



## Full wwPDB EM Validation Report ⓘ

Oct 21, 2024 – 09:57 PM EDT

PDB ID : 8UXE  
EMDB ID : EMD-42761  
Title : Structure of PKA phosphorylated human RyR2-R420Q in the closed state in the presence of ARM210  
Authors : Miotto, M.C.; Marks, A.R.  
Deposited on : 2023-11-09  
Resolution : 3.53 Å(reported)  
Based on initial model : 7UA5

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.dev113  
Mogul : 2022.3.0, CSD as543be (2022)  
MolProbity : 4.02b-467  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

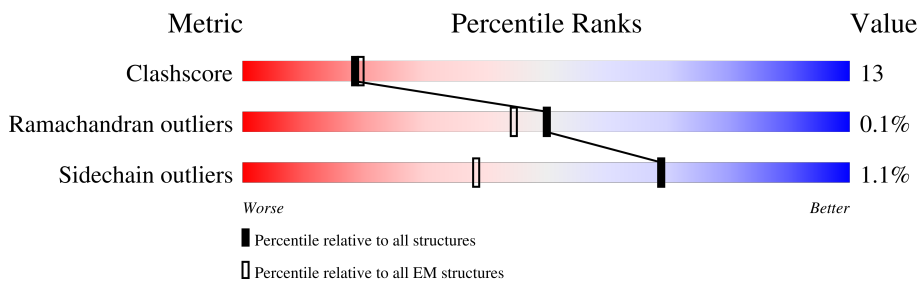
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.53 Å.

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



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

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	E	108	
1	F	108	
1	G	108	
1	H	108	
2	A	4967	
2	B	4967	
2	C	4967	
2	D	4967	

## 2 Entry composition i

There are 5 unique types of molecules in this entry. The entry contains 138692 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 Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	E	107	818	516	144	154	4	0	0
1	F	107	818	516	144	154	4	0	0
1	G	107	818	516	144	154	4	0	0
1	H	107	818	516	144	154	4	0	0

- Molecule 2 is a protein called Ryanodine receptor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	A	4224	33769	21515	5743	6281	230	2	0
2	B	4224	33769	21515	5743	6281	230	2	0
2	C	4224	33769	21515	5743	6281	230	2	0
2	D	4224	33769	21515	5743	6281	230	2	0

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	420	GLN	ARG	conflict	UNP Q92736
B	420	GLN	ARG	conflict	UNP Q92736
C	420	GLN	ARG	conflict	UNP Q92736
D	420	GLN	ARG	conflict	UNP Q92736

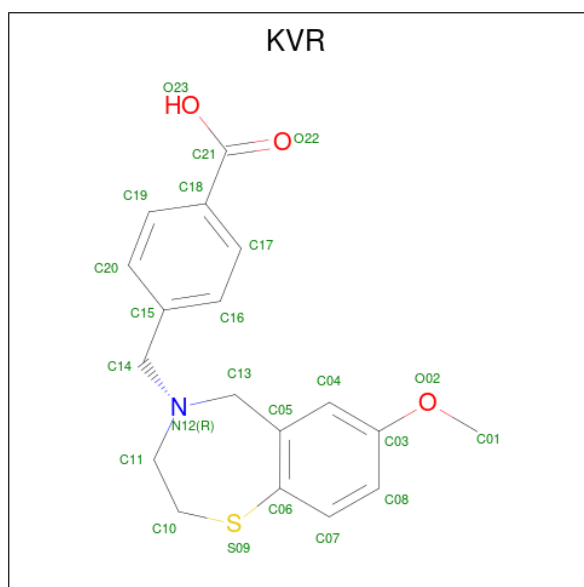
- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).



Continued from previous page...

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

- Molecule 5 is 4-[(7-methoxy-2,3-dihydro-1,4-benzothiazepin-4(5H)-yl)methyl]benzoic acid (three-letter code: KVR) (formula: C<sub>18</sub>H<sub>19</sub>NO<sub>3</sub>S) (labeled as "Ligand of Interest" by depositor).

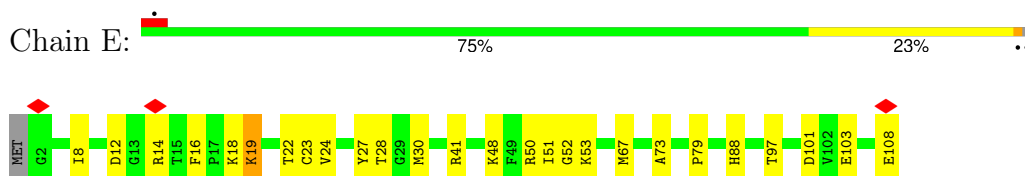


Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	S	
5	A	1	23	18	1	3	1	0
5	B	1	23	18	1	3	1	0
5	C	1	23	18	1	3	1	0
5	D	1	23	18	1	3	1	0

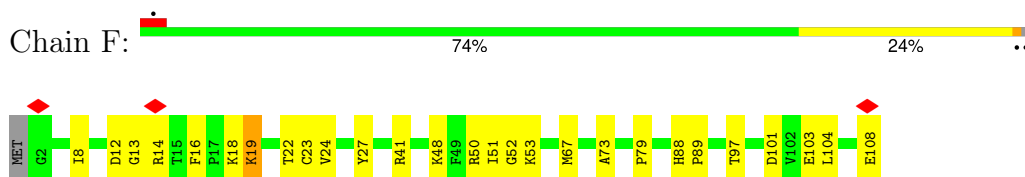
### 3 Residue-property plots [i](#)

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.

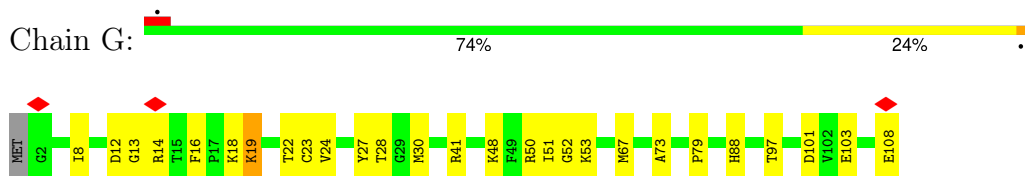
- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B



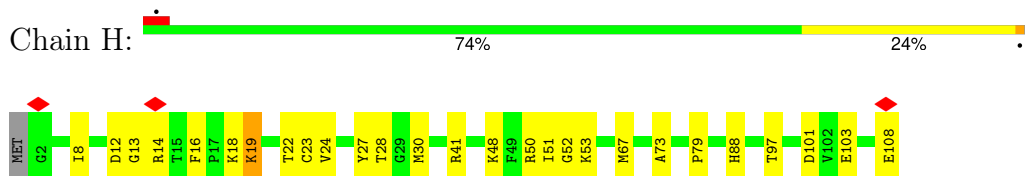
- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B



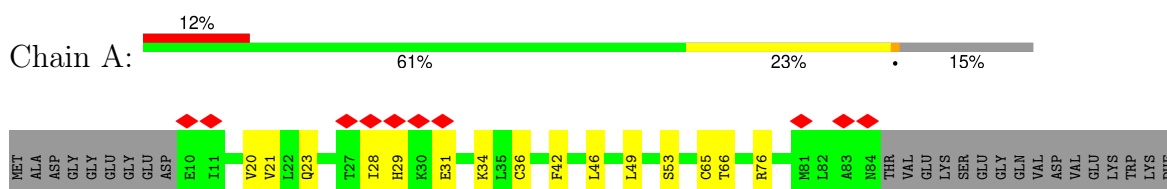
- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B

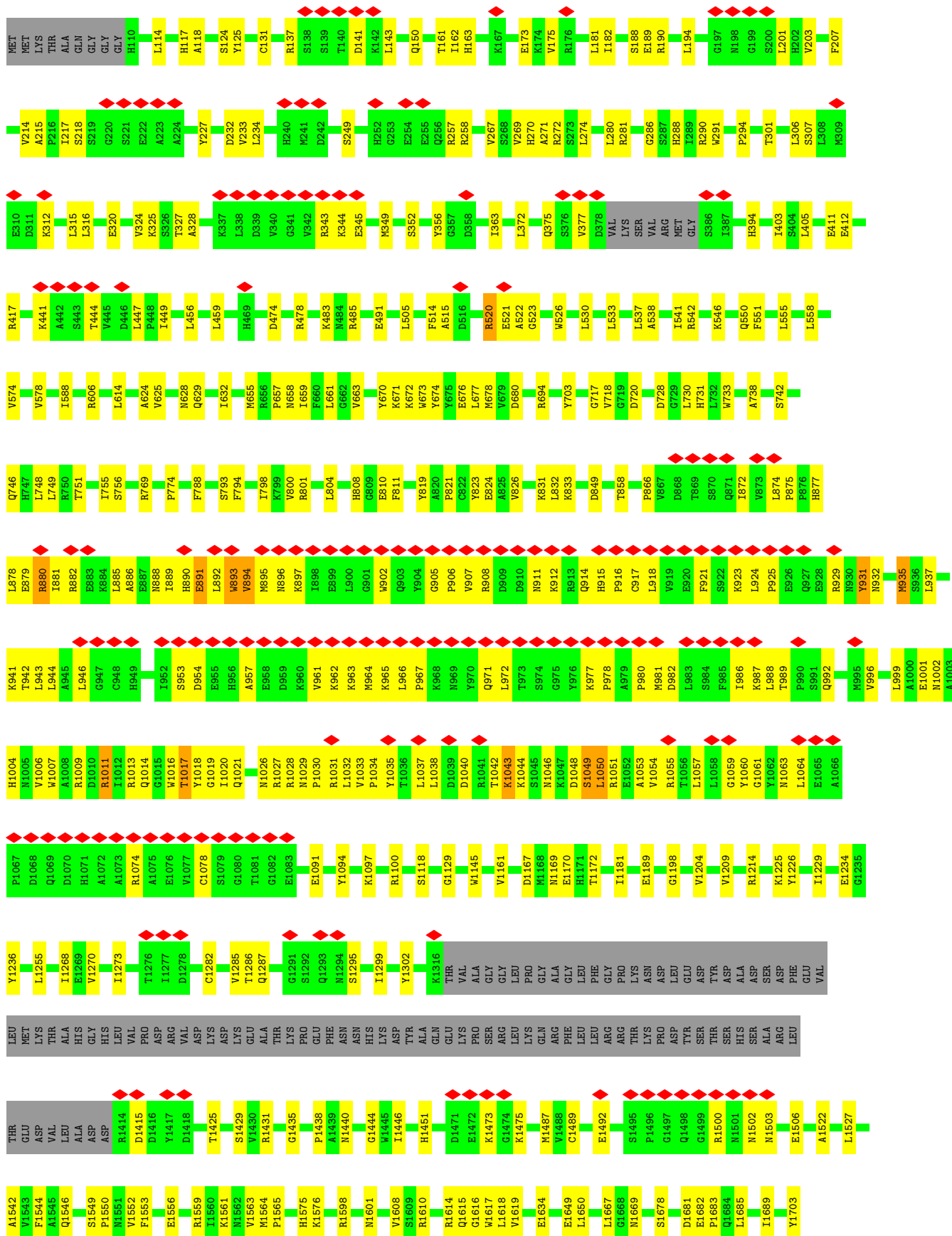


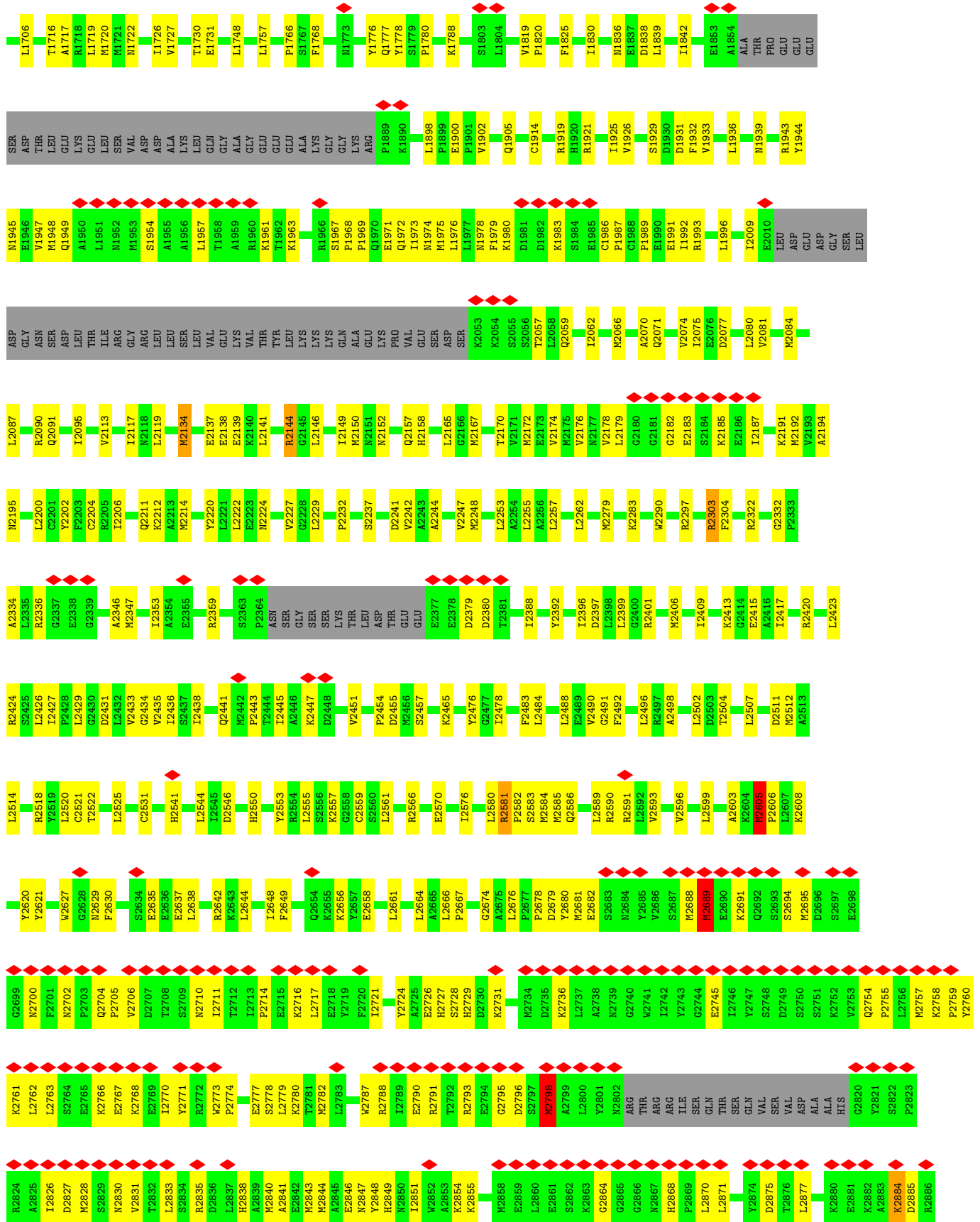
- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B



- Molecule 2: Ryanodine receptor 2

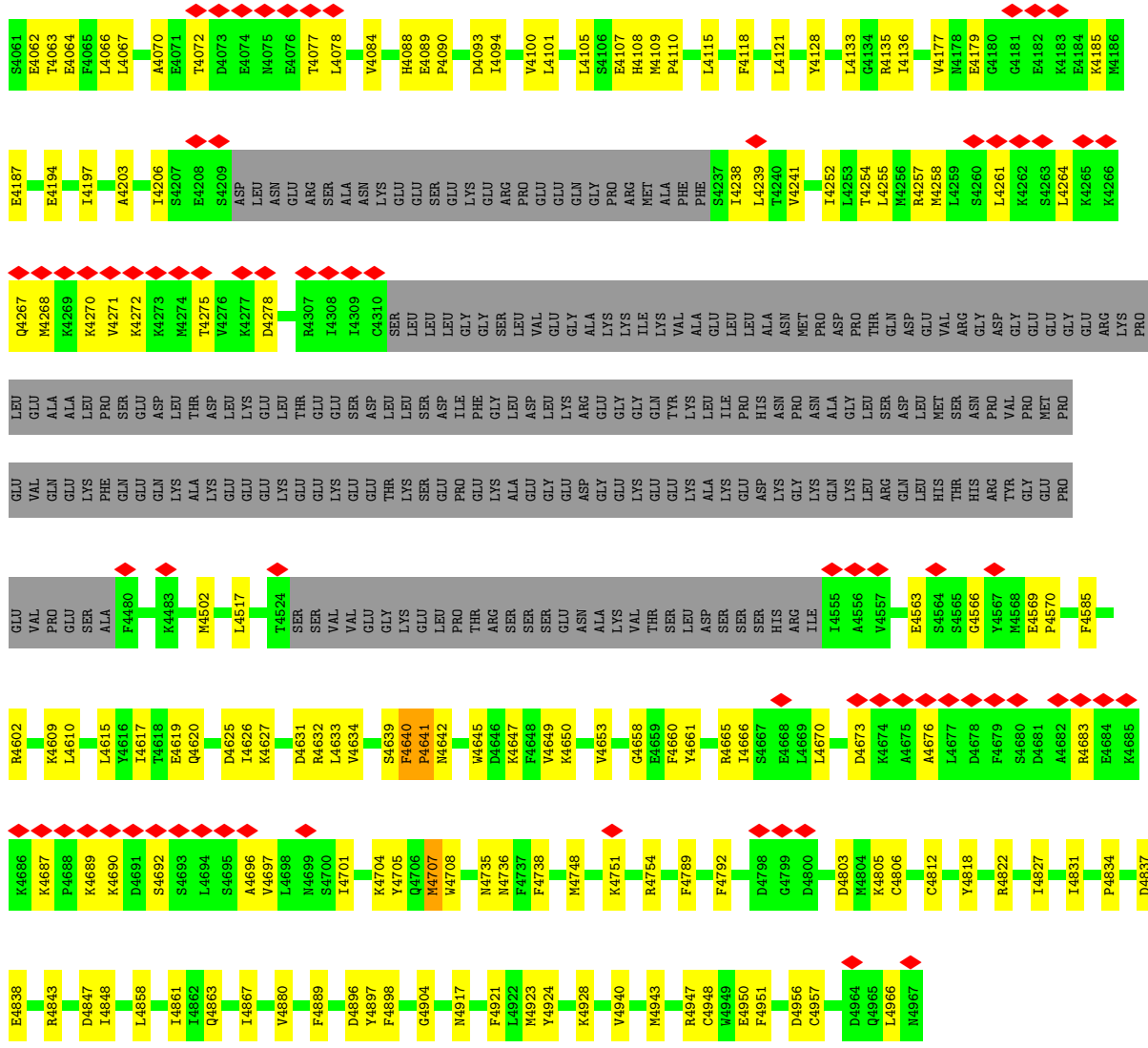




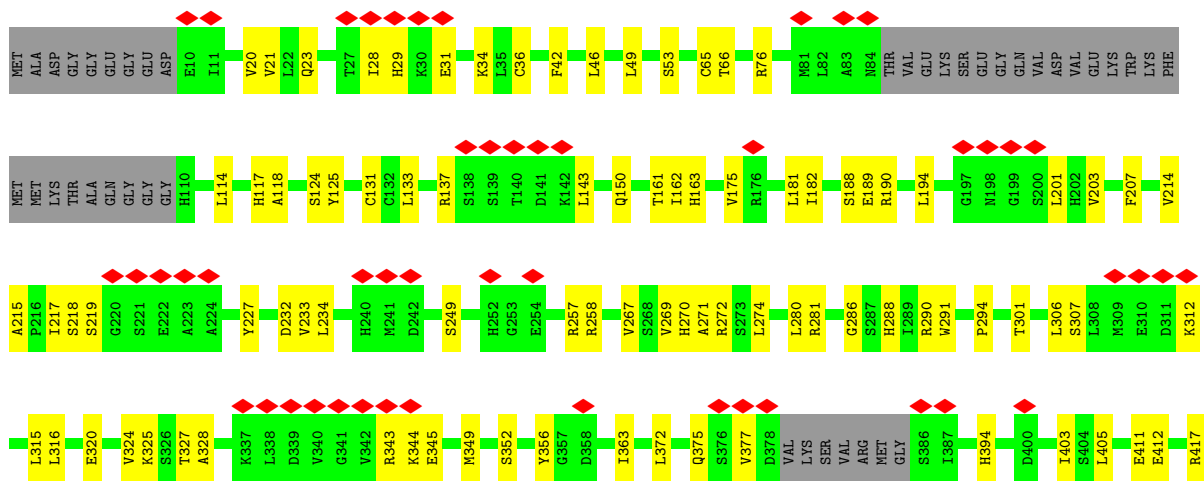








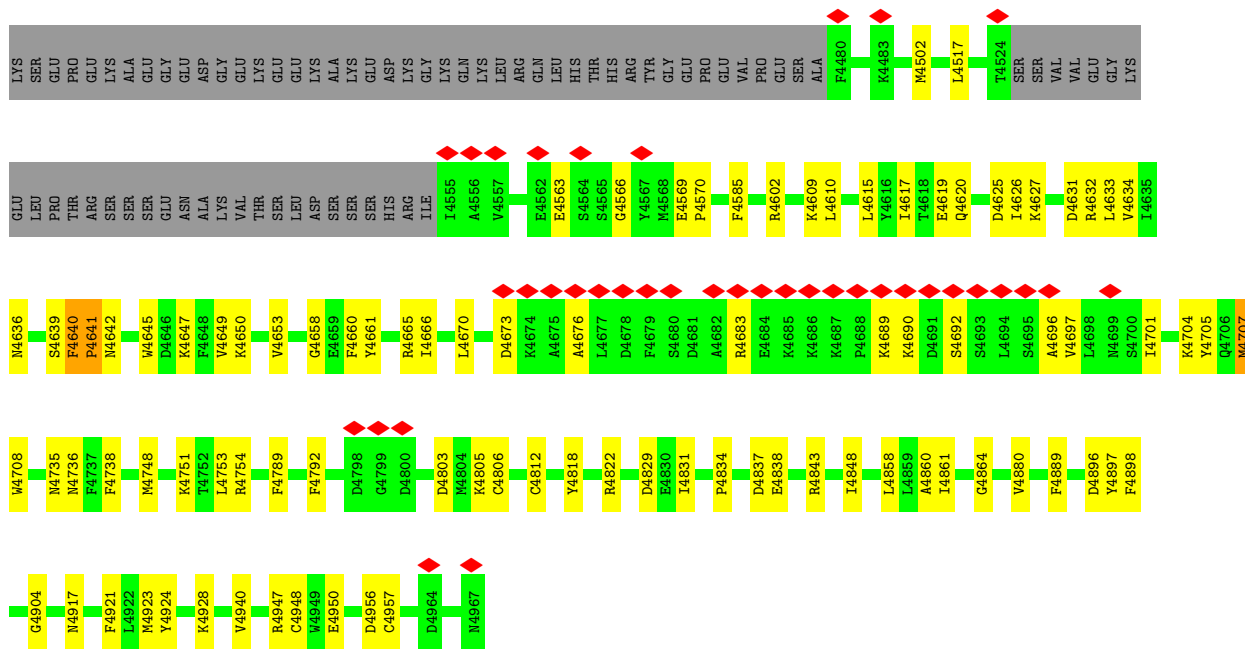
● Molecule 2: Ryanodine receptor 2



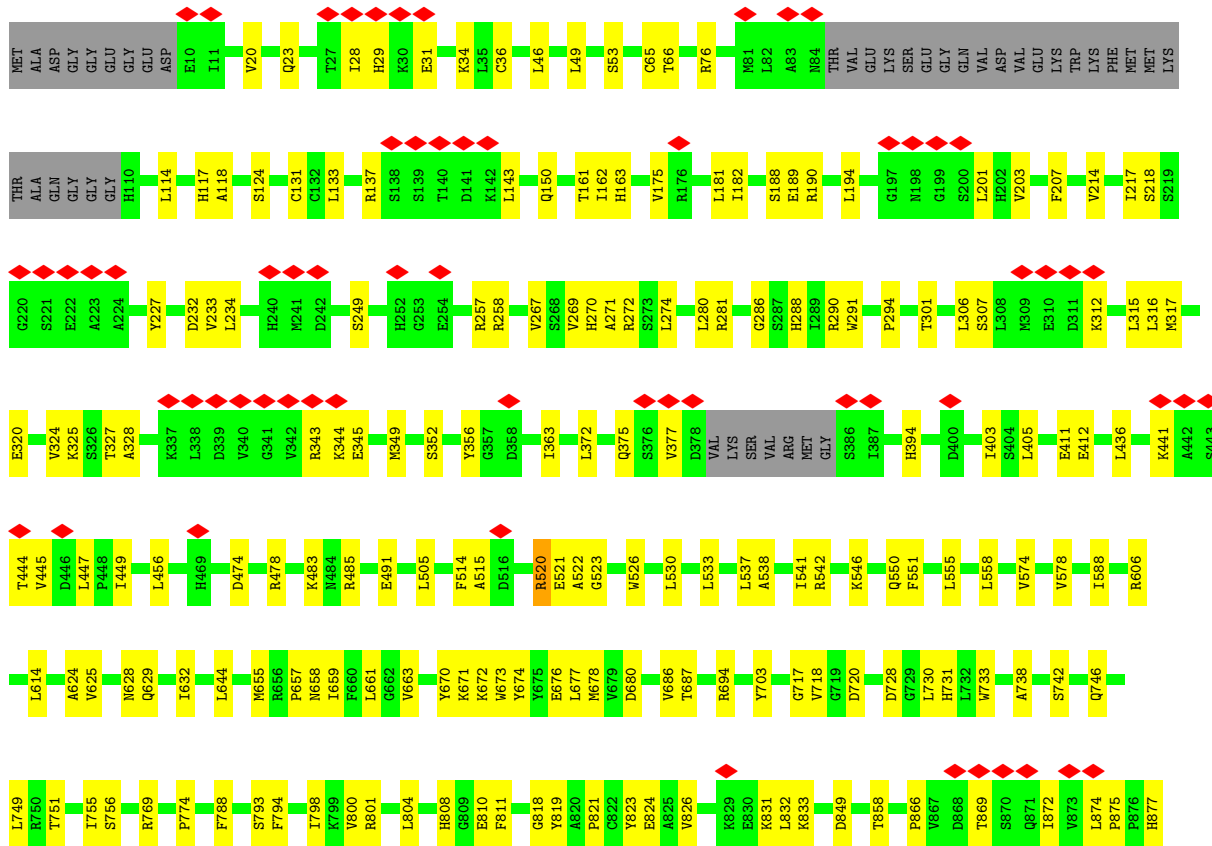


ASP	GLU	ASP	GLY	SER	LEU	ASP	GLY	ASN	R2090	SER	ASP	LEU	THR	THR	ILE	ARG	GLY	ARG	LEU	LEU	SER	LEU	VAL	GLU	LYS	LYS	GLN	ALA	GLY	PRO	VAL	GLU	SER	ASP	SER	K2053	K2054	S2055	S2056	T2057	L2058	Q2059	I2062	M2066	A2070	Q2071	V2074	L2075	E2076	D2077							
L2080	V2081	M2084	M2084	L2087	R2090	Q2091	V2113	V2117	M2118	N2119	S2131	R2134	E2137	E2138	E2139	K2140	L2141	R2144	G2145	L2146	I2149	M2150	N2152	Q2157	H2158	L2165	M2167	T2170	V2171	M2172	E2173	V2174	M2175	V2176	M2177	L2178	L2179	G2180	G2181	G2182	R2183	S2184	K2185	E2186													
I2187	G2332	P2333	A2334	L2335	R2336	G2337	A2346	M2347	I2353	A2354	E2355	R2359	S2363	P2364	ASN	SER	GLY	SER	LYS	THR	L2229	P2232	S2237	D2241	V2242	A2243	A2244	V2247	M2248	L2253	A2254	L2255	A2256	L2257	L2262	M2279	K2283	W2290	K2413	G2414	E2415	A2416	L2417	R2420													
L2423	R2424	S2425	L2426	I2427	L2428	L2429	G2430	D2431	L2432	V2433	G2434	V2435	L2436	I2438	Q2441	K2442	P2443	I2444	I2445	A2446	K2447	D2448	V2451	P2454	D2455	M2456	S2457	K2465	Y2476	I2478	F2483	L2484	L2488	E2489	G2491	F2492	L2496	R2497	A2498	L2502	D2503	T2504	L2507	D2511	M2512												
K2513	L2514	L2520	C2521	L2525	C2531	H2541	L2544	L2545	D2546	H2550	Y2553	K2557	G2558	C2559	S2560	L2561	R2566	E2570	L2576	L2580	R2581	P2582	S2583	K2584	Q2585	Q2586	L2589	R2590	R2591	L2592	V2593	V2596	L2599	A2603	K2604	K2605	P2606	L2607	K2608	Y2620	Y2621																
W2627	G2628	N2629	F2630	E2635	E2636	E2637	R2642	K2643	L2644	I2648	F2649	Q2654	K2655	K2656	L2661	L2664	A2665	L2666	P2667	G2674	A2675	S2676	P2677	P2678	D2679	Y2680	M2681	E2682	S2683	N2684	Q2685	Y2686	S2687	M2688	E2689	S2690	K2691	Q2692	S2693	S2694	M2695	D2696	S2697	E2698	G2699	M2700	F2701	M2702	Q2704	P2705	V2706						
D2707	T2708	S2709	N2710	I2711	L2712	I2713	P2714	E2715	K2716	L2717	E2718	Y2719	F2720	I2721	Y2724	A2725	E2726	H2727	S2728	H2729	D2730	K2731	W2732	S2733	M2734	D2735	K2736	L2737	A2738	M2739	G2740	W2741	L2742	Y2743	G2744	E2745	Y2747	S2748	D2749	S2750	S2751	K2752	Y2753	Q2754	P2755	L2756	M2757	K2758	P2759	Y2760	K2761	L2762	L2763	S2764	E2765	K2766	E2767
K2768	E2769	I2770	Y2771	R2772	R2773	P2774	E2777	S2778	L2779	K2780	T2781	M2782	L2783	A2784	W2787	R2788	L2789	E2790	R2791	T2792	R2793	E2794	C2795	D2796	S2797	M2798	A2799	L2800	Y2801	N2802	ARG	THR	ARG	ARG	ILE	SER	THR	SER	GLN	VAL	SER	VAL	ASP	ALA	ALA	HIS	G2820	Y2821	S2822	R2823	P2824	A2825	L2826	D2827	M2828	S2829	
N2830	V2831	T2832	L2833	S2834	R2835	L2836	H2838	A2839	M2840	A2841	E2842	M2843	M2844	A2845	E2846	N2847	Y2848	H2849	N2850	I2851	K2854	K2855	M2858	E2859	L2860	E2861	S2862	K2863	G2864	G2865	G2866	H2867	H2868	P2869	L2870	L2871	Y2874	D2875	T2876	L2877	E2881	K2882	A2883	K2884	D2885	E2887	K2888	A2889	G2890	D2891	L2892	L2893	K2894				
F2895	L2896	Q2897	I2898	Y2901	A2902	V2903	S2904	R2905	G2906	F2907	L2908	D2909	L2910	E2911	L2912	L2913	T2914	P2915	S2916	L2917	R2920	F2921	A2922	Y2923	Q2927	Q2928	L2929	L2930	R2931	Y2932	V2933	H2937	I2940	F2943	D2944	G2945	G2946	S2947	R2948	G2949	K2950	G2951	E2952	H2953	F2954	P2955	F2963	A2964	K2965	V2966	Y2967	L2968					
Y2974	F2975	K2976	N2977	H2978	R2979	L2980	Y2981	F2982	L2983	S2984	A2985	A2986	S2987	R2988	P2989	L2990	C2991	S2992	G2993	G2994	K3001	E3002	M3003	L3007	V3013	L3014	G3015	R3016	R3017	H3017	R3018	L3021	F3022	G3023	N3024	D3025	A3026	I3029	H3034	L3035	L3036	G3037	Q3038	L3039	D3041	D3042	L3043	T3044	V3045	M3046	K3047						
L3050	V3053	K3054	L3057	R3058	A3064	L3068	E3069	S2984	K3070	T3071	M3072	E3073	N3074	L3075	K3076	G3078	S2992	G2993	F3080	T3081	HIS	ARG	ASN	GLN	PRO	K3088	G3089	V3090	T3091	I3092	L3093	L3094	Y3095	G3096	T3097	A3100	L3101	L3102	F3103	N3104	S3107	H3111	G3116	F3117	G3118	E3119	I3120	L3121	E3124	I3125							





● Molecule 2: Ryanodine receptor 2

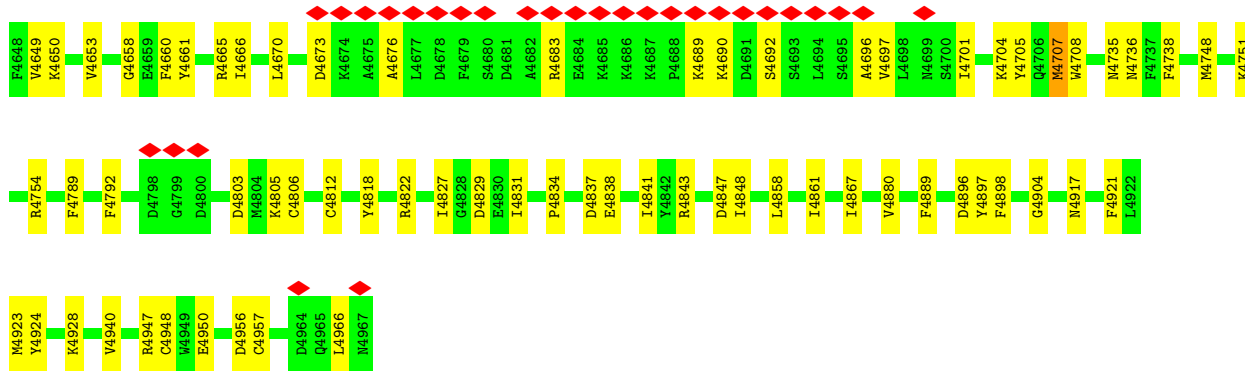




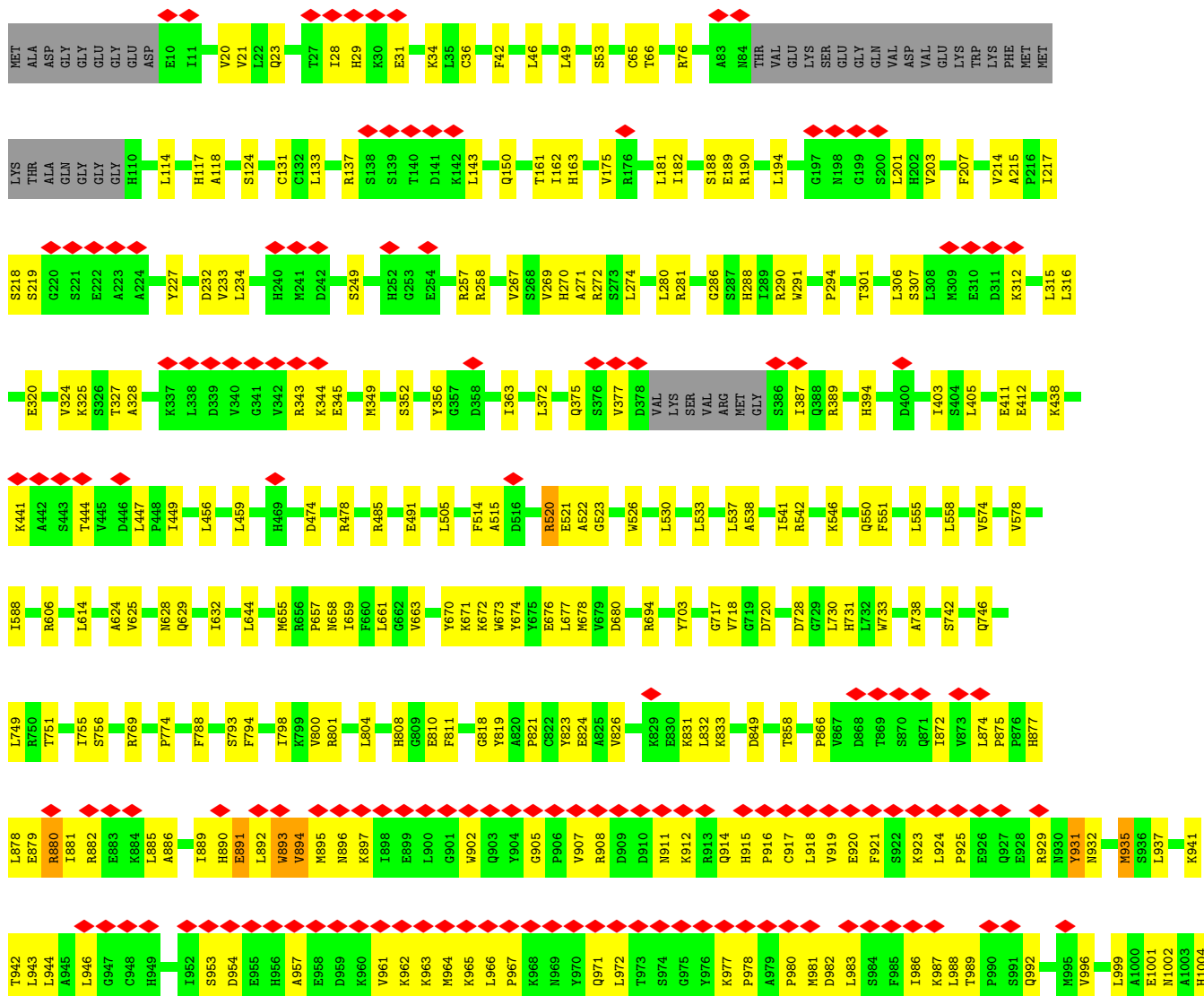








• Molecule 2: Ryanodine receptor 2





MET	I3280	V3126	K3054	K2976	Q2897	T2832	I2770	S2709	E2635	L2432
SER	L3281	Q3127	L3057	H2977	I2898	L2833	Y2771	N2710	E2636	V2433
GLU	K3282	C3130	R3058	R2978	Y2901	S2834	R2772	N2711	E2637	G2434
ALA	I3283	R3059	R3061	R2979	A2902	D2835	W2773	I2712	L2638	V2435
LEU	Y3284	L3061	L3061	L2980	V2903	R2836	W2774	T2713	L2639	I2436
LEU	Y3285	A3064	A3064	Y2981	S2904	L2837	P2774	I2714	S2437	S2437
ILE	N3286	L3068	L3068	L2983	R2905	H2838	E2777	P2715	I2438	I2438
LEU	K3287	S3069	S3069	S2984	R2906	A2839	S2778	K2716	Q2441	Q2441
ASP	L3288	E3069	E3069	A2985	G2906	N2840	L2779	K2716	L2442	L2442
GLU	E3289	A3071	A3071	A2986	F2907	K2841	K2780	L2717	P2443	P2443
GLU	K3290	T3072	T3072	S2987	K2908	E2842	T2781	L2718	T2444	T2444
PHE	I3291	M3074	M3074	K2988	D2909	N2843	M2782	E2719	L2555	L2555
THR	E3292	E3073	E3073	L2910	L2910	K2844	L2783	F2720	K2557	K2557
LEU	M3296	K3144	N3074	P2989	E2911	E2845	Y2787	I2721	Y2657	Y2657
ALA	K3297	S3145	L3075	L2990	E2912	E2846	W2788	Y2724	E2658	E2658
ARG	R3298	I3146	L3075	L2991	L2912	N2847	R2788	A2725	L2661	L2661
ASP	L3299	Y3147	K3076	C2991	D2913	H2848	A2726	E2726	L2662	L2662
LEU	A3300	V3148	Q3077	S2992	T2914	H2849	H2727	H2727	L2664	L2664
LEU	V3301	E3149	Q3077	S2992	T2914	H2849	S2728	S2728	L2665	L2665
ALA	Q3304	R3150	G3078	G2993	P2915	I2851	R2791	H2729	L2666	L2666
PHE	I3307	Q3151	G3078	G2994	S2916	I2851	T2792	D2730	P2667	P2667
PRO	N3308	Q3152	F3080	K3001	I2917	K2854	K2793	D2730	L2576	L2576
LEU	K3309	S3153	T3081	E3002	R2920	K2855	R2793	K2731	R2560	R2560
LEU	V3310	L3155	HIS	E3002	R2920	M2858	E2794	W2732	L2580	L2580
ARG	K3311	L3155	THR	M3003	F2921	E2859	G2795	S2732	R2581	R2581
PHE	L3315	F3163	ARG	L3007	A2922	L2860	D2796	L2675	Y2476	Y2476
ASP	L3324	A3163	ASN	L3007	Y2923	E2861	S2797	L2676	G2477	G2477
TYR	Y3245	G3164	GLN	V3013	L2926	S2862	M2798	P2678	I2478	I2478
ASN	M3246	G3164	PRO	L3014	Q2927	S2862	A2799	D2679	F2483	F2483
ALA	W3249	A3165	K3088	V3015	Q2927	S2862	L2800	Y2680	L2484	L2484
LYS	W3250	F3166	G3089	H3017	Q2928	G2864	L2800	M2681	L2488	L2488
LEU	W3250	A3166	V3089	H3017	Q2928	G2864	Y2801	E2682	E2489	E2489
LEU	P3254	F3167	V3091	R3018	Y2933	G2866	N2802	S2683	V2490	V2490
GLU	E3255	G3171	T3092	R3018	Y2933	G2866	ARG	M2684	G2491	G2491
ASN	N3256	L3171	I3093	F3022	H2937	N2867	THR	L2685	F2492	F2492
PRO	R3260	E3172	I3094	G3023	I2940	H2868	ARG	Y2686	L2496	L2496
GLU	A3261	T3173	N3095	D3025	I2940	H2868	ARG	S2687	R2497	R2497
GLU	M3263	H3174	I3096	D3025	I2940	H2868	ILE	M2688	A2498	A2498
LEU	C3265	D3176	T3097	A3026	F2943	L2871	GLN	E2689	L2502	L2502
ARG	T3266	L3101	A3100	I3029	D2944	Y2874	THR	E2690	K2604	K2604
MET	A3267	L3102	L3101	H3034	G2945	D2875	SER	K2691	M2605	M2605
VAL	L3268	P3103	P3103	L3035	G2946	T2876	GLN	Q2692	T2504	T2504
ALA	N3269	M3104	M3104	L3036	S2947	L2877	VAL	S2693	L2607	L2607
VAL	E3271	S3107	S3107	G3037	R2948	L2877	SER	S2694	K2608	K2608
GLU	T3275	E3110	E3110	Q3038	G2949	E2881	ASP	M2695	P2511	P2511
PHE	L3277	H3111	H3111	K3038	K2950	K2882	ALA	D2696	K2619	K2619
ILE	G3278	Q3116	Q3116	L3040	G2951	A2883	ALA	E2698	Y2620	Y2620
TRP	L3279	G3118	G3118	D3041	E2952	K2884	HIS	S2697	L2514	L2514
SER	N3279	E3119	E3119	R3043	H2953	D2885	ALA	E2699	L2520	L2520
ASP	N3279	D3120	D3120	T3044	F2954	L2886	ALA	G2699	C2521	C2521
ASP	N3279	L3121	L3121	K3046	P2955	E2887	ASP	M2700	G2626	G2626
ASP	N3279	D3124	D3124	K3047	A2964	K2965	ASP	F2701	W2627	W2627
ASP	N3279	D3125	D3125	L3050	K2966	L2888	ASP	N2702	N2629	N2629
ASP	N3279	D3125	D3125	V3053	L2968	A2889	ASP	F2703	F2630	F2630
ASP	N3279	D3125	D3125	V3053	Y2974	K2893	ASP	Q2704		
ASP	N3279	D3125	D3125	V3053	F2975	K2894	ASP	V2705		
ASP	N3279	D3125	D3125	V3053		L2895	ASP	Q2706		
ASP	N3279	D3125	D3125	V3053		F2895	ASP	D2707		
ASP	N3279	D3125	D3125	V3053		L2896	ASP	T2708		





## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	14924	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 ( $e^-/\text{\AA}^2$ )	58	Depositor
Minimum defocus (nm)	500	Depositor
Maximum defocus (nm)	1200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.660	Depositor
Minimum map value	-0.004	Depositor
Average map value	0.017	Depositor
Map value standard deviation	0.035	Depositor
Recommended contour level	0.16	Depositor
Map size (Å)	426.752, 426.752, 426.752	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.8335, 0.8335, 0.8335	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: ZN, ATP, KVR

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	E	0.31	0/834	0.53	0/1123
1	F	0.31	0/834	0.53	0/1123
1	G	0.31	0/834	0.53	0/1123
1	H	0.31	0/834	0.53	0/1123
2	A	0.28	0/34509	0.50	9/46612 (0.0%)
2	B	0.28	0/34509	0.50	9/46612 (0.0%)
2	C	0.28	0/34509	0.50	8/46612 (0.0%)
2	D	0.28	0/34509	0.50	9/46612 (0.0%)
All	All	0.28	0/141372	0.50	35/190940 (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
2	A	0	1
2	B	0	1
2	C	0	1
2	D	0	1
All	All	0	4

There are no bond length outliers.

All (35) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	2605	MET	CA-CB-CG	7.43	125.92	113.30
2	A	2605	MET	CA-CB-CG	7.42	125.92	113.30
2	C	2605	MET	CA-CB-CG	7.41	125.89	113.30
2	D	2605	MET	CA-CB-CG	7.40	125.88	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	3262	GLU	CA-CB-CG	7.23	129.31	113.40
2	B	3262	GLU	CA-CB-CG	7.23	129.30	113.40
2	D	3262	GLU	CA-CB-CG	7.23	129.30	113.40
2	C	3262	GLU	CA-CB-CG	7.21	129.25	113.40
2	C	2605	MET	CB-CG-SD	6.72	132.57	112.40
2	A	2605	MET	CB-CG-SD	6.72	132.55	112.40
2	D	2605	MET	CB-CG-SD	6.72	132.55	112.40
2	B	2605	MET	CB-CG-SD	6.71	132.52	112.40
2	C	2689	MET	CB-CG-SD	6.11	130.72	112.40
2	D	2689	MET	CB-CG-SD	6.11	130.72	112.40
2	A	2689	MET	CB-CG-SD	6.10	130.71	112.40
2	B	2689	MET	CB-CG-SD	6.10	130.70	112.40
2	C	2134	MET	CB-CG-SD	6.00	130.41	112.40
2	A	2134	MET	CB-CG-SD	6.00	130.40	112.40
2	B	2134	MET	CB-CG-SD	5.99	130.37	112.40
2	D	2134	MET	CB-CG-SD	5.98	130.34	112.40
2	B	2990	LEU	CA-CB-CG	5.90	128.86	115.30
2	D	2990	LEU	CA-CB-CG	5.89	128.85	115.30
2	A	2990	LEU	CA-CB-CG	5.89	128.84	115.30
2	C	2990	LEU	CA-CB-CG	5.88	128.82	115.30
2	B	2896	LEU	CA-CB-CG	5.48	127.91	115.30
2	D	2896	LEU	CA-CB-CG	5.48	127.90	115.30
2	A	2896	LEU	CA-CB-CG	5.48	127.89	115.30
2	C	2798	MET	CB-CG-SD	5.46	128.78	112.40
2	C	2896	LEU	CA-CB-CG	5.45	127.84	115.30
2	B	2798	MET	CB-CG-SD	5.45	128.75	112.40
2	A	2798	MET	CB-CG-SD	5.45	128.75	112.40
2	D	2798	MET	CB-CG-SD	5.44	128.72	112.40
2	D	2798	MET	CG-SD-CE	5.02	108.24	100.20
2	B	2798	MET	CG-SD-CE	5.01	108.21	100.20
2	A	2798	MET	CG-SD-CE	5.00	108.20	100.20

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	A	4640	PHE	Peptide
2	B	4640	PHE	Peptide
2	C	4640	PHE	Peptide
2	D	4640	PHE	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	E	818	0	821	19	0
1	F	818	0	821	22	0
1	G	818	0	821	18	0
1	H	818	0	821	18	0
2	A	33769	0	33450	886	0
2	B	33769	0	33450	877	0
2	C	33769	0	33450	879	0
2	D	33769	0	33450	875	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0
4	A	62	0	24	3	0
4	B	62	0	24	3	0
4	C	62	0	24	3	0
4	D	62	0	24	3	0
5	A	23	0	0	2	0
5	B	23	0	0	2	0
5	C	23	0	0	2	0
5	D	23	0	0	2	0
All	All	138692	0	137180	3541	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 13.

All (3541) 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)
2:B:1031:ARG:HH21	2:B:1038:LEU:HD11	1.24	1.02
2:A:1031:ARG:HH21	2:A:1038:LEU:HD11	1.24	1.02
2:D:1031:ARG:HH21	2:D:1038:LEU:HD11	1.24	1.00
2:C:1031:ARG:HH21	2:C:1038:LEU:HD11	1.24	1.00
2:C:894:VAL:HG21	2:C:972:LEU:HD22	1.48	0.95
2:D:894:VAL:HG21	2:D:972:LEU:HD22	1.48	0.95
2:B:894:VAL:HG21	2:B:972:LEU:HD22	1.48	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:894:VAL:HG21	2:A:972:LEU:HD22	1.48	0.93
2:D:1968:PRO:HA	2:D:3605:MET:HE1	1.52	0.89
2:A:4834:PRO:HB3	2:A:4843:ARG:HD3	1.57	0.87
2:B:1968:PRO:HA	2:B:3605:MET:HE1	1.55	0.86
2:D:4834:PRO:HB3	2:D:4843:ARG:HD3	1.57	0.86
2:C:1968:PRO:HA	2:C:3605:MET:HE1	1.56	0.86
2:B:4834:PRO:HB3	2:B:4843:ARG:HD3	1.57	0.85
2:B:1031:ARG:HH22	2:B:1042:THR:HG21	1.43	0.84
2:C:1031:ARG:HH22	2:C:1042:THR:HG21	1.42	0.84
2:C:4834:PRO:HB3	2:C:4843:ARG:HD3	1.57	0.84
2:A:999:LEU:HB3	2:A:1050:LEU:HD21	1.60	0.84
2:A:1031:ARG:HH22	2:A:1042:THR:HG21	1.42	0.84
2:B:999:LEU:HB3	2:B:1050:LEU:HD21	1.60	0.83
2:D:999:LEU:HB3	2:D:1050:LEU:HD21	1.60	0.83
2:C:999:LEU:HB3	2:C:1050:LEU:HD21	1.60	0.83
2:A:1968:PRO:HA	2:A:3605:MET:HE1	1.58	0.82
2:A:1689:ILE:HA	2:A:1703:TYR:HE1	1.44	0.82
2:B:2353:ILE:HG12	2:B:2359:ARG:HE	1.45	0.82
2:D:2353:ILE:HG12	2:D:2359:ARG:HE	1.45	0.82
2:C:1689:ILE:HA	2:C:1703:TYR:HE1	1.43	0.81
2:C:2353:ILE:HG12	2:C:2359:ARG:HE	1.45	0.81
2:D:1031:ARG:HH22	2:D:1042:THR:HG21	1.42	0.81
2:B:1689:ILE:HA	2:B:1703:TYR:HE1	1.43	0.81
2:B:3227:ARG:HG2	2:B:3290:ILE:HD12	1.62	0.81
2:A:2353:ILE:HG12	2:A:2359:ARG:HE	1.45	0.81
2:D:3227:ARG:HG2	2:D:3290:ILE:HD12	1.62	0.80
2:D:1689:ILE:HA	2:D:1703:TYR:HE1	1.43	0.80
2:C:2711:ILE:O	2:C:2780:LYS:NZ	2.15	0.80
2:A:3227:ARG:HG2	2:A:3290:ILE:HD12	1.62	0.80
2:D:2711:ILE:O	2:D:2780:LYS:NZ	2.15	0.80
2:B:4640:PHE:CD2	2:B:4641:PRO:HD3	2.17	0.79
2:A:4640:PHE:CD2	2:A:4641:PRO:HD3	2.17	0.79
2:C:4640:PHE:CD2	2:C:4641:PRO:HD3	2.17	0.79
2:D:4640:PHE:CD2	2:D:4641:PRO:HD3	2.17	0.79
2:A:988:LEU:HB2	2:A:1055:ARG:HE	1.48	0.79
2:D:988:LEU:HB2	2:D:1055:ARG:HE	1.48	0.79
2:B:988:LEU:HB2	2:B:1055:ARG:HE	1.48	0.79
2:C:3227:ARG:HG2	2:C:3290:ILE:HD12	1.62	0.79
2:B:2711:ILE:O	2:B:2780:LYS:NZ	2.15	0.79
2:A:1689:ILE:HD11	2:A:1706:LEU:HD13	1.65	0.78
2:B:1689:ILE:HD11	2:B:1706:LEU:HD13	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:2711:ILE:O	2:A:2780:LYS:NZ	2.15	0.78
2:A:4831:ILE:HG13	2:A:4843:ARG:HH21	1.48	0.78
2:A:1415:ASP:OD2	2:A:1559:ARG:NH2	2.17	0.78
2:D:1031:ARG:NH2	2:D:1038:LEU:HD11	1.99	0.78
2:B:4831:ILE:HG13	2:B:4843:ARG:HH21	1.48	0.78
2:D:4831:ILE:HG13	2:D:4843:ARG:HH21	1.48	0.78
2:D:1415:ASP:OD2	2:D:1559:ARG:NH2	2.17	0.77
2:C:1031:ARG:NH2	2:C:1038:LEU:HD11	1.99	0.77
2:D:1689:ILE:HD11	2:D:1706:LEU:HD13	1.65	0.77
2:C:1689:ILE:HD11	2:C:1706:LEU:HD13	1.65	0.77
2:C:1415:ASP:OD2	2:C:1559:ARG:NH2	2.17	0.77
2:C:4831:ILE:HG13	2:C:4843:ARG:HH21	1.49	0.77
2:D:3319:PHE:HB3	2:D:3323:MET:HE1	1.66	0.76
2:B:1031:ARG:NH2	2:B:1038:LEU:HD11	1.99	0.76
2:C:988:LEU:HB2	2:C:1055:ARG:HE	1.48	0.76
2:A:3319:PHE:HB3	2:A:3323:MET:HE1	1.66	0.76
2:B:1415:ASP:OD2	2:B:1559:ARG:NH2	2.17	0.76
2:B:943:LEU:HA	2:B:946:LEU:HD12	1.68	0.76
2:C:3319:PHE:HB3	2:C:3323:MET:HE1	1.66	0.76
2:A:943:LEU:HA	2:A:946:LEU:HD12	1.68	0.75
2:A:866:PRO:HG2	2:A:1009:ARG:HD3	1.68	0.75
2:B:3319:PHE:HB3	2:B:3323:MET:HE1	1.66	0.75
2:D:866:PRO:HG2	2:D:1009:ARG:HD3	1.68	0.75
2:B:902:TRP:HB3	2:B:918:LEU:HD21	1.69	0.75
2:C:902:TRP:HB3	2:C:918:LEU:HD21	1.69	0.75
2:D:3803:LEU:HB2	2:D:3884:SER:HB3	1.69	0.75
2:A:1031:ARG:NH2	2:A:1038:LEU:HD11	1.99	0.74
2:A:3803:LEU:HB2	2:A:3884:SER:HB3	1.69	0.74
2:B:3945:VAL:HG23	2:B:4006:SER:HB3	1.70	0.74
2:C:2833:LEU:O	2:C:2835:ARG:NH2	2.20	0.74
2:C:866:PRO:HG2	2:C:1009:ARG:HD3	1.68	0.74
2:B:2833:LEU:O	2:B:2835:ARG:NH2	2.20	0.74
2:D:3945:VAL:HG23	2:D:4006:SER:HB3	1.70	0.74
2:A:2833:LEU:O	2:A:2835:ARG:NH2	2.20	0.74
2:B:3803:LEU:HB2	2:B:3884:SER:HB3	1.69	0.74
2:D:943:LEU:HA	2:D:946:LEU:HD12	1.68	0.74
2:B:866:PRO:HG2	2:B:1009:ARG:HD3	1.68	0.73
2:C:943:LEU:HA	2:C:946:LEU:HD12	1.68	0.73
2:A:902:TRP:HB3	2:A:918:LEU:HD21	1.69	0.73
2:D:902:TRP:HB3	2:D:918:LEU:HD21	1.69	0.73
2:C:3803:LEU:HB2	2:C:3884:SER:HB3	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2833:LEU:O	2:D:2835:ARG:NH2	2.20	0.73
2:B:4650:LYS:HG2	2:B:4670:LEU:HD22	1.71	0.73
2:A:3945:VAL:HG23	2:A:4006:SER:HB3	1.70	0.72
2:B:2241:ASP:OD1	2:B:2297:ARG:NH2	2.22	0.72
2:A:4650:LYS:HG2	2:A:4670:LEU:HD22	1.71	0.72
2:C:3945:VAL:HG23	2:C:4006:SER:HB3	1.70	0.72
2:C:2241:ASP:OD1	2:C:2297:ARG:NH2	2.23	0.71
1:H:19:LYS:NZ	1:H:52:GLY:HA3	2.05	0.71
2:B:2627:TRP:HB2	2:B:2630:PHE:HB2	1.72	0.71
2:B:3250:TRP:O	2:B:3256:ASN:ND2	2.21	0.71
2:C:2635:GLU:OE2	2:C:2680:TYR:OH	2.08	0.71
2:C:4650:LYS:HG2	2:C:4670:LEU:HD22	1.71	0.71
2:B:2635:GLU:OE2	2:B:2680:TYR:OH	2.08	0.71
2:C:4633:LEU:O	2:C:4704:LYS:NZ	2.24	0.71
2:D:4650:LYS:HG2	2:D:4670:LEU:HD22	1.71	0.71
1:G:19:LYS:NZ	1:G:52:GLY:HA3	2.05	0.71
2:A:2241:ASP:OD1	2:A:2297:ARG:NH2	2.22	0.71
2:A:3260:ARG:NH1	2:A:3264:CYS:HA	2.06	0.71
1:F:19:LYS:NZ	1:F:52:GLY:HA3	2.05	0.71
2:D:114:LEU:HB2	2:D:117:HIS:CE1	2.26	0.71
2:B:4633:LEU:O	2:B:4704:LYS:NZ	2.24	0.71
2:D:2241:ASP:OD1	2:D:2297:ARG:NH2	2.23	0.71
1:E:19:LYS:NZ	1:E:52:GLY:HA3	2.05	0.71
2:A:114:LEU:HB2	2:A:117:HIS:CE1	2.26	0.71
2:B:114:LEU:HB2	2:B:117:HIS:CE1	2.26	0.71
2:C:114:LEU:HB2	2:C:117:HIS:CE1	2.26	0.71
2:C:3172:GLU:HG3	2:C:3266:THR:HA	1.73	0.71
2:D:2635:GLU:OE2	2:D:2680:TYR:OH	2.08	0.70
2:A:1438:PRO:HG3	2:A:1500:ARG:HG2	1.72	0.70
2:A:2627:TRP:HB2	2:A:2630:PHE:HB2	1.72	0.70
2:A:2635:GLU:OE2	2:A:2680:TYR:OH	2.08	0.70
2:A:4633:LEU:O	2:A:4704:LYS:NZ	2.24	0.70
2:B:2964:ALA:HA	2:B:2968:LEU:HD12	1.74	0.70
2:B:3260:ARG:NH1	2:B:3264:CYS:HA	2.06	0.70
2:D:3260:ARG:NH1	2:D:3264:CYS:HA	2.06	0.70
2:A:2964:ALA:HA	2:A:2968:LEU:HD12	1.74	0.70
2:A:3152:ARG:NH1	2:A:3236:GLU:OE2	2.25	0.70
2:B:1438:PRO:HG3	2:B:1500:ARG:HG2	1.72	0.70
2:A:3172:GLU:HG3	2:A:3266:THR:HA	1.73	0.70
2:C:2627:TRP:HB2	2:C:2630:PHE:HB2	1.72	0.70
2:A:3250:TRP:O	2:A:3256:ASN:ND2	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1438:PRO:HG3	2:C:1500:ARG:HG2	1.72	0.70
2:D:1438:PRO:HG3	2:D:1500:ARG:HG2	1.72	0.70
2:D:4633:LEU:O	2:D:4704:LYS:NZ	2.24	0.70
2:B:3152:ARG:NH1	2:B:3236:GLU:OE2	2.25	0.70
2:C:3152:ARG:NH1	2:C:3236:GLU:OE2	2.25	0.70
2:D:1129:GLY:HA3	2:D:1145:TRP:HB3	1.74	0.70
2:B:1014:GLN:HB3	2:B:1027:ARG:HH21	1.57	0.69
2:C:2964:ALA:HA	2:C:2968:LEU:HD12	1.74	0.69
2:C:1129:GLY:HA3	2:C:1145:TRP:HB3	1.74	0.69
2:B:1129:GLY:HA3	2:B:1145:TRP:HB3	1.74	0.69
2:C:1014:GLN:HB3	2:C:1027:ARG:HH21	1.57	0.69
2:C:2831:VAL:HB	2:C:2894:LYS:HD3	1.73	0.69
2:C:3260:ARG:NH1	2:C:3264:CYS:HA	2.06	0.69
2:D:3152:ARG:NH1	2:D:3236:GLU:OE2	2.25	0.69
2:D:3172:GLU:HG3	2:D:3266:THR:HA	1.73	0.69
2:A:1129:GLY:HA3	2:A:1145:TRP:HB3	1.74	0.69
2:B:2831:VAL:HB	2:B:2894:LYS:HD3	1.73	0.69
2:D:2831:VAL:HB	2:D:2894:LYS:HD3	1.73	0.69
2:D:2964:ALA:HA	2:D:2968:LEU:HD12	1.74	0.69
2:B:3172:GLU:HG3	2:B:3266:THR:HA	1.73	0.69
2:B:932:ASN:HA	2:B:935:MET:HE3	1.75	0.69
2:A:2831:VAL:HB	2:A:2894:LYS:HD3	1.73	0.68
2:D:2627:TRP:HB2	2:D:2630:PHE:HB2	1.72	0.68
2:B:4690:LYS:NZ	2:B:4692:SER:OG	2.19	0.68
2:D:1014:GLN:HB3	2:D:1027:ARG:HH21	1.57	0.68
2:A:962:LYS:NZ	2:A:964:MET:SD	2.67	0.68
2:D:3250:TRP:O	2:D:3256:ASN:ND2	2.21	0.68
2:A:1100:ARG:NH1	2:A:1234:GLU:O	2.26	0.68
1:G:22:THR:N	1:G:108:GLU:O	2.27	0.68
2:A:1014:GLN:HB3	2:A:1027:ARG:HH21	1.57	0.68
2:D:962:LYS:NZ	2:D:964:MET:SD	2.67	0.68
2:B:908:ARG:HD2	2:B:916:PRO:HD2	1.76	0.68
2:D:2694:SER:O	2:D:2702:ASN:N	2.26	0.68
2:A:908:ARG:HD2	2:A:916:PRO:HD2	1.76	0.68
2:B:2599:LEU:HD12	2:B:2661:LEU:HD21	1.76	0.68
2:C:2599:LEU:HD12	2:C:2661:LEU:HD21	1.76	0.68
2:D:2424:ARG:HG2	2:D:2476:TYR:HE1	1.59	0.68
2:C:2424:ARG:HG2	2:C:2476:TYR:HE1	1.59	0.67
2:C:3227:ARG:HD3	2:C:3229:THR:H	1.60	0.67
2:A:2424:ARG:HG2	2:A:2476:TYR:HE1	1.59	0.67
2:D:908:ARG:HD2	2:D:916:PRO:HD2	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2830:ASN:ND2	2:C:1549:SER:HB2	2.09	0.67
2:C:908:ARG:HD2	2:C:916:PRO:HD2	1.76	0.67
1:E:24:VAL:HG22	1:E:48:LYS:HG2	1.77	0.67
2:A:2599:LEU:HD12	2:A:2661:LEU:HD21	1.76	0.67
2:B:2424:ARG:HG2	2:B:2476:TYR:HE1	1.59	0.67
2:C:962:LYS:NZ	2:C:964:MET:SD	2.67	0.67
2:D:2599:LEU:HD12	2:D:2661:LEU:HD21	1.76	0.67
2:C:3284:ILE:HD12	2:C:3287:ASN:HD22	1.59	0.67
1:F:24:VAL:HG22	1:F:48:LYS:HG2	1.77	0.67
2:B:962:LYS:NZ	2:B:964:MET:SD	2.67	0.67
2:B:1100:ARG:NH1	2:B:1234:GLU:O	2.26	0.67
1:E:22:THR:N	1:E:108:GLU:O	2.27	0.66
2:B:2694:SER:O	2:B:2702:ASN:N	2.26	0.66
2:D:3227:ARG:HD3	2:D:3229:THR:H	1.60	0.66
1:H:24:VAL:HG22	1:H:48:LYS:HG2	1.77	0.66
2:A:2427:ILE:O	2:A:2476:TYR:OH	2.14	0.66
2:A:3284:ILE:HD12	2:A:3287:ASN:HD22	1.59	0.66
2:B:1286:THR:OG1	2:B:1550:PRO:O	2.13	0.66
2:C:3250:TRP:O	2:C:3256:ASN:ND2	2.21	0.66
2:D:3284:ILE:HD12	2:D:3287:ASN:HD22	1.59	0.66
1:H:22:THR:N	1:H:108:GLU:O	2.27	0.66
1:G:24:VAL:HG22	1:G:48:LYS:HG2	1.77	0.66
2:B:3284:ILE:HD12	2:B:3287:ASN:HD22	1.59	0.66
2:C:2830:ASN:ND2	2:D:1549:SER:HB2	2.10	0.66
2:A:2502:LEU:HG	2:A:2512:MET:HE1	1.77	0.66
2:B:924:LEU:HD12	2:B:925:PRO:HD2	1.77	0.66
2:D:4047:ASP:HA	2:D:4050:LYS:HE3	1.77	0.66
2:A:2139:GLU:HG3	2:A:2192:MET:HB3	1.78	0.66
2:A:2694:SER:O	2:A:2702:ASN:N	2.26	0.66
2:D:932:ASN:HA	2:D:935:MET:HE3	1.76	0.66
2:A:3227:ARG:HD3	2:A:3229:THR:H	1.60	0.66
2:D:1100:ARG:NH1	2:D:1234:GLU:O	2.26	0.66
2:D:2139:GLU:HG3	2:D:2192:MET:HB3	1.78	0.66
2:D:4661:TYR:HB3	2:D:4665:ARG:HH21	1.60	0.66
1:F:22:THR:N	1:F:108:GLU:O	2.27	0.66
2:C:4661:TYR:HB3	2:C:4665:ARG:HH21	1.60	0.66
2:A:1286:THR:OG1	2:A:1550:PRO:O	2.13	0.66
2:B:1017:THR:O	2:B:1028:ARG:HA	1.96	0.66
1:E:16:PHE:O	1:E:18:LYS:NZ	2.29	0.65
1:G:16:PHE:O	1:G:18:LYS:NZ	2.29	0.65
2:B:2139:GLU:HG3	2:B:2192:MET:HB3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2427:ILE:O	2:B:2476:TYR:OH	2.14	0.65
2:C:2427:ILE:O	2:C:2476:TYR:OH	2.14	0.65
2:D:2427:ILE:O	2:D:2476:TYR:OH	2.14	0.65
1:G:79:PRO:HD3	1:G:97:THR:HG22	1.79	0.65
2:A:1017:THR:O	2:A:1028:ARG:HA	1.96	0.65
2:A:2179:LEU:O	2:A:2183:GLU:HB2	1.97	0.65
2:B:2179:LEU:O	2:B:2183:GLU:HB2	1.97	0.65
2:C:924:LEU:HD12	2:C:925:PRO:HD2	1.77	0.65
1:H:16:PHE:O	1:H:18:LYS:NZ	2.29	0.65
1:H:79:PRO:HD3	1:H:97:THR:HG22	1.79	0.65
2:B:4661:TYR:HB3	2:B:4665:ARG:HH21	1.60	0.65
2:C:1100:ARG:NH1	2:C:1234:GLU:O	2.26	0.65
2:A:769:ARG:HG2	2:A:774:PRO:HA	1.78	0.65
2:A:2436:ILE:HG22	2:A:2491:GLY:HA3	1.78	0.65
2:B:769:ARG:HG2	2:B:774:PRO:HA	1.78	0.65
2:B:3227:ARG:HD3	2:B:3229:THR:H	1.60	0.65
2:D:924:LEU:HD12	2:D:925:PRO:HD2	1.77	0.65
2:A:4661:TYR:HB3	2:A:4665:ARG:HH21	1.60	0.65
2:B:4047:ASP:HA	2:B:4050:LYS:HE3	1.77	0.65
2:B:2943:PHE:O	2:B:2947:SER:N	2.29	0.65
2:C:1017:THR:O	2:C:1028:ARG:HA	1.96	0.65
1:E:79:PRO:HD3	1:E:97:THR:HG22	1.79	0.65
2:C:2139:GLU:HG3	2:C:2192:MET:HB3	1.78	0.65
2:C:2943:PHE:O	2:C:2947:SER:N	2.30	0.65
2:C:4047:ASP:HA	2:C:4050:LYS:HE3	1.77	0.65
2:D:1017:THR:O	2:D:1028:ARG:HA	1.96	0.65
1:F:16:PHE:O	1:F:18:LYS:NZ	2.29	0.65
2:A:963:LYS:HD2	2:A:980:PRO:HA	1.79	0.65
2:C:2157:GLN:O	2:C:3615:ARG:NH2	2.30	0.65
2:C:2436:ILE:HG22	2:C:2491:GLY:HA3	1.78	0.65
2:D:1286:THR:OG1	2:D:1550:PRO:O	2.13	0.65
2:A:2943:PHE:O	2:A:2947:SER:N	2.30	0.65
2:C:1431:ARG:NH1	2:C:1506:GLU:OE2	2.30	0.65
2:C:2694:SER:O	2:C:2702:ASN:N	2.26	0.65
2:C:2773:TRP:HB3	2:C:2774:PRO:HD3	1.79	0.65
2:B:2773:TRP:HB3	2:B:2774:PRO:HD3	1.79	0.65
1:F:79:PRO:HD3	1:F:97:THR:HG22	1.79	0.64
2:A:4047:ASP:HA	2:A:4050:LYS:HE3	1.78	0.64
2:B:2157:GLN:O	2:B:3615:ARG:NH2	2.30	0.64
2:A:924:LEU:HD12	2:A:925:PRO:HD2	1.77	0.64
2:D:2157:GLN:O	2:D:3615:ARG:NH2	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2436:ILE:HG22	2:D:2491:GLY:HA3	1.78	0.64
2:A:1549:SER:HB2	2:D:2830:ASN:ND2	2.13	0.64
2:B:2436:ILE:HG22	2:B:2491:GLY:HA3	1.78	0.64
2:D:2455:ASP:OD2	2:D:2457:SER:OG	2.15	0.64
2:A:2157:GLN:O	2:A:3615:ARG:NH2	2.30	0.64
2:C:963:LYS:HD2	2:C:980:PRO:HA	1.79	0.64
2:D:1431:ARG:NH1	2:D:1506:GLU:OE2	2.30	0.64
2:D:2179:LEU:O	2:D:2183:GLU:HB2	1.97	0.64
2:B:963:LYS:HD2	2:B:980:PRO:HA	1.79	0.64
2:C:769:ARG:HG2	2:C:774:PRO:HA	1.78	0.64
1:H:41:ARG:NH2	1:H:103:GLU:OE1	2.31	0.64
2:B:1431:ARG:NH1	2:B:1506:GLU:OE2	2.30	0.64
1:E:41:ARG:NH2	1:E:103:GLU:OE1	2.31	0.64
2:C:2179:LEU:O	2:C:2183:GLU:HB2	1.96	0.64
2:D:4690:LYS:NZ	2:D:4692:SER:OG	2.19	0.64
2:A:891:GLU:HB3	2:A:978:PRO:HB3	1.80	0.64
2:A:1685:LEU:HB3	2:A:1706:LEU:HD12	1.80	0.64
2:C:1029:ASN:ND2	2:C:1031:ARG:HB2	2.13	0.64
2:C:2642:ARG:HH12	2:C:2921:PHE:HA	1.62	0.64
2:D:194:LEU:HD11	2:D:201:LEU:HB3	1.80	0.64
2:A:1431:ARG:NH1	2:A:1506:GLU:OE2	2.30	0.64
2:A:3044:THR:HA	2:A:3047:LYS:HG2	1.80	0.64
2:A:4056:LYS:NZ	2:B:4660:PHE:O	2.31	0.64
2:B:912:LYS:NZ	2:B:914:GLN:O	2.26	0.64
2:C:520:ARG:NH1	2:C:521:GLU:HB3	2.13	0.64
2:D:1029:ASN:ND2	2:D:1031:ARG:HB2	2.13	0.64
2:A:1029:ASN:ND2	2:A:1031:ARG:HB2	2.13	0.63
2:D:891:GLU:HB3	2:D:978:PRO:HB3	1.80	0.63
2:D:924:LEU:HD23	2:D:929:ARG:HB2	1.80	0.63
2:A:3201:VAL:HA	2:A:3204:VAL:HG12	1.80	0.63
2:B:924:LEU:HD23	2:B:929:ARG:HB2	1.79	0.63
2:B:1167:ASP:OD1	2:B:1169:ASN:ND2	2.30	0.63
2:C:3044:THR:HA	2:C:3047:LYS:HG2	1.80	0.63
2:D:520:ARG:NH1	2:D:521:GLU:HB3	2.13	0.63
2:D:769:ARG:HG2	2:D:774:PRO:HA	1.78	0.63
2:D:2642:ARG:HH12	2:D:2921:PHE:HA	1.62	0.63
2:D:3044:THR:HA	2:D:3047:LYS:HG2	1.80	0.63
2:C:320:GLU:OE1	2:C:320:GLU:N	2.31	0.63
2:C:1522:ALA:HB3	2:C:1527:LEU:HD21	1.81	0.63
2:D:879:GLU:O	2:D:882:ARG:NH1	2.32	0.63
2:D:963:LYS:HD2	2:D:980:PRO:HA	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2896:LEU:HD12	2:D:2901:TYR:HB2	1.81	0.63
2:A:320:GLU:OE1	2:A:320:GLU:N	2.31	0.63
2:A:3605:MET:HG2	2:A:3606:ALA:H	1.63	0.63
2:D:2773:TRP:HB3	2:D:2774:PRO:HD3	1.79	0.63
2:A:194:LEU:HD11	2:A:201:LEU:HB3	1.80	0.63
2:B:520:ARG:NH1	2:B:521:GLU:HB3	2.13	0.63
2:B:1029:ASN:ND2	2:B:1031:ARG:HB2	2.13	0.63
2:B:1685:LEU:HB3	2:B:1706:LEU:HD12	1.80	0.63
2:B:2642:ARG:HH12	2:B:2921:PHE:HA	1.63	0.63
2:B:2896:LEU:HD12	2:B:2901:TYR:HB2	1.81	0.63
2:B:3201:VAL:HA	2:B:3204:VAL:HG12	1.80	0.63
2:C:4045:LYS:HD3	2:C:4072:THR:HB	1.80	0.63
2:C:4690:LYS:NZ	2:C:4692:SER:OG	2.19	0.63
1:F:41:ARG:NH2	1:F:103:GLU:OE1	2.31	0.63
2:A:879:GLU:O	2:A:882:ARG:NH1	2.32	0.63
2:A:2773:TRP:HB3	2:A:2774:PRO:HD3	1.80	0.63
2:A:3242:LEU:O	2:A:3246:MET:HG2	1.99	0.63
2:C:3325:LYS:HG3	2:C:3328:LYS:HZ2	1.64	0.63
2:D:3242:LEU:O	2:D:3246:MET:HG2	1.99	0.63
2:A:1167:ASP:OD1	2:A:1169:ASN:ND2	2.30	0.63
2:A:2896:LEU:HD12	2:A:2901:TYR:HB2	1.81	0.63
2:B:891:GLU:HB3	2:B:978:PRO:HB3	1.80	0.63
2:B:4045:LYS:HD3	2:B:4072:THR:HB	1.80	0.63
2:D:3325:LYS:HG3	2:D:3328:LYS:HZ2	1.64	0.63
1:G:41:ARG:NH2	1:G:103:GLU:OE1	2.31	0.63
2:B:1522:ALA:HB3	2:B:1527:LEU:HD21	1.81	0.63
2:C:924:LEU:HD23	2:C:929:ARG:HB2	1.79	0.63
2:C:2896:LEU:HD12	2:C:2901:TYR:HB2	1.81	0.63
2:C:3201:VAL:HA	2:C:3204:VAL:HG12	1.80	0.63
2:D:2943:PHE:O	2:D:2947:SER:N	2.29	0.63
2:D:4045:LYS:HD3	2:D:4072:THR:HB	1.80	0.63
2:A:2570:GLU:HG2	2:A:2605:MET:HG2	1.81	0.62
2:A:3040:LEU:O	2:A:3111:HIS:NE2	2.33	0.62
2:C:3242:LEU:O	2:C:3246:MET:HG2	1.98	0.62
2:D:694:ARG:NH1	2:D:718:VAL:O	2.32	0.62
2:A:2642:ARG:HH12	2:A:2921:PHE:HA	1.63	0.62
2:C:932:ASN:HA	2:C:935:MET:HE3	1.79	0.62
2:C:2455:ASP:OD2	2:C:2457:SER:OG	2.15	0.62
2:C:2570:GLU:HG2	2:C:2605:MET:HG2	1.81	0.62
2:A:2232:PRO:HD2	2:A:2379:ASP:HA	1.82	0.62
2:A:2980:LEU:HG	2:A:2990:LEU:HD23	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:4187:GLU:OE2	2:A:4947:ARG:NH2	2.33	0.62
2:B:965:LYS:HA	2:B:977:LYS:HG3	1.82	0.62
2:B:2767:GLU:HA	2:B:2770:ILE:HG12	1.81	0.62
2:B:3040:LEU:O	2:B:3111:HIS:NE2	2.32	0.62
2:D:905:GLY:HA3	2:D:914:GLN:HB3	1.81	0.62
2:D:2232:PRO:HD2	2:D:2379:ASP:HA	1.82	0.62
2:A:1980:LYS:O	2:A:1983:LYS:NZ	2.32	0.62
2:B:3044:THR:HA	2:B:3047:LYS:HG2	1.80	0.62
2:C:194:LEU:HD11	2:C:201:LEU:HB3	1.80	0.62
2:C:1167:ASP:OD1	2:C:1169:ASN:ND2	2.30	0.62
4:C:5003:ATP:H5'2	5:C:5004:KVR:C17	2.29	0.62
2:D:1522:ALA:HB3	2:D:1527:LEU:HD21	1.81	0.62
2:A:520:ARG:NH1	2:A:521:GLU:HB3	2.13	0.62
2:A:4044:SER:HA	2:A:4077:THR:HA	1.80	0.62
2:B:320:GLU:OE1	2:B:320:GLU:N	2.31	0.62
2:B:555:LEU:HD21	2:B:578:VAL:HG11	1.81	0.62
2:B:3242:LEU:O	2:B:3246:MET:HG2	1.98	0.62
2:C:3040:LEU:O	2:C:3111:HIS:NE2	2.33	0.62
2:D:320:GLU:OE1	2:D:320:GLU:N	2.31	0.62
2:D:2980:LEU:HG	2:D:2990:LEU:HD23	1.81	0.62
2:B:2980:LEU:HG	2:B:2990:LEU:HD23	1.81	0.62
2:B:3605:MET:HG2	2:B:3606:ALA:H	1.63	0.62
2:B:4027:THR:HG21	2:B:4084:VAL:HG11	1.82	0.62
2:B:4187:GLU:OE2	2:B:4947:ARG:NH2	2.33	0.62
2:D:1167:ASP:OD1	2:D:1169:ASN:ND2	2.30	0.62
2:D:3201:VAL:HA	2:D:3204:VAL:HG12	1.80	0.62
2:A:3221:LEU:HD11	2:A:3234:VAL:HG21	1.82	0.62
4:A:5003:ATP:H5'2	5:A:5004:KVR:C17	2.29	0.62
2:B:1980:LYS:O	2:B:1983:LYS:NZ	2.33	0.62
2:C:694:ARG:NH1	2:C:718:VAL:O	2.32	0.62
2:C:4044:SER:HA	2:C:4077:THR:HA	1.80	0.62
4:D:5003:ATP:H5'2	5:D:5004:KVR:C17	2.29	0.62
2:A:555:LEU:HD21	2:A:578:VAL:HG11	1.81	0.62
2:A:4027:THR:HG21	2:A:4084:VAL:HG11	1.82	0.62
2:B:274:LEU:HD11	2:B:412:GLU:HG2	1.82	0.62
2:B:3269:ASN:HD21	2:B:3271:GLU:HB3	1.65	0.62
2:C:1685:LEU:O	2:C:1689:ILE:HG12	2.00	0.62
2:C:2767:GLU:HA	2:C:2770:ILE:HG12	1.81	0.62
2:D:2570:GLU:HG2	2:D:2605:MET:HG2	1.81	0.62
2:A:965:LYS:HA	2:A:977:LYS:HG3	1.82	0.62
2:A:2455:ASP:OD2	2:A:2457:SER:OG	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:3141:GLY:O	2:A:3152:ARG:NH1	2.33	0.62
2:A:3269:ASN:HD21	2:A:3271:GLU:HB3	1.65	0.62
2:B:194:LEU:HD11	2:B:201:LEU:HB3	1.80	0.62
2:B:1685:LEU:O	2:B:1689:ILE:HG12	2.00	0.62
2:B:3141:GLY:O	2:B:3152:ARG:NH1	2.33	0.62
2:C:1685:LEU:HB3	2:C:1706:LEU:HD12	1.80	0.62
2:C:1980:LYS:O	2:C:1983:LYS:NZ	2.32	0.62
2:D:274:LEU:HD11	2:D:412:GLU:HG2	1.82	0.62
2:D:555:LEU:HD21	2:D:578:VAL:HG11	1.81	0.62
2:D:2868:HIS:HB3	2:D:2871:LEU:HG	1.82	0.62
2:D:3605:MET:HG2	2:D:3606:ALA:H	1.63	0.62
2:D:4187:GLU:OE2	2:D:4947:ARG:NH2	2.33	0.62
2:A:924:LEU:HD23	2:A:929:ARG:HB2	1.80	0.62
2:A:1522:ALA:HB3	2:A:1527:LEU:HD21	1.81	0.62
2:A:2793:ARG:NH2	2:A:2796:ASP:OD2	2.33	0.62
2:C:965:LYS:HA	2:C:977:LYS:HG3	1.82	0.62
2:C:4187:GLU:OE2	2:C:4947:ARG:NH2	2.33	0.62
2:D:1685:LEU:O	2:D:1689:ILE:HG12	2.00	0.62
2:A:274:LEU:HD11	2:A:412:GLU:HG2	1.82	0.61
2:A:921:PHE:HB2	2:A:929:ARG:HD3	1.82	0.61
2:A:1685:LEU:O	2:A:1689:ILE:HG12	2.00	0.61
2:B:2232:PRO:HD2	2:B:2379:ASP:HA	1.82	0.61
2:C:905:GLY:HA3	2:C:914:GLN:HB3	1.81	0.61
2:C:1689:ILE:HA	2:C:1703:TYR:CE1	2.32	0.61
2:B:2793:ARG:NH2	2:B:2796:ASP:OD2	2.33	0.61
2:B:4044:SER:HA	2:B:4077:THR:HA	1.80	0.61
2:C:891:GLU:HB3	2:C:978:PRO:HB3	1.80	0.61
2:C:3221:LEU:HD11	2:C:3234:VAL:HG21	1.81	0.61
2:D:2767:GLU:HA	2:D:2770:ILE:HG12	1.81	0.61
2:D:4027:THR:HG21	2:D:4084:VAL:HG11	1.82	0.61
2:A:288:HIS:O	2:A:290:ARG:NH1	2.33	0.61
2:A:932:ASN:HA	2:A:935:MET:HE3	1.83	0.61
2:A:4045:LYS:HD3	2:A:4072:THR:HB	1.80	0.61
2:B:905:GLY:HA3	2:B:914:GLN:HB3	1.81	0.61
2:C:2232:PRO:HD2	2:C:2379:ASP:HA	1.81	0.61
2:C:2793:ARG:NH2	2:C:2796:ASP:OD2	2.33	0.61
2:A:905:GLY:HA3	2:A:914:GLN:HB3	1.81	0.61
2:B:921:PHE:HB2	2:B:929:ARG:HD3	1.82	0.61
2:C:175:VAL:HG11	2:C:181:LEU:HD21	1.82	0.61
2:C:3269:ASN:HD21	2:C:3271:GLU:HB3	1.65	0.61
2:C:3605:MET:HG2	2:C:3606:ALA:H	1.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:4044:SER:HA	2:D:4077:THR:HA	1.80	0.61
2:A:3301:VAL:HA	2:A:3304:GLN:HG2	1.83	0.61
2:B:2570:GLU:HG2	2:B:2605:MET:HG2	1.81	0.61
2:C:1286:THR:OG1	2:C:1550:PRO:O	2.13	0.61
2:C:3141:GLY:O	2:C:3152:ARG:NH1	2.33	0.61
2:D:2176:VAL:HG22	2:D:2220:TYR:CZ	2.35	0.61
2:A:175:VAL:HG11	2:A:181:LEU:HD21	1.82	0.61
2:A:2868:HIS:HB3	2:A:2871:LEU:HG	1.82	0.61
2:D:965:LYS:HA	2:D:977:LYS:HG3	1.82	0.61
2:D:3040:LEU:O	2:D:3111:HIS:NE2	2.33	0.61
4:B:5003:ATP:H5'2	5:B:5004:KVR:C17	2.29	0.61
2:C:555:LEU:HD21	2:C:578:VAL:HG11	1.81	0.61
2:A:4822:ARG:HH12	2:B:4829:ASP:N	1.99	0.61
2:B:694:ARG:NH1	2:B:718:VAL:O	2.32	0.61
2:C:912:LYS:NZ	2:C:914:GLN:O	2.26	0.61
2:D:3141:GLY:O	2:D:3152:ARG:NH1	2.33	0.61
2:A:2176:VAL:HG22	2:A:2220:TYR:CZ	2.35	0.61
2:A:2767:GLU:HA	2:A:2770:ILE:HG12	1.81	0.61
2:A:4831:ILE:HG13	2:A:4843:ARG:NH2	2.16	0.61
2:B:3301:VAL:HA	2:B:3304:GLN:HG2	1.83	0.61
2:B:4831:ILE:HG13	2:B:4843:ARG:NH2	2.16	0.61
2:C:274:LEU:HD11	2:C:412:GLU:HG2	1.82	0.61
2:C:879:GLU:O	2:C:882:ARG:NH1	2.32	0.61
2:C:3018:ARG:HG2	2:C:3021:LEU:HD22	1.83	0.61
2:C:4027:THR:HG21	2:C:4084:VAL:HG11	1.82	0.61
2:D:1685:LEU:HB3	2:D:1706:LEU:HD12	1.80	0.61
2:A:1444:GLY:HA3	2:A:1487:MET:HA	1.83	0.61
2:B:175:VAL:HG11	2:B:181:LEU:HD21	1.82	0.61
2:B:1031:ARG:HH22	2:B:1042:THR:CG2	2.13	0.61
2:C:2176:VAL:HG22	2:C:2220:TYR:CZ	2.35	0.61
2:D:801:ARG:NH1	2:D:1615:GLN:O	2.34	0.61
2:B:4056:LYS:NZ	2:C:4660:PHE:O	2.34	0.60
2:C:2724:TYR:OH	2:C:2891:ASP:OD1	2.18	0.60
2:C:2868:HIS:HB3	2:C:2871:LEU:HG	1.82	0.60
2:C:2980:LEU:HG	2:C:2990:LEU:HD23	1.81	0.60
2:D:288:HIS:O	2:D:290:ARG:NH1	2.33	0.60
2:D:3269:ASN:HD21	2:D:3271:GLU:HB3	1.65	0.60
2:B:1444:GLY:HA3	2:B:1487:MET:HA	1.83	0.60
2:B:2176:VAL:HG22	2:B:2220:TYR:CZ	2.35	0.60
2:C:515:ALA:HB2	2:C:523:GLY:HA3	1.84	0.60
2:C:921:PHE:HB2	2:C:929:ARG:HD3	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:2424:ARG:HG2	2:C:2476:TYR:CE1	2.36	0.60
2:C:4748:MET:HA	2:C:4754:ARG:HH21	1.66	0.60
2:D:175:VAL:HG11	2:D:181:LEU:HD21	1.82	0.60
2:D:921:PHE:HB2	2:D:929:ARG:HD3	1.82	0.60
2:A:1031:ARG:HH22	2:A:1042:THR:CG2	2.13	0.60
2:B:3221:LEU:HD11	2:B:3234:VAL:HG21	1.82	0.60
2:C:2502:LEU:HG	2:C:2512:MET:HE1	1.84	0.60
2:D:234:LEU:HD13	2:D:405:LEU:HD22	1.83	0.60
2:D:1980:LYS:O	2:D:1983:LYS:NZ	2.33	0.60
2:B:1689:ILE:HA	2:B:1703:TYR:CE1	2.32	0.60
2:C:801:ARG:NH1	2:C:1615:GLN:O	2.34	0.60
2:C:971:GLN:HE22	2:C:978:PRO:HD3	1.66	0.60
2:D:3221:LEU:HD11	2:D:3234:VAL:HG21	1.81	0.60
2:A:3018:ARG:HG2	2:A:3021:LEU:HD22	1.83	0.60
2:B:515:ALA:HB2	2:B:523:GLY:HA3	1.84	0.60
2:B:2455:ASP:OD2	2:B:2457:SER:OG	2.15	0.60
2:D:3301:VAL:HA	2:D:3304:GLN:HG2	1.83	0.60
2:A:3325:LYS:HG3	2:A:3328:LYS:HZ2	1.67	0.60
2:B:971:GLN:HE22	2:B:978:PRO:HD3	1.67	0.60
2:B:2717:LEU:HD23	2:B:2779:LEU:HD23	1.84	0.60
2:C:3301:VAL:HA	2:C:3304:GLN:HG2	1.83	0.60
2:D:3018:ARG:HG2	2:D:3021:LEU:HD22	1.83	0.60
2:A:801:ARG:NH1	2:A:1615:GLN:O	2.34	0.60
2:C:629:GLN:OE1	2:C:1669:ASN:ND2	2.29	0.60
2:D:1559:ARG:HD2	2:D:1565:PRO:HD3	1.84	0.60
2:A:2679:ASP:HA	2:A:2920:ARG:HH21	1.67	0.60
2:A:4270:LYS:NZ	2:A:4278:ASP:OD1	2.25	0.60
2:B:2424:ARG:HG2	2:B:2476:TYR:CE1	2.36	0.60
2:B:2868:HIS:HB3	2:B:2871:LEU:HG	1.82	0.60
2:C:288:HIS:O	2:C:290:ARG:NH1	2.33	0.60
2:C:894:VAL:CG2	2:C:972:LEU:HD22	2.29	0.60
2:C:3192:ARG:HD3	2:C:3199:THR:HA	1.84	0.60
2:D:1444:GLY:HA3	2:D:1487:MET:HA	1.83	0.60
2:A:2070:ALA:HA	2:A:2075:ILE:HD11	1.83	0.60
2:A:2605:MET:HA	2:A:2608:LYS:HE2	1.84	0.60
2:A:4690:LYS:NZ	2:A:4692:SER:OG	2.19	0.60
2:B:288:HIS:O	2:B:290:ARG:NH1	2.33	0.60
2:B:2905:ARG:HH11	2:B:2906:GLY:H	1.50	0.60
2:B:3018:ARG:HG2	2:B:3021:LEU:HD22	1.83	0.60
2:C:234:LEU:HD13	2:C:405:LEU:HD22	1.83	0.60
2:C:4831:ILE:HG13	2:C:4843:ARG:NH2	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:694:ARG:NH1	2:A:718:VAL:O	2.32	0.59
2:A:2424:ARG:HG2	2:A:2476:TYR:CE1	2.36	0.59
2:B:879:GLU:O	2:B:882:ARG:NH1	2.32	0.59
2:B:2920:ARG:HB2	2:B:2923:TYR:HB2	1.84	0.59
2:C:2920:ARG:HB2	2:C:2923:TYR:HB2	1.84	0.59
2:D:2793:ARG:NH2	2:D:2796:ASP:OD2	2.33	0.59
2:D:3192:ARG:HD3	2:D:3199:THR:HA	1.84	0.59
2:A:912:LYS:NZ	2:A:914:GLN:O	2.26	0.59
2:B:3192:ARG:HD3	2:B:3199:THR:HA	1.84	0.59
2:C:1031:ARG:HH22	2:C:1042:THR:CG2	2.13	0.59
2:D:307:SER:OG	2:D:315:LEU:O	2.20	0.59
2:D:1689:ILE:HA	2:D:1703:TYR:CE1	2.32	0.59
2:D:2443:PRO:HD2	2:D:2512:MET:HE2	1.84	0.59
2:D:2679:ASP:HA	2:D:2920:ARG:HH21	1.67	0.59
2:D:3689:MET:HE2	2:D:3689:MET:HA	1.84	0.59
2:D:4748:MET:HA	2:D:4754:ARG:HH21	1.66	0.59
2:A:307:SER:OG	2:A:315:LEU:O	2.20	0.59
2:B:234:LEU:HD13	2:B:405:LEU:HD22	1.83	0.59
2:B:4748:MET:HA	2:B:4754:ARG:HH21	1.66	0.59
2:D:515:ALA:HB2	2:D:523:GLY:HA3	1.84	0.59
2:A:234:LEU:HD13	2:A:405:LEU:HD22	1.83	0.59
2:A:2905:ARG:HH11	2:A:2906:GLY:H	1.50	0.59
2:A:2920:ARG:HB2	2:A:2923:TYR:HB2	1.84	0.59
2:C:2717:LEU:HD23	2:C:2779:LEU:HD23	1.84	0.59
2:D:2920:ARG:HB2	2:D:2923:TYR:HB2	1.84	0.59
2:A:515:ALA:HB2	2:A:523:GLY:HA3	1.84	0.59
2:A:1559:ARG:HD2	2:A:1565:PRO:HD3	1.84	0.59
2:B:2605:MET:HA	2:B:2608:LYS:HE2	1.84	0.59
2:A:2717:LEU:HD23	2:A:2779:LEU:HD23	1.84	0.59
2:B:801:ARG:NH1	2:B:1615:GLN:O	2.34	0.59
2:C:4056:LYS:NZ	2:D:4660:PHE:O	2.35	0.59
2:A:4748:MET:HA	2:A:4754:ARG:HH21	1.66	0.59
2:B:2679:ASP:HA	2:B:2920:ARG:HH21	1.67	0.59
2:C:2679:ASP:HA	2:C:2920:ARG:HH21	1.67	0.59
2:D:2424:ARG:HG2	2:D:2476:TYR:CE1	2.36	0.59
2:A:4673:ASP:HB3	2:A:4676:ALA:HB3	1.83	0.59
2:C:1559:ARG:HD2	2:C:1565:PRO:HD3	1.84	0.59
2:C:2070:ALA:HA	2:C:2075:ILE:HD11	1.84	0.59
2:D:2724:TYR:OH	2:D:2891:ASP:OD1	2.18	0.59
2:D:3188:SER:OG	2:D:3191:GLU:OE1	2.21	0.59
2:A:3192:ARG:HD3	2:A:3199:THR:HA	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2833:LEU:HB3	2:B:2838[B]:HIS:CE1	2.38	0.59
2:D:895:MET:HE3	2:D:978:PRO:HG2	1.85	0.59
2:D:2070:ALA:HA	2:D:2075:ILE:HD11	1.84	0.59
2:D:2833:LEU:HB3	2:D:2838[B]:HIS:CE1	2.38	0.59
2:D:2905:ARG:HH11	2:D:2906:GLY:H	1.50	0.59
2:D:3730:ARG:O	2:D:3734:ARG:NH1	2.36	0.59
2:D:4673:ASP:HB3	2:D:4676:ALA:HB3	1.83	0.59
2:A:971:GLN:HE22	2:A:978:PRO:HD3	1.66	0.59
2:B:2070:ALA:HA	2:B:2075:ILE:HD11	1.83	0.59
2:C:1444:GLY:HA3	2:C:1487:MET:HA	1.83	0.59
2:C:2605:MET:HA	2:C:2608:LYS:HE2	1.84	0.59
2:D:2605:MET:HA	2:D:2608:LYS:HE2	1.84	0.59
2:B:804:LEU:HD13	2:B:832:LEU:HD21	1.85	0.58
2:B:2179:LEU:O	2:B:2183:GLU:CB	2.51	0.58
2:B:3188:SER:OG	2:B:3191:GLU:OE1	2.21	0.58
2:C:2833:LEU:HB3	2:C:2838[B]:HIS:CE1	2.38	0.58
2:C:4673:ASP:HB3	2:C:4676:ALA:HB3	1.84	0.58
2:D:4831:ILE:HG13	2:D:4843:ARG:NH2	2.16	0.58
2:A:1788:LYS:NZ	2:A:1838:ASP:OD2	2.36	0.58
2:A:3844:GLN:HG3	2:A:3922:GLU:HG3	1.86	0.58
2:B:1559:ARG:HD2	2:B:1565:PRO:HD3	1.84	0.58
2:B:2710:ASN:OD1	2:B:2711:ILE:HG13	2.03	0.58
2:D:894:VAL:CG2	2:D:972:LEU:HD22	2.29	0.58
2:A:2179:LEU:O	2:A:2183:GLU:CB	2.51	0.58
2:A:2621:TYR:OH	2:A:2637:GLU:OE2	2.21	0.58
2:B:3325:LYS:HG3	2:B:3328:LYS:HZ2	1.68	0.58
2:B:4673:ASP:HB3	2:B:4676:ALA:HB3	1.83	0.58
2:C:3188:SER:OG	2:C:3191:GLU:OE1	2.21	0.58
2:D:1031:ARG:HH22	2:D:1042:THR:CG2	2.13	0.58
2:D:2980:LEU:HD11	2:D:2989:PRO:HB2	1.85	0.58
2:D:4185:LYS:NZ	2:D:4889:PHE:O	2.33	0.58
2:B:629:GLN:OE1	2:B:1669:ASN:ND2	2.29	0.58
2:C:895:MET:HE3	2:C:978:PRO:HG2	1.85	0.58
2:C:2980:LEU:HD11	2:C:2989:PRO:HB2	1.85	0.58
2:D:218:SER:HB2	2:D:286:GLY:HA3	1.86	0.58
2:D:1051:ARG:HA	2:D:1054:VAL:HG22	1.86	0.58
2:D:2179:LEU:O	2:D:2183:GLU:CB	2.51	0.58
2:D:2717:LEU:HD23	2:D:2779:LEU:HD23	1.84	0.58
2:A:804:LEU:HD13	2:A:832:LEU:HD21	1.85	0.58
2:B:894:VAL:CG2	2:B:972:LEU:HD22	2.29	0.58
2:C:2905:ARG:HH11	2:C:2906:GLY:H	1.50	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:3730:ARG:O	2:C:3734:ARG:NH1	2.36	0.58
2:D:3844:GLN:HG3	2:D:3922:GLU:HG3	1.86	0.58
2:A:2559:CYS:O	2:A:2566:ARG:NH2	2.37	0.58
2:A:2833:LEU:HB3	2:A:2838[B]:HIS:CE1	2.38	0.58
2:B:1788:LYS:NZ	2:B:1838:ASP:OD2	2.36	0.58
2:C:2179:LEU:O	2:C:2183:GLU:CB	2.51	0.58
2:C:2678:PRO:HA	2:C:2921:PHE:HD2	1.69	0.58
2:C:3935:LEU:HD23	2:C:3940:LEU:HD22	1.85	0.58
2:D:2759:PRO:O	2:D:2763:LEU:N	2.36	0.58
1:H:19:LYS:HZ1	1:H:52:GLY:HA3	1.67	0.58
2:A:894:VAL:HA	2:A:897:LYS:HD2	1.86	0.58
2:A:2759:PRO:O	2:A:2763:LEU:N	2.36	0.58
2:B:894:VAL:HA	2:B:897:LYS:HD2	1.86	0.58
2:B:2502:LEU:HG	2:B:2512:MET:HE1	1.85	0.58
2:B:2759:PRO:O	2:B:2763:LEU:N	2.36	0.58
2:C:3844:GLN:HG3	2:C:3922:GLU:HG3	1.86	0.58
2:D:661:LEU:O	2:D:788:PHE:N	2.37	0.58
2:D:971:GLN:HE22	2:D:978:PRO:HD3	1.66	0.58
2:D:1973:ILE:HA	2:D:1976:LEU:HB2	1.86	0.58
2:D:3171:LEU:HB3	2:D:3211:LEU:HB2	1.86	0.58
2:D:3935:LEU:HD23	2:D:3940:LEU:HD22	1.85	0.58
2:A:1973:ILE:HA	2:A:1976:LEU:HB2	1.86	0.58
2:B:2149:ILE:HG21	2:B:2167:MET:HE1	1.86	0.58
2:C:661:LEU:O	2:C:788:PHE:N	2.37	0.58
2:C:1788:LYS:NZ	2:C:1838:ASP:OD2	2.36	0.58
2:A:218:SER:HB2	2:A:286:GLY:HA3	1.86	0.58
2:A:1051:ARG:HA	2:A:1054:VAL:HG22	1.86	0.58
2:A:3188:SER:OG	2:A:3191:GLU:OE1	2.21	0.58
2:B:3171:LEU:HB3	2:B:3211:LEU:HB2	1.86	0.58
2:B:3844:GLN:HG3	2:B:3922:GLU:HG3	1.86	0.58
2:C:307:SER:OG	2:C:315:LEU:O	2.20	0.58
2:C:2149:ILE:HG21	2:C:2167:MET:HE1	1.86	0.58
2:C:2710:ASN:OD1	2:C:2711:ILE:HG13	2.03	0.58
2:D:2710:ASN:OD1	2:D:2711:ILE:HG13	2.03	0.58
2:A:1689:ILE:HA	2:A:1703:TYR:CE1	2.32	0.58
2:B:307:SER:OG	2:B:315:LEU:O	2.20	0.58
2:B:2559:CYS:O	2:B:2566:ARG:NH2	2.37	0.58
2:C:2759:PRO:O	2:C:2763:LEU:N	2.36	0.58
2:A:2980:LEU:HD11	2:A:2989:PRO:HB2	1.85	0.57
2:B:2244:ALA:O	2:B:2248:MET:HB2	2.04	0.57
2:C:894:VAL:HA	2:C:897:LYS:HD2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1051:ARG:HA	2:C:1054:VAL:HG22	1.86	0.57
2:B:1717:ALA:HA	2:B:1720:MET:HE2	1.86	0.57
2:C:3817:LEU:HD22	2:C:3819:MET:SD	2.44	0.57
2:A:2710:ASN:OD1	2:A:2711:ILE:HG13	2.03	0.57
2:B:661:LEU:O	2:B:788:PHE:N	2.37	0.57
2:B:893:TRP:CE3	2:B:896:ASN:HB2	2.40	0.57
2:B:2678:PRO:HA	2:B:2921:PHE:HD2	1.69	0.57
2:B:2980:LEU:HD11	2:B:2989:PRO:HB2	1.85	0.57
2:C:2436:ILE:HA	2:C:2465:LYS:HE3	1.87	0.57
2:D:2546:ASP:O	2:D:2550:HIS:ND1	2.37	0.57
2:A:2546:ASP:O	2:A:2550:HIS:ND1	2.37	0.57
2:B:1004:HIS:NE2	2:B:1033:VAL:O	2.25	0.57
2:B:2895:PHE:HA	2:B:2898:ILE:HD12	1.87	0.57
2:B:3817:LEU:HD22	2:B:3819:MET:SD	2.44	0.57
2:C:2244:ALA:O	2:C:2248:MET:HB2	2.04	0.57
2:C:2546:ASP:O	2:C:2550:HIS:ND1	2.37	0.57
2:C:2895:PHE:HA	2:C:2898:ILE:HD12	1.87	0.57
2:D:912:LYS:NZ	2:D:914:GLN:O	2.26	0.57
2:D:3261:ALA:C	2:D:3263:MET:H	2.08	0.57
2:B:891:GLU:O	2:B:894:VAL:HG22	2.05	0.57
2:B:916:PRO:HB3	2:B:923:LYS:NZ	2.20	0.57
2:B:2546:ASP:O	2:B:2550:HIS:ND1	2.37	0.57
2:C:893:TRP:CE3	2:C:896:ASN:HB2	2.40	0.57
2:A:893:TRP:CE3	2:A:896:ASN:HB2	2.40	0.57
2:A:2202:TYR:O	2:A:2206:ILE:HG12	2.05	0.57
2:B:2436:ILE:HA	2:B:2465:LYS:HE3	1.87	0.57
2:B:2541:HIS:HB3	2:B:2544:LEU:HB3	1.86	0.57
2:D:804:LEU:HD13	2:D:832:LEU:HD21	1.85	0.57
2:D:893:TRP:CE3	2:D:896:ASN:HB2	2.40	0.57
2:A:895:MET:HE3	2:A:978:PRO:HG2	1.86	0.57
2:A:3034:HIS:CE1	2:A:3038:GLN:HE22	2.23	0.57
2:B:218:SER:HB2	2:B:286:GLY:HA3	1.86	0.57
2:B:1051:ARG:HA	2:B:1054:VAL:HG22	1.86	0.57
2:C:2202:TYR:O	2:C:2206:ILE:HG12	2.05	0.57
2:D:1788:LYS:NZ	2:D:1838:ASP:OD2	2.36	0.57
2:A:916:PRO:HB3	2:A:923:LYS:NZ	2.20	0.57
2:A:2678:PRO:HA	2:A:2921:PHE:HD2	1.69	0.57
2:B:2621:TYR:OH	2:B:2637:GLU:OE2	2.21	0.57
2:C:2541:HIS:HB3	2:C:2544:LEU:HB3	1.86	0.57
2:C:2559:CYS:O	2:C:2566:ARG:NH2	2.37	0.57
2:C:3171:LEU:HB3	2:C:3211:LEU:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:894:VAL:HA	2:D:897:LYS:HD2	1.86	0.57
2:A:661:LEU:O	2:A:788:PHE:N	2.37	0.57
2:A:3261:ALA:C	2:A:3263:MET:H	2.08	0.57
2:A:3817:LEU:HD22	2:A:3819:MET:SD	2.44	0.57
2:C:218:SER:HB2	2:C:286:GLY:HA3	1.85	0.57
2:C:1004:HIS:NE2	2:C:1033:VAL:O	2.25	0.57
2:C:3034:HIS:CE1	2:C:3038:GLN:HE22	2.23	0.57
2:D:2202:TYR:O	2:D:2206:ILE:HG12	2.05	0.57
2:D:2678:PRO:HA	2:D:2921:PHE:HD2	1.69	0.57
2:D:4948:CYS:SG	2:D:4950:GLU:HG2	2.45	0.57
2:A:1074:ARG:NH1	2:A:1078:CYS:O	2.38	0.57
2:A:4948:CYS:SG	2:A:4950:GLU:HG2	2.45	0.57
2:B:162:ILE:HD11	2:B:181:LEU:HB3	1.87	0.57
2:C:804:LEU:HD13	2:C:832:LEU:HD21	1.85	0.57
2:D:1074:ARG:NH1	2:D:1078:CYS:O	2.38	0.57
2:D:2149:ILE:HG21	2:D:2167:MET:HE1	1.87	0.57
2:D:2541:HIS:HB3	2:D:2544:LEU:HB3	1.86	0.57
2:D:2559:CYS:O	2:D:2566:ARG:NH2	2.37	0.57
1:E:19:LYS:HZ1	1:E:52:GLY:HA3	1.68	0.56
2:B:1074:ARG:NH1	2:B:1078:CYS:O	2.38	0.56
2:B:1973:ILE:HA	2:B:1976:LEU:HB2	1.86	0.56
2:B:4948:CYS:SG	2:B:4950:GLU:HG2	2.45	0.56
2:C:162:ILE:HD11	2:C:181:LEU:HB3	1.87	0.56
2:C:3174:HIS:ND1	2:C:3175:LEU:HG	2.20	0.56
2:D:163:HIS:HB2	2:D:182:ILE:HG13	1.87	0.56
2:D:2895:PHE:HA	2:D:2898:ILE:HD12	1.87	0.56
2:D:3043:ARG:NH2	2:D:3116:GLN:O	2.38	0.56
2:D:3900:GLU:OE2	2:D:3904:ARG:NH2	2.38	0.56
2:A:894:VAL:CG2	2:A:972:LEU:HD22	2.29	0.56
2:A:3730:ARG:O	2:A:3734:ARG:NH1	2.36	0.56
2:A:3935:LEU:HD23	2:A:3940:LEU:HD22	1.85	0.56
2:B:3043:ARG:NH2	2:B:3116:GLN:O	2.38	0.56
2:B:3900:GLU:OE2	2:B:3904:ARG:NH2	2.38	0.56
2:B:3935:LEU:HD23	2:B:3940:LEU:HD22	1.85	0.56
2:C:891:GLU:O	2:C:894:VAL:HG22	2.05	0.56
2:D:3817:LEU:HD22	2:D:3819:MET:SD	2.44	0.56
2:A:2541:HIS:HB3	2:A:2544:LEU:HB3	1.86	0.56
2:A:2895:PHE:HA	2:A:2898:ILE:HD12	1.87	0.56
2:A:3043:ARG:NH2	2:A:3116:GLN:O	2.38	0.56
2:A:4185:LYS:NZ	2:A:4889:PHE:O	2.33	0.56
2:B:2724:TYR:OH	2:B:2891:ASP:OD1	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3174:HIS:ND1	2:B:3175:LEU:HG	2.20	0.56
2:C:3900:GLU:OE2	2:C:3904:ARG:NH2	2.38	0.56
2:C:4948:CYS:SG	2:C:4950:GLU:HG2	2.45	0.56
2:D:162:ILE:HD11	2:D:181:LEU:HB3	1.87	0.56
2:D:2436:ILE:HA	2:D:2465:LYS:HE3	1.87	0.56
2:D:3174:HIS:ND1	2:D:3175:LEU:HG	2.20	0.56
2:A:2149:ILE:HG21	2:A:2167:MET:HE1	1.88	0.56
2:B:3034:HIS:CE1	2:B:3038:GLN:HE22	2.23	0.56
2:C:1009:ARG:O	2:C:1013:ARG:HG2	2.06	0.56
2:C:1973:ILE:HA	2:C:1976:LEU:HB2	1.86	0.56
2:C:3214:LEU:HD13	2:C:3242:LEU:HD21	1.88	0.56
2:D:3034:HIS:CE1	2:D:3038:GLN:HE22	2.23	0.56
2:A:2080:LEU:O	2:A:2084:MET:HG3	2.06	0.56
2:D:629:GLN:OE1	2:D:1669:ASN:ND2	2.29	0.56
2:A:891:GLU:O	2:A:894:VAL:HG22	2.05	0.56
2:A:3607:PRO:HD2	2:A:3610:ASN:HB2	1.87	0.56
2:B:3214:LEU:HD13	2:B:3242:LEU:HD21	1.88	0.56
2:B:3730:ARG:O	2:B:3734:ARG:NH1	2.36	0.56
2:C:163:HIS:HB2	2:C:182:ILE:HG13	1.87	0.56
2:C:1717:ALA:HA	2:C:1720:MET:HE2	1.87	0.56
2:C:3261:ALA:C	2:C:3263:MET:H	2.08	0.56
2:A:2057:THR:HG22	2:A:2059:GLN:H	1.71	0.56
2:A:2436:ILE:HA	2:A:2465:LYS:HE3	1.87	0.56
2:A:4660:PHE:O	2:D:4056:LYS:NZ	2.39	0.56
2:B:1009:ARG:O	2:B:1013:ARG:HG2	2.06	0.56
2:B:2202:TYR:O	2:B:2206:ILE:HG12	2.05	0.56
2:B:2443:PRO:HD2	2:B:2512:MET:HE2	1.88	0.56
2:C:916:PRO:HB3	2:C:923:LYS:NZ	2.20	0.56
2:C:3043:ARG:NH2	2:C:3116:GLN:O	2.38	0.56
2:C:3325:LYS:HG3	2:C:3328:LYS:NZ	2.20	0.56
2:D:2244:ALA:O	2:D:2248:MET:HB2	2.04	0.56
2:D:2605:MET:SD	2:D:2606:PRO:HD3	2.46	0.56
2:A:882:ARG:HD2	2:A:937:LEU:HD21	1.88	0.56
2:A:1766:PRO:HG3	2:A:1780:PRO:HB3	1.87	0.56
2:A:2279:MET:SD	2:A:2283:LYS:HE2	2.46	0.56
2:A:3171:LEU:HB3	2:A:3211:LEU:HB2	1.86	0.56
2:B:2057:THR:HG22	2:B:2059:GLN:H	1.71	0.56
2:B:3261:ALA:C	2:B:3263:MET:H	2.08	0.56
2:B:4185:LYS:NZ	2:B:4889:PHE:O	2.33	0.56
2:C:1074:ARG:NH1	2:C:1078:CYS:O	2.38	0.56
2:C:3607:PRO:HD2	2:C:3610:ASN:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:891:GLU:O	2:D:894:VAL:HG22	2.05	0.56
2:A:163:HIS:HB2	2:A:182:ILE:HG13	1.87	0.56
2:A:3689:MET:HA	2:A:3689:MET:HE2	1.87	0.56
2:B:3325:LYS:HG3	2:B:3328:LYS:NZ	2.20	0.56
2:C:1766:PRO:HG3	2:C:1780:PRO:HB3	1.87	0.56
2:C:2057:THR:HG22	2:C:2059:GLN:H	1.71	0.56
2:D:363:ILE:HD11	2:D:403:ILE:HD13	1.88	0.56
2:D:916:PRO:HB3	2:D:923:LYS:NZ	2.20	0.56
2:D:2057:THR:HG22	2:D:2059:GLN:H	1.71	0.56
2:A:162:ILE:HD11	2:A:181:LEU:HB3	1.87	0.56
2:A:1502:ASN:OD1	2:A:1503:ASN:N	2.39	0.56
2:A:2244:ALA:O	2:A:2248:MET:HB2	2.04	0.56
2:D:2728:SER:HA	2:D:2731:LYS:NZ	2.21	0.56
2:D:4270:LYS:NZ	2:D:4278:ASP:OD1	2.26	0.56
2:A:2605:MET:SD	2:A:2606:PRO:HD3	2.46	0.55
2:A:3174:HIS:ND1	2:A:3175:LEU:HG	2.20	0.55
2:B:363:ILE:HD11	2:B:403:ILE:HD13	1.88	0.55
2:B:4043:ILE:O	2:B:4078:LEU:N	2.31	0.55
2:C:2728:SER:HA	2:C:2731:LYS:NZ	2.21	0.55
2:D:46:LEU:HD23	2:D:137:ARG:HH21	1.72	0.55
2:D:1502:ASN:OD1	2:D:1503:ASN:N	2.39	0.55
2:A:3148:VAL:HA	2:A:3151:GLN:NE2	2.21	0.55
2:A:3298:ARG:HA	2:A:3301:VAL:HG22	1.88	0.55
2:A:3892:TYR:OH	2:A:3899:ASP:OD1	2.19	0.55
2:A:4837:ASP:OD2	2:A:4838:GLU:N	2.39	0.55
2:B:882:ARG:HD2	2:B:937:LEU:HD21	1.88	0.55
2:B:2279:MET:SD	2:B:2283:LYS:HE2	2.46	0.55
2:B:2605:MET:SD	2:B:2606:PRO:HD3	2.46	0.55
2:B:3607:PRO:HD2	2:B:3610:ASN:HB2	1.87	0.55
2:A:46:LEU:HD23	2:A:137:ARG:HH21	1.71	0.55
2:A:2728:SER:HA	2:A:2731:LYS:NZ	2.21	0.55
2:A:4268:MET:O	2:A:4272:LYS:HG2	2.07	0.55
2:B:1502:ASN:OD1	2:B:1503:ASN:N	2.39	0.55
2:B:2581:ARG:HH11	2:B:2582:PRO:HD2	1.71	0.55
2:B:2728:SER:HA	2:B:2731:LYS:NZ	2.21	0.55
2:C:363:ILE:HD11	2:C:403:ILE:HD13	1.88	0.55
2:C:3281:LEU:O	2:C:3284:ILE:HG22	2.07	0.55
2:C:4185:LYS:NZ	2:C:4889:PHE:O	2.33	0.55
1:F:22:THR:HG22	1:F:50:ARG:HG2	1.89	0.55
2:A:474:ASP:O	2:A:478:ARG:HG2	2.07	0.55
2:A:3214:LEU:HD13	2:A:3242:LEU:HD21	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1766:PRO:HG3	2:B:1780:PRO:HB3	1.87	0.55
2:C:2279:MET:SD	2:C:2283:LYS:HE2	2.46	0.55
2:C:2605:MET:SD	2:C:2606:PRO:HD3	2.46	0.55
2:D:1009:ARG:O	2:D:1013:ARG:HG2	2.06	0.55
2:D:3187:LYS:NZ	2:D:3191:GLU:HB3	2.22	0.55
2:D:3214:LEU:HD13	2:D:3242:LEU:HD21	1.88	0.55
2:D:3325:LYS:HG3	2:D:3328:LYS:NZ	2.20	0.55
2:A:363:ILE:HD11	2:A:403:ILE:HD13	1.88	0.55
2:A:1971:GLU:HA	2:A:1974:ASN:HB2	1.88	0.55
2:A:3900:GLU:OE2	2:A:3904:ARG:NH2	2.38	0.55
2:B:163:HIS:HB2	2:B:182:ILE:HG13	1.87	0.55
2:B:2080:LEU:O	2:B:2084:MET:HG3	2.06	0.55
2:C:882:ARG:HD2	2:C:937:LEU:HD21	1.88	0.55
2:C:2080:LEU:O	2:C:2084:MET:HG3	2.06	0.55
2:C:3187:LYS:NZ	2:C:3191:GLU:HB3	2.22	0.55
2:D:663:VAL:HA	2:D:671:LYS:HZ3	1.72	0.55
1:F:19:LYS:HZ1	1:F:52:GLY:HA3	1.72	0.55
2:A:2426:LEU:HA	2:B:143:LEU:HD21	1.88	0.55
2:A:3325:LYS:HG3	2:A:3328:LYS:NZ	2.20	0.55
2:D:4043:ILE:O	2:D:4078:LEU:N	2.31	0.55
1:F:50:ARG:NH2	1:F:53:LYS:HE2	2.22	0.55
1:G:50:ARG:NH2	1:G:53:LYS:HE2	2.22	0.55
1:H:22:THR:HG22	1:H:50:ARG:HG2	1.89	0.55
2:A:1009:ARG:O	2:A:1013:ARG:HG2	2.06	0.55
2:B:270:HIS:CE1	2:B:491:GLU:HG3	2.42	0.55
2:B:1006:VAL:HA	2:B:1009:ARG:HG2	1.89	0.55
2:B:3281:LEU:O	2:B:3284:ILE:HG22	2.07	0.55
2:B:4268:MET:O	2:B:4272:LYS:HG2	2.07	0.55
2:C:280:LEU:HD12	2:C:294:PRO:HB2	1.89	0.55
2:D:280:LEU:HD12	2:D:294:PRO:HB2	1.89	0.55
2:D:882:ARG:HD2	2:D:937:LEU:HD21	1.88	0.55
2:D:1766:PRO:HG3	2:D:1780:PRO:HB3	1.87	0.55
2:D:2279:MET:SD	2:D:2283:LYS:HE2	2.46	0.55
2:D:3249:TRP:HB3	2:D:3266:THR:HG21	1.89	0.55
2:D:3287:ASN:HA	2:D:3290:ILE:HG12	1.89	0.55
1:H:50:ARG:NH2	1:H:53:LYS:HE2	2.22	0.55
2:A:270:HIS:CE1	2:A:491:GLU:HG3	2.42	0.55
2:A:1440:ASN:HB3	2:A:1546:GLN:HB3	1.89	0.55
2:A:1608:VAL:HA	2:A:1618:LEU:O	2.07	0.55
2:A:3150:ARG:NH2	2:A:3151:GLN:OE1	2.40	0.55
2:B:880:ARG:NH1	2:B:881:ILE:HB	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3150:ARG:NH2	2:D:3151:GLN:OE1	2.40	0.55
2:A:981:MET:N	2:A:981:MET:SD	2.80	0.55
2:A:2724:TYR:OH	2:A:2891:ASP:OD1	2.18	0.55
2:C:2553:TYR:HE1	2:C:2557:LYS:HZ3	1.54	0.55
2:C:3150:ARG:NH2	2:C:3151:GLN:OE1	2.40	0.55
2:D:270:HIS:CE1	2:D:491:GLU:HG3	2.42	0.55
2:D:3236:GLU:HG3	2:D:3237:VAL:HG13	1.88	0.55
2:A:2581:ARG:HH11	2:A:2582:PRO:HD2	1.71	0.55
2:A:3187:LYS:NZ	2:A:3191:GLU:HB3	2.22	0.55
2:B:3287:ASN:HA	2:B:3290:ILE:HG12	1.89	0.55
2:C:2893:LEU:O	2:C:2896:LEU:HB3	2.07	0.55
2:D:981:MET:N	2:D:981:MET:SD	2.80	0.55
2:D:2080:LEU:O	2:D:2084:MET:HG3	2.06	0.55
2:D:3607:PRO:HD2	2:D:3610:ASN:HB2	1.87	0.55
2:A:4641:PRO:HB2	2:A:4647:LYS:HD2	1.90	0.54
2:B:1608:VAL:HA	2:B:1618:LEU:O	2.07	0.54
2:B:1971:GLU:HA	2:B:1974:ASN:HB2	1.88	0.54
2:B:2893:LEU:O	2:B:2896:LEU:HB3	2.08	0.54
2:B:3236:GLU:HG3	2:B:3237:VAL:HG13	1.88	0.54
2:B:3298:ARG:HA	2:B:3301:VAL:HG22	1.88	0.54
2:C:1440:ASN:HB3	2:C:1546:GLN:HB3	1.89	0.54
2:C:3074:ASN:ND2	2:C:3094:ILE:HD11	2.22	0.54
2:C:3287:ASN:HA	2:C:3290:ILE:HG12	1.89	0.54
2:D:880:ARG:NH1	2:D:881:ILE:HB	2.22	0.54
2:D:1975:MET:HA	2:D:1978:ASN:ND2	2.22	0.54
2:D:2502:LEU:HG	2:D:2512:MET:HE1	1.89	0.54
2:A:189:GLU:OE2	2:D:2322:ARG:NH1	2.39	0.54
2:A:1975:MET:HA	2:A:1978:ASN:ND2	2.22	0.54
2:A:2833:LEU:HB2	2:A:2894:LYS:NZ	2.22	0.54
2:A:3281:LEU:O	2:A:3284:ILE:HG22	2.07	0.54
2:B:3148:VAL:HA	2:B:3151:GLN:NE2	2.21	0.54
2:B:4241:VAL:HG13	2:C:4626:ILE:HG12	1.88	0.54
2:C:1502:ASN:OD1	2:C:1503:ASN:N	2.39	0.54
2:C:1608:VAL:HA	2:C:1618:LEU:O	2.07	0.54
2:C:1975:MET:HA	2:C:1978:ASN:ND2	2.22	0.54
2:C:3148:VAL:HA	2:C:3151:GLN:NE2	2.21	0.54
2:D:474:ASP:O	2:D:478:ARG:HG2	2.07	0.54
2:D:1608:VAL:HA	2:D:1618:LEU:O	2.07	0.54
2:B:981:MET:SD	2:B:981:MET:N	2.80	0.54
2:B:2642:ARG:NE	2:B:2682:GLU:OE1	2.40	0.54
2:B:3150:ARG:NH2	2:B:3151:GLN:OE1	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3605:MET:HG2	2:B:3606:ALA:N	2.22	0.54
2:C:441:LYS:HB3	2:C:444:THR:HG23	1.90	0.54
2:C:2642:ARG:NE	2:C:2682:GLU:OE1	2.40	0.54
2:C:3298:ARG:HA	2:C:3301:VAL:HG22	1.88	0.54
2:D:441:LYS:HB3	2:D:444:THR:HG23	1.90	0.54
2:D:1971:GLU:HA	2:D:1974:ASN:HB2	1.88	0.54
2:D:3281:LEU:O	2:D:3284:ILE:HG22	2.07	0.54
2:D:4837:ASP:OD2	2:D:4838:GLU:N	2.40	0.54
1:E:50:ARG:NH2	1:E:53:LYS:HE2	2.22	0.54
2:A:629:GLN:OE1	2:A:1669:ASN:ND2	2.29	0.54
2:A:2893:LEU:O	2:A:2896:LEU:HB3	2.08	0.54
2:A:4818:TYR:HA	2:B:4848:ILE:HD11	1.90	0.54
2:B:280:LEU:HD12	2:B:294:PRO:HB2	1.89	0.54
2:B:3187:LYS:NZ	2:B:3191:GLU:HB3	2.22	0.54
2:C:1006:VAL:HG22	2:C:1009:ARG:HE	1.72	0.54
2:C:2406:MET:HA	2:C:2409:ILE:HG22	1.90	0.54
2:C:2894:LYS:O	2:C:2898:ILE:HG13	2.08	0.54
2:D:2247:VAL:HG21	2:D:2257:LEU:HD12	1.90	0.54
2:D:2894:LYS:O	2:D:2898:ILE:HG13	2.07	0.54
2:A:280:LEU:HD12	2:A:294:PRO:HB2	1.89	0.54
2:A:3236:GLU:HG3	2:A:3237:VAL:HG13	1.89	0.54
2:A:4707:MET:HG3	2:D:4252:ILE:HG21	1.89	0.54
2:B:441:LYS:HB3	2:B:444:THR:HG23	1.90	0.54
2:B:1975:MET:HA	2:B:1978:ASN:ND2	2.22	0.54
2:B:3074:ASN:ND2	2:B:3094:ILE:HD11	2.23	0.54
2:C:270:HIS:CE1	2:C:491:GLU:HG3	2.42	0.54
2:C:474:ASP:O	2:C:478:ARG:HG2	2.07	0.54
2:C:880:ARG:NH1	2:C:881:ILE:HB	2.22	0.54
2:D:2581:ARG:HH11	2:D:2582:PRO:HD2	1.71	0.54
2:D:2833:LEU:HB3	2:D:2838[A]:HIS:CE1	2.43	0.54
2:D:3148:VAL:HA	2:D:3151:GLN:NE2	2.21	0.54
2:A:663:VAL:HA	2:A:671:LYS:HZ3	1.73	0.54
2:A:880:ARG:NH1	2:A:881:ILE:HB	2.22	0.54
2:A:1839:LEU:HD12	2:A:1842:ILE:HD11	1.90	0.54
2:A:1969:PRO:HD3	2:A:3605:MET:HE1	1.89	0.54
2:A:2247:VAL:HG21	2:A:2257:LEU:HD12	1.90	0.54
2:A:2642:ARG:NE	2:A:2682:GLU:OE1	2.40	0.54
2:A:3074:ASN:ND2	2:A:3094:ILE:HD11	2.23	0.54
2:B:2172:MET:O	2:B:2176:VAL:HG23	2.08	0.54
2:B:2406:MET:HA	2:B:2409:ILE:HG22	1.90	0.54
2:B:3249:TRP:HB3	2:B:3266:THR:HG21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:4045:LYS:HB3	2:B:4046:ARG:HH21	1.73	0.54
2:B:4837:ASP:OD2	2:B:4838:GLU:N	2.40	0.54
2:C:28:ILE:O	2:C:31:GLU:HG3	2.08	0.54
2:C:1074:ARG:HH11	2:C:1078:CYS:HB3	1.73	0.54
2:C:2833:LEU:HB3	2:C:2838[A]:HIS:CE1	2.43	0.54
2:C:4045:LYS:HB3	2:C:4046:ARG:HH21	1.73	0.54
2:C:4641:PRO:HB2	2:C:4647:LYS:HD2	1.89	0.54
2:D:2172:MET:O	2:D:2176:VAL:HG23	2.08	0.54
2:D:4268:MET:O	2:D:4272:LYS:HG2	2.07	0.54
2:A:23:GLN:HB3	2:A:34:LYS:HD2	1.90	0.54
2:A:1006:VAL:HA	2:A:1009:ARG:HG2	1.89	0.54
2:B:2247:VAL:HG21	2:B:2257:LEU:HD12	1.90	0.54
2:C:46:LEU:HD23	2:C:137:ARG:HH21	1.72	0.54
2:C:2247:VAL:HG21	2:C:2257:LEU:HD12	1.90	0.54
2:C:2581:ARG:HH11	2:C:2582:PRO:HD2	1.71	0.54
2:C:4837:ASP:OD2	2:C:4838:GLU:N	2.40	0.54
2:D:2406:MET:HA	2:D:2409:ILE:HG22	1.90	0.54
2:A:3287:ASN:HA	2:A:3290:ILE:HG12	1.89	0.54
2:B:28:ILE:O	2:B:31:GLU:HG3	2.08	0.54
2:B:474:ASP:O	2:B:478:ARG:HG2	2.07	0.54
2:B:663:VAL:HA	2:B:671:LYS:HZ3	1.73	0.54
2:B:2981:TYR:O	2:B:2984:SER:OG	2.26	0.54
2:C:981:MET:N	2:C:981:MET:SD	2.80	0.54
2:C:2172:MET:O	2:C:2176:VAL:HG23	2.08	0.54
2:C:3605:MET:HG2	2:C:3606:ALA:N	2.22	0.54
2:D:2550:HIS:CD2	2:D:2591:ARG:HD2	2.43	0.54
2:D:3074:ASN:ND2	2:D:3094:ILE:HD11	2.22	0.54
2:D:4045:LYS:HB3	2:D:4046:ARG:HH21	1.73	0.54
1:E:22:THR:HG22	1:E:50:ARG:HG2	1.89	0.54
2:A:441:LYS:HB3	2:A:444:THR:HG23	1.90	0.54
2:A:1006:VAL:HG22	2:A:1009:ARG:HE	1.73	0.54
2:A:2550:HIS:CD2	2:A:2591:ARG:HD2	2.43	0.54
2:A:3249:TRP:HB3	2:A:3266:THR:HG21	1.89	0.54
2:B:232:ASP:OD1	2:B:356:TYR:OH	2.21	0.54
2:B:1440:ASN:HB3	2:B:1546:GLN:HB3	1.89	0.54
2:B:2833:LEU:HB2	2:B:2894:LYS:NZ	2.22	0.54
2:B:2894:LYS:O	2:B:2898:ILE:HG13	2.08	0.54
2:B:3227:ARG:HB3	2:B:3230:GLN:OE1	2.08	0.54
2:C:1971:GLU:HA	2:C:1974:ASN:HB2	1.88	0.54
2:C:2833:LEU:HB2	2:C:2894:LYS:NZ	2.22	0.54
2:C:3236:GLU:HG3	2:C:3237:VAL:HG13	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:4093:ASP:OD1	2:C:4094:ILE:N	2.41	0.54
2:D:28:ILE:O	2:D:31:GLU:HG3	2.08	0.54
2:D:1006:VAL:HG22	2:D:1009:ARG:HE	1.72	0.54
2:D:3298:ARG:HA	2:D:3301:VAL:HG22	1.88	0.54
2:D:4194:GLU:HG2	2:D:4645:TRP:HZ3	1.73	0.54
2:A:798:ILE:HD12	2:A:800:VAL:HG22	1.90	0.54
2:A:1074:ARG:HH11	2:A:1078:CYS:HB3	1.73	0.54
2:A:3605:MET:HG2	2:A:3606:ALA:N	2.22	0.54
2:B:1006:VAL:HG22	2:B:1009:ARG:HE	1.73	0.54
2:C:2443:PRO:HD2	2:C:2512:MET:HE2	1.90	0.54
2:D:2833:LEU:HB2	2:D:2894:LYS:NZ	2.22	0.54
2:A:28:ILE:O	2:A:31:GLU:HG3	2.08	0.53
2:A:76:ARG:HG2	2:D:3890:TRP:HB3	1.89	0.53
2:A:733:TRP:CE2	2:A:738:ALA:HB2	2.43	0.53
2:A:2172:MET:O	2:A:2176:VAL:HG23	2.08	0.53
2:A:2521:CYS:HA	2:A:2525:LEU:HD12	1.90	0.53
2:A:3217:GLU:O	2:A:3221:LEU:HG	2.08	0.53
2:B:798:ILE:HD12	2:B:800:VAL:HG22	1.90	0.53
2:B:1839:LEU:HD12	2:B:1842:ILE:HD11	1.90	0.53
2:B:2550:HIS:CD2	2:B:2591:ARG:HD2	2.43	0.53
2:B:2773:TRP:NE1	2:B:2777:GLU:OE2	2.42	0.53
2:C:2629:ASN:OD1	2:C:2630:PHE:N	2.41	0.53
2:C:3249:TRP:HB3	2:C:3266:THR:HG21	1.89	0.53
2:D:3892:TYR:OH	2:D:3899:ASP:OD1	2.19	0.53
2:D:4641:PRO:HB2	2:D:4647:LYS:HD2	1.90	0.53
1:G:19:LYS:HZ1	1:G:52:GLY:HA3	1.71	0.53
2:A:2406:MET:HA	2:A:2409:ILE:HG22	1.90	0.53
2:A:2981:TYR:O	2:A:2984:SER:OG	2.26	0.53
2:B:3127:GLN:HB2	2:B:3183:ILE:HD12	1.90	0.53
2:B:4093:ASP:OD1	2:B:4094:ILE:N	2.41	0.53
2:B:4641:PRO:HB2	2:B:4647:LYS:HD2	1.90	0.53
2:C:3227:ARG:HB3	2:C:3230:GLN:OE1	2.08	0.53
2:C:4052:MET:HE1	2:C:4066:LEU:HB2	1.90	0.53
2:D:23:GLN:HB3	2:D:34:LYS:HD2	1.90	0.53
2:D:798:ILE:HD12	2:D:800:VAL:HG22	1.90	0.53
2:D:2773:TRP:NE1	2:D:2777:GLU:OE2	2.42	0.53
2:D:2893:LEU:O	2:D:2896:LEU:HB3	2.08	0.53
2:D:4093:ASP:OD1	2:D:4094:ILE:N	2.41	0.53
2:A:2629:ASN:OD1	2:A:2630:PHE:N	2.41	0.53
2:A:3292:GLU:HB2	2:A:3296:MET:HG2	1.90	0.53
2:A:4194:GLU:HG2	2:A:4645:TRP:HZ3	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2553:TYR:HE1	2:B:2557:LYS:HZ3	1.55	0.53
2:B:3217:GLU:O	2:B:3221:LEU:HG	2.08	0.53
2:B:3292:GLU:HB2	2:B:3296:MET:HG2	1.90	0.53
2:C:798:ILE:HD12	2:C:800:VAL:HG22	1.90	0.53
2:D:655:MET:HE2	2:D:1608:VAL:HG11	1.91	0.53
2:D:2642:ARG:NE	2:D:2682:GLU:OE1	2.40	0.53
2:D:4023:LEU:HD12	2:D:4026:LEU:HD23	1.91	0.53
1:E:8:ILE:HA	2:A:730:LEU:HD11	1.89	0.53
1:F:8:ILE:HA	2:B:730:LEU:HD11	1.90	0.53
2:A:49:LEU:HD11	2:A:203:VAL:HB	1.90	0.53
2:B:1299:ILE:HD11	2:B:1544:PHE:HB3	1.91	0.53
2:B:2521:CYS:HA	2:B:2525:LEU:HD12	1.90	0.53
2:C:257:ARG:HH21	2:C:272:ARG:HG3	1.73	0.53
2:C:801:ARG:HG2	2:C:1618:LEU:HA	1.89	0.53
2:C:2550:HIS:CD2	2:C:2591:ARG:HD2	2.43	0.53
2:C:4241:VAL:HG13	2:D:4626:ILE:HG12	1.89	0.53
2:D:2621:TYR:OH	2:D:2637:GLU:OE2	2.21	0.53
2:D:2981:TYR:O	2:D:2984:SER:OG	2.26	0.53
1:G:8:ILE:HA	2:C:730:LEU:HD11	1.89	0.53
2:A:1299:ILE:HD11	2:A:1544:PHE:HB3	1.91	0.53
2:A:2773:TRP:NE1	2:A:2777:GLU:OE2	2.42	0.53
2:A:4093:ASP:OD1	2:A:4094:ILE:N	2.41	0.53
2:B:46:LEU:HD23	2:B:137:ARG:HH21	1.72	0.53
2:B:895:MET:HE3	2:B:978:PRO:HG2	1.89	0.53
2:B:1074:ARG:HH11	2:B:1078:CYS:HB3	1.73	0.53
2:B:2629:ASN:OD1	2:B:2630:PHE:N	2.41	0.53
2:C:2200:LEU:HD13	2:C:2214:MET:HE1	1.90	0.53
2:C:3043:ARG:HG3	2:C:3047:LYS:NZ	2.24	0.53
2:C:3127:GLN:HB2	2:C:3183:ILE:HD12	1.90	0.53
2:C:4268:MET:O	2:C:4272:LYS:HG2	2.07	0.53
2:D:733:TRP:CE2	2:D:738:ALA:HB2	2.44	0.53
2:D:801:ARG:HG2	2:D:1618:LEU:HA	1.90	0.53
2:D:967:PRO:O	2:D:971:GLN:N	2.40	0.53
2:D:1006:VAL:HA	2:D:1009:ARG:HG2	1.89	0.53
2:D:2828:MET:SD	2:D:2894:LYS:HB3	2.49	0.53
2:D:3043:ARG:HG3	2:D:3047:LYS:NZ	2.24	0.53
2:D:3605:MET:HG2	2:D:3606:ALA:N	2.22	0.53
2:A:2894:LYS:O	2:A:2898:ILE:HG13	2.08	0.53
2:A:3043:ARG:HG3	2:A:3047:LYS:NZ	2.24	0.53
2:B:257:ARG:HH21	2:B:272:ARG:HG3	1.73	0.53
2:B:2830:ASN:HD21	2:C:1549:SER:HB2	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2833:LEU:HB3	2:B:2838[A]:HIS:CE1	2.43	0.53
2:B:4642:ASN:HD22	2:B:4705:TYR:HE2	1.57	0.53
2:C:4023:LEU:HD12	2:C:4026:LEU:HD23	1.91	0.53
2:D:2211:GLN:NE2	2:D:2248:MET:O	2.35	0.53
2:D:2629:ASN:OD1	2:D:2630:PHE:N	2.41	0.53
2:A:2828:MET:SD	2:A:2894:LYS:HB3	2.48	0.53
2:B:658:ASN:ND2	2:B:833:LYS:HG2	2.24	0.53
2:B:893:TRP:CZ2	2:B:1049:SER:HB3	2.44	0.53
2:B:3117:PHE:HB3	2:B:3121:LEU:HD13	1.91	0.53
2:C:1299:ILE:HD11	2:C:1544:PHE:HB3	1.91	0.53
2:C:1969:PRO:HD3	2:C:3605:MET:HE1	1.91	0.53
2:D:1299:ILE:HD11	2:D:1544:PHE:HB3	1.91	0.53
2:A:66:THR:HG1	2:A:124:SER:HG	1.57	0.53
2:A:670:TYR:O	2:A:673:TRP:NE1	2.42	0.53
2:B:49:LEU:HD11	2:B:203:VAL:HB	1.90	0.53
2:B:943:LEU:HD21	2:B:1064:LEU:HD21	1.90	0.53
2:B:2828:MET:SD	2:B:2894:LYS:HB3	2.49	0.53
2:B:3043:ARG:HG3	2:B:3047:LYS:NZ	2.24	0.53
2:C:232:ASP:OD1	2:C:356:TYR:OH	2.22	0.53
2:C:893:TRP:CZ2	2:C:1049:SER:HB3	2.44	0.53
2:A:943:LEU:HD21	2:A:1064:LEU:HD21	1.90	0.53
2:C:670:TYR:O	2:C:673:TRP:NE1	2.42	0.53
2:C:878:LEU:HA	2:C:881:ILE:HG22	1.91	0.53
2:C:1839:LEU:HD12	2:C:1842:ILE:HD11	1.90	0.53
2:C:2445:ILE:HA	2:C:2451:VAL:HA	1.91	0.53
2:C:2773:TRP:NE1	2:C:2777:GLU:OE2	2.42	0.53
2:D:893:TRP:CZ2	2:D:1049:SER:HB3	2.44	0.53
2:D:3227:ARG:HB3	2:D:3230:GLN:OE1	2.08	0.53
2:A:801:ARG:HG2	2:A:1618:LEU:HA	1.90	0.53
2:A:3117:PHE:HB3	2:A:3121:LEU:HD13	1.91	0.53
2:A:4642:ASN:HD22	2:A:4705:TYR:HE2	1.57	0.53
2:B:801:ARG:HG2	2:B:1618:LEU:HA	1.90	0.53
2:B:992:GLN:O	2:B:996:VAL:HG23	2.09	0.53
2:B:4042:VAL:HG12	2:B:4077:THR:HB	1.91	0.53
2:C:1270:VAL:HG22	2:C:1285:VAL:HG22	1.91	0.53
2:C:2211:GLN:NE2	2:C:2248:MET:O	2.35	0.53
2:C:3117:PHE:HB3	2:C:3121:LEU:HD13	1.91	0.53
2:C:3729:ALA:HA	2:C:3732:HIS:CE1	2.44	0.53
2:C:4642:ASN:HD22	2:C:4705:TYR:HE2	1.57	0.53
2:D:670:TYR:O	2:D:673:TRP:NE1	2.42	0.53
2:D:4052:MET:HE1	2:D:4066:LEU:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:658:ASN:ND2	2:A:833:LYS:HG2	2.24	0.52
2:A:1004:HIS:NE2	2:A:1033:VAL:O	2.25	0.52
2:A:2833:LEU:HB3	2:A:2838[A]:HIS:CE1	2.43	0.52
2:A:3712:LYS:O	2:A:3717:LYS:NZ	2.42	0.52
2:B:674:TYR:CE1	2:B:756:SER:HB2	2.45	0.52
2:B:1097:LYS:NZ	2:B:1198:GLY:O	2.42	0.52
2:B:2620:TYR:HB2	2:B:2627:TRP:CD1	2.44	0.52
2:B:2933:VAL:HG21	2:B:3007:LEU:HD11	1.91	0.52
2:B:2940:ILE:HA	2:B:2943:PHE:HB3	1.92	0.52
2:B:4023:LEU:HD12	2:B:4026:LEU:HD23	1.91	0.52
2:C:23:GLN:HB3	2:C:34:LYS:HD2	1.90	0.52
2:C:2521:CYS:HA	2:C:2525:LEU:HD12	1.90	0.52
2:D:878:LEU:HA	2:D:881:ILE:HG22	1.91	0.52
2:D:992:GLN:O	2:D:996:VAL:HG23	2.09	0.52
2:D:4617:ILE:HG23	2:D:4665:ARG:HH22	1.74	0.52
1:F:88:HIS:NE2	2:B:1776:TYR:OH	2.33	0.52
1:G:22:THR:HG22	1:G:50:ARG:HG2	1.89	0.52
2:A:992:GLN:O	2:A:996:VAL:HG23	2.09	0.52
2:A:1270:VAL:HG22	2:A:1285:VAL:HG22	1.91	0.52
2:A:1682:GLU:HG2	2:A:1683:PRO:HD3	1.92	0.52
2:A:2409:ILE:HD11	2:A:2417:ILE:HD13	1.91	0.52
2:A:2933:VAL:HG21	2:A:3007:LEU:HD11	1.91	0.52
2:A:3127:GLN:HB2	2:A:3183:ILE:HD12	1.91	0.52
2:A:4042:VAL:HG12	2:A:4077:THR:HB	1.91	0.52
2:A:4045:LYS:HB3	2:A:4046:ARG:HH21	1.73	0.52
2:C:897:LYS:HB3	2:C:918:LEU:CD2	2.40	0.52
2:C:943:LEU:HD21	2:C:1064:LEU:HD21	1.90	0.52
2:C:1097:LYS:NZ	2:C:1198:GLY:O	2.42	0.52
2:C:4617:ILE:HG23	2:C:4665:ARG:HH22	1.74	0.52
2:D:1097:LYS:NZ	2:D:1198:GLY:O	2.42	0.52
2:D:3117:PHE:HB3	2:D:3121:LEU:HD13	1.91	0.52
2:A:674:TYR:CE1	2:A:756:SER:HB2	2.45	0.52
2:A:4043:ILE:O	2:A:4078:LEU:N	2.31	0.52
2:B:897:LYS:HD3	2:B:918:LEU:HG	1.92	0.52
2:B:2409:ILE:HD11	2:B:2417:ILE:HD13	1.91	0.52
2:B:2826:ILE:HD13	2:B:2898:ILE:HD13	1.92	0.52
2:B:3050:LEU:HD23	2:B:3053:VAL:HG23	1.91	0.52
2:B:3729:ALA:HA	2:B:3732:HIS:CE1	2.44	0.52
2:C:733:TRP:CE2	2:C:738:ALA:HB2	2.43	0.52
2:C:992:GLN:O	2:C:996:VAL:HG23	2.10	0.52
2:C:1006:VAL:HA	2:C:1009:ARG:HG2	1.89	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:2620:TYR:HB2	2:C:2627:TRP:CD1	2.44	0.52
2:D:1074:ARG:HH11	2:D:1078:CYS:HB3	1.73	0.52
2:D:1440:ASN:HB3	2:D:1546:GLN:HB3	1.89	0.52
2:D:2521:CYS:HA	2:D:2525:LEU:HD12	1.90	0.52
2:D:3050:LEU:HD23	2:D:3053:VAL:HG23	1.91	0.52
2:A:188:SER:HB2	2:A:190:ARG:HH11	1.75	0.52
2:A:655:MET:HE2	2:A:1608:VAL:HG11	1.90	0.52
2:A:897:LYS:HD3	2:A:918:LEU:HG	1.92	0.52
2:A:2940:ILE:HA	2:A:2943:PHE:HB3	1.92	0.52
2:A:3227:ARG:HB3	2:A:3230:GLN:OE1	2.08	0.52
2:A:4023:LEU:HD12	2:A:4026:LEU:HD23	1.91	0.52
2:B:878:LEU:HA	2:B:881:ILE:HG22	1.91	0.52
2:B:4194:GLU:HG2	2:B:4645:TRP:HZ3	1.73	0.52
2:C:2791:ARG:NH2	2:C:2795:GLY:O	2.42	0.52
2:D:658:ASN:HD21	2:D:833:LYS:HG2	1.75	0.52
2:D:897:LYS:HD3	2:D:918:LEU:HG	1.92	0.52
2:D:4197:ILE:HG12	2:D:4923:MET:HE2	1.92	0.52
2:A:257:ARG:HH21	2:A:272:ARG:HG3	1.73	0.52
2:A:1097:LYS:NZ	2:A:1198:GLY:O	2.42	0.52
2:A:1722:ASN:O	2:A:1919:ARG:NH2	2.43	0.52
2:A:3013:VAL:O	2:A:3018:ARG:NH2	2.43	0.52
2:B:733:TRP:CE2	2:B:738:ALA:HB2	2.43	0.52
2:B:1682:GLU:HG2	2:B:1683:PRO:HD3	1.92	0.52
2:B:2788:ARG:HH22	2:B:2908:LYS:HE2	1.75	0.52
2:C:821:PRO:HB2	2:C:823:TYR:CE1	2.45	0.52
2:C:2826:ILE:HD13	2:C:2898:ILE:HD13	1.91	0.52
2:C:2828:MET:SD	2:C:2894:LYS:HB3	2.49	0.52
2:D:3292:GLU:HB2	2:D:3296:MET:HG2	1.90	0.52
2:D:4275:THR:HG22	2:D:4278:ASP:H	1.74	0.52
2:A:541:ILE:HD11	2:A:574:VAL:HG13	1.92	0.52
2:B:658:ASN:HD21	2:B:833:LYS:HG2	1.75	0.52
2:C:663:VAL:HA	2:C:671:LYS:HZ3	1.74	0.52
2:C:1682:GLU:HG2	2:C:1683:PRO:HD3	1.92	0.52
2:D:1682:GLU:HG2	2:D:1683:PRO:HD3	1.92	0.52
2:D:2445:ILE:HA	2:D:2451:VAL:HA	1.91	0.52
2:D:2940:ILE:HA	2:D:2943:PHE:HB3	1.92	0.52
2:D:3127:GLN:HB2	2:D:3183:ILE:HD12	1.90	0.52
2:D:4642:ASN:HD22	2:D:4705:TYR:HE2	1.57	0.52
2:A:3140:LEU:O	2:A:3152:ARG:NH2	2.43	0.52
2:A:3729:ALA:HA	2:A:3732:HIS:CE1	2.44	0.52
2:B:1722:ASN:O	2:B:1919:ARG:NH2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3013:VAL:O	2:B:3018:ARG:NH2	2.43	0.52
2:C:2830:ASN:HD21	2:D:1549:SER:HB2	1.72	0.52
2:C:2981:TYR:O	2:C:2984:SER:OG	2.26	0.52
2:C:3217:GLU:O	2:C:3221:LEU:HG	2.08	0.52
2:C:3292:GLU:HB2	2:C:3296:MET:HG2	1.90	0.52
2:C:4275:THR:HG22	2:C:4278:ASP:H	1.74	0.52
2:D:2788:ARG:HH22	2:D:2908:LYS:HE2	1.75	0.52
2:A:881:ILE:HG23	2:A:885:LEU:HD13	1.92	0.52
2:A:916:PRO:HB3	2:A:923:LYS:HZ2	1.75	0.52
2:A:2212:LYS:HG2	2:A:2253:LEU:HD21	1.92	0.52
2:A:2620:TYR:HB2	2:A:2627:TRP:CD1	2.44	0.52
2:A:3050:LEU:HD23	2:A:3053:VAL:HG23	1.91	0.52
2:B:23:GLN:HB3	2:B:34:LYS:HD2	1.90	0.52
2:B:670:TYR:O	2:B:673:TRP:NE1	2.42	0.52
2:B:897:LYS:HB3	2:B:918:LEU:CD2	2.40	0.52
2:B:3689:MET:HE2	2:B:3689:MET:HA	1.91	0.52
2:B:4617:ILE:HG23	2:B:4665:ARG:HH22	1.74	0.52
2:C:674:TYR:CE1	2:C:756:SER:HB2	2.45	0.52
2:C:1722:ASN:O	2:C:1919:ARG:NH2	2.43	0.52
2:C:2087:LEU:O	2:C:2091:GLN:HG2	2.10	0.52
2:C:3282:LYS:HA	2:C:3285:TYR:CD2	2.45	0.52
2:C:4610:LEU:HD21	2:C:4670:LEU:HD21	1.92	0.52
2:D:821:PRO:HB2	2:D:823:TYR:CE1	2.45	0.52
2:D:897:LYS:HB3	2:D:918:LEU:CD2	2.40	0.52
2:D:1839:LEU:HD12	2:D:1842:ILE:HD11	1.90	0.52
2:D:2212:LYS:HG2	2:D:2253:LEU:HD21	1.92	0.52
2:A:3282:LYS:HA	2:A:3285:TYR:CD2	2.45	0.52
2:A:3882:GLN:NE2	2:A:3946:GLY:HA3	2.25	0.52
2:A:3890:TRP:HB3	2:B:76:ARG:HG2	1.92	0.52
2:B:188:SER:HB2	2:B:190:ARG:HH11	1.75	0.52
2:B:541:ILE:HD11	2:B:574:VAL:HG13	1.92	0.52
2:B:1270:VAL:HG22	2:B:1285:VAL:HG22	1.91	0.52
2:B:3140:LEU:O	2:B:3152:ARG:NH2	2.43	0.52
2:B:3282:LYS:HA	2:B:3285:TYR:CD2	2.45	0.52
2:C:49:LEU:HD11	2:C:203:VAL:HB	1.90	0.52
2:C:677:LEU:HD11	2:C:800:VAL:HB	1.92	0.52
2:C:3140:LEU:O	2:C:3152:ARG:NH2	2.43	0.52
2:C:3689:MET:HE2	2:C:3689:MET:HA	1.91	0.52
2:D:257:ARG:HH21	2:D:272:ARG:HG3	1.73	0.52
2:D:674:TYR:CE1	2:D:756:SER:HB2	2.45	0.52
2:D:677:LEU:HD11	2:D:800:VAL:HB	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:881:ILE:HG23	2:D:885:LEU:HD13	1.92	0.52
2:D:2620:TYR:HB2	2:D:2627:TRP:CD1	2.45	0.52
2:D:3013:VAL:O	2:D:3018:ARG:NH2	2.43	0.52
2:D:3140:LEU:O	2:D:3152:ARG:NH2	2.43	0.52
2:A:3101:LEU:HA	2:A:3104:MET:HG2	1.92	0.52
2:B:4610:LEU:HD21	2:B:4670:LEU:HD21	1.92	0.52
2:C:1689:ILE:HD13	2:C:1703:TYR:CE1	2.45	0.52
2:C:3050:LEU:HD23	2:C:3053:VAL:HG23	1.91	0.52
2:D:232:ASP:OD2	2:D:233:VAL:N	2.43	0.52
2:D:1270:VAL:HG22	2:D:1285:VAL:HG22	1.91	0.52
2:D:2087:LEU:O	2:D:2091:GLN:HG2	2.10	0.52
2:D:2933:VAL:HG21	2:D:3007:LEU:HD11	1.91	0.52
2:D:4042:VAL:HG12	2:D:4077:THR:HB	1.91	0.52
1:H:8:ILE:HA	2:D:730:LEU:HD11	1.91	0.51
2:A:878:LEU:HA	2:A:881:ILE:HG22	1.91	0.51
2:A:4241:VAL:HG13	2:B:4626:ILE:HG12	1.92	0.51
2:B:1689:ILE:HD13	2:B:1703:TYR:CE1	2.46	0.51
2:B:4275:THR:HG22	2:B:4278:ASP:H	1.74	0.51
2:C:3882:GLN:NE2	2:C:3946:GLY:HA3	2.25	0.51
2:D:188:SER:HB2	2:D:190:ARG:HH11	1.75	0.51
2:D:514:PHE:HD2	2:D:526:TRP:HB2	1.76	0.51
2:D:943:LEU:HD21	2:D:1064:LEU:HD21	1.90	0.51
2:D:1722:ASN:O	2:D:1919:ARG:NH2	2.43	0.51
2:A:514:PHE:HD2	2:A:526:TRP:HB2	1.75	0.51
2:A:2445:ILE:HA	2:A:2451:VAL:HA	1.91	0.51
2:A:2826:ILE:HD13	2:A:2898:ILE:HD13	1.91	0.51
2:B:2851:ILE:HG22	2:B:2855:LYS:NZ	2.25	0.51
2:B:3712:LYS:O	2:B:3717:LYS:NZ	2.42	0.51
2:B:3892:TYR:OH	2:B:3899:ASP:OD1	2.19	0.51
2:C:514:PHE:CD2	2:C:526:TRP:HB2	2.45	0.51
2:C:658:ASN:ND2	2:C:833:LYS:HG2	2.24	0.51
2:C:881:ILE:HG23	2:C:885:LEU:HD13	1.92	0.51
2:C:2851:ILE:HG22	2:C:2855:LYS:NZ	2.25	0.51
2:D:658:ASN:ND2	2:D:833:LYS:HG2	2.24	0.51
2:D:2409:ILE:HD11	2:D:2417:ILE:HD13	1.91	0.51
2:D:2826:ILE:HD13	2:D:2898:ILE:HD13	1.91	0.51
2:D:2851:ILE:HG22	2:D:2855:LYS:NZ	2.25	0.51
2:D:3729:ALA:HA	2:D:3732:HIS:CE1	2.44	0.51
2:A:2851:ILE:HG22	2:A:2855:LYS:NZ	2.25	0.51
2:B:821:PRO:HB2	2:B:823:TYR:CE1	2.45	0.51
2:B:881:ILE:HG23	2:B:885:LEU:HD13	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1944:TYR:O	2:B:1948:MET:HG2	2.11	0.51
2:C:3013:VAL:O	2:C:3018:ARG:NH2	2.43	0.51
2:D:49:LEU:HD11	2:D:203:VAL:HB	1.90	0.51
2:D:3217:GLU:O	2:D:3221:LEU:HG	2.08	0.51
1:G:88:HIS:NE2	2:C:1776:TYR:OH	2.33	0.51
2:A:143:LEU:HD13	2:A:207:PHE:HE2	1.76	0.51
2:A:677:LEU:HD11	2:A:800:VAL:HB	1.92	0.51
2:A:893:TRP:CZ2	2:A:1049:SER:HB3	2.44	0.51
2:A:1944:TYR:O	2:A:1948:MET:HG2	2.11	0.51
2:A:2553:TYR:HE1	2:A:2557:LYS:HZ3	1.58	0.51
2:A:2788:ARG:HH22	2:A:2908:LYS:HE2	1.75	0.51
2:A:3097:THR:HA	2:A:3101:LEU:HB3	1.92	0.51
2:B:232:ASP:OD2	2:B:233:VAL:N	2.43	0.51
2:B:514:PHE:CD2	2:B:526:TRP:HB2	2.45	0.51
2:B:677:LEU:HD11	2:B:800:VAL:HB	1.92	0.51
2:C:658:ASN:HD21	2:C:833:LYS:HG2	1.75	0.51
2:C:2409:ILE:HD11	2:C:2417:ILE:HD13	1.91	0.51
2:C:2788:ARG:HH22	2:C:2908:LYS:HE2	1.75	0.51
2:C:3712:LYS:O	2:C:3717:LYS:NZ	2.42	0.51
2:C:4194:GLU:HG2	2:C:4645:TRP:HZ3	1.73	0.51
2:D:232:ASP:OD1	2:D:356:TYR:OH	2.21	0.51
2:D:514:PHE:CD2	2:D:526:TRP:HB2	2.46	0.51
2:A:658:ASN:HD21	2:A:833:LYS:HG2	1.75	0.51
2:A:4896:ASP:OD1	2:A:4897:TYR:N	2.44	0.51
2:B:2445:ILE:HA	2:B:2451:VAL:HA	1.91	0.51
2:B:4896:ASP:OD1	2:B:4897:TYR:N	2.44	0.51
2:C:162:ILE:O	2:C:163:HIS:ND1	2.43	0.51
2:C:897:LYS:HD3	2:C:918:LEU:HG	1.92	0.51
2:C:1034:PRO:HG2	2:C:1037:LEU:HD12	1.92	0.51
2:C:2621:TYR:OH	2:C:2637:GLU:OE2	2.21	0.51
2:C:2940:ILE:HA	2:C:2943:PHE:HB3	1.92	0.51
2:D:541:ILE:HD11	2:D:574:VAL:HG13	1.92	0.51
2:D:1944:TYR:O	2:D:1948:MET:HG2	2.10	0.51
2:D:2695:MET:HG2	2:D:2700:ASN:O	2.11	0.51
2:A:173:GLU:HG2	2:D:3939:ARG:NH1	2.25	0.51
2:A:1689:ILE:HD13	2:A:1703:TYR:CE1	2.46	0.51
2:B:162:ILE:O	2:B:163:HIS:ND1	2.43	0.51
2:B:3805:LEU:HD21	2:B:3891:TYR:HB2	1.92	0.51
2:B:4052:MET:HE1	2:B:4066:LEU:HB2	1.91	0.51
2:C:188:SER:HB2	2:C:190:ARG:HH11	1.75	0.51
2:C:1989:PRO:HD2	2:C:1992:ILE:HD12	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:4042:VAL:HG12	2:C:4077:THR:HB	1.91	0.51
1:E:88:HIS:NE2	2:A:1776:TYR:OH	2.36	0.51
2:A:232:ASP:OD2	2:A:233:VAL:N	2.43	0.51
2:A:821:PRO:HB2	2:A:823:TYR:CE1	2.45	0.51
2:A:1016:TRP:CE3	2:A:1029:ASN:HB2	2.46	0.51
2:A:2087:LEU:O	2:A:2091:GLN:HG2	2.10	0.51
2:A:2778:SER:HA	2:A:2848:TYR:OH	2.11	0.51
2:A:4610:LEU:HD21	2:A:4670:LEU:HD21	1.92	0.51
2:A:4617:ILE:HG23	2:A:4665:ARG:HH22	1.74	0.51
2:B:1969:PRO:HD3	2:B:3605:MET:HE1	1.92	0.51
2:C:1016:TRP:CE3	2:C:1029:ASN:HB2	2.46	0.51
2:C:1944:TYR:O	2:C:1948:MET:HG2	2.10	0.51
2:D:749:LEU:HD22	2:D:755:ILE:HD11	1.93	0.51
2:D:1004:HIS:NE2	2:D:1033:VAL:O	2.25	0.51
2:D:1989:PRO:O	2:D:1993:ARG:HG3	2.11	0.51
2:D:3101:LEU:HA	2:D:3104:MET:HG2	1.92	0.51
2:D:4896:ASP:OD1	2:D:4897:TYR:N	2.44	0.51
2:A:1989:PRO:O	2:A:1993:ARG:HG3	2.11	0.51
2:A:3068:LEU:HD12	2:A:3133:ILE:HG12	1.93	0.51
2:A:3805:LEU:HD21	2:A:3891:TYR:HB2	1.92	0.51
2:B:2212:LYS:HG2	2:B:2253:LEU:HD21	1.92	0.51
2:C:541:ILE:HD11	2:C:574:VAL:HG13	1.92	0.51
2:C:966:LEU:H	2:C:977:LYS:HD2	1.75	0.51
2:C:3069:GLU:O	2:C:3072:MET:HB2	2.11	0.51
2:D:893:TRP:CE2	2:D:1049:SER:HB3	2.46	0.51
2:A:4275:THR:HG22	2:A:4278:ASP:H	1.74	0.51
2:B:28:ILE:HD11	2:B:201:LEU:HD21	1.93	0.51
2:B:3068:LEU:HD12	2:B:3133:ILE:HG12	1.93	0.51
2:C:232:ASP:OD2	2:C:233:VAL:N	2.43	0.51
2:C:514:PHE:HD2	2:C:526:TRP:HB2	1.75	0.51
2:C:749:LEU:HD22	2:C:755:ILE:HD11	1.93	0.51
2:C:2933:VAL:HG21	2:C:3007:LEU:HD11	1.91	0.51
2:C:3892:TYR:OH	2:C:3899:ASP:OD1	2.19	0.51
2:D:3069:GLU:O	2:D:3072:MET:HB2	2.11	0.51
2:D:4610:LEU:HD21	2:D:4670:LEU:HD21	1.92	0.51
2:A:514:PHE:CD2	2:A:526:TRP:HB2	2.45	0.51
2:A:893:TRP:CE2	2:A:1049:SER:HB3	2.46	0.51
2:A:1435:GLY:CA	2:D:2831:VAL:HG22	2.41	0.51
2:A:3068:LEU:O	2:A:3071:THR:OG1	2.25	0.51
2:A:3697:LYS:HA	2:A:3700:HIS:CD2	2.46	0.51
2:B:514:PHE:HD2	2:B:526:TRP:HB2	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:658:ASN:ND2	2:B:831:LYS:O	2.44	0.51
2:B:967:PRO:O	2:B:971:GLN:N	2.40	0.51
2:B:2087:LEU:O	2:B:2091:GLN:HG2	2.10	0.51
2:B:3097:THR:HA	2:B:3101:LEU:HB3	1.92	0.51
2:C:1989:PRO:O	2:C:1993:ARG:HG3	2.11	0.51
2:C:3846:LEU:HB3	2:C:3854:PHE:CE2	2.46	0.51
2:D:28:ILE:HD11	2:D:201:LEU:HD21	1.93	0.51
2:D:2591:ARG:HG2	2:D:2695:MET:HE1	1.93	0.51
2:D:3068:LEU:O	2:D:3071:THR:OG1	2.25	0.51
2:D:3882:GLN:NE2	2:D:3946:GLY:HA3	2.25	0.51
2:A:162:ILE:O	2:A:163:HIS:ND1	2.43	0.50
2:A:967:PRO:O	2:A:971:GLN:N	2.40	0.50
2:A:2322:ARG:NH1	2:B:189:GLU:OE2	2.44	0.50
2:A:2695:MET:HG2	2:A:2700:ASN:O	2.11	0.50
2:A:3069:GLU:O	2:A:3072:MET:HB2	2.11	0.50
2:B:749:LEU:HD22	2:B:755:ILE:HD11	1.93	0.50
2:D:658:ASN:ND2	2:D:831:LYS:O	2.44	0.50
2:D:3282:LYS:HA	2:D:3285:TYR:CD2	2.45	0.50
2:D:3712:LYS:O	2:D:3717:LYS:NZ	2.42	0.50
2:A:28:ILE:HD11	2:A:201:LEU:HD21	1.93	0.50
2:A:749:LEU:HD22	2:A:755:ILE:HD11	1.93	0.50
2:A:897:LYS:HB3	2:A:918:LEU:CD2	2.40	0.50
2:A:966:LEU:H	2:A:977:LYS:HD2	1.76	0.50
2:A:1034:PRO:HG2	2:A:1037:LEU:HD12	1.92	0.50
2:A:1575:HIS:O	2:A:1576:LYS:NZ	2.40	0.50
2:A:1608:VAL:HG12	2:A:1619:VAL:HG22	1.94	0.50
2:A:3846:LEU:HB3	2:A:3854:PHE:CE2	2.47	0.50
2:B:143:LEU:HD13	2:B:207:PHE:HE2	1.76	0.50
2:B:893:TRP:CE2	2:B:1049:SER:HB3	2.46	0.50
2:B:1016:TRP:CE3	2:B:1029:ASN:HB2	2.46	0.50
2:C:28:ILE:HD11	2:C:201:LEU:HD21	1.93	0.50
2:C:658:ASN:ND2	2:C:831:LYS:O	2.44	0.50
2:C:2695:MET:HG2	2:C:2700:ASN:O	2.11	0.50
2:C:4751:LYS:HG3	2:C:4754:ARG:NH1	2.27	0.50
2:D:728:ASP:OD2	2:D:731:HIS:HB2	2.12	0.50
2:D:1016:TRP:CD1	2:D:1027:ARG:HB3	2.46	0.50
2:D:1016:TRP:CE3	2:D:1029:ASN:HB2	2.46	0.50
2:D:1564:MET:HG3	2:D:1565:PRO:HD2	1.93	0.50
2:D:1689:ILE:HD13	2:D:1703:TYR:CE1	2.45	0.50
2:D:2214:MET:HE2	2:D:2242:VAL:CG1	2.41	0.50
2:A:625:VAL:HG23	2:A:628:ASN:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1564:MET:HG3	2:A:1565:PRO:HD2	1.93	0.50
2:A:2603:ALA:C	2:A:2606:PRO:HD2	2.32	0.50
2:A:2791:ARG:NH2	2:A:2795:GLY:O	2.42	0.50
2:B:981:MET:HG2	2:B:986:ILE:HD11	1.93	0.50
2:B:1034:PRO:HG2	2:B:1037:LEU:HD12	1.92	0.50
2:B:3101:LEU:HA	2:B:3104:MET:HG2	1.92	0.50
2:B:4028:SER:O	2:B:4033:LYS:NZ	2.39	0.50
2:C:893:TRP:CE2	2:C:1049:SER:HB3	2.46	0.50
2:C:1016:TRP:CD1	2:C:1027:ARG:HB3	2.46	0.50
2:C:3068:LEU:O	2:C:3071:THR:OG1	2.25	0.50
2:C:4177:VAL:HG11	2:C:4880:VAL:HA	1.94	0.50
2:D:162:ILE:O	2:D:163:HIS:ND1	2.43	0.50
2:D:966:LEU:H	2:D:977:LYS:HD2	1.75	0.50
2:D:2759:PRO:HD2	2:D:2762:LEU:HD22	1.94	0.50
2:D:3097:THR:HA	2:D:3101:LEU:HB3	1.92	0.50
2:B:1016:TRP:CD1	2:B:1027:ARG:HB3	2.46	0.50
2:B:3846:LEU:HB3	2:B:3854:PHE:CE2	2.47	0.50
2:D:3697:LYS:HA	2:D:3700:HIS:CD2	2.47	0.50
2:D:4254:THR:HA	2:D:4257:ARG:HE	1.77	0.50
2:D:4751:LYS:HG3	2:D:4754:ARG:NH1	2.27	0.50
2:B:2778:SER:HA	2:B:2848:TYR:OH	2.11	0.50
2:B:3697:LYS:HA	2:B:3700:HIS:CD2	2.46	0.50
2:C:2212:LYS:HG2	2:C:2253:LEU:HD21	1.92	0.50
2:C:2791:ARG:NH1	2:C:2901:TYR:OH	2.45	0.50
2:C:3805:LEU:HD21	2:C:3891:TYR:HB2	1.92	0.50
2:D:897:LYS:HB3	2:D:918:LEU:HD23	1.93	0.50
2:D:1989:PRO:HD2	2:D:1992:ILE:HD12	1.92	0.50
2:A:942:THR:HG21	2:A:1002:ASN:HD22	1.77	0.50
2:A:981:MET:HG2	2:A:986:ILE:HD11	1.93	0.50
2:A:1019:GLY:O	2:A:1030:PRO:HB3	2.12	0.50
2:B:625:VAL:HG23	2:B:628:ASN:HB2	1.94	0.50
2:B:1564:MET:HG3	2:B:1565:PRO:HD2	1.93	0.50
2:B:1989:PRO:O	2:B:1993:ARG:HG3	2.11	0.50
2:C:728:ASP:OD2	2:C:731:HIS:HB2	2.12	0.50
2:C:897:LYS:HB3	2:C:918:LEU:HD23	1.94	0.50
2:C:1287:GLN:NE2	2:C:1295:SER:OG	2.45	0.50
2:C:2591:ARG:HG2	2:C:2695:MET:HE1	1.93	0.50
2:C:3101:LEU:HA	2:C:3104:MET:HG2	1.92	0.50
2:D:143:LEU:HD13	2:D:207:PHE:HE2	1.76	0.50
2:D:1034:PRO:HG2	2:D:1037:LEU:HD12	1.92	0.50
2:D:1287:GLN:NE2	2:D:1295:SER:OG	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:1552:VAL:HG12	2:D:1553:PHE:HD1	1.77	0.50
2:D:2791:ARG:NH1	2:D:2901:TYR:OH	2.45	0.50
1:G:19:LYS:HZ3	1:G:52:GLY:HA3	1.76	0.50
2:B:1989:PRO:HD2	2:B:1992:ILE:HD12	1.92	0.50
2:B:3882:GLN:NE2	2:B:3946:GLY:HA3	2.25	0.50
2:C:1029:ASN:C	2:C:1031:ARG:H	2.15	0.50
2:C:3097:THR:HA	2:C:3101:LEU:HB3	1.92	0.50
2:D:1019:GLY:O	2:D:1030:PRO:HB3	2.12	0.50
2:D:2603:ALA:C	2:D:2606:PRO:HD2	2.32	0.50
2:D:3284:ILE:HA	2:D:3287:ASN:HD22	1.76	0.50
2:D:3989:ASN:HB3	2:D:4108:HIS:CD2	2.47	0.50
2:A:897:LYS:CB	2:A:918:LEU:HD23	2.42	0.50
2:A:2791:ARG:NH1	2:A:2901:TYR:OH	2.45	0.50
2:A:4252:ILE:HG21	2:B:4707:MET:HG3	1.94	0.50
2:B:942:THR:HG21	2:B:1002:ASN:HD22	1.77	0.50
2:B:2603:ALA:C	2:B:2606:PRO:HD2	2.32	0.50
2:B:2706:VAL:HG23	2:B:2847:ASN:HD21	1.77	0.50
2:B:2791:ARG:NH1	2:B:2901:TYR:OH	2.45	0.50
2:B:3034:HIS:CE1	2:B:3107:SER:HB2	2.47	0.50
2:B:3069:GLU:O	2:B:3072:MET:HB2	2.11	0.50
2:B:3284:ILE:HA	2:B:3287:ASN:HD22	1.76	0.50
2:B:3989:ASN:HB3	2:B:4108:HIS:CD2	2.47	0.50
2:C:143:LEU:HD13	2:C:207:PHE:HE2	1.76	0.50
2:C:2478:ILE:HG21	2:C:2484:LEU:HD13	1.94	0.50
2:D:1717:ALA:HA	2:D:1720:MET:HE2	1.93	0.50
2:D:4177:VAL:HG11	2:D:4880:VAL:HA	1.94	0.50
2:A:271:ALA:O	2:A:301:THR:OG1	2.30	0.50
2:A:1989:PRO:HD2	2:A:1992:ILE:HD12	1.92	0.50
2:A:2200:LEU:HD13	2:A:2214:MET:HE1	1.93	0.50
2:B:537:LEU:O	2:B:541:ILE:HG12	2.12	0.50
2:B:1608:VAL:HG12	2:B:1619:VAL:HG22	1.94	0.50
2:B:1954:SER:HB3	2:B:1957:LEU:HB2	1.94	0.50
2:B:2478:ILE:HG21	2:B:2484:LEU:HD13	1.94	0.50
2:B:2591:ARG:HG2	2:B:2695:MET:HE1	1.93	0.50
2:B:2791:ARG:NH2	2:B:2795:GLY:O	2.42	0.50
2:C:537:LEU:O	2:C:541:ILE:HG12	2.12	0.50
2:C:2759:PRO:HD2	2:C:2762:LEU:HD22	1.94	0.50
2:C:2766:LYS:HA	2:C:2766:LYS:HE2	1.94	0.50
2:D:897:LYS:CB	2:D:918:LEU:HD23	2.42	0.50
2:D:981:MET:HG2	2:D:986:ILE:HD11	1.93	0.50
2:D:1608:VAL:HG12	2:D:1619:VAL:HG22	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2766:LYS:HE2	2:D:2766:LYS:HA	1.94	0.50
2:A:1018:TYR:CE1	2:A:1030:PRO:HA	2.47	0.49
2:A:1975:MET:HA	2:A:1978:ASN:HD22	1.77	0.49
2:A:3284:ILE:HA	2:A:3287:ASN:HD22	1.76	0.49
2:B:514:PHE:CE2	2:B:522:ALA:HB1	2.47	0.49
2:B:953:SER:OG	2:B:1063:ASN:OD1	2.30	0.49
2:B:1011:ARG:O	2:B:1014:GLN:HB2	2.12	0.49
2:C:1018:TYR:CE1	2:C:1030:PRO:HA	2.47	0.49
2:C:3697:LYS:HA	2:C:3700:HIS:CD2	2.46	0.49
2:D:953:SER:OG	2:D:1063:ASN:OD1	2.30	0.49
2:D:1011:ARG:O	2:D:1014:GLN:HB2	2.12	0.49
2:A:4689:LYS:HE3	2:A:4696:ALA:HB2	1.94	0.49
2:B:271:ALA:O	2:B:301:THR:OG1	2.30	0.49
2:B:897:LYS:CB	2:B:918:LEU:HD23	2.42	0.49
2:B:1975:MET:HA	2:B:1978:ASN:HD22	1.77	0.49
2:B:2759:PRO:HD2	2:B:2762:LEU:HD22	1.94	0.49
2:C:942:THR:HG21	2:C:1002:ASN:HD22	1.77	0.49
2:C:2603:ALA:C	2:C:2606:PRO:HD2	2.32	0.49
2:C:2706:VAL:HG23	2:C:2847:ASN:HD21	1.77	0.49
2:D:2778:SER:HA	2:D:2848:TYR:OH	2.11	0.49
2:D:4689:LYS:HE3	2:D:4696:ALA:HB2	1.94	0.49
2:A:537:LEU:O	2:A:541:ILE:HG12	2.12	0.49
2:A:728:ASP:OD2	2:A:731:HIS:HB2	2.12	0.49
2:A:1011:ARG:O	2:A:1014:GLN:HB2	2.12	0.49
2:A:1287:GLN:NE2	2:A:1295:SER:OG	2.45	0.49
2:A:1717:ALA:HA	2:A:1720:MET:HE2	1.94	0.49
2:A:2211:GLN:NE2	2:A:2248:MET:O	2.35	0.49
2:A:2478:ILE:HG21	2:A:2484:LEU:HD13	1.94	0.49
2:A:2704:GLN:HA	2:A:2854:LYS:HE2	1.94	0.49
2:A:3989:ASN:HB3	2:A:4108:HIS:CD2	2.47	0.49
2:B:2447:LYS:HD2	2:B:2864:GLY:HA3	1.95	0.49
2:B:2591:ARG:HH22	2:B:2875:ASP:HB3	1.78	0.49
2:B:2766:LYS:HE2	2:B:2766:LYS:HA	1.94	0.49
2:C:981:MET:HG2	2:C:986:ILE:HD11	1.93	0.49
2:C:1011:ARG:O	2:C:1014:GLN:HB2	2.12	0.49
2:C:1552:VAL:HG12	2:C:1553:PHE:HD1	1.77	0.49
2:C:1681:ASP:HB3	2:C:1683:PRO:HD2	1.94	0.49
2:C:2778:SER:HA	2:C:2848:TYR:OH	2.11	0.49
2:C:3068:LEU:HD12	2:C:3133:ILE:HG12	1.93	0.49
2:C:3989:ASN:HB3	2:C:4108:HIS:CD2	2.47	0.49
2:C:4697:VAL:O	2:C:4701:ILE:HG12	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:4896:ASP:OD1	2:C:4897:TYR:N	2.44	0.49
2:D:1415:ASP:HB3	2:D:1561:LYS:HD2	1.94	0.49
2:D:2791:ARG:HD3	2:D:2901:TYR:CE1	2.47	0.49
1:E:8:ILE:HG23	2:A:748:LEU:HB2	1.94	0.49
2:A:514:PHE:CE2	2:A:522:ALA:HB1	2.47	0.49
2:A:658:ASN:ND2	2:A:831:LYS:O	2.44	0.49
2:A:2591:ARG:HG2	2:A:2695:MET:HE1	1.94	0.49
2:A:2759:PRO:HD2	2:A:2762:LEU:HD22	1.94	0.49
2:A:3089:GLY:O	2:A:3093:ILE:HG12	2.13	0.49
2:A:4052:MET:HE1	2:A:4066:LEU:HB2	1.93	0.49
2:A:4254:THR:HA	2:A:4257:ARG:HE	1.77	0.49
2:B:1019:GLY:O	2:B:1030:PRO:HB3	2.12	0.49
2:B:1029:ASN:C	2:B:1031:ARG:H	2.15	0.49
2:B:2695:MET:HG2	2:B:2700:ASN:O	2.11	0.49
2:B:2704:GLN:HA	2:B:2854:LYS:HE2	1.95	0.49
2:B:3089:GLY:O	2:B:3093:ILE:HG12	2.13	0.49
2:B:4751:LYS:HG3	2:B:4754:ARG:NH1	2.27	0.49
2:C:1019:GLY:O	2:C:1030:PRO:HB3	2.12	0.49
2:C:1564:MET:HG3	2:C:1565:PRO:HD2	1.93	0.49
2:C:2591:ARG:HH22	2:C:2875:ASP:HB3	1.78	0.49
2:C:2704:GLN:HA	2:C:2854:LYS:HE2	1.94	0.49
2:D:4517:LEU:HD21	2:D:4736:ASN:HB3	1.95	0.49
2:A:953:SER:OG	2:A:1063:ASN:OD1	2.30	0.49
2:A:3304:GLN:HA	2:A:3307:ILE:HG12	1.94	0.49
2:A:4089:GLU:HB2	2:A:4090:PRO:HD3	1.95	0.49
2:B:966:LEU:H	2:B:977:LYS:HD2	1.76	0.49
2:B:1018:TYR:CE1	2:B:1030:PRO:HA	2.47	0.49
2:B:4517:LEU:HD21	2:B:4736:ASN:HB3	1.95	0.49
2:C:4254:THR:HA	2:C:4257:ARG:HE	1.77	0.49
2:C:4270:LYS:NZ	2:C:4278:ASP:OD1	2.26	0.49
2:D:1018:TYR:CE1	2:D:1030:PRO:HA	2.47	0.49
2:D:2868:HIS:CE1	2:D:2870:LEU:HB2	2.48	0.49
2:D:3075:LEU:HD12	2:D:3076:LYS:HD2	1.95	0.49
2:D:3805:LEU:HD21	2:D:3891:TYR:HB2	1.92	0.49
2:D:4089:GLU:HB2	2:D:4090:PRO:HD3	1.95	0.49
1:F:19:LYS:HZ3	1:F:52:GLY:HA3	1.76	0.49
2:A:232:ASP:OD1	2:A:356:TYR:OH	2.22	0.49
2:A:1016:TRP:CD1	2:A:1027:ARG:HB3	2.47	0.49
2:A:2833:LEU:HB2	2:A:2894:LYS:HZ1	1.78	0.49
2:A:4751:LYS:HG3	2:A:4754:ARG:NH1	2.27	0.49
2:B:2214:MET:HE2	2:B:2242:VAL:CG1	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2488:LEU:HA	2:B:2492:PHE:HB2	1.95	0.49
2:B:4689:LYS:HE3	2:B:4696:ALA:HB2	1.94	0.49
2:C:271:ALA:O	2:C:301:THR:OG1	2.30	0.49
2:C:2791:ARG:HD3	2:C:2901:TYR:CE1	2.47	0.49
2:C:3284:ILE:HA	2:C:3287:ASN:HD22	1.76	0.49
2:D:1975:MET:HA	2:D:1978:ASN:HD22	1.77	0.49
2:D:2591:ARG:HH22	2:D:2875:ASP:HB3	1.78	0.49
2:D:3068:LEU:HD12	2:D:3133:ILE:HG12	1.93	0.49
2:D:3846:LEU:HB3	2:D:3854:PHE:CE2	2.47	0.49
2:A:897:LYS:HB3	2:A:918:LEU:HD23	1.94	0.49
2:A:907:VAL:HB	2:A:912:LYS:HE2	1.94	0.49
2:A:3861:GLN:HB3	2:A:3864:ASN:HD22	1.78	0.49
2:B:728:ASP:OD2	2:B:731:HIS:HB2	2.12	0.49
2:B:1118:SER:HB3	2:B:1204:VAL:HG11	1.95	0.49
2:B:2158:HIS:CE1	2:B:3615:ARG:HH12	2.31	0.49
2:B:3036:LEU:O	2:B:3040:LEU:HG	2.13	0.49
2:C:514:PHE:CE2	2:C:522:ALA:HB1	2.47	0.49
2:C:1954:SER:HB3	2:C:1957:LEU:HB2	1.94	0.49
2:C:2674:GLY:HA2	2:C:2978:HIS:CE1	2.48	0.49
2:C:2714:PRO:HG2	2:C:2717:LEU:HD13	1.95	0.49
2:C:3036:LEU:O	2:C:3040:LEU:HG	2.13	0.49
2:C:3986:LEU:HD12	2:C:4101:LEU:HD12	1.94	0.49
2:D:537:LEU:O	2:D:541:ILE:HG12	2.12	0.49
2:D:1029:ASN:C	2:D:1031:ARG:H	2.15	0.49
2:D:2704:GLN:HA	2:D:2854:LYS:HE2	1.94	0.49
2:D:3089:GLY:O	2:D:3093:ILE:HG12	2.13	0.49
2:D:4858:LEU:HA	2:D:4861:ILE:HD12	1.94	0.49
2:A:1118:SER:HB3	2:A:1204:VAL:HG11	1.95	0.49
2:A:2119:LEU:HB2	2:A:2152:ASN:ND2	2.28	0.49
2:A:2591:ARG:HH22	2:A:2875:ASP:HB3	1.78	0.49
2:A:2706:VAL:HG23	2:A:2847:ASN:HD21	1.77	0.49
2:A:3034:HIS:CE1	2:A:3107:SER:HB2	2.47	0.49
2:B:3239:LEU:HD23	2:B:3242:LEU:HD12	1.95	0.49
2:B:3304:GLN:HA	2:B:3307:ILE:HG12	1.94	0.49
2:B:4697:VAL:O	2:B:4701:ILE:HG12	2.12	0.49
2:C:897:LYS:CB	2:C:918:LEU:HD23	2.42	0.49
2:C:2894:LYS:NZ	2:C:2897:GLN:OE1	2.46	0.49
2:C:3034:HIS:CE1	2:C:3107:SER:HB2	2.47	0.49
2:C:4089:GLU:HB2	2:C:4090:PRO:HD3	1.95	0.49
2:D:312:LYS:HE2	2:D:394:HIS:HA	1.95	0.49
2:D:942:THR:HG21	2:D:1002:ASN:HD22	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:1074:ARG:HH12	2:D:1209:VAL:HG11	1.78	0.49
2:D:1681:ASP:HB3	2:D:1683:PRO:HD2	1.94	0.49
2:D:1954:SER:HB3	2:D:1957:LEU:HB2	1.94	0.49
2:D:2488:LEU:HA	2:D:2492:PHE:HB2	1.95	0.49
2:D:3861:GLN:HB3	2:D:3864:ASN:HD22	1.78	0.49
2:A:931:TYR:OH	4:A:5003:ATP:H2'	2.13	0.49
2:A:1029:ASN:C	2:A:1031:ARG:H	2.15	0.49
2:A:2488:LEU:HA	2:A:2492:PHE:HB2	1.95	0.49
2:A:3986:LEU:HD12	2:A:4101:LEU:HD12	1.94	0.49
2:A:4177:VAL:HG11	2:A:4880:VAL:HA	1.94	0.49
2:B:258:ARG:NH1	2:B:316:LEU:O	2.46	0.49
2:B:312:LYS:HE2	2:B:394:HIS:HA	1.94	0.49
2:B:1552:VAL:HG12	2:B:1553:PHE:HD1	1.77	0.49
2:B:2211:GLN:NE2	2:B:2248:MET:O	2.35	0.49
2:B:2791:ARG:HD3	2:B:2901:TYR:CE1	2.47	0.49
2:B:2894:LYS:NZ	2:B:2897:GLN:OE1	2.46	0.49
2:B:4089:GLU:HB2	2:B:4090:PRO:HD3	1.95	0.49
2:B:4858:LEU:HA	2:B:4861:ILE:HD12	1.95	0.49
2:C:907:VAL:HB	2:C:912:LYS:HE2	1.95	0.49
2:C:953:SER:OG	2:C:1061:GLY:O	2.31	0.49
2:C:2716:LYS:HG3	2:C:2717:LEU:HD12	1.95	0.49
2:C:4043:ILE:O	2:C:4078:LEU:N	2.31	0.49
2:C:4517:LEU:HD21	2:C:4736:ASN:HB3	1.95	0.49
2:D:514:PHE:CE2	2:D:522:ALA:HB1	2.47	0.49
2:D:625:VAL:HG23	2:D:628:ASN:HB2	1.93	0.49
2:D:953:SER:OG	2:D:1061:GLY:O	2.31	0.49
2:D:1074:ARG:HD2	2:D:1078:CYS:HB3	1.95	0.49
2:D:2119:LEU:HB2	2:D:2152:ASN:ND2	2.28	0.49
2:D:2674:GLY:HA2	2:D:2978:HIS:CE1	2.48	0.49
2:D:4697:VAL:O	2:D:4701:ILE:HG12	2.12	0.49
2:A:1552:VAL:HG12	2:A:1553:PHE:HD1	1.77	0.49
2:B:411:GLU:OE2	2:B:485:ARG:NE	2.46	0.49
2:B:456:LEU:HD11	2:B:533:LEU:HG	1.95	0.49
2:B:2200:LEU:HD13	2:B:2214:MET:HE1	1.93	0.49
2:C:967:PRO:O	2:C:971:GLN:N	2.40	0.49
2:C:1415:ASP:HB3	2:C:1561:LYS:HD2	1.94	0.49
2:C:1608:VAL:HG12	2:C:1619:VAL:HG22	1.94	0.49
2:C:3089:GLY:O	2:C:3093:ILE:HG12	2.13	0.49
2:D:2478:ILE:HG21	2:D:2484:LEU:HD13	1.94	0.49
2:D:3034:HIS:CE1	2:D:3107:SER:HB2	2.47	0.49
2:A:953:SER:OG	2:A:1061:GLY:O	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1415:ASP:HB3	2:A:1561:LYS:HD2	1.94	0.48
2:A:1954:SER:HB3	2:A:1957:LEU:HB2	1.94	0.48
2:A:2447:LYS:HD2	2:A:2864:GLY:HA3	1.95	0.48
2:A:2710:ASN:OD1	2:A:2711:ILE:N	2.46	0.48
2:A:3075:LEU:HD12	2:A:3076:LYS:HD2	1.95	0.48
2:A:4238:ILE:HG23	2:A:4239:LEU:HD12	1.95	0.48
2:B:897:LYS:HB3	2:B:918:LEU:HD23	1.94	0.48
2:B:1287:GLN:NE2	2:B:1295:SER:OG	2.45	0.48
2:B:2674:GLY:HA2	2:B:2978:HIS:CE1	2.48	0.48
2:B:4177:VAL:HG11	2:B:4880:VAL:HA	1.94	0.48
2:B:4254:THR:HA	2:B:4257:ARG:HE	1.77	0.48
2:C:456:LEU:HD11	2:C:533:LEU:HG	1.95	0.48
2:C:3075:LEU:HD12	2:C:3076:LYS:HD2	1.95	0.48
2:D:411:GLU:OE2	2:D:485:ARG:NE	2.46	0.48
2:D:931:TYR:OH	4:D:5003:ATP:H2'	2.13	0.48
2:D:2716:LYS:HG3	2:D:2717:LEU:HD12	1.95	0.48
2:D:3986:LEU:HD12	2:D:4101:LEU:HD12	1.94	0.48
2:A:3235:MET:HA	2:A:3239:LEU:HD12	1.96	0.48
2:A:4697:VAL:O	2:A:4701:ILE:HG12	2.12	0.48
2:B:227:TYR:CG	2:B:352:SER:HB2	2.49	0.48
2:B:2716:LYS:HG3	2:B:2717:LEU:HD12	1.95	0.48
2:B:3920:LEU:HD22	2:B:3935:LEU:HD21	1.95	0.48
2:B:4010:VAL:HG11	2:B:4118:PHE:HZ	1.78	0.48
2:C:2488:LEU:HA	2:C:2492:PHE:HB2	1.95	0.48
2:C:2868:HIS:CE1	2:C:2870:LEU:HB2	2.48	0.48
2:D:1031:ARG:HE	2:D:1038:LEU:HD11	1.78	0.48
2:D:2754:GLN:HE22	2:D:2757:MET:HG2	1.78	0.48
2:D:2791:ARG:HD3	2:D:2901:TYR:CZ	2.48	0.48
2:A:1972:GLN:HA	2:A:1975:MET:SD	2.53	0.48
2:A:2716:LYS:HG3	2:A:2717:LEU:HD12	1.95	0.48
2:A:4010:VAL:HG11	2:A:4118:PHE:HZ	1.78	0.48
2:B:1074:ARG:HD2	2:B:1078:CYS:HB3	1.95	0.48
2:B:1972:GLN:HA	2:B:1975:MET:SD	2.53	0.48
2:B:2714:PRO:HG2	2:B:2717:LEU:HD13	1.95	0.48
2:B:3001:LYS:HZ1	2:B:3044:THR:H	1.61	0.48
2:B:3861:GLN:HB3	2:B:3864:ASN:HD22	1.78	0.48
2:C:1074:ARG:HD2	2:C:1078:CYS:HB3	1.95	0.48
2:C:3304:GLN:HA	2:C:3307:ILE:HG12	1.94	0.48
2:C:4625:ASP:OD1	2:C:4625:ASP:N	2.46	0.48
2:D:1031:ARG:NH2	2:D:1042:THR:HG21	2.21	0.48
2:A:1074:ARG:HH12	2:A:1209:VAL:HG11	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:2158:HIS:CE1	2:A:3615:ARG:HH12	2.31	0.48
2:A:2766:LYS:HE2	2:A:2766:LYS:HA	1.94	0.48
2:A:3239:LEU:HD23	2:A:3242:LEU:HD12	1.95	0.48
2:A:4626:ILE:HG12	2:D:4241:VAL:HG13	1.95	0.48
2:B:66:THR:HG1	2:B:124:SER:HG	1.60	0.48
2:B:1074:ARG:HH12	2:B:1209:VAL:HG11	1.78	0.48
2:B:1939:ASN:ND2	2:B:1989:PRO:HG2	2.28	0.48
2:C:1043:LYS:HB2	2:C:1043:LYS:HE2	1.54	0.48
2:C:3239:LEU:HD23	2:C:3242:LEU:HD12	1.95	0.48
2:D:227:TYR:CG	2:D:352:SER:HB2	2.49	0.48
2:D:2561:LEU:O	2:D:2566:ARG:NH1	2.46	0.48
2:D:2714:PRO:HG2	2:D:2717:LEU:HD13	1.95	0.48
2:D:3152:ARG:HA	2:D:3155:LEU:HD12	1.96	0.48
2:D:4238:ILE:HG23	2:D:4239:LEU:HD12	1.95	0.48
2:A:1681:ASP:HB3	2:A:1683:PRO:HD2	1.94	0.48
2:A:2214:MET:HE2	2:A:2242:VAL:CG1	2.42	0.48
2:A:2791:ARG:HD3	2:A:2901:TYR:CZ	2.48	0.48
2:A:4517:LEU:HD21	2:A:4736:ASN:HB3	1.95	0.48
2:A:4689:LYS:HD2	2:A:4690:LYS:H	1.78	0.48
2:B:2976:LYS:HG3	2:B:2979:ARG:NH2	2.29	0.48
2:B:3235:MET:HA	2:B:3239:LEU:HD12	1.96	0.48
2:B:3986:LEU:HD12	2:B:4101:LEU:HD12	1.94	0.48
2:B:4921:PHE:HE2	2:B:4940:VAL:HG11	1.78	0.48
2:C:227:TYR:CG	2:C:352:SER:HB2	2.49	0.48
2:C:375:GLN:HG2	2:C:377:VAL:HG23	1.96	0.48
2:C:625:VAL:HG23	2:C:628:ASN:HB2	1.94	0.48
2:C:2071:GLN:CD	2:C:3648:GLY:HA3	2.34	0.48
2:C:2158:HIS:CE1	2:C:3615:ARG:HH12	2.31	0.48
2:C:2561:LEU:O	2:C:2566:ARG:NH1	2.46	0.48
2:C:2710:ASN:OD1	2:C:2711:ILE:N	2.47	0.48
2:D:271:ALA:O	2:D:301:THR:OG1	2.30	0.48
2:D:2158:HIS:CE1	2:D:3615:ARG:HH12	2.31	0.48
2:D:2976:LYS:HG3	2:D:2979:ARG:NH2	2.28	0.48
2:A:288:HIS:CE1	2:A:349:MET:HG3	2.49	0.48
2:A:2976:LYS:HG3	2:A:2979:ARG:NH2	2.28	0.48
2:A:4257:ARG:O	2:A:4261:LEU:HG	2.14	0.48
2:A:4863:GLN:HG2	2:B:4860:ALA:HB2	1.96	0.48
2:B:907:VAL:HB	2:B:912:LYS:HE2	1.94	0.48
2:B:953:SER:OG	2:B:1061:GLY:O	2.31	0.48
2:B:1628:MET:HB3	2:B:1628:MET:HE2	1.75	0.48
2:C:118:ALA:HA	2:C:161:THR:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:2791:ARG:HD3	2:C:2901:TYR:CZ	2.48	0.48
2:C:4010:VAL:HG11	2:C:4118:PHE:HZ	1.78	0.48
2:C:4689:LYS:HE3	2:C:4696:ALA:HB2	1.94	0.48
2:D:118:ALA:HA	2:D:161:THR:HA	1.95	0.48
2:D:894:VAL:HG23	2:D:895:MET:HE2	1.96	0.48
2:D:2447:LYS:HD2	2:D:2864:GLY:HA3	1.95	0.48
2:A:1936:LEU:HD11	2:A:1976:LEU:HD22	1.96	0.48
2:A:2754:GLN:HE22	2:A:2757:MET:HG2	1.78	0.48
2:A:2798:MET:HA	2:A:2798:MET:HE3	1.95	0.48
2:A:3920:LEU:HD22	2:A:3935:LEU:HD21	1.95	0.48
2:A:4658:GLY:HA2	2:A:4666:ILE:HD12	1.95	0.48
2:A:4858:LEU:HA	2:A:4861:ILE:HD12	1.95	0.48
2:B:288:HIS:CE1	2:B:349:MET:HG3	2.49	0.48
2:B:375:GLN:HG2	2:B:377:VAL:HG23	1.96	0.48
2:B:2502:LEU:HD13	2:B:2507:LEU:HD13	1.96	0.48
2:B:2710:ASN:OD1	2:B:2711:ILE:N	2.46	0.48
2:B:2791:ARG:HD3	2:B:2901:TYR:CZ	2.48	0.48
2:B:4257:ARG:O	2:B:4261:LEU:HG	2.14	0.48
4:B:5003:ATP:H5'1	4:B:5003:ATP:H8	1.79	0.48
2:C:288:HIS:CE1	2:C:349:MET:HG3	2.49	0.48
2:C:1967:SER:O	2:C:1972:GLN:NE2	2.40	0.48
2:C:2888:LYS:HA	2:C:2891:ASP:OD2	2.14	0.48
2:D:907:VAL:HB	2:D:912:LYS:HE2	1.94	0.48
2:D:1118:SER:HB3	2:D:1204:VAL:HG11	1.95	0.48
2:D:3235:MET:HA	2:D:3239:LEU:HD12	1.96	0.48
2:D:3321:PRO:HA	2:D:3324:GLU:HG3	1.96	0.48
2:A:2077:ASP:O	2:A:2081:VAL:HG23	2.14	0.48
2:A:2674:GLY:HA2	2:A:2978:HIS:CE1	2.48	0.48
2:A:4107:GLU:OE2	2:A:4135:ARG:NE	2.47	0.48
4:A:5003:ATP:H8	4:A:5003:ATP:H5'1	1.79	0.48
2:B:1415:ASP:HB3	2:B:1561:LYS:HD2	1.94	0.48
2:B:2561:LEU:O	2:B:2566:ARG:NH1	2.46	0.48
2:C:1575:HIS:O	2:C:1576:LYS:NZ	2.40	0.48
2:C:2077:ASP:O	2:C:2081:VAL:HG23	2.14	0.48
2:C:2976:LYS:HG3	2:C:2979:ARG:NH2	2.29	0.48
2:C:3221:LEU:HD22	2:C:3231:MET:SD	2.54	0.48
2:C:3861:GLN:HB3	2:C:3864:ASN:HD22	1.78	0.48
2:C:4238:ILE:HG23	2:C:4239:LEU:HD12	1.95	0.48
2:C:4620:GLN:OE1	2:C:4632:ARG:NH1	2.47	0.48
2:D:2074:VAL:HG23	2:D:3660:ARG:HG2	1.96	0.48
2:D:2710:ASN:OD1	2:D:2711:ILE:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2894:LYS:NZ	2:D:2897:GLN:OE1	2.46	0.48
2:D:3036:LEU:O	2:D:3040:LEU:HG	2.13	0.48
2:D:3304:GLN:HA	2:D:3307:ILE:HG12	1.94	0.48
1:E:27:TYR:HA	1:E:101:ASP:O	2.14	0.48
2:A:312:LYS:HE2	2:A:394:HIS:HA	1.94	0.48
2:A:375:GLN:HG2	2:A:377:VAL:HG23	1.96	0.48
2:A:2502:LEU:HD13	2:A:2507:LEU:HD13	1.96	0.48
2:A:2894:LYS:NZ	2:A:2897:GLN:OE1	2.46	0.48
2:A:3001:LYS:HE2	2:A:3045:VAL:HG23	1.96	0.48
2:B:1681:ASP:HB3	2:B:1683:PRO:HD2	1.94	0.48
2:B:2119:LEU:HB2	2:B:2152:ASN:ND2	2.28	0.48
2:B:2688:MET:HB3	2:B:2689:MET:HE1	1.95	0.48
2:B:4238:ILE:HG23	2:B:4239:LEU:HD12	1.95	0.48
2:B:4658:GLY:HA2	2:B:4666:ILE:HD12	1.95	0.48
2:C:312:LYS:HE2	2:C:394:HIS:HA	1.94	0.48
2:C:931:TYR:OH	4:C:5003:ATP:H2'	2.13	0.48
2:C:1031:ARG:HE	2:C:1038:LEU:HD11	1.78	0.48
2:C:3920:LEU:HD22	2:C:3935:LEU:HD21	1.95	0.48
2:C:4107:GLU:OE2	2:C:4135:ARG:NE	2.47	0.48
2:C:4197:ILE:HG12	2:C:4923:MET:HE2	1.96	0.48
2:D:219:SER:H	2:D:349:MET:HE3	1.78	0.48
2:D:717:GLY:N	2:D:720:ASP:OD2	2.42	0.48
2:D:1936:LEU:HD11	2:D:1976:LEU:HD22	1.96	0.48
2:D:1939:ASN:ND2	2:D:1989:PRO:HG2	2.28	0.48
2:D:2888:LYS:HA	2:D:2891:ASP:OD2	2.14	0.48
2:D:3277:LEU:O	2:D:3281:LEU:HG	2.14	0.48
2:D:3920:LEU:HD22	2:D:3935:LEU:HD21	1.95	0.48
2:D:4631:ASP:OD1	2:D:4708:TRP:NE1	2.42	0.48
2:A:258:ARG:NH1	2:A:316:LEU:O	2.46	0.48
2:A:2074:VAL:HG23	2:A:3660:ARG:HG2	1.96	0.48
2:A:2868:HIS:CE1	2:A:2870:LEU:HB2	2.48	0.48
2:A:3152:ARG:HA	2:A:3155:LEU:HD12	1.96	0.48
2:A:4620:GLN:OE1	2:A:4632:ARG:NH1	2.47	0.48
2:B:3075:LEU:HD12	2:B:3076:LYS:HD2	1.95	0.48
2:B:3221:LEU:HD22	2:B:3231:MET:SD	2.54	0.48
2:B:4620:GLN:OE1	2:B:4632:ARG:NH1	2.47	0.48
2:C:953:SER:OG	2:C:1063:ASN:OD1	2.30	0.48
2:C:4257:ARG:O	2:C:4261:LEU:HG	2.14	0.48
2:D:456:LEU:HD11	2:D:533:LEU:HG	1.95	0.48
2:D:872:ILE:O	2:D:941:LYS:NZ	2.47	0.48
2:D:2077:ASP:O	2:D:2081:VAL:HG23	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2943:PHE:HD2	2:D:3021:LEU:HD23	1.78	0.48
2:A:1074:ARG:HD2	2:A:1078:CYS:HB3	1.95	0.47
2:A:2071:GLN:CD	2:A:3648:GLY:HA3	2.34	0.47
2:A:2561:LEU:O	2:A:2566:ARG:NH1	2.46	0.47
2:A:2590:ARG:HG2	2:A:2691:LYS:HE3	1.96	0.47
2:A:2791:ARG:HD3	2:A:2901:TYR:CE1	2.47	0.47
2:A:3016:ARG:HG2	2:A:3017:HIS:CD2	2.49	0.47
2:A:3036:LEU:O	2:A:3040:LEU:HG	2.13	0.47
2:A:3221:LEU:HD22	2:A:3231:MET:SD	2.54	0.47
2:A:4848:ILE:HD11	2:D:4818:TYR:HA	1.96	0.47
2:B:1936:LEU:HD11	2:B:1976:LEU:HD22	1.96	0.47
2:B:2071:GLN:CD	2:B:3648:GLY:HA3	2.34	0.47
2:B:2550:HIS:HD2	2:B:2591:ARG:HD2	1.79	0.47
2:B:2758:LYS:HE2	2:B:2762:LEU:O	2.14	0.47
2:B:3187:LYS:O	2:B:3191:GLU:HB2	2.14	0.47
2:B:4689:LYS:HD2	2:B:4690:LYS:H	1.78	0.47
2:C:1074:ARG:HH12	2:C:1209:VAL:HG11	1.78	0.47
2:C:1118:SER:HB3	2:C:1204:VAL:HG11	1.95	0.47
2:C:1939:ASN:ND2	2:C:1989:PRO:HG2	2.28	0.47
2:C:1972:GLN:HA	2:C:1975:MET:SD	2.53	0.47
2:C:1975:MET:HA	2:C:1978:ASN:HD22	1.77	0.47
2:C:2074:VAL:HG23	2:C:3660:ARG:HG2	1.96	0.47
2:C:2214:MET:HE2	2:C:2242:VAL:CG1	2.43	0.47
2:C:2550:HIS:HD2	2:C:2591:ARG:HD2	1.79	0.47
2:C:2754:GLN:HE22	2:C:2757:MET:HG2	1.78	0.47
2:C:3235:MET:HA	2:C:3239:LEU:HD12	1.96	0.47
2:C:4858:LEU:HA	2:C:4861:ILE:HD12	1.95	0.47
2:D:1575:HIS:O	2:D:1576:LYS:NZ	2.40	0.47
2:D:4107:GLU:OE2	2:D:4135:ARG:NE	2.47	0.47
2:D:4658:GLY:HA2	2:D:4666:ILE:HD12	1.95	0.47
2:A:118:ALA:HA	2:A:161:THR:HA	1.95	0.47
2:A:456:LEU:HD11	2:A:533:LEU:HG	1.95	0.47
2:A:1939:ASN:ND2	2:A:1989:PRO:HG2	2.28	0.47
2:A:3712:LYS:HB2	2:A:3712:LYS:HE3	1.69	0.47
2:B:2077:ASP:O	2:B:2081:VAL:HG23	2.14	0.47
2:B:3016:ARG:HG2	2:B:3017:HIS:CD2	2.49	0.47
2:C:655:MET:HE2	2:C:1608:VAL:HG11	1.95	0.47
2:C:2758:LYS:HE2	2:C:2762:LEU:O	2.14	0.47
2:C:3321:PRO:HA	2:C:3324:GLU:HG3	1.96	0.47
2:D:1967:SER:HB3	2:D:1971:GLU:OE1	2.14	0.47
2:D:1972:GLN:HA	2:D:1975:MET:SD	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2502:LEU:HD13	2:D:2507:LEU:HD13	1.96	0.47
2:D:2706:VAL:HG23	2:D:2847:ASN:HD21	1.77	0.47
2:D:2791:ARG:NH2	2:D:2795:GLY:O	2.42	0.47
2:D:3924:ILE:HG21	2:D:3935:LEU:HD22	1.96	0.47
2:D:4179:GLU:HG2	2:D:4179:GLU:O	2.15	0.47
1:G:27:TYR:HA	1:G:101:ASP:O	2.14	0.47
2:A:227:TYR:CG	2:A:352:SER:HB2	2.49	0.47
2:A:2943:PHE:HD2	2:A:3021:LEU:HD23	1.79	0.47
2:A:4179:GLU:HG2	2:A:4179:GLU:O	2.15	0.47
2:B:931:TYR:OH	4:B:5003:ATP:H2'	2.13	0.47
2:B:2888:LYS:HA	2:B:2891:ASP:OD2	2.14	0.47
2:B:3002:GLU:OE2	2:B:3045:VAL:HA	2.14	0.47
2:C:2502:LEU:HD13	2:C:2507:LEU:HD13	1.96	0.47
2:C:2664:LEU:O	2:C:2667:PRO:HD2	2.15	0.47
2:D:2071:GLN:CD	2:D:3648:GLY:HA3	2.34	0.47
2:D:3260:ARG:HH11	2:D:3264:CYS:HA	1.79	0.47
2:D:4620:GLN:OE1	2:D:4632:ARG:NH1	2.47	0.47
1:E:23:CYS:SG	1:E:51:ILE:HD11	2.55	0.47
1:F:27:TYR:HA	1:F:101:ASP:O	2.14	0.47
2:A:1031:ARG:HE	2:A:1038:LEU:HD11	1.78	0.47
2:A:2664:LEU:O	2:A:2667:PRO:HD2	2.15	0.47
2:A:2714:PRO:HG2	2:A:2717:LEU:HD13	1.95	0.47
2:A:3277:LEU:O	2:A:3281:LEU:HG	2.14	0.47
2:B:1967:SER:O	2:B:1972:GLN:NE2	2.40	0.47
2:B:2664:LEU:O	2:B:2667:PRO:HD2	2.15	0.47
2:B:2868:HIS:CE1	2:B:2870:LEU:HB2	2.48	0.47
2:B:2943:PHE:HD2	2:B:3021:LEU:HD23	1.78	0.47
2:B:3277:LEU:O	2:B:3281:LEU:HG	2.14	0.47
2:B:3321:PRO:HA	2:B:3324:GLU:HG3	1.96	0.47
2:C:2119:LEU:HB2	2:C:2152:ASN:ND2	2.28	0.47
2:C:2447:LYS:HD2	2:C:2864:GLY:HA3	1.95	0.47
1:H:27:TYR:HA	1:H:101:ASP:O	2.14	0.47
2:A:1914:CYS:HB3	2:A:2090:ARG:HH21	1.80	0.47
2:A:2888:LYS:HA	2:A:2891:ASP:OD2	2.14	0.47
2:B:1967:SER:HB3	2:B:1971:GLU:OE1	2.14	0.47
2:B:2590:ARG:HG2	2:B:2691:LYS:HE3	1.97	0.47
2:B:3025:ASP:O	2:B:3029:ILE:HD12	2.15	0.47
2:C:3016:ARG:HG2	2:C:3017:HIS:CD2	2.49	0.47
2:C:3171:LEU:HB2	2:C:3245:TYR:CZ	2.50	0.47
2:D:3239:LEU:HD23	2:D:3242:LEU:HD12	1.95	0.47
2:A:872:ILE:O	2:A:941:LYS:NZ	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:2758:LYS:HE2	2:A:2762:LEU:O	2.14	0.47
2:A:3187:LYS:O	2:A:3191:GLU:HB2	2.14	0.47
2:A:4921:PHE:HE2	2:A:4940:VAL:HG11	1.79	0.47
2:B:66:THR:HG22	2:B:217:ILE:HG13	1.97	0.47
2:B:118:ALA:HA	2:B:161:THR:HA	1.95	0.47
2:B:902:TRP:CB	2:B:918:LEU:HD21	2.42	0.47
2:B:1914:CYS:HB3	2:B:2090:ARG:HH21	1.80	0.47
2:B:4118:PHE:HA	2:B:4121:LEU:HD12	1.97	0.47
2:C:258:ARG:NH1	2:C:316:LEU:O	2.46	0.47
2:C:1967:SER:HB3	2:C:1971:GLU:OE1	2.14	0.47
2:C:3043:ARG:HG3	2:C:3047:LYS:HZ2	1.79	0.47
2:C:3924:ILE:HG21	2:C:3935:LEU:HD22	1.96	0.47
2:C:4658:GLY:HA2	2:C:4666:ILE:HD12	1.95	0.47
2:D:258:ARG:NH1	2:D:316:LEU:O	2.46	0.47
2:D:3016:ARG:HG2	2:D:3017:HIS:CD2	2.49	0.47
2:D:3187:LYS:O	2:D:3191:GLU:HB2	2.14	0.47
2:D:4010:VAL:HG11	2:D:4118:PHE:HZ	1.78	0.47
2:D:4569:GLU:HB3	2:D:4570:PRO:HD3	1.97	0.47
1:F:23:CYS:SG	1:F:51:ILE:HD11	2.55	0.47
2:A:1967:SER:HB3	2:A:1971:GLU:OE1	2.14	0.47
2:A:4867:ILE:HG12	2:B:4864:GLY:HA2	1.97	0.47
2:B:28:ILE:HG22	2:B:29:HIS:HD2	1.80	0.47
2:B:1001:GLU:OE2	2:B:1035:TYR:HB3	2.14	0.47
2:B:1031:ARG:HE	2:B:1038:LEU:HD11	1.78	0.47
2:B:1199:ASP:OD1	2:B:1199:ASP:N	2.45	0.47
2:B:1575:HIS:O	2:B:1576:LYS:NZ	2.40	0.47
2:B:1957:LEU:HG	2:B:1961:LYS:HB3	1.97	0.47
2:B:2754:GLN:HE22	2:B:2757:MET:HG2	1.78	0.47
2:B:3171:LEU:HB2	2:B:3245:TYR:CZ	2.50	0.47
2:B:4107:GLU:OE2	2:B:4135:ARG:NE	2.47	0.47
2:C:307:SER:HB3	2:C:327:THR:HG22	1.97	0.47
2:C:1936:LEU:HD11	2:C:1976:LEU:HD22	1.96	0.47
2:C:2943:PHE:HD2	2:C:3021:LEU:HD23	1.78	0.47
2:C:3002:GLU:OE2	2:C:3045:VAL:HA	2.14	0.47
2:C:3140:LEU:HB3	2:C:3155:LEU:HD13	1.97	0.47
2:C:3187:LYS:O	2:C:3191:GLU:HB2	2.14	0.47
2:C:3277:LEU:O	2:C:3281:LEU:HG	2.14	0.47
4:C:5003:ATP:H8	4:C:5003:ATP:H5'1	1.79	0.47
2:D:375:GLN:HG2	2:D:377:VAL:HG23	1.96	0.47
2:D:1969:PRO:HD3	2:D:3605:MET:HE1	1.97	0.47
2:D:2664:LEU:O	2:D:2667:PRO:HD2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2788:ARG:HH12	2:D:2908:LYS:HG2	1.80	0.47
2:D:2928:GLN:HA	2:D:2931:ARG:HE	1.80	0.47
2:D:3001:LYS:HE2	2:D:3045:VAL:HG23	1.96	0.47
2:D:3001:LYS:NZ	2:D:3044:THR:H	2.13	0.47
2:D:3002:GLU:OE2	2:D:3045:VAL:HA	2.14	0.47
2:D:3221:LEU:HD22	2:D:3231:MET:SD	2.54	0.47
2:D:4921:PHE:HE2	2:D:4940:VAL:HG11	1.78	0.47
1:G:23:CYS:SG	1:G:51:ILE:HD11	2.55	0.47
2:A:808:HIS:O	2:A:1616:GLY:HA2	2.15	0.47
2:A:902:TRP:CB	2:A:918:LEU:HD21	2.42	0.47
2:A:2441:GLN:OE1	2:A:2454:PRO:HG3	2.14	0.47
2:A:3321:PRO:HA	2:A:3324:GLU:HG3	1.96	0.47
2:A:3653:GLU:HB2	2:A:3660:ARG:HH22	1.80	0.47
2:A:4569:GLU:HB3	2:A:4570:PRO:HD3	1.97	0.47
2:B:810:GLU:HB2	2:B:1614:ARG:HE	1.80	0.47
2:B:4502:MET:SD	2:B:4585:PHE:HB3	2.55	0.47
2:C:703:TYR:HD2	2:C:858:THR:HG22	1.80	0.47
2:C:872:ILE:O	2:C:941:LYS:NZ	2.48	0.47
2:C:877:HIS:O	2:C:880:ARG:HD3	2.15	0.47
2:C:2974:TYR:CZ	2:C:2982:PHE:HZ	2.33	0.47
2:C:3001:LYS:HE2	2:C:3045:VAL:HG23	1.96	0.47
2:C:3152:ARG:HA	2:C:3155:LEU:HD12	1.96	0.47
2:D:66:THR:HG22	2:D:217:ILE:HG13	1.97	0.47
2:D:1161:VAL:HG21	2:D:1225:LYS:HE2	1.97	0.47
2:D:2441:GLN:OE1	2:D:2454:PRO:HG3	2.14	0.47
2:D:3171:LEU:HB2	2:D:3245:TYR:CZ	2.50	0.47
4:D:5003:ATP:H8	4:D:5003:ATP:H5'1	1.79	0.47
2:A:143:LEU:HD21	2:D:2426:LEU:HA	1.97	0.47
2:A:1161:VAL:HG21	2:A:1225:LYS:HE2	1.97	0.47
2:A:1957:LEU:HG	2:A:1961:LYS:HB3	1.97	0.47
2:A:2332:GLY:N	2:A:2336:ARG:HH12	2.13	0.47
2:A:3171:LEU:HB2	2:A:3245:TYR:CZ	2.50	0.47
2:A:3260:ARG:O	2:A:3260:ARG:HD3	2.15	0.47
2:A:4502:MET:SD	2:A:4585:PHE:HB3	2.55	0.47
2:B:717:GLY:N	2:B:720:ASP:OD2	2.42	0.47
2:B:2074:VAL:HG23	2:B:3660:ARG:HG2	1.96	0.47
2:B:2229:LEU:HD13	2:B:2297:ARG:HB2	1.97	0.47
2:B:2884:LYS:HA	2:B:2887:GLU:OE2	2.15	0.47
2:C:66:THR:HG22	2:C:217:ILE:HG13	1.97	0.47
2:C:890:HIS:O	2:C:894:VAL:HG13	2.15	0.47
2:C:2688:MET:HB3	2:C:2689:MET:HE1	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:2705:PRO:HG3	2:C:2851:ILE:HG12	1.97	0.47
2:C:4569:GLU:HB3	2:C:4570:PRO:HD3	1.97	0.47
2:C:4921:PHE:HE2	2:C:4940:VAL:HG11	1.78	0.47
2:D:1001:GLU:OE2	2:D:1035:TYR:HB3	2.14	0.47
2:D:1986:CYS:O	2:D:1993:ARG:NH2	2.48	0.47
2:D:2590:ARG:HG2	2:D:2691:LYS:HE3	1.96	0.47
2:A:307:SER:HB3	2:A:327:THR:HG22	1.97	0.47
2:A:794:PHE:CG	2:A:798:ILE:HD13	2.51	0.47
2:A:2596:VAL:O	2:A:2599:LEU:HD22	2.15	0.47
2:A:2928:GLN:HA	2:A:2931:ARG:HE	1.80	0.47
2:A:3261:ALA:C	2:A:3262:GLU:OE1	2.54	0.47
2:A:4197:ILE:HG12	2:A:4923:MET:HE2	1.97	0.47
2:B:3140:LEU:HB3	2:B:3155:LEU:HD13	1.97	0.47
2:B:3152:ARG:HA	2:B:3155:LEU:HD12	1.96	0.47
2:C:28:ILE:HG22	2:C:29:HIS:HD2	1.80	0.47
2:C:2596:VAL:O	2:C:2599:LEU:HD22	2.15	0.47
2:C:3025:ASP:O	2:C:3029:ILE:HD12	2.15	0.47
2:C:4502:MET:SD	2:C:4585:PHE:HB3	2.55	0.47
2:D:877:HIS:O	2:D:880:ARG:HD3	2.15	0.47
2:D:890:HIS:O	2:D:894:VAL:HG13	2.15	0.47
2:D:2596:VAL:O	2:D:2599:LEU:HD22	2.15	0.47
2:D:2974:TYR:CZ	2:D:2982:PHE:HZ	2.33	0.47
2:D:4617:ILE:HG23	2:D:4665:ARG:NH2	2.30	0.47
2:A:28:ILE:HG22	2:A:29:HIS:HD2	1.80	0.46
2:A:606:ARG:HH22	2:A:1634:GLU:HG2	1.80	0.46
2:A:703:TYR:HD2	2:A:858:THR:HG22	1.80	0.46
2:A:877:HIS:O	2:A:880:ARG:HD3	2.15	0.46
2:A:2009:ILE:HD12	2:A:3634:HIS:CD2	2.50	0.46
2:A:2229:LEU:HD13	2:A:2297:ARG:HB2	1.97	0.46
2:A:2788:ARG:HH12	2:A:2908:LYS:HG2	1.80	0.46
2:A:3002:GLU:OE2	2:A:3045:VAL:HA	2.14	0.46
2:B:872:ILE:O	2:B:941:LYS:NZ	2.47	0.46
2:B:2141:LEU:O	2:B:2144:ARG:HD3	2.15	0.46
2:B:2178:VAL:HG21	2:B:2192:MET:SD	2.55	0.46
2:C:1001:GLU:OE2	2:C:1035:TYR:HB3	2.14	0.46
2:D:288:HIS:CE1	2:D:349:MET:HG3	2.49	0.46
2:D:1199:ASP:OD1	2:D:1199:ASP:N	2.45	0.46
2:D:2884:LYS:HA	2:D:2887:GLU:OE2	2.15	0.46
2:D:4118:PHE:HA	2:D:4121:LEU:HD12	1.97	0.46
2:A:1945:ASN:O	2:A:1949:GLN:NE2	2.42	0.46
2:A:3227:ARG:NH1	2:A:3228:TYR:HB3	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:824:GLU:HA	2:B:1020:ILE:HD12	1.97	0.46
2:B:1161:VAL:HG21	2:B:1225:LYS:HE2	1.97	0.46
2:B:2596:VAL:O	2:B:2599:LEU:HD22	2.15	0.46
2:B:2788:ARG:HH12	2:B:2908:LYS:HG2	1.80	0.46
2:B:3227:ARG:NH1	2:B:3228:TYR:HB3	2.30	0.46
2:B:4179:GLU:O	2:B:4179:GLU:HG2	2.15	0.46
2:C:606:ARG:HH22	2:C:1634:GLU:HG2	1.80	0.46
2:C:810:GLU:HB2	2:C:1614:ARG:HE	1.80	0.46
2:C:2009:ILE:HD12	2:C:3634:HIS:CD2	2.50	0.46
2:C:3001:LYS:NZ	2:C:3044:THR:H	2.13	0.46
2:D:606:ARG:HH22	2:D:1634:GLU:HG2	1.80	0.46
2:D:2170:THR:O	2:D:2174:VAL:HG23	2.16	0.46
2:D:2681:MET:SD	2:D:2914:THR:HA	2.55	0.46
2:D:4257:ARG:O	2:D:4261:LEU:HG	2.14	0.46
2:A:890:HIS:O	2:A:894:VAL:HG13	2.15	0.46
2:A:2550:HIS:HD2	2:A:2591:ARG:HD2	1.79	0.46
2:B:2441:GLN:OE1	2:B:2454:PRO:HG3	2.14	0.46
2:B:4197:ILE:HG12	2:B:4923:MET:HE2	1.97	0.46
2:C:267:VAL:HG22	2:C:272:ARG:HH12	1.81	0.46
2:C:1161:VAL:HG21	2:C:1225:LYS:HE2	1.97	0.46
2:C:1957:LEU:HG	2:C:1961:LYS:HB3	1.97	0.46
2:C:1986:CYS:O	2:C:1993:ARG:NH2	2.48	0.46
2:C:2178:VAL:HG21	2:C:2192:MET:SD	2.55	0.46
2:C:2229:LEU:HD13	2:C:2297:ARG:HB2	1.97	0.46
2:C:2681:MET:SD	2:C:2914:THR:HA	2.56	0.46
2:C:2788:ARG:HH12	2:C:2908:LYS:HG2	1.80	0.46
2:C:3653:GLU:HB2	2:C:3660:ARG:HH22	1.80	0.46
2:C:4617:ILE:HG23	2:C:4665:ARG:NH2	2.30	0.46
2:C:4822:ARG:HH12	2:D:4829:ASP:N	2.13	0.46
2:D:1914:CYS:HB3	2:D:2090:ARG:HH21	1.80	0.46
2:D:2059:GLN:HG3	2:D:2091:GLN:HB3	1.98	0.46
2:D:2758:LYS:HE2	2:D:2762:LEU:O	2.14	0.46
2:D:4689:LYS:HD2	2:D:4690:LYS:H	1.78	0.46
1:H:23:CYS:SG	1:H:51:ILE:HD11	2.55	0.46
2:A:66:THR:HG22	2:A:217:ILE:HG13	1.97	0.46
2:A:810:GLU:HB2	2:A:1614:ARG:HE	1.80	0.46
2:A:1001:GLU:OE2	2:A:1035:TYR:HB3	2.14	0.46
2:A:3001:LYS:NZ	2:A:3044:THR:H	2.13	0.46
2:A:4118:PHE:HA	2:A:4121:LEU:HD12	1.97	0.46
2:B:606:ARG:HH22	2:B:1634:GLU:HG2	1.80	0.46
2:B:1489:CYS:O	2:B:1492:GLU:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2113:VAL:O	2:B:2117:ILE:HG13	2.15	0.46
2:B:2170:THR:O	2:B:2174:VAL:HG23	2.16	0.46
2:B:2332:GLY:N	2:B:2336:ARG:HH12	2.13	0.46
2:B:3001:LYS:HE2	2:B:3045:VAL:HG23	1.96	0.46
2:B:3653:GLU:HB2	2:B:3660:ARG:HH22	1.80	0.46
2:C:1914:CYS:HB3	2:C:2090:ARG:HH21	1.80	0.46
2:C:2141:LEU:O	2:C:2144:ARG:HD3	2.15	0.46
2:C:2441:GLN:OE1	2:C:2454:PRO:HG3	2.15	0.46
2:C:3134:LEU:HB2	2:C:3162:PHE:CE2	2.51	0.46
2:D:2760:TYR:CE2	2:D:2768:LYS:HE3	2.51	0.46
2:D:4264:LEU:HA	2:D:4267:GLN:OE1	2.16	0.46
1:H:19:LYS:HZ3	1:H:52:GLY:HA3	1.80	0.46
2:A:1489:CYS:O	2:A:1492:GLU:HG3	2.15	0.46
2:A:2884:LYS:HA	2:A:2887:GLU:OE2	2.15	0.46
2:B:20:VAL:HB	2:B:214:VAL:HG13	1.97	0.46
2:B:890:HIS:O	2:B:894:VAL:HG13	2.15	0.46
2:B:2974:TYR:CZ	2:B:2982:PHE:HZ	2.33	0.46
2:B:3924:ILE:HG21	2:B:3935:LEU:HD22	1.96	0.46
2:C:66:THR:HG1	2:C:124:SER:HG	1.58	0.46
2:C:794:PHE:CG	2:C:798:ILE:HD13	2.50	0.46
2:C:2590:ARG:HG2	2:C:2691:LYS:HE3	1.97	0.46
2:C:2884:LYS:HA	2:C:2887:GLU:OE2	2.15	0.46
2:C:2928:GLN:HA	2:C:2931:ARG:HE	1.80	0.46
2:D:20:VAL:HB	2:D:214:VAL:HG13	1.97	0.46
2:D:810:GLU:HB2	2:D:1614:ARG:HE	1.80	0.46
2:D:1819:VAL:HG13	2:D:1905:GLN:NE2	2.31	0.46
2:D:2229:LEU:HD13	2:D:2297:ARG:HB2	1.97	0.46
2:D:2553:TYR:HE1	2:D:2557:LYS:HZ1	1.63	0.46
1:E:19:LYS:HZ3	1:E:52:GLY:HA3	1.79	0.46
1:H:88:HIS:NE2	2:D:1776:TYR:OH	2.37	0.46
2:A:1016:TRP:CG	2:A:1027:ARG:HB3	2.51	0.46
2:A:1549:SER:HB2	2:D:2830:ASN:HD21	1.79	0.46
2:A:2113:VAL:O	2:A:2117:ILE:HG13	2.16	0.46
2:A:2898:ILE:O	2:B:1498:GLN:NE2	2.49	0.46
2:A:2974:TYR:CZ	2:A:2982:PHE:HZ	2.33	0.46
2:A:3140:LEU:HB3	2:A:3155:LEU:HD13	1.97	0.46
2:B:546:LYS:O	2:B:550:GLN:HG2	2.16	0.46
2:B:703:TYR:HD2	2:B:858:THR:HG22	1.80	0.46
2:B:2009:ILE:HD12	2:B:3634:HIS:CD2	2.50	0.46
2:B:3134:LEU:HB2	2:B:3162:PHE:CE2	2.51	0.46
2:B:3261:ALA:C	2:B:3262:GLU:OE1	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:824:GLU:HA	2:C:1020:ILE:HD12	1.97	0.46
2:C:1016:TRP:CG	2:C:1027:ARG:HB3	2.51	0.46
2:C:3261:ALA:C	2:C:3262:GLU:OE1	2.54	0.46
2:C:3275:THR:O	2:C:3279:ASN:ND2	2.49	0.46
2:C:4118:PHE:HA	2:C:4121:LEU:HD12	1.96	0.46
2:C:4252:ILE:HG21	2:D:4707:MET:HG3	1.96	0.46
2:D:2550:HIS:HD2	2:D:2591:ARG:HD2	1.79	0.46
2:D:3025:ASP:O	2:D:3029:ILE:HD12	2.15	0.46
2:D:3275:THR:O	2:D:3279:ASN:ND2	2.49	0.46
2:D:4502:MET:SD	2:D:4585:PHE:HB3	2.55	0.46
2:A:546:LYS:O	2:A:550:GLN:HG2	2.16	0.46
2:A:717:GLY:N	2:A:720:ASP:OD2	2.42	0.46
2:A:824:GLU:HA	2:A:1020:ILE:HD12	1.97	0.46
2:A:2141:LEU:O	2:A:2144:ARG:HD3	2.15	0.46
2:A:2204:CYS:SG	2:A:2214:MET:HG2	2.56	0.46
2:A:2681:MET:SD	2:A:2914:THR:HA	2.56	0.46
2:A:3025:ASP:O	2:A:3029:ILE:HD12	2.15	0.46
2:A:4264:LEU:HA	2:A:4267:GLN:OE1	2.16	0.46
2:B:438:LYS:HD3	2:B:438:LYS:HA	1.70	0.46
2:B:1016:TRP:CG	2:B:1027:ARG:HB3	2.51	0.46
2:B:2705:PRO:HG3	2:B:2851:ILE:HG12	1.97	0.46
2:B:3650:GLU:OE1	2:B:3659:LYS:NZ	2.49	0.46
2:B:4569:GLU:HB3	2:B:4570:PRO:HD3	1.97	0.46
2:C:411:GLU:OE2	2:C:485:ARG:NE	2.46	0.46
2:C:902:TRP:HB3	2:C:918:LEU:CD2	2.44	0.46
2:C:4179:GLU:O	2:C:4179:GLU:HG2	2.15	0.46
2:D:28:ILE:HG22	2:D:29:HIS:HD2	1.80	0.46
2:D:2332:GLY:N	2:D:2336:ARG:HH12	2.13	0.46
2:D:3260:ARG:O	2:D:3260:ARG:HD3	2.15	0.46
2:A:483:LYS:HE2	2:A:483:LYS:HB2	1.80	0.46
2:B:808:HIS:O	2:B:1616:GLY:HA2	2.15	0.46
2:B:877:HIS:O	2:B:880:ARG:HD3	2.15	0.46
2:B:880:ARG:HH11	2:B:881:ILE:HB	1.81	0.46
2:B:886:ALA:HB1	2:B:929:ARG:HH12	1.81	0.46
2:B:1415:ASP:N	2:B:1415:ASP:OD1	2.49	0.46
2:B:4203:ALA:HA	2:B:4206:ILE:HG12	1.98	0.46
2:C:20:VAL:HB	2:C:214:VAL:HG13	1.97	0.46
2:C:2431:ASP:O	2:C:2435:VAL:HG23	2.16	0.46
2:C:2760:TYR:CE2	2:C:2768:LYS:HE3	2.51	0.46
2:C:3601:ALA:HA	2:C:3604:ARG:HH11	1.81	0.46
2:C:4203:ALA:HA	2:C:4206:ILE:HG12	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:4639:SER:O	2:C:4642:ASN:HB2	2.16	0.46
2:D:703:TYR:HD2	2:D:858:THR:HG22	1.80	0.46
2:D:794:PHE:CG	2:D:798:ILE:HD13	2.50	0.46
2:D:808:HIS:O	2:D:1616:GLY:HA2	2.15	0.46
2:D:2009:ILE:HD12	2:D:3634:HIS:CD2	2.50	0.46
2:D:2431:ASP:O	2:D:2435:VAL:HG23	2.16	0.46
2:A:267:VAL:HG22	2:A:272:ARG:HH12	1.81	0.46
2:A:1649:GLU:HG2	2:A:1650:LEU:N	2.31	0.46
2:A:1819:VAL:HG13	2:A:1905:GLN:NE2	2.31	0.46
2:A:2178:VAL:HG21	2:A:2192:MET:SD	2.55	0.46
2:A:2705:PRO:HG3	2:A:2851:ILE:HG12	1.97	0.46
2:A:3275:THR:O	2:A:3279:ASN:ND2	2.49	0.46
2:B:2431:ASP:O	2:B:2435:VAL:HG23	2.16	0.46
2:B:2681:MET:SD	2:B:2914:THR:HA	2.56	0.46
2:B:3260:ARG:O	2:B:3260:ARG:HD3	2.15	0.46
2:C:886:ALA:HB1	2:C:929:ARG:HH12	1.81	0.46
2:C:1489:CYS:O	2:C:1492:GLU:HG3	2.15	0.46
2:C:1819:VAL:HG13	2:C:1905:GLN:NE2	2.31	0.46
2:C:2332:GLY:N	2:C:2336:ARG:HH12	2.13	0.46
2:C:2581:ARG:HD3	2:C:2583:SER:H	1.81	0.46
2:C:4689:LYS:HD2	2:C:4690:LYS:H	1.79	0.46
2:D:1649:GLU:HG2	2:D:1650:LEU:N	2.31	0.46
2:D:3601:ALA:HA	2:D:3604:ARG:HH11	1.81	0.46
2:D:4639:SER:O	2:D:4642:ASN:HB2	2.16	0.46
2:A:1415:ASP:N	2:A:1415:ASP:OD1	2.49	0.46
2:A:2059:GLN:HG3	2:A:2091:GLN:HB3	1.98	0.46
2:A:2290:TRP:CZ2	2:A:2388:ILE:HG12	2.51	0.46
2:A:2431:ASP:O	2:A:2435:VAL:HG23	2.16	0.46
2:A:2620:TYR:HB2	2:A:2627:TRP:HD1	1.81	0.46
2:A:3227:ARG:HH11	2:A:3228:TYR:HB3	1.81	0.46
2:B:794:PHE:CG	2:B:798:ILE:HD13	2.50	0.46
2:B:889:ILE:HA	2:B:892:LEU:HD12	1.98	0.46
2:B:2928:GLN:HA	2:B:2931:ARG:HE	1.80	0.46
2:B:4264:LEU:HA	2:B:4267:GLN:OE1	2.16	0.46
2:C:808:HIS:O	2:C:1616:GLY:HA2	2.15	0.46
2:C:4022:LYS:NZ	2:C:4057:HIS:O	2.35	0.46
2:D:267:VAL:HG22	2:D:272:ARG:HH12	1.81	0.46
2:D:889:ILE:HA	2:D:892:LEU:HD12	1.98	0.46
2:D:1016:TRP:CG	2:D:1027:ARG:HB3	2.51	0.46
2:D:2141:LEU:O	2:D:2144:ARG:HD3	2.15	0.46
2:D:2620:TYR:HB2	2:D:2627:TRP:HD1	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3227:ARG:NH1	2:D:3228:TYR:HB3	2.30	0.46
2:A:20:VAL:HB	2:A:214:VAL:HG13	1.97	0.45
2:A:888:ASN:ND2	2:A:1060:TYR:OH	2.23	0.45
2:B:2191:LYS:O	2:B:2195:ASN:ND2	2.50	0.45
2:B:2581:ARG:HD3	2:B:2583:SER:H	1.81	0.45
2:B:2745:GLU:HA	2:B:2755:PRO:HB3	1.98	0.45
2:B:4631:ASP:OD1	2:B:4708:TRP:NE1	2.42	0.45
2:C:902:TRP:CB	2:C:918:LEU:HD21	2.42	0.45
2:C:1649:GLU:HG2	2:C:1650:LEU:N	2.31	0.45
2:C:2191:LYS:O	2:C:2195:ASN:ND2	2.49	0.45
2:C:3227:ARG:NH1	2:C:3228:TYR:HB3	2.31	0.45
2:D:66:THR:HG1	2:D:124:SER:HG	1.57	0.45
2:D:438:LYS:HD3	2:D:438:LYS:HA	1.69	0.45
2:D:2413:LYS:HZ2	2:D:2415:GLU:HB3	1.81	0.45
2:D:2705:PRO:HG3	2:D:2851:ILE:HG12	1.97	0.45
2:D:3261:ALA:C	2:D:3262:GLU:OE1	2.54	0.45
2:A:1031:ARG:CZ	2:A:1031:ARG:HB3	2.44	0.45
2:A:2170:THR:O	2:A:2174:VAL:HG23	2.16	0.45
2:A:2745:GLU:HA	2:A:2755:PRO:HB3	1.98	0.45
2:A:3924:ILE:HG21	2:A:3935:LEU:HD22	1.96	0.45
2:A:4617:ILE:HG23	2:A:4665:ARG:NH2	2.30	0.45
2:B:1986:CYS:O	2:B:1993:ARG:NH2	2.48	0.45
2:B:2204:CYS:SG	2:B:2214:MET:HG2	2.56	0.45
2:B:2496:LEU:HD23	2:B:2520:LEU:HD13	1.99	0.45
2:B:2576:ILE:O	2:B:2580:LEU:HG	2.17	0.45
2:B:2760:TYR:CE2	2:B:2768:LYS:HE3	2.51	0.45
2:B:3275:THR:O	2:B:3279:ASN:ND2	2.49	0.45
2:B:3601:ALA:HA	2:B:3604:ARG:HH11	1.81	0.45
2:C:717:GLY:N	2:C:720:ASP:OD2	2.42	0.45
2:C:964:MET:HE1	2:C:982:ASP:HA	1.99	0.45
2:C:1031:ARG:CZ	2:C:1031:ARG:HB3	2.44	0.45
2:C:2498:ALA:O	2:C:2502:LEU:HD23	2.16	0.45
2:C:3054:LYS:O	2:C:3057:LEU:HG	2.16	0.45
2:D:2178:VAL:HG21	2:D:2192:MET:SD	2.56	0.45
2:D:2589:LEU:O	2:D:2593:VAL:HG13	2.17	0.45
2:D:3134:LEU:HB2	2:D:3162:PHE:CE2	2.51	0.45
2:D:3227:ARG:HH11	2:D:3228:TYR:HB3	1.81	0.45
2:D:3653:GLU:HB2	2:D:3660:ARG:HH22	1.80	0.45
2:A:411:GLU:OE2	2:A:485:ARG:NE	2.46	0.45
2:A:447:LEU:HG	2:A:449:ILE:HG12	1.98	0.45
2:A:3134:LEU:HB2	2:A:3162:PHE:CE2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:3656:GLU:OE1	2:A:3656:GLU:N	2.50	0.45
2:B:267:VAL:HG22	2:B:272:ARG:HH12	1.81	0.45
2:B:307:SER:HB3	2:B:327:THR:HG22	1.97	0.45
2:B:1031:ARG:HH21	2:B:1038:LEU:CD1	2.11	0.45
2:B:2290:TRP:CZ2	2:B:2388:ILE:HG12	2.52	0.45
2:B:2620:TYR:HB2	2:B:2627:TRP:HD1	1.81	0.45
2:B:4252:ILE:HG21	2:C:4707:MET:HG3	1.97	0.45
2:B:4639:SER:O	2:B:4642:ASN:HB2	2.16	0.45
2:C:29:HIS:CE1	2:C:31:GLU:HG2	2.52	0.45
2:C:447:LEU:HG	2:C:449:ILE:HG12	1.98	0.45
2:C:916:PRO:HB3	2:C:923:LYS:HZ2	1.80	0.45
2:C:2113:VAL:O	2:C:2117:ILE:HG13	2.16	0.45
2:C:3260:ARG:O	2:C:3260:ARG:HD3	2.15	0.45
2:C:4631:ASP:OD1	2:C:4708:TRP:NE1	2.42	0.45
2:D:546:LYS:O	2:D:550:GLN:HG2	2.16	0.45
2:D:1489:CYS:O	2:D:1492:GLU:HG3	2.15	0.45
2:D:1898:LEU:HD13	2:D:1902:VAL:HG12	1.99	0.45
2:D:2204:CYS:SG	2:D:2214:MET:HG2	2.56	0.45
2:D:2290:TRP:CZ2	2:D:2388:ILE:HG12	2.52	0.45
2:D:2581:ARG:HG2	2:D:2582:PRO:HD2	1.99	0.45
2:A:892:LEU:HD21	2:A:980:PRO:HD3	1.99	0.45
2:A:2498:ALA:O	2:A:2502:LEU:HD23	2.16	0.45
2:A:2581:ARG:HB3	2:A:2584:MET:HE2	1.98	0.45
2:B:2059:GLN:HG3	2:B:2091:GLN:HB3	1.98	0.45
2:C:546:LYS:O	2:C:550:GLN:HG2	2.16	0.45
2:C:880:ARG:HH11	2:C:881:ILE:HB	1.81	0.45
2:C:889:ILE:HA	2:C:892:LEU:HD12	1.98	0.45
2:C:2576:ILE:O	2:C:2580:LEU:HG	2.17	0.45
2:C:2745:GLU:HA	2:C:2755:PRO:HB3	1.98	0.45
2:C:3054:LYS:O	2:C:3058:ARG:HG3	2.17	0.45
2:D:826:VAL:HG21	2:D:832:LEU:HB2	1.98	0.45
2:D:2496:LEU:HD23	2:D:2520:LEU:HD13	1.99	0.45
2:D:2576:ILE:O	2:D:2580:LEU:HG	2.17	0.45
2:D:3311:LYS:O	2:D:3315:LEU:N	2.49	0.45
2:D:3321:PRO:O	2:D:3324:GLU:HG3	2.17	0.45
2:A:29:HIS:CE1	2:A:31:GLU:HG2	2.52	0.45
2:A:911:ASN:OD1	2:A:912:LYS:N	2.50	0.45
2:A:2496:LEU:HD23	2:A:2520:LEU:HD13	1.99	0.45
2:A:2581:ARG:HG2	2:A:2582:PRO:HD2	1.99	0.45
2:A:2642:ARG:HA	2:A:2676:LEU:HD11	1.99	0.45
2:A:2760:TYR:CE2	2:A:2768:LYS:HE3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:2840:MET:HA	2:A:2843:MET:HG2	1.99	0.45
2:B:624:ALA:HB2	2:B:1667:LEU:HD12	1.99	0.45
2:B:911:ASN:OD1	2:B:912:LYS:N	2.50	0.45
2:B:2581:ARG:HG2	2:B:2582:PRO:HD2	1.99	0.45
2:B:3054:LYS:O	2:B:3057:LEU:HG	2.16	0.45
2:B:3068:LEU:O	2:B:3071:THR:OG1	2.25	0.45
2:B:3074:ASN:O	2:B:3077:GLN:HG3	2.17	0.45
2:B:3656:GLU:N	2:B:3656:GLU:OE1	2.50	0.45
2:C:131:CYS:SG	2:C:150:GLN:HB2	2.57	0.45
2:C:892:LEU:HD21	2:C:980:PRO:HD3	1.99	0.45
2:C:1031:ARG:NH2	2:C:1042:THR:HG21	2.21	0.45
2:C:1170:GLU:HG2	2:C:1172:THR:HG23	1.99	0.45
2:C:1945:ASN:O	2:C:1949:GLN:NE2	2.42	0.45
2:C:2170:THR:O	2:C:2174:VAL:HG23	2.16	0.45
2:C:2589:LEU:O	2:C:2593:VAL:HG13	2.17	0.45
2:D:29:HIS:CE1	2:D:31:GLU:HG2	2.52	0.45
2:D:964:MET:HE1	2:D:982:ASP:HA	1.97	0.45
2:D:2113:VAL:O	2:D:2117:ILE:HG13	2.16	0.45
2:D:3728:GLN:HG2	2:D:3765:ILE:HA	1.98	0.45
2:A:1273:ILE:HB	2:A:1282:CYS:HB2	1.99	0.45
2:A:1986:CYS:O	2:A:1993:ARG:NH2	2.48	0.45
2:A:4639:SER:O	2:A:4642:ASN:HB2	2.16	0.45
2:B:131:CYS:SG	2:B:150:GLN:HB2	2.57	0.45
2:B:2642:ARG:HA	2:B:2676:LEU:HD11	1.99	0.45
2:B:3653:GLU:OE1	2:B:3660:ARG:NH1	2.50	0.45
2:C:2620:TYR:HB2	2:C:2627:TRP:HD1	1.82	0.45
2:C:3227:ARG:HH11	2:C:3228:TYR:HB3	1.82	0.45
2:C:4602:ARG:NH1	2:C:4627:LYS:HG3	2.32	0.45
2:D:3054:LYS:O	2:D:3057:LEU:HG	2.16	0.45
2:D:3140:LEU:HB3	2:D:3155:LEU:HD13	1.97	0.45
2:A:2191:LYS:O	2:A:2195:ASN:ND2	2.49	0.45
2:A:2926:LEU:C	2:A:3003:MET:HE1	2.37	0.45
2:A:3653:GLU:OE1	2:A:3660:ARG:NH1	2.50	0.45
2:A:4203:ALA:HA	2:A:4206:ILE:HG12	1.98	0.45
2:B:1649:GLU:HG2	2:B:1650:LEU:N	2.31	0.45
2:B:2589:LEU:O	2:B:2593:VAL:HG13	2.16	0.45
2:B:3001:LYS:NZ	2:B:3044:THR:H	2.13	0.45
2:B:3260:ARG:HH11	2:B:3264:CYS:HA	1.79	0.45
2:B:3321:PRO:O	2:B:3324:GLU:HG3	2.17	0.45
2:B:4100:VAL:HG22	2:B:4133:LEU:HD13	1.99	0.45
2:C:911:ASN:OD1	2:C:912:LYS:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1031:ARG:HH22	2:C:1042:THR:CB	2.30	0.45
2:C:2496:LEU:HD23	2:C:2520:LEU:HD13	1.99	0.45
2:C:2581:ARG:HG2	2:C:2582:PRO:HD2	1.99	0.45
2:C:2788:ARG:HH22	2:C:2908:LYS:CE	2.30	0.45
2:D:892:LEU:HD21	2:D:980:PRO:HD3	1.99	0.45
2:D:902:TRP:HB3	2:D:918:LEU:CD2	2.44	0.45
2:D:1957:LEU:HG	2:D:1961:LYS:HB3	1.97	0.45
2:D:4735:ASN:HB3	2:D:4738:PHE:CD2	2.52	0.45
1:F:12:ASP:HB2	1:F:14:ARG:HH12	1.81	0.45
1:G:12:ASP:HB2	1:G:14:ARG:HH12	1.81	0.45
2:A:624:ALA:HB2	2:A:1667:LEU:HD12	1.99	0.45
2:A:889:ILE:HA	2:A:892:LEU:HD12	1.98	0.45
2:A:2303:ARG:HH11	2:A:2304:PHE:HA	1.82	0.45
2:B:826:VAL:HG21	2:B:832:LEU:HB2	1.98	0.45
2:B:892:LEU:HD21	2:B:980:PRO:HD3	1.99	0.45
2:B:1031:ARG:CZ	2:B:1031:ARG:HB3	2.44	0.45
2:B:1044:LYS:HD3	2:B:1044:LYS:HA	1.77	0.45
2:B:2788:ARG:HH22	2:B:2908:LYS:CE	2.30	0.45
2:B:2840:MET:HA	2:B:2843:MET:HG2	1.99	0.45
2:B:4617:ILE:HG23	2:B:4665:ARG:NH2	2.30	0.45
2:C:826:VAL:HG21	2:C:832:LEU:HB2	1.98	0.45
2:D:131:CYS:SG	2:D:150:GLN:HB2	2.57	0.45
2:D:911:ASN:OD1	2:D:912:LYS:N	2.50	0.45
2:D:2498:ALA:O	2:D:2502:LEU:HD23	2.16	0.45
2:D:3653:GLU:OE1	2:D:3660:ARG:NH1	2.50	0.45
2:D:4602:ARG:NH1	2:D:4627:LYS:HG3	2.32	0.45
2:D:4636:ASN:HB2	2:D:4704:LYS:HZ1	1.82	0.45
1:E:12:ASP:HB2	1:E:14:ARG:HH12	1.81	0.45
2:A:131:CYS:SG	2:A:150:GLN:HB2	2.57	0.45
2:A:677:LEU:HD12	2:A:801:ARG:O	2.17	0.45
2:A:1963:LYS:HE2	2:A:1963:LYS:HB2	1.77	0.45
2:A:2788:ARG:HH22	2:A:2908:LYS:CE	2.30	0.45
2:A:3763:ILE:HD11	2:A:3838:ASP:O	2.17	0.45
2:B:29:HIS:CE1	2:B:31:GLU:HG2	2.52	0.45
2:B:1031:ARG:HH22	2:B:1042:THR:CB	2.30	0.45
2:B:3227:ARG:HH11	2:B:3228:TYR:HB3	1.81	0.45
2:C:1415:ASP:OD1	2:C:1415:ASP:N	2.49	0.45
2:C:2204:CYS:SG	2:C:2214:MET:HG2	2.56	0.45
2:D:307:SER:HB3	2:D:327:THR:HG22	1.97	0.45
2:D:902:TRP:CB	2:D:918:LEU:HD21	2.42	0.45
2:D:1226:TYR:HD1	2:D:1229:ILE:HD11	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:1273:ILE:HB	2:D:1282:CYS:HB2	1.99	0.45
2:D:2642:ARG:HA	2:D:2676:LEU:HD11	1.99	0.45
2:A:1226:TYR:HD1	2:A:1229:ILE:HD11	1.82	0.45
2:A:2761:LYS:HA	2:A:2761:LYS:HD3	1.83	0.45
2:A:3207:ASN:OD1	2:A:3208:ILE:N	2.50	0.45
2:A:3601:ALA:HA	2:A:3604:ARG:HH11	1.81	0.45
2:A:4100:VAL:HG22	2:A:4133:LEU:HD13	1.99	0.45
2:A:4625:ASP:OD1	2:A:4625:ASP:N	2.46	0.45
2:B:447:LEU:HG	2:B:449:ILE:HG12	1.98	0.45
2:B:1819:VAL:HG13	2:B:1905:GLN:NE2	2.31	0.45
2:B:2322:ARG:NH1	2:C:189:GLU:OE2	2.50	0.45
2:B:2498:ALA:O	2:B:2502:LEU:HD23	2.16	0.45
2:B:3728:GLN:HG2	2:B:3765:ILE:HA	1.98	0.45
2:B:4084:VAL:O	2:B:4088:HIS:HB3	2.17	0.45
2:C:2290:TRP:CZ2	2:C:2388:ILE:HG12	2.52	0.45
2:C:3763:ILE:HD11	2:C:3838:ASP:O	2.17	0.45
2:D:916:PRO:HB3	2:D:923:LYS:HZ2	1.81	0.45
2:D:1598:ARG:NH2	2:D:1601:ASN:OD1	2.47	0.45
2:D:4100:VAL:HG22	2:D:4133:LEU:HD13	1.99	0.45
2:D:4203:ALA:HA	2:D:4206:ILE:HG12	1.98	0.45
2:A:1839:LEU:HA	2:A:1842:ILE:HG12	1.99	0.44
2:A:1967:SER:O	2:A:1972:GLN:NE2	2.40	0.44
2:A:2576:ILE:O	2:A:2580:LEU:HG	2.17	0.44
2:A:2688:MET:HB3	2:A:2689:MET:HE1	1.99	0.44
2:A:4602:ARG:NH1	2:A:4627:LYS:HG3	2.32	0.44
2:B:1273:ILE:HB	2:B:1282:CYS:HB2	1.99	0.44
2:B:1839:LEU:HA	2:B:1842:ILE:HG12	1.99	0.44
2:B:3166:PHE:CD1	2:B:3167:PRO:HD2	2.53	0.44
2:B:3763:ILE:HD11	2:B:3838:ASP:O	2.17	0.44
2:B:4602:ARG:NH1	2:B:4627:LYS:HG3	2.32	0.44
2:C:624:ALA:HB2	2:C:1667:LEU:HD12	1.99	0.44
2:C:1168:MET:HE3	2:C:1197:VAL:HG22	1.99	0.44
2:C:1199:ASP:OD1	2:C:1199:ASP:N	2.45	0.44
2:C:1727:VAL:HG11	2:C:1926:VAL:HG21	1.99	0.44
2:C:2798:MET:SD	2:D:1498:GLN:HG3	2.58	0.44
2:C:3311:LYS:O	2:C:3315:LEU:N	2.49	0.44
2:C:3321:PRO:O	2:C:3324:GLU:HG3	2.17	0.44
2:C:3656:GLU:OE1	2:C:3656:GLU:N	2.50	0.44
2:C:4264:LEU:HA	2:C:4267:GLN:OE1	2.16	0.44
2:D:447:LEU:HG	2:D:449:ILE:HG12	1.98	0.44
2:D:2586:GLN:HE22	2:D:2590:ARG:NH2	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:880:ARG:HH11	2:A:881:ILE:HB	1.81	0.44
2:A:1727:VAL:HG11	2:A:1926:VAL:HG21	1.99	0.44
2:A:3054:LYS:O	2:A:3058:ARG:HG3	2.17	0.44
2:B:4735:ASN:HB3	2:B:4738:PHE:CD2	2.52	0.44
2:C:1018:TYR:CD1	2:C:1030:PRO:HA	2.52	0.44
2:C:4100:VAL:HG22	2:C:4133:LEU:HD13	1.99	0.44
2:D:677:LEU:HD12	2:D:801:ARG:O	2.17	0.44
2:D:824:GLU:HA	2:D:1020:ILE:HD12	1.97	0.44
2:D:3216:GLU:HA	2:D:3219:VAL:HG22	2.00	0.44
2:D:3656:GLU:OE1	2:D:3656:GLU:N	2.50	0.44
2:D:3763:ILE:HD11	2:D:3838:ASP:O	2.17	0.44
2:A:1170:GLU:HG2	2:A:1172:THR:HG23	1.99	0.44
2:A:1898:LEU:HD13	2:A:1902:VAL:HG12	1.98	0.44
2:A:1971:GLU:HA	2:A:1974:ASN:HD22	1.82	0.44
2:A:2434:GLY:O	2:A:2438:ILE:HG13	2.18	0.44
2:A:2586:GLN:HE22	2:A:2590:ARG:NH2	2.15	0.44
2:A:3054:LYS:O	2:A:3057:LEU:HG	2.16	0.44
2:A:3288:LEU:HD22	2:A:3332:THR:HG21	2.00	0.44
2:A:3321:PRO:O	2:A:3324:GLU:HG3	2.17	0.44
2:B:954:ASP:OD2	2:B:957:ALA:N	2.51	0.44
2:B:1991:GLU:HG2	2:B:1992:ILE:N	2.32	0.44
2:B:3729:ALA:HA	2:B:3732:HIS:ND1	2.32	0.44
2:B:4277:LYS:HD2	2:B:4277:LYS:HA	1.73	0.44
2:C:34:LYS:H	2:C:53:SER:HB3	1.82	0.44
2:C:849:ASP:OD1	2:C:1214:ARG:NE	2.51	0.44
2:C:1226:TYR:HD1	2:C:1229:ILE:HD11	1.82	0.44
2:C:1839:LEU:HA	2:C:1842:ILE:HG12	1.99	0.44
2:D:624:ALA:HB2	2:D:1667:LEU:HD12	1.99	0.44
2:D:1931:ASP:OD1	2:D:1932:PHE:N	2.51	0.44
2:D:3054:LYS:O	2:D:3058:ARG:HG3	2.17	0.44
2:D:3074:ASN:O	2:D:3077:GLN:HG3	2.17	0.44
2:A:2379:ASP:OD1	2:A:2380:ASP:N	2.51	0.44
2:A:3729:ALA:HA	2:A:3732:HIS:ND1	2.32	0.44
2:A:4631:ASP:OD1	2:A:4708:TRP:NE1	2.42	0.44
2:A:4735:ASN:HB3	2:A:4738:PHE:CD2	2.52	0.44
2:B:677:LEU:HD12	2:B:801:ARG:O	2.17	0.44
2:B:987:LYS:HZ3	2:B:989:THR:HA	1.82	0.44
2:B:1170:GLU:HG2	2:B:1172:THR:HG23	1.99	0.44
2:B:2303:ARG:HH11	2:B:2304:PHE:HA	1.82	0.44
2:B:3300:ALA:O	2:B:3304:GLN:HG2	2.18	0.44
2:C:555:LEU:HD12	2:C:588:ILE:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:674:TYR:HE1	2:C:756:SER:HB2	1.83	0.44
2:C:894:VAL:HG23	2:C:895:MET:HE2	1.99	0.44
2:C:1931:ASP:OD1	2:C:1932:PHE:N	2.51	0.44
2:C:2726:GLU:HG2	2:C:2760:TYR:CD2	2.52	0.44
2:C:2736:LYS:HD3	2:C:2736:LYS:HA	1.82	0.44
2:C:3650:GLU:OE1	2:C:3659:LYS:NZ	2.49	0.44
2:C:3695:MET:HB3	2:C:3731:LEU:HD11	2.00	0.44
2:C:3728:GLN:HG2	2:C:3765:ILE:HA	1.98	0.44
2:C:4084:VAL:O	2:C:4088:HIS:HB3	2.17	0.44
2:D:1415:ASP:N	2:D:1415:ASP:OD1	2.49	0.44
2:D:1727:VAL:HG11	2:D:1926:VAL:HG21	1.99	0.44
2:D:2726:GLU:HG2	2:D:2760:TYR:CD2	2.52	0.44
2:D:2788:ARG:HH22	2:D:2908:LYS:CE	2.30	0.44
2:D:3288:LEU:HD22	2:D:3332:THR:HG21	2.00	0.44
2:A:28:ILE:HG22	2:A:29:HIS:CD2	2.53	0.44
2:A:1598:ARG:NH2	2:A:1601:ASN:OD1	2.47	0.44
2:A:3216:GLU:HA	2:A:3219:VAL:HG22	2.00	0.44
2:A:3997:LYS:HD3	2:A:4109:MET:HE1	1.99	0.44
2:B:28:ILE:HG22	2:B:29:HIS:CD2	2.53	0.44
2:B:3043:ARG:HH21	2:B:3117:PHE:HD1	1.66	0.44
2:B:3054:LYS:O	2:B:3058:ARG:HG3	2.17	0.44
2:B:3695:MET:HB3	2:B:3731:LEU:HD11	2.00	0.44
2:B:3952:ALA:HB1	2:B:4012:MET:HE3	2.00	0.44
2:C:1971:GLU:HA	2:C:1974:ASN:HD22	1.82	0.44
2:C:1991:GLU:HG2	2:C:1992:ILE:N	2.32	0.44
2:C:2586:GLN:HE22	2:C:2590:ARG:NH2	2.15	0.44
2:C:4956:ASP:OD1	2:C:4957:CYS:N	2.50	0.44
2:D:1031:ARG:HH22	2:D:1042:THR:CB	2.30	0.44
2:D:1692:LYS:HB3	2:D:1692:LYS:HE3	1.86	0.44
2:D:2200:LEU:HD13	2:D:2214:MET:HE1	1.98	0.44
2:D:2840:MET:HA	2:D:2843:MET:HG2	1.99	0.44
2:D:3712:LYS:HE3	2:D:3712:LYS:HB2	1.69	0.44
2:D:4084:VAL:O	2:D:4088:HIS:HB3	2.17	0.44
2:A:2392:TYR:O	2:A:2396:ILE:HD12	2.18	0.44
2:A:2589:LEU:O	2:A:2593:VAL:HG13	2.17	0.44
2:A:3016:ARG:HA	2:A:3096:TYR:CZ	2.53	0.44
2:A:3074:ASN:O	2:A:3077:GLN:HG3	2.17	0.44
2:B:555:LEU:HD12	2:B:588:ILE:HD11	2.00	0.44
2:B:674:TYR:OH	2:B:676:GLU:OE1	2.31	0.44
2:B:2443:PRO:HG3	2:B:2454:PRO:HD2	1.99	0.44
2:B:2729:HIS:CG	2:B:2763:LEU:HD22	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1898:LEU:HD13	2:C:1902:VAL:HG12	1.99	0.44
2:C:2642:ARG:HA	2:C:2676:LEU:HD11	1.99	0.44
2:C:2681:MET:HE1	2:C:2917:ILE:HA	2.00	0.44
2:C:3061:LEU:HD23	2:C:3061:LEU:HA	1.84	0.44
2:C:3216:GLU:HA	2:C:3219:VAL:HG22	2.00	0.44
2:C:4270:LYS:HE3	2:C:4270:LYS:HB3	1.84	0.44
2:D:674:TYR:OH	2:D:676:GLU:OE1	2.31	0.44
2:D:2194:ALA:HA	2:D:2237:SER:HB3	2.00	0.44
2:D:2676:LEU:HD23	2:D:2676:LEU:HA	1.83	0.44
2:D:2745:GLU:HA	2:D:2755:PRO:HB3	1.98	0.44
2:D:4924:TYR:CZ	2:D:4928:LYS:HD2	2.53	0.44
1:G:67:MET:SD	1:G:73:ALA:HB3	2.58	0.44
1:H:67:MET:SD	1:H:73:ALA:HB3	2.58	0.44
2:A:555:LEU:HD12	2:A:588:ILE:HD11	2.00	0.44
2:A:2179:LEU:HD13	2:A:2224:ASN:HD22	1.83	0.44
2:A:2905:ARG:NH1	2:A:2906:GLY:H	2.15	0.44
2:A:3300:ALA:O	2:A:3304:GLN:HG2	2.18	0.44
2:A:4956:ASP:OD1	2:A:4957:CYS:N	2.50	0.44
2:B:36:CYS:SG	2:B:65:CYS:HB3	2.58	0.44
2:B:964:MET:HE1	2:B:982:ASP:HA	2.00	0.44
2:B:1007:TRP:CZ2	2:B:1011:ARG:HD3	2.53	0.44
2:B:1748:LEU:HD23	2:B:1748:LEU:HA	1.84	0.44
2:B:1971:GLU:HA	2:B:1974:ASN:HD22	1.82	0.44
2:B:2831:VAL:HG22	2:C:1435:GLY:CA	2.47	0.44
2:B:3261:ALA:C	2:B:3263:MET:N	2.71	0.44
2:C:954:ASP:OD2	2:C:957:ALA:N	2.51	0.44
2:C:2379:ASP:OD1	2:C:2380:ASP:N	2.51	0.44
2:C:2833:LEU:HB2	2:C:2894:LYS:HZ1	1.81	0.44
2:C:3246:MET:O	2:C:3250:TRP:HB2	2.17	0.44
2:C:3288:LEU:HD22	2:C:3332:THR:HG21	2.00	0.44
2:C:3300:ALA:O	2:C:3304:GLN:HG2	2.18	0.44
2:C:4735:ASN:HB3	2:C:4738:PHE:CD2	2.52	0.44
2:D:456:LEU:HD23	2:D:456:LEU:HA	1.84	0.44
2:D:1967:SER:O	2:D:1972:GLN:NE2	2.40	0.44
2:D:2443:PRO:HG3	2:D:2454:PRO:HD2	1.99	0.44
2:D:3691:TYR:O	2:D:3695:MET:HG3	2.18	0.44
1:H:12:ASP:HB2	1:H:14:ARG:HH12	1.81	0.44
2:A:849:ASP:OD1	2:A:1214:ARG:NE	2.51	0.44
2:A:4924:TYR:CZ	2:A:4928:LYS:HD2	2.53	0.44
2:B:849:ASP:OD1	2:B:1214:ARG:NE	2.51	0.44
2:B:1018:TYR:CD1	2:B:1030:PRO:HA	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1929:SER:O	2:B:1933:VAL:HG12	2.18	0.44
2:B:3102:LEU:HB2	2:B:3103:PRO:HD3	2.00	0.44
2:B:4060:GLN:O	2:B:4064:GLU:OE1	2.36	0.44
2:B:4818:TYR:HA	2:C:4848:ILE:HD11	1.99	0.44
2:C:36:CYS:SG	2:C:65:CYS:HB3	2.58	0.44
2:C:1979:PHE:HZ	2:C:1996:LEU:HB3	1.83	0.44
2:C:2666:LEU:HD13	2:C:2966:VAL:HA	2.00	0.44
2:C:2729:HIS:CG	2:C:2763:LEU:HD22	2.53	0.44
2:C:3074:ASN:O	2:C:3077:GLN:HG3	2.17	0.44
2:C:3653:GLU:OE1	2:C:3660:ARG:NH1	2.50	0.44
2:D:674:TYR:HE1	2:D:756:SER:HB2	1.83	0.44
2:D:1829:LEU:HD12	2:D:1829:LEU:HA	1.88	0.44
2:D:1945:ASN:O	2:D:1949:GLN:NE2	2.42	0.44
2:D:2581:ARG:HD3	2:D:2583:SER:H	1.81	0.44
2:D:3952:ALA:HB1	2:D:4012:MET:HE3	2.00	0.44
2:A:886:ALA:HB1	2:A:929:ARG:HH12	1.81	0.44
2:A:1014:GLN:HB3	2:A:1027:ARG:NH2	2.31	0.44
2:A:1018:TYR:CD1	2:A:1030:PRO:HA	2.52	0.44
2:A:1473:LYS:NZ	2:A:1475:LYS:HB2	2.33	0.44
2:A:2443:PRO:HG3	2:A:2454:PRO:HD2	1.99	0.44
2:A:2729:HIS:CG	2:A:2763:LEU:HD22	2.53	0.44
2:A:3728:GLN:HG2	2:A:3765:ILE:HA	1.98	0.44
2:B:1168:MET:HE3	2:B:1197:VAL:HG22	2.00	0.44
2:B:2379:ASP:OD1	2:B:2380:ASP:N	2.51	0.44
2:B:2434:GLY:O	2:B:2438:ILE:HG13	2.18	0.44
2:B:2726:GLU:HG2	2:B:2760:TYR:CD2	2.52	0.44
2:B:3216:GLU:HA	2:B:3219:VAL:HG22	2.00	0.44
2:C:2059:GLN:HG3	2:C:2091:GLN:HB3	1.98	0.44
2:C:2434:GLY:O	2:C:2438:ILE:HG13	2.17	0.44
2:C:2831:VAL:HB	2:C:2894:LYS:CD	2.46	0.44
2:C:2840:MET:HA	2:C:2843:MET:HG2	1.99	0.44
2:C:3260:ARG:HH11	2:C:3264:CYS:HA	1.79	0.44
2:C:3952:ALA:HB1	2:C:4012:MET:HE3	2.00	0.44
2:D:1007:TRP:CZ2	2:D:1011:ARG:HD3	2.53	0.44
2:D:1473:LYS:NZ	2:D:1475:LYS:HB2	2.33	0.44
2:D:2179:LEU:HD13	2:D:2224:ASN:HD22	1.83	0.44
2:D:2379:ASP:OD1	2:D:2380:ASP:N	2.51	0.44
2:D:2392:TYR:O	2:D:2396:ILE:HD12	2.18	0.44
2:D:2729:HIS:CG	2:D:2763:LEU:HD22	2.53	0.44
2:D:3246:MET:O	2:D:3250:TRP:HB2	2.17	0.44
2:D:3300:ALA:O	2:D:3304:GLN:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1031:ARG:HH22	2:A:1042:THR:CB	2.30	0.43
2:A:1929:SER:O	2:A:1933:VAL:HG12	2.18	0.43
2:A:1931:ASP:OD1	2:A:1932:PHE:N	2.51	0.43
2:A:2726:GLU:HG2	2:A:2760:TYR:CD2	2.52	0.43
2:A:3166:PHE:CD1	2:A:3167:PRO:HD2	2.53	0.43
2:B:1014:GLN:HB3	2:B:1027:ARG:NH2	2.30	0.43
2:B:1598:ARG:NH2	2:B:1601:ASN:OD1	2.47	0.43
2:B:1727:VAL:HG11	2:B:1926:VAL:HG21	1.99	0.43
2:B:2392:TYR:O	2:B:2396:ILE:HD12	2.18	0.43
2:B:3712:LYS:HE3	2:B:3712:LYS:HB2	1.70	0.43
2:C:2194:ALA:HA	2:C:2237:SER:HB3	2.00	0.43
2:C:3261:ALA:C	2:C:3263:MET:N	2.71	0.43
2:D:36:CYS:SG	2:D:65:CYS:HB3	2.58	0.43
2:D:1043:LYS:HB2	2:D:1043:LYS:HE2	1.54	0.43
2:D:1170:GLU:HG2	2:D:1172:THR:HG23	1.99	0.43
2:D:1971:GLU:HA	2:D:1974:ASN:HD22	1.82	0.43
2:D:3061:LEU:HD23	2:D:3061:LEU:HA	1.84	0.43
2:D:3729:ALA:HA	2:D:3732:HIS:ND1	2.32	0.43
2:A:826:VAL:HG21	2:A:832:LEU:HB2	1.98	0.43
2:A:1007:TRP:CZ2	2:A:1011:ARG:HD3	2.53	0.43
2:A:2194:ALA:HA	2:A:2237:SER:HB3	2.00	0.43
2:A:2581:ARG:HD3	2:A:2583:SER:H	1.81	0.43
2:A:3043:ARG:HH21	2:A:3117:PHE:HD1	1.66	0.43
2:A:4806:CYS:HA	2:A:4812:CYS:HB2	2.00	0.43
2:B:1226:TYR:HD1	2:B:1229:ILE:HD11	1.82	0.43
2:B:1473:LYS:NZ	2:B:1475:LYS:HB2	2.33	0.43
2:B:3235:MET:O	2:B:3299:LEU:HD21	2.19	0.43
2:B:3246:MET:O	2:B:3250:TRP:HB2	2.17	0.43
2:B:3288:LEU:HD22	2:B:3332:THR:HG21	2.00	0.43
2:B:4956:ASP:OD1	2:B:4957:CYS:N	2.50	0.43
2:C:677:LEU:HD12	2:C:801:ARG:O	2.17	0.43
2:C:1273:ILE:HB	2:C:1282:CYS:HB2	1.99	0.43
2:C:2443:PRO:HG3	2:C:2454:PRO:HD2	1.99	0.43
2:C:2504:THR:OG1	2:C:2507:LEU:HB2	2.18	0.43
2:C:3102:LEU:HB2	2:C:3103:PRO:HD3	2.00	0.43
2:C:3729:ALA:HA	2:C:3732:HIS:ND1	2.32	0.43
2:C:4277:LYS:HD2	2:C:4277:LYS:HA	1.73	0.43
2:C:4818:TYR:HA	2:D:4848:ILE:HD11	1.99	0.43
2:D:1979:PHE:HZ	2:D:1996:LEU:HB3	1.83	0.43
2:D:4022:LYS:NZ	2:D:4057:HIS:O	2.35	0.43
2:A:3246:MET:O	2:A:3250:TRP:HB2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:3260:ARG:HH11	2:A:3264:CYS:HA	1.79	0.43
2:A:3695:MET:HB3	2:A:3731:LEU:HD11	2.00	0.43
2:A:4270:LYS:HE3	2:A:4270:LYS:HB3	1.83	0.43
2:B:1963:LYS:HB2	2:B:1963:LYS:HE2	1.77	0.43
2:B:1979:PHE:HZ	2:B:1996:LEU:HB3	1.83	0.43
2:C:1473:LYS:NZ	2:C:1475:LYS:HB2	2.33	0.43
2:C:4060:GLN:O	2:C:4064:GLU:OE1	2.36	0.43
2:D:555:LEU:HD12	2:D:588:ILE:HD11	2.00	0.43
2:D:880:ARG:HH11	2:D:881:ILE:HB	1.81	0.43
2:D:3001:LYS:HD2	2:D:3041:ASP:OD2	2.18	0.43
2:D:3043:ARG:HG3	2:D:3047:LYS:HZ2	1.83	0.43
2:D:3069:GLU:HG3	2:D:3132:ARG:HH11	1.83	0.43
2:D:3166:PHE:CD1	2:D:3167:PRO:HD2	2.53	0.43
2:D:4060:GLN:O	2:D:4064:GLU:OE1	2.36	0.43
2:B:1042:THR:HG23	5:B:5004:KVR:C15	2.49	0.43
2:B:2504:THR:OG1	2:B:2507:LEU:HB2	2.19	0.43
2:B:2586:GLN:HE22	2:B:2590:ARG:NH2	2.15	0.43
2:C:1091:GLU:HB3	2:C:1094:TYR:HD2	1.84	0.43
2:C:2511:ASP:HA	2:C:2514:LEU:HD12	2.01	0.43
2:D:28:ILE:HG22	2:D:29:HIS:CD2	2.53	0.43
2:D:291:TRP:O	2:D:343:ARG:NH1	2.52	0.43
2:D:886:ALA:HB1	2:D:929:ARG:HH12	1.81	0.43
2:D:1018:TYR:CD1	2:D:1030:PRO:HA	2.52	0.43
2:D:1716:THR:O	2:D:1720:MET:HG3	2.18	0.43
2:D:1968:PRO:O	2:D:1972:GLN:HG3	2.19	0.43
2:D:1991:GLU:HG2	2:D:1992:ILE:N	2.32	0.43
2:D:2581:ARG:HB3	2:D:2584:MET:HE2	2.00	0.43
2:D:4267:GLN:O	2:D:4271:VAL:HG23	2.19	0.43
2:D:4956:ASP:OD1	2:D:4957:CYS:N	2.50	0.43
2:A:1716:THR:O	2:A:1720:MET:HG3	2.18	0.43
2:A:2423:LEU:HD23	2:A:2426:LEU:HD12	2.01	0.43
2:A:2429:LEU:HD21	2:A:2483:PHE:CE1	2.54	0.43
2:A:2782:MET:HG2	2:A:2787:TRP:CE3	2.54	0.43
2:A:4136:ILE:HG22	2:A:4917:ASN:HB3	2.01	0.43
2:A:4848:ILE:HD11	2:D:4818:TYR:HD1	1.83	0.43
2:B:34:LYS:H	2:B:53:SER:HB3	1.82	0.43
2:B:257:ARG:NH2	2:B:272:ARG:HG3	2.33	0.43
2:B:674:TYR:HE1	2:B:756:SER:HB2	1.83	0.43
2:B:2511:ASP:HA	2:B:2514:LEU:HD12	2.00	0.43
2:B:2666:LEU:HD13	2:B:2966:VAL:HA	2.00	0.43
2:B:3069:GLU:HG3	2:B:3132:ARG:HH11	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3207:ASN:OD1	2:B:3208:ILE:N	2.50	0.43
2:B:4924:TYR:CZ	2:B:4928:LYS:HD2	2.53	0.43
2:C:987:LYS:HZ3	2:C:989:THR:HA	1.84	0.43
2:C:2429:LEU:HD21	2:C:2483:PHE:CE1	2.54	0.43
2:C:3166:PHE:CD1	2:C:3167:PRO:HD2	2.53	0.43
2:C:3691:TYR:O	2:C:3695:MET:HG3	2.18	0.43
2:D:849:ASP:OD1	2:D:1214:ARG:NE	2.51	0.43
2:D:987:LYS:HZ3	2:D:989:THR:HA	1.84	0.43
2:D:1042:THR:HG23	5:D:5004:KVR:C15	2.49	0.43
2:D:2146:LEU:O	2:D:2150:MET:HG2	2.18	0.43
2:D:3235:MET:O	2:D:3299:LEU:HD21	2.19	0.43
2:D:3650:GLU:HB2	2:D:3651:PRO:HD3	2.01	0.43
2:D:3695:MET:HB3	2:D:3731:LEU:HD11	2.00	0.43
1:F:67:MET:SD	1:F:73:ALA:HB3	2.58	0.43
2:A:34:LYS:H	2:A:53:SER:HB3	1.82	0.43
2:A:538:ALA:O	2:A:542:ARG:HB2	2.19	0.43
2:A:902:TRP:HZ2	2:A:915:HIS:ND1	2.17	0.43
2:A:3217:GLU:O	2:A:3220:GLU:HG3	2.19	0.43
2:A:3288:LEU:HA	2:A:3292:GLU:OE1	2.19	0.43
2:B:456:LEU:HD23	2:B:456:LEU:HA	1.84	0.43
2:B:902:TRP:HZ2	2:B:915:HIS:ND1	2.17	0.43
2:B:1689:ILE:HD13	2:B:1703:TYR:CD1	2.54	0.43
2:B:1898:LEU:HD13	2:B:1902:VAL:HG12	1.99	0.43
2:B:1945:ASN:O	2:B:1949:GLN:NE2	2.42	0.43
2:B:2790:GLU:O	2:B:2901:TYR:HA	2.19	0.43
2:B:3217:GLU:O	2:B:3220:GLU:HG3	2.19	0.43
2:C:694:ARG:HD3	2:C:733:TRP:HB2	2.01	0.43
2:C:1716:THR:O	2:C:1720:MET:HG3	2.18	0.43
2:C:1929:SER:O	2:C:1933:VAL:HG12	2.18	0.43
2:C:2322:ARG:NH1	2:D:189:GLU:OE2	2.52	0.43
2:C:2423:LEU:HD23	2:C:2426:LEU:HD12	2.01	0.43
2:C:2782:MET:HG2	2:C:2787:TRP:CE3	2.54	0.43
2:D:34:LYS:H	2:D:53:SER:HB3	1.82	0.43
2:D:1839:LEU:HA	2:D:1842:ILE:HG12	1.99	0.43
2:D:2191:LYS:O	2:D:2195:ASN:ND2	2.50	0.43
2:D:2688:MET:HB3	2:D:2689:MET:HE1	2.00	0.43
2:D:2926:LEU:C	2:D:3003:MET:HE1	2.39	0.43
2:D:4806:CYS:HA	2:D:4812:CYS:HB2	2.00	0.43
2:A:1043:LYS:HE2	2:A:1043:LYS:HB2	1.55	0.43
2:A:2443:PRO:HD2	2:A:2512:MET:HE2	1.99	0.43
2:A:2504:THR:OG1	2:A:2507:LEU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:3001:LYS:HD2	2:A:3041:ASP:OD2	2.18	0.43
2:A:3235:MET:O	2:A:3299:LEU:HD21	2.19	0.43
2:A:3691:TYR:O	2:A:3695:MET:HG3	2.18	0.43
2:A:3952:ALA:HB1	2:A:4012:MET:HE3	2.01	0.43
2:A:4615:LEU:HA	2:A:4619:GLU:OE2	2.19	0.43
2:B:1043:LYS:HB2	2:B:1043:LYS:HE2	1.54	0.43
2:B:2179:LEU:HD13	2:B:2224:ASN:HD22	1.83	0.43
2:B:2194:ALA:HA	2:B:2237:SER:HB3	2.00	0.43
2:B:2423:LEU:HD23	2:B:2426:LEU:HD12	2.01	0.43
2:B:2782:MET:HG2	2:B:2787:TRP:CE3	2.54	0.43
2:B:3679:LYS:HE2	2:B:3679:LYS:HB2	1.88	0.43
2:B:3942:ASP:HA	2:B:3945:VAL:HG12	2.01	0.43
2:C:893:TRP:NE1	2:C:1049:SER:HB3	2.34	0.43
2:C:1042:THR:HG23	5:C:5004:KVR:C15	2.49	0.43
2:C:1044:LYS:HD3	2:C:1044:LYS:HA	1.77	0.43
2:C:1628:MET:HB3	2:C:1628:MET:HE2	1.72	0.43
2:C:1968:PRO:O	2:C:1972:GLN:HG3	2.19	0.43
2:C:2790:GLU:O	2:C:2901:TYR:HA	2.19	0.43
2:C:2894:LYS:HE2	2:C:2894:LYS:HB2	1.81	0.43
2:C:3712:LYS:HB3	2:C:3716:GLU:HG3	2.01	0.43
2:C:3997:LYS:HD3	2:C:4109:MET:HE1	2.00	0.43
2:C:4924:TYR:CZ	2:C:4928:LYS:HD2	2.53	0.43
2:D:672:LYS:HB3	2:D:819:TYR:HA	2.01	0.43
2:D:2303:ARG:HH11	2:D:2304:PHE:HA	1.82	0.43
2:D:2397:ASP:O	2:D:2401:ARG:HG3	2.19	0.43
2:D:2429:LEU:HD21	2:D:2483:PHE:CE1	2.54	0.43
2:D:2434:GLY:O	2:D:2438:ILE:HG13	2.18	0.43
2:D:2666:LEU:HD13	2:D:2966:VAL:HA	2.00	0.43
2:D:2782:MET:HG2	2:D:2787:TRP:CE3	2.54	0.43
2:A:36:CYS:SG	2:A:65:CYS:HB3	2.58	0.43
2:A:291:TRP:O	2:A:343:ARG:NH1	2.52	0.43
2:A:306:LEU:HA	2:A:316:LEU:HD23	2.01	0.43
2:A:980:PRO:HB2	2:A:981:MET:SD	2.59	0.43
2:A:2413:LYS:NZ	2:A:2415:GLU:OE1	2.52	0.43
2:A:2666:LEU:HD13	2:A:2966:VAL:HA	2.00	0.43
2:A:3198:PRO:O	2:A:3199:THR:OG1	2.35	0.43
2:A:3650:GLU:HB2	2:A:3651:PRO:HD3	2.01	0.43
2:A:4084:VAL:O	2:A:4088:HIS:HB3	2.17	0.43
2:A:4631:ASP:O	2:A:4634:VAL:HG12	2.19	0.43
2:B:291:TRP:O	2:B:343:ARG:NH1	2.52	0.43
2:B:2334:ALA:HB2	2:B:2346:ALA:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3288:LEU:HA	2:B:3292:GLU:OE1	2.19	0.43
2:B:3691:TYR:O	2:B:3695:MET:HG3	2.18	0.43
2:B:4615:LEU:HA	2:B:4619:GLU:OE2	2.19	0.43
2:C:363:ILE:HD13	2:C:372:LEU:HD23	2.01	0.43
2:C:1007:TRP:CZ2	2:C:1011:ARG:HD3	2.53	0.43
2:C:1014:GLN:HB3	2:C:1027:ARG:NH2	2.31	0.43
2:C:2146:LEU:O	2:C:2150:MET:HG2	2.18	0.43
2:C:2182:GLY:HA2	2:C:2185:LYS:HE2	2.00	0.43
2:C:4021:LEU:HD22	2:C:4128:TYR:CE2	2.54	0.43
2:C:4136:ILE:HG22	2:C:4917:ASN:HB3	2.01	0.43
2:C:4615:LEU:HA	2:C:4619:GLU:OE2	2.19	0.43
2:D:306:LEU:HA	2:D:316:LEU:HD23	2.01	0.43
2:D:902:TRP:HZ2	2:D:915:HIS:ND1	2.17	0.43
2:D:954:ASP:OD2	2:D:957:ALA:N	2.51	0.43
2:D:1014:GLN:HB3	2:D:1027:ARG:NH2	2.31	0.43
2:D:1689:ILE:HD13	2:D:1703:TYR:CD1	2.54	0.43
2:D:3016:ARG:HA	2:D:3096:TYR:CZ	2.53	0.43
2:D:3288:LEU:HA	2:D:3292:GLU:OE1	2.19	0.43
1:E:67:MET:SD	1:E:73:ALA:HB3	2.58	0.43
2:A:141:ASP:HA	2:D:2337:GLY:O	2.19	0.43
2:A:718:VAL:HG23	2:A:793:SER:HB3	2.01	0.43
2:A:1991:GLU:HG2	2:A:1992:ILE:N	2.32	0.43
2:A:2790:GLU:O	2:A:2901:TYR:HA	2.19	0.43
2:A:2894:LYS:HE2	2:A:2894:LYS:HB2	1.81	0.43
2:A:4021:LEU:HD22	2:A:4128:TYR:CE2	2.54	0.43
2:A:4052:MET:HE1	2:A:4063:THR:HA	2.01	0.43
2:A:4060:GLN:O	2:A:4064:GLU:OE1	2.36	0.43
2:B:718:VAL:HG23	2:B:793:SER:HB3	2.01	0.43
2:B:811:PHE:CE2	2:B:821:PRO:HB3	2.54	0.43
2:B:1091:GLU:HB3	2:B:1094:TYR:HD2	1.84	0.43
2:B:1931:ASP:OD1	2:B:1932:PHE:N	2.51	0.43
2:B:2182:GLY:HA2	2:B:2185:LYS:HE2	2.00	0.43
2:B:2727:HIS:O	2:B:2731:LYS:HG3	2.19	0.43
2:B:4021:LEU:HD22	2:B:4128:TYR:CE2	2.54	0.43
2:C:2303:ARG:HH11	2:C:2304:PHE:HA	1.82	0.43
2:C:2397:ASP:O	2:C:2401:ARG:HG3	2.19	0.43
2:C:3207:ASN:OD1	2:C:3208:ILE:N	2.50	0.43
2:C:4070:ALA:HB1	2:C:4078:LEU:CD1	2.49	0.43
2:D:811:PHE:CE2	2:D:821:PRO:HB3	2.54	0.43
2:D:893:TRP:NE1	2:D:1049:SER:HB3	2.34	0.43
2:D:2894:LYS:HE2	2:D:2894:LYS:HB2	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:3254:PRO:HD2	2:D:3268:LEU:O	2.19	0.43
2:D:4070:ALA:HB1	2:D:4078:LEU:CD1	2.49	0.43
1:E:19:LYS:HD3	1:E:19:LYS:HA	1.81	0.43
2:A:551:PHE:HE2	2:A:558:LEU:HD22	1.84	0.43
2:A:811:PHE:CE2	2:A:821:PRO:HB3	2.54	0.43
2:A:1689:ILE:HD13	2:A:1703:TYR:CD1	2.54	0.43
2:A:1968:PRO:O	2:A:1972:GLN:HG3	2.19	0.43
2:A:2658:GLU:OE1	2:A:2661:LEU:N	2.34	0.43
2:A:4735:ASN:HB3	2:A:4738:PHE:HD2	1.84	0.43
2:B:694:ARG:HD3	2:B:733:TRP:HB2	2.01	0.43
2:B:893:TRP:NE1	2:B:1049:SER:HB3	2.34	0.43
2:B:1716:THR:O	2:B:1720:MET:HG3	2.18	0.43
2:B:1968:PRO:O	2:B:1972:GLN:HG3	2.19	0.43
2:B:4058:TYR:HD1	2:B:4062:GLU:HB3	1.84	0.43
2:C:28:ILE:HG22	2:C:29:HIS:CD2	2.53	0.43
2:C:902:TRP:HZ2	2:C:915:HIS:ND1	2.17	0.43
2:C:2179:LEU:HD13	2:C:2224:ASN:HD22	1.83	0.43
2:C:2334:ALA:HB2	2:C:2346:ALA:HB2	2.01	0.43
2:C:3001:LYS:HD2	2:C:3041:ASP:OD2	2.18	0.43
2:C:3288:LEU:HA	2:C:3292:GLU:OE1	2.19	0.43
2:C:4735:ASN:HB3	2:C:4738:PHE:HD2	1.84	0.43
2:D:133:LEU:HD23	2:D:133:LEU:HA	1.88	0.43
2:D:694:ARG:HD3	2:D:733:TRP:HB2	2.01	0.43
2:D:980:PRO:HB2	2:D:981:MET:SD	2.59	0.43
2:D:1031:ARG:CZ	2:D:1031:ARG:HB3	2.44	0.43
2:D:1429:SER:OG	2:D:1556:GLU:HB2	2.19	0.43
2:D:2182:GLY:HA2	2:D:2185:LYS:HE2	2.00	0.43
2:D:2843:MET:O	2:D:2846:GLU:HG2	2.19	0.43
2:D:3712:LYS:HB3	2:D:3716:GLU:HG3	2.01	0.43
2:D:4615:LEU:HA	2:D:4619:GLU:OE2	2.19	0.43
2:D:4687:LYS:HD3	2:D:4687:LYS:HA	1.88	0.43
2:A:143:LEU:HD13	2:A:207:PHE:CE2	2.54	0.42
2:A:874:LEU:HD12	2:A:875:PRO:HD2	2.01	0.42
2:A:986:ILE:HG22	2:A:1055:ARG:HD2	2.01	0.42
2:A:1757:LEU:HD23	2:A:1757:LEU:HA	1.86	0.42
2:A:1986:CYS:HA	2:A:1987:PRO:HD3	1.91	0.42
2:A:3214:LEU:HD23	2:A:3214:LEU:HA	1.90	0.42
2:B:2134:MET:HE3	2:B:2134:MET:HA	2.00	0.42
2:B:3016:ARG:HA	2:B:3096:TYR:CZ	2.53	0.42
2:C:794:PHE:HB2	2:C:798:ILE:HG21	2.01	0.42
2:C:811:PHE:HE2	2:C:821:PRO:HB3	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1429:SER:OG	2:C:1556:GLU:HB2	2.19	0.42
2:C:2581:ARG:HB3	2:C:2584:MET:HE2	2.01	0.42
2:C:3016:ARG:HA	2:C:3096:TYR:CZ	2.53	0.42
2:C:3942:ASP:HA	2:C:3945:VAL:HG12	2.01	0.42
2:C:3958:LEU:HB2	2:C:3968:LEU:HD13	2.01	0.42
2:C:4631:ASP:O	2:C:4634:VAL:HG12	2.19	0.42
2:D:2504:THR:OG1	2:D:2507:LEU:HB2	2.19	0.42
2:D:3217:GLU:O	2:D:3220:GLU:HG3	2.19	0.42
2:A:986:ILE:CG2	2:A:1055:ARG:HD2	2.50	0.42
2:A:3261:ALA:C	2:A:3263:MET:N	2.71	0.42
2:A:3650:GLU:OE1	2:A:3659:LYS:NZ	2.49	0.42
2:A:4070:ALA:HB1	2:A:4078:LEU:CD1	2.49	0.42
2:B:143:LEU:HD13	2:B:207:PHE:CE2	2.54	0.42
2:B:672:LYS:HB3	2:B:819:TYR:HA	2.01	0.42
2:B:2146:LEU:O	2:B:2150:MET:HG2	2.18	0.42
2:B:2798:MET:SD	2:C:1498:GLN:HG3	2.59	0.42
2:B:3124:GLU:C	2:B:3126:VAL:H	2.23	0.42
2:C:986:ILE:HG22	2:C:1055:ARG:HD2	2.01	0.42
2:C:1689:ILE:HD13	2:C:1703:TYR:CD1	2.54	0.42
2:C:3043:ARG:HH21	2:C:3117:PHE:HD1	1.65	0.42
2:C:3069:GLU:HG3	2:C:3132:ARG:HH11	1.83	0.42
2:C:3650:GLU:HB2	2:C:3651:PRO:HD3	2.01	0.42
2:D:986:ILE:HG22	2:D:1055:ARG:HD2	2.01	0.42
2:D:1608:VAL:HG12	2:D:1619:VAL:HA	2.01	0.42
2:D:1678:SER:HB2	2:D:1768:PHE:CZ	2.55	0.42
2:D:2423:LEU:HD23	2:D:2426:LEU:HD12	2.01	0.42
2:D:3043:ARG:HH21	2:D:3117:PHE:HD1	1.66	0.42
2:A:257:ARG:NH2	2:A:272:ARG:HG3	2.33	0.42
2:A:505:LEU:HB3	2:A:530:LEU:HD21	2.01	0.42
2:A:674:TYR:HE1	2:A:756:SER:HB2	1.83	0.42
2:A:935:MET:HE3	2:A:935:MET:HB3	1.80	0.42
2:A:988:LEU:HB2	2:A:1055:ARG:NE	2.26	0.42
2:A:1678:SER:HB2	2:A:1768:PHE:CZ	2.55	0.42
2:A:2397:ASP:O	2:A:2401:ARG:HG3	2.19	0.42
2:A:2827:ASP:OD1	2:B:1434:PRO:HB2	2.19	0.42
2:A:2885:ASP:O	2:A:2888:LYS:HG2	2.19	0.42
2:A:3254:PRO:HD2	2:A:3268:LEU:O	2.19	0.42
2:A:3958:LEU:HB2	2:A:3968:LEU:HD13	2.02	0.42
2:B:538:ALA:O	2:B:542:ARG:HB2	2.19	0.42
2:B:794:PHE:HB2	2:B:798:ILE:HG21	2.02	0.42
2:B:962:LYS:HZ2	2:B:982:ASP:H	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:980:PRO:HB2	2:B:981:MET:SD	2.59	0.42
2:B:1026:ASN:HB3	2:B:1028:ARG:HG2	2.02	0.42
2:B:1429:SER:OG	2:B:1556:GLU:HB2	2.19	0.42
2:B:2413:LYS:NZ	2:B:2415:GLU:OE1	2.52	0.42
2:B:2429:LEU:HD21	2:B:2483:PHE:CE1	2.54	0.42
2:B:2681:MET:HE1	2:B:2917:ILE:HA	2.02	0.42
2:B:2843:MET:O	2:B:2846:GLU:HG2	2.19	0.42
2:B:2844:MET:O	2:B:2848:TYR:HD2	2.02	0.42
2:B:3001:LYS:HD2	2:B:3041:ASP:OD2	2.18	0.42
2:C:521:GLU:HG2	2:C:522:ALA:N	2.34	0.42
2:C:980:PRO:HB2	2:C:981:MET:SD	2.59	0.42
2:C:1608:VAL:HG12	2:C:1619:VAL:HA	2.01	0.42
2:C:2413:LYS:NZ	2:C:2415:GLU:OE1	2.52	0.42
2:C:2926:LEU:C	2:C:3003:MET:HE1	2.40	0.42
2:C:3217:GLU:O	2:C:3220:GLU:HG3	2.19	0.42
2:C:4267:GLN:O	2:C:4271:VAL:HG23	2.19	0.42
2:D:1091:GLU:HB3	2:D:1094:TYR:HD2	1.84	0.42
2:D:1929:SER:O	2:D:1933:VAL:HG12	2.18	0.42
2:D:2413:LYS:NZ	2:D:2415:GLU:OE1	2.52	0.42
2:D:2727:HIS:O	2:D:2731:LYS:HG3	2.19	0.42
2:D:3102:LEU:HB2	2:D:3103:PRO:HD3	2.00	0.42
2:D:3650:GLU:OE1	2:D:3659:LYS:NZ	2.49	0.42
2:A:1608:VAL:HG12	2:A:1619:VAL:HA	2.01	0.42
2:A:1748:LEU:HD23	2:A:1748:LEU:HA	1.83	0.42
2:A:2137:GLU:HG2	2:A:2138:GLU:N	2.35	0.42
2:A:2146:LEU:O	2:A:2150:MET:HG2	2.18	0.42
2:A:2187:ILE:HG13	2:A:2227:VAL:HG13	2.01	0.42
2:B:306:LEU:HA	2:B:316:LEU:HD23	2.01	0.42
2:B:363:ILE:HD13	2:B:372:LEU:HD23	2.01	0.42
2:B:811:PHE:HE2	2:B:821:PRO:HB3	1.84	0.42
2:B:1608:VAL:HG12	2:B:1619:VAL:HA	2.01	0.42
2:B:1678:SER:HB2	2:B:1768:PHE:CZ	2.55	0.42
2:B:3712:LYS:HB3	2:B:3716:GLU:HG3	2.01	0.42
2:B:4070:ALA:HB1	2:B:4078:LEU:CD1	2.49	0.42
2:C:133:LEU:HD23	2:C:133:LEU:HA	1.88	0.42
2:C:811:PHE:CE2	2:C:821:PRO:HB3	2.54	0.42
2:C:1026:ASN:HB3	2:C:1028:ARG:HG2	2.02	0.42
2:C:1943:ARG:O	2:C:1947:VAL:HG23	2.20	0.42
2:C:2392:TYR:O	2:C:2396:ILE:HD12	2.18	0.42
2:C:2905:ARG:NH1	2:C:2906:GLY:H	2.15	0.42
2:D:538:ALA:O	2:D:542:ARG:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:2511:ASP:HA	2:D:2514:LEU:HD12	2.01	0.42
2:D:2885:ASP:O	2:D:2888:LYS:HG2	2.19	0.42
2:D:2937:HIS:HA	2:D:3014:LEU:HD13	2.01	0.42
2:D:3213:LYS:O	2:D:3216:GLU:HG3	2.20	0.42
2:D:3958:LEU:HB2	2:D:3968:LEU:HD13	2.01	0.42
2:D:4021:LEU:HD22	2:D:4128:TYR:CE2	2.54	0.42
2:D:4631:ASP:O	2:D:4634:VAL:HG12	2.19	0.42
2:A:363:ILE:HD13	2:A:372:LEU:HD23	2.01	0.42
2:A:1011:ARG:HA	2:A:1014:GLN:CD	2.40	0.42
2:A:1042:THR:HG23	5:A:5004:KVR:C15	2.49	0.42
2:A:2182:GLY:HA2	2:A:2185:LYS:HE2	2.00	0.42
2:A:2844:MET:O	2:A:2848:TYR:HD2	2.02	0.42
2:A:2910:LEU:HD12	2:A:2911:GLU:N	2.35	0.42
2:A:3069:GLU:HG3	2:A:3132:ARG:HH11	1.83	0.42
2:A:3712:LYS:HB3	2:A:3716:GLU:HG3	2.01	0.42
2:B:874:LEU:HD12	2:B:875:PRO:HD2	2.01	0.42
2:B:2397:ASP:O	2:B:2401:ARG:HG3	2.19	0.42
2:C:291:TRP:O	2:C:343:ARG:NH1	2.52	0.42
2:C:2760:TYR:CE1	2:C:2768:LYS:HG2	2.55	0.42
2:D:961:VAL:HG13	2:D:961:VAL:O	2.19	0.42
2:D:986:ILE:CG2	2:D:1055:ARG:HD2	2.50	0.42
2:D:1013:ARG:NE	2:D:1013:ARG:HA	2.35	0.42
2:D:1963:LYS:HB2	2:D:1963:LYS:HE2	1.77	0.42
2:D:2721:ILE:HD11	2:D:2779:LEU:HD22	2.02	0.42
2:D:2760:TYR:CE1	2:D:2768:LYS:HG2	2.55	0.42
2:D:2831:VAL:HB	2:D:2894:LYS:CD	2.46	0.42
2:D:3018:ARG:HA	2:D:3021:LEU:HD13	2.01	0.42
2:D:3296:MET:HA	2:D:3299:LEU:HD12	2.01	0.42
2:D:3942:ASP:HA	2:D:3945:VAL:HG12	2.01	0.42
2:D:4803:ASP:OD2	2:D:4805:LYS:HE2	2.20	0.42
2:A:811:PHE:HE2	2:A:821:PRO:HB3	1.84	0.42
2:A:1013:ARG:NE	2:A:1013:ARG:HA	2.35	0.42
2:A:1979:PHE:HZ	2:A:1996:LEU:HB3	1.83	0.42
2:A:2843:MET:O	2:A:2846:GLU:HG2	2.19	0.42
2:A:3942:ASP:HA	2:A:3945:VAL:HG12	2.01	0.42
2:A:4105:LEU:HB3	2:A:4115:LEU:HD21	2.02	0.42
2:A:4267:GLN:O	2:A:4271:VAL:HG23	2.18	0.42
2:A:4649:VAL:O	2:A:4653:VAL:HG23	2.20	0.42
2:B:551:PHE:HE2	2:B:558:LEU:HD22	1.84	0.42
2:B:1932:PHE:CE1	2:B:1996:LEU:HB2	2.54	0.42
2:B:1943:ARG:O	2:B:1947:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2187:ILE:HG13	2:B:2227:VAL:HG13	2.01	0.42
2:B:2914:THR:N	2:B:2915:PRO:HD2	2.35	0.42
2:B:2937:HIS:HA	2:B:3014:LEU:HD13	2.01	0.42
2:B:3018:ARG:HA	2:B:3021:LEU:HD13	2.01	0.42
2:B:3650:GLU:HB2	2:B:3651:PRO:HD3	2.01	0.42
2:B:4631:ASP:O	2:B:4634:VAL:HG12	2.19	0.42
2:B:4822:ARG:HH12	2:C:4829:ASP:N	2.17	0.42
2:C:1932:PHE:CE1	2:C:1996:LEU:HB2	2.54	0.42
2:C:2910:LEU:HD12	2:C:2911:GLU:N	2.35	0.42
2:C:3235:MET:O	2:C:3299:LEU:HD21	2.19	0.42
2:D:811:PHE:HE2	2:D:821:PRO:HB3	1.84	0.42
2:D:1031:ARG:HH21	2:D:1038:LEU:CD1	2.11	0.42
2:D:1053:ALA:O	2:D:1057:LEU:HG	2.20	0.42
2:D:4049:HIS:HB2	2:D:4067:LEU:HD21	2.02	0.42
1:F:53:LYS:HE3	1:F:53:LYS:HB3	1.88	0.42
2:A:694:ARG:HD3	2:A:733:TRP:HB2	2.01	0.42
2:A:1932:PHE:CE1	2:A:1996:LEU:HB2	2.54	0.42
2:A:2334:ALA:HB2	2:A:2346:ALA:HB2	2.01	0.42
2:A:2727:HIS:O	2:A:2731:LYS:HG3	2.19	0.42
2:A:3124:GLU:C	2:A:3126:VAL:H	2.23	0.42
2:B:133:LEU:HD23	2:B:133:LEU:HA	1.88	0.42
2:B:521:GLU:HG2	2:B:522:ALA:N	2.34	0.42
2:B:986:ILE:HG22	2:B:1055:ARG:HD2	2.02	0.42
2:B:3043:ARG:HG3	2:B:3047:LYS:HZ2	1.85	0.42
2:B:3254:PRO:HD2	2:B:3268:LEU:O	2.19	0.42
2:B:3296:MET:HA	2:B:3299:LEU:HD12	2.01	0.42
2:B:4136:ILE:HG22	2:B:4917:ASN:HB3	2.01	0.42
2:B:4267:GLN:O	2:B:4271:VAL:HG23	2.19	0.42
2:B:4649:VAL:O	2:B:4653:VAL:HG23	2.20	0.42
2:C:505:LEU:HD23	2:C:505:LEU:HA	1.88	0.42
2:C:680:ASP:O	2:C:751:THR:HG23	2.20	0.42
2:C:1678:SER:HB2	2:C:1768:PHE:CZ	2.55	0.42
2:C:2095:ILE:HD12	2:C:2095:ILE:HA	1.93	0.42
2:C:2399:LEU:HD12	2:C:2427:ILE:HD11	2.02	0.42
2:C:2885:ASP:O	2:C:2888:LYS:HG2	2.19	0.42
2:C:2914:THR:N	2:C:2915:PRO:HD2	2.35	0.42
2:C:3213:LYS:O	2:C:3216:GLU:HG3	2.20	0.42
2:C:4649:VAL:O	2:C:4653:VAL:HG23	2.20	0.42
2:C:4803:ASP:OD2	2:C:4805:LYS:HE2	2.20	0.42
2:C:4806:CYS:HA	2:C:4812:CYS:HB2	2.00	0.42
2:D:143:LEU:HD13	2:D:207:PHE:CE2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:505:LEU:HB3	2:D:530:LEU:HD21	2.01	0.42
2:D:874:LEU:HD12	2:D:875:PRO:HD2	2.01	0.42
2:D:3124:GLU:C	2:D:3126:VAL:H	2.23	0.42
2:D:3611:LEU:HD23	2:D:3611:LEU:HA	1.90	0.42
2:A:794:PHE:HB2	2:A:798:ILE:HG21	2.02	0.42
2:A:894:VAL:HG23	2:A:895:MET:HE2	2.02	0.42
2:A:954:ASP:OD2	2:A:957:ALA:N	2.51	0.42
2:A:1053:ALA:O	2:A:1057:LEU:HG	2.20	0.42
2:A:1091:GLU:HB3	2:A:1094:TYR:HD2	1.84	0.42
2:A:1181:ILE:HG21	2:A:1189:GLU:HB3	2.02	0.42
2:A:2511:ASP:HA	2:A:2514:LEU:HD12	2.01	0.42
2:A:3102:LEU:HB2	2:A:3103:PRO:HD3	2.00	0.42
2:A:3311:LYS:O	2:A:3315:LEU:N	2.49	0.42
2:B:219:SER:H	2:B:349:MET:HE3	1.84	0.42
2:B:269:VAL:O	2:B:269:VAL:HG12	2.20	0.42
2:B:2137:GLU:HG2	2:B:2138:GLU:N	2.35	0.42
2:B:2760:TYR:CE1	2:B:2768:LYS:HG2	2.55	0.42
2:B:2841:ALA:HB2	2:B:2893:LEU:HD12	2.02	0.42
2:B:2885:ASP:O	2:B:2888:LYS:HG2	2.19	0.42
2:B:3890:TRP:HB3	2:C:76:ARG:HG2	2.02	0.42
2:B:3958:LEU:HB2	2:B:3968:LEU:HD13	2.01	0.42
2:C:143:LEU:HD13	2:C:207:PHE:CE2	2.55	0.42
2:C:306:LEU:HA	2:C:316:LEU:HD23	2.01	0.42
2:C:874:LEU:HD12	2:C:875:PRO:HD2	2.01	0.42
2:C:1031:ARG:HH21	2:C:1038:LEU:CD1	2.11	0.42
2:C:2841:ALA:HB2	2:C:2893:LEU:HD12	2.02	0.42
2:C:4058:TYR:HD1	2:C:4062:GLU:HB3	1.84	0.42
2:D:2399:LEU:HD12	2:D:2427:ILE:HD11	2.02	0.42
2:D:2910:LEU:HD12	2:D:2911:GLU:N	2.35	0.42
2:D:3207:ASN:OD1	2:D:3208:ILE:N	2.50	0.42
2:D:4058:TYR:HD1	2:D:4062:GLU:HB3	1.84	0.42
2:A:890:HIS:CE1	2:A:924:LEU:HD22	2.55	0.42
2:A:1040:ASP:HA	2:A:1043:LYS:HE2	2.02	0.42
2:A:1435:GLY:HA2	2:D:2831:VAL:HG22	2.01	0.42
2:A:1900:GLU:HG2	2:A:2080:LEU:HD23	2.02	0.42
2:A:2841:ALA:HB2	2:A:2893:LEU:HD12	2.02	0.42
2:A:2914:THR:N	2:A:2915:PRO:HD2	2.35	0.42
2:A:3679:LYS:HE2	2:A:3679:LYS:HB2	1.88	0.42
2:B:986:ILE:CG2	2:B:1055:ARG:HD2	2.50	0.42
2:B:1900:GLU:HG2	2:B:2080:LEU:HD23	2.02	0.42
2:B:2761:LYS:HA	2:B:2761:LYS:HD3	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3997:LYS:HD3	2:B:4109:MET:HE1	2.02	0.42
2:C:505:LEU:HB3	2:C:530:LEU:HD21	2.01	0.42
2:C:538:ALA:O	2:C:542:ARG:HB2	2.19	0.42
2:C:674:TYR:OH	2:C:676:GLU:OE1	2.31	0.42
2:C:694:ARG:HD2	2:C:718:VAL:O	2.20	0.42
2:C:2187:ILE:HG13	2:C:2227:VAL:HG13	2.01	0.42
2:C:2721:ILE:HD11	2:C:2779:LEU:HD22	2.02	0.42
2:C:3254:PRO:HD2	2:C:3268:LEU:O	2.19	0.42
2:D:363:ILE:HD13	2:D:372:LEU:HD23	2.01	0.42
2:D:902:TRP:CG	2:D:918:LEU:HD21	2.55	0.42
2:D:981:MET:SD	2:D:1059:GLY:HA3	2.60	0.42
2:D:1011:ARG:HA	2:D:1014:GLN:CD	2.40	0.42
2:D:1040:ASP:HA	2:D:1043:LYS:HE2	2.02	0.42
2:D:1628:MET:HB3	2:D:1628:MET:HE2	1.72	0.42
2:D:1943:ARG:O	2:D:1947:VAL:HG23	2.20	0.42
2:D:2736:LYS:HA	2:D:2736:LYS:HD3	1.82	0.42
2:D:2841:ALA:HB2	2:D:2893:LEU:HD12	2.02	0.42
1:F:19:LYS:HA	1:F:19:LYS:HD3	1.81	0.42
2:A:521:GLU:HG2	2:A:522:ALA:N	2.34	0.42
2:A:961:VAL:HG13	2:A:961:VAL:O	2.19	0.42
2:A:1026:ASN:HB3	2:A:1028:ARG:HG2	2.02	0.42
2:A:2721:ILE:HD11	2:A:2779:LEU:HD22	2.02	0.42
2:A:2937:HIS:HA	2:A:3014:LEU:HD13	2.01	0.42
2:A:3213:LYS:O	2:A:3216:GLU:HG3	2.20	0.42
2:A:3260:ARG:HH12	2:A:3265:CYS:H	1.68	0.42
2:A:3850:HIS:HE1	2:A:3925:GLN:OE1	2.03	0.42
2:B:1031:ARG:NH2	2:B:1042:THR:HG21	2.22	0.42
2:B:1825:PHE:CZ	2:B:1842:ILE:HD12	2.55	0.42
2:B:3213:LYS:O	2:B:3216:GLU:HG3	2.20	0.42
2:B:4806:CYS:HA	2:B:4812:CYS:HB2	2.00	0.42
2:C:2257:LEU:HD21	2:C:2262:LEU:HG	2.02	0.42
2:C:3018:ARG:HA	2:C:3021:LEU:HD13	2.01	0.42
2:D:249:SER:HA	2:D:272:ARG:HD2	2.02	0.42
2:D:257:ARG:NH2	2:D:272:ARG:HG3	2.33	0.42
2:D:718:VAL:HG23	2:D:793:SER:HB3	2.01	0.42
2:D:962:LYS:HZ2	2:D:982:ASP:H	1.68	0.42
2:D:1019:GLY:HA3	2:D:1028:ARG:HB3	2.02	0.42
2:D:3144:LYS:HE3	2:D:3233:HIS:NE2	2.35	0.42
2:D:3178:HIS:HB2	2:D:3265:CYS:HA	2.02	0.42
2:A:981:MET:SD	2:A:1059:GLY:HA3	2.60	0.41
2:A:1031:ARG:NH2	2:A:1042:THR:HG21	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1777:GLN:O	2:A:1778:TYR:HB2	2.20	0.41
2:B:555:LEU:HD11	2:B:578:VAL:HG11	2.02	0.41
2:B:694:ARG:HD2	2:B:718:VAL:O	2.20	0.41
2:B:961:VAL:O	2:B:961:VAL:HG13	2.19	0.41
2:B:2910:LEU:HD12	2:B:2911:GLU:N	2.35	0.41
2:B:3850:HIS:HE1	2:B:3925:GLN:OE1	2.03	0.41
2:C:672:LYS:NZ	2:C:818:GLY:HA3	2.35	0.41
2:C:718:VAL:HG23	2:C:793:SER:HB3	2.01	0.41
2:C:2844:MET:O	2:C:2848:TYR:HD2	2.02	0.41
2:C:3124:GLU:C	2:C:3126:VAL:H	2.23	0.41
2:C:3661:VAL:HG23	2:C:3666:GLN:HG2	2.02	0.41
2:C:3732:HIS:O	2:C:3776:LYS:NZ	2.49	0.41
2:C:3850:HIS:HE1	2:C:3925:GLN:OE1	2.03	0.41
2:C:4049:HIS:HB2	2:C:4067:LEU:HD21	2.02	0.41
2:D:657:PRO:HB2	2:D:659:ILE:HG12	2.02	0.41
2:D:794:PHE:HB2	2:D:798:ILE:HG21	2.02	0.41
2:D:2644:LEU:O	2:D:2648:ILE:HG13	2.20	0.41
2:D:3166:PHE:CG	2:D:3167:PRO:HD2	2.55	0.41
2:D:4277:LYS:HA	2:D:4277:LYS:HD2	1.73	0.41
2:D:4649:VAL:O	2:D:4653:VAL:HG23	2.20	0.41
2:A:520:ARG:HH11	2:A:521:GLU:HB3	1.85	0.41
2:A:672:LYS:HB3	2:A:819:TYR:HA	2.01	0.41
2:A:756:SER:OG	2:A:769:ARG:HB2	2.20	0.41
2:A:902:TRP:CG	2:A:918:LEU:HD21	2.55	0.41
2:A:1429:SER:OG	2:A:1556:GLU:HB2	2.19	0.41
2:A:3018:ARG:HA	2:A:3021:LEU:HD13	2.01	0.41
2:A:3061:LEU:HD23	2:A:3061:LEU:HA	1.84	0.41
2:A:3144:LYS:HE3	2:A:3233:HIS:NE2	2.35	0.41
2:A:3296:MET:HA	2:A:3299:LEU:HD12	2.00	0.41
2:B:2257:LEU:HD21	2:B:2262:LEU:HG	2.02	0.41
2:B:3233:HIS:O	2:B:3236:GLU:HG2	2.21	0.41
2:B:4105:LEU:HB3	2:B:4115:LEU:HD21	2.02	0.41
2:C:657:PRO:HB2	2:C:659:ILE:HG12	2.02	0.41
2:C:890:HIS:CE1	2:C:924:LEU:HD22	2.55	0.41
2:C:1011:ARG:HA	2:C:1014:GLN:CD	2.40	0.41
2:C:1029:ASN:OD1	2:C:1030:PRO:HD2	2.21	0.41
2:C:1282:CYS:SG	2:C:1556:GLU:HG2	2.61	0.41
2:C:3023:GLY:N	2:C:3025:ASP:OD1	2.53	0.41
2:C:3145:SER:O	2:C:3148:VAL:HG12	2.20	0.41
2:C:3296:MET:HA	2:C:3299:LEU:HD12	2.01	0.41
2:C:4255:LEU:O	2:C:4258:MET:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:551:PHE:HE2	2:D:558:LEU:HD22	1.84	0.41
2:D:1026:ASN:HB3	2:D:1028:ARG:HG2	2.02	0.41
2:D:1029:ASN:OD1	2:D:1030:PRO:HD2	2.21	0.41
2:D:1181:ILE:HG21	2:D:1189:GLU:HB3	2.02	0.41
2:D:2137:GLU:HG2	2:D:2138:GLU:N	2.35	0.41
2:D:2433:VAL:HG13	2:D:2490:VAL:HG21	2.03	0.41
2:A:893:TRP:NE1	2:A:1049:SER:HB3	2.34	0.41
2:A:1282:CYS:SG	2:A:1556:GLU:HG2	2.61	0.41
2:A:2222:LEU:HD23	2:A:2222:LEU:HA	1.94	0.41
2:A:2767:GLU:HG3	2:A:2771:TYR:CE2	2.55	0.41
2:A:3023:GLY:N	2:A:3025:ASP:OD1	2.53	0.41
2:A:3793:LEU:HD23	2:A:3793:LEU:HA	1.93	0.41
2:B:890:HIS:CE1	2:B:924:LEU:HD22	2.55	0.41
2:B:916:PRO:HB3	2:B:923:LYS:HZ2	1.83	0.41
2:B:1011:ARG:HA	2:B:1014:GLN:CD	2.40	0.41
2:B:1181:ILE:HG21	2:B:1189:GLU:HB3	2.02	0.41
2:B:2831:VAL:HB	2:B:2894:LYS:CD	2.46	0.41
2:B:2905:ARG:NH1	2:B:2906:GLY:H	2.15	0.41
2:B:4735:ASN:HB3	2:B:4738:PHE:HD2	1.84	0.41
2:C:257:ARG:NH2	2:C:272:ARG:HG3	2.33	0.41
2:C:672:LYS:HB3	2:C:819:TYR:HA	2.01	0.41
2:C:961:VAL:O	2:C:961:VAL:HG13	2.19	0.41
2:C:986:ILE:CG2	2:C:1055:ARG:HD2	2.50	0.41
2:C:1019:GLY:HA3	2:C:1028:ARG:HB3	2.02	0.41
2:C:1053:ALA:O	2:C:1057:LEU:HG	2.20	0.41
2:C:2593:VAL:HG12	2:C:2644:LEU:HB2	2.02	0.41
2:C:2649:PHE:CE2	2:C:2932:TYR:HE2	2.38	0.41
2:C:2727:HIS:O	2:C:2731:LYS:HG3	2.19	0.41
2:C:2767:GLU:HG3	2:C:2771:TYR:CE2	2.55	0.41
2:C:3278:GLY:O	2:C:3282:LYS:HG2	2.21	0.41
2:C:3712:LYS:HE3	2:C:3712:LYS:HB2	1.70	0.41
2:D:1932:PHE:CE1	2:D:1996:LEU:HB2	2.54	0.41
2:D:2062:ILE:O	2:D:2066:MET:HG2	2.20	0.41
2:D:2694:SER:HA	2:D:2704:GLN:HE22	1.85	0.41
2:D:2849:HIS:NE2	2:D:2877:LEU:HD11	2.36	0.41
2:D:2905:ARG:NH1	2:D:2906:GLY:H	2.15	0.41
2:D:3237:VAL:HG23	2:D:3238:ILE:HG13	2.02	0.41
2:D:4110:PRO:HG3	2:D:4966:LEU:HD12	2.02	0.41
1:F:8:ILE:HG23	2:B:748:LEU:HB2	2.02	0.41
2:A:249:SER:HA	2:A:272:ARG:HD2	2.03	0.41
2:A:680:ASP:O	2:A:751:THR:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1610:ARG:HD3	2:A:1617:TRP:CE2	2.56	0.41
2:A:2409:ILE:HG12	2:A:2420:ARG:NH2	2.36	0.41
2:A:2429:LEU:HD21	2:A:2483:PHE:CZ	2.56	0.41
2:A:2478:ILE:HB	2:A:2531:CYS:SG	2.60	0.41
2:A:2649:PHE:CE2	2:A:2932:TYR:HE2	2.38	0.41
2:A:2681:MET:HE1	2:A:2917:ILE:HA	2.02	0.41
2:A:2760:TYR:CE1	2:A:2768:LYS:HG2	2.55	0.41
2:A:2849:HIS:NE2	2:A:2877:LEU:HD11	2.35	0.41
2:A:2927:GLN:HG3	2:A:2931:ARG:NE	2.35	0.41
2:A:3130:CYS:HA	2:A:3133:ILE:HD12	2.02	0.41
2:A:3664:LEU:HD21	2:A:3731:LEU:HD23	2.02	0.41
2:A:4803:ASP:OD2	2:A:4805:LYS:HE2	2.20	0.41
2:B:1100:ARG:HH12	2:B:1234:GLU:C	2.21	0.41
2:B:1703:TYR:HD2	2:B:1820:PRO:CB	2.34	0.41
2:B:2409:ILE:HG12	2:B:2420:ARG:NH2	2.36	0.41
2:B:2721:ILE:HD11	2:B:2779:LEU:HD22	2.02	0.41
2:B:3130:CYS:HA	2:B:3133:ILE:HD12	2.02	0.41
2:B:3145:SER:O	2:B:3148:VAL:HG12	2.20	0.41
2:B:3237:VAL:HG23	2:B:3238:ILE:HG13	2.02	0.41
2:B:3260:ARG:HH12	2:B:3265:CYS:H	1.68	0.41
2:B:4636:ASN:HB2	2:B:4704:LYS:HZ1	1.85	0.41
2:C:756:SER:OG	2:C:769:ARG:HB2	2.20	0.41
2:C:1703:TYR:HD2	2:C:1820:PRO:CB	2.34	0.41
2:C:2488:LEU:HG	2:C:2544:LEU:HD11	2.03	0.41
2:C:2644:LEU:O	2:C:2648:ILE:HG13	2.20	0.41
2:C:2658:GLU:OE1	2:C:2661:LEU:N	2.34	0.41
2:C:3166:PHE:CG	2:C:3167:PRO:HD2	2.55	0.41
2:C:3237:VAL:HG23	2:C:3238:ILE:HG13	2.02	0.41
2:D:555:LEU:HD11	2:D:578:VAL:HG11	2.02	0.41
2:D:680:ASP:O	2:D:751:THR:HG23	2.20	0.41
2:D:1255:LEU:HG	2:D:1451:HIS:HB3	2.03	0.41
2:D:1825:PHE:CZ	2:D:1842:ILE:HD12	2.55	0.41
2:D:2914:THR:N	2:D:2915:PRO:HD2	2.35	0.41
2:D:4136:ILE:HG22	2:D:4917:ASN:HB3	2.01	0.41
2:D:4270:LYS:HE3	2:D:4270:LYS:HB3	1.84	0.41
1:F:12:ASP:OD1	1:F:13:GLY:N	2.54	0.41
2:A:269:VAL:O	2:A:269:VAL:HG12	2.20	0.41
2:A:1559:ARG:HB3	2:A:1565:PRO:HB3	2.03	0.41
2:A:2255:LEU:O	2:A:3810:ARG:HD3	2.21	0.41
2:A:2426:LEU:HA	2:B:143:LEU:CD2	2.50	0.41
2:A:3233:HIS:O	2:A:3236:GLU:HG2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:3732:HIS:O	2:A:3776:LYS:NZ	2.49	0.41
2:A:4255:LEU:O	2:A:4258:MET:HG3	2.20	0.41
2:A:4609:LYS:HD2	2:A:4615:LEU:HD13	2.02	0.41
2:B:680:ASP:O	2:B:751:THR:HG23	2.20	0.41
2:B:902:TRP:CG	2:B:918:LEU:HD21	2.55	0.41
2:B:1053:ALA:O	2:B:1057:LEU:HG	2.20	0.41
2:B:1425:THR:HG22	2:B:1563:VAL:HG13	2.02	0.41
2:B:2429:LEU:HD21	2:B:2483:PHE:CZ	2.56	0.41
2:B:2990:LEU:HD12	2:B:2990:LEU:O	2.21	0.41
2:B:3278:GLY:O	2:B:3282:LYS:HG2	2.21	0.41
2:B:3661:VAL:HG23	2:B:3666:GLN:HG2	2.02	0.41
2:C:962:LYS:HZ2	2:C:982:ASP:H	1.68	0.41
2:C:2062:ILE:O	2:C:2066:MET:HG2	2.21	0.41
2:C:2255:LEU:O	2:C:3810:ARG:HD3	2.21	0.41
2:D:1610:ARG:HD3	2:D:1617:TRP:CE2	2.56	0.41
2:D:1703:TYR:HD2	2:D:1820:PRO:CB	2.33	0.41
2:D:2257:LEU:HD21	2:D:2262:LEU:HG	2.02	0.41
2:D:2334:ALA:HB2	2:D:2346:ALA:HB2	2.01	0.41
2:D:2790:GLU:O	2:D:2901:TYR:HA	2.19	0.41
2:D:3145:SER:O	2:D:3148:VAL:HG12	2.20	0.41
2:D:3261:ALA:C	2:D:3263:MET:N	2.71	0.41
2:D:3906:PHE:HB3	2:D:3967:LEU:HD11	2.03	0.41
2:D:4255:LEU:O	2:D:4258:MET:HG3	2.20	0.41
2:D:4625:ASP:OD1	2:D:4625:ASP:N	2.46	0.41
2:D:4735:ASN:HB3	2:D:4738:PHE:HD2	1.84	0.41
2:D:4843:ARG:NH1	2:D:4847:ASP:OD2	2.54	0.41
1:G:28:THR:O	1:G:30:MET:HG3	2.21	0.41
2:A:21:VAL:HG23	2:A:215:ALA:HB3	2.03	0.41
2:A:657:PRO:HB2	2:A:659:ILE:HG12	2.02	0.41
2:A:902:TRP:HB3	2:A:918:LEU:CD2	2.44	0.41
2:A:1703:TYR:HD2	2:A:1820:PRO:CB	2.34	0.41
2:A:2062:ILE:O	2:A:2066:MET:HG2	2.21	0.41
2:A:2433:VAL:HG13	2:A:2490:VAL:HG21	2.02	0.41
2:A:2694:SER:HA	2:A:2704:GLN:HE22	1.85	0.41
2:A:3661:VAL:HG23	2:A:3666:GLN:HG2	2.02	0.41
2:A:3975:GLN:O	2:A:3979:VAL:HG23	2.20	0.41
2:B:324:VAL:O	2:B:328:ALA:HB2	2.21	0.41
2:B:505:LEU:HB3	2:B:530:LEU:HD21	2.01	0.41
2:B:1971:GLU:HA	2:B:1974:ASN:ND2	2.36	0.41
2:B:2062:ILE:O	2:B:2066:MET:HG2	2.20	0.41
2:B:2413:LYS:HZ2	2:B:2415:GLU:HB3	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2478:ILE:HB	2:B:2531:CYS:SG	2.60	0.41
2:B:2591:ARG:HG2	2:B:2691:LYS:HZ3	1.86	0.41
2:B:2593:VAL:HG12	2:B:2644:LEU:HB2	2.02	0.41
2:B:2891:ASP:OD1	2:B:2892:ILE:N	2.54	0.41
2:B:3178:HIS:HB2	2:B:3265:CYS:HA	2.02	0.41
2:B:3271:GLU:O	2:B:3275:THR:HG23	2.21	0.41
2:B:4609:LYS:HD2	2:B:4615:LEU:HD13	2.02	0.41
2:B:4803:ASP:OD2	2:B:4805:LYS:HE2	2.20	0.41
2:C:436:LEU:HG	2:C:445:VAL:HG11	2.03	0.41
2:C:981:MET:SD	2:C:1059:GLY:HA3	2.60	0.41
2:C:1598:ARG:NH2	2:C:1601:ASN:OD1	2.47	0.41
2:C:1730:THR:HG22	2:C:1731:GLU:N	2.36	0.41
2:C:1900:GLU:HG2	2:C:2080:LEU:HD23	2.02	0.41
2:C:2694:SER:HA	2:C:2704:GLN:HE22	1.85	0.41
2:C:2843:MET:O	2:C:2846:GLU:HG2	2.19	0.41
2:C:2937:HIS:HA	2:C:3014:LEU:HD13	2.01	0.41
2:C:3319:PHE:O	2:C:3322:LEU:N	2.54	0.41
2:C:3975:GLN:O	2:C:3979:VAL:HG23	2.20	0.41
2:C:4751:LYS:HG3	2:C:4754:ARG:HH12	1.86	0.41
2:D:1914:CYS:SG	2:D:2091:GLN:NE2	2.89	0.41
2:D:2488:LEU:HG	2:D:2544:LEU:HD11	2.03	0.41
2:D:2681:MET:HE1	2:D:2917:ILE:HA	2.02	0.41
2:D:3319:PHE:O	2:D:3322:LEU:N	2.54	0.41
2:D:4105:LEU:HB3	2:D:4115:LEU:HD21	2.02	0.41
1:H:28:THR:O	1:H:30:MET:HG3	2.21	0.41
2:A:964:MET:HE1	2:A:982:ASP:HA	2.02	0.41
2:A:1825:PHE:CZ	2:A:1842:ILE:HD12	2.55	0.41
2:A:1971:GLU:HA	2:A:1974:ASN:ND2	2.36	0.41
2:A:4687:LYS:HD3	2:A:4687:LYS:HA	1.87	0.41
2:B:125:TYR:CE1	2:B:417:ARG:HG2	2.56	0.41
2:B:678:MET:SD	2:B:801:ARG:NH2	2.93	0.41
2:B:1019:GLY:HA3	2:B:1028:ARG:HB3	2.02	0.41
2:B:1282:CYS:SG	2:B:1556:GLU:HG2	2.61	0.41
2:B:1559:ARG:HB3	2:B:1565:PRO:HB3	2.03	0.41
2:B:1610:ARG:HD3	2:B:1617:TRP:CE2	2.56	0.41
2:B:1730:THR:HG22	2:B:1731:GLU:N	2.36	0.41
2:B:1829:LEU:HD12	2:B:1829:LEU:HA	1.88	0.41
2:B:3780:TYR:HE1	2:B:3784:LYS:HZ2	1.69	0.41
2:C:902:TRP:CG	2:C:918:LEU:HD21	2.55	0.41
2:C:983:LEU:HD12	2:C:983:LEU:HA	1.94	0.41
2:C:2433:VAL:HG13	2:C:2490:VAL:HG21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:3178:HIS:HB2	2:C:3265:CYS:HA	2.02	0.41
2:C:3184:TYR:HB3	2:C:3192:ARG:NH2	2.36	0.41
2:C:3271:GLU:O	2:C:3275:THR:HG23	2.21	0.41
2:C:3664:LEU:HD21	2:C:3731:LEU:HD23	2.02	0.41
2:C:4843:ARG:NH1	2:C:4847:ASP:OD2	2.54	0.41
2:C:4867:ILE:HG12	2:D:4864:GLY:HA2	2.03	0.41
2:D:678:MET:SD	2:D:801:ARG:NH2	2.93	0.41
2:D:919:VAL:HG12	2:D:920:GLU:N	2.36	0.41
2:D:1282:CYS:SG	2:D:1556:GLU:HG2	2.61	0.41
2:D:1425:THR:HG22	2:D:1563:VAL:HG13	2.02	0.41
2:D:3023:GLY:N	2:D:3025:ASP:OD1	2.53	0.41
2:D:3260:ARG:HH12	2:D:3265:CYS:H	1.68	0.41
1:F:67:MET:HE3	1:F:104:LEU:HB2	2.03	0.41
2:A:42:PHE:HZ	2:A:459:LEU:HG	1.86	0.41
2:A:281:ARG:NH1	2:A:345:GLU:OE2	2.54	0.41
2:A:678:MET:SD	2:A:801:ARG:NH2	2.93	0.41
2:A:1029:ASN:OD1	2:A:1030:PRO:HD2	2.21	0.41
2:A:1943:ARG:O	2:A:1947:VAL:HG23	2.20	0.41
2:A:2445:ILE:HG22	2:A:2451:VAL:HG12	2.03	0.41
2:A:2591:ARG:HG2	2:A:2691:LYS:HZ3	1.85	0.41
2:A:2593:VAL:HG12	2:A:2644:LEU:HB2	2.02	0.41
2:A:2638:LEU:HD23	2:A:2638:LEU:HA	1.93	0.41
2:A:3100:ALA:C	2:A:3103:PRO:HD2	2.41	0.41
2:A:3169:ALA:HB1	2:A:3245:TYR:OH	2.21	0.41
2:A:4049:HIS:HB2	2:A:4067:LEU:HD21	2.02	0.41
2:A:4898:PHE:O	2:A:4904:GLY:HA3	2.21	0.41
2:B:657:PRO:HB2	2:B:659:ILE:HG12	2.02	0.41
2:B:1604:LEU:HD23	2:B:1604:LEU:HA	1.92	0.41
2:B:2445:ILE:HG22	2:B:2451:VAL:HG12	2.03	0.41
2:B:2649:PHE:CE2	2:B:2932:TYR:HE2	2.38	0.41
2:B:2767:GLU:HG3	2:B:2771:TYR:CE2	2.56	0.41
2:B:2930:ILE:HD12	2:B:3003:MET:HE3	2.03	0.41
2:B:3023:GLY:N	2:B:3025:ASP:OD1	2.53	0.41
2:B:3184:TYR:HB3	2:B:3192:ARG:NH2	2.36	0.41
2:B:3285:TYR:O	2:B:3329:LYS:NZ	2.54	0.41
2:B:3664:LEU:HD21	2:B:3731:LEU:HD23	2.02	0.41
2:B:3689:MET:HA	2:B:3689:MET:CE	2.51	0.41
2:B:4270:LYS:NZ	2:B:4278:ASP:OD1	2.25	0.41
2:C:1013:ARG:NE	2:C:1013:ARG:HA	2.35	0.41
2:C:1777:GLN:O	2:C:1778:TYR:HB2	2.20	0.41
2:C:1825:PHE:CZ	2:C:1842:ILE:HD12	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:2429:LEU:HD21	2:C:2483:PHE:CZ	2.56	0.41
2:C:2478:ILE:HB	2:C:2531:CYS:SG	2.60	0.41
2:C:2990:LEU:O	2:C:2990:LEU:HD12	2.21	0.41
2:C:3144:LYS:HE3	2:C:3233:HIS:NE2	2.35	0.41
2:C:4609:LYS:HD2	2:C:4615:LEU:HD13	2.02	0.41
2:D:614:LEU:HD22	2:D:632:ILE:HG12	2.03	0.41
2:D:672:LYS:NZ	2:D:818:GLY:HA3	2.35	0.41
2:D:1730:THR:HG22	2:D:1731:GLU:H	1.86	0.41
2:D:1900:GLU:HG2	2:D:2080:LEU:HD23	2.02	0.41
2:D:2478:ILE:HB	2:D:2531:CYS:SG	2.61	0.41
2:D:2593:VAL:HG12	2:D:2644:LEU:HB2	2.02	0.41
2:D:3100:ALA:C	2:D:3103:PRO:HD2	2.41	0.41
2:D:3793:LEU:HD23	2:D:3793:LEU:HA	1.93	0.41
1:E:28:THR:O	1:E:30:MET:HG3	2.21	0.41
2:A:76:ARG:NH2	2:D:3891:TYR:HA	2.36	0.41
2:A:125:TYR:CE1	2:A:417:ARG:HG2	2.56	0.41
2:A:324:VAL:O	2:A:328:ALA:HB2	2.21	0.41
2:A:742:SER:HA	2:A:746:GLN:NE2	2.36	0.41
2:A:987:LYS:HZ3	2:A:989:THR:HA	1.86	0.41
2:A:1031:ARG:HH21	2:A:1038:LEU:CD1	2.11	0.41
2:A:1100:ARG:HG2	2:A:1167:ASP:OD1	2.21	0.41
2:A:1255:LEU:HG	2:A:1451:HIS:HB3	2.03	0.41
2:A:1268:ILE:HG21	2:A:1302:TYR:HE1	1.86	0.41
2:A:1726:ILE:HD11	2:A:2165:LEU:HD21	2.03	0.41
2:A:1730:THR:HG22	2:A:1731:GLU:H	1.86	0.41
2:A:2257:LEU:HD21	2:A:2262:LEU:HG	2.02	0.41
2:A:2891:ASP:OD1	2:A:2892:ILE:N	2.54	0.41
2:A:3072:MET:SD	2:A:3136:SER:HA	2.61	0.41
2:A:3166:PHE:CG	2:A:3167:PRO:HD2	2.55	0.41
2:A:3237:VAL:HG23	2:A:3238:ILE:HG13	2.02	0.41
2:A:3319:PHE:O	2:A:3322:LEU:N	2.54	0.41
2:A:3717:LYS:O	2:A:3721:LYS:HG3	2.21	0.41
2:A:4110:PRO:HG3	2:A:4966:LEU:HD12	2.02	0.41
2:A:4789:PHE:HB3	2:A:4792:PHE:HD2	1.86	0.41
2:A:4943:MET:HE2	2:A:4951:PHE:HB3	2.03	0.41
2:B:281:ARG:NH1	2:B:345:GLU:OE2	2.54	0.41
2:B:981:MET:SD	2:B:1059:GLY:HA3	2.60	0.41
2:B:1011:ARG:HG3	2:B:1014:GLN:NE2	2.36	0.41
2:B:1013:ARG:HA	2:B:1013:ARG:NE	2.35	0.41
2:B:2255:LEU:O	2:B:3810:ARG:HD3	2.21	0.41
2:B:2399:LEU:HD12	2:B:2427:ILE:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2433:VAL:HG13	2:B:2490:VAL:HG21	2.02	0.41
2:B:2827:ASP:O	2:B:2831:VAL:HG23	2.21	0.41
2:B:4049:HIS:HB2	2:B:4067:LEU:HD21	2.02	0.41
2:B:4093:ASP:OD1	2:B:4094:ILE:HG13	2.21	0.41
2:B:4255:LEU:O	2:B:4258:MET:HG3	2.20	0.41
2:B:4898:PHE:O	2:B:4904:GLY:HA3	2.21	0.41
2:C:249:SER:HA	2:C:272:ARG:HD2	2.03	0.41
2:C:551:PHE:HE2	2:C:558:LEU:HD22	1.84	0.41
2:C:742:SER:HA	2:C:746:GLN:NE2	2.36	0.41
2:C:869:THR:OG1	2:C:941:LYS:HB3	2.21	0.41
2:C:906:PRO:HB2	2:C:907:VAL:HG23	2.03	0.41
2:C:1685:LEU:HD22	2:C:1706:LEU:HB2	2.03	0.41
2:C:2555:LEU:O	2:C:2561:LEU:HD11	2.21	0.41
2:C:2591:ARG:HG2	2:C:2691:LYS:HZ3	1.86	0.41
2:C:2676:LEU:HD23	2:C:2676:LEU:HA	1.83	0.41
2:C:2831:VAL:HG22	2:D:1435:GLY:CA	2.50	0.41
2:C:2849:HIS:NE2	2:C:2877:LEU:HD11	2.36	0.41
2:C:2933:VAL:HG22	2:C:2963:PHE:HZ	1.86	0.41
2:C:3285:TYR:O	2:C:3329:LYS:NZ	2.54	0.41
2:C:3689:MET:HA	2:C:3689:MET:CE	2.51	0.41
2:C:4105:LEU:HB3	2:C:4115:LEU:HD21	2.02	0.41
2:C:4110:PRO:HG3	2:C:4966:LEU:HD12	2.02	0.41
2:D:269:VAL:HG12	2:D:269:VAL:O	2.20	0.41
2:D:694:ARG:HD2	2:D:718:VAL:O	2.20	0.41
2:D:742:SER:HA	2:D:746:GLN:NE2	2.36	0.41
2:D:756:SER:OG	2:D:769:ARG:HB2	2.20	0.41
2:D:890:HIS:CE1	2:D:924:LEU:HD22	2.55	0.41
2:D:1268:ILE:HG21	2:D:1302:TYR:HE1	1.86	0.41
2:D:1446:ILE:HG12	2:D:1542:ALA:HB2	2.02	0.41
2:D:2255:LEU:O	2:D:3810:ARG:HD3	2.21	0.41
2:D:2767:GLU:HG3	2:D:2771:TYR:CE2	2.55	0.41
2:D:2844:MET:O	2:D:2848:TYR:HD2	2.02	0.41
2:D:3661:VAL:HG23	2:D:3666:GLN:HG2	2.02	0.41
2:D:3850:HIS:HE1	2:D:3925:GLN:OE1	2.03	0.41
2:D:3858:LEU:HD23	2:D:3858:LEU:HA	1.94	0.41
1:G:12:ASP:OD1	1:G:13:GLY:N	2.54	0.41
1:H:12:ASP:OD1	1:H:13:GLY:N	2.54	0.41
2:A:1011:ARG:HG3	2:A:1014:GLN:NE2	2.36	0.41
2:A:1446:ILE:HG12	2:A:1542:ALA:HB2	2.02	0.41
2:A:2644:LEU:O	2:A:2648:ILE:HG13	2.20	0.41
2:A:2782:MET:HG2	2:A:2787:TRP:HE3	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:2990:LEU:HD12	2:A:2990:LEU:O	2.21	0.41
2:A:3041:ASP:HA	2:A:3117:PHE:HE2	1.86	0.41
2:A:3178:HIS:HB2	2:A:3265:CYS:HA	2.02	0.41
2:A:3669:LEU:HD23	2:A:3669:LEU:HA	1.95	0.41
2:A:3689:MET:HA	2:A:3689:MET:CE	2.51	0.41
2:B:436:LEU:HG	2:B:445:VAL:HG11	2.03	0.41
2:B:614:LEU:HD22	2:B:632:ILE:HG12	2.03	0.41
2:B:1029:ASN:OD1	2:B:1030:PRO:HD2	2.20	0.41
2:B:1446:ILE:HG12	2:B:1542:ALA:HB2	2.02	0.41
2:B:1726:ILE:HD11	2:B:2165:LEU:HD21	2.03	0.41
2:B:2644:LEU:O	2:B:2648:ILE:HG13	2.21	0.41
2:B:2694:SER:HA	2:B:2704:GLN:HE22	1.85	0.41
2:B:2927:GLN:HG3	2:B:2931:ARG:NE	2.35	0.41
2:B:3072:MET:SD	2:B:3136:SER:HA	2.61	0.41
2:B:3100:ALA:C	2:B:3103:PRO:HD2	2.41	0.41
2:B:4789:PHE:HB3	2:B:4792:PHE:HD2	1.86	0.41
2:C:269:VAL:HG12	2:C:269:VAL:O	2.20	0.41
2:C:483:LYS:HE2	2:C:483:LYS:HB2	1.80	0.41
2:C:678:MET:SD	2:C:801:ARG:NH2	2.93	0.41
2:C:1181:ILE:HG21	2:C:1189:GLU:HB3	2.02	0.41
2:C:1425:THR:HG22	2:C:1563:VAL:HG13	2.02	0.41
2:C:1576:LYS:HA	2:C:1576:LYS:HD3	1.95	0.41
2:C:2134:MET:HA	2:C:2134:MET:HE3	2.02	0.41
2:C:2445:ILE:HG22	2:C:2451:VAL:HG12	2.03	0.41
2:C:2782:MET:HG2	2:C:2787:TRP:HE3	1.86	0.41
2:C:3169:ALA:HB1	2:C:3245:TYR:OH	2.21	0.41
2:C:3235:MET:SD	2:C:3235:MET:N	2.93	0.41
2:C:3717:LYS:O	2:C:3721:LYS:HG3	2.21	0.41
2:C:3986:LEU:HD23	2:C:3986:LEU:HA	1.83	0.41
2:C:4789:PHE:HB3	2:C:4792:PHE:HD2	1.86	0.41
2:C:4898:PHE:O	2:C:4904:GLY:HA3	2.21	0.41
2:D:281:ARG:NH1	2:D:345:GLU:OE2	2.54	0.41
2:D:1777:GLN:O	2:D:1778:TYR:HB2	2.20	0.41
2:D:2429:LEU:HD21	2:D:2483:PHE:CZ	2.56	0.41
2:D:2658:GLU:OE1	2:D:2661:LEU:N	2.34	0.41
2:D:2827:ASP:O	2:D:2831:VAL:HG23	2.21	0.41
2:D:3072:MET:SD	2:D:3136:SER:HA	2.61	0.41
2:D:4827:ILE:O	2:D:4831:ILE:HG12	2.21	0.41
2:A:694:ARG:HD2	2:A:718:VAL:O	2.20	0.40
2:A:906:PRO:HB2	2:A:907:VAL:HG23	2.03	0.40
2:A:1011:ARG:CB	2:A:1032:LEU:HD21	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1425:THR:HG22	2:A:1563:VAL:HG13	2.02	0.40
2:A:1730:THR:HG22	2:A:1731:GLU:N	2.36	0.40
2:A:1929:SER:HG	2:A:3620:PHE:HD2	1.65	0.40
2:A:2420:ARG:HD3	2:A:2424:ARG:NE	2.37	0.40
2:A:4058:TYR:HD1	2:A:4062:GLU:HB3	1.84	0.40
2:B:249:SER:HA	2:B:272:ARG:HD2	2.03	0.40
2:B:897:LYS:HB3	2:B:902:TRP:HB3	2.03	0.40
2:B:916:PRO:HB3	2:B:923:LYS:HZ3	1.85	0.40
2:B:919:VAL:HG12	2:B:920:GLU:N	2.36	0.40
2:B:3975:GLN:O	2:B:3979:VAL:HG23	2.20	0.40
2:B:4753:LEU:HD12	2:B:4753:LEU:HA	1.91	0.40
2:C:1559:ARG:HB3	2:C:1565:PRO:HB3	2.03	0.40
2:C:1914:CYS:SG	2:C:2091:GLN:NE2	2.89	0.40
2:C:2137:GLU:HG2	2:C:2138:GLU:N	2.35	0.40
2:C:2409:ILE:HG12	2:C:2420:ARG:NH2	2.36	0.40
2:C:2891:ASP:OD1	2:C:2892:ILE:N	2.54	0.40
2:C:3150:ARG:NH2	2:C:3151:GLN:HB3	2.36	0.40
2:C:3260:ARG:HH12	2:C:3265:CYS:H	1.68	0.40
2:C:4563:GLU:HG2	2:C:4566:GLY:H	1.86	0.40
2:D:21:VAL:HG23	2:D:215:ALA:HB3	2.03	0.40
2:D:324:VAL:O	2:D:328:ALA:HB2	2.21	0.40
2:D:520:ARG:HH11	2:D:521:GLU:HB3	1.85	0.40
2:D:521:GLU:HG2	2:D:522:ALA:N	2.34	0.40
2:D:1100:ARG:HG2	2:D:1167:ASP:OD1	2.21	0.40
2:D:2187:ILE:HG13	2:D:2227:VAL:HG13	2.01	0.40
2:D:2798:MET:HA	2:D:2798:MET:CE	2.51	0.40
2:D:2927:GLN:HG3	2:D:2931:ARG:NE	2.35	0.40
2:D:2990:LEU:HD12	2:D:2990:LEU:O	2.21	0.40
2:D:3130:CYS:HA	2:D:3133:ILE:HD12	2.02	0.40
2:D:3172:GLU:O	2:D:3176:ASP:N	2.54	0.40
2:D:3271:GLU:O	2:D:3275:THR:HG23	2.21	0.40
2:D:3664:LEU:HD21	2:D:3731:LEU:HD23	2.02	0.40
2:D:4609:LYS:HD2	2:D:4615:LEU:HD13	2.02	0.40
2:D:4751:LYS:HG3	2:D:4754:ARG:HH12	1.86	0.40
2:D:4789:PHE:HB3	2:D:4792:PHE:HD2	1.86	0.40
2:A:674:TYR:OH	2:A:676:GLU:OE1	2.31	0.40
2:A:889:ILE:HA	2:A:892:LEU:HB2	2.04	0.40
2:A:2399:LEU:HD12	2:A:2427:ILE:HD11	2.02	0.40
2:A:2488:LEU:HD23	2:A:2544:LEU:HD21	2.03	0.40
2:A:2555:LEU:O	2:A:2561:LEU:HD11	2.21	0.40
2:A:2736:LYS:HA	2:A:2736:LYS:HD3	1.82	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:2827:ASP:O	2:A:2831:VAL:HG23	2.21	0.40
2:A:3145:SER:O	2:A:3148:VAL:HG12	2.20	0.40
2:A:3184:TYR:HB3	2:A:3192:ARG:NH2	2.36	0.40
2:A:3796:LEU:HD22	2:A:3835:PHE:HZ	1.86	0.40
2:A:4827:ILE:O	2:A:4831:ILE:HG12	2.21	0.40
2:B:742:SER:HA	2:B:746:GLN:NE2	2.36	0.40
2:B:756:SER:OG	2:B:769:ARG:HB2	2.20	0.40
2:B:2849:HIS:NE2	2:B:2877:LEU:HD11	2.36	0.40
2:B:3150:ARG:NH2	2:B:3151:GLN:HB3	2.36	0.40
2:B:3166:PHE:CG	2:B:3167:PRO:HD2	2.55	0.40
2:B:3172:GLU:O	2:B:3176:ASP:N	2.54	0.40
2:B:3796:LEU:HD22	2:B:3835:PHE:HZ	1.86	0.40
2:C:614:LEU:HD22	2:C:632:ILE:HG12	2.02	0.40
2:C:1011:ARG:HG3	2:C:1014:GLN:NE2	2.36	0.40
2:C:1029:ASN:HD21	2:C:1031:ARG:HB2	1.86	0.40
2:C:1255:LEU:HG	2:C:1451:HIS:HB3	2.03	0.40
2:C:1730:THR:HG22	2:C:1731:GLU:H	1.86	0.40
2:C:1921:ARG:O	2:C:1925:ILE:HG13	2.21	0.40
2:C:3130:CYS:HA	2:C:3133:ILE:HD12	2.02	0.40
2:C:3233:HIS:O	2:C:3236:GLU:HG2	2.20	0.40
2:C:3288:LEU:HB2	2:C:3329:LYS:NZ	2.36	0.40
2:C:4093:ASP:OD1	2:C:4094:ILE:HG13	2.21	0.40
2:D:2891:ASP:OD1	2:D:2892:ILE:N	2.54	0.40
2:D:3107:SER:HA	2:D:3110:GLU:HG2	2.03	0.40
2:D:3184:TYR:HB3	2:D:3192:ARG:NH2	2.36	0.40
2:D:3278:GLY:O	2:D:3282:LYS:HG2	2.21	0.40
2:D:3796:LEU:HD22	2:D:3835:PHE:HZ	1.85	0.40
2:D:4698:LEU:HD23	2:D:4698:LEU:HA	1.95	0.40
2:D:4925:LEU:HD12	2:D:4925:LEU:HA	1.89	0.40
2:A:505:LEU:HA	2:A:505:LEU:HD23	1.88	0.40
2:A:555:LEU:HD11	2:A:578:VAL:HG11	2.02	0.40
2:A:1921:ARG:O	2:A:1925:ILE:HG13	2.21	0.40
2:A:3906:PHE:HB3	2:A:3967:LEU:HD11	2.03	0.40
2:B:21:VAL:HG23	2:B:215:ALA:HB3	2.03	0.40
2:B:623:VAL:HA	2:B:2131:SER:O	2.22	0.40
2:B:644:LEU:HD13	2:B:1630:LEU:HD21	2.03	0.40
2:B:655:MET:SD	2:B:836:HIS:HA	2.61	0.40
2:B:1040:ASP:HA	2:B:1043:LYS:HE2	2.02	0.40
2:B:1685:LEU:HD22	2:B:1706:LEU:HB2	2.03	0.40
2:B:1777:GLN:O	2:B:1778:TYR:HB2	2.20	0.40
2:B:1921:ARG:O	2:B:1925:ILE:HG13	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2666:LEU:HB3	2:B:2667:PRO:HD3	2.04	0.40
2:B:3144:LYS:HE3	2:B:3233:HIS:NE2	2.35	0.40
2:B:3208:ILE:HA	2:B:3209:PRO:HD3	1.96	0.40
2:B:3235:MET:SD	2:B:3235:MET:N	2.93	0.40
2:B:4625:ASP:OD1	2:B:4625:ASP:N	2.46	0.40
2:C:258:ARG:HH12	2:C:317:MET:HA	1.87	0.40
2:C:644:LEU:HD13	2:C:1630:LEU:HD21	2.04	0.40
2:C:888:ASN:ND2	2:C:1060:TYR:OH	2.23	0.40
2:C:897:LYS:HB3	2:C:902:TRP:HB3	2.03	0.40
2:C:1610:ARG:HD3	2:C:1617:TRP:CE2	2.56	0.40
2:C:1914:CYS:O	2:C:1918:VAL:HG23	2.21	0.40
2:C:1971:GLU:HA	2:C:1974:ASN:ND2	2.36	0.40
2:C:1986:CYS:HA	2:C:1987:PRO:HD3	1.91	0.40
2:C:2666:LEU:HB3	2:C:2667:PRO:HD3	2.04	0.40
2:C:3890:TRP:HB3	2:D:76:ARG:HG2	2.03	0.40
2:C:3906:PHE:HB3	2:C:3967:LEU:HD11	2.03	0.40
2:C:4841:ILE:HD12	2:C:4841:ILE:HA	1.98	0.40
2:D:644:LEU:HD13	2:D:1630:LEU:HD21	2.03	0.40
2:D:889:ILE:HA	2:D:892:LEU:HB2	2.04	0.40
2:D:1100:ARG:HB3	2:D:1236:TYR:CD1	2.57	0.40
2:D:2555:LEU:O	2:D:2561:LEU:HD11	2.21	0.40
2:D:3169:ALA:HB1	2:D:3245:TYR:OH	2.21	0.40
2:D:4898:PHE:O	2:D:4904:GLY:HA3	2.21	0.40
2:A:614:LEU:HD22	2:A:632:ILE:HG12	2.02	0.40
2:A:1019:GLY:HA3	2:A:1028:ARG:HB3	2.02	0.40
2:A:1100:ARG:HB3	2:A:1236:TYR:CD1	2.57	0.40
2:A:1255:LEU:HD12	2:A:1255:LEU:HA	1.91	0.40
2:A:2429:LEU:HA	2:A:2476:TYR:HE2	1.87	0.40
2:A:2933:VAL:HG22	2:A:2963:PHE:HZ	1.86	0.40
2:A:2943:PHE:HD1	2:A:2954:PHE:CE2	2.39	0.40
2:A:3271:GLU:O	2:A:3275:THR:HG23	2.20	0.40
2:A:3288:LEU:HB2	2:A:3329:LYS:NZ	2.36	0.40
2:B:42:PHE:HZ	2:B:459:LEU:HG	1.86	0.40
2:B:869:THR:OG1	2:B:941:LYS:HB3	2.21	0.40
2:B:1730:THR:HG22	2:B:1731:GLU:H	1.86	0.40
2:B:1956:ALA:O	2:B:1960:ARG:HG3	2.22	0.40
2:B:2200:LEU:HD23	2:B:2200:LEU:HA	1.93	0.40
2:B:2748:SER:HB3	2:B:2751:SER:HB3	2.03	0.40
2:B:2798:MET:HA	2:B:2798:MET:CE	2.52	0.40
2:B:2833:LEU:HB2	2:B:2894:LYS:HZ3	1.85	0.40
2:B:3041:ASP:HA	2:B:3117:PHE:HE2	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3159:LEU:HG	2:B:3241:MET:HB3	2.04	0.40
2:B:3319:PHE:O	2:B:3322:LEU:N	2.54	0.40
2:C:324:VAL:O	2:C:328:ALA:HB2	2.21	0.40
2:C:555:LEU:HD11	2:C:578:VAL:HG11	2.02	0.40
2:C:686:VAL:HG13	2:C:687:THR:HG23	2.04	0.40
2:C:1100:ARG:HG2	2:C:1167:ASP:OD1	2.21	0.40
2:C:1268:ILE:HG21	2:C:1302:TYR:HE1	1.86	0.40
2:C:2488:LEU:HD23	2:C:2544:LEU:HD21	2.03	0.40
2:C:2827:ASP:O	2:C:2831:VAL:HG23	2.21	0.40
2:D:42:PHE:HZ	2:D:459:LEU:HG	1.86	0.40
2:D:983:LEU:HD12	2:D:983:LEU:HA	1.94	0.40
2:D:1168:MET:HE3	2:D:1197:VAL:HG22	2.03	0.40
2:D:1730:THR:HG22	2:D:1731:GLU:N	2.36	0.40
2:D:1914:CYS:O	2:D:1918:VAL:HG23	2.21	0.40
2:D:1956:ALA:O	2:D:1960:ARG:HG3	2.22	0.40
2:D:1971:GLU:HA	2:D:1974:ASN:ND2	2.36	0.40
2:D:2134:MET:HE3	2:D:2134:MET:HA	2.04	0.40
2:D:2638:LEU:HD23	2:D:2638:LEU:HA	1.93	0.40
2:D:3717:LYS:O	2:D:3721:LYS:HG3	2.21	0.40
1:F:88:HIS:HD2	1:F:89:PRO:HD2	1.87	0.40
2:A:1719:LEU:HD21	2:A:1830:ILE:HD12	2.04	0.40
2:A:2095:ILE:HD12	2:A:2095:ILE:HA	1.93	0.40
2:A:2488:LEU:HG	2:A:2544:LEU:HD11	2.03	0.40
2:A:2518:ARG:O	2:A:2522:THR:OG1	2.36	0.40
2:A:3172:GLU:O	2:A:3176:ASP:N	2.54	0.40
2:A:4563:GLU:HG2	2:A:4566:GLY:H	1.86	0.40
2:A:4843:ARG:NH1	2:A:4847:ASP:OD2	2.54	0.40
2:B:672:LYS:NZ	2:B:818:GLY:HA3	2.35	0.40
2:B:988:LEU:HB2	2:B:1055:ARG:NE	2.26	0.40
2:B:1100:ARG:HG2	2:B:1167:ASP:OD1	2.21	0.40
2:B:2581:ARG:HB3	2:B:2584:MET:HE2	2.03	0.40
2:B:2933:VAL:HG22	2:B:2963:PHE:HZ	1.86	0.40
2:B:3068:LEU:O	2:B:3072:MET:HG2	2.22	0.40
2:B:3169:ALA:HB1	2:B:3245:TYR:OH	2.21	0.40
2:B:4563:GLU:HG2	2:B:4566:GLY:H	1.86	0.40
2:B:4751:LYS:HG3	2:B:4754:ARG:HH12	1.86	0.40
2:C:281:ARG:NH1	2:C:345:GLU:OE2	2.54	0.40
2:C:1011:ARG:CB	2:C:1032:LEU:HD21	2.51	0.40
2:C:1040:ASP:HA	2:C:1043:LYS:HE2	2.02	0.40
2:C:1940:GLN:NE2	2:C:1964:GLU:OE2	2.55	0.40
2:C:3100:ALA:C	2:C:3103:PRO:HD2	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:3172:GLU:O	2:C:3176:ASP:N	2.55	0.40
2:C:4827:ILE:O	2:C:4831:ILE:HG12	2.21	0.40
2:D:387:ILE:HD11	2:D:389:ARG:CZ	2.52	0.40
2:D:1011:ARG:HG3	2:D:1014:GLN:NE2	2.36	0.40
2:D:2619:LYS:O	2:D:2626:GLY:HA2	2.22	0.40
2:D:2649:PHE:CE2	2:D:2932:TYR:HE2	2.38	0.40
2:D:3689:MET:HA	2:D:3689:MET:CE	2.51	0.40
2:D:3975:GLN:O	2:D:3979:VAL:HG23	2.20	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	E	105/108 (97%)	103 (98%)	2 (2%)	0	100	100
1	F	105/108 (97%)	103 (98%)	2 (2%)	0	100	100
1	G	105/108 (97%)	103 (98%)	2 (2%)	0	100	100
1	H	105/108 (97%)	103 (98%)	2 (2%)	0	100	100
2	A	4198/4967 (84%)	4061 (97%)	132 (3%)	5 (0%)	48	79
2	B	4198/4967 (84%)	4061 (97%)	132 (3%)	5 (0%)	48	79
2	C	4198/4967 (84%)	4061 (97%)	132 (3%)	5 (0%)	48	79
2	D	4198/4967 (84%)	4060 (97%)	133 (3%)	5 (0%)	48	79
All	All	17212/20300 (85%)	16655 (97%)	537 (3%)	20 (0%)	50	79

All (20) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	A	3927	PRO
2	A	4641	PRO

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Mol	Chain	Res	Type
2	B	3927	PRO
2	B	4641	PRO
2	C	3927	PRO
2	C	4641	PRO
2	D	3927	PRO
2	D	4641	PRO
2	A	3262	GLU
2	B	3262	GLU
2	C	3262	GLU
2	D	3262	GLU
2	A	3292	GLU
2	B	3292	GLU
2	C	3292	GLU
2	D	3292	GLU
2	A	1836	ASN
2	B	1836	ASN
2	C	1836	ASN
2	D	1836	ASN

### 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	E	88/89 (99%)	87 (99%)	1 (1%)	70	84
1	F	88/89 (99%)	87 (99%)	1 (1%)	70	84
1	G	88/89 (99%)	87 (99%)	1 (1%)	70	84
1	H	88/89 (99%)	87 (99%)	1 (1%)	70	84
2	A	3708/4358 (85%)	3667 (99%)	41 (1%)	70	84
2	B	3708/4358 (85%)	3667 (99%)	41 (1%)	70	84
2	C	3708/4358 (85%)	3667 (99%)	41 (1%)	70	84
2	D	3708/4358 (85%)	3667 (99%)	41 (1%)	70	84
All	All	15184/17788 (85%)	15016 (99%)	168 (1%)	69	84

All (168) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	E	19	LYS
1	F	19	LYS
1	G	19	LYS
1	H	19	LYS
2	A	325	LYS
2	A	344	LYS
2	A	520	ARG
2	A	880	ARG
2	A	891	GLU
2	A	893	TRP
2	A	894	VAL
2	A	917	CYS
2	A	931	TYR
2	A	935	MET
2	A	944	LEU
2	A	1011	ARG
2	A	1017	THR
2	A	1021	GLN
2	A	1043	LYS
2	A	1044	LYS
2	A	1046	ASN
2	A	1048	ASP
2	A	1049	SER
2	A	1050	LEU
2	A	2134	MET
2	A	2144	ARG
2	A	2303	ARG
2	A	2347	MET
2	A	2581	ARG
2	A	2585	MET
2	A	2605	MET
2	A	2656	LYS
2	A	2689	MET
2	A	2798	MET
2	A	2830	ASN
2	A	2884	LYS
2	A	2931	ARG
2	A	3088	LYS
2	A	3150	ARG
2	A	3227	ARG
2	A	3262	GLU
2	A	3819	MET
2	A	4012	MET

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	A	4683	ARG
2	A	4707	MET
2	B	325	LYS
2	B	344	LYS
2	B	520	ARG
2	B	880	ARG
2	B	891	GLU
2	B	893	TRP
2	B	894	VAL
2	B	917	CYS
2	B	931	TYR
2	B	935	MET
2	B	944	LEU
2	B	1011	ARG
2	B	1017	THR
2	B	1021	GLN
2	B	1043	LYS
2	B	1044	LYS
2	B	1046	ASN
2	B	1048	ASP
2	B	1049	SER
2	B	1050	LEU
2	B	2134	MET
2	B	2144	ARG
2	B	2303	ARG
2	B	2347	MET
2	B	2581	ARG
2	B	2585	MET
2	B	2605	MET
2	B	2656	LYS
2	B	2689	MET
2	B	2798	MET
2	B	2830	ASN
2	B	2884	LYS
2	B	2931	ARG
2	B	3088	LYS
2	B	3150	ARG
2	B	3227	ARG
2	B	3262	GLU
2	B	3819	MET
2	B	4012	MET
2	B	4683	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	B	4707	MET
2	C	325	LYS
2	C	344	LYS
2	C	520	ARG
2	C	880	ARG
2	C	891	GLU
2	C	893	TRP
2	C	894	VAL
2	C	917	CYS
2	C	931	TYR
2	C	935	MET
2	C	944	LEU
2	C	1011	ARG
2	C	1017	THR
2	C	1021	GLN
2	C	1043	LYS
2	C	1044	LYS
2	C	1046	ASN
2	C	1048	ASP
2	C	1049	SER
2	C	1050	LEU
2	C	2134	MET
2	C	2144	ARG
2	C	2303	ARG
2	C	2347	MET
2	C	2581	ARG
2	C	2585	MET
2	C	2605	MET
2	C	2656	LYS
2	C	2689	MET
2	C	2798	MET
2	C	2830	ASN
2	C	2884	LYS
2	C	2931	ARG
2	C	3088	LYS
2	C	3150	ARG
2	C	3227	ARG
2	C	3262	GLU
2	C	3819	MET
2	C	4012	MET
2	C	4683	ARG
2	C	4707	MET

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	D	325	LYS
2	D	344	LYS
2	D	520	ARG
2	D	880	ARG
2	D	891	GLU
2	D	893	TRP
2	D	894	VAL
2	D	917	CYS
2	D	931	TYR
2	D	935	MET
2	D	944	LEU
2	D	1011	ARG
2	D	1017	THR
2	D	1021	GLN
2	D	1043	LYS
2	D	1044	LYS
2	D	1046	ASN
2	D	1048	ASP
2	D	1049	SER
2	D	1050	LEU
2	D	2134	MET
2	D	2144	ARG
2	D	2303	ARG
2	D	2347	MET
2	D	2581	ARG
2	D	2585	MET
2	D	2605	MET
2	D	2656	LYS
2	D	2689	MET
2	D	2798	MET
2	D	2830	ASN
2	D	2884	LYS
2	D	2931	ARG
2	D	3088	LYS
2	D	3150	ARG
2	D	3227	ARG
2	D	3262	GLU
2	D	3819	MET
2	D	4012	MET
2	D	4683	ARG
2	D	4707	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (49)

such sidechains are listed below:

Mol	Chain	Res	Type
2	A	29	HIS
2	A	117	HIS
2	A	890	HIS
2	A	1014	GLN
2	A	1046	ASN
2	A	1974	ASN
2	A	1978	ASN
2	A	2830	ASN
2	A	2847	ASN
2	A	3034	HIS
2	A	3287	ASN
2	A	3850	HIS
2	A	3882	GLN
2	B	29	HIS
2	B	117	HIS
2	B	890	HIS
2	B	1014	GLN
2	B	1046	ASN
2	B	1974	ASN
2	B	1978	ASN
2	B	2830	ASN
2	B	2847	ASN
2	B	3034	HIS
2	B	3287	ASN
2	B	3850	HIS
2	C	29	HIS
2	C	117	HIS
2	C	890	HIS
2	C	1046	ASN
2	C	1974	ASN
2	C	1978	ASN
2	C	2830	ASN
2	C	2847	ASN
2	C	3034	HIS
2	C	3287	ASN
2	C	3850	HIS
2	D	29	HIS
2	D	117	HIS
2	D	890	HIS
2	D	1014	GLN
2	D	1046	ASN
2	D	1974	ASN

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Mol	Chain	Res	Type
2	D	1978	ASN
2	D	2830	ASN
2	D	2847	ASN
2	D	3034	HIS
2	D	3287	ASN
2	D	3850	HIS
2	D	3882	GLN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

Of 16 ligands modelled in this entry, 4 are monoatomic - leaving 12 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	$\# Z  > 2$
4	ATP	A	5002	-	28,33,33	0.65	0	34,52,52	0.77	2 (5%)
5	KVR	D	5004	-	24,25,25	0.50	0	31,34,34	0.83	2 (6%)
4	ATP	C	5002	-	28,33,33	0.65	0	34,52,52	0.77	2 (5%)
4	ATP	B	5003	-	28,33,33	0.73	0	34,52,52	0.77	1 (2%)
5	KVR	B	5004	-	24,25,25	0.49	0	31,34,34	0.82	2 (6%)



Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
5	KVR	A	5004	-	24,25,25	0.51	0	31,34,34	0.83	2 (6%)
5	KVR	C	5004	-	24,25,25	0.52	0	31,34,34	0.83	2 (6%)
4	ATP	C	5003	-	28,33,33	0.73	0	34,52,52	0.77	1 (2%)
4	ATP	D	5002	-	28,33,33	0.65	0	34,52,52	0.77	2 (5%)
4	ATP	D	5003	-	28,33,33	0.74	0	34,52,52	0.77	1 (2%)
4	ATP	A	5003	-	28,33,33	0.73	0	34,52,52	0.77	1 (2%)
4	ATP	B	5002	-	28,33,33	0.66	0	34,52,52	0.76	2 (5%)

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
4	ATP	A	5002	-	-	5/18/38/38	0/3/3/3
5	KVR	D	5004	-	-	6/10/20/20	0/2/3/3
4	ATP	C	5002	-	-	5/18/38/38	0/3/3/3
4	ATP	B	5003	-	-	6/18/38/38	0/3/3/3
5	KVR	B	5004	-	-	6/10/20/20	0/2/3/3
5	KVR	A	5004	-	-	6/10/20/20	0/2/3/3
5	KVR	C	5004	-	-	6/10/20/20	0/2/3/3
4	ATP	C	5003	-	-	6/18/38/38	0/3/3/3
4	ATP	D	5002	-	-	5/18/38/38	0/3/3/3
4	ATP	D	5003	-	-	6/18/38/38	0/3/3/3
4	ATP	A	5003	-	-	6/18/38/38	0/3/3/3
4	ATP	B	5002	-	-	5/18/38/38	0/3/3/3

There are no bond length outliers.

All (20) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	5004	KVR	C10-S09-C06	3.24	107.30	102.71
5	D	5004	KVR	C10-S09-C06	3.23	107.28	102.71
5	A	5004	KVR	C10-S09-C06	3.22	107.28	102.71
5	B	5004	KVR	C10-S09-C06	3.18	107.21	102.71
4	D	5002	ATP	C4'-O4'-C1'	-2.88	107.29	109.92
4	A	5002	ATP	C4'-O4'-C1'	-2.88	107.29	109.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	5002	ATP	C4'-O4'-C1'	-2.86	107.30	109.92
4	C	5002	ATP	C4'-O4'-C1'	-2.85	107.32	109.92
4	A	5002	ATP	C5-C6-N6	2.32	123.84	120.31
4	D	5002	ATP	C5-C6-N6	2.31	123.83	120.31
4	C	5002	ATP	C5-C6-N6	2.31	123.83	120.31
4	C	5003	ATP	C5-C6-N6	2.30	123.81	120.31
4	B	5003	ATP	C5-C6-N6	2.30	123.81	120.31
4	B	5002	ATP	C5-C6-N6	2.29	123.80	120.31
4	D	5003	ATP	C5-C6-N6	2.28	123.78	120.31
4	A	5003	ATP	C5-C6-N6	2.27	123.77	120.31
5	B	5004	KVR	C14-N12-C11	2.12	114.54	111.09
5	D	5004	KVR	C14-N12-C11	2.08	114.49	111.09
5	C	5004	KVR	C14-N12-C11	2.08	114.48	111.09
5	A	5004	KVR	C14-N12-C11	2.08	114.47	111.09

There are no chirality outliers.

All (68) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	5002	ATP	C5'-O5'-PA-O2A
4	A	5003	ATP	C5'-O5'-PA-O1A
4	A	5003	ATP	C5'-O5'-PA-O2A
4	A	5003	ATP	C5'-O5'-PA-O3A
4	B	5002	ATP	C5'-O5'-PA-O2A
4	B	5003	ATP	C5'-O5'-PA-O1A
4	B	5003	ATP	C5'-O5'-PA-O2A
4	B	5003	ATP	C5'-O5'-PA-O3A
4	C	5002	ATP	C5'-O5'-PA-O2A
4	C	5003	ATP	C5'-O5'-PA-O1A
4	C	5003	ATP	C5'-O5'-PA-O2A
4	C	5003	ATP	C5'-O5'-PA-O3A
4	D	5002	ATP	C5'-O5'-PA-O2A
4	D	5003	ATP	C5'-O5'-PA-O1A
4	D	5003	ATP	C5'-O5'-PA-O2A
4	D	5003	ATP	C5'-O5'-PA-O3A
5	A	5004	KVR	C04-C03-O02-C01
5	A	5004	KVR	C08-C03-O02-C01
5	B	5004	KVR	C04-C03-O02-C01
5	B	5004	KVR	C08-C03-O02-C01
5	C	5004	KVR	C04-C03-O02-C01
5	C	5004	KVR	C08-C03-O02-C01
5	D	5004	KVR	C04-C03-O02-C01

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Mol	Chain	Res	Type	Atoms
5	D	5004	KVR	C08-C03-O02-C01
4	A	5002	ATP	C3'-C4'-C5'-O5'
4	B	5002	ATP	C3'-C4'-C5'-O5'
4	C	5002	ATP	C3'-C4'-C5'-O5'
4	D	5002	ATP	C3'-C4'-C5'-O5'
5	A	5004	KVR	C19-C18-C21-O23
5	C	5004	KVR	C19-C18-C21-O23
5	D	5004	KVR	C19-C18-C21-O23
5	B	5004	KVR	C19-C18-C21-O23
5	A	5004	KVR	C17-C18-C21-O23
5	B	5004	KVR	C17-C18-C21-O23
5	C	5004	KVR	C17-C18-C21-O23
5	D	5004	KVR	C17-C18-C21-O23
5	C	5004	KVR	C19-C18-C21-O22
5	D	5004	KVR	C19-C18-C21-O22
5	A	5004	KVR	C19-C18-C21-O22
5	B	5004	KVR	C19-C18-C21-O22
5	A	5004	KVR	C17-C18-C21-O22
5	D	5004	KVR	C17-C18-C21-O22
5	B	5004	KVR	C17-C18-C21-O22
5	C	5004	KVR	C17-C18-C21-O22
4	A	5002	ATP	O4'-C4'-C5'-O5'
4	A	5003	ATP	O4'-C4'-C5'-O5'
4	B	5002	ATP	O4'-C4'-C5'-O5'
4	B	5003	ATP	O4'-C4'-C5'-O5'
4	C	5002	ATP	O4'-C4'-C5'-O5'
4	C	5003	ATP	O4'-C4'-C5'-O5'
4	D	5002	ATP	O4'-C4'-C5'-O5'
4	D	5003	ATP	O4'-C4'-C5'-O5'
4	A	5003	ATP	C3'-C4'-C5'-O5'
4	B	5003	ATP	C3'-C4'-C5'-O5'
4	C	5003	ATP	C3'-C4'-C5'-O5'
4	D	5003	ATP	C3'-C4'-C5'-O5'
4	A	5002	ATP	C5'-O5'-PA-O1A
4	A	5002	ATP	C5'-O5'-PA-O3A
4	B	5002	ATP	C5'-O5'-PA-O1A
4	B	5002	ATP	C5'-O5'-PA-O3A
4	C	5002	ATP	C5'-O5'-PA-O1A
4	C	5002	ATP	C5'-O5'-PA-O3A
4	D	5002	ATP	C5'-O5'-PA-O1A
4	D	5002	ATP	C5'-O5'-PA-O3A
4	A	5003	ATP	PA-O3A-PB-O2B

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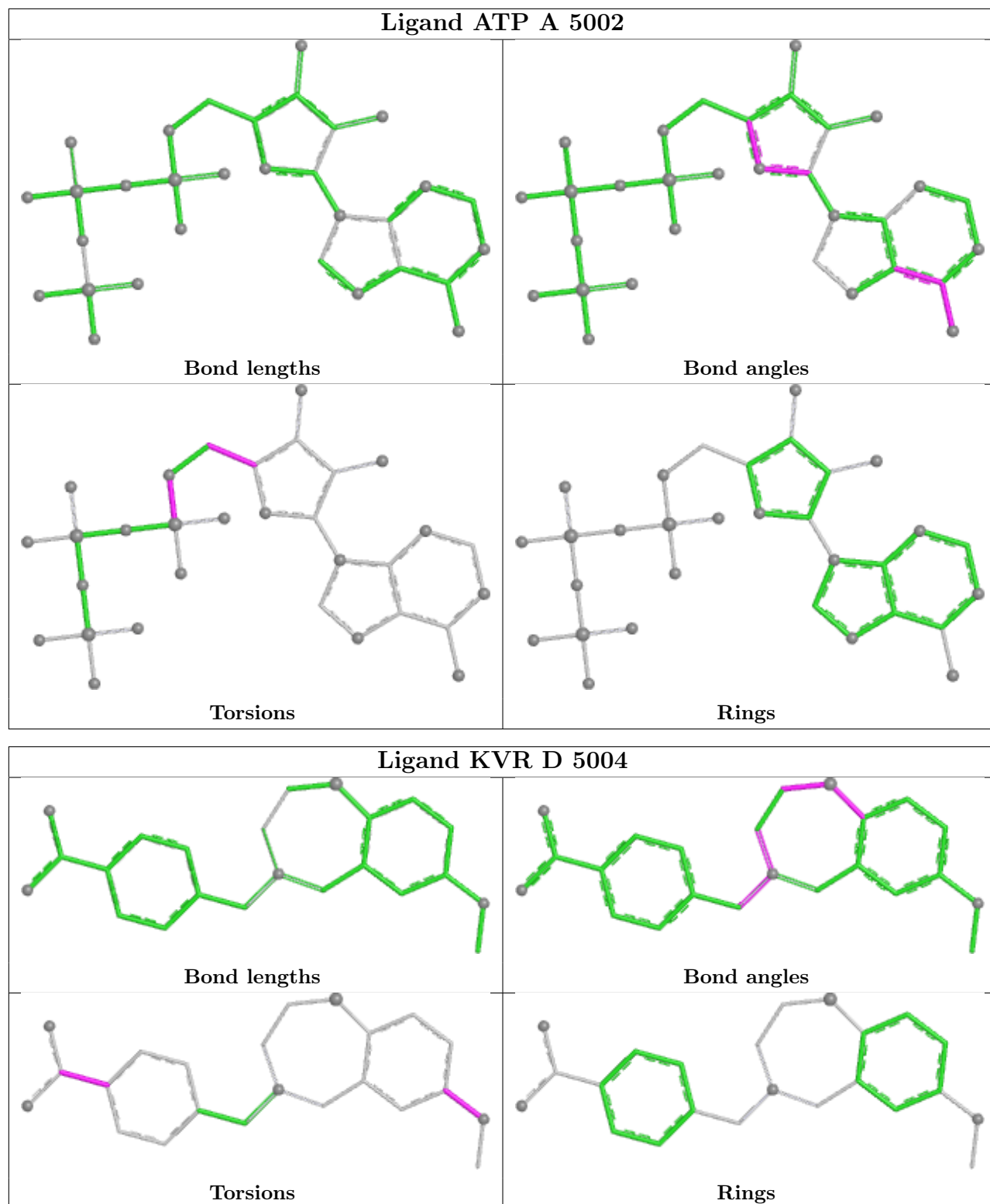
Mol	Chain	Res	Type	Atoms
4	B	5003	ATP	PA-O3A-PB-O2B
4	C	5003	ATP	PA-O3A-PB-O2B
4	D	5003	ATP	PA-O3A-PB-O2B

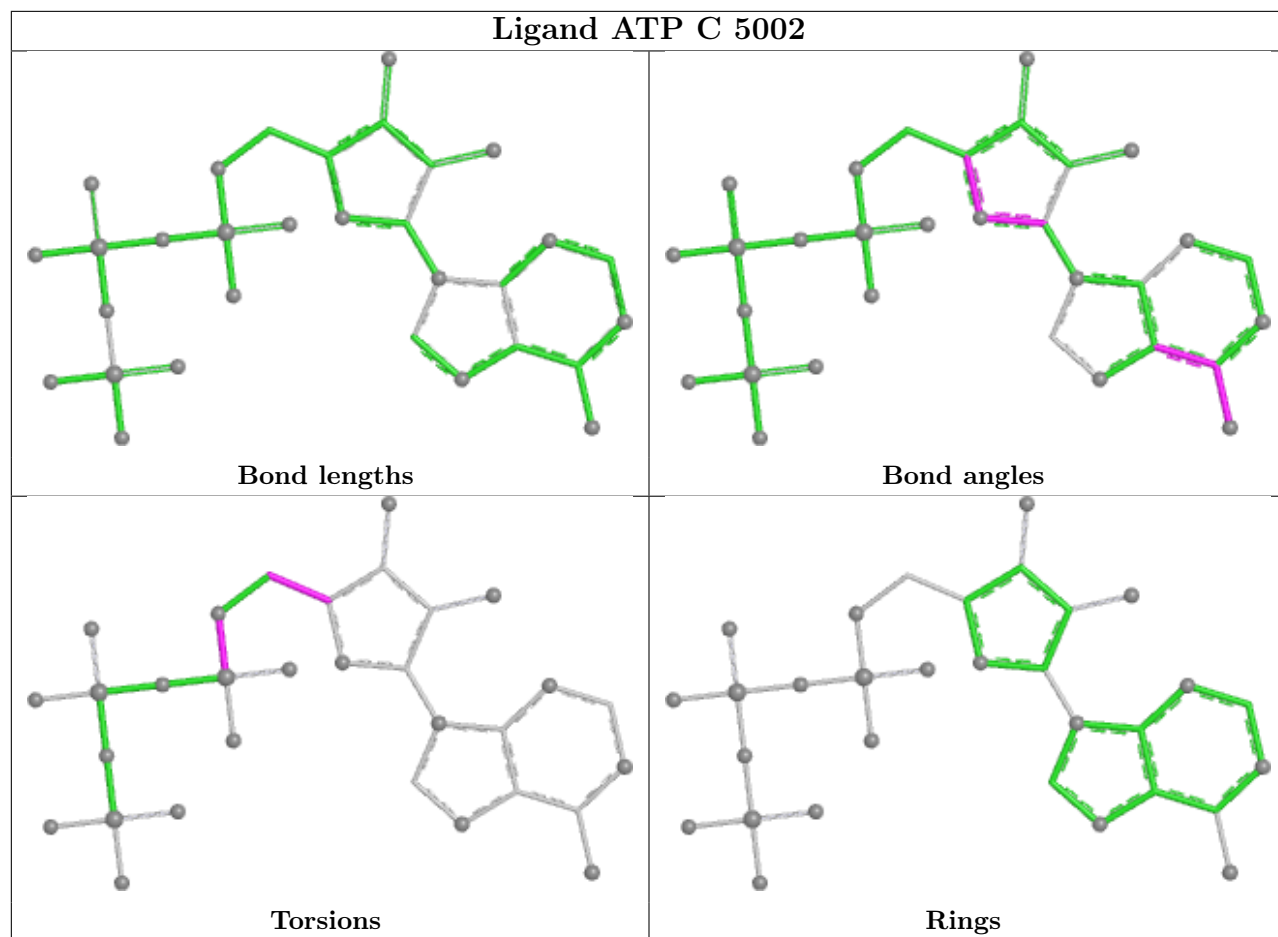
There are no ring outliers.

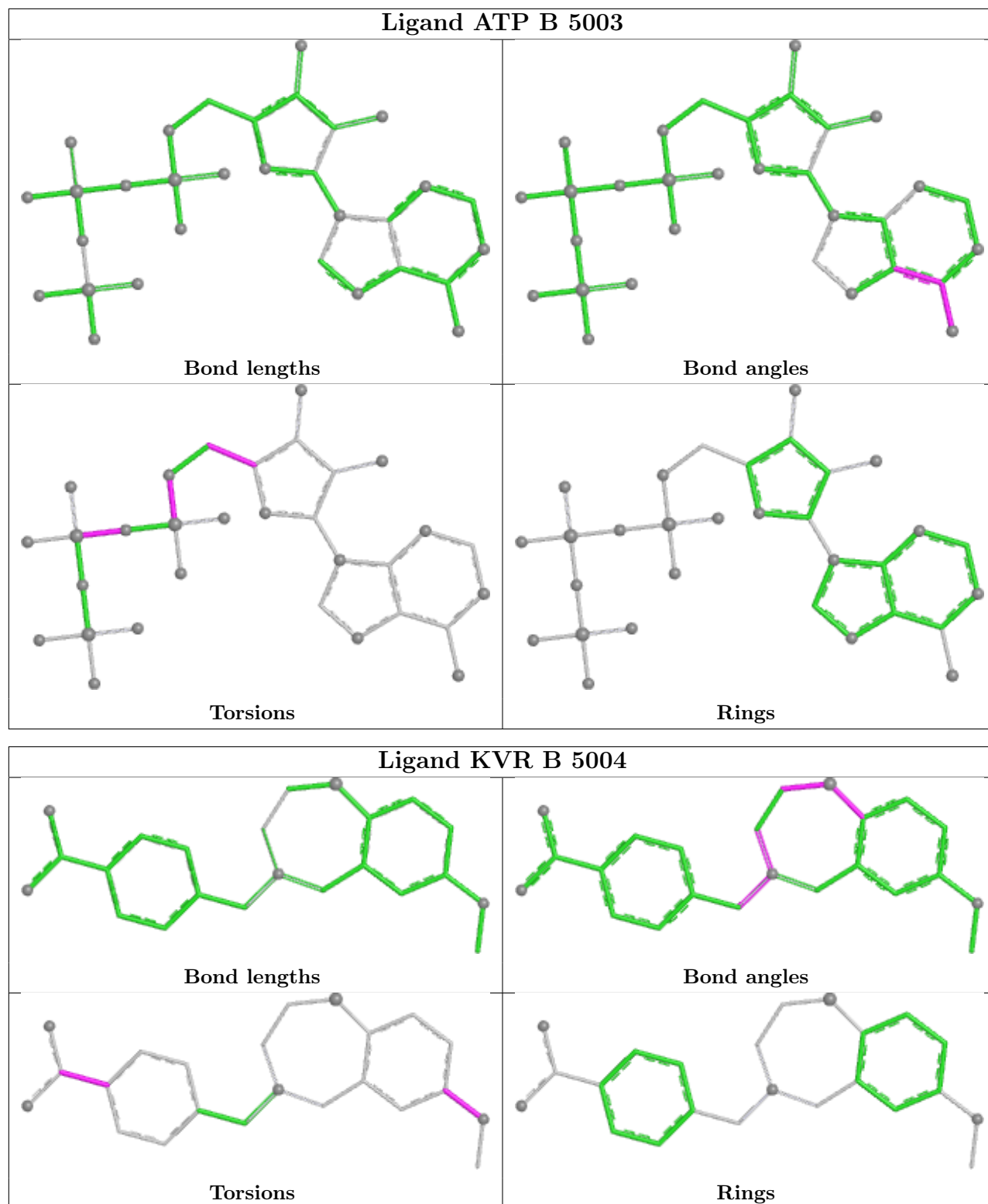
8 monomers are involved in 16 short contacts:

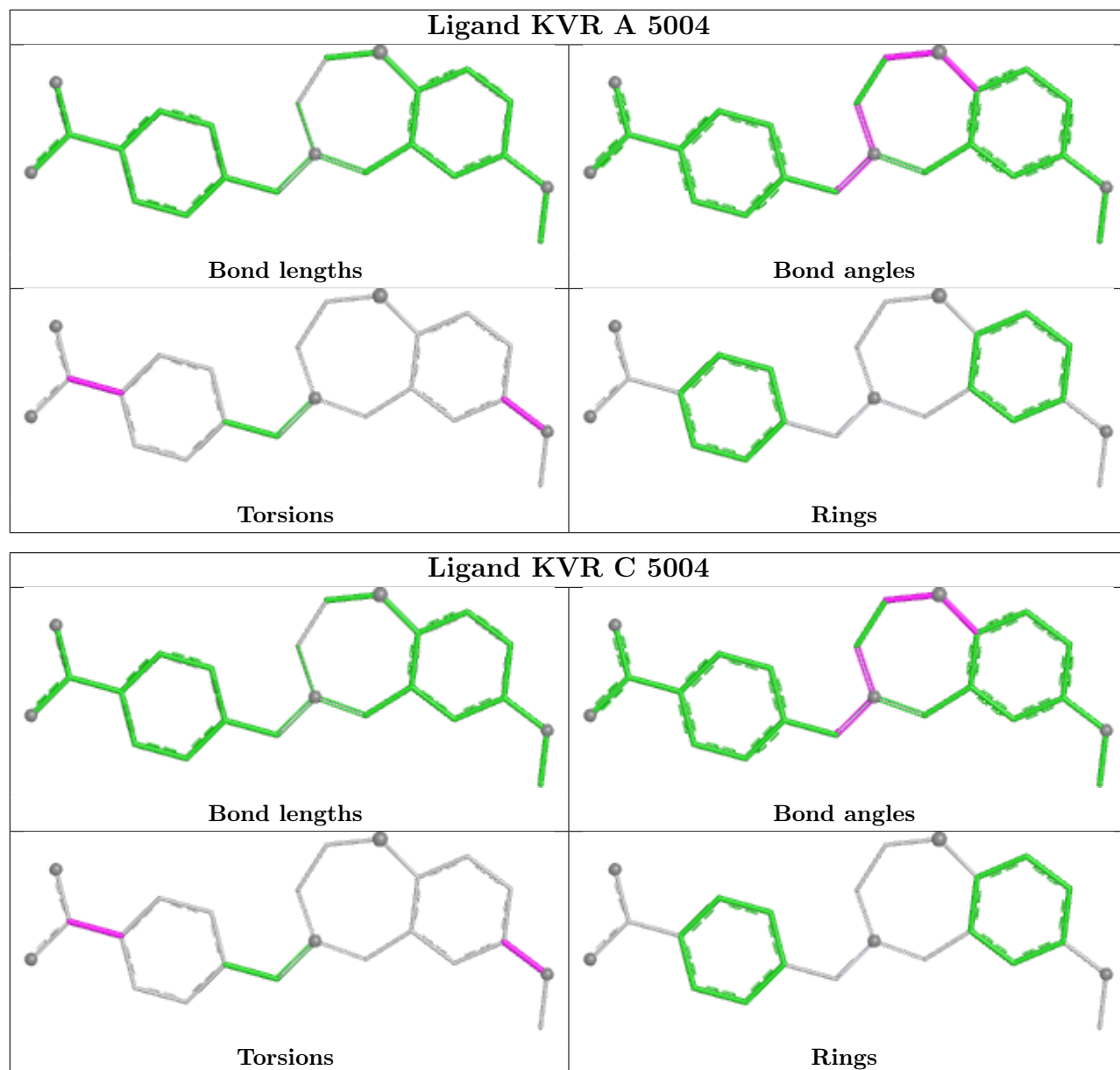
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	D	5004	KVR	2	0
4	B	5003	ATP	3	0
5	B	5004	KVR	2	0
5	A	5004	KVR	2	0
5	C	5004	KVR	2	0
4	C	5003	ATP	3	0
4	D	5003	ATP	3	0
4	A	5003	ATP	3	0

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

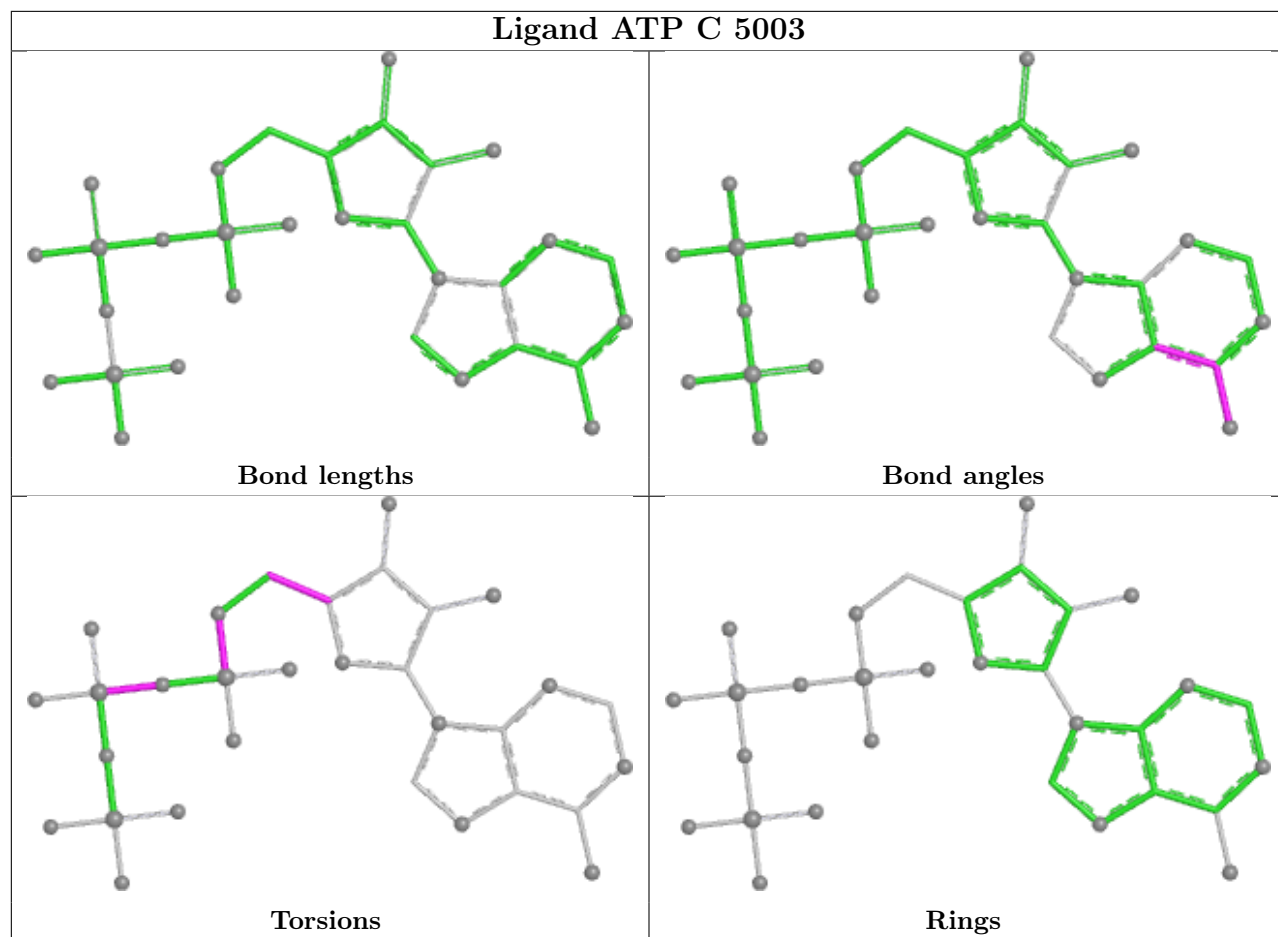


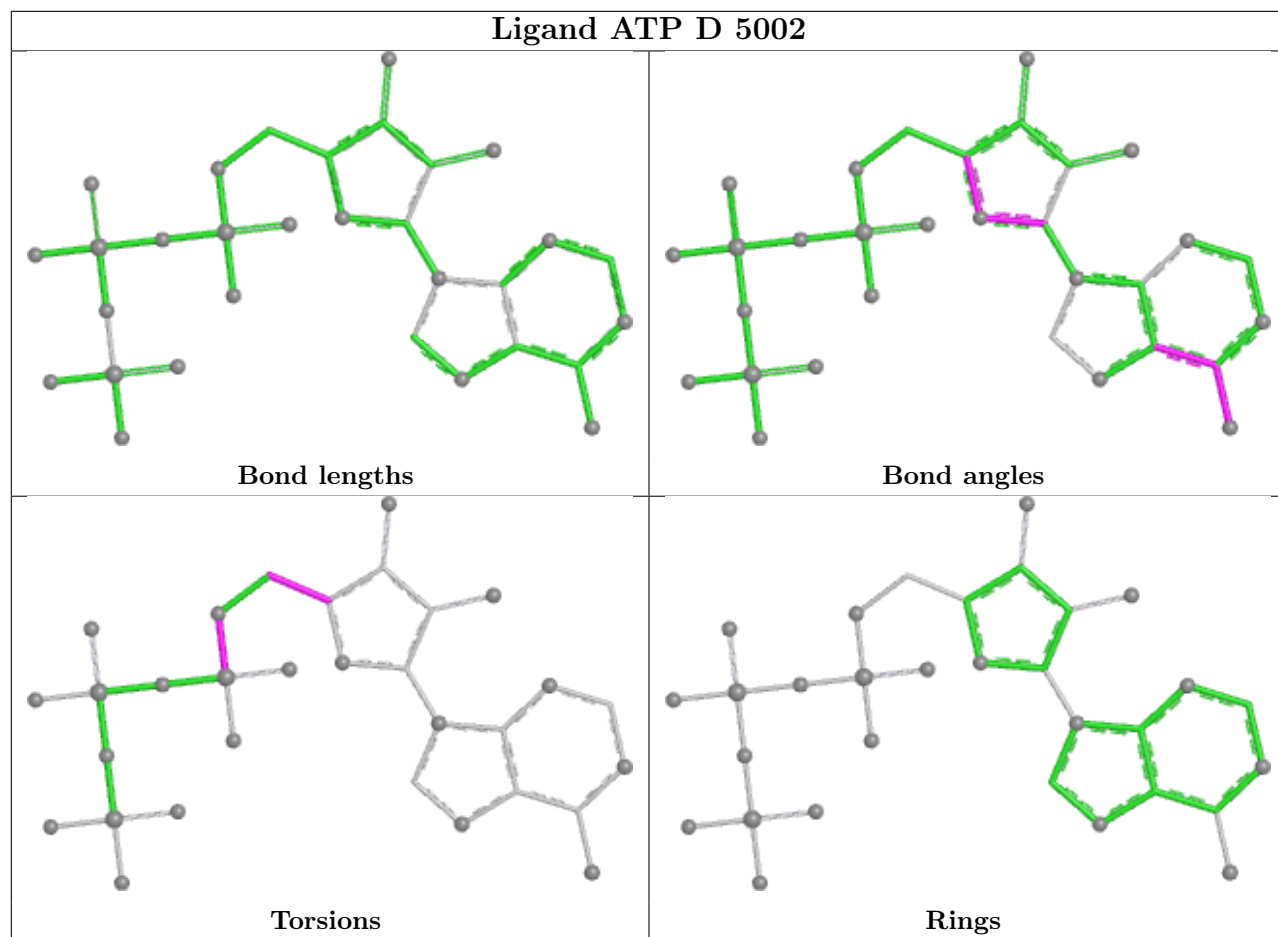


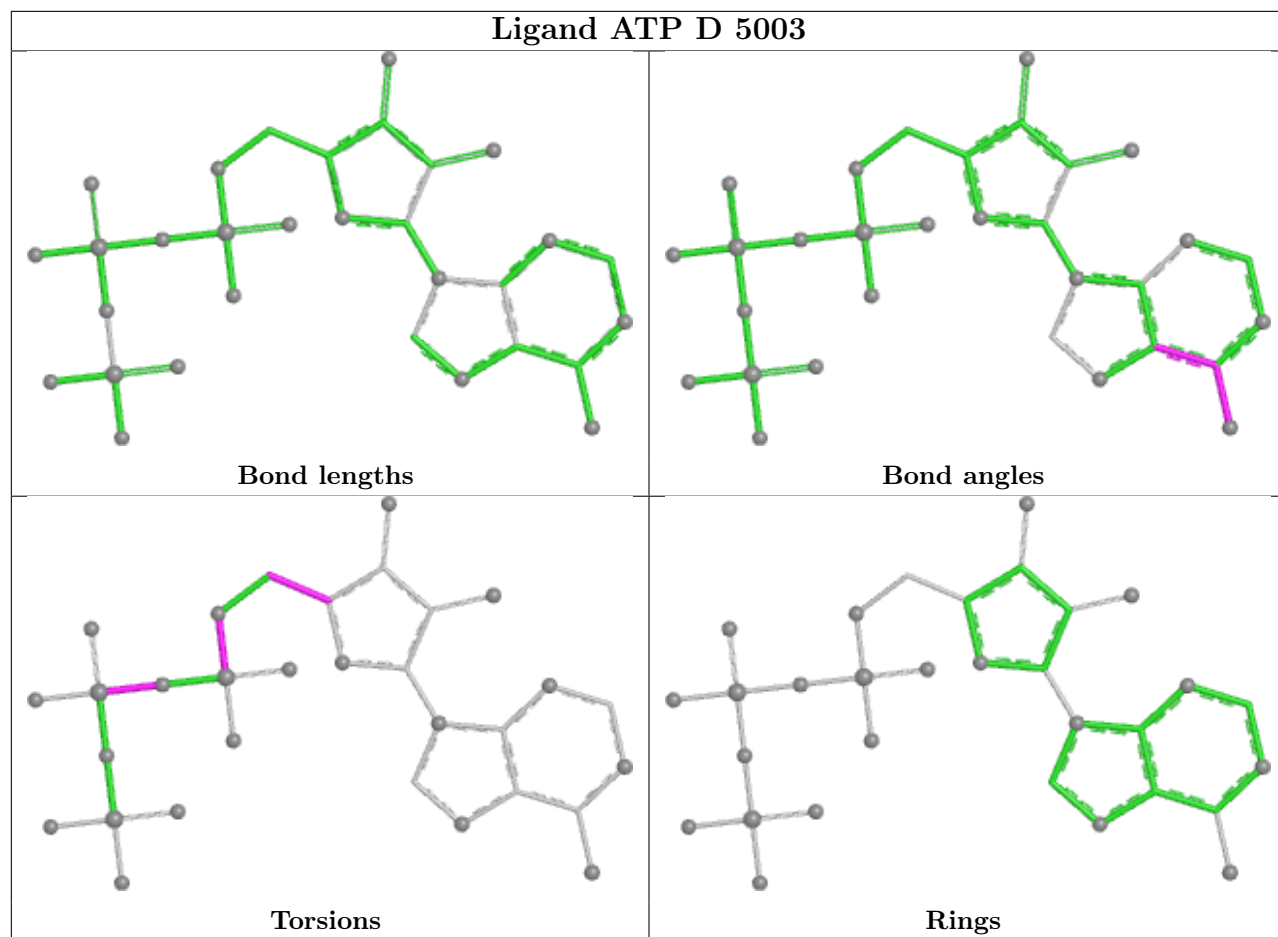


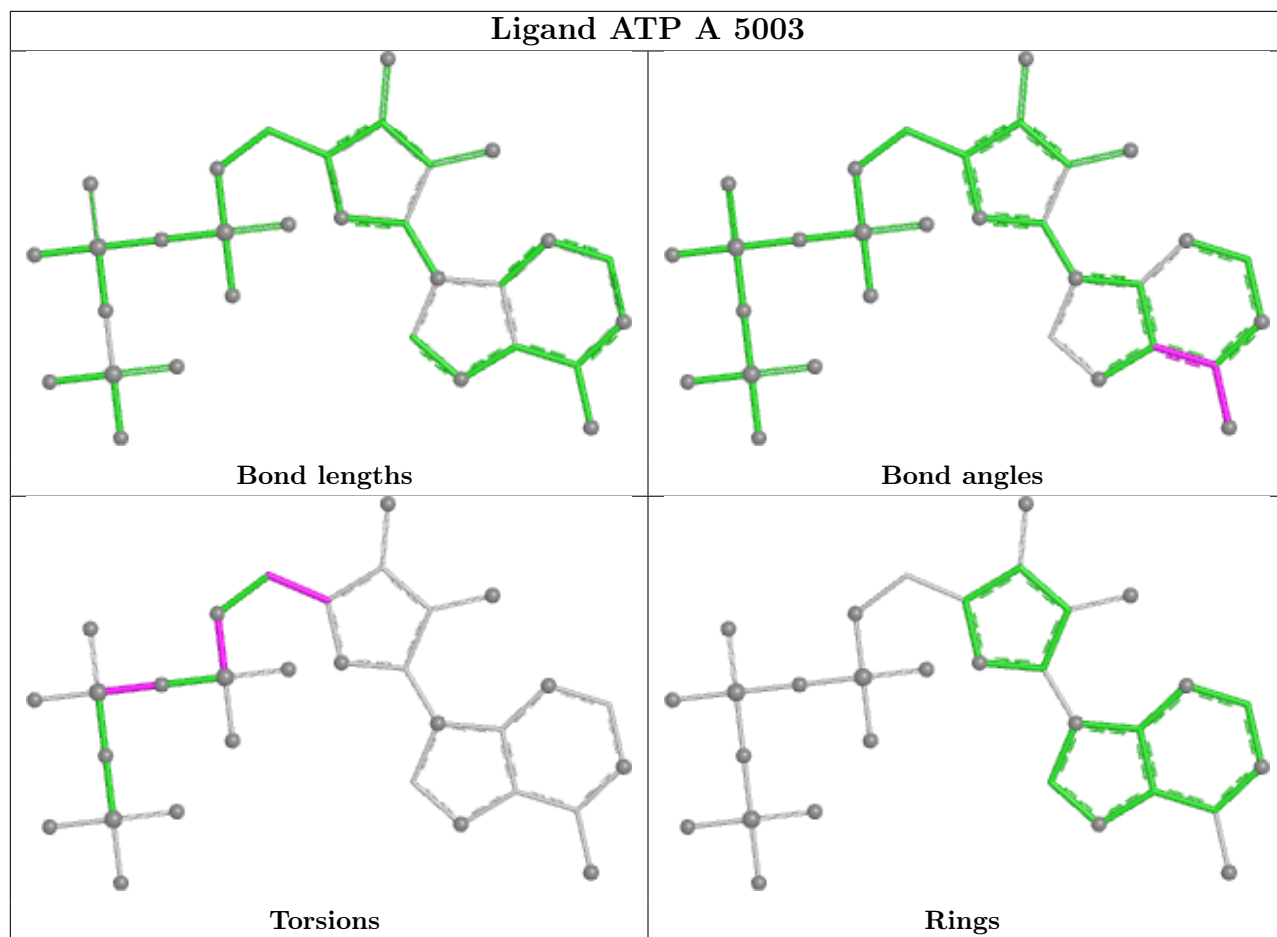


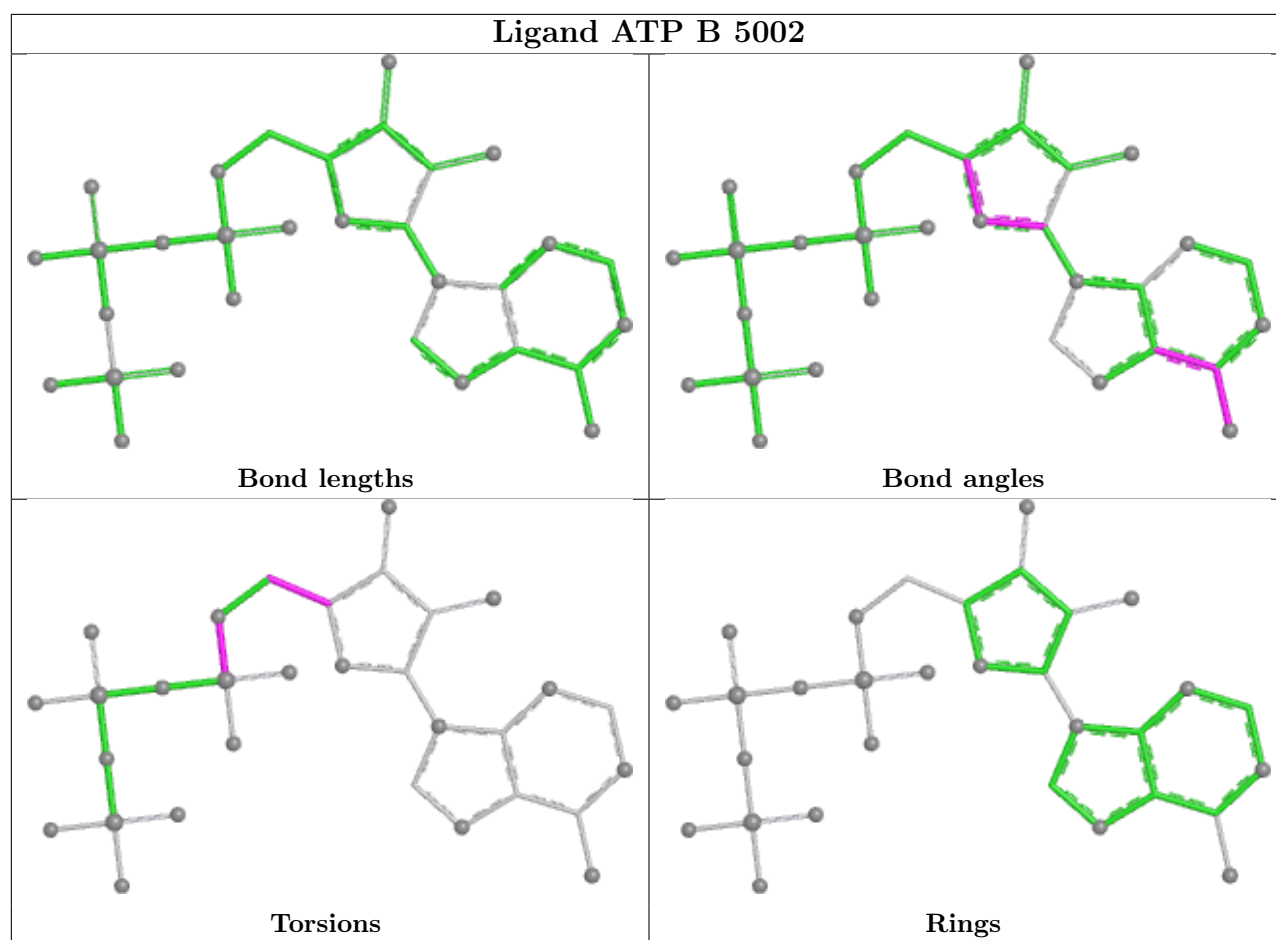












## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

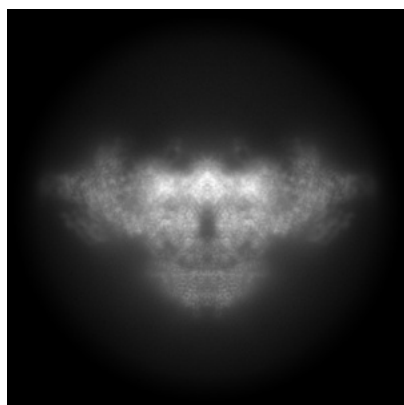
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-42761. These allow visual inspection of the internal detail of the map and identification of artifacts.

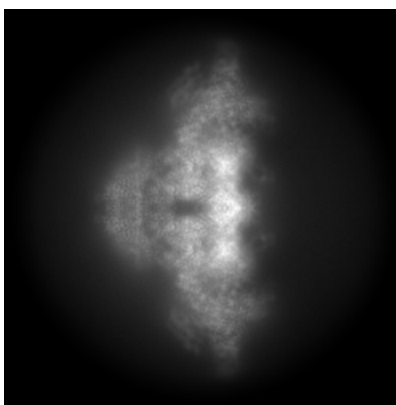
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

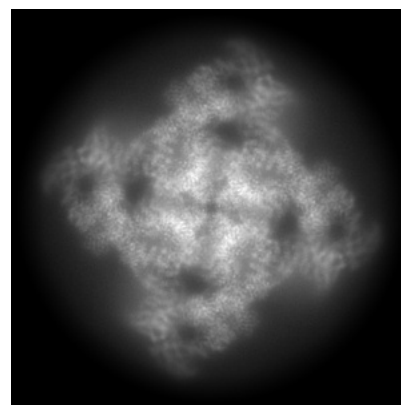
#### 6.1.1 Primary map



X



Y

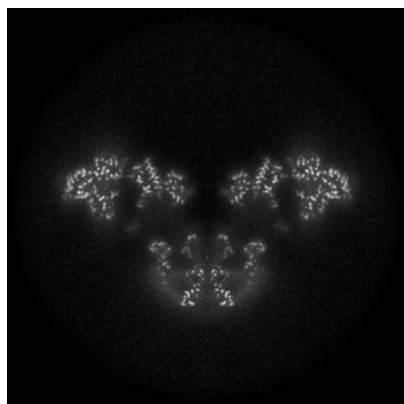


Z

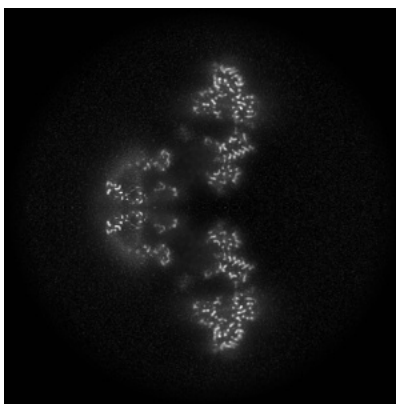
The images above show the map projected in three orthogonal directions.

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

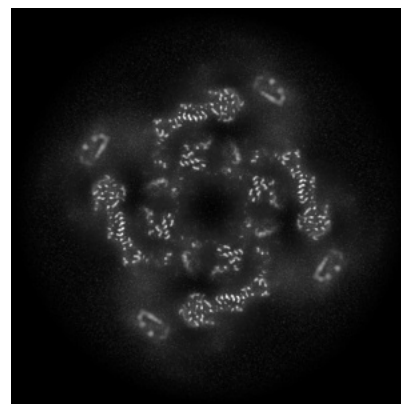
#### 6.2.1 Primary map



X Index: 256



Y Index: 256

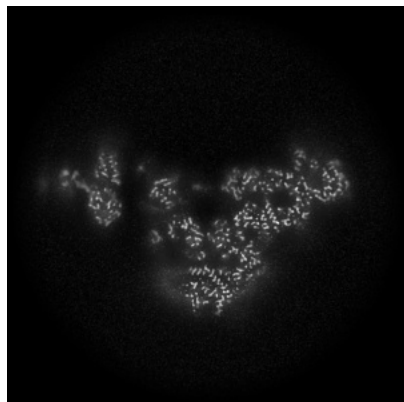


Z Index: 256

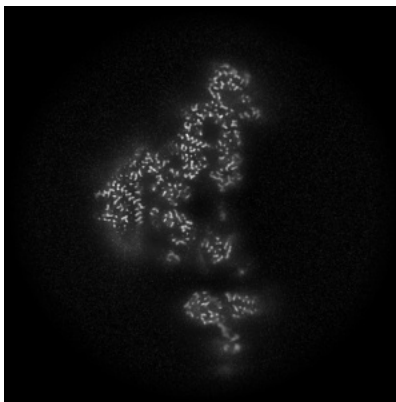
The images above show central slices of the map in three orthogonal directions.

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

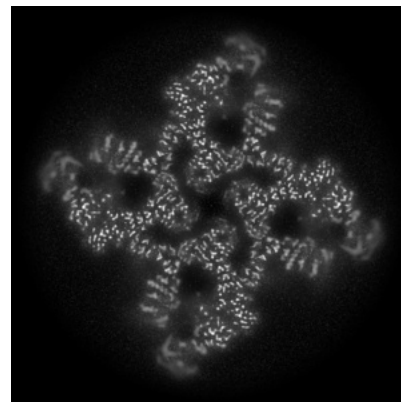
### 6.3.1 Primary map



X Index: 238



Y Index: 274



Z Index: 282

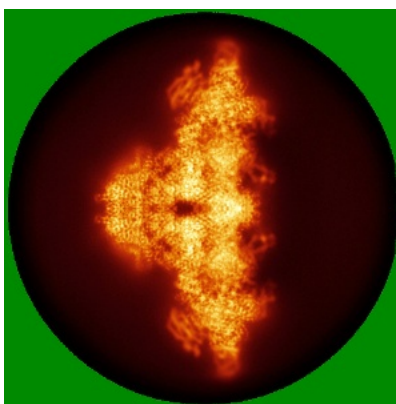
The images above show the largest variance slices of the map in three orthogonal directions.

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

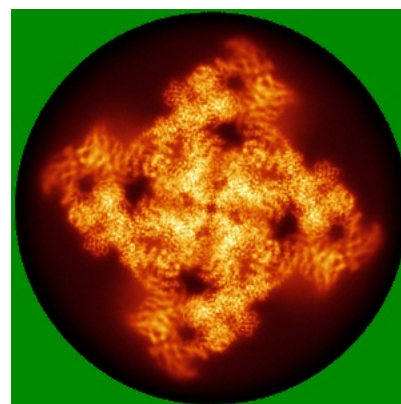
### 6.4.1 Primary map



X



Y

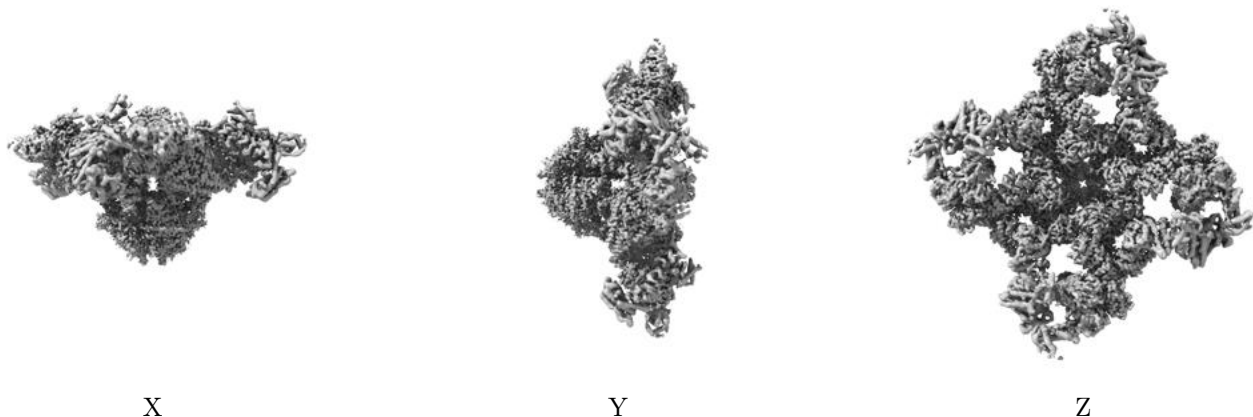


Z

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 0.16. 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](#)

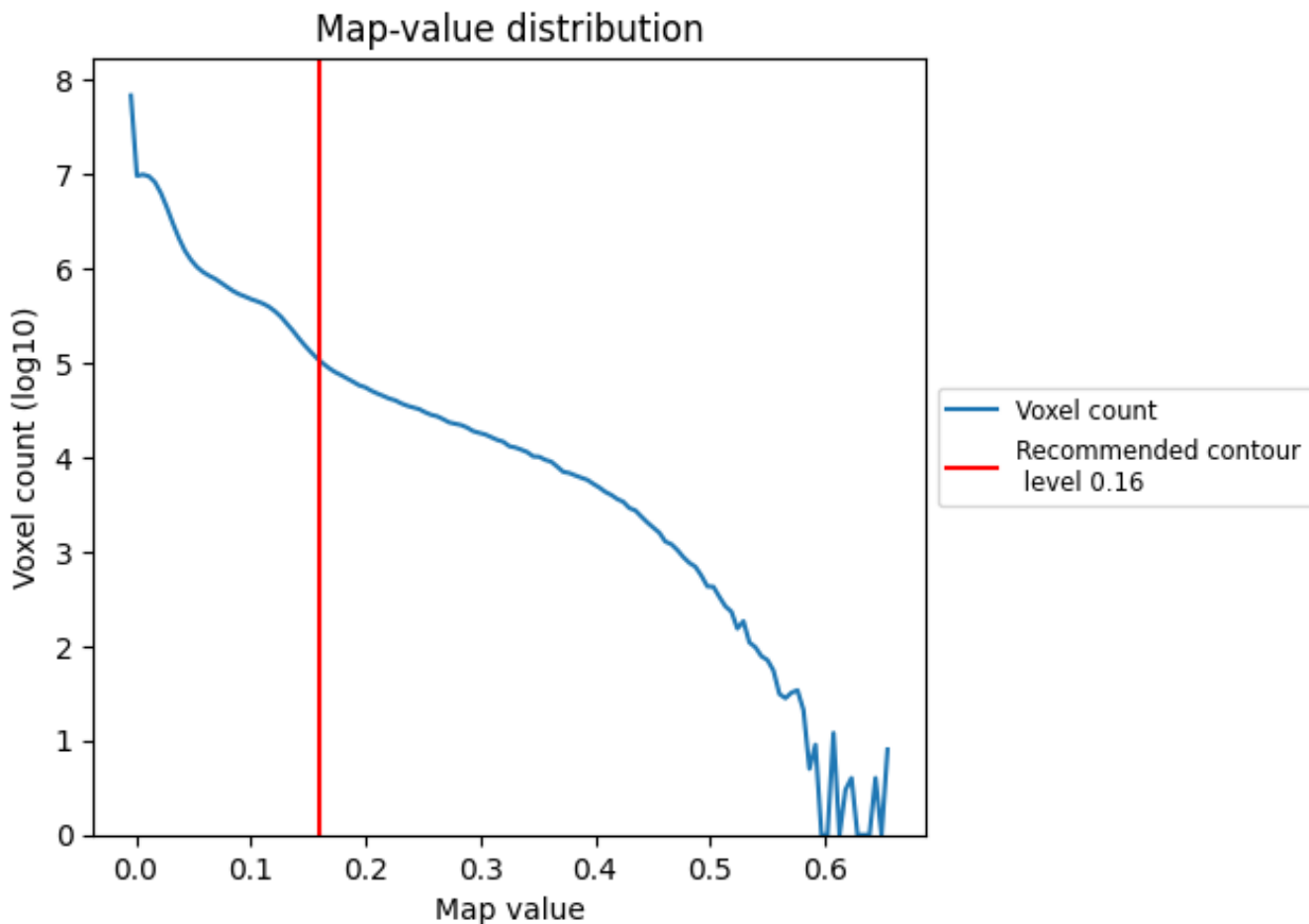
This section was not generated. No masks/segmentation were deposited.



## 7 Map analysis [i](#)

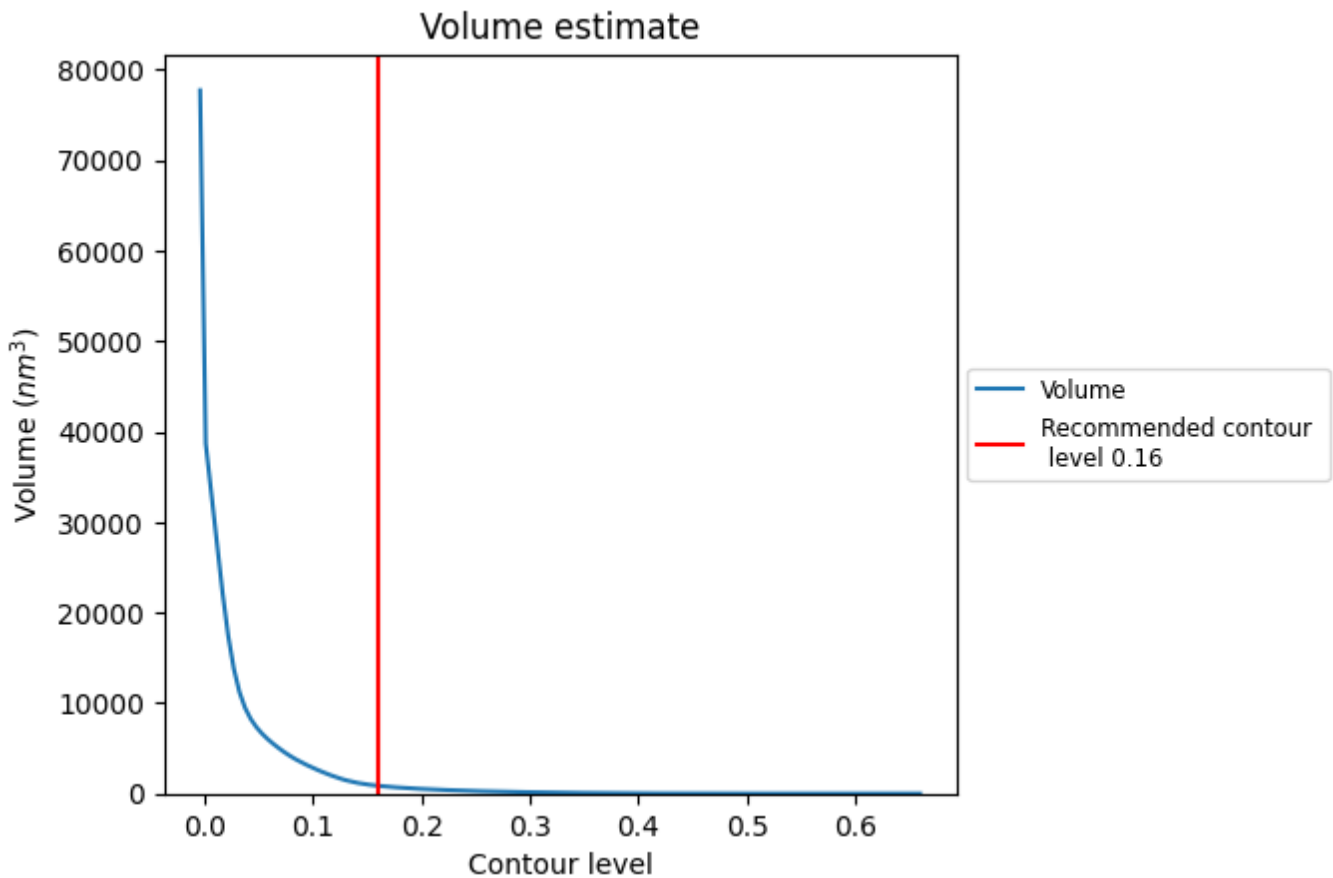
This section contains the results of statistical analysis of the map.

### 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.

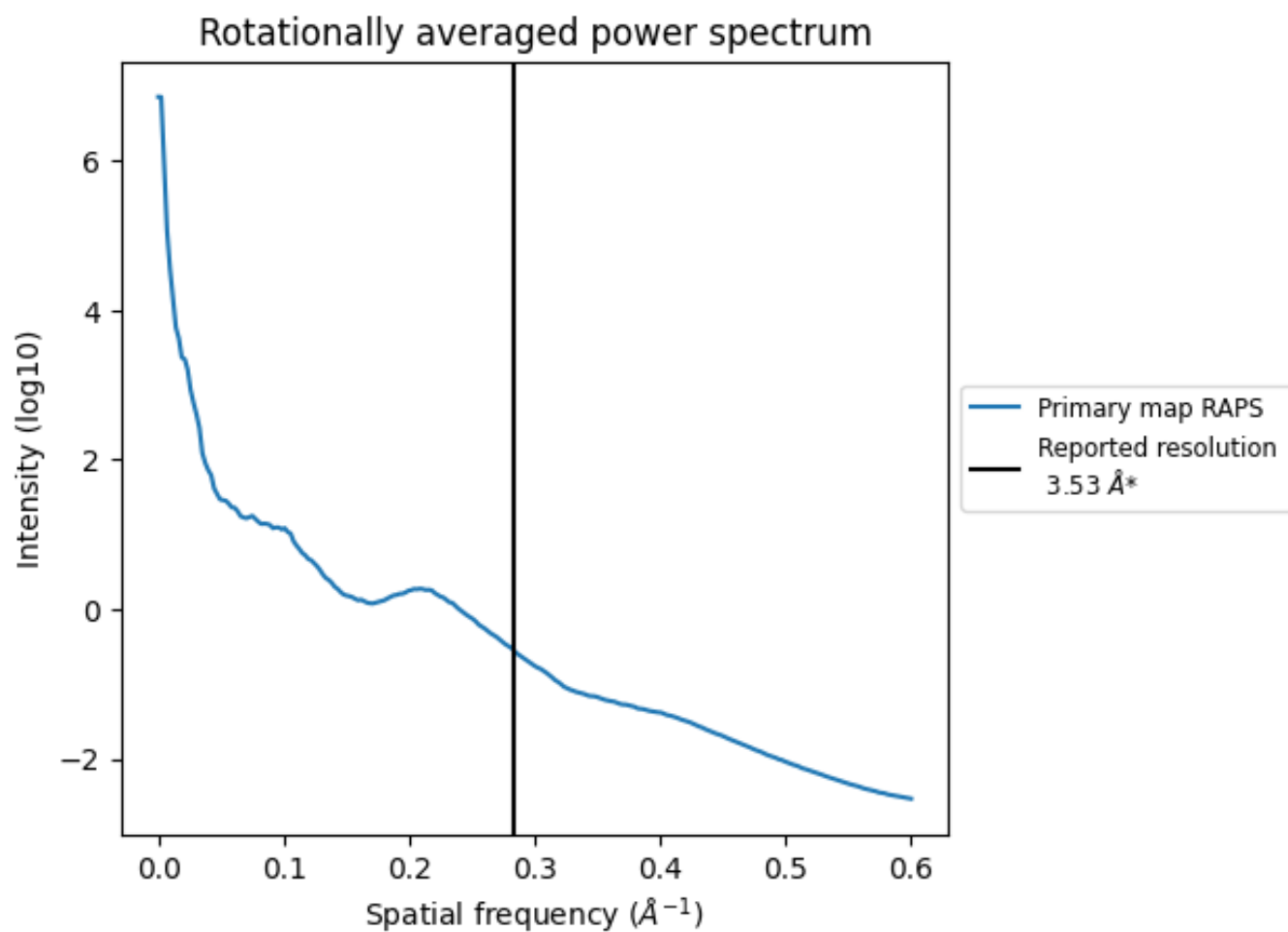
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 858 nm<sup>3</sup>; this corresponds to an approximate mass of 775 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 0.283 Å<sup>-1</sup>

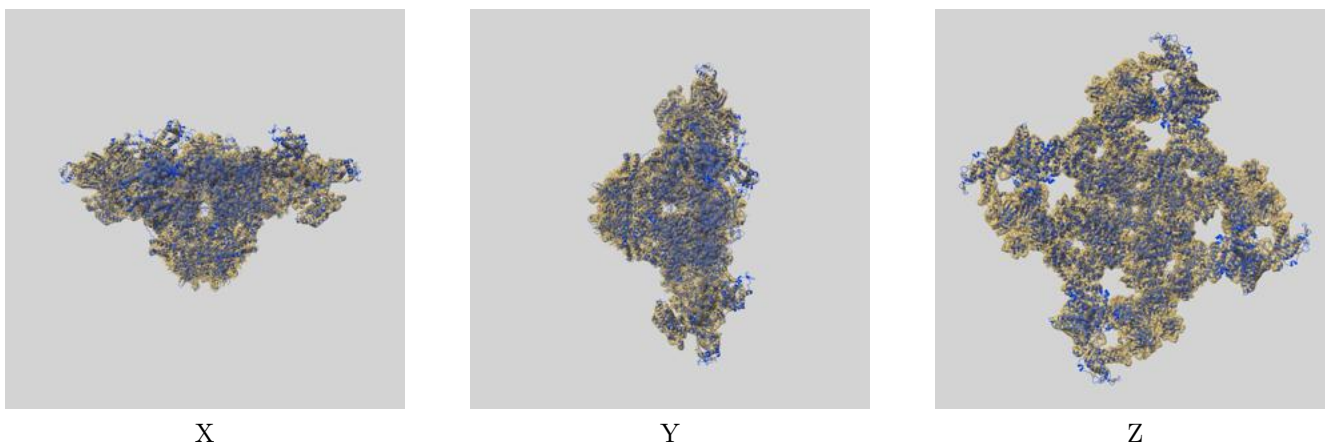
## 8 Fourier-Shell correlation

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

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

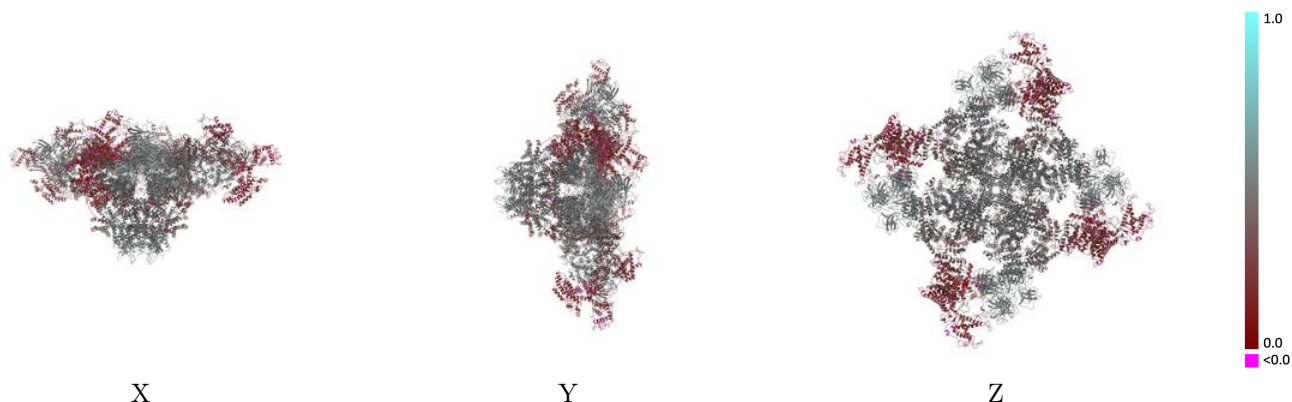
This section contains information regarding the fit between EMDB map EMD-42761 and PDB model 8UXE. Per-residue inclusion information can be found in section 3 on page 6.

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



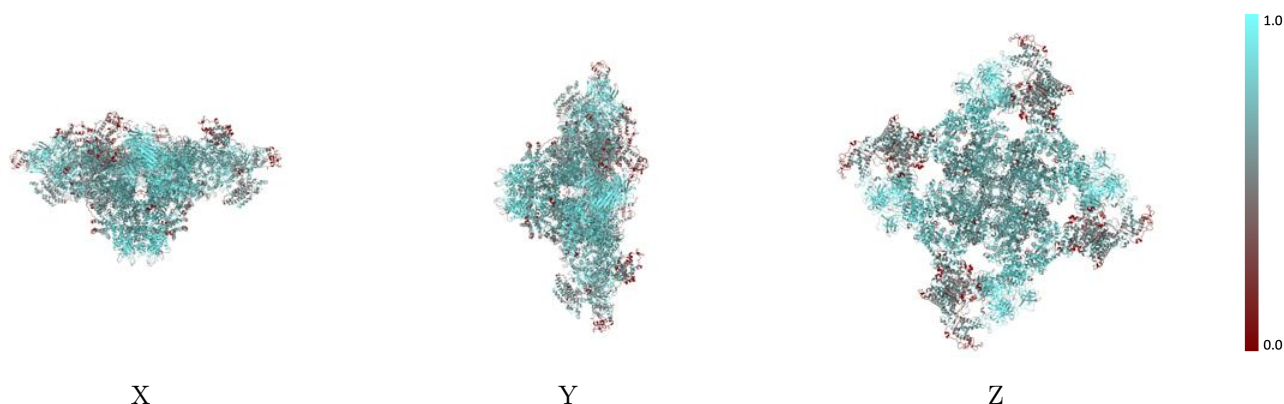
The images above show the 3D surface view of the map at the recommended contour level 0.16 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



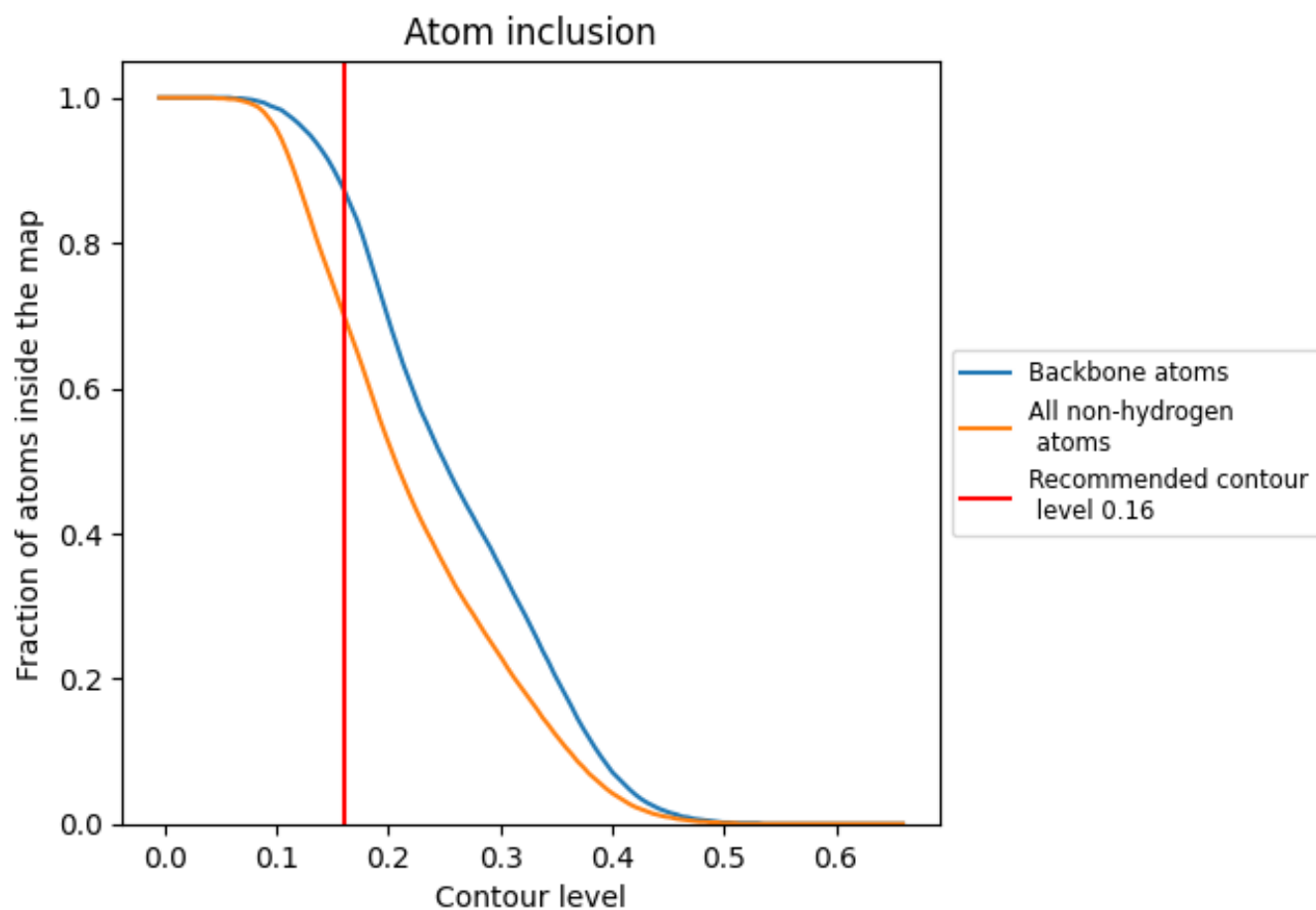
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.16).



















## 9.4 Atom inclusion [i](#)



At the recommended contour level, 88% of all backbone atoms, 70% 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 (0.16) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7020	 0.3910
A	 0.6990	 0.3870
B	 0.7000	 0.3900
C	 0.7000	 0.3900
D	 0.7000	 0.3900
E	 0.8190	 0.4810
F	 0.8090	 0.4800
G	 0.8180	 0.4790
H	 0.8230	 0.4800

