



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 03:26 PM UTC

PDB ID : 9E1D / pdb_00009e1d
EMDB ID : EMD-47390
Title : Structure of RyR1 in the primed state in the presence of enprofylline
Authors : Miotto, M.C.; Marks, A.R.
Deposited on : 2024-10-21
Resolution : 2.76 Å(reported)
Based on initial model : 7TZC

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:

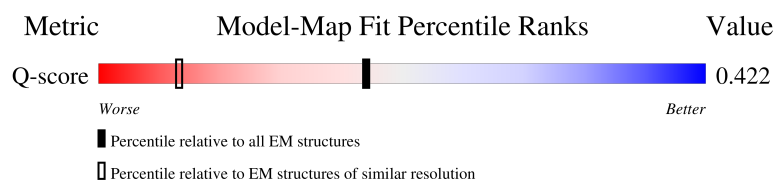
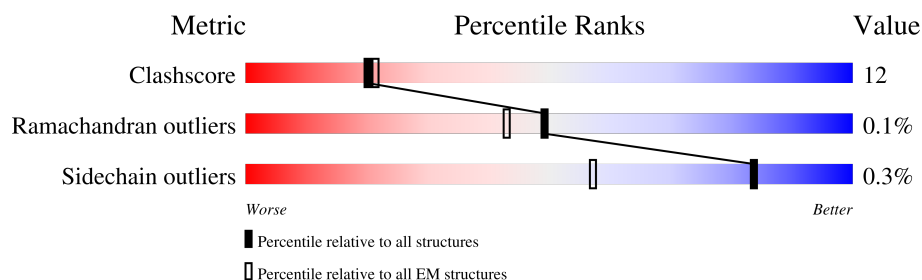
EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data 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 2.76 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.



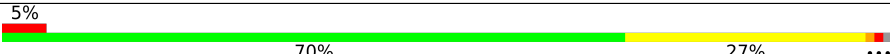
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	10642 (2.26 - 3.26)

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

Mol	Chain	Length	Quality of chain
1	A	5037	20% 65% 22% 13%
1	B	5037	20% 66% 21% 13%
1	C	5037	20% 65% 21% 13%
1	D	5037	20% 65% 21% 13%

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Mol	Chain	Length	Quality of chain
2	E	108	
2	F	108	
2	G	108	
2	H	108	

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
6	A1BD3	A	5304	-	X	-	-
6	A1BD3	B	5304	-	X	-	-
6	A1BD3	C	5304	-	X	-	-
6	A1BD3	D	5304	-	X	-	-

2 Entry composition

There are 6 unique types of molecules in this entry. The entry contains 144112 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.

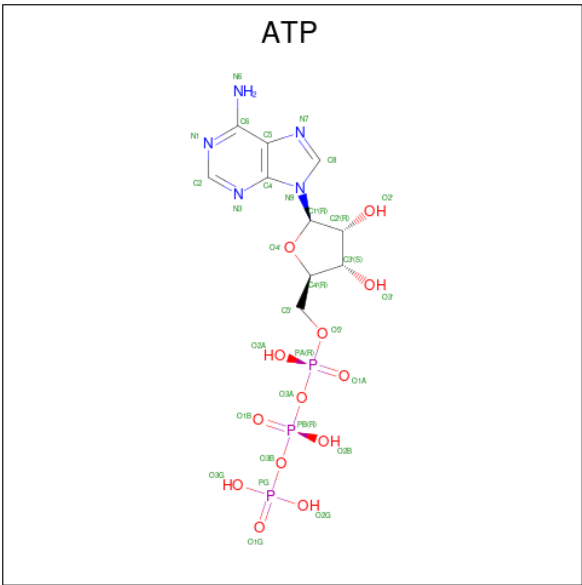
- Molecule 1 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	4404	Total	C	N	O	S	9	0
			35150	22365	6063	6485	237		
1	B	4404	Total	C	N	O	S	9	0
			35150	22365	6063	6485	237		
1	D	4404	Total	C	N	O	S	9	0
			35150	22365	6063	6485	237		
1	C	4404	Total	C	N	O	S	9	0
			35150	22365	6063	6485	237		

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1A.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	E	107	Total	C	N	O	S	0	0
			831	527	146	154	4		
2	H	107	Total	C	N	O	S	0	0
			831	527	146	154	4		
2	G	107	Total	C	N	O	S	0	0
			831	527	146	154	4		
2	F	107	Total	C	N	O	S	0	0
			831	527	146	154	4		

- Molecule 3 is ADENOSINE-5'-TRIPHOSPHATE (CCD ID: ATP) (formula: C₁₀H₁₆N₅O₁₃P₃).



Mol	Chain	Residues	Atoms					AltConf
3	A	1	Total	C	N	O	P	0
			31	10	5	13	3	
3	B	1	Total	C	N	O	P	0
			31	10	5	13	3	
3	D	1	Total	C	N	O	P	0
			31	10	5	13	3	
3	C	1	Total	C	N	O	P	0
			31	10	5	13	3	

- Molecule 4 is CALCIUM ION (CCD ID: CA) (formula: Ca).

Mol	Chain	Residues	Atoms		AltConf
4	A	1	Total	Ca	0
			1	1	
4	B	1	Total	Ca	0
			1	1	
4	D	1	Total	Ca	0
			1	1	
4	C	1	Total	Ca	0
			1	1	

- Molecule 5 is ZINC ION (CCD ID: ZN) (formula: Zn).

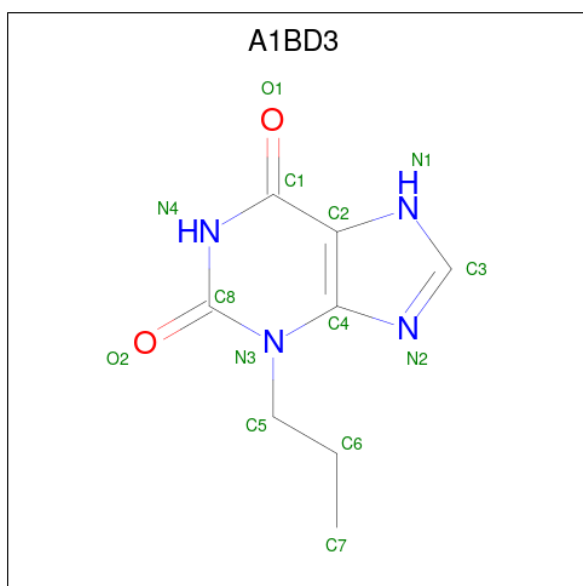
Mol	Chain	Residues	Atoms		AltConf
5	A	1	Total	Zn	0
			1	1	

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Mol	Chain	Residues	Atoms		AltConf
5	B	1	Total	Zn	0
			1	1	
5	D	1	Total	Zn	0
			1	1	
5	C	1	Total	Zn	0
			1	1	

- Molecule 6 is enprofylline (CCD ID: A1BD3) (formula: $C_8H_{10}N_4O_2$) (labeled as "Ligand of Interest" by depositor).

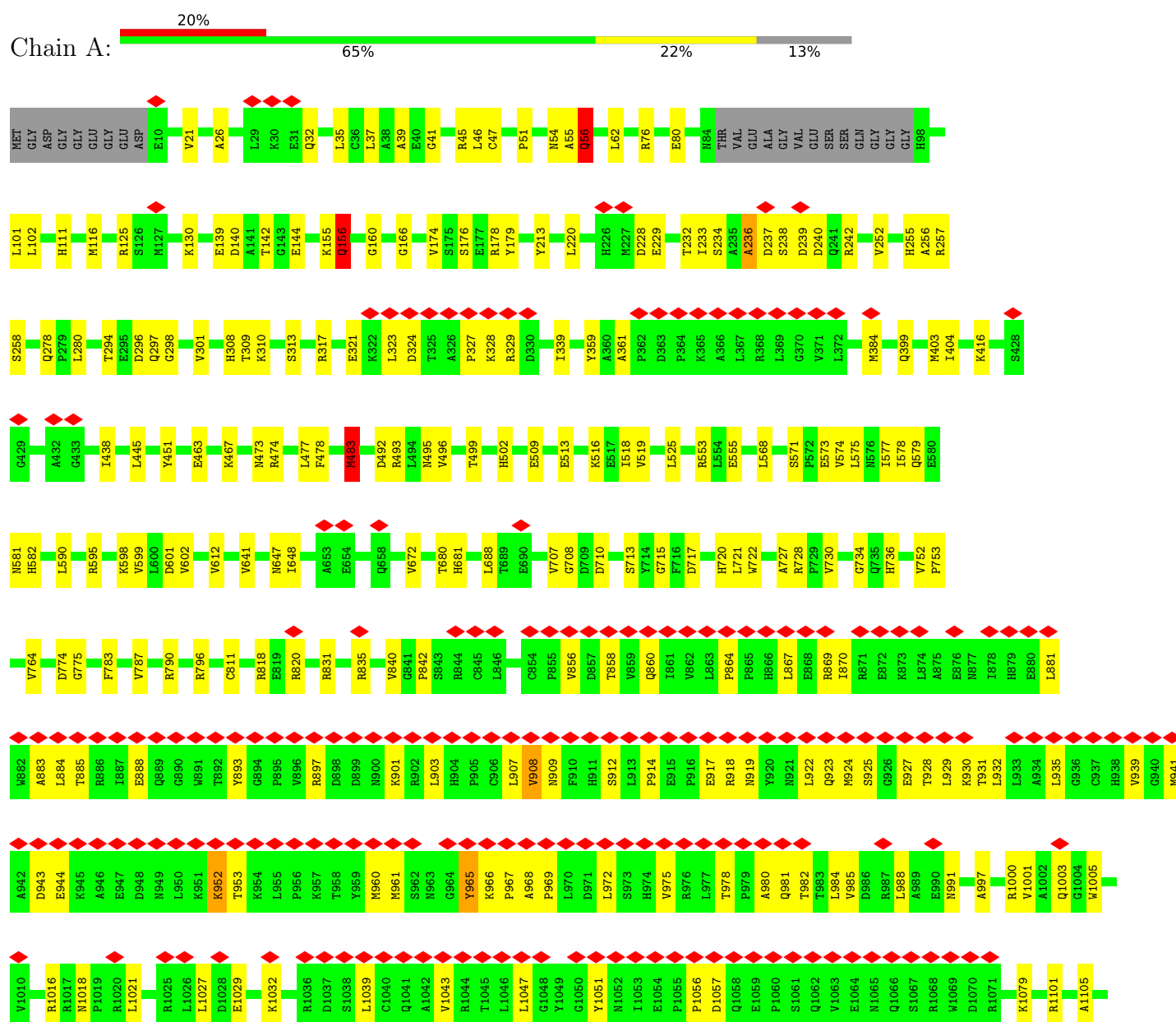


Mol	Chain	Residues	Atoms				AltConf
6	A	1	Total	C	N	O	0
			14	8	4	2	
6	B	1	Total	C	N	O	0
			14	8	4	2	
6	D	1	Total	C	N	O	0
			14	8	4	2	
6	C	1	Total	C	N	O	0
			14	8	4	2	

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.

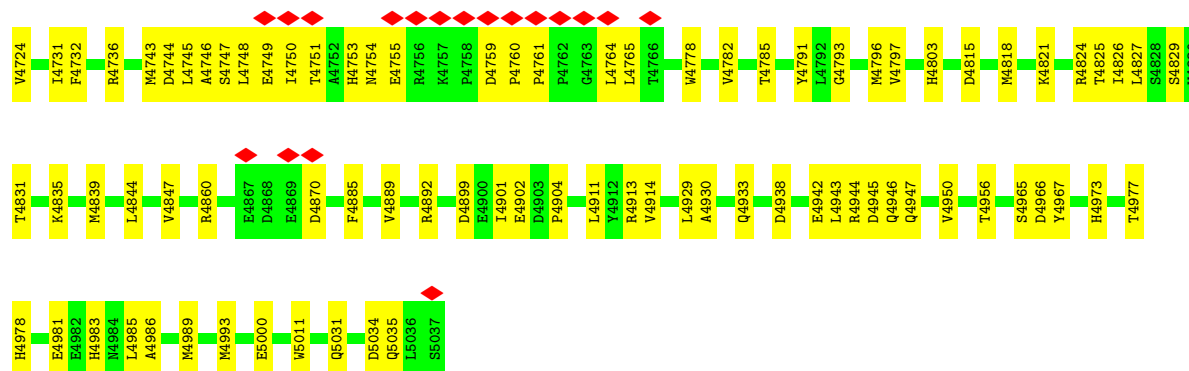
• Molecule 1: Ryanodine receptor 1



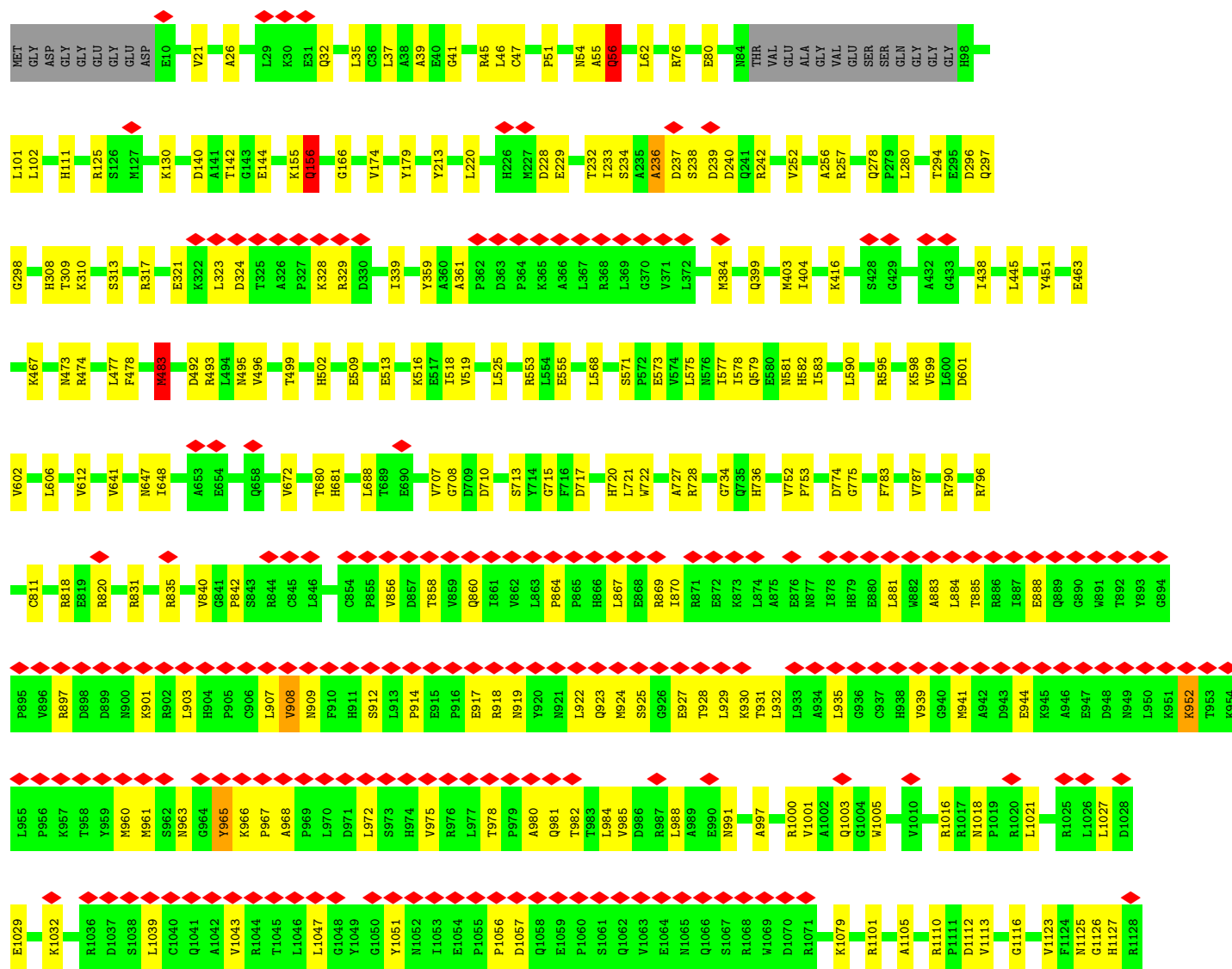
R2452	V2461	P2462	L2463	L2474	Q2475	L2479	G2480	K2481	D2482	G2483	A2484	P2488	K2489	M2490	S2491	A2492	V2495	P2496	D2497	H2498	K2499	V2503	L2504	F2505	R2508	V2509	V2510	E2513	N2514	Q2515	D2516	F2517	L2518	L2519	H2520	V2521	L2522	D2523	V2524	D2529	L2537	T2538	S2542	E2545	N2546	R2552															
R2336	E2348	V2352	F2353	V2354	R2355	L2358	D2359	R2369	G2373	P2390	A2391	F2392	D2393	G2396	V2397	ARG	ARG	ASP	ARG	ARG	ARG	ARG	GLU	HIS	PHE	GLY	GLU	P2410	P2411	E2412	R2413	R2414	R2415	H2416	H2417	L2418	L2430	D2431	G2434	R2435	C2436	A2437	M2440	L2443	Q2444	E2449															
V2229	C2233	R2234	F2235	L2236	C2237	Y2238	Q2245	L2248	M2250	H2253	Y2256	T2263	G2264	L2265	G2266	M2267	Q2268	G2269	S2270	V2275	V2280	N2283	N2284	E2285	L2290	Q2291	E2292	Q2293	D2294	L2295	V2298	S2309	C2310	L2313	L2314	Y2318	L2321	C2326	G2327	R2330	D2333																				
M2120	L2123	Q2127	Y2142	E2150	D2151	T2152	M2153	L2159	L2165	L2166	L2167	Q2173	N2176	L2177	L2182	T2185	M2186	N2196	L2197	N2198	R2199	A2200	L2201	G2202	M2203	T2206	V2207	M2208	M2211	V2212	N2213	L2214	L2215	G2216	G2217	G2218	E2219	T2220	K2221	E2222	L2223	R2224	F2225	P2226	K2227	M2228															
GLU	GLU	PRO	GLU	GLU	GLU	THR	SER	LEU	SER	SER	ARG	LEU	ARG	SER	LEU	LEU	GLU	THR	VAL	ARG	LEU	VAL	LYS	LYS	LYS	GLU	GLU	E2088	K2089	Q2090	Q2091	Q2092	S2093	L2094	L2097	V2098	H2100	M2101	V2111	Q2112	S2113	L2116	V2117	R2118	A2119																
L1943	E1956	A1960	Y1965	L1969	A1982	A1983	F1984	T1985	M1986	S1987	A1988	E1990	T1991	A1992	R1993	A1994	T1995	R1996	E1997	F1998	R1999	P2001	Q2005	M2008	D2014	E2015	E2018	E2019	D2020	C2021	L2022	L2023	D2026	T2027	R2028	L2031	H2035	T2044	Q2045	L2046	GLU	GLU																			
GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU																	
K1753	G1754	G1755	N1756	A1757	R1758	R1759	T1769	S1770	L1771	R1772	P1773	L1786	P1787	A1788	A1789	G1790	V1791	A1792	E1793	A1794	P1795	A1796	E1805	A1806	L1807	D1808	K1809	K1810	A1811	L1812	R1813	M1814	L1815	V1819	R1820	D1821	G1822	G1823	Q1824	H1825	D1828	F1836	I1853	I1866	E1867	P1868	T1872	E1873	E1874	GLU											
GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU													
ALA	D1419	N1420	R1421	D1422	D1423	P1424	E1425	I1426	I1427	L1428	Y1434	Y1435	S1436	A1441	C1447	V1448	T1454	P1455	D1456	D1461	D1465	I1466	S1467	K1468	V1469	R1470	M1476	E1479	Q1480	C1489	C1492	Y1493	M1494	G1497	V1501	S1502	P1503	G1504	Q1505	Q1506	G1507	R1508	S1509	H1511	D1512	D1513															
PRO	GLY	GLY	THR	PRO	GLN	PRO	GLY	VAL	ALA	ALA	GLN	PRO	VAL	VAL	ARG	ALA	GLU	ASN	GLY	LEU	LYS	ASN	ALA	LYS	LYS	ARG	ALA	ALA	LYS	LYS	ALA	ALA	GLN	PRO	PRO	ALA	ALA	LEU	PRO	GLY	LYS	LEU	PRO	GLY	THR	ASP	VAL	LYS	VAL	PRO											
Q1280	N1281	M1286	C1303	T1304	ALA	GLY	ALA	ALA	ALA	THR	PRO	LEU	ALA	PRO	PRO	GLY	LEU	GLY	LEU	LYS	ASN	ALA	LYS	LYS	ARG	ALA	ALA	GLY	GLU	PRO	ASP	LYS	ASP	LYS	ALA	LYS	ASN	LYS	ALA	ARG	ARG	SER	SER	ALA	GLY	TRP	GLY	ALA	GLU	GLY	ARG	LEU	PRO	GLY	GLY	THR	ALA	VAL	LYS	GLY	THR
R1110	F1111	D1112	V1113	G1116	V1123	F1124	N1125	G1126	H1127	R1128	R1131	W1132	W1143	V1149	T1156	E1157	V1168	S1171	D1172	S1173	G1174	S1175	E1176	T1177	A1178	F1179	R1180	E1181	D1186	L1189	P1196	S1210	P1225	I1228	T1236	E1256	T1263	V1264	D1265	R1275																					

A3374	E3375	E3376	E3377	Q3378	L3379	K3380	L3381	E3382	A3383	K3384	A3385	E3386	A3387	E3388	E3389	G3390	E3391	L3392	L3393	V3394	R3395	L3401	C3402	R3403	D3404	L3405	Y3406	A3407	L3408	Y3409	P3410	L3411	L3412	L3413	R3414	R3420	L3434	F3435	R3436	H3437	F3442	W3445	S3446	K3447	S3448	H3449	N3450	F3451	K3452	R3453	E3454	E3455	V3459									
C3304	T3305	A3306	H3311	L3312	L3316	G3317	N3318	I3319	R3320	R3321	L3322	K3323	V3324	N3325	N3326	L3327	G3328	I3329	D3330	E3331	A3332	M3335	K3336	R3337	L3338	A3339	V3340	F3341	A3342	Q3343	P3344	I3345	V3346	S3347	R3350	L3354	H3355	S3356	H3357	F3358	L3359	P3360	T3361	I3362	G3363	R3364	L3365	R3366	K3367	K3368	A3369	V3372	V3373									
E3238	M3239	C3240	P3241	D3242	L3243	V3244	L3246	R3247	L3248	L3249	K3250	A3251	D3252	A3257	E3258	S3259	G3260	A3261	R3262	Y3263	T3264	E3265	M3266	P3267	H3268	V3269	I3270	E3271	L3272	T3273	L3274	P3275	M3276	L3281	P3282	R3283	W3284	W3285	E3286	R3287	G3288	P3289	E3290	A3291	P3292	P3293	P3294	A3295	L3296	P3297	A3298	G3299	A3300	P3301	P3302	P3303						
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E2978	A2979	V2980	V2981	S2982	G2984	R2985	V2986	E2987	K2988	S2989	P2990	H2991	E2992	I2995	F2998	A2999	K3000	I3001	L3002	Y3003	A3004	L3005	I3006	Y3009	F3010	L3015	Y3016	F3017	L3018	S3019	K3082	S3083	G3084	P3085	E3086	I3087	V3088	K3089	L3092	R3093	S3094	F3095	F3096	E3097	S3098	A3099	S3100	L3103	E3104	K3105	M3106	V3107	L3110									
A2913	K2914	E2915	K2916	A2917	D2918	D2919	R2920	E2921	K2922	A2923	Q2924	E2925	L2926	L2927	K2928	F2929	L2930	Q2931	W2932	N2933	G2934	Y2935	A2936	T2937	T2938	R2939	GLY	LEU	LYS	ASP	GLU	L2946	D2947	T2948	S2949	S2950	I2951	E2952	K2953	R2954	G3028	S3027	G3028	G3029	H3030	A3031	S3032	N3033	K3034	E3035	K3036	T3039	L3042	F3043	L3046							
E2669	E2670	E2671	L2672	H2673	L2674	T2675	S2681	M2682	H2684	T2685	V2686	Y2687	W2680	D2684	S2685	L2686	A2687	H2688	K2689	K2690	Y2691	D2692	Y2696	R2697	M2698	A2699	M2700	P2701	C2702	C2703	C2704	A2705	L2706	A2707	L2632	L2633	W2634	E2635	F2636	A2637	K2638	W2639	F2640	L2644	R2650	C2651	Y2655	T2659	G2660	Y2666	T2667	ALA	THR	VAL	ASP	ALA	GLU					
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P2793	Y2794	K2795	T2796	F2797	S2798	E2799	K2800	D2801	K2802	E2803	L2804	Y2805	R2806	W2807	P2808	F2809	K2810	E2811	S2812	L2813	K2814	A2815	M2816	L2817	A2818	W2819	E2820	W2821	T2822	I2823	E2824	K2825	A2826	R2827	E2828	G2829	E2830	GLU	GLU	ARG	THR	GLU	L2894	E2895	L2896	K2897	G2898	G2899	Q2900	T2901	H2902	P2903	L2904	L2905	V2906	P2907	D2908	T2909	L2910	L2911	T2912	
GLU	GLY	T2855	N2856	P2857	Q2858	R2859	P2860	D2861	L2862	S2863	G2864	V2865	L2866	L2867	S2868	R2869	E2870	L2871	Q2872	A2873	M2874	A2875	E2876	Q2877	L2878	A2879	E2880	W2881	Y2882	H2883	N2884	T2885	W2886	G2887	R2888	K2889	K2890	L2891	E2952	K2953	R2954	G3028	S3027	G3028	G3029	H3030	A3031	S3032	N3033	K3034	E3035	K3036	T3039	L3042	F3043	L3046						





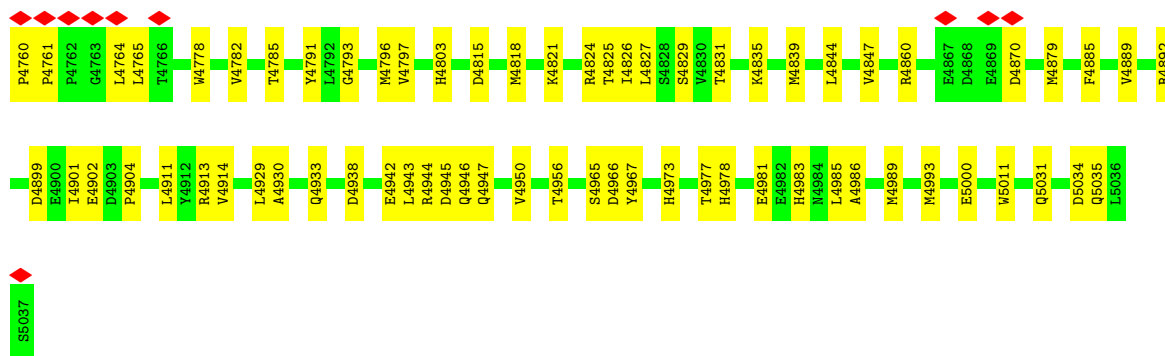
• Molecule 1: Ryanodine receptor 1



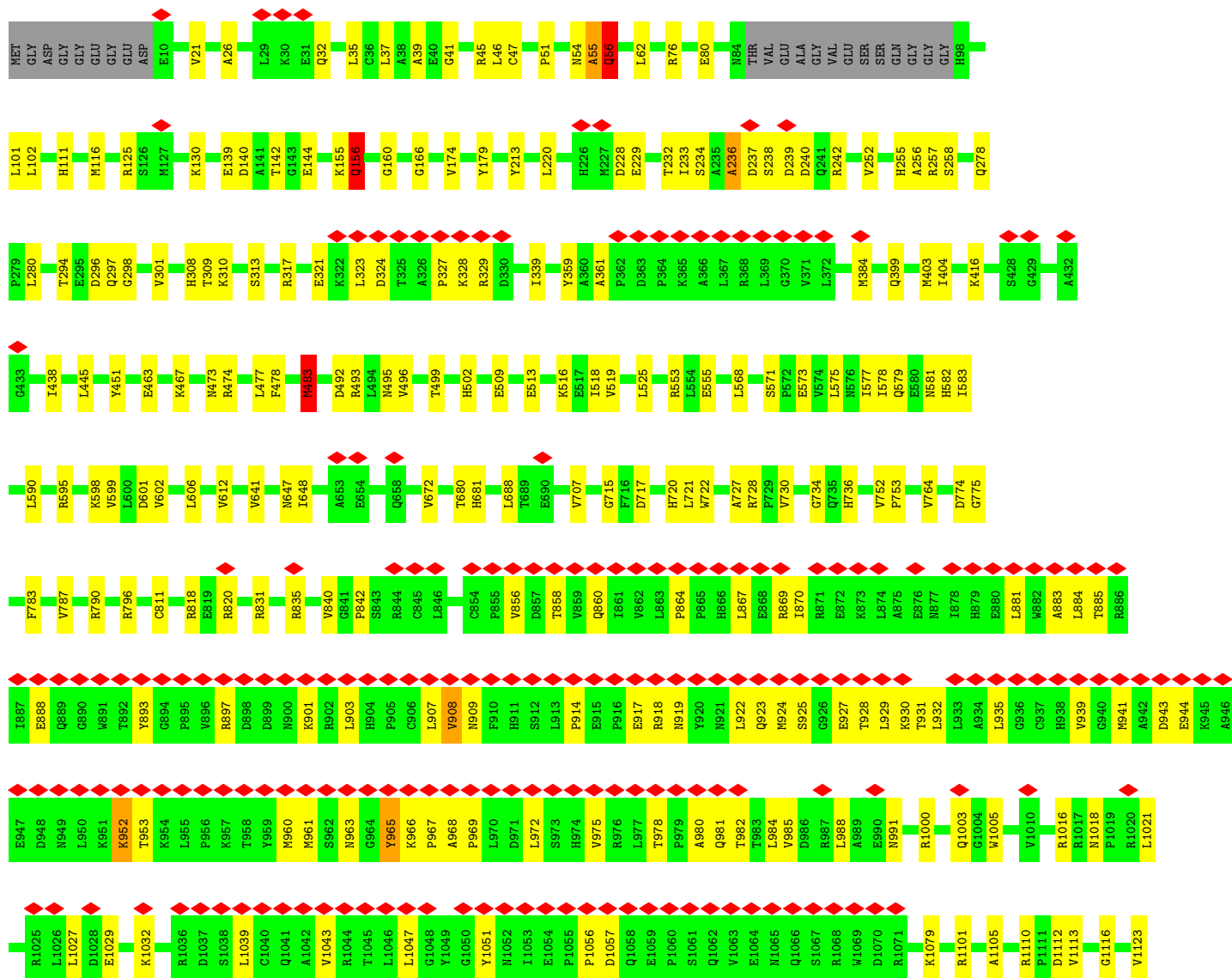








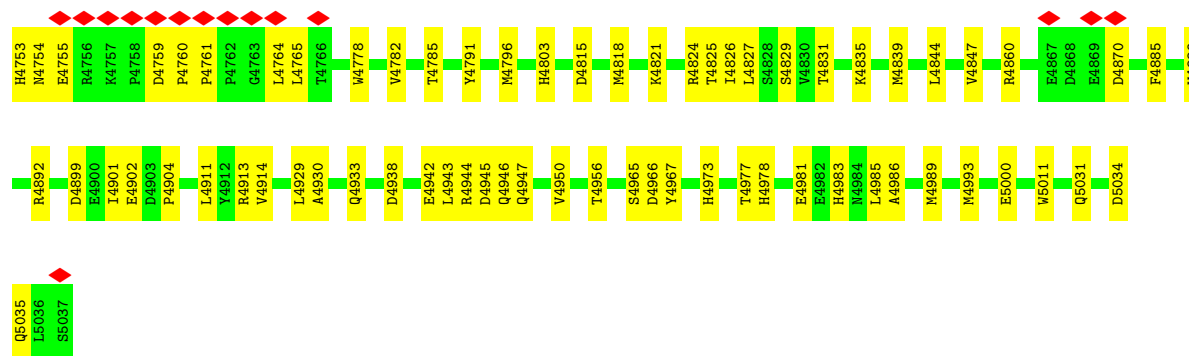
• Molecule 1: Ryanodine receptor 1



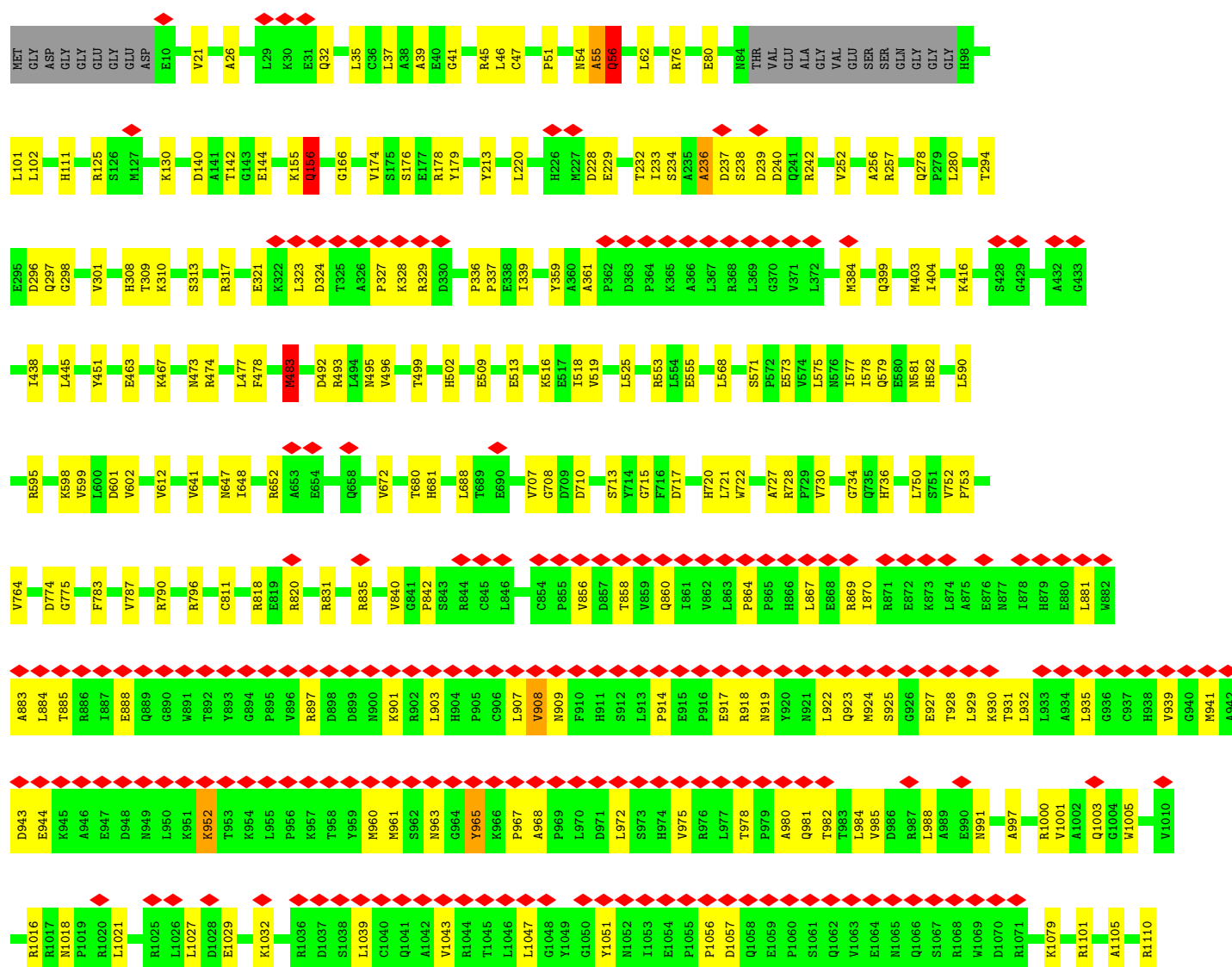








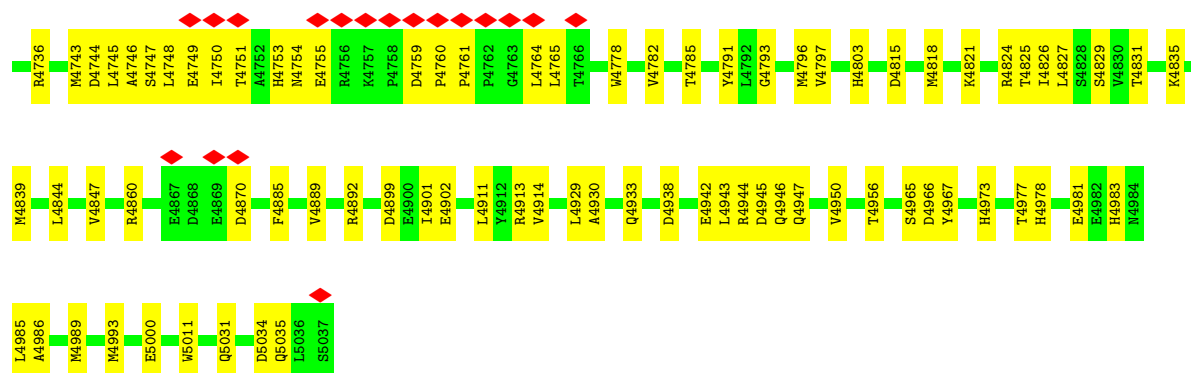
● Molecule 1: Ryanodine receptor 1



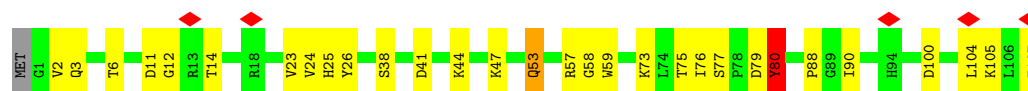




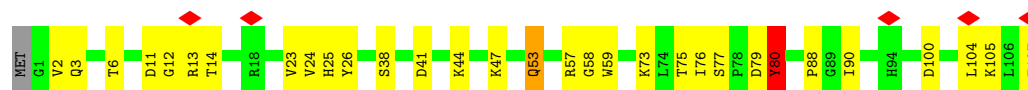




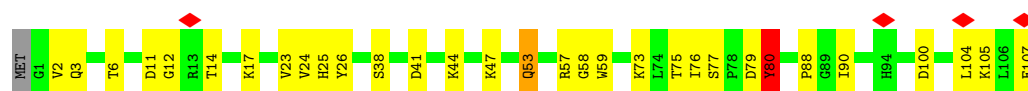
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



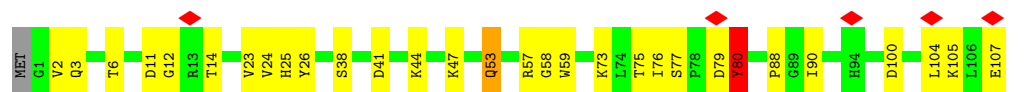
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	94090	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	58	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	1500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.513	Depositor
Minimum map value	-0.205	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.021	Depositor
Recommended contour level	0.1	Depositor
Map size (Å)	427.52, 427.52, 427.52	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.835, 0.835, 0.835	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ATP, A1BD3, CA, ZN

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.37	29/35977 (0.1%)	0.61	57/48726 (0.1%)
1	B	0.37	29/35977 (0.1%)	0.61	57/48726 (0.1%)
1	C	0.37	29/35977 (0.1%)	0.61	57/48726 (0.1%)
1	D	0.37	29/35977 (0.1%)	0.61	57/48726 (0.1%)
2	E	1.03	9/850 (1.1%)	1.42	11/1146 (1.0%)
2	F	1.03	9/850 (1.1%)	1.42	11/1146 (1.0%)
2	G	1.04	9/850 (1.1%)	1.42	11/1146 (1.0%)
2	H	1.03	9/850 (1.1%)	1.42	11/1146 (1.0%)
All	All	0.39	152/147308 (0.1%)	0.64	272/199488 (0.1%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	1	11
1	B	1	11
1	C	1	11
1	D	1	11
2	E	0	1
2	F	0	1
2	G	0	1
2	H	0	1
All	All	4	48

All (152) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	3949	ARG	NE-CZ	-19.60	1.11	1.33
1	B	3949	ARG	NE-CZ	-19.60	1.11	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	3949	ARG	NE-CZ	-19.60	1.11	1.33
1	D	3949	ARG	NE-CZ	-19.59	1.11	1.33
1	D	3321	ARG	CG-CD	-19.16	0.94	1.52
1	A	3321	ARG	CG-CD	-19.14	0.95	1.52
1	C	3321	ARG	CG-CD	-19.14	0.95	1.52
1	B	3321	ARG	CG-CD	-19.12	0.95	1.52
2	G	80	TYR	CG-CD1	-14.40	1.09	1.39
2	E	80	TYR	CG-CD1	-14.38	1.09	1.39
2	H	80	TYR	CG-CD1	-14.37	1.09	1.39
2	F	80	TYR	CG-CD1	-14.34	1.09	1.39
1	A	3321	ARG	NE-CZ	-13.71	1.18	1.33
1	B	3321	ARG	NE-CZ	-13.71	1.18	1.33
1	D	3321	ARG	NE-CZ	-13.71	1.18	1.33
1	C	3321	ARG	NE-CZ	-13.71	1.18	1.33
1	C	3949	ARG	CG-CD	-12.42	1.15	1.52
1	A	3949	ARG	CG-CD	-12.42	1.15	1.52
1	B	3949	ARG	CG-CD	-12.42	1.15	1.52
1	D	3949	ARG	CG-CD	-12.39	1.15	1.52
2	G	80	TYR	CE1-CZ	-12.01	1.09	1.38
2	F	80	TYR	CE1-CZ	-12.01	1.09	1.38
2	H	80	TYR	CE1-CZ	-11.98	1.09	1.38
2	E	80	TYR	CE1-CZ	-11.98	1.09	1.38
1	B	3949	ARG	CB-CG	-11.60	1.17	1.52
1	A	3949	ARG	CB-CG	-11.57	1.17	1.52
1	D	3949	ARG	CB-CG	-11.57	1.17	1.52
1	C	3949	ARG	CB-CG	-11.57	1.17	1.52
2	E	80	TYR	CD2-CE2	10.31	1.69	1.38
2	F	80	TYR	CD2-CE2	10.29	1.69	1.38
2	H	80	TYR	CD2-CE2	10.28	1.69	1.38
2	G	80	TYR	CD2-CE2	10.28	1.69	1.38
1	A	3949	ARG	CD-NE	-10.22	1.31	1.46
1	B	3949	ARG	CD-NE	-10.22	1.31	1.46
1	D	3949	ARG	CD-NE	-10.19	1.31	1.46
1	C	3949	ARG	CD-NE	-10.16	1.32	1.46
1	B	3949	ARG	CZ-NH1	10.16	1.47	1.32
1	A	3949	ARG	CZ-NH1	10.13	1.47	1.32
1	D	3949	ARG	CZ-NH1	10.13	1.47	1.32
1	B	3320	LEU	C-N	10.12	1.48	1.33
1	C	3949	ARG	CZ-NH1	10.10	1.46	1.32
1	A	3320	LEU	C-N	10.08	1.48	1.33
1	D	3320	LEU	C-N	10.06	1.48	1.33
1	C	3320	LEU	C-N	10.06	1.48	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	80	TYR	CG-CD2	-9.79	1.18	1.39
2	F	80	TYR	CG-CD2	-9.78	1.18	1.39
2	H	80	TYR	CG-CD2	-9.76	1.18	1.39
2	G	80	TYR	CG-CD2	-9.76	1.18	1.39
2	E	80	TYR	CE2-CZ	-9.75	1.14	1.38
2	H	80	TYR	CE2-CZ	-9.74	1.14	1.38
2	G	80	TYR	CE2-CZ	-9.74	1.14	1.38
2	F	80	TYR	CE2-CZ	-9.74	1.14	1.38
1	D	2237	CYS	CB-SG	9.14	2.11	1.81
1	A	2237	CYS	CB-SG	9.13	2.11	1.81
1	B	2237	CYS	CB-SG	9.12	2.11	1.81
1	C	2237	CYS	CB-SG	9.12	2.11	1.81
1	A	3321	ARG	CZ-NH1	8.42	1.44	1.32
1	B	3321	ARG	CZ-NH1	8.42	1.44	1.32
1	D	3321	ARG	CZ-NH1	8.42	1.44	1.32
1	C	3321	ARG	CZ-NH1	8.42	1.44	1.32
1	C	1773	PRO	CA-C	-7.96	1.47	1.51
1	B	1773	PRO	CA-C	-7.85	1.47	1.51
1	A	1773	PRO	CA-C	-7.83	1.47	1.51
1	D	1773	PRO	CA-C	-7.83	1.47	1.51
1	B	3949	ARG	CZ-NH2	-7.83	1.23	1.33
1	A	3949	ARG	CZ-NH2	-7.79	1.23	1.33
1	C	3949	ARG	CZ-NH2	-7.79	1.23	1.33
1	A	952	LYS	CD-CE	-7.77	1.29	1.52
1	B	952	LYS	CD-CE	-7.77	1.29	1.52
1	D	952	LYS	CD-CE	-7.77	1.29	1.52
1	C	952	LYS	CD-CE	-7.77	1.29	1.52
1	D	3949	ARG	CZ-NH2	-7.76	1.23	1.33
2	G	53	GLN	CD-NE2	-7.54	1.17	1.33
2	E	53	GLN	CD-NE2	-7.53	1.17	1.33
2	H	53	GLN	CD-NE2	-7.51	1.17	1.33
2	F	53	GLN	CD-NE2	-7.51	1.17	1.33
1	A	2233	CYS	CB-SG	-7.26	1.57	1.81
1	B	2233	CYS	CB-SG	-7.26	1.57	1.81
1	C	2233	CYS	CB-SG	-7.26	1.57	1.81
1	D	2233	CYS	CB-SG	-7.25	1.57	1.81
1	A	3350	ARG	CZ-NH1	-6.34	1.23	1.32
1	D	3350	ARG	CZ-NH1	-6.34	1.23	1.32
1	C	3350	ARG	CZ-NH1	-6.34	1.23	1.32
1	B	3350	ARG	CZ-NH1	-6.32	1.23	1.32
2	G	44	LYS	CG-CD	6.05	1.70	1.52
2	H	44	LYS	CG-CD	6.04	1.70	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	44	LYS	CG-CD	6.03	1.70	1.52
2	E	44	LYS	CG-CD	6.02	1.70	1.52
1	B	56	GLN	CG-CD	-5.99	1.37	1.52
1	D	56	GLN	CG-CD	-5.99	1.37	1.52
1	C	56	GLN	CG-CD	-5.99	1.37	1.52
1	A	56	GLN	CG-CD	-5.98	1.37	1.52
1	A	156	GLN	CD-NE2	-5.97	1.20	1.33
1	B	156	GLN	CD-NE2	-5.97	1.20	1.33
1	C	156	GLN	CD-NE2	-5.97	1.20	1.33
2	F	53	GLN	CG-CD	-5.95	1.37	1.52
2	H	53	GLN	CG-CD	-5.95	1.37	1.52
2	G	53	GLN	CG-CD	-5.95	1.37	1.52
1	D	156	GLN	CD-NE2	-5.95	1.20	1.33
2	E	53	GLN	CG-CD	-5.92	1.37	1.52
1	A	1994	ARG	CZ-NH1	-5.91	1.24	1.32
1	B	1994	ARG	CZ-NH1	-5.91	1.24	1.32
1	D	1994	ARG	CZ-NH1	-5.91	1.24	1.32
1	C	1994	ARG	CZ-NH1	-5.91	1.24	1.32
1	A	3467	MET	CA-C	5.75	1.60	1.52
1	D	3467	MET	CA-C	5.75	1.60	1.52
1	B	3467	MET	CA-C	5.74	1.60	1.52
1	C	3467	MET	CA-C	5.74	1.60	1.52
1	B	3467	MET	CB-CG	-5.64	1.35	1.52
1	A	3467	MET	CB-CG	-5.63	1.35	1.52
1	D	3467	MET	CB-CG	-5.63	1.35	1.52
1	C	3467	MET	CB-CG	-5.63	1.35	1.52
1	A	2173	GLN	CB-CG	-5.61	1.35	1.52
1	D	2173	GLN	CB-CG	-5.61	1.35	1.52
1	C	2173	GLN	CB-CG	-5.61	1.35	1.52
1	B	2173	GLN	CB-CG	-5.60	1.35	1.52
1	B	3350	ARG	CG-CD	-5.60	1.35	1.52
1	C	3350	ARG	CG-CD	-5.60	1.35	1.52
1	A	3350	ARG	CG-CD	-5.59	1.35	1.52
1	D	3350	ARG	CG-CD	-5.59	1.35	1.52
1	A	1421	ARG	NE-CZ	-5.54	1.26	1.33
1	B	1421	ARG	NE-CZ	-5.54	1.26	1.33
1	C	1421	ARG	NE-CZ	-5.54	1.26	1.33
1	D	1421	ARG	NE-CZ	-5.49	1.27	1.33
1	A	3321	ARG	N-CA	-5.49	1.39	1.46
1	B	3321	ARG	N-CA	-5.49	1.39	1.46
1	D	3321	ARG	N-CA	-5.49	1.39	1.46
1	C	3321	ARG	N-CA	-5.48	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	3467	MET	CA-CB	5.43	1.61	1.53
1	A	3467	MET	CA-CB	5.41	1.61	1.53
1	A	156	GLN	CG-CD	-5.41	1.38	1.52
1	B	156	GLN	CG-CD	-5.41	1.38	1.52
1	D	156	GLN	CG-CD	-5.41	1.38	1.52
1	C	156	GLN	CG-CD	-5.41	1.38	1.52
1	C	3467	MET	CA-CB	5.40	1.61	1.53
1	D	3467	MET	CA-CB	5.38	1.61	1.53
1	B	1421	ARG	CZ-NH2	-5.36	1.26	1.33
1	D	1421	ARG	CZ-NH2	-5.36	1.26	1.33
1	A	1421	ARG	CZ-NH2	-5.31	1.26	1.33
1	C	1421	ARG	CZ-NH2	-5.31	1.26	1.33
1	A	416	LYS	CG-CD	-5.22	1.36	1.52
1	B	416	LYS	CG-CD	-5.22	1.36	1.52
1	D	416	LYS	CG-CD	-5.22	1.36	1.52
1	C	416	LYS	CG-CD	-5.22	1.36	1.52
1	D	3467	MET	SD-CE	-5.14	1.66	1.79
1	C	3467	MET	SD-CE	-5.14	1.66	1.79
1	A	3467	MET	SD-CE	-5.12	1.66	1.79
1	B	3467	MET	SD-CE	-5.11	1.66	1.79
2	E	73	LYS	CE-NZ	-5.07	1.34	1.49
2	G	73	LYS	CE-NZ	-5.07	1.34	1.49
2	F	73	LYS	CE-NZ	-5.06	1.34	1.49
2	H	73	LYS	CE-NZ	-5.06	1.34	1.49

All (272) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	3321	ARG	N-CA-CB	36.30	164.29	110.20
1	D	3321	ARG	N-CA-CB	36.30	164.29	110.20
1	A	3321	ARG	N-CA-CB	36.29	164.28	110.20
1	C	3321	ARG	N-CA-CB	36.29	164.28	110.20
1	D	3949	ARG	NE-CZ-NH1	-34.53	86.97	121.50
1	A	3949	ARG	NE-CZ-NH1	-34.51	86.99	121.50
1	C	3949	ARG	NE-CZ-NH1	-34.51	86.99	121.50
1	B	3949	ARG	NE-CZ-NH1	-34.50	87.00	121.50
2	F	80	TYR	CE1-CZ-CE2	-33.41	53.47	120.30
2	H	80	TYR	CE1-CZ-CE2	-33.39	53.52	120.30
2	E	80	TYR	CE1-CZ-CE2	-33.39	53.52	120.30
2	G	80	TYR	CE1-CZ-CE2	-33.38	53.53	120.30
1	D	3321	ARG	CG-CD-NE	30.89	179.95	112.00
1	C	3321	ARG	CG-CD-NE	30.88	179.94	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	3321	ARG	CG-CD-NE	30.87	179.92	112.00
1	B	3321	ARG	CG-CD-NE	30.85	179.88	112.00
1	D	3949	ARG	CG-CD-NE	28.95	175.70	112.00
1	A	3949	ARG	CG-CD-NE	28.93	175.65	112.00
1	B	3949	ARG	CG-CD-NE	28.93	175.65	112.00
1	C	3949	ARG	CG-CD-NE	28.90	175.58	112.00
1	A	3321	ARG	CD-NE-CZ	-23.44	91.58	124.40
1	B	3321	ARG	CD-NE-CZ	-23.44	91.58	124.40
1	D	3321	ARG	CD-NE-CZ	-23.44	91.58	124.40
1	C	3321	ARG	CD-NE-CZ	-23.44	91.58	124.40
1	A	3321	ARG	N-CA-C	-23.39	82.92	111.69
1	C	3321	ARG	N-CA-C	-23.38	82.93	111.69
1	B	3321	ARG	N-CA-C	-23.36	82.95	111.69
1	D	3321	ARG	N-CA-C	-23.36	82.95	111.69
1	B	3321	ARG	CB-CA-C	-15.92	81.57	110.70
1	D	3321	ARG	CB-CA-C	-15.92	81.57	110.70
1	C	3321	ARG	CB-CA-C	-15.92	81.57	110.70
1	A	3321	ARG	CB-CA-C	-15.91	81.59	110.70
1	A	3321	ARG	NH1-CZ-NH2	-15.53	99.12	119.30
1	B	3321	ARG	NH1-CZ-NH2	-15.52	99.12	119.30
1	D	3321	ARG	NH1-CZ-NH2	-15.52	99.12	119.30
1	C	3321	ARG	NH1-CZ-NH2	-15.52	99.12	119.30
2	E	80	TYR	CD1-CG-CD2	-13.74	97.50	118.10
2	H	80	TYR	CD1-CG-CD2	-13.72	97.52	118.10
2	F	80	TYR	CD1-CG-CD2	-13.72	97.53	118.10
2	G	80	TYR	CD1-CG-CD2	-13.71	97.53	118.10
2	F	44	LYS	CD-CE-NZ	-13.30	69.34	111.90
2	E	44	LYS	CD-CE-NZ	-13.29	69.36	111.90
2	H	44	LYS	CD-CE-NZ	-13.29	69.37	111.90
2	G	44	LYS	CD-CE-NZ	-13.29	69.38	111.90
1	B	3320	LEU	CA-C-N	-11.77	100.45	120.58
1	B	3320	LEU	C-N-CA	-11.77	100.45	120.58
1	D	3320	LEU	CA-C-N	-11.77	100.46	120.58
1	D	3320	LEU	C-N-CA	-11.77	100.46	120.58
1	A	3320	LEU	CA-C-N	-11.75	100.49	120.58
1	A	3320	LEU	C-N-CA	-11.75	100.49	120.58
1	C	3320	LEU	CA-C-N	-11.75	100.49	120.58
1	C	3320	LEU	C-N-CA	-11.75	100.49	120.58
1	D	3734	HIS	CB-CG-CD2	-11.59	116.13	131.20
1	C	3734	HIS	CB-CG-CD2	-11.59	116.14	131.20
1	A	3734	HIS	CB-CG-CD2	-11.58	116.15	131.20
1	B	3734	HIS	CB-CG-CD2	-11.56	116.17	131.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	3949	ARG	CB-CG-CD	11.37	137.45	111.30
1	A	3949	ARG	CB-CG-CD	11.35	137.41	111.30
1	D	3949	ARG	CB-CG-CD	11.34	137.39	111.30
1	B	156	GLN	CG-CD-NE2	-11.34	99.39	116.40
1	C	3949	ARG	CB-CG-CD	11.32	137.34	111.30
1	A	156	GLN	CG-CD-NE2	-11.31	99.43	116.40
1	C	156	GLN	CG-CD-NE2	-11.31	99.43	116.40
1	D	156	GLN	CG-CD-NE2	-11.31	99.43	116.40
1	D	3321	ARG	CA-C-N	10.64	134.33	120.60
1	D	3321	ARG	C-N-CA	10.64	134.33	120.60
1	A	3321	ARG	CA-C-N	10.62	134.30	120.60
1	A	3321	ARG	C-N-CA	10.62	134.30	120.60
1	B	3321	ARG	CA-C-N	10.62	134.30	120.60
1	B	3321	ARG	C-N-CA	10.62	134.30	120.60
1	C	3321	ARG	CA-C-N	10.62	134.30	120.60
1	C	3321	ARG	C-N-CA	10.62	134.30	120.60
1	C	4039	MET	CB-CG-SD	10.32	143.67	112.70
1	A	4039	MET	CB-CG-SD	10.32	143.66	112.70
1	D	4039	MET	CB-CG-SD	10.32	143.66	112.70
1	B	4039	MET	CB-CG-SD	10.30	143.61	112.70
2	F	80	TYR	CG-CD1-CE1	-10.08	106.08	121.20
2	H	80	TYR	CG-CD1-CE1	-10.06	106.11	121.20
2	E	80	TYR	CG-CD1-CE1	-10.04	106.14	121.20
2	G	80	TYR	CG-CD1-CE1	-10.03	106.15	121.20
2	G	80	TYR	CD1-CE1-CZ	9.89	137.41	119.60
2	E	80	TYR	CD1-CE1-CZ	9.89	137.40	119.60
2	F	80	TYR	CD1-CE1-CZ	9.87	137.37	119.60
2	H	80	TYR	CD1-CE1-CZ	9.87	137.36	119.60
1	D	2267	MET	CB-CG-SD	9.64	141.63	112.70
1	B	2267	MET	CB-CG-SD	9.64	141.62	112.70
1	A	2267	MET	CB-CG-SD	9.63	141.59	112.70
1	D	1421	ARG	CG-CD-NE	9.63	133.18	112.00
1	C	2267	MET	CB-CG-SD	9.62	141.57	112.70
1	A	1421	ARG	CG-CD-NE	9.61	133.14	112.00
1	B	1421	ARG	CG-CD-NE	9.61	133.14	112.00
1	C	1421	ARG	CG-CD-NE	9.60	133.13	112.00
2	E	80	TYR	CE1-CZ-OH	9.48	148.35	119.90
2	G	80	TYR	CE1-CZ-OH	9.48	148.35	119.90
2	H	80	TYR	CE1-CZ-OH	9.47	148.32	119.90
2	F	80	TYR	CE1-CZ-OH	9.47	148.31	119.90
1	D	3384	LYS	CG-CD-CE	9.41	132.94	111.30
1	C	3384	LYS	CG-CD-CE	9.40	132.93	111.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	3384	LYS	CG-CD-CE	9.39	132.90	111.30
1	A	3384	LYS	CG-CD-CE	9.39	132.90	111.30
1	B	3949	ARG	NE-CZ-NH2	9.24	127.52	119.20
1	B	3734	HIS	ND1-CG-CD2	-9.21	96.89	106.10
1	A	3949	ARG	NE-CZ-NH2	9.20	127.48	119.20
1	C	3949	ARG	NE-CZ-NH2	9.20	127.48	119.20
1	D	3734	HIS	ND1-CG-CD2	-9.18	96.92	106.10
1	C	3734	HIS	ND1-CG-CD2	-9.17	96.93	106.10
1	A	3734	HIS	ND1-CG-CD2	-9.17	96.93	106.10
1	D	3949	ARG	NE-CZ-NH2	9.14	127.43	119.20
1	B	3321	ARG	CB-CG-CD	9.04	132.10	111.30
1	C	3321	ARG	CB-CG-CD	9.03	132.07	111.30
1	D	3321	ARG	CB-CG-CD	9.03	132.06	111.30
1	A	3321	ARG	CB-CG-CD	9.02	132.04	111.30
2	E	80	TYR	CB-CG-CD1	8.45	133.48	120.80
2	G	80	TYR	CB-CG-CD1	8.44	133.46	120.80
2	H	80	TYR	CB-CG-CD1	8.43	133.45	120.80
2	F	80	TYR	CB-CG-CD1	8.40	133.40	120.80
1	B	2452	ARG	CG-CD-NE	8.00	129.60	112.00
1	D	2452	ARG	CG-CD-NE	7.99	129.57	112.00
1	A	2452	ARG	CG-CD-NE	7.99	129.57	112.00
1	C	2452	ARG	CG-CD-NE	7.96	129.50	112.00
1	A	952	LYS	CG-CD-CE	7.76	129.14	111.30
1	B	952	LYS	CG-CD-CE	7.75	129.13	111.30
1	D	952	LYS	CG-CD-CE	7.75	129.12	111.30
1	C	952	LYS	CG-CD-CE	7.75	129.12	111.30
1	D	3949	ARG	NH1-CZ-NH2	-7.58	109.45	119.30
2	F	80	TYR	CZ-CE2-CD2	7.56	133.20	119.60
2	G	80	TYR	CZ-CE2-CD2	7.55	133.19	119.60
2	H	80	TYR	CZ-CE2-CD2	7.55	133.18	119.60
1	A	3949	ARG	NH1-CZ-NH2	-7.54	109.49	119.30
1	B	3949	ARG	NH1-CZ-NH2	-7.54	109.50	119.30
2	E	80	TYR	CZ-CE2-CD2	7.54	133.16	119.60
1	C	3949	ARG	NH1-CZ-NH2	-7.51	109.53	119.30
2	F	53	GLN	CG-CD-NE2	-7.29	105.47	116.40
2	E	53	GLN	CG-CD-NE2	-7.27	105.49	116.40
2	H	53	GLN	CG-CD-NE2	-7.27	105.49	116.40
2	G	53	GLN	CG-CD-NE2	-7.26	105.52	116.40
1	D	2725	LYS	CD-CE-NZ	7.22	134.99	111.90
1	A	2725	LYS	CD-CE-NZ	7.21	134.97	111.90
1	C	2725	LYS	CD-CE-NZ	7.21	134.97	111.90
1	B	2725	LYS	CD-CE-NZ	7.20	134.94	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	3393	LEU	CD1-CG-CD2	-7.19	94.98	110.80
1	D	3393	LEU	CD1-CG-CD2	-7.19	94.98	110.80
1	C	3393	LEU	CD1-CG-CD2	-7.19	94.98	110.80
1	A	3393	LEU	CD1-CG-CD2	-7.17	95.01	110.80
1	D	1421	ARG	CB-CG-CD	-7.09	95.00	111.30
1	A	1421	ARG	CB-CG-CD	-7.07	95.04	111.30
1	B	1421	ARG	CB-CG-CD	-7.07	95.05	111.30
1	C	1421	ARG	CB-CG-CD	-7.06	95.07	111.30
1	C	3225	ARG	CB-CG-CD	6.87	127.10	111.30
1	A	3225	ARG	CB-CG-CD	6.85	127.06	111.30
1	B	3225	ARG	CB-CG-CD	6.85	127.05	111.30
1	D	3225	ARG	CB-CG-CD	6.84	127.03	111.30
1	B	3321	ARG	NE-CZ-NH2	-6.79	113.09	119.20
1	D	3321	ARG	NE-CZ-NH2	-6.79	113.09	119.20
1	C	3321	ARG	NE-CZ-NH2	-6.79	113.09	119.20
1	A	3321	ARG	NE-CZ-NH2	-6.76	113.11	119.20
1	A	2267	MET	CA-CB-CG	6.68	127.46	114.10
1	C	2267	MET	CA-CB-CG	6.67	127.44	114.10
1	B	2267	MET	CA-CB-CG	6.67	127.43	114.10
1	D	2267	MET	CA-CB-CG	6.67	127.43	114.10
1	A	236	ALA	CA-C-N	6.64	134.15	123.93
1	A	236	ALA	C-N-CA	6.64	134.15	123.93
1	D	236	ALA	CA-C-N	6.63	134.15	123.93
1	D	236	ALA	C-N-CA	6.63	134.15	123.93
1	C	236	ALA	CA-C-N	6.63	134.15	123.93
1	C	236	ALA	C-N-CA	6.63	134.15	123.93
1	B	236	ALA	CA-C-N	6.62	134.12	123.93
1	B	236	ALA	C-N-CA	6.62	134.12	123.93
1	D	1759	ARG	CA-CB-CG	6.39	126.89	114.10
1	A	1759	ARG	CA-CB-CG	6.38	126.85	114.10
1	B	1759	ARG	CA-CB-CG	6.37	126.85	114.10
1	B	3321	ARG	NE-CZ-NH1	6.37	127.87	121.50
1	D	3321	ARG	NE-CZ-NH1	6.37	127.87	121.50
1	C	3321	ARG	NE-CZ-NH1	6.37	127.87	121.50
1	C	1759	ARG	CA-CB-CG	6.37	126.83	114.10
1	A	3321	ARG	NE-CZ-NH1	6.36	127.86	121.50
1	D	1421	ARG	CA-CB-CG	-6.34	101.42	114.10
1	A	1421	ARG	CA-CB-CG	-6.32	101.46	114.10
1	C	1421	ARG	CA-CB-CG	-6.32	101.46	114.10
1	B	1421	ARG	CA-CB-CG	-6.29	101.51	114.10
1	B	3734	HIS	N-CA-C	6.23	117.73	111.07
1	B	965	TYR	CB-CA-C	-6.22	102.31	111.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	965	TYR	CB-CA-C	-6.22	102.32	111.77
1	A	965	TYR	CB-CA-C	-6.22	102.32	111.77
1	C	965	TYR	CB-CA-C	-6.21	102.32	111.77
1	C	3734	HIS	N-CA-C	6.21	117.72	111.07
1	A	3734	HIS	N-CA-C	6.18	117.69	111.07
1	D	3734	HIS	N-CA-C	6.17	117.67	111.07
1	B	3453	ARG	CB-CG-CD	6.10	125.34	111.30
1	D	3453	ARG	CB-CG-CD	6.10	125.34	111.30
1	A	3453	ARG	CB-CG-CD	6.10	125.32	111.30
1	C	3453	ARG	CB-CG-CD	6.10	125.32	111.30
1	A	1759	ARG	CB-CG-CD	6.09	125.31	111.30
1	C	1759	ARG	CB-CG-CD	6.09	125.31	111.30
1	D	1759	ARG	CB-CG-CD	6.09	125.30	111.30
1	B	1759	ARG	CB-CG-CD	6.08	125.29	111.30
1	C	56	GLN	CG-CD-NE2	-6.04	107.33	116.40
1	A	56	GLN	CG-CD-NE2	-6.03	107.35	116.40
1	B	56	GLN	CG-CD-NE2	-6.03	107.35	116.40
1	D	56	GLN	CG-CD-NE2	-6.03	107.35	116.40
1	A	3949	ARG	N-CA-C	6.02	123.62	110.80
1	B	3949	ARG	N-CA-C	6.02	123.62	110.80
1	D	3949	ARG	N-CA-C	6.02	123.62	110.80
1	C	3949	ARG	N-CA-C	6.02	123.62	110.80
1	B	4039	MET	CG-SD-CE	-5.97	87.76	100.90
1	A	4039	MET	CG-SD-CE	-5.97	87.77	100.90
1	C	4039	MET	CG-SD-CE	-5.96	87.78	100.90
1	D	4039	MET	CG-SD-CE	-5.96	87.78	100.90
1	D	3320	LEU	N-CA-C	-5.91	104.19	111.75
1	A	3320	LEU	N-CA-C	-5.89	104.21	111.75
1	B	3320	LEU	N-CA-C	-5.86	104.25	111.75
1	C	3320	LEU	N-CA-C	-5.86	104.25	111.75
1	B	2874	MET	CB-CG-SD	5.80	130.09	112.70
1	A	2874	MET	CB-CG-SD	5.78	130.04	112.70
1	D	2874	MET	CB-CG-SD	5.77	130.01	112.70
1	C	2874	MET	CB-CG-SD	5.77	130.01	112.70
1	A	965	TYR	N-CA-C	5.76	120.67	107.48
1	B	965	TYR	N-CA-C	5.76	120.67	107.48
1	D	965	TYR	N-CA-C	5.76	120.66	107.48
1	C	965	TYR	N-CA-C	5.76	120.66	107.48
1	A	416	LYS	CB-CA-C	5.72	119.96	110.81
1	C	416	LYS	CB-CA-C	5.71	119.94	110.81
1	B	416	LYS	CB-CA-C	5.71	119.94	110.81
1	D	416	LYS	CB-CA-C	5.70	119.92	110.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2856	ASN	CB-CG-ND2	-5.67	107.89	116.40
1	D	2856	ASN	CB-CG-ND2	-5.67	107.90	116.40
1	C	2856	ASN	CB-CG-ND2	-5.67	107.90	116.40
1	C	1773	PRO	O-C-N	-5.65	118.71	121.31
1	A	1773	PRO	O-C-N	-5.65	118.71	121.31
1	B	1773	PRO	O-C-N	-5.65	118.71	121.31
1	B	2856	ASN	CB-CG-ND2	-5.65	107.93	116.40
1	D	1773	PRO	O-C-N	-5.62	118.72	121.31
1	A	1930	LYS	CB-CG-CD	5.60	124.17	111.30
1	B	1930	LYS	CB-CG-CD	5.59	124.16	111.30
1	D	1930	LYS	CB-CG-CD	5.59	124.16	111.30
1	C	1930	LYS	CB-CG-CD	5.59	124.16	111.30
1	D	3225	ARG	CA-CB-CG	5.55	125.19	114.10
1	B	3225	ARG	CA-CB-CG	5.54	125.17	114.10
1	A	3225	ARG	CA-CB-CG	5.52	125.14	114.10
1	C	3225	ARG	CA-CB-CG	5.51	125.12	114.10
1	B	3933	PHE	CZ-CE2-CD2	5.42	129.76	120.00
1	D	3933	PHE	CZ-CE2-CD2	5.42	129.76	120.00
1	C	3933	PHE	CZ-CE2-CD2	5.41	129.74	120.00
1	A	3933	PHE	CZ-CE2-CD2	5.40	129.72	120.00
1	D	2233	CYS	N-CA-CB	5.37	119.57	110.49
1	C	2233	CYS	N-CA-CB	5.36	119.55	110.49
1	A	2233	CYS	N-CA-CB	5.35	119.54	110.49
1	B	2233	CYS	N-CA-CB	5.32	119.49	110.49
2	G	80	TYR	OH-CZ-CE2	-5.32	103.94	119.90
2	E	80	TYR	OH-CZ-CE2	-5.32	103.94	119.90
2	H	80	TYR	OH-CZ-CE2	-5.32	103.96	119.90
2	F	80	TYR	OH-CZ-CE2	-5.31	103.96	119.90
1	C	3734	HIS	N-CA-CB	5.29	117.68	110.01
1	D	3734	HIS	N-CA-CB	5.28	117.67	110.01
1	A	3734	HIS	N-CA-CB	5.27	117.65	110.01
1	B	3734	HIS	N-CA-CB	5.26	117.64	110.01
1	C	2479	LEU	CD1-CG-CD2	-5.25	99.25	110.80
1	A	2479	LEU	CD1-CG-CD2	-5.24	99.27	110.80
1	B	2479	LEU	CD1-CG-CD2	-5.24	99.28	110.80
1	D	2479	LEU	CD1-CG-CD2	-5.24	99.28	110.80
2	F	53	GLN	CG-CD-OE1	5.21	131.22	120.80
2	H	53	GLN	CG-CD-OE1	5.20	131.20	120.80
2	E	53	GLN	CG-CD-OE1	5.18	131.17	120.80
2	G	53	GLN	CG-CD-OE1	5.18	131.16	120.80
1	C	3383	ALA	N-CA-C	5.13	117.73	107.62
1	A	483	MET	CB-CG-SD	5.11	128.02	112.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	483	MET	CB-CG-SD	5.11	128.02	112.70
1	D	483	MET	CB-CG-SD	5.11	128.02	112.70
1	C	483	MET	CB-CG-SD	5.11	128.02	112.70
1	A	3383	ALA	N-CA-C	5.10	117.67	107.62
1	B	3383	ALA	N-CA-C	5.09	117.65	107.62
1	D	3383	ALA	N-CA-C	5.09	117.65	107.62

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	A	3321	ARG	CA
1	B	3321	ARG	CA
1	D	3321	ARG	CA
1	C	3321	ARG	CA

All (48) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1421	ARG	Sidechain
1	A	156	GLN	Sidechain
1	A	1758	ARG	Sidechain
1	A	2173	GLN	Sidechain
1	A	3320	LEU	Peptide
1	A	3321	ARG	Sidechain
1	A	3453	ARG	Sidechain
1	A	3734	HIS	Sidechain
1	A	3948	LYS	Peptide
1	A	3949	ARG	Mainchain,Sidechain
1	B	1421	ARG	Sidechain
1	B	156	GLN	Sidechain
1	B	1758	ARG	Sidechain
1	B	2173	GLN	Sidechain
1	B	3320	LEU	Peptide
1	B	3321	ARG	Sidechain
1	B	3453	ARG	Sidechain
1	B	3734	HIS	Sidechain
1	B	3948	LYS	Peptide
1	B	3949	ARG	Mainchain,Sidechain
1	C	1421	ARG	Sidechain
1	C	156	GLN	Sidechain
1	C	1758	ARG	Sidechain
1	C	2173	GLN	Sidechain

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Mol	Chain	Res	Type	Group
1	C	3320	LEU	Peptide
1	C	3321	ARG	Sidechain
1	C	3453	ARG	Sidechain
1	C	3734	HIS	Sidechain
1	C	3948	LYS	Peptide
1	C	3949	ARG	Mainchain,Sidechain
1	D	1421	ARG	Sidechain
1	D	156	GLN	Sidechain
1	D	1758	ARG	Sidechain
1	D	2173	GLN	Sidechain
1	D	3320	LEU	Peptide
1	D	3321	ARG	Sidechain
1	D	3453	ARG	Sidechain
1	D	3734	HIS	Sidechain
1	D	3948	LYS	Peptide
1	D	3949	ARG	Mainchain,Sidechain
2	E	80	TYR	Sidechain
2	F	80	TYR	Sidechain
2	G	80	TYR	Sidechain
2	H	80	TYR	Sidechain

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	35150	0	34794	881	0
1	B	35150	0	34794	863	0
1	C	35150	0	34794	863	0
1	D	35150	0	34794	869	0
2	E	831	0	829	25	0
2	F	831	0	829	25	0
2	G	831	0	829	28	0
2	H	831	0	829	26	0
3	A	31	0	12	1	0
3	B	31	0	12	1	0
3	C	31	0	12	1	0
3	D	31	0	12	1	0
4	A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	B	1	0	0	0	0
4	C	1	0	0	0	0
4	D	1	0	0	0	0
5	A	1	0	0	0	0
5	B	1	0	0	0	0
5	C	1	0	0	0	0
5	D	1	0	0	0	0
6	A	14	0	0	0	0
6	B	14	0	0	0	0
6	C	14	0	0	0	0
6	D	14	0	0	0	0
All	All	144112	0	142540	3523	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 12.

All (3523) 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:B:2237:CYS:SG	1:B:2237:CYS:CB	2.11	1.39
1:A:2237:CYS:CB	1:A:2237:CYS:SG	2.11	1.38
1:D:2237:CYS:CB	1:D:2237:CYS:SG	2.11	1.37
1:C:2237:CYS:SG	1:C:2237:CYS:CB	2.11	1.37
1:C:2229:VAL:HG11	1:C:2267:MET:HE1	1.26	1.18
1:B:2229:VAL:HG11	1:B:2267:MET:HE1	1.26	1.13
1:D:2229:VAL:HG11	1:D:2267:MET:HE1	1.26	1.13
1:A:2229:VAL:HG11	1:A:2267:MET:HE1	1.26	1.11
1:B:2452:ARG:NH1	1:C:144:GLU:OE1	1.88	1.06
1:D:144:GLU:OE1	1:C:2452:ARG:NH1	1.89	1.06
1:A:2452:ARG:NH1	1:B:144:GLU:OE1	1.89	1.05
1:B:3521:GLY:HA2	1:B:3524:MET:HE2	1.40	1.03
1:A:3521:GLY:HA2	1:A:3524:MET:HE2	1.40	1.03
1:A:144:GLU:OE1	1:D:2452:ARG:NH1	1.90	1.02
1:A:1999:ARG:O	1:A:3638:MET:HE3	1.60	1.01
1:D:1999:ARG:O	1:D:3638:MET:HE3	1.61	1.00
1:A:3248:ARG:NH1	1:A:3252:ASP:OD1	1.94	1.00
1:D:3248:ARG:NH1	1:D:3252:ASP:OD1	1.94	0.99
1:C:1999:ARG:O	1:C:3638:MET:HE3	1.60	0.99
1:C:3521:GLY:HA2	1:C:3524:MET:HE2	1.40	0.99
1:C:3248:ARG:NH1	1:C:3252:ASP:OD1	1.94	0.99
1:B:1999:ARG:O	1:B:3638:MET:HE3	1.60	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3248:ARG:NH1	1:B:3252:ASP:OD1	1.94	0.98
1:A:3383:ALA:C	1:A:3384:LYS:HD3	1.88	0.98
1:D:3521:GLY:HA2	1:D:3524:MET:HE2	1.40	0.98
1:D:3383:ALA:C	1:D:3384:LYS:HD3	1.88	0.98
1:A:919:ASN:O	1:A:923:GLN:NE2	1.97	0.97
1:B:3383:ALA:C	1:B:3384:LYS:HD3	1.88	0.97
1:D:919:ASN:O	1:D:923:GLN:NE2	1.97	0.97
1:B:2605:ASP:HA	1:B:2608:MET:HE2	1.47	0.97
1:D:2605:ASP:HA	1:D:2608:MET:HE2	1.47	0.97
1:C:919:ASN:O	1:C:923:GLN:NE2	1.97	0.97
1:B:919:ASN:O	1:B:923:GLN:NE2	1.97	0.97
1:C:3383:ALA:C	1:C:3384:LYS:HD3	1.88	0.96
1:D:2229:VAL:CG1	1:D:2267:MET:HE1	1.96	0.96
1:A:2605:ASP:HA	1:A:2608:MET:HE2	1.47	0.96
1:A:2229:VAL:CG1	1:A:2267:MET:HE1	1.96	0.95
1:C:2605:ASP:HA	1:C:2608:MET:HE2	1.47	0.95
1:A:3321:ARG:O	1:A:3324:VAL:HG22	1.66	0.95
1:C:2229:VAL:CG1	1:C:2267:MET:HE1	1.96	0.95
1:B:3321:ARG:O	1:B:3324:VAL:HG22	1.66	0.95
1:B:2229:VAL:CG1	1:B:2267:MET:HE1	1.96	0.95
1:D:3321:ARG:O	1:D:3324:VAL:HG22	1.66	0.94
1:C:3321:ARG:O	1:C:3324:VAL:HG22	1.66	0.93
1:C:897:ARG:NH2	1:C:917:GLU:OE2	2.02	0.93
1:B:897:ARG:NH2	1:B:917:GLU:OE2	2.02	0.93
1:A:897:ARG:NH2	1:A:917:GLU:OE2	2.02	0.92
1:B:54:ASN:O	1:B:56:GLN:N	2.03	0.92
1:D:54:ASN:O	1:D:56:GLN:N	2.03	0.92
1:C:54:ASN:O	1:C:56:GLN:N	2.03	0.92
1:D:897:ARG:NH2	1:D:917:GLU:OE2	2.02	0.91
1:A:3521:GLY:HA2	1:A:3524:MET:CE	2.00	0.91
1:B:3521:GLY:HA2	1:B:3524:MET:CE	2.00	0.91
1:A:54:ASN:O	1:A:56:GLN:N	2.03	0.91
1:D:3521:GLY:HA2	1:D:3524:MET:CE	2.00	0.91
1:D:978:THR:OG1	1:D:981:GLN:OE1	1.88	0.91
1:C:3521:GLY:HA2	1:C:3524:MET:CE	2.00	0.91
1:B:978:THR:OG1	1:B:981:GLN:OE1	1.88	0.90
1:C:978:THR:OG1	1:C:981:GLN:OE1	1.88	0.90
1:B:3356:SER:HG	1:B:3357:HIS:HD1	1.18	0.89
1:A:978:THR:OG1	1:A:981:GLN:OE1	1.88	0.88
1:D:3356:SER:HG	1:D:3357:HIS:HD1	1.18	0.88
1:A:4899:ASP:OD1	1:D:4892:ARG:NH1	2.07	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2929:PHE:O	1:C:2933:ASN:ND2	2.07	0.88
1:D:1454:THR:OG1	1:D:1456:ASP:OD1	1.93	0.87
1:D:2929:PHE:O	1:D:2933:ASN:ND2	2.07	0.87
1:D:1999:ARG:O	1:D:3638:MET:CE	2.23	0.87
1:A:1454:THR:OG1	1:A:1456:ASP:OD1	1.93	0.86
1:B:1999:ARG:O	1:B:3638:MET:CE	2.23	0.86
1:C:1999:ARG:O	1:C:3638:MET:CE	2.23	0.86
1:C:2928:LYS:HG3	1:C:2932:MET:SD	2.15	0.86
1:B:2928:LYS:HG3	1:B:2932:MET:SD	2.16	0.86
1:B:2929:PHE:O	1:B:2933:ASN:ND2	2.07	0.86
1:A:2928:LYS:HG3	1:A:2932:MET:SD	2.16	0.86
1:D:2928:LYS:HG3	1:D:2932:MET:SD	2.16	0.86
1:C:3356:SER:HG	1:C:3357:HIS:HD1	1.19	0.86
1:A:1999:ARG:O	1:A:3638:MET:CE	2.23	0.86
1:A:3356:SER:HG	1:A:3357:HIS:HD1	1.17	0.86
1:D:2761:TYR:HB3	1:D:2765:LYS:NZ	1.91	0.86
1:A:2929:PHE:O	1:A:2933:ASN:ND2	2.07	0.86
1:D:3933:PHE:CE2	1:D:3951:PHE:CZ	2.64	0.85
1:B:3933:PHE:CE2	1:B:3951:PHE:CZ	2.64	0.85
1:B:1454:THR:OG1	1:B:1456:ASP:OD1	1.93	0.85
1:A:3933:PHE:CE2	1:A:3951:PHE:CZ	2.64	0.85
1:B:2761:TYR:HB3	1:B:2765:LYS:NZ	1.91	0.85
1:C:2761:TYR:HB3	1:C:2765:LYS:NZ	1.91	0.85
1:C:3933:PHE:CE2	1:C:3951:PHE:CZ	2.64	0.85
1:A:2761:TYR:HB3	1:A:2765:LYS:NZ	1.91	0.85
1:B:1156:THR:OG1	1:B:1157:GLU:OE1	1.95	0.85
1:D:1156:THR:OG1	1:D:1157:GLU:OE1	1.95	0.84
1:C:1454:THR:OG1	1:C:1456:ASP:OD1	1.93	0.84
1:A:3762:ARG:O	1:A:3766:GLN:NE2	2.11	0.84
1:A:3933:PHE:CE2	1:A:3951:PHE:CE2	2.66	0.84
1:A:2927:LEU:O	1:A:2931:GLN:NE2	2.11	0.84
1:D:3933:PHE:CE2	1:D:3951:PHE:CE2	2.66	0.84
1:B:3762:ARG:O	1:B:3766:GLN:NE2	2.11	0.84
1:D:4899:ASP:OD1	1:C:4892:ARG:NH1	2.11	0.84
1:B:2927:LEU:O	1:B:2931:GLN:NE2	2.11	0.83
1:C:1156:THR:OG1	1:C:1157:GLU:OE1	1.95	0.83
1:D:3762:ARG:O	1:D:3766:GLN:NE2	2.11	0.83
1:C:3933:PHE:CE2	1:C:3951:PHE:CE2	2.66	0.83
1:B:3933:PHE:CE2	1:B:3951:PHE:CE2	2.66	0.83
1:C:2927:LEU:O	1:C:2931:GLN:NE2	2.11	0.83
1:D:2927:LEU:O	1:D:2931:GLN:NE2	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:495:ASN:OD1	1:A:553:ARG:NH1	2.12	0.83
1:A:1156:THR:OG1	1:A:1157:GLU:OE1	1.95	0.83
1:A:2373:GLY:O	1:B:130:LYS:NZ	2.11	0.83
1:D:3940:LYS:O	1:D:4002:LYS:NZ	2.12	0.83
1:C:3762:ARG:O	1:C:3766:GLN:NE2	2.11	0.83
1:B:3940:LYS:O	1:B:4002:LYS:NZ	2.12	0.83
1:B:4892:ARG:NH1	1:C:4899:ASP:OD1	2.11	0.83
1:B:2233:CYS:HB3	1:B:2237:CYS:HB2	1.61	0.82
1:C:495:ASN:OD1	1:C:553:ARG:NH1	2.12	0.82
1:B:495:ASN:OD1	1:B:553:ARG:NH1	2.12	0.82
1:D:495:ASN:OD1	1:D:553:ARG:NH1	2.12	0.82
1:D:2233:CYS:HB3	1:D:2237:CYS:HB2	1.61	0.82
1:A:3933:PHE:HE2	1:A:3951:PHE:CE2	1.98	0.81
1:B:236:ALA:O	1:B:237:ASP:OD1	1.98	0.81
1:C:236:ALA:O	1:C:237:ASP:OD1	1.98	0.81
1:A:2233:CYS:HB3	1:A:2237:CYS:HB2	1.61	0.81
1:C:4006:ASP:OD2	1:C:4008:SER:OG	1.98	0.81
1:A:236:ALA:O	1:A:237:ASP:OD1	1.98	0.81
1:B:3933:PHE:HE2	1:B:3951:PHE:CE2	1.99	0.81
1:D:236:ALA:O	1:D:237:ASP:OD1	1.98	0.81
1:D:3933:PHE:HE2	1:D:3951:PHE:CE2	1.99	0.81
1:A:2233:CYS:O	1:A:2234:ARG:C	2.24	0.81
1:A:4006:ASP:OD2	1:A:4008:SER:OG	1.98	0.81
1:C:2233:CYS:HB3	1:C:2237:CYS:HB2	1.61	0.81
1:B:4006:ASP:OD2	1:B:4008:SER:OG	1.98	0.81
1:D:2587:TYR:HD2	1:D:2625:ARG:HH12	1.26	0.80
1:C:3940:LYS:O	1:C:4002:LYS:NZ	2.11	0.80
1:A:2587:TYR:HD2	1:A:2625:ARG:HH12	1.26	0.80
1:B:1465:ASP:OD2	1:B:1467:SER:OG	2.00	0.80
1:A:4892:ARG:NH1	1:B:4899:ASP:OD1	2.15	0.80
1:C:3933:PHE:HE2	1:C:3951:PHE:CE2	1.98	0.80
1:A:3300:ALA:HB3	1:A:3301:PRO:HD3	1.65	0.80
1:D:2929:PHE:HA	1:D:2932:MET:HE2	1.65	0.79
1:D:3300:ALA:HB3	1:D:3301:PRO:HD3	1.65	0.79
1:B:2584[B]:HIS:CD2	1:B:2625:ARG:HD2	2.18	0.79
1:C:2587:TYR:HD2	1:C:2625:ARG:HH12	1.26	0.79
1:D:3320:LEU:O	1:D:3321:ARG:C	2.26	0.79
1:D:4006:ASP:OD2	1:D:4008:SER:OG	1.98	0.79
1:A:2584[B]:HIS:CD2	1:A:2625:ARG:HD2	2.18	0.79
1:A:3635:CYS:CA	1:A:3638:MET:HE2	2.13	0.79
1:A:3940:LYS:O	1:A:4002:LYS:NZ	2.12	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2090:LYS:NZ	1:D:2092:GLN:OE1	2.15	0.79
1:C:3320:LEU:O	1:C:3321:ARG:C	2.26	0.79
1:A:2760:GLU:OE2	1:A:2802:LYS:NZ	2.16	0.79
1:D:1465:ASP:OD2	1:D:1467:SER:OG	2.00	0.79
1:D:980:ALA:O	1:D:984:LEU:HD12	1.83	0.79
1:D:3635:CYS:CA	1:D:3638:MET:HE2	2.13	0.79
1:C:3635:CYS:CA	1:C:3638:MET:HE2	2.13	0.79
1:D:2584[B]:HIS:CD2	1:D:2625:ARG:HD2	2.18	0.78
1:A:2233:CYS:HB3	1:A:2237:CYS:CB	2.13	0.78
1:B:2587:TYR:HD2	1:B:2625:ARG:HH12	1.26	0.78
1:B:2929:PHE:HA	1:B:2932:MET:HE2	1.65	0.78
1:D:2233:CYS:HB3	1:D:2237:CYS:CB	2.13	0.78
1:C:2233:CYS:HB3	1:C:2237:CYS:CB	2.13	0.78
1:A:2929:PHE:HA	1:A:2932:MET:HE2	1.65	0.78
1:C:3300:ALA:HB3	1:C:3301:PRO:HD3	1.65	0.78
1:B:2233:CYS:O	1:B:2234:ARG:C	2.24	0.78
1:B:3300:ALA:HB3	1:B:3301:PRO:HD3	1.65	0.78
1:C:980:ALA:O	1:C:984:LEU:HD12	1.83	0.78
1:C:2584[B]:HIS:CD2	1:C:2625:ARG:HD2	2.18	0.78
1:A:3320:LEU:O	1:A:3321:ARG:C	2.26	0.78
1:D:130:LYS:NZ	1:C:2373:GLY:O	2.16	0.78
1:B:3635:CYS:CA	1:B:3638:MET:HE2	2.13	0.78
1:A:1143:TRP:CZ3	1:A:1149:VAL:HG21	2.19	0.78
1:D:2233:CYS:O	1:D:2234:ARG:C	2.24	0.78
1:C:2929:PHE:HA	1:C:2932:MET:HE2	1.65	0.78
1:A:1465:ASP:OD2	1:A:1467:SER:OG	2.00	0.78
1:D:1143:TRP:CZ3	1:D:1149:VAL:HG21	2.19	0.78
1:A:130:LYS:NZ	1:D:2373:GLY:O	2.17	0.77
1:B:2373:GLY:O	1:C:130:LYS:NZ	2.16	0.77
1:C:2090:LYS:NZ	1:C:2092:GLN:OE1	2.15	0.77
1:A:980:ALA:O	1:A:984:LEU:HD12	1.83	0.77
1:B:3635:CYS:HA	1:B:3638:MET:HE2	1.67	0.77
1:C:1465:ASP:OD2	1:C:1467:SER:OG	2.00	0.77
1:C:2233:CYS:O	1:C:2234:ARG:C	2.24	0.77
1:B:1143:TRP:CZ3	1:B:1149:VAL:HG21	2.19	0.77
1:C:3635:CYS:HA	1:C:3638:MET:HE2	1.67	0.77
1:B:980:ALA:O	1:B:984:LEU:HD12	1.83	0.77
1:B:3320:LEU:O	1:B:3321:ARG:C	2.26	0.77
1:C:1143:TRP:CZ3	1:C:1149:VAL:HG21	2.19	0.77
1:B:2090:LYS:NZ	1:B:2092:GLN:OE1	2.15	0.77
1:B:2233:CYS:HB3	1:B:2237:CYS:CB	2.13	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3:GLN:CG	2:G:75:THR:HB	2.16	0.76
2:H:3:GLN:CG	2:H:75:THR:HB	2.16	0.76
1:B:1868:PRO:O	1:B:1872:THR:HG23	1.86	0.76
1:A:1868:PRO:O	1:A:1872:THR:HG23	1.86	0.76
2:E:3:GLN:CG	2:E:75:THR:HB	2.16	0.76
1:B:1931:LEU:HD13	1:B:1935:VAL:HG11	1.68	0.76
1:D:3635:CYS:O	1:D:3638:MET:HE2	1.86	0.76
1:D:2212:VAL:HG21	1:D:2256:TYR:OH	1.86	0.76
1:C:3635:CYS:O	1:C:3638:MET:HE2	1.86	0.76
1:A:2212:VAL:HG21	1:A:2256:TYR:OH	1.86	0.76
1:C:1868:PRO:O	1:C:1872:THR:HG23	1.86	0.76
1:A:2090:LYS:NZ	1:A:2092:GLN:OE1	2.14	0.76
1:A:3836:MET:HE1	1:A:3915:ILE:HG23	1.68	0.76
1:B:2760:GLU:OE2	1:B:2802:LYS:NZ	2.16	0.76
1:A:1263:THR:OG1	1:A:1265:ASP:OD1	2.04	0.76
1:B:3836:MET:HE1	1:B:3915:ILE:HG23	1.68	0.76
1:C:2760:GLU:OE2	1:C:2802:LYS:NZ	2.16	0.76
1:B:2212:VAL:HG21	1:B:2256:TYR:OH	1.86	0.76
1:D:1263:THR:OG1	1:D:1265:ASP:OD1	2.04	0.76
1:A:3860:ASN:ND2	1:A:3862:ASP:O	2.19	0.75
2:F:3:GLN:CG	2:F:75:THR:HB	2.16	0.75
1:D:3635:CYS:HA	1:D:3638:MET:HE2	1.67	0.75
1:A:3635:CYS:HA	1:A:3638:MET:HE2	1.67	0.75
1:D:3860:ASN:ND2	1:D:3862:ASP:O	2.19	0.75
1:D:3500:GLY:O	1:D:3504:SER:OG	2.05	0.75
1:A:1931:LEU:HD13	1:A:1935:VAL:HG11	1.68	0.75
1:B:3635:CYS:O	1:B:3638:MET:HE2	1.86	0.75
1:D:3836:MET:HE1	1:D:3915:ILE:HG23	1.68	0.75
1:A:1441:ALA:N	1:A:1513:ASP:OD1	2.20	0.75
1:A:2736:ASP:O	1:A:2738:ARG:NH1	2.20	0.75
1:B:3860:ASN:ND2	1:B:3862:ASP:O	2.19	0.75
2:F:3:GLN:HG2	2:F:75:THR:HB	1.69	0.75
1:D:1441:ALA:N	1:D:1513:ASP:OD1	2.20	0.75
1:D:4902:GLU:O	1:D:4913:ARG:NH1	2.20	0.75
1:A:4063:ASP:OD1	1:A:4064:MET:N	2.20	0.74
1:C:1931:LEU:HD13	1:C:1935:VAL:HG11	1.67	0.74
1:C:2088:GLU:OE1	1:C:2088:GLU:N	2.20	0.74
1:C:3836:MET:HE1	1:C:3915:ILE:HG23	1.68	0.74
1:C:3860:ASN:ND2	1:C:3862:ASP:O	2.19	0.74
2:E:3:GLN:HG2	2:E:75:THR:HB	1.69	0.74
2:H:3:GLN:HG2	2:H:75:THR:HB	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3:GLN:HG2	2:G:75:THR:HB	1.69	0.74
1:C:4063:ASP:OD1	1:C:4064:MET:N	2.20	0.74
1:B:4885:PHE:O	1:B:4889:VAL:HG22	1.87	0.74
1:C:1263:THR:OG1	1:C:1265:ASP:OD1	2.04	0.74
1:A:4885:PHE:O	1:A:4889:VAL:HG22	1.87	0.74
1:C:2212:VAL:HG21	1:C:2256:TYR:OH	1.86	0.74
1:C:4902:GLU:O	1:C:4913:ARG:NH1	2.20	0.74
1:D:1868:PRO:O	1:D:1872:THR:HG23	1.86	0.74
1:D:4063:ASP:OD1	1:D:4064:MET:N	2.20	0.74
1:A:3635:CYS:O	1:A:3638:MET:HE2	1.86	0.74
1:B:4902:GLU:O	1:B:4913:ARG:NH1	2.20	0.74
1:D:3651:ASN:O	1:D:3655:GLU:OE1	2.06	0.74
1:A:2088:GLU:OE1	1:A:2088:GLU:N	2.20	0.74
1:C:3651:ASN:O	1:C:3655:GLU:OE1	2.06	0.74
1:A:4902:GLU:O	1:A:4913:ARG:NH1	2.20	0.74
1:B:2088:GLU:N	1:B:2088:GLU:OE1	2.20	0.73
1:C:4711:PHE:HB3	1:C:4712:PRO:HD3	1.70	0.73
1:C:4885:PHE:O	1:C:4889:VAL:HG22	1.87	0.73
1:B:2736:ASP:O	1:B:2738:ARG:NH1	2.20	0.73
1:B:4063:ASP:OD1	1:B:4064:MET:N	2.20	0.73
1:D:4711:PHE:HB3	1:D:4712:PRO:HD3	1.70	0.73
1:D:4885:PHE:O	1:D:4889:VAL:HG22	1.87	0.73
1:A:3651:ASN:O	1:A:3655:GLU:OE1	2.06	0.73
1:B:1441:ALA:N	1:B:1513:ASP:OD1	2.20	0.73
1:D:2088:GLU:OE1	1:D:2088:GLU:N	2.21	0.73
1:C:981:GLN:HA	1:C:984:LEU:HD13	1.71	0.73
1:C:1441:ALA:N	1:C:1513:ASP:OD1	2.20	0.73
1:A:1018:ASN:HB3	1:A:1021:LEU:HD23	1.71	0.73
1:B:3321:ARG:NH1	1:B:3321:ARG:HB2	2.03	0.73
1:B:3500:GLY:O	1:B:3504:SER:OG	2.05	0.73
1:D:2722:LYS:HG3	1:D:2724:GLU:H	1.54	0.73
1:D:2736:ASP:O	1:D:2738:ARG:NH1	2.20	0.73
1:A:2722:LYS:HG3	1:A:2724:GLU:H	1.54	0.73
1:C:2736:ASP:O	1:C:2738:ARG:NH1	2.20	0.73
1:B:1018:ASN:HB3	1:B:1021:LEU:HD23	1.71	0.73
1:D:1931:LEU:HD13	1:D:1935:VAL:HG11	1.68	0.73
1:B:1263:THR:OG1	1:B:1265:ASP:OD1	2.03	0.73
1:D:981:GLN:HA	1:D:984:LEU:HD13	1.71	0.73
1:D:2760:GLU:OE2	1:D:2802:LYS:NZ	2.16	0.73
1:C:3321:ARG:NH1	1:C:3321:ARG:HB2	2.03	0.73
1:A:981:GLN:HA	1:A:984:LEU:HD13	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3500:GLY:O	1:A:3504:SER:OG	2.05	0.73
1:C:3500:GLY:O	1:C:3504:SER:OG	2.05	0.73
1:A:3321:ARG:NH1	1:A:3321:ARG:HB2	2.03	0.73
1:A:4711:PHE:HB3	1:A:4712:PRO:HD3	1.70	0.73
2:H:3:GLN:HE21	2:H:75:THR:CB	2.02	0.72
1:C:2722:LYS:HG3	1:C:2724:GLU:H	1.54	0.72
1:B:3651:ASN:O	1:B:3655:GLU:OE1	2.06	0.72
1:D:2514:ASN:ND2	1:D:2516:ASP:OD1	2.22	0.72
1:C:1303:CYS:O	1:C:1304:THR:OG1	2.07	0.72
1:B:2514:ASN:ND2	1:B:2516:ASP:OD1	2.22	0.72
1:D:3321:ARG:HB2	1:D:3321:ARG:NH1	2.03	0.72
1:B:981:GLN:HA	1:B:984:LEU:HD13	1.71	0.72
1:D:1174:GLY:N	1:C:3467:MET:HE1	2.05	0.72
1:A:3527:PRO:HD2	1:A:3573:MET:HE1	1.72	0.72
1:B:4711:PHE:HB3	1:B:4712:PRO:HD3	1.70	0.72
1:D:3527:PRO:HD2	1:D:3573:MET:HE1	1.72	0.72
1:C:3527:PRO:HD2	1:C:3573:MET:HE1	1.72	0.72
1:C:2355:ARG:NH2	1:C:2449:GLU:OE2	2.23	0.72
1:B:2355:ARG:NH2	1:B:2449:GLU:OE2	2.23	0.72
1:B:3527:PRO:HD2	1:B:3573:MET:HE1	1.72	0.72
1:D:1786:LEU:HD12	1:D:1787:PRO:HD2	1.72	0.72
1:C:2514:ASN:ND2	1:C:2516:ASP:OD1	2.22	0.72
1:B:3467:MET:HE1	1:C:1174:GLY:N	2.05	0.71
1:D:2355:ARG:NH2	1:D:2449:GLU:OE2	2.23	0.71
1:C:1171:SER:HG	1:C:1175:SER:HG	1.28	0.71
1:A:1174:GLY:N	1:D:3467:MET:HE1	2.05	0.71
1:D:1018:ASN:HB3	1:D:1021:LEU:HD23	1.71	0.71
1:A:2514:ASN:ND2	1:A:2516:ASP:OD1	2.22	0.71
1:B:1786:LEU:HD12	1:B:1787:PRO:HD2	1.72	0.71
1:C:1786:LEU:HD12	1:C:1787:PRO:HD2	1.72	0.71
1:A:1786:LEU:HD12	1:A:1787:PRO:HD2	1.72	0.71
2:G:3:GLN:HE21	2:G:75:THR:CB	2.02	0.71
2:F:3:GLN:HE21	2:F:75:THR:CB	2.02	0.71
1:C:1018:ASN:HB3	1:C:1021:LEU:HD23	1.71	0.71
1:C:924:MET:O	1:C:928:THR:HG23	1.91	0.71
1:A:2355:ARG:NH2	1:A:2449:GLU:OE2	2.23	0.71
2:E:3:GLN:HE21	2:E:75:THR:CB	2.02	0.71
1:B:2722:LYS:HG3	1:B:2724:GLU:H	1.54	0.71
1:A:924:MET:O	1:A:928:THR:HG23	1.90	0.70
1:D:3383:ALA:H	1:D:3384:LYS:HZ2	1.39	0.70
1:A:1171:SER:HG	1:A:1175:SER:HG	1.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2437:ALA:O	1:A:2508:ARG:NH2	2.24	0.70
1:A:4710:SER:O	1:A:4713:SER:OG	2.09	0.70
1:B:3899:PHE:CZ	1:B:3903:LEU:HD21	2.27	0.70
1:D:924:MET:O	1:D:928:THR:HG23	1.91	0.70
1:B:3834:ALA:O	1:B:3838:THR:HG23	1.92	0.70
1:D:2285:GLU:OE2	1:D:3853:ALA:HB1	1.92	0.70
1:D:3899:PHE:CZ	1:D:3903:LEU:HD21	2.27	0.70
1:C:3324:VAL:HG11	1:C:3361:THR:HG22	1.72	0.70
1:C:3899:PHE:CZ	1:C:3903:LEU:HD21	2.27	0.70
1:A:3324:VAL:HG11	1:A:3361:THR:HG22	1.72	0.70
1:B:2285:GLU:OE2	1:B:3853:ALA:HB1	1.92	0.70
1:C:321:GLU:OE1	1:C:321:GLU:N	2.25	0.70
1:C:3946:GLN:CD	1:C:3949:ARG:HE	1.99	0.70
1:C:4710:SER:O	1:C:4713:SER:OG	2.09	0.70
1:A:3946:GLN:CD	1:A:3949:ARG:HE	1.99	0.70
1:B:581:ASN:OD1	1:B:582:HIS:N	2.25	0.70
1:C:581:ASN:OD1	1:C:582:HIS:N	2.25	0.70
1:B:3324:VAL:HG11	1:B:3361:THR:HG22	1.72	0.69
1:D:1236:THR:OG1	1:D:1608:MET:SD	2.48	0.69
1:D:2761:TYR:HB3	1:D:2765:LYS:HZ3	1.57	0.69
1:D:3946:GLN:CD	1:D:3949:ARG:HE	1.99	0.69
1:C:2437:ALA:O	1:C:2508:ARG:NH2	2.24	0.69
1:A:228:ASP:OD1	1:A:229:GLU:N	2.25	0.69
1:A:728:ARG:NH2	1:A:1489:CYS:SG	2.65	0.69
1:B:924:MET:O	1:B:928:THR:HG23	1.90	0.69
1:A:581:ASN:OD1	1:A:582:HIS:N	2.25	0.69
1:A:3673:MET:CE	1:A:3725:TYR:CE1	2.76	0.69
1:B:2437:ALA:O	1:B:2508:ARG:NH2	2.24	0.69
1:D:581:ASN:OD1	1:D:582:HIS:N	2.25	0.69
1:D:728:ARG:NH2	1:D:1489:CYS:SG	2.65	0.69
1:D:3324:VAL:HG11	1:D:3361:THR:HG22	1.72	0.69
1:B:728:ARG:NH2	1:B:1489:CYS:SG	2.65	0.69
1:D:228:ASP:OD1	1:D:229:GLU:N	2.25	0.69
1:C:728:ARG:NH2	1:C:1489:CYS:SG	2.65	0.69
1:A:1303:CYS:O	1:A:1304:THR:OG1	2.07	0.69
1:A:3467:MET:HE1	1:B:1174:GLY:N	2.08	0.69
1:A:3834:ALA:O	1:A:3838:THR:HG23	1.92	0.69
1:B:3673:MET:CE	1:B:3725:TYR:CE1	2.76	0.69
1:D:321:GLU:OE1	1:D:321:GLU:N	2.25	0.69
1:D:1422:ASP:OD2	1:D:1568:LYS:NZ	2.20	0.69
1:A:1236:THR:OG1	1:A:1608:MET:SD	2.48	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2285:GLU:OE2	1:A:3853:ALA:HB1	1.92	0.69
1:A:3899:PHE:CZ	1:A:3903:LEU:HD21	2.27	0.69
1:B:228:ASP:OD1	1:B:229:GLU:N	2.25	0.69
1:D:2437:ALA:O	1:D:2508:ARG:NH2	2.24	0.69
1:C:1561:VAL:HG12	1:C:1562:ILE:HG23	1.75	0.69
1:C:2285:GLU:OE2	1:C:3853:ALA:HB1	1.92	0.69
1:C:3834:ALA:O	1:C:3838:THR:HG23	1.92	0.69
1:D:4710:SER:O	1:D:4713:SER:OG	2.09	0.69
1:A:4966:ASP:OD1	1:A:4967:TYR:N	2.27	0.68
1:B:321:GLU:OE1	1:B:321:GLU:N	2.25	0.68
1:D:2584[B]:HIS:CD2	1:D:2625:ARG:CD	2.76	0.68
1:D:4677:LEU:HD23	1:D:4711:PHE:CZ	2.29	0.68
1:B:2584[B]:HIS:CD2	1:B:2625:ARG:CD	2.76	0.68
1:C:2584[B]:HIS:CD2	1:C:2625:ARG:CD	2.76	0.68
1:A:1177:THR:O	1:A:1180:ARG:NH1	2.26	0.68
1:B:4710:SER:O	1:B:4713:SER:OG	2.09	0.68
1:D:571:SER:OG	1:D:573:GLU:OE1	2.11	0.68
1:C:228:ASP:OD1	1:C:229:GLU:N	2.25	0.68
1:C:4677:LEU:HD23	1:C:4711:PHE:CZ	2.29	0.68
1:A:3943:ILE:O	1:A:3948:LYS:NZ	2.27	0.68
1:B:3435:PHE:CD2	1:B:3524:MET:HE1	2.28	0.68
1:B:3946:GLN:CD	1:B:3949:ARG:HE	1.99	0.68
1:D:3834:ALA:O	1:D:3838:THR:HG23	1.92	0.68
1:A:672:VAL:O	1:A:680:THR:OG1	2.09	0.68
1:B:1177:THR:O	1:B:1180:ARG:NH1	2.26	0.68
1:D:981:GLN:HA	1:D:984:LEU:CD1	2.24	0.68
1:D:2229:VAL:HG11	1:D:2267:MET:CE	2.17	0.68
1:A:321:GLU:OE1	1:A:321:GLU:N	2.25	0.68
1:B:672:VAL:O	1:B:680:THR:OG1	2.09	0.68
1:B:4966:ASP:OD1	1:B:4967:TYR:N	2.26	0.68
1:C:3943:ILE:O	1:C:3948:LYS:NZ	2.27	0.68
1:A:2584[B]:HIS:CD2	1:A:2625:ARG:CD	2.76	0.68
1:A:4677:LEU:HD23	1:A:4711:PHE:CZ	2.29	0.68
1:C:3673:MET:CE	1:C:3725:TYR:CE1	2.76	0.68
1:A:571:SER:OG	1:A:573:GLU:OE1	2.11	0.68
1:A:3502:ARG:NH1	1:A:3502:ARG:O	2.27	0.68
1:B:3103:ILE:HD13	1:B:3168:THR:HG23	1.76	0.68
1:B:4677:LEU:HD23	1:B:4711:PHE:CZ	2.29	0.68
1:D:3435:PHE:CD2	1:D:3524:MET:HE1	2.28	0.68
1:D:3673:MET:CE	1:D:3725:TYR:CE1	2.76	0.68
1:C:3435:PHE:CD2	1:C:3524:MET:HE1	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:941:MET:HE2	1:A:944:GLU:HA	1.76	0.68
1:B:3943:ILE:O	1:B:3948:LYS:NZ	2.27	0.68
1:D:4966:ASP:OD1	1:D:4967:TYR:N	2.26	0.68
1:A:1422:ASP:OD2	1:A:1568:LYS:NZ	2.20	0.67
1:C:3502:ARG:NH1	1:C:3502:ARG:O	2.27	0.67
1:A:3435:PHE:CD2	1:A:3524:MET:HE1	2.28	0.67
1:D:1561:VAL:HG12	1:D:1562:ILE:HG23	1.75	0.67
1:C:3103:ILE:HD13	1:C:3168:THR:HG23	1.75	0.67
1:B:981:GLN:HA	1:B:984:LEU:CD1	2.24	0.67
1:C:1177:THR:O	1:C:1180:ARG:NH1	2.26	0.67
1:C:4677:LEU:HD23	1:C:4711:PHE:CE1	2.29	0.67
1:B:1422:ASP:OD2	1:B:1568:LYS:NZ	2.20	0.67
1:D:1303:CYS:O	1:D:1304:THR:OG1	2.07	0.67
1:D:3943:ILE:O	1:D:3948:LYS:NZ	2.27	0.67
1:C:981:GLN:HA	1:C:984:LEU:CD1	2.24	0.67
1:B:1561:VAL:HG12	1:B:1562:ILE:HG23	1.75	0.67
1:D:4677:LEU:HD23	1:D:4711:PHE:CE1	2.29	0.67
1:D:941:MET:HE2	1:D:944:GLU:HA	1.76	0.67
1:C:2196:ASN:OD1	1:C:2199:ARG:NH2	2.28	0.67
1:A:1561:VAL:HG12	1:A:1562:ILE:HG23	1.75	0.67
1:A:2196:ASN:OD1	1:A:2199:ARG:NH2	2.28	0.67
1:B:1303:CYS:O	1:B:1304:THR:OG1	2.07	0.67
1:A:4677:LEU:HD23	1:A:4711:PHE:CE1	2.29	0.67
1:B:4677:LEU:HD23	1:B:4711:PHE:CE1	2.29	0.67
1:B:2790:MET:HE2	1:B:2797:PHE:HE1	1.60	0.67
1:C:140:ASP:OD2	1:C:142:THR:OG1	2.13	0.67
1:A:140:ASP:OD2	1:A:142:THR:OG1	2.13	0.67
1:A:3103:ILE:HD13	1:A:3168:THR:HG23	1.75	0.67
1:D:140:ASP:OD2	1:D:142:THR:OG1	2.13	0.67
1:C:2929:PHE:HA	1:C:2932:MET:CE	2.25	0.67
1:A:981:GLN:HA	1:A:984:LEU:CD1	2.24	0.66
1:B:3502:ARG:NH1	1:B:3502:ARG:O	2.27	0.66
1:D:2604:GLU:C	1:D:2608:MET:CE	2.69	0.66
1:C:1236:THR:OG1	1:C:1608:MET:SD	2.48	0.66
1:C:2605:ASP:CA	1:C:2608:MET:HE2	2.24	0.66
1:A:952:LYS:HD2	1:A:968:ALA:HB1	1.77	0.66
1:C:941:MET:HE2	1:C:944:GLU:HA	1.76	0.66
1:C:2604:GLU:C	1:C:2608:MET:CE	2.69	0.66
1:A:980:ALA:C	1:A:984:LEU:HD12	2.21	0.66
1:D:2929:PHE:HA	1:D:2932:MET:CE	2.25	0.66
1:D:3103:ILE:HD13	1:D:3168:THR:HG23	1.75	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:473:ASN:O	1:A:477:LEU:HD23	1.96	0.66
1:A:2929:PHE:HA	1:A:2932:MET:CE	2.25	0.66
2:H:79:ASP:OD1	2:H:80:TYR:N	2.29	0.66
1:B:140:ASP:OD2	1:B:142:THR:OG1	2.13	0.66
1:B:2604:GLU:C	1:B:2608:MET:CE	2.69	0.66
1:B:2929:PHE:HA	1:B:2932:MET:CE	2.25	0.66
1:D:2584[A]:HIS:CD2	1:D:2625:ARG:CZ	2.79	0.66
1:C:473:ASN:O	1:C:477:LEU:HD23	1.96	0.66
2:F:79:ASP:OD1	2:F:80:TYR:N	2.29	0.66
1:B:46:LEU:HD13	1:B:125:ARG:HH21	1.60	0.66
1:D:3502:ARG:NH1	1:D:3502:ARG:O	2.27	0.66
1:C:46:LEU:HD13	1:C:125:ARG:HH21	1.60	0.66
1:C:571:SER:OG	1:C:573:GLU:OE1	2.11	0.66
1:C:2584[A]:HIS:CD2	1:C:2625:ARG:CZ	2.79	0.66
1:C:2790:MET:HE2	1:C:2797:PHE:HE1	1.60	0.66
1:A:2929:PHE:HD1	1:A:2932:MET:HE2	1.61	0.66
1:D:473:ASN:O	1:D:477:LEU:HD23	1.96	0.66
1:D:1177:THR:O	1:D:1180:ARG:NH1	2.26	0.66
1:C:2159:LEU:HD13	1:C:2203:MET:HG2	1.78	0.66
1:C:2604:GLU:C	1:C:2608:MET:HE1	2.21	0.66
1:C:4966:ASP:OD1	1:C:4967:TYR:N	2.27	0.66
1:A:2584[A]:HIS:CD2	1:A:2625:ARG:CZ	2.79	0.66
1:B:2196:ASN:OD1	1:B:2199:ARG:NH2	2.28	0.66
1:B:3048:ALA:O	1:B:3053:ARG:NH2	2.28	0.66
1:D:2196:ASN:OD1	1:D:2199:ARG:NH2	2.28	0.66
1:D:2605:ASP:CA	1:D:2608:MET:HE2	2.24	0.66
1:A:3946:GLN:OE1	1:A:3949:ARG:NH2	2.29	0.66
2:G:79:ASP:OD1	2:G:80:TYR:N	2.29	0.66
1:B:2584[A]:HIS:CD2	1:B:2625:ARG:CZ	2.79	0.66
1:D:2929:PHE:HD1	1:D:2932:MET:HE2	1.61	0.66
1:C:952:LYS:HD2	1:C:968:ALA:HB1	1.77	0.66
1:C:980:ALA:C	1:C:984:LEU:HD12	2.21	0.66
1:A:2604:GLU:C	1:A:2608:MET:CE	2.69	0.66
1:D:2790:MET:HE2	1:D:2797:PHE:HE1	1.60	0.66
1:D:3321:ARG:CB	1:D:3321:ARG:HH11	2.10	0.66
1:D:3946:GLN:OE1	1:D:3949:ARG:NH2	2.29	0.66
1:A:3048:ALA:O	1:A:3053:ARG:NH2	2.28	0.65
1:A:3248:ARG:NH1	1:A:3252:ASP:CG	2.54	0.65
1:B:980:ALA:C	1:B:984:LEU:HD12	2.21	0.65
1:B:2159:LEU:HD13	1:B:2203:MET:HG2	1.78	0.65
1:D:2604:GLU:C	1:D:2608:MET:HE1	2.21	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2929:PHE:HD1	1:C:2932:MET:HE2	1.61	0.65
1:D:952:LYS:HD2	1:D:968:ALA:HB1	1.77	0.65
1:C:3048:ALA:O	1:C:3053:ARG:NH2	2.28	0.65
1:A:2159:LEU:HD13	1:A:2203:MET:HG2	1.78	0.65
1:A:4778:TRP:O	1:A:4782:VAL:HG23	1.96	0.65
1:D:2159:LEU:HD13	1:D:2203:MET:HG2	1.78	0.65
1:C:3946:GLN:OE1	1:C:3949:ARG:NH2	2.29	0.65
1:B:952:LYS:HD2	1:B:968:ALA:HB1	1.77	0.65
1:B:3051:ARG:O	1:B:3053:ARG:NE	2.29	0.65
2:E:79:ASP:OD1	2:E:80:TYR:N	2.29	0.65
1:B:941:MET:HE2	1:B:944:GLU:HA	1.76	0.65
1:D:672:VAL:O	1:D:680:THR:OG1	2.09	0.65
1:D:980:ALA:C	1:D:984:LEU:HD12	2.21	0.65
1:A:46:LEU:HD13	1:A:125:ARG:HH21	1.60	0.65
1:A:1079:LYS:HA	1:A:1189:LEU:HD11	1.79	0.65
1:A:3635:CYS:C	1:A:3638:MET:HE2	2.22	0.65
1:B:571:SER:OG	1:B:573:GLU:OE1	2.11	0.65
1:B:3248:ARG:NH1	1:B:3252:ASP:CG	2.54	0.65
1:B:4778:TRP:O	1:B:4782:VAL:HG23	1.96	0.65
1:D:3248:ARG:NH1	1:D:3252:ASP:CG	2.54	0.65
1:C:672:VAL:O	1:C:680:THR:OG1	2.09	0.65
1:C:2761:TYR:HB3	1:C:2765:LYS:HZ3	1.61	0.65
1:C:3321:ARG:HH11	1:C:3321:ARG:CB	2.10	0.65
1:C:4778:TRP:O	1:C:4782:VAL:HG23	1.97	0.65
1:B:473:ASN:O	1:B:477:LEU:HD23	1.96	0.65
1:B:2605:ASP:CA	1:B:2608:MET:HE2	2.24	0.65
1:B:2929:PHE:HD1	1:B:2932:MET:HE2	1.61	0.65
1:B:3321:ARG:CB	1:B:3321:ARG:HH11	2.10	0.65
1:B:3946:GLN:OE1	1:B:3949:ARG:NH2	2.29	0.65
1:C:2233:CYS:O	1:C:2235:PHE:N	2.30	0.65
1:A:881:LEU:O	1:A:885:THR:HG23	1.96	0.65
1:A:2233:CYS:O	1:A:2235:PHE:N	2.30	0.65
1:A:2790:MET:HE2	1:A:2797:PHE:HE1	1.60	0.65
1:D:46:LEU:HD13	1:D:125:ARG:HH21	1.60	0.65
1:D:4778:TRP:O	1:D:4782:VAL:HG23	1.96	0.65
1:A:3946:GLN:OE1	1:A:3949:ARG:CZ	2.45	0.64
1:A:3395:ARG:HD2	1:A:3454:GLU:OE2	1.98	0.64
1:B:2604:GLU:C	1:B:2608:MET:HE1	2.21	0.64
1:B:3946:GLN:OE1	1:B:3949:ARG:CZ	2.45	0.64
1:C:3878:ASP:OD1	1:C:3879:GLU:N	2.31	0.64
1:D:1079:LYS:HA	1:D:1189:LEU:HD11	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1599:MET:HG3	1:D:1601:MET:HE2	1.80	0.64
1:D:2233:CYS:O	1:D:2235:PHE:N	2.30	0.64
1:D:3048:ALA:O	1:D:3053:ARG:NH2	2.28	0.64
1:D:3162:GLN:NE2	1:D:3203:VAL:HG11	2.12	0.64
1:D:3395:ARG:HD2	1:D:3454:GLU:OE2	1.98	0.64
1:C:3162:GLN:NE2	1:C:3203:VAL:HG11	2.12	0.64
1:C:1599:MET:HG3	1:C:1601:MET:HE2	1.80	0.64
1:A:3159:ASP:O	1:A:3163:VAL:HG23	1.98	0.64
1:D:881:LEU:O	1:D:885:THR:HG23	1.96	0.64
1:C:3248:ARG:NH1	1:C:3252:ASP:CG	2.54	0.64
1:C:3346:VAL:HG11	1:C:3414:ARG:HB2	1.80	0.64
1:A:2604:GLU:C	1:A:2608:MET:HE1	2.21	0.64
1:A:2761:TYR:HB3	1:A:2765:LYS:HZ3	1.61	0.64
1:B:881:LEU:O	1:B:885:THR:HG23	1.96	0.64
1:B:3159:ASP:O	1:B:3163:VAL:HG23	1.98	0.64
1:D:3878:ASP:OD1	1:D:3879:GLU:N	2.31	0.64
1:C:881:LEU:O	1:C:885:THR:HG23	1.96	0.64
1:C:3395:ARG:HD2	1:C:3454:GLU:OE2	1.98	0.64
1:A:3162:GLN:NE2	1:A:3203:VAL:HG11	2.12	0.64
2:G:11:ASP:OD2	2:G:14:THR:OG1	2.14	0.64
1:B:3115:VAL:O	1:B:3116:SER:OG	2.14	0.64
1:B:3162:GLN:NE2	1:B:3203:VAL:HG11	2.12	0.64
1:B:3395:ARG:HD2	1:B:3454:GLU:OE2	1.98	0.64
1:B:3891:LEU:HD13	1:B:3899:PHE:CZ	2.33	0.64
1:D:3946:GLN:OE1	1:D:3949:ARG:CZ	2.45	0.64
1:C:3635:CYS:C	1:C:3638:MET:HE2	2.22	0.64
1:C:3946:GLN:OE1	1:C:3949:ARG:CZ	2.45	0.64
1:A:2605:ASP:CA	1:A:2608:MET:HE2	2.24	0.64
1:B:1079:LYS:HA	1:B:1189:LEU:HD11	1.79	0.64
1:B:3635:CYS:C	1:B:3638:MET:HE2	2.22	0.64
1:D:3891:LEU:HD13	1:D:3899:PHE:CZ	2.33	0.64
1:C:3051:ARG:O	1:C:3053:ARG:NE	2.29	0.64
1:C:3946:GLN:HA	1:C:3949:ARG:HD2	1.80	0.64
1:C:4078:GLN:HA	1:C:4081:VAL:HG12	1.80	0.64
1:A:3321:ARG:CB	1:A:3321:ARG:HH11	2.09	0.64
1:B:2761:TYR:HB3	1:B:2765:LYS:HZ3	1.60	0.64
1:A:4818:MET:O	1:A:4824:ARG:NH1	2.32	0.63
1:B:2913:ALA:O	1:B:2917:ALA:N	2.31	0.63
1:D:3159:ASP:O	1:D:3163:VAL:HG23	1.98	0.63
1:D:3346:VAL:HG11	1:D:3414:ARG:HB2	1.80	0.63
1:C:1079:LYS:HA	1:C:1189:LEU:HD11	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3159:ASP:O	1:C:3163:VAL:HG23	1.98	0.63
1:B:2233:CYS:O	1:B:2235:PHE:N	2.30	0.63
1:B:4078:GLN:HA	1:B:4081:VAL:HG12	1.80	0.63
1:D:3635:CYS:C	1:D:3638:MET:HE2	2.22	0.63
1:D:4655:PHE:CE2	1:D:4659:ILE:HD11	2.34	0.63
1:D:3115:VAL:O	1:D:3116:SER:OG	2.14	0.63
1:D:4078:GLN:HA	1:D:4081:VAL:HG12	1.80	0.63
1:C:3891:LEU:HD13	1:C:3899:PHE:CZ	2.33	0.63
1:B:3946:GLN:HA	1:B:3949:ARG:HD2	1.80	0.63
1:B:4655:PHE:CE2	1:B:4659:ILE:HD11	2.34	0.63
1:D:2516:ASP:OD1	1:D:2517:PHE:N	2.31	0.63
1:A:1599:MET:HG3	1:A:1601:MET:HE2	1.80	0.63
1:A:965:TYR:O	1:A:965:TYR:CD2	2.52	0.63
1:B:1599:MET:HG3	1:B:1601:MET:HE2	1.80	0.63
1:B:2516:ASP:OD1	1:B:2517:PHE:N	2.31	0.63
1:C:4818:MET:O	1:C:4824:ARG:NH1	2.32	0.63
1:A:3321:ARG:HB2	1:A:3321:ARG:HH11	1.63	0.63
1:A:3878:ASP:OD1	1:A:3879:GLU:N	2.31	0.63
2:F:11:ASP:OD2	2:F:14:THR:OG1	2.14	0.63
1:B:3878:ASP:OD1	1:B:3879:GLU:N	2.31	0.63
1:D:3051:ARG:O	1:D:3053:ARG:NE	2.29	0.63
1:C:4655:PHE:CE2	1:C:4659:ILE:HD11	2.34	0.63
1:A:2913:ALA:O	1:A:2917:ALA:N	2.31	0.63
1:A:3891:LEU:HD13	1:A:3899:PHE:CZ	2.33	0.63
1:D:2913:ALA:O	1:D:2917:ALA:N	2.32	0.63
1:C:965:TYR:CD2	1:C:965:TYR:O	2.52	0.63
1:A:3346:VAL:HG11	1:A:3414:ARG:HB2	1.80	0.63
1:A:2516:ASP:OD1	1:A:2517:PHE:N	2.31	0.62
1:A:4071:ILE:O	1:A:4074:SER:OG	2.14	0.62
1:A:4655:PHE:CE2	1:A:4659:ILE:HD11	2.34	0.62
1:B:965:TYR:CD2	1:B:965:TYR:O	2.52	0.62
1:D:3616:LYS:HA	1:D:3619:VAL:HG23	1.82	0.62
1:D:4818:MET:O	1:D:4824:ARG:NH1	2.32	0.62
1:A:3946:GLN:HA	1:A:3949:ARG:HD2	1.80	0.62
1:A:4078:GLN:HA	1:A:4081:VAL:HG12	1.80	0.62
1:B:3321:ARG:HB2	1:B:3321:ARG:HH11	1.63	0.62
1:C:2913:ALA:O	1:C:2917:ALA:N	2.31	0.62
1:D:3383:ALA:N	1:D:3384:LYS:HZ2	1.97	0.62
1:C:4069:LYS:NZ	1:C:4130:ASN:OD1	2.30	0.62
1:A:3051:ARG:O	1:A:3053:ARG:NE	2.28	0.62
1:A:4069:LYS:NZ	1:A:4130:ASN:OD1	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3346:VAL:HG11	1:B:3414:ARG:HB2	1.80	0.62
1:B:4818:MET:O	1:B:4824:ARG:NH1	2.32	0.62
1:D:941:MET:CE	1:D:944:GLU:HA	2.30	0.62
1:D:3611:HIS:ND1	1:D:3611:HIS:O	2.33	0.62
1:C:2520:HIS:O	1:C:2524:VAL:HG22	2.00	0.62
1:A:577:ILE:O	1:A:579:GLN:NE2	2.32	0.62
1:D:3946:GLN:HA	1:D:3949:ARG:HD2	1.81	0.62
1:C:3786:CYS:SG	1:C:3831:SER:OG	2.57	0.62
1:A:3616:LYS:HA	1:A:3619:VAL:HG23	1.81	0.62
1:D:3786:CYS:SG	1:D:3831:SER:OG	2.56	0.62
1:C:3321:ARG:HB2	1:C:3321:ARG:HH11	1.63	0.62
1:A:941:MET:CE	1:A:944:GLU:HA	2.30	0.62
1:C:3115:VAL:O	1:C:3116:SER:OG	2.14	0.62
1:B:941:MET:CE	1:B:944:GLU:HA	2.30	0.62
1:D:577:ILE:O	1:D:579:GLN:NE2	2.32	0.62
1:D:2520:HIS:O	1:D:2524:VAL:HG22	2.00	0.62
1:D:2929:PHE:HA	1:D:2932:MET:SD	2.40	0.62
1:C:1422:ASP:OD2	1:C:1568:LYS:NZ	2.20	0.62
1:D:965:TYR:O	1:D:965:TYR:CD2	2.52	0.62
1:C:577:ILE:O	1:C:579:GLN:NE2	2.32	0.62
1:C:941:MET:CE	1:C:944:GLU:HA	2.30	0.62
1:A:961:MET:CE	1:A:965:TYR:C	2.74	0.61
1:B:1427:ILE:HG23	1:B:1428:LEU:HD22	1.82	0.61
1:B:3786:CYS:SG	1:B:3831:SER:OG	2.57	0.61
1:D:3321:ARG:HB2	1:D:3321:ARG:HH11	1.63	0.61
1:C:294:THR:O	1:C:298:GLY:N	2.33	0.61
1:C:1599:MET:CG	1:C:1601:MET:HE2	2.31	0.61
1:C:2516:ASP:OD1	1:C:2517:PHE:N	2.31	0.61
1:A:2499:LYS:O	1:A:2503:VAL:HG23	2.00	0.61
1:D:294:THR:O	1:D:298:GLY:N	2.33	0.61
1:D:961:MET:CE	1:D:965:TYR:C	2.73	0.61
1:D:2499:LYS:O	1:D:2503:VAL:HG23	2.00	0.61
1:D:4069:LYS:NZ	1:D:4130:ASN:OD1	2.30	0.61
1:C:1003:GLN:O	1:C:1016:ARG:NH2	2.34	0.61
1:C:4563:ARG:NH2	1:C:4815:ASP:OD1	2.33	0.61
1:C:483:MET:HA	1:C:483:MET:HE3	1.81	0.61
1:C:2974:ILE:HD13	1:C:3049:LEU:HD12	1.81	0.61
1:C:3616:LYS:HA	1:C:3619:VAL:HG23	1.82	0.61
1:A:1427:ILE:HG23	1:A:1428:LEU:HD22	1.82	0.61
1:A:2522:LEU:HD23	1:A:2582:MET:HE2	1.83	0.61
1:B:1599:MET:CG	1:B:1601:MET:HE2	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2520:HIS:O	1:B:2524:VAL:HG22	2.00	0.61
1:B:2522:LEU:HD23	1:B:2582:MET:HE2	1.83	0.61
1:D:1427:ILE:HG23	1:D:1428:LEU:HD22	1.82	0.61
1:D:2974:ILE:HD13	1:D:3049:LEU:HD12	1.81	0.61
1:A:1599:MET:CG	1:A:1601:MET:HE2	2.31	0.61
1:A:3611:HIS:ND1	1:A:3611:HIS:O	2.33	0.61
1:D:483:MET:HA	1:D:483:MET:HE3	1.81	0.61
1:D:1003:GLN:O	1:D:1016:ARG:NH2	2.34	0.61
1:D:2285:GLU:OE1	1:D:3870:ASN:ND2	2.32	0.61
1:C:1427:ILE:HG23	1:C:1428:LEU:HD22	1.82	0.61
1:B:961:MET:CE	1:B:965:TYR:C	2.74	0.61
1:B:1810:LYS:O	1:B:1814:MET:HG3	2.01	0.61
1:B:2974:ILE:HD13	1:B:3049:LEU:HD12	1.81	0.61
1:B:3616:LYS:HA	1:B:3619:VAL:HG23	1.81	0.61
1:D:1599:MET:CG	1:D:1601:MET:HE2	2.31	0.61
1:D:2211:MET:O	1:D:2215:LEU:HD13	2.01	0.61
1:C:961:MET:CE	1:C:965:TYR:C	2.73	0.61
1:C:2499:LYS:O	1:C:2503:VAL:HG23	2.00	0.61
1:A:1003:GLN:O	1:A:1016:ARG:NH2	2.34	0.61
1:A:1810:LYS:O	1:A:1814:MET:HG3	2.01	0.61
1:A:2211:MET:O	1:A:2215:LEU:HD13	2.01	0.61
1:A:2520:HIS:O	1:A:2524:VAL:HG22	2.00	0.61
1:D:1927:LEU:HD22	1:D:2101:MET:SD	2.41	0.61
1:A:2929:PHE:HA	1:A:2932:MET:SD	2.40	0.61
1:B:577:ILE:O	1:B:579:GLN:NE2	2.32	0.61
1:B:1003:GLN:O	1:B:1016:ARG:NH2	2.34	0.61
1:B:2499:LYS:O	1:B:2503:VAL:HG23	2.00	0.61
1:C:2522:LEU:HD23	1:C:2582:MET:HE2	1.82	0.61
2:E:11:ASP:OD2	2:E:14:THR:OG1	2.15	0.61
1:C:2929:PHE:HA	1:C:2932:MET:SD	2.40	0.61
1:C:3611:HIS:ND1	1:C:3611:HIS:O	2.33	0.61
1:A:3786:CYS:SG	1:A:3831:SER:OG	2.57	0.60
1:D:1810:LYS:O	1:D:1814:MET:HG3	2.01	0.60
1:D:3588:ASP:O	1:D:3592:ILE:HD12	2.01	0.60
1:C:2211:MET:O	1:C:2215:LEU:HD13	2.01	0.60
1:A:1927:LEU:HD22	1:A:2101:MET:SD	2.41	0.60
1:A:2587:TYR:HD2	1:A:2625:ARG:NH1	1.99	0.60
2:H:3:GLN:HE21	2:H:75:THR:CG2	2.14	0.60
2:H:3:GLN:HE21	2:H:75:THR:HG21	1.67	0.60
2:F:3:GLN:HE21	2:F:75:THR:CG2	2.14	0.60
1:B:294:THR:O	1:B:298:GLY:N	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2929:PHE:HA	1:B:2932:MET:SD	2.40	0.60
1:C:2523:ASP:OD1	1:C:2524:VAL:HG13	2.01	0.60
1:C:4929:LEU:O	1:C:4933:GLN:OE1	2.20	0.60
1:A:294:THR:O	1:A:298:GLY:N	2.33	0.60
1:B:483:MET:HA	1:B:483:MET:HE3	1.81	0.60
1:C:3673:MET:HE2	1:C:3725:TYR:HE1	1.66	0.60
2:G:3:GLN:HE21	2:G:75:THR:CG2	2.14	0.60
1:C:1810:LYS:O	1:C:1814:MET:HG3	2.01	0.60
1:A:483:MET:HA	1:A:483:MET:HE3	1.81	0.60
1:A:2974:ILE:HD13	1:A:3049:LEU:HD12	1.81	0.60
1:B:2211:MET:O	1:B:2215:LEU:HD13	2.01	0.60
1:D:4060:LYS:HG3	1:D:4064:MET:HE2	1.83	0.60
1:A:3946:GLN:OE1	1:A:3949:ARG:NH1	2.35	0.60
1:D:3673:MET:HE2	1:D:3725:TYR:HE1	1.66	0.60
1:C:1927:LEU:HD22	1:C:2101:MET:SD	2.41	0.60
1:C:2434:GLY:O	1:C:2508:ARG:NE	2.34	0.60
1:A:3115:VAL:O	1:A:3116:SER:OG	2.14	0.60
1:B:3611:HIS:ND1	1:B:3611:HIS:O	2.33	0.60
1:A:1758:ARG:NH1	1:A:1759:ARG:O	2.35	0.60
2:E:3:GLN:HE21	2:E:75:THR:CG2	2.14	0.60
2:G:3:GLN:HE21	2:G:75:THR:HG21	1.66	0.60
1:B:4929:LEU:O	1:B:4933:GLN:OE1	2.20	0.60
1:D:2522:LEU:HD23	1:D:2582:MET:HE2	1.82	0.60
1:C:3635:CYS:O	1:C:3638:MET:CE	2.50	0.60
1:A:2523:ASP:OD1	1:A:2524:VAL:HG13	2.01	0.60
1:A:3635:CYS:O	1:A:3638:MET:CE	2.50	0.60
1:A:3673:MET:HE2	1:A:3725:TYR:HE1	1.66	0.60
1:A:4929:LEU:O	1:A:4933:GLN:OE1	2.20	0.60
1:B:1236:THR:OG1	1:B:1608:MET:SD	2.48	0.60
1:B:4069:LYS:NZ	1:B:4130:ASN:OD1	2.30	0.60
1:C:3588:ASP:O	1:C:3592:ILE:HD12	2.01	0.60
1:C:4060:LYS:HG3	1:C:4064:MET:HE2	1.83	0.60
2:E:3:GLN:HE21	2:E:75:THR:HG21	1.66	0.59
1:B:1758:ARG:NH1	1:B:1759:ARG:O	2.35	0.59
1:B:1927:LEU:HD22	1:B:2101:MET:SD	2.41	0.59
1:B:2523:ASP:OD1	1:B:2524:VAL:HG13	2.01	0.59
1:D:4563:ARG:NH2	1:D:4815:ASP:OD1	2.33	0.59
2:H:11:ASP:OD1	2:H:12:GLY:N	2.35	0.59
1:B:2490:MET:HG3	1:B:2545:GLU:OE1	2.02	0.59
1:B:3588:ASP:O	1:B:3592:ILE:HD12	2.01	0.59
1:B:4060:LYS:HG3	1:B:4064:MET:HE2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1758:ARG:NH1	1:D:1759:ARG:O	2.35	0.59
1:D:2741:GLU:HB3	1:D:2743:LEU:HD22	1.84	0.59
1:C:3946:GLN:OE1	1:C:3949:ARG:NH1	2.35	0.59
1:A:4060:LYS:HG3	1:A:4064:MET:HE2	1.83	0.59
2:H:11:ASP:OD2	2:H:14:THR:OG1	2.14	0.59
1:C:1758:ARG:NH1	1:C:1759:ARG:O	2.35	0.59
1:A:2285:GLU:OE1	1:A:3870:ASN:ND2	2.32	0.59
1:A:2490:MET:HG3	1:A:2545:GLU:OE1	2.03	0.59
1:B:3635:CYS:O	1:B:3638:MET:CE	2.50	0.59
1:B:3946:GLN:OE1	1:B:3949:ARG:NH1	2.35	0.59
1:A:3588:ASP:O	1:A:3592:ILE:HD12	2.01	0.59
2:E:11:ASP:OD1	2:E:12:GLY:N	2.35	0.59
1:C:3673:MET:CE	1:C:3725:TYR:HE1	2.15	0.59
2:G:11:ASP:OD1	2:G:12:GLY:N	2.35	0.59
1:D:3514:LEU:HD21	1:D:3602:VAL:HG13	1.84	0.59
1:D:4081:VAL:HG13	1:D:4081:VAL:O	2.02	0.59
1:D:4929:LEU:O	1:D:4933:GLN:OE1	2.20	0.59
1:C:2285:GLU:OE1	1:C:3870:ASN:ND2	2.32	0.59
2:F:11:ASP:OD1	2:F:12:GLY:N	2.35	0.59
1:B:2229:VAL:HG11	1:B:2267:MET:CE	2.17	0.59
1:D:2490:MET:HG3	1:D:2545:GLU:OE1	2.03	0.59
1:D:2523:ASP:OD1	1:D:2524:VAL:HG13	2.01	0.59
1:A:2762:THR:HA	1:A:2765:LYS:HE2	1.85	0.59
1:A:3531:ASP:O	1:A:3535:LEU:HD12	2.02	0.59
1:C:2233:CYS:O	1:C:2236:LEU:N	2.36	0.59
1:A:2741:GLU:HB3	1:A:2743:LEU:HD22	1.84	0.59
1:A:3383:ALA:H	1:A:3384:LYS:HZ2	1.51	0.59
1:B:2587:TYR:HD2	1:B:2625:ARG:NH1	1.99	0.59
1:B:3673:MET:HE2	1:B:3725:TYR:HE1	1.66	0.59
1:D:3531:ASP:O	1:D:3535:LEU:HD12	2.02	0.59
2:H:24:VAL:HG21	2:H:59:TRP:HZ3	1.67	0.59
1:B:3514:LEU:HD21	1:B:3602:VAL:HG13	1.84	0.59
1:D:234:SER:HG	1:D:238:SER:HG	1.49	0.59
1:A:3673:MET:CE	1:A:3725:TYR:HE1	2.15	0.58
1:B:2285:GLU:OE1	1:B:3870:ASN:ND2	2.32	0.58
1:A:2229:VAL:HG11	1:A:2267:MET:CE	2.17	0.58
1:B:3531:ASP:O	1:B:3535:LEU:HD12	2.02	0.58
1:D:2587:TYR:CD2	1:D:2625:ARG:NH1	2.70	0.58
1:C:2208:MET:HE3	1:C:2250:MET:HE1	1.86	0.58
2:E:3:GLN:HE21	2:E:75:THR:HB	1.68	0.58
1:B:928:THR:O	1:B:932:LEU:HD23	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2762:THR:HA	1:D:2765:LYS:HE2	1.85	0.58
1:D:3673:MET:CE	1:D:3725:TYR:HE1	2.15	0.58
1:C:2587:TYR:HD2	1:C:2625:ARG:NH1	1.99	0.58
1:B:984:LEU:HD21	1:B:1056:PRO:HD2	1.85	0.58
1:D:928:THR:O	1:D:932:LEU:HD23	2.03	0.58
1:D:3946:GLN:OE1	1:D:3949:ARG:NH1	2.35	0.58
1:A:2214:VAL:HG21	1:A:2228:MET:HE2	1.84	0.58
2:H:3:GLN:HE21	2:H:75:THR:HB	1.68	0.58
1:C:2214:VAL:HG21	1:C:2228:MET:HE2	1.84	0.58
1:C:2490:MET:HG3	1:C:2545:GLU:OE1	2.03	0.58
1:C:2741:GLU:HB3	1:C:2743:LEU:HD22	1.84	0.58
1:A:3514:LEU:HD21	1:A:3602:VAL:HG13	1.84	0.58
2:F:24:VAL:HG21	2:F:59:TRP:HZ3	1.67	0.58
1:B:3891:LEU:HB3	1:B:3899:PHE:CE2	2.39	0.58
1:B:4081:VAL:HG13	1:B:4081:VAL:O	2.02	0.58
1:D:2233:CYS:O	1:D:2236:LEU:N	2.36	0.58
1:C:3514:LEU:HD21	1:C:3602:VAL:HG13	1.84	0.58
1:B:2208:MET:HE3	1:B:2250:MET:HE1	1.86	0.58
1:B:2233:CYS:O	1:B:2236:LEU:N	2.36	0.58
1:B:2928:LYS:C	1:B:2932:MET:SD	2.87	0.58
1:C:928:THR:O	1:C:932:LEU:HD23	2.03	0.58
1:C:2208:MET:HE1	1:C:2253:HIS:CG	2.39	0.58
1:A:928:THR:O	1:A:932:LEU:HD23	2.03	0.58
1:A:4081:VAL:HG13	1:A:4081:VAL:O	2.02	0.58
2:G:24:VAL:HG21	2:G:59:TRP:HZ3	1.68	0.58
1:D:2208:MET:HE3	1:D:2250:MET:HE1	1.86	0.58
1:D:2208:MET:HE1	1:D:2253:HIS:CG	2.39	0.58
1:D:3081:MET:HE1	1:D:3093:ARG:NH1	2.19	0.58
1:D:3635:CYS:O	1:D:3638:MET:CE	2.50	0.58
1:D:3891:LEU:HB3	1:D:3899:PHE:CE2	2.39	0.58
1:C:4081:VAL:O	1:C:4081:VAL:HG13	2.02	0.58
1:A:3891:LEU:HB3	1:A:3899:PHE:CE2	2.39	0.58
1:A:4563:ARG:NH2	1:A:4815:ASP:OD1	2.33	0.58
1:B:2762:THR:HA	1:B:2765:LYS:HE2	1.85	0.58
1:B:4563:ARG:NH2	1:B:4815:ASP:OD1	2.33	0.58
1:D:2214:VAL:HG21	1:D:2228:MET:HE2	1.84	0.58
1:C:2762:THR:HA	1:C:2765:LYS:HE2	1.85	0.58
1:A:2233:CYS:O	1:A:2236:LEU:N	2.36	0.58
1:A:2928:LYS:C	1:A:2932:MET:SD	2.87	0.58
1:B:3081:MET:HE1	1:B:3093:ARG:NH1	2.19	0.58
1:D:2587:TYR:HD2	1:D:2625:ARG:NH1	1.99	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4071:ILE:O	1:D:4074:SER:OG	2.14	0.58
1:C:984:LEU:HD21	1:C:1056:PRO:HD2	1.85	0.58
1:C:2928:LYS:C	1:C:2932:MET:SD	2.87	0.58
1:A:2208:MET:HE3	1:A:2250:MET:HE1	1.86	0.57
1:A:2208:MET:HE1	1:A:2253:HIS:CG	2.39	0.57
1:A:2434:GLY:O	1:A:2508:ARG:NE	2.34	0.57
1:A:3321:ARG:NH1	1:A:3321:ARG:CB	2.66	0.57
2:F:3:GLN:HE21	2:F:75:THR:HG21	1.67	0.57
1:B:2208:MET:HE1	1:B:2253:HIS:CG	2.39	0.57
1:B:2741:GLU:HB3	1:B:2743:LEU:HD22	1.84	0.57
1:B:3097:GLU:O	1:B:3100:SER:OG	2.21	0.57
1:C:156:GLN:OE1	1:C:156:GLN:HA	2.04	0.57
1:C:234:SER:HG	1:C:238:SER:HG	1.52	0.57
1:C:3097:GLU:O	1:C:3100:SER:OG	2.21	0.57
1:C:4691:GLN:OE1	1:C:4703:ARG:NH1	2.35	0.57
1:A:156:GLN:OE1	1:A:156:GLN:HA	2.04	0.57
1:D:4705:VAL:HG22	1:D:4711:PHE:HD1	1.69	0.57
1:C:3531:ASP:O	1:C:3535:LEU:HD12	2.02	0.57
1:B:4944:ARG:NH1	1:C:4942:GLU:OE1	2.36	0.57
1:D:2928:LYS:C	1:D:2932:MET:SD	2.87	0.57
1:D:4691:GLN:OE1	1:D:4703:ARG:NH1	2.35	0.57
1:A:984:LEU:HD21	1:A:1056:PRO:HD2	1.85	0.57
1:A:4705:VAL:HG22	1:A:4711:PHE:HD1	1.69	0.57
1:B:3321:ARG:NH1	1:B:3321:ARG:CB	2.66	0.57
1:D:156:GLN:OE1	1:D:156:GLN:HA	2.05	0.57
1:C:3343:GLN:O	1:C:3346:VAL:HG12	2.05	0.57
1:C:3891:LEU:HB3	1:C:3899:PHE:CE2	2.39	0.57
1:A:2522:LEU:HD23	1:A:2582:MET:CE	2.35	0.57
1:A:2911:LEU:HD12	1:A:2912:THR:O	2.05	0.57
1:A:3081:MET:HE1	1:A:3093:ARG:NH1	2.19	0.57
1:B:4705:VAL:HG22	1:B:4711:PHE:HD1	1.69	0.57
1:A:774:ASP:OD2	1:A:1470:ARG:NH2	2.37	0.57
2:E:24:VAL:HG21	2:E:59:TRP:HZ3	1.67	0.57
1:B:2020:ASP:OD1	1:B:2021:CYS:N	2.38	0.57
1:B:2214:VAL:HG21	1:B:2228:MET:HE2	1.84	0.57
1:B:2522:LEU:HD23	1:B:2582:MET:CE	2.34	0.57
1:B:3531:ASP:OD1	1:B:3532:LEU:N	2.37	0.57
1:B:4745:LEU:HA	1:B:4748:LEU:HD13	1.86	0.57
1:D:493:ARG:O	1:D:496:VAL:HG22	2.04	0.57
1:C:2522:LEU:HD23	1:C:2582:MET:CE	2.34	0.57
1:D:2911:LEU:HD12	1:D:2912:THR:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2911:LEU:HD12	1:C:2912:THR:O	2.05	0.57
1:A:2020:ASP:OD1	1:A:2021:CYS:N	2.38	0.57
1:B:3613:TYR:O	1:B:3617:LYS:NZ	2.36	0.57
1:D:3343:GLN:O	1:D:3346:VAL:HG12	2.05	0.57
1:A:493:ARG:O	1:A:496:VAL:HG22	2.04	0.57
1:B:4691:GLN:OE1	1:B:4703:ARG:NH1	2.35	0.57
1:D:4224:GLU:OE2	1:D:4224:GLU:N	2.38	0.57
1:C:3384:LYS:HD3	1:C:3384:LYS:N	2.20	0.57
1:C:4745:LEU:HA	1:C:4748:LEU:HD13	1.86	0.57
1:A:3089:LYS:HB3	1:A:3093:ARG:NH1	2.20	0.57
1:B:3628:ARG:HG3	1:B:3628:ARG:O	2.05	0.57
1:B:4224:GLU:N	1:B:4224:GLU:OE2	2.38	0.57
1:D:2538:THR:O	1:D:2542:SER:N	2.37	0.57
1:D:3089:LYS:HB3	1:D:3093:ARG:NH1	2.20	0.57
1:D:3197:LEU:O	1:D:3201:MET:HG3	2.05	0.57
1:D:4651:THR:OG1	1:D:4803:HIS:NE2	2.33	0.57
1:C:2020:ASP:OD1	1:C:2021:CYS:N	2.38	0.57
1:C:3639:THR:HG21	1:C:3644:LEU:HD21	1.87	0.57
1:C:4224:GLU:N	1:C:4224:GLU:OE2	2.38	0.57
1:C:4754:ASN:OD1	1:C:4755:GLU:N	2.38	0.57
1:A:3531:ASP:OD1	1:A:3532:LEU:N	2.37	0.56
2:G:3:GLN:HE21	2:G:75:THR:HB	1.68	0.56
1:B:1926:LEU:HD23	1:B:1929:MET:SD	2.45	0.56
1:D:3946:GLN:OE1	1:D:3949:ARG:NE	2.38	0.56
1:A:3343:GLN:O	1:A:3346:VAL:HG12	2.05	0.56
1:A:4745:LEU:HA	1:A:4748:LEU:HD13	1.86	0.56
2:F:3:GLN:HE21	2:F:75:THR:HB	1.68	0.56
1:B:2587:TYR:CD2	1:B:2625:ARG:NH1	2.70	0.56
1:B:3089:LYS:HB3	1:B:3093:ARG:NH1	2.20	0.56
1:B:3368:ARG:O	1:B:3372:VAL:HG23	2.05	0.56
1:B:4543:GLU:O	1:B:4547:GLN:HG2	2.05	0.56
1:D:3628:ARG:O	1:D:3628:ARG:HG3	2.05	0.56
1:C:3197:LEU:O	1:C:3201:MET:HG3	2.05	0.56
1:C:4543:GLU:O	1:C:4547:GLN:HG2	2.05	0.56
1:A:1448:VAL:HG22	1:A:1554:VAL:HG23	1.88	0.56
1:A:2538:THR:O	1:A:2542:SER:N	2.37	0.56
1:A:3628:ARG:HG3	1:A:3628:ARG:O	2.06	0.56
1:B:493:ARG:O	1:B:496:VAL:HG22	2.04	0.56
1:B:774:ASP:OD2	1:B:1470:ARG:NH2	2.37	0.56
1:B:1171:SER:OG	1:B:1175:SER:OG	2.08	0.56
1:B:3639:THR:HG21	1:B:3644:LEU:HD21	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:774:ASP:OD2	1:D:1470:ARG:NH2	2.37	0.56
1:D:984:LEU:HD21	1:D:1056:PRO:HD2	1.85	0.56
1:D:2522:LEU:HD23	1:D:2582:MET:CE	2.34	0.56
1:D:2584[B]:HIS:NE2	1:D:2625:ARG:HD2	2.21	0.56
1:D:4745:LEU:HA	1:D:4748:LEU:HD13	1.86	0.56
1:D:4942:GLU:OE1	1:C:4944:ARG:NH1	2.37	0.56
1:C:493:ARG:O	1:C:496:VAL:HG22	2.04	0.56
1:C:1926:LEU:HD23	1:C:1929:MET:SD	2.46	0.56
1:C:2584[B]:HIS:NE2	1:C:2625:ARG:HD2	2.21	0.56
1:C:2587:TYR:CD2	1:C:2625:ARG:NH1	2.70	0.56
1:C:3089:LYS:HB3	1:C:3093:ARG:NH1	2.20	0.56
1:A:4649:LEU:O	1:A:4653:VAL:HG23	2.06	0.56
1:D:3368:ARG:O	1:D:3372:VAL:HG23	2.05	0.56
1:C:35:LEU:HD23	1:C:51:PRO:HA	1.87	0.56
1:C:2292:GLU:OE2	1:C:2352:VAL:HG21	2.06	0.56
1:C:3628:ARG:HG3	1:C:3628:ARG:O	2.06	0.56
1:C:3933:PHE:HE2	1:C:3951:PHE:CD2	2.23	0.56
1:A:445:LEU:HD23	1:A:525:LEU:HD22	1.87	0.56
1:A:4090:LYS:HE3	1:A:4112:LEU:HD22	1.88	0.56
1:B:156:GLN:OE1	1:B:156:GLN:HA	2.04	0.56
1:B:2497:ASP:OD1	1:B:2498:HIS:N	2.39	0.56
1:B:3343:GLN:O	1:B:3346:VAL:HG12	2.05	0.56
1:B:4649:LEU:O	1:B:4653:VAL:HG23	2.06	0.56
1:C:3081:MET:HE1	1:C:3093:ARG:NH1	2.19	0.56
1:C:3368:ARG:O	1:C:3372:VAL:HG23	2.05	0.56
1:C:4705:VAL:HG22	1:C:4711:PHE:HD1	1.69	0.56
1:A:2587:TYR:CD2	1:A:2625:ARG:NH1	2.70	0.56
1:B:3946:GLN:OE1	1:B:3949:ARG:NE	2.38	0.56
1:C:931:THR:O	1:C:935:LEU:HD13	2.06	0.56
1:C:2810:LYS:O	1:C:2814:LYS:HG3	2.06	0.56
1:A:2974:ILE:O	1:A:2978:GLU:OE1	2.24	0.56
1:A:3097:GLU:O	1:A:3100:SER:OG	2.21	0.56
1:B:2911:LEU:HD12	1:B:2912:THR:O	2.05	0.56
1:B:3673:MET:HE1	1:B:3725:TYR:CE1	2.41	0.56
1:D:1926:LEU:HD23	1:D:1929:MET:SD	2.45	0.56
1:D:3673:MET:HE1	1:D:3725:TYR:CE1	2.41	0.56
1:D:4543:GLU:O	1:D:4547:GLN:HG2	2.05	0.56
1:C:984:LEU:O	1:C:988:LEU:HD23	2.06	0.56
1:C:3673:MET:HE1	1:C:3725:TYR:CE1	2.41	0.56
1:C:3946:GLN:OE1	1:C:3949:ARG:NE	2.38	0.56
1:A:931:THR:O	1:A:935:LEU:HD13	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2790:MET:HE2	1:A:2797:PHE:CE1	2.41	0.56
1:A:3933:PHE:HE2	1:A:3951:PHE:CD2	2.23	0.56
1:B:2538:THR:O	1:B:2542:SER:N	2.37	0.56
1:D:317:ARG:NH2	1:D:321:GLU:O	2.38	0.56
1:D:3933:PHE:HE2	1:D:3951:PHE:CD2	2.23	0.56
1:C:774:ASP:OD2	1:C:1470:ARG:NH2	2.37	0.56
1:A:2801:ASP:OD1	1:A:2802:LYS:N	2.39	0.56
1:A:3673:MET:HE1	1:A:3725:TYR:CE1	2.40	0.56
1:A:4224:GLU:N	1:A:4224:GLU:OE2	2.38	0.56
1:B:2292:GLU:OE2	1:B:2352:VAL:HG21	2.06	0.56
1:B:3197:LEU:O	1:B:3201:MET:HG3	2.05	0.56
1:B:4090:LYS:HE3	1:B:4112:LEU:HD22	1.88	0.56
1:C:2234:ARG:O	1:C:2238:TYR:CD2	2.59	0.56
1:A:2234:ARG:O	1:A:2238:TYR:CD2	2.59	0.56
1:A:3957:VAL:O	1:A:3961:VAL:HG23	2.06	0.56
1:A:4543:GLU:O	1:A:4547:GLN:HG2	2.05	0.56
1:B:2234:ARG:O	1:B:2238:TYR:CD2	2.59	0.56
1:B:2810:LYS:O	1:B:2814:LYS:HG3	2.06	0.56
1:B:3660:ALA:O	1:B:3664:THR:OG1	2.17	0.56
1:B:3673:MET:CE	1:B:3725:TYR:HE1	2.15	0.56
1:B:4071:ILE:O	1:B:4074:SER:OG	2.14	0.56
1:B:4204:GLN:HB3	1:B:4245:MET:HG2	1.88	0.56
1:D:2020:ASP:OD1	1:D:2021:CYS:N	2.38	0.56
1:D:2810:LYS:O	1:D:2814:LYS:HG3	2.06	0.56
1:D:2974:ILE:O	1:D:2978:GLU:OE1	2.24	0.56
1:C:4204:GLN:HB3	1:C:4245:MET:HG2	1.88	0.56
1:C:4686:LEU:O	1:C:4691:GLN:N	2.36	0.56
1:A:256:ALA:HB2	1:A:477:LEU:HD12	1.89	0.55
1:A:317:ARG:NH2	1:A:321:GLU:O	2.38	0.55
1:A:2584[B]:HIS:NE2	1:A:2625:ARG:HD2	2.21	0.55
1:A:3197:LEU:O	1:A:3201:MET:HG3	2.05	0.55
1:B:931:THR:O	1:B:935:LEU:HD13	2.06	0.55
1:B:2974:ILE:O	1:B:2978:GLU:OE1	2.24	0.55
1:B:3384:LYS:HD3	1:B:3384:LYS:N	2.20	0.55
1:B:3957:VAL:O	1:B:3961:VAL:HG23	2.06	0.55
1:D:2182:ILE:CG2	1:D:2186:MET:HE3	2.36	0.55
1:D:2292:GLU:OE2	1:D:2352:VAL:HG21	2.06	0.55
1:D:3639:THR:HG21	1:D:3644:LEU:HD21	1.87	0.55
1:A:984:LEU:O	1:A:988:LEU:HD23	2.06	0.55
1:A:3368:ARG:O	1:A:3372:VAL:HG23	2.05	0.55
1:A:3383:ALA:H	1:A:3384:LYS:NZ	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:256:ALA:HB2	1:B:477:LEU:HD12	1.89	0.55
1:B:3933:PHE:HE2	1:B:3951:PHE:CD2	2.23	0.55
1:D:445:LEU:HD23	1:D:525:LEU:HD22	1.87	0.55
1:D:1749:PRO:HB2	1:D:1758:ARG:NH2	2.21	0.55
1:D:1965:TYR:CE2	1:D:1969:LEU:HD11	2.41	0.55
1:D:2761:TYR:C	1:D:2765:LYS:NZ	2.65	0.55
1:C:2801:ASP:OD1	1:C:2802:LYS:N	2.39	0.55
1:C:4090:LYS:HE3	1:C:4112:LEU:HD22	1.88	0.55
1:A:35:LEU:HD23	1:A:51:PRO:HA	1.87	0.55
1:A:1749:PRO:HB2	1:A:1758:ARG:NH2	2.22	0.55
1:A:1926:LEU:HD23	1:A:1929:MET:SD	2.45	0.55
1:A:2292:GLU:OE2	1:A:2352:VAL:HG21	2.06	0.55
1:A:3639:THR:HG21	1:A:3644:LEU:HD21	1.87	0.55
1:A:3946:GLN:OE1	1:A:3949:ARG:NE	2.38	0.55
1:B:35:LEU:HD23	1:B:51:PRO:HA	1.87	0.55
1:B:317:ARG:NH2	1:B:321:GLU:O	2.39	0.55
1:B:2584[B]:HIS:NE2	1:B:2625:ARG:HD2	2.21	0.55
1:D:931:THR:O	1:D:935:LEU:HD13	2.06	0.55
1:D:2497:ASP:OD1	1:D:2498:HIS:N	2.39	0.55
1:D:3384:LYS:HD3	1:D:3384:LYS:N	2.20	0.55
1:D:4743:MET:HE2	1:D:4748:LEU:HD21	1.88	0.55
1:C:1749:PRO:HB2	1:C:1758:ARG:NH2	2.22	0.55
1:C:3947:GLY:O	1:C:3951:PHE:HD2	1.90	0.55
1:A:2182:ILE:CG2	1:A:2186:MET:HE3	2.36	0.55
1:A:2810:LYS:O	1:A:2814:LYS:HG3	2.06	0.55
1:A:3947:GLY:O	1:A:3951:PHE:HD2	1.90	0.55
1:D:399:GLN:HG2	1:D:403:MET:HE3	1.88	0.55
1:C:4071:ILE:O	1:C:4074:SER:OG	2.14	0.55
1:A:2229:VAL:CB	1:A:2267:MET:HE1	2.37	0.55
1:A:3613:TYR:O	1:A:3617:LYS:NZ	2.36	0.55
1:A:4691:GLN:OE1	1:A:4703:ARG:NH1	2.35	0.55
1:B:984:LEU:O	1:B:988:LEU:HD23	2.06	0.55
1:B:1749:PRO:HB2	1:B:1758:ARG:NH2	2.22	0.55
1:B:4743:MET:HE2	1:B:4748:LEU:HD21	1.88	0.55
1:D:965:TYR:O	1:D:965:TYR:CG	2.57	0.55
1:D:2234:ARG:O	1:D:2238:TYR:CD2	2.59	0.55
1:D:3383:ALA:H	1:D:3384:LYS:NZ	2.04	0.55
1:C:1748:PHE:HB3	1:C:1758:ARG:HG2	1.88	0.55
1:C:2182:ILE:CG2	1:C:2186:MET:HE3	2.36	0.55
1:C:2497:ASP:OD1	1:C:2498:HIS:N	2.39	0.55
1:A:3673:MET:HE2	1:A:3725:TYR:CE1	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4942:GLU:OE1	1:D:4944:ARG:NH1	2.37	0.55
1:B:1448:VAL:HG22	1:B:1554:VAL:HG23	1.88	0.55
1:B:3110:LEU:HD23	1:B:3183:VAL:HG22	1.89	0.55
1:B:3718:GLU:OE2	1:B:3723:MET:CE	2.55	0.55
1:D:722:TRP:CZ2	1:D:727:ALA:HB2	2.42	0.55
1:D:2801:ASP:OD1	1:D:2802:LYS:N	2.39	0.55
1:D:3628:ARG:HG3	1:D:3631:ALA:HB3	1.89	0.55
1:D:4754:ASN:OD1	1:D:4755:GLU:N	2.38	0.55
1:C:1448:VAL:HG22	1:C:1554:VAL:HG23	1.88	0.55
1:C:4649:LEU:O	1:C:4653:VAL:HG23	2.06	0.55
1:A:1965:TYR:CE2	1:A:1969:LEU:HD11	2.41	0.55
1:B:445:LEU:HD23	1:B:525:LEU:HD22	1.87	0.55
1:B:2801:ASP:OD1	1:B:2802:LYS:N	2.39	0.55
1:D:984:LEU:O	1:D:988:LEU:HD23	2.06	0.55
1:D:3718:GLU:OE2	1:D:3723:MET:CE	2.55	0.55
1:D:4090:LYS:HE3	1:D:4112:LEU:HD22	1.88	0.55
1:D:4649:LEU:O	1:D:4653:VAL:HG23	2.06	0.55
1:D:4945:ASP:OD1	1:D:4946:GLN:N	2.40	0.55
1:C:445:LEU:HD23	1:C:525:LEU:HD22	1.87	0.55
1:C:988:LEU:CB	1:C:1039:LEU:HD21	2.37	0.55
1:C:1965:TYR:CE2	1:C:1969:LEU:HD11	2.41	0.55
1:A:2761:TYR:C	1:A:2765:LYS:NZ	2.65	0.55
1:A:3321:ARG:O	1:A:3324:VAL:CG2	2.50	0.55
1:B:722:TRP:CZ2	1:B:727:ALA:HB2	2.42	0.55
1:B:3383:ALA:N	1:B:3384:LYS:NZ	2.54	0.55
1:B:3383:ALA:H	1:B:3384:LYS:NZ	2.04	0.55
1:D:3947:GLY:O	1:D:3951:PHE:HD2	1.90	0.55
1:C:256:ALA:HB2	1:C:477:LEU:HD12	1.89	0.55
1:C:2790:MET:SD	1:C:2791:LEU:HD22	2.47	0.55
1:C:3321:ARG:O	1:C:3324:VAL:CG2	2.50	0.55
1:D:35:LEU:HD23	1:D:51:PRO:HA	1.87	0.55
1:D:2111:VAL:HG12	1:D:2113:SER:H	1.72	0.55
1:D:2790:MET:SD	1:D:2791:LEU:HD22	2.47	0.55
1:C:722:TRP:CZ2	1:C:727:ALA:HB2	2.42	0.55
1:C:3628:ARG:HG3	1:C:3631:ALA:HB3	1.89	0.55
1:A:2497:ASP:OD1	1:A:2498:HIS:N	2.39	0.55
1:A:3628:ARG:HG3	1:A:3631:ALA:HB3	1.89	0.55
1:A:4204:GLN:HB3	1:A:4245:MET:HG2	1.88	0.55
1:B:399:GLN:HG2	1:B:403:MET:HE3	1.88	0.55
1:B:1748:PHE:HB3	1:B:1758:ARG:HG2	1.88	0.55
1:B:2182:ILE:CG2	1:B:2186:MET:HE3	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2790:MET:HE2	1:B:2797:PHE:CE1	2.41	0.55
1:D:256:ALA:HB2	1:D:477:LEU:HD12	1.89	0.55
1:D:3531:ASP:OD1	1:D:3532:LEU:N	2.37	0.55
1:D:3933:PHE:HE2	1:D:3951:PHE:CZ	2.18	0.55
1:D:4204:GLN:HB3	1:D:4245:MET:HG2	1.88	0.55
1:C:647:ASN:ND2	1:C:820:ARG:O	2.38	0.55
1:A:4743:MET:HE2	1:A:4748:LEU:HD21	1.88	0.54
1:A:4782:VAL:O	1:A:4785:THR:OG1	2.23	0.54
1:A:4827:LEU:O	1:A:4831:THR:HG23	2.07	0.54
1:B:1965:TYR:CE2	1:B:1969:LEU:HD11	2.41	0.54
1:D:1748:PHE:HB3	1:D:1758:ARG:HG2	1.88	0.54
1:D:2229:VAL:CB	1:D:2267:MET:HE1	2.37	0.54
1:D:2761:TYR:C	1:D:2765:LYS:HZ3	2.15	0.54
1:D:3321:ARG:O	1:D:3324:VAL:CG2	2.50	0.54
1:C:2974:ILE:O	1:C:2978:GLU:OE1	2.24	0.54
1:C:3110:LEU:HD23	1:C:3183:VAL:HG22	1.89	0.54
1:A:399:GLN:HG2	1:A:403:MET:HE3	1.88	0.54
1:A:4945:ASP:OD1	1:A:4946:GLN:N	2.40	0.54
1:B:2229:VAL:CB	1:B:2267:MET:HE1	2.37	0.54
1:B:3673:MET:HE2	1:B:3725:TYR:CE1	2.40	0.54
1:B:3947:GLY:O	1:B:3951:PHE:HD2	1.90	0.54
1:D:988:LEU:CB	1:D:1039:LEU:HD21	2.37	0.54
1:D:3383:ALA:N	1:D:3384:LYS:NZ	2.54	0.54
1:D:3673:MET:HE2	1:D:3725:TYR:CE1	2.40	0.54
1:C:2761:TYR:C	1:C:2765:LYS:NZ	2.65	0.54
1:C:3957:VAL:O	1:C:3961:VAL:HG23	2.06	0.54
1:B:1424:PRO:O	1:B:1428:LEU:HD23	2.08	0.54
1:B:2785:LEU:HD23	1:B:2785:LEU:O	2.08	0.54
1:D:4827:LEU:O	1:D:4831:THR:HG23	2.07	0.54
1:C:4945:ASP:OD1	1:C:4946:GLN:N	2.40	0.54
1:A:647:ASN:ND2	1:A:820:ARG:O	2.38	0.54
1:A:2111:VAL:HG12	1:A:2113:SER:H	1.72	0.54
1:B:2434:GLY:O	1:B:2508:ARG:NE	2.34	0.54
1:B:2761:TYR:C	1:B:2765:LYS:NZ	2.65	0.54
1:D:3957:VAL:O	1:D:3961:VAL:HG23	2.06	0.54
1:C:2229:VAL:CB	1:C:2267:MET:HE1	2.37	0.54
1:C:3383:ALA:N	1:C:3384:LYS:NZ	2.54	0.54
1:C:3383:ALA:H	1:C:3384:LYS:NZ	2.05	0.54
1:C:3531:ASP:OD1	1:C:3532:LEU:N	2.37	0.54
1:A:722:TRP:CZ2	1:A:727:ALA:HB2	2.42	0.54
1:A:988:LEU:CB	1:A:1039:LEU:HD21	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1280:GLN:O	1:A:1281:ASN:OD1	2.26	0.54
1:A:3384:LYS:HD3	1:A:3384:LYS:N	2.20	0.54
1:B:988:LEU:CB	1:B:1039:LEU:HD21	2.37	0.54
1:B:3628:ARG:HG3	1:B:3631:ALA:HB3	1.89	0.54
1:D:1448:VAL:HG22	1:D:1554:VAL:HG23	1.88	0.54
1:D:2434:GLY:O	1:D:2508:ARG:NE	2.34	0.54
1:C:399:GLN:HG2	1:C:403:MET:HE3	1.88	0.54
1:C:2026:ASP:OD1	1:C:2027:ILE:N	2.40	0.54
1:C:3718:GLU:OE2	1:C:3723:MET:CE	2.55	0.54
1:A:2635:GLU:O	1:A:2638:LYS:NZ	2.40	0.54
1:A:2785:LEU:O	1:A:2785:LEU:HD23	2.08	0.54
1:B:2026:ASP:OD1	1:B:2027:ILE:N	2.40	0.54
1:B:2234:ARG:O	1:B:2238:TYR:HD2	1.91	0.54
1:B:2790:MET:SD	1:B:2791:LEU:HD22	2.47	0.54
1:D:860:GLN:O	1:D:930:LYS:NZ	2.40	0.54
1:C:317:ARG:NH2	1:C:321:GLU:O	2.38	0.54
1:A:1748:PHE:HB3	1:A:1758:ARG:HG2	1.88	0.54
1:A:2234:ARG:O	1:A:2238:TYR:HD2	1.91	0.54
1:A:3383:ALA:N	1:A:3384:LYS:NZ	2.54	0.54
1:A:4821:LYS:O	1:A:4825:THR:HG23	2.08	0.54
1:D:961:MET:HE1	1:D:965:TYR:O	2.08	0.54
1:D:3319:ILE:C	1:D:3321:ARG:N	2.65	0.54
1:C:1018:ASN:CB	1:C:1021:LEU:HD23	2.38	0.54
1:C:1280:GLN:O	1:C:1281:ASN:OD1	2.26	0.54
1:C:2234:ARG:O	1:C:2238:TYR:HD2	1.91	0.54
1:A:2790:MET:SD	1:A:2791:LEU:HD22	2.47	0.54
1:A:3110:LEU:HD23	1:A:3183:VAL:HG22	1.89	0.54
1:A:3504:SER:O	1:A:3507:THR:OG1	2.22	0.54
1:B:4139:ILE:O	1:B:4143:VAL:HG23	2.08	0.54
1:D:2234:ARG:O	1:D:2238:TYR:HD2	1.91	0.54
1:C:1424:PRO:O	1:C:1428:LEU:HD23	2.08	0.54
1:C:2707:ALA:HB1	1:C:3009:TYR:CD1	2.43	0.54
1:C:4584:ASP:OD1	1:C:4585:SER:N	2.41	0.54
1:C:4827:LEU:O	1:C:4831:THR:HG23	2.07	0.54
1:A:3395:ARG:HD2	1:A:3454:GLU:CD	2.33	0.54
1:B:734:GLY:O	1:B:736:HIS:ND1	2.35	0.54
1:B:4545:GLU:OE2	1:B:4548:ARG:NH2	2.41	0.54
1:B:4584:ASP:OD1	1:B:4585:SER:N	2.41	0.54
1:B:4651:THR:OG1	1:B:4803:HIS:NE2	2.33	0.54
1:C:961:MET:HE1	1:C:965:TYR:O	2.08	0.54
1:C:2229:VAL:HG11	1:C:2267:MET:CE	2.17	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4139:ILE:O	1:C:4143:VAL:HG23	2.08	0.54
1:C:4573:ILE:HG23	1:C:4643:LEU:HD11	1.90	0.54
1:A:1018:ASN:CB	1:A:1021:LEU:HD23	2.38	0.54
1:A:1424:PRO:O	1:A:1428:LEU:HD23	2.08	0.54
1:B:961:MET:HE1	1:B:965:TYR:O	2.08	0.54
1:B:4217:PHE:O	1:B:4221:VAL:HG22	2.08	0.54
1:B:4945:ASP:OD1	1:B:4946:GLN:N	2.40	0.54
1:D:2707:ALA:HB1	1:D:3009:TYR:CD1	2.43	0.54
1:D:2785:LEU:HD23	1:D:2785:LEU:O	2.08	0.54
1:D:4139:ILE:O	1:D:4143:VAL:HG23	2.08	0.54
1:D:4584:ASP:OD1	1:D:4585:SER:N	2.41	0.54
1:D:4821:LYS:O	1:D:4825:THR:HG23	2.08	0.54
1:C:2635:GLU:O	1:C:2638:LYS:NZ	2.40	0.54
1:C:2790:MET:HE2	1:C:2797:PHE:CE1	2.41	0.54
1:C:4821:LYS:O	1:C:4825:THR:HG23	2.08	0.54
1:A:688:LEU:HD11	1:A:775:GLY:CA	2.39	0.53
1:A:4545:GLU:OE2	1:A:4548:ARG:NH2	2.41	0.53
1:B:4759:ASP:O	1:B:4761:PRO:HD3	2.08	0.53
1:B:4821:LYS:O	1:B:4825:THR:HG23	2.08	0.53
1:B:4827:LEU:O	1:B:4831:THR:HG23	2.07	0.53
1:D:1018:ASN:CB	1:D:1021:LEU:HD23	2.38	0.53
1:D:2930:LEU:HD12	1:D:2930:LEU:N	2.23	0.53
1:D:4573:ILE:HG23	1:D:4643:LEU:HD11	1.90	0.53
1:C:2785:LEU:O	1:C:2785:LEU:HD23	2.08	0.53
1:C:4743:MET:HE2	1:C:4748:LEU:HD21	1.88	0.53
1:A:3718:GLU:OE2	1:A:3723:MET:CE	2.55	0.53
1:D:3110:LEU:HD23	1:D:3183:VAL:HG22	1.89	0.53
1:D:4759:ASP:O	1:D:4761:PRO:HD3	2.08	0.53
1:B:3321:ARG:O	1:B:3324:VAL:CG2	2.50	0.53
1:B:4754:ASN:OD1	1:B:4755:GLU:N	2.38	0.53
1:D:2026:ASP:OD1	1:D:2027:ILE:N	2.40	0.53
1:C:864:PRO:HD2	1:C:867:LEU:HD12	1.90	0.53
1:C:2111:VAL:HG12	1:C:2113:SER:H	1.72	0.53
1:C:4217:PHE:O	1:C:4221:VAL:HG22	2.08	0.53
1:A:2707:ALA:HB1	1:A:3009:TYR:CD1	2.43	0.53
1:A:4759:ASP:O	1:A:4761:PRO:HD3	2.08	0.53
1:B:965:TYR:O	1:B:965:TYR:CG	2.57	0.53
1:D:4217:PHE:O	1:D:4221:VAL:HG22	2.08	0.53
1:D:4545:GLU:OE2	1:D:4548:ARG:NH2	2.41	0.53
1:A:2668:SER:O	1:A:2669:GLU:CB	2.57	0.53
1:A:4584:ASP:OD1	1:A:4585:SER:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4754:ASN:OD1	1:A:4755:GLU:N	2.38	0.53
1:B:1110:ARG:NH2	1:B:1112:ASP:OD2	2.42	0.53
1:B:2604:GLU:HB3	1:B:2608:MET:HE1	1.91	0.53
1:D:2790:MET:HE2	1:D:2797:PHE:CE1	2.41	0.53
1:D:3395:ARG:HD2	1:D:3454:GLU:CD	2.33	0.53
1:A:864:PRO:HD2	1:A:867:LEU:HD12	1.90	0.53
1:A:2390:PRO:O	1:A:2391:ALA:HB3	2.09	0.53
1:C:965:TYR:O	1:C:965:TYR:CG	2.57	0.53
1:C:3170:CYS:HA	1:C:3243:ILE:HD11	1.91	0.53
1:B:3170:CYS:HA	1:B:3243:ILE:HD11	1.90	0.53
1:D:2390:PRO:O	1:D:2391:ALA:HB3	2.09	0.53
1:C:3383:ALA:H	1:C:3384:LYS:HZ3	1.56	0.53
1:A:2930:LEU:HD12	1:A:2930:LEU:N	2.23	0.53
1:B:601:ASP:OD1	1:B:1665:HIS:ND1	2.38	0.53
1:B:2111:VAL:HG12	1:B:2113:SER:H	1.72	0.53
1:B:2707:ALA:HB1	1:B:3009:TYR:CD1	2.43	0.53
1:B:4645:CYS:O	1:B:4649:LEU:HD13	2.09	0.53
1:B:4973:HIS:O	1:B:4977:THR:HG23	2.09	0.53
1:D:2635:GLU:O	1:D:2638:LYS:NZ	2.40	0.53
1:C:1039:LEU:O	1:C:1043:VAL:HG23	2.09	0.53
1:C:2668:SER:O	1:C:2669:GLU:CB	2.57	0.53
1:C:3319:ILE:C	1:C:3321:ARG:N	2.65	0.53
1:C:4545:GLU:OE2	1:C:4548:ARG:NH2	2.41	0.53
1:A:174:VAL:HG12	1:D:2452:ARG:HH12	1.74	0.53
2:F:105:LYS:NZ	2:F:107:GLU:OE2	2.42	0.53
1:B:2390:PRO:O	1:B:2391:ALA:HB3	2.09	0.53
1:D:1039:LEU:O	1:D:1043:VAL:HG23	2.09	0.53
1:D:1424:PRO:O	1:D:1428:LEU:HD23	2.08	0.53
1:D:1480:GLN:O	1:D:1480:GLN:HG2	2.09	0.53
1:C:2930:LEU:HD12	1:C:2930:LEU:N	2.23	0.53
1:C:4586:PRO:CD	1:C:4629:TYR:HE2	2.22	0.53
1:A:4645:CYS:O	1:A:4649:LEU:HD13	2.09	0.53
1:D:688:LEU:HD11	1:D:775:GLY:CA	2.39	0.53
1:D:1280:GLN:O	1:D:1281:ASN:OD1	2.26	0.53
1:D:1990:GLU:HG3	1:D:1994:ARG:HE	1.74	0.53
1:D:2584[A]:HIS:HD2	1:D:2625:ARG:CZ	2.22	0.53
1:D:2604:GLU:HB3	1:D:2608:MET:HE1	1.90	0.53
1:D:4686:LEU:O	1:D:4691:GLN:N	2.36	0.53
1:C:296:ASP:OD1	1:C:297:GLN:N	2.42	0.53
1:C:688:LEU:HD11	1:C:775:GLY:CA	2.39	0.53
1:C:3673:MET:HE2	1:C:3725:TYR:CE1	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4645:CYS:O	1:C:4649:LEU:HD13	2.09	0.53
1:A:2026:ASP:OD1	1:A:2027:ILE:N	2.40	0.52
1:A:4217:PHE:O	1:A:4221:VAL:HG22	2.08	0.52
1:B:4782:VAL:O	1:B:4785:THR:OG1	2.23	0.52
1:D:647:ASN:ND2	1:D:820:ARG:O	2.38	0.52
1:C:2165:LEU:HD21	1:C:2177:LEU:HD23	1.92	0.52
1:C:2390:PRO:O	1:C:2391:ALA:HB3	2.09	0.52
1:A:1497:GLY:O	1:A:1501:VAL:HG23	2.10	0.52
1:A:1990:GLU:HG3	1:A:1994:ARG:HE	1.74	0.52
1:A:3946:GLN:NE2	1:A:3949:ARG:HE	2.08	0.52
1:A:4835:LYS:O	1:A:4839:MET:HG2	2.10	0.52
1:A:4973:HIS:O	1:A:4977:THR:HG23	2.09	0.52
2:G:105:LYS:NZ	2:G:107:GLU:OE2	2.42	0.52
1:B:688:LEU:HD11	1:B:775:GLY:CA	2.39	0.52
1:B:864:PRO:HD2	1:B:867:LEU:HD12	1.90	0.52
1:B:1480:GLN:O	1:B:1480:GLN:HG2	2.09	0.52
1:B:1497:GLY:O	1:B:1501:VAL:HG23	2.10	0.52
1:B:2584[A]:HIS:HD2	1:B:2625:ARG:CZ	2.22	0.52
1:D:3321:ARG:NH1	1:D:3321:ARG:CB	2.66	0.52
1:C:4759:ASP:O	1:C:4761:PRO:HD3	2.08	0.52
1:A:296:ASP:OD1	1:A:297:GLN:N	2.42	0.52
1:A:1771:LEU:HD22	1:A:2153:MET:HE2	1.92	0.52
1:A:2165:LEU:HD21	1:A:2177:LEU:HD23	1.92	0.52
1:A:2584[A]:HIS:HD2	1:A:2625:ARG:CZ	2.22	0.52
1:A:4139:ILE:O	1:A:4143:VAL:HG23	2.08	0.52
2:F:6:THR:HG23	2:F:6:THR:O	2.10	0.52
1:B:1280:GLN:O	1:B:1281:ASN:OD1	2.26	0.52
1:D:1771:LEU:HD22	1:D:2153:MET:HE2	1.92	0.52
1:D:2822:THR:OG1	1:D:2938:THR:OG1	2.28	0.52
1:D:3825:GLU:OE1	1:D:3825:GLU:N	2.43	0.52
1:C:2584[A]:HIS:HD2	1:C:2625:ARG:CZ	2.22	0.52
1:C:5034:ASP:OD1	1:C:5035:GLN:N	2.43	0.52
1:A:2822:THR:OG1	1:A:2938:THR:OG1	2.28	0.52
2:H:105:LYS:NZ	2:H:107:GLU:OE2	2.42	0.52
2:G:6:THR:HG23	2:G:6:THR:O	2.10	0.52
1:B:2930:LEU:N	1:B:2930:LEU:HD12	2.23	0.52
1:B:3395:ARG:HD2	1:B:3454:GLU:CD	2.33	0.52
1:D:831:ARG:HE	1:D:840:VAL:HG21	1.75	0.52
1:D:864:PRO:HD2	1:D:867:LEU:HD12	1.90	0.52
1:D:2165:LEU:HD21	1:D:2177:LEU:HD23	1.92	0.52
1:C:1480:GLN:HG2	1:C:1480:GLN:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2518:LEU:O	1:C:2522:LEU:HD13	2.10	0.52
1:C:3284:TRP:O	1:C:3305:THR:HG21	2.10	0.52
1:C:3994:HIS:CE1	1:C:3998:HIS:CE1	2.98	0.52
1:A:818:ARG:NH1	1:A:1029:GLU:OE2	2.40	0.52
2:E:105:LYS:NZ	2:E:107:GLU:OE2	2.42	0.52
1:D:3994:HIS:CE1	1:D:3998:HIS:CE1	2.98	0.52
1:D:4586:PRO:CD	1:D:4629:TYR:HE2	2.22	0.52
1:D:4782:VAL:O	1:D:4785:THR:OG1	2.23	0.52
1:C:867:LEU:HA	1:C:870:ILE:HG22	1.92	0.52
1:C:1110:ARG:NH2	1:C:1112:ASP:OD2	2.42	0.52
1:C:1676:LEU:HB3	1:C:2167:ILE:HD12	1.92	0.52
1:C:3395:ARG:HD2	1:C:3454:GLU:CD	2.33	0.52
1:C:4973:HIS:O	1:C:4977:THR:HG23	2.09	0.52
1:A:867:LEU:HA	1:A:870:ILE:HG22	1.92	0.52
1:A:961:MET:HE1	1:A:965:TYR:O	2.08	0.52
1:A:1480:GLN:O	1:A:1480:GLN:HG2	2.09	0.52
1:A:2518:LEU:O	1:A:2522:LEU:HD13	2.10	0.52
1:B:2452:ARG:HH12	1:C:174:VAL:HG12	1.75	0.52
1:B:2668:SER:O	1:B:2669:GLU:CB	2.57	0.52
1:B:3445:TRP:O	1:B:3452:LYS:NZ	2.34	0.52
1:B:4573:ILE:HG23	1:B:4643:LEU:HD11	1.90	0.52
1:B:4586:PRO:CD	1:B:4629:TYR:HE2	2.22	0.52
1:D:590:LEU:HD21	1:D:599:VAL:HB	1.92	0.52
1:D:1497:GLY:O	1:D:1501:VAL:HG23	2.10	0.52
1:C:5000:GLU:OE2	1:C:5011:TRP:NE1	2.43	0.52
1:A:3825:GLU:OE1	1:A:3825:GLU:N	2.43	0.52
1:A:4573:ILE:HG23	1:A:4643:LEU:HD11	1.90	0.52
1:B:1018:ASN:CB	1:B:1021:LEU:HD23	2.38	0.52
1:B:2165:LEU:HD21	1:B:2177:LEU:HD23	1.92	0.52
1:D:296:ASP:OD1	1:D:297:GLN:N	2.42	0.52
1:D:1110:ARG:NH2	1:D:1112:ASP:OD2	2.42	0.52
1:D:2518:LEU:O	1:D:2522:LEU:HD13	2.10	0.52
1:D:3170:CYS:HA	1:D:3243:ILE:HD11	1.91	0.52
1:D:3284:TRP:O	1:D:3305:THR:HG21	2.10	0.52
1:C:37:LEU:HD11	1:C:47:CYS:HB3	1.92	0.52
1:A:3170:CYS:HA	1:A:3243:ILE:HD11	1.90	0.52
1:B:37:LEU:HD11	1:B:47:CYS:HB3	1.92	0.52
1:B:3946:GLN:NE2	1:B:3949:ARG:HE	2.08	0.52
1:B:5034:ASP:OD1	1:B:5035:GLN:N	2.43	0.52
1:D:867:LEU:HA	1:D:870:ILE:HG22	1.92	0.52
1:D:4645:CYS:O	1:D:4649:LEU:HD13	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4835:LYS:O	1:D:4839:MET:HG2	2.10	0.52
1:C:1497:GLY:O	1:C:1501:VAL:HG23	2.10	0.52
1:C:3478:MET:O	1:C:3478:MET:HG2	2.10	0.52
1:A:37:LEU:HD11	1:A:47:CYS:HB3	1.92	0.52
1:A:3284:TRP:O	1:A:3305:THR:HG21	2.10	0.52
1:B:1676:LEU:HB3	1:B:2167:ILE:HD12	1.92	0.52
1:D:3097:GLU:O	1:D:3100:SER:OG	2.21	0.52
1:D:5034:ASP:OD1	1:D:5035:GLN:N	2.43	0.52
1:A:831:ARG:HE	1:A:840:VAL:HG21	1.75	0.52
1:A:1110:ARG:NH2	1:A:1112:ASP:OD2	2.42	0.52
1:A:2967:MET:HE1	1:A:3049:LEU:HD22	1.92	0.52
1:A:3994:HIS:CE1	1:A:3998:HIS:CE1	2.98	0.52
1:B:1771:LEU:HD22	1:B:2153:MET:HE2	1.92	0.52
1:B:3825:GLU:OE1	1:B:3825:GLU:N	2.43	0.52
1:D:239:ASP:OD1	1:D:240:ASP:N	2.43	0.52
1:D:3613:TYR:O	1:D:3617:LYS:NZ	2.36	0.52
1:D:3933:PHE:CD2	1:D:3951:PHE:CZ	2.98	0.52
1:D:5000:GLU:OE2	1:D:5011:TRP:NE1	2.43	0.52
1:C:1771:LEU:HD22	1:C:2153:MET:HE2	1.92	0.52
1:A:1676:LEU:HB3	1:A:2167:ILE:HD12	1.92	0.51
1:A:3319:ILE:C	1:A:3321:ARG:N	2.65	0.51
1:A:4944:ARG:NH1	1:B:4942:GLU:OE1	2.41	0.51
1:A:4956:THR:O	1:A:4965:SER:N	2.43	0.51
1:B:860:GLN:O	1:B:930:LYS:NZ	2.40	0.51
1:B:867:LEU:HA	1:B:870:ILE:HG22	1.92	0.51
1:B:2635:GLU:O	1:B:2638:LYS:NZ	2.40	0.51
1:B:3284:TRP:O	1:B:3305:THR:HG21	2.10	0.51
1:B:3319:ILE:C	1:B:3321:ARG:N	2.65	0.51
1:D:37:LEU:HD11	1:D:47:CYS:HB3	1.92	0.51
1:D:2668:SER:O	1:D:2669:GLU:CB	2.57	0.51
1:D:3478:MET:O	1:D:3478:MET:HG2	2.10	0.51
1:C:4680:LYS:O	1:C:4685:GLY:N	2.42	0.51
1:A:965:TYR:O	1:A:965:TYR:CG	2.57	0.51
1:A:1995:THR:HG22	1:A:1999:ARG:HG2	1.93	0.51
1:A:3187:ARG:HG3	1:A:3272:ILE:HD11	1.92	0.51
2:E:6:THR:HG23	2:E:6:THR:O	2.10	0.51
2:H:6:THR:HG23	2:H:6:THR:O	2.10	0.51
1:B:239:ASP:OD1	1:B:240:ASP:N	2.43	0.51
1:B:717:ASP:OD1	1:B:720:HIS:N	2.41	0.51
1:B:3994:HIS:CE1	1:B:3998:HIS:CE1	2.98	0.51
1:B:5000:GLU:OE2	1:B:5011:TRP:NE1	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:818:ARG:NH1	1:D:1029:GLU:OE2	2.40	0.51
1:D:3946:GLN:NE2	1:D:3949:ARG:HE	2.08	0.51
1:D:4680:LYS:O	1:D:4685:GLY:N	2.42	0.51
1:C:717:ASP:OD1	1:C:720:HIS:N	2.41	0.51
1:C:3616:LYS:HA	1:C:3619:VAL:CG2	2.41	0.51
1:C:3825:GLU:N	1:C:3825:GLU:OE1	2.43	0.51
1:C:4978:HIS:CE1	1:C:4983:HIS:ND1	2.78	0.51
1:A:3354:LEU:HD11	1:A:3434:LEU:HD22	1.93	0.51
2:E:38:SER:HB3	2:E:41:ASP:OD1	2.11	0.51
1:B:647:ASN:ND2	1:B:820:ARG:O	2.38	0.51
1:B:3354:LEU:HD11	1:B:3434:LEU:HD22	1.93	0.51
1:B:3435:PHE:CD2	1:B:3524:MET:CE	2.94	0.51
1:D:174:VAL:HG12	1:C:2452:ARG:HH12	1.74	0.51
1:D:975:VAL:HG13	1:D:1047:LEU:HD23	1.92	0.51
1:D:2490:MET:SD	1:D:2545:GLU:OE2	2.69	0.51
1:D:2967:MET:HE1	1:D:3049:LEU:HD22	1.92	0.51
1:D:3354:LEU:HD11	1:D:3434:LEU:HD22	1.93	0.51
1:C:721:LEU:HD12	1:C:1476:MET:HE1	1.93	0.51
1:C:831:ARG:HE	1:C:840:VAL:HG21	1.75	0.51
1:C:3187:ARG:HG3	1:C:3272:ILE:HD11	1.92	0.51
1:C:3699:HIS:CE1	1:C:3703:LEU:HD11	2.46	0.51
1:C:4870:ASP:OD1	1:C:4870:ASP:N	2.44	0.51
1:A:3282:PRO:HG3	1:A:3345:ILE:HG22	1.92	0.51
1:A:3616:LYS:HA	1:A:3619:VAL:CG2	2.40	0.51
1:A:3933:PHE:CD2	1:A:3951:PHE:CZ	2.98	0.51
1:A:4651:THR:OG1	1:A:4803:HIS:NE2	2.33	0.51
2:G:38:SER:HB3	2:G:41:ASP:OD1	2.11	0.51
1:B:3282:PRO:HG3	1:B:3345:ILE:HG22	1.92	0.51
1:B:3699:HIS:CE1	1:B:3703:LEU:HD11	2.46	0.51
1:B:4835:LYS:O	1:B:4839:MET:HG2	2.10	0.51
1:D:869:ARG:NH2	1:D:1051:TYR:OH	2.44	0.51
1:D:3616:LYS:HA	1:D:3619:VAL:CG2	2.40	0.51
1:D:4978:HIS:CE1	1:D:4983:HIS:ND1	2.78	0.51
1:C:239:ASP:OD1	1:C:240:ASP:N	2.43	0.51
1:C:2822:THR:OG1	1:C:2938:THR:OG1	2.28	0.51
1:A:239:ASP:OD1	1:A:240:ASP:N	2.43	0.51
1:A:5034:ASP:OD1	1:A:5035:GLN:N	2.43	0.51
1:B:2518:LEU:O	1:B:2522:LEU:HD13	2.10	0.51
1:B:3616:LYS:HA	1:B:3619:VAL:CG2	2.40	0.51
1:C:2604:GLU:HB3	1:C:2608:MET:HE1	1.91	0.51
1:A:734:GLY:O	1:A:736:HIS:ND1	2.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2604:GLU:HB3	1:A:2608:MET:HE1	1.90	0.51
1:A:4586:PRO:CD	1:A:4629:TYR:HE2	2.22	0.51
1:B:3733:CYS:SG	1:B:3770:LEU:HD12	2.51	0.51
1:D:3733:CYS:SG	1:D:3770:LEU:HD12	2.51	0.51
1:D:4205:TRP:CE3	1:D:4989:MET:HE2	2.46	0.51
1:D:4956:THR:O	1:D:4965:SER:N	2.43	0.51
1:D:4989:MET:SD	1:D:4993:MET:SD	3.08	0.51
1:C:359:TYR:HD2	1:C:361:ALA:H	1.58	0.51
1:C:3282:PRO:HG3	1:C:3345:ILE:HG22	1.92	0.51
1:C:3946:GLN:NE2	1:C:3949:ARG:HE	2.08	0.51
1:A:1039:LEU:O	1:A:1043:VAL:HG23	2.09	0.51
1:A:3478:MET:O	1:A:3478:MET:HG2	2.10	0.51
1:A:3699:HIS:CE1	1:A:3703:LEU:HD11	2.46	0.51
1:B:296:ASP:OD1	1:B:297:GLN:N	2.42	0.51
1:B:590:LEU:HD21	1:B:599:VAL:HB	1.92	0.51
1:B:721:LEU:HD12	1:B:1476:MET:HE1	1.93	0.51
1:B:1990:GLU:HG3	1:B:1994:ARG:HE	1.74	0.51
1:B:2822:THR:OG1	1:B:2938:THR:OG1	2.28	0.51
1:B:3257:ALA:O	1:B:3321:ARG:NH2	2.44	0.51
1:B:3258:GLU:HA	1:B:3321:ARG:NH2	2.26	0.51
1:D:721:LEU:HD12	1:D:1476:MET:HE1	1.93	0.51
1:D:4627:MET:SD	1:D:4628:VAL:O	2.69	0.51
1:D:4870:ASP:OD1	1:D:4870:ASP:N	2.44	0.51
1:D:4973:HIS:O	1:D:4977:THR:HG23	2.09	0.51
1:C:590:LEU:HD21	1:C:599:VAL:HB	1.92	0.51
1:C:869:ARG:NH2	1:C:1051:TYR:OH	2.44	0.51
1:C:2481:LYS:HD2	1:C:2481:LYS:O	2.11	0.51
1:C:4989:MET:SD	1:C:4993:MET:SD	3.08	0.51
1:A:927:GLU:O	1:A:931:THR:HG23	2.11	0.51
1:A:3733:CYS:SG	1:A:3770:LEU:HD12	2.51	0.51
1:A:3933:PHE:HE2	1:A:3951:PHE:CZ	2.18	0.51
1:A:4627:MET:SD	1:A:4628:VAL:O	2.69	0.51
2:H:77:SER:OG	2:H:79:ASP:OD1	2.28	0.51
1:B:869:ARG:NH2	1:B:1051:TYR:OH	2.44	0.51
1:B:1039:LEU:O	1:B:1043:VAL:HG23	2.09	0.51
1:B:3413:ILE:HG23	1:B:3516:LYS:HD3	1.93	0.51
1:D:3699:HIS:CE1	1:D:3703:LEU:HD11	2.45	0.51
1:C:3354:LEU:HD11	1:C:3434:LEU:HD22	1.93	0.51
1:C:4182:GLU:OE1	1:C:4983:HIS:NE2	2.44	0.51
1:C:4835:LYS:O	1:C:4839:MET:HG2	2.10	0.51
1:A:2452:ARG:HH12	1:B:174:VAL:HG12	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3258:GLU:HA	1:A:3321:ARG:NH2	2.26	0.51
1:A:4686:LEU:O	1:A:4691:GLN:N	2.36	0.51
1:A:5000:GLU:OE2	1:A:5011:TRP:NE1	2.43	0.51
2:H:38:SER:HB3	2:H:41:ASP:OD1	2.11	0.51
1:B:3933:PHE:CD2	1:B:3951:PHE:CZ	2.98	0.51
1:B:4205:TRP:CE3	1:B:4989:MET:HE2	2.46	0.51
1:B:4978:HIS:CE1	1:B:4983:HIS:ND1	2.78	0.51
1:D:883:ALA:HB1	1:D:907:LEU:HD13	1.93	0.51
1:D:1995:THR:HG22	1:D:1999:ARG:HG2	1.93	0.51
1:C:2490:MET:SD	1:C:2545:GLU:OE2	2.69	0.51
1:C:3435:PHE:CD2	1:C:3524:MET:CE	2.94	0.51
1:C:4956:THR:O	1:C:4965:SER:N	2.43	0.51
1:A:590:LEU:HD21	1:A:599:VAL:HB	1.92	0.51
1:A:975:VAL:HG13	1:A:1047:LEU:HD23	1.92	0.51
1:A:4205:TRP:CE3	1:A:4989:MET:HE2	2.46	0.51
1:A:4989:MET:SD	1:A:4993:MET:SD	3.08	0.51
1:B:2198:MET:SD	1:B:2203:MET:SD	3.09	0.51
1:B:2977:LEU:CD2	1:B:3056:LEU:HD22	2.42	0.51
1:B:3478:MET:HG2	1:B:3478:MET:O	2.10	0.51
1:B:4956:THR:O	1:B:4965:SER:N	2.43	0.51
1:D:2198:MET:SD	1:D:2203:MET:SD	3.09	0.51
1:C:648:ILE:HD13	1:C:811:CYS:HB3	1.93	0.51
1:A:869:ARG:NH2	1:A:1051:TYR:OH	2.44	0.50
1:D:3187:ARG:HG3	1:D:3272:ILE:HD11	1.92	0.50
1:C:975:VAL:HG13	1:C:1047:LEU:HD23	1.92	0.50
1:C:2198:MET:SD	1:C:2203:MET:SD	3.09	0.50
1:C:3257:ALA:O	1:C:3321:ARG:NH2	2.44	0.50
1:A:359:TYR:HD2	1:A:361:ALA:H	1.58	0.50
1:A:2309:SER:OG	1:A:2314:LEU:HD21	2.11	0.50
1:A:2490:MET:SD	1:A:2545:GLU:OE2	2.69	0.50
1:B:927:GLU:O	1:B:931:THR:HG23	2.11	0.50
1:B:4989:MET:SD	1:B:4993:MET:SD	3.08	0.50
1:D:988:LEU:HB3	1:D:1039:LEU:HD21	1.93	0.50
1:D:2309:SER:OG	1:D:2314:LEU:HD21	2.11	0.50
1:D:2974:ILE:CD1	1:D:3049:LEU:HD12	2.42	0.50
1:D:3258:GLU:HA	1:D:3321:ARG:NH2	2.26	0.50
1:C:927:GLU:O	1:C:931:THR:HG23	2.11	0.50
1:C:1990:GLU:HG3	1:C:1994:ARG:HE	1.74	0.50
1:C:2967:MET:HE1	1:C:3049:LEU:HD22	1.92	0.50
1:C:3733:CYS:SG	1:C:3770:LEU:HD12	2.51	0.50
1:A:3257:ALA:O	1:A:3321:ARG:NH2	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4978:HIS:CE1	1:A:4983:HIS:ND1	2.78	0.50
1:B:831:ARG:HE	1:B:840:VAL:HG21	1.75	0.50
1:B:883:ALA:HB1	1:B:907:LEU:HD13	1.93	0.50
1:B:941:MET:SD	1:B:1051:TYR:HE1	2.35	0.50
1:B:1995:THR:HG22	1:B:1999:ARG:HG2	1.93	0.50
1:B:2967:MET:HE1	1:B:3049:LEU:HD22	1.92	0.50
1:B:2974:ILE:HG13	1:B:2975:ALA:N	2.27	0.50
1:B:4182:GLU:OE1	1:B:4983:HIS:NE2	2.44	0.50
1:D:3321:ARG:HH11	1:D:3321:ARG:CG	2.13	0.50
1:C:883:ALA:HB1	1:C:907:LEU:HD13	1.93	0.50
1:A:3413:ILE:HG23	1:A:3516:LYS:HD3	1.93	0.50
2:F:38:SER:HB3	2:F:41:ASP:OD1	2.11	0.50
1:B:3299:GLY:O	1:B:3300:ALA:HB2	2.11	0.50
1:D:648:ILE:HD13	1:D:811:CYS:HB3	1.93	0.50
1:D:3762:ARG:C	1:D:3766:GLN:NE2	2.69	0.50
1:C:734:GLY:O	1:C:736:HIS:ND1	2.35	0.50
1:C:3258:GLU:HA	1:C:3321:ARG:NH2	2.26	0.50
1:C:3732:SER:O	1:C:3735:LEU:HG	2.11	0.50
1:C:4205:TRP:CE3	1:C:4989:MET:HE2	2.46	0.50
1:A:721:LEU:HD12	1:A:1476:MET:HE1	1.93	0.50
1:B:1143:TRP:CE3	1:B:1149:VAL:HG21	2.47	0.50
1:B:2309:SER:OG	1:B:2314:LEU:HD21	2.11	0.50
1:B:2481:LYS:O	1:B:2481:LYS:HD2	2.11	0.50
1:B:3382:GLU:CA	1:B:3384:LYS:HZ3	2.24	0.50
1:D:359:TYR:HD2	1:D:361:ALA:H	1.58	0.50
1:D:1676:LEU:HB3	1:D:2167:ILE:HD12	1.92	0.50
1:D:2685:SER:O	1:D:2689:LYS:HG2	2.12	0.50
1:C:2604:GLU:CB	1:C:2608:MET:HE1	2.42	0.50
1:C:3324:VAL:CG1	1:C:3361:THR:HG22	2.41	0.50
1:A:985:VAL:HG22	1:A:1043:VAL:HG21	1.94	0.50
1:A:988:LEU:HB3	1:A:1039:LEU:HD21	1.93	0.50
1:B:2490:MET:SD	1:B:2545:GLU:OE2	2.69	0.50
1:B:3187:ARG:HG3	1:B:3272:ILE:HD11	1.92	0.50
1:B:3762:ARG:C	1:B:3766:GLN:NE2	2.69	0.50
1:D:985:VAL:HG22	1:D:1043:VAL:HG21	1.94	0.50
1:C:941:MET:SD	1:C:1051:TYR:HE1	2.35	0.50
1:B:961:MET:HE1	1:B:967:PRO:HD3	1.94	0.50
1:D:2481:LYS:HD2	1:D:2481:LYS:O	2.11	0.50
1:D:3299:GLY:O	1:D:3300:ALA:HB2	2.11	0.50
1:D:4634:GLU:OE1	1:D:4634:GLU:N	2.45	0.50
1:C:1143:TRP:HZ3	1:C:1149:VAL:HG21	1.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2309:SER:OG	1:C:2314:LEU:HD21	2.11	0.50
1:C:2974:ILE:CD1	1:C:3049:LEU:HD12	2.42	0.50
1:C:3762:ARG:C	1:C:3766:GLN:NE2	2.69	0.50
1:A:568:LEU:HD12	1:A:602:VAL:HG13	1.94	0.50
1:A:2604:GLU:CB	1:A:2608:MET:HE1	2.42	0.50
1:A:2974:ILE:CD1	1:A:3049:LEU:HD12	2.42	0.50
1:A:2977:LEU:CD2	1:A:3056:LEU:HD22	2.42	0.50
1:B:463:GLU:O	1:B:467:LYS:HG2	2.12	0.50
1:B:3732:SER:O	1:B:3735:LEU:HG	2.12	0.50
1:B:4627:MET:SD	1:B:4628:VAL:O	2.69	0.50
1:B:4634:GLU:OE1	1:B:4634:GLU:N	2.45	0.50
1:D:884:LEU:O	1:D:888:GLU:OE1	2.29	0.50
1:D:927:GLU:O	1:D:931:THR:HG23	2.11	0.50
1:D:3282:PRO:HG3	1:D:3345:ILE:HG22	1.92	0.50
1:C:568:LEU:HD12	1:C:602:VAL:HG13	1.94	0.50
1:C:918:ARG:O	1:C:922:LEU:HD23	2.12	0.50
1:C:3299:GLY:O	1:C:3300:ALA:HB2	2.11	0.50
1:A:884:LEU:O	1:A:888:GLU:OE1	2.29	0.50
1:A:3225:ARG:NH2	1:A:3226:GLU:OE2	2.45	0.50
2:E:24:VAL:HG21	2:E:59:TRP:CZ3	2.47	0.50
1:B:2685:SER:O	1:B:2689:LYS:HG2	2.12	0.50
1:B:3504:SER:O	1:B:3507:THR:OG1	2.22	0.50
1:B:3944:GLU:OE2	1:B:3946:GLN:HB2	2.12	0.50
1:D:3257:ALA:O	1:D:3321:ARG:NH2	2.44	0.50
1:D:3435:PHE:CD2	1:D:3524:MET:CE	2.94	0.50
1:D:3732:SER:O	1:D:3735:LEU:HG	2.11	0.50
1:C:404:ILE:HG23	1:C:483:MET:SD	2.52	0.50
1:C:884:LEU:O	1:C:888:GLU:OE1	2.29	0.50
1:C:2142:TYR:HA	1:C:3651:ASN:HD21	1.77	0.50
1:C:3225:ARG:NH2	1:C:3226:GLU:OE2	2.45	0.50
1:C:3521:GLY:HA2	1:C:3524:MET:HE3	1.89	0.50
1:A:463:GLU:O	1:A:467:LYS:HG2	2.12	0.49
1:A:883:ALA:HB1	1:A:907:LEU:HD13	1.93	0.49
1:A:2198:MET:SD	1:A:2203:MET:SD	3.09	0.49
1:A:2685:SER:O	1:A:2689:LYS:HG2	2.12	0.49
1:A:3732:SER:O	1:A:3735:LEU:HG	2.12	0.49
1:A:4182:GLU:OE1	1:A:4983:HIS:NE2	2.44	0.49
1:B:359:TYR:HD2	1:B:361:ALA:H	1.58	0.49
1:B:918:ARG:O	1:B:922:LEU:HD23	2.12	0.49
1:B:975:VAL:HG13	1:B:1047:LEU:HD23	1.92	0.49
1:B:2142:TYR:HA	1:B:3651:ASN:HD21	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:463:GLU:O	1:D:467:LYS:HG2	2.12	0.49
1:D:918:ARG:O	1:D:922:LEU:HD23	2.12	0.49
1:D:3413:ILE:HG23	1:D:3516:LYS:HD3	1.93	0.49
1:D:4791:TYR:CZ	1:D:4818:MET:CE	2.95	0.49
1:C:2538:THR:O	1:C:2542:SER:N	2.37	0.49
1:C:2685:SER:O	1:C:2689:LYS:HG2	2.12	0.49
1:A:2481:LYS:HD2	1:A:2481:LYS:O	2.11	0.49
1:A:3762:ARG:C	1:A:3766:GLN:NE2	2.69	0.49
1:A:4860:ARG:NH1	1:D:4630:TYR:OH	2.45	0.49
1:B:2604:GLU:CB	1:B:2608:MET:HE1	2.42	0.49
1:B:3114:LYS:HD2	1:B:3125:VAL:HG21	1.94	0.49
1:D:404:ILE:HG23	1:D:483:MET:SD	2.52	0.49
1:D:1931:LEU:HD13	1:D:1935:VAL:CG1	2.41	0.49
1:C:601:ASP:OD1	1:C:1665:HIS:ND1	2.38	0.49
1:C:3933:PHE:CD2	1:C:3951:PHE:CZ	2.98	0.49
1:C:4791:TYR:CZ	1:C:4818:MET:CE	2.96	0.49
1:A:860:GLN:O	1:A:930:LYS:NZ	2.39	0.49
1:A:961:MET:HE1	1:A:967:PRO:HD3	1.94	0.49
1:A:3944:GLU:OE2	1:A:3946:GLN:HB2	2.12	0.49
1:A:4634:GLU:OE1	1:A:4634:GLU:N	2.45	0.49
1:A:4902:GLU:O	1:A:4913:ARG:CZ	2.61	0.49
1:B:26:ALA:N	1:B:32:GLN:OE1	2.46	0.49
1:D:568:LEU:HD12	1:D:602:VAL:HG13	1.94	0.49
1:D:2604:GLU:CB	1:D:2608:MET:HE1	2.42	0.49
1:D:2977:LEU:CD2	1:D:3056:LEU:HD22	2.42	0.49
1:D:3391:GLU:OE2	1:D:3450:ASN:ND2	2.34	0.49
1:C:438:ILE:HG23	1:C:518:ILE:HD11	1.94	0.49
1:C:914:PRO:HB2	1:C:917:GLU:OE1	2.13	0.49
1:C:1143:TRP:CE3	1:C:1149:VAL:HG21	2.47	0.49
1:C:2166:LEU:HD11	1:C:2206:THR:HG23	1.94	0.49
1:C:2974:ILE:HG13	1:C:2975:ALA:N	2.27	0.49
1:C:3660:ALA:O	1:C:3664:THR:OG1	2.17	0.49
1:C:4782:VAL:O	1:C:4785:THR:OG1	2.23	0.49
1:A:648:ILE:HD13	1:A:811:CYS:HB3	1.93	0.49
1:A:918:ARG:O	1:A:922:LEU:HD23	2.12	0.49
1:A:3382:GLU:CA	1:A:3384:LYS:HZ3	2.26	0.49
1:B:568:LEU:HD12	1:B:602:VAL:HG13	1.94	0.49
1:B:3225:ARG:NH2	1:B:3226:GLU:OE2	2.45	0.49
1:B:4680:LYS:O	1:B:4685:GLY:N	2.42	0.49
1:B:4826:ILE:O	1:B:4829:SER:OG	2.24	0.49
1:D:21:VAL:HG11	1:D:62:LEU:HD11	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:717:ASP:OD1	1:D:720:HIS:N	2.41	0.49
1:D:2974:ILE:HG13	1:D:2975:ALA:N	2.27	0.49
1:D:3944:GLU:OE2	1:D:3946:GLN:HB2	2.12	0.49
1:C:1995:THR:HG22	1:C:1999:ARG:HG2	1.93	0.49
1:C:4627:MET:SD	1:C:4628:VAL:O	2.69	0.49
1:A:404:ILE:HG23	1:A:483:MET:SD	2.52	0.49
1:A:914:PRO:HB2	1:A:917:GLU:OE1	2.13	0.49
2:G:3:GLN:NE2	2:G:75:THR:HG21	2.28	0.49
2:F:3:GLN:NE2	2:F:75:THR:HG21	2.28	0.49
1:B:884:LEU:O	1:B:888:GLU:OE1	2.29	0.49
1:B:985:VAL:HG22	1:B:1043:VAL:HG21	1.94	0.49
1:B:2974:ILE:CD1	1:B:3049:LEU:HD12	2.42	0.49
1:C:2977:LEU:CD2	1:C:3056:LEU:HD22	2.42	0.49
1:C:4634:GLU:N	1:C:4634:GLU:OE1	2.45	0.49
1:A:26:ALA:N	1:A:32:GLN:OE1	2.46	0.49
1:A:3114:LYS:HD2	1:A:3125:VAL:HG21	1.94	0.49
1:A:3299:GLY:O	1:A:3300:ALA:HB2	2.11	0.49
1:A:3382:GLU:HA	1:A:3384:LYS:HZ3	1.77	0.49
1:A:3395:ARG:CD	1:A:3454:GLU:CD	2.86	0.49
1:A:4870:ASP:OD1	1:A:4870:ASP:N	2.44	0.49
1:B:156:GLN:OE1	1:B:156:GLN:CA	2.61	0.49
1:B:404:ILE:HG23	1:B:483:MET:SD	2.52	0.49
1:B:4930:ALA:HA	1:B:4933:GLN:OE1	2.13	0.49
1:D:941:MET:SD	1:D:1051:TYR:HE1	2.35	0.49
1:D:2142:TYR:HA	1:D:3651:ASN:HD21	1.77	0.49
1:D:2482:ASP:C	1:D:2482:ASP:OD1	2.56	0.49
1:D:3246:LEU:HD11	1:D:3250:MET:HE3	1.94	0.49
1:D:3445:TRP:O	1:D:3452:LYS:NZ	2.34	0.49
1:D:4543:GLU:O	1:D:4546:VAL:HG22	2.13	0.49
1:D:4764:LEU:HD12	1:D:4765:LEU:N	2.28	0.49
1:C:156:GLN:OE1	1:C:156:GLN:CA	2.61	0.49
1:C:463:GLU:O	1:C:467:LYS:HG2	2.12	0.49
1:C:2926:LEU:O	1:C:2930:LEU:HD13	2.12	0.49
1:C:3319:ILE:O	1:C:3320:LEU:C	2.55	0.49
1:C:3395:ARG:CD	1:C:3454:GLU:CD	2.86	0.49
1:C:3413:ILE:HG23	1:C:3516:LYS:HD3	1.93	0.49
1:A:1143:TRP:CE3	1:A:1149:VAL:HG21	2.47	0.49
1:A:4791:TYR:CZ	1:A:4818:MET:CE	2.96	0.49
1:A:4930:ALA:HA	1:A:4933:GLN:OE1	2.13	0.49
2:E:25:HIS:ND1	2:E:104:LEU:HD21	2.28	0.49
2:F:24:VAL:HG21	2:F:59:TRP:CZ3	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:648:ILE:HD13	1:B:811:CYS:HB3	1.93	0.49
1:D:509:GLU:O	1:D:513:GLU:OE1	2.31	0.49
1:D:2926:LEU:O	1:D:2930:LEU:HD13	2.12	0.49
1:D:3107:VAL:O	1:D:3111:ARG:HG2	2.13	0.49
1:D:4902:GLU:O	1:D:4913:ARG:CZ	2.61	0.49
1:C:26:ALA:N	1:C:32:GLN:OE1	2.46	0.49
2:G:24:VAL:HG21	2:G:59:TRP:CZ3	2.47	0.49
1:B:988:LEU:HB3	1:B:1039:LEU:HD21	1.93	0.49
1:B:3081:MET:HE1	1:B:3093:ARG:HH12	1.78	0.49
1:B:4686:LEU:O	1:B:4691:GLN:N	2.36	0.49
1:D:438:ILE:HG23	1:D:518:ILE:HD11	1.94	0.49
1:D:914:PRO:HB2	1:D:917:GLU:OE1	2.13	0.49
1:D:961:MET:HE1	1:D:967:PRO:HD3	1.94	0.49
1:C:278:GLN:HA	1:C:328:LYS:NZ	2.28	0.49
1:C:2644:LEU:HD13	1:C:2678:LEU:HD21	1.95	0.49
1:C:3246:LEU:HD11	1:C:3250:MET:HE3	1.94	0.49
1:A:601:ASP:OD1	1:A:1665:HIS:ND1	2.38	0.49
1:A:1143:TRP:HZ3	1:A:1149:VAL:HG21	1.74	0.49
1:A:2166:LEU:HD11	1:A:2206:THR:HG23	1.94	0.49
1:A:2644:LEU:HD13	1:A:2678:LEU:HD21	1.95	0.49
1:A:2974:ILE:HG13	1:A:2975:ALA:N	2.27	0.49
1:A:4161:ARG:HA	1:A:4164:LEU:HD12	1.95	0.49
2:H:2:VAL:HG23	2:H:80:TYR:HD2	1.78	0.49
2:G:2:VAL:HG23	2:G:80:TYR:HD2	1.78	0.49
1:B:3318:ASN:C	1:B:3321:ARG:H	2.20	0.49
1:D:2614:ILE:HG23	1:D:2618:MET:SD	2.53	0.49
1:D:3225:ARG:NH2	1:D:3226:GLU:OE2	2.45	0.49
1:D:3395:ARG:CD	1:D:3454:GLU:CD	2.86	0.49
1:C:3944:GLU:OE2	1:C:3946:GLN:HB2	2.12	0.49
1:C:4651:THR:OG1	1:C:4803:HIS:NE2	2.33	0.49
1:A:156:GLN:OE1	1:A:156:GLN:CA	2.61	0.49
1:A:278:GLN:HA	1:A:328:LYS:NZ	2.28	0.49
1:A:2142:TYR:HA	1:A:3651:ASN:HD21	1.77	0.49
1:A:2977:LEU:O	1:A:2981:VAL:HG23	2.13	0.49
1:A:3107:VAL:O	1:A:3111:ARG:HG2	2.13	0.49
1:A:3383:ALA:N	1:A:3384:LYS:HZ2	2.11	0.49
2:G:25:HIS:ND1	2:G:104:LEU:HD21	2.28	0.49
1:B:234:SER:HG	1:B:238:SER:HG	1.49	0.49
1:B:278:GLN:HA	1:B:328:LYS:NZ	2.28	0.49
1:B:818:ARG:NH1	1:B:1029:GLU:OE2	2.40	0.49
1:B:2644:LEU:HD13	1:B:2678:LEU:HD21	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3107:VAL:O	1:B:3111:ARG:HG2	2.13	0.49
1:B:4736:ARG:HB2	1:B:4736:ARG:NH1	2.28	0.49
1:D:278:GLN:HA	1:D:328:LYS:NZ	2.28	0.49
1:D:3319:ILE:O	1:D:3320:LEU:C	2.55	0.49
1:D:3324:VAL:CG1	1:D:3361:THR:HG22	2.41	0.49
1:D:4161:ARG:HA	1:D:4164:LEU:HD12	1.95	0.49
1:C:860:GLN:O	1:C:930:LYS:NZ	2.39	0.49
1:C:4902:GLU:O	1:C:4913:ARG:CZ	2.60	0.49
1:A:941:MET:SD	1:A:1051:TYR:HE1	2.35	0.48
1:A:1436:SER:OG	1:A:1565:GLU:HB2	2.13	0.48
1:A:3318:ASN:C	1:A:3321:ARG:H	2.20	0.48
1:A:4764:LEU:HD12	1:A:4765:LEU:N	2.28	0.48
2:E:2:VAL:HG23	2:E:80:TYR:HD2	1.78	0.48
1:B:21:VAL:HG11	1:B:62:LEU:HD11	1.95	0.48
1:B:509:GLU:O	1:B:513:GLU:OE1	2.31	0.48
1:B:914:PRO:HB2	1:B:917:GLU:OE1	2.13	0.48
1:B:3383:ALA:N	1:B:3384:LYS:HZ3	2.10	0.48
1:B:4870:ASP:N	1:B:4870:ASP:OD1	2.44	0.48
1:D:156:GLN:OE1	1:D:156:GLN:CA	2.61	0.48
1:D:3383:ALA:O	1:D:3384:LYS:HD3	2.13	0.48
1:D:3521:GLY:HA2	1:D:3524:MET:HE3	1.89	0.48
1:D:4016:LEU:O	1:D:4020:GLN:HG3	2.13	0.48
1:D:4736:ARG:NH1	1:D:4736:ARG:HB2	2.28	0.48
1:C:3382:GLU:CA	1:C:3384:LYS:HZ1	2.25	0.48
1:A:717:ASP:OD1	1:A:720:HIS:N	2.41	0.48
1:A:3319:ILE:O	1:A:3320:LEU:C	2.55	0.48
1:A:3435:PHE:CD2	1:A:3524:MET:CE	2.94	0.48
2:H:24:VAL:HG21	2:H:59:TRP:CZ3	2.47	0.48
1:B:4764:LEU:HD12	1:B:4765:LEU:N	2.28	0.48
1:B:4791:TYR:CZ	1:B:4818:MET:CE	2.96	0.48
1:D:1143:TRP:HZ3	1:D:1149:VAL:HG21	1.74	0.48
1:D:4826:ILE:O	1:D:4829:SER:OG	2.24	0.48
1:C:818:ARG:NH1	1:C:1029:GLU:OE2	2.40	0.48
1:C:4016:LEU:O	1:C:4020:GLN:HG3	2.13	0.48
1:C:4930:ALA:HA	1:C:4933:GLN:OE1	2.13	0.48
1:A:21:VAL:HG11	1:A:62:LEU:HD11	1.95	0.48
1:A:492:ASP:O	1:A:496:VAL:HG13	2.14	0.48
1:A:2237:CYS:SG	1:A:2275:VAL:HG22	2.54	0.48
1:A:2482:ASP:C	1:A:2482:ASP:OD1	2.56	0.48
1:A:4736:ARG:NH1	1:A:4736:ARG:HB2	2.28	0.48
2:F:25:HIS:ND1	2:F:104:LEU:HD21	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2482:ASP:OD1	1:B:2482:ASP:C	2.56	0.48
1:B:2675:THR:CG2	1:B:2706:ILE:HG23	2.43	0.48
1:B:2977:LEU:O	1:B:2981:VAL:HG23	2.13	0.48
1:B:3324:VAL:CG1	1:B:3361:THR:HG22	2.41	0.48
1:B:3383:ALA:O	1:B:3384:LYS:HD3	2.13	0.48
1:B:3946:GLN:HE22	1:B:3949:ARG:HH21	1.62	0.48
1:B:4543:GLU:O	1:B:4546:VAL:HG22	2.13	0.48
1:D:2166:LEU:HD11	1:D:2206:THR:HG23	1.94	0.48
1:D:2977:LEU:O	1:D:2981:VAL:HG23	2.13	0.48
1:C:3321:ARG:HH11	1:C:3321:ARG:CG	2.13	0.48
1:A:2755:ILE:HD13	1:A:2810:LYS:HD3	1.96	0.48
2:H:3:GLN:NE2	2:H:75:THR:HG21	2.28	0.48
1:B:1436:SER:OG	1:B:1565:GLU:HB2	2.13	0.48
1:B:2781:VAL:HG22	1:B:2789:PRO:HB2	1.96	0.48
1:B:3395:ARG:CD	1:B:3454:GLU:CD	2.86	0.48
1:D:601:ASP:OD1	1:D:1665:HIS:ND1	2.38	0.48
1:D:1143:TRP:CE3	1:D:1149:VAL:HG21	2.47	0.48
1:D:4930:ALA:HA	1:D:4933:GLN:OE1	2.13	0.48
1:C:988:LEU:HB3	1:C:1039:LEU:HD21	1.93	0.48
1:C:2237:CYS:SG	1:C:2275:VAL:HG22	2.54	0.48
1:C:2619:LEU:O	1:C:2623:LEU:HD13	2.14	0.48
1:C:3382:GLU:HA	1:C:3384:LYS:HZ1	1.78	0.48
1:C:3946:GLN:HE22	1:C:3949:ARG:HH21	1.62	0.48
1:C:4746:ALA:O	1:C:4750:ILE:HD12	2.14	0.48
1:A:2290:LEU:HD23	1:A:2291:GLN:N	2.29	0.48
1:A:2675:THR:CG2	1:A:2706:ILE:HG23	2.43	0.48
1:A:2926:LEU:O	1:A:2930:LEU:HD13	2.12	0.48
2:E:3:GLN:NE2	2:E:75:THR:HG21	2.28	0.48
1:B:308:HIS:O	1:B:310:LYS:N	2.46	0.48
1:B:2166:LEU:HD11	1:B:2206:THR:HG23	1.94	0.48
1:B:2926:LEU:O	1:B:2930:LEU:HD13	2.12	0.48
1:B:3945:GLU:OE1	1:B:3946:GLN:NE2	2.47	0.48
1:D:2237:CYS:SG	1:D:2275:VAL:HG22	2.54	0.48
1:D:2755:ILE:HD13	1:D:2810:LYS:HD3	1.96	0.48
1:D:4746:ALA:O	1:D:4750:ILE:HD12	2.14	0.48
1:C:961:MET:HE1	1:C:967:PRO:HD3	1.94	0.48
1:C:985:VAL:HG22	1:C:1043:VAL:HG21	1.94	0.48
1:C:2614:ILE:HG23	1:C:2618:MET:SD	2.53	0.48
1:C:2675:THR:CG2	1:C:2706:ILE:HG23	2.43	0.48
1:C:2755:ILE:HD13	1:C:2810:LYS:HD3	1.96	0.48
1:C:3107:VAL:O	1:C:3111:ARG:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4764:LEU:HD12	1:C:4765:LEU:N	2.28	0.48
1:A:438:ILE:HG23	1:A:518:ILE:HD11	1.94	0.48
1:A:1577:ALA:O	1:A:1584:ARG:NH1	2.43	0.48
1:A:1866:ILE:HG12	1:A:1939:MET:HE1	1.95	0.48
1:A:2310:CYS:O	1:A:2314:LEU:HD23	2.14	0.48
1:A:2894:LEU:O	1:A:2897:LYS:N	2.47	0.48
1:A:3246:LEU:HD11	1:A:3250:MET:HE3	1.94	0.48
1:A:4016:LEU:O	1:A:4020:GLN:HG3	2.13	0.48
1:A:4929:LEU:C	1:A:4933:GLN:OE1	2.57	0.48
1:B:2755:ILE:HD13	1:B:2810:LYS:HD3	1.96	0.48
1:B:2894:LEU:O	1:B:2897:LYS:N	2.47	0.48
1:B:4746:ALA:O	1:B:4750:ILE:HD12	2.14	0.48
1:D:26:ALA:N	1:D:32:GLN:OE1	2.46	0.48
1:D:2781:VAL:HG22	1:D:2789:PRO:HB2	1.96	0.48
1:C:308:HIS:O	1:C:310:LYS:N	2.46	0.48
1:C:509:GLU:O	1:C:513:GLU:OE1	2.31	0.48
1:C:3114:LYS:HD2	1:C:3125:VAL:HG21	1.94	0.48
1:A:553:ARG:NE	1:A:555:GLU:OE2	2.46	0.48
1:A:2614:ILE:HG23	1:A:2618:MET:SD	2.53	0.48
1:A:3916:ILE:H	1:A:3916:ILE:HD12	1.79	0.48
1:A:4543:GLU:O	1:A:4546:VAL:HG22	2.13	0.48
1:A:4746:ALA:O	1:A:4750:ILE:HD12	2.14	0.48
2:F:2:VAL:HG23	2:F:80:TYR:HD2	1.78	0.48
1:B:3246:LEU:HD11	1:B:3250:MET:HE3	1.94	0.48
1:B:4902:GLU:O	1:B:4913:ARG:CZ	2.61	0.48
1:D:975:VAL:CG1	1:D:1047:LEU:HD23	2.44	0.48
1:D:1749:PRO:O	1:D:1758:ARG:NH2	2.47	0.48
1:D:2675:THR:CG2	1:D:2706:ILE:HG23	2.43	0.48
1:D:3114:LYS:HD2	1:D:3125:VAL:HG21	1.94	0.48
1:D:3945:GLU:OE1	1:D:3946:GLN:NE2	2.47	0.48
1:D:4929:LEU:C	1:D:4933:GLN:OE1	2.57	0.48
1:C:1436:SER:OG	1:C:1565:GLU:HB2	2.13	0.48
1:C:2393:ASP:OD1	1:C:2418:LEU:N	2.47	0.48
1:C:3111:ARG:O	1:C:3112:LEU:HB2	2.13	0.48
1:C:3383:ALA:O	1:C:3384:LYS:HD3	2.13	0.48
1:C:3613:TYR:O	1:C:3617:LYS:NZ	2.36	0.48
1:A:975:VAL:CG1	1:A:1047:LEU:HD23	2.44	0.48
1:B:438:ILE:HG23	1:B:518:ILE:HD11	1.94	0.48
1:B:1143:TRP:HZ3	1:B:1149:VAL:HG21	1.74	0.48
1:B:1749:PRO:O	1:B:1758:ARG:NH2	2.47	0.48
1:B:2614:ILE:HG23	1:B:2618:MET:SD	2.53	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3111:ARG:O	1:B:3112:LEU:HB2	2.13	0.48
1:D:492:ASP:O	1:D:496:VAL:HG13	2.14	0.48
1:D:3111:ARG:O	1:D:3112:LEU:HB2	2.13	0.48
1:C:3240:CYS:SG	1:C:3243:ILE:HD13	2.54	0.48
1:C:3945:GLU:OE1	1:C:3946:GLN:NE2	2.47	0.48
1:B:4929:LEU:C	1:B:4933:GLN:OE1	2.57	0.48
1:D:2644:LEU:HD13	1:D:2678:LEU:HD21	1.95	0.48
1:D:3240:CYS:SG	1:D:3243:ILE:HD13	2.54	0.48
1:D:3552:PHE:O	1:D:3555:ASN:OD1	2.32	0.48
1:D:3946:GLN:HE22	1:D:3949:ARG:HH21	1.62	0.48
1:C:961:MET:HE2	1:C:965:TYR:C	2.39	0.48
1:C:4161:ARG:HA	1:C:4164:LEU:HD12	1.95	0.48
1:A:509:GLU:O	1:A:513:GLU:OE1	2.31	0.48
1:A:2581:SER:O	1:A:2585:THR:HG23	2.14	0.48
1:A:3414:ARG:CZ	1:A:3472:ALA:HB3	2.44	0.48
1:A:3445:TRP:O	1:A:3452:LYS:NZ	2.34	0.48
2:E:77:SER:OG	2:E:79:ASP:OD1	2.28	0.48
1:B:1943:LEU:CD1	1:B:2101:MET:HE1	2.44	0.48
1:B:2290:LEU:HD23	1:B:2291:GLN:N	2.29	0.48
1:B:3414:ARG:CZ	1:B:3472:ALA:HB3	2.44	0.48
1:B:3933:PHE:HE2	1:B:3951:PHE:CZ	2.18	0.48
1:D:734:GLY:O	1:D:736:HIS:ND1	2.35	0.48
1:D:2310:CYS:O	1:D:2314:LEU:HD23	2.14	0.48
1:D:3081:MET:HE1	1:D:3093:ARG:HH12	1.78	0.48
1:D:3365:LEU:HD13	1:D:3405:LEU:HD23	1.95	0.48
1:C:2290:LEU:HD23	1:C:2291:GLN:N	2.29	0.48
1:C:3357:HIS:O	1:C:3361:THR:HG23	2.14	0.48
1:C:4736:ARG:NH1	1:C:4736:ARG:HB2	2.28	0.48
1:C:4929:LEU:C	1:C:4933:GLN:OE1	2.57	0.48
1:A:961:MET:CE	1:A:967:PRO:HD3	2.44	0.47
1:A:961:MET:HE2	1:A:965:TYR:C	2.39	0.47
1:A:1943:LEU:CD1	1:A:2101:MET:HE1	2.44	0.47
1:A:3585:ASP:OD1	1:A:3586:ALA:N	2.47	0.47
1:B:961:MET:CE	1:B:967:PRO:HD3	2.44	0.47
1:B:975:VAL:CG1	1:B:1047:LEU:HD23	2.44	0.47
1:B:2440:MET:O	1:B:2443:ILE:N	2.47	0.47
1:B:3003:LEU:HB2	1:B:3004:PRO:HD3	1.96	0.47
1:D:1436:SER:OG	1:D:1565:GLU:HB2	2.13	0.47
1:D:2290:LEU:HD23	1:D:2291:GLN:N	2.29	0.47
1:D:2330:ARG:HA	1:D:2333:ASP:OD2	2.14	0.47
1:D:3585:ASP:OD1	1:D:3586:ALA:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4182:GLU:OE1	1:D:4983:HIS:NE2	2.44	0.47
1:C:961:MET:CE	1:C:967:PRO:HD3	2.44	0.47
1:C:2310:CYS:O	1:C:2314:LEU:HD23	2.14	0.47
1:C:3552:PHE:O	1:C:3555:ASN:OD1	2.32	0.47
1:C:4543:GLU:O	1:C:4546:VAL:HG22	2.13	0.47
1:A:856:VAL:HG12	1:A:991:ASN:ND2	2.29	0.47
1:A:1749:PRO:O	1:A:1758:ARG:NH2	2.47	0.47
1:A:3946:GLN:HE22	1:A:3949:ARG:HH21	1.62	0.47
1:A:4586:PRO:HD3	1:A:4629:TYR:HE2	1.78	0.47
2:E:57:ARG:O	2:E:58:GLY:C	2.56	0.47
2:H:25:HIS:ND1	2:H:104:LEU:HD21	2.28	0.47
1:B:492:ASP:O	1:B:496:VAL:HG13	2.14	0.47
1:B:1866:ILE:HG12	1:B:1939:MET:HE1	1.95	0.47
1:B:2619:LEU:O	1:B:2623:LEU:HD13	2.14	0.47
1:B:4161:ARG:HA	1:B:4164:LEU:HD12	1.95	0.47
1:D:1492:CYS:SG	1:D:1494:MET:HG3	2.54	0.47
1:D:2440:MET:O	1:D:2443:ILE:N	2.47	0.47
1:D:2894:LEU:O	1:D:2897:LYS:N	2.47	0.47
1:D:3799:LYS:NZ	1:D:3883:ASP:OD2	2.48	0.47
1:D:4586:PRO:HD3	1:D:4629:TYR:HE2	1.78	0.47
1:C:856:VAL:HG12	1:C:991:ASN:ND2	2.29	0.47
1:C:2482:ASP:C	1:C:2482:ASP:OD1	2.56	0.47
1:C:2939:ARG:HE	1:C:2939:ARG:HA	1.79	0.47
1:A:2393:ASP:OD1	1:A:2418:LEU:N	2.47	0.47
1:A:3003:LEU:HB2	1:A:3004:PRO:HD3	1.96	0.47
1:A:4680:LYS:O	1:A:4685:GLY:N	2.42	0.47
1:B:2330:ARG:HA	1:B:2333:ASP:OD2	2.14	0.47
1:B:3585:ASP:OD1	1:B:3586:ALA:N	2.47	0.47
1:B:3916:ILE:H	1:B:3916:ILE:HD12	1.79	0.47
1:B:3946:GLN:CD	1:B:3949:ARG:NE	2.72	0.47
1:C:612:VAL:HG13	1:C:2167:ILE:O	2.14	0.47
1:C:1492:CYS:SG	1:C:1494:MET:HG3	2.54	0.47
1:C:1866:ILE:HG12	1:C:1939:MET:HE1	1.96	0.47
1:C:2186:MET:HE2	1:C:2235:PHE:HA	1.96	0.47
1:C:2330:ARG:HA	1:C:2333:ASP:OD2	2.14	0.47
1:C:2744:ASN:OD1	1:C:2745:VAL:N	2.48	0.47
1:C:2894:LEU:O	1:C:2897:LYS:N	2.47	0.47
1:C:3246:LEU:CD1	1:C:3250:MET:HE3	2.45	0.47
1:C:3318:ASN:C	1:C:3321:ARG:H	2.20	0.47
1:A:595:ARG:NH1	1:A:1643:GLU:OE2	2.44	0.47
1:A:1931:LEU:HD13	1:A:1935:VAL:CG1	2.41	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:856:VAL:HG12	1:B:991:ASN:ND2	2.29	0.47
1:B:1492:CYS:SG	1:B:1494:MET:HG3	2.54	0.47
1:B:3448:SER:O	1:B:3452:LYS:NZ	2.48	0.47
1:D:612:VAL:HG13	1:D:2167:ILE:O	2.14	0.47
1:D:856:VAL:HG12	1:D:991:ASN:ND2	2.29	0.47
1:D:2186:MET:HE2	1:D:2235:PHE:HA	1.96	0.47
1:D:2393:ASP:OD1	1:D:2418:LEU:N	2.47	0.47
1:D:2619:LEU:O	1:D:2623:LEU:HD13	2.14	0.47
1:D:2939:ARG:HA	1:D:2939:ARG:HE	1.79	0.47
1:D:3036:LYS:O	1:D:3039:ILE:HG22	2.14	0.47
1:C:1131:ARG:NH1	1:C:1178:ALA:O	2.47	0.47
1:C:2581:SER:O	1:C:2585:THR:HG23	2.14	0.47
1:C:2781:VAL:HG22	1:C:2789:PRO:HB2	1.96	0.47
1:A:2330:ARG:HA	1:A:2333:ASP:OD2	2.14	0.47
1:A:2495:VAL:HG23	1:A:2497:ASP:OD1	2.15	0.47
1:A:2781:VAL:HG22	1:A:2789:PRO:HB2	1.96	0.47
1:A:3061:ALA:O	1:A:3065:VAL:HG23	2.15	0.47
1:A:3552:PHE:O	1:A:3555:ASN:OD1	2.32	0.47
1:B:612:VAL:HG13	1:B:2167:ILE:O	2.14	0.47
1:B:1461:ASP:OD2	1:B:1468:LYS:NZ	2.47	0.47
1:B:2237:CYS:SG	1:B:2275:VAL:HG22	2.54	0.47
1:B:2310:CYS:O	1:B:2314:LEU:HD23	2.14	0.47
1:B:3169:LEU:HD11	1:B:3205:PHE:CZ	2.50	0.47
1:B:3382:GLU:HA	1:B:3384:LYS:HZ3	1.79	0.47
1:D:595:ARG:NH1	1:D:1643:GLU:OE2	2.44	0.47
1:D:961:MET:CE	1:D:967:PRO:HD3	2.44	0.47
1:D:2581:SER:O	1:D:2585:THR:HG23	2.14	0.47
1:C:975:VAL:CG1	1:C:1047:LEU:HD23	2.44	0.47
1:C:1749:PRO:O	1:C:1758:ARG:NH2	2.47	0.47
1:C:1943:LEU:CD1	1:C:2101:MET:HE1	2.44	0.47
1:C:2440:MET:O	1:C:2443:ILE:N	2.47	0.47
1:C:2977:LEU:O	1:C:2981:VAL:HG23	2.13	0.47
1:C:3633:VAL:O	1:C:3637:ARG:HG2	2.15	0.47
1:A:612:VAL:HG13	1:A:2167:ILE:O	2.14	0.47
1:B:1828:ASP:OD1	1:B:1828:ASP:N	2.48	0.47
1:B:3357:HIS:O	1:B:3361:THR:HG23	2.14	0.47
1:B:3765:TYR:CZ	1:B:4753:HIS:ND1	2.75	0.47
1:D:2744:ASN:OD1	1:D:2745:VAL:N	2.48	0.47
1:D:3061:ALA:O	1:D:3065:VAL:HG23	2.15	0.47
1:D:3246:LEU:CD1	1:D:3250:MET:HE3	2.45	0.47
1:D:3633:VAL:O	1:D:3637:ARG:HG2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:21:VAL:HG11	1:C:62:LEU:HD11	1.95	0.47
1:C:3036:LYS:O	1:C:3039:ILE:HG22	2.14	0.47
1:A:308:HIS:O	1:A:310:LYS:N	2.46	0.47
1:A:1000:ARG:HG3	1:A:1005:TRP:HB2	1.97	0.47
1:A:2440:MET:O	1:A:2443:ILE:N	2.47	0.47
1:A:2619:LEU:O	1:A:2623:LEU:HD13	2.14	0.47
1:A:2684:ASP:O	1:A:2688:HIS:ND1	2.39	0.47
1:A:2874:MET:SD	1:A:2939:ARG:C	2.98	0.47
1:A:3036:LYS:O	1:A:3039:ILE:HG22	2.14	0.47
1:A:3169:LEU:HD11	1:A:3205:PHE:CZ	2.50	0.47
1:A:3324:VAL:CG1	1:A:3361:THR:HG22	2.41	0.47
1:A:3365:LEU:HD13	1:A:3405:LEU:HD23	1.95	0.47
1:A:3660:ALA:O	1:A:3664:THR:OG1	2.17	0.47
1:A:3945:GLU:OE1	1:A:3946:GLN:NE2	2.47	0.47
1:B:553:ARG:NE	1:B:555:GLU:OE2	2.46	0.47
1:B:961:MET:HE2	1:B:965:TYR:C	2.39	0.47
1:B:1101:ARG:HG2	1:B:1125:ASN:HB2	1.97	0.47
1:B:1157:GLU:OE1	1:B:1157:GLU:N	2.48	0.47
1:B:1791:VAL:O	1:B:1792:ALA:HB3	2.15	0.47
1:B:2581:SER:O	1:B:2585:THR:HG23	2.14	0.47
1:B:2744:ASN:OD1	1:B:2745:VAL:N	2.48	0.47
1:B:2986:VAL:O	1:B:2986:VAL:HG13	2.14	0.47
1:B:3240:CYS:SG	1:B:3243:ILE:HD13	2.54	0.47
1:B:3246:LEU:CD1	1:B:3250:MET:HE3	2.45	0.47
1:B:3359:ILE:HB	1:B:3360:PRO:HD3	1.97	0.47
1:B:3414:ARG:NH2	1:B:3469:PHE:O	2.48	0.47
1:B:3552:PHE:O	1:B:3555:ASN:OD1	2.32	0.47
1:B:3799:LYS:NZ	1:B:3883:ASP:OD2	2.48	0.47
1:B:4016:LEU:O	1:B:4020:GLN:HG3	2.13	0.47
1:B:4047:MET:HE3	1:B:4047:MET:HB3	1.88	0.47
1:B:4071:ILE:HG21	1:B:4097:MET:HE1	1.97	0.47
1:B:4586:PRO:HD3	1:B:4629:TYR:HE2	1.78	0.47
1:D:961:MET:HE2	1:D:965:TYR:C	2.39	0.47
1:D:1101:ARG:HG2	1:D:1125:ASN:HB2	1.97	0.47
1:D:1699:GLU:OE2	1:D:1813:ARG:NH2	2.48	0.47
1:D:1866:ILE:HG12	1:D:1939:MET:HE1	1.95	0.47
1:D:1943:LEU:CD1	1:D:2101:MET:HE1	2.44	0.47
1:D:3414:ARG:NH2	1:D:3469:PHE:O	2.48	0.47
1:C:492:ASP:O	1:C:496:VAL:HG13	2.14	0.47
1:C:2986:VAL:O	1:C:2986:VAL:HG13	2.14	0.47
1:A:1492:CYS:SG	1:A:1494:MET:HG3	2.54	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2744:ASN:OD1	1:A:2745:VAL:N	2.48	0.47
1:A:2986:VAL:HG13	1:A:2986:VAL:O	2.14	0.47
1:B:2874:MET:SD	1:B:2939:ARG:C	2.98	0.47
1:B:3036:LYS:O	1:B:3039:ILE:HG22	2.14	0.47
1:B:3365:LEU:HD13	1:B:3405:LEU:HD23	1.95	0.47
1:D:2874:MET:SD	1:D:2939:ARG:C	2.98	0.47
1:D:2986:VAL:HG13	1:D:2986:VAL:O	2.14	0.47
1:D:3169:LEU:HD11	1:D:3205:PHE:CZ	2.50	0.47
1:D:3916:ILE:H	1:D:3916:ILE:HD12	1.79	0.47
1:C:553:ARG:NH2	1:C:555:GLU:OE2	2.47	0.47
1:C:1101:ARG:HG2	1:C:1125:ASN:HB2	1.97	0.47
1:C:4586:PRO:HD3	1:C:4629:TYR:HE2	1.78	0.47
1:A:1791:VAL:O	1:A:1792:ALA:HB3	2.15	0.47
1:A:3111:ARG:O	1:A:3112:LEU:HB2	2.14	0.47
1:A:3246:LEU:CD1	1:A:3250:MET:HE3	2.45	0.47
1:A:3357:HIS:O	1:A:3361:THR:HG23	2.14	0.47
1:B:2021:CYS:O	1:B:2028:ARG:NH2	2.48	0.47
1:B:2907:PRO:HB2	1:B:2909:ASP:OD1	2.15	0.47
1:B:3521:GLY:HA2	1:B:3524:MET:HE3	1.89	0.47
1:D:1000:ARG:HG3	1:D:1005:TRP:HB2	1.97	0.47
1:D:3382:GLU:HA	1:D:3384:LYS:HZ3	1.80	0.47
1:C:1000:ARG:HG3	1:C:1005:TRP:HB2	1.97	0.47
1:C:1699:GLU:OE2	1:C:1813:ARG:NH2	2.48	0.47
1:C:3081:MET:HE1	1:C:3093:ARG:HH12	1.78	0.47
1:C:3365:LEU:HD13	1:C:3405:LEU:HD23	1.95	0.47
1:C:3946:GLN:HA	1:C:3949:ARG:CD	2.45	0.47
1:A:1101:ARG:HG2	1:A:1125:ASN:HB2	1.97	0.47
1:A:1157:GLU:OE1	1:A:1157:GLU:N	2.48	0.47
1:A:1792:ALA:O	1:A:2176:ASN:ND2	2.48	0.47
1:A:3240:CYS:SG	1:A:3243:ILE:HD13	2.54	0.47
1:A:3359:ILE:HB	1:A:3360:PRO:HD3	1.97	0.47
1:A:3379:LEU:O	1:A:3382:GLU:O	2.33	0.47
1:B:3061:ALA:O	1:B:3065:VAL:HG23	2.15	0.47
1:D:1461:ASP:OD2	1:D:1468:LYS:NZ	2.47	0.47
1:D:1792:ALA:O	1:D:2176:ASN:ND2	2.48	0.47
1:C:2021:CYS:O	1:C:2028:ARG:NH2	2.48	0.47
1:C:3635:CYS:HA	1:C:3638:MET:CE	2.43	0.47
1:A:939:VAL:HG13	1:A:1051:TYR:HB3	1.97	0.46
1:A:3225:ARG:HD2	1:A:3226:GLU:N	2.30	0.46
1:A:3391:GLU:OE2	1:A:3450:ASN:ND2	2.34	0.46
1:A:4071:ILE:HG21	1:A:4097:MET:HE1	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1000:ARG:HG3	1:B:1005:TRP:HB2	1.97	0.46
1:B:2650:ARG:HG3	1:B:2651:CYS:SG	2.55	0.46
1:B:3633:VAL:O	1:B:3637:ARG:HG2	2.15	0.46
1:D:1157:GLU:OE1	1:D:1157:GLU:N	2.48	0.46
1:D:2294:ASP:O	1:D:2298:VAL:HG23	2.15	0.46
1:D:3357:HIS:O	1:D:3361:THR:HG23	2.14	0.46
1:C:3585:ASP:OD1	1:C:3586:ALA:N	2.47	0.46
1:A:1828:ASP:OD1	1:A:1828:ASP:N	2.48	0.46
1:A:2348:GLU:OE1	1:A:3852:LYS:NZ	2.49	0.46
1:A:3946:GLN:HA	1:A:3949:ARG:CD	2.45	0.46
2:H:57:ARG:O	2:H:58:GLY:C	2.56	0.46
2:F:57:ARG:O	2:F:58:GLY:C	2.56	0.46
1:B:4911:LEU:HA	1:B:4914:VAL:HG22	1.97	0.46
1:D:1819:VAL:HA	1:D:1929:MET:HE1	1.97	0.46
1:D:3003:LEU:HB2	1:D:3004:PRO:HD3	1.96	0.46
1:D:3225:ARG:HD2	1:D:3226:GLU:N	2.30	0.46
1:D:3379:LEU:O	1:D:3382:GLU:O	2.33	0.46
1:D:3946:GLN:CD	1:D:3949:ARG:NE	2.72	0.46
1:C:1157:GLU:OE1	1:C:1157:GLU:N	2.48	0.46
1:C:1819:VAL:HA	1:C:1929:MET:HE1	1.97	0.46
1:C:2118:ARG:NH2	1:C:3719:ASP:OD1	2.44	0.46
1:C:2650:ARG:HG3	1:C:2651:CYS:SG	2.55	0.46
1:C:3448:SER:O	1:C:3452:LYS:NZ	2.48	0.46
1:C:3916:ILE:HD12	1:C:3916:ILE:H	1.79	0.46
1:C:4942:GLU:O	1:C:4945:ASP:OD1	2.33	0.46
1:A:2021:CYS:O	1:A:2028:ARG:NH2	2.48	0.46
1:A:2673:HIS:ND1	1:A:2716:ASP:OD2	2.46	0.46
1:A:2939:ARG:HA	1:A:2939:ARG:HE	1.79	0.46
1:A:3383:ALA:O	1:A:3384:LYS:HD3	2.13	0.46
1:A:3521:GLY:HA2	1:A:3524:MET:HE3	1.89	0.46
1:A:3633:VAL:O	1:A:3637:ARG:HG2	2.15	0.46
1:A:3799:LYS:NZ	1:A:3883:ASP:OD2	2.48	0.46
1:B:961:MET:CE	1:B:965:TYR:O	2.64	0.46
1:B:2294:ASP:O	1:B:2298:VAL:HG23	2.15	0.46
1:B:2393:ASP:OD1	1:B:2418:LEU:N	2.47	0.46
1:B:2495:VAL:HG23	1:B:2497:ASP:OD1	2.15	0.46
1:B:3225:ARG:HD2	1:B:3226:GLU:N	2.30	0.46
1:D:553:ARG:NH2	1:D:555:GLU:OE2	2.47	0.46
1:D:2495:VAL:HG23	1:D:2497:ASP:OD1	2.15	0.46
1:D:3250:MET:HE1	1:D:3311:HIS:HB3	1.97	0.46
1:C:553:ARG:NE	1:C:555:GLU:OE2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2495:VAL:HG23	1:C:2497:ASP:OD1	2.15	0.46
1:C:3225:ARG:HD2	1:C:3226:GLU:N	2.30	0.46
1:C:3250:MET:HE1	1:C:3311:HIS:HB3	1.97	0.46
1:C:3414:ARG:NH2	1:C:3469:PHE:O	2.48	0.46
1:A:1131:ARG:NH1	1:A:1178:ALA:O	2.47	0.46
1:A:3448:SER:O	1:A:3452:LYS:NZ	2.48	0.46
1:A:4911:LEU:HA	1:A:4914:VAL:HG22	1.97	0.46
1:B:553:ARG:NH2	1:B:555:GLU:OE2	2.47	0.46
1:B:1759:ARG:O	1:B:1759:ARG:HD2	2.16	0.46
1:B:3316:LEU:HD21	1:B:3346:VAL:HG23	1.97	0.46
1:B:3969:ILE:HG21	1:B:3980:LEU:HD12	1.98	0.46
1:D:961:MET:CE	1:D:965:TYR:O	2.63	0.46
1:D:2021:CYS:O	1:D:2028:ARG:NH2	2.48	0.46
1:D:2410:PRO:HG3	1:D:2415:ARG:HD2	1.98	0.46
1:D:3369:ALA:HB2	1:D:3401:LEU:HD21	1.98	0.46
1:C:2410:PRO:HG3	1:C:2415:ARG:HD2	1.98	0.46
1:C:3003:LEU:HB2	1:C:3004:PRO:HD3	1.96	0.46
1:C:3169:LEU:HD11	1:C:3205:PHE:CZ	2.50	0.46
1:C:3414:ARG:CZ	1:C:3472:ALA:HB3	2.44	0.46
1:A:3316:LEU:HD21	1:A:3346:VAL:HG23	1.97	0.46
1:A:3465:ASN:C	1:A:3467:MET:H	2.23	0.46
1:A:4944:ARG:NE	1:B:4938:ASP:OD1	2.47	0.46
2:G:3:GLN:NE2	2:G:75:THR:HB	2.31	0.46
2:G:57:ARG:O	2:G:58:GLY:C	2.56	0.46
1:B:931:THR:HG21	1:B:991:ASN:ND2	2.31	0.46
1:B:3466:ASN:O	1:B:3470:LEU:HG	2.16	0.46
1:B:4942:GLU:O	1:B:4945:ASP:OD1	2.33	0.46
1:D:3414:ARG:CZ	1:D:3472:ALA:HB3	2.44	0.46
1:C:1792:ALA:O	1:C:2176:ASN:ND2	2.48	0.46
1:C:2023:LEU:O	1:C:2028:ARG:NH2	2.49	0.46
1:C:2182:ILE:HG22	1:C:2186:MET:HE3	1.98	0.46
1:C:2874:MET:SD	1:C:2939:ARG:C	2.98	0.46
1:C:3061:ALA:O	1:C:3065:VAL:HG23	2.15	0.46
1:C:4083:ASP:OD1	1:C:4085:ARG:NH1	2.49	0.46
1:A:1699:GLU:OE2	1:A:1813:ARG:NH2	2.48	0.46
1:A:2186:MET:HE2	1:A:2235:PHE:HA	1.96	0.46
1:A:2650:ARG:HG3	1:A:2651:CYS:SG	2.55	0.46
1:A:3414:ARG:NH2	1:A:3469:PHE:O	2.48	0.46
1:B:1434:TYR:HB2	1:B:1572:ILE:HG21	1.98	0.46
1:B:1931:LEU:HD13	1:B:1935:VAL:CG1	2.41	0.46
1:B:2233:CYS:SG	1:B:2270:SER:HB2	2.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3225:ARG:HD2	1:B:3225:ARG:C	2.41	0.46
1:D:553:ARG:NE	1:D:555:GLU:OE2	2.46	0.46
1:D:3166:TYR:OH	1:D:3203:VAL:HG21	2.16	0.46
1:D:3465:ASN:C	1:D:3467:MET:H	2.23	0.46
1:D:3969:ILE:HG21	1:D:3980:LEU:HD12	1.98	0.46
1:D:4083:ASP:OD1	1:D:4085:ARG:NH1	2.49	0.46
1:C:1791:VAL:O	1:C:1792:ALA:HB3	2.15	0.46
1:C:2929:PHE:CD1	1:C:2932:MET:HE2	2.48	0.46
1:C:3369:ALA:HB2	1:C:3401:LEU:HD21	1.98	0.46
1:C:3799:LYS:NZ	1:C:3883:ASP:OD2	2.48	0.46
1:A:961:MET:CE	1:A:965:TYR:O	2.64	0.46
1:A:2294:ASP:O	1:A:2298:VAL:HG23	2.16	0.46
1:A:2907:PRO:HB2	1:A:2909:ASP:OD1	2.15	0.46
1:A:3081:MET:HE1	1:A:3093:ARG:HH12	1.78	0.46
1:A:3369:ALA:HB2	1:A:3401:LEU:HD21	1.98	0.46
1:A:3901:ASN:OD1	1:A:3904:ARG:NH1	2.45	0.46
1:A:3969:ILE:HG21	1:A:3980:LEU:HD12	1.98	0.46
1:A:4942:GLU:O	1:A:4945:ASP:OD1	2.33	0.46
1:B:2182:ILE:HG22	1:B:2186:MET:HE3	1.98	0.46
1:B:2684:ASP:O	1:B:2688:HIS:ND1	2.39	0.46
1:B:3635:CYS:HA	1:B:3638:MET:CE	2.43	0.46
1:D:1434:TYR:HB2	1:D:1572:ILE:HG21	1.98	0.46
1:D:4705:VAL:O	1:D:4708:THR:OG1	2.27	0.46
1:C:1931:LEU:HD13	1:C:1935:VAL:CG1	2.41	0.46
1:C:2907:PRO:HB2	1:C:2909:ASP:OD1	2.15	0.46
1:C:3892:CYS:HG	1:C:3899:PHE:HD2	1.60	0.46
1:C:3933:PHE:HE2	1:C:3951:PHE:CZ	2.18	0.46
1:A:3162:GLN:HE21	1:A:3203:VAL:HG11	1.80	0.46
1:A:3832:ILE:HG22	1:A:3836:MET:HE3	1.98	0.46
1:A:4083:ASP:OD1	1:A:4085:ARG:NH1	2.49	0.46
1:B:2186:MET:HE2	1:B:2235:PHE:HA	1.96	0.46
1:B:3166:TYR:OH	1:B:3203:VAL:HG21	2.16	0.46
1:D:2023:LEU:O	1:D:2028:ARG:NH2	2.49	0.46
1:D:3832:ILE:HG22	1:D:3836:MET:HE3	1.98	0.46
1:D:4911:LEU:HA	1:D:4914:VAL:HG22	1.97	0.46
1:C:796:ARG:O	1:C:1622:GLU:HA	2.16	0.46
1:C:3822:ASP:OD1	1:C:3823:LYS:N	2.49	0.46
1:C:3969:ILE:HG21	1:C:3980:LEU:HD12	1.98	0.46
1:A:2701:PRO:C	1:A:2702:CYS:SG	2.99	0.46
1:A:3755:GLU:O	1:A:3759:GLU:OE1	2.34	0.46
1:B:309:THR:O	1:B:313:SER:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:796:ARG:O	1:B:1622:GLU:HA	2.16	0.46
1:B:1699:GLU:OE2	1:B:1813:ARG:NH2	2.48	0.46
1:B:3559:LEU:O	1:B:3559:LEU:HD23	2.16	0.46
1:B:3997:ALA:HB1	1:B:4057:MET:SD	2.56	0.46
1:B:4791:TYR:CZ	1:B:4818:MET:HE3	2.51	0.46
1:D:2233:CYS:SG	1:D:2270:SER:HB2	2.56	0.46
1:D:3225:ARG:HD2	1:D:3225:ARG:C	2.41	0.46
1:D:3318:ASN:C	1:D:3321:ARG:H	2.20	0.46
1:D:3337:ARG:O	1:D:3340:VAL:HG22	2.16	0.46
1:C:323:LEU:O	1:C:324:ASP:OD1	2.34	0.46
1:C:931:THR:HG21	1:C:991:ASN:ND2	2.31	0.46
1:C:1759:ARG:O	1:C:1759:ARG:HD2	2.16	0.46
1:C:2684:ASP:O	1:C:2688:HIS:ND1	2.39	0.46
1:C:3166:TYR:OH	1:C:3203:VAL:HG21	2.16	0.46
1:C:3337:ARG:O	1:C:3340:VAL:HG22	2.16	0.46
1:C:3997:ALA:HB1	1:C:4057:MET:SD	2.56	0.46
1:C:4720:VAL:O	1:C:4724:VAL:HG23	2.16	0.46
1:A:323:LEU:O	1:A:324:ASP:OD1	2.34	0.46
1:A:3762:ARG:C	1:A:3766:GLN:HE22	2.24	0.46
1:D:327:PRO:O	1:D:329:ARG:NH1	2.45	0.46
1:D:858:THR:HG21	1:D:927:GLU:OE2	2.16	0.46
1:D:2974:ILE:HD13	1:D:3049:LEU:CD1	2.46	0.46
1:D:4942:GLU:O	1:D:4945:ASP:OD1	2.33	0.46
1:C:710:ASP:OD1	1:C:713:SER:OG	2.28	0.46
1:C:1828:ASP:OD1	1:C:1828:ASP:N	2.48	0.46
1:C:3162:GLN:HE21	1:C:3203:VAL:HG11	1.80	0.46
1:C:3225:ARG:HD2	1:C:3225:ARG:C	2.41	0.46
1:C:3359:ILE:HB	1:C:3360:PRO:HD3	1.97	0.46
1:A:858:THR:HG21	1:A:927:GLU:OE2	2.16	0.45
1:A:2023:LEU:O	1:A:2028:ARG:NH2	2.49	0.45
1:A:2310:CYS:SG	1:A:2313:LEU:HD23	2.56	0.45
1:A:2992:GLU:HA	1:A:2995:ILE:HD12	1.98	0.45
1:A:3106:MET:O	1:A:3110:LEU:HD13	2.16	0.45
1:A:3250:MET:HE1	1:A:3311:HIS:HB3	1.97	0.45
1:A:3466:ASN:O	1:A:3470:LEU:HG	2.16	0.45
1:B:2310:CYS:SG	1:B:2313:LEU:HD23	2.56	0.45
1:B:2939:ARG:HA	1:B:2939:ARG:HE	1.79	0.45
1:B:3162:GLN:HE21	1:B:3203:VAL:HG11	1.80	0.45
1:B:3268:HIS:ND1	1:B:3272:ILE:HD12	2.31	0.45
1:D:309:THR:O	1:D:313:SER:N	2.49	0.45
1:D:2348:GLU:OE1	1:D:3852:LYS:NZ	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3201:MET:O	1:D:3283:ARG:NH1	2.49	0.45
1:D:3268:HIS:ND1	1:D:3272:ILE:HD12	2.31	0.45
1:D:3448:SER:O	1:D:3452:LYS:NZ	2.48	0.45
1:D:3997:ALA:HB1	1:D:4057:MET:SD	2.56	0.45
1:D:4071:ILE:HG21	1:D:4097:MET:HE1	1.97	0.45
1:D:4720:VAL:O	1:D:4724:VAL:HG23	2.16	0.45
1:C:309:THR:O	1:C:313:SER:N	2.49	0.45
1:C:901:LYS:HG3	1:C:903:LEU:HG	1.99	0.45
1:C:972:LEU:HD22	1:C:975:VAL:HG21	1.98	0.45
1:C:2294:ASP:O	1:C:2298:VAL:HG23	2.16	0.45
1:C:2801:ASP:HA	1:C:2804:ILE:HG12	1.98	0.45
1:C:3268:HIS:ND1	1:C:3272:ILE:HD12	2.31	0.45
1:C:3379:LEU:O	1:C:3382:GLU:O	2.33	0.45
1:C:3465:ASN:C	1:C:3467:MET:H	2.23	0.45
1:C:3466:ASN:O	1:C:3470:LEU:HG	2.16	0.45
1:C:3559:LEU:O	1:C:3559:LEU:HD23	2.16	0.45
1:C:4673:ARG:NH2	1:C:4702:ASP:OD1	2.49	0.45
1:A:988:LEU:HB2	1:A:1039:LEU:HD21	1.99	0.45
1:A:1819:VAL:HA	1:A:1929:MET:HE1	1.97	0.45
1:A:3137:LEU:HB2	1:A:3138:PRO:HD3	1.99	0.45
1:A:3248:ARG:HH12	1:A:3252:ASP:CG	2.18	0.45
1:A:3997:ALA:HB1	1:A:4057:MET:SD	2.56	0.45
1:A:4655:PHE:HE2	1:A:4659:ILE:HD11	1.81	0.45
1:B:1027:LEU:O	1:B:1032:LYS:NZ	2.49	0.45
1:B:2801:ASP:HA	1:B:2804:ILE:HG12	1.98	0.45
1:B:3369:ALA:HB2	1:B:3401:LEU:HD21	1.98	0.45
1:B:3379:LEU:O	1:B:3382:GLU:O	2.33	0.45
1:B:4083:ASP:OD1	1:B:4085:ARG:NH1	2.49	0.45
1:B:4747:SER:O	1:B:4751:THR:HG23	2.17	0.45
1:D:688:LEU:HD11	1:D:775:GLY:C	2.41	0.45
1:D:835:ARG:NH2	1:D:1210:SER:O	2.50	0.45
1:D:2650:ARG:HG3	1:D:2651:CYS:SG	2.55	0.45
1:D:2907:PRO:HB2	1:D:2909:ASP:OD1	2.15	0.45
1:D:3359:ILE:HB	1:D:3360:PRO:HD3	1.97	0.45
1:D:3755:GLU:O	1:D:3759:GLU:OE1	2.34	0.45
1:D:3822:ASP:OD1	1:D:3823:LYS:N	2.49	0.45
1:D:3892:CYS:HG	1:D:3899:PHE:HD2	1.62	0.45
1:D:4747:SER:O	1:D:4751:THR:HG23	2.17	0.45
1:C:213:TYR:HA	1:C:339:ILE:O	2.17	0.45
1:C:688:LEU:HD11	1:C:775:GLY:C	2.41	0.45
1:C:1434:TYR:HB2	1:C:1572:ILE:HG21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1461:ASP:OD2	1:C:1468:LYS:NZ	2.47	0.45
1:C:2475:GLN:CD	1:C:2488:PRO:HB3	2.42	0.45
1:C:3106:MET:O	1:C:3110:LEU:HD13	2.16	0.45
1:C:4747:SER:O	1:C:4751:THR:HG23	2.17	0.45
1:A:1434:TYR:HB2	1:A:1572:ILE:HG21	1.98	0.45
1:A:1925:GLY:O	1:A:1929:MET:HG3	2.16	0.45
1:A:2608:MET:O	1:A:2612[B]:ARG:HG3	2.17	0.45
1:A:2801:ASP:HA	1:A:2804:ILE:HG12	1.98	0.45
1:A:3337:ARG:O	1:A:3340:VAL:HG22	2.16	0.45
1:A:3559:LEU:HD23	1:A:3559:LEU:O	2.16	0.45
1:A:4651:THR:HG22	1:A:4796:MET:HE1	1.98	0.45
1:A:4747:SER:O	1:A:4751:THR:HG23	2.17	0.45
2:F:3:GLN:NE2	2:F:75:THR:HB	2.31	0.45
1:B:688:LEU:HD11	1:B:775:GLY:C	2.41	0.45
1:B:858:THR:HG21	1:B:927:GLU:OE2	2.16	0.45
1:B:1925:GLY:O	1:B:1929:MET:HG3	2.16	0.45
1:B:2348:GLU:OE1	1:B:3852:LYS:NZ	2.49	0.45
1:B:4673:ARG:NH2	1:B:4702:ASP:OD1	2.49	0.45
1:D:972:LEU:HD22	1:D:975:VAL:HG21	1.98	0.45
1:D:1791:VAL:O	1:D:1792:ALA:HB3	2.15	0.45
1:D:3197:LEU:CD2	1:D:3201:MET:SD	3.05	0.45
1:D:3559:LEU:HD23	1:D:3559:LEU:O	2.16	0.45
1:D:4651:THR:HG22	1:D:4796:MET:HE1	1.98	0.45
1:C:939:VAL:HG13	1:C:1051:TYR:HB3	1.97	0.45
1:C:961:MET:CE	1:C:965:TYR:O	2.64	0.45
1:C:1811:ALA:HA	1:C:1814:MET:HE2	1.98	0.45
1:C:2233:CYS:SG	1:C:2270:SER:HB2	2.56	0.45
1:C:2883:HIS:HB2	1:C:2908:TYR:CZ	2.52	0.45
1:C:4791:TYR:CZ	1:C:4818:MET:HE3	2.51	0.45
1:A:309:THR:O	1:A:313:SER:N	2.49	0.45
1:A:688:LEU:HD11	1:A:775:GLY:C	2.41	0.45
1:A:972:LEU:HD22	1:A:975:VAL:HG21	1.98	0.45
1:A:2182:ILE:HG22	1:A:2186:MET:HE3	1.98	0.45
1:A:3225:ARG:HD2	1:A:3225:ARG:C	2.41	0.45
1:A:3822:ASP:OD1	1:A:3823:LYS:N	2.49	0.45
2:H:3:GLN:NE2	2:H:75:THR:HB	2.31	0.45
1:B:2023:LEU:O	1:B:2028:ARG:NH2	2.49	0.45
1:B:2118:ARG:NH2	1:B:3719:ASP:OD1	2.44	0.45
1:B:2475:GLN:CD	1:B:2488:PRO:HB3	2.42	0.45
1:B:3375:GLU:O	1:B:3379:LEU:HD13	2.17	0.45
1:B:4060:LYS:O	1:B:4063:ASP:OD1	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4096:ALA:O	1:B:4100:GLN:HG2	2.17	0.45
1:D:939:VAL:HG13	1:D:1051:TYR:HB3	1.97	0.45
1:D:2182:ILE:HG22	1:D:2186:MET:HE3	1.98	0.45
1:D:2992:GLU:HA	1:D:2995:ILE:HD12	1.98	0.45
1:D:4673:ARG:NH2	1:D:4702:ASP:OD1	2.49	0.45
1:D:4791:TYR:CZ	1:D:4818:MET:HE3	2.51	0.45
1:C:2208:MET:HE1	1:C:2253:HIS:CB	2.46	0.45
1:C:3197:LEU:CD2	1:C:3201:MET:SD	3.05	0.45
1:A:234:SER:OG	1:A:238:SER:OG	2.27	0.45
1:A:234:SER:HG	1:A:238:SER:HG	1.60	0.45
1:A:931:THR:HG21	1:A:991:ASN:ND2	2.31	0.45
1:A:1759:ARG:O	1:A:1759:ARG:HD2	2.16	0.45
1:A:3201:MET:O	1:A:3283:ARG:NH1	2.49	0.45
1:A:3435:PHE:CE2	1:A:3524:MET:HE1	2.51	0.45
1:B:1792:ALA:O	1:B:2176:ASN:ND2	2.48	0.45
1:B:1819:VAL:HA	1:B:1929:MET:HE1	1.97	0.45
1:B:3755:GLU:O	1:B:3759:GLU:OE1	2.34	0.45
1:B:4720:VAL:O	1:B:4724:VAL:HG23	2.16	0.45
1:D:931:THR:HG21	1:D:991:ASN:ND2	2.31	0.45
1:D:2208:MET:HE1	1:D:2253:HIS:CB	2.46	0.45
1:D:2310:CYS:SG	1:D:2313:LEU:HD23	2.56	0.45
1:D:3106:MET:O	1:D:3110:LEU:HD13	2.16	0.45
1:D:3137:LEU:HB2	1:D:3138:PRO:HD3	1.99	0.45
1:D:3435:PHE:CE2	1:D:3524:MET:HE1	2.51	0.45
1:C:233:ILE:O	1:C:257:ARG:NH1	2.49	0.45
1:C:835:ARG:NH2	1:C:1210:SER:O	2.50	0.45
1:C:4071:ILE:HG21	1:C:4097:MET:HE1	1.97	0.45
1:C:4651:THR:HG22	1:C:4796:MET:HE1	1.98	0.45
1:A:710:ASP:OD1	1:A:713:SER:OG	2.28	0.45
1:A:796:ARG:O	1:A:1622:GLU:HA	2.16	0.45
1:A:2233:CYS:SG	1:A:2270:SER:HB2	2.56	0.45
1:A:2410:PRO:HG3	1:A:2415:ARG:HD2	1.98	0.45
1:A:2475:GLN:CD	1:A:2488:PRO:HB3	2.42	0.45
1:A:2719:TYR:HB2	1:A:2953:LYS:NZ	2.32	0.45
1:A:4630:TYR:OH	1:B:4860:ARG:NH1	2.49	0.45
1:A:4678:ALA:HB1	1:A:4720:VAL:HG21	1.99	0.45
1:B:2608:MET:O	1:B:2612[B]:ARG:HG3	2.17	0.45
1:B:2911:LEU:HD13	1:B:2915:GLU:HB2	1.99	0.45
1:B:2992:GLU:HA	1:B:2995:ILE:HD12	1.98	0.45
1:B:3250:MET:HE1	1:B:3311:HIS:HB3	1.97	0.45
1:B:3762:ARG:C	1:B:3766:GLN:HE22	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3822:ASP:OD1	1:B:3823:LYS:N	2.49	0.45
1:D:901:LYS:HG3	1:D:903:LEU:HG	1.99	0.45
1:D:3018:LEU:HD21	1:D:3075:LEU:O	2.17	0.45
1:D:3982:HIS:NE2	1:D:4039:MET:HE1	2.32	0.45
1:D:4096:ALA:O	1:D:4100:GLN:HG2	2.17	0.45
1:D:4690:GLU:O	1:D:4691:GLN:HB3	2.17	0.45
1:C:516:LYS:O	1:C:519:VAL:HG22	2.17	0.45
1:C:595:ARG:NH1	1:C:1643:GLU:OE2	2.44	0.45
1:C:860:GLN:O	1:C:860:GLN:HG2	2.17	0.45
1:C:917:GLU:OE1	1:C:917:GLU:N	2.48	0.45
1:C:1925:GLY:O	1:C:1929:MET:HG3	2.16	0.45
1:C:3762:ARG:C	1:C:3766:GLN:HE22	2.24	0.45
1:C:3866:ILE:O	1:C:3867:ASN:OD1	2.35	0.45
1:C:4678:ALA:HB1	1:C:4720:VAL:HG21	1.99	0.45
1:A:3166:TYR:OH	1:A:3203:VAL:HG21	2.16	0.45
1:A:3268:HIS:ND1	1:A:3272:ILE:HD12	2.31	0.45
1:A:3866:ILE:O	1:A:3867:ASN:OD1	2.35	0.45
1:A:4096:ALA:O	1:A:4100:GLN:HG2	2.17	0.45
1:A:4631:PHE:HE2	1:A:4633:GLU:HG2	1.82	0.45
1:A:4673:ARG:NH2	1:A:4702:ASP:OD1	2.49	0.45
1:B:835:ARG:NH2	1:B:1210:SER:O	2.50	0.45
1:B:860:GLN:O	1:B:860:GLN:HG2	2.17	0.45
1:B:901:LYS:HG3	1:B:903:LEU:HG	1.98	0.45
1:B:2410:PRO:HG3	1:B:2415:ARG:HD2	1.97	0.45
1:B:3337:ARG:O	1:B:3340:VAL:HG22	2.16	0.45
1:B:4651:THR:HG22	1:B:4796:MET:HE1	1.98	0.45
1:B:4678:ALA:HB1	1:B:4720:VAL:HG21	1.99	0.45
1:D:1759:ARG:O	1:D:1759:ARG:HD2	2.16	0.45
1:D:2883:HIS:HB2	1:D:2908:TYR:CZ	2.52	0.45
1:D:4047:MET:HE3	1:D:4047:MET:HB3	1.88	0.45
1:D:4207:MET:HE2	1:D:4207:MET:HA	1.98	0.45
1:D:4985:LEU:HD12	1:D:4986:ALA:N	2.32	0.45
1:C:1577:ALA:O	1:C:1584:ARG:NH1	2.43	0.45
1:C:2310:CYS:SG	1:C:2313:LEU:HD23	2.56	0.45
1:C:2911:LEU:HD13	1:C:2915:GLU:HB2	1.99	0.45
1:C:3018:LEU:HD21	1:C:3075:LEU:O	2.17	0.45
1:C:4096:ALA:O	1:C:4100:GLN:HG2	2.17	0.45
1:A:553:ARG:NH2	1:A:555:GLU:OE2	2.47	0.45
1:A:1811:ALA:HA	1:A:1814:MET:HE2	1.98	0.45
1:A:2883:HIS:HB2	1:A:2908:TYR:CZ	2.52	0.45
1:A:2911:LEU:HD13	1:A:2915:GLU:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4047:MET:HE3	1:A:4047:MET:HB3	1.88	0.45
1:A:4983:HIS:O	3:A:5301:ATP:N6	2.50	0.45
1:A:4985:LEU:HD12	1:A:4986:ALA:N	2.32	0.45
2:E:3:GLN:NE2	2:E:75:THR:HB	2.31	0.45
2:H:23:VAL:HG22	2:H:47:LYS:HG2	1.99	0.45
1:B:972:LEU:HD22	1:B:975:VAL:HG21	1.98	0.45
1:B:3106:MET:O	1:B:3110:LEU:HD13	2.16	0.45
1:B:3435:PHE:CE2	1:B:3524:MET:HE1	2.51	0.45
1:B:3946:GLN:HA	1:B:3949:ARG:CD	2.45	0.45
1:D:233:ILE:O	1:D:257:ARG:NH1	2.49	0.45
1:D:796:ARG:O	1:D:1622:GLU:HA	2.16	0.45
1:D:1925:GLY:O	1:D:1929:MET:HG3	2.16	0.45
1:D:2719:TYR:HB2	1:D:2953:LYS:NZ	2.32	0.45
1:D:2801:ASP:HA	1:D:2804:ILE:HG12	1.98	0.45
1:D:3316:LEU:HD21	1:D:3346:VAL:HG23	1.97	0.45
1:D:3762:ARG:C	1:D:3766:GLN:HE22	2.24	0.45
1:D:3866:ILE:O	1:D:3867:ASN:OD1	2.35	0.45
1:D:4631:PHE:HE2	1:D:4633:GLU:HG2	1.82	0.45
1:C:2336:ARG:HG2	1:C:2435:ARG:HD2	1.99	0.45
1:C:2608:MET:O	1:C:2612[B]:ARG:HG3	2.17	0.45
1:C:2701:PRO:C	1:C:2702:CYS:SG	2.99	0.45
1:C:3316:LEU:HD21	1:C:3346:VAL:HG23	1.97	0.45
1:C:3504:SER:O	1:C:3507:THR:OG1	2.22	0.45
1:C:4911:LEU:HA	1:C:4914:VAL:HG22	1.97	0.45
1:A:213:TYR:HA	1:A:339:ILE:O	2.17	0.45
1:A:327:PRO:O	1:A:329:ARG:NH1	2.45	0.45
1:A:860:GLN:O	1:A:860:GLN:HG2	2.17	0.45
1:A:3197:LEU:CD2	1:A:3201:MET:SD	3.05	0.45
1:A:4720:VAL:O	1:A:4724:VAL:HG23	2.16	0.45
1:B:988:LEU:HB2	1:B:1039:LEU:HD21	1.99	0.45
1:B:2208:MET:HE1	1:B:2253:HIS:CB	2.46	0.45
1:B:3319:ILE:O	1:B:3320:LEU:C	2.55	0.45
1:B:3498:ARG:CZ	1:B:3501:ASP:HB2	2.47	0.45
1:B:4690:GLU:O	1:B:4691:GLN:HB3	2.17	0.45
1:D:1733:GLU:HG2	1:D:2201:LEU:HD23	1.99	0.45
1:D:3162:GLN:HE21	1:D:3203:VAL:HG11	1.80	0.45
1:D:3946:GLN:HA	1:D:3949:ARG:CD	2.45	0.45
1:D:4180:ARG:HD2	1:D:4981:GLU:HB3	1.99	0.45
1:D:4678:ALA:HB1	1:D:4720:VAL:HG21	1.99	0.45
1:D:4860:ARG:NH1	1:C:4630:TYR:OH	2.50	0.45
1:C:641:VAL:HG21	1:C:681:HIS:HD1	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1733:GLU:HG2	1:C:2201:LEU:HD23	1.99	0.45
1:C:2719:TYR:HB2	1:C:2953:LYS:NZ	2.32	0.45
1:C:2724:GLU:HG3	1:C:2725:LYS:H	1.82	0.45
1:C:3201:MET:O	1:C:3283:ARG:NH1	2.49	0.45
1:C:4047:MET:HE3	1:C:4047:MET:HB3	1.88	0.45
1:C:4207:MET:HE2	1:C:4207:MET:HA	1.98	0.45
1:A:179:TYR:OH	1:D:2359:ARG:NE	2.50	0.45
1:A:2208:MET:HE1	1:A:2253:HIS:CB	2.46	0.45
1:A:3765:TYR:CZ	1:A:4753:HIS:ND1	2.75	0.45
1:A:4791:TYR:CZ	1:A:4818:MET:HE3	2.51	0.45
1:B:323:LEU:O	1:B:324:ASP:OD1	2.34	0.45
1:B:917:GLU:OE1	1:B:917:GLU:N	2.48	0.45
1:B:939:VAL:HG13	1:B:1051:TYR:HB3	1.97	0.45
1:B:1733:GLU:HG2	1:B:2201:LEU:HD23	1.99	0.45
1:B:2724:GLU:HG3	1:B:2725:LYS:H	1.82	0.45
1:B:3197:LEU:CD2	1:B:3201:MET:SD	3.05	0.45
1:B:3465:ASN:C	1:B:3467:MET:H	2.23	0.45
1:D:1105:ALA:O	1:D:1189:LEU:N	2.50	0.45
1:D:1577:ALA:O	1:D:1584:ARG:NH1	2.43	0.45
1:D:2701:PRO:C	1:D:2702:CYS:SG	2.99	0.45
1:D:3466:ASN:O	1:D:3470:LEU:HG	2.16	0.45
1:D:3577:ARG:NE	1:D:3584:GLU:OE2	2.44	0.45
1:C:2992:GLU:HA	1:C:2995:ILE:HD12	1.98	0.45
1:C:3137:LEU:HB2	1:C:3138:PRO:HD3	1.99	0.45
1:C:3230:LEU:HD23	1:C:3230:LEU:H	1.82	0.45
1:C:3732:SER:HA	1:C:3735:LEU:HD21	1.99	0.45
1:C:3734:HIS:HB2	1:C:3736:GLU:HG2	1.98	0.45
1:C:3832:ILE:HG22	1:C:3836:MET:HE3	1.98	0.45
1:C:4901:ILE:HG13	1:C:4913:ARG:NH2	2.32	0.45
1:A:233:ILE:O	1:A:257:ARG:NH1	2.49	0.44
1:A:835:ARG:NH2	1:A:1210:SER:O	2.50	0.44
1:A:1027:LEU:O	1:A:1032:LYS:NZ	2.49	0.44
1:A:1461:ASP:OD2	1:A:1468:LYS:NZ	2.47	0.44
1:A:2973:PHE:CD1	1:A:2973:PHE:C	2.95	0.44
1:A:3982:HIS:NE2	1:A:4039:MET:HE1	2.32	0.44
1:A:4041:ALA:O	1:A:4045:VAL:HG23	2.17	0.44
1:A:4060:LYS:O	1:A:4063:ASP:OD1	2.35	0.44
1:A:4586:PRO:CD	1:A:4629:TYR:CE2	3.00	0.44
1:A:4844:LEU:O	1:A:4847:VAL:HG22	2.17	0.44
1:A:4901:ILE:HG13	1:A:4913:ARG:NH2	2.32	0.44
2:G:23:VAL:HG22	2:G:47:LYS:HG2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:233:ILE:HD12	1:B:242:ARG:HB3	1.99	0.44
1:B:2719:TYR:HB2	1:B:2953:LYS:NZ	2.32	0.44
1:B:2883:HIS:HB2	1:B:2908:TYR:CZ	2.52	0.44
1:B:3201:MET:O	1:B:3283:ARG:NH1	2.49	0.44
1:B:3383:ALA:H	1:B:3384:LYS:HZ2	1.64	0.44
1:D:213:TYR:HA	1:D:339:ILE:O	2.17	0.44
1:D:2761:TYR:O	1:D:2765:LYS:CE	2.65	0.44
1:D:2872:GLN:O	1:D:2873:ALA:C	2.60	0.44
1:D:4844:LEU:O	1:D:4847:VAL:HG22	2.17	0.44
1:D:4901:ILE:HG13	1:D:4913:ARG:NH2	2.32	0.44
1:C:3498:ARG:NH2	1:C:3501:ASP:HB2	2.32	0.44
1:C:3498:ARG:CZ	1:C:3501:ASP:HB2	2.47	0.44
1:A:2626:LEU:HD22	1:A:2640:PRO:HB3	2.00	0.44
1:A:3498:ARG:NH2	1:A:3501:ASP:HB2	2.32	0.44
1:B:384:MET:SD	1:C:166:GLY:C	3.00	0.44
1:B:1421:ARG:O	1:B:1570:LYS:NZ	2.49	0.44
1:B:2336:ARG:HG2	1:B:2435:ARG:HD2	1.99	0.44
1:B:3832:ILE:HG22	1:B:3836:MET:HE3	1.98	0.44
1:B:3866:ILE:O	1:B:3867:ASN:OD1	2.35	0.44
1:B:4207:MET:HE2	1:B:4207:MET:HA	1.98	0.44
1:D:155:LYS:HE3	1:D:156:GLN:HE22	1.82	0.44
1:D:917:GLU:OE1	1:D:917:GLU:N	2.48	0.44
1:D:988:LEU:HB2	1:D:1039:LEU:HD21	1.99	0.44
1:D:2608:MET:O	1:D:2612[B]:ARG:HG3	2.17	0.44
1:D:3375:GLU:O	1:D:3379:LEU:HD13	2.17	0.44
1:D:4219:PHE:CD1	1:D:4950:VAL:HG21	2.53	0.44
1:C:3445:TRP:O	1:C:3452:LYS:NZ	2.34	0.44
1:C:3755:GLU:O	1:C:3759:GLU:OE1	2.34	0.44
1:C:4586:PRO:CD	1:C:4629:TYR:CE2	3.00	0.44
1:A:1552:VAL:HG11	1:A:1562:ILE:HD13	2.00	0.44
1:A:2336:ARG:HG2	1:A:2435:ARG:HD2	1.99	0.44
1:A:3018:LEU:HD21	1:A:3075:LEU:O	2.17	0.44
2:F:23:VAL:HG22	2:F:47:LYS:HG2	1.99	0.44
1:B:451:TYR:CE2	1:B:474:ARG:HD2	2.53	0.44
1:B:710:ASP:OD1	1:B:713:SER:OG	2.28	0.44
1:B:1126:GLY:O	1:B:1127:HIS:C	2.60	0.44
1:B:2701:PRO:C	1:B:2702:CYS:SG	2.99	0.44
1:B:2950:SER:O	1:B:2954:ARG:HG3	2.18	0.44
1:B:3982:HIS:NE2	1:B:4039:MET:HE1	2.32	0.44
1:B:4586:PRO:HG3	1:B:4629:TYR:CE2	2.53	0.44
1:B:4844:LEU:O	1:B:4847:VAL:HG22	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4901:ILE:HG13	1:B:4913:ARG:NH2	2.32	0.44
1:D:179:TYR:OH	1:C:2359:ARG:NE	2.51	0.44
1:D:641:VAL:HG21	1:D:681:HIS:HD1	1.82	0.44
1:D:2290:LEU:HD21	1:D:2295:LEU:HG	1.99	0.44
1:D:2354:VAL:O	1:D:2358:ILE:HG23	2.18	0.44
1:D:2475:GLN:CD	1:D:2488:PRO:HB3	2.42	0.44
1:D:3498:ARG:CZ	1:D:3501:ASP:HB2	2.47	0.44
1:C:858:THR:HG21	1:C:927:GLU:OE2	2.16	0.44
1:C:1805:GLU:HG2	1:C:1806:ALA:N	2.33	0.44
1:C:2974:ILE:HD13	1:C:3049:LEU:CD1	2.46	0.44
1:C:3435:PHE:CE2	1:C:3524:MET:HE1	2.51	0.44
1:C:3455:GLU:O	1:C:3459:VAL:HG23	2.18	0.44
1:C:4060:LYS:O	1:C:4063:ASP:OD1	2.35	0.44
1:A:516:LYS:O	1:A:519:VAL:HG22	2.17	0.44
1:A:707:VAL:HG12	1:A:715:GLY:HA3	1.99	0.44
1:A:1733:GLU:HG2	1:A:2201:LEU:HD23	1.99	0.44
1:A:1805:GLU:HG2	1:A:1806:ALA:N	2.33	0.44
1:A:2872:GLN:O	1:A:2873:ALA:C	2.60	0.44
1:A:3230:LEU:HD23	1:A:3230:LEU:H	1.82	0.44
1:A:3621:HIS:HB3	1:A:3623:LEU:HD12	2.00	0.44
1:A:4705:VAL:O	1:A:4708:THR:OG1	2.27	0.44
2:E:23:VAL:HG22	2:E:47:LYS:HG2	1.99	0.44
1:B:1131:ARG:NH1	1:B:1178:ALA:O	2.47	0.44
1:B:2233:CYS:C	1:B:2235:PHE:N	2.75	0.44
1:B:2973:PHE:CD1	1:B:2973:PHE:C	2.95	0.44
1:D:516:LYS:O	1:D:519:VAL:HG22	2.17	0.44
1:D:2336:ARG:HG2	1:D:2435:ARG:HD2	1.99	0.44
1:D:2684:ASP:O	1:D:2688:HIS:ND1	2.39	0.44
1:D:3230:LEU:HD23	1:D:3230:LEU:H	1.82	0.44
1:D:3635:CYS:HA	1:D:3638:MET:CE	2.43	0.44
1:D:3732:SER:HA	1:D:3735:LEU:HD21	1.99	0.44
1:D:3734:HIS:HB2	1:D:3736:GLU:HG2	1.98	0.44
1:D:4041:ALA:O	1:D:4045:VAL:HG23	2.17	0.44
1:D:4060:LYS:O	1:D:4063:ASP:OD1	2.35	0.44
1:D:4586:PRO:HG3	1:D:4629:TYR:CE2	2.53	0.44
1:C:2761:TYR:O	1:C:2765:LYS:CE	2.65	0.44
1:C:4586:PRO:HG3	1:C:4629:TYR:CE2	2.53	0.44
1:A:2513:GLU:OE1	1:A:2513:GLU:N	2.51	0.44
1:A:2660:GLY:HA3	1:A:2666:VAL:HG12	2.00	0.44
1:A:3375:GLU:O	1:A:3379:LEU:HD13	2.17	0.44
1:A:3498:ARG:CZ	1:A:3501:ASP:HB2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3734:HIS:HB2	1:A:3736:GLU:HG2	1.98	0.44
1:A:4586:PRO:HG3	1:A:4629:TYR:CE2	2.53	0.44
1:A:4690:GLU:O	1:A:4691:GLN:HB3	2.17	0.44
1:A:4826:ILE:O	1:A:4829:SER:OG	2.24	0.44
1:B:213:TYR:HA	1:B:339:ILE:O	2.17	0.44
1:B:3592:ILE:HD12	1:B:3592:ILE:H	1.82	0.44
1:B:4180:ARG:HD2	1:B:4981:GLU:HB3	1.99	0.44
1:D:451:TYR:CE2	1:D:474:ARG:HD2	2.53	0.44
1:D:1811:ALA:HA	1:D:1814:MET:HE2	1.98	0.44
1:D:3589:PRO:O	1:D:3593:VAL:HG13	2.18	0.44
1:D:3621:HIS:HB3	1:D:3623:LEU:HD12	2.00	0.44
1:C:155:LYS:HE3	1:C:156:GLN:HE22	1.83	0.44
1:C:707:VAL:HG12	1:C:715:GLY:HA3	1.99	0.44
1:C:988:LEU:HB2	1:C:1039:LEU:HD21	1.99	0.44
1:C:2290:LEU:HD21	1:C:2295:LEU:HG	2.00	0.44
1:C:2626:LEU:HD22	1:C:2640:PRO:HB3	2.00	0.44
1:C:2973:PHE:CD1	1:C:2973:PHE:C	2.95	0.44
1:C:3375:GLU:O	1:C:3379:LEU:HD13	2.17	0.44
1:C:3589:PRO:O	1:C:3593:VAL:HG13	2.18	0.44
1:C:3592:ILE:HD12	1:C:3592:ILE:H	1.82	0.44
1:C:4985:LEU:HD12	1:C:4986:ALA:N	2.32	0.44
1:A:2724:GLU:HG3	1:A:2725:LYS:H	1.82	0.44
1:A:4180:ARG:HD2	1:A:4981:GLU:HB3	1.99	0.44
2:F:88:PRO:O	2:F:90:ILE:HD12	2.18	0.44
1:B:2359:ARG:NE	1:C:179:TYR:OH	2.51	0.44
1:B:3589:PRO:O	1:B:3593:VAL:HG13	2.18	0.44
1:B:3621:HIS:HB3	1:B:3623:LEU:HD12	2.00	0.44
1:B:4219:PHE:CD1	1:B:4950:VAL:HG21	2.53	0.44
1:D:166:GLY:C	1:C:384:MET:SD	3.01	0.44
1:D:234:SER:OG	1:D:238:SER:OG	2.27	0.44
1:D:1805:GLU:HG2	1:D:1806:ALA:N	2.33	0.44
1:D:3455:GLU:O	1:D:3459:VAL:HG23	2.18	0.44
1:C:233:ILE:HD12	1:C:242:ARG:HB3	1.99	0.44
1:C:1105:ALA:O	1:C:1189:LEU:N	2.50	0.44
1:C:2283:ASN:OD1	1:C:2285:GLU:HB2	2.18	0.44
1:C:2872:GLN:O	1:C:2873:ALA:C	2.60	0.44
1:C:4760:PRO:O	1:C:4761:PRO:C	2.61	0.44
1:A:101:LEU:C	1:A:102:LEU:HD12	2.43	0.44
1:A:384:MET:SD	1:B:166:GLY:C	3.01	0.44
1:A:2354:VAL:O	1:A:2358:ILE:HG23	2.18	0.44
1:A:3603:LEU:O	1:A:3607:GLU:OE1	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1552:VAL:HG11	1:B:1562:ILE:HD13	2.00	0.44
1:B:1805:GLU:HG2	1:B:1806:ALA:N	2.33	0.44
1:B:3734:HIS:HB2	1:B:3736:GLU:HG2	1.98	0.44
1:B:4586:PRO:CD	1:B:4629:TYR:CE2	3.00	0.44
1:B:4630:TYR:OH	1:C:4860:ARG:NH1	2.50	0.44
1:B:4985:LEU:HD12	1:B:4986:ALA:N	2.32	0.44
1:D:1027:LEU:O	1:D:1032:LYS:NZ	2.49	0.44
1:D:2911:LEU:HD13	1:D:2915:GLU:HB2	1.99	0.44
1:D:2973:PHE:C	1:D:2973:PHE:CD1	2.95	0.44
1:D:3901:ASN:OD1	1:D:3904:ARG:NH1	2.44	0.44
1:D:4760:PRO:O	1:D:4761:PRO:C	2.61	0.44
1:C:1552:VAL:HG11	1:C:1562:ILE:HD13	2.00	0.44
1:C:2348:GLU:OE1	1:C:3852:LYS:NZ	2.49	0.44
1:A:451:TYR:CE2	1:A:474:ARG:HD2	2.53	0.44
1:A:901:LYS:HG3	1:A:903:LEU:HG	1.99	0.44
1:A:908:VAL:O	1:A:909:ASN:HB2	2.18	0.44
1:A:2440:MET:O	1:A:2444:GLN:OE1	2.36	0.44
1:A:2761:TYR:O	1:A:2765:LYS:CE	2.65	0.44
1:A:3934:TYR:HD1	1:A:3999:MET:HE3	1.83	0.44
1:A:4207:MET:HA	1:A:4207:MET:HE2	1.98	0.44
1:A:4219:PHE:CD1	1:A:4950:VAL:HG21	2.53	0.44
2:E:2:VAL:HG22	2:E:58:GLY:HA2	2.00	0.44
2:E:88:PRO:O	2:E:90:ILE:HD12	2.18	0.44
2:H:2:VAL:HG22	2:H:58:GLY:HA2	2.00	0.44
2:H:88:PRO:O	2:H:90:ILE:HD12	2.18	0.44
2:G:77:SER:OG	2:G:79:ASP:OD1	2.28	0.44
1:B:384:MET:SD	1:C:166:GLY:HA3	2.58	0.44
1:B:1577:ALA:O	1:B:1584:ARG:NH1	2.43	0.44
1:B:1811:ALA:HA	1:B:1814:MET:HE2	1.98	0.44
1:B:2513:GLU:OE1	1:B:2513:GLU:N	2.51	0.44
1:B:3137:LEU:HB2	1:B:3138:PRO:HD3	1.99	0.44
1:B:3467:MET:HE1	1:C:1173:SER:C	2.42	0.44
1:B:3732:SER:HA	1:B:3735:LEU:HD21	1.99	0.44
1:B:4190:ILE:HB	1:B:5031:GLN:OE1	2.18	0.44
1:B:4631:PHE:HE2	1:B:4633:GLU:HG2	1.82	0.44
1:D:101:LEU:C	1:D:102:LEU:HD12	2.43	0.44
1:D:323:LEU:O	1:D:324:ASP:OD1	2.34	0.44
1:D:1173:SER:C	1:C:3467:MET:HE1	2.42	0.44
1:D:2283:ASN:OD1	1:D:2285:GLU:HB2	2.18	0.44
1:D:2440:MET:O	1:D:2444:GLN:OE1	2.36	0.44
1:D:2724:GLU:HG3	1:D:2725:LYS:H	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3982:HIS:NE2	1:C:4039:MET:HE1	2.32	0.44
1:C:4041:ALA:O	1:C:4045:VAL:HG23	2.17	0.44
1:C:4631:PHE:HE2	1:C:4633:GLU:HG2	1.82	0.44
1:A:641:VAL:HG21	1:A:681:HIS:HD1	1.82	0.44
1:A:2290:LEU:HD21	1:A:2295:LEU:HG	1.99	0.44
1:A:2309:SER:HB2	1:A:2321:ILE:O	2.18	0.44
1:B:595:ARG:NH1	1:B:1643:GLU:OE2	2.44	0.44
1:B:641:VAL:HG21	1:B:681:HIS:HD1	1.82	0.44
1:B:1742:THR:O	1:B:1960:ALA:HB2	2.17	0.44
1:B:2788:HIS:HB3	1:B:2791:LEU:HD23	2.00	0.44
1:D:155:LYS:HE2	1:C:228:ASP:OD2	2.18	0.44
1:D:323:LEU:O	1:D:324:ASP:C	2.61	0.44
1:D:4586:PRO:CD	1:D:4629:TYR:CE2	3.00	0.44
1:D:4655:PHE:HE2	1:D:4659:ILE:HD11	1.81	0.44
1:C:908:VAL:O	1:C:909:ASN:HB2	2.18	0.44
1:C:1742:THR:O	1:C:1960:ALA:HB2	2.17	0.44
1:C:2001:PRO:O	1:C:2005:GLN:HG3	2.18	0.44
1:C:2309:SER:HB2	1:C:2321:ILE:O	2.18	0.44
1:C:2950:SER:O	1:C:2954:ARG:HG3	2.18	0.44
1:C:3386:GLU:O	1:C:3389:GLU:O	2.36	0.44
1:C:3934:TYR:HD1	1:C:3999:MET:HE3	1.83	0.44
1:C:4695:ASP:O	1:C:4695:ASP:OD2	2.36	0.44
1:A:1126:GLY:O	1:A:1127:HIS:C	2.60	0.43
1:A:2950:SER:O	1:A:2954:ARG:HG3	2.18	0.43
1:A:3946:GLN:NE2	1:A:3949:ARG:HH21	2.15	0.43
1:B:516:LYS:O	1:B:519:VAL:HG22	2.17	0.43
1:B:2660:GLY:HA3	1:B:2666:VAL:HG12	2.00	0.43
1:B:2761:TYR:O	1:B:2765:LYS:CE	2.65	0.43
1:D:707:VAL:HG12	1:D:715:GLY:HA3	1.99	0.43
1:D:783:PHE:HB2	1:D:787:VAL:HG21	2.00	0.43
1:D:1742:THR:O	1:D:1960:ALA:HB2	2.17	0.43
1:D:3946:GLN:NE2	1:D:3949:ARG:HH21	2.15	0.43
1:D:4170:ILE:H	1:D:4170:ILE:HD12	1.83	0.43
1:D:4744:ASP:O	1:D:4748:LEU:CD1	2.66	0.43
1:C:451:TYR:CE2	1:C:474:ARG:HD2	2.53	0.43
1:C:4180:ARG:HD2	1:C:4981:GLU:HB3	1.99	0.43
1:A:228:ASP:OD2	1:B:155:LYS:HE2	2.18	0.43
1:A:3104:GLU:O	1:A:3107:VAL:HG22	2.19	0.43
1:A:3589:PRO:O	1:A:3593:VAL:HG13	2.18	0.43
1:A:3832:ILE:CG2	1:A:3836:MET:HE3	2.48	0.43
1:A:4190:ILE:HB	1:A:5031:GLN:OE1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:101:LEU:C	1:B:102:LEU:HD12	2.43	0.43
1:B:228:ASP:OD2	1:C:155:LYS:HE2	2.18	0.43
1:B:2440:MET:O	1:B:2444:GLN:OE1	2.36	0.43
1:B:3603:LEU:O	1:B:3607:GLU:OE1	2.36	0.43
1:B:3901:ASN:OD1	1:B:3904:ARG:NH1	2.44	0.43
1:B:4744:ASP:O	1:B:4748:LEU:CD1	2.66	0.43
1:D:860:GLN:O	1:D:860:GLN:HG2	2.17	0.43
1:D:1131:ARG:NH1	1:D:1178:ALA:O	2.47	0.43
1:D:1552:VAL:HG11	1:D:1562:ILE:HD13	2.00	0.43
1:D:2668:SER:O	1:D:2669:GLU:HB2	2.19	0.43
1:D:2928:LYS:O	1:D:2932:MET:HG2	2.18	0.43
1:D:3104:GLU:O	1:D:3107:VAL:HG22	2.19	0.43
1:D:3248:ARG:HH12	1:D:3252:ASP:CG	2.17	0.43
1:D:3498:ARG:NH2	1:D:3501:ASP:HB2	2.32	0.43
1:D:3592:ILE:HD12	1:D:3592:ILE:H	1.82	0.43
1:D:4222:VAL:HG11	1:D:4950:VAL:HA	2.00	0.43
1:C:1805:GLU:O	1:C:1808:ARG:HG2	2.18	0.43
1:C:2788:HIS:HB3	1:C:2791:LEU:HD23	2.00	0.43
1:C:4844:LEU:O	1:C:4847:VAL:HG22	2.17	0.43
1:A:2283:ASN:OD1	1:A:2285:GLU:HB2	2.18	0.43
1:A:3197:LEU:HD23	1:A:3201:MET:SD	2.59	0.43
1:A:4744:ASP:O	1:A:4748:LEU:CD1	2.66	0.43
2:H:26:TYR:HA	2:H:100:ASP:O	2.19	0.43
2:G:88:PRO:O	2:G:90:ILE:HD12	2.18	0.43
1:B:2894:LEU:O	1:B:2898:GLY:N	2.48	0.43
1:B:3455:GLU:O	1:B:3459:VAL:HG23	2.18	0.43
1:B:3498:ARG:NH2	1:B:3501:ASP:HB2	2.32	0.43
1:D:233:ILE:HD12	1:D:242:ARG:HB3	1.99	0.43
1:D:2001:PRO:O	1:D:2005:GLN:HG3	2.18	0.43
1:D:2309:SER:HB2	1:D:2321:ILE:O	2.18	0.43
1:D:2626:LEU:HD22	1:D:2640:PRO:HB3	2.00	0.43
1:D:4943:LEU:O	1:D:4947:GLN:HG2	2.19	0.43
1:C:752:VAL:HB	1:C:753:PRO:C	2.44	0.43
1:C:2673:HIS:ND1	1:C:2716:ASP:OD2	2.46	0.43
1:C:3329:ILE:HD11	1:C:3332:ALA:HB2	2.00	0.43
1:A:323:LEU:O	1:A:324:ASP:C	2.61	0.43
1:A:2233:CYS:C	1:A:2235:PHE:N	2.75	0.43
1:A:3732:SER:HA	1:A:3735:LEU:HD21	1.99	0.43
1:A:4170:ILE:HD12	1:A:4170:ILE:H	1.83	0.43
1:B:2858:GLN:O	1:B:2860:PRO:HD3	2.18	0.43
1:B:2906:VAL:HG23	1:B:2911:LEU:HD23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3230:LEU:HD23	1:B:3230:LEU:H	1.82	0.43
1:B:3750:GLU:OE1	1:B:3750:GLU:N	2.52	0.43
1:D:2014:ASP:O	1:D:2015:GLU:HB3	2.19	0.43
1:D:3832:ILE:CG2	1:D:3836:MET:HE3	2.48	0.43
1:D:4983:HIS:O	3:D:5301:ATP:N6	2.50	0.43
1:C:323:LEU:O	1:C:324:ASP:C	2.61	0.43
1:C:2440:MET:O	1:C:2444:GLN:OE1	2.36	0.43
1:C:2490:MET:CG	1:C:2545:GLU:OE1	2.67	0.43
1:C:2523:ASP:OD1	1:C:2524:VAL:N	2.52	0.43
1:C:3621:HIS:HB3	1:C:3623:LEU:HD12	2.00	0.43
1:C:3750:GLU:OE1	1:C:3750:GLU:N	2.52	0.43
1:C:4095:LYS:HA	1:C:4098:ASP:OD2	2.19	0.43
1:C:4219:PHE:CD1	1:C:4950:VAL:HG21	2.53	0.43
1:C:4744:ASP:O	1:C:4748:LEU:CD1	2.66	0.43
1:A:1805:GLU:O	1:A:1808:ARG:HG2	2.18	0.43
1:A:2668:SER:O	1:A:2669:GLU:HB2	2.19	0.43
1:A:2677:LYS:HE2	1:A:2910:THR:HG22	2.00	0.43
1:A:2889:LYS:O	1:A:2893:GLU:OE1	2.37	0.43
1:A:3455:GLU:O	1:A:3459:VAL:HG23	2.18	0.43
1:A:3592:ILE:HD12	1:A:3592:ILE:H	1.82	0.43
1:A:3634:ALA:O	1:A:3638:MET:HG3	2.19	0.43
1:B:155:LYS:HE3	1:B:156:GLN:HE22	1.82	0.43
1:B:707:VAL:HG12	1:B:715:GLY:HA3	1.99	0.43
1:B:2290:LEU:HD21	1:B:2295:LEU:HG	1.99	0.43
1:B:2354:VAL:O	1:B:2358:ILE:HG23	2.18	0.43
1:B:3435:PHE:HD2	1:B:3524:MET:HE1	1.80	0.43
1:B:3832:ILE:CG2	1:B:3836:MET:HE3	2.48	0.43
1:B:3946:GLN:NE2	1:B:3949:ARG:HH21	2.15	0.43
1:B:4041:ALA:O	1:B:4045:VAL:HG23	2.17	0.43
1:D:308:HIS:O	1:D:310:LYS:N	2.46	0.43
1:D:1805:GLU:O	1:D:1808:ARG:HG2	2.18	0.43
1:D:2490:MET:CG	1:D:2545:GLU:OE1	2.67	0.43
1:D:2788:HIS:HB3	1:D:2791:LEU:HD23	2.00	0.43
1:D:2950:SER:O	1:D:2954:ARG:HG3	2.18	0.43
1:C:1057:ASP:OD1	1:C:1057:ASP:N	2.52	0.43
1:C:2858:GLN:O	1:C:2860:PRO:HD3	2.18	0.43
1:C:2889:LYS:O	1:C:2893:GLU:OE1	2.37	0.43
1:C:3946:GLN:NE2	1:C:3949:ARG:HH21	2.15	0.43
1:C:4945:ASP:OD1	1:C:4945:ASP:C	2.62	0.43
1:A:155:LYS:HE3	1:A:156:GLN:HE22	1.82	0.43
1:A:233:ILE:HD12	1:A:242:ARG:HB3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:783:PHE:HB2	1:A:787:VAL:HG21	2.00	0.43
1:A:1742:THR:O	1:A:1960:ALA:HB2	2.17	0.43
1:A:2118:ARG:NH2	1:A:3719:ASP:OD1	2.44	0.43
1:A:3386:GLU:O	1:A:3389:GLU:O	2.36	0.43
2:F:26:TYR:HA	2:F:100:ASP:O	2.19	0.43
1:B:2150:GLU:HG2	1:B:2151:ASP:N	2.34	0.43
1:B:2523:ASP:OD1	1:B:2524:VAL:N	2.52	0.43
1:B:2626:LEU:HD22	1:B:2640:PRO:HB3	2.00	0.43
1:B:2872:GLN:O	1:B:2873:ALA:C	2.60	0.43
1:B:3386:GLU:O	1:B:3389:GLU:O	2.36	0.43
1:B:4944:ARG:NE	1:C:4938:ASP:OD1	2.52	0.43
1:D:166:GLY:HA3	1:C:384:MET:SD	2.59	0.43
1:D:1057:ASP:N	1:D:1057:ASP:OD1	2.52	0.43
1:D:2513:GLU:OE1	1:D:2513:GLU:N	2.51	0.43
1:D:2660:GLY:HA3	1:D:2666:VAL:HG12	2.00	0.43
1:D:3197:LEU:HD23	1:D:3201:MET:SD	2.59	0.43
1:D:3750:GLU:N	1:D:3750:GLU:OE1	2.52	0.43
1:D:3971:GLY:N	1:D:3972:PRO:HA	2.34	0.43
1:D:4095:LYS:HA	1:D:4098:ASP:OD2	2.19	0.43
1:D:4190:ILE:HB	1:D:5031:GLN:OE1	2.18	0.43
1:C:41:GLY:O	1:C:45:ARG:NH1	2.52	0.43
1:C:1823:GLY:O	1:C:1825:HIS:ND1	2.51	0.43
1:C:2354:VAL:O	1:C:2358:ILE:HG23	2.18	0.43
1:C:2668:SER:O	1:C:2669:GLU:HB2	2.19	0.43
1:C:4170:ILE:H	1:C:4170:ILE:HD12	1.83	0.43
1:A:752:VAL:HB	1:A:753:PRO:C	2.43	0.43
1:A:1669:LEU:O	1:A:1673:VAL:HG22	2.19	0.43
1:A:1823:GLY:O	1:A:1825:HIS:ND1	2.51	0.43
1:A:2858:GLN:O	1:A:2860:PRO:HD3	2.18	0.43
1:A:3152:PHE:O	1:A:3156:VAL:HG23	2.19	0.43
1:A:3750:GLU:OE1	1:A:3750:GLU:N	2.52	0.43
1:A:4222:VAL:HG11	1:A:4950:VAL:HA	2.00	0.43
2:E:26:TYR:HA	2:E:100:ASP:O	2.19	0.43
2:G:2:VAL:HG22	2:G:58:GLY:HA2	2.00	0.43
1:B:752:VAL:HB	1:B:753:PRO:C	2.43	0.43
1:B:1057:ASP:OD1	1:B:1057:ASP:N	2.52	0.43
1:B:2014:ASP:O	1:B:2015:GLU:HB3	2.19	0.43
1:B:2577:ILE:H	1:B:2577:ILE:HD12	1.84	0.43
1:B:2677:LYS:HE2	1:B:2910:THR:HG22	2.00	0.43
1:B:2699:ALA:O	1:B:2702:CYS:HB3	2.19	0.43
1:B:3197:LEU:HD23	1:B:3201:MET:SD	2.59	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3321:ARG:HH11	1:B:3321:ARG:CG	2.13	0.43
1:D:752:VAL:HB	1:D:753:PRO:C	2.43	0.43
1:D:2225:PHE:N	1:D:2226:PRO:CD	2.82	0.43
1:D:2577:ILE:HD12	1:D:2577:ILE:H	1.84	0.43
1:D:3111:ARG:HH12	1:D:3175:LEU:HD12	1.84	0.43
1:D:3603:LEU:O	1:D:3607:GLU:OE1	2.36	0.43
1:D:4695:ASP:O	1:D:4695:ASP:OD2	2.36	0.43
1:C:1126:GLY:O	1:C:1127:HIS:C	2.60	0.43
1:C:4983:HIS:O	3:C:5301:ATP:N6	2.50	0.43
1:A:1173:SER:C	1:D:3467:MET:HE1	2.43	0.43
1:A:2001:PRO:O	1:A:2005:GLN:HG3	2.18	0.43
1:A:3087:ILE:H	1:A:3087:ILE:HD12	1.84	0.43
1:A:4666:VAL:N	1:A:4667:PRO:CD	2.82	0.43
2:F:2:VAL:HG22	2:F:58:GLY:HA2	2.00	0.43
1:B:598:LYS:O	1:B:602:VAL:HG23	2.19	0.43
1:B:908:VAL:O	1:B:909:ASN:HB2	2.18	0.43
1:B:3892:CYS:HG	1:B:3899:PHE:HD2	1.66	0.43
1:B:4095:LYS:HA	1:B:4098:ASP:OD2	2.19	0.43
1:B:4666:VAL:N	1:B:4667:PRO:CD	2.82	0.43
1:B:4760:PRO:O	1:B:4761:PRO:C	2.61	0.43
1:B:4946:GLN:O	1:B:4950:VAL:HG23	2.19	0.43
1:D:1000:ARG:HB3	1:D:1021:LEU:HD11	2.01	0.43
1:D:2677:LYS:HE2	1:D:2910:THR:HG22	2.00	0.43
1:D:2889:LYS:O	1:D:2893:GLU:OE1	2.37	0.43
1:D:2929:PHE:CD1	1:D:2932:MET:HE2	2.48	0.43
1:C:2906:VAL:HG23	1:C:2911:LEU:HD23	2.00	0.43
1:C:3832:ILE:CG2	1:C:3836:MET:HE3	2.48	0.43
1:C:3996:PHE:HD1	1:C:4016:LEU:HD11	1.83	0.43
1:A:1057:ASP:N	1:A:1057:ASP:OD1	2.52	0.43
1:A:2199:ARG:NH1	1:A:2245:GLN:HB3	2.34	0.43
1:A:2523:ASP:OD1	1:A:2524:VAL:N	2.52	0.43
1:A:2788:HIS:HB3	1:A:2791:LEU:HD23	2.00	0.43
1:A:3111:ARG:HH12	1:A:3175:LEU:HD12	1.84	0.43
1:A:4695:ASP:O	1:A:4695:ASP:OD2	2.36	0.43
2:G:26:TYR:HA	2:G:100:ASP:O	2.19	0.43
1:B:41:GLY:O	1:B:45:ARG:NH1	2.52	0.43
1:B:1256:GLU:HB2	1:B:1275:ARG:HE	1.84	0.43
1:B:1669:LEU:O	1:B:1673:VAL:HG22	2.19	0.43
1:B:2490:MET:CG	1:B:2545:GLU:OE1	2.67	0.43
1:B:2668:SER:O	1:B:2669:GLU:HB2	2.19	0.43
1:B:2974:ILE:HD13	1:B:3049:LEU:CD1	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3104:GLU:O	1:B:3107:VAL:HG22	2.19	0.43
1:B:3111:ARG:HH12	1:B:3175:LEU:HD12	1.84	0.43
1:B:3991:GLY:O	1:B:3995:VAL:HG23	2.19	0.43
1:B:4170:ILE:H	1:B:4170:ILE:HD12	1.83	0.43
1:B:4945:ASP:OD1	1:B:4945:ASP:C	2.62	0.43
1:D:953:THR:OG1	1:D:969:PRO:O	2.24	0.43
1:D:1759:ARG:HD2	1:D:1759:ARG:C	2.44	0.43
1:D:1987:SER:O	1:D:1991:THR:HG23	2.19	0.43
1:D:3386:GLU:O	1:D:3389:GLU:O	2.36	0.43
1:D:4001:MET:HE2	1:D:4057:MET:HG2	2.01	0.43
1:C:101:LEU:C	1:C:102:LEU:HD12	2.43	0.43
1:C:336:PRO:HA	1:C:337:PRO:HD3	1.92	0.43
1:C:783:PHE:HB2	1:C:787:VAL:HG21	2.00	0.43
1:C:1027:LEU:O	1:C:1032:LYS:NZ	2.49	0.43
1:C:1123:VAL:HG23	1:C:1132:TRP:HB2	2.01	0.43
1:C:2097:LEU:HD12	1:C:2100[B]:HIS:CE1	2.54	0.43
1:C:2677:LYS:HE2	1:C:2910:THR:HG22	2.00	0.43
1:C:2736:ASP:O	1:C:2738:ARG:HD3	2.19	0.43
1:C:2894:LEU:O	1:C:2898:GLY:N	2.48	0.43
1:C:2928:LYS:O	1:C:2932:MET:HG2	2.18	0.43
1:C:3111:ARG:HH12	1:C:3175:LEU:HD12	1.84	0.43
1:C:3603:LEU:O	1:C:3607:GLU:OE1	2.36	0.43
1:C:4222:VAL:HG11	1:C:4950:VAL:HA	2.00	0.43
1:C:4666:VAL:N	1:C:4667:PRO:CD	2.82	0.43
1:C:4690:GLU:O	1:C:4691:GLN:HB3	2.17	0.43
1:C:4943:LEU:O	1:C:4947:GLN:HG2	2.19	0.43
1:C:4946:GLN:O	1:C:4950:VAL:HG23	2.19	0.43
1:A:41:GLY:O	1:A:45:ARG:NH1	2.52	0.43
1:A:867:LEU:HD13	1:A:929:LEU:HD12	2.01	0.43
1:A:3392:LEU:O	1:A:3395:ARG:HB3	2.19	0.43
1:A:3635:CYS:HA	1:A:3638:MET:CE	2.43	0.43
1:A:4000:MET:HG2	1:A:4013:LEU:HD11	2.01	0.43
1:B:1105:ALA:O	1:B:1189:LEU:N	2.50	0.43
1:B:2097:LEU:HD12	1:B:2100[B]:HIS:CE1	2.54	0.43
1:B:2225:PHE:N	1:B:2226:PRO:CD	2.82	0.43
1:B:2889:LYS:O	1:B:2893:GLU:OE1	2.37	0.43
1:B:3018:LEU:HD21	1:B:3075:LEU:O	2.17	0.43
1:B:4695:ASP:O	1:B:4695:ASP:OD2	2.36	0.43
1:D:451:TYR:CZ	1:D:474:ARG:HD2	2.54	0.43
1:D:1446:SER:O	1:D:1496:TRP:NE1	2.41	0.43
1:D:2118:ARG:NH2	1:D:3719:ASP:OD1	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2799:GLU:O	1:D:2803:GLU:OE1	2.37	0.43
1:D:4666:VAL:N	1:D:4667:PRO:CD	2.82	0.43
1:C:1759:ARG:HD2	1:C:1759:ARG:C	2.44	0.43
1:C:1987:SER:O	1:C:1991:THR:HG23	2.19	0.43
1:C:2199:ARG:NH1	1:C:2245:GLN:HB3	2.34	0.43
1:C:3104:GLU:O	1:C:3107:VAL:HG22	2.19	0.43
1:C:3152:PHE:O	1:C:3156:VAL:HG23	2.19	0.43
1:C:3971:GLY:N	1:C:3972:PRO:HA	2.34	0.43
1:C:4190:ILE:HB	1:C:5031:GLN:OE1	2.18	0.43
1:A:790:ARG:HA	1:A:1626:TRP:O	2.19	0.42
1:A:1759:ARG:HD2	1:A:1759:ARG:C	2.44	0.42
1:A:2150:GLU:HG2	1:A:2151:ASP:N	2.34	0.42
1:A:2799:GLU:O	1:A:2803:GLU:OE1	2.37	0.42
1:A:2928:LYS:O	1:A:2932:MET:HG2	2.18	0.42
1:A:3409:TYR:N	1:A:3410:PRO:HD2	2.34	0.42
1:A:3991:GLY:O	1:A:3995:VAL:HG23	2.19	0.42
1:A:4943:LEU:O	1:A:4947:GLN:HG2	2.19	0.42
1:B:323:LEU:O	1:B:324:ASP:C	2.61	0.42
1:B:783:PHE:HB2	1:B:787:VAL:HG21	2.00	0.42
1:B:867:LEU:HD13	1:B:929:LEU:HD12	2.01	0.42
1:B:1823:GLY:O	1:B:1825:HIS:ND1	2.51	0.42
1:B:1987:SER:O	1:B:1991:THR:HG23	2.19	0.42
1:B:2185:ILE:HD13	1:B:2203:MET:CE	2.49	0.42
1:B:2736:ASP:O	1:B:2738:ARG:HD3	2.19	0.42
1:B:3392:LEU:O	1:B:3395:ARG:HB3	2.19	0.42
1:B:3634:ALA:O	1:B:3638:MET:HG3	2.19	0.42
1:B:4001:MET:HE2	1:B:4057:MET:HG2	2.01	0.42
1:D:908:VAL:O	1:D:909:ASN:HB2	2.18	0.42
1:D:2858:GLN:O	1:D:2860:PRO:HD3	2.18	0.42
1:D:3152:PHE:O	1:D:3156:VAL:HG23	2.19	0.42
1:D:4731:ILE:HG13	1:D:4732:PHE:N	2.34	0.42
1:C:327:PRO:O	1:C:329:ARG:NH1	2.45	0.42
1:C:1769:THR:N	1:C:1956:GLU:OE2	2.52	0.42
1:C:2014:ASP:O	1:C:2015:GLU:HB3	2.19	0.42
1:C:2699:ALA:O	1:C:2702:CYS:HB3	2.19	0.42
1:C:2799:GLU:O	1:C:2803:GLU:OE1	2.37	0.42
1:C:3210:LEU:HD13	1:C:3304:CYS:O	2.19	0.42
1:A:953:THR:OG1	1:A:969:PRO:O	2.24	0.42
1:A:2097:LEU:HD12	1:A:2100[B]:HIS:CE1	2.54	0.42
1:A:2225:PHE:N	1:A:2226:PRO:CD	2.82	0.42
1:A:2902:HIS:CE1	1:A:2904:LEU:HB3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2906:VAL:HG23	1:A:2911:LEU:HD23	2.00	0.42
1:A:4760:PRO:O	1:A:4761:PRO:C	2.61	0.42
2:G:90:ILE:HD11	1:C:1684:ALA:HA	2.01	0.42
1:B:451:TYR:CZ	1:B:474:ARG:HD2	2.54	0.42
1:B:575:LEU:HA	1:B:578:ILE:HG12	2.01	0.42
1:B:2001:PRO:O	1:B:2005:GLN:HG3	2.18	0.42
1:B:2283:ASN:OD1	1:B:2285:GLU:HB2	2.18	0.42
1:B:3087:ILE:HD12	1:B:3087:ILE:H	1.84	0.42
1:B:3934:TYR:HD1	1:B:3999:MET:HE3	1.83	0.42
1:B:3971:GLY:N	1:B:3972:PRO:HA	2.34	0.42
1:B:4000:MET:HG2	1:B:4013:LEU:HD11	2.01	0.42
1:D:76:ARG:O	1:D:80:GLU:HG2	2.19	0.42
1:D:1123:VAL:HG23	1:D:1132:TRP:HB2	2.01	0.42
1:D:2097:LEU:HD12	1:D:2100[B]:HIS:CE1	2.54	0.42
1:D:2523:ASP:OD1	1:D:2524:VAL:N	2.52	0.42
1:D:2906:VAL:HG23	1:D:2911:LEU:HD23	2.00	0.42
1:D:3087:ILE:H	1:D:3087:ILE:HD12	1.84	0.42
1:D:3392:LEU:O	1:D:3395:ARG:HB3	2.19	0.42
1:D:4585:SER:O	1:D:4629:TYR:HD2	2.02	0.42
1:D:4938:ASP:OD1	1:C:4944:ARG:NE	2.51	0.42
1:D:4946:GLN:O	1:D:4950:VAL:HG23	2.19	0.42
1:C:598:LYS:O	1:C:602:VAL:HG23	2.19	0.42
1:C:842:PRO:O	1:C:1196:PRO:HA	2.19	0.42
1:C:1112:ASP:OD1	1:C:1113:VAL:N	2.52	0.42
1:C:4001:MET:HE2	1:C:4057:MET:HG2	2.01	0.42
1:A:278:GLN:HA	1:A:328:LYS:HZ3	1.84	0.42
1:A:2035:HIS:ND1	1:A:3657:TYR:OH	2.36	0.42
1:A:2874:MET:SD	1:A:2939:ARG:O	2.78	0.42
1:A:2929:PHE:CD1	1:A:2932:MET:HE2	2.48	0.42
1:A:3971:GLY:N	1:A:3972:PRO:HA	2.34	0.42
1:B:2199:ARG:NH1	1:B:2245:GLN:HB3	2.34	0.42
1:B:2874:MET:SD	1:B:2939:ARG:O	2.78	0.42
1:B:3329:ILE:HD11	1:B:3332:ALA:HB2	2.00	0.42
1:B:3534:MET:O	1:B:3538:THR:HG23	2.20	0.42
1:B:4943:LEU:O	1:B:4947:GLN:HG2	2.19	0.42
1:D:41:GLY:O	1:D:45:ARG:NH1	2.52	0.42
1:D:1126:GLY:O	1:D:1127:HIS:C	2.60	0.42
1:D:2199:ARG:NH1	1:D:2245:GLN:HB3	2.34	0.42
1:D:2699:ALA:O	1:D:2702:CYS:HB3	2.19	0.42
1:D:3634:ALA:O	1:D:3638:MET:HG3	2.19	0.42
1:D:3637:ARG:O	1:D:3638:MET:C	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:451:TYR:CZ	1:C:474:ARG:HD2	2.54	0.42
1:C:3392:LEU:O	1:C:3395:ARG:HB3	2.19	0.42
1:A:1000:ARG:HB3	1:A:1021:LEU:HD11	2.01	0.42
1:A:1171:SER:OG	1:A:1175:SER:OG	2.08	0.42
1:A:1705:GLY:HA3	1:A:1836:PHE:CD2	2.55	0.42
1:A:2185:ILE:HD13	1:A:2203:MET:CE	2.49	0.42
1:A:3329:ILE:HD11	1:A:3332:ALA:HB2	2.00	0.42
1:A:3414:ARG:NH2	1:A:3472:ALA:HB3	2.35	0.42
1:A:4001:MET:HE2	1:A:4057:MET:HG2	2.01	0.42
1:A:4095:LYS:HA	1:A:4098:ASP:OD2	2.19	0.42
1:A:4585:SER:O	1:A:4629:TYR:HD2	2.02	0.42
1:B:790:ARG:HA	1:B:1626:TRP:O	2.19	0.42
1:B:2309:SER:HB2	1:B:2321:ILE:O	2.18	0.42
1:B:2799:GLU:O	1:B:2803:GLU:OE1	2.37	0.42
1:B:2902:HIS:CE1	1:B:2904:LEU:HB3	2.54	0.42
1:B:3210:LEU:HD13	1:B:3304:CYS:O	2.19	0.42
1:B:3547:GLU:OE1	1:B:3550:ARG:NH1	2.53	0.42
1:B:4731:ILE:HG13	1:B:4732:PHE:N	2.34	0.42
1:D:1749:PRO:C	1:D:1758:ARG:HH21	2.28	0.42
1:D:2894:LEU:O	1:D:2898:GLY:N	2.48	0.42
1:D:3382:GLU:CA	1:D:3384:LYS:HZ3	2.31	0.42
1:D:3435:PHE:HD2	1:D:3524:MET:HE1	1.81	0.42
1:C:790:ARG:HA	1:C:1626:TRP:O	2.19	0.42
1:C:2233:CYS:C	1:C:2235:PHE:N	2.75	0.42
1:C:2369[B]:ARG:HA	1:C:2369[B]:ARG:HD3	1.90	0.42
1:C:2577:ILE:H	1:C:2577:ILE:HD12	1.84	0.42
1:C:4902:GLU:O	1:C:4913:ARG:NH2	2.52	0.42
1:A:451:TYR:CZ	1:A:474:ARG:HD2	2.54	0.42
1:A:598:LYS:O	1:A:602:VAL:HG23	2.19	0.42
1:A:1256:GLU:HB2	1:A:1275:ARG:HE	1.84	0.42
1:A:3166:TYR:O	1:A:3170:CYS:SG	2.77	0.42
1:A:3592:ILE:O	1:A:3596:VAL:HG23	2.19	0.42
1:B:39:ALA:O	1:B:111:HIS:NE2	2.53	0.42
1:B:1705:GLY:HA3	1:B:1836:PHE:CD2	2.55	0.42
1:B:1805:GLU:O	1:B:1808:ARG:HG2	2.19	0.42
1:B:2928:LYS:O	1:B:2932:MET:HG2	2.18	0.42
1:B:3152:PHE:O	1:B:3156:VAL:HG23	2.19	0.42
1:B:3592:ILE:O	1:B:3596:VAL:HG23	2.19	0.42
1:B:4705:VAL:O	1:B:4708:THR:OG1	2.27	0.42
1:D:39:ALA:O	1:D:111:HIS:NE2	2.53	0.42
1:D:46:LEU:HD13	1:D:125:ARG:NH2	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2150:GLU:HG2	1:D:2151:ASP:N	2.34	0.42
1:D:2185:ILE:HD13	1:D:2203:MET:CE	2.49	0.42
1:D:2736:ASP:O	1:D:2738:ARG:HD3	2.19	0.42
1:D:3409:TYR:N	1:D:3410:PRO:HD2	2.34	0.42
1:D:3531:ASP:O	1:D:3535:LEU:CD1	2.68	0.42
1:D:3996:PHE:HD1	1:D:4016:LEU:HD11	1.83	0.42
1:C:2513:GLU:OE1	1:C:2513:GLU:N	2.51	0.42
1:C:2660:GLY:HA3	1:C:2666:VAL:HG12	2.00	0.42
1:C:3409:TYR:N	1:C:3410:PRO:HD2	2.34	0.42
1:C:3916:ILE:O	1:C:3920:VAL:HG23	2.20	0.42
1:C:4645:CYS:O	1:C:4649:LEU:CD1	2.68	0.42
1:A:155:LYS:HE2	1:D:228:ASP:OD2	2.20	0.42
1:A:2577:ILE:H	1:A:2577:ILE:HD12	1.84	0.42
1:A:3229:ILE:HG13	1:A:3230:LEU:N	2.35	0.42
1:A:3534:MET:O	1:A:3538:THR:HG23	2.20	0.42
1:A:4946:GLN:O	1:A:4950:VAL:HG23	2.19	0.42
2:F:77:SER:OG	2:F:79:ASP:OD1	2.28	0.42
1:B:907:LEU:O	1:B:908:VAL:HB	2.20	0.42
1:B:1000:ARG:HB3	1:B:1021:LEU:HD11	2.01	0.42
1:B:1112:ASP:OD1	1:B:1113:VAL:N	2.52	0.42
1:B:1123:VAL:HG23	1:B:1132:TRP:HB2	2.01	0.42
1:B:1759:ARG:HD2	1:B:1759:ARG:C	2.44	0.42
1:B:3166:TYR:O	1:B:3170:CYS:SG	2.77	0.42
1:B:3229:ILE:HG13	1:B:3230:LEU:N	2.35	0.42
1:B:3637:ARG:O	1:B:3638:MET:C	2.63	0.42
1:B:3996:PHE:HD1	1:B:4016:LEU:HD11	1.84	0.42
1:B:4673:ARG:O	1:B:4676:GLU:HG3	2.19	0.42
1:D:3934:TYR:HD1	1:D:3999:MET:HE3	1.83	0.42
1:D:3986:TRP:O	1:D:3990:VAL:HG23	2.20	0.42
1:C:232:THR:HG21	1:C:252:VAL:HG21	2.02	0.42
1:C:2874:MET:SD	1:C:2939:ARG:O	2.78	0.42
1:C:3087:ILE:H	1:C:3087:ILE:HD12	1.84	0.42
1:C:4000:MET:HG2	1:C:4013:LEU:HD11	2.01	0.42
1:A:232:THR:HG21	1:A:252:VAL:HG21	2.02	0.42
1:A:384:MET:SD	1:B:166:GLY:HA3	2.59	0.42
1:A:478:PHE:CD2	1:A:483:MET:HG3	2.55	0.42
1:A:925:SER:O	1:A:929:LEU:HD23	2.20	0.42
1:A:2326:CYS:SG	1:A:2327:GLY:N	2.93	0.42
1:A:2914:LYS:HG3	1:A:2915:GLU:N	2.35	0.42
1:A:4673:ARG:O	1:A:4676:GLU:HG3	2.19	0.42
2:G:17:LYS:HA	2:G:17:LYS:HD3	1.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:842:PRO:O	1:B:1196:PRO:HA	2.19	0.42
1:B:2929:PHE:CD1	1:B:2932:MET:HE2	2.48	0.42
1:B:3409:TYR:N	1:B:3410:PRO:HD2	2.34	0.42
1:D:867:LEU:HD13	1:D:929:LEU:HD12	2.01	0.42
1:D:1116:GLY:HA3	1:D:1132:TRP:HB3	2.02	0.42
1:D:1669:LEU:O	1:D:1673:VAL:HG22	2.19	0.42
1:D:1748:PHE:CB	1:D:1758:ARG:HG2	2.50	0.42
1:D:1769:THR:N	1:D:1956:GLU:OE2	2.52	0.42
1:D:1828:ASP:OD1	1:D:1828:ASP:N	2.48	0.42
1:D:2031:LEU:HD11	1:D:3657:TYR:CE1	2.55	0.42
1:D:2874:MET:SD	1:D:2939:ARG:O	2.78	0.42
1:D:2908:TYR:HA	1:D:2911:LEU:HG	2.02	0.42
1:D:3210:LEU:HD13	1:D:3304:CYS:O	2.19	0.42
1:D:3225:ARG:NH1	1:D:3226:GLU:HG3	2.35	0.42
1:D:3329:ILE:HD11	1:D:3332:ALA:HB2	2.00	0.42
1:D:4000:MET:SD	1:D:4017:LEU:HD21	2.60	0.42
1:C:2150:GLU:HG2	1:C:2151:ASP:N	2.34	0.42
1:C:2225:PHE:N	1:C:2226:PRO:CD	2.82	0.42
1:C:3166:TYR:O	1:C:3170:CYS:SG	2.77	0.42
1:C:4585:SER:O	1:C:4629:TYR:HD2	2.02	0.42
1:C:4731:ILE:HG13	1:C:4732:PHE:N	2.34	0.42
1:A:39:ALA:O	1:A:111:HIS:NE2	2.53	0.42
1:A:2699:ALA:O	1:A:2702:CYS:HB3	2.19	0.42
1:A:2974:ILE:HD13	1:A:3049:LEU:CD1	2.46	0.42
1:A:3637:ARG:O	1:A:3638:MET:C	2.63	0.42
1:A:3986:TRP:O	1:A:3990:VAL:HG23	2.20	0.42
1:A:4731:ILE:HG13	1:A:4732:PHE:N	2.34	0.42
1:A:4945:ASP:OD1	1:A:4945:ASP:C	2.62	0.42
1:B:328:LYS:HE2	1:B:328:LYS:HB3	1.82	0.42
1:B:2031:LEU:HD11	1:B:3657:TYR:CE1	2.55	0.42
1:B:4222:VAL:HG11	1:B:4950:VAL:HA	2.00	0.42
1:D:598:LYS:O	1:D:602:VAL:HG23	2.19	0.42
1:D:1421:ARG:O	1:D:1570:LYS:NZ	2.49	0.42
1:D:3991:GLY:O	1:D:3995:VAL:HG23	2.19	0.42
1:D:4000:MET:HG2	1:D:4013:LEU:HD11	2.01	0.42
1:D:4902:GLU:O	1:D:4913:ARG:NH2	2.52	0.42
1:C:1749:PRO:O	1:C:1758:ARG:NE	2.52	0.42
1:C:2326:CYS:SG	1:C:2327:GLY:N	2.93	0.42
1:C:2702:CYS:C	1:C:2704:CYS:H	2.28	0.42
1:C:3197:LEU:HD23	1:C:3201:MET:SD	2.59	0.42
1:C:3534:MET:O	1:C:3538:THR:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3765:TYR:CZ	1:C:4753:HIS:ND1	2.75	0.42
1:C:3991:GLY:O	1:C:3995:VAL:HG23	2.19	0.42
1:A:166:GLY:C	1:D:384:MET:SD	3.02	0.42
1:A:1116:GLY:HA3	1:A:1132:TRP:HB3	2.02	0.42
1:A:1123:VAL:HG23	1:A:1132:TRP:HB2	2.01	0.42
1:A:2970:SER:HA	1:A:2973:PHE:CE2	2.55	0.42
1:A:3547:GLU:CD	1:A:3550:ARG:HH11	2.28	0.42
1:A:4631:PHE:HE2	1:A:4633:GLU:CG	2.33	0.42
1:A:4744:ASP:O	1:A:4748:LEU:HD12	2.20	0.42
1:B:1705:GLY:N	1:B:1706:PRO:CD	2.83	0.42
1:B:3225:ARG:NH1	1:B:3226:GLU:HG3	2.35	0.42
1:B:3281:LEU:HB2	1:B:3282:PRO:HD3	2.02	0.42
1:B:3916:ILE:O	1:B:3920:VAL:HG23	2.20	0.42
1:B:4879:MET:HE3	1:B:4879:MET:HB3	1.95	0.42
1:D:301:VAL:O	1:D:301:VAL:HG23	2.20	0.42
1:D:478:PHE:CD2	1:D:483:MET:HG3	2.55	0.42
1:D:790:ARG:HA	1:D:1626:TRP:O	2.19	0.42
1:D:907:LEU:O	1:D:908:VAL:HB	2.20	0.42
1:D:1423:ASP:HB3	1:D:1426:ILE:HD12	2.02	0.42
1:D:1705:GLY:HA3	1:D:1836:PHE:CD2	2.55	0.42
1:D:2951:ILE:H	1:D:2951:ILE:HD12	1.85	0.42
1:D:3129:LEU:O	1:D:3133:THR:HG22	2.20	0.42
1:D:3229:ILE:HG13	1:D:3230:LEU:N	2.35	0.42
1:D:3414:ARG:NH2	1:D:3472:ALA:HB3	2.35	0.42
1:D:4839:MET:HE2	1:D:4839:MET:HA	2.01	0.42
1:D:4945:ASP:OD1	1:D:4945:ASP:C	2.62	0.42
1:C:907:LEU:O	1:C:908:VAL:HB	2.20	0.42
1:C:978:THR:O	1:C:982:THR:HG23	2.20	0.42
1:C:2461:VAL:O	1:C:2510:TYR:OH	2.31	0.42
1:C:2902:HIS:CE1	1:C:2904:LEU:HB3	2.54	0.42
1:C:3229:ILE:HG13	1:C:3230:LEU:N	2.35	0.42
1:C:3262:ARG:HH21	1:C:3329:ILE:CG2	2.33	0.42
1:C:3346:VAL:HG11	1:C:3414:ARG:CB	2.48	0.42
1:C:3634:ALA:O	1:C:3638:MET:HG3	2.19	0.42
1:C:4244:GLU:OE2	1:C:4668:LEU:HD22	2.20	0.42
1:C:4673:ARG:O	1:C:4676:GLU:HG3	2.19	0.42
1:A:76:ARG:O	1:A:80:GLU:HG2	2.19	0.42
1:A:965:TYR:O	1:A:966:LYS:C	2.63	0.42
1:A:1749:PRO:C	1:A:1758:ARG:HH21	2.28	0.42
1:A:2031:LEU:HD11	1:A:3657:TYR:CE1	2.55	0.42
1:A:2481:LYS:O	1:A:2482:ASP:CG	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2584[B]:HIS:HD2	1:A:2625:ARG:HD2	1.80	0.42
1:A:2725:LYS:HB2	1:A:2725:LYS:HE2	1.88	0.42
1:A:3359:ILE:HG23	1:A:3437:MET:HE1	2.02	0.42
1:A:3527:PRO:HD2	1:A:3573:MET:CE	2.46	0.42
1:A:3559:LEU:O	1:A:3560:GLN:C	2.63	0.42
1:A:3768:SER:HA	1:A:3771:HIS:NE2	2.35	0.42
1:A:3768:SER:O	1:A:3772:THR:OG1	2.31	0.42
1:B:478:PHE:CD2	1:B:483:MET:HG3	2.55	0.42
1:B:981:GLN:HA	1:B:984:LEU:HD12	2.01	0.42
1:B:1995:THR:HG22	1:B:1999:ARG:CG	2.50	0.42
1:B:2951:ILE:H	1:B:2951:ILE:HD12	1.85	0.42
1:B:3382:GLU:C	1:B:3384:LYS:HZ3	2.28	0.42
1:D:1112:ASP:OD1	1:D:1113:VAL:N	2.52	0.42
1:D:2914:LYS:HG3	1:D:2915:GLU:N	2.35	0.42
1:D:3262:ARG:HH21	1:D:3329:ILE:CG2	2.33	0.42
1:D:3281:LEU:HB2	1:D:3282:PRO:HD3	2.02	0.42
1:D:4744:ASP:O	1:D:4748:LEU:HD12	2.20	0.42
1:C:301:VAL:O	1:C:301:VAL:HG23	2.20	0.42
1:C:575:LEU:HA	1:C:578:ILE:HG12	2.01	0.42
1:C:3225:ARG:NH1	1:C:3226:GLU:HG3	2.35	0.42
1:C:3592:ILE:O	1:C:3596:VAL:HG23	2.19	0.42
1:C:3768:SER:HA	1:C:3771:HIS:NE2	2.35	0.42
1:C:3866:ILE:O	1:C:3867:ASN:C	2.63	0.42
1:C:3901:ASN:OD1	1:C:3904:ARG:NH1	2.44	0.42
1:C:4631:PHE:HE2	1:C:4633:GLU:CG	2.33	0.42
1:C:4655:PHE:HE2	1:C:4659:ILE:HD11	1.81	0.42
1:A:2638:LYS:O	1:A:2698:MET:HE3	2.20	0.41
1:A:2736:ASP:O	1:A:2738:ARG:HD3	2.19	0.41
1:A:2951:ILE:HD12	1:A:2951:ILE:H	1.85	0.41
1:A:3210:LEU:HD13	1:A:3304:CYS:O	2.19	0.41
1:A:3866:ILE:O	1:A:3867:ASN:C	2.63	0.41
1:B:220:LEU:C	1:B:220:LEU:HD12	2.46	0.41
1:B:965:TYR:O	1:B:966:LYS:C	2.63	0.41
1:B:978:THR:O	1:B:982:THR:HG23	2.20	0.41
1:B:3768:SER:HA	1:B:3771:HIS:NE2	2.35	0.41
1:B:4902:GLU:O	1:B:4913:ARG:NH2	2.53	0.41
1:D:842:PRO:O	1:D:1196:PRO:HA	2.19	0.41
1:D:978:THR:O	1:D:982:THR:HG23	2.20	0.41
1:D:2313:LEU:HD12	1:D:2318:TYR:CD1	2.55	0.41
1:D:2326:CYS:SG	1:D:2327:GLY:N	2.93	0.41
1:D:3166:TYR:O	1:D:3170:CYS:SG	2.77	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3534:MET:O	1:D:3538:THR:HG23	2.20	0.41
1:D:3547:GLU:OE1	1:D:3550:ARG:NH1	2.53	0.41
1:D:3592:ILE:O	1:D:3596:VAL:HG23	2.19	0.41
1:D:3765:TYR:CZ	1:D:4753:HIS:ND1	2.75	0.41
1:C:478:PHE:CD2	1:C:483:MET:HG3	2.55	0.41
1:C:1000:ARG:HB3	1:C:1021:LEU:HD11	2.01	0.41
1:C:1705:GLY:N	1:C:1706:PRO:CD	2.83	0.41
1:C:1705:GLY:HA3	1:C:1836:PHE:CD2	2.55	0.41
1:C:1749:PRO:C	1:C:1758:ARG:HH21	2.28	0.41
1:C:2951:ILE:HD12	1:C:2951:ILE:H	1.85	0.41
1:C:3281:LEU:HB2	1:C:3282:PRO:HD3	2.02	0.41
1:A:2014:ASP:O	1:A:2015:GLU:HB3	2.19	0.41
1:A:2638:LYS:O	1:A:2698:MET:CE	2.69	0.41
2:G:58:GLY:HA3	2:G:76:ILE:HG12	2.02	0.41
1:B:280:LEU:HD12	1:B:280:LEU:C	2.46	0.41
1:B:328:LYS:C	1:B:329:ARG:HD3	2.45	0.41
1:B:1749:PRO:C	1:B:1758:ARG:HH21	2.28	0.41
1:B:2702:CYS:C	1:B:2704:CYS:H	2.28	0.41
1:B:4645:CYS:O	1:B:4649:LEU:CD1	2.68	0.41
1:D:328:LYS:HB3	1:D:328:LYS:HE2	1.82	0.41
1:D:499:THR:HG23	1:D:502:HIS:H	1.86	0.41
1:D:2280:VAL:O	1:D:2280:VAL:HG22	2.21	0.41
1:D:2673:HIS:ND1	1:D:2716:ASP:OD2	2.46	0.41
1:D:2902:HIS:CE1	1:D:2904:LEU:HB3	2.54	0.41
1:D:3866:ILE:O	1:D:3867:ASN:C	2.63	0.41
1:D:4244:GLU:OE2	1:D:4668:LEU:HD22	2.20	0.41
1:D:4631:PHE:HE2	1:D:4633:GLU:CG	2.33	0.41
1:D:4687:TYR:OH	1:D:4699:GLY:O	2.33	0.41
1:C:1726:SER:O	1:C:1729:SER:OG	2.38	0.41
1:C:1995:THR:HG22	1:C:1999:ARG:CG	2.50	0.41
1:C:2280:VAL:O	1:C:2280:VAL:HG22	2.21	0.41
1:C:3414:ARG:NH2	1:C:3472:ALA:HB3	2.35	0.41
1:A:280:LEU:HD12	1:A:280:LEU:C	2.46	0.41
1:A:1112:ASP:OD1	1:A:1113:VAL:N	2.52	0.41
1:A:1421:ARG:O	1:A:1570:LYS:NZ	2.49	0.41
1:A:1995:THR:HG22	1:A:1999:ARG:CG	2.50	0.41
1:A:3129:LEU:O	1:A:3133:THR:HG22	2.20	0.41
1:A:3547:GLU:OE1	1:A:3550:ARG:NH1	2.53	0.41
1:A:3996:PHE:HD1	1:A:4016:LEU:HD11	1.83	0.41
1:A:4645:CYS:O	1:A:4649:LEU:CD1	2.68	0.41
2:F:58:GLY:HA3	2:F:76:ILE:HG12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:925:SER:O	1:B:929:LEU:HD23	2.20	0.41
1:B:2313:LEU:HD12	1:B:2318:TYR:CD1	2.55	0.41
1:B:2326:CYS:SG	1:B:2327:GLY:N	2.93	0.41
1:B:2417:HIS:ND1	1:B:2492:ALA:HB2	2.35	0.41
1:B:2638:LYS:O	1:B:2698:MET:HE3	2.20	0.41
1:B:2914:LYS:HG3	1:B:2915:GLU:N	2.35	0.41
1:D:1808:ARG:HD3	1:D:1853:ILE:HG22	2.02	0.41
1:D:1815:LEU:O	1:D:1819:VAL:HG23	2.20	0.41
1:D:1823:GLY:O	1:D:1825:HIS:ND1	2.51	0.41
1:D:2481:LYS:O	1:D:2482:ASP:CG	2.63	0.41
1:D:3359:ILE:HG23	1:D:3437:MET:HE1	2.02	0.41
1:D:4645:CYS:O	1:D:4649:LEU:CD1	2.68	0.41
1:C:280:LEU:C	1:C:280:LEU:HD12	2.46	0.41
1:C:1168:VAL:HG11	1:C:1176:GLU:HG3	2.03	0.41
1:C:2031:LEU:HD11	1:C:3657:TYR:CE1	2.55	0.41
1:C:2185:ILE:HD13	1:C:2203:MET:CE	2.49	0.41
1:C:2313:LEU:HD12	1:C:2318:TYR:CD1	2.55	0.41
1:C:2638:LYS:O	1:C:2698:MET:HE3	2.20	0.41
1:C:3637:ARG:O	1:C:3638:MET:C	2.63	0.41
1:C:3986:TRP:O	1:C:3990:VAL:HG23	2.20	0.41
1:A:328:LYS:C	1:A:329:ARG:HD3	2.45	0.41
1:A:1820:ARG:O	1:A:1824:GLN:HG2	2.21	0.41
1:A:2490:MET:CG	1:A:2545:GLU:OE1	2.67	0.41
1:A:4000:MET:SD	1:A:4017:LEU:HD21	2.60	0.41
1:B:1116:GLY:HA3	1:B:1132:TRP:HB3	2.02	0.41
1:B:1286:MET:HE1	1:B:1553:PHE:HB3	2.03	0.41
1:B:1808:ARG:HD3	1:B:1853:ILE:HG22	2.02	0.41
1:B:2481:LYS:O	1:B:2482:ASP:CG	2.63	0.41
1:B:2583:LEU:O	1:B:2586:VAL:HG12	2.21	0.41
1:B:2908:TYR:HA	1:B:2911:LEU:HG	2.02	0.41
1:B:3866:ILE:O	1:B:3867:ASN:C	2.63	0.41
1:B:3946:GLN:HA	1:B:3949:ARG:NE	2.35	0.41
1:D:4673:ARG:O	1:D:4676:GLU:HG3	2.19	0.41
1:C:39:ALA:O	1:C:111:HIS:NE2	2.53	0.41
1:C:76:ARG:O	1:C:80:GLU:HG2	2.19	0.41
1:C:1256:GLU:HB2	1:C:1275:ARG:HE	1.84	0.41
1:C:1423:ASP:HB3	1:C:1426:ILE:HD12	2.02	0.41
1:C:1446:SER:O	1:C:1496:TRP:NE1	2.41	0.41
1:C:2908:TYR:HA	1:C:2911:LEU:HG	2.02	0.41
1:C:4839:MET:HE2	1:C:4839:MET:HA	2.01	0.41
1:A:46:LEU:HD13	1:A:125:ARG:NH2	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:842:PRO:O	1:A:1196:PRO:HA	2.19	0.41
1:A:978:THR:O	1:A:982:THR:HG23	2.20	0.41
1:A:1987:SER:O	1:A:1991:THR:HG23	2.19	0.41
1:A:2417:HIS:ND1	1:A:2492:ALA:HB2	2.36	0.41
1:A:3874:VAL:HG12	1:A:3875:MET:HG2	2.03	0.41
1:A:3891:LEU:HD13	1:A:3899:PHE:HZ	1.84	0.41
1:A:4902:GLU:O	1:A:4913:ARG:NH2	2.52	0.41
1:B:76:ARG:O	1:B:80:GLU:HG2	2.19	0.41
1:B:1748:PHE:CB	1:B:1758:ARG:HG2	2.50	0.41
1:B:3129:LEU:O	1:B:3133:THR:HG22	2.20	0.41
1:B:3414:ARG:NH2	1:B:3472:ALA:HB3	2.35	0.41
1:B:3754:GLU:O	1:B:3758:MET:HG2	2.21	0.41
1:B:4655:PHE:HE2	1:B:4659:ILE:HD11	1.81	0.41
1:D:1256:GLU:HB2	1:D:1275:ARG:HE	1.84	0.41
1:D:1286:MET:HE1	1:D:1553:PHE:HB3	2.03	0.41
1:D:1726:SER:O	1:D:1729:SER:OG	2.38	0.41
1:D:3547:GLU:CD	1:D:3550:ARG:HH11	2.28	0.41
1:D:3891:LEU:CB	1:D:3899:PHE:CE2	3.03	0.41
1:D:3916:ILE:O	1:D:3920:VAL:HG23	2.20	0.41
1:D:4644:TRP:O	1:D:4648:LEU:HD13	2.21	0.41
1:C:220:LEU:C	1:C:220:LEU:HD12	2.46	0.41
1:C:708:GLY:HA3	1:C:722:TRP:HB3	2.02	0.41
1:C:2583:LEU:O	1:C:2586:VAL:HG12	2.21	0.41
1:C:3891:LEU:CB	1:C:3899:PHE:CE2	3.03	0.41
1:C:3946:GLN:HA	1:C:3949:ARG:NE	2.35	0.41
1:C:4000:MET:SD	1:C:4017:LEU:HD21	2.60	0.41
1:A:166:GLY:HA3	1:D:384:MET:SD	2.60	0.41
1:A:1423:ASP:HB3	1:A:1426:ILE:HD12	2.02	0.41
1:A:2761:TYR:C	1:A:2765:LYS:HZ1	2.27	0.41
1:A:3384:LYS:H	1:A:3387:ALA:HB3	1.86	0.41
1:A:3590:GLU:HG2	1:A:3591:LYS:N	2.36	0.41
1:A:3891:LEU:CB	1:A:3899:PHE:CE2	3.03	0.41
1:A:4644:TRP:O	1:A:4648:LEU:HD13	2.21	0.41
2:H:58:GLY:HA3	2:H:76:ILE:HG12	2.02	0.41
1:B:908:VAL:O	1:B:963:ASN:CG	2.64	0.41
1:B:2490:MET:HE1	1:B:2546:MET:SD	2.61	0.41
1:B:2638:LYS:O	1:B:2698:MET:CE	2.69	0.41
1:B:3262:ARG:HH21	1:B:3329:ILE:CG2	2.33	0.41
1:B:3749:VAL:HG23	1:B:3749:VAL:O	2.21	0.41
1:B:3769:ARG:O	1:B:3773:ARG:HD2	2.21	0.41
1:B:4000:MET:SD	1:B:4017:LEU:HD21	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4244:GLU:OE2	1:B:4668:LEU:HD22	2.20	0.41
1:B:4585:SER:O	1:B:4629:TYR:HD2	2.02	0.41
1:B:4904:PRO:HB3	1:B:4913:ARG:HD3	2.03	0.41
1:D:908:VAL:O	1:D:963:ASN:CG	2.64	0.41
1:D:1705:GLY:N	1:D:1706:PRO:CD	2.83	0.41
1:D:1995:THR:HG22	1:D:1999:ARG:CG	2.50	0.41
1:D:2461:VAL:O	1:D:2510:TYR:OH	2.31	0.41
1:D:2742:THR:O	1:D:2742:THR:HG22	2.21	0.41
1:D:3590:GLU:HG2	1:D:3591:LYS:N	2.36	0.41
1:D:3946:GLN:HA	1:D:3949:ARG:NE	2.35	0.41
1:C:328:LYS:C	1:C:329:ARG:HD3	2.45	0.41
1:C:1116:GLY:HA3	1:C:1132:TRP:HB3	2.02	0.41
1:C:1669:LEU:O	1:C:1673:VAL:HG22	2.19	0.41
1:C:1808:ARG:HD3	1:C:1853:ILE:HG22	2.02	0.41
1:C:2430:ILE:HG22	1:C:2505:PHE:HB2	2.03	0.41
1:C:2970:SER:HA	1:C:2973:PHE:CE2	2.55	0.41
1:C:3129:LEU:O	1:C:3133:THR:HG22	2.20	0.41
1:C:3660:ALA:HB3	1:C:3661:TRP:HD1	1.86	0.41
1:C:3686:GLU:O	1:C:3687:GLU:HB2	2.21	0.41
1:C:4687:TYR:OH	1:C:4699:GLY:O	2.33	0.41
1:A:116:MET:HG2	1:A:139:GLU:HA	2.03	0.41
1:A:220:LEU:C	1:A:220:LEU:HD12	2.46	0.41
1:A:917:GLU:OE1	1:A:917:GLU:N	2.48	0.41
1:A:1769:THR:N	1:A:1956:GLU:OE2	2.52	0.41
1:A:2369[B]:ARG:HD3	1:A:2369[B]:ARG:HA	1.90	0.41
1:A:3686:GLU:O	1:A:3687:GLU:HB2	2.21	0.41
1:A:3892:CYS:HG	1:A:3899:PHE:HD2	1.65	0.41
1:B:2280:VAL:HG22	1:B:2280:VAL:O	2.21	0.41
1:B:2970:SER:HA	1:B:2973:PHE:CE2	2.55	0.41
1:B:3547:GLU:CD	1:B:3550:ARG:HH11	2.28	0.41
1:B:3786:CYS:HG	1:B:3831:SER:HG	1.55	0.41
1:B:3891:LEU:CB	1:B:3899:PHE:CE2	3.03	0.41
1:B:4983:HIS:O	3:B:5301:ATP:N6	2.50	0.41
1:D:1168:VAL:HG11	1:D:1176:GLU:HG3	2.03	0.41
1:D:2970:SER:HA	1:D:2973:PHE:CE2	2.55	0.41
1:D:3588:ASP:O	1:D:3591:LYS:N	2.54	0.41
1:D:3874:VAL:HG12	1:D:3875:MET:HG2	2.03	0.41
1:D:4749:GLU:O	1:D:4753:HIS:CD2	2.74	0.41
1:C:176:SER:HG	1:C:178:ARG:HH11	1.67	0.41
1:C:867:LEU:HD13	1:C:929:LEU:HD12	2.01	0.41
1:C:2094:LEU:O	1:C:2098:VAL:HG23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:176:SER:HG	1:A:178:ARG:HH11	1.65	0.41
1:A:301:VAL:O	1:A:301:VAL:HG23	2.20	0.41
1:A:1748:PHE:CB	1:A:1758:ARG:HG2	2.50	0.41
1:A:1815:LEU:O	1:A:1819:VAL:HG23	2.20	0.41
1:A:2116:LEU:O	1:A:2120:MET:HG2	2.21	0.41
1:A:2280:VAL:O	1:A:2280:VAL:HG22	2.21	0.41
1:A:2461:VAL:O	1:A:2510:TYR:OH	2.31	0.41
1:A:2490:MET:HE1	1:A:2546:MET:SD	2.61	0.41
1:A:3225:ARG:NH1	1:A:3226:GLU:HG3	2.35	0.41
1:A:3281:LEU:HB2	1:A:3282:PRO:HD3	2.02	0.41
1:A:3628:ARG:O	1:A:3629:ARG:C	2.64	0.41
1:A:3660:ALA:HB3	1:A:3661:TRP:HD1	1.86	0.41
1:A:3769:ARG:O	1:A:3773:ARG:HD2	2.21	0.41
1:B:2369[B]:ARG:HD3	1:B:2369[B]:ARG:HA	1.90	0.41
1:B:3628:ARG:O	1:B:3629:ARG:C	2.64	0.41
1:B:3686:GLU:O	1:B:3687:GLU:HB2	2.21	0.41
1:B:4631:PHE:HE2	1:B:4633:GLU:CG	2.33	0.41
1:B:4839:MET:HE2	1:B:4839:MET:HA	2.01	0.41
1:D:116:MET:HG2	1:D:139:GLU:HA	2.03	0.41
1:D:2094:LEU:O	1:D:2098:VAL:HG23	2.21	0.41
1:D:3406:TYR:OH	1:D:3455:GLU:OE2	2.35	0.41
1:D:3660:ALA:HB3	1:D:3661:TRP:HD1	1.86	0.41
1:C:463:GLU:OE1	1:C:463:GLU:N	2.49	0.41
1:C:925:SER:O	1:C:929:LEU:HD23	2.20	0.41
1:C:1286:MET:HE1	1:C:1553:PHE:HB3	2.03	0.41
1:C:2350:ALA:O	1:C:2354:VAL:HG23	2.21	0.41
1:C:2490:MET:HE1	1:C:2546:MET:SD	2.61	0.41
1:C:3590:GLU:HG2	1:C:3591:LYS:N	2.36	0.41
1:C:3749:VAL:HG23	1:C:3749:VAL:O	2.21	0.41
1:C:4644:TRP:O	1:C:4648:LEU:HD13	2.21	0.41
1:A:1105:ALA:O	1:A:1189:LEU:N	2.50	0.41
1:A:1225:PRO:HG2	1:A:1228:ILE:HD13	2.03	0.41
1:A:1286:MET:HE1	1:A:1553:PHE:HB3	2.03	0.41
1:A:1808:ARG:HD3	1:A:1853:ILE:HG22	2.02	0.41
1:A:2742:THR:HG22	1:A:2742:THR:O	2.21	0.41
1:A:3459:VAL:HG11	1:A:3503:TYR:CD1	2.56	0.41
1:A:3749:VAL:HG23	1:A:3749:VAL:O	2.21	0.41
1:A:3946:GLN:HA	1:A:3949:ARG:NE	2.35	0.41
1:A:4063:ASP:OD1	1:A:4063:ASP:C	2.63	0.41
1:A:4904:PRO:HB3	1:A:4913:ARG:HD3	2.03	0.41
2:H:13:ARG:HG3	2:H:14:THR:HG23	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:232:THR:HG21	1:B:252:VAL:HG21	2.02	0.41
1:B:499:THR:HG23	1:B:502:HIS:H	1.86	0.41
1:B:1658:ASP:OD1	1:B:1658:ASP:N	2.54	0.41
1:B:2094:LEU:O	1:B:2098:VAL:HG23	2.21	0.41
1:B:2542:SER:OG	1:B:2593:ARG:HG3	2.21	0.41
1:B:2725:LYS:HE2	1:B:2725:LYS:HB2	1.88	0.41
1:B:2788:HIS:CE1	1:B:2790:MET:HG2	2.56	0.41
1:B:2904:LEU:O	1:B:2906:VAL:N	2.54	0.41
1:B:3359:ILE:HG23	1:B:3437:MET:HE1	2.02	0.41
1:B:3459:VAL:HG11	1:B:3503:TYR:CD1	2.56	0.41
1:B:3542:LEU:O	1:B:3543:LYS:HB2	2.21	0.41
1:B:3660:ALA:HB3	1:B:3661:TRP:HD1	1.86	0.41
1:B:3696:ASP:OD1	1:B:3699:HIS:HB2	2.21	0.41
1:D:575:LEU:HA	1:D:578:ILE:HG12	2.01	0.41
1:D:583:ILE:CD1	1:D:606:LEU:HD13	2.51	0.41
1:D:730:VAL:HG21	1:D:764:VAL:HG12	2.03	0.41
1:D:1225:PRO:HG2	1:D:1228:ILE:HD13	2.03	0.41
1:D:2417:HIS:ND1	1:D:2492:ALA:HB2	2.36	0.41
1:D:2583:LEU:O	1:D:2586:VAL:HG12	2.21	0.41
1:D:2638:LYS:O	1:D:2698:MET:CE	2.69	0.41
1:D:2638:LYS:O	1:D:2698:MET:HE3	2.20	0.41
1:D:2702:CYS:C	1:D:2704:CYS:H	2.28	0.41
1:D:2755:ILE:HG23	1:D:2809:ILE:HG21	2.03	0.41
1:D:2782:ASP:OD1	1:D:2782:ASP:N	2.54	0.41
1:D:2904:LEU:O	1:D:2906:VAL:N	2.54	0.41
1:D:2926:LEU:O	1:D:2930:LEU:CD1	2.69	0.41
1:D:3106:MET:HE1	1:D:3190:LEU:HD21	2.03	0.41
1:D:3542:LEU:O	1:D:3543:LYS:HB2	2.21	0.41
1:D:3696:ASP:OD1	1:D:3699:HIS:HB2	2.21	0.41
1:D:3749:VAL:HG23	1:D:3749:VAL:O	2.21	0.41
1:D:3768:SER:HA	1:D:3771:HIS:NE2	2.35	0.41
1:D:3933:PHE:CD2	1:D:3951:PHE:CE1	3.09	0.41
1:C:328:LYS:HE2	1:C:328:LYS:HB3	1.83	0.41
1:C:730:VAL:HG21	1:C:764:VAL:HG12	2.03	0.41
1:C:2470:ILE:HG22	1:C:2525:GLY:HA3	2.03	0.41
1:C:2481:LYS:O	1:C:2482:ASP:CG	2.63	0.41
1:C:2914:LYS:HG3	1:C:2915:GLU:N	2.35	0.41
1:C:3531:ASP:O	1:C:3535:LEU:CD1	2.68	0.41
1:C:3547:GLU:CD	1:C:3550:ARG:HH11	2.28	0.41
1:C:3615:SER:O	1:C:3616:LYS:HG2	2.21	0.41
1:C:3725:TYR:HA	1:C:3728:ILE:HD12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4705:VAL:O	1:C:4708:THR:OG1	2.27	0.41
1:A:574:VAL:HA	1:A:577:ILE:HG12	2.03	0.41
1:A:730:VAL:HG21	1:A:764:VAL:HG12	2.03	0.41
1:A:2044:ILE:H	1:A:2044:ILE:HD12	1.86	0.41
1:A:2782:ASP:OD1	1:A:2782:ASP:N	2.54	0.41
1:A:3262:ARG:HH21	1:A:3329:ILE:CG2	2.33	0.41
1:A:4224:GLU:O	1:A:4224:GLU:HG2	2.21	0.41
1:B:233:ILE:O	1:B:257:ARG:NH1	2.49	0.41
1:B:583:ILE:CD1	1:B:606:LEU:HD13	2.51	0.41
1:B:1447:CYS:HB3	1:B:1555:LEU:HB3	2.03	0.41
1:B:3874:VAL:HG12	1:B:3875:MET:HG2	2.03	0.41
1:D:893:TYR:HE1	1:D:908:VAL:HB	1.86	0.41
1:D:925:SER:O	1:D:929:LEU:HD23	2.20	0.41
1:D:2285:GLU:CD	1:D:3870:ASN:HD21	2.27	0.41
1:D:3527:PRO:HD2	1:D:3573:MET:CE	2.46	0.41
1:D:3621:HIS:O	1:D:3621:HIS:ND1	2.47	0.41
1:D:4904:PRO:HB3	1:D:4913:ARG:HD3	2.03	0.41
1:D:4911:LEU:O	1:D:4914:VAL:HG22	2.21	0.41
1:C:1658:ASP:N	1:C:1658:ASP:OD1	2.54	0.41
1:C:2431:ASP:O	1:C:2435:ARG:HG3	2.21	0.41
1:C:2788:HIS:CE1	1:C:2790:MET:HG2	2.56	0.41
1:C:2926:LEU:O	1:C:2930:LEU:CD1	2.69	0.41
1:C:4744:ASP:O	1:C:4748:LEU:HD12	2.20	0.41
1:A:575:LEU:HA	1:A:578:ILE:HG12	2.01	0.40
1:A:708:GLY:HA3	1:A:722:TRP:HB3	2.02	0.40
1:A:893:TYR:HE1	1:A:908:VAL:HB	1.86	0.40
1:A:941:MET:HE3	1:A:943:ASP:C	2.46	0.40
1:A:997:ALA:O	1:A:1001:VAL:HG23	2.21	0.40
1:A:1690:ASP:OD2	1:A:1693:GLN:NE2	2.49	0.40
1:A:2313:LEU:HD12	1:A:2318:TYR:CD1	2.55	0.40
1:A:2542:SER:OG	1:A:2593:ARG:HG3	2.21	0.40
1:A:2894:LEU:O	1:A:2898:GLY:N	2.48	0.40
1:A:3106:MET:HE1	1:A:3190:LEU:HD21	2.03	0.40
1:A:3169:LEU:HG	1:A:3194:LEU:HD11	2.04	0.40
1:A:4180:ARG:HG3	1:A:4981:GLU:O	2.21	0.40
1:A:4839:MET:HE2	1:A:4839:MET:HA	2.01	0.40
1:A:4911:LEU:O	1:A:4914:VAL:HG22	2.21	0.40
1:A:4938:ASP:OD1	1:D:4944:ARG:NE	2.53	0.40
1:B:1554:VAL:HG21	1:B:1561:VAL:CG1	2.51	0.40
1:B:1705:GLY:HA3	1:B:1836:PHE:CG	2.56	0.40
1:B:1726:SER:O	1:B:1729:SER:OG	2.38	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2350:ALA:O	1:B:2354:VAL:HG23	2.21	0.40
1:B:2782:ASP:OD1	1:B:2782:ASP:N	2.54	0.40
1:B:3054:VAL:HG13	1:B:3055:SER:N	2.36	0.40
1:B:3588:ASP:O	1:B:3591:LYS:N	2.54	0.40
1:B:3615:SER:O	1:B:3616:LYS:HG2	2.21	0.40
1:B:4075:GLU:OE1	1:C:4736:ARG:CZ	2.69	0.40
1:B:4744:ASP:O	1:B:4748:LEU:HD12	2.20	0.40
1:D:54:ASN:O	1:D:55:ALA:C	2.64	0.40
1:D:160:GLY:O	1:C:3984:ARG:NH2	2.48	0.40
1:D:220:LEU:HD12	1:D:220:LEU:C	2.46	0.40
1:D:232:THR:HG21	1:D:252:VAL:HG21	2.02	0.40
1:D:280:LEU:HD12	1:D:280:LEU:C	2.46	0.40
1:D:1554:VAL:HG21	1:D:1561:VAL:CG1	2.51	0.40
1:D:2788:HIS:CE1	1:D:2790:MET:HG2	2.56	0.40
1:D:3559:LEU:O	1:D:3560:GLN:C	2.63	0.40
1:D:4180:ARG:HG3	1:D:4981:GLU:O	2.21	0.40
1:C:3054:VAL:HG13	1:C:3055:SER:N	2.36	0.40
1:C:3106:MET:HE1	1:C:3190:LEU:HD21	2.03	0.40
1:C:4180:ARG:HG3	1:C:4981:GLU:O	2.21	0.40
1:C:4749:GLU:O	1:C:4753:HIS:CD2	2.74	0.40
1:C:4826:ILE:O	1:C:4829:SER:OG	2.24	0.40
1:A:499:THR:HG23	1:A:502:HIS:H	1.86	0.40
1:A:907:LEU:O	1:A:908:VAL:HB	2.20	0.40
1:A:909:ASN:HB3	1:A:912:SER:HB3	2.03	0.40
1:A:1168:VAL:HG11	1:A:1176:GLU:HG3	2.03	0.40
1:A:2094:LEU:O	1:A:2098:VAL:HG23	2.21	0.40
1:A:3382:GLU:O	1:A:3382:GLU:CD	2.65	0.40
1:A:3933:PHE:CD2	1:A:3951:PHE:CE1	3.09	0.40
1:A:4244:GLU:OE2	1:A:4668:LEU:HD22	2.20	0.40
2:G:2:VAL:HG23	2:G:80:TYR:CD2	2.56	0.40
1:B:909:ASN:HB3	1:B:912:SER:HB3	2.03	0.40
1:B:1423:ASP:HB3	1:B:1426:ILE:HD12	2.02	0.40
1:B:2044:ILE:HD12	1:B:2044:ILE:H	1.86	0.40
1:B:3106:MET:HE1	1:B:3190:LEU:HD21	2.03	0.40
1:B:3621:HIS:HB3	1:B:3623:LEU:CD1	2.52	0.40
1:B:3986:TRP:O	1:B:3990:VAL:HG23	2.20	0.40
1:B:4180:ARG:HG3	1:B:4981:GLU:O	2.21	0.40
1:B:4687:TYR:OH	1:B:4699:GLY:O	2.33	0.40
1:D:2117:VAL:O	1:D:2120:MET:HG2	2.21	0.40
1:D:2470:ILE:HG22	1:D:2525:GLY:HA3	2.03	0.40
1:D:2490:MET:HE1	1:D:2546:MET:SD	2.61	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3346:VAL:HG11	1:D:3414:ARG:CB	2.48	0.40
1:D:3628:ARG:O	1:D:3629:ARG:C	2.64	0.40
1:C:941:MET:HE3	1:C:943:ASP:C	2.46	0.40
1:C:1705:GLY:HA3	1:C:1836:PHE:CG	2.56	0.40
1:C:2904:LEU:O	1:C:2906:VAL:N	2.54	0.40
1:C:3628:ARG:O	1:C:3629:ARG:C	2.64	0.40
1:C:4063:ASP:OD1	1:C:4063:ASP:C	2.63	0.40
1:A:1658:ASP:N	1:A:1658:ASP:OD1	2.54	0.40
1:A:2431:ASP:O	1:A:2435:ARG:HG3	2.21	0.40
1:A:2463:LEU:HD21	1:A:2517:PHE:CZ	2.56	0.40
1:A:3588:ASP:O	1:A:3591:LYS:N	2.54	0.40
1:A:3916:ILE:O	1:A:3920:VAL:HG23	2.20	0.40
1:A:4736:ARG:CZ	1:D:4075:GLU:OE1	2.69	0.40
1:A:4749:GLU:O	1:A:4753:HIS:CD2	2.74	0.40
1:B:708:GLY:HA3	1:B:722:TRP:HB3	2.02	0.40
1:B:997:ALA:O	1:B:1001:VAL:HG23	2.21	0.40
1:B:1815:LEU:O	1:B:1819:VAL:HG23	2.20	0.40
1:B:2430:ILE:HG22	1:B:2505:PHE:HB2	2.03	0.40
1:B:2517:PHE:O	1:B:2521:VAL:HG23	2.21	0.40
1:B:2926:LEU:O	1:B:2930:LEU:CD1	2.69	0.40
1:B:3225:ARG:CZ	1:B:3226:GLU:HG3	2.51	0.40
1:B:3384:LYS:H	1:B:3387:ALA:HB3	1.86	0.40
1:B:3559:LEU:O	1:B:3560:GLN:C	2.63	0.40
1:D:255:HIS:O	1:D:258:SER:OG	2.39	0.40
1:D:965:TYR:O	1:D:966:LYS:C	2.63	0.40
1:D:1820:ARG:O	1:D:1824:GLN:HG2	2.21	0.40
1:C:652:ARG:NE	1:C:750:LEU:O	2.55	0.40
1:C:981:GLN:HA	1:C:984:LEU:HD12	2.01	0.40
1:C:1515:VAL:O	1:C:1531:ALA:O	2.40	0.40
1:C:1815:LEU:O	1:C:1819:VAL:HG23	2.20	0.40
1:C:1926:LEU:HA	1:C:1929:MET:SD	2.62	0.40
1:C:2044:ILE:HD12	1:C:2044:ILE:H	1.86	0.40
1:C:2116:LEU:O	1:C:2120:MET:HG2	2.21	0.40
1:C:2542:SER:OG	1:C:2593:ARG:HG3	2.21	0.40
1:C:2638:LYS:O	1:C:2698:MET:CE	2.69	0.40
1:C:3933:PHE:CD2	1:C:3951:PHE:CE1	3.09	0.40
1:C:4793:GLY:O	1:C:4797:VAL:HG23	2.22	0.40
1:A:1447:CYS:HB3	1:A:1555:LEU:HB3	2.03	0.40
1:A:1705:GLY:N	1:A:1706:PRO:CD	2.83	0.40
1:A:3225:ARG:CZ	1:A:3226:GLU:HG3	2.51	0.40
1:A:3615:SER:O	1:A:3616:LYS:HG2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3621:HIS:O	1:A:3621:HIS:ND1	2.47	0.40
1:A:3696:ASP:OD1	1:A:3699:HIS:HB2	2.21	0.40
1:A:3754:GLU:O	1:A:3758:MET:HG2	2.21	0.40
1:A:3955:MET:HE3	1:A:4015:GLU:HG2	2.04	0.40
1:A:4793:GLY:O	1:A:4797:VAL:HG23	2.22	0.40
2:E:58:GLY:HA3	2:E:76:ILE:HG12	2.02	0.40
1:B:1515:VAL:O	1:B:1531:ALA:O	2.40	0.40
1:B:2524:VAL:HG23	1:B:2525:GLY:N	2.37	0.40
1:B:3933:PHE:CD2	1:B:3951:PHE:CE1	3.09	0.40
1:B:4793:GLY:O	1:B:4797:VAL:HG23	2.22	0.40
1:D:2515:GLN:O	1:D:2519:LEU:HG	2.22	0.40
1:D:2542:SER:OG	1:D:2593:ARG:HG3	2.21	0.40
1:D:3769:ARG:O	1:D:3773:ARG:HD2	2.21	0.40
1:D:4049:VAL:HG21	1:D:4159:ARG:HD2	2.03	0.40
1:D:4736:ARG:CZ	1:C:4075:GLU:OE1	2.69	0.40
1:C:54:ASN:O	1:C:55:ALA:C	2.64	0.40
1:C:1820:ARG:O	1:C:1824:GLN:HG2	2.21	0.40
1:C:2117:VAL:O	1:C:2120:MET:HG2	2.21	0.40
1:C:2417:HIS:ND1	1:C:2492:ALA:HB2	2.36	0.40
1:C:2761:TYR:HB3	1:C:2765:LYS:HZ1	1.79	0.40
1:C:2768:PHE:O	1:C:2772:GLN:HG2	2.22	0.40
1:C:2862:LEU:HB2	1:C:2865:VAL:HG23	2.04	0.40
1:C:3225:ARG:CZ	1:C:3226:GLU:HG3	2.51	0.40
1:C:3359:ILE:HG23	1:C:3437:MET:HE1	2.02	0.40
1:A:160:GLY:O	1:D:3984:ARG:NH2	2.48	0.40
1:A:255:HIS:O	1:A:258:SER:OG	2.39	0.40
1:A:1926:LEU:HA	1:A:1929:MET:SD	2.62	0.40
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.22	0.40
1:A:2359:ARG:NE	1:B:179:TYR:OH	2.54	0.40
1:A:2430:ILE:HG22	1:A:2505:PHE:HB2	2.03	0.40
1:A:2583:LEU:O	1:A:2586:VAL:HG12	2.21	0.40
1:A:2605:ASP:HA	1:A:2608:MET:CE	2.35	0.40
1:A:2609:ALA:HA	1:A:2612[A]:ARG:NH2	2.37	0.40
1:A:2702:CYS:C	1:A:2704:CYS:H	2.28	0.40
1:A:2707:ALA:HB1	1:A:3009:TYR:CE1	2.57	0.40
1:A:3465:ASN:O	1:A:3466:ASN:HB2	2.22	0.40
1:A:3542:LEU:O	1:A:3543:LYS:HB2	2.21	0.40
1:B:1225:PRO:HG2	1:B:1228:ILE:HD13	2.03	0.40
1:B:1820:ARG:O	1:B:1824:GLN:HG2	2.21	0.40
1:B:1926:LEU:HA	1:B:1929:MET:SD	2.62	0.40
1:B:2123:LEU:O	1:B:2127:GLN:HG2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2463:LEU:HD21	1:B:2517:PHE:CZ	2.56	0.40
1:B:2742:THR:O	1:B:2742:THR:HG22	2.21	0.40
1:B:4049:VAL:HG21	1:B:4159:ARG:HD2	2.03	0.40
1:B:4224:GLU:O	1:B:4224:GLU:HG2	2.22	0.40
1:D:328:LYS:C	1:D:329:ARG:HD3	2.45	0.40
1:D:931:THR:O	1:D:935:LEU:CD1	2.69	0.40
1:D:941:MET:HE3	1:D:943:ASP:C	2.46	0.40
1:D:2369[B]:ARG:HA	1:D:2369[B]:ARG:HD3	1.90	0.40
1:D:3621:HIS:HB3	1:D:3623:LEU:CD1	2.51	0.40
1:D:3835:LEU:HD22	1:D:3880:PHE:CZ	2.57	0.40
1:C:499:THR:HG23	1:C:502:HIS:H	1.86	0.40
1:C:908:VAL:O	1:C:963:ASN:CG	2.64	0.40
1:C:997:ALA:O	1:C:1001:VAL:HG23	2.21	0.40
1:C:2382:GLU:OE2	1:C:2392:ARG:NH1	2.54	0.40
1:C:2426:TYR:O	1:C:2430:ILE:HG12	2.22	0.40
1:C:3588:ASP:O	1:C:3591:LYS:N	2.54	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	4385/5037 (87%)	4256 (97%)	123 (3%)	6 (0%)	48	71
1	B	4385/5037 (87%)	4256 (97%)	123 (3%)	6 (0%)	48	71
1	C	4385/5037 (87%)	4256 (97%)	123 (3%)	6 (0%)	48	71
1	D	4385/5037 (87%)	4256 (97%)	123 (3%)	6 (0%)	48	71
2	E	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	F	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
2	G	105/108 (97%)	102 (97%)	3 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	H	105/108 (97%)	102 (97%)	3 (3%)	0	100	100
All	All	17960/20580 (87%)	17432 (97%)	504 (3%)	24 (0%)	49	71

All (24) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	55	ALA
1	A	908	VAL
1	A	3300	ALA
1	A	3949	ARG
1	B	55	ALA
1	B	908	VAL
1	B	3300	ALA
1	B	3949	ARG
1	D	55	ALA
1	D	908	VAL
1	D	3300	ALA
1	D	3949	ARG
1	C	55	ALA
1	C	908	VAL
1	C	3300	ALA
1	C	3949	ARG
1	A	2669	GLU
1	B	2669	GLU
1	D	2669	GLU
1	C	2669	GLU
1	A	4691	GLN
1	B	4691	GLN
1	D	4691	GLN
1	C	4691	GLN

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3836/4276 (90%)	3826 (100%)	10 (0%)	86	93
1	B	3836/4276 (90%)	3826 (100%)	10 (0%)	86	93
1	C	3836/4276 (90%)	3826 (100%)	10 (0%)	86	93
1	D	3836/4276 (90%)	3826 (100%)	10 (0%)	86	93
2	E	89/90 (99%)	88 (99%)	1 (1%)	65	79
2	F	89/90 (99%)	88 (99%)	1 (1%)	65	79
2	G	89/90 (99%)	88 (99%)	1 (1%)	65	79
2	H	89/90 (99%)	88 (99%)	1 (1%)	65	79
All	All	15700/17464 (90%)	15656 (100%)	44 (0%)	84	93

All (44) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	56	GLN
1	A	156	GLN
1	A	483	MET
1	A	960	MET
1	A	1759	ARG
1	A	2268[A]	GLN
1	A	2268[B]	GLN
1	A	3225	ARG
1	A	3321	ARG
1	A	3949	ARG
2	E	53	GLN
2	H	53	GLN
2	G	53	GLN
2	F	53	GLN
1	B	56	GLN
1	B	156	GLN
1	B	483	MET
1	B	960	MET
1	B	1759	ARG
1	B	2268[A]	GLN
1	B	2268[B]	GLN
1	B	3225	ARG
1	B	3321	ARG
1	B	3949	ARG
1	D	56	GLN
1	D	156	GLN
1	D	483	MET

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Mol	Chain	Res	Type
1	D	960	MET
1	D	1759	ARG
1	D	2268[A]	GLN
1	D	2268[B]	GLN
1	D	3225	ARG
1	D	3321	ARG
1	D	3949	ARG
1	C	56	GLN
1	C	156	GLN
1	C	483	MET
1	C	960	MET
1	C	1759	ARG
1	C	2268[A]	GLN
1	C	2268[B]	GLN
1	C	3225	ARG
1	C	3321	ARG
1	C	3949	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (159) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	151	HIS
1	A	218	HIS
1	A	241	GLN
1	A	460	GLN
1	A	533	ASN
1	A	582	HIS
1	A	720	HIS
1	A	725	HIS
1	A	838	HIS
1	A	1125	ASN
1	A	1127	HIS
1	A	1130	GLN
1	A	1298	HIS
1	A	1299	GLN
1	A	1300	HIS
1	A	1719	HIS
1	A	1824	GLN
1	A	2161	GLN
1	A	2260	ASN
1	A	2441	HIS
1	A	2773	ASN

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Mol	Chain	Res	Type
1	A	2856	ASN
1	A	2883	HIS
1	A	3313	ASN
1	A	3343	GLN
1	A	3651	ASN
1	A	3734	HIS
1	A	3766	GLN
1	A	3850	GLN
1	A	3897	ASN
1	A	4005	GLN
1	A	4034	ASN
1	A	4054	ASN
1	A	4250	GLN
1	A	4700	GLN
1	A	4776	GLN
1	A	4946	GLN
1	A	4949	GLN
2	E	3	GLN
2	H	3	GLN
2	G	3	GLN
2	F	3	GLN
1	B	113	HIS
1	B	151	HIS
1	B	218	HIS
1	B	241	GLN
1	B	413	GLN
1	B	460	GLN
1	B	533	ASN
1	B	582	HIS
1	B	720	HIS
1	B	725	HIS
1	B	797	HIS
1	B	1125	ASN
1	B	1127	HIS
1	B	1130	GLN
1	B	1298	HIS
1	B	1299	GLN
1	B	1300	HIS
1	B	1719	HIS
1	B	1824	GLN
1	B	1938	GLN
1	B	2161	GLN

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Mol	Chain	Res	Type
1	B	2260	ASN
1	B	2342	ASN
1	B	2773	ASN
1	B	2774	ASN
1	B	2856	ASN
1	B	2883	HIS
1	B	3313	ASN
1	B	3343	GLN
1	B	3651	ASN
1	B	3734	HIS
1	B	3766	GLN
1	B	3897	ASN
1	B	4005	GLN
1	B	4034	ASN
1	B	4054	ASN
1	B	4250	GLN
1	B	4547	GLN
1	B	4776	GLN
1	B	4946	GLN
1	B	4949	GLN
1	D	113	HIS
1	D	151	HIS
1	D	218	HIS
1	D	241	GLN
1	D	460	GLN
1	D	533	ASN
1	D	582	HIS
1	D	720	HIS
1	D	725	HIS
1	D	838	HIS
1	D	1125	ASN
1	D	1127	HIS
1	D	1130	GLN
1	D	1298	HIS
1	D	1299	GLN
1	D	1300	HIS
1	D	1824	GLN
1	D	2161	GLN
1	D	2260	ASN
1	D	2342	ASN
1	D	2441	HIS
1	D	2773	ASN

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Mol	Chain	Res	Type
1	D	2856	ASN
1	D	2883	HIS
1	D	3313	ASN
1	D	3343	GLN
1	D	3651	ASN
1	D	3683	GLN
1	D	3734	HIS
1	D	3766	GLN
1	D	3850	GLN
1	D	4005	GLN
1	D	4034	ASN
1	D	4054	ASN
1	D	4250	GLN
1	D	4776	GLN
1	D	4946	GLN
1	D	4949	GLN
1	C	71	GLN
1	C	151	HIS
1	C	218	HIS
1	C	241	GLN
1	C	413	GLN
1	C	460	GLN
1	C	533	ASN
1	C	582	HIS
1	C	720	HIS
1	C	725	HIS
1	C	838	HIS
1	C	1127	HIS
1	C	1298	HIS
1	C	1299	GLN
1	C	1300	HIS
1	C	1719	HIS
1	C	1824	GLN
1	C	2161	GLN
1	C	2260	ASN
1	C	2342	ASN
1	C	2441	HIS
1	C	2773	ASN
1	C	2856	ASN
1	C	2883	HIS
1	C	3313	ASN
1	C	3343	GLN

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Mol	Chain	Res	Type
1	C	3651	ASN
1	C	3734	HIS
1	C	3766	GLN
1	C	3850	GLN
1	C	3897	ASN
1	C	4005	GLN
1	C	4034	ASN
1	C	4054	ASN
1	C	4250	GLN
1	C	4547	GLN
1	C	4776	GLN
1	C	4949	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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 16 ligands modelled in this entry, 8 are monoatomic - leaving 8 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	$\# Z > 2$
3	ATP	A	5301	-	32,33,33	0.28	0	48,52,52	0.70	0
6	A1BD3	A	5304	-	15,15,15	4.96	9 (60%)	19,21,21	5.14	9 (47%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
6	A1BD3	C	5304	-	15,15,15	4.96	9 (60%)	19,21,21	5.15	9 (47%)
3	ATP	B	5301	-	32,33,33	0.28	0	48,52,52	0.70	0
3	ATP	D	5301	-	32,33,33	0.27	0	48,52,52	0.70	0
6	A1BD3	B	5304	-	15,15,15	4.95	9 (60%)	19,21,21	5.15	9 (47%)
6	A1BD3	D	5304	-	15,15,15	4.96	9 (60%)	19,21,21	5.14	9 (47%)
3	ATP	C	5301	-	32,33,33	0.28	0	48,52,52	0.70	0

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
3	ATP	A	5301	-	-	12/22/38/38	0/3/3/3
6	A1BD3	A	5304	-	-	1/3/3/3	0/2/2/2
6	A1BD3	C	5304	-	-	1/3/3/3	0/2/2/2
3	ATP	B	5301	-	-	12/22/38/38	0/3/3/3
3	ATP	D	5301	-	-	12/22/38/38	0/3/3/3
6	A1BD3	B	5304	-	-	1/3/3/3	0/2/2/2
6	A1BD3	D	5304	-	-	1/3/3/3	0/2/2/2
3	ATP	C	5301	-	-	12/22/38/38	0/3/3/3

All (36) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	A	5304	A1BD3	O2-C8	9.75	1.40	1.23
6	B	5304	A1BD3	O2-C8	9.75	1.40	1.23
6	C	5304	A1BD3	O2-C8	9.75	1.40	1.23
6	D	5304	A1BD3	O2-C8	9.74	1.40	1.23
6	A	5304	A1BD3	O1-C1	8.86	1.40	1.23
6	D	5304	A1BD3	O1-C1	8.86	1.40	1.23
6	C	5304	A1BD3	O1-C1	8.85	1.40	1.23
6	B	5304	A1BD3	O1-C1	8.82	1.40	1.23
6	D	5304	A1BD3	C8-N3	7.27	1.49	1.39
6	A	5304	A1BD3	C8-N3	7.21	1.49	1.39
6	B	5304	A1BD3	C8-N3	7.20	1.49	1.39
6	C	5304	A1BD3	C8-N3	7.20	1.49	1.39
6	C	5304	A1BD3	C2-N1	7.07	1.48	1.38
6	A	5304	A1BD3	C2-N1	7.04	1.48	1.38
6	D	5304	A1BD3	C2-N1	7.04	1.48	1.38
6	B	5304	A1BD3	C2-N1	7.02	1.48	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	B	5304	A1BD3	C8-N4	6.32	1.49	1.38
6	C	5304	A1BD3	C8-N4	6.32	1.49	1.38
6	A	5304	A1BD3	C8-N4	6.28	1.48	1.38
6	D	5304	A1BD3	C8-N4	6.24	1.48	1.38
6	D	5304	A1BD3	C2-C4	4.10	1.42	1.37
6	A	5304	A1BD3	C2-C4	4.06	1.42	1.37
6	C	5304	A1BD3	C2-C4	4.06	1.42	1.37
6	B	5304	A1BD3	C2-C4	4.02	1.42	1.37
6	A	5304	A1BD3	C4-N3	3.94	1.46	1.39
6	B	5304	A1BD3	C4-N3	3.93	1.46	1.39
6	D	5304	A1BD3	C4-N3	3.93	1.46	1.39
6	C	5304	A1BD3	C4-N3	3.93	1.46	1.39
6	B	5304	A1BD3	C1-N4	3.36	1.45	1.38
6	A	5304	A1BD3	C1-N4	3.33	1.45	1.38
6	C	5304	A1BD3	C1-N4	3.33	1.45	1.38
6	D	5304	A1BD3	C1-N4	3.32	1.45	1.38
6	B	5304	A1BD3	C2-C1	2.59	1.49	1.41
6	A	5304	A1BD3	C2-C1	2.56	1.49	1.41
6	D	5304	A1BD3	C2-C1	2.55	1.49	1.41
6	C	5304	A1BD3	C2-C1	2.55	1.49	1.41

All (36) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	C	5304	A1BD3	C3-N2-C4	15.90	114.09	103.45
6	B	5304	A1BD3	C3-N2-C4	15.89	114.09	103.45
6	D	5304	A1BD3	C3-N2-C4	15.89	114.08	103.45
6	A	5304	A1BD3	C3-N2-C4	15.87	114.07	103.45
6	B	5304	A1BD3	C2-C4-N2	-11.85	103.33	111.63
6	D	5304	A1BD3	C2-C4-N2	-11.80	103.36	111.63
6	A	5304	A1BD3	C2-C4-N2	-11.79	103.37	111.63
6	C	5304	A1BD3	C2-C4-N2	-11.79	103.37	111.63
6	C	5304	A1BD3	C1-N4-C8	-5.85	119.67	127.34
6	A	5304	A1BD3	C1-N4-C8	-5.83	119.69	127.34
6	B	5304	A1BD3	C1-N4-C8	-5.83	119.69	127.34
6	D	5304	A1BD3	C1-N4-C8	-5.82	119.72	127.34
6	B	5304	A1BD3	C4-C2-N1	5.53	108.01	105.29
6	C	5304	A1BD3	C4-C2-N1	5.47	107.98	105.29
6	A	5304	A1BD3	C4-C2-N1	5.42	107.95	105.29
6	D	5304	A1BD3	C4-C2-N1	5.37	107.93	105.29
6	C	5304	A1BD3	C3-N1-C2	-3.56	102.59	106.59
6	A	5304	A1BD3	C3-N1-C2	-3.54	102.61	106.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	D	5304	A1BD3	C3-N1-C2	-3.54	102.61	106.59
6	B	5304	A1BD3	C3-N1-C2	-3.54	102.61	106.59
6	D	5304	A1BD3	O1-C1-C2	-2.95	120.16	127.26
6	A	5304	A1BD3	O1-C1-C2	-2.93	120.18	127.26
6	C	5304	A1BD3	O1-C1-C2	-2.93	120.19	127.26
6	B	5304	A1BD3	O1-C1-C2	-2.93	120.20	127.26
6	D	5304	A1BD3	C5-N3-C8	2.77	120.48	117.31
6	A	5304	A1BD3	C5-N3-C8	2.75	120.46	117.31
6	C	5304	A1BD3	C5-N3-C8	2.75	120.46	117.31
6	B	5304	A1BD3	C5-N3-C8	2.73	120.43	117.31
6	C	5304	A1BD3	C2-C1-N4	2.71	119.57	112.13
6	A	5304	A1BD3	C2-C1-N4	2.70	119.54	112.13
6	D	5304	A1BD3	C2-C1-N4	2.70	119.54	112.13
6	B	5304	A1BD3	C2-C1-N4	2.69	119.51	112.13
6	D	5304	A1BD3	N4-C8-N3	2.46	119.87	115.45
6	A	5304	A1BD3	N4-C8-N3	2.45	119.85	115.45
6	B	5304	A1BD3	N4-C8-N3	2.45	119.84	115.45
6	C	5304	A1BD3	N4-C8-N3	2.45	119.84	115.45

There are no chirality outliers.

All (52) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	5301	ATP	C5'-O5'-PA-O1A
3	A	5301	ATP	C5'-O5'-PA-O3A
3	B	5301	ATP	C5'-O5'-PA-O1A
3	B	5301	ATP	C5'-O5'-PA-O3A
3	D	5301	ATP	C5'-O5'-PA-O1A
3	D	5301	ATP	C5'-O5'-PA-O3A
3	C	5301	ATP	C5'-O5'-PA-O1A
3	C	5301	ATP	C5'-O5'-PA-O3A
6	A	5304	A1BD3	N3-C5-C6-C7
6	B	5304	A1BD3	N3-C5-C6-C7
6	D	5304	A1BD3	N3-C5-C6-C7
6	C	5304	A1BD3	N3-C5-C6-C7
3	A	5301	ATP	O4'-C4'-C5'-O5'
3	B	5301	ATP	O4'-C4'-C5'-O5'
3	D	5301	ATP	O4'-C4'-C5'-O5'
3	C	5301	ATP	O4'-C4'-C5'-O5'
3	A	5301	ATP	C3'-C4'-C5'-O5'
3	B	5301	ATP	C3'-C4'-C5'-O5'
3	D	5301	ATP	C3'-C4'-C5'-O5'

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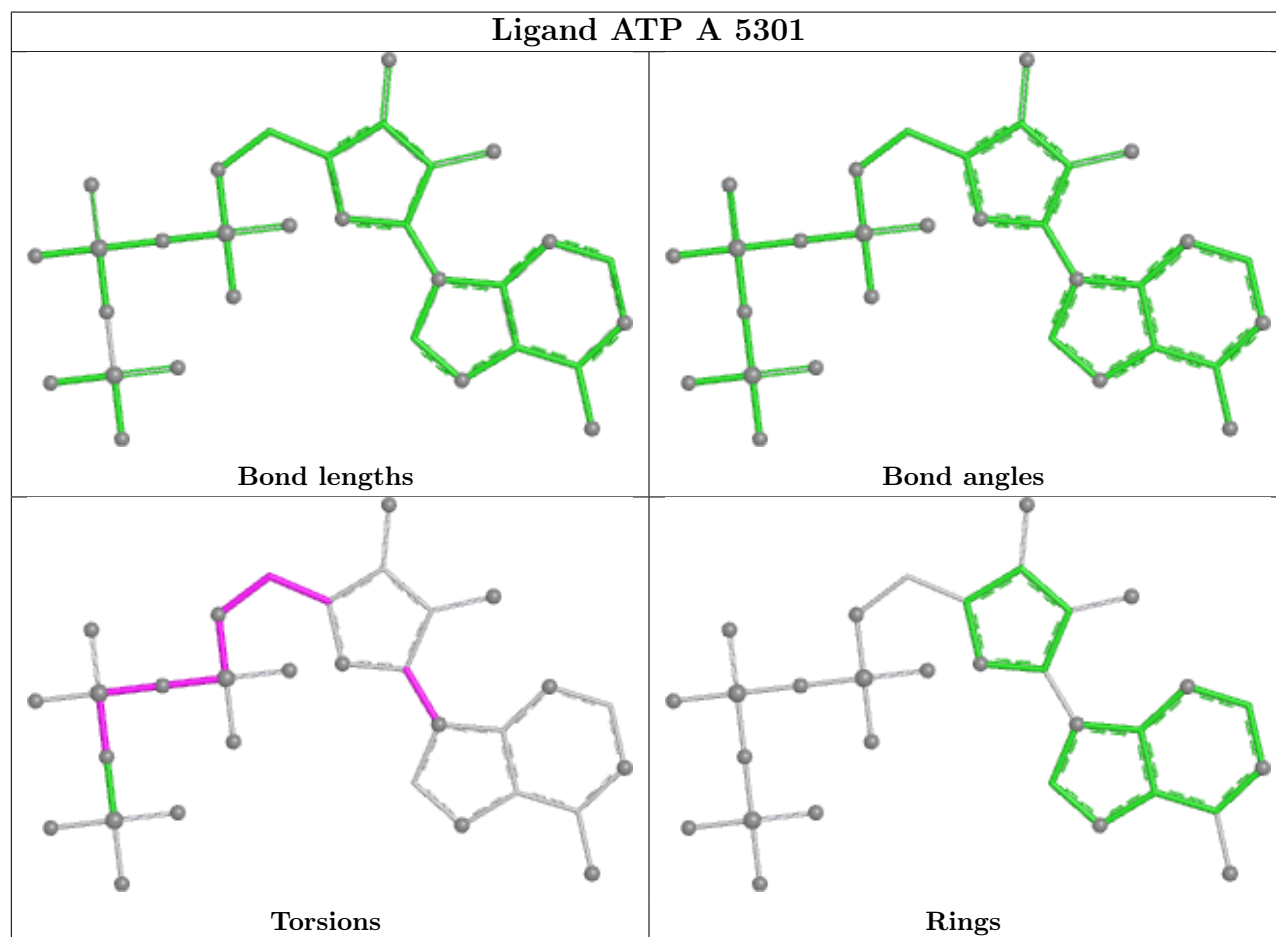
Mol	Chain	Res	Type	Atoms
3	C	5301	ATP	C3'-C4'-C5'-O5'
3	A	5301	ATP	PG-O3B-PB-O3A
3	B	5301	ATP	PG-O3B-PB-O3A
3	D	5301	ATP	PG-O3B-PB-O3A
3	C	5301	ATP	PG-O3B-PB-O3A
3	A	5301	ATP	PB-O3A-PA-O5'
3	B	5301	ATP	PB-O3A-PA-O5'
3	D	5301	ATP	PB-O3A-PA-O5'
3	C	5301	ATP	PB-O3A-PA-O5'
3	D	5301	ATP	C4'-C5'-O5'-PA
3	A	5301	ATP	C4'-C5'-O5'-PA
3	B	5301	ATP	C4'-C5'-O5'-PA
3	C	5301	ATP	C4'-C5'-O5'-PA
3	A	5301	ATP	C5'-O5'-PA-O2A
3	B	5301	ATP	C5'-O5'-PA-O2A
3	D	5301	ATP	C5'-O5'-PA-O2A
3	C	5301	ATP	C5'-O5'-PA-O2A
3	A	5301	ATP	PA-O3A-PB-O2B
3	B	5301	ATP	PA-O3A-PB-O2B
3	D	5301	ATP	PA-O3A-PB-O2B
3	C	5301	ATP	PA-O3A-PB-O2B
3	A	5301	ATP	O4'-C1'-N9-C8
3	B	5301	ATP	O4'-C1'-N9-C8
3	D	5301	ATP	O4'-C1'-N9-C8
3	C	5301	ATP	O4'-C1'-N9-C8
3	A	5301	ATP	O4'-C1'-N9-C4
3	B	5301	ATP	O4'-C1'-N9-C4
3	D	5301	ATP	O4'-C1'-N9-C4
3	C	5301	ATP	O4'-C1'-N9-C4
3	A	5301	ATP	PG-O3B-PB-O2B
3	B	5301	ATP	PG-O3B-PB-O2B
3	D	5301	ATP	PG-O3B-PB-O2B
3	C	5301	ATP	PG-O3B-PB-O2B

There are no ring outliers.

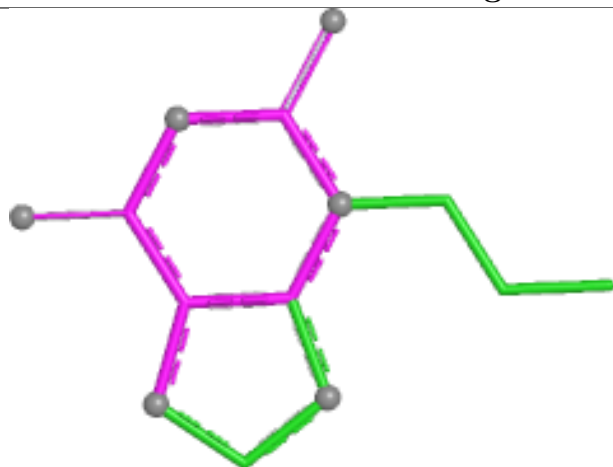
4 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	5301	ATP	1	0
3	B	5301	ATP	1	0
3	D	5301	ATP	1	0
3	C	5301	ATP	1	0

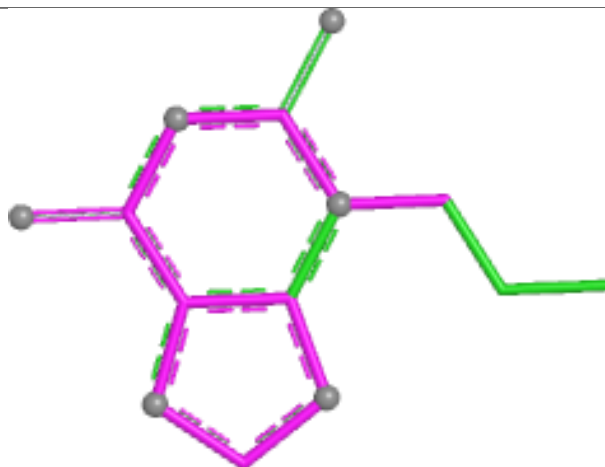
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. 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.



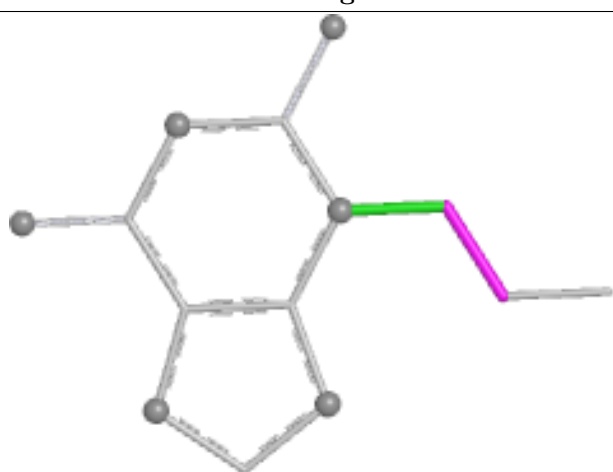
Ligand A1BD3 A 5304



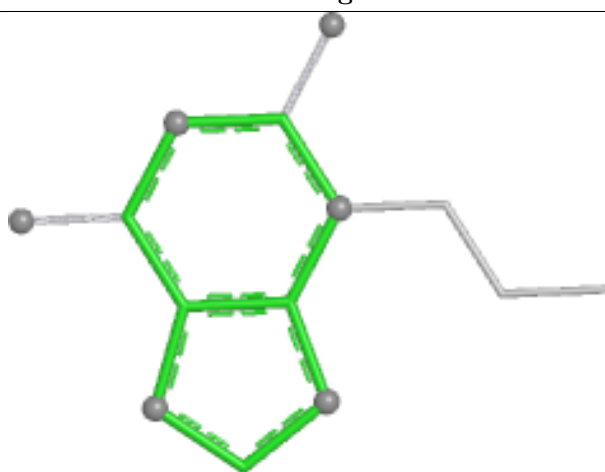
Bond lengths



Bond angles

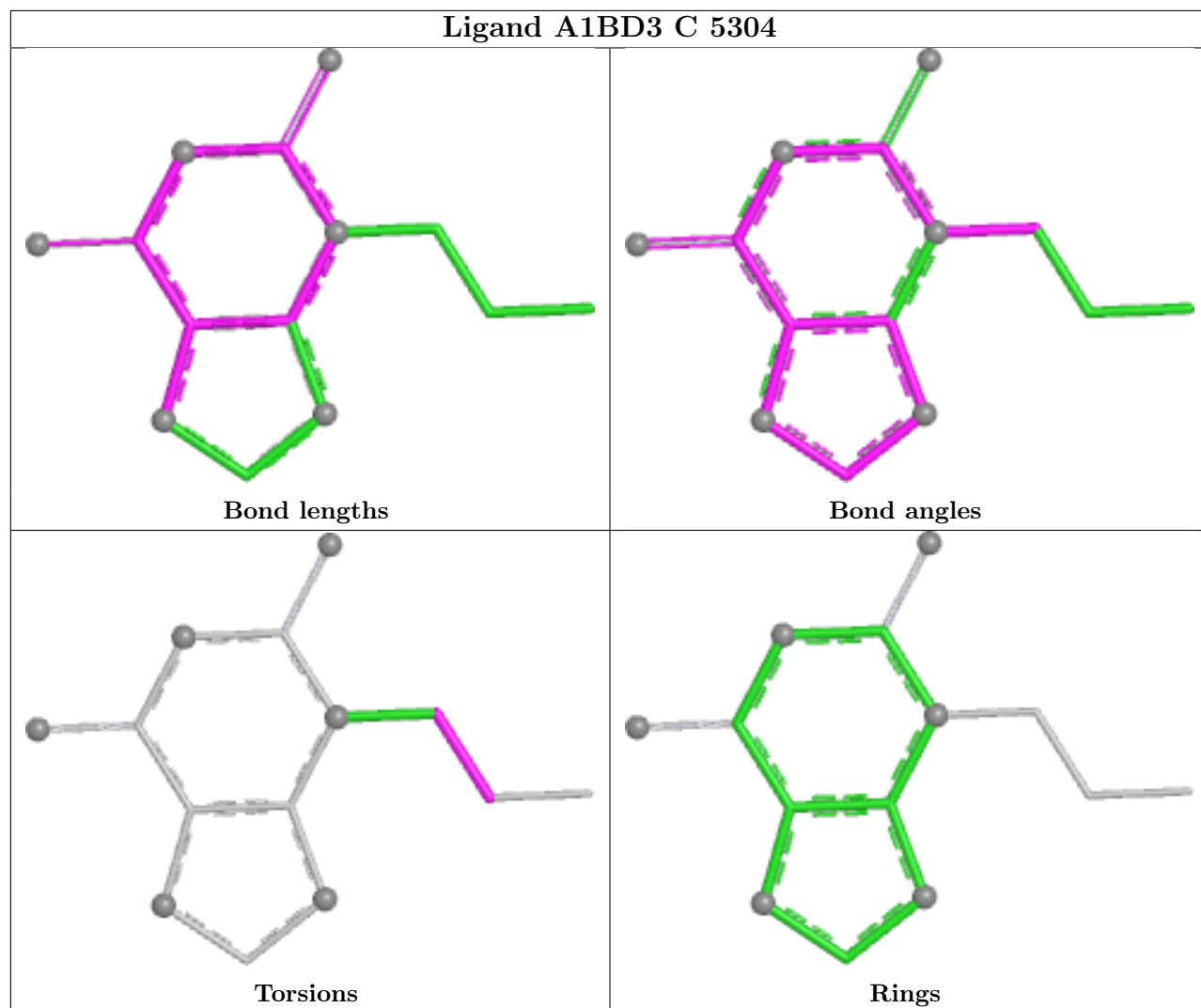


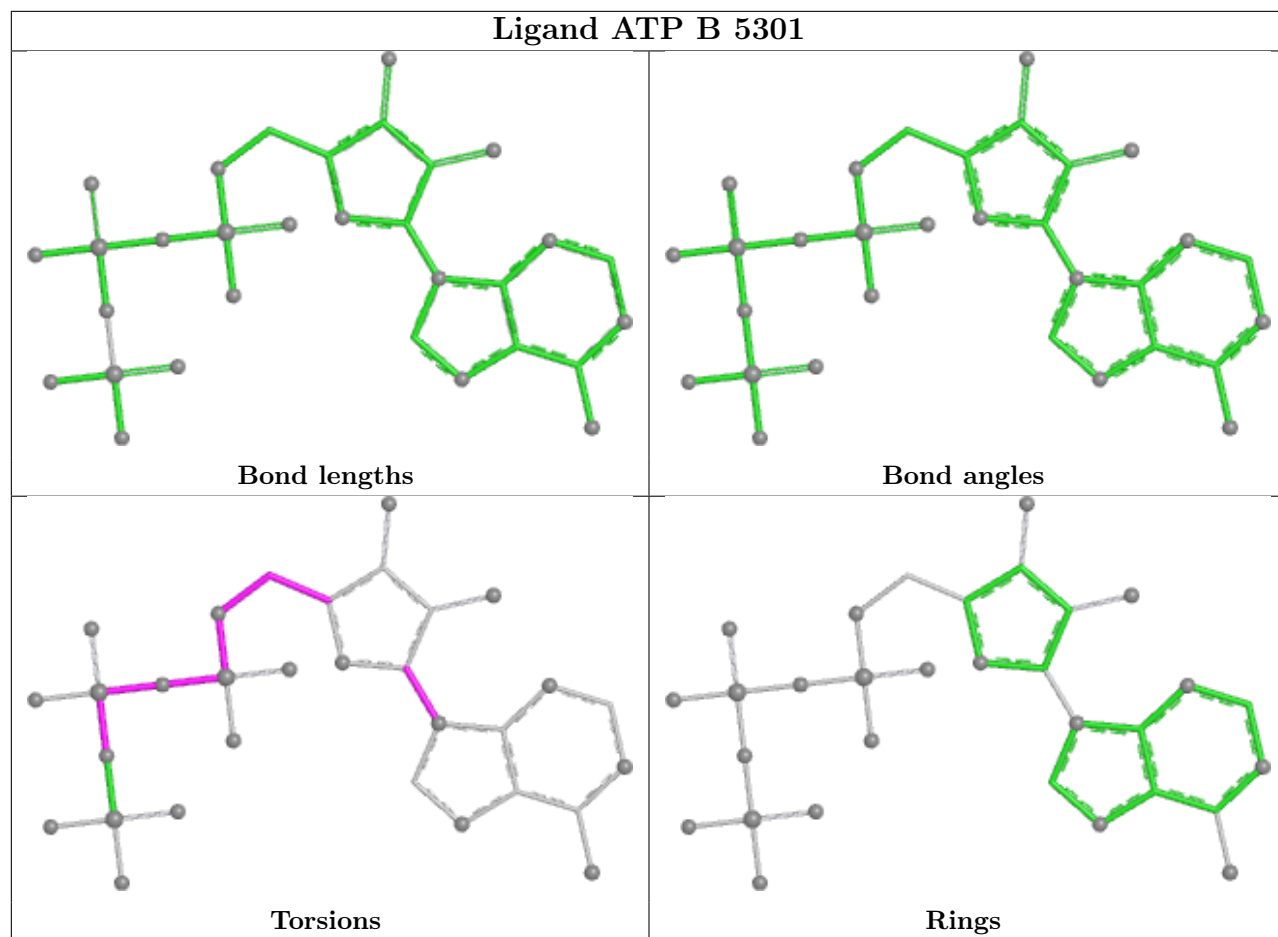
Torsions

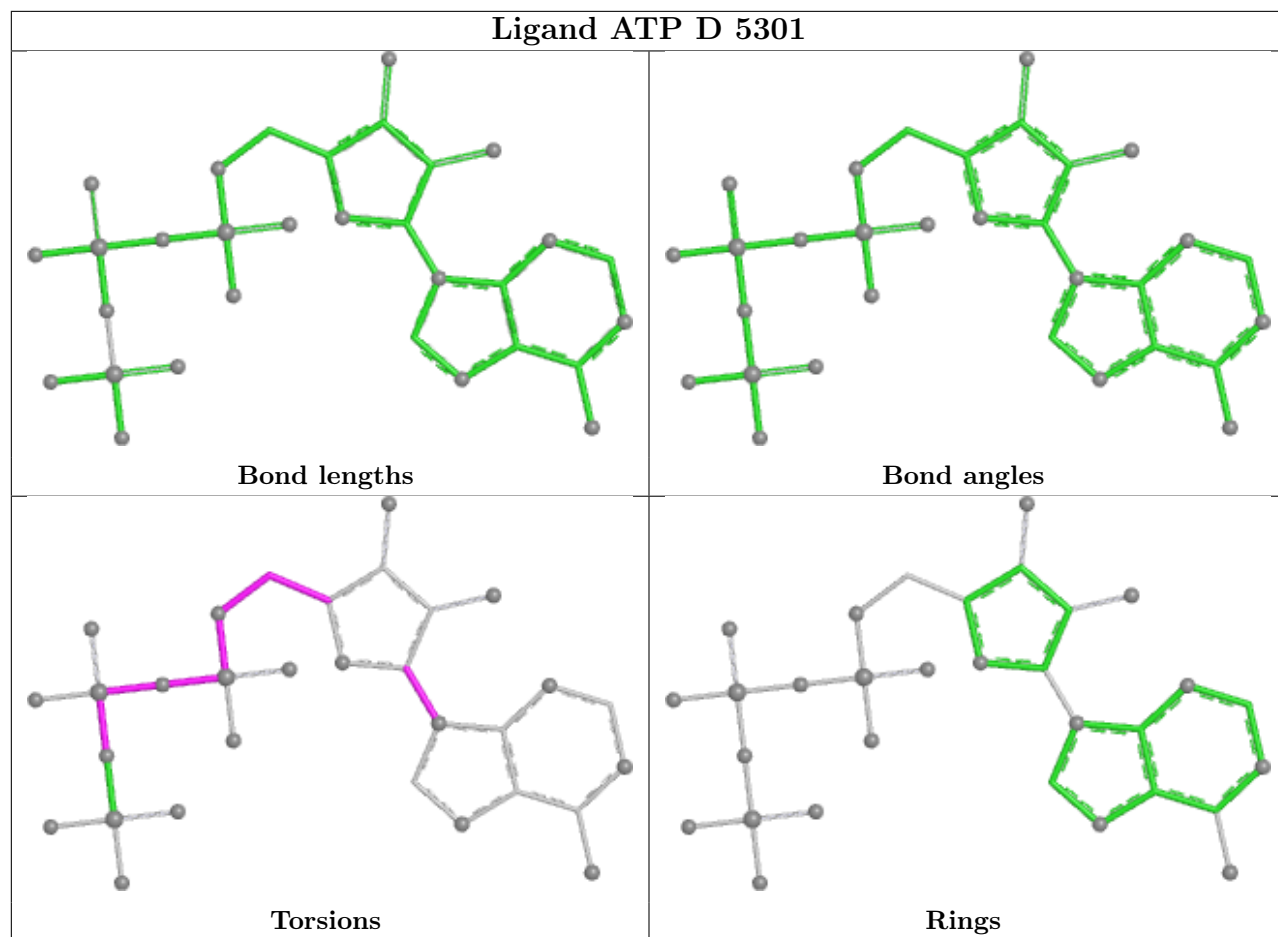


Rings

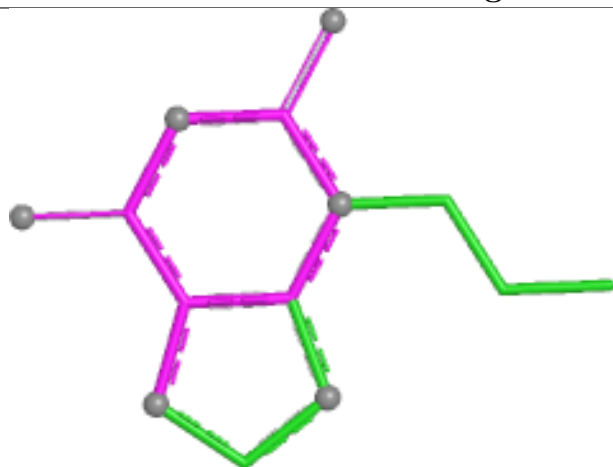
Ligand A1BD3 C 5304



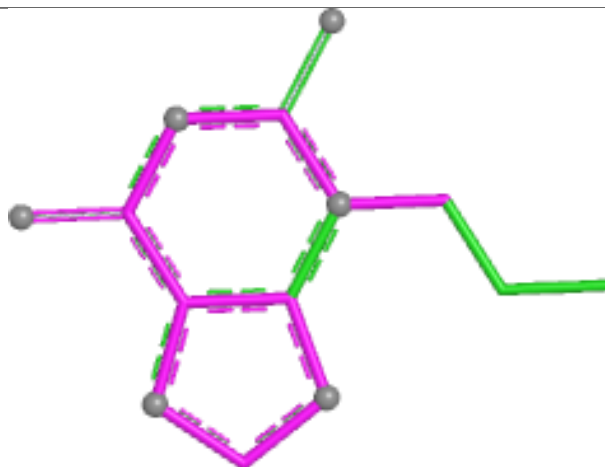




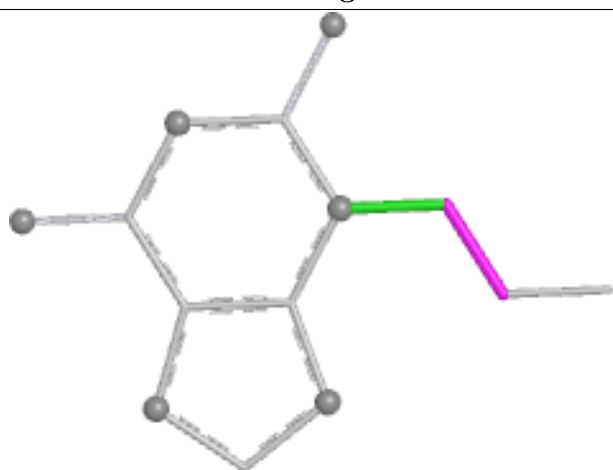
Ligand A1BD3 B 5304



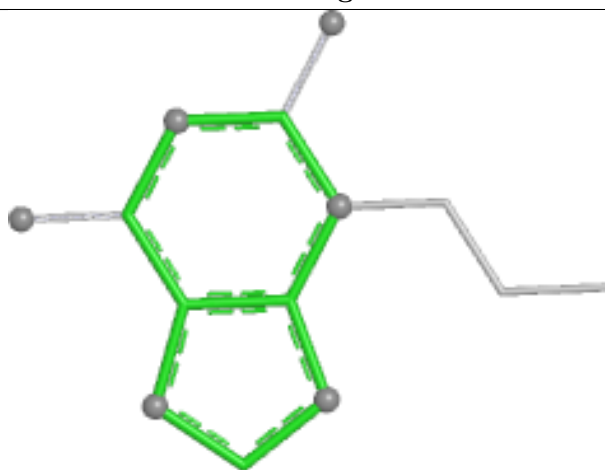
Bond lengths



Bond angles

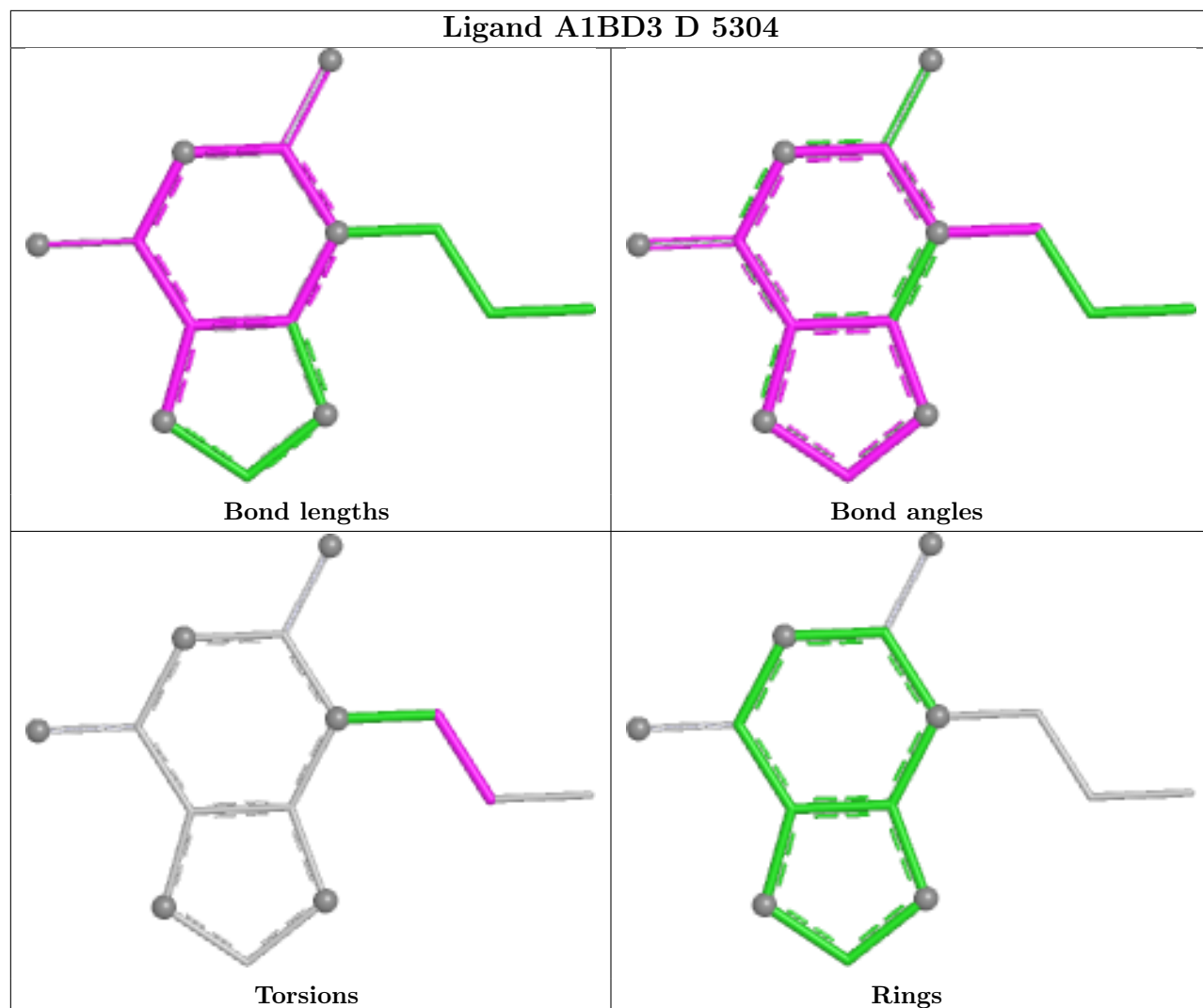


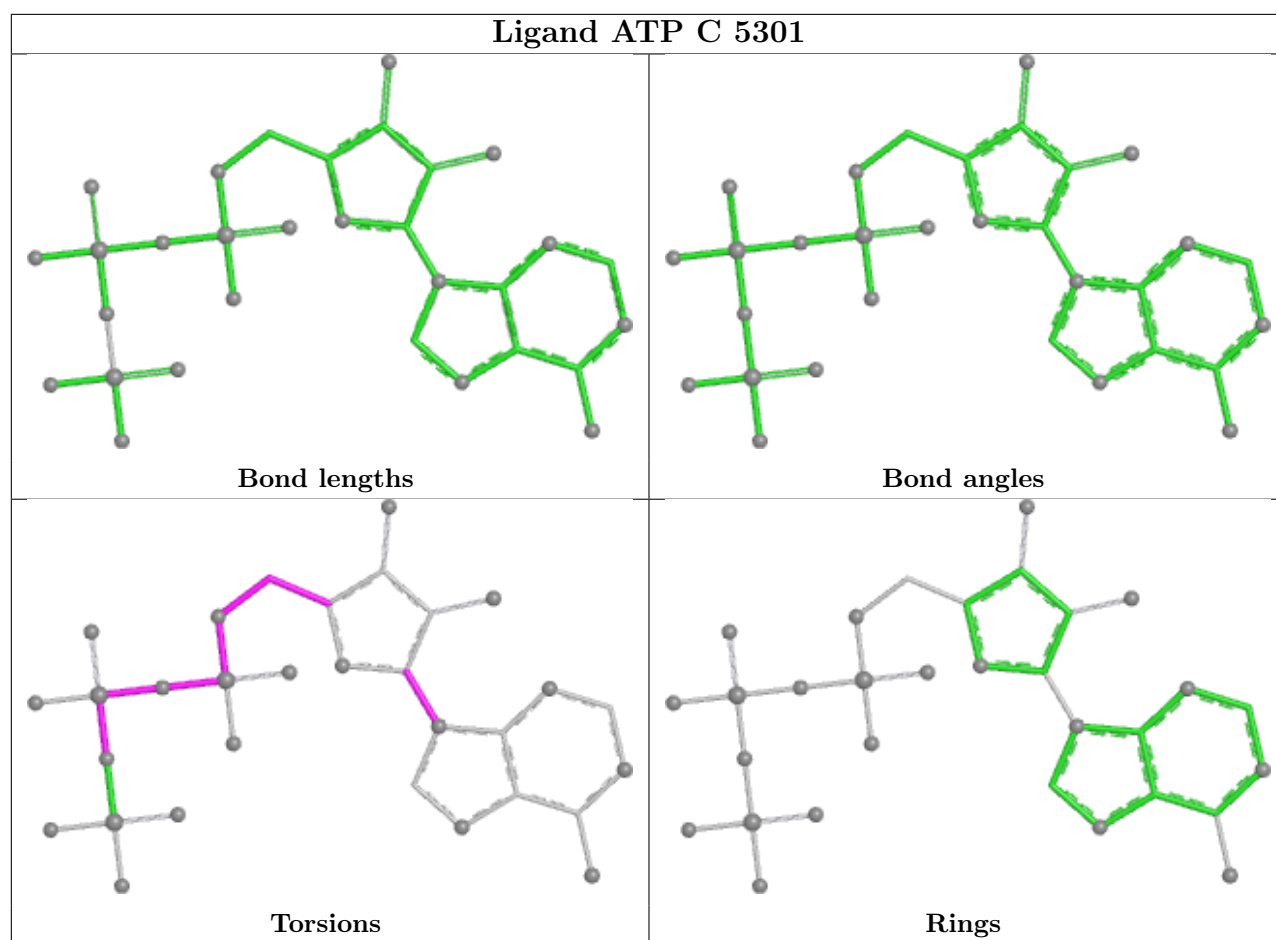
Torsions



Rings

Ligand A1BD3 D 5304





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

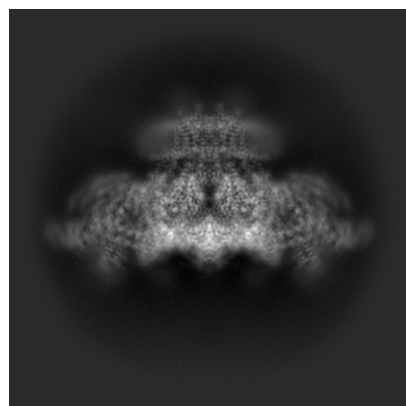
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-47390. These allow visual inspection of the internal detail of the map and identification of artifacts.

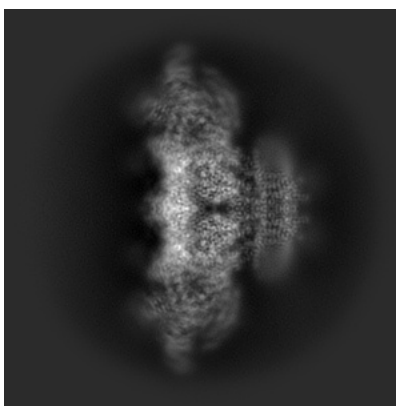
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

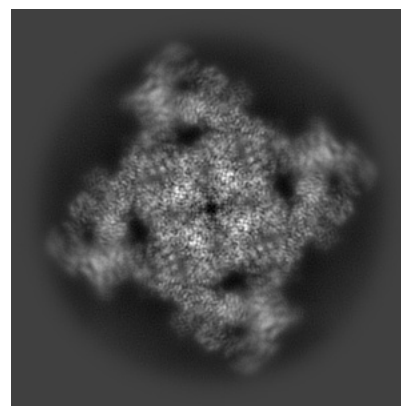
6.1.1 Primary map



X

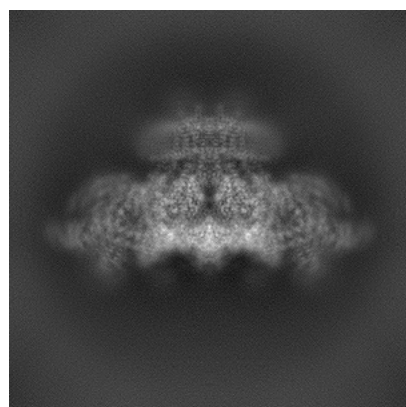


Y

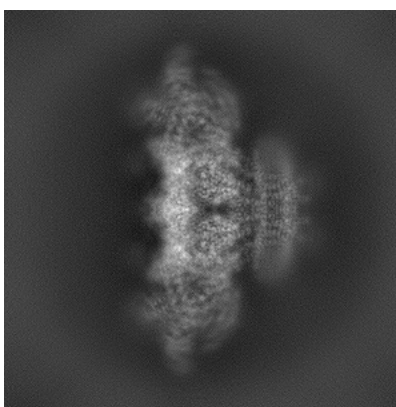


Z

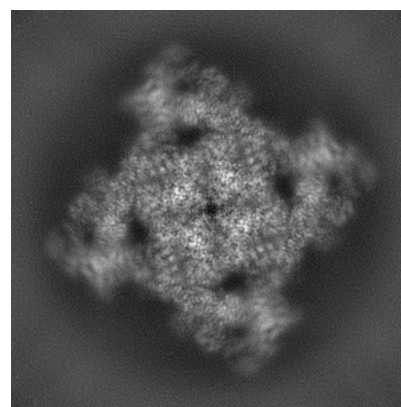
6.1.2 Raw map



X



Y

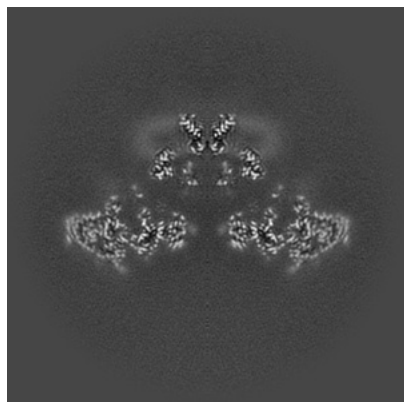


Z

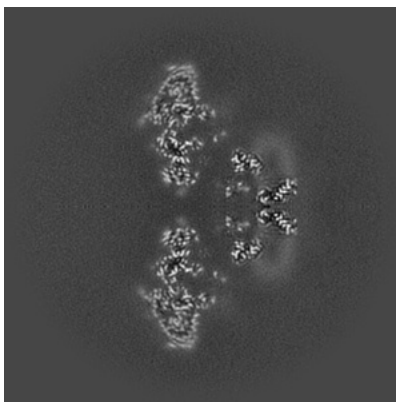
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

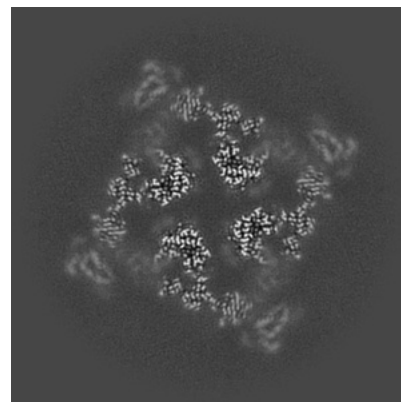
6.2.1 Primary map



X Index: 256

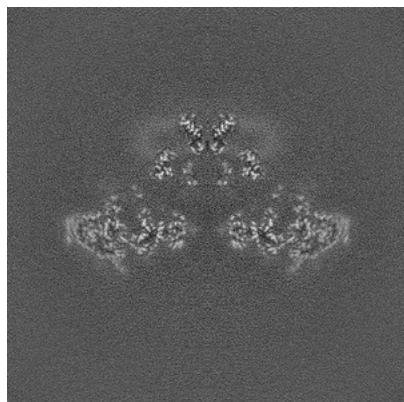


Y Index: 256

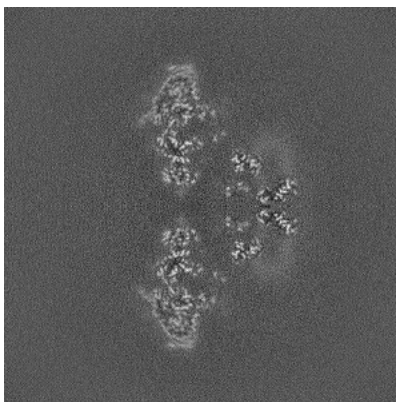


Z Index: 256

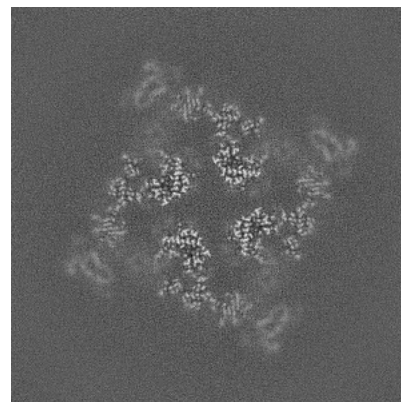
6.2.2 Raw map



X Index: 256



Y Index: 256

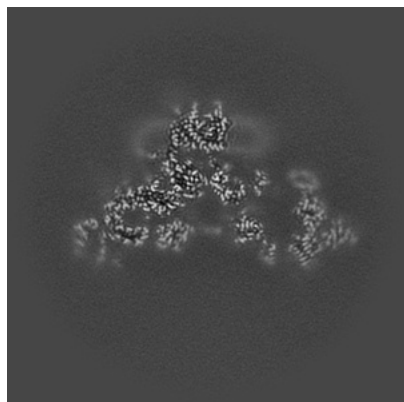


Z Index: 256

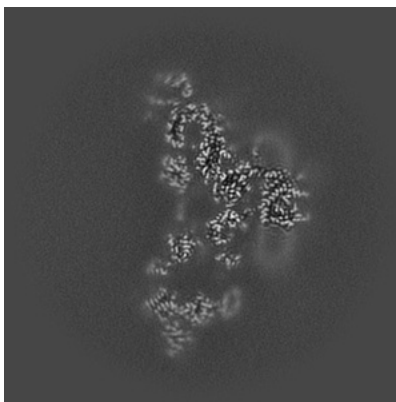
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

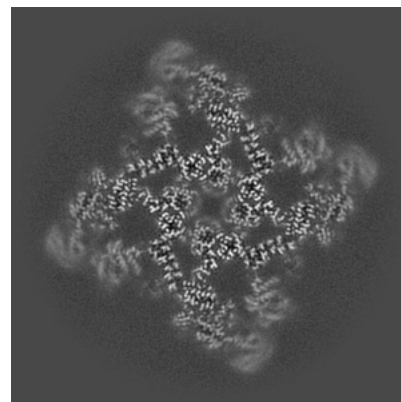
6.3.1 Primary map



X Index: 239

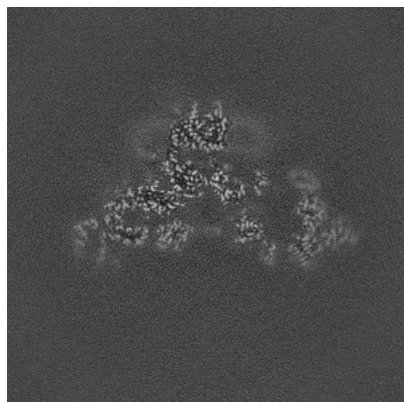


Y Index: 239

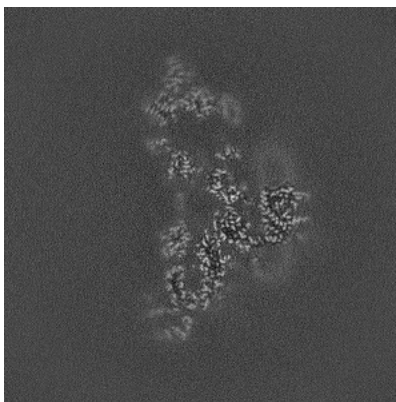


Z Index: 229

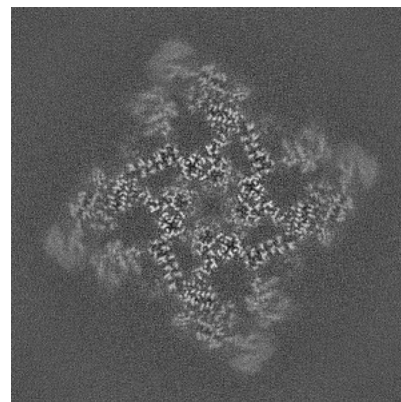
6.3.2 Raw map



X Index: 239



Y Index: 273

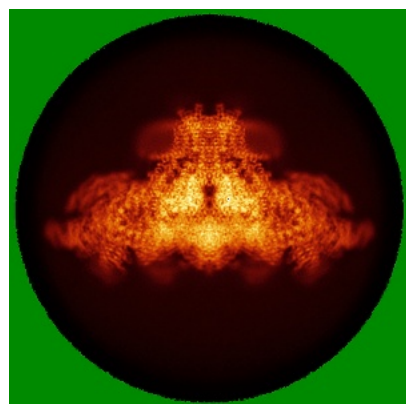


Z Index: 229

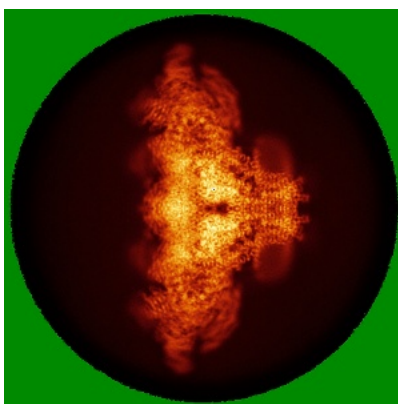
The images above show the largest variance slices of the map in three orthogonal directions.

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

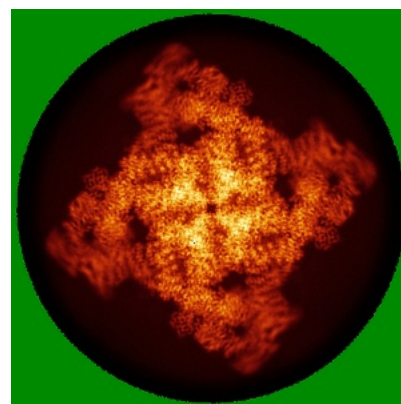
6.4.1 Primary map



X

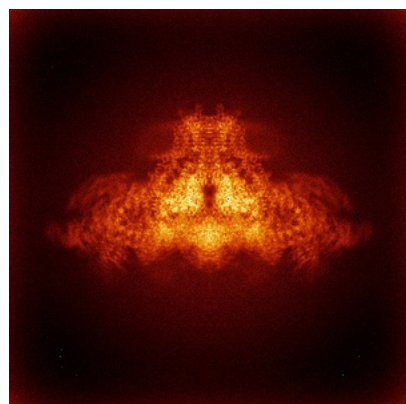


Y

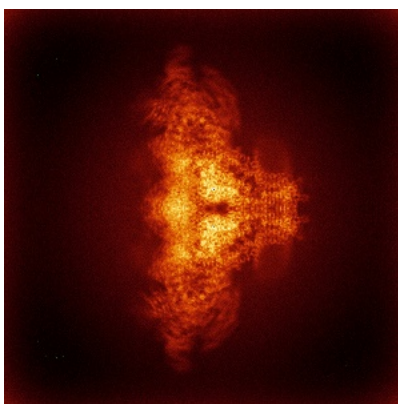


Z

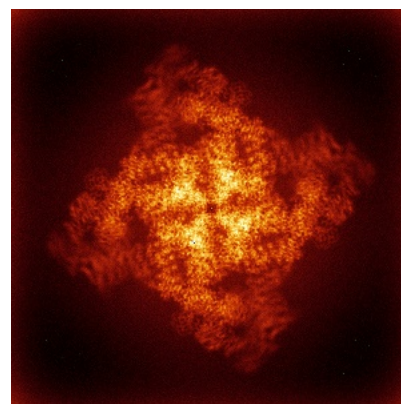
6.4.2 Raw map



X



Y

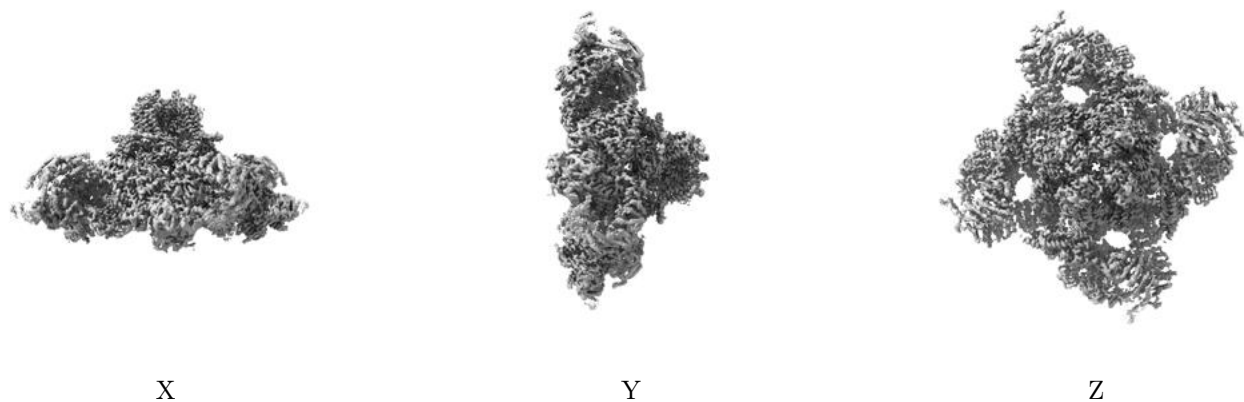


Z

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

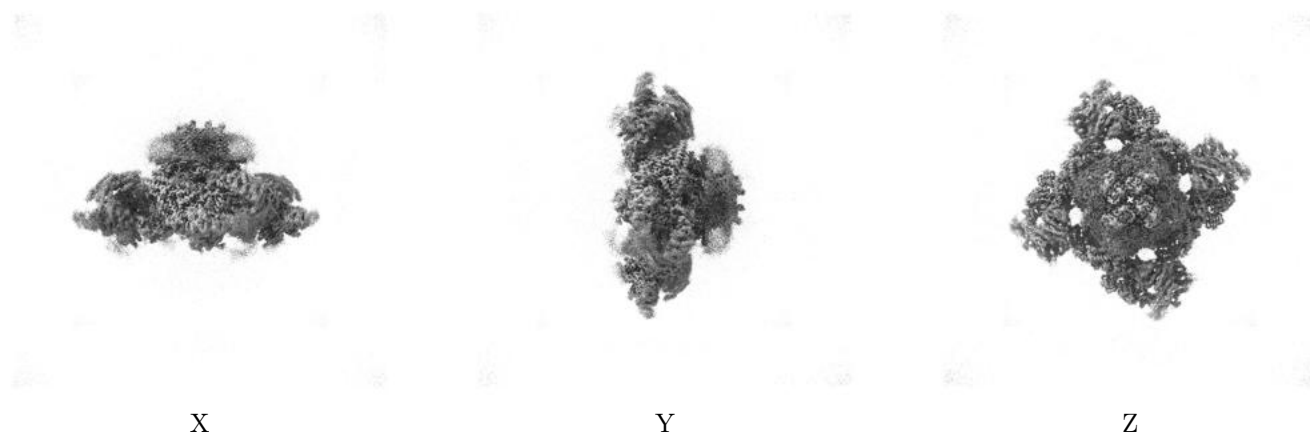
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



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

6.5.2 Raw map



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

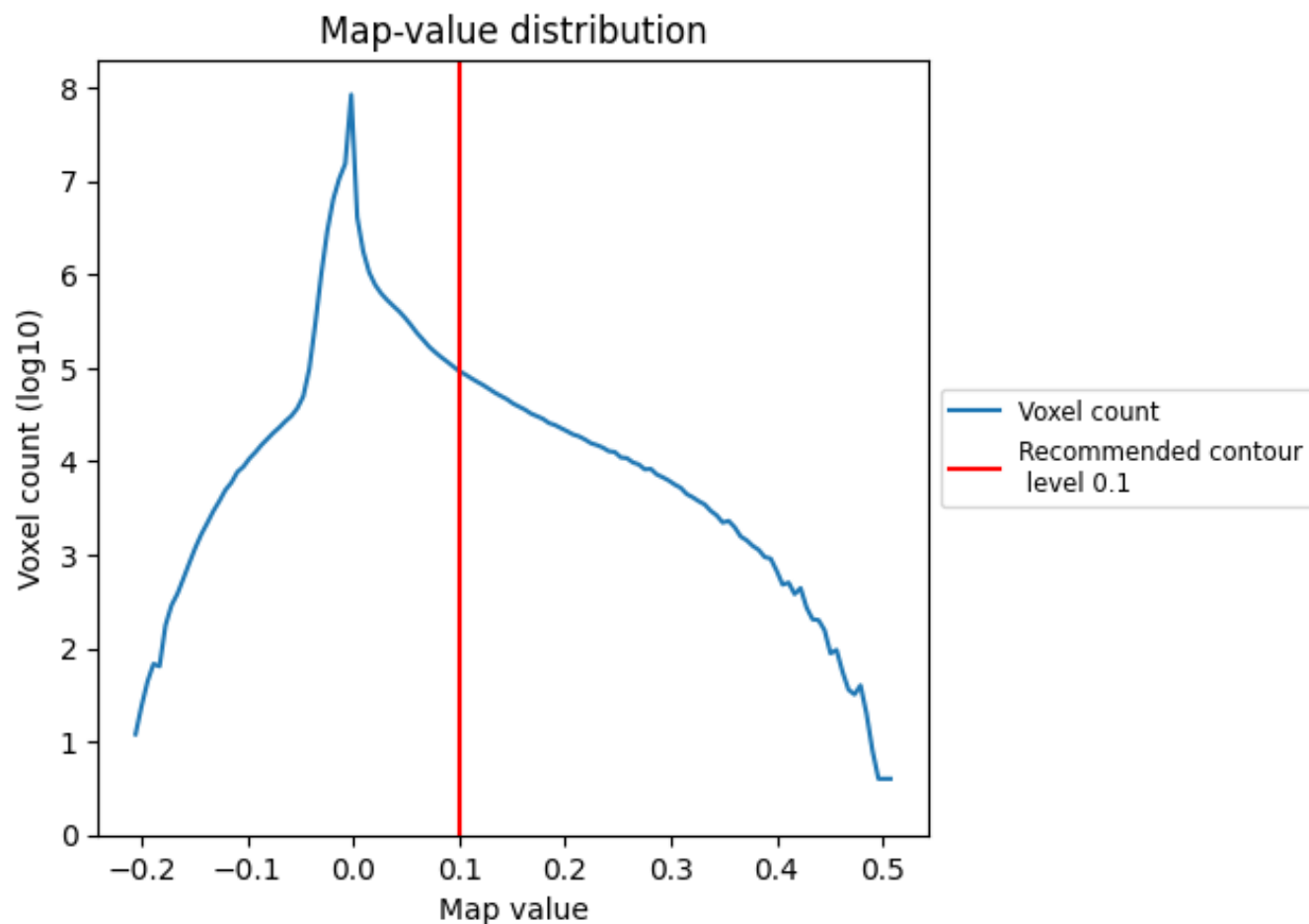
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

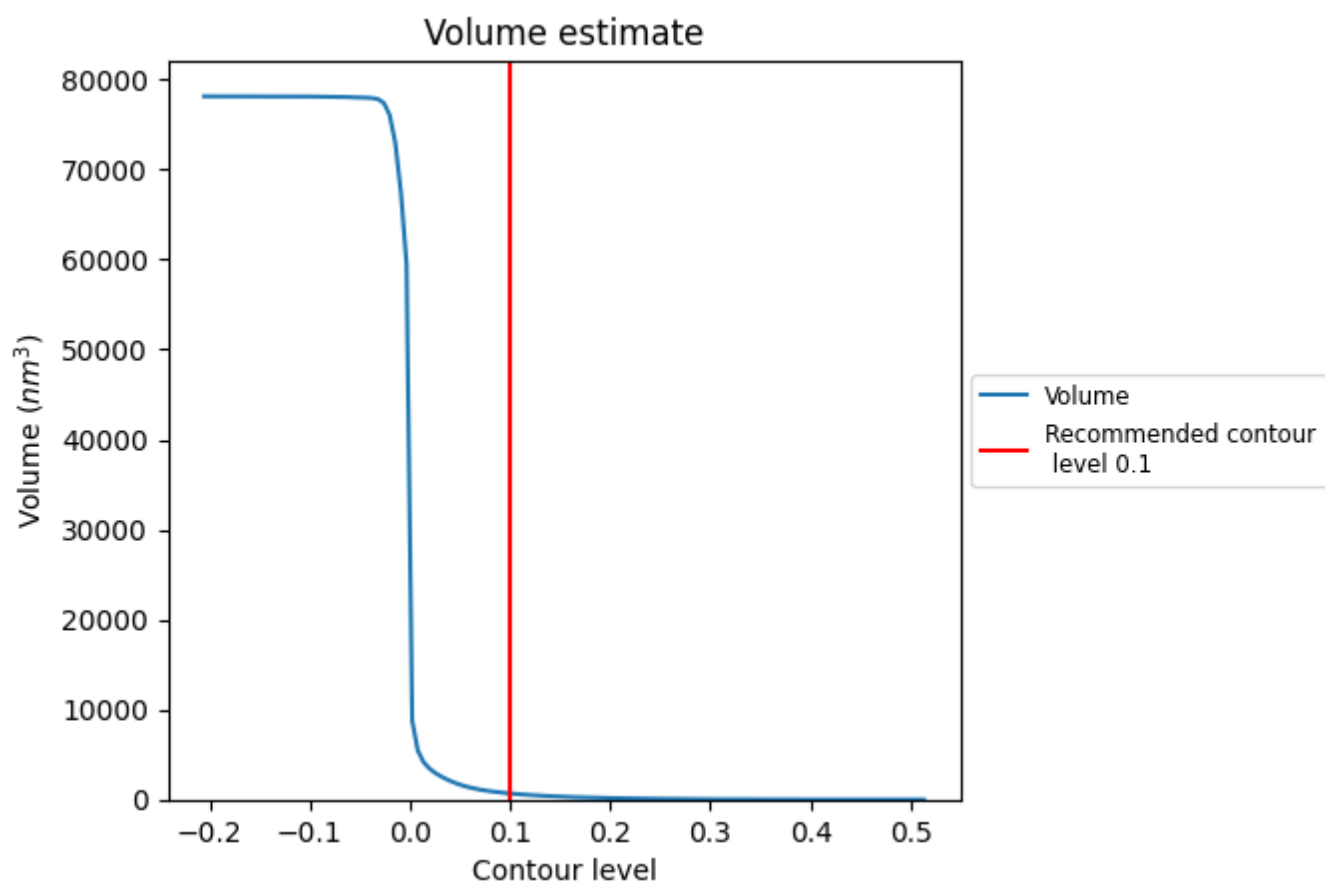
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

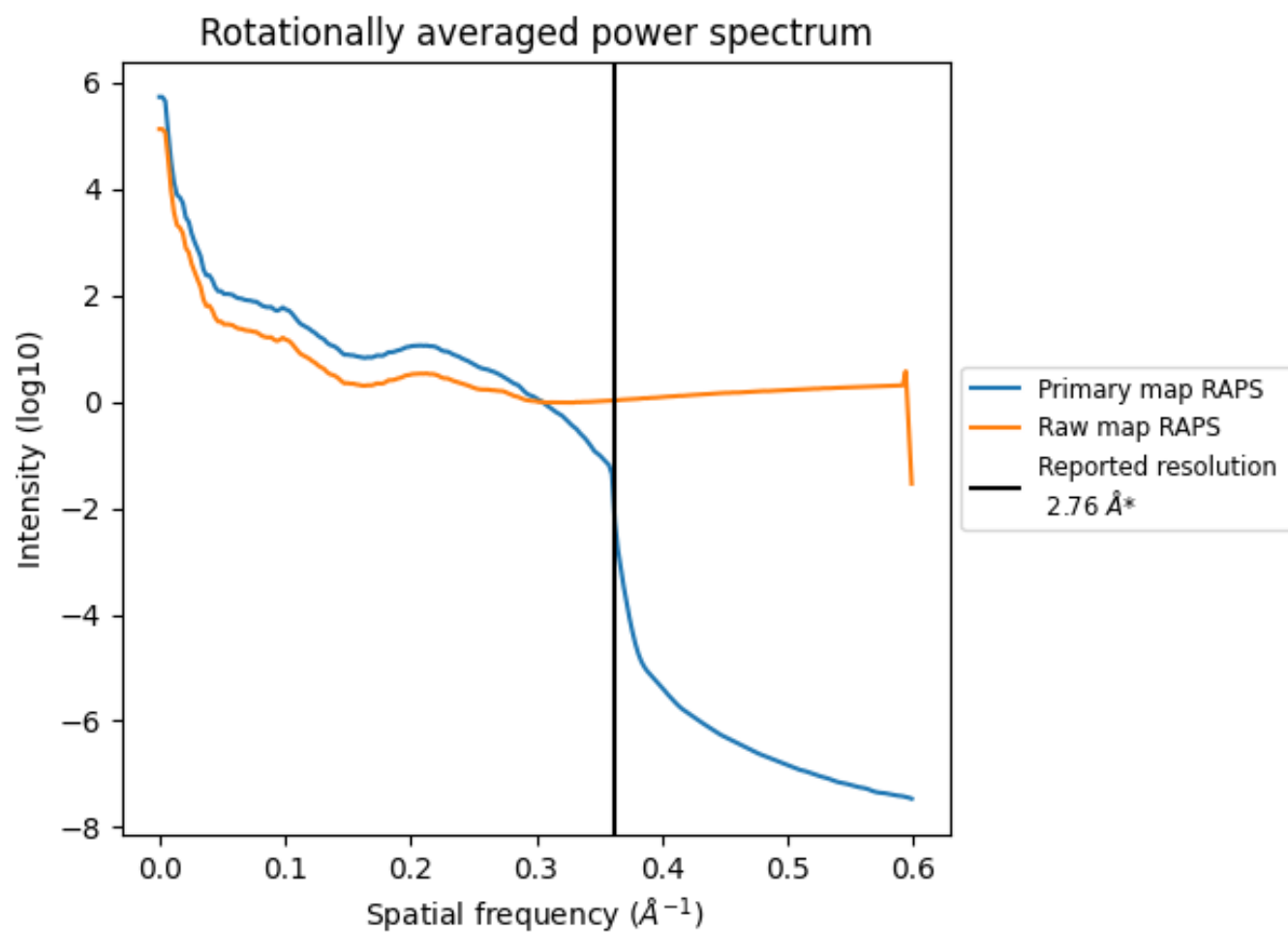
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 676 nm³; this corresponds to an approximate mass of 611 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 ⓘ

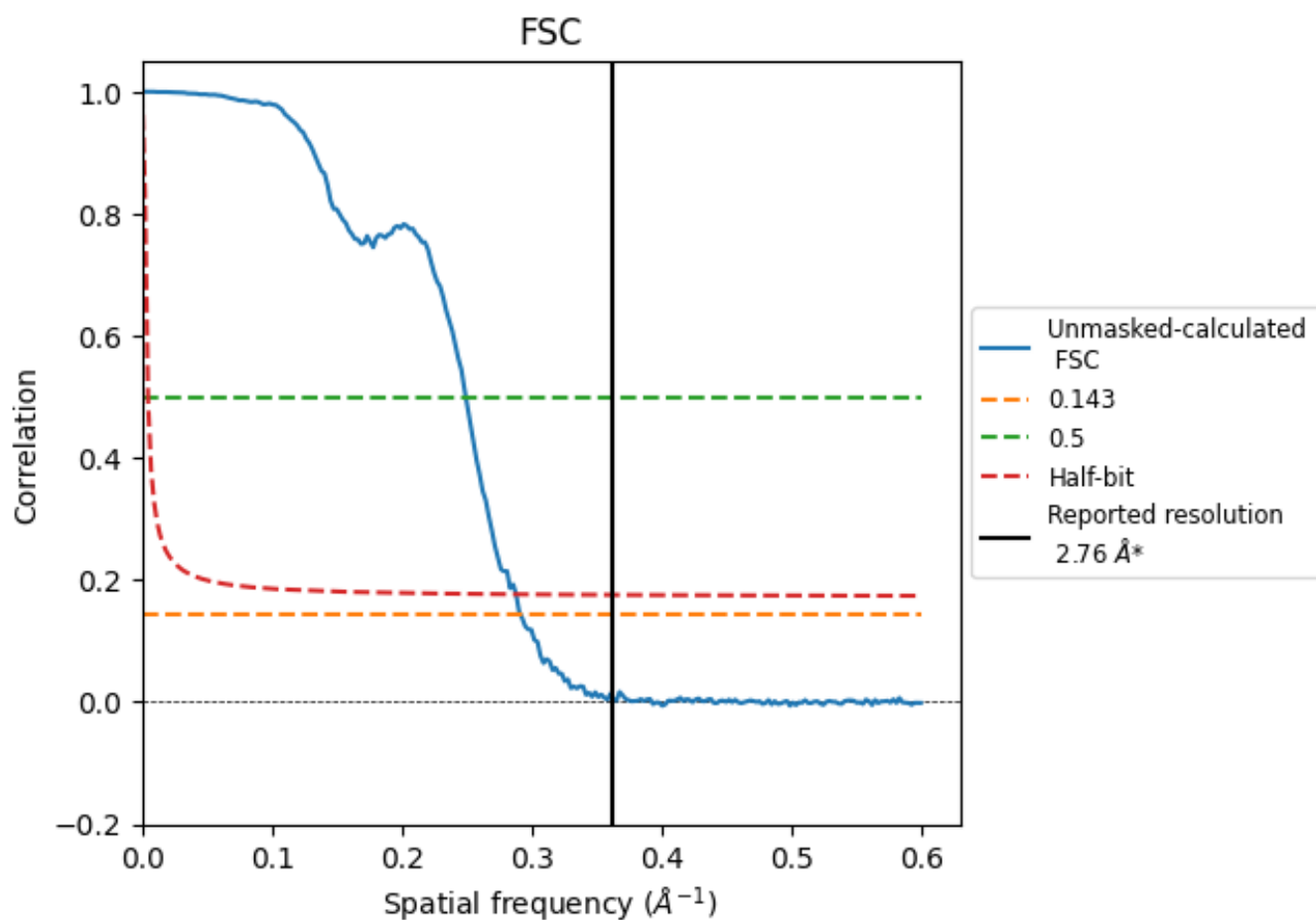


*Reported resolution corresponds to spatial frequency of 0.362 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.362 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.76	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	3.44	4.02	3.48

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.44 differs from the reported value 2.76 by more than 10 %

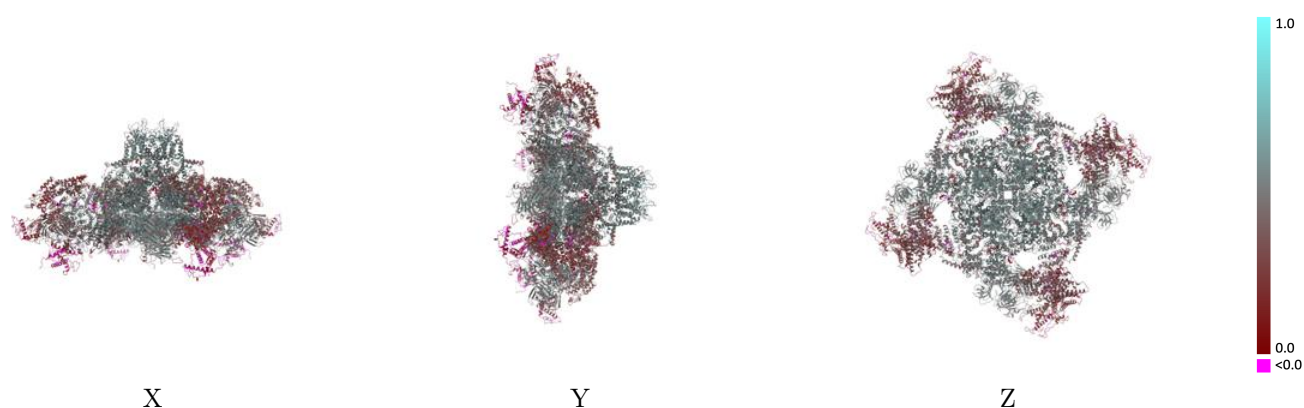
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-47390 and PDB model 9E1D. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay [i](#)

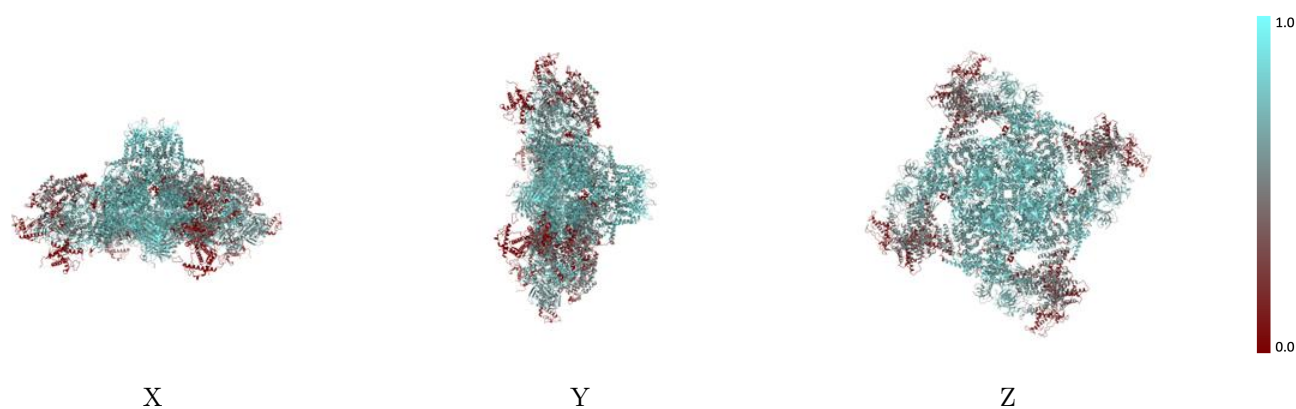
This section was not generated.

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



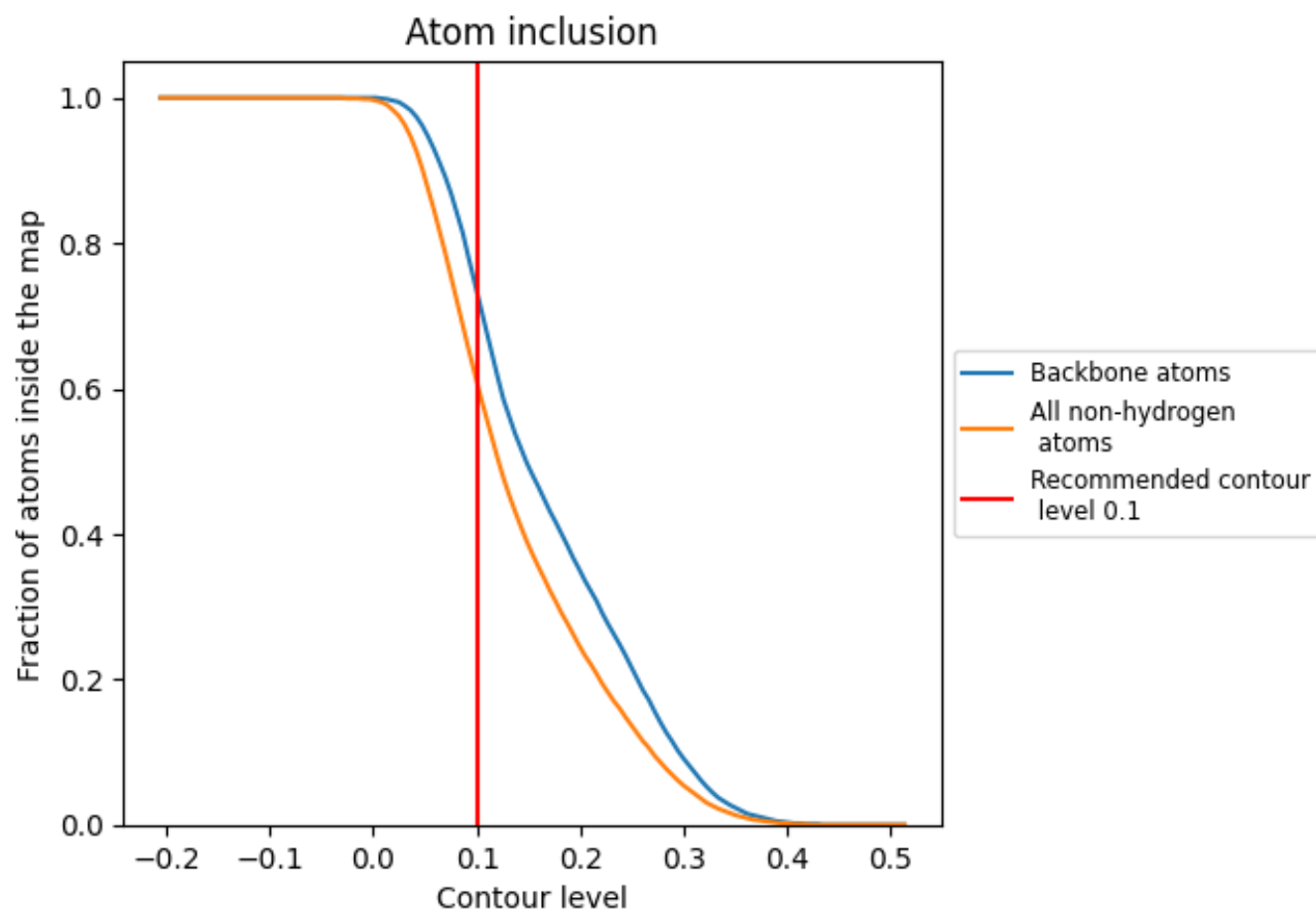
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.1).

9.4 Atom inclusion [i](#)



At the recommended contour level, 73% of all backbone atoms, 61% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.1) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6090	0.4220
A	0.6100	0.4200
B	0.6090	0.4200
C	0.6090	0.4200
D	0.6090	0.4200
E	0.6110	0.4940
F	0.6140	0.4920
G	0.6100	0.4900
H	0.6090	0.4920

