



Full wwPDB EM Validation Report ⓘ

Nov 7, 2022 – 10:20 AM JST

PDB ID : 5GL0
EMDB ID : EMD-9520
Title : Structure of RyR1 in a closed state (C4 conformer)
Authors : Bai, X.C.; Yan, Z.; Wu, J.P.; Yan, N.
Deposited on : 2016-07-07
Resolution : 4.20 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

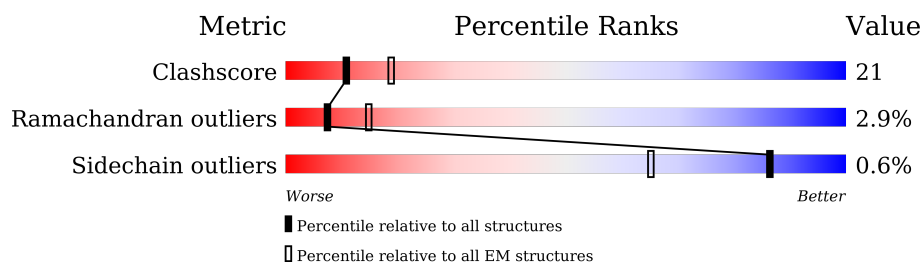
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.20 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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	<div> <div>24%</div> <div>44%</div> <div>26%</div> <div>•</div> <div>27%</div> </div>
1	C	5037	<div> <div>24%</div> <div>44%</div> <div>26%</div> <div>•</div> <div>27%</div> </div>
1	E	5037	<div> <div>24%</div> <div>44%</div> <div>26%</div> <div>•</div> <div>27%</div> </div>
1	G	5037	<div> <div>24%</div> <div>44%</div> <div>27%</div> <div>•</div> <div>27%</div> </div>
2	B	108	<div> <div>36%</div> <div>60%</div> <div>38%</div> <div>••</div> </div>
2	D	108	<div> <div>36%</div> <div>61%</div> <div>37%</div> <div>••</div> </div>
2	F	108	<div> <div>36%</div> <div>63%</div> <div>35%</div> <div>••</div> </div>
2	H	108	<div> <div>31%</div> <div>64%</div> <div>34%</div> <div>••</div> </div>

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 111000 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	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	157		
1	C	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	157		
1	E	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	157		
1	G	3660	Total	C	N	O	S	0	0
			26917	17107	4682	4971	157		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	D	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	F	107	Total	C	N	O	S	0	0
			832	527	146	155	4		
2	H	107	Total	C	N	O	S	0	0
			832	527	146	155	4		

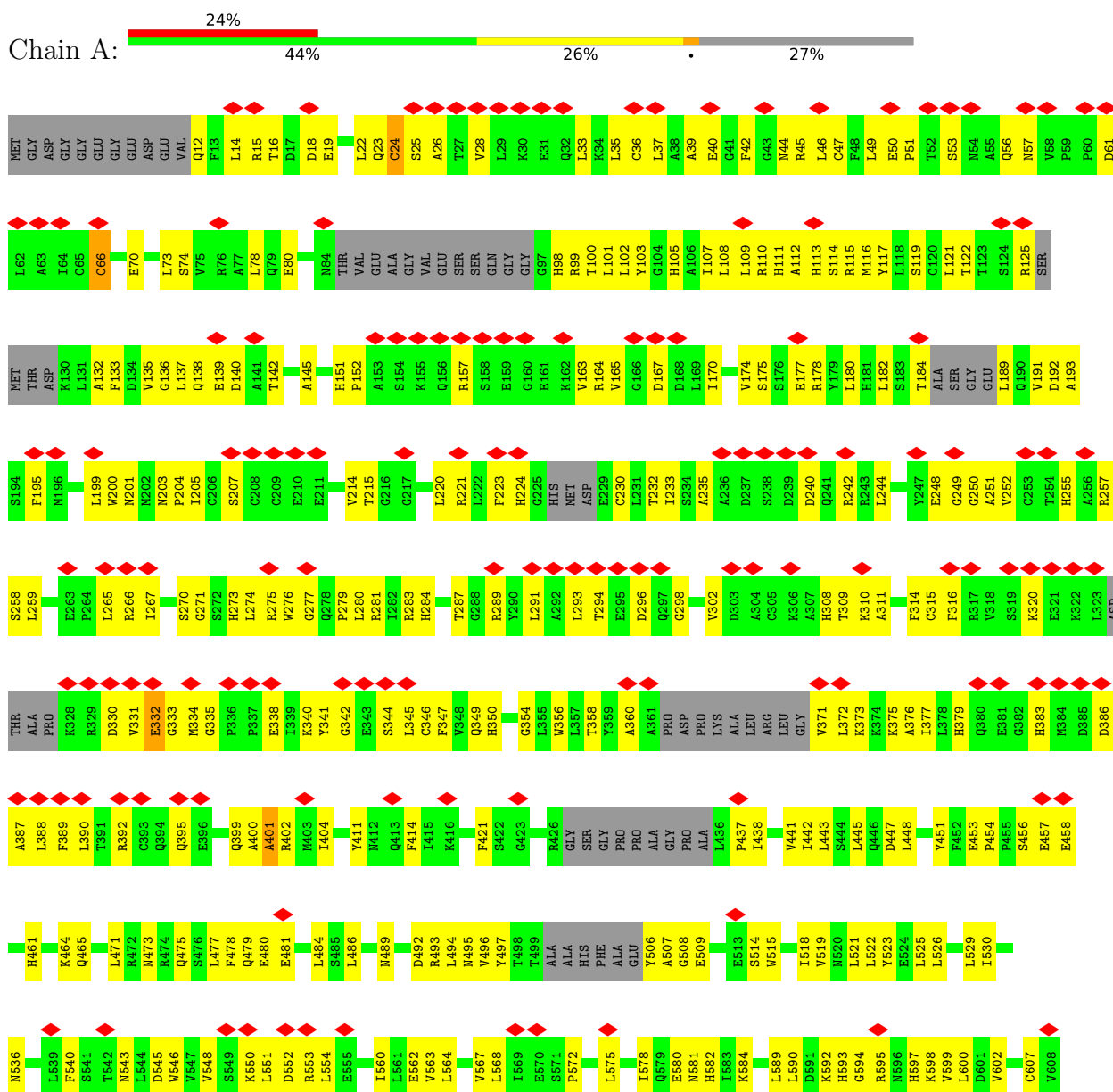
- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
3	A	1	Total	Zn	0
			1	1	
3	C	1	Total	Zn	0
			1	1	
3	E	1	Total	Zn	0
			1	1	
3	G	1	Total	Zn	0
			1	1	

3 Residue-property plots

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

• Molecule 1: Ryanodine receptor 1



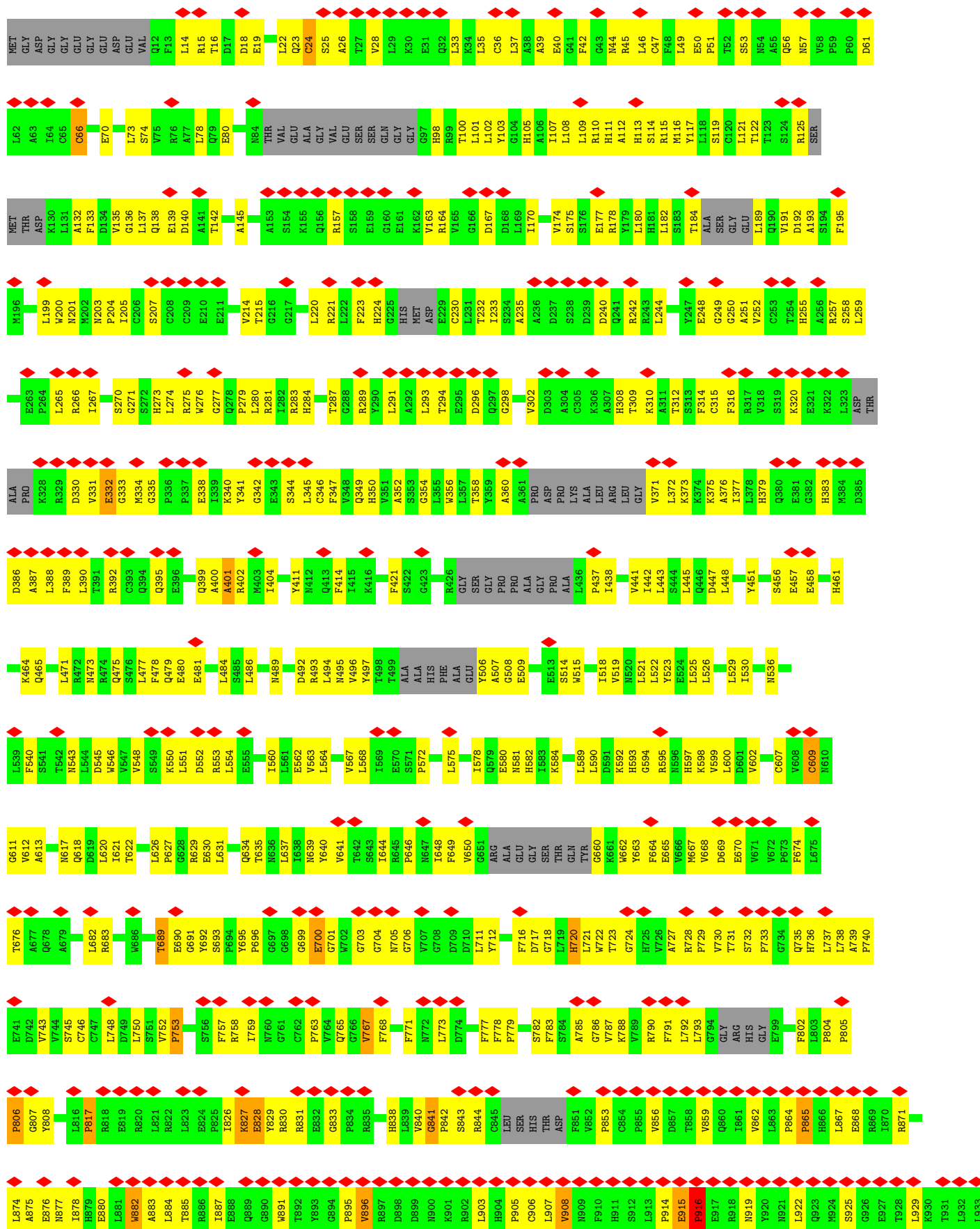






















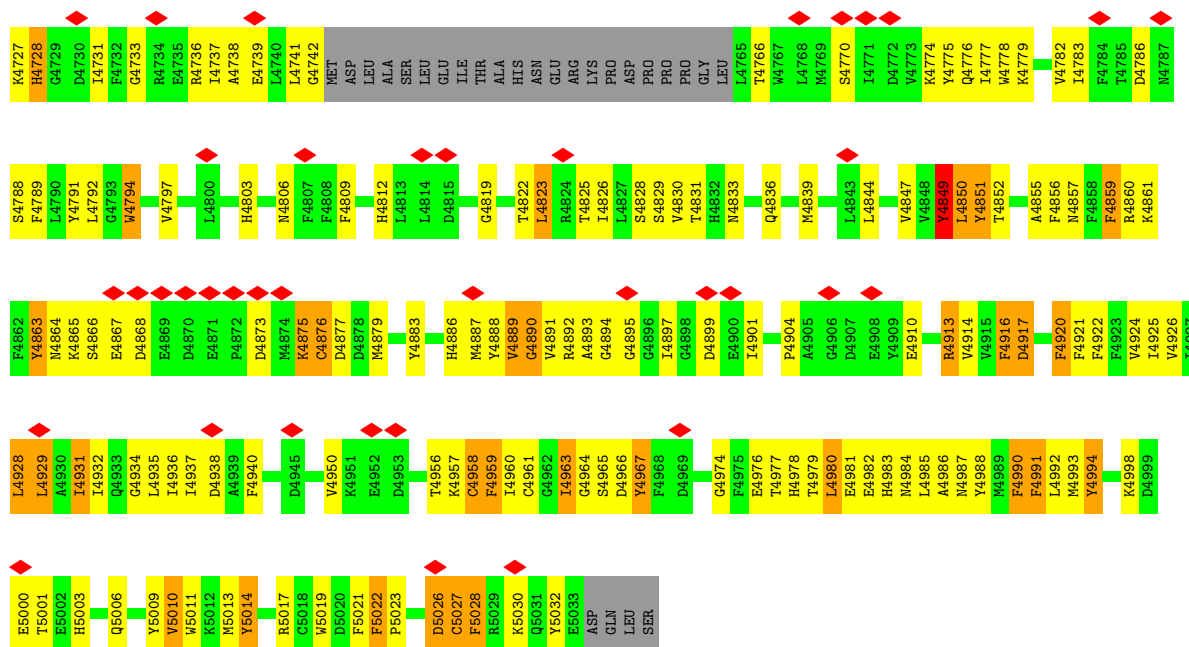




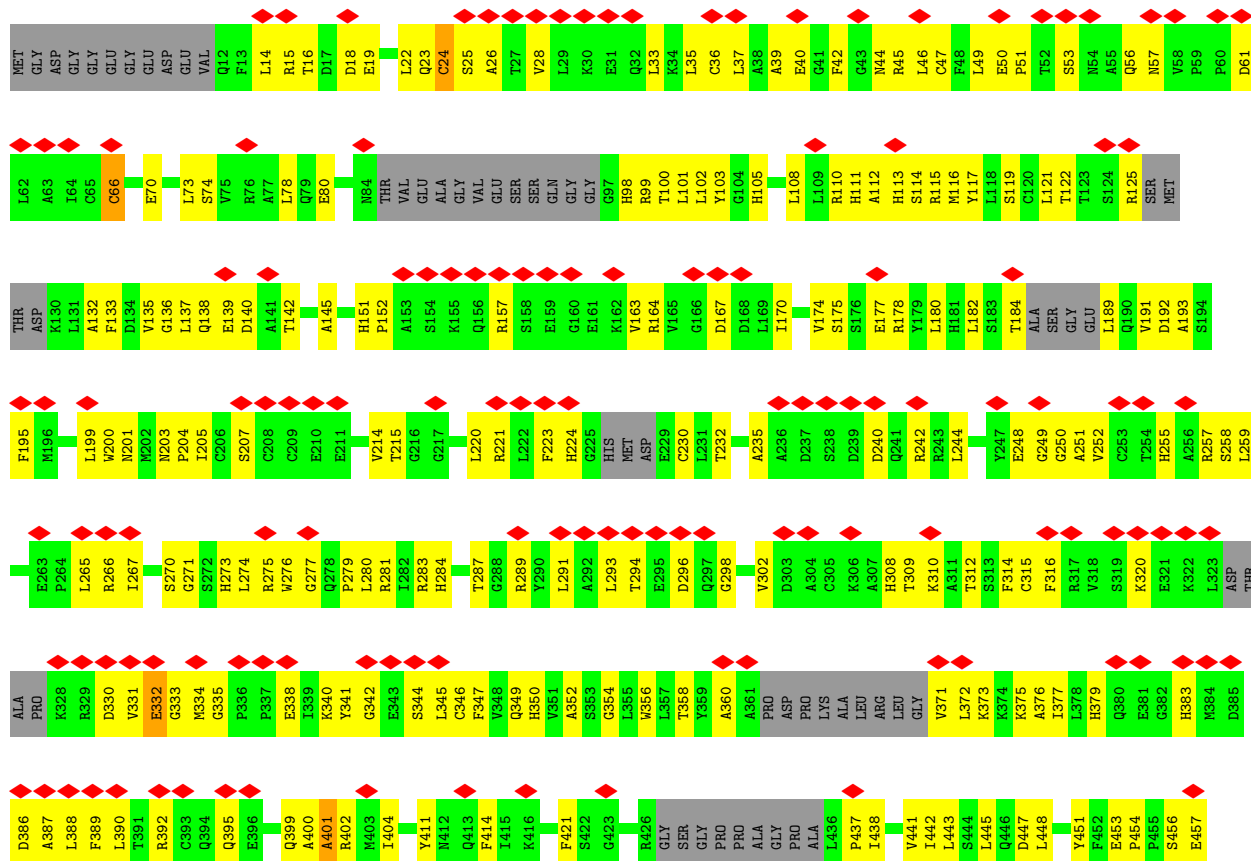
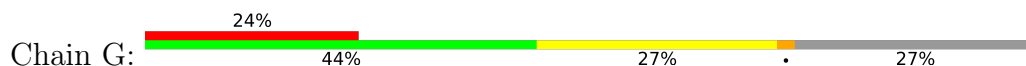
S2863	Q2864	T2865	T2866	S2868	R2869	E2870	L2871	Q2872	A2873	M2874	A2875	E2876	Q2877	L2878	A2879	E2880	M2881	Y2882	L2883	E2884	T2885	W2886	G2887	R2888	K2889	K2890	K2891	Q2892	E2893	L2894	E2895	L2896	K2897	G2898	G2899	G2900	T2901	H2902	P2903	L2904	L2905	D2906	P2907	Y2908	D2909	T2910	L2911	T2912	A2913	K2914	E2915	P2916	A2917	R2918	D2919	R2920	E2921	K2922	
L2743	N2744	V2745	L2746	I2747	E2748	K2749	L2750	L2751	D2752	S2753	F2754	L2755	N2756	K2757	F2758	E2759	A2760	Y2761	T2762	H2763	E2764	K2765	W2766	A2767	F2768	D2769	K2770	L2771	Q2772	N2773	N2774	W2775	S2776	Y2777	G2778	E2779	L2780	V2781	D2782	E2783	E2784	L2785	K2786	L2787	H2788	P2789	M2790	L2791	T2792	P2793	Y2794	K2795	T2796	F2797	S2798	E2799	K2800	D2801	K2802
E2803	L2804	Y2805	R2806	W2807	P2808	L2809	K2810	E2811	S2812	L2813	K2814	A2815	M2816	L2817	A2818	W2819	E2820	W2821	T2822	L2823	E2824	K2825	A2826	R2827	E2828	G2829	E2830	GLU	GLU	ARG	THR	GLU	LYS	LYS	THR	ARG	ILE	GLN	THR	ALA	GLN	THR	Y2849	D2850	P2851	R2852	E2853	G2854	Y2855	N2856	P2857	Q2858	P2859	P2860	D2861	L2862			
F2679	I2682	F2683	D2684	S2685	L2686	ALA	HIS	LYS	Y2691	D2692	Q2693	E2697	P2701	C2702	L2703	C2704	A2705	L2706	A2707	G2708	A2709	L2710	P2711	P2712	ASP	TYR	VAL	ASP	ALA	SER	ALA	TYR	SER	LYS	ALA	LYS	LYS	ALA	THR	VAL	ASP	ALA	GLU	N2734	F2735	D2736	L2737	R2738	P2739	V2740	E2741	T2742							
ARG	LEU	SER	R2591	Q2599	R2600	D2601	M2608	A2609	LEU	CYS	ARG	TYR	ILE	P2615	P2616	S2617	M2618	L2619	Q2620	L2623	R2624	L2626	F2627	F2628	D2629	V2630	P2631	N2634	GLU	PHE	ALA	K2638	M2639	P2640	L2641	Y2644	Y2654	Y2655	C2656	ALA	ALA	P2657	L2658	F2659	A2660	S2661	L2662	T2667	E2669										
R2508	V2509	Y2510	ILE	GLU	N2514	F2517	L2518	L2519	H2520	V2521	L2522	ASP	V2524	A2532	L2536	ASP	THR	ALA	THR	PHE	SER	THR	T2544	E2545	W2546	A2549	L2550	N2551	R2552	Y2553	L2554	C2555	L2556	A2557	V2558	L2559	P2560	L2561	L2562	THR	LYS	CYS	ALA	P2567	L2568	F2569	A2570	G2571	T2572	R2575	V2586	TYR							
GLN	ALA	GLY	LYS	GLY	E2449	A2450	L2451	R2452	I2453	R2454	A2455	L2456	L2457	R2458	S2459	L2460	VAL	PRO	D2463	D2464	D2465	L2466	V2467	I2470	S2471	L2472	P2473	L2474	Q2475	I2476	PRO	THR	LEU	GLY	LYS	ASP	GLY	ALA	LEU	VAL	GLN	PRO	LYS	MET	ALA	SER	F2494	V2495	P2496	D2497	H2498	K2499	A2500	S2501	L2506	D2507			
L2377	A2378	A2379	T2380	T2384	R2385	L2386	SER	GLU	ASP	PRO	ILE	GLY	TRP	ASN	P2325	C2326	C2327	G2328	E2329	R2330	Y2331	L2332	D2333	R2336	F2340	V2341	N2342	G2343	E2344	E2348	N2349	V2353	V2354	R2355	L2356	L2357	I2358	R2359	K2360	F2361	E2362	CYS	PHE	GLY	PRO	ALA	LEU	ARG	GLY	GLU	GLY	SER	G2375	L2376					
C2233	R2234	F2239	C2240	R2241	R2244	R2248	F2251	H2252	D2253	L2254	L2257	L2258	E2259	G2262	I2263	GLY	LEU	GLY	MET	GLN	GLY	SER	T2271	P2272	L2273	D2274	V2275	A2276	A2277	V2280	I2281	E2285	L2286	A2287	L2288	E2292	Q2293	D2294	L2295	E2296	K2297	V2298	V2299	G2304	C2305	G2306	L2307	GLN	SER										
S2154	L2155	L2156	E2157	C2158	L2159	I2162	L2165	L2166	L2167	L2168	GLN	MET	GLY	PRO	L2177	M2178	N2187	V2190	F2191	Y2192	C2193	H2194	L2197	M2198	R2199	A2200	H2201	M2203	G2202	H2204	E2205	M2208	E2209	V2210	M2211	V2212	N2213	V2214	L2215	Q2216	GLY	GLY	THR	LYS	ILE	ARG	PHE	P2226											
GLU	LYS	LYS	GLU	GLN	S2093	L2094	Q2095	E2096	L2097	H2100	V2103	R2104	W2105	A2106	Q2107	E2108	L2109	Y2110	S2113	P2114	L2115	M2120	F2121	S2122	L2123	L2124	H2125	R2126	Q2127	Y2128	D2129	G2132	E2133	L2134	L2135	R2136	A2137	L2138	P2139	R2140	A2141	Y2142	T2143	L2144	S2145	P2146	S2147	S2148	V2149	D2151	T2152	M2153							
ALA	ASP	GLU	PRO	ASP	CYS	PRO	LEU	PRO	ASP	ILE	ARG	GLN	ASP	LEU	GLN	E2045	L2046	E2047	GLY	GLU	GLU	GLU	GLU	GLU	GLU	T2057	S2060	S2061	R2062	L2063	R2064	S2065	L2066	T2069	V2070	R2071	L2072	VAL	LYS	LYS	LYS	GLU	LYS	GLU	PRO	GLU	GLU	LEU	PRO	ALA	GLU								

K3679	A3680	GLY	GLN	THR	ASP	D3483	H5422	T3362	A3298	GLU	G3176	K3114	V3050	SER	A2923
A3680	GLY	GLU	THR	ASP	GLU	A3484	V3423	G3363	G3299	MET	T3177	V3115	R3051	GLY	Q2924
GLN	GLN	THR	THR	ARG	GLU	L3424	L3424	A3300	A3300	CYS	T3178	S3116	H3052	VAL	E2925
THR	GLU	GLU	GLU	ARG	GLU	P3427	P3427	P3301	P3302	ASP	L3178	ALA	S3055	LYS	L2926
LYS	LYS	LYS	LYS	ARG	GLU	P3427	P3427	P3303	P3303	PRO	TYR	THR	ALA	SER	L2927
SER	SER	SER	SER	ARG	GLU	P3427	P3427	C3304	C3304	VAL	V3183	GLN	D3060	PRO	K2928
LYS	LYS	LYS	LYS	ARG	GLU	P3427	P3427	T3305	T3305	LEU	E3184	VAL	A3061	HIS	F2929
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427	A3306	A3306	ARG	K3185	GLY	P3062	GLN	L2930
VAL	VAL	VAL	VAL	ARG	GLU	P3427	P3427	D3310	D3310	LEU	K3186	VAL	ALA	GLU	Q2931
THR	THR	THR	THR	ARG	GLU	P3427	P3427	H3311	H3311	MET	L3186	GLY	VAL	ILE	M2932
HIS	HIS	HIS	HIS	ARG	GLU	P3427	P3427	L3312	L3312	ALA	R3187	GLY	VAL	LYS	N2933
LYS	LYS	LYS	LYS	ARG	GLU	P3427	P3427	N3313	N3313	ASP	P3188	GLN	ASN	PHE	G2934
LEU	LEU	LEU	LEU	ARG	GLU	P3427	P3427	SER	SER	GLY	A3189	THR	CYS	ALA	Y2935
SER	SER	SER	SER	ARG	GLU	P3427	P3427	LEU	LEU	LEU	L3190	TVR	H3069	LYS	A2936
LEU	LEU	LEU	LEU	ARG	GLU	P3427	P3427	LEU	LEU	ALA	L3194	T3132	H3069	ILE	V2937
GLN	GLN	GLN	GLN	ARG	GLU	P3427	P3427	G3317	G3317	GLU	A3195	T3133	T3070	LEU	T2938
ARG	ARG	ARG	ARG	ARG	GLU	P3427	P3427	N3318	N3318	SER	R3196	V3134	L3071	PRO	R2939
ARG	ARG	ARG	ARG	ARG	GLU	P3427	P3427	L3320	L3320	GLY	L3197	A3135	A3072	LEU	G2940
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427	R3321	R3321	ALA	A3198	GLY	R3073	ILE	
VAL	VAL	VAL	VAL	ARG	GLU	P3427	P3427	I3322	I3322	THR	A3199	P3138	S3074	ASN	
CYS	CYS	CYS	CYS	ARG	GLU	P3427	P3427	I3323	I3323	THR	A3200	Y3139	D3076	THR	
PHE	PHE	PHE	PHE	ARG	GLU	P3427	P3427	I3324	I3324	MET	PRO	L3140	A3077	THR	
ARG	ARG	ARG	ARG	ARG	GLU	P3427	P3427	N3325	N3325	PRO	VAL	T3141	R3078	ASN	
MET	MET	MET	MET	ARG	GLU	P3427	P3427	L3327	L3327	HIS	A3204	L3143	T3079	HIS	
THR	THR	THR	THR	ARG	GLU	P3427	P3427	E3331	E3331	VAL	F3205	F3144	V3080	SER	
PRO	PRO	PRO	PRO	ARG	GLU	P3427	P3427	A3332	A3332	ILE	F3206	K3145	M3081	ILE	
LEU	LEU	LEU	LEU	ARG	GLU	P3427	P3427	T3333	T3333	ILE	E3207	H3146	K3082	SER	
GLY	GLY	GLY	GLY	ARG	GLU	P3427	P3427	W3334	W3334	ILE	P3208	I3147	S3083	LYS	
ARG	ARG	ARG	ARG	ARG	GLU	P3427	P3427	M3335	M3335	ILE	Q3209	A3148	P3085	ARG	
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427	N3336	N3336	ILE	L3210	Q3149	E3086	ALA	
ASP	ASP	ASP	ASP	ARG	GLU	P3427	P3427	C3337	C3337	ILE	N3211	H3150	T3087	PHE	
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427	R3338	R3338	ILE	E3212	Q3151	V3088	GLY	
ASP	ASP	ASP	ASP	ARG	GLU	P3427	P3427	A3339	A3339	ILE	S3213	F3152	K3089	LEU	
PRO	PRO	PRO	PRO	ARG	GLU	P3427	P3427	VAL	VAL	ILE	N3214	GLY	A3090	GLN	
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427	PHE	PHE	ILE	A3215	ASP	GLY	LEU	
LYS	LYS	LYS	LYS	ARG	GLU	P3427	P3427	A3402	A3402	ILE	C3216	VAL	ARG	LEU	
VAL	VAL	VAL	VAL	ARG	GLU	P3427	P3427	R3403	R3403	ILE	S3217	L3158	F3095	ARG	
THR	THR	THR	THR	ARG	GLU	P3427	P3427	D3404	D3404	ILE	VAL	D3159	F3096	TRP	
ARG	ARG	ARG	ARG	ARG	GLU	P3427	P3427	W3285	W3285	ILE	TYR	T3168	S3032	MET	
VAL	VAL	VAL	VAL	ARG	GLU	P3427	P3427	E3286	E3286	ILE	THR	D3160	E3097	ASP	
GLN	GLN	GLN	GLN	ARG	GLU	P3427	P3427	R3287	R3287	ILE	LYS	V3161	S3098	ILE	
LEU	LEU	LEU	LEU	ARG	GLU	P3427	P3427	G3288	G3288	ILE	SER	Q3162	S3099	SER	
MET	MET	MET	MET	ARG	GLU	P3427	P3427	P3289	P3289	ILE	ARG	V3163	S3100	GLU	
LEU	LEU	LEU	LEU	ARG	GLU	P3427	P3427	A3290	A3290	ILE	GLU	S3164	E3101	PHE	
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427	PRO	PRO	ILE	ARG	C3165	D3102	ILE	
ASP	ASP	ASP	ASP	ARG	GLU	P3427	P3427	P3294	P3294	ILE	ALA	R3167	E3104	ALA	
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427	A3295	A3295	ILE	LEU	T3168	K3105	LEU	
LYS	LYS	LYS	LYS	ARG	GLU	P3427	P3427	L3296	L3296	ILE	GLY	L3169	F3043	GLU	
THR	THR	THR	THR	ARG	GLU	P3427	P3427	P3297	P3297	ILE	LEU	L3172	E3108	VAL	
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427	A3297	A3297	ILE	PRO	L3173	N3109	ALA	
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427	H3355	H3355	ILE	ASN	L3174	L3110	VAL	
THR	THR	THR	THR	ARG	GLU	P3427	P3427	S3356	S3356	ILE	SER	R3175	R3111	VAL	
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427	H3357	H3357	ILE	VAL	L3175	L3112	SER	
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427	P3360	P3360	ILE	GLU	G3113	G3113	SER	
THR	THR	THR	THR	ARG	GLU	P3427	P3427	T3361	T3361	ILE	GLU				
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427	A3421	A3421	ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR	THR	THR	ARG	GLU	P3427	P3427			ILE					
ALA	ALA	ALA	ALA	ARG	GLU	P3427	P3427			ILE					
GLU	GLU	GLU	GLU	ARG	GLU	P3427	P3427			ILE					
THR	THR														





• Molecule 1: Ryanodine receptor 1





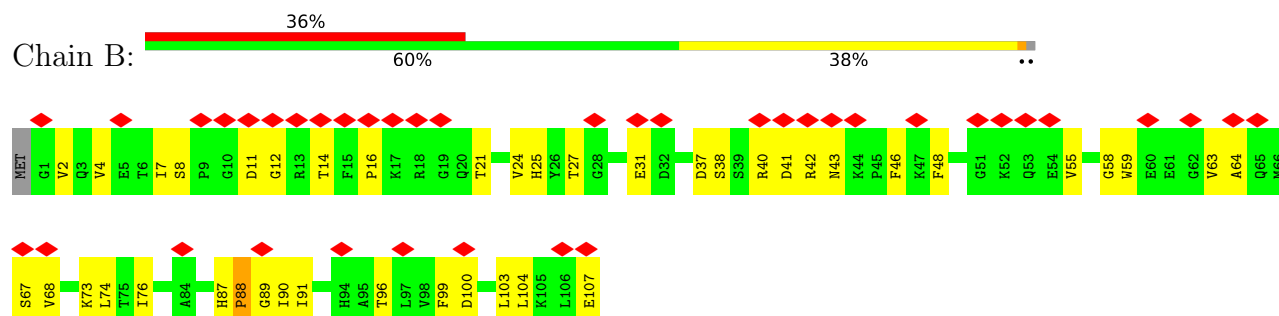




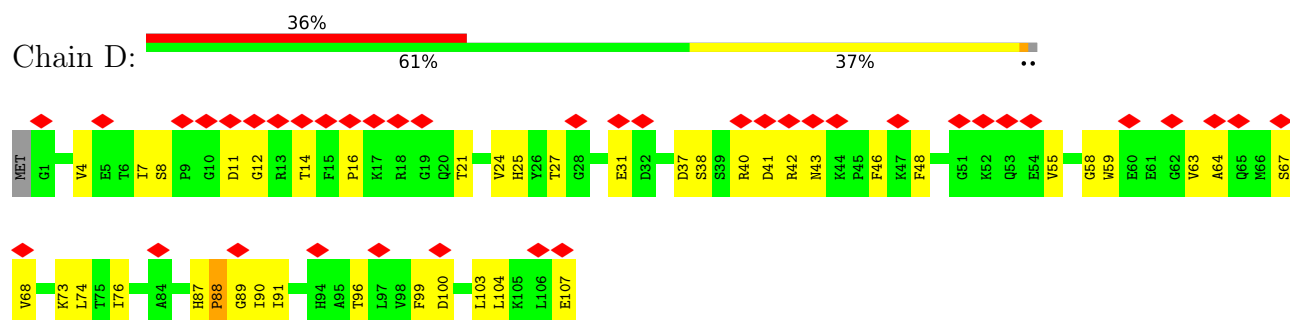


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P4064	GLN	K4214	ALA	PRO	ALA	L4677	E4739	L4800	D4873	V4950
LEU	P4135	F4219	GLY	PRO	GLY	A4678	L4740	H4803	M4874	K4951
LEU	A4136	D4220	GLY	PRO	GLY	R4679	L4741	F4807	K4875	E4952
LYS	R4137	V4221	ALA	GLY	LYS	K4680	C4742	M4806	C4876	D4953
ASP	D4138	E4224	ALA	SER	LYS	E4682	MET	F4808	D4877	
I4071	F4141	G4225	GLY	PRO	GLY	F4683	ALA	F4809	D4878	
V4072	N4142	G4226	GLY	ILE	GLY	D4684	ALA	F4809	M4879	
G4073	N4142	E4227	ASP	LYS	GLY	ALA	SER	F4808	Y4883	
S4074	V4145	A4228	LEU	LYS	GLY	L4685	LEU	H4812	M4887	
E4075	L4146	M4231	ARG	ARG	GLY	G4686	GLY	L4813	Y4888	
A4076	E4152	E4232	LEU	LEU	TRP	L4687	TRP	L4814	G4889	
F4077	H4153	F4233	ALA	TRP	ALA	I4688	ALA	D4815	G4890	
V4081	V4154	P4234	ALA	GLY	GLY	T4689	ALA	I4816	V4891	
T4082	P4155	L4233	ALA	GLY	GLY	Q4690	HIS	A4817	G4892	
D4083	H4156	F4234	ARG	PHE	GLY	F4691	ASN	T4822	V4893	
P4084	L4157	V4235	LEU	GLY	GLY	G4692	GLY	L4823	A4905	
R4085	P4158	E4239	GLY	GLY	GLY	D4694	ARG	R4824	G4906	
G4086	R4159	I4242	GLY	GLY	ASP	D4696	PRO	T4825	A4907	
L4087	N4162	Q4246	LEU	VAL	LEU	V4697	PRO	L4826	E4908	
L4088	E4165	T4251	GLY	GLY	ASP	K4698	PRO	L4827	Y4909	
S4089	E4168	SER	ARG	PRO	GLY	G4699	GLY	S4828	F4913	
F4093	S4169	GLU	LEU	PRO	ASN	Q4700	LEU	V4830	V4914	
Q4094	I4170	GLU	ARG	GLY	GLY	W4701	GLY	T4831	F4915	
K4095	L4171	PRO	ARG	VAL	GLY	D4702	GLY	H4832	A4916	
A4096	E4172	GLU	VAL	GLY	GLY	R4703	GLY	N4833	G4917	
M4097	Y4173	GLU	ARG	VAL	GLY	L4704	GLY	Q4836	A4918	
D4098	F4174	GLU	LEU	VAL	GLY	V4705	GLY	L4837	V4919	
S4099	R4175	PRO	LEU	VAL	VAL	L4706	GLY	Y4838	F4920	
Q4100	Y4177	GLU	ARG	ASP	GLY	S4635	GLY	M4839	F4921	
LYS	L4178	ALA	LEU	GLY	ASP	T4636	GLY	T4840	F4922	
Q4102	G4179	ASP	PRO	GLY	ASP	G4637	GLY	L4843	F4923	
F4103	R4180	GLU	THR	GLY	ASP	C4645	GLY	Y4847	V4924	
T4104	I4181	GLU	ARG	PHE	GLY	L4648	GLY	Y4848	I4925	
G4105	I4181	GLU	THR	ASN	GLY	L4649	GLY	L4850	L4928	
P4106	M4184	MET	ALA	GLY	GLY	A4654	GLY	Y4851	L4929	
E4107	R4188	GLY	ALA	ASP	LYS	F4655	GLY	T4852	A4930	
I4108	R4189	GLY	THR	ASP	GLY	L4656	GLY	A4855	V4931	
S4115	E4191	ALA	LEU	GLY	ASP	T4659	GLY	F4856	I4932	
E4116	R4192	GLU	LEU	GLY	ASP	F4719	GLY	F4859	L4933	
A4117	F4195	GLY	LEU	GLY	PRO	V4720	GLY	R4860	I4934	
D4118	E4196	ALA	TRP	MET	PRO	G4721	GLY	F4862	Q4933	
F4119	I4197	ALA	ALA	GLY	GLY	R4722	GLY	N4863	C4934	
N4120	R4202	GLY	VAL	ASP	PRO	L4723	GLY	L4724	L4792	
E4121	W4205	ALA	VAL	THR	LYS	L4725	GLY	D4726	G4793	
N4122	E4206	GLY	ARG	ASP	LYS	R4665	GLY	K4727	E4867	
I4123	M4207	ALA	ALA	ALA	LYS	P4667	GLY	H4728	O4794	
F4125	P4208	GLY	ASP	ASP	GLY	I4670	GLY	G4729	Y4795	
E4126			GLY	ASP	ASP	R4673	GLY	Q4733	R4796	
F4127				ASP	ASP	E4674	GLY	R4734	K4796	
F4128				ASP	ASP	K4675	GLY	E4735	V4797	
R4131						I4737			M4798	

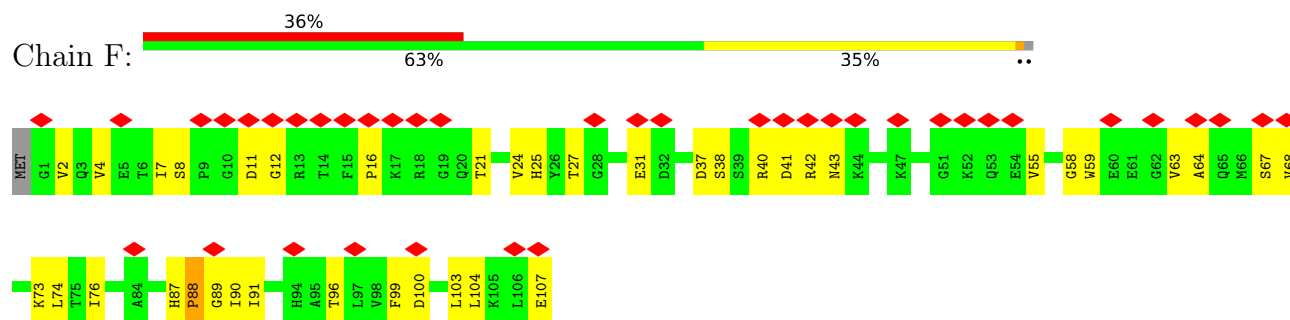
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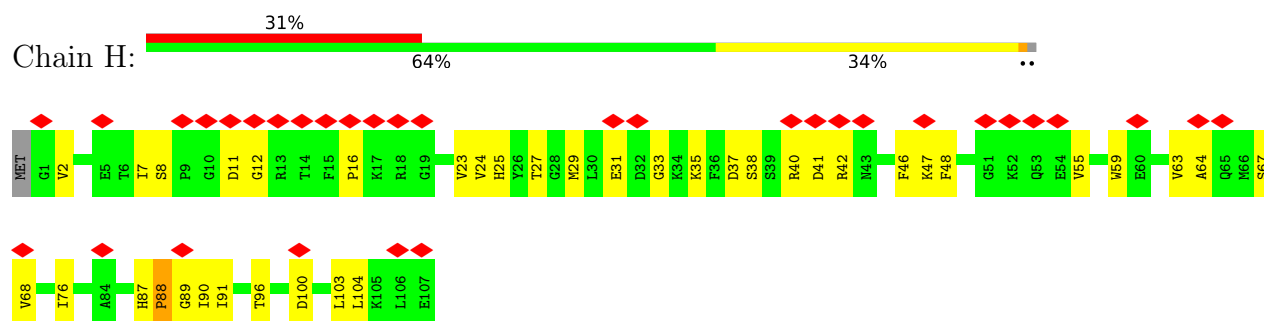
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



- 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	47000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	40	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.324	Depositor
Minimum map value	-0.144	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.016	Depositor
Recommended contour level	0.09	Depositor
Map size (Å)	482.40002, 482.40002, 482.40002	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.34, 1.34, 1.34	Depositor

5 Model quality

5.1 Standard geometry

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

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	0.93	55/27385 (0.2%)	0.86	90/37104 (0.2%)
1	C	0.93	56/27385 (0.2%)	0.87	92/37104 (0.2%)
1	E	0.93	53/27385 (0.2%)	0.86	91/37104 (0.2%)
1	G	0.93	55/27385 (0.2%)	0.85	90/37104 (0.2%)
2	B	0.58	0/851	0.67	0/1146
2	D	0.58	0/851	0.67	0/1146
2	F	0.58	0/851	0.67	0/1146
2	H	0.60	0/851	0.67	0/1146
All	All	0.92	219/112944 (0.2%)	0.86	363/153000 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	19
1	C	0	19
1	E	0	19
1	G	0	19
All	All	0	76

All (219) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	4988	TYR	CG-CD2	-12.12	1.23	1.39
1	A	5014	TYR	CG-CD1	-11.55	1.24	1.39
1	E	5014	TYR	CG-CD1	-11.43	1.24	1.39
1	C	3922	TYR	CE1-CZ	-11.19	1.24	1.38
1	E	3922	TYR	CE1-CZ	-11.12	1.24	1.38
1	A	3922	TYR	CE1-CZ	-11.12	1.24	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	5014	TYR	CG-CD1	-11.10	1.24	1.39
1	G	5014	TYR	CG-CD1	-11.09	1.24	1.39
1	E	4988	TYR	CG-CD2	-11.06	1.24	1.39
1	C	4988	TYR	CG-CD2	-11.06	1.24	1.39
1	A	4988	TYR	CG-CD2	-11.03	1.24	1.39
1	A	5014	TYR	CE2-CZ	-10.02	1.25	1.38
1	E	5014	TYR	CE2-CZ	-9.80	1.25	1.38
1	C	5014	TYR	CE2-CZ	-9.74	1.25	1.38
1	G	5014	TYR	CE2-CZ	-9.68	1.25	1.38
1	C	3922	TYR	CG-CD1	-9.47	1.26	1.39
1	E	3922	TYR	CG-CD1	-9.45	1.26	1.39
1	A	4849	TYR	CG-CD1	-9.43	1.26	1.39
1	G	4988	TYR	CE1-CZ	-9.38	1.26	1.38
1	A	3922	TYR	CG-CD1	-9.33	1.27	1.39
1	G	4851	TYR	CE2-CZ	-9.23	1.26	1.38
1	E	4849	TYR	CG-CD1	-9.14	1.27	1.39
1	C	4849	TYR	CG-CD1	-9.07	1.27	1.39
1	E	3922	TYR	CG-CD2	-8.82	1.27	1.39
1	C	3922	TYR	CG-CD2	-8.81	1.27	1.39
1	A	3922	TYR	CG-CD2	-8.80	1.27	1.39
1	G	4849	TYR	CG-CD1	-8.75	1.27	1.39
1	E	4851	TYR	CE1-CZ	-8.56	1.27	1.38
1	C	4851	TYR	CE1-CZ	-8.54	1.27	1.38
1	A	5009	TYR	CG-CD2	-8.53	1.28	1.39
1	G	5009	TYR	CG-CD2	-8.50	1.28	1.39
1	A	4851	TYR	CE1-CZ	-8.48	1.27	1.38
1	G	4851	TYR	CG-CD1	-8.48	1.28	1.39
1	E	5009	TYR	CG-CD2	-8.43	1.28	1.39
1	C	5009	TYR	CG-CD2	-8.42	1.28	1.39
1	G	3922	TYR	CG-CD1	-8.10	1.28	1.39
1	G	3922	TYR	CE1-CZ	-7.78	1.28	1.38
1	C	4987	ASN	N-CA	-7.70	1.30	1.46
1	A	4987	ASN	N-CA	-7.65	1.31	1.46
1	E	4987	ASN	N-CA	-7.61	1.31	1.46
1	G	5022	PHE	CG-CD2	-7.35	1.27	1.38
1	G	4234	PHE	CG-CD1	-7.32	1.27	1.38
1	A	5022	PHE	CG-CD2	-7.30	1.27	1.38
1	C	5022	PHE	CG-CD2	-7.29	1.27	1.38
1	E	5022	PHE	CG-CD2	-7.26	1.27	1.38
1	G	4988	TYR	CG-CD1	-7.25	1.29	1.39
1	E	4032	GLU	CD-OE2	-7.08	1.17	1.25
1	A	4032	GLU	CD-OE2	-7.02	1.18	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4032	GLU	CD-OE2	-7.00	1.18	1.25
1	G	4032	GLU	CD-OE2	-6.98	1.18	1.25
1	E	4991	PHE	CG-CD1	-6.98	1.28	1.38
1	C	5009	TYR	CG-CD1	-6.96	1.30	1.39
1	A	5009	TYR	CG-CD1	-6.91	1.30	1.39
1	A	4991	PHE	CG-CD1	-6.85	1.28	1.38
1	C	4991	PHE	CG-CD1	-6.83	1.28	1.38
1	E	5009	TYR	CG-CD1	-6.76	1.30	1.39
1	E	3722	TYR	CE1-CZ	-6.70	1.29	1.38
1	G	3922	TYR	CG-CD2	-6.65	1.30	1.39
1	G	4181	ILE	CA-CB	-6.64	1.39	1.54
1	E	4234	PHE	CG-CD1	-6.63	1.28	1.38
1	C	4234	PHE	CG-CD1	-6.63	1.28	1.38
1	A	3722	TYR	CE1-CZ	-6.62	1.29	1.38
1	C	3722	TYR	CE1-CZ	-6.62	1.29	1.38
1	G	4988	TYR	CE2-CZ	-6.61	1.29	1.38
1	G	3968	TYR	CG-CD1	-6.61	1.30	1.39
1	G	4987	ASN	N-CA	-6.60	1.33	1.46
1	G	4991	PHE	CG-CD1	-6.57	1.28	1.38
1	E	4851	TYR	CG-CD2	-6.56	1.30	1.39
1	C	4851	TYR	CG-CD2	-6.56	1.30	1.39
1	A	4234	PHE	CG-CD1	-6.56	1.28	1.38
1	G	3722	TYR	CE1-CZ	-6.55	1.30	1.38
1	C	5009	TYR	CE2-CZ	-6.52	1.30	1.38
1	A	5009	TYR	CE2-CZ	-6.50	1.30	1.38
1	E	4181	ILE	CA-CB	-6.49	1.40	1.54
1	A	4991	PHE	CG-CD2	-6.46	1.29	1.38
1	A	4181	ILE	CA-CB	-6.45	1.40	1.54
1	C	4181	ILE	CA-CB	-6.44	1.40	1.54
1	G	4940	PHE	CG-CD2	-6.41	1.29	1.38
1	G	5009	TYR	CG-CD1	-6.38	1.30	1.39
1	C	4988	TYR	CE1-CZ	-6.37	1.30	1.38
1	E	5009	TYR	CE2-CZ	-6.37	1.30	1.38
1	E	4988	TYR	CE1-CZ	-6.32	1.30	1.38
1	C	4994	TYR	CG-CD1	-6.25	1.31	1.39
1	A	4794	TRP	CE3-CZ3	-6.25	1.27	1.38
1	A	3968	TYR	CG-CD1	-6.24	1.31	1.39
1	A	4851	TYR	CG-CD2	-6.24	1.31	1.39
1	E	4994	TYR	CG-CD1	-6.23	1.31	1.39
1	E	4794	TRP	CE3-CZ3	-6.22	1.27	1.38
1	C	4794	TRP	CE3-CZ3	-6.21	1.27	1.38
1	A	4988	TYR	CE1-CZ	-6.19	1.30	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	4988	TYR	CE2-CZ	-6.18	1.30	1.38
1	C	3968	TYR	CG-CD1	-6.18	1.31	1.39
1	E	3968	TYR	CG-CD1	-6.18	1.31	1.39
1	E	4991	PHE	CG-CD2	-6.18	1.29	1.38
1	C	4863	TYR	CE1-CZ	-6.17	1.30	1.38
1	C	4991	PHE	CG-CD2	-6.17	1.29	1.38
1	C	4988	TYR	CE2-CZ	-6.15	1.30	1.38
1	G	4991	PHE	CG-CD2	-6.14	1.29	1.38
1	G	3986	TRP	CB-CG	-6.14	1.39	1.50
1	A	4994	TYR	CG-CD1	-6.13	1.31	1.39
1	E	4988	TYR	CG-CD1	-6.13	1.31	1.39
1	E	5011	TRP	CG-CD1	-6.11	1.28	1.36
1	A	4988	TYR	CE2-CZ	-6.07	1.30	1.38
1	A	5011	TRP	CG-CD1	-6.06	1.28	1.36
1	C	5011	TRP	CG-CD1	-6.06	1.28	1.36
1	G	5011	TRP	CG-CD1	-6.04	1.28	1.36
1	C	4988	TYR	CG-CD1	-6.04	1.31	1.39
1	A	5014	TYR	CG-CD2	-5.98	1.31	1.39
1	G	5009	TYR	CE2-CZ	-5.93	1.30	1.38
1	A	3986	TRP	CB-CG	-5.93	1.39	1.50
1	C	3986	TRP	CB-CG	-5.93	1.39	1.50
1	G	4859	PHE	CG-CD2	-5.92	1.29	1.38
1	G	3951	PHE	CG-CD1	-5.91	1.29	1.38
1	G	4856	PHE	CB-CG	-5.91	1.41	1.51
1	E	3986	TRP	CB-CG	-5.89	1.39	1.50
1	G	4940	PHE	CB-CG	-5.88	1.41	1.51
1	A	4988	TYR	CG-CD1	-5.88	1.31	1.39
1	A	4863	TYR	CE1-CZ	-5.86	1.30	1.38
1	G	4863	TYR	CE1-CZ	-5.85	1.30	1.38
1	C	4856	PHE	CB-CG	-5.84	1.41	1.51
1	A	4856	PHE	CB-CG	-5.84	1.41	1.51
1	E	4856	PHE	CB-CG	-5.82	1.41	1.51
1	E	4863	TYR	CE1-CZ	-5.80	1.31	1.38
1	G	4836	GLN	CG-CD	5.80	1.64	1.51
1	E	4701	TRP	CB-CG	-5.79	1.39	1.50
1	A	4701	TRP	CB-CG	-5.77	1.39	1.50
1	E	5014	TYR	CG-CD2	-5.71	1.31	1.39
1	A	4180	ARG	C-O	-5.69	1.12	1.23
1	E	4180	ARG	C-O	-5.69	1.12	1.23
1	G	4920	PHE	CG-CD1	-5.69	1.30	1.38
1	C	4701	TRP	CB-CG	-5.68	1.40	1.50
1	C	5014	TYR	CG-CD2	-5.65	1.31	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4180	ARG	C-O	-5.64	1.12	1.23
1	E	4671	PHE	CG-CD2	-5.63	1.30	1.38
1	G	4990	PHE	CB-CG	-5.63	1.41	1.51
1	E	4851	TYR	CG-CD1	-5.62	1.31	1.39
1	C	4851	TYR	CG-CD1	-5.59	1.31	1.39
1	A	4671	PHE	CG-CD2	-5.58	1.30	1.38
1	G	3968	TYR	CE1-CZ	-5.56	1.31	1.38
1	A	4192	ARG	CZ-NH2	-5.55	1.25	1.33
1	E	4192	ARG	CZ-NH2	-5.55	1.25	1.33
1	C	4192	ARG	CZ-NH2	-5.51	1.25	1.33
1	E	4859	PHE	CG-CD2	-5.49	1.30	1.38
1	E	3828	PHE	CG-CD2	-5.48	1.30	1.38
1	C	4921	PHE	CG-CD1	-5.46	1.30	1.38
1	A	4851	TYR	CG-CD1	-5.46	1.32	1.39
1	A	4921	PHE	CG-CD1	-5.46	1.30	1.38
1	C	4859	PHE	CG-CD2	-5.46	1.30	1.38
1	A	4177	TYR	CB-CG	-5.45	1.43	1.51
1	A	3828	PHE	CG-CD2	-5.45	1.30	1.38
1	G	4701	TRP	CB-CG	-5.44	1.40	1.50
1	E	4921	PHE	CG-CD1	-5.44	1.30	1.38
1	C	4671	PHE	CG-CD2	-5.44	1.30	1.38
1	E	4177	TYR	CB-CG	-5.43	1.43	1.51
1	A	4859	PHE	CG-CD2	-5.43	1.30	1.38
1	C	3828	PHE	CG-CD2	-5.43	1.30	1.38
1	G	5014	TYR	CG-CD2	-5.43	1.32	1.39
1	A	3919	THR	CB-CG2	-5.40	1.34	1.52
1	E	4836	GLN	CG-CD	5.40	1.63	1.51
1	C	4177	TYR	CB-CG	-5.38	1.43	1.51
1	A	5028	PHE	CG-CD2	-5.34	1.30	1.38
1	E	3919	THR	CB-CG2	-5.33	1.34	1.52
1	G	4173	TYR	CG-CD1	-5.33	1.32	1.39
1	E	4990	PHE	CG-CD2	-5.32	1.30	1.38
1	A	4178	LEU	C-O	-5.32	1.13	1.23
1	G	3922	TYR	CE2-CZ	-5.31	1.31	1.38
1	C	4178	LEU	C-O	-5.28	1.13	1.23
1	C	5028	PHE	CG-CD2	-5.28	1.30	1.38
1	E	4991	PHE	CD1-CE1	-5.28	1.28	1.39
1	C	3919	THR	CB-CG2	-5.27	1.34	1.52
1	G	4794	TRP	CE3-CZ3	-5.27	1.29	1.38
1	G	4921	PHE	CG-CD1	-5.26	1.30	1.38
1	A	4991	PHE	CD1-CE1	-5.23	1.28	1.39
1	G	3964	SER	CA-CB	-5.22	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	5011	TRP	CD2-CE2	-5.20	1.35	1.41
1	C	4990	PHE	CG-CD2	-5.20	1.30	1.38
1	C	5011	TRP	CD2-CE2	-5.19	1.35	1.41
1	G	1662	PHE	CG-CD2	-5.19	1.30	1.38
1	A	4990	PHE	CG-CD2	-5.18	1.30	1.38
1	E	5028	PHE	CG-CD2	-5.18	1.30	1.38
1	C	1662	PHE	CG-CD2	-5.17	1.30	1.38
1	E	4178	LEU	C-O	-5.17	1.13	1.23
1	G	4141	PHE	CG-CD2	-5.17	1.30	1.38
1	C	4836	GLN	CG-CD	5.17	1.62	1.51
1	A	1662	PHE	CG-CD2	-5.17	1.30	1.38
1	E	1662	PHE	CG-CD2	-5.17	1.30	1.38
1	C	3922	TYR	CE2-CZ	-5.16	1.31	1.38
1	C	4991	PHE	CD1-CE1	-5.16	1.28	1.39
1	G	4848	VAL	CB-CG2	-5.16	1.42	1.52
1	E	4920	PHE	CA-CB	-5.15	1.42	1.53
1	E	3922	TYR	CE2-CZ	-5.15	1.31	1.38
1	A	4920	PHE	CA-CB	-5.15	1.42	1.53
1	G	4180	ARG	C-O	-5.15	1.13	1.23
1	E	5011	TRP	CD2-CE2	-5.14	1.35	1.41
1	G	4178	LEU	C-O	-5.14	1.13	1.23
1	G	5028	PHE	CG-CD2	-5.14	1.31	1.38
1	G	4192	ARG	CZ-NH2	-5.13	1.26	1.33
1	C	3934	TYR	CB-CG	-5.12	1.44	1.51
1	C	4983	HIS	CB-CG	-5.12	1.40	1.50
1	A	3968	TYR	CE1-CZ	-5.11	1.31	1.38
1	G	3934	TYR	CB-CG	-5.11	1.44	1.51
1	G	4967	TYR	CE1-CZ	-5.08	1.31	1.38
1	G	3957	VAL	CB-CG1	-5.08	1.42	1.52
1	A	3934	TYR	CB-CG	-5.07	1.44	1.51
1	C	4920	PHE	CA-CB	-5.07	1.42	1.53
1	C	4967	TYR	CE1-CZ	-5.07	1.31	1.38
1	E	4141	PHE	CG-CD2	-5.07	1.31	1.38
1	A	4988	TYR	CA-CB	-5.05	1.42	1.53
1	A	5009	TYR	CE1-CZ	-5.04	1.31	1.38
1	A	4141	PHE	CG-CD2	-5.04	1.31	1.38
1	C	5009	TYR	CE1-CZ	-5.03	1.32	1.38
1	E	4967	TYR	CE1-CZ	-5.03	1.32	1.38
1	C	4141	PHE	CG-CD2	-5.03	1.31	1.38
1	E	3934	TYR	CB-CG	-5.01	1.44	1.51
1	A	4983	HIS	CB-CG	-5.01	1.41	1.50
1	C	4173	TYR	CG-CD1	-5.01	1.32	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	5011	TRP	CD2-CE2	-5.01	1.35	1.41
1	A	3922	TYR	CE2-CZ	-5.00	1.32	1.38
1	G	4988	TYR	CA-CB	-5.00	1.43	1.53

All (363) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	4128	PHE	CB-CG-CD2	-10.00	113.80	120.80
1	E	4128	PHE	CB-CG-CD2	-9.73	113.99	120.80
1	C	4128	PHE	CB-CG-CD2	-9.69	114.02	120.80
1	A	4128	PHE	CB-CG-CD2	-9.62	114.07	120.80
1	E	4064	MET	CG-SD-CE	8.87	114.39	100.20
1	A	4064	MET	CG-SD-CE	8.86	114.38	100.20
1	C	4064	MET	CG-SD-CE	8.84	114.34	100.20
1	C	4931	ILE	CG1-CB-CG2	-8.53	92.64	111.40
1	E	4931	ILE	CG1-CB-CG2	-8.51	92.68	111.40
1	G	4967	TYR	CB-CG-CD1	-7.83	116.30	121.00
1	G	4913	ARG	NE-CZ-NH2	-7.68	116.46	120.30
1	C	4849	TYR	CB-CG-CD1	-7.61	116.43	121.00
1	E	4849	TYR	CB-CG-CD1	-7.59	116.45	121.00
1	A	4849	TYR	CB-CG-CD1	-7.52	116.49	121.00
1	E	4967	TYR	CB-CG-CD1	-7.48	116.51	121.00
1	A	4967	TYR	CB-CG-CD1	-7.47	116.52	121.00
1	A	4850	LEU	CB-CG-CD1	7.43	123.64	111.00
1	A	4913	ARG	NE-CZ-NH2	-7.42	116.59	120.30
1	C	4967	TYR	CB-CG-CD1	-7.42	116.55	121.00
1	A	66	CYS	CA-CB-SG	7.40	127.33	114.00
1	C	4850	LEU	CB-CG-CD1	7.37	123.53	111.00
1	G	4850	LEU	CB-CG-CD1	7.37	123.53	111.00
1	C	4929	LEU	CB-CG-CD2	7.34	123.49	111.00
1	E	4032	GLU	OE1-CD-OE2	-7.28	114.56	123.30
1	G	4931	ILE	CG1-CB-CG2	-7.28	95.39	111.40
1	A	4032	GLU	OE1-CD-OE2	-7.25	114.59	123.30
1	C	2616	PRO	N-CA-CB	7.25	112.00	103.30
1	G	2616	PRO	N-CA-CB	7.25	112.00	103.30
1	A	4931	ILE	CG1-CB-CG2	-7.22	95.52	111.40
1	C	4032	GLU	OE1-CD-OE2	-7.20	114.66	123.30
1	E	2616	PRO	N-CA-CB	7.19	111.93	103.30
1	A	2616	PRO	N-CA-CB	7.08	111.80	103.30
1	C	4913	ARG	NE-CZ-NH2	-7.07	116.76	120.30
1	E	4850	LEU	CB-CG-CD1	7.06	123.00	111.00
1	G	4916	PHE	CB-CG-CD1	-7.04	115.87	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	4988	TYR	CB-CG-CD2	-7.03	116.78	121.00
1	A	4916	PHE	CB-CG-CD1	-7.01	115.89	120.80
1	E	4988	TYR	CB-CG-CD2	-7.00	116.80	121.00
1	A	4988	TYR	CB-CG-CD2	-6.99	116.81	121.00
1	E	4916	PHE	CB-CG-CD1	-6.99	115.91	120.80
1	G	66	CYS	CA-CB-SG	6.97	126.55	114.00
1	E	4929	LEU	CB-CG-CD2	6.97	122.84	111.00
1	C	1827	ARG	NE-CZ-NH1	6.93	123.77	120.30
1	E	4913	ARG	NE-CZ-NH2	-6.91	116.85	120.30
1	G	4924	VAL	CG1-CB-CG2	-6.91	99.85	110.90
1	G	1827	ARG	NE-CZ-NH1	6.88	123.74	120.30
1	A	3360	PRO	N-CA-CB	6.87	111.54	103.30
1	G	73	LEU	CB-CG-CD2	6.87	122.67	111.00
1	C	3360	PRO	N-CA-CB	6.86	111.53	103.30
1	E	3138	PRO	N-CA-CB	6.86	111.53	103.30
1	E	1827	ARG	NE-CZ-NH1	6.85	123.72	120.30
1	G	4938	ASP	CB-CG-OD2	6.84	124.46	118.30
1	C	3138	PRO	N-CA-CB	6.83	111.50	103.30
1	E	3360	PRO	N-CA-CB	6.82	111.49	103.30
1	A	3138	PRO	N-CA-CB	6.80	111.46	103.30
1	E	3567	PRO	N-CA-CB	6.77	111.43	103.30
1	A	3567	PRO	N-CA-CB	6.76	111.41	103.30
1	C	3567	PRO	N-CA-CB	6.75	111.40	103.30
1	C	4916	PHE	CB-CG-CD1	-6.74	116.08	120.80
1	G	4849	TYR	CB-CG-CD1	-6.74	116.96	121.00
1	C	73	LEU	CB-CG-CD2	6.71	122.40	111.00
1	G	3360	PRO	N-CA-CB	6.68	111.32	103.30
1	C	66	CYS	CA-CB-SG	6.68	126.02	114.00
1	G	3926	LEU	CB-CG-CD2	-6.66	99.69	111.00
1	G	3351	PRO	N-CA-CB	6.65	111.28	103.30
1	E	2451	LEU	CB-CG-CD1	6.64	122.29	111.00
1	A	2451	LEU	CB-CG-CD1	6.63	122.27	111.00
1	G	2451	LEU	CB-CG-CD1	6.62	122.26	111.00
1	C	4924	VAL	CG1-CB-CG2	-6.62	100.31	110.90
1	C	2451	LEU	CB-CG-CD1	6.61	122.24	111.00
1	E	4924	VAL	CG1-CB-CG2	-6.61	100.33	110.90
1	A	1827	ARG	NE-CZ-NH1	6.60	123.60	120.30
1	A	3351	PRO	N-CA-CB	6.59	111.21	103.30
1	A	4924	VAL	CG1-CB-CG2	-6.58	100.37	110.90
1	E	3351	PRO	N-CA-CB	6.58	111.19	103.30
1	C	3351	PRO	N-CA-CB	6.57	111.18	103.30
1	E	66	CYS	CA-CB-SG	6.56	125.81	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	73	LEU	CB-CG-CD2	6.56	122.15	111.00
1	G	3303	PRO	N-CA-CB	6.55	111.16	103.30
1	G	4064	MET	CG-SD-CE	6.53	110.66	100.20
1	G	3289	PRO	N-CA-CB	6.53	111.14	103.30
1	G	4992	LEU	CB-CG-CD1	-6.53	99.90	111.00
1	E	3527	PRO	N-CA-CB	6.53	111.13	103.30
1	G	3297	PRO	N-CA-CB	6.52	111.12	103.30
1	A	3527	PRO	N-CA-CB	6.52	111.12	103.30
1	C	3527	PRO	N-CA-CB	6.51	111.11	103.30
1	C	4889	VAL	CG1-CB-CG2	-6.51	100.49	110.90
1	G	3567	PRO	N-CA-CB	6.49	111.09	103.30
1	A	3297	PRO	N-CA-CB	6.49	111.08	103.30
1	E	3275	PRO	N-CA-CB	6.49	111.08	103.30
1	A	3275	PRO	N-CA-CB	6.48	111.07	103.30
1	E	3297	PRO	N-CA-CB	6.47	111.06	103.30
1	E	3303	PRO	N-CA-CB	6.46	111.05	103.30
1	C	2701	PRO	N-CA-CB	6.45	111.04	103.30
1	E	2701	PRO	N-CA-CB	6.44	111.03	103.30
1	C	3297	PRO	N-CA-CB	6.43	111.02	103.30
1	C	2640	PRO	N-CA-CB	6.43	111.02	103.30
1	C	3275	PRO	N-CA-CB	6.43	111.02	103.30
1	E	2640	PRO	N-CA-CB	6.43	111.02	103.30
1	G	3301	PRO	N-CA-CB	6.43	111.01	103.30
1	A	3303	PRO	N-CA-CB	6.42	111.01	103.30
1	G	2631	PRO	N-CA-CB	6.42	111.01	103.30
1	A	2640	PRO	N-CA-CB	6.42	111.00	103.30
1	G	4928	LEU	CB-CG-CD1	-6.42	100.09	111.00
1	A	2701	PRO	N-CA-CB	6.41	111.00	103.30
1	C	3303	PRO	N-CA-CB	6.41	110.99	103.30
1	G	4856	PHE	CB-CG-CD2	-6.41	116.31	120.80
1	A	2631	PRO	N-CA-CB	6.40	110.98	103.30
1	A	4889	VAL	CG1-CB-CG2	-6.39	100.67	110.90
1	E	2631	PRO	N-CA-CB	6.39	110.97	103.30
1	C	3021	PRO	N-CA-CB	6.38	110.96	103.30
1	A	3021	PRO	N-CA-CB	6.38	110.95	103.30
1	G	3138	PRO	N-CA-CB	6.38	110.95	103.30
1	C	2631	PRO	N-CA-CB	6.38	110.95	103.30
1	G	2640	PRO	N-CA-CB	6.37	110.95	103.30
1	G	4796	MET	CG-SD-CE	6.37	110.39	100.20
1	C	2658	PRO	N-CA-CB	6.36	110.94	103.30
1	E	4889	VAL	CG1-CB-CG2	-6.36	100.72	110.90
1	G	2658	PRO	N-CA-CB	6.36	110.94	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	3289	PRO	N-CA-CB	6.36	110.93	103.30
1	E	3021	PRO	N-CA-CB	6.36	110.93	103.30
1	C	4988	TYR	CB-CG-CD1	6.35	124.81	121.00
1	G	4188	ARG	NE-CZ-NH1	6.35	123.48	120.30
1	E	2658	PRO	N-CA-CB	6.35	110.92	103.30
1	A	4992	LEU	CB-CG-CD1	-6.35	100.21	111.00
1	C	3289	PRO	N-CA-CB	6.35	110.92	103.30
1	A	2658	PRO	N-CA-CB	6.34	110.91	103.30
1	A	3289	PRO	N-CA-CB	6.34	110.91	103.30
1	G	3527	PRO	N-CA-CB	6.31	110.88	103.30
1	A	1211	LEU	CA-CB-CG	6.30	129.80	115.30
1	G	1211	LEU	CA-CB-CG	6.30	129.79	115.30
1	E	1211	LEU	CA-CB-CG	6.29	129.77	115.30
1	C	1211	LEU	CA-CB-CG	6.29	129.77	115.30
1	C	4992	LEU	CB-CG-CD1	-6.29	100.31	111.00
1	G	3282	PRO	N-CA-CB	6.29	110.84	103.30
1	G	2701	PRO	N-CA-CB	6.28	110.84	103.30
1	E	3816	MET	CG-SD-CE	6.28	110.24	100.20
1	A	4929	LEU	CB-CG-CD2	6.27	121.66	111.00
1	A	3816	MET	CG-SD-CE	6.26	110.21	100.20
1	G	3021	PRO	N-CA-CB	6.26	110.81	103.30
1	C	3816	MET	CG-SD-CE	6.25	110.20	100.20
1	E	4988	TYR	CB-CG-CD1	6.25	124.75	121.00
1	G	3188	PRO	N-CA-CB	6.22	110.76	103.30
1	G	4889	VAL	CG1-CB-CG2	-6.19	100.99	110.90
1	C	3519	PRO	N-CA-CB	6.19	110.73	103.30
1	C	3282	PRO	N-CA-CB	6.18	110.72	103.30
1	E	3519	PRO	N-CA-CB	6.18	110.72	103.30
1	E	3188	PRO	N-CA-CB	6.16	110.69	103.30
1	A	3282	PRO	N-CA-CB	6.16	110.69	103.30
1	A	3519	PRO	N-CA-CB	6.15	110.68	103.30
1	A	4988	TYR	CB-CG-CD1	6.15	124.69	121.00
1	C	3188	PRO	N-CA-CB	6.14	110.67	103.30
1	E	3282	PRO	N-CA-CB	6.13	110.66	103.30
1	A	3188	PRO	N-CA-CB	6.13	110.66	103.30
1	C	3820	LEU	CB-CG-CD2	-6.13	100.58	111.00
1	C	3301	PRO	N-CA-CB	6.12	110.64	103.30
1	E	3820	LEU	CB-CG-CD2	-6.11	100.61	111.00
1	A	2429	LEU	CB-CG-CD1	6.11	121.39	111.00
1	A	3820	LEU	CB-CG-CD2	-6.10	100.63	111.00
1	G	2429	LEU	CB-CG-CD1	6.09	121.36	111.00
1	E	3301	PRO	N-CA-CB	6.09	110.61	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	4917	ASP	CB-CG-OD1	-6.07	112.83	118.30
1	C	3427	PRO	N-CA-CB	6.07	110.58	103.30
1	A	3301	PRO	N-CA-CB	6.06	110.57	103.30
1	E	3427	PRO	N-CA-CB	6.05	110.56	103.30
1	E	4887	MET	CA-CB-CG	6.05	123.58	113.30
1	E	2429	LEU	CB-CG-CD1	6.04	121.27	111.00
1	G	4128	PHE	CB-CG-CD1	6.04	125.03	120.80
1	C	2429	LEU	CB-CG-CD1	6.03	121.25	111.00
1	A	4917	ASP	CB-CG-OD1	-6.03	112.88	118.30
1	A	3427	PRO	N-CA-CB	6.02	110.53	103.30
1	G	1943	LEU	CB-CG-CD2	-6.01	100.78	111.00
1	E	4929	LEU	CB-CG-CD1	-6.01	100.78	111.00
1	E	2711	PRO	N-CA-CB	6.01	110.51	103.30
1	G	3275	PRO	N-CA-CB	6.01	110.51	103.30
1	C	2711	PRO	N-CA-CB	6.00	110.50	103.30
1	G	4170	ILE	CG1-CB-CG2	-6.00	98.19	111.40
1	C	3302	PRO	N-CA-CB	6.00	110.49	103.30
1	A	2711	PRO	N-CA-CB	5.99	110.49	103.30
1	A	3302	PRO	N-CA-CB	5.98	110.48	103.30
1	E	3302	PRO	N-CA-CB	5.97	110.47	103.30
1	E	4992	LEU	CB-CG-CD1	-5.97	100.85	111.00
1	G	4929	LEU	CB-CG-CD2	5.97	121.14	111.00
1	G	5017	ARG	NE-CZ-NH2	-5.96	117.32	120.30
1	G	2711	PRO	N-CA-CB	5.95	110.44	103.30
1	G	3410	PRO	N-CA-CB	5.93	110.41	103.30
1	E	1290	ARG	NE-CZ-NH1	5.92	123.26	120.30
1	G	4032	GLU	OE1-CD-OE2	-5.91	116.21	123.30
1	G	1290	ARG	NE-CZ-NH1	5.91	123.25	120.30
1	C	4887	MET	CA-CB-CG	5.90	123.33	113.30
1	A	1943	LEU	CB-CG-CD2	-5.89	100.99	111.00
1	E	4184	MET	CG-SD-CE	5.89	109.62	100.20
1	E	1290	ARG	NE-CZ-NH2	-5.88	117.36	120.30
1	A	4823	LEU	CB-CG-CD2	-5.87	101.02	111.00
1	C	3410	PRO	N-CA-CB	5.87	110.34	103.30
1	C	4184	MET	CG-SD-CE	5.87	109.59	100.20
1	A	73	LEU	CB-CG-CD2	5.86	120.97	111.00
1	A	4887	MET	CA-CB-CG	5.86	123.25	113.30
1	E	4028	LEU	CB-CG-CD2	5.84	120.93	111.00
1	E	4823	LEU	CB-CG-CD2	-5.84	101.07	111.00
1	C	4188	ARG	NE-CZ-NH1	5.83	123.21	120.30
1	G	4231	MET	CG-SD-CE	-5.82	90.89	100.20
1	E	3410	PRO	N-CA-CB	5.80	110.26	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	4184	MET	CG-SD-CE	5.79	109.47	100.20
1	E	551	LEU	CB-CG-CD1	5.79	120.84	111.00
1	A	3410	PRO	N-CA-CB	5.79	110.24	103.30
1	G	1290	ARG	NE-CZ-NH2	-5.78	117.41	120.30
1	E	1943	LEU	CB-CG-CD2	-5.77	101.19	111.00
1	A	4929	LEU	CB-CG-CD1	-5.76	101.20	111.00
1	C	4917	ASP	CB-CG-OD1	-5.76	113.12	118.30
1	C	1290	ARG	NE-CZ-NH1	5.75	123.18	120.30
1	C	1290	ARG	NE-CZ-NH2	-5.75	117.43	120.30
1	A	4028	LEU	CB-CG-CD2	5.74	120.76	111.00
1	C	4929	LEU	CB-CG-CD1	-5.74	101.24	111.00
1	C	551	LEU	CB-CG-CD1	5.74	120.75	111.00
1	C	4128	PHE	CB-CG-CD1	5.74	124.81	120.80
1	E	5021	PHE	CB-CG-CD2	-5.73	116.79	120.80
1	G	3519	PRO	N-CA-CB	5.73	110.18	103.30
1	G	3208	PRO	N-CA-CB	5.73	110.18	103.30
1	A	3885	PHE	CB-CG-CD2	-5.73	116.79	120.80
1	E	3885	PHE	CB-CG-CD2	-5.70	116.81	120.80
1	A	1290	ARG	NE-CZ-NH1	5.69	123.14	120.30
1	C	3085	PRO	N-CA-CB	5.69	110.13	103.30
1	C	3208	PRO	N-CA-CB	5.69	110.12	103.30
1	C	4823	LEU	CB-CG-CD2	-5.69	101.33	111.00
1	A	551	LEU	CB-CG-CD1	5.69	120.67	111.00
1	A	1290	ARG	NE-CZ-NH2	-5.68	117.46	120.30
1	A	3085	PRO	N-CA-CB	5.68	110.12	103.30
1	G	3062	PRO	N-CA-CB	5.68	110.11	103.30
1	A	3208	PRO	N-CA-CB	5.68	110.11	103.30
1	E	4170	ILE	CG1-CB-CG2	-5.68	98.91	111.40
1	E	3208	PRO	N-CA-CB	5.67	110.11	103.30
1	E	4868	ASP	N-CA-C	5.67	126.32	111.00
1	A	1493	TYR	N-CA-CB	5.67	120.81	110.60
1	C	4028	LEU	CB-CG-CD2	5.67	120.64	111.00
1	E	1493	TYR	N-CA-CB	5.66	120.79	110.60
1	E	3085	PRO	N-CA-CB	5.66	110.09	103.30
1	A	4170	ILE	CG1-CB-CG2	-5.66	98.96	111.40
1	C	1943	LEU	CB-CG-CD2	-5.66	101.39	111.00
1	C	4170	ILE	CG1-CB-CG2	-5.66	98.96	111.40
1	A	4868	ASP	N-CA-C	5.65	126.25	111.00
1	G	4868	ASP	N-CA-C	5.64	126.23	111.00
1	G	3302	PRO	N-CA-CB	5.63	110.06	103.30
1	G	4847	VAL	CG1-CB-CG2	-5.63	101.89	110.90
1	C	4868	ASP	N-CA-C	5.62	126.17	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	4128	PHE	CB-CG-CD1	5.62	124.73	120.80
1	A	4128	PHE	CB-CG-CD1	5.61	124.73	120.80
1	C	3885	PHE	CB-CG-CD2	-5.61	116.87	120.80
1	E	4856	PHE	CB-CG-CD2	-5.59	116.89	120.80
1	G	3085	PRO	N-CA-CB	5.59	110.01	103.30
1	A	4184	MET	CG-SD-CE	5.59	109.14	100.20
1	G	2712	PRO	N-CA-CB	5.58	110.00	103.30
1	C	4847	VAL	CG1-CB-CG2	-5.57	101.99	110.90
1	E	4188	ARG	NE-CZ-NH1	5.57	123.08	120.30
1	A	4856	PHE	CB-CG-CD2	-5.56	116.91	120.80
1	A	4847	VAL	CG1-CB-CG2	-5.56	102.01	110.90
1	E	631	LEU	CB-CG-CD2	-5.55	101.56	111.00
1	A	4188	ARG	NE-CZ-NH1	5.55	123.08	120.30
1	C	4856	PHE	CB-CG-CD2	-5.54	116.92	120.80
1	G	4929	LEU	CB-CG-CD1	-5.54	101.58	111.00
1	G	551	LEU	CB-CG-CD1	5.54	120.42	111.00
1	C	5021	PHE	CB-CG-CD2	-5.54	116.92	120.80
1	G	4914	VAL	CG1-CB-CG2	5.53	119.75	110.90
1	G	3427	PRO	N-CA-CB	5.53	109.93	103.30
1	C	4928	LEU	CB-CG-CD1	-5.52	101.62	111.00
1	A	631	LEU	CB-CG-CD2	-5.50	101.64	111.00
1	A	5021	PHE	CB-CG-CD2	-5.50	116.95	120.80
1	C	3842	LEU	CB-CG-CD2	-5.50	101.66	111.00
1	E	3062	PRO	N-CA-CB	5.50	109.89	103.30
1	G	631	LEU	CB-CG-CD2	-5.50	101.66	111.00
1	A	2712	PRO	N-CA-CB	5.49	109.89	103.30
1	C	2925	GLU	N-CA-C	-5.49	96.18	111.00
1	E	2712	PRO	N-CA-CB	5.49	109.89	103.30
1	A	3062	PRO	N-CA-CB	5.49	109.88	103.30
1	C	631	LEU	CB-CG-CD2	-5.48	101.68	111.00
1	C	1493	TYR	N-CA-CB	5.48	120.46	110.60
1	C	3294	PRO	N-CA-CB	5.47	109.87	103.30
1	A	3842	LEU	CB-CG-CD2	-5.47	101.70	111.00
1	E	3294	PRO	N-CA-CB	5.47	109.86	103.30
1	G	1493	TYR	N-CA-CB	5.47	120.44	110.60
1	E	3842	LEU	CB-CG-CD2	-5.46	101.71	111.00
1	A	3294	PRO	N-CA-CB	5.46	109.86	103.30
1	C	2712	PRO	N-CA-CB	5.46	109.86	103.30
1	G	4963	ILE	CG1-CB-CG2	-5.46	99.39	111.40
1	G	3294	PRO	N-CA-CB	5.46	109.85	103.30
1	E	4847	VAL	CG1-CB-CG2	-5.45	102.17	110.90
1	G	3820	LEU	CB-CG-CD2	-5.44	101.75	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	5026	ASP	CB-CG-OD2	5.43	123.19	118.30
1	G	5026	ASP	CB-CG-OD2	5.43	123.19	118.30
1	C	3062	PRO	N-CA-CB	5.41	109.79	103.30
1	G	4967	TYR	CB-CG-CD2	5.40	124.24	121.00
1	E	4928	LEU	CB-CG-CD1	-5.39	101.83	111.00
1	G	4837	LEU	CB-CG-CD1	-5.38	101.86	111.00
1	G	4887	MET	CA-CB-CG	5.35	122.40	113.30
1	G	3769	ARG	NE-CZ-NH2	-5.35	117.62	120.30
1	C	3953	LYS	CD-CE-NZ	5.32	123.94	111.70
1	A	3953	LYS	CD-CE-NZ	5.32	123.94	111.70
1	E	3953	LYS	CD-CE-NZ	5.31	123.91	111.70
1	A	3924	LEU	CB-CG-CD2	-5.31	101.98	111.00
1	E	4963	ILE	CG1-CB-CG2	-5.30	99.74	111.40
1	C	3880	PHE	CB-CG-CD1	-5.29	117.10	120.80
1	A	4880	MET	CG-SD-CE	5.29	108.66	100.20
1	G	4917	ASP	CB-CG-OD1	-5.28	113.54	118.30
1	A	3880	PHE	CB-CG-CD1	-5.28	117.10	120.80
1	C	2473	PRO	N-CA-CB	5.28	109.64	103.30
1	E	2473	PRO	N-CA-CB	5.28	109.64	103.30
1	A	2473	PRO	N-CA-CB	5.28	109.63	103.30
1	G	4146	LEU	CB-CG-CD1	-5.27	102.03	111.00
1	G	2473	PRO	N-CA-CB	5.27	109.63	103.30
1	E	3992	PHE	CB-CG-CD2	-5.27	117.11	120.80
1	G	4988	TYR	CB-CG-CD1	5.25	124.15	121.00
1	A	3992	PHE	CB-CG-CD2	-5.25	117.12	120.80
1	E	3924	LEU	CB-CG-CD2	-5.24	102.09	111.00
1	C	3924	LEU	CB-CG-CD2	-5.23	102.11	111.00
1	G	1284	VAL	N-CA-C	5.22	125.10	111.00
1	E	3880	PHE	CB-CG-CD1	-5.22	117.14	120.80
1	A	1284	VAL	N-CA-C	5.22	125.10	111.00
1	C	3992	PHE	CB-CG-CD2	-5.21	117.15	120.80
1	C	1284	VAL	N-CA-C	5.21	125.07	111.00
1	A	5026	ASP	CB-CG-OD2	5.21	122.98	118.30
1	E	1284	VAL	N-CA-C	5.21	125.05	111.00
1	E	4178	LEU	CB-CG-CD1	-5.20	102.16	111.00
1	A	915	GLU	C-N-CA	5.19	143.81	122.00
1	G	915	GLU	C-N-CA	5.18	143.77	122.00
1	C	915	GLU	C-N-CA	5.16	143.69	122.00
1	C	5026	ASP	CB-CG-OD2	5.16	122.95	118.30
1	E	915	GLU	C-N-CA	5.16	143.65	122.00
1	A	4963	ILE	CG1-CB-CG2	-5.15	100.07	111.40
1	E	1481	GLY	N-CA-C	5.14	125.96	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	4178	LEU	CB-CG-CD1	-5.14	102.26	111.00
1	C	4963	ILE	CG1-CB-CG2	-5.14	100.08	111.40
1	C	1481	GLY	N-CA-C	5.14	125.94	113.10
1	E	4967	TYR	CB-CG-CD2	5.14	124.08	121.00
1	G	1481	GLY	N-CA-C	5.13	125.93	113.10
1	A	2178	MET	CG-SD-CE	-5.13	91.99	100.20
1	E	4980	LEU	CB-CG-CD2	-5.12	102.30	111.00
1	A	2567	PRO	N-CA-CB	5.12	109.44	103.30
1	A	1481	GLY	N-CA-C	5.11	125.88	113.10
1	C	4178	LEU	CB-CG-CD1	-5.11	102.31	111.00
1	C	4967	TYR	CB-CG-CD2	5.11	124.07	121.00
1	G	2567	PRO	N-CA-CB	5.11	109.43	103.30
1	C	2178	MET	CG-SD-CE	-5.10	92.05	100.20
1	E	2178	MET	CG-SD-CE	-5.10	92.05	100.20
1	C	2567	PRO	N-CA-CB	5.08	109.39	103.30
1	E	2567	PRO	N-CA-CB	5.08	109.39	103.30
1	E	5010	VAL	CG1-CB-CG2	-5.07	102.79	110.90
1	A	1548	LEU	CA-CB-CG	5.06	126.93	115.30
1	C	5010	VAL	CG1-CB-CG2	-5.05	102.82	110.90
1	E	551	LEU	CB-CG-CD2	-5.05	102.42	111.00
1	C	4928	LEU	CB-CG-CD2	5.04	119.58	111.00
1	C	551	LEU	CB-CG-CD2	-5.04	102.43	111.00
1	E	1548	LEU	CA-CB-CG	5.04	126.89	115.30
1	G	1548	LEU	CA-CB-CG	5.04	126.89	115.30
1	G	2178	MET	CG-SD-CE	-5.04	92.14	100.20
1	G	2168	VAL	CG1-CB-CG2	5.03	118.95	110.90
1	A	4967	TYR	CB-CG-CD2	5.03	124.02	121.00
1	C	1548	LEU	CA-CB-CG	5.03	126.87	115.30
1	G	4048	LEU	CB-CG-CD1	-5.03	102.45	111.00
1	A	551	LEU	CB-CG-CD2	-5.03	102.45	111.00
1	G	3965	LEU	CB-CG-CD1	-5.03	102.45	111.00
1	G	4563	ARG	NE-CZ-NH2	-5.01	117.80	120.30
1	G	551	LEU	CB-CG-CD2	-5.00	102.50	111.00
1	A	5010	VAL	CG1-CB-CG2	-5.00	102.90	110.90

There are no chirality outliers.

All (76) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1252	HIS	Peptide
1	A	1253	PRO	Peptide
1	A	1464	PHE	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
1	A	1480	GLN	Peptide
1	A	1588	ALA	Mainchain,Peptide
1	A	1783	VAL	Mainchain,Peptide
1	A	1828	ASP	Mainchain,Peptide
1	A	1867	GLU	Peptide
1	A	332	GLU	Mainchain,Peptide
1	A	4157	ASP	Peptide
1	A	4849	TYR	Sidechain
1	A	4867	GLU	Mainchain,Peptide
1	A	841	GLY	Peptide
1	C	1252	HIS	Peptide
1	C	1253	PRO	Peptide
1	C	1464	PHE	Mainchain,Peptide
1	C	1480	GLN	Peptide
1	C	1588	ALA	Mainchain,Peptide
1	C	1783	VAL	Mainchain,Peptide
1	C	1828	ASP	Mainchain,Peptide
1	C	1867	GLU	Peptide
1	C	332	GLU	Mainchain,Peptide
1	C	4157	ASP	Peptide
1	C	4849	TYR	Sidechain
1	C	4867	GLU	Mainchain,Peptide
1	C	841	GLY	Peptide
1	E	1252	HIS	Peptide
1	E	1253	PRO	Peptide
1	E	1464	PHE	Mainchain,Peptide
1	E	1480	GLN	Peptide
1	E	1588	ALA	Mainchain,Peptide
1	E	1783	VAL	Mainchain,Peptide
1	E	1828	ASP	Mainchain,Peptide
1	E	1867	GLU	Peptide
1	E	332	GLU	Mainchain,Peptide
1	E	4157	ASP	Peptide
1	E	4849	TYR	Sidechain
1	E	4867	GLU	Mainchain,Peptide
1	E	841	GLY	Peptide
1	G	1252	HIS	Peptide
1	G	1253	PRO	Peptide
1	G	1464	PHE	Mainchain,Peptide
1	G	1480	GLN	Peptide
1	G	1588	ALA	Mainchain,Peptide
1	G	1783	VAL	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
1	G	1828	ASP	Mainchain,Peptide
1	G	1867	GLU	Peptide
1	G	332	GLU	Mainchain,Peptide
1	G	4690	GLU	Peptide
1	G	4849	TYR	Sidechain
1	G	4867	GLU	Mainchain,Peptide
1	G	841	GLY	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	26917	0	24461	1094	0
1	C	26917	0	24461	1105	0
1	E	26917	0	24461	1108	0
1	G	26917	0	24461	1100	0
2	B	832	0	831	38	0
2	D	832	0	831	37	0
2	F	832	0	831	36	0
2	H	832	0	831	34	0
3	A	1	0	0	0	0
3	C	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
All	All	111000	0	101168	4395	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 21.

All (4395) 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:E:4826:ILE:CG2	1:G:4931:ILE:HD11	1.79	1.10
1:A:4879:MET:SD	1:G:4578:LEU:HA	1.92	1.10
1:A:4826:ILE:CG2	1:C:4931:ILE:HD11	1.86	1.05
1:E:4578:LEU:HA	1:G:4879:MET:SD	1.99	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4826:ILE:CG2	1:E:4931:ILE:HD11	1.91	1.00
1:C:4578:LEU:HA	1:E:4879:MET:SD	2.02	0.98
1:A:4578:LEU:HA	1:C:4879:MET:SD	2.03	0.98
1:G:3936:TYR:O	1:G:3940:LYS:NZ	1.96	0.97
1:G:1585:LYS:NZ	1:G:1596:GLU:OE1	2.00	0.94
1:C:1585:LYS:NZ	1:C:1596:GLU:OE1	2.00	0.93
1:E:1585:LYS:NZ	1:E:1596:GLU:OE1	2.00	0.93
1:C:2924:GLN:O	1:C:2928:LYS:HB2	1.68	0.93
1:E:2865:VAL:O	1:E:2928:LYS:NZ	2.01	0.93
1:A:1585:LYS:NZ	1:A:1596:GLU:OE1	2.00	0.93
1:A:265:LEU:HD12	1:A:279:PRO:HB2	1.52	0.92
1:A:1206:GLN:H	1:A:1227:ALA:HB3	1.34	0.92
1:G:693:SER:OG	1:G:827:LYS:NZ	2.03	0.92
1:E:693:SER:OG	1:E:827:LYS:NZ	2.02	0.92
1:C:693:SER:OG	1:C:827:LYS:NZ	2.03	0.91
1:G:265:LEU:HD12	1:G:279:PRO:HB2	1.52	0.91
1:E:265:LEU:HD12	1:E:279:PRO:HB2	1.52	0.91
1:A:3936:TYR:O	1:A:3940:LYS:NZ	2.03	0.91
1:G:1027:LEU:O	1:G:1032:LYS:NZ	2.04	0.91
1:C:2865:VAL:O	1:C:2928:LYS:NZ	2.03	0.90
1:C:3936:TYR:O	1:C:3940:LYS:NZ	2.04	0.90
1:E:3936:TYR:O	1:E:3940:LYS:NZ	2.04	0.90
1:C:265:LEU:HD12	1:C:279:PRO:HB2	1.52	0.90
1:A:693:SER:OG	1:A:827:LYS:NZ	2.03	0.90
1:A:1027:LEU:O	1:A:1032:LYS:NZ	2.04	0.90
1:E:4826:ILE:HG22	1:G:4931:ILE:HD11	1.54	0.90
1:A:2865:VAL:O	1:A:2928:LYS:NZ	2.03	0.89
1:C:552:ASP:O	1:C:1594:ARG:NH1	2.05	0.89
1:C:2924:GLN:O	1:C:2928:LYS:CB	2.20	0.89
1:E:552:ASP:O	1:E:1594:ARG:NH1	2.06	0.89
1:C:1027:LEU:O	1:C:1032:LYS:NZ	2.05	0.89
1:G:1206:GLN:H	1:G:1227:ALA:HB3	1.36	0.89
1:E:1027:LEU:O	1:E:1032:LYS:NZ	2.04	0.88
1:A:1708:ARG:NH1	1:A:1836:PHE:O	2.07	0.88
1:C:1206:GLN:H	1:C:1227:ALA:HB3	1.36	0.88
1:A:552:ASP:O	1:A:1594:ARG:NH1	2.06	0.88
1:E:1206:GLN:H	1:E:1227:ALA:HB3	1.36	0.88
1:C:4786:ASP:OD2	1:C:4789:PHE:N	2.07	0.88
1:E:4786:ASP:OD2	1:E:4789:PHE:N	2.07	0.88
1:A:4786:ASP:OD2	1:A:4789:PHE:N	2.07	0.88
1:G:552:ASP:O	1:G:1594:ARG:NH1	2.06	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1708:ARG:NH1	1:G:1836:PHE:O	2.07	0.87
1:C:1708:ARG:NH1	1:C:1836:PHE:O	2.07	0.87
1:A:281:ARG:NH1	1:A:309:THR:OG1	2.07	0.87
1:E:1708:ARG:NH1	1:E:1836:PHE:O	2.06	0.87
1:G:281:ARG:NH1	1:G:309:THR:OG1	2.08	0.87
1:E:281:ARG:NH1	1:E:309:THR:OG1	2.08	0.87
1:C:4892:ARG:NH1	1:E:4895:GLY:O	2.08	0.86
1:E:1243:PRO:O	1:E:1458:HIS:ND1	2.07	0.86
1:C:281:ARG:NH1	1:C:309:THR:OG1	2.08	0.86
1:A:1259:ARG:HH12	1:A:1597:VAL:HA	1.41	0.86
1:A:4895:GLY:O	1:G:4892:ARG:NH1	2.09	0.86
1:G:2924:GLN:O	1:G:2928:LYS:HB2	1.76	0.85
1:E:2463:LEU:N	1:E:2510:TYR:HH	1.75	0.85
1:E:1259:ARG:HH12	1:E:1597:VAL:HA	1.41	0.84
1:G:4786:ASP:OD2	1:G:4789:PHE:N	2.09	0.84
1:C:1259:ARG:HH12	1:C:1597:VAL:HA	1.41	0.84
1:G:1259:ARG:HH12	1:G:1597:VAL:HA	1.42	0.84
1:A:2924:GLN:O	1:A:2928:LYS:N	2.11	0.83
1:G:1291:LEU:HD23	1:G:1293:LEU:H	1.43	0.83
1:G:2463:LEU:N	1:G:2510:TYR:HH	1.76	0.83
1:E:4578:LEU:O	1:G:4879:MET:HB3	1.78	0.83
1:C:1456:ASP:O	1:C:1458:HIS:CD2	2.31	0.83
1:A:4892:ARG:NH1	1:C:4895:GLY:O	2.11	0.83
1:A:1291:LEU:HD23	1:A:1293:LEU:H	1.43	0.83
1:G:5017:ARG:HH11	1:G:5019:TRP:HH2	1.25	0.83
1:E:1291:LEU:HD23	1:E:1293:LEU:H	1.44	0.83
1:E:61:ASP:OD2	1:E:402:ARG:NH2	2.12	0.83
1:A:1727:ARG:HH12	1:A:1775:HIS:HD2	1.26	0.83
1:G:61:ASP:OD2	1:G:402:ARG:NH2	2.12	0.83
1:G:4984:ASN:O	1:G:4986:ALA:N	2.11	0.82
1:A:61:ASP:OD2	1:A:402:ARG:NH2	2.11	0.82
1:C:61:ASP:OD2	1:C:402:ARG:NH2	2.12	0.82
1:C:1291:LEU:HD23	1:C:1293:LEU:H	1.43	0.82
1:E:1727:ARG:HH12	1:E:1775:HIS:HD2	1.26	0.81
1:G:111:HIS:HD2	1:G:114:SER:H	1.28	0.81
1:C:706:GLY:HA2	1:C:711:LEU:HD22	1.62	0.81
1:A:111:HIS:HD2	1:A:114:SER:H	1.28	0.81
1:E:4892:ARG:HH12	1:G:4899:ASP:N	1.78	0.81
1:G:4708:THR:HG21	1:G:4775:TYR:HB2	1.60	0.81
1:A:1555:LEU:HD12	1:A:1556:PRO:HD2	1.63	0.81
1:A:4899:ASP:N	1:G:4892:ARG:HH12	1.78	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4892:ARG:HH12	1:E:4899:ASP:N	1.79	0.81
1:C:622:THR:HG23	1:C:626:LEU:HD12	1.63	0.80
1:G:2865:VAL:O	1:G:2928:LYS:NZ	2.12	0.80
1:G:4180:ARG:NH1	1:G:4981:GLU:OE1	2.15	0.80
1:A:622:THR:HG23	1:A:626:LEU:HD12	1.63	0.80
1:A:706:GLY:HA2	1:A:711:LEU:HD22	1.62	0.80
1:E:706:GLY:HA2	1:E:711:LEU:HD22	1.62	0.80
1:G:2924:GLN:O	1:G:2928:LYS:CB	2.29	0.80
1:C:4708:THR:HG21	1:C:4775:TYR:HB2	1.64	0.80
1:E:1555:LEU:HD12	1:E:1556:PRO:HD2	1.63	0.80
1:C:111:HIS:HD2	1:C:114:SER:H	1.27	0.79
1:A:1435:TYR:H	1:A:1516:ILE:CG1	1.93	0.79
1:C:1727:ARG:HH12	1:C:1775:HIS:HD2	1.26	0.79
1:G:1727:ARG:HH12	1:G:1775:HIS:HD2	1.26	0.79
1:G:706:GLY:HA2	1:G:711:LEU:HD22	1.62	0.79
1:A:4879:MET:HB3	1:G:4578:LEU:O	1.82	0.79
1:C:1555:LEU:HD12	1:C:1556:PRO:HD2	1.64	0.79
1:E:622:THR:HG23	1:E:626:LEU:HD12	1.63	0.79
1:A:4708:THR:HG21	1:A:4775:TYR:HB2	1.64	0.79
1:G:3927:GLN:HE21	1:G:3991:GLY:HA3	1.48	0.79
1:C:2463:LEU:N	1:C:2510:TYR:HH	1.81	0.79
1:G:622:THR:HG23	1:G:626:LEU:HD12	1.63	0.79
1:A:4892:ARG:HH12	1:C:4899:ASP:N	1.80	0.78
1:G:316:PHE:HB3	1:G:346:CYS:HB3	1.65	0.78
1:G:840:VAL:O	1:G:1073:ARG:NH1	2.17	0.78
1:G:1555:LEU:HD12	1:G:1556:PRO:HD2	1.65	0.78
1:G:1780:PRO:O	2:H:42:ARG:NH2	2.16	0.78
1:E:4892:ARG:NH1	1:G:4895:GLY:O	2.16	0.78
1:E:4578:LEU:O	1:G:4879:MET:HG2	1.83	0.78
1:A:316:PHE:HB3	1:A:346:CYS:HB3	1.65	0.78
1:E:111:HIS:HD2	1:E:114:SER:H	1.28	0.78
1:A:5017:ARG:HH11	1:A:5019:TRP:HH2	1.32	0.78
1:E:479:GLN:NE2	1:E:536:ASN:OD1	2.13	0.78
1:A:840:VAL:O	1:A:1073:ARG:NH1	2.17	0.78
1:E:4708:THR:HG21	1:E:4775:TYR:HB2	1.64	0.78
1:G:580:GLU:HA	1:G:620:LEU:HD11	1.67	0.77
1:C:840:VAL:HG12	1:C:1199:VAL:HG13	1.67	0.77
1:E:840:VAL:O	1:E:1073:ARG:NH1	2.17	0.77
1:C:612:VAL:HA	1:C:2167:ILE:HG23	1.65	0.77
1:E:316:PHE:HB3	1:E:346:CYS:HB3	1.65	0.77
1:A:4578:LEU:O	1:C:4879:MET:HG2	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:840:VAL:HG12	1:A:1199:VAL:HG13	1.67	0.77
1:A:4895:GLY:O	1:G:4892:ARG:CZ	2.33	0.77
1:A:4957:LYS:HA	1:A:4964:GLY:HA2	1.67	0.77
1:A:612:VAL:HA	1:A:2167:ILE:HG23	1.65	0.77
1:A:2625:ARG:HA	1:A:2910:THR:HG22	1.66	0.77
1:A:479:GLN:NE2	1:A:536:ASN:OD1	2.14	0.76
1:A:4931:ILE:HD11	1:G:4826:ILE:HG23	1.66	0.76
1:E:731:THR:OG1	1:E:765:GLN:NE2	2.19	0.76
1:G:607:CYS:O	1:G:618:GLN:NE2	2.19	0.76
1:G:731:THR:OG1	1:G:765:GLN:NE2	2.19	0.76
1:G:3889:GLN:HG3	1:G:3967:GLU:HG3	1.67	0.76
1:G:4957:LYS:HA	1:G:4964:GLY:HA2	1.66	0.76
1:A:2463:LEU:N	1:A:2510:TYR:HH	1.83	0.76
1:G:3966:THR:O	1:G:3970:GLN:N	2.18	0.76
1:C:316:PHE:HB3	1:C:346:CYS:HB3	1.65	0.76
1:E:2625:ARG:HA	1:E:2910:THR:HG22	1.67	0.76
1:C:840:VAL:O	1:C:1073:ARG:NH1	2.17	0.76
1:C:1716:ILE:HD11	1:C:1844:LEU:HA	1.68	0.76
1:E:612:VAL:HA	1:E:2167:ILE:HG23	1.65	0.76
1:E:580:GLU:HA	1:E:620:LEU:HD11	1.67	0.76
1:A:180:LEU:O	1:A:200:TRP:NE1	2.18	0.76
1:C:4578:LEU:O	1:E:4879:MET:HG2	1.86	0.76
1:E:1637:MET:HG2	1:E:1650:ILE:HD12	1.68	0.76
1:C:4957:LYS:HA	1:C:4964:GLY:HA2	1.67	0.76
1:G:1808:ARG:NH2	1:G:1858:ASP:OD2	2.18	0.76
1:E:1716:ILE:HD11	1:E:1844:LEU:HA	1.68	0.76
1:G:612:VAL:HA	1:G:2167:ILE:HG23	1.66	0.76
1:A:1808:ARG:NH2	1:A:1858:ASP:OD2	2.18	0.76
1:A:4826:ILE:HG22	1:C:4931:ILE:HD11	1.66	0.76
1:C:180:LEU:O	1:C:200:TRP:NE1	2.18	0.76
1:E:703:GLY:N	1:E:1647:CYS:SG	2.58	0.76
1:E:840:VAL:HG12	1:E:1199:VAL:HG13	1.67	0.76
1:C:607:CYS:O	1:C:618:GLN:NE2	2.19	0.75
1:C:640:TYR:HE1	1:C:1613:LEU:HD23	1.51	0.75
1:C:1637:MET:HG2	1:C:1650:ILE:HD12	1.68	0.75
1:C:1808:ARG:NH2	1:C:1858:ASP:OD2	2.18	0.75
1:C:5017:ARG:HH11	1:C:5019:TRP:HH2	1.32	0.75
1:G:1731:LEU:HA	1:G:1772:ARG:HE	1.52	0.75
1:A:1716:ILE:HD11	1:A:1844:LEU:HA	1.68	0.75
1:C:731:THR:OG1	1:C:765:GLN:NE2	2.19	0.75
1:A:580:GLU:HA	1:A:620:LEU:HD11	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:703:GLY:N	1:A:1647:CYS:SG	2.58	0.75
1:C:2625:ARG:HA	1:C:2910:THR:HG22	1.67	0.75
1:G:700:GLU:OE2	1:G:1458:HIS:NE2	2.19	0.75
1:G:2924:GLN:HB3	1:G:2928:LYS:HE2	1.68	0.75
1:G:1190:PRO:HG3	1:G:1226:PHE:HE2	1.51	0.75
1:G:1435:TYR:H	1:G:1516:ILE:CG1	1.99	0.75
1:G:1716:ILE:HD11	1:G:1844:LEU:HA	1.68	0.75
1:E:1808:ARG:NH2	1:E:1858:ASP:OD2	2.19	0.75
1:C:1190:PRO:HG3	1:C:1226:PHE:HE2	1.51	0.75
1:E:5017:ARG:HH11	1:E:5019:TRP:HH2	1.32	0.75
1:G:1637:MET:HG2	1:G:1650:ILE:HD12	1.68	0.75
1:G:1805:GLU:OE2	1:G:1808:ARG:NH1	2.20	0.75
1:A:731:THR:OG1	1:A:765:GLN:NE2	2.19	0.75
1:A:1731:LEU:HA	1:A:1772:ARG:HE	1.52	0.75
1:E:1190:PRO:HG3	1:E:1226:PHE:HE2	1.51	0.75
1:E:1731:LEU:HA	1:E:1772:ARG:HE	1.52	0.75
1:A:2452:ARG:NH2	1:C:177:GLU:HG3	2.02	0.75
1:C:2922:LYS:HA	1:C:2925:GLU:OE1	1.86	0.75
1:G:840:VAL:HG12	1:G:1199:VAL:HG13	1.67	0.75
1:E:640:TYR:HE1	1:E:1613:LEU:HD23	1.52	0.75
1:C:1805:GLU:OE2	1:C:1808:ARG:NH1	2.20	0.74
1:E:1805:GLU:OE2	1:E:1808:ARG:NH1	2.20	0.74
1:A:607:CYS:O	1:A:618:GLN:NE2	2.19	0.74
1:C:2771:ILE:HG23	1:C:2852:ARG:HB2	1.70	0.74
1:C:703:GLY:N	1:C:1647:CYS:SG	2.59	0.74
1:A:1805:GLU:OE2	1:A:1808:ARG:NH1	2.20	0.74
1:C:479:GLN:NE2	1:C:536:ASN:OD1	2.14	0.74
1:E:4957:LYS:HA	1:E:4964:GLY:HA2	1.68	0.74
1:A:640:TYR:HE1	1:A:1613:LEU:HD23	1.52	0.74
1:A:717:ASP:O	1:A:720:HIS:NE2	2.21	0.74
1:A:3969:ILE:HD11	1:A:3980:LEU:HD13	1.70	0.74
1:C:580:GLU:HA	1:C:620:LEU:HD11	1.67	0.74
1:E:607:CYS:O	1:E:618:GLN:NE2	2.19	0.74
1:E:3969:ILE:HD11	1:E:3980:LEU:HD13	1.69	0.74
1:G:717:ASP:O	1:G:720:HIS:NE2	2.21	0.74
1:G:1641:ILE:HD12	1:G:1642:PRO:HD2	1.69	0.74
1:G:2159:LEU:HD11	1:G:2201:LEU:HD13	1.69	0.74
1:E:1582:SER:OG	1:E:1589:PRO:O	2.05	0.74
1:G:640:TYR:HE1	1:G:1613:LEU:HD23	1.51	0.74
1:C:1582:SER:OG	1:C:1589:PRO:O	2.04	0.74
1:C:3969:ILE:HD11	1:C:3980:LEU:HD13	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2452:ARG:NH2	1:E:177:GLU:HG3	2.03	0.74
1:C:2497:ASP:OD1	1:C:2552:ARG:NE	2.21	0.74
1:E:180:LEU:O	1:E:200:TRP:NE1	2.18	0.74
1:A:1637:MET:HG2	1:A:1650:ILE:HD12	1.68	0.74
1:G:479:GLN:NE2	1:G:536:ASN:OD1	2.13	0.74
1:E:1780:PRO:O	2:F:42:ARG:NH2	2.21	0.73
1:G:15:ARG:NH1	1:G:100:THR:OG1	2.21	0.73
1:G:180:LEU:O	1:G:200:TRP:NE1	2.18	0.73
1:A:2771:ILE:HG23	1:A:2852:ARG:HB2	1.70	0.73
1:A:3839:CYS:SG	1:A:3840:SER:N	2.61	0.73
1:E:2159:LEU:HD11	1:E:2201:LEU:HD13	1.69	0.73
1:G:2924:GLN:O	1:G:2928:LYS:CG	2.36	0.73
1:A:1436:SER:H	1:A:1516:ILE:CG1	2.00	0.73
1:C:717:ASP:O	1:C:720:HIS:NE2	2.20	0.73
1:E:717:ASP:O	1:E:720:HIS:NE2	2.21	0.73
1:E:2452:ARG:NH2	1:G:177:GLU:HG3	2.02	0.73
1:E:2497:ASP:OD1	1:E:2552:ARG:NE	2.21	0.73
1:E:2771:ILE:HG23	1:E:2852:ARG:HB2	1.70	0.73
1:A:195:PHE:CE2	1:G:2358:ILE:HG23	2.24	0.73
1:C:1780:PRO:O	2:D:42:ARG:NH2	2.22	0.73
1:A:2159:LEU:HD11	1:A:2201:LEU:HD13	1.69	0.73
1:C:1731:LEU:HA	1:C:1772:ARG:HE	1.52	0.73
1:G:1582:SER:OG	1:G:1589:PRO:O	2.04	0.73
1:G:2497:ASP:OD1	1:G:2552:ARG:NE	2.21	0.73
1:A:1780:PRO:O	2:B:42:ARG:NH2	2.22	0.73
1:C:2159:LEU:HD11	1:C:2201:LEU:HD13	1.69	0.73
1:C:2358:ILE:HG23	1:E:195:PHE:CE2	2.24	0.73
1:G:1456:ASP:O	1:G:1458:HIS:CD2	2.42	0.73
1:G:1948:ASP:OD1	1:G:2126:ARG:NH2	2.21	0.73
1:C:595:ARG:HH22	1:C:1641:ILE:HD11	1.54	0.73
1:G:2771:ILE:HG23	1:G:2852:ARG:HB2	1.70	0.73
1:C:1641:ILE:HD12	1:C:1642:PRO:HD2	1.69	0.72
1:C:2924:GLN:O	1:C:2928:LYS:CG	2.37	0.72
1:E:3839:CYS:SG	1:E:3840:SER:N	2.61	0.72
1:A:177:GLU:HG3	1:G:2452:ARG:NH2	2.04	0.72
1:E:595:ARG:HH22	1:E:1641:ILE:HD11	1.54	0.72
1:G:2827:ARG:HB2	1:G:2934:GLY:HA3	1.70	0.72
1:E:33:LEU:HD11	1:E:51:PRO:HB3	1.72	0.72
1:G:252:VAL:HG23	1:G:257:ARG:HG3	1.72	0.72
1:G:331:VAL:HG12	1:G:333:GLY:HA3	1.71	0.72
1:G:703:GLY:N	1:G:1647:CYS:SG	2.60	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:15:ARG:NH1	1:E:100:THR:OG1	2.21	0.72
1:E:1810:LYS:HA	1:E:1813:ARG:HH12	1.54	0.72
1:G:39:ALA:HB2	1:G:47:CYS:HA	1.71	0.72
1:G:1810:LYS:HA	1:G:1813:ARG:HH12	1.54	0.72
1:A:331:VAL:HG12	1:A:333:GLY:HA3	1.72	0.72
1:C:15:ARG:NH1	1:C:100:THR:OG1	2.21	0.72
1:E:613:ALA:HB1	1:E:618:GLN:HE22	1.55	0.72
1:E:2136:ARG:NH1	1:E:3720:TYR:OH	2.23	0.72
1:A:2358:ILE:HG23	1:C:195:PHE:CE2	2.24	0.72
1:C:33:LEU:HD11	1:C:51:PRO:HB3	1.72	0.72
1:C:2921:GLU:O	1:C:2925:GLU:HB2	1.90	0.72
1:C:4826:ILE:HG22	1:E:4931:ILE:HD11	1.71	0.72
1:E:252:VAL:HG23	1:E:257:ARG:HG3	1.72	0.72
1:E:331:VAL:HG12	1:E:333:GLY:HA3	1.71	0.72
1:A:2136:ARG:NH1	1:A:3720:TYR:OH	2.23	0.72
1:C:331:VAL:HG12	1:C:333:GLY:HA3	1.72	0.72
1:E:28:VAL:HG21	1:E:189:LEU:HD11	1.72	0.72
2:F:24:VAL:HG12	2:F:103:LEU:HA	1.71	0.72
1:G:613:ALA:HB1	1:G:618:GLN:HE22	1.55	0.72
1:A:1641:ILE:HD12	1:A:1642:PRO:HD2	1.71	0.72
1:A:2497:ASP:OD1	1:A:2552:ARG:NE	2.21	0.72
1:C:700:GLU:OE2	1:C:1458:HIS:NE2	2.20	0.72
1:G:595:ARG:HH22	1:G:1641:ILE:HD11	1.54	0.72
1:G:786:GLY:HA2	1:G:1631:GLN:HA	1.71	0.72
2:D:24:VAL:HG12	2:D:103:LEU:HA	1.71	0.72
1:A:1112:ASP:HA	1:A:1607:ARG:HB2	1.72	0.71
1:C:2136:ARG:NH1	1:C:3720:TYR:OH	2.23	0.71
1:G:4235:VAL:HG21	1:G:5019:TRP:NE1	2.04	0.71
1:A:1436:SER:H	1:A:1516:ILE:HA	1.54	0.71
2:B:24:VAL:HG12	2:B:103:LEU:HA	1.71	0.71
1:C:613:ALA:HB1	1:C:618:GLN:HE22	1.55	0.71
1:C:786:GLY:HA2	1:C:1631:GLN:HA	1.71	0.71
1:C:4892:ARG:CZ	1:E:4895:GLY:O	2.38	0.71
1:G:33:LEU:HD11	1:G:51:PRO:HB3	1.72	0.71
1:G:2625:ARG:HA	1:G:2910:THR:HG22	1.70	0.71
1:A:786:GLY:HA2	1:A:1631:GLN:HA	1.71	0.71
1:E:786:GLY:HA2	1:E:1631:GLN:HA	1.71	0.71
1:E:4892:ARG:O	1:G:4895:GLY:HA2	1.91	0.71
1:A:252:VAL:HG23	1:A:257:ARG:HG3	1.71	0.71
1:C:28:VAL:HG21	1:C:189:LEU:HD11	1.72	0.71
1:E:1641:ILE:HD12	1:E:1642:PRO:HD2	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:613:ALA:HB1	1:A:618:GLN:HE22	1.55	0.71
1:E:2358:ILE:HG23	1:G:195:PHE:CE2	2.25	0.71
1:A:1190:PRO:HG3	1:A:1226:PHE:HE2	1.54	0.71
1:A:2921:GLU:O	1:A:2925:GLU:HG3	1.91	0.71
1:C:1245:PHE:HB2	1:C:1602:PRO:HB2	1.73	0.71
1:E:349:GLN:HE21	1:E:354:GLY:HA2	1.56	0.71
1:A:33:LEU:HD11	1:A:51:PRO:HB3	1.72	0.71
1:A:1810:LYS:HA	1:A:1813:ARG:NH1	2.06	0.71
1:A:4892:ARG:O	1:C:4895:GLY:HA2	1.91	0.71
1:E:717:ASP:OD2	1:E:737:LEU:HD12	1.91	0.71
1:E:2287:ALA:O	1:E:2349:ASN:ND2	2.24	0.71
1:G:349:GLN:HE21	1:G:354:GLY:HA2	1.56	0.71
1:A:15:ARG:NH1	1:A:100:THR:OG1	2.22	0.71
1:A:595:ARG:HH22	1:A:1641:ILE:HD11	1.55	0.71
1:C:39:ALA:HB2	1:C:47:CYS:HA	1.71	0.71
1:C:1810:LYS:HA	1:C:1813:ARG:NH1	2.06	0.71
1:C:1948:ASP:OD1	1:C:2126:ARG:NH2	2.24	0.71
1:E:39:ALA:HB2	1:E:47:CYS:HA	1.71	0.71
1:G:717:ASP:OD2	1:G:737:LEU:HD12	1.90	0.71
1:G:1245:PHE:HB2	1:G:1602:PRO:HB2	1.72	0.71
1:G:4817:ALA:HB1	1:G:4827:LEU:HD11	1.73	0.71
1:C:4180:ARG:NH1	1:C:4981:GLU:OE1	2.24	0.70
1:E:1245:PHE:HB2	1:E:1602:PRO:HB2	1.73	0.70
1:G:2924:GLN:O	1:G:2928:LYS:HG3	1.91	0.70
1:G:1112:ASP:HA	1:G:1607:ARG:HB2	1.72	0.70
1:A:1582:SER:OG	1:A:1589:PRO:O	2.05	0.70
1:C:252:VAL:HG23	1:C:257:ARG:HG3	1.72	0.70
1:C:1111:PRO:HG3	1:C:1609:PRO:HD3	1.73	0.70
1:C:4044:MET:HA	1:C:4047:MET:HG2	1.73	0.70
1:G:28:VAL:HG21	1:G:189:LEU:HD11	1.72	0.70
1:E:1029:GLU:HA	1:E:1032:LYS:HD3	1.73	0.70
1:A:39:ALA:HB2	1:A:47:CYS:HA	1.72	0.70
1:A:717:ASP:OD2	1:A:737:LEU:HD12	1.91	0.70
1:A:1810:LYS:HA	1:A:1813:ARG:HH12	1.54	0.70
1:A:2287:ALA:O	1:A:2349:ASN:ND2	2.24	0.70
1:E:1810:LYS:HA	1:E:1813:ARG:NH1	2.06	0.70
1:E:1948:ASP:OD1	1:E:2126:ARG:NH2	2.24	0.70
2:H:24:VAL:HG12	2:H:103:LEU:HA	1.73	0.70
1:A:1252:HIS:O	1:A:1255:TYR:N	2.24	0.70
1:C:717:ASP:OD2	1:C:737:LEU:HD12	1.91	0.70
1:C:3839:CYS:SG	1:C:3840:SER:N	2.61	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1112:ASP:HA	1:E:1607:ARG:HB2	1.72	0.70
1:E:4044:MET:HA	1:E:4047:MET:HG2	1.73	0.70
1:E:4578:LEU:O	1:G:4879:MET:CG	2.39	0.70
1:G:2136:ARG:NH1	1:G:3720:TYR:OH	2.24	0.70
1:A:28:VAL:HG21	1:A:189:LEU:HD11	1.72	0.70
1:C:2287:ALA:O	1:C:2349:ASN:ND2	2.23	0.70
1:A:1436:SER:N	1:A:1516:ILE:CG1	2.54	0.70
1:C:584:LYS:NZ	1:C:1586:ASN:HD21	1.90	0.70
1:E:1703:LEU:HD12	1:E:1704:PRO:HD2	1.73	0.70
1:E:4892:ARG:NE	1:G:4917:ASP:OD2	2.25	0.70
1:G:1810:LYS:HA	1:G:1813:ARG:NH1	2.06	0.70
1:A:349:GLN:HE21	1:A:354:GLY:HA2	1.56	0.70
1:A:4865:LYS:N	1:A:4873:ASP:OD2	2.25	0.70
1:C:349:GLN:HE21	1:C:354:GLY:HA2	1.56	0.70
1:C:1112:ASP:HA	1:C:1607:ARG:HB2	1.72	0.70
1:C:4865:LYS:N	1:C:4873:ASP:OD2	2.25	0.70
1:E:1111:PRO:HG3	1:E:1609:PRO:HD3	1.73	0.70
1:E:1294:PRO:HD2	1:E:1584:ARG:HH11	1.56	0.70
1:G:1703:LEU:HD12	1:G:1704:PRO:HD2	1.74	0.70
1:A:783:PHE:HB2	1:A:787:VAL:HG21	1.74	0.69
1:C:1029:GLU:HA	1:C:1032:LYS:HD3	1.74	0.69
1:C:1252:HIS:O	1:C:1255:TYR:N	2.23	0.69
1:E:783:PHE:HB2	1:E:787:VAL:HG21	1.74	0.69
1:E:4865:LYS:N	1:E:4873:ASP:OD2	2.25	0.69
1:G:783:PHE:HB2	1:G:787:VAL:HG21	1.74	0.69
1:G:1252:HIS:O	1:G:1255:TYR:N	2.24	0.69
1:A:1245:PHE:HB2	1:A:1602:PRO:HB2	1.74	0.69
1:A:4180:ARG:NH1	1:A:4981:GLU:OE1	2.24	0.69
1:E:737:LEU:HD13	2:F:8:SER:HB3	1.74	0.69
1:E:1691:GLN:HE22	1:E:1802:ILE:HG22	1.58	0.69
1:G:1821:ASP:OD1	1:G:1822:GLY:N	2.25	0.69
1:A:1727:ARG:HH12	1:A:1775:HIS:CD2	2.10	0.69
1:A:1821:ASP:OD1	1:A:1822:GLY:N	2.25	0.69
1:A:3891:LEU:HD23	1:A:3899:PHE:HZ	1.57	0.69
1:A:4235:VAL:HG21	1:A:5019:TRP:NE1	2.07	0.69
1:C:1810:LYS:HA	1:C:1813:ARG:HH12	1.54	0.69
1:E:3768:SER:HA	1:E:3771:HIS:HB3	1.74	0.69
1:E:4180:ARG:NH1	1:E:4981:GLU:OE1	2.25	0.69
1:A:1029:GLU:HA	1:A:1032:LYS:HD3	1.74	0.69
1:C:4578:LEU:O	1:E:4879:MET:HB3	1.93	0.69
1:E:584:LYS:NZ	1:E:1586:ASN:HD21	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:87:HIS:HD2	2:F:88:PRO:HD2	1.58	0.69
1:A:584:LYS:NZ	1:A:1586:ASN:HD21	1.91	0.69
1:A:4044:MET:HA	1:A:4047:MET:HG2	1.73	0.69
1:G:1691:GLN:HE22	1:G:1802:ILE:HG22	1.58	0.69
1:C:1294:PRO:HD2	1:C:1584:ARG:HH11	1.56	0.69
1:E:1810:LYS:HD2	1:E:1813:ARG:HH12	1.58	0.69
1:G:1294:PRO:HD2	1:G:1584:ARG:HH11	1.56	0.69
1:A:737:LEU:HD13	2:B:8:SER:HB3	1.74	0.69
1:A:1211:LEU:HD23	1:A:1212:ARG:H	1.57	0.69
1:A:1294:PRO:HD2	1:A:1584:ARG:HH11	1.56	0.69
1:C:4235:VAL:HG21	1:C:5019:TRP:NE1	2.08	0.69
1:A:252:VAL:HG22	1:A:258:SER:HB3	1.75	0.69
1:C:3891:LEU:HB3	1:C:3899:PHE:CE2	2.28	0.69
1:C:4892:ARG:O	1:E:4895:GLY:HA2	1.92	0.69
2:D:87:HIS:HD2	2:D:88:PRO:HD2	1.58	0.69
1:E:1211:LEU:HD23	1:E:1212:ARG:H	1.57	0.69
1:G:584:LYS:NZ	1:G:1586:ASN:HD21	1.90	0.69
1:G:4865:LYS:N	1:G:4873:ASP:OD2	2.26	0.69
1:A:1641:ILE:HG13	1:A:1643:GLU:HG2	1.75	0.69
1:A:1810:LYS:HD2	1:A:1813:ARG:HH12	1.58	0.69
1:C:783:PHE:HB2	1:C:787:VAL:HG21	1.74	0.69
1:C:1211:LEU:HD23	1:C:1212:ARG:H	1.57	0.69
1:C:4892:ARG:NE	1:E:4917:ASP:OD2	2.26	0.69
1:E:3891:LEU:HB3	1:E:3899:PHE:CE2	2.28	0.69
1:E:4235:VAL:HG21	1:E:5019:TRP:NE1	2.08	0.69
1:A:1206:GLN:N	1:A:1227:ALA:HB3	2.08	0.69
1:A:1259:ARG:NH1	1:A:1597:VAL:HA	2.07	0.69
1:C:1821:ASP:OD1	1:C:1822:GLY:N	2.25	0.69
1:G:24:CYS:SG	1:G:25:SER:N	2.67	0.69
1:G:2929:PHE:O	1:G:2933:ASN:ND2	2.26	0.69
2:H:87:HIS:HD2	2:H:88:PRO:HD2	1.58	0.69
1:C:1810:LYS:HD2	1:C:1813:ARG:HH12	1.58	0.68
1:E:1821:ASP:OD1	1:E:1822:GLY:N	2.25	0.68
1:C:2924:GLN:O	1:C:2928:LYS:HG3	1.92	0.68
1:E:4892:ARG:CZ	1:G:4895:GLY:O	2.42	0.68
1:G:252:VAL:HG22	1:G:258:SER:HB3	1.75	0.68
1:A:1111:PRO:HG3	1:A:1609:PRO:HD3	1.73	0.68
1:A:2822:THR:HG1	1:A:2938:THR:HG1	1.41	0.68
1:A:3786:CYS:SG	1:A:3794:VAL:HG22	2.33	0.68
1:E:1259:ARG:NH1	1:E:1597:VAL:HA	2.07	0.68
1:G:1111:PRO:HG3	1:G:1609:PRO:HD3	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1703:LEU:HD12	1:A:1704:PRO:HD2	1.74	0.68
1:C:1691:GLN:HE22	1:C:1802:ILE:HG22	1.58	0.68
1:C:1703:LEU:HD12	1:C:1704:PRO:HD2	1.73	0.68
1:C:1727:ARG:NH1	1:C:1775:HIS:HD2	1.92	0.68
1:G:1211:LEU:HD23	1:G:1212:ARG:H	1.57	0.68
1:G:4190:ILE:HD11	1:G:5026:ASP:HB3	1.74	0.68
1:A:1727:ARG:NH1	1:A:1775:HIS:HD2	1.92	0.68
1:C:1727:ARG:HH12	1:C:1775:HIS:CD2	2.10	0.68
1:C:3768:SER:HA	1:C:3771:HIS:HB3	1.74	0.68
1:G:1029:GLU:HA	1:G:1032:LYS:HD3	1.74	0.68
1:G:1616:GLU:HG3	1:G:1617:THR:H	1.58	0.68
1:C:1616:GLU:HG3	1:C:1617:THR:H	1.58	0.68
1:E:4875:LYS:O	1:E:4877:ASP:N	2.27	0.68
1:G:1727:ARG:HH12	1:G:1775:HIS:CD2	2.10	0.68
1:G:4172:GLU:HG2	1:G:4175:ARG:HH22	1.59	0.68
1:A:24:CYS:SG	1:A:25:SER:N	2.66	0.68
1:A:2452:ARG:HH22	1:C:177:GLU:HG3	1.58	0.68
1:A:3768:SER:HA	1:A:3771:HIS:HB3	1.74	0.68
1:C:1259:ARG:NH1	1:C:1597:VAL:HA	2.07	0.68
1:E:24:CYS:SG	1:E:25:SER:N	2.66	0.68
1:E:1252:HIS:O	1:E:1255:TYR:N	2.24	0.68
1:E:3786:CYS:SG	1:E:3794:VAL:HG22	2.33	0.68
1:G:1727:ARG:NH1	1:G:1775:HIS:HD2	1.92	0.68
1:G:2891:LYS:HG3	1:G:2905:LEU:HD22	1.76	0.68
1:A:1691:GLN:HE22	1:A:1802:ILE:HG22	1.58	0.68
1:A:3891:LEU:HB3	1:A:3899:PHE:CE2	2.28	0.68
1:A:4578:LEU:O	1:C:4879:MET:HB3	1.93	0.68
2:B:87:HIS:HD2	2:B:88:PRO:HD2	1.58	0.68
2:D:27:THR:HG22	2:D:100:ASP:HB3	1.76	0.68
1:E:683:ARG:HD2	1:E:705:ASN:HB3	1.76	0.68
1:G:1259:ARG:NH1	1:G:1597:VAL:HA	2.08	0.68
1:G:1783:VAL:HG21	2:H:55:VAL:HG12	1.76	0.68
1:A:1473:THR:HG22	1:A:1489:CYS:HA	1.76	0.68
1:A:1948:ASP:OD1	1:A:2126:ARG:NH2	2.24	0.68
1:C:3891:LEU:HD23	1:C:3899:PHE:HZ	1.58	0.68
1:C:4085:ARG:HB3	1:C:4087:LEU:HD13	1.76	0.67
1:E:589:LEU:HG	1:E:593:HIS:HD2	1.59	0.67
1:E:1727:ARG:NH1	1:E:1775:HIS:HD2	1.92	0.67
1:G:1810:LYS:HD2	1:G:1813:ARG:HH12	1.58	0.67
1:C:737:LEU:HD13	2:D:8:SER:HB3	1.74	0.67
1:C:24:CYS:SG	1:C:25:SER:N	2.67	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1435:TYR:H	1:E:1516:ILE:CG1	2.06	0.67
1:G:2154:SER:O	1:G:2157:GLU:HG2	1.95	0.67
1:A:1229:ASN:OD1	1:A:1827:ARG:NH2	2.27	0.67
1:A:4892:ARG:NE	1:C:4917:ASP:OD2	2.26	0.67
1:C:1473:THR:HG22	1:C:1489:CYS:HA	1.76	0.67
1:E:2154:SER:O	1:E:2157:GLU:HG2	1.95	0.67
2:B:27:THR:HG22	2:B:100:ASP:HB3	1.76	0.67
1:C:164:ARG:HB3	1:C:167:ASP:OD2	1.95	0.67
1:C:1229:ASN:OD1	1:C:1827:ARG:NH2	2.28	0.67
1:E:345:LEU:HD23	1:E:389:PHE:HB3	1.76	0.67
1:E:2927:LEU:HD23	1:E:2930:LEU:HD12	1.76	0.67
1:E:4555:LEU:HD11	1:E:4656:LEU:HG	1.76	0.67
2:F:27:THR:HG22	2:F:100:ASP:HB3	1.76	0.67
1:A:2154:SER:O	1:A:2157:GLU:HG2	1.95	0.67
1:C:683:ARG:HD2	1:C:705:ASN:HB3	1.76	0.67
1:G:1229:ASN:OD1	1:G:1827:ARG:NH2	2.28	0.67
1:G:3891:LEU:HB3	1:G:3899:PHE:CE2	2.30	0.67
1:A:164:ARG:HB3	1:A:167:ASP:OD2	1.95	0.67
1:A:3806:ASN:H	1:A:3890:LEU:HD23	1.60	0.67
1:A:4085:ARG:HB3	1:A:4087:LEU:HD13	1.77	0.67
1:C:589:LEU:HG	1:C:593:HIS:HD2	1.60	0.67
1:G:356:TRP:N	1:G:379:HIS:O	2.27	0.67
1:G:683:ARG:HD2	1:G:705:ASN:HB3	1.76	0.67
1:A:3893:GLU:OE2	1:A:5001:THR:HG22	1.95	0.67
1:A:4892:ARG:CZ	1:C:4895:GLY:O	2.42	0.67
1:A:4917:ASP:OD2	1:G:4892:ARG:NE	2.28	0.67
1:E:356:TRP:N	1:E:379:HIS:O	2.27	0.67
1:E:3891:LEU:HD23	1:E:3899:PHE:HZ	1.58	0.67
1:A:356:TRP:N	1:A:379:HIS:O	2.27	0.67
1:A:683:ARG:HD2	1:A:705:ASN:HB3	1.76	0.67
1:C:277:GLY:N	1:C:315:CYS:SG	2.68	0.67
1:C:4578:LEU:O	1:E:4879:MET:CG	2.43	0.67
1:E:1727:ARG:HH12	1:E:1775:HIS:CD2	2.11	0.67
1:G:277:GLY:N	1:G:315:CYS:SG	2.68	0.67
1:A:1616:GLU:HG3	1:A:1617:THR:H	1.58	0.67
1:A:4895:GLY:HA2	1:G:4892:ARG:O	1.95	0.67
1:C:2154:SER:O	1:C:2157:GLU:HG2	1.95	0.67
1:E:1616:GLU:HG3	1:E:1617:THR:H	1.58	0.67
1:A:4875:LYS:O	1:A:4877:ASP:N	2.27	0.66
1:C:3806:ASN:H	1:C:3890:LEU:HD23	1.60	0.66
1:E:164:ARG:HB3	1:E:167:ASP:OD2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3771:HIS:HE1	1:E:3811:GLU:HB3	1.61	0.66
1:A:177:GLU:HG3	1:G:2452:ARG:HH22	1.59	0.66
1:A:589:LEU:HG	1:A:593:HIS:HD2	1.60	0.66
1:A:1783:VAL:HG21	2:B:55:VAL:HG12	1.76	0.66
1:C:252:VAL:HG22	1:C:258:SER:HB3	1.77	0.66
1:C:3786:CYS:SG	1:C:3794:VAL:HG22	2.35	0.66
1:C:3893:GLU:OE2	1:C:5001:THR:HG22	1.95	0.66
1:C:4555:LEU:HD11	1:C:4656:LEU:HG	1.76	0.66
1:A:1767:VAL:O	1:A:1769:THR:N	2.28	0.66
1:A:4849:TYR:O	1:A:4852:THR:HG22	1.95	0.66
1:C:2452:ARG:HH22	1:E:177:GLU:HG3	1.59	0.66
1:E:252:VAL:HG22	1:E:258:SER:HB3	1.76	0.66
1:E:1076:ARG:O	1:E:1237:TRP:N	2.27	0.66
1:G:345:LEU:HD23	1:G:389:PHE:HB3	1.77	0.66
1:G:4875:LYS:O	1:G:4877:ASP:N	2.28	0.66
1:A:526:LEU:HD11	1:A:540:PHE:HZ	1.60	0.66
1:C:1641:ILE:HG13	1:C:1643:GLU:HG2	1.77	0.66
1:C:3771:HIS:HE1	1:C:3811:GLU:HB3	1.61	0.66
1:E:1473:THR:HG22	1:E:1489:CYS:HA	1.76	0.66
1:E:3893:GLU:OE2	1:E:5001:THR:HG22	1.95	0.66
1:G:589:LEU:HG	1:G:593:HIS:HD2	1.59	0.66
1:C:1815:LEU:HD11	1:C:1845:VAL:HG21	1.77	0.66
1:C:4940:PHE:CD2	1:E:4938:ASP:OD2	2.47	0.66
1:E:1229:ASN:OD1	1:E:1827:ARG:NH2	2.28	0.66
1:E:1767:VAL:O	1:E:1769:THR:N	2.28	0.66
1:E:3841:VAL:HG12	1:E:3843:ASP:H	1.61	0.66
1:A:4578:LEU:O	1:C:4879:MET:CG	2.43	0.66
1:A:4937:ILE:HG12	1:C:4934:GLY:HA3	1.77	0.66
1:C:4875:LYS:O	1:C:4877:ASP:N	2.27	0.66
1:E:526:LEU:HD11	1:E:540:PHE:HZ	1.59	0.66
1:E:1641:ILE:HG13	1:E:1643:GLU:HG2	1.76	0.66
1:E:4849:TYR:O	1:E:4852:THR:HG22	1.95	0.66
1:G:1473:THR:HG22	1:G:1489:CYS:HA	1.76	0.66
1:G:1641:ILE:HG13	1:G:1643:GLU:HG2	1.77	0.66
1:A:45:ARG:NH1	1:A:443:LEU:HD11	2.11	0.66
1:A:345:LEU:HD23	1:A:389:PHE:HB3	1.77	0.66
1:A:3841:VAL:HG12	1:A:3843:ASP:H	1.61	0.66
1:A:4190:ILE:HD11	1:A:5026:ASP:HB3	1.78	0.66
1:E:277:GLY:N	1:E:315:CYS:SG	2.68	0.66
1:E:3806:ASN:H	1:E:3890:LEU:HD23	1.60	0.66
1:E:4190:ILE:HD11	1:E:5026:ASP:HB3	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:648:ILE:HG23	1:G:649:PHE:HD2	1.61	0.66
1:G:1767:VAL:O	1:G:1769:THR:N	2.28	0.66
1:G:2287:ALA:O	1:G:2349:ASN:ND2	2.24	0.66
1:C:4849:TYR:O	1:C:4852:THR:HG22	1.95	0.66
1:E:4688:ILE:HD12	1:E:4737:ILE:HD12	1.77	0.66
1:A:572:PRO:HB3	1:A:609:CYS:HB3	1.78	0.66
2:B:31:GLU:HG2	2:B:96:THR:HB	1.78	0.66
1:C:1767:VAL:O	1:C:1769:THR:N	2.28	0.66
1:C:2799:GLU:OE1	1:C:2806:ARG:NH2	2.29	0.66
1:E:2883:HIS:NE2	1:E:2906:VAL:O	2.28	0.66
1:G:164:ARG:HB3	1:G:167:ASP:OD2	1.95	0.66
1:G:2862:LEU:HD21	1:G:2929:PHE:HD1	1.61	0.66
1:G:3893:GLU:OE2	1:G:5001:THR:HG22	1.96	0.66
1:A:277:GLY:N	1:A:315:CYS:SG	2.68	0.66
1:A:4555:LEU:HD11	1:A:4656:LEU:HG	1.76	0.66
1:A:4976:GLU:O	1:A:4979:THR:OG1	2.14	0.66
1:C:526:LEU:HD11	1:C:540:PHE:HZ	1.59	0.66
1:C:4830:VAL:HG22	1:C:4936:ILE:HD12	1.78	0.66
1:E:2452:ARG:HH22	1:G:177:GLU:HG3	1.59	0.66
1:E:4085:ARG:HB3	1:E:4087:LEU:HD13	1.76	0.66
1:A:3835:LEU:HD22	1:A:3884:LEU:HD13	1.77	0.65
1:C:45:ARG:NH1	1:C:443:LEU:HD11	2.11	0.65
1:C:3835:LEU:HD22	1:C:3884:LEU:HD13	1.77	0.65
1:C:345:LEU:HD23	1:C:389:PHE:HB3	1.76	0.65
1:C:2822:THR:HG1	1:C:2938:THR:HG1	1.44	0.65
1:C:2883:HIS:NE2	1:C:2906:VAL:O	2.28	0.65
1:C:3841:VAL:HG12	1:C:3843:ASP:H	1.61	0.65
1:C:4172:GLU:HG2	1:C:4175:ARG:HH22	1.61	0.65
1:E:3835:LEU:HD22	1:E:3884:LEU:HD13	1.78	0.65
1:A:1252:HIS:O	1:A:1254:HIS:N	2.30	0.65
1:C:356:TRP:N	1:C:379:HIS:O	2.27	0.65
1:E:2799:GLU:OE1	1:E:2806:ARG:NH2	2.29	0.65
1:G:526:LEU:HD11	1:G:540:PHE:HZ	1.59	0.65
1:C:572:PRO:HB3	1:C:609:CYS:HB3	1.78	0.65
1:C:1090:PHE:HB2	1:C:1204:LEU:HD22	1.79	0.65
1:C:4976:GLU:O	1:C:4979:THR:OG1	2.14	0.65
1:E:1112:ASP:OD1	1:E:1606:SER:OG	2.14	0.65
1:E:1252:HIS:O	1:E:1254:HIS:N	2.30	0.65
1:G:4688:ILE:HG21	1:G:4728:HIS:HB3	1.77	0.65
1:G:4822:THR:O	1:G:4825:THR:OG1	2.14	0.65
2:H:31:GLU:HG2	2:H:96:THR:HB	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:31:GLU:HG2	2:D:96:THR:HB	1.79	0.65
1:E:2854:GLY:O	1:E:2856:ASN:ND2	2.30	0.65
1:E:4097:MET:HB3	1:E:4108:ILE:HD12	1.79	0.65
1:G:45:ARG:NH1	1:G:443:LEU:HD11	2.11	0.65
1:G:1252:HIS:O	1:G:1254:HIS:N	2.30	0.65
1:G:2883:HIS:NE2	1:G:2906:VAL:O	2.28	0.65
1:A:2891:LYS:HG3	1:A:2905:LEU:HD22	1.79	0.65
1:A:4658:ILE:HG22	1:A:4792:LEU:HB3	1.79	0.65
1:A:4688:ILE:HD12	1:A:4737:ILE:HD12	1.77	0.65
1:C:4190:ILE:HD11	1:C:5026:ASP:HB3	1.78	0.65
1:E:1090:PHE:HB2	1:E:1204:LEU:HD22	1.79	0.65
1:E:1783:VAL:HG21	2:F:55:VAL:HG12	1.77	0.65
2:F:31:GLU:HG2	2:F:96:THR:HB	1.79	0.65
1:G:2799:GLU:OE1	1:G:2806:ARG:NH2	2.29	0.65
1:A:2799:GLU:OE1	1:A:2806:ARG:NH2	2.29	0.65
1:E:4578:LEU:O	1:G:4879:MET:CB	2.43	0.65
1:E:4830:VAL:HG22	1:E:4936:ILE:HD12	1.79	0.65
1:A:648:ILE:HG23	1:A:649:PHE:HD2	1.61	0.65
1:A:1815:LEU:HD11	1:A:1845:VAL:HG21	1.77	0.65
1:A:2854:GLY:O	1:A:2856:ASN:ND2	2.29	0.65
1:C:648:ILE:HG23	1:C:649:PHE:HD2	1.61	0.65
1:C:3889:GLN:HG3	1:C:3967:GLU:HG3	1.79	0.65
1:E:2745:VAL:HG21	1:E:2818:ALA:HB2	1.79	0.65
1:E:3889:GLN:HG3	1:E:3967:GLU:HG3	1.79	0.65
1:C:1783:VAL:HG21	2:D:55:VAL:HG12	1.78	0.65
1:C:4688:ILE:HD12	1:C:4737:ILE:HD12	1.77	0.65
1:E:1457:TYR:O	1:E:1458:HIS:CG	2.50	0.65
1:E:4172:GLU:HG2	1:E:4175:ARG:HH22	1.61	0.65
1:G:572:PRO:HB3	1:G:609:CYS:HB3	1.78	0.65
1:G:1076:ARG:O	1:G:1237:TRP:N	2.27	0.65
1:G:1815:LEU:HD11	1:G:1845:VAL:HG21	1.78	0.65
1:G:3791:GLY:O	1:G:3793:MET:N	2.30	0.65
1:G:3969:ILE:HD11	1:G:3980:LEU:HD13	1.77	0.65
1:G:4085:ARG:HB3	1:G:4087:LEU:HD13	1.77	0.65
1:C:1436:SER:H	1:C:1516:ILE:HA	1.61	0.65
1:E:4658:ILE:HG22	1:E:4792:LEU:HB3	1.79	0.65
1:G:2854:GLY:O	1:G:2856:ASN:ND2	2.30	0.65
1:A:4554:TYR:HA	1:A:4557:ARG:NH1	2.12	0.64
1:C:224:HIS:HA	1:C:388:LEU:HD23	1.79	0.64
1:E:4823:LEU:HD11	1:G:4839:MET:HB3	1.79	0.64
1:C:2854:GLY:O	1:C:2856:ASN:ND2	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:529:LEU:O	1:E:536:ASN:ND2	2.31	0.64
1:E:4554:TYR:HA	1:E:4557:ARG:NH1	2.12	0.64
1:A:3771:HIS:HE1	1:A:3811:GLU:HB3	1.62	0.64
2:B:25:HIS:CG	2:B:40:ARG:HE	2.15	0.64
2:D:25:HIS:CG	2:D:40:ARG:HE	2.16	0.64
1:E:1435:TYR:HB3	1:E:1517:GLY:H	1.61	0.64
1:G:737:LEU:HD13	2:H:8:SER:HB3	1.80	0.64
1:A:1076:ARG:O	1:A:1237:TRP:N	2.26	0.64
1:E:224:HIS:HA	1:E:388:LEU:HD23	1.79	0.64
1:E:4976:GLU:O	1:E:4979:THR:OG1	2.14	0.64
1:G:856:VAL:O	1:G:991:ASN:ND2	2.31	0.64
1:G:1090:PHE:HB2	1:G:1204:LEU:HD22	1.79	0.64
1:A:2929:PHE:O	1:A:2933:ASN:ND2	2.31	0.64
1:C:2891:LYS:HG3	1:C:2905:LEU:HD22	1.79	0.64
1:A:4172:GLU:HG2	1:A:4175:ARG:HH22	1.62	0.64
1:C:145:ALA:HA	1:C:175:SER:HB3	1.80	0.64
1:C:1252:HIS:O	1:C:1254:HIS:N	2.30	0.64
1:C:1435:TYR:HB3	1:C:1517:GLY:H	1.63	0.64
1:E:572:PRO:HB3	1:E:609:CYS:HB3	1.78	0.64
1:E:1206:GLN:N	1:E:1227:ALA:HB3	2.12	0.64
2:F:25:HIS:CG	2:F:40:ARG:HE	2.16	0.64
1:G:23:GLN:HG3	1:G:203:ASN:HD22	1.63	0.64
1:G:529:LEU:O	1:G:536:ASN:ND2	2.31	0.64
1:G:4052:SER:O	1:G:4056:GLU:HG2	1.98	0.64
1:A:3889:GLN:HG3	1:A:3967:GLU:HG3	1.79	0.64
1:C:2745:VAL:HG21	1:C:2818:ALA:HB2	1.79	0.64
1:C:4658:ILE:HG22	1:C:4792:LEU:HB3	1.79	0.64
1:E:648:ILE:HG23	1:E:649:PHE:HD2	1.61	0.64
1:E:1810:LYS:HE3	1:E:1813:ARG:HH22	1.63	0.64
1:E:1815:LEU:HD11	1:E:1845:VAL:HG21	1.78	0.64
1:A:145:ALA:HA	1:A:175:SER:HB3	1.80	0.64
1:A:266:ARG:HH12	1:A:330:ASP:HA	1.63	0.64
1:E:856:VAL:O	1:E:991:ASN:ND2	2.31	0.64
1:G:1436:SER:H	1:G:1516:ILE:HA	1.63	0.64
1:G:3771:HIS:HE1	1:G:3811:GLU:HB3	1.62	0.64
1:G:4077:PHE:CD2	1:G:4125:PHE:HB3	2.33	0.64
1:C:266:ARG:HH12	1:C:330:ASP:HA	1.63	0.64
1:C:1810:LYS:HE3	1:C:1813:ARG:HH22	1.63	0.64
1:C:4097:MET:HB3	1:C:4108:ILE:HD12	1.80	0.64
1:E:145:ALA:HA	1:E:175:SER:HB3	1.80	0.64
1:E:2178:MET:SD	1:E:2210:VAL:HG11	2.38	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:457:GLU:HG3	1:G:464:LYS:NZ	2.13	0.64
1:G:1810:LYS:HE3	1:G:1813:ARG:HH22	1.63	0.64
1:G:1828:ASP:HB3	1:G:1830:VAL:H	1.63	0.64
1:A:1090:PHE:HB2	1:A:1204:LEU:HD22	1.80	0.64
1:E:45:ARG:NH1	1:E:443:LEU:HD11	2.12	0.64
1:E:457:GLU:HG3	1:E:464:LYS:NZ	2.12	0.64
1:G:1112:ASP:OD1	1:G:1606:SER:OG	2.15	0.64
1:A:1828:ASP:HB3	1:A:1830:VAL:H	1.63	0.63
1:C:1112:ASP:OD1	1:C:1606:SER:OG	2.15	0.63
1:E:2891:LYS:HG3	1:E:2905:LEU:HD22	1.79	0.63
1:A:184:THR:HA	1:A:189:LEU:HD23	1.79	0.63
1:A:529:LEU:O	1:A:536:ASN:ND2	2.31	0.63
1:A:1160:ILE:HD11	1:A:1182:ILE:HD13	1.81	0.63
1:C:457:GLU:HG3	1:C:464:LYS:NZ	2.12	0.63
1:C:2349:ASN:OD1	1:C:3849:ARG:NH1	2.21	0.63
1:G:3423:TRP:O	1:G:3427:PRO:N	2.31	0.63
1:G:4688:ILE:HD12	1:G:4737:ILE:HD12	1.80	0.63
1:A:274:LEU:HD11	1:A:280:LEU:HD22	1.80	0.63
1:A:2178:MET:SD	1:A:2210:VAL:HG11	2.39	0.63
1:A:4097:MET:HB3	1:A:4108:ILE:HD12	1.80	0.63
1:E:320:LYS:NZ	1:E:383:HIS:O	2.28	0.63
1:G:3817:LEU:HD11	1:G:3821:LYS:HE2	1.80	0.63
2:H:25:HIS:CG	2:H:40:ARG:HE	2.17	0.63
1:A:1275:ARG:NH2	1:A:1599:MET:O	2.32	0.63
1:C:4667:PRO:HA	1:C:4670:ILE:HG22	1.80	0.63
1:E:184:THR:HA	1:E:189:LEU:HD23	1.79	0.63
1:E:2924:GLN:O	1:E:2928:LYS:N	2.25	0.63
1:G:266:ARG:HH12	1:G:330:ASP:HA	1.63	0.63
1:A:4940:PHE:CD2	1:C:4938:ASP:OD2	2.52	0.63
1:C:2178:MET:SD	1:C:2210:VAL:HG11	2.39	0.63
1:C:4554:TYR:HA	1:C:4557:ARG:NH1	2.12	0.63
1:E:1295:VAL:HG22	1:E:1548:LEU:H	1.63	0.63
1:E:1828:ASP:HB3	1:E:1830:VAL:H	1.63	0.63
1:A:23:GLN:HG3	1:A:203:ASN:HD22	1.63	0.63
1:A:224:HIS:HA	1:A:388:LEU:HD23	1.79	0.63
1:A:856:VAL:O	1:A:991:ASN:ND2	2.31	0.63
1:C:184:THR:HA	1:C:189:LEU:HD23	1.79	0.63
1:C:529:LEU:O	1:C:536:ASN:ND2	2.31	0.63
1:C:2146:PRO:HA	1:C:2149:VAL:HG13	1.81	0.63
1:G:2178:MET:SD	1:G:2210:VAL:HG11	2.38	0.63
1:A:1810:LYS:HE3	1:A:1813:ARG:HH22	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4823:LEU:HD11	1:C:4839:MET:HB3	1.81	0.63
1:C:1295:VAL:HG22	1:C:1548:LEU:H	1.63	0.63
1:C:1828:ASP:HB3	1:C:1830:VAL:H	1.63	0.63
1:E:274:LEU:HD11	1:E:280:LEU:HD22	1.79	0.63
1:G:224:HIS:HA	1:G:388:LEU:HD23	1.79	0.63
1:G:4677:LEU:HD22	1:G:4711:PHE:CZ	2.34	0.63
1:C:887:ILE:HG12	1:C:907:LEU:HD13	1.81	0.63
1:E:266:ARG:HH12	1:E:330:ASP:HA	1.63	0.63
1:E:4828:SER:HA	1:E:4831:THR:HG22	1.80	0.63
1:E:1561:VAL:HG13	1:E:1562:ILE:HG22	1.81	0.63
1:G:184:THR:HA	1:G:189:LEU:HD23	1.79	0.63
1:G:1275:ARG:NH2	1:G:1599:MET:O	2.32	0.63
1:G:4686:LEU:HB2	1:G:4690:GLU:HB2	1.81	0.63
1:A:3924:LEU:O	1:A:3927:GLN:HB3	1.99	0.62
1:A:4667:PRO:HA	1:A:4670:ILE:HG22	1.81	0.62
1:C:274:LEU:HD11	1:C:280:LEU:HD22	1.79	0.62
1:C:3924:LEU:O	1:C:3927:GLN:HB3	1.99	0.62
1:E:2146:PRO:HA	1:E:2149:VAL:HG13	1.81	0.62
1:E:2822:THR:HG1	1:E:2938:THR:HG1	1.43	0.62
1:A:221:ARG:NE	1:A:258:SER:OG	2.32	0.62
1:A:457:GLU:HG3	1:A:464:LYS:NZ	2.13	0.62
1:C:320:LYS:NZ	1:C:383:HIS:O	2.29	0.62
1:C:856:VAL:O	1:C:991:ASN:ND2	2.31	0.62
1:E:3817:LEU:HD11	1:E:3821:LYS:HE2	1.81	0.62
1:E:4667:PRO:HA	1:E:4670:ILE:HG22	1.81	0.62
1:G:221:ARG:NE	1:G:258:SER:OG	2.32	0.62
1:G:1561:VAL:HG13	1:G:1562:ILE:HG22	1.81	0.62
1:A:1112:ASP:OD1	1:A:1606:SER:OG	2.14	0.62
1:A:1561:VAL:HG13	1:A:1562:ILE:HG22	1.81	0.62
1:A:2146:PRO:HA	1:A:2149:VAL:HG13	1.80	0.62
1:A:2883:HIS:NE2	1:A:2906:VAL:O	2.28	0.62
1:C:4137:ARG:NH2	1:C:4177:TYR:OH	2.33	0.62
1:E:23:GLN:HG3	1:E:203:ASN:HD22	1.63	0.62
1:G:4889:VAL:H	1:G:4892:ARG:HD3	1.62	0.62
1:A:4677:LEU:HD22	1:A:4711:PHE:CZ	2.34	0.62
1:C:1160:ILE:HD11	1:C:1182:ILE:HD13	1.81	0.62
1:C:4823:LEU:HD11	1:E:4839:MET:HB3	1.82	0.62
1:E:4052:SER:O	1:E:4056:GLU:HG2	2.00	0.62
1:G:145:ALA:HA	1:G:175:SER:HB3	1.80	0.62
1:G:1160:ILE:HD11	1:G:1182:ILE:HD13	1.81	0.62
1:G:4137:ARG:NH2	1:G:4177:TYR:OH	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4866:SER:N	1:G:4873:ASP:OD2	2.33	0.62
1:C:1275:ARG:NH2	1:C:1599:MET:O	2.32	0.62
1:E:887:ILE:HG12	1:E:907:LEU:HD13	1.82	0.62
1:E:3924:LEU:O	1:E:3927:GLN:HB3	2.00	0.62
1:G:4727:LYS:O	1:G:4729:GLY:N	2.32	0.62
1:A:1295:VAL:HG22	1:A:1548:LEU:H	1.63	0.62
1:C:23:GLN:HG3	1:C:203:ASN:HD22	1.63	0.62
1:C:626:LEU:HB3	1:C:1688:HIS:CE1	2.35	0.62
1:C:1663:HIS:O	1:C:1666:THR:OG1	2.14	0.62
1:E:626:LEU:HB3	1:E:1688:HIS:CE1	2.35	0.62
1:E:2929:PHE:O	1:E:2933:ASN:ND2	2.31	0.62
1:A:4137:ARG:NH2	1:A:4177:TYR:OH	2.33	0.62
1:E:1275:ARG:NH2	1:E:1599:MET:O	2.32	0.62
1:E:1615:VAL:HG12	1:E:1634:LEU:HD13	1.82	0.62
1:E:3813:GLN:NE2	1:E:3891:LEU:O	2.33	0.62
1:G:2354:VAL:HG11	1:G:2457:LEU:HD11	1.82	0.62
1:A:2745:VAL:HG21	1:A:2818:ALA:HB2	1.80	0.62
1:C:1076:ARG:O	1:C:1237:TRP:N	2.27	0.62
1:C:2354:VAL:HG11	1:C:2457:LEU:HD11	1.81	0.62
1:E:3791:GLY:O	1:E:3793:MET:N	2.32	0.62
1:E:4137:ARG:NH2	1:E:4177:TYR:OH	2.33	0.62
1:A:4708:THR:HG22	1:A:4710:SER:H	1.65	0.62
1:C:2929:PHE:O	1:C:2933:ASN:ND2	2.31	0.62
1:E:1230:MET:HG2	1:E:1828:ASP:HA	1.82	0.62
1:E:4866:SER:N	1:E:4873:ASP:OD2	2.33	0.62
1:G:1230:MET:HG2	1:G:1828:ASP:HA	1.82	0.62
1:G:2146:PRO:HA	1:G:2149:VAL:HG13	1.80	0.62
1:A:705:ASN:OD1	1:A:706:GLY:N	2.33	0.61
1:A:2868:SER:O	1:A:2872:GLN:N	2.32	0.61
1:C:829:TYR:HA	1:C:1073:ARG:NH1	2.15	0.61
1:C:1615:VAL:HG12	1:C:1634:LEU:HD13	1.82	0.61
1:C:3817:LEU:HD11	1:C:3821:LYS:HE2	1.81	0.61
1:C:4052:SER:O	1:C:4056:GLU:HG2	2.00	0.61
1:C:4866:SER:N	1:C:4873:ASP:OD2	2.33	0.61
1:E:111:HIS:CD2	1:E:114:SER:H	2.16	0.61
1:E:135:VAL:HG23	1:E:192:ASP:HA	1.82	0.61
1:E:4664:LEU:O	1:E:4667:PRO:HD2	2.01	0.61
1:A:340:LYS:HB2	1:A:344:SER:HB2	1.82	0.61
1:C:340:LYS:HB2	1:C:344:SER:HB2	1.82	0.61
1:C:644:ILE:HD11	1:C:1619:ARG:HD2	1.82	0.61
1:C:1230:MET:HG2	1:C:1828:ASP:HA	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1436:SER:H	1:E:1516:ILE:HA	1.65	0.61
1:E:2341:VAL:HG22	1:E:2342:ASN:H	1.65	0.61
1:E:4708:THR:HG22	1:E:4710:SER:H	1.65	0.61
1:G:1663:HIS:O	1:G:1666:THR:OG1	2.14	0.61
1:G:4708:THR:HG22	1:G:4710:SER:H	1.64	0.61
1:A:650:VAL:O	1:A:777:PHE:N	2.30	0.61
1:A:1243:PRO:O	1:A:1458:HIS:ND1	2.32	0.61
1:A:3817:LEU:HD11	1:A:3821:LYS:HE2	1.81	0.61
1:A:4686:LEU:HB2	1:A:4690:GLU:HB2	1.82	0.61
1:A:4828:SER:HA	1:A:4831:THR:HG22	1.82	0.61
1:E:4677:LEU:HD22	1:E:4711:PHE:CZ	2.35	0.61
1:E:4686:LEU:HB2	1:E:4690:GLU:HB2	1.82	0.61
1:G:4828:SER:HA	1:G:4831:THR:HG22	1.83	0.61
1:A:135:VAL:HG23	1:A:192:ASP:HA	1.82	0.61
1:A:887:ILE:HG12	1:A:907:LEU:HD13	1.81	0.61
1:C:135:VAL:HG23	1:C:192:ASP:HA	1.82	0.61
1:C:1457:TYR:O	1:C:1458:HIS:CG	2.53	0.61
1:C:4828:SER:HA	1:C:4831:THR:HG22	1.81	0.61
1:G:584:LYS:HZ3	1:G:1586:ASN:HD21	1.48	0.61
1:G:674:PHE:HZ	2:H:100:ASP:OD2	1.83	0.61
1:G:817:PRO:HB3	1:G:1022:VAL:HG11	1.82	0.61
1:A:626:LEU:HB3	1:A:1688:HIS:CE1	2.35	0.61
1:C:4677:LEU:HD22	1:C:4711:PHE:CZ	2.34	0.61
1:E:221:ARG:NE	1:E:258:SER:OG	2.32	0.61
1:G:274:LEU:HD11	1:G:280:LEU:HD22	1.80	0.61
1:G:829:TYR:HA	1:G:1073:ARG:NH1	2.15	0.61
1:G:3891:LEU:HB3	1:G:3899:PHE:HE2	1.63	0.61
1:A:717:ASP:HB2	1:A:737:LEU:HA	1.83	0.61
1:A:829:TYR:HA	1:A:1073:ARG:NH1	2.15	0.61
1:A:2341:VAL:HG22	1:A:2342:ASN:H	1.65	0.61
1:A:4052:SER:O	1:A:4056:GLU:HG2	2.00	0.61
1:A:4077:PHE:CD2	1:A:4125:PHE:HB3	2.35	0.61
1:A:4866:SER:N	1:A:4873:ASP:OD2	2.33	0.61
1:C:1561:VAL:HG13	1:C:1562:ILE:HG22	1.81	0.61
1:C:2868:SER:O	1:C:2872:GLN:N	2.32	0.61
1:C:3813:GLN:NE2	1:C:3891:LEU:O	2.33	0.61
1:E:1160:ILE:HD11	1:E:1182:ILE:HD13	1.81	0.61
1:G:1295:VAL:HG22	1:G:1548:LEU:H	1.64	0.61
1:C:3791:GLY:O	1:C:3793:MET:N	2.32	0.61
1:G:135:VAL:HG23	1:G:192:ASP:HA	1.82	0.61
1:G:2745:VAL:HG21	1:G:2818:ALA:HB2	1.80	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:723:THR:OG1	1:C:728:ARG:NH1	2.34	0.61
1:C:1436:SER:HA	1:C:1515:VAL:O	1.99	0.61
1:E:717:ASP:HB2	1:E:737:LEU:HA	1.82	0.61
1:G:887:ILE:HG12	1:G:907:LEU:HD13	1.82	0.61
1:A:80:GLU:OE1	1:G:3935:TRP:HE3	1.83	0.61
1:A:817:PRO:HB3	1:A:1022:VAL:HG11	1.82	0.61
1:A:3813:GLN:NE2	1:A:3891:LEU:O	2.34	0.61
1:C:4664:LEU:O	1:C:4667:PRO:HD2	2.01	0.61
2:F:11:ASP:OD2	2:F:68:VAL:HB	2.01	0.61
1:G:626:LEU:HB3	1:G:1688:HIS:CE1	2.35	0.61
1:G:4044:MET:HA	1:G:4047:MET:HG2	1.83	0.61
1:A:717:ASP:OD1	1:A:718:GLY:N	2.34	0.61
1:C:347:PHE:HE1	1:C:387:ALA:HA	1.66	0.61
1:E:4687:TYR:OH	1:E:4699:GLY:O	2.19	0.61
1:E:4979:THR:O	1:E:4984:ASN:N	2.32	0.61
1:A:102:LEU:HB2	1:A:105:HIS:CD2	2.36	0.60
1:A:2354:VAL:HG11	1:A:2457:LEU:HD11	1.82	0.60
1:A:4826:ILE:HG23	1:C:4931:ILE:HD11	1.79	0.60
1:C:584:LYS:HZ3	1:C:1586:ASN:HD21	1.48	0.60
1:C:4077:PHE:CD2	1:C:4125:PHE:HB3	2.35	0.60
1:E:347:PHE:HE1	1:E:387:ALA:HA	1.66	0.60
1:E:817:PRO:HB3	1:E:1022:VAL:HG11	1.82	0.60
1:E:829:TYR:HA	1:E:1073:ARG:NH1	2.15	0.60
1:E:1088:TRP:HZ3	1:E:1229:ASN:HD21	1.49	0.60
1:E:2349:ASN:OD1	1:E:3849:ARG:NH1	2.21	0.60
1:E:2354:VAL:HG11	1:E:2457:LEU:HD11	1.82	0.60
1:E:4077:PHE:CD2	1:E:4125:PHE:HB3	2.35	0.60
1:G:1739:THR:O	1:G:1742:THR:OG1	2.16	0.60
1:G:4027:LEU:HD22	1:G:4146:LEU:HD11	1.82	0.60
1:C:2355:ARG:O	1:C:2359:ARG:NE	2.33	0.60
1:E:644:ILE:HD11	1:E:1619:ARG:HD2	1.82	0.60
1:G:3806:ASN:H	1:G:3890:LEU:HD23	1.66	0.60
1:G:4686:LEU:O	1:G:4690:GLU:N	2.33	0.60
1:A:495:ASN:HD22	1:A:550:LYS:HD2	1.66	0.60
1:A:3962:PHE:O	1:A:3966:THR:HG23	2.01	0.60
1:E:495:ASN:HD22	1:E:550:LYS:HD2	1.66	0.60
1:E:717:ASP:OD2	2:F:7:ILE:O	2.19	0.60
1:E:3937:TYR:HA	1:E:3940:LYS:HZ3	1.66	0.60
1:G:347:PHE:HE1	1:G:387:ALA:HA	1.66	0.60
1:G:717:ASP:OD1	1:G:718:GLY:N	2.34	0.60
1:A:1615:VAL:HG12	1:A:1634:LEU:HD13	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:717:ASP:OD2	2:D:7:ILE:O	2.20	0.60
1:E:445:LEU:HD21	1:E:522:LEU:HG	1.84	0.60
1:E:717:ASP:OD1	1:E:718:GLY:N	2.34	0.60
1:E:723:THR:OG1	1:E:728:ARG:NH1	2.33	0.60
1:G:102:LEU:HB2	1:G:105:HIS:CD2	2.37	0.60
1:G:495:ASN:HD22	1:G:550:LYS:HD2	1.66	0.60
1:G:644:ILE:HD11	1:G:1619:ARG:HD2	1.82	0.60
1:G:2924:GLN:HB3	1:G:2928:LYS:CE	2.31	0.60
1:A:717:ASP:OD2	2:B:7:ILE:O	2.19	0.60
1:A:1547:LYS:NZ	1:A:1645:ASN:HB2	2.16	0.60
1:C:717:ASP:HB2	1:C:737:LEU:HA	1.82	0.60
1:C:4686:LEU:HB2	1:C:4690:GLU:HB2	1.82	0.60
1:C:4809:PHE:O	1:C:4812:HIS:ND1	2.28	0.60
1:E:1547:LYS:NZ	1:E:1645:ASN:HB2	2.15	0.60
1:G:639:ASN:HA	1:G:1635:THR:HG22	1.83	0.60
1:G:705:ASN:OD1	1:G:706:GLY:N	2.33	0.60
1:G:1088:TRP:HZ3	1:G:1229:ASN:HD21	1.50	0.60
1:G:4664:LEU:O	1:G:4667:PRO:HD2	2.01	0.60
1:A:445:LEU:HD21	1:A:522:LEU:HG	1.84	0.60
1:C:445:LEU:HD21	1:C:522:LEU:HG	1.84	0.60
1:C:1435:TYR:H	1:C:1516:ILE:CG1	2.14	0.60
1:C:1961:PHE:CD1	1:C:2066:LEU:HD13	2.37	0.60
1:C:3962:PHE:O	1:C:3966:THR:HG23	2.02	0.60
2:D:11:ASP:OD2	2:D:68:VAL:HB	2.02	0.60
1:G:2868:SER:O	1:G:2872:GLN:N	2.32	0.60
1:C:2356:LEU:HD23	1:C:2359:ARG:NH1	2.17	0.60
1:C:4708:THR:HG22	1:C:4710:SER:H	1.65	0.60
1:G:320:LYS:NZ	1:G:383:HIS:O	2.29	0.60
1:G:1547:LYS:NZ	1:G:1645:ASN:HB2	2.17	0.60
1:G:1615:VAL:HG12	1:G:1634:LEU:HD13	1.82	0.60
1:G:2356:LEU:HD23	1:G:2359:ARG:NH1	2.17	0.60
1:A:2356:LEU:HD23	1:A:2359:ARG:NH1	2.17	0.60
1:C:705:ASN:OD1	1:C:706:GLY:N	2.33	0.60
1:C:717:ASP:OD1	1:C:718:GLY:N	2.34	0.60
1:C:1088:TRP:HZ3	1:C:1229:ASN:HD21	1.49	0.60
1:G:2066:LEU:O	1:G:2069:THR:OG1	2.17	0.60
1:A:1230:MET:HG2	1:A:1828:ASP:HA	1.84	0.60
1:A:2517:PHE:HA	1:A:2520:HIS:CE1	2.37	0.60
1:A:4830:VAL:HG22	1:A:4936:ILE:HD12	1.84	0.60
1:G:2341:VAL:HG22	1:G:2342:ASN:H	1.66	0.60
1:G:4667:PRO:HA	1:G:4670:ILE:HG22	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:119:SER:HB2	1:A:145:ALA:HB1	1.84	0.60
1:A:644:ILE:HD11	1:A:1619:ARG:HD2	1.82	0.60
1:C:221:ARG:NE	1:C:258:SER:OG	2.32	0.60
1:C:2341:VAL:HG22	1:C:2342:ASN:H	1.66	0.60
1:C:4687:TYR:OH	1:C:4699:GLY:O	2.19	0.60
1:E:340:LYS:HB2	1:E:344:SER:HB2	1.82	0.60
1:E:2496:PRO:HG3	1:E:2549:ALA:HB1	1.84	0.60
1:E:3962:PHE:O	1:E:3966:THR:HG23	2.01	0.60
1:A:347:PHE:HE1	1:A:387:ALA:HA	1.66	0.59
1:A:3791:GLY:O	1:A:3793:MET:N	2.32	0.59
1:C:639:ASN:HA	1:C:1635:THR:HG22	1.83	0.59
1:C:1739:THR:O	1:C:1742:THR:OG1	2.17	0.59
1:C:2517:PHE:HA	1:C:2520:HIS:CE1	2.37	0.59
1:E:2356:LEU:HD23	1:E:2359:ARG:NH1	2.17	0.59
1:E:4806:ASN:O	1:E:4809:PHE:HB3	2.01	0.59
1:G:445:LEU:HD21	1:G:522:LEU:HG	1.84	0.59
1:G:2496:PRO:HG3	1:G:2549:ALA:HB1	1.84	0.59
1:G:2517:PHE:HA	1:G:2520:HIS:CE1	2.37	0.59
1:C:102:LEU:HB2	1:C:105:HIS:CD2	2.37	0.59
1:C:1547:LYS:NZ	1:C:1645:ASN:HB2	2.16	0.59
1:E:705:ASN:OD1	1:E:706:GLY:N	2.33	0.59
1:G:340:LYS:HB2	1:G:344:SER:HB2	1.83	0.59
1:C:495:ASN:HD22	1:C:550:LYS:HD2	1.66	0.59
1:G:250:GLY:O	1:G:252:VAL:N	2.35	0.59
1:A:1739:THR:O	1:A:1742:THR:OG1	2.17	0.59
1:A:2927:LEU:HD23	1:A:2930:LEU:HD12	1.85	0.59
2:B:11:ASP:OD2	2:B:68:VAL:HB	2.01	0.59
1:C:2927:LEU:HD23	1:C:2930:LEU:HD12	1.84	0.59
1:E:494:LEU:HB3	1:E:515:TRP:HE1	1.68	0.59
1:E:635:THR:HG23	1:E:1693:GLN:HE22	1.68	0.59
1:E:4928:LEU:O	1:E:4931:ILE:HG22	2.02	0.59
1:G:2355:ARG:O	1:G:2359:ARG:NE	2.33	0.59
1:A:350:HIS:O	1:A:354:GLY:N	2.28	0.59
1:E:617:ASN:O	1:E:621:ILE:HG12	2.02	0.59
1:E:639:ASN:HA	1:E:1635:THR:HG22	1.84	0.59
1:G:1105:ALA:HB3	1:G:1191:VAL:HG21	1.84	0.59
1:A:293:LEU:HD13	1:A:350:HIS:CD2	2.38	0.59
1:C:627:PRO:HG3	2:D:89:GLY:C	2.23	0.59
1:C:1206:GLN:N	1:C:1227:ALA:HB3	2.12	0.59
1:E:119:SER:HB2	1:E:145:ALA:HB1	1.85	0.59
1:E:2205:GLU:O	1:E:2209:GLU:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4904:PRO:HB2	1:E:4910:GLU:HG2	1.85	0.59
1:G:717:ASP:OD2	2:H:7:ILE:O	2.19	0.59
1:G:1620:ALA:N	1:G:1629:GLN:O	2.33	0.59
1:G:1961:PHE:CD1	1:G:2066:LEU:HD13	2.37	0.59
1:G:2205:GLU:O	1:G:2209:GLU:N	2.36	0.59
1:G:4554:TYR:HA	1:G:4557:ARG:NH1	2.17	0.59
2:H:11:ASP:OD2	2:H:68:VAL:HB	2.03	0.59
1:A:1105:ALA:HB3	1:A:1191:VAL:HG21	1.84	0.59
1:C:1598:GLN:O	1:C:1600:LEU:N	2.34	0.59
1:E:1457:TYR:O	1:E:1458:HIS:CD2	2.56	0.59
1:G:4097:MET:HB3	1:G:4108:ILE:HD12	1.84	0.59
1:G:4928:LEU:HA	1:G:4931:ILE:HG22	1.85	0.59
1:A:1961:PHE:CD1	1:A:2066:LEU:HD13	2.37	0.59
1:A:2349:ASN:OD1	1:A:3849:ARG:NH1	2.21	0.59
1:G:635:THR:HG23	1:G:1693:GLN:HE22	1.68	0.59
1:G:4705:VAL:HG22	1:G:4711:PHE:HD1	1.68	0.59
1:A:617:ASN:O	1:A:621:ILE:HG12	2.03	0.59
1:C:119:SER:HB2	1:C:145:ALA:HB1	1.85	0.59
1:C:293:LEU:HD13	1:C:350:HIS:CD2	2.38	0.59
1:C:617:ASN:O	1:C:621:ILE:HG12	2.02	0.59
1:C:817:PRO:HB3	1:C:1022:VAL:HG11	1.82	0.59
1:C:4904:PRO:HB2	1:C:4910:GLU:HG2	1.85	0.59
1:G:717:ASP:HB2	1:G:737:LEU:HA	1.85	0.59
1:A:2496:PRO:HG3	1:A:2549:ALA:HB1	1.85	0.59
1:C:57:ASN:HD22	1:C:308:HIS:HB2	1.67	0.59
1:C:650:VAL:O	1:C:777:PHE:N	2.30	0.59
1:C:2496:PRO:HG3	1:C:2549:ALA:HB1	1.85	0.59
1:C:4239:GLU:OE2	1:C:5014:TYR:OH	2.18	0.59
1:E:57:ASN:HD22	1:E:308:HIS:HB2	1.67	0.59
1:E:102:LEU:HB2	1:E:105:HIS:CD2	2.37	0.59
1:E:1961:PHE:CD1	1:E:2066:LEU:HD13	2.38	0.59
1:G:617:ASN:O	1:G:621:ILE:HG12	2.02	0.59
1:G:723:THR:OG1	1:G:728:ARG:NH1	2.34	0.59
1:A:4664:LEU:O	1:A:4667:PRO:HD2	2.01	0.58
1:A:4931:ILE:HD11	1:G:4826:ILE:CG2	2.33	0.58
1:C:2125:HIS:HD2	1:C:3728:ILE:HD11	1.67	0.58
1:E:249:GLY:H	1:E:372:LEU:HD11	1.68	0.58
1:G:494:LEU:HB3	1:G:515:TRP:HE1	1.68	0.58
1:A:737:LEU:CD1	2:B:8:SER:HB3	2.33	0.58
1:A:2233:CYS:HG	1:A:2271:THR:N	2.01	0.58
1:A:4904:PRO:HB2	1:A:4910:GLU:HG2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:358:THR:HA	1:C:386:ASP:OD2	2.04	0.58
1:C:737:LEU:CD1	2:D:8:SER:HB3	2.34	0.58
1:C:1105:ALA:HB3	1:C:1191:VAL:HG21	1.84	0.58
1:C:1437:VAL:N	1:C:1515:VAL:O	2.35	0.58
1:C:2233:CYS:HG	1:C:2271:THR:N	2.01	0.58
1:C:4979:THR:O	1:C:4984:ASN:N	2.31	0.58
1:E:293:LEU:HD13	1:E:350:HIS:CD2	2.38	0.58
1:E:737:LEU:CD1	2:F:8:SER:HB3	2.33	0.58
1:E:1105:ALA:HB3	1:E:1191:VAL:HG21	1.84	0.58
1:E:2517:PHE:HA	1:E:2520:HIS:CE1	2.37	0.58
1:E:2890:LYS:HE3	1:E:2894:LEU:HD11	1.85	0.58
1:G:293:LEU:HD13	1:G:350:HIS:CD2	2.38	0.58
1:G:1435:TYR:HB3	1:G:1517:GLY:H	1.68	0.58
1:G:2126:ARG:HB2	1:G:2133:GLU:OE1	2.03	0.58
1:A:358:THR:HA	1:A:386:ASP:OD2	2.03	0.58
1:A:723:THR:OG1	1:A:728:ARG:NH1	2.34	0.58
1:E:1091:GLU:HG2	1:E:1213:PHE:HB2	1.85	0.58
1:E:2233:CYS:HG	1:E:2271:THR:N	2.01	0.58
1:G:119:SER:HB2	1:G:145:ALA:HB1	1.85	0.58
1:G:1206:GLN:N	1:G:1227:ALA:HB3	2.12	0.58
1:A:4687:TYR:OH	1:A:4699:GLY:O	2.20	0.58
1:E:404:ILE:HD13	1:E:481:GLU:HG3	1.85	0.58
1:A:250:GLY:O	1:A:252:VAL:N	2.36	0.58
1:A:494:LEU:HB3	1:A:515:TRP:HE1	1.68	0.58
1:A:2125:HIS:HD2	1:A:3728:ILE:HD11	1.68	0.58
1:E:1598:GLN:O	1:E:1600:LEU:N	2.33	0.58
1:G:3839:CYS:SG	1:G:3881:THR:HG22	2.44	0.58
1:A:635:THR:HG23	1:A:1693:GLN:HE22	1.68	0.58
1:A:4839:MET:HB3	1:G:4823:LEU:HD11	1.85	0.58
1:C:15:ARG:N	1:C:18:ASP:OD2	2.37	0.58
1:C:404:ILE:HD13	1:C:481:GLU:HG3	1.86	0.58
1:C:635:THR:HG23	1:C:1693:GLN:HE22	1.68	0.58
1:C:864:PRO:O	1:C:868:GLU:N	2.32	0.58
1:C:1190:PRO:HG3	1:C:1226:PHE:CE2	2.36	0.58
1:C:1745:ILE:HD11	1:C:1769:THR:HG21	1.86	0.58
1:G:3768:SER:HA	1:G:3771:HIS:HB3	1.84	0.58
1:G:3780:LEU:HD21	1:G:3820:LEU:HD21	1.85	0.58
1:A:639:ASN:HA	1:A:1635:THR:HG22	1.84	0.58
1:A:1933:GLU:HB3	1:A:2116:LEU:HD21	1.86	0.58
1:A:2355:ARG:O	1:A:2359:ARG:NE	2.33	0.58
1:C:4806:ASN:O	1:C:4809:PHE:HB3	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2233:CYS:HG	1:G:2271:THR:N	2.01	0.58
1:G:2349:ASN:OD1	1:G:3849:ARG:NH1	2.26	0.58
1:G:4727:LYS:HZ2	1:G:4728:HIS:CE1	2.22	0.58
1:A:57:ASN:HD22	1:A:308:HIS:HB2	1.67	0.58
1:A:1745:ILE:HD11	1:A:1769:THR:HG21	1.86	0.58
1:A:4786:ASP:OD2	1:A:4788:SER:OG	2.07	0.58
1:C:2205:GLU:O	1:C:2209:GLU:N	2.36	0.58
1:C:2890:LYS:HE3	1:C:2894:LEU:HD11	1.84	0.58
1:E:15:ARG:N	1:E:18:ASP:OD2	2.36	0.58
1:E:2868:SER:O	1:E:2872:GLN:N	2.32	0.58
1:E:3821:LYS:HZ3	1:E:3902:TYR:HD1	1.50	0.58
1:G:640:TYR:CE1	1:G:1613:LEU:HD23	2.37	0.58
1:G:737:LEU:CD1	2:H:8:SER:HB3	2.33	0.58
1:G:1091:GLU:HG2	1:G:1213:PHE:HB2	1.85	0.58
1:A:195:PHE:CD2	1:G:2358:ILE:HG23	2.39	0.58
1:A:249:GLY:H	1:A:372:LEU:HD11	1.68	0.58
1:A:1620:ALA:N	1:A:1629:GLN:O	2.33	0.58
1:C:1091:GLU:HG2	1:C:1213:PHE:HB2	1.85	0.58
1:C:2358:ILE:HG23	1:E:195:PHE:CD2	2.39	0.58
1:E:1585:LYS:HZ3	1:E:1596:GLU:CD	2.05	0.58
1:E:1933:GLU:HB3	1:E:2116:LEU:HD21	1.86	0.58
1:E:2125:HIS:HD2	1:E:3728:ILE:HD11	1.68	0.58
1:E:2756:ASN:OD1	1:E:2806:ARG:NH2	2.37	0.58
1:G:249:GLY:H	1:G:372:LEU:HD11	1.68	0.58
1:G:358:THR:HA	1:G:386:ASP:OD2	2.03	0.58
1:G:1933:GLU:HB3	1:G:2116:LEU:HD21	1.86	0.58
1:G:4855:ALA:HB1	1:G:4863:TYR:CE2	2.39	0.58
1:A:111:HIS:HD2	1:A:114:SER:N	2.00	0.58
1:A:2358:ILE:HG23	1:C:195:PHE:CD2	2.39	0.58
1:A:4806:ASN:O	1:A:4809:PHE:HB3	2.04	0.58
1:C:1620:ALA:N	1:C:1629:GLN:O	2.33	0.58
1:E:358:THR:HA	1:E:386:ASP:OD2	2.03	0.58
1:E:627:PRO:HG3	2:F:89:GLY:C	2.24	0.58
1:G:650:VAL:O	1:G:777:PHE:N	2.30	0.58
1:G:3169:LEU:O	1:G:3173:TYR:N	2.36	0.58
1:A:320:LYS:NZ	1:A:383:HIS:O	2.29	0.57
1:A:1436:SER:N	1:A:1516:ILE:HA	2.19	0.57
1:E:1243:PRO:O	1:E:1458:HIS:CE1	2.57	0.57
1:G:111:HIS:HD2	1:G:114:SER:N	2.00	0.57
1:G:2890:LYS:HE3	1:G:2894:LEU:HD11	1.85	0.57
1:A:421:PHE:CD1	1:A:507:ALA:HB2	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1663:HIS:O	1:A:1666:THR:OG1	2.13	0.57
1:A:2756:ASN:OD1	1:A:2806:ARG:NH2	2.37	0.57
1:A:3805:LEU:O	1:A:3807:GLY:N	2.37	0.57
2:D:87:HIS:HB3	2:D:91:ILE:H	1.69	0.57
1:E:421:PHE:CD1	1:E:507:ALA:HB2	2.39	0.57
1:G:57:ASN:HD22	1:G:308:HIS:HB2	1.67	0.57
1:G:461:HIS:O	1:G:465:GLN:HG2	2.04	0.57
1:G:2259:GLU:HG2	1:G:2297:LYS:HE2	1.86	0.57
1:G:2454:ARG:O	1:G:2458:ARG:HG3	2.04	0.57
1:G:4830:VAL:HG22	1:G:4936:ILE:HD12	1.86	0.57
1:A:627:PRO:HG3	2:B:89:GLY:C	2.24	0.57
1:A:2890:LYS:HE3	1:A:2894:LEU:HD11	1.85	0.57
1:C:250:GLY:O	1:C:252:VAL:N	2.38	0.57
1:C:1933:GLU:HB3	1:C:2116:LEU:HD21	1.86	0.57
1:C:2066:LEU:O	1:C:2069:THR:OG1	2.20	0.57
1:E:864:PRO:O	1:E:868:GLU:N	2.33	0.57
1:E:1480:GLN:N	1:E:1481:GLY:HA2	2.19	0.57
2:F:87:HIS:HB3	2:F:91:ILE:H	1.69	0.57
1:G:2125:HIS:HD2	1:G:3728:ILE:HD11	1.69	0.57
1:A:15:ARG:N	1:A:18:ASP:OD2	2.37	0.57
1:A:3835:LEU:HD21	1:A:3880:PHE:CE2	2.40	0.57
1:A:4077:PHE:O	1:A:4081:VAL:N	2.37	0.57
1:E:250:GLY:O	1:E:252:VAL:N	2.38	0.57
1:E:4027:LEU:HD22	1:E:4146:LEU:HD11	1.86	0.57
1:G:1745:ILE:HD11	1:G:1769:THR:HG21	1.86	0.57
2:H:87:HIS:HB3	2:H:91:ILE:H	1.68	0.57
1:A:2205:GLU:O	1:A:2209:GLU:N	2.36	0.57
1:C:2126:ARG:HB2	1:C:2133:GLU:OE1	2.05	0.57
1:C:2756:ASN:OD1	1:C:2806:ARG:NH2	2.37	0.57
1:C:3805:LEU:O	1:C:3807:GLY:N	2.37	0.57
1:E:1745:ILE:HD11	1:E:1769:THR:HG21	1.86	0.57
1:E:2771:ILE:HD11	1:E:2857:PRO:HD2	1.87	0.57
1:E:4786:ASP:OD2	1:E:4788:SER:OG	2.07	0.57
1:G:768:PHE:HB3	1:G:771:PHE:HE1	1.69	0.57
1:G:3897:ASN:O	1:G:3901:ASN:ND2	2.36	0.57
1:A:16:THR:HB	1:A:98:HIS:HA	1.87	0.57
1:A:170:ILE:HD11	1:A:199:LEU:HD23	1.85	0.57
1:A:649:PHE:CE1	1:A:689:THR:HG22	2.40	0.57
1:A:1480:GLN:N	1:A:1481:GLY:HA2	2.19	0.57
1:C:350:HIS:O	1:C:354:GLY:N	2.27	0.57
1:G:170:ILE:HD11	1:G:199:LEU:HD23	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:627:PRO:HG3	2:H:89:GLY:C	2.23	0.57
1:G:1436:SER:H	1:G:1516:ILE:CG1	2.17	0.57
1:G:4026:MET:HG3	1:G:4027:LEU:N	2.19	0.57
1:A:495:ASN:HB3	1:A:553:ARG:NH2	2.20	0.57
1:A:1731:LEU:HD21	1:A:1948:ASP:HB3	1.87	0.57
1:A:2771:ILE:HD11	1:A:2857:PRO:HD2	1.87	0.57
1:C:494:LEU:HB3	1:C:515:TRP:HE1	1.69	0.57
1:C:523:TYR:CD1	1:C:560:ILE:HG12	2.40	0.57
1:C:1480:GLN:N	1:C:1481:GLY:HA2	2.19	0.57
1:E:170:ILE:HD11	1:E:199:LEU:HD23	1.86	0.57
1:E:2454:ARG:O	1:E:2458:ARG:HG3	2.04	0.57
1:G:15:ARG:N	1:G:18:ASP:OD2	2.36	0.57
1:G:421:PHE:CD1	1:G:507:ALA:HB2	2.40	0.57
1:G:4047:MET:HG3	1:G:4048:LEU:N	2.18	0.57
1:A:4205:TRP:CZ2	1:A:4986:ALA:HB2	2.40	0.57
1:A:4928:LEU:O	1:A:4931:ILE:HG22	2.04	0.57
1:C:768:PHE:HB3	1:C:771:PHE:HE1	1.69	0.57
1:C:2259:GLU:HG2	1:C:2297:LYS:HE2	1.87	0.57
1:C:2922:LYS:HA	1:C:2925:GLU:CD	2.23	0.57
1:G:1480:GLN:N	1:G:1481:GLY:HA2	2.19	0.57
1:G:2551:ASN:O	1:G:2554:LEU:HG	2.05	0.57
1:A:1833:SER:HB2	1:A:1836:PHE:HD2	1.70	0.57
1:A:2454:ARG:O	1:A:2458:ARG:HG3	2.04	0.57
1:C:249:GLY:H	1:C:372:LEU:HD11	1.69	0.57
1:C:421:PHE:CD1	1:C:507:ALA:HB2	2.39	0.57
1:C:2556:LEU:HA	1:C:2559:LEU:HD13	1.87	0.57
1:C:2771:ILE:HD11	1:C:2857:PRO:HD2	1.87	0.57
1:C:3835:LEU:HD21	1:C:3880:PHE:CE2	2.39	0.57
1:E:16:THR:HB	1:E:98:HIS:HA	1.87	0.57
1:E:495:ASN:HB3	1:E:553:ARG:NH2	2.20	0.57
1:E:523:TYR:CD1	1:E:560:ILE:HG12	2.40	0.57
1:E:649:PHE:CE1	1:E:689:THR:HG22	2.40	0.57
1:E:1739:THR:O	1:E:1742:THR:OG1	2.17	0.57
1:E:3835:LEU:HD21	1:E:3880:PHE:CE2	2.40	0.57
1:G:649:PHE:CE1	1:G:689:THR:HG22	2.40	0.57
1:A:232:THR:OG1	1:A:252:VAL:HG21	2.05	0.57
1:C:4077:PHE:O	1:C:4081:VAL:N	2.37	0.57
1:E:584:LYS:HZ3	1:E:1586:ASN:HD21	1.51	0.57
1:E:2259:GLU:HG2	1:E:2297:LYS:HE2	1.87	0.57
1:E:2355:ARG:O	1:E:2359:ARG:NE	2.33	0.57
1:E:4826:ILE:HG23	1:G:4931:ILE:HD11	1.80	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:257:ARG:O	1:G:284:HIS:HE1	1.88	0.57
1:G:523:TYR:CD1	1:G:560:ILE:HG12	2.40	0.57
1:G:1731:LEU:HD21	1:G:1948:ASP:HB3	1.85	0.57
1:G:4994:TYR:O	1:G:4998:LYS:HG2	2.05	0.57
1:A:257:ARG:O	1:A:284:HIS:HE1	1.88	0.56
1:A:1598:GLN:O	1:A:1600:LEU:N	2.33	0.56
1:A:2862:LEU:HD21	1:A:2929:PHE:HD1	1.70	0.56
1:C:495:ASN:HB3	1:C:553:ARG:NH2	2.20	0.56
1:E:1288:PHE:HE2	1:E:1460:HIS:HA	1.70	0.56
1:G:1190:PRO:HG3	1:G:1226:PHE:CE2	2.36	0.56
1:A:1190:PRO:HG3	1:A:1226:PHE:CE2	2.37	0.56
1:A:2902:HIS:HB3	1:A:2905:LEU:HG	1.87	0.56
1:A:4861:LYS:O	1:A:4875:LYS:NZ	2.39	0.56
1:C:4205:TRP:CZ2	1:C:4986:ALA:HB2	2.40	0.56
1:E:257:ARG:O	1:E:284:HIS:HE1	1.88	0.56
1:E:1616:GLU:HG3	1:E:1617:THR:N	2.20	0.56
1:E:1663:HIS:O	1:E:1666:THR:OG1	2.14	0.56
1:E:4205:TRP:CZ2	1:E:4986:ALA:HB2	2.40	0.56
1:G:2771:ILE:HD11	1:G:2857:PRO:HD2	1.87	0.56
1:G:4077:PHE:O	1:G:4081:VAL:N	2.38	0.56
1:A:110:ARG:NH1	1:A:115:ARG:HE	2.03	0.56
1:A:4686:LEU:O	1:A:4690:GLU:N	2.39	0.56
2:B:87:HIS:HB3	2:B:91:ILE:H	1.69	0.56
1:C:170:ILE:HD11	1:C:199:LEU:HD23	1.86	0.56
1:C:649:PHE:CE1	1:C:689:THR:HG22	2.40	0.56
1:C:2454:ARG:O	1:C:2458:ARG:HG3	2.04	0.56
1:E:650:VAL:O	1:E:777:PHE:N	2.30	0.56
1:E:2827:ARG:HB2	1:E:2934:GLY:HA3	1.87	0.56
1:E:4809:PHE:O	1:E:4812:HIS:ND1	2.28	0.56
1:G:37:LEU:HD13	1:G:191:VAL:HG21	1.87	0.56
1:G:110:ARG:NH1	1:G:115:ARG:HE	2.03	0.56
1:G:3805:LEU:O	1:G:3807:GLY:N	2.38	0.56
1:G:4848:VAL:HG23	1:G:4920:PHE:HE1	1.71	0.56
1:A:768:PHE:HB3	1:A:771:PHE:HE1	1.70	0.56
1:A:2259:GLU:HG2	1:A:2297:LYS:HE2	1.87	0.56
1:C:1616:GLU:HG3	1:C:1617:THR:N	2.20	0.56
1:C:3885:PHE:HE1	1:C:3919:THR:HG1	1.52	0.56
1:E:2126:ARG:HB2	1:E:2133:GLU:OE1	2.05	0.56
1:E:2551:ASN:O	1:E:2554:LEU:HG	2.05	0.56
1:E:4077:PHE:O	1:E:4081:VAL:N	2.38	0.56
1:G:1616:GLU:HG3	1:G:1617:THR:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:461:HIS:O	1:C:465:GLN:HG2	2.06	0.56
1:C:1731:LEU:HD21	1:C:1948:ASP:HB3	1.86	0.56
1:E:896:VAL:HG13	1:E:903:LEU:HB3	1.88	0.56
1:G:404:ILE:HD13	1:G:481:GLU:HG3	1.86	0.56
1:G:1003:GLN:O	1:G:1016:ARG:N	2.39	0.56
1:G:3786:CYS:SG	1:G:3794:VAL:HG22	2.45	0.56
1:A:2551:ASN:O	1:A:2554:LEU:HG	2.05	0.56
1:A:2827:ARG:HB2	1:A:2934:GLY:HA3	1.87	0.56
1:A:4031:LEU:HD13	1:A:4044:MET:HE3	1.87	0.56
1:C:111:HIS:CD2	1:C:114:SER:H	2.16	0.56
1:C:257:ARG:O	1:C:284:HIS:HE1	1.88	0.56
1:E:461:HIS:O	1:E:465:GLN:HG2	2.06	0.56
1:E:670:GLU:HB3	1:E:788:LYS:HB3	1.87	0.56
1:E:2875:ALA:HB2	1:E:2927:LEU:HD12	1.87	0.56
1:E:4164:LEU:HD23	1:E:4168:GLU:OE2	2.06	0.56
1:G:232:THR:OG1	1:G:252:VAL:HG21	2.05	0.56
1:G:4956:THR:O	1:G:4965:SER:N	2.38	0.56
1:A:404:ILE:HD13	1:A:481:GLU:HG3	1.86	0.56
1:A:1616:GLU:HG3	1:A:1617:THR:N	2.20	0.56
1:A:2126:ARG:HB2	1:A:2133:GLU:OE1	2.05	0.56
1:A:2248:ARG:NH1	1:A:2285:GLU:OE2	2.39	0.56
1:A:2556:LEU:HA	1:A:2559:LEU:HD13	1.87	0.56
1:A:4013:LEU:O	1:A:4017:LEU:HG	2.06	0.56
1:C:4705:VAL:HG22	1:C:4711:PHE:HD1	1.70	0.56
1:C:4826:ILE:HG23	1:E:4931:ILE:HD11	1.83	0.56
1:E:640:TYR:CE1	1:E:1613:LEU:HD23	2.37	0.56
1:E:768:PHE:HB3	1:E:771:PHE:HE1	1.69	0.56
1:E:1003:GLN:O	1:E:1016:ARG:N	2.39	0.56
1:E:1214:PHE:O	1:E:1218:GLY:N	2.37	0.56
1:E:1833:SER:HB2	1:E:1836:PHE:HD2	1.70	0.56
1:E:2358:ILE:HG23	1:G:195:PHE:CD2	2.40	0.56
1:G:16:THR:HB	1:G:98:HIS:HA	1.87	0.56
1:G:4205:TRP:CZ2	1:G:4986:ALA:HB2	2.41	0.56
1:A:523:TYR:CD1	1:A:560:ILE:HG12	2.40	0.56
1:A:1237:TRP:HD1	1:A:1611:HIS:HA	1.71	0.56
1:A:2143:THR:OG1	1:A:3651:ASN:ND2	2.39	0.56
1:C:896:VAL:HG23	1:C:903:LEU:HB3	1.88	0.56
1:C:2827:ARG:HB2	1:C:2934:GLY:HA3	1.88	0.56
1:E:1240:LYS:HG3	1:E:1610:ASN:HD22	1.71	0.56
1:E:1620:ALA:N	1:E:1629:GLN:O	2.33	0.56
1:E:4683:PHE:CE2	1:E:5017:ARG:HD2	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4904:PRO:HG3	1:E:4913:ARG:HH11	1.71	0.56
1:G:3840:SER:HB2	1:G:3877:ASP:OD2	2.06	0.56
1:C:1833:SER:HB2	1:C:1836:PHE:HD2	1.70	0.56
1:C:2143:THR:OG1	1:C:3651:ASN:ND2	2.39	0.56
1:C:2862:LEU:HD21	1:C:2929:PHE:HD1	1.71	0.56
1:C:4027:LEU:HD22	1:C:4146:LEU:HD11	1.87	0.56
1:C:4888:TYR:CD1	1:E:4914:VAL:HG23	2.41	0.56
1:E:1190:PRO:HG3	1:E:1226:PHE:CE2	2.36	0.56
1:E:2862:LEU:HD21	1:E:2929:PHE:HD1	1.71	0.56
1:E:4013:LEU:O	1:E:4017:LEU:HG	2.06	0.56
1:G:2756:ASN:OD1	1:G:2806:ARG:NH2	2.38	0.56
1:A:1091:GLU:HG2	1:A:1213:PHE:HB2	1.86	0.56
1:A:4979:THR:O	1:A:4984:ASN:N	2.31	0.56
1:C:670:GLU:HB3	1:C:788:LYS:HB3	1.87	0.56
1:E:4047:MET:HG3	1:E:4048:LEU:N	2.21	0.56
1:E:4705:VAL:HG22	1:E:4711:PHE:HD1	1.71	0.56
1:G:1240:LYS:HG3	1:G:1610:ASN:HD22	1.71	0.56
1:G:4181:ILE:HG23	1:G:4195:PHE:HE1	1.71	0.56
2:H:27:THR:HG22	2:H:100:ASP:HB3	1.88	0.56
1:A:4705:VAL:HG22	1:A:4711:PHE:HD1	1.71	0.55
1:C:111:HIS:HD2	1:C:114:SER:N	2.01	0.55
1:C:1237:TRP:HD1	1:C:1611:HIS:HA	1.71	0.55
1:C:4578:LEU:O	1:E:4879:MET:CB	2.54	0.55
1:E:2763:HIS:NE2	1:E:2792:ARG:O	2.32	0.55
1:G:641:VAL:HG21	1:G:704:GLY:N	2.21	0.55
1:G:1598:GLN:O	1:G:1600:LEU:N	2.33	0.55
1:A:670:GLU:HB3	1:A:788:LYS:HB3	1.87	0.55
1:C:37:LEU:HD13	1:C:191:VAL:HG21	1.87	0.55
1:C:232:THR:OG1	1:C:252:VAL:HG21	2.05	0.55
1:C:640:TYR:CE1	1:C:1613:LEU:HD23	2.37	0.55
1:C:2551:ASN:O	1:C:2554:LEU:HG	2.05	0.55
1:C:2902:HIS:HB3	1:C:2905:LEU:HG	1.86	0.55
1:C:4786:ASP:OD2	1:C:4788:SER:OG	2.07	0.55
1:C:4928:LEU:O	1:C:4931:ILE:HG22	2.06	0.55
1:E:1237:TRP:HD1	1:E:1611:HIS:HA	1.71	0.55
1:E:2556:LEU:HA	1:E:2559:LEU:HD13	1.88	0.55
1:G:103:TYR:CE2	1:G:163:VAL:HA	2.42	0.55
1:G:495:ASN:HB3	1:G:553:ARG:NH2	2.20	0.55
1:A:864:PRO:O	1:A:868:GLU:N	2.33	0.55
1:A:2066:LEU:O	1:A:2069:THR:OG1	2.20	0.55
1:E:4181:ILE:HG23	1:E:4195:PHE:HE1	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1288:PHE:HE2	1:G:1460:HIS:HA	1.71	0.55
1:G:1833:SER:HB2	1:G:1836:PHE:HD2	1.70	0.55
1:A:294:THR:HG22	1:A:296:ASP:H	1.71	0.55
1:A:2763:HIS:NE2	1:A:2792:ARG:O	2.32	0.55
1:C:16:THR:HB	1:C:98:HIS:HA	1.87	0.55
1:C:641:VAL:HG21	1:C:704:GLY:N	2.21	0.55
1:C:758:ARG:HH12	1:C:763:PRO:HG3	1.72	0.55
1:C:1003:GLN:O	1:C:1016:ARG:N	2.39	0.55
1:E:37:LEU:HD13	1:E:191:VAL:HG21	1.88	0.55
1:E:103:TYR:CE2	1:E:163:VAL:HA	2.41	0.55
1:E:375:LYS:HZ1	1:E:377:ILE:HG22	1.71	0.55
1:E:1237:TRP:CD1	1:E:1611:HIS:HA	2.42	0.55
1:E:2143:THR:OG1	1:E:3651:ASN:ND2	2.39	0.55
1:E:2248:ARG:NH1	1:E:2285:GLU:OE2	2.39	0.55
1:E:2902:HIS:CG	1:E:2903:PRO:HD2	2.41	0.55
1:E:2902:HIS:HB3	1:E:2905:LEU:HG	1.86	0.55
1:G:220:LEU:HD11	1:G:390:LEU:HD22	1.87	0.55
1:G:1201:HIS:CE1	1:G:1203:ASN:HD21	2.24	0.55
1:G:3750:GLU:OE2	1:G:4716:TRP:HA	2.07	0.55
1:A:220:LEU:HD11	1:A:390:LEU:HD22	1.88	0.55
1:A:1088:TRP:HZ3	1:A:1229:ASN:HD21	1.54	0.55
1:A:3891:LEU:HD23	1:A:3899:PHE:CZ	2.41	0.55
1:C:4031:LEU:HD13	1:C:4044:MET:HE3	1.87	0.55
1:C:4164:LEU:HD23	1:C:4168:GLU:OE2	2.06	0.55
1:C:4956:THR:O	1:C:4965:SER:N	2.39	0.55
1:E:294:THR:HG22	1:E:296:ASP:H	1.71	0.55
1:E:1731:LEU:HD21	1:E:1948:ASP:HB3	1.87	0.55
1:E:2094:LEU:O	1:E:2097:LEU:HG	2.07	0.55
1:E:3805:LEU:O	1:E:3807:GLY:N	2.38	0.55
1:E:4889:VAL:H	1:E:4892:ARG:HD3	1.71	0.55
1:G:294:THR:HG22	1:G:296:ASP:H	1.72	0.55
1:G:350:HIS:O	1:G:354:GLY:N	2.28	0.55
1:G:2902:HIS:CG	1:G:2903:PRO:HD2	2.41	0.55
1:G:3767:GLN:NE2	1:G:3805:LEU:O	2.39	0.55
1:C:2151:ASP:OD2	1:C:2190:VAL:HG23	2.07	0.55
1:C:2922:LYS:O	1:C:2925:GLU:HB3	2.07	0.55
1:C:4683:PHE:CE2	1:C:5017:ARG:HD2	2.41	0.55
1:G:1585:LYS:HZ3	1:G:1596:GLU:CD	2.04	0.55
1:G:4861:LYS:O	1:G:4875:LYS:NZ	2.39	0.55
1:A:461:HIS:O	1:A:465:GLN:HG2	2.06	0.55
1:A:4027:LEU:HD22	1:A:4146:LEU:HD11	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4956:THR:O	1:A:4965:SER:N	2.40	0.55
1:C:1237:TRP:CD1	1:C:1611:HIS:HA	2.42	0.55
1:C:2902:HIS:CG	1:C:2903:PRO:HD2	2.41	0.55
1:C:4013:LEU:O	1:C:4017:LEU:HG	2.06	0.55
1:E:232:THR:OG1	1:E:252:VAL:HG21	2.05	0.55
1:E:592:LYS:HA	1:E:1585:LYS:HE2	1.88	0.55
1:E:595:ARG:HH12	1:E:1641:ILE:CD1	2.20	0.55
1:E:4686:LEU:O	1:E:4690:GLU:N	2.39	0.55
1:G:1639:LEU:HD23	1:G:1650:ILE:HG12	1.89	0.55
1:G:3821:LYS:HZ3	1:G:3902:TYR:HD1	1.54	0.55
1:A:584:LYS:HZ3	1:A:1586:ASN:HD21	1.54	0.55
1:A:773:LEU:HA	1:A:777:PHE:HZ	1.72	0.55
1:C:4686:LEU:O	1:C:4690:GLU:N	2.39	0.55
1:E:4239:GLU:OE2	1:E:5014:TYR:OH	2.18	0.55
1:A:1003:GLN:O	1:A:1016:ARG:N	2.39	0.55
1:C:294:THR:HG22	1:C:296:ASP:H	1.72	0.55
1:C:2770:LYS:HG3	1:C:2791:LEU:HD21	1.89	0.55
1:C:4181:ILE:HG23	1:C:4195:PHE:HE1	1.71	0.55
1:E:220:LEU:HD11	1:E:390:LEU:HD22	1.88	0.55
1:E:4031:LEU:HD13	1:E:4044:MET:HE3	1.87	0.55
1:G:670:GLU:HB3	1:G:788:LYS:HB3	1.88	0.55
1:G:4192:ARG:NH1	1:G:5028:PHE:CD2	2.75	0.55
2:H:87:HIS:CD2	2:H:88:PRO:HD2	2.41	0.55
1:C:103:TYR:CE2	1:C:163:VAL:HA	2.41	0.55
1:C:273:HIS:N	1:C:334:MET:O	2.27	0.55
1:C:4904:PRO:HG3	1:C:4913:ARG:HH11	1.71	0.55
1:E:758:ARG:HH12	1:E:763:PRO:HG3	1.72	0.55
1:G:592:LYS:HA	1:G:1585:LYS:HE2	1.88	0.55
1:A:758:ARG:HH12	1:A:763:PRO:HG3	1.72	0.54
1:A:4181:ILE:HG23	1:A:4195:PHE:HE1	1.71	0.54
1:C:1201:HIS:CE1	1:C:1203:ASN:HD21	2.24	0.54
1:C:2257:LEU:HD21	1:C:2275:VAL:HB	1.90	0.54
1:E:1676:LEU:HD12	1:E:1725:ARG:HH11	1.73	0.54
1:E:2770:LYS:HG3	1:E:2791:LEU:HD21	1.89	0.54
1:G:1783:VAL:CG2	2:H:55:VAL:HG12	2.36	0.54
1:G:2556:LEU:HA	1:G:2559:LEU:HD13	1.88	0.54
1:G:3927:GLN:OE1	1:G:3988:ALA:HA	2.07	0.54
1:A:4047:MET:HG3	1:A:4048:LEU:N	2.22	0.54
1:A:4164:LEU:HD23	1:A:4168:GLU:OE2	2.06	0.54
1:C:220:LEU:HD11	1:C:390:LEU:HD22	1.88	0.54
1:C:1639:LEU:HD23	1:C:1650:ILE:HG12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1783:VAL:CG2	2:D:55:VAL:HG12	2.37	0.54
1:E:773:LEU:HA	1:E:777:PHE:HZ	1.72	0.54
1:G:2151:ASP:OD2	1:G:2190:VAL:HG23	2.07	0.54
1:G:2257:LEU:HD21	1:G:2275:VAL:HB	1.89	0.54
1:A:103:TYR:CE2	1:A:163:VAL:HA	2.42	0.54
1:A:2902:HIS:CG	1:A:2903:PRO:HD2	2.41	0.54
1:C:492:ASP:OD1	1:C:546:TRP:NE1	2.40	0.54
1:C:2094:LEU:O	1:C:2097:LEU:HG	2.07	0.54
1:E:442:ILE:HD11	1:E:514:SER:HB3	1.89	0.54
1:E:641:VAL:HG21	1:E:704:GLY:N	2.22	0.54
1:E:699:GLY:H	1:E:703:GLY:HA2	1.72	0.54
1:E:3424:LEU:O	1:E:3427:PRO:N	2.41	0.54
1:E:3972:PRO:HA	1:E:4032:GLU:OE2	2.08	0.54
1:G:442:ILE:HD11	1:G:514:SER:HB3	1.89	0.54
1:A:640:TYR:CE1	1:A:1613:LEU:HD23	2.37	0.54
1:A:641:VAL:HG21	1:A:704:GLY:N	2.22	0.54
1:A:699:GLY:H	1:A:703:GLY:HA2	1.72	0.54
1:A:790:ARG:HD3	1:A:792:LEU:HD21	1.90	0.54
1:A:1240:LYS:HG3	1:A:1610:ASN:HD22	1.71	0.54
1:A:1676:LEU:HD12	1:A:1725:ARG:HH11	1.72	0.54
1:A:1783:VAL:CG2	2:B:55:VAL:HG12	2.37	0.54
1:A:2094:LEU:O	1:A:2097:LEU:HG	2.07	0.54
1:A:4578:LEU:O	1:C:4879:MET:CB	2.55	0.54
1:C:2248:ARG:NH1	1:C:2285:GLU:OE2	2.39	0.54
1:C:3424:LEU:O	1:C:3427:PRO:N	2.40	0.54
1:C:3972:PRO:HA	1:C:4032:GLU:OE2	2.07	0.54
1:E:3920:VAL:HG11	1:E:3983:SER:OG	2.07	0.54
1:G:896:VAL:HG13	1:G:903:LEU:HB3	1.88	0.54
1:G:1237:TRP:CD1	1:G:1611:HIS:HA	2.42	0.54
1:A:37:LEU:HD13	1:A:191:VAL:HG21	1.88	0.54
1:A:2134:LEU:O	1:A:2138:LEU:HG	2.08	0.54
1:A:4888:TYR:CD1	1:C:4914:VAL:HG23	2.42	0.54
1:A:4904:PRO:HG3	1:A:4913:ARG:HH11	1.72	0.54
1:C:215:THR:HG22	1:C:273:HIS:HD2	1.73	0.54
1:C:773:LEU:HA	1:C:777:PHE:HZ	1.73	0.54
1:C:887:ILE:HD11	1:C:907:LEU:HB3	1.90	0.54
1:C:1457:TYR:O	1:C:1458:HIS:ND1	2.41	0.54
1:C:1653:LEU:HA	1:C:1656:ARG:HB2	1.90	0.54
1:C:2277:ALA:O	1:C:2281:ILE:HG13	2.08	0.54
1:C:3920:VAL:HG11	1:C:3983:SER:OG	2.08	0.54
1:C:3937:TYR:HA	1:C:3940:LYS:HZ3	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:554:LEU:HG	1:E:593:HIS:CE1	2.43	0.54
1:E:1201:HIS:CE1	1:E:1203:ASN:HD21	2.25	0.54
1:E:1650:ILE:HG23	1:E:1653:LEU:HD12	1.89	0.54
1:E:1783:VAL:CG2	2:F:55:VAL:HG12	2.37	0.54
1:E:2257:LEU:HD21	1:E:2275:VAL:HB	1.89	0.54
1:G:773:LEU:HA	1:G:777:PHE:HZ	1.73	0.54
1:G:4049:VAL:HG21	1:G:4159:ARG:HD2	1.88	0.54
1:G:4786:ASP:OD2	1:G:4788:SER:OG	2.08	0.54
1:A:1237:TRP:CD1	1:A:1611:HIS:HA	2.42	0.54
1:A:2151:ASP:OD2	1:A:2190:VAL:HG23	2.07	0.54
1:A:2257:LEU:HD21	1:A:2275:VAL:HB	1.90	0.54
1:A:3920:VAL:HG11	1:A:3983:SER:OG	2.08	0.54
1:C:1650:ILE:HG23	1:C:1653:LEU:HD12	1.89	0.54
1:E:1079:LYS:HG3	1:E:1237:TRP:CZ3	2.43	0.54
1:E:1639:LEU:HD23	1:E:1650:ILE:HG12	1.89	0.54
1:E:2151:ASP:OD2	1:E:2190:VAL:HG23	2.07	0.54
1:E:4956:THR:O	1:E:4965:SER:N	2.40	0.54
1:G:595:ARG:HH12	1:G:1641:ILE:CD1	2.20	0.54
1:G:3699:HIS:HD2	1:G:3773:ARG:HA	1.72	0.54
1:G:3878:ASP:OD2	1:G:3953:LYS:HG2	2.07	0.54
1:A:1079:LYS:HG3	1:A:1237:TRP:CZ3	2.43	0.54
1:C:595:ARG:HH12	1:C:1641:ILE:CD1	2.20	0.54
1:C:1240:LYS:HG3	1:C:1610:ASN:HD22	1.72	0.54
1:C:3882:GLN:HB2	1:C:3957:VAL:HG22	1.90	0.54
1:G:1237:TRP:HD1	1:G:1611:HIS:HA	1.71	0.54
1:G:1961:PHE:HZ	1:G:2063:LEU:HD23	1.72	0.54
1:G:4979:THR:O	1:G:4984:ASN:N	2.40	0.54
1:A:3897:ASN:O	1:A:3901:ASN:ND2	2.40	0.54
1:A:3972:PRO:HA	1:A:4032:GLU:OE2	2.08	0.54
1:C:592:LYS:HA	1:C:1585:LYS:HE2	1.88	0.54
1:E:1288:PHE:CE2	1:E:1460:HIS:HA	2.42	0.54
1:E:1295:VAL:HG22	1:E:1548:LEU:N	2.23	0.54
1:E:2803:GLU:HA	1:E:2806:ARG:HB2	1.90	0.54
1:E:4860:ARG:HB2	1:E:4877:ASP:OD1	2.08	0.54
1:E:4861:LYS:O	1:E:4875:LYS:NZ	2.40	0.54
1:G:1288:PHE:CE2	1:G:1460:HIS:HA	2.43	0.54
1:G:4974:GLY:O	1:G:4977:THR:OG1	2.22	0.54
1:A:102:LEU:HD12	1:A:105:HIS:HE2	1.72	0.54
1:A:375:LYS:NZ	1:A:376:ALA:O	2.35	0.54
1:A:1255:TYR:HD1	1:A:1279:SER:HB3	1.73	0.54
1:C:711:LEU:HD23	1:C:712:TYR:N	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:884:LEU:HB2	1:C:967:PRO:HG2	1.90	0.54
1:C:1295:VAL:HG22	1:C:1548:LEU:N	2.23	0.54
1:C:1676:LEU:HD12	1:C:1725:ARG:HH11	1.73	0.54
1:C:1815:LEU:HD11	1:C:1845:VAL:HG11	1.90	0.54
1:C:3767:GLN:NE2	1:C:3805:LEU:O	2.41	0.54
1:E:350:HIS:O	1:E:354:GLY:N	2.28	0.54
1:E:4844:LEU:HD21	1:E:4891:VAL:HG21	1.89	0.54
1:G:554:LEU:HG	1:G:593:HIS:CE1	2.43	0.54
1:G:874:LEU:O	1:G:878:ILE:N	2.38	0.54
1:G:2094:LEU:O	1:G:2097:LEU:HG	2.07	0.54
1:G:4661:TYR:OH	1:G:4788:SER:OG	2.24	0.54
1:A:554:LEU:HG	1:A:593:HIS:CE1	2.43	0.54
1:A:1201:HIS:CE1	1:A:1203:ASN:HD21	2.26	0.54
1:A:1929:MET:HG3	1:A:1930:LYS:O	2.08	0.54
1:A:2922:LYS:HA	1:A:2925:GLU:OE1	2.08	0.54
1:A:3971:GLY:O	1:A:3973:CYS:N	2.38	0.54
1:A:4026:MET:HG3	1:A:4027:LEU:N	2.23	0.54
2:B:87:HIS:CD2	2:B:88:PRO:HD2	2.41	0.54
1:C:1252:HIS:ND1	1:C:1253:PRO:HD2	2.23	0.54
1:C:4047:MET:HG3	1:C:4048:LEU:N	2.22	0.54
1:E:674:PHE:HZ	2:F:100:ASP:OD2	1.91	0.54
1:G:2333:ASP:O	1:G:2336:ARG:HB3	2.08	0.54
1:G:4138:ASP:O	1:G:4142:ASN:ND2	2.38	0.54
1:A:442:ILE:HD11	1:A:514:SER:HB3	1.89	0.53
1:A:896:VAL:HG13	1:A:903:LEU:HB3	1.88	0.53
1:A:3424:LEU:O	1:A:3427:PRO:N	2.41	0.53
1:A:4683:PHE:CE2	1:A:5017:ARG:HD2	2.42	0.53
2:B:37:ASP:OD1	2:B:38:SER:N	2.42	0.53
1:C:110:ARG:NH1	1:C:115:ARG:HE	2.05	0.53
1:C:790:ARG:HD3	1:C:792:LEU:HD21	1.90	0.53
1:C:3878:ASP:OD2	1:C:3953:LYS:HG2	2.08	0.53
1:E:33:LEU:HA	1:E:53:SER:HB3	1.90	0.53
1:E:215:THR:HG22	1:E:273:HIS:HD2	1.72	0.53
1:E:492:ASP:OD1	1:E:546:TRP:NE1	2.40	0.53
1:E:3775:ALA:O	1:E:3778:MET:HG2	2.08	0.53
1:G:111:HIS:CD2	1:G:113:HIS:HB3	2.43	0.53
1:G:1815:LEU:HD11	1:G:1845:VAL:HG11	1.89	0.53
1:G:1929:MET:HG3	1:G:1930:LYS:O	2.08	0.53
1:G:4825:THR:O	1:G:4829:SER:N	2.40	0.53
1:A:674:PHE:HZ	2:B:100:ASP:OD2	1.90	0.53
1:A:711:LEU:HD23	1:A:712:TYR:N	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:720:HIS:HB3	1:A:729:PRO:HA	1.90	0.53
1:E:1653:LEU:HA	1:E:1656:ARG:HB2	1.90	0.53
1:E:2277:ALA:O	1:E:2281:ILE:HG13	2.08	0.53
1:G:887:ILE:HD11	1:G:907:LEU:HB3	1.89	0.53
1:G:3371:LYS:O	1:G:3375:GLU:N	2.41	0.53
1:G:3647:HIS:CE1	1:G:3648:ARG:HG3	2.43	0.53
1:A:111:HIS:CD2	1:A:113:HIS:HB3	2.43	0.53
1:A:266:ARG:NH1	1:A:330:ASP:HA	2.23	0.53
1:A:592:LYS:HA	1:A:1585:LYS:HE2	1.88	0.53
1:A:887:ILE:HD11	1:A:907:LEU:HB3	1.91	0.53
1:A:1130:GLN:HA	1:A:1139:PHE:HB3	1.91	0.53
1:A:1295:VAL:HG22	1:A:1548:LEU:N	2.23	0.53
1:A:1712:TYR:HD2	1:A:1840:PRO:HB2	1.74	0.53
1:C:284:HIS:HD2	1:C:287:THR:H	1.56	0.53
1:C:1079:LYS:HG3	1:C:1237:TRP:CZ3	2.43	0.53
2:D:37:ASP:OD1	2:D:38:SER:N	2.41	0.53
1:E:711:LEU:HD23	1:E:712:TYR:N	2.23	0.53
1:E:720:HIS:HB3	1:E:729:PRO:HA	1.90	0.53
1:E:3971:GLY:O	1:E:3973:CYS:N	2.38	0.53
1:E:4852:THR:HG21	1:E:4883:TYR:HB2	1.90	0.53
1:G:36:CYS:HB2	1:G:50:GLU:HB3	1.91	0.53
1:G:214:VAL:HG22	1:G:341:TYR:CZ	2.44	0.53
1:G:1079:LYS:HG3	1:G:1237:TRP:CZ3	2.43	0.53
1:A:595:ARG:HH12	1:A:1641:ILE:CD1	2.21	0.53
1:A:1637:MET:HB2	1:A:1696:HIS:CD2	2.44	0.53
1:A:1650:ILE:HG23	1:A:1653:LEU:HD12	1.89	0.53
1:A:2770:LYS:HB3	1:A:2775:TRP:HB2	1.91	0.53
1:A:4192:ARG:NH1	1:A:5028:PHE:CD2	2.77	0.53
1:C:1637:MET:HB2	1:C:1696:HIS:CD2	2.44	0.53
1:C:3775:ALA:O	1:C:3778:MET:HG2	2.08	0.53
1:C:3906:GLN:NE2	1:C:3913:ILE:O	2.40	0.53
1:E:110:ARG:NH1	1:E:115:ARG:HE	2.06	0.53
1:E:1815:LEU:HD11	1:E:1845:VAL:HG11	1.90	0.53
1:E:1848:LEU:O	1:E:1851:MET:HB3	2.09	0.53
1:E:3897:ASN:O	1:E:3901:ASN:ND2	2.40	0.53
1:G:1255:TYR:HD1	1:G:1279:SER:HB3	1.74	0.53
1:G:2248:ARG:NH1	1:G:2285:GLU:OE2	2.39	0.53
1:G:2902:HIS:HB3	1:G:2905:LEU:HG	1.89	0.53
2:H:37:ASP:OD1	2:H:38:SER:N	2.41	0.53
1:A:492:ASP:OD1	1:A:546:TRP:NE1	2.40	0.53
1:A:721:LEU:HD22	1:A:767:VAL:HG13	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:831:ARG:O	1:A:838:HIS:ND1	2.36	0.53
1:A:2770:LYS:HG3	1:A:2791:LEU:HD21	1.90	0.53
1:A:2803:GLU:HA	1:A:2806:ARG:HB2	1.90	0.53
1:A:4809:PHE:O	1:A:4812:HIS:ND1	2.27	0.53
1:C:4192:ARG:NH1	1:C:5028:PHE:CD2	2.77	0.53
1:E:284:HIS:HD2	1:E:287:THR:H	1.55	0.53
1:E:887:ILE:HD11	1:E:907:LEU:HB3	1.90	0.53
1:E:2134:LEU:O	1:E:2138:LEU:HG	2.08	0.53
1:E:2142:TYR:CD2	1:E:2197:LEU:HB2	2.44	0.53
1:E:2333:ASP:O	1:E:2336:ARG:HB3	2.09	0.53
1:E:3842:LEU:HD21	1:E:3933:PHE:CD1	2.44	0.53
2:F:87:HIS:CD2	2:F:88:PRO:HD2	2.41	0.53
1:G:1457:TYR:O	1:G:1458:HIS:CG	2.62	0.53
1:G:1650:ILE:HG23	1:G:1653:LEU:HD12	1.90	0.53
1:G:1712:TYR:HD2	1:G:1840:PRO:HB2	1.73	0.53
1:G:2134:LEU:O	1:G:2138:LEU:HG	2.09	0.53
1:A:33:LEU:HA	1:A:53:SER:HB3	1.91	0.53
1:A:66:CYS:HB2	1:A:112:ALA:HB2	1.90	0.53
1:A:3771:HIS:CG	1:A:3812:VAL:HG22	2.44	0.53
1:C:1772:ARG:NH1	1:C:1952:GLN:NE2	2.57	0.53
1:C:2134:LEU:O	1:C:2138:LEU:HG	2.08	0.53
1:C:2803:GLU:HA	1:C:2806:ARG:HB2	1.90	0.53
1:E:283:ARG:HG2	1:E:284:HIS:O	2.09	0.53
1:E:1929:MET:HG3	1:E:1930:LYS:O	2.08	0.53
1:E:3767:GLN:NE2	1:E:3805:LEU:O	2.41	0.53
1:E:3891:LEU:HD23	1:E:3899:PHE:CZ	2.42	0.53
1:G:1214:PHE:O	1:G:1218:GLY:N	2.37	0.53
1:G:1295:VAL:HG22	1:G:1548:LEU:N	2.23	0.53
1:G:1676:LEU:HD12	1:G:1725:ARG:HH11	1.73	0.53
1:G:2774:ASN:HA	1:G:2852:ARG:HG2	1.90	0.53
1:G:2803:GLU:HA	1:G:2806:ARG:HB2	1.89	0.53
1:A:1024:TYR:HA	1:A:1027:LEU:HG	1.91	0.53
1:A:1252:HIS:ND1	1:A:1253:PRO:HD2	2.23	0.53
1:A:1815:LEU:HD11	1:A:1845:VAL:HG11	1.90	0.53
1:A:2114:PRO:HD3	1:A:3707:ARG:NH1	2.23	0.53
1:A:2277:ALA:O	1:A:2281:ILE:HG13	2.08	0.53
1:A:3882:GLN:HB2	1:A:3957:VAL:HG22	1.91	0.53
1:C:33:LEU:HA	1:C:53:SER:HB3	1.91	0.53
1:C:554:LEU:HG	1:C:593:HIS:CE1	2.43	0.53
1:C:3842:LEU:HD21	1:C:3933:PHE:CD1	2.44	0.53
1:E:111:HIS:CD2	1:E:113:HIS:HB3	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1252:HIS:ND1	1:E:1253:PRO:HD2	2.24	0.53
1:E:1806:ALA:O	1:E:1810:LYS:HG2	2.09	0.53
2:F:37:ASP:OD1	2:F:38:SER:N	2.42	0.53
1:G:284:HIS:HD2	1:G:287:THR:H	1.56	0.53
1:G:650:VAL:N	1:G:777:PHE:O	2.42	0.53
1:G:758:ARG:HH12	1:G:763:PRO:HG3	1.73	0.53
1:A:1214:PHE:CZ	1:A:1219:LEU:HB2	2.43	0.53
1:A:1772:ARG:NH1	1:A:1952:GLN:NE2	2.56	0.53
1:A:3842:LEU:HB3	1:A:3929:SER:OG	2.09	0.53
1:C:1130:GLN:HA	1:C:1139:PHE:HB3	1.91	0.53
1:C:1737:PRO:HB3	1:C:2149:VAL:HG11	1.91	0.53
1:C:1848:LEU:O	1:C:1851:MET:HB3	2.09	0.53
1:C:3771:HIS:CG	1:C:3812:VAL:HG22	2.44	0.53
1:C:4026:MET:HG3	1:C:4027:LEU:N	2.23	0.53
1:E:102:LEU:HD12	1:E:105:HIS:HE2	1.74	0.53
1:E:266:ARG:NH1	1:E:330:ASP:HA	2.23	0.53
1:E:448:LEU:HD12	1:E:525:LEU:HD11	1.91	0.53
1:E:1961:PHE:HZ	1:E:2063:LEU:HD23	1.74	0.53
1:E:3878:ASP:OD2	1:E:3953:LYS:HG2	2.08	0.53
1:G:1772:ARG:NH1	1:G:1952:GLN:NE2	2.56	0.53
1:G:1806:ALA:O	1:G:1810:LYS:HG2	2.09	0.53
1:G:2277:ALA:O	1:G:2281:ILE:HG13	2.08	0.53
1:G:3993:LEU:O	1:G:3997:ALA:N	2.40	0.53
1:A:284:HIS:HD2	1:A:287:THR:H	1.56	0.53
1:A:895:PRO:HA	1:A:905:PRO:HB3	1.91	0.53
1:A:3767:GLN:NE2	1:A:3805:LEU:O	2.41	0.53
1:A:3842:LEU:HD21	1:A:3933:PHE:CD1	2.44	0.53
1:C:111:HIS:CD2	1:C:113:HIS:HB3	2.44	0.53
1:C:448:LEU:HD12	1:C:525:LEU:HD11	1.91	0.53
1:C:1024:TYR:HA	1:C:1027:LEU:HG	1.91	0.53
1:C:1255:TYR:HD1	1:C:1279:SER:HB3	1.74	0.53
1:C:3891:LEU:HD23	1:C:3899:PHE:CZ	2.42	0.53
1:C:4124:ASN:OD1	1:C:4125:PHE:N	2.42	0.53
1:C:4679:ARG:HA	1:C:4682:GLU:HG2	1.91	0.53
1:E:650:VAL:N	1:E:777:PHE:O	2.42	0.53
1:E:1024:TYR:HA	1:E:1027:LEU:HG	1.91	0.53
1:E:1076:ARG:HH12	1:E:1111:PRO:HB3	1.74	0.53
1:E:1252:HIS:CG	1:E:1253:PRO:HD2	2.44	0.53
1:E:1255:TYR:HD1	1:E:1279:SER:HB3	1.74	0.53
1:E:3795:SER:O	1:E:3799:LYS:HG2	2.09	0.53
1:E:4679:ARG:HA	1:E:4682:GLU:HG2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:35:LEU:HD21	1:G:182:LEU:HD11	1.91	0.53
1:G:492:ASP:OD1	1:G:546:TRP:NE1	2.40	0.53
1:G:843:SER:OG	1:G:844:ARG:N	2.41	0.53
1:G:1252:HIS:CG	1:G:1253:PRO:HD2	2.44	0.53
1:G:3775:ALA:HA	1:G:3778:MET:HG2	1.91	0.53
1:A:1961:PHE:CG	1:A:2066:LEU:HD13	2.44	0.53
1:A:3775:ALA:O	1:A:3778:MET:HG2	2.09	0.53
1:C:720:HIS:HB3	1:C:729:PRO:HA	1.90	0.53
1:C:1214:PHE:O	1:C:1218:GLY:N	2.37	0.53
1:C:1805:GLU:CD	1:C:1808:ARG:HH11	2.13	0.53
1:C:1961:PHE:CG	1:C:2066:LEU:HD13	2.44	0.53
1:C:2114:PRO:HD3	1:C:3707:ARG:NH1	2.24	0.53
1:E:35:LEU:HD21	1:E:182:LEU:HD11	1.91	0.53
1:G:790:ARG:HD3	1:G:792:LEU:HD21	1.90	0.53
1:G:895:PRO:HA	1:G:905:PRO:HB3	1.91	0.53
1:G:1252:HIS:ND1	1:G:1253:PRO:HD2	2.24	0.53
1:G:1547:LYS:HZ3	1:G:1645:ASN:HB2	1.73	0.53
1:G:2763:HIS:NE2	1:G:2792:ARG:O	2.34	0.53
1:G:4806:ASN:O	1:G:4809:PHE:HB3	2.08	0.53
1:A:884:LEU:HB2	1:A:967:PRO:HG2	1.91	0.52
1:A:1436:SER:HA	1:A:1516:ILE:HA	1.92	0.52
1:A:1639:LEU:HD23	1:A:1650:ILE:HG12	1.89	0.52
1:C:1806:ALA:O	1:C:1810:LYS:HG2	2.09	0.52
1:C:1929:MET:HG3	1:C:1930:LYS:O	2.08	0.52
1:E:842:PRO:O	1:E:1197:GLY:N	2.43	0.52
1:E:895:PRO:HA	1:E:905:PRO:HB3	1.91	0.52
1:E:1637:MET:HB2	1:E:1696:HIS:CD2	2.44	0.52
1:E:1961:PHE:CG	1:E:2066:LEU:HD13	2.44	0.52
1:E:2340:PHE:HB2	1:E:2435:ARG:HD3	1.92	0.52
1:E:3771:HIS:CG	1:E:3812:VAL:HG22	2.44	0.52
1:G:711:LEU:HD23	1:G:712:TYR:N	2.23	0.52
1:G:1637:MET:HB2	1:G:1696:HIS:CD2	2.44	0.52
1:G:1653:LEU:HA	1:G:1656:ARG:HB2	1.90	0.52
1:A:1252:HIS:CG	1:A:1253:PRO:HD2	2.44	0.52
1:A:4852:THR:HG21	1:A:4883:TYR:HB2	1.91	0.52
1:C:842:PRO:O	1:C:1197:GLY:N	2.43	0.52
1:C:1252:HIS:CG	1:C:1253:PRO:HD2	2.44	0.52
1:C:2774:ASN:HA	1:C:2852:ARG:HG2	1.91	0.52
1:C:4860:ARG:HB2	1:C:4877:ASP:OD1	2.08	0.52
1:E:1712:TYR:HD2	1:E:1840:PRO:HB2	1.73	0.52
1:E:4026:MET:HG3	1:E:4027:LEU:N	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4192:ARG:NH1	1:E:5028:PHE:CD2	2.76	0.52
1:G:2114:PRO:HD3	1:G:3707:ARG:NH1	2.24	0.52
1:G:2770:LYS:HB3	1:G:2775:TRP:HB2	1.92	0.52
1:G:3827:GLY:HA2	1:G:3830:GLN:HB3	1.90	0.52
1:G:4674:GLU:O	1:G:4678:ALA:N	2.35	0.52
1:A:215:THR:HG22	1:A:273:HIS:HD2	1.75	0.52
1:A:283:ARG:HG2	1:A:284:HIS:O	2.09	0.52
1:A:842:PRO:O	1:A:1197:GLY:N	2.43	0.52
1:A:1806:ALA:O	1:A:1810:LYS:HG2	2.09	0.52
1:A:1848:LEU:O	1:A:1851:MET:HB3	2.09	0.52
1:A:4124:ASN:OD1	1:A:4125:PHE:N	2.42	0.52
1:A:4860:ARG:HB2	1:A:4877:ASP:OD1	2.09	0.52
1:A:4889:VAL:H	1:A:4892:ARG:HD3	1.74	0.52
1:A:4914:VAL:HG23	1:G:4888:TYR:CD1	2.45	0.52
1:C:721:LEU:HD22	1:C:767:VAL:HG13	1.91	0.52
1:C:1961:PHE:HZ	1:C:2063:LEU:HD23	1.74	0.52
1:C:4852:THR:HG21	1:C:4883:TYR:HB2	1.92	0.52
1:G:33:LEU:HA	1:G:53:SER:HB3	1.91	0.52
1:G:448:LEU:HD12	1:G:525:LEU:HD11	1.91	0.52
1:G:864:PRO:O	1:G:868:GLU:N	2.32	0.52
1:G:1024:TYR:HA	1:G:1027:LEU:HG	1.91	0.52
1:A:214:VAL:HG22	1:A:341:TYR:CZ	2.44	0.52
1:C:36:CYS:HB2	1:C:50:GLU:HB3	1.91	0.52
1:C:442:ILE:HD11	1:C:514:SER:HB3	1.91	0.52
1:C:674:PHE:HZ	2:D:100:ASP:OD2	1.91	0.52
1:C:2123:LEU:HA	1:C:2126:ARG:HG2	1.91	0.52
1:C:2333:ASP:O	1:C:2336:ARG:HB3	2.09	0.52
1:C:2770:LYS:HB3	1:C:2775:TRP:HB2	1.91	0.52
1:E:705:ASN:ND2	1:E:782:SER:OG	2.43	0.52
1:E:790:ARG:HD3	1:E:792:LEU:HD21	1.90	0.52
1:E:2114:PRO:HD3	1:E:3707:ARG:NH1	2.24	0.52
1:E:4124:ASN:OD1	1:E:4125:PHE:N	2.42	0.52
1:G:1076:ARG:HH12	1:G:1111:PRO:HB3	1.74	0.52
1:G:1130:GLN:HA	1:G:1139:PHE:HB3	1.91	0.52
1:G:1947:CYS:SG	1:G:2126:ARG:NE	2.83	0.52
1:G:2137:ALA:HA	1:G:2140:ARG:HH21	1.75	0.52
1:A:3795:SER:O	1:A:3799:LYS:HG2	2.09	0.52
1:A:4899:ASP:H	1:G:4892:ARG:HH12	1.52	0.52
1:C:283:ARG:HG2	1:C:284:HIS:O	2.09	0.52
1:C:445:LEU:HD23	1:C:521:LEU:HB2	1.92	0.52
1:C:805:PRO:O	1:C:807:GLY:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:895:PRO:HA	1:C:905:PRO:HB3	1.92	0.52
1:C:3897:ASN:O	1:C:3901:ASN:ND2	2.40	0.52
1:C:4721:LYS:HD3	1:C:4741:LEU:HB3	1.92	0.52
1:E:4655:PHE:O	1:E:4658:ILE:HG13	2.10	0.52
1:G:842:PRO:O	1:G:1197:GLY:N	2.43	0.52
1:G:2142:TYR:CD2	1:G:2197:LEU:HB2	2.44	0.52
1:G:2340:PHE:HB2	1:G:2435:ARG:HD3	1.92	0.52
1:G:2770:LYS:HG3	1:G:2791:LEU:HD21	1.90	0.52
1:G:4687:TYR:OH	1:G:4699:GLY:O	2.27	0.52
1:A:4721:LYS:HD3	1:A:4741:LEU:HB3	1.92	0.52
1:C:3842:LEU:HB3	1:C:3929:SER:OG	2.09	0.52
1:C:3971:GLY:O	1:C:3973:CYS:N	2.38	0.52
1:C:4994:TYR:O	1:C:4998:LYS:HG2	2.10	0.52
1:E:332:GLU:N	1:E:333:GLY:HA3	2.24	0.52
1:E:884:LEU:HB2	1:E:967:PRO:HG2	1.91	0.52
1:E:2924:GLN:O	1:E:2928:LYS:HB2	2.10	0.52
1:E:4994:TYR:O	1:E:4998:LYS:HG2	2.10	0.52
1:G:102:LEU:HD12	1:G:105:HIS:HE2	1.74	0.52
1:G:721:LEU:HD22	1:G:767:VAL:HG13	1.91	0.52
1:A:36:CYS:HB2	1:A:50:GLU:HB3	1.92	0.52
1:A:1596:GLU:HB2	1:A:1599:MET:HG2	1.92	0.52
1:A:1653:LEU:HA	1:A:1656:ARG:HB2	1.90	0.52
1:A:3878:ASP:OD2	1:A:3953:LYS:HG2	2.09	0.52
1:C:266:ARG:NH1	1:C:330:ASP:HA	2.23	0.52
1:C:1108:GLU:HG3	1:C:1186:ASP:OD2	2.10	0.52
1:C:2129:ASP:OD1	1:C:2132:GLY:N	2.42	0.52
1:C:4794:TRP:HA	1:C:4797:VAL:HG12	1.91	0.52
1:E:1130:GLN:HA	1:E:1139:PHE:HB3	1.91	0.52
1:E:3842:LEU:HB3	1:E:3929:SER:OG	2.09	0.52
1:G:215:THR:HG22	1:G:273:HIS:HD2	1.75	0.52
1:G:705:ASN:ND2	1:G:782:SER:OG	2.43	0.52
1:G:884:LEU:HB2	1:G:967:PRO:HG2	1.91	0.52
1:G:3770:LEU:O	1:G:3775:ALA:HB3	2.10	0.52
1:A:1131:ARG:HD3	1:A:1139:PHE:CD1	2.45	0.52
1:A:2123:LEU:HA	1:A:2126:ARG:HG2	1.90	0.52
1:A:3963:ASN:O	1:A:3966:THR:OG1	2.24	0.52
1:A:4679:ARG:HA	1:A:4682:GLU:HG2	1.91	0.52
1:C:332:GLU:N	1:C:333:GLY:HA3	2.24	0.52
1:C:699:GLY:H	1:C:703:GLY:HA2	1.74	0.52
1:C:1207:ASP:O	1:C:1210:SER:OG	2.21	0.52
1:C:2142:TYR:CD2	1:C:2197:LEU:HB2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3750:GLU:OE2	1:C:4716:TRP:HA	2.10	0.52
1:C:4889:VAL:H	1:C:4892:ARG:HD3	1.74	0.52
1:C:4979:THR:OG1	1:C:4980:LEU:N	2.43	0.52
1:E:23:GLN:HE22	1:E:267:ILE:HG21	1.75	0.52
1:E:214:VAL:HG22	1:E:341:TYR:CZ	2.44	0.52
1:E:4794:TRP:HA	1:E:4797:VAL:HG12	1.91	0.52
1:G:157:ARG:NE	1:G:167:ASP:OD2	2.43	0.52
1:G:489:ASN:HB3	1:G:493:ARG:NH1	2.25	0.52
1:G:720:HIS:HB3	1:G:729:PRO:HA	1.91	0.52
1:G:1805:GLU:CD	1:G:1808:ARG:HH11	2.13	0.52
1:G:2891:LYS:HG2	1:G:2905:LEU:HD13	1.92	0.52
1:A:23:GLN:HE22	1:A:267:ILE:HG21	1.75	0.52
1:A:843:SER:OG	1:A:844:ARG:N	2.41	0.52
1:A:1737:PRO:HB3	1:A:2149:VAL:HG11	1.91	0.52
1:A:2142:TYR:CD2	1:A:2197:LEU:HB2	2.44	0.52
1:A:3821:LYS:HZ3	1:A:3902:TYR:HD1	1.57	0.52
1:C:1131:ARG:HD3	1:C:1139:PHE:CD1	2.45	0.52
1:C:2340:PHE:HB2	1:C:2435:ARG:HD3	1.91	0.52
1:C:3795:SER:O	1:C:3799:LYS:HG2	2.09	0.52
1:E:445:LEU:HD23	1:E:521:LEU:HB2	1.92	0.52
1:E:1772:ARG:NH1	1:E:1952:GLN:NE2	2.56	0.52
1:E:1805:GLU:CD	1:E:1808:ARG:HH11	2.13	0.52
1:E:2123:LEU:HA	1:E:2126:ARG:HG2	1.90	0.52
1:E:4721:LYS:HD3	1:E:4741:LEU:HB3	1.92	0.52
1:G:283:ARG:HG2	1:G:284:HIS:O	2.10	0.52
1:G:864:PRO:HG2	1:G:867:LEU:HB2	1.92	0.52
1:G:1629:GLN:HE21	1:G:1631:GLN:HG3	1.75	0.52
1:G:1848:LEU:O	1:G:1851:MET:HB3	2.09	0.52
1:G:3835:LEU:HD22	1:G:3884:LEU:HD13	1.92	0.52
1:G:3878:ASP:HA	1:G:3881:THR:HG23	1.92	0.52
1:A:111:HIS:CD2	1:A:114:SER:H	2.17	0.52
1:A:332:GLU:N	1:A:333:GLY:HA3	2.24	0.52
1:A:445:LEU:HD23	1:A:521:LEU:HB2	1.92	0.52
1:A:1108:GLU:HG3	1:A:1186:ASP:OD2	2.10	0.52
1:A:1242:LEU:HD22	1:A:1458:HIS:HB3	1.91	0.52
1:A:1802:ILE:HG13	1:A:1804:LEU:HD12	1.92	0.52
1:A:2333:ASP:O	1:A:2336:ARG:HB3	2.09	0.52
1:A:2340:PHE:HB2	1:A:2435:ARG:HD3	1.91	0.52
1:A:4994:TYR:O	1:A:4998:LYS:HG2	2.10	0.52
1:C:650:VAL:N	1:C:777:PHE:O	2.42	0.52
1:C:1076:ARG:HH12	1:C:1111:PRO:HB3	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1620:ALA:O	1:E:1629:GLN:N	2.35	0.52
1:E:3750:GLU:OE2	1:E:4716:TRP:HA	2.10	0.52
1:E:3882:GLN:HB2	1:E:3957:VAL:HG22	1.91	0.52
1:G:2143:THR:OG1	1:G:3651:ASN:ND2	2.43	0.52
1:A:1076:ARG:HH12	1:A:1111:PRO:HB3	1.74	0.51
1:A:1961:PHE:HZ	1:A:2063:LEU:HD23	1.74	0.51
1:A:4738:ALA:O	1:A:4742:GLY:N	2.43	0.51
1:C:35:LEU:HD21	1:C:182:LEU:HD11	1.91	0.51
1:C:102:LEU:HD12	1:C:105:HIS:HE2	1.74	0.51
1:C:157:ARG:NE	1:C:167:ASP:OD2	2.43	0.51
1:C:375:LYS:HZ1	1:C:377:ILE:HG22	1.74	0.51
1:C:4655:PHE:O	1:C:4658:ILE:HG13	2.10	0.51
1:C:4807:PHE:HB3	1:E:4857:ASN:HD21	1.75	0.51
1:C:4864:ASN:HA	1:C:4875:LYS:HG2	1.92	0.51
1:E:437:PRO:O	1:E:441:VAL:HG23	2.10	0.51
1:E:2066:LEU:O	1:E:2069:THR:OG1	2.20	0.51
1:E:2162:ILE:HD13	1:E:2178:MET:HG3	1.92	0.51
1:G:111:HIS:CD2	1:G:114:SER:H	2.17	0.51
1:G:1436:SER:N	1:G:1516:ILE:CG1	2.73	0.51
1:G:3972:PRO:HA	1:G:4032:GLU:OE2	2.10	0.51
1:A:35:LEU:HD21	1:A:182:LEU:HD11	1.91	0.51
1:A:448:LEU:HD12	1:A:525:LEU:HD11	1.91	0.51
1:A:650:VAL:N	1:A:777:PHE:O	2.42	0.51
1:A:2774:ASN:HA	1:A:2852:ARG:HG2	1.91	0.51
1:A:3934:TYR:OH	1:A:3998:HIS:HB3	2.10	0.51
1:A:4794:TRP:HA	1:A:4797:VAL:HG12	1.91	0.51
1:A:4823:LEU:CD1	1:C:4839:MET:HB3	2.39	0.51
1:C:4738:ALA:O	1:C:4742:GLY:N	2.43	0.51
1:E:721:LEU:HD22	1:E:767:VAL:HG13	1.91	0.51
1:E:2770:LYS:HB3	1:E:2775:TRP:HB2	1.91	0.51
1:E:2774:ASN:HA	1:E:2852:ARG:HG2	1.91	0.51
1:G:23:GLN:HE22	1:G:267:ILE:HG21	1.75	0.51
1:G:445:LEU:HD23	1:G:521:LEU:HB2	1.92	0.51
1:G:699:GLY:H	1:G:703:GLY:HA2	1.74	0.51
1:G:3781:GLN:O	1:G:3784:SER:OG	2.19	0.51
1:G:3934:TYR:OH	1:G:3998:HIS:HB3	2.10	0.51
1:G:4697:VAL:O	1:G:4701:TRP:N	2.42	0.51
1:A:4655:PHE:O	1:A:4658:ILE:HG13	2.10	0.51
1:C:663:TYR:HB3	1:C:808:TYR:CD1	2.46	0.51
1:C:3934:TYR:OH	1:C:3998:HIS:HB3	2.10	0.51
1:E:594:GLY:H	1:E:1598:GLN:CG	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:805:PRO:O	1:E:807:GLY:N	2.44	0.51
1:E:1108:GLU:HG3	1:E:1186:ASP:OD2	2.10	0.51
1:E:3647:HIS:CE1	1:E:3648:ARG:HG3	2.46	0.51
1:E:3794:VAL:O	1:E:3797:THR:OG1	2.25	0.51
1:G:4727:LYS:NZ	1:G:4728:HIS:CE1	2.79	0.51
1:G:4849:TYR:O	1:G:4852:THR:HG22	2.09	0.51
1:A:663:TYR:HB3	1:A:808:TYR:CD1	2.46	0.51
1:A:4239:GLU:OE2	1:A:5014:TYR:OH	2.18	0.51
1:C:214:VAL:HG22	1:C:341:TYR:CZ	2.45	0.51
1:C:1596:GLU:HB2	1:C:1599:MET:HG2	1.93	0.51
1:E:157:ARG:NE	1:E:167:ASP:OD2	2.43	0.51
1:E:1802:ILE:HG13	1:E:1804:LEU:HD12	1.92	0.51
1:G:1737:PRO:HB3	1:G:2149:VAL:HG11	1.91	0.51
1:G:1802:ILE:HG13	1:G:1804:LEU:HD12	1.93	0.51
1:G:2123:LEU:HA	1:G:2126:ARG:HG2	1.91	0.51
1:G:2146:PRO:O	1:G:2149:VAL:HG22	2.11	0.51
1:G:2162:ILE:HD13	1:G:2178:MET:HG3	1.92	0.51
1:G:2862:LEU:HD21	1:G:2929:PHE:CD1	2.44	0.51
1:A:2162:ILE:HD13	1:A:2178:MET:HG3	1.92	0.51
1:A:2752:ASP:HA	1:A:2755:ILE:HD12	1.93	0.51
1:A:3750:GLU:OE2	1:A:4716:TRP:HA	2.10	0.51
1:A:4864:ASN:HA	1:A:4875:LYS:HG2	1.92	0.51
1:C:23:GLN:HE22	1:C:267:ILE:HG21	1.75	0.51
1:C:140:ASP:OD2	1:C:142:THR:OG1	2.28	0.51
1:C:887:ILE:HA	1:C:891:TRP:HB2	1.93	0.51
1:C:1629:GLN:HE21	1:C:1631:GLN:HG3	1.76	0.51
1:C:1712:TYR:HD2	1:C:1840:PRO:HB2	1.73	0.51
1:E:831:ARG:O	1:E:838:HIS:ND1	2.35	0.51
1:E:1715:LEU:HD21	1:E:1807:LEU:HD21	1.92	0.51
1:E:4738:ALA:O	1:E:4742:GLY:N	2.43	0.51
1:G:437:PRO:O	1:G:441:VAL:HG23	2.11	0.51
1:G:1108:GLU:HG3	1:G:1186:ASP:OD2	2.10	0.51
1:A:437:PRO:O	1:A:441:VAL:HG23	2.11	0.51
1:A:705:ASN:ND2	1:A:782:SER:OG	2.43	0.51
1:A:1805:GLU:CD	1:A:1808:ARG:HH11	2.13	0.51
1:A:2146:PRO:O	1:A:2149:VAL:HG22	2.11	0.51
1:A:4822:THR:O	1:A:4825:THR:OG1	2.23	0.51
1:C:705:ASN:ND2	1:C:782:SER:OG	2.43	0.51
1:C:1715:LEU:HD21	1:C:1807:LEU:HD21	1.93	0.51
1:C:2752:ASP:HA	1:C:2755:ILE:HD12	1.93	0.51
1:C:4844:LEU:HD21	1:C:4891:VAL:HG21	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:457:GLU:HG3	1:E:464:LYS:HZ1	1.73	0.51
1:E:489:ASN:HB3	1:E:493:ARG:NH1	2.25	0.51
1:E:750:LEU:O	1:E:752:VAL:N	2.43	0.51
1:E:4889:VAL:HG22	1:E:4892:ARG:HH21	1.75	0.51
1:G:66:CYS:HB2	1:G:112:ALA:HB2	1.91	0.51
1:G:140:ASP:OD2	1:G:142:THR:OG1	2.28	0.51
1:G:805:PRO:O	1:G:807:GLY:N	2.43	0.51
1:G:1715:LEU:HD21	1:G:1807:LEU:HD21	1.92	0.51
1:A:874:LEU:O	1:A:878:ILE:N	2.38	0.51
1:A:1629:GLN:HE21	1:A:1631:GLN:HG3	1.75	0.51
1:A:2137:ALA:HA	1:A:2140:ARG:HH21	1.76	0.51
1:A:2923:ALA:O	1:A:2926:LEU:HB3	2.11	0.51
1:A:4103:PHE:HB2	1:A:4108:ILE:HD11	1.93	0.51
1:C:4861:LYS:O	1:C:4875:LYS:NZ	2.40	0.51
1:C:4892:ARG:NH1	1:E:4899:ASP:N	2.56	0.51
2:D:87:HIS:CD2	2:D:88:PRO:HD2	2.41	0.51
1:E:36:CYS:HB2	1:E:50:GLU:HB3	1.91	0.51
1:E:111:HIS:HD2	1:E:114:SER:N	2.02	0.51
1:E:1629:GLN:HE21	1:E:1631:GLN:HG3	1.75	0.51
1:E:3699:HIS:HD2	1:E:3773:ARG:HA	1.76	0.51
1:E:3934:TYR:OH	1:E:3998:HIS:HB3	2.11	0.51
1:E:4979:THR:OG1	1:E:4980:LEU:N	2.44	0.51
1:G:831:ARG:O	1:G:838:HIS:ND1	2.36	0.51
1:G:1131:ARG:HD3	1:G:1139:PHE:CD1	2.45	0.51
1:G:1961:PHE:CG	1:G:2066:LEU:HD13	2.45	0.51
1:G:2121:PHE:CD1	1:G:3701:LEU:HD12	2.46	0.51
1:A:157:ARG:NE	1:A:167:ASP:OD2	2.44	0.51
1:A:805:PRO:O	1:A:807:GLY:N	2.43	0.51
1:A:864:PRO:HG2	1:A:867:LEU:HB2	1.93	0.51
1:A:4736:ARG:O	1:A:4739:GLU:HG2	2.11	0.51
1:A:4844:LEU:HD21	1:A:4891:VAL:HG21	1.93	0.51
1:C:445:LEU:HD23	1:C:521:LEU:CB	2.41	0.51
1:C:3647:HIS:CE1	1:C:3648:ARG:HG3	2.46	0.51
1:E:445:LEU:HD23	1:E:521:LEU:CB	2.41	0.51
1:E:1144:GLN:N	1:E:1147:ASP:OD2	2.34	0.51
1:G:266:ARG:NH1	1:G:330:ASP:HA	2.24	0.51
1:G:594:GLY:H	1:G:1598:GLN:CG	2.24	0.51
1:G:1182:ILE:HD12	1:G:1188:PHE:HE2	1.75	0.51
1:A:375:LYS:HZ1	1:A:377:ILE:HG22	1.76	0.51
1:A:750:LEU:O	1:A:752:VAL:N	2.43	0.51
1:A:4701:TRP:HB3	1:A:4778:TRP:CD1	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4979:THR:OG1	1:A:4980:LEU:N	2.43	0.51
1:C:864:PRO:HG2	1:C:867:LEU:HB2	1.92	0.51
1:C:1182:ILE:HD12	1:C:1188:PHE:HE2	1.75	0.51
1:E:663:TYR:HB3	1:E:808:TYR:CD1	2.46	0.51
1:E:1596:GLU:HB2	1:E:1599:MET:HG2	1.92	0.51
1:E:2146:PRO:O	1:E:2149:VAL:HG22	2.11	0.51
1:E:4103:PHE:HB2	1:E:4108:ILE:HD11	1.93	0.51
1:E:4736:ARG:O	1:E:4739:GLU:HG2	2.11	0.51
1:E:4864:ASN:HA	1:E:4875:LYS:HG2	1.92	0.51
1:G:332:GLU:N	1:G:333:GLY:HA3	2.25	0.51
1:G:750:LEU:O	1:G:752:VAL:N	2.43	0.51
1:G:3713:LYS:O	1:G:3715:LYS:N	2.43	0.51
1:G:4991:PHE:HE2	1:G:5010:VAL:HG11	1.75	0.51
1:A:630:GLU:HA	1:A:1642:PRO:HG3	1.93	0.51
1:C:489:ASN:HB3	1:C:493:ARG:NH1	2.25	0.51
1:C:874:LEU:O	1:C:878:ILE:N	2.38	0.51
1:C:2763:HIS:NE2	1:C:2792:ARG:O	2.32	0.51
1:E:695:TYR:HB2	1:E:1240:LYS:NZ	2.26	0.51
1:E:887:ILE:HA	1:E:891:TRP:HB2	1.93	0.51
1:E:1244:GLN:HG2	1:E:1458:HIS:HE1	1.75	0.51
1:E:2137:ALA:HA	1:E:2140:ARG:HH21	1.76	0.51
1:E:2752:ASP:HA	1:E:2755:ILE:HD12	1.93	0.51
1:E:4205:TRP:CH2	1:E:4986:ALA:HB2	2.46	0.51
1:G:1700:ASP:OD2	1:G:1703:LEU:HB2	2.11	0.51
1:G:3101:GLU:O	1:G:3105:LYS:N	2.39	0.51
1:G:3878:ASP:HB2	1:G:3957:VAL:HG21	1.93	0.51
1:A:887:ILE:HA	1:A:891:TRP:HB2	1.92	0.50
1:A:1585:LYS:HZ3	1:A:1596:GLU:CD	2.06	0.50
1:A:2875:ALA:HB2	1:A:2927:LEU:HD12	1.93	0.50
1:C:2449:GLU:O	1:C:2452:ARG:HB3	2.11	0.50
1:C:3699:HIS:HD2	1:C:3773:ARG:HA	1.76	0.50
1:C:4205:TRP:CH2	1:C:4986:ALA:HB2	2.46	0.50
1:C:4701:TRP:HB3	1:C:4778:TRP:CD1	2.46	0.50
1:C:4736:ARG:O	1:C:4739:GLU:HG2	2.11	0.50
1:C:4823:LEU:CD1	1:E:4839:MET:HB3	2.40	0.50
1:E:1131:ARG:HD3	1:E:1139:PHE:CD1	2.45	0.50
1:G:375:LYS:NZ	1:G:376:ALA:O	2.35	0.50
1:G:445:LEU:HD23	1:G:521:LEU:CB	2.41	0.50
1:G:3916:ILE:HA	1:G:3919:THR:HG22	1.92	0.50
1:G:3962:PHE:O	1:G:3966:THR:HG23	2.12	0.50
2:H:87:HIS:HB3	2:H:90:ILE:HB	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:489:ASN:HB3	1:A:493:ARG:NH1	2.25	0.50
1:C:594:GLY:H	1:C:1598:GLN:CG	2.23	0.50
1:E:441:VAL:O	1:E:445:LEU:HD13	2.11	0.50
1:G:3813:GLN:NE2	1:G:3891:LEU:O	2.43	0.50
1:G:4010:ILE:HA	1:G:4013:LEU:HB3	1.93	0.50
1:A:445:LEU:HD23	1:A:521:LEU:CB	2.41	0.50
1:A:1182:ILE:HD12	1:A:1188:PHE:HE2	1.75	0.50
1:A:1288:PHE:HE2	1:A:1460:HIS:HA	1.75	0.50
1:A:2924:GLN:O	1:A:2928:LYS:CB	2.60	0.50
1:A:4879:MET:CB	1:G:4578:LEU:O	2.55	0.50
1:C:507:ALA:O	1:C:509:GLU:N	2.44	0.50
1:C:630:GLU:HA	1:C:1642:PRO:HG3	1.93	0.50
1:C:695:TYR:HB2	1:C:1240:LYS:NZ	2.27	0.50
2:D:58:GLY:HA3	2:D:76:ILE:HG23	1.94	0.50
1:E:35:LEU:HD13	1:E:49:LEU:HD22	1.93	0.50
1:E:1182:ILE:HD12	1:E:1188:PHE:HE2	1.75	0.50
1:E:4017:LEU:HA	1:E:4139:ILE:HD11	1.93	0.50
1:G:663:TYR:HB3	1:G:808:TYR:CD1	2.46	0.50
1:G:1596:GLU:HB2	1:G:1599:MET:HG2	1.92	0.50
1:G:1620:ALA:O	1:G:1629:GLN:N	2.35	0.50
1:A:2498:HIS:O	1:A:2501:SER:OG	2.20	0.50
1:A:2806:ARG:HA	1:A:2809:ILE:HD12	1.93	0.50
1:A:3647:HIS:CE1	1:A:3648:ARG:HG3	2.46	0.50
1:A:4205:TRP:CH2	1:A:4986:ALA:HB2	2.46	0.50
1:A:4717:ASP:O	1:A:4720:VAL:HG23	2.12	0.50
1:A:4892:ARG:NH1	1:C:4899:ASP:N	2.56	0.50
1:C:706:GLY:O	1:C:724:GLY:N	2.45	0.50
1:C:1802:ILE:HG13	1:C:1804:LEU:HD12	1.93	0.50
1:C:4103:PHE:HB2	1:C:4108:ILE:HD11	1.93	0.50
1:E:1737:PRO:HB3	1:E:2149:VAL:HG11	1.92	0.50
1:E:3846:ALA:O	1:E:3850:GLN:N	2.45	0.50
1:E:4701:TRP:HB3	1:E:4778:TRP:CD1	2.46	0.50
2:F:25:HIS:CD2	2:F:104:LEU:HD11	2.47	0.50
1:G:1245:PHE:HD2	1:G:1290:ARG:HE	1.60	0.50
1:G:2288:LEU:O	1:G:3849:ARG:HD3	2.11	0.50
1:A:178:ARG:HG2	1:A:195:PHE:CE1	2.47	0.50
1:A:1700:ASP:OD2	1:A:1703:LEU:HB2	2.11	0.50
1:A:2129:ASP:OD1	1:A:2132:GLY:N	2.43	0.50
1:A:3677:LEU:HB3	1:A:3698:LEU:HB2	1.94	0.50
1:A:3958:ALA:HA	1:A:3961:VAL:HG12	1.94	0.50
1:C:375:LYS:NZ	1:C:376:ALA:O	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:437:PRO:O	1:C:441:VAL:HG23	2.11	0.50
1:C:441:VAL:O	1:C:445:LEU:HD13	2.11	0.50
1:A:1207:ASP:O	1:A:1210:SER:OG	2.21	0.50
1:A:3699:HIS:HD2	1:A:3773:ARG:HA	1.76	0.50
1:A:4727:LYS:O	1:A:4728:HIS:HB2	2.12	0.50
1:A:4934:GLY:HA3	1:G:4937:ILE:HG12	1.94	0.50
2:B:87:HIS:HB3	2:B:90:ILE:HB	1.94	0.50
1:C:40:GLU:OE2	1:C:402:ARG:HG3	2.12	0.50
1:C:1288:PHE:HE2	1:C:1460:HIS:HA	1.76	0.50
1:C:2146:PRO:O	1:C:2149:VAL:HG22	2.11	0.50
2:D:25:HIS:CD2	2:D:104:LEU:HD11	2.47	0.50
1:E:178:ARG:HG2	1:E:195:PHE:CE1	2.47	0.50
1:E:838:HIS:HD2	1:E:1095:VAL:HG21	1.77	0.50
1:E:843:SER:OG	1:E:844:ARG:N	2.41	0.50
1:E:874:LEU:O	1:E:878:ILE:N	2.38	0.50
1:E:1125:ASN:HB3	1:E:1127:HIS:O	2.12	0.50
1:G:291:LEU:O	1:G:312:THR:OG1	2.21	0.50
1:G:2066:LEU:O	1:G:2070:VAL:HG23	2.12	0.50
1:G:4860:ARG:HB2	1:G:4877:ASP:OD1	2.11	0.50
1:G:4922:PHE:HA	1:G:4926:VAL:HB	1.92	0.50
1:A:613:ALA:HB1	1:A:618:GLN:NE2	2.26	0.50
1:A:2449:GLU:O	1:A:2452:ARG:HB3	2.11	0.50
1:C:110:ARG:HA	1:C:117:TYR:HD1	1.77	0.50
1:E:1076:ARG:HD2	1:E:1189:LEU:HD13	1.94	0.50
1:E:3958:ALA:HA	1:E:3961:VAL:HG12	1.94	0.50
1:E:4717:ASP:O	1:E:4720:VAL:HG23	2.12	0.50
1:E:4892:ARG:HH12	1:G:4899:ASP:H	1.53	0.50
2:F:58:GLY:HA3	2:F:76:ILE:HG23	1.94	0.50
1:G:2752:ASP:HA	1:G:2755:ILE:HD12	1.92	0.50
1:A:40:GLU:OE2	1:A:402:ARG:HG3	2.12	0.50
1:A:3937:TYR:HA	1:A:3940:LYS:NZ	2.27	0.50
1:C:178:ARG:HG2	1:C:195:PHE:CE1	2.47	0.50
1:C:3958:ALA:HA	1:C:3961:VAL:HG12	1.94	0.50
1:C:4682:GLU:HG3	1:C:4683:PHE:CE2	2.47	0.50
1:E:871:ARG:HB2	1:E:929:LEU:HD13	1.92	0.50
1:E:4682:GLU:HG3	1:E:4683:PHE:CE2	2.47	0.50
1:G:695:TYR:HB2	1:G:1240:LYS:NZ	2.27	0.50
1:G:1144:GLN:N	1:G:1147:ASP:OD2	2.34	0.50
1:G:4864:ASN:HA	1:G:4875:LYS:HG2	1.94	0.50
1:G:4934:GLY:HA2	1:G:4937:ILE:HD12	1.94	0.50
1:A:110:ARG:HA	1:A:117:TYR:HD1	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:507:ALA:O	1:A:509:GLU:N	2.45	0.50
1:A:594:GLY:H	1:A:1598:GLN:CG	2.24	0.50
1:A:1715:LEU:HD21	1:A:1807:LEU:HD21	1.93	0.50
1:A:3664:THR:HB	1:A:3665:GLU:OE1	2.12	0.50
1:A:3906:GLN:NE2	1:A:3913:ILE:O	2.39	0.50
1:A:4925:ILE:HG23	1:A:4929:LEU:HD12	1.93	0.50
1:A:4991:PHE:HE2	1:A:5010:VAL:HG11	1.77	0.50
1:C:457:GLU:HG3	1:C:464:LYS:HZ1	1.76	0.50
1:C:2875:ALA:HB2	1:C:2927:LEU:HD12	1.93	0.50
1:C:4717:ASP:O	1:C:4720:VAL:HG23	2.11	0.50
1:E:597:HIS:CE1	1:E:1661:ARG:HB3	2.47	0.50
1:E:864:PRO:HG2	1:E:867:LEU:HB2	1.92	0.50
1:E:1245:PHE:HD2	1:E:1290:ARG:HE	1.60	0.50
1:E:2449:GLU:O	1:E:2452:ARG:HB3	2.12	0.50
1:E:4991:PHE:HE2	1:E:5010:VAL:HG11	1.77	0.50
1:G:375:LYS:HZ1	1:G:377:ILE:HG22	1.75	0.50
1:G:871:ARG:HB2	1:G:929:LEU:HD13	1.93	0.50
1:G:887:ILE:HA	1:G:891:TRP:HB2	1.93	0.50
1:G:4003:LEU:HB2	1:G:4013:LEU:HD13	1.93	0.50
1:A:1254:HIS:HD2	1:A:1281:ASN:H	1.60	0.49
1:A:1288:PHE:CE2	1:A:1460:HIS:HA	2.47	0.49
1:A:1586:ASN:O	1:A:1588:ALA:N	2.43	0.49
1:A:1639:LEU:HD21	1:A:1653:LEU:HD11	1.94	0.49
1:A:4928:LEU:O	1:A:4932:ILE:HD12	2.12	0.49
2:B:25:HIS:CD2	2:B:104:LEU:HD11	2.46	0.49
1:C:35:LEU:HD13	1:C:49:LEU:HD22	1.93	0.49
1:C:1245:PHE:HD2	1:C:1290:ARG:HE	1.60	0.49
1:C:1745:ILE:HD13	1:C:1956:GLU:HG2	1.94	0.49
1:C:5027:CYS:SG	1:C:5028:PHE:N	2.85	0.49
1:E:2806:ARG:HA	1:E:2809:ILE:HD12	1.94	0.49
1:E:3928:GLU:HG3	1:E:3929:SER:N	2.27	0.49
1:G:441:VAL:O	1:G:445:LEU:HD13	2.11	0.49
1:G:457:GLU:HG3	1:G:464:LYS:HZ1	1.73	0.49
1:G:2449:GLU:O	1:G:2452:ARG:HB3	2.11	0.49
1:G:2855:TYR:CD2	1:G:2857:PRO:HD3	2.47	0.49
1:G:4766:THR:O	1:G:4770:SER:N	2.45	0.49
1:A:110:ARG:HH11	1:A:115:ARG:HE	1.61	0.49
1:A:140:ASP:OD2	1:A:142:THR:OG1	2.28	0.49
1:A:871:ARG:HB2	1:A:929:LEU:HD13	1.93	0.49
1:E:2793:PRO:O	1:E:2796:THR:OG1	2.19	0.49
1:E:4727:LYS:O	1:E:4728:HIS:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:597:HIS:CE1	1:G:1661:ARG:HB3	2.47	0.49
1:G:1125:ASN:HB3	1:G:1127:HIS:O	2.12	0.49
1:G:1237:TRP:CH2	1:G:1655:GLU:HB3	2.47	0.49
1:G:2825:LYS:HD2	1:G:2935:TYR:HE1	1.78	0.49
1:G:4239:GLU:OE1	1:G:4675:LYS:HD2	2.11	0.49
1:G:4979:THR:OG1	1:G:4980:LEU:N	2.45	0.49
1:A:35:LEU:HD13	1:A:49:LEU:HD22	1.94	0.49
1:A:4682:GLU:HG3	1:A:4683:PHE:CE2	2.47	0.49
2:B:58:GLY:HA3	2:B:76:ILE:HG23	1.94	0.49
1:C:871:ARG:HB2	1:C:929:LEU:HD13	1.93	0.49
1:C:1585:LYS:HZ3	1:C:1596:GLU:CD	2.05	0.49
1:C:1728:ARG:HH21	1:C:1850:VAL:HG11	1.77	0.49
1:C:2924:GLN:O	1:C:2928:LYS:N	2.40	0.49
1:C:3794:VAL:O	1:C:3797:THR:OG1	2.25	0.49
1:C:4017:LEU:HA	1:C:4139:ILE:HD11	1.93	0.49
1:E:507:ALA:O	1:E:509:GLU:N	2.45	0.49
1:E:706:GLY:O	1:E:724:GLY:N	2.45	0.49
1:E:1745:ILE:HD13	1:E:1956:GLU:HG2	1.94	0.49
1:E:2162:ILE:HD11	1:E:2210:VAL:HG21	1.94	0.49
1:G:178:ARG:HG2	1:G:195:PHE:CE1	2.47	0.49
1:G:3963:ASN:O	1:G:3966:THR:OG1	2.29	0.49
1:G:5027:CYS:SG	1:G:5028:PHE:N	2.84	0.49
1:A:341:TYR:CE1	1:A:392:ARG:HB3	2.48	0.49
1:A:597:HIS:CE1	1:A:1661:ARG:HB3	2.47	0.49
1:A:2773:ASN:HB3	1:A:2775:TRP:CD1	2.48	0.49
1:A:3846:ALA:O	1:A:3850:GLN:N	2.45	0.49
1:A:4017:LEU:HA	1:A:4139:ILE:HD11	1.93	0.49
1:A:4807:PHE:HB3	1:C:4857:ASN:HD21	1.76	0.49
1:C:597:HIS:CE1	1:C:1661:ARG:HB3	2.47	0.49
1:C:750:LEU:O	1:C:752:VAL:N	2.43	0.49
1:C:2162:ILE:HD13	1:C:2178:MET:HG3	1.92	0.49
1:E:1728:ARG:HH21	1:E:1850:VAL:HG11	1.77	0.49
1:E:3677:LEU:HB3	1:E:3698:LEU:HB2	1.93	0.49
1:E:3906:GLN:NE2	1:E:3913:ILE:O	2.39	0.49
1:G:35:LEU:HD13	1:G:49:LEU:HD22	1.93	0.49
1:G:706:GLY:O	1:G:724:GLY:N	2.45	0.49
1:G:838:HIS:HD2	1:G:1095:VAL:HG21	1.77	0.49
1:G:1076:ARG:HD2	1:G:1189:LEU:HD13	1.94	0.49
1:G:1207:ASP:HA	1:G:1210:SER:HB3	1.95	0.49
1:G:3670:GLU:OE1	1:G:3731:LYS:HB2	2.12	0.49
1:A:695:TYR:HB2	1:A:1240:LYS:NZ	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:838:HIS:HD2	1:A:1095:VAL:HG21	1.77	0.49
1:A:1842:LEU:HD21	1:A:1926:LEU:HD21	1.95	0.49
1:C:2162:ILE:HD11	1:C:2210:VAL:HG21	1.94	0.49
1:C:2806:ARG:HA	1:C:2809:ILE:HD12	1.93	0.49
1:C:4844:LEU:HD21	1:C:4891:VAL:CG2	2.43	0.49
1:C:4928:LEU:HA	1:C:4931:ILE:HG22	1.93	0.49
1:E:110:ARG:HA	1:E:117:TYR:HD1	1.77	0.49
1:E:1207:ASP:HA	1:E:1210:SER:HB3	1.95	0.49
1:E:1237:TRP:CH2	1:E:1655:GLU:HB3	2.47	0.49
1:E:3664:THR:HB	1:E:3665:GLU:OE1	2.13	0.49
1:E:4721:LYS:NZ	1:E:4741:LEU:HD22	2.28	0.49
2:F:87:HIS:HB3	2:F:90:ILE:HB	1.93	0.49
1:G:273:HIS:ND1	1:G:335:GLY:O	2.46	0.49
1:G:276:TRP:HB2	1:G:316:PHE:O	2.13	0.49
1:G:341:TYR:CE1	1:G:392:ARG:HB3	2.47	0.49
1:G:3817:LEU:HD13	1:G:3899:PHE:HD1	1.76	0.49
1:A:441:VAL:O	1:A:445:LEU:HD13	2.11	0.49
1:A:1125:ASN:HB3	1:A:1127:HIS:O	2.12	0.49
1:C:1237:TRP:CH2	1:C:1655:GLU:HB3	2.47	0.49
1:C:1288:PHE:CE2	1:C:1460:HIS:HA	2.48	0.49
1:C:3664:THR:HB	1:C:3665:GLU:OE1	2.13	0.49
1:C:3928:GLU:HG3	1:C:3929:SER:N	2.27	0.49
1:E:3804:ILE:HG22	1:E:3812:VAL:HG11	1.95	0.49
1:E:4728:HIS:HA	1:E:4731:ILE:HD12	1.95	0.49
1:G:411:TYR:HB2	1:G:486:LEU:HD21	1.95	0.49
1:G:4976:GLU:O	1:G:4979:THR:OG1	2.22	0.49
1:A:4844:LEU:HD21	1:A:4891:VAL:CG2	2.43	0.49
1:C:668:VAL:HB	1:C:740:PRO:HA	1.95	0.49
1:C:838:HIS:HD2	1:C:1095:VAL:HG21	1.77	0.49
1:C:1254:HIS:HE2	1:C:1280:GLN:HB3	1.78	0.49
1:C:2137:ALA:HA	1:C:2140:ARG:HH21	1.76	0.49
1:C:3966:THR:O	1:C:3970:GLN:HG3	2.12	0.49
1:E:2498:HIS:O	1:E:2501:SER:OG	2.21	0.49
1:G:223:PHE:HD1	1:G:230:CYS:HB3	1.78	0.49
1:G:507:ALA:O	1:G:509:GLU:N	2.45	0.49
1:G:2773:ASN:HB3	1:G:2775:TRP:CD1	2.48	0.49
1:G:4864:ASN:CG	1:G:4875:LYS:HZ3	2.15	0.49
2:H:76:ILE:O	2:H:96:THR:HG23	2.13	0.49
1:A:273:HIS:N	1:A:334:MET:O	2.27	0.49
1:A:706:GLY:O	1:A:724:GLY:N	2.45	0.49
1:A:1245:PHE:HD2	1:A:1290:ARG:HE	1.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1438:ARG:HA	1:A:1513:ASP:O	2.13	0.49
1:A:2190:VAL:HA	1:A:2193:GLN:HB2	1.94	0.49
1:C:240:ASP:OD2	1:C:244:LEU:HD12	2.12	0.49
1:C:1254:HIS:HD2	1:C:1281:ASN:H	1.60	0.49
1:C:1700:ASP:OD2	1:C:1703:LEU:HB2	2.11	0.49
1:C:1846:SER:O	1:C:1850:VAL:HG23	2.13	0.49
1:C:2855:TYR:CD2	1:C:2857:PRO:HD3	2.48	0.49
1:C:3677:LEU:HB3	1:C:3698:LEU:HB2	1.93	0.49
1:C:3804:ILE:HG22	1:C:3812:VAL:HG11	1.95	0.49
1:C:3938:SER:HA	1:C:4002:LYS:HE3	1.95	0.49
2:D:38:SER:HB3	2:D:41:ASP:CG	2.33	0.49
1:E:5027:CYS:SG	1:E:5028:PHE:N	2.85	0.49
1:G:1728:ARG:HH21	1:G:1850:VAL:HG11	1.76	0.49
1:G:1846:SER:O	1:G:1850:VAL:HG23	2.13	0.49
1:G:2735:PHE:HE1	1:G:2907:PRO:HG3	1.78	0.49
1:G:3674:ILE:HD11	1:G:3728:ILE:HG22	1.94	0.49
1:G:4567:LEU:HD13	1:G:4815:ASP:HB3	1.95	0.49
1:G:4682:GLU:HG3	1:G:4683:PHE:CD2	2.47	0.49
1:A:276:TRP:HB2	1:A:316:PHE:O	2.13	0.49
1:A:4666:VAL:HG13	1:A:4783:ILE:HG12	1.94	0.49
1:A:4839:MET:HB3	1:G:4823:LEU:CD1	2.42	0.49
1:C:696:PRO:HB2	1:C:1613:LEU:HD22	1.94	0.49
1:C:1078:GLU:OE1	1:C:1235:THR:OG1	2.31	0.49
1:C:1125:ASN:HB3	1:C:1127:HIS:O	2.12	0.49
1:C:4991:PHE:HE2	1:C:5010:VAL:HG11	1.77	0.49
2:D:87:HIS:HB3	2:D:90:ILE:HB	1.94	0.49
1:E:40:GLU:OE2	1:E:402:ARG:HG3	2.12	0.49
1:E:3938:SER:HA	1:E:4002:LYS:HE3	1.95	0.49
2:F:76:ILE:O	2:F:96:THR:HG23	2.13	0.49
1:G:110:ARG:HA	1:G:117:TYR:HD1	1.76	0.49
1:G:841:GLY:HA3	1:G:1073:ARG:NH1	2.28	0.49
1:G:1078:GLU:OE1	1:G:1235:THR:OG1	2.31	0.49
1:G:1842:LEU:HD21	1:G:1926:LEU:HD21	1.95	0.49
1:G:3841:VAL:HG12	1:G:3843:ASP:H	1.77	0.49
1:G:4680:LYS:HD3	1:G:4686:LEU:HD23	1.95	0.49
1:G:4736:ARG:O	1:G:4739:GLU:HG2	2.13	0.49
1:A:273:HIS:ND1	1:A:335:GLY:O	2.45	0.49
1:A:696:PRO:HB2	1:A:1613:LEU:HD22	1.95	0.49
1:A:1078:GLU:OE1	1:A:1235:THR:OG1	2.31	0.49
1:A:3928:GLU:HG3	1:A:3929:SER:N	2.27	0.49
1:C:276:TRP:HB2	1:C:316:PHE:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:701:GLY:HA2	1:C:1645:ASN:HD21	1.77	0.49
1:C:1617:THR:O	1:C:1618:ARG:NH2	2.37	0.49
1:C:2924:GLN:HB3	1:C:2928:LYS:HE2	1.95	0.49
1:C:4721:LYS:NZ	1:C:4741:LEU:HD22	2.27	0.49
1:E:276:TRP:HB2	1:E:316:PHE:O	2.13	0.49
1:E:411:TYR:HB2	1:E:486:LEU:HD21	1.95	0.49
1:E:526:LEU:HD11	1:E:540:PHE:CZ	2.45	0.49
1:E:630:GLU:HA	1:E:1642:PRO:HG3	1.93	0.49
1:E:2129:ASP:OD1	1:E:2132:GLY:N	2.43	0.49
1:E:4041:ALA:O	1:E:4044:MET:HG2	2.13	0.49
1:E:4666:VAL:HG13	1:E:4783:ILE:HG12	1.95	0.49
1:E:4721:LYS:HZ3	1:E:4741:LEU:HD22	1.78	0.49
1:G:802:PHE:CE2	1:G:804:PRO:HG3	2.48	0.49
1:G:1639:LEU:HD21	1:G:1653:LEU:HD11	1.95	0.49
1:G:1676:LEU:HG	1:G:1721:GLU:OE2	2.13	0.49
1:G:4219:PHE:HD1	1:G:4950:VAL:HG21	1.77	0.49
1:A:223:PHE:HD1	1:A:230:CYS:HB3	1.78	0.48
1:A:411:TYR:HB2	1:A:486:LEU:HD21	1.95	0.48
1:A:1745:ILE:HD13	1:A:1956:GLU:HG2	1.94	0.48
1:C:223:PHE:HD1	1:C:230:CYS:HB3	1.78	0.48
1:C:843:SER:OG	1:C:844:ARG:N	2.41	0.48
1:C:1144:GLN:N	1:C:1147:ASP:OD2	2.34	0.48
1:C:2498:HIS:O	1:C:2501:SER:OG	2.20	0.48
1:E:240:ASP:OD2	1:E:244:LEU:HD12	2.13	0.48
1:E:841:GLY:HA3	1:E:1073:ARG:NH1	2.28	0.48
1:E:1676:LEU:HG	1:E:1721:GLU:OE2	2.13	0.48
1:E:2773:ASN:HB3	1:E:2775:TRP:CD1	2.48	0.48
1:E:3840:SER:HB2	1:E:3877:ASP:OD2	2.14	0.48
1:E:3966:THR:O	1:E:3970:GLN:HG3	2.12	0.48
1:E:4826:ILE:HG22	1:G:4931:ILE:CD1	2.36	0.48
1:E:4940:PHE:CD2	1:G:4938:ASP:OD2	2.66	0.48
1:G:630:GLU:HA	1:G:1642:PRO:HG3	1.94	0.48
1:A:595:ARG:NH2	1:A:1643:GLU:OE2	2.47	0.48
1:A:1214:PHE:O	1:A:1218:GLY:N	2.38	0.48
1:A:1237:TRP:CH2	1:A:1655:GLU:HB3	2.48	0.48
1:A:1728:ARG:HH21	1:A:1850:VAL:HG11	1.77	0.48
1:A:1846:SER:O	1:A:1850:VAL:HG23	2.13	0.48
1:C:273:HIS:ND1	1:C:335:GLY:O	2.45	0.48
1:E:1254:HIS:HE2	1:E:1280:GLN:HB3	1.78	0.48
1:E:2855:TYR:CD2	1:E:2857:PRO:HD3	2.48	0.48
1:E:3805:LEU:HB2	1:E:3890:LEU:HD23	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4833:ASN:HB3	1:E:4935:LEU:HD21	1.95	0.48
1:G:701:GLY:HA2	1:G:1645:ASN:HD21	1.77	0.48
1:G:3664:THR:HB	1:G:3665:GLU:OE1	2.13	0.48
1:A:1738:LEU:HD11	1:A:2143:THR:HB	1.96	0.48
1:A:2816:MET:HG2	1:A:2878:LEU:HD21	1.96	0.48
1:A:3804:ILE:HG22	1:A:3812:VAL:HG11	1.95	0.48
1:A:3966:THR:O	1:A:3970:GLN:HG3	2.13	0.48
2:B:38:SER:HB3	2:B:41:ASP:CG	2.33	0.48
1:C:341:TYR:CE1	1:C:392:ARG:HB3	2.48	0.48
1:C:831:ARG:O	1:C:838:HIS:ND1	2.36	0.48
1:C:2773:ASN:HB3	1:C:2775:TRP:CD1	2.48	0.48
1:C:3708:THR:O	1:C:3711:THR:OG1	2.29	0.48
1:C:3840:SER:HB2	1:C:3877:ASP:OD2	2.13	0.48
1:E:341:TYR:CE1	1:E:392:ARG:HB3	2.48	0.48
1:E:595:ARG:NH2	1:E:1641:ILE:HD11	2.26	0.48
1:E:595:ARG:NH2	1:E:1643:GLU:OE2	2.46	0.48
1:E:1639:LEU:HD21	1:E:1653:LEU:HD11	1.94	0.48
1:E:2190:VAL:HA	1:E:2193:GLN:HB2	1.95	0.48
2:F:11:ASP:OD1	2:F:12:GLY:N	2.47	0.48
1:G:273:HIS:N	1:G:334:MET:O	2.27	0.48
1:G:2190:VAL:HA	1:G:2193:GLN:HB2	1.94	0.48
1:G:4042:ARG:O	1:G:4045:VAL:HB	2.13	0.48
1:A:457:GLU:HG3	1:A:464:LYS:HZ1	1.77	0.48
1:A:1281:ASN:OD1	1:A:1282:SER:N	2.47	0.48
1:A:2288:LEU:O	1:A:3849:ARG:HD3	2.13	0.48
1:A:4728:HIS:HA	1:A:4731:ILE:HD12	1.96	0.48
2:B:76:ILE:O	2:B:96:THR:HG23	2.13	0.48
1:C:280:LEU:HD12	1:C:280:LEU:O	2.13	0.48
1:C:1085:SER:O	1:C:1088:TRP:NE1	2.39	0.48
1:C:1207:ASP:HA	1:C:1210:SER:HB3	1.95	0.48
1:C:3963:ASN:O	1:C:3966:THR:OG1	2.24	0.48
1:E:473:ASN:O	1:E:477:LEU:HG	2.14	0.48
1:E:1738:LEU:HD11	1:E:2143:THR:HB	1.96	0.48
1:E:2288:LEU:O	1:E:3849:ARG:HD3	2.13	0.48
1:E:2470:ILE:O	1:E:2474:LEU:N	2.40	0.48
1:G:473:ASN:O	1:G:477:LEU:HG	2.14	0.48
1:G:526:LEU:HD11	1:G:540:PHE:CZ	2.46	0.48
1:G:2748:PRO:HD2	1:G:2751:LEU:HD12	1.94	0.48
1:A:214:VAL:HG22	1:A:341:TYR:CE1	2.49	0.48
1:A:877:ASN:O	1:A:880:GLU:HB2	2.14	0.48
1:A:1617:THR:O	1:A:1618:ARG:NH2	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1676:LEU:HG	1:A:1721:GLU:OE2	2.13	0.48
1:A:2045:GLN:O	1:A:2064:ARG:NH2	2.40	0.48
1:A:2114:PRO:HD3	1:A:3707:ARG:HH11	1.78	0.48
1:A:2924:GLN:O	1:A:2928:LYS:HG3	2.14	0.48
1:A:3713:LYS:O	1:A:3715:LYS:N	2.47	0.48
1:A:4833:ASN:HB3	1:A:4935:LEU:HD21	1.95	0.48
1:C:2190:VAL:HA	1:C:2193:GLN:HB2	1.94	0.48
1:E:1254:HIS:HD2	1:E:1281:ASN:H	1.60	0.48
1:E:1617:THR:O	1:E:1618:ARG:NH2	2.37	0.48
1:E:1842:LEU:HD21	1:E:1926:LEU:HD21	1.94	0.48
1:E:1846:SER:O	1:E:1850:VAL:HG23	2.13	0.48
1:G:110:ARG:NH1	1:G:115:ARG:HB3	2.29	0.48
1:G:178:ARG:HB2	1:G:193:ALA:HB1	1.96	0.48
1:G:696:PRO:HB2	1:G:1613:LEU:HD22	1.94	0.48
1:A:280:LEU:HD12	1:A:280:LEU:O	2.13	0.48
1:A:3938:SER:HA	1:A:4002:LYS:HE3	1.94	0.48
1:C:1620:ALA:O	1:C:1629:GLN:N	2.35	0.48
1:C:1842:LEU:HD21	1:C:1926:LEU:HD21	1.95	0.48
1:C:3937:TYR:HA	1:C:3940:LYS:NZ	2.27	0.48
1:C:4728:HIS:HA	1:C:4731:ILE:HD12	1.96	0.48
1:C:4863:TYR:CD1	1:C:4901:ILE:HD12	2.49	0.48
2:D:11:ASP:OD1	2:D:12:GLY:N	2.47	0.48
2:D:55:VAL:HG21	2:D:59:TRP:HD1	1.79	0.48
1:E:223:PHE:HD1	1:E:230:CYS:HB3	1.77	0.48
1:E:1700:ASP:OD2	1:E:1703:LEU:HB2	2.12	0.48
1:E:1723:ALA:HB1	1:E:1851:MET:HG3	1.96	0.48
1:G:110:ARG:HH11	1:G:115:ARG:HE	1.61	0.48
1:G:526:LEU:HG	1:G:530:ILE:HD11	1.96	0.48
1:G:877:ASN:O	1:G:880:GLU:HB2	2.14	0.48
1:G:2129:ASP:OD1	1:G:2132:GLY:N	2.44	0.48
1:G:4865:LYS:NZ	1:G:4876:CYS:N	2.61	0.48
1:A:526:LEU:HG	1:A:530:ILE:HD11	1.96	0.48
1:A:692:TYR:CD1	1:A:711:LEU:HD12	2.49	0.48
1:A:802:PHE:CE2	1:A:804:PRO:HG3	2.48	0.48
1:A:841:GLY:HA3	1:A:1073:ARG:NH1	2.28	0.48
1:A:1022:VAL:HG23	1:A:1027:LEU:HB3	1.95	0.48
1:A:4766:THR:O	1:A:4770:SER:N	2.46	0.48
1:C:291:LEU:O	1:C:312:THR:OG1	2.21	0.48
1:C:720:HIS:HA	1:C:730:VAL:H	1.79	0.48
1:C:802:PHE:CE2	1:C:804:PRO:HG3	2.48	0.48
1:C:1076:ARG:HD2	1:C:1189:LEU:HD13	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1095:VAL:HB	1:C:1199:VAL:HG12	1.96	0.48
1:C:3821:LYS:HZ3	1:C:3902:TYR:HD1	1.59	0.48
1:E:1078:GLU:OE1	1:E:1235:THR:OG1	2.31	0.48
1:E:3817:LEU:HD22	1:E:3899:PHE:HB2	1.96	0.48
1:E:3835:LEU:HD11	1:E:3880:PHE:HZ	1.79	0.48
1:E:4195:PHE:CE1	1:E:4991:PHE:HB2	2.48	0.48
1:E:4925:ILE:HG23	1:E:4929:LEU:HD12	1.95	0.48
2:F:38:SER:HB3	2:F:41:ASP:CG	2.33	0.48
2:F:87:HIS:O	2:F:90:ILE:N	2.39	0.48
1:G:636:ASN:HD22	2:H:35:LYS:HD3	1.79	0.48
1:G:640:TYR:CD2	1:G:1634:LEU:HD12	2.49	0.48
1:G:720:HIS:HA	1:G:730:VAL:H	1.78	0.48
1:G:2123:LEU:HD23	1:G:2126:ARG:HD3	1.95	0.48
1:G:2162:ILE:HD11	1:G:2210:VAL:HG21	1.95	0.48
1:A:178:ARG:HB2	1:A:193:ALA:HB1	1.96	0.48
1:A:720:HIS:HA	1:A:730:VAL:H	1.79	0.48
1:A:1076:ARG:HD2	1:A:1189:LEU:HD13	1.94	0.48
1:A:2855:TYR:CD2	1:A:2857:PRO:HD3	2.48	0.48
1:A:4195:PHE:CE1	1:A:4991:PHE:HB2	2.49	0.48
1:A:4863:TYR:CD1	1:A:4901:ILE:HD12	2.49	0.48
2:B:55:VAL:HG21	2:B:59:TRP:HD1	1.79	0.48
1:C:119:SER:HB3	1:C:138:GLN:HG2	1.96	0.48
1:C:411:TYR:HB2	1:C:486:LEU:HD21	1.95	0.48
1:C:1281:ASN:OD1	1:C:1282:SER:N	2.47	0.48
1:C:2121:PHE:CD1	1:C:3701:LEU:HD12	2.49	0.48
1:E:119:SER:HB3	1:E:138:GLN:HG2	1.96	0.48
1:E:178:ARG:HB2	1:E:193:ALA:HB1	1.96	0.48
1:E:280:LEU:HD12	1:E:280:LEU:O	2.13	0.48
1:E:613:ALA:HB1	1:E:618:GLN:NE2	2.26	0.48
1:E:696:PRO:HB2	1:E:1613:LEU:HD22	1.95	0.48
1:E:4863:TYR:CD1	1:E:4901:ILE:HD12	2.49	0.48
1:E:4960:ILE:HD13	1:E:4983:HIS:HB3	1.96	0.48
1:G:214:VAL:HG22	1:G:341:TYR:CE1	2.49	0.48
1:G:563:VAL:O	1:G:567:VAL:HG23	2.14	0.48
1:G:1457:TYR:O	1:G:1458:HIS:ND1	2.46	0.48
1:G:2920:ARG:O	1:G:2924:GLN:HG3	2.14	0.48
1:A:640:TYR:CD2	1:A:1634:LEU:HD12	2.48	0.48
1:A:668:VAL:HB	1:A:740:PRO:HA	1.94	0.48
1:A:2162:ILE:HD11	1:A:2210:VAL:HG21	1.95	0.48
1:A:3817:LEU:HD22	1:A:3899:PHE:HB2	1.95	0.48
1:A:4041:ALA:O	1:A:4044:MET:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:613:ALA:HB1	1:C:618:GLN:NE2	2.26	0.48
1:C:1676:LEU:HG	1:C:1721:GLU:OE2	2.13	0.48
1:C:2431:ASP:O	1:C:2435:ARG:HG3	2.14	0.48
1:C:3846:ALA:O	1:C:3850:GLN:N	2.45	0.48
1:C:4195:PHE:CE1	1:C:4991:PHE:HB2	2.49	0.48
1:C:4727:LYS:O	1:C:4728:HIS:HB2	2.12	0.48
1:C:4766:THR:O	1:C:4770:SER:N	2.46	0.48
2:D:76:ILE:O	2:D:96:THR:HG23	2.13	0.48
1:E:640:TYR:CD2	1:E:1634:LEU:HD12	2.48	0.48
1:E:833:GLY:HA3	1:E:838:HIS:HE1	1.79	0.48
1:E:1139:PHE:CE2	1:E:1169:LEU:HD21	2.49	0.48
1:G:489:ASN:HB3	1:G:493:ARG:HH12	1.79	0.48
1:G:692:TYR:CD1	1:G:711:LEU:HD12	2.49	0.48
1:G:1085:SER:O	1:G:1088:TRP:NE1	2.39	0.48
1:G:1281:ASN:OD1	1:G:1282:SER:N	2.47	0.48
1:G:1667:LEU:HD23	1:G:1710:GLY:C	2.34	0.48
1:G:2498:HIS:O	1:G:2501:SER:OG	2.20	0.48
1:G:2821:TRP:CD1	1:G:2939:ARG:HA	2.49	0.48
1:G:4715:TYR:OH	1:G:5017:ARG:NH2	2.45	0.48
1:G:4823:LEU:HA	1:G:4826:ILE:HD12	1.95	0.48
1:A:110:ARG:NH1	1:A:115:ARG:HB3	2.29	0.48
1:A:1254:HIS:HE2	1:A:1280:GLN:HB3	1.78	0.48
1:A:4003:LEU:HB2	1:A:4013:LEU:HD13	1.96	0.48
1:C:1723:ALA:HB1	1:C:1851:MET:HG3	1.96	0.48
1:E:1095:VAL:HB	1:E:1199:VAL:HG12	1.96	0.48
1:E:3885:PHE:HE1	1:E:3919:THR:HG1	1.61	0.48
1:E:4059:LEU:HD22	1:E:4170:ILE:HD13	1.96	0.48
1:E:4661:TYR:HE2	1:E:4789:PHE:HB2	1.79	0.48
1:E:4844:LEU:HD21	1:E:4891:VAL:CG2	2.43	0.48
1:G:1745:ILE:HD13	1:G:1956:GLU:HG2	1.95	0.48
1:G:2806:ARG:HA	1:G:2809:ILE:HD12	1.96	0.48
1:G:4124:ASN:OD1	1:G:4125:PHE:N	2.47	0.48
1:G:4738:ALA:O	1:G:4742:GLY:N	2.46	0.48
1:A:473:ASN:O	1:A:477:LEU:HG	2.13	0.47
1:A:4721:LYS:NZ	1:A:4741:LEU:HD22	2.28	0.47
1:C:877:ASN:O	1:C:880:GLU:HB2	2.14	0.47
1:C:1022:VAL:HG23	1:C:1027:LEU:HB3	1.96	0.47
1:C:1778:SER:N	1:C:1799:SER:O	2.36	0.47
1:C:4003:LEU:HB2	1:C:4013:LEU:HD13	1.96	0.47
1:C:4139:ILE:O	1:C:4143:VAL:HG23	2.14	0.47
2:D:87:HIS:O	2:D:90:ILE:N	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2816:MET:HG2	1:E:2878:LEU:HD21	1.96	0.47
1:E:2930:LEU:HB3	1:E:2937:VAL:HG21	1.96	0.47
1:G:240:ASP:OD2	1:G:244:LEU:HD12	2.13	0.47
1:G:595:ARG:NH2	1:G:1643:GLU:OE2	2.47	0.47
1:G:1254:HIS:HE2	1:G:1280:GLN:HB3	1.78	0.47
1:G:1254:HIS:HD2	1:G:1281:ASN:H	1.60	0.47
1:G:4242:ILE:O	1:G:4246:GLN:HG2	2.14	0.47
1:G:4680:LYS:O	1:G:4685:GLY:N	2.42	0.47
1:G:4683:PHE:CE2	1:G:5017:ARG:HD2	2.49	0.47
1:A:119:SER:HB3	1:A:138:GLN:HG2	1.96	0.47
1:A:240:ASP:OD2	1:A:244:LEU:HD12	2.14	0.47
1:A:1144:GLN:N	1:A:1147:ASP:OD2	2.34	0.47
1:A:2431:ASP:O	1:A:2435:ARG:HG3	2.14	0.47
1:A:3937:TYR:HA	1:A:3940:LYS:HZ3	1.78	0.47
1:C:640:TYR:CD2	1:C:1634:LEU:HD12	2.48	0.47
1:C:1239:SER:HA	1:C:1608:MET:O	2.14	0.47
1:C:1639:LEU:HD21	1:C:1653:LEU:HD11	1.95	0.47
1:C:1667:LEU:HD23	1:C:1710:GLY:C	2.34	0.47
1:E:668:VAL:HB	1:E:740:PRO:HA	1.95	0.47
1:E:720:HIS:HA	1:E:730:VAL:H	1.79	0.47
1:E:4766:THR:O	1:E:4770:SER:N	2.46	0.47
1:G:40:GLU:OE2	1:G:402:ARG:HG3	2.12	0.47
1:G:466:SER:HA	1:G:469:ARG:HE	1.79	0.47
1:G:4174:PHE:O	1:G:4178:LEU:N	2.45	0.47
1:G:4904:PRO:HG3	1:G:4913:ARG:HD3	1.96	0.47
1:A:563:VAL:O	1:A:567:VAL:HG23	2.14	0.47
1:A:1815:LEU:HB3	1:A:1865:MET:SD	2.54	0.47
1:C:293:LEU:HG	1:C:298:GLY:HA2	1.97	0.47
1:C:595:ARG:NH2	1:C:1643:GLU:OE2	2.47	0.47
1:C:1139:PHE:CE2	1:C:1169:LEU:HD21	2.49	0.47
1:C:2288:LEU:O	1:C:3849:ARG:HD3	2.13	0.47
1:C:4041:ALA:O	1:C:4044:MET:HG2	2.13	0.47
1:C:4565:LEU:O	1:C:4569:LEU:HG	2.15	0.47
1:E:140:ASP:OD2	1:E:142:THR:OG1	2.29	0.47
1:E:1667:LEU:HD23	1:E:1710:GLY:C	2.35	0.47
1:G:119:SER:HB3	1:G:138:GLN:HG2	1.96	0.47
1:G:280:LEU:HD12	1:G:280:LEU:O	2.13	0.47
1:G:4021:LYS:O	1:G:4025:VAL:HG23	2.14	0.47
1:G:4701:TRP:HB3	1:G:4778:TRP:CD1	2.48	0.47
1:A:291:LEU:HG	1:A:314:PHE:HE2	1.79	0.47
1:A:495:ASN:HB3	1:A:553:ARG:HH21	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1547:LYS:HZ3	1:A:1645:ASN:HB2	1.77	0.47
1:A:1723:ALA:HB1	1:A:1851:MET:HG3	1.96	0.47
1:A:4000:MET:HE2	1:A:4058:ILE:HG22	1.97	0.47
1:A:4059:LEU:HD22	1:A:4170:ILE:HD13	1.96	0.47
1:A:4682:GLU:HG3	1:A:4683:PHE:CD2	2.50	0.47
1:C:473:ASN:O	1:C:477:LEU:HG	2.14	0.47
1:C:526:LEU:HG	1:C:530:ILE:HD11	1.96	0.47
1:C:833:GLY:HA3	1:C:838:HIS:HE1	1.79	0.47
1:C:1738:LEU:HD11	1:C:2143:THR:HB	1.96	0.47
1:C:2816:MET:HG2	1:C:2878:LEU:HD21	1.95	0.47
1:C:3713:LYS:O	1:C:3715:LYS:N	2.47	0.47
1:C:3805:LEU:HB2	1:C:3890:LEU:HD23	1.95	0.47
1:C:3817:LEU:HD22	1:C:3899:PHE:HB2	1.96	0.47
1:C:4666:VAL:HG13	1:C:4783:ILE:HG12	1.95	0.47
1:C:4727:LYS:O	1:C:4728:HIS:CB	2.62	0.47
1:C:4864:ASN:CG	1:C:4875:LYS:HZ2	2.16	0.47
1:E:273:HIS:ND1	1:E:335:GLY:O	2.46	0.47
1:E:526:LEU:HG	1:E:530:ILE:HD11	1.96	0.47
1:G:883:ALA:O	1:G:887:ILE:HD12	2.15	0.47
1:G:1139:PHE:CE2	1:G:1169:LEU:HD21	2.49	0.47
1:G:4064:MET:O	1:G:4073:GLY:N	2.48	0.47
1:G:4242:ILE:HG12	1:G:4993:MET:HG2	1.96	0.47
1:G:4682:GLU:HG3	1:G:4683:PHE:CE2	2.49	0.47
1:G:4930:ALA:O	1:G:4934:GLY:N	2.33	0.47
1:A:5027:CYS:SG	1:A:5028:PHE:N	2.86	0.47
1:C:178:ARG:HB2	1:C:193:ALA:HB1	1.96	0.47
1:C:563:VAL:O	1:C:567:VAL:HG23	2.13	0.47
1:C:4059:LEU:HD22	1:C:4170:ILE:HD13	1.97	0.47
1:E:111:HIS:NE2	1:E:113:HIS:HB3	2.30	0.47
1:E:1281:ASN:OD1	1:E:1282:SER:N	2.47	0.47
1:E:2496:PRO:HB3	1:E:2553:TYR:CZ	2.49	0.47
1:E:4928:LEU:O	1:E:4932:ILE:HD12	2.12	0.47
1:G:613:ALA:HB1	1:G:618:GLN:NE2	2.26	0.47
1:G:1095:VAL:HB	1:G:1199:VAL:HG12	1.96	0.47
1:G:4783:ILE:HG22	1:G:4789:PHE:CD2	2.50	0.47
2:H:11:ASP:OD1	2:H:12:GLY:N	2.47	0.47
1:A:50:GLU:OE2	1:A:61:ASP:N	2.36	0.47
1:A:1095:VAL:HB	1:A:1199:VAL:HG12	1.97	0.47
1:A:4139:ILE:O	1:A:4143:VAL:HG23	2.14	0.47
1:C:495:ASN:HB3	1:C:553:ARG:HH21	1.79	0.47
1:E:465:GLN:NE2	1:E:3712:GLU:OE1	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:563:VAL:O	1:E:567:VAL:HG23	2.14	0.47
1:E:831:ARG:CZ	1:E:840:VAL:HG11	2.45	0.47
1:E:1022:VAL:HG23	1:E:1027:LEU:HB3	1.95	0.47
1:E:1239:SER:HA	1:E:1608:MET:O	2.14	0.47
1:E:3713:LYS:O	1:E:3715:LYS:N	2.47	0.47
1:G:2495:VAL:HA	1:G:2498:HIS:HD2	1.80	0.47
1:A:584:LYS:HZ1	1:A:1586:ASN:HD21	1.60	0.47
1:A:1139:PHE:CE2	1:A:1169:LEU:HD21	2.49	0.47
1:A:1207:ASP:HA	1:A:1210:SER:HB3	1.97	0.47
1:A:1480:GLN:H	1:A:1481:GLY:HA2	1.80	0.47
1:A:2121:PHE:CD1	1:A:3701:LEU:HD12	2.50	0.47
1:A:4727:LYS:O	1:A:4728:HIS:CB	2.62	0.47
2:B:11:ASP:OD1	2:B:12:GLY:N	2.47	0.47
1:C:111:HIS:NE2	1:C:113:HIS:HB3	2.30	0.47
1:C:692:TYR:CD1	1:C:711:LEU:HD12	2.49	0.47
1:C:841:GLY:HA3	1:C:1073:ARG:NH1	2.28	0.47
1:C:1947:CYS:SG	1:C:2126:ARG:NE	2.88	0.47
1:C:4928:LEU:O	1:C:4932:ILE:HD12	2.14	0.47
1:E:589:LEU:HG	1:E:593:HIS:CD2	2.47	0.47
1:E:877:ASN:O	1:E:880:GLU:HB2	2.14	0.47
1:E:883:ALA:O	1:E:887:ILE:HD12	2.15	0.47
1:E:1226:PHE:O	1:E:1229:ASN:HB2	2.15	0.47
1:E:1947:CYS:SG	1:E:2126:ARG:NE	2.87	0.47
1:E:2121:PHE:CD1	1:E:3701:LEU:HD12	2.50	0.47
1:E:3935:TRP:HE3	1:G:80:GLU:OE1	1.98	0.47
1:E:3937:TYR:HA	1:E:3940:LYS:NZ	2.28	0.47
1:E:4139:ILE:O	1:E:4143:VAL:HG23	2.14	0.47
1:E:4682:GLU:HG3	1:E:4683:PHE:CD2	2.50	0.47
1:G:121:LEU:O	1:G:133:PHE:HB3	2.15	0.47
1:G:291:LEU:HG	1:G:314:PHE:HE2	1.79	0.47
1:G:495:ASN:HB3	1:G:553:ARG:HH21	1.79	0.47
1:G:562:GLU:OE2	1:G:598:LYS:HD3	2.15	0.47
1:G:689:THR:HA	1:G:778:PHE:HE2	1.80	0.47
1:G:831:ARG:CZ	1:G:840:VAL:HG11	2.45	0.47
1:G:1022:VAL:HG23	1:G:1027:LEU:HB3	1.96	0.47
1:G:1245:PHE:H	1:G:1290:ARG:HH21	1.63	0.47
1:G:1723:ALA:HB1	1:G:1851:MET:HG3	1.96	0.47
1:G:2121:PHE:O	1:G:3725:TYR:OH	2.27	0.47
1:G:2204:HIS:O	1:G:2208:MET:N	2.42	0.47
1:G:3105:LYS:O	1:G:3109:ASN:N	2.41	0.47
1:G:4089:SER:HA	1:G:4122:MET:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4158:PRO:O	1:G:4162:ASN:N	2.41	0.47
1:G:4721:LYS:HG3	1:G:4741:LEU:HD22	1.96	0.47
1:A:1239:SER:HA	1:A:1608:MET:O	2.14	0.47
1:A:2166:LEU:HG	1:A:2209:GLU:OE1	2.15	0.47
1:A:3805:LEU:HB2	1:A:3890:LEU:HD23	1.96	0.47
1:A:3840:SER:HB2	1:A:3877:ASP:OD2	2.14	0.47
1:A:4242:ILE:O	1:A:4246:GLN:HG2	2.15	0.47
1:A:4661:TYR:HE2	1:A:4789:PHE:HB2	1.79	0.47
1:C:562:GLU:OE2	1:C:598:LYS:HD3	2.15	0.47
1:C:1815:LEU:HB3	1:C:1865:MET:SD	2.54	0.47
1:C:2735:PHE:HE1	1:C:2907:PRO:HG3	1.80	0.47
1:C:2774:ASN:OD1	1:C:2852:ARG:NE	2.48	0.47
1:C:3835:LEU:HD11	1:C:3880:PHE:HZ	1.79	0.47
1:C:4682:GLU:HG3	1:C:4683:PHE:CD2	2.50	0.47
1:E:14:LEU:HB3	1:E:101:LEU:HD12	1.97	0.47
1:E:689:THR:HA	1:E:778:PHE:HE2	1.80	0.47
1:E:692:TYR:CD1	1:E:711:LEU:HD12	2.49	0.47
1:E:802:PHE:CE2	1:E:804:PRO:HG3	2.48	0.47
1:E:1815:LEU:HB3	1:E:1865:MET:SD	2.54	0.47
1:E:2735:PHE:HE1	1:E:2907:PRO:HG3	1.80	0.47
2:F:55:VAL:HG21	2:F:59:TRP:HD1	1.79	0.47
1:G:14:LEU:HB3	1:G:101:LEU:HD12	1.97	0.47
1:G:50:GLU:OE2	1:G:61:ASP:N	2.36	0.47
1:G:568:LEU:HD12	1:G:602:VAL:HG13	1.97	0.47
1:G:1815:LEU:HB3	1:G:1865:MET:SD	2.54	0.47
1:G:3651:ASN:HA	1:G:3654:LEU:HD12	1.97	0.47
1:G:4583:SER:H	1:G:4628:VAL:HB	1.79	0.47
1:A:831:ARG:CZ	1:A:840:VAL:HG11	2.45	0.47
1:A:853:PRO:HB3	1:A:1023:PRO:HB3	1.97	0.47
1:A:2495:VAL:HA	1:A:2498:HIS:HD2	1.79	0.47
1:A:2930:LEU:HB3	1:A:2937:VAL:HG21	1.96	0.47
1:A:4565:LEU:O	1:A:4569:LEU:HG	2.15	0.47
1:C:831:ARG:CZ	1:C:840:VAL:HG11	2.45	0.47
1:C:2891:LYS:HG2	1:C:2905:LEU:HD13	1.97	0.47
1:C:4150:LEU:O	1:C:4154:VAL:N	2.29	0.47
1:C:4661:TYR:HE2	1:C:4789:PHE:HB2	1.79	0.47
1:E:828:GLU:HG3	1:E:830:ARG:H	1.79	0.47
1:E:1245:PHE:H	1:E:1290:ARG:HH21	1.63	0.47
1:E:2431:ASP:O	1:E:2435:ARG:HG3	2.14	0.47
1:E:4021:LYS:O	1:E:4025:VAL:HG23	2.15	0.47
1:E:4662:ASN:HA	1:E:4666:VAL:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4966:ASP:OD1	1:E:4967:TYR:N	2.47	0.47
1:G:853:PRO:HB3	1:G:1023:PRO:HB3	1.97	0.47
1:G:1239:SER:HA	1:G:1608:MET:O	2.14	0.47
1:G:4661:TYR:HE2	1:G:4789:PHE:HB2	1.80	0.47
1:G:5000:GLU:HA	1:G:5003:HIS:CE1	2.50	0.47
2:H:87:HIS:O	2:H:90:ILE:N	2.39	0.47
1:A:523:TYR:CE1	1:A:560:ILE:HG12	2.50	0.47
1:A:689:THR:HA	1:A:778:PHE:HE2	1.80	0.47
1:A:1808:ARG:NH2	1:A:1855:GLY:H	2.13	0.47
1:A:1947:CYS:SG	1:A:2126:ARG:NE	2.88	0.47
1:A:3835:LEU:HD11	1:A:3880:PHE:HZ	1.79	0.47
1:C:330:ASP:OD2	1:C:332:GLU:OE2	2.33	0.47
1:C:790:ARG:HG3	1:C:1625:GLY:O	2.15	0.47
1:C:2166:LEU:HG	1:C:2209:GLU:OE1	2.15	0.47
1:C:2299:VAL:HG21	1:C:2356:LEU:HB3	1.98	0.47
1:C:2470:ILE:O	1:C:2474:LEU:N	2.40	0.47
1:C:2930:LEU:HB3	1:C:2937:VAL:HG21	1.96	0.47
1:C:4691:GLN:HB2	1:C:4692:PRO:HD2	1.97	0.47
1:E:4003:LEU:HB2	1:E:4013:LEU:HD13	1.96	0.47
1:G:284:HIS:HB3	1:G:287:THR:OG1	2.15	0.47
1:G:1480:GLN:H	1:G:1481:GLY:HA2	1.80	0.47
1:G:2045:GLN:O	1:G:2064:ARG:NH2	2.40	0.47
1:G:2166:LEU:HG	1:G:2209:GLU:OE1	2.15	0.47
1:G:2867:LEU:HG	1:G:2928:LYS:NZ	2.30	0.47
1:A:465:GLN:NE2	1:A:3712:GLU:OE1	2.48	0.46
1:A:489:ASN:HB3	1:A:493:ARG:HH12	1.79	0.46
1:A:1435:TYR:HB3	1:A:1517:GLY:H	1.80	0.46
1:A:2821:TRP:CD1	1:A:2939:ARG:HA	2.50	0.46
1:A:4662:ASN:HA	1:A:4666:VAL:HG21	1.98	0.46
1:C:284:HIS:CD2	1:C:287:THR:H	2.32	0.46
1:C:465:GLN:NE2	1:C:3712:GLU:OE1	2.48	0.46
1:C:489:ASN:HB3	1:C:493:ARG:HH12	1.80	0.46
1:C:4960:ILE:HD13	1:C:4983:HIS:HB3	1.97	0.46
1:E:293:LEU:HG	1:E:298:GLY:HA2	1.97	0.46
1:E:495:ASN:HB3	1:E:553:ARG:HH21	1.79	0.46
1:E:562:GLU:OE2	1:E:598:LYS:HD3	2.15	0.46
1:E:3989:VAL:HG13	1:E:4023:MET:HE2	1.96	0.46
1:E:4049:VAL:HG21	1:E:4159:ARG:HD2	1.97	0.46
1:E:4892:ARG:NH1	1:G:4899:ASP:N	2.57	0.46
1:G:833:GLY:HA3	1:G:838:HIS:HE1	1.79	0.46
1:G:1226:PHE:O	1:G:1229:ASN:HB2	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3424:LEU:O	1:G:3427:PRO:N	2.48	0.46
1:G:4234:PHE:CE1	1:G:4985:LEU:HD11	2.50	0.46
1:A:121:LEU:O	1:A:133:PHE:HB3	2.15	0.46
1:A:1226:PHE:O	1:A:1229:ASN:HB2	2.16	0.46
1:A:1245:PHE:H	1:A:1290:ARG:HH21	1.63	0.46
1:A:2422:ILE:O	1:A:2425:PHE:HB3	2.16	0.46
1:A:4021:LYS:O	1:A:4025:VAL:HG23	2.15	0.46
1:C:291:LEU:HG	1:C:314:PHE:HE2	1.79	0.46
1:C:883:ALA:O	1:C:887:ILE:HD12	2.15	0.46
1:C:1667:LEU:HG	1:C:1714:LEU:HD11	1.98	0.46
1:C:2114:PRO:HD3	1:C:3707:ARG:HH11	1.79	0.46
1:C:4867:GLU:HA	1:C:4868:ASP:HA	1.80	0.46
1:E:479:GLN:HE22	1:E:484:LEU:HD22	1.80	0.46
1:E:489:ASN:HB3	1:E:493:ARG:HH12	1.80	0.46
1:E:2114:PRO:HD3	1:E:3707:ARG:HH11	1.79	0.46
1:E:2142:TYR:HB3	1:E:2197:LEU:HD12	1.98	0.46
1:E:2165:LEU:HD21	1:E:2177:LEU:HB2	1.97	0.46
1:G:14:LEU:HD21	1:G:204:PRO:HD3	1.97	0.46
1:G:293:LEU:HG	1:G:298:GLY:HA2	1.97	0.46
1:G:330:ASP:OD2	1:G:332:GLU:OE2	2.33	0.46
1:G:3906:GLN:NE2	1:G:3913:ILE:O	2.46	0.46
1:G:4195:PHE:CE1	1:G:4991:PHE:HB2	2.50	0.46
1:G:4961:CYS:SG	1:G:4983:HIS:CE1	3.03	0.46
1:A:562:GLU:OE2	1:A:598:LYS:HD3	2.15	0.46
1:A:883:ALA:O	1:A:887:ILE:HD12	2.15	0.46
1:A:1079:LYS:HG3	1:A:1237:TRP:HZ3	1.80	0.46
1:A:1667:LEU:HD23	1:A:1710:GLY:C	2.35	0.46
1:A:2299:VAL:HG11	1:A:2356:LEU:HB2	1.98	0.46
1:A:2517:PHE:O	1:A:2521:VAL:HG23	2.16	0.46
1:A:3885:PHE:HE1	1:A:3919:THR:HG1	1.59	0.46
1:A:3935:TRP:HE3	1:C:80:GLU:OE1	1.99	0.46
1:A:4032:GLU:O	1:A:5006:GLN:NE2	2.49	0.46
1:A:4691:GLN:HB2	1:A:4692:PRO:HD2	1.97	0.46
1:A:4960:ILE:HD13	1:A:4983:HIS:HB3	1.98	0.46
1:C:110:ARG:HG2	1:C:111:HIS:O	2.15	0.46
1:C:828:GLU:HG3	1:C:830:ARG:H	1.80	0.46
1:C:1245:PHE:H	1:C:1290:ARG:HH21	1.64	0.46
1:C:2517:PHE:O	1:C:2521:VAL:HG23	2.16	0.46
1:C:3935:TRP:HE3	1:E:80:GLU:OE1	1.99	0.46
1:E:395:GLN:NE2	1:E:399:GLN:HB2	2.31	0.46
1:E:4242:ILE:O	1:E:4246:GLN:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4565:LEU:O	1:E:4569:LEU:HG	2.15	0.46
1:G:2299:VAL:HG21	1:G:2356:LEU:HB3	1.97	0.46
1:G:2431:ASP:O	1:G:2435:ARG:HG3	2.14	0.46
1:G:4774:LYS:HA	1:G:4777:ILE:HG22	1.96	0.46
1:G:4796:MET:HG3	1:G:4797:VAL:N	2.29	0.46
1:G:4966:ASP:OD1	1:G:4967:TYR:N	2.46	0.46
1:A:14:LEU:HB3	1:A:101:LEU:HD12	1.96	0.46
1:A:110:ARG:HG2	1:A:111:HIS:O	2.16	0.46
1:A:828:GLU:HG3	1:A:830:ARG:H	1.79	0.46
1:A:2299:VAL:HG21	1:A:2356:LEU:HB3	1.98	0.46
2:B:87:HIS:O	2:B:90:ILE:N	2.39	0.46
1:C:214:VAL:HG22	1:C:341:TYR:CE1	2.50	0.46
1:C:568:LEU:HD12	1:C:602:VAL:HG13	1.98	0.46
1:C:667:MET:HG2	1:C:743:VAL:HG22	1.98	0.46
1:C:1621:GLY:HA2	1:C:1628:VAL:HA	1.98	0.46
1:C:2142:TYR:HB3	1:C:2197:LEU:HD12	1.98	0.46
1:C:2821:TRP:CD1	1:C:2939:ARG:HA	2.50	0.46
1:C:4000:MET:HE2	1:C:4058:ILE:HG22	1.97	0.46
1:C:4021:LYS:O	1:C:4025:VAL:HG23	2.15	0.46
1:C:4648:LEU:HD23	1:C:4803:HIS:NE2	2.30	0.46
1:C:4662:ASN:HA	1:C:4666:VAL:HG21	1.97	0.46
1:C:4974:GLY:O	1:C:4977:THR:OG1	2.27	0.46
1:E:14:LEU:HD21	1:E:204:PRO:HD3	1.98	0.46
1:E:523:TYR:CE1	1:E:560:ILE:HG12	2.50	0.46
1:E:667:MET:HG2	1:E:743:VAL:HG22	1.98	0.46
1:E:2891:LYS:HG2	1:E:2905:LEU:HD13	1.98	0.46
1:E:4032:GLU:O	1:E:5006:GLN:NE2	2.49	0.46
1:G:110:ARG:HG2	1:G:111:HIS:O	2.15	0.46
1:G:523:TYR:CE1	1:G:560:ILE:HG12	2.50	0.46
1:G:2165:LEU:HD21	1:G:2177:LEU:HB2	1.97	0.46
1:G:3980:LEU:HD21	1:G:3985:LEU:HD13	1.98	0.46
1:A:453:GLU:HA	1:A:454:PRO:HD3	1.85	0.46
1:A:667:MET:HG2	1:A:743:VAL:HG22	1.98	0.46
1:A:1962:ALA:O	1:A:1966:VAL:HG23	2.16	0.46
1:A:3898:ASP:OD1	1:A:3899:PHE:N	2.49	0.46
1:A:4648:LEU:HD23	1:A:4803:HIS:NE2	2.31	0.46
1:C:345:LEU:HD22	1:C:387:ALA:HB1	1.97	0.46
1:C:580:GLU:HG3	1:C:620:LEU:HD12	1.98	0.46
1:C:2326:CYS:O	1:C:2329:GLU:HG2	2.16	0.46
1:C:4922:PHE:HA	1:C:4926:VAL:HB	1.97	0.46
1:E:1962:ALA:O	1:E:1966:VAL:HG23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2774:ASN:OD1	1:E:2852:ARG:NE	2.49	0.46
1:G:74:SER:O	1:G:78:LEU:N	2.40	0.46
1:G:526:LEU:O	1:G:530:ILE:HG13	2.16	0.46
1:G:1739:THR:OG1	1:G:1742:THR:HG23	2.15	0.46
1:G:2422:ILE:O	1:G:2425:PHE:HB3	2.16	0.46
1:G:2821:TRP:CE2	1:G:2939:ARG:HG2	2.51	0.46
1:A:289:ARG:HB3	1:A:302:VAL:O	2.16	0.46
1:A:345:LEU:HD22	1:A:387:ALA:HB1	1.97	0.46
1:A:568:LEU:HD12	1:A:602:VAL:HG13	1.98	0.46
1:A:716:PHE:N	1:A:738:LEU:HD13	2.31	0.46
1:A:790:ARG:HG3	1:A:1625:GLY:O	2.15	0.46
1:A:1739:THR:OG1	1:A:1742:THR:HG23	2.16	0.46
1:A:2867:LEU:HD12	1:A:2924:GLN:HG2	1.96	0.46
1:A:4149:ASN:OD1	1:A:4153:HIS:ND1	2.48	0.46
1:C:110:ARG:HH11	1:C:115:ARG:HE	1.64	0.46
1:C:4149:ASN:OD1	1:C:4153:HIS:ND1	2.49	0.46
1:E:121:LEU:O	1:E:133:PHE:HB3	2.15	0.46
1:E:580:GLU:HG3	1:E:620:LEU:HD12	1.97	0.46
1:E:701:GLY:HA2	1:E:1645:ASN:HD21	1.81	0.46
1:E:853:PRO:HB3	1:E:1023:PRO:HB3	1.97	0.46
1:E:1457:TYR:CZ	1:E:1459:GLN:HB2	2.50	0.46
1:E:2093:SER:HA	1:E:2096:GLU:OE2	2.15	0.46
1:E:2299:VAL:HG21	1:E:2356:LEU:HB3	1.97	0.46
1:E:2422:ILE:O	1:E:2425:PHE:HB3	2.15	0.46
1:E:4149:ASN:OD1	1:E:4153:HIS:ND1	2.48	0.46
1:G:790:ARG:HG3	1:G:1625:GLY:O	2.15	0.46
1:G:828:GLU:HG3	1:G:830:ARG:H	1.79	0.46
1:G:1079:LYS:HG3	1:G:1237:TRP:HZ3	1.80	0.46
1:G:1676:LEU:CD1	1:G:1725:ARG:HH11	2.29	0.46
1:G:1738:LEU:HB2	1:G:2146:PRO:HD3	1.97	0.46
1:G:2434:GLY:O	1:G:2508:ARG:HG3	2.16	0.46
1:A:284:HIS:CD2	1:A:287:THR:H	2.33	0.46
1:A:833:GLY:HA3	1:A:838:HIS:HE1	1.80	0.46
1:A:2093:SER:HA	1:A:2096:GLU:OE2	2.16	0.46
1:A:2862:LEU:HD21	1:A:2929:PHE:CD1	2.49	0.46
1:A:4978:HIS:HA	1:A:4982:GLU:CG	2.46	0.46
1:C:395:GLN:NE2	1:C:399:GLN:HB2	2.31	0.46
1:E:110:ARG:NH1	1:E:115:ARG:HB3	2.31	0.46
1:E:221:ARG:HG3	1:E:259:LEU:HD23	1.98	0.46
1:E:330:ASP:OD2	1:E:332:GLU:OE2	2.33	0.46
1:E:568:LEU:HD12	1:E:602:VAL:HG13	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:716:PHE:N	1:E:738:LEU:HD13	2.31	0.46
1:E:4727:LYS:O	1:E:4728:HIS:CB	2.62	0.46
1:G:1586:ASN:O	1:G:1588:ALA:N	2.44	0.46
1:G:2774:ASN:OD1	1:G:2852:ARG:NE	2.48	0.46
1:A:330:ASP:OD2	1:A:332:GLU:OE2	2.33	0.46
1:A:526:LEU:O	1:A:530:ILE:HG13	2.16	0.46
1:A:1621:GLY:HA2	1:A:1628:VAL:HA	1.98	0.46
1:C:265:LEU:HD21	1:C:281:ARG:HG2	1.98	0.46
1:C:853:PRO:HB3	1:C:1023:PRO:HB3	1.97	0.46
1:C:1676:LEU:CD1	1:C:1725:ARG:HH11	2.29	0.46
1:C:1721:GLU:O	1:C:1725:ARG:HG2	2.16	0.46
1:C:3995:VAL:O	1:C:3999:MET:HB3	2.16	0.46
1:E:214:VAL:HG22	1:E:341:TYR:CE1	2.50	0.46
1:E:265:LEU:HD21	1:E:281:ARG:HG2	1.98	0.46
1:E:575:LEU:O	1:E:578:ILE:HG22	2.16	0.46
1:E:723:THR:HG1	1:E:728:ARG:HH12	1.60	0.46
1:E:1141:ARG:NH1	1:E:1167:GLU:OE1	2.48	0.46
1:E:1480:GLN:H	1:E:1481:GLY:HA2	1.80	0.46
1:E:1586:ASN:O	1:E:1588:ALA:N	2.43	0.46
1:E:1621:GLY:HA2	1:E:1628:VAL:HA	1.98	0.46
1:E:1676:LEU:CD1	1:E:1725:ARG:HH11	2.29	0.46
1:E:1739:THR:OG1	1:E:1742:THR:HG23	2.15	0.46
1:E:2349:ASN:O	1:E:2353:VAL:HG23	2.16	0.46
1:E:3898:ASP:OD1	1:E:3899:PHE:N	2.49	0.46
1:G:265:LEU:HD21	1:G:281:ARG:HG2	1.98	0.46
1:G:345:LEU:HD22	1:G:387:ALA:HB1	1.97	0.46
1:G:1617:THR:O	1:G:1618:ARG:NH2	2.36	0.46
1:G:2143:THR:HG23	1:G:3654:LEU:HD11	1.98	0.46
1:G:3929:SER:O	1:G:3933:PHE:N	2.46	0.46
1:A:265:LEU:HD21	1:A:281:ARG:HG2	1.98	0.46
1:A:1139:PHE:CE1	1:A:1169:LEU:HD11	2.51	0.46
1:A:1676:LEU:CD1	1:A:1725:ARG:HH11	2.29	0.46
1:A:1721:GLU:O	1:A:1725:ARG:HG2	2.16	0.46
1:A:2142:TYR:HB3	1:A:2197:LEU:HD12	1.98	0.46
1:A:2774:ASN:OD1	1:A:2852:ARG:NE	2.48	0.46
1:A:4966:ASP:OD1	1:A:4967:TYR:N	2.47	0.46
1:C:1690:ASP:OD1	1:C:1691:GLN:N	2.49	0.46
1:C:1848:LEU:HD11	1:C:1853:ILE:HD12	1.98	0.46
1:C:2761:TYR:CE2	1:C:2862:LEU:HD22	2.51	0.46
1:C:4931:ILE:HD13	1:C:4931:ILE:HG21	1.74	0.46
1:E:273:HIS:N	1:E:334:MET:O	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3825:GLU:OE2	1:E:3828:PHE:HB2	2.16	0.46
1:E:5017:ARG:HB3	1:E:5019:TRP:CZ3	2.51	0.46
1:G:221:ARG:HG3	1:G:259:LEU:HD23	1.98	0.46
1:G:758:ARG:NH1	1:G:763:PRO:HG3	2.31	0.46
1:G:1690:ASP:OD1	1:G:1691:GLN:N	2.49	0.46
1:G:1962:ALA:O	1:G:1966:VAL:HG23	2.16	0.46
1:G:3185:LYS:O	1:G:3189:ALA:N	2.46	0.46
1:G:3825:GLU:O	1:G:3827:GLY:N	2.45	0.46
1:G:3928:GLU:HG3	1:G:3929:SER:N	2.31	0.46
1:G:4958:CYS:SG	1:G:4959:PHE:N	2.89	0.46
1:A:2434:GLY:O	1:A:2508:ARG:HG3	2.16	0.46
1:A:4778:TRP:O	1:A:4782:VAL:HG23	2.16	0.46
1:A:4934:GLY:CA	1:G:4937:ILE:HG12	2.46	0.46
1:C:50:GLU:OE2	1:C:61:ASP:N	2.36	0.46
1:C:121:LEU:O	1:C:133:PHE:HB3	2.15	0.46
1:C:1141:ARG:NH1	1:C:1167:GLU:OE1	2.48	0.46
1:C:2495:VAL:HA	1:C:2498:HIS:HD2	1.80	0.46
1:C:2496:PRO:HB3	1:C:2553:TYR:CZ	2.51	0.46
1:C:4978:HIS:HA	1:C:4982:GLU:CG	2.46	0.46
1:E:235:ALA:HB2	1:E:257:ARG:NH1	2.31	0.46
1:E:284:HIS:CD2	1:E:287:THR:H	2.32	0.46
1:E:526:LEU:O	1:E:530:ILE:HG13	2.16	0.46
1:E:2761:TYR:CE2	1:E:2862:LEU:HD22	2.51	0.46
1:E:2821:TRP:CD1	1:E:2939:ARG:HA	2.50	0.46
1:E:2862:LEU:HD21	1:E:2929:PHE:CD1	2.49	0.46
1:E:4778:TRP:O	1:E:4782:VAL:HG23	2.16	0.46
1:E:4940:PHE:CE2	1:G:4938:ASP:OD2	2.69	0.46
1:G:595:ARG:HH12	1:G:1641:ILE:HD13	1.80	0.46
1:G:1152:MET:HB3	1:G:1161:ILE:O	2.16	0.46
1:G:3780:LEU:HD22	1:G:3819:TYR:CD2	2.51	0.46
1:G:3831:SER:O	1:G:3835:LEU:HB2	2.17	0.46
1:G:4863:TYR:CD1	1:G:4901:ILE:HD12	2.51	0.46
1:A:479:GLN:HE22	1:A:484:LEU:HD22	1.80	0.45
1:A:1690:ASP:OD1	1:A:1691:GLN:N	2.49	0.45
1:A:3995:VAL:O	1:A:3999:MET:HB3	2.16	0.45
1:C:66:CYS:HB2	1:C:112:ALA:HB2	1.99	0.45
1:C:1024:TYR:CZ	1:C:1032:LYS:HG3	2.51	0.45
1:C:1226:PHE:O	1:C:1229:ASN:HB2	2.15	0.45
1:C:2299:VAL:HG11	1:C:2356:LEU:HB2	1.98	0.45
1:C:2422:ILE:O	1:C:2425:PHE:HB3	2.16	0.45
1:C:4925:ILE:HG23	1:C:4929:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:284:HIS:HB3	1:E:287:THR:OG1	2.16	0.45
1:E:790:ARG:HG3	1:E:1625:GLY:O	2.15	0.45
1:E:876:GLU:O	1:E:880:GLU:HG3	2.16	0.45
1:E:1667:LEU:HG	1:E:1714:LEU:HD11	1.98	0.45
1:E:1690:ASP:OD1	1:E:1691:GLN:N	2.49	0.45
1:E:4648:LEU:HD23	1:E:4803:HIS:NE2	2.31	0.45
1:E:4691:GLN:HB2	1:E:4692:PRO:HD2	1.97	0.45
1:E:4963:ILE:HD12	1:E:5027:CYS:HB3	1.97	0.45
1:G:1139:PHE:CE1	1:G:1169:LEU:HD11	2.51	0.45
1:G:1808:ARG:NH2	1:G:1855:GLY:H	2.14	0.45
1:G:4221:VAL:HG22	1:G:4233:LEU:HD22	1.98	0.45
1:A:110:ARG:HH11	1:A:115:ARG:HB3	1.81	0.45
1:A:1738:LEU:HB2	1:A:2146:PRO:HD3	1.98	0.45
1:A:2165:LEU:HD21	1:A:2177:LEU:HB2	1.97	0.45
1:A:2326:CYS:O	1:A:2329:GLU:HG2	2.16	0.45
1:A:2349:ASN:O	1:A:2353:VAL:HG23	2.16	0.45
1:C:14:LEU:HD21	1:C:204:PRO:HD3	1.97	0.45
1:C:255:HIS:NE2	1:C:480:GLU:OE2	2.49	0.45
1:C:1139:PHE:CE1	1:C:1169:LEU:HD11	2.51	0.45
1:C:1770:SER:OG	1:C:1771:LEU:N	2.49	0.45
1:C:1808:ARG:NH2	1:C:1855:GLY:H	2.14	0.45
1:C:2093:SER:HA	1:C:2096:GLU:OE2	2.15	0.45
1:C:3898:ASP:OD1	1:C:3899:PHE:N	2.49	0.45
1:C:4032:GLU:O	1:C:5006:GLN:NE2	2.49	0.45
1:C:4242:ILE:O	1:C:4246:GLN:HG2	2.15	0.45
1:E:24:CYS:SG	1:E:182:LEU:HD13	2.56	0.45
1:E:110:ARG:HG2	1:E:111:HIS:O	2.15	0.45
1:E:255:HIS:NE2	1:E:480:GLU:OE2	2.49	0.45
1:E:289:ARG:HB3	1:E:302:VAL:O	2.16	0.45
1:E:291:LEU:HG	1:E:314:PHE:HE2	1.79	0.45
1:E:629:ARG:HB3	1:E:634:GLN:OE1	2.17	0.45
1:E:1848:LEU:HD11	1:E:1853:ILE:HD12	1.98	0.45
1:E:2326:CYS:O	1:E:2329:GLU:HG2	2.17	0.45
1:G:111:HIS:NE2	1:G:113:HIS:HB3	2.31	0.45
1:G:289:ARG:HB3	1:G:302:VAL:O	2.16	0.45
1:G:479:GLN:HE22	1:G:484:LEU:HD22	1.80	0.45
1:G:1297:PHE:CD2	1:G:1545:ASN:HA	2.51	0.45
1:G:2299:VAL:HG11	1:G:2356:LEU:HB2	1.98	0.45
1:G:2923:ALA:HA	1:G:2926:LEU:HB3	1.97	0.45
1:A:639:ASN:OD1	1:A:640:TYR:N	2.50	0.45
1:A:876:GLU:O	1:A:880:GLU:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1690:ASP:OD1	2:B:41:ASP:HB3	2.17	0.45
1:A:1848:LEU:HD11	1:A:1853:ILE:HD12	1.98	0.45
1:A:2761:TYR:CE2	1:A:2862:LEU:HD22	2.51	0.45
1:A:4049:VAL:HG21	1:A:4159:ARG:HD2	1.98	0.45
1:A:4963:ILE:HD12	1:A:5027:CYS:HB3	1.97	0.45
1:C:14:LEU:HB3	1:C:101:LEU:HD12	1.97	0.45
1:C:284:HIS:HB3	1:C:287:THR:OG1	2.16	0.45
1:C:289:ARG:HB3	1:C:302:VAL:O	2.16	0.45
1:C:523:TYR:CE1	1:C:560:ILE:HG12	2.50	0.45
1:C:1739:THR:OG1	1:C:1742:THR:HG23	2.16	0.45
1:C:4049:VAL:HG21	1:C:4159:ARG:HD2	1.98	0.45
1:E:345:LEU:HD22	1:E:387:ALA:HB1	1.97	0.45
1:E:2166:LEU:HG	1:E:2209:GLU:OE1	2.15	0.45
1:G:1735:ILE:HD11	1:G:2156:LEU:HD11	1.98	0.45
1:G:2093:SER:HA	1:G:2096:GLU:OE2	2.16	0.45
1:G:2142:TYR:HB3	1:G:2197:LEU:HD12	1.97	0.45
1:G:2496:PRO:HB3	1:G:2553:TYR:CZ	2.51	0.45
1:G:2517:PHE:O	1:G:2521:VAL:HG23	2.16	0.45
1:G:3319:ILE:O	1:G:3323:ILE:N	2.48	0.45
1:G:3986:TRP:O	1:G:3990:VAL:HG23	2.17	0.45
1:G:4833:ASN:HD22	1:G:4939:ALA:HB2	1.80	0.45
1:G:4963:ILE:HD12	1:G:5027:CYS:HB3	1.97	0.45
1:A:284:HIS:HB3	1:A:287:THR:OG1	2.16	0.45
1:A:308:HIS:CE1	1:A:310:LYS:HB2	2.51	0.45
1:A:1226:PHE:HA	1:A:1229:ASN:HD22	1.82	0.45
1:A:1261:ASP:HB2	1:A:1595:LEU:HD13	1.98	0.45
1:A:2891:LYS:HG2	1:A:2905:LEU:HD13	1.98	0.45
1:A:5017:ARG:HB3	1:A:5019:TRP:CZ3	2.51	0.45
1:C:595:ARG:HH12	1:C:1641:ILE:HD13	1.80	0.45
1:C:689:THR:HA	1:C:778:PHE:HE2	1.80	0.45
1:C:758:ARG:NH1	1:C:763:PRO:HG3	2.30	0.45
1:C:1079:LYS:HG3	1:C:1237:TRP:HZ3	1.80	0.45
1:C:1152:MET:HB3	1:C:1161:ILE:O	2.16	0.45
1:C:1226:PHE:HA	1:C:1229:ASN:HD22	1.81	0.45
1:C:1480:GLN:H	1:C:1481:GLY:HA2	1.80	0.45
1:C:1712:TYR:O	1:C:1716:ILE:HG12	2.17	0.45
1:C:2060:SER:HA	1:C:2063:LEU:HD12	1.98	0.45
1:C:2165:LEU:HD21	1:C:2177:LEU:HB2	1.97	0.45
1:C:2434:GLY:O	1:C:2508:ARG:HG3	2.16	0.45
1:C:5000:GLU:HA	1:C:5003:HIS:CE1	2.52	0.45
1:E:595:ARG:HH12	1:E:1641:ILE:HD13	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:639:ASN:OD1	1:E:640:TYR:N	2.50	0.45
1:E:758:ARG:NH1	1:E:763:PRO:HG3	2.31	0.45
1:E:1297:PHE:CD2	1:E:1545:ASN:HA	2.51	0.45
1:E:2517:PHE:O	1:E:2521:VAL:HG23	2.16	0.45
1:G:24:CYS:SG	1:G:182:LEU:HD13	2.56	0.45
1:G:284:HIS:CD2	1:G:287:THR:H	2.32	0.45
1:G:395:GLN:NE2	1:G:399:GLN:HB2	2.31	0.45
1:G:404:ILE:HG12	1:G:478:PHE:CE1	2.52	0.45
1:G:575:LEU:O	1:G:578:ILE:HG22	2.16	0.45
1:G:876:GLU:O	1:G:880:GLU:HG3	2.16	0.45
1:G:1024:TYR:CZ	1:G:1032:LYS:HG3	2.52	0.45
1:G:1091:GLU:HG2	1:G:1213:PHE:CD1	2.52	0.45
1:G:2349:ASN:O	1:G:2353:VAL:HG23	2.16	0.45
1:A:235:ALA:HB2	1:A:257:ARG:NH1	2.31	0.45
1:A:293:LEU:HG	1:A:298:GLY:HA2	1.97	0.45
1:A:371:VAL:HG22	1:A:373:LYS:H	1.81	0.45
1:A:575:LEU:O	1:A:578:ILE:HG22	2.16	0.45
1:A:580:GLU:HG3	1:A:620:LEU:HD12	1.98	0.45
1:A:629:ARG:HB3	1:A:634:GLN:OE1	2.17	0.45
1:A:1093:GLU:HG3	1:A:1148:VAL:HG22	1.98	0.45
1:A:1211:LEU:HB3	1:A:1213:PHE:CE2	2.51	0.45
1:A:3793:MET:O	1:A:3797:THR:HG23	2.16	0.45
1:A:4655:PHE:O	1:A:4659:ILE:HG12	2.16	0.45
1:C:110:ARG:NH1	1:C:115:ARG:HB3	2.32	0.45
1:C:2248:ARG:O	1:C:2251:PHE:HB3	2.17	0.45
1:C:4720:VAL:O	1:C:4724:VAL:HG23	2.17	0.45
1:E:371:VAL:HG22	1:E:373:LYS:H	1.81	0.45
1:E:791:PHE:HB2	1:E:1626:TRP:HB3	1.99	0.45
1:E:1152:MET:HB3	1:E:1161:ILE:O	2.16	0.45
1:E:1808:ARG:NH2	1:E:1855:GLY:H	2.14	0.45
1:E:2434:GLY:O	1:E:2508:ARG:HG3	2.16	0.45
1:E:2802:LYS:O	1:E:2806:ARG:HG3	2.17	0.45
1:E:4583:SER:H	1:E:4628:VAL:HB	1.81	0.45
1:E:5000:GLU:HA	1:E:5003:HIS:CE1	2.52	0.45
1:G:255:HIS:NE2	1:G:480:GLU:OE2	2.49	0.45
1:G:1141:ARG:NH1	1:G:1167:GLU:OE1	2.48	0.45
1:G:1770:SER:OG	1:G:1771:LEU:N	2.49	0.45
1:G:3771:HIS:CG	1:G:3812:VAL:HG22	2.51	0.45
1:G:4103:PHE:HB2	1:G:4108:ILE:HD11	1.98	0.45
1:G:4666:VAL:HB	1:G:4667:PRO:HD3	1.98	0.45
1:G:4717:ASP:O	1:G:4720:VAL:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4991:PHE:CE2	1:G:5010:VAL:HG11	2.51	0.45
1:A:14:LEU:HD21	1:A:204:PRO:HD3	1.98	0.45
1:A:221:ARG:HG3	1:A:259:LEU:HD23	1.98	0.45
1:A:1547:LYS:O	1:A:1548:LEU:HD12	2.17	0.45
1:A:1667:LEU:HG	1:A:1714:LEU:HD11	1.98	0.45
1:A:1738:LEU:N	1:A:2144:ILE:O	2.48	0.45
1:A:2071:ARG:O	1:A:2072:LEU:HG	2.17	0.45
1:A:4235:VAL:HG21	1:A:5019:TRP:HE1	1.80	0.45
1:A:4892:ARG:HH12	1:C:4899:ASP:H	1.61	0.45
1:A:4913:ARG:O	1:A:4916:PHE:HB3	2.17	0.45
1:C:24:CYS:SG	1:C:182:LEU:HD13	2.56	0.45
1:C:575:LEU:O	1:C:578:ILE:HG22	2.16	0.45
1:C:791:PHE:HB2	1:C:1626:TRP:HB3	1.99	0.45
1:C:1457:TYR:C	1:C:1458:HIS:CG	2.90	0.45
1:C:3793:MET:O	1:C:3797:THR:HG23	2.16	0.45
1:C:3817:LEU:HD13	1:C:3899:PHE:HD1	1.82	0.45
1:C:3825:GLU:OE2	1:C:3828:PHE:HB2	2.16	0.45
1:C:4963:ILE:HD12	1:C:5027:CYS:HB3	1.97	0.45
1:C:5017:ARG:HB3	1:C:5019:TRP:CZ3	2.51	0.45
1:E:404:ILE:HG12	1:E:478:PHE:CE1	2.52	0.45
1:E:765:GLN:HG3	1:E:1479:GLU:N	2.32	0.45
1:E:1261:ASP:HB2	1:E:1595:LEU:HD13	1.98	0.45
1:E:2071:ARG:O	1:E:2072:LEU:HG	2.16	0.45
1:E:4655:PHE:O	1:E:4659:ILE:HG12	2.16	0.45
1:E:4922:PHE:HA	1:E:4926:VAL:HB	1.98	0.45
1:G:1211:LEU:HB3	1:G:1213:PHE:CE2	2.52	0.45
1:G:1721:GLU:O	1:G:1725:ARG:HG2	2.16	0.45
1:G:2917:ALA:HA	1:G:2920:ARG:HB3	1.99	0.45
1:G:4175:ARG:N	1:G:4176:PRO:CD	2.80	0.45
1:A:111:HIS:NE2	1:A:113:HIS:HB3	2.32	0.45
1:A:1091:GLU:HG2	1:A:1213:PHE:CD1	2.52	0.45
1:A:1712:TYR:O	1:A:1716:ILE:HG12	2.17	0.45
1:A:1737:PRO:HB2	1:A:1739:THR:HG23	1.98	0.45
1:A:4583:SER:H	1:A:4628:VAL:HB	1.82	0.45
1:A:4826:ILE:O	1:A:4829:SER:HB2	2.17	0.45
1:C:221:ARG:HG3	1:C:259:LEU:HD23	1.98	0.45
1:C:308:HIS:CE1	1:C:310:LYS:HB2	2.51	0.45
1:C:479:GLN:HE22	1:C:484:LEU:HD22	1.81	0.45
1:C:1211:LEU:HB3	1:C:1213:PHE:CE2	2.52	0.45
1:C:1295:VAL:HG12	1:C:1580:PHE:HE1	1.82	0.45
1:C:2862:LEU:HD21	1:C:2929:PHE:CD1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1547:LYS:HZ3	1:E:1645:ASN:HB2	1.81	0.45
1:E:2299:VAL:HG11	1:E:2356:LEU:HB2	1.98	0.45
1:G:1089:TYR:CE2	1:G:1091:GLU:OE2	2.70	0.45
1:G:1547:LYS:O	1:G:1548:LEU:HD12	2.17	0.45
1:G:1667:LEU:HG	1:G:1714:LEU:HD11	1.98	0.45
1:G:1690:ASP:OD1	2:H:41:ASP:HB3	2.17	0.45
1:G:4648:LEU:HD23	1:G:4803:HIS:NE2	2.32	0.45
1:A:404:ILE:HG12	1:A:478:PHE:CE1	2.52	0.45
1:A:758:ARG:NH1	1:A:763:PRO:HG3	2.31	0.45
1:A:1152:MET:HB3	1:A:1161:ILE:O	2.17	0.45
1:A:2359:ARG:C	1:A:2360:LYS:HG3	2.37	0.45
1:C:404:ILE:HG12	1:C:478:PHE:CE1	2.52	0.45
1:C:639:ASN:OD1	1:C:640:TYR:N	2.49	0.45
1:C:716:PHE:N	1:C:738:LEU:HD13	2.32	0.45
1:C:1297:PHE:CD2	1:C:1545:ASN:HA	2.51	0.45
1:C:2071:ARG:O	1:C:2072:LEU:HG	2.16	0.45
1:C:2349:ASN:O	1:C:2353:VAL:HG23	2.16	0.45
1:C:2452:ARG:NH2	1:E:174:VAL:O	2.48	0.45
1:C:4205:TRP:HZ2	1:C:4214:LYS:HD3	1.82	0.45
1:C:4583:SER:H	1:C:4628:VAL:HB	1.81	0.45
1:E:1079:LYS:HG3	1:E:1237:TRP:HZ3	1.80	0.45
1:E:2204:HIS:O	1:E:2208:MET:N	2.42	0.45
1:E:3793:MET:O	1:E:3797:THR:HG23	2.16	0.45
1:G:215:THR:HA	1:G:273:HIS:HA	1.99	0.45
1:G:235:ALA:HB2	1:G:257:ARG:NH1	2.31	0.45
1:G:667:MET:HG2	1:G:743:VAL:HG22	1.99	0.45
1:G:1621:GLY:HA2	1:G:1628:VAL:HA	1.98	0.45
1:G:2761:TYR:CE2	1:G:2862:LEU:HD22	2.52	0.45
1:G:4826:ILE:O	1:G:4829:SER:HB2	2.16	0.45
1:A:1089:TYR:CE2	1:A:1091:GLU:OE2	2.70	0.45
1:A:1297:PHE:CD2	1:A:1545:ASN:HA	2.52	0.45
1:A:1728:ARG:O	1:A:1731:LEU:HB3	2.17	0.45
1:A:1778:SER:N	1:A:1799:SER:O	2.36	0.45
1:A:2066:LEU:O	1:A:2070:VAL:HG23	2.17	0.45
1:A:2735:PHE:HE1	1:A:2907:PRO:HG3	1.80	0.45
1:A:4238:CYS:O	1:A:4242:ILE:HG13	2.17	0.45
1:C:178:ARG:HG2	1:C:195:PHE:CD1	2.52	0.45
1:C:526:LEU:O	1:C:530:ILE:HG13	2.16	0.45
1:C:669:ASP:OD2	1:C:790:ARG:HB2	2.17	0.45
1:C:876:GLU:O	1:C:880:GLU:HG3	2.16	0.45
1:C:1101:ARG:HB2	1:C:1193:SER:OG	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:42:PHE:HA	1:E:447:ASP:OD2	2.16	0.45
1:E:584:LYS:HZ1	1:E:1586:ASN:HD21	1.63	0.45
1:E:600:LEU:HD21	1:E:1666:THR:HG22	1.99	0.45
1:E:1211:LEU:HB3	1:E:1213:PHE:CE2	2.52	0.45
1:E:1690:ASP:OD1	2:F:41:ASP:HB3	2.16	0.45
1:E:1712:TYR:O	1:E:1716:ILE:HG12	2.17	0.45
1:E:2495:VAL:HA	1:E:2498:HIS:HD2	1.81	0.45
1:E:4826:ILE:HG21	1:G:4931:ILE:HD11	1.86	0.45
1:E:4889:VAL:HG22	1:E:4892:ARG:NH2	2.31	0.45
1:G:42:PHE:HA	1:G:447:ASP:OD2	2.17	0.45
1:G:639:ASN:OD1	1:G:640:TYR:N	2.49	0.45
1:G:830:ARG:NH1	1:G:1612:PHE:CE2	2.85	0.45
1:G:1616:GLU:O	1:G:1634:LEU:HD11	2.17	0.45
1:G:1848:LEU:HD11	1:G:1853:ILE:HD12	1.98	0.45
1:G:2071:ARG:O	1:G:2072:LEU:HG	2.16	0.45
1:G:3102:ASP:O	1:G:3106:MET:N	2.49	0.45
1:G:3695:PRO:HB2	1:G:3700:GLN:HE21	1.82	0.45
1:G:4721:LYS:HZ3	1:G:4741:LEU:HD22	1.82	0.45
1:A:255:HIS:NE2	1:A:480:GLU:OE2	2.50	0.45
1:A:1255:TYR:CE1	1:A:1287:LEU:HD11	2.52	0.45
1:A:1770:SER:OG	1:A:1771:LEU:N	2.49	0.45
1:A:2867:LEU:CD1	1:A:2924:GLN:HG2	2.47	0.45
1:C:277:GLY:H	1:C:315:CYS:HG	1.63	0.45
1:C:622:THR:O	1:C:627:PRO:HD3	2.17	0.45
1:C:629:ARG:HB3	1:C:634:GLN:OE1	2.17	0.45
1:C:1089:TYR:CE2	1:C:1091:GLU:OE2	2.70	0.45
1:C:4154:VAL:HA	1:C:4155:PRO:HD2	1.82	0.45
1:C:4778:TRP:O	1:C:4782:VAL:HG23	2.16	0.45
1:C:4913:ARG:O	1:C:4916:PHE:HB3	2.17	0.45
2:D:67:SER:O	2:D:103:LEU:HD23	2.17	0.45
1:E:178:ARG:HG2	1:E:195:PHE:CD1	2.52	0.45
1:E:689:THR:OG1	1:E:690:GLU:N	2.50	0.45
1:E:3995:VAL:O	1:E:3999:MET:HB3	2.16	0.45
1:E:4205:TRP:HZ2	1:E:4214:LYS:HD3	1.82	0.45
1:E:4826:ILE:O	1:E:4829:SER:HB2	2.17	0.45
1:E:4865:LYS:NZ	1:E:4876:CYS:N	2.65	0.45
1:G:110:ARG:HH11	1:G:115:ARG:HB3	1.82	0.45
1:G:716:PHE:N	1:G:738:LEU:HD13	2.32	0.45
1:G:1182:ILE:HD12	1:G:1188:PHE:CE2	2.51	0.45
1:G:1255:TYR:CE1	1:G:1287:LEU:HD11	2.52	0.45
1:G:1533:GLY:C	1:G:1534:LYS:HD2	2.38	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1662:PHE:O	1:G:1666:THR:HG23	2.17	0.45
1:G:2116:LEU:O	1:G:2120:MET:HG3	2.17	0.45
1:G:4666:VAL:HG13	1:G:4783:ILE:HG12	1.99	0.45
1:G:4799:SER:OG	1:G:4812:HIS:NE2	2.31	0.45
1:G:4978:HIS:HA	1:G:4982:GLU:CG	2.46	0.45
2:H:38:SER:HB3	2:H:41:ASP:CG	2.37	0.45
1:A:42:PHE:HA	1:A:447:ASP:OD2	2.17	0.44
1:A:552:ASP:HB3	1:A:1594:ARG:NH1	2.32	0.44
1:A:568:LEU:HD22	1:A:575:LEU:HD23	2.00	0.44
1:A:1107:PRO:HB2	1:A:1186:ASP:OD2	2.17	0.44
1:A:1292:SER:OG	1:A:1598:GLN:O	2.23	0.44
1:A:2248:ARG:O	1:A:2251:PHE:HB3	2.17	0.44
1:A:4720:VAL:O	1:A:4724:VAL:HG23	2.17	0.44
1:A:4974:GLY:O	1:A:4977:THR:OG1	2.27	0.44
1:C:235:ALA:HB2	1:C:257:ARG:NH1	2.32	0.44
1:C:552:ASP:HB3	1:C:1594:ARG:NH1	2.32	0.44
1:C:765:GLN:HG3	1:C:1479:GLU:N	2.32	0.44
1:C:1662:PHE:O	1:C:1666:THR:HG23	2.17	0.44
1:C:1728:ARG:O	1:C:1731:LEU:HB3	2.17	0.44
1:C:1962:ALA:O	1:C:1966:VAL:HG23	2.16	0.44
1:C:3775:ALA:HA	1:C:3778:MET:HG2	1.99	0.44
1:C:4937:ILE:HG12	1:E:4934:GLY:HA3	1.97	0.44
1:E:19:GLU:HB2	1:E:205:ILE:HB	1.99	0.44
1:E:215:THR:HA	1:E:273:HIS:HA	1.99	0.44
1:E:649:PHE:HE1	1:E:689:THR:HG22	1.82	0.44
1:E:830:ARG:NH1	1:E:1612:PHE:CE2	2.85	0.44
1:E:1139:PHE:CE1	1:E:1169:LEU:HD11	2.51	0.44
1:E:1226:PHE:HA	1:E:1229:ASN:HD22	1.81	0.44
1:E:1616:GLU:O	1:E:1634:LEU:HD11	2.17	0.44
1:E:1721:GLU:O	1:E:1725:ARG:HG2	2.16	0.44
1:E:1738:LEU:HB2	1:E:2146:PRO:HD3	1.98	0.44
1:E:2248:ARG:O	1:E:2251:PHE:HB3	2.17	0.44
1:E:3958:ALA:O	1:E:3961:VAL:HG12	2.17	0.44
1:G:668:VAL:HB	1:G:740:PRO:HA	1.99	0.44
1:G:689:THR:OG1	1:G:690:GLU:N	2.50	0.44
1:G:1107:PRO:HB2	1:G:1186:ASP:OD2	2.18	0.44
1:G:4197:ILE:HD13	1:G:4202:ARG:HD3	1.99	0.44
1:G:4555:LEU:HD11	1:G:4656:LEU:HG	1.99	0.44
1:A:215:THR:HA	1:A:273:HIS:HA	1.99	0.44
1:A:495:ASN:ND2	1:A:550:LYS:HD2	2.32	0.44
1:A:622:THR:O	1:A:627:PRO:HD3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:830:ARG:NH1	1:A:1612:PHE:CE2	2.85	0.44
1:A:1295:VAL:HG12	1:A:1580:PHE:HE1	1.82	0.44
1:A:1616:GLU:O	1:A:1634:LEU:HD11	2.17	0.44
1:A:1735:ILE:HD11	1:A:2156:LEU:HD11	1.99	0.44
1:A:2802:LYS:O	1:A:2806:ARG:HG3	2.17	0.44
1:A:3825:GLU:OE2	1:A:3828:PHE:HB2	2.17	0.44
1:A:4175:ARG:N	1:A:4176:PRO:CD	2.80	0.44
2:B:67:SER:O	2:B:103:LEU:HD23	2.17	0.44
1:C:26:ALA:O	1:C:33:LEU:N	2.50	0.44
1:C:66:CYS:HB2	1:C:112:ALA:CB	2.47	0.44
1:C:215:THR:HA	1:C:273:HIS:HA	2.00	0.44
1:C:521:LEU:O	1:C:525:LEU:N	2.46	0.44
1:C:1091:GLU:HG2	1:C:1213:PHE:CD1	2.52	0.44
1:C:1261:ASP:HB2	1:C:1595:LEU:HD13	1.98	0.44
1:C:2735:PHE:HD2	1:C:2891:LYS:HD2	1.82	0.44
1:E:308:HIS:CE1	1:E:310:LYS:HB2	2.52	0.44
1:E:1255:TYR:CE1	1:E:1287:LEU:HD11	2.52	0.44
1:E:3963:ASN:O	1:E:3966:THR:OG1	2.24	0.44
1:E:4150:LEU:O	1:E:4154:VAL:N	2.29	0.44
1:E:4978:HIS:HA	1:E:4982:GLU:CG	2.46	0.44
1:G:265:LEU:HD22	1:G:281:ARG:NH2	2.33	0.44
1:G:622:THR:O	1:G:627:PRO:HD3	2.17	0.44
1:G:1712:TYR:O	1:G:1716:ILE:HG12	2.17	0.44
1:G:2359:ARG:C	1:G:2360:LYS:HG3	2.37	0.44
1:G:3778:MET:HG3	1:G:3779:VAL:N	2.32	0.44
1:G:3780:LEU:HG	1:G:3828:PHE:CE1	2.51	0.44
1:G:4909:TYR:O	1:G:4913:ARG:N	2.51	0.44
2:H:25:HIS:CD2	2:H:104:LEU:HD11	2.52	0.44
1:A:1018:ASN:O	1:A:1021:LEU:HG	2.18	0.44
1:A:1024:TYR:CZ	1:A:1032:LYS:HG3	2.52	0.44
1:A:4666:VAL:HB	1:A:4667:PRO:HD3	1.99	0.44
1:C:649:PHE:HE1	1:C:689:THR:HG22	1.81	0.44
1:C:2802:LYS:O	1:C:2806:ARG:HG3	2.17	0.44
1:C:2927:LEU:HD22	1:C:2937:VAL:HG11	1.99	0.44
1:C:3781:GLN:O	1:C:3784:SER:OG	2.21	0.44
1:C:4175:ARG:N	1:C:4176:PRO:CD	2.81	0.44
1:E:265:LEU:HD22	1:E:281:ARG:NH2	2.32	0.44
1:E:874:LEU:HA	1:E:877:ASN:HB3	1.99	0.44
1:E:1662:PHE:O	1:E:1666:THR:HG23	2.17	0.44
1:E:2359:ARG:C	1:E:2360:LYS:HG3	2.37	0.44
1:E:3882:GLN:HE22	1:E:3956:SER:HB3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4967:TYR:OH	1:E:5030:LYS:HA	2.18	0.44
1:G:580:GLU:HG3	1:G:620:LEU:HD12	1.98	0.44
1:G:589:LEU:HG	1:G:593:HIS:CD2	2.47	0.44
1:G:1018:ASN:O	1:G:1021:LEU:HG	2.18	0.44
1:G:1738:LEU:N	1:G:2144:ILE:O	2.47	0.44
1:G:3805:LEU:HB2	1:G:3890:LEU:HD23	1.99	0.44
1:A:595:ARG:HH12	1:A:1641:ILE:HD13	1.82	0.44
1:A:597:HIS:HB3	1:A:1665:HIS:CD2	2.53	0.44
1:A:1101:ARG:HB2	1:A:1193:SER:OG	2.17	0.44
1:C:371:VAL:HG22	1:C:373:LYS:H	1.81	0.44
1:C:497:TYR:HB2	1:C:506:TYR:CE1	2.53	0.44
1:C:3958:ALA:O	1:C:3961:VAL:HG12	2.17	0.44
2:D:16:PRO:HG2	2:D:63:VAL:HG12	2.00	0.44
1:E:622:THR:O	1:E:627:PRO:HD3	2.18	0.44
1:E:1547:LYS:HZ1	1:E:1645:ASN:HB2	1.82	0.44
1:E:4175:ARG:N	1:E:4176:PRO:CD	2.81	0.44
1:E:4666:VAL:HB	1:E:4667:PRO:HD3	1.99	0.44
1:G:1226:PHE:HA	1:G:1229:ASN:HD22	1.81	0.44
1:G:1295:VAL:HG12	1:G:1580:PHE:HE1	1.82	0.44
1:G:2103:VAL:O	1:G:2107:GLN:HG3	2.17	0.44
1:G:2326:CYS:O	1:G:2329:GLU:HG2	2.16	0.44
1:G:2893:GLU:HG2	1:G:2897:LYS:NZ	2.32	0.44
1:A:26:ALA:O	1:A:33:LEU:N	2.50	0.44
1:A:669:ASP:OD2	1:A:790:ARG:HB2	2.17	0.44
1:A:791:PHE:HB2	1:A:1626:TRP:HB3	1.99	0.44
1:A:1849:LEU:HD13	1:A:1854:PHE:HD2	1.83	0.44
1:A:2116:LEU:O	1:A:2120:MET:HG3	2.18	0.44
1:A:3980:LEU:HD21	1:A:3985:LEU:HD13	2.00	0.44
1:A:5000:GLU:HA	1:A:5003:HIS:CE1	2.52	0.44
1:C:874:LEU:HA	1:C:877:ASN:HB3	1.99	0.44
1:C:4655:PHE:O	1:C:4659:ILE:HG12	2.16	0.44
1:C:4671:PHE:HE1	1:C:4715:TYR:HA	1.83	0.44
1:C:4967:TYR:OH	1:C:5030:LYS:HA	2.18	0.44
1:E:66:CYS:HB2	1:E:112:ALA:CB	2.48	0.44
1:E:765:GLN:HB3	1:E:1477:GLY:H	1.83	0.44
1:E:1024:TYR:CZ	1:E:1032:LYS:HG3	2.52	0.44
1:E:1182:ILE:HD12	1:E:1188:PHE:CE2	2.51	0.44
1:E:1737:PRO:HB2	1:E:1739:THR:HG23	1.99	0.44
1:E:2152:THR:HG22	1:E:2190:VAL:HG11	2.00	0.44
1:E:3781:GLN:O	1:E:3784:SER:OG	2.21	0.44
2:F:27:THR:HA	2:F:38:SER:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:178:ARG:HG2	1:G:195:PHE:CD1	2.52	0.44
1:G:308:HIS:CE1	1:G:310:LYS:HB2	2.51	0.44
1:G:371:VAL:HG22	1:G:373:LYS:H	1.81	0.44
1:G:552:ASP:HB3	1:G:1594:ARG:NH1	2.32	0.44
1:G:629:ARG:HB3	1:G:634:GLN:OE1	2.17	0.44
1:G:1101:ARG:HB2	1:G:1193:SER:OG	2.17	0.44
1:G:1214:PHE:CZ	1:G:1219:LEU:HB2	2.53	0.44
1:G:1261:ASP:HB2	1:G:1595:LEU:HD13	1.98	0.44
1:G:3835:LEU:HD21	1:G:3880:PHE:CZ	2.53	0.44
1:G:4024:VAL:O	1:G:4028:LEU:N	2.37	0.44
1:A:22:LEU:HB3	1:A:200:TRP:CE3	2.53	0.44
1:A:24:CYS:SG	1:A:182:LEU:HD13	2.57	0.44
1:A:205:ILE:HG22	1:A:271:GLY:HA3	1.99	0.44
1:A:242:ARG:HE	1:A:287:THR:HG22	1.82	0.44
1:A:689:THR:OG1	1:A:690:GLU:N	2.50	0.44
1:A:2452:ARG:NH2	1:C:174:VAL:O	2.49	0.44
1:A:3761:GLN:CD	1:A:4722:ARG:HH12	2.20	0.44
1:A:3780:LEU:HD22	1:A:3819:TYR:CD2	2.53	0.44
1:A:3882:GLN:HE22	1:A:3956:SER:HB3	1.82	0.44
1:A:4205:TRP:HZ2	1:A:4214:LYS:HD3	1.82	0.44
1:C:242:ARG:HE	1:C:287:THR:HG22	1.83	0.44
1:C:265:LEU:HD22	1:C:281:ARG:NH2	2.33	0.44
1:C:1214:PHE:CZ	1:C:1219:LEU:HB2	2.53	0.44
1:C:1738:LEU:HB2	1:C:2146:PRO:HD3	1.98	0.44
1:C:2114:PRO:O	1:C:2116:LEU:N	2.45	0.44
1:C:2359:ARG:C	1:C:2360:LYS:HG3	2.37	0.44
1:C:4826:ILE:O	1:C:4829:SER:HB2	2.18	0.44
2:D:21:THR:HB	2:D:107:GLU:HB2	2.00	0.44
1:E:242:ARG:HE	1:E:287:THR:HG22	1.83	0.44
1:E:495:ASN:ND2	1:E:550:LYS:HD2	2.32	0.44
1:E:497:TYR:HB2	1:E:506:TYR:CE1	2.53	0.44
1:E:552:ASP:HB3	1:E:1594:ARG:NH1	2.32	0.44
1:E:1089:TYR:CE2	1:E:1091:GLU:OE2	2.70	0.44
1:E:2060:SER:HA	1:E:2063:LEU:HD12	1.98	0.44
1:E:4720:VAL:O	1:E:4724:VAL:HG23	2.17	0.44
1:E:4928:LEU:HA	1:E:4931:ILE:HG22	1.99	0.44
1:G:438:ILE:HG23	1:G:518:ILE:HD11	2.00	0.44
1:G:568:LEU:HD22	1:G:575:LEU:HD23	2.00	0.44
1:G:597:HIS:HB3	1:G:1665:HIS:CD2	2.53	0.44
1:G:791:PHE:HB2	1:G:1626:TRP:HB3	1.99	0.44
1:G:2060:SER:HA	1:G:2063:LEU:HD12	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4041:ALA:O	1:G:4044:MET:HG2	2.17	0.44
1:G:4645:CYS:O	1:G:4649:LEU:N	2.46	0.44
1:G:4791:TYR:HD2	1:G:4792:LEU:HD12	1.83	0.44
1:A:178:ARG:HG2	1:A:195:PHE:CD1	2.52	0.44
1:A:294:THR:O	1:A:298:GLY:N	2.51	0.44
1:A:395:GLN:NE2	1:A:399:GLN:HB2	2.32	0.44
1:A:589:LEU:HG	1:A:593:HIS:CD2	2.47	0.44
1:A:600:LEU:HD21	1:A:1666:THR:HG22	1.99	0.44
1:A:3817:LEU:HD13	1:A:3899:PHE:HD1	1.83	0.44
1:C:830:ARG:NH1	1:C:1612:PHE:CE2	2.85	0.44
1:C:1255:TYR:CE1	1:C:1287:LEU:HD11	2.52	0.44
1:C:1716:ILE:HD13	1:C:1720:LEU:HD12	2.00	0.44
1:C:1737:PRO:HB2	1:C:1739:THR:HG23	1.99	0.44
1:C:2920:ARG:O	1:C:2924:GLN:HG3	2.18	0.44
1:C:4045:VAL:HG22	1:C:4160:LEU:HD22	2.00	0.44
1:C:4666:VAL:HB	1:C:4667:PRO:HD3	2.00	0.44
1:C:4865:LYS:NZ	1:C:4876:CYS:N	2.66	0.44
1:C:5013:MET:O	1:C:5017:ARG:N	2.51	0.44
1:E:706:GLY:CA	1:E:711:LEU:HD22	2.42	0.44
1:E:1738:LEU:N	1:E:2144:ILE:O	2.48	0.44
1:E:2116:LEU:O	1:E:2120:MET:HG3	2.17	0.44
1:E:2735:PHE:HD2	1:E:2891:LYS:HD2	1.82	0.44
1:E:3838:THR:OG1	1:E:3839:CYS:N	2.51	0.44
1:E:4913:ARG:O	1:E:4916:PHE:HB3	2.17	0.44
1:E:5013:MET:O	1:E:5017:ARG:N	2.51	0.44
2:F:16:PRO:HG2	2:F:63:VAL:HG12	2.00	0.44
1:G:66:CYS:HB2	1:G:112:ALA:CB	2.47	0.44
1:G:465:GLN:NE2	1:G:3712:GLU:OE1	2.50	0.44
1:G:497:TYR:HB2	1:G:506:TYR:CE1	2.53	0.44
1:G:1728:ARG:O	1:G:1731:LEU:HB3	2.17	0.44
1:G:2107:GLN:HE21	1:G:3679:LYS:HB2	1.83	0.44
1:G:2470:ILE:O	1:G:2474:LEU:N	2.40	0.44
1:A:19:GLU:HB2	1:A:205:ILE:HB	1.99	0.44
1:A:265:LEU:HD22	1:A:281:ARG:NH2	2.32	0.44
1:A:497:TYR:HB2	1:A:506:TYR:CE1	2.53	0.44
1:A:1436:SER:CA	1:A:1516:ILE:HA	2.48	0.44
1:A:1457:TYR:O	1:A:1458:HIS:CG	2.70	0.44
1:A:4864:ASN:CG	1:A:4875:LYS:HZ2	2.21	0.44
1:C:1182:ILE:HD12	1:C:1188:PHE:CE2	2.51	0.44
1:C:1586:ASN:O	1:C:1588:ALA:N	2.43	0.44
1:C:2066:LEU:O	1:C:2070:VAL:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2748:PRO:HD2	1:C:2751:LEU:HD12	2.00	0.44
1:C:3780:LEU:HD22	1:C:3819:TYR:CD2	2.53	0.44
1:E:568:LEU:HD22	1:E:575:LEU:HD23	2.00	0.44
1:E:1091:GLU:HG2	1:E:1213:PHE:CD1	2.52	0.44
1:E:1101:ARG:HB2	1:E:1193:SER:OG	2.17	0.44
1:E:1214:PHE:CZ	1:E:1219:LEU:HB2	2.53	0.44
1:E:1728:ARG:O	1:E:1731:LEU:HB3	2.17	0.44
1:G:19:GLU:HB2	1:G:205:ILE:HB	1.99	0.44
1:G:543:ASN:O	1:G:546:TRP:HB3	2.18	0.44
1:G:745:SER:OG	1:G:758:ARG:HB2	2.18	0.44
1:G:765:GLN:HG3	1:G:1479:GLU:N	2.32	0.44
1:G:3710:LEU:HD23	1:G:3710:LEU:HA	1.83	0.44
1:G:3825:GLU:C	1:G:3827:GLY:H	2.19	0.44
1:A:438:ILE:HG23	1:A:518:ILE:HD11	2.00	0.44
1:A:745:SER:OG	1:A:758:ARG:HB2	2.18	0.44
1:A:827:LYS:HG2	1:A:1073:ARG:NH2	2.33	0.44
1:A:2121:PHE:O	1:A:3725:TYR:OH	2.27	0.44
1:A:2735:PHE:HD2	1:A:2891:LYS:HD2	1.82	0.44
1:A:2917:ALA:HA	1:A:2920:ARG:HB3	2.00	0.44
1:A:3775:ALA:HA	1:A:3778:MET:HG2	2.00	0.44
1:A:5022:PHE:HA	1:A:5023:PRO:HD3	1.87	0.44
1:C:294:THR:O	1:C:298:GLY:N	2.51	0.44
1:C:597:HIS:HB3	1:C:1665:HIS:CD2	2.53	0.44
1:C:1690:ASP:OD1	2:D:41:ASP:HB3	2.17	0.44
2:D:27:THR:HA	2:D:38:SER:HA	2.00	0.44
1:E:275:ARG:HB2	1:E:338:GLU:OE1	2.18	0.44
1:E:706:GLY:O	1:E:725:HIS:N	2.37	0.44
1:E:765:GLN:HG3	1:E:1479:GLU:H	1.83	0.44
1:E:1295:VAL:HG12	1:E:1580:PHE:HE1	1.82	0.44
1:E:2045:GLN:O	1:E:2064:ARG:NH2	2.40	0.44
1:E:4855:ALA:HB1	1:E:4863:TYR:CE2	2.53	0.44
1:G:22:LEU:HB3	1:G:200:TRP:CE3	2.53	0.44
1:G:600:LEU:HD21	1:G:1666:THR:HG22	1.99	0.44
1:G:639:ASN:HD21	1:G:785:ALA:HB2	1.83	0.44
1:G:874:LEU:HA	1:G:877:ASN:HB3	1.99	0.44
1:G:1660:GLN:HG3	1:G:1707:LEU:HD11	2.00	0.44
2:H:67:SER:O	2:H:103:LEU:HD23	2.18	0.44
1:A:66:CYS:HB2	1:A:112:ALA:CB	2.48	0.43
1:A:1182:ILE:HD12	1:A:1188:PHE:CE2	2.51	0.43
1:A:3761:GLN:NE2	1:A:4722:ARG:HH22	2.16	0.43
1:A:3958:ALA:O	1:A:3961:VAL:HG12	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4865:LYS:NZ	1:A:4876:CYS:N	2.66	0.43
1:C:205:ILE:HG22	1:C:271:GLY:HA3	2.00	0.43
1:C:1106:ARG:HG2	1:C:1188:PHE:CD1	2.53	0.43
1:C:2251:PHE:CG	1:C:2286:LEU:HD22	2.53	0.43
1:C:2917:ALA:HA	1:C:2920:ARG:HB3	2.00	0.43
1:C:3371:LYS:HA	1:C:3374:ALA:HB3	2.00	0.43
1:C:4238:CYS:O	1:C:4242:ILE:HG13	2.17	0.43
1:C:4710:SER:O	1:C:4713:SER:OG	2.28	0.43
1:E:548:VAL:HG21	1:E:582:HIS:HB3	2.00	0.43
1:E:1849:LEU:HD13	1:E:1854:PHE:HD2	1.83	0.43
1:E:2066:LEU:O	1:E:2070:VAL:HG23	2.17	0.43
1:E:4188:ARG:HD3	1:E:4188:ARG:HA	1.86	0.43
1:E:4208:PRO:HB2	1:E:4209:GLN:H	1.59	0.43
1:E:4235:VAL:HG21	1:E:5019:TRP:HE1	1.81	0.43
1:E:4822:THR:O	1:E:4825:THR:OG1	2.26	0.43
1:G:1440:PHE:HD2	1:G:1560:ASN:HB3	1.83	0.43
1:G:1710:GLY:O	1:G:1714:LEU:HG	2.18	0.43
1:G:2251:PHE:CG	1:G:2286:LEU:HD22	2.53	0.43
1:G:4928:LEU:O	1:G:4931:ILE:HG22	2.18	0.43
1:A:275:ARG:HB2	1:A:338:GLU:OE1	2.18	0.43
1:A:543:ASN:O	1:A:546:TRP:HB3	2.19	0.43
1:A:649:PHE:HE1	1:A:689:THR:HG22	1.81	0.43
1:A:2142:TYR:HD2	1:A:2197:LEU:HD12	1.83	0.43
1:A:3817:LEU:HD13	1:A:3899:PHE:CD1	2.53	0.43
1:A:4715:TYR:CD2	1:A:4717:ASP:HB3	2.53	0.43
1:A:4879:MET:HG2	1:G:4578:LEU:O	2.17	0.43
1:A:4922:PHE:HA	1:A:4926:VAL:HB	1.99	0.43
2:B:21:THR:HB	2:B:107:GLU:HB2	2.00	0.43
1:C:42:PHE:HA	1:C:447:ASP:OD2	2.17	0.43
1:C:1455:PRO:HG2	1:C:1547:LYS:HE3	2.00	0.43
1:C:1966:VAL:HG21	1:C:3650:CYS:SG	2.58	0.43
1:C:3761:GLN:CD	1:C:4722:ARG:HH12	2.20	0.43
1:C:3882:GLN:HE22	1:C:3956:SER:HB3	1.82	0.43
1:E:22:LEU:HB3	1:E:200:TRP:CE3	2.53	0.43
1:E:294:THR:O	1:E:298:GLY:N	2.51	0.43
1:E:1018:ASN:O	1:E:1021:LEU:HG	2.17	0.43
1:E:1252:HIS:HD2	1:E:1255:TYR:HD2	1.66	0.43
1:E:1547:LYS:O	1:E:1548:LEU:HD12	2.17	0.43
1:E:2917:ALA:HA	1:E:2920:ARG:HB3	2.00	0.43
1:E:2924:GLN:HG2	1:E:2928:LYS:HE2	2.00	0.43
1:E:4238:CYS:O	1:E:4242:ILE:HG13	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1737:PRO:HB2	1:G:1739:THR:HG23	1.99	0.43
1:G:2152:THR:HG22	1:G:2190:VAL:HG11	2.00	0.43
1:G:2248:ARG:O	1:G:2251:PHE:HB3	2.17	0.43
1:A:1115:LEU:HD11	1:A:1191:VAL:HG11	2.00	0.43
1:A:1254:HIS:NE2	1:A:1280:GLN:HB3	2.34	0.43
1:A:2060:SER:HA	1:A:2063:LEU:HD12	1.99	0.43
1:A:3716:LEU:HB3	1:A:3789:GLU:OE1	2.18	0.43
1:C:116:MET:HE2	1:C:139:GLU:HG2	1.99	0.43
1:C:438:ILE:HG23	1:C:518:ILE:HD11	2.00	0.43
1:C:1018:ASN:O	1:C:1021:LEU:HG	2.18	0.43
1:C:1735:ILE:HD11	1:C:2156:LEU:HD11	1.99	0.43
1:E:24:CYS:HB2	1:E:200:TRP:CZ3	2.54	0.43
1:E:110:ARG:HH11	1:E:115:ARG:HE	1.65	0.43
1:E:827:LYS:HG2	1:E:1073:ARG:NH2	2.33	0.43
1:E:1440:PHE:HD2	1:E:1560:ASN:HB3	1.83	0.43
1:E:1710:GLY:O	1:E:1714:LEU:HG	2.18	0.43
1:E:4055:VAL:O	1:E:4058:ILE:HG13	2.18	0.43
2:F:21:THR:HB	2:F:107:GLU:HB2	2.00	0.43
1:G:26:ALA:O	1:G:33:LEU:N	2.50	0.43
1:G:829:TYR:HA	1:G:1073:ARG:HH12	1.82	0.43
1:G:875:ALA:HB1	1:G:922:LEU:HB2	2.00	0.43
1:G:1110:ARG:HD2	1:G:1113:VAL:HG23	2.00	0.43
1:G:4697:VAL:C	1:G:4700:GLN:H	2.21	0.43
1:G:4721:LYS:NZ	1:G:4741:LEU:HD22	2.33	0.43
1:A:882:TRP:HH2	1:A:906:CYS:HB2	1.83	0.43
1:A:4931:ILE:CD1	1:G:4826:ILE:CG2	2.97	0.43
1:C:495:ASN:ND2	1:C:550:LYS:HD2	2.32	0.43
1:C:568:LEU:HD22	1:C:575:LEU:HD23	2.00	0.43
1:C:2152:THR:HG22	1:C:2190:VAL:HG11	2.00	0.43
1:C:4822:THR:O	1:C:4825:THR:OG1	2.23	0.43
1:E:26:ALA:O	1:E:33:LEU:N	2.51	0.43
1:E:102:LEU:HB2	1:E:105:HIS:HD2	1.83	0.43
1:E:2452:ARG:NH2	1:G:174:VAL:O	2.51	0.43
1:E:3716:LEU:HB3	1:E:3789:GLU:OE1	2.18	0.43
1:E:3817:LEU:HD13	1:E:3899:PHE:CD1	2.53	0.43
1:G:132:ALA:HB1	1:G:193:ALA:O	2.19	0.43
1:G:736:HIS:HE1	1:G:739:ALA:HB3	1.83	0.43
1:G:2114:PRO:O	1:G:2116:LEU:N	2.43	0.43
1:G:2816:MET:O	1:G:2820:GLU:N	2.51	0.43
1:G:4928:LEU:O	1:G:4932:ILE:HD12	2.17	0.43
1:A:521:LEU:O	1:A:525:LEU:N	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2496:PRO:HB3	1:A:2553:TYR:CZ	2.53	0.43
1:A:2927:LEU:HD22	1:A:2937:VAL:HG11	2.00	0.43
1:A:4967:TYR:OH	1:A:5030:LYS:HA	2.18	0.43
2:B:73:LYS:HA	2:B:99:PHE:O	2.18	0.43
1:C:548:VAL:HG21	1:C:582:HIS:HB3	2.01	0.43
1:C:564:LEU:O	1:C:568:LEU:HG	2.19	0.43
1:C:827:LYS:HG2	1:C:1073:ARG:NH2	2.33	0.43
1:C:1247:PRO:HB3	1:C:1600:LEU:HD13	2.00	0.43
1:C:1547:LYS:O	1:C:1548:LEU:HD12	2.17	0.43
1:C:1616:GLU:O	1:C:1634:LEU:HD11	2.17	0.43
1:C:1710:GLY:O	1:C:1714:LEU:HG	2.18	0.43
1:C:2116:LEU:O	1:C:2120:MET:HG3	2.18	0.43
1:C:2295:LEU:HD13	1:C:2353:VAL:HG22	2.01	0.43
1:C:3817:LEU:HD13	1:C:3899:PHE:CD1	2.53	0.43
1:E:132:ALA:HB1	1:E:193:ALA:O	2.19	0.43
1:E:669:ASP:OD2	1:E:790:ARG:HB2	2.18	0.43
1:E:882:TRP:HH2	1:E:906:CYS:HB2	1.83	0.43
1:E:2251:PHE:CG	1:E:2286:LEU:HD22	2.53	0.43
1:E:4688:ILE:HG21	1:E:4728:HIS:HB3	2.01	0.43
1:G:205:ILE:HG22	1:G:271:GLY:HA3	2.00	0.43
1:G:220:LEU:CD1	1:G:390:LEU:HD22	2.48	0.43
1:G:706:GLY:CA	1:G:711:LEU:HD22	2.42	0.43
1:G:827:LYS:HG2	1:G:1073:ARG:NH2	2.33	0.43
1:G:1254:HIS:NE2	1:G:1280:GLN:HB3	2.34	0.43
1:G:1849:LEU:HD13	1:G:1854:PHE:HD2	1.83	0.43
1:G:2129:ASP:OD2	1:G:3667:HIS:ND1	2.48	0.43
1:G:2802:LYS:O	1:G:2806:ARG:HG3	2.19	0.43
1:G:4003:LEU:HD13	1:G:4013:LEU:HA	2.01	0.43
1:G:4710:SER:O	1:G:4713:SER:OG	2.28	0.43
1:G:4851:TYR:HD2	1:G:4916:PHE:CE1	2.36	0.43
1:A:874:LEU:HA	1:A:877:ASN:HB3	1.99	0.43
1:A:1662:PHE:O	1:A:1666:THR:HG23	2.18	0.43
1:A:1853:ILE:HG22	1:A:1854:PHE:N	2.34	0.43
1:A:2924:GLN:O	1:A:2928:LYS:HB2	2.18	0.43
1:A:3670:GLU:OE1	1:A:3731:LYS:HB2	2.19	0.43
1:A:3878:ASP:HB2	1:A:3957:VAL:HG21	2.01	0.43
1:A:4826:ILE:HG21	1:C:4931:ILE:HD11	1.91	0.43
1:C:223:PHE:CD1	1:C:230:CYS:HB3	2.54	0.43
1:C:765:GLN:HG3	1:C:1479:GLU:H	1.83	0.43
1:C:2142:TYR:HD2	1:C:2197:LEU:HD12	1.84	0.43
1:C:3980:LEU:HD21	1:C:3985:LEU:HD13	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4855:ALA:HB1	1:C:4863:TYR:CE2	2.53	0.43
1:E:597:HIS:HB3	1:E:1665:HIS:CD2	2.53	0.43
1:E:1716:ILE:HD13	1:E:1720:LEU:HD12	2.00	0.43
1:E:2103:VAL:O	1:E:2107:GLN:HG3	2.19	0.43
1:E:4671:PHE:HE1	1:E:4715:TYR:HA	1.84	0.43
2:F:67:SER:O	2:F:103:LEU:HD23	2.17	0.43
1:G:1252:HIS:HD2	1:G:1255:TYR:HD2	1.67	0.43
1:G:3920:VAL:HG22	1:G:3985:LEU:HD12	2.00	0.43
1:G:4214:LYS:HD2	1:G:4985:LEU:HD23	2.00	0.43
1:G:4720:VAL:O	1:G:4724:VAL:HG23	2.17	0.43
1:G:4922:PHE:HD1	1:G:4926:VAL:HG21	1.84	0.43
1:G:4967:TYR:OH	1:G:5030:LYS:HA	2.18	0.43
1:A:103:TYR:CZ	1:A:163:VAL:HG13	2.54	0.43
1:A:265:LEU:HD21	1:A:281:ARG:H	1.84	0.43
1:A:548:VAL:HG21	1:A:582:HIS:HB3	2.01	0.43
1:A:639:ASN:HD21	1:A:785:ALA:HB2	1.84	0.43
1:A:765:GLN:HG3	1:A:1479:GLU:N	2.32	0.43
1:A:1027:LEU:HD12	1:A:1032:LYS:HD2	2.01	0.43
1:A:1260:MET:HB3	1:A:1274:HIS:HE1	1.84	0.43
1:A:1660:GLN:HG3	1:A:1707:LEU:HD11	2.01	0.43
1:A:4859:PHE:CE1	1:A:4913:ARG:HB2	2.54	0.43
1:A:4867:GLU:HA	1:A:4868:ASP:HA	1.79	0.43
2:B:16:PRO:HD2	2:B:64:ALA:HA	2.01	0.43
1:C:705:ASN:HD22	1:C:782:SER:CB	2.31	0.43
1:C:1079:LYS:NZ	1:C:1107:PRO:HB3	2.34	0.43
1:C:1660:GLN:HG3	1:C:1707:LEU:HD11	2.01	0.43
1:C:3937:TYR:CE2	1:C:3943:ILE:HG23	2.54	0.43
1:C:4889:VAL:HG22	1:C:4892:ARG:NH2	2.34	0.43
1:E:745:SER:OG	1:E:758:ARG:HB2	2.18	0.43
1:E:768:PHE:HB3	1:E:771:PHE:CE1	2.53	0.43
1:E:1093:GLU:HG3	1:E:1148:VAL:HG22	2.01	0.43
1:E:1260:MET:HB3	1:E:1274:HIS:HE1	1.84	0.43
1:E:1515:VAL:HA	1:E:1530:THR:O	2.18	0.43
1:E:2748:PRO:HD2	1:E:2751:LEU:HD12	2.01	0.43
1:E:3761:GLN:CD	1:E:4722:ARG:HH12	2.20	0.43
1:E:3780:LEU:HD22	1:E:3819:TYR:CD2	2.53	0.43
1:E:3817:LEU:HD13	1:E:3899:PHE:HD1	1.82	0.43
1:E:3980:LEU:HD21	1:E:3985:LEU:HD13	2.00	0.43
1:G:116:MET:HE2	1:G:139:GLU:HG2	2.00	0.43
1:G:265:LEU:HD21	1:G:281:ARG:H	1.83	0.43
1:G:548:VAL:HG21	1:G:582:HIS:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:765:GLN:HB3	1:G:1477:GLY:H	1.83	0.43
1:A:736:HIS:HE1	1:A:739:ALA:HB3	1.84	0.43
1:A:1106:ARG:HG2	1:A:1188:PHE:CD1	2.53	0.43
1:A:1141:ARG:NH1	1:A:1167:GLU:OE1	2.48	0.43
1:A:1839:VAL:HG23	1:A:1935:VAL:HG22	2.00	0.43
1:A:2103:VAL:O	1:A:2107:GLN:HG3	2.19	0.43
1:A:3794:VAL:O	1:A:3797:THR:OG1	2.25	0.43
1:A:4045:VAL:HG22	1:A:4160:LEU:HD22	2.00	0.43
2:B:16:PRO:HG2	2:B:63:VAL:HG12	2.00	0.43
1:C:19:GLU:HB2	1:C:205:ILE:HB	2.00	0.43
1:C:22:LEU:HB3	1:C:200:TRP:CE3	2.53	0.43
1:C:401:ALA:HA	1:C:404:ILE:HD12	2.00	0.43
1:C:745:SER:OG	1:C:758:ARG:HB2	2.18	0.43
1:C:1093:GLU:HG3	1:C:1148:VAL:HG22	2.01	0.43
1:C:1440:PHE:HD2	1:C:1560:ASN:HB3	1.83	0.43
1:C:3716:LEU:HB3	1:C:3789:GLU:OE1	2.19	0.43
1:E:66:CYS:HB2	1:E:112:ALA:HB2	2.00	0.43
1:E:438:ILE:HG23	1:E:518:ILE:HD11	2.00	0.43
1:E:543:ASN:O	1:E:546:TRP:HB3	2.18	0.43
1:E:990:GLU:HG3	1:E:1024:TYR:HB3	2.01	0.43
1:E:1106:ARG:HG2	1:E:1188:PHE:CD1	2.53	0.43
1:E:1110:ARG:HD2	1:E:1113:VAL:HG23	2.00	0.43
1:E:2761:TYR:CZ	1:E:2862:LEU:HD13	2.54	0.43
1:E:2803:GLU:OE2	1:E:2806:ARG:NH1	2.51	0.43
1:E:4000:MET:HE2	1:E:4058:ILE:HG22	2.00	0.43
1:E:4823:LEU:CD1	1:G:4839:MET:HB3	2.45	0.43
1:E:4937:ILE:HG12	1:G:4934:GLY:HA3	2.00	0.43
1:G:24:CYS:HB2	1:G:200:TRP:CZ3	2.54	0.43
1:G:242:ARG:HH21	1:G:287:THR:HG22	1.84	0.43
1:G:275:ARG:HB2	1:G:338:GLU:OE1	2.18	0.43
1:G:495:ASN:ND2	1:G:550:LYS:HD2	2.32	0.43
1:G:765:GLN:HG3	1:G:1479:GLU:H	1.83	0.43
1:G:1455:PRO:HG2	1:G:1547:LYS:HE3	2.01	0.43
1:G:3817:LEU:HD13	1:G:3899:PHE:CD1	2.54	0.43
1:G:3833:GLN:O	1:G:3837:GLN:HG2	2.19	0.43
2:H:55:VAL:HG21	2:H:59:TRP:HD1	1.84	0.43
1:A:35:LEU:HD12	1:A:35:LEU:O	2.19	0.43
1:A:121:LEU:HD12	1:A:136:GLY:HA3	2.00	0.43
1:A:122:THR:HG23	1:A:133:PHE:CE1	2.54	0.43
1:A:242:ARG:HH21	1:A:287:THR:HG22	1.83	0.43
1:A:665:GLU:OE2	1:A:802:PHE:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:752:VAL:HA	1:A:753:PRO:HD3	1.79	0.43
1:A:1533:GLY:C	1:A:1534:LYS:HD2	2.39	0.43
1:A:2295:LEU:HD13	1:A:2353:VAL:HG22	2.01	0.43
1:A:3804:ILE:CG2	1:A:3812:VAL:HG11	2.49	0.43
1:A:3989:VAL:HA	1:A:4023:MET:CE	2.49	0.43
1:A:4141:PHE:O	1:A:4145:VAL:HG23	2.19	0.43
1:A:4791:TYR:HD2	1:A:4792:LEU:HD12	1.83	0.43
1:C:600:LEU:HD21	1:C:1666:THR:HG22	1.99	0.43
1:C:639:ASN:HD21	1:C:785:ALA:HB2	1.83	0.43
1:C:765:GLN:HB3	1:C:1477:GLY:H	1.83	0.43
1:C:882:TRP:HH2	1:C:906:CYS:HB2	1.83	0.43
1:C:1260:MET:HB3	1:C:1274:HIS:HE1	1.84	0.43
1:C:1533:GLY:C	1:C:1534:LYS:HD2	2.39	0.43
1:C:1853:ILE:HG22	1:C:1854:PHE:N	2.34	0.43
1:C:3710:LEU:HD23	1:C:3710:LEU:HA	1.89	0.43
1:C:4688:ILE:HG21	1:C:4728:HIS:HB3	2.01	0.43
1:C:4715:TYR:CD2	1:C:4717:ASP:HB3	2.54	0.43
1:E:121:LEU:HD12	1:E:136:GLY:HA3	2.00	0.43
1:E:564:LEU:O	1:E:568:LEU:HG	2.19	0.43
1:E:639:ASN:HD21	1:E:785:ALA:HB2	1.84	0.43
1:E:1027:LEU:HD12	1:E:1032:LYS:HD2	2.00	0.43
1:E:3371:LYS:HA	1:E:3374:ALA:HB3	2.01	0.43
1:E:4141:PHE:O	1:E:4145:VAL:HG23	2.19	0.43
1:E:4961:CYS:SG	1:E:4983:HIS:CE1	3.06	0.43
1:G:242:ARG:HE	1:G:287:THR:HG22	1.83	0.43
1:G:294:THR:O	1:G:298:GLY:N	2.52	0.43
1:G:723:THR:HG1	1:G:728:ARG:HH12	1.64	0.43
1:G:3761:GLN:O	1:G:3765:TYR:N	2.41	0.43
1:G:3891:LEU:HD23	1:G:3899:PHE:HZ	1.83	0.43
1:G:4849:TYR:HD1	1:G:4883:TYR:CE1	2.37	0.43
1:A:23:GLN:N	1:A:201:ASN:O	2.52	0.43
1:A:74:SER:O	1:A:78:LEU:N	2.40	0.43
1:A:232:THR:HG21	1:A:248:GLU:CB	2.49	0.43
1:A:1966:VAL:HG21	1:A:3650:CYS:SG	2.58	0.43
1:A:5013:MET:O	1:A:5017:ARG:N	2.51	0.43
2:B:27:THR:HA	2:B:38:SER:HA	2.00	0.43
1:C:14:LEU:HD12	1:C:163:VAL:HG12	2.01	0.43
1:C:275:ARG:HB2	1:C:338:GLU:OE1	2.18	0.43
1:C:545:ASP:OD1	1:C:582:HIS:NE2	2.52	0.43
1:C:665:GLU:OE2	1:C:802:PHE:HB3	2.19	0.43
1:C:1107:PRO:HB2	1:C:1186:ASP:OD2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1849:LEU:HD13	1:C:1854:PHE:HD2	1.83	0.43
1:C:2822:THR:OG1	1:C:2938:THR:OG1	2.19	0.43
1:C:4791:TYR:HD2	1:C:4792:LEU:HD12	1.83	0.43
1:E:14:LEU:HD12	1:E:163:VAL:HG12	2.01	0.43
1:E:35:LEU:HD12	1:E:35:LEU:O	2.19	0.43
1:E:232:THR:HG21	1:E:248:GLU:CB	2.49	0.43
1:E:265:LEU:HD21	1:E:281:ARG:H	1.83	0.43
1:E:284:HIS:HD2	1:E:287:THR:HG23	1.84	0.43
1:E:456:SER:OG	1:E:458:GLU:HG2	2.19	0.43
1:E:545:ASP:OD1	1:E:582:HIS:NE2	2.52	0.43
1:E:1455:PRO:HG2	1:E:1547:LYS:HE3	2.01	0.43
1:E:1966:VAL:HG21	1:E:3650:CYS:SG	2.58	0.43
1:E:2114:PRO:O	1:E:2116:LEU:N	2.47	0.43
1:E:2453:ILE:HA	1:E:2456:ILE:HG22	2.00	0.43
1:E:3761:GLN:NE2	1:E:4722:ARG:HH22	2.16	0.43
1:E:3927:GLN:HE21	1:E:3991:GLY:HA3	1.84	0.43
1:G:14:LEU:HD12	1:G:163:VAL:HG12	2.01	0.43
1:G:122:THR:HG23	1:G:133:PHE:CE1	2.54	0.43
1:G:401:ALA:O	1:G:404:ILE:HB	2.19	0.43
1:G:665:GLU:OE2	1:G:802:PHE:HB3	2.19	0.43
1:G:882:TRP:HH2	1:G:906:CYS:HB2	1.82	0.43
1:G:1260:MET:HB3	1:G:1274:HIS:HE1	1.84	0.43
1:G:2114:PRO:HD3	1:G:3707:ARG:HH11	1.83	0.43
1:G:2453:ILE:HA	1:G:2456:ILE:HG22	2.00	0.43
1:G:4141:PHE:O	1:G:4145:VAL:HG23	2.19	0.43
1:A:116:MET:HE2	1:A:139:GLU:HG2	2.00	0.42
1:A:174:VAL:O	1:G:2452:ARG:NH2	2.50	0.42
1:A:590:LEU:HB2	1:A:599:VAL:HG11	2.01	0.42
1:A:722:TRP:NE1	1:A:727:ALA:HB2	2.34	0.42
1:A:757:PHE:HE2	1:A:768:PHE:HE2	1.67	0.42
1:A:1455:PRO:HG2	1:A:1547:LYS:HE3	2.01	0.42
1:A:2152:THR:HG22	1:A:2190:VAL:HG11	2.00	0.42
1:A:2251:PHE:CG	1:A:2286:LEU:HD22	2.53	0.42
1:A:2453:ILE:HA	1:A:2456:ILE:HG22	2.00	0.42
1:A:4671:PHE:HE1	1:A:4715:TYR:HA	1.83	0.42
1:C:132:ALA:HB1	1:C:193:ALA:O	2.19	0.42
1:C:242:ARG:HH21	1:C:287:THR:HG22	1.83	0.42
1:C:284:HIS:HD2	1:C:287:THR:HG23	1.84	0.42
1:C:594:GLY:H	1:C:1598:GLN:HG3	1.84	0.42
1:C:4833:ASN:HB3	1:C:4935:LEU:HD21	2.01	0.42
1:C:4897:ILE:O	1:C:4901:ILE:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:220:LEU:CD1	1:E:390:LEU:HD22	2.48	0.42
1:E:242:ARG:HH21	1:E:287:THR:HG22	1.84	0.42
1:E:266:ARG:O	1:E:270:SER:HB3	2.19	0.42
1:E:401:ALA:HA	1:E:404:ILE:HD12	2.01	0.42
1:E:736:HIS:HE1	1:E:739:ALA:HB3	1.84	0.42
1:E:1660:GLN:HG3	1:E:1707:LEU:HD11	2.01	0.42
1:E:1735:ILE:HD11	1:E:2156:LEU:HD11	1.99	0.42
1:E:1853:ILE:HG22	1:E:1854:PHE:N	2.34	0.42
1:E:3775:ALA:HA	1:E:3778:MET:HG2	1.99	0.42
1:E:4575:PHE:O	1:E:4578:LEU:HG	2.19	0.42
1:G:232:THR:HG21	1:G:248:GLU:CB	2.49	0.42
1:G:564:LEU:O	1:G:568:LEU:HG	2.19	0.42
1:G:1093:GLU:HG3	1:G:1148:VAL:HG22	2.01	0.42
1:G:1802:ILE:O	1:G:1804:LEU:HD12	2.20	0.42
1:G:3783:ILE:HA	1:G:3786:CYS:SG	2.58	0.42
1:G:3840:SER:HB3	1:G:3881:THR:HG21	2.00	0.42
1:G:4061:PHE:O	1:G:4064:MET:HG2	2.19	0.42
1:G:4677:LEU:HD11	1:G:4702:ASP:HB3	2.01	0.42
1:A:345:LEU:HD13	1:A:387:ALA:HB1	2.01	0.42
1:A:401:ALA:O	1:A:404:ILE:HB	2.19	0.42
1:A:401:ALA:HA	1:A:404:ILE:HD12	2.00	0.42
1:A:519:VAL:HG22	1:A:523:TYR:CE2	2.55	0.42
1:A:765:GLN:HG3	1:A:1479:GLU:H	1.83	0.42
1:A:1079:LYS:NZ	1:A:1107:PRO:HB3	2.34	0.42
1:A:1110:ARG:HD2	1:A:1113:VAL:HG23	2.01	0.42
1:A:1247:PRO:HB3	1:A:1600:LEU:HD13	2.00	0.42
1:A:2273:LEU:HD23	1:A:2330:ARG:HG2	2.02	0.42
1:A:2761:TYR:CZ	1:A:2862:LEU:HD13	2.54	0.42
1:A:3371:LYS:HA	1:A:3374:ALA:HB3	2.02	0.42
1:A:3937:TYR:CE2	1:A:3943:ILE:HG23	2.54	0.42
1:A:3989:VAL:HG13	1:A:4023:MET:CE	2.49	0.42
1:C:24:CYS:HB2	1:C:200:TRP:CZ3	2.54	0.42
1:C:265:LEU:HD21	1:C:281:ARG:H	1.83	0.42
1:C:543:ASN:O	1:C:546:TRP:HB3	2.18	0.42
1:C:595:ARG:NH2	1:C:1641:ILE:HD11	2.27	0.42
1:C:732:SER:HB2	1:C:735:GLN:HG2	2.02	0.42
1:C:1110:ARG:HD2	1:C:1113:VAL:HG23	2.00	0.42
1:C:2453:ILE:HA	1:C:2456:ILE:HG22	2.00	0.42
1:C:2793:PRO:O	1:C:2796:THR:OG1	2.20	0.42
1:C:3804:ILE:CG2	1:C:3812:VAL:HG11	2.49	0.42
1:C:3819:TYR:CZ	1:C:3823:LYS:HG3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3989:VAL:HA	1:C:4023:MET:CE	2.49	0.42
1:E:1737:PRO:HG2	1:E:1742:THR:HG21	2.01	0.42
1:E:2104:ARG:HD2	1:E:2107:GLN:OE1	2.19	0.42
1:G:519:VAL:HG22	1:G:523:TYR:CE2	2.55	0.42
1:G:757:PHE:HE2	1:G:768:PHE:HE2	1.66	0.42
1:G:1106:ARG:HG2	1:G:1188:PHE:CD1	2.54	0.42
1:G:1853:ILE:HG22	1:G:1854:PHE:N	2.34	0.42
1:G:3651:ASN:O	1:G:3654:LEU:HB2	2.18	0.42
1:G:3771:HIS:CE1	1:G:3811:GLU:HB3	2.48	0.42
1:G:3836:MET:HA	1:G:3839:CYS:HB2	2.01	0.42
1:G:3838:THR:OG1	1:G:3839:CYS:N	2.44	0.42
1:G:3949:ARG:O	1:G:3952:SER:OG	2.23	0.42
1:G:4837:LEU:HD22	1:G:4936:ILE:HD11	2.01	0.42
1:G:4930:ALA:HA	1:G:4933:GLN:HB2	2.01	0.42
1:A:765:GLN:HB3	1:A:1477:GLY:H	1.83	0.42
1:A:990:GLU:HG3	1:A:1024:TYR:HB3	2.00	0.42
1:A:1277:TRP:HB2	1:A:1562:ILE:O	2.20	0.42
1:A:1710:GLY:O	1:A:1714:LEU:HG	2.18	0.42
1:A:2495:VAL:H	1:A:2496:PRO:HD2	1.84	0.42
1:A:3674:ILE:CG2	1:A:3769:ARG:HD3	2.49	0.42
1:A:4899:ASP:H	1:G:4892:ARG:NH1	2.17	0.42
1:C:456:SER:OG	1:C:458:GLU:HG2	2.19	0.42
1:C:618:GLN:OE1	1:C:1678:ASN:ND2	2.52	0.42
1:C:736:HIS:HE1	1:C:739:ALA:HB3	1.84	0.42
1:C:1115:LEU:HD11	1:C:1191:VAL:HG11	2.01	0.42
1:C:1581:LEU:HD13	1:C:1594:ARG:C	2.40	0.42
1:C:2162:ILE:O	1:C:2166:LEU:N	2.53	0.42
1:C:2234:ARG:HH12	1:C:2271:THR:N	2.17	0.42
1:C:3674:ILE:CG2	1:C:3769:ARG:HD3	2.49	0.42
1:C:3761:GLN:NE2	1:C:4722:ARG:HH22	2.16	0.42
2:D:73:LYS:HA	2:D:99:PHE:O	2.18	0.42
1:E:23:GLN:N	1:E:201:ASN:O	2.52	0.42
1:E:70:GLU:HB2	1:E:108:LEU:HB3	2.02	0.42
1:E:1107:PRO:HB2	1:E:1186:ASP:OD2	2.18	0.42
1:E:1533:GLY:C	1:E:1534:LYS:HD2	2.39	0.42
1:E:1839:VAL:HG23	1:E:1935:VAL:HG22	2.01	0.42
1:E:2273:LEU:HD23	1:E:2330:ARG:HG2	2.02	0.42
1:E:3674:ILE:CG2	1:E:3769:ARG:HD3	2.49	0.42
1:E:3804:ILE:CG2	1:E:3812:VAL:HG11	2.49	0.42
1:E:3989:VAL:HG13	1:E:4023:MET:CE	2.49	0.42
1:E:3989:VAL:HA	1:E:4023:MET:CE	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4147:LEU:HA	1:E:4147:LEU:HD23	1.85	0.42
1:E:4715:TYR:CD2	1:E:4717:ASP:HB3	2.53	0.42
1:E:4791:TYR:HD2	1:E:4792:LEU:HD12	1.83	0.42
2:F:73:LYS:HA	2:F:99:PHE:O	2.18	0.42
1:G:23:GLN:N	1:G:201:ASN:O	2.52	0.42
1:G:252:VAL:HA	1:G:255:HIS:HB2	2.01	0.42
1:G:266:ARG:O	1:G:270:SER:HB3	2.19	0.42
1:G:284:HIS:HD2	1:G:287:THR:HG23	1.84	0.42
1:G:401:ALA:HA	1:G:404:ILE:HD12	2.00	0.42
1:G:2295:LEU:HD13	1:G:2353:VAL:HG22	2.01	0.42
1:G:4093:PHE:O	1:G:4097:MET:HG2	2.19	0.42
1:G:4960:ILE:HD13	1:G:4983:HIS:HB3	2.01	0.42
1:A:223:PHE:CD1	1:A:230:CYS:HB3	2.54	0.42
1:A:526:LEU:HD11	1:A:540:PHE:CZ	2.46	0.42
1:A:732:SER:HB2	1:A:735:GLN:HG2	2.02	0.42
1:A:829:TYR:HA	1:A:1073:ARG:HH12	1.82	0.42
1:A:875:ALA:HB1	1:A:922:LEU:HB2	2.01	0.42
1:A:1089:TYR:OH	1:A:1213:PHE:O	2.27	0.42
1:A:1252:HIS:HD2	1:A:1255:TYR:HD2	1.67	0.42
1:A:4630:TYR:CE2	1:A:4632:LEU:HA	2.54	0.42
1:A:4889:VAL:HG22	1:A:4892:ARG:NH2	2.35	0.42
1:C:266:ARG:O	1:C:270:SER:HB3	2.19	0.42
1:C:663:TYR:HA	1:C:746:CYS:O	2.20	0.42
1:C:3878:ASP:HB2	1:C:3957:VAL:HG21	2.01	0.42
1:C:4141:PHE:O	1:C:4145:VAL:HG23	2.20	0.42
1:E:113:HIS:CE1	1:E:402:ARG:HB3	2.55	0.42
1:E:205:ILE:HG22	1:E:271:GLY:HA3	2.00	0.42
1:E:594:GLY:H	1:E:1598:GLN:HG3	1.85	0.42
1:E:1778:SER:N	1:E:1799:SER:O	2.36	0.42
1:E:2142:TYR:HD2	1:E:2197:LEU:HD12	1.83	0.42
1:E:2162:ILE:O	1:E:2166:LEU:N	2.53	0.42
1:E:3878:ASP:HB2	1:E:3957:VAL:HG21	2.01	0.42
1:E:4974:GLY:O	1:E:4977:THR:OG1	2.27	0.42
1:G:121:LEU:HD12	1:G:136:GLY:HA3	2.01	0.42
1:G:223:PHE:CD1	1:G:230:CYS:HB3	2.54	0.42
1:G:1115:LEU:HD11	1:G:1191:VAL:HG11	2.01	0.42
1:G:2067:LEU:CD1	1:G:3661:TRP:HB3	2.50	0.42
1:G:2131:LEU:HD11	1:G:3662:ILE:HD12	2.00	0.42
1:G:2142:TYR:HD2	1:G:2197:LEU:HD12	1.83	0.42
1:G:2210:VAL:O	1:G:2214:VAL:HG23	2.19	0.42
1:G:2865:VAL:HB	1:G:2928:LYS:HD3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4188:ARG:HD3	1:G:4188:ARG:HA	1.85	0.42
1:G:4235:VAL:HG21	1:G:5019:TRP:HE1	1.81	0.42
1:A:132:ALA:HB1	1:A:193:ALA:O	2.19	0.42
1:A:266:ARG:O	1:A:270:SER:HB3	2.19	0.42
1:A:1440:PHE:HD2	1:A:1560:ASN:HB3	1.83	0.42
1:A:1676:LEU:HG	1:A:1725:ARG:HE	1.85	0.42
1:A:1716:ILE:HD13	1:A:1720:LEU:HD12	2.00	0.42
1:A:2162:ILE:O	1:A:2166:LEU:N	2.53	0.42
1:C:35:LEU:HD12	1:C:35:LEU:O	2.19	0.42
1:C:103:TYR:CZ	1:C:163:VAL:HG13	2.54	0.42
1:C:768:PHE:HB3	1:C:771:PHE:CE1	2.53	0.42
1:C:875:ALA:HB1	1:C:922:LEU:HB2	2.01	0.42
1:C:1547:LYS:HZ3	1:C:1645:ASN:HB2	1.81	0.42
1:C:2103:VAL:O	1:C:2107:GLN:HG3	2.19	0.42
1:C:3802:ILE:HD11	1:C:3883:ASP:O	2.20	0.42
1:C:3825:GLU:O	1:C:3827:GLY:N	2.48	0.42
1:C:4055:VAL:O	1:C:4058:ILE:HG13	2.19	0.42
1:C:4966:ASP:OD1	1:C:4967:TYR:N	2.47	0.42
2:D:16:PRO:HD2	2:D:64:ALA:HA	2.01	0.42
1:E:284:HIS:CD2	1:E:287:THR:HG23	2.55	0.42
1:E:401:ALA:O	1:E:404:ILE:HB	2.20	0.42
1:E:595:ARG:HH12	1:E:1641:ILE:HD11	1.85	0.42
1:E:682:LEU:HD22	1:E:738:LEU:HD23	2.02	0.42
1:E:705:ASN:HD22	1:E:782:SER:CB	2.31	0.42
1:E:1079:LYS:HZ3	1:E:1107:PRO:HB3	1.84	0.42
1:E:1247:PRO:HB3	1:E:1600:LEU:HD13	2.01	0.42
1:E:4154:VAL:HA	1:E:4155:PRO:HD2	1.79	0.42
1:G:400:ALA:HB2	1:G:451:TYR:OH	2.20	0.42
1:G:663:TYR:HA	1:G:746:CYS:O	2.20	0.42
1:G:2104:ARG:O	1:G:2108:GLU:HG2	2.20	0.42
1:G:2162:ILE:O	1:G:2166:LEU:N	2.53	0.42
1:G:4778:TRP:O	1:G:4782:VAL:HG23	2.20	0.42
1:A:233:ILE:HD12	1:A:242:ARG:HG2	2.01	0.42
1:A:663:TYR:HA	1:A:746:CYS:O	2.20	0.42
1:A:705:ASN:HD22	1:A:782:SER:CB	2.31	0.42
1:A:2748:PRO:HD2	1:A:2751:LEU:HD12	2.02	0.42
1:A:4055:VAL:O	1:A:4058:ILE:HG13	2.19	0.42
1:A:4855:ALA:HB1	1:A:4863:TYR:CE2	2.54	0.42
1:A:4961:CYS:SG	1:A:4983:HIS:CE1	3.06	0.42
1:C:723:THR:HG1	1:C:728:ARG:HH12	1.65	0.42
1:C:1277:TRP:HB2	1:C:1562:ILE:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3838:THR:OG1	1:C:3839:CYS:N	2.51	0.42
1:C:3989:VAL:HG13	1:C:4023:MET:CE	2.50	0.42
1:C:4859:PHE:CE1	1:C:4913:ARG:HB2	2.54	0.42
1:E:103:TYR:CZ	1:E:163:VAL:HG13	2.54	0.42
1:E:414:PHE:CD1	1:E:441:VAL:HG21	2.55	0.42
1:E:493:ARG:HA	1:E:496:VAL:HG23	2.02	0.42
1:E:2295:LEU:HD13	1:E:2353:VAL:HG22	2.01	0.42
1:E:3937:TYR:CE2	1:E:3943:ILE:HG23	2.55	0.42
1:G:35:LEU:HD12	1:G:35:LEU:O	2.19	0.42
1:G:103:TYR:CZ	1:G:163:VAL:HG13	2.54	0.42
1:G:3898:ASP:OD1	1:G:3899:PHE:N	2.52	0.42
1:A:24:CYS:HB2	1:A:200:TRP:CZ3	2.54	0.42
1:A:1745:ILE:HD12	1:A:1960:ALA:HB2	2.02	0.42
1:A:2057:THR:O	1:A:2060:SER:OG	2.30	0.42
1:A:2495:VAL:H	1:A:2496:PRO:CD	2.33	0.42
1:A:2799:GLU:HA	1:A:2802:LYS:HD2	2.01	0.42
1:A:3819:TYR:CZ	1:A:3823:LYS:HG3	2.55	0.42
1:C:23:GLN:N	1:C:201:ASN:O	2.52	0.42
1:C:220:LEU:CD1	1:C:390:LEU:HD22	2.48	0.42
1:C:401:ALA:O	1:C:404:ILE:HB	2.20	0.42
1:C:519:VAL:HG22	1:C:523:TYR:CE2	2.54	0.42
1:C:664:PHE:CE1	1:C:779:PRO:HB3	2.55	0.42
1:C:1078:GLU:HG3	1:C:1237:TRP:CZ2	2.55	0.42
1:C:1802:ILE:O	1:C:1804:LEU:HD12	2.20	0.42
1:C:1839:VAL:HG23	1:C:1935:VAL:HG22	2.01	0.42
1:C:2045:GLN:O	1:C:2064:ARG:NH2	2.40	0.42
1:C:2104:ARG:HD2	1:C:2107:GLN:OE1	2.20	0.42
1:C:3670:GLU:OE1	1:C:3731:LYS:HB2	2.19	0.42
1:C:4174:PHE:O	1:C:4178:LEU:N	2.49	0.42
1:C:4892:ARG:HH12	1:E:4899:ASP:H	1.61	0.42
1:E:664:PHE:CE1	1:E:779:PRO:HB3	2.55	0.42
1:E:665:GLU:OE2	1:E:802:PHE:HB3	2.19	0.42
1:E:1079:LYS:NZ	1:E:1107:PRO:HB3	2.34	0.42
1:E:2104:ARG:O	1:E:2108:GLU:HG2	2.20	0.42
1:E:3670:GLU:OE1	1:E:3731:LYS:HB2	2.19	0.42
1:E:3819:TYR:CZ	1:E:3823:LYS:HG3	2.55	0.42
1:E:5022:PHE:HA	1:E:5023:PRO:HD3	1.87	0.42
1:G:113:HIS:HE1	1:G:399:GLN:O	2.03	0.42
1:G:493:ARG:HA	1:G:496:VAL:HG23	2.02	0.42
1:G:590:LEU:HB2	1:G:599:VAL:HG11	2.02	0.42
1:G:732:SER:HB2	1:G:735:GLN:HG2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1716:ILE:HD13	1:G:1720:LEU:HD12	2.00	0.42
1:G:3781:GLN:HG2	1:G:3819:TYR:OH	2.18	0.42
1:G:3897:ASN:OD1	1:G:3901:ASN:ND2	2.52	0.42
1:G:3938:SER:HA	1:G:4002:LYS:HE3	2.02	0.42
1:G:3999:MET:O	1:G:4003:LEU:HG	2.20	0.42
1:G:4036:VAL:HG23	1:G:5032:TYR:CD2	2.55	0.42
1:G:4867:GLU:HA	1:G:4868:ASP:HA	1.79	0.42
1:A:284:HIS:HD2	1:A:287:THR:HG23	1.85	0.42
1:A:564:LEU:O	1:A:568:LEU:HG	2.19	0.42
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.20	0.42
1:C:108:LEU:HD11	1:C:117:TYR:CG	2.55	0.42
1:C:121:LEU:HD12	1:C:136:GLY:HA3	2.01	0.42
1:C:122:THR:HG23	1:C:133:PHE:CE1	2.54	0.42
1:C:689:THR:OG1	1:C:690:GLU:N	2.50	0.42
1:C:829:TYR:HA	1:C:1073:ARG:HH12	1.83	0.42
1:C:1252:HIS:HD2	1:C:1255:TYR:HD2	1.67	0.42
1:C:2126:ARG:CZ	1:C:2133:GLU:OE2	2.68	0.42
1:C:2273:LEU:HD23	1:C:2330:ARG:HG2	2.01	0.42
1:C:2506:LEU:HD21	1:C:2517:PHE:HE2	1.85	0.42
1:C:3927:GLN:HE21	1:C:3991:GLY:HA3	1.85	0.42
1:E:116:MET:HE2	1:E:139:GLU:HG2	2.01	0.42
1:E:400:ALA:HB2	1:E:451:TYR:OH	2.20	0.42
1:E:875:ALA:HB1	1:E:922:LEU:HB2	2.00	0.42
1:E:1085:SER:O	1:E:1088:TRP:NE1	2.39	0.42
1:E:1514:LEU:O	1:E:1515:VAL:HG22	2.20	0.42
1:E:1802:ILE:O	1:E:1804:LEU:HD12	2.20	0.42
1:E:2506:LEU:HD21	1:E:2517:PHE:HE2	1.85	0.42
1:E:4174:PHE:O	1:E:4178:LEU:N	2.50	0.42
1:E:4712:PRO:HG2	1:E:4718:LYS:HA	2.01	0.42
1:E:4859:PHE:CE1	1:E:4913:ARG:HB2	2.54	0.42
1:E:4957:LYS:HB2	1:E:4957:LYS:HE3	1.91	0.42
1:G:545:ASP:OD1	1:G:582:HIS:NE2	2.52	0.42
1:G:618:GLN:OE1	1:G:1678:ASN:ND2	2.52	0.42
1:G:664:PHE:CE1	1:G:779:PRO:HB3	2.55	0.42
1:G:1027:LEU:HD12	1:G:1032:LYS:HD2	2.01	0.42
1:G:1277:TRP:HB2	1:G:1562:ILE:O	2.20	0.42
1:G:1515:VAL:HA	1:G:1530:THR:O	2.20	0.42
1:G:1682:ALA:HB3	1:G:1800:PRO:HG2	2.01	0.42
1:G:2234:ARG:HH12	1:G:2271:THR:N	2.18	0.42
1:G:2327:GLY:O	1:G:2330:ARG:HB3	2.20	0.42
1:G:3916:ILE:O	1:G:3920:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:594:GLY:H	1:A:1598:GLN:HG3	1.84	0.42
1:A:720:HIS:HA	1:A:728:ARG:O	2.20	0.42
1:A:1079:LYS:NZ	1:A:1107:PRO:O	2.53	0.42
1:A:2121:PHE:CG	1:A:3701:LEU:HD12	2.55	0.42
1:A:2210:VAL:O	1:A:2214:VAL:HG23	2.20	0.42
1:A:2234:ARG:HH12	1:A:2271:THR:N	2.17	0.42
1:A:3927:GLN:HE21	1:A:3991:GLY:HA3	1.84	0.42
1:A:4042:ARG:O	1:A:4045:VAL:HB	2.20	0.42
1:A:4150:LEU:O	1:A:4154:VAL:N	2.29	0.42
1:A:4829:SER:O	1:A:4939:ALA:HB1	2.20	0.42
1:A:4897:ILE:O	1:A:4901:ILE:HG22	2.19	0.42
1:C:232:THR:HG21	1:C:248:GLU:CB	2.50	0.42
1:C:526:LEU:HD11	1:C:540:PHE:CZ	2.46	0.42
1:C:916:PRO:O	1:C:919:ASN:HB2	2.20	0.42
1:C:1936:LYS:NZ	1:C:2105:TRP:CG	2.83	0.42
1:C:2495:VAL:H	1:C:2496:PRO:CD	2.33	0.42
1:C:3783:ILE:HA	1:C:3786:CYS:SG	2.60	0.42
1:C:3989:VAL:HG13	1:C:4023:MET:HE2	2.01	0.42
1:C:4042:ARG:O	1:C:4045:VAL:HB	2.20	0.42
1:C:4712:PRO:HG2	1:C:4718:LYS:HA	2.02	0.42
1:C:4889:VAL:HG22	1:C:4892:ARG:HH21	1.85	0.42
1:C:5022:PHE:HA	1:C:5023:PRO:HD3	1.87	0.42
1:E:223:PHE:CD1	1:E:230:CYS:HB3	2.54	0.42
1:E:637:LEU:HD23	1:E:1693:GLN:HA	2.02	0.42
1:E:1254:HIS:NE2	1:E:1280:GLN:HB3	2.34	0.42
1:E:1682:ALA:HB3	1:E:1800:PRO:HG2	2.01	0.42
1:E:2234:ARG:HH12	1:E:2271:THR:N	2.17	0.42
1:E:3802:ILE:HD11	1:E:3883:ASP:O	2.20	0.42
1:E:4958:CYS:SG	1:E:4959:PHE:N	2.93	0.42
1:G:1581:LEU:HD13	1:G:1594:ARG:C	2.40	0.42
1:G:4165:GLU:O	1:G:4168:GLU:HG2	2.19	0.42
1:G:4706:LEU:O	1:G:4721:LYS:NZ	2.53	0.42
2:H:16:PRO:HG2	2:H:63:VAL:HG12	2.01	0.42
1:A:113:HIS:HE1	1:A:399:GLN:O	2.02	0.42
1:A:618:GLN:OE1	1:A:1678:ASN:ND2	2.52	0.42
1:A:1682:ALA:HB3	1:A:1800:PRO:HG2	2.01	0.42
1:A:1771:LEU:HD23	1:A:1771:LEU:HA	1.94	0.42
1:A:2470:ILE:O	1:A:2474:LEU:N	2.40	0.42
1:A:4664:LEU:HG	1:A:4665:LYS:HG3	2.02	0.42
1:A:4688:ILE:HG21	1:A:4728:HIS:HB3	2.01	0.42
1:A:4712:PRO:HG2	1:A:4718:LYS:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4857:ASN:HD21	1:G:4807:PHE:HB3	1.85	0.42
1:C:350:HIS:NE2	1:C:352:ALA:HB3	2.35	0.42
1:C:471:LEU:O	1:C:475:GLN:HG3	2.20	0.42
1:C:493:ARG:HA	1:C:496:VAL:HG23	2.02	0.42
1:C:682:LEU:HD22	1:C:738:LEU:HD23	2.02	0.42
1:C:906:CYS:O	1:C:908:VAL:N	2.52	0.42
1:C:1745:ILE:HD12	1:C:1960:ALA:HB2	2.02	0.42
1:C:2194:HIS:O	1:C:2198:MET:HG2	2.20	0.42
1:C:2327:GLY:O	1:C:2330:ARG:HB3	2.20	0.42
1:C:2747:ILE:HG22	1:C:2748:PRO:O	2.20	0.42
1:C:2799:GLU:HA	1:C:2802:LYS:HD2	2.01	0.42
1:C:4892:ARG:CD	1:E:4917:ASP:OD2	2.68	0.42
1:C:4934:GLY:HA2	1:C:4937:ILE:HB	2.02	0.42
1:E:350:HIS:NE2	1:E:352:ALA:HB3	2.35	0.42
1:E:618:GLN:OE1	1:E:1678:ASN:ND2	2.52	0.42
1:E:641:VAL:HG21	1:E:704:GLY:H	1.85	0.42
1:E:2121:PHE:CG	1:E:3701:LEU:HD12	2.55	0.42
1:E:2210:VAL:O	1:E:2214:VAL:HG23	2.20	0.42
1:E:2927:LEU:HD22	1:E:2937:VAL:HG11	2.02	0.42
1:E:4042:ARG:O	1:E:4045:VAL:HB	2.20	0.42
1:E:4045:VAL:HG22	1:E:4160:LEU:HD22	2.01	0.42
1:G:116:MET:HB2	1:G:137:LEU:HD13	2.02	0.42
1:G:1079:LYS:NZ	1:G:1107:PRO:HB3	2.34	0.42
1:G:2273:LEU:HD23	1:G:2330:ARG:HG2	2.02	0.42
1:G:2881:ASN:OD1	1:G:2885:THR:OG1	2.37	0.42
1:G:3716:LEU:HB3	1:G:3789:GLU:OE1	2.20	0.42
1:A:70:GLU:HB2	1:A:108:LEU:HB3	2.02	0.41
1:A:456:SER:OG	1:A:458:GLU:HG2	2.19	0.41
1:A:682:LEU:HD22	1:A:738:LEU:HD23	2.01	0.41
1:A:2104:ARG:O	1:A:2108:GLU:HG2	2.20	0.41
1:A:2126:ARG:CZ	1:A:2133:GLU:OE2	2.68	0.41
1:A:4027:LEU:O	1:A:4027:LEU:HD23	2.20	0.41
1:A:4917:ASP:OD2	1:G:4892:ARG:CD	2.67	0.41
1:C:70:GLU:HB2	1:C:108:LEU:HB3	2.02	0.41
1:C:102:LEU:HB2	1:C:105:HIS:HD2	1.83	0.41
1:C:116:MET:HB3	1:C:138:GLN:O	2.20	0.41
1:C:589:LEU:HG	1:C:593:HIS:CD2	2.48	0.41
1:C:590:LEU:HB2	1:C:599:VAL:HG11	2.01	0.41
1:C:1027:LEU:HD12	1:C:1032:LYS:HD2	2.00	0.41
1:C:1079:LYS:NZ	1:C:1107:PRO:O	2.54	0.41
1:C:1777:PHE:CD1	1:C:1801:ALA:HA	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1841:VAL:O	1:C:1845:VAL:HG23	2.20	0.41
1:C:2123:LEU:O	1:C:2127:GLN:HG2	2.20	0.41
1:C:2761:TYR:CZ	1:C:2862:LEU:HD13	2.54	0.41
1:C:3825:GLU:C	1:C:3827:GLY:H	2.24	0.41
1:C:4921:PHE:O	1:C:4926:VAL:HG23	2.19	0.41
1:E:252:VAL:HA	1:E:255:HIS:HB2	2.01	0.41
1:E:277:GLY:H	1:E:315:CYS:HG	1.66	0.41
1:E:720:HIS:HA	1:E:728:ARG:O	2.20	0.41
1:E:1514:LEU:C	1:E:1515:VAL:CG2	2.88	0.41
1:E:2327:GLY:O	1:E:2330:ARG:HB3	2.20	0.41
1:E:3713:LYS:O	1:E:3714:SER:OG	2.38	0.41
1:E:4027:LEU:HD23	1:E:4027:LEU:O	2.20	0.41
1:E:4630:TYR:CE2	1:E:4632:LEU:HA	2.55	0.41
1:G:151:HIS:HA	1:G:152:PRO:HD2	1.95	0.41
1:G:345:LEU:HD13	1:G:387:ALA:HB1	2.01	0.41
1:G:453:GLU:HA	1:G:454:PRO:HD3	1.85	0.41
1:G:705:ASN:HD22	1:G:782:SER:CB	2.32	0.41
1:G:736:HIS:ND1	1:G:737:LEU:O	2.50	0.41
1:G:990:GLU:HG3	1:G:1024:TYR:HB3	2.01	0.41
1:G:2465:ASP:O	1:G:2467:VAL:N	2.53	0.41
1:G:4675:LYS:O	1:G:4679:ARG:HG2	2.19	0.41
2:H:46:PHE:CE2	2:H:48:PHE:CD1	3.08	0.41
1:A:545:ASP:OD1	1:A:582:HIS:NE2	2.52	0.41
1:A:750:LEU:O	1:A:751:SER:OG	2.35	0.41
1:A:1078:GLU:HG3	1:A:1237:TRP:CZ2	2.55	0.41
1:A:1581:LEU:HD13	1:A:1594:ARG:C	2.40	0.41
1:A:1936:LYS:NZ	1:A:2105:TRP:CG	2.84	0.41
1:A:3838:THR:OG1	1:A:3839:CYS:N	2.51	0.41
1:A:4159:ARG:O	1:A:4162:ASN:HB3	2.20	0.41
1:C:116:MET:HB2	1:C:137:LEU:HD13	2.03	0.41
1:C:641:VAL:HG21	1:C:704:GLY:H	1.85	0.41
1:C:722:TRP:NE1	1:C:727:ALA:HB2	2.35	0.41
1:C:757:PHE:HE2	1:C:768:PHE:HE2	1.67	0.41
1:C:1432:THR:N	1:C:1518:CYS:SG	2.93	0.41
1:C:4147:LEU:HA	1:C:4147:LEU:HD23	1.85	0.41
1:E:732:SER:HB2	1:E:735:GLN:HG2	2.02	0.41
1:E:1115:LEU:HD11	1:E:1191:VAL:HG11	2.01	0.41
1:E:1125:ASN:OD1	1:E:1132:TRP:HZ3	2.03	0.41
1:E:1290:ARG:HG2	1:E:1551:ALA:HB2	2.02	0.41
1:E:1432:THR:N	1:E:1518:CYS:SG	2.93	0.41
1:E:2799:GLU:HA	1:E:2802:LYS:HD2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4897:ILE:O	1:E:4901:ILE:HG22	2.20	0.41
2:F:16:PRO:HD2	2:F:64:ALA:HA	2.01	0.41
1:G:456:SER:OG	1:G:458:GLU:HG2	2.20	0.41
1:G:830:ARG:CZ	1:G:1616:GLU:OE2	2.68	0.41
1:G:1290:ARG:HG2	1:G:1551:ALA:HB2	2.02	0.41
1:G:4559:PHE:CE1	1:G:4661:TYR:HB2	2.55	0.41
2:H:29:MET:HB2	2:H:33:GLY:C	2.41	0.41
1:A:116:MET:HB3	1:A:138:GLN:O	2.20	0.41
1:A:220:LEU:CD1	1:A:390:LEU:HD22	2.48	0.41
1:A:493:ARG:HA	1:A:496:VAL:HG23	2.02	0.41
1:A:660:GLY:O	1:A:662:TRP:HD1	2.04	0.41
1:A:701:GLY:HA2	1:A:1645:ASN:HD21	1.86	0.41
1:A:2465:ASP:O	1:A:2467:VAL:N	2.53	0.41
1:A:3694:LYS:HA	1:A:3695:PRO:HD3	1.79	0.41
1:A:3710:LEU:HD11	1:A:3781:GLN:NE2	2.36	0.41
1:A:3989:VAL:HG13	1:A:4023:MET:HE2	2.01	0.41
1:A:4715:TYR:O	1:A:4716:TRP:CG	2.73	0.41
1:A:4892:ARG:CD	1:C:4917:ASP:OD2	2.68	0.41
1:C:113:HIS:CE1	1:C:402:ARG:HB3	2.54	0.41
1:C:660:GLY:O	1:C:662:TRP:HD1	2.04	0.41
1:C:990:GLU:HG3	1:C:1024:TYR:HB3	2.01	0.41
1:C:1254:HIS:NE2	1:C:1280:GLN:HB3	2.34	0.41
1:C:1676:LEU:HG	1:C:1725:ARG:HE	1.85	0.41
1:C:1682:ALA:HB3	1:C:1800:PRO:HG2	2.01	0.41
1:C:1737:PRO:HG2	1:C:1742:THR:HG21	2.02	0.41
1:C:2204:HIS:O	1:C:2208:MET:N	2.42	0.41
1:E:663:TYR:HA	1:E:746:CYS:O	2.20	0.41
1:E:757:PHE:HE2	1:E:768:PHE:HE2	1.67	0.41
1:E:1079:LYS:NZ	1:E:1107:PRO:O	2.53	0.41
1:E:1211:LEU:CD2	1:E:1212:ARG:H	2.31	0.41
1:E:2123:LEU:HD23	1:E:2126:ARG:HD3	2.02	0.41
1:E:2924:GLN:HB3	1:E:2928:LYS:HD2	2.01	0.41
1:E:4774:LYS:HA	1:E:4777:ILE:HG22	2.03	0.41
1:G:116:MET:HB3	1:G:138:GLN:O	2.20	0.41
1:G:637:LEU:HD23	1:G:1693:GLN:HA	2.02	0.41
1:G:722:TRP:NE1	1:G:727:ALA:HB2	2.36	0.41
1:G:984:LEU:O	1:G:988:LEU:HG	2.20	0.41
1:G:1432:THR:N	1:G:1518:CYS:SG	2.93	0.41
1:G:3664:THR:HB	1:G:3665:GLU:H	1.68	0.41
1:G:4722:ARG:O	1:G:4725:LEU:HG	2.19	0.41
1:G:5017:ARG:HB3	1:G:5019:TRP:CZ3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:108:LEU:HD11	1:A:117:TYR:CG	2.55	0.41
1:A:113:HIS:CE1	1:A:402:ARG:HB3	2.55	0.41
1:A:116:MET:HB2	1:A:137:LEU:HD13	2.02	0.41
1:A:830:ARG:CZ	1:A:1616:GLU:OE2	2.69	0.41
1:A:1087:ARG:NH1	1:A:1223:PHE:CE2	2.89	0.41
1:A:1125:ASN:OD1	1:A:1132:TRP:HZ3	2.03	0.41
1:A:1519:LEU:HD13	1:A:1527:MET:HG2	2.02	0.41
1:A:1736:VAL:HA	1:A:1737:PRO:HD2	1.84	0.41
1:A:1802:ILE:O	1:A:1804:LEU:HD12	2.20	0.41
1:A:2165:LEU:HD21	1:A:2177:LEU:CB	2.51	0.41
1:A:2305:CYS:O	1:A:2325:PRO:HG2	2.20	0.41
1:A:4235:VAL:HG21	1:A:5019:TRP:CD1	2.55	0.41
1:C:284:HIS:CD2	1:C:287:THR:HG23	2.55	0.41
1:C:414:PHE:CD1	1:C:441:VAL:HG21	2.55	0.41
1:C:637:LEU:HD23	1:C:1693:GLN:HA	2.02	0.41
1:C:1194:LEU:HD22	1:C:1198:GLN:O	2.21	0.41
1:C:1773:PRO:HA	1:C:1774:PRO:HD3	1.96	0.41
1:C:4027:LEU:HD23	1:C:4027:LEU:O	2.21	0.41
1:C:4159:ARG:O	1:C:4162:ASN:HB3	2.20	0.41
1:C:4630:TYR:CE2	1:C:4632:LEU:HA	2.54	0.41
1:E:233:ILE:HD12	1:E:242:ARG:HG2	2.02	0.41
1:E:699:GLY:O	1:E:701:GLY:N	2.53	0.41
1:E:722:TRP:NE1	1:E:727:ALA:HB2	2.35	0.41
1:E:855:PRO:HD3	1:E:994:ASN:HB3	2.03	0.41
1:E:1297:PHE:CZ	1:E:1519:LEU:HD21	2.55	0.41
1:E:1770:SER:OG	1:E:1771:LEU:N	2.49	0.41
1:E:2123:LEU:O	1:E:2127:GLN:HG2	2.20	0.41
1:E:2747:ILE:HG22	1:E:2748:PRO:O	2.20	0.41
1:E:3783:ILE:HA	1:E:3786:CYS:SG	2.61	0.41
1:G:113:HIS:CE1	1:G:402:ARG:HB3	2.55	0.41
1:G:284:HIS:CD2	1:G:287:THR:HG23	2.55	0.41
1:G:414:PHE:CD1	1:G:441:VAL:HG21	2.55	0.41
1:G:748:LEU:HD21	1:G:777:PHE:HD2	1.85	0.41
1:G:1778:SER:N	1:G:1799:SER:O	2.36	0.41
1:G:1841:VAL:O	1:G:1845:VAL:HG23	2.21	0.41
1:G:2305:CYS:O	1:G:2325:PRO:HG2	2.20	0.41
1:G:2495:VAL:H	1:G:2496:PRO:CD	2.33	0.41
1:G:3819:TYR:CZ	1:G:3823:LYS:HG3	2.56	0.41
1:A:14:LEU:HD12	1:A:163:VAL:HG12	2.03	0.41
1:A:414:PHE:CD1	1:A:441:VAL:HG21	2.55	0.41
1:A:1620:ALA:O	1:A:1629:GLN:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1737:PRO:HG2	1:A:1742:THR:HG21	2.02	0.41
1:A:1841:VAL:O	1:A:1845:VAL:HG23	2.20	0.41
1:A:2104:ARG:HD2	1:A:2107:GLN:OE1	2.19	0.41
1:A:2327:GLY:O	1:A:2330:ARG:HB3	2.20	0.41
1:A:2506:LEU:HD21	1:A:2517:PHE:HE2	1.85	0.41
1:A:2747:ILE:HG22	1:A:2748:PRO:O	2.20	0.41
1:A:3783:ILE:HA	1:A:3786:CYS:SG	2.61	0.41
1:A:3802:ILE:HD11	1:A:3883:ASP:O	2.20	0.41
1:C:252:VAL:HA	1:C:255:HIS:HB2	2.02	0.41
1:C:1125:ASN:OD1	1:C:1132:TRP:HZ3	2.03	0.41
1:C:2210:VAL:O	1:C:2214:VAL:HG23	2.20	0.41
1:C:4201:ASN:HB3	1:C:4990:PHE:CE1	2.55	0.41
1:C:4235:VAL:HG21	1:C:5019:TRP:CD1	2.55	0.41
1:C:4715:TYR:O	1:C:4716:TRP:CG	2.73	0.41
1:E:108:LEU:HD11	1:E:117:TYR:CG	2.55	0.41
1:E:122:THR:HG23	1:E:133:PHE:CE1	2.54	0.41
1:E:471:LEU:O	1:E:475:GLN:HG3	2.20	0.41
1:E:519:VAL:HG22	1:E:523:TYR:CE2	2.55	0.41
1:E:826:ILE:O	1:E:828:GLU:N	2.54	0.41
1:E:829:TYR:HA	1:E:1073:ARG:HH12	1.83	0.41
1:E:984:LEU:O	1:E:988:LEU:HG	2.20	0.41
1:E:1275:ARG:HG3	1:E:1277:TRP:HE1	1.86	0.41
1:E:1277:TRP:HB2	1:E:1562:ILE:O	2.20	0.41
1:E:1695:LEU:O	1:E:1699:GLU:HG3	2.21	0.41
1:E:1779:PRO:HA	1:E:1780:PRO:HD3	1.91	0.41
1:E:2465:ASP:O	1:E:2467:VAL:N	2.53	0.41
1:E:3825:GLU:C	1:E:3827:GLY:H	2.23	0.41
1:E:4664:LEU:HG	1:E:4665:LYS:HG3	2.03	0.41
1:G:108:LEU:HD11	1:G:117:TYR:CG	2.55	0.41
1:G:646:PRO:HB2	1:G:793:LEU:HD11	2.03	0.41
1:G:1745:ILE:HD12	1:G:1960:ALA:HB2	2.02	0.41
1:G:1777:PHE:CD1	1:G:1801:ALA:HA	2.56	0.41
1:G:1839:VAL:HG23	1:G:1935:VAL:HG22	2.01	0.41
1:G:2817:ILE:C	1:G:2820:GLU:H	2.23	0.41
1:G:2867:LEU:HD11	1:G:2924:GLN:HA	2.03	0.41
1:G:3657:TYR:CE2	1:G:3662:ILE:HD11	2.55	0.41
1:G:4856:PHE:HE1	1:G:4877:ASP:O	2.03	0.41
2:H:2:VAL:HG23	2:H:76:ILE:HA	2.02	0.41
1:A:80:GLU:OE1	1:G:3935:TRP:CE3	2.70	0.41
1:A:252:VAL:HA	1:A:255:HIS:HB2	2.01	0.41
1:A:400:ALA:HB2	1:A:451:TYR:OH	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1290:ARG:HA	1:A:1551:ALA:CB	2.51	0.41
1:A:1432:THR:N	1:A:1518:CYS:SG	2.93	0.41
1:A:2191:PHE:HZ	1:A:2239:PHE:HD1	1.69	0.41
1:C:595:ARG:HH12	1:C:1641:ILE:HD11	1.86	0.41
1:C:1519:LEU:HD13	1:C:1527:MET:HG2	2.02	0.41
1:C:1738:LEU:N	1:C:2144:ILE:O	2.48	0.41
1:C:2165:LEU:HD21	1:C:2177:LEU:CB	2.51	0.41
1:C:2813:LEU:HD22	1:C:2823:ILE:HD13	2.02	0.41
1:C:4940:PHE:CE2	1:E:4938:ASP:OD2	2.72	0.41
1:E:50:GLU:OE2	1:E:61:ASP:N	2.36	0.41
1:E:375:LYS:NZ	1:E:377:ILE:HG22	2.36	0.41
1:E:1775:HIS:CE1	1:E:1777:PHE:CE2	3.09	0.41
1:E:3766:GLN:O	1:E:3769:ARG:HB3	2.20	0.41
1:E:4049:VAL:HG21	1:E:4159:ARG:CD	2.51	0.41
1:G:16:THR:N	1:G:99:ARG:O	2.46	0.41
1:G:471:LEU:O	1:G:475:GLN:HG3	2.20	0.41
1:G:594:GLY:H	1:G:1598:GLN:HG3	1.85	0.41
1:G:660:GLY:O	1:G:662:TRP:HD1	2.04	0.41
1:G:855:PRO:HD3	1:G:994:ASN:HB3	2.03	0.41
1:G:1436:SER:HA	1:G:1516:ILE:HA	2.02	0.41
2:H:23:VAL:HG13	2:H:47:LYS:HG2	2.01	0.41
1:A:46:LEU:HD13	1:A:125:ARG:HH22	1.86	0.41
1:A:471:LEU:O	1:A:475:GLN:HG3	2.21	0.41
1:A:664:PHE:CE1	1:A:779:PRO:HB3	2.55	0.41
1:A:826:ILE:O	1:A:828:GLU:N	2.54	0.41
1:A:1775:HIS:CE1	1:A:1777:PHE:CE2	3.08	0.41
1:A:2142:TYR:CD2	1:A:2197:LEU:HD12	2.56	0.41
1:A:2194:HIS:O	1:A:2198:MET:HG2	2.20	0.41
1:A:4921:PHE:O	1:A:4926:VAL:HG23	2.20	0.41
1:A:4957:LYS:HE3	1:A:4957:LYS:HB2	1.93	0.41
1:C:706:GLY:CA	1:C:711:LEU:HD22	2.42	0.41
1:C:925:SER:O	1:C:929:LEU:HG	2.21	0.41
1:C:2142:TYR:CD2	1:C:2197:LEU:HD12	2.56	0.41
1:C:4235:VAL:HG21	1:C:5019:TRP:HE1	1.81	0.41
1:C:4933:GLN:O	1:C:4937:ILE:HG13	2.19	0.41
1:E:116:MET:HB2	1:E:137:LEU:HD13	2.03	0.41
1:E:660:GLY:O	1:E:662:TRP:HD1	2.04	0.41
1:E:1078:GLU:HG3	1:E:1237:TRP:CZ2	2.55	0.41
1:E:2655:TYR:O	1:E:2659:THR:N	2.54	0.41
1:E:4235:VAL:HG21	1:E:5019:TRP:CD1	2.55	0.41
1:E:4776:GLN:HA	1:E:4779:LYS:HG2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:350:HIS:NE2	1:G:352:ALA:HB3	2.35	0.41
1:G:733:PRO:HD2	1:G:759:ILE:HD12	2.03	0.41
1:G:1247:PRO:HB3	1:G:1600:LEU:HD13	2.01	0.41
1:G:1290:ARG:HA	1:G:1551:ALA:CB	2.50	0.41
1:G:1676:LEU:HG	1:G:1725:ARG:HE	1.85	0.41
1:G:2191:PHE:HZ	1:G:2239:PHE:HD1	1.69	0.41
1:G:2876:GLU:OE2	1:G:2908:TYR:CE2	2.74	0.41
1:G:3701:LEU:HD11	1:G:3725:TYR:CE1	2.56	0.41
1:G:5013:MET:O	1:G:5017:ARG:N	2.53	0.41
1:A:699:GLY:O	1:A:701:GLY:N	2.54	0.41
1:A:1194:LEU:HD22	1:A:1198:GLN:O	2.20	0.41
1:A:2129:ASP:HB2	1:A:3669:PHE:CE1	2.56	0.41
1:A:3705:PHE:CD1	1:A:3722:TYR:HD1	2.39	0.41
1:A:3839:CYS:SG	1:A:3881:THR:HG21	2.61	0.41
1:A:4239:GLU:OE1	1:A:4675:LYS:HD2	2.21	0.41
2:B:2:VAL:HG23	2:B:76:ILE:HA	2.03	0.41
1:C:375:LYS:NZ	1:C:377:ILE:HG22	2.36	0.41
1:C:733:PRO:HD2	1:C:759:ILE:HD12	2.02	0.41
1:C:830:ARG:CZ	1:C:1616:GLU:OE2	2.69	0.41
1:C:4671:PHE:CE1	1:C:4715:TYR:HA	2.56	0.41
1:C:4807:PHE:HB3	1:E:4857:ASN:ND2	2.36	0.41
1:C:4957:LYS:HB2	1:C:4957:LYS:HE3	1.94	0.41
1:E:590:LEU:HB2	1:E:599:VAL:HG11	2.01	0.41
2:F:40:ARG:C	2:F:43:ASN:H	2.24	0.41
2:F:87:HIS:CE1	2:F:90:ILE:HD13	2.55	0.41
1:G:70:GLU:HB2	1:G:108:LEU:HB3	2.02	0.41
1:G:1079:LYS:NZ	1:G:1107:PRO:O	2.53	0.41
1:G:1737:PRO:HG2	1:G:1742:THR:HG21	2.03	0.41
1:G:2165:LEU:HD21	1:G:2177:LEU:CB	2.51	0.41
1:G:3780:LEU:HD22	1:G:3819:TYR:HD2	1.86	0.41
1:G:3962:PHE:CE1	1:G:4023:MET:HG3	2.55	0.41
1:G:4581:LYS:O	1:G:4630:TYR:N	2.51	0.41
2:H:87:HIS:CE1	2:H:90:ILE:HD13	2.56	0.41
1:A:685:GLY:O	1:A:780:VAL:HB	2.21	0.41
1:A:748:LEU:HD21	1:A:777:PHE:HD2	1.86	0.41
1:A:1106:ARG:HA	1:A:1107:PRO:HD3	1.94	0.41
1:A:1514:LEU:C	1:A:1515:VAL:CG2	2.89	0.41
1:A:1648:MET:HE3	1:A:1656:ARG:HG3	2.03	0.41
1:A:1777:PHE:CD1	1:A:1801:ALA:HA	2.56	0.41
1:A:2123:LEU:HD23	1:A:2126:ARG:HD3	2.03	0.41
1:A:2159:LEU:HA	1:A:2162:ILE:HG22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2204:HIS:O	1:A:2208:MET:N	2.42	0.41
1:A:3801:GLY:O	1:A:3805:LEU:HG	2.21	0.41
1:A:4851:TYR:CE1	1:A:4920:PHE:HB2	2.56	0.41
1:A:4886:HIS:O	1:A:4890:GLY:HA3	2.21	0.41
1:A:4889:VAL:HG22	1:A:4892:ARG:HH21	1.86	0.41
2:B:14:THR:HB	2:B:68:VAL:HG23	2.03	0.41
1:C:280:LEU:HG	1:C:314:PHE:O	2.21	0.41
1:C:345:LEU:HD13	1:C:387:ALA:HB1	2.02	0.41
1:C:554:LEU:HG	1:C:593:HIS:HE1	1.86	0.41
1:C:646:PRO:HB2	1:C:793:LEU:HD11	2.03	0.41
1:C:748:LEU:HD21	1:C:777:PHE:HD2	1.86	0.41
1:C:984:LEU:O	1:C:988:LEU:HG	2.21	0.41
1:C:1211:LEU:CD2	1:C:1212:ARG:H	2.31	0.41
1:C:1290:ARG:HA	1:C:1551:ALA:CB	2.51	0.41
1:C:1297:PHE:CZ	1:C:1519:LEU:HD21	2.56	0.41
1:C:1432:THR:N	1:C:1518:CYS:HG	2.19	0.41
1:C:1775:HIS:CE1	1:C:1777:PHE:CE2	3.09	0.41
1:C:2104:ARG:O	1:C:2108:GLU:HG2	2.19	0.41
1:C:2465:ASP:O	1:C:2467:VAL:N	2.53	0.41
1:C:2495:VAL:N	1:C:2496:PRO:HD2	2.36	0.41
1:C:2755:ILE:HG23	1:C:2809:ILE:HG21	2.03	0.41
1:C:2817:ILE:C	1:C:2820:GLU:H	2.24	0.41
1:C:3694:LYS:HA	1:C:3695:PRO:HD3	1.80	0.41
1:C:4049:VAL:HG21	1:C:4159:ARG:CD	2.51	0.41
1:C:4664:LEU:HG	1:C:4665:LYS:HG3	2.03	0.41
2:D:4:VAL:HG22	2:D:74:LEU:HG	2.02	0.41
2:D:14:THR:HB	2:D:68:VAL:HG23	2.02	0.41
2:D:40:ARG:C	2:D:43:ASN:H	2.24	0.41
2:D:87:HIS:CE1	2:D:90:ILE:HD13	2.55	0.41
1:E:116:MET:HB3	1:E:138:GLN:O	2.20	0.41
1:E:212:GLY:O	1:E:341:TYR:N	2.45	0.41
1:E:521:LEU:O	1:E:525:LEU:N	2.46	0.41
1:E:733:PRO:HD2	1:E:759:ILE:HD12	2.02	0.41
1:E:748:LEU:HD21	1:E:777:PHE:HD2	1.86	0.41
1:E:830:ARG:CZ	1:E:1616:GLU:OE2	2.68	0.41
1:E:1194:LEU:HD22	1:E:1198:GLN:O	2.21	0.41
1:E:2209:GLU:O	1:E:2212:VAL:HB	2.21	0.41
1:E:2293:GLN:O	1:E:2296:GLU:HB2	2.21	0.41
1:E:3710:LEU:HD11	1:E:3781:GLN:NE2	2.35	0.41
1:E:3825:GLU:O	1:E:3827:GLY:N	2.48	0.41
1:E:4239:GLU:OE1	1:E:4675:LYS:HD2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4715:TYR:O	1:E:4716:TRP:CG	2.73	0.41
1:E:4724:VAL:O	1:E:4727:LYS:O	2.39	0.41
1:E:4891:VAL:HG12	1:G:4921:PHE:CE2	2.56	0.41
1:G:46:LEU:HD13	1:G:125:ARG:HH22	1.86	0.41
1:G:826:ILE:O	1:G:828:GLU:N	2.54	0.41
1:G:1297:PHE:CZ	1:G:1519:LEU:HD21	2.56	0.41
1:G:1695:LEU:O	1:G:1699:GLU:HG3	2.21	0.41
1:G:1775:HIS:CE1	1:G:1777:PHE:CE2	3.09	0.41
1:G:2506:LEU:HD21	1:G:2517:PHE:HE2	1.85	0.41
1:G:2735:PHE:HD2	1:G:2891:LYS:HD2	1.86	0.41
1:G:2755:ILE:HG23	1:G:2809:ILE:HG21	2.02	0.41
1:G:4776:GLN:HA	1:G:4779:LYS:HG2	2.02	0.41
1:G:4931:ILE:HG21	1:G:4931:ILE:HD13	1.75	0.41
1:A:595:ARG:NH2	1:A:1641:ILE:HD11	2.27	0.41
1:A:1660:GLN:HE22	1:A:1704:PRO:HB2	1.86	0.41
1:A:2495:VAL:N	1:A:2496:PRO:HD2	2.35	0.41
1:A:3766:GLN:O	1:A:3769:ARG:HB3	2.21	0.41
1:A:4201:ASN:HB3	1:A:4990:PHE:CE1	2.55	0.41
1:A:4242:ILE:HG12	1:A:4993:MET:HG2	2.03	0.41
1:A:4724:VAL:O	1:A:4727:LYS:O	2.39	0.41
1:A:4978:HIS:HA	1:A:4982:GLU:HB2	2.03	0.41
1:C:46:LEU:HD13	1:C:125:ARG:HH22	1.86	0.41
1:C:107:ILE:HD12	1:C:109:LEU:HD21	2.03	0.41
1:C:400:ALA:HB2	1:C:451:TYR:OH	2.20	0.41
1:C:882:TRP:CZ3	1:C:907:LEU:HD23	2.56	0.41
1:C:1275:ARG:HG3	1:C:1277:TRP:HE1	1.86	0.41
1:C:1290:ARG:HG2	1:C:1551:ALA:HB2	2.02	0.41
1:C:2876:GLU:OE2	1:C:2908:TYR:HE2	2.04	0.41
1:C:3766:GLN:O	1:C:3769:ARG:HB3	2.21	0.41
1:C:4219:PHE:CD1	1:C:4950:VAL:HG21	2.57	0.41
1:C:4242:ILE:HG12	1:C:4993:MET:HG2	2.03	0.41
1:C:4886:HIS:O	1:C:4890:GLY:HA3	2.22	0.41
1:E:347:PHE:CE1	1:E:387:ALA:HA	2.52	0.41
1:E:1581:LEU:HD13	1:E:1594:ARG:C	2.40	0.41
1:E:1648:MET:HE3	1:E:1656:ARG:HG3	2.03	0.41
1:E:2165:LEU:HD21	1:E:2177:LEU:CB	2.51	0.41
1:E:2254:LEU:O	1:E:2258:LEU:HG	2.21	0.41
1:G:882:TRP:CZ3	1:G:907:LEU:HD23	2.56	0.41
1:G:1125:ASN:OD1	1:G:1132:TRP:HZ3	2.03	0.41
1:G:1126:GLY:HA3	1:G:1143:TRP:CE2	2.56	0.41
1:G:1194:LEU:HD22	1:G:1198:GLN:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1660:GLN:HE22	1:G:1704:PRO:HB2	1.86	0.41
1:G:2142:TYR:CD2	1:G:2197:LEU:HD12	2.56	0.41
1:G:2194:HIS:O	1:G:2198:MET:HG2	2.20	0.41
1:G:2293:GLN:O	1:G:2296:GLU:HB2	2.21	0.41
1:G:4797:VAL:O	1:G:4800:LEU:HB2	2.20	0.41
1:G:4925:ILE:HG23	1:G:4929:LEU:HD12	2.02	0.41
1:A:16:THR:N	1:A:99:ARG:O	2.46	0.40
1:A:151:HIS:HA	1:A:152:PRO:HD2	1.95	0.40
1:A:284:HIS:CD2	1:A:287:THR:HG23	2.56	0.40
1:A:984:LEU:O	1:A:988:LEU:HG	2.21	0.40
1:A:1130:GLN:HB2	1:A:1137:GLU:O	2.21	0.40
1:A:1297:PHE:CZ	1:A:1519:LEU:HD21	2.56	0.40
1:A:3884:LEU:O	1:A:3887:PHE:HB3	2.21	0.40
1:A:4219:PHE:CD1	1:A:4950:VAL:HG21	2.56	0.40
2:B:4:VAL:HG22	2:B:74:LEU:HG	2.02	0.40
2:B:40:ARG:C	2:B:43:ASN:H	2.24	0.40
1:C:720:HIS:HA	1:C:728:ARG:O	2.21	0.40
1:C:1436:SER:N	1:C:1516:ILE:HA	2.33	0.40
1:C:1660:GLN:HE22	1:C:1704:PRO:HB2	1.86	0.40
1:C:2209:GLU:O	1:C:2212:VAL:HB	2.21	0.40
1:C:2254:LEU:O	1:C:2258:LEU:HG	2.22	0.40
1:C:3710:LEU:HD11	1:C:3781:GLN:NE2	2.36	0.40
1:C:3839:CYS:SG	1:C:3881:THR:HG21	2.61	0.40
1:C:4724:VAL:O	1:C:4727:LYS:O	2.39	0.40
1:E:453:GLU:HA	1:E:454:PRO:HD3	1.86	0.40
1:E:1126:GLY:HA3	1:E:1143:TRP:CE2	2.56	0.40
1:E:2191:PHE:HZ	1:E:2239:PHE:HD1	1.69	0.40
1:E:2205:GLU:OE1	1:E:2253:HIS:NE2	2.55	0.40
1:E:2305:CYS:O	1:E:2325:PRO:HG2	2.20	0.40
1:E:2876:GLU:OE2	1:E:2908:TYR:HE2	2.04	0.40
1:E:4201:ASN:HB3	1:E:4990:PHE:CE1	2.55	0.40
1:E:4219:PHE:CD1	1:E:4950:VAL:HG21	2.56	0.40
1:E:4581:LYS:O	1:E:4630:TYR:N	2.45	0.40
1:E:4888:TYR:CD1	1:G:4914:VAL:HG23	2.56	0.40
2:F:4:VAL:HG22	2:F:74:LEU:HG	2.02	0.40
1:G:203:ASN:HA	1:G:204:PRO:HD2	1.95	0.40
1:G:595:ARG:HH12	1:G:1641:ILE:HD11	1.86	0.40
1:G:925:SER:O	1:G:929:LEU:HG	2.21	0.40
1:G:2495:VAL:H	1:G:2496:PRO:HD2	1.85	0.40
1:G:2799:GLU:HA	1:G:2802:LYS:HD2	2.02	0.40
1:G:4715:TYR:HD2	1:G:4717:ASP:HB3	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:12:GLN:O	1:A:165:VAL:HG23	2.21	0.40
1:A:646:PRO:HB2	1:A:793:LEU:HD11	2.03	0.40
1:A:1126:GLY:HA3	1:A:1143:TRP:CE2	2.56	0.40
1:A:1290:ARG:HG2	1:A:1551:ALA:HB2	2.02	0.40
1:A:1293:LEU:HD23	1:A:1584:ARG:HG2	2.03	0.40
1:A:4174:PHE:O	1:A:4178:LEU:N	2.50	0.40
2:B:46:PHE:CE2	2:B:48:PHE:CD1	3.09	0.40
1:C:2191:PHE:HZ	1:C:2239:PHE:HD1	1.69	0.40
1:C:3884:LEU:O	1:C:3887:PHE:HB3	2.21	0.40
1:C:4053:SER:O	1:C:4057:MET:HG2	2.21	0.40
1:E:16:THR:N	1:E:99:ARG:O	2.46	0.40
1:E:232:THR:OG1	1:E:233:ILE:N	2.55	0.40
1:E:646:PRO:HB2	1:E:793:LEU:HD11	2.03	0.40
1:E:1106:ARG:HA	1:E:1107:PRO:HD3	1.94	0.40
1:E:1676:LEU:HG	1:E:1725:ARG:HE	1.85	0.40
1:E:1777:PHE:CD1	1:E:1801:ALA:HA	2.56	0.40
1:E:2194:HIS:O	1:E:2198:MET:HG2	2.20	0.40
1:E:2341:VAL:HG22	1:E:2342:ASN:N	2.34	0.40
1:E:4115:SER:HA	1:E:4128:PHE:CD1	2.57	0.40
1:E:4706:LEU:HD12	1:E:4707:ASN:N	2.36	0.40
1:E:4851:TYR:CE1	1:E:4920:PHE:HB2	2.57	0.40
1:E:4886:HIS:O	1:E:4890:GLY:HA3	2.21	0.40
2:F:2:VAL:HG23	2:F:76:ILE:HA	2.03	0.40
1:G:1078:GLU:HG3	1:G:1237:TRP:CZ2	2.55	0.40
1:G:1293:LEU:HD23	1:G:1584:ARG:HG2	2.04	0.40
1:G:1632:ASP:HA	1:G:1633:PRO:HD2	1.94	0.40
1:G:2104:ARG:HD2	1:G:2107:GLN:OE1	2.21	0.40
1:G:3562:LYS:O	1:G:3566:SER:N	2.53	0.40
1:A:600:LEU:HD23	1:A:1666:THR:HA	2.03	0.40
1:A:637:LEU:HD23	1:A:1693:GLN:HA	2.02	0.40
1:A:882:TRP:CZ3	1:A:907:LEU:HD23	2.57	0.40
1:A:3878:ASP:OD2	1:A:3953:LYS:HE3	2.22	0.40
1:A:4958:CYS:SG	1:A:4959:PHE:N	2.94	0.40
1:C:74:SER:O	1:C:78:LEU:N	2.41	0.40
1:C:233:ILE:HD12	1:C:242:ARG:HG2	2.02	0.40
1:C:752:VAL:HA	1:C:753:PRO:HD3	1.80	0.40
1:C:1961:PHE:CZ	1:C:2063:LEU:HD23	2.55	0.40
1:C:2129:ASP:HB2	1:C:3669:PHE:CE1	2.56	0.40
1:C:2159:LEU:HA	1:C:2162:ILE:HG22	2.03	0.40
1:C:2293:GLN:O	1:C:2296:GLU:HB2	2.21	0.40
1:C:2754:PHE:CZ	1:C:2930:LEU:HD23	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3705:PHE:CD1	1:C:3722:TYR:HD1	2.39	0.40
1:C:4115:SER:HA	1:C:4128:PHE:CD1	2.57	0.40
1:C:4229:GLU:O	1:C:4232:GLU:HB3	2.21	0.40
1:C:4774:LYS:HA	1:C:4777:ILE:HG22	2.03	0.40
1:C:4851:TYR:CE1	1:C:4920:PHE:HB2	2.56	0.40
1:E:46:LEU:HD13	1:E:125:ARG:HH22	1.86	0.40
1:E:882:TRP:CZ3	1:E:907:LEU:HD23	2.56	0.40
1:E:1519:LEU:HD13	1:E:1527:MET:HG2	2.02	0.40
1:E:2126:ARG:CZ	1:E:2133:GLU:OE2	2.69	0.40
1:E:2773:ASN:HD22	1:E:2775:TRP:HE1	1.69	0.40
1:E:4036:VAL:HG23	1:E:5032:TYR:CD2	2.57	0.40
1:E:4053:SER:O	1:E:4057:MET:HG2	2.21	0.40
1:E:4089:SER:HA	1:E:4122:MET:HA	2.04	0.40
1:E:4242:ILE:HG12	1:E:4993:MET:HG2	2.04	0.40
1:E:4931:ILE:HD13	1:E:4931:ILE:HG21	1.74	0.40
1:G:554:LEU:HG	1:G:593:HIS:HE1	1.86	0.40
1:G:2793:PRO:O	1:G:2796:THR:OG1	2.19	0.40
1:G:3995:VAL:O	1:G:3999:MET:HB3	2.22	0.40
1:G:4794:TRP:O	1:G:4797:VAL:HG12	2.21	0.40
1:G:4833:ASN:O	1:G:4837:LEU:N	2.54	0.40
2:H:16:PRO:HD2	2:H:64:ALA:HA	2.04	0.40
1:A:107:ILE:HD12	1:A:109:LEU:HD21	2.03	0.40
1:A:308:HIS:CE1	1:A:311:ALA:HB2	2.56	0.40
1:A:375:LYS:NZ	1:A:377:ILE:HG22	2.36	0.40
1:A:1085:SER:O	1:A:1088:TRP:NE1	2.40	0.40
1:A:1280:GLN:O	1:A:1559:GLN:NE2	2.54	0.40
1:A:3710:LEU:HD23	1:A:3710:LEU:HA	1.90	0.40
1:A:4937:ILE:HG12	1:C:4934:GLY:CA	2.49	0.40
2:B:87:HIS:CE1	2:B:90:ILE:HD13	2.56	0.40
1:C:2121:PHE:CG	1:C:3701:LEU:HD12	2.56	0.40
1:C:2205:GLU:OE1	1:C:2253:HIS:NE2	2.54	0.40
1:C:3752:SER:O	1:C:3756:LYS:HB2	2.21	0.40
1:C:4779:LYS:O	1:C:4783:ILE:HG13	2.21	0.40
1:E:308:HIS:CE1	1:E:311:ALA:HB2	2.57	0.40
1:E:345:LEU:HD13	1:E:387:ALA:HB1	2.02	0.40
1:E:925:SER:O	1:E:929:LEU:HG	2.21	0.40
1:E:1745:ILE:HD12	1:E:1960:ALA:HB2	2.02	0.40
1:E:1829:PRO:HD2	1:E:1832:GLY:HA2	2.03	0.40
1:E:1841:VAL:O	1:E:1845:VAL:HG23	2.21	0.40
1:E:2129:ASP:HB2	1:E:3669:PHE:CE1	2.56	0.40
1:E:2142:TYR:CD2	1:E:2197:LEU:HD12	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3884:LEU:O	1:E:3887:PHE:HB3	2.21	0.40
1:E:4156:HIS:O	1:E:4156:HIS:ND1	2.54	0.40
1:E:4229:GLU:O	1:E:4232:GLU:HB3	2.21	0.40
1:E:4779:LYS:O	1:E:4783:ILE:HG13	2.21	0.40
1:G:649:PHE:HE1	1:G:689:THR:HG22	1.82	0.40
1:G:1436:SER:N	1:G:1516:ILE:HA	2.31	0.40
1:G:1519:LEU:HD13	1:G:1527:MET:HG2	2.02	0.40
1:G:1856:ASP:O	1:G:1860:LYS:HG3	2.22	0.40
1:G:2495:VAL:N	1:G:2496:PRO:HD2	2.36	0.40
1:G:4154:VAL:O	1:G:4154:VAL:HG13	2.22	0.40
1:G:4662:ASN:HA	1:G:4666:VAL:HG21	2.03	0.40
1:G:4809:PHE:O	1:G:4812:HIS:ND1	2.38	0.40
1:A:855:PRO:HD3	1:A:994:ASN:HB3	2.03	0.40
1:A:1126:GLY:HA2	1:A:1143:TRP:NE1	2.36	0.40
1:A:1695:LEU:O	1:A:1699:GLU:HG3	2.21	0.40
1:A:2293:GLN:O	1:A:2296:GLU:HB2	2.21	0.40
1:A:2451:LEU:O	1:A:2454:ARG:HB3	2.22	0.40
1:A:2813:LEU:HD22	1:A:2823:ILE:HD13	2.03	0.40
1:A:4671:PHE:CE1	1:A:4715:TYR:HA	2.57	0.40
1:A:4879:MET:CG	1:G:4578:LEU:HA	2.50	0.40
1:A:4940:PHE:HD2	1:C:4938:ASP:OD2	2.02	0.40
1:C:135:VAL:HG21	1:C:191:VAL:HG12	2.03	0.40
1:C:4776:GLN:HA	1:C:4779:LYS:HG2	2.03	0.40
2:D:46:PHE:CE2	2:D:48:PHE:CD1	3.09	0.40
1:E:107:ILE:HD12	1:E:109:LEU:HD21	2.03	0.40
1:E:916:PRO:O	1:E:919:ASN:HB2	2.21	0.40
1:E:1514:LEU:HD12	1:E:1533:GLY:HA3	2.03	0.40
1:E:1585:LYS:CB	1:E:1587:PRO:HD2	2.51	0.40
1:E:2208:MET:O	1:E:2212:VAL:HG23	2.22	0.40
1:E:2208:MET:O	1:E:2211:MET:HB3	2.22	0.40
1:E:2813:LEU:HD22	1:E:2823:ILE:HD13	2.03	0.40
1:E:3705:PHE:CD1	1:E:3722:TYR:HD1	2.39	0.40
1:E:3878:ASP:OD2	1:E:3953:LYS:HE3	2.22	0.40
1:E:4222:VAL:HG11	1:E:4950:VAL:HA	2.04	0.40
1:E:4667:PRO:O	1:E:4670:ILE:HG22	2.22	0.40
1:G:135:VAL:HG21	1:G:191:VAL:HG12	2.03	0.40
1:G:404:ILE:HG12	1:G:478:PHE:CD1	2.57	0.40
1:G:521:LEU:O	1:G:525:LEU:N	2.46	0.40
1:G:685:GLY:O	1:G:780:VAL:HB	2.21	0.40
1:G:1024:TYR:CE1	1:G:1032:LYS:HG3	2.57	0.40
1:G:1126:GLY:HA2	1:G:1143:TRP:NE1	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1514:LEU:C	1:G:1515:VAL:CG2	2.89	0.40
1:G:3462:ASN:O	1:G:3466:ASN:N	2.50	0.40
1:G:3884:LEU:O	1:G:3887:PHE:HB3	2.22	0.40
1:G:4715:TYR:CD2	1:G:4717:ASP:HB3	2.57	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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	3496/5037 (69%)	3173 (91%)	220 (6%)	103 (3%)	4	32
1	C	3496/5037 (69%)	3169 (91%)	223 (6%)	104 (3%)	4	32
1	E	3496/5037 (69%)	3169 (91%)	223 (6%)	104 (3%)	4	32
1	G	3496/5037 (69%)	3169 (91%)	226 (6%)	101 (3%)	4	32
2	B	105/108 (97%)	92 (88%)	12 (11%)	1 (1%)	15	54
2	D	105/108 (97%)	92 (88%)	12 (11%)	1 (1%)	15	54
2	F	105/108 (97%)	92 (88%)	12 (11%)	1 (1%)	15	54
2	H	105/108 (97%)	89 (85%)	15 (14%)	1 (1%)	15	54
All	All	14404/20580 (70%)	13045 (91%)	943 (6%)	416 (3%)	7	32

All (416) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	689	THR
1	A	720	HIS
1	A	806	PRO
1	A	916	PRO
1	A	1253	PRO
1	A	1589	PRO

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Mol	Chain	Res	Type
1	A	1768	THR
1	A	1853	ILE
1	A	2203	MET
1	A	2466	LEU
1	A	4084	PRO
1	A	4958	CYS
1	C	689	THR
1	C	720	HIS
1	C	806	PRO
1	C	916	PRO
1	C	1253	PRO
1	C	1589	PRO
1	C	1768	THR
1	C	1853	ILE
1	C	2203	MET
1	C	2466	LEU
1	C	4084	PRO
1	C	4958	CYS
1	E	689	THR
1	E	720	HIS
1	E	806	PRO
1	E	916	PRO
1	E	1253	PRO
1	E	1589	PRO
1	E	1768	THR
1	E	1853	ILE
1	E	2203	MET
1	E	2466	LEU
1	E	4084	PRO
1	E	4958	CYS
1	G	689	THR
1	G	720	HIS
1	G	806	PRO
1	G	916	PRO
1	G	1253	PRO
1	G	1589	PRO
1	G	1768	THR
1	G	1853	ILE
1	G	2203	MET
1	G	2466	LEU
1	G	3679	LYS
1	G	3843	ASP

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Mol	Chain	Res	Type
1	G	4084	PRO
1	G	4115	SER
1	G	4958	CYS
1	G	4985	LEU
1	A	207	SER
1	A	251	ALA
1	A	508	GLY
1	A	581	ASN
1	A	817	PRO
1	A	882	TRP
1	A	1542	VAL
1	A	1544	PRO
1	A	1854	PHE
1	A	2110	TYR
1	A	2341	VAL
1	A	2560	PRO
1	A	3679	LYS
1	A	3714	SER
1	A	3843	ASP
1	A	3894	GLY
1	A	3906	GLN
1	A	4031	LEU
1	A	4076	ALA
1	A	4085	ARG
1	A	4115	SER
1	A	4207	MET
1	A	4208	PRO
1	A	4733	GLY
1	A	4875	LYS
1	A	4893	ALA
1	A	4894	GLY
1	A	5027	CYS
2	B	88	PRO
1	C	251	ALA
1	C	508	GLY
1	C	581	ASN
1	C	817	PRO
1	C	882	TRP
1	C	1542	VAL
1	C	1544	PRO
1	C	1854	PHE
1	C	2110	TYR

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Mol	Chain	Res	Type
1	C	2341	VAL
1	C	2560	PRO
1	C	3679	LYS
1	C	3714	SER
1	C	3843	ASP
1	C	3894	GLY
1	C	3906	GLN
1	C	4031	LEU
1	C	4076	ALA
1	C	4085	ARG
1	C	4115	SER
1	C	4207	MET
1	C	4208	PRO
1	C	4733	GLY
1	C	4875	LYS
1	C	4894	GLY
1	C	5027	CYS
2	D	88	PRO
1	E	251	ALA
1	E	508	GLY
1	E	581	ASN
1	E	817	PRO
1	E	882	TRP
1	E	1542	VAL
1	E	1544	PRO
1	E	1854	PHE
1	E	2110	TYR
1	E	2341	VAL
1	E	2560	PRO
1	E	3679	LYS
1	E	3714	SER
1	E	3843	ASP
1	E	3894	GLY
1	E	3906	GLN
1	E	4031	LEU
1	E	4076	ALA
1	E	4085	ARG
1	E	4115	SER
1	E	4207	MET
1	E	4208	PRO
1	E	4733	GLY
1	E	4875	LYS

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Mol	Chain	Res	Type
1	E	4893	ALA
1	E	4894	GLY
1	E	5027	CYS
2	F	88	PRO
1	G	207	SER
1	G	251	ALA
1	G	508	GLY
1	G	581	ASN
1	G	817	PRO
1	G	882	TRP
1	G	1542	VAL
1	G	1544	PRO
1	G	1854	PHE
1	G	2110	TYR
1	G	2341	VAL
1	G	2560	PRO
1	G	3714	SER
1	G	3806	ASN
1	G	3894	GLY
1	G	3906	GLN
1	G	4031	LEU
1	G	4076	ALA
1	G	4085	ARG
1	G	4207	MET
1	G	4208	PRO
1	G	4733	GLY
1	G	4875	LYS
1	G	4890	GLY
1	G	4894	GLY
1	G	5027	CYS
2	H	88	PRO
1	A	401	ALA
1	A	609	CYS
1	A	676	THR
1	A	753	PRO
1	A	767	VAL
1	A	827	LYS
1	A	828	GLU
1	A	908	VAL
1	A	970	LEU
1	A	1156	THR
1	A	1294	PRO

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Mol	Chain	Res	Type
1	A	1436	SER
1	A	1489	CYS
1	A	1560	ASN
1	A	1606	SER
1	A	1611	HIS
1	A	1676	LEU
1	A	1690	ASP
1	A	1825	HIS
1	A	2360	LYS
1	A	2826	ALA
1	A	3721	LEU
1	A	3806	ASN
1	A	3809	ASN
1	A	4036	VAL
1	A	4120	ASN
1	A	4550	LYS
1	A	4728	HIS
1	A	4959	PHE
1	A	4985	LEU
1	C	44	ASN
1	C	207	SER
1	C	401	ALA
1	C	609	CYS
1	C	676	THR
1	C	753	PRO
1	C	767	VAL
1	C	827	LYS
1	C	828	GLU
1	C	908	VAL
1	C	970	LEU
1	C	1156	THR
1	C	1294	PRO
1	C	1436	SER
1	C	1489	CYS
1	C	1560	ASN
1	C	1606	SER
1	C	1611	HIS
1	C	1676	LEU
1	C	1690	ASP
1	C	1825	HIS
1	C	2360	LYS
1	C	2826	ALA

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Mol	Chain	Res	Type
1	C	3721	LEU
1	C	3806	ASN
1	C	3809	ASN
1	C	4036	VAL
1	C	4120	ASN
1	C	4550	LYS
1	C	4728	HIS
1	C	4893	ALA
1	C	4959	PHE
1	C	4985	LEU
1	E	44	ASN
1	E	207	SER
1	E	401	ALA
1	E	609	CYS
1	E	676	THR
1	E	753	PRO
1	E	767	VAL
1	E	827	LYS
1	E	828	GLU
1	E	908	VAL
1	E	970	LEU
1	E	1156	THR
1	E	1294	PRO
1	E	1436	SER
1	E	1458	HIS
1	E	1489	CYS
1	E	1560	ASN
1	E	1606	SER
1	E	1611	HIS
1	E	1676	LEU
1	E	1690	ASP
1	E	1825	HIS
1	E	2360	LYS
1	E	2826	ALA
1	E	3721	LEU
1	E	3806	ASN
1	E	3809	ASN
1	E	4036	VAL
1	E	4120	ASN
1	E	4550	LYS
1	E	4728	HIS
1	E	4959	PHE

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Mol	Chain	Res	Type
1	E	4985	LEU
1	G	44	ASN
1	G	401	ALA
1	G	609	CYS
1	G	676	THR
1	G	753	PRO
1	G	767	VAL
1	G	827	LYS
1	G	828	GLU
1	G	908	VAL
1	G	970	LEU
1	G	1156	THR
1	G	1294	PRO
1	G	1436	SER
1	G	1489	CYS
1	G	1560	ASN
1	G	1606	SER
1	G	1611	HIS
1	G	1676	LEU
1	G	1690	ASP
1	G	1825	HIS
1	G	2360	LYS
1	G	3721	LEU
1	G	3809	ASN
1	G	4120	ASN
1	G	4550	LYS
1	G	4959	PHE
1	A	24	CYS
1	A	44	ASN
1	A	56	GLN
1	A	342	GLY
1	A	700	GLU
1	A	826	ILE
1	A	915	GLU
1	A	1206	GLN
1	A	1251	GLU
1	A	1482	ASN
1	A	1487	LEU
1	A	1614	GLN
1	A	2107	GLN
1	A	2113	SER
1	A	4052	SER

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Mol	Chain	Res	Type
1	C	24	CYS
1	C	56	GLN
1	C	342	GLY
1	C	700	GLU
1	C	826	ILE
1	C	915	GLU
1	C	1206	GLN
1	C	1251	GLU
1	C	1482	ASN
1	C	1487	LEU
1	C	1614	GLN
1	C	2107	GLN
1	C	2113	SER
1	C	4052	SER
1	E	24	CYS
1	E	56	GLN
1	E	342	GLY
1	E	700	GLU
1	E	826	ILE
1	E	915	GLU
1	E	1206	GLN
1	E	1251	GLU
1	E	1482	ASN
1	E	1487	LEU
1	E	1614	GLN
1	E	2107	GLN
1	E	2113	SER
1	E	3941	ASP
1	E	4052	SER
1	G	24	CYS
1	G	56	GLN
1	G	342	GLY
1	G	700	GLU
1	G	826	ILE
1	G	915	GLU
1	G	1206	GLN
1	G	1251	GLU
1	G	1482	ASN
1	G	1487	LEU
1	G	1614	GLN
1	G	2107	GLN
1	G	2113	SER

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Mol	Chain	Res	Type
1	G	2826	ALA
1	G	3792	ALA
1	G	3941	ASP
1	G	4893	ALA
1	A	360	ALA
1	A	611	GLY
1	A	1830	VAL
1	A	2377	LEU
1	A	2495	VAL
1	A	3905	THR
1	A	3941	ASP
1	A	4876	CYS
1	C	360	ALA
1	C	611	GLY
1	C	1218	GLY
1	C	1830	VAL
1	C	2377	LEU
1	C	2495	VAL
1	C	2926	LEU
1	C	3905	THR
1	C	3941	ASP
1	C	4876	CYS
1	E	360	ALA
1	E	611	GLY
1	E	1218	GLY
1	E	1830	VAL
1	E	2377	LEU
1	E	3905	THR
1	E	4876	CYS
1	G	360	ALA
1	G	611	GLY
1	G	1218	GLY
1	G	1830	VAL
1	G	2377	LEU
1	G	2495	VAL
1	G	3905	THR
1	A	691	GLY
1	A	1218	GLY
1	A	4819	GLY
1	A	4890	GLY
1	C	691	GLY
1	C	4819	GLY

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Mol	Chain	Res	Type
1	E	691	GLY
1	E	2495	VAL
1	E	4819	GLY
1	G	691	GLY
1	A	865	PRO
1	A	1762	LEU
1	C	865	PRO
1	C	896	VAL
1	C	1762	LEU
1	C	4890	GLY
1	E	865	PRO
1	E	1762	LEU
1	E	4890	GLY
1	G	865	PRO
1	G	1762	LEU
1	A	896	VAL
1	A	1141	ARG
1	A	2343	GLY
1	C	1141	ARG
1	C	2343	GLY
1	E	896	VAL
1	E	1141	ARG
1	E	2343	GLY
1	G	896	VAL
1	G	1141	ARG
1	G	2343	GLY
1	G	3826	VAL
1	C	1053	ILE
1	E	1053	ILE
1	G	1053	ILE
1	A	1053	ILE
1	G	4036	VAL

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	2500/4276 (58%)	2486 (99%)	14 (1%)	86	92
1	C	2501/4276 (58%)	2487 (99%)	14 (1%)	86	92
1	E	2502/4276 (58%)	2486 (99%)	16 (1%)	86	92
1	G	2501/4276 (58%)	2482 (99%)	19 (1%)	81	89
2	B	89/90 (99%)	89 (100%)	0	100	100
2	D	89/90 (99%)	89 (100%)	0	100	100
2	F	89/90 (99%)	89 (100%)	0	100	100
2	H	89/90 (99%)	89 (100%)	0	100	100
All	All	10360/17464 (59%)	10297 (99%)	63 (1%)	86	92

All (63) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	806	PRO
1	A	852	VAL
1	A	862	VAL
1	A	865	PRO
1	A	885	THR
1	A	896	VAL
1	A	914	PRO
1	A	916	PRO
1	A	979	PRO
1	A	1055	PRO
1	A	1513	ASP
1	A	1829	PRO
1	A	1934	SER
1	A	4850	LEU
1	C	806	PRO
1	C	859	VAL
1	C	862	VAL
1	C	865	PRO
1	C	885	THR
1	C	914	PRO
1	C	916	PRO
1	C	979	PRO
1	C	1001	VAL
1	C	1055	PRO
1	C	1514	LEU
1	C	1829	PRO
1	C	1934	SER

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Mol	Chain	Res	Type
1	C	4850	LEU
1	E	806	PRO
1	E	852	VAL
1	E	865	PRO
1	E	885	THR
1	E	896	VAL
1	E	914	PRO
1	E	916	PRO
1	E	979	PRO
1	E	1001	VAL
1	E	1055	PRO
1	E	1513	ASP
1	E	1514	LEU
1	E	1829	PRO
1	E	1934	SER
1	E	4072	VAL
1	E	4850	LEU
1	G	806	PRO
1	G	852	VAL
1	G	859	VAL
1	G	862	VAL
1	G	865	PRO
1	G	885	THR
1	G	896	VAL
1	G	914	PRO
1	G	916	PRO
1	G	979	PRO
1	G	1055	PRO
1	G	1513	ASP
1	G	1514	LEU
1	G	1829	PRO
1	G	1934	SER
1	G	3926	LEU
1	G	4233	LEU
1	G	4796	MET
1	G	4850	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (152) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	57	ASN
1	A	111	HIS

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Mol	Chain	Res	Type
1	A	113	HIS
1	A	203	ASN
1	A	349	GLN
1	A	379	HIS
1	A	395	GLN
1	A	465	GLN
1	A	495	ASN
1	A	593	HIS
1	A	765	GLN
1	A	1127	HIS
1	A	1203	ASN
1	A	1252	HIS
1	A	1274	HIS
1	A	1460	HIS
1	A	1586	ASN
1	A	1610	ASN
1	A	1629	GLN
1	A	1631	GLN
1	A	1645	ASN
1	A	1663	HIS
1	A	1691	GLN
1	A	1693	GLN
1	A	1775	HIS
1	A	1949	GLN
1	A	1952	GLN
1	A	2127	GLN
1	A	2247	GLN
1	A	2420	HIS
1	A	2856	ASN
1	A	3699	HIS
1	A	3700	GLN
1	A	3771	HIS
1	A	3813	GLN
1	A	4806	ASN
1	A	5031	GLN
2	B	87	HIS
1	C	57	ASN
1	C	111	HIS
1	C	113	HIS
1	C	203	ASN
1	C	349	GLN
1	C	379	HIS

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Mol	Chain	Res	Type
1	C	395	GLN
1	C	465	GLN
1	C	495	ASN
1	C	593	HIS
1	C	765	GLN
1	C	1127	HIS
1	C	1203	ASN
1	C	1252	HIS
1	C	1274	HIS
1	C	1586	ASN
1	C	1629	GLN
1	C	1631	GLN
1	C	1645	ASN
1	C	1663	HIS
1	C	1691	GLN
1	C	1693	GLN
1	C	1775	HIS
1	C	1949	GLN
1	C	1952	GLN
1	C	2127	GLN
1	C	2247	GLN
1	C	2420	HIS
1	C	2856	ASN
1	C	3699	HIS
1	C	3700	GLN
1	C	3771	HIS
1	C	3813	GLN
1	C	4806	ASN
1	C	5031	GLN
2	D	87	HIS
1	E	57	ASN
1	E	111	HIS
1	E	113	HIS
1	E	203	ASN
1	E	349	GLN
1	E	379	HIS
1	E	395	GLN
1	E	465	GLN
1	E	495	ASN
1	E	593	HIS
1	E	765	GLN
1	E	1127	HIS

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Mol	Chain	Res	Type
1	E	1203	ASN
1	E	1252	HIS
1	E	1274	HIS
1	E	1586	ASN
1	E	1610	ASN
1	E	1629	GLN
1	E	1631	GLN
1	E	1645	ASN
1	E	1663	HIS
1	E	1691	GLN
1	E	1693	GLN
1	E	1775	HIS
1	E	1949	GLN
1	E	1952	GLN
1	E	2127	GLN
1	E	2246	ASN
1	E	2247	GLN
1	E	2420	HIS
1	E	2856	ASN
1	E	3699	HIS
1	E	3700	GLN
1	E	3771	HIS
1	E	3813	GLN
1	E	4806	ASN
1	E	5031	GLN
2	F	87	HIS
1	G	57	ASN
1	G	111	HIS
1	G	113	HIS
1	G	203	ASN
1	G	349	GLN
1	G	379	HIS
1	G	395	GLN
1	G	465	GLN
1	G	495	ASN
1	G	593	HIS
1	G	765	GLN
1	G	1127	HIS
1	G	1203	ASN
1	G	1252	HIS
1	G	1274	HIS
1	G	1586	ASN

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Mol	Chain	Res	Type
1	G	1610	ASN
1	G	1629	GLN
1	G	1631	GLN
1	G	1645	ASN
1	G	1663	HIS
1	G	1691	GLN
1	G	1693	GLN
1	G	1775	HIS
1	G	1949	GLN
1	G	1952	GLN
1	G	2125	HIS
1	G	2127	GLN
1	G	2247	GLN
1	G	2420	HIS
1	G	2856	ASN
1	G	3699	HIS
1	G	3700	GLN
1	G	3767	GLN
1	G	3771	HIS
1	G	4806	ASN
1	G	4833	ASN
1	G	4984	ASN
1	G	5031	GLN
2	H	87	HIS

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 monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 4 ligands modelled in this entry, 4 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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.

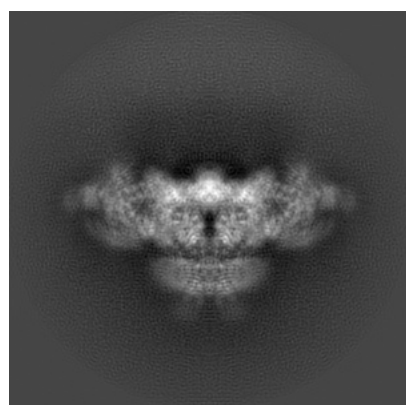
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-9520. These allow visual inspection of the internal detail of the map and identification of artifacts.

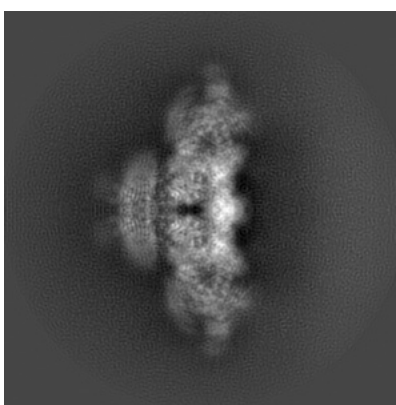
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

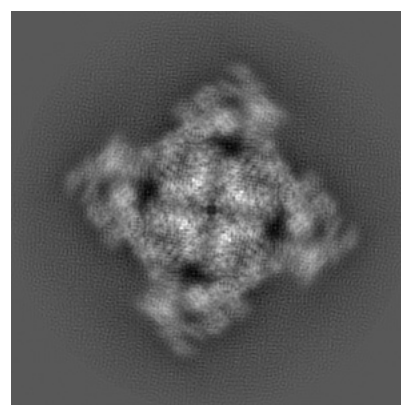
6.1.1 Primary map



X



Y

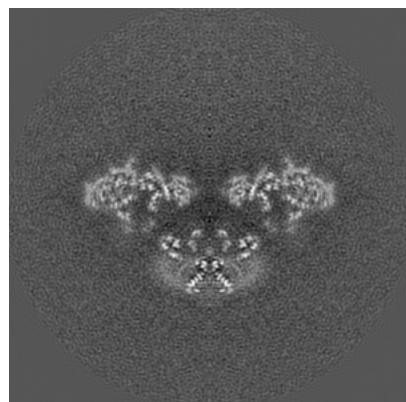


Z

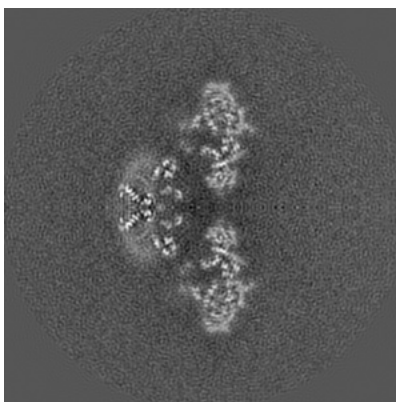
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

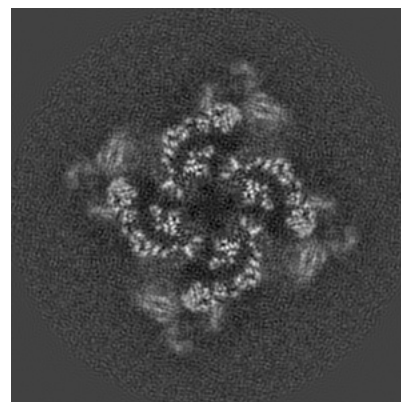
6.2.1 Primary map



X Index: 180



Y Index: 180

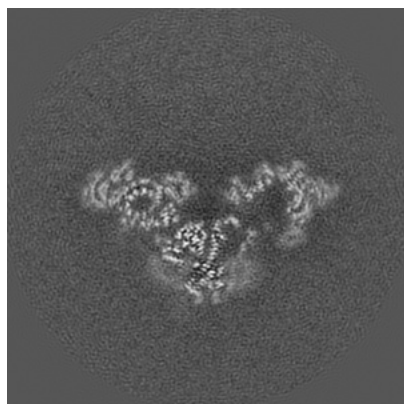


Z Index: 180

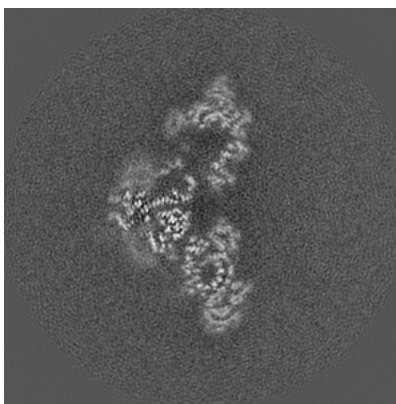
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

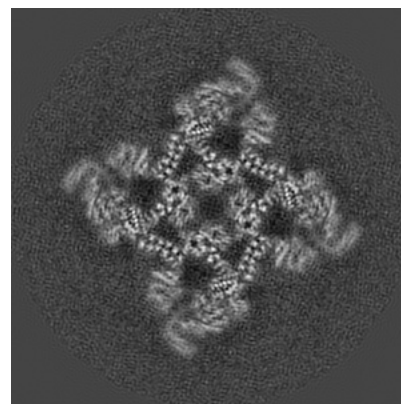
6.3.1 Primary map



X Index: 187



Y Index: 173



Z Index: 191

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

6.4 Orthogonal surface views [i](#)

6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.09. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

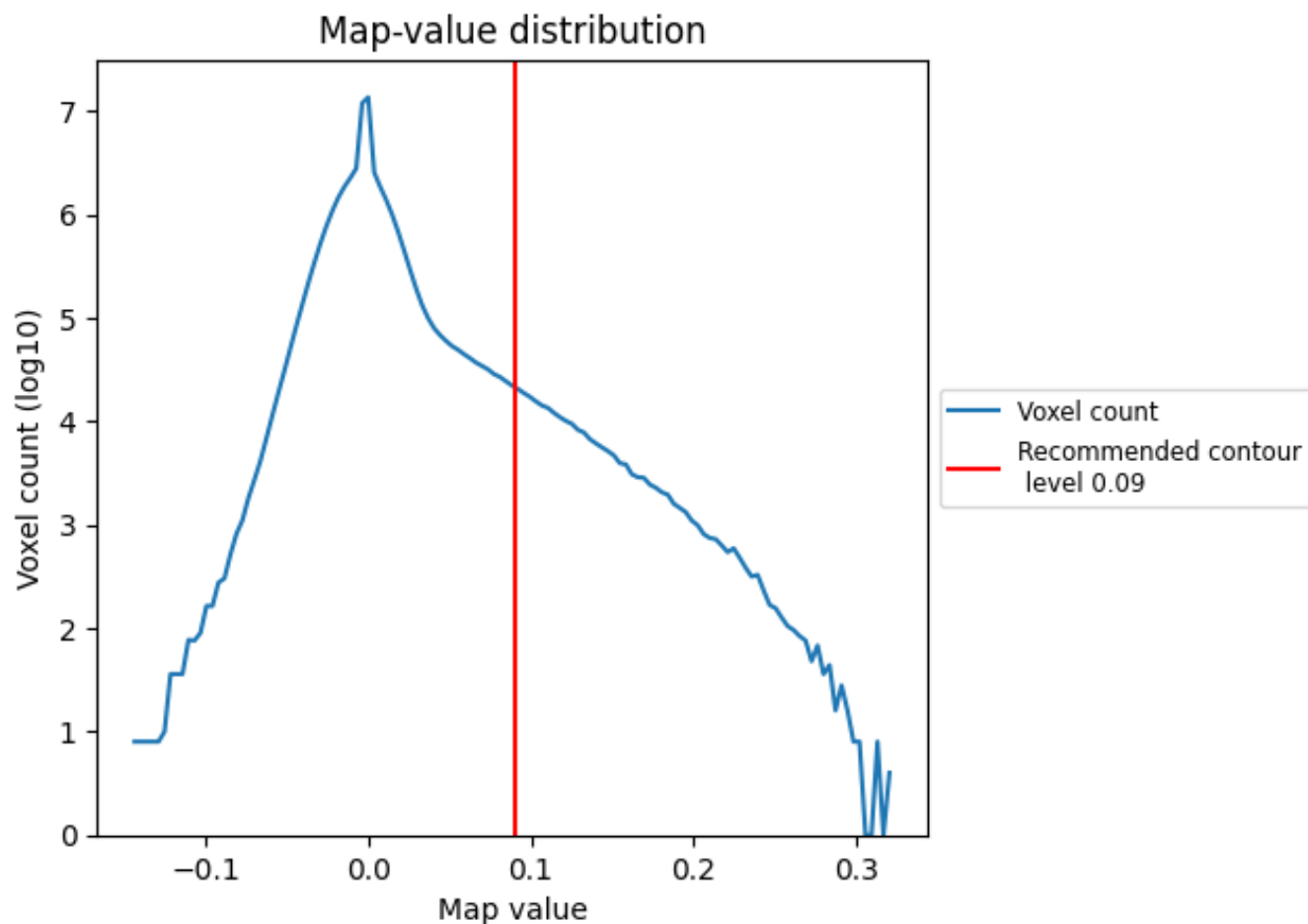
6.5 Mask visualisation

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

7 Map analysis [i](#)

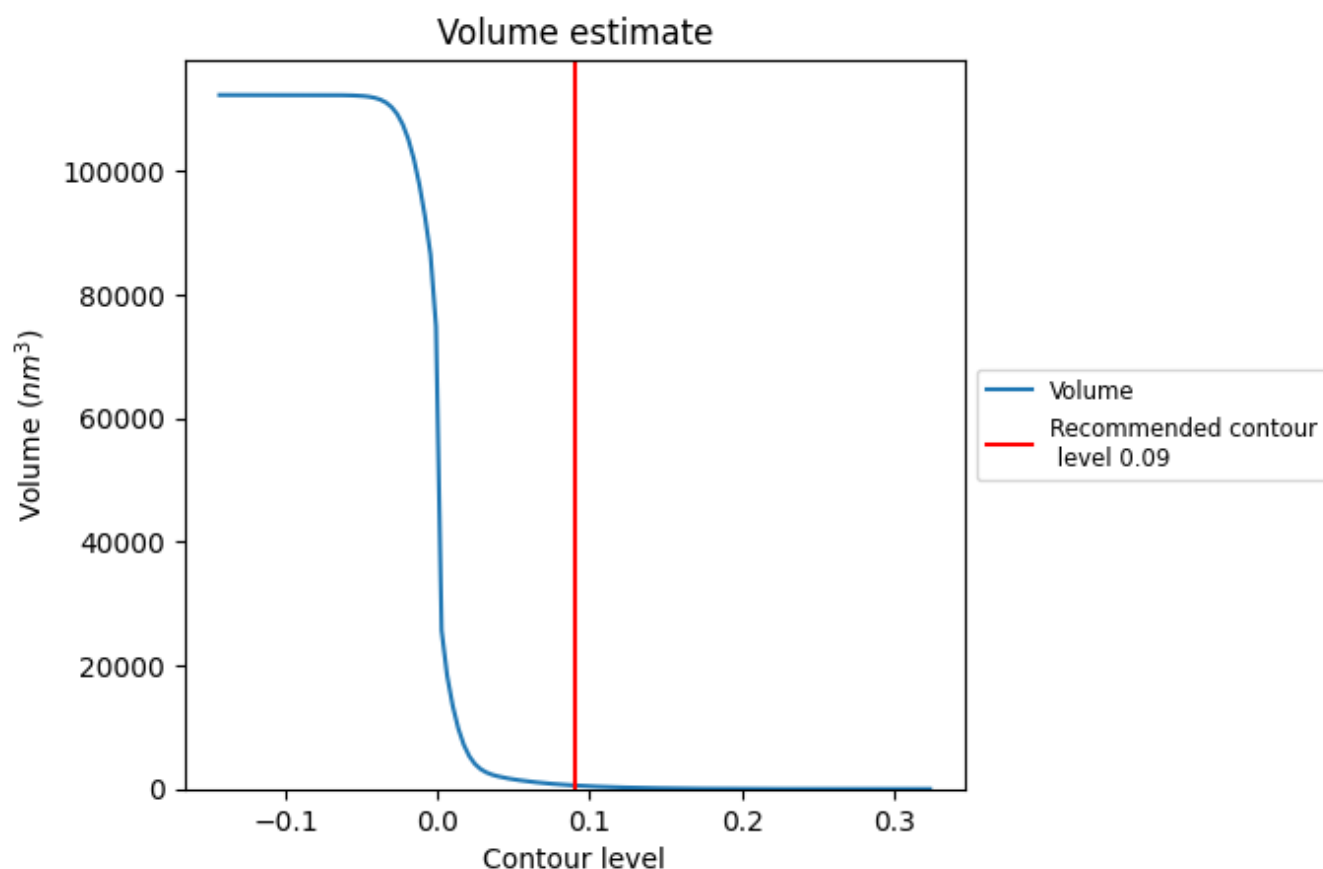
This section contains the results of statistical analysis of the map.

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.

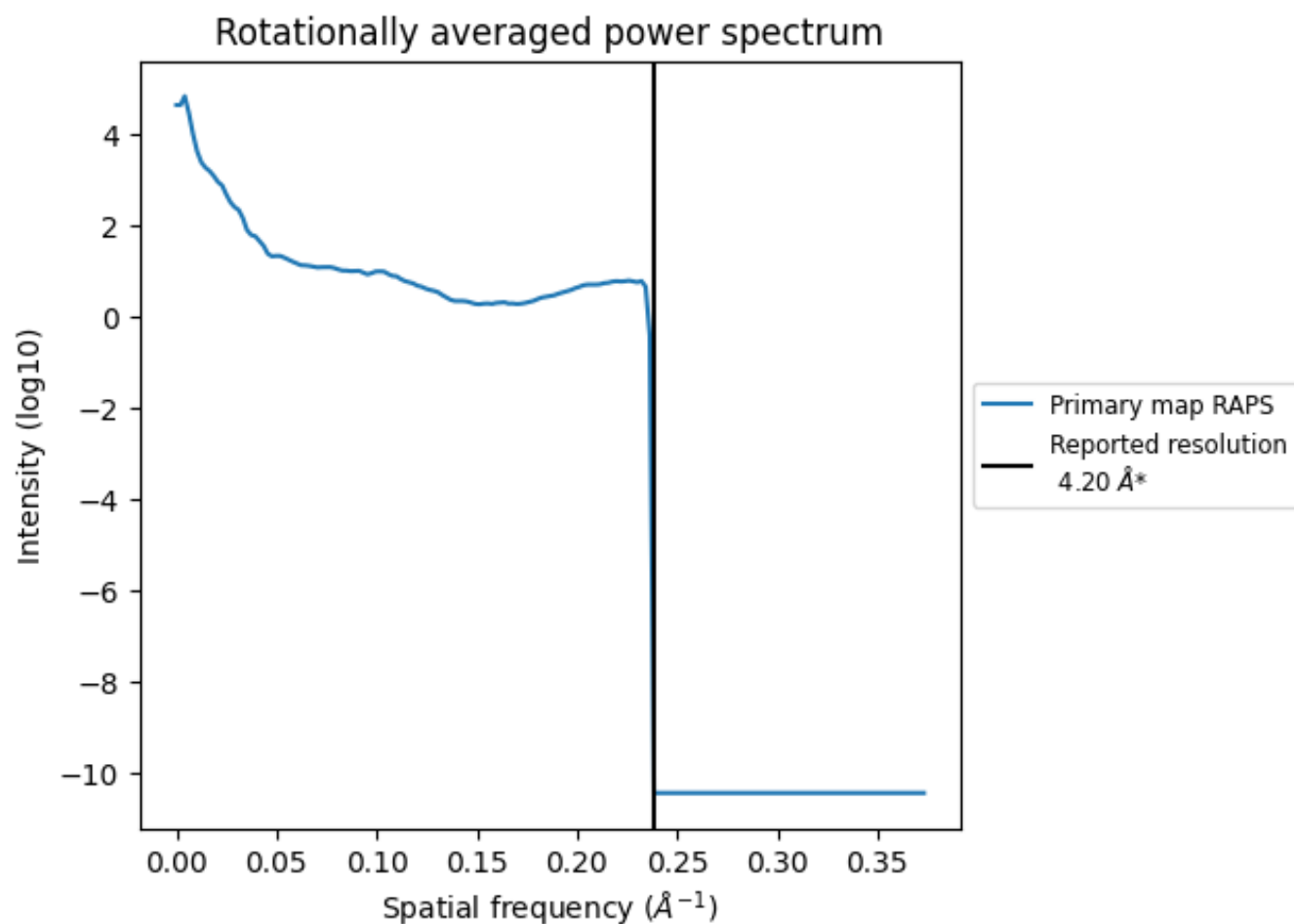
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 572 nm^3 ; this corresponds to an approximate mass of 517 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 0.238 Å⁻¹

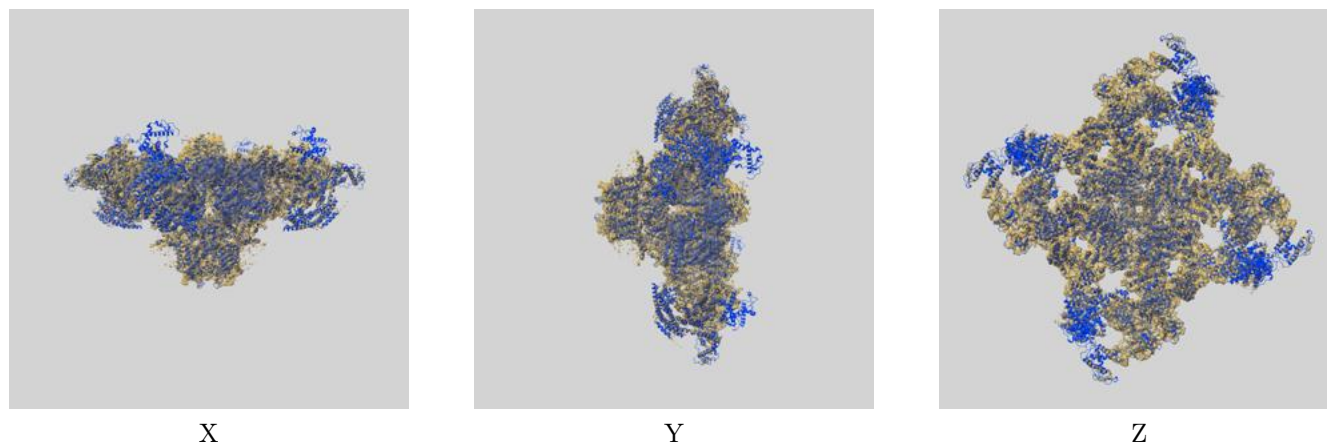
8 Fourier-Shell correlation ⓘ

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

9 Map-model fit [i](#)

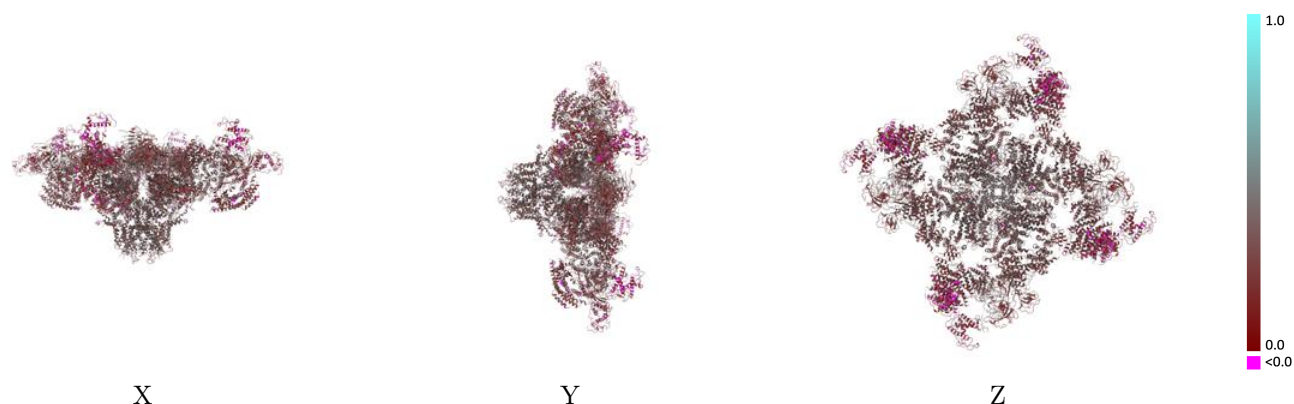
This section contains information regarding the fit between EMDB map EMD-9520 and PDB model 5GL0. Per-residue inclusion information can be found in section [3](#) on page [4](#).

9.1 Map-model overlay [i](#)



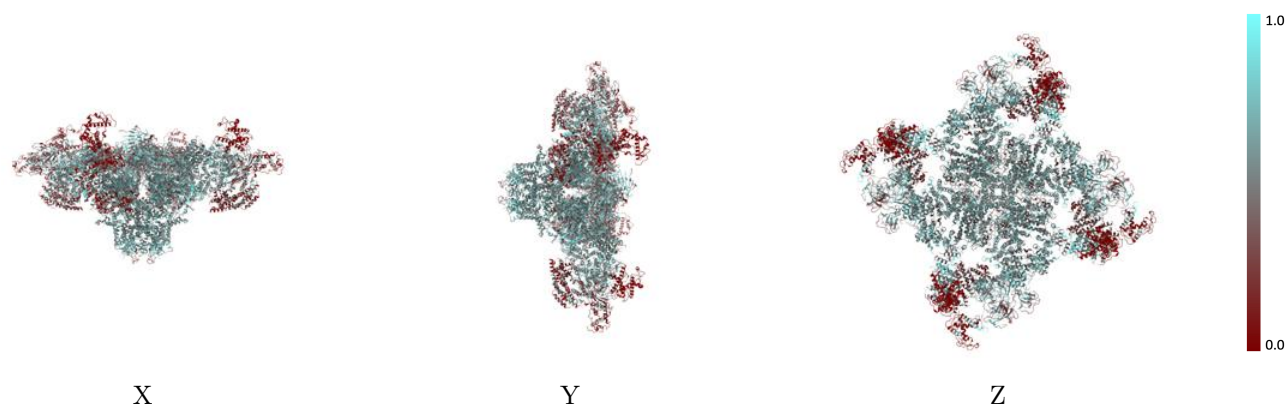
The images above show the 3D surface view of the map at the recommended contour level 0.09 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



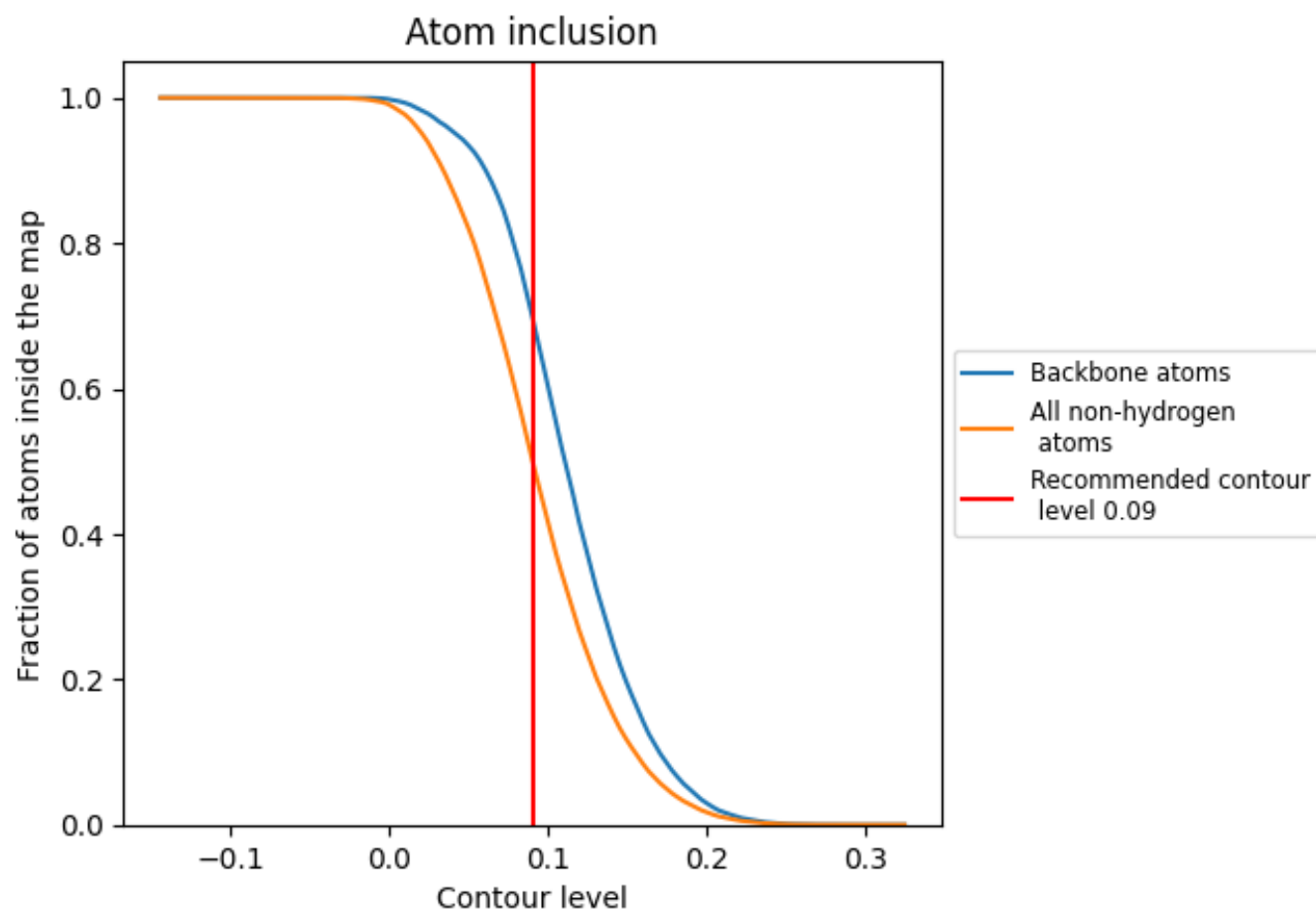
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.09).

9.4 Atom inclusion [i](#)



At the recommended contour level, 70% of all backbone atoms, 50% 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 (0.09) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	<div><div></div></div> 0.5020	<div><div></div></div> 0.3090
A	<div><div></div></div> 0.5028	<div><div></div></div> 0.3090
B	<div><div></div></div> 0.4669	<div><div></div></div> 0.3060
C	<div><div></div></div> 0.5024	<div><div></div></div> 0.3090
D	<div><div></div></div> 0.4669	<div><div></div></div> 0.3070
E	<div><div></div></div> 0.5027	<div><div></div></div> 0.3090
F	<div><div></div></div> 0.4657	<div><div></div></div> 0.3010
G	<div><div></div></div> 0.5042	<div><div></div></div> 0.3100
H	<div><div></div></div> 0.4706	<div><div></div></div> 0.3070

1.0

0.0

<0.0