



# Full wwPDB EM Validation Report ⓘ

Mar 19, 2024 – 09:21 PM JST

PDB ID : 6JHN  
EMDB ID : EMD-9826  
Title : Structure of RyR2 (F/C/Ca<sup>2+</sup> dataset)  
Authors : Chi, X.M.; Gong, D.S.; Ren, K.; Zhou, G.W.; Huang, G.X.Y.; Lei, J.L.; Zhou, Q.; Yan, N.  
Deposited on : 2019-02-18  
Resolution : 4.50 Å(reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto: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>.

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

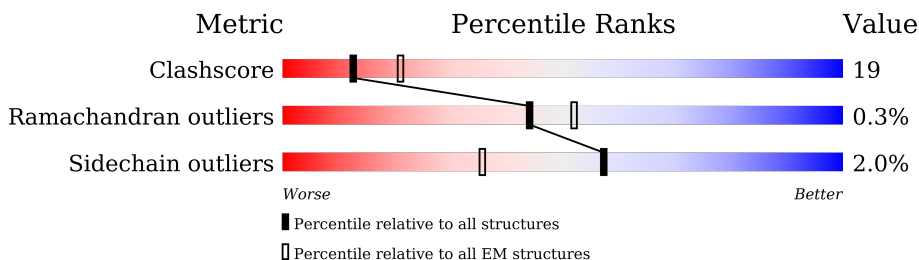
EMDB validation analysis : 0.0.1.dev70  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36

# 1 Overall quality at a glance i

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

The reported resolution of this entry is 4.50 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
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  $\geq 3$ , 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	4968	
1	C	4968	
1	E	4968	
1	G	4968	
2	B	108	
2	D	108	
2	F	108	
2	H	108	

## 2 Entry composition [i](#)

There are 5 unique types of molecules in this entry. The entry contains 109488 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 RyR2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	3476	26537	16896	4538	4946	157	0	0
1	C	3476	26537	16896	4538	4946	157	0	0
1	E	3476	26537	16896	4538	4946	157	0	0
1	G	3476	26537	16896	4538	4946	157	0	0

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	107	819	516	144	155	4	0	0
2	D	107	819	516	144	155	4	0	0
2	F	107	819	516	144	155	4	0	0
2	H	107	819	516	144	155	4	0	0

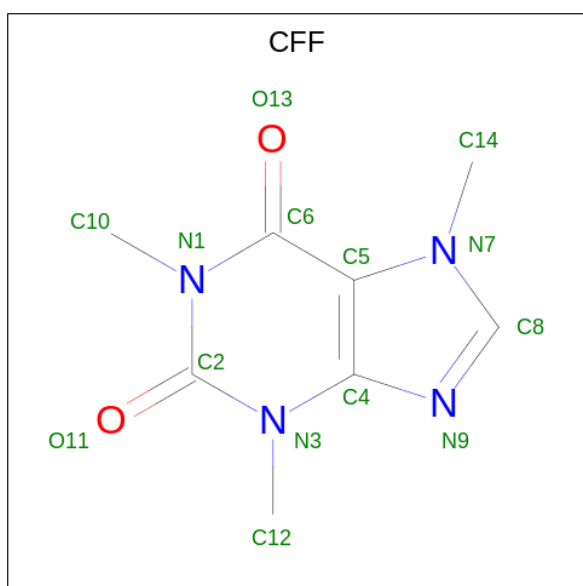
- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn).

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	

- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms	AltConf
4	A	1	Total Ca 1 1	0
4	C	1	Total Ca 1 1	0
4	E	1	Total Ca 1 1	0
4	G	1	Total Ca 1 1	0

- Molecule 5 is CAFFEINE (three-letter code: CFF) (formula:  $C_8H_{10}N_4O_2$ ).

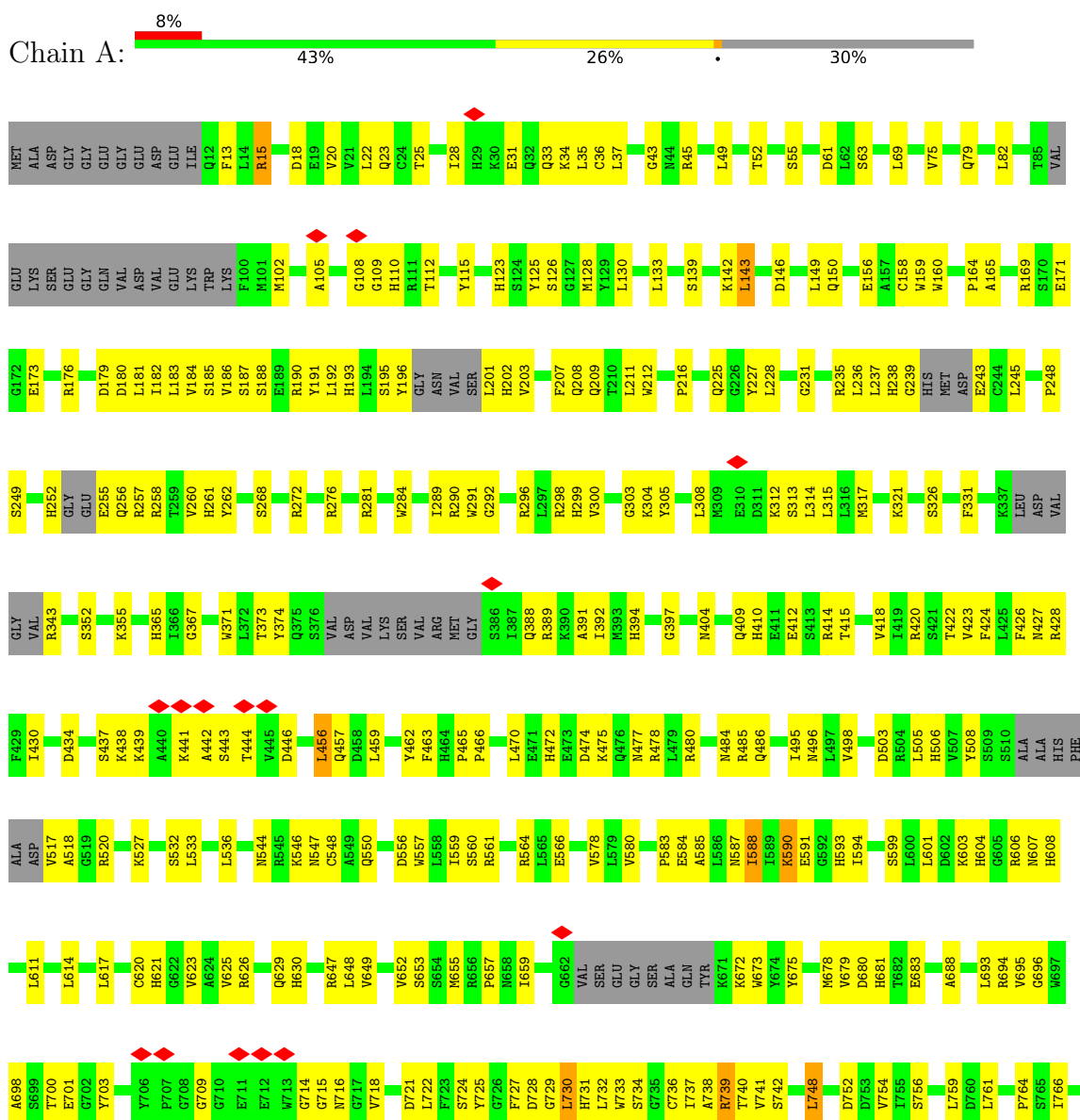


Mol	Chain	Residues	Atoms	AltConf
5	A	1	Total C N O 14 8 4 2	0
5	C	1	Total C N O 14 8 4 2	0
5	E	1	Total C N O 14 8 4 2	0
5	G	1	Total C N O 14 8 4 2	0

### 3 Residue-property plots i

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

#### • Molecule 1: RyR2



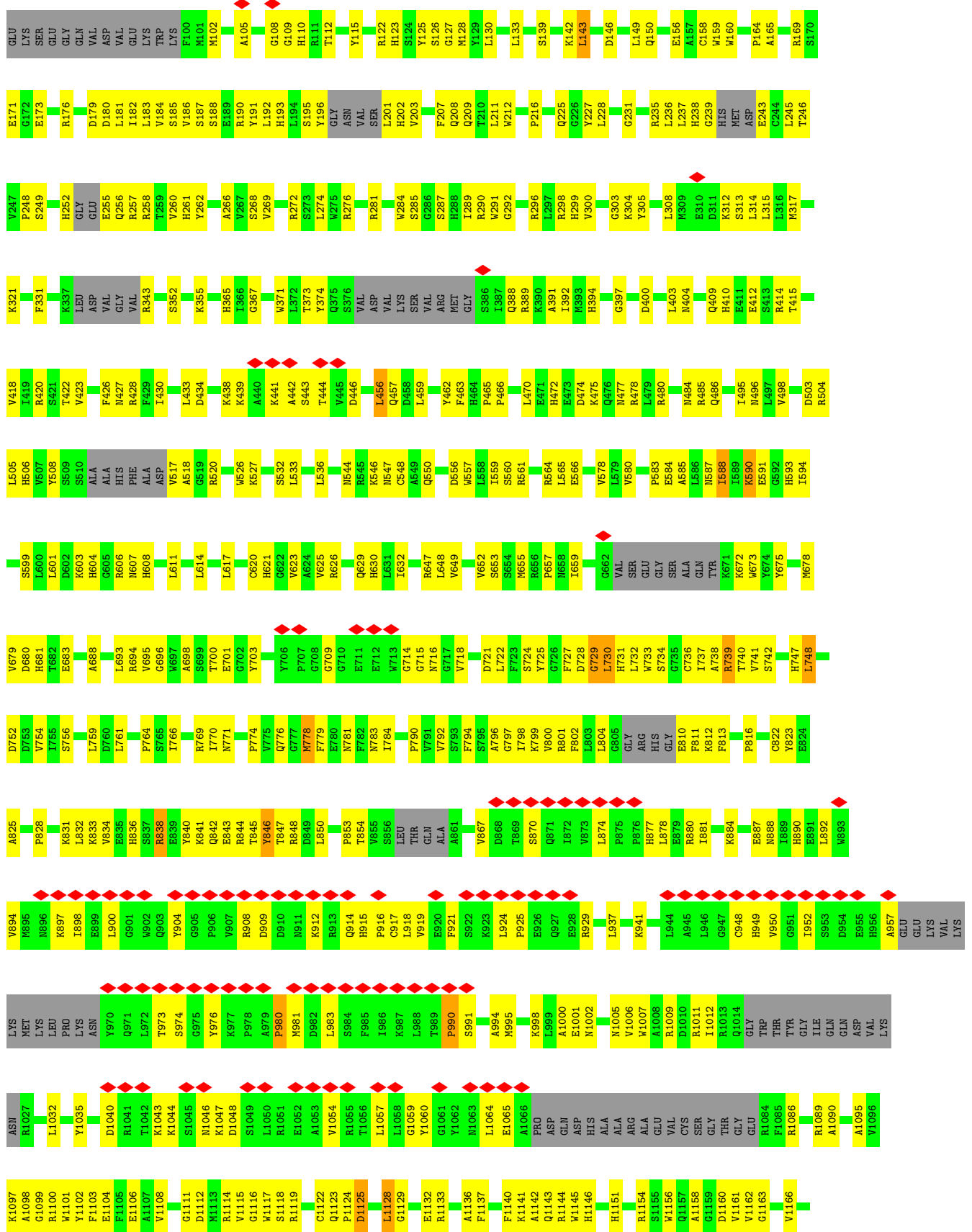








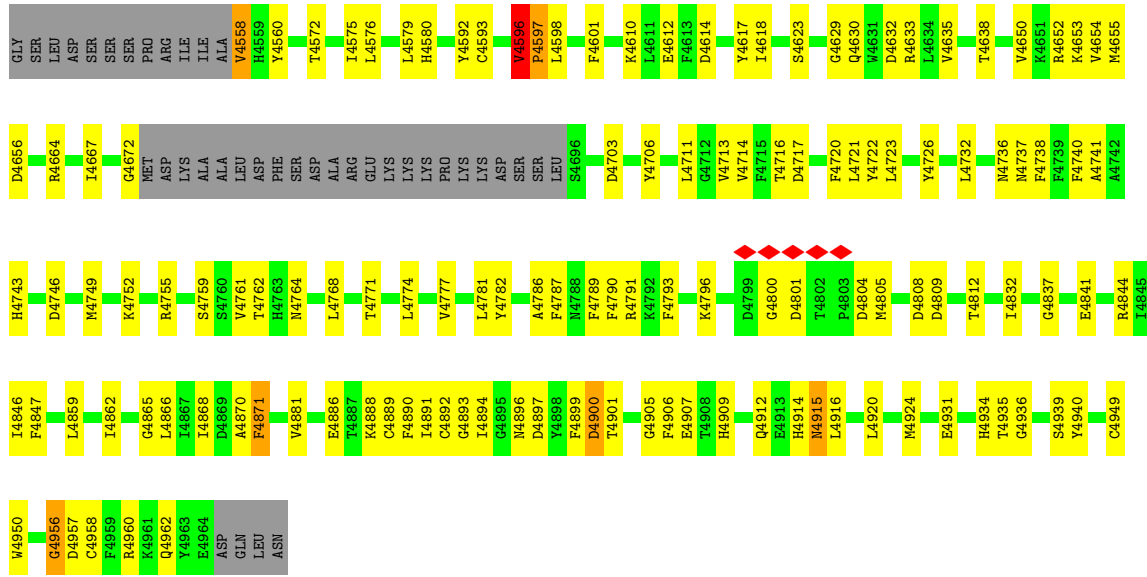




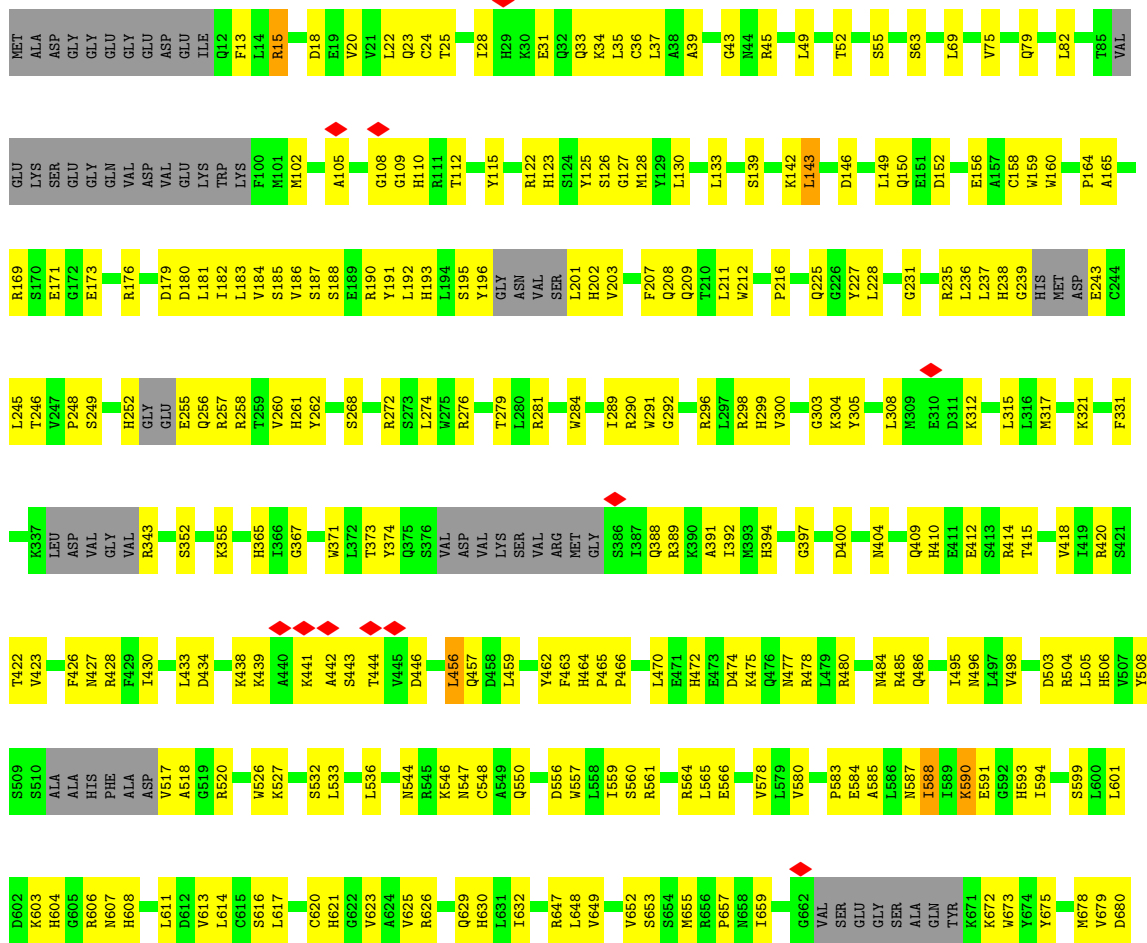
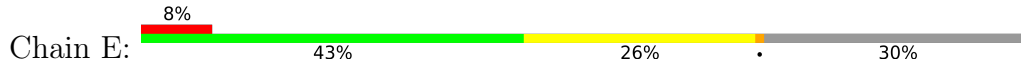
S2230	Y2221	L2222	L2223	E2224	N2225	S2226	S2227	R2236	A2241	A2245	A2246	S2247	V2248	N2251	L2254	A2255	L2256	A2257	L2258	D2262	L2263	E2264	V2267	R2268	G2274	L2275	L2276	L2277	L2278	L2279	L2280	L2281	L2282	L2283	L2284	L2285	L2286	L2287	L2288	L2289	L2290	L2291	L2292	L2293	L2294	L2295	L2296	L2297	L2298	L2299	L2300	L2301	L2302	L2303	A2306																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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L2124	L2127	R2128	W2135	G2136	E2139	E2140	K2141	L2142	R2145	D2149	N2153	K2154	Y2157	Q2158	H2159	F2160	M2163	H2168	H2169	H2170	H2171	H2172	H2173	H2174	H2175	H2176	H2177	H2178	H2179	H2180	H2181	H2182	H2183	H2184	H2185	H2186	H2187	H2188	H2189	H2190	H2191	H2192	H2193	H2194	H2195	H2196	H2197	H2198	H2199	H2200	H2201	H2202	H2203	H2204	H2205	H2206	H2207	H2208	H2209	H2210	H2211	H2212	H2213	H2214	H2215	H2216	H2217	H2218	H2219	H2220	H2221	H2222	H2223	H2224	H2225	H2226	H2227	H2228	H2229	H2230	H2231	H2232	H2233	H2234	H2235	H2236	H2237	H2238	H2239	H2240	H2241	H2242	H2243	H2244	H2245	H2246	H2247	H2248	H2249	H2250	H2251	H2252	H2253	H2254	H2255	H2256	H2257	H2258	H2259	H2260	H2261	H2262	H2263	H2264	H2265	H2266	H2267	H2268	H2269	H2270	H2271	H2272	H2273	H2274	H2275	H2276	H2277	H2278	H2279	H2280	H2281	H2282	H2283	H2284	H2285	H2286	H2287	H2288	H2289	H2290	H2291	H2292	H2293	H2294	H2295	H2296	H2297	H2298	H2299	H2300	H2301	H2302	H2303	H2304	H2305	H2306	H2307	H2308	H2309	H2310	H2311	H2312	H2313	H2314	H2315	H2316	H2317	H2318	H2319	H2320	H2321	H2322	H2323	H2324	H2325	H2326	H2327	H2328	H2329	H2330	H2331	H2332	H2333	H2334	H2335	H2336	H2337	H2338	H2339	H2340	H2341	H2342	H2343	H2344	H2345	H2346	H2347	H2348	H2349	H2350	H2351	H2352	H2353	H2354	H2355	H2356	H2357	H2358	H2359	H2360	H2361	H2362	H2363	H2364	H2365	H2366	H2367	H2368	H2369	H2370	H2371	H2372	H2373	H2374	H2375	H2376	H2377	H2378	H2379	H2380	H2381	H2382	H2383	H2384	H2385	H2386	H2387	H2388	H2389	H2390	H2391	H2392	H2393	H2394	H2395	H2396	H2397	H2398	H2399	H2400	H2401	H2402	H2403	H2404	H2405	H2406	H2407	H2408	H2409	H2410	H2411	H2412	H2413	H2414	H2415	H2416	H2417	H2418	H2419	H2420	H2421	H2422	H2423	H2424	H2425	H2426	H2427	H2428	H2429	H2430	H2431	H2432	H2433	H2434	H2435	H2436	H2437	H2438	H2439	H2440	H2441	H2442	H2443	H2444	H2445	H2446	H2447	H2448	H2449	H2450	H2451	H2452	H2453	H2454	H2455	H2456	H2457	H2458	H2459	H2460	H2461	H2462	H2463	H2464	H2465	H2466	H2467	H2468	H2469	H2470	H2471	H2472	H2473	H2474	H2475	H2476	H2477	H2478	H2479	H2480	H2481	H2482	H2483	H2484	H2485	H2486	H2487	H2488	H2489	H2490	H2491	H2492	H2493	H2494	H2495	H2496	H2497	H2498	H2499	H2500	H2501	H2502	H2503	H2504	H2505	H2506	H2507	H2508	H2509	H2510	H2511	H2512	H2513	H2514	H2515	H2516	H2517	H2518	H2519	H2520	H2521	H2522	H2523	H2524	H2525	H2526	H2527	H2528	H2529	H2530	H2531	H2532	H2533	H2534	H2535	H2536	H2537	H2538	H2539	H2540	H2541	H2542	H2543	H2544	H2545	H2546	H2547	H2548	H2549	H2550	H2551	H2552	H2553	H2554	H2555	H2556	H2557	H2558	H2559	H2560	H2561	H2562	H2563	H2564	H2565	H2566	H2567	H2568	H2569	H2570	H2571	H2572	H2573	H2574	H2575	H2576	H2577	H2578	H2579	H2580	H2581	H2582	H2583	H2584	H2585	H2586	H2587	H2588	H2589	H2590	H2591	H2592	H2593	H2594	H2595	H2596	H2597	H2598	H2599	H2600	H2601	H2602	H2603	H2604	H2605	H2606	H2607	H2608	H2609	H2610	H2611	H2612	H2613	H2614	H2615	H2616	H2617	H2618	H2619	H2620	H2621	H2622	H2623	H2624	H2625	H2626	H2627	H2628	H2629	H2630	H2631	H2632	H2633	H2634	H2635	H2636	H2637	H2638	H2639	H2640	H2641	H2642	H2643	H2644	H2645	H2646	H2647	H2648	H2649	H2650	H2651	H2652	H2653	H2654	H2655	H2656	H2657	H2658	H2659	H2660	H2661	H2662	H2663	H2664	H2665	H2666	H2667	H2668	H2669	H2670	H2671	H2672	H2673	H2674	H2675	H2676	H2677	H2678	H2679	H2680	H2681	H2682	H2683	H2684	H2685	H2686	H2687	H2688	H2689	H2690	H2691	H2692	H2693	H2694	H2695	H2696	H2697	H2698	H2699	H2700	H2701	H2702	H2703	H2704	H2705	H2706	H2707	H2708	H2709	H2710	H2711	H2712	H2713	H2714	H2715	H2716	H2717	H2718	H2719	H2720	H2721	H2722	H2723	H2724	H2725	H2726	H2727	H2728	H2729	H2730	H2731	H2732	H2733	H2734	H2735	H2736	H2737	H2738	H2739	H2740	H2741	H2742	H2743	H2744	H2745	H2746	H2747	H2748	H2749	H2750	H2751	H2752	H2753	H2754	H2755	H2756	H2757	H2758	H2759	H2760	H2761	H2762	H2763	H2764	H2765	H2766	H2767	H2768	H2769	H2770	H2771	H2772	H2773	H2774	H2775	H2776	H2777	H2778	H2779	H2780	H2781	H2782	H2783	H2784	H2785	H2786	H2787	H2788	H2789	H2790	H2791	H2792	H2793	H2794	H2795	H2796	H2797	H2798	H2799	H2800	H2801	H2802	H2803	H2804	H2805	H2806	H2807	H2808	H2809	H2810	H2811	H2812	H2813	H2814	H2815	H2816	H2817	H2818	H2819	H2820	H2821	H2822	H2823	H2824	H2825	H2826	H2827	H2828	H2829	H2830	H2831	H2832	H2833	H2834	H2835	H2836	H2837	H2838	H2839	H2840	H2841	H2842	H2843	H2844	H2845	H2846	H2847	H2848	H2849	H2850	H2851	H2852	H2853	H2854	H2855	H2856	H2857	H2858	H2859	H2860	H2861	H2862	H2863	H2864	H2865	H2866	H2867	H2868	H2869	H2870	H2871	H2872	H2873	H2874	H2875	H2876	H2877	H2878	H2879	H2880	H2881	H2882	H2883	H2884	H2885	H2886	H2887	H2888	H2889	H2890	H2891	H2892	H2893	H2894	H2895	H2896	H2897	H2898	H2899	H2900	H2901	H2902	H2903	H2904	H2905	H2906	H2907	H2908	H2909	H2910	H2911	H2912	H2913	H2914	H2915	H2916	H2917	H2918	H2919	H2920	H2921	H2922	H2923	H2924	H2925	H2926	H2927	H2928	H2929	H2930	H2931	H2932	H2933	H2934	H2935	H2936	H2937	H2938	H2939	H2940	H2941	H2942	H2943	H2944	H2945	H2946	H2947	H2948	H2949	H2950	H2951	H2952	H2953	H2954	H2955	H2956	H2957	H2958	H2959	H2960	H2961	H2962	H2963	H2964	H2965	H2966	H2967	H2968	H2969	H2970	H2971	H2972	H2973	H2974	H2975	H2976	H2977	H2978	H2979	H2980	H2981	H2982	H2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• Molecule 1: RyR2











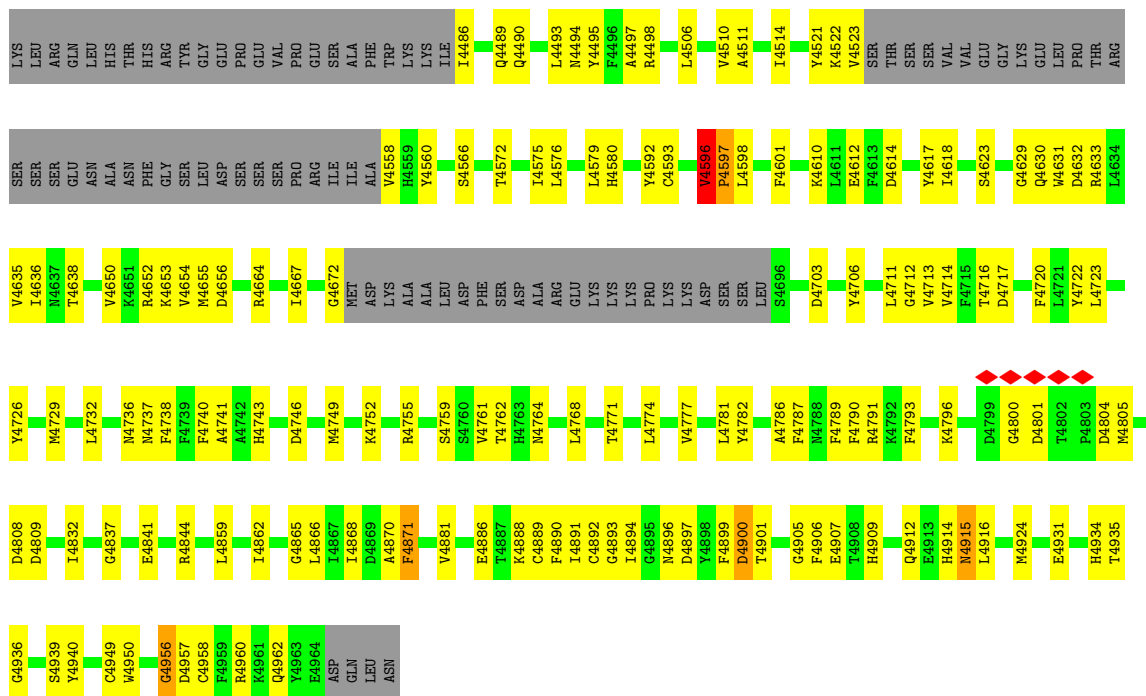






THR	C2202	ASP	ILE	THR	G2435	LYS	A2516	K2732	R2792	I2852	LEU	N3064	V3129	SER	ARG
GLY	R2206	ILE	GLY	GLY	V2436	Y2688	R2519	W2733	T2793	W2853	ASP	GLN	S3130	ARG	GLU
TRP	I2407	TRP	TRP	SER	I2437	L2662	R2519	S2734	R2794	A2854	THR	PHE	A3066	ARG	ARG
ASN	S2208	ASN	ASN	SER	S2438	L2677	Y2520	W2735	E2796	K2855	SER	LYS	E3067	ALA	ALA
MET	W2211	LYS	LYS	LYS	I2439	P2679	T2523	D2736	D2797	K2856	GLU	HIS	D3068	ALA	ALA
PRO	K2212	MET	MET	MET	A2440	P2679	L2526	K2737	G2798	K2857	LYS	ARG	L3069	LEU	ASN
GLN	K2213	ASP	GLN	ASP	PHE	ASP	L2526	L2738	SER	K2858	LEU	LEU	E3070	LEU	ASN
THR	H2218	THR	THR	THR	GLN	TYR	L2529	A2739	MET	L2859	PHE	PHE	K3071	THR	PRO
GLU	L2219	GLU	GLU	GLU	PRO	TYR	L2529	A2739	ALA	E2860	ALA	ALA	T3072	THR	THR
GLY	S2220	GLY	GLY	GLY	THR	GLU	THR	G2741	LEU	E2861	TYR	TYR	M3073	ASN	ASN
ASP	Y2221	GLU	GLU	GLU	ALA	SER	ARG	G2742	ASN	E2862	PHE	PHE	E3074	GLU	GLU
L2222	V2221	GLU	GLU	GLU	ALA	ASN	ALA	I2743	ASN	S2863	LEU	LEU	N3075	ASP	ASP
L2223	L2223	ASP	ASP	ASP	LYS	TYR	ALA	G2744	THR	K2864	GLN	GLN	L3141	VAL	VAL
E2224	E2224	GLY	GLY	THR	ASP	VAL	L2535	I2745	ARG	G2865	LEU	LEU	G3142	PRO	PRO
N2225	V2314	THR	THR	ILE	ASN	SER	L2549	G2745	ILE	G2866	ILE	ILE	T3082	ASN	ASN
S2226	E2316	HIS	HIS	HIS	VAL	MET	L2553	E2746	SER	G2867	ARG	ARG	H3143	ILE	ILE
S2227	E2316	MET	MET	MET	VAL	MET	V2553	I2747	GLU	G2867	TYR	TYR	S3144	THR	THR
R2236	E2316	ASP	ASP	ASP	GLU	GLY	TYR	I2748	GLN	N2868	THR	THR	L3144	LYS	LYS
A2244	A2318	ASP	ASP	ASP	PRO	GLN	ARG	S2749	THR	H2869	VAL	VAL	F3009	SER	SER
A2245	N2319	MET	MET	MET	LEU	GLN	LEU	G2750	SER	P2870	GLN	GLN	L3015	ILE	ILE
A2246	N2321	SER	SER	SER	LEU	SER	LEU	S2751	VAL	L2871	ALA	ALA	L3015	PRO	PRO
S2247	V2321	ALA	ALA	ALA	ALA	ASP	S2558	S2752	VAL	L2872	HIS	HIS	L3020	LYS	LYS
V2248	I2326	GLY	GLY	GLY	GLY	SER	S2576	K2753	ASP	V2873	GLN	GLN	I3020	GLY	GLY
W2251	R2327	ALA	ALA	ALA	ALA	GLY	I2576	W2754	ALA	P2874	TYR	TYR	F3028	ILE	ILE
L2254	E2330	CYS	CYS	CYS	CYS	GLY	I2576	Q2755	H2820	Y2875	ILE	ILE	F3028	ILE	ILE
A2255	PHE	GLY	GLY	GLY	GLY	LEU	CYS	P2756	G2821	L2876	GLY	GLY	L3028	ASP	ASP
L2256	GLU	ALA	ALA	ALA	ALA	LEU	GLN	L2757	Y2822	T2879	GLY	GLY	L3034	ASP	ASP
A2257	PRO	ALA	ALA	ALA	ALA	LEU	GLN	M2758	S2823	T2879	SER	SER	H3034	GLY	GLY
L2258	LEU	ALA	ALA	ALA	ALA	LEU	LEU	K2759	P2824	A2880	ARG	ARG	H3035	ARG	ARG
D2262	ARG	GLY	GLY	GLY	GLY	LEU	L2589	P2760	R2825	E2882	SER	SER	I3036	SER	SER
L2263	ILE	ILE	ILE	ILE	ILE	LEU	L2593	I2761	A2826	E2882	LYS	LYS	L3037	LYS	LYS
E2264	GLY	GLY	GLY	GLY	GLY	LEU	L2601	Y2762	L2827	K2883	GLY	GLY	G3038	GLY	GLY
V2267	ALA	ALA	ALA	ALA	ALA	LEU	GLU	K2762	D2829	A2884	GLU	GLU	L3041	GLY	GLY
R2268	LYS	LYS	LYS	LYS	LYS	LEU	HIS	L2763	D2829	K2885	HIS	HIS	L3103	HIS	HIS
Y2269	ASN	ASN	ASN	ASN	ASN	LEU	ALA	S2765	M2829	D2886	PRO	PRO	D3042	PHE	PHE
L2270	G2343	ASN	ASN	ASN	ASN	LEU	K2605	E2766	S2830	R2887	TYR	TYR	A3043	PRO	PRO
G2274	E2350	GLY	GLY	GLY	GLY	VAL	C2623	K2767	N2831	E2888	GLN	GLN	R3044	PRO	PRO
LEU	K2353	LEU	LEU	LEU	LEU	VAL	G2627	E2768	Y2832	K2888	GLU	GLU	M3047	GLY	GLY
GLN	I2354	GLN	GLN	GLN	GLN	VAL	G2627	K2769	L2833	K2889	GLU	GLU	K3048	ILE	ILE
CYS	ALA	CYS	CYS	CYS	CYS	TRP	G2627	E2770	L2834	A2890	LYS	LYS	T3049	PHE	PHE
GLN	GLU	GLN	GLN	GLN	GLN	GLY	G2627	I2771	S2835	D2892	PHE	PHE	G3050	PHE	PHE
ASP	PRO	ASP	ASP	ASP	ASP	ASN	G2627	Y2772	R2836	I2893	ALA	ALA	L3051	PHE	PHE
MET	PRO	MET	MET	MET	MET	ASN	G2627	K2718	D2837	I2893	LYS	LYS	E3052	ALA	ALA
THR	SER	THR	THR	THR	THR	GLY	G2627	E2719	L2838	L2894	LYS	LYS	S3053	LYS	LYS
VAL	ARG	VAL	VAL	VAL	VAL	ALA	G2627	Y2720	H2839	K2895	VAL	VAL	V3054	VAL	VAL
LEU	ASP	LEU	LEU	LEU	LEU	ALA	A2634	P2775	A2840	F2896	LEU	LEU	K3055	LEU	LEU
LYS	GLY	LYS	LYS	LYS	LYS	SER	L2653	I2776	M2841	Q2898	PRO	PRO	SER	PRO	PRO
TYR	PRO	TYR	PRO	PRO	PRO	GLN	L2653	K2777	A2842	K2898	LEU	LEU	ALA	ALA	ALA
PRO	ALA	PRO	ALA	ALA	ALA	LYS	GLN	E2778	E2843	I2899	LEU	LEU	LEU	LEU	LEU
PRO	ALA	PRO	ALA	ALA	ALA	LYS	LYS	S2779	M2844	N2900	LEU	LEU	ALA	ALA	ALA
G2431	E2350	PRO	PRO	PRO	PRO	LYS	G2627	A2725	M2844	G2901	LEU	LEU	F3061	ASP	ASP
R2419	K2353	PRO	PRO	PRO	PRO	LYS	G2627	L2780	M2844	Y2902	LEU	LEU	L3124	LEU	LEU
L2420	I2354	PRO	PRO	PRO	PRO	LYS	G2627	E2727	M2844	E2903	LEU	LEU	L3062	ILE	ILE
R2421	ALA	PRO	PRO	PRO	PRO	LYS	G2627	I2782	M2844	V2904	LEU	LEU	D3063	ILE	ILE
S2422	GLU	PRO	PRO	PRO	PRO	LYS	G2627	M2783	M2844	S2905	LEU	LEU	L3124	ILE	ILE
L2424	ASP	PRO	PRO	PRO	PRO	LYS	G2627	L2784	M2844	R2906	LEU	LEU	E3125	ILE	ILE
R2425	THR	PRO	PRO	PRO	PRO	LYS	G2627	A2785	M2844	G2907	LEU	LEU	D3126	ILE	ILE
S2426	ARG	PRO	PRO	PRO	PRO	LYS	G2627	L2785	M2844	V2906	LEU	LEU	V3127	THR	THR
LEU	ASP	LEU	LEU	LEU	LEU	LYS	G2627	A2785	M2844	R2906	LEU	LEU	V3127	THR	THR
ILE	GLY	ILE	ILE	ILE	ILE	LYS	G2627	W2786	M2844	G2907	LEU	LEU	Q3128	LYS	LYS
PRO	PRO	PRO	PRO	PRO	PRO	LYS	G2627	E2788	M2844	PHE	LEU	LEU	Q3128	LYS	LYS
PRO	PRO	PRO	PRO	PRO	PRO	LYS	G2627	A2788	M2844	LYS	LEU	LEU	Q3128	LYS	LYS
PRO	PRO	PRO	PRO	PRO	PRO	LYS	G2627	E2788	M2844	ASP	LEU	LEU	Q3128	LYS	LYS
PRO	PRO	PRO	PRO	PRO	PRO	LYS	G2627	A2788	M2844	GLU	LEU	LEU	Q3128	LYS	LYS

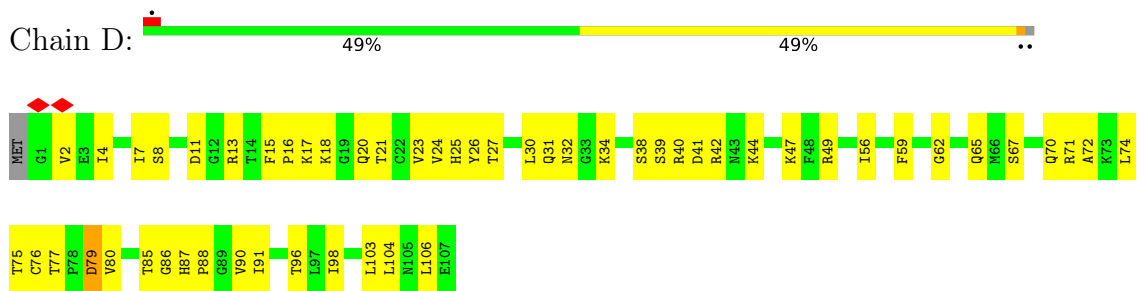
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LEU	SER	GLU	ALA	VAL	ALA	I4146	I4145	E4065	Q3965	R3881	V3803	GLU	N3611	GLU	VAL	ALA	PHE	LEU	PRO	TRP	THR	THR	TRP
ASP	GLY	GLY	PHE	ARG	GLY	F4067	F4066	F4066	Q3965	R3882	L3804	ASP	R3614	GLU	LEU	ALA	ILE	LEU	HIS	PRO	PRO	HIS	TRP
MET	LEU	LYS	THR	LYS	LYS	L4068	L4067	L4068	L3969	I3886	D3805	ASP	H3615	ASP	ASP	LYS	ASP	THR	THR	LEU	GLN	GLN	GLY
SER	GLY	PRO	THR	PRO	GLY	E4077	E4150	E4077	L3972	I3887	N3807	ASP	N3619	GLY	ILE	ASN	ASP	ASP	ARG	GLU	LEU	LEU	GLY
SER	GLY	GLU	TYR	GLY	GLY	T4078	E4155	T4078	L3972	Y3892	A3808	GLY	N3619	GLU	ASN	ARG	LYS	LYS	PHE	ASN	ASN	ASN	ASN
PRO	GLY	GLN	TRP	GLN	GLN	L4079	E4155	L4079	L3975	Y3893	F3809	GLY	Y3625	GLU	VAL	VAL	SER	THR	VAL	THR	THR	THR	THR
ALA	GLY	GLY	VAL	GLY	GLY	L4080	R4158	L4080	L3975	Y3893	E3810	GLY	Y3626	GLU	VAL	VAL	SER	THR	VAL	THR	THR	THR	THR
PRO	ARG	PRO	PHE	PRO	PRO	V4081	T4159	V4081	L3987	Y3893	R3811	VAL	K3627	VAL	PHE	LYS	LYS	LYS	TYR	TYR	TYR	TYR	TYR
ILE	ARG	ARG	MET	ARG	ARG	E4083	Q4160	E4083	L3987	Y3893	A3815	LYS	S3628	LYS	HIS	ASP	SER	ASN	ASN	ASN	ASN	ASN	ASN
GLY	MET	MET	THR	MET	MET	F4084	Q4161	F4084	L3987	Y3893	E3816	ASP	I3630	GLY	THR	THR	ALA	ALA	ALA	ALA	ALA	ALA	ALA
VAL	GLY	GLY	LEU	GLY	GLY	V4085	E4162	V4085	L3987	Y3893	G3817	GLY	I3631	GLY	GLN	GLU	VAL	VAL	TRP	TRP	TRP	TRP	TRP
THR	PHE	PHE	LEU	PHE	PHE	R4086	K4163	R4086	L3987	Y3893	E3833	VAL	K3632	VAL	VAL	VAL	SER	SER	SER	SER	SER	SER	SER
LEU	THR	THR	LEU	THR	THR	R4087	K4164	R4087	L3987	Y3893	E3634	THR	K3634	THR	ARG	ARG	ASP	ASP	ASP	ASP	ASP	ASP	ASP
ALA	ALA	ALA	ALA	ALA	ALA	F4088	K4167	F4088	L3987	Y3893	V3635	THR	H3635	THR	CYS	CYS	ASP	ASP	ASP	ASP	ASP	ASP	ASP
VAL	VAL	VAL	VAL	VAL	VAL	H4089	K4170	H4089	L3987	Y3893	V3636	THR	H3636	THR	MET	MET	GLU	GLU	GLU	GLU	GLU	GLU	GLU
SER	SER	SER	SER	SER	SER	K4093	K4171	K4093	L3987	Y3893	T3637	THR	H3637	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
VAL	VAL	VAL	VAL	VAL	VAL	G4096	F4175	G4096	L3987	Y3893	T3638	THR	H3638	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ALA	ALA	ALA	ALA	ALA	ALA	V4099	F4178	V4099	L3987	Y3893	T3639	THR	H3639	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
LEU	LEU	LEU	LEU	LEU	LEU	L4102	N4179	L4102	L3987	Y3893	T3640	THR	H3640	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ALA	ALA	ALA	ALA	ALA	ALA	L4103	E4183	L4103	L3987	Y3893	T3641	THR	H3641	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ILE	ILE	ILE	ILE	ILE	ILE	L4110	E4184	L4110	L3987	Y3893	T3642	THR	H3642	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLY	GLY	GLY	GLY	GLY	GLY	H4109	K4185	H4109	L3987	Y3893	T3643	THR	H3643	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLY	GLY	GLY	GLY	GLY	GLY	H4110	K4186	H4110	L3987	Y3893	T3644	THR	H3644	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
LYS	LYS	LYS	LYS	LYS	LYS	T4114	K4187	T4114	L3987	Y3893	T3645	THR	H3645	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
SER	SER	SER	SER	SER	SER	R4115	E4188	R4115	L3987	Y3893	T3646	THR	H3646	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLY	GLY	GLY	GLY	GLY	GLY	L4116	L4189	L4116	L3987	Y3893	T3647	THR	H3647	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
LEU	LEU	LEU	LEU	LEU	LEU	Q4117	F4192	Q4117	L3987	Y3893	T3648	THR	H3648	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
LEU	LEU	LEU	LEU	LEU	LEU	T4118	N4193	T4118	L3987	Y3893	T3649	THR	H3649	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ASP	ASP	ASP	ASP	ASP	ASP	F4119	F4193	F4119	L3987	Y3893	T3650	THR	H3650	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ILE	ILE	ILE	ILE	ILE	ILE	L4120	T4197	L4120	L3987	Y3893	T3651	THR	H3651	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLY	GLY	GLY	GLY	GLY	GLY	E4121	I4198	E4121	L3987	Y3893	T3652	THR	H3652	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
LYS	LYS	LYS	LYS	LYS	LYS	L4122	I4198	L4122	L3987	Y3893	T3653	THR	H3653	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ALA	ALA	ALA	ALA	ALA	ALA	A4123	M4201	A4123	L3987	Y3893	T3654	THR	H3654	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ASP	ASP	ASP	ASP	ASP	ASP	E4124	Q4202	E4124	L3987	Y3893	T3655	THR	H3655	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
LEU	LEU	LEU	LEU	LEU	LEU	S4125	L4203	S4125	L3987	Y3893	T3656	THR	H3656	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
LYS	LYS	LYS	LYS	LYS	LYS	V4126	L4203	V4126	L3987	Y3893	T3657	THR	H3657	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ASP	ASP	ASP	ASP	ASP	ASP	L4127	I4207	L4127	L3987	Y3893	T3658	THR	H3658	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLY	GLY	GLY	GLY	GLY	GLY	N4128	SER	N4128	L3987	Y3893	T3659	THR	H3659	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLY	GLY	GLY	GLY	GLY	GLY	Y4129	SER	Y4129	L3987	Y3893	T3660	THR	H3660	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLY	GLY	GLY	GLY	GLY	GLY	F4130	SER	F4130	L3987	Y3893	T3661	THR	H3661	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLY	GLY	GLY	GLY	GLY	GLY	Q4131	ASP	Q4131	L3987	Y3893	T3662	THR	H3662	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLY	GLY	GLY	GLY	GLY	GLY	E4132	LEU	E4132	L3987	Y3893	T3663	THR	H3663	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
LYS	LYS	LYS	LYS	LYS	LYS	F4133	ASN	F4133	L3987	Y3893	T3664	THR	H3664	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ALA	ALA	ALA	ALA	ALA	ALA	L4134	ASN	L4134	L3987	Y3893	T3665	THR	H3665	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
LYS	LYS	LYS	LYS	LYS	LYS	L4134	ASN	L4134	L3987	Y3893	T3666	THR	H3666	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ASP	ASP	ASP	ASP	ASP	ASP	E4138	ARG	E4138	L3987	Y3893	T3667	THR	H3667	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ALA	ALA	ALA	ALA	ALA	ALA	I4139	ASP	I4139	L3987	Y3893	T3668	THR	H3668	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
ASN	ASN	ASN	ASN	ASN	ASN	I4139	ASN	I4139	L3987	Y3893	T3669	THR	H3669	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
PRO	PRO	PRO	PRO	PRO	PRO	S4142	ASN	S4142	L3987	Y3893	T3670	THR	H3670	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLY	GLY	GLY	GLY	GLY	GLY	A4143	LYS	A4143	L3987	Y3893	T3671	THR	H3671	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU
GLN	GLN	GLN	GLN	GLN	GLN	R4144	GLY	R4144	L3987	Y3893	T3672	THR	H3672	THR	ARG	ARG	GLU	GLU	GLU	GLU	GLU	GLU	GLU



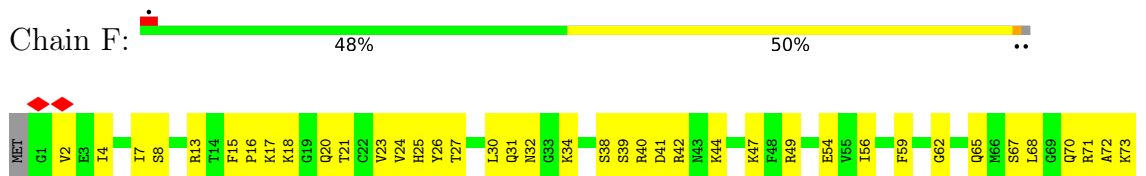
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



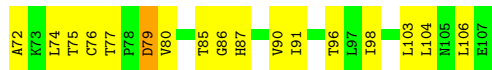
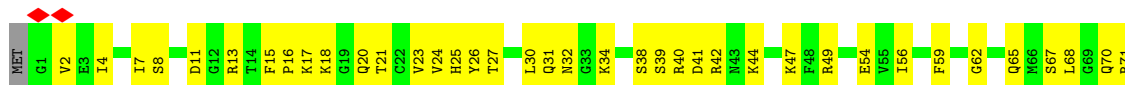
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B





- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

Chain H: 48% 50%





## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	77339	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	50	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.051	Depositor
Minimum map value	-0.012	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.004	Depositor
Recommended contour level	0.015	Depositor
Map size (Å)	436.4, 436.4, 436.4	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.091, 1.091, 1.091	Depositor

## 5 Model quality i

### 5.1 Standard geometry i

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	0.51	0/27032	0.65	8/36559 (0.0%)
1	C	0.51	0/27032	0.65	8/36559 (0.0%)
1	E	0.51	0/27032	0.65	8/36559 (0.0%)
1	G	0.51	0/27032	0.65	8/36559 (0.0%)
2	B	0.50	0/835	0.59	0/1123
2	D	0.50	0/835	0.59	0/1123
2	F	0.50	0/835	0.59	0/1123
2	H	0.50	0/835	0.59	0/1123
All	All	0.51	0/111468	0.65	32/150728 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	33
1	C	0	33
1	E	0	33
1	G	0	33
All	All	0	132

There are no bond length outliers.

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	4122	LEU	CB-CG-CD2	-5.92	100.93	111.00
1	A	4122	LEU	CB-CG-CD2	-5.90	100.97	111.00
1	G	4122	LEU	CB-CG-CD2	-5.89	100.98	111.00
1	C	4122	LEU	CB-CG-CD2	-5.89	101.00	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	1128	LEU	CA-CB-CG	5.53	128.02	115.30
1	C	1128	LEU	CA-CB-CG	5.52	128.00	115.30
1	A	1128	LEU	CA-CB-CG	5.52	127.99	115.30
1	E	1128	LEU	CA-CB-CG	5.52	127.99	115.30
1	G	2418	ILE	CG1-CB-CG2	-5.43	99.46	111.40
1	A	2418	ILE	CG1-CB-CG2	-5.42	99.48	111.40
1	C	2418	ILE	CG1-CB-CG2	-5.42	99.48	111.40
1	E	2418	ILE	CG1-CB-CG2	-5.41	99.50	111.40
1	A	456	LEU	CA-CB-CG	5.40	127.71	115.30
1	C	456	LEU	CA-CB-CG	5.38	127.67	115.30
1	E	456	LEU	CA-CB-CG	5.38	127.67	115.30
1	G	456	LEU	CA-CB-CG	5.37	127.66	115.30
1	G	728	ASP	CB-CG-OD1	5.34	123.11	118.30
1	C	139	SER	C-N-CA	5.30	134.96	121.70
1	A	139	SER	C-N-CA	5.29	134.93	121.70
1	A	728	ASP	CB-CG-OD1	5.29	123.06	118.30
1	C	728	ASP	CB-CG-OD1	5.29	123.06	118.30
1	E	728	ASP	CB-CG-OD1	5.29	123.06	118.30
1	E	139	SER	C-N-CA	5.28	134.91	121.70
1	G	139	SER	C-N-CA	5.28	134.91	121.70
1	G	2088	LEU	CA-CB-CG	-5.22	103.30	115.30
1	C	2088	LEU	CA-CB-CG	-5.21	103.31	115.30
1	E	2088	LEU	CA-CB-CG	-5.20	103.34	115.30
1	A	2088	LEU	CA-CB-CG	-5.20	103.35	115.30
1	A	2059	LEU	CA-CB-CG	5.09	127.02	115.30
1	E	2059	LEU	CA-CB-CG	5.08	126.99	115.30
1	G	2059	LEU	CA-CB-CG	5.08	126.99	115.30
1	C	2059	LEU	CA-CB-CG	5.07	126.95	115.30

There are no chirality outliers.

All (132) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	105	ALA	Peptide
1	A	142	LYS	Peptide
1	A	1476	VAL	Peptide
1	A	1579	VAL	Peptide
1	A	1596	TRP	Peptide
1	A	1635	GLU	Peptide
1	A	1710	HIS	Peptide
1	A	1756	SER	Peptide
1	A	1777	GLN	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
1	A	1835	HIS	Peptide
1	A	1847	GLU	Peptide
1	A	2248	VAL	Peptide
1	A	2314	VAL	Peptide
1	A	2462	CYS	Peptide
1	A	2874	PRO	Peptide
1	A	3634	GLU	Peptide
1	A	3940	ARG	Peptide
1	A	3987	LEU	Peptide
1	A	4031	ASP	Peptide
1	A	4110	MET	Peptide
1	A	4131	GLN	Peptide
1	A	4164	PRO	Peptide
1	A	4596	VAL	Peptide
1	A	4761	VAL	Peptide
1	A	4915	ASN	Peptide
1	A	4956	GLY	Peptide
1	A	588	ILE	Peptide
1	A	729	GLY	Peptide
1	A	739	ARG	Peptide
1	A	748	LEU	Peptide
1	A	816	PRO	Peptide
1	A	838	ARG	Peptide
1	A	846	TYR	Peptide
1	C	105	ALA	Peptide
1	C	142	LYS	Peptide
1	C	1476	VAL	Peptide
1	C	1579	VAL	Peptide
1	C	1596	TRP	Peptide
1	C	1635	GLU	Peptide
1	C	1710	HIS	Peptide
1	C	1756	SER	Peptide
1	C	1777	GLN	Peptide
1	C	1835	HIS	Peptide
1	C	1847	GLU	Peptide
1	C	2248	VAL	Peptide
1	C	2314	VAL	Peptide
1	C	2462	CYS	Peptide
1	C	2874	PRO	Peptide
1	C	3634	GLU	Peptide
1	C	3940	ARG	Peptide
1	C	3987	LEU	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
1	C	4031	ASP	Peptide
1	C	4110	MET	Peptide
1	C	4131	GLN	Peptide
1	C	4164	PRO	Peptide
1	C	4596	VAL	Peptide
1	C	4761	VAL	Peptide
1	C	4915	ASN	Peptide
1	C	4956	GLY	Peptide
1	C	588	ILE	Peptide
1	C	729	GLY	Peptide
1	C	739	ARG	Peptide
1	C	748	LEU	Peptide
1	C	816	PRO	Peptide
1	C	838	ARG	Peptide
1	C	846	TYR	Peptide
1	E	105	ALA	Peptide
1	E	142	LYS	Peptide
1	E	1476	VAL	Peptide
1	E	1579	VAL	Peptide
1	E	1596	TRP	Peptide
1	E	1635	GLU	Peptide
1	E	1710	HIS	Peptide
1	E	1756	SER	Peptide
1	E	1777	GLN	Peptide
1	E	1835	HIS	Peptide
1	E	1847	GLU	Peptide
1	E	2248	VAL	Peptide
1	E	2314	VAL	Peptide
1	E	2462	CYS	Peptide
1	E	2874	PRO	Peptide
1	E	3634	GLU	Peptide
1	E	3940	ARG	Peptide
1	E	3987	LEU	Peptide
1	E	4031	ASP	Peptide
1	E	4110	MET	Peptide
1	E	4131	GLN	Peptide
1	E	4164	PRO	Peptide
1	E	4596	VAL	Peptide
1	E	4761	VAL	Peptide
1	E	4915	ASN	Peptide
1	E	4956	GLY	Peptide
1	E	588	ILE	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
1	E	729	GLY	Peptide
1	E	739	ARG	Peptide
1	E	748	LEU	Peptide
1	E	816	PRO	Peptide
1	E	838	ARG	Peptide
1	E	846	TYR	Peptide
1	G	105	ALA	Peptide
1	G	142	LYS	Peptide
1	G	1476	VAL	Peptide
1	G	1579	VAL	Peptide
1	G	1596	TRP	Peptide
1	G	1635	GLU	Peptide
1	G	1710	HIS	Peptide
1	G	1756	SER	Peptide
1	G	1777	GLN	Peptide
1	G	1835	HIS	Peptide
1	G	1847	GLU	Peptide
1	G	2248	VAL	Peptide
1	G	2314	VAL	Peptide
1	G	2462	CYS	Peptide
1	G	2874	PRO	Peptide
1	G	3634	GLU	Peptide
1	G	3940	ARG	Peptide
1	G	3987	LEU	Peptide
1	G	4031	ASP	Peptide
1	G	4110	MET	Peptide
1	G	4131	GLN	Peptide
1	G	4164	PRO	Peptide
1	G	4596	VAL	Peptide
1	G	4761	VAL	Peptide
1	G	4915	ASN	Peptide
1	G	4956	GLY	Peptide
1	G	588	ILE	Peptide
1	G	729	GLY	Peptide
1	G	739	ARG	Peptide
1	G	748	LEU	Peptide
1	G	816	PRO	Peptide
1	G	838	ARG	Peptide
1	G	846	TYR	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	26537	0	25033	1007	0
1	C	26537	0	25033	1016	0
1	E	26537	0	25033	1012	0
1	G	26537	0	25033	1010	0
2	B	819	0	824	44	0
2	D	819	0	824	42	0
2	F	819	0	824	44	0
2	H	819	0	824	43	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
4	A	1	0	0	0	0
4	C	1	0	0	0	0
4	E	1	0	0	0	0
4	G	1	0	0	0	0
5	A	14	0	10	0	0
5	C	14	0	10	0	0
5	E	14	0	10	0	0
5	G	14	0	10	0	0
All	All	109488	0	103468	4009	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 19.

All (4009) 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:C:4522:LYS:O	1:C:4560:TYR:HB3	1.25	1.36
1:G:4522:LYS:O	1:G:4560:TYR:HB3	1.30	1.30
1:C:4808:ASP:CB	1:E:4523:VAL:HG11	1.65	1.25
1:G:4522:LYS:CB	1:G:4560:TYR:HD2	1.50	1.22
1:E:4522:LYS:CB	1:E:4560:TYR:HD2	1.56	1.19
1:E:207:PHE:CB	1:G:2326:ILE:HG12	1.81	1.11
1:C:207:PHE:CB	1:E:2326:ILE:HG12	1.80	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:207:PHE:CB	1:C:2326:ILE:HG12	1.81	1.11
1:A:2326:ILE:HG12	1:G:207:PHE:CB	1.81	1.10
1:A:4808:ASP:HB3	1:C:4523:VAL:HG11	1.35	1.05
1:G:4522:LYS:CB	1:G:4560:TYR:CD2	2.39	1.05
1:C:4808:ASP:HB3	1:E:4523:VAL:HG11	1.13	1.05
1:C:4866:LEU:N	1:E:4871:PHE:HE2	1.55	1.03
1:E:4866:LEU:N	1:G:4871:PHE:HE2	1.56	1.03
1:A:4808:ASP:O	1:C:4523:VAL:HG12	1.59	1.01
1:A:4871:PHE:HE2	1:G:4866:LEU:N	1.57	1.01
1:E:4789:PHE:HZ	1:G:4738:PHE:HZ	1.05	1.01
1:A:4866:LEU:N	1:C:4871:PHE:HE2	1.57	1.00
1:A:4789:PHE:HZ	1:C:4738:PHE:HZ	1.03	1.00
1:C:4789:PHE:CZ	1:E:4738:PHE:HZ	1.79	1.00
1:C:4789:PHE:HZ	1:E:4738:PHE:HZ	1.03	1.00
1:A:3940:ARG:NH2	1:G:173:GLU:CB	2.25	1.00
1:E:173:GLU:CB	1:G:3940:ARG:NH2	2.25	0.99
1:A:4789:PHE:CZ	1:C:4738:PHE:HZ	1.79	0.99
1:E:4522:LYS:CB	1:E:4560:TYR:CD2	2.46	0.98
1:E:4789:PHE:CZ	1:G:4738:PHE:HZ	1.80	0.98
1:A:173:GLU:CB	1:C:3940:ARG:NH2	2.27	0.97
1:C:173:GLU:CB	1:E:3940:ARG:NH2	2.26	0.97
1:A:2326:ILE:HG23	1:G:207:PHE:CB	1.95	0.97
1:C:4808:ASP:HB3	1:E:4523:VAL:CG1	1.94	0.97
1:A:4738:PHE:HZ	1:G:4789:PHE:HZ	1.05	0.96
1:A:4738:PHE:HZ	1:G:4789:PHE:CZ	1.82	0.96
1:C:207:PHE:CB	1:E:2326:ILE:CG1	2.43	0.96
1:E:207:PHE:CB	1:G:2326:ILE:HG23	1.95	0.95
1:C:207:PHE:CB	1:E:2326:ILE:HG23	1.95	0.95
1:E:173:GLU:HA	1:G:3940:ARG:NH2	1.82	0.95
1:A:207:PHE:CB	1:C:2326:ILE:CG1	2.45	0.95
1:A:207:PHE:CB	1:C:2326:ILE:HG23	1.97	0.95
1:E:207:PHE:CB	1:G:2326:ILE:CG1	2.44	0.95
1:A:3940:ARG:NH2	1:G:173:GLU:HA	1.82	0.94
1:A:3940:ARG:HH21	1:G:173:GLU:CB	1.80	0.94
1:C:173:GLU:HA	1:E:3940:ARG:NH2	1.82	0.94
1:A:2326:ILE:CG1	1:G:207:PHE:CB	2.44	0.94
1:A:4523:VAL:HG13	1:G:4808:ASP:O	1.67	0.94
1:E:173:GLU:CB	1:G:3940:ARG:HH21	1.81	0.93
1:A:173:GLU:HA	1:C:3940:ARG:NH2	1.84	0.93
1:C:173:GLU:CB	1:E:3940:ARG:HH21	1.82	0.93
1:A:4808:ASP:HB3	1:C:4523:VAL:CG1	1.99	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:173:GLU:CB	1:C:3940:ARG:HH21	1.83	0.92
1:A:4809:ASP:OD1	1:C:4522:LYS:HA	1.70	0.91
1:A:4789:PHE:HZ	1:C:4738:PHE:CZ	1.89	0.91
1:C:4789:PHE:HZ	1:E:4738:PHE:CZ	1.89	0.90
1:A:3951:VAL:O	1:A:3955:MET:HB2	1.72	0.90
1:G:3951:VAL:O	1:G:3955:MET:HB2	1.72	0.90
1:C:3951:VAL:O	1:C:3955:MET:HB2	1.72	0.89
1:E:3951:VAL:O	1:E:3955:MET:HB2	1.72	0.88
1:E:2854:ALA:O	1:E:2858:LYS:HB2	1.74	0.88
1:E:4789:PHE:HZ	1:G:4738:PHE:CZ	1.91	0.88
1:A:4738:PHE:CZ	1:G:4789:PHE:HZ	1.91	0.88
1:A:2854:ALA:O	1:A:2858:LYS:HB2	1.74	0.87
1:C:2854:ALA:O	1:C:2858:LYS:HB2	1.74	0.87
1:G:2854:ALA:O	1:G:2858:LYS:HB2	1.74	0.87
1:A:4522:LYS:HA	1:G:4809:ASP:OD1	1.74	0.86
1:C:4808:ASP:HB2	1:E:4523:VAL:HG11	1.54	0.86
1:E:173:GLU:CA	1:G:3940:ARG:NH2	2.38	0.86
1:A:4523:VAL:CG2	1:G:4808:ASP:HB3	2.05	0.86
1:C:4866:LEU:N	1:E:4871:PHE:CE2	2.44	0.86
1:C:173:GLU:CA	1:E:3940:ARG:NH2	2.39	0.86
1:A:3940:ARG:NH2	1:G:173:GLU:CA	2.38	0.85
1:C:4865:GLY:C	1:E:4871:PHE:CE2	2.50	0.85
1:C:4789:PHE:CZ	1:E:4738:PHE:CZ	2.64	0.85
1:E:4866:LEU:N	1:G:4871:PHE:CE2	2.45	0.85
1:A:2326:ILE:CG2	1:G:207:PHE:CB	2.55	0.84
1:C:207:PHE:CB	1:E:2326:ILE:CG2	2.55	0.84
1:E:4865:GLY:C	1:G:4871:PHE:CE2	2.51	0.84
1:A:4866:LEU:N	1:C:4871:PHE:CE2	2.45	0.84
1:C:4808:ASP:CB	1:E:4523:VAL:CG1	2.52	0.84
1:A:4865:GLY:C	1:C:4871:PHE:CE2	2.51	0.84
1:G:4522:LYS:O	1:G:4560:TYR:CB	2.22	0.84
1:A:4871:PHE:CE2	1:G:4866:LEU:N	2.46	0.83
1:E:4789:PHE:CZ	1:G:4738:PHE:CZ	2.66	0.83
1:A:173:GLU:CA	1:C:3940:ARG:NH2	2.40	0.83
1:E:207:PHE:CB	1:G:2326:ILE:CG2	2.55	0.83
1:A:4738:PHE:CZ	1:G:4789:PHE:CZ	2.67	0.83
1:A:4789:PHE:CZ	1:C:4738:PHE:CZ	2.64	0.83
1:A:207:PHE:CB	1:C:2326:ILE:CG2	2.57	0.82
1:A:4871:PHE:CE2	1:G:4865:GLY:C	2.52	0.82
1:E:4865:GLY:CA	1:G:4868:ILE:HG12	2.10	0.81
1:A:4865:GLY:C	1:C:4871:PHE:HE2	1.84	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4865:GLY:C	1:E:4871:PHE:HE2	1.82	0.81
1:C:4523:VAL:HG23	1:C:4558:VAL:O	1.79	0.81
1:A:4868:ILE:HG12	1:G:4865:GLY:CA	2.10	0.81
1:C:4865:GLY:CA	1:E:4868:ILE:HG12	2.10	0.80
1:A:4871:PHE:HE2	1:G:4865:GLY:C	1.85	0.80
1:E:4865:GLY:C	1:G:4871:PHE:HE2	1.83	0.80
1:A:3940:ARG:HH21	1:G:173:GLU:HB2	1.47	0.80
1:A:4868:ILE:HG12	1:G:4865:GLY:HA3	1.62	0.80
1:C:4865:GLY:HA3	1:E:4868:ILE:HG12	1.63	0.79
1:A:4865:GLY:CA	1:C:4868:ILE:HG12	2.11	0.79
1:A:4865:GLY:HA3	1:C:4868:ILE:HG12	1.63	0.79
1:E:4865:GLY:HA3	1:G:4868:ILE:HG12	1.62	0.79
1:A:3903:GLY:O	1:A:3907:PHE:HB2	1.84	0.78
1:C:173:GLU:HB2	1:E:3940:ARG:HH21	1.48	0.78
1:A:4523:VAL:HA	1:A:4558:VAL:O	1.83	0.78
1:C:847:THR:H	1:C:1214:ARG:HH21	1.32	0.78
1:E:173:GLU:HB2	1:G:3940:ARG:HH21	1.47	0.78
1:A:847:THR:H	1:A:1214:ARG:HH21	1.32	0.78
1:C:3903:GLY:O	1:C:3907:PHE:HB2	1.84	0.77
1:E:847:THR:H	1:E:1214:ARG:HH21	1.32	0.77
1:A:3940:ARG:NH2	1:G:173:GLU:HB3	1.99	0.76
1:G:3903:GLY:O	1:G:3907:PHE:HB2	1.84	0.76
1:E:3903:GLY:O	1:E:3907:PHE:HB2	1.84	0.76
1:A:173:GLU:HB2	1:C:3940:ARG:HH21	1.49	0.76
1:A:173:GLU:HB3	1:C:3940:ARG:NH2	2.01	0.76
1:G:847:THR:H	1:G:1214:ARG:HH21	1.32	0.76
1:E:173:GLU:HB3	1:G:3940:ARG:NH2	2.00	0.75
1:C:173:GLU:HB3	1:E:3940:ARG:NH2	2.01	0.74
1:A:43:GLY:H	1:A:45:ARG:HH22	1.36	0.74
1:A:4082:GLU:HA	1:A:4086:LYS:HD3	1.70	0.74
1:E:4082:GLU:HA	1:E:4086:LYS:HD3	1.70	0.73
1:G:1044:LYS:O	1:G:1048:ASP:HB2	1.88	0.73
1:E:1044:LYS:O	1:E:1048:ASP:HB2	1.88	0.73
1:G:4082:GLU:HA	1:G:4086:LYS:HD3	1.70	0.73
1:A:1044:LYS:O	1:A:1048:ASP:HB2	1.88	0.73
1:C:4082:GLU:HA	1:C:4086:LYS:HD3	1.70	0.73
1:A:28:ILE:H	1:A:31:GLU:HB2	1.54	0.73
1:G:43:GLY:H	1:G:45:ARG:HH22	1.36	0.73
1:C:1044:LYS:O	1:C:1048:ASP:HB2	1.88	0.73
1:E:4891:ILE:HD13	1:E:4914:HIS:HB3	1.71	0.72
1:A:4891:ILE:HD13	1:A:4914:HIS:HB3	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:28:ILE:H	1:C:31:GLU:HB2	1.54	0.72
1:E:43:GLY:H	1:E:45:ARG:HH22	1.36	0.72
1:C:4891:ILE:HD13	1:C:4914:HIS:HB3	1.71	0.72
1:A:2431:GLY:N	1:A:2477:TYR:HH	1.87	0.72
1:G:28:ILE:H	1:G:31:GLU:HB2	1.54	0.72
1:C:43:GLY:H	1:C:45:ARG:HH22	1.36	0.71
1:C:2431:GLY:N	1:C:2477:TYR:HH	1.87	0.71
1:E:1253:LYS:HG3	1:E:1601:ASN:HD21	1.55	0.71
1:G:4891:ILE:HD13	1:G:4914:HIS:HB3	1.71	0.71
1:C:1253:LYS:HG3	1:C:1601:ASN:HD21	1.55	0.71
1:G:1253:LYS:HG3	1:G:1601:ASN:HD21	1.55	0.71
1:A:1253:LYS:HG3	1:A:1601:ASN:HD21	1.55	0.71
1:A:4523:VAL:HG22	1:G:4808:ASP:HB3	1.70	0.71
1:G:1941:GLN:HE22	1:G:3611:ASN:H	1.39	0.71
1:A:2353:LYS:HG3	1:A:2354:ILE:HG13	1.73	0.71
1:C:1915:CYS:SG	1:C:2091:ARG:NH1	2.64	0.71
1:A:4630:GLN:HG2	1:A:4633:ARG:HH21	1.56	0.71
1:E:1941:GLN:HE22	1:E:3611:ASN:H	1.39	0.71
2:F:87:HIS:H	2:F:91:ILE:HB	1.55	0.71
1:A:620:CYS:SG	1:A:621:HIS:N	2.64	0.70
1:A:1915:CYS:SG	1:A:2091:ARG:NH1	2.64	0.70
2:B:87:HIS:H	2:B:91:ILE:HB	1.55	0.70
1:C:2353:LYS:HG3	1:C:2354:ILE:HG13	1.73	0.70
1:C:620:CYS:SG	1:C:621:HIS:N	2.64	0.70
1:G:620:CYS:SG	1:G:621:HIS:N	2.64	0.70
1:G:2431:GLY:N	1:G:2477:TYR:HH	1.88	0.70
2:H:87:HIS:H	2:H:91:ILE:HB	1.55	0.70
1:E:28:ILE:H	1:E:31:GLU:HB2	1.54	0.70
1:C:173:GLU:CA	1:E:3940:ARG:HH21	2.04	0.70
1:E:620:CYS:SG	1:E:621:HIS:N	2.64	0.70
1:C:1444:GLY:HA3	1:C:1488:VAL:HA	1.73	0.70
1:G:1114:ARG:HB2	1:G:1206:SER:HB3	1.74	0.70
1:G:1444:GLY:HA3	1:G:1488:VAL:HA	1.73	0.70
1:G:4630:GLN:HG2	1:G:4633:ARG:HH21	1.56	0.70
1:A:2251:ASN:HB2	1:A:2254:LEU:HB2	1.74	0.70
1:E:4522:LYS:O	1:E:4560:TYR:HB3	1.91	0.70
1:G:2353:LYS:HG3	1:G:2354:ILE:HG13	1.73	0.70
1:A:1114:ARG:HB2	1:A:1206:SER:HB3	1.74	0.70
1:C:1941:GLN:HE22	1:C:3611:ASN:H	1.39	0.70
2:D:87:HIS:H	2:D:91:ILE:HB	1.55	0.70
1:E:2353:LYS:HG3	1:E:2354:ILE:HG13	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1915:CYS:SG	1:G:2091:ARG:NH1	2.64	0.70
1:E:2431:GLY:N	1:E:2477:TYR:HH	1.90	0.69
1:E:4630:GLN:HG2	1:E:4633:ARG:HH21	1.56	0.69
1:A:1941:GLN:HE22	1:A:3611:ASN:H	1.39	0.69
1:C:1114:ARG:HB2	1:C:1206:SER:HB3	1.74	0.69
1:G:2251:ASN:HB2	1:G:2254:LEU:HB2	1.73	0.69
1:A:4523:VAL:HG21	1:G:4808:ASP:HB3	1.74	0.69
1:C:4630:GLN:HG2	1:C:4633:ARG:HH21	1.56	0.69
1:A:4752:LYS:HG3	1:A:4755:ARG:HD3	1.74	0.69
1:C:2251:ASN:HB2	1:C:2254:LEU:HB2	1.73	0.69
1:E:1915:CYS:SG	1:E:2091:ARG:NH1	2.64	0.69
1:A:1444:GLY:HA3	1:A:1488:VAL:HA	1.73	0.69
1:A:4737:ASN:HA	1:A:4740:PHE:HB3	1.75	0.69
1:C:207:PHE:CB	1:E:2326:ILE:CD1	2.71	0.69
1:C:4752:LYS:HG3	1:C:4755:ARG:HD3	1.74	0.69
1:E:1444:GLY:HA3	1:E:1488:VAL:HA	1.73	0.69
1:G:4752:LYS:HG3	1:G:4755:ARG:HD3	1.74	0.69
1:E:173:GLU:HA	1:G:3940:ARG:HH21	1.58	0.69
1:E:1114:ARG:HB2	1:E:1206:SER:HB3	1.74	0.69
1:E:2139:GLU:HA	1:E:2142:LEU:HD12	1.75	0.69
1:C:2139:GLU:HA	1:C:2142:LEU:HD12	1.75	0.68
1:E:2251:ASN:HB2	1:E:2254:LEU:HB2	1.74	0.68
1:C:4889:CYS:SG	1:C:4890:PHE:N	2.67	0.68
1:E:207:PHE:CB	1:G:2326:ILE:CD1	2.71	0.68
1:E:173:GLU:CA	1:G:3940:ARG:HH21	2.02	0.68
1:A:2326:ILE:CD1	1:G:207:PHE:CB	2.71	0.68
1:C:4737:ASN:HA	1:C:4740:PHE:HB3	1.75	0.68
1:E:4889:CYS:SG	1:E:4890:PHE:N	2.67	0.68
1:E:843:GLU:HB3	1:E:848:ARG:HH21	1.59	0.68
1:G:4737:ASN:HA	1:G:4740:PHE:HB3	1.75	0.68
1:A:3940:ARG:HH21	1:G:173:GLU:HA	1.58	0.68
1:E:4155:GLU:HB2	1:E:4158:ARG:HH11	1.59	0.68
1:G:2308:PHE:HA	1:G:2313:SER:HA	1.75	0.68
1:A:2139:GLU:HA	1:A:2142:LEU:HD12	1.75	0.67
1:C:4155:GLU:HB2	1:C:4158:ARG:HH11	1.59	0.67
1:G:1253:LYS:HB2	1:G:1599:MET:H	1.59	0.67
1:G:4155:GLU:HB2	1:G:4158:ARG:HH11	1.59	0.67
1:G:4889:CYS:SG	1:G:4890:PHE:N	2.67	0.67
1:A:4610:LYS:O	1:A:4614:ASP:HB2	1.95	0.67
1:A:4889:CYS:SG	1:A:4890:PHE:N	2.67	0.67
1:C:843:GLU:HB3	1:C:848:ARG:HH21	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4957:ASP:OD1	1:C:4957:ASP:N	2.28	0.67
1:G:843:GLU:HB3	1:G:848:ARG:HH21	1.59	0.67
1:A:173:GLU:HA	1:C:3940:ARG:HH21	1.59	0.67
1:A:207:PHE:CB	1:C:2326:ILE:CD1	2.72	0.67
1:A:4155:GLU:HB2	1:A:4158:ARG:HH11	1.59	0.67
1:E:4737:ASN:HA	1:E:4740:PHE:HB3	1.75	0.67
1:A:2308:PHE:HA	1:A:2313:SER:HA	1.76	0.67
1:A:1253:LYS:HB2	1:A:1599:MET:H	1.59	0.67
1:A:2102:ALA:HA	1:A:2105:LYS:HE2	1.77	0.67
1:E:2308:PHE:HA	1:E:2313:SER:HA	1.76	0.67
1:G:2139:GLU:HA	1:G:2142:LEU:HD12	1.75	0.67
1:G:4610:LYS:O	1:G:4614:ASP:HB2	1.95	0.67
1:E:4752:LYS:HG3	1:E:4755:ARG:HD3	1.74	0.67
1:A:843:GLU:HB3	1:A:848:ARG:HH21	1.59	0.67
1:A:2835:SER:H	1:A:2838:LEU:HB2	1.60	0.67
1:E:1253:LYS:HB2	1:E:1599:MET:H	1.59	0.66
1:G:2102:ALA:HA	1:G:2105:LYS:HE2	1.77	0.66
1:E:2835:SER:H	1:E:2838:LEU:HB2	1.60	0.66
1:A:1482:ARG:NH1	1:A:1533:VAL:O	2.29	0.66
1:A:3647:LYS:NZ	1:A:3648:PRO:O	2.29	0.66
1:C:778:MET:N	1:C:778:MET:SD	2.69	0.66
1:G:2835:SER:H	1:G:2838:LEU:HB2	1.60	0.66
1:C:2308:PHE:HA	1:C:2313:SER:HA	1.75	0.66
1:C:4610:LYS:O	1:C:4614:ASP:HB2	1.95	0.66
1:E:897:LYS:HD3	1:E:918:LEU:HD21	1.77	0.66
1:A:778:MET:N	1:A:778:MET:SD	2.69	0.66
1:A:3940:ARG:HH21	1:G:173:GLU:CA	2.02	0.66
1:C:2102:ALA:HA	1:C:2105:LYS:HE2	1.77	0.66
1:E:4957:ASP:OD1	1:E:4957:ASP:N	2.28	0.66
1:C:173:GLU:HA	1:E:3940:ARG:HH21	1.59	0.66
1:C:1253:LYS:HB2	1:C:1599:MET:H	1.59	0.66
1:C:1482:ARG:NH1	1:C:1533:VAL:O	2.29	0.66
1:E:2102:ALA:HA	1:E:2105:LYS:HE2	1.77	0.66
1:C:897:LYS:HD3	1:C:918:LEU:HD21	1.77	0.65
1:E:4610:LYS:O	1:E:4614:ASP:HB2	1.95	0.65
1:C:3647:LYS:NZ	1:C:3648:PRO:O	2.29	0.65
1:E:472:HIS:HA	1:E:475:LYS:HD3	1.78	0.65
1:G:897:LYS:HD3	1:G:918:LEU:HD21	1.77	0.65
1:A:1686:LEU:HA	1:A:1689:ILE:HD12	1.78	0.65
1:C:727:PHE:H	1:C:730:LEU:HD13	1.62	0.65
1:G:373:THR:HG21	1:G:397:GLY:HA3	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4957:ASP:N	1:A:4957:ASP:OD1	2.28	0.65
1:C:1686:LEU:HA	1:C:1689:ILE:HD12	1.78	0.65
1:E:1686:LEU:HA	1:E:1689:ILE:HD12	1.78	0.65
1:G:3647:LYS:NZ	1:G:3648:PRO:O	2.29	0.65
1:G:4957:ASP:N	1:G:4957:ASP:OD1	2.28	0.65
1:G:867:VAL:HG22	1:G:1002:ASN:HB2	1.79	0.65
1:G:1482:ARG:NH1	1:G:1533:VAL:O	2.29	0.65
1:C:373:THR:HG21	1:C:397:GLY:HA3	1.79	0.65
1:E:373:THR:HG21	1:E:397:GLY:HA3	1.79	0.65
1:G:778:MET:SD	1:G:778:MET:N	2.69	0.65
1:E:3788:VAL:HG21	1:E:3867:THR:HG23	1.79	0.65
2:D:77:THR:HG22	2:D:79:ASP:H	1.62	0.65
1:E:778:MET:N	1:E:778:MET:SD	2.69	0.65
1:G:4759:SER:HA	1:G:4762:THR:HG22	1.79	0.65
1:A:727:PHE:H	1:A:730:LEU:HD13	1.62	0.65
1:E:727:PHE:H	1:E:730:LEU:HD13	1.62	0.65
1:E:909:ASP:HB2	1:E:914:GLN:HB2	1.79	0.65
1:E:3647:LYS:NZ	1:E:3648:PRO:O	2.29	0.65
1:E:4759:SER:HA	1:E:4762:THR:HG22	1.79	0.65
1:A:867:VAL:HG22	1:A:1002:ASN:HB2	1.79	0.64
1:A:897:LYS:HD3	1:A:918:LEU:HD21	1.77	0.64
1:C:2835:SER:H	1:C:2838:LEU:HB2	1.60	0.64
1:E:184:VAL:HG22	1:E:191:TYR:CD1	2.32	0.64
2:F:77:THR:HG22	2:F:79:ASP:H	1.62	0.64
1:A:373:THR:HG21	1:A:397:GLY:HA3	1.79	0.64
2:B:77:THR:HG22	2:B:79:ASP:H	1.62	0.64
1:C:184:VAL:HG22	1:C:191:TYR:CD1	2.33	0.64
1:E:1482:ARG:NH1	1:E:1533:VAL:O	2.29	0.64
1:G:1095:ALA:O	1:G:1097:LYS:NZ	2.30	0.64
1:C:4808:ASP:HB2	1:E:4523:VAL:CG1	2.25	0.64
1:A:655:MET:HG2	1:A:836:HIS:HA	1.79	0.64
1:G:184:VAL:HG22	1:G:191:TYR:CD1	2.32	0.64
1:G:472:HIS:HA	1:G:475:LYS:HD3	1.78	0.64
1:A:472:HIS:HA	1:A:475:LYS:HD3	1.78	0.64
1:C:472:HIS:HA	1:C:475:LYS:HD3	1.78	0.64
1:E:679:VAL:HA	1:E:800:VAL:HG12	1.80	0.64
1:A:184:VAL:HG22	1:A:191:TYR:CD1	2.33	0.64
1:A:1095:ALA:O	1:A:1097:LYS:NZ	2.30	0.64
1:A:4085:VAL:HG13	1:A:4086:LYS:HD2	1.80	0.64
1:C:679:VAL:HA	1:C:800:VAL:HG12	1.80	0.64
1:E:1095:ALA:O	1:E:1097:LYS:NZ	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1686:LEU:HA	1:G:1689:ILE:HD12	1.78	0.64
1:C:434:ASP:O	1:C:438:LYS:NZ	2.31	0.64
1:C:4085:VAL:HG13	1:C:4086:LYS:HD2	1.80	0.64
1:E:655:MET:HG2	1:E:836:HIS:HA	1.79	0.64
1:E:1154:ARG:NH2	1:E:1180:GLU:OE2	2.31	0.64
1:G:909:ASP:HB2	1:G:914:GLN:HB2	1.79	0.64
1:C:1095:ALA:O	1:C:1097:LYS:NZ	2.30	0.64
1:C:3788:VAL:HG21	1:C:3867:THR:HG23	1.79	0.64
1:C:4949:CYS:SG	1:C:4950:TRP:N	2.71	0.64
1:E:2262:ASP:N	1:E:2262:ASP:OD1	2.31	0.64
1:G:3788:VAL:HG21	1:G:3867:THR:HG23	1.79	0.64
1:C:503:ASP:HA	1:C:561:ARG:HH22	1.63	0.63
1:C:867:VAL:HG22	1:C:1002:ASN:HB2	1.79	0.63
1:C:4809:ASP:OD1	1:E:4522:LYS:HA	1.96	0.63
1:E:477:ASN:OD1	1:E:480:ARG:NH2	2.31	0.63
1:G:477:ASN:OD1	1:G:480:ARG:NH2	2.31	0.63
1:G:3715:PHE:HA	1:G:3718:LYS:HD2	1.81	0.63
1:A:298:ARG:HA	1:A:305:TYR:HA	1.81	0.63
1:A:434:ASP:O	1:A:438:LYS:NZ	2.31	0.63
1:E:867:VAL:HG22	1:E:1002:ASN:HB2	1.79	0.63
1:E:4085:VAL:HG13	1:E:4086:LYS:HD2	1.80	0.63
1:G:548:CYS:HB2	1:G:578:VAL:HG23	1.80	0.63
1:G:842:GLN:HG3	1:G:844:ARG:HH21	1.64	0.63
1:G:4085:VAL:HG13	1:G:4086:LYS:HD2	1.80	0.63
2:H:77:THR:HG22	2:H:79:ASP:H	1.62	0.63
1:A:1154:ARG:NH2	1:A:1180:GLU:OE2	2.31	0.63
1:C:4759:SER:HA	1:C:4762:THR:HG22	1.79	0.63
1:C:4865:GLY:O	1:E:4871:PHE:CD2	2.52	0.63
1:E:4865:GLY:HA2	1:G:4868:ILE:HG12	1.80	0.63
1:G:503:ASP:HA	1:G:561:ARG:HH22	1.63	0.63
1:G:880:ARG:HG3	1:G:884:LYS:HE3	1.80	0.63
1:A:477:ASN:OD1	1:A:480:ARG:NH2	2.31	0.63
1:A:4759:SER:HA	1:A:4762:THR:HG22	1.79	0.63
1:E:880:ARG:HG3	1:E:884:LYS:HE3	1.80	0.63
1:G:655:MET:HG2	1:G:836:HIS:HA	1.79	0.63
1:C:477:ASN:OD1	1:C:480:ARG:NH2	2.32	0.63
1:C:1430:VAL:HG12	1:C:1506:GLU:H	1.64	0.63
1:E:695:VAL:HG23	1:E:792:VAL:HG12	1.80	0.63
1:C:548:CYS:HB2	1:C:578:VAL:HG23	1.80	0.63
1:C:2262:ASP:N	1:C:2262:ASP:OD1	2.31	0.63
1:G:679:VAL:HA	1:G:800:VAL:HG12	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:727:PHE:H	1:G:730:LEU:HD13	1.62	0.63
1:G:4949:CYS:SG	1:G:4950:TRP:N	2.71	0.63
1:A:718:VAL:HA	1:A:736:CYS:H	1.64	0.63
1:A:909:ASP:HB2	1:A:914:GLN:HB2	1.79	0.63
1:C:1761:MET:SD	1:C:1761:MET:N	2.68	0.63
1:E:434:ASP:O	1:E:438:LYS:NZ	2.31	0.63
1:E:842:GLN:HG3	1:E:844:ARG:HH21	1.64	0.63
1:G:1114:ARG:HB3	1:G:1128:LEU:HD22	1.81	0.63
1:G:1154:ARG:NH2	1:G:1180:GLU:OE2	2.31	0.63
1:A:4808:ASP:O	1:C:4523:VAL:CG1	2.41	0.63
1:C:655:MET:HG2	1:C:836:HIS:HA	1.79	0.63
1:G:298:ARG:HA	1:G:305:TYR:HA	1.80	0.63
1:A:1430:VAL:HG12	1:A:1506:GLU:H	1.64	0.63
1:A:3715:PHE:HA	1:A:3718:LYS:HD2	1.81	0.63
1:A:4949:CYS:SG	1:A:4950:TRP:N	2.71	0.63
1:C:695:VAL:HG23	1:C:792:VAL:HG12	1.81	0.63
1:C:1154:ARG:NH2	1:C:1180:GLU:OE2	2.31	0.63
1:A:173:GLU:CA	1:C:3940:ARG:HH21	2.04	0.62
1:A:503:ASP:HA	1:A:561:ARG:HH22	1.63	0.62
1:E:4865:GLY:O	1:G:4871:PHE:CD2	2.52	0.62
1:C:718:VAL:HA	1:C:736:CYS:H	1.64	0.62
1:C:3715:PHE:HA	1:C:3718:LYS:HD2	1.81	0.62
1:E:503:ASP:HA	1:E:561:ARG:HH22	1.63	0.62
1:G:718:VAL:HA	1:G:736:CYS:H	1.64	0.62
1:G:1000:ALA:HB1	1:G:1046:ASN:HB3	1.81	0.62
1:A:3788:VAL:HG21	1:A:3867:THR:HG23	1.79	0.62
1:C:909:ASP:HB2	1:C:914:GLN:HB2	1.79	0.62
1:E:548:CYS:HB2	1:E:578:VAL:HG23	1.80	0.62
1:E:1125:ASP:HA	1:E:1598:ARG:HB2	1.81	0.62
1:G:434:ASP:O	1:G:438:LYS:NZ	2.31	0.62
1:A:679:VAL:HA	1:A:800:VAL:HG12	1.80	0.62
1:C:1125:ASP:HA	1:C:1598:ARG:HB2	1.81	0.62
1:E:248:PRO:O	1:E:257:ARG:NH2	2.33	0.62
1:E:298:ARG:HA	1:E:305:TYR:HA	1.80	0.62
1:E:725:TYR:HA	1:E:732:LEU:HA	1.82	0.62
1:E:1228:THR:O	1:E:1233:GLN:NE2	2.32	0.62
1:E:1938:GLN:NE2	1:E:3611:ASN:O	2.33	0.62
1:G:248:PRO:O	1:G:257:ARG:NH2	2.33	0.62
1:A:1000:ALA:HB1	1:A:1046:ASN:HB3	1.81	0.62
1:E:1114:ARG:HB3	1:E:1128:LEU:HD22	1.81	0.62
1:C:725:TYR:HA	1:C:732:LEU:HA	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3715:PHE:HA	1:E:3718:LYS:HD2	1.81	0.62
1:C:842:GLN:HG3	1:C:844:ARG:HH21	1.64	0.62
1:E:1430:VAL:HG12	1:E:1506:GLU:H	1.64	0.62
1:G:695:VAL:HG23	1:G:792:VAL:HG12	1.80	0.62
1:G:725:TYR:HA	1:G:732:LEU:HA	1.82	0.62
1:A:248:PRO:O	1:A:257:ARG:NH2	2.33	0.62
1:A:374:TYR:HA	1:A:391:ALA:HA	1.82	0.62
1:A:725:TYR:HA	1:A:732:LEU:HA	1.82	0.62
1:A:842:GLN:HG3	1:A:844:ARG:HH21	1.64	0.62
1:A:2326:ILE:HD13	1:G:207:PHE:CB	2.29	0.62
1:C:374:TYR:HA	1:C:391:ALA:HA	1.82	0.62
1:E:3683:LEU:HD22	1:E:3748:SER:HB2	1.82	0.62
1:E:4949:CYS:SG	1:E:4950:TRP:N	2.71	0.62
1:G:281:ARG:NH2	1:G:284:TRP:O	2.33	0.62
1:G:1228:THR:O	1:G:1233:GLN:NE2	2.32	0.62
1:G:1938:GLN:NE2	1:G:3611:ASN:O	2.33	0.62
1:A:1125:ASP:HA	1:A:1598:ARG:HB2	1.81	0.62
1:A:1143:GLN:HA	1:A:1151:HIS:HA	1.82	0.62
1:C:1228:THR:O	1:C:1233:GLN:NE2	2.32	0.62
1:C:4523:VAL:HG13	1:C:4523:VAL:O	2.00	0.62
1:C:4865:GLY:HA2	1:E:4868:ILE:HG12	1.80	0.62
1:G:1125:ASP:HA	1:G:1598:ARG:HB2	1.81	0.62
1:G:1430:VAL:HG12	1:G:1506:GLU:H	1.64	0.62
1:G:3683:LEU:HD22	1:G:3748:SER:HB2	1.82	0.62
1:A:548:CYS:HB2	1:A:578:VAL:HG23	1.80	0.62
1:C:680:ASP:HB2	1:C:799:LYS:HG3	1.82	0.62
1:C:1302:TYR:HB2	1:C:1543:VAL:HB	1.82	0.62
1:C:1573:SER:HB3	1:C:1582:CYS:HA	1.82	0.62
1:C:4901:THR:OG1	1:C:4960:ARG:NH2	2.33	0.62
1:E:718:VAL:HA	1:E:736:CYS:H	1.64	0.62
1:A:281:ARG:NH2	1:A:284:TRP:O	2.33	0.61
1:A:585:ALA:HA	1:A:588:ILE:HD12	1.81	0.61
1:A:880:ARG:HG3	1:A:884:LYS:HE3	1.80	0.61
1:A:1089:ARG:NH1	1:A:1122:CYS:SG	2.73	0.61
1:A:1114:ARG:HB3	1:A:1128:LEU:HD22	1.81	0.61
1:A:1938:GLN:NE2	1:A:3611:ASN:O	2.33	0.61
1:C:248:PRO:O	1:C:257:ARG:NH2	2.33	0.61
1:C:880:ARG:HG3	1:C:884:LYS:HE3	1.80	0.61
1:E:281:ARG:NH2	1:E:284:TRP:O	2.33	0.61
1:E:1089:ARG:NH1	1:E:1122:CYS:SG	2.73	0.61
1:A:695:VAL:HG23	1:A:792:VAL:HG12	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:838:ARG:NH2	1:C:854:THR:OG1	2.33	0.61
1:G:585:ALA:HA	1:G:588:ILE:HD12	1.81	0.61
1:G:1143:GLN:HA	1:G:1151:HIS:HA	1.82	0.61
1:G:2221:TYR:O	1:G:2225:ASN:ND2	2.33	0.61
1:A:1228:THR:O	1:A:1233:GLN:NE2	2.32	0.61
1:A:3683:LEU:HD22	1:A:3748:SER:HB2	1.82	0.61
1:A:4865:GLY:O	1:C:4871:PHE:CD2	2.53	0.61
1:A:4868:ILE:HG12	1:G:4865:GLY:HA2	1.80	0.61
1:C:207:PHE:CB	1:E:2326:ILE:HD13	2.30	0.61
1:C:281:ARG:NH2	1:C:284:TRP:O	2.33	0.61
1:C:1089:ARG:NH1	1:C:1122:CYS:SG	2.73	0.61
1:C:1938:GLN:NE2	1:C:3611:ASN:O	2.33	0.61
1:E:838:ARG:NH2	1:E:854:THR:OG1	2.33	0.61
2:B:25:HIS:HB2	2:B:104:LEU:HD11	1.82	0.61
1:C:1114:ARG:HB3	1:C:1128:LEU:HD22	1.81	0.61
1:C:1471:ASP:H	1:C:1474:GLY:H	1.48	0.61
1:E:207:PHE:CB	1:G:2326:ILE:HD13	2.30	0.61
1:E:4901:THR:OG1	1:E:4960:ARG:NH2	2.33	0.61
1:A:2262:ASP:OD1	1:A:2262:ASP:N	2.31	0.61
1:A:4871:PHE:CD2	1:G:4865:GLY:O	2.54	0.61
1:G:2262:ASP:OD1	1:G:2262:ASP:N	2.31	0.61
2:H:25:HIS:HB2	2:H:104:LEU:HD11	1.82	0.61
1:A:4901:THR:OG1	1:A:4960:ARG:NH2	2.33	0.61
1:G:680:ASP:HB2	1:G:799:LYS:HG3	1.82	0.61
1:G:2707:VAL:HG11	1:G:2786:TRP:HE1	1.66	0.61
1:A:838:ARG:NH2	1:A:854:THR:OG1	2.34	0.61
1:A:1471:ASP:H	1:A:1474:GLY:H	1.48	0.61
1:C:298:ARG:HA	1:C:305:TYR:HA	1.80	0.61
1:C:585:ALA:HA	1:C:588:ILE:HD12	1.81	0.61
1:C:1143:GLN:HA	1:C:1151:HIS:HA	1.82	0.61
1:E:518:ALA:O	1:E:520:ARG:NH1	2.33	0.61
1:E:1573:SER:HB3	1:E:1582:CYS:HA	1.82	0.61
1:G:838:ARG:NH2	1:G:854:THR:OG1	2.34	0.61
1:A:193:HIS:HD2	1:A:208:GLN:HB2	1.66	0.61
1:A:518:ALA:O	1:A:520:ARG:NH1	2.33	0.61
1:A:1912:GLN:OE1	1:A:2091:ARG:NH1	2.34	0.61
1:E:374:TYR:HA	1:E:391:ALA:HA	1.82	0.61
1:E:1912:GLN:OE1	1:E:2091:ARG:NH1	2.34	0.61
1:G:374:TYR:HA	1:G:391:ALA:HA	1.82	0.61
1:A:1302:TYR:HB2	1:A:1543:VAL:HB	1.82	0.61
1:A:2707:VAL:HG11	1:A:2786:TRP:HE1	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4005:VAL:HB	1:C:4115:ARG:HH21	1.66	0.61
1:E:680:ASP:HB2	1:E:799:LYS:HG3	1.82	0.61
1:E:2317:ASN:OD1	1:E:2317:ASN:N	2.34	0.61
1:E:2707:VAL:HG11	1:E:2786:TRP:HE1	1.66	0.61
1:G:1089:ARG:NH1	1:G:1122:CYS:SG	2.73	0.61
1:G:1302:TYR:HB2	1:G:1543:VAL:HB	1.82	0.61
1:A:680:ASP:HB2	1:A:799:LYS:HG3	1.82	0.61
1:A:2221:TYR:O	1:A:2225:ASN:ND2	2.33	0.61
1:E:1143:GLN:HA	1:E:1151:HIS:HA	1.82	0.61
1:E:1471:ASP:H	1:E:1474:GLY:H	1.48	0.61
1:G:518:ALA:O	1:G:520:ARG:NH1	2.33	0.61
1:G:846:TYR:HH	1:G:1222:SER:HG	1.49	0.61
1:G:3771:ASN:ND2	1:G:3773:THR:OG1	2.30	0.61
1:A:647:ARG:NE	1:A:648:LEU:O	2.31	0.60
1:A:1573:SER:HB3	1:A:1582:CYS:HA	1.82	0.60
1:C:193:HIS:HD2	1:C:208:GLN:HB2	1.66	0.60
1:E:1503:ASN:O	1:E:1523:ASN:ND2	2.34	0.60
1:E:2005:MET:O	1:E:2009:GLY:N	2.33	0.60
1:E:4005:VAL:HB	1:E:4115:ARG:HH21	1.66	0.60
1:A:3771:ASN:ND2	1:A:3773:THR:OG1	2.30	0.60
1:G:1503:ASN:O	1:G:1523:ASN:ND2	2.34	0.60
1:G:1573:SER:HB3	1:G:1582:CYS:HA	1.82	0.60
1:G:1912:GLN:OE1	1:G:2091:ARG:NH1	2.34	0.60
2:H:27:THR:HA	2:H:38:SER:HA	1.83	0.60
1:A:207:PHE:CB	1:C:2326:ILE:HD13	2.31	0.60
1:C:173:GLU:HA	1:E:3940:ARG:HH22	1.64	0.60
1:C:371:TRP:N	1:C:394:HIS:O	2.33	0.60
1:C:1000:ALA:HB1	1:C:1046:ASN:HB3	1.81	0.60
1:C:2707:VAL:HG11	1:C:2786:TRP:HE1	1.66	0.60
1:E:585:ALA:HA	1:E:588:ILE:HD12	1.81	0.60
1:G:4005:VAL:HB	1:G:4115:ARG:HH21	1.66	0.60
2:H:8:SER:H	2:H:71:ARG:HB3	1.67	0.60
1:A:1218:GLY:HA3	1:A:1240:ALA:H	1.67	0.60
1:A:4495:TYR:HA	1:A:4498:ARG:HD2	1.84	0.60
1:C:518:ALA:O	1:C:520:ARG:NH1	2.33	0.60
1:C:3683:LEU:HD22	1:C:3748:SER:HB2	1.82	0.60
1:C:4865:GLY:C	1:E:4871:PHE:CD2	2.74	0.60
2:D:25:HIS:HB2	2:D:104:LEU:HD11	1.82	0.60
1:E:2315:GLU:OE2	1:E:3814:LYS:NZ	2.35	0.60
1:G:3856:GLN:NE2	1:G:3923:GLU:O	2.35	0.60
2:H:7:ILE:H	2:H:72:ALA:HA	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1303:ARG:NH2	1:A:1447:THR:O	2.35	0.60
1:A:4749:MET:SD	1:A:4755:ARG:NH1	2.75	0.60
1:C:35:LEU:HD22	1:C:49:LEU:HB3	1.84	0.60
2:D:8:SER:H	2:D:71:ARG:HB3	1.67	0.60
1:E:1000:ALA:HB1	1:E:1046:ASN:HB3	1.81	0.60
1:E:1303:ARG:NH2	1:E:1447:THR:O	2.35	0.60
1:E:2221:TYR:O	1:E:2225:ASN:ND2	2.33	0.60
1:E:4495:TYR:HA	1:E:4498:ARG:HD2	1.84	0.60
1:E:4900:ASP:OD1	1:E:4905:GLY:N	2.31	0.60
1:G:4749:MET:SD	1:G:4755:ARG:NH1	2.75	0.60
1:A:1156:TRP:HE3	1:A:1160:ASP:HB2	1.67	0.60
1:A:2315:GLU:OE2	1:A:3814:LYS:NZ	2.35	0.60
1:A:4202:GLN:HG3	1:A:4203:LEU:HD22	1.84	0.60
1:A:4865:GLY:HA2	1:C:4868:ILE:HG12	1.82	0.60
1:C:1912:GLN:OE1	1:C:2091:ARG:NH1	2.34	0.60
1:C:4202:GLN:HG3	1:C:4203:LEU:HD22	1.84	0.60
1:C:4495:TYR:HA	1:C:4498:ARG:HD2	1.84	0.60
2:F:27:THR:HA	2:F:38:SER:HA	1.83	0.60
1:A:1503:ASN:O	1:A:1523:ASN:ND2	2.34	0.60
1:A:3856:GLN:NE2	1:A:3923:GLU:O	2.35	0.60
1:A:4617:TYR:OH	1:A:4629:GLY:O	2.20	0.60
1:C:2317:ASN:OD1	1:C:2317:ASN:N	2.34	0.60
1:E:546:LYS:O	1:E:550:GLN:NE2	2.34	0.60
1:E:1218:GLY:HA3	1:E:1240:ALA:H	1.67	0.60
1:E:4749:MET:SD	1:E:4755:ARG:NH1	2.75	0.60
1:E:4865:GLY:C	1:G:4871:PHE:CD2	2.75	0.60
2:F:7:ILE:H	2:F:72:ALA:HA	1.66	0.60
1:C:546:LYS:O	1:C:550:GLN:NE2	2.34	0.60
1:C:1272:ARG:HH12	1:C:1590:PHE:HB2	1.66	0.60
1:C:2208:SER:HG	1:C:2211:ASN:H	1.50	0.60
1:C:3856:GLN:NE2	1:C:3923:GLU:O	2.35	0.60
1:C:4617:TYR:OH	1:C:4629:GLY:O	2.20	0.60
1:E:173:GLU:HA	1:G:3940:ARG:HH22	1.64	0.60
1:E:3791:PHE:HA	1:E:3794:LEU:HD12	1.84	0.60
2:F:25:HIS:HB2	2:F:104:LEU:HD11	1.82	0.60
1:G:4901:THR:OG1	1:G:4960:ARG:NH2	2.33	0.60
1:A:35:LEU:HD22	1:A:49:LEU:HB3	1.84	0.60
2:B:8:SER:H	2:B:71:ARG:HB3	1.67	0.60
1:E:1302:TYR:HB2	1:E:1543:VAL:HB	1.82	0.60
1:G:2317:ASN:N	1:G:2317:ASN:OD1	2.34	0.60
1:A:3845:GLN:HE21	1:A:3923:GLU:HG3	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4005:VAL:HB	1:A:4115:ARG:HH21	1.66	0.60
1:A:4868:ILE:CD1	1:G:4865:GLY:HA2	2.32	0.60
1:C:1218:GLY:HA3	1:C:1240:ALA:H	1.67	0.60
1:C:1827:THR:HA	1:C:1830:ILE:HD12	1.84	0.60
1:C:3771:ASN:ND2	1:C:3773:THR:OG1	2.30	0.60
1:C:3791:PHE:HA	1:C:3794:LEU:HD12	1.84	0.60
1:E:4202:GLN:HG3	1:E:4203:LEU:HD22	1.84	0.60
1:G:1548:THR:OG1	1:G:1549:SER:N	2.34	0.60
1:G:4202:GLN:HG3	1:G:4203:LEU:HD22	1.84	0.60
1:G:4495:TYR:HA	1:G:4498:ARG:HD2	1.84	0.60
1:A:3808:ALA:HA	1:A:3811:ARG:HD3	1.84	0.59
1:A:4844:ARG:NH1	1:A:4844:ARG:O	2.35	0.59
1:A:4865:GLY:C	1:C:4871:PHE:CD2	2.75	0.59
1:C:2418:ILE:HG22	1:C:2421:ARG:HB2	1.84	0.59
1:C:4749:MET:SD	1:C:4755:ARG:NH1	2.75	0.59
1:E:228:LEU:HB3	1:E:289:ILE:HB	1.84	0.59
1:E:3845:GLN:HE21	1:E:3923:GLU:HG3	1.66	0.59
1:G:1156:TRP:HE3	1:G:1160:ASP:HB2	1.67	0.59
1:G:1471:ASP:H	1:G:1474:GLY:H	1.48	0.59
1:G:2315:GLU:OE2	1:G:3814:LYS:NZ	2.35	0.59
1:G:3808:ALA:HA	1:G:3811:ARG:HD3	1.84	0.59
1:A:546:LYS:O	1:A:550:GLN:NE2	2.34	0.59
1:A:1272:ARG:HH12	1:A:1590:PHE:HB2	1.66	0.59
1:A:2208:SER:HG	1:A:2211:ASN:H	1.50	0.59
1:C:1303:ARG:NH2	1:C:1447:THR:O	2.35	0.59
1:C:1845:LEU:O	1:C:1893:GLY:N	2.35	0.59
1:C:2846:ALA:O	1:C:2883:LYS:NZ	2.36	0.59
1:E:35:LEU:HD22	1:E:49:LEU:HB3	1.84	0.59
1:G:193:HIS:HD2	1:G:208:GLN:HB2	1.66	0.59
1:G:1272:ARG:HH12	1:G:1590:PHE:HB2	1.66	0.59
1:C:1123:GLN:OE1	1:C:1133:ARG:NH1	2.35	0.59
1:C:4844:ARG:NH1	1:C:4844:ARG:O	2.35	0.59
1:E:731:HIS:ND1	1:E:739:ARG:O	2.35	0.59
1:E:1123:GLN:OE1	1:E:1133:ARG:NH1	2.35	0.59
1:E:4865:GLY:HA2	1:G:4868:ILE:CD1	2.32	0.59
1:G:731:HIS:ND1	1:G:739:ARG:O	2.35	0.59
1:A:20:VAL:HG12	1:A:216:PRO:HA	1.85	0.59
1:A:848:ARG:NH2	1:A:1607:ASP:OD2	2.36	0.59
1:A:4139:ILE:O	1:A:4147:GLU:N	2.34	0.59
2:B:7:ILE:H	2:B:72:ALA:HA	1.67	0.59
1:C:647:ARG:NE	1:C:648:LEU:O	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3784:GLU:OE1	1:C:3785:LYS:NZ	2.36	0.59
1:C:3853:SER:O	1:C:3857:ASN:ND2	2.35	0.59
2:D:27:THR:HA	2:D:38:SER:HA	1.83	0.59
1:E:1272:ARG:HH12	1:E:1590:PHE:HB2	1.66	0.59
1:E:1845:LEU:O	1:E:1893:GLY:N	2.35	0.59
1:G:3791:PHE:HA	1:G:3794:LEU:HD12	1.84	0.59
1:G:3845:GLN:HE21	1:G:3923:GLU:HG3	1.66	0.59
1:C:228:LEU:HB3	1:C:289:ILE:HB	1.84	0.59
1:C:1503:ASN:O	1:C:1523:ASN:ND2	2.34	0.59
1:E:2418:ILE:HG22	1:E:2421:ARG:HB2	1.84	0.59
1:E:4844:ARG:NH1	1:E:4844:ARG:O	2.35	0.59
1:G:4617:TYR:OH	1:G:4629:GLY:O	2.20	0.59
1:A:1827:THR:HA	1:A:1830:ILE:HD12	1.84	0.59
1:C:20:VAL:HG12	1:C:216:PRO:HA	1.85	0.59
1:E:193:HIS:HD2	1:E:208:GLN:HB2	1.66	0.59
1:G:1303:ARG:NH2	1:G:1447:THR:O	2.35	0.59
1:G:1845:LEU:O	1:G:1893:GLY:N	2.35	0.59
1:A:799:LYS:HB3	1:A:1620:GLN:HB2	1.85	0.59
1:A:1099:GLY:H	1:A:1169:THR:HG23	1.67	0.59
1:A:1101:TRP:HA	1:A:1237:GLU:HB2	1.85	0.59
1:A:1845:LEU:O	1:A:1893:GLY:N	2.35	0.59
1:A:3791:PHE:HA	1:A:3794:LEU:HD12	1.84	0.59
1:C:2005:MET:O	1:C:2009:GLY:N	2.33	0.59
1:C:2315:GLU:OE2	1:C:3814:LYS:NZ	2.35	0.59
1:E:1099:GLY:H	1:E:1169:THR:HG23	1.67	0.59
1:E:3853:SER:O	1:E:3857:ASN:ND2	2.35	0.59
1:G:1099:GLY:H	1:G:1169:THR:HG23	1.67	0.59
1:G:2846:ALA:O	1:G:2883:LYS:NZ	2.36	0.59
1:G:3632:THR:O	1:G:3635:HIS:NE2	2.35	0.59
1:A:2317:ASN:N	1:A:2317:ASN:OD1	2.34	0.59
1:A:2846:ALA:O	1:A:2883:LYS:NZ	2.35	0.59
1:A:4183:GLU:O	1:A:4186:LYS:NZ	2.30	0.59
1:C:1737:THR:OG1	1:C:1738:LEU:N	2.36	0.59
1:C:3808:ALA:HA	1:C:3811:ARG:HD3	1.84	0.59
1:C:4139:ILE:O	1:C:4147:GLU:N	2.34	0.59
1:E:848:ARG:NH2	1:E:1607:ASP:OD2	2.36	0.59
1:E:1827:THR:HA	1:E:1830:ILE:HD12	1.84	0.59
1:G:848:ARG:NH2	1:G:1607:ASP:OD2	2.36	0.59
1:A:731:HIS:ND1	1:A:739:ARG:O	2.35	0.59
1:C:3632:THR:O	1:C:3635:HIS:NE2	2.35	0.59
1:C:4900:ASP:OD1	1:C:4905:GLY:N	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3856:GLN:NE2	1:E:3923:GLU:O	2.35	0.59
2:F:8:SER:H	2:F:71:ARG:HB3	1.67	0.59
1:G:546:LYS:O	1:G:550:GLN:NE2	2.34	0.59
1:G:799:LYS:HB3	1:G:1620:GLN:HB2	1.85	0.59
1:A:3940:ARG:HH22	1:G:173:GLU:HA	1.65	0.59
2:B:27:THR:HA	2:B:38:SER:HA	1.83	0.59
1:C:731:HIS:ND1	1:C:739:ARG:O	2.35	0.59
1:C:848:ARG:NH2	1:C:1607:ASP:OD2	2.36	0.59
1:C:3845:GLN:HE21	1:C:3923:GLU:HG3	1.66	0.59
1:C:4889:CYS:HB3	1:C:4893:GLY:H	1.68	0.59
1:E:20:VAL:HG12	1:E:216:PRO:HA	1.85	0.59
1:G:556:ASP:N	1:G:556:ASP:OD1	2.36	0.59
1:G:1218:GLY:HA3	1:G:1240:ALA:H	1.66	0.59
1:G:3853:SER:O	1:G:3857:ASN:ND2	2.35	0.59
1:C:1449:ASP:OD1	1:C:1449:ASP:N	2.33	0.58
1:C:4009:ASN:N	1:C:4009:ASN:OD1	2.36	0.58
1:E:371:TRP:N	1:E:394:HIS:O	2.33	0.58
1:E:2846:ALA:O	1:E:2883:LYS:NZ	2.35	0.58
1:G:35:LEU:HD22	1:G:49:LEU:HB3	1.84	0.58
1:G:245:LEU:HA	1:G:262:TYR:HA	1.85	0.58
1:A:3853:SER:O	1:A:3857:ASN:ND2	2.35	0.58
1:A:4871:PHE:CD2	1:G:4865:GLY:C	2.76	0.58
1:C:1699:ARG:NH1	1:C:1816:PHE:O	2.36	0.58
1:C:3834:ASP:OD1	1:C:3834:ASP:N	2.36	0.58
1:E:245:LEU:HA	1:E:262:TYR:HA	1.85	0.58
1:E:1737:THR:OG1	1:E:1738:LEU:N	2.36	0.58
1:E:3808:ALA:HA	1:E:3811:ARG:HD3	1.84	0.58
1:G:4844:ARG:NH1	1:G:4844:ARG:O	2.35	0.58
1:C:4865:GLY:HA2	1:E:4868:ILE:CD1	2.33	0.58
2:D:7:ILE:H	2:D:72:ALA:HA	1.67	0.58
1:E:4617:TYR:OH	1:E:4629:GLY:O	2.20	0.58
1:G:20:VAL:HG12	1:G:216:PRO:HA	1.85	0.58
1:G:228:LEU:HB3	1:G:289:ILE:HB	1.84	0.58
1:G:734:SER:O	1:G:739:ARG:NH1	2.37	0.58
1:G:1827:THR:HA	1:G:1830:ILE:HD12	1.84	0.58
1:G:3834:ASP:N	1:G:3834:ASP:OD1	2.36	0.58
1:A:2418:ILE:HG22	1:A:2421:ARG:HB2	1.84	0.58
1:A:3784:GLU:OE1	1:A:3785:LYS:NZ	2.35	0.58
1:A:4171:ARG:HH12	1:A:4175:PHE:HD1	1.51	0.58
1:A:4800:GLY:HA2	1:A:4804:ASP:HB3	1.86	0.58
1:C:1099:GLY:H	1:C:1169:THR:HG23	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1101:TRP:HA	1:C:1237:GLU:HB2	1.85	0.58
1:C:1156:TRP:HE3	1:C:1160:ASP:HB2	1.67	0.58
1:C:3743:GLN:NE2	1:C:3781:TYR:OH	2.37	0.58
1:E:556:ASP:OD1	1:E:556:ASP:N	2.36	0.58
1:G:1123:GLN:OE1	1:G:1133:ARG:NH1	2.35	0.58
1:G:1761:MET:SD	1:G:1761:MET:N	2.68	0.58
1:A:3940:ARG:HH22	1:G:173:GLU:CA	2.16	0.58
1:A:4011:VAL:HG12	1:A:4015:LEU:HD23	1.85	0.58
1:C:2745:GLY:H	1:C:2754:VAL:HG13	1.68	0.58
1:C:2832:VAL:HG11	1:C:2898:GLN:HB3	1.86	0.58
1:C:4011:VAL:HG12	1:C:4015:LEU:HD23	1.85	0.58
1:C:4886:GLU:O	1:C:4896:ASN:ND2	2.37	0.58
1:E:1156:TRP:HE3	1:E:1160:ASP:HB2	1.67	0.58
1:E:2832:VAL:HG11	1:E:2898:GLN:HB3	1.86	0.58
1:E:3743:GLN:NE2	1:E:3781:TYR:OH	2.37	0.58
1:E:3784:GLU:OE1	1:E:3785:LYS:NZ	2.36	0.58
1:E:4800:GLY:HA2	1:E:4804:ASP:HB3	1.86	0.58
1:G:2208:SER:HG	1:G:2211:ASN:H	1.49	0.58
1:G:4009:ASN:OD1	1:G:4009:ASN:N	2.36	0.58
1:A:734:SER:O	1:A:739:ARG:NH1	2.37	0.58
1:C:4800:GLY:HA2	1:C:4804:ASP:HB3	1.86	0.58
1:E:1137:PHE:HA	1:E:1144:ARG:HA	1.85	0.58
1:E:4889:CYS:HB3	1:E:4893:GLY:H	1.68	0.58
1:G:2745:GLY:H	1:G:2754:VAL:HG13	1.68	0.58
1:A:1305:SER:HB3	1:A:1591:LEU:HB2	1.85	0.58
1:A:3834:ASP:N	1:A:3834:ASP:OD1	2.36	0.58
1:A:4142:SER:O	1:A:4144:LYS:NZ	2.35	0.58
1:A:4597:PRO:O	1:A:4601:PHE:N	2.32	0.58
1:A:4865:GLY:HA2	1:C:4868:ILE:CD1	2.34	0.58
1:C:4623:SER:O	1:C:4630:GLN:NE2	2.37	0.58
1:E:23:GLN:NE2	1:E:52:THR:OG1	2.36	0.58
1:E:799:LYS:HB3	1:E:1620:GLN:HB2	1.85	0.58
1:E:1699:ARG:NH1	1:E:1816:PHE:O	2.36	0.58
1:G:1699:ARG:NH1	1:G:1816:PHE:O	2.36	0.58
1:G:3784:GLU:OE1	1:G:3785:LYS:NZ	2.36	0.58
1:G:4889:CYS:HB3	1:G:4893:GLY:H	1.68	0.58
1:A:1902:PRO:HA	1:A:1905:LEU:HB3	1.86	0.58
1:C:245:LEU:HA	1:C:262:TYR:HA	1.85	0.58
1:C:1548:THR:OG1	1:C:1549:SER:N	2.34	0.58
1:C:2258:LEU:O	1:C:3811:ARG:NH2	2.37	0.58
1:C:2306:ALA:O	1:C:2317:ASN:ND2	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3803:VAL:O	1:C:3832:GLN:NE2	2.36	0.58
1:E:1040:ASP:HA	1:E:1043:LYS:HB2	1.85	0.58
1:E:4623:SER:O	1:E:4630:GLN:NE2	2.37	0.58
1:E:4804:ASP:N	1:E:4804:ASP:OD1	2.37	0.58
1:G:371:TRP:N	1:G:394:HIS:O	2.33	0.58
1:G:2306:ALA:O	1:G:2317:ASN:ND2	2.36	0.58
1:G:2418:ILE:HG22	1:G:2421:ARG:HB2	1.84	0.58
1:G:3803:VAL:O	1:G:3832:GLN:NE2	2.36	0.58
1:A:22:LEU:HD22	1:A:212:TRP:HB3	1.86	0.58
1:A:1272:ARG:NH2	1:A:1590:PHE:O	2.37	0.58
1:A:2306:ALA:O	1:A:2317:ASN:ND2	2.36	0.58
1:C:185:SER:OG	1:C:186:VAL:N	2.37	0.58
1:C:4142:SER:O	1:C:4144:LYS:NZ	2.35	0.58
1:E:1434:PRO:O	1:E:1440:ASN:ND2	2.36	0.58
1:G:4171:ARG:HH12	1:G:4175:PHE:HD1	1.51	0.58
1:G:4623:SER:O	1:G:4630:GLN:NE2	2.37	0.58
1:G:4800:GLY:HA2	1:G:4804:ASP:HB3	1.86	0.58
1:A:228:LEU:HB3	1:A:289:ILE:HB	1.84	0.58
1:A:1123:GLN:OE1	1:A:1133:ARG:NH1	2.35	0.58
1:C:1137:PHE:HA	1:C:1144:ARG:HA	1.85	0.58
1:C:1272:ARG:NH2	1:C:1590:PHE:O	2.37	0.58
1:E:1101:TRP:HA	1:E:1237:GLU:HB2	1.85	0.58
1:E:2745:GLY:H	1:E:2754:VAL:HG13	1.68	0.58
1:G:1272:ARG:NH2	1:G:1590:PHE:O	2.37	0.58
1:A:23:GLN:NE2	1:A:52:THR:OG1	2.36	0.57
1:A:173:GLU:HA	1:C:3940:ARG:HH22	1.66	0.57
1:A:1719:LEU:HD23	1:A:1722:ASN:HD21	1.69	0.57
1:A:2745:GLY:H	1:A:2754:VAL:HG13	1.68	0.57
1:A:3743:GLN:NE2	1:A:3781:TYR:OH	2.37	0.57
1:A:4047:ARG:HA	1:A:4050:HIS:HB3	1.86	0.57
1:C:4047:ARG:HA	1:C:4050:HIS:HB3	1.86	0.57
1:E:1449:ASP:OD1	1:E:1449:ASP:N	2.33	0.57
1:E:3803:VAL:O	1:E:3832:GLN:NE2	2.36	0.57
1:E:3841:PHE:HA	1:E:3844:LEU:HD12	1.86	0.57
1:A:143:LEU:O	1:A:190:ARG:NH1	2.37	0.57
1:A:1548:THR:OG1	1:A:1549:SER:N	2.34	0.57
1:C:799:LYS:HB3	1:C:1620:GLN:HB2	1.85	0.57
1:C:2060:GLN:HA	1:C:2063:ILE:HD12	1.86	0.57
1:E:1902:PRO:HA	1:E:1905:LEU:HB3	1.86	0.57
1:G:647:ARG:NE	1:G:648:LEU:O	2.31	0.57
1:A:173:GLU:CA	1:C:3940:ARG:HH22	2.18	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1699:ARG:NH1	1:A:1816:PHE:O	2.36	0.57
1:A:2832:VAL:HG11	1:A:2898:GLN:HB3	1.86	0.57
1:A:4623:SER:O	1:A:4630:GLN:NE2	2.37	0.57
1:A:4886:GLU:O	1:A:4896:ASN:ND2	2.37	0.57
1:C:23:GLN:NE2	1:C:52:THR:OG1	2.37	0.57
1:C:833:LYS:HA	1:C:1614:ARG:HH12	1.69	0.57
1:C:3854:ASP:N	1:C:3854:ASP:OD1	2.35	0.57
1:E:22:LEU:HD22	1:E:212:TRP:HB3	1.86	0.57
1:E:4521:TYR:CE2	1:E:4559:HIS:HB3	2.39	0.57
1:G:1305:SER:HB3	1:G:1591:LEU:HB2	1.85	0.57
1:G:1510:VAL:HG12	1:G:1511:VAL:HG23	1.87	0.57
1:G:1703:TYR:HD2	1:G:1820:PRO:HB2	1.69	0.57
1:G:2832:VAL:HG11	1:G:2898:GLN:HB3	1.86	0.57
1:G:4886:GLU:O	1:G:4896:ASN:ND2	2.37	0.57
1:A:608:HIS:HA	1:A:611:LEU:HD13	1.86	0.57
1:C:1305:SER:HB3	1:C:1591:LEU:HB2	1.85	0.57
1:C:1902:PRO:HA	1:C:1905:LEU:HB3	1.85	0.57
1:C:2221:TYR:O	1:C:2225:ASN:ND2	2.33	0.57
1:E:187:SER:O	1:G:2419:ARG:HD2	2.05	0.57
1:E:1719:LEU:HD23	1:E:1722:ASN:HD21	1.69	0.57
1:G:23:GLN:NE2	1:G:52:THR:OG1	2.37	0.57
1:G:833:LYS:HA	1:G:1614:ARG:HH12	1.69	0.57
1:G:1719:LEU:HD23	1:G:1722:ASN:HD21	1.69	0.57
1:A:2419:ARG:HD2	1:G:187:SER:O	2.04	0.57
1:A:2729:SER:O	1:A:2733:TRP:HB2	2.05	0.57
1:C:1040:ASP:HA	1:C:1043:LYS:HB2	1.86	0.57
1:C:1510:VAL:HG12	1:C:1511:VAL:HG23	1.87	0.57
2:F:75:THR:HG23	2:F:98:ILE:HG12	1.86	0.57
1:G:143:LEU:O	1:G:190:ARG:NH1	2.37	0.57
1:A:245:LEU:HA	1:A:262:TYR:HA	1.85	0.57
1:C:173:GLU:CA	1:E:3940:ARG:HH22	2.16	0.57
1:C:1719:LEU:HD23	1:C:1722:ASN:HD21	1.69	0.57
1:C:4171:ARG:HH12	1:C:4175:PHE:HD1	1.51	0.57
1:E:1272:ARG:NH2	1:E:1590:PHE:O	2.37	0.57
1:E:2258:LEU:O	1:E:3811:ARG:NH2	2.37	0.57
1:E:2734:SER:O	1:E:2738:LEU:HB2	2.05	0.57
1:E:4047:ARG:HA	1:E:4050:HIS:HB3	1.86	0.57
1:E:4116:LEU:O	1:E:4120:LEU:N	2.38	0.57
1:G:22:LEU:HD22	1:G:212:TRP:HB3	1.86	0.57
1:G:1101:TRP:HA	1:G:1237:GLU:HB2	1.85	0.57
1:G:1171:HIS:O	1:G:1194:ASP:N	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2258:LEU:O	1:G:3811:ARG:NH2	2.37	0.57
1:G:4116:LEU:O	1:G:4120:LEU:N	2.37	0.57
1:A:185:SER:OG	1:A:186:VAL:N	2.37	0.57
1:A:833:LYS:HA	1:A:1614:ARG:HH12	1.69	0.57
1:A:2258:LEU:O	1:A:3811:ARG:NH2	2.37	0.57
1:C:734:SER:O	1:C:739:ARG:NH1	2.37	0.57
1:E:1305:SER:HB3	1:E:1591:LEU:HB2	1.85	0.57
1:E:4011:VAL:HG12	1:E:4015:LEU:HD23	1.85	0.57
1:E:4865:GLY:O	1:G:4871:PHE:HD2	1.88	0.57
1:G:1434:PRO:O	1:G:1440:ASN:ND2	2.36	0.57
1:G:1570:LEU:O	1:G:1573:SER:OG	2.22	0.57
1:G:1902:PRO:HA	1:G:1905:LEU:HB3	1.86	0.57
1:G:4047:ARG:HA	1:G:4050:HIS:HB3	1.86	0.57
1:A:1001:GLU:O	1:A:1005:ASN:HB2	2.05	0.57
1:A:1040:ASP:HA	1:A:1043:LYS:HB2	1.86	0.57
1:A:1510:VAL:HG12	1:A:1511:VAL:HG23	1.87	0.57
1:A:4889:CYS:HB3	1:A:4893:GLY:H	1.68	0.57
1:C:626:ARG:HH21	1:C:630:HIS:HE1	1.53	0.57
1:E:2744:TYR:HB3	1:E:2759:LYS:HD3	1.86	0.57
1:E:4886:GLU:O	1:E:4896:ASN:ND2	2.37	0.57
1:G:608:HIS:HA	1:G:611:LEU:HD13	1.86	0.57
1:G:1040:ASP:HA	1:G:1043:LYS:HB2	1.86	0.57
1:G:2729:SER:O	1:G:2733:TRP:HB2	2.05	0.57
1:G:3743:GLN:NE2	1:G:3781:TYR:OH	2.37	0.57
1:A:1171:HIS:O	1:A:1194:ASP:N	2.38	0.57
1:A:2060:GLN:HA	1:A:2063:ILE:HD12	1.86	0.57
1:A:3841:PHE:HA	1:A:3844:LEU:HD12	1.86	0.57
1:A:4859:LEU:HD23	1:A:4862:ILE:HD12	1.86	0.57
1:C:187:SER:O	1:E:2419:ARG:HD2	2.05	0.57
1:C:2729:SER:O	1:C:2733:TRP:HB2	2.05	0.57
1:E:2006:THR:O	1:E:2010:ILE:N	2.38	0.57
1:E:2306:ALA:O	1:E:2317:ASN:ND2	2.36	0.57
1:E:3880:LEU:HD23	1:E:3944:ALA:HB2	1.87	0.57
1:E:4912:GLN:O	1:E:4915:ASN:ND2	2.38	0.57
1:A:1137:PHE:HA	1:A:1144:ARG:HA	1.85	0.57
2:B:42:ARG:HG3	2:B:44:LYS:HB3	1.87	0.57
1:C:22:LEU:HD22	1:C:212:TRP:HB3	1.86	0.57
1:E:1510:VAL:HG12	1:E:1511:VAL:HG23	1.87	0.57
1:G:1001:GLU:O	1:G:1005:ASN:HB2	2.05	0.57
1:G:1137:PHE:HA	1:G:1144:ARG:HA	1.85	0.57
1:G:2734:SER:O	1:G:2738:LEU:HB2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4019:ASP:OD2	1:G:4125:SER:OG	2.23	0.57
1:G:4859:LEU:HD23	1:G:4862:ILE:HD12	1.86	0.57
1:A:2435:GLY:HA2	1:A:2438:SER:HB3	1.87	0.56
1:A:3803:VAL:O	1:A:3832:GLN:NE2	2.36	0.56
1:A:4019:ASP:OD2	1:A:4125:SER:OG	2.23	0.56
1:E:185:SER:OG	1:E:186:VAL:N	2.37	0.56
1:E:734:SER:O	1:E:739:ARG:NH1	2.37	0.56
1:G:185:SER:OG	1:G:186:VAL:N	2.37	0.56
1:G:2435:GLY:HA2	1:G:2438:SER:HB3	1.87	0.56
1:G:3880:LEU:HD23	1:G:3944:ALA:HB2	1.87	0.56
1:G:4011:VAL:HG12	1:G:4015:LEU:HD23	1.85	0.56
1:A:614:LEU:HA	1:A:617:LEU:HD12	1.87	0.56
1:A:626:ARG:HH21	1:A:630:HIS:HE1	1.53	0.56
1:A:1737:THR:OG1	1:A:1738:LEU:N	2.36	0.56
1:A:2744:TYR:HB3	1:A:2759:LYS:HD3	1.86	0.56
2:B:75:THR:HG23	2:B:98:ILE:HG12	1.86	0.56
1:C:1703:TYR:HD2	1:C:1820:PRO:HB2	1.69	0.56
1:C:2435:GLY:HA2	1:C:2438:SER:HB3	1.87	0.56
1:C:3987:LEU:O	1:C:3990:ASN:ND2	2.38	0.56
1:C:4865:GLY:O	1:E:4871:PHE:HD2	1.87	0.56
1:E:4159:THR:HA	1:E:4162:GLU:HG2	1.87	0.56
1:E:4183:GLU:O	1:E:4186:LYS:NZ	2.30	0.56
2:F:56:ILE:HD12	2:F:80:VAL:HG13	1.87	0.56
1:G:614:LEU:HA	1:G:617:LEU:HD12	1.87	0.56
1:G:4572:THR:HA	1:G:4575:ILE:HD12	1.86	0.56
1:G:4912:GLN:O	1:G:4915:ASN:ND2	2.38	0.56
1:A:556:ASP:N	1:A:556:ASP:OD1	2.36	0.56
1:A:850:LEU:HD13	1:A:1207:LEU:HD21	1.87	0.56
1:A:4009:ASN:OD1	1:A:4009:ASN:N	2.36	0.56
1:A:4116:LEU:O	1:A:4120:LEU:N	2.38	0.56
1:A:4804:ASP:OD1	1:A:4804:ASP:N	2.37	0.56
1:A:4912:GLN:O	1:A:4915:ASN:ND2	2.38	0.56
1:C:556:ASP:OD1	1:C:556:ASP:N	2.36	0.56
1:C:608:HIS:HA	1:C:611:LEU:HD13	1.86	0.56
1:C:870:SER:HA	1:C:941:LYS:HD3	1.88	0.56
1:C:1434:PRO:O	1:C:1440:ASN:ND2	2.36	0.56
1:C:2072:GLN:NE2	1:C:3647:LYS:O	2.39	0.56
1:C:2734:SER:O	1:C:2738:LEU:HB2	2.05	0.56
1:C:3841:PHE:HA	1:C:3844:LEU:HD12	1.86	0.56
1:C:4116:LEU:O	1:C:4120:LEU:N	2.38	0.56
1:C:4859:LEU:HD23	1:C:4862:ILE:HD12	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:647:ARG:NE	1:E:648:LEU:O	2.31	0.56
1:E:833:LYS:HA	1:E:1614:ARG:HH12	1.69	0.56
1:E:850:LEU:HD13	1:E:1207:LEU:HD21	1.87	0.56
1:E:2072:GLN:NE2	1:E:3647:LYS:O	2.39	0.56
1:E:3771:ASN:ND2	1:E:3773:THR:OG1	2.30	0.56
1:E:4572:THR:HA	1:E:4575:ILE:HD12	1.87	0.56
1:E:4790:PHE:HB3	1:E:4793:PHE:HB2	1.87	0.56
1:G:533:LEU:HD23	1:G:536:LEU:HD21	1.87	0.56
1:G:652:VAL:HG11	1:G:715:GLY:H	1.71	0.56
1:G:657:PRO:HA	1:G:834:VAL:HA	1.87	0.56
1:G:2005:MET:O	1:G:2009:GLY:N	2.33	0.56
1:G:2744:TYR:HB3	1:G:2759:LYS:HD3	1.86	0.56
1:G:4597:PRO:O	1:G:4601:PHE:N	2.32	0.56
1:A:870:SER:HA	1:A:941:LYS:HD3	1.88	0.56
1:A:2734:SER:O	1:A:2738:LEU:HB2	2.05	0.56
1:C:4159:THR:HA	1:C:4162:GLU:HG2	1.87	0.56
1:E:614:LEU:HA	1:E:617:LEU:HD12	1.87	0.56
1:E:890:HIS:NE2	1:E:919:VAL:O	2.34	0.56
1:E:1171:HIS:O	1:E:1194:ASP:N	2.38	0.56
1:E:4859:LEU:HD23	1:E:4862:ILE:HD12	1.86	0.56
1:G:2060:GLN:HA	1:G:2063:ILE:HD12	1.86	0.56
1:G:2702:PHE:HB3	1:G:2872:LEU:HG	1.88	0.56
1:A:4936:GLY:O	1:A:4940:TYR:CB	2.53	0.56
1:C:2163:MET:N	1:C:2163:MET:SD	2.79	0.56
1:C:2744:TYR:HB3	1:C:2759:LYS:HD3	1.86	0.56
1:C:4655:MET:O	1:C:4664:ARG:NH2	2.39	0.56
1:E:1292:SER:H	1:E:1550:PRO:HB3	1.71	0.56
1:E:2060:GLN:HA	1:E:2063:ILE:HD12	1.86	0.56
1:E:2163:MET:N	1:E:2163:MET:SD	2.79	0.56
1:E:2702:PHE:HB3	1:E:2872:LEU:HG	1.88	0.56
1:E:3987:LEU:O	1:E:3990:ASN:ND2	2.38	0.56
1:E:4655:MET:O	1:E:4664:ARG:NH2	2.39	0.56
1:G:1199:ASP:OD1	1:G:1199:ASP:N	2.38	0.56
1:G:1292:SER:H	1:G:1550:PRO:HB3	1.71	0.56
1:G:3841:PHE:HA	1:G:3844:LEU:HD12	1.86	0.56
1:G:4142:SER:O	1:G:4144:LYS:NZ	2.35	0.56
1:A:533:LEU:HD23	1:A:536:LEU:HD21	1.87	0.56
1:A:1703:TYR:HD2	1:A:1820:PRO:HB2	1.69	0.56
1:C:1001:GLU:O	1:C:1005:ASN:HB2	2.05	0.56
1:C:1171:HIS:O	1:C:1194:ASP:N	2.38	0.56
1:C:1292:SER:H	1:C:1550:PRO:HB3	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4572:THR:HA	1:C:4575:ILE:HD12	1.87	0.56
1:C:4936:GLY:O	1:C:4940:TYR:CB	2.53	0.56
1:E:657:PRO:HA	1:E:834:VAL:HA	1.87	0.56
1:E:2729:SER:O	1:E:2733:TRP:HB2	2.05	0.56
1:E:3632:THR:O	1:E:3635:HIS:NE2	2.35	0.56
1:E:4041:LYS:NZ	1:E:4080:ASP:OD2	2.38	0.56
1:E:4171:ARG:HH12	1:E:4175:PHE:HD1	1.51	0.56
1:G:1737:THR:OG1	1:G:1738:LEU:N	2.36	0.56
1:G:4655:MET:O	1:G:4664:ARG:NH2	2.39	0.56
1:A:409:GLN:N	1:A:412:GLU:OE2	2.37	0.56
1:A:496:ASN:OD1	1:A:496:ASN:N	2.39	0.56
1:A:4572:THR:HA	1:A:4575:ILE:HD12	1.87	0.56
1:C:2154:LYS:O	1:C:2158:GLN:NE2	2.39	0.56
1:E:608:HIS:HA	1:E:611:LEU:HD13	1.86	0.56
1:E:870:SER:HA	1:E:941:LYS:HD3	1.88	0.56
1:E:1173:MET:O	1:E:1191:ALA:N	2.39	0.56
1:E:1425:THR:N	1:E:1511:VAL:O	2.39	0.56
1:E:1548:THR:OG1	1:E:1549:SER:N	2.34	0.56
1:E:1703:TYR:HD2	1:E:1820:PRO:HB2	1.69	0.56
1:G:870:SER:HA	1:G:941:LYS:HD3	1.88	0.56
1:G:3854:ASP:OD1	1:G:3854:ASP:N	2.35	0.56
1:A:1425:THR:N	1:A:1511:VAL:O	2.39	0.56
1:C:614:LEU:HA	1:C:617:LEU:HD12	1.87	0.56
1:C:652:VAL:HG11	1:C:715:GLY:H	1.71	0.56
1:C:2075:VAL:HG11	1:C:3662:VAL:H	1.71	0.56
1:C:3918:PHE:HA	1:C:3921:LEU:HD12	1.88	0.56
1:E:173:GLU:CA	1:G:3940:ARG:HH22	2.15	0.56
1:E:1102:TYR:HB2	1:E:1236:TYR:HB3	1.88	0.56
1:E:2435:GLY:HA2	1:E:2438:SER:HB3	1.87	0.56
1:E:4139:ILE:O	1:E:4147:GLU:N	2.34	0.56
1:G:850:LEU:HD13	1:G:1207:LEU:HD21	1.87	0.56
1:G:2072:GLN:NE2	1:G:3647:LYS:O	2.39	0.56
1:G:2163:MET:N	1:G:2163:MET:SD	2.79	0.56
1:G:4790:PHE:HB3	1:G:4793:PHE:HB2	1.87	0.56
2:H:42:ARG:HG3	2:H:44:LYS:HB3	1.87	0.56
1:A:371:TRP:N	1:A:394:HIS:O	2.33	0.56
1:A:2072:GLN:NE2	1:A:3647:LYS:O	2.39	0.56
1:A:2702:PHE:HB3	1:A:2872:LEU:HG	1.88	0.56
1:A:4655:MET:O	1:A:4664:ARG:NH2	2.39	0.56
1:C:1102:TYR:HB2	1:C:1236:TYR:HB3	1.88	0.56
1:C:2006:THR:O	1:C:2010:ILE:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:75:THR:HG23	2:D:98:ILE:HG12	1.86	0.56
1:E:1199:ASP:OD1	1:E:1199:ASP:N	2.38	0.56
2:F:42:ARG:HG3	2:F:44:LYS:HB3	1.87	0.56
1:G:1173:MET:O	1:G:1191:ALA:N	2.39	0.56
1:G:1801:GLU:HA	1:G:1804:LEU:HB2	1.87	0.56
2:H:56:ILE:HD12	2:H:80:VAL:HG13	1.87	0.56
1:A:652:VAL:HG11	1:A:715:GLY:H	1.71	0.56
1:A:1510:VAL:HG13	1:A:1517:LEU:H	1.71	0.56
1:A:1748:LEU:HG	1:A:1750:GLY:H	1.71	0.56
1:C:877:HIS:HB3	1:C:952:ILE:HG13	1.88	0.56
1:C:4790:PHE:HB3	1:C:4793:PHE:HB2	1.87	0.56
1:E:533:LEU:HD23	1:E:536:LEU:HD21	1.87	0.56
1:E:1001:GLU:O	1:E:1005:ASN:HB2	2.05	0.56
1:E:1570:LEU:O	1:E:1573:SER:OG	2.22	0.56
1:E:3918:PHE:HA	1:E:3921:LEU:HD12	1.88	0.56
2:H:75:THR:HG23	2:H:98:ILE:HG12	1.86	0.56
1:A:847:THR:HB	1:A:1214:ARG:HE	1.72	0.55
1:A:1102:TYR:HB2	1:A:1236:TYR:HB3	1.88	0.55
1:A:1292:SER:H	1:A:1550:PRO:HB3	1.71	0.55
1:A:2421:ARG:NH2	1:A:2476:VAL:O	2.39	0.55
1:A:3846:LEU:HA	1:A:3849:GLU:HG3	1.87	0.55
1:A:3854:ASP:N	1:A:3854:ASP:OD1	2.35	0.55
1:A:3987:LEU:O	1:A:3990:ASN:ND2	2.38	0.55
1:C:143:LEU:O	1:C:190:ARG:NH1	2.37	0.55
1:C:1801:GLU:HA	1:C:1804:LEU:HB2	1.87	0.55
1:C:4019:ASP:OD2	1:C:4125:SER:OG	2.23	0.55
1:C:4764:ASN:HD22	1:C:4870:ALA:HB2	1.71	0.55
1:E:3834:ASP:OD1	1:E:3834:ASP:N	2.36	0.55
1:E:3846:LEU:HA	1:E:3849:GLU:HG3	1.87	0.55
1:E:3854:ASP:OD1	1:E:3854:ASP:N	2.35	0.55
1:G:688:ALA:HB1	2:H:40:ARG:HB3	1.88	0.55
1:G:2154:LYS:O	1:G:2158:GLN:NE2	2.39	0.55
1:A:877:HIS:HB3	1:A:952:ILE:HG13	1.88	0.55
1:A:2163:MET:SD	1:A:2163:MET:N	2.79	0.55
2:B:56:ILE:HD12	2:B:80:VAL:HG13	1.87	0.55
1:C:688:ALA:HB1	2:D:40:ARG:HB3	1.88	0.55
1:C:3643:GLU:OE2	1:C:3731:ARG:NH1	2.40	0.55
1:C:4804:ASP:OD1	1:C:4804:ASP:N	2.37	0.55
1:C:4912:GLN:O	1:C:4915:ASN:ND2	2.38	0.55
1:E:832:LEU:O	1:E:1614:ARG:NH1	2.40	0.55
1:E:2154:LYS:O	1:E:2158:GLN:NE2	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3643:GLU:OE2	1:E:3731:ARG:NH1	2.40	0.55
1:E:4030:SER:HA	1:E:4034:LYS:H	1.71	0.55
1:G:1102:TYR:HB2	1:G:1236:TYR:HB3	1.88	0.55
1:G:3643:GLU:OE2	1:G:3731:ARG:NH1	2.40	0.55
1:G:3846:LEU:HA	1:G:3849:GLU:HG3	1.87	0.55
1:A:649:VAL:O	1:A:1627:PHE:N	2.39	0.55
1:C:1510:VAL:HG13	1:C:1517:LEU:H	1.72	0.55
1:C:3846:LEU:HA	1:C:3849:GLU:HG3	1.87	0.55
1:E:652:VAL:HG11	1:E:715:GLY:H	1.71	0.55
1:E:1101:TRP:N	1:E:1166:VAL:O	2.40	0.55
1:E:1748:LEU:HG	1:E:1750:GLY:H	1.71	0.55
1:E:4764:ASN:HD22	1:E:4870:ALA:HB2	1.71	0.55
1:G:626:ARG:HH21	1:G:630:HIS:HE1	1.53	0.55
1:G:1425:THR:N	1:G:1511:VAL:O	2.39	0.55
1:G:1510:VAL:HG13	1:G:1517:LEU:H	1.71	0.55
1:G:4030:SER:OG	1:G:4031:ASP:N	2.40	0.55
1:A:1144:ARG:NH1	1:A:1191:ALA:O	2.40	0.55
1:A:1801:GLU:HA	1:A:1804:LEU:HB2	1.87	0.55
1:A:2075:VAL:HG11	1:A:3662:VAL:H	1.71	0.55
1:A:4650:VAL:HA	1:A:4653:LYS:HE2	1.88	0.55
1:A:4764:ASN:HD22	1:A:4870:ALA:HB2	1.71	0.55
1:A:4790:PHE:HB3	1:A:4793:PHE:HB2	1.87	0.55
1:A:4837:GLY:N	1:A:4841:GLU:OE1	2.34	0.55
1:C:649:VAL:O	1:C:1627:PHE:N	2.39	0.55
1:C:1101:TRP:N	1:C:1166:VAL:O	2.40	0.55
1:E:143:LEU:O	1:E:190:ARG:NH1	2.37	0.55
1:E:1801:GLU:HA	1:E:1804:LEU:HB2	1.87	0.55
1:E:4019:ASP:OD2	1:E:4125:SER:OG	2.23	0.55
1:E:4809:ASP:OD1	1:G:4522:LYS:HA	2.07	0.55
1:E:4936:GLY:O	1:E:4940:TYR:CB	2.53	0.55
1:G:847:THR:HB	1:G:1214:ARG:HE	1.72	0.55
1:G:1116:GLY:HA3	1:G:1136:ALA:HA	1.88	0.55
1:G:1629:SER:OG	1:G:1630:LEU:N	2.40	0.55
1:G:4183:GLU:O	1:G:4186:LYS:NZ	2.30	0.55
1:A:3633:GLU:OE2	1:A:3635:HIS:N	2.40	0.55
1:A:3918:PHE:HA	1:A:3921:LEU:HD12	1.88	0.55
1:A:4159:THR:HA	1:A:4162:GLU:HG2	1.87	0.55
1:C:591:GLU:HA	1:C:594:ILE:HD12	1.88	0.55
1:C:1173:MET:O	1:C:1191:ALA:N	2.39	0.55
1:C:4030:SER:HA	1:C:4034:LYS:H	1.71	0.55
2:D:56:ILE:HD12	2:D:80:VAL:HG13	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1670:HIS:ND1	1:E:1778:TYR:O	2.33	0.55
1:G:1144:ARG:NH1	1:G:1191:ALA:O	2.40	0.55
1:G:3987:LEU:O	1:G:3990:ASN:ND2	2.38	0.55
1:A:688:ALA:HB1	2:B:40:ARG:HB3	1.88	0.55
1:A:2154:LYS:O	1:A:2158:GLN:NE2	2.39	0.55
1:C:580:VAL:O	1:C:621:HIS:NE2	2.40	0.55
1:C:657:PRO:HA	1:C:834:VAL:HA	1.87	0.55
1:C:832:LEU:O	1:C:1614:ARG:NH1	2.40	0.55
1:C:850:LEU:HD13	1:C:1207:LEU:HD21	1.87	0.55
1:C:1144:ARG:NH1	1:C:1191:ALA:O	2.40	0.55
1:C:1425:THR:N	1:C:1511:VAL:O	2.39	0.55
1:C:2702:PHE:HB3	1:C:2872:LEU:HG	1.88	0.55
1:C:3880:LEU:HD23	1:C:3944:ALA:HB2	1.87	0.55
1:E:13:PHE:O	1:E:15:ARG:NH1	2.40	0.55
1:E:649:VAL:O	1:E:1627:PHE:N	2.39	0.55
1:E:1761:MET:SD	1:E:1761:MET:N	2.68	0.55
1:E:4009:ASN:N	1:E:4009:ASN:OD1	2.36	0.55
1:G:797:GLY:HA2	1:G:1622:LEU:HA	1.89	0.55
1:G:2421:ARG:NH2	1:G:2476:VAL:O	2.39	0.55
1:G:4576:LEU:HD22	1:G:4579:LEU:HD22	1.88	0.55
1:A:657:PRO:HA	1:A:834:VAL:HA	1.87	0.55
1:A:1570:LEU:O	1:A:1573:SER:OG	2.22	0.55
1:A:2783:MET:HG2	1:A:2845:MET:HG3	1.89	0.55
1:A:3643:GLU:OE2	1:A:3731:ARG:NH1	2.40	0.55
1:A:3880:LEU:HD23	1:A:3944:ALA:HB2	1.87	0.55
1:C:847:THR:HB	1:C:1214:ARG:HE	1.72	0.55
1:C:3633:GLU:OE2	1:C:3635:HIS:N	2.39	0.55
2:D:30:LEU:HD12	2:D:34:LYS:HD3	1.89	0.55
2:D:42:ARG:HG3	2:D:44:LYS:HB3	1.87	0.55
1:E:169:ARG:HH12	1:E:176:ARG:HB2	1.72	0.55
1:E:496:ASN:N	1:E:496:ASN:OD1	2.39	0.55
1:E:4576:LEU:HD22	1:E:4579:LEU:HD22	1.88	0.55
2:F:20:GLN:HB3	2:F:106:LEU:HB3	1.88	0.55
1:G:3918:PHE:HA	1:G:3921:LEU:HD12	1.88	0.55
1:G:4936:GLY:O	1:G:4940:TYR:CB	2.53	0.55
1:A:848:ARG:NH2	1:A:1605:LYS:O	2.40	0.55
1:A:4576:LEU:HD22	1:A:4579:LEU:HD22	1.88	0.55
1:C:533:LEU:HD23	1:C:536:LEU:HD21	1.87	0.55
1:C:1116:GLY:HA3	1:C:1136:ALA:HA	1.88	0.55
1:C:1748:LEU:HG	1:C:1750:GLY:H	1.71	0.55
1:E:182:ILE:HD12	1:E:209:GLN:HB2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:626:ARG:HH21	1:E:630:HIS:HE1	1.53	0.55
1:E:847:THR:HB	1:E:1214:ARG:HE	1.72	0.55
1:E:4030:SER:OG	1:E:4031:ASP:N	2.40	0.55
1:G:591:GLU:HA	1:G:594:ILE:HD12	1.88	0.55
1:G:1760:ARG:HB2	1:G:1762:GLN:HE21	1.72	0.55
1:G:4159:THR:HA	1:G:4162:GLU:HG2	1.87	0.55
1:G:4804:ASP:N	1:G:4804:ASP:OD1	2.37	0.55
2:H:20:GLN:HB3	2:H:106:LEU:HB3	1.88	0.55
1:A:1760:ARG:HB2	1:A:1762:GLN:HE21	1.72	0.55
1:A:3632:THR:O	1:A:3635:HIS:NE2	2.35	0.55
1:A:4130:PHE:HA	1:A:4133:PHE:HD2	1.72	0.55
1:C:182:ILE:HD12	1:C:209:GLN:HB2	1.89	0.55
1:C:496:ASN:OD1	1:C:496:ASN:N	2.39	0.55
1:E:409:GLN:N	1:E:412:GLU:OE2	2.37	0.55
1:A:13:PHE:O	1:A:15:ARG:NH1	2.40	0.55
1:A:182:ILE:HD12	1:A:209:GLN:HB2	1.89	0.55
1:A:187:SER:O	1:C:2419:ARG:HD2	2.06	0.55
1:A:4523:VAL:HG22	1:G:4808:ASP:CB	2.37	0.55
1:A:4871:PHE:HD2	1:G:4865:GLY:O	1.89	0.55
1:C:195:SER:HB3	1:C:202:HIS:HB2	1.89	0.55
1:C:4650:VAL:HA	1:C:4653:LYS:HE2	1.88	0.55
1:E:195:SER:HB3	1:E:202:HIS:HB2	1.89	0.55
1:E:688:ALA:HB1	2:F:40:ARG:HB3	1.89	0.55
1:E:877:HIS:HB3	1:E:952:ILE:HG13	1.88	0.55
1:E:1116:GLY:HA3	1:E:1136:ALA:HA	1.88	0.55
1:E:1510:VAL:HG13	1:E:1517:LEU:H	1.72	0.55
1:E:1629:SER:OG	1:E:1630:LEU:N	2.40	0.55
1:E:4130:PHE:HA	1:E:4133:PHE:HD2	1.72	0.55
1:E:4717:ASP:HB3	1:E:4720:PHE:HB3	1.89	0.55
1:G:409:GLN:N	1:G:412:GLU:OE2	2.37	0.55
1:A:832:LEU:O	1:A:1614:ARG:NH1	2.40	0.54
1:A:1116:GLY:HA3	1:A:1136:ALA:HA	1.88	0.54
1:A:1260:GLN:HG2	1:A:1591:LEU:HD13	1.89	0.54
1:A:1470:GLY:HA2	1:A:1474:GLY:HA2	1.89	0.54
1:C:1734:LYS:HG3	1:C:1931:ASP:HB3	1.89	0.54
1:C:1760:ARG:HB2	1:C:1762:GLN:HE21	1.72	0.54
1:E:848:ARG:NH2	1:E:1605:LYS:O	2.40	0.54
1:E:2075:VAL:HG11	1:E:3662:VAL:H	1.71	0.54
1:E:2421:ARG:NH2	1:E:2476:VAL:O	2.39	0.54
2:F:17:LYS:NZ	2:F:18:LYS:O	2.39	0.54
2:F:30:LEU:HD12	2:F:34:LYS:HD3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1231:GLY:N	1:G:1234:GLU:OE1	2.40	0.54
1:G:1748:LEU:HG	1:G:1750:GLY:H	1.71	0.54
1:G:4764:ASN:HD22	1:G:4870:ALA:HB2	1.71	0.54
2:H:30:LEU:HD12	2:H:34:LYS:HD3	1.89	0.54
1:A:1161:VAL:HB	1:A:1226:TYR:HE2	1.73	0.54
1:C:848:ARG:NH2	1:C:1605:LYS:O	2.40	0.54
1:E:580:VAL:O	1:E:621:HIS:NE2	2.40	0.54
1:E:1144:ARG:NH1	1:E:1191:ALA:O	2.40	0.54
1:E:2313:SER:OG	1:E:2475:ARG:NH2	2.41	0.54
1:G:169:ARG:HH12	1:G:176:ARG:HB2	1.72	0.54
1:G:649:VAL:O	1:G:1627:PHE:N	2.39	0.54
1:G:2006:THR:O	1:G:2010:ILE:N	2.38	0.54
1:G:2075:VAL:HG11	1:G:3662:VAL:H	1.71	0.54
1:G:3802:SER:O	1:G:3832:GLN:NE2	2.41	0.54
1:G:4717:ASP:HB3	1:G:4720:PHE:HB3	1.89	0.54
1:C:846:TYR:HH	1:C:1222:SER:HG	1.55	0.54
1:C:1629:SER:OG	1:C:1630:LEU:N	2.40	0.54
1:C:2421:ARG:NH2	1:C:2476:VAL:O	2.39	0.54
2:D:17:LYS:NZ	2:D:18:LYS:O	2.39	0.54
1:E:1260:GLN:HG2	1:E:1591:LEU:HD13	1.89	0.54
1:E:2730:HIS:NE2	1:E:2759:LYS:O	2.34	0.54
1:G:13:PHE:O	1:G:15:ARG:NH1	2.40	0.54
1:G:182:ILE:HD12	1:G:209:GLN:HB2	1.89	0.54
1:G:580:VAL:O	1:G:621:HIS:NE2	2.40	0.54
1:G:752:ASP:OD1	1:G:752:ASP:N	2.40	0.54
1:G:832:LEU:O	1:G:1614:ARG:NH1	2.40	0.54
1:G:1089:ARG:HH21	1:G:1600:PRO:HB3	1.73	0.54
1:G:1101:TRP:N	1:G:1166:VAL:O	2.40	0.54
1:G:4126:VAL:HA	1:G:4129:TYR:HB3	1.89	0.54
1:G:4837:GLY:N	1:G:4841:GLU:OE1	2.34	0.54
1:A:580:VAL:O	1:A:621:HIS:NE2	2.40	0.54
1:A:1774:GLU:OE2	2:B:87:HIS:NE2	2.41	0.54
1:A:2006:THR:O	1:A:2010:ILE:N	2.38	0.54
1:A:4030:SER:HA	1:A:4034:LYS:H	1.72	0.54
2:B:30:LEU:HD12	2:B:34:LYS:HD3	1.89	0.54
1:E:2737:LYS:NZ	1:E:2758:MET:SD	2.76	0.54
1:G:2313:SER:OG	1:G:2475:ARG:NH2	2.41	0.54
1:G:4130:PHE:HA	1:G:4133:PHE:HD2	1.72	0.54
1:A:4030:SER:OG	1:A:4031:ASP:N	2.40	0.54
1:C:4597:PRO:O	1:C:4601:PHE:N	2.32	0.54
1:E:591:GLU:HA	1:E:594:ILE:HD12	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4650:VAL:HA	1:E:4653:LYS:HE2	1.88	0.54
1:G:848:ARG:NH2	1:G:1605:LYS:O	2.40	0.54
1:G:877:HIS:HB3	1:G:952:ILE:HG13	1.88	0.54
1:A:1089:ARG:HH21	1:A:1600:PRO:HB3	1.73	0.54
1:C:3802:SER:O	1:C:3832:GLN:NE2	2.40	0.54
1:E:1726:ILE:HD11	1:E:2109:ILE:HB	1.89	0.54
1:G:195:SER:HB3	1:G:202:HIS:HB2	1.89	0.54
1:A:1101:TRP:N	1:A:1166:VAL:O	2.40	0.54
1:A:1629:SER:OG	1:A:1630:LEU:N	2.40	0.54
1:C:13:PHE:O	1:C:15:ARG:NH1	2.40	0.54
1:C:418:VAL:O	1:C:422:THR:OG1	2.22	0.54
1:C:4523:VAL:HG23	1:C:4558:VAL:N	2.22	0.54
1:C:4717:ASP:HB3	1:C:4720:PHE:HB3	1.89	0.54
1:C:4832:ILE:HG21	1:C:4844:ARG:HH21	1.73	0.54
1:E:1825:PHE:HA	1:E:1828:LEU:HD12	1.90	0.54
1:E:4832:ILE:HG21	1:E:4844:ARG:HH21	1.73	0.54
1:G:1161:VAL:HB	1:G:1226:TYR:HE2	1.73	0.54
1:G:4030:SER:HA	1:G:4034:LYS:H	1.71	0.54
1:G:4650:VAL:HA	1:G:4653:LYS:HE2	1.88	0.54
1:A:797:GLY:HA2	1:A:1622:LEU:HA	1.89	0.54
1:A:1231:GLY:N	1:A:1234:GLU:OE1	2.40	0.54
1:A:1798:ALA:HB1	1:A:1818:PHE:HE1	1.73	0.54
1:A:2202:CYS:O	1:A:2206:ARG:NH1	2.41	0.54
1:A:2846:ALA:HB3	1:A:2887:ARG:HH21	1.73	0.54
1:A:3892:TYR:O	1:A:3896:LYS:NZ	2.41	0.54
1:C:169:ARG:HH12	1:C:176:ARG:HB2	1.72	0.54
1:C:1260:GLN:HG2	1:C:1591:LEU:HD13	1.89	0.54
1:C:1470:GLY:HA2	1:C:1474:GLY:HA2	1.89	0.54
1:C:1825:PHE:HA	1:C:1828:LEU:HD12	1.90	0.54
1:C:2202:CYS:O	1:C:2206:ARG:NH1	2.41	0.54
1:C:4130:PHE:HA	1:C:4133:PHE:HD2	1.72	0.54
1:E:1572:LYS:HD2	1:E:1585:ARG:H	1.73	0.54
1:E:1774:GLU:OE2	2:F:87:HIS:NE2	2.41	0.54
1:G:1798:ALA:HB1	1:G:1818:PHE:HE1	1.72	0.54
1:A:195:SER:HB3	1:A:202:HIS:HB2	1.89	0.54
1:A:1434:PRO:O	1:A:1440:ASN:ND2	2.36	0.54
1:A:1726:ILE:HD11	1:A:2109:ILE:HB	1.89	0.54
1:A:1734:LYS:HG3	1:A:1931:ASP:HB3	1.89	0.54
1:A:4193:PHE:O	1:A:4197:THR:OG1	2.23	0.54
1:C:409:GLN:N	1:C:412:GLU:OE2	2.37	0.54
1:C:1726:ILE:HD11	1:C:2109:ILE:HB	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4522:LYS:O	1:C:4560:TYR:CB	2.22	0.54
1:E:1161:VAL:HB	1:E:1226:TYR:HE2	1.73	0.54
1:E:1443:VAL:HG12	1:E:1543:VAL:HA	1.90	0.54
1:E:1470:GLY:HA2	1:E:1474:GLY:HA2	1.89	0.54
1:G:2170:GLU:HA	1:G:2173:MET:HE3	1.89	0.54
1:G:4063:GLU:HA	1:G:4066:PHE:HB3	1.90	0.54
1:G:4139:ILE:O	1:G:4147:GLU:N	2.34	0.54
1:A:2170:GLU:HA	1:A:2173:MET:HE3	1.89	0.54
1:A:4865:GLY:O	1:C:4871:PHE:HD2	1.89	0.54
1:C:776:GLN:HG2	1:C:1472:GLU:H	1.73	0.54
1:C:3892:TYR:O	1:C:3896:LYS:NZ	2.41	0.54
1:C:4063:GLU:HA	1:C:4066:PHE:HB3	1.90	0.54
1:E:1734:LYS:HG3	1:E:1931:ASP:HB3	1.89	0.54
1:E:1760:ARG:HB2	1:E:1762:GLN:HE21	1.72	0.54
1:E:2170:GLU:HA	1:E:2173:MET:HE3	1.89	0.54
1:E:3802:SER:O	1:E:3832:GLN:NE2	2.41	0.54
1:G:776:GLN:HG2	1:G:1472:GLU:H	1.73	0.54
1:G:4002:ASP:O	1:G:4006:GLU:HB2	2.08	0.54
1:A:196:TYR:O	1:A:201:LEU:N	2.41	0.53
1:A:1677:CYS:HA	1:A:1680:VAL:HG22	1.90	0.53
1:A:1825:PHE:HA	1:A:1828:LEU:HD12	1.90	0.53
2:B:20:GLN:HB3	2:B:106:LEU:HB3	1.89	0.53
1:C:2846:ALA:HB3	1:C:2887:ARG:HH21	1.73	0.53
1:C:4576:LEU:HD22	1:C:4579:LEU:HD22	1.88	0.53
2:D:20:GLN:HB3	2:D:106:LEU:HB3	1.88	0.53
1:E:442:ALA:H	1:E:444:THR:HA	1.73	0.53
1:E:681:HIS:ND1	1:E:683:GLU:OE2	2.32	0.53
1:E:1785:ASP:N	1:E:1785:ASP:OD1	2.40	0.53
1:A:1142:ALA:O	1:A:1151:HIS:ND1	2.42	0.53
1:A:1173:MET:O	1:A:1191:ALA:N	2.39	0.53
1:A:1520:PHE:HB3	1:A:1527:LEU:HB2	1.90	0.53
1:A:3802:SER:O	1:A:3832:GLN:NE2	2.40	0.53
1:C:1774:GLU:OE2	2:D:87:HIS:NE2	2.41	0.53
1:C:2783:MET:HG2	1:C:2845:MET:HG3	1.89	0.53
1:C:4193:PHE:O	1:C:4197:THR:OG1	2.23	0.53
1:E:196:TYR:O	1:E:201:LEU:N	2.42	0.53
1:E:797:GLY:HA2	1:E:1622:LEU:HA	1.89	0.53
1:E:1089:ARG:HH21	1:E:1600:PRO:HB3	1.73	0.53
1:E:3892:TYR:O	1:E:3896:LYS:NZ	2.41	0.53
1:E:4002:ASP:O	1:E:4006:GLU:HB2	2.08	0.53
1:E:4866:LEU:CA	1:G:4871:PHE:CE2	2.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:196:TYR:O	1:G:201:LEU:N	2.41	0.53
1:G:756:SER:HB2	1:G:769:ARG:HB2	1.90	0.53
1:G:1443:VAL:HG12	1:G:1543:VAL:HA	1.90	0.53
1:G:2783:MET:HG2	1:G:2845:MET:HG3	1.89	0.53
1:A:255:GLU:O	1:A:258:ARG:NH1	2.42	0.53
1:A:591:GLU:HA	1:A:594:ILE:HD12	1.88	0.53
1:A:4063:GLU:HA	1:A:4066:PHE:HB3	1.90	0.53
1:C:255:GLU:O	1:C:258:ARG:NH1	2.42	0.53
1:C:797:GLY:HA2	1:C:1622:LEU:HA	1.89	0.53
1:C:1142:ALA:O	1:C:1151:HIS:ND1	2.42	0.53
1:C:1161:VAL:HB	1:C:1226:TYR:HE2	1.73	0.53
1:C:1798:ALA:HB1	1:C:1818:PHE:HE1	1.73	0.53
1:C:4114:THR:O	1:C:4118:THR:N	2.34	0.53
1:C:4732:LEU:O	1:C:4736:ASN:N	2.39	0.53
1:E:741:VAL:HB	1:E:1469:LEU:HD22	1.90	0.53
1:G:75:VAL:O	1:G:79:GLN:NE2	2.41	0.53
1:G:1734:LYS:HG3	1:G:1931:ASP:HB3	1.89	0.53
1:A:1613:GLU:O	1:A:1614:ARG:NE	2.42	0.53
1:A:2005:MET:O	1:A:2009:GLY:N	2.33	0.53
1:A:4143:ALA:O	1:A:4145:ARG:NH1	2.41	0.53
1:C:1089:ARG:HH21	1:C:1600:PRO:HB3	1.73	0.53
1:C:1166:VAL:HA	1:C:1173:MET:HG3	1.90	0.53
1:C:1520:PHE:HB3	1:C:1527:LEU:HB2	1.90	0.53
1:E:1798:ALA:HB1	1:E:1818:PHE:HE1	1.73	0.53
1:E:4126:VAL:HA	1:E:4129:TYR:HB3	1.89	0.53
1:E:4142:SER:O	1:E:4144:LYS:NZ	2.35	0.53
1:G:1260:GLN:HG2	1:G:1591:LEU:HD13	1.89	0.53
1:G:1572:LYS:HD2	1:G:1585:ARG:H	1.73	0.53
1:G:1677:CYS:HA	1:G:1680:VAL:HG22	1.90	0.53
1:G:2846:ALA:HB3	1:G:2887:ARG:HH21	1.73	0.53
1:C:1776:TYR:HH	1:C:1778:TYR:HH	1.55	0.53
1:C:4522:LYS:CB	1:C:4560:TYR:HD2	2.21	0.53
1:C:4866:LEU:CA	1:E:4871:PHE:CE2	2.91	0.53
1:E:195:SER:OG	1:E:196:TYR:N	2.42	0.53
1:E:802:PHE:HB2	1:E:1617:TRP:HB2	1.91	0.53
2:F:26:TYR:H	2:F:39:SER:HG	1.54	0.53
1:G:681:HIS:ND1	1:G:683:GLU:OE2	2.32	0.53
1:G:1160:ASP:OD1	1:G:1178:ASN:ND2	2.42	0.53
1:G:1785:ASP:N	1:G:1785:ASP:OD1	2.40	0.53
1:G:3633:GLU:OE2	1:G:3635:HIS:N	2.39	0.53
1:A:1770:SER:OG	1:A:1771:ILE:N	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4126:VAL:HA	1:A:4129:TYR:HB3	1.89	0.53
1:A:4717:ASP:HB3	1:A:4720:PHE:HB3	1.89	0.53
1:C:802:PHE:HB2	1:C:1617:TRP:HB2	1.91	0.53
1:C:1801:GLU:O	1:C:1805:HIS:N	2.42	0.53
1:C:4002:ASP:O	1:C:4006:GLU:HB2	2.08	0.53
1:C:4143:ALA:O	1:C:4145:ARG:NH1	2.41	0.53
1:E:2837:ASP:HB3	1:E:2905:SER:HA	1.91	0.53
1:E:4063:GLU:HA	1:E:4066:PHE:HB3	1.90	0.53
1:G:255:GLU:O	1:G:258:ARG:NH1	2.42	0.53
1:G:1428:TYR:O	1:G:1508:GLY:N	2.38	0.53
1:G:1669:ASN:HB3	1:G:1672:VAL:HB	1.91	0.53
1:G:2837:ASP:HB3	1:G:2905:SER:HA	1.91	0.53
1:A:776:GLN:HG2	1:A:1472:GLU:H	1.73	0.53
1:A:1160:ASP:OD1	1:A:1178:ASN:ND2	2.42	0.53
1:A:1166:VAL:HA	1:A:1173:MET:HG3	1.91	0.53
1:A:2192:LYS:O	1:A:2196:ASN:ND2	2.42	0.53
1:A:4871:PHE:CE2	1:G:4866:LEU:CA	2.92	0.53
1:C:143:LEU:CB	1:E:2426:SER:HB3	2.38	0.53
1:C:196:TYR:O	1:C:201:LEU:N	2.41	0.53
1:C:442:ALA:H	1:C:444:THR:HA	1.73	0.53
1:C:1160:ASP:OD1	1:C:1178:ASN:ND2	2.42	0.53
1:C:1572:LYS:HD2	1:C:1585:ARG:H	1.73	0.53
1:E:255:GLU:O	1:E:258:ARG:NH1	2.41	0.53
1:E:766:ILE:HB	1:E:779:PHE:HB2	1.91	0.53
1:E:1801:GLU:O	1:E:1805:HIS:N	2.42	0.53
1:G:237:LEU:N	1:G:404:ASN:O	2.42	0.53
1:A:1129:GLY:HA2	1:A:1145:TRP:HB3	1.90	0.53
1:A:1469:LEU:N	1:A:1477:HIS:O	2.32	0.53
1:A:1846:ILE:HG23	1:A:1894:LEU:HB3	1.90	0.53
1:A:4832:ILE:HG21	1:A:4844:ARG:HH21	1.73	0.53
1:C:195:SER:OG	1:C:196:TYR:N	2.42	0.53
1:C:231:GLY:O	1:C:276:ARG:NH1	2.42	0.53
1:C:741:VAL:HB	1:C:1469:LEU:HD22	1.90	0.53
1:E:1129:GLY:HA2	1:E:1145:TRP:HB3	1.90	0.53
1:E:1160:ASP:OD1	1:E:1178:ASN:ND2	2.42	0.53
1:E:1776:TYR:HH	1:E:1778:TYR:HH	1.54	0.53
1:E:3638:GLU:OE1	1:E:3638:GLU:N	2.42	0.53
1:E:4160:GLN:HG3	1:E:4201:MET:HB3	1.91	0.53
1:G:557:TRP:O	1:G:560:SER:OG	2.24	0.53
1:G:1726:ILE:HD11	1:G:2109:ILE:HB	1.89	0.53
1:G:2202:CYS:O	1:G:2206:ARG:NH1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3892:TYR:O	1:G:3896:LYS:NZ	2.41	0.53
1:A:231:GLY:O	1:A:276:ARG:NH1	2.42	0.53
1:A:766:ILE:HB	1:A:779:PHE:HB2	1.91	0.53
1:A:1298:ASP:OD1	1:A:1298:ASP:N	2.42	0.53
1:A:4002:ASP:O	1:A:4006:GLU:HB2	2.08	0.53
1:A:4791:ARG:HG2	1:A:4808:ASP:OD1	2.09	0.53
1:C:881:ILE:HA	1:C:884:LYS:HD2	1.91	0.53
1:C:1443:VAL:HG12	1:C:1543:VAL:HA	1.90	0.53
1:C:2549:LEU:O	1:C:2553:VAL:N	2.42	0.53
1:C:4030:SER:OG	1:C:4031:ASP:N	2.40	0.53
1:E:292:GLY:HA2	1:E:331:PHE:H	1.74	0.53
1:E:2783:MET:HG2	1:E:2845:MET:HG3	1.89	0.53
1:E:4124:GLU:O	1:E:4128:ASN:ND2	2.42	0.53
1:G:442:ALA:H	1:G:444:THR:HA	1.73	0.53
1:G:1166:VAL:HA	1:G:1173:MET:HG3	1.91	0.53
1:G:2192:LYS:O	1:G:2196:ASN:ND2	2.42	0.53
1:A:752:ASP:N	1:A:752:ASP:OD1	2.40	0.53
1:A:1443:VAL:HG12	1:A:1543:VAL:HA	1.90	0.53
1:A:1785:ASP:OD1	1:A:1785:ASP:N	2.40	0.53
1:C:4126:VAL:HA	1:C:4129:TYR:HB3	1.89	0.53
1:C:4891:ILE:HD11	1:C:4916:LEU:HD13	1.91	0.53
1:E:75:VAL:O	1:E:79:GLN:NE2	2.41	0.53
1:E:191:TYR:HE2	1:G:2327:ARG:NH2	2.07	0.53
1:E:1166:VAL:HA	1:E:1173:MET:HG3	1.91	0.53
1:E:1428:TYR:O	1:E:1508:GLY:N	2.38	0.53
1:E:1613:GLU:O	1:E:1614:ARG:NE	2.42	0.53
1:E:1669:ASN:HB3	1:E:1672:VAL:HB	1.91	0.53
1:E:1677:CYS:HA	1:E:1680:VAL:HG22	1.90	0.53
1:E:2202:CYS:O	1:E:2206:ARG:NH1	2.41	0.53
1:E:3957:MET:O	1:E:3960:SER:OG	2.27	0.53
1:E:4143:ALA:O	1:E:4145:ARG:NH1	2.41	0.53
1:G:195:SER:OG	1:G:196:TYR:N	2.42	0.53
1:G:1774:GLU:OE2	2:H:87:HIS:NE2	2.41	0.53
1:G:1825:PHE:HA	1:G:1828:LEU:HD12	1.90	0.53
1:G:4041:LYS:NZ	1:G:4080:ASP:OD2	2.38	0.53
1:G:4143:ALA:O	1:G:4145:ARG:NH1	2.41	0.53
1:A:741:VAL:HB	1:A:1469:LEU:HD22	1.90	0.52
1:A:4041:LYS:NZ	1:A:4080:ASP:OD2	2.38	0.52
1:A:4900:ASP:OD1	1:A:4905:GLY:N	2.31	0.52
1:C:292:GLY:HA2	1:C:331:PHE:H	1.74	0.52
1:C:3638:GLU:N	1:C:3638:GLU:OE1	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3957:MET:O	1:C:3960:SER:OG	2.27	0.52
1:C:4791:ARG:HG2	1:C:4808:ASP:OD1	2.09	0.52
1:E:1520:PHE:HB3	1:E:1527:LEU:HB2	1.90	0.52
1:E:4899:PHE:HD1	1:E:4960:ARG:HD3	1.74	0.52
1:G:611:LEU:HA	1:G:614:LEU:HD12	1.92	0.52
1:G:766:ILE:HB	1:G:779:PHE:HB2	1.91	0.52
1:G:1142:ALA:O	1:G:1151:HIS:ND1	2.42	0.52
1:G:1473:LYS:O	1:G:1475:LYS:NZ	2.37	0.52
1:G:3638:GLU:OE1	1:G:3638:GLU:N	2.42	0.52
1:A:881:ILE:HA	1:A:884:LYS:HD2	1.91	0.52
2:B:26:TYR:H	2:B:39:SER:HG	1.56	0.52
1:C:1129:GLY:HA2	1:C:1145:TRP:HB3	1.90	0.52
1:C:1210:ALA:N	1:C:1211:GLN:OE1	2.43	0.52
1:C:1677:CYS:HA	1:C:1680:VAL:HG22	1.90	0.52
1:E:237:LEU:N	1:E:404:ASN:O	2.42	0.52
1:E:2090:HIS:O	1:E:2094:ASP:N	2.42	0.52
1:E:3902:GLN:O	1:E:3906:ASN:ND2	2.43	0.52
1:E:4114:THR:O	1:E:4118:THR:N	2.34	0.52
1:E:4837:GLY:N	1:E:4841:GLU:OE1	2.34	0.52
1:G:1012:ILE:HA	1:G:1032:LEU:HD22	1.91	0.52
1:G:1100:ARG:HH22	1:G:1170:GLU:HB2	1.75	0.52
1:G:1770:SER:OG	1:G:1771:ILE:N	2.42	0.52
1:G:1801:GLU:O	1:G:1805:HIS:N	2.42	0.52
1:A:802:PHE:HB2	1:A:1617:TRP:HB2	1.91	0.52
1:A:2425:ARG:NH2	1:A:2476:VAL:O	2.43	0.52
1:A:2426:SER:HB3	1:G:143:LEU:CB	2.40	0.52
2:B:17:LYS:NZ	2:B:18:LYS:O	2.39	0.52
1:C:1846:ILE:HG23	1:C:1894:LEU:HB3	1.90	0.52
1:C:3783:LYS:O	1:C:3786:LYS:NZ	2.43	0.52
1:E:143:LEU:CB	1:G:2426:SER:HB3	2.39	0.52
1:E:231:GLY:O	1:E:276:ARG:NH1	2.42	0.52
1:E:756:SER:HB2	1:E:769:ARG:HB2	1.90	0.52
1:E:1210:ALA:N	1:E:1211:GLN:OE1	2.43	0.52
1:E:4791:ARG:HG2	1:E:4808:ASP:OD1	2.09	0.52
1:G:231:GLY:O	1:G:276:ARG:NH1	2.42	0.52
1:G:1129:GLY:HA2	1:G:1145:TRP:HB3	1.90	0.52
1:G:4124:GLU:O	1:G:4128:ASN:ND2	2.42	0.52
1:G:4160:GLN:HG3	1:G:4201:MET:HB3	1.91	0.52
1:A:169:ARG:HH12	1:A:176:ARG:HB2	1.72	0.52
1:A:611:LEU:HA	1:A:614:LEU:HD12	1.92	0.52
1:A:1100:ARG:HH22	1:A:1170:GLU:HB2	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3902:GLN:O	1:A:3906:ASN:ND2	2.42	0.52
1:A:4125:SER:HA	1:A:4128:ASN:HD22	1.74	0.52
1:A:4523:VAL:CG2	1:G:4808:ASP:CB	2.85	0.52
1:C:700:THR:OG1	1:C:701:GLU:N	2.43	0.52
1:C:890:HIS:NE2	1:C:919:VAL:O	2.34	0.52
1:C:4768:LEU:O	1:C:4771:THR:OG1	2.21	0.52
1:E:1770:SER:OG	1:E:1771:ILE:N	2.42	0.52
1:E:2846:ALA:HB3	1:E:2887:ARG:HH21	1.73	0.52
1:E:4089:HIS:O	1:E:4093:LYS:N	2.43	0.52
1:G:802:PHE:HB2	1:G:1617:TRP:HB2	1.91	0.52
1:G:1846:ILE:HG23	1:G:1894:LEU:HB3	1.90	0.52
1:G:3902:GLN:O	1:G:3906:ASN:ND2	2.43	0.52
1:G:4891:ILE:HD11	1:G:4916:LEU:HD13	1.91	0.52
1:A:75:VAL:O	1:A:79:GLN:NE2	2.41	0.52
1:A:143:LEU:CB	1:C:2426:SER:HB3	2.40	0.52
1:A:195:SER:OG	1:A:196:TYR:N	2.42	0.52
1:A:1012:ILE:HA	1:A:1032:LEU:HD22	1.91	0.52
1:A:1428:TYR:O	1:A:1508:GLY:N	2.38	0.52
1:A:2090:HIS:O	1:A:2094:ASP:N	2.42	0.52
1:A:2837:ASP:HB3	1:A:2905:SER:HA	1.91	0.52
1:C:611:LEU:HA	1:C:614:LEU:HD12	1.92	0.52
1:C:4899:PHE:HD1	1:C:4960:ARG:HD3	1.74	0.52
1:E:557:TRP:O	1:E:560:SER:OG	2.25	0.52
1:E:1142:ALA:O	1:E:1151:HIS:ND1	2.42	0.52
1:E:2318:ALA:HA	1:E:2321:VAL:HG12	1.92	0.52
1:E:2876:ASP:OD1	1:E:2876:ASP:N	2.36	0.52
1:G:1432:ILE:HB	1:G:1504:GLY:H	1.75	0.52
1:G:1613:GLU:O	1:G:1614:ARG:NE	2.42	0.52
1:G:4025:LYS:HB2	1:G:4086:LYS:HG3	1.92	0.52
1:G:4046:LYS:N	1:G:4077:GLU:O	2.43	0.52
1:G:4791:ARG:HG2	1:G:4808:ASP:OD1	2.09	0.52
1:G:4832:ILE:HG21	1:G:4844:ARG:HH21	1.73	0.52
1:A:150:GLN:NE2	1:A:158:CYS:SG	2.83	0.52
1:A:2222:LEU:O	1:A:2226:SER:N	2.43	0.52
1:C:766:ILE:HB	1:C:779:PHE:HB2	1.91	0.52
1:C:2090:HIS:O	1:C:2094:ASP:N	2.42	0.52
1:C:2192:LYS:O	1:C:2196:ASN:ND2	2.42	0.52
1:C:2318:ALA:HA	1:C:2321:VAL:HG12	1.91	0.52
1:C:3615:HIS:O	1:C:3619:ASN:ND2	2.43	0.52
1:C:3902:GLN:O	1:C:3906:ASN:ND2	2.43	0.52
1:C:4005:VAL:HA	1:C:4008:SER:HB3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4899:PHE:HB2	1:C:4906:PHE:HD1	1.75	0.52
1:E:611:LEU:HA	1:E:614:LEU:HD12	1.92	0.52
1:E:620:CYS:N	1:E:623:VAL:O	2.40	0.52
1:E:881:ILE:HA	1:E:884:LYS:HD2	1.91	0.52
1:E:1223:THR:HA	1:E:1225:LYS:HE3	1.91	0.52
1:E:1432:ILE:HB	1:E:1504:GLY:H	1.75	0.52
1:E:2192:LYS:O	1:E:2196:ASN:ND2	2.42	0.52
1:E:4005:VAL:HA	1:E:4008:SER:HB3	1.92	0.52
1:E:4046:LYS:N	1:E:4077:GLU:O	2.43	0.52
1:E:4175:PHE:O	1:E:4179:ASN:HB2	2.10	0.52
1:E:4891:ILE:HD11	1:E:4916:LEU:HD13	1.91	0.52
1:E:4899:PHE:HB2	1:E:4906:PHE:HD1	1.75	0.52
1:G:890:HIS:NE2	1:G:919:VAL:O	2.34	0.52
1:G:1449:ASP:N	1:G:1449:ASP:OD1	2.33	0.52
1:G:1470:GLY:HA2	1:G:1474:GLY:HA2	1.89	0.52
1:G:1520:PHE:HB3	1:G:1527:LEU:HB2	1.90	0.52
1:G:1674:HIS:CE1	1:G:1764:SER:HB2	2.45	0.52
1:A:681:HIS:ND1	1:A:683:GLU:OE2	2.32	0.52
1:A:700:THR:OG1	1:A:701:GLU:N	2.43	0.52
1:A:890:HIS:NE2	1:A:919:VAL:O	2.34	0.52
1:A:1432:ILE:HB	1:A:1504:GLY:H	1.75	0.52
1:A:2327:ARG:NH2	1:G:191:TYR:HE2	2.08	0.52
1:A:2516:ALA:HA	1:A:2519:ARG:HE	1.75	0.52
1:C:150:GLN:NE2	1:C:158:CYS:SG	2.83	0.52
1:C:191:TYR:HE2	1:E:2327:ARG:NH2	2.07	0.52
1:C:756:SER:HB2	1:C:769:ARG:HB2	1.90	0.52
1:C:1770:SER:OG	1:C:1771:ILE:N	2.42	0.52
1:C:4124:GLU:O	1:C:4128:ASN:ND2	2.42	0.52
1:E:700:THR:OG1	1:E:701:GLU:N	2.43	0.52
1:E:776:GLN:HG2	1:E:1472:GLU:H	1.73	0.52
1:E:1100:ARG:HH22	1:E:1170:GLU:HB2	1.75	0.52
1:E:1231:GLY:N	1:E:1234:GLU:OE1	2.40	0.52
1:E:2425:ARG:NH2	1:E:2476:VAL:O	2.43	0.52
1:E:4125:SER:HA	1:E:4128:ASN:HD22	1.74	0.52
1:G:4005:VAL:HA	1:G:4008:SER:HB3	1.92	0.52
1:G:4732:LEU:O	1:G:4736:ASN:N	2.39	0.52
1:A:1801:GLU:O	1:A:1805:HIS:N	2.42	0.52
1:A:3957:MET:O	1:A:3960:SER:OG	2.27	0.52
1:C:1231:GLY:N	1:C:1234:GLU:OE1	2.40	0.52
1:C:1613:GLU:O	1:C:1614:ARG:NE	2.42	0.52
1:C:2516:ALA:HA	1:C:2519:ARG:HE	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4125:SER:HA	1:C:4128:ASN:HD22	1.74	0.52
1:G:2222:LEU:O	1:G:2226:SER:N	2.43	0.52
1:G:2516:ALA:HA	1:G:2519:ARG:HE	1.75	0.52
1:A:3615:HIS:O	1:A:3619:ASN:ND2	2.43	0.52
1:A:3638:GLU:OE1	1:A:3638:GLU:N	2.42	0.52
1:A:4703:ASP:OD1	1:A:4703:ASP:N	2.43	0.52
1:A:4868:ILE:CG1	1:G:4865:GLY:HA2	2.40	0.52
1:C:752:ASP:N	1:C:752:ASP:OD1	2.40	0.52
1:C:2425:ARG:NH2	1:C:2476:VAL:O	2.43	0.52
1:C:4160:GLN:HG3	1:C:4201:MET:HB3	1.91	0.52
1:E:752:ASP:OD1	1:E:752:ASP:N	2.40	0.52
1:G:741:VAL:HB	1:G:1469:LEU:HD22	1.90	0.52
1:G:1223:THR:HA	1:G:1225:LYS:HE3	1.91	0.52
1:G:2219:LEU:O	1:G:2222:LEU:N	2.43	0.52
1:G:3615:HIS:O	1:G:3619:ASN:ND2	2.43	0.52
1:A:292:GLY:HA2	1:A:331:PHE:H	1.74	0.52
1:A:442:ALA:H	1:A:444:THR:HA	1.73	0.52
1:A:1572:LYS:HD2	1:A:1585:ARG:H	1.73	0.52
1:A:3771:ASN:HD22	1:A:3774:VAL:HG23	1.75	0.52
1:A:4164:PRO:HG3	1:A:4167:LYS:HD2	1.92	0.52
1:C:75:VAL:O	1:C:79:GLN:NE2	2.41	0.52
1:C:237:LEU:N	1:C:404:ASN:O	2.42	0.52
1:C:2837:ASP:HB3	1:C:2905:SER:HA	1.91	0.52
1:C:4046:LYS:N	1:C:4077:GLU:O	2.43	0.52
1:C:4175:PHE:O	1:C:4179:ASN:HB2	2.10	0.52
1:C:4596:VAL:O	1:C:4598:LEU:N	2.43	0.52
1:E:150:GLN:NE2	1:E:158:CYS:SG	2.83	0.52
1:E:1844:GLN:OE1	1:E:1849:SER:N	2.42	0.52
1:E:3783:LYS:O	1:E:3786:LYS:NZ	2.43	0.52
1:E:4025:LYS:HB2	1:E:4086:LYS:HG3	1.92	0.52
1:E:4865:GLY:HA2	1:G:4868:ILE:CG1	2.40	0.52
1:G:2318:ALA:HA	1:G:2321:VAL:HG12	1.92	0.52
1:A:1674:HIS:CE1	1:A:1764:SER:HB2	2.45	0.51
1:A:4899:PHE:HB2	1:A:4906:PHE:HD1	1.75	0.51
1:A:4899:PHE:HD1	1:A:4960:ARG:HD3	1.74	0.51
1:C:187:SER:HA	1:E:2419:ARG:HD2	1.92	0.51
1:C:2730:HIS:NE2	1:C:2759:LYS:O	2.34	0.51
1:C:3917:VAL:O	1:C:3920:THR:OG1	2.25	0.51
1:C:4576:LEU:HA	1:C:4579:LEU:HB3	1.93	0.51
1:E:1012:ILE:HA	1:E:1032:LEU:HD22	1.91	0.51
1:E:1846:ILE:HG23	1:E:1894:LEU:HB3	1.90	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2222:LEU:O	1:E:2226:SER:N	2.43	0.51
1:E:3917:VAL:O	1:E:3920:THR:OG1	2.25	0.51
1:G:1459:LEU:HD22	1:G:1465:VAL:HG23	1.92	0.51
1:G:4125:SER:HA	1:G:4128:ASN:HD22	1.74	0.51
1:A:2219:LEU:O	1:A:2222:LEU:N	2.43	0.51
1:A:3783:LYS:O	1:A:3786:LYS:NZ	2.43	0.51
1:A:4046:LYS:N	1:A:4077:GLU:O	2.43	0.51
1:C:1100:ARG:HH22	1:C:1170:GLU:HB2	1.75	0.51
1:C:1199:ASP:N	1:C:1199:ASP:OD1	2.38	0.51
1:C:4837:GLY:N	1:C:4841:GLU:OE1	2.34	0.51
1:E:1459:LEU:HD22	1:E:1465:VAL:HG23	1.92	0.51
1:E:1674:HIS:CE1	1:E:1764:SER:HB2	2.45	0.51
1:G:1644:LEU:HG	1:G:1651:LEU:HD12	1.92	0.51
1:G:2738:LEU:HD11	1:G:2743:ILE:HD11	1.92	0.51
1:G:4175:PHE:O	1:G:4179:ASN:HB2	2.10	0.51
1:A:756:SER:HB2	1:A:769:ARG:HB2	1.90	0.51
1:A:1459:LEU:HD22	1:A:1465:VAL:HG23	1.92	0.51
1:A:1669:ASN:HB3	1:A:1672:VAL:HB	1.91	0.51
1:A:3917:VAL:O	1:A:3920:THR:OG1	2.25	0.51
1:A:4005:VAL:HA	1:A:4008:SER:HB3	1.92	0.51
1:A:4025:LYS:HB2	1:A:4086:LYS:HG3	1.92	0.51
1:A:4124:GLU:O	1:A:4128:ASN:ND2	2.42	0.51
1:A:4160:GLN:HG3	1:A:4201:MET:HB3	1.91	0.51
2:B:24:VAL:HG12	2:B:103:LEU:HA	1.93	0.51
1:C:681:HIS:HB2	1:C:799:LYS:H	1.76	0.51
1:C:1459:LEU:HD22	1:C:1465:VAL:HG23	1.92	0.51
1:C:1669:ASN:HB3	1:C:1672:VAL:HB	1.91	0.51
1:C:4183:GLU:O	1:C:4186:LYS:NZ	2.30	0.51
1:E:115:TYR:HB3	1:E:164:PRO:HD3	1.92	0.51
1:E:2219:LEU:O	1:E:2222:LEU:N	2.43	0.51
1:G:2090:HIS:O	1:G:2094:ASP:N	2.42	0.51
1:G:3958:LYS:O	1:G:3965:GLN:NE2	2.40	0.51
1:G:4899:PHE:HD1	1:G:4960:ARG:HD3	1.74	0.51
1:G:4900:ASP:OD1	1:G:4905:GLY:N	2.31	0.51
1:A:1223:THR:HA	1:A:1225:LYS:HE3	1.91	0.51
1:A:4576:LEU:HA	1:A:4579:LEU:HB3	1.93	0.51
1:A:4866:LEU:CA	1:C:4871:PHE:CE2	2.93	0.51
1:A:4891:ILE:HD11	1:A:4916:LEU:HD13	1.91	0.51
1:C:4164:PRO:HG3	1:C:4167:LYS:HD2	1.92	0.51
1:E:3615:HIS:O	1:E:3619:ASN:ND2	2.43	0.51
1:G:150:GLN:NE2	1:G:158:CYS:SG	2.83	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:700:THR:OG1	1:G:701:GLU:N	2.43	0.51
1:A:2318:ALA:HA	1:A:2321:VAL:HG12	1.91	0.51
1:A:4732:LEU:HB2	1:A:4740:PHE:HB2	1.93	0.51
1:C:3763:GLY:HA2	1:C:3766:ILE:HD12	1.92	0.51
1:C:4732:LEU:HB2	1:C:4740:PHE:HB2	1.93	0.51
1:E:681:HIS:HB2	1:E:799:LYS:H	1.76	0.51
1:E:4652:ARG:NH2	1:E:4672:GLY:O	2.42	0.51
2:F:24:VAL:HG12	2:F:103:LEU:HA	1.93	0.51
1:G:881:ILE:HA	1:G:884:LYS:HD2	1.91	0.51
1:G:1210:ALA:N	1:G:1211:GLN:OE1	2.43	0.51
1:G:3771:ASN:HD22	1:G:3774:VAL:HG23	1.75	0.51
1:A:2244:ALA:O	1:A:2247:SER:OG	2.25	0.51
1:C:165:ALA:HB3	1:C:211:LEU:HD21	1.93	0.51
1:C:1223:THR:HA	1:C:1225:LYS:HE3	1.91	0.51
1:C:2222:LEU:O	1:C:2226:SER:N	2.43	0.51
1:E:1043:LYS:HB3	1:E:1047:LYS:HD2	1.93	0.51
1:E:4576:LEU:HA	1:E:4579:LEU:HB3	1.93	0.51
1:E:4732:LEU:HB2	1:E:4740:PHE:HB2	1.93	0.51
1:G:165:ALA:HB3	1:G:211:LEU:HD21	1.93	0.51
1:G:3763:GLY:HA2	1:G:3766:ILE:HD12	1.92	0.51
1:G:3957:MET:O	1:G:3960:SER:OG	2.27	0.51
1:A:1210:ALA:N	1:A:1211:GLN:OE1	2.43	0.51
1:A:4652:ARG:NH2	1:A:4672:GLY:O	2.42	0.51
1:C:556:ASP:HA	1:C:559:ILE:HD12	1.93	0.51
1:C:1043:LYS:HB3	1:C:1047:LYS:HD2	1.93	0.51
1:C:3771:ASN:HD22	1:C:3774:VAL:HG23	1.75	0.51
2:D:24:VAL:HG12	2:D:103:LEU:HA	1.93	0.51
1:E:1225:LYS:O	1:E:1228:THR:OG1	2.29	0.51
1:E:1300:MET:N	1:E:1545:ALA:O	2.43	0.51
1:E:1800:GLN:O	1:E:1804:LEU:N	2.36	0.51
1:G:2549:LEU:O	1:G:2553:VAL:N	2.42	0.51
1:G:4089:HIS:O	1:G:4093:LYS:N	2.43	0.51
2:H:24:VAL:HG12	2:H:103:LEU:HA	1.93	0.51
1:A:191:TYR:HE2	1:C:2327:ARG:NH2	2.09	0.51
1:A:556:ASP:HA	1:A:559:ILE:HD12	1.93	0.51
1:A:1225:LYS:O	1:A:1228:THR:OG1	2.29	0.51
1:A:2313:SER:OG	1:A:2475:ARG:NH2	2.41	0.51
1:A:4732:LEU:O	1:A:4736:ASN:N	2.39	0.51
1:C:620:CYS:N	1:C:623:VAL:O	2.40	0.51
1:C:2313:SER:OG	1:C:2475:ARG:NH2	2.41	0.51
1:E:1433:PHE:H	1:E:1552:VAL:HG23	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2738:LEU:HD11	1:E:2743:ILE:HD11	1.93	0.51
1:G:681:HIS:HB2	1:G:799:LYS:H	1.76	0.51
1:G:3783:LYS:O	1:G:3786:LYS:NZ	2.43	0.51
1:G:4899:PHE:HB2	1:G:4906:PHE:HD1	1.75	0.51
1:A:1449:ASP:N	1:A:1449:ASP:OD1	2.33	0.51
1:A:1644:LEU:HG	1:A:1651:LEU:HD12	1.93	0.51
1:A:3763:GLY:HA2	1:A:3766:ILE:HD12	1.92	0.51
1:A:4596:VAL:O	1:A:4598:LEU:N	2.43	0.51
1:C:1225:LYS:O	1:C:1228:THR:OG1	2.29	0.51
1:C:1674:HIS:CE1	1:C:1764:SER:HB2	2.45	0.51
1:E:165:ALA:HB3	1:E:211:LEU:HD21	1.93	0.51
1:G:2425:ARG:NH2	1:G:2476:VAL:O	2.43	0.51
1:G:4576:LEU:HA	1:G:4579:LEU:HB3	1.92	0.51
1:G:4732:LEU:HB2	1:G:4740:PHE:HB2	1.93	0.51
1:A:235:ARG:NH2	1:A:268:SER:O	2.44	0.51
1:A:846:TYR:HH	1:A:1222:SER:HG	1.51	0.51
1:A:2034:VAL:HA	1:A:2037:VAL:HG22	1.93	0.51
1:A:4808:ASP:CB	1:C:4523:VAL:CG1	2.81	0.51
1:C:1012:ILE:HA	1:C:1032:LEU:HD22	1.91	0.51
1:E:188:SER:HB2	1:E:190:ARG:HH21	1.77	0.51
1:E:305:TYR:N	1:E:317:MET:O	2.44	0.51
1:E:2516:ALA:HA	1:E:2519:ARG:HE	1.75	0.51
1:E:4597:PRO:O	1:E:4601:PHE:N	2.32	0.51
1:G:188:SER:HB2	1:G:190:ARG:HH21	1.76	0.51
1:G:496:ASN:N	1:G:496:ASN:OD1	2.39	0.51
1:G:4193:PHE:O	1:G:4197:THR:OG1	2.23	0.51
1:A:156:GLU:HG2	1:A:187:SER:HB3	1.93	0.50
1:A:2035:GLU:OE2	1:A:3625:TYR:OH	2.28	0.50
1:A:4175:PHE:O	1:A:4179:ASN:HB2	2.10	0.50
1:C:1432:ILE:HB	1:C:1504:GLY:H	1.75	0.50
1:C:4025:LYS:HB2	1:C:4086:LYS:HG3	1.92	0.50
1:C:4703:ASP:OD1	1:C:4703:ASP:N	2.43	0.50
1:E:556:ASP:HA	1:E:559:ILE:HD12	1.93	0.50
1:E:1162:VAL:O	1:E:1176:THR:OG1	2.27	0.50
1:E:4164:PRO:HG3	1:E:4167:LYS:HD2	1.92	0.50
1:G:156:GLU:HG2	1:G:187:SER:HB3	1.93	0.50
1:G:1086:ARG:HB2	1:G:1207:LEU:HB2	1.93	0.50
1:A:1043:LYS:HB3	1:A:1047:LYS:HD2	1.93	0.50
1:C:188:SER:HB2	1:C:190:ARG:HH21	1.77	0.50
1:C:1670:HIS:ND1	1:C:1778:TYR:O	2.33	0.50
1:E:187:SER:HA	1:G:2419:ARG:HD2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:764:PRO:HB3	1:E:784:ILE:HD11	1.94	0.50
1:E:1086:ARG:HB2	1:E:1207:LEU:HB2	1.93	0.50
1:E:3763:GLY:HA2	1:E:3766:ILE:HD12	1.92	0.50
1:E:3771:ASN:HD22	1:E:3774:VAL:HG23	1.75	0.50
2:F:31:GLN:HE21	2:F:96:THR:HB	1.76	0.50
1:G:165:ALA:HB2	1:G:182:ILE:HG12	1.93	0.50
1:G:292:GLY:HA2	1:G:331:PHE:H	1.74	0.50
1:G:527:LYS:NZ	1:G:566:GLU:O	2.42	0.50
1:A:237:LEU:N	1:A:404:ASN:O	2.42	0.50
1:A:1224:LEU:HB3	1:A:1227:PHE:HB3	1.94	0.50
1:A:1256:PRO:O	1:A:1451:HIS:ND1	2.45	0.50
1:A:1433:PHE:H	1:A:1552:VAL:HG23	1.76	0.50
1:A:2549:LEU:O	1:A:2553:VAL:N	2.42	0.50
1:A:2738:LEU:HD11	1:A:2743:ILE:HD11	1.93	0.50
1:A:4185:GLU:O	1:A:4189:LEU:N	2.39	0.50
1:C:165:ALA:HB2	1:C:182:ILE:HG12	1.93	0.50
1:C:427:ASN:HA	1:C:430:ILE:HD12	1.93	0.50
1:C:2219:LEU:O	1:C:2222:LEU:N	2.43	0.50
1:C:2838:LEU:HG	1:C:2904:VAL:HB	1.94	0.50
1:C:3806:LEU:O	1:C:3810:GLU:N	2.42	0.50
1:E:156:GLU:HG2	1:E:187:SER:HB3	1.93	0.50
1:E:4656:ASP:HA	1:E:4664:ARG:HH22	1.77	0.50
1:G:115:TYR:HB3	1:G:164:PRO:HD3	1.92	0.50
1:G:235:ARG:NH2	1:G:268:SER:O	2.44	0.50
1:G:1225:LYS:O	1:G:1228:THR:OG1	2.29	0.50
1:G:1256:PRO:O	1:G:1451:HIS:ND1	2.45	0.50
1:G:2116:ASP:OD2	1:G:2154:LYS:N	2.44	0.50
1:A:165:ALA:HB3	1:A:211:LEU:HD21	1.93	0.50
1:A:188:SER:HB2	1:A:190:ARG:HH21	1.77	0.50
1:C:557:TRP:O	1:C:560:SER:OG	2.24	0.50
1:C:4148:ARG:NH2	1:C:4150:TYR:OH	2.45	0.50
1:C:4894:ILE:HD11	1:C:4956:GLY:HA2	1.94	0.50
1:E:225:GLN:NE2	1:E:3863:THR:O	2.45	0.50
1:E:427:ASN:HA	1:E:430:ILE:HD12	1.93	0.50
1:E:544:ASN:HB2	1:E:547:ASN:HD22	1.76	0.50
1:E:1102:TYR:N	1:E:1237:GLU:O	2.42	0.50
1:E:2838:LEU:HG	1:E:2904:VAL:HB	1.93	0.50
1:E:4148:ARG:NH2	1:E:4150:TYR:OH	2.45	0.50
1:G:544:ASN:HB2	1:G:547:ASN:HD22	1.76	0.50
1:G:1043:LYS:HB3	1:G:1047:LYS:HD2	1.93	0.50
1:A:681:HIS:HB2	1:A:799:LYS:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:915:HIS:HB3	1:A:918:LEU:HG	1.94	0.50
1:A:1199:ASP:N	1:A:1199:ASP:OD1	2.38	0.50
1:A:4894:ILE:HD11	1:A:4956:GLY:HA2	1.94	0.50
1:C:156:GLU:HG2	1:C:187:SER:HB3	1.94	0.50
1:C:3879:LEU:HD22	1:C:3921:LEU:HD11	1.94	0.50
1:E:15:ARG:HA	1:E:112:THR:HA	1.94	0.50
1:E:653:SER:OG	1:E:794:PHE:O	2.28	0.50
1:E:2116:ASP:OD2	1:E:2154:LYS:N	2.44	0.50
1:E:3992:VAL:O	1:E:3993:ASN:ND2	2.45	0.50
1:G:1300:MET:N	1:G:1545:ALA:O	2.43	0.50
2:H:31:GLN:HE21	2:H:96:THR:HB	1.76	0.50
1:A:49:LEU:HD12	1:A:201:LEU:HB3	1.94	0.50
1:A:1824:LEU:O	1:A:1827:THR:OG1	2.28	0.50
1:C:847:THR:HB	1:C:1214:ARG:HG3	1.94	0.50
1:C:4656:ASP:HA	1:C:4664:ARG:HH22	1.77	0.50
1:E:415:THR:HG21	1:E:485:ARG:HG2	1.94	0.50
1:E:559:ILE:HD13	1:E:593:HIS:HB3	1.94	0.50
1:E:2549:LEU:O	1:E:2553:VAL:N	2.42	0.50
1:G:556:ASP:HA	1:G:559:ILE:HD12	1.93	0.50
1:G:764:PRO:HB3	1:G:784:ILE:HD11	1.94	0.50
1:G:1433:PHE:H	1:G:1552:VAL:HG23	1.76	0.50
1:G:3992:VAL:O	1:G:3993:ASN:ND2	2.45	0.50
1:A:165:ALA:HB2	1:A:182:ILE:HG12	1.93	0.50
1:A:847:THR:HB	1:A:1214:ARG:HG3	1.94	0.50
1:A:1670:HIS:ND1	1:A:1778:TYR:O	2.33	0.50
1:A:2737:LYS:NZ	1:A:2758:MET:SD	2.76	0.50
1:C:225:GLN:NE2	1:C:3863:THR:O	2.45	0.50
1:C:423:VAL:HA	1:C:426:PHE:HB2	1.93	0.50
1:C:1256:PRO:O	1:C:1451:HIS:ND1	2.45	0.50
1:C:2034:VAL:HA	1:C:2037:VAL:HG22	1.93	0.50
1:C:4089:HIS:O	1:C:4093:LYS:N	2.43	0.50
2:D:38:SER:O	2:D:42:ARG:NH1	2.45	0.50
1:E:235:ARG:NH2	1:E:268:SER:O	2.44	0.50
1:E:527:LYS:NZ	1:E:566:GLU:O	2.42	0.50
1:G:31:GLU:HB3	1:G:33:GLN:HB2	1.94	0.50
1:G:915:HIS:HB3	1:G:918:LEU:HG	1.94	0.50
1:A:31:GLU:HB3	1:A:33:GLN:HB2	1.94	0.50
1:A:544:ASN:HB2	1:A:547:ASN:HD22	1.76	0.50
1:A:559:ILE:HD13	1:A:593:HIS:HB3	1.94	0.50
1:C:544:ASN:HB2	1:C:547:ASN:HD22	1.76	0.50
1:C:4808:ASP:O	1:E:4523:VAL:HB	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4865:GLY:HA2	1:E:4868:ILE:CG1	2.41	0.50
1:E:133:LEU:N	1:E:146:ASP:O	2.44	0.50
1:E:1644:LEU:HG	1:E:1651:LEU:HD12	1.92	0.50
1:E:2463:PRO:HG3	1:E:2516:ALA:HB2	1.94	0.50
1:E:3879:LEU:HD22	1:E:3921:LEU:HD11	1.94	0.50
1:E:4193:PHE:O	1:E:4197:THR:OG1	2.23	0.50
1:G:423:VAL:HA	1:G:426:PHE:HB2	1.93	0.50
1:G:4148:ARG:NH2	1:G:4150:TYR:OH	2.45	0.50
1:G:4164:PRO:HG3	1:G:4167:LYS:HD2	1.92	0.50
1:A:15:ARG:HA	1:A:112:THR:HA	1.94	0.50
1:A:115:TYR:HB3	1:A:164:PRO:HD3	1.92	0.50
1:A:249:SER:O	1:A:252:HIS:NE2	2.45	0.50
1:A:423:VAL:HA	1:A:426:PHE:HB2	1.93	0.50
1:A:2419:ARG:HD2	1:G:187:SER:HA	1.94	0.50
2:B:38:SER:O	2:B:42:ARG:NH1	2.45	0.50
1:C:115:TYR:HB3	1:C:164:PRO:HD3	1.92	0.50
1:C:235:ARG:NH2	1:C:268:SER:O	2.44	0.50
1:C:1086:ARG:HB2	1:C:1207:LEU:HB2	1.93	0.50
1:E:165:ALA:HB2	1:E:182:ILE:HG12	1.93	0.50
1:E:423:VAL:HA	1:E:426:PHE:HB2	1.93	0.50
1:E:847:THR:HB	1:E:1214:ARG:HG3	1.94	0.50
1:G:225:GLN:NE2	1:G:3863:THR:O	2.45	0.50
1:G:1224:LEU:HB3	1:G:1227:PHE:HB3	1.94	0.50
1:G:2463:PRO:HG3	1:G:2516:ALA:HB2	1.94	0.50
1:G:4652:ARG:NH2	1:G:4672:GLY:O	2.42	0.50
2:H:38:SER:O	2:H:42:ARG:NH1	2.45	0.50
2:H:67:SER:OG	2:H:68:LEU:N	2.44	0.50
1:C:15:ARG:HA	1:C:112:THR:HA	1.94	0.49
1:C:1644:LEU:HG	1:C:1651:LEU:HD12	1.93	0.49
1:C:2463:PRO:HG3	1:C:2516:ALA:HB2	1.94	0.49
1:C:4007:SER:O	1:C:4007:SER:OG	2.29	0.49
1:C:4787:PHE:O	1:C:4791:ARG:NH1	2.45	0.49
1:E:4866:LEU:HA	1:G:4871:PHE:CE2	2.47	0.49
1:G:559:ILE:HD13	1:G:593:HIS:HB3	1.94	0.49
1:G:847:THR:HB	1:G:1214:ARG:HG3	1.94	0.49
1:G:4114:THR:O	1:G:4118:THR:N	2.34	0.49
2:H:17:LYS:NZ	2:H:18:LYS:O	2.39	0.49
1:A:187:SER:HA	1:C:2419:ARG:HD2	1.94	0.49
1:A:1162:VAL:O	1:A:1176:THR:OG1	2.27	0.49
1:A:1761:MET:SD	1:A:1761:MET:N	2.68	0.49
1:A:4089:HIS:O	1:A:4093:LYS:N	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4656:ASP:HA	1:A:4664:ARG:HH22	1.76	0.49
1:C:764:PRO:HB3	1:C:784:ILE:HD11	1.94	0.49
1:C:878:LEU:HD22	1:C:881:ILE:HG21	1.95	0.49
1:C:1224:LEU:HB3	1:C:1227:PHE:HB3	1.93	0.49
1:C:1785:ASP:OD1	1:C:1785:ASP:N	2.40	0.49
1:C:2737:LYS:NZ	1:C:2758:MET:SD	2.76	0.49
1:E:3633:GLU:OE2	1:E:3635:HIS:N	2.39	0.49
1:E:3806:LEU:O	1:E:3810:GLU:N	2.42	0.49
1:E:4787:PHE:O	1:E:4791:ARG:NH1	2.45	0.49
1:G:653:SER:OG	1:G:794:PHE:O	2.28	0.49
1:G:1844:GLN:OE1	1:G:1849:SER:N	2.42	0.49
1:G:3806:LEU:O	1:G:3810:GLU:N	2.42	0.49
1:A:305:TYR:N	1:A:317:MET:O	2.44	0.49
1:A:1086:ARG:HB2	1:A:1207:LEU:HB2	1.93	0.49
1:A:3628:SER:OG	1:A:3629:TRP:N	2.46	0.49
1:A:4865:GLY:HA2	1:C:4868:ILE:CG1	2.42	0.49
1:C:133:LEU:N	1:C:146:ASP:O	2.44	0.49
1:C:249:SER:O	1:C:252:HIS:NE2	2.45	0.49
1:C:559:ILE:HD13	1:C:593:HIS:HB3	1.94	0.49
1:C:1124:PRO:HG3	1:C:1600:PRO:HD3	1.95	0.49
1:C:1428:TYR:O	1:C:1508:GLY:N	2.38	0.49
1:C:1570:LEU:O	1:C:1573:SER:OG	2.22	0.49
1:C:2738:LEU:HD11	1:C:2743:ILE:HD11	1.92	0.49
1:C:2841:MET:O	1:C:2845:MET:HB2	2.13	0.49
1:C:4497:ALA:HB2	1:C:4593:CYS:HB2	1.95	0.49
1:C:4652:ARG:NH2	1:C:4672:GLY:O	2.42	0.49
1:E:4732:LEU:O	1:E:4736:ASN:N	2.39	0.49
2:F:85:THR:OG1	2:F:86:GLY:N	2.46	0.49
1:G:620:CYS:N	1:G:623:VAL:O	2.40	0.49
1:G:1670:HIS:ND1	1:G:1778:TYR:O	2.33	0.49
1:A:673:TRP:N	1:A:759:LEU:O	2.46	0.49
1:A:801:ARG:NH2	1:A:810:GLU:OE1	2.46	0.49
1:A:1628:MET:HG3	1:A:1641:ILE:HG13	1.95	0.49
1:A:2463:PRO:HG3	1:A:2516:ALA:HB2	1.94	0.49
1:C:3882:VAL:O	1:C:3885:SER:OG	2.25	0.49
1:C:3924:TYR:O	1:C:3932:ASN:ND2	2.45	0.49
1:C:3992:VAL:O	1:C:3993:ASN:ND2	2.45	0.49
2:D:85:THR:OG1	2:D:86:GLY:N	2.46	0.49
1:E:878:LEU:HD22	1:E:881:ILE:HG21	1.95	0.49
1:E:2388:ALA:O	1:E:2392:PHE:HB3	2.13	0.49
1:E:3924:TYR:O	1:E:3932:ASN:ND2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4894:ILE:HD11	1:E:4956:GLY:HA2	1.94	0.49
1:G:227:TYR:OH	1:G:355:LYS:NZ	2.46	0.49
1:G:236:LEU:HB2	1:G:245:LEU:HD22	1.94	0.49
1:G:410:HIS:HB2	1:G:414:ARG:HH21	1.77	0.49
1:G:1184:ASP:N	1:G:1188:SER:O	2.42	0.49
1:G:1309:GLU:HB2	1:G:1538:LYS:HZ2	1.78	0.49
1:G:3924:TYR:O	1:G:3932:ASN:ND2	2.45	0.49
1:C:227:TYR:OH	1:C:355:LYS:NZ	2.46	0.49
1:C:850:LEU:HB2	1:C:1213:GLY:H	1.77	0.49
1:C:915:HIS:HB3	1:C:918:LEU:HG	1.94	0.49
1:C:2116:ASP:OD2	1:C:2154:LYS:N	2.44	0.49
2:D:31:GLN:HE21	2:D:96:THR:HB	1.76	0.49
1:E:1256:PRO:O	1:E:1451:HIS:ND1	2.45	0.49
1:E:4592:TYR:HA	1:E:4596:VAL:HG21	1.95	0.49
1:G:2730:HIS:NE2	1:G:2759:LYS:O	2.34	0.49
1:A:4871:PHE:CE2	1:G:4866:LEU:HA	2.47	0.49
1:C:1102:TYR:N	1:C:1237:GLU:O	2.42	0.49
1:C:1243:THR:OG1	1:C:1244:ASN:N	2.46	0.49
1:C:1433:PHE:H	1:C:1552:VAL:HG23	1.76	0.49
1:C:2223:LEU:HA	1:C:2226:SER:HB2	1.94	0.49
1:E:850:LEU:HB2	1:E:1213:GLY:H	1.78	0.49
1:E:3784:GLU:HB2	1:E:3785:LYS:HZ2	1.78	0.49
1:E:4703:ASP:N	1:E:4703:ASP:OD1	2.43	0.49
2:F:38:SER:O	2:F:42:ARG:NH1	2.45	0.49
1:G:1102:TYR:N	1:G:1237:GLU:O	2.42	0.49
1:G:1916:ASP:HA	1:G:2091:ARG:HH22	1.77	0.49
1:G:2061:GLN:OE1	1:G:2061:GLN:N	2.42	0.49
1:G:2388:ALA:O	1:G:2392:PHE:HB3	2.13	0.49
1:G:3628:SER:OG	1:G:3629:TRP:N	2.46	0.49
2:H:11:ASP:OD1	2:H:67:SER:OG	2.25	0.49
1:A:850:LEU:HB2	1:A:1213:GLY:H	1.78	0.49
1:A:878:LEU:HD22	1:A:881:ILE:HG21	1.94	0.49
1:A:1124:PRO:HG3	1:A:1600:PRO:HD3	1.95	0.49
1:A:2838:LEU:HG	1:A:2904:VAL:HB	1.94	0.49
1:A:4148:ARG:NH2	1:A:4150:TYR:OH	2.45	0.49
2:B:31:GLN:HE21	2:B:96:THR:HB	1.76	0.49
1:C:49:LEU:HD12	1:C:201:LEU:HB3	1.94	0.49
1:C:1800:GLN:O	1:C:1804:LEU:N	2.36	0.49
1:C:4866:LEU:HA	1:E:4871:PHE:CE2	2.47	0.49
1:E:298:ARG:HE	1:E:303:GLY:HA2	1.77	0.49
1:E:410:HIS:HB2	1:E:414:ARG:HH21	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1054:VAL:HA	1:E:1057:LEU:HD12	1.94	0.49
1:G:249:SER:O	1:G:252:HIS:NE2	2.45	0.49
1:G:1054:VAL:HA	1:G:1057:LEU:HD12	1.94	0.49
1:G:2034:VAL:HA	1:G:2037:VAL:HG22	1.93	0.49
1:G:2838:LEU:HG	1:G:2904:VAL:HB	1.93	0.49
1:A:1510:VAL:HA	1:A:1517:LEU:HB2	1.95	0.49
1:A:2116:ASP:OD2	1:A:2154:LYS:N	2.44	0.49
1:A:4497:ALA:HB2	1:A:4593:CYS:HB2	1.95	0.49
1:C:298:ARG:HE	1:C:303:GLY:HA2	1.78	0.49
1:C:410:HIS:HB2	1:C:414:ARG:HH21	1.77	0.49
1:E:673:TRP:N	1:E:759:LEU:O	2.46	0.49
1:E:1224:LEU:HB3	1:E:1227:PHE:HB3	1.94	0.49
1:E:1510:VAL:HA	1:E:1517:LEU:HB2	1.95	0.49
1:E:2034:VAL:HA	1:E:2037:VAL:HG22	1.93	0.49
2:F:7:ILE:N	2:F:71:ARG:O	2.46	0.49
1:G:305:TYR:N	1:G:317:MET:O	2.44	0.49
1:G:606:ARG:NH2	1:G:1634:GLU:OE2	2.46	0.49
2:H:38:SER:OG	2:H:41:ASP:N	2.46	0.49
1:A:133:LEU:N	1:A:146:ASP:O	2.44	0.49
1:A:236:LEU:HB2	1:A:245:LEU:HD22	1.94	0.49
1:A:415:THR:HG21	1:A:485:ARG:HG2	1.94	0.49
1:A:693:LEU:HA	1:A:794:PHE:HA	1.95	0.49
1:A:764:PRO:HB3	1:A:784:ILE:HD11	1.94	0.49
1:A:2223:LEU:HA	1:A:2226:SER:HB2	1.94	0.49
1:A:2841:MET:O	1:A:2845:MET:HB2	2.13	0.49
1:E:1469:LEU:N	1:E:1477:HIS:O	2.32	0.49
1:E:3643:GLU:HA	1:E:3646:ALA:HB3	1.95	0.49
1:E:3880:LEU:HD13	1:E:3940:ARG:HH11	1.78	0.49
1:G:427:ASN:HA	1:G:430:ILE:HD12	1.93	0.49
1:G:657:PRO:HB3	1:G:834:VAL:HG22	1.95	0.49
1:G:673:TRP:N	1:G:759:LEU:O	2.46	0.49
1:G:3804:LEU:HB3	1:G:3885:SER:HB2	1.95	0.49
1:G:4494:ASN:O	1:G:4498:ARG:HB3	2.13	0.49
1:G:4656:ASP:HA	1:G:4664:ARG:HH22	1.76	0.49
1:A:225:GLN:NE2	1:A:3863:THR:O	2.45	0.49
1:A:3804:LEU:HB3	1:A:3885:SER:HB2	1.95	0.49
1:A:3879:LEU:HD22	1:A:3921:LEU:HD11	1.94	0.49
1:A:3924:TYR:O	1:A:3932:ASN:ND2	2.45	0.49
1:A:3992:VAL:O	1:A:3993:ASN:ND2	2.45	0.49
1:C:31:GLU:HB3	1:C:33:GLN:HB2	1.94	0.49
1:C:236:LEU:HB2	1:C:245:LEU:HD22	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:415:THR:HG21	1:C:485:ARG:HG2	1.94	0.49
1:C:693:LEU:HA	1:C:794:PHE:HA	1.95	0.49
1:C:2388:ALA:O	1:C:2392:PHE:HB3	2.13	0.49
1:C:3626:GLU:HA	1:C:3630:ILE:HG13	1.95	0.49
1:E:182:ILE:CG2	1:E:191:TYR:HD1	2.26	0.49
1:E:693:LEU:HA	1:E:794:PHE:HA	1.95	0.49
1:E:1227:PHE:HE2	1:E:1238:PRO:HG3	1.78	0.49
1:G:182:ILE:CG2	1:G:191:TYR:HD1	2.26	0.49
1:G:693:LEU:HA	1:G:794:PHE:HA	1.95	0.49
1:G:850:LEU:HB2	1:G:1213:GLY:H	1.78	0.49
1:G:1124:PRO:HG3	1:G:1600:PRO:HD3	1.95	0.49
1:G:1628:MET:HG3	1:G:1641:ILE:HG13	1.95	0.49
1:A:182:ILE:CG2	1:A:191:TYR:HD1	2.26	0.48
1:A:427:ASN:HA	1:A:430:ILE:HD12	1.93	0.48
1:A:1054:VAL:HA	1:A:1057:LEU:HD12	1.94	0.48
1:A:2061:GLN:OE1	1:A:2061:GLN:N	2.42	0.48
1:C:3628:SER:OG	1:C:3629:TRP:N	2.46	0.48
1:C:3958:LYS:O	1:C:3965:GLN:NE2	2.40	0.48
2:D:26:TYR:H	2:D:39:SER:HG	1.57	0.48
1:E:1916:ASP:HA	1:E:2091:ARG:HH22	1.78	0.48
1:E:2841:MET:O	1:E:2845:MET:HB2	2.13	0.48
1:E:4768:LEU:O	1:E:4771:THR:OG1	2.21	0.48
1:A:227:TYR:OH	1:A:355:LYS:NZ	2.46	0.48
1:A:1916:ASP:HA	1:A:2091:ARG:HH22	1.77	0.48
1:C:506:HIS:HB3	1:C:564:ARG:HH22	1.79	0.48
1:C:801:ARG:NH2	1:C:810:GLU:OE1	2.46	0.48
1:C:3851:HIS:CE1	1:C:3926:GLN:HG3	2.48	0.48
1:C:4494:ASN:O	1:C:4498:ARG:HB3	2.13	0.48
1:E:236:LEU:HB2	1:E:245:LEU:HD22	1.94	0.48
1:E:1628:MET:HG3	1:E:1641:ILE:HG13	1.95	0.48
1:G:15:ARG:HA	1:G:112:THR:HA	1.94	0.48
1:G:415:THR:HG21	1:G:485:ARG:HG2	1.94	0.48
1:G:3879:LEU:HD22	1:G:3921:LEU:HD11	1.94	0.48
1:G:4065:GLU:HA	1:G:4068:LEU:HB2	1.95	0.48
2:H:85:THR:OG1	2:H:86:GLY:N	2.46	0.48
1:A:508:TYR:HB3	1:A:517:VAL:HG22	1.94	0.48
1:A:1844:GLN:OE1	1:A:1849:SER:N	2.42	0.48
1:A:2390:MET:HG3	1:A:2465:HIS:NE2	2.29	0.48
1:A:4007:SER:O	1:A:4007:SER:OG	2.29	0.48
1:C:606:ARG:NH2	1:C:1634:GLU:OE2	2.46	0.48
1:C:764:PRO:HB2	1:C:781:ASN:H	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1469:LEU:N	1:C:1477:HIS:O	2.32	0.48
1:E:49:LEU:HD12	1:E:201:LEU:HB3	1.94	0.48
1:E:2244:ALA:O	1:E:2247:SER:OG	2.25	0.48
1:E:4596:VAL:O	1:E:4598:LEU:N	2.43	0.48
1:G:878:LEU:HD22	1:G:881:ILE:HG21	1.95	0.48
1:G:1227:PHE:HE2	1:G:1238:PRO:HG3	1.78	0.48
1:G:3643:GLU:HA	1:G:3646:ALA:HB3	1.95	0.48
1:G:3908:SER:HA	1:G:3911:ILE:HD12	1.96	0.48
1:G:4894:ILE:HD11	1:G:4956:GLY:HA2	1.94	0.48
2:H:7:ILE:N	2:H:71:ARG:O	2.46	0.48
2:H:26:TYR:H	2:H:39:SER:HG	1.60	0.48
1:A:620:CYS:N	1:A:623:VAL:O	2.40	0.48
1:A:764:PRO:HB2	1:A:781:ASN:H	1.78	0.48
1:A:4787:PHE:O	1:A:4791:ARG:NH1	2.45	0.48
1:C:182:ILE:CG2	1:C:191:TYR:HD1	2.27	0.48
1:C:315:LEU:HD23	1:C:321:LYS:HE2	1.96	0.48
1:C:442:ALA:H	1:C:443:SER:HA	1.79	0.48
1:C:733:TRP:CE2	1:C:738:ALA:HB2	2.49	0.48
1:C:1300:MET:N	1:C:1545:ALA:O	2.43	0.48
1:E:31:GLU:HB3	1:E:33:GLN:HB2	1.94	0.48
1:E:227:TYR:OH	1:E:355:LYS:NZ	2.46	0.48
1:E:693:LEU:HD12	1:E:798:ILE:HD13	1.95	0.48
1:E:1476:VAL:O	1:E:1478:GLU:N	2.46	0.48
1:E:3628:SER:OG	1:E:3629:TRP:N	2.46	0.48
1:E:3877:ASP:HA	1:E:3880:LEU:HD12	1.95	0.48
1:E:3893:TYR:OH	1:E:3900:ASP:OD1	2.31	0.48
1:G:315:LEU:HD23	1:G:321:LYS:HE2	1.96	0.48
1:G:4592:TYR:HA	1:G:4596:VAL:HG21	1.95	0.48
1:A:606:ARG:NH2	1:A:1634:GLU:OE2	2.46	0.48
1:A:657:PRO:HB3	1:A:834:VAL:HG22	1.95	0.48
1:A:1476:VAL:O	1:A:1478:GLU:N	2.46	0.48
1:A:3784:GLU:HB2	1:A:3785:LYS:HZ1	1.79	0.48
1:A:3880:LEU:HD13	1:A:3940:ARG:HH11	1.78	0.48
2:B:67:SER:OG	2:B:68:LEU:N	2.44	0.48
1:C:756:SER:O	1:C:769:ARG:N	2.40	0.48
1:C:2244:ALA:O	1:C:2247:SER:OG	2.25	0.48
1:C:3893:TYR:OH	1:C:3900:ASP:OD1	2.31	0.48
1:E:506:HIS:HB3	1:E:564:ARG:HH22	1.79	0.48
1:E:508:TYR:HB3	1:E:517:VAL:HG22	1.94	0.48
1:E:915:HIS:HB3	1:E:918:LEU:HG	1.94	0.48
1:E:1124:PRO:HG3	1:E:1600:PRO:HD3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1824:LEU:O	1:E:1827:THR:OG1	2.28	0.48
1:E:2157:TYR:HA	1:E:2160:PRO:HG3	1.95	0.48
1:E:3626:GLU:HA	1:E:3630:ILE:HG13	1.95	0.48
1:E:3631:GLU:OE1	1:E:3631:GLU:N	2.45	0.48
1:G:1432:ILE:HD12	1:G:1504:GLY:HA3	1.96	0.48
1:G:1824:LEU:O	1:G:1827:THR:OG1	2.28	0.48
1:G:2390:MET:HG3	1:G:2465:HIS:NE2	2.29	0.48
1:G:2658:TYR:O	1:G:2662:LEU:N	2.46	0.48
1:G:2841:MET:O	1:G:2845:MET:HB2	2.13	0.48
1:G:3626:GLU:HA	1:G:3630:ILE:HG13	1.95	0.48
1:A:410:HIS:HB2	1:A:414:ARG:HH21	1.77	0.48
1:A:465:PRO:O	1:A:478:ARG:NH2	2.47	0.48
1:A:1511:VAL:H	1:A:1517:LEU:HB2	1.79	0.48
1:A:3746:SER:HB3	1:A:3790:PHE:HB2	1.96	0.48
1:C:1628:MET:HG3	1:C:1641:ILE:HG13	1.95	0.48
1:C:3643:GLU:HA	1:C:3646:ALA:HB3	1.95	0.48
1:C:3916:GLN:HA	1:C:3919:ASN:HD22	1.79	0.48
1:C:4103:LEU:HD11	1:C:4127:LEU:HD11	1.96	0.48
2:F:38:SER:OG	2:F:41:ASP:N	2.46	0.48
1:G:418:VAL:O	1:G:422:THR:OG1	2.22	0.48
1:G:1108:VAL:HG23	1:G:1213:GLY:HA2	1.96	0.48
1:G:2224:GLU:O	1:G:2227:SER:OG	2.31	0.48
1:A:373:THR:HG23	1:A:392:ILE:HG13	1.96	0.48
1:A:506:HIS:HB3	1:A:564:ARG:HH22	1.79	0.48
1:A:4866:LEU:HA	1:C:4871:PHE:CE2	2.49	0.48
2:B:4:ILE:HD13	2:B:74:LEU:HG	1.96	0.48
1:C:673:TRP:N	1:C:759:LEU:O	2.46	0.48
1:C:1209:VAL:N	1:C:1211:GLN:OE1	2.47	0.48
1:E:249:SER:O	1:E:252:HIS:NE2	2.45	0.48
1:E:801:ARG:NH2	1:E:810:GLU:OE1	2.46	0.48
1:E:3729:GLN:O	1:E:3733:HIS:ND1	2.36	0.48
1:E:3851:HIS:CE1	1:E:3926:GLN:HG3	2.48	0.48
1:E:3908:SER:HA	1:E:3911:ILE:HD12	1.96	0.48
1:E:4497:ALA:HB2	1:E:4593:CYS:HB2	1.95	0.48
1:G:693:LEU:HD12	1:G:798:ILE:HD13	1.95	0.48
1:G:696:GLY:HA3	1:G:724:SER:HA	1.96	0.48
1:G:1510:VAL:HA	1:G:1517:LEU:HB2	1.95	0.48
1:G:3746:SER:HB3	1:G:3790:PHE:HB2	1.96	0.48
2:H:47:LYS:HE3	2:H:47:LYS:HB2	1.63	0.48
1:A:315:LEU:HD23	1:A:321:LYS:HE2	1.96	0.48
1:A:733:TRP:CE2	1:A:738:ALA:HB2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1184:ASP:HB2	1:A:1188:SER:HB3	1.96	0.48
1:A:1227:PHE:HE2	1:A:1238:PRO:HG3	1.78	0.48
1:A:1243:THR:OG1	1:A:1244:ASN:N	2.46	0.48
1:A:2388:ALA:O	1:A:2392:PHE:HB3	2.13	0.48
1:A:2730:HIS:NE2	1:A:2759:LYS:O	2.35	0.48
1:A:3908:SER:HA	1:A:3911:ILE:HD12	1.96	0.48
1:A:3916:GLN:HA	1:A:3919:ASN:HD22	1.79	0.48
1:C:79:GLN:HA	1:C:82:LEU:HD13	1.95	0.48
1:C:1669:ASN:O	1:C:1672:VAL:N	2.47	0.48
1:C:2224:GLU:O	1:C:2227:SER:OG	2.32	0.48
2:D:7:ILE:N	2:D:71:ARG:O	2.46	0.48
1:E:315:LEU:HD23	1:E:321:LYS:HE2	1.96	0.48
1:E:696:GLY:HA3	1:E:724:SER:HA	1.96	0.48
1:E:4494:ASN:O	1:E:4498:ARG:HB3	2.13	0.48
1:G:3851:HIS:CE1	1:G:3926:GLN:HG3	2.48	0.48
1:G:3915:LYS:HB2	1:G:3975:LEU:HD21	1.96	0.48
1:A:2418:ILE:HA	1:A:2420:ILE:HG12	1.96	0.48
1:A:2658:TYR:O	1:A:2662:LEU:N	2.46	0.48
1:A:3851:HIS:CE1	1:A:3926:GLN:HG3	2.48	0.48
1:A:3877:ASP:HA	1:A:3880:LEU:HD12	1.95	0.48
1:A:4114:THR:O	1:A:4118:THR:N	2.34	0.48
1:A:4494:ASN:O	1:A:4498:ARG:HB3	2.13	0.48
1:C:305:TYR:N	1:C:317:MET:O	2.44	0.48
1:C:3804:LEU:HB3	1:C:3885:SER:HB2	1.95	0.48
1:C:3877:ASP:HA	1:C:3880:LEU:HD12	1.95	0.48
1:C:4592:TYR:HA	1:C:4596:VAL:HG21	1.95	0.48
1:C:4897:ASP:N	1:C:4897:ASP:OD1	2.47	0.48
1:E:1432:ILE:HD12	1:E:1504:GLY:HA3	1.95	0.48
1:E:2208:SER:HG	1:E:2211:ASN:H	1.54	0.48
1:E:2418:ILE:HA	1:E:2420:ILE:HG12	1.96	0.48
1:E:3746:SER:HB3	1:E:3790:PHE:HB2	1.96	0.48
1:E:3804:LEU:HB3	1:E:3885:SER:HB2	1.95	0.48
1:E:3915:LYS:HB2	1:E:3975:LEU:HD21	1.96	0.48
1:G:465:PRO:O	1:G:478:ARG:NH2	2.47	0.48
1:G:898:ILE:HD13	1:G:974:SER:H	1.79	0.48
1:G:1669:ASN:O	1:G:1672:VAL:N	2.47	0.48
1:G:3880:LEU:HD13	1:G:3940:ARG:HH11	1.78	0.48
1:G:4497:ALA:HB2	1:G:4593:CYS:HB2	1.95	0.48
1:A:298:ARG:HE	1:A:303:GLY:HA2	1.77	0.48
1:A:693:LEU:HD12	1:A:798:ILE:HD13	1.95	0.48
1:A:1776:TYR:HH	1:A:1778:TYR:HH	1.58	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3626:GLU:HA	1:A:3630:ILE:HG13	1.95	0.48
1:A:3893:TYR:OH	1:A:3900:ASP:OD1	2.31	0.48
1:A:4138:GLU:HG3	1:A:4148:ARG:HG2	1.96	0.48
1:A:4592:TYR:HA	1:A:4596:VAL:HG21	1.95	0.48
1:C:373:THR:HG23	1:C:392:ILE:HG13	1.96	0.48
1:C:1118:SER:O	1:C:1202:ILE:N	2.45	0.48
1:C:3880:LEU:HD13	1:C:3940:ARG:HH11	1.78	0.48
1:E:606:ARG:NH2	1:E:1634:GLU:OE2	2.46	0.48
1:E:892:LEU:HD21	1:E:980:PRO:HG3	1.96	0.48
1:E:1669:ASN:O	1:E:1672:VAL:N	2.47	0.48
1:E:2223:LEU:HA	1:E:2226:SER:HB2	1.94	0.48
1:E:2425:ARG:O	1:E:2431:GLY:N	2.47	0.48
1:E:2790:ILE:HD12	1:E:2904:VAL:HG22	1.96	0.48
1:G:373:THR:HG23	1:G:392:ILE:HG13	1.96	0.48
1:G:506:HIS:HB3	1:G:564:ARG:HH22	1.79	0.48
1:G:508:TYR:HB3	1:G:517:VAL:HG22	1.94	0.48
1:G:801:ARG:NH2	1:G:810:GLU:OE1	2.46	0.48
1:G:1184:ASP:HB2	1:G:1188:SER:HB3	1.96	0.48
1:G:2425:ARG:O	1:G:2431:GLY:N	2.47	0.48
1:G:3917:VAL:O	1:G:3920:THR:OG1	2.25	0.48
1:G:4703:ASP:N	1:G:4703:ASP:OD1	2.43	0.48
1:A:352:SER:O	1:A:352:SER:OG	2.33	0.47
1:A:1209:VAL:N	1:A:1211:GLN:OE1	2.47	0.47
1:A:1256:PRO:HG3	1:A:1598:ARG:HH22	1.79	0.47
1:A:1669:ASN:O	1:A:1672:VAL:N	2.47	0.47
1:A:2076:ILE:H	1:A:3667:GLN:HE22	1.62	0.47
1:A:4103:LEU:HD11	1:A:4127:LEU:HD11	1.96	0.47
1:C:693:LEU:HD12	1:C:798:ILE:HD13	1.95	0.47
1:C:1054:VAL:HA	1:C:1057:LEU:HD12	1.94	0.47
1:C:1162:VAL:O	1:C:1176:THR:OG1	2.27	0.47
1:C:1511:VAL:H	1:C:1517:LEU:HB2	1.79	0.47
1:C:1899:LEU:O	1:C:1904:LYS:NZ	2.42	0.47
1:C:2076:ILE:H	1:C:3667:GLN:HE22	1.62	0.47
1:C:2425:ARG:O	1:C:2431:GLY:N	2.47	0.47
1:C:3995:THR:HA	1:C:3998:LYS:HD2	1.96	0.47
1:C:4065:GLU:HA	1:C:4068:LEU:HB2	1.95	0.47
2:D:4:ILE:HD13	2:D:74:LEU:HG	1.96	0.47
1:E:657:PRO:HB3	1:E:834:VAL:HG22	1.95	0.47
1:E:1184:ASP:HB2	1:E:1188:SER:HB3	1.96	0.47
1:E:1473:LYS:O	1:E:1475:LYS:NZ	2.37	0.47
1:G:1243:THR:OG1	1:G:1244:ASN:N	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4787:PHE:O	1:G:4791:ARG:NH1	2.45	0.47
1:A:79:GLN:HA	1:A:82:LEU:HD13	1.95	0.47
1:A:4065:GLU:HA	1:A:4068:LEU:HB2	1.95	0.47
1:A:4897:ASP:OD1	1:A:4897:ASP:N	2.47	0.47
1:C:892:LEU:HD21	1:C:980:PRO:HG3	1.96	0.47
1:C:1184:ASP:HB2	1:C:1188:SER:HB3	1.96	0.47
1:C:1733:THR:HG22	1:C:1755:THR:HG21	1.97	0.47
1:C:2389:ILE:HA	1:C:2392:PHE:HB3	1.96	0.47
1:C:2390:MET:HG3	1:C:2465:HIS:NE2	2.29	0.47
1:C:2790:ILE:HD12	1:C:2904:VAL:HG22	1.96	0.47
1:C:3746:SER:HB3	1:C:3790:PHE:HB2	1.96	0.47
1:C:3908:SER:HA	1:C:3911:ILE:HD12	1.96	0.47
1:C:4632:ASP:OD1	1:C:4632:ASP:N	2.47	0.47
1:E:442:ALA:H	1:E:443:SER:HA	1.78	0.47
1:E:1111:GLY:HA3	1:E:1211:GLN:HE21	1.79	0.47
1:E:1209:VAL:N	1:E:1211:GLN:OE1	2.47	0.47
1:E:3931:GLY:HA2	1:E:3934:GLN:HG2	1.96	0.47
1:G:79:GLN:HA	1:G:82:LEU:HD13	1.96	0.47
1:G:133:LEU:N	1:G:146:ASP:O	2.44	0.47
1:G:298:ARG:HE	1:G:303:GLY:HA2	1.77	0.47
1:G:442:ALA:H	1:G:443:SER:HA	1.79	0.47
1:G:892:LEU:HD21	1:G:980:PRO:HG3	1.96	0.47
1:G:3877:ASP:HA	1:G:3880:LEU:HD12	1.95	0.47
1:G:3893:TYR:OH	1:G:3900:ASP:OD1	2.31	0.47
1:G:3931:GLY:HA2	1:G:3934:GLN:HG2	1.97	0.47
1:A:1102:TYR:N	1:A:1237:GLU:O	2.42	0.47
1:A:1108:VAL:HG23	1:A:1213:GLY:HA2	1.96	0.47
1:A:1733:THR:HG22	1:A:1755:THR:HG21	1.96	0.47
1:A:2790:ILE:HD12	1:A:2904:VAL:HG22	1.96	0.47
1:A:3643:GLU:HA	1:A:3646:ALA:HB3	1.95	0.47
1:A:3958:LYS:O	1:A:3965:GLN:NE2	2.40	0.47
1:A:4936:GLY:O	1:A:4940:TYR:HB2	2.14	0.47
2:B:21:THR:HA	2:B:49:ARG:HA	1.96	0.47
1:C:508:TYR:HB3	1:C:517:VAL:HG22	1.94	0.47
1:C:673:TRP:HD1	1:C:761:LEU:HB2	1.79	0.47
1:C:1227:PHE:HE2	1:C:1238:PRO:HG3	1.78	0.47
1:C:1432:ILE:HD12	1:C:1504:GLY:HA3	1.96	0.47
1:C:1767:SER:OG	1:C:1768:PHE:N	2.48	0.47
1:C:1916:ASP:HA	1:C:2091:ARG:HH22	1.77	0.47
1:C:2658:TYR:O	1:C:2662:LEU:N	2.46	0.47
1:C:3915:LYS:HB2	1:C:3975:LEU:HD21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:87:HIS:HB3	2:D:90:VAL:HB	1.97	0.47
1:E:733:TRP:CE2	1:E:738:ALA:HB2	2.49	0.47
1:E:1660:LEU:HD23	1:E:1660:LEU:HA	1.77	0.47
1:E:1767:SER:OG	1:E:1768:PHE:N	2.48	0.47
1:E:4521:TYR:HE2	1:E:4559:HIS:HB3	1.79	0.47
1:E:4936:GLY:O	1:E:4940:TYR:HB2	2.14	0.47
1:G:49:LEU:HD12	1:G:201:LEU:HB3	1.94	0.47
1:G:2244:ALA:O	1:G:2247:SER:OG	2.25	0.47
1:A:557:TRP:O	1:A:560:SER:OG	2.24	0.47
1:A:2303:LEU:HA	1:A:2306:ALA:HB3	1.96	0.47
1:A:3931:GLY:HA2	1:A:3934:GLN:HG2	1.96	0.47
1:C:238:HIS:HB3	1:C:243:GLU:HB3	1.96	0.47
1:C:1510:VAL:HA	1:C:1517:LEU:HB2	1.95	0.47
1:C:4936:GLY:O	1:C:4940:TYR:HB2	2.14	0.47
1:E:898:ILE:HD13	1:E:974:SER:H	1.79	0.47
1:E:1243:THR:OG1	1:E:1244:ASN:N	2.46	0.47
1:E:4103:LEU:HD11	1:E:4127:LEU:HD11	1.96	0.47
1:G:673:TRP:HD1	1:G:761:LEU:HB2	1.79	0.47
1:G:1256:PRO:HG3	1:G:1598:ARG:HH22	1.79	0.47
1:G:2258:LEU:H	1:G:2258:LEU:HG	1.45	0.47
1:G:4138:GLU:HG3	1:G:4148:ARG:HG2	1.96	0.47
1:A:672:LYS:HA	1:A:761:LEU:H	1.80	0.47
1:A:698:ALA:HB2	1:A:722:LEU:HD23	1.97	0.47
1:A:2157:TYR:HA	1:A:2160:PRO:HG3	1.95	0.47
1:A:3915:LYS:HB2	1:A:3975:LEU:HD21	1.96	0.47
1:C:653:SER:OG	1:C:794:PHE:O	2.28	0.47
1:C:887:GLU:HG3	1:C:921:PHE:HB3	1.97	0.47
1:C:1476:VAL:O	1:C:1478:GLU:N	2.46	0.47
1:C:1738:LEU:HD22	1:C:2037:VAL:HB	1.97	0.47
1:C:2061:GLN:OE1	1:C:2061:GLN:N	2.42	0.47
1:E:2224:GLU:O	1:E:2227:SER:OG	2.32	0.47
1:E:2258:LEU:H	1:E:2258:LEU:HG	1.46	0.47
2:F:87:HIS:HB3	2:F:90:VAL:HB	1.97	0.47
1:G:733:TRP:CE2	1:G:738:ALA:HB2	2.49	0.47
1:G:812:LYS:HD3	1:G:813:PHE:HB3	1.96	0.47
1:G:2223:LEU:HA	1:G:2226:SER:HB2	1.95	0.47
1:A:2425:ARG:O	1:A:2431:GLY:N	2.47	0.47
2:B:7:ILE:N	2:B:71:ARG:O	2.46	0.47
1:C:1111:GLY:HA3	1:C:1211:GLN:HE21	1.79	0.47
1:C:1844:GLN:OE1	1:C:1849:SER:N	2.42	0.47
1:C:2035:GLU:OE2	1:C:3625:TYR:OH	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2418:ILE:HA	1:C:2420:ILE:HG12	1.96	0.47
1:C:4198:ILE:HD11	1:C:4924:MET:HG2	1.97	0.47
2:D:21:THR:HA	2:D:49:ARG:HA	1.96	0.47
1:E:672:LYS:HA	1:E:761:LEU:H	1.80	0.47
1:E:698:ALA:HB2	1:E:722:LEU:HD23	1.97	0.47
1:E:2390:MET:HG3	1:E:2465:HIS:NE2	2.29	0.47
1:E:3958:LYS:O	1:E:3965:GLN:NE2	2.40	0.47
1:G:887:GLU:HG3	1:G:921:PHE:HB3	1.97	0.47
1:G:1733:THR:HG22	1:G:1755:THR:HG21	1.97	0.47
1:G:2157:TYR:HA	1:G:2160:PRO:HG3	1.95	0.47
2:H:21:THR:HA	2:H:49:ARG:HA	1.96	0.47
2:H:87:HIS:HB3	2:H:90:VAL:HB	1.97	0.47
1:A:63:SER:HB2	1:A:125:TYR:HD1	1.80	0.47
1:A:442:ALA:H	1:A:443:SER:HA	1.79	0.47
1:A:696:GLY:HA3	1:A:724:SER:HA	1.96	0.47
1:A:892:LEU:HD21	1:A:980:PRO:HG3	1.96	0.47
1:A:1098:ALA:O	1:A:1101:TRP:NE1	2.44	0.47
1:A:1300:MET:N	1:A:1545:ALA:O	2.43	0.47
1:A:1738:LEU:HD22	1:A:2037:VAL:HB	1.97	0.47
1:A:2068:VAL:HA	1:A:2071:ALA:HB3	1.97	0.47
1:A:2389:ILE:HA	1:A:2392:PHE:HB3	1.96	0.47
1:A:4178:VAL:HG11	1:A:4881:VAL:HG13	1.97	0.47
2:B:87:HIS:HB3	2:B:90:VAL:HB	1.97	0.47
1:C:125:TYR:HE2	1:C:414:ARG:HA	1.80	0.47
1:C:143:LEU:CB	1:E:2426:SER:CB	2.92	0.47
1:C:657:PRO:HB3	1:C:834:VAL:HG22	1.95	0.47
1:C:696:GLY:HA3	1:C:724:SER:HA	1.96	0.47
1:C:698:ALA:HB2	1:C:722:LEU:HD23	1.97	0.47
1:C:796:ALA:HB3	1:C:798:ILE:HG13	1.96	0.47
1:C:812:LYS:HD3	1:C:813:PHE:HB3	1.96	0.47
1:C:1256:PRO:HG3	1:C:1598:ARG:HH22	1.79	0.47
1:C:1473:LYS:O	1:C:1475:LYS:NZ	2.37	0.47
1:C:2303:LEU:HA	1:C:2306:ALA:HB3	1.96	0.47
1:C:3931:GLY:HA2	1:C:3934:GLN:HG2	1.96	0.47
1:E:125:TYR:HE2	1:E:414:ARG:HA	1.80	0.47
1:E:238:HIS:HB3	1:E:243:GLU:HB3	1.96	0.47
1:E:352:SER:O	1:E:352:SER:OG	2.33	0.47
1:E:428:ARG:HB3	1:E:446:ASP:HB3	1.97	0.47
1:E:465:PRO:O	1:E:478:ARG:NH2	2.47	0.47
1:E:764:PRO:HB2	1:E:781:ASN:H	1.78	0.47
1:E:1108:VAL:HG23	1:E:1213:GLY:HA2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1118:SER:O	1:E:1202:ILE:N	2.45	0.47
1:E:1738:LEU:HD22	1:E:2037:VAL:HB	1.97	0.47
1:E:2035:GLU:OE2	1:E:3625:TYR:OH	2.28	0.47
1:E:2350:GLU:OE2	1:E:2353:LYS:NZ	2.48	0.47
1:E:3916:GLN:HA	1:E:3919:ASN:HD22	1.79	0.47
1:E:3943:ASP:OD1	1:E:3943:ASP:N	2.47	0.47
1:E:4632:ASP:OD1	1:E:4632:ASP:N	2.47	0.47
2:F:4:ILE:HD13	2:F:74:LEU:HG	1.96	0.47
2:F:21:THR:HA	2:F:49:ARG:HA	1.96	0.47
1:G:108:GLY:HA3	1:G:109:GLY:HA3	1.56	0.47
1:G:428:ARG:HB3	1:G:446:ASP:HB3	1.97	0.47
1:G:698:ALA:HB2	1:G:722:LEU:HD23	1.97	0.47
1:G:796:ALA:HB3	1:G:798:ILE:HG13	1.96	0.47
1:G:1209:VAL:N	1:G:1211:GLN:OE1	2.47	0.47
1:G:1476:VAL:O	1:G:1478:GLU:N	2.46	0.47
1:G:1511:VAL:H	1:G:1517:LEU:HB2	1.79	0.47
1:G:1738:LEU:HD22	1:G:2037:VAL:HB	1.97	0.47
1:G:1767:SER:OG	1:G:1768:PHE:N	2.48	0.47
1:G:3916:GLN:HA	1:G:3919:ASN:HD22	1.79	0.47
1:A:125:TYR:HE2	1:A:414:ARG:HA	1.80	0.47
1:A:456:LEU:HD23	1:A:457:GLN:HG3	1.97	0.47
1:A:898:ILE:HD13	1:A:974:SER:H	1.79	0.47
1:A:1432:ILE:HD12	1:A:1504:GLY:HA3	1.96	0.47
1:A:2224:GLU:O	1:A:2227:SER:OG	2.32	0.47
1:A:3977:LYS:HB3	1:A:3977:LYS:HE2	1.65	0.47
1:A:3995:THR:HA	1:A:3998:LYS:HD2	1.96	0.47
1:C:1172:THR:HG22	1:C:1193:LYS:HA	1.97	0.47
1:E:143:LEU:CB	1:G:2426:SER:CB	2.93	0.47
1:E:193:HIS:CD2	1:E:208:GLN:HB2	2.49	0.47
1:E:373:THR:HG23	1:E:392:ILE:HG13	1.96	0.47
1:E:1634:GLU:H	1:E:1634:GLU:HG3	1.50	0.47
1:E:4065:GLU:HA	1:E:4068:LEU:HB2	1.95	0.47
1:G:924:LEU:HB2	1:G:929:ARG:HB2	1.97	0.47
1:G:1111:GLY:HA3	1:G:1211:GLN:HE21	1.79	0.47
1:G:1756:SER:HB3	1:G:1920:ARG:HH21	1.80	0.47
1:G:4103:LEU:HD11	1:G:4127:LEU:HD11	1.96	0.47
1:G:4178:VAL:HG11	1:G:4881:VAL:HG13	1.97	0.47
2:H:4:ILE:HD13	2:H:74:LEU:HG	1.96	0.47
1:A:845:THR:OG1	1:A:846:TYR:N	2.48	0.47
2:B:85:THR:OG1	2:B:86:GLY:N	2.46	0.47
1:C:428:ARG:HB3	1:C:446:ASP:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:465:PRO:O	1:C:478:ARG:NH2	2.47	0.47
1:C:2157:TYR:HA	1:C:2160:PRO:HG3	1.95	0.47
1:C:3783:LYS:HA	1:C:3783:LYS:HD2	1.66	0.47
1:C:4178:VAL:HG11	1:C:4881:VAL:HG13	1.97	0.47
1:E:1184:ASP:N	1:E:1188:SER:O	2.42	0.47
1:E:1260:GLN:HB3	1:E:1591:LEU:HB3	1.97	0.47
1:E:1756:SER:HB3	1:E:1920:ARG:HH21	1.80	0.47
1:E:2061:GLN:O	1:E:2064:SER:OG	2.26	0.47
1:E:4185:GLU:O	1:E:4189:LEU:N	2.39	0.47
1:G:672:LYS:HA	1:G:761:LEU:H	1.80	0.47
1:G:764:PRO:HB2	1:G:781:ASN:H	1.79	0.47
1:G:1104:GLU:HA	1:G:1163:GLY:HA2	1.97	0.47
1:G:1645:THR:HG22	1:G:1695:PRO:HG3	1.97	0.47
1:G:1800:GLN:O	1:G:1804:LEU:N	2.36	0.47
1:G:2418:ILE:HA	1:G:2420:ILE:HG12	1.96	0.47
1:G:3784:GLU:HB2	1:G:3785:LYS:HZ2	1.80	0.47
1:G:4007:SER:O	1:G:4007:SER:OG	2.29	0.47
1:G:4117:GLN:HA	1:G:4120:LEU:HB2	1.97	0.47
1:G:4936:GLY:O	1:G:4940:TYR:HB2	2.14	0.47
1:A:115:TYR:HE1	1:A:181:LEU:HD11	1.80	0.47
1:A:590:LYS:H	1:A:593:HIS:CD2	2.33	0.47
1:A:1104:GLU:HA	1:A:1163:GLY:HA2	1.97	0.47
1:A:2061:GLN:O	1:A:2064:SER:OG	2.26	0.47
1:A:4117:GLN:HA	1:A:4120:LEU:HB2	1.97	0.47
1:A:4198:ILE:HD11	1:A:4924:MET:HG2	1.97	0.47
1:A:4494:ASN:O	1:A:4498:ARG:CB	2.63	0.47
1:A:4632:ASP:N	1:A:4632:ASP:OD1	2.47	0.47
1:C:672:LYS:HA	1:C:761:LEU:H	1.80	0.47
1:C:1006:VAL:HG13	1:C:1009:ARG:HH21	1.80	0.47
1:C:3802:SER:O	1:C:3802:SER:OG	2.33	0.47
1:C:4117:GLN:HA	1:C:4120:LEU:HB2	1.97	0.47
1:C:4138:GLU:HG3	1:C:4148:ARG:HG2	1.96	0.47
1:E:79:GLN:HA	1:E:82:LEU:HD13	1.96	0.47
1:E:812:LYS:HD3	1:E:813:PHE:HB3	1.96	0.47
1:E:915:HIS:CE1	1:E:917:CYS:HB2	2.50	0.47
1:E:1256:PRO:HG3	1:E:1598:ARG:HH22	1.79	0.47
1:E:1270:VAL:HG23	1:E:1288:LYS:HB3	1.97	0.47
1:E:1602:GLN:HE22	1:E:1642:LEU:HB3	1.80	0.47
1:E:1733:THR:HG22	1:E:1755:THR:HG21	1.97	0.47
1:E:2076:ILE:H	1:E:3667:GLN:HE22	1.62	0.47
1:E:4117:GLN:HA	1:E:4120:LEU:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4178:VAL:HG11	1:E:4881:VAL:HG13	1.97	0.47
1:G:115:TYR:HE1	1:G:181:LEU:HD11	1.80	0.47
1:G:915:HIS:CE1	1:G:917:CYS:HB2	2.50	0.47
1:G:1118:SER:O	1:G:1202:ILE:N	2.45	0.47
1:A:169:ARG:HH22	1:A:176:ARG:HB2	1.80	0.46
1:A:238:HIS:HB3	1:A:243:GLU:HB3	1.97	0.46
1:A:653:SER:OG	1:A:794:PHE:O	2.28	0.46
1:A:1268:ILE:HD13	1:A:1268:ILE:HA	1.83	0.46
1:A:3806:LEU:O	1:A:3810:GLU:N	2.42	0.46
1:C:681:HIS:ND1	1:C:683:GLU:OE2	2.32	0.46
1:C:831:LYS:H	1:C:833:LYS:HE2	1.80	0.46
1:C:1108:VAL:HG23	1:C:1213:GLY:HA2	1.96	0.46
1:C:1756:SER:O	1:C:1920:ARG:NH2	2.48	0.46
1:C:3957:MET:N	1:C:3957:MET:SD	2.88	0.46
1:C:4041:LYS:NZ	1:C:4080:ASP:OD2	2.38	0.46
1:C:4711:LEU:HA	1:C:4714:VAL:HB	1.97	0.46
1:E:236:LEU:HD12	1:E:245:LEU:HD13	1.97	0.46
1:E:1756:SER:O	1:E:1920:ARG:NH2	2.48	0.46
1:G:125:TYR:HE2	1:G:414:ARG:HA	1.80	0.46
1:G:238:HIS:HB3	1:G:243:GLU:HB3	1.96	0.46
1:G:2076:ILE:H	1:G:3667:GLN:HE22	1.62	0.46
1:G:2790:ILE:HD12	1:G:2904:VAL:HG22	1.96	0.46
1:G:4907:GLU:OE1	1:G:4907:GLU:N	2.43	0.46
1:A:428:ARG:HB3	1:A:446:ASP:HB3	1.97	0.46
1:A:561:ARG:HD3	1:A:561:ARG:HA	1.77	0.46
1:A:1092:LYS:NZ	1:A:1120:PRO:O	2.40	0.46
1:A:1645:THR:HG22	1:A:1695:PRO:HG3	1.97	0.46
1:A:3671:LEU:O	1:A:3675:THR:OG1	2.29	0.46
2:B:47:LYS:HB2	2:B:47:LYS:HE3	1.63	0.46
1:C:1104:GLU:HA	1:C:1163:GLY:HA2	1.97	0.46
1:C:1645:THR:HG22	1:C:1695:PRO:HG3	1.97	0.46
1:C:2769:LYS:O	1:C:2773:ARG:N	2.44	0.46
1:E:845:THR:OG1	1:E:846:TYR:N	2.48	0.46
1:E:908:ARG:HA	1:E:916:PRO:HD3	1.98	0.46
1:E:1006:VAL:HG13	1:E:1009:ARG:HH21	1.80	0.46
1:E:1172:THR:HG22	1:E:1193:LYS:HA	1.97	0.46
1:E:2062:LEU:HA	1:E:2065:GLU:HB2	1.97	0.46
1:E:4494:ASN:O	1:E:4498:ARG:CB	2.63	0.46
1:G:1602:GLN:HE22	1:G:1642:LEU:HB3	1.80	0.46
1:G:1756:SER:O	1:G:1920:ARG:NH2	2.48	0.46
1:G:2068:VAL:HA	1:G:2071:ALA:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:652:VAL:HG21	1:A:714:GLY:HA3	1.98	0.46
1:A:1006:VAL:HG13	1:A:1009:ARG:HH21	1.80	0.46
1:A:1767:SER:OG	1:A:1768:PHE:N	2.48	0.46
1:A:4737:ASN:OD1	1:A:4741:ALA:N	2.48	0.46
1:C:908:ARG:HA	1:C:916:PRO:HD3	1.98	0.46
1:C:1260:GLN:HB3	1:C:1591:LEU:HB3	1.97	0.46
1:C:4905:GLY:O	1:C:4909:HIS:N	2.42	0.46
1:E:169:ARG:HH22	1:E:176:ARG:HB2	1.80	0.46
1:E:456:LEU:HD23	1:E:457:GLN:HG3	1.97	0.46
1:E:924:LEU:HB2	1:E:929:ARG:HB2	1.97	0.46
1:E:1089:ARG:HH22	1:E:1124:PRO:HD3	1.80	0.46
1:E:1645:THR:HG22	1:E:1695:PRO:HG3	1.97	0.46
1:E:2303:LEU:HA	1:E:2306:ALA:HB3	1.96	0.46
1:G:374:TYR:OH	1:G:400:ASP:OD2	2.27	0.46
1:G:466:PRO:HB3	1:G:478:ARG:HG2	1.97	0.46
1:G:3802:SER:O	1:G:3802:SER:OG	2.33	0.46
1:A:115:TYR:HB2	1:A:171:GLU:HA	1.98	0.46
1:A:924:LEU:HB2	1:A:929:ARG:HB2	1.97	0.46
1:A:1111:GLY:HA3	1:A:1211:GLN:HE21	1.80	0.46
1:A:1136:ALA:HB3	1:A:1145:TRP:HB2	1.98	0.46
1:A:1756:SER:O	1:A:1920:ARG:NH2	2.48	0.46
1:A:3802:SER:O	1:A:3802:SER:OG	2.33	0.46
1:C:169:ARG:HH22	1:C:176:ARG:HB2	1.80	0.46
1:C:352:SER:O	1:C:352:SER:OG	2.32	0.46
1:C:845:THR:OG1	1:C:846:TYR:N	2.48	0.46
1:C:915:HIS:CE1	1:C:917:CYS:HB2	2.51	0.46
1:C:1184:ASP:N	1:C:1188:SER:O	2.42	0.46
1:C:1298:ASP:OD1	1:C:1298:ASP:N	2.42	0.46
1:C:1309:GLU:HB2	1:C:1538:LYS:HZ2	1.79	0.46
1:C:2062:LEU:HA	1:C:2065:GLU:HB2	1.97	0.46
1:C:4737:ASN:OD1	1:C:4741:ALA:N	2.48	0.46
1:E:123:HIS:CD2	1:E:126:SER:H	2.34	0.46
1:E:1843:LEU:O	1:E:1846:ILE:N	2.49	0.46
1:G:845:THR:OG1	1:G:846:TYR:N	2.48	0.46
1:G:948:CYS:HB3	1:G:1064:LEU:HB3	1.97	0.46
1:G:1260:GLN:HB3	1:G:1591:LEU:HB3	1.97	0.46
1:G:1427:TYR:HA	1:G:1509:CYS:HA	1.98	0.46
1:G:1843:LEU:O	1:G:1846:ILE:N	2.49	0.46
1:G:4198:ILE:HD11	1:G:4924:MET:HG2	1.97	0.46
1:G:4596:VAL:O	1:G:4598:LEU:N	2.43	0.46
1:G:4897:ASP:OD1	1:G:4897:ASP:N	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:796:ALA:HB3	1:A:798:ILE:HG13	1.96	0.46
1:A:3845:GLN:HB2	1:A:3920:THR:HG22	1.98	0.46
1:A:4865:GLY:CA	1:C:4868:ILE:CG1	2.91	0.46
1:C:236:LEU:HD12	1:C:245:LEU:HD13	1.97	0.46
1:C:466:PRO:HB3	1:C:478:ARG:HG2	1.97	0.46
1:C:804:LEU:HD22	1:C:822:CYS:HB3	1.98	0.46
1:E:299:HIS:N	1:E:304:LYS:O	2.47	0.46
1:E:796:ALA:HB3	1:E:798:ILE:HG13	1.96	0.46
1:E:1098:ALA:O	1:E:1101:TRP:NE1	2.44	0.46
1:E:1511:VAL:H	1:E:1517:LEU:HB2	1.79	0.46
1:E:2658:TYR:O	1:E:2662:LEU:N	2.46	0.46
1:G:115:TYR:HB2	1:G:171:GLU:HA	1.98	0.46
1:G:299:HIS:N	1:G:304:LYS:O	2.47	0.46
1:G:734:SER:OG	1:G:739:ARG:NH1	2.45	0.46
1:G:2715:PRO:HB2	1:G:2717:LYS:HG2	1.97	0.46
1:G:3783:LYS:HA	1:G:3783:LYS:HD2	1.66	0.46
1:G:3959:LEU:HB3	1:G:3969:LEU:HB2	1.98	0.46
1:A:55:SER:HB3	1:A:296:ARG:HH12	1.81	0.46
1:A:673:TRP:HD1	1:A:761:LEU:HB2	1.79	0.46
1:A:1089:ARG:HH22	1:A:1124:PRO:HD3	1.80	0.46
1:A:1172:THR:HG22	1:A:1193:LYS:HA	1.97	0.46
1:A:1257:GLN:O	1:A:1596:TRP:N	2.49	0.46
1:C:55:SER:HB3	1:C:296:ARG:HH12	1.81	0.46
1:C:108:GLY:HA3	1:C:109:GLY:HA3	1.55	0.46
1:C:123:HIS:CD2	1:C:126:SER:H	2.34	0.46
1:C:1089:ARG:HH22	1:C:1124:PRO:HD3	1.80	0.46
1:E:15:ARG:HG2	1:E:110:HIS:HB3	1.98	0.46
1:E:1257:GLN:O	1:E:1596:TRP:N	2.49	0.46
1:E:2389:ILE:HA	1:E:2392:PHE:HB3	1.96	0.46
1:E:3802:SER:O	1:E:3802:SER:OG	2.33	0.46
1:E:4083:GLU:HA	1:E:4087:ARG:HD2	1.98	0.46
1:E:4711:LEU:HA	1:E:4714:VAL:HB	1.97	0.46
1:G:63:SER:HB2	1:G:125:TYR:HD1	1.80	0.46
1:G:245:LEU:HA	1:G:262:TYR:HD1	1.80	0.46
1:G:1257:GLN:HE22	1:G:1637:ARG:HH11	1.64	0.46
1:G:1270:VAL:HG23	1:G:1288:LYS:HB3	1.97	0.46
1:G:2029:ARG:O	1:G:2032:SER:OG	2.30	0.46
1:G:2086:PHE:O	1:G:3692:TYR:OH	2.24	0.46
1:G:2737:LYS:NZ	1:G:2758:MET:SD	2.76	0.46
1:G:3995:THR:HA	1:G:3998:LYS:HD2	1.96	0.46
1:G:4185:GLU:O	1:G:4189:LEU:N	2.39	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:466:PRO:HB3	1:A:478:ARG:HG2	1.97	0.46
1:A:887:GLU:HG3	1:A:921:PHE:HB3	1.97	0.46
1:A:4711:LEU:HA	1:A:4714:VAL:HB	1.97	0.46
1:C:15:ARG:HG2	1:C:110:HIS:HB3	1.98	0.46
1:C:63:SER:HB2	1:C:125:TYR:HD1	1.80	0.46
1:C:527:LYS:NZ	1:C:566:GLU:O	2.42	0.46
1:C:776:GLN:NE2	1:C:1472:GLU:OE2	2.49	0.46
1:E:1644:LEU:HD12	1:E:1647:GLN:HB2	1.98	0.46
1:G:290:ARG:HB3	1:G:343:ARG:CZ	2.46	0.46
1:G:804:LEU:HD22	1:G:822:CYS:HB3	1.98	0.46
1:G:4906:PHE:HA	1:G:4909:HIS:HB3	1.98	0.46
1:A:18:ASP:HB2	1:A:69:LEU:HD12	1.98	0.46
1:A:123:HIS:CD2	1:A:126:SER:H	2.34	0.46
1:A:239:GLY:O	1:A:243:GLU:N	2.49	0.46
1:A:734:SER:OG	1:A:739:ARG:NH1	2.45	0.46
1:A:915:HIS:CE1	1:A:917:CYS:HB2	2.50	0.46
1:A:1260:GLN:HB3	1:A:1591:LEU:HB3	1.97	0.46
1:A:1634:GLU:H	1:A:1634:GLU:HG3	1.50	0.46
1:A:1690:GLU:HG2	1:A:1790:LYS:HZ1	1.81	0.46
1:A:1843:LEU:O	1:A:1846:ILE:N	2.49	0.46
1:A:2127:ILE:HD12	1:A:2127:ILE:HA	1.84	0.46
1:A:2715:PRO:HB2	1:A:2717:LYS:HG2	1.97	0.46
1:A:3943:ASP:N	1:A:3943:ASP:OD1	2.47	0.46
1:C:239:GLY:O	1:C:243:GLU:N	2.49	0.46
1:C:1136:ALA:HB3	1:C:1145:TRP:HB2	1.98	0.46
1:C:4494:ASN:O	1:C:4498:ARG:CB	2.63	0.46
1:E:887:GLU:HG3	1:E:921:PHE:HB3	1.97	0.46
1:E:2715:PRO:HB2	1:E:2717:LYS:HG2	1.97	0.46
1:E:3896:LYS:HE2	1:E:3896:LYS:HB2	1.73	0.46
1:E:3995:THR:HA	1:E:3998:LYS:HD2	1.96	0.46
1:E:4897:ASP:N	1:E:4897:ASP:OD1	2.47	0.46
1:E:4936:GLY:O	1:E:4940:TYR:HB3	2.16	0.46
1:G:123:HIS:CD2	1:G:126:SER:H	2.34	0.46
1:G:169:ARG:HH22	1:G:176:ARG:HB2	1.80	0.46
1:G:590:LYS:H	1:G:593:HIS:CD2	2.33	0.46
1:G:652:VAL:HG21	1:G:714:GLY:HA3	1.98	0.46
1:G:908:ARG:HA	1:G:916:PRO:HD3	1.98	0.46
1:G:1658:LEU:HD23	1:G:1701:GLY:HA3	1.98	0.46
2:H:79:ASP:N	2:H:79:ASP:OD1	2.49	0.46
1:A:418:VAL:O	1:A:422:THR:OG1	2.22	0.46
1:A:1242:ASN:OD1	1:A:1242:ASN:N	2.43	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1658:LEU:HD23	1:A:1701:GLY:HA3	1.97	0.46
1:A:1756:SER:HB3	1:A:1920:ARG:HH21	1.80	0.46
1:A:2426:SER:CB	1:G:143:LEU:CB	2.94	0.46
1:C:193:HIS:CD2	1:C:208:GLN:HB2	2.48	0.46
1:C:924:LEU:HB2	1:C:929:ARG:HB2	1.97	0.46
1:C:948:CYS:HB3	1:C:1064:LEU:HB3	1.97	0.46
1:C:1602:GLN:HE22	1:C:1642:LEU:HB3	1.80	0.46
1:C:2135:MET:HA	1:C:2136:GLY:HA3	1.77	0.46
1:C:4083:GLU:HA	1:C:4087:ARG:HD2	1.98	0.46
1:E:804:LEU:HD22	1:E:822:CYS:HB3	1.98	0.46
1:E:1652:LYS:HE3	1:E:1652:LYS:HB3	1.71	0.46
1:G:239:GLY:O	1:G:243:GLU:N	2.49	0.46
1:G:776:GLN:NE2	1:G:1472:GLU:OE2	2.49	0.46
1:G:1136:ALA:HB3	1:G:1145:TRP:HB2	1.98	0.46
1:G:1172:THR:HG22	1:G:1193:LYS:HA	1.97	0.46
1:G:3943:ASP:OD1	1:G:3943:ASP:N	2.47	0.46
1:G:4494:ASN:O	1:G:4498:ARG:CB	2.63	0.46
1:G:4711:LEU:HA	1:G:4714:VAL:HB	1.97	0.46
2:H:23:VAL:HG22	2:H:47:LYS:HG2	1.98	0.46
1:A:527:LYS:NZ	1:A:566:GLU:O	2.42	0.46
1:A:776:GLN:NE2	1:A:1472:GLU:OE2	2.49	0.46
1:A:804:LEU:HD22	1:A:822:CYS:HB3	1.98	0.46
1:A:2062:LEU:HA	1:A:2065:GLU:HB2	1.97	0.46
1:C:115:TYR:HB2	1:C:171:GLU:HA	1.98	0.46
1:C:441:LYS:HA	1:C:442:ALA:HA	1.69	0.46
1:C:1242:ASN:O	1:C:1807:ARG:N	2.49	0.46
1:C:1256:PRO:HD2	1:C:1451:HIS:HB3	1.98	0.46
1:C:1268:ILE:HD13	1:C:1268:ILE:HA	1.83	0.46
1:C:1843:LEU:O	1:C:1846:ILE:N	2.49	0.46
1:C:2068:VAL:HA	1:C:2071:ALA:HB3	1.97	0.46
1:E:108:GLY:HA3	1:E:109:GLY:HA3	1.56	0.46
1:E:115:TYR:HE1	1:E:181:LEU:HD11	1.80	0.46
1:E:245:LEU:HA	1:E:262:TYR:HD1	1.80	0.46
1:E:290:ARG:HB3	1:E:343:ARG:CZ	2.46	0.46
1:E:2218:HIS:O	1:E:2222:LEU:HB2	2.16	0.46
1:E:4138:GLU:HG3	1:E:4148:ARG:HG2	1.96	0.46
1:E:4906:PHE:HA	1:E:4909:HIS:HB3	1.98	0.46
1:G:842:GLN:HG2	1:G:848:ARG:HA	1.98	0.46
1:G:2035:GLU:OE2	1:G:3625:TYR:OH	2.28	0.46
1:G:2861:LEU:HD12	1:G:2862:GLU:HG3	1.98	0.46
1:G:4737:ASN:OD1	1:G:4741:ALA:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:245:LEU:HA	1:A:262:TYR:HD1	1.80	0.45
1:A:290:ARG:HB3	1:A:343:ARG:CZ	2.46	0.45
1:A:1427:TYR:HA	1:A:1509:CYS:HA	1.98	0.45
1:A:4936:GLY:O	1:A:4940:TYR:HB3	2.16	0.45
2:B:23:VAL:HG22	2:B:47:LYS:HG2	1.98	0.45
1:C:115:TYR:HE1	1:C:181:LEU:HD11	1.81	0.45
1:C:561:ARG:HA	1:C:561:ARG:HD3	1.77	0.45
1:C:1270:VAL:HG23	1:C:1288:LYS:HB3	1.97	0.45
1:C:1304:LEU:HD23	1:C:1304:LEU:HA	1.79	0.45
1:C:1756:SER:HB3	1:C:1920:ARG:HH21	1.80	0.45
1:C:2086:PHE:O	1:C:3692:TYR:OH	2.24	0.45
1:C:3730:ALA:HA	1:C:3733:HIS:CE1	2.52	0.45
1:C:3943:ASP:N	1:C:3943:ASP:OD1	2.47	0.45
1:C:3977:LYS:HB3	1:C:3977:LYS:HE2	1.65	0.45
1:C:4041:LYS:NZ	1:C:4041:LYS:O	2.46	0.45
1:C:4936:GLY:O	1:C:4940:TYR:HB3	2.16	0.45
1:E:55:SER:HB3	1:E:296:ARG:HH12	1.81	0.45
1:E:63:SER:HB2	1:E:125:TYR:HD1	1.80	0.45
1:E:842:GLN:HG2	1:E:848:ARG:HA	1.98	0.45
1:E:1256:PRO:HD2	1:E:1451:HIS:HB3	1.98	0.45
1:E:1257:GLN:HE22	1:E:1637:ARG:HH11	1.64	0.45
1:E:2068:VAL:HA	1:E:2071:ALA:HB3	1.97	0.45
1:E:4737:ASN:OD1	1:E:4741:ALA:N	2.48	0.45
1:E:4808:ASP:O	1:G:4523:VAL:CG2	2.64	0.45
1:G:3905:ARG:O	1:G:3908:SER:OG	2.34	0.45
1:A:15:ARG:HG2	1:A:110:HIS:HB3	1.98	0.45
1:A:321:LYS:O	1:A:326:SER:OG	2.24	0.45
1:A:842:GLN:HG2	1:A:848:ARG:HA	1.98	0.45
1:A:908:ARG:HA	1:A:916:PRO:HD3	1.98	0.45
1:A:2463:PRO:HA	1:A:2520:TYR:HE2	1.81	0.45
1:A:2861:LEU:HD12	1:A:2862:GLU:HG3	1.98	0.45
1:A:3783:LYS:HD2	1:A:3783:LYS:HA	1.66	0.45
1:A:3957:MET:N	1:A:3957:MET:SD	2.88	0.45
1:A:4906:PHE:HA	1:A:4909:HIS:HB3	1.98	0.45
1:C:590:LYS:H	1:C:593:HIS:CD2	2.33	0.45
1:C:898:ILE:HD13	1:C:974:SER:H	1.79	0.45
2:D:38:SER:OG	2:D:41:ASP:N	2.46	0.45
1:E:1658:LEU:HD23	1:E:1701:GLY:HA3	1.97	0.45
1:E:3730:ALA:HA	1:E:3733:HIS:CE1	2.52	0.45
1:G:193:HIS:CD2	1:G:208:GLN:HB2	2.49	0.45
1:G:1469:LEU:N	1:G:1477:HIS:O	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1689:ILE:HA	1:G:1703:TYR:HE1	1.82	0.45
1:G:2389:ILE:HA	1:G:2392:PHE:HB3	1.96	0.45
1:G:2730:HIS:CG	1:G:2764:LEU:HD11	2.51	0.45
1:G:3957:MET:SD	1:G:3957:MET:N	2.88	0.45
1:A:874:LEU:HD13	1:A:937:LEU:HD22	1.99	0.45
1:A:948:CYS:HB3	1:A:1064:LEU:HB3	1.97	0.45
1:A:1270:VAL:HG23	1:A:1288:LYS:HB3	1.97	0.45
1:A:1660:LEU:HD23	1:A:1660:LEU:HA	1.77	0.45
1:A:1705:LEU:HD23	1:A:1705:LEU:HA	1.78	0.45
1:A:3912:GLN:HA	1:A:3915:LYS:HE3	1.98	0.45
1:C:648:LEU:HD23	1:C:1684:GLN:HB2	1.99	0.45
1:C:652:VAL:HG21	1:C:714:GLY:HA3	1.98	0.45
1:C:1098:ALA:O	1:C:1101:TRP:NE1	2.44	0.45
1:C:1427:TYR:HA	1:C:1509:CYS:HA	1.98	0.45
1:C:2218:HIS:O	1:C:2222:LEU:HB2	2.16	0.45
1:C:2387:ASN:O	1:C:2391:THR:OG1	2.32	0.45
1:C:3959:LEU:HB3	1:C:3969:LEU:HB2	1.98	0.45
2:D:23:VAL:HG22	2:D:47:LYS:HG2	1.98	0.45
1:E:466:PRO:HB3	1:E:478:ARG:HG2	1.97	0.45
1:E:811:PHE:HE2	1:E:823:TYR:HB2	1.82	0.45
1:E:1676:LEU:HD23	1:E:1676:LEU:HA	1.78	0.45
1:E:2086:PHE:O	1:E:3692:TYR:OH	2.24	0.45
1:E:2861:LEU:HD12	1:E:2862:GLU:HG3	1.99	0.45
1:E:3912:GLN:HA	1:E:3915:LYS:HE3	1.98	0.45
1:G:1089:ARG:HH22	1:G:1124:PRO:HD3	1.80	0.45
1:G:2732:LYS:HA	1:G:2732:LYS:HD2	1.70	0.45
1:G:3845:GLN:HB2	1:G:3920:THR:HG22	1.98	0.45
1:A:769:ARG:HG2	1:A:774:PRO:HA	1.99	0.45
1:A:812:LYS:HD3	1:A:813:PHE:HB3	1.96	0.45
1:A:1602:GLN:HE22	1:A:1642:LEU:HB3	1.80	0.45
1:C:456:LEU:HD23	1:C:457:GLN:HG3	1.97	0.45
1:C:769:ARG:HG2	1:C:774:PRO:HA	1.99	0.45
1:C:1690:GLU:HG2	1:C:1790:LYS:HZ1	1.81	0.45
1:E:418:VAL:O	1:E:422:THR:OG1	2.22	0.45
1:E:1242:ASN:O	1:E:1807:ARG:N	2.49	0.45
1:E:2725:TYR:O	1:E:2729:SER:OG	2.27	0.45
1:E:3845:GLN:HB2	1:E:3920:THR:HG22	1.98	0.45
1:E:4490:GLN:HA	1:E:4493:LEU:HB2	1.99	0.45
1:G:439:LYS:HG3	1:G:441:LYS:H	1.81	0.45
1:G:459:LEU:O	1:G:463:PHE:N	2.50	0.45
1:G:1242:ASN:O	1:G:1807:ARG:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2062:LEU:HA	1:G:2065:GLU:HB2	1.97	0.45
1:G:2303:LEU:HA	1:G:2306:ALA:HB3	1.96	0.45
1:G:4022:LEU:O	1:G:4025:LYS:HG3	2.17	0.45
1:A:143:LEU:CB	1:C:2426:SER:CB	2.94	0.45
1:A:590:LYS:HB3	1:A:591:GLU:H	1.68	0.45
1:A:648:LEU:HD23	1:A:1684:GLN:HB2	1.99	0.45
1:A:1257:GLN:HE22	1:A:1637:ARG:HH11	1.64	0.45
1:A:2206:ARG:HH22	1:A:2246:ALA:HB1	1.82	0.45
1:A:2236:ARG:HA	1:A:2298:ARG:HH22	1.82	0.45
1:A:4490:GLN:HA	1:A:4493:LEU:HB2	1.99	0.45
1:C:2715:PRO:HB2	1:C:2717:LYS:HG2	1.97	0.45
1:C:2730:HIS:CG	1:C:2764:LEU:HD11	2.51	0.45
1:C:4490:GLN:HA	1:C:4493:LEU:HB2	1.99	0.45
1:E:590:LYS:H	1:E:593:HIS:CD2	2.33	0.45
1:E:756:SER:O	1:E:769:ARG:N	2.40	0.45
1:E:776:GLN:NE2	1:E:1472:GLU:OE2	2.49	0.45
1:E:874:LEU:HD13	1:E:937:LEU:HD22	1.99	0.45
1:E:1298:ASP:OD1	1:E:1298:ASP:N	2.42	0.45
1:E:1304:LEU:HD23	1:E:1304:LEU:HA	1.79	0.45
1:E:1427:TYR:HA	1:E:1509:CYS:HA	1.98	0.45
1:E:3868:THR:OG1	1:E:3869:VAL:N	2.50	0.45
1:E:4198:ILE:HD11	1:E:4924:MET:HG2	1.97	0.45
1:E:4726:TYR:HE1	1:E:4743:HIS:HB3	1.82	0.45
1:G:4045:SER:HA	1:G:4078:THR:HA	1.99	0.45
1:A:456:LEU:HD21	1:A:532:SER:HB2	1.99	0.45
1:A:1118:SER:O	1:A:1202:ILE:N	2.45	0.45
1:A:2350:GLU:OE2	1:A:2353:LYS:NZ	2.48	0.45
1:A:2730:HIS:CG	1:A:2764:LEU:HD11	2.51	0.45
1:A:3896:LYS:HE2	1:A:3896:LYS:HB2	1.73	0.45
1:A:4083:GLU:HA	1:A:4087:ARG:HD2	1.98	0.45
1:C:18:ASP:HB2	1:C:69:LEU:HD12	1.98	0.45
1:C:245:LEU:HA	1:C:262:TYR:HD1	1.80	0.45
1:C:811:PHE:HE2	1:C:823:TYR:HB2	1.82	0.45
1:C:1259:LEU:O	1:C:1594:VAL:N	2.41	0.45
1:C:2236:ARG:HA	1:C:2298:ARG:HH22	1.81	0.45
1:C:4935:THR:O	1:C:4939:SER:OG	2.35	0.45
2:D:47:LYS:HB2	2:D:47:LYS:HE3	1.63	0.45
1:E:439:LYS:HG3	1:E:441:LYS:H	1.82	0.45
1:E:459:LEU:O	1:E:463:PHE:N	2.50	0.45
1:E:1104:GLU:HA	1:E:1163:GLY:HA2	1.97	0.45
1:G:15:ARG:HG2	1:G:110:HIS:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:456:LEU:HD23	1:G:457:GLN:HG3	1.97	0.45
1:G:2218:HIS:O	1:G:2222:LEU:HB2	2.16	0.45
1:G:2463:PRO:HA	1:G:2520:TYR:HE2	1.81	0.45
1:G:4510:VAL:HG11	1:G:4580:HIS:HB2	1.99	0.45
1:A:590:LYS:HB2	1:A:590:LYS:HE2	1.71	0.45
1:A:1184:ASP:N	1:A:1188:SER:O	2.42	0.45
1:A:1256:PRO:HD2	1:A:1451:HIS:HB3	1.98	0.45
1:A:1644:LEU:HD12	1:A:1647:GLN:HB2	1.98	0.45
1:A:3730:ALA:HA	1:A:3733:HIS:CE1	2.52	0.45
1:C:1634:GLU:H	1:C:1634:GLU:HG3	1.50	0.45
1:C:2463:PRO:HA	1:C:2520:TYR:HE2	1.81	0.45
1:C:3868:THR:OG1	1:C:3869:VAL:N	2.50	0.45
1:C:4801:ASP:OD1	1:C:4801:ASP:N	2.50	0.45
1:E:160:TRP:HB3	1:E:183:LEU:HD11	1.99	0.45
1:E:648:LEU:HD23	1:E:1684:GLN:HB2	1.99	0.45
1:E:673:TRP:HD1	1:E:761:LEU:HB2	1.80	0.45
1:E:831:LYS:H	1:E:833:LYS:HE2	1.81	0.45
1:E:1136:ALA:HB3	1:E:1145:TRP:HB2	1.98	0.45
1:E:3957:MET:N	1:E:3957:MET:SD	2.88	0.45
1:E:3959:LEU:HB3	1:E:3969:LEU:HB2	1.98	0.45
1:E:4510:VAL:HG11	1:E:4580:HIS:HB2	1.99	0.45
2:F:30:LEU:HB2	2:F:34:LYS:H	1.81	0.45
1:G:831:LYS:H	1:G:833:LYS:HE2	1.81	0.45
1:G:3730:ALA:HA	1:G:3733:HIS:CE1	2.52	0.45
1:A:424:PHE:O	1:A:428:ARG:NE	2.35	0.45
1:A:459:LEU:O	1:A:463:PHE:N	2.50	0.45
1:A:949:HIS:CG	1:A:1065:GLU:H	2.35	0.45
1:A:1630:LEU:HD22	1:A:1641:ILE:HD13	1.99	0.45
1:A:3905:ARG:O	1:A:3908:SER:OG	2.34	0.45
1:A:3940:ARG:NH2	1:G:173:GLU:HB2	2.15	0.45
1:A:4618:ILE:HD12	1:A:4667:ILE:HD12	1.99	0.45
1:A:4713:VAL:O	1:A:4716:THR:OG1	2.35	0.45
2:B:79:ASP:OD1	2:B:79:ASP:N	2.48	0.45
1:C:1119:ARG:HB2	1:C:1133:ARG:HD3	1.99	0.45
1:C:2206:ARG:HH22	1:C:2246:ALA:HB1	1.82	0.45
1:C:3867:THR:OG1	1:C:3868:THR:N	2.50	0.45
1:C:4618:ILE:HD12	1:C:4667:ILE:HD12	1.99	0.45
1:C:4726:TYR:HE1	1:C:4743:HIS:HB3	1.82	0.45
1:E:18:ASP:HB2	1:E:69:LEU:HD12	1.98	0.45
1:E:115:TYR:HB2	1:E:171:GLU:HA	1.98	0.45
1:E:239:GLY:O	1:E:243:GLU:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:794:PHE:HZ	1:E:1621:CYS:HB2	1.82	0.45
1:E:948:CYS:HB3	1:E:1064:LEU:HB3	1.97	0.45
1:E:1119:ARG:HB2	1:E:1133:ARG:HD3	1.99	0.45
1:E:1826:TYR:CZ	1:E:1830:ILE:HD11	2.52	0.45
1:E:2206:ARG:HH22	1:E:2246:ALA:HB1	1.82	0.45
1:E:2730:HIS:CG	1:E:2764:LEU:HD11	2.51	0.45
1:E:3893:TYR:CZ	1:E:3899:ILE:HG23	2.52	0.45
2:F:23:VAL:HG22	2:F:47:LYS:HG2	1.98	0.45
2:F:67:SER:OG	2:F:68:LEU:N	2.44	0.45
1:G:55:SER:HB3	1:G:296:ARG:HH12	1.81	0.45
1:G:1006:VAL:HG13	1:G:1009:ARG:HH21	1.80	0.45
1:G:1256:PRO:HD2	1:G:1451:HIS:HB3	1.98	0.45
1:G:1644:LEU:HD12	1:G:1647:GLN:HB2	1.98	0.45
1:G:1911:LEU:HA	1:G:1914:LEU:HD12	1.99	0.45
2:H:56:ILE:HG13	2:H:59:PHE:H	1.82	0.45
1:A:160:TRP:HB3	1:A:183:LEU:HD11	1.99	0.45
1:A:236:LEU:HD12	1:A:245:LEU:HD13	1.97	0.45
1:A:1689:ILE:HA	1:A:1703:TYR:HE1	1.82	0.45
1:A:2218:HIS:O	1:A:2222:LEU:HB2	2.16	0.45
1:A:2835:SER:O	1:A:2839:HIS:N	2.42	0.45
1:A:4096:GLY:HA2	1:A:4099:VAL:HG22	1.99	0.45
1:C:439:LYS:HG3	1:C:441:LYS:H	1.81	0.45
1:C:459:LEU:O	1:C:463:PHE:N	2.50	0.45
1:C:949:HIS:CG	1:C:1065:GLU:H	2.35	0.45
1:C:1658:LEU:HD23	1:C:1701:GLY:HA3	1.98	0.45
1:C:1824:LEU:O	1:C:1827:THR:OG1	2.28	0.45
1:C:2388:ALA:O	1:C:2392:PHE:CB	2.65	0.45
1:C:2861:LEU:HD12	1:C:2862:GLU:HG3	1.99	0.45
1:E:1576:LYS:HA	1:E:1576:LYS:HD2	1.76	0.45
1:E:1807:ARG:HA	1:E:1807:ARG:HD2	1.81	0.45
1:E:2236:ARG:HA	1:E:2298:ARG:HH22	1.82	0.45
1:E:4618:ILE:HD12	1:E:4667:ILE:HD12	1.99	0.45
1:G:1630:LEU:HD22	1:G:1641:ILE:HD13	1.99	0.45
1:G:1826:TYR:CZ	1:G:1830:ILE:HD11	2.52	0.45
1:G:3647:LYS:HA	1:G:3647:LYS:HD2	1.88	0.45
1:G:4575:ILE:HG22	1:G:4576:LEU:HD23	1.98	0.45
1:G:4801:ASP:N	1:G:4801:ASP:OD1	2.50	0.45
1:A:439:LYS:HG3	1:A:441:LYS:H	1.81	0.45
1:A:794:PHE:HZ	1:A:1621:CYS:HB2	1.81	0.45
1:A:831:LYS:H	1:A:833:LYS:HE2	1.81	0.45
1:A:853:PRO:HD2	1:A:1209:VAL:HA	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3631:GLU:OE1	1:A:3631:GLU:N	2.45	0.45
1:A:4522:LYS:CB	1:A:4560:TYR:HD2	2.29	0.45
1:A:4575:ILE:HG22	1:A:4576:LEU:HD23	1.98	0.45
1:C:313:SER:HG	1:C:314:LEU:HD12	1.82	0.45
1:C:443:SER:HA	1:C:444:THR:HA	1.69	0.45
1:C:1119:ARG:HB2	1:C:1133:ARG:HB2	1.99	0.45
1:C:2495:PRO:O	1:C:2499:ALA:CB	2.65	0.45
1:C:3845:GLN:HB2	1:C:3920:THR:HG22	1.98	0.45
1:C:3893:TYR:CZ	1:C:3899:ILE:HG23	2.52	0.45
1:C:3896:LYS:HE2	1:C:3896:LYS:HB2	1.73	0.45
1:E:652:VAL:HG21	1:E:714:GLY:HA3	1.98	0.45
1:E:1645:THR:OG1	1:E:1646:GLU:OE1	2.35	0.45
1:E:1926:ILE:HD12	1:E:1926:ILE:HA	1.80	0.45
1:E:4022:LEU:O	1:E:4025:LYS:HG3	2.17	0.45
1:E:4575:ILE:HG22	1:E:4576:LEU:HD23	1.98	0.45
1:E:4722:TYR:HD2	1:E:4723:LEU:HD12	1.82	0.45
1:G:201:LEU:HD23	1:G:201:LEU:HA	1.83	0.45
1:G:441:LYS:HA	1:G:442:ALA:HA	1.69	0.45
1:G:456:LEU:HD21	1:G:532:SER:HB2	1.99	0.45
1:G:544:ASN:HD22	1:G:547:ASN:ND2	2.15	0.45
1:G:1243:THR:HB	1:G:1807:ARG:HB3	1.99	0.45
1:G:1308:ILE:HD12	1:G:1308:ILE:HA	1.85	0.45
1:G:2236:ARG:HA	1:G:2298:ARG:HH22	1.82	0.45
1:G:4490:GLN:HA	1:G:4493:LEU:HB2	1.99	0.45
1:G:4931:GLU:HA	1:G:4934:HIS:CG	2.53	0.45
1:A:108:GLY:HA3	1:A:109:GLY:HA3	1.55	0.44
1:A:1243:THR:HB	1:A:1807:ARG:HB3	1.99	0.44
1:A:1654:HIS:O	1:A:1657:THR:OG1	2.21	0.44
1:A:2110:ASN:OD1	1:A:2113:SER:OG	2.30	0.44
1:A:3893:TYR:CZ	1:A:3899:ILE:HG23	2.52	0.44
2:B:30:LEU:HB2	2:B:34:LYS:H	1.81	0.44
1:C:456:LEU:HD21	1:C:532:SER:HB2	1.99	0.44
1:C:544:ASN:HD22	1:C:547:ASN:ND2	2.15	0.44
1:C:794:PHE:HZ	1:C:1621:CYS:HB2	1.81	0.44
1:C:4906:PHE:HA	1:C:4909:HIS:HB3	1.98	0.44
1:E:470:LEU:HG	1:E:474:ASP:HB2	1.99	0.44
1:E:1689:ILE:HA	1:E:1703:TYR:HE1	1.82	0.44
1:E:4045:SER:HA	1:E:4078:THR:HA	1.99	0.44
1:E:4958:CYS:O	1:E:4962:GLN:N	2.51	0.44
1:G:236:LEU:HD12	1:G:245:LEU:HD13	1.97	0.44
1:G:648:LEU:HD23	1:G:1684:GLN:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1265:HIS:CG	1:G:1268:ILE:HB	2.52	0.44
1:G:1298:ASP:OD1	1:G:1298:ASP:N	2.42	0.44
1:G:4936:GLY:O	1:G:4940:TYR:HB3	2.16	0.44
1:A:1290:PHE:HE2	1:A:1555:PHE:HZ	1.66	0.44
1:A:2300:LEU:HA	1:A:2303:LEU:HD12	1.99	0.44
1:A:3868:THR:OG1	1:A:3869:VAL:N	2.50	0.44
2:B:56:ILE:HG13	2:B:59:PHE:H	1.82	0.44
1:C:160:TRP:HB3	1:C:183:LEU:HD11	1.99	0.44
1:C:1250:TRP:CD1	1:C:1602:GLN:HA	2.53	0.44
1:C:1630:LEU:HD22	1:C:1641:ILE:HD13	1.99	0.44
1:C:1644:LEU:HD12	1:C:1647:GLN:HB2	1.98	0.44
1:E:1140:PHE:HD2	1:E:1141:LYS:HZ2	1.65	0.44
1:E:2388:ALA:O	1:E:2392:PHE:CB	2.65	0.44
1:E:2463:PRO:HA	1:E:2520:TYR:HE2	1.81	0.44
1:G:18:ASP:HB2	1:G:69:LEU:HD12	1.98	0.44
1:G:811:PHE:HE2	1:G:823:TYR:HB2	1.82	0.44
1:G:1112:ASP:H	1:G:1211:GLN:HE21	1.65	0.44
1:G:1690:GLU:HG2	1:G:1790:LYS:HZ1	1.82	0.44
1:G:2149:ASP:O	1:G:2153:ASN:ND2	2.50	0.44
1:G:2703:ASN:OD1	1:G:2703:ASN:N	2.51	0.44
2:H:30:LEU:HB2	2:H:34:LYS:H	1.81	0.44
1:A:193:HIS:CD2	1:A:208:GLN:HB2	2.49	0.44
1:A:811:PHE:HE2	1:A:823:TYR:HB2	1.82	0.44
1:A:2769:LYS:O	1:A:2773:ARG:N	2.44	0.44
1:A:3767:LEU:HA	1:A:3767:LEU:HD23	1.74	0.44
1:A:4958:CYS:O	1:A:4962:GLN:N	2.51	0.44
1:C:842:GLN:HG2	1:C:848:ARG:HA	1.98	0.44
1:C:1257:GLN:O	1:C:1596:TRP:N	2.49	0.44
1:C:1641:ILE:HD13	1:C:1641:ILE:HA	1.89	0.44
1:C:4958:CYS:O	1:C:4962:GLN:N	2.51	0.44
1:E:2149:ASP:O	1:E:2153:ASN:ND2	2.50	0.44
1:E:4612:GLU:HA	1:E:4654:VAL:HG11	2.00	0.44
1:G:243:GLU:OE2	1:G:389:ARG:NH2	2.51	0.44
1:G:981:MET:HG3	1:G:1060:TYR:CG	2.53	0.44
1:G:1290:PHE:HE2	1:G:1555:PHE:HZ	1.66	0.44
1:G:1685:LEU:HD12	1:G:1685:LEU:HA	1.83	0.44
1:G:3867:THR:OG1	1:G:3868:THR:N	2.50	0.44
1:G:4618:ILE:HD12	1:G:4667:ILE:HD12	1.99	0.44
1:A:756:SER:O	1:A:769:ARG:N	2.40	0.44
1:A:1112:ASP:H	1:A:1211:GLN:HE21	1.65	0.44
1:A:1250:TRP:CD1	1:A:1602:GLN:HA	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1685:LEU:HD12	1:A:1685:LEU:HA	1.83	0.44
1:A:2149:ASP:O	1:A:2153:ASN:ND2	2.50	0.44
1:A:3923:GLU:HA	1:A:3926:GLN:HB2	2.00	0.44
1:A:4022:LEU:O	1:A:4025:LYS:HG3	2.17	0.44
1:C:243:GLU:OE2	1:C:389:ARG:NH2	2.51	0.44
1:C:853:PRO:HD2	1:C:1209:VAL:HA	1.99	0.44
1:C:1257:GLN:HE22	1:C:1637:ARG:HH11	1.64	0.44
1:C:1669:ASN:O	1:C:1673:ALA:N	2.35	0.44
1:C:2071:ALA:HB1	1:C:3664:PRO:HB3	2.00	0.44
1:C:2110:ASN:OD1	1:C:2113:SER:OG	2.30	0.44
1:C:3912:GLN:HA	1:C:3915:LYS:HE3	1.98	0.44
1:C:4045:SER:HA	1:C:4078:THR:HA	1.99	0.44
2:D:30:LEU:HB2	2:D:34:LYS:H	1.81	0.44
1:E:722:LEU:HD23	1:E:722:LEU:HA	1.69	0.44
1:E:888:ASN:HD21	1:E:957:ALA:HB3	1.83	0.44
1:E:1106:GLU:N	1:E:1214:ARG:O	2.51	0.44
1:E:3867:THR:OG1	1:E:3868:THR:N	2.50	0.44
1:E:3977:LYS:HB3	1:E:3977:LYS:HE2	1.65	0.44
1:E:4801:ASP:N	1:E:4801:ASP:OD1	2.50	0.44
1:G:160:TRP:HB3	1:G:183:LEU:HD11	1.99	0.44
1:G:561:ARG:HA	1:G:561:ARG:HD3	1.77	0.44
1:G:769:ARG:HG2	1:G:774:PRO:HA	1.99	0.44
1:G:1132:GLU:O	1:G:1146:HIS:NE2	2.49	0.44
1:G:4083:GLU:HA	1:G:4087:ARG:HD2	1.98	0.44
1:A:1119:ARG:HB2	1:A:1133:ARG:HB2	1.99	0.44
1:A:1716:THR:HA	1:A:1719:LEU:HD12	2.00	0.44
1:A:1826:TYR:CZ	1:A:1830:ILE:HD11	2.52	0.44
1:A:2193:MET:HA	1:A:2196:ASN:HD22	1.83	0.44
1:A:2436:VAL:O	1:A:2466:LYS:NZ	2.50	0.44
1:A:2703:ASN:OD1	1:A:2703:ASN:N	2.51	0.44
1:C:281:ARG:O	1:C:285:SER:OG	2.30	0.44
1:C:290:ARG:HB3	1:C:343:ARG:CZ	2.46	0.44
1:C:470:LEU:HG	1:C:474:ASP:HB2	1.99	0.44
1:C:1265:HIS:CG	1:C:1268:ILE:HB	2.52	0.44
1:C:1707:ILE:H	1:C:1707:ILE:HG13	1.60	0.44
1:C:2193:MET:HA	1:C:2196:ASN:HD22	1.83	0.44
1:C:3752:THR:HG22	1:C:3797:LEU:HD23	2.00	0.44
1:C:4846:ILE:HD12	1:C:4846:ILE:HA	1.90	0.44
1:E:456:LEU:HD21	1:E:532:SER:HB2	1.99	0.44
1:E:544:ASN:HD22	1:E:547:ASN:ND2	2.15	0.44
1:E:769:ARG:HG2	1:E:774:PRO:HA	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1265:HIS:CG	1:E:1268:ILE:HB	2.52	0.44
1:E:1776:TYR:OH	1:E:1778:TYR:OH	2.29	0.44
1:E:4786:ALA:HB1	1:E:4790:PHE:HB2	2.00	0.44
1:G:261:HIS:CG	1:G:388:GLN:HG2	2.53	0.44
1:G:1119:ARG:HB2	1:G:1133:ARG:HB2	1.99	0.44
1:G:4018:PHE:O	1:G:4022:LEU:HB2	2.18	0.44
1:A:470:LEU:HG	1:A:474:ASP:HB2	1.99	0.44
1:A:1106:GLU:N	1:A:1214:ARG:O	2.51	0.44
1:A:1800:GLN:O	1:A:1804:LEU:N	2.36	0.44
1:A:4638:THR:HB	1:A:4706:TYR:HB2	2.00	0.44
1:A:4907:GLU:OE1	1:A:4907:GLU:N	2.43	0.44
1:C:1290:PHE:HE2	1:C:1555:PHE:HZ	1.66	0.44
1:C:1465:VAL:HG21	1:C:1484:ASN:HA	2.00	0.44
1:C:1689:ILE:HA	1:C:1703:TYR:HE1	1.82	0.44
1:C:4167:LYS:HA	1:C:4170:LYS:HE3	2.00	0.44
1:C:4575:ILE:HG22	1:C:4576:LEU:HD23	1.98	0.44
1:C:4612:GLU:HA	1:C:4654:VAL:HG11	2.00	0.44
1:C:4786:ALA:HB1	1:C:4790:PHE:HB2	2.00	0.44
1:E:1119:ARG:HB2	1:E:1133:ARG:HB2	1.99	0.44
1:E:1630:LEU:HD22	1:E:1641:ILE:HD13	1.99	0.44
1:E:1934:VAL:HG12	1:E:3614:ARG:HH11	1.83	0.44
1:E:2495:PRO:O	1:E:2499:ALA:CB	2.65	0.44
1:G:716:ASN:HA	1:G:722:LEU:HD13	2.00	0.44
1:G:1098:ALA:O	1:G:1101:TRP:NE1	2.44	0.44
1:G:1250:TRP:CD1	1:G:1602:GLN:HA	2.53	0.44
1:G:1257:GLN:O	1:G:1596:TRP:N	2.49	0.44
1:G:3868:THR:OG1	1:G:3869:VAL:N	2.50	0.44
1:G:3893:TYR:CZ	1:G:3899:ILE:HG23	2.52	0.44
1:G:3912:GLN:HA	1:G:3915:LYS:HE3	1.98	0.44
1:G:4722:TYR:HD2	1:G:4723:LEU:HD12	1.82	0.44
1:G:4958:CYS:O	1:G:4962:GLN:N	2.51	0.44
1:A:1911:LEU:HA	1:A:1914:LEU:HD12	1.99	0.44
1:A:3047:MET:O	1:A:3051:LEU:CB	2.66	0.44
1:A:3959:LEU:HB3	1:A:3969:LEU:HB2	1.98	0.44
1:A:4521:TYR:CE2	1:A:4559:HIS:HB3	2.52	0.44
1:A:4768:LEU:O	1:A:4771:THR:OG1	2.21	0.44
1:C:261:HIS:CG	1:C:388:GLN:HG2	2.53	0.44
1:C:274:LEU:HD23	1:C:274:LEU:HA	1.80	0.44
1:C:742:SER:O	1:C:776:GLN:NE2	2.51	0.44
1:C:983:LEU:HA	1:C:1059:GLY:HA3	2.00	0.44
1:C:1826:TYR:CZ	1:C:1830:ILE:HD11	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:243:GLU:OE2	1:E:389:ARG:NH2	2.51	0.44
1:E:508:TYR:CG	1:E:517:VAL:HA	2.53	0.44
1:E:949:HIS:CG	1:E:1065:GLU:H	2.35	0.44
1:E:1268:ILE:HD13	1:E:1268:ILE:HA	1.83	0.44
1:E:1465:VAL:HG21	1:E:1484:ASN:HA	2.00	0.44
1:E:1911:LEU:HA	1:E:1914:LEU:HD12	1.99	0.44
1:E:3752:THR:HG22	1:E:3797:LEU:HD23	2.00	0.44
1:E:4018:PHE:O	1:E:4022:LEU:HB2	2.18	0.44
1:E:4131:GLN:HE22	1:E:4134:LEU:HD11	1.82	0.44
1:G:508:TYR:CG	1:G:517:VAL:HA	2.53	0.44
1:G:853:PRO:HD2	1:G:1209:VAL:HA	1.99	0.44
1:G:874:LEU:HD13	1:G:937:LEU:HD22	1.99	0.44
1:G:2300:LEU:HA	1:G:2303:LEU:HD12	2.00	0.44
1:G:2330:GLU:O	1:G:2393:TYR:OH	2.34	0.44
1:G:2394:ALA:HB2	1:G:2465:HIS:HD2	1.83	0.44
1:G:4726:TYR:HE1	1:G:4743:HIS:HB3	1.82	0.44
1:G:4935:THR:O	1:G:4939:SER:OG	2.35	0.44
1:A:243:GLU:OE2	1:A:389:ARG:NH2	2.51	0.44
1:A:261:HIS:CG	1:A:388:GLN:HG2	2.53	0.44
1:A:544:ASN:HD22	1:A:547:ASN:ND2	2.15	0.44
1:A:1242:ASN:O	1:A:1807:ARG:N	2.50	0.44
1:A:1645:THR:OG1	1:A:1646:GLU:OE1	2.35	0.44
1:A:2388:ALA:O	1:A:2392:PHE:CB	2.65	0.44
1:A:3867:THR:OG1	1:A:3868:THR:N	2.50	0.44
1:A:4045:SER:HA	1:A:4078:THR:HA	1.99	0.44
1:A:4510:VAL:HG11	1:A:4580:HIS:HB2	1.99	0.44
1:A:4726:TYR:HE1	1:A:4743:HIS:HB3	1.82	0.44
1:A:4801:ASP:N	1:A:4801:ASP:OD1	2.50	0.44
1:C:981:MET:HG3	1:C:1060:TYR:CG	2.53	0.44
1:C:2316:GLU:HA	1:C:2319:ASN:HB3	2.00	0.44
1:C:2703:ASN:OD1	1:C:2703:ASN:N	2.51	0.44
1:C:4022:LEU:O	1:C:4025:LYS:HG3	2.17	0.44
1:E:716:ASN:HA	1:E:722:LEU:HD13	2.00	0.44
1:E:734:SER:OG	1:E:739:ARG:NH1	2.45	0.44
1:E:983:LEU:HA	1:E:1059:GLY:HA3	2.00	0.44
1:E:1141:LYS:HE2	1:E:1141:LYS:HB2	1.85	0.44
1:E:1243:THR:HB	1:E:1807:ARG:HB3	1.99	0.44
1:E:1250:TRP:CD1	1:E:1602:GLN:HA	2.53	0.44
1:E:2061:GLN:OE1	1:E:2061:GLN:N	2.42	0.44
1:E:2316:GLU:HA	1:E:2319:ASN:HB3	2.00	0.44
1:G:470:LEU:HG	1:G:474:ASP:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:748:LEU:HD11	2:H:8:SER:HB2	2.00	0.44
1:G:888:ASN:HD21	1:G:957:ALA:HB3	1.83	0.44
1:G:1106:GLU:N	1:G:1214:ARG:O	2.51	0.44
1:G:1654:HIS:O	1:G:1657:THR:OG1	2.21	0.44
1:G:1770:SER:OG	2:H:54:GLU:OE2	2.34	0.44
1:G:1795:LEU:HD23	1:G:1795:LEU:HA	1.83	0.44
1:G:2193:MET:HA	1:G:2196:ASN:HD22	1.83	0.44
1:G:3767:LEU:HD23	1:G:3767:LEU:HA	1.74	0.44
1:G:4131:GLN:HE22	1:G:4134:LEU:HD11	1.82	0.44
1:A:703:TYR:HB3	1:A:721:ASP:HB2	2.00	0.44
1:A:1265:HIS:CG	1:A:1268:ILE:HB	2.53	0.44
1:A:3851:HIS:CE1	1:A:3926:GLN:HE21	2.36	0.44
1:A:4931:GLU:HA	1:A:4934:HIS:CG	2.53	0.44
1:C:508:TYR:CG	1:C:517:VAL:HA	2.53	0.44
1:C:1645:THR:OG1	1:C:1646:GLU:OE1	2.35	0.44
1:C:2835:SER:O	1:C:2839:HIS:N	2.42	0.44
1:C:4638:THR:HB	1:C:4706:TYR:HB2	2.00	0.44
1:C:4931:GLU:HA	1:C:4934:HIS:CG	2.53	0.44
1:E:252:HIS:CE1	1:E:255:GLU:HG2	2.53	0.44
1:E:1290:PHE:HE2	1:E:1555:PHE:HZ	1.66	0.44
1:E:3760:LEU:HD23	1:E:3760:LEU:HA	1.80	0.44
1:G:24:CYS:O	1:G:35:LEU:N	2.50	0.44
1:G:480:ARG:O	1:G:484:ASN:ND2	2.51	0.44
1:G:590:LYS:HE2	1:G:590:LYS:HB2	1.71	0.44
1:G:949:HIS:CG	1:G:1065:GLU:H	2.35	0.44
1:G:1934:VAL:HG12	1:G:3614:ARG:HH11	1.83	0.44
1:G:2168:MET:H	1:G:2168:MET:HG3	1.45	0.44
1:G:2201:LEU:HD23	1:G:2201:LEU:HA	1.81	0.44
1:G:4632:ASP:N	1:G:4632:ASP:OD1	2.47	0.44
1:G:4638:THR:HB	1:G:4706:TYR:HB2	2.00	0.44
1:A:180:ASP:HB3	1:A:211:LEU:HD22	2.00	0.43
1:A:459:LEU:HA	1:A:462:TYR:HB3	2.00	0.43
1:A:983:LEU:HA	1:A:1059:GLY:HA3	2.00	0.43
1:A:1298:ASP:HB2	1:A:1299:ILE:HD12	2.00	0.43
1:A:1610:ARG:HD3	1:A:1619:VAL:HG23	2.00	0.43
1:A:1652:LYS:HB3	1:A:1652:LYS:HE3	1.71	0.43
1:A:1926:ILE:HD12	1:A:1926:ILE:HA	1.80	0.43
1:A:4018:PHE:O	1:A:4022:LEU:HB2	2.18	0.43
1:A:4774:LEU:HA	1:A:4777:VAL:HG22	2.00	0.43
1:A:4868:ILE:CG1	1:G:4865:GLY:CA	2.89	0.43
1:C:252:HIS:HB3	1:C:256:GLN:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:748:LEU:HD11	2:D:8:SER:HB2	2.00	0.43
1:C:2394:ALA:HB2	1:C:2465:HIS:HD2	1.83	0.43
1:C:3047:MET:O	1:C:3051:LEU:CB	2.66	0.43
1:C:4746:ASP:N	1:C:4746:ASP:OD2	2.51	0.43
1:E:180:ASP:HB3	1:E:211:LEU:HD22	2.00	0.43
1:E:207:PHE:CB	1:G:2326:ILE:CB	2.96	0.43
1:E:261:HIS:CG	1:E:388:GLN:HG2	2.53	0.43
1:E:742:SER:O	1:E:776:GLN:NE2	2.51	0.43
1:E:1112:ASP:H	1:E:1211:GLN:HE21	1.65	0.43
1:E:1248:THR:O	1:E:1248:THR:OG1	2.36	0.43
1:E:2201:LEU:HA	1:E:2201:LEU:HD23	1.82	0.43
2:F:2:VAL:HG11	2:F:76:CYS:HA	2.00	0.43
1:G:252:HIS:CE1	1:G:255:GLU:HG2	2.53	0.43
1:G:470:LEU:HD12	1:G:470:LEU:HA	1.87	0.43
1:G:703:TYR:HB3	1:G:721:ASP:HB2	2.00	0.43
1:G:4167:LYS:HA	1:G:4170:LYS:HE3	2.00	0.43
1:A:252:HIS:CE1	1:A:255:GLU:HG2	2.53	0.43
1:A:313:SER:HG	1:A:314:LEU:HD12	1.83	0.43
1:A:678:MET:HG3	1:A:754:VAL:HG22	2.00	0.43
1:A:1465:VAL:HG21	1:A:1484:ASN:HA	2.00	0.43
1:A:1716:THR:HA	1:A:1719:LEU:HB2	2.00	0.43
1:A:1934:VAL:HG12	1:A:3614:ARG:HH11	1.83	0.43
1:A:2071:ALA:HB1	1:A:3664:PRO:HB3	2.00	0.43
1:A:2256:LEU:HD12	1:A:3815:ALA:HB2	2.00	0.43
1:A:2394:ALA:HB2	1:A:2465:HIS:HD2	1.83	0.43
1:A:4722:TYR:HD2	1:A:4723:LEU:HD12	1.82	0.43
2:B:38:SER:OG	2:B:41:ASP:N	2.46	0.43
1:C:1106:GLU:N	1:C:1214:ARG:O	2.51	0.43
1:C:1243:THR:HB	1:C:1807:ARG:HB3	1.99	0.43
1:C:1934:VAL:HG12	1:C:3614:ARG:HH11	1.83	0.43
1:C:2149:ASP:O	1:C:2153:ASN:ND2	2.50	0.43
1:C:4510:VAL:HG11	1:C:4580:HIS:HB2	1.99	0.43
2:D:2:VAL:HG11	2:D:76:CYS:HA	2.00	0.43
1:E:480:ARG:O	1:E:484:ASN:ND2	2.51	0.43
1:E:802:PHE:N	1:E:1616:GLY:O	2.51	0.43
1:E:981:MET:HG3	1:E:1060:TYR:CG	2.53	0.43
1:E:2387:ASN:O	1:E:2391:THR:OG1	2.32	0.43
1:E:4167:LYS:HA	1:E:4170:LYS:HE3	2.00	0.43
1:E:4905:GLY:O	1:E:4909:HIS:N	2.42	0.43
2:F:56:ILE:HG13	2:F:59:PHE:H	1.82	0.43
1:G:678:MET:HG3	1:G:754:VAL:HG22	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:991:SER:O	1:G:995:MET:N	2.48	0.43
1:G:2206:ARG:HH22	1:G:2246:ALA:HB1	1.82	0.43
1:G:2495:PRO:O	1:G:2499:ALA:CB	2.65	0.43
1:G:3760:LEU:HD23	1:G:3760:LEU:HA	1.80	0.43
1:G:3923:GLU:HA	1:G:3926:GLN:HB2	2.00	0.43
1:G:3958:LYS:HB3	1:G:3958:LYS:HE3	1.78	0.43
1:G:4096:GLY:HA2	1:G:4099:VAL:HG22	1.99	0.43
1:G:4612:GLU:HA	1:G:4654:VAL:HG11	2.00	0.43
1:G:4774:LEU:HA	1:G:4777:VAL:HG22	2.00	0.43
1:A:716:ASN:HA	1:A:722:LEU:HD13	2.00	0.43
1:A:981:MET:HG3	1:A:1060:TYR:CG	2.53	0.43
1:A:2495:PRO:O	1:A:2499:ALA:CB	2.65	0.43
1:A:4131:GLN:HE22	1:A:4134:LEU:HD11	1.83	0.43
1:A:4786:ALA:HB1	1:A:4790:PHE:HB2	2.00	0.43
1:C:716:ASN:HA	1:C:722:LEU:HD13	2.00	0.43
1:C:1703:TYR:CD2	1:C:1820:PRO:HB2	2.52	0.43
1:C:1716:THR:HA	1:C:1719:LEU:HB2	2.01	0.43
1:C:1795:LEU:HD23	1:C:1795:LEU:HA	1.83	0.43
1:C:2127:ILE:HD12	1:C:2127:ILE:HA	1.84	0.43
1:C:2300:LEU:HA	1:C:2303:LEU:HD12	1.99	0.43
1:E:252:HIS:HB3	1:E:256:GLN:H	1.83	0.43
1:E:991:SER:O	1:E:995:MET:N	2.48	0.43
1:E:1132:GLU:O	1:E:1146:HIS:NE2	2.49	0.43
1:E:1716:THR:HA	1:E:1719:LEU:HD12	1.99	0.43
1:E:1997:LEU:HD11	1:E:3611:ASN:HD21	1.83	0.43
1:E:2071:ALA:HB1	1:E:3664:PRO:HB3	2.00	0.43
1:E:3047:MET:O	1:E:3051:LEU:CB	2.66	0.43
1:E:3882:VAL:O	1:E:3885:SER:OG	2.25	0.43
1:E:4096:GLY:HA2	1:E:4099:VAL:HG22	1.99	0.43
1:E:4796:LYS:N	1:E:4805:MET:O	2.51	0.43
1:E:4808:ASP:O	1:G:4523:VAL:HG23	2.18	0.43
1:E:4907:GLU:OE1	1:E:4907:GLU:N	2.43	0.43
1:G:1092:LYS:NZ	1:G:1120:PRO:O	2.40	0.43
1:G:1119:ARG:HB2	1:G:1133:ARG:HD3	1.99	0.43
1:G:1716:THR:HA	1:G:1719:LEU:HD12	2.00	0.43
1:G:1909:LEU:H	1:G:1909:LEU:HG	1.52	0.43
1:G:2135:MET:HA	1:G:2136:GLY:HA3	1.77	0.43
1:G:3047:MET:O	1:G:3051:LEU:CB	2.66	0.43
1:G:4905:GLY:O	1:G:4909:HIS:N	2.42	0.43
1:A:355:LYS:H	1:A:355:LYS:HG3	1.69	0.43
1:A:737:ILE:HG22	1:A:739:ARG:HG3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1090:ALA:HA	1:A:1249:MET:HG3	2.00	0.43
1:A:1570:LEU:HD12	1:A:1584:PRO:HD3	2.00	0.43
1:A:4139:ILE:HG13	1:A:4147:GLU:HB2	2.00	0.43
1:A:4506:LEU:HD13	1:A:4506:LEU:HA	1.87	0.43
1:C:180:ASP:HB3	1:C:211:LEU:HD22	2.00	0.43
1:C:300:VAL:HG13	1:C:420:ARG:HH21	1.84	0.43
1:C:459:LEU:HA	1:C:462:TYR:HB3	2.00	0.43
1:C:888:ASN:HD21	1:C:957:ALA:HB3	1.83	0.43
1:C:1570:LEU:HD12	1:C:1584:PRO:HD3	2.01	0.43
1:C:3905:ARG:O	1:C:3908:SER:OG	2.34	0.43
1:C:3923:GLU:HA	1:C:3926:GLN:HB2	2.00	0.43
1:E:24:CYS:O	1:E:35:LEU:N	2.50	0.43
1:E:737:ILE:HG22	1:E:739:ARG:HG3	2.00	0.43
1:E:1174:MET:HA	1:E:1191:ALA:H	1.84	0.43
1:E:2072:GLN:HE22	1:E:3647:LYS:HG3	1.84	0.43
1:E:2193:MET:HA	1:E:2196:ASN:HD22	1.83	0.43
1:E:4746:ASP:OD2	1:E:4746:ASP:N	2.51	0.43
1:G:737:ILE:HG22	1:G:739:ARG:HG3	2.00	0.43
1:G:742:SER:O	1:G:776:GLN:NE2	2.51	0.43
1:G:756:SER:O	1:G:769:ARG:N	2.40	0.43
1:G:794:PHE:HZ	1:G:1621:CYS:HB2	1.82	0.43
1:G:983:LEU:HA	1:G:1059:GLY:HA3	2.00	0.43
1:G:1652:LYS:HE3	1:G:1652:LYS:HB3	1.71	0.43
1:G:2256:LEU:HD12	1:G:3815:ALA:HB2	2.00	0.43
1:G:3851:HIS:CE1	1:G:3926:GLN:HE21	2.36	0.43
1:A:991:SER:O	1:A:995:MET:N	2.48	0.43
1:A:1119:ARG:HB2	1:A:1133:ARG:HD3	1.99	0.43
1:A:2029:ARG:O	1:A:2032:SER:OG	2.30	0.43
1:A:2072:GLN:HE22	1:A:3647:LYS:HG3	1.84	0.43
2:B:2:VAL:HG11	2:B:76:CYS:HA	2.00	0.43
1:C:207:PHE:CB	1:E:2326:ILE:CB	2.96	0.43
1:C:874:LEU:HD13	1:C:937:LEU:HD22	1.99	0.43
1:C:1112:ASP:H	1:C:1211:GLN:HE21	1.65	0.43
1:C:1174:MET:HA	1:C:1191:ALA:H	1.84	0.43
1:C:1692:LYS:HE2	1:C:1692:LYS:HB2	1.84	0.43
1:C:1911:LEU:HA	1:C:1914:LEU:HD12	1.99	0.43
1:C:2876:ASP:OD1	1:C:2876:ASP:N	2.36	0.43
1:E:442:ALA:N	1:E:443:SER:HA	2.34	0.43
1:E:495:ILE:HG13	1:E:496:ASN:H	1.84	0.43
1:E:1709:ILE:HD13	1:E:1709:ILE:HA	1.86	0.43
1:E:2394:ALA:HB2	1:E:2465:HIS:HD2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4774:LEU:HA	1:E:4777:VAL:HG22	2.00	0.43
1:E:4931:GLU:HA	1:E:4934:HIS:CG	2.53	0.43
1:G:182:ILE:HG21	1:G:191:TYR:CD1	2.54	0.43
1:G:192:LEU:HD22	1:G:212:TRP:HE1	1.84	0.43
1:G:626:ARG:CZ	1:G:1669:ASN:HA	2.49	0.43
1:G:1140:PHE:HD2	1:G:1141:LYS:HZ2	1.66	0.43
1:G:1298:ASP:HB2	1:G:1299:ILE:HD12	2.00	0.43
1:G:2388:ALA:O	1:G:2392:PHE:CB	2.66	0.43
1:G:2436:VAL:O	1:G:2466:LYS:NZ	2.50	0.43
1:G:4796:LYS:N	1:G:4805:MET:O	2.51	0.43
1:A:156:GLU:HA	1:A:159:TRP:HD1	1.83	0.43
1:A:1676:LEU:HD23	1:A:1676:LEU:HA	1.78	0.43
1:A:1707:ILE:H	1:A:1707:ILE:HG13	1.60	0.43
1:A:4041:LYS:NZ	1:A:4041:LYS:O	2.46	0.43
1:A:4612:GLU:HA	1:A:4654:VAL:HG11	2.00	0.43
1:C:2350:GLU:OE2	1:C:2353:LYS:NZ	2.48	0.43
1:C:3851:HIS:CE1	1:C:3926:GLN:HE21	2.36	0.43
1:E:703:TYR:HB3	1:E:721:ASP:HB2	2.00	0.43
1:E:1716:THR:HA	1:E:1719:LEU:HB2	2.01	0.43
1:E:3851:HIS:CE1	1:E:3926:GLN:HE21	2.36	0.43
1:E:4638:THR:HB	1:E:4706:TYR:HB2	2.00	0.43
1:G:846:TYR:OH	1:G:1222:SER:OG	2.25	0.43
1:G:1292:SER:HB2	1:G:1547:ALA:HB1	2.01	0.43
1:G:1634:GLU:H	1:G:1634:GLU:HG3	1.50	0.43
1:G:1773:ASN:OD1	1:G:1777:GLN:NE2	2.32	0.43
1:G:1997:LEU:HD11	1:G:3611:ASN:HD21	1.83	0.43
1:G:2061:GLN:O	1:G:2064:SER:OG	2.26	0.43
1:G:2213:LYS:HG2	1:G:2254:LEU:HD11	2.01	0.43
1:G:2350:GLU:OE2	1:G:2353:LYS:NZ	2.48	0.43
1:G:3752:THR:HG22	1:G:3797:LEU:HD23	2.00	0.43
2:H:2:VAL:HG11	2:H:76:CYS:HA	2.00	0.43
1:A:797:GLY:O	1:A:1620:GLN:NE2	2.52	0.43
1:A:1640:ASP:OD2	1:A:1643:GLU:N	2.37	0.43
1:A:3882:VAL:O	1:A:3885:SER:OG	2.25	0.43
1:C:802:PHE:N	1:C:1616:GLY:O	2.51	0.43
1:C:995:MET:HA	1:C:998:LYS:HD2	2.01	0.43
1:C:1610:ARG:HD3	1:C:1619:VAL:HG23	2.00	0.43
1:C:1997:LEU:HD11	1:C:3611:ASN:HD21	1.83	0.43
1:C:4018:PHE:O	1:C:4022:LEU:HB2	2.18	0.43
1:C:4188:GLU:O	1:C:4192:ASN:ND2	2.52	0.43
2:D:56:ILE:HG13	2:D:59:PHE:H	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:561:ARG:HD3	1:E:561:ARG:HA	1.77	0.43
1:E:590:LYS:HB3	1:E:591:GLU:H	1.68	0.43
1:E:1298:ASP:HB2	1:E:1299:ILE:HD12	2.00	0.43
1:E:3692:TYR:HA	1:E:3695:ILE:HD12	2.00	0.43
1:E:3726:LEU:HD12	1:E:3726:LEU:HA	1.84	0.43
1:E:4139:ILE:HG13	1:E:4147:GLU:HB2	2.00	0.43
1:G:182:ILE:CG2	1:G:191:TYR:CD1	3.02	0.43
1:G:897:LYS:HE3	1:G:897:LYS:HB3	1.86	0.43
1:G:1669:ASN:O	1:G:1673:ALA:N	2.35	0.43
1:G:2166:LEU:HD23	1:G:2166:LEU:HA	1.88	0.43
1:A:182:ILE:HG21	1:A:191:TYR:CD1	2.54	0.43
1:A:1292:SER:HB2	1:A:1547:ALA:HB1	2.01	0.43
1:A:3714:SER:O	1:A:3714:SER:OG	2.31	0.43
1:A:4002:ASP:O	1:A:4006:GLU:CB	2.67	0.43
1:A:4163:LYS:HE2	1:A:4163:LYS:HB2	1.91	0.43
1:A:4188:GLU:O	1:A:4192:ASN:ND2	2.52	0.43
1:C:156:GLU:HA	1:C:159:TRP:HD1	1.83	0.43
1:C:709:GLY:N	1:C:840:TYR:OH	2.52	0.43
1:C:904:TYR:HD1	1:C:918:LEU:H	1.66	0.43
1:C:1716:THR:HA	1:C:1719:LEU:HD12	1.99	0.43
1:E:1822:ILE:HG22	1:E:1906:GLN:HE21	1.84	0.43
1:E:2835:SER:O	1:E:2839:HIS:N	2.42	0.43
1:E:4188:GLU:O	1:E:4192:ASN:ND2	2.52	0.43
1:E:4492:LEU:HD12	1:E:4492:LEU:HA	1.92	0.43
1:E:4809:ASP:O	1:E:4812:THR:OG1	2.29	0.43
2:F:17:LYS:HE3	2:F:17:LYS:HB3	1.82	0.43
1:G:180:ASP:HB3	1:G:211:LEU:HD22	2.00	0.43
1:G:237:LEU:HB2	1:G:404:ASN:HB3	2.00	0.43
1:G:495:ILE:HG13	1:G:496:ASN:H	1.84	0.43
1:G:709:GLY:N	1:G:840:TYR:OH	2.52	0.43
1:G:1465:VAL:HG21	1:G:1484:ASN:HA	2.00	0.43
1:G:2071:ALA:HB1	1:G:3664:PRO:HB3	2.00	0.43
1:G:4786:ALA:HB1	1:G:4790:PHE:HB2	2.00	0.43
1:A:211:LEU:HD23	1:A:211:LEU:HA	1.82	0.43
1:A:252:HIS:HB3	1:A:256:GLN:H	1.82	0.43
1:A:508:TYR:CG	1:A:517:VAL:HA	2.53	0.43
1:A:973:THR:OG1	1:A:976:TYR:O	2.36	0.43
1:A:1669:ASN:O	1:A:1673:ALA:N	2.35	0.43
1:A:4189:LEU:HA	1:A:4192:ASN:HD22	1.84	0.43
1:C:257:ARG:HH22	1:C:272:ARG:HD3	1.84	0.43
1:C:291:TRP:HB2	1:C:343:ARG:HH21	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:590:LYS:HE2	1:C:590:LYS:HB2	1.71	0.43
1:C:3729:GLN:O	1:C:3733:HIS:ND1	2.36	0.43
1:C:3958:LYS:HB3	1:C:3958:LYS:HE3	1.78	0.43
1:C:4901:THR:HG1	1:C:4960:ARG:HH22	1.67	0.43
1:E:182:ILE:CG2	1:E:191:TYR:CD1	3.02	0.43
1:E:748:LEU:HD11	2:F:8:SER:HB2	2.00	0.43
1:E:1165:MET:O	1:E:1174:MET:N	2.42	0.43
1:E:1690:GLU:HG2	1:E:1790:LYS:HZ1	1.84	0.43
1:E:2722:ILE:HG21	1:E:2777:LYS:HE2	2.01	0.43
1:E:4189:LEU:HA	1:E:4192:ASN:HD22	1.84	0.43
2:F:79:ASP:OD1	2:F:79:ASP:N	2.48	0.43
1:G:486:GLN:NE2	1:G:544:ASN:H	2.17	0.43
1:G:973:THR:OG1	1:G:976:TYR:O	2.36	0.43
1:G:1716:THR:HA	1:G:1719:LEU:HB2	2.01	0.43
1:G:2072:GLN:HE22	1:G:3647:LYS:HG3	1.84	0.43
1:G:3692:TYR:HA	1:G:3695:ILE:HD12	2.00	0.43
1:G:3882:VAL:O	1:G:3885:SER:OG	2.25	0.43
1:A:192:LEU:HD22	1:A:212:TRP:HE1	1.84	0.43
1:A:441:LYS:HA	1:A:442:ALA:HA	1.69	0.43
1:A:2316:GLU:HA	1:A:2319:ASN:HB3	2.00	0.43
1:C:703:TYR:HB3	1:C:721:ASP:HB2	2.00	0.43
1:C:797:GLY:O	1:C:1620:GLN:NE2	2.52	0.43
1:C:1140:PHE:HD2	1:C:1141:LYS:HZ2	1.67	0.43
1:C:1271:THR:H	1:C:1289:SER:H	1.67	0.43
1:C:2029:ARG:O	1:C:2032:SER:OG	2.30	0.43
1:C:4096:GLY:HA2	1:C:4099:VAL:HG22	1.99	0.43
1:C:4139:ILE:HG13	1:C:4147:GLU:HB2	2.00	0.43
1:C:4722:TYR:HD2	1:C:4723:LEU:HD12	1.82	0.43
1:C:4774:LEU:HA	1:C:4777:VAL:HG22	2.00	0.43
1:E:182:ILE:HG21	1:E:191:TYR:CD1	2.54	0.43
1:E:192:LEU:HD22	1:E:212:TRP:HE1	1.84	0.43
1:E:237:LEU:HB2	1:E:404:ASN:HB3	2.00	0.43
1:E:355:LYS:H	1:E:355:LYS:HG3	1.69	0.43
1:E:626:ARG:CZ	1:E:1669:ASN:HA	2.49	0.43
1:E:912:LYS:O	1:E:914:GLN:NE2	2.52	0.43
1:E:1996:GLN:HA	1:E:1997:LEU:HD23	2.01	0.43
1:E:2300:LEU:HA	1:E:2303:LEU:HD12	2.00	0.43
1:E:4002:ASP:O	1:E:4006:GLU:CB	2.67	0.43
1:E:4749:MET:O	1:E:4752:LYS:NZ	2.37	0.43
2:F:47:LYS:HB2	2:F:47:LYS:HE3	1.63	0.43
1:G:459:LEU:HA	1:G:462:TYR:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:776:GLN:HB3	1:G:1470:GLY:H	1.84	0.43
1:G:1117:TRP:HE3	1:G:1201:PHE:HB3	1.84	0.43
1:G:1174:MET:HA	1:G:1191:ALA:H	1.84	0.43
1:G:1707:ILE:H	1:G:1707:ILE:HG13	1.60	0.43
1:G:2722:ILE:HG21	1:G:2777:LYS:HE2	2.01	0.43
1:G:4188:GLU:O	1:G:4192:ASN:ND2	2.52	0.43
1:A:442:ALA:N	1:A:443:SER:HA	2.34	0.42
1:A:709:GLY:N	1:A:840:TYR:OH	2.52	0.42
1:A:748:LEU:HD11	2:B:8:SER:HB2	2.00	0.42
1:A:802:PHE:N	1:A:1616:GLY:O	2.51	0.42
1:A:912:LYS:O	1:A:914:GLN:NE2	2.52	0.42
1:A:995:MET:HA	1:A:998:LYS:HD2	2.01	0.42
1:A:1140:PHE:HD2	1:A:1141:LYS:HZ2	1.67	0.42
1:A:1822:ILE:HG22	1:A:1906:GLN:HE21	1.84	0.42
1:A:2779:SER:HB2	1:A:2849:TYR:CZ	2.54	0.42
1:A:4167:LYS:HA	1:A:4170:LYS:HE3	2.00	0.42
1:C:252:HIS:CE1	1:C:255:GLU:HG2	2.53	0.42
1:C:486:GLN:NE2	1:C:544:ASN:H	2.17	0.42
1:C:495:ILE:HG13	1:C:496:ASN:H	1.84	0.42
1:C:626:ARG:CZ	1:C:1669:ASN:HA	2.49	0.42
1:C:2065:GLU:O	1:C:2069:ARG:NH1	2.52	0.42
1:C:3692:TYR:HA	1:C:3695:ILE:HD12	2.00	0.42
1:C:4131:GLN:HE22	1:C:4134:LEU:HD11	1.83	0.42
1:C:4486:ILE:HG23	1:C:4489:GLN:H	1.84	0.42
1:E:1610:ARG:HD3	1:E:1619:VAL:HG23	2.00	0.42
1:E:1705:LEU:HD23	1:E:1705:LEU:HA	1.78	0.42
1:E:3923:GLU:HA	1:E:3926:GLN:HB2	1.99	0.42
1:G:169:ARG:NH2	1:G:179:ASP:OD1	2.52	0.42
1:G:661:LEU:HD23	1:G:661:LEU:HA	1.89	0.42
1:G:1660:LEU:HA	1:G:1660:LEU:HD23	1.77	0.42
1:A:1271:THR:H	1:A:1289:SER:H	1.67	0.42
1:A:2830:SER:HB3	1:A:2895:LYS:HE3	2.01	0.42
1:A:3752:THR:HG22	1:A:3797:LEU:HD23	2.00	0.42
1:A:3902:GLN:OE1	1:A:3905:ARG:NH2	2.52	0.42
1:A:4809:ASP:O	1:A:4812:THR:OG1	2.29	0.42
1:C:480:ARG:O	1:C:484:ASN:ND2	2.51	0.42
1:C:912:LYS:O	1:C:914:GLN:NE2	2.52	0.42
1:C:1298:ASP:HB2	1:C:1299:ILE:HD12	2.00	0.42
1:C:4189:LEU:HA	1:C:4192:ASN:HD22	1.84	0.42
1:E:291:TRP:HB2	1:E:343:ARG:HH21	1.83	0.42
1:E:2431:GLY:N	1:E:2477:TYR:OH	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3699:SER:HB2	1:E:3731:ARG:HH21	1.84	0.42
1:E:4027:LEU:HD22	1:E:4056:HIS:CE1	2.54	0.42
1:G:230:GLY:N	1:G:287:SER:O	2.39	0.42
1:G:291:TRP:HB2	1:G:343:ARG:HH21	1.83	0.42
1:G:722:LEU:HD23	1:G:722:LEU:HA	1.70	0.42
1:G:912:LYS:O	1:G:914:GLN:NE2	2.52	0.42
1:G:4189:LEU:HA	1:G:4192:ASN:HD22	1.84	0.42
1:A:480:ARG:O	1:A:484:ASN:ND2	2.51	0.42
1:A:505:LEU:HD23	1:A:505:LEU:HA	1.89	0.42
1:A:626:ARG:CZ	1:A:1669:ASN:HA	2.49	0.42
1:A:776:GLN:HB3	1:A:1470:GLY:H	1.84	0.42
1:A:1103:PHE:HE2	1:A:1215:MET:HG2	1.85	0.42
1:A:1309:GLU:HB2	1:A:1538:LYS:HZ2	1.84	0.42
1:A:2065:GLU:O	1:A:2069:ARG:NH1	2.52	0.42
1:A:2118:ILE:HD13	1:A:2118:ILE:HA	1.87	0.42
1:A:3692:TYR:HA	1:A:3695:ILE:HD12	2.00	0.42
1:C:737:ILE:HG22	1:C:739:ARG:HG3	2.00	0.42
1:C:1117:TRP:HH2	1:C:1239:PHE:HZ	1.67	0.42
1:C:1676:LEU:HA	1:C:1676:LEU:HD23	1.78	0.42
1:C:1936:LYS:O	1:C:1940:ASN:ND2	2.39	0.42
1:C:2118:ILE:HD13	1:C:2118:ILE:HA	1.87	0.42
1:C:3631:GLU:OE1	1:C:3631:GLU:N	2.45	0.42
1:C:3760:LEU:HA	1:C:3760:LEU:HD23	1.80	0.42
1:C:4027:LEU:HD22	1:C:4056:HIS:CE1	2.54	0.42
1:E:169:ARG:NH2	1:E:179:ASP:OD1	2.52	0.42
1:E:257:ARG:HH22	1:E:272:ARG:HD3	1.84	0.42
1:E:300:VAL:HG13	1:E:420:ARG:HH21	1.84	0.42
1:E:374:TYR:OH	1:E:400:ASP:OD2	2.27	0.42
1:E:853:PRO:HD2	1:E:1209:VAL:HA	1.99	0.42
1:E:1090:ALA:HA	1:E:1249:MET:HG3	2.01	0.42
1:E:1117:TRP:HE3	1:E:1201:PHE:HB3	1.84	0.42
1:E:1641:ILE:HD13	1:E:1641:ILE:HA	1.90	0.42
1:E:2124:LEU:O	1:E:2128:ARG:HG2	2.20	0.42
1:E:2769:LYS:O	1:E:2773:ARG:N	2.44	0.42
1:G:156:GLU:HA	1:G:159:TRP:HD1	1.83	0.42
1:G:1522:ALA:N	1:G:1525:LYS:O	2.38	0.42
1:G:1822:ILE:HG22	1:G:1906:GLN:HE21	1.84	0.42
1:G:2830:SER:HB3	1:G:2895:LYS:HE3	2.01	0.42
1:G:4002:ASP:O	1:G:4006:GLU:CB	2.67	0.42
1:A:300:VAL:HG13	1:A:420:ARG:HH21	1.84	0.42
1:A:1302:TYR:N	1:A:1543:VAL:O	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2114:VAL:O	1:A:2117:THR:OG1	2.25	0.42
1:A:2124:LEU:O	1:A:2128:ARG:HG2	2.20	0.42
1:A:2722:ILE:HG21	1:A:2777:LYS:HE2	2.01	0.42
1:A:3871:ILE:O	1:A:3874:SER:OG	2.24	0.42
1:C:284:TRP:O	1:C:287:SER:OG	2.29	0.42
1:C:2722:ILE:HG21	1:C:2777:LYS:HE2	2.01	0.42
2:D:42:ARG:HD3	2:D:44:LYS:HD3	2.01	0.42
1:E:156:GLU:HA	1:E:159:TRP:HD1	1.84	0.42
1:E:459:LEU:HA	1:E:462:TYR:HB3	2.00	0.42
1:E:629:GLN:HB3	1:E:1664:VAL:HG23	2.01	0.42
1:E:678:MET:HG3	1:E:754:VAL:HG22	2.01	0.42
1:E:783:ASN:HD21	1:E:1459:LEU:HB2	1.84	0.42
1:E:894:VAL:HA	1:E:918:LEU:HD22	2.02	0.42
1:E:1755:THR:H	1:E:1755:THR:HG23	1.57	0.42
2:F:62:GLY:HA2	2:F:65:GLN:HB3	2.02	0.42
1:G:332:ARG:O	1:G:362:PHE:N	2.42	0.42
1:G:731:HIS:CG	1:G:740:THR:HA	2.54	0.42
1:G:904:TYR:HD1	1:G:918:LEU:H	1.66	0.42
1:G:995:MET:HA	1:G:998:LYS:HD2	2.01	0.42
1:G:1090:ALA:HA	1:G:1249:MET:HG3	2.01	0.42
1:G:1610:ARG:HD3	1:G:1619:VAL:HG23	2.00	0.42
1:G:1996:GLN:HA	1:G:1997:LEU:HD23	2.01	0.42
1:G:2316:GLU:HA	1:G:2319:ASN:HB3	2.00	0.42
1:G:3902:GLN:OE1	1:G:3905:ARG:NH2	2.52	0.42
1:A:832:LEU:HD22	1:A:1617:TRP:CG	2.54	0.42
1:A:888:ASN:HD21	1:A:957:ALA:HB3	1.83	0.42
1:A:3699:SER:HB2	1:A:3731:ARG:HH21	1.84	0.42
1:A:4935:THR:O	1:A:4939:SER:OG	2.35	0.42
2:B:87:HIS:HA	2:B:88:PRO:HD3	1.87	0.42
1:C:442:ALA:N	1:C:443:SER:HA	2.34	0.42
1:C:470:LEU:HD23	1:C:475:LYS:HG3	2.02	0.42
1:C:544:ASN:HB2	1:C:547:ASN:HB2	2.01	0.42
1:C:718:VAL:HG12	1:C:736:CYS:HA	2.01	0.42
1:C:894:VAL:HA	1:C:918:LEU:HD22	2.02	0.42
1:C:1660:LEU:HD23	1:C:1660:LEU:HA	1.77	0.42
1:C:1822:ILE:HG22	1:C:1906:GLN:HE21	1.84	0.42
1:C:3671:LEU:O	1:C:3675:THR:OG1	2.29	0.42
1:E:776:GLN:HB3	1:E:1470:GLY:H	1.84	0.42
1:E:832:LEU:HD22	1:E:1617:TRP:CG	2.54	0.42
1:E:1117:TRP:HH2	1:E:1239:PHE:HZ	1.67	0.42
1:E:1703:TYR:CD2	1:E:1820:PRO:HB2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2256:LEU:HD12	1:E:3815:ALA:HB2	2.00	0.42
1:E:2779:SER:HB2	1:E:2849:TYR:CZ	2.54	0.42
1:E:2894:LEU:HA	1:E:2897:LEU:HD12	2.02	0.42
1:E:3958:LYS:HE3	1:E:3958:LYS:HB3	1.78	0.42
2:F:42:ARG:HD3	2:F:44:LYS:HD3	2.01	0.42
1:G:211:LEU:HD23	1:G:211:LEU:HA	1.82	0.42
1:G:252:HIS:HB3	1:G:256:GLN:H	1.83	0.42
1:G:718:VAL:HG12	1:G:736:CYS:HA	2.01	0.42
1:G:783:ASN:HD21	1:G:1459:LEU:HB2	1.85	0.42
1:G:1103:PHE:HE2	1:G:1215:MET:HG2	1.85	0.42
1:G:1162:VAL:O	1:G:1176:THR:OG1	2.27	0.42
1:A:169:ARG:NH2	1:A:179:ASP:OD1	2.52	0.42
1:A:237:LEU:HB2	1:A:404:ASN:HB3	2.00	0.42
1:A:486:GLN:NE2	1:A:544:ASN:H	2.17	0.42
1:A:694:ARG:O	1:A:793:SER:N	2.41	0.42
1:A:742:SER:O	1:A:776:GLN:NE2	2.51	0.42
1:A:1518:LEU:HD23	1:A:1531:TYR:HB2	2.02	0.42
1:A:2213:LYS:HG2	1:A:2254:LEU:HD11	2.01	0.42
1:C:678:MET:HG3	1:C:754:VAL:HG22	2.01	0.42
1:C:731:HIS:CG	1:C:740:THR:HA	2.54	0.42
1:C:1597:SER:O	1:C:1598:ARG:NH1	2.53	0.42
1:C:2264:GLU:O	1:C:2268:ARG:HG2	2.20	0.42
1:C:4721:LEU:HD23	1:C:4721:LEU:HA	1.91	0.42
1:E:604:HIS:HA	1:E:1588:VAL:HB	2.02	0.42
1:E:1271:THR:H	1:E:1289:SER:H	1.67	0.42
1:E:3714:SER:N	1:E:3718:LYS:HZ1	2.18	0.42
1:E:3876:VAL:O	1:E:3879:LEU:HG	2.20	0.42
1:E:4504:ARG:HA	1:E:4504:ARG:HD2	1.82	0.42
1:E:4846:ILE:HD12	1:E:4846:ILE:HA	1.90	0.42
2:F:4:ILE:HG12	2:F:75:THR:H	1.85	0.42
1:G:470:LEU:HD23	1:G:475:LYS:HG3	2.02	0.42
1:G:1007:TRP:O	1:G:1011:ARG:N	2.53	0.42
1:G:1676:LEU:HD23	1:G:1676:LEU:HA	1.78	0.42
1:G:3767:LEU:HD21	1:G:3774:VAL:HB	2.02	0.42
2:H:16:PRO:HD3	2:H:67:SER:HA	2.02	0.42
1:A:207:PHE:CB	1:C:2326:ILE:CB	2.98	0.42
1:A:544:ASN:HB2	1:A:547:ASN:HB2	2.01	0.42
1:A:904:TYR:HD1	1:A:918:LEU:H	1.66	0.42
1:A:1007:TRP:O	1:A:1011:ARG:N	2.53	0.42
1:A:1117:TRP:HE3	1:A:1201:PHE:HB3	1.84	0.42
1:A:1629:SER:OG	1:A:1639:VAL:O	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1770:SER:OG	2:B:54:GLU:OE2	2.34	0.42
1:A:1997:LEU:HD11	1:A:3611:ASN:HD21	1.83	0.42
1:A:2264:GLU:O	1:A:2268:ARG:HG2	2.20	0.42
1:A:3786:LYS:HA	1:A:3786:LYS:HD3	1.96	0.42
1:A:4796:LYS:N	1:A:4805:MET:O	2.51	0.42
1:C:169:ARG:NH2	1:C:179:ASP:OD1	2.52	0.42
1:C:1103:PHE:HE2	1:C:1215:MET:HG2	1.85	0.42
1:C:2849:TYR:HB3	1:C:2886:ASP:HB3	2.02	0.42
1:C:3714:SER:N	1:C:3718:LYS:HZ1	2.18	0.42
1:C:3767:LEU:HD21	1:C:3774:VAL:HB	2.02	0.42
1:C:3876:VAL:O	1:C:3879:LEU:HG	2.20	0.42
1:C:4713:VAL:O	1:C:4716:THR:OG1	2.35	0.42
1:E:49:LEU:HD23	1:E:49:LEU:HA	1.90	0.42
1:E:709:GLY:N	1:E:840:TYR:OH	2.52	0.42
1:E:904:TYR:HD1	1:E:918:LEU:H	1.66	0.42
1:E:1518:LEU:HD23	1:E:1531:TYR:HB2	2.02	0.42
1:E:1770:SER:OG	2:F:54:GLU:OE2	2.34	0.42
1:E:3905:ARG:O	1:E:3908:SER:OG	2.34	0.42
1:E:4865:GLY:HA2	1:G:4868:ILE:HD13	2.02	0.42
1:G:850:LEU:HB2	1:G:1213:GLY:N	2.34	0.42
1:G:3896:LYS:HB2	1:G:3896:LYS:HE2	1.73	0.42
1:G:4027:LEU:HD22	1:G:4056:HIS:CE1	2.54	0.42
1:G:4713:VAL:O	1:G:4716:THR:OG1	2.35	0.42
1:A:182:ILE:CG2	1:A:191:TYR:CD1	3.02	0.42
1:A:1308:ILE:HD12	1:A:1308:ILE:HA	1.85	0.42
1:A:2258:LEU:H	1:A:2258:LEU:HG	1.45	0.42
1:A:4486:ILE:HG23	1:A:4489:GLN:H	1.84	0.42
1:C:192:LEU:HD22	1:C:212:TRP:HE1	1.84	0.42
1:C:237:LEU:HB2	1:C:404:ASN:HB3	2.00	0.42
1:C:590:LYS:HB3	1:C:591:GLU:H	1.68	0.42
1:C:832:LEU:HD22	1:C:1617:TRP:CG	2.54	0.42
1:C:1654:HIS:O	1:C:1657:THR:OG1	2.21	0.42
1:C:1705:LEU:HD23	1:C:1705:LEU:HA	1.78	0.42
1:C:2124:LEU:O	1:C:2128:ARG:HG2	2.19	0.42
1:C:2213:LYS:HG2	1:C:2254:LEU:HD11	2.01	0.42
1:C:2256:LEU:HD12	1:C:3815:ALA:HB2	2.00	0.42
1:C:2718:LEU:HD23	1:C:2781:LYS:HZ2	1.85	0.42
1:C:3742:LEU:HD12	1:C:3742:LEU:HA	1.82	0.42
1:C:3790:PHE:O	1:C:3793:SER:OG	2.29	0.42
2:D:62:GLY:HA2	2:D:65:GLN:HB3	2.02	0.42
1:E:470:LEU:HD23	1:E:475:LYS:HG3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:846:TYR:OH	1:E:1222:SER:OG	2.25	0.42
1:E:850:LEU:HB2	1:E:1213:GLY:N	2.34	0.42
1:E:1261:VAL:HG23	1:E:1596:TRP:HH2	1.84	0.42
1:E:2830:SER:HB3	1:E:2895:LYS:HE3	2.01	0.42
1:E:4203:LEU:HD13	1:E:4203:LEU:HA	1.93	0.42
1:E:4754:LEU:H	1:E:4754:LEU:HG	1.67	0.42
1:G:257:ARG:HH2	1:G:272:ARG:HD3	1.84	0.42
1:G:300:VAL:HG13	1:G:420:ARG:HH21	1.84	0.42
1:G:544:ASN:HB2	1:G:547:ASN:HB2	2.01	0.42
1:G:629:GLN:HB3	1:G:1664:VAL:HG23	2.01	0.42
1:G:1308:ILE:HG22	1:G:1539:LEU:HB3	2.02	0.42
1:G:1843:LEU:HD23	1:G:1843:LEU:HA	1.84	0.42
1:G:2779:SER:HB2	1:G:2849:TYR:CZ	2.54	0.42
1:G:3958:LYS:H	1:G:3958:LYS:HG2	1.57	0.42
1:G:4139:ILE:HG13	1:G:4147:GLU:HB2	2.00	0.42
1:A:470:LEU:HD23	1:A:475:LYS:HG3	2.02	0.42
1:A:1996:GLN:HA	1:A:1997:LEU:HD23	2.01	0.42
1:A:2703:ASN:HB2	1:A:2705:GLN:HE21	1.85	0.42
1:A:2894:LEU:HA	1:A:2897:LEU:HD12	2.02	0.42
1:C:308:LEU:HD23	1:C:365:HIS:CD2	2.55	0.42
1:C:742:SER:OG	1:C:1472:GLU:OE2	2.38	0.42
1:C:2072:GLN:HE22	1:C:3647:LYS:HG3	1.84	0.42
1:C:2725:TYR:O	1:C:2729:SER:OG	2.27	0.42
1:C:2779:SER:HB2	1:C:2849:TYR:CZ	2.54	0.42
1:C:3699:SER:HB2	1:C:3731:ARG:HH21	1.84	0.42
1:C:3902:GLN:OE1	1:C:3905:ARG:NH2	2.52	0.42
1:C:4635:VAL:O	1:C:4638:THR:OG1	2.30	0.42
1:C:4865:GLY:CA	1:E:4868:ILE:CG1	2.90	0.42
2:D:67:SER:N	2:D:70:GLN:OE1	2.53	0.42
2:D:87:HIS:HA	2:D:88:PRO:HD3	1.87	0.42
1:E:731:HIS:CG	1:E:740:THR:HA	2.54	0.42
1:E:1539:LEU:HD12	1:E:1539:LEU:HA	1.93	0.42
1:E:1757:LEU:HD13	1:E:1757:LEU:HA	1.83	0.42
1:E:2114:VAL:O	1:E:2117:THR:OG1	2.25	0.42
1:E:2436:VAL:O	1:E:2466:LYS:NZ	2.50	0.42
1:E:2732:LYS:HD2	1:E:2732:LYS:HA	1.70	0.42
1:E:4007:SER:O	1:E:4007:SER:OG	2.29	0.42
1:G:797:GLY:O	1:G:1620:GLN:NE2	2.52	0.42
1:G:1117:TRP:HH2	1:G:1239:PHE:HZ	1.67	0.42
1:G:1261:VAL:HG23	1:G:1596:TRP:HH2	1.84	0.42
1:G:1271:THR:H	1:G:1289:SER:H	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2703:ASN:HB2	1:G:2705:GLN:HE21	1.85	0.42
1:G:3726:LEU:HD12	1:G:3726:LEU:HA	1.84	0.42
1:A:257:ARG:HH22	1:A:272:ARG:HD3	1.84	0.42
1:A:588:ILE:O	1:A:590:LYS:NZ	2.35	0.42
1:A:731:HIS:CG	1:A:740:THR:HA	2.54	0.42
1:A:1223:THR:O	1:A:1223:THR:OG1	2.36	0.42
1:A:1703:TYR:CD2	1:A:1820:PRO:HB2	2.52	0.42
1:A:2326:ILE:CB	1:G:207:PHE:CB	2.97	0.42
1:A:2849:TYR:HB3	1:A:2886:ASP:HB3	2.02	0.42
1:A:3714:SER:N	1:A:3718:LYS:HZ1	2.18	0.42
1:A:4027:LEU:HD22	1:A:4056:HIS:CE1	2.54	0.42
1:A:4598:LEU:HA	1:A:4601:PHE:HB3	2.02	0.42
2:B:67:SER:N	2:B:70:GLN:OE1	2.53	0.42
1:C:182:ILE:CG2	1:C:191:TYR:CD1	3.02	0.42
1:C:182:ILE:HG21	1:C:191:TYR:CD1	2.54	0.42
1:C:604:HIS:HA	1:C:1588:VAL:HB	2.02	0.42
1:C:991:SER:O	1:C:995:MET:N	2.48	0.42
1:C:1685:LEU:HA	1:C:1685:LEU:HD12	1.83	0.42
1:C:4504:ARG:HD2	1:C:4504:ARG:HA	1.82	0.42
1:C:4809:ASP:O	1:C:4812:THR:OG1	2.29	0.42
1:E:274:LEU:HD23	1:E:274:LEU:HA	1.80	0.42
1:E:995:MET:HA	1:E:998:LYS:HD2	2.01	0.42
1:E:1103:PHE:HE2	1:E:1215:MET:HG2	1.84	0.42
1:E:1570:LEU:HD12	1:E:1584:PRO:HD3	2.01	0.42
1:E:2130:LEU:HA	1:E:2130:LEU:HD23	1.84	0.42
1:E:2849:TYR:HB3	1:E:2886:ASP:HB3	2.02	0.42
1:E:3953:ALA:HA	1:E:4014:ILE:HG23	2.02	0.42
1:E:4506:LEU:HD13	1:E:4506:LEU:HA	1.87	0.42
1:G:37:LEU:HD13	1:G:203:VAL:HG21	2.01	0.42
1:G:442:ALA:N	1:G:443:SER:HA	2.34	0.42
1:G:604:HIS:HA	1:G:1588:VAL:HB	2.02	0.42
1:G:1428:TYR:HB3	1:G:1508:GLY:HA3	2.02	0.42
1:G:1570:LEU:HD12	1:G:1584:PRO:HD3	2.01	0.42
1:G:2124:LEU:O	1:G:2128:ARG:HG2	2.19	0.42
1:G:2264:GLU:O	1:G:2268:ARG:HG2	2.20	0.42
1:G:3876:VAL:O	1:G:3879:LEU:HG	2.20	0.42
1:G:3993:ASN:ND2	1:G:4110:MET:HA	2.35	0.42
1:G:4486:ILE:HG23	1:G:4489:GLN:H	1.84	0.42
1:G:4598:LEU:HA	1:G:4601:PHE:HB3	2.02	0.42
2:H:39:SER:HA	2:H:42:ARG:HH11	1.85	0.42
2:H:42:ARG:HD3	2:H:44:LYS:HD3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:37:LEU:HD13	1:A:203:VAL:HG21	2.01	0.41
1:A:629:GLN:HB3	1:A:1664:VAL:HG23	2.01	0.41
1:A:1259:LEU:O	1:A:1594:VAL:N	2.41	0.41
1:A:1261:VAL:HG23	1:A:1596:TRP:HH2	1.84	0.41
1:A:2714:ILE:HD13	1:A:2784:LEU:HD12	2.02	0.41
1:A:3767:LEU:HD21	1:A:3774:VAL:HB	2.02	0.41
1:A:3876:VAL:O	1:A:3879:LEU:HG	2.20	0.41
1:A:3993:ASN:ND2	1:A:4110:MET:HA	2.35	0.41
1:A:4118:THR:HA	1:A:4121:GLU:HG3	2.02	0.41
1:A:4746:ASP:OD2	1:A:4746:ASP:N	2.51	0.41
1:C:776:GLN:HB3	1:C:1470:GLY:H	1.84	0.41
1:C:1090:ALA:HA	1:C:1249:MET:HG3	2.01	0.41
1:C:2300:LEU:HB3	1:C:2399:LEU:HG	2.01	0.41
1:C:3993:ASN:ND2	1:C:4110:MET:HA	2.35	0.41
1:C:4185:GLU:O	1:C:4189:LEU:N	2.39	0.41
1:C:4907:GLU:OE1	1:C:4907:GLU:N	2.43	0.41
1:E:797:GLY:O	1:E:1620:GLN:NE2	2.52	0.41
1:E:1007:TRP:O	1:E:1011:ARG:N	2.53	0.41
1:E:1826:TYR:HD1	1:E:1910:LEU:HD13	1.85	0.41
1:E:2029:ARG:O	1:E:2032:SER:OG	2.30	0.41
1:E:2463:PRO:HB3	1:E:2519:ARG:NH1	2.35	0.41
1:E:3767:LEU:HD21	1:E:3774:VAL:HB	2.02	0.41
1:G:832:LEU:HD22	1:G:1617:TRP:CG	2.54	0.41
1:G:3631:GLU:OE1	1:G:3631:GLU:N	2.45	0.41
1:G:3953:ALA:HA	1:G:4014:ILE:HG23	2.02	0.41
1:G:4566:SER:O	1:G:4566:SER:OG	2.38	0.41
1:A:718:VAL:HG12	1:A:736:CYS:HA	2.01	0.41
1:A:783:ASN:HD21	1:A:1459:LEU:HB2	1.85	0.41
1:A:850:LEU:HB2	1:A:1213:GLY:N	2.34	0.41
1:A:1248:THR:O	1:A:1248:THR:OG1	2.36	0.41
1:A:2528:LEU:HD23	1:A:2528:LEU:HA	1.93	0.41
1:A:4189:LEU:HA	1:A:4189:LEU:HD23	1.84	0.41
1:C:37:LEU:HD13	1:C:203:VAL:HG21	2.01	0.41
1:C:211:LEU:HA	1:C:211:LEU:HD23	1.82	0.41
1:C:722:LEU:HD23	1:C:722:LEU:HA	1.69	0.41
1:C:783:ASN:HD21	1:C:1459:LEU:HB2	1.85	0.41
1:C:1132:GLU:O	1:C:1146:HIS:NE2	2.49	0.41
1:C:1308:ILE:HD12	1:C:1308:ILE:HA	1.85	0.41
1:C:2714:ILE:HD13	1:C:2784:LEU:HD12	2.02	0.41
1:C:2830:SER:HB3	1:C:2895:LYS:HE3	2.02	0.41
1:C:4796:LYS:N	1:C:4805:MET:O	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:11:ASP:OD1	2:D:67:SER:OG	2.25	0.41
2:D:79:ASP:OD1	2:D:79:ASP:N	2.48	0.41
1:E:37:LEU:HD13	1:E:203:VAL:HG21	2.01	0.41
1:E:1308:ILE:HG22	1:E:1539:LEU:HB3	2.02	0.41
1:E:3637:PHE:N	1:E:3638:GLU:OE1	2.53	0.41
1:E:3990:ASN:HB2	1:E:4109:HIS:CE1	2.55	0.41
1:E:3993:ASN:ND2	1:E:4110:MET:HA	2.35	0.41
1:E:4566:SER:O	1:E:4566:SER:OG	2.38	0.41
1:E:4598:LEU:HA	1:E:4601:PHE:HB3	2.02	0.41
2:F:16:PRO:HD3	2:F:67:SER:HA	2.02	0.41
1:G:1302:TYR:N	1:G:1543:VAL:O	2.52	0.41
1:G:1645:THR:OG1	1:G:1646:GLU:OE1	2.35	0.41
1:G:1718:ARG:NH2	1:G:1758:ARG:O	2.54	0.41
1:G:1926:ILE:HD12	1:G:1926:ILE:HA	1.80	0.41
1:G:2849:TYR:HB3	1:G:2886:ASP:HB3	2.02	0.41
1:G:3699:SER:HB2	1:G:3731:ARG:HH21	1.84	0.41
1:G:3886:ILE:HD12	1:G:3907:PHE:HE1	1.85	0.41
1:G:4506:LEU:HD13	1:G:4506:LEU:HA	1.86	0.41
1:G:4768:LEU:O	1:G:4771:THR:OG1	2.21	0.41
1:A:23:GLN:HG3	1:A:36:CYS:HB3	2.02	0.41
1:A:248:PRO:HG2	1:A:257:ARG:HA	2.02	0.41
1:A:1174:MET:HA	1:A:1191:ALA:H	1.84	0.41
2:B:62:GLY:HA2	2:B:65:GLN:HB3	2.02	0.41
1:C:24:CYS:O	1:C:35:LEU:N	2.50	0.41
1:C:850:LEU:HB2	1:C:1213:GLY:N	2.34	0.41
1:C:1012:ILE:HG23	1:C:1032:LEU:HB3	2.02	0.41
1:C:1518:LEU:HD23	1:C:1531:TYR:HB2	2.02	0.41
1:C:1718:ARG:NH2	1:C:1758:ARG:O	2.54	0.41
1:C:1996:GLN:HA	1:C:1997:LEU:HD23	2.01	0.41
1:C:3990:ASN:HB2	1:C:4109:HIS:CE1	2.56	0.41
1:C:4002:ASP:O	1:C:4006:GLU:CB	2.67	0.41
2:D:4:ILE:HG12	2:D:75:THR:H	1.85	0.41
1:E:1292:SER:HB2	1:E:1547:ALA:HB1	2.01	0.41
1:E:1692:LYS:HE2	1:E:1692:LYS:HB2	1.84	0.41
1:E:2065:GLU:O	1:E:2069:ARG:NH1	2.52	0.41
1:E:2127:ILE:HD12	1:E:2127:ILE:HA	1.85	0.41
1:E:2168:MET:SD	1:E:2169:HIS:N	2.94	0.41
1:E:3831:LEU:HA	1:E:3832:GLN:HA	1.67	0.41
1:E:4118:THR:HA	1:E:4121:GLU:HG3	2.02	0.41
2:F:73:LYS:HE2	2:F:73:LYS:HB3	1.92	0.41
1:G:583:PRO:O	1:G:587:ASN:ND2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:770:ILE:HD13	1:G:770:ILE:HA	1.90	0.41
1:G:1597:SER:O	1:G:1598:ARG:NH1	2.53	0.41
1:G:2300:LEU:HB3	1:G:2399:LEU:HG	2.02	0.41
1:G:3637:PHE:N	1:G:3638:GLU:OE1	2.53	0.41
2:H:4:ILE:HG12	2:H:75:THR:H	1.85	0.41
1:A:128:MET:HB2	1:A:149:LEU:HD22	2.02	0.41
1:A:291:TRP:HB2	1:A:343:ARG:HH21	1.83	0.41
1:A:498:VAL:HG21	1:A:536:LEU:HD11	2.02	0.41
1:A:742:SER:OG	1:A:1472:GLU:OE2	2.38	0.41
1:A:990:PRO:O	1:A:994:ALA:N	2.44	0.41
1:A:1141:LYS:HE2	1:A:1141:LYS:HB2	1.85	0.41
1:A:1226:TYR:HD1	1:A:1229:ILE:HD12	1.86	0.41
1:A:1597:SER:O	1:A:1598:ARG:NH1	2.53	0.41
1:A:1773:ASN:OD1	1:A:1777:GLN:NE2	2.32	0.41
1:A:2058:THR:O	1:A:2062:LEU:N	2.43	0.41
1:A:2431:GLY:N	1:A:2477:TYR:OH	2.51	0.41
1:A:3637:PHE:N	1:A:3638:GLU:OE1	2.53	0.41
1:C:355:LYS:H	1:C:355:LYS:HG3	1.69	0.41
1:C:894:VAL:HG22	1:C:918:LEU:HA	2.03	0.41
1:C:900:LEU:HD23	1:C:900:LEU:HA	1.90	0.41
1:C:1115:VAL:HA	1:C:1205:CYS:HA	2.03	0.41
1:C:2114:VAL:O	1:C:2117:THR:OG1	2.25	0.41
1:C:2436:VAL:O	1:C:2466:LYS:NZ	2.50	0.41
1:C:2463:PRO:HB3	1:C:2519:ARG:NH1	2.35	0.41
1:C:2623:CYS:HA	1:C:2677:LEU:HA	2.03	0.41
1:C:2703:ASN:HB2	1:C:2705:GLN:HE21	1.85	0.41
1:C:3886:ILE:HD12	1:C:3907:PHE:HE1	1.85	0.41
1:C:4598:LEU:HA	1:C:4601:PHE:HB3	2.02	0.41
2:D:23:VAL:HG12	2:D:104:LEU:HD12	2.03	0.41
1:E:498:VAL:HG21	1:E:536:LEU:HD11	2.02	0.41
1:E:718:VAL:HG12	1:E:736:CYS:HA	2.01	0.41
1:E:1718:ARG:NH2	1:E:1758:ARG:O	2.54	0.41
1:E:2883:LYS:HA	1:E:2883:LYS:HD2	1.85	0.41
1:E:4037:ASP:OD1	1:E:4037:ASP:N	2.53	0.41
1:E:4486:ILE:HG23	1:E:4489:GLN:H	1.84	0.41
1:G:601:LEU:HD11	1:G:607:ASN:H	1.85	0.41
1:G:742:SER:OG	1:G:1472:GLU:OE2	2.38	0.41
1:G:1226:TYR:HD1	1:G:1229:ILE:HD12	1.86	0.41
1:G:1518:LEU:HD23	1:G:1531:TYR:HB2	2.02	0.41
1:G:2065:GLU:O	1:G:2069:ARG:NH1	2.52	0.41
1:G:2835:SER:O	1:G:2839:HIS:N	2.42	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:130:LEU:HA	1:A:149:LEU:HD23	2.03	0.41
1:A:434:ASP:O	1:A:437:SER:OG	2.30	0.41
1:A:495:ILE:HG13	1:A:496:ASN:H	1.84	0.41
1:A:601:LEU:HD11	1:A:607:ASN:H	1.85	0.41
1:A:2135:MET:HA	1:A:2136:GLY:HA3	1.77	0.41
1:A:3726:LEU:HD12	1:A:3726:LEU:HA	1.84	0.41
1:A:3953:ALA:HA	1:A:4014:ILE:HG23	2.02	0.41
1:A:4115:ARG:HA	1:A:4118:THR:HG22	2.03	0.41
1:A:4511:ALA:HA	1:A:4514:ILE:HD12	2.02	0.41
2:B:44:LYS:HA	2:B:45:PRO:HD3	1.90	0.41
1:C:1007:TRP:O	1:C:1011:ARG:N	2.53	0.41
1:C:1117:TRP:HE3	1:C:1201:PHE:HB3	1.84	0.41
1:C:1226:TYR:HD1	1:C:1229:ILE:HD12	1.86	0.41
1:C:1261:VAL:HG23	1:C:1596:TRP:HH2	1.84	0.41
1:C:2077:GLU:OE1	1:C:2077:GLU:N	2.54	0.41
1:C:2894:LEU:HA	1:C:2897:LEU:HD12	2.02	0.41
1:C:3916:GLN:O	1:C:3920:THR:HG23	2.21	0.41
1:C:4892:CYS:SG	1:C:4893:GLY:N	2.94	0.41
2:D:16:PRO:HD3	2:D:67:SER:HA	2.02	0.41
1:E:190:ARG:HH12	1:G:2423:ILE:HG13	1.86	0.41
1:E:583:PRO:O	1:E:587:ASN:ND2	2.53	0.41
1:E:742:SER:OG	1:E:1472:GLU:OE2	2.38	0.41
1:E:1012:ILE:HG23	1:E:1032:LEU:HB3	2.02	0.41
1:E:1171:HIS:ND1	1:E:1195:PHE:O	2.53	0.41
1:E:2213:LYS:HG2	1:E:2254:LEU:HD11	2.01	0.41
1:E:2264:GLU:O	1:E:2268:ARG:HG2	2.20	0.41
1:E:2623:CYS:HA	1:E:2677:LEU:HA	2.03	0.41
1:E:3690:MET:H	1:E:3690:MET:HG2	1.44	0.41
1:E:3805:ASP:OD2	1:E:3808:ALA:N	2.37	0.41
1:E:3902:GLN:OE1	1:E:3905:ARG:NH2	2.52	0.41
1:E:3916:GLN:O	1:E:3920:THR:HG23	2.21	0.41
1:G:23:GLN:HG3	1:G:36:CYS:HB3	2.02	0.41
1:G:599:SER:O	1:G:603:LYS:HG2	2.21	0.41
1:G:673:TRP:HA	1:G:820:ALA:HB3	2.03	0.41
1:G:1115:VAL:HA	1:G:1205:CYS:HA	2.03	0.41
1:G:1640:ASP:OD2	1:G:1643:GLU:N	2.37	0.41
1:G:2723:ASN:OD1	1:G:2761:TYR:OH	2.31	0.41
1:G:3990:ASN:HB2	1:G:4109:HIS:CE1	2.55	0.41
1:G:4115:ARG:HA	1:G:4118:THR:HG22	2.03	0.41
2:H:23:VAL:HG12	2:H:104:LEU:HD12	2.03	0.41
1:A:1117:TRP:HH2	1:A:1239:PHE:HZ	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1718:ARG:NH2	1:A:1758:ARG:O	2.54	0.41
1:A:1843:LEU:HD23	1:A:1843:LEU:HA	1.84	0.41
1:A:2300:LEU:HB3	1:A:2399:LEU:HG	2.02	0.41
1:A:2896:PHE:HA	1:A:2899:ILE:HB	2.03	0.41
1:A:3886:ILE:HD12	1:A:3907:PHE:HE1	1.85	0.41
1:A:4124:GLU:HA	1:A:4127:LEU:HD23	2.03	0.41
2:B:16:PRO:HD3	2:B:67:SER:HA	2.02	0.41
2:B:42:ARG:HD3	2:B:44:LYS:HD3	2.01	0.41
1:C:659:ILE:HG21	1:C:825:ALA:HB1	2.03	0.41
1:C:1171:HIS:ND1	1:C:1195:PHE:O	2.53	0.41
1:C:1234:GLU:OE1	1:C:1234:GLU:N	2.54	0.41
1:C:1292:SER:HB2	1:C:1547:ALA:HB1	2.01	0.41
1:C:1826:TYR:HD1	1:C:1910:LEU:HD13	1.85	0.41
1:C:2201:LEU:HD23	1:C:2201:LEU:HA	1.82	0.41
1:C:3958:LYS:H	1:C:3958:LYS:HG2	1.57	0.41
1:C:4124:GLU:HA	1:C:4127:LEU:HD23	2.03	0.41
1:E:486:GLN:NE2	1:E:544:ASN:H	2.17	0.41
1:E:894:VAL:HG22	1:E:918:LEU:HA	2.03	0.41
1:E:1226:TYR:HD1	1:E:1229:ILE:HD12	1.86	0.41
1:E:2140:GLU:H	1:E:2140:GLU:HG2	1.60	0.41
1:E:2703:ASN:OD1	1:E:2703:ASN:N	2.51	0.41
1:E:3886:ILE:HD12	1:E:3907:PHE:HE1	1.85	0.41
1:E:4206:GLN:OE1	1:E:4206:GLN:N	2.50	0.41
1:E:4892:CYS:SG	1:E:4893:GLY:N	2.94	0.41
1:E:4935:THR:O	1:E:4939:SER:OG	2.35	0.41
1:G:130:LEU:HA	1:G:149:LEU:HD23	2.03	0.41
1:G:331:PHE:HD1	1:G:331:PHE:HA	1.75	0.41
1:G:730:LEU:HG	1:G:770:ILE:HG13	2.03	0.41
1:G:2168:MET:SD	1:G:2169:HIS:N	2.94	0.41
1:G:2264:GLU:HA	1:G:2267:VAL:HG12	2.02	0.41
1:G:2463:PRO:HB3	1:G:2519:ARG:NH1	2.35	0.41
1:A:675:TYR:CZ	1:A:790:PRO:HB3	2.56	0.41
1:A:1171:HIS:ND1	1:A:1195:PHE:O	2.54	0.41
1:A:1826:TYR:HD1	1:A:1910:LEU:HD13	1.85	0.41
1:A:2861:LEU:HD13	1:A:2868:ASN:HA	2.03	0.41
1:A:3990:ASN:HB2	1:A:4109:HIS:CE1	2.55	0.41
1:A:4920:LEU:O	1:A:4924:MET:HG3	2.21	0.41
1:C:583:PRO:O	1:C:587:ASN:ND2	2.53	0.41
1:C:629:GLN:HB3	1:C:1664:VAL:HG23	2.01	0.41
1:C:1001:GLU:HA	1:C:1035:TYR:CG	2.56	0.41
1:C:1445:TRP:HE3	1:C:1539:LEU:HG	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1903:VAL:H	1:C:1903:VAL:HG23	1.65	0.41
1:C:2264:GLU:HA	1:C:2267:VAL:HG12	2.02	0.41
1:C:2861:LEU:HD13	1:C:2868:ASN:HA	2.03	0.41
1:C:2896:PHE:HA	1:C:2899:ILE:HB	2.03	0.41
1:C:4115:ARG:HA	1:C:4118:THR:HG22	2.03	0.41
1:C:4118:THR:HA	1:C:4121:GLU:HG3	2.02	0.41
2:D:39:SER:HA	2:D:42:ARG:HH11	1.85	0.41
1:E:23:GLN:HG3	1:E:36:CYS:HB3	2.02	0.41
1:E:290:ARG:HH21	1:E:343:ARG:HD2	1.86	0.41
1:E:308:LEU:HD23	1:E:365:HIS:CD2	2.55	0.41
1:E:1228:THR:HA	1:E:1232:LEU:HD12	2.03	0.41
1:E:1234:GLU:OE1	1:E:1234:GLU:N	2.54	0.41
1:E:2300:LEU:HB3	1:E:2399:LEU:HG	2.01	0.41
1:E:2513:MET:H	1:E:2513:MET:HG2	1.60	0.41
1:E:2894:LEU:HD22	1:E:2904:VAL:HG11	2.03	0.41
2:F:15:PHE:HA	2:F:67:SER:HA	2.01	0.41
2:F:39:SER:HA	2:F:42:ARG:HH11	1.85	0.41
1:G:319:LYS:H	1:G:319:LYS:HG3	1.59	0.41
1:G:1171:HIS:ND1	1:G:1195:PHE:O	2.53	0.41
1:G:1304:LEU:HD23	1:G:1304:LEU:HA	1.79	0.41
1:G:2267:VAL:HG23	1:G:2270:LEU:HD12	2.03	0.41
1:G:2623:CYS:HA	1:G:2677:LEU:HA	2.03	0.41
1:G:2714:ILE:HD13	1:G:2784:LEU:HD12	2.02	0.41
1:G:3916:GLN:O	1:G:3920:THR:HG23	2.21	0.41
1:G:4892:CYS:SG	1:G:4893:GLY:N	2.94	0.41
2:H:67:SER:N	2:H:70:GLN:OE1	2.53	0.41
1:A:732:LEU:H	1:A:732:LEU:HG	1.62	0.41
1:A:1234:GLU:OE1	1:A:1234:GLU:N	2.54	0.41
1:A:1308:ILE:HG22	1:A:1539:LEU:HB3	2.02	0.41
1:A:1428:TYR:HB3	1:A:1508:GLY:HA3	2.02	0.41
1:A:2330:GLU:O	1:A:2393:TYR:OH	2.34	0.41
1:A:2423:ILE:HG13	1:G:190:ARG:HH12	1.86	0.41
1:A:3748:SER:OG	1:A:3751:GLU:O	2.39	0.41
2:B:15:PHE:HA	2:B:67:SER:HA	2.02	0.41
1:C:694:ARG:HG2	1:C:716:ASN:HB3	2.03	0.41
1:C:1757:LEU:HD13	1:C:1757:LEU:HA	1.83	0.41
1:C:3726:LEU:HD12	1:C:3726:LEU:HA	1.84	0.41
1:C:3959:LEU:HD23	1:C:3959:LEU:HA	1.95	0.41
1:E:673:TRP:HA	1:E:820:ALA:HB3	2.03	0.41
1:E:730:LEU:HG	1:E:770:ILE:HG13	2.03	0.41
1:E:850:LEU:HD22	1:E:1207:LEU:HD11	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1445:TRP:HE3	1:E:1539:LEU:HG	1.86	0.41
1:E:3724:LYS:HD3	1:E:3724:LYS:HA	1.96	0.41
1:G:248:PRO:HG2	1:G:257:ARG:HA	2.02	0.41
1:G:732:LEU:H	1:G:732:LEU:HG	1.62	0.41
1:G:802:PHE:N	1:G:1616:GLY:O	2.51	0.41
1:G:1228:THR:HA	1:G:1232:LEU:HD12	2.03	0.41
1:G:1259:LEU:O	1:G:1594:VAL:N	2.41	0.41
1:G:3714:SER:N	1:G:3718:LYS:HZ1	2.18	0.41
1:G:3936:LEU:HD13	1:G:3936:LEU:HA	1.89	0.41
1:G:4124:GLU:HA	1:G:4127:LEU:HD23	2.03	0.41
1:G:4511:ALA:HA	1:G:4514:ILE:HD12	2.02	0.41
1:A:308:LEU:HD23	1:A:365:HIS:CD2	2.55	0.41
1:A:599:SER:O	1:A:603:LYS:HG2	2.21	0.41
1:A:659:ILE:HG21	1:A:825:ALA:HB1	2.03	0.41
1:A:694:ARG:HG2	1:A:716:ASN:HB3	2.03	0.41
1:A:722:LEU:HD23	1:A:722:LEU:HA	1.69	0.41
1:A:773:GLN:HA	1:A:774:PRO:HD3	1.95	0.41
1:A:2264:GLU:HA	1:A:2267:VAL:HG12	2.02	0.41
1:A:2267:VAL:HG23	1:A:2270:LEU:HD12	2.03	0.41
1:A:2794:ARG:H	1:A:2794:ARG:HG3	1.72	0.41
1:A:3742:LEU:HD12	1:A:3742:LEU:HA	1.82	0.41
1:A:3993:ASN:HD22	1:A:3993:ASN:HA	1.68	0.41
1:A:4721:LEU:HD23	1:A:4721:LEU:HA	1.91	0.41
1:C:246:THR:HG23	1:C:261:HIS:HD2	1.86	0.41
1:C:248:PRO:HG2	1:C:257:ARG:HA	2.02	0.41
1:C:498:VAL:HG21	1:C:536:LEU:HD11	2.02	0.41
1:C:675:TYR:CZ	1:C:790:PRO:HB3	2.56	0.41
1:C:729:GLY:N	1:C:747:HIS:O	2.48	0.41
1:C:990:PRO:O	1:C:994:ALA:N	2.44	0.41
1:C:1228:THR:HA	1:C:1232:LEU:HD12	2.03	0.41
1:C:1445:TRP:N	1:C:1487:MET:O	2.47	0.41
1:C:1810:VAL:HB	1:C:1817:LEU:HD13	2.02	0.41
1:C:2168:MET:SD	1:C:2169:HIS:N	2.94	0.41
1:C:2723:ASN:OD1	1:C:2761:TYR:OH	2.31	0.41
1:C:3953:ALA:HA	1:C:4014:ILE:HG23	2.02	0.41
1:C:4523:VAL:CG2	1:C:4558:VAL:O	2.59	0.41
1:C:4865:GLY:HA2	1:E:4868:ILE:HD13	2.03	0.41
2:D:15:PHE:HA	2:D:67:SER:HA	2.01	0.41
1:E:122:ARG:NE	1:E:127:GLY:O	2.54	0.41
1:E:279:THR:O	1:E:296:ARG:NH2	2.36	0.41
1:E:544:ASN:HB2	1:E:547:ASN:HB2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:565:LEU:HD21	1:E:603:LYS:HB3	2.03	0.41
1:E:599:SER:O	1:E:603:LYS:HG2	2.21	0.41
1:E:613:VAL:O	1:E:616:SER:OG	2.28	0.41
1:E:1001:GLU:HA	1:E:1035:TYR:CG	2.56	0.41
1:E:1597:SER:O	1:E:1598:ARG:NH1	2.53	0.41
1:E:3671:LEU:O	1:E:3675:THR:OG1	2.29	0.41
1:E:3729:GLN:NE2	1:E:3766:ILE:O	2.45	0.41
1:E:3748:SER:OG	1:E:3751:GLU:O	2.39	0.41
1:E:3783:LYS:HA	1:E:3783:LYS:HD2	1.66	0.41
1:E:3915:LYS:HE3	1:E:3915:LYS:HB3	1.87	0.41
1:E:4115:ARG:HA	1:E:4118:THR:HG22	2.03	0.41
1:E:4124:GLU:HA	1:E:4127:LEU:HD23	2.03	0.41
2:F:23:VAL:HG12	2:F:104:LEU:HD12	2.03	0.41
2:F:67:SER:N	2:F:70:GLN:OE1	2.53	0.41
1:G:128:MET:HB2	1:G:149:LEU:HD22	2.02	0.41
1:G:565:LEU:HD21	1:G:603:LYS:HB3	2.03	0.41
1:G:675:TYR:CZ	1:G:790:PRO:HB3	2.56	0.41
1:G:694:ARG:HG2	1:G:716:ASN:HB3	2.03	0.41
1:G:894:VAL:HG22	1:G:918:LEU:HA	2.03	0.41
1:G:1001:GLU:HA	1:G:1035:TYR:CG	2.56	0.41
1:G:1753:LEU:HB3	1:G:1754:SER:H	1.73	0.41
1:G:2067:MET:HA	1:G:2070:TRP:CE3	2.56	0.41
1:G:2088:LEU:HD23	1:G:2088:LEU:HA	1.95	0.41
1:G:2495:PRO:O	1:G:2499:ALA:HB2	2.21	0.41
1:G:2883:LYS:HD2	1:G:2883:LYS:HA	1.85	0.41
1:G:3627:LYS:HA	1:G:3627:LYS:HD2	1.86	0.41
1:G:3677:LEU:HD23	1:G:3677:LEU:HA	1.81	0.41
1:G:4118:THR:HA	1:G:4121:GLU:HG3	2.02	0.41
2:H:15:PHE:HA	2:H:67:SER:HA	2.01	0.41
1:A:25:THR:HG22	1:A:34:LYS:HG2	2.03	0.41
1:A:365:HIS:CE1	1:A:367:GLY:H	2.39	0.41
1:A:894:VAL:HG22	1:A:918:LEU:HA	2.03	0.41
1:A:1156:TRP:CH2	1:A:1158:ALA:HA	2.56	0.41
1:A:1228:THR:HA	1:A:1232:LEU:HD12	2.03	0.41
1:A:1810:VAL:HB	1:A:1817:LEU:HD13	2.02	0.41
1:A:2024:LEU:HD13	1:A:2026:ILE:HD13	2.03	0.41
1:A:2463:PRO:HB3	1:A:2519:ARG:NH1	2.35	0.41
2:B:4:ILE:HG12	2:B:75:THR:H	1.85	0.41
1:C:23:GLN:HG3	1:C:36:CYS:HB3	2.02	0.41
1:C:25:THR:HG22	1:C:34:LYS:HG2	2.03	0.41
1:C:122:ARG:NE	1:C:127:GLY:O	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:299:HIS:N	1:C:304:LYS:O	2.47	0.41
1:C:374:TYR:OH	1:C:400:ASP:OD2	2.27	0.41
1:C:403:LEU:HD23	1:C:403:LEU:HA	1.92	0.41
1:C:601:LEU:HD11	1:C:607:ASN:H	1.85	0.41
1:C:614:LEU:HB2	1:C:1660:LEU:HD11	2.03	0.41
1:C:632:ILE:HD13	1:C:632:ILE:HA	1.91	0.41
1:C:1302:TYR:N	1:C:1543:VAL:O	2.52	0.41
1:C:1790:LYS:HD2	1:C:1790:LYS:HA	1.92	0.41
1:C:3637:PHE:N	1:C:3638:GLU:OE1	2.53	0.41
1:E:191:TYR:CE2	1:G:2327:ARG:NH2	2.89	0.41
1:E:1156:TRP:CH2	1:E:1158:ALA:HA	2.56	0.41
1:E:1302:TYR:N	1:E:1543:VAL:O	2.52	0.41
1:E:1522:ALA:N	1:E:1525:LYS:O	2.38	0.41
1:E:2067:MET:HA	1:E:2070:TRP:CE3	2.56	0.41
1:E:2080:GLU:H	1:E:2080:GLU:CD	2.25	0.41
2:F:16:PRO:HG3	2:F:103:LEU:HD22	2.04	0.41
1:G:246:THR:HG23	1:G:261:HIS:HD2	1.86	0.41
1:G:308:LEU:HD23	1:G:365:HIS:CD2	2.55	0.41
1:G:424:PHE:O	1:G:428:ARG:NE	2.35	0.41
1:G:894:VAL:HA	1:G:918:LEU:HD22	2.02	0.41
1:G:1038:LEU:O	1:G:1043:LYS:NZ	2.37	0.41
1:G:1576:LYS:HD2	1:G:1576:LYS:HA	1.77	0.41
1:G:1705:LEU:HD23	1:G:1705:LEU:HA	1.78	0.41
1:A:61:ASP:OD1	1:A:63:SER:N	2.54	0.40
1:A:299:HIS:N	1:A:304:LYS:O	2.47	0.40
1:A:604:HIS:HA	1:A:1588:VAL:HB	2.02	0.40
1:A:614:LEU:HB2	1:A:1660:LEU:HD11	2.03	0.40
1:A:894:VAL:HA	1:A:918:LEU:HD22	2.02	0.40
1:A:3954:HIS:O	1:A:3958:LYS:NZ	2.45	0.40
1:A:4631:TRP:CZ2	1:A:4712:GLY:HA3	2.56	0.40
1:A:4871:PHE:HD1	1:A:4871:PHE:HA	1.76	0.40
2:B:39:SER:HA	2:B:42:ARG:HH11	1.85	0.40
2:B:74:LEU:O	2:B:99:PHE:N	2.39	0.40
1:C:130:LEU:HA	1:C:149:LEU:HD23	2.03	0.40
1:C:565:LEU:HD21	1:C:603:LYS:HB3	2.03	0.40
1:C:734:SER:OG	1:C:739:ARG:NH1	2.45	0.40
1:C:973:THR:OG1	1:C:976:TYR:O	2.36	0.40
1:C:1156:TRP:CH2	1:C:1158:ALA:HA	2.56	0.40
1:C:1308:ILE:HG22	1:C:1539:LEU:HB3	2.02	0.40
1:C:1428:TYR:HB3	1:C:1508:GLY:HA3	2.02	0.40
1:C:1707:ILE:HA	1:C:1711:LEU:HD12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2067:MET:HA	1:C:2070:TRP:CE3	2.56	0.40
1:C:2543:ALA:HA	1:C:2873:VAL:HG21	2.03	0.40
1:C:2840:ALA:HB3	1:C:2906:ARG:HD3	2.04	0.40
2:D:17:LYS:HE3	2:D:17:LYS:HB3	1.82	0.40
1:E:25:THR:HG22	1:E:34:LYS:HG2	2.03	0.40
1:E:128:MET:HB2	1:E:149:LEU:HD22	2.02	0.40
1:E:505:LEU:HD22	1:E:526:TRP:CD1	2.56	0.40
1:E:659:ILE:HG21	1:E:825:ALA:HB1	2.03	0.40
1:E:675:TYR:CZ	1:E:790:PRO:HB3	2.56	0.40
1:E:694:ARG:HG2	1:E:716:ASN:HB3	2.03	0.40
1:E:1428:TYR:HB3	1:E:1508:GLY:HA3	2.02	0.40
1:E:2166:LEU:HA	1:E:2166:LEU:HD23	1.88	0.40
1:G:122:ARG:NE	1:G:127:GLY:O	2.54	0.40
1:G:694:ARG:O	1:G:793:SER:N	2.41	0.40
1:G:2080:GLU:H	1:G:2080:GLU:CD	2.25	0.40
1:G:2769:LYS:O	1:G:2773:ARG:N	2.44	0.40
1:G:2894:LEU:HD22	1:G:2904:VAL:HG11	2.03	0.40
1:G:4631:TRP:CZ2	1:G:4712:GLY:HA3	2.56	0.40
1:G:4636:ILE:H	1:G:4636:ILE:HG13	1.72	0.40
2:H:62:GLY:HA2	2:H:65:GLN:HB3	2.02	0.40
1:A:583:PRO:O	1:A:587:ASN:ND2	2.54	0.40
1:A:953:SER:OG	1:A:1061:GLY:O	2.32	0.40
1:A:1258:PHE:HA	1:A:1595:LEU:HA	2.04	0.40
1:A:4892:CYS:SG	1:A:4893:GLY:N	2.94	0.40
1:A:4905:GLY:O	1:A:4909:HIS:N	2.42	0.40
1:C:365:HIS:CE1	1:C:367:GLY:H	2.39	0.40
1:C:599:SER:O	1:C:603:LYS:HG2	2.21	0.40
1:C:1942:ARG:HD3	1:C:1942:ARG:HA	1.91	0.40
1:C:2794:ARG:H	1:C:2794:ARG:HG3	1.72	0.40
1:C:3677:LEU:HD23	1:C:3677:LEU:HA	1.81	0.40
1:C:3784:GLU:HB2	1:C:3785:LYS:HZ1	1.86	0.40
1:C:4082:GLU:HG3	1:C:4086:LYS:HB2	2.04	0.40
1:C:4120:LEU:HD23	1:C:4120:LEU:HA	1.97	0.40
1:C:4198:ILE:HD13	1:C:4198:ILE:HA	1.87	0.40
1:C:4920:LEU:O	1:C:4924:MET:HG3	2.21	0.40
1:E:130:LEU:HA	1:E:149:LEU:HD23	2.03	0.40
1:E:601:LEU:HD11	1:E:607:ASN:H	1.85	0.40
1:E:2714:ILE:HD13	1:E:2784:LEU:HD12	2.02	0.40
1:E:3958:LYS:H	1:E:3958:LYS:HG2	1.57	0.40
1:E:4511:ALA:HA	1:E:4514:ILE:HD12	2.02	0.40
1:E:4615:GLY:O	1:E:4619:THR:OG1	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:39:ALA:HB1	1:G:149:LEU:HD11	2.03	0.40
1:G:266:ALA:HB1	1:G:269:VAL:HB	2.04	0.40
1:G:290:ARG:HH21	1:G:343:ARG:HD2	1.86	0.40
1:G:365:HIS:CE1	1:G:367:GLY:H	2.39	0.40
1:G:464:HIS:HD2	1:G:478:ARG:HH22	1.70	0.40
1:G:1826:TYR:HD1	1:G:1910:LEU:HD13	1.85	0.40
1:G:1936:LYS:O	1:G:1940:ASN:ND2	2.39	0.40
1:G:1942:ARG:HA	1:G:1942:ARG:HD3	1.91	0.40
1:G:2896:PHE:HA	1:G:2899:ILE:HB	2.03	0.40
1:G:4635:VAL:O	1:G:4638:THR:OG1	2.30	0.40
1:G:4736:ASN:ND2	1:G:4738:PHE:HB2	2.37	0.40
1:A:850:LEU:HD22	1:A:1207:LEU:HD11	2.03	0.40
1:A:1233:GLN:H	1:A:1233:GLN:HG3	1.73	0.40
1:A:1445:TRP:HE3	1:A:1539:LEU:HG	1.86	0.40
1:A:2521:LEU:HD23	1:A:2521:LEU:HA	1.96	0.40
1:A:2894:LEU:HD22	1:A:2904:VAL:HG11	2.03	0.40
2:B:23:VAL:HG12	2:B:104:LEU:HD12	2.03	0.40
1:C:190:ARG:HH12	1:E:2423:ILE:HG13	1.85	0.40
1:C:2026:ILE:HG13	1:C:2029:ARG:HH22	1.87	0.40
1:C:3785:LYS:H	1:C:3785:LYS:HG2	1.71	0.40
1:C:4844:ARG:NH1	1:C:4847:PHE:HB3	2.37	0.40
1:E:39:ALA:HB1	1:E:149:LEU:HD11	2.03	0.40
1:E:464:HIS:HD2	1:E:478:ARG:HH22	1.70	0.40
1:E:614:LEU:HB2	1:E:1660:LEU:HD11	2.03	0.40
1:E:990:PRO:O	1:E:994:ALA:N	2.44	0.40
1:E:1157:GLN:NE2	1:E:1158:ALA:H	2.20	0.40
1:E:2024:LEU:HD13	1:E:2026:ILE:HD13	2.03	0.40
1:E:4655:MET:HE2	1:E:4671:LEU:HD12	2.03	0.40
1:G:14:LEU:HB2	1:G:113:LEU:HB2	2.04	0.40
1:G:73:LEU:HD23	1:G:73:LEU:HA	1.97	0.40
1:G:659:ILE:HG21	1:G:825:ALA:HB1	2.03	0.40
1:G:850:LEU:HD22	1:G:1207:LEU:HD11	2.03	0.40
1:G:1709:ILE:HD13	1:G:1709:ILE:HA	1.87	0.40
1:G:2026:ILE:HG13	1:G:2029:ARG:HH22	1.87	0.40
1:G:2431:GLY:N	1:G:2477:TYR:OH	2.51	0.40
1:G:2841:MET:HE2	1:G:2841:MET:HB3	2.01	0.40
1:G:4746:ASP:OD2	1:G:4746:ASP:N	2.51	0.40
1:A:290:ARG:HH21	1:A:343:ARG:HD2	1.86	0.40
1:A:730:LEU:HG	1:A:770:ILE:HG13	2.02	0.40
1:A:1001:GLU:HA	1:A:1035:TYR:CG	2.56	0.40
1:A:2026:ILE:HG13	1:A:2029:ARG:HH22	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2086:PHE:O	1:A:3692:TYR:OH	2.24	0.40
1:A:2166:LEU:HD23	1:A:2166:LEU:HA	1.88	0.40
1:A:2167:GLY:HA2	1:A:2169:HIS:CE1	2.57	0.40
1:A:2168:MET:SD	1:A:2169:HIS:N	2.94	0.40
1:A:2345:LEU:HD12	1:A:2348:MET:HG3	2.04	0.40
1:A:2876:ASP:N	1:A:2876:ASP:OD1	2.36	0.40
1:A:3729:GLN:O	1:A:3733:HIS:ND1	2.36	0.40
1:A:3936:LEU:HD13	1:A:3936:LEU:HA	1.89	0.40
1:C:61:ASP:OD1	1:C:63:SER:OG	2.38	0.40
1:C:128:MET:HB2	1:C:149:LEU:HD22	2.02	0.40
1:C:266:ALA:HB1	1:C:269:VAL:HB	2.04	0.40
1:C:1258:PHE:HA	1:C:1595:LEU:HA	2.04	0.40
1:C:2011:GLU:O	1:C:3629:TRP:NE1	2.55	0.40
1:C:2024:LEU:HD13	1:C:2026:ILE:HD13	2.03	0.40
1:C:2140:GLU:H	1:C:2140:GLU:HG2	1.61	0.40
1:C:3731:ARG:HH11	1:C:3731:ARG:HD3	1.77	0.40
1:E:433:LEU:HD13	1:E:504:ARG:HB3	2.04	0.40
1:E:897:LYS:HB3	1:E:897:LYS:HE3	1.86	0.40
1:E:1843:LEU:HD23	1:E:1843:LEU:HA	1.84	0.40
1:E:2135:MET:HA	1:E:2136:GLY:HA3	1.77	0.40
1:E:2495:PRO:O	1:E:2499:ALA:HB2	2.21	0.40
1:E:2543:ALA:HA	1:E:2873:VAL:HG21	2.03	0.40
1:E:2703:ASN:HB2	1:E:2705:GLN:HE21	1.85	0.40
1:E:2840:ALA:HB3	1:E:2906:ARG:HD3	2.03	0.40
1:E:4729:MET:HB3	1:E:4743:HIS:CD2	2.57	0.40
1:G:262:TYR:CE2	1:G:374:TYR:HB3	2.56	0.40
1:G:433:LEU:HD13	1:G:504:ARG:HB3	2.04	0.40
1:G:498:VAL:HG21	1:G:536:LEU:HD11	2.02	0.40
1:G:505:LEU:HD22	1:G:526:TRP:CD1	2.56	0.40
1:G:626:ARG:HE	1:G:626:ARG:HB3	1.70	0.40
1:G:716:ASN:HD22	1:G:793:SER:HB3	1.86	0.40
1:G:1703:TYR:CD2	1:G:1820:PRO:HB2	2.52	0.40
1:G:2024:LEU:HD13	1:G:2026:ILE:HD13	2.03	0.40
1:G:2110:ASN:OD1	1:G:2113:SER:OG	2.30	0.40
1:G:2523:THR:HA	1:G:2526:LEU:HD12	2.04	0.40
1:G:3992:VAL:HG13	1:G:3993:ASN:H	1.87	0.40
2:H:16:PRO:HG3	2:H:103:LEU:HD22	2.03	0.40
1:A:466:PRO:HA	1:A:478:ARG:NH1	2.37	0.40
1:A:1012:ILE:HG23	1:A:1032:LEU:HB3	2.02	0.40
1:A:1115:VAL:HA	1:A:1205:CYS:HA	2.03	0.40
1:A:1904:LYS:HA	1:A:1907:MET:HB3	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2011:GLU:O	1:A:3629:TRP:NE1	2.55	0.40
1:A:2623:CYS:HA	1:A:2677:LEU:HA	2.03	0.40
1:A:3805:ASP:OD2	1:A:3808:ALA:N	2.37	0.40
1:A:3831:LEU:HA	1:A:3832:GLN:HA	1.67	0.40
1:A:4611:LEU:HD23	1:A:4611:LEU:HA	1.93	0.40
1:C:433:LEU:HD13	1:C:504:ARG:HB3	2.04	0.40
1:C:505:LEU:HD22	1:C:526:TRP:CD1	2.57	0.40
1:C:730:LEU:HG	1:C:770:ILE:HG13	2.03	0.40
1:C:2523:THR:HA	1:C:2526:LEU:HD12	2.04	0.40
1:C:3992:VAL:HG13	1:C:3993:ASN:H	1.87	0.40
1:C:4511:ALA:HA	1:C:4514:ILE:HD12	2.02	0.40
1:E:150:GLN:NE2	1:E:152:ASP:O	2.55	0.40
1:E:246:THR:HG23	1:E:261:HIS:HD2	1.86	0.40
1:E:262:TYR:CE2	1:E:374:TYR:HB3	2.56	0.40
1:E:365:HIS:CE1	1:E:367:GLY:H	2.39	0.40
1:E:632:ILE:HD13	1:E:632:ILE:HA	1.91	0.40
1:E:3992:VAL:HG13	1:E:3993:ASN:H	1.87	0.40
1:E:4736:ASN:ND2	1:E:4738:PHE:HB2	2.37	0.40
1:E:4844:ARG:NH1	1:E:4847:PHE:HB3	2.37	0.40
1:E:4920:LEU:O	1:E:4924:MET:HG3	2.21	0.40
1:G:1087:ILE:HA	1:G:1206:SER:HA	2.04	0.40
1:G:2127:ILE:HD12	1:G:2127:ILE:HA	1.84	0.40
1:G:2130:LEU:HD23	1:G:2130:LEU:HA	1.84	0.40
1:G:2794:ARG:H	1:G:2794:ARG:HG3	1.72	0.40
1:G:4729:MET:HB3	1:G:4743:HIS:CD2	2.57	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	3356/4968 (68%)	2877 (86%)	469 (14%)	10 (0%)	<a href="#">41</a> <a href="#">76</a>

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	C	3356/4968 (68%)	2877 (86%)	469 (14%)	10 (0%)	41	76
1	E	3356/4968 (68%)	2876 (86%)	470 (14%)	10 (0%)	41	76
1	G	3356/4968 (68%)	2879 (86%)	467 (14%)	10 (0%)	41	76
2	B	105/108 (97%)	94 (90%)	11 (10%)	0	100	100
2	D	105/108 (97%)	94 (90%)	11 (10%)	0	100	100
2	F	105/108 (97%)	93 (89%)	12 (11%)	0	100	100
2	H	105/108 (97%)	94 (90%)	11 (10%)	0	100	100
All	All	13844/20304 (68%)	11884 (86%)	1920 (14%)	40 (0%)	44	76

All (40) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	1477	HIS
1	C	1477	HIS
1	E	1477	HIS
1	G	1477	HIS
1	A	730	LEU
1	C	730	LEU
1	E	730	LEU
1	G	730	LEU
1	A	143	LEU
1	A	1580	PRO
1	A	4597	PRO
1	C	143	LEU
1	C	1580	PRO
1	C	4597	PRO
1	E	143	LEU
1	E	1580	PRO
1	E	4597	PRO
1	G	143	LEU
1	G	1580	PRO
1	G	4597	PRO
1	A	4888	LYS
1	C	4888	LYS
1	E	4888	LYS
1	G	4888	LYS
1	A	4596	VAL
1	C	4596	VAL
1	E	4596	VAL
1	G	4596	VAL

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Mol	Chain	Res	Type
1	A	828	PRO
1	A	980	PRO
1	C	828	PRO
1	C	980	PRO
1	E	828	PRO
1	E	980	PRO
1	G	828	PRO
1	G	980	PRO
1	A	1535	PRO
1	C	1535	PRO
1	E	1535	PRO
1	G	1535	PRO

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	2673/4355 (61%)	2619 (98%)	54 (2%)	55	73
1	C	2672/4355 (61%)	2619 (98%)	53 (2%)	55	73
1	E	2672/4355 (61%)	2618 (98%)	54 (2%)	55	73
1	G	2671/4355 (61%)	2618 (98%)	53 (2%)	55	73
2	B	88/89 (99%)	85 (97%)	3 (3%)	37	61
2	D	88/89 (99%)	85 (97%)	3 (3%)	37	61
2	F	88/89 (99%)	85 (97%)	3 (3%)	37	61
2	H	88/89 (99%)	85 (97%)	3 (3%)	37	61
All	All	11040/17776 (62%)	10814 (98%)	226 (2%)	57	73

All (226) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	15	ARG
1	A	102	MET
1	A	260	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	312	LYS
1	A	584	GLU
1	A	590	LYS
1	A	625	VAL
1	A	771	ASN
1	A	778	MET
1	A	841	LYS
1	A	925	PRO
1	A	950	VAL
1	A	990	PRO
1	A	1125	ASP
1	A	1652	LYS
1	A	1758	ARG
1	A	1760	ARG
1	A	1761	MET
1	A	1776	TYR
1	A	1787	LEU
1	A	1921	HIS
1	A	2036	LYS
1	A	2145	ARG
1	A	2221	TYR
1	A	2258	LEU
1	A	2308	PHE
1	A	2462	CYS
1	A	2767	LYS
1	A	2881	LYS
1	A	3636	TYR
1	A	3671	LEU
1	A	3836	PHE
1	A	3893	TYR
1	A	3905	ARG
1	A	3972	LEU
1	A	3990	ASN
1	A	3991	VAL
1	A	4025	LYS
1	A	4028	THR
1	A	4045	SER
1	A	4047	ARG
1	A	4066	PHE
1	A	4087	ARG
1	A	4102	LEU
1	A	4122	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	4144	LYS
1	A	4170	LYS
1	A	4521	TYR
1	A	4523	VAL
1	A	4558	VAL
1	A	4781	LEU
1	A	4782	TYR
1	A	4871	PHE
1	A	4900	ASP
2	B	13	ARG
2	B	32	ASN
2	B	79	ASP
1	C	15	ARG
1	C	102	MET
1	C	260	VAL
1	C	312	LYS
1	C	584	GLU
1	C	590	LYS
1	C	625	VAL
1	C	771	ASN
1	C	778	MET
1	C	841	LYS
1	C	925	PRO
1	C	950	VAL
1	C	990	PRO
1	C	1125	ASP
1	C	1652	LYS
1	C	1758	ARG
1	C	1760	ARG
1	C	1761	MET
1	C	1776	TYR
1	C	1787	LEU
1	C	1921	HIS
1	C	2036	LYS
1	C	2145	ARG
1	C	2221	TYR
1	C	2258	LEU
1	C	2308	PHE
1	C	2462	CYS
1	C	2767	LYS
1	C	2881	LYS
1	C	3636	TYR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	3671	LEU
1	C	3836	PHE
1	C	3893	TYR
1	C	3905	ARG
1	C	3972	LEU
1	C	3990	ASN
1	C	3991	VAL
1	C	4025	LYS
1	C	4028	THR
1	C	4045	SER
1	C	4047	ARG
1	C	4066	PHE
1	C	4087	ARG
1	C	4102	LEU
1	C	4122	LEU
1	C	4144	LYS
1	C	4170	LYS
1	C	4521	TYR
1	C	4558	VAL
1	C	4781	LEU
1	C	4782	TYR
1	C	4871	PHE
1	C	4900	ASP
2	D	13	ARG
2	D	32	ASN
2	D	79	ASP
1	E	15	ARG
1	E	102	MET
1	E	260	VAL
1	E	312	LYS
1	E	584	GLU
1	E	590	LYS
1	E	625	VAL
1	E	771	ASN
1	E	778	MET
1	E	841	LYS
1	E	925	PRO
1	E	950	VAL
1	E	990	PRO
1	E	1125	ASP
1	E	1652	LYS
1	E	1758	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	1760	ARG
1	E	1761	MET
1	E	1776	TYR
1	E	1787	LEU
1	E	1921	HIS
1	E	2036	LYS
1	E	2145	ARG
1	E	2221	TYR
1	E	2258	LEU
1	E	2308	PHE
1	E	2462	CYS
1	E	2767	LYS
1	E	2881	LYS
1	E	3636	TYR
1	E	3671	LEU
1	E	3836	PHE
1	E	3893	TYR
1	E	3905	ARG
1	E	3972	LEU
1	E	3990	ASN
1	E	3991	VAL
1	E	4025	LYS
1	E	4028	THR
1	E	4045	SER
1	E	4047	ARG
1	E	4066	PHE
1	E	4087	ARG
1	E	4102	LEU
1	E	4122	LEU
1	E	4144	LYS
1	E	4158	ARG
1	E	4170	LYS
1	E	4521	TYR
1	E	4558	VAL
1	E	4781	LEU
1	E	4782	TYR
1	E	4871	PHE
1	E	4900	ASP
2	F	13	ARG
2	F	32	ASN
2	F	79	ASP
1	G	15	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	102	MET
1	G	260	VAL
1	G	312	LYS
1	G	584	GLU
1	G	590	LYS
1	G	625	VAL
1	G	771	ASN
1	G	778	MET
1	G	841	LYS
1	G	925	PRO
1	G	950	VAL
1	G	990	PRO
1	G	1125	ASP
1	G	1652	LYS
1	G	1758	ARG
1	G	1760	ARG
1	G	1761	MET
1	G	1776	TYR
1	G	1787	LEU
1	G	1921	HIS
1	G	2036	LYS
1	G	2145	ARG
1	G	2221	TYR
1	G	2258	LEU
1	G	2308	PHE
1	G	2462	CYS
1	G	2767	LYS
1	G	2881	LYS
1	G	3636	TYR
1	G	3671	LEU
1	G	3836	PHE
1	G	3893	TYR
1	G	3905	ARG
1	G	3972	LEU
1	G	3990	ASN
1	G	3991	VAL
1	G	4025	LYS
1	G	4028	THR
1	G	4045	SER
1	G	4047	ARG
1	G	4066	PHE
1	G	4087	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	4102	LEU
1	G	4122	LEU
1	G	4144	LYS
1	G	4170	LYS
1	G	4521	TYR
1	G	4558	VAL
1	G	4781	LEU
1	G	4782	TYR
1	G	4871	PHE
1	G	4900	ASP
2	H	13	ARG
2	H	32	ASN
2	H	79	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (218) such sidechains are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	123	HIS
1	A	150	GLN
1	A	293	GLN
1	A	394	HIS
1	A	395	HIS
1	A	398	HIS
1	A	427	ASN
1	A	464	HIS
1	A	484	ASN
1	A	487	ASN
1	A	547	ASN
1	A	587	ASN
1	A	593	HIS
1	A	630	HIS
1	A	635	ASN
1	A	651	HIS
1	A	776	GLN
1	A	915	HIS
1	A	971	GLN
1	A	1157	GLN
1	A	1265	HIS
1	A	1626	GLN
1	A	1631	HIS
1	A	1636	ASN
1	A	1722	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	1762	GLN
1	A	1906	GLN
1	A	2060	GLN
1	A	2092	GLN
1	A	2153	ASN
1	A	2211	ASN
1	A	2310	ASN
1	A	2740	ASN
1	A	2848	ASN
1	A	3611	ASN
1	A	3667	GLN
1	A	3776	GLN
1	A	3845	GLN
1	A	3906	ASN
1	A	3919	ASN
1	A	3926	GLN
1	A	3934	GLN
1	A	3993	ASN
1	A	4128	ASN
1	A	4192	ASN
1	A	4494	ASN
1	A	4630	GLN
1	A	4764	ASN
1	A	4767	GLN
1	A	4896	ASN
1	A	4918	ASN
1	A	4962	GLN
2	B	31	GLN
2	B	32	ASN
1	C	123	HIS
1	C	150	GLN
1	C	293	GLN
1	C	394	HIS
1	C	395	HIS
1	C	398	HIS
1	C	427	ASN
1	C	464	HIS
1	C	484	ASN
1	C	487	ASN
1	C	547	ASN
1	C	587	ASN
1	C	593	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	630	HIS
1	C	635	ASN
1	C	651	HIS
1	C	776	GLN
1	C	915	HIS
1	C	971	GLN
1	C	1157	GLN
1	C	1265	HIS
1	C	1626	GLN
1	C	1631	HIS
1	C	1636	ASN
1	C	1654	HIS
1	C	1722	ASN
1	C	1762	GLN
1	C	1906	GLN
1	C	2060	GLN
1	C	2092	GLN
1	C	2153	ASN
1	C	2211	ASN
1	C	2310	ASN
1	C	2740	ASN
1	C	2848	ASN
1	C	3611	ASN
1	C	3667	GLN
1	C	3776	GLN
1	C	3845	GLN
1	C	3906	ASN
1	C	3919	ASN
1	C	3926	GLN
1	C	3934	GLN
1	C	3993	ASN
1	C	4128	ASN
1	C	4192	ASN
1	C	4494	ASN
1	C	4630	GLN
1	C	4764	ASN
1	C	4767	GLN
1	C	4896	ASN
1	C	4918	ASN
1	C	4962	GLN
2	D	31	GLN
2	D	32	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	123	HIS
1	E	150	GLN
1	E	293	GLN
1	E	394	HIS
1	E	395	HIS
1	E	398	HIS
1	E	427	ASN
1	E	464	HIS
1	E	484	ASN
1	E	487	ASN
1	E	547	ASN
1	E	587	ASN
1	E	593	HIS
1	E	630	HIS
1	E	635	ASN
1	E	651	HIS
1	E	776	GLN
1	E	915	HIS
1	E	971	GLN
1	E	1157	GLN
1	E	1265	HIS
1	E	1626	GLN
1	E	1631	HIS
1	E	1636	ASN
1	E	1722	ASN
1	E	1762	GLN
1	E	1906	GLN
1	E	2060	GLN
1	E	2092	GLN
1	E	2153	ASN
1	E	2211	ASN
1	E	2310	ASN
1	E	2740	ASN
1	E	2848	ASN
1	E	3611	ASN
1	E	3667	GLN
1	E	3776	GLN
1	E	3845	GLN
1	E	3906	ASN
1	E	3919	ASN
1	E	3926	GLN
1	E	3934	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	3993	ASN
1	E	4128	ASN
1	E	4192	ASN
1	E	4494	ASN
1	E	4630	GLN
1	E	4764	ASN
1	E	4767	GLN
1	E	4896	ASN
1	E	4918	ASN
1	E	4962	GLN
2	F	31	GLN
2	F	32	ASN
1	G	123	HIS
1	G	150	GLN
1	G	293	GLN
1	G	394	HIS
1	G	395	HIS
1	G	398	HIS
1	G	427	ASN
1	G	464	HIS
1	G	484	ASN
1	G	487	ASN
1	G	547	ASN
1	G	587	ASN
1	G	593	HIS
1	G	630	HIS
1	G	635	ASN
1	G	651	HIS
1	G	776	GLN
1	G	915	HIS
1	G	971	GLN
1	G	1157	GLN
1	G	1265	HIS
1	G	1626	GLN
1	G	1631	HIS
1	G	1636	ASN
1	G	1654	HIS
1	G	1722	ASN
1	G	1762	GLN
1	G	1906	GLN
1	G	2060	GLN
1	G	2092	GLN

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Mol	Chain	Res	Type
1	G	2153	ASN
1	G	2211	ASN
1	G	2310	ASN
1	G	2740	ASN
1	G	2848	ASN
1	G	3611	ASN
1	G	3667	GLN
1	G	3776	GLN
1	G	3845	GLN
1	G	3906	ASN
1	G	3919	ASN
1	G	3926	GLN
1	G	3934	GLN
1	G	3993	ASN
1	G	4128	ASN
1	G	4192	ASN
1	G	4494	ASN
1	G	4630	GLN
1	G	4764	ASN
1	G	4767	GLN
1	G	4896	ASN
1	G	4918	ASN
1	G	4962	GLN
2	H	31	GLN
2	H	32	ASN

### 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 12 ligands modelled in this entry, 8 are monoatomic - leaving 4 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
5	CFF	G	6002	-	8,15,15	2.86	4 (50%)	8,23,23	1.38	1 (12%)
5	CFF	E	6002	-	8,15,15	2.87	4 (50%)	8,23,23	1.36	1 (12%)
5	CFF	A	6002	-	8,15,15	2.86	4 (50%)	8,23,23	1.38	1 (12%)
5	CFF	C	6002	-	8,15,15	2.85	4 (50%)	8,23,23	1.38	1 (12%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	CFF	G	6002	-	-	-	0/2/2/2
5	CFF	E	6002	-	-	-	0/2/2/2
5	CFF	A	6002	-	-	-	0/2/2/2
5	CFF	C	6002	-	-	-	0/2/2/2

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	6002	CFF	C5-C4	-5.09	1.32	1.39
5	A	6002	CFF	C5-C4	-5.05	1.32	1.39
5	C	6002	CFF	C5-C4	-5.05	1.32	1.39
5	G	6002	CFF	C5-C4	-5.05	1.32	1.39
5	G	6002	CFF	C6-N1	-4.80	1.31	1.38
5	A	6002	CFF	C6-N1	-4.79	1.31	1.38
5	E	6002	CFF	C6-N1	-4.79	1.31	1.38
5	C	6002	CFF	C6-N1	-4.75	1.31	1.38
5	E	6002	CFF	O13-C6	-2.63	1.18	1.24
5	A	6002	CFF	O13-C6	-2.61	1.18	1.24
5	C	6002	CFF	O13-C6	-2.61	1.18	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	G	6002	CFF	O13-C6	-2.61	1.18	1.24
5	E	6002	CFF	C5-C6	-2.38	1.37	1.41
5	A	6002	CFF	C5-C6	-2.36	1.37	1.41
5	C	6002	CFF	C5-C6	-2.36	1.37	1.41
5	G	6002	CFF	C5-C6	-2.36	1.37	1.41

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	6002	CFF	C14-N7-C8	-2.88	111.57	125.43
5	C	6002	CFF	C14-N7-C8	-2.88	111.57	125.43
5	E	6002	CFF	C14-N7-C8	-2.88	111.57	125.43
5	G	6002	CFF	C14-N7-C8	-2.88	111.57	125.43

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.

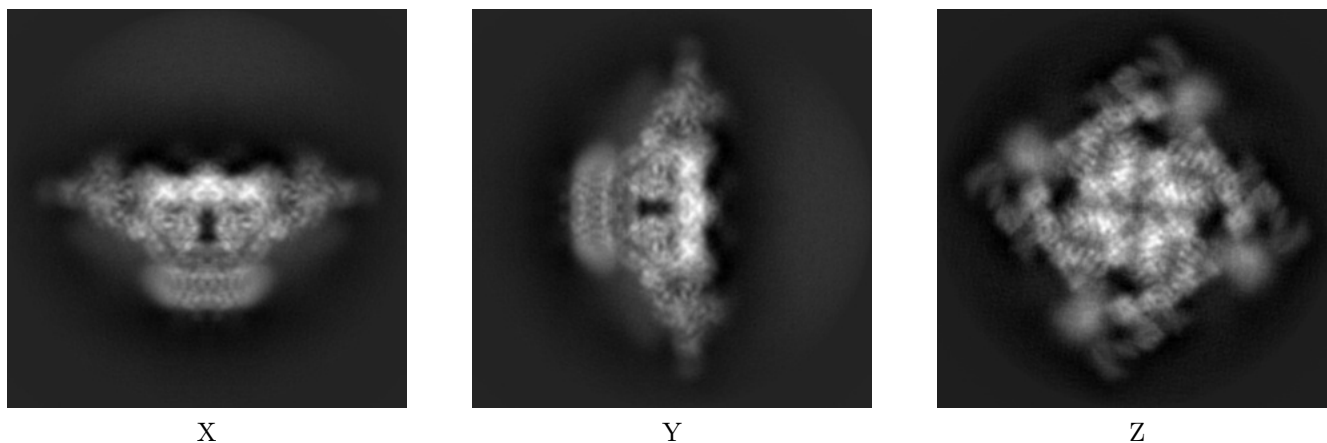
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-9826. 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](#)

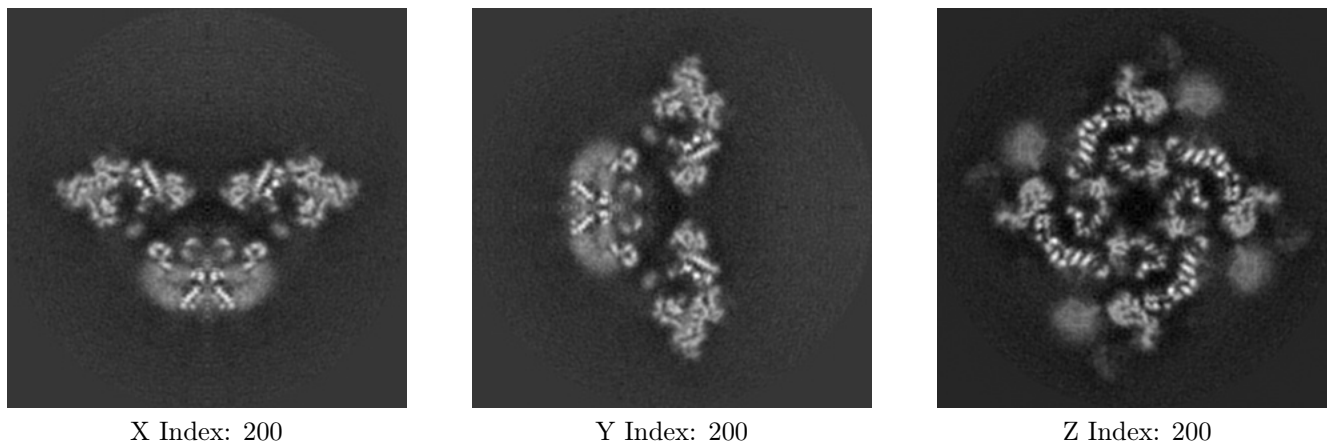
#### 6.1.1 Primary map



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

### 6.2 Central slices [i](#)

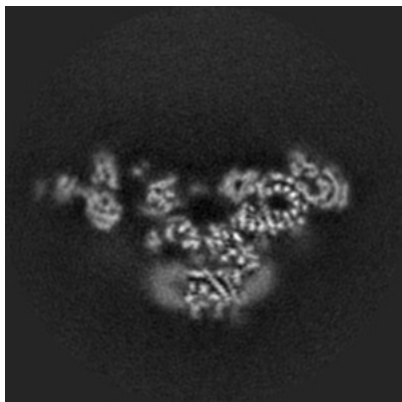
#### 6.2.1 Primary map



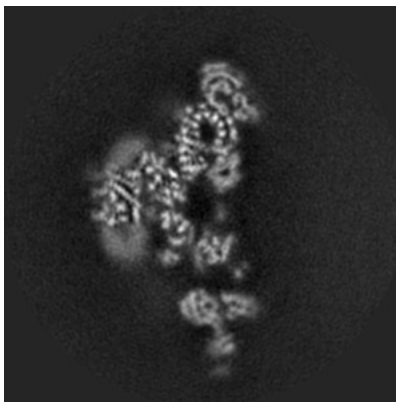
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

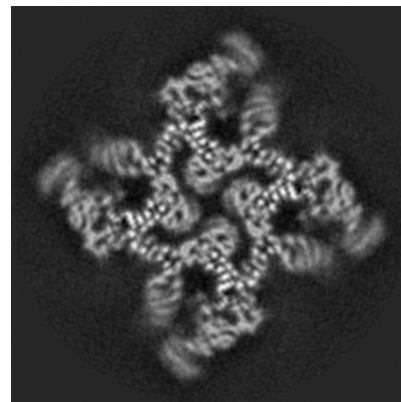
### 6.3.1 Primary map



X Index: 187



Y Index: 213

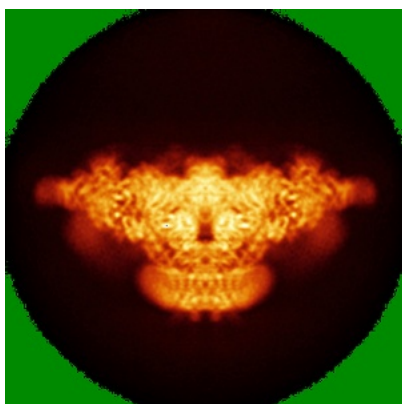


Z Index: 217

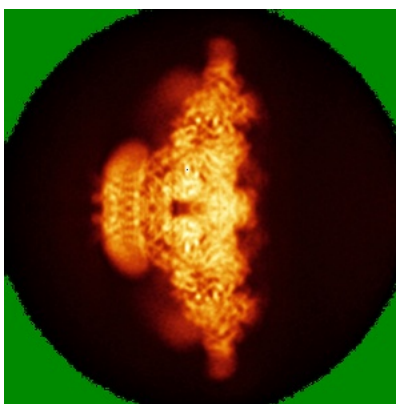
The images above show the largest variance slices of the map in three orthogonal directions.

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

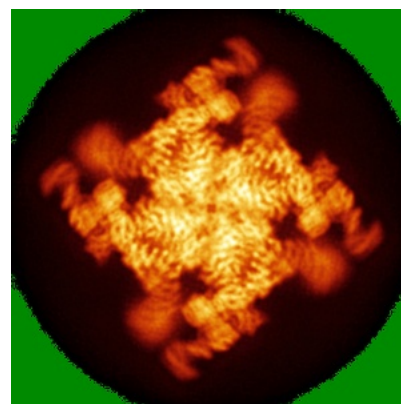
### 6.4.1 Primary map



X



Y



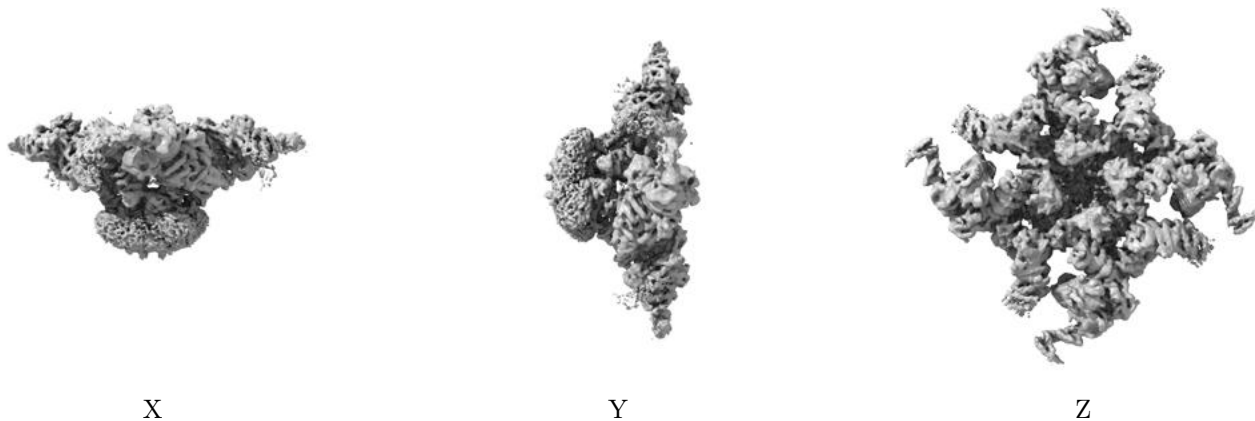
Z

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



## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.015. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

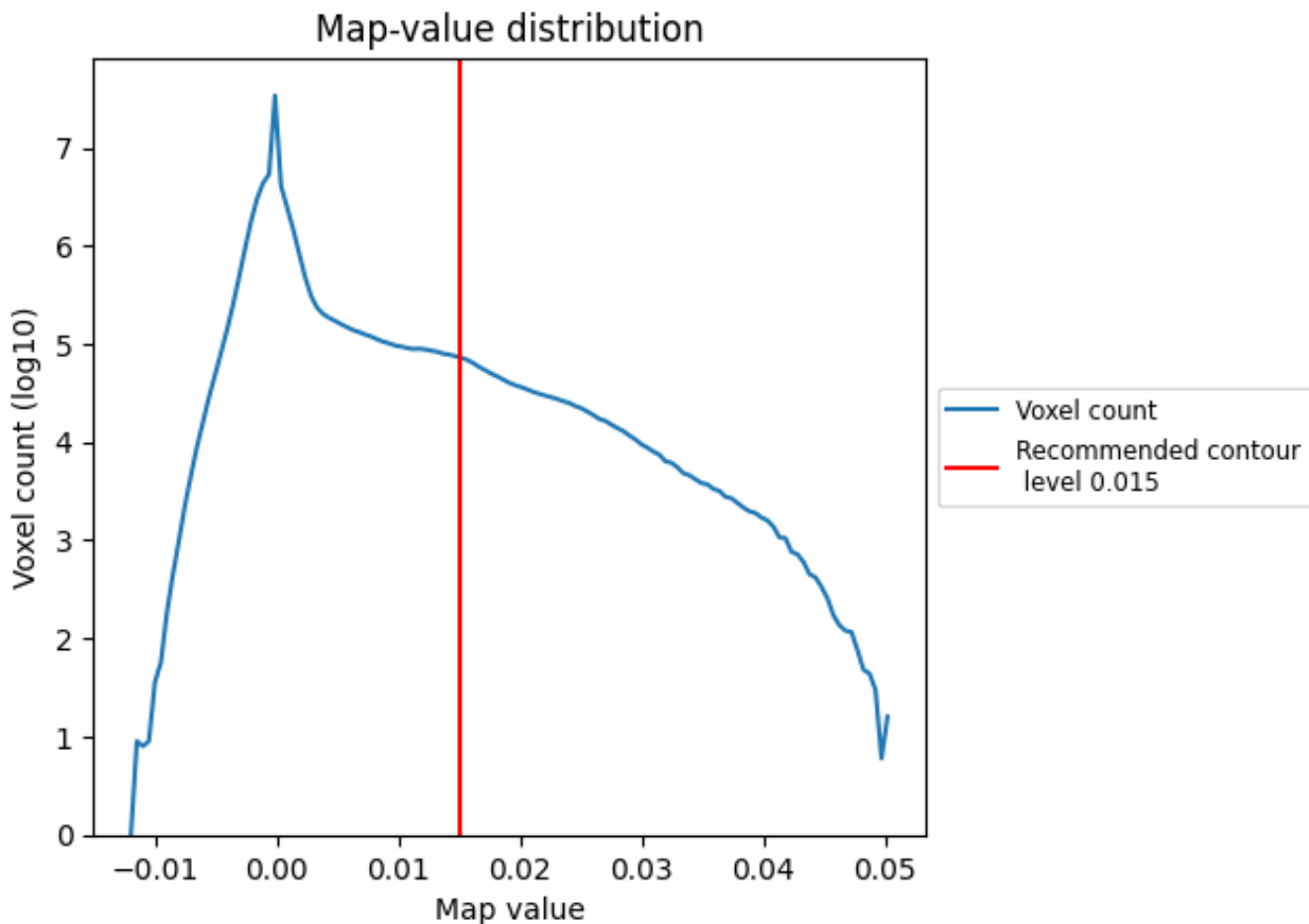
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

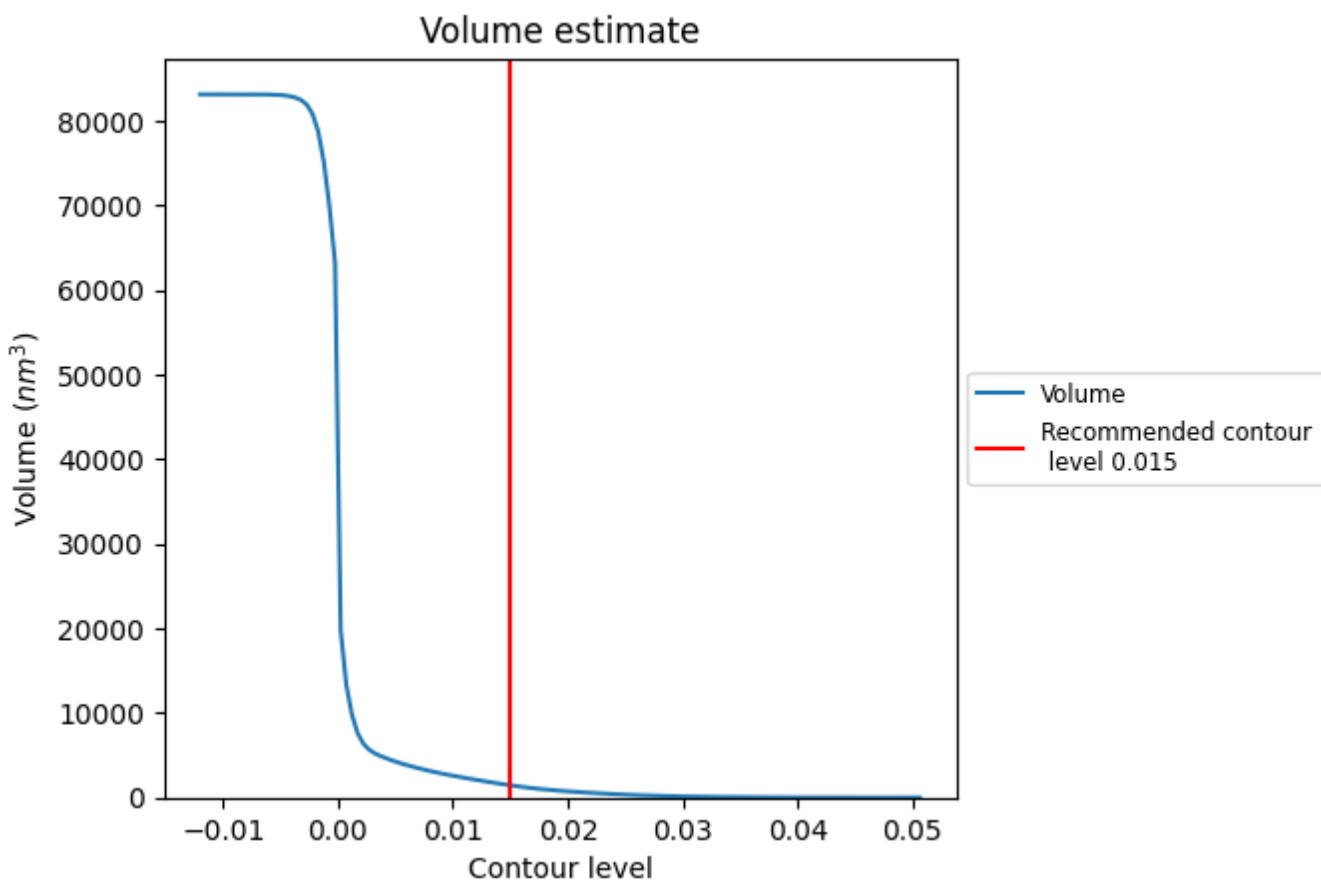
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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

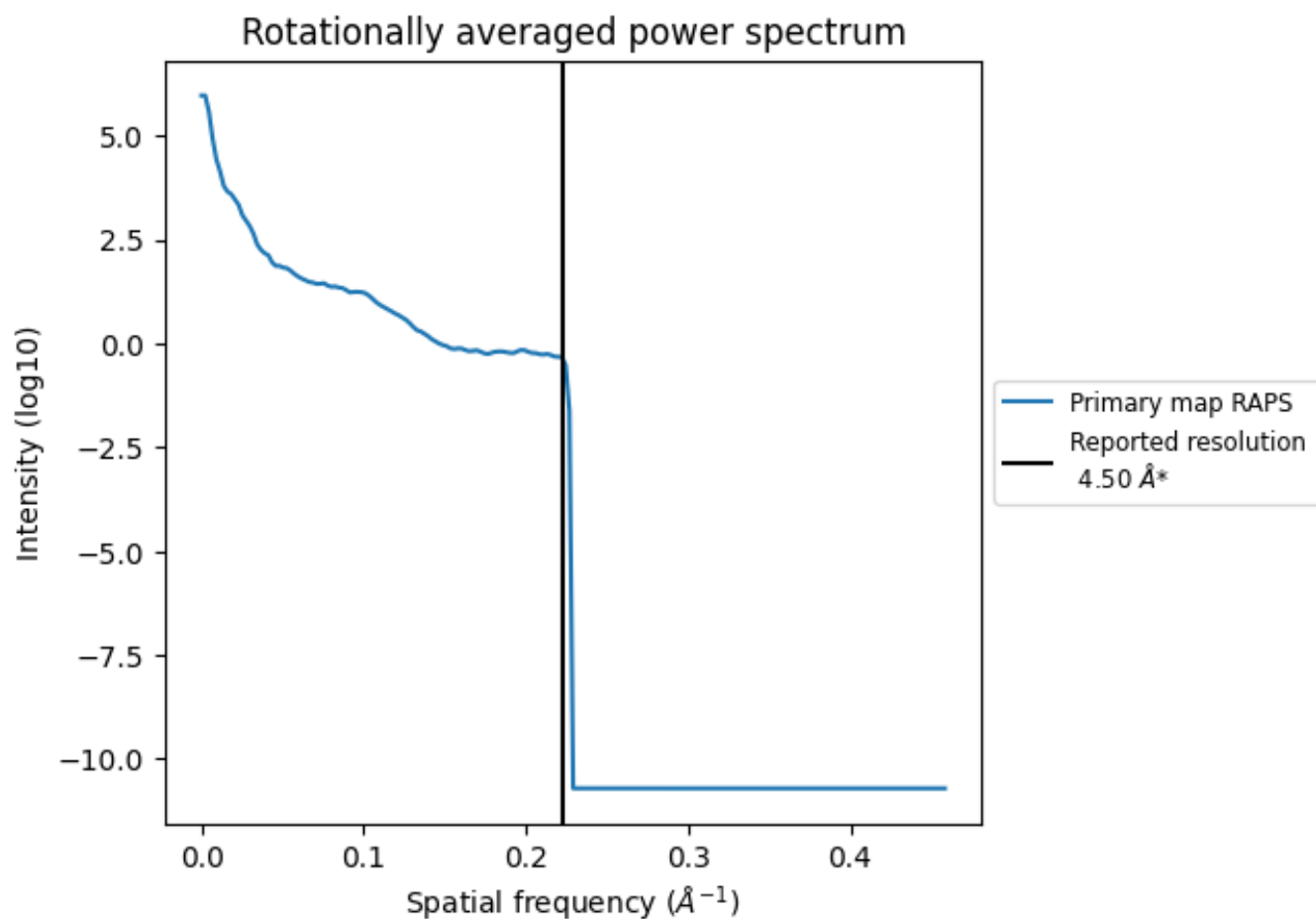
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1448 nm<sup>3</sup>; this corresponds to an approximate mass of 1308 kDa.

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

### 7.3 Rotationally averaged power spectrum [i](#)

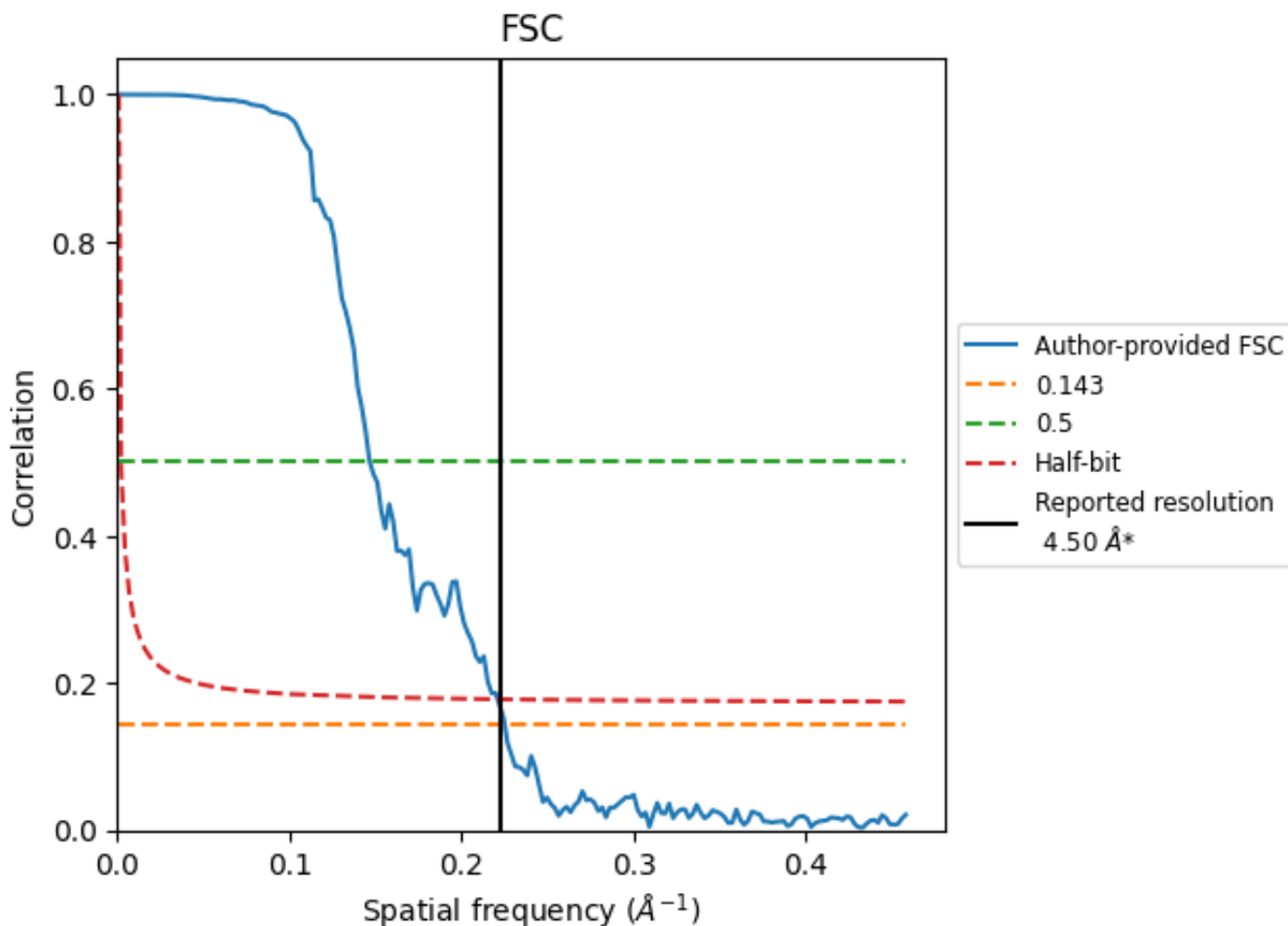


\*Reported resolution corresponds to spatial frequency of 0.222 Å<sup>-1</sup>

## 8 Fourier-Shell correlation [i](#)

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

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.222 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

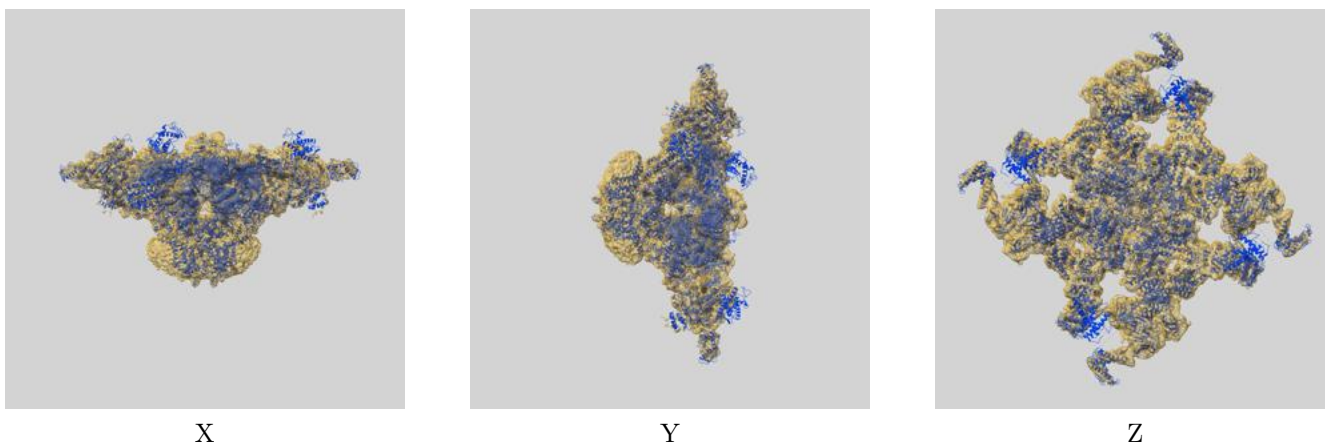
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.50	-	-
Author-provided FSC curve	4.44	6.81	4.52
Unmasked-calculated*	-	-	-

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

## 9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-9826 and PDB model 6JHN. Per-residue inclusion information can be found in section 3 on page 5.

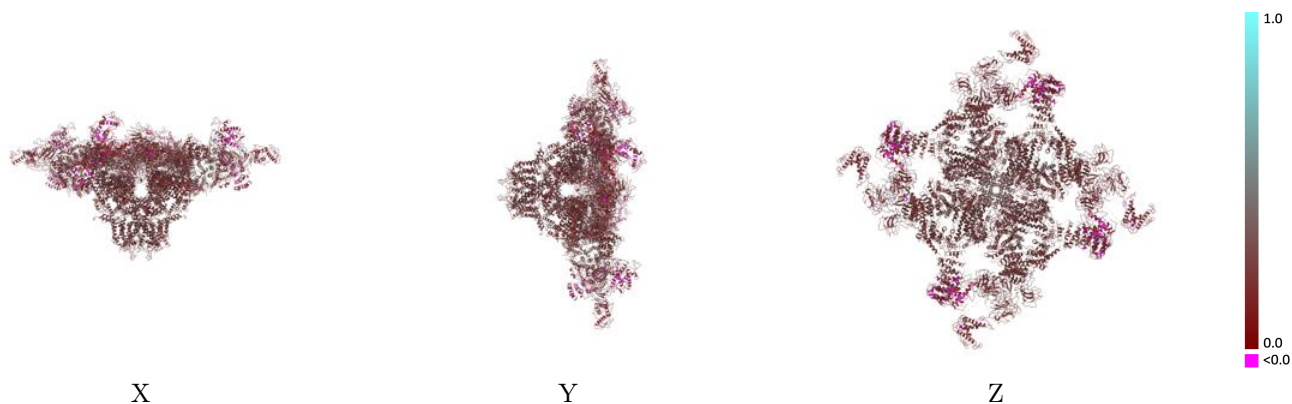
### 9.1 Map-model overlay [i](#)



The images above show the 3D surface view of the map at the recommended contour level 0.015 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.

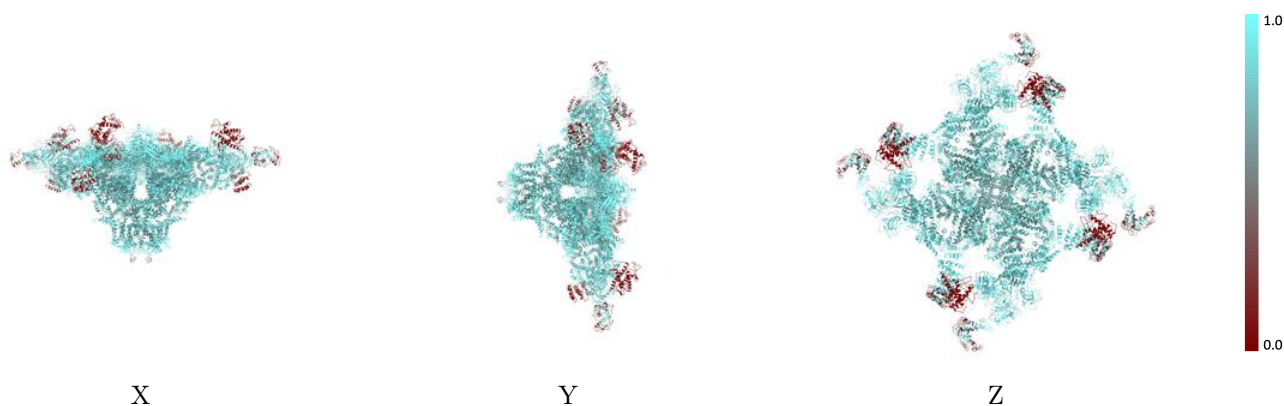


## 9.2 Q-score mapped to coordinate model [i](#)



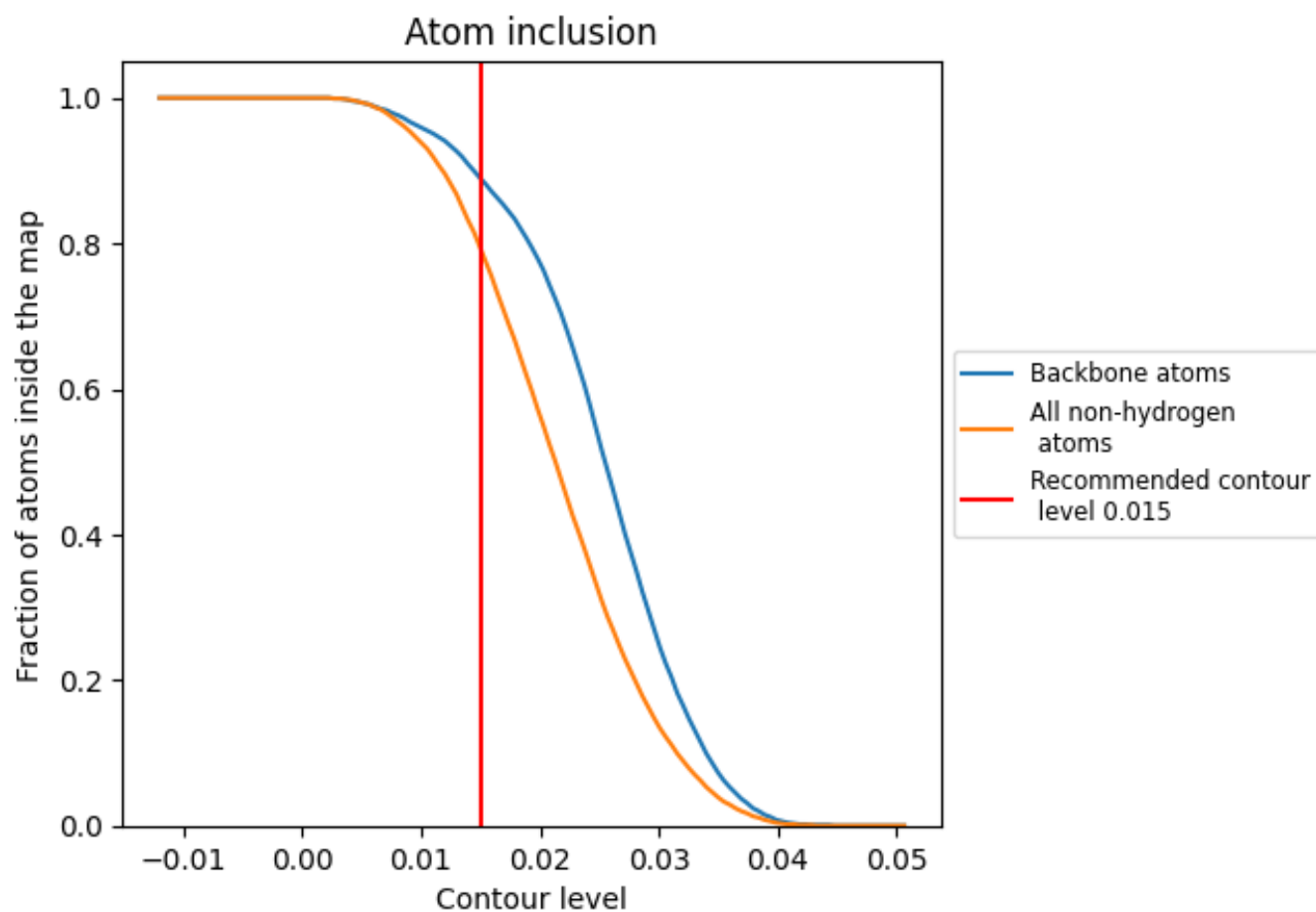
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.015).



















## 9.4 Atom inclusion [i](#)



At the recommended contour level, 89% of all backbone atoms, 79% 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 (0.015) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7930	 0.2520
A	 0.7920	 0.2520
B	 0.8320	 0.2670
C	 0.7920	 0.2520
D	 0.8320	 0.2660
E	 0.7920	 0.2520
F	 0.8320	 0.2680
G	 0.7920	 0.2520
H	 0.8320	 0.2670

