HG21	3:r:175:TYR:CG	2.35	0.61
6:e:498:LEU:C	6:e:529:ARG:HB2	2.25	0.61
7:az:108:LEU:HD13	9:ax:51:PRO:HB2	1.82	0.61
8:ay:134:ARG:HD2	8:ay:134:ARG:H	1.66	0.61
15:af:35:ILE:HG12	15:af:38:ARG:NH2	2.15	0.61
19:ab:662:MET:O	19:ab:666:SER:OG	2.15	0.61
20:ad:87:MET:SD	20:ad:91:TYR:HB2	2.41	0.61
20:ad:181:MET:HE1	20:ad:215:TYR:HB2	1.83	0.61
23:f:243:HIS:CD2	23:f:293:ALA:HB2	2.36	0.61
25:d:242:ASN:OD1	25:d:242:ASN:N	2.30	0.61
28:at:36:SER:H	28:at:39:ARG:HB2	1.65	0.61
33:ai:243:LEU:HD13	33:ai:271:LEU:HD11	1.81	0.61
35:z:986:TRP:CH2	52:aa:902:PHE:HA	2.35	0.61
47:j:28:PRO:HD3	52:aa:123:ARG:HH12	1.63	0.61
47:j:163:GLU:O	47:j:167:ASN:HB2	2.00	0.61
51:bc:364:THR:HG22	51:bc:366:PHE:H	1.64	0.61
52:aa:804:GLN:OE1	52:aa:818:ARG:NH1	2.34	0.61
56:A:402:U:H2'	56:A:403:U:C6	2.35	0.61
9:ax:27:ARG:NH2	56:A:515:U:OP1	2.32	0.61
18:ac:725:PRO:HD3	18:ac:988:ASN:HD21	1.65	0.61
18:ac:819:GLN:NE2	18:ac:826:LYS:HD2	2.14	0.61
19:ab:989:ALA:HB2	52:aa:1249:ARG:NH2	2.16	0.61
28:at:87:ARG:NE	28:at:90:ASP:OD2	2.32	0.61
29:ar:85:LEU:HD11	29:ar:166:ILE:HD13	1.82	0.61
38:w:36:THR:N	38:w:39:GLU:OE2	2.32	0.61
40:bb:139:THR:O	40:bb:139:THR:OG1	2.19	0.61
41:t:186:ILE:HG12	55:as:107:LEU:HB3	1.82	0.61
45:Ca:11:TYR:CD1	45:Ca:12:PRO:HD2	2.35	0.61
47:j:57:SER:O	47:j:57:SER:OG	2.14	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:s:83:ASN:OD1	5:h:50:GLN:NE2	2.32	0.61
5:h:131:ARG:NH2	42:al:291:ALA:O	2.23	0.61
6:e:614:SER:HA	6:e:667:LEU:HD13	1.81	0.61
14:ag:153:CYS:O	14:ag:324:ARG:NH2	2.27	0.61
15:af:581:TRP:CE3	15:af:624:ILE:HG12	2.35	0.61
18:ac:76:VAL:HG12	18:ac:77:LEU:HD23	1.82	0.61
18:ac:437:GLY:H	18:ac:449:HIS:HB2	1.65	0.61
18:ac:534:GLN:HB3	18:ac:538:LEU:HD22	1.83	0.61
18:ac:998:ASN:HB2	18:ac:1000:THR:HG22	1.82	0.61
20:ad:66:TRP:CZ3	47:j:92:LEU:HB2	2.35	0.61
20:ad:261:ARG:HH12	22:i:313:THR:HG21	1.65	0.61
31:ap:235:TRP:HB2	43:q:122:LEU:HD21	1.82	0.61
35:z:616:LEU:HD13	43:q:183:MET:HB2	1.82	0.61
36:y:57:SER:HB2	36:y:61:ASP:H	1.65	0.61
37:x:139:ASN:HB3	52:aa:1103:ARG:HG3	1.82	0.61
39:v:27:ASN:OD1	39:v:30:GLY:N	2.34	0.61
44:p:45:PHE:CE2	50:a:173:LYS:HB3	2.36	0.61
52:aa:1517:ASN:N	52:aa:1517:ASN:OD1	2.29	0.61
52:aa:1569:ALA:N	52:aa:1584:GLU:O	2.33	0.61
56:A:468:A:N3	56:A:470:G:N1	2.41	0.61
1:u:95:PRO:HB3	19:ab:466:GLY:H	1.66	0.61
3:r:299:TYR:CZ	6:e:731:TRP:HB2	2.36	0.61
13:aj:311:SER:OG	16:ae:29:ARG:O	2.19	0.61
14:ag:180:MET:HG2	17:l:664:TRP:CE3	2.36	0.61
17:l:49:HIS:CD2	17:l:89:LEU:HD21	2.36	0.61
17:l:618:HIS:HB3	19:ab:241:VAL:HG23	1.82	0.61
18:ac:946:MET:HE1	19:ab:230:LEU:HD23	1.83	0.61
19:ab:414:LYS:N	19:ab:418:ASP:OD2	2.26	0.61
19:ab:1026:ASP:HA	19:ab:1030:LEU:HD13	1.82	0.61
21:m:151:ASN:O	21:m:155:VAL:HG23	1.99	0.61
22:i:206:MET:HE2	22:i:210:ARG:HH12	1.66	0.61
22:i:334:ARG:NH1	22:i:335:SER:OG	2.34	0.61
28:at:129:GLU:H	28:at:129:GLU:CD	2.09	0.61
28:at:233:PHE:H	47:j:140:ILE:HB	1.66	0.61
32:ao:114:SER:O	45:Ca:384:TYR:OH	2.13	0.61
34:an:56:TRP:O	34:an:59:ARG:HG2	2.00	0.61
34:an:183:LYS:HD3	34:an:186:LEU:HD11	1.81	0.61
47:j:37:VAL:HG12	47:j:38:VAL:HG23	1.83	0.61
52:aa:816:GLN:HE21	52:aa:829:ARG:HB3	1.66	0.61
1:u:172:ILE:HG22	1:u:182:ARG:NE	2.14	0.61
1:u:396:ARG:HH21	1:u:405:ARG:HG2	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:e:369:TRP:CZ2	6:e:371:ARG:HD3	2.36	0.61
13:aj:133:SER:O	13:aj:168:TYR:OH	2.13	0.61
19:ab:473:ILE:O	19:ab:477:VAL:HG23	2.00	0.61
19:ab:535:HIS:O	19:ab:538:ARG:HB3	2.01	0.61
20:ad:371:SER:HA	20:ad:558:ALA:HB3	1.82	0.61
26:ba:79:ALA:O	45:Ca:176:TYR:OH	2.16	0.61
28:at:117:ALA:HB2	56:2:207:A:H1'	1.83	0.61
30:aq:13:ARG:NH1	41:t:38:MET:HE2	2.16	0.61
33:ai:51:LEU:HD12	33:ai:209:LEU:HD21	1.82	0.61
34:an:189:PRO:O	34:an:193:SER:OG	2.18	0.61
35:z:475:MET:HE2	35:z:506:PHE:HE1	1.66	0.61
35:z:983:ARG:HD2	35:z:990:ALA:HB2	1.83	0.61
56:2:35:U:H3'	56:2:36:U:H5''	1.83	0.61
1:u:113:VAL:HG11	16:ae:549:HIS:CE1	2.36	0.61
1:u:345:SER:OG	1:u:349:GLU:OE2	2.11	0.61
10:aw:37:PHE:HE2	10:aw:85:VAL:HG21	1.64	0.61
12:ak:33:GLY:HA3	12:ak:109:ALA:O	2.01	0.61
16:ae:271:HIS:CE1	16:ae:318:LEU:HD22	2.36	0.61
19:ab:537:GLN:CD	19:ab:575:ASP:H	2.08	0.61
21:m:113:MET:HA	21:m:151:ASN:HD22	1.66	0.61
26:ba:56:THR:HG23	26:ba:57:GLY:H	1.65	0.61
27:av:185:LEU:N	27:av:202:TYR:OH	2.34	0.61
31:ap:108:GLY:HA2	31:ap:144:ARG:HH12	1.66	0.61
34:an:134:PHE:HB3	50:a:333:ASN:HD22	1.66	0.61
35:z:1006:TYR:CE1	52:aa:897:PRO:HD3	2.36	0.61
36:y:308:ALA:O	36:y:311:SER:OG	2.18	0.61
39:v:185:ALA:HB1	39:v:188:ARG:HB2	1.83	0.61
44:p:78:GLU:OE2	44:p:79:PRO:HD2	2.01	0.61
47:j:20:GLN:O	56:2:57:U:H1'	2.01	0.61
1:u:124:ASP:HA	1:u:144:TYR:CE2	2.35	0.60
2:s:81:GLY:HA2	6:e:792:HIS:CD2	2.36	0.60
7:az:87:ARG:HE	39:v:113:ASP:CB	2.14	0.60
13:aj:243:ASN:ND2	13:aj:289:LYS:O	2.30	0.60
13:aj:313:ARG:O	13:aj:317:PHE:CB	2.44	0.60
14:ag:262:GLU:O	14:ag:265:SER:OG	2.14	0.60
15:af:31:TYR:OH	19:ab:474:ASP:O	2.11	0.60
15:af:279:THR:HA	15:af:282:CYS:SG	2.41	0.60
15:af:336:LYS:HA	15:af:389:ALA:HB2	1.83	0.60
17:l:617:PHE:HA	17:l:623:ARG:HG3	1.81	0.60
18:ac:502:LEU:HA	18:ac:508:TYR:HE2	1.66	0.60
20:ad:21:ARG:HB2	20:ad:26:LYS:HE3	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:d:111:LEU:HD12	46:g:143:TRP:CD1	2.36	0.60
27:av:183:ARG:HG2	27:av:184:PRO:HD2	1.83	0.60
35:z:430:ARG:HE	35:z:814:PRO:HA	1.65	0.60
35:z:663:LEU:HB2	35:z:713:PHE:HE2	1.65	0.60
35:z:873:PHE:CE1	35:z:877:PHE:HD2	2.19	0.60
36:y:150:ARG:HH11	36:y:174:ASN:HB2	1.66	0.60
37:x:202:THR:HG22	37:x:206:GLU:OE2	2.01	0.60
50:a:334:ARG:NE	52:aa:1156:ARG:HH21	1.99	0.60
52:aa:366:HIS:NE2	56:2:200:A:N1	2.46	0.60
52:aa:515:ARG:CZ	52:aa:883:LYS:HA	2.31	0.60
56:2:219:G:C2	56:2:258:U:O2	2.54	0.60
1:u:275:TRP:O	1:u:279:PHE:HD1	1.84	0.60
1:u:638:ARG:NE	6:e:320:GLU:OE1	2.33	0.60
3:r:240:PRO:HA	3:r:245:GLU:HB3	1.82	0.60
6:e:555:TRP:HD1	6:e:582:GLN:HA	1.66	0.60
16:ae:248:ASP:OD1	19:ab:1064:SER:OG	2.14	0.60
16:ae:336:TYR:CZ	16:ae:453:VAL:HG23	2.36	0.60
18:ac:606:ALA:HA	18:ac:608:LYS:NZ	2.16	0.60
20:ad:230:GLU:CD	47:j:184:PRO:HG2	2.27	0.60
22:i:94:ARG:HH21	56:2:360:C:H41	1.47	0.60
25:d:389:ALA:O	25:d:393:LEU:HG	2.00	0.60
27:av:90:ARG:HH21	27:av:111:GLN:HE22	1.47	0.60
27:av:107:LEU:HD23	29:ar:38:ALA:HB2	1.82	0.60
34:an:27:GLN:HE22	35:z:994:ARG:H	1.47	0.60
34:an:163:ILE:HD12	34:an:164:PRO:HD2	1.82	0.60
35:z:96:ARG:HB2	44:p:74:ARG:NH2	2.15	0.60
35:z:113:THR:HG23	35:z:137:LEU:HD22	1.83	0.60
36:y:53:SER:HA	36:y:95:LYS:NZ	2.15	0.60
47:j:177:GLU:HG3	47:j:178:GLU:HG2	1.82	0.60
52:aa:512:GLY:O	52:aa:889:SER:OG	2.19	0.60
1:u:300:PHE:O	1:u:304:SER:OG	2.16	0.60
1:u:664:GLU:N	1:u:667:GLN:OE1	2.31	0.60
1:u:666:PHE:CD1	1:u:666:PHE:CA	2.84	0.60
5:h:55:LEU:O	6:e:464:ARG:HB2	2.01	0.60
8:ay:189:TYR:HB2	56:A:503:A:H5"	1.82	0.60
11:au:55:ALA:HA	11:au:58:HIS:NE2	2.15	0.60
11:au:186:TRP:HA	11:au:186:TRP:HE3	1.66	0.60
17:l:196:VAL:HG13	17:l:377:TRP:HB2	1.83	0.60
19:ab:507:TYR:HB3	19:ab:946:ASP:OD2	2.01	0.60
20:ad:776:PRO:HB3	50:a:32:TRP:CE2	2.37	0.60
21:m:141:HIS:HD2	46:g:70:LEU:HD11	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:aq:62:LYS:NZ	56:2:160:U:O4	2.25	0.60
30:aq:93:TYR:CE1	30:aq:118:ALA:HB2	2.35	0.60
33:ai:239:LEU:HD23	33:ai:293:PHE:HE2	1.67	0.60
34:an:34:TYR:OH	35:z:982:ALA:O	2.14	0.60
35:z:222:MET:SD	35:z:238:ASN:ND2	2.74	0.60
41:t:73:ARG:HA	41:t:76:GLN:HG2	1.83	0.60
45:Ca:62:TRP:CZ3	45:Ca:63:GLN:HB3	2.36	0.60
46:g:15:TYR:HB2	46:g:78:SER:HB2	1.83	0.60
49:bd:52:LEU:HD23	49:bd:81:ILE:HD12	1.84	0.60
50:a:337:ASP:OD2	50:a:361:ASN:N	2.35	0.60
52:aa:661:THR:OG1	52:aa:662:TYR:N	2.32	0.60
2:s:63:PRO:HA	2:s:68:PHE:HB2	1.83	0.60
8:ay:214:HIS:NE2	56:A:505:U:O4	2.35	0.60
12:ak:22:SER:HB2	12:ak:124:ALA:HB1	1.84	0.60
25:d:122:GLN:OE1	46:g:132:GLN:N	2.34	0.60
25:d:192:GLN:NE2	25:d:223:GLU:OE2	2.34	0.60
28:at:28:TYR:CE2	47:j:74:LYS:HB2	2.36	0.60
30:aq:163:ARG:HH21	30:aq:165:ASP:HB3	1.65	0.60
34:an:125:VAL:HA	34:an:128:ILE:HG23	1.83	0.60
35:z:677:PHE:HE1	35:z:705:LEU:HD22	1.65	0.60
41:t:20:MET:SD	43:q:51:GLU:HB3	2.42	0.60
41:t:99:ASN:ND2	41:t:142:ASN:O	2.33	0.60
42:al:295:LEU:HB3	42:al:299:VAL:HG21	1.84	0.60
54:be:47:ARG:HD3	56:2:562:U:H5''	1.82	0.60
1:u:594:GLU:O	1:u:598:SER:OG	2.18	0.60
1:u:813:LYS:HB3	3:r:195:PRO:HG3	1.82	0.60
2:s:57:ASP:OD2	2:s:60:SER:OG	2.17	0.60
3:r:99:GLN:HG2	57:r:901:GTP:O2'	2.02	0.60
4:n:161:ARG:O	4:n:165:VAL:HG23	2.02	0.60
6:e:558:ALA:HA	6:e:561:VAL:HG12	1.82	0.60
14:ag:324:ARG:HG3	14:ag:373:LEU:HD22	1.83	0.60
15:af:497:THR:OG1	15:af:498:VAL:N	2.31	0.60
16:ae:515:ASN:HD22	19:ab:851:ALA:HB2	1.66	0.60
17:l:220:TYR:HA	17:l:223:ILE:HD12	1.83	0.60
19:ab:788:VAL:HG11	19:ab:804:THR:HB	1.82	0.60
19:ab:1074:ARG:HB2	19:ab:1074:ARG:CZ	2.27	0.60
31:ap:62:ARG:NH2	31:ap:63:GLU:OE1	2.34	0.60
31:ap:263:TRP:CZ2	35:z:728:PRO:HA	2.36	0.60
35:z:425:TYR:HD1	35:z:822:GLU:HB3	1.67	0.60
37:x:269:VAL:HG21	37:x:291:LEU:HD13	1.83	0.60
41:t:48:PRO:HD3	43:q:31:PHE:CE1	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:a:361:ASN:N	50:a:361:ASN:OD1	2.34	0.60
52:aa:92:LYS:HZ3	53:k:11:TRP:HE3	1.50	0.60
6:e:65:PRO:HD3	6:e:89:TRP:HA	1.82	0.60
9:ax:32:ARG:NH2	56:A:521:G:O6	2.33	0.60
13:aj:96:SER:HB2	13:aj:99:GLU:HG3	1.83	0.60
17:l:405:LYS:HD3	17:l:406:PHE:CE2	2.37	0.60
18:ac:248:TYR:CD2	18:ac:256:TRP:HB2	2.35	0.60
22:i:224:LEU:HA	22:i:227:LYS:HG2	1.84	0.60
23:f:110:ASN:HD22	23:f:113:ILE:HG13	1.67	0.60
36:y:125:TRP:NE1	36:y:271:TRP:HB3	2.17	0.60
37:x:92:PRO:HG3	37:x:116:THR:HG22	1.83	0.60
37:x:220:TRP:O	52:aa:1115:ARG:NH1	2.33	0.60
42:al:264:ARG:HG3	56:A:397:U:N3	2.15	0.60
50:a:37:SER:OG	50:a:37:SER:O	2.17	0.60
52:aa:275:GLY:HA3	52:aa:283:ARG:HH11	1.65	0.60
56:A:405:A:C5	56:A:524:A:C6	2.89	0.60
6:e:22:LYS:HB3	6:e:24:ASP:OD1	2.02	0.60
8:ay:97:LYS:HZ1	8:ay:101:GLU:HB3	1.67	0.60
10:aw:78:PHE:HA	10:aw:81:ASP:OD2	2.01	0.60
11:au:113:GLN:O	19:ab:377:ARG:NH1	2.34	0.60
14:ag:440:ALA:HB3	49:bd:48:LEU:HB2	1.84	0.60
18:ac:913:HIS:CE1	18:ac:1037:ARG:HD3	2.36	0.60
19:ab:989:ALA:HB2	52:aa:1249:ARG:HH22	1.66	0.60
20:ad:588:PHE:O	20:ad:590:TRP:N	2.35	0.60
20:ad:611:TRP:CE2	20:ad:644:ILE:HG21	2.36	0.60
22:i:71:PRO:HB3	40:bb:179:ALA:HB3	1.82	0.60
22:i:177:MET:HE2	43:q:142:LEU:HD12	1.83	0.60
23:f:200:ARG:NH1	56:2:304:U:OP1	2.35	0.60
24:c:93:ASP:OD1	24:c:94:LEU:N	2.28	0.60
25:d:33:PRO:HG2	25:d:38:GLU:HB3	1.84	0.60
25:d:281:ARG:NH2	25:d:285:GLY:HA3	2.17	0.60
26:ba:50:MET:HG2	45:Ca:565:ARG:HG2	1.83	0.60
43:q:143:GLN:HG3	48:b:153:ARG:HD2	1.83	0.60
53:k:21:ARG:CZ	56:2:196:U:H5''	2.31	0.60
54:be:55:ILE:HG13	54:be:56:LEU:N	2.17	0.60
56:2:66:U:H4'	56:2:68:A:N7	2.16	0.60
1:u:110:HIS:HB3	19:ab:891:PRO:HG3	1.84	0.60
1:u:134:PHE:CD1	1:u:268:LEU:HD13	2.36	0.60
1:u:167:PHE:HE1	1:u:235:GLY:HA2	1.67	0.60
3:r:447:LEU:HB3	3:r:458:HIS:CD2	2.37	0.60
6:e:272:ARG:NH1	6:e:343:CYS:O	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:az:39:VAL:O	7:az:43:LEU:HG	2.01	0.60
7:az:90:GLN:HE21	9:ax:102:PRO:HG2	1.67	0.60
11:au:226:LEU:HD22	16:ae:21:ILE:HG23	1.84	0.60
14:ag:526:HIS:CE1	18:ac:164:VAL:HG22	2.36	0.60
17:l:199:PHE:HB2	17:l:386:LEU:HD21	1.83	0.60
17:l:579:LEU:HB2	17:l:599:PHE:HE2	1.67	0.60
18:ac:468:THR:HG22	18:ac:477:GLN:HA	1.83	0.60
18:ac:952:MET:O	18:ac:1052:HIS:NE2	2.27	0.60
19:ab:899:TYR:HE1	19:ab:901:ARG:HG2	1.66	0.60
19:ab:1071:ARG:NE	19:ab:1075:TYR:O	2.34	0.60
20:ad:132:SER:O	20:ad:136:LYS:NZ	2.24	0.60
21:m:73:ASP:HB3	21:m:77:LEU:HG	1.84	0.60
32:ao:60:SER:OG	32:ao:61:LEU:N	2.35	0.60
38:w:66:ARG:N	56:2:45:G:O6	2.28	0.60
50:a:401:ARG:NE	52:aa:1694:ARG:HH22	2.00	0.60
52:aa:1089:HIS:CD2	52:aa:1092:CYS:H	2.17	0.60
52:aa:1566:GLY:HA3	52:aa:1585:VAL:HG12	1.84	0.60
1:u:572:LYS:HE3	1:u:576:GLN:HG2	1.82	0.60
2:s:11:GLY:N	6:e:771:THR:OG1	2.35	0.60
5:h:67:LEU:HD21	19:ab:1094:PHE:CZ	2.37	0.60
15:af:199:LEU:HA	15:af:202:LEU:HB2	1.84	0.60
15:af:664:ARG:HG2	15:af:665:PHE:H	1.67	0.60
19:ab:932:ILE:HD11	19:ab:942:ARG:HH21	1.64	0.60
20:ad:698:ASP:HB2	20:ad:707:ARG:HD3	1.84	0.60
22:i:238:HIS:O	22:i:241:THR:OG1	2.19	0.60
30:aq:149:ASP:OD1	30:aq:149:ASP:N	2.33	0.60
37:x:147:PRO:HD2	37:x:219:PRO:HA	1.83	0.60
45:Ca:93:PRO:HD3	52:aa:489:PRO:HB2	1.83	0.60
45:Ca:311:CYS:SG	45:Ca:318:PRO:HB3	2.41	0.60
52:aa:416:ARG:O	52:aa:420:GLN:HG2	2.01	0.60
52:aa:911:ASP:HB2	52:aa:914:GLU:HB2	1.83	0.60
56:2:163:G:O2'	56:2:165:A:N6	2.35	0.60
1:u:382:LEU:HD12	1:u:564:LEU:HD12	1.83	0.60
3:r:293:HIS:NE2	3:r:393:ASP:OD2	2.35	0.60
5:h:44:VAL:O	5:h:48:VAL:HG22	2.02	0.60
6:e:335:GLN:O	6:e:339:VAL:HG23	2.00	0.60
9:ax:121:ARG:HG2	56:A:405:A:N6	2.17	0.60
14:ag:416:LEU:HD22	14:ag:419:MET:HG2	1.84	0.60
15:af:185:ASP:N	15:af:185:ASP:OD1	2.34	0.60
18:ac:83:VAL:HG12	18:ac:91:ARG:HH11	1.66	0.60
18:ac:127:VAL:HB	18:ac:538:LEU:HB3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:ab:547:LEU:O	19:ab:561:ARG:NE	2.34	0.60
28:at:146:GLU:CD	28:at:146:GLU:H	2.08	0.60
31:ap:51:ILE:H	31:ap:51:ILE:HD12	1.66	0.60
35:z:1031:SER:HB3	35:z:1033:GLU:HG3	1.84	0.60
38:w:53:PRO:HD2	38:w:57:THR:HG21	1.84	0.60
46:g:41:ARG:HH22	56:2:294:A:P	2.24	0.60
53:k:37:ALA:HB1	56:2:268:U:O2	2.02	0.60
1:u:310:VAL:HG13	19:ab:888:VAL:HG11	1.84	0.59
6:e:17:PRO:HD2	49:bd:45:TYR:H	1.67	0.59
14:ag:408:ARG:HB2	14:ag:413:MET:HE3	1.84	0.59
14:ag:528:ASN:OD1	17:l:538:GLU:HB3	2.02	0.59
15:af:106:LEU:HD11	15:af:124:PHE:HD1	1.67	0.59
16:ae:430:LEU:HD23	16:ae:496:MET:HB3	1.82	0.59
17:l:435:ILE:HG22	17:l:439:ARG:HD3	1.84	0.59
20:ad:790:PRO:HD3	45:Ca:63:GLN:HE22	1.67	0.59
21:m:95:GLN:OE1	25:d:102:PRO:HB3	2.02	0.59
22:i:73:ILE:HB	40:bb:178:VAL:HG23	1.84	0.59
22:i:330:THR:OG1	22:i:332:ARG:HG2	2.02	0.59
26:ba:13:ALA:HB2	45:Ca:89:ARG:HA	1.84	0.59
33:ai:310:ASN:HB2	33:ai:313:LEU:HB2	1.82	0.59
34:an:87:GLN:O	34:an:91:ILE:HG12	2.01	0.59
34:an:129:ARG:HA	34:an:134:PHE:CD1	2.37	0.59
36:y:83:SER:HA	36:y:86:LEU:HD12	1.84	0.59
38:w:98:ARG:NH1	56:2:43:A:N3	2.49	0.59
43:q:16:TYR:HE1	43:q:36:ARG:HG2	1.67	0.59
46:g:122:ASP:O	46:g:126:LEU:HG	2.01	0.59
1:u:666:PHE:CD1	1:u:666:PHE:CB	2.74	0.59
15:af:34:GLU:O	15:af:38:ARG:NH1	2.35	0.59
19:ab:1169:LEU:HB3	19:ab:1173:VAL:HG21	1.82	0.59
20:ad:638:GLU:HG3	20:ad:648:THR:HG23	1.83	0.59
23:f:181:TRP:CE2	48:b:46:ARG:HD3	2.36	0.59
23:f:257:VAL:HG11	23:f:274:ILE:HD13	1.83	0.59
28:at:49:VAL:HB	45:Ca:599:ALA:HB1	1.84	0.59
31:ap:262:MET:SD	31:ap:263:TRP:N	2.76	0.59
34:an:237:GLU:OE1	34:an:237:GLU:N	2.25	0.59
41:t:10:ARG:HG2	55:as:10:ALA:HB3	1.83	0.59
50:a:40:ARG:HA	50:a:102:GLU:OE2	2.02	0.59
50:a:401:ARG:HE	52:aa:1694:ARG:HH22	1.47	0.59
54:be:1:MET:SD	56:2:267:U:H5'	2.41	0.59
56:A:451:U:H3'	56:A:470:G:N7	2.17	0.59
7:az:52:GLN:OE1	7:az:52:GLN:N	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:ak:168:TRP:CD1	12:ak:180:ALA:HB1	2.37	0.59
20:ad:402:GLN:HE21	20:ad:406:ARG:HH22	1.51	0.59
20:ad:783:ASN:N	20:ad:783:ASN:OD1	2.29	0.59
25:d:197:ILE:HG23	37:x:332:TYR:CZ	2.37	0.59
37:x:185:GLU:N	37:x:185:GLU:OE2	2.35	0.59
41:t:46:TYR:HE1	55:as:242:LEU:HD22	1.67	0.59
45:Ca:273:PHE:CE1	45:Ca:310:ALA:HB1	2.37	0.59
52:aa:1282:VAL:HG12	52:aa:1344:VAL:HG21	1.83	0.59
53:k:89:ARG:O	53:k:92:SER:OG	2.15	0.59
53:k:103:MET:SD	56:2:122:A:H5'	2.41	0.59
55:as:117:VAL:HG22	55:as:118:ALA:H	1.66	0.59
3:r:198:PHE:HB2	3:r:333:LEU:HD23	1.83	0.59
6:e:628:ILE:HD11	6:e:649:LEU:HD22	1.83	0.59
11:au:115:THR:HB	11:au:118:GLU:HG3	1.84	0.59
11:au:189:PRO:O	13:aj:323:THR:N	2.34	0.59
15:af:42:PRO:HA	25:d:254:LYS:NZ	2.17	0.59
17:l:284:CYS:HB2	17:l:294:LEU:HG	1.84	0.59
18:ac:749:LEU:O	18:ac:889:SER:OG	2.20	0.59
19:ab:1170:PRO:HB2	19:ab:1172:TRP:CD1	2.36	0.59
20:ad:82:ASN:N	38:w:25:ASP:OD1	2.35	0.59
20:ad:83:THR:HB	20:ad:86:ILE:HB	1.84	0.59
20:ad:689:PHE:CD2	52:aa:111:LYS:HE2	2.37	0.59
22:i:275:TRP:HZ2	53:k:174:ARG:HG2	1.67	0.59
33:ai:349:LEU:HD22	33:ai:354:LEU:HD11	1.83	0.59
35:z:565:ARG:HD2	35:z:565:ARG:N	2.17	0.59
35:z:991:SER:OG	35:z:992:SER:N	2.36	0.59
37:x:177:THR:O	37:x:179:LEU:N	2.36	0.59
45:Ca:75:LEU:H	45:Ca:181:ASN:ND2	2.00	0.59
47:j:63:HIS:NE2	47:j:96:ASP:OD2	2.20	0.59
52:aa:343:ARG:HG2	52:aa:363:PHE:CE2	2.38	0.59
52:aa:1450:PHE:CE1	52:aa:1639:MET:HG2	2.36	0.59
53:k:34:THR:OG1	56:2:150:A:O2'	2.08	0.59
56:A:466:G:O2'	56:A:467:A:OP2	2.19	0.59
56:2:48:U:N3	56:2:55:U:O4	2.17	0.59
5:h:84:VAL:HG13	56:A:487:A:C8	2.38	0.59
6:e:364:GLU:HB2	6:e:404:ILE:HD11	1.82	0.59
16:ae:47:LEU:HD21	16:ae:132:LEU:HD11	1.83	0.59
16:ae:63:TYR:HA	16:ae:68:HIS:CD2	2.37	0.59
16:ae:278:ILE:HG23	16:ae:322:TYR:CD1	2.36	0.59
16:ae:503:TYR:HD2	16:ae:582:GLU:HB2	1.67	0.59
17:l:494:SER:OG	17:l:495:TYR:N	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:296:VAL:HG11	18:ac:382:ALA:HB2	1.83	0.59
18:ac:1049:LEU:HD12	18:ac:1049:LEU:H	1.68	0.59
19:ab:900:ASP:O	19:ab:906:ASN:ND2	2.35	0.59
21:m:15:GLN:HG3	21:m:16:PHE:N	2.17	0.59
24:c:71:PRO:HG2	56:2:5:U:O2'	2.03	0.59
25:d:244:ASP:N	25:d:244:ASP:OD1	2.36	0.59
30:aq:13:ARG:NE	56:2:162:U:O2'	2.32	0.59
30:aq:143:ASN:HD21	41:t:101:PHE:C	2.09	0.59
33:ai:21:HIS:HB3	33:ai:68:MET:HE2	1.84	0.59
35:z:284:GLU:HA	35:z:294:TYR:HE1	1.66	0.59
35:z:384:MET:HA	35:z:404:TYR:O	2.03	0.59
38:w:136:ASP:HB2	47:j:16:ARG:HH11	1.67	0.59
39:v:88:SER:H	39:v:91:GLU:CD	2.11	0.59
43:q:77:ILE:O	43:q:81:ASN:HB2	2.03	0.59
46:g:24:LYS:HA	56:2:300:G:C8	2.37	0.59
47:j:28:PRO:HG2	47:j:109:CYS:HA	1.85	0.59
50:a:342:GLY:HA2	50:a:345:ASP:OD2	2.03	0.59
52:aa:300:SER:OG	52:aa:301:SER:N	2.36	0.59
52:aa:1502:TYR:O	52:aa:1505:SER:N	2.35	0.59
56:2:235:A:N1	56:2:251:U:H1'	2.18	0.59
1:u:366:LEU:HD23	1:u:574:LEU:HD12	1.85	0.59
1:u:405:ARG:HB3	15:af:160:ARG:HH12	1.67	0.59
12:ak:161:LYS:NZ	18:ac:72:GLY:O	2.33	0.59
13:aj:258:LEU:HG	13:aj:301:HIS:CD2	2.37	0.59
59:aj:401:UTP:HA	56:A:431:U:H3	1.50	0.59
18:ac:114:PRO:HD3	18:ac:1051:LYS:HE2	1.83	0.59
20:ad:135:ARG:HH21	20:ad:139:MET:HE1	1.67	0.59
20:ad:239:LEU:HB3	20:ad:291:THR:HG23	1.85	0.59
22:i:425:ARG:HH12	56:2:129:U:P	2.25	0.59
25:d:244:ASP:O	25:d:248:VAL:HG23	2.03	0.59
28:at:19:TRP:NE1	56:2:187:A:H2'	2.17	0.59
30:aq:76:HIS:CG	30:aq:104:PHE:HB2	2.38	0.59
37:x:322:ARG:NH1	52:aa:1180:GLY:H	1.98	0.59
43:q:188:ASP:HB3	43:q:192:ASN:ND2	2.18	0.59
45:Ca:270:PRO:HA	45:Ca:306:HIS:CE1	2.37	0.59
50:a:138:CYS:HB3	50:a:140:PHE:HE1	1.68	0.59
50:a:348:TYR:HD2	50:a:352:PHE:CD2	2.19	0.59
52:aa:92:LYS:O	52:aa:95:THR:N	2.35	0.59
52:aa:675:HIS:HB3	52:aa:677:LYS:HD2	1.85	0.59
1:u:644:GLN:HE22	1:u:668:PHE:HA	1.66	0.59
17:l:265:TYR:HH	17:l:364:PHE:N	2.00	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:l:279:HIS:HA	17:l:282:LEU:HD23	1.83	0.59
18:ac:404:LYS:HD2	18:ac:407:ARG:HH22	1.68	0.59
19:ab:621:HIS:ND1	19:ab:625:LEU:HD11	2.18	0.59
20:ad:51:ARG:O	20:ad:59:ASN:ND2	2.35	0.59
20:ad:605:HIS:O	55:as:218:ARG:NH2	2.35	0.59
21:m:48:TYR:CD1	44:p:68:GLU:HG3	2.38	0.59
21:m:71:PHE:CD1	42:al:191:ARG:HD2	2.37	0.59
22:i:379:ARG:HH11	27:av:138:SER:HA	1.68	0.59
35:z:986:TRP:HA	52:aa:909:THR:OG1	2.02	0.59
37:x:225:PRO:HD2	37:x:228:LEU:HD23	1.85	0.59
38:w:129:TYR:HA	38:w:132:PHE:HD2	1.68	0.59
39:v:61:ARG:NH2	42:al:247:GLU:OE1	2.35	0.59
56:2:235:A:C2	56:2:251:U:H1'	2.38	0.59
3:r:128:TRP:NE1	3:r:350:ASN:OD1	2.36	0.59
6:e:252:TRP:HB2	6:e:255:HIS:ND1	2.18	0.59
6:e:417:ARG:HH11	6:e:417:ARG:HA	1.67	0.59
6:e:554:THR:OG1	6:e:557:ASP:OD1	2.19	0.59
7:az:29:PRO:HA	7:az:33:ALA:HB3	1.85	0.59
16:ae:296:ARG:O	16:ae:300:ASN:ND2	2.34	0.59
16:ae:510:LEU:HD12	16:ae:520:VAL:HG23	1.84	0.59
16:ae:521:ALA:HB2	16:ae:552:PHE:HB3	1.83	0.59
19:ab:355:ARG:O	19:ab:359:GLU:HG3	2.03	0.59
20:ad:66:TRP:CH2	47:j:92:LEU:HB2	2.37	0.59
24:c:235:TRP:CH2	24:c:256:TYR:HB3	2.38	0.59
25:d:238:ARG:NH1	42:al:255:ARG:O	2.35	0.59
25:d:321:PHE:HA	25:d:375:VAL:O	2.02	0.59
34:an:77:PRO:CD	35:z:950:PRO:HA	2.33	0.59
35:z:321:LEU:HD11	35:z:339:VAL:HG21	1.85	0.59
35:z:1046:ALA:O	35:z:1050:GLU:HG2	2.03	0.59
42:al:140:ARG:N	52:aa:1090:ASP:O	2.35	0.59
52:aa:787:ARG:HH12	52:aa:843:ASN:HB3	1.68	0.59
52:aa:1543:HIS:O	52:aa:1546:THR:OG1	2.16	0.59
53:k:52:PRO:O	56:2:131:A:H1'	2.02	0.59
56:A:400:U:O2'	56:A:527:A:N6	2.36	0.59
56:2:68:A:H2'	56:2:136:G:O6	2.03	0.59
6:e:356:PRO:HB3	6:e:362:TYR:CD1	2.38	0.59
11:au:19:MET:HE1	11:au:24:ILE:HG12	1.84	0.59
15:af:229:HIS:HD1	15:af:233:TRP:HD1	1.51	0.59
15:af:240:HIS:CD2	15:af:241:PRO:HD2	2.38	0.59
29:ar:175:GLY:O	29:ar:179:THR:HG23	2.03	0.59
30:aq:169:TYR:HB3	41:t:83:LEU:HD23	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:an:36:TYR:OH	50:a:309:ARG:NH1	2.34	0.59
38:w:91:LEU:HG	38:w:96:ILE:HD12	1.84	0.59
41:t:51:VAL:HG23	41:t:52:LEU:HD12	1.84	0.59
43:q:13:ARG:CZ	56:2:48:U:H5'	2.33	0.59
45:Ca:360:ARG:HD2	56:2:3:A:N6	2.17	0.59
52:aa:1054:ILE:HG12	52:aa:1068:ARG:HG3	1.84	0.59
52:aa:1351:PRO:HG2	52:aa:1354:VAL:HB	1.85	0.59
53:k:76:TRP:HB3	53:k:114:MET:HG2	1.84	0.59
56:A:534:A:O2'	56:A:535:U:OP2	2.15	0.59
56:2:575:U:HO2'	56:2:576:A:H8	1.50	0.59
2:s:66:LYS:HG3	2:s:67:THR:HG23	1.84	0.59
3:r:73:ASP:HB3	3:r:111:TYR:CD2	2.38	0.59
6:e:623:ASP:HB3	6:e:649:LEU:HD23	1.85	0.59
8:ay:203:ARG:NH1	8:ay:218:ASP:OXT	2.31	0.59
10:aw:52:ASP:O	10:aw:60:THR:OG1	2.21	0.59
14:ag:293:CYS:O	19:ab:460:ARG:NH1	2.36	0.59
14:ag:332:THR:O	14:ag:345:ASN:ND2	2.21	0.59
14:ag:504:GLU:OE2	14:ag:505:THR:N	2.36	0.59
15:af:612:GLU:OE1	25:d:6:SER:OG	2.19	0.59
16:ae:221:TYR:OH	16:ae:233:TYR:OH	2.18	0.59
16:ae:310:ILE:HG23	16:ae:351:LEU:HD11	1.84	0.59
18:ac:154:ARG:HG2	18:ac:175:ASP:HB2	1.85	0.59
18:ac:484:GLY:N	18:ac:488:GLU:OE2	2.36	0.59
18:ac:670:SER:OG	18:ac:783:ARG:O	2.21	0.59
18:ac:836:PRO:HA	18:ac:871:ASP:OD1	2.02	0.59
19:ab:402:MET:HA	19:ab:405:MET:HE2	1.84	0.59
20:ad:130:PHE:HD1	20:ad:131:PRO:HD2	1.68	0.59
20:ad:166:ILE:O	20:ad:169:ASN:N	2.36	0.59
21:m:98:ARG:NH2	44:p:114:ASN:H	2.01	0.59
24:c:179:VAL:HG11	52:aa:178:ASN:HA	1.84	0.59
28:at:213:SER:OG	38:w:81:ASN:ND2	2.36	0.59
39:v:95:MET:HB2	39:v:129:VAL:CG2	2.32	0.59
42:al:285:PRO:HG3	49:bd:71:ILE:HD13	1.85	0.59
43:q:88:LEU:O	43:q:92:GLU:HG2	2.03	0.59
43:q:159:HIS:NE2	43:q:163:GLU:OE1	2.36	0.59
50:a:265:PRO:O	50:a:269:VAL:HG23	2.03	0.59
52:aa:672:ASP:O	52:aa:676:GLY:N	2.20	0.59
53:k:53:ASN:ND2	53:k:56:ARG:O	2.36	0.59
56:A:537:A:H2'	56:2:538:A:P	2.43	0.59
1:u:766:LYS:HB2	5:h:166:ILE:HD11	1.84	0.58
2:s:96:ASN:H	2:s:100:GLU:CD	2.10	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:106:GLU:HB3	6:e:376:TRP:CZ3	2.38	0.58
6:e:288:GLY:HA3	14:ag:271:ARG:O	2.03	0.58
6:e:417:ARG:NH2	19:ab:1046:GLU:OE1	2.35	0.58
7:az:87:ARG:HE	39:v:113:ASP:HB2	1.68	0.58
8:ay:104:LEU:HA	8:ay:107:HIS:CD2	2.38	0.58
9:ax:86:ASN:OD1	9:ax:89:ARG:NH1	2.36	0.58
16:ae:258:SER:HA	16:ae:262:TYR:CE1	2.38	0.58
16:ae:512:LEU:HG	19:ab:832:ALA:HB1	1.85	0.58
17:l:648:MET:N	17:l:648:MET:SD	2.76	0.58
18:ac:558:VAL:HG11	18:ac:708:GLN:HG3	1.85	0.58
18:ac:595:ASP:N	18:ac:595:ASP:OD1	2.35	0.58
21:m:178:PHE:O	21:m:182:SER:HB3	2.01	0.58
22:i:82:ASN:HB3	22:i:83:PRO:HD2	1.85	0.58
25:d:200:GLU:OE2	37:x:332:TYR:OH	2.20	0.58
25:d:319:TYR:HE1	25:d:381:MET:HE1	1.67	0.58
35:z:567:THR:OG1	35:z:768:LYS:NZ	2.28	0.58
35:z:975:ASN:HA	52:aa:974:VAL:HG22	1.84	0.58
36:y:132:GLN:OE1	36:y:169:ARG:N	2.36	0.58
37:x:319:ASN:ND2	52:aa:1180:GLY:O	2.31	0.58
39:v:72:SER:HB2	39:v:155:HIS:CE1	2.37	0.58
43:q:47:ARG:NH1	56:2:179:U:OP2	2.36	0.58
45:Ca:129:ASN:O	45:Ca:137:LYS:NZ	2.28	0.58
50:a:162:TRP:NE1	50:a:184:PRO:HG3	2.17	0.58
52:aa:129:LEU:O	52:aa:131:PHE:N	2.35	0.58
52:aa:1014:GLU:HG2	52:aa:1016:TRP:CE3	2.38	0.58
53:k:77:PRO:HD2	53:k:78:TYR:CD1	2.37	0.58
56:2:125:U:O5'	56:2:127:G:H5'	2.03	0.58
1:u:315:ASP:N	1:u:315:ASP:OD1	2.36	0.58
1:u:546:ARG:O	1:u:550:GLU:N	2.35	0.58
5:h:133:HIS:HB2	42:al:295:LEU:HD11	1.85	0.58
6:e:244:TYR:OH	6:e:415:GLU:OE2	2.16	0.58
6:e:285:VAL:HG22	14:ag:309:ARG:HD3	1.84	0.58
6:e:410:GLN:HE22	19:ab:1057:ARG:NH2	1.98	0.58
11:au:169:LEU:HD22	18:ac:39:VAL:HG22	1.84	0.58
18:ac:555:VAL:HA	18:ac:558:VAL:HG22	1.86	0.58
18:ac:751:ASP:OD2	18:ac:752:ARG:NE	2.36	0.58
19:ab:124:TYR:OH	19:ab:324:GLU:OE2	2.19	0.58
19:ab:489:LEU:HD11	19:ab:960:ILE:HD11	1.84	0.58
37:x:252:PHE:HZ	37:x:268:LEU:HD22	1.68	0.58
43:q:178:ASN:ND2	43:q:182:GLN:O	2.36	0.58
44:p:70:THR:O	44:p:70:THR:OG1	2.14	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:a:46:MET:HB3	50:a:51:VAL:HG21	1.86	0.58
50:a:205:ASP:OD2	50:a:281:SER:OG	2.16	0.58
52:aa:458:LEU:HD23	52:aa:459:LEU:HD23	1.85	0.58
52:aa:785:LYS:O	52:aa:840:GLN:NE2	2.35	0.58
52:aa:804:GLN:NE2	52:aa:854:GLU:O	2.33	0.58
53:k:97:TYR:HD1	53:k:142:GLY:HA2	1.67	0.58
1:u:792:ARG:N	10:aw:151:TYR:O	2.21	0.58
3:r:147:ILE:HG12	3:r:159:MET:HE2	1.85	0.58
57:r:901:GTP:C8	57:r:901:GTP:H3'	2.37	0.58
6:e:272:ARG:NH1	6:e:344:ASN:OD1	2.36	0.58
6:e:303:ASN:CG	6:e:316:TYR:H	2.11	0.58
7:az:26:ARG:NH1	56:A:402:U:O3'	2.36	0.58
13:aj:62:TYR:CZ	16:ae:190:GLY:HA3	2.37	0.58
14:ag:28:ASN:OD1	14:ag:29:GLN:N	2.36	0.58
14:ag:66:CYS:O	14:ag:70:LEU:HG	2.03	0.58
16:ae:125:TYR:CD2	16:ae:179:TYR:HB2	2.39	0.58
16:ae:375:ARG:HA	16:ae:380:VAL:HG21	1.86	0.58
17:l:80:ALA:O	17:l:183:PRO:HD2	2.02	0.58
18:ac:672:TRP:CG	18:ac:783:ARG:HH22	2.21	0.58
19:ab:288:LYS:HE2	19:ab:290:THR:HG21	1.84	0.58
20:ad:698:ASP:HA	52:aa:139:HIS:CD2	2.39	0.58
21:m:75:GLN:HG3	21:m:98:ARG:HA	1.85	0.58
22:i:125:PRO:HB2	22:i:127:THR:HG22	1.85	0.58
28:at:49:VAL:HG12	28:at:51:ARG:HE	1.68	0.58
34:an:62:VAL:HG23	34:an:73:VAL:HG13	1.85	0.58
42:al:206:GLY:HA3	52:aa:1068:ARG:HH22	1.68	0.58
45:Ca:530:ASP:OD2	52:aa:374:GLN:NE2	2.30	0.58
50:a:340:LYS:NZ	50:a:359:HIS:O	2.34	0.58
56:2:179:U:O2'	56:2:180:A:H5''	2.03	0.58
1:u:306:LEU:HD22	19:ab:883:ASN:HB3	1.85	0.58
17:l:669:THR:OG1	17:l:673:ARG:NH1	2.36	0.58
20:ad:458:LEU:O	20:ad:462:LEU:HG	2.04	0.58
20:ad:697:PRO:HB2	52:aa:104:GLN:HE21	1.68	0.58
25:d:234:PHE:HE2	25:d:238:ARG:HH21	1.49	0.58
25:d:337:ILE:HG13	25:d:374:ILE:HB	1.85	0.58
30:aq:143:ASN:ND2	41:t:101:PHE:O	2.32	0.58
35:z:487:GLU:HG2	50:a:100:TYR:HE2	1.68	0.58
35:z:771:CYS:HB3	35:z:773:TYR:CE1	2.38	0.58
38:w:87:ASP:OD1	38:w:87:ASP:N	2.36	0.58
51:bc:353:ASN:HB3	51:bc:355:MET:HE3	1.86	0.58
52:aa:1127:HIS:CD2	52:aa:1670:LEU:HD11	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:as:64:VAL:HG11	55:as:153:SER:O	2.04	0.58
56:2:4:A:H4'	56:2:5:U:C5	2.39	0.58
3:r:284:VAL:HA	3:r:354:PHE:O	2.03	0.58
10:aw:128:MET:HA	10:aw:147:ARG:HH12	1.68	0.58
11:au:114:LEU:HB3	11:au:118:GLU:HB2	1.83	0.58
12:ak:148:ASP:H	12:ak:151:THR:HG22	1.66	0.58
13:aj:141:GLU:HA	13:aj:145:HIS:HB2	1.86	0.58
17:l:572:ASP:O	17:l:576:SER:OG	2.12	0.58
17:l:646:VAL:HG12	17:l:650:ARG:HE	1.68	0.58
18:ac:242:SER:HG	18:ac:246:TRP:CD1	2.22	0.58
18:ac:244:SER:HB2	18:ac:256:TRP:CD1	2.39	0.58
19:ab:902:GLN:HB2	19:ab:905:PHE:HB2	1.85	0.58
20:ad:405:ARG:HG2	20:ad:412:CYS:SG	2.44	0.58
28:at:74:LYS:HG2	28:at:78:GLU:OE1	2.04	0.58
29:ar:107:LEU:HD23	29:ar:211:ALA:HB2	1.83	0.58
31:ap:145:GLU:HA	35:z:588:TYR:HE2	1.69	0.58
31:ap:217:MET:O	31:ap:221:VAL:HG22	2.04	0.58
32:ao:160:GLY:HA2	52:aa:921:ARG:HG2	1.85	0.58
35:z:1109:ASN:ND2	45:Ca:40:ASP:OD2	2.36	0.58
37:x:322:ARG:HH12	52:aa:1180:GLY:N	1.99	0.58
48:b:79:VAL:O	48:b:83:MET:HG3	2.02	0.58
53:k:143:ASP:O	53:k:145:VAL:HG13	2.02	0.58
56:2:293:A:H1'	56:2:315:A:H5''	1.86	0.58
2:s:39:ARG:HB2	6:e:463:HIS:HE1	1.68	0.58
6:e:368:PRO:HB3	6:e:399:TYR:CD2	2.37	0.58
59:aj:401:UTP:O2	56:A:429:U:O2'	2.21	0.58
18:ac:235:LEU:HD13	18:ac:518:LEU:HD21	1.85	0.58
19:ab:679:PRO:HB2	19:ab:681:GLU:HG2	1.84	0.58
22:i:247:ILE:O	22:i:251:VAL:HG23	2.04	0.58
23:f:78:TRP:O	23:f:81:MET:N	2.36	0.58
24:c:228:ASP:OD2	24:c:230:LYS:N	2.36	0.58
31:ap:85:ALA:O	31:ap:89:GLU:HG2	2.04	0.58
32:ao:225:ASN:OD1	32:ao:228:ASN:ND2	2.37	0.58
35:z:162:ARG:HH22	46:g:77:ARG:HE	1.50	0.58
35:z:222:MET:O	35:z:238:ASN:ND2	2.35	0.58
35:z:482:TRP:NE1	35:z:497:GLN:O	2.23	0.58
35:z:1039:THR:OG1	35:z:1041:GLU:OE2	2.19	0.58
38:w:98:ARG:HD3	56:2:43:A:N3	2.19	0.58
44:p:171:SER:OG	44:p:173:ARG:NH1	2.33	0.58
52:aa:689:HIS:ND1	52:aa:693:GLY:HA2	2.19	0.58
52:aa:1414:MET:HG2	52:aa:1415:MET:H	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:1425:ARG:HG2	52:aa:1659:LEU:HD13	1.85	0.58
52:aa:1483:LEU:HA	52:aa:1486:GLU:HG2	1.85	0.58
53:k:79:ASP:OD1	53:k:80:LEU:N	2.35	0.58
1:u:308:GLU:HB2	1:u:311:VAL:HG12	1.86	0.58
1:u:689:ASP:OD2	16:ae:169:ARG:NH1	2.36	0.58
2:s:37:ARG:HA	2:s:40:ILE:HG12	1.85	0.58
6:e:180:GLN:HA	6:e:192:LEU:HD12	1.86	0.58
10:aw:74:SER:HA	56:A:512:G:H5'	1.86	0.58
12:ak:59:TRP:NE1	17:l:665:PRO:HD2	2.16	0.58
13:aj:35:PRO:O	13:aj:37:GLY:N	2.37	0.58
14:ag:510:LEU:HB3	19:ab:382:VAL:HG21	1.85	0.58
15:af:46:TRP:CZ3	15:af:93:ARG:HB2	2.38	0.58
15:af:639:GLU:O	15:af:643:VAL:HG23	2.04	0.58
17:l:385:LEU:O	17:l:389:LEU:HD23	2.03	0.58
18:ac:248:TYR:HE1	18:ac:402:THR:HG21	1.68	0.58
19:ab:282:ARG:HD2	19:ab:828:ILE:HG21	1.85	0.58
19:ab:305:THR:HG22	19:ab:307:GLU:H	1.69	0.58
19:ab:590:GLY:HA2	19:ab:593:LEU:HD12	1.86	0.58
20:ad:714:SER:OG	20:ad:717:LYS:NZ	2.34	0.58
27:av:58:TYR:O	53:k:151:ARG:N	2.37	0.58
32:ao:149:GLN:OE1	45:Ca:406:ARG:NH1	2.36	0.58
34:an:237:GLU:HB2	34:an:248:TYR:HE1	1.68	0.58
37:x:262:ARG:O	37:x:301:GLU:N	2.31	0.58
42:al:46:GLU:OE2	42:al:47:LYS:N	2.36	0.58
45:Ca:474:ILE:HD12	45:Ca:482:ARG:HH22	1.68	0.58
52:aa:1692:TYR:HA	52:aa:1695:ASN:HD21	1.68	0.58
54:be:11:PHE:CE1	54:be:60:LEU:HB2	2.38	0.58
55:as:41:HIS:O	55:as:45:ALA:HB2	2.03	0.58
1:u:268:LEU:HA	1:u:347:LEU:HD11	1.86	0.58
17:l:242:VAL:HG22	17:l:388:ILE:HG12	1.86	0.58
19:ab:77:GLY:O	19:ab:209:ARG:NH2	2.35	0.58
19:ab:737:VAL:HB	19:ab:786:ARG:HB3	1.85	0.58
19:ab:1015:ASN:OD1	19:ab:1015:ASN:N	2.35	0.58
19:ab:1060:ASN:OD1	19:ab:1060:ASN:N	2.36	0.58
20:ad:307:GLU:O	20:ad:311:PHE:HB3	2.03	0.58
31:ap:57:ALA:O	31:ap:61:ARG:HG2	2.03	0.58
34:an:245:TRP:CZ2	50:a:108:HIS:HA	2.39	0.58
38:w:91:LEU:HD23	38:w:101:ARG:HB2	1.86	0.58
39:v:198:ARG:HA	39:v:207:LYS:HB3	1.85	0.58
43:q:102:ARG:NH2	52:aa:190:GLU:HB2	2.18	0.58
44:p:25:ASN:OD1	44:p:25:ASN:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:144:GLN:HG3	45:Ca:147:GLU:H	1.69	0.58
52:aa:1440:ASN:HB3	52:aa:1641:MET:HE3	1.86	0.58
1:u:743:MET:O	6:e:130:GLY:N	2.28	0.58
1:u:817:LEU:HD12	1:u:836:LEU:HB3	1.85	0.58
3:r:282:VAL:HG13	3:r:354:PHE:HE2	1.68	0.58
8:ay:126:THR:HB	8:ay:196:ALA:HA	1.85	0.58
14:ag:305:GLU:HB3	14:ag:309:ARG:NH2	2.15	0.58
14:ag:436:ASP:OD1	14:ag:436:ASP:N	2.37	0.58
15:af:161:ARG:O	15:af:165:VAL:HG12	2.02	0.58
15:af:244:GLU:HA	15:af:250:LEU:O	2.03	0.58
16:ae:56:TYR:OH	16:ae:57:ARG:NH2	2.37	0.58
17:l:78:ARG:HB3	17:l:186:HIS:HB2	1.86	0.58
22:i:113:LYS:HA	22:i:116:GLU:HG2	1.86	0.58
25:d:38:GLU:HA	25:d:41:LEU:HG	1.84	0.58
28:at:56:LEU:HB2	28:at:87:ARG:O	2.02	0.58
29:ar:100:HIS:HB3	29:ar:102:GLN:OE1	2.03	0.58
33:ai:130:GLN:HE22	33:ai:149:ARG:HH22	1.52	0.58
34:an:150:HIS:HE1	52:aa:1200:SER:HA	1.69	0.58
35:z:501:LEU:HB2	42:al:174:PRO:HG3	1.86	0.58
35:z:559:ASN:OD1	35:z:775:SER:N	2.36	0.58
39:v:198:ARG:HD3	39:v:208:ARG:NH1	2.18	0.58
43:q:178:ASN:HD22	43:q:182:GLN:H	1.52	0.58
52:aa:125:SER:OG	52:aa:126:ARG:HG2	2.03	0.58
52:aa:145:THR:OG1	52:aa:146:ASP:N	2.36	0.58
56:2:140:U:O2'	56:2:141:G:H5'	2.04	0.58
1:u:728:GLN:HG3	1:u:784:TRP:CE2	2.39	0.58
1:u:790:LYS:HD2	10:aw:107:TRP:CE2	2.39	0.58
3:r:200:ALA:HB2	3:r:333:LEU:HD13	1.85	0.58
6:e:424:TRP:CE2	19:ab:1042:ILE:HD11	2.39	0.58
7:az:104:HIS:HB2	9:ax:139:TRP:CH2	2.38	0.58
13:aj:27:GLN:NE2	49:bd:74:ASN:OD1	2.37	0.58
15:af:59:LEU:O	25:d:295:ARG:HD3	2.04	0.58
16:ae:452:ASP:OD2	16:ae:491:LYS:N	2.37	0.58
17:l:516:ARG:HA	17:l:519:ILE:HD12	1.84	0.58
18:ac:667:VAL:HG13	18:ac:784:VAL:HG13	1.85	0.58
27:av:93:PHE:HD2	27:av:136:LEU:HB3	1.69	0.58
27:av:132:GLN:NE2	29:ar:42:SER:O	2.36	0.58
31:ap:111:PHE:CE2	31:ap:139:ALA:HB2	2.39	0.58
31:ap:220:VAL:O	33:ai:330:ARG:NH1	2.37	0.58
32:ao:254:ASP:OD2	50:a:191:LYS:NZ	2.36	0.58
34:an:55:ALA:HB2	34:an:94:ALA:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:an:61:GLU:HB3	35:z:966:LEU:HD12	1.85	0.58
38:w:98:ARG:NH2	56:2:187:A:H4'	2.19	0.58
39:v:62:ALA:N	39:v:68:ASP:O	2.37	0.58
40:bb:189:VAL:HG11	40:bb:218:VAL:HG21	1.84	0.58
41:t:141:GLY:C	41:t:143:LYS:H	2.11	0.58
43:q:188:ASP:HB3	43:q:192:ASN:HD21	1.69	0.58
45:Ca:338:ARG:NH1	45:Ca:345:GLY:O	2.37	0.58
55:as:80:LEU:O	55:as:83:MET:N	2.36	0.58
1:u:797:GLN:NE2	3:r:391:GLU:O	2.37	0.57
4:n:47:GLN:O	4:n:49:LYS:NZ	2.37	0.57
4:n:80:GLN:O	19:ab:1112:TYR:HB2	2.04	0.57
6:e:555:TRP:CD1	6:e:582:GLN:HA	2.38	0.57
6:e:619:VAL:HG12	6:e:655:VAL:HG23	1.86	0.57
12:ak:272:GLU:OE1	18:ac:152:GLN:NE2	2.37	0.57
14:ag:327:VAL:HG13	14:ag:349:LYS:HE3	1.86	0.57
16:ae:185:ARG:NE	56:A:431:U:O2'	2.37	0.57
18:ac:219:LYS:O	18:ac:222:GLU:N	2.36	0.57
18:ac:671:LEU:HB2	18:ac:749:LEU:HD23	1.85	0.57
19:ab:739:ASP:HB3	19:ab:786:ARG:HH21	1.69	0.57
20:ad:230:GLU:HG2	47:j:188:TYR:HB3	1.85	0.57
20:ad:378:MET:HE2	27:av:32:GLU:HG3	1.86	0.57
20:ad:792:ARG:NH2	20:ad:807:SER:H	2.02	0.57
25:d:13:ALA:O	25:d:17:ARG:HD3	2.04	0.57
26:ba:72:LEU:HD11	45:Ca:71:ILE:HG22	1.86	0.57
35:z:841:HIS:HA	35:z:844:LYS:HZ3	1.69	0.57
35:z:1010:TYR:CE1	45:Ca:124:VAL:HG13	2.37	0.57
42:al:58:ALA:O	42:al:62:VAL:HG12	2.04	0.57
43:q:45:LEU:HB2	47:j:141:PHE:CE2	2.39	0.57
43:q:58:ARG:HB3	47:j:108:ARG:HH12	1.69	0.57
43:q:207:GLU:HG3	43:q:208:HIS:CD2	2.39	0.57
50:a:398:VAL:O	50:a:402:LEU:HG	2.04	0.57
52:aa:337:HIS:O	52:aa:376:TRP:NE1	2.36	0.57
54:be:49:PHE:HB2	54:be:74:ILE:HG21	1.86	0.57
3:r:37:ILE:HG23	3:r:58:TYR:H	1.67	0.57
4:n:87:GLU:OE1	4:n:101:SER:OG	2.14	0.57
7:az:72:LYS:HG3	7:az:73:PRO:HD2	1.86	0.57
7:az:76:ARG:HG3	56:A:534:A:C6	2.39	0.57
7:az:144:HIS:O	7:az:148:ARG:NE	2.34	0.57
14:ag:95:GLY:O	14:ag:99:LEU:HB2	2.04	0.57
15:af:71:ASN:HD21	15:af:101:THR:HG22	1.67	0.57
18:ac:335:ARG:HG3	18:ac:347:PRO:HG2	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:928:ARG:HG2	18:ac:932:ARG:NH2	2.19	0.57
19:ab:279:ASP:OD1	19:ab:511:GLU:HA	2.04	0.57
20:ad:418:GLU:HA	20:ad:421:PHE:CD2	2.39	0.57
22:i:268:LYS:O	22:i:312:SER:OG	2.22	0.57
25:d:126:GLU:HG2	46:g:133:ALA:HB3	1.86	0.57
25:d:137:PHE:CD2	25:d:143:TYR:HB2	2.39	0.57
25:d:287:ASP:O	25:d:289:ARG:NH2	2.37	0.57
33:ai:387:GLU:OE1	33:ai:387:GLU:N	2.37	0.57
34:an:75:VAL:HG21	35:z:946:LEU:HD13	1.86	0.57
35:z:614:TYR:HH	48:b:135:SER:HG	1.46	0.57
38:w:28:LYS:HE2	47:j:76:LEU:HD11	1.86	0.57
42:al:39:PHE:HB2	49:bd:55:LEU:HD23	1.86	0.57
43:q:41:LYS:HD3	43:q:42:GLN:NE2	2.19	0.57
45:Ca:448:ILE:HG22	45:Ca:470:ARG:HH21	1.69	0.57
48:b:137:ASP:OD1	48:b:138:ILE:N	2.36	0.57
52:aa:108:ILE:HG21	52:aa:138:ARG:O	2.04	0.57
52:aa:534:ASP:OD1	52:aa:536:LYS:NZ	2.36	0.57
52:aa:609:ILE:O	52:aa:613:THR:HG23	2.04	0.57
52:aa:871:GLU:HB2	52:aa:872:GLU:OE1	2.03	0.57
52:aa:1494:ASN:HB3	52:aa:1498:HIS:CE1	2.36	0.57
56:2:21:G:O6	56:2:383:U:O4	2.22	0.57
56:2:543:G:C8	56:2:587:A:N6	2.72	0.57
1:u:549:ARG:HE	19:ab:631:THR:HG21	1.69	0.57
1:u:666:PHE:CD1	1:u:666:PHE:HA	2.38	0.57
1:u:690:TRP:HA	1:u:693:TRP:NE1	2.19	0.57
11:au:211:PRO:HB3	13:aj:324:LEU:H	1.68	0.57
12:ak:120:ALA:HB2	14:ag:169:GLU:OE1	2.04	0.57
13:aj:115:MET:O	13:aj:119:LEU:HG	2.04	0.57
16:ae:509:PRO:HA	16:ae:519:ARG:HD2	1.86	0.57
17:l:210:ALA:HB1	17:l:373:ILE:HB	1.86	0.57
17:l:569:ILE:O	17:l:572:ASP:HB2	2.04	0.57
20:ad:669:ARG:HD3	28:at:248:PRO:HG2	1.85	0.57
20:ad:803:LYS:NZ	56:2:258:U:OP1	2.25	0.57
34:an:3:VAL:HG21	50:a:318:PRO:HD2	1.86	0.57
35:z:220:LYS:N	35:z:474:ASP:OD2	2.36	0.57
35:z:618:ARG:NH1	35:z:621:THR:O	2.33	0.57
35:z:1071:ARG:NH1	45:Ca:93:PRO:HB2	2.19	0.57
37:x:153:ARG:O	37:x:157:VAL:HG23	2.04	0.57
41:t:46:TYR:CE1	55:as:242:LEU:HD22	2.38	0.57
42:al:106:ARG:HH22	49:bd:67:TYR:HD2	1.52	0.57
43:q:13:ARG:NH1	56:2:48:U:H5'	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:a:418:ARG:NE	52:aa:1039:GLU:OE1	2.37	0.57
52:aa:106:PHE:O	52:aa:108:ILE:N	2.36	0.57
52:aa:559:LEU:HD11	52:aa:881:PRO:HG2	1.86	0.57
52:aa:829:ARG:HD2	52:aa:829:ARG:N	2.19	0.57
56:2:232:G:H22	56:2:248:A:P	2.27	0.57
1:u:274:VAL:HG11	1:u:325:THR:HG22	1.86	0.57
1:u:557:VAL:HG23	1:u:558:ASP:OD1	2.04	0.57
1:u:752:LYS:HG3	19:ab:1085:HIS:HB3	1.85	0.57
3:r:180:LYS:HB2	3:r:382:LEU:HD11	1.87	0.57
3:r:317:ASP:HB2	6:e:722:PRO:HB3	1.85	0.57
3:r:317:ASP:OD2	6:e:723:LYS:NZ	2.23	0.57
4:n:117:VAL:HG23	4:n:128:LEU:HB2	1.85	0.57
5:h:157:GLN:HA	5:h:161:LEU:HB2	1.86	0.57
6:e:46:PRO:HD2	42:al:105:ARG:HH21	1.69	0.57
6:e:334:GLU:OE1	19:ab:875:ARG:NH1	2.37	0.57
15:af:667:GLY:O	15:af:670:ARG:NE	2.36	0.57
18:ac:767:TYR:CE2	18:ac:814:ILE:HD11	2.40	0.57
25:d:107:THR:HG23	25:d:108:LEU:H	1.68	0.57
28:at:210:TYR:HB2	28:at:215:SER:HA	1.86	0.57
34:an:151:MET:HE1	34:an:155:PRO:HA	1.85	0.57
35:z:929:GLN:O	35:z:933:ALA:HB2	2.05	0.57
35:z:969:ASN:OD1	35:z:969:ASN:N	2.38	0.57
35:z:1070:LEU:HB3	45:Ca:95:TRP:HZ3	1.69	0.57
39:v:69:SER:N	56:2:540:A:OP1	2.29	0.57
45:Ca:92:ILE:HG21	52:aa:481:TYR:HB2	1.87	0.57
50:a:370:ASP:OD1	50:a:370:ASP:N	2.37	0.57
52:aa:542:ASN:HB2	52:aa:545:GLU:HB2	1.87	0.57
52:aa:1089:HIS:HD2	52:aa:1091:THR:H	1.47	0.57
3:r:101:MET:HB3	3:r:107:ARG:HH11	1.70	0.57
6:e:146:MET:SD	10:aw:145:ASN:ND2	2.76	0.57
7:az:20:PRO:HA	9:ax:55:LEU:HD21	1.86	0.57
8:ay:213:THR:HG21	8:ay:217:ASN:HB3	1.87	0.57
10:aw:127:GLU:O	10:aw:147:ARG:NH2	2.37	0.57
11:au:90:PRO:HD2	12:ak:278:ARG:HE	1.69	0.57
14:ag:381:LEU:O	14:ag:385:HIS:HB3	2.04	0.57
14:ag:441:PRO:HG3	49:bd:44:ILE:HG12	1.86	0.57
14:ag:541:ASP:OD1	19:ab:356:THR:HG22	2.04	0.57
15:af:620:THR:O	15:af:624:ILE:HG13	2.05	0.57
18:ac:278:ASP:HB3	18:ac:378:LEU:HD23	1.86	0.57
20:ad:65:ALA:HB3	45:Ca:492:TRP:O	2.03	0.57
21:m:116:PRO:HB3	21:m:135:PHE:HZ	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:av:98:TRP:CE2	27:av:100:THR:HA	2.39	0.57
29:ar:151:ARG:NE	29:ar:172:ALA:HB2	2.20	0.57
29:ar:185:ARG:HH12	29:ar:204:TYR:HB2	1.69	0.57
32:ao:113:GLN:OE1	32:ao:113:GLN:N	2.38	0.57
43:q:141:ARG:HB3	48:b:122:THR:HG21	1.87	0.57
52:aa:1153:GLU:HG3	52:aa:1154:ARG:HH21	1.69	0.57
52:aa:1199:PRO:O	52:aa:1204:GLY:N	2.38	0.57
55:as:178:ARG:HB3	55:as:182:GLU:CD	2.30	0.57
1:u:395:LEU:O	1:u:400:LEU:N	2.37	0.57
1:u:785:PRO:HA	2:s:28:ALA:HB3	1.86	0.57
15:af:366:LEU:HD23	15:af:366:LEU:H	1.69	0.57
17:l:471:ASP:HA	17:l:474:VAL:HG22	1.85	0.57
18:ac:207:ASN:HD22	18:ac:209:GLN:HE21	1.53	0.57
19:ab:148:GLN:HG3	19:ab:168:TYR:CE2	2.39	0.57
20:ad:14:LYS:NZ	56:2:25:U:OP1	2.37	0.57
20:ad:696:TYR:CZ	52:aa:105:PRO:HB3	2.39	0.57
20:ad:735:THR:HG22	20:ad:736:ALA:H	1.69	0.57
21:m:12:ALA:HA	35:z:666:CYS:HB3	1.85	0.57
22:i:327:CYS:SG	22:i:330:THR:HG23	2.44	0.57
22:i:371:LYS:C	22:i:372:MET:HE2	2.30	0.57
23:f:78:TRP:HZ3	44:p:170:LEU:HD22	1.67	0.57
23:f:214:ARG:NH1	56:2:298:C:HO2'	2.03	0.57
24:c:15:ALA:HA	32:ao:32:ILE:HD13	1.87	0.57
35:z:979:TYR:HD2	35:z:991:SER:HA	1.69	0.57
39:v:194:SER:HB3	39:v:197:ALA:HB2	1.86	0.57
44:p:70:THR:O	44:p:72:ASN:N	2.37	0.57
45:Ca:215:ILE:HG13	45:Ca:236:ILE:HD11	1.87	0.57
45:Ca:485:LYS:N	45:Ca:488:GLU:OE1	2.31	0.57
45:Ca:485:LYS:O	45:Ca:489:MET:HG3	2.04	0.57
48:b:68:GLN:HE22	48:b:125:GLU:H	1.52	0.57
50:a:54:GLU:OE2	52:aa:1089:HIS:ND1	2.38	0.57
52:aa:685:ASN:HA	52:aa:688:CYS:HB2	1.85	0.57
7:az:17:VAL:N	10:aw:43:HIS:O	2.38	0.57
7:az:116:LEU:HD22	9:ax:72:TRP:NE1	2.20	0.57
9:ax:119:ASN:OD1	56:A:525:A:N6	2.37	0.57
13:aj:202:PHE:O	13:aj:206:SER:OG	2.22	0.57
14:ag:463:GLU:OE1	14:ag:467:TYR:HB2	2.05	0.57
16:ae:140:HIS:CE1	16:ae:179:TYR:HE1	2.23	0.57
17:l:677:ARG:NH1	19:ab:448:ASP:O	2.37	0.57
18:ac:200:PHE:HB2	18:ac:226:PHE:HB2	1.85	0.57
20:ad:27:MET:HE3	20:ad:28:MET:HE3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:382:PHE:CE1	27:av:32:GLU:HB3	2.40	0.57
20:ad:654:LEU:HD13	47:j:146:LEU:HB3	1.87	0.57
22:i:102:ALA:HB2	53:k:186:LEU:HD21	1.87	0.57
28:at:40:LYS:O	28:at:44:LYS:N	2.37	0.57
29:ar:225:ILE:HG23	29:ar:226:PRO:HD2	1.87	0.57
34:an:76:ASN:HD21	35:z:954:GLU:HG2	1.69	0.57
34:an:161:ARG:NH1	52:aa:1195:GLY:O	2.36	0.57
35:z:226:SER:HB3	35:z:236:THR:HB	1.87	0.57
35:z:409:ASP:O	35:z:518:ARG:NH1	2.37	0.57
35:z:574:VAL:O	35:z:578:ILE:HG13	2.04	0.57
36:y:90:CYS:HB3	36:y:93:CYS:HB2	1.86	0.57
37:x:170:LEU:HD23	37:x:207:HIS:ND1	2.20	0.57
48:b:2:VAL:HG13	48:b:37:ARG:CZ	2.35	0.57
52:aa:626:ILE:HG12	52:aa:635:VAL:HG12	1.87	0.57
52:aa:1054:ILE:HD12	52:aa:1055:PRO:HD2	1.87	0.57
1:u:37:LEU:O	1:u:41:THR:HB	2.05	0.57
1:u:71:ALA:HB3	1:u:74:PHE:HB2	1.87	0.57
2:s:38:ALA:HA	2:s:43:GLU:HB2	1.85	0.57
2:s:111:ASP:OD1	2:s:111:ASP:N	2.32	0.57
6:e:162:MET:HE2	25:d:42:TRP:CG	2.40	0.57
6:e:427:ARG:NH2	13:aj:39:GLU:OE2	2.30	0.57
7:az:25:ILE:HA	7:az:32:TRP:CG	2.40	0.57
7:az:86:SER:HB3	39:v:112:GLN:CB	2.35	0.57
11:au:33:HIS:ND1	11:au:34:PRO:HD2	2.20	0.57
15:af:538:ILE:O	15:af:542:LEU:HG	2.05	0.57
16:ae:389:GLU:HB3	16:ae:479:LEU:HD11	1.86	0.57
18:ac:454:TRP:HA	18:ac:457:LEU:HD12	1.86	0.57
19:ab:272:ARG:HB3	19:ab:272:ARG:HH11	1.68	0.57
19:ab:607:VAL:O	19:ab:611:VAL:HG23	2.05	0.57
20:ad:425:VAL:HA	20:ad:428:ARG:HH12	1.69	0.57
20:ad:471:GLU:OE2	20:ad:479:ARG:NH2	2.38	0.57
20:ad:588:PHE:O	20:ad:590:TRP:HD1	1.88	0.57
20:ad:590:TRP:CZ3	20:ad:595:LEU:HD11	2.39	0.57
20:ad:757:LYS:NZ	45:Ca:387:LEU:O	2.37	0.57
21:m:122:MET:O	48:b:130:TRP:HB2	2.05	0.57
21:m:181:ARG:N	23:f:183:GLU:OE1	2.38	0.57
34:an:18:HIS:HA	52:aa:996:ARG:HD2	1.86	0.57
34:an:46:PHE:HE1	35:z:973:PRO:HD3	1.70	0.57
35:z:1095:ASP:HA	45:Ca:52:LYS:HE2	1.85	0.57
37:x:138:LEU:HD23	37:x:140:TYR:CZ	2.40	0.57
38:w:60:GLU:HG2	38:w:74:LYS:HE2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:bb:172:ARG:NH1	40:bb:238:ILE:OXT	2.37	0.57
41:t:158:THR:HB	55:as:112:ARG:HD3	1.86	0.57
41:t:174:GLU:N	41:t:174:GLU:OE2	2.38	0.57
42:al:176:TYR:HD2	44:p:79:PRO:HB2	1.70	0.57
47:j:62:LEU:HD23	52:aa:122:ILE:HG21	1.86	0.57
50:a:138:CYS:HB3	50:a:140:PHE:CE1	2.40	0.57
52:aa:1542:GLU:N	52:aa:1542:GLU:OE1	2.37	0.57
56:2:362:A:H2'	56:2:363:A:O4'	2.03	0.57
4:n:99:PHE:HE1	16:ae:63:TYR:HE2	1.51	0.57
18:ac:353:ASP:OD1	18:ac:355:PRO:HD2	2.05	0.57
19:ab:104:PRO:HG2	19:ab:196:THR:HG23	1.87	0.57
23:f:112:ARG:HD2	25:d:89:HIS:O	2.05	0.57
27:av:220:ARG:HD3	27:av:225:PHE:CZ	2.39	0.57
31:ap:159:ASP:OD1	31:ap:250:ARG:NH2	2.36	0.57
34:an:2:GLU:HA	34:an:5:ARG:HB3	1.85	0.57
35:z:435:PRO:HD3	35:z:812:VAL:HG21	1.86	0.57
35:z:1112:GLY:HA2	45:Ca:40:ASP:HB2	1.85	0.57
37:x:135:ARG:HE	37:x:164:HIS:HB2	1.69	0.57
45:Ca:36:ILE:HD13	45:Ca:38:TRP:CE3	2.39	0.57
52:aa:284:HIS:HB2	52:aa:287:HIS:CD2	2.40	0.57
52:aa:1499:ALA:HA	52:aa:1503:PRO:HD2	1.86	0.57
55:as:236:MET:HE1	56:2:50:A:C8	2.40	0.57
56:2:75:A:C5	56:2:164:G:C2	2.93	0.57
2:s:56:GLU:OE2	10:aw:101:ARG:NH1	2.37	0.57
5:h:122:VAL:HG13	5:h:127:LEU:HD12	1.87	0.57
5:h:152:TRP:CE3	6:e:796:LYS:HD2	2.40	0.57
6:e:200:VAL:HA	25:d:326:ARG:HH22	1.69	0.57
6:e:245:LYS:HA	6:e:403:ILE:O	2.04	0.57
6:e:458:THR:HA	6:e:462:HIS:HD2	1.70	0.57
11:au:109:GLU:HB3	14:ag:494:ARG:HH12	1.70	0.57
11:au:154:GLN:O	11:au:156:TYR:N	2.38	0.57
18:ac:563:GLY:HA2	18:ac:566:ARG:NH1	2.20	0.57
18:ac:947:LEU:HG	18:ac:1049:LEU:HD11	1.85	0.57
19:ab:1068:SER:O	19:ab:1071:ARG:NH1	2.36	0.57
19:ab:1086:PHE:O	19:ab:1090:VAL:HG22	2.04	0.57
20:ad:809:PRO:HD2	26:ba:47:TYR:CE2	2.40	0.57
21:m:34:ASP:HB3	42:al:185:GLU:H	1.69	0.57
22:i:277:ILE:HG23	22:i:281:HIS:CD2	2.39	0.57
22:i:330:THR:OG1	22:i:331:GLY:N	2.37	0.57
25:d:146:SER:HB2	44:p:191:HIS:CE1	2.40	0.57
31:ap:180:MET:HE1	43:q:132:PHE:HD2	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:an:283:ARG:HH11	35:z:514:SER:N	2.03	0.57
35:z:460:ALA:O	35:z:465:TRP:HB2	2.04	0.57
37:x:205:ALA:O	37:x:209:ASN:ND2	2.38	0.57
43:q:96:GLN:HG2	52:aa:196:ARG:HH12	1.69	0.57
45:Ca:144:GLN:HB2	52:aa:896:THR:HG21	1.86	0.57
46:g:56:LEU:HG	46:g:166:PRO:HB2	1.87	0.57
48:b:37:ARG:NH2	48:b:70:ASP:OD2	2.31	0.57
48:b:56:ASN:HD21	56:2:295:G:N2	2.03	0.57
50:a:339:LEU:HD11	52:aa:1428:GLY:HA2	1.87	0.57
55:as:10:ALA:N	56:2:76:A:OP2	2.38	0.57
56:2:75:A:C6	56:2:164:G:N2	2.73	0.57
56:2:123:U:H2'	56:2:124:U:O4'	2.04	0.57
56:2:217:U:H3'	56:2:218:A:H8	1.70	0.57
1:u:666:PHE:CG	6:e:445:GLY:HA3	2.39	0.56
12:ak:33:GLY:N	12:ak:113:ALA:HB2	2.20	0.56
13:aj:112:GLN:NE2	16:ae:367:VAL:HG23	2.20	0.56
14:ag:59:MET:SD	18:ac:1092:GLY:HA2	2.45	0.56
15:af:92:GLN:OE1	19:ab:969:LYS:HA	2.03	0.56
15:af:541:TYR:O	15:af:545:ILE:HG13	2.05	0.56
20:ad:290:ARG:O	20:ad:294:VAL:HG23	2.04	0.56
21:m:122:MET:HE2	35:z:179:LEU:HA	1.87	0.56
25:d:71:LEU:HD23	25:d:71:LEU:H	1.69	0.56
32:ao:244:GLY:HA3	32:ao:260:HIS:HB3	1.87	0.56
35:z:247:MET:HG2	35:z:284:GLU:HG3	1.87	0.56
35:z:428:LEU:HD23	35:z:432:LEU:HG	1.87	0.56
36:y:48:GLN:CD	44:p:295:ASP:HB3	2.30	0.56
36:y:150:ARG:NH1	36:y:174:ASN:HB2	2.20	0.56
41:t:78:ASP:HB2	41:t:81:GLU:HG2	1.87	0.56
44:p:43:THR:HG22	44:p:45:PHE:H	1.70	0.56
50:a:106:TRP:HB3	50:a:108:HIS:HD2	1.70	0.56
50:a:140:PHE:HB3	50:a:169:VAL:HG12	1.87	0.56
50:a:219:ALA:O	50:a:221:GLY:N	2.37	0.56
50:a:332:ASP:OD1	50:a:334:ARG:HB2	2.05	0.56
52:aa:1520:GLN:HA	52:aa:1614:ALA:HA	1.87	0.56
55:as:52:MET:SD	55:as:170:LEU:HD21	2.45	0.56
56:2:234:C:N4	56:2:244:G:O2'	2.34	0.56
2:s:57:ASP:O	2:s:61:MET:N	2.32	0.56
3:r:184:HIS:HA	3:r:296:HIS:ND1	2.20	0.56
6:e:103:TYR:O	6:e:105:GLU:N	2.38	0.56
6:e:172:HIS:CD2	15:af:216:HIS:CD2	2.93	0.56
6:e:279:LEU:HB2	6:e:336:CYS:SG	2.45	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:ae:121:LEU:HD22	16:ae:154:ASN:HA	1.88	0.56
18:ac:587:VAL:O	18:ac:805:SER:OG	2.19	0.56
18:ac:991:LEU:HD23	18:ac:1026:VAL:HG21	1.86	0.56
19:ab:181:ASN:HD21	19:ab:183:SER:HB3	1.70	0.56
20:ad:106:ALA:HB1	45:Ca:458:LYS:HB3	1.88	0.56
20:ad:293:GLU:O	20:ad:297:ARG:HG2	2.05	0.56
27:av:62:LEU:O	53:k:151:ARG:HD2	2.05	0.56
27:av:88:PRO:HB2	27:av:111:GLN:OE1	2.05	0.56
27:av:209:PRO:HD3	30:aq:62:LYS:HA	1.86	0.56
27:av:231:SER:HB3	27:av:235:GLN:HE21	1.68	0.56
37:x:159:TYR:HD1	37:x:214:TYR:HH	1.53	0.56
43:q:96:GLN:HG2	52:aa:196:ARG:NH1	2.18	0.56
49:bd:40:ASN:OD1	49:bd:40:ASN:N	2.38	0.56
49:bd:53:ILE:O	49:bd:59:HIS:HA	2.05	0.56
52:aa:142:LEU:O	53:k:78:TYR:OH	2.13	0.56
52:aa:338:GLU:OE1	52:aa:338:GLU:N	2.38	0.56
52:aa:1114:VAL:HG22	52:aa:1151:TRP:CZ2	2.40	0.56
56:2:189:A:O2'	56:2:190:U:O4'	2.22	0.56
1:u:176:ALA:HB2	1:u:230:LEU:HD11	1.87	0.56
1:u:327:VAL:O	1:u:331:GLU:HG2	2.05	0.56
1:u:726:ASP:OD1	1:u:729:THR:OG1	2.16	0.56
2:s:39:ARG:HG3	6:e:472:TRP:CH2	2.40	0.56
2:s:131:SER:OG	5:h:16:ASP:OD1	2.20	0.56
4:n:34:ALA:N	8:ay:82:LYS:O	2.36	0.56
4:n:158:LYS:HD3	51:bc:345:GLY:HA3	1.86	0.56
6:e:684:ARG:NH1	19:ab:1099:GLY:O	2.37	0.56
7:az:86:SER:N	39:v:112:GLN:OE1	2.25	0.56
10:aw:95:GLN:O	10:aw:99:ARG:HG2	2.05	0.56
11:au:198:ASP:HB3	11:au:203:ARG:H	1.71	0.56
12:ak:107:LYS:NZ	18:ac:1004:GLU:O	2.29	0.56
14:ag:269:PHE:HD1	14:ag:272:ARG:NH1	2.02	0.56
15:af:534:ILE:O	15:af:538:ILE:HG13	2.05	0.56
16:ae:547:ASN:N	16:ae:550:SER:OG	2.32	0.56
17:l:192:ARG:HH22	18:ac:597:LEU:H	1.53	0.56
17:l:274:ASN:N	17:l:277:GLU:OE1	2.29	0.56
18:ac:58:ILE:O	18:ac:543:ASN:ND2	2.38	0.56
19:ab:1064:SER:O	19:ab:1068:SER:OG	2.23	0.56
20:ad:295:TYR:CE1	20:ad:314:PHE:HD1	2.24	0.56
20:ad:373:THR:N	20:ad:559:ASP:OD2	2.37	0.56
20:ad:475:ALA:HA	20:ad:478:ARG:HE	1.69	0.56
20:ad:687:LEU:CD1	43:q:72:ASN:HB3	2.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:f:200:ARG:HE	46:g:180:GLN:HE21	1.53	0.56
30:aq:106:GLY:H	41:t:139:ARG:NH2	2.03	0.56
34:an:103:ARG:HA	34:an:106:MET:HB2	1.87	0.56
34:an:115:LYS:NZ	52:aa:979:ASP:OD1	2.37	0.56
34:an:199:ARG:HB3	52:aa:1553:HIS:O	2.06	0.56
34:an:204:PHE:HB3	52:aa:821:ARG:HG3	1.86	0.56
34:an:244:ASN:HD22	50:a:108:HIS:CE1	2.23	0.56
34:an:283:ARG:O	34:an:285:ILE:HG23	2.06	0.56
35:z:498:LEU:HD13	50:a:59:LEU:HD13	1.87	0.56
35:z:585:ARG:HH22	35:z:749:PRO:HD3	1.69	0.56
36:y:15:ARG:HB3	36:y:108:MET:SD	2.45	0.56
39:v:23:ASP:N	39:v:23:ASP:OD1	2.38	0.56
39:v:113:ASP:HB3	39:v:115:CYS:HA	1.88	0.56
41:t:153:HIS:HE1	41:t:208:ALA:HB3	1.70	0.56
42:al:30:TYR:HD1	49:bd:78:TYR:CE1	2.24	0.56
42:al:219:TYR:O	42:al:223:VAL:HG23	2.04	0.56
42:al:268:HIS:HB2	42:al:270:MET:C	2.30	0.56
44:p:107:SER:HB2	44:p:111:ARG:HG2	1.85	0.56
45:Ca:444:MET:HE2	47:j:92:LEU:HD22	1.87	0.56
47:j:18:THR:HG22	56:2:172:A:H1'	1.87	0.56
48:b:68:GLN:NE2	48:b:125:GLU:H	2.02	0.56
51:bc:229:SER:HB2	51:bc:259:THR:HG23	1.86	0.56
52:aa:743:LEU:HD23	52:aa:761:LEU:HD12	1.86	0.56
52:aa:816:GLN:NE2	52:aa:856:MET:O	2.34	0.56
52:aa:980:ALA:O	52:aa:984:VAL:HG23	2.04	0.56
52:aa:1020:LEU:HA	52:aa:1048:LEU:HD13	1.88	0.56
3:r:144:GLY:HA3	3:r:353:PHE:O	2.05	0.56
3:r:259:ILE:O	3:r:262:GLN:HG3	2.06	0.56
12:ak:260:ARG:HH11	18:ac:46:ASP:CG	2.12	0.56
15:af:263:GLU:HG2	15:af:370:LEU:HD12	1.87	0.56
15:af:670:ARG:NH2	25:d:35:THR:OG1	2.38	0.56
16:ae:515:ASN:ND2	19:ab:847:GLU:OE1	2.33	0.56
16:ae:551:ARG:NH1	19:ab:552:ASN:O	2.38	0.56
18:ac:991:LEU:HB2	18:ac:1018:PHE:CE2	2.41	0.56
20:ad:110:SER:HB2	56:2:10:G:H5''	1.86	0.56
20:ad:202:ARG:HH12	52:aa:217:THR:HA	1.70	0.56
20:ad:232:TRP:HA	20:ad:236:CYS:SG	2.46	0.56
20:ad:292:ARG:NH1	20:ad:327:THR:HG23	2.16	0.56
22:i:108:THR:OG1	22:i:111:GLN:HG3	2.05	0.56
22:i:368:ALA:HA	27:av:129:ILE:HG21	1.87	0.56
35:z:437:THR:OG1	35:z:463:LEU:HD13	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:1011:ARG:O	35:z:1014:GLU:HG3	2.05	0.56
40:bb:133:LYS:H	56:2:280:A:N6	2.04	0.56
41:t:91:GLU:HA	41:t:94:THR:HG22	1.87	0.56
41:t:205:ARG:NH2	55:as:223:THR:O	2.38	0.56
42:al:263:ARG:HD3	42:al:265:ARG:HG2	1.87	0.56
54:be:27:SER:O	56:2:244:G:N1	2.32	0.56
56:A:444:A:O2'	56:A:481:A:N7	2.28	0.56
56:2:76:A:H2'	56:2:77:A:C8	2.41	0.56
56:2:263:A:O2'	56:2:264:A:H8	1.87	0.56
1:u:666:PHE:CD1	6:e:444:ASP:C	2.83	0.56
4:n:87:GLU:HB3	4:n:104:GLN:HB2	1.88	0.56
6:e:540:VAL:HG22	6:e:542:PRO:HD3	1.87	0.56
7:az:88:ALA:O	7:az:92:THR:HG23	2.05	0.56
12:ak:236:LEU:HG	12:ak:237:PRO:HD3	1.88	0.56
17:l:51:PHE:HB2	17:l:96:LYS:HD3	1.86	0.56
17:l:238:ILE:O	17:l:242:VAL:HG23	2.06	0.56
17:l:618:HIS:CD2	17:l:619:LYS:HD3	2.41	0.56
22:i:305:TRP:NE1	52:aa:164:GLU:OE2	2.32	0.56
23:f:273:LYS:HD2	23:f:302:HIS:HB2	1.88	0.56
27:av:106:ARG:HH11	55:as:27:LYS:HB2	1.71	0.56
34:an:185:TRP:HE3	52:aa:1557:VAL:HG13	1.69	0.56
35:z:754:PRO:O	35:z:757:GLN:NE2	2.38	0.56
38:w:90:GLN:O	38:w:93:VAL:HB	2.06	0.56
50:a:54:GLU:OE2	52:aa:1085:HIS:ND1	2.39	0.56
51:bc:266:PRO:HB3	51:bc:337:MET:HG2	1.86	0.56
55:as:24:SER:HB3	55:as:27:LYS:HD3	1.87	0.56
1:u:117:VAL:O	1:u:121:SER:OG	2.21	0.56
6:e:509:ASN:ND2	6:e:522:ASN:O	2.37	0.56
7:az:15:LYS:NZ	56:A:518:G:O6	2.20	0.56
9:ax:157:PRO:HA	9:ax:160:TYR:HD2	1.70	0.56
18:ac:448:PRO:HD2	18:ac:497:TYR:CE2	2.40	0.56
18:ac:478:LEU:HD22	18:ac:481:PHE:HB2	1.88	0.56
18:ac:959:GLY:O	19:ab:227:ARG:NE	2.31	0.56
19:ab:90:TYR:OH	19:ab:204:GLN:O	2.24	0.56
19:ab:208:ASP:OD1	19:ab:211:GLN:NE2	2.33	0.56
20:ad:499:THR:HG22	20:ad:500:ALA:H	1.69	0.56
20:ad:520:SER:O	20:ad:522:ARG:N	2.39	0.56
21:m:181:ARG:O	21:m:184:LYS:NZ	2.22	0.56
22:i:236:ARG:NH2	22:i:256:GLU:OE1	2.39	0.56
24:c:146:TYR:OH	56:2:283:U:OP1	2.20	0.56
29:ar:73:HIS:CD2	29:ar:122:ILE:HD12	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:aq:182:ILE:HB	30:aq:187:ARG:HH21	1.69	0.56
32:ao:126:ASP:OD1	32:ao:126:ASP:N	2.36	0.56
34:an:137:VAL:HB	34:an:138:PRO:HD2	1.86	0.56
34:an:172:VAL:O	34:an:176:ARG:HG3	2.06	0.56
34:an:173:ASP:OD1	34:an:176:ARG:NH2	2.38	0.56
34:an:246:MET:HE1	50:a:107:LYS:H	1.70	0.56
38:w:138:SER:HA	56:2:46:U:H5	1.70	0.56
40:bb:151:ARG:NH2	56:2:591:A:N3	2.54	0.56
42:al:51:ARG:HB2	49:bd:60:ILE:HG12	1.88	0.56
43:q:150:TYR:CE2	48:b:35:LEU:HD13	2.41	0.56
43:q:179:PHE:HD1	43:q:180:VAL:HG13	1.71	0.56
45:Ca:25:LYS:O	45:Ca:28:VAL:HG22	2.05	0.56
45:Ca:487:SER:HB2	47:j:77:TRP:O	2.06	0.56
52:aa:627:PHE:CD1	52:aa:832:ALA:HB2	2.40	0.56
56:2:293:A:O2'	56:2:294:A:O5'	2.24	0.56
56:2:590:A:C2	56:2:613:U:C2	2.94	0.56
1:u:553:SER:O	1:u:557:VAL:HG13	2.05	0.56
3:r:99:GLN:NE2	3:r:456:ILE:HG21	2.19	0.56
3:r:188:CYS:SG	3:r:189:TRP:N	2.77	0.56
7:az:54:PRO:HG3	7:az:105:LEU:HD13	1.88	0.56
11:au:75:GLN:OE1	18:ac:1072:ARG:NH1	2.39	0.56
14:ag:14:TYR:CD2	14:ag:17:ILE:HD12	2.41	0.56
16:ae:584:PHE:HA	16:ae:587:ILE:HD12	1.87	0.56
18:ac:206:ALA:H	18:ac:210:GLN:NE2	2.04	0.56
19:ab:1108:LYS:O	19:ab:1110:ARG:NH1	2.38	0.56
20:ad:688:PRO:O	45:Ca:450:VAL:HG21	2.06	0.56
21:m:31:THR:HG23	44:p:119:ARG:HH11	1.71	0.56
22:i:100:HIS:HB3	22:i:290:SER:HB2	1.86	0.56
22:i:228:ARG:HA	22:i:231:LYS:HB3	1.88	0.56
22:i:268:LYS:NZ	22:i:309:LEU:O	2.39	0.56
22:i:400:LYS:HA	22:i:410:TYR:OH	2.05	0.56
27:av:179:LYS:HG2	27:av:180:ASP:H	1.71	0.56
28:at:194:GLU:HB3	28:at:197:GLN:NE2	2.21	0.56
30:aq:32:TYR:HA	30:aq:35:ILE:HB	1.88	0.56
32:ao:183:GLN:HA	32:ao:187:MET:H	1.71	0.56
39:v:99:GLU:HG2	39:v:122:LEU:HA	1.88	0.56
42:al:33:HIS:O	42:al:36:LYS:HG2	2.05	0.56
42:al:184:MET:HE2	42:al:189:ALA:HB2	1.87	0.56
42:al:246:LEU:O	42:al:251:LYS:NZ	2.38	0.56
43:q:151:ILE:O	48:b:30:TYR:OH	2.24	0.56
45:Ca:47:ASP:OD1	45:Ca:49:THR:N	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:205:PRO:HB2	45:Ca:254:LEU:HD21	1.87	0.56
46:g:54:ILE:HA	46:g:57:ILE:HG22	1.88	0.56
47:j:43:SER:OG	47:j:68:HIS:O	2.19	0.56
50:a:394:THR:O	50:a:398:VAL:HG23	2.05	0.56
56:A:530:A:H2'	56:A:531:G:C8	2.41	0.56
56:2:141:G:H2'	56:2:142:U:C6	2.41	0.56
56:2:332:U:O2'	56:2:333:U:H5'	2.06	0.56
3:r:322:PRO:HD3	8:ay:168:ARG:HG2	1.88	0.56
8:ay:125:ARG:NH1	8:ay:193:THR:O	2.38	0.56
9:ax:93:ARG:HG3	9:ax:153:HIS:CD2	2.41	0.56
12:ak:140:HIS:HB3	12:ak:142:GLU:CD	2.30	0.56
13:aj:323:THR:HG22	13:aj:324:LEU:O	2.06	0.56
15:af:38:ARG:NH2	19:ab:1009:ASP:OD1	2.35	0.56
16:ae:136:ALA:HB1	16:ae:151:VAL:HB	1.87	0.56
19:ab:124:TYR:O	19:ab:128:THR:HG23	2.06	0.56
19:ab:834:ASN:ND2	19:ab:840:GLU:OE1	2.39	0.56
24:c:102:ASP:OD2	24:c:116:LYS:HA	2.05	0.56
25:d:126:GLU:OE1	46:g:132:GLN:N	2.39	0.56
25:d:186:MET:HE3	25:d:188:THR:HG21	1.88	0.56
28:at:41:LEU:O	28:at:44:LYS:N	2.37	0.56
35:z:38:LEU:HB3	39:v:40:ILE:HD11	1.88	0.56
42:al:217:GLU:HB3	42:al:221:ARG:HE	1.71	0.56
45:Ca:343:PHE:HA	50:a:16:TYR:HB2	1.87	0.56
52:aa:597:LYS:O	52:aa:601:LEU:HG	2.05	0.56
52:aa:1114:VAL:HG22	52:aa:1151:TRP:CE2	2.40	0.56
56:2:50:A:O2'	56:2:51:U:O5'	2.22	0.56
1:u:638:ARG:NH2	6:e:320:GLU:OE2	2.22	0.56
3:r:128:TRP:CD1	3:r:280:PRO:HB3	2.41	0.56
6:e:23:PHE:CZ	49:bd:53:ILE:HD13	2.41	0.56
6:e:184:ASP:O	15:af:133:ARG:NH2	2.38	0.56
8:ay:188:PRO:HD2	8:ay:191:TYR:HB2	1.88	0.56
15:af:592:ARG:HA	15:af:595:MET:HG2	1.88	0.56
20:ad:208:CYS:SG	20:ad:285:LEU:HB2	2.46	0.56
21:m:142:MET:SD	21:m:142:MET:N	2.79	0.56
22:i:366:ARG:O	22:i:370:PHE:HB2	2.06	0.56
24:c:264:ARG:NH2	24:c:274:GLU:OE2	2.38	0.56
34:an:150:HIS:HB3	37:x:141:PRO:HG3	1.88	0.56
34:an:238:ARG:HH12	45:Ca:137:LYS:HD2	1.70	0.56
35:z:618:ARG:HD3	43:q:217:GLN:HE22	1.69	0.56
35:z:1018:TYR:OH	50:a:368:ARG:HD3	2.06	0.56
37:x:154:GLN:NE2	37:x:154:GLN:O	2.32	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:x:177:THR:C	37:x:179:LEU:H	2.14	0.56
39:v:105:VAL:HG12	39:v:109:ARG:HE	1.70	0.56
43:q:33:THR:O	43:q:36:ARG:N	2.38	0.56
47:j:48:VAL:HG12	47:j:62:LEU:HD12	1.87	0.56
47:j:54:ARG:HH12	56:2:59:U:H6	1.54	0.56
50:a:285:ILE:O	50:a:288:SER:OG	2.22	0.56
51:bc:269:ALA:HB1	51:bc:303:VAL:HG21	1.88	0.56
52:aa:1017:TRP:HZ3	52:aa:1067:ILE:HG12	1.69	0.56
52:aa:1563:PRO:HD2	52:aa:1636:TYR:CD2	2.40	0.56
55:as:172:HIS:NE2	55:as:185:LEU:HD21	2.21	0.56
56:2:540:A:H2'	56:2:541:A:C8	2.41	0.56
3:r:365:ASP:C	6:e:211:THR:HG21	2.31	0.56
3:r:464:VAL:HG12	7:az:38:MET:HE3	1.86	0.56
6:e:15:ARG:C	6:e:16:MET:HG3	2.31	0.56
11:au:50:GLU:OE2	11:au:163:ARG:NE	2.39	0.56
15:af:229:HIS:HD1	15:af:233:TRP:CD1	2.24	0.56
17:l:160:GLN:HG3	19:ab:344:GLU:HB2	1.88	0.56
17:l:174:ASP:HB3	17:l:182:PHE:HE2	1.71	0.56
17:l:696:ARG:NH1	17:l:699:ASP:OD2	2.39	0.56
18:ac:261:LEU:HA	18:ac:264:SER:OG	2.06	0.56
18:ac:965:TYR:O	18:ac:968:THR:N	2.39	0.56
18:ac:985:PHE:O	18:ac:992:SER:OG	2.17	0.56
18:ac:1120:HIS:CD2	18:ac:1122:GLU:H	2.23	0.56
19:ab:891:PRO:HB3	19:ab:931:MET:HE1	1.87	0.56
20:ad:331:GLU:HG2	20:ad:381:ARG:NE	2.21	0.56
23:f:181:TRP:HE3	23:f:184:MET:HG3	1.71	0.56
24:c:69:LEU:HD12	24:c:70:PRO:HD2	1.87	0.56
27:av:89:LEU:O	27:av:112:THR:N	2.33	0.56
27:av:90:ARG:HG2	27:av:111:GLN:HB2	1.87	0.56
32:ao:249:THR:OG1	49:bd:35:LEU:O	2.13	0.56
34:an:12:ARG:NH1	34:an:25:GLU:OE1	2.33	0.56
36:y:111:GLU:O	36:y:115:SER:OG	2.16	0.56
39:v:140:CYS:HB3	56:2:394:A:C2	2.41	0.56
43:q:70:ARG:HH21	47:j:172:LEU:HD12	1.71	0.56
47:j:34:GLY:HA3	47:j:44:TYR:HD1	1.71	0.56
52:aa:864:PRO:O	52:aa:868:ASP:N	2.39	0.56
6:e:47:ILE:HD12	42:al:105:ARG:HG2	1.88	0.55
13:aj:207:VAL:HA	13:aj:210:MET:HE2	1.88	0.55
13:aj:243:ASN:OD1	13:aj:273:TYR:OH	2.14	0.55
14:ag:116:VAL:HG21	14:ag:177:TRP:HZ2	1.71	0.55
14:ag:463:GLU:HG2	14:ag:467:TYR:HD1	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:l:178:ARG:CZ	17:l:178:ARG:HA	2.36	0.55
18:ac:551:ILE:O	18:ac:555:VAL:HG22	2.07	0.55
19:ab:911:LEU:HD13	19:ab:924:GLU:HB2	1.87	0.55
20:ad:396:ILE:O	20:ad:400:VAL:HG23	2.05	0.55
20:ad:569:VAL:O	20:ad:604:ARG:NH1	2.33	0.55
21:m:94:LEU:HD23	44:p:112:TYR:HB3	1.88	0.55
23:f:158:PHE:H	48:b:143:GLU:CD	2.14	0.55
32:ao:232:TRP:CZ3	32:ao:274:PRO:HD2	2.40	0.55
34:an:185:TRP:O	34:an:188:SER:N	2.35	0.55
35:z:35:TYR:CZ	35:z:37:PRO:HG3	2.41	0.55
35:z:606:HIS:CE1	48:b:124:LEU:HG	2.41	0.55
35:z:1063:VAL:HB	35:z:1068:ARG:HD3	1.89	0.55
38:w:136:ASP:OD2	47:j:16:ARG:NH1	2.39	0.55
44:p:48:PRO:HD2	50:a:104:PHE:O	2.06	0.55
45:Ca:69:GLU:OE1	45:Ca:69:GLU:N	2.39	0.55
45:Ca:132:HIS:HB2	50:a:349:TRP:CH2	2.41	0.55
45:Ca:522:GLN:HE22	45:Ca:586:GLN:HA	1.71	0.55
50:a:387:SER:N	52:aa:1242:LYS:HZ1	2.01	0.55
52:aa:353:TYR:O	52:aa:373:HIS:NE2	2.37	0.55
52:aa:860:SER:OG	52:aa:966:GLU:OE1	2.12	0.55
53:k:93:ASP:HB3	53:k:146:HIS:HE1	1.70	0.55
56:A:461:A:C2	56:A:463:A:H2'	2.41	0.55
56:A:472:G:H2'	56:A:473:U:H6	1.70	0.55
56:2:142:U:C2	56:2:147:G:O6	2.58	0.55
1:u:790:LYS:NZ	10:aw:148:ASN:HA	2.21	0.55
3:r:284:VAL:HG22	3:r:354:PHE:HB2	1.87	0.55
15:af:143:HIS:CE1	15:af:202:LEU:HG	2.40	0.55
16:ae:221:TYR:HA	16:ae:224:VAL:HG23	1.89	0.55
17:l:221:ARG:NH2	17:l:242:VAL:O	2.38	0.55
18:ac:495:LEU:HD12	18:ac:521:LEU:HD22	1.87	0.55
18:ac:899:GLN:HG2	18:ac:902:ILE:HD11	1.87	0.55
18:ac:971:TYR:HA	18:ac:974:GLU:HG2	1.86	0.55
19:ab:334:ASN:HA	19:ab:337:ARG:HH11	1.71	0.55
19:ab:537:GLN:O	19:ab:541:ILE:HG22	2.06	0.55
20:ad:83:THR:HA	20:ad:86:ILE:HD13	1.86	0.55
20:ad:205:THR:HA	20:ad:279:ASN:HD21	1.71	0.55
22:i:87:THR:OG1	22:i:88:PRO:HD3	2.07	0.55
23:f:200:ARG:HB2	23:f:284:TYR:CZ	2.41	0.55
25:d:192:GLN:O	25:d:196:THR:HG23	2.06	0.55
25:d:206:ASN:HB2	37:x:134:SER:HB3	1.88	0.55
32:ao:189:CYS:HB2	32:ao:193:GLU:CD	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:an:196:LEU:HD22	52:aa:799:GLU:HA	1.88	0.55
35:z:1019:ASP:OD2	35:z:1026:HIS:NE2	2.39	0.55
39:v:105:VAL:HB	39:v:109:ARG:HH11	1.70	0.55
41:t:132:LEU:HD21	41:t:135:ILE:HG13	1.87	0.55
42:al:206:GLY:H	52:aa:1068:ARG:HH12	1.53	0.55
44:p:22:ASP:OD1	44:p:23:VAL:N	2.40	0.55
45:Ca:523:GLU:OE2	56:2:202:A:H5'	2.06	0.55
46:g:69:ARG:NH1	46:g:94:GLU:OE1	2.39	0.55
49:bd:51:ILE:HD12	49:bd:82:PHE:CE1	2.41	0.55
56:2:263:A:HO2'	56:2:264:A:H8	1.55	0.55
12:ak:165:ALA:HB3	12:ak:170:GLN:HG3	1.88	0.55
13:aj:278:GLY:HA2	16:ae:15:HIS:NE2	2.21	0.55
14:ag:457:TRP:CG	19:ab:259:LYS:HD2	2.41	0.55
15:af:609:PRO:HD2	15:af:668:ARG:HH22	1.70	0.55
17:l:303:GLU:OE2	17:l:364:PHE:N	2.39	0.55
18:ac:255:GLN:O	18:ac:259:ARG:NH2	2.40	0.55
18:ac:424:GLU:O	18:ac:428:GLN:HG2	2.06	0.55
19:ab:102:TYR:CE2	19:ab:201:LEU:HA	2.35	0.55
21:m:159:ARG:HH12	35:z:168:ILE:HD12	1.72	0.55
27:av:118:ILE:HD11	27:av:122:ARG:HG3	1.88	0.55
28:at:110:SER:OG	56:2:206:A:OP2	2.24	0.55
34:an:130:ASP:HB3	52:aa:1538:ASN:HB3	1.88	0.55
42:al:118:ASP:O	42:al:122:VAL:HG23	2.07	0.55
43:q:13:ARG:NH1	56:2:49:U:OP1	2.39	0.55
50:a:267:HIS:NE2	56:2:22:U:OP1	2.39	0.55
51:bc:376:ASP:OD1	51:bc:376:ASP:N	2.38	0.55
52:aa:348:TYR:OH	52:aa:375:ARG:HA	2.06	0.55
52:aa:482:THR:HG23	52:aa:484:GLU:H	1.70	0.55
53:k:56:ARG:HD3	56:2:97:U:C5	2.41	0.55
1:u:371:LYS:HE3	1:u:574:LEU:HD21	1.88	0.55
3:r:342:MET:HE2	3:r:351:LYS:HG2	1.89	0.55
3:r:391:GLU:HG2	10:aw:175:ILE:HD13	1.88	0.55
6:e:169:LYS:HD2	25:d:18:LEU:HD23	1.88	0.55
7:az:51:ASP:OD1	9:ax:92:HIS:NE2	2.38	0.55
7:az:87:ARG:CZ	9:ax:104:LEU:HG	2.37	0.55
12:ak:145:TYR:CE2	17:l:692:PRO:HD2	2.41	0.55
15:af:187:LEU:O	15:af:191:GLN:HG2	2.06	0.55
18:ac:368:MET:SD	18:ac:372:THR:OG1	2.63	0.55
18:ac:840:PHE:O	18:ac:843:PHE:HB3	2.07	0.55
18:ac:869:GLU:HB2	18:ac:871:ASP:OD2	2.06	0.55
20:ad:564:VAL:O	20:ad:568:MET:HG2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:667:HIS:ND1	45:Ca:426:PRO:HB3	2.21	0.55
24:c:43:PHE:CG	47:j:178:GLU:HG3	2.42	0.55
27:av:175:HIS:HA	55:as:176:PRO:HG2	1.89	0.55
35:z:58:SER:OG	35:z:79:ILE:HD11	2.06	0.55
35:z:538:SER:HB3	35:z:541:HIS:ND1	2.22	0.55
43:q:164:LEU:O	48:b:15:ARG:NH1	2.34	0.55
45:Ca:76:GLN:HA	45:Ca:79:MET:HE2	1.87	0.55
52:aa:178:ASN:OD1	52:aa:178:ASN:N	2.28	0.55
54:be:23:ARG:NH2	56:2:378:A:O2'	2.39	0.55
4:n:164:TYR:OH	56:A:492:U:OP2	2.23	0.55
6:e:118:ARG:NH2	25:d:304:GLU:HB2	2.21	0.55
11:au:87:ARG:NH1	11:au:93:MET:HB2	2.22	0.55
12:ak:139:ALA:O	12:ak:140:HIS:ND1	2.39	0.55
13:aj:59:VAL:HG11	16:ae:181:ARG:NH1	2.22	0.55
15:af:98:ASP:OD1	15:af:101:THR:HG23	2.06	0.55
15:af:529:GLN:NE2	15:af:608:GLU:H	2.03	0.55
19:ab:664:ASN:O	19:ab:668:LYS:NZ	2.20	0.55
20:ad:115:GLU:OE2	24:c:57:ARG:NH2	2.34	0.55
20:ad:596:GLU:OE1	20:ad:632:ARG:HB3	2.05	0.55
22:i:319:LEU:HD23	29:ar:171:GLU:HG2	1.87	0.55
25:d:15:LEU:HB2	25:d:43:VAL:HG13	1.89	0.55
32:ao:170:GLN:OE1	32:ao:170:GLN:N	2.32	0.55
34:an:259:TRP:HE1	52:aa:1079:GLY:HA2	1.70	0.55
34:an:269:LYS:HD3	50:a:326:MET:HG3	1.87	0.55
36:y:113:LYS:HB3	36:y:273:PHE:CZ	2.40	0.55
36:y:309:GLU:OE2	44:p:220:THR:HA	2.07	0.55
37:x:119:ALA:HA	37:x:122:ARG:HG2	1.89	0.55
38:w:67:LEU:HD23	56:2:45:G:H8	1.72	0.55
45:Ca:577:TRP:CZ2	56:2:239:G:N1	2.75	0.55
48:b:98:LEU:HD22	48:b:128:ILE:HD12	1.87	0.55
52:aa:1543:HIS:CE1	52:aa:1547:VAL:HG23	2.41	0.55
1:u:34:ARG:HG3	1:u:38:ILE:HB	1.88	0.55
1:u:666:PHE:CD2	6:e:444:ASP:HB2	2.41	0.55
7:az:48:LEU:HD21	9:ax:69:LEU:HD11	1.88	0.55
11:au:42:PHE:O	11:au:46:LYS:NZ	2.27	0.55
18:ac:208:LEU:HD23	18:ac:508:TYR:CD1	2.41	0.55
18:ac:426:VAL:HA	18:ac:453:ILE:HD13	1.89	0.55
19:ab:674:VAL:HG11	19:ab:698:VAL:HG22	1.87	0.55
19:ab:866:LEU:HG	19:ab:901:ARG:HH22	1.72	0.55
19:ab:889:SER:OG	19:ab:890:SER:N	2.38	0.55
19:ab:1110:ARG:NH2	19:ab:1114:GLU:OE1	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:386:ASP:OD1	20:ad:386:ASP:N	2.35	0.55
20:ad:665:LYS:O	20:ad:669:ARG:HG2	2.06	0.55
21:m:116:PRO:HB3	21:m:135:PHE:CZ	2.41	0.55
22:i:115:GLN:HA	22:i:233:ARG:NH2	2.22	0.55
22:i:266:LEU:HD22	22:i:274:TYR:HB2	1.89	0.55
23:f:157:ARG:HD3	48:b:143:GLU:CD	2.31	0.55
23:f:321:ARG:NH1	56:2:606:U:OP2	2.40	0.55
25:d:37:GLY:HA2	25:d:40:LEU:HD12	1.89	0.55
28:at:240:SER:HA	28:at:243:ILE:HG22	1.88	0.55
30:aq:11:SER:O	38:w:140:ARG:HD3	2.05	0.55
32:ao:35:GLU:HG3	32:ao:36:ASP:H	1.72	0.55
33:ai:299:SER:HB2	33:ai:341:GLU:O	2.07	0.55
34:an:250:ASP:OD2	50:a:41:ARG:NE	2.39	0.55
38:w:113:ASN:OD1	47:j:134:LYS:HG2	2.05	0.55
41:t:210:PRO:HA	55:as:257:TRP:CD2	2.42	0.55
43:q:179:PHE:CD1	43:q:180:VAL:HG13	2.41	0.55
50:a:86:ALA:HB1	50:a:89:LEU:HD11	1.88	0.55
52:aa:1113:LEU:HD21	52:aa:1166:LEU:HD12	1.89	0.55
52:aa:1473:CYS:O	52:aa:1645:TYR:OH	2.14	0.55
54:be:40:TYR:O	54:be:42:PHE:N	2.40	0.55
56:2:103:U:O2'	56:2:129:U:O2'	2.24	0.55
1:u:572:LYS:HD2	1:u:575:ASP:HB2	1.89	0.55
1:u:666:PHE:CD1	6:e:444:ASP:HA	2.42	0.55
3:r:296:HIS:HD2	8:ay:178:PRO:HD2	1.72	0.55
6:e:369:TRP:NE1	6:e:807:GLU:OE1	2.40	0.55
6:e:694:ILE:HD13	6:e:697:ILE:HD11	1.89	0.55
7:az:31:TRP:HB2	10:aw:46:ASN:ND2	2.22	0.55
7:az:101:GLN:HG2	7:az:105:LEU:HD11	1.89	0.55
7:az:118:ARG:NH2	7:az:160:GLY:O	2.35	0.55
8:ay:194:ASN:HD21	8:ay:204:ILE:HG23	1.71	0.55
13:aj:101:ILE:HG12	13:aj:139:LEU:HD11	1.87	0.55
15:af:646:LEU:O	15:af:650:THR:HG23	2.06	0.55
17:l:668:LYS:HA	17:l:672:ALA:HB3	1.88	0.55
18:ac:716:GLN:NE2	18:ac:716:GLN:O	2.40	0.55
19:ab:282:ARG:HB2	19:ab:835:ARG:NH2	2.21	0.55
20:ad:731:GLN:OE1	24:c:90:ARG:N	2.40	0.55
23:f:285:ASN:HD21	46:g:174:HIS:N	2.02	0.55
34:an:96:ALA:HB1	35:z:925:HIS:CD2	2.41	0.55
35:z:600:ASP:OD1	35:z:601:GLU:N	2.40	0.55
38:w:27:ARG:NH2	47:j:78:SER:O	2.40	0.55
44:p:288:THR:HA	44:p:296:TRP:NE1	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:205:ILE:O	52:aa:208:LEU:N	2.25	0.55
52:aa:820:LEU:HD21	52:aa:830:SER:HB2	1.87	0.55
55:as:90:ASP:HA	55:as:169:THR:HG21	1.89	0.55
1:u:547:ILE:O	1:u:550:GLU:HG2	2.07	0.55
2:s:137:LYS:HG2	56:A:441:G:N7	2.21	0.55
6:e:42:GLU:O	42:al:284:ILE:HD13	2.07	0.55
6:e:287:GLU:OE1	14:ag:272:ARG:HB2	2.06	0.55
6:e:458:THR:O	6:e:458:THR:OG1	2.23	0.55
10:aw:186:LEU:HD13	15:af:670:ARG:HB3	1.89	0.55
12:ak:2:SER:N	19:ab:414:LYS:HZ1	2.05	0.55
14:ag:291:ARG:NH2	14:ag:328:ASP:OD2	2.40	0.55
15:af:323:TYR:OH	15:af:360:SER:OG	2.23	0.55
19:ab:553:GLU:CD	19:ab:558:ARG:HG2	2.32	0.55
20:ad:129:ARG:HA	53:k:88:PRO:HB3	1.89	0.55
20:ad:171:ASN:ND2	20:ad:275:ASP:O	2.40	0.55
20:ad:520:SER:O	20:ad:523:LYS:N	2.39	0.55
20:ad:685:HIS:CE1	20:ad:689:PHE:O	2.59	0.55
21:m:171:TYR:CD2	21:m:172:PRO:HD2	2.42	0.55
22:i:389:LYS:HE2	55:as:22:LEU:HD23	1.88	0.55
23:f:120:ARG:HA	23:f:123:LEU:HG	1.89	0.55
29:ar:119:VAL:HG23	29:ar:197:LYS:HG2	1.89	0.55
32:ao:112:GLY:HA2	45:Ca:281:GLU:CD	2.32	0.55
33:ai:291:PRO:HB3	33:ai:303:LEU:HB3	1.87	0.55
34:an:39:LYS:HE3	34:an:113:ILE:HG21	1.89	0.55
42:al:285:PRO:HG3	49:bd:71:ILE:CD1	2.36	0.55
45:Ca:71:ILE:HD11	52:aa:379:GLU:CD	2.32	0.55
51:bc:264:GLN:HG3	51:bc:350:TYR:CZ	2.42	0.55
52:aa:256:CYS:HB2	52:aa:309:LEU:HD12	1.88	0.55
52:aa:733:ASN:OD1	52:aa:733:ASN:N	2.40	0.55
52:aa:1012:LEU:H	52:aa:1017:TRP:CD1	2.24	0.55
1:u:645:THR:OG1	6:e:301:PHE:O	2.23	0.55
1:u:792:ARG:NE	10:aw:106:ASP:OD2	2.40	0.55
1:u:837:TRP:HZ3	6:e:739:LEU:HB3	1.72	0.55
3:r:142:ARG:NH1	3:r:395:LEU:O	2.40	0.55
10:aw:180:MET:HE2	10:aw:186:LEU:HB3	1.88	0.55
12:ak:231:VAL:HG21	18:ac:1078:PHE:CE1	2.42	0.55
13:aj:112:GLN:HE22	16:ae:367:VAL:HG23	1.71	0.55
14:ag:349:LYS:HG2	14:ag:352:ILE:HD12	1.89	0.55
14:ag:470:GLU:HG2	14:ag:487:ARG:HG3	1.89	0.55
14:ag:486:ASP:OD1	14:ag:486:ASP:N	2.32	0.55
15:af:584:LEU:O	15:af:588:VAL:HG23	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:l:688:GLU:HB2	19:ab:237:ARG:HH22	1.72	0.55
18:ac:111:SER:OG	18:ac:113:SER:N	2.40	0.55
20:ad:675:LEU:HB2	45:Ca:423:GLY:N	2.16	0.55
22:i:346:THR:HA	53:k:138:ALA:HA	1.89	0.55
32:ao:32:ILE:HG13	32:ao:56:LEU:HD21	1.89	0.55
35:z:735:ILE:HG23	35:z:740:GLU:HB3	1.89	0.55
37:x:235:GLN:NE2	37:x:274:GLN:HB2	2.21	0.55
38:w:132:PHE:CZ	38:w:141:VAL:HG13	2.42	0.55
41:t:153:HIS:ND1	41:t:208:ALA:O	2.40	0.55
47:j:21:LEU:HB3	47:j:22:TRP:CD1	2.42	0.55
48:b:45:MET:HB2	48:b:64:TYR:CE2	2.42	0.55
51:bc:242:LYS:HZ2	51:bc:246:ILE:HD11	1.72	0.55
52:aa:570:ARG:HG3	52:aa:571:GLU:N	2.21	0.55
56:2:287:A:C4	56:2:288:U:C5	2.94	0.55
1:u:765:ILE:HG23	6:e:448:PHE:HZ	1.71	0.55
4:n:122:PHE:CD1	4:n:123:PRO:HA	2.42	0.55
5:h:145:LYS:HA	25:d:379:HIS:CE1	2.42	0.55
6:e:120:PHE:HZ	6:e:145:LYS:HD3	1.71	0.55
6:e:413:GLU:OE2	14:ag:358:GLN:NE2	2.33	0.55
6:e:758:LEU:HD13	6:e:771:THR:HG22	1.89	0.55
11:au:30:MET:HE1	14:ag:12:PRO:HD2	1.89	0.55
15:af:631:ARG:HA	15:af:635:LYS:HD2	1.89	0.55
16:ae:34:PRO:HD2	56:A:439:U:P	2.47	0.55
16:ae:110:SER:HB2	19:ab:1076:LYS:NZ	2.22	0.55
17:l:579:LEU:HD13	17:l:599:PHE:HD2	1.72	0.55
19:ab:178:VAL:HG13	19:ab:201:LEU:HB3	1.89	0.55
19:ab:337:ARG:NH2	19:ab:349:GLU:OE2	2.34	0.55
20:ad:73:ASP:O	47:j:40:LYS:NZ	2.37	0.55
20:ad:264:LEU:HD21	53:k:85:PHE:CE1	2.41	0.55
20:ad:463:GLU:HA	20:ad:466:ARG:HB3	1.89	0.55
20:ad:583:ASN:OD1	55:as:194:ARG:N	2.33	0.55
23:f:313:PRO:HG3	46:g:15:TYR:CG	2.41	0.55
30:aq:88:THR:HG22	30:aq:91:GLU:CD	2.32	0.55
30:aq:148:LYS:HD2	30:aq:181:HIS:CD2	2.42	0.55
32:ao:187:MET:HE2	52:aa:934:PHE:HB3	1.88	0.55
34:an:293:TRP:CZ3	52:aa:1082:PRO:HG2	2.42	0.55
41:t:20:MET:HB3	43:q:51:GLU:HB3	1.88	0.55
43:q:190:GLU:OE2	48:b:16:ARG:HG3	2.06	0.55
45:Ca:22:LYS:HB3	45:Ca:25:LYS:HA	1.89	0.55
45:Ca:67:ARG:NH1	45:Ca:79:MET:O	2.29	0.55
48:b:45:MET:HB2	48:b:64:TYR:CZ	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:223:THR:HA	52:aa:227:GLN:HE21	1.72	0.55
52:aa:456:ASP:OD1	52:aa:544:ARG:NH2	2.40	0.55
52:aa:1485:ILE:HD13	52:aa:1596:LEU:HA	1.88	0.55
54:be:50:PHE:CD1	54:be:78:THR:HG21	2.42	0.55
56:2:200:A:HO2'	56:2:201:A:P	2.30	0.55
56:2:381:U:H2'	56:2:382:A:C8	2.42	0.55
1:u:413:MET:HG2	1:u:540:ARG:HE	1.72	0.54
2:s:120:TYR:HA	14:ag:401:PHE:CE2	2.43	0.54
2:s:133:TYR:OH	56:A:442:A:OP2	2.22	0.54
4:n:145:LYS:H	8:ay:99:ARG:HD3	1.72	0.54
5:h:66:MET:HE3	19:ab:1103:TRP:CD2	2.43	0.54
11:au:82:HIS:H	11:au:82:HIS:CD2	2.25	0.54
13:aj:230:LEU:HD22	13:aj:261:PHE:HE1	1.72	0.54
13:aj:255:LYS:HD3	18:ac:29:ILE:HG22	1.88	0.54
14:ag:60:ARG:NH1	18:ac:1090:VAL:HA	2.21	0.54
15:af:176:ILE:HG12	15:af:188:LEU:HD21	1.90	0.54
18:ac:248:TYR:CE1	18:ac:402:THR:HG21	2.42	0.54
18:ac:442:LYS:HZ1	18:ac:502:LEU:HD22	1.71	0.54
19:ab:437:LEU:HD21	19:ab:458:THR:HG21	1.89	0.54
19:ab:964:ASP:OD2	19:ab:968:GLU:N	2.40	0.54
20:ad:587:GLN:HG2	20:ad:588:PHE:HD1	1.72	0.54
25:d:87:LEU:HD22	39:v:95:MET:HG2	1.89	0.54
32:ao:117:VAL:HG11	32:ao:150:CYS:SG	2.47	0.54
33:ai:318:LEU:HD21	33:ai:348:LEU:HD13	1.88	0.54
38:w:120:PHE:N	43:q:13:ARG:O	2.40	0.54
41:t:219:GLU:OE1	41:t:219:GLU:N	2.36	0.54
48:b:20:GLN:NE2	48:b:23:ARG:HD3	2.21	0.54
50:a:144:ILE:HG21	50:a:147:TYR:CZ	2.42	0.54
52:aa:652:GLY:O	52:aa:853:GLU:N	2.39	0.54
52:aa:1335:LEU:HD22	52:aa:1350:VAL:HG21	1.90	0.54
52:aa:1683:GLU:HG2	52:aa:1686:ARG:HH12	1.71	0.54
7:az:118:ARG:HH22	7:az:160:GLY:C	2.15	0.54
7:az:133:ASP:N	7:az:133:ASP:OD1	2.39	0.54
11:au:36:GLU:HA	11:au:214:ARG:NH2	2.22	0.54
15:af:170:CYS:O	15:af:174:GLU:HG3	2.07	0.54
16:ae:62:ASN:HB3	16:ae:65:SER:HB2	1.89	0.54
18:ac:938:ARG:O	18:ac:942:PHE:HB2	2.06	0.54
19:ab:857:TRP:CD2	19:ab:873:ARG:HD3	2.41	0.54
20:ad:50:TRP:CD2	56:2:138:U:H5	2.25	0.54
20:ad:330:PRO:HD2	27:av:36:ARG:HD2	1.88	0.54
20:ad:753:PRO:HD3	32:ao:55:GLN:HE21	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:m:47:ALA:HB3	21:m:49:ARG:NH2	2.23	0.54
21:m:89:VAL:HG13	37:x:179:LEU:HA	1.90	0.54
22:i:405:ASP:O	22:i:409:THR:OG1	2.10	0.54
30:aq:13:ARG:NH2	56:2:163:G:OP1	2.40	0.54
31:ap:157:ARG:O	31:ap:250:ARG:NH1	2.40	0.54
32:ao:68:HIS:HB3	32:ao:105:PRO:HD3	1.90	0.54
35:z:507:LYS:O	35:z:509:LYS:N	2.40	0.54
35:z:1029:TRP:CZ3	50:a:413:PRO:HA	2.42	0.54
35:z:1051:ARG:HH21	52:aa:519:ALA:HB2	1.72	0.54
43:q:185:LEU:HD13	48:b:44:VAL:HG23	1.89	0.54
54:be:50:PHE:HD1	54:be:78:THR:HG21	1.72	0.54
56:A:397:U:OP2	56:A:398:U:H5'	2.07	0.54
56:A:436:U:H2'	56:A:437:U:C6	2.42	0.54
56:2:228:G:H3'	56:2:229:G:H8	1.71	0.54
1:u:133:TRP:HB3	1:u:141:LEU:HB2	1.88	0.54
5:h:123:ARG:NE	42:al:288:TRP:O	2.40	0.54
6:e:19:GLN:HB2	49:bd:41:TYR:CE1	2.43	0.54
6:e:35:MET:HB3	39:v:52:THR:HB	1.88	0.54
6:e:233:GLU:OE1	6:e:331:ARG:NH1	2.41	0.54
8:ay:102:PHE:HB2	9:ax:18:LEU:HD13	1.89	0.54
15:af:31:TYR:CE1	19:ab:477:VAL:HB	2.42	0.54
15:af:504:ARG:N	15:af:504:ARG:HD2	2.23	0.54
16:ae:218:CYS:SG	16:ae:219:GLU:N	2.80	0.54
18:ac:150:LEU:HD21	18:ac:515:ARG:HD3	1.89	0.54
18:ac:1142:PRO:HB3	19:ab:421:TRP:CH2	2.42	0.54
20:ad:200:MET:HG3	20:ad:205:THR:OG1	2.08	0.54
21:m:60:PHE:HA	46:g:103:LYS:HD3	1.89	0.54
23:f:201:ARG:NH1	56:2:305:A:H5''	2.23	0.54
25:d:238:ARG:NH1	42:al:258:GLN:HB3	2.22	0.54
27:av:218:GLU:HA	56:2:161:G:H22	1.70	0.54
30:aq:199:LEU:HA	30:aq:206:TYR:HA	1.89	0.54
33:ai:42:ASP:OD1	33:ai:43:LYS:N	2.40	0.54
34:an:26:ARG:NE	45:Ca:266:ASP:OD2	2.41	0.54
34:an:207:HIS:HB3	52:aa:1549:ARG:NH1	2.22	0.54
35:z:367:ARG:NH2	35:z:922:ALA:O	2.40	0.54
35:z:614:TYR:OH	48:b:137:ASP:OD1	2.25	0.54
36:y:269:MET:HB3	36:y:271:TRP:CZ2	2.43	0.54
37:x:131:GLY:HA3	37:x:175:LEU:HD11	1.88	0.54
37:x:304:TYR:CZ	37:x:313:LEU:HD13	2.42	0.54
43:q:65:TRP:NE1	47:j:102:TYR:HB2	2.21	0.54
45:Ca:246:GLU:OE1	45:Ca:246:GLU:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:g:140:GLY:O	46:g:154:LYS:NZ	2.41	0.54
50:a:235:ASN:OD1	50:a:236:PHE:N	2.40	0.54
52:aa:988:ALA:O	52:aa:992:ILE:HG23	2.07	0.54
56:A:444:A:H8	56:A:483:A:OP2	1.89	0.54
1:u:146:ARG:HA	1:u:149:GLN:HB2	1.88	0.54
1:u:259:ILE:HA	1:u:262:THR:HG22	1.88	0.54
3:r:311:LEU:HD23	19:ab:1132:HIS:HD2	1.72	0.54
3:r:367:ILE:HG23	6:e:215:TYR:OH	2.08	0.54
6:e:349:GLY:HA2	15:af:33:THR:HG21	1.89	0.54
10:aw:37:PHE:CE2	10:aw:85:VAL:HG21	2.42	0.54
11:au:75:GLN:O	12:ak:259:GLN:NE2	2.40	0.54
15:af:214:TYR:O	15:af:217:THR:OG1	2.22	0.54
17:l:178:ARG:HG3	17:l:397:ILE:HG21	1.89	0.54
17:l:215:ASP:OD2	17:l:286:ARG:NE	2.41	0.54
17:l:481:ARG:NH1	17:l:497:ASP:O	2.27	0.54
20:ad:90:MET:HE3	53:k:17:GLU:HG2	1.88	0.54
23:f:194:LEU:HB3	23:f:276:LEU:HD11	1.89	0.54
25:d:144:TYR:HA	25:d:147:VAL:HG22	1.88	0.54
28:at:19:TRP:CD1	56:2:187:A:C4	2.95	0.54
28:at:48:TRP:HB3	28:at:87:ARG:HH12	1.71	0.54
28:at:158:ASP:OD1	28:at:158:ASP:N	2.40	0.54
29:ar:151:ARG:HE	29:ar:171:GLU:C	2.16	0.54
31:ap:98:PRO:HG2	31:ap:101:ASN:HB3	1.88	0.54
31:ap:251:ARG:HD2	31:ap:255:ASP:HB3	1.89	0.54
37:x:212:PHE:O	37:x:216:SER:OG	2.24	0.54
44:p:47:ILE:HD11	50:a:137:LEU:HD21	1.88	0.54
45:Ca:342:LEU:HB3	45:Ca:501:PHE:CE1	2.43	0.54
51:bc:274:ARG:HH21	51:bc:330:TRP:HB3	1.72	0.54
52:aa:872:GLU:OE1	52:aa:872:GLU:N	2.41	0.54
1:u:337:SER:O	1:u:341:ARG:N	2.40	0.54
3:r:436:ASP:N	3:r:436:ASP:OD1	2.41	0.54
6:e:184:ASP:OD1	6:e:185:VAL:N	2.40	0.54
11:au:238:PRO:HD2	16:ae:23:ARG:HD2	1.88	0.54
14:ag:407:ARG:HB3	14:ag:412:TRP:O	2.06	0.54
17:l:79:ILE:HG21	17:l:175:LEU:HD11	1.88	0.54
17:l:148:ARG:NH2	18:ac:957:ASN:HB2	2.23	0.54
17:l:219:LEU:HA	17:l:263:PHE:HB3	1.88	0.54
17:l:439:ARG:NH1	19:ab:186:PRO:HD3	2.23	0.54
19:ab:731:GLN:HG2	19:ab:732:GLY:H	1.71	0.54
21:m:21:GLN:HG2	35:z:518:ARG:HG3	1.90	0.54
22:i:275:TRP:CZ2	53:k:174:ARG:HG2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:d:106:ASN:HD22	25:d:107:THR:N	2.06	0.54
25:d:192:GLN:HG2	25:d:195:ARG:NH1	2.20	0.54
27:av:94:LYS:HG2	55:as:30:TRP:CZ3	2.42	0.54
27:av:228:ASN:OD1	27:av:228:ASN:N	2.41	0.54
35:z:27:ILE:O	35:z:29:THR:OG1	2.24	0.54
35:z:247:MET:HB3	35:z:286:ALA:HB2	1.88	0.54
43:q:11:GLN:HA	56:2:178:A:H8	1.70	0.54
43:q:65:TRP:CE2	47:j:102:TYR:HB2	2.43	0.54
44:p:288:THR:HA	44:p:296:TRP:HE1	1.73	0.54
50:a:428:LYS:O	52:aa:1127:HIS:NE2	2.40	0.54
51:bc:369:ASP:OD1	51:bc:372:GLY:N	2.40	0.54
52:aa:1010:LEU:HB3	52:aa:1022:PHE:CD2	2.42	0.54
52:aa:1024:TRP:NE1	52:aa:1052:GLY:O	2.40	0.54
52:aa:1656:VAL:HG13	52:aa:1657:GLN:HE21	1.71	0.54
1:u:267:TYR:CE1	1:u:587:VAL:HB	2.42	0.54
3:r:120:LEU:HG	15:af:675:GLN:HA	1.90	0.54
4:n:89:TYR:OH	19:ab:1109:ILE:HA	2.07	0.54
4:n:107:THR:OG1	4:n:108:LEU:N	2.41	0.54
9:ax:123:LYS:NZ	56:A:403:U:O4	2.39	0.54
12:ak:114:THR:HG21	18:ac:1002:ALA:H	1.73	0.54
14:ag:34:TYR:H	14:ag:400:GLN:HE22	1.55	0.54
15:af:304:SER:O	15:af:308:ILE:HG23	2.08	0.54
17:l:204:LEU:HG	19:ab:153:ARG:NH1	2.18	0.54
17:l:565:PHE:CD1	17:l:610:LEU:HB3	2.43	0.54
19:ab:149:ARG:O	19:ab:153:ARG:HG3	2.07	0.54
19:ab:535:HIS:CE1	19:ab:842:GLN:HB3	2.43	0.54
19:ab:831:TYR:OH	19:ab:835:ARG:NH1	2.40	0.54
20:ad:50:TRP:CE3	56:2:138:U:C5	2.95	0.54
20:ad:307:GLU:HG3	20:ad:310:SER:HB3	1.89	0.54
20:ad:313:HIS:O	20:ad:317:LYS:HG2	2.08	0.54
20:ad:703:ILE:O	20:ad:705:GLN:N	2.41	0.54
22:i:270:ASP:OD1	22:i:273:LYS:HG3	2.08	0.54
22:i:332:ARG:NH1	22:i:337:VAL:HG22	2.22	0.54
28:at:76:GLU:HG2	28:at:81:ILE:O	2.07	0.54
29:ar:89:VAL:HA	29:ar:92:MET:HE2	1.90	0.54
31:ap:63:GLU:OE2	31:ap:91:TYR:OH	2.15	0.54
31:ap:145:GLU:HA	35:z:588:TYR:CE2	2.43	0.54
33:ai:142:VAL:HG11	35:z:948:VAL:HB	1.90	0.54
35:z:220:LYS:HG2	35:z:474:ASP:OD2	2.08	0.54
35:z:467:ASP:HB2	50:a:62:ARG:HH22	1.72	0.54
35:z:993:TRP:HE1	35:z:995:ARG:HH11	1.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:al:47:LYS:HB3	56:A:469:A:C2	2.43	0.54
44:p:108:GLU:HG2	44:p:121:PRO:HG2	1.89	0.54
45:Ca:108:LEU:HD21	52:aa:502:ASN:OD1	2.06	0.54
46:g:183:ASN:OD1	46:g:183:ASN:N	2.38	0.54
50:a:97:PRO:HG2	50:a:287:ALA:HB2	1.90	0.54
50:a:145:VAL:HG21	50:a:269:VAL:HG21	1.89	0.54
52:aa:117:SER:O	52:aa:117:SER:OG	2.25	0.54
52:aa:646:PHE:HB2	52:aa:648:VAL:HG23	1.89	0.54
52:aa:1249:ARG:NH1	52:aa:1252:GLN:OE1	2.41	0.54
55:as:236:MET:SD	55:as:236:MET:CE	2.96	0.54
3:r:97:VAL:HA	57:r:901:GTP:O3'	2.07	0.54
5:h:35:SER:O	5:h:39:SER:HB2	2.08	0.54
6:e:188:SER:HB2	15:af:133:ARG:HB2	1.89	0.54
12:ak:129:LEU:HD22	12:ak:136:ARG:HH21	1.72	0.54
13:aj:93:PRO:HB2	13:aj:95:THR:HG23	1.89	0.54
14:ag:413:MET:HE2	14:ag:419:MET:HG3	1.90	0.54
15:af:32:SER:OG	15:af:33:THR:N	2.41	0.54
16:ae:310:ILE:HD12	16:ae:351:LEU:HD11	1.89	0.54
17:l:163:LEU:HD23	17:l:166:VAL:HB	1.90	0.54
17:l:227:ARG:HG3	17:l:273:ASP:OD2	2.06	0.54
17:l:645:TRP:HH2	17:l:672:ALA:HB1	1.72	0.54
19:ab:417:THR:HB	19:ab:420:HIS:HB2	1.90	0.54
19:ab:594:ARG:NH1	19:ab:633:ASP:O	2.34	0.54
20:ad:77:SER:O	20:ad:81:ASN:HB3	2.08	0.54
20:ad:232:TRP:HE3	20:ad:236:CYS:HG	1.54	0.54
20:ad:267:LEU:HG	20:ad:268:PRO:HD2	1.90	0.54
20:ad:475:ALA:HB1	20:ad:478:ARG:HH11	1.71	0.54
20:ad:651:PHE:CE2	47:j:143:LYS:HD3	2.41	0.54
21:m:7:SER:OG	21:m:8:VAL:N	2.38	0.54
22:i:231:LYS:HE3	22:i:235:LEU:HD11	1.89	0.54
22:i:417:LYS:NZ	56:2:156:U:O3'	2.41	0.54
23:f:253:LEU:HD23	23:f:301:PHE:HE2	1.72	0.54
25:d:409:ARG:NH2	25:d:413:LYS:HD3	2.23	0.54
27:av:34:ARG:NH1	27:av:83:VAL:HB	2.22	0.54
28:at:201:HIS:CD2	28:at:203:ASN:H	2.26	0.54
31:ap:231:GLU:CD	33:ai:323:GLN:HA	2.33	0.54
32:ao:16:GLU:HG3	32:ao:18:PHE:CE1	2.43	0.54
33:ai:375:ARG:NH2	33:ai:375:ARG:HB3	2.23	0.54
34:an:244:ASN:HD22	50:a:108:HIS:HE1	1.53	0.54
36:y:74:LEU:HD23	36:y:75:PRO:HD2	1.89	0.54
41:t:171:TRP:O	41:t:172:HIS:ND1	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:al:147:ARG:O	42:al:151:GLU:HB2	2.08	0.54
45:Ca:444:MET:SD	45:Ca:488:GLU:HB3	2.47	0.54
47:j:16:ARG:NE	47:j:16:ARG:HA	2.23	0.54
51:bc:237:HIS:CD2	51:bc:241:TRP:HE1	2.26	0.54
52:aa:124:LYS:NZ	56:2:71:U:OP1	2.37	0.54
56:2:299:U:O2'	56:2:300:G:O4'	2.24	0.54
56:2:332:U:H2'	56:2:333:U:C6	2.43	0.54
1:u:36:ARG:O	1:u:41:THR:OG1	2.20	0.54
3:r:282:VAL:HG13	3:r:354:PHE:CE2	2.43	0.54
6:e:421:ILE:HA	6:e:424:TRP:NE1	2.23	0.54
6:e:430:THR:OG1	6:e:431:CYS:N	2.39	0.54
10:aw:134:PRO:HB2	10:aw:146:ILE:HD11	1.90	0.54
11:au:122:MET:O	14:ag:506:ARG:NH2	2.39	0.54
13:aj:31:HIS:HB3	13:aj:34:LEU:HD12	1.88	0.54
14:ag:284:ASN:ND2	14:ag:317:LEU:HD23	2.23	0.54
14:ag:376:GLU:HG3	18:ac:1150:TRP:CZ3	2.42	0.54
16:ae:7:PHE:CD1	16:ae:42:LEU:HD21	2.43	0.54
17:l:619:LYS:HB2	17:l:622:VAL:HB	1.90	0.54
18:ac:867:ASN:N	18:ac:871:ASP:O	2.41	0.54
20:ad:723:ALA:HB2	43:q:93:TYR:HD1	1.73	0.54
20:ad:756:ARG:HD2	34:an:69:TYR:OH	2.06	0.54
22:i:135:GLU:C	31:ap:226:ASN:HD22	2.16	0.54
22:i:170:ARG:NH2	48:b:99:GLU:OE1	2.41	0.54
34:an:96:ALA:HB1	35:z:925:HIS:HD2	1.72	0.54
38:w:19:LYS:HD2	45:Ca:518:GLN:NE2	2.23	0.54
38:w:36:THR:O	38:w:39:GLU:N	2.35	0.54
39:v:208:ARG:HH21	56:2:290:G:H5''	1.71	0.54
41:t:45:GLU:OE2	55:as:259:HIS:NE2	2.41	0.54
43:q:18:LEU:O	43:q:29:THR:OG1	2.25	0.54
45:Ca:247:PHE:CZ	50:a:116:GLN:HG2	2.43	0.54
48:b:3:PHE:HB2	48:b:70:ASP:OD1	2.08	0.54
50:a:237:ARG:HA	50:a:240:ASP:OD2	2.07	0.54
51:bc:228:HIS:HB3	51:bc:242:LYS:HZ2	1.73	0.54
52:aa:172:PRO:HD2	52:aa:185:ASP:O	2.08	0.54
56:2:21:G:O6	56:2:383:U:C4	2.60	0.54
1:u:136:ASP:HB3	1:u:137:GLN:HE21	1.73	0.54
3:r:412:PHE:CE1	3:r:416:LEU:HD21	2.42	0.54
5:h:26:LEU:HB3	16:ae:164:ILE:HG21	1.89	0.54
14:ag:441:PRO:HG3	49:bd:44:ILE:CD1	2.38	0.54
14:ag:553:ARG:HD2	14:ag:554:ARG:H	1.73	0.54
15:af:158:GLU:O	15:af:162:ARG:HG3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:l:178:ARG:HA	17:l:178:ARG:NH1	2.23	0.54
18:ac:1142:PRO:HB2	18:ac:1147:LYS:HD2	1.90	0.54
19:ab:244:ASP:O	19:ab:248:GLU:HG3	2.08	0.54
19:ab:593:LEU:HD23	19:ab:597:PHE:HE2	1.73	0.54
20:ad:583:ASN:O	20:ad:587:GLN:NE2	2.41	0.54
20:ad:810:TYR:O	26:ba:47:TYR:OH	2.26	0.54
21:m:165:ALA:O	21:m:170:LEU:N	2.37	0.54
23:f:78:TRP:CD1	23:f:78:TRP:C	2.85	0.54
26:ba:54:PRO:O	26:ba:59:ASN:ND2	2.40	0.54
28:at:105:TYR:CD1	28:at:107:LYS:HB2	2.42	0.54
31:ap:171:MET:HB3	31:ap:178:MET:HE1	1.90	0.54
33:ai:388:LEU:HD13	33:ai:393:VAL:HA	1.88	0.54
35:z:116:ASN:ND2	35:z:118:GLY:H	2.05	0.54
36:y:175:PHE:CD2	36:y:176:PRO:HD2	2.43	0.54
38:w:59:LEU:HB3	38:w:70:THR:HG22	1.90	0.54
39:v:194:SER:OG	39:v:195:PHE:N	2.37	0.54
40:bb:143:ARG:O	40:bb:144:ASN:HB2	2.08	0.54
40:bb:213:ARG:O	40:bb:216:SER:OG	2.25	0.54
42:al:93:ILE:O	42:al:96:ALA:N	2.35	0.54
42:al:206:GLY:O	52:aa:1057:PHE:N	2.41	0.54
43:q:32:LEU:HB3	43:q:36:ARG:CB	2.37	0.54
45:Ca:499:ALA:HB1	45:Ca:506:PRO:HB3	1.90	0.54
46:g:159:ARG:O	46:g:163:LYS:HD3	2.07	0.54
50:a:408:ASP:O	50:a:410:GLY:N	2.41	0.54
52:aa:661:THR:HG23	52:aa:797:ALA:HB3	1.89	0.54
52:aa:1310:LYS:HZ1	52:aa:1312:ARG:NE	2.03	0.54
56:2:236:G:O2'	56:2:251:U:O2'	2.06	0.54
1:u:215:SER:O	1:u:219:LYS:HG2	2.07	0.54
3:r:99:GLN:HE21	57:r:901:GTP:C4'	2.20	0.54
5:h:108:VAL:HG21	5:h:118:MET:HG3	1.89	0.54
6:e:700:LEU:HD13	6:e:701:PRO:HD2	1.90	0.54
7:az:144:HIS:CD2	7:az:147:ASN:H	2.25	0.54
11:au:20:LEU:HB2	11:au:25:ASN:HB2	1.90	0.54
11:au:30:MET:SD	14:ag:12:PRO:HB2	2.48	0.54
11:au:157:GLN:HB2	11:au:158:HIS:CD2	2.43	0.54
12:ak:113:ALA:O	12:ak:117:ILE:HG13	2.08	0.54
12:ak:123:ALA:O	12:ak:127:ARG:HG3	2.07	0.54
13:aj:83:LEU:HD23	13:aj:86:LEU:HD12	1.90	0.54
13:aj:236:ARG:HH12	13:aj:283:LYS:HB3	1.73	0.54
15:af:156:TRP:CZ2	15:af:160:ARG:HG3	2.43	0.54
15:af:213:ARG:O	15:af:217:THR:HG23	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:l:247:PHE:HB3	17:l:257:LEU:HG	1.90	0.54
18:ac:296:VAL:O	18:ac:300:VAL:HG23	2.07	0.54
18:ac:982:GLU:HA	18:ac:995:CYS:O	2.08	0.54
20:ad:10:HIS:NE2	56:2:24:U:O2	2.37	0.54
20:ad:541:LEU:O	20:ad:545:VAL:HG23	2.07	0.54
20:ad:727:GLU:HB3	20:ad:732:ARG:NE	2.21	0.54
20:ad:761:TYR:OH	56:2:6:U:H2'	2.08	0.54
24:c:235:TRP:HH2	24:c:256:TYR:HB3	1.71	0.54
52:aa:336:VAL:HG11	52:aa:420:GLN:CB	2.33	0.54
52:aa:575:LEU:O	52:aa:579:ILE:HG13	2.08	0.54
52:aa:1236:PHE:O	52:aa:1240:LEU:HG	2.08	0.54
52:aa:1695:ASN:HA	52:aa:1698:GLU:OE1	2.07	0.54
56:2:594:U:C2	56:2:595:A:C8	2.96	0.54
1:u:679:HIS:ND1	6:e:432:GLU:HG3	2.23	0.53
11:au:85:ASP:HB2	11:au:100:SER:OG	2.09	0.53
12:ak:174:PHE:CE2	12:ak:216:LEU:HD21	2.43	0.53
12:ak:284:THR:HG21	14:ag:509:HIS:HE1	1.73	0.53
14:ag:375:ASP:O	14:ag:378:GLU:HG2	2.07	0.53
16:ae:219:GLU:O	16:ae:223:ARG:NH1	2.41	0.53
16:ae:285:ARG:O	16:ae:289:VAL:HG23	2.08	0.53
16:ae:360:ALA:HB1	16:ae:365:LYS:HE2	1.90	0.53
16:ae:514:THR:HG22	16:ae:515:ASN:OD1	2.08	0.53
16:ae:535:LEU:HB3	16:ae:540:GLU:OE1	2.08	0.53
18:ac:269:GLN:O	18:ac:273:THR:HG22	2.08	0.53
19:ab:449:ARG:NH2	19:ab:454:GLU:OE2	2.41	0.53
19:ab:643:TYR:CZ	19:ab:647:LEU:HD11	2.44	0.53
20:ad:122:GLN:O	43:q:83:THR:HG21	2.07	0.53
20:ad:441:LEU:HA	20:ad:444:VAL:HG22	1.89	0.53
21:m:33:GLN:HG2	44:p:116:PHE:CD2	2.43	0.53
22:i:365:GLU:OE2	29:ar:228:SER:HB2	2.09	0.53
23:f:244:GLN:O	23:f:247:SER:OG	2.26	0.53
28:at:165:LEU:HB3	28:at:190:THR:HG21	1.90	0.53
29:ar:79:LEU:HB3	29:ar:83:ASN:HD21	1.72	0.53
30:aq:48:GLN:HG3	30:aq:59:THR:HA	1.90	0.53
35:z:1064:GLU:CD	35:z:1065:PRO:HD2	2.33	0.53
38:w:177:GLU:OE1	38:w:180:ARG:NH1	2.40	0.53
39:v:93:LEU:O	39:v:95:MET:HG3	2.07	0.53
42:al:49:LYS:HG2	42:al:50:ALA:H	1.72	0.53
44:p:25:ASN:HD22	44:p:66:GLN:HG2	1.74	0.53
47:j:180:ALA:HA	47:j:183:ARG:HG2	1.90	0.53
48:b:50:ARG:HB3	48:b:58:PRO:HB2	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:2:68:A:C2	56:2:136:G:N7	2.75	0.53
1:u:244:ARG:HH12	19:ab:746:ALA:HB2	1.73	0.53
1:u:801:HIS:O	1:u:805:ILE:HG12	2.07	0.53
4:n:64:MET:HE3	4:n:142:THR:O	2.09	0.53
6:e:757:LYS:HG3	6:e:771:THR:HG21	1.90	0.53
13:aj:315:LEU:HD22	13:aj:316:TYR:CZ	2.44	0.53
15:af:75:ARG:HH21	15:af:100:ASP:HB3	1.73	0.53
15:af:611:PHE:HB2	25:d:36:ASP:OD2	2.08	0.53
19:ab:582:ASN:HD22	19:ab:949:ARG:HG2	1.73	0.53
21:m:209:ALA:HB1	39:v:132:LEU:HD11	1.90	0.53
22:i:290:SER:HA	53:k:186:LEU:HB3	1.90	0.53
23:f:238:SER:OG	23:f:239:THR:N	2.41	0.53
25:d:35:THR:HG22	25:d:37:GLY:H	1.73	0.53
25:d:300:GLU:O	25:d:403:LYS:HG2	2.08	0.53
29:ar:27:ARG:NH1	56:2:87:U:OP1	2.42	0.53
34:an:110:GLU:HG2	50:a:318:PRO:HA	1.90	0.53
35:z:390:LYS:HA	35:z:412:GLU:O	2.08	0.53
35:z:457:ALA:HB1	35:z:469:PHE:HE2	1.74	0.53
35:z:769:ARG:HB2	35:z:772:LEU:HD21	1.89	0.53
39:v:93:LEU:HD13	39:v:95:MET:HE3	1.90	0.53
41:t:167:ASP:OD1	41:t:167:ASP:N	2.42	0.53
43:q:167:TYR:HB3	43:q:186:VAL:HG13	1.90	0.53
45:Ca:292:TYR:HB3	45:Ca:294:LEU:HD12	1.88	0.53
45:Ca:407:MET:HE3	45:Ca:408:PHE:HE1	1.72	0.53
46:g:185:ARG:NH1	46:g:190:TRP:HA	2.22	0.53
48:b:124:LEU:O	48:b:128:ILE:HG13	2.08	0.53
50:a:42:ARG:NE	50:a:47:ARG:O	2.41	0.53
52:aa:276:ASP:HA	52:aa:282:SER:HA	1.90	0.53
52:aa:609:ILE:HG13	52:aa:610:ALA:N	2.22	0.53
55:as:186:GLU:OE1	55:as:186:GLU:N	2.37	0.53
1:u:175:LEU:HG	1:u:232:GLY:H	1.72	0.53
1:u:175:LEU:HD22	1:u:182:ARG:HH22	1.74	0.53
1:u:803:SER:HA	3:r:197:PHE:CZ	2.43	0.53
3:r:161:GLN:HG3	3:r:165:TYR:CZ	2.44	0.53
3:r:290:LEU:HD21	3:r:361:PHE:CE1	2.43	0.53
6:e:62:PRO:HB3	42:al:98:TYR:O	2.08	0.53
6:e:369:TRP:HZ2	6:e:371:ARG:HD3	1.71	0.53
8:ay:84:ARG:NE	8:ay:85:PRO:O	2.35	0.53
12:ak:121:LYS:HD3	12:ak:154:PRO:HG2	1.90	0.53
12:ak:121:LYS:NZ	12:ak:149:ALA:O	2.38	0.53
12:ak:238:ALA:HB2	18:ac:1057:LEU:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:aj:247:ASP:OD1	13:aj:248:ASN:N	2.41	0.53
14:ag:143:GLY:HA2	14:ag:162:LEU:HD11	1.90	0.53
14:ag:227:VAL:HB	14:ag:228:PRO:HD3	1.90	0.53
15:af:35:ILE:HG12	15:af:38:ARG:HH22	1.73	0.53
16:ae:202:MET:SD	16:ae:232:VAL:HG21	2.48	0.53
20:ad:135:ARG:HD3	27:av:73:TYR:O	2.08	0.53
20:ad:309:ASP:N	20:ad:309:ASP:OD1	2.37	0.53
23:f:287:ARG:NH2	46:g:58:ASP:OD1	2.23	0.53
33:ai:35:PHE:HA	33:ai:214:ILE:HG21	1.89	0.53
34:an:159:THR:HG21	52:aa:1198:SER:OG	2.08	0.53
35:z:291:THR:HG23	35:z:293:TYR:H	1.72	0.53
35:z:737:ASN:HB2	35:z:740:GLU:HB2	1.90	0.53
36:y:49:LEU:O	36:y:53:SER:OG	2.15	0.53
40:bb:138:VAL:HG12	40:bb:149:SER:CB	2.39	0.53
42:al:69:LEU:HD22	52:aa:1061:ILE:HB	1.90	0.53
43:q:178:ASN:OD1	48:b:42:GLU:HB3	2.07	0.53
44:p:56:ARG:NH2	50:a:102:GLU:HG3	2.23	0.53
50:a:87:ILE:HG13	50:a:88:ASP:N	2.23	0.53
52:aa:1155:GLY:HA3	52:aa:1219:TYR:CE2	2.42	0.53
52:aa:1690:GLU:OE1	52:aa:1690:GLU:N	2.31	0.53
55:as:51:ILE:HG21	55:as:84:PHE:HE2	1.73	0.53
56:2:218:A:H3'	56:2:219:G:H8	1.74	0.53
1:u:788:GLU:OE2	10:aw:111:GLU:HG2	2.08	0.53
2:s:29:GLN:O	2:s:33:LEU:HG	2.07	0.53
3:r:75:ASN:HD22	25:d:45:SER:CB	2.21	0.53
3:r:398:PRO:HD3	10:aw:175:ILE:HG12	1.89	0.53
6:e:64:VAL:HG22	6:e:65:PRO:HD2	1.89	0.53
6:e:75:VAL:HG13	42:al:287:THR:HG22	1.89	0.53
11:au:48:LEU:HB2	11:au:142:LEU:HD21	1.89	0.53
14:ag:469:THR:HG23	14:ag:488:THR:HG22	1.91	0.53
14:ag:524:ARG:NE	14:ag:534:ARG:HH22	2.04	0.53
17:l:627:ARG:O	17:l:631:ASN:ND2	2.41	0.53
17:l:670:ASP:OD1	17:l:674:ARG:HB2	2.08	0.53
18:ac:834:ASP:CG	18:ac:867:ASN:HD22	2.15	0.53
19:ab:795:LEU:HD12	19:ab:799:GLU:HB3	1.91	0.53
20:ad:100:ALA:HB3	56:2:12:C:N4	2.23	0.53
20:ad:160:HIS:HD2	20:ad:161:TRP:CD1	2.25	0.53
22:i:100:HIS:HA	56:2:328:U:O2'	2.08	0.53
22:i:425:ARG:HH22	56:2:128:A:HO2'	1.49	0.53
29:ar:49:ARG:HG2	29:ar:53:ALA:HB3	1.90	0.53
34:an:27:GLN:HE22	35:z:994:ARG:HG3	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:an:292:ARG:NE	37:x:137:ARG:HB2	2.21	0.53
35:z:824:LYS:HE3	35:z:825:TYR:CE1	2.44	0.53
37:x:243:ASP:CG	37:x:246:GLU:HG3	2.34	0.53
38:w:67:LEU:HD23	56:2:45:G:C8	2.43	0.53
53:k:131:PHE:HD2	53:k:157:LYS:HG2	1.72	0.53
56:2:75:A:N6	56:2:76:A:C6	2.76	0.53
56:2:186:U:H5'	56:2:187:A:C8	2.43	0.53
1:u:167:PHE:HA	1:u:171:ALA:HB3	1.90	0.53
1:u:749:ASP:OD2	5:h:164:SER:N	2.41	0.53
6:e:498:LEU:HD13	6:e:523:VAL:HG13	1.90	0.53
11:au:40:TRP:CH2	11:au:214:ARG:HB3	2.43	0.53
13:aj:56:HIS:HA	56:A:431:U:OP2	2.08	0.53
13:aj:120:TRP:O	13:aj:124:VAL:HG23	2.08	0.53
15:af:55:PRO:HA	15:af:58:TRP:HD1	1.73	0.53
17:l:199:PHE:CD2	17:l:377:TRP:HB3	2.44	0.53
17:l:224:LEU:HD12	17:l:388:ILE:HG23	1.90	0.53
19:ab:116:HIS:CE1	19:ab:118:ALA:HA	2.44	0.53
19:ab:277:GLY:O	19:ab:506:MET:HG3	2.09	0.53
20:ad:343:TRP:CE2	27:av:90:ARG:HD2	2.43	0.53
22:i:246:ASN:N	22:i:246:ASN:OD1	2.40	0.53
23:f:107:ARG:HH22	25:d:93:TYR:C	2.16	0.53
30:aq:101:PHE:CD2	30:aq:110:PRO:HG3	2.44	0.53
31:ap:70:SER:OG	31:ap:71:THR:N	2.42	0.53
33:ai:304:ILE:HG12	33:ai:347:LEU:HD23	1.89	0.53
34:an:214:ARG:HG2	52:aa:869:PHE:CE2	2.43	0.53
34:an:227:ASP:OD1	34:an:229:PRO:HD3	2.07	0.53
34:an:229:PRO:CG	45:Ca:132:HIS:HE1	2.20	0.53
35:z:257:LEU:HB2	35:z:369:HIS:NE2	2.24	0.53
36:y:82:HIS:NE2	36:y:84:ALA:HB3	2.23	0.53
41:t:122:GLN:O	41:t:207:ARG:NH2	2.28	0.53
43:q:13:ARG:HH12	56:2:49:U:P	2.32	0.53
44:p:26:GLU:HA	44:p:29:GLU:HG2	1.90	0.53
45:Ca:473:VAL:HG22	45:Ca:481:LEU:HD22	1.91	0.53
46:g:12:TYR:HB3	46:g:16:HIS:CD2	2.43	0.53
50:a:233:VAL:HG23	50:a:233:VAL:O	2.08	0.53
51:bc:233:VAL:HG21	51:bc:352:LYS:HE3	1.90	0.53
52:aa:144:GLU:O	53:k:82:SER:OG	2.26	0.53
52:aa:1131:VAL:HG21	52:aa:1671:ALA:HB2	1.90	0.53
53:k:22:CYS:O	53:k:30:ARG:NH2	2.41	0.53
53:k:72:ARG:O	53:k:118:PRO:HD2	2.08	0.53
54:be:22:PRO:HA	54:be:71:LEU:HD13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:as:17:THR:OG1	56:2:88:A:N6	2.40	0.53
55:as:252:ARG:HG2	55:as:255:LEU:H	1.73	0.53
56:A:461:A:N6	56:A:463:A:N7	2.56	0.53
56:2:130:U:C2	56:2:131:A:C8	2.96	0.53
1:u:196:ALA:HB1	1:u:246:THR:HG22	1.91	0.53
1:u:388:SER:OG	1:u:389:ASN:N	2.41	0.53
1:u:638:ARG:HD3	6:e:310:PHE:CZ	2.44	0.53
3:r:97:VAL:HA	57:r:901:GTP:C2'	2.39	0.53
5:h:58:THR:HA	6:e:675:GLN:HG3	1.90	0.53
6:e:244:TYR:HA	6:e:434:HIS:O	2.09	0.53
6:e:259:LEU:HD11	6:e:425:LEU:HD22	1.91	0.53
11:au:90:PRO:HA	11:au:93:MET:HG2	1.90	0.53
11:au:169:LEU:O	18:ac:39:VAL:HG23	2.09	0.53
12:ak:48:VAL:HG21	18:ac:1031:LEU:HD13	1.89	0.53
15:af:616:ALA:HA	15:af:619:ILE:HG22	1.89	0.53
16:ae:286:VAL:HG21	16:ae:322:TYR:CD2	2.44	0.53
17:l:42:ARG:HH11	17:l:497:ASP:HB3	1.73	0.53
17:l:208:LEU:HD22	19:ab:149:ARG:HD3	1.90	0.53
18:ac:458:ASN:HA	18:ac:461:LYS:NZ	2.24	0.53
18:ac:606:ALA:HA	18:ac:608:LYS:HZ1	1.74	0.53
18:ac:855:PRO:HG2	18:ac:858:CYS:HB2	1.89	0.53
18:ac:1143:THR:HG23	18:ac:1146:GLN:HG3	1.91	0.53
19:ab:96:ARG:HB3	19:ab:99:SER:HB3	1.91	0.53
20:ad:126:MET:HG3	20:ad:126:MET:O	2.08	0.53
22:i:185:MET:HE1	43:q:142:LEU:HB3	1.90	0.53
22:i:422:ALA:HB3	56:2:104:A:H5''	1.89	0.53
23:f:157:ARG:HA	48:b:143:GLU:OE2	2.08	0.53
23:f:279:ARG:NH2	46:g:34:GLY:O	2.42	0.53
23:f:316:GLY:HA3	46:g:15:TYR:OH	2.08	0.53
24:c:108:ILE:O	35:z:111:THR:OG1	2.26	0.53
26:ba:49:SER:HA	45:Ca:565:ARG:HD3	1.90	0.53
31:ap:210:GLY:O	33:ai:266:LYS:NZ	2.27	0.53
32:ao:124:VAL:HG21	32:ao:129:TRP:CE3	2.44	0.53
33:ai:348:LEU:HB2	35:z:861:HIS:CE1	2.44	0.53
35:z:717:ASP:OD1	35:z:717:ASP:N	2.41	0.53
37:x:121:GLU:OE1	37:x:124:ASP:HB2	2.09	0.53
37:x:149:PHE:CD2	37:x:150:ILE:HB	2.44	0.53
39:v:92:GLN:C	39:v:94:THR:H	2.16	0.53
41:t:130:VAL:O	41:t:132:LEU:N	2.41	0.53
42:al:248:PRO:HA	42:al:251:LYS:HG3	1.91	0.53
43:q:17:ASN:ND2	43:q:30:GLY:HA2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:36:ILE:HG22	45:Ca:37:GLN:H	1.74	0.53
45:Ca:108:LEU:O	45:Ca:108:LEU:HD23	2.08	0.53
47:j:149:TYR:O	47:j:152:ALA:N	2.42	0.53
52:aa:570:ARG:HD2	52:aa:690:LEU:HB3	1.91	0.53
52:aa:787:ARG:NH1	52:aa:843:ASN:HB3	2.24	0.53
52:aa:1270:PHE:CE1	52:aa:1274:LEU:HD13	2.43	0.53
56:2:554:C:H2'	56:2:555:A:C8	2.43	0.53
3:r:28:ALA:HB2	3:r:423:ALA:C	2.34	0.53
6:e:446:SER:O	6:e:479:ARG:HD2	2.09	0.53
9:ax:36:MET:HB3	56:A:519:U:H2'	1.91	0.53
10:aw:131:ASP:OD1	10:aw:132:VAL:N	2.35	0.53
14:ag:396:ARG:O	14:ag:400:GLN:HG2	2.09	0.53
15:af:207:SER:HB3	15:af:210:VAL:HG12	1.90	0.53
16:ae:517:ASN:CG	16:ae:547:ASN:HD21	2.16	0.53
17:l:625:VAL:HA	17:l:628:GLN:HG2	1.89	0.53
19:ab:155:MET:HE1	19:ab:164:LEU:HD22	1.91	0.53
19:ab:272:ARG:HB3	19:ab:272:ARG:NH1	2.23	0.53
20:ad:117:GLY:C	20:ad:692:ARG:HH21	2.16	0.53
20:ad:383:PHE:CD2	20:ad:387:GLN:HG3	2.43	0.53
20:ad:457:LEU:HA	20:ad:460:VAL:HG22	1.89	0.53
22:i:404:PRO:HA	29:ar:16:LEU:HD21	1.90	0.53
27:av:149:GLU:HG2	27:av:150:LEU:N	2.24	0.53
29:ar:129:GLU:H	29:ar:129:GLU:CD	2.15	0.53
30:aq:139:ARG:O	30:aq:139:ARG:NE	2.40	0.53
36:y:48:GLN:HG2	44:p:295:ASP:HA	1.91	0.53
36:y:91:ARG:O	36:y:95:LYS:N	2.40	0.53
42:al:229:MET:SD	42:al:230:THR:N	2.81	0.53
45:Ca:74:ALA:H	45:Ca:181:ASN:HD21	1.54	0.53
48:b:123:ARG:HG3	48:b:127:GLU:OE2	2.09	0.53
50:a:268:THR:O	50:a:272:VAL:HG12	2.09	0.53
52:aa:564:TYR:OH	52:aa:878:ARG:O	2.27	0.53
52:aa:978:THR:HG22	52:aa:979:ASP:H	1.73	0.53
52:aa:1141:VAL:HG12	52:aa:1666:SER:OG	2.09	0.53
52:aa:1413:LYS:N	52:aa:1580:ARG:HG2	2.23	0.53
52:aa:1449:GLU:OE1	52:aa:1638:THR:OG1	2.22	0.53
52:aa:1645:TYR:HA	52:aa:1648:ILE:HD12	1.90	0.53
53:k:76:TRP:HB3	53:k:114:MET:HB3	1.91	0.53
56:A:419:U:H2'	56:A:420:A:O4'	2.08	0.53
56:2:32:A:H2'	56:2:33:A:O4'	2.09	0.53
1:u:128:GLU:N	1:u:316:VAL:O	2.37	0.53
1:u:659:GLY:HA2	19:ab:1059:ASP:OD2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:s:83:ASN:O	5:h:50:GLN:NE2	2.42	0.53
6:e:703:ASN:OD1	19:ab:1123:GLN:NE2	2.41	0.53
15:af:308:ILE:HG13	15:af:309:PHE:N	2.22	0.53
15:af:639:GLU:HG3	15:af:642:ALA:HB3	1.91	0.53
20:ad:66:TRP:NE1	47:j:67:LYS:HD3	2.24	0.53
20:ad:118:ARG:HG3	20:ad:692:ARG:NH2	2.24	0.53
20:ad:769:TYR:OH	50:a:308:ARG:NE	2.42	0.53
22:i:272:LYS:O	22:i:276:GLU:HG2	2.09	0.53
29:ar:150:LEU:HB2	29:ar:243:PHE:HE2	1.72	0.53
34:an:194:TRP:CH2	34:an:200:GLY:HA2	2.44	0.53
35:z:299:ASN:HB3	35:z:302:MET:HG3	1.90	0.53
37:x:337:THR:HG23	37:x:338:GLY:H	1.73	0.53
39:v:170:TYR:OH	46:g:92:GLU:OE2	2.13	0.53
42:al:132:LEU:HD23	42:al:188:ALA:HB2	1.90	0.53
43:q:34:PRO:HB3	55:as:231:PRO:HG2	1.91	0.53
51:bc:230:PHE:CZ	51:bc:276:MET:HE3	2.44	0.53
51:bc:235:ASP:O	51:bc:239:VAL:HG23	2.09	0.53
52:aa:310:PHE:HA	52:aa:313:PHE:HD1	1.72	0.53
52:aa:1000:PHE:CD2	52:aa:1001:ILE:HG12	2.44	0.53
56:2:231:U:H3'	56:2:232:G:C8	2.43	0.53
1:u:396:ARG:HG2	1:u:401:HIS:CE1	2.44	0.53
2:s:47:GLU:O	6:e:767:LYS:NZ	2.35	0.53
3:r:200:ALA:O	3:r:204:ALA:HB3	2.09	0.53
3:r:343:ILE:HG22	3:r:395:LEU:HD22	1.90	0.53
4:n:37:ALA:O	4:n:40:PHE:HB2	2.07	0.53
4:n:95:THR:OG1	16:ae:68:HIS:O	2.23	0.53
7:az:136:VAL:HG12	7:az:151:LEU:HD11	1.91	0.53
14:ag:206:THR:HG22	14:ag:240:ILE:HG23	1.90	0.53
16:ae:321:GLU:HA	16:ae:485:TRP:CH2	2.44	0.53
17:l:460:GLU:HG2	17:l:463:ARG:HH22	1.73	0.53
19:ab:482:ASN:O	19:ab:487:ARG:NE	2.36	0.53
19:ab:1103:TRP:CE2	19:ab:1107:GLN:HG3	2.44	0.53
20:ad:757:LYS:NZ	45:Ca:388:GLN:OE1	2.30	0.53
20:ad:763:ARG:NH2	35:z:942:ASP:OD2	2.42	0.53
22:i:129:GLN:O	22:i:133:GLU:HG2	2.08	0.53
22:i:145:GLN:HB2	31:ap:161:PHE:HE2	1.74	0.53
25:d:158:VAL:HG22	44:p:204:ALA:HB2	1.91	0.53
27:av:41:LYS:HG3	29:ar:65:TRP:HB3	1.89	0.53
30:aq:111:THR:OG1	30:aq:114:ASP:N	2.42	0.53
36:y:107:CYS:HA	36:y:157:TRP:HH2	1.74	0.53
38:w:55:HIS:CD2	38:w:77:PHE:HB2	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:b:44:VAL:HA	48:b:63:ARG:HA	1.91	0.53
49:bd:80:ILE:HB	49:bd:82:PHE:CE2	2.44	0.53
52:aa:1316:HIS:HB3	52:aa:1320:ARG:NH2	2.23	0.53
55:as:14:ARG:NH1	56:2:85:U:H5'	2.24	0.53
56:2:568:A:H2'	56:2:569:U:C5	2.43	0.53
1:u:796:GLY:N	3:r:393:ASP:OD1	2.37	0.53
3:r:231:LEU:HD12	3:r:240:PRO:HG3	1.90	0.53
3:r:374:GLU:OE1	7:az:12:PHE:HZ	1.92	0.53
4:n:159:LYS:NZ	56:A:493:U:OP2	2.29	0.53
6:e:14:TYR:HB3	42:al:29:ASN:ND2	2.24	0.53
7:az:10:ASN:HB2	9:ax:65:HIS:NE2	2.23	0.53
7:az:87:ARG:HG2	39:v:113:ASP:OD1	2.08	0.53
11:au:77:PRO:HG2	18:ac:1070:TYR:CD1	2.44	0.53
15:af:39:ARG:NH2	19:ab:1003:ASP:OD2	2.40	0.53
15:af:306:ARG:HH21	15:af:343:SER:HB2	1.73	0.53
15:af:585:PHE:CD1	15:af:650:THR:HG22	2.43	0.53
19:ab:623:PHE:HB3	19:ab:624:PRO:HD2	1.90	0.53
19:ab:857:TRP:CG	19:ab:873:ARG:HD3	2.44	0.53
22:i:164:ARG:HG2	22:i:205:ALA:CB	2.39	0.53
24:c:116:LYS:HB2	24:c:119:HIS:CD2	2.43	0.53
28:at:139:SER:HB2	28:at:162:SER:HA	1.92	0.53
35:z:367:ARG:HG2	35:z:924:LEU:HD13	1.90	0.53
38:w:135:ILE:HD12	56:2:169:A:H1'	1.91	0.53
39:v:140:CYS:HB3	56:2:394:A:H2	1.74	0.53
42:al:69:LEU:HB2	52:aa:1061:ILE:HD12	1.90	0.53
43:q:20:SER:HB3	43:q:29:THR:HG23	1.91	0.53
44:p:47:ILE:HG13	50:a:135:ARG:O	2.09	0.53
47:j:56:ASN:ND2	47:j:58:ASP:H	2.07	0.53
50:a:71:VAL:HB	50:a:320:GLY:HA2	1.91	0.53
50:a:362:GLU:HB2	52:aa:1149:HIS:NE2	2.24	0.53
52:aa:364:ARG:NH1	56:2:204:U:O2'	2.40	0.53
52:aa:643:LEU:HB3	52:aa:648:VAL:HB	1.91	0.53
52:aa:1607:LYS:HG2	52:aa:1608:THR:N	2.23	0.53
1:u:116:THR:HG23	16:ae:577:GLU:OE1	2.09	0.52
1:u:322:LEU:O	1:u:326:LEU:HG	2.09	0.52
3:r:246:LEU:O	3:r:249:TRP:HE3	1.92	0.52
12:ak:118:ARG:NH2	18:ac:1000:THR:HA	2.24	0.52
14:ag:213:MET:HE3	14:ag:231:VAL:HG12	1.91	0.52
16:ae:34:PRO:HD2	56:A:439:U:OP2	2.10	0.52
19:ab:282:ARG:HB2	19:ab:835:ARG:HH22	1.75	0.52
19:ab:430:THR:OG1	19:ab:431:HIS:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:ab:870:LEU:HB3	19:ab:896:ILE:HD12	1.91	0.52
20:ad:498:LEU:H	20:ad:498:LEU:HD12	1.74	0.52
20:ad:590:TRP:HZ3	20:ad:595:LEU:HD11	1.72	0.52
23:f:106:GLN:NE2	25:d:108:LEU:HD21	2.24	0.52
23:f:207:ALA:N	23:f:249:TYR:OH	2.43	0.52
25:d:12:HIS:CG	25:d:47:VAL:HG21	2.44	0.52
28:at:98:CYS:HB3	28:at:102:GLY:H	1.73	0.52
28:at:139:SER:O	28:at:143:SER:OG	2.15	0.52
29:ar:207:HIS:HD2	29:ar:209:THR:N	2.07	0.52
30:aq:112:VAL:HG21	30:aq:147:ALA:N	2.23	0.52
32:ao:17:MET:HE2	32:ao:39:VAL:HG21	1.90	0.52
32:ao:269:PRO:O	45:Ca:211:SER:OG	2.22	0.52
33:ai:296:VAL:HG13	33:ai:301:MET:HG2	1.91	0.52
35:z:223:GLN:HA	35:z:247:MET:HE1	1.91	0.52
35:z:892:PRO:HG2	35:z:894:TRP:NE1	2.23	0.52
37:x:88:HIS:H	37:x:88:HIS:CD2	2.25	0.52
37:x:146:ILE:HD13	37:x:217:LEU:HD13	1.91	0.52
41:t:149:TYR:CZ	41:t:160:PRO:HG3	2.44	0.52
42:al:157:GLU:CD	50:a:135:ARG:HH21	2.17	0.52
50:a:339:LEU:HD11	52:aa:1428:GLY:CA	2.39	0.52
52:aa:872:GLU:O	52:aa:876:GLU:HG3	2.09	0.52
52:aa:1236:PHE:N	52:aa:1358:TRP:O	2.40	0.52
52:aa:1288:ALA:O	52:aa:1292:SER:OG	2.27	0.52
55:as:41:HIS:O	55:as:45:ALA:CB	2.58	0.52
1:u:243:ARG:HH11	1:u:244:ARG:HE	1.56	0.52
2:s:132:THR:HA	2:s:135:MET:HE3	1.91	0.52
3:r:135:LEU:O	3:r:139:THR:N	2.42	0.52
3:r:285:VAL:HB	3:r:355:THR:HG22	1.90	0.52
5:h:63:ARG:HB3	6:e:682:MET:HE2	1.90	0.52
6:e:170:HIS:CE1	25:d:18:LEU:HG	2.43	0.52
9:ax:43:ASN:ND2	56:A:518:G:N3	2.57	0.52
9:ax:61:LEU:HD21	9:ax:66:LEU:HD21	1.89	0.52
11:au:229:GLU:OE2	11:au:233:HIS:NE2	2.42	0.52
14:ag:15:TYR:O	14:ag:19:THR:OG1	2.23	0.52
14:ag:269:PHE:HA	14:ag:272:ARG:NH1	2.24	0.52
16:ae:97:ILE:HB	16:ae:101:ALA:HB2	1.92	0.52
17:l:549:THR:HG23	18:ac:1065:GLU:HB2	1.91	0.52
17:l:602:ARG:HD3	17:l:636:LEU:HG	1.90	0.52
18:ac:84:ILE:HD13	18:ac:950:THR:HA	1.91	0.52
19:ab:815:LEU:O	19:ab:817:PRO:HD3	2.09	0.52
19:ab:877:HIS:CD2	19:ab:887:ILE:H	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:353:HIS:C	27:av:233:MET:HG2	2.34	0.52
20:ad:673:ASN:OD1	45:Ca:424:GLN:N	2.42	0.52
20:ad:771:MET:HB3	45:Ca:333:ARG:HG3	1.92	0.52
25:d:404:LEU:HG	25:d:405:LEU:HD22	1.91	0.52
27:av:119:THR:HA	27:av:155:SER:HA	1.91	0.52
27:av:213:LEU:O	27:av:216:ARG:HG2	2.09	0.52
31:ap:142:ASN:ND2	31:ap:144:ARG:HB3	2.24	0.52
35:z:771:CYS:HB3	35:z:773:TYR:HE1	1.73	0.52
42:al:86:PHE:O	42:al:89:LEU:N	2.42	0.52
52:aa:382:ALA:HA	52:aa:423:GLN:NE2	2.24	0.52
52:aa:1085:HIS:HD1	52:aa:1089:HIS:CG	2.27	0.52
56:A:536:U:O2'	56:A:537:A:N7	2.41	0.52
1:u:132:TYR:CZ	1:u:140:ARG:HD2	2.44	0.52
2:s:120:TYR:O	2:s:124:VAL:HG12	2.08	0.52
2:s:169:TRP:CE2	11:au:243:PRO:HG3	2.44	0.52
3:r:98:MET:HE2	9:ax:74:MET:HA	1.91	0.52
3:r:184:HIS:ND1	3:r:296:HIS:HB3	2.24	0.52
3:r:383:ASP:OD1	3:r:383:ASP:N	2.41	0.52
6:e:51:PHE:HD1	6:e:52:PRO:HD2	1.74	0.52
6:e:207:PHE:HB2	25:d:373:HIS:CD2	2.44	0.52
6:e:779:TRP:HE1	10:aw:99:ARG:CZ	2.21	0.52
7:az:144:HIS:HB3	7:az:148:ARG:H	1.71	0.52
11:au:138:SER:OG	11:au:176:ASP:OD2	2.23	0.52
11:au:186:TRP:HB3	13:aj:324:LEU:CA	2.39	0.52
14:ag:416:LEU:HD22	14:ag:419:MET:H	1.73	0.52
15:af:98:ASP:CG	15:af:101:THR:HG23	2.34	0.52
15:af:206:LEU:HD23	15:af:211:TYR:CE1	2.44	0.52
16:ae:510:LEU:HD13	16:ae:518:LEU:O	2.09	0.52
17:l:628:GLN:O	17:l:632:VAL:HG23	2.10	0.52
20:ad:112:LYS:HB2	20:ad:709:PRO:HD2	1.91	0.52
30:aq:84:ASP:C	30:aq:86:PRO:HD3	2.35	0.52
31:ap:205:GLU:HB3	31:ap:209:LYS:HZ1	1.75	0.52
32:ao:171:ASN:ND2	52:aa:443:GLY:HA2	2.24	0.52
34:an:209:PRO:C	34:an:211:TYR:H	2.18	0.52
35:z:441:TYR:O	35:z:444:LEU:HB3	2.08	0.52
35:z:558:GLN:O	35:z:774:PHE:HD2	1.92	0.52
39:v:49:GLY:HA3	39:v:68:ASP:OD2	2.10	0.52
40:bb:166:LYS:O	40:bb:170:PHE:HB2	2.09	0.52
45:Ca:527:ASP:O	45:Ca:542:ARG:NH2	2.39	0.52
50:a:416:ASN:HD21	52:aa:1039:GLU:HB3	1.73	0.52
51:bc:242:LYS:O	51:bc:246:ILE:HG12	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:be:47:ARG:HH12	54:be:73:GLY:C	2.18	0.52
1:u:595:ASN:ND2	1:u:599:ARG:HE	2.07	0.52
1:u:686:LYS:O	1:u:691:GLN:HG3	2.09	0.52
3:r:21:CYS:H	3:r:24:ASP:HB2	1.74	0.52
3:r:28:ALA:HB3	3:r:33:TRP:CD1	2.45	0.52
3:r:174:LEU:HD11	3:r:273:LEU:HD13	1.92	0.52
5:h:71:VAL:HG12	19:ab:1097:VAL:HG11	1.91	0.52
6:e:18:THR:OG1	49:bd:44:ILE:N	2.41	0.52
6:e:150:ASN:HB3	6:e:203:SER:HA	1.90	0.52
6:e:158:LEU:O	25:d:42:TRP:NE1	2.41	0.52
6:e:772:PRO:HB2	10:aw:102:TRP:CD1	2.44	0.52
8:ay:168:ARG:HH12	19:ab:1129:VAL:HG22	1.74	0.52
13:aj:162:VAL:HG21	13:aj:191:TYR:HD2	1.75	0.52
14:ag:557:ARG:HE	17:l:83:PRO:HB2	1.74	0.52
15:af:289:ALA:O	15:af:293:VAL:HG23	2.10	0.52
16:ae:225:THR:O	19:ab:1072:TYR:OH	2.28	0.52
16:ae:296:ARG:NE	16:ae:299:GLU:OE2	2.43	0.52
17:l:418:SER:N	19:ab:89:ASP:OD2	2.36	0.52
17:l:527:SER:HB3	18:ac:958:HIS:HE1	1.74	0.52
18:ac:220:PRO:HA	18:ac:223:TYR:HB3	1.91	0.52
18:ac:687:VAL:O	18:ac:691:THR:HG23	2.09	0.52
18:ac:966:PRO:HA	18:ac:969:VAL:HG12	1.91	0.52
22:i:386:PHE:CZ	55:as:23:VAL:HG12	2.44	0.52
24:c:157:ASP:O	24:c:161:ARG:HG2	2.09	0.52
25:d:328:ASN:ND2	25:d:371:ASP:OD1	2.43	0.52
27:av:96:PHE:HB2	27:av:103:TRP:HE3	1.74	0.52
27:av:118:ILE:HG22	27:av:156:LEU:HD22	1.91	0.52
28:at:114:LYS:NZ	56:2:206:A:OP1	2.25	0.52
29:ar:92:MET:HE3	29:ar:93:HIS:CD2	2.43	0.52
29:ar:106:LEU:HD11	29:ar:213:ILE:HG12	1.90	0.52
29:ar:138:VAL:HG21	29:ar:248:ILE:HD11	1.92	0.52
30:aq:110:PRO:HD2	30:aq:142:ASN:HB3	1.90	0.52
31:ap:95:PRO:HA	31:ap:138:LEU:HD21	1.91	0.52
34:an:249:LEU:HD11	52:aa:1070:ILE:HG23	1.91	0.52
35:z:475:MET:HE2	35:z:506:PHE:CE1	2.45	0.52
36:y:137:THR:HA	36:y:140:THR:HG22	1.90	0.52
43:q:33:THR:O	43:q:35:TYR:N	2.43	0.52
43:q:45:LEU:O	43:q:49:VAL:HG23	2.09	0.52
45:Ca:20:GLU:O	45:Ca:23:SER:OG	2.20	0.52
47:j:100:PHE:HE2	47:j:124:LEU:HD22	1.74	0.52
50:a:348:TYR:HD2	50:a:352:PHE:HD2	1.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:317:ARG:NH2	52:aa:321:LEU:O	2.40	0.52
1:u:345:SER:N	1:u:349:GLU:OE1	2.43	0.52
3:r:151:LYS:HB2	3:r:359:ARG:HB2	1.90	0.52
3:r:174:LEU:HB2	3:r:283:ILE:HG23	1.91	0.52
5:h:128:LEU:HD21	6:e:252:TRP:HE1	1.74	0.52
8:ay:116:ALA:O	8:ay:119:GLU:HG3	2.10	0.52
17:l:49:HIS:HE1	17:l:71:ILE:HA	1.74	0.52
18:ac:1022:GLU:O	18:ac:1026:VAL:HG23	2.10	0.52
19:ab:103:ALA:HB2	19:ab:115:TYR:CD1	2.44	0.52
19:ab:242:HIS:CE1	19:ab:246:ILE:HD11	2.45	0.52
19:ab:531:TYR:HA	19:ab:534:HIS:HB2	1.90	0.52
20:ad:145:ILE:HA	20:ad:158:ALA:HA	1.90	0.52
22:i:79:TRP:CD1	22:i:79:TRP:C	2.87	0.52
22:i:356:GLN:HE21	56:2:119:A:H4'	1.74	0.52
23:f:72:GLN:NE2	44:p:278:ASP:OD2	2.42	0.52
23:f:151:ASN:OD1	23:f:152:ASP:N	2.42	0.52
23:f:190:ASP:HB3	23:f:266:ARG:HH11	1.75	0.52
25:d:188:THR:HG23	25:d:191:ARG:H	1.75	0.52
28:at:127:PRO:HG3	28:at:135:HIS:CG	2.44	0.52
33:ai:47:GLU:OE2	33:ai:212:TYR:OH	2.26	0.52
35:z:84:TRP:NE1	35:z:148:PHE:O	2.41	0.52
43:q:169:ALA:HA	43:q:186:VAL:HG12	1.91	0.52
45:Ca:546:TRP:CD1	45:Ca:554:ARG:HD3	2.44	0.52
46:g:49:LYS:H	46:g:52:GLU:CD	2.17	0.52
47:j:18:THR:N	47:j:19:PRO:HD3	2.24	0.52
47:j:182:GLU:O	47:j:184:PRO:HD3	2.09	0.52
50:a:357:ARG:HG3	50:a:363:PRO:HB3	1.91	0.52
52:aa:825:SER:HB2	52:aa:972:SER:HA	1.92	0.52
55:as:105:THR:CA	55:as:108:GLN:HE21	2.22	0.52
56:2:43:A:C8	56:2:44:U:H5	2.28	0.52
56:2:77:A:OP2	56:2:78:G:O2'	2.16	0.52
56:2:580:U:C4	56:2:581:G:N7	2.77	0.52
2:s:69:THR:HG21	2:s:73:MET:HG3	1.91	0.52
2:s:71:TYR:CD2	5:h:161:LEU:HD22	2.45	0.52
6:e:71:ASP:N	6:e:71:ASP:OD1	2.42	0.52
6:e:163:ASP:CG	25:d:49:ARG:HH22	2.10	0.52
6:e:546:PRO:HG3	6:e:551:ARG:N	2.24	0.52
6:e:769:ASP:OD1	6:e:770:GLN:N	2.41	0.52
9:ax:24:LYS:HD2	9:ax:25:PRO:HD2	1.91	0.52
10:aw:120:GLU:OE1	10:aw:151:TYR:OH	2.16	0.52
11:au:92:LYS:O	11:au:139:HIS:HE1	1.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:au:224:PRO:HG3	18:ac:29:ILE:HA	1.90	0.52
14:ag:60:ARG:NH2	18:ac:1090:VAL:HG13	2.24	0.52
14:ag:323:LEU:O	14:ag:327:VAL:HG23	2.10	0.52
14:ag:470:GLU:OE1	14:ag:489:ARG:NH1	2.43	0.52
16:ae:125:TYR:HD1	16:ae:138:VAL:HG21	1.74	0.52
17:l:627:ARG:NH1	17:l:630:VAL:HG11	2.25	0.52
18:ac:271:PHE:HE1	18:ac:441:MET:HA	1.71	0.52
18:ac:515:ARG:O	18:ac:519:VAL:HG23	2.09	0.52
20:ad:619:LEU:O	41:t:210:PRO:HG2	2.10	0.52
21:m:180:PHE:HB2	23:f:183:GLU:OE1	2.09	0.52
21:m:181:ARG:O	21:m:184:LYS:HG2	2.08	0.52
23:f:107:ARG:N	25:d:92:GLU:OE1	2.35	0.52
24:c:74:ARG:NH2	56:2:6:U:O4'	2.42	0.52
25:d:143:TYR:O	25:d:147:VAL:HG13	2.09	0.52
25:d:239:ARG:HA	25:d:241:PHE:CE1	2.45	0.52
27:av:74:TRP:NE1	27:av:76:ALA:HB2	2.25	0.52
28:at:131:LEU:HD23	28:at:134:GLN:CD	2.34	0.52
30:aq:64:MET:HE2	30:aq:64:MET:HA	1.91	0.52
34:an:83:SER:O	34:an:87:GLN:NE2	2.42	0.52
35:z:78:TYR:CD2	39:v:176:VAL:HG22	2.45	0.52
35:z:554:ILE:HA	35:z:559:ASN:HD22	1.75	0.52
35:z:971:HIS:HD2	35:z:972:VAL:O	1.93	0.52
36:y:30:LEU:HD12	36:y:33:LEU:HB2	1.92	0.52
41:t:60:LEU:HD12	41:t:88:ALA:HB1	1.91	0.52
43:q:15:TYR:HA	43:q:28:MET:HE3	1.91	0.52
44:p:125:MET:SD	44:p:146:VAL:HG13	2.49	0.52
50:a:425:THR:OG1	52:aa:1677:GLU:OE1	2.17	0.52
52:aa:824:GLY:O	52:aa:973:GLU:HG2	2.09	0.52
52:aa:1127:HIS:HB3	52:aa:1674:LEU:HD21	1.90	0.52
52:aa:1543:HIS:HE1	52:aa:1559:PRO:HB2	1.75	0.52
55:as:169:THR:HG23	55:as:171:PHE:HE1	1.74	0.52
56:2:135:U:C2	56:2:154:G:O6	2.62	0.52
56:2:353:G:H2'	56:2:354:U:O4'	2.10	0.52
56:2:564:U:H3	56:2:570:A:H61	1.55	0.52
1:u:198:ALA:O	1:u:202:HIS:HB2	2.09	0.52
1:u:663:VAL:N	1:u:667:GLN:OE1	2.42	0.52
2:s:83:ASN:HA	5:h:46:ARG:NH2	2.24	0.52
3:r:176:VAL:HB	3:r:285:VAL:HA	1.91	0.52
3:r:414:ARG:HH22	25:d:56:SER:HB3	1.75	0.52
3:r:436:ASP:OD1	3:r:439:ARG:HB3	2.10	0.52
3:r:467:TYR:CE1	25:d:355:MET:HG2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:e:356:PRO:HD3	6:e:362:TYR:CD2	2.45	0.52
11:au:186:TRP:HB3	13:aj:324:LEU:C	2.35	0.52
15:af:543:ARG:O	15:af:547:THR:HG22	2.09	0.52
15:af:578:LEU:HD11	15:af:643:VAL:HG22	1.91	0.52
16:ae:161:ARG:HG2	16:ae:165:TYR:CE2	2.44	0.52
16:ae:166:ARG:HD2	56:A:420:A:OP2	2.10	0.52
17:l:283:ARG:HH22	19:ab:74:GLU:CG	2.22	0.52
18:ac:886:PHE:O	18:ac:888:ARG:NH2	2.42	0.52
19:ab:160:GLU:HA	19:ab:163:GLU:HB3	1.91	0.52
19:ab:622:LEU:HD23	52:aa:1305:VAL:HG23	1.92	0.52
20:ad:35:GLN:O	20:ad:39:ARG:NH1	2.42	0.52
20:ad:292:ARG:NH1	20:ad:328:PRO:HD2	2.25	0.52
21:m:23:TRP:HH2	35:z:512:HIS:CD2	2.28	0.52
22:i:94:ARG:NH2	56:2:360:C:H41	2.08	0.52
28:at:129:GLU:HB3	38:w:31:PRO:HB2	1.92	0.52
34:an:268:GLU:CD	50:a:58:SER:HB2	2.34	0.52
35:z:978:PHE:HA	35:z:981:MET:HG3	1.92	0.52
39:v:92:GLN:O	39:v:94:THR:N	2.36	0.52
45:Ca:283:TRP:HE3	45:Ca:288:LEU:HD11	1.74	0.52
47:j:103:TRP:HB3	47:j:109:CYS:SG	2.50	0.52
52:aa:129:LEU:HD22	56:2:154:G:O2'	2.09	0.52
52:aa:352:ARG:CZ	52:aa:352:ARG:HB2	2.40	0.52
52:aa:496:ARG:HH12	52:aa:523:ILE:HD13	1.73	0.52
52:aa:575:LEU:HB2	52:aa:874:LEU:HD13	1.90	0.52
52:aa:1317:LEU:N	52:aa:1320:ARG:HH21	2.07	0.52
56:2:125:U:O2	56:2:127:G:C2	2.63	0.52
1:u:758:ASP:HA	1:u:761:THR:HG22	1.91	0.52
5:h:126:ASN:HA	13:aj:20:SER:OG	2.09	0.52
9:ax:35:LYS:O	9:ax:37:ARG:HD2	2.10	0.52
11:au:206:LEU:HD22	11:au:212:PHE:CE2	2.45	0.52
14:ag:149:GLY:O	18:ac:1094:VAL:HB	2.10	0.52
14:ag:175:HIS:HB2	17:l:674:ARG:NH1	2.24	0.52
15:af:313:LEU:HD11	15:af:354:TYR:HD2	1.74	0.52
16:ae:535:LEU:HD21	17:l:649:LEU:HB3	1.92	0.52
17:l:563:PRO:HA	17:l:566:VAL:HG22	1.92	0.52
18:ac:378:LEU:HD13	18:ac:380:PHE:CZ	2.45	0.52
20:ad:10:HIS:N	40:bb:141:GLY:O	2.42	0.52
20:ad:460:VAL:O	20:ad:464:LEU:HB2	2.10	0.52
20:ad:649:ARG:HD2	20:ad:654:LEU:HG	1.92	0.52
22:i:376:GLU:OE2	22:i:379:ARG:NH2	2.43	0.52
23:f:280:VAL:HG23	23:f:307:GLU:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:av:110:VAL:HG11	27:av:131:ASN:OD1	2.10	0.52
27:av:170:ILE:HG21	55:as:175:ARG:NH1	2.24	0.52
33:ai:149:ARG:O	33:ai:153:LEU:HB2	2.10	0.52
34:an:14:ALA:O	34:an:16:TRP:N	2.43	0.52
38:w:126:TRP:CZ2	56:2:45:G:H5'	2.45	0.52
43:q:59:LYS:O	43:q:62:LYS:N	2.34	0.52
45:Ca:475:ARG:NH2	47:j:121:LYS:O	2.43	0.52
45:Ca:547:PHE:CE2	52:aa:391:LEU:HD21	2.45	0.52
47:j:31:ARG:NH1	47:j:50:HIS:O	2.42	0.52
47:j:119:LEU:HB2	47:j:125:LEU:HD12	1.91	0.52
48:b:156:ASN:HA	48:b:159:ARG:NH2	2.24	0.52
52:aa:399:PRO:HG2	52:aa:400:TYR:CD1	2.45	0.52
52:aa:666:HIS:H	52:aa:666:HIS:CD2	2.26	0.52
52:aa:1025:GLU:OE1	52:aa:1026:GLN:N	2.42	0.52
52:aa:1161:MET:HG3	52:aa:1162:LEU:HD22	1.91	0.52
52:aa:1414:MET:HE2	52:aa:1416:VAL:HG13	1.92	0.52
52:aa:1537:ASP:OD1	52:aa:1537:ASP:N	2.42	0.52
55:as:103:ASP:OD1	55:as:105:THR:OG1	2.21	0.52
56:2:111:A:N1	56:2:114:A:N6	2.58	0.52
56:2:254:A:H2'	56:2:255:U:O4'	2.09	0.52
6:e:157:THR:O	6:e:160:THR:OG1	2.19	0.52
6:e:182:GLN:NE2	6:e:189:GLU:O	2.30	0.52
6:e:326:ARG:HG2	6:e:330:LYS:HZ2	1.75	0.52
11:au:43:ASP:N	11:au:218:MET:SD	2.74	0.52
12:ak:47:THR:OG1	12:ak:163:GLU:OE2	2.28	0.52
17:l:199:PHE:CE2	17:l:377:TRP:HB3	2.45	0.52
17:l:598:GLU:OE2	17:l:601:ARG:NE	2.42	0.52
18:ac:821:PHE:CZ	18:ac:842:GLN:HG3	2.45	0.52
18:ac:892:GLN:HA	18:ac:926:ARG:HH12	1.73	0.52
19:ab:183:SER:O	19:ab:189:GLN:HG2	2.10	0.52
20:ad:283:VAL:HG21	33:ai:72:PRO:HG3	1.92	0.52
20:ad:420:PHE:O	20:ad:470:LYS:HD3	2.10	0.52
20:ad:428:ARG:HD3	20:ad:428:ARG:H	1.74	0.52
25:d:242:ASN:O	25:d:246:VAL:HG23	2.10	0.52
25:d:351:TRP:HE3	25:d:351:TRP:H	1.58	0.52
28:at:23:TRP:CE3	28:at:33:LEU:HD23	2.44	0.52
28:at:173:TRP:HB2	28:at:182:TYR:CE1	2.45	0.52
30:aq:165:ASP:HA	30:aq:168:LEU:HG	1.91	0.52
32:ao:27:ASP:OD2	32:ao:58:SER:OG	2.21	0.52
34:an:121:LEU:HD23	34:an:124:ILE:HD12	1.92	0.52
35:z:639:GLN:NE2	35:z:643:GLU:OE2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:731:ASP:OD1	35:z:731:ASP:N	2.41	0.52
38:w:78:LYS:HZ1	38:w:94:ARG:HH12	1.57	0.52
39:v:208:ARG:NH2	56:2:290:G:H2'	2.24	0.52
41:t:20:MET:HE1	43:q:50:HIS:HB3	1.91	0.52
42:al:113:LYS:NZ	42:al:116:GLU:OE2	2.38	0.52
42:al:265:ARG:HD3	56:A:458:U:O4'	2.10	0.52
43:q:178:ASN:HB2	43:q:181:GLY:H	1.74	0.52
46:g:69:ARG:HG2	46:g:72:HIS:CE1	2.45	0.52
50:a:86:ALA:HA	50:a:89:LEU:HD21	1.91	0.52
52:aa:263:LEU:HG	52:aa:291:PHE:CE2	2.43	0.52
52:aa:1689:SER:O	52:aa:1692:TYR:N	2.42	0.52
53:k:36:ASN:HB2	56:2:149:U:O2'	2.10	0.52
54:be:2:TRP:CE2	56:2:376:G:C2	2.98	0.52
56:2:164:G:C2	56:2:165:A:C2	2.98	0.52
1:u:104:SER:HB3	19:ab:853:GLY:O	2.10	0.52
2:s:70:GLY:HA3	6:e:222:VAL:HG11	1.92	0.52
4:n:44:ARG:HH12	56:A:495:U:P	2.32	0.52
6:e:458:THR:HA	6:e:462:HIS:CD2	2.44	0.52
6:e:626:ALA:HA	6:e:636:GLU:OE2	2.09	0.52
11:au:36:GLU:HA	11:au:214:ARG:HH21	1.75	0.52
11:au:72:HIS:HE1	11:au:76:HIS:HB2	1.72	0.52
14:ag:441:PRO:HD3	49:bd:44:ILE:HG23	1.92	0.52
17:l:155:LYS:HD3	17:l:531:ASP:OD2	2.09	0.52
17:l:379:CYS:HB2	17:l:382:ASN:HB2	1.92	0.52
17:l:559:LEU:O	17:l:561:THR:N	2.43	0.52
18:ac:941:TRP:HA	18:ac:941:TRP:CE3	2.45	0.52
19:ab:604:SER:O	19:ab:608:VAL:HG23	2.10	0.52
20:ad:297:ARG:O	20:ad:301:VAL:HG12	2.10	0.52
20:ad:373:THR:HG23	20:ad:557:ALA:HB3	1.92	0.52
20:ad:651:PHE:CE2	47:j:143:LYS:HB2	2.45	0.52
20:ad:654:LEU:HD13	47:j:146:LEU:CB	2.39	0.52
23:f:181:TRP:CZ3	23:f:184:MET:HE2	2.44	0.52
23:f:201:ARG:NH1	56:2:304:U:H3'	2.25	0.52
24:c:118:ASP:N	24:c:118:ASP:OD1	2.43	0.52
25:d:245:ASP:O	25:d:249:MET:HG3	2.10	0.52
27:av:132:GLN:NE2	56:2:112:A:N3	2.56	0.52
34:an:150:HIS:CB	37:x:141:PRO:HG3	2.40	0.52
35:z:982:ALA:HB1	45:Ca:272:LEU:HD22	1.91	0.52
36:y:76:LEU:HD23	36:y:79:LEU:HD12	1.92	0.52
37:x:139:ASN:ND2	52:aa:1103:ARG:HA	2.25	0.52
37:x:270:TRP:CD1	37:x:272:GLY:H	2.28	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:394:GLU:HG3	45:Ca:395:ASP:N	2.24	0.52
45:Ca:590:ARG:HG3	56:2:260:U:OP2	2.10	0.52
48:b:100:ARG:NH1	48:b:100:ARG:HB2	2.25	0.52
52:aa:175:PHE:HB3	52:aa:176:GLU:OE1	2.10	0.52
56:2:302:U:H2'	56:2:303:U:C6	2.45	0.52
56:2:567:A:H3'	56:2:570:A:O2'	2.10	0.52
56:2:596:U:O5'	56:2:596:U:H6	1.93	0.52
1:u:120:CYS:HA	1:u:123:LEU:HB2	1.91	0.51
1:u:700:VAL:O	1:u:703:ARG:HD3	2.10	0.51
1:u:799:LYS:O	3:r:331:SER:OG	2.15	0.51
6:e:639:LEU:O	6:e:643:ASN:HB2	2.10	0.51
7:az:25:ILE:HG23	7:az:32:TRP:CD1	2.46	0.51
9:ax:150:THR:HG22	9:ax:153:HIS:H	1.74	0.51
14:ag:408:ARG:HE	14:ag:413:MET:HE1	1.75	0.51
16:ae:314:ARG:O	16:ae:317:LEU:HG	2.10	0.51
16:ae:564:LEU:HD23	16:ae:564:LEU:H	1.74	0.51
17:l:501:PHE:HE1	19:ab:83:GLY:HA3	1.75	0.51
18:ac:254:THR:O	18:ac:258:GLU:HG2	2.11	0.51
18:ac:399:HIS:CD2	18:ac:400:ILE:HG13	2.44	0.51
18:ac:576:ASN:ND2	18:ac:725:PRO:O	2.43	0.51
18:ac:946:MET:HG2	18:ac:971:TYR:CD2	2.45	0.51
21:m:141:HIS:CD2	46:g:70:LEU:HD11	2.45	0.51
23:f:261:ARG:HA	23:f:266:ARG:NH2	2.23	0.51
25:d:190:SER:OG	25:d:191:ARG:N	2.43	0.51
29:ar:201:HIS:CD2	33:ai:73:LEU:HB3	2.44	0.51
31:ap:151:ILE:HA	31:ap:154:LEU:HD13	1.91	0.51
31:ap:180:MET:HE1	43:q:132:PHE:CD2	2.45	0.51
32:ao:108:LEU:HD13	32:ao:119:LEU:HD11	1.91	0.51
34:an:46:PHE:CE1	35:z:973:PRO:HD3	2.44	0.51
34:an:167:LYS:HZ3	50:a:346:ASP:N	2.08	0.51
34:an:285:ILE:O	37:x:93:LYS:NZ	2.37	0.51
35:z:383:LEU:O	35:z:402:SER:HB3	2.09	0.51
36:y:128:ILE:HG23	36:y:169:ARG:NH1	2.25	0.51
43:q:36:ARG:O	43:q:40:TRP:N	2.35	0.51
44:p:219:ALA:HB2	44:p:273:LYS:HB2	1.91	0.51
45:Ca:250:MET:HG3	45:Ca:253:ARG:CZ	2.39	0.51
46:g:77:ARG:NH1	46:g:81:GLN:OE1	2.43	0.51
46:g:136:ASN:C	46:g:141:ASP:HB2	2.35	0.51
52:aa:408:GLN:N	52:aa:445:ILE:HD12	2.26	0.51
52:aa:534:ASP:HB3	52:aa:537:THR:HG22	1.92	0.51
52:aa:1066:ARG:O	52:aa:1070:ILE:HG13	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:1417:HIS:HD2	52:aa:1420:GLU:OE1	1.92	0.51
52:aa:1657:GLN:HE22	52:aa:1660:ARG:HD2	1.75	0.51
56:2:551:G:O6	56:2:585:U:O4	2.28	0.51
2:s:141:LYS:HB3	11:au:16:HIS:HB2	1.92	0.51
3:r:140:ASN:HB2	10:aw:181:THR:HG21	1.92	0.51
7:az:21:PRO:HD2	9:ax:131:HIS:ND1	2.26	0.51
11:au:186:TRP:HB3	13:aj:324:LEU:HA	1.92	0.51
12:ak:252:ASP:O	12:ak:256:ARG:HG3	2.10	0.51
13:aj:27:GLN:HG2	14:ag:441:PRO:O	2.10	0.51
13:aj:158:PRO:HG2	13:aj:161:LEU:HB2	1.93	0.51
14:ag:310:ARG:O	14:ag:313:ARG:NE	2.41	0.51
15:af:332:MET:HE3	15:af:352:LEU:HD13	1.91	0.51
16:ae:358:ARG:O	16:ae:362:SER:OG	2.16	0.51
17:l:88:TRP:HE1	19:ab:335:THR:HA	1.74	0.51
17:l:146:SER:O	17:l:150:LEU:HB2	2.10	0.51
18:ac:205:VAL:HA	18:ac:210:GLN:OE1	2.09	0.51
18:ac:353:ASP:HB3	18:ac:356:THR:OG1	2.09	0.51
18:ac:867:ASN:OD1	18:ac:868:ALA:N	2.43	0.51
19:ab:316:PRO:O	19:ab:319:THR:OG1	2.25	0.51
19:ab:323:PHE:O	19:ab:327:SER:OG	2.18	0.51
19:ab:345:GLU:N	19:ab:345:GLU:OE2	2.44	0.51
20:ad:450:HIS:HD2	20:ad:487:LYS:NZ	2.08	0.51
20:ad:577:ASN:O	20:ad:581:VAL:HG23	2.09	0.51
20:ad:591:ASP:OD2	20:ad:593:ARG:HB2	2.09	0.51
21:m:215:THR:HG23	46:g:126:LEU:HD11	1.90	0.51
22:i:73:ILE:HD11	40:bb:176:ALA:HB1	1.92	0.51
22:i:296:ARG:O	53:k:129:ARG:NH1	2.42	0.51
22:i:334:ARG:NH2	53:k:138:ALA:HB3	2.25	0.51
22:i:353:GLU:N	22:i:353:GLU:OE2	2.43	0.51
24:c:111:LEU:HG	35:z:221:MET:SD	2.50	0.51
25:d:168:THR:HG23	25:d:169:TYR:H	1.74	0.51
27:av:91:ILE:HG22	27:av:169:ALA:HB2	1.92	0.51
27:av:155:SER:O	27:av:158:ASP:HB2	2.10	0.51
30:aq:166:CYS:SG	30:aq:167:ALA:N	2.84	0.51
32:ao:40:ASP:OD2	32:ao:141:ARG:NH1	2.43	0.51
32:ao:121:PRO:HG2	32:ao:123:PHE:CE1	2.43	0.51
33:ai:149:ARG:NE	34:an:81:GLU:OE2	2.41	0.51
33:ai:164:ARG:HB3	33:ai:167:GLU:CG	2.40	0.51
34:an:161:ARG:HH21	52:aa:1435:TYR:HB2	1.75	0.51
35:z:29:THR:HB	56:2:574:A:OP1	2.11	0.51
35:z:463:LEU:HD12	35:z:465:TRP:CE2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:979:TYR:O	35:z:990:ALA:HB1	2.09	0.51
37:x:262:ARG:HB3	37:x:301:GLU:HB2	1.92	0.51
41:t:195:THR:OG1	41:t:196:ASP:N	2.42	0.51
42:al:46:GLU:OE2	49:bd:57:VAL:HA	2.11	0.51
42:al:214:SER:OG	42:al:215:TYR:N	2.43	0.51
47:j:171:SER:O	47:j:171:SER:OG	2.28	0.51
50:a:367:LEU:HD11	50:a:375:ARG:NH2	2.18	0.51
51:bc:272:LYS:HA	51:bc:275:GLU:HG2	1.92	0.51
52:aa:335:TYR:O	52:aa:335:TYR:CG	2.62	0.51
52:aa:689:HIS:O	52:aa:691:PHE:N	2.43	0.51
52:aa:1458:PHE:HD2	52:aa:1465:VAL:HG12	1.75	0.51
53:k:99:VAL:O	53:k:108:VAL:HB	2.11	0.51
56:A:453:A:H2'	56:A:454:G:O4'	2.09	0.51
1:u:181:ASP:OD2	1:u:182:ARG:NH1	2.31	0.51
3:r:33:TRP:HB2	3:r:37:ILE:CD1	2.40	0.51
5:h:13:ILE:HG23	56:A:440:U:H4'	1.93	0.51
8:ay:128:PRO:HB3	8:ay:163:HIS:HB3	1.91	0.51
14:ag:515:HIS:O	14:ag:515:HIS:ND1	2.41	0.51
15:af:197:ASP:HA	15:af:200:ARG:HG2	1.92	0.51
15:af:247:ALA:HB1	15:af:307:ARG:HH12	1.75	0.51
18:ac:414:ARG:NH2	18:ac:457:LEU:HB3	2.23	0.51
19:ab:499:ARG:NH2	19:ab:941:GLU:HB3	2.25	0.51
20:ad:126:MET:HB2	20:ad:273:HIS:ND1	2.25	0.51
20:ad:209:THR:HB	20:ad:290:ARG:HB2	1.91	0.51
20:ad:430:THR:OG1	20:ad:468:MET:SD	2.66	0.51
23:f:200:ARG:HG2	23:f:201:ARG:HG3	1.92	0.51
23:f:257:VAL:O	23:f:260:LEU:HG	2.09	0.51
23:f:306:PHE:HB3	46:g:57:ILE:HD13	1.91	0.51
30:aq:101:PHE:CZ	30:aq:110:PRO:HA	2.45	0.51
35:z:93:LEU:HD11	44:p:71:LEU:HB3	1.92	0.51
35:z:157:MET:HG2	35:z:158:PHE:CD1	2.46	0.51
35:z:838:VAL:HA	35:z:876:VAL:HG12	1.93	0.51
36:y:193:ASN:ND2	36:y:198:ARG:HB2	2.25	0.51
37:x:182:HIS:CD2	37:x:182:HIS:N	2.77	0.51
44:p:279:SER:OG	44:p:281:ARG:N	2.42	0.51
45:Ca:61:LEU:HB2	45:Ca:76:GLN:NE2	2.26	0.51
45:Ca:102:TRP:O	45:Ca:106:ASN:ND2	2.29	0.51
45:Ca:296:PHE:CZ	45:Ca:300:ARG:HD3	2.45	0.51
45:Ca:319:ASP:HB2	52:aa:957:HIS:CD2	2.45	0.51
50:a:15:TRP:HA	50:a:18:LYS:HE2	1.93	0.51
52:aa:270:HIS:CE1	52:aa:287:HIS:HB2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:366:HIS:CD2	52:aa:367:ARG:HG3	2.44	0.51
52:aa:639:SER:HB3	52:aa:642:SER:OG	2.10	0.51
52:aa:871:GLU:OE1	52:aa:871:GLU:N	2.28	0.51
52:aa:1127:HIS:CD2	52:aa:1670:LEU:HD21	2.45	0.51
53:k:109:VAL:HG21	53:k:147:ILE:HD11	1.92	0.51
53:k:133:HIS:HE1	56:2:109:A:H5'	1.75	0.51
1:u:106:VAL:HG23	1:u:108:GLN:OE1	2.10	0.51
1:u:384:ARG:NH1	1:u:414:ASN:OD1	2.43	0.51
1:u:760:MET:HE2	6:e:439:LYS:NZ	2.25	0.51
3:r:233:VAL:HG22	3:r:249:TRP:CD1	2.45	0.51
4:n:149:ASP:N	4:n:149:ASP:OD1	2.42	0.51
6:e:314:ASP:OD1	6:e:314:ASP:N	2.34	0.51
13:aj:16:ASN:HB2	14:ag:24:ARG:NH2	2.26	0.51
13:aj:41:PRO:HD3	19:ab:1041:TRP:CD2	2.46	0.51
15:af:260:ARG:HG3	15:af:277:GLU:HG3	1.92	0.51
16:ae:249:ALA:HA	16:ae:252:ILE:HD12	1.93	0.51
17:l:523:LYS:HG3	19:ab:323:PHE:CZ	2.45	0.51
18:ac:573:LEU:HB3	18:ac:798:ALA:HB1	1.91	0.51
20:ad:28:MET:HE3	24:c:243:LEU:HD21	1.92	0.51
20:ad:232:TRP:HD1	33:ai:189:ILE:HB	1.75	0.51
20:ad:661:ASP:O	20:ad:665:LYS:HG2	2.10	0.51
22:i:128:ARG:O	22:i:131:LYS:HG3	2.10	0.51
25:d:139:SER:HA	25:d:183:SER:HB2	1.91	0.51
27:av:98:TRP:HE1	27:av:100:THR:HG22	1.75	0.51
29:ar:22:HIS:HB3	56:2:112:A:H1'	1.92	0.51
30:aq:124:ARG:HH22	41:t:73:ARG:HH12	1.58	0.51
33:ai:281:LEU:HD12	33:ai:316:ARG:HH21	1.75	0.51
35:z:36:ARG:NH1	35:z:36:ARG:O	2.43	0.51
36:y:19:VAL:HG21	36:y:104:GLU:OE1	2.10	0.51
36:y:63:HIS:ND1	36:y:93:CYS:SG	2.83	0.51
41:t:10:ARG:HH21	56:2:76:A:P	2.34	0.51
42:al:123:TRP:HE1	42:al:164:PHE:HB2	1.75	0.51
45:Ca:106:ASN:C	45:Ca:107:ILE:HD12	2.36	0.51
46:g:187:ASN:OD1	46:g:187:ASN:N	2.43	0.51
52:aa:543:TRP:NE1	52:aa:544:ARG:HG3	2.25	0.51
52:aa:1151:TRP:CH2	52:aa:1166:LEU:HD11	2.46	0.51
52:aa:1530:LEU:HD22	52:aa:1530:LEU:H	1.76	0.51
52:aa:1612:SER:OG	52:aa:1615:MET:HB2	2.10	0.51
53:k:109:VAL:HG21	53:k:147:ILE:CD1	2.41	0.51
55:as:69:LEU:HD22	55:as:80:LEU:HD21	1.93	0.51
56:2:46:U:C4	56:2:47:U:C4	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:2:337:U:C5'	56:2:356:U:H4'	2.34	0.51
1:u:32:GLN:HE22	19:ab:279:ASP:HA	1.76	0.51
1:u:326:LEU:HA	1:u:329:ILE:HD12	1.92	0.51
6:e:444:ASP:N	6:e:444:ASP:OD1	2.43	0.51
6:e:513:GLU:N	6:e:513:GLU:OE2	2.42	0.51
7:az:90:GLN:NE2	9:ax:101:MET:HG3	2.26	0.51
7:az:144:HIS:HB2	7:az:149:THR:H	1.75	0.51
9:ax:119:ASN:O	56:A:524:A:N6	2.25	0.51
11:au:11:ASP:H	11:au:14:THR:HB	1.74	0.51
13:aj:66:TRP:CH2	13:aj:89:GLY:HA2	2.46	0.51
13:aj:229:ASP:O	13:aj:233:VAL:N	2.44	0.51
15:af:578:LEU:HD12	15:af:631:ARG:HD3	1.93	0.51
15:af:624:ILE:HG22	15:af:650:THR:HG21	1.92	0.51
15:af:634:GLU:N	15:af:634:GLU:OE2	2.44	0.51
18:ac:184:TRP:CE3	18:ac:511:PRO:HD3	2.46	0.51
18:ac:224:ILE:HD11	18:ac:257:ALA:HB3	1.91	0.51
19:ab:862:HIS:HA	19:ab:866:LEU:HD11	1.93	0.51
19:ab:1052:ILE:HG22	19:ab:1054:GLU:H	1.74	0.51
21:m:46:PRO:HA	21:m:57:GLY:HA2	1.91	0.51
22:i:73:ILE:HD13	40:bb:178:VAL:HB	1.91	0.51
22:i:106:ASP:HA	22:i:240:LEU:HD13	1.92	0.51
22:i:246:ASN:ND2	56:2:333:U:H5''	2.25	0.51
26:ba:47:TYR:CD1	45:Ca:587:ILE:HG12	2.46	0.51
26:ba:50:MET:HG3	45:Ca:520:GLN:HG3	1.93	0.51
34:an:167:LYS:HZ3	50:a:346:ASP:H	1.57	0.51
35:z:42:ILE:HG12	35:z:50:TYR:HE2	1.75	0.51
35:z:481:ASP:O	35:z:485:THR:HG23	2.10	0.51
36:y:69:VAL:HG11	36:y:79:LEU:HD11	1.93	0.51
37:x:252:PHE:HD2	37:x:321:PHE:CE1	2.29	0.51
45:Ca:127:TYR:HB2	52:aa:895:TYR:OH	2.10	0.51
45:Ca:522:GLN:HB2	45:Ca:588:GLN:HG3	1.93	0.51
50:a:263:LYS:HE3	56:2:20:A:OP1	2.09	0.51
52:aa:337:HIS:CD2	52:aa:339:ASP:H	2.14	0.51
52:aa:668:VAL:O	52:aa:681:LEU:N	2.29	0.51
52:aa:859:PRO:O	52:aa:863:THR:OG1	2.27	0.51
52:aa:1496:THR:HG21	52:aa:1608:THR:O	2.11	0.51
53:k:109:VAL:HG21	53:k:147:ILE:HG13	1.92	0.51
54:be:49:PHE:HB3	54:be:77:TYR:CD1	2.45	0.51
55:as:235:LEU:HD22	55:as:260:TRP:CD2	2.45	0.51
56:2:355:A:H5''	56:2:356:U:H5'	1.93	0.51
1:u:214:LEU:HD21	1:u:243:ARG:HG2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:790:LYS:HD2	10:aw:107:TRP:CD2	2.44	0.51
1:u:799:LYS:NZ	3:r:294:ASP:OD2	2.42	0.51
2:s:133:TYR:OH	56:A:442:A:H8	1.94	0.51
3:r:462:GLU:HG2	3:r:465:TRP:CE3	2.45	0.51
6:e:200:VAL:HA	25:d:326:ARG:NH2	2.26	0.51
6:e:201:ASP:HB2	6:e:204:GLN:HB3	1.92	0.51
6:e:773:PHE:N	10:aw:99:ARG:HH21	2.08	0.51
7:az:117:VAL:HG13	9:ax:68:GLN:HB3	1.93	0.51
11:au:26:PRO:O	11:au:32:TRP:NE1	2.35	0.51
12:ak:284:THR:HG21	14:ag:509:HIS:CE1	2.46	0.51
14:ag:183:ALA:HB2	17:l:663:ALA:HB1	1.92	0.51
14:ag:251:MET:HE2	14:ag:285:ALA:HB3	1.93	0.51
15:af:29:ASP:C	19:ab:1015:ASN:HD21	2.19	0.51
16:ae:482:ALA:O	16:ae:486:ILE:HG22	2.10	0.51
17:l:550:GLU:HA	17:l:554:THR:OG1	2.09	0.51
19:ab:674:VAL:HG22	19:ab:701:GLN:HG3	1.91	0.51
19:ab:877:HIS:HD2	19:ab:887:ILE:H	1.58	0.51
20:ad:50:TRP:CD1	20:ad:50:TRP:C	2.89	0.51
22:i:203:GLN:CD	22:i:230:LEU:HD22	2.35	0.51
22:i:383:ARG:O	22:i:387:VAL:HG12	2.11	0.51
22:i:412:LYS:HD2	56:2:69:U:O4	2.09	0.51
24:c:151:VAL:O	24:c:229:GLY:N	2.44	0.51
27:av:97:THR:HG21	27:av:106:ARG:NE	2.23	0.51
27:av:113:MET:SD	29:ar:47:GLU:HG2	2.51	0.51
29:ar:76:SER:OG	29:ar:115:ILE:O	2.27	0.51
32:ao:12:MET:HG2	32:ao:161:LEU:HD22	1.93	0.51
33:ai:122:ARG:NH2	33:ai:159:GLY:O	2.42	0.51
33:ai:288:GLN:NE2	33:ai:318:LEU:O	2.33	0.51
34:an:55:ALA:HB1	34:an:90:LEU:HD22	1.91	0.51
34:an:175:ILE:HG22	34:an:179:GLN:HE22	1.74	0.51
34:an:229:PRO:HG2	45:Ca:132:HIS:HE1	1.75	0.51
35:z:722:GLU:CD	35:z:770:ASN:HD21	2.18	0.51
41:t:10:ARG:HE	56:2:76:A:P	2.33	0.51
42:al:229:MET:HB2	46:g:114:PHE:CD2	2.46	0.51
44:p:95:ARG:HD2	44:p:126:GLU:OE2	2.11	0.51
45:Ca:455:GLU:HG2	45:Ca:494:TRP:HD1	1.76	0.51
50:a:253:ARG:NE	56:2:15:U:O2'	2.36	0.51
50:a:361:ASN:ND2	52:aa:1150:GLU:OE1	2.43	0.51
52:aa:1263:GLU:O	52:aa:1267:VAL:HG13	2.11	0.51
52:aa:1350:VAL:HG13	52:aa:1355:ILE:HD11	1.92	0.51
55:as:14:ARG:HG2	55:as:14:ARG:NH1	2.20	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:2:243:C:HI'	56:2:250:U:C2	2.46	0.51
1:u:127:TRP:CH2	1:u:608:HIS:HE1	2.29	0.51
1:u:144:TYR:HD1	1:u:145:LEU:HD23	1.75	0.51
1:u:300:PHE:CD2	1:u:723:PRO:HG3	2.45	0.51
1:u:791:VAL:HG22	10:aw:156:LEU:HD12	1.91	0.51
6:e:759:TRP:HB3	10:aw:105:ARG:HH12	1.76	0.51
7:az:104:HIS:HB2	9:ax:139:TRP:HH2	1.75	0.51
9:ax:93:ARG:HG3	9:ax:153:HIS:HD2	1.76	0.51
13:aj:101:ILE:HG23	13:aj:139:LEU:HD11	1.93	0.51
14:ag:392:TYR:HB3	16:ae:172:PRO:HG3	1.91	0.51
14:ag:525:ARG:NH2	18:ac:170:PRO:O	2.43	0.51
15:af:87:TYR:OH	15:af:126:GLU:OE1	2.28	0.51
15:af:528:GLN:HE22	15:af:531:LYS:HE3	1.75	0.51
17:l:88:TRP:NE1	19:ab:340:PRO:HB2	2.26	0.51
17:l:303:GLU:O	17:l:307:ARG:HB2	2.10	0.51
18:ac:587:VAL:HG11	18:ac:784:VAL:HB	1.91	0.51
18:ac:655:THR:HA	18:ac:658:ILE:HG22	1.93	0.51
19:ab:258:GLU:OE2	19:ab:261:LYS:NZ	2.44	0.51
19:ab:261:LYS:O	19:ab:264:PHE:HB3	2.10	0.51
19:ab:410:ASP:HA	19:ab:413:ARG:HE	1.76	0.51
19:ab:537:GLN:NE2	19:ab:575:ASP:OD2	2.43	0.51
19:ab:1102:PRO:HG2	19:ab:1105:GLN:HG2	1.93	0.51
20:ad:498:LEU:HB3	20:ad:502:ASN:HB2	1.92	0.51
21:m:175:GLY:HA2	46:g:43:PRO:HA	1.93	0.51
21:m:188:LYS:HD3	21:m:188:LYS:N	2.26	0.51
23:f:181:TRP:HZ3	23:f:184:MET:HE2	1.75	0.51
27:av:155:SER:OG	27:av:156:LEU:N	2.37	0.51
31:ap:179:ASN:OD1	31:ap:180:MET:N	2.40	0.51
32:ao:226:PRO:HG2	45:Ca:348:ARG:HE	1.74	0.51
33:ai:272:PHE:HB3	33:ai:294:VAL:HB	1.93	0.51
35:z:752:GLU:HB3	35:z:762:PRO:HG3	1.91	0.51
35:z:1094:ASP:OD2	45:Ca:82:PRO:HB3	2.11	0.51
36:y:36:PRO:HB2	36:y:37:PRO:HD3	1.92	0.51
39:v:198:ARG:HH12	56:2:317:U:P	2.33	0.51
41:t:35:ARG:NH1	56:2:164:G:OP1	2.43	0.51
41:t:99:ASN:N	41:t:102:GLN:OE1	2.43	0.51
42:al:273:TYR:HE2	56:A:466:G:H21	1.59	0.51
44:p:132:LEU:O	44:p:137:ILE:HD12	2.10	0.51
45:Ca:595:TYR:CD1	45:Ca:595:TYR:N	2.79	0.51
50:a:144:ILE:HD13	50:a:147:TYR:OH	2.11	0.51
50:a:211:PRO:HB3	50:a:226:LEU:HD23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:472:PHE:O	52:aa:539:ARG:HA	2.11	0.51
52:aa:1441:ARG:HH11	52:aa:1474:GLU:HG2	1.76	0.51
53:k:162:PHE:O	53:k:162:PHE:CG	2.64	0.51
56:A:522:A:H8	56:A:522:A:O5'	1.94	0.51
56:2:559:A:H3'	56:2:560:U:H5''	1.91	0.51
2:s:35:LEU:HD13	6:e:458:THR:O	2.10	0.51
3:r:444:ILE:HG13	3:r:465:TRP:HH2	1.76	0.51
4:n:153:GLU:CD	4:n:153:GLU:H	2.18	0.51
6:e:389:MET:O	42:al:293:ARG:NH2	2.43	0.51
6:e:480:LEU:HD21	16:ae:213:HIS:CD2	2.46	0.51
14:ag:251:MET:SD	14:ag:267:PHE:HD1	2.33	0.51
15:af:371:TRP:HA	15:af:374:VAL:HG23	1.93	0.51
15:af:659:GLU:O	15:af:663:THR:HG22	2.11	0.51
16:ae:161:ARG:HB3	56:A:418:A:OP1	2.10	0.51
18:ac:64:ALA:HB1	18:ac:544:LEU:HD22	1.92	0.51
18:ac:115:PHE:CE1	18:ac:1055:VAL:HG12	2.45	0.51
20:ad:60:ASN:OD1	20:ad:60:ASN:N	2.44	0.51
20:ad:90:MET:HG2	20:ad:91:TYR:CE1	2.45	0.51
22:i:271:PHE:HA	22:i:274:TYR:HB3	1.92	0.51
23:f:194:LEU:HD12	23:f:206:VAL:O	2.10	0.51
25:d:103:ALA:HB3	44:p:111:ARG:NH2	2.26	0.51
25:d:167:SER:OG	25:d:168:THR:N	2.42	0.51
25:d:302:ASP:OD1	25:d:302:ASP:N	2.41	0.51
27:av:48:ARG:HD3	29:ar:60:THR:HA	1.92	0.51
29:ar:187:ARG:O	29:ar:191:GLU:HB2	2.11	0.51
33:ai:163:HIS:CD2	33:ai:164:ARG:HG3	2.46	0.51
33:ai:193:PRO:O	33:ai:195:THR:N	2.44	0.51
34:an:194:TRP:NE1	52:aa:1553:HIS:O	2.42	0.51
35:z:36:ARG:NH1	35:z:36:ARG:HB3	2.26	0.51
51:bc:273:ILE:HG13	51:bc:303:VAL:HG12	1.93	0.51
51:bc:333:ALA:HA	51:bc:336:ARG:HD2	1.93	0.51
52:aa:362:PRO:HD2	52:aa:363:PHE:CD1	2.46	0.51
52:aa:502:ASN:OD1	52:aa:505:ARG:NH1	2.44	0.51
52:aa:602:GLU:O	52:aa:606:LYS:HG3	2.10	0.51
52:aa:1140:ASP:OD2	52:aa:1662:LYS:HE2	2.10	0.51
52:aa:1265:SER:O	52:aa:1269:GLU:HG2	2.11	0.51
52:aa:1641:MET:HA	52:aa:1644:PHE:HB3	1.93	0.51
53:k:51:PHE:HD1	53:k:53:ASN:H	1.58	0.51
55:as:41:HIS:HA	55:as:44:VAL:HG22	1.91	0.51
56:A:403:U:H2'	56:A:404:U:C6	2.46	0.51
56:2:175:A:N1	56:2:180:A:N6	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:2:333:U:O2'	56:2:334:U:H5'	2.10	0.51
1:u:37:LEU:HD11	1:u:45:GLY:HA3	1.93	0.51
2:s:153:ARG:HH22	56:A:480:C:H4'	1.75	0.51
6:e:18:THR:OG1	49:bd:44:ILE:O	2.22	0.51
6:e:48:ASP:OD1	6:e:48:ASP:N	2.41	0.51
8:ay:149:ARG:HG2	8:ay:149:ARG:HH11	1.76	0.51
12:ak:237:PRO:HA	18:ac:71:PHE:CE1	2.46	0.51
16:ae:35:SER:HB3	56:A:437:U:H5''	1.92	0.51
16:ae:506:LYS:HD3	16:ae:537:ALA:HB3	1.92	0.51
17:l:40:THR:HA	17:l:44:GLN:CD	2.35	0.51
17:l:76:PRO:O	17:l:77:LEU:HG	2.11	0.51
19:ab:445:ARG:NH1	19:ab:457:LEU:HD23	2.26	0.51
19:ab:793:VAL:O	19:ab:800:VAL:HA	2.11	0.51
19:ab:876:ARG:H	19:ab:892:GLN:NE2	2.04	0.51
19:ab:1087:ASP:O	19:ab:1091:ARG:HG3	2.10	0.51
19:ab:1168:PRO:O	19:ab:1169:LEU:HD23	2.11	0.51
22:i:264:ARG:NH2	22:i:304:ASP:OD1	2.44	0.51
22:i:305:TRP:CD1	22:i:305:TRP:C	2.88	0.51
22:i:324:LEU:HG	22:i:345:TYR:CE2	2.46	0.51
23:f:173:THR:HG22	23:f:174:ASP:H	1.75	0.51
23:f:189:ARG:HH12	23:f:266:ARG:HD3	1.76	0.51
25:d:124:LEU:HD12	25:d:181:SER:HB3	1.93	0.51
27:av:166:ARG:H	27:av:166:ARG:HD2	1.76	0.51
28:at:93:ARG:CZ	56:2:210:A:C5	2.94	0.51
33:ai:188:TYR:O	33:ai:190:VAL:HG23	2.10	0.51
33:ai:195:THR:HB	33:ai:197:LYS:NZ	2.25	0.51
35:z:196:TYR:HH	43:q:130:GLN:CD	2.15	0.51
35:z:569:TYR:HB3	35:z:732:THR:OG1	2.10	0.51
35:z:1049:ARG:HA	35:z:1053:PHE:CD2	2.38	0.51
36:y:54:GLY:O	36:y:56:THR:N	2.44	0.51
41:t:45:GLU:HG3	55:as:244:VAL:HG11	1.92	0.51
43:q:185:LEU:HD23	43:q:196:VAL:HG22	1.93	0.51
45:Ca:206:LEU:HA	45:Ca:209:VAL:HG22	1.93	0.51
45:Ca:327:PHE:HB3	45:Ca:330:GLU:HB2	1.93	0.51
45:Ca:577:TRP:HA	45:Ca:577:TRP:CE3	2.46	0.51
47:j:79:PRO:HG3	52:aa:298:ALA:CB	2.40	0.51
50:a:168:TYR:OH	50:a:240:ASP:OD1	2.24	0.51
50:a:365:MET:HA	50:a:433:LEU:HD13	1.92	0.51
51:bc:290:TYR:CZ	51:bc:320:LYS:HD2	2.46	0.51
52:aa:689:HIS:O	52:aa:692:GLY:N	2.32	0.51
52:aa:841:VAL:HA	52:aa:845:TYR:CD2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:k:57:HIS:O	56:2:97:U:O2'	2.23	0.51
55:as:196:MET:SD	55:as:197:ALA:N	2.84	0.51
56:A:530:A:C6	56:A:531:G:C6	2.99	0.51
56:2:320:A:O2'	56:2:321:A:H5'	2.11	0.51
1:u:638:ARG:HB2	6:e:310:PHE:HZ	1.74	0.51
3:r:224:LEU:HD22	3:r:227:THR:HG21	1.92	0.51
3:r:322:PRO:HA	8:ay:172:ASN:ND2	2.25	0.51
6:e:103:TYR:C	6:e:105:GLU:H	2.18	0.51
6:e:187:ARG:HD2	15:af:96:LYS:HG3	1.92	0.51
6:e:198:ILE:HD11	25:d:327:GLU:O	2.11	0.51
8:ay:217:ASN:OD1	8:ay:217:ASN:N	2.43	0.51
10:aw:56:PHE:HB2	10:aw:59:ARG:HB2	1.92	0.51
13:aj:229:ASP:HB3	13:aj:232:ARG:HB2	1.93	0.51
15:af:195:TYR:O	15:af:199:LEU:HG	2.11	0.51
16:ae:45:SER:O	16:ae:49:VAL:HG23	2.11	0.51
17:l:303:GLU:HA	17:l:306:VAL:HG22	1.91	0.51
17:l:494:SER:HB2	19:ab:92:ARG:HD2	1.93	0.51
18:ac:820:GLN:HG3	18:ac:846:PHE:HE2	1.76	0.51
19:ab:338:ASP:C	19:ab:340:PRO:HD3	2.36	0.51
19:ab:884:GLY:O	19:ab:885:SER:OG	2.27	0.51
20:ad:208:CYS:SG	20:ad:282:VAL:HG22	2.51	0.51
21:m:40:VAL:HG11	21:m:101:GLN:HG3	1.93	0.51
22:i:327:CYS:SG	22:i:329:GLU:N	2.84	0.51
23:f:200:ARG:CZ	46:g:180:GLN:HG3	2.41	0.51
24:c:223:GLU:HB2	24:c:283:MET:HE3	1.93	0.51
25:d:373:HIS:HD1	25:d:375:VAL:HG22	1.76	0.51
26:ba:49:SER:C	45:Ca:565:ARG:HB2	2.36	0.51
27:av:46:PRO:HB2	27:av:51:THR:HG21	1.93	0.51
29:ar:116:THR:O	29:ar:206:PRO:HA	2.11	0.51
32:ao:211:GLU:HG3	45:Ca:298:LEU:HD22	1.93	0.51
34:an:6:ARG:NH2	50:a:63:ASP:OD1	2.44	0.51
34:an:202:ARG:NH1	34:an:206:LEU:HD11	2.25	0.51
34:an:230:ALA:O	34:an:232:TYR:N	2.44	0.51
34:an:234:SER:H	45:Ca:133:SER:HB3	1.76	0.51
35:z:1081:TYR:HB2	45:Ca:165:ARG:HH21	1.76	0.51
36:y:106:PHE:HE2	44:p:301:SER:OG	1.92	0.51
39:v:124:ALA:O	39:v:127:SER:OG	2.29	0.51
43:q:141:ARG:NE	48:b:123:ARG:HH12	2.02	0.51
49:bd:51:ILE:HG12	49:bd:53:ILE:CD1	2.41	0.51
50:a:99:LEU:HD21	50:a:284:GLU:HA	1.92	0.51
52:aa:1163:LEU:HD21	52:aa:1190:LEU:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:1332:THR:HA	52:aa:1335:LEU:HD12	1.92	0.51
52:aa:1563:PRO:HD2	52:aa:1636:TYR:CE2	2.46	0.51
55:as:14:ARG:NH2	56:2:74:G:OP1	2.44	0.51
56:2:13:A:HO2'	56:2:144:A:HO2'	1.56	0.51
56:2:227:U:C2	56:2:228:G:C8	2.99	0.51
1:u:656:ARG:NH2	14:ag:304:GLN:HB3	2.22	0.50
3:r:126:GLN:HG3	3:r:171:LEU:HD21	1.92	0.50
4:n:98:PHE:HE1	16:ae:82:MET:HE3	1.75	0.50
11:au:75:GLN:O	11:au:77:PRO:HD3	2.11	0.50
11:au:211:PRO:HB3	13:aj:324:LEU:N	2.26	0.50
14:ag:175:HIS:NE2	17:l:670:ASP:OD2	2.44	0.50
14:ag:407:ARG:NH1	14:ag:415:ASP:OD2	2.35	0.50
14:ag:562:SER:OG	14:ag:565:HIS:O	2.29	0.50
16:ae:218:CYS:SG	19:ab:1070:ASN:ND2	2.85	0.50
16:ae:387:ALA:HB1	16:ae:442:ALA:HB3	1.93	0.50
18:ac:82:PRO:HA	18:ac:91:ARG:NE	2.26	0.50
19:ab:147:GLU:O	19:ab:151:LEU:HG	2.12	0.50
19:ab:347:THR:O	19:ab:351:VAL:HG22	2.11	0.50
19:ab:446:ARG:NE	19:ab:456:ASP:OD2	2.45	0.50
19:ab:476:PHE:HA	19:ab:479:ARG:HD2	1.93	0.50
19:ab:594:ARG:NH2	19:ab:635:ARG:O	2.45	0.50
21:m:65:GLN:O	21:m:67:HIS:ND1	2.44	0.50
21:m:237:ARG:HG3	44:p:194:GLN:N	2.26	0.50
22:i:254:ASN:OD1	22:i:258:LYS:HE2	2.10	0.50
24:c:11:LYS:O	32:ao:35:GLU:HG2	2.11	0.50
26:ba:12:TYR:N	45:Ca:90:TYR:O	2.36	0.50
26:ba:15:LEU:HD12	45:Ca:178:GLN:HE22	1.76	0.50
27:av:231:SER:HB3	27:av:235:GLN:NE2	2.26	0.50
29:ar:170:PRO:HA	29:ar:174:PHE:CB	2.40	0.50
30:aq:128:LEU:O	30:aq:132:PHE:HB2	2.11	0.50
34:an:27:GLN:HE22	35:z:994:ARG:N	2.09	0.50
34:an:292:ARG:HH21	37:x:137:ARG:H	1.58	0.50
36:y:141:ASP:HA	36:y:144:VAL:HG22	1.93	0.50
37:x:138:LEU:HD23	37:x:140:TYR:OH	2.11	0.50
37:x:184:LEU:HD23	37:x:208:PHE:HB2	1.92	0.50
37:x:221:GLY:O	52:aa:1115:ARG:NH1	2.44	0.50
42:al:74:SER:O	42:al:78:LEU:HB2	2.11	0.50
43:q:196:VAL:O	43:q:216:HIS:N	2.27	0.50
48:b:75:GLN:HA	48:b:78:LYS:HG2	1.93	0.50
52:aa:1164:GLN:HB2	52:aa:1424:LEU:HD21	1.93	0.50
56:A:460:U:C2	56:A:461:A:N6	2.78	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:666:PHE:CG	6:e:444:ASP:C	2.89	0.50
3:r:367:ILE:HD12	10:aw:32:PHE:CE2	2.46	0.50
4:n:35:LYS:HA	8:ay:84:ARG:HB2	1.92	0.50
5:h:118:MET:HE1	6:e:375:PHE:CD1	2.46	0.50
6:e:757:LYS:HD2	10:aw:108:GLU:OE2	2.10	0.50
7:az:24:VAL:O	7:az:32:TRP:HB2	2.11	0.50
7:az:144:HIS:HB3	7:az:149:THR:H	1.75	0.50
8:ay:202:GLU:HB3	8:ay:206:GLN:CD	2.37	0.50
8:ay:207:LYS:O	8:ay:209:LYS:NZ	2.42	0.50
9:ax:99:PRO:HA	9:ax:143:PRO:HD3	1.92	0.50
11:au:221:PHE:CE2	13:aj:304:ILE:HD11	2.46	0.50
13:aj:27:GLN:HB3	14:ag:441:PRO:HG2	1.93	0.50
14:ag:179:ASP:CB	17:l:664:TRP:HA	2.37	0.50
14:ag:280:ILE:HD11	14:ag:306:LEU:HD13	1.93	0.50
14:ag:356:LEU:HA	14:ag:359:MET:HE2	1.93	0.50
15:af:176:ILE:HD12	15:af:210:VAL:HG22	1.92	0.50
17:l:277:GLU:HA	17:l:280:VAL:HG22	1.93	0.50
20:ad:160:HIS:CD2	20:ad:160:HIS:C	2.90	0.50
20:ad:331:GLU:O	20:ad:381:ARG:NE	2.44	0.50
21:m:71:PHE:CG	42:al:191:ARG:HD2	2.46	0.50
23:f:308:ASP:OD1	46:g:44:MET:HB2	2.10	0.50
24:c:93:ASP:CG	24:c:94:LEU:H	2.17	0.50
25:d:205:ASP:N	25:d:213:ASN:HD21	2.10	0.50
27:av:103:TRP:NE1	27:av:186:ASP:HB3	2.26	0.50
30:aq:52:GLY:O	30:aq:75:ARG:NE	2.42	0.50
33:ai:375:ARG:HB3	33:ai:375:ARG:HH21	1.76	0.50
34:an:129:ARG:O	50:a:333:ASN:ND2	2.44	0.50
35:z:260:LYS:O	35:z:264:GLU:HG2	2.11	0.50
35:z:275:ALA:HB2	45:Ca:360:ARG:HB3	1.93	0.50
35:z:374:TRP:O	35:z:378:THR:HG22	2.10	0.50
35:z:456:PHE:HE1	35:z:518:ARG:HH21	1.58	0.50
36:y:85:PHE:HE2	36:y:94:LEU:HD22	1.75	0.50
36:y:106:PHE:CD1	36:y:180:VAL:HG11	2.47	0.50
38:w:98:ARG:NH1	56:2:43:A:C4	2.79	0.50
41:t:99:ASN:HB3	41:t:102:GLN:CD	2.36	0.50
41:t:130:VAL:O	41:t:130:VAL:HG12	2.10	0.50
42:al:266:ARG:HD3	56:A:398:U:OP1	2.11	0.50
45:Ca:235:ARG:HH21	49:bd:36:TYR:HD1	1.57	0.50
45:Ca:442:ASN:OD1	45:Ca:442:ASN:N	2.42	0.50
45:Ca:543:PRO:HB2	45:Ca:548:TYR:HE2	1.75	0.50
45:Ca:577:TRP:HD1	56:2:18:U:H3'	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:j:100:PHE:CE2	47:j:124:LEU:HD13	2.45	0.50
50:a:54:GLU:HG2	52:aa:1089:HIS:ND1	2.25	0.50
50:a:139:ASN:O	50:a:141:GLN:NE2	2.44	0.50
54:be:30:ARG:HD2	54:be:49:PHE:CZ	2.45	0.50
56:A:402:U:H2'	56:A:403:U:H6	1.77	0.50
1:u:323:PHE:CZ	1:u:601:LEU:HD13	2.47	0.50
1:u:718:ASP:HB2	1:u:722:VAL:HG23	1.92	0.50
3:r:336:VAL:HG12	3:r:340:ASN:OD1	2.11	0.50
5:h:93:ASP:OD2	5:h:114:SER:N	2.32	0.50
5:h:140:ASP:OD1	6:e:370:VAL:HB	2.11	0.50
6:e:395:GLU:OE2	6:e:397:ARG:NH2	2.43	0.50
6:e:580:TYR:CE1	6:e:595:VAL:HA	2.46	0.50
11:au:87:ARG:HD3	11:au:139:HIS:CE1	2.47	0.50
11:au:151:TRP:O	11:au:156:TYR:HB2	2.11	0.50
13:aj:27:GLN:HE21	49:bd:72:LEU:HB2	1.76	0.50
17:l:448:MET:N	17:l:448:MET:SD	2.85	0.50
18:ac:375:ILE:HG13	18:ac:377:GLY:H	1.76	0.50
18:ac:613:GLN:HE21	18:ac:616:VAL:HG12	1.75	0.50
18:ac:655:THR:HB	19:ab:151:LEU:HD13	1.93	0.50
19:ab:352:ASP:O	19:ab:356:THR:HG23	2.11	0.50
19:ab:375:LEU:HD11	19:ab:402:MET:SD	2.51	0.50
19:ab:722:ARG:O	19:ab:724:GLN:HG2	2.12	0.50
19:ab:862:HIS:ND1	19:ab:862:HIS:O	2.44	0.50
21:m:137:THR:N	21:m:141:HIS:O	2.29	0.50
21:m:205:MET:HE2	39:v:85:VAL:HG22	1.93	0.50
22:i:227:LYS:HG3	22:i:228:ARG:N	2.25	0.50
22:i:315:LEU:HD11	53:k:167:PRO:HD2	1.93	0.50
23:f:181:TRP:CE3	23:f:184:MET:HG3	2.46	0.50
23:f:279:ARG:NH1	46:g:36:SER:HB3	2.26	0.50
25:d:16:PHE:HZ	25:d:36:ASP:HB2	1.76	0.50
26:ba:32:PHE:HZ	49:bd:35:LEU:HB2	1.76	0.50
28:at:75:THR:HG23	28:at:79:LEU:HD12	1.93	0.50
28:at:88:TRP:CZ3	28:at:89:ASN:HB3	2.46	0.50
29:ar:151:ARG:O	29:ar:169:VAL:HG23	2.11	0.50
29:ar:158:PHE:O	29:ar:163:VAL:N	2.38	0.50
30:aq:14:TYR:HD2	38:w:140:ARG:HH12	1.59	0.50
32:ao:175:HIS:HB3	52:aa:586:ALA:HB3	1.93	0.50
35:z:489:MET:HB2	50:a:96:VAL:HG21	1.92	0.50
36:y:27:VAL:O	36:y:31:LEU:HG	2.12	0.50
38:w:137:PHE:CE2	56:2:45:G:H5''	2.47	0.50
43:q:106:LYS:HE3	52:aa:191:MET:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:215:ILE:O	45:Ca:219:GLU:HG3	2.11	0.50
45:Ca:477:PRO:HD2	47:j:85:GLN:HB3	1.93	0.50
52:aa:310:PHE:HA	52:aa:313:PHE:CD1	2.46	0.50
52:aa:827:MET:O	52:aa:859:PRO:HD3	2.11	0.50
52:aa:1278:ALA:HA	52:aa:1309:VAL:HG22	1.94	0.50
52:aa:1441:ARG:NH1	52:aa:1474:GLU:HG2	2.26	0.50
55:as:245:VAL:HG12	55:as:246:PRO:HD2	1.93	0.50
1:u:153:VAL:HB	1:u:247:ILE:HG21	1.93	0.50
2:s:30:ARG:HA	2:s:33:LEU:HD12	1.94	0.50
2:s:117:LYS:N	56:A:419:U:OP1	2.45	0.50
4:n:145:LYS:HD2	4:n:146:PRO:HD2	1.94	0.50
6:e:85:ASP:OD1	6:e:87:ARG:NH1	2.44	0.50
6:e:372:MET:HA	6:e:395:GLU:HG2	1.93	0.50
10:aw:80:LYS:HG2	56:A:499:U:C5	2.41	0.50
14:ag:284:ASN:CG	14:ag:318:THR:HG1	2.20	0.50
16:ae:142:ASN:N	16:ae:142:ASN:OD1	2.42	0.50
18:ac:106:LEU:HD12	18:ac:107:PRO:HD2	1.93	0.50
19:ab:76:PHE:O	19:ab:149:ARG:NH1	2.45	0.50
19:ab:284:LEU:O	19:ab:288:LYS:HG2	2.12	0.50
19:ab:333:ARG:O	19:ab:337:ARG:HB2	2.10	0.50
19:ab:718:TRP:HE3	19:ab:725:TYR:CE1	2.29	0.50
21:m:22:PRO:HA	35:z:128:ASP:OD1	2.11	0.50
22:i:379:ARG:O	22:i:382:GLU:HB3	2.11	0.50
24:c:94:LEU:HD22	24:c:95:PRO:HD2	1.93	0.50
26:ba:51:TYR:N	26:ba:51:TYR:CD1	2.80	0.50
28:at:120:ASN:N	28:at:120:ASN:OD1	2.45	0.50
31:ap:232:ASN:HA	33:ai:323:GLN:NE2	2.26	0.50
31:ap:267:TYR:CE1	35:z:764:TYR:HB3	2.45	0.50
33:ai:162:ASP:HB2	33:ai:165:LEU:HB2	1.93	0.50
34:an:144:THR:HA	52:aa:1100:GLU:OE2	2.11	0.50
35:z:193:TYR:O	35:z:195:ARG:HG2	2.11	0.50
35:z:400:LEU:HD21	35:z:413:PHE:CE2	2.46	0.50
35:z:675:PHE:CE2	35:z:705:LEU:HA	2.46	0.50
38:w:177:GLU:HA	38:w:180:ARG:HG2	1.94	0.50
41:t:18:SER:HB2	43:q:55:GLU:OE2	2.12	0.50
42:al:89:LEU:O	42:al:93:ILE:HG12	2.12	0.50
47:j:83:VAL:O	47:j:87:ARG:HG2	2.10	0.50
50:a:305:GLU:HG3	50:a:309:ARG:HD2	1.93	0.50
52:aa:108:ILE:HG21	52:aa:138:ARG:H	1.75	0.50
52:aa:152:ASN:CG	53:k:78:TYR:HE2	2.19	0.50
55:as:51:ILE:HG21	55:as:84:PHE:CE2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:r:308:LEU:HD12	8:ay:155:LYS:NZ	2.26	0.50
6:e:477:VAL:HB	6:e:479:ARG:NH1	2.26	0.50
7:az:144:HIS:CD2	7:az:146:TYR:H	2.25	0.50
11:au:43:ASP:HA	11:au:46:LYS:NZ	2.27	0.50
11:au:152:LYS:O	11:au:155:PHE:HA	2.10	0.50
12:ak:157:PHE:HB3	18:ac:1038:GLN:OE1	2.10	0.50
13:aj:236:ARG:CZ	59:aj:401:UTP:C2	2.95	0.50
14:ag:128:SER:O	14:ag:132:LEU:HG	2.12	0.50
15:af:220:SER:CA	15:af:297:LEU:HB3	2.41	0.50
16:ae:389:GLU:HG2	16:ae:475:ARG:HH21	1.77	0.50
17:l:209:GLU:HB2	17:l:212:ALA:HB3	1.94	0.50
17:l:687:ASP:HB2	17:l:693:THR:HA	1.93	0.50
18:ac:566:ARG:NH2	18:ac:921:GLU:OE2	2.32	0.50
19:ab:292:TYR:CD2	19:ab:661:PHE:HB3	2.46	0.50
19:ab:503:LEU:HB2	19:ab:505:ARG:HE	1.77	0.50
19:ab:508:ARG:O	19:ab:511:GLU:N	2.43	0.50
19:ab:661:PHE:O	19:ab:665:VAL:HG22	2.11	0.50
19:ab:902:GLN:HE21	19:ab:905:PHE:HD2	1.59	0.50
20:ad:559:ASP:OD1	20:ad:560:MET:N	2.44	0.50
20:ad:734:TYR:CD2	20:ad:738:TRP:HB3	2.45	0.50
22:i:140:ALA:O	22:i:144:ARG:N	2.42	0.50
28:at:122:CYS:O	28:at:125:ARG:HG2	2.11	0.50
34:an:281:TRP:HD1	34:an:283:ARG:O	1.94	0.50
35:z:229:LEU:HD22	56:2:2:A:H62	1.76	0.50
37:x:252:PHE:HD2	37:x:321:PHE:CZ	2.30	0.50
43:q:167:TYR:CB	43:q:186:VAL:HG13	2.42	0.50
43:q:178:ASN:O	48:b:133:GLN:NE2	2.30	0.50
44:p:205:ARG:O	44:p:209:GLN:HG2	2.11	0.50
45:Ca:582:ASN:ND2	45:Ca:586:GLN:HG2	2.23	0.50
50:a:218:ASN:HD22	50:a:223:ARG:HG3	1.76	0.50
50:a:222:VAL:HG13	50:a:254:ILE:HG23	1.94	0.50
52:aa:399:PRO:HG2	52:aa:400:TYR:CE1	2.46	0.50
52:aa:565:THR:HG22	52:aa:567:SER:N	2.24	0.50
52:aa:831:VAL:HG21	52:aa:864:PRO:HD3	1.93	0.50
52:aa:873:ARG:HD2	52:aa:876:GLU:OE1	2.11	0.50
55:as:118:ALA:O	55:as:140:LEU:HD23	2.10	0.50
56:2:284:U:H4'	56:2:285:A:O5'	2.11	0.50
56:2:594:U:N3	56:2:595:A:N7	2.59	0.50
1:u:666:PHE:CG	6:e:444:ASP:HA	2.47	0.50
3:r:109:PHE:HA	57:r:901:GTP:O6	2.12	0.50
3:r:418:ASN:HA	3:r:421:GLU:CD	2.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:r:421:GLU:O	3:r:424:GLY:N	2.43	0.50
6:e:16:MET:SD	42:al:29:ASN:HA	2.52	0.50
6:e:772:PRO:HB3	10:aw:98:LEU:HD21	1.94	0.50
10:aw:64:ARG:HG3	56:A:500:U:H5''	1.94	0.50
10:aw:142:ASP:OD1	10:aw:144:SER:HB3	2.11	0.50
12:ak:235:PHE:O	12:ak:239:LEU:HG	2.12	0.50
14:ag:137:LEU:HD21	14:ag:170:ARG:O	2.11	0.50
14:ag:324:ARG:HG2	14:ag:373:LEU:HD13	1.94	0.50
15:af:255:VAL:HG13	15:af:259:MET:HE2	1.93	0.50
15:af:528:GLN:NE2	15:af:531:LYS:HE3	2.26	0.50
17:l:225:SER:HA	17:l:228:LYS:HG3	1.93	0.50
17:l:578:LEU:HD21	17:l:645:TRP:CE3	2.46	0.50
17:l:652:SER:HB2	17:l:668:LYS:HE3	1.93	0.50
18:ac:176:GLU:OE2	18:ac:188:THR:OG1	2.30	0.50
19:ab:680:PRO:HA	19:ab:683:LEU:HG	1.92	0.50
19:ab:717:ARG:NH1	19:ab:808:PHE:O	2.41	0.50
19:ab:1071:ARG:HH22	19:ab:1077:ALA:HB2	1.77	0.50
20:ad:123:ARG:HH22	52:aa:146:ASP:HB3	1.77	0.50
20:ad:261:ARG:NH2	22:i:313:THR:HG1	1.99	0.50
21:m:16:PHE:HB2	35:z:525:ARG:HH21	1.76	0.50
21:m:181:ARG:HG3	23:f:183:GLU:OE1	2.12	0.50
22:i:131:LYS:O	22:i:135:GLU:CB	2.52	0.50
22:i:304:ASP:OD1	22:i:304:ASP:N	2.45	0.50
22:i:341:LEU:HD21	27:av:49:SER:HB2	1.93	0.50
23:f:300:GLU:HB2	23:f:301:PHE:CD1	2.47	0.50
25:d:84:HIS:HE1	39:v:128:ARG:HH21	1.59	0.50
25:d:366:ASP:OD2	25:d:368:ARG:NH1	2.44	0.50
25:d:374:ILE:HD11	25:d:397:ILE:HD11	1.92	0.50
29:ar:45:ARG:HB3	56:2:111:A:OP2	2.12	0.50
33:ai:278:ASN:N	33:ai:278:ASN:OD1	2.45	0.50
34:an:104:ARG:O	34:an:107:GLU:HG3	2.11	0.50
35:z:183:MET:HA	48:b:123:ARG:HH21	1.77	0.50
35:z:628:ARG:HG3	35:z:629:ASP:CG	2.36	0.50
36:y:187:TRP:NE1	36:y:281:ALA:HB2	2.27	0.50
36:y:266:VAL:O	36:y:267:LEU:HD23	2.11	0.50
37:x:133:PHE:HB3	37:x:207:HIS:HE1	1.77	0.50
38:w:124:GLU:OE2	38:w:124:GLU:N	2.20	0.50
39:v:214:ASN:ND2	56:2:288:U:H5'	2.27	0.50
42:al:105:ARG:HD3	49:bd:65:ILE:HD12	1.94	0.50
43:q:14:PRO:HD2	43:q:17:ASN:CG	2.37	0.50
45:Ca:435:HIS:CE1	47:j:133:SER:HB2	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:553:THR:O	45:Ca:555:THR:N	2.44	0.50
51:bc:262:GLU:N	51:bc:262:GLU:OE1	2.44	0.50
52:aa:619:SER:O	52:aa:622:SER:OG	2.26	0.50
52:aa:952:GLU:HG3	52:aa:952:GLU:O	2.10	0.50
52:aa:1540:LYS:O	52:aa:1544:ILE:HG13	2.11	0.50
53:k:79:ASP:CG	53:k:80:LEU:N	2.68	0.50
53:k:113:HIS:O	53:k:125:SER:HB3	2.12	0.50
56:A:405:A:O2'	56:A:406:U:H5'	2.11	0.50
1:u:161:GLU:HA	1:u:164:LEU:HD12	1.93	0.50
1:u:565:ARG:HH22	1:u:571:MET:N	2.09	0.50
3:r:277:LYS:NZ	3:r:348:GLU:HA	2.27	0.50
4:n:59:LYS:O	4:n:61:THR:N	2.44	0.50
6:e:108:ALA:HB3	25:d:311:ARG:NH1	2.26	0.50
6:e:266:PHE:O	6:e:270:VAL:HG23	2.10	0.50
15:af:32:SER:O	19:ab:491:TYR:OH	2.24	0.50
15:af:111:ARG:NH2	15:af:111:ARG:HB3	2.27	0.50
15:af:312:LEU:O	15:af:316:ILE:HG23	2.12	0.50
16:ae:484:ALA:O	16:ae:487:GLU:HG2	2.12	0.50
17:l:577:PHE:O	17:l:582:GLY:N	2.29	0.50
18:ac:335:ARG:HB2	18:ac:349:LEU:HD11	1.94	0.50
20:ad:319:GLU:O	20:ad:323:LEU:HG	2.12	0.50
20:ad:577:ASN:OD1	20:ad:602:TYR:OH	2.29	0.50
23:f:305:TYR:HE1	46:g:47:GLU:HB3	1.77	0.50
24:c:114:GLN:OE1	24:c:200:PHE:HA	2.11	0.50
25:d:32:VAL:HG13	25:d:42:TRP:HZ3	1.76	0.50
25:d:39:ARG:O	25:d:43:VAL:HG23	2.12	0.50
26:ba:28:LYS:HA	49:bd:34:HIS:ND1	2.27	0.50
31:ap:181:GLU:OE2	31:ap:244:ARG:HD2	2.12	0.50
34:an:208:GLY:HA3	34:an:211:TYR:CD2	2.47	0.50
38:w:79:ASP:N	38:w:79:ASP:OD1	2.45	0.50
38:w:116:PRO:O	38:w:118:GLU:N	2.41	0.50
41:t:226:LYS:HG3	41:t:233:ASP:HB2	1.94	0.50
43:q:12:LEU:N	56:2:178:A:N7	2.59	0.50
43:q:13:ARG:HH21	43:q:26:ARG:CZ	2.25	0.50
45:Ca:509:GLU:HB2	45:Ca:559:ALA:HB2	1.93	0.50
47:j:10:ALA:N	56:2:57:U:OP2	2.45	0.50
51:bc:256:VAL:HB	51:bc:307:PHE:HB2	1.94	0.50
52:aa:1498:HIS:HD2	52:aa:1501:VAL:H	1.60	0.50
52:aa:1508:PHE:HE1	52:aa:1618:LEU:HD12	1.76	0.50
52:aa:1571:ASN:OD1	52:aa:1572:SER:N	2.45	0.50
3:r:101:MET:HE2	57:r:901:GTP:N2	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:r:222:TRP:HE1	3:r:272:GLU:CD	2.20	0.50
11:au:47:PHE:CE2	11:au:49:TYR:HB2	2.47	0.50
12:ak:54:VAL:HG12	12:ak:56:LYS:H	1.76	0.50
13:aj:314:GLN:NE2	16:ae:29:ARG:HG3	2.27	0.50
17:l:85:TYR:CE2	17:l:89:LEU:HD22	2.46	0.50
17:l:415:ARG:HB3	19:ab:204:GLN:OE1	2.11	0.50
18:ac:265:HIS:O	18:ac:269:GLN:NE2	2.45	0.50
18:ac:1016:SER:HB2	18:ac:1018:PHE:CE2	2.47	0.50
19:ab:515:LEU:HD23	19:ab:524:GLU:HG3	1.93	0.50
19:ab:806:GLU:HB2	19:ab:810:ARG:NH2	2.27	0.50
19:ab:807:ALA:HA	19:ab:810:ARG:HD2	1.93	0.50
20:ad:312:GLN:O	20:ad:316:THR:OG1	2.20	0.50
20:ad:656:VAL:HG22	43:q:49:VAL:HA	1.94	0.50
23:f:242:GLY:O	23:f:246:THR:HG22	2.12	0.50
25:d:103:ALA:HB3	44:p:111:ARG:HH22	1.77	0.50
26:ba:15:LEU:HD21	45:Ca:85:LEU:HD11	1.94	0.50
30:aq:109:ARG:HH12	30:aq:143:ASN:C	2.14	0.50
34:an:27:GLN:OE1	34:an:30:ARG:HB3	2.11	0.50
34:an:136:THR:OG1	34:an:137:VAL:N	2.41	0.50
35:z:841:HIS:HB2	35:z:876:VAL:HG11	1.94	0.50
36:y:82:HIS:CD2	36:y:84:ALA:HB3	2.46	0.50
37:x:133:PHE:HD1	37:x:171:ASN:ND2	2.09	0.50
45:Ca:232:LEU:HD11	49:bd:34:HIS:CD2	2.47	0.50
52:aa:1672:ARG:HA	52:aa:1675:GLU:CG	2.42	0.50
56:2:356:U:H2'	56:2:356:U:OP2	2.10	0.50
1:u:668:PHE:N	6:e:443:HIS:O	2.34	0.50
1:u:790:LYS:HZ3	10:aw:148:ASN:HA	1.75	0.50
2:s:162:ALA:HA	56:A:438:U:H5	1.76	0.50
3:r:96:LYS:HA	9:ax:70:ARG:HH11	1.76	0.50
3:r:117:LEU:HD21	10:aw:185:PHE:CD1	2.47	0.50
4:n:50:PHE:HD1	4:n:51:PRO:HD2	1.77	0.50
11:au:147:ALA:O	11:au:151:TRP:HD1	1.95	0.50
12:ak:40:VAL:HG22	12:ak:51:VAL:HG12	1.94	0.50
13:aj:261:PHE:O	13:aj:305:ARG:NH2	2.45	0.50
14:ag:384:PHE:HA	19:ab:1050:PRO:HA	1.94	0.50
15:af:192:ILE:HG21	15:af:214:TYR:CE2	2.47	0.50
17:l:51:PHE:HB2	17:l:96:LYS:HZ3	1.76	0.50
18:ac:95:ASP:OD1	18:ac:95:ASP:N	2.43	0.50
18:ac:125:ASN:HB2	18:ac:133:HIS:CE1	2.46	0.50
18:ac:502:LEU:HD23	18:ac:508:TYR:CE2	2.46	0.50
18:ac:689:GLU:HB2	18:ac:692:ARG:HH11	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:146:ARG:HH21	20:ad:337:LEU:HA	1.74	0.50
22:i:185:MET:SD	43:q:145:MET:HB3	2.52	0.50
23:f:221:ALA:O	23:f:227:LYS:HB2	2.11	0.50
25:d:205:ASP:OD2	25:d:212:THR:OG1	2.28	0.50
27:av:207:MET:O	30:aq:62:LYS:HG3	2.11	0.50
30:aq:119:LEU:HD23	30:aq:153:VAL:HG12	1.93	0.50
33:ai:226:PHE:HB3	33:ai:384:TYR:OH	2.12	0.50
34:an:4:TYR:CD1	34:an:4:TYR:N	2.79	0.50
34:an:175:ILE:HG22	34:an:179:GLN:NE2	2.27	0.50
35:z:162:ARG:HH21	46:g:77:ARG:HG3	1.77	0.50
35:z:491:ASN:HA	35:z:494:VAL:CG1	2.42	0.50
36:y:75:PRO:HG2	36:y:78:ALA:HB3	1.94	0.50
38:w:24:PRO:HD3	52:aa:366:HIS:HB2	1.94	0.50
42:al:138:ARG:O	52:aa:1093:GLN:NE2	2.45	0.50
45:Ca:113:LEU:HD23	45:Ca:114:LYS:N	2.26	0.50
46:g:29:LYS:NZ	56:2:312:A:N3	2.46	0.50
47:j:32:MET:CB	47:j:115:PRO:HG3	2.42	0.50
48:b:81:LYS:HA	48:b:84:LYS:HG2	1.92	0.50
50:a:73:HIS:ND1	50:a:78:LYS:HE2	2.27	0.50
50:a:344:TYR:O	50:a:347:VAL:N	2.41	0.50
50:a:428:LYS:HB3	52:aa:1673:VAL:HG11	1.94	0.50
52:aa:166:HIS:HB2	52:aa:173:HIS:HB3	1.93	0.50
52:aa:681:LEU:HD22	52:aa:744:CYS:SG	2.52	0.50
54:be:71:LEU:HD23	54:be:74:ILE:HD12	1.93	0.50
56:2:226:A:O2'	56:2:227:U:O4'	2.27	0.50
1:u:674:VAL:HG21	6:e:439:LYS:HD2	1.94	0.49
1:u:742:GLY:HA3	6:e:227:PHE:HD2	1.74	0.49
2:s:76:MET:SD	10:aw:91:ILE:HG12	2.51	0.49
3:r:33:TRP:CE3	3:r:37:ILE:HB	2.47	0.49
3:r:71:PHE:CZ	25:d:41:LEU:HD23	2.47	0.49
3:r:412:PHE:O	3:r:416:LEU:HG	2.11	0.49
5:h:105:ARG:HD3	6:e:376:TRP:NE1	2.27	0.49
5:h:133:HIS:CD2	5:h:135:THR:HG22	2.47	0.49
6:e:23:PHE:HZ	49:bd:53:ILE:HD13	1.76	0.49
6:e:139:ARG:HA	6:e:217:TYR:CZ	2.46	0.49
6:e:364:GLU:O	6:e:402:VAL:N	2.31	0.49
9:ax:117:LYS:NZ	56:A:524:A:N7	2.59	0.49
9:ax:157:PRO:HA	9:ax:160:TYR:CD2	2.46	0.49
13:aj:28:TYR:HA	14:ag:444:THR:HB	1.94	0.49
14:ag:474:ARG:HE	14:ag:485:GLU:HB3	1.77	0.49
15:af:269:LYS:O	15:af:373:LYS:NZ	2.34	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:af:359:SER:OG	15:af:368:ARG:HD3	2.12	0.49
15:af:639:GLU:O	15:af:639:GLU:HG3	2.12	0.49
16:ae:278:ILE:HD12	16:ae:322:TYR:CG	2.47	0.49
17:l:142:ARG:NH2	17:l:530:GLU:O	2.45	0.49
18:ac:264:SER:O	18:ac:268:GLN:HG3	2.11	0.49
19:ab:365:ARG:O	19:ab:368:GLU:HG3	2.11	0.49
19:ab:1110:ARG:HH22	19:ab:1172:TRP:HZ2	1.59	0.49
20:ad:151:PRO:HG2	56:2:79:A:H2'	1.94	0.49
23:f:158:PHE:N	48:b:143:GLU:OE1	2.45	0.49
23:f:285:ASN:CG	46:g:173:LYS:HG2	2.37	0.49
24:c:104:PRO:HD2	35:z:236:THR:HG21	1.94	0.49
25:d:335:ILE:HD13	25:d:372:VAL:HG21	1.93	0.49
25:d:437:LYS:HG3	25:d:438:VAL:HG13	1.94	0.49
27:av:74:TRP:HE1	27:av:76:ALA:HB2	1.77	0.49
27:av:132:GLN:H	29:ar:41:GLN:NE2	2.10	0.49
32:ao:204:MET:HE2	45:Ca:309:LYS:HB2	1.94	0.49
33:ai:39:GLN:HE22	33:ai:214:ILE:HG22	1.77	0.49
33:ai:321:ARG:HG3	33:ai:322:LYS:N	2.27	0.49
34:an:123:PRO:CB	34:an:226:LEU:HB3	2.42	0.49
35:z:54:PRO:HB2	39:v:171:ALA:HB2	1.94	0.49
35:z:158:PHE:CE1	39:v:190:PRO:HD3	2.47	0.49
35:z:232:ASP:OD1	35:z:232:ASP:N	2.34	0.49
35:z:428:LEU:HG	35:z:431:LEU:HD12	1.93	0.49
35:z:539:VAL:HG11	35:z:793:LEU:HD13	1.94	0.49
35:z:1099:ARG:HA	35:z:1102:ILE:HG23	1.93	0.49
36:y:75:PRO:HB3	37:x:257:LEU:HB2	1.94	0.49
38:w:134:THR:O	38:w:136:ASP:N	2.45	0.49
42:al:119:ASP:OD1	42:al:120:THR:N	2.44	0.49
43:q:105:ALA:HB3	52:aa:186:ILE:HD11	1.94	0.49
47:j:55:ARG:NH2	56:2:154:G:H5'	2.26	0.49
50:a:422:LYS:O	50:a:425:THR:N	2.45	0.49
52:aa:520:MET:HG3	52:aa:560:PRO:HD2	1.94	0.49
52:aa:1202:ASN:O	52:aa:1203:SER:OG	2.26	0.49
52:aa:1578:PHE:HB3	52:aa:1581:ARG:HG3	1.92	0.49
56:2:98:A:H2'	56:2:99:G:C8	2.47	0.49
56:2:141:G:C2	56:2:149:U:H1'	2.47	0.49
1:u:338:VAL:HA	1:u:341:ARG:HB2	1.94	0.49
2:s:134:ARG:HE	2:s:138:ASP:CG	2.20	0.49
3:r:147:ILE:CG1	3:r:159:MET:HE2	2.42	0.49
3:r:299:TYR:HB3	6:e:734:TYR:CE1	2.47	0.49
6:e:108:ALA:HB3	25:d:311:ARG:CZ	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:au:102:TRP:HB2	12:ak:270:PHE:CE1	2.47	0.49
12:ak:36:ARG:HB2	12:ak:105:SER:HB3	1.94	0.49
12:ak:265:ARG:NH2	12:ak:266:ASP:OD1	2.45	0.49
15:af:376:MET:HE1	15:af:523:THR:HG21	1.94	0.49
15:af:529:GLN:O	15:af:532:MET:HG2	2.11	0.49
17:l:579:LEU:HB2	17:l:599:PHE:CE2	2.47	0.49
19:ab:91:TYR:CE1	19:ab:314:ARG:HG2	2.41	0.49
19:ab:449:ARG:HG3	19:ab:454:GLU:HB2	1.94	0.49
20:ad:572:GLY:HA3	55:as:213:LEU:HD23	1.94	0.49
20:ad:735:THR:HB	20:ad:737:GLU:HG3	1.95	0.49
22:i:324:LEU:HA	22:i:334:ARG:HG3	1.93	0.49
22:i:423:SER:OG	56:2:104:A:H4'	2.13	0.49
23:f:101:ASP:HB3	44:p:102:SER:HA	1.94	0.49
23:f:193:PHE:CZ	23:f:210:TYR:HD1	2.30	0.49
28:at:148:ILE:HD13	28:at:151:LEU:HD21	1.94	0.49
28:at:189:ARG:CZ	28:at:209:ALA:HA	2.42	0.49
29:ar:245:GLN:HA	29:ar:265:VAL:O	2.12	0.49
33:ai:302:THR:HG21	33:ai:366:VAL:HG22	1.93	0.49
36:y:295:GLN:HA	36:y:298:ARG:HG2	1.94	0.49
37:x:136:PRO:HD2	37:x:163:HIS:CE1	2.47	0.49
40:bb:134:PHE:HE2	40:bb:139:THR:HG23	1.77	0.49
44:p:129:TYR:CD1	44:p:129:TYR:C	2.90	0.49
45:Ca:420:GLN:HA	52:aa:248:ARG:O	2.12	0.49
45:Ca:436:ALA:O	47:j:131:GLN:NE2	2.45	0.49
51:bc:316:GLY:O	51:bc:319:TRP:C	2.56	0.49
52:aa:1236:PHE:HB2	52:aa:1359:GLY:C	2.36	0.49
52:aa:1598:ARG:HD3	52:aa:1598:ARG:N	2.26	0.49
52:aa:1615:MET:HE3	52:aa:1619:LEU:HG	1.94	0.49
54:be:18:TYR:CE1	54:be:34:TYR:HB2	2.47	0.49
56:A:516:G:H8	56:A:516:G:OP2	1.95	0.49
1:u:396:ARG:HG2	1:u:401:HIS:CD2	2.46	0.49
5:h:78:GLN:O	5:h:81:LEU:HB2	2.12	0.49
8:ay:145:TYR:HD1	8:ay:149:ARG:NH1	2.02	0.49
14:ag:528:ASN:O	14:ag:531:TYR:HB2	2.12	0.49
18:ac:261:LEU:HD23	18:ac:264:SER:OG	2.13	0.49
18:ac:485:LEU:O	18:ac:489:VAL:HG23	2.12	0.49
18:ac:793:PRO:C	18:ac:795:LEU:H	2.20	0.49
19:ab:623:PHE:CZ	52:aa:1287:LEU:HD13	2.46	0.49
19:ab:927:LEU:HD12	19:ab:930:ILE:HB	1.92	0.49
20:ad:474:MET:HB2	20:ad:540:GLN:HG2	1.94	0.49
22:i:302:LYS:O	22:i:305:TRP:HB3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:i:312:SER:OG	22:i:312:SER:O	2.22	0.49
22:i:417:LYS:HB3	56:2:157:G:C5	2.47	0.49
25:d:14:ARG:HG2	25:d:17:ARG:NH1	2.26	0.49
25:d:119:LEU:HD13	37:x:194:ASP:HB3	1.94	0.49
25:d:180:ASP:HA	25:d:183:SER:OG	2.12	0.49
27:av:106:ARG:CA	55:as:30:TRP:HB2	2.42	0.49
30:aq:109:ARG:NH1	30:aq:144:ILE:HA	2.28	0.49
32:ao:23:ILE:HG22	32:ao:32:ILE:O	2.12	0.49
33:ai:324:MET:HG3	35:z:858:ARG:NE	2.26	0.49
34:an:148:THR:OG1	34:an:148:THR:O	2.31	0.49
35:z:564:THR:HG22	35:z:770:ASN:HA	1.93	0.49
35:z:1018:TYR:O	35:z:1027:ASN:N	2.45	0.49
36:y:150:ARG:HH21	36:y:152:GLU:HB3	1.77	0.49
39:v:150:ASN:OD1	42:al:235:PRO:HD3	2.13	0.49
45:Ca:119:THR:OG1	45:Ca:122:GLU:HB2	2.12	0.49
45:Ca:270:PRO:HA	45:Ca:306:HIS:ND1	2.27	0.49
47:j:42:GLN:O	47:j:71:HIS:NE2	2.45	0.49
52:aa:379:GLU:O	52:aa:383:VAL:HG23	2.13	0.49
52:aa:419:VAL:HA	52:aa:458:LEU:HD13	1.94	0.49
52:aa:1088:SER:O	52:aa:1088:SER:OG	2.16	0.49
56:A:453:A:N6	56:A:469:A:OP1	2.45	0.49
6:e:17:PRO:HD2	49:bd:45:TYR:N	2.26	0.49
6:e:366:LEU:HB3	6:e:400:PHE:HB2	1.94	0.49
7:az:142:PRO:HD2	56:A:515:U:H3	1.77	0.49
13:aj:12:TYR:OH	56:A:476:A:OP1	2.30	0.49
13:aj:245:VAL:HG13	13:aj:250:ILE:HB	1.93	0.49
14:ag:287:LEU:HG	14:ag:321:LEU:HB3	1.95	0.49
14:ag:471:SER:HA	14:ag:486:ASP:HA	1.94	0.49
15:af:49:GLY:HA3	15:af:93:ARG:HH12	1.76	0.49
15:af:163:GLN:O	15:af:167:LEU:HG	2.12	0.49
16:ae:166:ARG:NH2	56:A:421:G:OP1	2.45	0.49
17:l:474:VAL:O	17:l:478:THR:HG23	2.12	0.49
17:l:501:PHE:CE1	19:ab:83:GLY:HA3	2.47	0.49
18:ac:546:LYS:O	18:ac:550:LEU:HG	2.13	0.49
19:ab:450:LEU:HD21	19:ab:456:ASP:HB2	1.93	0.49
19:ab:490:ASP:OD2	19:ab:949:ARG:NH1	2.46	0.49
20:ad:132:SER:O	20:ad:136:LYS:HG2	2.12	0.49
21:m:64:VAL:HG21	42:al:230:THR:HG21	1.94	0.49
22:i:319:LEU:CD2	29:ar:171:GLU:HG2	2.43	0.49
22:i:404:PRO:O	53:k:155:LYS:HG3	2.11	0.49
23:f:186:LYS:HD3	43:q:202:THR:HG21	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:d:18:LEU:HA	25:d:21:ASN:ND2	2.28	0.49
25:d:99:GLU:HG2	25:d:100:TYR:H	1.78	0.49
25:d:212:THR:HG21	37:x:132:PHE:CZ	2.47	0.49
27:av:166:ARG:HD2	27:av:166:ARG:N	2.28	0.49
28:at:55:ARG:HB3	28:at:58:ASN:ND2	2.28	0.49
28:at:198:CYS:SG	45:Ca:477:PRO:HB2	2.52	0.49
29:ar:36:GLU:HG2	29:ar:37:GLU:HG3	1.93	0.49
31:ap:158:THR:HG22	31:ap:163:GLU:HB2	1.93	0.49
32:ao:225:ASN:HD21	50:a:18:LYS:C	2.20	0.49
34:an:204:PHE:O	34:an:208:GLY:N	2.46	0.49
35:z:179:LEU:HD21	48:b:101:PRO:HB2	1.95	0.49
35:z:222:MET:HG2	35:z:477:TYR:HB2	1.94	0.49
35:z:591:SER:O	35:z:594:ASP:N	2.31	0.49
35:z:995:ARG:CZ	35:z:995:ARG:HA	2.43	0.49
38:w:117:PRO:HA	38:w:119:TYR:CE2	2.47	0.49
38:w:149:TYR:CE1	38:w:150:ARG:HG2	2.48	0.49
41:t:51:VAL:HG21	43:q:18:LEU:HD21	1.94	0.49
52:aa:803:GLY:HA2	52:aa:817:TRP:HA	1.94	0.49
1:u:706:SER:OG	6:e:818:PRO:OXT	2.21	0.49
3:r:219:LEU:HB2	3:r:244:TYR:HB2	1.94	0.49
7:az:111:ARG:NH2	9:ax:57:ARG:O	2.44	0.49
13:aj:87:PRO:HD3	13:aj:127:HIS:ND1	2.28	0.49
14:ag:423:THR:HB	14:ag:484:TYR:CD2	2.48	0.49
17:l:378:ARG:CZ	18:ac:597:LEU:HD11	2.42	0.49
17:l:471:ASP:OD1	17:l:471:ASP:N	2.43	0.49
17:l:599:PHE:CZ	17:l:603:ILE:HD11	2.48	0.49
18:ac:748:MET:SD	18:ac:923:ALA:HB1	2.52	0.49
20:ad:233:ASN:HD21	33:ai:189:ILE:HB	1.78	0.49
21:m:115:ARG:HH12	21:m:149:PRO:HG2	1.76	0.49
23:f:312:PHE:HD2	46:g:73:PHE:HE2	1.60	0.49
25:d:421:ASP:HB3	25:d:423:ARG:HG3	1.94	0.49
30:aq:199:LEU:HD21	30:aq:204:ASN:HA	1.94	0.49
32:ao:156:LEU:HD12	32:ao:162:LEU:HB2	1.94	0.49
33:ai:95:ASP:O	33:ai:98:LYS:HG3	2.13	0.49
33:ai:130:GLN:HE22	33:ai:149:ARG:NH2	2.11	0.49
34:an:57:GLU:HG3	35:z:917:GLN:NE2	2.27	0.49
34:an:216:ALA:HB2	52:aa:861:TRP:CD1	2.47	0.49
34:an:232:TYR:HB3	50:a:352:PHE:HZ	1.77	0.49
36:y:125:TRP:HE3	36:y:128:ILE:HD12	1.77	0.49
43:q:35:TYR:O	43:q:39:MET:N	2.30	0.49
48:b:154:TRP:HZ3	48:b:157:PHE:HD2	1.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:a:414:ILE:HG23	50:a:426:HIS:ND1	2.27	0.49
51:bc:259:THR:HA	51:bc:303:VAL:O	2.12	0.49
52:aa:1686:ARG:O	52:aa:1687:ARG:NH1	2.45	0.49
53:k:133:HIS:CB	53:k:153:ILE:HD13	2.42	0.49
56:2:13:A:H2'	56:2:14:A:O4'	2.12	0.49
1:u:130:MET:HE1	1:u:325:THR:CG2	2.43	0.49
1:u:633:LEU:O	1:u:633:LEU:HD23	2.12	0.49
1:u:718:ASP:N	1:u:722:VAL:O	2.45	0.49
3:r:102:PRO:HG2	3:r:105:HIS:HB2	1.95	0.49
3:r:406:GLU:HB3	6:e:159:GLU:CD	2.37	0.49
6:e:74:TYR:HA	42:al:288:TRP:CE2	2.48	0.49
6:e:207:PHE:O	25:d:336:THR:HG21	2.12	0.49
6:e:245:LYS:HB3	6:e:402:VAL:HG13	1.95	0.49
11:au:102:TRP:HZ3	12:ak:277:ILE:HB	1.76	0.49
12:ak:15:HIS:O	12:ak:19:LEU:HG	2.12	0.49
13:aj:195:PHE:CD2	13:aj:199:GLN:HG2	2.48	0.49
14:ag:12:PRO:HA	14:ag:16:MET:HE3	1.93	0.49
14:ag:562:SER:C	14:ag:564:THR:H	2.21	0.49
15:af:352:LEU:O	15:af:356:VAL:HG13	2.13	0.49
15:af:379:ASP:O	15:af:382:VAL:HG22	2.11	0.49
16:ae:528:ARG:NH2	19:ab:720:PRO:HG3	2.27	0.49
18:ac:592:VAL:HG22	18:ac:626:VAL:HG23	1.95	0.49
20:ad:11:ARG:NH1	40:bb:148:PRO:O	2.45	0.49
20:ad:85:ASN:O	20:ad:89:SER:OG	2.31	0.49
20:ad:749:GLU:HB2	33:ai:147:ARG:NH1	2.26	0.49
21:m:26:TYR:CD2	35:z:516:MET:HG3	2.47	0.49
21:m:65:GLN:HE21	21:m:70:ARG:HH12	1.61	0.49
25:d:234:PHE:O	25:d:238:ARG:HG3	2.13	0.49
27:av:172:LYS:HG3	27:av:173:LEU:HG	1.95	0.49
31:ap:221:VAL:HG23	31:ap:222:LYS:H	1.77	0.49
33:ai:104:ASN:HA	33:ai:107:LEU:HD12	1.95	0.49
34:an:68:GLY:O	34:an:95:TYR:OH	2.28	0.49
34:an:69:TYR:CD2	45:Ca:375:ALA:HA	2.48	0.49
34:an:263:LYS:HB3	52:aa:1080:LEU:HG	1.94	0.49
35:z:27:ILE:HD12	40:bb:156:ARG:HH21	1.77	0.49
35:z:377:TYR:OH	50:a:69:GLU:OE1	2.29	0.49
35:z:403:LYS:HG3	35:z:404:TYR:CE1	2.46	0.49
35:z:495:ALA:HB2	50:a:60:TYR:CE1	2.47	0.49
35:z:538:SER:OG	35:z:539:VAL:N	2.46	0.49
36:y:77:THR:HA	36:y:97:ARG:CZ	2.43	0.49
37:x:137:ARG:HH22	52:aa:1103:ARG:HH22	1.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:q:46:TRP:CE3	47:j:139:PRO:HG3	2.48	0.49
43:q:178:ASN:ND2	43:q:184:PRO:HD3	2.24	0.49
43:q:178:ASN:H	43:q:181:GLY:HA2	1.78	0.49
45:Ca:506:PRO:HG2	45:Ca:508:MET:HG3	1.94	0.49
52:aa:723:ASN:HB3	52:aa:725:PHE:CE1	2.48	0.49
53:k:77:PRO:HD2	53:k:78:TYR:HD1	1.77	0.49
1:u:326:LEU:HB3	1:u:597:ILE:HG22	1.93	0.49
1:u:373:ARG:NH2	19:ab:628:GLU:O	2.27	0.49
2:s:23:LEU:HB3	6:e:753:TYR:CE1	2.48	0.49
3:r:77:MET:HE3	3:r:412:PHE:HA	1.95	0.49
6:e:148:GLU:HG2	6:e:210:LYS:HE2	1.93	0.49
6:e:362:TYR:CE1	6:e:404:ILE:HB	2.48	0.49
6:e:777:GLN:HG3	6:e:778:THR:N	2.27	0.49
8:ay:121:SER:OG	19:ab:1131:MET:HG3	2.12	0.49
9:ax:72:TRP:NE1	9:ax:76:GLU:HG3	2.27	0.49
9:ax:94:GLU:HG2	9:ax:95:TRP:CD1	2.48	0.49
11:au:225:ASP:HB3	11:au:227:GLU:CD	2.37	0.49
14:ag:279:THR:OG1	14:ag:280:ILE:N	2.46	0.49
15:af:52:PRO:HB3	15:af:57:ASP:HB2	1.95	0.49
15:af:56:ARG:NH1	56:A:462:A:N3	2.61	0.49
15:af:322:LEU:HD22	15:af:371:TRP:CD1	2.48	0.49
17:l:42:ARG:HG2	17:l:484:HIS:CE1	2.47	0.49
17:l:192:ARG:NH1	18:ac:596:LEU:HB3	2.27	0.49
17:l:378:ARG:NE	18:ac:597:LEU:HD11	2.27	0.49
17:l:399:SER:HB3	17:l:500:TYR:CE1	2.48	0.49
17:l:645:TRP:CH2	17:l:672:ALA:HB1	2.47	0.49
18:ac:619:TRP:CD1	18:ac:623:ALA:HB3	2.48	0.49
18:ac:1049:LEU:O	18:ac:1053:SER:OG	2.28	0.49
19:ab:538:ARG:HH21	19:ab:839:ILE:HG22	1.78	0.49
19:ab:857:TRP:CE3	19:ab:873:ARG:HB2	2.47	0.49
19:ab:881:ASN:C	19:ab:883:ASN:H	2.19	0.49
20:ad:584:VAL:HG11	20:ad:594:PHE:CE1	2.47	0.49
20:ad:722:TYR:O	20:ad:724:PRO:HD3	2.12	0.49
21:m:16:PHE:CE2	35:z:777:TRP:HD1	2.31	0.49
21:m:118:PRO:CB	35:z:178:LEU:HG	2.43	0.49
22:i:138:LEU:HD11	31:ap:228:LEU:HD22	1.93	0.49
22:i:397:MET:HG3	29:ar:18:PHE:CD2	2.47	0.49
22:i:409:THR:HG22	56:2:69:U:OP1	2.13	0.49
23:f:123:LEU:HB2	23:f:124:GLN:NE2	2.27	0.49
23:f:316:GLY:HA2	39:v:195:PHE:CE1	2.48	0.49
28:at:134:GLN:HG2	52:aa:265:TYR:CG	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:ar:96:ILE:O	29:ar:99:SER:OG	2.31	0.49
31:ap:218:ASP:OD1	31:ap:219:PHE:N	2.46	0.49
35:z:79:ILE:O	39:v:172:GLN:HG3	2.13	0.49
35:z:446:GLU:HG2	35:z:797:TYR:CE2	2.47	0.49
35:z:463:LEU:HD12	35:z:465:TRP:CZ2	2.46	0.49
35:z:540:ASN:O	35:z:544:ASN:ND2	2.46	0.49
35:z:789:SER:HB2	35:z:894:TRP:CE3	2.47	0.49
37:x:230:GLU:N	37:x:230:GLU:OE1	2.46	0.49
37:x:231:ALA:HB2	37:x:333:TYR:CZ	2.47	0.49
39:v:77:PRO:HB3	39:v:155:HIS:CE1	2.43	0.49
39:v:157:LYS:HG2	44:p:21:PHE:CE2	2.47	0.49
39:v:185:ALA:HA	56:2:334:U:O2	2.12	0.49
41:t:10:ARG:HH22	56:2:77:A:P	2.33	0.49
41:t:225:LEU:HD22	41:t:230:VAL:HB	1.93	0.49
42:al:129:MET:HE2	42:al:232:TRP:CH2	2.48	0.49
42:al:133:ASN:HB2	42:al:187:GLY:O	2.13	0.49
42:al:273:TYR:CZ	56:A:467:A:C5	3.00	0.49
45:Ca:410:GLU:OE1	45:Ca:410:GLU:N	2.46	0.49
45:Ca:547:PHE:O	52:aa:394:ARG:NH1	2.46	0.49
47:j:73:GLN:O	47:j:90:PHE:N	2.32	0.49
52:aa:515:ARG:HD3	52:aa:882:PHE:O	2.12	0.49
56:2:186:U:C2	56:2:187:A:N1	2.79	0.49
56:2:226:A:O2'	56:2:227:U:O5'	2.31	0.49
56:2:263:A:C4	56:2:264:A:C8	3.01	0.49
1:u:755:ASP:OD1	1:u:757:LYS:NZ	2.43	0.49
2:s:122:MET:HA	2:s:126:GLY:O	2.12	0.49
3:r:285:VAL:HG11	3:r:288:TRP:HE3	1.77	0.49
6:e:479:ARG:HB2	6:e:530:ARG:HH12	1.78	0.49
6:e:736:ALA:O	6:e:741:LYS:HA	2.13	0.49
10:aw:66:ILE:HG21	56:A:501:A:C5	2.48	0.49
11:au:81:THR:HG23	11:au:81:THR:O	2.13	0.49
12:ak:240:ILE:HD11	12:ak:245:ARG:HH12	1.76	0.49
16:ae:528:ARG:HH21	19:ab:720:PRO:HG3	1.77	0.49
17:l:85:TYR:CZ	17:l:89:LEU:HD22	2.48	0.49
17:l:562:LEU:O	17:l:566:VAL:HG13	2.12	0.49
18:ac:271:PHE:CD1	18:ac:441:MET:HA	2.48	0.49
19:ab:106:ASN:ND2	19:ab:196:THR:OG1	2.44	0.49
19:ab:384:ASP:HB3	35:z:1106:HIS:NE2	2.27	0.49
19:ab:441:PHE:O	19:ab:445:ARG:HG2	2.12	0.49
19:ab:1026:ASP:HB3	19:ab:1030:LEU:HD22	1.94	0.49
20:ad:17:ALA:HB2	56:2:273:A:H5''	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:141:PHE:CD2	20:ad:165:MET:HG3	2.48	0.49
20:ad:204:GLN:HG2	52:aa:208:LEU:HD13	1.93	0.49
20:ad:343:TRP:CZ3	20:ad:345:PRO:HD3	2.48	0.49
21:m:24:ASN:ND2	21:m:28:ASN:HD21	2.10	0.49
21:m:107:ASP:HB2	21:m:110:PRO:HA	1.93	0.49
23:f:84:ARG:HH12	44:p:165:ALA:HB1	1.78	0.49
23:f:110:ASN:ND2	23:f:113:ILE:HG13	2.28	0.49
23:f:274:ILE:HD12	23:f:301:PHE:CE2	2.48	0.49
25:d:128:TRP:CD1	25:d:128:TRP:C	2.90	0.49
29:ar:126:GLU:HG3	29:ar:129:GLU:HG3	1.94	0.49
29:ar:139:SER:O	29:ar:143:SER:OG	2.19	0.49
30:aq:117:THR:O	30:aq:121:LEU:HG	2.13	0.49
34:an:261:ARG:HE	50:a:57:THR:HG22	1.77	0.49
35:z:189:GLN:HB2	35:z:193:TYR:CD2	2.47	0.49
35:z:491:ASN:HA	35:z:494:VAL:HG12	1.95	0.49
36:y:282:GLU:O	36:y:286:GLU:HB2	2.12	0.49
40:bb:231:ARG:HH12	56:2:336:U:H5	1.59	0.49
45:Ca:232:LEU:HD11	49:bd:34:HIS:HD2	1.78	0.49
45:Ca:495:LYS:NZ	45:Ca:497:GLU:HG2	2.28	0.49
51:bc:274:ARG:NH2	51:bc:330:TRP:HB3	2.27	0.49
51:bc:359:ARG:HH21	56:2:558:A:H2	1.59	0.49
52:aa:359:ALA:HB1	56:2:207:A:C6	2.47	0.49
52:aa:417:VAL:O	52:aa:421:THR:HG22	2.12	0.49
54:be:30:ARG:HB3	54:be:49:PHE:HE1	1.78	0.49
56:A:445:C:H5'	56:A:480:C:N4	2.27	0.49
56:A:461:A:C6	56:A:463:A:C5	3.01	0.49
1:u:279:PHE:CD2	19:ab:880:MET:HE3	2.48	0.49
2:s:104:ARG:NH2	16:ae:168:LEU:O	2.46	0.49
3:r:29:PRO:HG2	9:ax:152:LEU:O	2.13	0.49
6:e:122:ARG:CZ	19:ab:907:PRO:HD2	2.42	0.49
6:e:247:VAL:HA	6:e:401:ARG:O	2.13	0.49
12:ak:4:ARG:HG2	19:ab:414:LYS:HG2	1.94	0.49
13:aj:229:ASP:O	13:aj:233:VAL:HG23	2.12	0.49
13:aj:236:ARG:HG3	13:aj:272:ILE:HD12	1.93	0.49
15:af:16:SER:HA	15:af:22:HIS:HB3	1.94	0.49
15:af:370:LEU:HD22	15:af:373:LYS:HE2	1.93	0.49
16:ae:111:ALA:HB2	19:ab:1089:GLU:HG2	1.94	0.49
17:l:283:ARG:HD2	17:l:413:LEU:HD13	1.95	0.49
18:ac:40:ALA:O	18:ac:44:GLU:HG2	2.13	0.49
18:ac:261:LEU:HA	18:ac:264:SER:HG	1.78	0.49
18:ac:297:PHE:HB2	18:ac:431:VAL:HG23	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:865:VAL:HG21	18:ac:876:TYR:CG	2.47	0.49
18:ac:1052:HIS:HA	18:ac:1055:VAL:HG22	1.95	0.49
20:ad:659:PHE:CD2	43:q:49:VAL:HG11	2.47	0.49
21:m:8:VAL:HG12	21:m:9:TYR:HD1	1.78	0.49
21:m:203:HIS:HA	21:m:206:GLU:OE2	2.13	0.49
23:f:73:LEU:HG	23:f:74:PRO:HD2	1.95	0.49
23:f:168:MET:HB3	23:f:169:PRO:HD2	1.95	0.49
25:d:426:ARG:NH1	25:d:437:LYS:HA	2.28	0.49
26:ba:11:LYS:H	45:Ca:91:ASP:HA	1.77	0.49
28:at:54:ASN:O	28:at:87:ARG:HA	2.13	0.49
32:ao:218:LEU:HB2	32:ao:278:LEU:HB3	1.94	0.49
34:an:21:ARG:HD2	34:an:233:THR:O	2.12	0.49
34:an:74:ARG:HB3	35:z:952:LEU:HD11	1.94	0.49
35:z:183:MET:SD	35:z:184:GLU:HG3	2.53	0.49
35:z:380:PRO:HA	50:a:77:SER:HB3	1.95	0.49
35:z:444:LEU:HA	35:z:447:PHE:HB3	1.94	0.49
35:z:562:ASP:O	35:z:771:CYS:HA	2.13	0.49
35:z:663:LEU:HD11	35:z:769:ARG:NH1	2.24	0.49
35:z:993:TRP:NE1	35:z:995:ARG:HH11	2.10	0.49
35:z:1090:GLU:HB3	45:Ca:82:PRO:HG3	1.94	0.49
36:y:17:ALA:O	36:y:18:LEU:HD23	2.12	0.49
41:t:52:LEU:HD23	41:t:169:PRO:O	2.13	0.49
45:Ca:134:LEU:HD21	50:a:352:PHE:CE1	2.48	0.49
45:Ca:363:PHE:O	45:Ca:367:VAL:HG22	2.12	0.49
47:j:32:MET:HB2	47:j:115:PRO:HG3	1.95	0.49
48:b:46:ARG:HB2	48:b:61:TYR:CE1	2.47	0.49
49:bd:69:PHE:CE2	49:bd:83:LYS:HB3	2.47	0.49
52:aa:227:GLN:CD	52:aa:227:GLN:H	2.20	0.49
54:be:47:ARG:CD	56:2:562:U:H5''	2.42	0.49
56:2:42:A:H61	56:2:173:A:H2'	1.77	0.49
56:2:114:A:C6	56:2:117:U:C4	3.01	0.49
1:u:176:ALA:HB3	1:u:181:ASP:OD2	2.13	0.49
1:u:724:PHE:CD2	1:u:725:VAL:HG23	2.48	0.49
4:n:53:LEU:HD21	6:e:789:LEU:HD22	1.93	0.49
6:e:14:TYR:N	6:e:14:TYR:CD1	2.81	0.49
6:e:16:MET:HE3	6:e:20:MET:HE2	1.94	0.49
6:e:686:ILE:O	6:e:689:GLU:HG2	2.12	0.49
6:e:751:PRO:HG3	10:aw:110:ILE:HD13	1.95	0.49
6:e:782:ASN:HB3	6:e:784:ILE:HG13	1.94	0.49
7:az:25:ILE:HG23	7:az:32:TRP:NE1	2.27	0.49
7:az:87:ARG:NH2	7:az:87:ARG:HA	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:az:107:HIS:HB3	9:ax:52:VAL:HG21	1.94	0.49
10:aw:186:LEU:HD21	15:af:662:ARG:NH1	2.27	0.49
11:au:87:ARG:HE	11:au:166:THR:HG21	1.78	0.49
15:af:399:CYS:SG	15:af:400:PHE:N	2.86	0.49
17:l:192:ARG:CZ	18:ac:596:LEU:HB3	2.43	0.49
17:l:225:SER:HA	17:l:228:LYS:HE2	1.95	0.49
18:ac:270:PHE:HE2	18:ac:275:LEU:HD12	1.78	0.49
19:ab:182:GLN:OE1	19:ab:182:GLN:N	2.46	0.49
20:ad:347:GLU:O	20:ad:349:CYS:N	2.44	0.49
20:ad:499:THR:H	20:ad:502:ASN:HD22	1.57	0.49
20:ad:753:PRO:HB3	24:c:14:GLY:O	2.13	0.49
23:f:202:ASN:HD21	23:f:220:THR:HG22	1.78	0.49
23:f:257:VAL:HG23	23:f:260:LEU:HD21	1.94	0.49
29:ar:148:LEU:HD13	29:ar:177:LEU:HD11	1.94	0.49
30:aq:20:MET:HE1	30:aq:29:TRP:HB2	1.94	0.49
32:ao:11:ARG:O	32:ao:18:PHE:N	2.38	0.49
36:y:74:LEU:HD11	36:y:82:HIS:CD2	2.48	0.49
45:Ca:16:ARG:NH1	45:Ca:19:ARG:HB3	2.28	0.49
45:Ca:118:ARG:NH1	45:Ca:145:ASP:OD1	2.45	0.49
45:Ca:271:GLU:HG2	45:Ca:306:HIS:CE1	2.48	0.49
47:j:24:ALA:O	47:j:52:HIS:HB3	2.13	0.49
48:b:11:LYS:HB2	48:b:90:PHE:CZ	2.48	0.49
50:a:47:ARG:NH1	52:aa:1073:ASP:OD2	2.46	0.49
50:a:148:ASP:OD2	50:a:150:ARG:NH1	2.46	0.49
52:aa:543:TRP:CG	52:aa:544:ARG:N	2.80	0.49
52:aa:731:GLY:O	52:aa:743:LEU:HD12	2.13	0.49
52:aa:1619:LEU:HD23	52:aa:1627:LEU:HD11	1.94	0.49
53:k:21:ARG:NH1	56:2:197:A:OP2	2.46	0.49
53:k:74:MET:HE2	53:k:75:PRO:O	2.12	0.49
55:as:252:ARG:HG2	55:as:254:SER:H	1.78	0.49
56:2:75:A:C5	56:2:76:A:C5	3.01	0.49
56:2:287:A:H62	56:2:322:A:H61	1.61	0.49
56:2:303:U:H2'	56:2:304:U:C6	2.48	0.49
1:u:127:TRP:NE1	6:e:319:GLU:OE1	2.46	0.48
1:u:409:LEU:HD21	15:af:160:ARG:HH21	1.78	0.48
2:s:13:HIS:HE1	6:e:758:LEU:HD22	1.78	0.48
2:s:53:TRP:HZ3	6:e:784:ILE:HD13	1.78	0.48
3:r:189:TRP:HZ3	8:ay:147:LEU:HG	1.77	0.48
4:n:133:ARG:HH22	19:ab:1120:PRO:HB3	1.78	0.48
5:h:158:ARG:O	5:h:162:GLN:NE2	2.46	0.48
6:e:34:ASN:H	42:al:49:LYS:HZ3	1.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:e:683:THR:OG1	6:e:684:ARG:N	2.46	0.48
7:az:35:PRO:HB2	25:d:351:TRP:CE2	2.48	0.48
9:ax:53:GLU:HG2	9:ax:56:PRO:HA	1.95	0.48
11:au:85:ASP:OD2	11:au:87:ARG:NH1	2.46	0.48
13:aj:224:LEU:HB2	13:aj:257:TYR:OH	2.13	0.48
14:ag:463:GLU:HG2	14:ag:467:TYR:CD1	2.48	0.48
16:ae:459:LEU:HB3	16:ae:478:TYR:OH	2.12	0.48
18:ac:237:LEU:O	18:ac:469:GLN:NE2	2.46	0.48
18:ac:340:VAL:O	18:ac:391:ARG:NH2	2.46	0.48
19:ab:742:HIS:ND1	19:ab:745:THR:OG1	2.22	0.48
20:ad:558:ALA:HB1	20:ad:594:PHE:HZ	1.78	0.48
20:ad:722:TYR:HD1	20:ad:723:ALA:N	2.11	0.48
21:m:20:ARG:HD3	35:z:127:GLN:C	2.38	0.48
27:av:224:TYR:CD1	41:t:40:TRP:HZ3	2.31	0.48
31:ap:136:MET:HE1	31:ap:171:MET:HG3	1.95	0.48
34:an:162:THR:O	34:an:162:THR:OG1	2.25	0.48
34:an:165:ALA:HB1	52:aa:1431:MET:HE3	1.94	0.48
34:an:201:LYS:HE2	52:aa:800:GLU:O	2.13	0.48
35:z:162:ARG:O	35:z:164:GLY:N	2.46	0.48
35:z:390:LYS:HB3	35:z:414:ILE:HD11	1.94	0.48
35:z:707:ARG:HG2	35:z:717:ASP:HB3	1.94	0.48
36:y:59:ARG:HH11	44:p:208:HIS:CE1	2.31	0.48
37:x:319:ASN:HD21	52:aa:1180:GLY:C	2.20	0.48
39:v:71:PRO:HB2	39:v:147:PHE:HE1	1.77	0.48
39:v:159:PHE:CD1	39:v:161:HIS:HE1	2.30	0.48
42:al:161:ARG:NH2	42:al:236:PRO:O	2.45	0.48
44:p:167:GLU:HA	44:p:170:LEU:CD2	2.43	0.48
45:Ca:397:TRP:CD1	45:Ca:407:MET:HE1	2.48	0.48
45:Ca:529:PRO:HG2	52:aa:343:ARG:HH22	1.78	0.48
50:a:349:TRP:CD1	50:a:352:PHE:HA	2.48	0.48
52:aa:837:THR:HG22	52:aa:838:VAL:H	1.78	0.48
52:aa:985:ILE:HD13	52:aa:985:ILE:N	2.27	0.48
52:aa:1415:MET:HE2	52:aa:1645:TYR:HD1	1.78	0.48
52:aa:1496:THR:CG2	52:aa:1612:SER:HB2	2.43	0.48
55:as:121:GLN:HB2	55:as:141:GLN:HB2	1.95	0.48
1:u:666:PHE:CD2	1:u:666:PHE:CB	2.78	0.48
2:s:137:LYS:HD3	56:A:441:G:OP1	2.13	0.48
3:r:296:HIS:HD2	8:ay:177:GLY:HA3	1.77	0.48
5:h:56:SER:HB3	6:e:471:ASP:HB2	1.94	0.48
6:e:779:TRP:CE3	10:aw:95:GLN:HG2	2.47	0.48
15:af:13:ILE:CD1	19:ab:1039:TRP:HB3	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:af:48:ILE:HD12	15:af:70:TYR:CD1	2.47	0.48
15:af:116:GLN:HE22	19:ab:979:LYS:HD3	1.78	0.48
16:ae:394:LEU:HD11	16:ae:486:ILE:HG21	1.93	0.48
16:ae:455:VAL:HG22	16:ae:486:ILE:HD13	1.95	0.48
16:ae:492:ARG:HH12	16:ae:496:MET:HE3	1.78	0.48
18:ac:74:ASP:O	18:ac:78:HIS:HB2	2.13	0.48
18:ac:657:GLU:O	18:ac:661:ILE:HG12	2.13	0.48
18:ac:817:LEU:HA	18:ac:820:GLN:HG2	1.94	0.48
18:ac:1027:ALA:O	18:ac:1031:LEU:HG	2.13	0.48
19:ab:80:ASP:OD2	19:ab:84:GLY:N	2.42	0.48
19:ab:946:ASP:OD1	19:ab:946:ASP:N	2.45	0.48
20:ad:73:ASP:CG	20:ad:77:SER:HA	2.37	0.48
20:ad:154:ILE:HG23	47:j:169:LYS:HB3	1.94	0.48
20:ad:795:PHE:HB2	20:ad:801:GLN:NE2	2.23	0.48
21:m:15:GLN:HG3	21:m:16:PHE:H	1.78	0.48
25:d:326:ARG:N	25:d:371:ASP:O	2.32	0.48
34:an:292:ARG:NH2	37:x:137:ARG:H	2.10	0.48
35:z:187:ASP:N	43:q:140:GLU:OE2	2.41	0.48
35:z:1100:TRP:HE1	45:Ca:80:ASP:CB	2.26	0.48
36:y:193:ASN:O	36:y:198:ARG:HG2	2.14	0.48
43:q:147:LEU:HD11	48:b:149:PHE:CE1	2.47	0.48
45:Ca:91:ASP:O	52:aa:489:PRO:HG3	2.12	0.48
45:Ca:144:GLN:NE2	52:aa:896:THR:HG21	2.25	0.48
50:a:67:SER:O	50:a:71:VAL:HG13	2.13	0.48
52:aa:511:GLU:C	52:aa:898:LYS:HD2	2.37	0.48
52:aa:1414:MET:HG2	52:aa:1415:MET:N	2.28	0.48
56:A:441:G:N2	56:A:478:A:O4'	2.46	0.48
56:2:230:A:H5'	56:2:231:U:OP2	2.12	0.48
56:2:283:U:C4	56:2:328:U:O4	2.66	0.48
1:u:32:GLN:HB2	19:ab:506:MET:O	2.13	0.48
3:r:461:GLN:HG2	7:az:39:VAL:HG21	1.94	0.48
3:r:478:LEU:O	3:r:482:ASN:HB2	2.13	0.48
4:n:87:GLU:O	16:ae:92:MET:HE2	2.13	0.48
6:e:29:ILE:H	6:e:29:ILE:HD12	1.78	0.48
6:e:167:ARG:HA	6:e:171:GLN:HB2	1.94	0.48
8:ay:126:THR:HG22	8:ay:194:ASN:O	2.13	0.48
9:ax:163:SER:O	9:ax:166:GLN:HG2	2.14	0.48
13:aj:28:TYR:HE2	49:bd:76:LEU:HD23	1.78	0.48
15:af:106:LEU:HB3	15:af:141:THR:HG21	1.94	0.48
15:af:542:LEU:HD23	15:af:545:ILE:HD12	1.95	0.48
15:af:665:PHE:HB3	15:af:668:ARG:HH21	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:l:181:GLN:CD	17:l:181:GLN:H	2.21	0.48
19:ab:612:VAL:HA	19:ab:646:ARG:HG3	1.95	0.48
19:ab:1019:LEU:HD12	19:ab:1039:TRP:CD1	2.48	0.48
20:ad:281:ASP:O	20:ad:285:LEU:HG	2.13	0.48
22:i:99:LEU:HD13	22:i:253:ALA:O	2.13	0.48
23:f:200:ARG:HH21	46:g:180:GLN:HG3	1.74	0.48
23:f:317:PRO:HD2	46:g:13:MET:HG3	1.94	0.48
24:c:257:ILE:HB	24:c:282:ILE:HG12	1.95	0.48
25:d:137:PHE:HD1	25:d:183:SER:HB3	1.74	0.48
30:aq:42:ARG:HA	30:aq:45:MET:HB3	1.93	0.48
32:ao:45:ARG:HH21	32:ao:102:LEU:HD11	1.78	0.48
33:ai:22:ALA:HB1	33:ai:71:PRO:HA	1.95	0.48
33:ai:165:LEU:O	33:ai:169:LEU:HG	2.13	0.48
34:an:19:HIS:HD2	34:an:231:PRO:CB	2.25	0.48
34:an:134:PHE:HB3	50:a:333:ASN:ND2	2.28	0.48
35:z:149:SER:HB3	35:z:152:GLU:HB2	1.95	0.48
35:z:239:ASP:OD2	45:Ca:360:ARG:NH2	2.46	0.48
35:z:794:ARG:NH2	35:z:904:ASP:OD1	2.39	0.48
35:z:1002:SER:OG	52:aa:898:LYS:N	2.35	0.48
37:x:322:ARG:HB3	52:aa:1177:PHE:CE1	2.47	0.48
42:al:84:THR:HG22	42:al:113:LYS:HG2	1.94	0.48
43:q:58:ARG:HB3	47:j:108:ARG:NH1	2.28	0.48
45:Ca:292:TYR:HB2	45:Ca:299:VAL:HG22	1.95	0.48
45:Ca:407:MET:HE3	45:Ca:408:PHE:CE1	2.48	0.48
45:Ca:445:PHE:HA	47:j:93:THR:O	2.13	0.48
50:a:233:VAL:HG21	56:2:15:U:OP2	2.14	0.48
52:aa:1567:PHE:O	52:aa:1586:VAL:HG12	2.12	0.48
55:as:33:LEU:HD11	55:as:180:PRO:HB3	1.94	0.48
56:2:73:U:H6	56:2:74:G:H21	1.60	0.48
56:2:583:A:N6	56:2:584:G:O6	2.46	0.48
1:u:130:MET:HE1	1:u:325:THR:HG22	1.95	0.48
1:u:214:LEU:HD11	1:u:246:THR:HG21	1.95	0.48
1:u:679:HIS:HB2	6:e:432:GLU:HG2	1.95	0.48
4:n:79:SER:OG	6:e:712:HIS:O	2.17	0.48
5:h:152:TRP:NE1	6:e:801:LEU:O	2.46	0.48
7:az:161:ARG:HH22	8:ay:131:THR:HG22	1.78	0.48
11:au:27:ARG:NH2	13:aj:319:TYR:HD1	2.09	0.48
14:ag:249:LEU:HD23	14:ag:249:LEU:HA	1.60	0.48
14:ag:260:MET:HE2	14:ag:263:ALA:HB3	1.96	0.48
14:ag:346:VAL:HG22	14:ag:384:PHE:HZ	1.78	0.48
15:af:71:ASN:OD1	15:af:100:ASP:HB2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:af:393:TRP:HH2	15:af:501:LEU:HD12	1.79	0.48
16:ae:39:ARG:HD3	16:ae:158:LEU:O	2.13	0.48
16:ae:55:ARG:CZ	16:ae:59:GLY:HA2	2.43	0.48
16:ae:487:GLU:O	16:ae:493:SER:OG	2.31	0.48
17:l:76:PRO:HB3	17:l:190:CYS:HA	1.95	0.48
17:l:200:LYS:HG2	17:l:204:LEU:CD2	2.44	0.48
17:l:222:ALA:HB1	17:l:264:LEU:HA	1.96	0.48
17:l:450:VAL:HG21	19:ab:295:GLN:HB2	1.96	0.48
17:l:644:GLU:O	17:l:648:MET:HG2	2.14	0.48
18:ac:182:THR:HG22	18:ac:186:GLN:HB2	1.95	0.48
18:ac:627:VAL:HG11	18:ac:669:VAL:HG21	1.95	0.48
18:ac:942:PHE:CG	18:ac:943:PRO:HD2	2.48	0.48
19:ab:229:GLU:O	19:ab:233:THR:OG1	2.28	0.48
19:ab:522:PHE:C	19:ab:524:GLU:H	2.21	0.48
19:ab:770:ILE:HD11	19:ab:777:ALA:HB1	1.95	0.48
20:ad:30:ALA:HB2	56:2:146:U:O2	2.13	0.48
20:ad:66:TRP:CG	47:j:67:LYS:HZ3	2.31	0.48
20:ad:71:HIS:HB3	47:j:73:GLN:NE2	2.28	0.48
20:ad:154:ILE:HG12	47:j:169:LYS:HA	1.96	0.48
20:ad:177:TYR:O	20:ad:181:MET:HG3	2.14	0.48
20:ad:737:GLU:O	20:ad:741:LEU:HD23	2.12	0.48
21:m:143:TYR:HE2	21:m:186:ARG:NH1	2.12	0.48
21:m:143:TYR:HE2	21:m:186:ARG:HH11	1.61	0.48
22:i:173:ILE:HD12	22:i:189:LEU:HD13	1.96	0.48
22:i:289:PRO:O	53:k:185:PRO:HA	2.13	0.48
27:av:164:HIS:HB3	27:av:166:ARG:CZ	2.43	0.48
28:at:173:TRP:HD1	28:at:182:TYR:O	1.96	0.48
29:ar:62:PRO:HB3	29:ar:197:LYS:HB3	1.95	0.48
30:aq:145:ARG:NE	41:t:106:GLN:O	2.45	0.48
31:ap:77:LEU:HD21	31:ap:123:LYS:H	1.79	0.48
34:an:209:PRO:O	34:an:211:TYR:N	2.47	0.48
34:an:211:TYR:HB3	52:aa:821:ARG:HE	1.79	0.48
35:z:878:GLU:HG2	35:z:881:VAL:HG22	1.95	0.48
38:w:134:THR:C	38:w:136:ASP:H	2.21	0.48
39:v:31:LEU:HB3	39:v:45:LEU:HD22	1.95	0.48
41:t:46:TYR:CE1	55:as:236:MET:CG	2.96	0.48
41:t:99:ASN:OD1	41:t:101:PHE:N	2.34	0.48
43:q:42:GLN:OE1	47:j:141:PHE:N	2.31	0.48
45:Ca:130:GLN:NE2	45:Ca:131:LYS:HG2	2.28	0.48
52:aa:317:ARG:NH2	52:aa:324:LEU:HD23	2.28	0.48
52:aa:1277:LEU:HG	52:aa:1317:LEU:HG	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:1574:SER:OG	52:aa:1584:GLU:OE2	2.25	0.48
53:k:51:PHE:HZ	53:k:58:HIS:HB3	1.78	0.48
5:h:132:VAL:HG22	5:h:133:HIS:H	1.78	0.48
6:e:166:VAL:O	6:e:170:HIS:HB2	2.13	0.48
9:ax:118:GLN:OE1	56:A:400:U:N3	2.43	0.48
10:aw:182:LEU:HD12	10:aw:186:LEU:OXT	2.13	0.48
13:aj:192:THR:N	13:aj:193:PRO:HD2	2.28	0.48
15:af:268:GLU:OE2	15:af:268:GLU:N	2.47	0.48
15:af:532:MET:HA	15:af:535:PHE:HD2	1.79	0.48
16:ae:109:MET:HE1	16:ae:176:GLU:HA	1.94	0.48
17:l:221:ARG:HG3	17:l:242:VAL:HG13	1.96	0.48
18:ac:326:ASP:OD1	18:ac:415:ARG:NH2	2.47	0.48
18:ac:597:LEU:HB3	18:ac:601:ALA:HB3	1.94	0.48
18:ac:1051:LYS:O	18:ac:1054:GLN:HB2	2.13	0.48
19:ab:116:HIS:CE1	19:ab:687:THR:HG22	2.48	0.48
19:ab:146:GLN:OE1	19:ab:149:ARG:NH2	2.46	0.48
19:ab:456:ASP:HB3	19:ab:459:GLU:HB2	1.94	0.48
20:ad:124:TYR:CD1	43:q:84:LYS:HG3	2.49	0.48
20:ad:773:TYR:OH	45:Ca:365:ASP:OD2	2.24	0.48
21:m:47:ALA:HA	44:p:67:GLN:HE22	1.77	0.48
24:c:98:GLU:OE2	24:c:98:GLU:N	2.40	0.48
26:ba:51:TYR:HD1	26:ba:51:TYR:H	1.60	0.48
28:at:165:LEU:HD13	28:at:192:MET:SD	2.54	0.48
33:ai:187:ASN:N	33:ai:201:ASP:OD1	2.46	0.48
34:an:167:LYS:HE3	34:an:167:LYS:HB3	1.58	0.48
34:an:253:HIS:NE2	50:a:46:MET:O	2.35	0.48
35:z:468:LEU:HD23	35:z:506:PHE:CD2	2.49	0.48
41:t:103:LEU:HD12	41:t:171:TRP:HB3	1.96	0.48
46:g:12:TYR:HB3	46:g:16:HIS:HD2	1.78	0.48
46:g:13:MET:HE2	46:g:15:TYR:OH	2.13	0.48
46:g:65:VAL:HG22	46:g:70:LEU:HB3	1.95	0.48
47:j:155:LYS:HB2	47:j:160:ILE:HD11	1.95	0.48
50:a:30:TYR:CE1	50:a:35:PRO:HD3	2.49	0.48
52:aa:129:LEU:HD12	56:2:155:A:C8	2.49	0.48
52:aa:1036:ASP:OD1	52:aa:1036:ASP:N	2.35	0.48
56:2:110:U:H5'	56:2:111:A:OP2	2.13	0.48
1:u:537:GLU:OE1	1:u:537:GLU:N	2.47	0.48
2:s:11:GLY:N	6:e:771:THR:HG1	2.11	0.48
2:s:23:LEU:HD13	6:e:753:TYR:HD1	1.78	0.48
5:h:67:LEU:HD21	19:ab:1094:PHE:CE2	2.49	0.48
6:e:73:TRP:CE2	6:e:74:TYR:HB2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:e:82:HIS:O	6:e:84:GLY:N	2.47	0.48
7:az:89:ALA:HB1	9:ax:107:VAL:HG21	1.95	0.48
9:ax:41:SER:HG	9:ax:43:ASN:H	1.59	0.48
9:ax:117:LYS:NZ	9:ax:119:ASN:HB2	2.28	0.48
11:au:90:PRO:HA	11:au:93:MET:HE3	1.95	0.48
12:ak:35:CYS:SG	17:l:667:LYS:HG3	2.53	0.48
13:aj:22:MET:HE3	13:aj:22:MET:HB3	1.75	0.48
13:aj:108:ALA:HA	13:aj:111:ILE:HG12	1.94	0.48
13:aj:226:VAL:O	13:aj:227:GLN:HB2	2.13	0.48
14:ag:287:LEU:HD11	14:ag:322:TYR:HA	1.95	0.48
15:af:282:CYS:HA	15:af:285:PHE:HB2	1.95	0.48
15:af:501:LEU:HD11	15:af:545:ILE:HD13	1.96	0.48
15:af:535:PHE:HA	15:af:538:ILE:HD12	1.96	0.48
15:af:536:THR:HG23	15:af:613:CYS:N	2.27	0.48
17:l:194:HIS:HE1	18:ac:848:ARG:NH1	2.11	0.48
17:l:262:TYR:CD1	17:l:364:PHE:HB3	2.46	0.48
17:l:679:ILE:HG22	17:l:684:ARG:HG3	1.96	0.48
18:ac:220:PRO:O	18:ac:224:ILE:HG13	2.13	0.48
18:ac:785:ARG:HG2	18:ac:802:GLU:HG3	1.95	0.48
19:ab:652:GLY:HA2	19:ab:655:ASN:HD21	1.78	0.48
19:ab:1014:ASP:N	19:ab:1014:ASP:OD1	2.47	0.48
20:ad:90:MET:HG2	20:ad:91:TYR:CD1	2.48	0.48
20:ad:94:LYS:HD2	20:ad:99:THR:O	2.13	0.48
20:ad:371:SER:O	20:ad:372:LEU:HD12	2.13	0.48
20:ad:638:GLU:HG3	20:ad:648:THR:CG2	2.44	0.48
21:m:210:TYR:CE2	25:d:90:PHE:HB2	2.48	0.48
23:f:106:GLN:OE1	23:f:113:ILE:HG21	2.14	0.48
24:c:137:ILE:HG23	35:z:143:PRO:HB2	1.94	0.48
25:d:246:VAL:HG11	42:al:102:ILE:HD13	1.95	0.48
26:ba:23:PHE:HB3	26:ba:25:HIS:ND1	2.28	0.48
29:ar:28:ARG:HH21	29:ar:44:TYR:HE1	1.61	0.48
30:aq:120:ASP:O	30:aq:121:LEU:HD23	2.14	0.48
31:ap:64:ILE:HD13	31:ap:114:LEU:HB2	1.96	0.48
32:ao:199:ARG:HD2	32:ao:201:TRP:NE1	2.29	0.48
33:ai:69:ARG:HB2	33:ai:86:GLN:NE2	2.29	0.48
33:ai:124:LYS:O	35:z:342:LYS:HD2	2.14	0.48
35:z:442:PRO:HG2	35:z:530:GLU:CG	2.41	0.48
35:z:1098:TYR:CG	35:z:1099:ARG:N	2.80	0.48
36:y:269:MET:HB3	36:y:271:TRP:CE2	2.49	0.48
41:t:41:THR:HG22	41:t:41:THR:O	2.14	0.48
42:al:230:THR:O	42:al:230:THR:HG23	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:q:177:LEU:HD22	43:q:181:GLY:C	2.37	0.48
45:Ca:74:ALA:HB3	45:Ca:181:ASN:ND2	2.28	0.48
45:Ca:339:LYS:HG3	45:Ca:502:ARG:HD3	1.94	0.48
45:Ca:508:MET:HE3	45:Ca:558:PHE:HD2	1.79	0.48
50:a:387:SER:H	52:aa:1242:LYS:NZ	2.02	0.48
52:aa:685:ASN:ND2	52:aa:695:GLU:OE2	2.35	0.48
52:aa:689:HIS:NE2	52:aa:695:GLU:OE1	2.44	0.48
52:aa:763:THR:OG1	52:aa:767:ASP:OD2	2.30	0.48
53:k:79:ASP:HB2	53:k:114:MET:HB2	1.95	0.48
56:2:42:A:H5'	56:2:43:A:OP2	2.14	0.48
56:2:238:C:O2'	56:2:240:U:OP2	2.24	0.48
56:2:313:A:H8	56:2:313:A:OP2	1.95	0.48
2:s:169:TRP:HZ3	11:au:13:ARG:NH2	2.10	0.48
4:n:75:MET:HE3	4:n:75:MET:HB3	1.80	0.48
5:h:125:GLY:HA3	13:aj:22:MET:HB2	1.96	0.48
6:e:15:ARG:HH22	14:ag:425:GLN:H	1.62	0.48
6:e:126:ARG:HD3	19:ab:884:GLY:HA2	1.96	0.48
6:e:295:ASP:HB3	14:ag:311:TRP:CG	2.49	0.48
6:e:602:LEU:HA	6:e:605:TRP:CE2	2.49	0.48
7:az:70:MET:HE1	25:d:421:ASP:OD2	2.14	0.48
8:ay:93:GLU:HA	8:ay:96:GLN:HB3	1.96	0.48
9:ax:48:ASP:OD2	9:ax:49:LYS:NZ	2.34	0.48
10:aw:153:ARG:O	10:aw:157:GLN:HG3	2.14	0.48
12:ak:3:PHE:HB3	12:ak:6:THR:OG1	2.14	0.48
16:ae:27:ARG:NE	56:A:435:G:N7	2.60	0.48
17:l:100:MET:HA	17:l:103:ARG:HG2	1.95	0.48
17:l:598:GLU:O	17:l:602:ARG:HG3	2.13	0.48
18:ac:402:THR:HG23	18:ac:403:GLU:CD	2.39	0.48
19:ab:522:PHE:CE2	19:ab:523:LEU:HG	2.49	0.48
19:ab:719:ILE:HA	19:ab:811:TYR:CD2	2.49	0.48
20:ad:137:HIS:O	20:ad:141:PHE:CD2	2.67	0.48
22:i:245:ASN:HB2	22:i:248:ILE:HD12	1.96	0.48
22:i:334:ARG:CZ	53:k:138:ALA:HB3	2.44	0.48
24:c:257:ILE:HG22	24:c:281:LEU:HD12	1.95	0.48
25:d:268:SER:O	42:al:210:ARG:HB3	2.14	0.48
25:d:402:VAL:HG22	25:d:409:ARG:HA	1.95	0.48
29:ar:207:HIS:CD2	29:ar:207:HIS:C	2.91	0.48
34:an:283:ARG:HB2	35:z:508:MET:HB2	1.95	0.48
35:z:230:ASN:ND2	35:z:234:THR:OG1	2.44	0.48
35:z:656:PRO:O	35:z:657:ARG:HG3	2.14	0.48
36:y:24:GLN:O	36:y:28:PRO:HD3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:w:164:TYR:HD1	38:w:167:ILE:HD11	1.79	0.48
41:t:47:VAL:CG1	41:t:48:PRO:HD2	2.44	0.48
42:al:206:GLY:N	52:aa:1068:ARG:HH12	2.10	0.48
45:Ca:296:PHE:N	50:a:91:ASN:OD1	2.41	0.48
51:bc:230:PHE:CE2	51:bc:234:VAL:HG21	2.48	0.48
51:bc:263:PHE:CE2	51:bc:303:VAL:HG23	2.49	0.48
52:aa:207:ASN:O	52:aa:211:GLU:HB2	2.14	0.48
52:aa:342:PRO:HB3	52:aa:376:TRP:CD2	2.49	0.48
52:aa:825:SER:OG	52:aa:971:TRP:O	2.28	0.48
55:as:42:MET:HE3	55:as:43:HIS:HD2	1.77	0.48
1:u:117:VAL:HA	1:u:120:CYS:SG	2.52	0.48
1:u:144:TYR:CE2	1:u:318:ALA:HB3	2.49	0.48
1:u:348:ASP:HA	1:u:351:ILE:HD12	1.95	0.48
1:u:540:ARG:HG2	1:u:541:LYS:N	2.29	0.48
2:s:90:LYS:O	6:e:794:PRO:HB2	2.14	0.48
6:e:11:TRP:CE3	14:ag:21:LEU:HD13	2.49	0.48
6:e:411:SER:O	6:e:415:GLU:HG3	2.13	0.48
6:e:541:LEU:N	6:e:597:GLU:OE1	2.47	0.48
13:aj:48:MET:O	14:ag:407:ARG:NE	2.45	0.48
13:aj:256:LYS:HD3	18:ac:30:TRP:CD2	2.49	0.48
16:ae:507:SER:HB3	16:ae:519:ARG:CG	2.41	0.48
17:l:48:VAL:HG22	17:l:171:GLY:C	2.39	0.48
17:l:177:GLU:OE2	17:l:505:ALA:HA	2.14	0.48
19:ab:66:ASP:N	19:ab:66:ASP:OD1	2.46	0.48
19:ab:670:PRO:HG3	19:ab:822:HIS:CG	2.49	0.48
19:ab:1019:LEU:HD12	19:ab:1039:TRP:HD1	1.78	0.48
20:ad:321:ALA:O	20:ad:325:THR:HG23	2.13	0.48
20:ad:450:HIS:CE1	20:ad:488:ALA:HA	2.48	0.48
20:ad:477:LEU:O	20:ad:481:ASN:ND2	2.47	0.48
28:at:219:ASN:HB2	28:at:220:MET:HE2	1.96	0.48
34:an:122:LYS:HZ3	52:aa:985:ILE:HD11	1.79	0.48
34:an:208:GLY:HA3	34:an:211:TYR:HD2	1.78	0.48
34:an:221:LYS:HB2	35:z:988:ASP:OD2	2.13	0.48
35:z:115:ASP:OD1	35:z:115:ASP:N	2.47	0.48
35:z:599:GLU:HG3	35:z:600:ASP:H	1.79	0.48
37:x:262:ARG:HD3	37:x:301:GLU:OE2	2.14	0.48
39:v:95:MET:HE3	39:v:129:VAL:HG22	1.96	0.48
40:bb:166:LYS:HG2	40:bb:170:PHE:CE2	2.48	0.48
42:al:254:SER:O	42:al:257:SER:OG	2.32	0.48
43:q:190:GLU:HA	48:b:15:ARG:H	1.78	0.48
44:p:193:GLU:O	44:p:195:LEU:HD12	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:71:ILE:HG13	52:aa:379:GLU:HB2	1.94	0.48
45:Ca:509:GLU:HA	45:Ca:514:ASN:HD22	1.78	0.48
50:a:425:THR:HA	50:a:428:LYS:HG2	1.96	0.48
52:aa:317:ARG:NE	52:aa:321:LEU:O	2.46	0.48
52:aa:424:ARG:NH1	52:aa:462:THR:OG1	2.47	0.48
52:aa:1498:HIS:CD2	52:aa:1502:TYR:H	2.32	0.48
55:as:144:LEU:H	55:as:144:LEU:HD12	1.79	0.48
55:as:154:LEU:O	55:as:157:LEU:HB3	2.13	0.48
56:2:161:G:H4'	56:2:162:U:H5	1.79	0.48
56:2:228:G:C4	56:2:229:G:C8	3.02	0.48
1:u:127:TRP:HE1	6:e:319:GLU:CD	2.22	0.48
2:s:160:SER:HB2	16:ae:8:SER:O	2.13	0.48
3:r:147:ILE:O	3:r:357:THR:OG1	2.28	0.48
8:ay:115:ARG:HD3	19:ab:1153:VAL:HB	1.95	0.48
13:aj:70:ASP:HB2	13:aj:119:LEU:HD13	1.96	0.48
15:af:617:LEU:O	15:af:620:THR:OG1	2.27	0.48
16:ae:546:HIS:CD2	16:ae:550:SER:HB2	2.48	0.48
17:l:667:LYS:O	17:l:672:ALA:N	2.47	0.48
18:ac:276:ALA:O	18:ac:280:LYS:HG3	2.13	0.48
18:ac:640:LYS:O	18:ac:643:VAL:HG12	2.14	0.48
19:ab:72:GLN:HA	19:ab:75:LEU:HD12	1.95	0.48
19:ab:554:THR:O	19:ab:558:ARG:HG3	2.13	0.48
19:ab:872:VAL:HG13	19:ab:930:ILE:HG23	1.95	0.48
20:ad:308:ARG:O	20:ad:312:GLN:HG2	2.14	0.48
20:ad:361:ASN:OD1	20:ad:368:LEU:HB2	2.13	0.48
20:ad:400:VAL:O	20:ad:403:GLU:HG3	2.14	0.48
22:i:97:LYS:HD3	56:2:332:U:OP1	2.13	0.48
23:f:261:ARG:HG2	23:f:266:ARG:CZ	2.44	0.48
24:c:94:LEU:CD1	35:z:302:MET:HG2	2.44	0.48
25:d:227:PHE:CE1	42:al:216:PHE:HD1	2.32	0.48
26:ba:23:PHE:O	26:ba:25:HIS:ND1	2.47	0.48
27:av:103:TRP:HE1	27:av:186:ASP:HB3	1.78	0.48
28:at:23:TRP:HE3	28:at:33:LEU:HD23	1.78	0.48
28:at:59:PHE:CE2	28:at:88:TRP:HD1	2.31	0.48
35:z:191:ALA:HB1	35:z:196:TYR:HD2	1.78	0.48
35:z:271:LYS:HE2	45:Ca:363:PHE:CD2	2.48	0.48
35:z:549:ILE:HG21	35:z:774:PHE:CZ	2.49	0.48
40:bb:194:GLU:N	40:bb:194:GLU:OE2	2.47	0.48
45:Ca:173:PHE:CD2	45:Ca:177:ILE:HD13	2.49	0.48
50:a:405:THR:HB	50:a:407:LYS:H	1.78	0.48
52:aa:1286:LEU:HA	52:aa:1289:GLN:CD	2.39	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:1323:LEU:HA	52:aa:1323:LEU:HD23	1.70	0.48
52:aa:1432:ASP:OD1	52:aa:1433:ILE:HD13	2.14	0.48
54:be:8:CYS:C	54:be:9:LEU:HD12	2.38	0.48
56:A:424:U:OP1	56:A:425:A:H5''	2.14	0.48
56:2:129:U:H2'	56:2:130:U:H5'	1.95	0.48
1:u:371:LYS:HG2	1:u:574:LEU:HD11	1.96	0.48
1:u:547:ILE:HA	1:u:550:GLU:CD	2.38	0.48
1:u:736:LEU:O	2:s:37:ARG:NE	2.25	0.48
1:u:782:GLU:HA	2:s:26:PRO:HB2	1.96	0.48
1:u:809:ARG:NH1	6:e:740:ASP:OD2	2.37	0.48
2:s:68:PHE:CZ	6:e:219:VAL:HG22	2.49	0.48
3:r:69:LEU:HB3	3:r:111:TYR:CZ	2.49	0.48
7:az:13:LEU:HD23	7:az:122:GLY:HA2	1.96	0.48
9:ax:119:ASN:CG	56:A:525:A:H62	2.22	0.48
10:aw:52:ASP:CG	10:aw:53:ALA:H	2.20	0.48
13:aj:240:ILE:HG12	13:aj:288:LEU:HD21	1.95	0.48
15:af:45:LYS:HG3	15:af:51:GLU:CD	2.38	0.48
16:ae:502:THR:OG1	16:ae:581:LYS:HB2	2.13	0.48
17:l:483:THR:HG21	17:l:492:PHE:HB2	1.95	0.48
18:ac:357:SER:O	18:ac:361:GLN:HG2	2.14	0.48
18:ac:520:GLY:O	18:ac:524:THR:HG23	2.13	0.48
19:ab:513:PHE:HA	19:ab:838:TYR:HB2	1.95	0.48
19:ab:855:GLU:HB3	19:ab:933:TRP:NE1	2.29	0.48
20:ad:96:ASN:N	20:ad:99:THR:OG1	2.36	0.48
20:ad:327:THR:HG21	27:av:36:ARG:HH12	1.79	0.48
20:ad:572:GLY:HA2	20:ad:604:ARG:NH1	2.29	0.48
21:m:172:PRO:HA	48:b:48:TYR:HB3	1.95	0.48
22:i:208:MET:SD	22:i:227:LYS:HE2	2.53	0.48
22:i:264:ARG:HB2	22:i:303:TYR:HE2	1.79	0.48
22:i:301:TRP:HB3	53:k:97:TYR:CG	2.49	0.48
23:f:288:GLN:HB3	46:g:59:ARG:NH1	2.29	0.48
24:c:70:PRO:HG2	24:c:73:THR:HG23	1.96	0.48
24:c:71:PRO:HG3	24:c:74:ARG:HH21	1.78	0.48
25:d:12:HIS:NE2	25:d:47:VAL:HG11	2.29	0.48
27:av:99:VAL:HB	27:av:220:ARG:H	1.79	0.48
29:ar:153:ARG:HH22	29:ar:171:GLU:CD	2.22	0.48
32:ao:150:CYS:HB2	32:ao:152:LEU:HB2	1.96	0.48
34:an:248:TYR:HD2	34:an:249:LEU:HD23	1.78	0.48
36:y:53:SER:HA	36:y:95:LYS:HZ1	1.77	0.48
36:y:158:LEU:HB3	36:y:190:ALA:HB3	1.96	0.48
39:v:211:LEU:HB3	39:v:212:PRO:HD2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:al:97:SER:OG	42:al:98:TYR:N	2.47	0.48
42:al:289:ASN:ND2	49:bd:54:TRP:HZ2	2.12	0.48
46:g:27:LYS:HG2	56:2:297:G:H22	1.79	0.48
48:b:35:LEU:N	48:b:70:ASP:O	2.41	0.48
49:bd:54:TRP:CE2	49:bd:79:LEU:HD13	2.49	0.48
51:bc:281:GLN:O	51:bc:285:GLU:HG2	2.13	0.48
52:aa:382:ALA:HA	52:aa:423:GLN:HE22	1.79	0.48
52:aa:1672:ARG:HA	52:aa:1675:GLU:HG3	1.96	0.48
53:k:194:ARG:NH2	56:2:361:A:OP1	2.47	0.48
56:A:448:U:H3'	56:A:449:G:N3	2.29	0.48
56:2:161:G:H5'	56:2:162:U:OP1	2.14	0.48
56:2:542:G:O2'	56:2:543:G:H5'	2.14	0.48
1:u:611:TRP:HE1	1:u:638:ARG:HG2	1.79	0.47
3:r:85:LEU:HD12	3:r:89:PHE:CD1	2.49	0.47
6:e:421:ILE:O	6:e:425:LEU:HG	2.14	0.47
6:e:496:GLN:NE2	6:e:660:GLU:HG3	2.28	0.47
6:e:583:THR:HG22	6:e:585:GLU:HG2	1.96	0.47
6:e:676:ALA:O	6:e:680:VAL:HG13	2.13	0.47
9:ax:69:LEU:O	9:ax:72:TRP:HE3	1.97	0.47
12:ak:174:PHE:N	12:ak:174:PHE:CD1	2.82	0.47
13:aj:27:GLN:OE1	49:bd:74:ASN:ND2	2.47	0.47
14:ag:393:GLU:OE2	14:ag:396:ARG:HD3	2.14	0.47
17:l:245:THR:HG22	17:l:385:LEU:HG	1.95	0.47
17:l:403:PHE:CE2	17:l:410:HIS:HA	2.49	0.47
17:l:681:PHE:HA	17:l:684:ARG:HB2	1.96	0.47
18:ac:246:TRP:HA	18:ac:253:ARG:HH21	1.80	0.47
18:ac:835:ILE:O	18:ac:871:ASP:HB3	2.13	0.47
19:ab:1017:ARG:HB2	19:ab:1017:ARG:NH1	2.29	0.47
20:ad:194:ARG:HG2	47:j:182:GLU:OE1	2.14	0.47
20:ad:326:PRO:O	20:ad:385:ASN:ND2	2.46	0.47
22:i:382:GLU:HB2	27:av:134:PRO:HD2	1.95	0.47
23:f:192:VAL:HG21	23:f:257:VAL:HG21	1.96	0.47
24:c:221:VAL:HG12	24:c:285:HIS:CE1	2.49	0.47
24:c:226:ALA:C	24:c:228:ASP:H	2.21	0.47
25:d:339:GLY:N	25:d:373:HIS:NE2	2.61	0.47
28:at:36:SER:O	28:at:40:LYS:HG2	2.14	0.47
29:ar:74:PHE:CE2	29:ar:76:SER:HB2	2.49	0.47
29:ar:76:SER:HA	29:ar:115:ILE:O	2.14	0.47
30:aq:43:THR:HG23	38:w:152:HIS:HE1	1.78	0.47
32:ao:131:ILE:HG22	32:ao:138:TRP:O	2.14	0.47
32:ao:261:GLY:C	32:ao:263:SER:H	2.22	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:an:126:MET:HE2	52:aa:985:ILE:HD12	1.95	0.47
34:an:128:ILE:O	34:an:128:ILE:HG13	2.12	0.47
34:an:146:GLY:HA3	52:aa:1109:TYR:OH	2.14	0.47
35:z:154:TRP:O	35:z:156:LYS:HG3	2.13	0.47
35:z:331:SER:HA	35:z:917:GLN:HB3	1.96	0.47
35:z:413:PHE:HD2	35:z:465:TRP:HZ3	1.61	0.47
35:z:1001:GLY:HA2	52:aa:887:TRP:CG	2.48	0.47
36:y:289:GLU:HA	36:y:292:ARG:HB2	1.95	0.47
39:v:22:HIS:HB2	42:al:64:MET:SD	2.53	0.47
39:v:55:ASP:OD1	39:v:56:ASN:N	2.47	0.47
46:g:74:GLN:O	46:g:78:SER:HB3	2.14	0.47
47:j:20:GLN:HB2	47:j:52:HIS:CD2	2.49	0.47
52:aa:152:ASN:ND2	53:k:78:TYR:HE2	2.12	0.47
52:aa:496:ARG:NH1	52:aa:523:ILE:HD13	2.29	0.47
52:aa:1685:PHE:HB2	52:aa:1692:TYR:CD2	2.49	0.47
52:aa:1692:TYR:HA	52:aa:1695:ASN:ND2	2.29	0.47
53:k:170:GLU:OE1	53:k:174:ARG:HG3	2.13	0.47
54:be:23:ARG:N	54:be:70:ASP:O	2.27	0.47
1:u:300:PHE:HD2	1:u:723:PRO:HG3	1.79	0.47
1:u:673:GLU:OE2	6:e:231:ASN:ND2	2.47	0.47
2:s:130:PRO:HB3	16:ae:32:TRP:CD2	2.49	0.47
3:r:162:VAL:HA	3:r:165:TYR:CD2	2.49	0.47
3:r:304:PHE:HA	8:ay:155:LYS:HE3	1.95	0.47
4:n:78:LYS:HG3	56:A:507:A:O4'	2.13	0.47
5:h:70:LYS:HA	19:ab:1106:ALA:HB2	1.95	0.47
8:ay:118:VAL:HG21	19:ab:1121:MET:HE1	1.95	0.47
9:ax:67:ASP:OD1	9:ax:70:ARG:NH2	2.47	0.47
14:ag:428:PRO:HD2	49:bd:45:TYR:CD2	2.50	0.47
15:af:80:PHE:N	15:af:81:PRO:HD2	2.29	0.47
16:ae:95:ILE:HG13	16:ae:95:ILE:O	2.12	0.47
16:ae:132:LEU:HD22	16:ae:150:ARG:HG3	1.95	0.47
17:l:617:PHE:CE1	17:l:688:GLU:HA	2.50	0.47
18:ac:246:TRP:HB3	18:ac:470:HIS:NE2	2.29	0.47
18:ac:417:MET:HB2	18:ac:456:GLN:HB3	1.96	0.47
19:ab:66:ASP:O	19:ab:69:THR:OG1	2.26	0.47
19:ab:678:GLN:N	19:ab:694:TYR:OH	2.47	0.47
20:ad:229:MET:HG2	33:ai:189:ILE:HD12	1.96	0.47
20:ad:477:LEU:HD12	20:ad:477:LEU:HA	1.69	0.47
22:i:302:LYS:HB3	56:2:327:U:O4	2.14	0.47
25:d:326:ARG:O	25:d:371:ASP:N	2.40	0.47
25:d:355:MET:HA	25:d:358:MET:HG2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:av:36:ARG:HA	27:av:39:GLU:HB2	1.95	0.47
28:at:233:PHE:HB3	47:j:140:ILE:HG13	1.96	0.47
33:ai:194:ILE:O	33:ai:196:LYS:N	2.47	0.47
33:ai:220:ILE:HA	33:ai:223:ILE:HD12	1.95	0.47
33:ai:292:ASP:OD1	33:ai:292:ASP:N	2.46	0.47
33:ai:397:SER:O	33:ai:397:SER:OG	2.32	0.47
34:an:185:TRP:CZ2	34:an:191:GLY:HA2	2.49	0.47
35:z:105:ASP:OD1	35:z:105:ASP:N	2.47	0.47
35:z:470:THR:OG1	35:z:471:THR:N	2.48	0.47
35:z:565:ARG:HD2	35:z:565:ARG:H	1.80	0.47
35:z:956:ASP:OD1	35:z:962:VAL:N	2.47	0.47
44:p:52:TYR:O	44:p:56:ARG:HB3	2.15	0.47
45:Ca:73:GLU:HA	45:Ca:185:LYS:HD3	1.96	0.47
45:Ca:474:ILE:HD12	45:Ca:482:ARG:NH2	2.28	0.47
48:b:39:LEU:HD13	48:b:67:LEU:HB2	1.96	0.47
48:b:68:GLN:CD	48:b:125:GLU:H	2.21	0.47
52:aa:244:LEU:HD23	52:aa:244:LEU:HA	1.67	0.47
52:aa:802:LEU:HD12	52:aa:803:GLY:H	1.78	0.47
52:aa:1170:LEU:O	52:aa:1174:ILE:HG13	2.13	0.47
52:aa:1450:PHE:HE1	52:aa:1639:MET:HG2	1.79	0.47
52:aa:1693:TRP:HA	52:aa:1696:VAL:HG12	1.97	0.47
54:be:58:PHE:HD2	54:be:60:LEU:HG	1.79	0.47
56:A:460:U:O2	56:A:461:A:N6	2.46	0.47
56:2:131:A:C2	56:2:132:G:C8	3.03	0.47
56:2:290:G:N7	56:2:318:A:N6	2.62	0.47
56:2:558:A:H2'	56:2:559:A:O4'	2.13	0.47
1:u:122:THR:OG1	1:u:125:ARG:NH1	2.48	0.47
1:u:134:PHE:HZ	1:u:325:THR:HG21	1.79	0.47
1:u:326:LEU:HD23	1:u:329:ILE:HD12	1.95	0.47
1:u:399:GLY:O	1:u:401:HIS:N	2.45	0.47
1:u:543:LYS:NZ	1:u:547:ILE:HD11	2.30	0.47
1:u:674:VAL:HG11	1:u:760:MET:SD	2.55	0.47
2:s:115:TYR:HB3	14:ag:397:ALA:HB1	1.95	0.47
3:r:101:MET:SD	3:r:107:ARG:HB3	2.54	0.47
3:r:117:LEU:HD13	10:aw:182:LEU:O	2.14	0.47
6:e:162:MET:HE2	25:d:42:TRP:CD1	2.48	0.47
6:e:202:ARG:HA	6:e:206:PRO:HD2	1.96	0.47
9:ax:98:HIS:HD2	9:ax:99:PRO:HD2	1.79	0.47
14:ag:43:GLN:O	14:ag:47:ILE:HG12	2.14	0.47
14:ag:159:TYR:CZ	14:ag:217:LEU:HD23	2.50	0.47
15:af:393:TRP:HE3	15:af:504:ARG:NH1	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:ae:274:MET:O	16:ae:278:ILE:HG12	2.15	0.47
16:ae:431:LEU:HD12	16:ae:431:LEU:H	1.79	0.47
16:ae:561:GLY:HA3	19:ab:731:GLN:NE2	2.29	0.47
17:l:498:TRP:CH2	17:l:502:ASN:HB2	2.49	0.47
18:ac:523:SER:O	18:ac:527:VAL:HG22	2.14	0.47
18:ac:1021:GLU:HA	18:ac:1024:LEU:HD12	1.95	0.47
20:ad:540:GLN:O	20:ad:544:THR:HG23	2.14	0.47
21:m:133:SER:O	21:m:133:SER:OG	2.27	0.47
22:i:104:PHE:HD1	22:i:240:LEU:HD21	1.79	0.47
23:f:295:GLN:OE1	46:g:54:ILE:HG12	2.15	0.47
24:c:200:PHE:C	24:c:202:ASN:H	2.22	0.47
24:c:268:HIS:O	24:c:272:VAL:HG13	2.14	0.47
25:d:325:LEU:HD12	25:d:372:VAL:CG1	2.44	0.47
28:at:39:ARG:NE	56:2:199:U:O2'	2.40	0.47
32:ao:25:SER:OG	32:ao:27:ASP:OD1	2.32	0.47
33:ai:235:TYR:CE2	33:ai:354:LEU:HD13	2.49	0.47
33:ai:410:LEU:HD23	33:ai:410:LEU:HA	1.70	0.47
34:an:117:PHE:O	34:an:120:ASP:HB3	2.13	0.47
38:w:50:SER:N	41:t:233:ASP:OD2	2.28	0.47
40:bb:171:ARG:HG3	56:2:568:A:C8	2.49	0.47
41:t:128:LYS:HE3	41:t:150:VAL:HG13	1.97	0.47
43:q:32:LEU:HD13	43:q:36:ARG:HB3	1.96	0.47
45:Ca:145:ASP:OD1	45:Ca:145:ASP:N	2.47	0.47
45:Ca:573:ARG:HH11	45:Ca:576:ARG:HH12	1.62	0.47
47:j:14:ILE:HD12	56:2:57:U:C5	2.49	0.47
47:j:30:ILE:O	47:j:30:ILE:HG22	2.14	0.47
47:j:62:LEU:HD13	47:j:103:TRP:CH2	2.49	0.47
48:b:6:PHE:CD2	48:b:83:MET:HE1	2.49	0.47
52:aa:437:SER:HG	52:aa:440:PHE:H	1.59	0.47
52:aa:804:GLN:O	52:aa:816:GLN:N	2.40	0.47
52:aa:1415:MET:HE1	52:aa:1649:LEU:HG	1.97	0.47
56:2:75:A:C6	56:2:76:A:C4	3.02	0.47
56:2:320:A:H2'	56:2:321:A:O4'	2.14	0.47
1:u:559:GLN:O	1:u:562:GLU:HG3	2.14	0.47
3:r:287:GLY:HA3	3:r:358:THR:HG22	1.96	0.47
3:r:447:LEU:HD21	25:d:353:MET:HB2	1.96	0.47
3:r:483:MET:SD	25:d:73:GLU:HB2	2.55	0.47
6:e:364:GLU:CB	6:e:404:ILE:HD11	2.45	0.47
6:e:371:ARG:HB3	6:e:396:PHE:HB2	1.96	0.47
6:e:553:ARG:HG3	6:e:583:THR:O	2.14	0.47
6:e:750:THR:HG22	6:e:751:PRO:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:az:90:GLN:HE22	9:ax:101:MET:HG3	1.79	0.47
9:ax:117:LYS:HZ2	9:ax:119:ASN:HB2	1.79	0.47
11:au:69:ASP:OD1	11:au:69:ASP:N	2.47	0.47
14:ag:466:LEU:HD21	19:ab:404:ALA:HB2	1.96	0.47
15:af:381:ARG:HA	15:af:533:GLU:HB2	1.97	0.47
15:af:523:THR:OG1	15:af:526:HIS:N	2.29	0.47
16:ae:260:LEU:HD21	19:ab:1072:TYR:CE2	2.49	0.47
16:ae:571:MET:HG3	19:ab:821:ASN:OD1	2.15	0.47
17:l:195:LEU:HD11	17:l:387:GLU:HA	1.96	0.47
17:l:210:ALA:O	17:l:373:ILE:HD13	2.13	0.47
17:l:232:PRO:HD2	17:l:235:PHE:CD2	2.49	0.47
17:l:259:ALA:HA	17:l:367:PRO:HG3	1.97	0.47
17:l:542:ALA:HA	17:l:545:PHE:CD2	2.49	0.47
18:ac:248:TYR:CG	18:ac:252:ARG:HG2	2.49	0.47
18:ac:795:LEU:HB2	18:ac:928:ARG:HD3	1.96	0.47
18:ac:987:ASN:OD1	18:ac:987:ASN:N	2.36	0.47
19:ab:722:ARG:HE	19:ab:801:LEU:HD11	1.79	0.47
19:ab:898:ALA:O	19:ab:913:ARG:HB3	2.15	0.47
20:ad:632:ARG:O	20:ad:636:LEU:HG	2.14	0.47
24:c:264:ARG:HH21	24:c:266:ILE:HD13	1.79	0.47
25:d:362:GLU:HG3	25:d:417:LEU:HD11	1.97	0.47
27:av:192:MET:HE3	27:av:192:MET:HB3	1.75	0.47
28:at:218:PRO:HA	28:at:221:GLU:CD	2.39	0.47
29:ar:169:VAL:HG12	29:ar:170:PRO:HD2	1.97	0.47
31:ap:172:ARG:HD2	48:b:154:TRP:CD1	2.49	0.47
34:an:17:ALA:HB2	52:aa:1078:PHE:CE2	2.50	0.47
34:an:163:ILE:CD1	34:an:164:PRO:HD2	2.44	0.47
35:z:388:ASN:OD1	35:z:388:ASN:N	2.41	0.47
35:z:549:ILE:O	35:z:775:SER:HA	2.14	0.47
37:x:105:SER:O	37:x:109:VAL:HG23	2.14	0.47
37:x:179:LEU:HD22	37:x:191:ALA:HB2	1.95	0.47
37:x:195:ALA:N	44:p:175:ILE:O	2.41	0.47
38:w:87:ASP:H	38:w:90:GLN:HG3	1.78	0.47
40:bb:129:ARG:N	56:2:363:A:H62	2.12	0.47
46:g:178:MET:SD	46:g:179:LYS:HG3	2.54	0.47
48:b:8:LEU:HD23	48:b:89:VAL:HG21	1.96	0.47
50:a:372:MET:HE1	50:a:433:LEU:HD12	1.95	0.47
51:bc:290:TYR:O	51:bc:310:SER:OG	2.20	0.47
51:bc:316:GLY:C	51:bc:320:LYS:HD3	2.40	0.47
52:aa:99:HIS:HB3	52:aa:101:GLU:OE1	2.13	0.47
52:aa:359:ALA:HB1	56:2:207:A:N1	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:k:21:ARG:NH1	56:2:196:U:H5''	2.29	0.47
53:k:93:ASP:HB3	53:k:146:HIS:CE1	2.49	0.47
56:2:145:A:H61	56:2:271:A:C2'	2.26	0.47
56:2:294:A:O2'	56:2:313:A:N3	2.39	0.47
1:u:666:PHE:CG	6:e:444:ASP:CA	2.98	0.47
3:r:148:ASP:HB3	3:r:400:GLN:NE2	2.30	0.47
3:r:172:LEU:HD11	3:r:211:PHE:HE1	1.79	0.47
3:r:466:ARG:HH22	7:az:29:PRO:HB3	1.79	0.47
3:r:468:GLU:HG3	7:az:63:LYS:NZ	2.30	0.47
6:e:34:ASN:OD1	6:e:34:ASN:N	2.46	0.47
6:e:195:ALA:C	6:e:197:ASN:H	2.21	0.47
6:e:580:TYR:HA	6:e:584:GLY:HA2	1.96	0.47
8:ay:213:THR:O	8:ay:216:HIS:HB2	2.14	0.47
13:aj:129:ALA:HB2	13:aj:168:TYR:HD1	1.79	0.47
13:aj:239:VAL:HG13	13:aj:273:TYR:CD2	2.50	0.47
14:ag:33:VAL:H	19:ab:1049:GLN:NE2	2.13	0.47
14:ag:56:GLU:HG2	18:ac:1091:SER:HA	1.94	0.47
14:ag:223:HIS:HA	14:ag:226:ALA:HB3	1.95	0.47
15:af:325:SER:O	15:af:381:ARG:NH2	2.48	0.47
16:ae:565:GLN:HG3	19:ab:649:LEU:HD21	1.95	0.47
17:l:681:PHE:CE1	17:l:684:ARG:HD3	2.50	0.47
19:ab:370:ALA:O	19:ab:375:LEU:N	2.48	0.47
20:ad:204:GLN:HE22	52:aa:214:TRP:CG	2.32	0.47
20:ad:675:LEU:HD13	52:aa:248:ARG:HG3	1.95	0.47
20:ad:732:ARG:HG3	33:ai:164:ARG:CZ	2.45	0.47
21:m:186:ARG:HA	21:m:187:PRO:HD3	1.76	0.47
22:i:74:TRP:HZ3	40:bb:183:PHE:HE2	1.63	0.47
22:i:246:ASN:HA	22:i:249:LYS:HG3	1.96	0.47
22:i:301:TRP:HZ2	53:k:182:VAL:HG11	1.79	0.47
22:i:420:ARG:HE	56:2:105:G:HO2'	1.51	0.47
25:d:301:VAL:HG21	25:d:404:LEU:HD12	1.96	0.47
25:d:358:MET:O	25:d:362:GLU:HG2	2.14	0.47
28:at:217:ARG:C	28:at:219:ASN:H	2.23	0.47
29:ar:105:PRO:HG2	29:ar:221:PHE:HE2	1.78	0.47
30:aq:39:ASP:OD1	30:aq:39:ASP:N	2.46	0.47
33:ai:42:ASP:HB3	33:ai:45:ARG:NH2	2.29	0.47
35:z:183:MET:SD	48:b:119:ASP:HB3	2.54	0.47
37:x:224:VAL:HG13	37:x:228:LEU:HD23	1.97	0.47
37:x:308:TYR:CE1	52:aa:1182:PRO:HD3	2.49	0.47
38:w:70:THR:HG23	38:w:104:ILE:HG12	1.96	0.47
39:v:195:PHE:CD1	56:2:315:A:H8	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:al:51:ARG:HD2	49:bd:58:LEU:HD11	1.95	0.47
45:Ca:134:LEU:HD21	50:a:352:PHE:CZ	2.50	0.47
45:Ca:232:LEU:O	45:Ca:233:GLN:C	2.55	0.47
45:Ca:263:LYS:HZ1	45:Ca:265:ARG:HB2	1.79	0.47
45:Ca:398:GLY:HA3	45:Ca:503:PHE:CD1	2.49	0.47
45:Ca:526:PRO:HB3	52:aa:369:ARG:CD	2.43	0.47
47:j:65:LEU:HD22	47:j:65:LEU:HA	1.73	0.47
50:a:162:TRP:HA	50:a:184:PRO:HA	1.96	0.47
50:a:216:ARG:HG2	50:a:225:LEU:HD12	1.97	0.47
50:a:421:ILE:HB	50:a:425:THR:HB	1.95	0.47
52:aa:124:LYS:HZ3	56:2:71:U:P	2.36	0.47
52:aa:369:ARG:N	52:aa:369:ARG:HD2	2.29	0.47
56:2:111:A:N3	56:2:113:U:H2'	2.29	0.47
56:2:205:A:O2'	56:2:206:A:OP2	2.31	0.47
56:2:219:G:N2	56:2:258:U:O2	2.48	0.47
56:2:233:C:H4'	56:2:234:C:C5'	2.45	0.47
1:u:282:VAL:HG21	1:u:633:LEU:HD12	1.97	0.47
3:r:131:LYS:HD2	3:r:134:VAL:HG21	1.97	0.47
3:r:167:ARG:HE	3:r:173:THR:HB	1.80	0.47
6:e:45:ASP:OD2	42:al:283:TRP:HB2	2.14	0.47
6:e:166:VAL:HG22	6:e:171:GLN:NE2	2.30	0.47
6:e:177:SER:O	6:e:180:GLN:N	2.37	0.47
6:e:580:TYR:HE1	6:e:595:VAL:HA	1.80	0.47
7:az:118:ARG:HH12	7:az:160:GLY:N	2.10	0.47
9:ax:98:HIS:CD2	9:ax:99:PRO:HD2	2.49	0.47
9:ax:124:ARG:O	9:ax:128:VAL:HG23	2.14	0.47
14:ag:180:MET:HG2	17:l:664:TRP:CZ3	2.48	0.47
14:ag:235:MET:HE1	16:ae:503:TYR:HE1	1.79	0.47
15:af:231:PHE:HA	15:af:234:GLU:HG2	1.96	0.47
15:af:539:ALA:HB1	15:af:616:ALA:HB3	1.96	0.47
15:af:652:LYS:O	15:af:656:GLU:HB3	2.14	0.47
17:l:605:GLN:NE2	19:ab:693:MET:HB2	2.29	0.47
18:ac:288:LYS:O	18:ac:292:LYS:HG2	2.15	0.47
19:ab:334:ASN:HB2	19:ab:346:LEU:HD11	1.96	0.47
19:ab:701:GLN:HA	19:ab:704:LYS:HD2	1.97	0.47
19:ab:1001:GLU:N	19:ab:1001:GLU:OE2	2.46	0.47
20:ad:94:LYS:HE2	53:k:12:TRP:HD1	1.80	0.47
20:ad:233:ASN:ND2	33:ai:189:ILE:HB	2.30	0.47
20:ad:590:TRP:CD1	20:ad:590:TRP:H	2.31	0.47
21:m:16:PHE:CE2	35:z:777:TRP:CD1	3.03	0.47
21:m:23:TRP:HH2	35:z:512:HIS:HD2	1.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:m:38:TYR:CE1	44:p:99:ALA:HB1	2.50	0.47
21:m:126:TYR:OH	48:b:125:GLU:OE2	2.24	0.47
25:d:195:ARG:HA	37:x:185:GLU:HG2	1.96	0.47
27:av:95:LEU:HA	27:av:136:LEU:HD21	1.96	0.47
28:at:220:MET:HG3	41:t:229:GLY:O	2.15	0.47
30:aq:39:ASP:OD1	30:aq:40:HIS:HD2	1.98	0.47
34:an:230:ALA:O	34:an:233:THR:N	2.43	0.47
35:z:97:HIS:CD2	35:z:98:GLN:HG3	2.50	0.47
35:z:244:LYS:HE2	35:z:275:ALA:HB3	1.96	0.47
35:z:317:ALA:HB1	35:z:348:VAL:HG23	1.95	0.47
35:z:425:TYR:CD1	35:z:822:GLU:HB3	2.48	0.47
35:z:1052:LEU:O	35:z:1056:LEU:HG	2.15	0.47
39:v:210:ARG:HD2	39:v:214:ASN:CB	2.44	0.47
41:t:22:LEU:HD13	47:j:21:LEU:HD22	1.96	0.47
41:t:56:GLU:O	41:t:59:VAL:HG12	2.14	0.47
41:t:81:GLU:HA	41:t:84:ARG:HG3	1.95	0.47
41:t:166:ALA:HA	41:t:171:TRP:HE1	1.80	0.47
48:b:73:GLU:O	48:b:76:MET:HE2	2.15	0.47
50:a:13:ASN:OD1	50:a:13:ASN:N	2.39	0.47
50:a:44:GLU:HG3	50:a:90:TYR:CE1	2.50	0.47
51:bc:231:ARG:HE	51:bc:231:ARG:HB3	1.48	0.47
52:aa:272:ASP:O	52:aa:283:ARG:HD3	2.14	0.47
55:as:227:ALA:HB1	55:as:229:ARG:HH22	1.80	0.47
56:A:397:U:H3'	56:A:398:U:H5'	1.95	0.47
56:2:166:A:C6	56:2:168:A:C2	3.03	0.47
56:2:288:U:C2	56:2:289:U:C5	3.02	0.47
56:2:365:A:H4'	56:2:366:U:C2	2.49	0.47
56:2:386:A:H2'	56:2:387:U:O4'	2.15	0.47
1:u:46:VAL:HG23	1:u:47:VAL:HG23	1.96	0.47
1:u:398:HIS:HD1	1:u:400:LEU:HG	1.79	0.47
1:u:783:TYR:OH	6:e:453:ASP:N	2.34	0.47
3:r:19:VAL:HG21	9:ax:167:MET:HB3	1.96	0.47
3:r:93:LEU:HD13	3:r:98:MET:HG2	1.97	0.47
3:r:370:PHE:CD2	10:aw:56:PHE:HA	2.49	0.47
3:r:382:LEU:HB2	3:r:384:GLU:HG2	1.97	0.47
4:n:87:GLU:CD	4:n:101:SER:H	2.22	0.47
6:e:709:HIS:CE1	6:e:712:HIS:HE1	2.32	0.47
6:e:776:ASP:OD1	6:e:776:ASP:N	2.48	0.47
6:e:811:ARG:HD3	6:e:815:TRP:CD2	2.50	0.47
11:au:43:ASP:HB3	11:au:51:ARG:CG	2.44	0.47
12:ak:106:ILE:HD11	18:ac:1024:LEU:HD23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:ak:129:LEU:HD11	12:ak:143:HIS:HB3	1.96	0.47
12:ak:160:LEU:HG	18:ac:1039:ASN:CG	2.40	0.47
13:aj:105:ILE:O	13:aj:109:HIS:NE2	2.47	0.47
13:aj:106:ASN:HD22	13:aj:107:THR:HG22	1.79	0.47
13:aj:268:PHE:HZ	56:A:433:U:C2	2.32	0.47
15:af:40:HIS:CG	15:af:40:HIS:O	2.68	0.47
15:af:42:PRO:HA	25:d:254:LYS:HZ1	1.78	0.47
15:af:90:MET:HE3	15:af:90:MET:HB2	1.82	0.47
15:af:262:PRO:HG2	15:af:271:VAL:HG21	1.96	0.47
16:ae:30:VAL:HG12	16:ae:33:GLN:H	1.79	0.47
16:ae:75:LEU:HD23	16:ae:75:LEU:HA	1.82	0.47
16:ae:256:GLY:HA2	16:ae:260:LEU:HB2	1.97	0.47
16:ae:523:GLN:H	16:ae:534:ARG:NH1	2.13	0.47
16:ae:555:GLU:HG3	16:ae:575:HIS:CE1	2.50	0.47
17:l:640:PHE:CE1	17:l:644:GLU:HG3	2.50	0.47
18:ac:176:GLU:HA	18:ac:179:ARG:NH2	2.26	0.47
18:ac:205:VAL:HG11	18:ac:211:LEU:HA	1.96	0.47
18:ac:259:ARG:O	18:ac:263:LEU:HB2	2.14	0.47
18:ac:446:PHE:CE2	18:ac:448:PRO:HG3	2.50	0.47
18:ac:516:ARG:HD2	18:ac:516:ARG:HA	1.60	0.47
18:ac:639:LEU:HD12	18:ac:658:ILE:HD11	1.97	0.47
18:ac:878:LEU:O	18:ac:882:ARG:HG3	2.14	0.47
19:ab:263:ASP:O	19:ab:267:LEU:HG	2.14	0.47
19:ab:567:GLU:HG3	19:ab:571:ARG:HH11	1.78	0.47
19:ab:855:GLU:HB3	19:ab:933:TRP:CE2	2.49	0.47
19:ab:956:LEU:HD12	19:ab:999:ILE:HD11	1.96	0.47
19:ab:990:ALA:HB3	19:ab:993:TYR:HD2	1.80	0.47
20:ad:28:MET:SD	24:c:243:LEU:HD11	2.55	0.47
20:ad:42:MET:HG2	53:k:76:TRP:HZ3	1.80	0.47
20:ad:146:ARG:NH2	20:ad:337:LEU:O	2.48	0.47
20:ad:179:ALA:O	20:ad:183:THR:HG23	2.14	0.47
20:ad:238:GLU:CD	33:ai:21:HIS:N	2.73	0.47
20:ad:556:TRP:HA	20:ad:560:MET:SD	2.55	0.47
20:ad:659:PHE:CZ	43:q:46:TRP:HZ3	2.32	0.47
20:ad:674:GLU:O	20:ad:675:LEU:HD23	2.14	0.47
21:m:212:TRP:HD1	46:g:119:VAL:HG22	1.79	0.47
22:i:296:ARG:HD3	53:k:189:TYR:HE1	1.80	0.47
22:i:339:ARG:NE	22:i:340:ASP:OD2	2.39	0.47
22:i:387:VAL:HG23	27:av:215:PRO:HB3	1.97	0.47
22:i:422:ALA:HB3	56:2:104:A:H3'	1.96	0.47
23:f:201:ARG:HH11	56:2:304:U:H3'	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:c:39:GLN:H	24:c:39:GLN:HG3	1.48	0.47
25:d:106:ASN:HD22	25:d:107:THR:H	1.61	0.47
25:d:147:VAL:HG21	25:d:150:LEU:HB2	1.97	0.47
25:d:426:ARG:CZ	56:A:528:U:C4	2.98	0.47
28:at:24:PRO:HG2	28:at:33:LEU:HD21	1.95	0.47
28:at:169:PHE:HD2	28:at:171:ALA:HB2	1.80	0.47
29:ar:65:TRP:CD1	29:ar:65:TRP:H	2.31	0.47
29:ar:151:ARG:HD2	29:ar:171:GLU:HB2	1.95	0.47
29:ar:187:ARG:HA	29:ar:191:GLU:OE1	2.15	0.47
29:ar:247:ASP:N	29:ar:247:ASP:OD1	2.47	0.47
30:aq:143:ASN:CB	41:t:141:GLY:HA3	2.45	0.47
32:ao:101:ILE:O	32:ao:123:PHE:HB2	2.13	0.47
33:ai:267:PRO:HG2	33:ai:269:GLU:HB2	1.96	0.47
33:ai:301:MET:HE2	33:ai:301:MET:HB3	1.53	0.47
34:an:167:LYS:NZ	50:a:346:ASP:H	2.13	0.47
35:z:67:ASN:OD1	35:z:67:ASN:N	2.44	0.47
35:z:173:LEU:HD23	35:z:173:LEU:HA	1.74	0.47
35:z:569:TYR:CG	35:z:734:PRO:HD3	2.50	0.47
35:z:1094:ASP:OD1	35:z:1095:ASP:N	2.47	0.47
36:y:159:VAL:HG12	36:y:188:PRO:HA	1.96	0.47
36:y:198:ARG:O	36:y:201:SER:OG	2.30	0.47
36:y:273:PHE:O	36:y:277:GLN:HG2	2.14	0.47
38:w:49:THR:HA	41:t:233:ASP:O	2.14	0.47
39:v:29:TYR:OH	50:a:188:GLU:HB3	2.14	0.47
40:bb:140:PHE:CE1	56:2:371:U:H5'	2.49	0.47
41:t:10:ARG:NE	56:2:76:A:OP1	2.47	0.47
41:t:49:GLY:HA3	56:2:51:U:OP1	2.14	0.47
41:t:218:PRO:HA	41:t:221:VAL:HG12	1.96	0.47
42:al:273:TYR:CE2	56:A:467:A:N7	2.83	0.47
43:q:13:ARG:HH21	43:q:26:ARG:NE	2.13	0.47
43:q:190:GLU:H	48:b:15:ARG:HD3	1.80	0.47
44:p:97:GLU:O	44:p:101:LYS:HG3	2.14	0.47
44:p:102:SER:OG	44:p:105:LEU:HB2	2.14	0.47
44:p:121:PRO:HA	44:p:124:ARG:HG2	1.96	0.47
45:Ca:281:GLU:OE1	52:aa:964:ARG:NH1	2.47	0.47
46:g:108:PHE:CE1	46:g:112:MET:HE3	2.49	0.47
47:j:39:TRP:O	47:j:71:HIS:HE1	1.97	0.47
47:j:48:VAL:HG23	47:j:65:LEU:HG	1.97	0.47
48:b:2:VAL:HG21	48:b:68:GLN:OE1	2.14	0.47
48:b:47:PRO:HG3	48:b:51:PHE:CE2	2.50	0.47
49:bd:55:LEU:HD12	49:bd:56:ASN:H	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:108:ILE:HD13	52:aa:138:ARG:O	2.15	0.47
52:aa:424:ARG:O	52:aa:428:ILE:HG13	2.15	0.47
52:aa:501:MET:HG3	52:aa:505:ARG:CZ	2.45	0.47
52:aa:575:LEU:HD13	52:aa:874:LEU:N	2.30	0.47
52:aa:637:ASP:HB3	52:aa:808:VAL:O	2.14	0.47
52:aa:709:LYS:HB3	52:aa:711:ASP:CG	2.40	0.47
52:aa:846:GLN:HB2	52:aa:847:ILE:HD12	1.97	0.47
52:aa:979:ASP:OD1	52:aa:979:ASP:N	2.48	0.47
52:aa:1236:PHE:CE1	52:aa:1240:LEU:HD21	2.49	0.47
52:aa:1259:ASN:O	52:aa:1263:GLU:HG2	2.15	0.47
52:aa:1335:LEU:HG	52:aa:1358:TRP:CZ3	2.50	0.47
54:be:14:PHE:HD2	54:be:61:PHE:HE2	1.63	0.47
55:as:84:PHE:CD1	55:as:172:HIS:HB2	2.45	0.47
56:2:60:A:H4'	56:2:154:G:H5''	1.97	0.47
56:2:217:U:H3'	56:2:218:A:C8	2.50	0.47
56:2:294:A:OP2	56:2:294:A:H8	1.98	0.47
1:u:602:GLU:OE2	1:u:619:PRO:HB2	2.15	0.47
3:r:98:MET:HE3	9:ax:73:MET:SD	2.55	0.47
3:r:148:ASP:OD1	3:r:149:GLY:N	2.48	0.47
6:e:151:ARG:NH2	10:aw:142:ASP:OD2	2.48	0.47
6:e:731:TRP:O	6:e:735:THR:HG22	2.15	0.47
11:au:63:HIS:HB2	19:ab:412:TYR:CE2	2.50	0.47
12:ak:34:HIS:O	12:ak:34:HIS:ND1	2.46	0.47
13:aj:236:ARG:HG2	13:aj:276:LEU:HD11	1.97	0.47
14:ag:137:LEU:HD23	14:ag:174:ALA:HB2	1.96	0.47
14:ag:557:ARG:NH1	17:l:83:PRO:HD2	2.13	0.47
15:af:649:LYS:HD2	15:af:652:LYS:HE2	1.96	0.47
16:ae:42:LEU:HD23	16:ae:42:LEU:HA	1.74	0.47
17:l:385:LEU:HA	17:l:388:ILE:HD12	1.96	0.47
17:l:439:ARG:NH1	17:l:443:LEU:HD13	2.30	0.47
17:l:498:TRP:HZ3	19:ab:83:GLY:O	1.97	0.47
18:ac:126:MET:HB3	18:ac:531:TYR:HD1	1.79	0.47
18:ac:184:TRP:CH2	18:ac:208:LEU:HD22	2.50	0.47
18:ac:273:THR:O	18:ac:277:GLU:HG2	2.15	0.47
19:ab:739:ASP:HB3	19:ab:786:ARG:NH2	2.28	0.47
20:ad:269:LYS:HZ1	53:k:84:ILE:C	2.21	0.47
20:ad:618:ALA:HA	20:ad:621:TRP:CE3	2.49	0.47
21:m:131:THR:HG23	21:m:134:ARG:HD3	1.96	0.47
23:f:311:PRO:O	46:g:74:GLN:NE2	2.48	0.47
24:c:121:LEU:HD22	43:q:111:GLY:C	2.40	0.47
25:d:18:LEU:HD23	25:d:21:ASN:HD22	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:ao:165:LYS:H	32:ao:165:LYS:HG2	1.47	0.47
32:ao:189:CYS:SG	32:ao:193:GLU:HB3	2.54	0.47
33:ai:30:SER:OG	33:ai:31:HIS:N	2.48	0.47
33:ai:407:TRP:O	43:q:119:HIS:CE1	2.68	0.47
34:an:252:LYS:HZ3	34:an:256:GLU:CD	2.22	0.47
35:z:124:CYS:HB2	35:z:127:GLN:HG3	1.96	0.47
35:z:881:VAL:HG21	35:z:891:ARG:HB3	1.95	0.47
40:bb:190:GLY:HA3	56:2:567:A:C2	2.50	0.47
43:q:40:TRP:HB3	55:as:238:LEU:HD21	1.97	0.47
45:Ca:13:PHE:HZ	56:2:217:U:O2'	1.97	0.47
45:Ca:160:LEU:HD12	45:Ca:161:GLU:N	2.30	0.47
45:Ca:231:GLN:HE22	49:bd:38:ILE:HG23	1.79	0.47
45:Ca:528:THR:OG1	45:Ca:530:ASP:O	2.30	0.47
47:j:56:ASN:ND2	47:j:58:ASP:HB2	2.29	0.47
49:bd:69:PHE:HE1	49:bd:71:ILE:HD11	1.80	0.47
51:bc:228:HIS:HB3	51:bc:242:LYS:NZ	2.30	0.47
52:aa:579:ILE:HD11	52:aa:871:GLU:HA	1.97	0.47
52:aa:1014:GLU:HG2	52:aa:1016:TRP:CZ3	2.50	0.47
52:aa:1546:THR:OG1	52:aa:1547:VAL:N	2.48	0.47
52:aa:1623:ASN:O	52:aa:1626:GLY:N	2.37	0.47
56:2:28:U:H1'	56:2:239:G:N3	2.30	0.47
56:2:31:U:O2	56:2:142:U:H4'	2.15	0.47
56:2:76:A:C6	56:2:77:A:C6	3.03	0.47
56:2:135:U:H5	56:2:153:A:N7	2.13	0.47
56:2:253:U:N3	56:2:254:A:N7	2.63	0.47
1:u:322:LEU:HD12	1:u:325:THR:OG1	2.15	0.47
1:u:324:LEU:HB2	1:u:632:MET:HE2	1.96	0.47
1:u:616:VAL:HG22	6:e:310:PHE:CZ	2.50	0.47
2:s:153:ARG:NE	56:A:479:U:O2'	2.48	0.47
3:r:191:SER:H	3:r:198:PHE:HA	1.79	0.47
3:r:265:CYS:O	3:r:269:LEU:HB3	2.14	0.47
3:r:285:VAL:HG11	3:r:288:TRP:CE3	2.49	0.47
4:n:35:LYS:NZ	56:A:491:U:O3'	2.38	0.47
5:h:93:ASP:CG	5:h:114:SER:H	2.19	0.47
6:e:96:ASN:OD1	6:e:96:ASN:N	2.47	0.47
6:e:133:GLN:OE1	6:e:225:LYS:HB2	2.15	0.47
6:e:226:ARG:O	6:e:228:VAL:N	2.46	0.47
8:ay:181:THR:HG23	8:ay:182:THR:N	2.29	0.47
12:ak:54:VAL:O	12:ak:57:THR:OG1	2.30	0.47
13:aj:276:LEU:HD22	13:aj:284:LEU:HD11	1.97	0.47
14:ag:210:ASN:OD1	14:ag:246:THR:OG1	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:ag:565:HIS:NE2	14:ag:567:ASN:OD1	2.48	0.47
15:af:124:PHE:CZ	15:af:142:LEU:HD11	2.50	0.47
15:af:278:ASP:CB	15:af:322:LEU:HB2	2.45	0.47
16:ae:336:TYR:HE1	16:ae:345:LEU:HD21	1.80	0.47
17:l:494:SER:HB3	17:l:497:ASP:HB2	1.97	0.47
19:ab:93:ASP:OD2	19:ab:95:ALA:HB3	2.15	0.47
19:ab:932:ILE:HD11	19:ab:942:ARG:NH2	2.27	0.47
20:ad:21:ARG:NH2	56:2:274:A:OP2	2.47	0.47
20:ad:130:PHE:HB2	20:ad:133:GLU:HG3	1.97	0.47
20:ad:242:LEU:HD11	20:ad:248:ASP:CA	2.38	0.47
20:ad:468:MET:HE3	20:ad:468:MET:HB2	1.82	0.47
21:m:94:LEU:O	21:m:98:ARG:HB2	2.15	0.47
25:d:147:VAL:CG2	25:d:150:LEU:HB2	2.45	0.47
28:at:28:TYR:CE2	47:j:74:LYS:HD2	2.50	0.47
28:at:69:ASP:O	28:at:96:TRP:HB3	2.15	0.47
28:at:211:CYS:O	28:at:215:SER:N	2.48	0.47
29:ar:80:PRO:O	29:ar:83:ASN:ND2	2.48	0.47
29:ar:113:LEU:HD23	29:ar:113:LEU:HA	1.71	0.47
30:aq:21:LEU:HD12	30:aq:21:LEU:HA	1.67	0.47
30:aq:51:LEU:HB3	30:aq:75:ARG:NH1	2.30	0.47
30:aq:177:LEU:HD11	41:t:83:LEU:HD12	1.97	0.47
32:ao:191:LEU:HB2	52:aa:934:PHE:CE1	2.50	0.47
34:an:65:THR:OG1	34:an:69:TYR:HB3	2.15	0.47
35:z:105:ASP:OD2	42:al:177:ARG:NH2	2.48	0.47
35:z:149:SER:H	35:z:153:HIS:HD2	1.57	0.47
35:z:724:GLY:HA2	35:z:734:PRO:HA	1.97	0.47
35:z:1002:SER:HB2	52:aa:511:GLU:O	2.15	0.47
35:z:1060:LEU:HA	35:z:1063:VAL:HG23	1.97	0.47
35:z:1071:ARG:HH12	45:Ca:94:TRP:N	2.10	0.47
37:x:184:LEU:HD12	37:x:184:LEU:HA	1.67	0.47
37:x:267:TYR:CB	37:x:280:PHE:HE2	2.16	0.47
39:v:163:PRO:HD3	46:g:93:GLY:HA2	1.96	0.47
39:v:191:LYS:NZ	56:2:336:U:H5"	2.30	0.47
40:bb:140:PHE:O	40:bb:140:PHE:CG	2.68	0.47
41:t:224:LEU:HD22	43:q:38:TRP:HZ3	1.79	0.47
42:al:56:GLY:O	42:al:60:ARG:NE	2.48	0.47
45:Ca:250:MET:HG3	45:Ca:253:ARG:NH1	2.30	0.47
50:a:75:ALA:O	50:a:78:LYS:NZ	2.47	0.47
52:aa:419:VAL:HA	52:aa:458:LEU:CD1	2.45	0.47
52:aa:644:ARG:N	52:aa:645:PRO:HD2	2.29	0.47
52:aa:949:GLY:O	52:aa:951:TRP:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:987:GLN:HA	52:aa:990:ARG:HG2	1.95	0.47
53:k:51:PHE:CZ	53:k:58:HIS:HB3	2.50	0.47
56:2:229:G:C4	56:2:230:A:C8	3.03	0.47
56:2:555:A:H2'	56:2:556:C:C6	2.50	0.47
1:u:172:ILE:HG12	1:u:185:LEU:HD22	1.97	0.47
1:u:804:LEU:HA	1:u:807:TYR:HD2	1.80	0.47
3:r:145:PHE:CD1	3:r:397:HIS:HB3	2.49	0.47
4:n:123:PRO:HG3	8:ay:87:VAL:HG11	1.97	0.47
5:h:79:TYR:OH	16:ae:58:ASP:O	2.33	0.47
6:e:166:VAL:HG23	6:e:170:HIS:ND1	2.30	0.47
6:e:224:ASN:ND2	10:aw:130:THR:O	2.48	0.47
6:e:249:GLU:HA	6:e:400:PHE:HD1	1.79	0.47
8:ay:97:LYS:NZ	8:ay:101:GLU:HB3	2.30	0.47
10:aw:37:PHE:HE1	56:A:499:U:O4'	1.97	0.47
13:aj:101:ILE:HG23	13:aj:139:LEU:HD21	1.97	0.47
14:ag:256:LEU:HD13	14:ag:292:GLU:OE2	2.15	0.47
15:af:659:GLU:CD	15:af:673:TRP:HE1	2.23	0.47
16:ae:60:PRO:HG3	16:ae:67:TYR:HB2	1.97	0.47
16:ae:128:HIS:CD2	56:A:420:A:H2'	2.50	0.47
16:ae:214:LEU:HB2	16:ae:239:CYS:SG	2.55	0.47
16:ae:278:ILE:HD12	16:ae:322:TYR:CD1	2.50	0.47
16:ae:348:ASP:N	16:ae:348:ASP:OD1	2.47	0.47
17:l:653:GLU:HA	17:l:656:GLU:HG2	1.97	0.47
17:l:667:LYS:HA	17:l:671:MET:HB2	1.97	0.47
18:ac:68:TRP:O	18:ac:73:ASN:HB2	2.15	0.47
18:ac:78:HIS:HA	18:ac:81:LEU:HD13	1.97	0.47
18:ac:183:LYS:HE2	18:ac:183:LYS:HB2	1.73	0.47
18:ac:492:THR:HA	18:ac:525:TYR:HE2	1.79	0.47
18:ac:907:ARG:NH2	18:ac:919:GLU:OE2	2.48	0.47
19:ab:608:VAL:HG13	19:ab:643:TYR:HB2	1.96	0.47
19:ab:890:SER:OG	19:ab:891:PRO:HD2	2.15	0.47
20:ad:38:ARG:HE	52:aa:97:LEU:CD2	2.27	0.47
20:ad:590:TRP:CZ3	20:ad:595:LEU:HD21	2.50	0.47
20:ad:678:PRO:HD2	45:Ca:422:TYR:CZ	2.50	0.47
21:m:48:TYR:CE1	44:p:68:GLU:HG3	2.49	0.47
21:m:137:THR:HG22	21:m:138:ARG:H	1.80	0.47
24:c:107:PRO:HD3	35:z:288:SER:O	2.15	0.47
25:d:265:SER:HA	25:d:271:HIS:ND1	2.29	0.47
27:av:101:THR:HB	27:av:222:LYS:CD	2.45	0.47
32:ao:191:LEU:HB2	52:aa:934:PHE:CZ	2.50	0.47
32:ao:196:LEU:HD11	52:aa:499:MET:SD	2.55	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:an:175:ILE:HD12	34:an:178:ARG:CZ	2.46	0.47
34:an:257:VAL:HG21	50:a:51:VAL:HG13	1.97	0.47
35:z:162:ARG:NH2	46:g:77:ARG:HE	2.13	0.47
35:z:462:ARG:C	35:z:464:GLY:H	2.23	0.47
35:z:599:GLU:HG2	35:z:639:GLN:CD	2.40	0.47
35:z:790:PRO:HB3	35:z:899:LEU:HA	1.97	0.47
36:y:196:GLU:HG3	37:x:301:GLU:HB3	1.95	0.47
38:w:33:GLU:HB3	47:j:88:HIS:CD2	2.50	0.47
41:t:40:TRP:CD1	41:t:41:THR:HG1	2.33	0.47
42:al:40:THR:CG2	49:bd:57:VAL:HG11	2.40	0.47
45:Ca:161:GLU:HA	45:Ca:223:GLN:NE2	2.30	0.47
52:aa:100:ASP:OD1	52:aa:100:ASP:N	2.36	0.47
52:aa:106:PHE:C	52:aa:108:ILE:H	2.22	0.47
52:aa:789:THR:HA	52:aa:792:GLU:HB2	1.97	0.47
52:aa:900:LYS:HD2	52:aa:907:HIS:CD2	2.50	0.47
52:aa:1491:PHE:O	52:aa:1495:VAL:HG23	2.15	0.47
55:as:34:ASN:O	55:as:40:PHE:HB2	2.15	0.47
56:A:453:A:H8	56:A:453:A:O5'	1.98	0.47
1:u:107:SER:O	1:u:107:SER:OG	2.33	0.46
2:s:23:LEU:HD13	6:e:753:TYR:CD1	2.50	0.46
3:r:60:HIS:ND1	3:r:106:PRO:HG3	2.30	0.46
6:e:133:GLN:HG3	6:e:225:LYS:HA	1.97	0.46
6:e:150:ASN:HA	6:e:202:ARG:HD2	1.98	0.46
6:e:480:LEU:HD11	16:ae:213:HIS:HE2	1.79	0.46
7:az:86:SER:O	7:az:87:ARG:NH2	2.48	0.46
9:ax:33:ASN:O	9:ax:35:LYS:HG3	2.14	0.46
11:au:220:ASP:N	11:au:220:ASP:OD1	2.49	0.46
12:ak:267:GLU:OE1	18:ac:480:TYR:HB2	2.15	0.46
13:aj:284:LEU:HA	59:aj:401:UTP:O2B	2.15	0.46
14:ag:130:TYR:HA	14:ag:133:LEU:HD12	1.97	0.46
15:af:609:PRO:HG3	15:af:665:PHE:CE2	2.50	0.46
17:l:83:PRO:HA	17:l:86:LEU:HB3	1.96	0.46
17:l:658:SER:O	17:l:658:SER:OG	2.30	0.46
18:ac:188:THR:O	18:ac:192:GLU:HG2	2.15	0.46
18:ac:241:PRO:HG2	18:ac:462:PHE:CD1	2.49	0.46
19:ab:1014:ASP:O	19:ab:1035:ARG:HD3	2.14	0.46
20:ad:195:ASP:HA	20:ad:198:LYS:HG3	1.97	0.46
21:m:65:GLN:NE2	21:m:70:ARG:HH22	2.13	0.46
21:m:179:TRP:O	21:m:182:SER:OG	2.21	0.46
22:i:299:ALA:HB1	56:2:327:U:H3	1.80	0.46
23:f:206:VAL:HG22	23:f:218:THR:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:f:305:TYR:HD1	46:g:47:GLU:HA	1.80	0.46
24:c:240:MET:HE3	24:c:272:VAL:HG12	1.96	0.46
25:d:101:VAL:O	44:p:103:ARG:HD2	2.15	0.46
25:d:205:ASP:H	25:d:213:ASN:HD21	1.61	0.46
28:at:187:ARG:NH2	38:w:39:GLU:OE1	2.48	0.46
29:ar:71:PRO:O	29:ar:251:MET:HG3	2.14	0.46
33:ai:21:HIS:O	33:ai:23:THR:N	2.47	0.46
34:an:25:GLU:CD	34:an:25:GLU:N	2.73	0.46
35:z:508:MET:H	35:z:508:MET:HE3	1.80	0.46
35:z:791:PHE:HE1	35:z:907:VAL:HG12	1.79	0.46
36:y:67:CYS:HB3	36:y:70:MET:HB3	1.97	0.46
38:w:149:TYR:HD1	38:w:150:ARG:HG2	1.76	0.46
42:al:48:GLN:OE1	50:a:158:ASP:HA	2.14	0.46
42:al:70:GLU:HG2	42:al:71:GLY:H	1.80	0.46
42:al:268:HIS:N	42:al:271:SER:HB3	2.26	0.46
43:q:18:LEU:HD13	55:as:234:TYR:CD2	2.50	0.46
45:Ca:475:ARG:NE	47:j:121:LYS:O	2.48	0.46
52:aa:144:GLU:H	52:aa:144:GLU:HG3	1.20	0.46
52:aa:154:PHE:CD1	53:k:76:TRP:HZ2	2.33	0.46
52:aa:340:TYR:HA	52:aa:347:PRO:HA	1.97	0.46
52:aa:521:TRP:O	52:aa:522:ARG:HD3	2.16	0.46
52:aa:576:LYS:HE2	52:aa:874:LEU:HD11	1.97	0.46
53:k:78:TYR:CD1	53:k:78:TYR:N	2.83	0.46
56:2:331:A:H2'	56:2:332:U:C6	2.50	0.46
1:u:130:MET:HG3	1:u:275:TRP:NE1	2.30	0.46
1:u:837:TRP:CD2	3:r:195:PRO:HA	2.50	0.46
3:r:66:PRO:HA	3:r:69:LEU:HB2	1.97	0.46
3:r:361:PHE:CD1	3:r:384:GLU:HB2	2.50	0.46
4:n:145:LYS:O	8:ay:99:ARG:NE	2.40	0.46
6:e:187:ARG:HH11	15:af:96:LYS:HD2	1.80	0.46
8:ay:188:PRO:HA	56:A:502:U:O3'	2.14	0.46
12:ak:163:GLU:HG3	12:ak:164:ALA:H	1.81	0.46
14:ag:183:ALA:HB2	17:l:663:ALA:CB	2.45	0.46
15:af:33:THR:HG23	19:ab:501:PHE:CE2	2.51	0.46
17:l:582:GLY:O	17:l:648:MET:HG3	2.15	0.46
18:ac:216:LYS:HE2	18:ac:501:PRO:HG2	1.96	0.46
18:ac:563:GLY:HA2	18:ac:566:ARG:HH12	1.80	0.46
18:ac:961:ARG:HB3	18:ac:963:PRO:HD2	1.97	0.46
19:ab:242:HIS:O	19:ab:246:ILE:HG13	2.15	0.46
19:ab:549:PRO:HG2	19:ab:846:TRP:CG	2.51	0.46
19:ab:740:LEU:HD21	19:ab:780:LEU:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:425:VAL:HA	20:ad:428:ARG:NH1	2.30	0.46
20:ad:463:GLU:O	20:ad:467:VAL:HG23	2.15	0.46
20:ad:734:TYR:HB2	20:ad:738:TRP:CB	2.44	0.46
22:i:130:MET:HE3	22:i:130:MET:HB2	1.74	0.46
23:f:206:VAL:HG12	23:f:207:ALA:N	2.30	0.46
24:c:63:MET:HE2	32:ao:59:PRO:O	2.15	0.46
24:c:69:LEU:HB3	24:c:74:ARG:HH12	1.79	0.46
25:d:194:SER:O	25:d:198:THR:OG1	2.14	0.46
28:at:154:THR:HG23	28:at:156:LYS:H	1.80	0.46
29:ar:218:GLN:HA	29:ar:222:GLY:O	2.15	0.46
31:ap:138:LEU:HD23	31:ap:138:LEU:HA	1.73	0.46
33:ai:33:GLU:O	33:ai:37:ILE:HG12	2.14	0.46
35:z:28:LYS:O	35:z:30:LEU:N	2.49	0.46
35:z:567:THR:O	35:z:567:THR:OG1	2.32	0.46
39:v:97:GLN:O	39:v:101:MET:HG2	2.15	0.46
42:al:276:LEU:HB3	42:al:282:PHE:HZ	1.79	0.46
43:q:164:LEU:HA	48:b:41:ASN:ND2	2.30	0.46
45:Ca:508:MET:O	45:Ca:514:ASN:ND2	2.46	0.46
46:g:173:LYS:HE2	46:g:173:LYS:HB3	1.64	0.46
47:j:15:LYS:O	47:j:19:PRO:HG3	2.15	0.46
47:j:16:ARG:CZ	56:2:46:U:C5	2.99	0.46
50:a:362:GLU:HB2	52:aa:1149:HIS:CD2	2.51	0.46
52:aa:100:ASP:O	52:aa:103:ARG:N	2.44	0.46
52:aa:276:ASP:OD1	52:aa:277:ILE:N	2.48	0.46
52:aa:701:LEU:C	52:aa:702:ILE:HD13	2.40	0.46
52:aa:1155:GLY:HA3	52:aa:1219:TYR:CZ	2.51	0.46
52:aa:1450:PHE:CD1	52:aa:1639:MET:HG2	2.50	0.46
52:aa:1492:LEU:HB3	52:aa:1609:ILE:HD13	1.98	0.46
53:k:109:VAL:HG11	53:k:147:ILE:HG13	1.97	0.46
55:as:165:SER:O	55:as:165:SER:OG	2.25	0.46
56:A:430:U:H5'	56:A:433:U:H5''	1.97	0.46
56:A:433:U:OP1	56:A:433:U:H3'	2.14	0.46
56:2:40:U:H4'	56:2:41:A:OP1	2.14	0.46
56:2:219:G:C2	56:2:220:U:C2	3.03	0.46
1:u:764:SER:HB2	6:e:441:VAL:HG21	1.98	0.46
3:r:36:ALA:HA	25:d:63:ARG:HH21	1.80	0.46
3:r:98:MET:HE1	3:r:107:ARG:HH12	1.80	0.46
3:r:113:LYS:HG3	3:r:114:GLU:OE1	2.15	0.46
4:n:161:ARG:HH11	4:n:170:LEU:HD13	1.81	0.46
6:e:465:MET:HE3	6:e:465:MET:HB2	1.73	0.46
9:ax:34:ASN:N	56:A:407:U:O2	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:aw:44:ALA:N	10:aw:47:THR:HG23	2.27	0.46
12:ak:185:HIS:O	12:ak:185:HIS:ND1	2.47	0.46
13:aj:230:LEU:HB3	13:aj:261:PHE:CD1	2.50	0.46
14:ag:316:THR:HG21	14:ag:368:HIS:CE1	2.50	0.46
14:ag:394:TRP:CD1	14:ag:395:GLY:N	2.83	0.46
14:ag:530:GLU:HB3	17:l:140:PHE:CE2	2.50	0.46
14:ag:557:ARG:CZ	14:ag:559:VAL:HB	2.45	0.46
15:af:23:PHE:HE1	19:ab:470:GLN:HG2	1.79	0.46
15:af:352:LEU:HD12	15:af:355:ALA:HB3	1.96	0.46
17:l:195:LEU:HD12	17:l:386:LEU:HD23	1.96	0.46
18:ac:43:ARG:HG3	18:ac:480:TYR:CE1	2.50	0.46
18:ac:813:ALA:HB3	18:ac:852:LEU:HD21	1.98	0.46
18:ac:969:VAL:O	18:ac:973:ARG:HG3	2.16	0.46
19:ab:717:ARG:HB2	19:ab:808:PHE:CZ	2.50	0.46
20:ad:382:PHE:CZ	27:av:33:ALA:HB2	2.50	0.46
20:ad:759:LYS:HD2	20:ad:759:LYS:HA	1.67	0.46
21:m:49:ARG:HB2	21:m:53:ARG:HB2	1.97	0.46
21:m:70:ARG:HD2	21:m:71:PHE:CE1	2.50	0.46
21:m:209:ALA:O	21:m:213:VAL:N	2.36	0.46
22:i:284:GLN:HE22	53:k:174:ARG:NH1	2.14	0.46
27:av:24:GLY:O	27:av:28:ARG:HB3	2.15	0.46
27:av:54:ASP:HB2	27:av:71:ARG:NH1	2.30	0.46
28:at:18:ARG:HH12	56:2:41:A:H4'	1.80	0.46
28:at:107:LYS:HE2	28:at:118:GLY:O	2.15	0.46
28:at:130:VAL:HG23	28:at:131:LEU:H	1.79	0.46
33:ai:144:LYS:HD2	33:ai:147:ARG:HD2	1.98	0.46
35:z:370:ALA:HB2	35:z:425:TYR:OH	2.15	0.46
39:v:181:GLN:NE2	39:v:212:PRO:HD2	2.31	0.46
41:t:48:PRO:HB2	41:t:51:VAL:HG22	1.96	0.46
41:t:103:LEU:HB3	41:t:173:MET:HE2	1.97	0.46
43:q:163:GLU:O	48:b:41:ASN:ND2	2.33	0.46
44:p:78:GLU:HG3	44:p:80:THR:H	1.80	0.46
44:p:167:GLU:HA	44:p:170:LEU:HD21	1.97	0.46
46:g:66:HIS:ND1	46:g:71:ARG:HD3	2.31	0.46
47:j:21:LEU:HD12	47:j:21:LEU:HA	1.80	0.46
47:j:56:ASN:HD21	47:j:58:ASP:HB2	1.79	0.46
50:a:257:LYS:HB3	50:a:260:ASN:OD1	2.15	0.46
52:aa:1468:LEU:HD21	52:aa:1477:TYR:CE1	2.50	0.46
53:k:147:ILE:HD13	53:k:161:VAL:HA	1.97	0.46
55:as:52:MET:HE1	55:as:86:MET:SD	2.55	0.46
56:2:320:A:C2'	56:2:321:A:H5'	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:90:TYR:HE1	19:ab:260:GLU:HG2	1.80	0.46
3:r:84:GLU:HA	3:r:87:GLN:HE21	1.79	0.46
3:r:185:GLY:H	3:r:297:PHE:HZ	1.64	0.46
3:r:224:LEU:HB3	3:r:227:THR:OG1	2.16	0.46
3:r:292:SER:O	3:r:292:SER:OG	2.32	0.46
3:r:443:LYS:HE2	3:r:465:TRP:CG	2.51	0.46
3:r:446:PHE:CD1	25:d:357:LEU:HD13	2.50	0.46
4:n:106:TYR:CD1	4:n:135:ASN:HB2	2.50	0.46
5:h:12:HIS:CE1	5:h:20:ARG:HD2	2.51	0.46
8:ay:111:ALA:HB1	19:ab:1144:TRP:CE3	2.50	0.46
8:ay:211:LEU:O	8:ay:213:THR:N	2.48	0.46
11:au:64:GLN:HG2	11:au:163:ARG:NH1	2.31	0.46
12:ak:168:TRP:CG	12:ak:184:MET:HE2	2.51	0.46
12:ak:253:ASP:O	12:ak:257:GLN:HB3	2.15	0.46
13:aj:201:ASN:CG	13:aj:234:GLU:HG3	2.41	0.46
13:aj:222:GLU:O	13:aj:226:VAL:HG23	2.14	0.46
15:af:175:GLU:HG3	15:af:195:TYR:OH	2.15	0.46
16:ae:377:THR:O	16:ae:381:THR:HG23	2.15	0.46
16:ae:568:PHE:HB3	19:ab:662:MET:HE2	1.97	0.46
18:ac:93:ARG:HE	18:ac:110:SER:HB2	1.80	0.46
18:ac:338:GLN:O	18:ac:342:VAL:HG22	2.16	0.46
18:ac:354:ASP:O	18:ac:357:SER:OG	2.23	0.46
18:ac:955:GLY:HA2	18:ac:958:HIS:HB3	1.98	0.46
19:ab:717:ARG:HD3	19:ab:811:TYR:O	2.15	0.46
20:ad:126:MET:HB2	20:ad:273:HIS:CE1	2.51	0.46
20:ad:264:LEU:HD11	53:k:85:PHE:CE1	2.50	0.46
20:ad:649:ARG:NH2	47:j:150:TYR:CZ	2.82	0.46
20:ad:660:ARG:O	20:ad:663:GLU:HG3	2.15	0.46
20:ad:734:TYR:HB2	20:ad:738:TRP:CG	2.50	0.46
21:m:162:LYS:O	21:m:166:VAL:HG23	2.16	0.46
22:i:107:LEU:HD21	22:i:236:ARG:HB3	1.96	0.46
22:i:214:HIS:O	22:i:216:PHE:N	2.48	0.46
23:f:199:ARG:HH21	46:g:20:MET:N	2.12	0.46
25:d:426:ARG:O	25:d:436:LYS:HD2	2.14	0.46
28:at:175:CYS:SG	28:at:177:SER:N	2.85	0.46
29:ar:129:GLU:OE1	29:ar:129:GLU:N	2.30	0.46
29:ar:151:ARG:O	29:ar:169:VAL:N	2.40	0.46
30:aq:18:TYR:O	30:aq:21:LEU:N	2.30	0.46
30:aq:180:TRP:CE3	30:aq:181:HIS:HB2	2.50	0.46
32:ao:239:LYS:H	32:ao:239:LYS:HG3	1.53	0.46
34:an:132:PRO:HD2	50:a:344:TYR:OH	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:an:244:ASN:HD21	45:Ca:260:GLU:HG3	1.80	0.46
34:an:272:ARG:NH1	35:z:464:GLY:O	2.43	0.46
35:z:803:VAL:HA	35:z:813:MET:SD	2.56	0.46
35:z:872:ASP:O	35:z:876:VAL:HG22	2.16	0.46
35:z:1087:THR:OG1	35:z:1090:GLU:OE1	2.33	0.46
36:y:77:THR:O	36:y:97:ARG:NH2	2.48	0.46
37:x:252:PHE:CZ	37:x:268:LEU:HD22	2.49	0.46
37:x:259:HIS:HB2	37:x:279:GLU:OE1	2.16	0.46
37:x:261:GLU:OE1	37:x:261:GLU:N	2.40	0.46
41:t:102:GLN:HE21	41:t:142:ASN:ND2	2.14	0.46
43:q:37:HIS:CE1	55:as:238:LEU:HD22	2.50	0.46
44:p:167:GLU:O	44:p:170:LEU:HG	2.15	0.46
50:a:140:PHE:HD2	50:a:169:VAL:HG12	1.80	0.46
50:a:217:VAL:HG12	50:a:224:VAL:HB	1.98	0.46
52:aa:107:TYR:HA	52:aa:110:GLU:OE2	2.15	0.46
52:aa:629:ASP:OD2	52:aa:783:HIS:NE2	2.48	0.46
52:aa:1185:VAL:HG23	52:aa:1186:PRO:O	2.15	0.46
52:aa:1654:ASP:OD1	52:aa:1654:ASP:N	2.48	0.46
1:u:75:ARG:NH1	19:ab:431:HIS:O	2.41	0.46
1:u:102:PRO:HA	15:af:22:HIS:NE2	2.31	0.46
3:r:320:LEU:HD21	19:ab:1133:ARG:NE	2.30	0.46
6:e:92:SER:O	6:e:92:SER:OG	2.25	0.46
6:e:115:GLU:HB2	19:ab:904:PHE:HA	1.97	0.46
6:e:256:VAL:HA	6:e:259:LEU:HB3	1.98	0.46
6:e:417:ARG:HA	6:e:417:ARG:NH1	2.31	0.46
7:az:16:SER:CB	9:ax:58:PRO:HD2	2.45	0.46
7:az:116:LEU:HD13	9:ax:72:TRP:CZ2	2.50	0.46
8:ay:164:ARG:HD3	19:ab:1128:GLU:O	2.15	0.46
9:ax:27:ARG:HG3	9:ax:27:ARG:O	2.15	0.46
10:aw:136:THR:HA	10:aw:146:ILE:HG23	1.97	0.46
13:aj:75:PHE:CZ	16:ae:369:LEU:HD21	2.50	0.46
13:aj:187:ASN:OD1	13:aj:188:ASP:N	2.47	0.46
14:ag:52:LYS:HA	14:ag:55:ARG:NH1	2.30	0.46
14:ag:464:GLU:OE1	18:ac:1127:GLN:NE2	2.48	0.46
16:ae:154:ASN:OD1	16:ae:155:ALA:N	2.47	0.46
16:ae:304:ARG:HA	16:ae:304:ARG:HD3	1.67	0.46
16:ae:396:GLN:HA	16:ae:399:VAL:HG22	1.97	0.46
17:l:199:PHE:CD2	17:l:386:LEU:HD11	2.49	0.46
17:l:297:ASN:N	17:l:405:LYS:O	2.37	0.46
17:l:430:SER:O	17:l:434:VAL:HG23	2.14	0.46
18:ac:449:HIS:ND1	18:ac:449:HIS:O	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:941:TRP:CZ2	18:ac:1041:LEU:HD23	2.50	0.46
18:ac:960:LEU:HD23	19:ab:227:ARG:HD2	1.98	0.46
20:ad:97:LYS:HD3	53:k:13:ASN:O	2.15	0.46
20:ad:431:LEU:HA	20:ad:434:CYS:SG	2.55	0.46
20:ad:561:HIS:HE1	55:as:193:PRO:HB3	1.80	0.46
21:m:170:LEU:HD23	21:m:170:LEU:HA	1.78	0.46
22:i:131:LYS:HD2	22:i:135:GLU:OE1	2.16	0.46
25:d:153:GLU:N	25:d:153:GLU:OE2	2.49	0.46
27:av:205:MET:HB3	27:av:205:MET:HE2	1.58	0.46
30:aq:106:GLY:H	41:t:139:ARG:HH21	1.64	0.46
31:ap:63:GLU:HA	31:ap:66:ASP:HB2	1.97	0.46
32:ao:283:PRO:HD3	50:a:114:TYR:HE1	1.80	0.46
34:an:176:ARG:O	34:an:180:GLU:HG2	2.16	0.46
34:an:283:ARG:NH1	37:x:124:ASP:OD2	2.37	0.46
35:z:243:SER:OG	35:z:244:LYS:N	2.48	0.46
35:z:339:VAL:HG12	35:z:341:THR:N	2.29	0.46
35:z:442:PRO:HD2	35:z:530:GLU:HB2	1.98	0.46
35:z:491:ASN:HD21	50:a:89:LEU:HD22	1.81	0.46
36:y:104:GLU:O	36:y:108:MET:HG3	2.15	0.46
36:y:187:TRP:CE2	44:p:297:TYR:HE1	2.32	0.46
37:x:169:THR:O	37:x:173:HIS:HD2	1.99	0.46
39:v:178:GLU:HG3	39:v:186:TYR:N	2.30	0.46
40:bb:188:ARG:NH2	40:bb:204:ASP:OD1	2.48	0.46
41:t:132:LEU:HG	41:t:147:TYR:O	2.15	0.46
42:al:46:GLU:OE1	49:bd:57:VAL:HG22	2.15	0.46
43:q:20:SER:O	43:q:22:SER:N	2.49	0.46
44:p:155:ALA:HA	44:p:158:LYS:HG2	1.97	0.46
45:Ca:34:LYS:O	45:Ca:36:ILE:HG13	2.15	0.46
45:Ca:263:LYS:NZ	45:Ca:265:ARG:HB2	2.30	0.46
45:Ca:311:CYS:SG	45:Ca:312:TYR:N	2.88	0.46
45:Ca:420:GLN:HG3	45:Ca:483:SER:OG	2.15	0.46
50:a:178:TRP:O	50:a:178:TRP:CG	2.68	0.46
51:bc:242:LYS:NZ	51:bc:246:ILE:HD11	2.30	0.46
52:aa:211:GLU:OE1	52:aa:214:TRP:HD1	1.99	0.46
52:aa:502:ASN:HA	52:aa:505:ARG:HD2	1.97	0.46
52:aa:561:LYS:HG3	52:aa:569:TRP:CD2	2.51	0.46
52:aa:1054:ILE:CD1	52:aa:1055:PRO:HD2	2.45	0.46
55:as:69:LEU:CD2	55:as:71:MET:HB2	2.42	0.46
56:A:485:U:H3'	56:A:486:C:C5	2.51	0.46
56:2:198:A:H8	56:2:198:A:OP1	1.99	0.46
56:2:594:U:H2'	56:2:595:A:H8	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:s:37:ARG:HG2	2:s:43:GLU:OE1	2.16	0.46
3:r:91:GLU:HG3	3:r:177:PRO:HG3	1.97	0.46
3:r:117:LEU:HB3	10:aw:182:LEU:HG	1.97	0.46
3:r:125:ILE:O	3:r:128:TRP:N	2.48	0.46
6:e:247:VAL:HB	6:e:402:VAL:HG22	1.97	0.46
6:e:779:TRP:NE1	10:aw:99:ARG:CZ	2.78	0.46
11:au:44:ARG:N	11:au:218:MET:SD	2.87	0.46
14:ag:228:PRO:HD3	14:ag:253:ALA:HB1	1.98	0.46
14:ag:251:MET:HE2	14:ag:251:MET:HB3	1.60	0.46
14:ag:459:GLN:HG3	14:ag:460:PRO:O	2.16	0.46
15:af:247:ALA:C	15:af:248:LEU:HD22	2.41	0.46
15:af:627:PHE:HA	15:af:630:VAL:HG12	1.97	0.46
16:ae:357:MET:HE3	16:ae:367:VAL:HG21	1.97	0.46
16:ae:568:PHE:HE1	19:ab:663:GLY:HA2	1.81	0.46
17:l:42:ARG:HE	17:l:484:HIS:CE1	2.34	0.46
17:l:238:ILE:HG13	17:l:242:VAL:CG2	2.45	0.46
17:l:417:TYR:HD2	17:l:469:HIS:NE2	2.13	0.46
17:l:578:LEU:HD11	17:l:645:TRP:HE3	1.80	0.46
18:ac:288:LYS:HD2	18:ac:288:LYS:HA	1.68	0.46
18:ac:402:THR:O	18:ac:407:ARG:NH2	2.49	0.46
18:ac:714:LEU:HG	18:ac:718:ILE:HD11	1.97	0.46
18:ac:1142:PRO:HB3	19:ab:421:TRP:CZ2	2.51	0.46
19:ab:67:TRP:CD1	19:ab:67:TRP:H	2.34	0.46
19:ab:510:VAL:HG12	19:ab:528:PHE:HE2	1.81	0.46
19:ab:699:LYS:HA	19:ab:702:THR:HG22	1.97	0.46
19:ab:1128:GLU:CD	19:ab:1129:VAL:H	2.23	0.46
20:ad:96:ASN:OD1	20:ad:97:LYS:N	2.43	0.46
20:ad:377:GLU:HG3	20:ad:378:MET:O	2.15	0.46
20:ad:462:LEU:HD21	20:ad:480:ALA:HB2	1.98	0.46
22:i:359:HIS:CE1	22:i:366:ARG:HH12	2.34	0.46
22:i:416:THR:OG1	22:i:417:LYS:N	2.49	0.46
25:d:128:TRP:NE1	25:d:132:SER:HB2	2.31	0.46
27:av:106:ARG:NH1	55:as:27:LYS:HB2	2.30	0.46
27:av:165:SER:O	27:av:167:ILE:N	2.48	0.46
30:aq:133:GLN:NE2	41:t:66:VAL:HB	2.30	0.46
32:ao:239:LYS:HE2	32:ao:239:LYS:HB2	1.75	0.46
34:an:245:TRP:HB3	52:aa:1012:LEU:HD22	1.98	0.46
35:z:456:PHE:HE1	35:z:518:ARG:NH2	2.14	0.46
35:z:1096:GLU:O	35:z:1098:TYR:N	2.49	0.46
37:x:167:VAL:HG12	37:x:207:HIS:CD2	2.51	0.46
37:x:295:LEU:HD11	37:x:324:CYS:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:78:PHE:CZ	45:Ca:177:ILE:HG13	2.51	0.46
45:Ca:416:GLY:O	52:aa:232:ARG:NH1	2.44	0.46
45:Ca:452:VAL:HA	45:Ca:461:GLU:OE2	2.16	0.46
47:j:16:ARG:NH2	56:2:46:U:C4	2.84	0.46
48:b:148:GLU:OE2	48:b:151:ARG:NE	2.40	0.46
50:a:164:TYR:OH	50:a:266:THR:OG1	2.18	0.46
50:a:395:LEU:HD13	52:aa:1693:TRP:HB3	1.97	0.46
52:aa:534:ASP:HB2	52:aa:541:ILE:HG12	1.98	0.46
52:aa:750:PRO:O	52:aa:753:GLN:HG2	2.16	0.46
52:aa:752:LEU:HA	52:aa:755:GLU:HG2	1.97	0.46
52:aa:780:ALA:HA	52:aa:781:ALA:HA	1.59	0.46
52:aa:1031:GLN:O	52:aa:1035:VAL:HG12	2.15	0.46
53:k:11:TRP:CD1	53:k:11:TRP:H	2.34	0.46
53:k:191:VAL:HG22	53:k:192:SER:H	1.80	0.46
56:A:414:A:O2'	56:A:484:A:OP1	2.33	0.46
56:2:594:U:H2'	56:2:595:A:C8	2.51	0.46
1:u:796:GLY:HA2	1:u:799:LYS:HB2	1.97	0.46
2:s:115:TYR:HB3	14:ag:397:ALA:CB	2.45	0.46
3:r:91:GLU:C	9:ax:75:ARG:HH22	2.24	0.46
3:r:320:LEU:HD11	19:ab:1133:ARG:NH2	2.31	0.46
3:r:434:SER:HB2	3:r:440:LYS:HE2	1.98	0.46
3:r:458:HIS:HE1	25:d:348:ASN:O	1.99	0.46
4:n:38:PHE:HB3	56:A:411:A:O2'	2.16	0.46
6:e:230:GLU:H	6:e:230:GLU:CD	2.23	0.46
6:e:625:PHE:CD1	6:e:628:ILE:HD12	2.51	0.46
7:az:34:ASP:OD1	7:az:36:GLU:HG3	2.16	0.46
7:az:90:GLN:HG3	9:ax:104:LEU:HD12	1.98	0.46
11:au:200:TRP:CZ2	42:al:28:PRO:HG2	2.50	0.46
13:aj:31:HIS:CD2	13:aj:32:TYR:H	2.34	0.46
15:af:245:ILE:HD13	15:af:315:MET:SD	2.56	0.46
15:af:576:TYR:CB	15:af:581:TRP:HE1	2.29	0.46
17:l:247:PHE:HE2	17:l:260:TYR:HB2	1.80	0.46
19:ab:88:LYS:HG3	19:ab:89:ASP:H	1.80	0.46
19:ab:525:TRP:HE1	19:ab:585:GLU:CD	2.20	0.46
19:ab:606:THR:HG23	19:ab:635:ARG:HH22	1.80	0.46
20:ad:318:LEU:HD12	20:ad:322:MET:HE3	1.98	0.46
20:ad:435:ASN:O	20:ad:439:GLU:HG3	2.15	0.46
20:ad:542:ALA:O	20:ad:546:GLN:HG2	2.16	0.46
20:ad:632:ARG:NH1	20:ad:636:LEU:HD11	2.30	0.46
23:f:261:ARG:HG2	23:f:266:ARG:NH2	2.31	0.46
24:c:158:PHE:HD1	24:c:175:VAL:HG11	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:c:197:PHE:HD2	24:c:206:PHE:CE2	2.34	0.46
25:d:119:LEU:HD22	37:x:194:ASP:HB3	1.98	0.46
27:av:56:ARG:O	53:k:151:ARG:NH1	2.48	0.46
27:av:65:ILE:HG12	29:ar:48:LEU:HD21	1.98	0.46
31:ap:113:ARG:HA	31:ap:116:LEU:HG	1.97	0.46
32:ao:127:ASP:OD1	32:ao:128:THR:N	2.44	0.46
33:ai:153:LEU:HD12	33:ai:153:LEU:HA	1.76	0.46
35:z:157:MET:HE2	35:z:158:PHE:CE1	2.44	0.46
35:z:550:GLU:OE2	35:z:779:TYR:HA	2.15	0.46
35:z:645:HIS:CE1	35:z:648:ARG:HH11	2.33	0.46
35:z:709:VAL:O	35:z:713:PHE:HB2	2.16	0.46
35:z:927:PRO:C	35:z:929:GLN:H	2.24	0.46
35:z:1044:ASP:HB2	52:aa:888:VAL:HG11	1.98	0.46
39:v:205:TYR:HB2	56:2:338:U:O4	2.15	0.46
40:bb:170:PHE:C	40:bb:172:ARG:H	2.23	0.46
41:t:10:ARG:N	41:t:10:ARG:HH11	2.14	0.46
45:Ca:104:LEU:O	45:Ca:109:SER:N	2.46	0.46
45:Ca:466:ASN:O	45:Ca:469:ARG:HB2	2.15	0.46
48:b:73:GLU:OE1	48:b:73:GLU:N	2.36	0.46
48:b:118:LEU:O	48:b:122:THR:HG23	2.16	0.46
50:a:418:ARG:NH2	52:aa:1039:GLU:HA	2.30	0.46
52:aa:515:ARG:NE	52:aa:883:LYS:HA	2.30	0.46
52:aa:949:GLY:C	52:aa:951:TRP:H	2.24	0.46
52:aa:1525:LYS:O	52:aa:1637:ARG:NE	2.49	0.46
52:aa:1550:PHE:HD1	52:aa:1555:ILE:HD12	1.80	0.46
52:aa:1644:PHE:CE1	52:aa:1648:ILE:HD11	2.51	0.46
53:k:86:ASN:OD1	53:k:87:GLN:N	2.49	0.46
56:2:75:A:C4	56:2:76:A:C8	3.04	0.46
56:2:95:U:H6	56:2:95:U:H2'	1.54	0.46
56:2:97:U:O2'	56:2:98:A:H5'	2.15	0.46
56:2:325:A:H2'	56:2:326:U:C2	2.51	0.46
1:u:638:ARG:HH11	6:e:310:PHE:HE2	1.64	0.46
2:s:25:VAL:HB	10:aw:113:PRO:HG3	1.98	0.46
4:n:133:ARG:NE	19:ab:1159:SER:HB3	2.30	0.46
4:n:145:LYS:HD3	8:ay:102:PHE:HE2	1.81	0.46
6:e:779:TRP:HE1	10:aw:99:ARG:NE	2.14	0.46
7:az:27:THR:HG22	7:az:30:LYS:HB2	1.98	0.46
7:az:114:TRP:HE1	9:ax:65:HIS:CD2	2.34	0.46
8:ay:121:SER:HB3	19:ab:1134:ASN:HB2	1.97	0.46
8:ay:151:LEU:HD23	8:ay:151:LEU:HA	1.77	0.46
11:au:85:ASP:OD1	11:au:87:ARG:HG3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:ag:474:ARG:HD3	14:ag:478:VAL:HG11	1.98	0.46
15:af:66:LEU:HD12	15:af:70:TYR:CE2	2.51	0.46
15:af:596:GLU:OE1	15:af:664:ARG:NH1	2.46	0.46
16:ae:583:ASP:N	16:ae:583:ASP:OD1	2.48	0.46
17:l:515:THR:HG22	17:l:519:ILE:HD11	1.97	0.46
18:ac:111:SER:HA	18:ac:552:ARG:HH12	1.79	0.46
18:ac:458:ASN:HA	18:ac:461:LYS:HZ2	1.79	0.46
18:ac:656:LYS:O	18:ac:660:GLU:HG2	2.16	0.46
20:ad:124:TYR:HE1	43:q:84:LYS:HE3	1.80	0.46
20:ad:556:TRP:CE3	20:ad:560:MET:HB2	2.51	0.46
20:ad:731:GLN:NE2	24:c:89:ARG:HD3	2.30	0.46
21:m:20:ARG:HA	35:z:518:ARG:HD2	1.97	0.46
21:m:233:SER:OG	21:m:234:ASN:N	2.49	0.46
23:f:278:VAL:HG12	23:f:280:VAL:HG22	1.97	0.46
24:c:121:LEU:HD11	33:ai:312:TRP:HB3	1.98	0.46
25:d:137:PHE:CE1	25:d:183:SER:HB3	2.50	0.46
25:d:358:MET:HA	25:d:361:ASP:OD2	2.16	0.46
27:av:93:PHE:CD2	27:av:136:LEU:HB3	2.50	0.46
27:av:168:ASP:OD1	27:av:168:ASP:N	2.49	0.46
28:at:172:GLU:HG3	28:at:183:ARG:HG3	1.98	0.46
29:ar:252:ARG:HD3	29:ar:255:LYS:HE2	1.98	0.46
32:ao:169:SER:OG	52:aa:443:GLY:HA3	2.14	0.46
34:an:197:THR:HA	52:aa:800:GLU:HG3	1.96	0.46
34:an:276:GLU:HG2	35:z:436:GLU:CG	2.42	0.46
35:z:40:THR:HG1	56:2:21:G:H21	1.62	0.46
35:z:551:ARG:HE	35:z:551:ARG:HB2	1.51	0.46
40:bb:229:ARG:HA	56:2:338:U:H5'	1.98	0.46
41:t:228:ARG:HH21	43:q:39:MET:HE2	1.80	0.46
45:Ca:10:ARG:HH12	54:be:51:CYS:HB3	1.81	0.46
45:Ca:19:ARG:HH21	45:Ca:21:ARG:HB2	1.81	0.46
45:Ca:537:ARG:NE	45:Ca:540:GLN:HB2	2.31	0.46
45:Ca:573:ARG:NH1	45:Ca:576:ARG:HH12	2.13	0.46
52:aa:484:GLU:OE2	52:aa:485:VAL:N	2.49	0.46
53:k:70:ARG:HA	53:k:71:PRO:C	2.41	0.46
56:A:467:A:O2'	56:A:468:A:O5'	2.30	0.46
56:2:40:U:H1'	56:2:41:A:O4'	2.16	0.46
56:2:152:U:H3'	56:2:153:A:H8	1.81	0.46
56:2:168:A:C8	56:2:168:A:H3'	2.51	0.46
56:2:220:U:H2'	56:2:226:A:N7	2.31	0.46
56:2:299:U:HO2'	56:2:300:G:C1'	2.29	0.46
56:2:566:U:H4'	56:2:567:A:OP1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:561:CYS:O	1:u:565:ARG:HG2	2.16	0.46
1:u:742:GLY:N	1:u:745:VAL:O	2.37	0.46
3:r:60:HIS:CE1	3:r:106:PRO:HG3	2.50	0.46
6:e:185:VAL:C	15:af:133:ARG:HH21	2.24	0.46
6:e:295:ASP:O	6:e:299:ILE:HG12	2.16	0.46
10:aw:79:LYS:O	56:A:499:U:H6	1.99	0.46
12:ak:25:GLU:OE2	12:ak:29:ARG:NH1	2.49	0.46
12:ak:36:ARG:HD2	12:ak:62:PHE:CZ	2.50	0.46
12:ak:110:LEU:HD22	18:ac:1031:LEU:HD22	1.97	0.46
12:ak:114:THR:HG21	18:ac:1002:ALA:N	2.31	0.46
13:aj:83:LEU:HA	13:aj:86:LEU:HB2	1.98	0.46
13:aj:112:GLN:HE21	16:ae:369:LEU:HD11	1.81	0.46
14:ag:204:ALA:HA	16:ae:430:LEU:HD13	1.96	0.46
14:ag:217:LEU:HD21	14:ag:252:LEU:HG	1.97	0.46
14:ag:270:LEU:O	14:ag:274:HIS:N	2.37	0.46
15:af:192:ILE:HD11	15:af:206:LEU:HD21	1.96	0.46
16:ae:55:ARG:HB2	16:ae:59:GLY:HA3	1.98	0.46
16:ae:93:PRO:HB2	19:ab:1108:LYS:HD2	1.98	0.46
16:ae:267:GLY:O	16:ae:315:ILE:HD11	2.16	0.46
17:l:52:THR:O	17:l:56:GLU:N	2.49	0.46
17:l:274:ASN:HB3	17:l:277:GLU:OE2	2.16	0.46
17:l:531:ASP:N	17:l:531:ASP:OD1	2.49	0.46
18:ac:405:ARG:HG3	18:ac:406:VAL:N	2.31	0.46
20:ad:126:MET:HE3	53:k:86:ASN:ND2	2.25	0.46
20:ad:368:LEU:O	20:ad:588:PHE:HA	2.16	0.46
20:ad:390:VAL:HG21	20:ad:452:LEU:HD13	1.97	0.46
20:ad:437:LEU:O	20:ad:440:ARG:HB3	2.16	0.46
20:ad:670:ASP:OD1	20:ad:673:ASN:N	2.49	0.46
20:ad:693:ASP:CG	20:ad:707:ARG:HH22	2.20	0.46
21:m:72:PRO:HG2	42:al:190:THR:HG22	1.98	0.46
22:i:102:ALA:HB2	53:k:186:LEU:HD11	1.97	0.46
24:c:152:PHE:O	24:c:153:THR:HG23	2.16	0.46
25:d:122:GLN:NE2	46:g:131:GLY:HA2	2.31	0.46
31:ap:160:SER:OG	31:ap:161:PHE:N	2.49	0.46
31:ap:246:ALA:HB3	31:ap:247:PRO:HD3	1.98	0.46
33:ai:350:PRO:HG2	33:ai:354:LEU:HD12	1.97	0.46
34:an:157:PRO:HD2	52:aa:1200:SER:O	2.16	0.46
34:an:266:ASP:CG	50:a:327:PRO:HD3	2.40	0.46
34:an:281:TRP:CZ3	37:x:117:GLU:HG3	2.50	0.46
34:an:283:ARG:HD3	35:z:512:HIS:ND1	2.31	0.46
35:z:554:ILE:HA	35:z:559:ASN:ND2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:581:LEU:HD21	35:z:727:LEU:HD23	1.97	0.46
38:w:92:ARG:HH21	56:2:188:U:P	2.39	0.46
39:v:117:ARG:HB3	39:v:117:ARG:CZ	2.46	0.46
45:Ca:192:MET:HG2	45:Ca:196:ARG:HH21	1.80	0.46
45:Ca:443:TRP:NE1	47:j:121:LYS:HD2	2.31	0.46
45:Ca:448:ILE:HA	45:Ca:452:VAL:HG12	1.98	0.46
46:g:12:TYR:CG	46:g:16:HIS:HD2	2.33	0.46
46:g:85:ALA:HB2	56:2:609:A:OP2	2.15	0.46
48:b:73:GLU:H	48:b:73:GLU:CD	2.19	0.46
50:a:142:LEU:HD11	50:a:167:LEU:HD22	1.98	0.46
50:a:165:CYS:SG	50:a:167:LEU:HD23	2.55	0.46
52:aa:687:SER:OG	52:aa:732:VAL:HG21	2.16	0.46
52:aa:1417:HIS:O	52:aa:1420:GLU:HG2	2.16	0.46
53:k:48:ARG:HD2	53:k:59:TRP:CE2	2.49	0.46
55:as:35:HIS:HA	55:as:40:PHE:CG	2.51	0.46
55:as:157:LEU:HG	55:as:159:VAL:HG13	1.97	0.46
56:2:186:U:H4'	56:2:187:A:O4'	2.16	0.46
56:2:285:A:H2'	56:2:285:A:N3	2.30	0.46
2:s:17:TYR:OH	2:s:32:ASP:OD1	2.24	0.46
3:r:126:GLN:NE2	3:r:169:ARG:O	2.49	0.46
3:r:296:HIS:CD2	8:ay:178:PRO:HD2	2.51	0.46
4:n:66:LEU:HB2	8:ay:106:ARG:NH1	2.30	0.46
6:e:284:ARG:O	14:ag:271:ARG:HD2	2.16	0.46
6:e:425:LEU:HD11	6:e:431:CYS:HB3	1.98	0.46
9:ax:85:PHE:O	9:ax:89:ARG:HD2	2.16	0.46
11:au:233:HIS:CB	11:au:238:PRO:HA	2.44	0.46
15:af:256:GLY:C	15:af:261:ARG:HH21	2.20	0.46
18:ac:297:PHE:CE1	18:ac:382:ALA:HB1	2.51	0.46
18:ac:793:PRO:O	18:ac:794:THR:HG22	2.16	0.46
19:ab:611:VAL:HG21	19:ab:643:TYR:HE1	1.80	0.46
20:ad:79:GLN:O	38:w:28:LYS:HD3	2.16	0.46
22:i:181:TYR:HA	43:q:146:ASN:HD21	1.80	0.46
22:i:383:ARG:HG2	22:i:383:ARG:H	1.58	0.46
23:f:119:GLU:O	23:f:123:LEU:HG	2.15	0.46
26:ba:17:LEU:CD1	35:z:1100:TRP:HB3	2.46	0.46
29:ar:227:ILE:HG12	29:ar:230:TRP:CZ2	2.51	0.46
32:ao:199:ARG:HB2	32:ao:202:THR:HG22	1.97	0.46
33:ai:113:ILE:HG23	33:ai:114:THR:HG23	1.97	0.46
33:ai:166:LEU:HD12	33:ai:166:LEU:HA	1.81	0.46
34:an:137:VAL:HG11	34:an:148:THR:HG21	1.97	0.46
34:an:259:TRP:HE1	52:aa:1079:GLY:CA	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:58:SER:HB3	35:z:71:ARG:HG3	1.98	0.46
35:z:660:TYR:HD2	35:z:670:LEU:HD21	1.81	0.46
35:z:720:ASP:OD2	35:z:771:CYS:HB2	2.16	0.46
38:w:98:ARG:HE	56:2:187:A:H4'	1.81	0.46
38:w:105:ARG:HD2	38:w:105:ARG:HA	1.38	0.46
39:v:48:PHE:CD2	39:v:60:ARG:HA	2.51	0.46
39:v:194:SER:OG	39:v:196:GLY:N	2.49	0.46
46:g:91:ARG:O	46:g:95:MET:HG2	2.15	0.46
48:b:8:LEU:HD21	48:b:83:MET:HE3	1.97	0.46
50:a:20:THR:N	50:a:231:ARG:HB2	2.30	0.46
50:a:318:PRO:HB2	50:a:321:LYS:HB2	1.98	0.46
52:aa:761:LEU:C	52:aa:768:ILE:HG12	2.41	0.46
52:aa:1498:HIS:NE2	52:aa:1502:TYR:HB2	2.31	0.46
52:aa:1689:SER:OG	52:aa:1690:GLU:N	2.49	0.46
53:k:77:PRO:HD2	53:k:78:TYR:CE1	2.51	0.46
53:k:133:HIS:HB2	53:k:153:ILE:HD13	1.98	0.46
54:be:30:ARG:HE	56:2:238:C:H42	1.64	0.46
54:be:68:PHE:CE2	56:2:379:A:H8	2.34	0.46
55:as:86:MET:HG2	55:as:170:LEU:HG	1.97	0.46
56:2:38:U:H4'	56:2:39:U:OP1	2.14	0.46
56:2:222:A:H3'	56:2:223:G:H2'	1.98	0.46
56:2:275:U:H6	56:2:275:U:H5'	1.81	0.46
2:s:134:ARG:NE	2:s:138:ASP:OD1	2.46	0.45
3:r:338:GLY:HA2	3:r:341:LYS:HB3	1.97	0.45
3:r:407:TYR:N	6:e:159:GLU:OE1	2.50	0.45
3:r:447:LEU:HD21	25:d:350:ALA:HA	1.97	0.45
5:h:31:MET:SD	5:h:89:LEU:HD22	2.56	0.45
5:h:106:GLU:HB3	6:e:376:TRP:CE3	2.51	0.45
6:e:215:TYR:O	6:e:219:VAL:HG23	2.17	0.45
6:e:297:GLU:HG3	6:e:298:LEU:H	1.80	0.45
11:au:105:ARG:NE	11:au:146:GLN:OE1	2.46	0.45
11:au:122:MET:HB3	14:ag:506:ARG:HH22	1.81	0.45
13:aj:45:ASN:OD1	14:ag:34:TYR:HA	2.16	0.45
13:aj:173:ASP:OD1	13:aj:173:ASP:N	2.47	0.45
15:af:308:ILE:O	15:af:311:SER:OG	2.32	0.45
15:af:333:GLU:HG2	15:af:337:TYR:HE2	1.80	0.45
15:af:615:GLU:CD	25:d:5:LEU:HB2	2.41	0.45
16:ae:512:LEU:HG	19:ab:832:ALA:CB	2.46	0.45
17:l:666:ASP:OD1	17:l:667:LYS:N	2.49	0.45
18:ac:495:LEU:HD21	18:ac:522:PHE:HE1	1.81	0.45
19:ab:1042:ILE:O	19:ab:1046:GLU:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:ab:1143:MET:SD	19:ab:1157:LYS:HB2	2.55	0.45
20:ad:60:ASN:HB2	47:j:64:TYR:CE2	2.51	0.45
20:ad:510:PHE:CD2	20:ad:541:LEU:HD12	2.51	0.45
20:ad:581:VAL:HA	20:ad:585:LEU:HB3	1.99	0.45
20:ad:763:ARG:HG3	24:c:78:ASN:HB2	1.98	0.45
22:i:128:ARG:NH2	22:i:165:HIS:HB3	2.31	0.45
22:i:372:MET:HE1	27:av:128:THR:CG2	2.40	0.45
24:c:191:HIS:C	50:a:291:LYS:HE2	2.41	0.45
25:d:281:ARG:NH2	25:d:281:ARG:O	2.49	0.45
28:at:94:ILE:O	28:at:107:LYS:N	2.49	0.45
28:at:112:ARG:O	28:at:112:ARG:HG3	2.16	0.45
30:aq:83:LEU:HD11	41:t:72:ASP:HA	1.97	0.45
32:ao:45:ARG:NH2	32:ao:102:LEU:HD11	2.31	0.45
33:ai:72:PRO:HA	33:ai:79:LYS:HE3	1.97	0.45
33:ai:158:TYR:HD1	33:ai:163:HIS:CE1	2.34	0.45
35:z:298:LEU:HD12	35:z:300:PHE:CE1	2.51	0.45
35:z:482:TRP:HB2	42:al:174:PRO:HB3	1.97	0.45
35:z:909:ARG:O	35:z:912:THR:N	2.31	0.45
36:y:63:HIS:ND1	36:y:70:MET:HB2	2.31	0.45
37:x:218:ARG:NH1	52:aa:1110:LYS:HB2	2.30	0.45
42:al:87:GLU:O	42:al:91:GLU:HG2	2.16	0.45
42:al:178:GLU:OE1	42:al:178:GLU:N	2.49	0.45
42:al:205:MET:O	42:al:207:LEU:N	2.45	0.45
42:al:262:GLU:HG2	42:al:263:ARG:H	1.80	0.45
45:Ca:22:LYS:HD3	45:Ca:25:LYS:HE2	1.98	0.45
45:Ca:192:MET:O	45:Ca:196:ARG:HG2	2.15	0.45
48:b:22:LEU:HD11	48:b:65:VAL:HG11	1.97	0.45
50:a:311:LYS:HD2	50:a:311:LYS:N	2.31	0.45
51:bc:234:VAL:HG13	51:bc:238:PHE:HB3	1.97	0.45
51:bc:246:ILE:O	51:bc:250:ILE:HG13	2.16	0.45
51:bc:367:ARG:O	51:bc:374:LYS:HD2	2.16	0.45
52:aa:596:ASP:OD1	52:aa:596:ASP:N	2.48	0.45
52:aa:665:PRO:HG2	52:aa:666:HIS:CD2	2.51	0.45
52:aa:686:GLU:O	52:aa:690:LEU:HG	2.16	0.45
52:aa:738:ASP:HA	52:aa:741:TRP:CZ2	2.50	0.45
52:aa:787:ARG:HH11	52:aa:840:GLN:HA	1.80	0.45
52:aa:1443:ASN:ND2	52:aa:1446:LEU:HG	2.31	0.45
1:u:95:PRO:HB2	1:u:97:GLN:HG2	1.98	0.45
1:u:153:VAL:HB	1:u:247:ILE:CG2	2.46	0.45
1:u:297:THR:OG1	6:e:309:PRO:HA	2.16	0.45
1:u:799:LYS:HA	1:u:802:TYR:CD2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:s:120:TYR:HA	14:ag:401:PHE:HE2	1.81	0.45
3:r:208:LEU:HD22	3:r:265:CYS:SG	2.56	0.45
3:r:281:ILE:HG13	3:r:350:ASN:ND2	2.31	0.45
3:r:317:ASP:HA	3:r:320:LEU:HD12	1.99	0.45
4:n:35:LYS:HB3	56:A:490:A:N1	2.31	0.45
5:h:156:MET:SD	5:h:161:LEU:HD12	2.56	0.45
6:e:366:LEU:HD12	6:e:366:LEU:HA	1.65	0.45
6:e:504:ASP:N	6:e:504:ASP:OD1	2.48	0.45
15:af:81:PRO:HB2	19:ab:982:ALA:HB2	1.98	0.45
15:af:504:ARG:HD2	15:af:504:ARG:H	1.81	0.45
15:af:592:ARG:HA	15:af:595:MET:HE2	1.98	0.45
16:ae:116:ARG:N	16:ae:125:TYR:OH	2.50	0.45
16:ae:176:GLU:OE1	19:ab:1074:ARG:HA	2.16	0.45
16:ae:517:ASN:OD1	16:ae:547:ASN:ND2	2.45	0.45
17:l:403:PHE:HZ	17:l:413:LEU:HG	1.82	0.45
19:ab:94:PRO:HG2	19:ab:317:THR:HB	1.98	0.45
19:ab:541:ILE:HD12	19:ab:544:LEU:HB3	1.97	0.45
20:ad:216:LEU:HA	20:ad:219:CYS:SG	2.55	0.45
20:ad:434:CYS:O	20:ad:438:ILE:HG12	2.17	0.45
21:m:32:LYS:HD2	42:al:185:GLU:HG3	1.98	0.45
22:i:79:TRP:NE1	22:i:80:ARG:HG3	2.31	0.45
22:i:416:THR:OG1	22:i:417:LYS:HG3	2.17	0.45
25:d:96:TYR:CE2	46:g:117:MET:HB2	2.51	0.45
26:ba:89:ASP:CG	45:Ca:202:ARG:HE	2.25	0.45
29:ar:43:ARG:NH1	56:2:112:A:OP1	2.49	0.45
31:ap:159:ASP:HA	31:ap:250:ARG:NH2	2.31	0.45
34:an:7:ILE:HD11	50:a:323:GLY:HA2	1.98	0.45
34:an:21:ARG:HH11	34:an:233:THR:C	2.25	0.45
34:an:203:TYR:CE2	34:an:204:PHE:HD1	2.35	0.45
35:z:794:ARG:NH2	35:z:907:VAL:HG21	2.31	0.45
35:z:1085:ILE:HG13	35:z:1085:ILE:O	2.15	0.45
36:y:254:LEU:O	36:y:258:ARG:HG2	2.17	0.45
39:v:93:LEU:C	39:v:95:MET:H	2.24	0.45
39:v:210:ARG:HG2	56:2:288:U:H5"	1.99	0.45
43:q:178:ASN:HA	48:b:42:GLU:OE1	2.16	0.45
47:j:62:LEU:HA	52:aa:122:ILE:HD13	1.97	0.45
50:a:152:VAL:HG21	50:a:162:TRP:CE3	2.52	0.45
52:aa:230:ASN:OD1	52:aa:230:ASN:N	2.49	0.45
52:aa:611:SER:O	52:aa:615:THR:HG23	2.17	0.45
52:aa:1480:ASN:OD1	52:aa:1481:ILE:N	2.50	0.45
52:aa:1510:VAL:HG22	52:aa:1521:TYR:CE1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:k:157:LYS:HD3	56:2:108:A:H5''	1.98	0.45
55:as:171:PHE:HB3	55:as:173:PHE:HE1	1.81	0.45
1:u:273:ALA:O	1:u:277:VAL:HG22	2.15	0.45
1:u:320:VAL:HG12	1:u:632:MET:HE1	1.98	0.45
1:u:791:VAL:HG11	10:aw:110:ILE:HD12	1.98	0.45
3:r:370:PHE:CG	10:aw:56:PHE:HA	2.51	0.45
4:n:124:SER:CB	16:ae:78:ASN:HD22	2.29	0.45
6:e:66:GLU:CD	6:e:66:GLU:H	2.25	0.45
6:e:98:TYR:CD1	6:e:99:ARG:HG3	2.51	0.45
6:e:248:LEU:O	6:e:400:PHE:HA	2.17	0.45
7:az:17:VAL:HG21	10:aw:42:GLN:HB3	1.97	0.45
11:au:82:HIS:CD2	11:au:82:HIS:N	2.83	0.45
11:au:199:LYS:HA	11:au:199:LYS:HD3	1.73	0.45
13:aj:172:ILE:O	13:aj:172:ILE:HG13	2.17	0.45
13:aj:243:ASN:O	13:aj:291:ASN:ND2	2.25	0.45
14:ag:56:GLU:HA	18:ac:1090:VAL:O	2.17	0.45
14:ag:340:ARG:NH1	19:ab:1022:SER:HA	2.30	0.45
17:l:148:ARG:HH22	18:ac:957:ASN:HB2	1.81	0.45
17:l:541:GLN:HB3	17:l:545:PHE:CZ	2.51	0.45
18:ac:621:LEU:HG	18:ac:767:TYR:HA	1.99	0.45
19:ab:600:TYR:OH	19:ab:656:ARG:NE	2.49	0.45
19:ab:731:GLN:HG2	19:ab:732:GLY:N	2.31	0.45
19:ab:794:ARG:HD3	19:ab:795:LEU:O	2.17	0.45
19:ab:822:HIS:HD2	19:ab:826:TYR:HD1	1.64	0.45
19:ab:825:ASN:HB3	19:ab:829:GLY:O	2.16	0.45
20:ad:25:LEU:HD13	20:ad:29:ARG:HH12	1.81	0.45
20:ad:676:PRO:O	20:ad:678:PRO:HD3	2.15	0.45
21:m:24:ASN:O	21:m:28:ASN:ND2	2.49	0.45
21:m:80:LEU:O	21:m:83:TRP:N	2.49	0.45
21:m:194:TYR:OH	21:m:204:THR:OG1	2.23	0.45
22:i:318:VAL:HG12	22:i:319:LEU:HG	1.98	0.45
24:c:102:ASP:O	35:z:249:ASN:ND2	2.47	0.45
25:d:202:VAL:O	37:x:136:PRO:HB3	2.17	0.45
27:av:82:GLN:NE2	27:av:82:GLN:O	2.49	0.45
33:ai:64:ASN:O	33:ai:67:GLU:HB2	2.16	0.45
34:an:185:TRP:HZ2	34:an:194:TRP:HB3	1.81	0.45
34:an:214:ARG:O	52:aa:867:ASN:ND2	2.47	0.45
35:z:878:GLU:HB2	35:z:893:ARG:HE	1.81	0.45
35:z:975:ASN:ND2	52:aa:971:TRP:HB2	2.28	0.45
36:y:196:GLU:O	36:y:200:LEU:HD12	2.15	0.45
37:x:126:ALA:O	37:x:130:ALA:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:w:57:THR:O	38:w:61:LYS:HG2	2.17	0.45
39:v:60:ARG:HH22	56:2:386:A:H5''	1.81	0.45
39:v:195:PHE:CE1	56:2:315:A:H8	2.35	0.45
40:bb:191:LEU:O	40:bb:204:ASP:N	2.50	0.45
41:t:127:ASP:HB2	41:t:207:ARG:HE	1.82	0.45
45:Ca:253:ARG:O	45:Ca:254:LEU:HD12	2.16	0.45
46:g:150:GLU:OE1	46:g:153:ARG:NH1	2.49	0.45
47:j:133:SER:C	47:j:135:ILE:H	2.23	0.45
48:b:6:PHE:HD2	48:b:83:MET:HE1	1.82	0.45
50:a:357:ARG:CG	50:a:363:PRO:HB3	2.46	0.45
50:a:364:LYS:O	50:a:372:MET:HE2	2.16	0.45
52:aa:567:SER:HA	52:aa:570:ARG:CZ	2.46	0.45
53:k:20:GLN:H	53:k:20:GLN:HG3	1.65	0.45
53:k:63:MET:SD	53:k:70:ARG:CZ	3.04	0.45
56:2:107:U:O2	56:2:121:A:O2'	2.18	0.45
56:2:294:A:H4'	56:2:313:A:O2'	2.16	0.45
56:2:313:A:H2'	56:2:314:A:O4'	2.16	0.45
56:2:324:A:H2'	56:2:325:A:C8	2.52	0.45
1:u:102:PRO:HD3	15:af:21:ALA:HB1	1.98	0.45
1:u:552:SER:O	1:u:552:SER:OG	2.33	0.45
1:u:634:PHE:HA	1:u:637:ILE:HG12	1.98	0.45
2:s:114:MET:SD	14:ag:27:GLN:NE2	2.88	0.45
3:r:466:ARG:HG2	7:az:63:LYS:HG3	1.99	0.45
6:e:700:LEU:HD11	6:e:711:TYR:HB3	1.99	0.45
8:ay:129:TRP:O	8:ay:187:LYS:HE3	2.16	0.45
10:aw:96:GLN:O	10:aw:100:LYS:HG3	2.16	0.45
11:au:114:LEU:HD23	19:ab:381:LEU:HD11	1.98	0.45
12:ak:2:SER:OG	12:ak:3:PHE:N	2.48	0.45
12:ak:3:PHE:HE2	18:ac:1114:ARG:NH1	2.14	0.45
14:ag:138:SER:O	14:ag:218:THR:HG21	2.16	0.45
14:ag:380:ALA:HA	14:ag:383:LYS:HB2	1.97	0.45
15:af:323:TYR:CE1	15:af:359:SER:HA	2.51	0.45
15:af:325:SER:HA	15:af:377:VAL:O	2.17	0.45
15:af:628:CYS:O	15:af:632:THR:OG1	2.27	0.45
16:ae:167:TRP:O	16:ae:170:ARG:HB3	2.16	0.45
16:ae:331:GLU:O	16:ae:335:VAL:HG23	2.17	0.45
17:l:63:ASP:OD1	17:l:64:GLU:N	2.50	0.45
17:l:481:ARG:HA	17:l:481:ARG:HD3	1.66	0.45
17:l:495:TYR:HB3	17:l:511:ARG:HD2	1.98	0.45
17:l:626:ASN:O	17:l:630:VAL:HG23	2.17	0.45
17:l:660:GLU:HG2	17:l:661:GLN:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:1010:THR:HG23	18:ac:1018:PHE:HE2	1.82	0.45
20:ad:95:ARG:NH2	56:2:12:C:O2'	2.50	0.45
20:ad:197:TRP:CH2	20:ad:207:PRO:HG3	2.51	0.45
20:ad:427:ALA:O	20:ad:431:LEU:HG	2.16	0.45
20:ad:428:ARG:HD3	20:ad:428:ARG:N	2.32	0.45
22:i:94:ARG:HH21	56:2:360:C:N4	2.15	0.45
22:i:347:ARG:HD2	53:k:175:LEU:HD13	1.97	0.45
25:d:162:LEU:HD23	25:d:162:LEU:HA	1.69	0.45
25:d:221:LEU:HD22	42:al:212:MET:HE1	1.98	0.45
25:d:342:MET:HG3	25:d:343:ALA:N	2.31	0.45
28:at:145:PRO:O	28:at:148:ILE:N	2.50	0.45
28:at:151:LEU:HD11	28:at:157:LYS:HE3	1.99	0.45
29:ar:92:MET:HG3	29:ar:233:TYR:CD2	2.51	0.45
29:ar:126:GLU:HG3	29:ar:129:GLU:CG	2.46	0.45
31:ap:232:ASN:HA	33:ai:323:GLN:CD	2.41	0.45
32:ao:199:ARG:HG2	52:aa:506:ARG:CZ	2.46	0.45
32:ao:220:GLU:CD	32:ao:233:ARG:HH21	2.24	0.45
35:z:334:VAL:O	35:z:352:LEU:HD13	2.17	0.45
35:z:608:SER:HB2	48:b:124:LEU:HB2	1.98	0.45
35:z:611:PHE:CD2	48:b:134:THR:HG21	2.51	0.45
36:y:144:VAL:HG21	36:y:263:GLN:NE2	2.31	0.45
37:x:138:LEU:HD21	37:x:214:TYR:CD1	2.51	0.45
38:w:88:LYS:HE3	38:w:102:ILE:HG22	1.98	0.45
39:v:70:SER:OG	56:2:540:A:H5''	2.15	0.45
41:t:121:TRP:N	41:t:121:TRP:CD1	2.82	0.45
44:p:212:GLU:HA	44:p:280:VAL:HB	1.97	0.45
47:j:118:LEU:HA	47:j:118:LEU:HD12	1.67	0.45
51:bc:275:GLU:O	51:bc:278:GLN:HG3	2.17	0.45
52:aa:628:PRO:HB3	52:aa:633:TYR:CE1	2.52	0.45
52:aa:679:PHE:CZ	52:aa:758:LEU:HD22	2.52	0.45
56:A:498:U:H1'	56:A:499:U:C4	2.52	0.45
56:2:162:U:H5''	56:2:163:G:OP2	2.17	0.45
56:2:228:G:C5	56:2:229:G:C8	3.03	0.45
56:2:263:A:N3	56:2:264:A:C8	2.84	0.45
1:u:124:ASP:OD1	1:u:147:GLN:NE2	2.49	0.45
1:u:703:ARG:HG3	1:u:759:ASN:HD21	1.82	0.45
1:u:751:ASP:OD2	5:h:165:ARG:HD3	2.17	0.45
1:u:768:SER:OG	6:e:443:HIS:HD2	2.00	0.45
3:r:427:TRP:CD1	3:r:440:LYS:HZ1	2.34	0.45
4:n:99:PHE:CE2	4:n:120:LYS:HB2	2.51	0.45
5:h:41:LEU:HD23	5:h:78:GLN:OE1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:145:LYS:O	25:d:379:HIS:NE2	2.49	0.45
11:au:34:PRO:HG2	14:ag:7:ALA:HB1	1.98	0.45
12:ak:169:MET:HE3	18:ac:69:ILE:HG21	1.98	0.45
14:ag:379:ASP:HA	14:ag:382:ARG:CZ	2.46	0.45
14:ag:498:TRP:CE3	19:ab:386:GLY:HA2	2.52	0.45
15:af:16:SER:HA	15:af:22:HIS:CB	2.46	0.45
15:af:400:PHE:HB3	15:af:406:PHE:CE1	2.51	0.45
16:ae:11:ARG:N	16:ae:41:ASN:O	2.49	0.45
16:ae:445:TRP:O	16:ae:449:ASN:ND2	2.40	0.45
17:l:636:LEU:HD13	19:ab:697:TYR:HB2	1.98	0.45
17:l:666:ASP:O	17:l:671:MET:HB2	2.16	0.45
17:l:668:LYS:O	17:l:670:ASP:HA	2.16	0.45
18:ac:333:VAL:HG11	18:ac:410:SER:HB2	1.98	0.45
18:ac:450:MET:HE1	18:ac:494:ALA:HB2	1.97	0.45
19:ab:116:HIS:HA	19:ab:684:ARG:O	2.16	0.45
20:ad:83:THR:HG22	20:ad:86:ILE:HD13	1.99	0.45
21:m:80:LEU:O	21:m:83:TRP:HB3	2.16	0.45
22:i:427:GLY:HA3	53:k:156:TYR:CE2	2.51	0.45
23:f:162:LEU:O	23:f:166:SER:HB2	2.16	0.45
23:f:198:SER:OG	23:f:282:GLY:HA2	2.16	0.45
25:d:398:ALA:O	25:d:402:VAL:HG23	2.16	0.45
27:av:34:ARG:CZ	27:av:83:VAL:HB	2.47	0.45
27:av:48:ARG:HH11	29:ar:58:ARG:HG2	1.82	0.45
30:aq:157:ALA:HA	30:aq:160:ARG:CD	2.44	0.45
32:ao:57:ARG:NH2	32:ao:70:GLU:OE2	2.49	0.45
32:ao:279:MET:HE3	32:ao:279:MET:HB3	1.87	0.45
33:ai:362:ILE:O	33:ai:366:VAL:HB	2.17	0.45
35:z:194:PHE:HE2	43:q:136:GLU:HG3	1.82	0.45
35:z:710:LEU:HD22	35:z:715:MET:HB2	1.98	0.45
35:z:880:ASN:ND2	35:z:887:ARG:HH11	2.14	0.45
36:y:295:GLN:O	36:y:298:ARG:HG2	2.16	0.45
45:Ca:348:ARG:O	45:Ca:350:ALA:N	2.50	0.45
45:Ca:537:ARG:HD2	45:Ca:540:GLN:HB2	1.98	0.45
46:g:27:LYS:NZ	56:2:296:U:O4	2.37	0.45
46:g:182:HIS:CD2	46:g:185:ARG:NH2	2.85	0.45
46:g:182:HIS:HD2	46:g:185:ARG:NH2	2.14	0.45
52:aa:153:ARG:HG2	52:aa:153:ARG:HH11	1.82	0.45
52:aa:643:LEU:HD22	52:aa:648:VAL:HG11	1.99	0.45
52:aa:727:VAL:HG22	52:aa:728:ILE:H	1.82	0.45
52:aa:866:ARG:NE	52:aa:917:GLU:OE2	2.49	0.45
52:aa:1018:GLU:CD	52:aa:1019:PRO:HD3	2.41	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:1160:LEU:HD21	52:aa:1423:ALA:HA	1.98	0.45
52:aa:1262:LEU:HA	52:aa:1262:LEU:HD23	1.58	0.45
56:2:87:U:HO2'	56:2:88:A:P	2.37	0.45
56:2:230:A:H2'	56:2:230:A:N3	2.32	0.45
1:u:787:VAL:HG11	10:aw:117:ALA:HB2	1.97	0.45
1:u:811:GLU:HG3	1:u:812:LYS:N	2.32	0.45
3:r:23:THR:HB	3:r:60:HIS:HB3	1.98	0.45
3:r:302:PRO:HD2	6:e:728:GLU:OE1	2.16	0.45
3:r:378:PHE:O	3:r:381:SER:HB2	2.17	0.45
4:n:92:GLY:O	16:ae:85:LYS:NZ	2.50	0.45
5:h:30:LEU:HD21	16:ae:167:TRP:HD1	1.81	0.45
6:e:157:THR:HG22	6:e:159:GLU:H	1.81	0.45
6:e:284:ARG:HB3	14:ag:271:ARG:NH1	2.31	0.45
8:ay:204:ILE:H	8:ay:204:ILE:HG12	1.53	0.45
13:aj:86:LEU:HD21	13:aj:100:VAL:HB	1.99	0.45
13:aj:214:LYS:HE3	13:aj:214:LYS:HB3	1.69	0.45
13:aj:222:GLU:OE1	18:ac:1105:ARG:NH1	2.43	0.45
14:ag:204:ALA:O	14:ag:208:LEU:HG	2.16	0.45
14:ag:244:ILE:HD13	14:ag:277:HIS:O	2.17	0.45
18:ac:247:HIS:H	18:ac:247:HIS:CD2	2.35	0.45
18:ac:563:GLY:O	18:ac:567:ARG:HG3	2.17	0.45
18:ac:821:PHE:HZ	18:ac:842:GLN:HG3	1.82	0.45
19:ab:183:SER:O	19:ab:183:SER:OG	2.23	0.45
19:ab:451:SER:OG	19:ab:452:LYS:N	2.49	0.45
19:ab:538:ARG:NH2	19:ab:843:ASP:OD2	2.49	0.45
19:ab:559:ASP:O	19:ab:563:GLU:HG2	2.17	0.45
22:i:258:LYS:HB2	22:i:258:LYS:HE3	1.54	0.45
23:f:189:ARG:HE	23:f:189:ARG:HB3	1.54	0.45
23:f:201:ARG:O	23:f:236:ASP:HB3	2.17	0.45
25:d:193:LEU:HD12	25:d:196:THR:OG1	2.16	0.45
26:ba:47:TYR:HD1	45:Ca:587:ILE:HG12	1.81	0.45
27:av:63:GLU:HG2	29:ar:48:LEU:HD13	1.99	0.45
29:ar:26:ASP:CG	29:ar:28:ARG:HE	2.19	0.45
32:ao:113:GLN:HG2	32:ao:150:CYS:HB3	1.99	0.45
32:ao:207:MET:CE	45:Ca:267:GLU:HB3	2.46	0.45
33:ai:48:LEU:HB2	33:ai:161:ARG:NH2	2.32	0.45
35:z:307:LEU:HD11	35:z:830:LEU:HB3	1.98	0.45
35:z:1098:TYR:CZ	45:Ca:52:LYS:HB3	2.52	0.45
36:y:157:TRP:CZ2	36:y:180:VAL:HG13	2.51	0.45
37:x:213:PHE:CE2	37:x:217:LEU:HD11	2.51	0.45
40:bb:171:ARG:HH22	56:2:571:A:P	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:al:53:SER:OG	42:al:54:SER:N	2.50	0.45
42:al:176:TYR:CD2	44:p:79:PRO:HB2	2.50	0.45
43:q:20:SER:O	43:q:20:SER:OG	2.35	0.45
43:q:167:TYR:HB3	43:q:186:VAL:HG22	1.98	0.45
43:q:202:THR:HG23	43:q:203:ASN:ND2	2.32	0.45
45:Ca:387:LEU:HD23	45:Ca:392:ASP:HB3	1.99	0.45
50:a:142:LEU:CD1	50:a:167:LEU:HD13	2.47	0.45
50:a:329:ARG:HE	52:aa:991:ASP:CG	2.21	0.45
52:aa:109:HIS:HD2	52:aa:136:TYR:HB3	1.81	0.45
52:aa:835:ILE:HD13	52:aa:835:ILE:HA	1.80	0.45
52:aa:1112:ALA:HB3	52:aa:1208:GLY:HA3	1.98	0.45
53:k:108:VAL:HG11	53:k:129:ARG:NH2	2.32	0.45
56:A:444:A:C6	56:A:483:A:C2	3.05	0.45
2:s:51:GLY:HA3	6:e:758:LEU:HD21	1.97	0.45
2:s:99:TYR:HE2	6:e:798:LEU:HD22	1.82	0.45
2:s:112:ASN:O	16:ae:169:ARG:HD3	2.17	0.45
3:r:28:ALA:N	3:r:422:LEU:O	2.44	0.45
3:r:239:GLN:HG3	3:r:240:PRO:HD2	1.99	0.45
3:r:382:LEU:O	3:r:384:GLU:N	2.50	0.45
3:r:397:HIS:ND1	3:r:398:PRO:HD2	2.31	0.45
5:h:82:PHE:CE2	5:h:89:LEU:HD21	2.52	0.45
6:e:74:TYR:CD1	42:al:287:THR:HB	2.52	0.45
6:e:154:PRO:HD3	6:e:202:ARG:HE	1.81	0.45
6:e:172:HIS:HD2	15:af:216:HIS:HD2	1.64	0.45
6:e:731:TRP:CH2	6:e:732:MET:HE3	2.52	0.45
7:az:32:TRP:CZ2	7:az:58:THR:HG21	2.51	0.45
7:az:138:TYR:OH	8:ay:187:LYS:HG2	2.15	0.45
10:aw:99:ARG:NE	10:aw:99:ARG:HA	2.32	0.45
14:ag:52:LYS:O	14:ag:56:GLU:HG3	2.17	0.45
14:ag:97:PHE:O	14:ag:101:ILE:HG12	2.17	0.45
14:ag:294:ARG:NH2	19:ab:461:SER:HA	2.32	0.45
14:ag:320:GLU:OE2	14:ag:370:SER:OG	2.35	0.45
14:ag:344:ILE:HA	14:ag:344:ILE:HD13	1.51	0.45
14:ag:454:ARG:H	14:ag:454:ARG:HG2	1.58	0.45
15:af:13:ILE:HD11	19:ab:1039:TRP:HB3	1.99	0.45
15:af:61:PHE:O	15:af:62:SER:OG	2.29	0.45
15:af:309:PHE:HA	15:af:312:LEU:HG	1.99	0.45
15:af:581:TRP:HE3	15:af:624:ILE:HG12	1.79	0.45
16:ae:214:LEU:HD13	16:ae:239:CYS:HB3	1.98	0.45
17:l:301:LYS:HE3	17:l:306:VAL:HG12	1.98	0.45
18:ac:567:ARG:NH2	18:ac:918:ASN:OD1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:621:LEU:HA	18:ac:765:LEU:HD23	1.98	0.45
18:ac:748:MET:HE3	18:ac:751:ASP:HB2	1.99	0.45
18:ac:876:TYR:HE1	18:ac:880:LEU:HD11	1.81	0.45
19:ab:717:ARG:C	19:ab:725:TYR:HD1	2.25	0.45
20:ad:184:LEU:HD13	20:ad:192:MET:HB3	1.99	0.45
20:ad:620:VAL:HG22	41:t:210:PRO:HD3	1.99	0.45
20:ad:701:GLY:O	20:ad:703:ILE:N	2.49	0.45
21:m:59:LEU:HG	21:m:60:PHE:HD1	1.82	0.45
22:i:372:MET:CE	27:av:129:ILE:HG12	2.35	0.45
23:f:220:THR:HB	23:f:223:ASN:H	1.81	0.45
24:c:90:ARG:HD3	33:ai:390:SER:HB3	1.98	0.45
24:c:235:TRP:HE3	24:c:240:MET:SD	2.39	0.45
24:c:259:ARG:NH2	52:aa:177:ALA:O	2.44	0.45
27:av:187:TRP:CH2	27:av:205:MET:HE2	2.52	0.45
28:at:86:ILE:HD13	28:at:92:ARG:HH21	1.82	0.45
30:aq:129:SER:OG	38:w:173:TRP:HH2	1.99	0.45
31:ap:185:ALA:HB1	31:ap:247:PRO:HG2	1.99	0.45
34:an:5:ARG:HD3	50:a:86:ALA:HB3	1.98	0.45
34:an:123:PRO:CG	34:an:226:LEU:HB3	2.46	0.45
35:z:802:GLU:OE1	35:z:824:LYS:NZ	2.49	0.45
35:z:979:TYR:C	35:z:981:MET:H	2.24	0.45
35:z:993:TRP:CD1	35:z:995:ARG:HG2	2.52	0.45
36:y:167:GLY:C	36:y:169:ARG:HD3	2.42	0.45
37:x:213:PHE:CZ	37:x:217:LEU:HD21	2.52	0.45
37:x:324:CYS:SG	37:x:326:TRP:NE1	2.90	0.45
39:v:71:PRO:HB3	39:v:148:ILE:HG13	1.98	0.45
39:v:73:LEU:HD12	39:v:151:VAL:HG11	1.98	0.45
45:Ca:404:TYR:HE2	45:Ca:411:MET:HE3	1.82	0.45
45:Ca:443:TRP:HB2	45:Ca:475:ARG:HB3	1.99	0.45
45:Ca:543:PRO:HB2	45:Ca:548:TYR:CE2	2.50	0.45
45:Ca:569:ARG:HA	45:Ca:569:ARG:HD2	1.83	0.45
46:g:13:MET:HE1	56:2:315:A:OP2	2.17	0.45
46:g:112:MET:O	46:g:116:THR:OG1	2.28	0.45
49:bd:76:LEU:HA	49:bd:76:LEU:HD13	1.62	0.45
50:a:163:ILE:O	50:a:163:ILE:HG13	2.13	0.45
50:a:373:ARG:HD3	50:a:406:THR:O	2.17	0.45
52:aa:493:LEU:HD12	52:aa:528:ILE:HG22	1.98	0.45
55:as:84:PHE:HA	55:as:171:PHE:O	2.16	0.45
56:2:46:U:H2'	56:2:47:U:O4'	2.17	0.45
56:2:161:G:H4'	56:2:162:U:C5	2.51	0.45
1:u:118:ASP:OD2	16:ae:580:ALA:N	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:668:PHE:HB3	6:e:443:HIS:HB3	1.99	0.45
1:u:804:LEU:HD23	3:r:344:LEU:HD12	1.98	0.45
3:r:121:PHE:HZ	3:r:139:THR:HG23	1.81	0.45
3:r:463:LEU:HD21	7:az:38:MET:HB3	1.99	0.45
5:h:67:LEU:HB2	6:e:682:MET:HE1	1.98	0.45
5:h:117:THR:O	5:h:121:MET:HG2	2.17	0.45
6:e:113:TYR:O	6:e:117:MET:HG2	2.17	0.45
6:e:278:LYS:HZ1	14:ag:308:ASP:CG	2.25	0.45
6:e:734:TYR:HA	6:e:738:TYR:HD2	1.81	0.45
10:aw:186:LEU:CD1	15:af:670:ARG:HB3	2.46	0.45
11:au:130:LYS:HA	11:au:156:TYR:CD2	2.51	0.45
12:ak:34:HIS:HA	12:ak:38:VAL:O	2.17	0.45
13:aj:53:GLN:O	56:A:421:G:N2	2.49	0.45
14:ag:109:TYR:CG	14:ag:110:GLN:N	2.85	0.45
15:af:124:PHE:CD1	15:af:142:LEU:HD21	2.52	0.45
15:af:349:GLN:O	15:af:353:ARG:HG3	2.16	0.45
16:ae:11:ARG:N	56:A:436:U:O2	2.50	0.45
17:l:261:TYR:CE2	17:l:314:GLN:HG2	2.52	0.45
17:l:281:VAL:O	17:l:285:HIS:CB	2.50	0.45
18:ac:84:ILE:HG21	18:ac:949:VAL:O	2.16	0.45
18:ac:84:ILE:O	18:ac:952:MET:HB2	2.16	0.45
18:ac:495:LEU:HD21	18:ac:522:PHE:CE1	2.51	0.45
18:ac:619:TRP:CZ3	18:ac:625:ARG:HB2	2.52	0.45
18:ac:876:TYR:O	18:ac:880:LEU:HG	2.17	0.45
19:ab:510:VAL:HG12	19:ab:528:PHE:CE2	2.52	0.45
20:ad:342:GLN:HB3	29:ar:30:ALA:HA	1.99	0.45
20:ad:559:ASP:O	20:ad:563:GLN:HG2	2.16	0.45
20:ad:579:TYR:O	20:ad:583:ASN:ND2	2.50	0.45
23:f:160:TYR:O	23:f:163:VAL:HG12	2.17	0.45
23:f:173:THR:O	35:z:625:VAL:HG12	2.17	0.45
23:f:207:ALA:HB3	23:f:215:ILE:HG22	1.98	0.45
27:av:123:LEU:O	27:av:127:VAL:HG23	2.16	0.45
28:at:61:ASN:OD1	28:at:62:ARG:N	2.49	0.45
28:at:105:TYR:HD1	28:at:107:LYS:HB2	1.82	0.45
28:at:169:PHE:O	28:at:171:ALA:N	2.50	0.45
32:ao:196:LEU:HD12	52:aa:938:PRO:HD2	1.99	0.45
33:ai:50:LEU:HB3	33:ai:209:LEU:HB2	1.99	0.45
34:an:88:GLN:O	34:an:92:LEU:HB2	2.17	0.45
34:an:121:LEU:O	34:an:125:VAL:HG22	2.16	0.45
34:an:123:PRO:HG3	34:an:226:LEU:HB3	1.99	0.45
34:an:142:VAL:HA	52:aa:1082:PRO:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:121:TYR:N	35:z:121:TYR:CD1	2.84	0.45
35:z:295:CYS:O	35:z:395:GLY:HA3	2.17	0.45
35:z:536:GLN:OE1	35:z:542:ILE:HG12	2.17	0.45
35:z:655:HIS:N	35:z:677:PHE:O	2.46	0.45
36:y:129:ALA:HB3	36:y:136:PHE:HD1	1.82	0.45
37:x:286:PRO:HG3	37:x:293:PRO:HB3	1.99	0.45
38:w:78:LYS:NZ	38:w:94:ARG:HH12	2.15	0.45
39:v:215:LYS:HG3	56:2:357:A:C2	2.52	0.45
41:t:16:GLY:HA2	56:2:80:U:OP2	2.17	0.45
41:t:77:VAL:HG22	41:t:81:GLU:HB2	1.98	0.45
42:al:198:ALA:HB3	42:al:218:LEU:HD21	1.98	0.45
43:q:116:LYS:HB2	43:q:116:LYS:HE3	1.87	0.45
45:Ca:106:ASN:HA	45:Ca:156:ARG:CZ	2.46	0.45
45:Ca:374:TYR:CD2	45:Ca:380:MET:HG3	2.52	0.45
50:a:264:SER:OG	50:a:265:PRO:HD2	2.17	0.45
51:bc:358:PRO:HA	51:bc:371:TYR:HA	1.99	0.45
52:aa:108:ILE:CG2	52:aa:138:ARG:H	2.30	0.45
52:aa:130:PRO:HD3	56:2:154:G:C2	2.51	0.45
52:aa:266:LEU:HB3	52:aa:288:VAL:HG22	1.98	0.45
52:aa:816:GLN:HG3	52:aa:830:SER:O	2.16	0.45
52:aa:1324:SER:O	52:aa:1328:ILE:HG22	2.16	0.45
53:k:55:THR:HG21	56:2:128:A:H62	1.82	0.45
55:as:63:ILE:O	55:as:85:TYR:HB2	2.16	0.45
2:s:142:ALA:HB2	11:au:28:GLU:OE2	2.17	0.45
3:r:131:LYS:HB3	3:r:134:VAL:HB	1.99	0.45
6:e:16:MET:CE	49:bd:43:SER:HA	2.47	0.45
6:e:64:VAL:CG2	6:e:65:PRO:HD2	2.46	0.45
6:e:114:VAL:HG11	19:ab:904:PHE:HD2	1.81	0.45
6:e:172:HIS:CD2	15:af:216:HIS:HD2	2.35	0.45
6:e:294:PHE:CZ	6:e:322:ALA:HA	2.52	0.45
9:ax:99:PRO:HA	9:ax:143:PRO:CD	2.47	0.45
13:aj:39:GLU:H	13:aj:39:GLU:HG2	1.61	0.45
14:ag:344:ILE:HD11	19:ab:1044:VAL:CG2	2.43	0.45
16:ae:171:GLY:H	16:ae:174:PHE:HD2	1.64	0.45
16:ae:184:LEU:HD21	16:ae:226:THR:HA	1.99	0.45
17:l:74:PRO:HG3	18:ac:837:SER:HB2	1.98	0.45
18:ac:339:GLN:HG2	18:ac:347:PRO:HD3	1.99	0.45
18:ac:477:GLN:O	18:ac:479:ASN:N	2.47	0.45
18:ac:1037:ARG:HG3	18:ac:1041:LEU:HD12	1.98	0.45
19:ab:377:ARG:NH2	19:ab:381:LEU:HD12	2.31	0.45
19:ab:393:LYS:HB2	19:ab:396:VAL:HB	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:ab:1111:THR:O	19:ab:1115:VAL:HG22	2.17	0.45
20:ad:21:ARG:HH12	56:2:274:A:H62	1.65	0.45
20:ad:36:GLN:O	20:ad:40:MET:HG3	2.16	0.45
20:ad:124:TYR:CZ	20:ad:126:MET:HB3	2.51	0.45
20:ad:194:ARG:NH2	47:j:182:GLU:HG2	2.32	0.45
20:ad:345:PRO:HB3	27:av:92:ARG:NH2	2.32	0.45
20:ad:347:GLU:OE1	20:ad:347:GLU:N	2.50	0.45
20:ad:568:MET:HE3	20:ad:568:MET:HB3	1.85	0.45
20:ad:753:PRO:HG3	32:ao:55:GLN:HB3	1.99	0.45
22:i:70:HIS:CG	40:bb:213:ARG:HD3	2.52	0.45
23:f:184:MET:HE3	23:f:185:PRO:HD2	1.99	0.45
24:c:69:LEU:HB3	24:c:74:ARG:NH1	2.32	0.45
25:d:307:ILE:HG12	25:d:326:ARG:HG3	1.99	0.45
25:d:337:ILE:CG2	25:d:345:VAL:HG11	2.46	0.45
25:d:432:TYR:HE1	25:d:439:LYS:HG2	1.82	0.45
29:ar:100:HIS:HE1	29:ar:229:MET:HA	1.82	0.45
33:ai:245:CYS:O	33:ai:249:ARG:HG2	2.17	0.45
33:ai:310:ASN:HD21	43:q:110:GLU:HB2	1.81	0.45
34:an:75:VAL:HG21	35:z:946:LEU:HB3	1.99	0.45
35:z:219:ARG:N	35:z:474:ASP:OD2	2.50	0.45
36:y:150:ARG:NH2	36:y:152:GLU:HB3	2.32	0.45
41:t:20:MET:CG	43:q:51:GLU:HB3	2.47	0.45
43:q:113:GLN:HA	43:q:116:LYS:HE3	1.99	0.45
45:Ca:593:ASP:O	45:Ca:594:ALA:C	2.59	0.45
48:b:68:GLN:NE2	48:b:125:GLU:HB3	2.32	0.45
51:bc:269:ALA:CB	51:bc:303:VAL:HG21	2.47	0.45
52:aa:189:TYR:HE1	52:aa:195:GLN:HE22	1.64	0.45
52:aa:364:ARG:HH11	52:aa:370:TRP:CD1	2.35	0.45
52:aa:501:MET:O	52:aa:505:ARG:HD2	2.17	0.45
52:aa:528:ILE:HG23	52:aa:550:ILE:CD1	2.47	0.45
52:aa:638:THR:HG23	52:aa:643:LEU:HD11	1.99	0.45
52:aa:1127:HIS:HD2	52:aa:1670:LEU:HD21	1.80	0.45
52:aa:1134:CYS:SG	52:aa:1144:LEU:HD22	2.57	0.45
52:aa:1429:LEU:O	52:aa:1433:ILE:HG12	2.17	0.45
55:as:66:LYS:HD3	55:as:66:LYS:HA	1.71	0.45
55:as:174:VAL:HG22	55:as:175:ARG:N	2.32	0.45
55:as:220:LYS:HG3	55:as:221:ARG:O	2.17	0.45
56:A:460:U:O2'	56:A:461:A:OP2	2.28	0.45
56:A:486:C:OP1	56:A:487:A:O2'	2.27	0.45
56:A:518:G:H4'	56:A:519:U:H5''	1.98	0.45
1:u:289:LEU:HG	1:u:626:ILE:HD12	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:r:89:PHE:O	9:ax:78:LEU:HD13	2.17	0.45
5:h:66:MET:HB3	5:h:66:MET:HE2	1.85	0.45
5:h:116:TRP:HE1	56:A:473:U:P	2.37	0.45
6:e:713:THR:OG1	6:e:716:SER:N	2.50	0.45
6:e:793:HIS:HB3	6:e:796:LYS:HB2	1.99	0.45
7:az:34:ASP:O	7:az:38:MET:HG3	2.16	0.45
11:au:93:MET:HE2	11:au:93:MET:HB3	1.83	0.45
13:aj:48:MET:HG3	18:ac:1143:THR:HG21	1.99	0.45
14:ag:416:LEU:HD23	14:ag:417:HIS:N	2.32	0.45
14:ag:532:VAL:HG22	17:l:140:PHE:HE1	1.82	0.45
15:af:618:LEU:HD11	15:af:658:VAL:HG23	1.99	0.45
16:ae:394:LEU:O	16:ae:398:HIS:ND1	2.49	0.45
17:l:155:LYS:HE3	17:l:528:ALA:HB2	1.99	0.45
17:l:588:SER:OG	17:l:589:SER:N	2.50	0.45
18:ac:386:TRP:CD1	18:ac:390:ILE:HD12	2.52	0.45
18:ac:937:GLU:O	18:ac:940:TRP:HB2	2.17	0.45
18:ac:1125:LYS:H	18:ac:1125:LYS:HG2	1.48	0.45
19:ab:152:LEU:HG	19:ab:164:LEU:HD23	1.98	0.45
20:ad:135:ARG:HB3	20:ad:136:LYS:NZ	2.32	0.45
21:m:18:ILE:HB	35:z:456:PHE:CE2	2.52	0.45
22:i:242:ASN:CG	22:i:245:ASN:HD21	2.23	0.45
23:f:107:ARG:NH2	25:d:93:TYR:HB3	2.32	0.45
23:f:254:LEU:HD11	23:f:300:GLU:OE2	2.16	0.45
24:c:35:LYS:HD3	24:c:35:LYS:HA	1.73	0.45
24:c:209:GLU:HB2	35:z:225:MET:HE3	1.99	0.45
25:d:176:GLN:HA	25:d:179:LEU:HD12	1.99	0.45
25:d:233:LEU:HD11	25:d:272:PHE:CD2	2.52	0.45
25:d:432:TYR:HA	25:d:438:VAL:O	2.17	0.45
26:ba:48:ARG:NE	45:Ca:584:ALA:HB3	2.32	0.45
26:ba:88:PHE:HB3	26:ba:91:ASN:ND2	2.32	0.45
30:aq:19:TRP:CD2	30:aq:63:CYS:HB3	2.52	0.45
31:ap:119:VAL:HG11	31:ap:154:LEU:O	2.16	0.45
33:ai:283:SER:OG	33:ai:284:GLY:N	2.50	0.45
33:ai:410:LEU:HD11	43:q:114:ALA:HB3	1.99	0.45
34:an:145:VAL:HA	52:aa:1001:ILE:HG21	1.99	0.45
34:an:159:THR:O	52:aa:1196:THR:HG21	2.16	0.45
35:z:554:ILE:HG13	35:z:555:THR:N	2.32	0.45
36:y:19:VAL:HG23	36:y:101:LEU:HD22	1.99	0.45
36:y:74:LEU:HD11	36:y:82:HIS:CG	2.52	0.45
36:y:160:TYR:HB3	36:y:187:TRP:HB3	1.99	0.45
36:y:285:TYR:HA	36:y:290:ARG:HD3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:x:211:CYS:O	37:x:214:TYR:HB2	2.17	0.45
38:w:71:SER:HA	38:w:74:LYS:HE3	1.97	0.45
38:w:134:THR:HG21	38:w:140:ARG:O	2.16	0.45
39:v:186:TYR:CD1	39:v:186:TYR:C	2.95	0.45
40:bb:159:MET:HE2	40:bb:159:MET:HB2	1.56	0.45
41:t:118:ARG:NH1	41:t:170:GLY:HA3	2.31	0.45
41:t:138:ASN:HB2	41:t:143:LYS:HG3	1.99	0.45
42:al:57:GLU:OE2	42:al:60:ARG:HD2	2.16	0.45
50:a:329:ARG:NE	52:aa:991:ASP:OD1	2.36	0.45
52:aa:1106:GLU:O	52:aa:1107:LEU:HD23	2.17	0.45
52:aa:1109:TYR:CD1	52:aa:1109:TYR:N	2.85	0.45
52:aa:1634:PHE:HD2	52:aa:1635:PHE:CE1	2.35	0.45
56:2:141:G:N2	56:2:149:U:H1'	2.31	0.45
56:2:189:A:H2'	56:2:190:U:C6	2.52	0.45
1:u:97:GLN:NE2	19:ab:463:MET:HG3	2.31	0.44
1:u:308:GLU:HB2	1:u:311:VAL:CG1	2.47	0.44
1:u:687:ARG:NH1	14:ag:31:GLU:OE1	2.45	0.44
2:s:135:MET:SD	14:ag:12:PRO:HB3	2.56	0.44
3:r:328:ILE:HG23	3:r:332:ARG:HB2	1.99	0.44
5:h:85:PRO:HB3	56:A:508:A:N1	2.32	0.44
6:e:230:GLU:OE2	6:e:436:ILE:HD13	2.16	0.44
12:ak:59:TRP:HE3	12:ak:62:PHE:CD2	2.35	0.44
12:ak:176:LYS:HD3	12:ak:248:ASN:ND2	2.31	0.44
14:ag:326:ILE:HG21	14:ag:352:ILE:HG13	1.99	0.44
15:af:93:ARG:O	15:af:95:VAL:HG23	2.17	0.44
15:af:658:VAL:HG11	15:af:677:ALA:HB2	1.99	0.44
16:ae:195:ALA:HB3	16:ae:198:GLU:HG3	1.99	0.44
16:ae:394:LEU:HD23	16:ae:394:LEU:HA	1.63	0.44
17:l:76:PRO:O	17:l:187:ILE:HG22	2.17	0.44
17:l:76:PRO:HG2	18:ac:856:VAL:HG13	1.99	0.44
19:ab:247:GLU:HA	19:ab:250:LEU:HD12	1.98	0.44
19:ab:547:LEU:HD22	19:ab:565:LEU:HB2	1.99	0.44
19:ab:647:LEU:O	19:ab:649:LEU:N	2.49	0.44
19:ab:740:LEU:CD2	19:ab:780:LEU:HA	2.47	0.44
19:ab:841:THR:O	19:ab:844:VAL:HB	2.17	0.44
20:ad:242:LEU:O	20:ad:325:THR:HB	2.17	0.44
20:ad:726:MET:H	20:ad:726:MET:HG2	1.50	0.44
21:m:123:LYS:HE3	23:f:168:MET:HE3	1.98	0.44
21:m:223:LYS:HD3	21:m:223:LYS:HA	1.78	0.44
22:i:301:TRP:HB3	53:k:97:TYR:CE1	2.52	0.44
22:i:375:PRO:HA	22:i:378:ALA:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:d:77:THR:O	25:d:82:ALA:HB2	2.16	0.44
25:d:307:ILE:HG21	25:d:324:LEU:HB3	1.99	0.44
26:ba:43:TYR:OH	45:Ca:580:VAL:HB	2.17	0.44
33:ai:353:TYR:CE2	33:ai:386:LYS:HE3	2.52	0.44
34:an:108:LYS:HB3	34:an:108:LYS:HE2	1.66	0.44
35:z:113:THR:CG2	35:z:137:LEU:HD22	2.46	0.44
35:z:673:PHE:HE1	35:z:675:PHE:HD2	1.63	0.44
35:z:841:HIS:CD2	35:z:871:PRO:HG3	2.51	0.44
35:z:1020:GLU:HG2	35:z:1021:GLU:N	2.32	0.44
35:z:1071:ARG:HG2	45:Ca:95:TRP:CZ3	2.52	0.44
36:y:200:LEU:HD11	37:x:302:GLY:CA	2.43	0.44
37:x:133:PHE:HD1	37:x:171:ASN:HD21	1.65	0.44
37:x:182:HIS:HE2	44:p:112:TYR:HD2	1.58	0.44
39:v:211:LEU:C	56:2:357:A:H61	2.24	0.44
42:al:65:ILE:HD12	50:a:126:ASP:HB3	1.99	0.44
42:al:269:ILE:HD12	56:A:455:G:N3	2.32	0.44
44:p:78:GLU:HG2	44:p:81:GLN:HG2	1.99	0.44
45:Ca:107:ILE:HD11	45:Ca:157:TRP:NE1	2.32	0.44
45:Ca:242:LEU:HD23	45:Ca:242:LEU:HA	1.77	0.44
45:Ca:424:GLN:NE2	45:Ca:475:ARG:NH1	2.65	0.44
47:j:72:PRO:HB2	47:j:89:LEU:HB3	1.98	0.44
49:bd:61:ASN:O	49:bd:62:ILE:HD13	2.16	0.44
51:bc:285:GLU:OE2	51:bc:322:ILE:HD13	2.17	0.44
52:aa:140:MET:C	52:aa:142:LEU:H	2.25	0.44
52:aa:144:GLU:HB3	53:k:77:PRO:HB2	1.98	0.44
52:aa:1050:PHE:CG	52:aa:1055:PRO:HD3	2.52	0.44
52:aa:1141:VAL:HG11	52:aa:1670:LEU:HB2	1.99	0.44
54:be:63:ILE:CG2	54:be:76:TYR:HB3	2.43	0.44
1:u:752:LYS:HD3	1:u:753:TYR:CZ	2.51	0.44
2:s:37:ARG:HA	2:s:40:ILE:CG1	2.47	0.44
2:s:89:MET:HB3	19:ab:1084:ARG:NE	2.28	0.44
3:r:298:ARG:NH1	3:r:327:ARG:HE	2.16	0.44
3:r:389:ASP:O	3:r:393:ASP:HB2	2.18	0.44
3:r:443:LYS:HE3	25:d:354:GLU:HB2	1.99	0.44
6:e:337:LEU:HB3	19:ab:859:PRO:HG3	1.99	0.44
6:e:339:VAL:HG13	6:e:360:TRP:CD1	2.52	0.44
8:ay:205:PHE:HB3	56:A:515:U:C4	2.52	0.44
9:ax:122:ALA:HA	9:ax:125:ARG:HB3	2.00	0.44
11:au:223:LEU:HD13	11:au:228:LEU:HB3	2.00	0.44
13:aj:100:VAL:HG11	13:aj:127:HIS:CD2	2.52	0.44
15:af:231:PHE:O	15:af:235:LEU:HD23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:ae:522:TRP:CE2	16:ae:537:ALA:HB2	2.53	0.44
16:ae:546:HIS:CE1	16:ae:550:SER:HB2	2.52	0.44
16:ae:582:GLU:HB3	16:ae:584:PHE:CE1	2.53	0.44
17:l:39:ILE:HG21	19:ab:328:GLN:HA	1.98	0.44
17:l:670:ASP:OD1	17:l:674:ARG:NE	2.51	0.44
18:ac:496:TYR:O	18:ac:500:LYS:HG2	2.16	0.44
18:ac:985:PHE:CG	18:ac:986:ASP:N	2.85	0.44
18:ac:1131:ARG:HE	18:ac:1131:ARG:HB2	1.50	0.44
19:ab:348:GLN:O	19:ab:352:ASP:HB2	2.17	0.44
19:ab:415:THR:N	19:ab:418:ASP:OD1	2.42	0.44
19:ab:659:ARG:NH2	19:ab:835:ARG:HB3	2.33	0.44
19:ab:936:ARG:O	19:ab:942:ARG:HD2	2.16	0.44
20:ad:135:ARG:NH2	20:ad:139:MET:HE1	2.33	0.44
20:ad:260:THR:HG22	20:ad:261:ARG:H	1.82	0.44
20:ad:320:GLU:O	20:ad:324:SER:OG	2.31	0.44
20:ad:346:TYR:CE2	20:ad:363:GLY:HA3	2.51	0.44
20:ad:629:ALA:HB3	20:ad:634:LYS:HE3	1.98	0.44
20:ad:768:SER:O	45:Ca:369:ARG:NH2	2.51	0.44
20:ad:792:ARG:HH22	20:ad:807:SER:H	1.65	0.44
21:m:112:GLY:HA3	21:m:149:PRO:O	2.17	0.44
22:i:81:MET:HE2	56:2:336:U:H3	1.81	0.44
22:i:206:MET:O	22:i:209:GLU:HB3	2.17	0.44
23:f:73:LEU:HD21	25:d:165:TYR:CE2	2.48	0.44
23:f:189:ARG:NH1	23:f:266:ARG:HD3	2.32	0.44
24:c:91:LEU:HD11	35:z:357:ARG:HB3	1.99	0.44
25:d:76:PHE:O	25:d:81:GLN:HB2	2.17	0.44
29:ar:22:HIS:CE1	56:2:111:A:O2'	2.70	0.44
30:aq:129:SER:HG	38:w:173:TRP:HH2	1.64	0.44
32:ao:249:THR:HG22	32:ao:250:ILE:N	2.32	0.44
32:ao:268:SER:OG	32:ao:270:GLN:O	2.36	0.44
33:ai:42:ASP:OD1	33:ai:44:THR:N	2.50	0.44
34:an:18:HIS:C	34:an:19:HIS:ND1	2.75	0.44
35:z:441:TYR:HB2	35:z:444:LEU:HD23	1.98	0.44
35:z:1039:THR:HG23	45:Ca:120:ASN:HD21	1.81	0.44
35:z:1086:ALA:HB3	35:z:1091:LYS:HD2	1.98	0.44
36:y:49:LEU:HD22	36:y:98:VAL:HG11	1.99	0.44
37:x:139:ASN:CB	52:aa:1103:ARG:HG3	2.48	0.44
38:w:82:ASP:OD2	38:w:94:ARG:NH2	2.50	0.44
39:v:103:LEU:O	39:v:107:MET:N	2.49	0.44
41:t:51:VAL:HG21	43:q:18:LEU:CD2	2.46	0.44
45:Ca:574:GLU:HB2	45:Ca:581:ILE:HG21	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:a:405:THR:OG1	50:a:408:ASP:HB2	2.18	0.44
51:bc:312:PRO:HD2	51:bc:315:LYS:HE2	1.99	0.44
52:aa:1687:ARG:NE	52:aa:1687:ARG:HA	2.32	0.44
53:k:14:PHE:O	53:k:17:GLU:N	2.50	0.44
55:as:88:ASP:HA	55:as:157:LEU:HD11	1.99	0.44
56:A:460:U:C2	56:A:461:A:C6	3.05	0.44
1:u:322:LEU:O	1:u:325:THR:OG1	2.31	0.44
1:u:740:ARG:HG2	1:u:748:LEU:HD23	1.98	0.44
3:r:167:ARG:NH1	3:r:214:ALA:HB1	2.32	0.44
6:e:424:TRP:CG	19:ab:1042:ILE:HG12	2.52	0.44
6:e:546:PRO:HG2	6:e:549:GLY:N	2.32	0.44
13:aj:208:GLY:HA3	13:aj:240:ILE:HG22	1.99	0.44
14:ag:43:GLN:HG3	56:A:426:A:O2'	2.18	0.44
14:ag:207:HIS:CG	16:ae:430:LEU:HD22	2.53	0.44
14:ag:492:HIS:NE2	19:ab:400:ARG:HD3	2.32	0.44
14:ag:551:THR:OG1	17:l:487:ASP:OD2	2.32	0.44
15:af:90:MET:HE1	15:af:101:THR:HG21	1.99	0.44
16:ae:131:ARG:NH2	16:ae:135:PRO:HG3	2.32	0.44
16:ae:180:PHE:CG	19:ab:1074:ARG:CZ	3.00	0.44
16:ae:470:LEU:HB3	16:ae:478:TYR:HB2	1.99	0.44
16:ae:540:GLU:OE1	16:ae:540:GLU:N	2.50	0.44
18:ac:506:LEU:HA	18:ac:517:SER:HB3	2.00	0.44
19:ab:94:PRO:O	19:ab:131:ARG:NH2	2.50	0.44
19:ab:243:ASN:CG	19:ab:369:ARG:HE	2.26	0.44
19:ab:738:VAL:HG23	19:ab:751:VAL:CG2	2.46	0.44
20:ad:674:GLU:OE2	28:at:253:ARG:HA	2.17	0.44
20:ad:803:LYS:HB2	45:Ca:590:ARG:HD3	1.99	0.44
23:f:307:GLU:HB3	46:g:45:VAL:HG22	2.00	0.44
27:av:196:CYS:O	27:av:202:TYR:HB2	2.17	0.44
30:aq:70:TRP:CG	30:aq:71:LEU:N	2.85	0.44
30:aq:90:LEU:HD21	30:aq:131:ALA:HB2	2.00	0.44
33:ai:388:LEU:HD11	33:ai:395:PHE:HE1	1.82	0.44
34:an:4:TYR:CD2	34:an:35:VAL:HG11	2.52	0.44
34:an:18:HIS:HB3	34:an:19:HIS:CE1	2.53	0.44
34:an:56:TRP:CD1	34:an:56:TRP:N	2.84	0.44
35:z:830:LEU:HD23	35:z:835:PHE:CE2	2.52	0.44
36:y:103:SER:HB3	36:y:180:VAL:HG23	1.99	0.44
37:x:213:PHE:HA	37:x:296:ALA:HB3	1.98	0.44
38:w:11:THR:HG22	56:2:266:A:N7	2.31	0.44
38:w:35:THR:O	45:Ca:440:GLN:HB3	2.16	0.44
38:w:36:THR:HA	45:Ca:440:GLN:HE22	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:w:129:TYR:HA	38:w:132:PHE:CD2	2.52	0.44
41:t:100:ILE:HA	41:t:103:LEU:HB2	1.99	0.44
44:p:31:TRP:CE3	44:p:31:TRP:HA	2.53	0.44
45:Ca:21:ARG:NE	56:2:255:U:OP2	2.51	0.44
45:Ca:97:ASN:O	45:Ca:100:GLY:N	2.50	0.44
45:Ca:529:PRO:HG3	52:aa:363:PHE:HB3	1.98	0.44
46:g:127:VAL:HG22	46:g:135:VAL:HG21	2.00	0.44
47:j:48:VAL:O	47:j:49:GLU:HB3	2.15	0.44
48:b:41:ASN:OD1	48:b:42:GLU:N	2.50	0.44
48:b:68:GLN:HE22	48:b:125:GLU:N	2.15	0.44
52:aa:925:LYS:HB2	52:aa:925:LYS:HE2	1.69	0.44
52:aa:1012:LEU:HB2	52:aa:1017:TRP:CG	2.52	0.44
52:aa:1316:HIS:HD2	52:aa:1320:ARG:NH1	2.16	0.44
53:k:74:MET:HB2	53:k:74:MET:HE3	1.56	0.44
55:as:255:LEU:O	55:as:257:TRP:HD1	2.00	0.44
56:2:208:U:O2'	56:2:209:U:H2'	2.17	0.44
56:2:239:G:H8	56:2:239:G:O5'	2.00	0.44
56:2:377:U:O4	56:2:572:A:H1'	2.18	0.44
1:u:551:LEU:O	1:u:560:SER:OG	2.14	0.44
2:s:139:ILE:HD11	14:ag:12:PRO:O	2.17	0.44
3:r:159:MET:SD	3:r:284:VAL:HG13	2.58	0.44
3:r:163:VAL:HG21	3:r:175:TYR:CD2	2.52	0.44
3:r:444:ILE:HG22	3:r:455:VAL:HG22	2.00	0.44
6:e:364:GLU:N	6:e:402:VAL:O	2.40	0.44
7:az:81:THR:HG23	7:az:83:TYR:CD1	2.53	0.44
11:au:189:PRO:O	13:aj:323:THR:OG1	2.32	0.44
12:ak:36:ARG:HG2	12:ak:59:TRP:CZ3	2.52	0.44
12:ak:138:GLN:NE2	19:ab:415:THR:HB	2.33	0.44
15:af:155:GLU:HG2	15:af:156:TRP:N	2.31	0.44
15:af:255:VAL:O	15:af:259:MET:HG3	2.16	0.44
15:af:373:LYS:HE3	15:af:373:LYS:HB3	1.78	0.44
15:af:540:VAL:HG12	15:af:550:ARG:HH12	1.83	0.44
17:l:214:TRP:HH2	17:l:382:ASN:HD21	1.64	0.44
17:l:522:LEU:HD23	19:ab:347:THR:HG23	1.99	0.44
17:l:677:ARG:NH1	19:ab:451:SER:OG	2.47	0.44
18:ac:664:ASN:O	18:ac:789:VAL:HB	2.18	0.44
18:ac:722:ALA:N	18:ac:723:PRO:HD3	2.32	0.44
18:ac:748:MET:HE2	18:ac:891:ALA:HB1	1.99	0.44
18:ac:878:LEU:HD23	18:ac:878:LEU:HA	1.73	0.44
20:ad:295:TYR:CE1	20:ad:314:PHE:CD1	3.06	0.44
20:ad:609:ASP:O	41:t:201:PRO:HB3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:m:69:HIS:ND1	21:m:75:GLN:OE1	2.46	0.44
21:m:88:THR:C	37:x:182:HIS:HE1	2.26	0.44
22:i:84:GLU:HG2	40:bb:231:ARG:NH2	2.33	0.44
22:i:368:ALA:HA	27:av:129:ILE:CG2	2.47	0.44
25:d:213:ASN:N	25:d:213:ASN:OD1	2.50	0.44
29:ar:100:HIS:ND1	29:ar:103:HIS:CD2	2.86	0.44
31:ap:263:TRP:HZ2	35:z:728:PRO:HA	1.80	0.44
34:an:12:ARG:HH21	34:an:254:VAL:CG1	2.31	0.44
35:z:280:LEU:HD12	35:z:382:PRO:HB2	1.99	0.44
35:z:980:GLU:OE2	52:aa:971:TRP:HB3	2.18	0.44
36:y:187:TRP:HB2	36:y:285:TYR:OH	2.18	0.44
37:x:301:GLU:OE2	37:x:310:PRO:HB3	2.18	0.44
37:x:331:ARG:O	37:x:335:GLN:HG3	2.18	0.44
38:w:28:LYS:O	47:j:74:LYS:NZ	2.50	0.44
38:w:134:THR:HG22	38:w:142:ILE:HB	1.98	0.44
39:v:48:PHE:CE1	39:v:52:THR:HG23	2.53	0.44
40:bb:228:ASN:OD1	40:bb:229:ARG:N	2.44	0.44
42:al:46:GLU:CD	49:bd:57:VAL:HA	2.43	0.44
43:q:102:ARG:HD2	52:aa:190:GLU:O	2.17	0.44
44:p:288:THR:O	44:p:290:ASP:N	2.51	0.44
45:Ca:10:ARG:NH1	54:be:51:CYS:SG	2.91	0.44
45:Ca:99:PHE:HB2	45:Ca:171:CYS:SG	2.57	0.44
45:Ca:132:HIS:CD2	50:a:352:PHE:HE2	2.36	0.44
45:Ca:407:MET:C	45:Ca:409:PRO:HD3	2.42	0.44
47:j:23:GLY:CA	56:2:164:G:H1	2.30	0.44
50:a:123:LEU:O	50:a:125:PRO:HD3	2.18	0.44
50:a:382:ARG:HH11	52:aa:1037:PRO:HA	1.83	0.44
51:bc:326:GLY:N	51:bc:329:GLU:OE1	2.39	0.44
52:aa:126:ARG:HG2	52:aa:126:ARG:H	1.55	0.44
52:aa:1112:ALA:O	52:aa:1116:LEU:HG	2.16	0.44
56:2:170:U:H3'	56:2:170:U:O2	2.17	0.44
1:u:668:PHE:O	6:e:442:ILE:HA	2.17	0.44
2:s:63:PRO:HD2	6:e:215:TYR:CE1	2.53	0.44
2:s:161:GLY:N	56:A:437:U:H2'	2.33	0.44
6:e:19:GLN:C	49:bd:43:SER:HB2	2.43	0.44
6:e:34:ASN:HB3	42:al:49:LYS:HD3	1.99	0.44
6:e:143:LEU:HD21	6:e:214:TRP:HA	1.99	0.44
6:e:508:ALA:O	6:e:522:ASN:HB2	2.18	0.44
8:ay:136:PHE:HZ	8:ay:170:PHE:CZ	2.35	0.44
9:ax:113:LEU:HD23	56:A:401:A:C5	2.52	0.44
11:au:72:HIS:ND1	11:au:72:HIS:O	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:au:77:PRO:O	18:ac:1073:THR:OG1	2.22	0.44
11:au:192:GLN:OE1	11:au:195:ILE:HD13	2.17	0.44
12:ak:101:ARG:HA	12:ak:104:GLU:OE1	2.17	0.44
12:ak:174:PHE:HD1	12:ak:174:PHE:H	1.65	0.44
13:aj:159:LEU:HD11	13:aj:163:LYS:HE3	1.99	0.44
14:ag:267:PHE:HZ	14:ag:283:PHE:CE2	2.36	0.44
15:af:323:TYR:HE2	15:af:354:TYR:HB3	1.82	0.44
15:af:370:LEU:HA	15:af:370:LEU:HD23	1.73	0.44
16:ae:20:SER:HA	16:ae:23:ARG:HE	1.83	0.44
16:ae:117:VAL:HG12	16:ae:119:HIS:H	1.83	0.44
16:ae:306:GLU:O	16:ae:307:ILE:HD13	2.17	0.44
16:ae:546:HIS:NE2	16:ae:550:SER:HB2	2.33	0.44
17:l:415:ARG:HG3	19:ab:204:GLN:O	2.18	0.44
17:l:576:SER:O	17:l:580:HIS:ND1	2.51	0.44
18:ac:44:GLU:OE2	18:ac:405:ARG:NE	2.49	0.44
18:ac:51:LEU:HD23	18:ac:51:LEU:HA	1.74	0.44
18:ac:271:PHE:CD2	18:ac:444:ALA:HA	2.52	0.44
18:ac:619:TRP:CH2	18:ac:625:ARG:HB2	2.53	0.44
18:ac:1134:PRO:HG3	19:ab:424:TYR:O	2.17	0.44
19:ab:420:HIS:HE1	19:ab:435:HIS:CD2	2.36	0.44
19:ab:735:VAL:HG12	19:ab:737:VAL:HG22	1.99	0.44
20:ad:277:ASP:OD1	20:ad:278:PRO:HD2	2.17	0.44
20:ad:778:PRO:O	20:ad:780:ILE:HD12	2.18	0.44
21:m:40:VAL:HG21	21:m:101:GLN:HB2	1.99	0.44
23:f:75:GLN:HG3	44:p:170:LEU:HA	1.99	0.44
23:f:248:MET:O	23:f:251:ASN:HB2	2.18	0.44
23:f:281:MET:HG2	23:f:309:ILE:O	2.16	0.44
23:f:323:VAL:HG11	46:g:179:LYS:HB3	1.99	0.44
25:d:67:LEU:HD12	25:d:67:LEU:HA	1.85	0.44
25:d:244:ASP:O	25:d:247:ARG:HG2	2.17	0.44
25:d:409:ARG:HH22	25:d:413:LYS:HD3	1.81	0.44
28:at:17:SER:HA	56:2:189:A:N7	2.33	0.44
29:ar:31:SER:OG	55:as:14:ARG:HA	2.17	0.44
31:ap:218:ASP:OD1	31:ap:218:ASP:C	2.60	0.44
32:ao:207:MET:HE3	45:Ca:267:GLU:HB3	1.98	0.44
34:an:16:TRP:HE3	34:an:21:ARG:O	2.00	0.44
34:an:250:ASP:OD1	50:a:47:ARG:NH2	2.39	0.44
35:z:544:ASN:O	35:z:547:SER:OG	2.28	0.44
35:z:602:VAL:HG21	48:b:148:GLU:HG2	1.99	0.44
37:x:165:ASP:O	37:x:169:THR:HG22	2.18	0.44
39:v:114:THR:HA	39:v:119:SER:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:t:218:PRO:O	41:t:221:VAL:HG12	2.17	0.44
42:al:41:THR:O	42:al:43:PRO:HD3	2.17	0.44
44:p:57:MET:HE1	50:a:43:PHE:CZ	2.52	0.44
44:p:177:MET:O	44:p:181:THR:OG1	2.21	0.44
45:Ca:200:ASP:OD1	45:Ca:204:ARG:HD2	2.18	0.44
45:Ca:487:SER:HB3	52:aa:304:PHE:HB3	1.98	0.44
45:Ca:569:ARG:HH22	56:2:143:U:P	2.41	0.44
46:g:64:TYR:HD1	46:g:67:ARG:NH1	2.15	0.44
47:j:48:VAL:CG1	47:j:62:LEU:HD12	2.47	0.44
48:b:154:TRP:HZ3	48:b:157:PHE:CD2	2.35	0.44
50:a:127:LEU:HD23	50:a:127:LEU:HA	1.80	0.44
52:aa:144:GLU:HG2	53:k:77:PRO:CG	2.46	0.44
52:aa:407:THR:HB	52:aa:410:GLN:HG3	2.00	0.44
53:k:48:ARG:HA	53:k:59:TRP:CH2	2.52	0.44
53:k:76:TRP:HD1	53:k:114:MET:SD	2.41	0.44
56:2:275:U:H5'	56:2:275:U:C6	2.52	0.44
56:2:359:G:H5''	56:2:360:C:C4	2.53	0.44
2:s:118:TYR:CD1	2:s:118:TYR:C	2.96	0.44
6:e:421:ILE:HG22	6:e:424:TRP:NE1	2.31	0.44
8:ay:175:LEU:O	8:ay:176:LEU:HD23	2.18	0.44
11:au:23:GLN:CD	11:au:190:PHE:HB2	2.42	0.44
12:ak:248:ASN:OD1	12:ak:248:ASN:N	2.49	0.44
12:ak:250:LEU:HD23	12:ak:250:LEU:H	1.82	0.44
13:aj:109:HIS:CD2	13:aj:109:HIS:N	2.85	0.44
14:ag:471:SER:OG	14:ag:486:ASP:HB3	2.17	0.44
15:af:40:HIS:CE1	25:d:254:LYS:NZ	2.86	0.44
15:af:328:MET:SD	15:af:355:ALA:HB2	2.58	0.44
15:af:383:LEU:HD21	15:af:512:ILE:HG12	1.99	0.44
15:af:622:ARG:HH22	25:d:2:TYR:HB2	1.82	0.44
18:ac:83:VAL:HG13	18:ac:90:GLU:O	2.18	0.44
18:ac:406:VAL:O	18:ac:410:SER:OG	2.35	0.44
18:ac:1134:PRO:HD3	19:ab:425:MET:SD	2.58	0.44
19:ab:349:GLU:HG3	19:ab:350:VAL:N	2.33	0.44
19:ab:516:MET:HE2	19:ab:516:MET:HB3	1.63	0.44
19:ab:523:LEU:HD23	19:ab:523:LEU:HA	1.88	0.44
19:ab:602:LEU:HD22	19:ab:636:GLU:CD	2.42	0.44
19:ab:1006:THR:HG22	19:ab:1007:ARG:N	2.32	0.44
19:ab:1026:ASP:OD1	19:ab:1026:ASP:N	2.45	0.44
20:ad:81:ASN:HB2	38:w:22:TYR:CE1	2.51	0.44
20:ad:284:ASP:HA	20:ad:287:ARG:HB3	2.00	0.44
21:m:180:PHE:HB2	23:f:183:GLU:CD	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:i:141:SER:O	22:i:145:GLN:HG2	2.17	0.44
23:f:307:GLU:CB	46:g:45:VAL:HG22	2.48	0.44
24:c:63:MET:O	24:c:66:GLU:HG3	2.18	0.44
24:c:139:ILE:HG23	24:c:161:ARG:HH22	1.83	0.44
24:c:198:ARG:O	24:c:206:PHE:HB2	2.18	0.44
25:d:172:GLN:O	25:d:175:VAL:HB	2.17	0.44
29:ar:26:ASP:OD2	29:ar:28:ARG:NE	2.30	0.44
32:ao:52:TRP:HA	32:ao:55:GLN:HG2	1.98	0.44
33:ai:246:MET:O	33:ai:250:SER:OG	2.29	0.44
34:an:21:ARG:NH2	34:an:231:PRO:HA	2.33	0.44
34:an:286:ASN:HA	37:x:93:LYS:NZ	2.33	0.44
35:z:576:ALA:HA	35:z:579:SER:OG	2.17	0.44
35:z:1002:SER:HG	52:aa:898:LYS:H	1.63	0.44
35:z:1066:TRP:HB2	52:aa:482:THR:O	2.17	0.44
35:z:1071:ARG:HH12	45:Ca:93:PRO:HB2	1.83	0.44
36:y:34:LEU:C	36:y:37:PRO:HD2	2.43	0.44
36:y:175:PHE:CZ	44:p:170:LEU:HD13	2.52	0.44
37:x:208:PHE:CZ	37:x:212:PHE:HD2	2.35	0.44
37:x:269:VAL:HG21	37:x:291:LEU:CD1	2.47	0.44
40:bb:135:TYR:CD2	40:bb:161:LYS:HG3	2.52	0.44
42:al:29:ASN:HB3	42:al:30:TYR:CE2	2.52	0.44
45:Ca:327:PHE:O	45:Ca:331:TRP:N	2.48	0.44
47:j:21:LEU:HD23	47:j:22:TRP:NE1	2.32	0.44
51:bc:321:HIS:O	51:bc:321:HIS:ND1	2.51	0.44
52:aa:631:ASP:N	52:aa:631:ASP:OD1	2.49	0.44
52:aa:787:ARG:CZ	52:aa:844:ALA:HB2	2.48	0.44
52:aa:963:ASP:OD1	52:aa:966:GLU:HB2	2.18	0.44
52:aa:1656:VAL:HA	52:aa:1659:LEU:HB2	1.99	0.44
56:A:424:U:OP1	56:A:425:A:H2'	2.18	0.44
56:2:312:A:O2'	56:2:313:A:N7	2.50	0.44
1:u:200:ARG:HD3	1:u:249:LYS:C	2.43	0.44
1:u:366:LEU:HD12	1:u:366:LEU:HA	1.68	0.44
1:u:558:ASP:OD1	1:u:558:ASP:N	2.48	0.44
1:u:665:SER:HB3	6:e:306:ARG:NE	2.33	0.44
1:u:792:ARG:HA	10:aw:107:TRP:HA	2.00	0.44
3:r:199:ASP:OD1	3:r:334:GLY:HA3	2.17	0.44
4:n:40:PHE:HA	8:ay:81:PRO:HG2	2.00	0.44
4:n:55:ARG:HD3	4:n:55:ARG:HA	1.73	0.44
4:n:87:GLU:OE2	4:n:100:VAL:HA	2.18	0.44
6:e:150:ASN:ND2	6:e:208:CYS:HB2	2.23	0.44
6:e:189:GLU:OE1	6:e:192:LEU:HD13	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:e:541:LEU:O	6:e:597:GLU:HG2	2.17	0.44
6:e:798:LEU:HD23	6:e:798:LEU:HA	1.75	0.44
11:au:39:PRO:HG3	14:ag:408:ARG:NH1	2.33	0.44
12:ak:35:CYS:O	17:l:665:PRO:HB2	2.17	0.44
12:ak:211:PRO:O	12:ak:214:THR:HG23	2.18	0.44
13:aj:28:TYR:CE2	49:bd:76:LEU:HD23	2.53	0.44
13:aj:30:TRP:CE3	14:ag:443:ALA:HB1	2.53	0.44
14:ag:52:LYS:HD3	18:ac:1102:GLU:HB3	2.00	0.44
15:af:584:LEU:HG	15:af:624:ILE:HD11	2.00	0.44
16:ae:40:GLU:OE2	16:ae:40:GLU:N	2.48	0.44
16:ae:134:LYS:HE2	16:ae:135:PRO:HD2	1.99	0.44
16:ae:537:ALA:HB1	16:ae:542:TYR:HB2	2.00	0.44
17:l:187:ILE:N	17:l:237:TYR:OH	2.31	0.44
17:l:579:LEU:HD13	17:l:599:PHE:CD2	2.52	0.44
18:ac:556:LYS:HD2	18:ac:556:LYS:HA	1.75	0.44
18:ac:584:VAL:HG13	18:ac:630:ASP:N	2.32	0.44
18:ac:985:PHE:CD2	18:ac:1029:GLY:HA3	2.53	0.44
19:ab:315:ASP:OD1	19:ab:318:ALA:HB3	2.18	0.44
19:ab:1126:ARG:HB3	19:ab:1128:GLU:HG3	1.99	0.44
20:ad:389:LEU:O	20:ad:392:MET:HB2	2.18	0.44
20:ad:485:GLU:HG2	20:ad:495:LYS:HE2	2.00	0.44
20:ad:580:PHE:CD1	20:ad:584:VAL:HB	2.53	0.44
20:ad:587:GLN:OE1	20:ad:587:GLN:N	2.51	0.44
22:i:219:THR:HA	22:i:224:LEU:HD11	1.98	0.44
22:i:296:ARG:NH2	56:2:124:U:OP2	2.50	0.44
22:i:379:ARG:NH1	27:av:138:SER:HA	2.31	0.44
25:d:415:SER:OG	25:d:417:LEU:HG	2.18	0.44
25:d:429:PHE:CD1	25:d:430:PRO:HD2	2.52	0.44
26:ba:48:ARG:NH2	45:Ca:568:GLN:OE1	2.51	0.44
29:ar:123:SER:OG	29:ar:125:ARG:HG2	2.18	0.44
30:aq:23:LEU:HD23	30:aq:23:LEU:HA	1.70	0.44
31:ap:243:ASP:OD1	31:ap:243:ASP:N	2.51	0.44
33:ai:29:LEU:HD12	33:ai:176:GLY:O	2.18	0.44
33:ai:308:SER:OG	33:ai:309:GLU:N	2.50	0.44
35:z:227:ARG:HD2	56:2:2:A:N1	2.32	0.44
35:z:737:ASN:HB2	35:z:740:GLU:H	1.83	0.44
36:y:56:THR:HG21	36:y:96:ARG:HG3	2.00	0.44
39:v:186:TYR:C	39:v:186:TYR:HD1	2.26	0.44
41:t:122:GLN:HA	41:t:207:ARG:HH12	1.83	0.44
42:al:162:THR:HG23	44:p:28:TYR:O	2.17	0.44
43:q:156:VAL:O	43:q:160:ILE:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:p:115:ILE:HG23	44:p:117:TRP:CH2	2.53	0.44
45:Ca:364:ARG:HB2	45:Ca:364:ARG:NH1	2.33	0.44
47:j:33:ARG:HH12	47:j:53:LYS:HE2	1.82	0.44
48:b:37:ARG:HH21	48:b:70:ASP:CG	2.20	0.44
51:bc:328:LYS:HD3	51:bc:329:GLU:HG3	2.00	0.44
51:bc:360:SER:HB2	56:2:576:A:C5	2.53	0.44
51:bc:370:LYS:HG2	56:2:234:C:OP1	2.18	0.44
52:aa:416:ARG:HA	52:aa:419:VAL:HB	2.00	0.44
52:aa:1065:GLU:N	52:aa:1065:GLU:OE1	2.49	0.44
53:k:154:SER:O	53:k:155:LYS:C	2.61	0.44
54:be:30:ARG:HD2	54:be:49:PHE:CE1	2.52	0.44
55:as:75:HIS:CD2	55:as:79:LEU:HG	2.53	0.44
56:A:461:A:N6	56:A:463:A:C5	2.86	0.44
56:2:544:U:C2	56:2:585:U:H1'	2.52	0.44
56:2:553:C:O2'	56:2:554:C:H5'	2.17	0.44
1:u:229:SER:O	1:u:231:SER:N	2.51	0.44
1:u:243:ARG:NH1	1:u:244:ARG:HE	2.16	0.44
1:u:556:ARG:O	1:u:560:SER:OG	2.35	0.44
1:u:625:SER:OG	1:u:626:ILE:N	2.51	0.44
1:u:755:ASP:HB3	1:u:758:ASP:OD1	2.18	0.44
1:u:789:MET:HE3	1:u:789:MET:HB3	1.61	0.44
3:r:135:LEU:HA	3:r:138:LEU:HB2	2.00	0.44
3:r:204:ALA:O	3:r:208:LEU:HG	2.18	0.44
6:e:157:THR:HG21	6:e:159:GLU:OE1	2.18	0.44
6:e:198:ILE:O	25:d:329:ARG:NE	2.50	0.44
7:az:22:ILE:O	7:az:26:ARG:HG3	2.17	0.44
7:az:26:ARG:C	7:az:28:GLY:N	2.75	0.44
10:aw:66:ILE:HG21	56:A:501:A:C6	2.53	0.44
10:aw:99:ARG:HG2	10:aw:99:ARG:HH11	1.82	0.44
12:ak:18:MET:HE3	12:ak:18:MET:HB3	1.89	0.44
12:ak:51:VAL:HG23	18:ac:1024:LEU:HB3	2.00	0.44
12:ak:57:THR:HG22	12:ak:60:GLU:HB2	2.00	0.44
12:ak:257:GLN:NE2	18:ac:53:ALA:HB2	2.33	0.44
13:aj:30:TRP:HD1	13:aj:36:GLN:NE2	2.16	0.44
13:aj:101:ILE:HD11	13:aj:128:CYS:SG	2.57	0.44
13:aj:181:PHE:CE2	13:aj:219:ILE:HG12	2.52	0.44
14:ag:457:TRP:CD2	19:ab:259:LYS:HD2	2.52	0.44
15:af:31:TYR:CZ	19:ab:478:PHE:HB2	2.53	0.44
15:af:370:LEU:O	15:af:373:LYS:HB3	2.17	0.44
15:af:511:LEU:O	15:af:515:THR:HG22	2.18	0.44
15:af:615:GLU:HA	15:af:672:LEU:HD21	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:ae:19:THR:O	16:ae:23:ARG:HG2	2.18	0.44
17:l:80:ALA:HB3	17:l:184:ALA:HB3	2.00	0.44
17:l:414:THR:HB	19:ab:82:LEU:HD22	1.99	0.44
17:l:627:ARG:HD2	17:l:627:ARG:HA	1.74	0.44
18:ac:241:PRO:HD2	18:ac:496:TYR:HB2	2.00	0.44
19:ab:828:ILE:H	19:ab:828:ILE:HG13	1.37	0.44
20:ad:99:THR:HG23	45:Ca:569:ARG:HD3	1.99	0.44
20:ad:734:TYR:CZ	33:ai:154:ARG:HD2	2.53	0.44
21:m:177:PRO:HG2	21:m:178:PHE:CD1	2.52	0.44
22:i:123:ASN:N	22:i:123:ASN:OD1	2.48	0.44
22:i:292:LEU:HD11	22:i:296:ARG:HG3	2.00	0.44
22:i:332:ARG:HH11	22:i:337:VAL:HG22	1.82	0.44
22:i:417:LYS:HD3	56:2:157:G:C8	2.53	0.44
23:f:274:ILE:HD12	23:f:301:PHE:CZ	2.52	0.44
24:c:92:VAL:HG12	35:z:358:TYR:OH	2.18	0.44
25:d:286:GLU:H	25:d:286:GLU:CD	2.25	0.44
25:d:390:ALA:HA	25:d:393:LEU:HG	2.00	0.44
27:av:162:THR:HG1	27:av:164:HIS:H	1.65	0.44
28:at:216:TRP:CG	38:w:47:PRO:HD2	2.52	0.44
29:ar:28:ARG:NH2	29:ar:47:GLU:OE1	2.50	0.44
29:ar:60:THR:OG1	29:ar:204:TYR:HA	2.18	0.44
29:ar:151:ARG:O	29:ar:168:VAL:HA	2.18	0.44
31:ap:158:THR:O	31:ap:250:ARG:NH1	2.51	0.44
33:ai:164:ARG:NE	33:ai:167:GLU:OE2	2.43	0.44
34:an:120:ASP:O	34:an:123:PRO:HD2	2.18	0.44
37:x:213:PHE:CZ	37:x:217:LEU:HD11	2.53	0.44
37:x:223:ALA:HB2	52:aa:1115:ARG:HD2	1.99	0.44
37:x:228:LEU:HB2	37:x:330:GLU:HB2	1.98	0.44
42:al:130:SER:HB2	42:al:234:PHE:HE2	1.82	0.44
42:al:274:THR:HB	42:al:277:GLN:HG3	2.00	0.44
42:al:295:LEU:CB	42:al:299:VAL:HG21	2.47	0.44
43:q:70:ARG:HH22	47:j:172:LEU:HB2	1.83	0.44
43:q:138:ALA:O	43:q:142:LEU:HG	2.18	0.44
45:Ca:285:PRO:HB3	45:Ca:326:LEU:HD21	1.99	0.44
45:Ca:437:ASN:O	45:Ca:479:GLY:HA2	2.18	0.44
49:bd:49:ASN:OD1	49:bd:66:LYS:HB2	2.18	0.44
50:a:376:LEU:HA	50:a:376:LEU:HD23	1.67	0.44
52:aa:342:PRO:HB3	52:aa:376:TRP:CE3	2.52	0.44
53:k:112:ASN:HA	53:k:126:ARG:O	2.18	0.44
55:as:40:PHE:O	55:as:44:VAL:HG13	2.17	0.44
56:A:472:G:H2'	56:A:473:U:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:2:58:A:H62	56:2:165:A:H62	1.66	0.44
56:2:65:U:O4	56:2:135:U:H5''	2.17	0.44
56:2:108:A:C6	56:2:119:A:C2	3.06	0.44
56:2:354:U:O5'	56:2:354:U:H6	2.00	0.44
1:u:130:MET:HE2	1:u:324:LEU:HD22	2.00	0.44
1:u:320:VAL:CG1	1:u:632:MET:HE1	2.48	0.44
1:u:395:LEU:HB3	1:u:400:LEU:O	2.18	0.44
3:r:100:LEU:HD12	57:r:901:GTP:H1'	2.00	0.44
4:n:49:LYS:HD3	4:n:49:LYS:HA	1.81	0.44
4:n:52:PHE:CE1	4:n:53:LEU:HD13	2.52	0.44
5:h:40:TRP:O	5:h:44:VAL:HG22	2.17	0.44
6:e:114:VAL:O	6:e:118:ARG:HG2	2.18	0.44
12:ak:23:HIS:ND1	12:ak:24:ARG:HG2	2.33	0.44
14:ag:129:HIS:HA	14:ag:132:LEU:HD12	1.99	0.44
14:ag:534:ARG:O	14:ag:538:VAL:HG13	2.18	0.44
14:ag:562:SER:HB3	14:ag:567:ASN:HD21	1.82	0.44
16:ae:170:ARG:HB2	16:ae:174:PHE:CD2	2.53	0.44
16:ae:492:ARG:HH11	16:ae:495:MET:HE2	1.82	0.44
17:l:45:PHE:H	19:ab:335:THR:CG2	2.29	0.44
17:l:226:GLU:OE2	17:l:268:LYS:HG2	2.17	0.44
17:l:293:LEU:HD12	17:l:408:THR:HG22	1.99	0.44
17:l:501:PHE:CZ	17:l:503:PRO:HB3	2.52	0.44
17:l:516:ARG:CZ	17:l:516:ARG:HB2	2.48	0.44
17:l:648:MET:O	17:l:668:LYS:HD2	2.17	0.44
18:ac:81:LEU:HD21	18:ac:1047:GLY:HA3	2.00	0.44
18:ac:115:PHE:CD1	18:ac:1055:VAL:HG12	2.53	0.44
18:ac:378:LEU:HD13	18:ac:380:PHE:CE2	2.53	0.44
18:ac:842:GLN:NE2	18:ac:846:PHE:HB2	2.33	0.44
18:ac:962:LEU:HD12	18:ac:962:LEU:HA	1.74	0.44
19:ab:243:ASN:ND2	19:ab:369:ARG:HE	2.15	0.44
19:ab:539:ARG:HG2	19:ab:846:TRP:CZ2	2.53	0.44
20:ad:315:TYR:HE2	20:ad:396:ILE:HG13	1.82	0.44
20:ad:391:HIS:NE2	20:ad:395:GLU:OE2	2.51	0.44
20:ad:397:LEU:HD22	20:ad:464:LEU:HD21	2.00	0.44
21:m:129:PRO:HB3	21:m:171:TYR:HD1	1.82	0.44
22:i:239:LEU:C	22:i:241:THR:N	2.76	0.44
23:f:219:TYR:HB2	23:f:249:TYR:CD1	2.49	0.44
23:f:252:ASP:N	23:f:252:ASP:OD1	2.50	0.44
25:d:91:ARG:HB3	25:d:91:ARG:NH1	2.32	0.44
25:d:99:GLU:HG2	25:d:100:TYR:N	2.32	0.44
25:d:329:ARG:HG3	25:d:330:ASP:OD1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:d:402:VAL:HG23	25:d:412:LEU:HD12	2.00	0.44
26:ba:29:GLU:HB3	49:bd:34:HIS:C	2.43	0.44
27:av:218:GLU:HA	56:2:161:G:N2	2.32	0.44
28:at:86:ILE:HD13	28:at:86:ILE:HA	1.68	0.44
29:ar:20:ILE:H	29:ar:20:ILE:HG12	1.46	0.44
30:aq:91:GLU:OE2	41:t:73:ARG:NH2	2.51	0.44
31:ap:60:ALA:HB2	31:ap:91:TYR:CE1	2.53	0.44
33:ai:81:LEU:O	33:ai:85:GLN:HG3	2.17	0.44
33:ai:129:LEU:HD22	33:ai:152:PHE:CD1	2.52	0.44
34:an:281:TRP:CH2	37:x:117:GLU:HG3	2.53	0.44
35:z:218:ASP:HA	35:z:474:ASP:OD1	2.18	0.44
35:z:288:SER:O	35:z:288:SER:OG	2.29	0.44
35:z:472:LEU:HD13	35:z:505:CYS:HB3	1.99	0.44
35:z:849:TRP:CH2	35:z:876:VAL:HG21	2.53	0.44
35:z:1104:PRO:C	35:z:1106:HIS:H	2.26	0.44
37:x:267:TYR:CD2	37:x:286:PRO:HG3	2.53	0.44
38:w:65:HIS:HB2	38:w:68:LYS:HD2	1.99	0.44
39:v:157:LYS:HG2	44:p:21:PHE:HE2	1.82	0.44
40:bb:225:LYS:N	40:bb:225:LYS:HD2	2.33	0.44
41:t:101:PHE:CE1	41:t:146:ALA:HB2	2.53	0.44
44:p:161:ALA:O	44:p:165:ALA:N	2.42	0.44
44:p:215:SER:OG	44:p:281:ARG:HD3	2.17	0.44
45:Ca:12:PRO:HG3	56:2:264:A:O2'	2.18	0.44
45:Ca:107:ILE:HD11	45:Ca:157:TRP:CE2	2.53	0.44
45:Ca:130:GLN:HE22	45:Ca:131:LYS:HG2	1.83	0.44
46:g:29:LYS:HB3	56:2:295:G:O2'	2.18	0.44
50:a:109:LYS:NZ	50:a:114:TYR:HA	2.32	0.44
51:bc:327:GLU:HA	51:bc:330:TRP:HD1	1.82	0.44
52:aa:98:GLN:HB2	53:k:29:SER:OG	2.17	0.44
52:aa:820:LEU:HD11	52:aa:830:SER:HB2	1.99	0.44
52:aa:1640:PRO:O	52:aa:1643:SER:N	2.49	0.44
56:2:186:U:O4'	56:2:187:A:C4	2.71	0.44
56:2:262:A:O5'	56:2:263:A:H5''	2.18	0.44
1:u:358:GLN:HG3	19:ab:922:VAL:HG21	2.00	0.43
1:u:369:VAL:HG21	19:ab:628:GLU:HB2	2.00	0.43
1:u:396:ARG:HG3	1:u:404:SER:OG	2.18	0.43
3:r:204:ALA:HA	3:r:207:PHE:HB3	2.00	0.43
4:n:67:SER:OG	4:n:70:TYR:HD2	1.99	0.43
4:n:150:LEU:HD21	8:ay:91:PHE:HE1	1.83	0.43
6:e:122:ARG:HH12	19:ab:911:LEU:N	1.98	0.43
6:e:528:SER:OG	6:e:662:LYS:O	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:au:34:PRO:HA	11:au:37:TYR:CD1	2.53	0.43
11:au:239:ARG:NH2	56:A:435:G:H22	2.16	0.43
12:ak:41:VAL:HG13	12:ak:49:LEU:HB2	1.99	0.43
12:ak:99:PHE:HE2	18:ac:991:LEU:HD22	1.81	0.43
12:ak:119:SER:HB3	14:ag:168:GLU:HG3	2.00	0.43
12:ak:156:ALA:HB3	18:ac:999:GLY:O	2.17	0.43
13:aj:63:ARG:O	16:ae:188:ARG:HD2	2.18	0.43
13:aj:250:ILE:O	13:aj:254:ILE:HG12	2.18	0.43
14:ag:298:ARG:HH11	15:af:15:ARG:NH2	2.09	0.43
14:ag:433:ASN:OD1	14:ag:434:GLN:NE2	2.50	0.43
15:af:98:ASP:OD1	15:af:100:ASP:N	2.50	0.43
15:af:366:LEU:HD21	15:af:367:TYR:CZ	2.53	0.43
15:af:609:PRO:HG2	15:af:669:MET:HE1	1.99	0.43
16:ae:452:ASP:OD2	16:ae:491:LYS:HG2	2.17	0.43
16:ae:560:PRO:HG2	19:ab:715:ARG:HE	1.83	0.43
17:l:156:ARG:HH22	17:l:533:TYR:HE2	1.66	0.43
18:ac:57:PRO:HD2	18:ac:536:PRO:O	2.17	0.43
18:ac:624:ARG:HE	18:ac:764:TYR:HB2	1.83	0.43
18:ac:630:ASP:OD1	18:ac:632:PRO:HD3	2.18	0.43
18:ac:837:SER:O	18:ac:837:SER:OG	2.32	0.43
18:ac:993:ALA:HB3	18:ac:1030:ALA:HB2	2.00	0.43
19:ab:269:ARG:HG2	19:ab:479:ARG:HB3	2.00	0.43
19:ab:346:LEU:HA	19:ab:349:GLU:HG2	2.00	0.43
19:ab:864:ASP:CG	19:ab:932:ILE:HD13	2.43	0.43
19:ab:880:MET:HB2	19:ab:887:ILE:HD13	1.99	0.43
19:ab:900:ASP:H	19:ab:906:ASN:HD21	1.66	0.43
20:ad:212:ILE:HD13	20:ad:236:CYS:HB3	2.00	0.43
20:ad:427:ALA:HB1	20:ad:468:MET:HG2	2.00	0.43
20:ad:612:ALA:HB1	20:ad:616:LYS:NZ	2.33	0.43
20:ad:696:TYR:CD2	52:aa:105:PRO:HG3	2.53	0.43
20:ad:753:PRO:HG3	32:ao:32:ILE:HD11	2.00	0.43
21:m:87:GLU:OE1	25:d:184:LYS:HA	2.18	0.43
21:m:222:PHE:HE2	46:g:130:TYR:HB3	1.82	0.43
22:i:403:ALA:O	22:i:405:ASP:N	2.51	0.43
23:f:309:ILE:HG22	46:g:42:THR:HA	2.00	0.43
25:d:67:LEU:HG	25:d:68:PRO:HD3	2.00	0.43
27:av:98:TRP:CD1	27:av:205:MET:HE1	2.53	0.43
27:av:154:LYS:HG3	27:av:159:TYR:CE1	2.53	0.43
29:ar:241:VAL:HB	29:ar:243:PHE:CZ	2.53	0.43
31:ap:192:ARG:O	31:ap:192:ARG:HG2	2.17	0.43
34:an:209:PRO:C	34:an:211:TYR:N	2.76	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:38:LEU:HD22	39:v:41:ASN:HB2	2.00	0.43
35:z:63:LEU:HD22	35:z:101:ALA:HB2	2.00	0.43
35:z:412:GLU:HB2	35:z:456:PHE:CE1	2.53	0.43
35:z:1005:ASN:O	35:z:1009:GLN:HG2	2.18	0.43
37:x:250:ARG:O	37:x:254:VAL:HG23	2.18	0.43
40:bb:140:PHE:O	40:bb:140:PHE:CD1	2.71	0.43
44:p:31:TRP:CH2	44:p:59:PRO:HB2	2.53	0.43
45:Ca:104:LEU:HG	45:Ca:109:SER:OG	2.18	0.43
45:Ca:186:SER:HA	52:aa:940:ARG:HH22	1.83	0.43
46:g:101:HIS:HD2	46:g:104:LEU:HB3	1.83	0.43
47:j:97:VAL:O	47:j:101:LYS:HG3	2.18	0.43
51:bc:370:LYS:HZ1	56:2:245:G:H22	1.66	0.43
52:aa:153:ARG:HG2	52:aa:153:ARG:NH1	2.33	0.43
55:as:69:LEU:HD13	55:as:83:MET:HE1	1.99	0.43
56:A:451:U:O2'	56:A:471:U:O4	2.35	0.43
56:2:567:A:H3'	56:2:570:A:HO2'	1.82	0.43
56:2:578:C:H2'	56:2:579:G:O4'	2.17	0.43
56:2:592:U:H2'	56:2:593:A:H8	1.83	0.43
1:u:180:THR:OG1	1:u:181:ASP:N	2.51	0.43
1:u:206:ASP:HB3	1:u:209:ALA:HB3	2.01	0.43
1:u:565:ARG:HH22	1:u:570:ASP:HA	1.83	0.43
2:s:13:HIS:CD2	6:e:757:LYS:HB3	2.53	0.43
2:s:29:GLN:HB2	2:s:32:ASP:OD2	2.19	0.43
3:r:124:LYS:NZ	15:af:674:LEU:HD12	2.33	0.43
3:r:187:TRP:HE1	3:r:201:PRO:HB2	1.83	0.43
4:n:69:PRO:HB3	8:ay:117:TYR:CE2	2.53	0.43
6:e:163:ASP:HB2	25:d:49:ARG:HH12	1.83	0.43
6:e:292:GLY:C	14:ag:276:GLU:HB3	2.43	0.43
6:e:362:TYR:CE2	6:e:404:ILE:HD13	2.53	0.43
6:e:365:LYS:HA	6:e:401:ARG:HD3	2.00	0.43
6:e:367:GLU:HG3	6:e:368:PRO:HD2	1.99	0.43
11:au:103:LEU:HD11	11:au:119:PHE:CE2	2.53	0.43
13:aj:177:TRP:HZ3	13:aj:219:ILE:HD11	1.83	0.43
13:aj:205:LYS:HB2	13:aj:237:SER:HA	2.00	0.43
14:ag:562:SER:O	14:ag:564:THR:N	2.52	0.43
15:af:63:TYR:HE1	15:af:93:ARG:HE	1.65	0.43
16:ae:459:LEU:HD23	16:ae:482:ALA:HB1	2.00	0.43
17:l:279:HIS:O	17:l:282:LEU:HG	2.18	0.43
17:l:574:HIS:HB3	17:l:641:PHE:CZ	2.53	0.43
17:l:679:ILE:HG23	19:ab:451:SER:CB	2.48	0.43
18:ac:345:PHE:CG	18:ac:371:MET:HE2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:547:ALA:O	18:ac:551:ILE:HG13	2.18	0.43
18:ac:663:ARG:CZ	18:ac:663:ARG:HB3	2.48	0.43
19:ab:276:GLN:O	19:ab:280:MET:HG2	2.17	0.43
19:ab:833:TYR:HE1	19:ab:841:THR:HG1	1.65	0.43
20:ad:268:PRO:HB2	20:ad:270:TRP:CD1	2.53	0.43
20:ad:354:HIS:O	27:av:234:LYS:HB3	2.18	0.43
22:i:138:LEU:HB3	31:ap:194:GLU:OE1	2.19	0.43
23:f:325:LYS:HG2	46:g:83:SER:HB3	1.99	0.43
25:d:15:LEU:CD1	25:d:46:HIS:HB3	2.43	0.43
25:d:214:PHE:HE1	52:aa:1097:LEU:HD21	1.82	0.43
26:ba:40:ILE:HG21	45:Ca:580:VAL:HG21	2.00	0.43
29:ar:173:ASP:O	29:ar:177:LEU:HD13	2.18	0.43
30:aq:155:LEU:HD11	30:aq:190:LEU:HD11	1.99	0.43
31:ap:181:GLU:HG2	31:ap:244:ARG:HG3	2.00	0.43
32:ao:26:ARG:O	32:ao:26:ARG:HG2	2.17	0.43
34:an:1:MET:H3	34:an:1:MET:HG2	1.62	0.43
34:an:55:ALA:O	34:an:56:TRP:C	2.61	0.43
34:an:146:GLY:HA2	52:aa:1215:GLU:CD	2.44	0.43
35:z:242:PHE:HA	35:z:277:HIS:O	2.17	0.43
35:z:271:LYS:HE3	35:z:271:LYS:HB2	1.87	0.43
35:z:438:SER:O	35:z:442:PRO:HB3	2.19	0.43
35:z:818:SER:O	35:z:822:GLU:HG3	2.18	0.43
41:t:120:GLU:HB2	55:as:260:TRP:HE1	1.83	0.43
41:t:150:VAL:O	41:t:156:THR:HA	2.17	0.43
43:q:188:ASP:OD1	43:q:189:ARG:HB2	2.18	0.43
44:p:95:ARG:H	44:p:95:ARG:HG2	1.52	0.43
45:Ca:362:LEU:O	45:Ca:366:LEU:HB2	2.18	0.43
45:Ca:522:GLN:NE2	45:Ca:586:GLN:OE1	2.52	0.43
46:g:159:ARG:HD3	46:g:163:LYS:HZ1	1.83	0.43
47:j:65:LEU:HD22	47:j:96:ASP:HB3	2.00	0.43
47:j:89:LEU:HA	47:j:89:LEU:HD23	1.69	0.43
49:bd:59:HIS:CE1	56:A:468:A:H61	2.35	0.43
49:bd:62:ILE:O	49:bd:63:ILE:HD13	2.17	0.43
49:bd:73:LEU:HD23	49:bd:73:LEU:H	1.83	0.43
50:a:116:GLN:HB2	50:a:122:TRP:CG	2.53	0.43
52:aa:665:PRO:HG2	52:aa:666:HIS:HD2	1.83	0.43
52:aa:745:ALA:HB3	52:aa:761:LEU:HD21	2.00	0.43
52:aa:1014:GLU:HG2	52:aa:1016:TRP:HE3	1.81	0.43
55:as:248:SER:O	55:as:248:SER:OG	2.33	0.43
56:2:130:U:H2'	56:2:131:A:O4'	2.18	0.43
56:2:152:U:H2'	56:2:153:A:C1'	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:2:229:G:H2'	56:2:230:A:C8	2.51	0.43
1:u:752:LYS:HD2	1:u:762:PHE:CZ	2.53	0.43
1:u:795:SER:OG	10:aw:154:GLU:OE2	2.36	0.43
2:s:154:PHE:CD1	16:ae:3:VAL:HG22	2.53	0.43
3:r:37:ILE:HD11	3:r:421:GLU:HB2	2.00	0.43
3:r:409:PHE:CZ	3:r:441:LEU:HG	2.53	0.43
5:h:29:ARG:HA	5:h:29:ARG:HD3	1.69	0.43
6:e:568:GLU:OE2	16:ae:207:ARG:NH2	2.52	0.43
7:az:85:ARG:HB3	39:v:112:GLN:OE1	2.18	0.43
7:az:126:LYS:NZ	9:ax:47:TYR:O	2.41	0.43
12:ak:16:ARG:HD3	12:ak:16:ARG:HA	1.84	0.43
12:ak:31:PHE:CG	12:ak:117:ILE:HG12	2.53	0.43
13:aj:230:LEU:HB3	13:aj:261:PHE:HD1	1.83	0.43
13:aj:272:ILE:O	13:aj:276:LEU:HG	2.18	0.43
14:ag:3:SER:OG	18:ac:1122:GLU:OE1	2.35	0.43
14:ag:201:ALA:O	16:ae:425:TRP:HA	2.18	0.43
15:af:138:ALA:O	15:af:142:LEU:HG	2.18	0.43
15:af:232:LEU:HD11	15:af:285:PHE:HZ	1.83	0.43
15:af:331:LEU:HB3	15:af:351:LEU:HD21	1.99	0.43
15:af:529:GLN:NE2	15:af:608:GLU:HG2	2.33	0.43
16:ae:584:PHE:HD1	16:ae:587:ILE:HD12	1.83	0.43
18:ac:208:LEU:HD12	18:ac:208:LEU:HA	1.84	0.43
20:ad:207:PRO:HD2	20:ad:235:TYR:CD1	2.53	0.43
20:ad:457:LEU:O	20:ad:460:VAL:HG22	2.18	0.43
20:ad:590:TRP:HB2	20:ad:594:PHE:CD2	2.53	0.43
21:m:68:TYR:HB2	21:m:100:ALA:O	2.17	0.43
23:f:115:TYR:O	23:f:118:GLU:HG3	2.18	0.43
24:c:50:LYS:HE2	24:c:50:LYS:HB3	1.73	0.43
24:c:183:GLY:O	24:c:187:VAL:HG12	2.19	0.43
25:d:95:MET:HE1	25:d:101:VAL:HG22	2.00	0.43
25:d:194:SER:OG	25:d:195:ARG:N	2.51	0.43
25:d:241:PHE:HB3	25:d:279:PHE:CE1	2.53	0.43
27:av:68:ASP:N	27:av:68:ASP:OD1	2.50	0.43
27:av:216:ARG:NH2	56:2:161:G:N7	2.55	0.43
27:av:216:ARG:NH1	56:2:159:G:O2'	2.51	0.43
28:at:115:PHE:HB3	56:2:207:A:C4	2.53	0.43
28:at:131:LEU:HD11	47:j:82:PRO:HB2	2.00	0.43
28:at:140:LEU:HD12	28:at:140:LEU:HA	1.74	0.43
29:ar:111:GLU:H	29:ar:111:GLU:HG3	1.68	0.43
29:ar:121:ALA:N	29:ar:195:ASP:O	2.47	0.43
30:aq:85:GLY:O	30:aq:87:GLU:HG3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:ao:161:LEU:HD12	52:aa:921:ARG:HD3	2.00	0.43
32:ao:238:SER:HB3	32:ao:241:PHE:CD2	2.53	0.43
33:ai:75:THR:OG1	33:ai:76:ALA:N	2.51	0.43
34:an:19:HIS:HB2	34:an:21:ARG:HG2	2.00	0.43
34:an:198:LEU:HD13	52:aa:800:GLU:HB3	2.00	0.43
34:an:283:ARG:O	34:an:283:ARG:HG3	2.18	0.43
35:z:85:GLY:H	35:z:88:GLN:NE2	2.16	0.43
35:z:123:TRP:CE3	35:z:123:TRP:HA	2.52	0.43
35:z:881:VAL:HG13	35:z:897:ARG:HH22	1.83	0.43
35:z:998:PHE:CE1	52:aa:899:LEU:HD13	2.53	0.43
36:y:123:ALA:C	36:y:125:TRP:N	2.76	0.43
36:y:173:VAL:HG23	44:p:166:GLU:OE2	2.18	0.43
37:x:216:SER:HB3	37:x:295:LEU:CD2	2.46	0.43
38:w:137:PHE:CZ	56:2:45:G:H5''	2.53	0.43
42:al:89:LEU:HD12	42:al:89:LEU:HA	1.68	0.43
42:al:250:LEU:HD12	42:al:250:LEU:HA	1.70	0.43
43:q:44:GLU:HG2	43:q:47:ARG:HE	1.83	0.43
43:q:60:VAL:HG12	43:q:61:TYR:CD1	2.53	0.43
43:q:188:ASP:HB2	43:q:194:VAL:HG11	2.00	0.43
45:Ca:471:ARG:NH2	47:j:98:ASP:OD1	2.52	0.43
47:j:24:ALA:CB	47:j:25:PRO:HD3	2.48	0.43
47:j:52:HIS:NE2	56:2:57:U:O2'	2.51	0.43
51:bc:264:GLN:HG2	51:bc:350:TYR:O	2.18	0.43
52:aa:699:ARG:HG3	52:aa:728:ILE:HD11	2.00	0.43
52:aa:1317:LEU:HD22	52:aa:1321:MET:HG2	2.00	0.43
52:aa:1453:ALA:HB3	52:aa:1638:THR:HG21	2.00	0.43
52:aa:1629:ALA:HA	52:aa:1632:ASN:HD22	1.83	0.43
56:A:446:C:N4	56:A:478:A:C2	2.86	0.43
1:u:149:GLN:NE2	1:u:255:GLN:OE1	2.52	0.43
1:u:728:GLN:HG3	1:u:784:TRP:CZ2	2.53	0.43
2:s:122:MET:HE3	2:s:122:MET:HB3	1.80	0.43
3:r:339:LEU:HD23	3:r:339:LEU:HA	1.73	0.43
4:n:45:ARG:O	6:e:384:PHE:HB2	2.19	0.43
4:n:105:VAL:HA	4:n:139:GLU:HA	2.00	0.43
5:h:67:LEU:HD22	6:e:682:MET:SD	2.58	0.43
6:e:119:GLN:HG3	19:ab:907:PRO:HB3	2.00	0.43
6:e:182:GLN:OE1	6:e:189:GLU:N	2.50	0.43
6:e:370:VAL:HG22	6:e:397:ARG:HG3	1.99	0.43
7:az:142:PRO:HD3	8:ay:205:PHE:CD2	2.53	0.43
9:ax:83:GLU:O	9:ax:87:ARG:HG3	2.18	0.43
10:aw:34:HIS:CE1	10:aw:51:HIS:CE1	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:aj:49:THR:HB	14:ag:37:GLY:O	2.17	0.43
13:aj:252:GLU:O	13:aj:255:LYS:HB2	2.18	0.43
14:ag:340:ARG:HD2	14:ag:450:PHE:CD1	2.54	0.43
15:af:41:TRP:CH2	19:ab:1002:ILE:HD13	2.53	0.43
15:af:317:SER:O	15:af:319:SER:N	2.51	0.43
16:ae:118:THR:O	16:ae:118:THR:HG22	2.18	0.43
16:ae:230:VAL:HG22	16:ae:234:ARG:HE	1.83	0.43
16:ae:345:LEU:HB3	16:ae:346:GLN:HE21	1.83	0.43
16:ae:373:VAL:HA	16:ae:376:ALA:HB3	2.00	0.43
17:l:87:ASP:O	17:l:91:ARG:HG3	2.17	0.43
17:l:195:LEU:HD13	17:l:390:LEU:HD12	2.01	0.43
17:l:618:HIS:NE2	17:l:619:LYS:HD3	2.34	0.43
18:ac:41:PRO:O	18:ac:45:SER:OG	2.28	0.43
18:ac:100:SER:O	18:ac:100:SER:OG	2.24	0.43
18:ac:289:VAL:O	18:ac:293:VAL:HG23	2.18	0.43
18:ac:971:TYR:CZ	18:ac:975:LEU:HD21	2.53	0.43
19:ab:738:VAL:HG13	19:ab:753:ALA:HB2	2.00	0.43
19:ab:1006:THR:O	19:ab:1010:VAL:HG23	2.18	0.43
19:ab:1024:ARG:CZ	19:ab:1032:TYR:CZ	3.00	0.43
19:ab:1147:ASP:OD1	19:ab:1147:ASP:N	2.51	0.43
20:ad:93:PRO:HA	53:k:12:TRP:CE2	2.54	0.43
21:m:58:TRP:CD1	35:z:86:LYS:HG3	2.53	0.43
22:i:146:LEU:HD11	31:ap:165:LEU:HD13	2.01	0.43
22:i:151:LYS:HA	31:ap:169:TYR:OH	2.19	0.43
22:i:195:SER:HA	48:b:73:GLU:CD	2.43	0.43
22:i:218:THR:CA	22:i:223:VAL:HG11	2.46	0.43
22:i:308:GLY:HA2	52:aa:167:GLN:O	2.18	0.43
23:f:162:LEU:HB3	48:b:139:TYR:CZ	2.54	0.43
25:d:261:LEU:HA	25:d:261:LEU:HD23	1.73	0.43
27:av:91:ILE:HG23	27:av:143:LEU:HD11	2.00	0.43
27:av:221:PRO:HD2	27:av:224:TYR:HB2	1.99	0.43
28:at:93:ARG:NH2	56:2:210:A:N7	2.66	0.43
29:ar:26:ASP:HB3	29:ar:29:ILE:HD12	2.00	0.43
30:aq:61:PRO:O	30:aq:62:LYS:C	2.61	0.43
31:ap:87:LEU:HD23	31:ap:87:LEU:HA	1.74	0.43
32:ao:111:THR:HG23	32:ao:112:GLY:N	2.34	0.43
32:ao:213:GLN:NE2	45:Ca:264:VAL:HB	2.33	0.43
33:ai:69:ARG:HG3	33:ai:181:PHE:CE2	2.52	0.43
33:ai:102:ALA:HA	33:ai:105:LYS:HD3	1.99	0.43
33:ai:144:LYS:HA	33:ai:147:ARG:HD2	1.99	0.43
35:z:449:MET:HE2	35:z:800:LEU:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:904:ASP:O	35:z:908:MET:HG2	2.18	0.43
36:y:159:VAL:HA	36:y:189:LEU:HG	1.99	0.43
38:w:68:LYS:HD3	38:w:103:ALA:HB2	2.00	0.43
38:w:86:CYS:HB3	38:w:91:LEU:CD1	2.48	0.43
38:w:147:GLU:HG3	38:w:148:LYS:HD3	2.00	0.43
39:v:110:GLY:O	39:v:112:GLN:N	2.49	0.43
39:v:178:GLU:O	39:v:179:ARG:C	2.60	0.43
40:bb:181:LEU:HD11	40:bb:187:ILE:HD11	2.00	0.43
41:t:45:GLU:HB2	55:as:248:SER:CB	2.43	0.43
41:t:141:GLY:C	41:t:143:LYS:N	2.74	0.43
42:al:164:PHE:O	42:al:168:GLU:HG2	2.19	0.43
43:q:13:ARG:HE	43:q:26:ARG:NH2	2.17	0.43
43:q:178:ASN:HD22	43:q:182:GLN:N	2.15	0.43
44:p:39:ARG:H	44:p:39:ARG:HG2	1.62	0.43
45:Ca:342:LEU:O	50:a:14:SER:OG	2.30	0.43
46:g:38:PHE:O	46:g:42:THR:OG1	2.27	0.43
50:a:413:PRO:HB2	50:a:427:ILE:HG12	1.98	0.43
51:bc:239:VAL:HA	51:bc:276:MET:SD	2.58	0.43
52:aa:109:HIS:ND1	52:aa:135:LEU:HD12	2.33	0.43
52:aa:492:PRO:HB2	52:aa:550:ILE:HD11	2.00	0.43
52:aa:666:HIS:CD2	52:aa:684:THR:HG21	2.54	0.43
52:aa:1110:LYS:HA	52:aa:1110:LYS:CE	2.48	0.43
52:aa:1538:ASN:OD1	52:aa:1539:ILE:HG23	2.18	0.43
53:k:109:VAL:HG21	53:k:147:ILE:CG1	2.48	0.43
56:A:521:G:H2'	56:A:522:A:O4'	2.19	0.43
56:2:51:U:OP2	56:2:51:U:C2	2.72	0.43
56:2:318:A:H2'	56:2:318:A:N3	2.33	0.43
1:u:136:ASP:HB2	1:u:270:PHE:CE1	2.53	0.43
1:u:212:SER:O	1:u:215:SER:OG	2.23	0.43
1:u:374:PHE:CZ	1:u:378:MET:HG3	2.54	0.43
3:r:71:PHE:HB2	15:af:675:GLN:HE21	1.83	0.43
3:r:348:GLU:OE1	3:r:351:LYS:HE3	2.19	0.43
4:n:31:LEU:O	8:ay:81:PRO:HB3	2.19	0.43
5:h:118:MET:HB3	5:h:118:MET:HE3	1.52	0.43
6:e:230:GLU:OE1	6:e:436:ILE:HG21	2.18	0.43
6:e:284:ARG:HG2	16:ae:548:GLU:OE2	2.17	0.43
6:e:303:ASN:OD1	6:e:316:TYR:N	2.41	0.43
6:e:630:GLN:NE2	6:e:630:GLN:O	2.52	0.43
7:az:136:VAL:HG21	7:az:144:HIS:CE1	2.54	0.43
8:ay:133:PHE:O	8:ay:137:ASP:N	2.52	0.43
9:ax:120:HIS:CD2	9:ax:121:ARG:H	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:au:237:GLY:HA2	16:ae:23:ARG:NH1	2.33	0.43
12:ak:35:CYS:O	12:ak:36:ARG:HG3	2.18	0.43
13:aj:227:GLN:HG3	18:ac:1106:VAL:HG23	1.99	0.43
14:ag:127:MET:HB3	14:ag:185:LEU:HD13	2.00	0.43
15:af:74:LEU:HD23	15:af:74:LEU:HA	1.83	0.43
15:af:298:HIS:CD2	15:af:298:HIS:H	2.37	0.43
16:ae:206:VAL:HG23	16:ae:235:ALA:HB2	2.00	0.43
17:l:47:PRO:HB3	17:l:88:TRP:HZ3	1.84	0.43
17:l:174:ASP:OD1	17:l:511:ARG:NH2	2.51	0.43
18:ac:465:SER:HB2	18:ac:479:ASN:HA	2.01	0.43
18:ac:624:ARG:HH11	18:ac:764:TYR:HB3	1.82	0.43
18:ac:749:LEU:HD11	18:ac:765:LEU:HA	2.01	0.43
18:ac:779:GLU:HG2	18:ac:808:PHE:C	2.43	0.43
19:ab:292:TYR:HB3	19:ab:661:PHE:CD2	2.53	0.43
19:ab:670:PRO:HD3	19:ab:822:HIS:CE1	2.54	0.43
19:ab:838:TYR:O	19:ab:842:GLN:HG2	2.19	0.43
19:ab:885:SER:O	19:ab:886:ARG:HB3	2.19	0.43
19:ab:956:LEU:O	19:ab:998:GLN:NE2	2.47	0.43
20:ad:264:LEU:HD21	53:k:85:PHE:HE1	1.81	0.43
20:ad:343:TRP:CG	27:av:90:ARG:NH1	2.86	0.43
20:ad:633:LEU:O	20:ad:636:LEU:HB2	2.17	0.43
21:m:35:SER:HB3	44:p:110:MET:HE1	2.01	0.43
22:i:141:SER:HA	22:i:144:ARG:HB2	2.00	0.43
22:i:173:ILE:HG21	22:i:178:LEU:HD21	2.01	0.43
23:f:188:THR:HG23	23:f:191:MET:SD	2.59	0.43
25:d:32:VAL:HG13	25:d:42:TRP:CZ3	2.53	0.43
25:d:393:LEU:O	25:d:396:SER:OG	2.29	0.43
25:d:440:ARG:HD3	56:A:497:A:OP2	2.18	0.43
26:ba:24:PRO:HG3	26:ba:76:TYR:HE1	1.82	0.43
26:ba:49:SER:O	45:Ca:565:ARG:HB2	2.18	0.43
26:ba:52:HIS:HB2	32:ao:228:ASN:O	2.18	0.43
31:ap:219:PHE:CD1	31:ap:219:PHE:C	2.94	0.43
33:ai:277:SER:OG	33:ai:278:ASN:OD1	2.30	0.43
34:an:283:ARG:NH1	35:z:514:SER:N	2.67	0.43
35:z:39:ALA:O	56:2:384:A:O2'	2.28	0.43
35:z:119:ASP:HA	35:z:122:ALA:HB3	2.00	0.43
35:z:414:ILE:C	35:z:416:ASP:H	2.26	0.43
35:z:455:LEU:HD23	35:z:455:LEU:HA	1.86	0.43
35:z:579:SER:O	35:z:582:GLU:HG2	2.18	0.43
36:y:23:LEU:HD11	36:y:101:LEU:C	2.43	0.43
38:w:18:TYR:HB2	53:k:17:GLU:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:bb:134:PHE:CE2	40:bb:138:VAL:HB	2.52	0.43
40:bb:153:LEU:HD22	40:bb:157:PHE:CE2	2.53	0.43
42:al:73:ARG:HD2	42:al:73:ARG:HA	1.86	0.43
42:al:115:SER:O	42:al:115:SER:OG	2.31	0.43
45:Ca:189:GLU:CD	52:aa:942:ASP:HA	2.43	0.43
47:j:15:LYS:HD2	56:2:171:A:OP1	2.19	0.43
50:a:313:MET:O	50:a:316:MET:HB3	2.17	0.43
50:a:340:LYS:HA	50:a:343:TYR:HB2	1.99	0.43
50:a:349:TRP:HE1	50:a:352:PHE:HA	1.80	0.43
51:bc:261:LYS:HD2	51:bc:301:ARG:O	2.17	0.43
51:bc:285:GLU:OE1	51:bc:322:ILE:HG21	2.18	0.43
52:aa:730:VAL:HG22	52:aa:745:ALA:HA	1.99	0.43
52:aa:824:GLY:H	52:aa:972:SER:HB2	1.84	0.43
52:aa:1121:MET:HE3	52:aa:1124:LYS:HB2	2.00	0.43
53:k:93:ASP:CG	53:k:148:LYS:HE2	2.43	0.43
53:k:117:TYR:HE1	53:k:124:VAL:HG12	1.84	0.43
55:as:75:HIS:NE2	55:as:79:LEU:HG	2.33	0.43
55:as:80:LEU:O	55:as:81:PRO:C	2.61	0.43
56:2:46:U:O2	56:2:176:A:H2	2.01	0.43
1:u:396:ARG:HG2	1:u:401:HIS:CG	2.54	0.43
1:u:821:TYR:HD1	1:u:831:VAL:HG11	1.82	0.43
3:r:38:PRO:HB2	25:d:62:LEU:HD13	2.00	0.43
3:r:325:LEU:HD11	6:e:728:GLU:OE1	2.19	0.43
4:n:153:GLU:HG2	4:n:161:ARG:HD2	1.99	0.43
5:h:80:GLY:HA3	16:ae:118:THR:O	2.18	0.43
5:h:93:ASP:OD2	5:h:117:THR:OG1	2.20	0.43
6:e:42:GLU:HG2	42:al:52:PHE:CZ	2.54	0.43
6:e:150:ASN:ND2	6:e:202:ARG:O	2.52	0.43
6:e:162:MET:HB2	25:d:42:TRP:NE1	2.34	0.43
6:e:480:LEU:HD23	6:e:480:LEU:HA	1.76	0.43
6:e:649:LEU:C	6:e:651:HIS:H	2.27	0.43
7:az:72:LYS:HG3	7:az:73:PRO:CD	2.48	0.43
8:ay:162:HIS:CG	19:ab:1131:MET:HE3	2.53	0.43
10:aw:78:PHE:HD2	10:aw:84:THR:HG21	1.84	0.43
11:au:52:GLN:HE22	11:au:214:ARG:HD3	1.82	0.43
11:au:87:ARG:NH2	11:au:97:VAL:HG23	2.33	0.43
14:ag:35:TYR:HB3	14:ag:394:TRP:CE3	2.53	0.43
14:ag:387:TYR:O	14:ag:390:ARG:N	2.51	0.43
14:ag:412:TRP:CD2	18:ac:1138:PRO:HB3	2.53	0.43
15:af:52:PRO:CB	15:af:57:ASP:HB2	2.48	0.43
15:af:611:PHE:N	15:af:669:MET:HE2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:ae:278:ILE:HD12	16:ae:322:TYR:HB2	1.99	0.43
16:ae:306:GLU:C	16:ae:307:ILE:HD13	2.44	0.43
16:ae:539:GLU:OE2	16:ae:539:GLU:N	2.50	0.43
17:l:601:ARG:NH2	19:ab:696:GLN:OE1	2.50	0.43
18:ac:68:TRP:CZ2	18:ac:73:ASN:HB3	2.53	0.43
18:ac:299:GLU:O	18:ac:303:ILE:HG13	2.18	0.43
18:ac:620:PRO:HG3	18:ac:811:PHE:CZ	2.53	0.43
18:ac:938:ARG:HE	18:ac:938:ARG:HB2	1.51	0.43
19:ab:877:HIS:HB2	19:ab:886:ARG:NH2	2.32	0.43
20:ad:58:ALA:CB	20:ad:61:GLN:HE21	2.27	0.43
20:ad:174:HIS:NE2	20:ad:278:PRO:O	2.42	0.43
20:ad:510:PHE:O	20:ad:513:GLU:HB3	2.18	0.43
20:ad:591:ASP:OD2	20:ad:593:ARG:NE	2.47	0.43
21:m:27:ILE:HD13	21:m:27:ILE:HA	1.87	0.43
21:m:113:MET:CA	21:m:151:ASN:HD22	2.30	0.43
22:i:341:LEU:C	27:av:48:ARG:HH12	2.27	0.43
24:c:11:LYS:HE3	32:ao:136:ASP:OD2	2.19	0.43
29:ar:88:ARG:HH11	29:ar:238:PHE:C	2.25	0.43
29:ar:153:ARG:HG3	29:ar:237:ASP:HA	2.00	0.43
30:aq:82:ARG:O	30:aq:83:LEU:HB2	2.19	0.43
34:an:270:LEU:O	34:an:274:LEU:HG	2.18	0.43
35:z:856:ARG:NH2	35:z:870:LEU:O	2.28	0.43
36:y:20:ALA:HB2	36:y:105:HIS:NE2	2.34	0.43
36:y:157:TRP:CH2	36:y:180:VAL:HG13	2.53	0.43
36:y:262:ALA:O	36:y:266:VAL:HG23	2.18	0.43
37:x:149:PHE:CE2	37:x:150:ILE:HB	2.53	0.43
42:al:51:ARG:HH11	42:al:51:ARG:HG3	1.84	0.43
42:al:123:TRP:O	42:al:127:THR:HG23	2.17	0.43
43:q:130:GLN:HE21	43:q:130:GLN:HB3	1.62	0.43
44:p:9:TYR:CD1	56:2:612:U:H5''	2.54	0.43
44:p:115:ILE:O	44:p:120:LYS:NZ	2.29	0.43
45:Ca:113:LEU:HD12	45:Ca:156:ARG:NH1	2.33	0.43
47:j:12:ALA:HB3	47:j:13:ILE:HD12	2.01	0.43
47:j:21:LEU:HD21	56:2:177:A:H1'	2.01	0.43
49:bd:74:ASN:OD1	49:bd:74:ASN:N	2.51	0.43
50:a:286:ALA:CB	50:a:293:PRO:HG3	2.48	0.43
52:aa:296:HIS:HE1	52:aa:398:ASP:OD1	2.01	0.43
52:aa:681:LEU:HA	52:aa:732:VAL:O	2.19	0.43
52:aa:708:ASP:H	52:aa:719:ALA:HB3	1.83	0.43
52:aa:1509:ASP:O	52:aa:1522:ILE:HG12	2.19	0.43
53:k:100:GLY:H	53:k:141:GLU:CG	2.29	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:be:69:ILE:C	54:be:71:LEU:H	2.26	0.43
56:A:450:A:H2	56:A:475:A:N7	2.17	0.43
56:A:459:A:H4'	56:A:460:U:OP1	2.18	0.43
56:A:493:U:O2	56:A:493:U:H2'	2.19	0.43
56:2:591:A:H2'	56:2:592:U:H6	1.84	0.43
1:u:70:ALA:HA	1:u:82:THR:HG21	2.00	0.43
3:r:448:SER:HB2	3:r:454:GLY:HA3	1.99	0.43
6:e:14:TYR:HB3	42:al:29:ASN:HD22	1.84	0.43
6:e:297:GLU:HG3	6:e:298:LEU:N	2.34	0.43
10:aw:136:THR:OG1	10:aw:144:SER:O	2.22	0.43
11:au:155:PHE:HB3	19:ab:407:PHE:HB2	2.01	0.43
13:aj:233:VAL:HG12	13:aj:238:ILE:HG13	2.00	0.43
15:af:70:TYR:O	15:af:73:ALA:HB3	2.18	0.43
15:af:278:ASP:CG	15:af:322:LEU:HB2	2.44	0.43
15:af:612:GLU:OE1	15:af:612:GLU:HA	2.19	0.43
16:ae:104:THR:OG1	16:ae:105:PRO:HD2	2.19	0.43
16:ae:288:TRP:O	16:ae:292:VAL:HG23	2.18	0.43
17:l:294:LEU:HD22	17:l:406:PHE:CE1	2.53	0.43
18:ac:710:TYR:CZ	18:ac:714:LEU:HD22	2.53	0.43
18:ac:1000:THR:HG23	18:ac:1002:ALA:N	2.29	0.43
19:ab:68:ALA:HA	19:ab:71:MET:HE2	2.01	0.43
19:ab:113:ILE:O	19:ab:115:TYR:N	2.52	0.43
19:ab:488:PRO:HA	19:ab:504:ASN:HD21	1.83	0.43
20:ad:611:TRP:CD1	20:ad:611:TRP:C	2.97	0.43
20:ad:780:ILE:O	45:Ca:305:TRP:NE1	2.52	0.43
22:i:124:ILE:HG21	22:i:128:ARG:NH1	2.34	0.43
22:i:151:LYS:HD3	22:i:156:TRP:CZ3	2.54	0.43
22:i:281:HIS:O	22:i:283:VAL:HG13	2.19	0.43
22:i:347:ARG:NH1	53:k:137:LEU:HD22	2.34	0.43
25:d:111:LEU:O	25:d:130:ARG:NH1	2.52	0.43
25:d:172:GLN:O	25:d:176:GLN:HG3	2.18	0.43
27:av:91:ILE:CG2	27:av:169:ALA:HB2	2.49	0.43
29:ar:114:HIS:CD2	29:ar:116:THR:HG1	2.32	0.43
32:ao:49:PRO:HD3	32:ao:140:LEU:HD21	2.00	0.43
32:ao:153:PHE:O	32:ao:156:LEU:HB2	2.19	0.43
32:ao:213:GLN:HE21	45:Ca:264:VAL:HB	1.83	0.43
34:an:16:TRP:NE1	34:an:256:GLU:OE2	2.51	0.43
34:an:148:THR:O	52:aa:1211:TRP:HA	2.18	0.43
35:z:393:GLY:O	35:z:396:CYS:HB2	2.19	0.43
35:z:606:HIS:ND1	48:b:124:LEU:HG	2.33	0.43
35:z:631:GLU:H	35:z:631:GLU:HG2	1.64	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:y:15:ARG:HH11	36:y:112:GLU:CD	2.26	0.43
36:y:79:LEU:HD13	36:y:94:LEU:HD13	2.01	0.43
36:y:129:ALA:O	36:y:133:PHE:HD1	2.00	0.43
38:w:170:MET:HE2	38:w:174:ALA:HB1	2.00	0.43
41:t:20:MET:HE3	47:j:116:TRP:HH2	1.84	0.43
42:al:175:ALA:O	42:al:179:ILE:HG12	2.19	0.43
43:q:190:GLU:OE1	48:b:14:GLN:HB3	2.18	0.43
45:Ca:21:ARG:HA	45:Ca:21:ARG:CZ	2.49	0.43
47:j:37:VAL:O	47:j:38:VAL:C	2.60	0.43
47:j:63:HIS:O	47:j:64:TYR:C	2.61	0.43
49:bd:51:ILE:HD12	49:bd:82:PHE:HE1	1.79	0.43
50:a:409:LEU:HB2	50:a:412:ILE:HB	1.99	0.43
51:bc:250:ILE:HG12	51:bc:256:VAL:CG2	2.46	0.43
52:aa:186:ILE:HG13	52:aa:191:MET:HG2	2.01	0.43
52:aa:260:PHE:HD1	52:aa:321:LEU:HD12	1.83	0.43
52:aa:341:CYS:HB2	52:aa:373:HIS:CE1	2.53	0.43
52:aa:385:ALA:CB	52:aa:423:GLN:HE21	2.32	0.43
52:aa:421:THR:O	52:aa:421:THR:OG1	2.34	0.43
52:aa:1136:ASP:O	52:aa:1664:GLN:HA	2.18	0.43
55:as:96:PHE:HE1	55:as:133:ILE:O	2.01	0.43
56:2:36:U:H1'	56:2:37:U:C2	2.54	0.43
1:u:154:PRO:HB3	19:ab:746:ALA:HA	2.00	0.43
2:s:136:HIS:HB2	14:ag:17:ILE:CD1	2.49	0.43
3:r:121:PHE:CZ	3:r:139:THR:HG23	2.54	0.43
3:r:278:LYS:HA	3:r:278:LYS:HD3	1.81	0.43
3:r:370:PHE:CD1	10:aw:56:PHE:HD1	2.37	0.43
4:n:78:LYS:HA	4:n:78:LYS:HD3	1.72	0.43
4:n:117:VAL:O	4:n:128:LEU:HD12	2.19	0.43
5:h:40:TRP:CZ3	5:h:41:LEU:HD12	2.54	0.43
6:e:388:GLU:OE1	25:d:430:PRO:HB2	2.19	0.43
6:e:569:LEU:HD12	6:e:573:ASN:OD1	2.19	0.43
7:az:30:LYS:NZ	56:A:531:G:OP2	2.35	0.43
7:az:155:ALA:HB3	8:ay:132:ARG:HD3	1.99	0.43
12:ak:15:HIS:CE1	12:ak:19:LEU:HD11	2.53	0.43
12:ak:276:LEU:HD23	14:ag:523:ILE:HB	2.01	0.43
13:aj:296:TYR:HB2	16:ae:21:ILE:HG22	2.00	0.43
14:ag:125:LEU:HD22	14:ag:129:HIS:HB3	2.01	0.43
14:ag:216:LEU:HD22	14:ag:223:HIS:HB3	2.01	0.43
15:af:25:THR:HG23	15:af:26:ASN:HD22	1.83	0.43
15:af:87:TYR:CE1	15:af:105:LEU:HD21	2.53	0.43
16:ae:15:HIS:CD2	16:ae:18:VAL:HG23	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:ae:532:PRO:HG2	16:ae:534:ARG:CG	2.49	0.43
18:ac:267:ALA:HA	18:ac:388:HIS:ND1	2.34	0.43
18:ac:393:GLU:OE2	18:ac:497:TYR:OH	2.23	0.43
18:ac:610:GLU:OE1	18:ac:611:LYS:HE2	2.19	0.43
18:ac:972:GLY:C	18:ac:1046:LEU:HD21	2.43	0.43
19:ab:288:LYS:HG2	19:ab:288:LYS:HZ3	1.48	0.43
19:ab:534:HIS:HB3	19:ab:639:LEU:HB2	2.01	0.43
19:ab:941:GLU:HG2	19:ab:944:VAL:HG22	2.00	0.43
19:ab:1143:MET:HG2	19:ab:1159:SER:HB2	2.00	0.43
20:ad:232:TRP:HB2	20:ad:298:MET:HE1	2.01	0.43
20:ad:353:HIS:HB2	27:av:233:MET:SD	2.59	0.43
20:ad:775:GLY:HA2	50:a:298:TYR:CD2	2.54	0.43
22:i:164:ARG:HH22	22:i:201:PHE:CB	2.31	0.43
22:i:283:VAL:HG23	22:i:283:VAL:O	2.19	0.43
23:f:74:PRO:HG3	44:p:172:GLY:O	2.18	0.43
24:c:12:VAL:HG21	32:ao:52:TRP:CZ2	2.54	0.43
24:c:116:LYS:HB2	24:c:119:HIS:NE2	2.34	0.43
28:at:44:LYS:NZ	56:2:215:A:H61	2.17	0.43
29:ar:92:MET:HE2	29:ar:92:MET:HB3	1.69	0.43
33:ai:253:GLY:HA3	33:ai:264:ARG:NH1	2.32	0.43
33:ai:388:LEU:HD23	33:ai:388:LEU:HA	1.68	0.43
35:z:838:VAL:HG11	35:z:893:ARG:H	1.83	0.43
36:y:123:ALA:O	36:y:125:TRP:N	2.44	0.43
42:al:121:PHE:CD2	42:al:217:GLU:HB2	2.53	0.43
45:Ca:475:ARG:HD3	45:Ca:479:GLY:O	2.19	0.43
51:bc:368:VAL:HG12	51:bc:369:ASP:O	2.19	0.43
52:aa:296:HIS:CE1	52:aa:398:ASP:OD1	2.71	0.43
52:aa:484:GLU:HG3	52:aa:487:LYS:H	1.83	0.43
52:aa:503:LYS:HG2	52:aa:504:TYR:N	2.33	0.43
52:aa:517:PRO:HA	52:aa:518:PRO:HD3	1.94	0.43
52:aa:628:PRO:HA	52:aa:633:TYR:HA	2.01	0.43
52:aa:1029:LYS:HA	52:aa:1029:LYS:HD2	1.78	0.43
52:aa:1311:SER:OG	52:aa:1348:PHE:O	2.35	0.43
56:2:125:U:O5'	56:2:126:U:H3'	2.18	0.43
56:2:228:G:C6	56:2:229:G:C5	3.06	0.43
56:2:294:A:H2'	56:2:295:G:C4	2.54	0.43
1:u:300:PHE:CZ	1:u:726:ASP:HB2	2.53	0.43
1:u:666:PHE:HA	1:u:666:PHE:HD1	1.83	0.43
1:u:700:VAL:HG22	1:u:754:GLU:HB3	2.00	0.43
2:s:37:ARG:HA	2:s:40:ILE:CD1	2.49	0.43
2:s:74:ARG:HH12	5:h:149:GLU:CD	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:r:32:MET:HA	3:r:429:PRO:HG3	2.00	0.43
6:e:523:VAL:HG11	6:e:530:ARG:HG2	2.01	0.43
6:e:635:SER:O	6:e:639:LEU:HG	2.17	0.43
6:e:747:THR:OG1	6:e:748:GLU:N	2.51	0.43
7:az:90:GLN:HA	7:az:93:THR:HG22	2.01	0.43
8:ay:167:LYS:HG2	8:ay:186:TRP:CH2	2.53	0.43
11:au:11:ASP:OD1	11:au:14:THR:N	2.51	0.43
11:au:18:MET:O	11:au:19:MET:HE2	2.18	0.43
11:au:197:VAL:HG12	11:au:204:LYS:HD2	2.01	0.43
12:ak:260:ARG:NH2	18:ac:47:GLU:HA	2.33	0.43
15:af:65:ASN:ND2	25:d:295:ARG:HA	2.32	0.43
15:af:193:LYS:HE3	15:af:193:LYS:HB3	1.85	0.43
15:af:578:LEU:HA	15:af:627:PHE:HZ	1.84	0.43
16:ae:106:VAL:HG22	16:ae:116:ARG:CZ	2.48	0.43
16:ae:107:SER:O	16:ae:108:LEU:HD23	2.19	0.43
16:ae:188:ARG:C	16:ae:190:GLY:H	2.27	0.43
17:l:64:GLU:OE1	17:l:90:TYR:OH	2.29	0.43
17:l:305:ASP:HA	17:l:308:ASN:OD1	2.18	0.43
17:l:469:HIS:HB3	17:l:470:ARG:HH11	1.83	0.43
18:ac:397:THR:O	18:ac:400:ILE:HD12	2.18	0.43
18:ac:417:MET:HE2	18:ac:417:MET:HB3	1.81	0.43
18:ac:639:LEU:HD22	18:ac:755:LEU:HB3	2.01	0.43
18:ac:752:ARG:HH12	18:ac:795:LEU:HD11	1.83	0.43
18:ac:899:GLN:HA	18:ac:902:ILE:HG12	2.00	0.43
18:ac:994:THR:HG22	18:ac:1007:THR:HB	2.01	0.43
19:ab:795:LEU:HD11	19:ab:801:LEU:HD21	2.01	0.43
19:ab:875:ARG:HB2	19:ab:929:ASN:HB3	2.01	0.43
20:ad:303:LEU:HD13	20:ad:311:PHE:CD2	2.54	0.43
20:ad:354:HIS:HD2	27:av:232:GLY:O	2.01	0.43
20:ad:582:ARG:HB3	55:as:194:ARG:NE	2.30	0.43
20:ad:611:TRP:HE3	55:as:218:ARG:NH1	2.16	0.43
22:i:275:TRP:HB3	22:i:279:ARG:NH2	2.34	0.43
23:f:185:PRO:HA	23:f:305:TYR:CZ	2.54	0.43
25:d:218:MET:SD	42:al:192:LEU:HD11	2.58	0.43
25:d:444:LYS:HA	25:d:444:LYS:HD2	1.90	0.43
27:av:48:ARG:HA	27:av:51:THR:OG1	2.19	0.43
28:at:110:SER:OG	28:at:111:VAL:N	2.51	0.43
28:at:233:PHE:HB3	47:j:140:ILE:CG1	2.49	0.43
29:ar:153:ARG:NH1	29:ar:169:VAL:HG11	2.33	0.43
30:aq:19:TRP:CD1	30:aq:19:TRP:H	2.36	0.43
33:ai:38:TYR:CE2	33:ai:207:ARG:HG2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:ai:124:LYS:HD2	33:ai:128:TRP:CG	2.54	0.43
34:an:175:ILE:HG23	34:an:178:ARG:NH1	2.34	0.43
35:z:41:PRO:HG3	56:2:384:A:C2	2.54	0.43
35:z:431:LEU:HB3	35:z:465:TRP:NE1	2.33	0.43
35:z:773:TYR:CD1	35:z:773:TYR:N	2.87	0.43
36:y:23:LEU:O	36:y:27:VAL:HG13	2.19	0.43
38:w:164:TYR:HD1	38:w:164:TYR:HA	1.65	0.43
44:p:66:GLN:H	44:p:69:LYS:HE2	1.84	0.43
45:Ca:104:LEU:HG	45:Ca:109:SER:HG	1.84	0.43
52:aa:99:HIS:H	52:aa:99:HIS:CD2	2.37	0.43
52:aa:144:GLU:CB	53:k:77:PRO:HB2	2.49	0.43
52:aa:659:THR:O	52:aa:798:ARG:HA	2.18	0.43
52:aa:874:LEU:O	52:aa:878:ARG:HG3	2.19	0.43
52:aa:1059:THR:HG23	52:aa:1060:THR:H	1.84	0.43
52:aa:1455:LEU:HD23	52:aa:1465:VAL:HG11	2.01	0.43
53:k:60:ALA:N	56:2:98:A:OP1	2.51	0.43
54:be:4:LEU:HD23	54:be:10:ARG:HB2	2.01	0.43
55:as:37:THR:OG1	55:as:38:PRO:HD2	2.19	0.43
55:as:103:ASP:OD1	55:as:105:THR:N	2.52	0.43
56:2:359:G:O2'	56:2:360:C:H5'	2.18	0.43
1:u:687:ARG:HD3	1:u:688:TYR:CZ	2.54	0.43
1:u:753:TYR:CE1	19:ab:1079:PRO:HG3	2.50	0.43
1:u:757:LYS:H	1:u:757:LYS:HG3	1.66	0.43
2:s:118:TYR:CZ	2:s:122:MET:HG3	2.53	0.43
3:r:109:PHE:HA	57:r:901:GTP:C6	2.54	0.43
3:r:138:LEU:HD21	15:af:673:TRP:CZ3	2.54	0.43
4:n:72:TRP:HZ3	4:n:138:LYS:HG2	1.83	0.43
6:e:102:PRO:HG2	6:e:111:ARG:NE	2.34	0.43
7:az:51:ASP:OD1	7:az:51:ASP:N	2.44	0.43
9:ax:54:TRP:NE1	9:ax:131:HIS:O	2.48	0.43
10:aw:180:MET:HE3	10:aw:184:LYS:HB2	2.01	0.43
12:ak:168:TRP:CD1	12:ak:184:MET:HE2	2.54	0.43
12:ak:228:ILE:HG12	18:ac:1078:PHE:CD2	2.53	0.43
15:af:115:ILE:HG13	15:af:116:GLN:N	2.33	0.43
15:af:585:PHE:CE1	15:af:650:THR:HA	2.54	0.43
16:ae:463:ARG:HD3	16:ae:464:PHE:HE1	1.84	0.43
17:l:54:ALA:O	17:l:57:ARG:HG2	2.19	0.43
17:l:66:THR:HA	17:l:69:LYS:HG2	1.99	0.43
17:l:139:MET:HE3	17:l:535:ARG:HG3	2.01	0.43
17:l:264:LEU:HD21	17:l:313:LEU:HD23	2.00	0.43
17:l:602:ARG:CZ	17:l:640:PHE:HD2	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:242:SER:HG	18:ac:246:TRP:HD1	1.64	0.43
18:ac:1147:LYS:HG2	19:ab:421:TRP:CE3	2.53	0.43
19:ab:207:VAL:HA	19:ab:211:GLN:NE2	2.34	0.43
19:ab:420:HIS:CD2	19:ab:426:ARG:HA	2.54	0.43
19:ab:789:VAL:O	19:ab:805:ASP:HB2	2.19	0.43
19:ab:1067:PHE:O	19:ab:1070:ASN:N	2.51	0.43
20:ad:178:ILE:O	20:ad:182:LYS:HG3	2.19	0.43
20:ad:439:GLU:HA	20:ad:442:PHE:HB2	2.00	0.43
20:ad:500:ALA:HB3	20:ad:501:PRO:HD3	2.01	0.43
20:ad:780:ILE:HG22	20:ad:781:PHE:CD1	2.54	0.43
20:ad:797:ASP:C	20:ad:799:GLU:H	2.27	0.43
21:m:95:GLN:HG3	44:p:112:TYR:HE1	1.84	0.43
21:m:166:VAL:HG13	21:m:173:ARG:HA	2.01	0.43
22:i:69:GLU:HG2	22:i:70:HIS:CD2	2.54	0.43
22:i:275:TRP:HH2	53:k:173:GLU:HB3	1.83	0.43
22:i:277:ILE:HG23	22:i:281:HIS:HD2	1.82	0.43
23:f:288:GLN:O	46:g:59:ARG:NH2	2.52	0.43
24:c:283:MET:HE3	24:c:283:MET:HB3	1.98	0.43
26:ba:24:PRO:HD3	26:ba:80:TRP:CG	2.54	0.43
27:av:151:ASP:OD2	27:av:153:ASP:HB2	2.18	0.43
29:ar:115:ILE:O	29:ar:117:LEU:HD12	2.19	0.43
30:aq:180:TRP:CD1	30:aq:180:TRP:H	2.36	0.43
31:ap:189:SER:O	31:ap:193:LEU:HG	2.19	0.43
33:ai:354:LEU:HD12	33:ai:354:LEU:HA	1.61	0.43
34:an:120:ASP:OD1	35:z:991:SER:OG	2.36	0.43
35:z:96:ARG:O	35:z:99:ARG:NH1	2.51	0.43
35:z:375:ARG:HD3	35:z:375:ARG:HA	1.72	0.43
35:z:400:LEU:HD11	35:z:413:PHE:CE2	2.53	0.43
35:z:561:CYS:HA	35:z:773:TYR:HA	2.01	0.43
35:z:607:ALA:HB1	48:b:142:LEU:HD21	2.00	0.43
35:z:870:LEU:HD12	35:z:871:PRO:HD2	2.01	0.43
35:z:949:VAL:HG23	35:z:952:LEU:HG	2.01	0.43
35:z:1066:TRP:CZ3	35:z:1067:ALA:HB2	2.53	0.43
35:z:1071:ARG:CG	45:Ca:95:TRP:CZ3	3.02	0.43
36:y:174:ASN:OD1	36:y:174:ASN:N	2.50	0.43
37:x:206:GLU:OE1	37:x:282:HIS:NE2	2.52	0.43
41:t:24:SER:HA	43:q:47:ARG:CZ	2.48	0.43
41:t:149:TYR:CE2	41:t:160:PRO:HG3	2.54	0.43
45:Ca:161:GLU:N	45:Ca:161:GLU:OE1	2.52	0.43
45:Ca:522:GLN:NE2	45:Ca:587:ILE:O	2.52	0.43
47:j:49:GLU:HB2	47:j:60:ARG:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:bd:53:ILE:HG23	49:bd:80:ILE:HG23	2.01	0.43
50:a:36:GLY:C	50:a:38:PHE:H	2.27	0.43
51:bc:363:GLN:HB2	56:2:561:U:H5'	2.01	0.43
51:bc:370:LYS:NZ	56:2:233:C:O2'	2.37	0.43
52:aa:129:LEU:HD12	56:2:155:A:N7	2.34	0.43
52:aa:142:LEU:HA	52:aa:152:ASN:ND2	2.33	0.43
52:aa:689:HIS:C	52:aa:691:PHE:N	2.77	0.43
52:aa:752:LEU:HD13	52:aa:755:GLU:HG3	1.99	0.43
52:aa:1020:LEU:HA	52:aa:1049:PRO:HD2	2.01	0.43
52:aa:1546:THR:HB	52:aa:1550:PHE:CE2	2.53	0.43
53:k:48:ARG:NH2	53:k:59:TRP:HB3	2.34	0.43
54:be:68:PHE:CE2	56:2:379:A:C8	3.07	0.43
55:as:204:THR:O	55:as:204:THR:OG1	2.32	0.43
56:2:180:A:H8	56:2:180:A:O5'	2.01	0.43
56:2:227:U:N3	56:2:228:G:N7	2.67	0.43
1:u:598:SER:O	1:u:602:GLU:HG2	2.19	0.42
2:s:102:PHE:HA	2:s:106:ASP:OD1	2.19	0.42
2:s:118:TYR:CE1	2:s:122:MET:HG3	2.54	0.42
2:s:166:PRO:HD2	2:s:169:TRP:HD1	1.83	0.42
3:r:58:TYR:CD2	3:r:418:ASN:HB3	2.54	0.42
3:r:462:GLU:HA	3:r:465:TRP:CE2	2.54	0.42
5:h:85:PRO:HB3	56:A:508:A:C2	2.54	0.42
6:e:337:LEU:HD23	6:e:337:LEU:HA	1.73	0.42
6:e:428:GLN:H	14:ag:29:GLN:HE22	1.66	0.42
7:az:48:LEU:HD11	7:az:113:VAL:CG2	2.49	0.42
8:ay:121:SER:CB	19:ab:1134:ASN:HD22	2.31	0.42
9:ax:11:THR:HG23	19:ab:1156:VAL:H	1.83	0.42
9:ax:57:ARG:HD3	9:ax:57:ARG:HA	1.70	0.42
9:ax:123:LYS:HG2	9:ax:124:ARG:N	2.34	0.42
10:aw:62:TYR:CE1	56:A:504:U:H5''	2.54	0.42
11:au:56:HIS:CE1	11:au:57:PHE:CE2	3.07	0.42
14:ag:73:LEU:HD22	14:ag:103:LEU:HD11	2.01	0.42
14:ag:137:LEU:C	14:ag:139:ALA:H	2.27	0.42
14:ag:199:PRO:O	14:ag:202:THR:OG1	2.24	0.42
14:ag:566:ARG:HD3	17:l:183:PRO:HA	2.01	0.42
15:af:220:SER:C	15:af:297:LEU:HB3	2.44	0.42
16:ae:117:VAL:HG12	16:ae:118:THR:H	1.84	0.42
16:ae:333:GLY:O	16:ae:337:SER:OG	2.35	0.42
16:ae:547:ASN:O	16:ae:549:HIS:N	2.52	0.42
17:l:73:ASN:HB2	17:l:77:LEU:O	2.19	0.42
17:l:218:LEU:HD11	17:l:255:PRO:HG2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:879:ASN:ND2	18:ac:880:LEU:HD23	2.34	0.42
18:ac:940:TRP:NE1	18:ac:980:ALA:O	2.41	0.42
18:ac:1134:PRO:HD3	19:ab:425:MET:HG2	2.01	0.42
19:ab:322:SER:HA	19:ab:325:ALA:HB3	1.99	0.42
20:ad:79:GLN:NE2	28:at:30:ALA:O	2.52	0.42
20:ad:450:HIS:HA	20:ad:487:LYS:HZ2	1.83	0.42
20:ad:750:PHE:H	20:ad:750:PHE:HD1	1.63	0.42
22:i:229:ALA:HA	22:i:259:LEU:HD22	2.01	0.42
22:i:256:GLU:OE2	22:i:259:LEU:HD23	2.20	0.42
25:d:434:ASP:OD2	25:d:438:VAL:HG22	2.18	0.42
32:ao:178:VAL:HG21	52:aa:920:ASP:OD2	2.18	0.42
32:ao:217:LYS:HD3	32:ao:275:GLU:HB3	2.00	0.42
33:ai:85:GLN:O	33:ai:89:LEU:HG	2.19	0.42
33:ai:225:ASP:OD1	33:ai:225:ASP:N	2.52	0.42
34:an:10:ARG:HD2	52:aa:989:LEU:HD21	2.01	0.42
34:an:185:TRP:HB2	52:aa:1557:VAL:CG2	2.49	0.42
35:z:611:PHE:HD2	48:b:134:THR:HG21	1.84	0.42
35:z:1002:SER:OG	52:aa:897:PRO:HA	2.18	0.42
37:x:308:TYR:OH	37:x:319:ASN:ND2	2.47	0.42
41:t:120:GLU:HG2	41:t:121:TRP:CD1	2.54	0.42
43:q:73:ALA:O	43:q:77:ILE:HD12	2.18	0.42
43:q:199:GLY:C	43:q:200:LEU:HD12	2.44	0.42
45:Ca:21:ARG:NE	45:Ca:21:ARG:HA	2.33	0.42
45:Ca:31:ASP:OD1	45:Ca:31:ASP:N	2.52	0.42
45:Ca:235:ARG:HD3	49:bd:36:TYR:HB3	2.01	0.42
45:Ca:400:ASN:OD1	52:aa:954:GLN:NE2	2.50	0.42
46:g:27:LYS:N	56:2:311:U:O2'	2.52	0.42
47:j:24:ALA:HB2	56:2:58:A:H2'	2.01	0.42
50:a:183:ALA:HB3	50:a:189:ALA:CA	2.49	0.42
51:bc:246:ILE:O	51:bc:249:ASP:HB3	2.19	0.42
52:aa:228:LEU:HD22	52:aa:236:THR:HA	2.01	0.42
52:aa:255:HIS:O	52:aa:259:TRP:HD1	2.02	0.42
52:aa:264:GLN:HG3	52:aa:268:LYS:HZ2	1.84	0.42
52:aa:707:ILE:HA	52:aa:719:ALA:HB3	2.01	0.42
52:aa:1417:HIS:HA	52:aa:1420:GLU:HG2	2.01	0.42
56:2:29:A:H2'	56:2:29:A:N3	2.34	0.42
56:2:75:A:C5	56:2:76:A:N7	2.86	0.42
1:u:686:LYS:O	14:ag:33:VAL:HG21	2.19	0.42
1:u:741:VAL:HG22	1:u:746:LEU:HB2	2.01	0.42
2:s:13:HIS:CE1	6:e:771:THR:HG23	2.54	0.42
2:s:126:GLY:HA3	11:au:37:TYR:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:r:334:GLY:O	3:r:337:ARG:HB3	2.18	0.42
3:r:388:TYR:CE1	3:r:393:ASP:HB3	2.54	0.42
4:n:163:ASP:O	4:n:166:LYS:HB3	2.19	0.42
6:e:369:TRP:HE3	6:e:398:LYS:HB3	1.83	0.42
6:e:535:GLY:N	6:e:607:SER:OG	2.52	0.42
6:e:541:LEU:C	6:e:597:GLU:HG2	2.43	0.42
7:az:116:LEU:HD21	9:ax:84:GLU:HG2	2.00	0.42
8:ay:101:GLU:OE2	9:ax:18:LEU:HB3	2.19	0.42
11:au:49:TYR:HA	11:au:54:TYR:CD2	2.54	0.42
12:ak:163:GLU:HG3	12:ak:164:ALA:N	2.33	0.42
14:ag:283:PHE:CD1	14:ag:306:LEU:HD21	2.54	0.42
14:ag:287:LEU:HD11	14:ag:322:TYR:HD1	1.83	0.42
17:l:378:ARG:NH2	18:ac:603:VAL:HA	2.34	0.42
17:l:421:SER:O	17:l:421:SER:OG	2.37	0.42
17:l:507:ARG:HH12	19:ab:209:ARG:HE	1.68	0.42
17:l:664:TRP:CD1	17:l:665:PRO:HD3	2.54	0.42
19:ab:718:TRP:HE3	19:ab:725:TYR:CD1	2.36	0.42
19:ab:1041:TRP:CD1	19:ab:1041:TRP:N	2.85	0.42
19:ab:1141:ALA:HA	19:ab:1144:TRP:CD1	2.54	0.42
20:ad:73:ASP:C	20:ad:75:GLY:H	2.26	0.42
20:ad:331:GLU:O	20:ad:381:ARG:NH2	2.52	0.42
20:ad:510:PHE:HZ	20:ad:544:THR:HG21	1.84	0.42
20:ad:616:LYS:O	20:ad:620:VAL:HG23	2.19	0.42
20:ad:654:LEU:HA	20:ad:654:LEU:HD23	1.71	0.42
21:m:20:ARG:H	21:m:20:ARG:HG2	1.44	0.42
22:i:204:GLU:OE2	22:i:227:LYS:HA	2.20	0.42
22:i:421:TRP:CD1	56:2:106:U:OP1	2.72	0.42
24:c:87:PRO:HG2	33:ai:158:TYR:OH	2.19	0.42
24:c:110:ARG:NH1	24:c:133:ASP:OD1	2.51	0.42
24:c:200:PHE:C	24:c:202:ASN:N	2.76	0.42
29:ar:155:LEU:HD21	29:ar:238:PHE:CZ	2.54	0.42
29:ar:207:HIS:CD2	29:ar:209:THR:N	2.87	0.42
30:aq:51:LEU:HA	30:aq:51:LEU:HD23	1.56	0.42
30:aq:97:TRP:CD1	30:aq:97:TRP:C	2.97	0.42
33:ai:108:GLU:O	33:ai:112:SER:OG	2.28	0.42
35:z:324:VAL:HA	35:z:337:THR:HG21	2.01	0.42
35:z:348:VAL:O	35:z:352:LEU:HG	2.19	0.42
35:z:618:ARG:CD	43:q:218:PRO:HD2	2.46	0.42
35:z:660:TYR:HB3	35:z:670:LEU:HD11	2.00	0.42
35:z:735:ILE:HG21	35:z:741:ILE:HG12	2.01	0.42
35:z:891:ARG:HG2	35:z:892:PRO:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:z:958:LYS:HE3	35:z:958:LYS:HB2	1.77	0.42
35:z:1071:ARG:HH11	45:Ca:95:TRP:CG	2.36	0.42
35:z:1089:GLU:HG2	35:z:1090:GLU:HG3	2.01	0.42
35:z:1100:TRP:HE1	45:Ca:80:ASP:HB2	1.83	0.42
41:t:166:ALA:HA	41:t:171:TRP:NE1	2.35	0.42
45:Ca:365:ASP:O	45:Ca:369:ARG:HG3	2.19	0.42
45:Ca:402:ASP:HB2	52:aa:951:TRP:CE3	2.54	0.42
45:Ca:414:LYS:HD3	45:Ca:414:LYS:C	2.45	0.42
45:Ca:475:ARG:HH21	47:j:122:ALA:C	2.27	0.42
45:Ca:539:ILE:HG12	45:Ca:540:GLN:H	1.83	0.42
50:a:97:PRO:HB3	50:a:283:SER:HB2	1.99	0.42
50:a:401:ARG:NH2	52:aa:1694:ARG:HH12	2.11	0.42
51:bc:296:ILE:HG23	51:bc:304:SER:O	2.19	0.42
52:aa:308:TYR:HA	52:aa:311:GLU:HG3	2.01	0.42
52:aa:473:THR:HG23	52:aa:539:ARG:HG2	2.01	0.42
52:aa:699:ARG:C	52:aa:700:LEU:HD12	2.43	0.42
52:aa:900:LYS:HD2	52:aa:907:HIS:CG	2.54	0.42
52:aa:1429:LEU:HD12	52:aa:1429:LEU:HA	1.86	0.42
54:be:1:MET:HG2	56:2:267:U:O3'	2.19	0.42
56:A:403:U:H2'	56:A:404:U:H6	1.81	0.42
56:2:132:G:N1	56:2:133:A:N6	2.68	0.42
56:2:247:A:H2'	56:2:247:A:N3	2.35	0.42
1:u:572:LYS:HA	1:u:575:ASP:OD2	2.19	0.42
1:u:668:PHE:CD2	1:u:670:ILE:HG12	2.54	0.42
1:u:684:GLU:HG3	1:u:690:TRP:CZ2	2.53	0.42
1:u:787:VAL:HG21	10:aw:121:GLN:HB3	2.00	0.42
1:u:793:LYS:HB3	1:u:794:PRO:HD2	2.01	0.42
3:r:277:LYS:HE2	3:r:277:LYS:HB2	1.88	0.42
3:r:443:LYS:HE2	3:r:465:TRP:CD2	2.54	0.42
4:n:72:TRP:HH2	19:ab:1119:HIS:CD2	2.37	0.42
4:n:164:TYR:CD2	4:n:169:LEU:HD22	2.54	0.42
6:e:10:TYR:CE1	14:ag:25:LYS:HD2	2.54	0.42
6:e:45:ASP:CG	42:al:283:TRP:HB2	2.44	0.42
7:az:144:HIS:CG	7:az:147:ASN:HB2	2.55	0.42
9:ax:43:ASN:ND2	56:A:518:G:H21	2.16	0.42
11:au:237:GLY:HA2	16:ae:23:ARG:HH11	1.84	0.42
12:ak:276:LEU:HD22	14:ag:527:LEU:HD21	2.02	0.42
13:aj:27:GLN:HE21	49:bd:72:LEU:CB	2.32	0.42
13:aj:113:ASP:CG	13:aj:116:THR:HG1	2.24	0.42
14:ag:298:ARG:HD3	14:ag:298:ARG:HA	1.81	0.42
14:ag:344:ILE:O	14:ag:346:VAL:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:af:365:ASP:H	15:af:368:ARG:NH2	2.16	0.42
15:af:370:LEU:O	15:af:374:VAL:HG23	2.19	0.42
16:ae:285:ARG:NH2	19:ab:1060:ASN:HD21	2.08	0.42
17:l:470:ARG:O	17:l:474:VAL:HG13	2.19	0.42
18:ac:43:ARG:HD2	18:ac:44:GLU:OE1	2.19	0.42
18:ac:58:ILE:HB	18:ac:540:SER:OG	2.19	0.42
18:ac:270:PHE:HA	18:ac:274:VAL:HG23	2.01	0.42
18:ac:396:GLU:CD	18:ac:500:LYS:HZ1	2.22	0.42
18:ac:1054:GLN:O	18:ac:1058:PHE:HB2	2.19	0.42
19:ab:398:ASP:OD1	19:ab:399:GLU:N	2.52	0.42
19:ab:543:LEU:HD22	19:ab:857:TRP:CZ2	2.54	0.42
19:ab:653:PHE:CE2	19:ab:657:ILE:HG21	2.55	0.42
22:i:271:PHE:O	22:i:274:TYR:HB3	2.19	0.42
22:i:423:SER:HB3	56:2:129:U:O2'	2.18	0.42
23:f:266:ARG:HB3	23:f:268:ILE:HG12	2.01	0.42
25:d:32:VAL:HG22	25:d:42:TRP:HH2	1.84	0.42
25:d:287:ASP:OD2	25:d:289:ARG:HD3	2.18	0.42
28:at:88:TRP:HZ2	52:aa:353:TYR:CE2	2.38	0.42
28:at:224:ALA:HA	28:at:227:VAL:HG23	2.01	0.42
30:aq:152:LEU:HD21	30:aq:186:TYR:OH	2.19	0.42
32:ao:19:VAL:HG13	32:ao:39:VAL:HG21	2.00	0.42
32:ao:26:ARG:HA	32:ao:107:VAL:HG23	2.00	0.42
32:ao:58:SER:OG	32:ao:58:SER:O	2.37	0.42
33:ai:155:LEU:O	33:ai:159:GLY:N	2.47	0.42
34:an:34:TYR:CD2	35:z:992:SER:HB2	2.54	0.42
35:z:62:PHE:CZ	35:z:69:HIS:CD2	3.08	0.42
35:z:414:ILE:HG22	35:z:416:ASP:HB2	2.02	0.42
35:z:441:TYR:CG	35:z:521:ILE:HD12	2.55	0.42
35:z:1039:THR:HB	35:z:1041:GLU:HG3	2.00	0.42
37:x:295:LEU:HD13	37:x:320:TYR:HE1	1.83	0.42
39:v:28:GLN:H	39:v:28:GLN:HG2	1.63	0.42
39:v:70:SER:CB	56:2:540:A:H5''	2.48	0.42
40:bb:133:LYS:HB2	56:2:280:A:C6	2.53	0.42
40:bb:236:TYR:CD1	40:bb:236:TYR:N	2.87	0.42
43:q:13:ARG:NH1	56:2:49:U:P	2.92	0.42
43:q:74:ASP:OD1	52:aa:217:THR:HA	2.19	0.42
44:p:109:GLY:O	44:p:115:ILE:HG13	2.20	0.42
44:p:210:ALA:HA	44:p:214:ALA:HB2	2.01	0.42
46:g:12:TYR:CG	46:g:16:HIS:CD2	3.07	0.42
46:g:46:GLU:CB	46:g:57:ILE:HD11	2.44	0.42
47:j:185:VAL:C	47:j:189:LEU:HB3	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:bd:54:TRP:HB3	49:bd:59:HIS:HB3	2.00	0.42
52:aa:227:GLN:C	52:aa:228:LEU:HD23	2.45	0.42
52:aa:424:ARG:NH1	52:aa:462:THR:O	2.51	0.42
52:aa:568:GLU:OE2	52:aa:884:ARG:NH2	2.52	0.42
52:aa:1314:LEU:HD11	52:aa:1355:ILE:HD13	2.01	0.42
53:k:22:CYS:C	53:k:30:ARG:HH22	2.28	0.42
53:k:97:TYR:CD1	53:k:142:GLY:HA2	2.51	0.42
53:k:144:LEU:HD23	53:k:165:LEU:HB2	2.01	0.42
56:2:226:A:C2	56:2:256:G:N1	2.87	0.42
1:u:358:GLN:HE21	19:ab:922:VAL:CG2	2.33	0.42
1:u:681:ASN:OD1	1:u:682:ASN:N	2.52	0.42
2:s:68:PHE:HZ	6:e:219:VAL:HG22	1.82	0.42
2:s:82:GLN:HA	2:s:87:PHE:CD1	2.54	0.42
6:e:20:MET:SD	6:e:21:PRO:HD2	2.59	0.42
6:e:73:TRP:CZ3	49:bd:73:LEU:HD21	2.55	0.42
6:e:284:ARG:O	6:e:287:GLU:HB3	2.20	0.42
6:e:400:PHE:CE2	6:e:812:SER:HB2	2.54	0.42
7:az:18:ALA:HB3	9:ax:43:ASN:OD1	2.20	0.42
8:ay:92:HIS:CD2	8:ay:92:HIS:H	2.30	0.42
11:au:78:GLU:OE2	12:ak:3:PHE:HD1	2.02	0.42
11:au:158:HIS:CD2	11:au:158:HIS:N	2.87	0.42
13:aj:206:SER:O	13:aj:210:MET:HG3	2.19	0.42
13:aj:236:ARG:NH2	59:aj:401:UTP:O4'	2.50	0.42
13:aj:304:ILE:HD13	13:aj:304:ILE:HA	1.76	0.42
15:af:24:ASN:HD22	15:af:27:TRP:HB2	1.85	0.42
15:af:78:GLN:OE1	15:af:79:SER:HB3	2.19	0.42
17:l:156:ARG:HG2	17:l:525:TYR:CE2	2.55	0.42
17:l:378:ARG:HG2	18:ac:597:LEU:HG	2.01	0.42
17:l:477:GLN:O	17:l:481:ARG:HG2	2.19	0.42
18:ac:205:VAL:HG21	18:ac:211:LEU:HD12	2.01	0.42
18:ac:207:ASN:HD22	18:ac:209:GLN:NE2	2.17	0.42
18:ac:397:THR:O	18:ac:397:THR:HG23	2.20	0.42
18:ac:414:ARG:HD3	18:ac:417:MET:HE1	2.00	0.42
18:ac:715:TYR:CD1	18:ac:915:PRO:HB3	2.54	0.42
19:ab:275:PHE:CE2	19:ab:277:GLY:HA2	2.55	0.42
19:ab:292:TYR:HB3	19:ab:661:PHE:HD2	1.84	0.42
19:ab:415:THR:OG1	19:ab:416:GLN:N	2.52	0.42
19:ab:456:ASP:O	19:ab:459:GLU:HB3	2.19	0.42
19:ab:554:THR:HG22	19:ab:557:GLU:CD	2.43	0.42
19:ab:1047:ALA:O	19:ab:1049:GLN:N	2.52	0.42
20:ad:57:HIS:NE2	53:k:32:LYS:HB2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:781:PHE:HZ	45:Ca:308:PHE:CD2	2.36	0.42
25:d:115:LEU:HD22	44:p:177:MET:SD	2.59	0.42
25:d:249:MET:HE2	25:d:249:MET:HB3	1.75	0.42
25:d:294:VAL:HG12	25:d:295:ARG:O	2.19	0.42
25:d:315:ASP:C	25:d:317:GLU:H	2.26	0.42
27:av:103:TRP:CD1	27:av:186:ASP:HB3	2.54	0.42
28:at:18:ARG:HD3	28:at:19:TRP:CZ3	2.53	0.42
28:at:41:LEU:HA	28:at:41:LEU:HD23	1.79	0.42
28:at:149:LYS:HB2	28:at:149:LYS:HE3	1.84	0.42
33:ai:192:ASP:OD1	33:ai:193:PRO:HD2	2.20	0.42
34:an:263:LYS:HA	34:an:263:LYS:HD2	1.78	0.42
37:x:101:MET:SD	37:x:101:MET:N	2.83	0.42
37:x:134:SER:O	37:x:136:PRO:HD3	2.19	0.42
37:x:172:ARG:HG2	44:p:157:LYS:HE2	2.01	0.42
38:w:15:HIS:NE2	38:w:18:TYR:OH	2.44	0.42
39:v:72:SER:OG	39:v:76:SER:O	2.26	0.42
39:v:203:GLU:OE1	39:v:203:GLU:N	2.52	0.42
40:bb:174:LYS:HZ3	40:bb:218:VAL:CG1	2.33	0.42
42:al:41:THR:HG23	42:al:42:ASP:OD1	2.19	0.42
42:al:157:GLU:OE2	50:a:135:ARG:NH2	2.52	0.42
43:q:87:GLN:NE2	43:q:91:TRP:CD2	2.88	0.42
44:p:175:ILE:HG22	44:p:176:THR:H	1.83	0.42
45:Ca:247:PHE:CE1	50:a:117:TRP:HB2	2.55	0.42
45:Ca:436:ALA:HB1	47:j:131:GLN:OE1	2.18	0.42
45:Ca:573:ARG:HH11	45:Ca:576:ARG:NH1	2.17	0.42
47:j:29:ILE:HG13	47:j:110:ARG:O	2.19	0.42
47:j:56:ASN:HD22	47:j:58:ASP:H	1.67	0.42
51:bc:367:ARG:NH1	56:2:235:A:OP1	2.52	0.42
52:aa:510:GLU:O	52:aa:898:LYS:HD3	2.20	0.42
52:aa:670:TYR:CZ	52:aa:672:ASP:HA	2.54	0.42
52:aa:1163:LEU:HD13	52:aa:1206:ARG:CZ	2.50	0.42
52:aa:1433:ILE:HG23	52:aa:1644:PHE:CZ	2.55	0.42
52:aa:1623:ASN:OD1	52:aa:1625:ALA:HB3	2.20	0.42
54:be:4:LEU:HD13	54:be:7:CYS:O	2.19	0.42
56:2:319:U:C5	56:2:321:A:N1	2.88	0.42
56:2:388:U:C4	56:2:543:G:N2	2.87	0.42
1:u:597:ILE:CD1	1:u:622:ILE:HD11	2.50	0.42
1:u:607:ARG:HG3	1:u:608:HIS:CD2	2.55	0.42
1:u:653:ARG:NH1	14:ag:309:ARG:HA	2.19	0.42
2:s:63:PRO:HD2	6:e:215:TYR:CZ	2.54	0.42
2:s:104:ARG:NH2	16:ae:170:ARG:HG2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:r:124:LYS:HB2	3:r:135:LEU:HD21	2.01	0.42
3:r:462:GLU:HG2	3:r:465:TRP:CZ3	2.54	0.42
4:n:99:PHE:CB	4:n:118:ARG:HB2	2.49	0.42
4:n:106:TYR:HD1	4:n:136:ILE:HA	1.84	0.42
7:az:25:ILE:HG12	7:az:32:TRP:CE2	2.55	0.42
10:aw:157:GLN:HG2	10:aw:161:PHE:HE1	1.85	0.42
13:aj:45:ASN:O	13:aj:49:THR:HG23	2.20	0.42
13:aj:137:MET:HG2	13:aj:174:TYR:CE1	2.55	0.42
14:ag:372:PRO:O	14:ag:375:ASP:HB2	2.19	0.42
14:ag:532:VAL:HG22	17:l:140:PHE:CE1	2.54	0.42
14:ag:532:VAL:HG23	17:l:536:SER:HB2	2.02	0.42
15:af:215:LEU:HA	15:af:218:MET:HE2	2.02	0.42
15:af:668:ARG:NH1	15:af:669:MET:HE3	2.34	0.42
16:ae:253:PHE:CZ	16:ae:292:VAL:HG11	2.55	0.42
16:ae:259:LYS:HB3	19:ab:1075:TYR:CE2	2.54	0.42
16:ae:311:TRP:CE3	16:ae:311:TRP:HA	2.54	0.42
16:ae:349:VAL:HG13	16:ae:350:HIS:ND1	2.34	0.42
16:ae:389:GLU:HG3	16:ae:479:LEU:HD21	2.02	0.42
17:l:279:HIS:CD2	17:l:413:LEU:HD11	2.55	0.42
17:l:383:VAL:O	17:l:387:GLU:HG3	2.20	0.42
17:l:515:THR:O	17:l:519:ILE:HG13	2.19	0.42
18:ac:659:GLN:HG3	18:ac:660:GLU:N	2.34	0.42
19:ab:177:ILE:HD11	19:ab:215:GLN:NE2	2.33	0.42
19:ab:621:HIS:CD2	19:ab:621:HIS:N	2.87	0.42
19:ab:1143:MET:SD	19:ab:1159:SER:HB2	2.59	0.42
20:ad:10:HIS:N	40:bb:142:PRO:HA	2.34	0.42
20:ad:72:ASP:OD2	47:j:40:LYS:HE2	2.19	0.42
20:ad:124:TYR:CE1	43:q:84:LYS:HE3	2.54	0.42
20:ad:654:LEU:HD12	47:j:143:LYS:HD2	2.01	0.42
22:i:247:ILE:H	22:i:247:ILE:HG13	1.54	0.42
22:i:321:PRO:HA	22:i:324:LEU:HD12	2.01	0.42
23:f:194:LEU:CB	23:f:276:LEU:HD11	2.49	0.42
23:f:312:PHE:HA	23:f:313:PRO:HD3	1.91	0.42
25:d:433:LEU:HB2	25:d:438:VAL:HG23	2.01	0.42
27:av:149:GLU:HG2	27:av:150:LEU:H	1.84	0.42
27:av:173:LEU:HD22	27:av:176:LEU:HD12	2.01	0.42
28:at:88:TRP:CE3	28:at:89:ASN:HB3	2.54	0.42
28:at:125:ARG:HA	28:at:169:PHE:HB2	2.01	0.42
29:ar:149:GLN:O	29:ar:150:LEU:HD23	2.19	0.42
33:ai:30:SER:H	33:ai:33:GLU:HB2	1.84	0.42
33:ai:350:PRO:HG3	33:ai:355:ASP:OD1	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:an:15:LEU:HD12	34:an:15:LEU:O	2.20	0.42
34:an:129:ARG:HG3	34:an:130:ASP:N	2.33	0.42
34:an:248:TYR:CD2	34:an:249:LEU:HD23	2.54	0.42
34:an:267:ARG:HD3	52:aa:1080:LEU:HD11	2.02	0.42
35:z:528:TRP:NE1	35:z:560:THR:OG1	2.49	0.42
35:z:1005:ASN:ND2	52:aa:888:VAL:HG12	2.31	0.42
35:z:1056:LEU:O	35:z:1060:LEU:HG	2.19	0.42
35:z:1071:ARG:NH2	45:Ca:95:TRP:CZ3	2.87	0.42
38:w:164:TYR:CD1	38:w:167:ILE:HD11	2.54	0.42
39:v:109:ARG:O	39:v:111:GLY:N	2.53	0.42
39:v:159:PHE:HB2	39:v:162:ARG:HH21	1.84	0.42
40:bb:191:LEU:HA	40:bb:191:LEU:HD23	1.64	0.42
42:al:113:LYS:HA	42:al:113:LYS:HD2	1.49	0.42
43:q:174:ALA:HB2	43:q:219:HIS:HB3	2.02	0.42
43:q:178:ASN:HA	48:b:42:GLU:CD	2.44	0.42
45:Ca:59:TRP:CD1	45:Ca:59:TRP:N	2.87	0.42
45:Ca:546:TRP:HA	45:Ca:549:GLU:OE1	2.20	0.42
47:j:104:PHE:CD1	47:j:111:LEU:HD12	2.55	0.42
47:j:153:ASN:OD1	47:j:153:ASN:N	2.53	0.42
48:b:138:ILE:HA	48:b:141:GLN:HB3	2.01	0.42
49:bd:78:TYR:HD1	49:bd:78:TYR:H	1.68	0.42
52:aa:186:ILE:H	52:aa:186:ILE:HG12	1.57	0.42
52:aa:256:CYS:SG	52:aa:316:ALA:HB3	2.59	0.42
52:aa:567:SER:HA	52:aa:570:ARG:HG2	2.01	0.42
52:aa:787:ARG:HH12	52:aa:844:ALA:H	1.68	0.42
52:aa:874:LEU:HG	52:aa:878:ARG:HD3	2.02	0.42
52:aa:1140:ASP:OD2	52:aa:1143:GLN:HG3	2.19	0.42
52:aa:1310:LYS:NZ	52:aa:1312:ARG:HE	2.13	0.42
53:k:108:VAL:HA	53:k:130:PHE:O	2.19	0.42
56:A:537:A:H2'	56:2:538:A:OP2	2.19	0.42
56:2:200:A:O2'	56:2:201:A:P	2.75	0.42
56:2:269:A:H2'	56:2:270:U:O4'	2.19	0.42
1:u:100:ARG:NH1	14:ag:295:GLN:OE1	2.53	0.42
1:u:156:ILE:HD11	1:u:161:GLU:CD	2.44	0.42
1:u:736:LEU:HD23	1:u:736:LEU:HA	1.80	0.42
1:u:747:MET:HE2	6:e:227:PHE:HD1	1.85	0.42
3:r:173:THR:H	3:r:215:ASN:HD21	1.66	0.42
8:ay:128:PRO:HD2	8:ay:129:TRP:CE3	2.54	0.42
11:au:107:GLU:HB3	11:au:123:TYR:OH	2.19	0.42
13:aj:177:TRP:CZ3	13:aj:219:ILE:HD11	2.54	0.42
14:ag:340:ARG:HH12	19:ab:1022:SER:HA	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:ag:441:PRO:CG	49:bd:44:ILE:HG12	2.50	0.42
16:ae:192:VAL:HG21	16:ae:263:VAL:CG1	2.50	0.42
17:l:274:ASN:ND2	17:l:398:VAL:O	2.42	0.42
17:l:526:ASP:OD1	19:ab:351:VAL:HB	2.18	0.42
18:ac:337:LYS:HG2	18:ac:341:GLU:CD	2.45	0.42
18:ac:442:LYS:NZ	18:ac:502:LEU:HD22	2.34	0.42
18:ac:896:THR:O	18:ac:899:GLN:N	2.48	0.42
19:ab:185:LEU:HD23	19:ab:186:PRO:HD2	2.01	0.42
19:ab:488:PRO:HB2	19:ab:949:ARG:HH11	1.84	0.42
19:ab:503:LEU:CB	19:ab:505:ARG:HE	2.32	0.42
19:ab:776:GLN:H	19:ab:776:GLN:HG2	1.69	0.42
20:ad:94:LYS:HE3	20:ad:98:GLY:H	1.83	0.42
21:m:36:THR:HG21	21:m:39:HIS:HD2	1.85	0.42
21:m:121:TYR:O	21:m:124:LEU:HB2	2.19	0.42
22:i:73:ILE:HB	40:bb:178:VAL:CG2	2.49	0.42
22:i:77:TYR:CE2	40:bb:237:GLN:HG3	2.55	0.42
22:i:206:MET:CE	22:i:210:ARG:HH12	2.32	0.42
22:i:261:HIS:ND1	22:i:303:TYR:CZ	2.86	0.42
23:f:107:ARG:HH22	25:d:93:TYR:HB3	1.83	0.42
23:f:305:TYR:CD1	46:g:47:GLU:HA	2.54	0.42
25:d:198:THR:HB	37:x:185:GLU:CD	2.44	0.42
25:d:198:THR:HB	37:x:185:GLU:OE1	2.20	0.42
25:d:204:LEU:HA	25:d:213:ASN:ND2	2.35	0.42
31:ap:175:HIS:HE1	48:b:151:ARG:HG3	1.84	0.42
32:ao:257:GLU:HG2	32:ao:258:GLY:N	2.35	0.42
34:an:16:TRP:CZ2	34:an:252:LYS:HE2	2.54	0.42
34:an:144:THR:N	34:an:147:GLY:O	2.46	0.42
34:an:148:THR:OG1	52:aa:1212:ALA:HB3	2.19	0.42
34:an:202:ARG:HH22	34:an:206:LEU:HG	1.84	0.42
35:z:244:LYS:O	35:z:281:THR:HA	2.20	0.42
35:z:804:ARG:O	35:z:804:ARG:HG2	2.19	0.42
35:z:824:LYS:HE2	35:z:824:LYS:HB3	1.79	0.42
35:z:873:PHE:HE1	35:z:877:PHE:HD2	1.64	0.42
36:y:113:LYS:HD3	36:y:273:PHE:CE1	2.54	0.42
36:y:306:ALA:HA	36:y:309:GLU:HG2	2.01	0.42
38:w:10:GLN:NE2	56:2:31:U:OP2	2.52	0.42
38:w:167:ILE:H	38:w:167:ILE:HG12	1.53	0.42
39:v:184:HIS:CE1	39:v:213:TYR:HH	2.37	0.42
39:v:206:GLY:N	56:2:358:U:OP2	2.53	0.42
39:v:208:ARG:HD2	56:2:290:G:C2	2.55	0.42
40:bb:216:SER:O	40:bb:220:SER:OG	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:q:88:LEU:HD23	43:q:88:LEU:HA	1.86	0.42
43:q:171:LYS:HB3	43:q:173:GLU:OE1	2.19	0.42
45:Ca:59:TRP:HZ3	45:Ca:75:LEU:HD22	1.84	0.42
45:Ca:520:GLN:O	45:Ca:565:ARG:NE	2.52	0.42
46:g:13:MET:HE3	46:g:13:MET:HB3	1.93	0.42
51:bc:369:ASP:OD2	51:bc:373:ARG:NE	2.52	0.42
52:aa:190:GLU:H	52:aa:190:GLU:HG2	1.60	0.42
52:aa:267:ILE:O	52:aa:271:TYR:CB	2.56	0.42
52:aa:1425:ARG:HD3	52:aa:1659:LEU:HB3	2.02	0.42
53:k:48:ARG:HB3	56:2:565:A:C4	2.54	0.42
56:2:128:A:H2'	56:2:129:U:H6	1.84	0.42
1:u:128:GLU:HG3	1:u:132:TYR:CZ	2.54	0.42
1:u:175:LEU:HD13	1:u:185:LEU:HD11	2.01	0.42
1:u:192:LEU:HA	1:u:192:LEU:HD12	1.74	0.42
1:u:394:LEU:HA	1:u:397:LYS:HG2	2.02	0.42
1:u:612:VAL:HG12	1:u:617:ILE:HG13	2.02	0.42
3:r:80:VAL:CG2	3:r:84:GLU:HB3	2.49	0.42
3:r:176:VAL:HG13	3:r:182:TRP:NE1	2.35	0.42
6:e:75:VAL:HB	6:e:77:THR:HG22	2.02	0.42
6:e:266:PHE:CD2	6:e:267:LEU:HG	2.55	0.42
6:e:533:SER:OG	16:ae:213:HIS:HD2	2.03	0.42
7:az:107:HIS:CE1	9:ax:56:PRO:HB2	2.55	0.42
8:ay:149:ARG:HG2	8:ay:149:ARG:NH1	2.35	0.42
8:ay:164:ARG:NH1	19:ab:1131:MET:HE1	2.28	0.42
9:ax:119:ASN:CB	56:A:525:A:H62	2.33	0.42
11:au:93:MET:HE1	11:au:102:TRP:HE1	1.84	0.42
12:ak:227:PRO:HG3	12:ak:248:ASN:HB3	2.00	0.42
12:ak:260:ARG:HH12	18:ac:50:THR:HG1	1.55	0.42
13:aj:288:LEU:HD23	13:aj:288:LEU:HA	1.87	0.42
14:ag:180:MET:O	14:ag:184:LEU:HG	2.18	0.42
14:ag:210:ASN:HB3	14:ag:245:SER:OG	2.19	0.42
14:ag:457:TRP:HB2	19:ab:395:HIS:NE2	2.34	0.42
14:ag:510:LEU:HD12	14:ag:510:LEU:HA	1.84	0.42
15:af:30:SER:HA	19:ab:1015:ASN:ND2	2.35	0.42
15:af:215:LEU:O	15:af:291:ARG:HB2	2.20	0.42
16:ae:103:VAL:O	16:ae:103:VAL:HG13	2.19	0.42
16:ae:202:MET:O	16:ae:206:VAL:HG12	2.20	0.42
17:l:283:ARG:HH22	19:ab:74:GLU:HG3	1.85	0.42
17:l:460:GLU:O	17:l:464:LEU:HG	2.19	0.42
17:l:498:TRP:HB2	17:l:500:TYR:H	1.84	0.42
18:ac:980:ALA:HA	18:ac:998:ASN:HA	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:ac:1032:ARG:HD2	18:ac:1032:ARG:HA	1.84	0.42
20:ad:734:TYR:HB3	24:c:87:PRO:HG3	2.02	0.42
21:m:25:GLU:H	35:z:130:THR:HG21	1.84	0.42
21:m:142:MET:HE2	35:z:164:GLY:HA3	2.02	0.42
21:m:172:PRO:HB2	21:m:174:PHE:O	2.20	0.42
22:i:239:LEU:C	22:i:241:THR:H	2.28	0.42
22:i:313:THR:OG1	22:i:314:ASN:N	2.53	0.42
23:f:198:SER:O	23:f:284:TYR:HD2	2.03	0.42
23:f:223:ASN:ND2	23:f:224:ARG:HH22	2.18	0.42
24:c:256:TYR:HD1	24:c:268:HIS:CE1	2.37	0.42
25:d:404:LEU:HG	25:d:405:LEU:CD2	2.48	0.42
26:ba:16:GLU:OE1	26:ba:16:GLU:N	2.52	0.42
27:av:98:TRP:CG	27:av:205:MET:HE1	2.54	0.42
28:at:215:SER:HB2	38:w:44:VAL:HG11	2.01	0.42
28:at:223:ILE:O	28:at:227:VAL:HG23	2.20	0.42
28:at:234:LEU:C	28:at:236:LEU:H	2.27	0.42
29:ar:152:PHE:CE1	29:ar:168:VAL:HG12	2.54	0.42
32:ao:118:VAL:HG11	45:Ca:407:MET:HA	2.02	0.42
32:ao:282:TYR:HB2	45:Ca:256:TYR:CD2	2.55	0.42
33:ai:47:GLU:HB3	33:ai:212:TYR:OH	2.19	0.42
34:an:175:ILE:HD12	34:an:178:ARG:NH2	2.34	0.42
35:z:422:ILE:HG13	35:z:423:THR:O	2.19	0.42
35:z:721:ILE:HD13	35:z:721:ILE:HA	1.85	0.42
35:z:791:PHE:CE1	35:z:907:VAL:HG12	2.55	0.42
35:z:836:TYR:HA	35:z:840:VAL:CG2	2.46	0.42
35:z:979:TYR:C	35:z:981:MET:N	2.76	0.42
35:z:1071:ARG:CZ	45:Ca:93:PRO:HB2	2.50	0.42
41:t:188:PRO:HA	55:as:114:GLU:OE1	2.20	0.42
42:al:301:LEU:H	42:al:301:LEU:HD22	1.84	0.42
43:q:171:LYS:HD3	43:q:171:LYS:HA	1.89	0.42
45:Ca:10:ARG:HH12	54:be:51:CYS:CB	2.32	0.42
45:Ca:334:ASP:O	45:Ca:338:ARG:HG3	2.20	0.42
45:Ca:436:ALA:HB1	47:j:131:GLN:CD	2.44	0.42
45:Ca:462:LEU:HD11	45:Ca:493:TYR:CE2	2.54	0.42
48:b:10:MET:HE2	48:b:11:LYS:O	2.20	0.42
52:aa:496:ARG:HB2	52:aa:550:ILE:HG23	2.01	0.42
52:aa:592:ARG:HG2	52:aa:634:HIS:NE2	2.35	0.42
52:aa:761:LEU:O	52:aa:771:ARG:HD2	2.19	0.42
52:aa:873:ARG:NH2	52:aa:877:LEU:HD21	2.34	0.42
52:aa:1107:LEU:HD13	52:aa:1210:ILE:HD13	2.01	0.42
52:aa:1232:LEU:HD13	52:aa:1234:GLU:OE1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:1567:PHE:CZ	52:aa:1631:PHE:HE1	2.37	0.42
53:k:14:PHE:O	53:k:15:GLN:C	2.63	0.42
53:k:98:VAL:O	53:k:142:GLY:N	2.51	0.42
54:be:69:ILE:HD13	54:be:77:TYR:HE1	1.85	0.42
1:u:30:GLN:HG2	19:ab:849:GLN:HE22	1.85	0.42
1:u:616:VAL:HG11	1:u:635:ILE:HG13	2.02	0.42
4:n:58:ILE:O	56:A:489:A:H8	2.03	0.42
5:h:54:PRO:HG2	6:e:464:ARG:CZ	2.49	0.42
6:e:331:ARG:HA	6:e:334:GLU:OE2	2.19	0.42
6:e:346:PRO:HB3	6:e:351:THR:HG23	2.01	0.42
6:e:449:PRO:HG3	6:e:479:ARG:CZ	2.49	0.42
6:e:503:ASP:O	6:e:507:GLU:HG2	2.19	0.42
7:az:81:THR:OG1	7:az:83:TYR:HE1	2.03	0.42
7:az:116:LEU:HD22	9:ax:72:TRP:HE1	1.85	0.42
8:ay:89:GLN:C	8:ay:91:PHE:H	2.28	0.42
11:au:186:TRP:HD1	11:au:216:TYR:OH	2.03	0.42
16:ae:285:ARG:HH21	19:ab:1060:ASN:ND2	2.08	0.42
16:ae:574:ILE:HA	19:ab:556:GLN:HE22	1.85	0.42
17:l:85:TYR:HA	17:l:88:TRP:HB3	2.01	0.42
18:ac:752:ARG:HD3	18:ac:752:ARG:HA	1.86	0.42
19:ab:84:GLY:HA2	19:ab:92:ARG:HH22	1.84	0.42
19:ab:401:ILE:O	19:ab:405:MET:HG2	2.20	0.42
19:ab:619:ASN:HB2	19:ab:621:HIS:CD2	2.54	0.42
19:ab:636:GLU:C	19:ab:637:ASN:HD22	2.28	0.42
19:ab:880:MET:SD	19:ab:883:ASN:ND2	2.93	0.42
19:ab:1018:PRO:HG2	19:ab:1038:PRO:HB3	2.02	0.42
20:ad:445:LEU:HD23	20:ad:445:LEU:HA	1.83	0.42
20:ad:651:PHE:HE2	47:j:143:LYS:HB2	1.84	0.42
21:m:98:ARG:HE	44:p:113:TYR:HA	1.85	0.42
25:d:271:HIS:CD2	25:d:272:PHE:CD1	3.07	0.42
28:at:17:SER:HA	56:2:189:A:C8	2.55	0.42
28:at:95:TYR:HA	28:at:105:TYR:O	2.20	0.42
29:ar:52:PHE:CG	53:k:136:ASP:HA	2.55	0.42
32:ao:132:ARG:O	32:ao:133:ARG:C	2.62	0.42
33:ai:310:ASN:C	33:ai:312:TRP:N	2.77	0.42
34:an:203:TYR:HB2	52:aa:1553:HIS:CG	2.55	0.42
35:z:74:VAL:C	35:z:76:LYS:H	2.28	0.42
35:z:269:ILE:HD13	35:z:376:VAL:HG23	2.01	0.42
35:z:432:LEU:HD23	35:z:432:LEU:HA	1.82	0.42
39:v:193:PHE:HB3	39:v:197:ALA:CB	2.50	0.42
41:t:121:TRP:HZ3	41:t:130:VAL:HG23	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:al:289:ASN:OD1	42:al:290:ARG:N	2.53	0.42
44:p:47:ILE:O	50:a:135:ARG:NH1	2.52	0.42
45:Ca:86:LYS:HB3	45:Ca:86:LYS:HE2	1.82	0.42
45:Ca:102:TRP:CD1	45:Ca:170:PRO:HB3	2.54	0.42
45:Ca:179:PHE:O	45:Ca:182:GLU:HG2	2.20	0.42
45:Ca:263:LYS:HG2	45:Ca:264:VAL:H	1.84	0.42
45:Ca:478:ASP:OD1	45:Ca:480:THR:OG1	2.30	0.42
45:Ca:577:TRP:HZ2	56:2:239:G:C2	2.38	0.42
47:j:29:ILE:HD13	47:j:31:ARG:HG3	2.02	0.42
47:j:116:TRP:CD1	47:j:128:SER:HB2	2.55	0.42
52:aa:309:LEU:HD22	52:aa:309:LEU:H	1.85	0.42
52:aa:492:PRO:HB2	52:aa:550:ILE:CD1	2.49	0.42
52:aa:629:ASP:OD1	52:aa:630:LYS:N	2.53	0.42
52:aa:815:VAL:HG12	52:aa:816:GLN:H	1.85	0.42
55:as:13:PHE:HB2	56:2:74:G:C8	2.55	0.42
55:as:109:TYR:C	55:as:111:GLY:H	2.27	0.42
56:2:185:A:C8	56:2:185:A:H3'	2.55	0.42
56:2:310:A:N3	56:2:310:A:H2'	2.35	0.42
1:u:336:ALA:HB3	1:u:341:ARG:HG3	2.01	0.42
1:u:565:ARG:NH2	1:u:571:MET:H	2.14	0.42
1:u:601:LEU:CD1	1:u:617:ILE:HD13	2.47	0.42
1:u:612:VAL:HG12	1:u:619:PRO:HD3	2.02	0.42
2:s:87:PHE:CZ	6:e:794:PRO:HA	2.54	0.42
3:r:13:LEU:HD13	3:r:13:LEU:HA	1.82	0.42
3:r:259:ILE:H	3:r:259:ILE:HD12	1.83	0.42
3:r:336:VAL:HA	3:r:339:LEU:HB2	2.02	0.42
3:r:460:HIS:C	3:r:462:GLU:H	2.26	0.42
5:h:93:ASP:CG	5:h:114:SER:N	2.77	0.42
6:e:207:PHE:O	25:d:339:GLY:HA2	2.20	0.42
6:e:410:GLN:NE2	6:e:415:GLU:OE2	2.40	0.42
7:az:111:ARG:NH1	7:az:125:THR:HG23	2.35	0.42
8:ay:143:GLY:O	8:ay:146:VAL:HG13	2.20	0.42
9:ax:97:GLN:OE1	9:ax:150:THR:HG23	2.19	0.42
11:au:42:PHE:CD2	13:aj:304:ILE:HD12	2.55	0.42
13:aj:27:GLN:HE22	49:bd:82:PHE:HD2	1.68	0.42
13:aj:213:GLU:H	13:aj:213:GLU:HG3	1.69	0.42
14:ag:127:MET:HG3	14:ag:128:SER:N	2.35	0.42
14:ag:168:GLU:O	14:ag:172:GLN:N	2.44	0.42
14:ag:293:CYS:HB2	14:ag:295:GLN:HG3	2.01	0.42
15:af:380:SER:HA	15:af:517:ALA:HB1	2.02	0.42
15:af:531:LYS:HB2	15:af:532:MET:HE2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:af:625:LEU:HD12	15:af:654:ARG:HD3	2.01	0.42
15:af:662:ARG:HD3	15:af:673:TRP:NE1	2.34	0.42
16:ae:515:ASN:ND2	19:ab:851:ALA:HB2	2.34	0.42
17:l:90:TYR:CG	17:l:94:LYS:HE2	2.55	0.42
18:ac:1080:LYS:HD3	18:ac:1080:LYS:HA	1.92	0.42
19:ab:126:GLU:OE1	19:ab:223:ASP:HB2	2.20	0.42
19:ab:141:MET:SD	19:ab:212:ILE:HB	2.60	0.42
19:ab:298:PRO:HA	19:ab:299:PRO:HD3	1.97	0.42
19:ab:543:LEU:HD12	19:ab:871:PRO:HG2	2.01	0.42
19:ab:620:LEU:HD12	19:ab:620:LEU:HA	1.73	0.42
19:ab:961:ASP:OD1	19:ab:962:VAL:N	2.53	0.42
20:ad:397:LEU:HD11	20:ad:438:ILE:HD11	2.02	0.42
20:ad:600:MET:HE3	20:ad:636:LEU:HD22	2.00	0.42
22:i:397:MET:N	55:as:18:LYS:O	2.53	0.42
24:c:197:PHE:HD2	24:c:206:PHE:HE2	1.67	0.42
26:ba:56:THR:HG23	26:ba:57:GLY:N	2.34	0.42
27:av:197:LEU:HD11	27:av:207:MET:SD	2.60	0.42
29:ar:45:ARG:HB3	56:2:111:A:P	2.60	0.42
29:ar:96:ILE:HD12	29:ar:107:LEU:HD21	2.01	0.42
29:ar:106:LEU:O	29:ar:214:ARG:NH1	2.52	0.42
30:aq:97:TRP:HH2	30:aq:138:CYS:SG	2.43	0.42
30:aq:110:PRO:HD2	30:aq:142:ASN:CB	2.48	0.42
30:aq:132:PHE:HZ	41:t:83:LEU:HD13	1.84	0.42
32:ao:39:VAL:HG12	32:ao:147:ILE:HD11	2.00	0.42
32:ao:73:VAL:HG11	32:ao:122:TYR:CD1	2.54	0.42
33:ai:169:LEU:HD13	33:ai:213:ILE:HG12	2.02	0.42
34:an:47:ASP:OD2	45:Ca:377:VAL:HG23	2.20	0.42
34:an:49:MET:HE2	34:an:49:MET:HB3	1.82	0.42
34:an:122:LYS:HG3	52:aa:985:ILE:HG13	2.01	0.42
34:an:203:TYR:HB2	52:aa:1553:HIS:CB	2.50	0.42
34:an:237:GLU:H	34:an:237:GLU:CD	2.22	0.42
35:z:31:ASP:HB2	56:2:381:U:O5'	2.20	0.42
35:z:32:VAL:HG23	35:z:33:ARG:HG3	2.00	0.42
35:z:769:ARG:HH22	35:z:776:GLU:HG2	1.85	0.42
37:x:194:ASP:O	44:p:174:PHE:HD2	2.03	0.42
38:w:127:LEU:HD23	38:w:127:LEU:HA	1.72	0.42
40:bb:153:LEU:HD23	40:bb:153:LEU:HA	1.45	0.42
41:t:67:ASP:H	41:t:70:CYS:HB2	1.85	0.42
42:al:119:ASP:OD1	42:al:119:ASP:N	2.52	0.42
45:Ca:71:ILE:CG1	52:aa:379:GLU:HB2	2.48	0.42
45:Ca:257:GLU:O	45:Ca:260:GLU:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:279:ALA:HB2	52:aa:967:LEU:HD11	2.02	0.42
45:Ca:370:ARG:HA	50:a:311:LYS:NZ	2.34	0.42
48:b:35:LEU:O	48:b:69:VAL:HG12	2.20	0.42
50:a:126:ASP:OD1	50:a:126:ASP:N	2.52	0.42
50:a:304:LEU:HD23	50:a:304:LEU:HA	1.85	0.42
52:aa:234:PRO:HA	52:aa:237:ALA:HB3	2.02	0.42
52:aa:579:ILE:HG12	52:aa:582:ARG:HH21	1.84	0.42
52:aa:885:GLU:H	52:aa:885:GLU:HG2	1.64	0.42
52:aa:1032:LYS:NZ	52:aa:1032:LYS:HB3	2.35	0.42
52:aa:1110:LYS:HA	52:aa:1110:LYS:HE3	2.01	0.42
52:aa:1617:PHE:O	52:aa:1618:LEU:HD23	2.20	0.42
54:be:65:GLY:HA2	54:be:76:TYR:HA	2.00	0.42
56:2:171:A:H5'	56:2:172:A:OP2	2.20	0.42
56:2:321:A:H2'	56:2:322:A:C8	2.55	0.42
56:2:382:A:H8	56:2:382:A:O5'	2.02	0.42
1:u:64:VAL:O	1:u:64:VAL:HG23	2.20	0.42
1:u:724:PHE:O	1:u:778:GLN:NE2	2.53	0.42
2:s:121:ASP:HB3	2:s:127:THR:O	2.20	0.42
3:r:467:TYR:HB2	25:d:354:GLU:OE2	2.20	0.42
6:e:258:LYS:HD3	6:e:262:ASP:OD1	2.19	0.42
6:e:262:ASP:HA	19:ab:1036:TYR:HD1	1.85	0.42
6:e:481:SER:OG	6:e:530:ARG:NH2	2.53	0.42
10:aw:55:HIS:HB2	10:aw:60:THR:HG21	2.02	0.42
13:aj:112:GLN:H	13:aj:112:GLN:CD	2.28	0.42
13:aj:141:GLU:HA	13:aj:145:HIS:CB	2.49	0.42
13:aj:235:ALA:N	56:A:429:U:OP1	2.38	0.42
14:ag:175:HIS:HB2	17:l:674:ARG:HH12	1.84	0.42
15:af:393:TRP:HE3	15:af:504:ARG:HH11	1.67	0.42
15:af:585:PHE:CE2	15:af:649:LYS:HB3	2.54	0.42
17:l:664:TRP:CG	17:l:665:PRO:HD3	2.54	0.42
18:ac:135:LYS:HE2	18:ac:135:LYS:HB2	1.85	0.42
18:ac:448:PRO:O	18:ac:450:MET:HG3	2.20	0.42
18:ac:822:PHE:HE1	18:ac:843:PHE:HD2	1.66	0.42
18:ac:1054:GLN:O	18:ac:1058:PHE:CB	2.68	0.42
19:ab:547:LEU:HD23	19:ab:561:ARG:HG2	2.01	0.42
20:ad:11:ARG:HA	40:bb:143:ARG:HG3	2.01	0.42
20:ad:24:THR:HA	56:2:13:A:H61	1.85	0.42
20:ad:45:GLN:HE21	20:ad:49:GLY:HA3	1.84	0.42
20:ad:431:LEU:HD21	20:ad:468:MET:HB3	2.01	0.42
20:ad:576:ALA:HB3	20:ad:601:GLU:CD	2.44	0.42
20:ad:735:THR:HG22	20:ad:736:ALA:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:743:ASN:ND2	20:ad:746:ARG:HH21	2.18	0.42
21:m:24:ASN:HD22	21:m:28:ASN:HD21	1.68	0.42
22:i:106:ASP:OD2	22:i:112:LYS:HD2	2.20	0.42
23:f:215:ILE:HD12	23:f:215:ILE:HA	1.83	0.42
24:c:180:GLU:OE1	52:aa:176:GLU:HB3	2.19	0.42
24:c:234:GLU:H	24:c:234:GLU:HG2	1.65	0.42
27:av:207:MET:HG3	27:av:208:GLN:N	2.35	0.42
28:at:37:ILE:HD12	56:2:198:A:H4'	2.01	0.42
28:at:87:ARG:HB3	28:at:89:ASN:H	1.85	0.42
28:at:131:LEU:HD23	28:at:134:GLN:OE1	2.20	0.42
33:ai:184:ALA:O	33:ai:188:TYR:OH	2.21	0.42
33:ai:325:GLU:CD	33:ai:329:ARG:HE	2.28	0.42
34:an:111:ILE:HD12	34:an:111:ILE:HA	1.75	0.42
35:z:431:LEU:HD22	35:z:434:ARG:HH21	1.85	0.42
35:z:942:ASP:OD1	35:z:942:ASP:N	2.53	0.42
37:x:232:PHE:HZ	37:x:268:LEU:HD21	1.85	0.42
38:w:100:THR:HG22	38:w:104:ILE:HD11	2.02	0.42
39:v:205:TYR:HD2	56:2:358:U:H5''	1.85	0.42
40:bb:158:LYS:NZ	56:2:592:U:OP1	2.52	0.42
42:al:79:MET:C	42:al:81:ARG:H	2.27	0.42
43:q:13:ARG:NH2	56:2:49:U:OP2	2.52	0.42
44:p:108:GLU:CG	44:p:121:PRO:HG2	2.50	0.42
45:Ca:16:ARG:HD3	56:2:253:U:OP1	2.20	0.42
47:j:108:ARG:NE	56:2:78:G:OP1	2.33	0.42
50:a:384:ILE:HG23	50:a:388:THR:OG1	2.19	0.42
50:a:399:LEU:HD23	50:a:399:LEU:HA	1.87	0.42
51:bc:245:LYS:HE3	56:2:600:U:OP1	2.20	0.42
52:aa:475:GLU:OE1	52:aa:478:ALA:HB2	2.20	0.42
52:aa:949:GLY:C	52:aa:951:TRP:N	2.78	0.42
52:aa:1024:TRP:CG	52:aa:1025:GLU:N	2.88	0.42
52:aa:1462:HIS:HA	52:aa:1465:VAL:HG22	2.02	0.42
55:as:14:ARG:HD3	56:2:86:G:OP2	2.19	0.42
55:as:48:TYR:O	55:as:52:MET:HG2	2.20	0.42
55:as:118:ALA:HB1	55:as:141:GLN:O	2.19	0.42
56:A:461:A:N1	56:A:463:A:H2'	2.35	0.42
56:A:513:U:O2'	56:A:514:A:H2'	2.20	0.42
1:u:324:LEU:HB2	1:u:632:MET:SD	2.60	0.41
2:s:25:VAL:HG21	10:aw:116:LEU:HD11	2.02	0.41
2:s:52:ALA:HB3	6:e:719:PRO:HG3	2.01	0.41
2:s:153:ARG:HH11	2:s:155:ARG:HH11	1.68	0.41
6:e:249:GLU:O	6:e:429:THR:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:e:356:PRO:HB3	6:e:362:TYR:CG	2.55	0.41
6:e:692:TYR:HB3	19:ab:1174:GLN:NE2	2.28	0.41
8:ay:133:PHE:C	8:ay:137:ASP:HB2	2.45	0.41
11:au:67:LEU:HD13	11:au:162:TYR:OH	2.20	0.41
11:au:171:GLY:O	18:ac:35:ALA:HB1	2.19	0.41
12:ak:172:VAL:O	18:ac:70:ARG:HG3	2.20	0.41
12:ak:238:ALA:HA	18:ac:1061:ILE:HD11	2.02	0.41
15:af:52:PRO:HA	15:af:57:ASP:HB2	2.02	0.41
15:af:141:THR:O	15:af:145:VAL:HG23	2.20	0.41
15:af:232:LEU:HD23	15:af:232:LEU:HA	1.83	0.41
15:af:352:LEU:HD12	15:af:352:LEU:HA	1.68	0.41
15:af:650:THR:O	15:af:654:ARG:HB2	2.20	0.41
16:ae:67:TYR:CZ	16:ae:145:VAL:HG21	2.55	0.41
16:ae:88:LEU:HD12	16:ae:91:TYR:OH	2.19	0.41
16:ae:239:CYS:O	16:ae:242:PRO:HD2	2.19	0.41
16:ae:336:TYR:CZ	16:ae:340:VAL:HG23	2.55	0.41
16:ae:405:ASN:OD1	16:ae:405:ASN:N	2.52	0.41
17:l:187:ILE:O	17:l:237:TYR:HE2	2.03	0.41
17:l:296:SER:HB2	17:l:298:PRO:O	2.20	0.41
18:ac:151:SER:OG	18:ac:152:GLN:N	2.52	0.41
18:ac:400:ILE:HD13	18:ac:461:LYS:CG	2.50	0.41
18:ac:450:MET:HB2	18:ac:450:MET:HE3	1.83	0.41
18:ac:814:ILE:N	18:ac:815:PRO:HD2	2.35	0.41
18:ac:1083:LYS:O	18:ac:1086:ALA:HB3	2.20	0.41
19:ab:90:TYR:OH	19:ab:204:GLN:HB3	2.20	0.41
19:ab:716:ARG:H	19:ab:716:ARG:HG3	1.52	0.41
19:ab:718:TRP:N	19:ab:812:GLU:O	2.47	0.41
19:ab:870:LEU:HB3	19:ab:896:ILE:CD1	2.50	0.41
20:ad:34:TYR:OH	20:ad:38:ARG:HD3	2.20	0.41
20:ad:82:ASN:CB	38:w:25:ASP:HB2	2.50	0.41
20:ad:580:PHE:CE2	20:ad:585:LEU:HB2	2.55	0.41
20:ad:587:GLN:HG2	20:ad:588:PHE:CD1	2.52	0.41
20:ad:652:ARG:HH22	41:t:14:LEU:HD11	1.85	0.41
20:ad:728:GLY:HA2	33:ai:95:ASP:CG	2.44	0.41
21:m:192:GLU:HG2	21:m:193:ASN:N	2.35	0.41
22:i:128:ARG:HD3	22:i:159:LYS:O	2.20	0.41
22:i:143:LEU:HD11	22:i:155:PHE:O	2.20	0.41
22:i:154:PRO:HA	22:i:156:TRP:CH2	2.54	0.41
23:f:74:PRO:HG2	23:f:75:GLN:OE1	2.20	0.41
23:f:120:ARG:O	23:f:124:GLN:HG2	2.20	0.41
24:c:244:MET:H	24:c:244:MET:HG3	1.65	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:d:110:SER:OG	25:d:112:ARG:HG3	2.19	0.41
25:d:128:TRP:CE3	25:d:182:ILE:HD13	2.55	0.41
25:d:137:PHE:CZ	25:d:182:ILE:HB	2.55	0.41
26:ba:18:THR:CG2	35:z:1101:PHE:HA	2.49	0.41
27:av:141:PHE:CE2	27:av:169:ALA:HB1	2.55	0.41
27:av:143:LEU:HD12	27:av:143:LEU:HA	1.73	0.41
27:av:222:LYS:HA	27:av:222:LYS:HD2	1.82	0.41
32:ao:69:MET:O	32:ao:103:ALA:HA	2.20	0.41
32:ao:153:PHE:CB	52:aa:955:ARG:HB2	2.44	0.41
32:ao:175:HIS:CD2	52:aa:587:ALA:HA	2.54	0.41
33:ai:164:ARG:HB3	33:ai:167:GLU:HG3	2.02	0.41
33:ai:348:LEU:HA	33:ai:348:LEU:HD12	1.64	0.41
34:an:129:ARG:HG3	34:an:130:ASP:OD1	2.20	0.41
35:z:60:ILE:HA	35:z:60:ILE:HD13	1.77	0.41
35:z:384:MET:HE2	35:z:384:MET:HB3	1.84	0.41
35:z:412:GLU:HB2	35:z:456:PHE:CD1	2.55	0.41
35:z:473:PRO:HD2	42:al:178:GLU:HG2	2.01	0.41
35:z:673:PHE:CE1	35:z:708:GLN:HG2	2.54	0.41
35:z:773:TYR:N	35:z:773:TYR:HD1	2.18	0.41
36:y:101:LEU:HD23	36:y:101:LEU:HA	1.83	0.41
38:w:67:LEU:C	38:w:69:PRO:HD3	2.45	0.41
39:v:110:GLY:C	39:v:112:GLN:H	2.26	0.41
44:p:11:MET:HE3	44:p:11:MET:HB3	1.94	0.41
45:Ca:215:ILE:HD12	49:bd:34:HIS:HB2	2.02	0.41
45:Ca:290:LYS:O	45:Ca:290:LYS:HG3	2.20	0.41
47:j:34:GLY:HA3	47:j:44:TYR:CD1	2.54	0.41
47:j:47:PHE:HD2	47:j:61:LEU:HD13	1.85	0.41
49:bd:54:TRP:O	49:bd:79:LEU:HB2	2.19	0.41
50:a:76:ASP:O	50:a:78:LYS:N	2.42	0.41
50:a:121:THR:CB	50:a:128:ILE:HD11	2.46	0.41
50:a:145:VAL:CG1	50:a:265:PRO:HB2	2.50	0.41
50:a:206:LEU:HD23	50:a:206:LEU:HA	1.91	0.41
52:aa:203:PRO:O	52:aa:206:THR:OG1	2.33	0.41
52:aa:819:LEU:HD13	52:aa:819:LEU:HA	1.91	0.41
53:k:56:ARG:HD3	56:2:97:U:C6	2.55	0.41
54:be:12:VAL:HG12	54:be:37:PHE:HB2	2.02	0.41
56:A:405:A:C6	56:A:524:A:C6	3.08	0.41
56:2:71:U:O2'	56:2:88:A:H1'	2.20	0.41
56:2:130:U:H2'	56:2:131:A:H8	1.85	0.41
56:2:287:A:H3'	56:2:288:U:H5	1.85	0.41
1:u:376:THR:HA	1:u:548:VAL:HG12	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:u:398:HIS:O	1:u:398:HIS:CG	2.73	0.41
1:u:807:TYR:CZ	3:r:337:ARG:NH1	2.88	0.41
2:s:127:THR:HG21	11:au:37:TYR:HD2	1.84	0.41
3:r:158:LEU:O	3:r:162:VAL:HG23	2.20	0.41
3:r:231:LEU:HD22	3:r:232:PRO:HD2	2.01	0.41
3:r:427:TRP:CZ2	3:r:434:SER:HB3	2.55	0.41
6:e:20:MET:HG3	42:al:31:PRO:CG	2.44	0.41
6:e:404:ILE:HG22	6:e:406:LYS:HG3	2.01	0.41
6:e:608:THR:H	6:e:611:THR:HG22	1.85	0.41
11:au:110:TYR:O	11:au:114:LEU:HG	2.20	0.41
12:ak:53:LEU:HG	18:ac:1024:LEU:HD11	2.02	0.41
13:aj:69:LEU:HD13	13:aj:123:LYS:HE2	2.02	0.41
14:ag:309:ARG:C	14:ag:311:TRP:H	2.26	0.41
15:af:232:LEU:HD11	15:af:285:PHE:CZ	2.55	0.41
15:af:333:GLU:OE1	25:d:17:ARG:NH1	2.52	0.41
16:ae:487:GLU:HG3	16:ae:488:LEU:HD23	2.02	0.41
18:ac:85:HIS:HB2	18:ac:90:GLU:HB2	2.02	0.41
18:ac:640:LYS:HA	18:ac:643:VAL:HG12	2.01	0.41
19:ab:248:GLU:HG3	19:ab:248:GLU:H	1.59	0.41
19:ab:740:LEU:HD22	19:ab:778:TYR:HB3	2.02	0.41
19:ab:1002:ILE:H	19:ab:1002:ILE:HG13	1.56	0.41
20:ad:50:TRP:CD2	56:2:138:U:C5	3.07	0.41
20:ad:734:TYR:OH	33:ai:106:ASP:OD2	2.37	0.41
22:i:150:PRO:HB3	48:b:157:PHE:CE2	2.55	0.41
22:i:425:ARG:HB3	22:i:425:ARG:CZ	2.50	0.41
23:f:233:PHE:CG	56:2:305:A:H5'	2.55	0.41
24:c:193:LEU:HB3	24:c:219:ILE:HG12	2.01	0.41
25:d:271:HIS:HD2	25:d:272:PHE:CD1	2.38	0.41
26:ba:23:PHE:C	26:ba:25:HIS:H	2.28	0.41
27:av:196:CYS:O	27:av:199:ARG:HG2	2.20	0.41
28:at:51:ARG:H	28:at:54:ASN:HB2	1.85	0.41
28:at:96:TRP:HH2	28:at:109:VAL:HG13	1.84	0.41
28:at:233:PHE:HD2	47:j:140:ILE:HG12	1.85	0.41
30:aq:12:LEU:HB2	56:2:54:U:OP2	2.19	0.41
30:aq:28:ASN:HD21	38:w:145:LEU:HA	1.85	0.41
30:aq:91:GLU:OE2	30:aq:124:ARG:NH1	2.53	0.41
31:ap:122:GLY:C	31:ap:124:ASP:H	2.28	0.41
33:ai:29:LEU:H	33:ai:29:LEU:HG	1.61	0.41
34:an:75:VAL:HG12	34:an:76:ASN:O	2.20	0.41
35:z:835:PHE:O	35:z:839:GLY:N	2.53	0.41
35:z:999:THR:HG23	52:aa:898:LYS:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:w:148:LYS:HA	38:w:153:GLN:NE2	2.36	0.41
42:al:121:PHE:CZ	42:al:214:SER:HA	2.55	0.41
43:q:139:SER:O	43:q:143:GLN:HG2	2.20	0.41
45:Ca:437:ASN:HB3	45:Ca:475:ARG:HH11	1.85	0.41
45:Ca:517:SER:O	45:Ca:519:GLU:N	2.53	0.41
45:Ca:547:PHE:HZ	52:aa:328:PHE:CD2	2.38	0.41
47:j:116:TRP:O	47:j:116:TRP:HD1	2.02	0.41
47:j:133:SER:C	47:j:135:ILE:N	2.77	0.41
50:a:219:ALA:HB2	50:a:271:GLY:HA2	2.02	0.41
51:bc:299:ASN:OD1	51:bc:300:ASP:N	2.43	0.41
52:aa:394:ARG:HG2	52:aa:398:ASP:OD2	2.19	0.41
52:aa:488:VAL:O	52:aa:490:PHE:N	2.54	0.41
52:aa:805:ILE:H	52:aa:805:ILE:HG12	1.61	0.41
52:aa:874:LEU:HA	52:aa:874:LEU:HD12	1.77	0.41
52:aa:950:LYS:HB2	52:aa:950:LYS:HE3	1.74	0.41
52:aa:1546:THR:HG1	52:aa:1547:VAL:H	1.68	0.41
53:k:39:HIS:ND1	54:be:6:GLY:HA2	2.34	0.41
56:2:68:A:H5''	56:2:69:U:OP2	2.20	0.41
56:2:86:G:N3	56:2:86:G:H2'	2.35	0.41
56:2:132:G:C2	56:2:133:A:C6	3.08	0.41
56:2:254:A:C2	56:2:255:U:C2	3.08	0.41
56:2:287:A:H2'	56:2:288:U:C6	2.55	0.41
1:u:72:ASP:N	1:u:72:ASP:OD1	2.51	0.41
1:u:389:ASN:O	1:u:393:LYS:HB2	2.20	0.41
1:u:395:LEU:HD22	1:u:400:LEU:HB2	2.01	0.41
1:u:396:ARG:HH12	15:af:163:GLN:HE21	1.68	0.41
1:u:547:ILE:HA	1:u:550:GLU:OE1	2.20	0.41
1:u:616:VAL:HG22	6:e:310:PHE:CE1	2.55	0.41
2:s:104:ARG:HE	2:s:104:ARG:HB3	1.60	0.41
3:r:119:ASN:HB2	3:r:165:TYR:CZ	2.55	0.41
3:r:177:PRO:HA	3:r:286:ASP:OD2	2.20	0.41
3:r:291:PHE:HD1	3:r:291:PHE:HA	1.69	0.41
3:r:407:TYR:HD1	3:r:407:TYR:HA	1.76	0.41
3:r:409:PHE:CE1	3:r:413:THR:HG21	2.55	0.41
3:r:431:TRP:CZ3	25:d:63:ARG:HB3	2.55	0.41
4:n:145:LYS:HD3	8:ay:102:PHE:CE2	2.55	0.41
4:n:152:ASP:OD1	4:n:152:ASP:N	2.54	0.41
6:e:20:MET:HG2	49:bd:43:SER:OG	2.20	0.41
6:e:126:ARG:NH1	19:ab:883:ASN:O	2.54	0.41
6:e:176:LEU:HB3	6:e:180:GLN:HB3	2.02	0.41
6:e:634:CYS:SG	6:e:639:LEU:HD21	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:e:693:GLY:O	6:e:695:LYS:HD2	2.21	0.41
7:az:86:SER:HB3	39:v:112:GLN:HB2	2.02	0.41
11:au:105:ARG:HG2	11:au:143:TYR:CD2	2.56	0.41
13:aj:264:ARG:HG3	13:aj:268:PHE:CE2	2.55	0.41
14:ag:472:ARG:HG2	14:ag:487:ARG:CD	2.51	0.41
15:af:29:ASP:OD2	19:ab:477:VAL:HG21	2.20	0.41
15:af:205:SER:HB3	15:af:234:GLU:OE1	2.20	0.41
15:af:213:ARG:HH21	15:af:216:HIS:HB3	1.85	0.41
15:af:256:GLY:O	15:af:261:ARG:NH2	2.38	0.41
16:ae:165:TYR:O	16:ae:169:ARG:HG3	2.19	0.41
16:ae:234:ARG:HG2	16:ae:269:VAL:CG2	2.46	0.41
17:l:51:PHE:HB2	17:l:96:LYS:NZ	2.36	0.41
17:l:192:ARG:NH2	18:ac:596:LEU:HB3	2.35	0.41
17:l:291:THR:HG23	17:l:292:ASP:N	2.35	0.41
18:ac:70:ARG:C	18:ac:72:GLY:H	2.28	0.41
18:ac:584:VAL:HG13	18:ac:630:ASP:O	2.20	0.41
18:ac:659:GLN:O	18:ac:663:ARG:HB2	2.20	0.41
18:ac:692:ARG:HH12	18:ac:693:ARG:HG3	1.84	0.41
19:ab:290:THR:N	19:ab:291:PRO:HD2	2.35	0.41
20:ad:55:HIS:CG	20:ad:56:PHE:N	2.88	0.41
20:ad:793:TRP:CZ2	32:ao:240:TYR:HE2	2.37	0.41
21:m:80:LEU:HB3	42:al:219:TYR:OH	2.20	0.41
24:c:169:ARG:HG2	44:p:65:PHE:CG	2.55	0.41
25:d:41:LEU:O	25:d:45:SER:OG	2.34	0.41
26:ba:24:PRO:C	26:ba:26:GLY:H	2.26	0.41
26:ba:74:MET:HE2	26:ba:74:MET:HB3	1.78	0.41
27:av:47:ILE:HG12	29:ar:199:ASN:HD22	1.84	0.41
27:av:58:TYR:H	53:k:151:ARG:HG2	1.85	0.41
28:at:93:ARG:NH2	28:at:106:ARG:O	2.53	0.41
31:ap:232:ASN:OD1	31:ap:232:ASN:N	2.49	0.41
33:ai:349:LEU:HD23	33:ai:349:LEU:HA	1.85	0.41
34:an:115:LYS:HD3	52:aa:977:VAL:O	2.21	0.41
35:z:66:TYR:HE1	35:z:76:LYS:HE2	1.85	0.41
35:z:486:THR:HG23	35:z:497:GLN:NE2	2.35	0.41
36:y:158:LEU:O	36:y:189:LEU:N	2.29	0.41
38:w:136:ASP:HB2	47:j:16:ARG:NH1	2.33	0.41
39:v:71:PRO:HB2	39:v:147:PHE:CE1	2.54	0.41
40:bb:167:ARG:CZ	40:bb:167:ARG:HB2	2.50	0.41
41:t:114:GLN:OE1	41:t:179:ARG:HB2	2.20	0.41
44:p:56:ARG:HH22	50:a:102:GLU:HG3	1.84	0.41
44:p:64:ASN:OD1	44:p:64:ASN:N	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Ca:78:PHE:CE2	45:Ca:177:ILE:HG13	2.56	0.41
45:Ca:92:ILE:HD12	45:Ca:96:ALA:HB3	2.01	0.41
45:Ca:162:PHE:N	45:Ca:223:GLN:OE1	2.53	0.41
45:Ca:433:ARG:NE	47:j:128:SER:O	2.42	0.41
46:g:115:LYS:HD2	46:g:115:LYS:HA	1.79	0.41
46:g:182:HIS:HE1	46:g:193:ASN:HA	1.85	0.41
48:b:93:LEU:HA	48:b:93:LEU:HD12	1.73	0.41
48:b:100:ARG:HB2	48:b:100:ARG:HH11	1.85	0.41
51:bc:231:ARG:HB2	56:2:580:U:OP1	2.20	0.41
51:bc:272:LYS:HA	51:bc:272:LYS:HD3	1.83	0.41
52:aa:659:THR:OG1	52:aa:799:GLU:HB3	2.20	0.41
52:aa:1029:LYS:HZ3	52:aa:1032:LYS:HB2	1.86	0.41
52:aa:1121:MET:O	52:aa:1124:LYS:HE2	2.20	0.41
52:aa:1152:ARG:NH2	52:aa:1223:TYR:OH	2.43	0.41
54:be:13:LEU:HA	54:be:59:ALA:O	2.21	0.41
56:2:39:U:OP2	56:2:39:U:H6	2.03	0.41
56:2:103:U:HO2'	56:2:129:U:HO2'	1.59	0.41
56:2:287:A:N6	56:2:322:A:H61	2.18	0.41
1:u:64:VAL:HG11	19:ab:267:LEU:HD21	2.02	0.41
1:u:78:VAL:HG11	19:ab:462:VAL:HG21	2.02	0.41
1:u:677:VAL:HA	6:e:433:PHE:O	2.20	0.41
1:u:754:GLU:HG3	19:ab:1078:ARG:O	2.20	0.41
1:u:839:GLU:OE1	1:u:839:GLU:N	2.54	0.41
2:s:57:ASP:OD1	2:s:76:MET:HE3	2.20	0.41
3:r:108:GLY:O	57:r:901:GTP:N1	2.53	0.41
4:n:71:PHE:HB3	19:ab:1124:PHE:HZ	1.84	0.41
5:h:122:VAL:CG1	5:h:127:LEU:HD12	2.49	0.41
5:h:143:LEU:HD23	6:e:372:MET:HB3	2.02	0.41
6:e:195:ALA:O	6:e:197:ASN:N	2.53	0.41
6:e:600:VAL:HG12	6:e:601:PRO:O	2.21	0.41
6:e:801:LEU:HD23	6:e:801:LEU:HA	1.80	0.41
7:az:34:ASP:HB3	7:az:37:ARG:HB3	2.03	0.41
11:au:33:HIS:CD2	11:au:35:LYS:HE3	2.54	0.41
13:aj:204:LEU:HD23	13:aj:204:LEU:HA	1.85	0.41
14:ag:259:ASN:OD1	14:ag:262:GLU:HG3	2.20	0.41
14:ag:482:ASP:HA	49:bd:42:ASN:ND2	2.36	0.41
15:af:84:LEU:HD12	19:ab:980:TYR:HB2	2.02	0.41
16:ae:209:ALA:O	16:ae:239:CYS:HB2	2.20	0.41
16:ae:401:ALA:O	16:ae:404:GLU:HB3	2.21	0.41
18:ac:946:MET:HE3	18:ac:971:TYR:CD1	2.55	0.41
19:ab:247:GLU:O	19:ab:251:ARG:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:ab:410:ASP:HA	19:ab:413:ARG:NE	2.35	0.41
19:ab:771:ILE:O	19:ab:777:ALA:HA	2.20	0.41
20:ad:261:ARG:HD3	53:k:165:LEU:O	2.21	0.41
20:ad:665:LYS:N	20:ad:665:LYS:HD3	2.34	0.41
21:m:125:ASN:OD1	21:m:127:LYS:N	2.53	0.41
22:i:149:GLN:O	22:i:151:LYS:HG3	2.20	0.41
22:i:263:LEU:HD23	22:i:263:LEU:HA	1.92	0.41
24:c:94:LEU:HD12	35:z:302:MET:HG2	2.03	0.41
24:c:111:LEU:HD22	35:z:102:PHE:CE2	2.53	0.41
25:d:215:LEU:HG	42:al:192:LEU:HD22	2.02	0.41
26:ba:27:MET:HA	32:ao:236:GLN:NE2	2.29	0.41
28:at:135:HIS:CG	28:at:135:HIS:O	2.73	0.41
28:at:169:PHE:HB3	28:at:186:VAL:CG2	2.51	0.41
29:ar:100:HIS:ND1	29:ar:103:HIS:HD2	2.18	0.41
29:ar:138:VAL:O	29:ar:142:PHE:HD2	2.03	0.41
29:ar:181:VAL:HA	29:ar:184:ILE:HG12	2.02	0.41
30:aq:28:ASN:O	30:aq:31:ILE:HD12	2.20	0.41
31:ap:75:LEU:HD23	31:ap:75:LEU:HA	1.80	0.41
31:ap:111:PHE:CZ	31:ap:139:ALA:HB2	2.55	0.41
31:ap:231:GLU:OE2	33:ai:326:GLY:HA3	2.21	0.41
32:ao:25:SER:HG	32:ao:27:ASP:CG	2.28	0.41
33:ai:47:GLU:HB3	33:ai:212:TYR:CZ	2.55	0.41
33:ai:90:LYS:HG3	33:ai:94:PHE:CE2	2.55	0.41
33:ai:202:GLU:N	33:ai:202:GLU:OE2	2.54	0.41
33:ai:206:PHE:CE2	33:ai:210:LEU:HD12	2.55	0.41
34:an:27:GLN:HG2	35:z:993:TRP:CZ3	2.56	0.41
34:an:141:SER:H	34:an:141:SER:HG	1.45	0.41
34:an:244:ASN:ND2	45:Ca:260:GLU:HG3	2.35	0.41
34:an:283:ARG:NH1	35:z:514:SER:H	2.18	0.41
35:z:47:TYR:HA	40:bb:144:ASN:ND2	2.35	0.41
35:z:119:ASP:HB3	35:z:123:TRP:CD1	2.55	0.41
35:z:161:ARG:HD3	46:g:92:GLU:OE1	2.20	0.41
35:z:462:ARG:C	35:z:464:GLY:N	2.78	0.41
35:z:532:SER:O	35:z:536:GLN:NE2	2.54	0.41
35:z:1064:GLU:HG2	35:z:1066:TRP:HE1	1.85	0.41
37:x:98:LYS:HG3	37:x:100:ASP:HA	2.02	0.41
37:x:253:THR:O	37:x:257:LEU:HG	2.20	0.41
38:w:171:PRO:HD3	41:t:73:ARG:O	2.21	0.41
44:p:54:HIS:C	44:p:56:ARG:N	2.77	0.41
45:Ca:11:TYR:CE2	45:Ca:13:PHE:HB2	2.56	0.41
46:g:83:SER:O	46:g:86:THR:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:201:PRO:O	52:aa:203:PRO:HD3	2.20	0.41
52:aa:393:TYR:OH	52:aa:946:THR:OG1	2.33	0.41
52:aa:504:TYR:HE2	52:aa:517:PRO:HD3	1.85	0.41
52:aa:764:ASP:H	52:aa:767:ASP:HB3	1.85	0.41
52:aa:1020:LEU:HD23	52:aa:1067:ILE:HD13	2.03	0.41
52:aa:1528:ASP:N	52:aa:1528:ASP:OD1	2.53	0.41
53:k:143:ASP:OD1	53:k:143:ASP:N	2.51	0.41
54:be:4:LEU:HD23	54:be:4:LEU:HA	1.80	0.41
55:as:14:ARG:HD3	56:2:86:G:P	2.60	0.41
55:as:225:LEU:CD2	55:as:226:PRO:HD2	2.48	0.41
56:2:308:C:H2'	56:2:309:A:C8	2.55	0.41
56:2:544:U:C4	56:2:585:U:H4'	2.55	0.41
56:2:593:A:C6	56:2:594:U:C4	3.08	0.41
1:u:100:ARG:HH22	14:ag:295:GLN:HE22	1.67	0.41
1:u:837:TRP:CZ2	3:r:190:PRO:HB3	2.55	0.41
2:s:71:TYR:HB2	2:s:73:MET:HE2	2.03	0.41
2:s:103:ALA:HA	5:h:29:ARG:HD2	2.01	0.41
3:r:179:ALA:HB3	3:r:290:LEU:HB2	2.03	0.41
3:r:447:LEU:HD22	3:r:458:HIS:CE1	2.55	0.41
6:e:16:MET:HA	6:e:17:PRO:HD3	1.89	0.41
8:ay:203:ARG:HH12	8:ay:218:ASP:C	2.22	0.41
8:ay:213:THR:OG1	8:ay:216:HIS:N	2.54	0.41
11:au:87:ARG:HH21	11:au:170:PHE:HE2	1.67	0.41
12:ak:133:GLN:CB	18:ac:1096:PRO:HD2	2.48	0.41
13:aj:40:ARG:O	13:aj:42:HIS:ND1	2.54	0.41
13:aj:158:PRO:HG2	13:aj:161:LEU:CB	2.51	0.41
14:ag:340:ARG:HE	14:ag:340:ARG:HB2	1.45	0.41
14:ag:457:TRP:O	19:ab:394:LYS:NZ	2.49	0.41
15:af:117:VAL:HG21	15:af:149:SER:OG	2.20	0.41
16:ae:62:ASN:HD22	16:ae:65:SER:N	2.18	0.41
16:ae:271:HIS:O	16:ae:275:ARG:HG3	2.21	0.41
16:ae:382:ASP:HB3	16:ae:471:MET:CE	2.51	0.41
16:ae:523:GLN:H	16:ae:534:ARG:HH12	1.66	0.41
17:l:42:ARG:HH12	17:l:493:SER:HA	1.85	0.41
17:l:307:ARG:NH1	17:l:364:PHE:HA	2.30	0.41
18:ac:239:PRO:HB2	18:ac:467:VAL:HG21	2.01	0.41
18:ac:399:HIS:NE2	18:ac:400:ILE:HG13	2.36	0.41
18:ac:534:GLN:O	18:ac:538:LEU:HB2	2.20	0.41
19:ab:243:ASN:HD21	19:ab:369:ARG:HE	1.67	0.41
19:ab:717:ARG:NH1	19:ab:809:GLY:HA2	2.31	0.41
19:ab:1072:TYR:HE2	19:ab:1074:ARG:NH1	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:47:SER:C	20:ad:49:GLY:H	2.28	0.41
20:ad:95:ARG:HD3	20:ad:99:THR:HB	2.01	0.41
20:ad:688:PRO:HG2	52:aa:115:ILE:CG2	2.50	0.41
21:m:210:TYR:CD2	25:d:90:PHE:HD2	2.39	0.41
23:f:110:ASN:OD1	23:f:111:GLU:N	2.53	0.41
27:av:41:LYS:HA	29:ar:65:TRP:CD1	2.56	0.41
29:ar:207:HIS:CD2	29:ar:209:THR:HG1	2.37	0.41
31:ap:65:HIS:HE1	31:ap:110:ALA:HB2	1.84	0.41
33:ai:277:SER:O	33:ai:280:SER:OG	2.32	0.41
33:ai:278:ASN:HA	33:ai:281:LEU:HB2	2.03	0.41
33:ai:310:ASN:HB2	33:ai:313:LEU:HD22	2.01	0.41
35:z:28:LYS:HA	35:z:28:LYS:HD3	1.84	0.41
35:z:138:ASP:OD1	35:z:139:ALA:N	2.53	0.41
35:z:490:HIS:O	35:z:493:ALA:N	2.44	0.41
35:z:599:GLU:HG3	35:z:600:ASP:N	2.35	0.41
36:y:69:VAL:HG12	36:y:74:LEU:O	2.20	0.41
36:y:85:PHE:CE2	36:y:94:LEU:HD22	2.54	0.41
37:x:145:GLY:HA3	37:x:150:ILE:O	2.21	0.41
39:v:57:LEU:O	39:v:59:VAL:HG23	2.21	0.41
40:bb:170:PHE:HB3	56:2:568:A:C6	2.55	0.41
42:al:123:TRP:CH2	42:al:149:LEU:HB3	2.55	0.41
42:al:295:LEU:HB2	56:A:464:U:O4	2.20	0.41
43:q:102:ARG:CZ	52:aa:190:GLU:HB2	2.50	0.41
44:p:166:GLU:HG2	44:p:167:GLU:N	2.34	0.41
45:Ca:85:LEU:O	45:Ca:88:ARG:N	2.50	0.41
45:Ca:274:ALA:HB1	45:Ca:278:LYS:NZ	2.36	0.41
45:Ca:441:HIS:CD2	47:j:91:MET:HE2	2.51	0.41
45:Ca:444:MET:SD	45:Ca:474:ILE:HD11	2.60	0.41
45:Ca:577:TRP:CZ2	56:2:239:G:C2	3.09	0.41
47:j:14:ILE:HB	47:j:16:ARG:CZ	2.51	0.41
48:b:158:LEU:HD23	48:b:158:LEU:HA	1.70	0.41
52:aa:317:ARG:HH21	52:aa:324:LEU:HD23	1.84	0.41
52:aa:751:ALA:O	52:aa:755:GLU:HG2	2.20	0.41
52:aa:1352:VAL:HA	52:aa:1355:ILE:HD12	2.02	0.41
52:aa:1584:GLU:H	52:aa:1584:GLU:HG2	1.64	0.41
52:aa:1638:THR:C	52:aa:1640:PRO:HD3	2.45	0.41
53:k:80:LEU:HD12	53:k:80:LEU:HA	1.73	0.41
56:2:27:A:C2	56:2:28:U:C6	3.09	0.41
1:u:754:GLU:OE1	19:ab:1078:ARG:HD2	2.20	0.41
2:s:161:GLY:H	56:A:437:U:H2'	1.85	0.41
3:r:98:MET:SD	3:r:101:MET:HB2	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:r:186:GLU:HA	8:ay:179:GLN:HE22	1.85	0.41
3:r:412:PHE:CZ	3:r:456:ILE:HD13	2.56	0.41
4:n:99:PHE:HE1	16:ae:63:TYR:CE2	2.36	0.41
6:e:378:SER:OG	6:e:387:LEU:HD23	2.20	0.41
10:aw:151:TYR:HB3	10:aw:156:LEU:HD21	2.03	0.41
11:au:219:GLN:HE21	11:au:219:GLN:HB3	1.70	0.41
12:ak:17:MET:HE1	18:ac:1081:ALA:C	2.46	0.41
12:ak:29:ARG:NH2	14:ag:109:TYR:OH	2.53	0.41
14:ag:441:PRO:HA	49:bd:46:PHE:HB2	2.00	0.41
14:ag:472:ARG:HD2	14:ag:473:GLU:O	2.21	0.41
15:af:117:VAL:HG23	15:af:152:MET:HE2	2.01	0.41
17:l:57:ARG:NH1	18:ac:873:PHE:HB2	2.36	0.41
17:l:214:TRP:HH2	17:l:382:ASN:ND2	2.19	0.41
17:l:687:ASP:CG	17:l:688:GLU:H	2.26	0.41
18:ac:502:LEU:HD23	18:ac:508:TYR:HE2	1.86	0.41
18:ac:876:TYR:CE1	18:ac:880:LEU:HD11	2.55	0.41
19:ab:193:SER:HA	19:ab:197:SER:HA	2.02	0.41
19:ab:373:PHE:HB2	19:ab:375:LEU:HD13	2.01	0.41
19:ab:433:VAL:HG11	19:ab:446:ARG:CZ	2.51	0.41
19:ab:857:TRP:CD1	19:ab:873:ARG:HD3	2.56	0.41
20:ad:86:ILE:HD12	20:ad:86:ILE:H	1.85	0.41
20:ad:142:LEU:O	20:ad:145:ILE:HG12	2.20	0.41
21:m:20:ARG:HD3	35:z:127:GLN:O	2.21	0.41
21:m:31:THR:HG23	44:p:119:ARG:NH1	2.33	0.41
22:i:266:LEU:C	22:i:268:LYS:H	2.29	0.41
24:c:59:GLN:O	24:c:63:MET:HG3	2.21	0.41
24:c:76:GLU:HA	24:c:79:LYS:HB2	2.03	0.41
24:c:89:ARG:NH2	33:ai:387:GLU:HG3	2.35	0.41
25:d:321:PHE:CD2	25:d:374:ILE:HG22	2.56	0.41
25:d:423:ARG:O	25:d:424:ARG:HG3	2.20	0.41
26:ba:12:TYR:HD2	45:Ca:92:ILE:HD11	1.85	0.41
27:av:90:ARG:NH2	27:av:111:GLN:HE22	2.16	0.41
28:at:130:VAL:HG23	28:at:131:LEU:N	2.35	0.41
28:at:187:ARG:HG3	28:at:188:SER:N	2.35	0.41
28:at:234:LEU:HD23	28:at:234:LEU:HA	1.86	0.41
29:ar:77:LEU:HD11	29:ar:243:PHE:HB2	2.02	0.41
29:ar:229:MET:HB3	29:ar:229:MET:HE2	1.69	0.41
30:aq:73:LYS:O	30:aq:77:ILE:HG23	2.21	0.41
31:ap:61:ARG:HH22	35:z:752:GLU:CD	2.28	0.41
32:ao:105:PRO:HG3	45:Ca:409:PRO:CD	2.51	0.41
33:ai:22:ALA:HB1	33:ai:71:PRO:CA	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:ai:106:ASP:O	33:ai:110:ILE:HG13	2.21	0.41
34:an:149:LEU:HD11	52:aa:1103:ARG:CD	2.48	0.41
34:an:167:LYS:NZ	50:a:343:TYR:O	2.47	0.41
34:an:175:ILE:HG13	34:an:225:PRO:CD	2.50	0.41
34:an:284:PRO:HD2	35:z:508:MET:O	2.20	0.41
35:z:536:GLN:NE2	35:z:545:THR:HG21	2.36	0.41
35:z:589:THR:C	35:z:590:HIS:ND1	2.78	0.41
35:z:1029:TRP:CE3	50:a:413:PRO:HA	2.55	0.41
35:z:1096:GLU:C	35:z:1098:TYR:H	2.28	0.41
36:y:73:ALA:HA	37:x:250:ARG:HH12	1.85	0.41
37:x:135:ARG:NE	37:x:164:HIS:HB2	2.34	0.41
39:v:125:CYS:HA	39:v:128:ARG:NH2	2.36	0.41
39:v:188:ARG:HH12	56:2:335:G:P	2.42	0.41
39:v:189:ARG:HG3	56:2:335:G:O6	2.20	0.41
42:al:180:ALA:O	42:al:182:ARG:N	2.53	0.41
45:Ca:174:SER:O	45:Ca:178:GLN:HB2	2.21	0.41
45:Ca:380:MET:HE3	50:a:309:ARG:HG2	2.01	0.41
46:g:159:ARG:HB2	46:g:163:LYS:HZ3	1.85	0.41
47:j:130:ARG:NH2	56:2:181:A:OP2	2.53	0.41
50:a:68:ALA:O	50:a:71:VAL:HG22	2.21	0.41
50:a:427:ILE:O	50:a:431:TYR:HB2	2.19	0.41
51:bc:370:LYS:HE3	51:bc:371:TYR:OH	2.20	0.41
52:aa:708:ASP:H	52:aa:719:ALA:CB	2.33	0.41
52:aa:1210:ILE:H	52:aa:1210:ILE:HG13	1.72	0.41
52:aa:1477:TYR:CD2	52:aa:1575:LEU:HD22	2.56	0.41
52:aa:1556:GLN:HA	52:aa:1560:VAL:HG11	2.02	0.41
52:aa:1657:GLN:NE2	52:aa:1660:ARG:HD2	2.35	0.41
56:2:107:U:O5'	56:2:107:U:H6	2.03	0.41
56:2:112:A:N3	56:2:112:A:H2'	2.35	0.41
56:2:324:A:H2'	56:2:325:A:C5	2.55	0.41
1:u:90:TYR:CE1	19:ab:260:GLU:HG2	2.55	0.41
1:u:167:PHE:CE1	1:u:235:GLY:HA2	2.53	0.41
1:u:243:ARG:HE	1:u:244:ARG:HG3	1.86	0.41
1:u:551:LEU:HD23	1:u:551:LEU:HA	1.93	0.41
6:e:74:TYR:HA	42:al:288:TRP:CE3	2.55	0.41
6:e:87:ARG:HH11	15:af:38:ARG:HB3	1.85	0.41
6:e:109:LYS:HA	6:e:109:LYS:HD3	1.81	0.41
6:e:148:GLU:OE2	10:aw:144:SER:OG	2.26	0.41
6:e:400:PHE:HE2	6:e:812:SER:HB2	1.86	0.41
6:e:407:LEU:HD23	6:e:407:LEU:HA	1.87	0.41
7:az:87:ARG:HA	7:az:87:ARG:HH21	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:ak:146:ASP:HB2	18:ac:970:ARG:HH12	1.86	0.41
13:aj:41:PRO:HB2	19:ab:1044:VAL:HG11	2.03	0.41
13:aj:92:ILE:HG13	13:aj:92:ILE:O	2.20	0.41
13:aj:270:ARG:HH21	16:ae:22:LEU:HD11	1.86	0.41
14:ag:297:ASP:HB3	15:af:11:THR:OG1	2.21	0.41
14:ag:505:THR:OG1	14:ag:507:TYR:HB2	2.20	0.41
15:af:31:TYR:OH	19:ab:474:ASP:OD1	2.38	0.41
15:af:46:TRP:CH2	15:af:93:ARG:HB2	2.56	0.41
15:af:123:LEU:HG	19:ab:976:PHE:HE2	1.85	0.41
15:af:207:SER:CB	15:af:210:VAL:HG12	2.51	0.41
15:af:648:GLU:O	15:af:652:LYS:HG2	2.20	0.41
16:ae:131:ARG:O	16:ae:163:ARG:NH2	2.52	0.41
16:ae:186:LEU:HD21	16:ae:261:PHE:CG	2.56	0.41
17:l:42:ARG:NH1	17:l:493:SER:HA	2.36	0.41
17:l:272:ILE:HG23	17:l:277:GLU:HB2	2.03	0.41
17:l:442:LEU:HD12	17:l:442:LEU:HA	1.71	0.41
18:ac:740:GLU:CD	18:ac:741:SER:H	2.27	0.41
18:ac:1130:PRO:HB3	18:ac:1140:GLU:OE2	2.21	0.41
19:ab:102:TYR:CE1	19:ab:104:PRO:HD3	2.56	0.41
19:ab:621:HIS:C	19:ab:623:PHE:H	2.29	0.41
19:ab:748:VAL:O	19:ab:749:LEU:HD23	2.21	0.41
19:ab:911:LEU:HD22	19:ab:924:GLU:C	2.45	0.41
19:ab:911:LEU:HD22	19:ab:924:GLU:HB2	2.02	0.41
19:ab:1093:LEU:HD12	19:ab:1093:LEU:HA	1.83	0.41
20:ad:74:LEU:HD23	47:j:41:PHE:CE1	2.56	0.41
20:ad:263:GLU:OE2	52:aa:199:GLY:N	2.52	0.41
20:ad:466:ARG:HH21	20:ad:505:GLN:NE2	2.18	0.41
21:m:123:LYS:HE2	48:b:131:PRO:O	2.21	0.41
22:i:104:PHE:CD1	22:i:240:LEU:HD21	2.56	0.41
22:i:260:SER:HB2	22:i:286:VAL:O	2.21	0.41
22:i:263:LEU:HD21	22:i:277:ILE:HG21	2.02	0.41
22:i:291:ASN:ND2	22:i:294:THR:HG23	2.34	0.41
23:f:78:TRP:C	23:f:80:HIS:N	2.77	0.41
23:f:85:SER:HB2	36:y:146:TYR:OH	2.20	0.41
25:d:35:THR:HG22	25:d:37:GLY:N	2.35	0.41
25:d:251:GLU:HG3	25:d:254:LYS:HE2	2.02	0.41
28:at:163:LEU:HD23	28:at:163:LEU:HA	1.89	0.41
28:at:200:LEU:HD22	38:w:39:GLU:O	2.21	0.41
30:aq:115:LEU:HD22	30:aq:146:PHE:CE1	2.56	0.41
32:ao:63:LEU:HD22	32:ao:68:HIS:HB2	2.02	0.41
32:ao:261:GLY:C	32:ao:263:SER:N	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:ao:278:LEU:HD12	44:p:45:PHE:CE1	2.56	0.41
34:an:148:THR:HG23	52:aa:1213:ASP:O	2.21	0.41
35:z:151:PRO:HB3	39:v:173:GLU:HB3	2.02	0.41
35:z:1071:ARG:HH11	45:Ca:95:TRP:CD1	2.39	0.41
39:v:71:PRO:HB3	39:v:148:ILE:CG1	2.50	0.41
39:v:210:ARG:HH22	56:2:357:A:C2'	2.23	0.41
41:t:163:ILE:HD13	41:t:163:ILE:HA	1.71	0.41
41:t:206:LEU:O	55:as:225:LEU:HD11	2.21	0.41
41:t:224:LEU:HD22	43:q:38:TRP:CZ3	2.54	0.41
43:q:195:GLU:C	43:q:216:HIS:HB2	2.46	0.41
45:Ca:349:PHE:HB3	50:a:32:TRP:O	2.21	0.41
45:Ca:577:TRP:HE3	45:Ca:578:PRO:HA	1.86	0.41
46:g:11:GLY:N	56:2:344:C:H5'	2.36	0.41
48:b:36:ILE:HA	48:b:69:VAL:HG12	2.01	0.41
50:a:226:LEU:HD12	50:a:252:CYS:HB2	2.03	0.41
52:aa:97:LEU:HA	52:aa:97:LEU:HD22	1.67	0.41
52:aa:306:ASP:OD1	52:aa:306:ASP:N	2.53	0.41
52:aa:794:ARG:HA	52:aa:794:ARG:HD3	1.76	0.41
52:aa:1097:LEU:HD23	52:aa:1097:LEU:HA	1.85	0.41
54:be:15:VAL:HB	54:be:34:TYR:O	2.20	0.41
55:as:247:GLY:C	55:as:249:SER:N	2.78	0.41
56:A:518:G:N3	56:A:518:G:H2'	2.35	0.41
56:2:317:U:H6	56:2:317:U:H2'	1.71	0.41
1:u:180:THR:O	1:u:184:ARG:HG3	2.21	0.41
1:u:687:ARG:NH1	14:ag:31:GLU:HB3	2.35	0.41
3:r:231:LEU:HA	3:r:231:LEU:HD23	1.75	0.41
3:r:244:TYR:O	3:r:248:GLU:HG2	2.20	0.41
3:r:296:HIS:HD2	8:ay:178:PRO:CD	2.33	0.41
5:h:73:CYS:HB2	19:ab:1109:ILE:HD11	2.02	0.41
6:e:773:PHE:C	10:aw:99:ARG:HE	2.29	0.41
9:ax:101:MET:HB2	9:ax:101:MET:HE2	1.66	0.41
10:aw:37:PHE:H	10:aw:82:LEU:HD13	1.85	0.41
11:au:80:TYR:HB3	11:au:132:ASP:HB3	2.03	0.41
12:ak:28:ARG:O	12:ak:29:ARG:HG3	2.20	0.41
12:ak:168:TRP:CZ2	12:ak:172:VAL:HG11	2.55	0.41
12:ak:176:LYS:HD2	12:ak:179:HIS:CD2	2.55	0.41
13:aj:268:PHE:CZ	56:A:433:U:C2	3.08	0.41
13:aj:310:PHE:CZ	13:aj:312:PRO:HB3	2.56	0.41
14:ag:152:GLN:O	14:ag:324:ARG:NH2	2.53	0.41
14:ag:227:VAL:O	14:ag:231:VAL:HB	2.21	0.41
14:ag:234:ARG:NH1	17:l:670:ASP:OD2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:af:65:ASN:OD1	15:af:65:ASN:N	2.52	0.41
15:af:178:ARG:NH2	15:af:179:LEU:HD13	2.36	0.41
15:af:184:VAL:O	15:af:186:ARG:N	2.54	0.41
15:af:383:LEU:O	15:af:387:ILE:HG13	2.21	0.41
15:af:404:GLY:O	15:af:405:LEU:HD23	2.21	0.41
16:ae:250:VAL:HG22	16:ae:288:TRP:CZ3	2.56	0.41
16:ae:279:LYS:O	16:ae:279:LYS:HD3	2.21	0.41
17:l:49:HIS:NE2	17:l:89:LEU:HD21	2.36	0.41
17:l:439:ARG:CG	19:ab:184:LEU:HG	2.44	0.41
17:l:631:ASN:HB3	19:ab:676:TYR:CE1	2.55	0.41
17:l:646:VAL:HA	17:l:649:LEU:HB2	2.03	0.41
18:ac:305:LEU:HD21	18:ac:424:GLU:HA	2.02	0.41
18:ac:404:LYS:HA	18:ac:407:ARG:NH1	2.36	0.41
18:ac:941:TRP:HA	18:ac:941:TRP:HE3	1.84	0.41
19:ab:497:GLY:O	19:ab:500:ASP:N	2.50	0.41
19:ab:1023:HIS:O	19:ab:1025:ARG:N	2.53	0.41
20:ad:130:PHE:CD1	20:ad:131:PRO:HD2	2.50	0.41
20:ad:303:LEU:HD12	20:ad:303:LEU:HA	1.71	0.41
21:m:192:GLU:HG2	21:m:193:ASN:OD1	2.21	0.41
22:i:82:ASN:HD21	40:bb:129:ARG:HB3	1.86	0.41
22:i:222:ALA:O	22:i:226:VAL:HG12	2.19	0.41
22:i:382:GLU:HG3	27:av:134:PRO:HD2	2.01	0.41
23:f:181:TRP:CZ2	48:b:46:ARG:HD3	2.55	0.41
24:c:71:PRO:O	24:c:75:LEU:HD23	2.20	0.41
24:c:110:ARG:HH11	24:c:112:PHE:HA	1.85	0.41
24:c:173:VAL:O	24:c:207:ALA:HA	2.21	0.41
25:d:36:ASP:OD1	25:d:36:ASP:N	2.52	0.41
25:d:349:LYS:HD3	25:d:351:TRP:CZ2	2.56	0.41
26:ba:13:ALA:O	26:ba:15:LEU:HD12	2.21	0.41
28:at:60:SER:HB3	28:at:67:ILE:HD12	2.03	0.41
28:at:211:CYS:C	28:at:215:SER:HG	2.14	0.41
30:aq:88:THR:HG21	30:aq:127:ASP:OD1	2.20	0.41
34:an:19:HIS:O	34:an:21:ARG:N	2.50	0.41
35:z:496:TRP:HE3	35:z:497:GLN:HG3	1.86	0.41
35:z:793:LEU:HD23	35:z:793:LEU:HA	1.72	0.41
35:z:928:THR:HG22	35:z:928:THR:O	2.21	0.41
35:z:1012:ALA:O	35:z:1015:ARG:HG2	2.21	0.41
36:y:152:GLU:OE2	37:x:282:HIS:HB3	2.20	0.41
36:y:285:TYR:HA	36:y:290:ARG:CD	2.50	0.41
37:x:159:TYR:HD1	37:x:214:TYR:CZ	2.38	0.41
37:x:294:LEU:HG	37:x:329:ALA:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:w:70:THR:CG2	38:w:104:ILE:HG12	2.50	0.41
39:v:174:LYS:HD3	39:v:187:GLY:HA2	2.03	0.41
41:t:165:PHE:O	41:t:171:TRP:NE1	2.47	0.41
42:al:33:HIS:HA	42:al:36:LYS:NZ	2.35	0.41
42:al:158:MET:HE1	42:al:162:THR:HG22	2.01	0.41
43:q:13:ARG:HH22	56:2:49:U:P	2.43	0.41
44:p:50:GLU:H	44:p:50:GLU:CD	2.29	0.41
46:g:17:ARG:H	46:g:17:ARG:HG3	1.70	0.41
46:g:24:LYS:HD2	56:2:300:G:C2	2.55	0.41
48:b:40:SER:HB2	48:b:66:THR:HB	2.03	0.41
51:bc:239:VAL:HG22	51:bc:276:MET:HE1	2.03	0.41
52:aa:574:HIS:HE1	52:aa:689:HIS:HB3	1.84	0.41
52:aa:820:LEU:HD11	52:aa:830:SER:CB	2.50	0.41
52:aa:1425:ARG:CD	52:aa:1659:LEU:HB3	2.51	0.41
52:aa:1498:HIS:NE2	52:aa:1501:VAL:HB	2.36	0.41
52:aa:1659:LEU:HD23	52:aa:1659:LEU:HA	1.88	0.41
55:as:116:LEU:O	55:as:145:GLN:HB2	2.21	0.41
55:as:245:VAL:O	55:as:247:GLY:N	2.53	0.41
56:2:92:A:H2'	56:2:93:A:C8	2.56	0.41
56:2:321:A:H2'	56:2:322:A:N7	2.36	0.41
1:u:127:TRP:HE1	6:e:319:GLU:HB3	1.85	0.41
1:u:187:LYS:HD2	1:u:187:LYS:HA	1.67	0.41
1:u:371:LYS:HA	1:u:374:PHE:HB3	2.02	0.41
1:u:395:LEU:HD13	1:u:403:LEU:HB3	2.02	0.41
1:u:544:ILE:HA	1:u:547:ILE:HD12	2.02	0.41
2:s:13:HIS:CE1	6:e:758:LEU:HD22	2.56	0.41
2:s:145:ASN:HA	2:s:148:LYS:O	2.20	0.41
3:r:103:PRO:HB2	9:ax:89:ARG:HH21	1.86	0.41
3:r:172:LEU:HD21	3:r:273:LEU:HD21	2.02	0.41
3:r:209:ARG:HB2	3:r:251:HIS:CD2	2.56	0.41
3:r:249:TRP:CD1	3:r:261:ARG:CZ	3.03	0.41
3:r:365:ASP:O	6:e:211:THR:HG21	2.21	0.41
3:r:388:TYR:CZ	3:r:393:ASP:HB3	2.55	0.41
5:h:84:VAL:HG22	56:A:487:A:H8	1.85	0.41
6:e:9:TYR:HA	14:ag:8:LYS:HA	2.02	0.41
6:e:115:GLU:OE1	19:ab:904:PHE:HA	2.21	0.41
6:e:163:ASP:HA	6:e:166:VAL:HG12	2.01	0.41
6:e:649:LEU:C	6:e:651:HIS:N	2.78	0.41
6:e:671:GLN:O	6:e:671:GLN:HG2	2.20	0.41
6:e:759:TRP:HA	6:e:760:PRO:HA	1.83	0.41
6:e:777:GLN:OE1	8:ay:178:PRO:HA	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:az:86:SER:HA	7:az:89:ALA:HB3	2.02	0.41
8:ay:96:GLN:O	8:ay:100:ASP:HB2	2.20	0.41
8:ay:155:LYS:H	8:ay:155:LYS:HG2	1.72	0.41
8:ay:202:GLU:HB3	8:ay:206:GLN:OE1	2.20	0.41
9:ax:27:ARG:HB2	9:ax:34:ASN:HB3	2.03	0.41
9:ax:138:ASN:OD1	9:ax:138:ASN:N	2.54	0.41
11:au:87:ARG:NH2	11:au:170:PHE:HE2	2.19	0.41
11:au:196:PHE:HB3	11:au:205:VAL:O	2.21	0.41
13:aj:17:PRO:HG3	14:ag:24:ARG:O	2.20	0.41
13:aj:248:ASN:O	13:aj:252:GLU:HG2	2.21	0.41
14:ag:34:TYR:N	14:ag:400:GLN:HE22	2.18	0.41
14:ag:232:TYR:CZ	16:ae:503:TYR:CE1	3.08	0.41
14:ag:353:PRO:HB3	14:ag:385:HIS:CD2	2.56	0.41
15:af:45:LYS:HG3	15:af:51:GLU:OE1	2.21	0.41
15:af:135:ASP:CG	15:af:136:ILE:H	2.27	0.41
15:af:220:SER:OG	15:af:299:ASP:OD1	2.31	0.41
15:af:549:ARG:HD2	25:d:1:MET:HG3	2.02	0.41
16:ae:51:TRP:CH2	16:ae:154:ASN:HB2	2.56	0.41
16:ae:88:LEU:HD21	16:ae:92:MET:SD	2.61	0.41
16:ae:94:ASP:OD1	16:ae:96:SER:OG	2.28	0.41
16:ae:110:SER:HB2	19:ab:1076:LYS:HZ3	1.84	0.41
16:ae:230:VAL:O	16:ae:234:ARG:HG3	2.21	0.41
16:ae:397:ARG:CZ	16:ae:483:VAL:HG12	2.51	0.41
17:l:200:LYS:HG2	17:l:204:LEU:HD22	2.03	0.41
17:l:238:ILE:HB	17:l:391:PHE:CZ	2.56	0.41
17:l:266:LEU:HD22	17:l:270:TYR:CE2	2.56	0.41
17:l:276:VAL:HG11	17:l:400:GLU:O	2.21	0.41
17:l:392:GLY:HA2	17:l:396:LEU:HB3	2.02	0.41
17:l:394:PHE:N	17:l:394:PHE:CD1	2.88	0.41
17:l:571:LYS:HE3	17:l:571:LYS:HB2	1.64	0.41
17:l:679:ILE:HG23	19:ab:451:SER:HB3	2.03	0.41
18:ac:137:SER:O	18:ac:141:TRP:HB2	2.21	0.41
18:ac:321:ALA:O	18:ac:325:LYS:HG3	2.21	0.41
18:ac:322:PRO:HA	18:ac:325:LYS:HD3	2.03	0.41
18:ac:430:ILE:HG12	18:ac:457:LEU:HD11	2.02	0.41
18:ac:745:PHE:HE2	18:ac:919:GLU:HB3	1.86	0.41
18:ac:929:VAL:HA	18:ac:932:ARG:NH2	2.35	0.41
19:ab:250:LEU:HA	19:ab:253:VAL:HG12	2.02	0.41
19:ab:271:THR:O	19:ab:480:HIS:HE1	2.03	0.41
19:ab:429:THR:HG23	19:ab:462:VAL:CG1	2.50	0.41
19:ab:465:PHE:HB3	19:ab:1019:LEU:HD21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:ab:535:HIS:CE1	19:ab:842:GLN:CB	3.03	0.41
19:ab:594:ARG:NH2	19:ab:604:SER:HB2	2.36	0.41
19:ab:786:ARG:HD3	19:ab:806:GLU:OE2	2.21	0.41
19:ab:989:ALA:O	19:ab:990:ALA:C	2.63	0.41
19:ab:997:LYS:HE2	25:d:256:MET:O	2.21	0.41
19:ab:998:GLN:HG2	19:ab:999:ILE:H	1.86	0.41
19:ab:1006:THR:O	19:ab:1009:ASP:N	2.54	0.41
20:ad:122:GLN:HG3	43:q:80:TYR:HD1	1.85	0.41
20:ad:136:LYS:HA	20:ad:136:LYS:HD3	1.80	0.41
20:ad:270:TRP:CH2	20:ad:271:LYS:HD3	2.56	0.41
20:ad:271:LYS:HE3	52:aa:200:ILE:O	2.20	0.41
20:ad:346:TYR:O	20:ad:349:CYS:HB2	2.21	0.41
20:ad:403:GLU:OE2	20:ad:407:ARG:NH2	2.54	0.41
20:ad:728:GLY:HA2	33:ai:95:ASP:OD2	2.20	0.41
20:ad:735:THR:OG1	33:ai:98:LYS:HD3	2.21	0.41
20:ad:807:SER:HB3	45:Ca:589:LYS:HB3	2.03	0.41
21:m:60:PHE:CZ	21:m:62:GLN:HB3	2.56	0.41
21:m:126:TYR:CE2	48:b:7:VAL:HG21	2.56	0.41
21:m:168:ILE:HA	48:b:91:ILE:HG21	2.00	0.41
21:m:186:ARG:HH11	21:m:186:ARG:HD3	1.74	0.41
21:m:237:ARG:HB2	44:p:194:GLN:OE1	2.21	0.41
22:i:239:LEU:O	22:i:241:THR:N	2.54	0.41
22:i:267:ARG:HH12	22:i:301:TRP:HZ3	1.68	0.41
22:i:360:GLN:NE2	56:2:109:A:O2'	2.50	0.41
23:f:187:TYR:HA	23:f:304:ARG:HH21	1.85	0.41
23:f:194:LEU:HA	23:f:207:ALA:HA	2.02	0.41
23:f:196:LEU:HD13	23:f:196:LEU:HA	1.94	0.41
24:c:130:SER:OG	24:c:203:ASP:OD2	2.36	0.41
24:c:155:VAL:HG23	52:aa:176:GLU:HG2	2.03	0.41
24:c:169:ARG:NH2	24:c:216:ASP:HA	2.36	0.41
24:c:187:VAL:HG11	24:c:257:ILE:HD12	2.02	0.41
24:c:222:ILE:HB	24:c:284:VAL:HG23	2.03	0.41
25:d:12:HIS:CE1	25:d:44:ASN:HA	2.56	0.41
25:d:107:THR:HG23	25:d:108:LEU:N	2.36	0.41
25:d:301:VAL:HG22	25:d:404:LEU:HA	2.02	0.41
26:ba:20:ARG:HD2	45:Ca:224:ASN:OD1	2.21	0.41
26:ba:84:GLY:HA3	45:Ca:203:ILE:HD13	2.03	0.41
27:av:122:ARG:NH2	27:av:126:LEU:HB2	2.36	0.41
29:ar:50:THR:OG1	53:k:135:GLU:OE2	2.23	0.41
29:ar:214:ARG:HD3	29:ar:214:ARG:N	2.36	0.41
29:ar:232:GLU:OE1	29:ar:232:GLU:N	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:aq:63:CYS:O	30:aq:64:MET:HE2	2.21	0.41
30:aq:101:PHE:O	30:aq:102:HIS:ND1	2.54	0.41
30:aq:132:PHE:CE2	30:aq:154:PHE:HZ	2.38	0.41
31:ap:230:PRO:HG2	31:ap:236:LEU:HD12	2.03	0.41
32:ao:62:ARG:HB3	45:Ca:410:GLU:OE2	2.21	0.41
32:ao:67:TYR:HB3	32:ao:104:GLY:O	2.21	0.41
33:ai:90:LYS:HE3	33:ai:94:PHE:HE2	1.86	0.41
34:an:14:ALA:C	34:an:16:TRP:N	2.78	0.41
34:an:129:ARG:HA	34:an:134:PHE:CG	2.55	0.41
34:an:221:LYS:HD3	34:an:221:LYS:HA	1.75	0.41
35:z:49:ARG:HA	35:z:49:ARG:HD3	1.80	0.41
35:z:76:LYS:HE3	35:z:76:LYS:HB3	1.69	0.41
35:z:79:ILE:H	35:z:79:ILE:HG12	1.52	0.41
35:z:84:TRP:CZ3	35:z:95:HIS:HE1	2.39	0.41
35:z:354:ASP:O	35:z:358:TYR:HD2	2.03	0.41
35:z:536:GLN:HB3	35:z:541:HIS:HB3	2.02	0.41
35:z:666:CYS:SG	35:z:780:ALA:HA	2.61	0.41
35:z:819:LEU:HD23	35:z:819:LEU:HA	1.85	0.41
35:z:1078:LYS:O	35:z:1078:LYS:HG3	2.21	0.41
36:y:15:ARG:NH1	36:y:108:MET:O	2.54	0.41
36:y:125:TRP:CD1	36:y:271:TRP:HB3	2.56	0.41
37:x:155:PHE:O	37:x:158:GLN:HG3	2.21	0.41
38:w:122:THR:O	38:w:122:THR:OG1	2.33	0.41
38:w:173:TRP:CH2	41:t:79:PRO:HD3	2.56	0.41
39:v:103:LEU:HB3	39:v:118:GLU:HG2	2.02	0.41
39:v:205:TYR:HD2	56:2:358:U:C5'	2.34	0.41
41:t:147:TYR:CD1	41:t:147:TYR:N	2.89	0.41
41:t:208:ALA:HB1	41:t:212:TYR:HB3	2.03	0.41
42:al:155:ASN:HB2	52:aa:1057:PHE:CE2	2.56	0.41
42:al:242:GLU:HG2	42:al:243:ARG:H	1.86	0.41
42:al:285:PRO:HA	42:al:286:PRO:HD3	1.96	0.41
43:q:59:LYS:HD2	47:j:168:TYR:CD1	2.56	0.41
43:q:66:LEU:C	43:q:68:SER:N	2.78	0.41
43:q:81:ASN:HB3	52:aa:208:LEU:HD23	2.02	0.41
43:q:114:ALA:HA	43:q:117:LYS:HD2	2.03	0.41
45:Ca:62:TRP:CE3	45:Ca:63:GLN:HB3	2.55	0.41
45:Ca:508:MET:HE2	45:Ca:508:MET:HB3	1.85	0.41
45:Ca:541:SER:HB2	52:aa:380:TRP:HH2	1.82	0.41
46:g:69:ARG:HA	46:g:72:HIS:CD2	2.56	0.41
48:b:81:LYS:HB2	48:b:84:LYS:HE3	2.02	0.41
48:b:97:ASN:OD1	48:b:97:ASN:N	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:a:36:GLY:O	50:a:38:PHE:N	2.54	0.41
50:a:264:SER:HB3	50:a:267:HIS:HD2	1.85	0.41
50:a:363:PRO:HB2	50:a:364:LYS:HD3	2.02	0.41
50:a:428:LYS:HB3	52:aa:1673:VAL:CG1	2.51	0.41
51:bc:293:PHE:HB3	51:bc:323:LYS:O	2.21	0.41
51:bc:367:ARG:HB2	51:bc:375:ILE:HB	2.03	0.41
51:bc:370:LYS:HG3	51:bc:371:TYR:CE1	2.56	0.41
52:aa:121:ASN:HA	52:aa:124:LYS:HG3	2.03	0.41
52:aa:147:THR:HG22	52:aa:151:LYS:HD3	2.03	0.41
52:aa:159:VAL:HG13	52:aa:160:PHE:N	2.36	0.41
52:aa:207:ASN:OD1	52:aa:207:ASN:N	2.53	0.41
52:aa:363:PHE:O	52:aa:365:LYS:N	2.53	0.41
52:aa:369:ARG:HH22	56:2:203:U:H6	1.68	0.41
52:aa:388:ALA:CB	52:aa:417:VAL:HG11	2.50	0.41
52:aa:451:MET:HE2	52:aa:451:MET:HB3	1.77	0.41
52:aa:672:ASP:HB2	52:aa:679:PHE:HE2	1.85	0.41
52:aa:694:PHE:HB3	52:aa:729:VAL:HG21	2.02	0.41
52:aa:746:MET:HE1	52:aa:788:VAL:HA	2.02	0.41
52:aa:845:TYR:HD1	52:aa:845:TYR:HA	1.65	0.41
52:aa:1182:PRO:HG2	52:aa:1185:VAL:HG13	2.02	0.41
52:aa:1498:HIS:CE1	52:aa:1502:TYR:HB2	2.56	0.41
52:aa:1508:PHE:CE1	52:aa:1618:LEU:HD12	2.56	0.41
52:aa:1509:ASP:OD1	52:aa:1509:ASP:N	2.51	0.41
52:aa:1563:PRO:HD2	52:aa:1636:TYR:CG	2.56	0.41
52:aa:1638:THR:O	52:aa:1640:PRO:HD3	2.19	0.41
52:aa:1670:LEU:O	52:aa:1674:LEU:HG	2.21	0.41
53:k:85:PHE:CZ	53:k:95:ILE:HD11	2.56	0.41
55:as:64:VAL:HG11	55:as:153:SER:C	2.45	0.41
55:as:92:ILE:HD11	55:as:96:PHE:C	2.46	0.41
55:as:144:LEU:HD22	55:as:148:VAL:HG21	2.03	0.41
55:as:184:GLN:O	55:as:185:LEU:HD13	2.21	0.41
55:as:190:ILE:H	55:as:190:ILE:HG13	1.63	0.41
56:A:448:U:H5''	56:A:449:G:N2	2.36	0.41
56:2:149:U:H6	56:2:149:U:O5'	2.04	0.41
56:2:230:A:C4	56:2:231:U:C5	3.09	0.41
56:2:243:C:H4'	56:2:250:U:C4	2.55	0.41
56:2:555:A:H2	56:2:601:A:N3	2.19	0.41
1:u:149:GLN:HA	1:u:254:ILE:HD12	2.02	0.41
1:u:371:LYS:HE2	1:u:371:LYS:HB3	1.72	0.41
1:u:396:ARG:HG3	1:u:404:SER:CB	2.51	0.41
1:u:666:PHE:CZ	6:e:445:GLY:HA2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:s:133:TYR:OH	56:A:442:A:H2'	2.21	0.41
3:r:200:ALA:O	3:r:204:ALA:CB	2.69	0.41
3:r:231:LEU:HD13	3:r:249:TRP:CZ2	2.56	0.41
4:n:69:PRO:HG2	4:n:70:TYR:CZ	2.56	0.41
4:n:133:ARG:HE	19:ab:1159:SER:HB3	1.86	0.41
5:h:10:MET:HE1	16:ae:7:PHE:CZ	2.56	0.41
5:h:12:HIS:CD2	56:A:443:U:H1'	2.56	0.41
5:h:108:VAL:HG23	5:h:118:MET:HE2	2.03	0.41
5:h:118:MET:HE1	6:e:375:PHE:CG	2.56	0.41
6:e:50:LYS:HE2	6:e:50:LYS:HB3	1.91	0.41
6:e:79:MET:HE3	49:bd:70:LEU:HB2	2.02	0.41
6:e:179:MET:SD	25:d:327:GLU:HG3	2.61	0.41
6:e:546:PRO:HG2	6:e:549:GLY:H	1.86	0.41
7:az:111:ARG:O	7:az:127:ILE:HG23	2.21	0.41
8:ay:139:VAL:C	8:ay:141:LYS:H	2.29	0.41
9:ax:156:ASN:C	9:ax:158:SER:H	2.29	0.41
11:au:70:MET:HA	11:au:73:LEU:HB2	2.03	0.41
12:ak:267:GLU:OE2	18:ac:478:LEU:HA	2.21	0.41
13:aj:16:ASN:HB2	14:ag:24:ARG:HH22	1.85	0.41
13:aj:69:LEU:HG	13:aj:71:MET:HG2	2.04	0.41
13:aj:188:ASP:C	13:aj:190:ASN:H	2.29	0.41
13:aj:265:LYS:HB2	56:A:428:A:H2	1.86	0.41
14:ag:18:ARG:HD3	56:A:476:A:N7	2.35	0.41
16:ae:154:ASN:ND2	16:ae:157:THR:HB	2.36	0.41
16:ae:215:LYS:HB2	19:ab:1066:PHE:CD1	2.56	0.41
16:ae:535:LEU:HB3	16:ae:540:GLU:CD	2.46	0.41
16:ae:551:ARG:HG2	16:ae:577:GLU:CD	2.46	0.41
16:ae:574:ILE:HG23	19:ab:556:GLN:NE2	2.36	0.41
17:l:380:GLU:OE1	18:ac:598:GLU:HA	2.21	0.41
17:l:431:LEU:HD22	17:l:458:ALA:HB2	2.02	0.41
18:ac:669:VAL:HG12	18:ac:749:LEU:HB2	2.03	0.41
19:ab:445:ARG:HH12	19:ab:457:LEU:HD23	1.86	0.41
19:ab:924:GLU:H	19:ab:924:GLU:HG2	1.66	0.41
20:ad:10:HIS:HE2	56:2:24:U:H1'	1.84	0.41
20:ad:135:ARG:NH1	27:av:72:HIS:HA	2.36	0.41
20:ad:248:ASP:HB2	20:ad:249:PRO:CD	2.46	0.41
20:ad:383:PHE:HE2	20:ad:391:HIS:HD1	1.64	0.41
20:ad:535:ARG:NH1	55:as:206:ASN:O	2.54	0.41
20:ad:612:ALA:O	20:ad:616:LYS:HG3	2.21	0.41
20:ad:719:PRO:C	20:ad:721:TYR:H	2.29	0.41
23:f:81:MET:HG3	44:p:169:LYS:HD3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:f:200:ARG:NE	46:g:180:GLN:NE2	2.67	0.41
23:f:288:GLN:H	23:f:288:GLN:HG3	1.51	0.41
23:f:295:GLN:O	23:f:295:GLN:NE2	2.54	0.41
23:f:298:ALA:HA	23:f:301:PHE:O	2.21	0.41
24:c:230:LYS:HB3	52:aa:159:VAL:HG21	2.02	0.41
25:d:1:MET:HG2	25:d:2:TYR:H	1.86	0.41
25:d:18:LEU:HD22	25:d:21:ASN:HB2	2.02	0.41
25:d:435:GLY:C	25:d:436:LYS:HD3	2.45	0.41
27:av:164:HIS:HB3	27:av:166:ARG:NH1	2.36	0.41
27:av:176:LEU:O	27:av:179:LYS:HB3	2.20	0.41
28:at:152:LYS:HE2	28:at:152:LYS:HB2	1.78	0.41
29:ar:25:VAL:HG13	29:ar:25:VAL:O	2.21	0.41
29:ar:138:VAL:HG12	29:ar:265:VAL:HG21	2.03	0.41
29:ar:251:MET:HE3	29:ar:251:MET:HB3	1.95	0.41
31:ap:197:GLY:O	31:ap:201:ARG:HG3	2.20	0.41
34:an:13:GLY:HA3	34:an:259:TRP:HB2	2.02	0.41
34:an:185:TRP:C	34:an:187:ASN:N	2.78	0.41
34:an:217:PRO:HB3	52:aa:913:PHE:CE1	2.56	0.41
34:an:227:ASP:CG	34:an:229:PRO:HD3	2.46	0.41
34:an:266:ASP:OD1	50:a:326:MET:HA	2.20	0.41
35:z:413:PHE:CD2	35:z:465:TRP:HZ3	2.39	0.41
35:z:769:ARG:H	35:z:769:ARG:HD3	1.84	0.41
35:z:794:ARG:HE	35:z:794:ARG:HB3	1.72	0.41
35:z:1003:LEU:HA	35:z:1003:LEU:HD23	1.75	0.41
36:y:35:ASP:HA	36:y:38:ILE:O	2.21	0.41
37:x:263:CYS:O	37:x:263:CYS:SG	2.78	0.41
39:v:60:ARG:HB2	44:p:14:ASN:CB	2.41	0.41
39:v:79:PHE:O	56:2:393:U:N3	2.54	0.41
39:v:188:ARG:HG2	39:v:188:ARG:HH11	1.86	0.41
39:v:191:LYS:HE3	56:2:336:U:H5''	2.02	0.41
39:v:192:GLN:H	39:v:192:GLN:HG2	1.70	0.41
40:bb:195:LEU:HD13	40:bb:218:VAL:HG11	2.03	0.41
41:t:123:GLU:HG3	55:as:231:PRO:HB3	2.03	0.41
41:t:210:PRO:HA	55:as:257:TRP:CB	2.51	0.41
42:al:145:HIS:HE1	44:p:58:PHE:CD2	2.38	0.41
43:q:78:TYR:O	43:q:78:TYR:CD1	2.73	0.41
44:p:96:ASP:O	44:p:100:ARG:HG2	2.21	0.41
47:j:50:HIS:HB2	47:j:60:ARG:HB3	2.03	0.41
47:j:188:TYR:HD1	47:j:188:TYR:HA	1.74	0.41
50:a:178:TRP:CH2	50:a:270:GLU:HB2	2.56	0.41
50:a:219:ALA:CB	50:a:271:GLY:HA2	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:a:336:PRO:HB2	50:a:338:HIS:CE1	2.55	0.41
51:bc:284:ALA:HB3	51:bc:322:ILE:HD12	2.03	0.41
52:aa:105:PRO:O	52:aa:137:THR:HB	2.21	0.41
52:aa:510:GLU:HB3	52:aa:511:GLU:OE1	2.21	0.41
52:aa:1238:LEU:HD23	52:aa:1238:LEU:HA	1.86	0.41
52:aa:1458:PHE:CD2	52:aa:1465:VAL:HG12	2.56	0.41
55:as:173:PHE:N	55:as:173:PHE:CD1	2.89	0.41
55:as:228:TYR:OH	55:as:260:TRP:O	2.38	0.41
56:2:22:U:H2'	56:2:23:A:C8	2.56	0.41
56:2:571:A:H2'	56:2:572:A:C8	2.57	0.41
1:u:306:LEU:HD21	19:ab:883:ASN:HD22	1.86	0.40
1:u:311:VAL:O	19:ab:888:VAL:HG13	2.21	0.40
1:u:360:ARG:N	1:u:361:PRO:HD2	2.36	0.40
2:s:104:ARG:HH22	16:ae:170:ARG:HG2	1.85	0.40
3:r:413:THR:HA	3:r:416:LEU:HD12	2.02	0.40
4:n:52:PHE:O	4:n:53:LEU:HB2	2.21	0.40
5:h:125:GLY:O	13:aj:20:SER:OG	2.38	0.40
6:e:61:ARG:O	6:e:62:PRO:C	2.63	0.40
6:e:529:ARG:HA	6:e:613:PHE:CZ	2.56	0.40
8:ay:89:GLN:O	8:ay:91:PHE:N	2.53	0.40
8:ay:160:ASN:O	8:ay:162:HIS:N	2.54	0.40
11:au:44:ARG:HB3	18:ac:26:TYR:CE1	2.56	0.40
13:aj:97:VAL:HA	13:aj:100:VAL:HG22	2.04	0.40
13:aj:213:GLU:CD	13:aj:214:LYS:H	2.29	0.40
13:aj:232:ARG:HD2	13:aj:232:ARG:HA	1.84	0.40
14:ag:258:GLY:O	19:ab:449:ARG:NH2	2.54	0.40
14:ag:520:LYS:HE2	14:ag:520:LYS:HB3	1.41	0.40
15:af:40:HIS:CE1	25:d:254:LYS:HZ2	2.39	0.40
15:af:184:VAL:HG11	15:af:187:LEU:HD22	2.04	0.40
17:l:192:ARG:NH1	17:l:380:GLU:HG3	2.35	0.40
17:l:261:TYR:CZ	17:l:314:GLN:HG2	2.56	0.40
17:l:624:ARG:O	17:l:628:GLN:HG2	2.21	0.40
18:ac:937:GLU:OE2	18:ac:1041:LEU:HD21	2.20	0.40
19:ab:107:PHE:HA	19:ab:110:GLY:HA2	2.04	0.40
19:ab:523:LEU:HB3	19:ab:597:PHE:CZ	2.56	0.40
19:ab:643:TYR:OH	19:ab:647:LEU:HD11	2.20	0.40
19:ab:1004:GLN:OE1	19:ab:1004:GLN:HA	2.21	0.40
19:ab:1141:ALA:HA	19:ab:1144:TRP:NE1	2.36	0.40
20:ad:21:ARG:NH2	56:2:274:A:C8	2.86	0.40
20:ad:42:MET:N	20:ad:43:PRO:HD2	2.36	0.40
20:ad:47:SER:C	20:ad:49:GLY:N	2.76	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:399:ILE:HA	20:ad:402:GLN:HB3	2.03	0.40
20:ad:435:ASN:HA	20:ad:438:ILE:HB	2.03	0.40
20:ad:450:HIS:NE2	20:ad:488:ALA:HA	2.35	0.40
20:ad:490:LEU:HD23	20:ad:490:LEU:HA	1.94	0.40
20:ad:542:ALA:O	20:ad:546:GLN:NE2	2.38	0.40
22:i:82:ASN:HB3	22:i:83:PRO:CD	2.50	0.40
22:i:330:THR:OG1	22:i:332:ARG:N	2.30	0.40
23:f:285:ASN:OD1	23:f:288:GLN:NE2	2.53	0.40
24:c:165:ALA:HB1	24:c:170:LYS:HB2	2.04	0.40
25:d:135:ILE:C	25:d:136:TYR:CD1	2.99	0.40
25:d:204:LEU:O	34:an:292:ARG:NH2	2.54	0.40
25:d:398:ALA:HB1	25:d:418:LEU:HD12	2.03	0.40
26:ba:87:ILE:HD12	26:ba:87:ILE:H	1.86	0.40
27:av:208:GLN:OE1	30:aq:59:THR:HG23	2.21	0.40
28:at:51:ARG:HG3	45:Ca:601:PRO:HB3	2.03	0.40
28:at:236:LEU:H	28:at:236:LEU:HG	1.78	0.40
30:aq:17:PRO:HB3	56:2:160:U:O2'	2.22	0.40
30:aq:76:HIS:HB3	30:aq:104:PHE:HB2	2.03	0.40
30:aq:93:TYR:CD1	30:aq:118:ALA:HB2	2.56	0.40
31:ap:68:TRP:HE3	31:ap:117:LEU:HD22	1.86	0.40
34:an:185:TRP:CD2	34:an:191:GLY:HA2	2.56	0.40
35:z:513:SER:O	35:z:516:MET:HB2	2.22	0.40
35:z:759:LYS:HD2	35:z:760:TYR:CE1	2.56	0.40
35:z:1006:TYR:HD1	52:aa:895:TYR:O	2.04	0.40
36:y:138:HIS:O	36:y:142:GLU:HG2	2.20	0.40
37:x:218:ARG:HG3	37:x:219:PRO:N	2.37	0.40
39:v:198:ARG:NH1	56:2:317:U:OP1	2.33	0.40
40:bb:216:SER:HA	40:bb:219:ARG:HH21	1.86	0.40
42:al:237:LEU:HD21	44:p:21:PHE:HE1	1.86	0.40
43:q:36:ARG:HD3	43:q:36:ARG:HA	1.91	0.40
44:p:142:ALA:O	44:p:146:VAL:HG23	2.20	0.40
45:Ca:62:TRP:HB3	45:Ca:79:MET:HE1	2.03	0.40
45:Ca:443:TRP:HB3	45:Ca:445:PHE:CE1	2.56	0.40
45:Ca:481:LEU:HD23	45:Ca:481:LEU:HA	1.76	0.40
45:Ca:522:GLN:CB	45:Ca:588:GLN:HG3	2.51	0.40
46:g:24:LYS:HG3	56:2:300:G:C5	2.56	0.40
47:j:185:VAL:HG12	47:j:186:ALA:N	2.30	0.40
50:a:140:PHE:HE2	50:a:201:ILE:HD11	1.86	0.40
51:bc:238:PHE:O	51:bc:242:LYS:HB3	2.21	0.40
52:aa:504:TYR:CE2	52:aa:517:PRO:HD3	2.55	0.40
52:aa:669:LEU:HB3	52:aa:678:GLN:OE1	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:1000:PHE:HE2	52:aa:1094:TYR:CE2	2.39	0.40
52:aa:1020:LEU:CD2	52:aa:1067:ILE:HD13	2.51	0.40
52:aa:1053:LYS:HA	52:aa:1053:LYS:HD3	1.80	0.40
53:k:49:ASN:OD1	53:k:49:ASN:N	2.49	0.40
53:k:51:PHE:HE2	53:k:58:HIS:O	2.03	0.40
55:as:139:THR:HG22	55:as:169:THR:OG1	2.21	0.40
56:2:280:A:N3	56:2:363:A:H2'	2.37	0.40
1:u:674:VAL:HB	6:e:437:TYR:CE1	2.56	0.40
3:r:28:ALA:HB2	3:r:423:ALA:CA	2.51	0.40
3:r:311:LEU:HD13	8:ay:158:LEU:HB3	2.04	0.40
4:n:148:MET:HE2	4:n:148:MET:HB3	1.94	0.40
7:az:36:GLU:HB3	25:d:351:TRP:HH2	1.86	0.40
8:ay:124:LYS:HE3	8:ay:161:TYR:CE2	2.57	0.40
9:ax:37:ARG:HB2	9:ax:39:LYS:HE2	2.03	0.40
12:ak:28:ARG:HD3	12:ak:216:LEU:HB3	2.03	0.40
12:ak:50:ALA:HA	18:ac:1028:LYS:HE3	2.02	0.40
12:ak:99:PHE:HA	12:ak:102:ILE:HB	2.03	0.40
12:ak:168:TRP:O	12:ak:172:VAL:HG13	2.22	0.40
13:aj:18:ASP:OD1	14:ag:26:PRO:HA	2.22	0.40
14:ag:351:LYS:HE3	14:ag:351:LYS:HB2	1.52	0.40
14:ag:356:LEU:HD11	14:ag:381:LEU:HD21	2.03	0.40
16:ae:140:HIS:HE1	16:ae:179:TYR:HE1	1.64	0.40
16:ae:375:ARG:HA	16:ae:380:VAL:CG2	2.51	0.40
17:l:48:VAL:O	17:l:48:VAL:HG12	2.22	0.40
17:l:632:VAL:HB	19:ab:693:MET:HE3	2.01	0.40
18:ac:260:PHE:O	18:ac:264:SER:N	2.55	0.40
18:ac:552:ARG:O	18:ac:556:LYS:HB2	2.21	0.40
18:ac:716:GLN:O	18:ac:719:GLU:HG3	2.21	0.40
18:ac:855:PRO:HG2	18:ac:858:CYS:CB	2.52	0.40
19:ab:272:ARG:NH1	19:ab:273:ILE:O	2.54	0.40
20:ad:226:THR:OG1	20:ad:227:TRP:N	2.55	0.40
20:ad:348:HIS:NE2	29:ar:37:GLU:O	2.54	0.40
20:ad:767:PRO:HB3	45:Ca:369:ARG:HG2	2.03	0.40
21:m:168:ILE:HG23	48:b:93:LEU:HD13	2.02	0.40
21:m:174:PHE:HB2	46:g:41:ARG:HA	2.02	0.40
22:i:376:GLU:CD	22:i:379:ARG:HH21	2.28	0.40
23:f:104:GLN:O	25:d:95:MET:HE3	2.21	0.40
23:f:109:PHE:HD1	25:d:108:LEU:HD22	1.85	0.40
27:av:113:MET:HE3	29:ar:46:ARG:HH11	1.86	0.40
29:ar:249:CYS:SG	29:ar:261:THR:HA	2.61	0.40
30:aq:165:ASP:HA	30:aq:168:LEU:CG	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:ao:200:PRO:HG2	32:ao:201:TRP:CE3	2.56	0.40
33:ai:185:PHE:CD1	33:ai:206:PHE:HB2	2.56	0.40
33:ai:240:ARG:NH1	33:ai:244:GLU:OE1	2.55	0.40
33:ai:251:THR:HG22	33:ai:252:GLU:CD	2.45	0.40
34:an:61:GLU:CB	35:z:966:LEU:HD12	2.51	0.40
34:an:106:MET:HB3	50:a:316:MET:HE3	2.02	0.40
35:z:38:LEU:HB3	39:v:40:ILE:CD1	2.50	0.40
35:z:182:LEU:HD13	48:b:130:TRP:HZ2	1.86	0.40
35:z:194:PHE:CG	43:q:133:PHE:HD1	2.39	0.40
35:z:1071:ARG:CG	45:Ca:95:TRP:CH2	3.03	0.40
35:z:1092:ILE:HB	45:Ca:42:LYS:NZ	2.37	0.40
39:v:66:GLU:H	39:v:66:GLU:CD	2.29	0.40
40:bb:235:LYS:C	40:bb:237:GLN:H	2.29	0.40
41:t:27:MET:HE3	41:t:27:MET:HB3	1.74	0.40
41:t:152:PHE:O	41:t:153:HIS:C	2.64	0.40
43:q:67:GLU:OE1	43:q:70:ARG:NH1	2.54	0.40
43:q:171:LYS:HB3	43:q:173:GLU:CD	2.46	0.40
44:p:57:MET:HE3	50:a:50:PHE:CE2	2.56	0.40
45:Ca:206:LEU:HA	45:Ca:206:LEU:HD23	1.89	0.40
45:Ca:529:PRO:HB3	45:Ca:542:ARG:HE	1.86	0.40
46:g:14:MET:CA	46:g:19:SER:HB3	2.42	0.40
46:g:68:SER:O	46:g:70:LEU:N	2.54	0.40
47:j:51:THR:H	47:j:51:THR:HG23	1.68	0.40
47:j:175:SER:O	47:j:178:GLU:N	2.54	0.40
48:b:116:PHE:CE2	48:b:118:LEU:HB2	2.57	0.40
50:a:33:MET:HA	50:a:207:GLU:OE1	2.22	0.40
52:aa:188:ALA:HA	52:aa:191:MET:HE2	2.03	0.40
52:aa:1193:VAL:HG23	52:aa:1194:ASP:N	2.36	0.40
52:aa:1305:VAL:O	52:aa:1306:ILE:HD13	2.21	0.40
52:aa:1489:ILE:HG23	52:aa:1600:LEU:HD13	2.03	0.40
52:aa:1682:MET:O	52:aa:1686:ARG:HG3	2.20	0.40
56:2:221:C:H5'	56:2:249:U:H2'	2.03	0.40
56:2:283:U:OP2	56:2:283:U:H2'	2.21	0.40
1:u:32:GLN:OE1	19:ab:280:MET:HG3	2.21	0.40
1:u:100:ARG:HH22	14:ag:295:GLN:NE2	2.20	0.40
1:u:638:ARG:NH2	6:e:315:GLU:O	2.54	0.40
1:u:758:ASP:OD2	19:ab:1077:ALA:HB2	2.21	0.40
3:r:194:LEU:HD23	3:r:194:LEU:HA	1.91	0.40
4:n:153:GLU:HG2	4:n:161:ARG:NH1	2.36	0.40
5:h:40:TRP:NE1	19:ab:1086:PHE:CD2	2.86	0.40
5:h:115:TYR:CG	5:h:116:TRP:N	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:h:152:TRP:HD1	6:e:805:ASN:HB2	1.87	0.40
6:e:567:GLU:O	6:e:571:GLN:HB2	2.21	0.40
6:e:749:PRO:HG2	10:aw:168:PRO:HB3	2.03	0.40
11:au:47:PHE:HB3	11:au:50:GLU:CD	2.46	0.40
12:ak:62:PHE:HB2	17:l:659:LEU:CD2	2.51	0.40
14:ag:256:LEU:HA	14:ag:292:GLU:OE2	2.21	0.40
14:ag:272:ARG:HB3	14:ag:272:ARG:CZ	2.52	0.40
14:ag:274:HIS:NE2	16:ae:502:THR:HG22	2.35	0.40
14:ag:441:PRO:HG3	49:bd:44:ILE:CG1	2.48	0.40
14:ag:551:THR:HB	19:ab:333:ARG:HE	1.87	0.40
14:ag:562:SER:C	14:ag:564:THR:N	2.77	0.40
15:af:242:ALA:HA	15:af:253:PRO:HA	2.03	0.40
16:ae:259:LYS:HD3	19:ab:1075:TYR:CD2	2.56	0.40
16:ae:392:ARG:HH22	16:ae:439:LYS:NZ	2.19	0.40
17:l:140:PHE:O	17:l:533:TYR:HA	2.22	0.40
17:l:390:LEU:HB3	17:l:394:PHE:CE2	2.56	0.40
17:l:627:ARG:CZ	17:l:630:VAL:HG11	2.51	0.40
18:ac:40:ALA:N	18:ac:41:PRO:HD2	2.37	0.40
18:ac:130:SER:O	18:ac:134:VAL:HG23	2.22	0.40
18:ac:206:ALA:HB3	18:ac:210:GLN:HE22	1.86	0.40
18:ac:293:VAL:HG11	18:ac:385:PHE:CD2	2.57	0.40
18:ac:381:SER:OG	18:ac:384:GLU:HG3	2.21	0.40
18:ac:488:GLU:HG3	18:ac:532:ALA:HB1	2.02	0.40
18:ac:502:LEU:HA	18:ac:502:LEU:HD23	1.88	0.40
18:ac:841:ILE:HD12	18:ac:841:ILE:H	1.86	0.40
19:ab:588:VAL:HG22	19:ab:592:THR:OG1	2.20	0.40
19:ab:803:MET:HE3	19:ab:803:MET:HB2	1.87	0.40
20:ad:137:HIS:HB3	20:ad:141:PHE:CE2	2.56	0.40
20:ad:770:ASP:OD1	20:ad:770:ASP:N	2.53	0.40
21:m:71:PHE:CE1	42:al:191:ARG:HD2	2.57	0.40
21:m:228:LEU:HD12	21:m:228:LEU:HA	1.87	0.40
22:i:69:GLU:N	22:i:69:GLU:OE2	2.53	0.40
22:i:118:MET:CE	22:i:233:ARG:HH22	2.34	0.40
22:i:346:THR:CG2	22:i:349:LEU:HD21	2.51	0.40
23:f:148:VAL:O	35:z:645:HIS:HE1	2.04	0.40
24:c:11:LYS:H	32:ao:35:GLU:CG	2.35	0.40
24:c:109:THR:HG21	35:z:219:ARG:C	2.46	0.40
24:c:148:THR:HG23	24:c:149:TYR:CD1	2.50	0.40
25:d:100:TYR:N	25:d:100:TYR:CD1	2.89	0.40
26:ba:44:PHE:CZ	50:a:24:GLY:HA3	2.57	0.40
26:ba:74:MET:O	26:ba:77:THR:HG22	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:av:192:MET:HE1	27:av:202:TYR:CD1	2.56	0.40
28:at:54:ASN:CG	28:at:87:ARG:HG3	2.46	0.40
28:at:135:HIS:HB2	28:at:137:SER:OG	2.22	0.40
29:ar:155:LEU:HD23	29:ar:166:ILE:HA	2.03	0.40
30:aq:13:ARG:CZ	41:t:38:MET:HE2	2.51	0.40
30:aq:16:ARG:HD2	30:aq:20:MET:HB2	2.01	0.40
30:aq:197:TYR:CD1	30:aq:198:ARG:HB2	2.56	0.40
31:ap:68:TRP:HE1	31:ap:257:ASP:CG	2.29	0.40
31:ap:133:GLU:OE1	31:ap:173:ARG:HD2	2.21	0.40
32:ao:131:ILE:HG22	32:ao:139:ASP:HB3	2.03	0.40
32:ao:166:LEU:HD23	32:ao:167:PRO:HD2	2.03	0.40
33:ai:195:THR:HB	33:ai:197:LYS:HZ1	1.86	0.40
34:an:101:GLN:O	34:an:104:ARG:HB3	2.21	0.40
34:an:274:LEU:HD21	37:x:97:LEU:HD12	2.03	0.40
34:an:287:LYS:HE2	34:an:287:LYS:HB2	1.78	0.40
35:z:710:LEU:HD23	35:z:710:LEU:HA	1.94	0.40
35:z:789:SER:HA	35:z:894:TRP:CD1	2.55	0.40
35:z:835:PHE:O	35:z:840:VAL:N	2.54	0.40
35:z:1087:THR:HB	35:z:1089:GLU:CD	2.46	0.40
37:x:215:LYS:HD2	37:x:215:LYS:HA	1.84	0.40
37:x:270:TRP:CD1	37:x:270:TRP:C	2.99	0.40
37:x:304:TYR:CD1	37:x:304:TYR:N	2.89	0.40
38:w:20:TYR:HH	53:k:17:GLU:CD	2.28	0.40
38:w:77:PHE:CD1	38:w:77:PHE:N	2.89	0.40
39:v:64:ARG:NH1	56:2:538:A:H61	2.19	0.40
39:v:196:GLY:HA2	56:2:315:A:C5	2.56	0.40
41:t:205:ARG:HH22	55:as:222:VAL:CG1	2.35	0.40
41:t:224:LEU:HD12	41:t:224:LEU:HA	1.60	0.40
42:al:71:GLY:HA3	45:Ca:244:THR:OG1	2.21	0.40
42:al:229:MET:HE2	46:g:110:ALA:O	2.22	0.40
43:q:74:ASP:OD2	52:aa:217:THR:OG1	2.34	0.40
44:p:23:VAL:HA	44:p:26:GLU:OE1	2.21	0.40
45:Ca:203:ILE:H	45:Ca:203:ILE:HG12	1.62	0.40
45:Ca:444:MET:O	47:j:92:LEU:HA	2.21	0.40
45:Ca:473:VAL:HG21	45:Ca:481:LEU:HD13	2.03	0.40
45:Ca:478:ASP:CG	47:j:85:GLN:HE22	2.28	0.40
47:j:39:TRP:HA	47:j:39:TRP:CE3	2.57	0.40
50:a:414:ILE:H	50:a:414:ILE:HG13	1.72	0.40
52:aa:100:ASP:HA	52:aa:103:ARG:NH1	2.36	0.40
52:aa:230:ASN:O	52:aa:236:THR:HG21	2.21	0.40
52:aa:508:GLN:OE1	52:aa:889:SER:OG	2.38	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:592:ARG:HE	52:aa:592:ARG:HB2	1.59	0.40
52:aa:635:VAL:O	52:aa:809:ARG:HD3	2.22	0.40
52:aa:1542:GLU:O	52:aa:1546:THR:HG23	2.20	0.40
52:aa:1567:PHE:CE2	52:aa:1588:VAL:HB	2.56	0.40
52:aa:1640:PRO:O	52:aa:1642:LEU:N	2.54	0.40
55:as:201:PHE:HD1	55:as:209:TRP:CZ3	2.38	0.40
56:A:423:A:O2'	56:A:424:U:H5'	2.21	0.40
56:2:42:A:N6	56:2:173:A:C4	2.89	0.40
56:2:294:A:O4'	56:2:314:A:O2'	2.34	0.40
56:2:570:A:H5''	56:2:571:A:OP2	2.21	0.40
1:u:128:GLU:HG3	1:u:132:TYR:CE1	2.57	0.40
1:u:714:LEU:HD11	1:u:771:LEU:HD11	2.03	0.40
3:r:299:TYR:CE1	6:e:731:TRP:HB2	2.55	0.40
3:r:406:GLU:HB3	6:e:159:GLU:OE1	2.22	0.40
3:r:436:ASP:O	3:r:440:LYS:HB2	2.22	0.40
6:e:79:MET:HE3	49:bd:70:LEU:HA	2.04	0.40
6:e:179:MET:O	6:e:193:PRO:HD2	2.22	0.40
6:e:237:ILE:HG21	6:e:357:GLN:NE2	2.37	0.40
6:e:553:ARG:HE	6:e:583:THR:HG23	1.86	0.40
9:ax:9:THR:HB	19:ab:1158:ASP:HA	2.03	0.40
10:aw:50:LEU:HB3	56:A:500:U:OP1	2.21	0.40
14:ag:298:ARG:O	14:ag:302:ILE:HG23	2.22	0.40
14:ag:524:ARG:HG2	14:ag:534:ARG:HH12	1.86	0.40
14:ag:559:VAL:HG22	14:ag:567:ASN:HB2	2.02	0.40
15:af:672:LEU:HD12	15:af:672:LEU:HA	1.93	0.40
16:ae:119:HIS:NE2	16:ae:147:ASP:OD1	2.54	0.40
16:ae:352:ARG:HA	16:ae:352:ARG:HD2	1.79	0.40
16:ae:454:ASP:O	16:ae:458:VAL:HG23	2.22	0.40
17:l:561:THR:O	17:l:565:PHE:HD2	2.05	0.40
17:l:586:ARG:HH22	18:ac:1004:GLU:HB3	1.86	0.40
17:l:638:ASP:O	17:l:642:GLU:HG2	2.21	0.40
18:ac:125:ASN:HB3	18:ac:129:GLY:HA3	2.02	0.40
18:ac:384:GLU:O	18:ac:388:HIS:CD2	2.74	0.40
18:ac:865:VAL:C	18:ac:866:LEU:HD12	2.47	0.40
18:ac:920:ALA:O	18:ac:924:GLU:HG3	2.21	0.40
19:ab:605:PRO:O	19:ab:609:GLU:HG3	2.22	0.40
19:ab:719:ILE:CG2	19:ab:803:MET:HE1	2.52	0.40
20:ad:33:GLY:O	20:ad:34:TYR:C	2.63	0.40
20:ad:262:GLU:HB3	52:aa:189:TYR:CZ	2.55	0.40
20:ad:395:GLU:O	20:ad:399:ILE:HG12	2.20	0.40
20:ad:722:TYR:HD1	20:ad:723:ALA:H	1.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:m:80:LEU:HD21	25:d:219:GLY:HA2	2.01	0.40
21:m:159:ARG:HH12	35:z:168:ILE:CD1	2.32	0.40
22:i:301:TRP:HZ2	53:k:182:VAL:CG1	2.34	0.40
23:f:199:ARG:NE	23:f:204:TYR:OH	2.54	0.40
25:d:238:ARG:CZ	42:al:258:GLN:HB3	2.51	0.40
25:d:444:LYS:HZ1	25:d:445:ARG:HB3	1.85	0.40
26:ba:36:LEU:HD12	26:ba:36:LEU:HA	1.75	0.40
26:ba:38:GLN:NE2	56:2:259:U:O5'	2.54	0.40
27:av:35:ARG:O	27:av:39:GLU:HG3	2.22	0.40
30:aq:31:ILE:HG13	38:w:145:LEU:HD11	2.04	0.40
30:aq:76:HIS:CB	30:aq:104:PHE:HB2	2.52	0.40
32:ao:21:TYR:HB3	32:ao:110:ILE:HG12	2.03	0.40
32:ao:282:TYR:HB2	45:Ca:256:TYR:HD2	1.85	0.40
35:z:220:LYS:HG3	35:z:477:TYR:CG	2.56	0.40
35:z:302:MET:HB3	35:z:302:MET:HE3	1.87	0.40
35:z:769:ARG:HH21	35:z:772:LEU:HD22	1.87	0.40
35:z:978:PHE:C	35:z:981:MET:HG3	2.46	0.40
35:z:983:ARG:NH1	52:aa:912:ASP:OD1	2.55	0.40
35:z:984:HIS:CE1	35:z:986:TRP:CE2	3.03	0.40
36:y:126:GLU:OE2	36:y:126:GLU:N	2.55	0.40
37:x:132:PHE:HB2	37:x:175:LEU:CD2	2.47	0.40
38:w:45:ILE:HD13	38:w:45:ILE:HG21	1.87	0.40
38:w:104:ILE:O	38:w:108:VAL:HG23	2.21	0.40
39:v:73:LEU:HD12	39:v:151:VAL:CG1	2.51	0.40
39:v:95:MET:SD	39:v:129:VAL:HA	2.61	0.40
42:al:27:THR:HG1	42:al:30:TYR:H	1.67	0.40
42:al:192:LEU:HD12	42:al:195:ILE:HD11	2.02	0.40
44:p:219:ALA:HA	44:p:273:LYS:HA	2.04	0.40
45:Ca:22:LYS:HZ1	56:2:255:U:C5'	2.34	0.40
45:Ca:27:HIS:NE2	56:2:256:G:OP1	2.54	0.40
45:Ca:61:LEU:HB2	45:Ca:76:GLN:HE22	1.87	0.40
45:Ca:189:GLU:O	45:Ca:192:MET:N	2.54	0.40
45:Ca:367:VAL:HG12	45:Ca:370:ARG:NH2	2.37	0.40
45:Ca:512:ILE:HG23	45:Ca:520:GLN:HE22	1.87	0.40
46:g:49:LYS:O	46:g:52:GLU:HG2	2.22	0.40
46:g:54:ILE:O	46:g:57:ILE:HG22	2.21	0.40
47:j:136:MET:HA	47:j:137:PRO:HD3	1.89	0.40
50:a:162:TRP:HE1	50:a:184:PRO:HG3	1.84	0.40
50:a:166:VAL:HG22	50:a:180:ARG:HB3	2.03	0.40
52:aa:100:ASP:HA	52:aa:103:ARG:HH11	1.86	0.40
52:aa:208:LEU:HG	52:aa:215:ASN:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:456:ASP:HA	52:aa:544:ARG:HH22	1.86	0.40
52:aa:570:ARG:HA	52:aa:764:ASP:OD2	2.22	0.40
52:aa:1253:PHE:HB3	52:aa:1255:ASP:OD1	2.20	0.40
52:aa:1502:TYR:C	52:aa:1504:GLY:N	2.80	0.40
53:k:31:ALA:HB1	56:2:139:U:O2'	2.22	0.40
55:as:132:ARG:HE	55:as:132:ARG:HB3	1.71	0.40
55:as:171:PHE:HB3	55:as:173:PHE:CE1	2.57	0.40
56:2:302:U:H2'	56:2:303:U:H6	1.87	0.40
1:u:55:PRO:HD3	1:u:66:VAL:HB	2.04	0.40
1:u:276:ARG:HG3	19:ab:879:GLY:H	1.86	0.40
1:u:532:ILE:HG22	1:u:536:ARG:HE	1.86	0.40
2:s:158:CYS:SG	56:A:437:U:H1'	2.62	0.40
3:r:36:ALA:HA	25:d:63:ARG:NH2	2.36	0.40
4:n:48:ARG:HH21	5:h:104:THR:HG21	1.85	0.40
4:n:152:ASP:O	4:n:155:MET:HG2	2.21	0.40
6:e:118:ARG:HG3	19:ab:904:PHE:O	2.22	0.40
6:e:348:PRO:HB3	19:ab:1015:ASN:HD22	1.86	0.40
7:az:27:THR:HG22	7:az:27:THR:O	2.21	0.40
7:az:87:ARG:CZ	7:az:87:ARG:HA	2.52	0.40
8:ay:134:ARG:HD2	8:ay:134:ARG:N	2.33	0.40
11:au:183:LEU:HD23	11:au:183:LEU:HA	1.86	0.40
13:aj:72:HIS:C	13:aj:74:ALA:H	2.30	0.40
13:aj:259:PHE:HA	13:aj:305:ARG:HH12	1.87	0.40
14:ag:269:PHE:HA	14:ag:272:ARG:HH12	1.86	0.40
14:ag:457:TRP:HA	19:ab:254:HIS:O	2.21	0.40
14:ag:562:SER:N	14:ag:567:ASN:HD21	2.20	0.40
15:af:540:VAL:HG13	15:af:543:ARG:NE	2.34	0.40
16:ae:248:ASP:CG	19:ab:1066:PHE:H	2.30	0.40
17:l:202:MET:SD	17:l:504:ARG:NH1	2.94	0.40
18:ac:292:LYS:O	18:ac:296:VAL:HG23	2.21	0.40
18:ac:618:PHE:HD2	18:ac:811:PHE:CE2	2.39	0.40
18:ac:639:LEU:CD1	18:ac:658:ILE:HD11	2.52	0.40
18:ac:670:SER:HB2	18:ac:672:TRP:NE1	2.37	0.40
18:ac:721:ALA:HB1	18:ac:723:PRO:HD3	2.04	0.40
19:ab:250:LEU:O	19:ab:254:HIS:ND1	2.55	0.40
19:ab:313:LEU:C	19:ab:316:PRO:HD2	2.46	0.40
19:ab:676:TYR:HD2	19:ab:697:TYR:OH	2.05	0.40
19:ab:719:ILE:HD13	19:ab:803:MET:HE1	2.02	0.40
19:ab:764:LYS:HA	19:ab:764:LYS:HD3	1.75	0.40
19:ab:838:TYR:HD2	19:ab:839:ILE:HD13	1.86	0.40
19:ab:1129:VAL:O	19:ab:1132:HIS:CE1	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:ad:46:VAL:O	52:aa:131:PHE:HA	2.21	0.40
20:ad:66:TRP:HH2	47:j:92:LEU:O	2.04	0.40
20:ad:162:LEU:O	20:ad:165:MET:HB3	2.21	0.40
20:ad:580:PHE:HD1	20:ad:584:VAL:HB	1.87	0.40
20:ad:602:TYR:CZ	20:ad:614:LEU:HD22	2.56	0.40
20:ad:739:ARG:NE	20:ad:740:ASP:OD1	2.54	0.40
21:m:63:GLN:OE1	21:m:63:GLN:N	2.54	0.40
21:m:237:ARG:HG3	44:p:194:GLN:H	1.86	0.40
22:i:100:HIS:HD2	56:2:328:U:O2'	2.05	0.40
23:f:109:PHE:HE2	23:f:111:GLU:CD	2.29	0.40
25:d:402:VAL:HG21	25:d:418:LEU:HD21	2.03	0.40
27:av:148:LYS:HB2	27:av:148:LYS:HE3	1.83	0.40
30:aq:203:ASP:O	30:aq:205:MET:HG3	2.22	0.40
31:ap:68:TRP:NE1	35:z:754:PRO:HG3	2.37	0.40
31:ap:149:ARG:NH2	31:ap:259:LEU:HB3	2.37	0.40
32:ao:17:MET:O	32:ao:39:VAL:HG23	2.22	0.40
32:ao:201:TRP:CD1	52:aa:906:GLN:NE2	2.90	0.40
33:ai:253:GLY:C	33:ai:254:GLU:HG2	2.47	0.40
34:an:257:VAL:HG21	50:a:51:VAL:CG1	2.51	0.40
35:z:33:ARG:HE	35:z:33:ARG:HB2	1.75	0.40
35:z:287:GLN:C	35:z:289:GLY:H	2.30	0.40
35:z:423:THR:HG22	35:z:424:PRO:O	2.21	0.40
35:z:721:ILE:HG23	35:z:767:VAL:HG13	2.03	0.40
35:z:824:LYS:HE3	35:z:825:TYR:HE1	1.86	0.40
35:z:870:LEU:HD12	35:z:870:LEU:HA	1.77	0.40
37:x:127:ASN:OD1	37:x:127:ASN:N	2.53	0.40
37:x:231:ALA:HB2	37:x:333:TYR:OH	2.22	0.40
38:w:15:HIS:O	38:w:16:LYS:HB2	2.21	0.40
38:w:21:THR:HG21	45:Ca:516:PRO:HB2	2.04	0.40
38:w:36:THR:HA	45:Ca:440:GLN:NE2	2.36	0.40
38:w:64:ILE:HG23	38:w:121:ASP:HA	2.03	0.40
38:w:150:ARG:HA	38:w:150:ARG:HD3	1.89	0.40
39:v:92:GLN:C	39:v:94:THR:N	2.79	0.40
40:bb:160:LYS:HZ2	56:2:373:A:P	2.44	0.40
42:al:53:SER:N	49:bd:61:ASN:O	2.54	0.40
43:q:63:ARG:HE	43:q:63:ARG:HB3	1.76	0.40
43:q:171:LYS:HB2	43:q:175:TYR:CE2	2.57	0.40
45:Ca:473:VAL:CG2	45:Ca:481:LEU:HD22	2.50	0.40
47:j:37:VAL:HG13	56:2:40:U:H2'	2.03	0.40
47:j:54:ARG:NH1	56:2:59:U:H6	2.18	0.40
52:aa:96:LYS:HZ3	52:aa:96:LYS:HG3	1.64	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:aa:793:GLU:H	52:aa:793:GLU:CD	2.29	0.40
52:aa:1004:PRO:HA	52:aa:1007:LYS:HB2	2.02	0.40
52:aa:1556:GLN:HA	52:aa:1560:VAL:CG1	2.51	0.40
55:as:100:ARG:HG3	55:as:101:VAL:N	2.37	0.40
55:as:254:SER:O	55:as:254:SER:OG	2.40	0.40
56:A:415:U:C2	56:A:482:U:O4	2.75	0.40
56:2:72:U:H5'	56:2:88:A:O4'	2.21	0.40
56:2:321:A:OP2	56:2:321:A:H8	2.05	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	u	693/874 (79%)	638 (92%)	55 (8%)	0	100	100
2	s	163/180 (91%)	138 (85%)	23 (14%)	2 (1%)	10	41
3	r	461/500 (92%)	408 (88%)	53 (12%)	0	100	100
4	n	140/172 (81%)	122 (87%)	18 (13%)	0	100	100
5	h	155/166 (93%)	143 (92%)	12 (8%)	0	100	100
6	e	808/818 (99%)	712 (88%)	94 (12%)	2 (0%)	43	74
7	az	152/163 (93%)	138 (91%)	14 (9%)	0	100	100
8	ay	139/218 (64%)	127 (91%)	11 (8%)	1 (1%)	18	51
9	ax	159/172 (92%)	148 (93%)	10 (6%)	1 (1%)	21	54
10	aw	158/186 (85%)	135 (85%)	23 (15%)	0	100	100
11	au	237/247 (96%)	205 (86%)	31 (13%)	1 (0%)	30	62
12	ak	224/314 (71%)	205 (92%)	19 (8%)	0	100	100
13	aj	313/396 (79%)	274 (88%)	38 (12%)	1 (0%)	36	67

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	ag	544/581 (94%)	500 (92%)	43 (8%)	1 (0%)	43	74
15	af	552/677 (82%)	505 (92%)	46 (8%)	1 (0%)	43	74
16	ae	570/678 (84%)	518 (91%)	52 (9%)	0	100	100
17	l	580/714 (81%)	520 (90%)	60 (10%)	0	100	100
18	ac	1123/1152 (98%)	1022 (91%)	101 (9%)	0	100	100
19	ab	1108/1175 (94%)	994 (90%)	113 (10%)	1 (0%)	48	79
20	ad	799/810 (99%)	692 (87%)	102 (13%)	5 (1%)	21	54
21	m	230/319 (72%)	201 (87%)	29 (13%)	0	100	100
22	i	358/429 (83%)	306 (86%)	51 (14%)	1 (0%)	36	67
23	f	229/325 (70%)	196 (86%)	33 (14%)	0	100	100
24	c	259/285 (91%)	228 (88%)	31 (12%)	0	100	100
25	d	443/445 (100%)	398 (90%)	44 (10%)	1 (0%)	43	74
26	ba	81/217 (37%)	68 (84%)	13 (16%)	0	100	100
27	av	211/237 (89%)	174 (82%)	35 (17%)	2 (1%)	14	47
28	at	240/259 (93%)	201 (84%)	38 (16%)	1 (0%)	30	62
29	ar	253/268 (94%)	220 (87%)	33 (13%)	0	100	100
30	aq	196/299 (66%)	177 (90%)	19 (10%)	0	100	100
31	ap	220/277 (79%)	196 (89%)	24 (11%)	0	100	100
32	ao	248/283 (88%)	209 (84%)	39 (16%)	0	100	100
33	ai	388/410 (95%)	333 (86%)	55 (14%)	0	100	100
34	an	291/293 (99%)	248 (85%)	41 (14%)	2 (1%)	18	51
35	z	1067/1181 (90%)	901 (84%)	163 (15%)	3 (0%)	36	67
36	y	249/449 (56%)	196 (79%)	51 (20%)	2 (1%)	16	49
37	x	250/345 (72%)	213 (85%)	36 (14%)	1 (0%)	30	62
38	w	173/186 (93%)	150 (87%)	22 (13%)	1 (1%)	21	54
39	v	194/215 (90%)	153 (79%)	37 (19%)	4 (2%)	5	31
40	bb	108/238 (45%)	95 (88%)	12 (11%)	1 (1%)	14	47
41	t	224/256 (88%)	193 (86%)	30 (13%)	1 (0%)	30	62
42	al	290/308 (94%)	257 (89%)	32 (11%)	1 (0%)	36	67
43	q	212/442 (48%)	185 (87%)	26 (12%)	1 (0%)	24	57
44	p	236/308 (77%)	206 (87%)	30 (13%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
45	Ca	590/603 (98%)	509 (86%)	80 (14%)	1 (0%)	43	74
46	g	182/193 (94%)	163 (90%)	19 (10%)	0	100	100
47	j	178/189 (94%)	140 (79%)	38 (21%)	0	100	100
48	b	146/160 (91%)	123 (84%)	23 (16%)	0	100	100
49	bd	48/90 (53%)	41 (85%)	7 (15%)	0	100	100
50	a	423/434 (98%)	363 (86%)	59 (14%)	1 (0%)	43	74
51	bc	149/376 (40%)	138 (93%)	11 (7%)	0	100	100
52	aa	1554/1827 (85%)	1363 (88%)	186 (12%)	5 (0%)	36	67
53	k	188/309 (61%)	156 (83%)	32 (17%)	0	100	100
54	be	77/82 (94%)	67 (87%)	9 (12%)	1 (1%)	9	39
55	as	250/261 (96%)	211 (84%)	39 (16%)	0	100	100
All	All	19513/22991 (85%)	17122 (88%)	2345 (12%)	46 (0%)	44	74

All (46) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
54	be	41	ILE
13	aj	36	GLN
37	x	178	SER
39	v	94	THR
2	s	42	GLN
6	e	104	ASN
8	ay	90	GLY
34	an	15	LEU
35	z	569	TYR
45	Ca	349	PHE
20	ad	347	GLU
22	i	240	LEU
36	y	55	HIS
39	v	93	LEU
52	aa	123	ARG
14	ag	138	SER
15	af	185	ASP
19	ab	990	ALA
20	ad	521	LYS
20	ad	702	ASP
34	an	210	GLN
39	v	115	CYS

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Mol	Chain	Res	Type
41	t	153	HIS
43	q	34	PRO
50	a	37	SER
52	aa	220	ARG
2	s	73	MET
9	ax	157	PRO
20	ad	249	PRO
25	d	68	PRO
27	av	146	ASP
35	z	910	LEU
52	aa	107	TYR
11	au	189	PRO
52	aa	782	PRO
52	aa	1613	PRO
6	e	196	GLY
39	v	211	LEU
40	bb	141	GLY
27	av	214	ALA
28	at	179	GLY
42	al	156	GLY
20	ad	798	ILE
35	z	163	PRO
36	y	176	PRO
38	w	135	ILE

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	u	613/762 (80%)	544 (89%)	69 (11%)	5	25
2	s	144/157 (92%)	132 (92%)	12 (8%)	10	34
3	r	413/443 (93%)	380 (92%)	33 (8%)	11	35
4	n	127/152 (84%)	114 (90%)	13 (10%)	7	28
5	h	142/150 (95%)	128 (90%)	14 (10%)	7	29

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	e	712/719 (99%)	648 (91%)	64 (9%)	9	32
7	az	136/144 (94%)	126 (93%)	10 (7%)	13	37
8	ay	126/195 (65%)	114 (90%)	12 (10%)	8	31
9	ax	149/158 (94%)	136 (91%)	13 (9%)	9	33
10	aw	144/164 (88%)	132 (92%)	12 (8%)	10	34
11	au	220/228 (96%)	199 (90%)	21 (10%)	8	31
12	ak	197/257 (77%)	178 (90%)	19 (10%)	8	30
13	aj	280/351 (80%)	258 (92%)	22 (8%)	11	36
14	ag	477/502 (95%)	443 (93%)	34 (7%)	13	38
15	af	490/583 (84%)	452 (92%)	38 (8%)	11	36
16	ae	492/567 (87%)	460 (94%)	32 (6%)	15	42
17	l	514/606 (85%)	467 (91%)	47 (9%)	9	32
18	ac	934/957 (98%)	860 (92%)	74 (8%)	11	36
19	ab	954/1011 (94%)	870 (91%)	84 (9%)	9	32
20	ad	703/712 (99%)	626 (89%)	77 (11%)	6	26
21	m	202/278 (73%)	182 (90%)	20 (10%)	7	29
22	i	314/371 (85%)	279 (89%)	35 (11%)	6	25
23	f	201/276 (73%)	179 (89%)	22 (11%)	6	26
24	c	228/246 (93%)	203 (89%)	25 (11%)	6	26
25	d	373/373 (100%)	339 (91%)	34 (9%)	9	32
26	ba	73/180 (41%)	67 (92%)	6 (8%)	10	34
27	av	191/210 (91%)	163 (85%)	28 (15%)	3	17
28	at	212/227 (93%)	190 (90%)	22 (10%)	7	27
29	ar	227/238 (95%)	199 (88%)	28 (12%)	4	22
30	aq	181/253 (72%)	162 (90%)	19 (10%)	6	27
31	ap	189/233 (81%)	167 (88%)	22 (12%)	5	24
32	ao	225/252 (89%)	194 (86%)	31 (14%)	3	19
33	ai	351/370 (95%)	320 (91%)	31 (9%)	9	32
34	an	250/250 (100%)	214 (86%)	36 (14%)	3	18
35	z	920/1011 (91%)	813 (88%)	107 (12%)	5	24
36	y	209/366 (57%)	182 (87%)	27 (13%)	4	21

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	x	206/284 (72%)	177 (86%)	29 (14%)	3	18
38	w	163/174 (94%)	148 (91%)	15 (9%)	8	32
39	v	164/181 (91%)	146 (89%)	18 (11%)	6	26
40	bb	92/197 (47%)	83 (90%)	9 (10%)	7	30
41	t	193/220 (88%)	167 (86%)	26 (14%)	4	20
42	al	247/262 (94%)	225 (91%)	22 (9%)	9	32
43	q	196/390 (50%)	186 (95%)	10 (5%)	21	48
44	p	213/258 (83%)	195 (92%)	18 (8%)	10	34
45	Ca	534/544 (98%)	477 (89%)	57 (11%)	6	27
46	g	163/171 (95%)	139 (85%)	24 (15%)	3	17
47	j	159/168 (95%)	136 (86%)	23 (14%)	3	17
48	b	138/146 (94%)	119 (86%)	19 (14%)	3	19
49	bd	48/86 (56%)	36 (75%)	12 (25%)	0	4
50	a	364/372 (98%)	328 (90%)	36 (10%)	7	29
51	bc	134/327 (41%)	123 (92%)	11 (8%)	10	34
52	aa	1340/1552 (86%)	1166 (87%)	174 (13%)	4	21
53	k	169/272 (62%)	139 (82%)	30 (18%)	2	10
54	be	70/73 (96%)	60 (86%)	10 (14%)	3	18
55	as	221/228 (97%)	195 (88%)	26 (12%)	5	23
All	All	17127/19857 (86%)	15365 (90%)	1762 (10%)	9	28

All (1762) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	u	31	LEU
1	u	59	ASN
1	u	78	VAL
1	u	82	THR
1	u	84	THR
1	u	91	LEU
1	u	94	LEU
1	u	101	GLU
1	u	112	THR
1	u	138	HIS
1	u	142	VAL

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Mol	Chain	Res	Type
1	u	156	ILE
1	u	161	GLU
1	u	180	THR
1	u	202	HIS
1	u	204	VAL
1	u	225	MET
1	u	237	LEU
1	u	252	ASP
1	u	258	LEU
1	u	259	ILE
1	u	261	VAL
1	u	274	VAL
1	u	289	LEU
1	u	297	THR
1	u	300	PHE
1	u	304	SER
1	u	309	ASP
1	u	338	VAL
1	u	362	LEU
1	u	363	LEU
1	u	366	LEU
1	u	369	VAL
1	u	370	VAL
1	u	375	VAL
1	u	379	VAL
1	u	386	HIS
1	u	405	ARG
1	u	407	VAL
1	u	540	ARG
1	u	549	ARG
1	u	554	TYR
1	u	558	ASP
1	u	560	SER
1	u	564	LEU
1	u	574	LEU
1	u	575	ASP
1	u	595	ASN
1	u	596	VAL
1	u	658	ILE
1	u	703	ARG
1	u	705	ILE
1	u	707	LEU

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Mol	Chain	Res	Type
1	u	714	LEU
1	u	718	ASP
1	u	720	ASN
1	u	727	MET
1	u	729	THR
1	u	738	GLU
1	u	745	VAL
1	u	746	LEU
1	u	769	GLU
1	u	771	LEU
1	u	773	ASP
1	u	789	MET
1	u	803	SER
1	u	811	GLU
1	u	816	GLU
1	u	832	THR
2	s	12	VAL
2	s	59	ARG
2	s	80	TYR
2	s	82	GLN
2	s	88	ILE
2	s	111	ASP
2	s	115	TYR
2	s	119	LEU
2	s	123	THR
2	s	125	HIS
2	s	128	SER
2	s	136	HIS
3	r	65	SER
3	r	67	THR
3	r	91	GLU
3	r	97	VAL
3	r	111	TYR
3	r	120	LEU
3	r	139	THR
3	r	142	ARG
3	r	173	THR
3	r	191	SER
3	r	193	ILE
3	r	199	ASP
3	r	205	ARG
3	r	208	LEU

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Mol	Chain	Res	Type
3	r	220	LEU
3	r	242	ASN
3	r	274	SER
3	r	276	GLU
3	r	283	ILE
3	r	291	PHE
3	r	295	THR
3	r	296	HIS
3	r	308	LEU
3	r	316	THR
3	r	356	CYS
3	r	393	ASP
3	r	407	TYR
3	r	413	THR
3	r	441	LEU
3	r	447	LEU
3	r	456	ILE
3	r	470	GLN
3	r	484	GLU
4	n	58	ILE
4	n	61	THR
4	n	80	GLN
4	n	82	TYR
4	n	86	GLU
4	n	87	GLU
4	n	125	VAL
4	n	135	ASN
4	n	142	THR
4	n	149	ASP
4	n	150	LEU
4	n	159	LYS
4	n	162	LEU
5	h	16	ASP
5	h	22	THR
5	h	26	LEU
5	h	32	TYR
5	h	56	SER
5	h	64	GLN
5	h	94	ARG
5	h	99	GLN
5	h	108	VAL
5	h	113	VAL

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Mol	Chain	Res	Type
5	h	127	LEU
5	h	152	TRP
5	h	155	VAL
5	h	161	LEU
6	e	13	ARG
6	e	19	GLN
6	e	36	ASN
6	e	48	ASP
6	e	67	ASP
6	e	70	VAL
6	e	75	VAL
6	e	78	SER
6	e	80	THR
6	e	82	HIS
6	e	83	LEU
6	e	96	ASN
6	e	136	PHE
6	e	158	LEU
6	e	161	ILE
6	e	211	THR
6	e	212	GLU
6	e	248	LEU
6	e	254	HIS
6	e	265	MET
6	e	274	VAL
6	e	277	GLU
6	e	295	ASP
6	e	325	VAL
6	e	333	GLU
6	e	340	ILE
6	e	345	VAL
6	e	358	VAL
6	e	380	SER
6	e	381	ASP
6	e	382	THR
6	e	385	THR
6	e	391	THR
6	e	397	ARG
6	e	416	LYS
6	e	421	ILE
6	e	430	THR
6	e	458	THR

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Mol	Chain	Res	Type
6	e	461	ASP
6	e	494	VAL
6	e	531	LEU
6	e	586	ASN
6	e	588	GLU
6	e	606	VAL
6	e	610	GLU
6	e	616	VAL
6	e	617	GLU
6	e	624	THR
6	e	657	VAL
6	e	699	ASP
6	e	710	GLU
6	e	720	THR
6	e	737	ARG
6	e	741	LYS
6	e	743	PHE
6	e	747	THR
6	e	758	LEU
6	e	768	ILE
6	e	771	THR
6	e	776	ASP
6	e	786	VAL
6	e	797	ASP
6	e	801	LEU
6	e	816	THR
7	az	24	VAL
7	az	61	ILE
7	az	65	LEU
7	az	67	ARG
7	az	77	ILE
7	az	87	ARG
7	az	110	THR
7	az	133	ASP
7	az	139	ASP
7	az	151	LEU
8	ay	92	HIS
8	ay	101	GLU
8	ay	110	LEU
8	ay	118	VAL
8	ay	146	VAL
8	ay	149	ARG

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Mol	Chain	Res	Type
8	ay	153	GLU
8	ay	164	ARG
8	ay	173	VAL
8	ay	180	VAL
8	ay	204	ILE
8	ay	207	LYS
9	ax	9	THR
9	ax	18	LEU
9	ax	41	SER
9	ax	48	ASP
9	ax	57	ARG
9	ax	61	LEU
9	ax	62	THR
9	ax	90	ASP
9	ax	106	ASP
9	ax	107	VAL
9	ax	108	GLU
9	ax	125	ARG
9	ax	131	HIS
10	aw	47	THR
10	aw	71	ILE
10	aw	78	PHE
10	aw	84	THR
10	aw	91	ILE
10	aw	103	LYS
10	aw	124	VAL
10	aw	146	ILE
10	aw	152	ASP
10	aw	161	PHE
10	aw	185	PHE
10	aw	186	LEU
11	au	9	GLN
11	au	17	HIS
11	au	53	GLN
11	au	65	VAL
11	au	69	ASP
11	au	72	HIS
11	au	76	HIS
11	au	82	HIS
11	au	88	THR
11	au	100	SER
11	au	108	VAL

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Mol	Chain	Res	Type
11	au	112	LEU
11	au	122	MET
11	au	131	SER
11	au	133	ASP
11	au	135	ILE
11	au	186	TRP
11	au	201	SER
11	au	205	VAL
11	au	220	ASP
11	au	244	TYR
12	ak	6	THR
12	ak	10	VAL
12	ak	20	GLU
12	ak	26	LEU
12	ak	34	HIS
12	ak	42	CYS
12	ak	52	ARG
12	ak	55	ASP
12	ak	106	ILE
12	ak	121	LYS
12	ak	158	GLU
12	ak	183	VAL
12	ak	219	LYS
12	ak	220	ASP
12	ak	231	VAL
12	ak	236	LEU
12	ak	246	VAL
12	ak	248	ASN
12	ak	262	GLU
13	aj	12	TYR
13	aj	19	THR
13	aj	28	TYR
13	aj	49	THR
13	aj	58	LEU
13	aj	59	VAL
13	aj	77	VAL
13	aj	114	GLU
13	aj	141	GLU
13	aj	166	LEU
13	aj	189	TRP
13	aj	219	ILE
13	aj	238	ILE

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Mol	Chain	Res	Type
13	aj	239	VAL
13	aj	240	ILE
13	aj	246	THR
13	aj	258	LEU
13	aj	269	LEU
13	aj	298	VAL
13	aj	310	PHE
13	aj	315	LEU
13	aj	319	TYR
14	ag	9	THR
14	ag	17	ILE
14	ag	23	GLN
14	ag	42	ARG
14	ag	66	CYS
14	ag	98	ASP
14	ag	145	ARG
14	ag	187	THR
14	ag	218	THR
14	ag	222	THR
14	ag	224	VAL
14	ag	243	THR
14	ag	252	LEU
14	ag	286	LEU
14	ag	320	GLU
14	ag	323	LEU
14	ag	330	SER
14	ag	334	THR
14	ag	344	ILE
14	ag	347	VAL
14	ag	351	LYS
14	ag	426	VAL
14	ag	438	THR
14	ag	444	THR
14	ag	445	VAL
14	ag	447	ILE
14	ag	451	PHE
14	ag	465	THR
14	ag	467	TYR
14	ag	485	GLU
14	ag	520	LYS
14	ag	544	LEU
14	ag	546	LYS

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Mol	Chain	Res	Type
14	ag	555	LEU
15	af	29	ASP
15	af	31	TYR
15	af	33	THR
15	af	57	ASP
15	af	65	ASN
15	af	78	GLN
15	af	90	MET
15	af	91	LYS
15	af	102	MET
15	af	103	ASN
15	af	108	ARG
15	af	119	ASP
15	af	173	MET
15	af	176	ILE
15	af	207	SER
15	af	224	LEU
15	af	227	GLU
15	af	229	HIS
15	af	240	HIS
15	af	260	ARG
15	af	267	ASN
15	af	270	LEU
15	af	281	VAL
15	af	286	LEU
15	af	296	ASP
15	af	376	MET
15	af	382	VAL
15	af	398	VAL
15	af	497	THR
15	af	508	ILE
15	af	509	HIS
15	af	519	THR
15	af	538	ILE
15	af	580	VAL
15	af	605	HIS
15	af	623	CYS
15	af	629	VAL
15	af	632	THR
16	ae	13	ILE
16	ae	79	THR
16	ae	83	ILE

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Mol	Chain	Res	Type
16	ae	88	LEU
16	ae	140	HIS
16	ae	142	ASN
16	ae	144	THR
16	ae	183	SER
16	ae	189	ASP
16	ae	218	CYS
16	ae	257	ASN
16	ae	334	THR
16	ae	340	VAL
16	ae	345	LEU
16	ae	369	LEU
16	ae	373	VAL
16	ae	380	VAL
16	ae	383	VAL
16	ae	389	GLU
16	ae	405	ASN
16	ae	432	THR
16	ae	454	ASP
16	ae	466	HIS
16	ae	512	LEU
16	ae	549	HIS
16	ae	553	VAL
16	ae	556	THR
16	ae	563	THR
16	ae	575	HIS
16	ae	576	THR
16	ae	577	GLU
16	ae	583	ASP
17	l	52	THR
17	l	70	LEU
17	l	71	ILE
17	l	72	THR
17	l	81	TYR
17	l	84	ASP
17	l	153	GLU
17	l	170	GLN
17	l	187	ILE
17	l	188	ASP
17	l	204	LEU
17	l	208	LEU
17	l	265	TYR

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Mol	Chain	Res	Type
17	l	276	VAL
17	l	282	LEU
17	l	287	GLU
17	l	304	VAL
17	l	310	ILE
17	l	376	LEU
17	l	378	ARG
17	l	386	LEU
17	l	397	ILE
17	l	449	ASN
17	l	462	ARG
17	l	484	HIS
17	l	488	ASN
17	l	498	TRP
17	l	504	ARG
17	l	509	GLU
17	l	531	ASP
17	l	561	THR
17	l	569	ILE
17	l	572	ASP
17	l	589	SER
17	l	591	GLU
17	l	613	THR
17	l	617	PHE
17	l	620	GLU
17	l	621	THR
17	l	635	SER
17	l	649	LEU
17	l	655	LEU
17	l	656	GLU
17	l	664	TRP
17	l	669	THR
17	l	684	ARG
17	l	698	ASP
18	ac	33	ASP
18	ac	36	VAL
18	ac	39	VAL
18	ac	42	LEU
18	ac	81	LEU
18	ac	83	VAL
18	ac	94	THR
18	ac	95	ASP

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Mol	Chain	Res	Type
18	ac	112	THR
18	ac	162	ASN
18	ac	176	GLU
18	ac	178	ASP
18	ac	182	THR
18	ac	188	THR
18	ac	205	VAL
18	ac	207	ASN
18	ac	212	GLU
18	ac	215	LEU
18	ac	234	THR
18	ac	247	HIS
18	ac	271	PHE
18	ac	275	LEU
18	ac	307	ARG
18	ac	317	TRP
18	ac	402	THR
18	ac	403	GLU
18	ac	406	VAL
18	ac	410	SER
18	ac	505	SER
18	ac	510	SER
18	ac	544	LEU
18	ac	573	LEU
18	ac	602	ASP
18	ac	631	TRP
18	ac	650	VAL
18	ac	659	GLN
18	ac	667	VAL
18	ac	709	GLN
18	ac	791	VAL
18	ac	794	THR
18	ac	829	VAL
18	ac	832	VAL
18	ac	835	ILE
18	ac	847	LEU
18	ac	859	GLU
18	ac	869	GLU
18	ac	873	PHE
18	ac	892	GLN
18	ac	896	THR
18	ac	912	VAL

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Mol	Chain	Res	Type
18	ac	921	GLU
18	ac	945	GLU
18	ac	949	VAL
18	ac	977	THR
18	ac	978	LEU
18	ac	987	ASN
18	ac	1009	SER
18	ac	1019	SER
18	ac	1041	LEU
18	ac	1061	ILE
18	ac	1064	THR
18	ac	1065	GLU
18	ac	1088	THR
18	ac	1090	VAL
18	ac	1091	SER
18	ac	1094	VAL
18	ac	1095	VAL
18	ac	1103	LEU
18	ac	1106	VAL
18	ac	1123	GLN
18	ac	1126	THR
18	ac	1139	ILE
18	ac	1140	GLU
18	ac	1143	THR
19	ab	113	ILE
19	ab	126	GLU
19	ab	132	SER
19	ab	133	TRP
19	ab	149	ARG
19	ab	157	SER
19	ab	163	GLU
19	ab	174	VAL
19	ab	181	ASN
19	ab	194	THR
19	ab	196	THR
19	ab	197	SER
19	ab	201	LEU
19	ab	204	GLN
19	ab	207	VAL
19	ab	217	SER
19	ab	238	SER
19	ab	240	THR

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Mol	Chain	Res	Type
19	ab	241	VAL
19	ab	248	GLU
19	ab	272	ARG
19	ab	301	THR
19	ab	320	VAL
19	ab	327	SER
19	ab	336	VAL
19	ab	354	ILE
19	ab	355	ARG
19	ab	408	ARG
19	ab	410	ASP
19	ab	413	ARG
19	ab	415	THR
19	ab	420	HIS
19	ab	430	THR
19	ab	449	ARG
19	ab	457	LEU
19	ab	499	ARG
19	ab	538	ARG
19	ab	557	GLU
19	ab	559	ASP
19	ab	620	LEU
19	ab	625	LEU
19	ab	627	ASP
19	ab	639	LEU
19	ab	661	PHE
19	ab	675	GLN
19	ab	708	GLU
19	ab	721	ASP
19	ab	729	VAL
19	ab	767	THR
19	ab	769	HIS
19	ab	776	GLN
19	ab	780	LEU
19	ab	799	GLU
19	ab	802	ASP
19	ab	808	PHE
19	ab	828	ILE
19	ab	834	ASN
19	ab	861	THR
19	ab	862	HIS
19	ab	872	VAL

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Mol	Chain	Res	Type
19	ab	887	ILE
19	ab	888	VAL
19	ab	895	VAL
19	ab	896	ILE
19	ab	910	ARG
19	ab	914	VAL
19	ab	932	ILE
19	ab	1002	ILE
19	ab	1003	ASP
19	ab	1014	ASP
19	ab	1015	ASN
19	ab	1019	LEU
19	ab	1026	ASP
19	ab	1028	ILE
19	ab	1034	HIS
19	ab	1042	ILE
19	ab	1058	GLN
19	ab	1060	ASN
19	ab	1069	LEU
19	ab	1094	PHE
19	ab	1126	ARG
19	ab	1128	GLU
19	ab	1153	VAL
19	ab	1160	VAL
20	ad	10	HIS
20	ad	19	VAL
20	ad	44	ILE
20	ad	46	VAL
20	ad	50	TRP
20	ad	53	VAL
20	ad	60	ASN
20	ad	83	THR
20	ad	89	SER
20	ad	104	ARG
20	ad	108	THR
20	ad	111	VAL
20	ad	127	ILE
20	ad	128	ASN
20	ad	129	ARG
20	ad	132	SER
20	ad	145	ILE
20	ad	146	ARG

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Mol	Chain	Res	Type
20	ad	160	HIS
20	ad	198	LYS
20	ad	205	THR
20	ad	209	THR
20	ad	212	ILE
20	ad	219	CYS
20	ad	226	THR
20	ad	237	THR
20	ad	247	VAL
20	ad	252	VAL
20	ad	255	VAL
20	ad	258	SER
20	ad	264	LEU
20	ad	291	THR
20	ad	295	TYR
20	ad	296	LEU
20	ad	309	ASP
20	ad	324	SER
20	ad	325	THR
20	ad	349	CYS
20	ad	359	VAL
20	ad	373	THR
20	ad	376	ASP
20	ad	394	LYS
20	ad	422	ASP
20	ad	436	GLU
20	ad	452	LEU
20	ad	457	LEU
20	ad	495	LYS
20	ad	502	ASN
20	ad	507	LEU
20	ad	541	LEU
20	ad	567	THR
20	ad	577	ASN
20	ad	585	LEU
20	ad	589	CYS
20	ad	614	LEU
20	ad	615	THR
20	ad	622	THR
20	ad	648	THR
20	ad	651	PHE
20	ad	654	LEU

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Mol	Chain	Res	Type
20	ad	672	VAL
20	ad	689	PHE
20	ad	692	ARG
20	ad	699	GLU
20	ad	702	ASP
20	ad	703	ILE
20	ad	716	VAL
20	ad	726	MET
20	ad	737	GLU
20	ad	770	ASP
20	ad	772	VAL
20	ad	783	ASN
20	ad	791	THR
20	ad	797	ASP
20	ad	798	ILE
20	ad	803	LYS
20	ad	810	TYR
21	m	11	ASN
21	m	20	ARG
21	m	25	GLU
21	m	27	ILE
21	m	31	THR
21	m	36	THR
21	m	40	VAL
21	m	41	GLU
21	m	63	GLN
21	m	69	HIS
21	m	82	ARG
21	m	92	ILE
21	m	96	GLN
21	m	124	LEU
21	m	128	ASN
21	m	142	MET
21	m	213	VAL
21	m	224	GLU
21	m	225	LEU
21	m	227	GLU
22	i	70	HIS
22	i	96	LEU
22	i	105	THR
22	i	107	LEU
22	i	110	VAL

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Mol	Chain	Res	Type
22	i	123	ASN
22	i	145	GLN
22	i	146	LEU
22	i	162	THR
22	i	173	ILE
22	i	176	GLU
22	i	178	LEU
22	i	189	LEU
22	i	215	ASP
22	i	217	ASP
22	i	230	LEU
22	i	241	THR
22	i	244	HIS
22	i	245	ASN
22	i	246	ASN
22	i	247	ILE
22	i	281	HIS
22	i	285	ASP
22	i	312	SER
22	i	328	VAL
22	i	333	SER
22	i	339	ARG
22	i	349	LEU
22	i	373	GLU
22	i	383	ARG
22	i	391	SER
22	i	413	LEU
22	i	414	LEU
22	i	419	VAL
22	i	426	HIS
23	f	72	GLN
23	f	77	ASP
23	f	78	TRP
23	f	85	SER
23	f	86	SER
23	f	121	ARG
23	f	173	THR
23	f	179	ASP
23	f	190	ASP
23	f	194	LEU
23	f	197	ILE
23	f	215	ILE

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Mol	Chain	Res	Type
23	f	220	THR
23	f	230	ASP
23	f	234	ARG
23	f	252	ASP
23	f	280	VAL
23	f	295	GLN
23	f	300	GLU
23	f	314	LEU
23	f	319	MET
23	f	321	ARG
24	c	12	VAL
24	c	30	ARG
24	c	49	VAL
24	c	59	GLN
24	c	76	GLU
24	c	88	GLN
24	c	118	ASP
24	c	125	THR
24	c	135	ASP
24	c	137	ILE
24	c	153	THR
24	c	162	ILE
24	c	166	THR
24	c	175	VAL
24	c	178	THR
24	c	182	ARG
24	c	187	VAL
24	c	189	LEU
24	c	211	LYS
24	c	218	THR
24	c	221	VAL
24	c	246	THR
24	c	249	ILE
24	c	272	VAL
24	c	276	VAL
25	d	9	THR
25	d	18	LEU
25	d	57	ILE
25	d	59	GLU
25	d	87	LEU
25	d	88	PHE
25	d	100	TYR

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Mol	Chain	Res	Type
25	d	101	VAL
25	d	107	THR
25	d	117	LEU
25	d	155	LEU
25	d	168	THR
25	d	178	THR
25	d	202	VAL
25	d	204	LEU
25	d	224	THR
25	d	229	THR
25	d	242	ASN
25	d	244	ASP
25	d	251	GLU
25	d	260	THR
25	d	261	LEU
25	d	302	ASP
25	d	305	THR
25	d	325	LEU
25	d	335	ILE
25	d	362	GLU
25	d	372	VAL
25	d	375	VAL
25	d	388	ILE
25	d	408	THR
25	d	410	ILE
25	d	420	VAL
25	d	426	ARG
26	ba	18	THR
26	ba	33	VAL
26	ba	37	ASP
26	ba	62	ASP
26	ba	77	THR
26	ba	85	GLU
27	av	28	ARG
27	av	35	ARG
27	av	47	ILE
27	av	55	THR
27	av	58	TYR
27	av	66	LEU
27	av	67	GLN
27	av	68	ASP
27	av	69	ASN

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Mol	Chain	Res	Type
27	av	78	ILE
27	av	79	ASP
27	av	82	GLN
27	av	97	THR
27	av	100	THR
27	av	120	ILE
27	av	126	LEU
27	av	129	ILE
27	av	135	TYR
27	av	142	THR
27	av	154	LYS
27	av	156	LEU
27	av	164	HIS
27	av	168	ASP
27	av	170	ILE
27	av	192	MET
27	av	197	LEU
27	av	205	MET
27	av	231	SER
28	at	33	LEU
28	at	49	VAL
28	at	67	ILE
28	at	82	THR
28	at	83	LEU
28	at	94	ILE
28	at	101	CYS
28	at	108	SER
28	at	109	VAL
28	at	110	SER
28	at	111	VAL
28	at	115	PHE
28	at	120	ASN
28	at	140	LEU
28	at	146	GLU
28	at	163	LEU
28	at	165	LEU
28	at	168	LYS
28	at	173	TRP
28	at	185	SER
28	at	211	CYS
28	at	236	LEU
29	ar	20	ILE

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Mol	Chain	Res	Type
29	ar	22	HIS
29	ar	28	ARG
29	ar	40	VAL
29	ar	47	GLU
29	ar	60	THR
29	ar	81	VAL
29	ar	87	THR
29	ar	96	ILE
29	ar	119	VAL
29	ar	126	GLU
29	ar	134	ILE
29	ar	160	PHE
29	ar	166	ILE
29	ar	169	VAL
29	ar	184	ILE
29	ar	192	LEU
29	ar	203	SER
29	ar	207	HIS
29	ar	213	ILE
29	ar	214	ARG
29	ar	221	PHE
29	ar	225	ILE
29	ar	231	VAL
29	ar	243	PHE
29	ar	244	SER
29	ar	245	GLN
29	ar	247	ASP
30	aq	11	SER
30	aq	25	ASP
30	aq	44	GLU
30	aq	59	THR
30	aq	66	ASN
30	aq	94	VAL
30	aq	100	ARG
30	aq	111	THR
30	aq	122	VAL
30	aq	124	ARG
30	aq	144	ILE
30	aq	149	ASP
30	aq	163	ARG
30	aq	166	CYS
30	aq	190	LEU

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Mol	Chain	Res	Type
30	aq	193	GLU
30	aq	202	LEU
30	aq	204	ASN
30	aq	207	TYR
31	ap	63	GLU
31	ap	64	ILE
31	ap	75	LEU
31	ap	76	ASP
31	ap	84	VAL
31	ap	107	LEU
31	ap	109	ASP
31	ap	115	LEU
31	ap	117	LEU
31	ap	121	LEU
31	ap	123	LYS
31	ap	129	THR
31	ap	130	ASP
31	ap	138	LEU
31	ap	144	ARG
31	ap	147	SER
31	ap	150	THR
31	ap	151	ILE
31	ap	154	LEU
31	ap	158	THR
31	ap	176	VAL
31	ap	184	TYR
32	ao	12	MET
32	ao	27	ASP
32	ao	31	SER
32	ao	32	ILE
32	ao	39	VAL
32	ao	42	SER
32	ao	43	VAL
32	ao	53	LEU
32	ao	115	VAL
32	ao	126	ASP
32	ao	131	ILE
32	ao	145	ASP
32	ao	155	GLU
32	ao	161	LEU
32	ao	172	VAL
32	ao	178	VAL

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Mol	Chain	Res	Type
32	ao	187	MET
32	ao	197	VAL
32	ao	202	THR
32	ao	207	MET
32	ao	219	THR
32	ao	222	VAL
32	ao	224	HIS
32	ao	230	THR
32	ao	238	SER
32	ao	239	LYS
32	ao	249	THR
32	ao	259	LEU
32	ao	264	SER
32	ao	275	GLU
32	ao	276	VAL
33	ai	29	LEU
33	ai	42	ASP
33	ai	45	ARG
33	ai	63	LEU
33	ai	73	LEU
33	ai	75	THR
33	ai	103	LEU
33	ai	121	VAL
33	ai	143	SER
33	ai	148	LEU
33	ai	172	ILE
33	ai	180	SER
33	ai	183	SER
33	ai	189	ILE
33	ai	192	ASP
33	ai	208	ASP
33	ai	210	LEU
33	ai	222	ILE
33	ai	244	GLU
33	ai	246	MET
33	ai	251	THR
33	ai	282	VAL
33	ai	292	ASP
33	ai	305	ILE
33	ai	313	LEU
33	ai	355	ASP
33	ai	357	ASP

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Mol	Chain	Res	Type
33	ai	376	ASN
33	ai	381	LEU
33	ai	394	ASP
33	ai	409	THR
34	an	1	MET
34	an	4	TYR
34	an	8	THR
34	an	22	LEU
34	an	25	GLU
34	an	40	TYR
34	an	44	ILE
34	an	51	VAL
34	an	62	VAL
34	an	64	THR
34	an	73	VAL
34	an	92	LEU
34	an	116	GLN
34	an	128	ILE
34	an	136	THR
34	an	141	SER
34	an	144	THR
34	an	148	THR
34	an	151	MET
34	an	158	THR
34	an	162	THR
34	an	190	GLN
34	an	193	SER
34	an	197	THR
34	an	198	LEU
34	an	204	PHE
34	an	210	GLN
34	an	223	THR
34	an	246	MET
34	an	257	VAL
34	an	258	MET
34	an	259	TRP
34	an	260	THR
34	an	264	ILE
34	an	277	THR
34	an	290	VAL
35	z	27	ILE
35	z	30	LEU

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Mol	Chain	Res	Type
35	z	38	LEU
35	z	60	ILE
35	z	64	THR
35	z	68	THR
35	z	79	ILE
35	z	88	GLN
35	z	103	ASP
35	z	105	ASP
35	z	106	ASP
35	z	120	SER
35	z	121	TYR
35	z	128	ASP
35	z	146	ARG
35	z	169	ASP
35	z	170	LEU
35	z	172	VAL
35	z	182	LEU
35	z	186	SER
35	z	188	THR
35	z	197	ASP
35	z	209	LEU
35	z	222	MET
35	z	232	ASP
35	z	239	ASP
35	z	253	THR
35	z	266	SER
35	z	269	ILE
35	z	287	GLN
35	z	298	LEU
35	z	318	ARG
35	z	322	ASN
35	z	324	VAL
35	z	330	THR
35	z	373	ILE
35	z	376	VAL
35	z	391	CYS
35	z	394	THR
35	z	402	SER
35	z	434	ARG
35	z	437	THR
35	z	453	THR
35	z	459	ASP

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Mol	Chain	Res	Type
35	z	466	THR
35	z	471	THR
35	z	486	THR
35	z	491	ASN
35	z	498	LEU
35	z	501	LEU
35	z	522	THR
35	z	539	VAL
35	z	544	ASN
35	z	548	GLU
35	z	555	THR
35	z	561	CYS
35	z	566	CYS
35	z	567	THR
35	z	591	SER
35	z	595	ILE
35	z	624	VAL
35	z	626	VAL
35	z	650	LEU
35	z	663	LEU
35	z	671	VAL
35	z	717	ASP
35	z	721	ILE
35	z	722	GLU
35	z	723	LEU
35	z	729	THR
35	z	731	ASP
35	z	735	ILE
35	z	741	ILE
35	z	751	ILE
35	z	753	ASP
35	z	759	LYS
35	z	763	ILE
35	z	766	ILE
35	z	771	CYS
35	z	773	TYR
35	z	776	GLU
35	z	787	LEU
35	z	788	GLN
35	z	789	SER
35	z	818	SER
35	z	829	LEU

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Mol	Chain	Res	Type
35	z	834	ASP
35	z	852	ILE
35	z	858	ARG
35	z	876	VAL
35	z	881	VAL
35	z	912	THR
35	z	934	ASN
35	z	936	ILE
35	z	937	SER
35	z	942	ASP
35	z	969	ASN
35	z	980	GLU
35	z	981	MET
35	z	987	GLU
35	z	999	THR
35	z	1019	ASP
35	z	1041	GLU
35	z	1057	GLU
35	z	1083	THR
35	z	1087	THR
35	z	1111	THR
36	y	23	LEU
36	y	26	LEU
36	y	29	VAL
36	y	55	HIS
36	y	56	THR
36	y	76	LEU
36	y	94	LEU
36	y	98	VAL
36	y	103	SER
36	y	104	GLU
36	y	137	THR
36	y	145	MET
36	y	149	SER
36	y	156	THR
36	y	168	HIS
36	y	174	ASN
36	y	175	PHE
36	y	183	VAL
36	y	184	LEU
36	y	191	VAL
36	y	196	GLU

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Mol	Chain	Res	Type
36	y	203	ILE
36	y	254	LEU
36	y	256	SER
36	y	286	GLU
36	y	307	LEU
36	y	309	GLU
37	x	96	LEU
37	x	97	LEU
37	x	101	MET
37	x	128	ASP
37	x	144	SER
37	x	146	ILE
37	x	150	ILE
37	x	165	ASP
37	x	174	THR
37	x	178	SER
37	x	179	LEU
37	x	182	HIS
37	x	187	VAL
37	x	190	ARG
37	x	194	ASP
37	x	196	THR
37	x	202	THR
37	x	216	SER
37	x	222	THR
37	x	244	VAL
37	x	245	VAL
37	x	256	VAL
37	x	271	THR
37	x	274	GLN
37	x	295	LEU
37	x	304	TYR
37	x	316	TYR
37	x	333	TYR
37	x	337	THR
38	w	9	ASP
38	w	27	ARG
38	w	36	THR
38	w	37	ARG
38	w	52	VAL
38	w	62	VAL
38	w	65	HIS

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Mol	Chain	Res	Type
38	w	86	CYS
38	w	87	ASP
38	w	93	VAL
38	w	105	ARG
38	w	131	GLN
38	w	152	HIS
38	w	156	ILE
38	w	167	ILE
39	v	20	ARG
39	v	31	LEU
39	v	34	VAL
39	v	38	ASP
39	v	41	ASN
39	v	61	ARG
39	v	73	LEU
39	v	94	THR
39	v	103	LEU
39	v	116	GLU
39	v	126	LEU
39	v	148	ILE
39	v	164	HIS
39	v	186	TYR
39	v	188	ARG
39	v	193	PHE
39	v	200	VAL
39	v	215	LYS
40	bb	153	LEU
40	bb	158	LYS
40	bb	166	LYS
40	bb	173	TYR
40	bb	206	VAL
40	bb	209	ASP
40	bb	211	SER
40	bb	226	LYS
40	bb	238	ILE
41	t	10	ARG
41	t	22	LEU
41	t	29	LEU
41	t	32	ASP
41	t	36	ARG
41	t	50	VAL
41	t	51	VAL

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Mol	Chain	Res	Type
41	t	61	ASP
41	t	63	VAL
41	t	69	GLU
41	t	78	ASP
41	t	100	ILE
41	t	115	ARG
41	t	118	ARG
41	t	120	GLU
41	t	129	TYR
41	t	131	THR
41	t	133	SER
41	t	147	TYR
41	t	157	THR
41	t	161	VAL
41	t	193	ILE
41	t	199	VAL
41	t	203	SER
41	t	209	TYR
41	t	230	VAL
42	al	48	GLN
42	al	65	ILE
42	al	67	LYS
42	al	78	LEU
42	al	103	SER
42	al	110	VAL
42	al	113	LYS
42	al	137	VAL
42	al	142	VAL
42	al	148	THR
42	al	159	THR
42	al	171	VAL
42	al	173	SER
42	al	201	VAL
42	al	204	ARG
42	al	205	MET
42	al	210	ARG
42	al	250	LEU
42	al	257	SER
42	al	266	ARG
42	al	271	SER
42	al	275	THR
43	q	33	THR

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Mol	Chain	Res	Type
43	q	39	MET
43	q	44	GLU
43	q	47	ARG
43	q	60	VAL
43	q	109	THR
43	q	151	ILE
43	q	167	TYR
43	q	168	VAL
43	q	202	THR
44	p	25	ASN
44	p	27	SER
44	p	43	THR
44	p	56	ARG
44	p	70	THR
44	p	105	LEU
44	p	115	ILE
44	p	120	LYS
44	p	134	ARG
44	p	158	LYS
44	p	163	VAL
44	p	166	GLU
44	p	175	ILE
44	p	217	LEU
44	p	270	VAL
44	p	272	VAL
44	p	295	ASP
44	p	303	VAL
45	Ca	10	ARG
45	Ca	20	GLU
45	Ca	26	HIS
45	Ca	36	ILE
45	Ca	43	VAL
45	Ca	50	THR
45	Ca	71	ILE
45	Ca	85	LEU
45	Ca	92	ILE
45	Ca	117	SER
45	Ca	122	GLU
45	Ca	130	GLN
45	Ca	141	GLU
45	Ca	145	ASP
45	Ca	148	ILE

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Mol	Chain	Res	Type
45	Ca	153	ILE
45	Ca	160	LEU
45	Ca	165	ARG
45	Ca	172	THR
45	Ca	174	SER
45	Ca	180	LEU
45	Ca	203	ILE
45	Ca	211	SER
45	Ca	215	ILE
45	Ca	222	THR
45	Ca	228	ASN
45	Ca	241	SER
45	Ca	277	SER
45	Ca	281	GLU
45	Ca	295	ASP
45	Ca	297	THR
45	Ca	306	HIS
45	Ca	326	LEU
45	Ca	329	LEU
45	Ca	333	ARG
45	Ca	342	LEU
45	Ca	362	LEU
45	Ca	389	THR
45	Ca	415	SER
45	Ca	427	VAL
45	Ca	442	ASN
45	Ca	452	VAL
45	Ca	455	GLU
45	Ca	463	ASP
45	Ca	473	VAL
45	Ca	474	ILE
45	Ca	475	ARG
45	Ca	483	SER
45	Ca	487	SER
45	Ca	503	PHE
45	Ca	515	THR
45	Ca	521	TYR
45	Ca	524	HIS
45	Ca	528	THR
45	Ca	571	THR
45	Ca	579	ASP
45	Ca	597	PHE

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Mol	Chain	Res	Type
46	g	19	SER
46	g	22	THR
46	g	35	VAL
46	g	48	VAL
46	g	56	LEU
46	g	65	VAL
46	g	68	SER
46	g	70	LEU
46	g	78	SER
46	g	116	THR
46	g	128	ASN
46	g	142	SER
46	g	146	VAL
46	g	156	VAL
46	g	162	VAL
46	g	169	SER
46	g	170	VAL
46	g	173	LYS
46	g	177	THR
46	g	181	ILE
46	g	182	HIS
46	g	183	ASN
46	g	187	ASN
46	g	192	VAL
47	j	14	ILE
47	j	18	THR
47	j	22	TRP
47	j	29	ILE
47	j	30	ILE
47	j	38	VAL
47	j	52	HIS
47	j	65	LEU
47	j	71	HIS
47	j	75	SER
47	j	94	THR
47	j	95	VAL
47	j	107	LYS
47	j	111	LEU
47	j	129	LEU
47	j	132	ASN
47	j	135	ILE
47	j	144	GLU

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Mol	Chain	Res	Type
47	j	151	LEU
47	j	166	LEU
47	j	171	SER
47	j	175	SER
47	j	189	LEU
48	b	8	LEU
48	b	9	VAL
48	b	25	ILE
48	b	36	ILE
48	b	39	LEU
48	b	41	ASN
48	b	65	VAL
48	b	67	LEU
48	b	69	VAL
48	b	91	ILE
48	b	92	THR
48	b	118	LEU
48	b	120	THR
48	b	124	LEU
48	b	125	GLU
48	b	135	SER
48	b	143	GLU
48	b	154	TRP
48	b	155	SER
49	bd	35	LEU
49	bd	40	ASN
49	bd	51	ILE
49	bd	52	LEU
49	bd	59	HIS
49	bd	60	ILE
49	bd	65	ILE
49	bd	69	PHE
49	bd	74	ASN
49	bd	76	LEU
49	bd	80	ILE
49	bd	83	LYS
50	a	13	ASN
50	a	16	TYR
50	a	20	THR
50	a	51	VAL
50	a	55	THR
50	a	57	THR

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Mol	Chain	Res	Type
50	a	67	SER
50	a	112	THR
50	a	124	THR
50	a	137	LEU
50	a	163	ILE
50	a	164	TYR
50	a	182	VAL
50	a	185	SER
50	a	195	ARG
50	a	202	ILE
50	a	204	VAL
50	a	216	ARG
50	a	217	VAL
50	a	225	LEU
50	a	226	LEU
50	a	256	LEU
50	a	268	THR
50	a	282	VAL
50	a	314	MET
50	a	332	ASP
50	a	339	LEU
50	a	346	ASP
50	a	347	VAL
50	a	350	LYS
50	a	356	SER
50	a	361	ASN
50	a	370	ASP
50	a	405	THR
50	a	409	LEU
50	a	423	LEU
51	bc	245	LYS
51	bc	256	VAL
51	bc	259	THR
51	bc	273	ILE
51	bc	293	PHE
51	bc	294	THR
51	bc	297	VAL
51	bc	304	SER
51	bc	321	HIS
51	bc	322	ILE
51	bc	376	ASP
52	aa	91	PHE

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Mol	Chain	Res	Type
52	aa	95	THR
52	aa	97	LEU
52	aa	101	GLU
52	aa	102	MET
52	aa	103	ARG
52	aa	119	GLU
52	aa	126	ARG
52	aa	127	ARG
52	aa	129	LEU
52	aa	142	LEU
52	aa	144	GLU
52	aa	155	PHE
52	aa	175	PHE
52	aa	178	ASN
52	aa	183	SER
52	aa	185	ASP
52	aa	186	ILE
52	aa	190	GLU
52	aa	200	ILE
52	aa	207	ASN
52	aa	216	TYR
52	aa	219	TYR
52	aa	226	SER
52	aa	229	SER
52	aa	250	ILE
52	aa	252	SER
52	aa	267	ILE
52	aa	280	PHE
52	aa	282	SER
52	aa	300	SER
52	aa	304	PHE
52	aa	309	LEU
52	aa	313	PHE
52	aa	324	LEU
52	aa	350	THR
52	aa	352	ARG
52	aa	354	CYS
52	aa	396	THR
52	aa	398	ASP
52	aa	421	THR
52	aa	434	LEU
52	aa	446	CYS

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Mol	Chain	Res	Type
52	aa	447	ILE
52	aa	448	THR
52	aa	464	HIS
52	aa	469	THR
52	aa	473	THR
52	aa	477	ASN
52	aa	501	MET
52	aa	509	LYS
52	aa	511	GLU
52	aa	514	VAL
52	aa	533	VAL
52	aa	541	ILE
52	aa	543	TRP
52	aa	559	LEU
52	aa	577	SER
52	aa	595	THR
52	aa	596	ASP
52	aa	600	LEU
52	aa	603	VAL
52	aa	609	ILE
52	aa	631	ASP
52	aa	634	HIS
52	aa	640	VAL
52	aa	661	THR
52	aa	683	THR
52	aa	707	ILE
52	aa	729	VAL
52	aa	730	VAL
52	aa	732	VAL
52	aa	753	GLN
52	aa	758	LEU
52	aa	759	VAL
52	aa	791	LEU
52	aa	796	THR
52	aa	805	ILE
52	aa	825	SER
52	aa	828	ASP
52	aa	829	ARG
52	aa	831	VAL
52	aa	835	ILE
52	aa	837	THR
52	aa	848	THR

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Mol	Chain	Res	Type
52	aa	849	GLU
52	aa	850	GLN
52	aa	853	GLU
52	aa	872	GLU
52	aa	887	TRP
52	aa	890	LEU
52	aa	905	THR
52	aa	906	GLN
52	aa	915	THR
52	aa	924	SER
52	aa	946	THR
52	aa	962	VAL
52	aa	963	ASP
52	aa	964	ARG
52	aa	967	LEU
52	aa	968	GLU
52	aa	972	SER
52	aa	978	THR
52	aa	979	ASP
52	aa	985	ILE
52	aa	986	GLU
52	aa	992	ILE
52	aa	1005	THR
52	aa	1015	SER
52	aa	1016	TRP
52	aa	1025	GLU
52	aa	1035	VAL
52	aa	1036	ASP
52	aa	1042	LEU
52	aa	1045	SER
52	aa	1048	LEU
52	aa	1059	THR
52	aa	1061	ILE
52	aa	1066	ARG
52	aa	1076	LYS
52	aa	1080	LEU
52	aa	1092	CYS
52	aa	1104	VAL
52	aa	1111	ASP
52	aa	1118	ASP
52	aa	1123	ASP
52	aa	1141	VAL

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Mol	Chain	Res	Type
52	aa	1147	SER
52	aa	1149	HIS
52	aa	1160	LEU
52	aa	1170	LEU
52	aa	1185	VAL
52	aa	1198	SER
52	aa	1200	SER
52	aa	1202	ASN
52	aa	1254	THR
52	aa	1282	VAL
52	aa	1287	LEU
52	aa	1292	SER
52	aa	1314	LEU
52	aa	1317	LEU
52	aa	1323	LEU
52	aa	1324	SER
52	aa	1332	THR
52	aa	1347	ASP
52	aa	1350	VAL
52	aa	1354	VAL
52	aa	1418	VAL
52	aa	1449	GLU
52	aa	1472	TYR
52	aa	1481	ILE
52	aa	1493	CYS
52	aa	1511	ASP
52	aa	1512	THR
52	aa	1513	THR
52	aa	1514	ASN
52	aa	1517	ASN
52	aa	1522	ILE
52	aa	1535	ILE
52	aa	1537	ASP
52	aa	1538	ASN
52	aa	1539	ILE
52	aa	1547	VAL
52	aa	1565	THR
52	aa	1574	SER
52	aa	1577	TYR
52	aa	1584	GLU
52	aa	1585	VAL
52	aa	1589	SER

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Mol	Chain	Res	Type
52	aa	1628	VAL
52	aa	1638	THR
52	aa	1643	SER
52	aa	1654	ASP
52	aa	1685	PHE
53	k	14	PHE
53	k	20	GLN
53	k	23	VAL
53	k	34	THR
53	k	36	ASN
53	k	40	ARG
53	k	48	ARG
53	k	67	LEU
53	k	70	ARG
53	k	73	ARG
53	k	78	TYR
53	k	93	ASP
53	k	99	VAL
53	k	106	THR
53	k	113	HIS
53	k	115	VAL
53	k	123	ARG
53	k	125	SER
53	k	136	ASP
53	k	152	LYS
53	k	154	SER
53	k	157	LYS
53	k	158	HIS
53	k	163	SER
53	k	164	ILE
53	k	166	GLU
53	k	176	LYS
53	k	189	TYR
53	k	195	ILE
53	k	199	ASN
54	be	1	MET
54	be	4	LEU
54	be	11	PHE
54	be	41	ILE
54	be	53	ILE
54	be	58	PHE
54	be	62	ILE

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Mol	Chain	Res	Type
54	be	63	ILE
54	be	68	PHE
54	be	71	LEU
55	as	16	ASN
55	as	24	SER
55	as	35	HIS
55	as	43	HIS
55	as	62	HIS
55	as	90	ASP
55	as	97	THR
55	as	112	ARG
55	as	115	SER
55	as	120	VAL
55	as	124	ARG
55	as	184	GLN
55	as	185	LEU
55	as	202	ASN
55	as	204	THR
55	as	209	TRP
55	as	210	GLU
55	as	222	VAL
55	as	223	THR
55	as	225	LEU
55	as	236	MET
55	as	238	LEU
55	as	245	VAL
55	as	246	PRO
55	as	249	SER
55	as	259	HIS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (470) such sidechains are listed below:

Mol	Chain	Res	Type
1	u	97	GLN
1	u	135	ASN
1	u	137	GLN
1	u	147	GLN
1	u	149	GLN
1	u	307	GLN
1	u	333	ASN
1	u	358	GLN
1	u	359	GLN

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Mol	Chain	Res	Type
1	u	367	ASN
1	u	401	HIS
1	u	539	ASN
1	u	559	GLN
1	u	566	GLN
1	u	608	HIS
1	u	695	GLN
2	s	13	HIS
2	s	29	GLN
2	s	42	GLN
2	s	96	ASN
2	s	112	ASN
2	s	143	GLN
3	r	75	ASN
3	r	87	GLN
3	r	99	GLN
3	r	127	HIS
3	r	161	GLN
3	r	184	HIS
3	r	215	ASN
3	r	296	HIS
3	r	323	GLN
3	r	400	GLN
3	r	432	HIS
3	r	449	ASN
3	r	453	GLN
3	r	458	HIS
4	n	65	ASN
4	n	88	ASN
4	n	160	GLN
5	h	23	HIS
5	h	42	HIS
5	h	133	HIS
5	h	153	ASN
6	e	81	HIS
6	e	82	HIS
6	e	133	GLN
6	e	150	ASN
6	e	172	HIS
6	e	238	HIS
6	e	338	ASN
6	e	410	GLN

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Mol	Chain	Res	Type
6	e	428	GLN
6	e	434	HIS
6	e	440	ASN
6	e	452	HIS
6	e	462	HIS
6	e	463	HIS
6	e	478	ASN
6	e	496	GLN
6	e	573	ASN
6	e	630	GLN
6	e	675	GLN
6	e	709	HIS
6	e	712	HIS
6	e	745	HIS
6	e	792	HIS
6	e	806	HIS
7	az	90	GLN
7	az	104	HIS
7	az	144	HIS
7	az	147	ASN
8	ay	92	HIS
8	ay	160	ASN
8	ay	194	ASN
9	ax	120	HIS
9	ax	153	HIS
10	aw	39	HIS
10	aw	43	HIS
10	aw	51	HIS
10	aw	86	GLN
11	au	53	GLN
11	au	56	HIS
11	au	63	HIS
11	au	82	HIS
11	au	139	HIS
11	au	140	ASN
11	au	158	HIS
11	au	247	GLN
12	ak	150	ASN
12	ak	170	GLN
12	ak	179	HIS
12	ak	248	ASN
12	ak	257	GLN

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Mol	Chain	Res	Type
13	aj	16	ASN
13	aj	33	ASN
13	aj	106	ASN
13	aj	190	ASN
13	aj	199	GLN
13	aj	227	GLN
13	aj	314	GLN
14	ag	29	GLN
14	ag	152	GLN
14	ag	223	HIS
14	ag	343	ASN
14	ag	385	HIS
14	ag	400	GLN
14	ag	434	GLN
14	ag	439	GLN
14	ag	459	GLN
14	ag	500	ASN
14	ag	509	HIS
14	ag	514	ASN
15	af	24	ASN
15	af	26	ASN
15	af	40	HIS
15	af	71	ASN
15	af	216	HIS
15	af	240	HIS
15	af	298	HIS
15	af	529	GLN
15	af	675	GLN
16	ae	62	ASN
16	ae	78	ASN
16	ae	115	HIS
16	ae	123	HIS
16	ae	128	HIS
16	ae	140	HIS
16	ae	187	ASN
16	ae	213	HIS
16	ae	257	ASN
16	ae	271	HIS
16	ae	449	ASN
16	ae	549	HIS
16	ae	572	GLN
16	ae	575	HIS

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Mol	Chain	Res	Type
17	l	49	HIS
17	l	73	ASN
17	l	194	HIS
17	l	279	HIS
17	l	395	ASN
17	l	459	GLN
17	l	465	GLN
17	l	477	GLN
17	l	488	ASN
17	l	605	GLN
17	l	639	ASN
18	ac	85	HIS
18	ac	155	HIS
18	ac	207	ASN
18	ac	210	GLN
18	ac	247	HIS
18	ac	268	GLN
18	ac	269	GLN
18	ac	308	HIS
18	ac	338	GLN
18	ac	388	HIS
18	ac	399	HIS
18	ac	451	ASN
18	ac	456	GLN
18	ac	482	HIS
18	ac	534	GLN
18	ac	576	ASN
18	ac	577	HIS
18	ac	659	GLN
18	ac	736	GLN
18	ac	820	GLN
18	ac	879	ASN
18	ac	899	GLN
18	ac	913	HIS
18	ac	958	HIS
18	ac	988	ASN
18	ac	1039	ASN
18	ac	1054	GLN
18	ac	1123	GLN
19	ab	87	HIS
19	ab	106	ASN
19	ab	173	HIS

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Mol	Chain	Res	Type
19	ab	181	ASN
19	ab	232	HIS
19	ab	242	HIS
19	ab	249	ASN
19	ab	310	GLN
19	ab	334	ASN
19	ab	383	GLN
19	ab	420	HIS
19	ab	435	HIS
19	ab	438	ASN
19	ab	464	HIS
19	ab	504	ASN
19	ab	535	HIS
19	ab	545	HIS
19	ab	556	GLN
19	ab	637	ASN
19	ab	645	ASN
19	ab	655	ASN
19	ab	664	ASN
19	ab	701	GLN
19	ab	727	HIS
19	ab	731	GLN
19	ab	821	ASN
19	ab	822	HIS
19	ab	834	ASN
19	ab	877	HIS
19	ab	902	GLN
19	ab	906	ASN
19	ab	938	HIS
19	ab	1023	HIS
19	ab	1045	GLN
19	ab	1060	ASN
19	ab	1070	ASN
19	ab	1088	ASN
19	ab	1118	HIS
19	ab	1174	GLN
20	ad	59	ASN
20	ad	61	GLN
20	ad	137	HIS
20	ad	144	ASN
20	ad	160	HIS
20	ad	171	ASN

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Mol	Chain	Res	Type
20	ad	176	HIS
20	ad	204	GLN
20	ad	233	ASN
20	ad	300	GLN
20	ad	342	GLN
20	ad	353	HIS
20	ad	354	HIS
20	ad	402	GLN
20	ad	447	GLN
20	ad	450	HIS
20	ad	502	ASN
20	ad	505	GLN
20	ad	561	HIS
20	ad	658	GLN
20	ad	705	GLN
20	ad	801	GLN
21	m	28	ASN
21	m	39	HIS
21	m	65	GLN
21	m	128	ASN
21	m	151	ASN
21	m	207	HIS
21	m	211	ASN
22	i	92	GLN
22	i	100	HIS
22	i	129	GLN
22	i	237	ASN
22	i	284	GLN
22	i	356	GLN
23	f	106	GLN
23	f	155	GLN
23	f	241	ASN
23	f	288	GLN
23	f	299	ASN
23	f	315	ASN
24	c	59	GLN
24	c	61	ASN
24	c	128	ASN
24	c	160	HIS
24	c	270	GLN
25	d	21	ASN
25	d	84	HIS

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Mol	Chain	Res	Type
25	d	89	HIS
25	d	106	ASN
25	d	172	GLN
25	d	176	GLN
25	d	206	ASN
25	d	210	HIS
27	av	72	HIS
27	av	82	GLN
27	av	108	HIS
27	av	164	HIS
27	av	210	GLN
27	av	229	ASN
28	at	58	ASN
28	at	64	GLN
28	at	84	GLN
28	at	91	HIS
28	at	116	HIS
28	at	201	HIS
28	at	219	ASN
29	ar	22	HIS
29	ar	103	HIS
30	aq	28	ASN
30	aq	40	HIS
30	aq	48	GLN
30	aq	67	GLN
30	aq	116	HIS
30	aq	133	GLN
30	aq	143	ASN
30	aq	194	GLN
31	ap	200	GLN
32	ao	55	GLN
32	ao	224	HIS
32	ao	225	ASN
32	ao	228	ASN
32	ao	256	ASN
32	ao	262	HIS
33	ai	85	GLN
33	ai	86	GLN
33	ai	125	ASN
33	ai	178	GLN
33	ai	323	GLN
33	ai	376	ASN

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Mol	Chain	Res	Type
34	an	19	HIS
34	an	27	GLN
34	an	87	GLN
34	an	112	ASN
34	an	150	HIS
35	z	55	ASN
35	z	83	HIS
35	z	98	GLN
35	z	116	ASN
35	z	153	HIS
35	z	185	GLN
35	z	201	HIS
35	z	210	ASN
35	z	277	HIS
35	z	308	HIS
35	z	344	GLN
35	z	490	HIS
35	z	544	ASN
35	z	605	GLN
35	z	606	HIS
35	z	627	HIS
35	z	639	GLN
35	z	655	HIS
35	z	743	GLN
35	z	770	ASN
35	z	784	GLN
35	z	841	HIS
35	z	880	ASN
35	z	917	GLN
35	z	925	HIS
35	z	971	HIS
35	z	974	GLN
35	z	975	ASN
35	z	984	HIS
35	z	1005	ASN
35	z	1107	HIS
36	y	55	HIS
36	y	60	ASN
36	y	263	GLN
37	x	139	ASN
37	x	171	ASN
37	x	173	HIS

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Mol	Chain	Res	Type
37	x	201	HIS
37	x	207	HIS
37	x	209	ASN
37	x	235	GLN
37	x	260	GLN
37	x	274	GLN
37	x	315	GLN
38	w	10	GLN
38	w	81	ASN
38	w	106	ASN
38	w	131	GLN
38	w	152	HIS
39	v	47	ASN
39	v	92	GLN
39	v	155	HIS
39	v	172	GLN
39	v	180	GLN
39	v	214	ASN
40	bb	180	ASN
42	al	48	GLN
42	al	117	ASN
42	al	126	HIS
42	al	268	HIS
43	q	56	HIS
43	q	72	ASN
43	q	113	GLN
43	q	119	HIS
43	q	127	HIS
43	q	143	GLN
43	q	178	ASN
43	q	208	HIS
44	p	67	GLN
44	p	75	ASN
44	p	139	HIS
44	p	191	HIS
45	Ca	63	GLN
45	Ca	76	GLN
45	Ca	83	GLN
45	Ca	105	GLN
45	Ca	120	ASN
45	Ca	144	GLN
45	Ca	178	GLN

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Mol	Chain	Res	Type
45	Ca	181	ASN
45	Ca	198	HIS
45	Ca	228	ASN
45	Ca	340	HIS
45	Ca	391	GLN
45	Ca	400	ASN
45	Ca	435	HIS
45	Ca	440	GLN
45	Ca	441	HIS
45	Ca	451	ASN
45	Ca	476	GLN
45	Ca	507	ASN
45	Ca	518	GLN
45	Ca	520	GLN
45	Ca	522	GLN
45	Ca	582	ASN
46	g	16	HIS
46	g	37	HIS
46	g	132	GLN
46	g	182	HIS
48	b	31	ASN
48	b	56	ASN
48	b	156	ASN
49	bd	56	ASN
50	a	108	HIS
50	a	132	HIS
50	a	141	GLN
50	a	218	ASN
50	a	248	GLN
50	a	430	ASN
51	bc	237	HIS
51	bc	334	ASN
51	bc	353	ASN
52	aa	99	HIS
52	aa	104	GLN
52	aa	109	HIS
52	aa	118	ASN
52	aa	167	GLN
52	aa	284	HIS
52	aa	287	HIS
52	aa	296	HIS
52	aa	337	HIS

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Mol	Chain	Res	Type
52	aa	423	GLN
52	aa	464	HIS
52	aa	466	HIS
52	aa	508	GLN
52	aa	574	HIS
52	aa	666	HIS
52	aa	742	GLN
52	aa	906	GLN
52	aa	954	GLN
52	aa	957	HIS
52	aa	1040	GLN
52	aa	1083	HIS
52	aa	1095	ASN
52	aa	1127	HIS
52	aa	1164	GLN
52	aa	1228	ASN
52	aa	1250	ASN
52	aa	1271	GLN
52	aa	1316	HIS
52	aa	1417	HIS
52	aa	1434	GLN
52	aa	1440	ASN
52	aa	1514	ASN
52	aa	1543	HIS
52	aa	1553	HIS
52	aa	1605	HIS
52	aa	1632	ASN
52	aa	1646	GLN
52	aa	1655	ASN
52	aa	1657	GLN
53	k	15	GLN
53	k	33	ASN
53	k	121	ASN
53	k	133	HIS
53	k	149	GLN
53	k	199	ASN
55	as	43	HIS
55	as	75	HIS
55	as	108	GLN
55	as	136	ASN
55	as	184	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
56	2	468/8129 (5%)	249 (53%)	8 (1%)
56	A	142/8129 (1%)	90 (63%)	2 (1%)
All	All	610/16258 (3%)	339 (55%)	10 (1%)

All (339) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
56	A	397	U
56	A	398	U
56	A	399	A
56	A	400	U
56	A	401	A
56	A	402	U
56	A	404	U
56	A	405	A
56	A	408	C
56	A	411	A
56	A	412	U
56	A	413	A
56	A	414	A
56	A	415	U
56	A	416	U
56	A	418	A
56	A	419	U
56	A	421	G
56	A	425	A
56	A	426	A
56	A	427	U
56	A	428	A
56	A	429	U
56	A	430	U
56	A	431	U
56	A	433	U
56	A	436	U
56	A	438	U
56	A	439	U
56	A	442	A
56	A	444	A
56	A	445	C
56	A	446	C
56	A	448	U

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Mol	Chain	Res	Type
56	A	449	G
56	A	450	A
56	A	451	U
56	A	452	A
56	A	455	G
56	A	457	U
56	A	458	U
56	A	459	A
56	A	460	U
56	A	463	A
56	A	464	U
56	A	466	G
56	A	468	A
56	A	469	A
56	A	470	G
56	A	471	U
56	A	472	G
56	A	477	U
56	A	478	A
56	A	479	U
56	A	480	C
56	A	481	A
56	A	482	U
56	A	483	A
56	A	484	A
56	A	485	U
56	A	486	C
56	A	487	A
56	A	489	A
56	A	490	A
56	A	494	A
56	A	497	A
56	A	498	U
56	A	499	U
56	A	500	U
56	A	501	A
56	A	502	U
56	A	504	U
56	A	505	U
56	A	506	A
56	A	509	U
56	A	510	A

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Mol	Chain	Res	Type
56	A	511	U
56	A	512	G
56	A	513	U
56	A	514	A
56	A	515	U
56	A	516	G
56	A	517	U
56	A	519	U
56	A	520	A
56	A	528	U
56	A	530	A
56	A	532	A
56	A	535	U
56	A	536	U
56	2	2	A
56	2	3	A
56	2	4	A
56	2	5	U
56	2	6	U
56	2	8	U
56	2	10	G
56	2	11	U
56	2	16	U
56	2	18	U
56	2	19	U
56	2	20	A
56	2	21	G
56	2	25	U
56	2	32	A
56	2	33	A
56	2	36	U
56	2	37	U
56	2	39	U
56	2	41	A
56	2	43	A
56	2	44	U
56	2	46	U
56	2	48	U
56	2	49	U
56	2	51	U
56	2	52	C
56	2	53	A

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Mol	Chain	Res	Type
56	2	55	U
56	2	56	U
56	2	57	U
56	2	58	A
56	2	59	U
56	2	60	A
56	2	64	G
56	2	68	A
56	2	69	U
56	2	70	U
56	2	72	U
56	2	73	U
56	2	74	G
56	2	75	A
56	2	77	A
56	2	78	G
56	2	79	A
56	2	80	U
56	2	83	U
56	2	84	U
56	2	85	U
56	2	86	G
56	2	87	U
56	2	88	A
56	2	89	U
56	2	91	A
56	2	95	U
56	2	97	U
56	2	98	A
56	2	99	G
56	2	100	G
56	2	101	A
56	2	105	G
56	2	106	U
56	2	107	U
56	2	108	A
56	2	109	A
56	2	110	U
56	2	111	A
56	2	112	A
56	2	113	U
56	2	114	A

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Mol	Chain	Res	Type
56	2	115	A
56	2	116	U
56	2	117	U
56	2	120	U
56	2	124	U
56	2	135	U
56	2	136	G
56	2	137	U
56	2	138	U
56	2	139	U
56	2	140	U
56	2	149	U
56	2	152	U
56	2	156	U
56	2	159	G
56	2	160	U
56	2	162	U
56	2	166	A
56	2	167	A
56	2	169	A
56	2	170	U
56	2	172	A
56	2	173	A
56	2	174	A
56	2	175	A
56	2	176	A
56	2	177	A
56	2	178	A
56	2	179	U
56	2	181	A
56	2	182	U
56	2	183	U
56	2	185	A
56	2	188	U
56	2	189	A
56	2	193	C
56	2	197	A
56	2	198	A
56	2	199	U
56	2	200	A
56	2	201	A
56	2	202	A

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Mol	Chain	Res	Type
56	2	203	U
56	2	205	A
56	2	207	A
56	2	208	U
56	2	210	A
56	2	211	A
56	2	213	C
56	2	215	A
56	2	217	U
56	2	218	A
56	2	219	G
56	2	221	C
56	2	223	G
56	2	225	A
56	2	228	G
56	2	230	A
56	2	232	G
56	2	236	G
56	2	239	G
56	2	242	G
56	2	245	G
56	2	246	U
56	2	247	A
56	2	248	A
56	2	255	U
56	2	256	G
56	2	259	U
56	2	260	U
56	2	261	U
56	2	262	A
56	2	263	A
56	2	264	A
56	2	270	U
56	2	272	C
56	2	275	U
56	2	276	U
56	2	278	U
56	2	279	C
56	2	280	A
56	2	282	A
56	2	283	U
56	2	284	U

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Mol	Chain	Res	Type
56	2	294	A
56	2	295	G
56	2	296	U
56	2	297	G
56	2	299	U
56	2	300	G
56	2	301	A
56	2	307	C
56	2	309	A
56	2	311	U
56	2	312	A
56	2	313	A
56	2	316	A
56	2	317	U
56	2	320	A
56	2	321	A
56	2	322	A
56	2	323	U
56	2	324	A
56	2	325	A
56	2	326	U
56	2	327	U
56	2	329	U
56	2	330	U
56	2	331	A
56	2	333	U
56	2	334	U
56	2	337	U
56	2	338	U
56	2	340	U
56	2	341	A
56	2	342	A
56	2	350	U
56	2	351	A
56	2	352	G
56	2	356	U
56	2	357	A
56	2	358	U
56	2	359	G
56	2	361	A
56	2	363	A
56	2	364	U

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Mol	Chain	Res	Type
56	2	366	U
56	2	367	A
56	2	368	A
56	2	370	A
56	2	371	U
56	2	374	U
56	2	375	A
56	2	376	G
56	2	378	A
56	2	380	U
56	2	384	A
56	2	385	A
56	2	386	A
56	2	389	A
56	2	390	U
56	2	394	A
56	2	539	A
56	2	540	A
56	2	541	A
56	2	542	G
56	2	544	U
56	2	545	A
56	2	546	U
56	2	547	U
56	2	549	U
56	2	550	U
56	2	555	A
56	2	556	C
56	2	558	A
56	2	560	U
56	2	562	U
56	2	564	U
56	2	565	A
56	2	566	U
56	2	567	A
56	2	568	A
56	2	570	A
56	2	576	A
56	2	580	U
56	2	581	G
56	2	583	A
56	2	585	U

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Mol	Chain	Res	Type
56	2	586	A
56	2	587	A
56	2	588	U
56	2	590	A
56	2	591	A
56	2	600	U
56	2	602	A
56	2	603	A
56	2	609	A
56	2	611	U
56	2	613	U

All (10) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
56	A	512	G
56	A	514	A
56	2	40	U
56	2	87	U
56	2	97	U
56	2	177	A
56	2	200	A
56	2	262	A
56	2	324	A
56	2	366	U

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 7 ligands modelled in this entry, 5 are monoatomic - leaving 2 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The

Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
57	GTP	r	901	58	33,34,34	3.59	17 (51%)	50,54,54	2.15	16 (32%)
59	UTP	aj	401	-	29,30,30	3.08	11 (37%)	43,47,47	1.68	7 (16%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	GTP	r	901	58	-	5/22/38/38	0/3/3/3
59	UTP	aj	401	-	-	3/22/38/38	0/2/2/2

All (28) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	r	901	GTP	C3'-C4'	-9.70	1.28	1.53
59	aj	401	UTP	O4'-C1'	8.26	1.61	1.42
57	r	901	GTP	O4'-C4'	7.41	1.61	1.45
57	r	901	GTP	C4-N3	6.50	1.49	1.34
59	aj	401	UTP	C2'-C1'	-5.91	1.34	1.53
59	aj	401	UTP	O4'-C4'	-5.78	1.32	1.45
57	r	901	GTP	PA-O3A	5.56	1.65	1.59
57	r	901	GTP	C2-N3	5.47	1.46	1.33
57	r	901	GTP	PB-O3B	5.38	1.65	1.59
59	aj	401	UTP	PA-O3A	5.24	1.65	1.59
57	r	901	GTP	PB-O3A	5.12	1.65	1.59
59	aj	401	UTP	PB-O3A	5.09	1.65	1.59
59	aj	401	UTP	PB-O3B	4.91	1.64	1.59
57	r	901	GTP	C2-N2	4.87	1.45	1.34
57	r	901	GTP	O4'-C1'	-4.74	1.31	1.42
59	aj	401	UTP	C5-C4	-3.33	1.36	1.43
57	r	901	GTP	O2'-C2'	-3.25	1.34	1.43
57	r	901	GTP	C5-N7	-3.18	1.32	1.39
57	r	901	GTP	O6-C6	-2.97	1.17	1.23
57	r	901	GTP	C2-N1	2.96	1.44	1.37
59	aj	401	UTP	C4-N3	-2.82	1.33	1.38
59	aj	401	UTP	O3'-C3'	-2.71	1.36	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	r	901	GTP	C6-N1	2.57	1.43	1.38
59	aj	401	UTP	O2'-C2'	2.54	1.49	1.43
59	aj	401	UTP	O4-C4	-2.53	1.19	1.24
57	r	901	GTP	C4-N9	-2.46	1.31	1.38
57	r	901	GTP	O3'-C3'	2.34	1.48	1.43
57	r	901	GTP	C5-C6	2.03	1.52	1.44

All (23) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	aj	401	UTP	C4-N3-C2	-5.64	119.61	126.61
57	r	901	GTP	C1'-N9-C4	-5.03	111.64	126.49
57	r	901	GTP	C2'-C1'-N9	-4.81	99.85	113.25
59	aj	401	UTP	N3-C2-N1	4.55	120.81	114.89
57	r	901	GTP	C5-C4-N3	-4.53	121.18	128.39
57	r	901	GTP	C1'-N9-C8	4.46	139.40	126.73
57	r	901	GTP	C2-N3-C4	4.39	119.86	112.30
57	r	901	GTP	O6-C6-C5	-3.65	116.89	126.53
59	aj	401	UTP	C5-C4-N3	3.45	119.64	114.80
57	r	901	GTP	C2-N1-C6	-3.27	119.19	125.11
57	r	901	GTP	N9-C8-N7	-3.13	107.59	113.40
57	r	901	GTP	C3'-C2'-C1'	-3.10	95.60	101.46
59	aj	401	UTP	O4-C4-C5	-3.00	119.99	125.16
57	r	901	GTP	C5-C6-N1	2.99	120.87	113.25
57	r	901	GTP	O4'-C4'-C3'	-2.91	99.37	105.15
57	r	901	GTP	N9-C4-N3	2.86	131.68	125.95
59	aj	401	UTP	O2-C2-N1	-2.58	119.44	122.80
57	r	901	GTP	C5'-C4'-C3'	-2.53	106.09	115.21
59	aj	401	UTP	O1B-PB-O3B	2.41	113.80	107.27
59	aj	401	UTP	O2A-PA-O5'	2.24	117.73	107.57
57	r	901	GTP	C2'-C3'-C4'	-2.19	98.37	102.61
57	r	901	GTP	N1-C2-N3	-2.06	119.54	123.32
57	r	901	GTP	O3'-C3'-C2'	2.02	118.30	111.82

There are no chirality outliers.

All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	r	901	GTP	C5'-O5'-PA-O1A
57	r	901	GTP	C5'-O5'-PA-O2A
59	aj	401	UTP	O4'-C4'-C5'-O5'
59	aj	401	UTP	C3'-C4'-C5'-O5'

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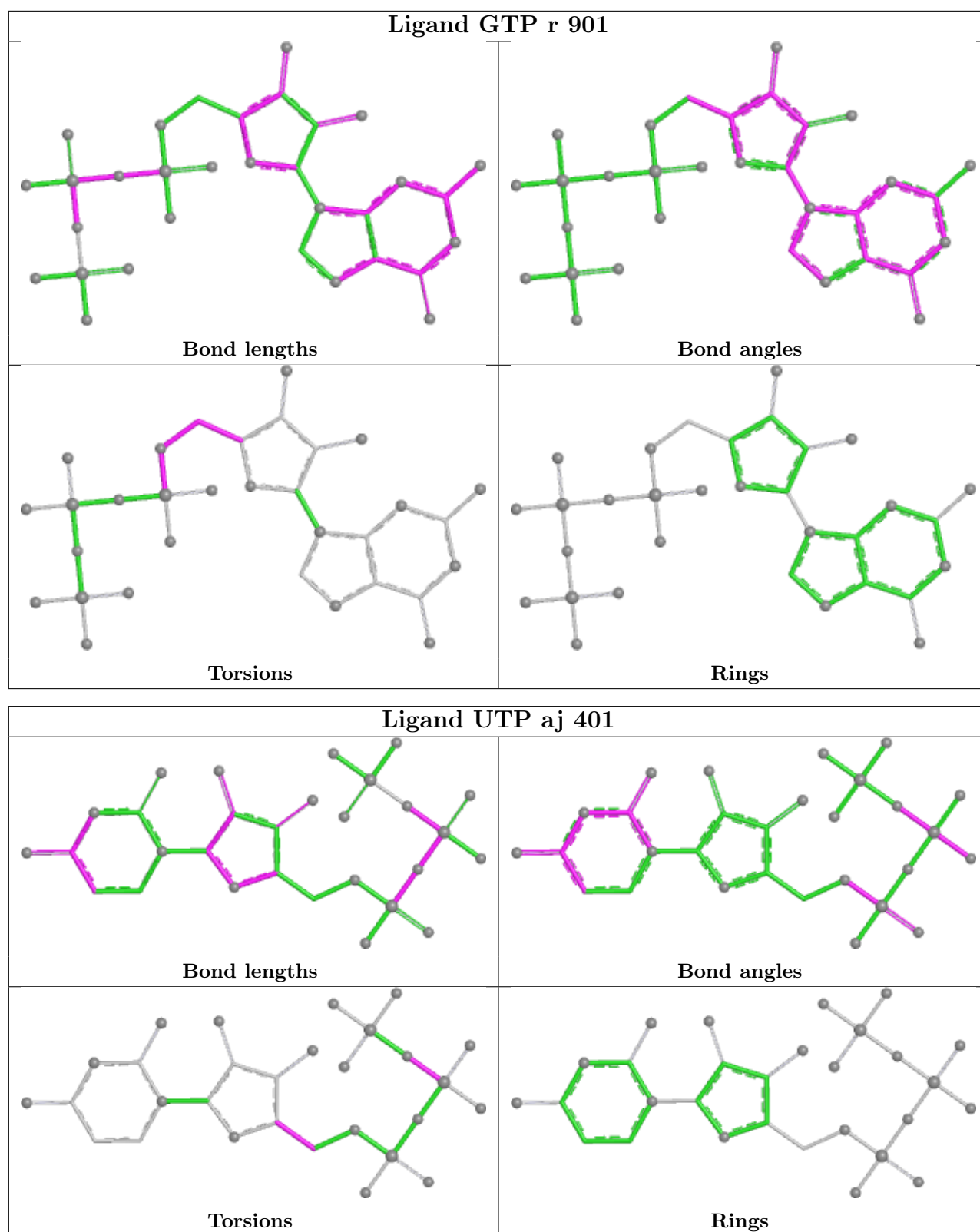
Mol	Chain	Res	Type	Atoms
57	r	901	GTP	C3'-C4'-C5'-O5'
57	r	901	GTP	C5'-O5'-PA-O3A
57	r	901	GTP	C4'-C5'-O5'-PA
59	aj	401	UTP	PG-O3B-PB-O1B

There are no ring outliers.

2 monomers are involved in 18 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	r	901	GTP	10	0
59	aj	401	UTP	8	0

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



5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
6	e	1
21	m	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	e	444:ASP	C	445:GLY	N	1.67
1	m	70:ARG	C	71:PHE	N	1.17

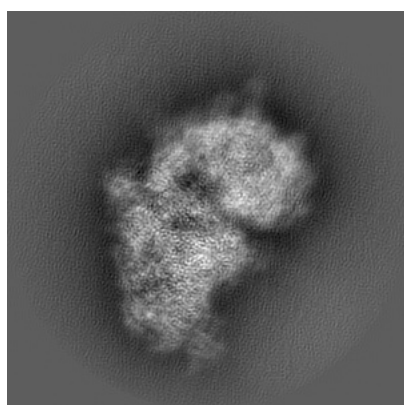
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-11846. These allow visual inspection of the internal detail of the map and identification of artifacts.

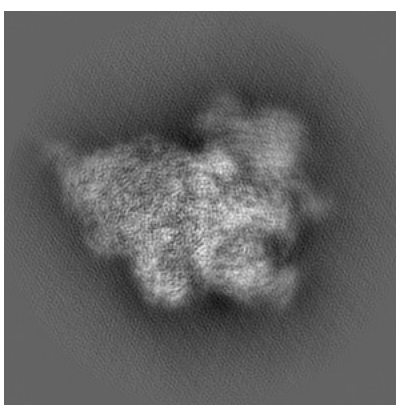
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

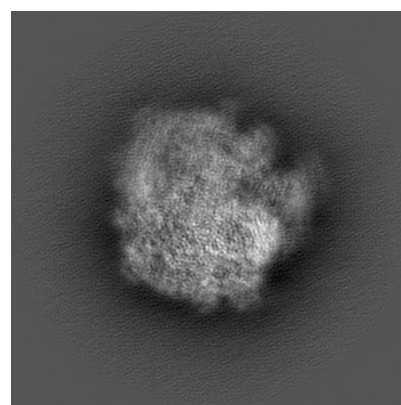
6.1.1 Primary map



X



Y

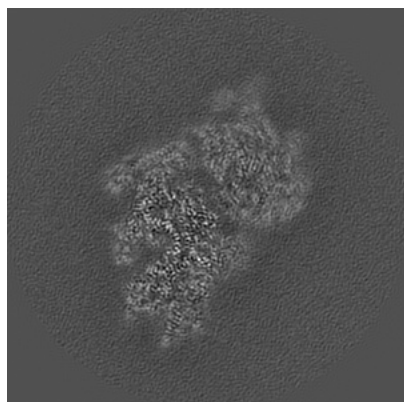


Z

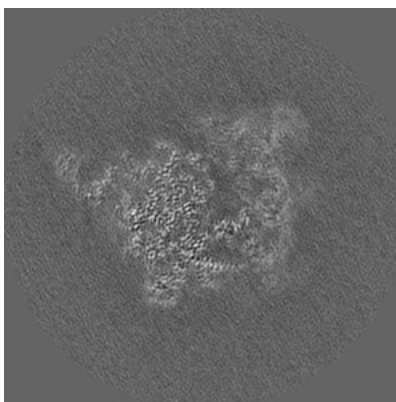
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

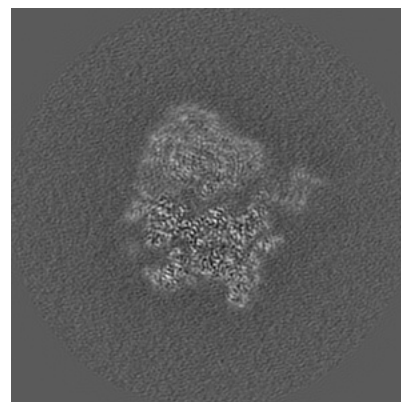
6.2.1 Primary map



X Index: 180



Y Index: 180

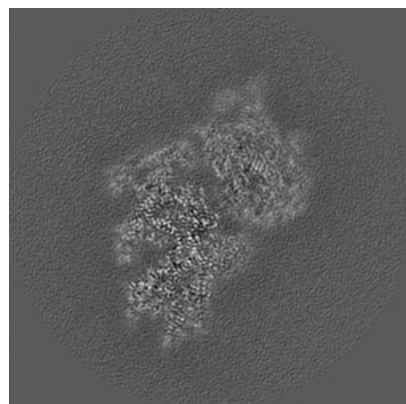


Z Index: 180

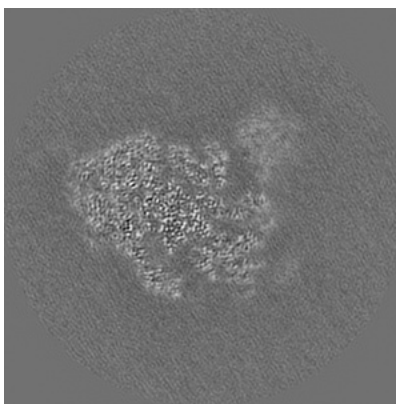
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

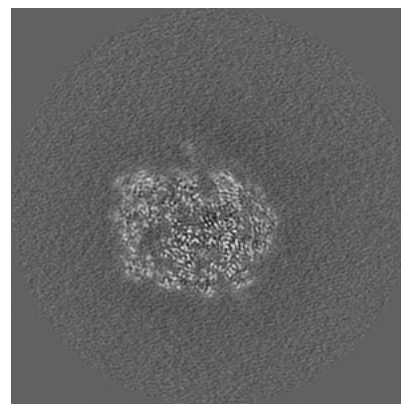
6.3.1 Primary map



X Index: 181



Y Index: 155

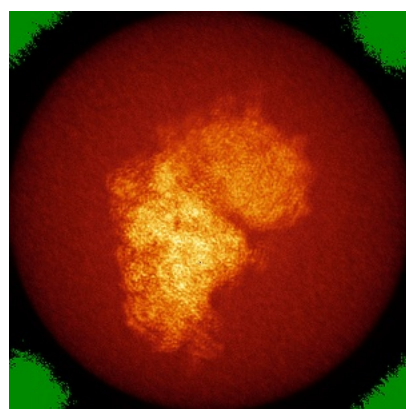


Z Index: 155

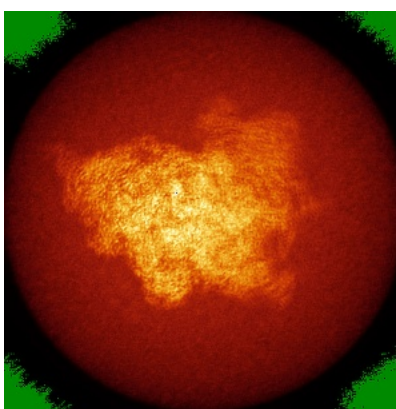
The images above show the largest variance slices of the map in three orthogonal directions.

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

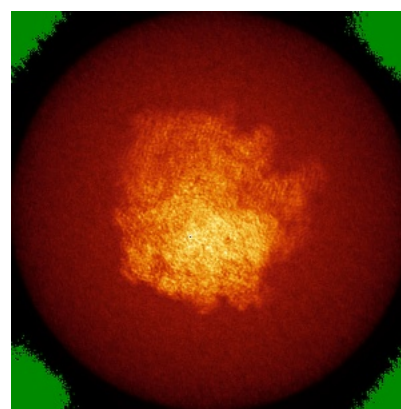
6.4.1 Primary map



X



Y



Z

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

6.5 Orthogonal surface views [i](#)

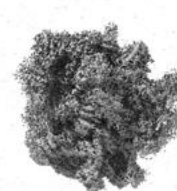
6.5.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.04. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

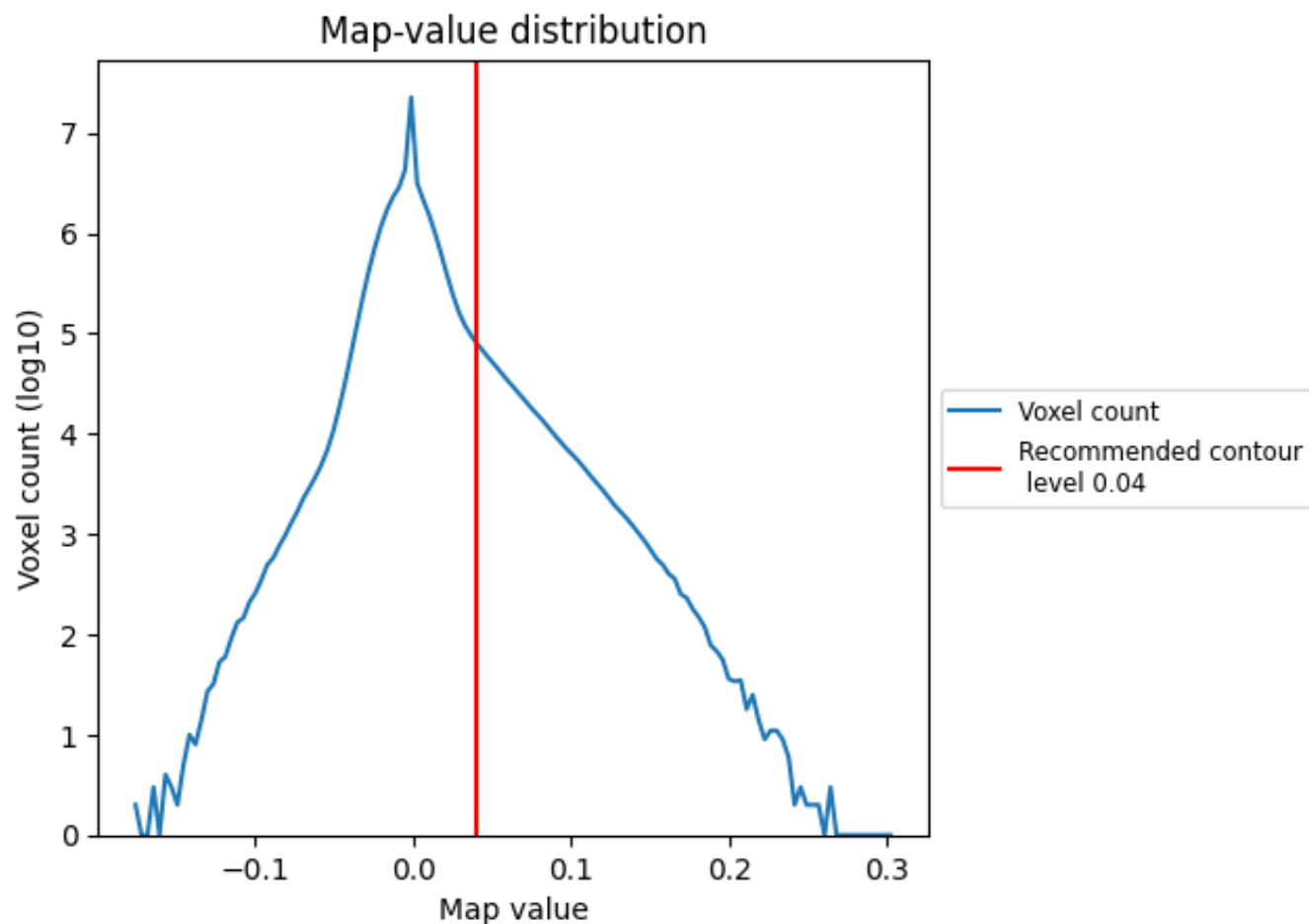
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

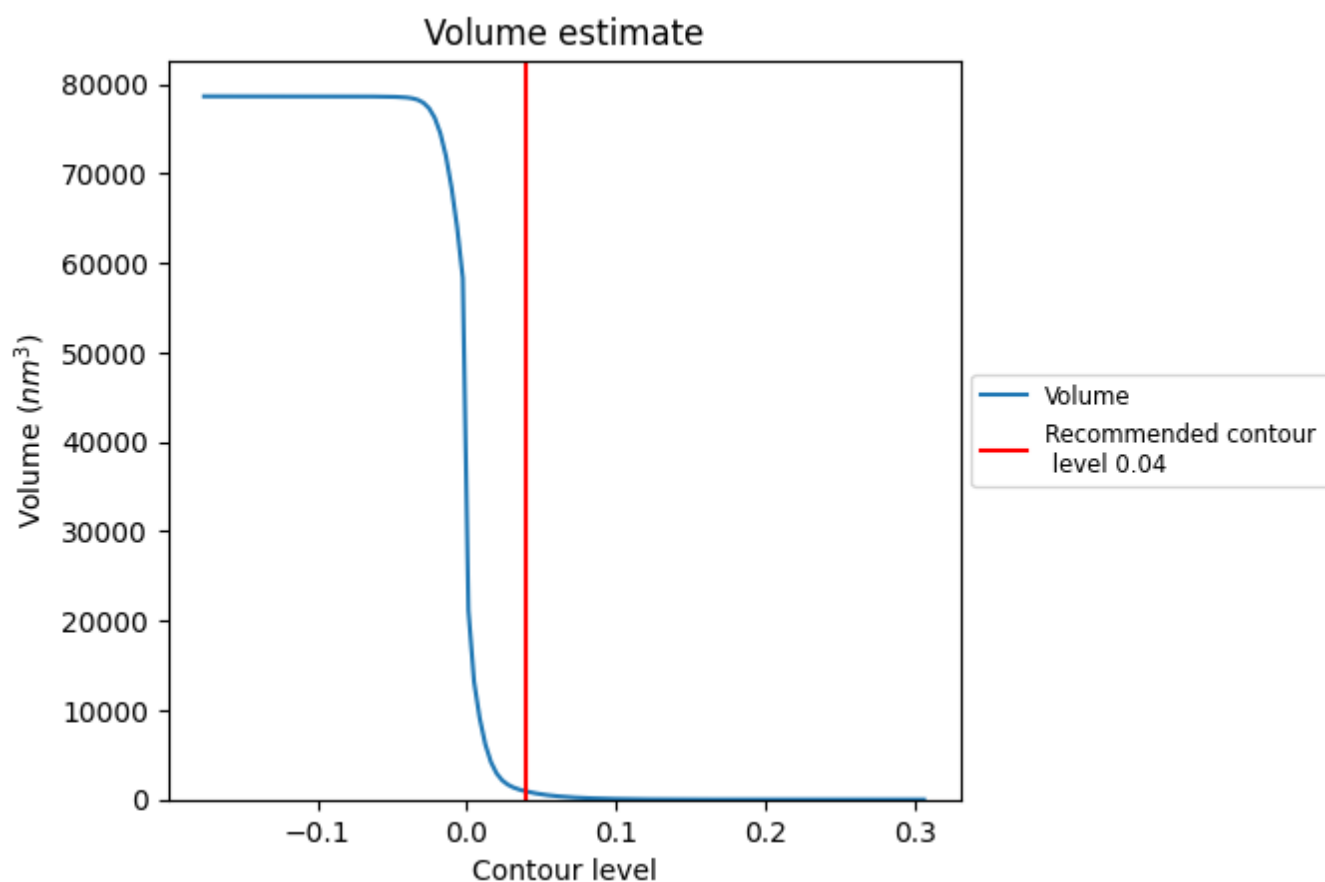
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

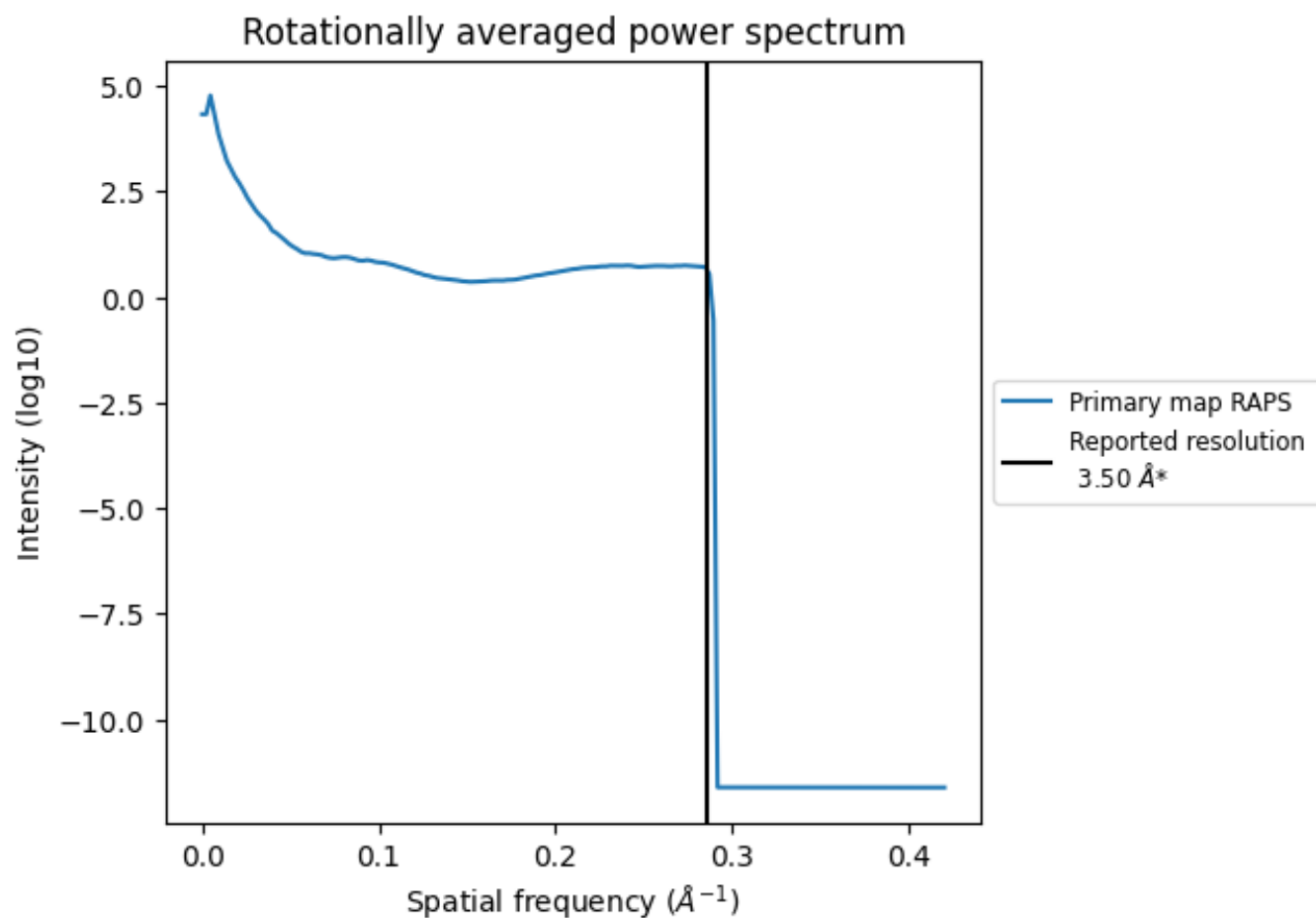
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 906 nm³; this corresponds to an approximate mass of 819 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.286 $\text{\AA}^{-1}$

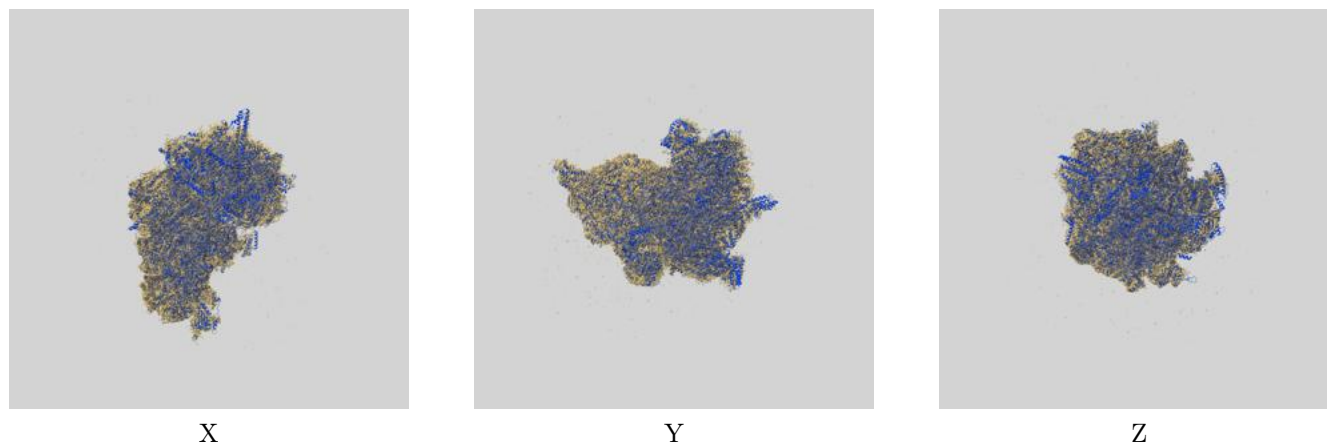
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

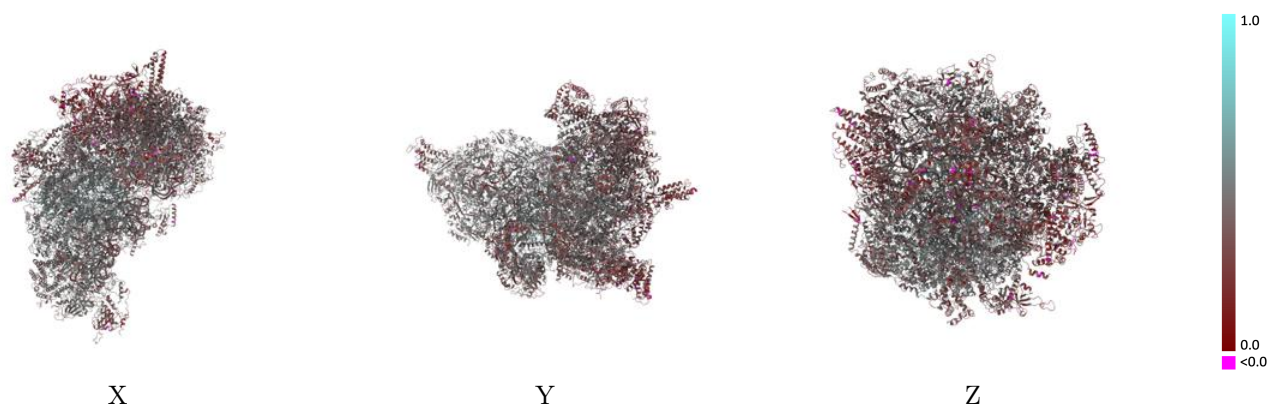
This section contains information regarding the fit between EMDB map EMD-11846 and PDB model 7AOR. Per-residue inclusion information can be found in section [3](#) on page [16](#).

9.1 Map-model overlay [i](#)



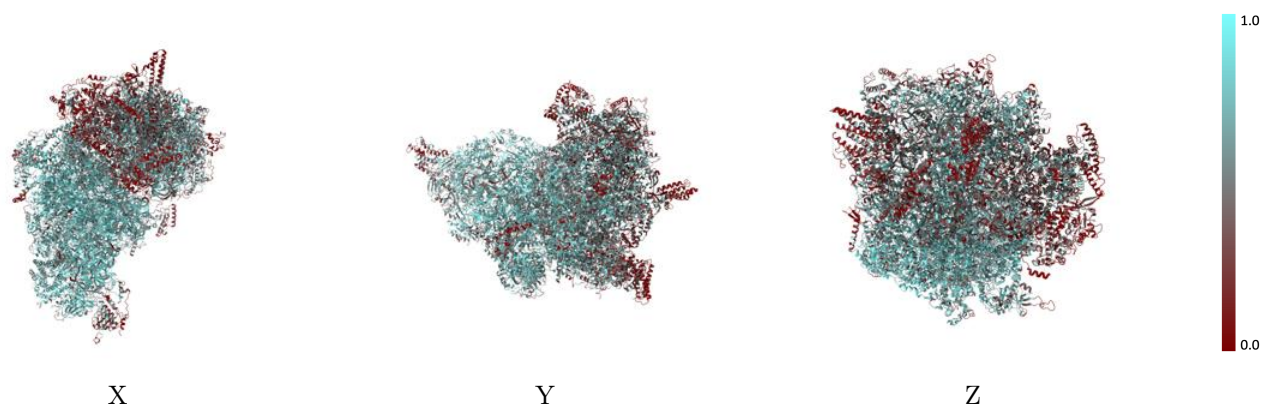
The images above show the 3D surface view of the map at the recommended contour level 0.04 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



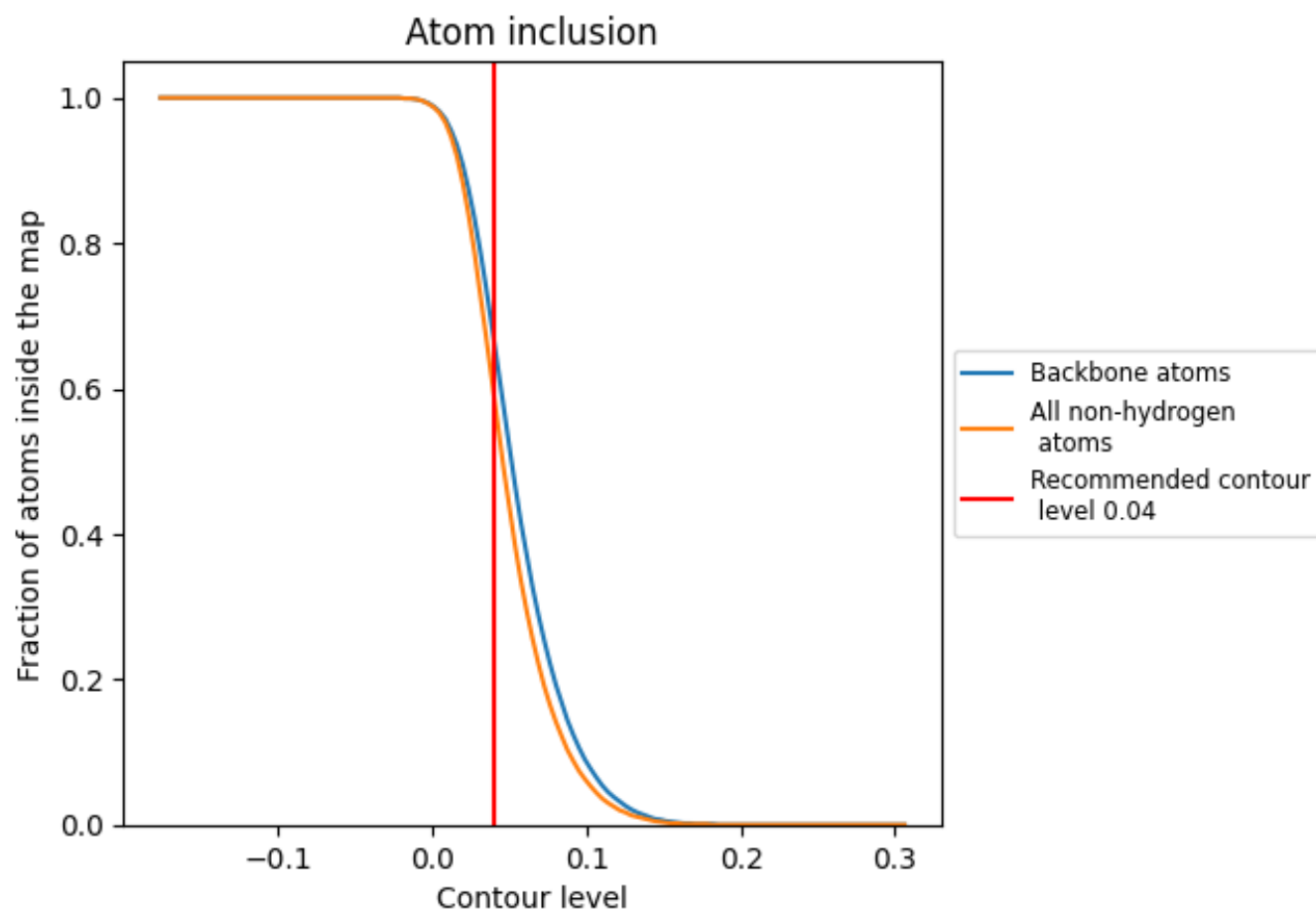
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.04).

9.4 Atom inclusion [i](#)



At the recommended contour level, 67% of all backbone atoms, 59% 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 (0.04) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.5920	 0.4160
2	 0.7410	 0.4140
A	 0.6600	 0.3980
Ca	 0.7420	 0.4910
a	 0.7320	 0.4960
aa	 0.6640	 0.4110
ab	 0.4430	 0.3700
ac	 0.3200	 0.3360
ad	 0.7430	 0.4560
ae	 0.5340	 0.3860
af	 0.3260	 0.3100
ag	 0.4690	 0.4070
ai	 0.7240	 0.4790
aj	 0.5950	 0.4130
ak	 0.4270	 0.3980
al	 0.6320	 0.4760
an	 0.7690	 0.4550
ao	 0.7900	 0.5040
ap	 0.7140	 0.4600
aq	 0.4730	 0.3900
ar	 0.7100	 0.4430
as	 0.6550	 0.4210
at	 0.6870	 0.4310
au	 0.5240	 0.4330
av	 0.5850	 0.4390
aw	 0.4640	 0.4270
ax	 0.5110	 0.3730
ay	 0.5850	 0.3680
az	 0.5990	 0.3830
b	 0.7190	 0.4210
ba	 0.7380	 0.5020
bb	 0.5980	 0.4280
bc	 0.2980	 0.3440
bd	 0.3990	 0.3240
be	 0.6450	 0.4130



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Chain	Atom inclusion	Q-score
c	 0.7270	 0.5110
d	 0.4970	 0.4040
e	 0.5110	 0.4220
f	 0.6000	 0.4110
g	 0.6660	 0.4350
h	 0.6420	 0.4530
i	 0.7040	 0.4490
j	 0.7670	 0.4550
k	 0.7950	 0.4860
l	 0.3250	 0.3050
m	 0.7270	 0.4820
n	 0.5820	 0.4020
p	 0.6470	 0.4570
q	 0.7380	 0.4480
r	 0.4620	 0.3730
s	 0.5790	 0.4350
t	 0.6100	 0.4240
u	 0.3920	 0.3530
v	 0.6630	 0.4600
w	 0.6220	 0.4190
x	 0.6450	 0.4280
y	 0.5930	 0.3770
z	 0.7460	 0.4810