



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 03:03 PM UTC

PDB ID : 8UQ2 / pdb_00008uq2
EMDB ID : EMD-42458
Title : Structure of human RyR2-S2808D in the subprimed state
Authors : Miotto, M.C.; Marks, A.R.
Deposited on : 2023-10-23
Resolution : 2.98 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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

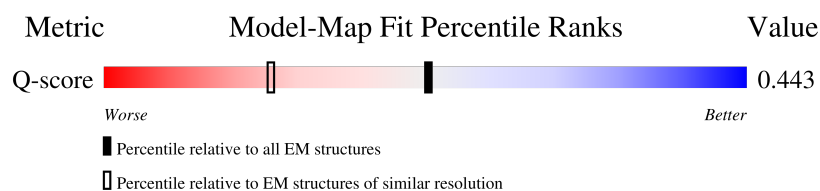
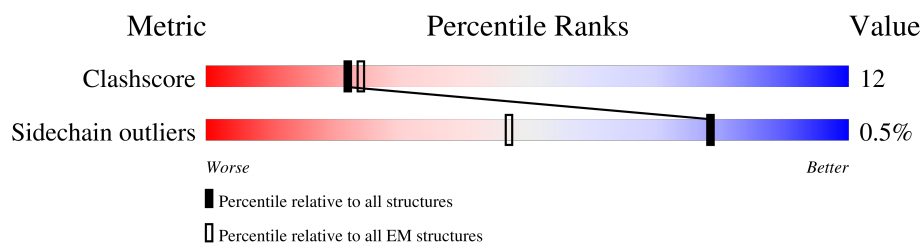
EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data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

1 Overall quality at a glance

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

The reported resolution of this entry is 2.98 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	13236 (2.48 - 3.48)

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

Mol	Chain	Length	Quality of chain
1	A	4967	9% 63% 22% 15%
1	B	4967	9% 63% 21% 15%
1	C	4967	9% 63% 21% 15%
1	D	4967	9% 63% 21% 15%
2	E	108	66% 32% ..

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Mol	Chain	Length	Quality of chain
2	F	108	 69%30%..
2	G	108	 66%32%..
2	H	108	 66%32%..

2 Entry composition [i](#)

There are 4 unique types of molecules in this entry. The entry contains 138608 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Ryanodine receptor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	4224	Total	C	N	O	S	2	0
			33771	21516	5745	6280	230		
1	B	4224	Total	C	N	O	S	2	0
			33771	21516	5745	6280	230		
1	C	4224	Total	C	N	O	S	2	0
			33771	21516	5745	6280	230		
1	D	4224	Total	C	N	O	S	2	0
			33771	21516	5745	6280	230		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	2808	ASP	SER	engineered mutation	UNP Q92736
B	2808	ASP	SER	engineered mutation	UNP Q92736
C	2808	ASP	SER	engineered mutation	UNP Q92736
D	2808	ASP	SER	engineered mutation	UNP Q92736

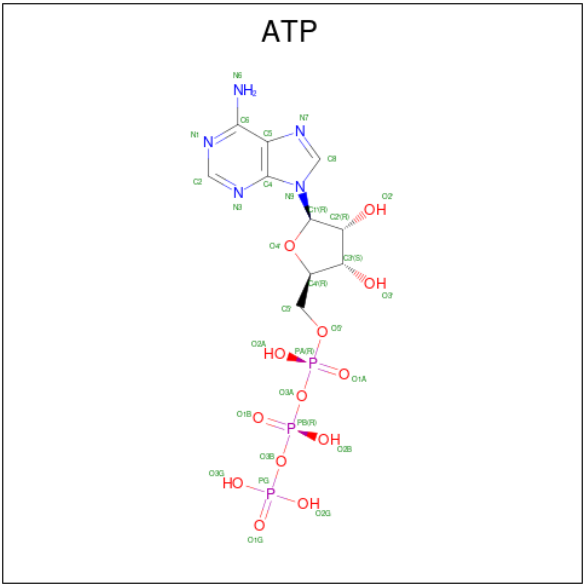
- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

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

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

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

- Molecule 4 is ADENOSINE-5'-TRIPHOSPHATE (CCD ID: ATP) (formula: C₁₀H₁₆N₅O₁₃P₃) (labeled as "Ligand of Interest" by depositor).



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

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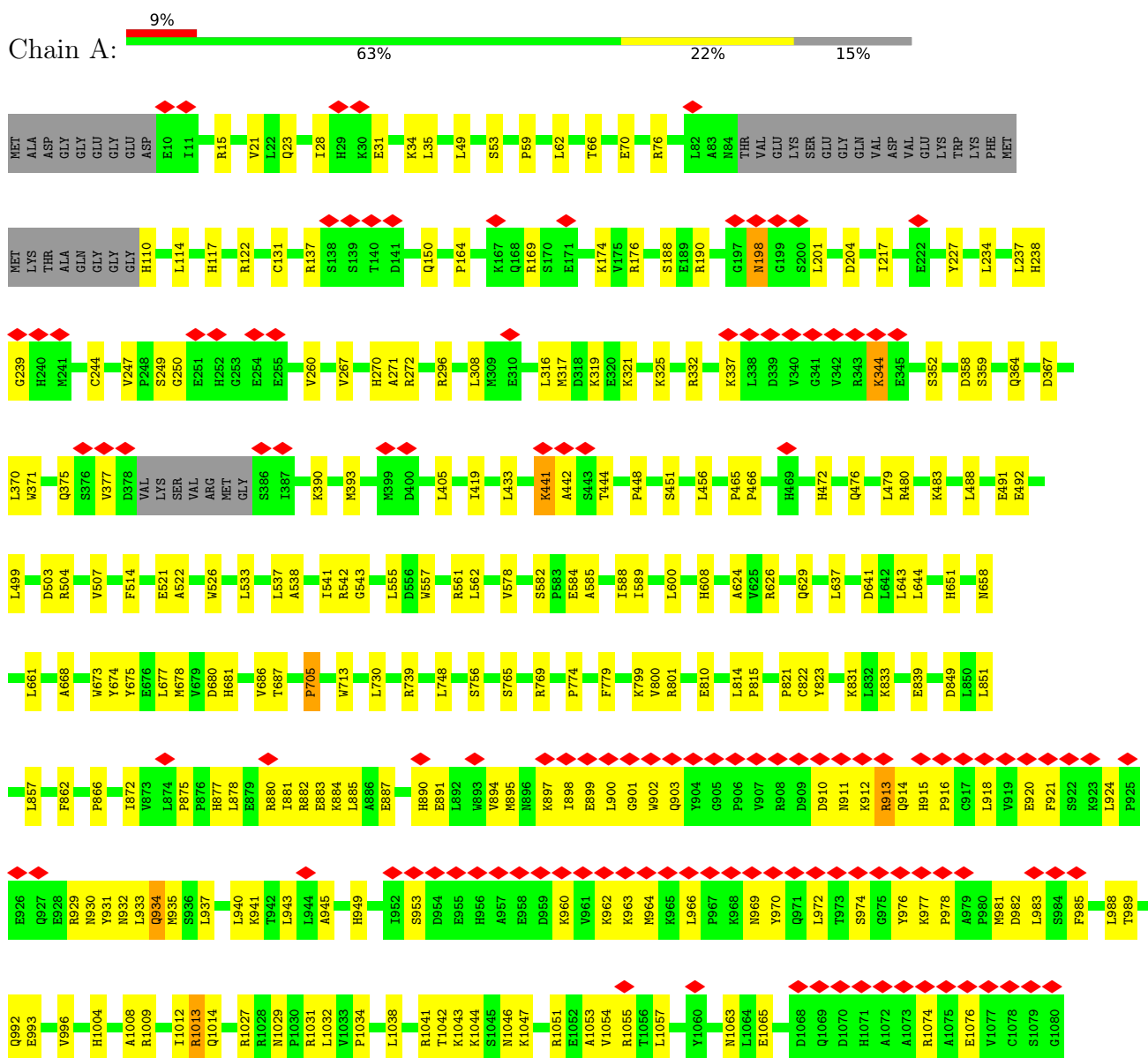
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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
4	D	1	31	10	5	13	3	0

3 Residue-property plots

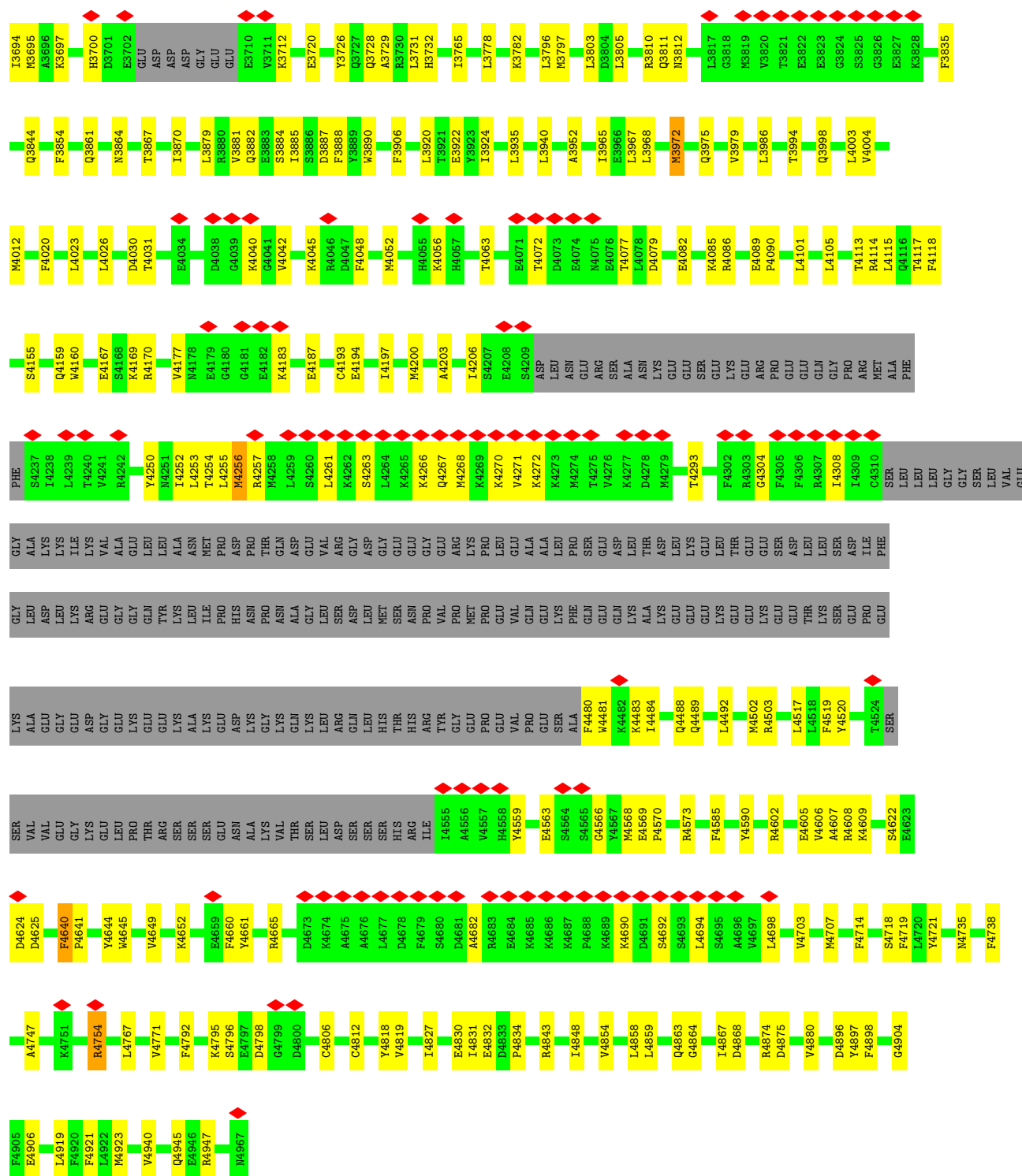
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

• Molecule 1: Ryanodine receptor 2









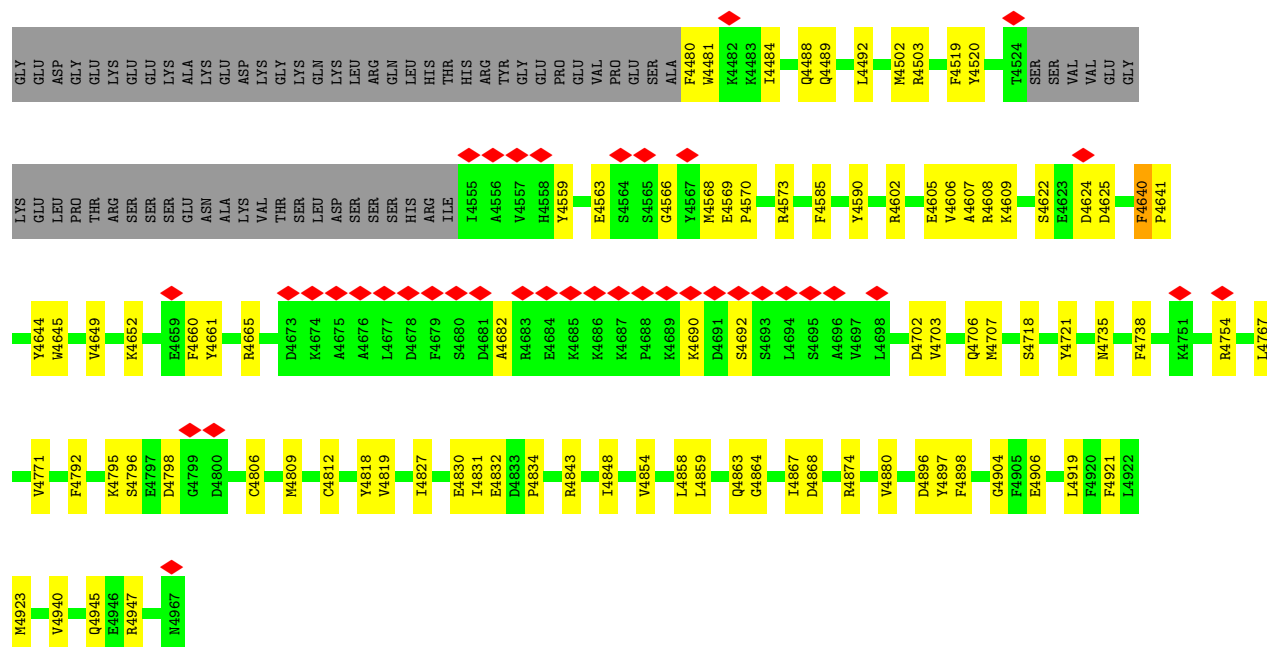
• Molecule 1: Ryanodine receptor 2



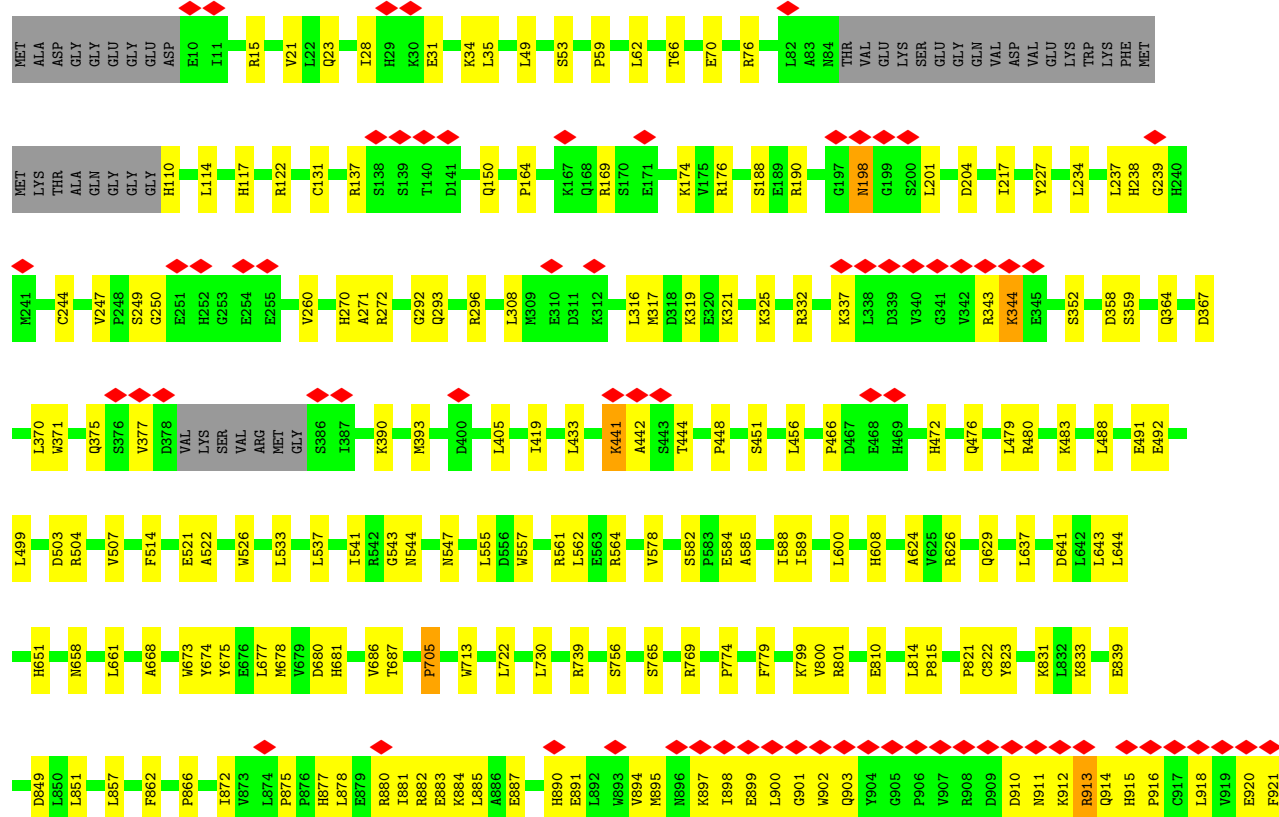


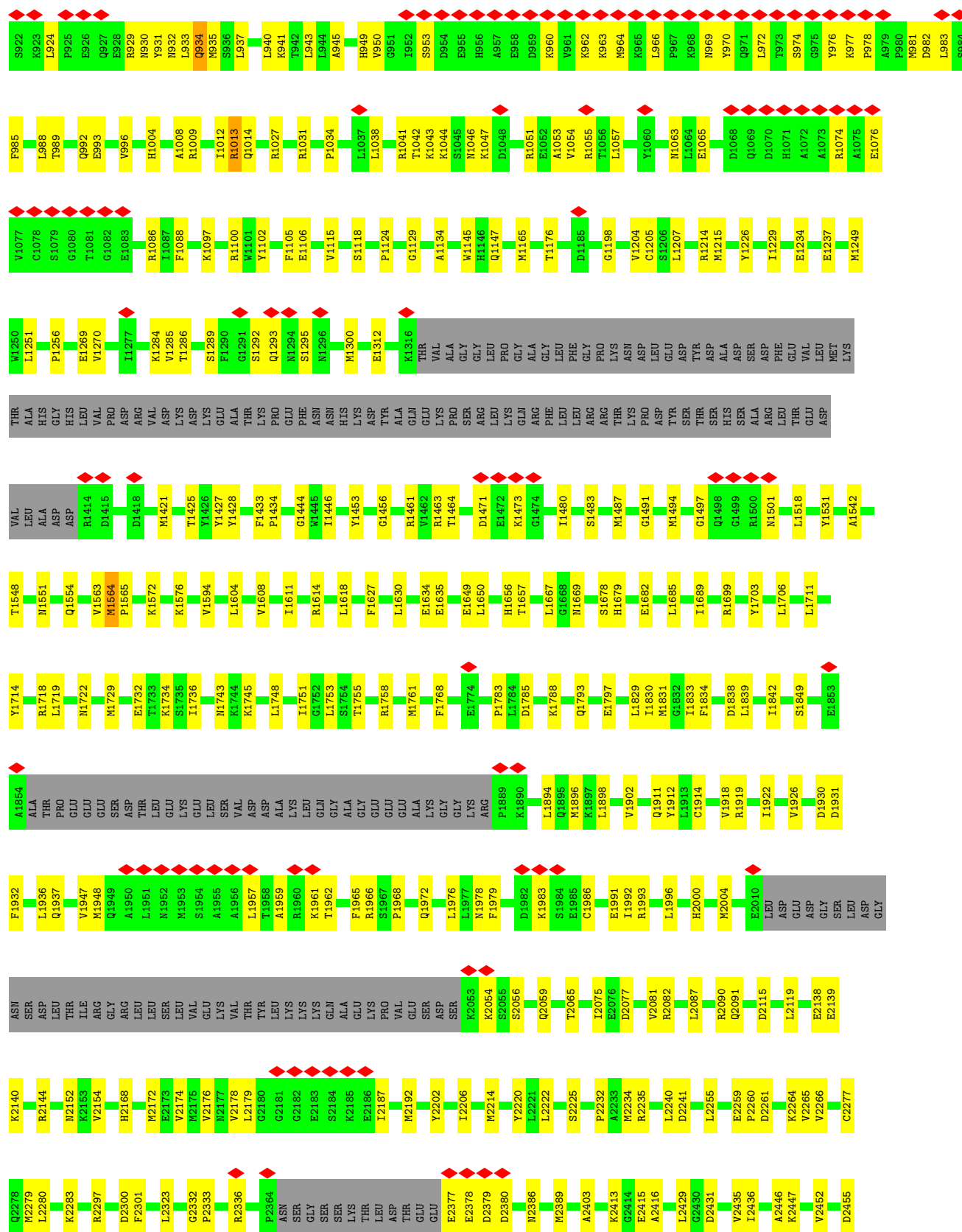
D3067	A996	I2917	W2852	W2785	L2711	G2693	Q2481	D2300	H2168	ARG	Q1949	GLU
L3068	S2997	E2918	A2853	G2786	L2717	N2629	F2482	F2301	M2172	GLY	A1950	SER
E3069	N2998	K2919	K2854	W2787	E2718	F2630	F2483	L2323	E2173	THR	L1951	ASP
K3070	K2999	K2920	K2855	K2788	Y2719	E2635	L2484	L2323	E2174	LEU	N1952	LEU
K3071	K3001	F2921	K2856	L2789	K2723	L2638	L2485	G2332	W2175	SER	M1953	GLU
E3002	E3002	Y2923	K2857	E2790	E2726	H2639	H2486	P2333	W2176	LEU	S1954	LYS
M3003	M3003	S2924	M2858	T2791	A2726	S2641	L2487	R2336	M2177	VAL	S1955	GLU
F2925	F2925	F2925	E2859	T2792	E2726	E2489	E2489	R2336	V2178	GLU	A1955	LEU
K3076	K3076	L2926	L2860	R2793	E2727	S2642	E2491	R2336	L2179	SER	L1956	SER
Q3077	S3006	Q2927	E2861	E2794	H2727	K2643	G2491	P2364	L2180	VAL	L1957	VAL
G3078	Q2928	Q2928	S2862	G2795	K2644	L2644	F2492	ASN	G2181	THR	T1958	ASP
Q3079	L2929	L2929	K2863	D2796	D2730	F2645	L2496	SER	G2182	TYR	A1959	ASP
F3080	Y2932	Y2932	G2864	A2799	K2731	D2650	L2502	GLY	E2183	LEU	R1960	ALA
T3081	A2936	A2936	G2865	L2800	W2732	D2651	L2502	SER	E2184	LYS	K1961	LYS
HIS	H2937	H2937	G2866	L2801	S2733	L2652	L2502	SER	S2184	LYS	T1962	LEU
THR	H2937	H2937	G2866	L2801	M2734	S2653	L2507	THR	K2185	GLN	F1966	GLY
ARG	Q2938	Q2938	S2867	L2802	K2736	Q2654	L2520	LEU	E2186	ALA	S1967	GLY
ASN	Y2939	Y2939	H2868	ARG	K2736	Q2654	L2520	ASP	I2187	GLU	P1968	GLU
G3015	R3016	R3016	F2869	THR	G2739	E2658	L2520	THR	M2192	VAL	Q1972	GLU
D3025	D3025	F2943	L2870	ARG	M2740	Q2659	L2525	GLU	Y2202	GLU	Q1972	GLU
A3026	A3026	D2944	ARG	ILE	L2741	E2660	L2525	GLU	I2206	SER	L1976	LYS
T3027	T3027	G2946	ASP	GLN	I2742	E2661	E2539	GLU	I2206	ASP	L1977	GLY
S3028	S3028	G2946	GLN	THR	Y2743	F2662	H2540	ASP	M2214	SER	L1977	GLY
I3029	I3029	S2947	L2876	L2876	E2744	K2663	L2548	THR	K2378	GLY	N1978	LYS
V3030	V3030	G2947	L2877	L2877	E2745	L2664	L2549	ASP	D2379	GLY	F1979	LYS
N3031	N3031	G2948	T2878	L2746	E2746	P2667	H2550	THR	K2380	ARG	D1982	ARG
C3032	C3032	G2949	T2878	L2746	E2746	P2667	H2550	THR	K2380	ARG	D1982	ARG
L3033	L3033	K2882	K2882	VAL	Y2747	G2674	Q2565	THR	N2386	ARG	D1982	ARG
H3034	H3034	A2883	A2883	VAL	S2748	A2675	R2566	THR	M2389	ARG	K1894	LYS
I3035	I3035	K2884	K2884	ASP	S2749	L2676	R2566	THR	M2389	ARG	K1894	LYS
L3036	L3036	R2885	R2885	ALA	S2750	P2677	D2567	THR	M2389	ARG	K1894	LYS
L3040	L3040	R2887	R2887	HIS	S2751	S2570	S2568	THR	A2403	ARG	K1896	LYS
R3043	R3043	E2887	E2887	VAL	K2752	E2570	S2568	THR	A2403	ARG	K1896	LYS
V3044	V3044	A2888	A2888	G2820	Y2753	E2682	S2683	THR	K2413	ARG	L1898	LYS
M3045	M3045	Q2890	Q2890	Y2821	Q2754	N2684	Y2685	THR	G2414	ARG	L1898	LYS
K3046	K3046	D2891	D2891	S2822	P2755	N2684	Y2685	THR	G2414	ARG	L1898	LYS
T3047	T3047	L2892	L2892	F2823	L2756	M2688	M2688	THR	E2415	ARG	V1902	LYS
G3049	G3049	K2894	K2894	R2824	M2757	M2688	M2688	THR	D2431	ARG	Q1911	LYS
L3050	L3050	F2895	F2895	A2825	K2758	M2688	M2688	THR	L2429	ARG	C1914	LYS
E3051	E3051	L2970	L2970	L2826	P2759	E2690	R2590	THR	G2430	ARG	V1918	LYS
S3052	S3052	N2899	N2899	D2827	P2759	K2691	L2592	THR	V2435	ARG	R1919	LYS
V3053	V3053	N2899	N2899	M2828	L2762	Q2692	V2593	THR	L2436	ARG	I1922	LYS
K3054	K3054	A2902	A2902	S2899	L2763	S2693	M2605	THR	A2446	ARG	V1926	LYS
L3057	L3057	V2903	V2903	V2831	K2766	S2694	P2606	THR	V2452	ARG	E2010	LYS
R3058	R3058	R2904	R2904	T2832	E2767	M2695	P2606	THR	V2452	ARG	E2010	LYS
A3059	A3059	G2906	G2906	L2833	K2768	M2695	P2606	THR	V2452	ARG	E2010	LYS
F3060	F3060	F2907	F2907	R2834	E2769	M2695	P2606	THR	V2452	ARG	E2010	LYS
L3061	L3061	K2908	K2908	R2835	L2770	E2698	C2617	THR	D2455	ARG	D1930	LYS
G3062	G3062	D2909	D2909	L2836	Y2771	G2699	K2618	THR	M2456	ARG	D1931	LYS
N3063	N3063	L2910	L2910	L2837	K2772	G2699	K2618	THR	S2457	ARG	F1932	LYS
A3064	A3064	L2911	L2911	M2840	Y2773	N2700	Y2620	THR	K2465	ARG	L1936	LYS
G3065	G3065	E2911	E2911	M2840	P2774	F2701	C2622	THR	V2469	ARG	Q1937	LYS
S3066	S3066	L2912	L2912	M2843	L2779	Q2704	V2627	THR	V2469	ARG	Q1937	LYS
L3101	L3101	L2913	L2913	M2844	K2780	P2705	V2627	THR	V2469	ARG	Q1937	LYS
M3104	M3104	L2914	L2914	M2845	M2781	Q2705	V2627	THR	V2469	ARG	Q1937	LYS
L3105	L3105	L2915	L2915	E2846	M2782	Q2705	V2627	THR	V2469	ARG	Q1937	LYS
F3109	F3109	L2916	L2916	E2846	M2782	Q2705	V2627	THR	V2469	ARG	Q1937	LYS
G3113	G3113	V2966	V2966	L2963	L2779	Q2704	V2627	THR	V2469	ARG	Q1937	LYS
L3114	L3114	L2968	L2968	S2984	L2779	Q2704	V2627	THR	V2469	ARG	Q1937	LYS
G3115	G3115	P2969	P2969	A2985	L2779	Q2704	V2627	THR	V2469	ARG	Q1937	LYS
L3116	L3116	L2970	L2970	L2826	L2779	Q2704	V2627	THR	V2469	ARG	Q1937	LYS
E3117	E3117	L2971	L2971	D2827	L2762	Q2704	V2627	THR	V2469	ARG	Q1937	LYS
S3118	S3118	N2978	N2978	M2828	L2763	Q2704	V2627	THR	V2469	ARG	Q1937	LYS
E3119	E3119	H2978	H2978	S2899	L2763	Q2704	V2627	THR	V2469	ARG	Q1937	LYS
D3120	D3120	L2978	L2978	V2831	K2766	S2694	P2606	THR	V2469	ARG	Q1937	LYS
L3121	L3121	L2983	L2983	T2832	E2767	M2695	P2606	THR	V2469	ARG	Q1937	LYS
R3122	R3122	S2984	S2984	L2833	K2768	M2695	P2606	THR	V2469	ARG	Q1937	LYS
L3123	L3123	A2985	A2985	R2834	E2769	M2695	P2606	THR	V2469	ARG	Q1937	LYS
E3124	E3124	A2986	A2986	R2835	L2770	E2698	C2617	THR	D2455	ARG	D1930	LYS
D3125	D3125	L3061	L3061	L2836	Y2771	G2699	K2618	THR	M2456	ARG	D1931	LYS
V3126	V3126	G3062	G3062	L2837	K2772	N2700	Y2620	THR	S2457	ARG	F1932	LYS
Q3127	Q3127	R2968	R2968	L2837	Y2773	N2700	Y2620	THR	K2465	ARG	L1936	LYS
L3128	L3128	P2989	P2989	M2840	P2774	F2701	C2622	THR	V2469	ARG	Q1937	LYS
Q3129	Q3129	L2990	L2990	M2843	L2779	Q2704	V2627	THR	V2469	ARG	Q1937	LYS
A3065	A3065	C2991	C2991	M2844	K2780	P2705	V2627	THR	V2469	ARG	Q1937	LYS
S3066	S3066	L2992	L2992	M2845	M2781	Q2705	V2627	THR	V2469	ARG	Q1937	LYS
L3131	L3131	S2992	S2992	E2846	M2782	Q2705	V2627	THR	V2469	ARG	Q1937	LYS
R3132	R3132	G2993	G2993	E2846	M2782	Q2705	V2627	THR	V2469	ARG	Q1937	LYS
L3133	L3133	H2995	H2995	E2846	M2782	Q2705	V2627	THR	V2469	ARG	Q1937	LYS

L3134	E3216	L3288	ALA	ASN	LYS	TYR	LEU	H3700	Q3861	F4020	S4155	L4239	LYS
E3217	E3218	G3289	GLU	PHE	ARG	LYS	SER	D3701	N3864	L4023	Q4159	T4240	ILE
L3137	L3291	D3291	LEU	LYS	ARG	LEU	GLN	E3702	T3867	L4026	W4160	W4241	GLU
Y3138	G3225	E3292	ILE	GLU	PRO	ASN	LYS	GLU	T3870	D4030	E4167	R4242	ALA
A3139	I3226	G3293	LEU	GLN	ASP	ARG	ARG	ASP	L3879	T4031	S4168	W4250	GLY
Y3147	R3227	W3295	ASP	GLN	ASP	THR	ALA	ASP	V3880	P4034	K4169	Y4251	LEU
Y3228	Y3228	W3295	GLU	ASN	ASP	THR	V3599	GLY	V3881	D4036	R4170	I4252	ALA
M3231	P3232	K3297	PHE	PHE	ASP	ASP	V3600	GLU	E3882	P4035	V4177	I4253	ASN
K3151	K3233	K3298	THR	THR	THR	THR	A3601	GLU	E3883	D4036	G4181	T4254	ILE
R3152	H3284	R3298	VAL	VAL	CYS	ALA	C3602	E3710	S3884	G4039	E4182	L4255	PRO
G3156	M3235	V3301	GLN	ASN	ALA	PRO	F3603	V3711	I3885	M4041	K4183	L4256	ASP
L3159	E3236	G3304	LEU	GLY	GLY	PRO	R3604	K3712	D3886	V4042	E4187	M4256	ASN
L3159	V3237	G3304	ARG	ILE	ASP	GLU	M3605	E3720	S3887	K4040	K4187	R4257	PRO
I3238	I3238	L3305	ASP	ASN	GLN	THR	A3606	Y3726	D3887	V4042	E4193	M4258	THR
L3239	P3240	I3306	ALA	MET	LEU	VAL	P3607	K3727	F3888	K4045	C4193	L4259	GLN
P3240	M3241	I3307	PHE	SER	ILE	GLU	P3608	Q3728	W3890	R4046	E4194	S4260	ALA
M3241	Y3245	K3308	THR	PHE	ALA	ARG	Y3609	A3729	D3896	D4047	A4197	L4261	VAL
Y3245	S3247	K3309	LEU	THR	ALA	ASP	Q3622	L3731	F3906	F4048	T4197	L4262	ARG
S3247	R3248	Q3312	ILE	THR	ASN	ILE	K3626	H3732	L3920	M4052	M4200	L4263	GLY
R3248	W3249	L3314	ARG	THR	ARG	ALA	E3637	I3765	E3921	H4055	A4203	Q4267	GLY
W3249	W3250	L3315	LYS	LYS	PHE	ASN	E3642	L3778	E3922	K4056	L4206	Q4267	GLU
E3251	E3251	K3316	ASP	SER	LEU	VAL	K3646	K3782	Y3923	H4057	I4207	M4268	ARG
E3255	E3255	F3319	THR	MET	LYS	PHE	E3650	L3796	L3935	T4063	S4207	K4269	LYS
L3174	E3256	P3320	LEU	ASN	THR	LEU	E3651	K3797	L3940	E4071	E4208	V4270	PRO
L3175	E3259	L3321	ALA	LYS	GLU	GLU	P3652	L3803	A3952	T4072	S4209	K4271	GLU
L3176	R3260	L3322	TRP	ALA	ASP	GLN	E3653	R3804	L3965	D4073	LEU	K4272	ALA
K3177	A3261	G3325	LEU	VAL	VAL	LYS	E3654	L3805	E3966	F4074	ASN	T4273	LYS
H3178	E3262	L3326	GLY	ASP	ARG	ARG	D3655	R3810	L3967	M4075	GLU	M4274	PRO
N3179	M3263	K3327	PRO	GLN	ILE	VAL	E3656	N3811	L3968	T4077	LYS	T4275	SER
Y3184	C3264	L3327	ASN	GLU	ILE	GLY	G3657	N3812	K3969	L4078	GLU	V4276	GLU
K3187	C3264	T3266	GLY	ARG	THR	THR	G3657	L3817	M3972	D4079	SER	T4293	LYS
S3188	T3266	L3267	ALA	LYS	LYS	LYS	G3658	G3818	Q3975	E4082	GLU	F4302	LEU
S3189	L3268	A3267	ALA	LYS	ILE	CYS	K3659	K3819	Q3976	K4085	GLU	R4303	LEU
R3190	N3269	L3268	GLU	ARG	LYS	VAL	R3660	V3820	V3979	R4086	ARG	F4304	GLU
E3191	N3270	P3332	PHE	GLY	GLN	HIS	V3661	T3821	L3986	E4089	PRO	F4305	SER
R3192	E3271	V3333	ARG	ASP	LYS	VAL	L3664	E3822	L3986	P4090	GLU	F4306	ASP
A3193	H3272	S3335	MET	LYS	LYS	PRO	H3665	E3823	T3984	L4101	GLY	R4307	LEU
A3194	M3273	E3336	VAL	THR	THR	GLN	Q3666	S3825	Q3998	L4105	ARG	I4308	SER
L3197	L3276	E3337	ALA	SER	GLU	ARG	L3667	E3826	L4003	T4113	MET	C4310	ILE
P3198	G3277	HIS	GLU	MET	ASP	THR	T3677	K3828	V4004	R4114	PHE	SER	PHE
T3199	T3276	LEU	VAL	THR	ALA	ILE	E3678	F3835	M4012	L4115	ALA	LEU	LEU
N3200	I3280	LYS	PHE	ILE	ALA	LYS	K3679	Q3844	G4116	T4117	GLY	GLY	GLY
N3203	L3281	ALA	THR	THR	ALA	VAL	L3687	F3854	F4118			SER	LEU
V3204	K3282	GLU	VAL	ILE	ALA	TRP	T3677					VAL	VAL
N3207	I3284	ARG	SER	VAL	ALA	GLN	E3678					GLY	GLY
L3211	Y3285	ASP	ALA	ALA	LEU	HIS	K3679					ALA	ALA
E3212	N3286	MET	ALA	ALA	LEU	LEU						LYS	LYS
K3213	N3287	SER	ALA	ALA	LEU	LEU							
L3214		GLU	ALA	ALA	LEU	LEU							
K3215			ALA	ALA	LEU	LEU							



• Molecule 1: Ryanodine receptor 2



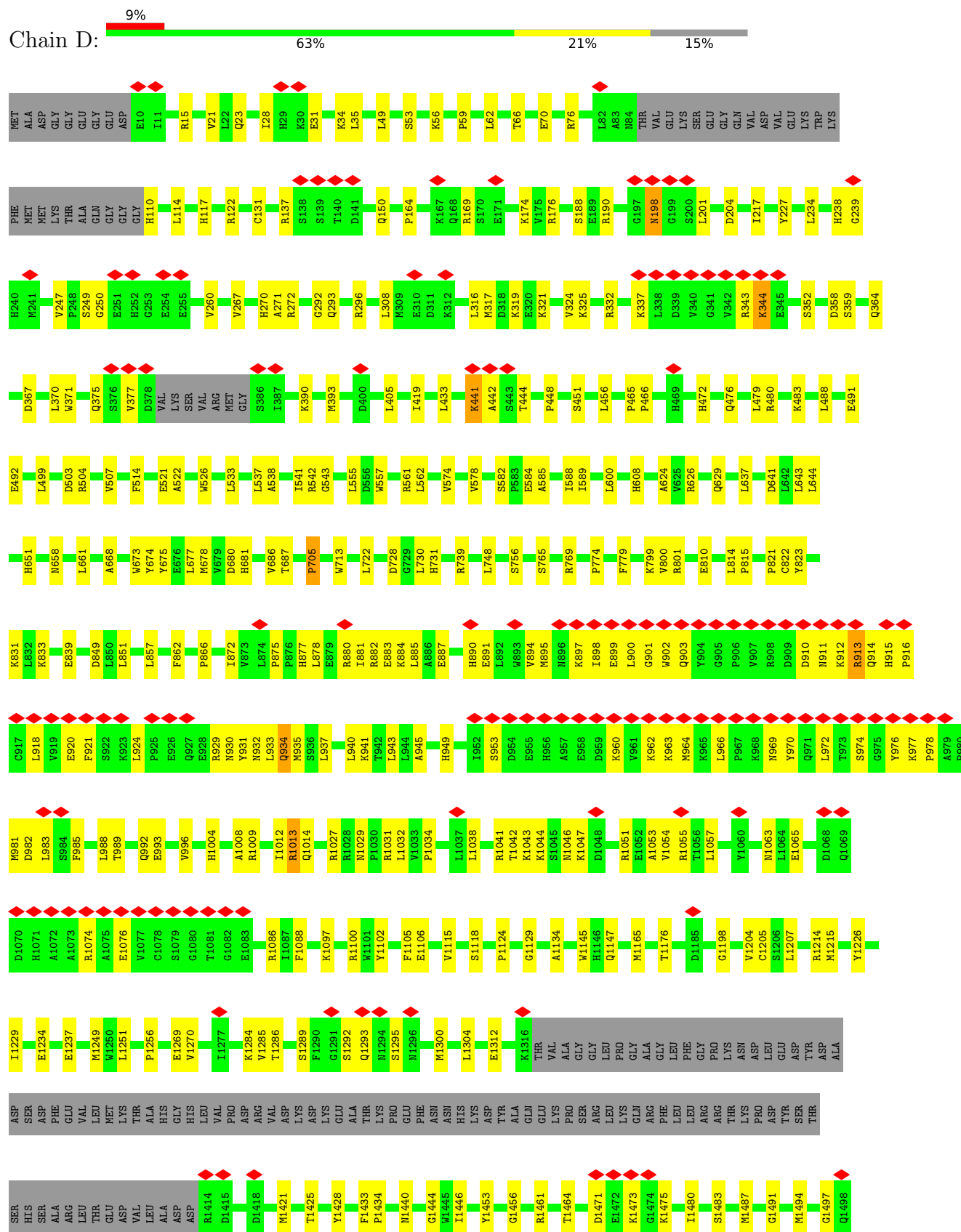


WORLDWIDE
PDB
PROTEIN DATA BANK



● Molecule 1: Ryanodine receptor 2

Chain D:





R4114	R4115	Q4116	T4117	F4118	S4155	Q4159	W4160	E4167	S4168	K4169	R4170	V4177	G4181	E4182	K4183	E4187	C4193	E4194	T4197	M4200	A4203	T4206	S4207	E4208	S4209	ASP	LEU	ASN	GLU	ARG	SER	ALA	ASN	LYS	GLU	GLU	SER	LYS	K4085	R4086	PRO	E4089	P4090	GLU	GLN	GLY	PRO	ARG																
T3994	Q3998	L4003	V4004	F4020	L4023	L4026	D4030	T4031	E4034	G4039	K4040	V4042	K4045	R4046	D4047	F4048	M4052	H4055	K4056	H4057	T4063	E4071	T4072	D4073	E4074	N4075	E4076	T4077	L4078	D4079	E4082	K4085	R4086	PRO	E4089	P4090	GLU	GLN	GLY	PRO	ARG																							
E3823	Q3824	S3825	Q3826	E3827	K3828	F3835	Q3844	F3854	Q3861	N3864	T3867	T3870	L3879	R3880	Q3882	E3883	S3884	T3885	S3886	D3887	F3888	W3889	D3896	F3906	L3920	T3921	E3922	Y3923	I3924	L3935	L3940	T3965	E3966	L3967	L3968	M3972	Q3975	V3979	L3986																									
H3665	Q3666	I3667	I3668	T3677	E3678	K3679	L3687	I3694	M3695	A3696	K3697	H3700	D3701	E3702	GLU	ASP	ASP	ASP	GLY	GLU	E3710	V3711	Y3726	Q3727	Q3728	A3729	R3730	L3731	H3732	I3765	L3778	K3782	L3796	M3797	L3803	D3804	L3805	R3810	Q3811	N3812	L3817	G3818	M3819	V3820	T3821	E3822																		
CYS	LEU	VAL	GLU	PRO	GLN	ARG	ASP	LYS	LYS	VAL	TRP	LYS	LEU	SER	LYS	GLN	ASP	LYS	GLY	GLU	V3599	V3600	A3601	C3602	R3603	R3604	M3605	A3606	P3607	L3608	Q3622	K3626	E3637	E3642	K3646	E3650	P3651	P3652	E3653	E3654	D3655	E3656	G3657	K3659	R3660	V3661	L3664																	
ARG	LYS	GLY	ASP	TYR	SER	MET	GLN	THR	ALA	THR	ILE	ARG	TRP	GLN	MET	ALA	ALA	LYS	LEU	ARG	LYS	LEU	GLN	PRO	ASN	ILE	GLY	ASN	ASP	THR	GLY	ASN	PHE	VAL	LEU	PHE	HIS	LEU	GLU	GLN	LYS	SER	LYS	ARG	VAL	ILE	GLY	ARG	TYR															
GLU	LEU	PHE	ARG	MET	VAL	ALA	GLU	VAL	PHE	ILE	TYR	TRP	SER	GLY	ASP	LYS	ASN	PHE	VAL	THR	PHE	ASN	GLY	ASN	GLN	ALA	ASN	GLY	ILE	ASP	THR	LYS	PHE	VAL	ASP	ASN	LYS	THR	LYS	ALA	VAL	SER	VAL	ASP	GLN	ARG	LYS	ILE																
Y3334	S3335	E3336	F3337	ASP	HIS	LEU	LYS	GLN	ALA	GLU	ALA	ARG	I3276	L3277	G3278	I3279	L3280	L3281	K3282	I3283	E3284	Y3285	N3286	L3214	M3215	L3216	E3217	I3218	G3225	I3226	R3227	Y3228	M3231	F3232	H3233	V3234	K3235	E3236	V3237	L3238	M3239	P3240	M3241	L3242	Y3245	M3246	S3247	R3248	W3249	W3250	E3251	E3255	N3256	E3259	R3260	A3261	E3262	M3263	C3264	C3265	T3266	A3267	L3268	N3269
Q3116	F3117	G3118	E3119	D3120	L3121	L3122	L3123	E3124	D3125	V3126	Q3127	V3128	S3129	C3130	Y3131	R3132	E3133	L3134	Y3137	L3138	R3139	A3139	Y3147	Q3150	R3151	R3152	G3156	L3159	F3162	A3163	G3164	A3165	F3166	P3167	V3168	A3169	F3170	L3171	H3174	L3175	D3176	K3177	H3178	N3179	Y3184	K3187	S3188	R3189	R3190	E3191	R3192													
T3048	G3049	L3050	E3051	S3052	V3053	K3054	L3057	R3058	A3059	F3060	L3061	D3062	N3063	A3064	A3065	E3066	D3067	L3068	E3069	K3070	T3071	M3072	E3073	N3074	L3075	K3076	Q3077	G3078	Q3079	F3080	T3081	HIS	THR	ARG	ASN	GLN	PRO	K3088	G3089	V3090	T3091	Q3092	I3093	I3094	R3095	T3096	L3101	M3104	L3105	F3109	G3113	Q3114	K3046	K3047										
L2970	L2971	H2978	L2983	S2984	A2985	A2986	S2987	R2988	P2989	L2990	C2991	S2992	E2993	G2994	H2995	A2996	S2997	N2998	K2999	E3000	K3001	E3002	K3003	V3004	T3005	S3006	L3007	F3008	C3009	K3010	L3011	G3012	V3013	L3014	V3015	R3016	D3025	A3026	S3028	I3029	V3030	N3031	C3032	L3033	H3034	I3035	L3036	L3040	R3043	T3044	V3045	K3046	K3047											



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	191898	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	0.628	Depositor
Minimum map value	-0.021	Depositor
Average map value	0.008	Depositor
Map value standard deviation	0.027	Depositor
Recommended contour level	0.12	Depositor
Map size (Å)	424.96, 424.96, 424.96	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.83, 0.83, 0.83	Depositor

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.15	0/34511	0.44	7/46614 (0.0%)
1	B	0.15	0/34511	0.44	7/46614 (0.0%)
1	C	0.15	0/34511	0.44	7/46614 (0.0%)
1	D	0.15	0/34511	0.44	7/46614 (0.0%)
2	E	0.17	0/834	0.40	0/1123
2	F	0.17	0/834	0.40	0/1123
2	G	0.17	0/834	0.40	0/1123
2	H	0.17	0/834	0.40	0/1123
All	All	0.15	0/141380	0.44	28/190948 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	3
1	B	0	3
1	C	0	3
1	D	0	3
All	All	0	12

There are no bond length outliers.

All (28) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	705	PRO	CA-C-N	6.74	132.09	121.17
1	A	705	PRO	C-N-CA	6.74	132.09	121.17
1	D	705	PRO	CA-C-N	6.71	132.05	121.17
1	D	705	PRO	C-N-CA	6.71	132.05	121.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	705	PRO	CA-C-N	6.71	132.03	121.17
1	C	705	PRO	C-N-CA	6.71	132.03	121.17
1	B	705	PRO	CA-C-N	6.69	132.00	121.17
1	B	705	PRO	C-N-CA	6.69	132.00	121.17
1	A	2928	GLN	CA-CB-CG	6.53	127.15	114.10
1	B	2928	GLN	CA-CB-CG	6.53	127.15	114.10
1	C	2928	GLN	CA-CB-CG	6.50	127.11	114.10
1	D	2928	GLN	CA-CB-CG	6.50	127.11	114.10
1	A	934	GLN	N-CA-CB	5.83	119.32	110.28
1	C	934	GLN	N-CA-CB	5.83	119.31	110.28
1	D	934	GLN	N-CA-CB	5.83	119.31	110.28
1	B	934	GLN	N-CA-CB	5.81	119.28	110.28
1	A	1293	GLN	CA-C-N	5.68	134.94	124.82
1	A	1293	GLN	C-N-CA	5.68	134.94	124.82
1	D	1293	GLN	CA-C-N	5.68	134.93	124.82
1	D	1293	GLN	C-N-CA	5.68	134.93	124.82
1	B	1293	GLN	CA-C-N	5.66	134.89	124.82
1	B	1293	GLN	C-N-CA	5.66	134.89	124.82
1	C	1293	GLN	CA-C-N	5.66	134.89	124.82
1	C	1293	GLN	C-N-CA	5.66	134.89	124.82
1	B	1013	ARG	CA-CB-CG	-5.16	103.78	114.10
1	D	1013	ARG	CA-CB-CG	-5.15	103.81	114.10
1	A	1013	ARG	CA-CB-CG	-5.12	103.85	114.10
1	C	1013	ARG	CA-CB-CG	-5.12	103.86	114.10

There are no chirality outliers.

All (12) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	3227	ARG	Sidechain
1	A	3606	ALA	Peptide
1	A	4640	PHE	Peptide
1	B	3227	ARG	Sidechain
1	B	3606	ALA	Peptide
1	B	4640	PHE	Peptide
1	C	3227	ARG	Sidechain
1	C	3606	ALA	Peptide
1	C	4640	PHE	Peptide
1	D	3227	ARG	Sidechain
1	D	3606	ALA	Peptide
1	D	4640	PHE	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	33771	0	33455	795	0
1	B	33771	0	33455	785	0
1	C	33771	0	33455	791	0
1	D	33771	0	33455	789	0
2	E	818	0	821	25	0
2	F	818	0	821	22	0
2	G	818	0	821	23	0
2	H	818	0	821	25	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	0	0
4	B	62	0	24	0	0
4	C	62	0	24	0	0
4	D	62	0	24	0	0
All	All	138608	0	137200	3181	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 12.

All (3181) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2736:LYS:NZ	1:A:2757:MET:SD	2.38	0.97
1:D:2736:LYS:NZ	1:D:2757:MET:SD	2.38	0.97
1:C:2736:LYS:NZ	1:C:2757:MET:SD	2.38	0.97
1:B:2736:LYS:NZ	1:B:2757:MET:SD	2.38	0.96
1:A:901:GLY:HA3	1:A:913:ARG:HH22	1.36	0.90
1:B:4834:PRO:HB3	1:B:4843:ARG:HD3	1.53	0.90
1:D:4834:PRO:HB3	1:D:4843:ARG:HD3	1.53	0.89
1:B:901:GLY:HA3	1:B:913:ARG:HH22	1.36	0.89
1:D:901:GLY:HA3	1:D:913:ARG:HH22	1.36	0.88
1:C:4834:PRO:HB3	1:C:4843:ARG:HD3	1.53	0.88
1:C:901:GLY:HA3	1:C:913:ARG:HH22	1.36	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4834:PRO:HB3	1:A:4843:ARG:HD3	1.53	0.88
1:A:3184:TYR:O	1:A:3192:ARG:NH2	2.08	0.87
1:B:3184:TYR:O	1:B:3192:ARG:NH2	2.08	0.85
1:D:3184:TYR:O	1:D:3192:ARG:NH2	2.08	0.85
1:A:3227:ARG:NH2	1:A:3290:ILE:O	2.10	0.85
1:C:3227:ARG:NH2	1:C:3290:ILE:O	2.10	0.85
1:B:3227:ARG:NH2	1:B:3290:ILE:O	2.10	0.84
1:C:3184:TYR:O	1:C:3192:ARG:NH2	2.08	0.84
1:D:3227:ARG:NH2	1:D:3290:ILE:O	2.10	0.84
1:D:3270:SER:HA	1:D:3273:MET:HE2	1.60	0.84
1:C:3171:LEU:HB3	1:C:3211:LEU:HB3	1.60	0.83
1:B:3171:LEU:HB3	1:B:3211:LEU:HB3	1.60	0.83
1:A:3171:LEU:HB3	1:A:3211:LEU:HB3	1.60	0.83
1:A:3270:SER:HA	1:A:3273:MET:HE2	1.60	0.82
1:C:3270:SER:HA	1:C:3273:MET:HE2	1.60	0.82
1:B:3270:SER:HA	1:B:3273:MET:HE2	1.60	0.82
1:A:3295:TRP:HA	1:A:3298:ARG:HE	1.46	0.81
1:B:3295:TRP:HA	1:B:3298:ARG:HE	1.46	0.81
1:D:3171:LEU:HB3	1:D:3211:LEU:HB3	1.60	0.81
1:D:3295:TRP:HA	1:D:3298:ARG:HE	1.46	0.81
1:B:3260:ARG:NH1	1:B:3264:CYS:SG	2.54	0.81
1:C:966:LEU:HD12	1:C:978:PRO:HB2	1.62	0.80
1:C:3260:ARG:NH1	1:C:3264:CYS:SG	2.54	0.80
1:A:3260:ARG:NH1	1:A:3264:CYS:SG	2.54	0.80
1:C:3295:TRP:HA	1:C:3298:ARG:HE	1.46	0.80
1:D:3260:ARG:NH1	1:D:3264:CYS:SG	2.54	0.80
1:A:966:LEU:HD12	1:A:978:PRO:HB2	1.62	0.79
1:B:966:LEU:HD12	1:B:978:PRO:HB2	1.63	0.79
2:F:4:GLU:OE1	2:F:4:GLU:N	2.16	0.79
1:D:966:LEU:HD12	1:D:978:PRO:HB2	1.62	0.78
2:H:4:GLU:OE1	2:H:4:GLU:N	2.16	0.78
2:E:4:GLU:N	2:E:4:GLU:OE1	2.16	0.78
1:B:901:GLY:O	1:B:913:ARG:NH1	2.18	0.77
1:D:901:GLY:O	1:D:913:ARG:NH1	2.18	0.77
1:A:901:GLY:O	1:A:913:ARG:NH1	2.18	0.76
1:C:901:GLY:O	1:C:913:ARG:NH1	2.18	0.76
2:G:4:GLU:OE1	2:G:4:GLU:N	2.16	0.76
1:C:988:LEU:HB2	1:C:1055:ARG:HE	1.51	0.76
1:A:3122:ILE:HG21	1:A:3167:PRO:HG3	1.68	0.76
1:B:921:PHE:HB2	1:B:929:ARG:HD3	1.67	0.76
1:C:3122:ILE:HG21	1:C:3167:PRO:HG3	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:988:LEU:HB2	1:D:1055:ARG:HE	1.51	0.76
1:D:3122:ILE:HG21	1:D:3167:PRO:HG3	1.68	0.76
1:A:2139:GLU:HG3	1:A:2192:MET:HB2	1.68	0.75
1:B:988:LEU:HB2	1:B:1055:ARG:HE	1.51	0.75
1:A:988:LEU:HB2	1:A:1055:ARG:HE	1.50	0.75
1:B:3122:ILE:HG21	1:B:3167:PRO:HG3	1.68	0.75
1:C:921:PHE:HB2	1:C:929:ARG:HD3	1.67	0.75
1:D:2139:GLU:HG3	1:D:2192:MET:HB2	1.68	0.75
1:D:1729:MET:HE2	1:D:1930:ASP:HB2	1.69	0.75
1:A:503:ASP:HA	1:A:561:ARG:HH12	1.51	0.75
1:A:1729:MET:HE2	1:A:1930:ASP:HB2	1.69	0.75
1:C:1729:MET:HE2	1:C:1930:ASP:HB2	1.69	0.74
1:D:921:PHE:HB2	1:D:929:ARG:HD3	1.67	0.74
1:D:503:ASP:HA	1:D:561:ARG:HH12	1.51	0.74
1:B:2139:GLU:HG3	1:B:2192:MET:HB2	1.68	0.74
1:C:503:ASP:HA	1:C:561:ARG:HH12	1.51	0.74
1:B:1729:MET:HE2	1:B:1930:ASP:HB2	1.69	0.74
1:A:921:PHE:HB2	1:A:929:ARG:HD3	1.67	0.74
1:B:503:ASP:HA	1:B:561:ARG:HH12	1.51	0.74
1:B:466:PRO:HG2	1:B:479:LEU:HD12	1.70	0.73
1:C:2139:GLU:HG3	1:C:2192:MET:HB2	1.68	0.73
1:A:466:PRO:HG2	1:A:479:LEU:HD12	1.70	0.73
1:C:2684:ASN:OD1	1:C:2919:LYS:NZ	2.22	0.73
1:A:2684:ASN:OD1	1:A:2919:LYS:NZ	2.22	0.73
1:B:2684:ASN:OD1	1:B:2919:LYS:NZ	2.22	0.73
1:B:2764:SER:OG	1:B:2767:GLU:OE1	2.07	0.73
1:D:466:PRO:HG2	1:D:479:LEU:HD12	1.70	0.72
1:D:2684:ASN:OD1	1:D:2919:LYS:NZ	2.22	0.72
1:C:3844:GLN:HG3	1:C:3922:GLU:HG3	1.71	0.72
1:D:3844:GLN:HG3	1:D:3922:GLU:HG3	1.71	0.72
1:A:2617:CYS:HA	1:A:2627:TRP:HH2	1.55	0.72
1:C:466:PRO:HG2	1:C:479:LEU:HD12	1.70	0.72
1:C:2764:SER:OG	1:C:2767:GLU:OE1	2.07	0.72
1:A:2764:SER:OG	1:A:2767:GLU:OE1	2.07	0.72
1:D:441:LYS:HD3	1:D:442:ALA:N	2.05	0.71
1:B:2617:CYS:HA	1:B:2627:TRP:HH2	1.55	0.71
1:C:3231:MET:HE3	1:C:3233:HIS:HB2	1.72	0.71
1:B:3119:GLU:OE2	1:B:3248:ARG:NH2	2.24	0.71
1:C:2617:CYS:HA	1:C:2627:TRP:HH2	1.55	0.71
1:B:1611:ILE:HD11	1:B:1618:LEU:HB2	1.71	0.71
1:D:2617:CYS:HA	1:D:2627:TRP:HH2	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2764:SER:OG	1:D:2767:GLU:OE1	2.07	0.71
1:A:4481:TRP:HA	1:A:4484:ILE:HG22	1.73	0.71
1:B:2705:PRO:HD2	1:B:2854:LYS:HE3	1.72	0.71
1:C:441:LYS:HD3	1:C:442:ALA:N	2.05	0.71
1:D:3231:MET:HE3	1:D:3233:HIS:HB2	1.72	0.71
1:B:3844:GLN:HG3	1:B:3922:GLU:HG3	1.71	0.71
1:C:4481:TRP:HA	1:C:4484:ILE:HG22	1.73	0.71
1:D:3119:GLU:OE2	1:D:3248:ARG:NH2	2.24	0.71
1:B:441:LYS:HD3	1:B:442:ALA:N	2.05	0.71
1:C:1088:PHE:HB3	1:C:1249:MET:HE3	1.73	0.71
1:A:2705:PRO:HD2	1:A:2854:LYS:HE3	1.72	0.71
1:A:3844:GLN:HG3	1:A:3922:GLU:HG3	1.71	0.71
1:D:2831:VAL:O	1:D:2894:LYS:NZ	2.23	0.71
1:A:3119:GLU:OE2	1:A:3248:ARG:NH2	2.24	0.71
1:D:1088:PHE:HB3	1:D:1249:MET:HE3	1.73	0.71
1:B:2754:GLN:HB3	1:B:2757:MET:HE1	1.73	0.70
1:C:2705:PRO:HD2	1:C:2854:LYS:HE3	1.72	0.70
1:B:4481:TRP:HA	1:B:4484:ILE:HG22	1.73	0.70
1:C:1611:ILE:HD11	1:C:1618:LEU:HB2	1.71	0.70
1:D:1611:ILE:HD11	1:D:1618:LEU:HB2	1.71	0.70
1:D:4481:TRP:HA	1:D:4484:ILE:HG22	1.73	0.70
1:A:2754:GLN:HB3	1:A:2757:MET:HE1	1.73	0.70
1:B:1088:PHE:HB3	1:B:1249:MET:HE3	1.73	0.70
1:C:2754:GLN:HB3	1:C:2757:MET:HE1	1.73	0.70
1:A:1611:ILE:HD11	1:A:1618:LEU:HB2	1.71	0.70
1:B:1718:ARG:HH12	1:B:1758:ARG:HB3	1.56	0.70
1:A:441:LYS:HD3	1:A:442:ALA:N	2.05	0.70
1:C:3119:GLU:OE2	1:C:3248:ARG:NH2	2.24	0.70
1:D:2705:PRO:HD2	1:D:2854:LYS:HE3	1.72	0.70
1:A:897:LYS:HZ2	1:A:918:LEU:HD13	1.55	0.70
1:B:3231:MET:HE3	1:B:3233:HIS:HB2	1.72	0.70
1:C:2831:VAL:O	1:C:2894:LYS:NZ	2.23	0.69
1:A:1718:ARG:HH12	1:A:1758:ARG:HB3	1.56	0.69
1:A:3231:MET:HE3	1:A:3233:HIS:HB2	1.72	0.69
1:C:1718:ARG:HH12	1:C:1758:ARG:HB3	1.56	0.69
1:D:1718:ARG:HH12	1:D:1758:ARG:HB3	1.56	0.69
1:D:2833:LEU:HD12	1:D:2837:LEU:HB3	1.74	0.69
1:D:949:HIS:HB2	1:D:1065:GLU:HB2	1.75	0.69
1:A:1088:PHE:HB3	1:A:1249:MET:HE3	1.73	0.69
1:B:897:LYS:HZ2	1:B:918:LEU:HD13	1.56	0.69
1:B:2833:LEU:HD12	1:B:2837:LEU:HB3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1129:GLY:HA3	1:B:1145:TRP:HB3	1.75	0.69
1:C:2833:LEU:HD12	1:C:2837:LEU:HB3	1.74	0.69
1:A:3235:MET:HA	1:A:3239:LEU:HD13	1.76	0.68
1:D:3251:GLU:HA	1:D:3256:ASN:HD22	1.58	0.68
1:D:897:LYS:HZ2	1:D:918:LEU:HD13	1.59	0.68
1:D:2754:GLN:HB3	1:D:2757:MET:HE1	1.73	0.68
1:A:76:ARG:HD2	1:D:3890:TRP:HB3	1.75	0.68
1:C:1129:GLY:HA3	1:C:1145:TRP:HB3	1.75	0.68
1:A:2833:LEU:HD12	1:A:2837:LEU:HB3	1.74	0.68
2:H:24:VAL:HG22	2:H:48:LYS:HG2	1.76	0.68
1:C:3251:GLU:HA	1:C:3256:ASN:HD22	1.58	0.68
1:D:3235:MET:HA	1:D:3239:LEU:HD13	1.76	0.68
1:A:3251:GLU:HA	1:A:3256:ASN:HD22	1.58	0.68
1:B:2831:VAL:O	1:B:2894:LYS:NZ	2.23	0.68
1:C:2650:ASP:O	1:C:2654:GLN:NE2	2.27	0.68
1:C:3235:MET:HA	1:C:3239:LEU:HD13	1.76	0.68
1:A:2650:ASP:O	1:A:2654:GLN:NE2	2.27	0.68
1:B:3250:TRP:CE3	1:B:3309:LYS:HD2	2.29	0.68
1:C:3250:TRP:CE3	1:C:3309:LYS:HD2	2.29	0.68
2:E:24:VAL:HG22	2:E:48:LYS:HG2	1.76	0.67
2:G:24:VAL:HG22	2:G:48:LYS:HG2	1.76	0.67
1:C:3320:LEU:HA	1:C:3323:MET:HE2	1.76	0.67
1:B:2650:ASP:O	1:B:2654:GLN:NE2	2.27	0.67
1:B:3320:LEU:HA	1:B:3323:MET:HE2	1.76	0.67
1:B:949:HIS:HB2	1:B:1065:GLU:HB2	1.75	0.67
1:B:3235:MET:HA	1:B:3239:LEU:HD13	1.76	0.67
1:B:3251:GLU:HA	1:B:3256:ASN:HD22	1.58	0.67
1:D:1129:GLY:HA3	1:D:1145:TRP:HB3	1.75	0.67
1:A:949:HIS:HB2	1:A:1065:GLU:HB2	1.75	0.67
1:C:949:HIS:HB2	1:C:1065:GLU:HB2	1.75	0.67
1:A:1129:GLY:HA3	1:A:1145:TRP:HB3	1.75	0.67
1:D:1031:ARG:HE	1:D:1042:THR:HG21	1.60	0.67
1:D:3811:GLN:NE2	1:D:3812:ASN:OD1	2.28	0.67
1:B:1031:ARG:HE	1:B:1042:THR:HG21	1.60	0.67
1:B:1042:THR:O	1:B:1046:ASN:ND2	2.28	0.67
1:A:3811:GLN:NE2	1:A:3812:ASN:OD1	2.28	0.66
1:A:2831:VAL:O	1:A:2894:LYS:NZ	2.23	0.66
1:D:2650:ASP:O	1:D:2654:GLN:NE2	2.27	0.66
1:D:2758:LYS:HE3	1:D:2763:LEU:HA	1.78	0.66
1:A:1548:THR:O	1:D:2832:THR:OG1	2.12	0.66
1:A:3250:TRP:CE3	1:A:3309:LYS:HD2	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2652:LEU:HD21	1:B:2966:VAL:HG21	1.77	0.66
1:D:713:TRP:HH2	1:D:1251:LEU:HD21	1.61	0.66
1:A:2758:LYS:HE3	1:A:2763:LEU:HA	1.78	0.66
1:B:2758:LYS:HE3	1:B:2763:LEU:HA	1.78	0.66
1:C:713:TRP:HH2	1:C:1251:LEU:HD21	1.61	0.66
1:C:1042:THR:O	1:C:1046:ASN:ND2	2.28	0.66
1:D:1042:THR:O	1:D:1046:ASN:ND2	2.28	0.66
1:D:2937:HIS:HA	1:D:3014:LEU:HD11	1.77	0.66
1:B:713:TRP:HH2	1:B:1251:LEU:HD21	1.61	0.66
1:C:903:GLN:O	1:C:915:HIS:N	2.28	0.66
1:C:1732:GLU:HB2	1:C:1753:LEU:HD21	1.78	0.66
1:D:3250:TRP:CE3	1:D:3309:LYS:HD2	2.29	0.66
2:F:24:VAL:HG22	2:F:48:LYS:HG2	1.76	0.66
1:B:901:GLY:O	1:B:903:GLN:NE2	2.29	0.66
1:C:3811:GLN:NE2	1:C:3812:ASN:OD1	2.28	0.66
1:B:3811:GLN:NE2	1:B:3812:ASN:OD1	2.28	0.66
1:D:2711:ILE:O	1:D:2780:LYS:NZ	2.28	0.66
1:A:555:LEU:HD12	1:A:588:ILE:HD11	1.78	0.66
1:A:903:GLN:O	1:A:915:HIS:N	2.28	0.66
1:D:903:GLN:O	1:D:915:HIS:N	2.28	0.66
1:D:1732:GLU:HB2	1:D:1753:LEU:HD21	1.78	0.66
1:A:713:TRP:HH2	1:A:1251:LEU:HD21	1.61	0.66
1:A:983:LEU:HD12	1:A:1055:ARG:HD2	1.78	0.66
1:A:2652:LEU:HD21	1:A:2966:VAL:HG21	1.78	0.66
1:A:3187:LYS:HG2	1:A:3191:GLU:HB3	1.78	0.66
1:C:1031:ARG:HE	1:C:1042:THR:HG21	1.60	0.66
1:C:2711:ILE:O	1:C:2780:LYS:NZ	2.28	0.66
1:C:2758:LYS:HE3	1:C:2763:LEU:HA	1.78	0.66
1:B:555:LEU:HD12	1:B:588:ILE:HD11	1.78	0.65
1:A:1031:ARG:HE	1:A:1042:THR:HG21	1.60	0.65
1:A:3033:LEU:HD13	1:A:3104:MET:HG2	1.77	0.65
1:B:983:LEU:HD12	1:B:1055:ARG:HD2	1.78	0.65
1:B:2711:ILE:O	1:B:2780:LYS:NZ	2.29	0.65
1:C:901:GLY:O	1:C:903:GLN:NE2	2.29	0.65
1:C:983:LEU:HD12	1:C:1055:ARG:HD2	1.78	0.65
1:A:1042:THR:O	1:A:1046:ASN:ND2	2.29	0.65
1:B:3033:LEU:HD13	1:B:3104:MET:HG2	1.77	0.65
1:A:2822:SER:OG	1:A:2824:ARG:NH1	2.30	0.65
1:B:875:PRO:HD2	1:B:878:LEU:HD12	1.78	0.65
1:B:1732:GLU:HB2	1:B:1753:LEU:HD21	1.78	0.65
1:B:2689:MET:HE3	1:B:2785:TRP:CE3	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:555:LEU:HD12	1:C:588:ILE:HD11	1.78	0.65
1:C:2822:SER:OG	1:C:2824:ARG:NH1	2.30	0.65
1:B:3187:LYS:HG2	1:B:3191:GLU:HB3	1.78	0.65
1:C:2689:MET:HE3	1:C:2785:TRP:CE3	2.32	0.65
1:D:2689:MET:HE3	1:D:2785:TRP:CE3	2.32	0.65
1:D:3006:SER:HB2	1:D:3010:LYS:HZ3	1.62	0.65
1:D:4040:LYS:NZ	1:D:4042:VAL:O	2.30	0.65
1:A:2619:LYS:HZ2	1:A:2627:TRP:CD1	2.15	0.65
1:A:3215:MET:HA	1:A:3218:ILE:HG22	1.79	0.65
1:B:2937:HIS:HA	1:B:3014:LEU:HD11	1.77	0.65
1:B:3215:MET:HA	1:B:3218:ILE:HG22	1.79	0.65
1:A:3320:LEU:HA	1:A:3323:MET:HE2	1.76	0.65
1:B:2822:SER:OG	1:B:2824:ARG:NH1	2.30	0.65
1:D:3215:MET:HA	1:D:3218:ILE:HG22	1.79	0.65
1:D:3320:LEU:HA	1:D:3323:MET:HE2	1.76	0.65
1:A:2711:ILE:O	1:A:2780:LYS:NZ	2.29	0.65
1:C:2937:HIS:HA	1:C:3014:LEU:HD11	1.77	0.65
1:C:3215:MET:HA	1:C:3218:ILE:HG22	1.79	0.65
1:C:3890:TRP:HB3	1:D:76:ARG:HD2	1.79	0.65
1:C:4040:LYS:NZ	1:C:4042:VAL:O	2.30	0.65
1:D:875:PRO:HD2	1:D:878:LEU:HD12	1.78	0.65
1:D:901:GLY:O	1:D:903:GLN:NE2	2.29	0.65
1:D:2928:GLN:O	1:D:2932:TYR:HD1	1.80	0.65
1:B:2928:GLN:O	1:B:2932:TYR:HD1	1.80	0.65
1:B:4040:LYS:NZ	1:B:4042:VAL:O	2.30	0.65
1:C:2652:LEU:HD21	1:C:2966:VAL:HG21	1.77	0.65
1:C:3033:LEU:HD13	1:C:3104:MET:HG2	1.77	0.65
1:A:901:GLY:O	1:A:903:GLN:NE2	2.29	0.64
1:B:3890:TRP:HB3	1:C:76:ARG:HD2	1.79	0.64
1:C:875:PRO:HD2	1:C:878:LEU:HD12	1.78	0.64
1:D:3187:LYS:HG2	1:D:3191:GLU:HB3	1.78	0.64
1:A:2937:HIS:HA	1:A:3014:LEU:HD11	1.77	0.64
2:F:22:THR:HG22	2:F:50:ARG:HG2	1.79	0.64
1:B:4200:MET:HE2	1:B:4923:MET:HE1	1.79	0.64
1:C:114:LEU:HD12	1:C:117:HIS:HE2	1.62	0.64
1:D:114:LEU:HD12	1:D:117:HIS:HE2	1.62	0.64
1:A:1732:GLU:HB2	1:A:1753:LEU:HD21	1.78	0.64
1:A:2689:MET:HE3	1:A:2785:TRP:CE3	2.32	0.64
1:C:2928:GLN:O	1:C:2932:TYR:HD1	1.80	0.64
1:D:2822:SER:OG	1:D:2824:ARG:NH1	2.30	0.64
1:D:3033:LEU:HD13	1:D:3104:MET:HG2	1.77	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:875:PRO:HD2	1:A:878:LEU:HD12	1.78	0.64
1:A:3139:ALA:HB2	1:A:3207:ASN:HD22	1.63	0.64
1:D:555:LEU:HD12	1:D:588:ILE:HD11	1.78	0.64
1:D:983:LEU:HD12	1:D:1055:ARG:HD2	1.78	0.64
1:D:2652:LEU:HD21	1:D:2966:VAL:HG21	1.78	0.64
1:D:2888:LYS:HA	1:D:2891:ASP:OD2	1.98	0.64
1:A:2888:LYS:HA	1:A:2891:ASP:OD2	1.98	0.64
1:C:247:VAL:O	1:C:272:ARG:NH1	2.31	0.64
1:D:3005:THR:HG21	1:D:3045:VAL:HG21	1.79	0.64
1:A:4040:LYS:NZ	1:A:4042:VAL:O	2.30	0.64
1:B:2888:LYS:HA	1:B:2891:ASP:OD2	1.98	0.64
1:B:3005:THR:HG21	1:B:3045:VAL:HG21	1.79	0.64
1:B:4187:GLU:OE2	1:B:4947:ARG:NH2	2.30	0.64
1:C:897:LYS:HZ2	1:C:918:LEU:HD13	1.63	0.64
1:C:3187:LYS:HG2	1:C:3191:GLU:HB3	1.78	0.64
1:D:4200:MET:HE2	1:D:4923:MET:HE1	1.79	0.64
1:A:2928:GLN:O	1:A:2932:TYR:HD1	1.80	0.64
1:A:3005:THR:HG21	1:A:3045:VAL:HG21	1.79	0.64
1:A:3261:ALA:O	1:A:3262:GLU:HG3	1.98	0.63
1:B:882:ARG:NH2	1:B:933:LEU:O	2.31	0.63
1:B:903:GLN:O	1:B:915:HIS:N	2.28	0.63
1:C:2888:LYS:HA	1:C:2891:ASP:OD2	1.98	0.63
1:A:4200:MET:HE2	1:A:4923:MET:HE1	1.79	0.63
1:C:895:MET:HA	1:C:898:ILE:HG12	1.81	0.63
1:C:964:MET:O	1:C:977:LYS:HD2	1.98	0.63
1:A:247:VAL:O	1:A:272:ARG:NH1	2.31	0.63
1:A:3677:THR:O	1:A:3679:LYS:NZ	2.32	0.63
1:B:3268:LEU:HD21	1:B:3273:MET:SD	2.38	0.63
1:D:3139:ALA:HB2	1:D:3207:ASN:HD22	1.63	0.63
1:A:114:LEU:HD12	1:A:117:HIS:HE2	1.62	0.63
1:A:964:MET:O	1:A:977:LYS:HD2	1.98	0.63
1:A:2178:VAL:HG21	1:A:2192:MET:HE1	1.80	0.63
2:E:22:THR:HG22	2:E:50:ARG:HG2	1.79	0.63
1:B:3139:ALA:HB2	1:B:3207:ASN:HD22	1.63	0.63
1:C:3005:THR:HG21	1:C:3045:VAL:HG21	1.79	0.63
1:C:4082:GLU:HA	1:C:4085:LYS:HG2	1.81	0.63
1:D:964:MET:O	1:D:977:LYS:HD2	1.98	0.63
1:B:3677:THR:O	1:B:3679:LYS:NZ	2.32	0.63
1:D:2082:ARG:HG3	1:D:3687:LEU:HD22	1.81	0.63
1:A:3268:LEU:HD21	1:A:3273:MET:SD	2.38	0.63
1:C:2082:ARG:HG3	1:C:3687:LEU:HD22	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:247:VAL:O	1:D:272:ARG:NH1	2.31	0.63
1:D:2178:VAL:HG21	1:D:2192:MET:HE1	1.80	0.63
1:D:3261:ALA:O	1:D:3262:GLU:HG3	1.98	0.63
1:A:2696:ASP:O	1:A:2700:ASN:ND2	2.32	0.63
1:B:2696:ASP:O	1:B:2700:ASN:ND2	2.32	0.63
1:C:882:ARG:NH2	1:C:933:LEU:O	2.31	0.63
1:C:4200:MET:HE2	1:C:4923:MET:HE1	1.79	0.63
2:G:22:THR:HG22	2:G:50:ARG:HG2	1.79	0.63
2:H:22:THR:HG22	2:H:50:ARG:HG2	1.79	0.63
1:C:3261:ALA:O	1:C:3262:GLU:HG3	1.98	0.63
1:D:882:ARG:NH2	1:D:933:LEU:O	2.31	0.63
1:D:895:MET:HA	1:D:898:ILE:HG12	1.81	0.63
1:A:2082:ARG:HG3	1:A:3687:LEU:HD22	1.81	0.63
1:A:3050:LEU:HD23	1:A:3052:SER:H	1.64	0.63
1:B:114:LEU:HD12	1:B:117:HIS:HE2	1.62	0.63
1:B:3225:GLY:HA2	1:B:3286:ASN:ND2	2.14	0.63
1:C:963:LYS:HB3	1:C:977:LYS:HE3	1.81	0.63
1:C:3268:LEU:HD21	1:C:3273:MET:SD	2.38	0.63
1:D:1165:MET:HE1	1:D:1176:THR:HG23	1.80	0.63
1:D:4082:GLU:HA	1:D:4085:LYS:HG2	1.81	0.63
1:A:895:MET:HA	1:A:898:ILE:HG12	1.81	0.62
1:A:3225:GLY:HA2	1:A:3286:ASN:ND2	2.14	0.62
1:A:4187:GLU:OE2	1:A:4947:ARG:NH2	2.30	0.62
1:B:2178:VAL:HG21	1:B:2192:MET:HE1	1.80	0.62
1:C:2178:VAL:HG21	1:C:2192:MET:HE1	1.80	0.62
1:C:3139:ALA:HB2	1:C:3207:ASN:HD22	1.63	0.62
1:C:3225:GLY:HA2	1:C:3286:ASN:ND2	2.14	0.62
1:D:164:PRO:HB3	1:D:169:ARG:HB2	1.81	0.62
1:D:963:LYS:HB3	1:D:977:LYS:HE3	1.81	0.62
1:D:3268:LEU:HD21	1:D:3273:MET:SD	2.38	0.62
1:B:3050:LEU:HD23	1:B:3052:SER:H	1.64	0.62
1:B:4082:GLU:HA	1:B:4085:LYS:HG2	1.81	0.62
1:C:2619:LYS:HZ1	1:C:2627:TRP:CD1	2.17	0.62
1:A:882:ARG:NH2	1:A:933:LEU:O	2.31	0.62
1:B:247:VAL:O	1:B:272:ARG:NH1	2.31	0.62
1:B:963:LYS:HB3	1:B:977:LYS:HE3	1.81	0.62
1:C:2696:ASP:O	1:C:2700:ASN:ND2	2.32	0.62
1:D:2696:ASP:O	1:D:2700:ASN:ND2	2.32	0.62
1:A:1165:MET:HE1	1:A:1176:THR:HG23	1.80	0.62
1:A:2984:SER:HB2	1:A:2995:HIS:HD1	1.65	0.62
1:B:964:MET:O	1:B:977:LYS:HD2	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2082:ARG:HG3	1:B:3687:LEU:HD22	1.81	0.62
1:B:2619:LYS:HZ1	1:B:2627:TRP:CD1	2.17	0.62
1:D:1047:LYS:HD2	1:D:1051:ARG:HH12	1.65	0.62
1:B:895:MET:HA	1:B:898:ILE:HG12	1.81	0.62
1:B:3261:ALA:O	1:B:3262:GLU:HG3	1.98	0.62
1:C:2436:ILE:HA	1:C:2465:LYS:HE3	1.82	0.62
1:A:963:LYS:HB3	1:A:977:LYS:HE3	1.81	0.62
1:C:3677:THR:O	1:C:3679:LYS:NZ	2.32	0.62
1:A:2436:ILE:HA	1:A:2465:LYS:HE3	1.82	0.62
1:B:1165:MET:HE1	1:B:1176:THR:HG23	1.80	0.62
1:D:3050:LEU:HD23	1:D:3052:SER:H	1.64	0.62
1:A:1008:ALA:O	1:A:1012:ILE:HG12	2.00	0.62
1:D:3225:GLY:HA2	1:D:3286:ASN:ND2	2.14	0.62
1:D:4187:GLU:OE2	1:D:4947:ARG:NH2	2.30	0.62
1:A:164:PRO:HB3	1:A:169:ARG:HB2	1.81	0.61
1:B:1047:LYS:HD2	1:B:1051:ARG:HH12	1.65	0.61
1:C:3050:LEU:HD23	1:C:3052:SER:H	1.64	0.61
1:D:2436:ILE:HA	1:D:2465:LYS:HE3	1.82	0.61
1:D:3677:THR:O	1:D:3679:LYS:NZ	2.32	0.61
1:A:4082:GLU:HA	1:A:4085:LYS:HG2	1.81	0.61
1:C:1047:LYS:HD2	1:C:1051:ARG:HH12	1.65	0.61
1:C:1165:MET:HE1	1:C:1176:THR:HG23	1.80	0.61
1:B:2984:SER:HB2	1:B:2995:HIS:HD1	1.65	0.61
1:D:1008:ALA:O	1:D:1012:ILE:HG12	2.00	0.61
1:D:2176:VAL:HG22	1:D:2220:TYR:CZ	2.35	0.61
1:A:2176:VAL:HG22	1:A:2220:TYR:CZ	2.36	0.61
1:D:3803:LEU:HB2	1:D:3884:SER:HB2	1.83	0.61
1:A:137:ARG:HH22	1:A:204:ASP:HB3	1.66	0.61
1:A:3011:LEU:HD12	1:A:3036:LEU:HD11	1.82	0.61
1:C:137:ARG:HH22	1:C:204:ASP:HB3	1.66	0.61
1:C:2176:VAL:HG22	1:C:2220:TYR:CZ	2.35	0.61
1:D:3011:LEU:HD12	1:D:3036:LEU:HD11	1.82	0.61
1:A:1047:LYS:HD2	1:A:1051:ARG:HH12	1.65	0.61
1:A:198:ASN:C	1:A:198:ASN:HD22	2.09	0.61
1:B:2436:ILE:HA	1:B:2465:LYS:HE3	1.82	0.61
1:B:137:ARG:HH22	1:B:204:ASP:HB3	1.66	0.61
1:C:164:PRO:HB3	1:C:169:ARG:HB2	1.81	0.61
1:A:2724:TYR:OH	1:A:2891:ASP:OD1	2.19	0.61
1:B:164:PRO:HB3	1:B:169:ARG:HB2	1.81	0.61
1:A:1456:GLY:O	1:A:1461:ARG:NH2	2.34	0.61
1:A:2747:TYR:HE1	1:A:2754:GLN:HE22	1.49	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4795:LYS:NZ	1:A:4830:GLU:O	2.34	0.61
1:C:1456:GLY:O	1:C:1461:ARG:NH2	2.34	0.61
1:C:3011:LEU:HD12	1:C:3036:LEU:HD11	1.82	0.61
1:C:3259:GLU:O	1:C:3260:ARG:HD3	2.01	0.61
1:D:2747:TYR:HE1	1:D:2754:GLN:HE22	1.49	0.61
1:B:3259:GLU:O	1:B:3260:ARG:HD3	2.01	0.60
1:A:1106:GLU:OE1	1:A:1214:ARG:NH1	2.34	0.60
1:A:3269:ASN:OD1	1:A:3270:SER:N	2.34	0.60
1:B:2176:VAL:HG22	1:B:2220:TYR:CZ	2.36	0.60
1:C:2984:SER:HB2	1:C:2995:HIS:HD1	1.65	0.60
1:D:1106:GLU:OE1	1:D:1214:ARG:NH1	2.34	0.60
1:D:1936:LEU:HD11	1:D:1976:LEU:HD22	1.83	0.60
1:D:3269:ASN:OD1	1:D:3270:SER:N	2.34	0.60
1:A:3259:GLU:O	1:A:3260:ARG:HD3	2.01	0.60
1:B:2759:PRO:HD2	1:B:2762:LEU:HD12	1.84	0.60
1:D:2984:SER:HB2	1:D:2995:HIS:HD1	1.65	0.60
1:A:4520:TYR:CE2	1:A:4559:TYR:HB3	2.36	0.60
1:B:3269:ASN:OD1	1:B:3270:SER:N	2.34	0.60
1:B:3803:LEU:HB2	1:B:3884:SER:HB2	1.83	0.60
1:C:2724:TYR:OH	1:C:2891:ASP:OD1	2.19	0.60
1:C:4795:LYS:NZ	1:C:4830:GLU:O	2.34	0.60
1:D:1456:GLY:O	1:D:1461:ARG:NH2	2.34	0.60
1:D:3259:GLU:O	1:D:3260:ARG:HD3	2.01	0.60
1:B:4520:TYR:CE2	1:B:4559:TYR:HB3	2.37	0.60
1:C:3269:ASN:OD1	1:C:3270:SER:N	2.34	0.60
1:C:4520:TYR:CE2	1:C:4559:TYR:HB3	2.36	0.60
1:D:4795:LYS:NZ	1:D:4830:GLU:O	2.34	0.60
1:A:308:LEU:HD21	1:A:370:LEU:HD12	1.83	0.60
1:A:3797:MET:HE1	1:A:3870:ILE:HG23	1.83	0.60
1:C:198:ASN:C	1:C:198:ASN:HD22	2.09	0.60
1:D:137:ARG:HH22	1:D:204:ASP:HB3	1.66	0.60
1:D:308:LEU:HD21	1:D:370:LEU:HD12	1.83	0.60
1:D:2724:TYR:OH	1:D:2891:ASP:OD1	2.19	0.60
1:B:2929:LEU:HB3	1:B:3007:LEU:HD11	1.84	0.60
1:B:3233:HIS:O	1:B:3237:VAL:HG22	2.02	0.60
1:D:198:ASN:HD22	1:D:198:ASN:C	2.09	0.60
1:D:2619:LYS:HZ1	1:D:2627:TRP:CD1	2.20	0.60
1:A:2759:PRO:HD2	1:A:2762:LEU:HD12	1.84	0.60
1:B:1008:ALA:O	1:B:1012:ILE:HG12	2.00	0.60
1:B:2747:TYR:HE1	1:B:2754:GLN:HE22	1.49	0.60
1:B:3011:LEU:HD12	1:B:3036:LEU:HD11	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2488:LEU:HD21	1:C:2548:LEU:HD22	1.84	0.60
1:C:2759:PRO:HD2	1:C:2762:LEU:HD12	1.84	0.60
1:B:198:ASN:HD22	1:B:198:ASN:C	2.09	0.60
1:B:2724:TYR:OH	1:B:2891:ASP:OD1	2.19	0.60
1:B:3797:MET:HE1	1:B:3870:ILE:HG23	1.83	0.60
1:C:769:ARG:HG2	1:C:774:PRO:HA	1.84	0.60
1:C:3134:LEU:HB3	1:C:3162:PHE:CE2	2.37	0.60
1:D:1564:MET:SD	1:D:1565:PRO:HD2	2.42	0.60
1:B:901:GLY:HA3	1:B:913:ARG:NH2	2.15	0.60
1:B:2832:THR:OG1	1:C:1548:THR:O	2.20	0.60
1:C:1564:MET:SD	1:C:1565:PRO:HD2	2.42	0.60
1:C:3233:HIS:O	1:C:3237:VAL:HG22	2.02	0.60
1:D:3797:MET:HE1	1:D:3870:ILE:HG23	1.84	0.60
1:A:3006:SER:HB2	1:A:3010:LYS:HZ3	1.66	0.59
1:C:2747:TYR:HE1	1:C:2754:GLN:HE22	1.49	0.59
1:C:3803:LEU:HB2	1:C:3884:SER:HB2	1.83	0.59
1:D:3134:LEU:HB3	1:D:3162:PHE:CE2	2.37	0.59
1:A:1936:LEU:HD11	1:A:1976:LEU:HD22	1.83	0.59
1:A:3134:LEU:HB3	1:A:3162:PHE:CE2	2.37	0.59
1:B:4795:LYS:NZ	1:B:4830:GLU:O	2.34	0.59
1:D:901:GLY:HA3	1:D:913:ARG:NH2	2.15	0.59
1:D:2539:GLU:OE2	1:D:2581:ARG:NE	2.36	0.59
1:D:2759:PRO:HD2	1:D:2762:LEU:HD12	1.84	0.59
1:A:3067:ASP:OD1	1:A:3070:LYS:NZ	2.36	0.59
1:A:3803:LEU:HB2	1:A:3884:SER:HB2	1.83	0.59
1:B:769:ARG:HG2	1:B:774:PRO:HA	1.84	0.59
1:B:1456:GLY:O	1:B:1461:ARG:NH2	2.34	0.59
1:B:1564:MET:SD	1:B:1565:PRO:HD2	2.42	0.59
1:B:3134:LEU:HB3	1:B:3162:PHE:CE2	2.37	0.59
1:D:1014:GLN:HB3	1:D:1027:ARG:HH21	1.68	0.59
1:D:2929:LEU:HB3	1:D:3007:LEU:HD11	1.84	0.59
1:A:1564:MET:SD	1:A:1565:PRO:HD2	2.42	0.59
1:A:2539:GLU:OE2	1:A:2581:ARG:NE	2.35	0.59
1:A:3233:HIS:O	1:A:3237:VAL:HG22	2.02	0.59
1:C:1894:LEU:HD22	1:C:2065:THR:HG21	1.85	0.59
1:A:188:SER:HB2	1:A:190:ARG:HH11	1.68	0.59
1:A:1894:LEU:HD22	1:A:2065:THR:HG21	1.85	0.59
1:A:2918:GLU:HA	1:A:2923:TYR:CD2	2.38	0.59
1:B:1936:LEU:HD11	1:B:1976:LEU:HD22	1.83	0.59
1:D:3233:HIS:O	1:D:3237:VAL:HG22	2.02	0.59
1:A:1014:GLN:HB3	1:A:1027:ARG:HH21	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1014:GLN:HB3	1:B:1027:ARG:HH21	1.68	0.59
1:C:1008:ALA:O	1:C:1012:ILE:HG12	2.00	0.59
1:C:4187:GLU:OE2	1:C:4947:ARG:NH2	2.30	0.59
1:D:4520:TYR:CE2	1:D:4559:TYR:HB3	2.37	0.59
1:C:2832:THR:OG1	1:D:1548:THR:O	2.17	0.59
1:C:2929:LEU:HB3	1:C:3007:LEU:HD11	1.84	0.59
1:C:3325:LYS:HA	1:C:3328:LYS:HB2	1.84	0.59
1:A:769:ARG:HG2	1:A:774:PRO:HA	1.84	0.59
1:A:4652:LYS:NZ	1:A:4945:GLN:OE1	2.27	0.59
1:B:1106:GLU:OE1	1:B:1214:ARG:NH1	2.34	0.59
1:B:2918:GLU:HA	1:B:2923:TYR:CD2	2.38	0.59
1:B:3067:ASP:OD1	1:B:3070:LYS:NZ	2.36	0.59
1:A:2488:LEU:HD21	1:A:2548:LEU:HD22	1.84	0.59
1:A:3325:LYS:HA	1:A:3328:LYS:HB2	1.84	0.59
1:B:964:MET:HE1	1:B:982:ASP:CG	2.28	0.59
1:C:1014:GLN:HB3	1:C:1027:ARG:HH21	1.68	0.59
1:C:1936:LEU:HD11	1:C:1976:LEU:HD22	1.83	0.59
1:C:2918:GLU:HA	1:C:2923:TYR:CD2	2.38	0.59
1:B:1947:VAL:HG22	1:B:1961:LYS:HD2	1.85	0.59
1:B:2769:GLU:OE1	1:B:2772:ARG:NH2	2.36	0.59
1:C:2769:GLU:OE1	1:C:2772:ARG:NH2	2.36	0.59
1:C:3067:ASP:OD1	1:C:3070:LYS:NZ	2.35	0.59
1:C:3295:TRP:HB3	1:C:3298:ARG:HH21	1.67	0.59
1:D:769:ARG:HG2	1:D:774:PRO:HA	1.84	0.59
1:B:1894:LEU:HD22	1:B:2065:THR:HG21	1.85	0.58
1:C:3797:MET:HE1	1:C:3870:ILE:HG23	1.83	0.58
1:B:2496:LEU:HD13	1:B:2520:LEU:HD13	1.85	0.58
1:B:2539:GLU:OE2	1:B:2581:ARG:NE	2.35	0.58
1:D:1894:LEU:HD22	1:D:2065:THR:HG21	1.85	0.58
1:D:2496:LEU:HD13	1:D:2520:LEU:HD13	1.85	0.58
1:A:4874:ARG:NH1	1:B:4868:ASP:OD1	2.36	0.58
1:A:2496:LEU:HD13	1:A:2520:LEU:HD13	1.85	0.58
1:B:308:LEU:HD21	1:B:370:LEU:HD12	1.83	0.58
1:C:308:LEU:HD21	1:C:370:LEU:HD12	1.83	0.58
1:D:2488:LEU:HD21	1:D:2548:LEU:HD22	1.84	0.58
1:D:3067:ASP:OD1	1:D:3070:LYS:NZ	2.36	0.58
1:A:1074:ARG:HH11	1:A:1076:GLU:HA	1.69	0.58
1:A:3006:SER:HB2	1:A:3010:LYS:NZ	2.19	0.58
1:B:3089:GLY:O	1:B:3093:ILE:HG12	2.04	0.58
1:C:2496:LEU:HD13	1:C:2520:LEU:HD13	1.85	0.58
1:D:188:SER:HB2	1:D:190:ARG:HH11	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4652:LYS:NZ	1:D:4945:GLN:OE1	2.27	0.58
1:B:641:ASP:OD2	1:B:1572:LYS:NZ	2.34	0.58
1:C:188:SER:HB2	1:C:190:ARG:HH11	1.68	0.58
1:D:996:VAL:HB	1:D:1051:ARG:NH2	2.18	0.58
1:D:3325:LYS:HA	1:D:3328:LYS:HB2	1.84	0.58
1:A:964:MET:HE1	1:A:982:ASP:CG	2.28	0.58
1:B:3325:LYS:HA	1:B:3328:LYS:HB2	1.84	0.58
1:C:2622:CYS:HA	1:C:2677:PRO:HG3	1.85	0.58
1:C:3089:GLY:O	1:C:3093:ILE:HG12	2.04	0.58
1:D:964:MET:HE1	1:D:982:ASP:CG	2.28	0.58
1:D:1947:VAL:HG22	1:D:1961:LYS:HD2	1.85	0.58
1:D:2769:GLU:OE1	1:D:2772:ARG:NH2	2.36	0.58
1:D:2918:GLU:HA	1:D:2923:TYR:CD2	2.38	0.58
1:A:3250:TRP:CZ3	1:A:3309:LYS:HB2	2.39	0.58
1:A:3295:TRP:HB3	1:A:3298:ARG:HH21	1.67	0.58
1:B:996:VAL:HB	1:B:1051:ARG:NH2	2.19	0.58
1:B:2488:LEU:HD21	1:B:2548:LEU:HD22	1.84	0.58
1:B:3006:SER:HB2	1:B:3010:LYS:NZ	2.19	0.58
1:B:3295:TRP:HB3	1:B:3298:ARG:HH21	1.67	0.58
1:C:1947:VAL:HG22	1:C:1961:LYS:HD2	1.85	0.58
1:D:3295:TRP:HB3	1:D:3298:ARG:HH21	1.67	0.58
1:B:188:SER:HB2	1:B:190:ARG:HH11	1.68	0.58
1:C:3006:SER:HB2	1:C:3010:LYS:NZ	2.19	0.58
1:A:2769:GLU:OE1	1:A:2772:ARG:NH2	2.36	0.58
1:A:2929:LEU:HB3	1:A:3007:LEU:HD11	1.84	0.58
1:D:3225:GLY:HA2	1:D:3286:ASN:HD22	1.68	0.58
1:A:932:ASN:HA	1:A:935:MET:HE2	1.86	0.57
1:A:2622:CYS:HA	1:A:2677:PRO:HG3	1.85	0.57
1:A:3225:GLY:HA2	1:A:3286:ASN:HD22	1.68	0.57
1:B:1714:TYR:OH	1:B:1718:ARG:NH2	2.37	0.57
1:D:2622:CYS:HA	1:D:2677:PRO:HG3	1.85	0.57
1:D:3089:GLY:O	1:D:3093:ILE:HG12	2.04	0.57
1:A:582:SER:OG	1:A:584:GLU:OE1	2.22	0.57
1:A:2488:LEU:HD11	1:A:2548:LEU:HD13	1.86	0.57
1:A:2832:THR:OG1	1:B:1548:THR:O	2.21	0.57
1:A:3089:GLY:O	1:A:3093:ILE:HG12	2.04	0.57
1:C:2539:GLU:OE2	1:C:2581:ARG:NE	2.36	0.57
1:D:582:SER:OG	1:D:584:GLU:OE1	2.22	0.57
1:A:1714:TYR:OH	1:A:1718:ARG:NH2	2.37	0.57
1:A:1947:VAL:HG22	1:A:1961:LYS:HD2	1.85	0.57
1:B:1074:ARG:HH11	1:B:1076:GLU:HA	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2488:LEU:HD11	1:B:2548:LEU:HD13	1.87	0.57
1:B:2736:LYS:HB2	1:B:2741:TRP:CD1	2.39	0.57
1:C:996:VAL:HG22	1:C:1054:VAL:HG21	1.87	0.57
1:C:4874:ARG:NH1	1:D:4868:ASP:OD1	2.38	0.57
1:D:932:ASN:HA	1:D:935:MET:HE2	1.86	0.57
1:C:964:MET:HE1	1:C:982:ASP:CG	2.28	0.57
1:A:996:VAL:HG22	1:A:1054:VAL:HG21	1.86	0.57
1:B:2333:PRO:HA	1:B:2336:ARG:HE	1.70	0.57
1:C:2736:LYS:HB2	1:C:2741:TRP:CD1	2.39	0.57
1:C:3225:GLY:HA2	1:C:3286:ASN:HD22	1.68	0.57
1:D:2333:PRO:HA	1:D:2336:ARG:HE	1.70	0.57
1:D:3250:TRP:CZ3	1:D:3309:LYS:HB2	2.39	0.57
1:A:996:VAL:HB	1:A:1051:ARG:NH2	2.19	0.57
1:B:3006:SER:HB2	1:B:3010:LYS:HZ3	1.68	0.57
1:C:901:GLY:HA3	1:C:913:ARG:NH2	2.14	0.57
1:C:996:VAL:HB	1:C:1051:ARG:NH2	2.19	0.57
1:B:3250:TRP:CZ3	1:B:3309:LYS:HB2	2.39	0.57
1:C:1074:ARG:HH11	1:C:1076:GLU:HA	1.69	0.57
1:C:1097:LYS:NZ	1:C:1198:GLY:O	2.38	0.57
1:A:1097:LYS:NZ	1:A:1198:GLY:O	2.38	0.57
1:A:3245:TYR:O	1:A:3249:TRP:HD1	1.88	0.57
1:C:1714:TYR:OH	1:C:1718:ARG:NH2	2.37	0.57
1:C:3156:GLY:HA2	1:C:3237:VAL:HG12	1.87	0.57
1:C:3250:TRP:CZ3	1:C:3309:LYS:HB2	2.39	0.57
1:D:878:LEU:O	1:D:882:ARG:HB2	2.05	0.57
1:D:1097:LYS:NZ	1:D:1198:GLY:O	2.38	0.57
1:B:878:LEU:O	1:B:882:ARG:HB2	2.05	0.57
1:B:3225:GLY:HA2	1:B:3286:ASN:HD22	1.68	0.57
1:B:4652:LYS:NZ	1:B:4945:GLN:OE1	2.28	0.57
1:C:878:LEU:O	1:C:882:ARG:HB2	2.05	0.57
1:D:1714:TYR:OH	1:D:1718:ARG:NH2	2.37	0.57
1:D:2488:LEU:HD11	1:D:2548:LEU:HD13	1.87	0.57
1:A:972:LEU:HG	1:A:974:SER:H	1.70	0.57
1:A:4848:ILE:HD11	1:D:4818:TYR:HA	1.86	0.57
1:B:582:SER:OG	1:B:584:GLU:OE1	2.22	0.57
1:B:2620:TYR:HB2	1:B:2627:TRP:CZ3	2.40	0.57
1:B:2622:CYS:HA	1:B:2677:PRO:HG3	1.85	0.57
1:B:3097:THR:HG23	1:B:3101:LEU:HD12	1.87	0.57
1:C:972:LEU:HG	1:C:974:SER:H	1.70	0.57
1:C:2682:GLU:HB3	1:C:2919:LYS:HE2	1.86	0.57
1:D:1722:ASN:O	1:D:1919:ARG:NH2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2620:TYR:HB2	1:D:2627:TRP:CZ3	2.40	0.57
1:A:4183:LYS:HE2	1:D:4906:GLU:HG2	1.87	0.56
1:A:4921:PHE:HE2	1:A:4940:VAL:HG11	1.70	0.56
1:B:2682:GLU:HB3	1:B:2919:LYS:HE2	1.86	0.56
1:D:972:LEU:HG	1:D:974:SER:H	1.70	0.56
1:D:1300:MET:HA	1:D:1300:MET:HE3	1.87	0.56
1:D:2791:ARG:NH1	1:D:2796:ASP:OD1	2.38	0.56
1:A:2333:PRO:HA	1:A:2336:ARG:HE	1.70	0.56
1:B:932:ASN:HA	1:B:935:MET:HE2	1.86	0.56
1:D:2736:LYS:HB2	1:D:2741:TRP:CD1	2.40	0.56
1:D:4832:GLU:O	1:D:4843:ARG:NH2	2.38	0.56
1:A:1300:MET:HA	1:A:1300:MET:HE3	1.88	0.56
1:A:2403:ALA:HB2	1:A:2475:VAL:HG22	1.87	0.56
1:A:2736:LYS:HB2	1:A:2741:TRP:CD1	2.39	0.56
1:A:3156:GLY:HA2	1:A:3237:VAL:HG12	1.87	0.56
1:B:1097:LYS:NZ	1:B:1198:GLY:O	2.38	0.56
1:B:2886:ARG:O	1:B:2890:GLN:HG2	2.05	0.56
1:B:3972:MET:HA	1:B:3972:MET:HE2	1.86	0.56
1:B:4874:ARG:NH1	1:C:4868:ASP:OD1	2.38	0.56
1:C:582:SER:OG	1:C:584:GLU:OE1	2.22	0.56
1:C:897:LYS:HZ2	1:C:918:LEU:HB2	1.70	0.56
1:C:1106:GLU:OE1	1:C:1214:ARG:NH1	2.34	0.56
1:C:1300:MET:HA	1:C:1300:MET:HE3	1.87	0.56
1:C:1722:ASN:O	1:C:1919:ARG:NH2	2.38	0.56
1:C:2488:LEU:HD11	1:C:2548:LEU:HD13	1.87	0.56
1:D:866:PRO:HD2	1:D:1009:ARG:NH1	2.21	0.56
1:D:895:MET:HG2	1:D:978:PRO:HB3	1.87	0.56
1:D:2403:ALA:HB2	1:D:2475:VAL:HG22	1.88	0.56
1:D:3006:SER:HB2	1:D:3010:LYS:NZ	2.19	0.56
1:D:3097:THR:HG23	1:D:3101:LEU:HD12	1.87	0.56
1:D:3156:GLY:HA2	1:D:3237:VAL:HG12	1.87	0.56
1:A:2682:GLU:HB3	1:A:2919:LYS:HE2	1.86	0.56
1:A:2754:GLN:HG3	1:A:2756:LEU:H	1.71	0.56
1:B:2769:GLU:HG3	1:B:2770:ILE:H	1.71	0.56
1:C:1685:LEU:O	1:C:1689:ILE:HG12	2.05	0.56
1:C:2620:TYR:HB2	1:C:2627:TRP:CZ3	2.40	0.56
1:D:1685:LEU:O	1:D:1689:ILE:HG12	2.05	0.56
1:A:2984:SER:HB2	1:A:2995:HIS:ND1	2.21	0.56
1:B:996:VAL:HG22	1:B:1054:VAL:HG21	1.86	0.56
1:B:1722:ASN:O	1:B:1919:ARG:NH2	2.38	0.56
1:B:2403:ALA:HB2	1:B:2475:VAL:HG22	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:641:ASP:OD2	1:C:1572:LYS:NZ	2.34	0.56
1:C:2333:PRO:HA	1:C:2336:ARG:HE	1.70	0.56
1:D:2886:ARG:O	1:D:2890:GLN:HG2	2.05	0.56
1:D:3972:MET:HE2	1:D:3972:MET:HA	1.86	0.56
1:A:480:ARG:NH2	1:A:3678:GLU:OE2	2.38	0.56
1:A:1722:ASN:O	1:A:1919:ARG:NH2	2.38	0.56
1:A:4832:GLU:O	1:A:4843:ARG:NH2	2.38	0.56
1:B:866:PRO:HD2	1:B:1009:ARG:NH1	2.21	0.56
1:B:1300:MET:HA	1:B:1300:MET:HE3	1.87	0.56
1:B:2791:ARG:NH1	1:B:2796:ASP:OD1	2.38	0.56
1:C:2403:ALA:HB2	1:C:2475:VAL:HG22	1.88	0.56
1:C:2769:GLU:HG3	1:C:2770:ILE:H	1.71	0.56
1:D:1937:GLN:NE2	1:D:3608:LEU:O	2.34	0.56
1:D:3245:TYR:O	1:D:3249:TRP:HD1	1.88	0.56
1:A:2886:ARG:O	1:A:2890:GLN:HG2	2.05	0.56
1:A:3972:MET:HE2	1:A:3972:MET:HA	1.87	0.56
1:B:895:MET:HG2	1:B:978:PRO:HB3	1.87	0.56
1:C:480:ARG:NH2	1:C:3678:GLU:OE2	2.38	0.56
1:C:3097:THR:HG23	1:C:3101:LEU:HD12	1.87	0.56
1:D:1074:ARG:HH11	1:D:1076:GLU:HA	1.69	0.56
1:D:3125:ASP:HA	1:D:3128:VAL:HG12	1.88	0.56
1:D:4921:PHE:HE2	1:D:4940:VAL:HG11	1.70	0.56
1:A:895:MET:HG2	1:A:978:PRO:HB3	1.87	0.56
1:B:3245:TYR:O	1:B:3249:TRP:HD1	1.88	0.56
1:C:2791:ARG:NH1	1:C:2796:ASP:OD1	2.38	0.56
1:D:480:ARG:NH2	1:D:3678:GLU:OE2	2.38	0.56
1:A:1421:MET:O	1:A:1576:LYS:NZ	2.39	0.56
1:A:1768:PHE:O	2:E:83:TYR:OH	2.20	0.56
1:B:3156:GLY:HA2	1:B:3237:VAL:HG12	1.87	0.56
1:C:932:ASN:HA	1:C:935:MET:HE2	1.86	0.56
1:C:2754:GLN:HG3	1:C:2756:LEU:H	1.71	0.56
1:A:1685:LEU:O	1:A:1689:ILE:HG12	2.05	0.56
1:B:480:ARG:NH2	1:B:3678:GLU:OE2	2.38	0.56
1:C:3972:MET:HE2	1:C:3972:MET:HA	1.86	0.56
1:D:2769:GLU:HG3	1:D:2770:ILE:H	1.71	0.56
1:A:1937:GLN:NE2	1:A:3608:LEU:O	2.34	0.55
1:A:2620:TYR:HB2	1:A:2627:TRP:CZ3	2.40	0.55
1:B:1086:ARG:HH21	1:B:1251:LEU:HD13	1.71	0.55
1:B:1685:LEU:O	1:B:1689:ILE:HG12	2.05	0.55
1:B:4832:GLU:O	1:B:4843:ARG:NH2	2.38	0.55
1:C:4832:GLU:O	1:C:4843:ARG:NH2	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2791:ARG:NH1	1:A:2796:ASP:OD1	2.38	0.55
1:B:2984:SER:HB2	1:B:2995:HIS:ND1	2.21	0.55
1:D:2682:GLU:HB3	1:D:2919:LYS:HE2	1.86	0.55
1:D:2968:LEU:HD22	1:D:3028:SER:HB3	1.89	0.55
1:A:894:VAL:O	1:A:897:LYS:HB3	2.07	0.55
1:A:3097:THR:HG23	1:A:3101:LEU:HD12	1.87	0.55
1:B:972:LEU:HG	1:B:974:SER:H	1.70	0.55
1:B:2652:LEU:HG	1:B:2662:PHE:CE1	2.42	0.55
1:C:658:ASN:ND2	1:C:833:LYS:HG2	2.22	0.55
1:C:1086:ARG:HH21	1:C:1251:LEU:HD13	1.71	0.55
1:C:2886:ARG:O	1:C:2890:GLN:HG2	2.05	0.55
1:A:2905:ARG:HB2	1:A:2908:LYS:HZ1	1.70	0.55
1:B:514:PHE:HD2	1:B:526:TRP:HB2	1.72	0.55
1:C:2984:SER:HB2	1:C:2995:HIS:ND1	2.21	0.55
1:C:4266:LYS:HB3	1:C:4270:LYS:HZ1	1.72	0.55
1:C:4503:ARG:HH22	1:C:4721:TYR:HE2	1.55	0.55
1:A:878:LEU:O	1:A:882:ARG:HB2	2.05	0.55
1:A:3228:TYR:HB2	1:A:3287:ASN:HD21	1.72	0.55
1:A:3890:TRP:HB3	1:B:76:ARG:HD2	1.89	0.55
1:A:4703:VAL:O	1:D:4256:MET:HE1	2.07	0.55
1:B:911:ASN:OD1	1:B:912:LYS:N	2.40	0.55
1:B:937:LEU:O	1:B:941:LYS:HG2	2.07	0.55
1:B:1937:GLN:NE2	1:B:3608:LEU:O	2.34	0.55
1:B:2754:GLN:HG3	1:B:2756:LEU:H	1.71	0.55
1:B:4503:ARG:HH22	1:B:4721:TYR:HE2	1.55	0.55
1:B:4921:PHE:HE2	1:B:4940:VAL:HG11	1.70	0.55
1:C:937:LEU:O	1:C:941:LYS:HG2	2.07	0.55
1:C:1421:MET:O	1:C:1576:LYS:NZ	2.39	0.55
1:C:2652:LEU:HG	1:C:2662:PHE:CE1	2.42	0.55
1:D:937:LEU:O	1:D:941:LYS:HG2	2.07	0.55
1:D:2968:LEU:HD11	1:D:3029:ILE:HG13	1.89	0.55
1:A:2652:LEU:HG	1:A:2662:PHE:CE1	2.42	0.55
1:B:897:LYS:NZ	1:B:918:LEU:HB2	2.22	0.55
1:C:877:HIS:CE1	1:C:878:LEU:HG	2.42	0.55
1:C:2724:TYR:HE1	1:C:2892:ILE:HD12	1.72	0.55
1:D:996:VAL:HG22	1:D:1054:VAL:HG21	1.87	0.55
1:D:1421:MET:O	1:D:1576:LYS:NZ	2.39	0.55
1:A:641:ASP:OD2	1:A:1572:LYS:NZ	2.34	0.55
1:A:937:LEU:O	1:A:941:LYS:HG2	2.07	0.55
1:A:2769:GLU:HG3	1:A:2770:ILE:H	1.71	0.55
1:C:866:PRO:HD2	1:C:1009:ARG:NH1	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:895:MET:HG2	1:C:978:PRO:HB3	1.87	0.55
1:C:2968:LEU:HD11	1:C:3029:ILE:HG13	1.89	0.55
1:A:514:PHE:HD2	1:A:526:TRP:HB2	1.71	0.55
1:A:2968:LEU:HD22	1:A:3028:SER:HB3	1.89	0.55
1:B:658:ASN:ND2	1:B:833:LYS:HG2	2.22	0.55
1:B:2968:LEU:HD11	1:B:3029:ILE:HG13	1.89	0.55
1:C:897:LYS:NZ	1:C:918:LEU:HB2	2.22	0.55
1:C:4818:TYR:HA	1:D:4848:ILE:HD11	1.88	0.55
1:D:894:VAL:O	1:D:897:LYS:HB3	2.07	0.55
1:D:911:ASN:OD1	1:D:912:LYS:N	2.40	0.55
1:D:2652:LEU:HG	1:D:2662:PHE:CE1	2.42	0.55
1:D:2754:GLN:HG3	1:D:2756:LEU:H	1.71	0.55
1:D:4503:ARG:HH22	1:D:4721:TYR:HE2	1.55	0.55
1:A:658:ASN:ND2	1:A:833:LYS:HG2	2.22	0.55
1:A:866:PRO:HD2	1:A:1009:ARG:NH1	2.21	0.55
1:A:2054:LYS:HD2	1:A:2056:SER:H	1.72	0.55
1:A:3125:ASP:HA	1:A:3128:VAL:HG12	1.88	0.55
1:B:1421:MET:O	1:B:1576:LYS:NZ	2.39	0.55
1:C:1729:MET:HE3	1:C:1734:LYS:HG3	1.89	0.55
1:C:3006:SER:HB2	1:C:3010:LYS:HZ3	1.70	0.55
1:C:3125:ASP:HA	1:C:3128:VAL:HG12	1.88	0.55
1:C:3228:TYR:HB2	1:C:3287:ASN:HD21	1.72	0.55
1:C:4906:GLU:HG2	1:D:4183:LYS:HE2	1.89	0.55
1:D:514:PHE:HD2	1:D:526:TRP:HB2	1.72	0.55
1:D:897:LYS:NZ	1:D:918:LEU:HB2	2.22	0.55
1:D:3228:TYR:HB2	1:D:3287:ASN:HD21	1.72	0.55
1:B:3228:TYR:HB2	1:B:3287:ASN:HD21	1.72	0.55
1:C:2936:ALA:HA	1:C:2939:TYR:CD2	2.42	0.55
1:C:3213:LYS:HA	1:C:3216:GLU:HG3	1.89	0.55
1:C:4921:PHE:HE2	1:C:4940:VAL:HG11	1.70	0.55
1:D:4796:SER:OG	1:D:4798:ASP:OD1	2.25	0.55
1:A:2727:HIS:CD2	1:A:2826:ILE:HB	2.43	0.54
1:A:2734:MET:HE3	1:A:2825:ALA:HB2	1.89	0.54
1:A:2968:LEU:HD11	1:A:3029:ILE:HG13	1.89	0.54
1:A:4796:SER:OG	1:A:4798:ASP:OD1	2.25	0.54
1:B:4906:GLU:HG2	1:C:4183:LYS:HE2	1.90	0.54
1:D:1729:MET:HE3	1:D:1734:LYS:HG3	1.90	0.54
1:D:2724:TYR:HE1	1:D:2892:ILE:HD12	1.72	0.54
1:D:2984:SER:HB2	1:D:2995:HIS:ND1	2.21	0.54
1:A:2550:HIS:CE1	1:A:2875:ASP:HB3	2.43	0.54
1:A:4266:LYS:HB3	1:A:4270:LYS:HZ1	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1711:LEU:HD22	1:C:1831:MET:SD	2.47	0.54
1:C:2727:HIS:CD2	1:C:2826:ILE:HB	2.43	0.54
1:C:3245:TYR:O	1:C:3249:TRP:HD1	1.88	0.54
1:D:658:ASN:ND2	1:D:833:LYS:HG2	2.22	0.54
1:A:877:HIS:CE1	1:A:878:LEU:HG	2.42	0.54
1:B:1711:LEU:HD22	1:B:1831:MET:SD	2.47	0.54
1:B:2734:MET:HE3	1:B:2825:ALA:HB2	1.90	0.54
1:C:2790:GLU:O	1:C:2902:ALA:N	2.39	0.54
1:A:911:ASN:OD1	1:A:912:LYS:N	2.40	0.54
1:B:2054:LYS:HD2	1:B:2056:SER:H	1.72	0.54
1:B:2724:TYR:HE1	1:B:2892:ILE:HD12	1.72	0.54
1:B:2727:HIS:CD2	1:B:2826:ILE:HB	2.42	0.54
1:D:877:HIS:CE1	1:D:878:LEU:HG	2.42	0.54
1:D:1718:ARG:HD2	1:D:1830:ILE:O	2.07	0.54
1:A:897:LYS:NZ	1:A:918:LEU:HB2	2.22	0.54
1:A:1718:ARG:NH1	1:A:1758:ARG:HB3	2.23	0.54
1:A:1718:ARG:HD2	1:A:1830:ILE:O	2.07	0.54
1:A:3276:LEU:O	1:A:3280:ILE:HG13	2.08	0.54
1:B:894:VAL:O	1:B:897:LYS:HB3	2.07	0.54
1:C:2054:LYS:HD2	1:C:2056:SER:H	1.72	0.54
1:C:2968:LEU:HD22	1:C:3028:SER:HB3	1.89	0.54
1:D:2674:GLY:HA2	1:D:2978:HIS:CE1	2.43	0.54
1:D:2727:HIS:CD2	1:D:2826:ILE:HB	2.43	0.54
1:A:1711:LEU:HD22	1:A:1831:MET:SD	2.47	0.54
1:B:1911:GLN:OE1	1:B:2090:ARG:NH1	2.41	0.54
1:B:2550:HIS:CE1	1:B:2875:ASP:HB3	2.43	0.54
1:C:2413:LYS:NZ	1:C:2415:GLU:HB3	2.23	0.54
1:C:2550:HIS:CE1	1:C:2875:ASP:HB3	2.43	0.54
1:A:1729:MET:HE3	1:A:1734:LYS:HG3	1.89	0.54
2:E:26:HIS:ND1	2:E:105:LEU:HD11	2.22	0.54
1:B:270:HIS:ND1	1:B:491:GLU:HG3	2.23	0.54
1:B:2730:ASP:O	1:B:2734:MET:HG2	2.07	0.54
1:C:911:ASN:OD1	1:C:912:LYS:N	2.40	0.54
1:D:1911:GLN:OE1	1:D:2090:ARG:NH1	2.41	0.54
1:D:2926:LEU:HB2	1:D:3003:MET:HE2	1.90	0.54
1:D:3213:LYS:HA	1:D:3216:GLU:HG3	1.89	0.54
1:A:270:HIS:ND1	1:A:491:GLU:HG3	2.23	0.54
1:A:4864:GLY:HA2	1:D:4867:ILE:HG12	1.90	0.54
1:B:2926:LEU:HB2	1:B:3003:MET:HE2	1.90	0.54
1:B:2936:ALA:HA	1:B:2939:TYR:CD2	2.43	0.54
1:B:2968:LEU:HD22	1:B:3028:SER:HB3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:480:ARG:HE	1:C:3678:GLU:HG2	1.72	0.54
1:D:1086:ARG:HH21	1:D:1251:LEU:HD13	1.71	0.54
1:D:2734:MET:HE3	1:D:2825:ALA:HB2	1.89	0.54
1:D:3313:GLN:HA	1:D:3316:LYS:HE2	1.90	0.54
1:D:4640:PHE:CD2	1:D:4641:PRO:HD3	2.43	0.54
2:F:26:HIS:ND1	2:F:105:LEU:HD11	2.23	0.54
2:G:26:HIS:ND1	2:G:105:LEU:HD11	2.22	0.54
1:B:3276:LEU:O	1:B:3280:ILE:HG13	2.08	0.54
1:C:2734:MET:HE3	1:C:2825:ALA:HB2	1.89	0.54
1:C:3313:GLN:HA	1:C:3316:LYS:HE2	1.90	0.54
1:A:1086:ARG:HH21	1:A:1251:LEU:HD13	1.71	0.54
1:A:2936:ALA:HA	1:A:2939:TYR:CD2	2.43	0.54
1:A:4503:ARG:HH22	1:A:4721:TYR:HE2	1.54	0.54
1:B:1718:ARG:NH1	1:B:1758:ARG:HB3	2.23	0.54
1:B:1729:MET:HE3	1:B:1734:LYS:HG3	1.89	0.54
1:B:3313:GLN:HA	1:B:3316:LYS:HE2	1.90	0.54
1:B:4818:TYR:HA	1:C:4848:ILE:HD11	1.89	0.54
1:D:2550:HIS:CE1	1:D:2875:ASP:HB3	2.43	0.54
1:A:2674:GLY:HA2	1:A:2978:HIS:CE1	2.43	0.53
1:A:3213:LYS:HA	1:A:3216:GLU:HG3	1.89	0.53
1:B:877:HIS:CE1	1:B:878:LEU:HG	2.42	0.53
1:B:3125:ASP:HA	1:B:3128:VAL:HG12	1.88	0.53
1:C:894:VAL:O	1:C:897:LYS:HB3	2.07	0.53
1:C:2225:SER:HB2	1:C:2240:LEU:HB2	1.91	0.53
1:C:2502:LEU:HD23	1:C:2507:LEU:HD13	1.90	0.53
1:C:2730:ASP:O	1:C:2734:MET:HG2	2.07	0.53
1:D:3189:SER:O	1:D:3192:ARG:HG2	2.09	0.53
1:D:4266:LYS:HB3	1:D:4270:LYS:HZ1	1.73	0.53
1:A:2413:LYS:NZ	1:A:2415:GLU:HB3	2.23	0.53
1:A:2724:TYR:HE1	1:A:2892:ILE:HD12	1.72	0.53
1:A:4640:PHE:CD2	1:A:4641:PRO:HD3	2.43	0.53
1:B:2790:GLU:O	1:B:2902:ALA:N	2.39	0.53
1:B:4252:ILE:HG21	1:C:4707:MET:HG3	1.91	0.53
1:C:514:PHE:HD2	1:C:526:TRP:HB2	1.72	0.53
1:C:2926:LEU:HB2	1:C:3003:MET:HE2	1.90	0.53
1:D:1711:LEU:HD22	1:D:1831:MET:SD	2.47	0.53
1:D:3123:LEU:HA	1:D:3127:GLN:HE22	1.74	0.53
1:A:2730:ASP:O	1:A:2734:MET:HG2	2.07	0.53
1:A:2926:LEU:HB2	1:A:3003:MET:HE2	1.90	0.53
1:B:4796:SER:OG	1:B:4798:ASP:OD1	2.25	0.53
1:C:419:ILE:HG21	1:C:492:GLU:HG3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1911:GLN:OE1	1:C:2090:ARG:NH1	2.41	0.53
1:C:2937:HIS:HB2	1:C:3014:LEU:HD21	1.90	0.53
1:C:3276:LEU:O	1:C:3280:ILE:HG13	2.08	0.53
1:C:4796:SER:OG	1:C:4798:ASP:OD1	2.25	0.53
1:D:641:ASP:OD2	1:D:1572:LYS:NZ	2.34	0.53
1:D:2225:SER:HB2	1:D:2240:LEU:HB2	1.91	0.53
1:D:3276:LEU:O	1:D:3280:ILE:HG13	2.08	0.53
1:A:1501:ASN:ND2	1:D:2827:ASP:O	2.42	0.53
2:F:25:VAL:HG12	2:F:104:LEU:HA	1.91	0.53
1:B:234:LEU:HD13	1:B:405:LEU:HD22	1.90	0.53
1:B:419:ILE:HG21	1:B:492:GLU:HG3	1.90	0.53
1:B:872:ILE:HD13	1:B:945:ALA:HB2	1.91	0.53
1:B:1718:ARG:HD2	1:B:1830:ILE:O	2.07	0.53
1:B:2413:LYS:NZ	1:B:2415:GLU:HB3	2.23	0.53
1:B:4640:PHE:CD2	1:B:4641:PRO:HD3	2.43	0.53
1:C:3189:SER:O	1:C:3192:ARG:HG2	2.09	0.53
1:C:4640:PHE:CD2	1:C:4641:PRO:HD3	2.43	0.53
1:D:2222:LEU:HB3	1:D:2264:LYS:HD2	1.90	0.53
1:D:2936:ALA:HA	1:D:2939:TYR:CD2	2.42	0.53
1:A:2937:HIS:HB2	1:A:3014:LEU:HD21	1.90	0.53
1:B:1086:ARG:NH2	1:B:1251:LEU:HD13	2.24	0.53
1:C:872:ILE:HD13	1:C:945:ALA:HB2	1.91	0.53
1:C:2222:LEU:HB3	1:C:2264:LYS:HD2	1.90	0.53
1:C:2674:GLY:HA2	1:C:2978:HIS:CE1	2.43	0.53
1:D:270:HIS:ND1	1:D:491:GLU:HG3	2.23	0.53
1:D:2413:LYS:NZ	1:D:2415:GLU:HB3	2.23	0.53
1:D:2730:ASP:O	1:D:2734:MET:HG2	2.07	0.53
1:D:2736:LYS:HZ2	1:D:2754:GLN:HG2	1.74	0.53
1:A:555:LEU:HD11	1:A:578:VAL:HG11	1.90	0.53
1:A:2790:GLU:O	1:A:2902:ALA:N	2.39	0.53
1:B:480:ARG:HE	1:B:3678:GLU:HG2	1.72	0.53
1:B:2502:LEU:HD23	1:B:2507:LEU:HD13	1.90	0.53
1:B:2674:GLY:HA2	1:B:2978:HIS:CE1	2.43	0.53
1:B:2868:HIS:CE1	1:B:2870:LEU:HB2	2.44	0.53
1:B:3213:LYS:HA	1:B:3216:GLU:HG3	1.89	0.53
1:C:2868:HIS:CE1	1:C:2870:LEU:HB2	2.44	0.53
1:D:2054:LYS:HD2	1:D:2056:SER:H	1.72	0.53
1:D:4484:ILE:O	1:D:4488:GLN:HG2	2.09	0.53
1:A:3012:GLY:HA3	1:A:3060:PHE:HE1	1.74	0.53
1:B:2937:HIS:HB2	1:B:3014:LEU:HD21	1.90	0.53
1:B:3189:SER:O	1:B:3192:ARG:HG2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4484:ILE:O	1:B:4488:GLN:HG2	2.09	0.53
1:C:234:LEU:HD13	1:C:405:LEU:HD22	1.90	0.53
1:C:270:HIS:ND1	1:C:491:GLU:HG3	2.23	0.53
1:C:1718:ARG:HD2	1:C:1830:ILE:O	2.07	0.53
1:C:3012:GLY:HA3	1:C:3060:PHE:HE1	1.74	0.53
1:C:4113:THR:O	1:C:4117:THR:HG23	2.09	0.53
1:A:3313:GLN:HA	1:A:3316:LYS:HE2	1.90	0.53
1:A:3668:ILE:HG12	1:A:3695:MET:HE1	1.91	0.53
1:B:2179:LEU:HA	1:B:2187:ILE:HD11	1.90	0.53
1:B:3697:LYS:HA	1:B:3700:HIS:CD2	2.44	0.53
1:C:1086:ARG:NH2	1:C:1251:LEU:HD13	2.24	0.53
1:C:2570:GLU:HG2	1:C:2605:MET:HG3	1.91	0.53
1:C:2763:LEU:O	1:C:2768:LYS:NZ	2.34	0.53
1:D:872:ILE:HD13	1:D:945:ALA:HB2	1.91	0.53
1:D:3012:GLY:HA3	1:D:3060:PHE:HE1	1.74	0.53
1:D:4266:LYS:HB3	1:D:4270:LYS:NZ	2.24	0.53
1:A:2225:SER:HB2	1:A:2240:LEU:HB2	1.91	0.53
1:A:2502:LEU:HD23	1:A:2507:LEU:HD13	1.90	0.53
1:A:3067:ASP:HA	1:A:3070:LYS:HZ2	1.74	0.53
1:A:3123:LEU:HA	1:A:3127:GLN:HE22	1.74	0.53
1:A:3189:SER:O	1:A:3192:ARG:HG2	2.08	0.53
1:B:2225:SER:HB2	1:B:2240:LEU:HB2	1.91	0.53
1:B:2570:GLU:HG2	1:B:2605:MET:HG3	1.91	0.53
1:C:3906:PHE:HB3	1:C:3967:LEU:HD11	1.90	0.53
1:A:419:ILE:HG21	1:A:492:GLU:HG3	1.90	0.53
1:A:2300:ASP:OD1	1:A:2301:PHE:N	2.42	0.53
1:A:3012:GLY:O	1:A:3016:ARG:HG3	2.09	0.53
2:H:26:HIS:ND1	2:H:105:LEU:HD11	2.22	0.53
1:B:658:ASN:ND2	1:B:831:LYS:O	2.42	0.53
1:B:1425:THR:HG22	1:B:1563:VAL:HG13	1.91	0.53
1:B:2859:GLU:OE1	1:B:2863:LYS:NZ	2.42	0.53
1:D:480:ARG:HE	1:D:3678:GLU:HG2	1.72	0.53
1:D:2179:LEU:HA	1:D:2187:ILE:HD11	1.90	0.53
1:D:2502:LEU:HD23	1:D:2507:LEU:HD13	1.90	0.53
1:A:872:ILE:HD13	1:A:945:ALA:HB2	1.91	0.52
1:A:2059:GLN:NE2	1:A:2091:GLN:O	2.42	0.52
1:A:3246:MET:SD	1:A:3306:ILE:HG22	2.50	0.52
1:A:4266:LYS:HB3	1:A:4270:LYS:NZ	2.24	0.52
2:G:25:VAL:HG12	2:G:104:LEU:HA	1.91	0.52
1:B:3072:MET:SD	1:B:3073:GLU:HG3	2.49	0.52
1:B:4256:MET:HE1	1:C:4703:VAL:O	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3123:LEU:HA	1:C:3127:GLN:HE22	1.74	0.52
1:C:3222:ALA:O	1:C:3282:LYS:NZ	2.29	0.52
1:C:4266:LYS:HB3	1:C:4270:LYS:NZ	2.24	0.52
1:D:2570:GLU:HG2	1:D:2605:MET:HG3	1.91	0.52
1:A:480:ARG:HE	1:A:3678:GLU:HG2	1.72	0.52
1:A:1911:GLN:OE1	1:A:2090:ARG:NH1	2.41	0.52
1:A:2222:LEU:HB3	1:A:2264:LYS:HD2	1.90	0.52
1:A:2570:GLU:HG2	1:A:2605:MET:HG3	1.91	0.52
2:E:25:VAL:HG12	2:E:104:LEU:HA	1.91	0.52
1:B:375:GLN:HG3	1:B:377:VAL:HG13	1.91	0.52
1:B:562:LEU:HG	1:B:600:LEU:HD13	1.91	0.52
1:C:1471:ASP:OD2	1:C:1473:LYS:NZ	2.30	0.52
1:C:2300:ASP:OD1	1:C:2301:PHE:N	2.42	0.52
1:C:2859:GLU:OE1	1:C:2863:LYS:NZ	2.42	0.52
1:C:3986:LEU:HD12	1:C:4101:LEU:HD12	1.92	0.52
1:D:234:LEU:HD13	1:D:405:LEU:HD22	1.90	0.52
1:A:3072:MET:SD	1:A:3073:GLU:HG3	2.49	0.52
1:B:114:LEU:HB2	1:B:117:HIS:CD2	2.44	0.52
1:B:981:MET:HG2	1:B:985:PHE:HE1	1.75	0.52
1:B:1124:PRO:HD2	1:B:1594:VAL:HG23	1.91	0.52
1:B:2222:LEU:HB3	1:B:2264:LYS:HD2	1.90	0.52
1:C:3012:GLY:O	1:C:3016:ARG:HG3	2.09	0.52
1:D:2300:ASP:OD1	1:D:2301:PHE:N	2.42	0.52
1:D:3668:ILE:HG12	1:D:3695:MET:HE1	1.91	0.52
1:A:3906:PHE:HB3	1:A:3967:LEU:HD11	1.91	0.52
1:B:4113:THR:O	1:B:4117:THR:HG23	2.09	0.52
1:C:114:LEU:HB2	1:C:117:HIS:CD2	2.44	0.52
1:C:3697:LYS:HA	1:C:3700:HIS:CD2	2.44	0.52
1:C:4256:MET:HE1	1:D:4703:VAL:O	2.09	0.52
1:C:4484:ILE:O	1:C:4488:GLN:HG2	2.09	0.52
1:D:419:ILE:HG21	1:D:492:GLU:HG3	1.90	0.52
1:D:1086:ARG:NH2	1:D:1251:LEU:HD13	2.24	0.52
1:D:3294:ALA:HA	1:D:3297:LYS:HE2	1.91	0.52
1:D:3986:LEU:HD12	1:D:4101:LEU:HD12	1.92	0.52
1:D:4113:THR:O	1:D:4117:THR:HG23	2.09	0.52
1:A:114:LEU:HB2	1:A:117:HIS:CD2	2.44	0.52
1:A:441:LYS:HD3	1:A:441:LYS:C	2.34	0.52
1:A:1086:ARG:NH2	1:A:1251:LEU:HD13	2.24	0.52
1:A:2179:LEU:HA	1:A:2187:ILE:HD11	1.90	0.52
1:A:2859:GLU:OE1	1:A:2863:LYS:NZ	2.42	0.52
1:A:3697:LYS:HA	1:A:3700:HIS:CD2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:8:ILE:HA	1:D:730:LEU:HD11	1.90	0.52
1:B:2059:GLN:NE2	1:B:2091:GLN:O	2.43	0.52
1:B:2617:CYS:HA	1:B:2627:TRP:CH2	2.42	0.52
1:B:3067:ASP:HA	1:B:3070:LYS:NZ	2.25	0.52
1:B:4304:GLY:O	1:B:4308:ILE:HG12	2.10	0.52
1:C:441:LYS:HD3	1:C:441:LYS:C	2.34	0.52
1:C:1743:ASN:HB3	1:C:1745:LYS:HD3	1.92	0.52
1:D:2868:HIS:CE1	1:D:2870:LEU:HB2	2.44	0.52
1:D:2937:HIS:HB2	1:D:3014:LEU:HD21	1.90	0.52
1:D:3067:ASP:HA	1:D:3070:LYS:NZ	2.25	0.52
1:D:3906:PHE:HB3	1:D:3967:LEU:HD11	1.90	0.52
1:A:375:GLN:HG3	1:A:377:VAL:HG13	1.91	0.52
1:A:658:ASN:ND2	1:A:831:LYS:O	2.42	0.52
1:A:4484:ILE:O	1:A:4488:GLN:HG2	2.09	0.52
1:B:555:LEU:HD11	1:B:578:VAL:HG11	1.90	0.52
1:B:2300:ASP:OD1	1:B:2301:PHE:N	2.42	0.52
1:B:3131:TYR:HA	1:B:3134:LEU:HG	1.92	0.52
1:B:3246:MET:SD	1:B:3306:ILE:HG22	2.50	0.52
1:B:3986:LEU:HD12	1:B:4101:LEU:HD12	1.92	0.52
1:C:2059:GLN:NE2	1:C:2091:GLN:O	2.43	0.52
1:C:2179:LEU:HA	1:C:2187:ILE:HD11	1.90	0.52
1:C:3072:MET:SD	1:C:3073:GLU:HG3	2.49	0.52
1:D:562:LEU:HG	1:D:600:LEU:HD13	1.91	0.52
1:A:1425:THR:HG22	1:A:1563:VAL:HG13	1.91	0.52
1:A:1471:ASP:OD2	1:A:1473:LYS:NZ	2.30	0.52
1:A:3067:ASP:HA	1:A:3070:LYS:NZ	2.25	0.52
2:H:25:VAL:HG12	2:H:104:LEU:HA	1.91	0.52
1:B:3123:LEU:HA	1:B:3127:GLN:HE22	1.73	0.52
1:C:555:LEU:HD11	1:C:578:VAL:HG11	1.90	0.52
1:C:1718:ARG:NH1	1:C:1758:ARG:HB3	2.23	0.52
1:D:555:LEU:HD11	1:D:578:VAL:HG11	1.91	0.52
1:D:981:MET:HG2	1:D:985:PHE:HE1	1.75	0.52
1:D:1743:ASN:HB3	1:D:1745:LYS:HD3	1.91	0.52
1:A:234:LEU:HD13	1:A:405:LEU:HD22	1.90	0.52
1:A:2763:LEU:O	1:A:2768:LYS:NZ	2.34	0.52
1:B:4266:LYS:HB3	1:B:4270:LYS:NZ	2.24	0.52
1:C:3294:ALA:HA	1:C:3297:LYS:HE2	1.91	0.52
1:D:114:LEU:HB2	1:D:117:HIS:CD2	2.44	0.52
1:D:375:GLN:HG3	1:D:377:VAL:HG13	1.90	0.52
1:D:1425:THR:HG22	1:D:1563:VAL:HG13	1.91	0.52
1:B:3906:PHE:HB3	1:B:3967:LEU:HD11	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3131:TYR:HA	1:C:3134:LEU:HG	1.92	0.52
1:C:3668:ILE:HG12	1:C:3695:MET:HE1	1.91	0.52
1:C:4304:GLY:O	1:C:4308:ILE:HG12	2.10	0.52
1:D:624:ALA:HB2	1:D:1667:LEU:HD12	1.92	0.52
1:D:2790:GLU:O	1:D:2902:ALA:N	2.39	0.52
1:A:1124:PRO:HD2	1:A:1594:VAL:HG23	1.91	0.52
1:A:4113:THR:O	1:A:4117:THR:HG23	2.09	0.52
1:B:2413:LYS:NZ	1:B:2415:GLU:OE1	2.43	0.52
1:B:3012:GLY:O	1:B:3016:ARG:HG3	2.09	0.52
1:B:3294:ALA:HA	1:B:3297:LYS:HE2	1.91	0.52
1:C:658:ASN:ND2	1:C:831:LYS:O	2.42	0.52
1:D:2859:GLU:OE1	1:D:2863:LYS:NZ	2.42	0.52
1:D:3246:MET:SD	1:D:3306:ILE:HG22	2.50	0.52
1:A:3294:ALA:HA	1:A:3297:LYS:HE2	1.91	0.51
1:A:4304:GLY:O	1:A:4308:ILE:HG12	2.10	0.51
1:B:1788:LYS:HD3	1:B:1833:ILE:HG22	1.92	0.51
1:B:3012:GLY:HA3	1:B:3060:PHE:HE1	1.74	0.51
1:C:562:LEU:HG	1:C:600:LEU:HD13	1.91	0.51
1:C:1425:THR:HG22	1:C:1563:VAL:HG13	1.91	0.51
1:D:3025:ASP:O	1:D:3029:ILE:HD12	2.10	0.51
1:A:3131:TYR:HA	1:A:3134:LEU:HG	1.92	0.51
1:B:2884:LYS:O	1:B:2887:GLU:HG3	2.11	0.51
1:B:3668:ILE:HG12	1:B:3695:MET:HE1	1.91	0.51
1:C:981:MET:HG2	1:C:985:PHE:HE1	1.75	0.51
1:C:3025:ASP:O	1:C:3029:ILE:HD12	2.10	0.51
1:C:4652:LYS:NZ	1:C:4945:GLN:OE1	2.27	0.51
1:D:441:LYS:HD3	1:D:441:LYS:C	2.34	0.51
1:D:989:THR:HB	1:D:992:GLN:HG2	1.92	0.51
1:D:3189:SER:HA	1:D:3192:ARG:HG2	1.93	0.51
1:A:2868:HIS:CE1	1:A:2870:LEU:HB2	2.44	0.51
1:B:441:LYS:HD3	1:B:441:LYS:C	2.34	0.51
1:C:375:GLN:HG3	1:C:377:VAL:HG13	1.91	0.51
1:C:1788:LYS:HD3	1:C:1833:ILE:HG22	1.92	0.51
1:D:2736:LYS:HE2	1:D:2741:TRP:CD1	2.46	0.51
1:A:562:LEU:HG	1:A:600:LEU:HD13	1.91	0.51
1:A:1743:ASN:HB3	1:A:1745:LYS:HD3	1.91	0.51
1:A:2593:VAL:HG12	1:A:2644:LEU:HB2	1.93	0.51
1:A:3025:ASP:O	1:A:3029:ILE:HD12	2.10	0.51
1:A:3986:LEU:HD12	1:A:4101:LEU:HD12	1.92	0.51
1:A:4250:TYR:O	1:A:4254:THR:HG23	2.11	0.51
1:B:1743:ASN:HB3	1:B:1745:LYS:HD3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2736:LYS:HE2	1:B:2741:TRP:CD1	2.46	0.51
1:C:686:VAL:HG13	1:C:687:THR:HG23	1.93	0.51
1:C:1979:PHE:CD2	1:C:1993:ARG:HG3	2.46	0.51
1:D:2059:GLN:NE2	1:D:2091:GLN:O	2.43	0.51
1:A:686:VAL:HG13	1:A:687:THR:HG23	1.93	0.51
1:B:989:THR:HB	1:B:992:GLN:HG2	1.92	0.51
1:B:3697:LYS:HA	1:B:3700:HIS:NE2	2.26	0.51
1:C:839:GLU:HB2	1:C:851:LEU:HD12	1.93	0.51
1:C:989:THR:HB	1:C:992:GLN:HG2	1.92	0.51
1:C:1118:SER:HB3	1:C:1204:VAL:HG11	1.93	0.51
1:C:2736:LYS:HE2	1:C:2741:TRP:CD1	2.46	0.51
1:C:3246:MET:SD	1:C:3306:ILE:HG22	2.50	0.51
1:D:686:VAL:HG13	1:D:687:THR:HG23	1.93	0.51
1:D:839:GLU:HB2	1:D:851:LEU:HD12	1.93	0.51
1:D:3012:GLY:O	1:D:3016:ARG:HG3	2.09	0.51
1:A:839:GLU:HB2	1:A:851:LEU:HD12	1.93	0.51
1:A:2413:LYS:NZ	1:A:2415:GLU:OE1	2.43	0.51
1:A:2736:LYS:HE2	1:A:2741:TRP:CD1	2.46	0.51
1:B:932:ASN:HD22	1:B:935:MET:HE2	1.76	0.51
1:B:1118:SER:HB3	1:B:1204:VAL:HG11	1.93	0.51
1:B:3189:SER:HA	1:B:3192:ARG:HG2	1.93	0.51
1:C:59:PRO:O	1:C:319:LYS:NZ	2.30	0.51
1:C:3133:ILE:HG22	1:C:3137:LEU:HD23	1.92	0.51
1:C:3189:SER:HA	1:C:3192:ARG:HG2	1.93	0.51
1:C:4250:TYR:O	1:C:4254:THR:HG23	2.11	0.51
1:D:3131:TYR:HA	1:D:3134:LEU:HG	1.92	0.51
1:A:981:MET:HG2	1:A:985:PHE:HE1	1.75	0.51
1:A:1118:SER:HB3	1:A:1204:VAL:HG11	1.93	0.51
1:A:2736:LYS:HB2	1:A:2741:TRP:HD1	1.75	0.51
1:A:3189:SER:HA	1:A:3192:ARG:HG2	1.93	0.51
2:F:8:ILE:HA	1:B:730:LEU:HD11	1.91	0.51
1:B:2593:VAL:HG12	1:B:2644:LEU:HB2	1.93	0.51
1:B:2736:LYS:HB2	1:B:2741:TRP:HD1	1.75	0.51
1:B:4250:TYR:O	1:B:4254:THR:HG23	2.11	0.51
1:B:4767:LEU:O	1:B:4771:VAL:HG23	2.10	0.51
1:C:2724:TYR:HB2	1:C:2895:PHE:CE2	2.46	0.51
1:C:4831:ILE:HG13	1:C:4843:ARG:HH21	1.76	0.51
1:D:1788:LYS:HD3	1:D:1833:ILE:HG22	1.92	0.51
1:D:2884:LYS:O	1:D:2887:GLU:HG3	2.10	0.51
1:D:3697:LYS:HA	1:D:3700:HIS:CD2	2.44	0.51
1:A:2087:LEU:O	1:A:2091:GLN:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3133:ILE:HG22	1:A:3137:LEU:HD23	1.92	0.51
2:H:32:GLN:HE21	2:H:97:THR:HB	1.76	0.51
1:B:3134:LEU:HB3	1:B:3162:PHE:CZ	2.46	0.51
1:C:1124:PRO:HD2	1:C:1594:VAL:HG23	1.91	0.51
1:D:1118:SER:HB3	1:D:1204:VAL:HG11	1.93	0.51
1:D:1718:ARG:NH1	1:D:1758:ARG:HB3	2.23	0.51
1:D:1979:PHE:CD2	1:D:1993:ARG:HG3	2.46	0.51
1:D:2765:GLU:HA	1:D:2768:LYS:HD3	1.93	0.51
1:D:3133:ILE:HG22	1:D:3137:LEU:HD23	1.92	0.51
1:D:4304:GLY:O	1:D:4308:ILE:HG12	2.10	0.51
1:A:1979:PHE:CD2	1:A:1993:ARG:HG3	2.46	0.51
1:A:2172:MET:SD	1:A:2214:MET:HE1	2.50	0.51
1:A:2724:TYR:HB2	1:A:2895:PHE:CE2	2.46	0.51
1:A:2884:LYS:O	1:A:2887:GLU:HG3	2.10	0.51
1:B:920:GLU:O	1:B:924:LEU:N	2.37	0.51
1:C:624:ALA:HB2	1:C:1667:LEU:HD12	1.92	0.51
1:D:2413:LYS:NZ	1:D:2415:GLU:OE1	2.43	0.51
1:D:3072:MET:SD	1:D:3073:GLU:HG3	2.49	0.51
1:A:4767:LEU:O	1:A:4771:VAL:HG23	2.10	0.51
1:A:4831:ILE:HG13	1:A:4843:ARG:HH21	1.76	0.51
1:B:686:VAL:HG13	1:B:687:THR:HG23	1.93	0.51
1:B:2087:LEU:O	1:B:2091:GLN:HG2	2.11	0.51
1:B:3118:GLY:O	1:B:3122:ILE:HG22	2.11	0.51
1:D:2172:MET:SD	1:D:2214:MET:HE1	2.50	0.51
1:D:4250:TYR:O	1:D:4254:THR:HG23	2.11	0.51
1:D:4767:LEU:O	1:D:4771:VAL:HG23	2.10	0.51
1:A:901:GLY:HA3	1:A:913:ARG:NH2	2.15	0.50
1:A:989:THR:HB	1:A:992:GLN:HG2	1.92	0.50
2:E:32:GLN:HE21	2:E:97:THR:HB	1.76	0.50
1:B:3025:ASP:O	1:B:3029:ILE:HD12	2.10	0.50
1:B:4831:ILE:HG13	1:B:4843:ARG:HH21	1.76	0.50
1:C:2172:MET:SD	1:C:2214:MET:HE1	2.50	0.50
1:C:2413:LYS:NZ	1:C:2415:GLU:OE1	2.43	0.50
1:C:3067:ASP:HA	1:C:3070:LYS:NZ	2.25	0.50
1:C:4252:ILE:HG21	1:D:4707:MET:HG3	1.92	0.50
1:C:4767:LEU:O	1:C:4771:VAL:HG23	2.10	0.50
1:D:1289:SER:O	1:D:1295:SER:OG	2.23	0.50
1:D:2857:LYS:HA	1:D:2860:LEU:HG	1.93	0.50
1:D:4831:ILE:HG13	1:D:4843:ARG:HH21	1.76	0.50
1:A:2857:LYS:HA	1:A:2860:LEU:HG	1.93	0.50
1:A:3134:LEU:HB3	1:A:3162:PHE:CZ	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:249:SER:OG	1:B:250:GLY:N	2.44	0.50
1:B:930:ASN:O	1:B:933:LEU:HG	2.11	0.50
1:B:2172:MET:SD	1:B:2214:MET:HE1	2.51	0.50
1:D:2724:TYR:HB2	1:D:2895:PHE:CE2	2.46	0.50
1:D:3306:ILE:HA	1:D:3309:LYS:HZ3	1.75	0.50
1:B:1962:THR:HA	1:B:1965:PHE:HD2	1.77	0.50
1:B:2834:SER:H	1:B:2837:LEU:HD12	1.77	0.50
1:C:3070:LYS:O	1:C:3074:ASN:ND2	2.45	0.50
1:C:4489:GLN:HA	1:C:4492:LEU:HD12	1.94	0.50
1:D:249:SER:OG	1:D:250:GLY:N	2.44	0.50
1:D:960:LYS:HD2	1:D:960:LYS:O	2.12	0.50
1:D:2087:LEU:O	1:D:2091:GLN:HG2	2.11	0.50
1:D:2593:VAL:HG12	1:D:2644:LEU:HB2	1.93	0.50
1:D:3118:GLY:O	1:D:3122:ILE:HG22	2.11	0.50
1:D:4489:GLN:HA	1:D:4492:LEU:HD12	1.94	0.50
1:D:4570:PRO:HA	1:D:4573:ARG:HG2	1.94	0.50
1:A:960:LYS:HD2	1:A:960:LYS:O	2.12	0.50
1:A:1962:THR:HA	1:A:1965:PHE:HD2	1.77	0.50
1:A:4570:PRO:HA	1:A:4573:ARG:HG2	1.94	0.50
2:G:32:GLN:HE21	2:G:97:THR:HB	1.76	0.50
1:B:2736:LYS:HZ2	1:B:2754:GLN:HG2	1.76	0.50
1:B:3070:LYS:O	1:B:3074:ASN:ND2	2.45	0.50
1:B:3133:ILE:HG22	1:B:3137:LEU:HD23	1.92	0.50
1:B:4489:GLN:HA	1:B:4492:LEU:HD12	1.94	0.50
1:C:960:LYS:O	1:C:960:LYS:HD2	2.12	0.50
1:C:3134:LEU:HB3	1:C:3162:PHE:CZ	2.46	0.50
1:D:332:ARG:NH2	1:D:364:GLN:OE1	2.41	0.50
1:D:1124:PRO:HD2	1:D:1594:VAL:HG23	1.91	0.50
1:D:1270:VAL:HG22	1:D:1285:VAL:HG22	1.93	0.50
1:D:3134:LEU:HB3	1:D:3162:PHE:CZ	2.46	0.50
1:A:624:ALA:HB2	1:A:1667:LEU:HD12	1.92	0.50
1:A:910:ASP:OD1	1:A:911:ASN:N	2.45	0.50
1:A:932:ASN:HD22	1:A:935:MET:HE2	1.76	0.50
1:A:3697:LYS:HA	1:A:3700:HIS:NE2	2.26	0.50
1:B:1979:PHE:CD2	1:B:1993:ARG:HG3	2.46	0.50
1:B:2765:GLU:HA	1:B:2768:LYS:HD3	1.93	0.50
1:B:4266:LYS:HB3	1:B:4270:LYS:HZ1	1.76	0.50
1:C:1270:VAL:HG22	1:C:1285:VAL:HG22	1.93	0.50
1:C:3697:LYS:HA	1:C:3700:HIS:NE2	2.26	0.50
1:D:629:GLN:OE1	1:D:1669:ASN:ND2	2.40	0.50
1:D:644:LEU:HD13	1:D:1630:LEU:HD21	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:910:ASP:OD1	1:D:911:ASN:N	2.45	0.50
1:D:1962:THR:HA	1:D:1965:PHE:HD2	1.77	0.50
1:A:1788:LYS:HD3	1:A:1833:ILE:HG22	1.92	0.50
1:A:2635:GLU:HA	1:A:2638:LEU:HD12	1.94	0.50
1:B:2724:TYR:HB2	1:B:2895:PHE:CE2	2.46	0.50
1:B:3306:ILE:HA	1:B:3309:LYS:HZ3	1.76	0.50
1:C:249:SER:OG	1:C:250:GLY:N	2.44	0.50
1:C:1962:THR:HA	1:C:1965:PHE:HD2	1.77	0.50
1:D:658:ASN:ND2	1:D:831:LYS:O	2.42	0.50
1:A:3879:LEU:O	1:A:3882:GLN:HG3	2.12	0.50
1:B:839:GLU:HB2	1:B:851:LEU:HD12	1.93	0.50
1:C:849:ASP:OD1	1:C:1214:ARG:NE	2.45	0.50
1:C:1682:GLU:OE2	1:C:1783:PRO:HG2	2.12	0.50
1:C:2087:LEU:O	1:C:2091:GLN:HG2	2.11	0.50
1:D:849:ASP:OD1	1:D:1214:ARG:NE	2.45	0.50
1:D:930:ASN:O	1:D:933:LEU:HG	2.11	0.50
1:D:2635:GLU:HA	1:D:2638:LEU:HD12	1.94	0.50
1:D:4177:VAL:HG11	1:D:4880:VAL:HA	1.94	0.50
1:A:4489:GLN:HA	1:A:4492:LEU:HD12	1.94	0.50
2:F:80:ASP:OD1	2:F:81:VAL:N	2.45	0.50
1:B:1464:THR:HG22	1:B:1483:SER:HB2	1.93	0.50
1:B:2741:TRP:HA	1:B:2752:LYS:HB3	1.94	0.50
1:B:3879:LEU:O	1:B:3882:GLN:HG3	2.12	0.50
1:C:932:ASN:HD22	1:C:935:MET:HE2	1.76	0.50
1:C:2589:LEU:O	1:C:2593:VAL:HG13	2.12	0.50
1:C:4026:LEU:HD21	1:C:4052:MET:HG2	1.94	0.50
1:D:1464:THR:HG22	1:D:1483:SER:HB2	1.93	0.50
1:D:2741:TRP:HA	1:D:2752:LYS:HB3	1.94	0.50
1:D:2834:SER:H	1:D:2837:LEU:HD12	1.76	0.50
1:D:3697:LYS:HA	1:D:3700:HIS:NE2	2.26	0.50
1:A:1611:ILE:H	1:A:1611:ILE:HD12	1.77	0.50
1:A:1682:GLU:OE2	1:A:1783:PRO:HG2	2.12	0.50
1:A:2741:TRP:HA	1:A:2752:LYS:HB3	1.94	0.50
1:A:4056:LYS:HG3	1:B:4660:PHE:CE1	2.47	0.50
1:B:624:ALA:HB2	1:B:1667:LEU:HD12	1.92	0.50
1:C:2988:ARG:NE	1:C:2991:CYS:HA	2.27	0.50
1:C:3061:LEU:HD11	1:C:3126:VAL:HG13	1.94	0.50
1:A:930:ASN:O	1:A:933:LEU:HG	2.11	0.49
1:A:1014:GLN:HB3	1:A:1027:ARG:NH2	2.27	0.49
1:A:2765:GLU:HA	1:A:2768:LYS:HD3	1.93	0.49
2:H:78:THR:HA	2:H:97:THR:HG23	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:80:ASP:OD1	2:H:81:VAL:N	2.45	0.49
1:B:1611:ILE:H	1:B:1611:ILE:HD12	1.77	0.49
1:B:2255:LEU:O	1:B:3810:ARG:NH1	2.39	0.49
1:C:1464:THR:HG22	1:C:1483:SER:HB2	1.93	0.49
1:C:1957:LEU:HD23	1:C:1961:LYS:HG3	1.94	0.49
1:C:2593:VAL:HG12	1:C:2644:LEU:HB2	1.93	0.49
1:C:2736:LYS:HB2	1:C:2741:TRP:HD1	1.75	0.49
1:C:2884:LYS:O	1:C:2887:GLU:HG3	2.11	0.49
1:D:1014:GLN:HB3	1:D:1027:ARG:NH2	2.27	0.49
1:D:1494:MET:HB3	1:D:1497:GLY:HA2	1.93	0.49
1:D:2115:ASP:OD2	1:D:2154:VAL:HG23	2.11	0.49
1:D:2593:VAL:HG21	1:D:2640:LEU:HD11	1.94	0.49
1:D:3729:ALA:HA	1:D:3732:HIS:CD2	2.47	0.49
1:A:629:GLN:OE1	1:A:1669:ASN:ND2	2.40	0.49
1:A:644:LEU:HD13	1:A:1630:LEU:HD21	1.94	0.49
1:A:1464:THR:HG22	1:A:1483:SER:HB2	1.93	0.49
1:A:1494:MET:HB3	1:A:1497:GLY:HA2	1.93	0.49
1:A:2834:SER:H	1:A:2837:LEU:HD12	1.77	0.49
1:A:4177:VAL:HG11	1:A:4880:VAL:HA	1.94	0.49
2:F:32:GLN:HE21	2:F:97:THR:HB	1.76	0.49
2:G:80:ASP:OD1	2:G:81:VAL:N	2.45	0.49
1:B:238:HIS:CG	1:B:239:GLY:H	2.30	0.49
1:C:910:ASP:OD1	1:C:911:ASN:N	2.45	0.49
1:C:2115:ASP:OD2	1:C:2154:VAL:HG23	2.11	0.49
1:C:2202:TYR:O	1:C:2206:ILE:HG12	2.12	0.49
1:C:2834:SER:H	1:C:2837:LEU:HD12	1.77	0.49
1:D:932:ASN:HD22	1:D:935:MET:HE2	1.76	0.49
1:D:2791:ARG:NH2	1:D:2795:GLY:O	2.45	0.49
1:A:1270:VAL:HG22	1:A:1285:VAL:HG22	1.93	0.49
1:A:2115:ASP:OD2	1:A:2154:VAL:HG23	2.11	0.49
1:A:2593:VAL:HG12	1:A:2644:LEU:HD13	1.95	0.49
1:A:3729:ALA:HA	1:A:3732:HIS:CD2	2.47	0.49
2:E:80:ASP:OD1	2:E:81:VAL:N	2.45	0.49
1:B:849:ASP:OD1	1:B:1214:ARG:NE	2.45	0.49
1:B:2202:TYR:O	1:B:2206:ILE:HG12	2.13	0.49
1:B:2589:LEU:O	1:B:2593:VAL:HG13	2.12	0.49
1:B:2635:GLU:HA	1:B:2638:LEU:HD12	1.94	0.49
1:B:3067:ASP:HA	1:B:3070:LYS:HZ2	1.77	0.49
1:C:238:HIS:CG	1:C:239:GLY:H	2.30	0.49
1:C:2765:GLU:HA	1:C:2768:LYS:HD3	1.93	0.49
1:D:1682:GLU:OE2	1:D:1783:PRO:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3061:LEU:HD11	1:D:3126:VAL:HG13	1.94	0.49
1:D:3879:LEU:O	1:D:3882:GLN:HG3	2.12	0.49
1:A:2589:LEU:O	1:A:2593:VAL:HG13	2.12	0.49
1:A:3070:LYS:O	1:A:3074:ASN:ND2	2.45	0.49
1:A:4868:ASP:OD1	1:D:4874:ARG:NH1	2.45	0.49
2:E:78:THR:HA	2:E:97:THR:HG23	1.94	0.49
1:B:3061:LEU:HD11	1:B:3126:VAL:HG13	1.94	0.49
1:B:4570:PRO:HA	1:B:4573:ARG:HG2	1.94	0.49
1:C:1611:ILE:H	1:C:1611:ILE:HD12	1.77	0.49
1:C:1785:ASP:OD2	1:C:1785:ASP:N	2.46	0.49
1:C:2635:GLU:HA	1:C:2638:LEU:HD12	1.94	0.49
1:C:3118:GLY:O	1:C:3122:ILE:HG22	2.11	0.49
1:D:2202:TYR:O	1:D:2206:ILE:HG12	2.13	0.49
1:D:2277:CYS:HB3	1:D:2280:LEU:HB2	1.94	0.49
1:D:2593:VAL:HG12	1:D:2644:LEU:HD13	1.94	0.49
1:D:2988:ARG:NE	1:D:2991:CYS:HA	2.27	0.49
1:A:2241:ASP:OD2	1:A:2297:ARG:NH2	2.46	0.49
1:A:2593:VAL:HG21	1:A:2640:LEU:HD11	1.94	0.49
1:A:3118:GLY:O	1:A:3122:ILE:HG22	2.11	0.49
1:B:1957:LEU:HD23	1:B:1961:LYS:HG3	1.94	0.49
1:B:2115:ASP:OD2	1:B:2154:VAL:HG23	2.11	0.49
1:B:4274:MET:SD	1:C:4483:LYS:NZ	2.72	0.49
1:C:2277:CYS:HB3	1:C:2280:LEU:HB2	1.94	0.49
1:C:4177:VAL:HG11	1:C:4880:VAL:HA	1.94	0.49
1:D:877:HIS:HA	1:D:880:ARG:CD	2.43	0.49
1:D:2736:LYS:HB2	1:D:2741:TRP:HD1	1.76	0.49
1:D:3070:LYS:O	1:D:3074:ASN:ND2	2.45	0.49
1:D:3115:HIS:O	1:D:3116:GLN:HG3	2.12	0.49
1:A:4004:VAL:HG21	1:A:4114:ARG:HH11	1.78	0.49
1:B:1270:VAL:HG22	1:B:1285:VAL:HG22	1.93	0.49
1:B:4004:VAL:HG21	1:B:4114:ARG:HH11	1.78	0.49
1:C:930:ASN:O	1:C:933:LEU:HG	2.11	0.49
1:C:3002:GLU:O	1:C:3005:THR:OG1	2.27	0.49
1:B:910:ASP:OD1	1:B:911:ASN:N	2.45	0.49
1:B:2791:ARG:NH2	1:B:2795:GLY:O	2.45	0.49
1:B:2857:LYS:HA	1:B:2860:LEU:HG	1.93	0.49
1:B:4026:LEU:HD21	1:B:4052:MET:HG2	1.94	0.49
1:B:4167:GLU:OE2	1:B:4170:ARG:NH1	2.46	0.49
1:C:1937:GLN:NE2	1:C:3608:LEU:O	2.34	0.49
1:C:2241:ASP:OD2	1:C:2297:ARG:NH2	2.46	0.49
1:C:2593:VAL:HG21	1:C:2640:LEU:HD11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4570:PRO:HA	1:C:4573:ARG:HG2	1.94	0.49
1:D:1957:LEU:HD23	1:D:1961:LYS:HG3	1.94	0.49
1:D:2943:PHE:HE2	1:D:2960:ILE:HG21	1.78	0.49
1:A:877:HIS:HA	1:A:880:ARG:CD	2.43	0.49
1:A:3115:HIS:O	1:A:3116:GLN:HG3	2.12	0.49
1:A:3197:LEU:HG	1:A:3199:THR:H	1.78	0.49
1:A:4026:LEU:HD21	1:A:4052:MET:HG2	1.94	0.49
1:B:629:GLN:OE1	1:B:1669:ASN:ND2	2.40	0.49
1:B:644:LEU:HD13	1:B:1630:LEU:HD21	1.94	0.49
1:B:877:HIS:HA	1:B:880:ARG:CD	2.43	0.49
1:B:891:GLU:HB3	1:B:895:MET:HE1	1.95	0.49
1:B:1014:GLN:HB3	1:B:1027:ARG:NH2	2.27	0.49
1:B:1719:LEU:HD21	1:B:1830:ILE:HD12	1.95	0.49
1:B:3115:HIS:O	1:B:3116:GLN:HG3	2.12	0.49
1:B:3968:LEU:O	1:B:3972:MET:HG2	2.13	0.49
1:B:4052:MET:HE3	1:B:4063:THR:HG23	1.94	0.49
1:C:1494:MET:HB3	1:C:1497:GLY:HA2	1.93	0.49
1:C:3729:ALA:HA	1:C:3732:HIS:CD2	2.47	0.49
1:C:4052:MET:HE3	1:C:4063:THR:HG23	1.94	0.49
1:D:2589:LEU:O	1:D:2593:VAL:HG13	2.12	0.49
1:A:1957:LEU:HD23	1:A:1961:LYS:HG3	1.94	0.49
1:A:3061:LEU:HD11	1:A:3126:VAL:HG13	1.94	0.49
1:A:4052:MET:HE3	1:A:4063:THR:HG23	1.94	0.49
1:B:1682:GLU:OE2	1:B:1783:PRO:HG2	2.12	0.49
1:B:2241:ASP:OD2	1:B:2297:ARG:NH2	2.46	0.49
1:B:2593:VAL:HG21	1:B:2640:LEU:HD11	1.94	0.49
1:B:2988:ARG:NE	1:B:2991:CYS:HA	2.27	0.49
1:C:877:HIS:HA	1:C:880:ARG:CD	2.43	0.49
1:C:1014:GLN:HB3	1:C:1027:ARG:NH2	2.27	0.49
1:C:2791:ARG:NH2	1:C:2795:GLY:O	2.45	0.49
1:C:3197:LEU:HG	1:C:3199:THR:H	1.78	0.49
1:C:3879:LEU:O	1:C:3882:GLN:HG3	2.12	0.49
1:D:1611:ILE:HD12	1:D:1611:ILE:H	1.77	0.49
1:D:1788:LYS:HG3	1:D:1834:PHE:CE1	2.48	0.49
1:D:3650:GLU:HB2	1:D:3651:PRO:HD3	1.95	0.49
1:A:849:ASP:OD1	1:A:1214:ARG:NE	2.45	0.49
1:A:1785:ASP:OD2	1:A:1785:ASP:N	2.46	0.49
1:A:1788:LYS:HG3	1:A:1834:PHE:CE1	2.48	0.49
1:A:2202:TYR:O	1:A:2206:ILE:HG12	2.12	0.49
1:A:2791:ARG:NH2	1:A:2795:GLY:O	2.45	0.49
2:E:17:PRO:HG3	2:E:107:LEU:HD21	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:960:LYS:HD2	1:B:960:LYS:O	2.12	0.49
1:B:1785:ASP:OD2	1:B:1785:ASP:N	2.46	0.49
1:B:4177:VAL:HG11	1:B:4880:VAL:HA	1.94	0.49
1:C:644:LEU:HD13	1:C:1630:LEU:HD21	1.94	0.49
1:C:887:GLU:O	1:C:890:HIS:ND1	2.46	0.49
1:C:2741:TRP:HA	1:C:2752:LYS:HB3	1.94	0.49
1:C:2857:LYS:HA	1:C:2860:LEU:HG	1.93	0.49
1:C:3115:HIS:O	1:C:3116:GLN:HG3	2.12	0.49
1:A:2277:CYS:HB3	1:A:2280:LEU:HB2	1.94	0.48
1:A:3002:GLU:O	1:A:3005:THR:OG1	2.27	0.48
1:A:3054:LYS:HB3	1:A:3058:ARG:NH2	2.28	0.48
1:B:1494:MET:HB3	1:B:1497:GLY:HA2	1.93	0.48
1:B:4079:ASP:O	1:B:4082:GLU:HG3	2.13	0.48
1:C:940:LEU:HA	1:C:943:LEU:HD23	1.95	0.48
1:C:2736:LYS:HZ2	1:C:2754:GLN:HG2	1.78	0.48
1:C:2999:LYS:O	1:C:3003:MET:HG2	2.13	0.48
1:C:3968:LEU:O	1:C:3972:MET:HG2	2.13	0.48
1:C:4079:ASP:O	1:C:4082:GLU:HG3	2.13	0.48
1:D:920:GLU:O	1:D:924:LEU:N	2.37	0.48
1:D:1471:ASP:OD2	1:D:1473:LYS:NZ	2.30	0.48
1:D:4004:VAL:HG21	1:D:4114:ARG:HH11	1.78	0.48
1:D:4052:MET:HE3	1:D:4063:THR:HG23	1.94	0.48
1:A:249:SER:OG	1:A:250:GLY:N	2.44	0.48
1:A:891:GLU:HB3	1:A:895:MET:HE1	1.95	0.48
1:A:931:TYR:HD1	1:A:934:GLN:HE22	1.60	0.48
1:A:2837:LEU:HA	1:A:2840:MET:HE2	1.95	0.48
1:A:4079:ASP:O	1:A:4082:GLU:HG3	2.13	0.48
1:B:317:MET:HE2	1:B:321:LYS:HG3	1.96	0.48
1:B:1471:ASP:OD2	1:B:1473:LYS:NZ	2.30	0.48
1:B:3002:GLU:O	1:B:3005:THR:OG1	2.27	0.48
1:C:931:TYR:HA	1:C:934:GLN:OE1	2.13	0.48
1:D:887:GLU:O	1:D:890:HIS:ND1	2.46	0.48
1:D:891:GLU:HB3	1:D:895:MET:HE1	1.95	0.48
1:D:1793:GLN:NE2	1:D:1797:GLU:OE2	2.43	0.48
1:A:4268:MET:HA	1:A:4271:VAL:HG12	1.96	0.48
2:F:17:PRO:HG3	2:F:107:LEU:HD21	1.95	0.48
1:B:931:TYR:HD1	1:B:934:GLN:HE22	1.60	0.48
1:B:3197:LEU:HG	1:B:3199:THR:H	1.78	0.48
1:B:3277:LEU:O	1:B:3281:LEU:HG	2.14	0.48
1:B:3729:ALA:HA	1:B:3732:HIS:CD2	2.47	0.48
1:B:4268:MET:HA	1:B:4271:VAL:HG12	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:317:MET:HE2	1:C:321:LYS:HG3	1.96	0.48
1:C:2593:VAL:HG12	1:C:2644:LEU:HD13	1.94	0.48
1:C:3306:ILE:HA	1:C:3309:LYS:HZ3	1.76	0.48
1:D:70:GLU:OE2	1:D:122:ARG:HD3	2.14	0.48
1:D:238:HIS:CG	1:D:239:GLY:H	2.30	0.48
1:D:2241:ASP:OD2	1:D:2297:ARG:NH2	2.46	0.48
1:A:930:ASN:O	1:A:934:GLN:OE1	2.31	0.48
1:A:4261:LEU:HD22	1:A:4263:SER:HB3	1.96	0.48
1:C:1788:LYS:HG3	1:C:1834:PHE:CE1	2.48	0.48
1:C:2645:PHE:CZ	1:C:2925:PHE:HE1	2.31	0.48
1:D:325:LYS:HD2	1:D:367:ASP:OD2	2.14	0.48
1:D:3054:LYS:HB3	1:D:3058:ARG:NH2	2.28	0.48
1:D:3277:LEU:O	1:D:3281:LEU:HG	2.14	0.48
1:D:3968:LEU:O	1:D:3972:MET:HG2	2.13	0.48
1:A:238:HIS:CG	1:A:239:GLY:H	2.30	0.48
1:A:2736:LYS:HE2	1:A:2741:TRP:CG	2.49	0.48
1:A:2830:ASN:HD21	1:B:1551:ASN:HB2	1.79	0.48
1:A:4707:MET:HG3	1:D:4252:ILE:HG21	1.94	0.48
2:H:83:TYR:OH	1:D:1768:PHE:O	2.21	0.48
1:B:1788:LYS:HG3	1:B:1834:PHE:CE1	2.48	0.48
1:B:2999:LYS:O	1:B:3003:MET:HG2	2.13	0.48
1:B:3054:LYS:HB3	1:B:3058:ARG:NH2	2.28	0.48
1:D:930:ASN:O	1:D:934:GLN:OE1	2.31	0.48
1:D:931:TYR:HA	1:D:934:GLN:OE1	2.13	0.48
1:D:2763:LEU:O	1:D:2768:LYS:NZ	2.33	0.48
1:D:4079:ASP:O	1:D:4082:GLU:HG3	2.13	0.48
1:D:4819:VAL:HG12	1:D:4830:GLU:HG3	1.96	0.48
1:A:1719:LEU:HD21	1:A:1830:ILE:HD12	1.95	0.48
2:H:63:GLY:O	2:H:67:MET:HG3	2.14	0.48
1:B:931:TYR:HA	1:B:934:GLN:OE1	2.13	0.48
1:B:1793:GLN:NE2	1:B:1797:GLU:OE2	2.43	0.48
1:B:2277:CYS:HB3	1:B:2280:LEU:HB2	1.94	0.48
1:B:2593:VAL:HG12	1:B:2644:LEU:HD13	1.94	0.48
1:B:2837:LEU:HA	1:B:2840:MET:HE2	1.95	0.48
1:C:70:GLU:OE2	1:C:122:ARG:HD3	2.14	0.48
1:C:1289:SER:O	1:C:1295:SER:OG	2.23	0.48
1:C:2773:TRP:HB3	1:C:2774:PRO:HD3	1.96	0.48
1:C:3033:LEU:CD1	1:C:3104:MET:HG2	2.43	0.48
1:D:3197:LEU:HG	1:D:3199:THR:H	1.78	0.48
1:D:4026:LEU:HD21	1:D:4052:MET:HG2	1.94	0.48
1:D:4268:MET:HA	1:D:4271:VAL:HG12	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:537:LEU:O	1:A:541:ILE:HG12	2.14	0.48
1:A:887:GLU:O	1:A:890:HIS:ND1	2.46	0.48
1:A:1434:PRO:O	1:D:2830:ASN:HB3	2.13	0.48
1:A:2943:PHE:HE2	1:A:2960:ILE:HG21	1.78	0.48
1:A:2988:ARG:NE	1:A:2991:CYS:HA	2.27	0.48
1:A:4896:ASP:OD1	1:A:4897:TYR:N	2.47	0.48
2:F:63:GLY:O	2:F:67:MET:HG3	2.14	0.48
2:F:78:THR:HA	2:F:97:THR:HG23	1.94	0.48
1:B:887:GLU:O	1:B:890:HIS:ND1	2.46	0.48
1:B:1004:HIS:CE1	1:B:1038:LEU:HD12	2.49	0.48
1:B:1834:PHE:HD1	1:B:1838:ASP:HB3	1.79	0.48
1:B:3122:ILE:O	1:B:3123:LEU:HD22	2.14	0.48
1:B:4261:LEU:HD22	1:B:4263:SER:HB3	1.96	0.48
1:C:1004:HIS:CE1	1:C:1038:LEU:HD12	2.49	0.48
1:C:3054:LYS:HB3	1:C:3058:ARG:NH2	2.28	0.48
1:C:3054:LYS:HB3	1:C:3058:ARG:NH1	2.29	0.48
1:C:4268:MET:HA	1:C:4271:VAL:HG12	1.96	0.48
1:D:940:LEU:HA	1:D:943:LEU:HD23	1.95	0.48
1:D:2769:GLU:O	1:D:2771:TYR:N	2.42	0.48
1:A:661:LEU:HD13	1:A:673:TRP:CD1	2.49	0.48
1:A:992:GLN:O	1:A:996:VAL:HG23	2.14	0.48
1:A:2617:CYS:HA	1:A:2627:TRP:CH2	2.42	0.48
1:A:2999:LYS:O	1:A:3003:MET:HG2	2.13	0.48
1:A:3277:LEU:O	1:A:3281:LEU:HG	2.14	0.48
2:E:63:GLY:O	2:E:67:MET:HG3	2.14	0.48
2:G:78:THR:HA	2:G:97:THR:HG23	1.94	0.48
1:B:537:LEU:O	1:B:541:ILE:HG12	2.14	0.48
1:B:2645:PHE:CZ	1:B:2925:PHE:HE1	2.31	0.48
1:B:2736:LYS:HE2	1:B:2741:TRP:CG	2.49	0.48
1:C:1719:LEU:HD21	1:C:1830:ILE:HD12	1.95	0.48
1:D:317:MET:HE2	1:D:321:LYS:HG3	1.96	0.48
1:D:862:PHE:HB2	1:D:1034:PRO:HD3	1.96	0.48
1:D:992:GLN:O	1:D:996:VAL:HG23	2.14	0.48
1:A:332:ARG:NH2	1:A:364:GLN:OE1	2.41	0.48
1:A:2265:VAL:HG21	1:A:2301:PHE:CE2	2.49	0.48
2:G:17:PRO:HG3	2:G:107:LEU:HD21	1.95	0.48
2:H:17:PRO:HG3	2:H:107:LEU:HD21	1.95	0.48
1:B:4660:PHE:HD2	1:B:4661:TYR:CD2	2.32	0.48
1:C:2943:PHE:HE2	1:C:2960:ILE:HG21	1.78	0.48
1:C:4563:GLU:HG2	1:C:4566:GLY:H	1.79	0.48
1:C:4896:ASP:OD1	1:C:4897:TYR:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:897:LYS:HZ2	1:D:918:LEU:HB2	1.79	0.48
1:D:898:ILE:HD13	1:D:972:LEU:HB3	1.95	0.48
1:D:3122:ILE:O	1:D:3123:LEU:HD22	2.14	0.48
1:A:920:GLU:O	1:A:924:LEU:N	2.37	0.48
1:A:1004:HIS:CE1	1:A:1038:LEU:HD12	2.49	0.48
1:A:3650:GLU:HB2	1:A:3651:PRO:HD3	1.95	0.48
1:B:3054:LYS:HB3	1:B:3058:ARG:NH1	2.29	0.48
1:C:862:PHE:HB2	1:C:1034:PRO:HD3	1.96	0.48
1:D:885:LEU:HD22	1:D:1057:LEU:HD23	1.96	0.48
1:D:2265:VAL:HG21	1:D:2301:PHE:CE2	2.49	0.48
1:D:3315:LEU:HA	1:D:3319:PHE:HD2	1.79	0.48
1:D:3935:LEU:HD23	1:D:3940:LEU:HD22	1.96	0.48
1:A:260:VAL:O	1:A:390:LYS:NZ	2.38	0.47
1:A:931:TYR:HA	1:A:934:GLN:OE1	2.13	0.47
1:A:1834:PHE:HD1	1:A:1838:ASP:HB3	1.79	0.47
1:A:2645:PHE:CZ	1:A:2925:PHE:HE1	2.31	0.47
1:B:325:LYS:HD2	1:B:367:ASP:OD2	2.14	0.47
1:B:483:LYS:NZ	1:B:543:GLY:O	2.47	0.47
1:B:3122:ILE:O	1:B:3127:GLN:NE2	2.47	0.47
1:C:2455:ASP:OD2	1:C:2457:SER:OG	2.27	0.47
1:C:3177:LYS:HE3	1:C:3178:HIS:CE1	2.49	0.47
1:C:3277:LEU:O	1:C:3281:LEU:HG	2.14	0.47
1:C:4004:VAL:HG21	1:C:4114:ARG:HH11	1.78	0.47
1:D:2168:HIS:O	1:D:2172:MET:HG2	2.14	0.47
1:D:3065:ALA:O	1:D:3069:GLU:HG2	2.15	0.47
1:A:70:GLU:OE2	1:A:122:ARG:HD3	2.14	0.47
1:A:885:LEU:HD22	1:A:1057:LEU:HD23	1.96	0.47
1:A:988:LEU:H	1:A:1055:ARG:NH2	2.12	0.47
1:A:2590:ARG:NH2	1:A:2875:ASP:OD2	2.47	0.47
1:A:3315:LEU:HA	1:A:3319:PHE:HD2	1.79	0.47
1:A:3935:LEU:HD23	1:A:3940:LEU:HD22	1.96	0.47
1:A:3968:LEU:O	1:A:3972:MET:HG2	2.13	0.47
1:A:4256:MET:HE1	1:B:4703:VAL:O	2.14	0.47
1:A:4660:PHE:HD2	1:A:4661:TYR:CD2	2.32	0.47
2:G:63:GLY:O	2:G:67:MET:HG3	2.14	0.47
1:B:70:GLU:OE2	1:B:122:ARG:HD3	2.14	0.47
1:B:930:ASN:O	1:B:934:GLN:OE1	2.31	0.47
1:B:2943:PHE:HE2	1:B:2960:ILE:HG21	1.78	0.47
1:B:4520:TYR:HE2	1:B:4559:TYR:HB3	1.78	0.47
1:B:4867:ILE:HG12	1:C:4864:GLY:HA2	1.96	0.47
1:C:930:ASN:O	1:C:934:GLN:OE1	2.31	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2736:LYS:HE2	1:C:2741:TRP:CG	2.49	0.47
1:C:4261:LEU:HD22	1:C:4263:SER:HB3	1.96	0.47
1:D:1004:HIS:CE1	1:D:1038:LEU:HD12	2.49	0.47
1:D:1719:LEU:HD21	1:D:1830:ILE:HD12	1.95	0.47
1:D:2645:PHE:CZ	1:D:2925:PHE:HE1	2.31	0.47
1:D:2736:LYS:HE2	1:D:2741:TRP:CG	2.49	0.47
1:D:3026:ALA:O	1:D:3030:VAL:HG23	2.15	0.47
1:D:3122:ILE:O	1:D:3127:GLN:NE2	2.47	0.47
1:D:3177:LYS:HE3	1:D:3178:HIS:CE1	2.50	0.47
1:D:4520:TYR:HE2	1:D:4559:TYR:HB3	1.78	0.47
1:A:585:ALA:O	1:A:589:ILE:HG12	2.14	0.47
1:A:3054:LYS:HB3	1:A:3058:ARG:NH1	2.29	0.47
1:A:3065:ALA:O	1:A:3069:GLU:HG2	2.14	0.47
1:A:4520:TYR:HE2	1:A:4559:TYR:HB3	1.78	0.47
1:B:661:LEU:HD13	1:B:673:TRP:CD1	2.49	0.47
1:B:940:LEU:HA	1:B:943:LEU:HD23	1.95	0.47
1:B:2525:LEU:HG	1:B:2569:ILE:HD13	1.97	0.47
1:B:2590:ARG:NH2	1:B:2875:ASP:OD2	2.47	0.47
1:B:4896:ASP:OD1	1:B:4897:TYR:N	2.47	0.47
1:C:325:LYS:HD2	1:C:367:ASP:OD2	2.14	0.47
1:C:483:LYS:NZ	1:C:543:GLY:O	2.47	0.47
1:C:2119:LEU:HB2	1:C:2152:ASN:ND2	2.30	0.47
1:C:2168:HIS:O	1:C:2172:MET:HG2	2.14	0.47
1:C:2999:LYS:HA	1:C:3002:GLU:OE1	2.14	0.47
1:C:4867:ILE:HG12	1:D:4864:GLY:HA2	1.96	0.47
1:A:897:LYS:HZ1	1:A:918:LEU:HB2	1.79	0.47
1:A:1947:VAL:HG12	1:A:1948:MET:HE2	1.96	0.47
1:B:2168:HIS:O	1:B:2172:MET:HG2	2.14	0.47
1:B:2265:VAL:HG21	1:B:2301:PHE:CE2	2.49	0.47
1:B:2658:GLU:OE1	1:B:2661:LEU:N	2.31	0.47
1:B:3065:ALA:O	1:B:3069:GLU:HG2	2.15	0.47
1:B:3117:PHE:CG	1:B:3118:GLY:N	2.82	0.47
1:B:4819:VAL:HG12	1:B:4830:GLU:HG3	1.96	0.47
1:C:456:LEU:HD11	1:C:533:LEU:HG	1.96	0.47
1:C:3043:ARG:O	1:C:3047:LYS:HE2	2.15	0.47
1:C:3067:ASP:HA	1:C:3070:LYS:HZ2	1.80	0.47
1:C:3122:ILE:O	1:C:3127:GLN:NE2	2.47	0.47
1:C:3321:PRO:O	1:C:3325:LYS:HG3	2.15	0.47
1:D:2617:CYS:HA	1:D:2627:TRP:CH2	2.42	0.47
1:D:2773:TRP:HB3	1:D:2774:PRO:HD3	1.96	0.47
1:D:2999:LYS:O	1:D:3003:MET:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:4261:LEU:HD22	1:D:4263:SER:HB3	1.96	0.47
1:D:4563:GLU:HG2	1:D:4566:GLY:H	1.79	0.47
1:D:4896:ASP:OD1	1:D:4897:TYR:N	2.47	0.47
1:A:317:MET:HE2	1:A:321:LYS:HG3	1.96	0.47
1:A:637:LEU:HB3	1:A:1679:HIS:NE2	2.30	0.47
1:A:898:ILE:HD13	1:A:972:LEU:HB3	1.95	0.47
2:G:75:LEU:HB2	2:G:100:PHE:HB2	1.96	0.47
1:B:992:GLN:O	1:B:996:VAL:HG23	2.14	0.47
1:B:2119:LEU:HB2	1:B:2152:ASN:ND2	2.30	0.47
1:B:3177:LYS:HE3	1:B:3178:HIS:CE1	2.49	0.47
1:C:448:PRO:HB2	1:C:451:SER:OG	2.15	0.47
1:C:585:ALA:O	1:C:589:ILE:HG12	2.14	0.47
1:C:891:GLU:HB3	1:C:895:MET:HE1	1.95	0.47
1:C:992:GLN:O	1:C:996:VAL:HG23	2.14	0.47
1:C:1793:GLN:NE2	1:C:1797:GLU:OE2	2.43	0.47
1:C:3650:GLU:HB2	1:C:3651:PRO:HD3	1.95	0.47
1:C:4660:PHE:HD2	1:C:4661:TYR:CD2	2.32	0.47
1:D:537:LEU:O	1:D:541:ILE:HG12	2.14	0.47
1:D:2119:LEU:HB2	1:D:2152:ASN:ND2	2.30	0.47
1:D:3054:LYS:HB3	1:D:3058:ARG:NH1	2.29	0.47
1:D:4268:MET:HE2	1:D:4272:LYS:HE2	1.97	0.47
1:A:1914:CYS:O	1:A:1918:VAL:HG23	2.15	0.47
1:A:2525:LEU:HG	1:A:2569:ILE:HD13	1.96	0.47
1:A:2773:TRP:HB3	1:A:2774:PRO:HD3	1.96	0.47
1:A:4819:VAL:HG12	1:A:4830:GLU:HG3	1.96	0.47
1:B:585:ALA:O	1:B:589:ILE:HG12	2.14	0.47
1:B:2692:GLN:CD	1:B:2704:GLN:H	2.23	0.47
1:B:2905:ARG:HB2	1:B:2908:LYS:HZ1	1.78	0.47
1:B:3043:ARG:O	1:B:3047:LYS:HE2	2.14	0.47
1:B:3159:LEU:HD23	1:B:3241:MET:HB3	1.97	0.47
1:B:3213:LYS:HA	1:B:3216:GLU:CG	2.45	0.47
1:C:2265:VAL:HG21	1:C:2301:PHE:CE2	2.49	0.47
1:C:3246:MET:SD	1:C:3247:SER:N	2.88	0.47
1:C:3315:LEU:HA	1:C:3319:PHE:HD2	1.79	0.47
1:D:988:LEU:H	1:D:1055:ARG:NH2	2.12	0.47
1:D:1834:PHE:HD1	1:D:1838:ASP:HB3	1.79	0.47
1:D:1979:PHE:HZ	1:D:1996:LEU:HD23	1.80	0.47
1:D:2525:LEU:HG	1:D:2569:ILE:HD13	1.97	0.47
1:A:1088:PHE:HB2	1:A:1205:CYS:SG	2.55	0.47
1:A:3177:LYS:HE3	1:A:3178:HIS:CE1	2.50	0.47
1:A:3213:LYS:HA	1:A:3216:GLU:CG	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4268:MET:HE2	1:A:4272:LYS:HE2	1.97	0.47
2:E:75:LEU:HB2	2:E:100:PHE:HB2	1.96	0.47
2:F:75:LEU:HB2	2:F:100:PHE:HB2	1.96	0.47
2:G:8:ILE:HA	1:C:730:LEU:HD11	1.96	0.47
1:B:897:LYS:HG2	1:B:902:TRP:HB2	1.97	0.47
1:B:988:LEU:H	1:B:1055:ARG:NH2	2.12	0.47
1:B:1088:PHE:HB2	1:B:1205:CYS:SG	2.55	0.47
1:B:2482:ASP:OD2	1:B:2483:PHE:N	2.48	0.47
1:B:2999:LYS:HA	1:B:3002:GLU:OE1	2.14	0.47
1:B:3312:PRO:HA	1:B:3315:LEU:HD12	1.96	0.47
1:B:3315:LEU:HA	1:B:3319:PHE:HD2	1.79	0.47
1:B:3650:GLU:HB2	1:B:3651:PRO:HD3	1.95	0.47
1:B:4036:ASP:OD1	1:B:4040:LYS:NZ	2.43	0.47
1:C:503:ASP:O	1:C:507:VAL:HG23	2.15	0.47
1:C:637:LEU:HB3	1:C:1679:HIS:NE2	2.30	0.47
1:C:2222:LEU:HA	1:C:2222:LEU:HD23	1.74	0.47
1:C:2525:LEU:HG	1:C:2569:ILE:HD13	1.97	0.47
1:C:2590:ARG:NH2	1:C:2875:ASP:OD2	2.47	0.47
1:C:2827:ASP:O	1:D:1501:ASN:ND2	2.48	0.47
1:C:2837:LEU:HA	1:C:2840:MET:HE2	1.95	0.47
1:C:3026:ALA:O	1:C:3030:VAL:HG23	2.14	0.47
1:C:3065:ALA:O	1:C:3069:GLU:HG2	2.15	0.47
1:C:3122:ILE:O	1:C:3123:LEU:HD22	2.14	0.47
1:C:4268:MET:HE2	1:C:4272:LYS:HE2	1.97	0.47
1:C:4819:VAL:HG12	1:C:4830:GLU:HG3	1.96	0.47
1:D:456:LEU:HD11	1:D:533:LEU:HG	1.96	0.47
1:D:897:LYS:HG2	1:D:902:TRP:HB2	1.97	0.47
1:D:931:TYR:HD1	1:D:934:GLN:HE22	1.60	0.47
1:D:2482:ASP:OD2	1:D:2483:PHE:N	2.48	0.47
1:D:2590:ARG:NH2	1:D:2875:ASP:OD2	2.47	0.47
1:D:3321:PRO:O	1:D:3325:LYS:HG3	2.15	0.47
1:D:4255:LEU:HD13	1:D:4293:THR:OG1	2.15	0.47
1:D:4660:PHE:HD2	1:D:4661:TYR:CD2	2.32	0.47
1:A:883:GLU:HG2	1:A:884:LYS:HD3	1.97	0.47
1:A:897:LYS:HG2	1:A:902:TRP:HB2	1.97	0.47
1:A:2255:LEU:O	1:A:3810:ARG:NH1	2.39	0.47
1:A:2692:GLN:CD	1:A:2704:GLN:H	2.23	0.47
1:A:3122:ILE:O	1:A:3123:LEU:HD22	2.14	0.47
1:A:3287:ASN:ND2	1:A:3295:TRP:HH2	2.13	0.47
1:A:4194:GLU:HG2	1:A:4645:TRP:HZ3	1.80	0.47
1:A:4563:GLU:HG2	1:A:4566:GLY:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:885:LEU:HD22	1:B:1057:LEU:HD23	1.96	0.47
1:B:3246:MET:SD	1:B:3247:SER:N	2.88	0.47
1:C:537:LEU:O	1:C:541:ILE:HG12	2.14	0.47
1:C:897:LYS:HG2	1:C:902:TRP:HB2	1.97	0.47
1:C:988:LEU:H	1:C:1055:ARG:NH2	2.12	0.47
1:C:1284:LYS:HE2	1:C:1433:PHE:CZ	2.50	0.47
1:C:1947:VAL:HG12	1:C:1948:MET:HE2	1.96	0.47
1:C:2892:ILE:HG23	1:C:2893:LEU:HD22	1.97	0.47
1:C:3303:SER:O	1:C:3306:ILE:HG12	2.15	0.47
1:D:1284:LYS:HE2	1:D:1433:PHE:CZ	2.50	0.47
1:D:1914:CYS:O	1:D:1918:VAL:HG23	2.15	0.47
1:D:2837:LEU:HA	1:D:2840:MET:HE2	1.95	0.47
1:D:3117:PHE:CG	1:D:3118:GLY:N	2.82	0.47
1:A:940:LEU:HA	1:A:943:LEU:HD23	1.95	0.47
1:A:2717:LEU:HD11	1:A:2789:ILE:HD13	1.97	0.47
1:A:2999:LYS:HA	1:A:3002:GLU:OE1	2.14	0.47
1:A:3122:ILE:O	1:A:3127:GLN:NE2	2.47	0.47
1:B:23:GLN:HB3	1:B:34:LYS:HD2	1.97	0.47
1:B:898:ILE:HD13	1:B:972:LEU:HB3	1.95	0.47
1:B:1839:LEU:HD23	1:B:1842:ILE:HD11	1.97	0.47
1:B:1979:PHE:CZ	1:B:1996:LEU:HD23	2.50	0.47
1:B:4563:GLU:HG2	1:B:4566:GLY:H	1.79	0.47
1:C:28:ILE:O	1:C:31:GLU:HG3	2.15	0.47
1:C:1088:PHE:HB2	1:C:1205:CYS:SG	2.55	0.47
1:C:1979:PHE:CZ	1:C:1996:LEU:HD23	2.50	0.47
1:C:2692:GLN:CD	1:C:2704:GLN:H	2.23	0.47
1:C:3312:PRO:HA	1:C:3315:LEU:HD12	1.96	0.47
1:D:661:LEU:HD13	1:D:673:TRP:CD1	2.49	0.47
1:D:1102:TYR:N	1:D:1237:GLU:O	2.48	0.47
1:A:198:ASN:C	1:A:198:ASN:ND2	2.73	0.47
1:A:344:LYS:HD3	1:A:344:LYS:HA	1.69	0.47
1:A:862:PHE:HB2	1:A:1034:PRO:HD3	1.96	0.47
1:A:2736:LYS:HZ2	1:A:2754:GLN:HG2	1.80	0.47
1:A:2840:MET:HG2	1:A:2905:ARG:NH2	2.30	0.47
1:A:3043:ARG:O	1:A:3047:LYS:HE2	2.14	0.47
1:A:4255:LEU:HD13	1:A:4293:THR:OG1	2.15	0.47
2:H:32:GLN:OE1	1:D:1312:GLU:HB3	2.15	0.47
1:B:448:PRO:HB2	1:B:451:SER:OG	2.14	0.47
1:B:2567:ASP:O	1:B:2571:VAL:HG23	2.15	0.47
1:B:2642:ARG:HH12	1:B:2921:PHE:HA	1.80	0.47
1:B:3642:GLU:HG3	1:B:3646:LYS:NZ	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1834:PHE:HD1	1:C:1838:ASP:HB3	1.79	0.47
1:C:3287:ASN:ND2	1:C:3295:TRP:HH2	2.13	0.47
1:C:3642:GLU:HG3	1:C:3646:LYS:NZ	2.30	0.47
1:C:3935:LEU:HD23	1:C:3940:LEU:HD22	1.96	0.47
1:D:198:ASN:C	1:D:198:ASN:ND2	2.73	0.47
1:D:1947:VAL:HG12	1:D:1948:MET:HE2	1.96	0.47
1:D:2255:LEU:O	1:D:3810:ARG:NH1	2.39	0.47
1:D:3054:LYS:HD2	1:D:3058:ARG:HH12	1.80	0.47
1:D:3227:ARG:HG3	1:D:3228:TYR:N	2.30	0.47
1:A:325:LYS:HD2	1:A:367:ASP:OD2	2.14	0.46
1:A:1839:LEU:HD23	1:A:1842:ILE:HD11	1.97	0.46
1:A:2168:HIS:O	1:A:2172:MET:HG2	2.14	0.46
1:A:3026:ALA:O	1:A:3030:VAL:HG23	2.15	0.46
1:A:3090:VAL:O	1:A:3094:ILE:HG13	2.16	0.46
1:A:3321:PRO:O	1:A:3325:LYS:HG3	2.15	0.46
1:A:4660:PHE:CE1	1:D:4056:LYS:HG3	2.50	0.46
1:B:3026:ALA:O	1:B:3030:VAL:HG23	2.15	0.46
1:B:3321:PRO:O	1:B:3325:LYS:HG3	2.15	0.46
1:B:3605:MET:C	1:B:3607:PRO:HD3	2.40	0.46
1:C:1043:LYS:HA	1:C:1046:ASN:HD21	1.81	0.46
1:C:2874:TYR:HD2	1:C:2877:LEU:HD12	1.80	0.46
1:C:4167:GLU:OE2	1:C:4170:ARG:NH1	2.46	0.46
1:C:4255:LEU:HD13	1:C:4293:THR:OG1	2.15	0.46
1:D:503:ASP:O	1:D:507:VAL:HG23	2.15	0.46
1:D:637:LEU:HB3	1:D:1679:HIS:NE2	2.30	0.46
1:D:1043:LYS:HA	1:D:1046:ASN:HD21	1.81	0.46
1:D:1785:ASP:OD2	1:D:1785:ASP:N	2.46	0.46
1:D:1839:LEU:HD23	1:D:1842:ILE:HD11	1.97	0.46
1:A:456:LEU:HD11	1:A:533:LEU:HG	1.96	0.46
1:A:503:ASP:O	1:A:507:VAL:HG23	2.15	0.46
1:A:3227:ARG:HG3	1:A:3228:TYR:N	2.30	0.46
1:A:3303:SER:O	1:A:3306:ILE:HG12	2.15	0.46
1:A:4906:GLU:HG2	1:B:4183:LYS:HE2	1.96	0.46
2:H:75:LEU:HB2	2:H:100:PHE:HB2	1.96	0.46
1:B:28:ILE:O	1:B:31:GLU:HG3	2.15	0.46
1:B:895:MET:HE3	1:B:978:PRO:HA	1.98	0.46
1:B:2565:GLN:O	1:B:2569:ILE:HG12	2.16	0.46
1:B:4255:LEU:HD13	1:B:4293:THR:OG1	2.15	0.46
1:B:4268:MET:HE2	1:B:4272:LYS:HE2	1.97	0.46
1:C:883:GLU:HG2	1:C:884:LYS:HD3	1.97	0.46
1:C:3054:LYS:HD2	1:C:3058:ARG:HH12	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:28:ILE:O	1:D:31:GLU:HG3	2.15	0.46
1:D:483:LYS:NZ	1:D:543:GLY:O	2.47	0.46
1:D:1979:PHE:CZ	1:D:1996:LEU:HD23	2.50	0.46
1:D:2717:LEU:HD11	1:D:2789:ILE:HD13	1.97	0.46
1:D:2874:TYR:HD2	1:D:2877:LEU:HD12	1.81	0.46
1:D:3287:ASN:ND2	1:D:3295:TRP:HH2	2.13	0.46
1:D:3728:GLN:HG2	1:D:3765:ILE:HA	1.97	0.46
1:D:4167:GLU:OE2	1:D:4170:ARG:NH1	2.46	0.46
1:A:483:LYS:NZ	1:A:543:GLY:O	2.47	0.46
1:A:3642:GLU:HG3	1:A:3646:LYS:NZ	2.30	0.46
1:B:2773:TRP:HB3	1:B:2774:PRO:HD3	1.96	0.46
1:C:661:LEU:HD13	1:C:673:TRP:CD1	2.49	0.46
1:C:810:GLU:OE1	1:C:1614:ARG:HA	2.16	0.46
1:C:898:ILE:HD13	1:C:972:LEU:HB3	1.95	0.46
1:C:2917:ILE:HD13	1:C:2999:LYS:HE3	1.98	0.46
1:D:585:ALA:O	1:D:589:ILE:HG12	2.14	0.46
1:D:3245:TYR:HD1	1:D:3249:TRP:CD1	2.34	0.46
1:A:1979:PHE:HZ	1:A:1996:LEU:HD23	1.80	0.46
1:A:2119:LEU:HB2	1:A:2152:ASN:ND2	2.29	0.46
1:A:3159:LEU:HD23	1:A:3241:MET:HB3	1.97	0.46
2:G:3:VAL:HG21	2:G:59:GLY:HA2	1.98	0.46
1:B:814:LEU:HD12	1:B:815:PRO:HD2	1.98	0.46
1:B:1102:TYR:N	1:B:1237:GLU:O	2.48	0.46
1:B:1947:VAL:HG12	1:B:1948:MET:HE2	1.96	0.46
1:B:2674:GLY:HA2	1:B:2978:HIS:HE1	1.81	0.46
1:B:2747:TYR:HE1	1:B:2754:GLN:NE2	2.14	0.46
1:B:3227:ARG:HG3	1:B:3228:TYR:N	2.30	0.46
1:B:3303:SER:O	1:B:3306:ILE:HG12	2.15	0.46
1:B:3728:GLN:HG2	1:B:3765:ILE:HA	1.97	0.46
1:C:885:LEU:HD22	1:C:1057:LEU:HD23	1.96	0.46
1:C:920:GLU:O	1:C:924:LEU:N	2.37	0.46
1:C:969:ASN:OD1	1:C:970:TYR:N	2.49	0.46
1:C:3213:LYS:HA	1:C:3216:GLU:CG	2.45	0.46
1:C:4036:ASP:OD1	1:C:4040:LYS:NZ	2.43	0.46
1:D:441:LYS:O	1:D:444:THR:OG1	2.33	0.46
1:D:810:GLU:OE1	1:D:1614:ARG:HA	2.16	0.46
1:D:1088:PHE:HB2	1:D:1205:CYS:SG	2.55	0.46
1:D:3090:VAL:O	1:D:3094:ILE:HG13	2.16	0.46
1:A:448:PRO:HB2	1:A:451:SER:OG	2.14	0.46
1:A:814:LEU:HD12	1:A:815:PRO:HD2	1.98	0.46
1:A:1102:TYR:N	1:A:1237:GLU:O	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1979:PHE:CZ	1:A:1996:LEU:HD23	2.50	0.46
1:A:3054:LYS:HD2	1:A:3058:ARG:HH12	1.80	0.46
1:A:3246:MET:SD	1:A:3247:SER:N	2.88	0.46
1:A:3605:MET:C	1:A:3607:PRO:HD3	2.40	0.46
2:F:3:VAL:HG21	2:F:59:GLY:HA2	1.98	0.46
1:B:271:ALA:HB2	1:B:488:LEU:HD22	1.97	0.46
1:B:344:LYS:HD3	1:B:344:LYS:HA	1.69	0.46
1:B:862:PHE:HB2	1:B:1034:PRO:HD3	1.96	0.46
1:B:1914:CYS:O	1:B:1918:VAL:HG23	2.15	0.46
1:B:2077:ASP:O	1:B:2081:VAL:HG23	2.16	0.46
1:B:2840:MET:HG2	1:B:2905:ARG:NH2	2.30	0.46
1:B:2917:ILE:HD13	1:B:2999:LYS:HE3	1.97	0.46
1:B:3054:LYS:HD2	1:B:3058:ARG:HH12	1.80	0.46
1:B:3935:LEU:HD23	1:B:3940:LEU:HD22	1.96	0.46
1:C:15:ARG:HD3	1:C:110:HIS:HB3	1.97	0.46
1:C:198:ASN:C	1:C:198:ASN:ND2	2.73	0.46
1:C:1102:TYR:N	1:C:1237:GLU:O	2.48	0.46
1:C:1269:GLU:HB3	1:C:1286:THR:OG1	2.16	0.46
1:C:2674:GLY:HA2	1:C:2978:HIS:HE1	1.81	0.46
1:C:2747:TYR:HE1	1:C:2754:GLN:NE2	2.14	0.46
1:C:3090:VAL:O	1:C:3094:ILE:HG13	2.16	0.46
1:C:3227:ARG:HG3	1:C:3228:TYR:N	2.30	0.46
1:C:4274:MET:SD	1:D:4483:LYS:NZ	2.72	0.46
1:D:1269:GLU:HB3	1:D:1286:THR:OG1	2.16	0.46
1:D:2266:VAL:HG11	1:D:2323:LEU:HB3	1.98	0.46
1:D:2565:GLN:O	1:D:2569:ILE:HG12	2.16	0.46
1:D:3213:LYS:HA	1:D:3216:GLU:CG	2.45	0.46
1:D:3312:PRO:HA	1:D:3315:LEU:HD12	1.96	0.46
1:D:4048:PHE:O	1:D:4052:MET:HG3	2.16	0.46
1:A:1043:LYS:HA	1:A:1046:ASN:HD21	1.81	0.46
1:A:1100:ARG:NH1	1:A:1234:GLU:O	2.49	0.46
1:A:1284:LYS:HE2	1:A:1433:PHE:CZ	2.50	0.46
1:A:1289:SER:O	1:A:1295:SER:OG	2.23	0.46
1:A:2266:VAL:HG11	1:A:2323:LEU:HB3	1.98	0.46
1:A:4167:GLU:OE2	1:A:4170:ARG:NH1	2.46	0.46
1:B:651:HIS:CE1	1:B:1627:PHE:HB3	2.51	0.46
1:B:1284:LYS:HE2	1:B:1433:PHE:CZ	2.50	0.46
1:C:332:ARG:NH2	1:C:364:GLN:OE1	2.41	0.46
1:C:2482:ASP:OD2	1:C:2483:PHE:N	2.48	0.46
1:C:4048:PHE:O	1:C:4052:MET:HG3	2.16	0.46
1:D:448:PRO:HB2	1:D:451:SER:OG	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:883:GLU:HG2	1:D:884:LYS:HD3	1.97	0.46
1:D:2692:GLN:CD	1:D:2704:GLN:H	2.23	0.46
1:D:2999:LYS:HA	1:D:3002:GLU:OE1	2.14	0.46
1:D:3159:LEU:HD23	1:D:3241:MET:HB3	1.97	0.46
1:D:3246:MET:SD	1:D:3247:SER:N	2.88	0.46
1:A:271:ALA:HB2	1:A:488:LEU:HD22	1.97	0.46
1:A:810:GLU:OE1	1:A:1614:ARG:HA	2.16	0.46
1:A:2664:LEU:O	1:A:2667:PRO:HD2	2.16	0.46
1:A:2999:LYS:HA	1:A:3002:GLU:CD	2.41	0.46
1:A:4252:ILE:HG21	1:B:4707:MET:HG3	1.97	0.46
1:A:4854:VAL:HA	1:A:4858:LEU:HD12	1.98	0.46
1:B:332:ARG:NH2	1:B:364:GLN:OE1	2.41	0.46
1:B:456:LEU:HD11	1:B:533:LEU:HG	1.96	0.46
1:B:637:LEU:HB3	1:B:1679:HIS:NE2	2.30	0.46
1:B:883:GLU:HG2	1:B:884:LYS:HD3	1.97	0.46
1:B:969:ASN:OD1	1:B:970:TYR:N	2.49	0.46
1:B:1043:LYS:HA	1:B:1046:ASN:HD21	1.81	0.46
1:B:1979:PHE:HZ	1:B:1996:LEU:HD23	1.80	0.46
1:B:2874:TYR:HD2	1:B:2877:LEU:HD12	1.80	0.46
1:C:651:HIS:CE1	1:C:1627:PHE:HB3	2.50	0.46
1:C:1839:LEU:HD23	1:C:1842:ILE:HD11	1.97	0.46
1:C:2565:GLN:O	1:C:2569:ILE:HG12	2.15	0.46
1:C:2567:ASP:O	1:C:2571:VAL:HG23	2.15	0.46
1:D:895:MET:HE3	1:D:978:PRO:HA	1.98	0.46
1:D:2664:LEU:O	1:D:2667:PRO:HD2	2.16	0.46
1:A:3312:PRO:HA	1:A:3315:LEU:HD12	1.96	0.46
1:A:4048:PHE:O	1:A:4052:MET:HG3	2.16	0.46
1:A:4503:ARG:NH2	1:A:4721:TYR:HE2	2.13	0.46
1:A:4605:GLU:HB3	1:A:4609:LYS:NZ	2.31	0.46
2:G:32:GLN:OE1	1:C:1312:GLU:HB3	2.15	0.46
1:B:1100:ARG:NH1	1:B:1234:GLU:O	2.49	0.46
1:B:2717:LEU:HD11	1:B:2789:ILE:HD13	1.97	0.46
1:B:2892:ILE:HG23	1:B:2893:LEU:HD22	1.97	0.46
1:C:680:ASP:N	1:C:799:LYS:O	2.48	0.46
1:D:1100:ARG:NH1	1:D:1234:GLU:O	2.49	0.46
1:D:2592:LEU:HD22	1:D:2606:PRO:HB3	1.98	0.46
1:D:2840:MET:HG2	1:D:2905:ARG:NH2	2.30	0.46
1:D:3043:ARG:O	1:D:3047:LYS:HE2	2.15	0.46
1:D:4194:GLU:HG2	1:D:4645:TRP:HZ3	1.80	0.46
1:A:23:GLN:HB3	1:A:34:LYS:HD2	1.97	0.46
1:A:2836:ASP:OD1	1:A:2837:LEU:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3117:PHE:CG	1:A:3118:GLY:N	2.82	0.46
1:B:2999:LYS:HA	1:B:3002:GLU:CD	2.41	0.46
1:C:643:LEU:HD13	1:C:1657:THR:HG23	1.98	0.46
1:C:2266:VAL:HG11	1:C:2323:LEU:HB3	1.98	0.46
1:C:2592:LEU:HD22	1:C:2606:PRO:HB3	1.98	0.46
1:C:2593:VAL:HG11	1:C:2640:LEU:HG	1.98	0.46
1:C:2840:MET:HG2	1:C:2905:ARG:NH2	2.30	0.46
1:C:2885:ASP:OD1	1:C:2886:ARG:N	2.49	0.46
1:D:15:ARG:HD3	1:D:110:HIS:HB3	1.97	0.46
1:D:59:PRO:HG3	1:D:296:ARG:CZ	2.46	0.46
1:D:2567:ASP:O	1:D:2571:VAL:HG23	2.15	0.46
1:D:4605:GLU:HB3	1:D:4609:LYS:NZ	2.31	0.46
1:A:1269:GLU:HB3	1:A:1286:THR:OG1	2.16	0.46
1:A:1551:ASN:HB2	1:D:2830:ASN:HD21	1.81	0.46
1:A:2874:TYR:HD2	1:A:2877:LEU:HD12	1.81	0.46
1:A:4569:GLU:HB3	1:A:4570:PRO:HD3	1.98	0.46
1:B:503:ASP:O	1:B:507:VAL:HG23	2.15	0.46
1:B:881:ILE:O	1:B:885:LEU:HG	2.16	0.46
1:B:2593:VAL:HG11	1:B:2640:LEU:HG	1.98	0.46
1:B:4194:GLU:HG2	1:B:4645:TRP:HZ3	1.80	0.46
1:C:271:ALA:HB2	1:C:488:LEU:HD22	1.97	0.46
1:C:705:PRO:HD3	1:C:857:LEU:HD13	1.98	0.46
1:C:895:MET:HE3	1:C:978:PRO:HA	1.98	0.46
1:C:2748:SER:HB2	1:C:2751:SER:HB3	1.98	0.46
1:C:3159:LEU:HD23	1:C:3241:MET:HB3	1.97	0.46
1:C:4827:ILE:O	1:C:4831:ILE:HG12	2.16	0.46
1:D:814:LEU:HD12	1:D:815:PRO:HD2	1.98	0.46
1:D:2905:ARG:HB2	1:D:2908:LYS:HZ1	1.81	0.46
1:D:3303:SER:O	1:D:3306:ILE:HG12	2.15	0.46
1:A:705:PRO:HD3	1:A:857:LEU:HD13	1.99	0.45
1:A:895:MET:HE3	1:A:978:PRO:HA	1.98	0.45
1:A:1689:ILE:HG23	1:A:1703:TYR:CZ	2.51	0.45
1:A:2431:ASP:O	1:A:2435:VAL:HG23	2.15	0.45
1:A:2565:GLN:O	1:A:2569:ILE:HG12	2.15	0.45
1:A:2567:ASP:O	1:A:2571:VAL:HG23	2.15	0.45
1:A:2593:VAL:HG11	1:A:2640:LEU:HG	1.98	0.45
1:B:15:ARG:HD3	1:B:110:HIS:HB3	1.97	0.45
1:B:810:GLU:OE1	1:B:1614:ARG:HA	2.16	0.45
1:B:1689:ILE:HG23	1:B:1703:TYR:CZ	2.51	0.45
1:B:2266:VAL:HG11	1:B:2323:LEU:HB3	1.97	0.45
1:B:3287:ASN:ND2	1:B:3295:TRP:HH2	2.13	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4607:ALA:HB1	1:B:4649:VAL:HG21	1.98	0.45
1:B:4827:ILE:O	1:B:4831:ILE:HG12	2.16	0.45
1:C:1100:ARG:NH1	1:C:1234:GLU:O	2.49	0.45
1:C:1979:PHE:HZ	1:C:1996:LEU:HD23	1.80	0.45
1:C:2836:ASP:OD1	1:C:2837:LEU:N	2.49	0.45
1:C:3012:GLY:HA2	1:C:3015:VAL:HG12	1.99	0.45
1:C:3184:TYR:CD2	1:C:3192:ARG:NH1	2.85	0.45
1:C:3245:TYR:HD1	1:C:3249:TRP:CD1	2.34	0.45
1:D:271:ALA:HB2	1:D:488:LEU:HD22	1.97	0.45
1:D:877:HIS:O	1:D:880:ARG:HD3	2.16	0.45
1:D:969:ASN:OD1	1:D:970:TYR:N	2.49	0.45
1:D:2836:ASP:OD1	1:D:2837:LEU:N	2.49	0.45
1:D:3184:TYR:CD2	1:D:3192:ARG:NH1	2.84	0.45
1:D:3245:TYR:CD1	1:D:3249:TRP:CD1	3.05	0.45
1:A:880:ARG:HA	1:A:883:GLU:OE1	2.16	0.45
1:A:881:ILE:O	1:A:885:LEU:HG	2.16	0.45
1:A:2077:ASP:O	1:A:2081:VAL:HG23	2.16	0.45
1:A:2482:ASP:OD2	1:A:2483:PHE:N	2.48	0.45
1:A:3012:GLY:HA2	1:A:3015:VAL:HG12	1.99	0.45
1:A:4488:GLN:OE1	1:D:4283:PHE:HD2	1.99	0.45
1:B:880:ARG:HA	1:B:883:GLU:OE1	2.16	0.45
1:B:1931:ASP:OD1	1:B:1932:PHE:N	2.49	0.45
1:B:2664:LEU:O	1:B:2667:PRO:HD2	2.16	0.45
1:B:2885:ASP:OD1	1:B:2886:ARG:N	2.49	0.45
1:B:4602:ARG:O	1:B:4606:VAL:HG23	2.17	0.45
1:C:814:LEU:HD12	1:C:815:PRO:HD2	1.98	0.45
1:C:877:HIS:O	1:C:880:ARG:HD3	2.16	0.45
1:C:1898:LEU:HD13	1:C:1902:VAL:HG12	1.98	0.45
1:C:2077:ASP:O	1:C:2081:VAL:HG23	2.16	0.45
1:C:2413:LYS:HZ2	1:C:2415:GLU:HB3	1.81	0.45
1:C:3605:MET:C	1:C:3607:PRO:HD3	2.41	0.45
1:C:3664:LEU:O	1:C:3668:ILE:HG13	2.16	0.45
1:D:651:HIS:CE1	1:D:1627:PHE:HB3	2.51	0.45
1:D:881:ILE:O	1:D:885:LEU:HG	2.16	0.45
1:D:3002:GLU:O	1:D:3005:THR:OG1	2.27	0.45
1:D:4503:ARG:NH2	1:D:4721:TYR:HE2	2.13	0.45
1:A:28:ILE:O	1:A:31:GLU:HG3	2.15	0.45
1:A:969:ASN:OD1	1:A:970:TYR:N	2.49	0.45
1:A:2605:MET:HB3	1:A:2606:PRO:HD3	1.98	0.45
1:A:2642:ARG:HH12	1:A:2921:PHE:HA	1.80	0.45
1:A:2892:ILE:HG23	1:A:2893:LEU:HD22	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3101:LEU:HD23	1:A:3104:MET:HE3	1.99	0.45
2:F:106:ASN:OD1	2:F:107:LEU:N	2.50	0.45
1:B:2592:LEU:HD22	1:B:2606:PRO:HB3	1.98	0.45
1:B:3012:GLY:HA2	1:B:3015:VAL:HG12	1.99	0.45
1:C:1914:CYS:O	1:C:1918:VAL:HG23	2.15	0.45
1:D:705:PRO:HD3	1:D:857:LEU:HD13	1.98	0.45
1:D:988:LEU:HG	1:D:992:GLN:HB2	1.99	0.45
1:D:2748:SER:HB2	1:D:2751:SER:HB3	1.98	0.45
1:D:3012:GLY:HA2	1:D:3015:VAL:HG12	1.99	0.45
1:D:3054:LYS:HB3	1:D:3058:ARG:HH22	1.82	0.45
1:A:15:ARG:HD3	1:A:110:HIS:HB3	1.97	0.45
1:A:2779:LEU:HA	1:A:2782:MET:HG3	1.98	0.45
1:B:728:ASP:OD2	1:B:731:HIS:N	2.48	0.45
1:B:1634:GLU:HG3	1:B:1635:GLU:HG3	1.98	0.45
1:B:2748:SER:HB2	1:B:2751:SER:HB3	1.98	0.45
1:C:2642:ARG:HH12	1:C:2921:PHE:HA	1.80	0.45
1:C:2664:LEU:O	1:C:2667:PRO:HD2	2.16	0.45
1:C:2779:LEU:HA	1:C:2782:MET:HG3	1.98	0.45
1:D:131:CYS:SG	1:D:150:GLN:HB2	2.57	0.45
1:D:680:ASP:N	1:D:799:LYS:O	2.48	0.45
1:D:2054:LYS:HD2	1:D:2056:SER:N	2.31	0.45
1:D:2642:ARG:HH12	1:D:2921:PHE:HA	1.80	0.45
1:D:2859:GLU:O	1:D:2862:SER:OG	2.28	0.45
1:D:2917:ILE:HD13	1:D:2999:LYS:HE3	1.98	0.45
1:D:2999:LYS:HA	1:D:3002:GLU:CD	2.41	0.45
1:D:3664:LEU:O	1:D:3668:ILE:HG13	2.16	0.45
1:D:4854:VAL:HA	1:D:4858:LEU:HD12	1.98	0.45
1:A:337:LYS:NZ	1:A:371:TRP:HE1	2.14	0.45
1:A:651:HIS:CE1	1:A:1627:PHE:HB3	2.51	0.45
1:A:877:HIS:O	1:A:880:ARG:HD3	2.16	0.45
1:A:3054:LYS:O	1:A:3057:LEU:HG	2.16	0.45
1:A:3072:MET:HA	1:A:3075:LEU:HG	1.99	0.45
1:A:3184:TYR:CD2	1:A:3192:ARG:NH1	2.85	0.45
1:A:3664:LEU:O	1:A:3668:ILE:HG13	2.16	0.45
1:B:59:PRO:HG3	1:B:296:ARG:CZ	2.46	0.45
1:B:705:PRO:HD3	1:B:857:LEU:HD13	1.99	0.45
1:B:897:LYS:HE2	1:B:902:TRP:CB	2.47	0.45
1:B:1269:GLU:HB3	1:B:1286:THR:OG1	2.16	0.45
1:B:2332:GLY:O	1:B:2336:ARG:HG3	2.17	0.45
1:B:2836:ASP:OD1	1:B:2837:LEU:N	2.49	0.45
1:B:3054:LYS:O	1:B:3057:LEU:HG	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3101:LEU:HD23	1:B:3104:MET:HE3	1.99	0.45
1:B:3184:TYR:CD2	1:B:3192:ARG:NH1	2.85	0.45
1:B:4048:PHE:O	1:B:4052:MET:HG3	2.16	0.45
1:B:4569:GLU:HB3	1:B:4570:PRO:HD3	1.99	0.45
1:B:4859:LEU:O	1:B:4863:GLN:HG2	2.17	0.45
1:C:59:PRO:HG3	1:C:296:ARG:CZ	2.46	0.45
1:C:988:LEU:HG	1:C:992:GLN:HB2	1.99	0.45
1:C:1041:ARG:O	1:C:1044:LYS:HG3	2.17	0.45
1:C:2717:LEU:HD11	1:C:2789:ILE:HD13	1.97	0.45
1:C:3778:LEU:HB2	1:C:3854:PHE:CE2	2.52	0.45
1:D:2431:ASP:O	1:D:2435:VAL:HG23	2.15	0.45
1:D:3642:GLU:HG3	1:D:3646:LYS:NZ	2.30	0.45
1:D:4827:ILE:O	1:D:4831:ILE:HG12	2.16	0.45
1:A:680:ASP:N	1:A:799:LYS:O	2.48	0.45
1:A:1041:ARG:O	1:A:1044:LYS:HG3	2.17	0.45
1:A:1898:LEU:HD13	1:A:1902:VAL:HG12	1.98	0.45
1:A:1931:ASP:OD1	1:A:1932:PHE:N	2.49	0.45
1:A:2917:ILE:HD13	1:A:2999:LYS:HE3	1.98	0.45
2:E:3:VAL:HG21	2:E:59:GLY:HA2	1.98	0.45
1:B:131:CYS:SG	1:B:150:GLN:HB2	2.57	0.45
1:B:3090:VAL:O	1:B:3094:ILE:HG13	2.16	0.45
1:C:1931:ASP:OD1	1:C:1932:PHE:N	2.49	0.45
1:C:2605:MET:HB3	1:C:2606:PRO:HD3	1.98	0.45
1:C:2899:ASN:O	1:C:2899:ASN:ND2	2.50	0.45
1:C:3728:GLN:HG2	1:C:3765:ILE:HA	1.97	0.45
1:C:3881:VAL:O	1:C:3885:ILE:HG13	2.17	0.45
1:C:4194:GLU:HG2	1:C:4645:TRP:HZ3	1.80	0.45
1:C:4264:LEU:HD22	1:D:4698:LEU:HD12	1.98	0.45
1:C:4520:TYR:HE2	1:C:4559:TYR:HB3	1.78	0.45
1:C:4854:VAL:HA	1:C:4858:LEU:HD12	1.98	0.45
1:D:23:GLN:HB3	1:D:34:LYS:HD2	1.97	0.45
1:D:34:LYS:H	1:D:53:SER:HG	1.63	0.45
1:D:59:PRO:O	1:D:319:LYS:NZ	2.30	0.45
1:D:643:LEU:HD13	1:D:1657:THR:HG23	1.98	0.45
1:D:2605:MET:HB3	1:D:2606:PRO:HD3	1.98	0.45
1:D:2745:GLU:HA	1:D:2755:PRO:HB3	1.99	0.45
1:D:3097:THR:HA	1:D:3101:LEU:HD12	1.99	0.45
1:D:3605:MET:C	1:D:3607:PRO:HD3	2.40	0.45
1:D:4569:GLU:HB3	1:D:4570:PRO:HD3	1.99	0.45
1:A:2592:LEU:HD22	1:A:2606:PRO:HB3	1.98	0.45
1:A:2748:SER:HB2	1:A:2751:SER:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3245:TYR:HD1	1:A:3249:TRP:CD1	2.34	0.45
1:A:4483:LYS:NZ	1:D:4274:MET:SD	2.72	0.45
2:G:83:TYR:OH	1:C:1768:PHE:O	2.26	0.45
2:G:106:ASN:OD1	2:G:107:LEU:N	2.50	0.45
1:B:337:LYS:NZ	1:B:371:TRP:HE1	2.15	0.45
1:B:2779:LEU:HA	1:B:2782:MET:HG3	1.98	0.45
1:B:2827:ASP:O	1:C:1501:ASN:ND2	2.50	0.45
1:B:3097:THR:HA	1:B:3101:LEU:HD12	1.99	0.45
1:B:3695:MET:HE2	1:B:3731:LEU:HD22	1.99	0.45
1:B:3778:LEU:HB2	1:B:3854:PHE:CE2	2.52	0.45
1:B:4640:PHE:CG	1:B:4641:PRO:HD3	2.52	0.45
1:C:626:ARG:NH2	1:C:1667:LEU:O	2.48	0.45
1:C:2431:ASP:O	1:C:2435:VAL:HG23	2.15	0.45
1:C:2539:GLU:HA	1:C:2584:MET:CE	2.47	0.45
1:C:3054:LYS:HB3	1:C:3058:ARG:HH22	1.82	0.45
1:C:3072:MET:HA	1:C:3075:LEU:HG	1.99	0.45
1:C:3245:TYR:CD1	1:C:3249:TRP:CD1	3.05	0.45
1:C:4640:PHE:CG	1:C:4641:PRO:HD3	2.52	0.45
1:D:1689:ILE:HG23	1:D:1703:TYR:CZ	2.52	0.45
1:D:1898:LEU:HD13	1:D:1902:VAL:HG12	1.98	0.45
1:D:2779:LEU:HA	1:D:2782:MET:HG3	1.98	0.45
1:D:2885:ASP:OD1	1:D:2886:ARG:N	2.49	0.45
1:D:2892:ILE:HG23	1:D:2893:LEU:HD22	1.97	0.45
1:D:3072:MET:HA	1:D:3075:LEU:HG	1.99	0.45
1:D:3778:LEU:HB2	1:D:3854:PHE:CE2	2.52	0.45
1:A:59:PRO:HG3	1:A:296:ARG:CZ	2.46	0.45
1:A:2054:LYS:HD2	1:A:2056:SER:N	2.31	0.45
2:F:32:GLN:OE1	1:B:1312:GLU:HB3	2.17	0.45
1:B:3245:TYR:CD1	1:B:3249:TRP:CD1	3.05	0.45
1:B:3796:LEU:HD22	1:B:3835:PHE:HZ	1.82	0.45
1:C:2745:GLU:HA	1:C:2755:PRO:HB3	1.99	0.45
1:C:2772:ARG:HB2	1:C:2776:LYS:HZ3	1.82	0.45
1:C:4859:LEU:O	1:C:4863:GLN:HG2	2.17	0.45
1:D:801:ARG:HD3	1:D:1618:LEU:HD12	1.99	0.45
1:D:2768:LYS:HB3	1:D:2772:ARG:NH1	2.32	0.45
1:D:2772:ARG:HB2	1:D:2776:LYS:HZ3	1.82	0.45
1:A:131:CYS:SG	1:A:150:GLN:HB2	2.57	0.45
1:A:643:LEU:HD13	1:A:1657:THR:HG23	1.98	0.45
1:A:988:LEU:HG	1:A:992:GLN:HB2	1.99	0.45
1:A:1501:ASN:HD22	1:D:2827:ASP:N	2.14	0.45
1:A:2332:GLY:O	1:A:2336:ARG:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2787:TRP:HZ2	1:A:2843:MET:HE2	1.82	0.45
1:A:3695:MET:HE2	1:A:3731:LEU:HD22	1.99	0.45
1:A:4818:TYR:HA	1:B:4848:ILE:HD11	1.99	0.45
2:H:3:VAL:HG21	2:H:59:GLY:HA2	1.98	0.45
1:B:895:MET:O	1:B:899:GLU:OE1	2.35	0.45
1:B:3881:VAL:O	1:B:3885:ILE:HG13	2.17	0.45
1:C:23:GLN:HB3	1:C:34:LYS:HD2	1.97	0.45
1:C:131:CYS:SG	1:C:150:GLN:HB2	2.57	0.45
1:C:881:ILE:O	1:C:885:LEU:HG	2.16	0.45
1:C:897:LYS:HE2	1:C:902:TRP:CB	2.47	0.45
1:C:931:TYR:HD1	1:C:934:GLN:HE22	1.60	0.45
1:C:2255:LEU:O	1:C:3810:ARG:NH1	2.39	0.45
1:C:2768:LYS:HB3	1:C:2772:ARG:NH1	2.32	0.45
1:C:2905:ARG:HB2	1:C:2908:LYS:HZ1	1.80	0.45
1:C:4503:ARG:NH2	1:C:4721:TYR:HE2	2.13	0.45
1:D:260:VAL:O	1:D:390:LYS:NZ	2.38	0.45
1:D:2077:ASP:O	1:D:2081:VAL:HG23	2.16	0.45
1:D:2539:GLU:HA	1:D:2584:MET:CE	2.47	0.45
1:D:4602:ARG:O	1:D:4606:VAL:HG23	2.17	0.45
1:A:897:LYS:HE2	1:A:902:TRP:CB	2.47	0.45
1:A:1776:TYR:HH	2:E:88:HIS:HE2	1.64	0.45
1:A:2119:LEU:HD13	1:A:2154:VAL:HB	1.99	0.45
1:A:2885:ASP:OD1	1:A:2886:ARG:N	2.49	0.45
1:A:3033:LEU:CD1	1:A:3104:MET:HG2	2.43	0.45
1:A:3881:VAL:O	1:A:3885:ILE:HG13	2.17	0.45
1:A:4602:ARG:O	1:A:4606:VAL:HG23	2.16	0.45
2:E:106:ASN:OD1	2:E:107:LEU:N	2.50	0.45
1:B:34:LYS:H	1:B:53:SER:HG	1.62	0.45
1:B:677:LEU:HD11	1:B:800:VAL:HB	1.99	0.45
1:B:3245:TYR:HD1	1:B:3249:TRP:CD1	2.34	0.45
1:C:677:LEU:HD11	1:C:800:VAL:HB	1.99	0.45
1:C:1689:ILE:HG23	1:C:1703:TYR:CZ	2.51	0.45
1:C:2054:LYS:HD2	1:C:2056:SER:N	2.31	0.45
1:C:2999:LYS:HA	1:C:3002:GLU:CD	2.41	0.45
1:C:3045:VAL:O	1:C:3054:LYS:HE2	2.17	0.45
1:C:3120:ASP:O	1:C:3123:LEU:HD23	2.17	0.45
1:C:3250:TRP:HD1	1:C:3255:GLU:OE2	2.00	0.45
1:C:4602:ARG:O	1:C:4606:VAL:HG23	2.17	0.45
1:D:35:LEU:HD13	1:D:49:LEU:HD13	1.99	0.45
1:D:2455:ASP:OD2	1:D:2457:SER:OG	2.27	0.45
1:D:3120:ASP:O	1:D:3123:LEU:HD23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:658:ASN:HD21	1:A:833:LYS:HG2	1.82	0.44
1:A:730:LEU:HD11	2:E:8:ILE:HA	1.98	0.44
1:A:801:ARG:HD3	1:A:1618:LEU:HD12	1.99	0.44
1:A:1979:PHE:HB3	1:A:1986:CYS:SG	2.57	0.44
1:A:2090:ARG:HE	1:A:2090:ARG:HB3	1.62	0.44
1:A:3227:ARG:HA	1:A:3227:ARG:HD2	1.82	0.44
1:A:3245:TYR:CD1	1:A:3249:TRP:CD1	3.05	0.44
1:A:3728:GLN:HG2	1:A:3765:ILE:HA	1.97	0.44
1:A:4625:ASP:OD1	1:A:4625:ASP:N	2.50	0.44
1:B:1898:LEU:HD13	1:B:1902:VAL:HG12	1.98	0.44
1:B:1979:PHE:HB3	1:B:1986:CYS:SG	2.57	0.44
1:B:2431:ASP:O	1:B:2435:VAL:HG23	2.15	0.44
1:B:3664:LEU:O	1:B:3668:ILE:HG13	2.16	0.44
1:B:4264:LEU:HD22	1:C:4698:LEU:HD12	1.97	0.44
1:B:4605:GLU:HB3	1:B:4609:LYS:NZ	2.31	0.44
1:C:895:MET:O	1:C:899:GLU:OE1	2.35	0.44
1:C:1634:GLU:HG3	1:C:1635:GLU:HG3	1.98	0.44
1:C:2332:GLY:O	1:C:2336:ARG:HG3	2.17	0.44
1:C:4569:GLU:HB3	1:C:4570:PRO:HD3	1.99	0.44
1:C:4607:ALA:HB1	1:C:4649:VAL:HG21	1.98	0.44
1:D:174:LYS:O	1:D:176:ARG:NH1	2.50	0.44
1:D:433:LEU:HD13	1:D:504:ARG:HB3	1.99	0.44
1:D:897:LYS:HE2	1:D:902:TRP:CB	2.47	0.44
1:D:1041:ARG:O	1:D:1044:LYS:HG3	2.17	0.44
1:D:1931:ASP:OD1	1:D:1932:PHE:N	2.49	0.44
1:D:3033:LEU:CD1	1:D:3104:MET:HG2	2.43	0.44
1:D:3123:LEU:HB3	1:D:3124:GLU:H	1.67	0.44
1:D:3881:VAL:O	1:D:3885:ILE:HG13	2.17	0.44
1:A:1793:GLN:NE2	1:A:1797:GLU:OE2	2.43	0.44
1:A:2741:TRP:CE3	1:A:2754:GLN:HB2	2.52	0.44
1:A:3054:LYS:HB3	1:A:3058:ARG:HH12	1.82	0.44
1:A:3097:THR:HA	1:A:3101:LEU:HD12	1.99	0.44
1:A:3796:LEU:HD22	1:A:3835:PHE:HZ	1.82	0.44
1:A:4827:ILE:O	1:A:4831:ILE:HG12	2.16	0.44
1:B:658:ASN:HD21	1:B:833:LYS:HG2	1.82	0.44
1:B:2119:LEU:HD13	1:B:2154:VAL:HB	1.99	0.44
1:B:3072:MET:HA	1:B:3075:LEU:HG	1.99	0.44
1:B:3975:GLN:O	1:B:3979:VAL:HG23	2.17	0.44
1:B:4503:ARG:NH2	1:B:4721:TYR:HE2	2.13	0.44
1:C:897:LYS:HE2	1:C:902:TRP:HB3	1.99	0.44
1:C:3101:LEU:HD23	1:C:3104:MET:HE3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3695:MET:HE2	1:C:3731:LEU:HD22	1.99	0.44
1:D:2593:VAL:HG11	1:D:2640:LEU:HG	1.98	0.44
1:D:3054:LYS:O	1:D:3057:LEU:HG	2.16	0.44
1:D:3298:ARG:O	1:D:3301:VAL:HG12	2.18	0.44
1:D:4607:ALA:HB1	1:D:4649:VAL:HG21	1.98	0.44
1:A:897:LYS:HE2	1:A:902:TRP:HB3	1.98	0.44
1:A:3975:GLN:O	1:A:3979:VAL:HG23	2.17	0.44
1:A:4045:LYS:HE2	1:A:4072:THR:HG22	2.00	0.44
1:B:59:PRO:O	1:B:319:LYS:NZ	2.30	0.44
1:B:680:ASP:N	1:B:799:LYS:O	2.48	0.44
1:B:3250:TRP:HD1	1:B:3255:GLU:OE2	2.00	0.44
1:C:337:LYS:NZ	1:C:371:TRP:HE1	2.15	0.44
1:C:3975:GLN:O	1:C:3979:VAL:HG23	2.17	0.44
1:D:3269:ASN:HB3	1:D:3272:HIS:ND1	2.33	0.44
1:A:3298:ARG:O	1:A:3301:VAL:HG12	2.17	0.44
1:A:3778:LEU:HB2	1:A:3854:PHE:CE2	2.52	0.44
1:A:4640:PHE:CG	1:A:4641:PRO:HD3	2.52	0.44
1:B:643:LEU:HD13	1:B:1657:THR:HG23	1.98	0.44
1:B:877:HIS:O	1:B:880:ARG:HD3	2.16	0.44
1:B:1041:ARG:O	1:B:1044:LYS:HG3	2.17	0.44
1:B:3298:ARG:O	1:B:3301:VAL:HG12	2.17	0.44
1:B:3319:PHE:O	1:B:3322:LEU:HG	2.18	0.44
1:C:2617:CYS:HA	1:C:2627:TRP:CH2	2.42	0.44
1:C:2726:GLU:OE1	1:C:2726:GLU:N	2.48	0.44
1:C:2988:ARG:N	1:C:2989:PRO:HD3	2.32	0.44
1:C:3054:LYS:HB3	1:C:3058:ARG:HH12	1.82	0.44
1:C:3290:ILE:C	1:C:3292:GLU:H	2.26	0.44
1:C:3805:LEU:HD21	1:C:3888:PHE:HA	2.00	0.44
1:C:4605:GLU:HB3	1:C:4609:LYS:NZ	2.31	0.44
1:D:658:ASN:HD21	1:D:833:LYS:HG2	1.82	0.44
1:D:1678:SER:HB2	1:D:1768:PHE:CE2	2.53	0.44
1:D:1979:PHE:HB3	1:D:1986:CYS:SG	2.57	0.44
1:D:2119:LEU:HD13	1:D:2154:VAL:HB	1.99	0.44
1:D:3045:VAL:O	1:D:3054:LYS:HE2	2.17	0.44
1:D:3101:LEU:HD23	1:D:3104:MET:HE3	1.99	0.44
1:D:3695:MET:HE2	1:D:3731:LEU:HD22	1.99	0.44
1:D:3805:LEU:HD21	1:D:3888:PHE:HA	2.00	0.44
1:A:174:LYS:O	1:A:176:ARG:NH1	2.50	0.44
1:A:441:LYS:O	1:A:444:THR:OG1	2.33	0.44
1:A:895:MET:O	1:A:899:GLU:OE1	2.35	0.44
1:A:1634:GLU:HG3	1:A:1635:GLU:HG3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2279:MET:SD	1:A:2283:LYS:HD3	2.58	0.44
1:A:2968:LEU:HB3	1:A:2969:PRO:HD3	2.00	0.44
1:A:3123:LEU:HB3	1:A:3124:GLU:H	1.67	0.44
1:A:3250:TRP:HD1	1:A:3255:GLU:OE2	2.00	0.44
1:A:4607:ALA:HB1	1:A:4649:VAL:HG21	1.98	0.44
1:B:174:LYS:O	1:B:176:ARG:NH1	2.50	0.44
1:B:317:MET:HE1	1:B:321:LYS:O	2.18	0.44
1:B:988:LEU:HG	1:B:992:GLN:HB2	1.99	0.44
1:B:2054:LYS:HD2	1:B:2056:SER:N	2.31	0.44
1:B:2075:ILE:HG22	1:B:2077:ASP:H	1.83	0.44
1:B:2539:GLU:HA	1:B:2584:MET:CE	2.47	0.44
1:B:2605:MET:HB3	1:B:2606:PRO:HD3	1.98	0.44
1:B:2988:ARG:N	1:B:2989:PRO:HD3	2.32	0.44
1:B:3120:ASP:O	1:B:3123:LEU:HD23	2.17	0.44
1:C:174:LYS:O	1:C:176:ARG:NH1	2.50	0.44
1:C:433:LEU:HD13	1:C:504:ARG:HB3	1.99	0.44
1:C:912:LYS:O	1:C:914:GLN:HG3	2.18	0.44
1:C:1979:PHE:HB3	1:C:1986:CYS:SG	2.57	0.44
1:D:912:LYS:O	1:D:914:GLN:HG3	2.18	0.44
1:D:3054:LYS:HB3	1:D:3058:ARG:HH12	1.82	0.44
1:D:3179:ASN:HB2	1:D:3265:CYS:HB2	2.00	0.44
1:A:1226:TYR:HD1	1:A:1229:ILE:HD11	1.83	0.44
1:A:2174:VAL:O	1:A:2178:VAL:HG23	2.18	0.44
1:A:2988:ARG:N	1:A:2989:PRO:HD3	2.32	0.44
1:A:3120:ASP:O	1:A:3123:LEU:HD23	2.17	0.44
1:A:3805:LEU:HD21	1:A:3888:PHE:HA	2.00	0.44
2:H:8:ILE:HG23	1:D:748:LEU:HB2	2.00	0.44
1:B:668:ALA:HB2	1:B:1012:ILE:HD11	2.00	0.44
1:C:880:ARG:HA	1:C:883:GLU:OE1	2.16	0.44
1:C:3117:PHE:CD2	1:C:3118:GLY:N	2.84	0.44
1:D:880:ARG:HA	1:D:883:GLU:OE1	2.16	0.44
1:D:895:MET:O	1:D:899:GLU:OE1	2.35	0.44
1:D:2332:GLY:O	1:D:2336:ARG:HG3	2.17	0.44
1:D:2787:TRP:HZ2	1:D:2843:MET:HE2	1.82	0.44
1:D:2899:ASN:O	1:D:2899:ASN:ND2	2.50	0.44
1:A:35:LEU:HD13	1:A:49:LEU:HD13	1.99	0.44
1:A:317:MET:HE1	1:A:321:LYS:O	2.18	0.44
2:H:106:ASN:OD1	2:H:107:LEU:N	2.50	0.44
1:B:674:TYR:CE1	1:B:756:SER:HB2	2.53	0.44
1:B:897:LYS:HE2	1:B:902:TRP:HB3	1.98	0.44
1:B:912:LYS:O	1:B:914:GLN:HG3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1678:SER:HB2	1:B:1768:PHE:CE2	2.53	0.44
1:B:2968:LEU:HB3	1:B:2969:PRO:HD3	2.00	0.44
1:B:3016:ARG:HA	1:B:3096:TYR:CZ	2.53	0.44
1:B:3054:LYS:HB3	1:B:3058:ARG:HH12	1.82	0.44
1:B:3805:LEU:HD21	1:B:3888:PHE:HA	2.00	0.44
1:B:4045:LYS:HE2	1:B:4072:THR:HG22	2.00	0.44
1:B:4854:VAL:HA	1:B:4858:LEU:HD12	1.98	0.44
1:C:441:LYS:O	1:C:444:THR:OG1	2.33	0.44
1:C:514:PHE:CD2	1:C:526:TRP:HB2	2.53	0.44
1:C:3097:THR:HA	1:C:3101:LEU:HD12	1.99	0.44
1:C:3179:ASN:HB2	1:C:3265:CYS:HB2	2.00	0.44
1:C:4056:LYS:HG3	1:D:4660:PHE:CE1	2.53	0.44
1:D:677:LEU:HD11	1:D:800:VAL:HB	1.99	0.44
1:D:897:LYS:HE2	1:D:902:TRP:HB3	1.98	0.44
1:D:3796:LEU:HD22	1:D:3835:PHE:HZ	1.82	0.44
1:A:748:LEU:HB2	2:E:8:ILE:HG23	1.99	0.44
1:A:1678:SER:HB2	1:A:1768:PHE:CE2	2.53	0.44
1:B:433:LEU:HD13	1:B:504:ARG:HB3	1.99	0.44
1:B:2279:MET:SD	1:B:2283:LYS:HD3	2.58	0.44
1:C:674:TYR:CE1	1:C:756:SER:HB2	2.53	0.44
1:C:1226:TYR:HD1	1:C:1229:ILE:HD11	1.83	0.44
1:C:2741:TRP:CE3	1:C:2754:GLN:HB2	2.52	0.44
1:C:3054:LYS:O	1:C:3057:LEU:HG	2.16	0.44
1:D:1634:GLU:HG3	1:D:1635:GLU:HG3	1.98	0.44
1:D:2988:ARG:N	1:D:2989:PRO:HD3	2.32	0.44
1:D:3129:SER:O	1:D:3133:ILE:HG13	2.18	0.44
1:A:433:LEU:HD13	1:A:504:ARG:HB3	1.99	0.44
2:E:78:THR:OG1	2:E:80:ASP:OD1	2.32	0.44
1:B:2174:VAL:O	1:B:2178:VAL:HG23	2.18	0.44
1:B:2852:TRP:O	1:B:2855:LYS:HG3	2.18	0.44
1:B:3033:LEU:CD1	1:B:3104:MET:HG2	2.43	0.44
1:B:3045:VAL:O	1:B:3054:LYS:HE2	2.17	0.44
1:B:3054:LYS:HB3	1:B:3058:ARG:HH22	1.82	0.44
1:B:3123:LEU:HB3	1:B:3124:GLU:H	1.67	0.44
1:C:2787:TRP:HZ2	1:C:2843:MET:HE2	1.82	0.44
1:C:3285:TYR:CD1	1:C:3325:LYS:HD3	2.53	0.44
1:C:4089:GLU:HB2	1:C:4090:PRO:HD3	2.00	0.44
1:D:1226:TYR:HD1	1:D:1229:ILE:HD11	1.83	0.44
1:D:2090:ARG:HE	1:D:2090:ARG:HB3	1.62	0.44
1:D:2968:LEU:HB3	1:D:2969:PRO:HD3	2.00	0.44
1:D:3032:CYS:O	1:D:3035:ILE:HG22	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3290:ILE:C	1:D:3292:GLU:H	2.26	0.44
1:D:3805:LEU:HD11	1:D:3887:ASP:HB3	2.00	0.44
1:D:3975:GLN:O	1:D:3979:VAL:HG23	2.17	0.44
1:D:4045:LYS:HZ2	1:D:4077:THR:C	2.25	0.44
1:A:2539:GLU:HA	1:A:2584:MET:CE	2.47	0.43
1:A:2768:LYS:HB3	1:A:2772:ARG:NH1	2.32	0.43
1:A:3008:PHE:HA	1:A:3036:LEU:HD13	2.01	0.43
1:A:3054:LYS:HB3	1:A:3058:ARG:HH22	1.82	0.43
1:A:3178:HIS:CD2	1:A:3263:MET:HA	2.53	0.43
1:A:3319:PHE:O	1:A:3322:LEU:HG	2.18	0.43
1:A:4859:LEU:O	1:A:4863:GLN:HG2	2.17	0.43
2:F:58:LYS:O	2:F:61:GLU:N	2.51	0.43
1:B:626:ARG:NH2	1:B:1667:LEU:O	2.48	0.43
1:B:2768:LYS:HB3	1:B:2772:ARG:NH1	2.32	0.43
1:B:2943:PHE:CZ	1:B:2956:TYR:HB2	2.53	0.43
1:B:3292:GLU:HG3	1:B:3334:VAL:HG22	1.99	0.43
1:C:2852:TRP:O	1:C:2855:LYS:HG3	2.18	0.43
1:C:3211:LEU:O	1:C:3215:MET:SD	2.76	0.43
1:C:3292:GLU:HG3	1:C:3334:VAL:HG22	2.00	0.43
1:D:2674:GLY:HA2	1:D:2978:HIS:HE1	1.81	0.43
1:D:2769:GLU:HG3	1:D:2770:ILE:N	2.33	0.43
1:D:3067:ASP:HA	1:D:3070:LYS:HZ2	1.83	0.43
1:D:3250:TRP:HD1	1:D:3255:GLU:OE2	2.00	0.43
1:D:4045:LYS:HE2	1:D:4072:THR:HG22	2.00	0.43
1:A:59:PRO:O	1:A:319:LYS:NZ	2.30	0.43
1:A:62:LEU:O	1:A:66:THR:HG23	2.19	0.43
1:A:358:ASP:OD1	1:A:359:SER:N	2.51	0.43
1:A:2573:LEU:HD12	1:A:2573:LEU:HA	1.87	0.43
1:A:2928:GLN:C	1:A:2928:GLN:OE1	2.61	0.43
1:A:3129:SER:O	1:A:3133:ILE:HG13	2.18	0.43
2:G:58:LYS:O	2:G:61:GLU:N	2.51	0.43
1:B:35:LEU:HD13	1:B:49:LEU:HD13	1.99	0.43
1:B:2676:LEU:HD12	1:B:2677:PRO:HD2	2.01	0.43
1:B:3129:SER:O	1:B:3133:ILE:HG13	2.18	0.43
1:B:4089:GLU:HB2	1:B:4090:PRO:HD3	2.00	0.43
1:C:658:ASN:HD21	1:C:833:LYS:HG2	1.82	0.43
1:C:3032:CYS:O	1:C:3035:ILE:HG22	2.18	0.43
1:C:3805:LEU:HD11	1:C:3887:ASP:HB3	2.00	0.43
1:D:1444:GLY:HA3	1:D:1487:MET:HA	2.00	0.43
1:D:2222:LEU:HD23	1:D:2222:LEU:HA	1.74	0.43
1:D:2279:MET:SD	1:D:2283:LYS:HD3	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2852:TRP:O	1:D:2855:LYS:HG3	2.18	0.43
1:D:3016:ARG:HA	1:D:3096:TYR:CZ	2.53	0.43
1:D:3128:VAL:O	1:D:3132:ARG:HG3	2.18	0.43
1:D:3211:LEU:O	1:D:3215:MET:SD	2.76	0.43
1:D:3319:PHE:O	1:D:3322:LEU:HG	2.18	0.43
1:A:674:TYR:CE1	1:A:756:SER:HB2	2.53	0.43
1:A:988:LEU:HB3	1:A:993:GLU:OE2	2.19	0.43
1:A:3285:TYR:CD1	1:A:3325:LYS:HD3	2.53	0.43
1:A:3306:ILE:HG13	1:A:3307:ILE:N	2.33	0.43
1:A:4045:LYS:HZ2	1:A:4077:THR:C	2.26	0.43
1:B:358:ASP:OD1	1:B:359:SER:N	2.51	0.43
1:B:2741:TRP:CE3	1:B:2754:GLN:HB2	2.52	0.43
1:B:2745:GLU:HA	1:B:2755:PRO:HB3	1.99	0.43
1:B:2787:TRP:HZ2	1:B:2843:MET:HE2	1.82	0.43
1:B:4030:ASP:OD1	1:B:4031:THR:N	2.52	0.43
1:B:4045:LYS:HZ2	1:B:4077:THR:C	2.27	0.43
1:C:358:ASP:OD1	1:C:359:SER:N	2.51	0.43
1:C:472:HIS:O	1:C:476:GLN:HG2	2.19	0.43
1:C:988:LEU:HB3	1:C:993:GLU:OE2	2.19	0.43
1:C:2090:ARG:HE	1:C:2090:ARG:HB3	1.62	0.43
1:C:2676:LEU:HD12	1:C:2677:PRO:HD2	2.00	0.43
1:C:2769:GLU:HG3	1:C:2770:ILE:N	2.34	0.43
1:C:3171:LEU:HB2	1:C:3245:TYR:CE2	2.53	0.43
1:C:3269:ASN:HB3	1:C:3272:HIS:ND1	2.33	0.43
1:C:3279:ASN:O	1:C:3283:ILE:HG12	2.19	0.43
1:C:3661:VAL:HG23	1:C:3666:GLN:HG2	1.99	0.43
1:C:3796:LEU:HD22	1:C:3835:PHE:HZ	1.82	0.43
1:D:337:LYS:NZ	1:D:371:TRP:HE1	2.15	0.43
1:D:358:ASP:OD1	1:D:359:SER:N	2.51	0.43
1:D:674:TYR:CE1	1:D:756:SER:HB2	2.53	0.43
1:D:2174:VAL:O	1:D:2178:VAL:HG23	2.18	0.43
1:D:3279:ASN:O	1:D:3283:ILE:HG12	2.19	0.43
1:D:4089:GLU:HB2	1:D:4090:PRO:HD3	2.00	0.43
1:A:677:LEU:HD11	1:A:800:VAL:HB	1.99	0.43
1:A:1446:ILE:HG12	1:A:1542:ALA:HB2	2.00	0.43
1:A:2745:GLU:HA	1:A:2755:PRO:HB3	1.99	0.43
1:A:3302:PHE:O	1:A:3305:PRO:HD2	2.19	0.43
1:B:821:PRO:HB2	1:B:823:TYR:CD1	2.54	0.43
1:B:1962:THR:O	1:B:1966:ARG:HG3	2.19	0.43
1:C:821:PRO:HB2	1:C:823:TYR:CD1	2.54	0.43
1:C:1962:THR:O	1:C:1966:ARG:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2075:ILE:HG22	1:C:2077:ASP:H	1.83	0.43
1:C:2119:LEU:HD13	1:C:2154:VAL:HB	1.99	0.43
1:C:2732:TRP:O	1:C:2736:LYS:HG2	2.19	0.43
1:C:3016:ARG:HA	1:C:3096:TYR:CZ	2.53	0.43
1:C:3073:GLU:O	1:C:3076:LYS:HG3	2.19	0.43
1:C:3128:VAL:O	1:C:3132:ARG:HG3	2.18	0.43
1:D:227:TYR:CG	1:D:352:SER:HB2	2.54	0.43
1:D:472:HIS:O	1:D:476:GLN:HG2	2.19	0.43
1:A:34:LYS:H	1:A:53:SER:HG	1.63	0.43
1:A:1433:PHE:CZ	1:A:1554:GLN:HB2	2.54	0.43
1:A:2429:LEU:HD21	1:A:2483:PHE:CZ	2.53	0.43
1:A:3073:GLU:O	1:A:3076:LYS:HG3	2.19	0.43
1:A:3269:ASN:HB3	1:A:3272:HIS:ND1	2.33	0.43
1:A:3279:ASN:O	1:A:3283:ILE:HG12	2.18	0.43
1:A:3661:VAL:HG23	1:A:3666:GLN:HG2	1.99	0.43
1:A:4030:ASP:OD1	1:A:4031:THR:N	2.52	0.43
1:B:472:HIS:O	1:B:476:GLN:HG2	2.19	0.43
1:B:1446:ILE:HG12	1:B:1542:ALA:HB2	2.00	0.43
1:B:3269:ASN:HB3	1:B:3272:HIS:ND1	2.33	0.43
1:B:3306:ILE:HG13	1:B:3307:ILE:N	2.33	0.43
1:B:4625:ASP:OD1	1:B:4625:ASP:N	2.50	0.43
1:C:260:VAL:O	1:C:390:LYS:NZ	2.38	0.43
1:C:668:ALA:HB2	1:C:1012:ILE:HD11	2.00	0.43
1:C:1292:SER:O	1:C:1295:SER:OG	2.37	0.43
1:C:2943:PHE:CZ	1:C:2956:TYR:HB2	2.54	0.43
1:C:3298:ARG:O	1:C:3301:VAL:HG12	2.18	0.43
1:C:3319:PHE:O	1:C:3322:LEU:HG	2.18	0.43
1:C:4661:TYR:O	1:C:4665:ARG:HD3	2.19	0.43
1:D:2486:HIS:O	1:D:2490:VAL:HG22	2.19	0.43
1:D:2943:PHE:CZ	1:D:2956:TYR:HB2	2.54	0.43
1:D:3117:PHE:CD2	1:D:3118:GLY:N	2.85	0.43
1:D:3285:TYR:CD1	1:D:3325:LYS:HD3	2.53	0.43
1:D:3302:PHE:O	1:D:3305:PRO:HD2	2.19	0.43
1:D:3661:VAL:HG23	1:D:3666:GLN:HG2	1.99	0.43
1:D:4640:PHE:CG	1:D:4641:PRO:HD3	2.52	0.43
1:A:1444:GLY:HA3	1:A:1487:MET:HA	2.01	0.43
1:A:2075:ILE:HG22	1:A:2077:ASP:H	1.83	0.43
1:A:2172:MET:O	1:A:2176:VAL:HG23	2.19	0.43
1:A:2676:LEU:HD12	1:A:2677:PRO:HD2	2.01	0.43
1:A:3063:ASN:O	1:A:3066:GLU:HG3	2.19	0.43
1:A:3292:GLU:HG3	1:A:3334:VAL:HG22	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4089:GLU:HB2	1:A:4090:PRO:HD3	2.00	0.43
2:H:58:LYS:O	2:H:61:GLU:N	2.51	0.43
1:B:247:VAL:HG11	1:B:316:LEU:HD11	2.01	0.43
1:B:801:ARG:HD3	1:B:1618:LEU:HD12	1.99	0.43
1:B:1053:ALA:O	1:B:1057:LEU:HG	2.19	0.43
1:B:1433:PHE:CZ	1:B:1554:GLN:HB2	2.54	0.43
1:B:2000:HIS:O	1:B:2004:MET:HG2	2.19	0.43
1:B:2723:LYS:N	1:B:2726:GLU:OE1	2.52	0.43
1:B:3008:PHE:HA	1:B:3036:LEU:HD13	2.01	0.43
1:B:3171:LEU:HB2	1:B:3245:TYR:HE2	1.84	0.43
1:B:3178:HIS:CD2	1:B:3263:MET:HA	2.53	0.43
1:B:4690:LYS:HE2	1:B:4692:SER:HB2	2.00	0.43
1:C:344:LYS:HA	1:C:344:LYS:HD3	1.69	0.43
1:C:626:ARG:HG3	1:C:2138:GLU:OE2	2.19	0.43
1:C:629:GLN:OE1	1:C:1669:ASN:ND2	2.40	0.43
1:C:801:ARG:HD3	1:C:1618:LEU:HD12	1.99	0.43
1:C:1444:GLY:HA3	1:C:1487:MET:HA	2.00	0.43
1:C:1446:ILE:HG12	1:C:1542:ALA:HB2	2.00	0.43
1:C:2629:ASN:OD1	1:C:2630:PHE:N	2.51	0.43
1:C:2769:GLU:C	1:C:2771:TYR:H	2.25	0.43
1:C:2968:LEU:HB3	1:C:2969:PRO:HD3	2.00	0.43
1:C:4030:ASP:OD1	1:C:4031:THR:N	2.52	0.43
1:D:62:LEU:O	1:D:66:THR:HG23	2.19	0.43
1:D:1736:ILE:HD11	1:D:1755:THR:HG23	2.01	0.43
1:D:1962:THR:O	1:D:1966:ARG:HG3	2.19	0.43
1:D:2429:LEU:HD21	1:D:2483:PHE:CZ	2.53	0.43
1:D:2732:TRP:O	1:D:2736:LYS:HG2	2.19	0.43
1:D:2769:GLU:C	1:D:2771:TYR:H	2.25	0.43
1:D:3292:GLU:HG3	1:D:3334:VAL:HG22	1.99	0.43
1:D:4480:PHE:HD2	1:D:4481:TRP:CE3	2.37	0.43
1:A:247:VAL:HG11	1:A:316:LEU:HD11	2.01	0.43
1:A:821:PRO:HB2	1:A:823:TYR:CD1	2.54	0.43
1:A:1053:ALA:O	1:A:1057:LEU:HG	2.19	0.43
1:A:2723:LYS:N	1:A:2726:GLU:OE1	2.52	0.43
1:A:2843:MET:O	1:A:2846:GLU:HG3	2.19	0.43
2:E:58:LYS:O	2:E:61:GLU:N	2.51	0.43
2:G:32:GLN:HG2	2:G:99:ILE:HD11	2.01	0.43
2:H:32:GLN:HG2	2:H:99:ILE:HD11	2.01	0.43
1:B:62:LEU:O	1:B:66:THR:HG23	2.19	0.43
1:B:915:HIS:ND1	1:B:916:PRO:HD2	2.34	0.43
1:B:3285:TYR:CD1	1:B:3325:LYS:HD3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4608:ARG:NH2	1:B:4644:TYR:OH	2.49	0.43
1:C:227:TYR:CG	1:C:352:SER:HB2	2.54	0.43
1:C:247:VAL:HG11	1:C:316:LEU:HD11	2.01	0.43
1:C:1053:ALA:O	1:C:1057:LEU:HG	2.19	0.43
1:C:2486:HIS:O	1:C:2490:VAL:HG22	2.19	0.43
1:C:3178:HIS:CD2	1:C:3263:MET:HA	2.54	0.43
1:C:3227:ARG:HD2	1:C:3227:ARG:HA	1.82	0.43
1:C:4045:LYS:HE2	1:C:4072:THR:HG22	2.00	0.43
1:D:1446:ILE:HG12	1:D:1542:ALA:HB2	2.00	0.43
1:D:2676:LEU:HD12	1:D:2677:PRO:HD2	2.00	0.43
1:D:3178:HIS:CD2	1:D:3263:MET:HA	2.53	0.43
1:D:4859:LEU:O	1:D:4863:GLN:HG2	2.17	0.43
1:A:915:HIS:ND1	1:A:916:PRO:HD2	2.34	0.43
1:A:1991:GLU:HG2	1:A:1992:ILE:N	2.34	0.43
1:A:2000:HIS:O	1:A:2004:MET:HG2	2.19	0.43
1:A:3016:ARG:HA	1:A:3096:TYR:CZ	2.53	0.43
1:B:2172:MET:O	1:B:2176:VAL:HG23	2.19	0.43
1:B:2732:TRP:O	1:B:2736:LYS:HG2	2.19	0.43
1:B:3073:GLU:O	1:B:3076:LYS:HG3	2.19	0.43
1:B:3211:LEU:O	1:B:3215:MET:SD	2.76	0.43
1:B:3805:LEU:HD11	1:B:3887:ASP:HB3	2.00	0.43
1:C:317:MET:HE1	1:C:321:LYS:O	2.18	0.43
1:C:1839:LEU:HA	1:C:1842:ILE:HG12	2.01	0.43
1:C:2723:LYS:N	1:C:2726:GLU:OE1	2.52	0.43
1:C:2843:MET:O	1:C:2846:GLU:HG3	2.19	0.43
1:C:2928:GLN:C	1:C:2928:GLN:OE1	2.62	0.43
1:C:2998:ASN:O	1:C:3002:GLU:OE1	2.37	0.43
1:C:3306:ILE:HG13	1:C:3307:ILE:N	2.33	0.43
1:D:247:VAL:HG11	1:D:316:LEU:HD11	2.01	0.43
1:D:962:LYS:HD2	1:D:985:PHE:CE1	2.54	0.43
1:D:1053:ALA:O	1:D:1057:LEU:HG	2.19	0.43
1:D:1433:PHE:CZ	1:D:1554:GLN:HB2	2.54	0.43
1:D:2741:TRP:CE3	1:D:2754:GLN:HB2	2.52	0.43
1:D:3171:LEU:HB2	1:D:3245:TYR:CE2	2.53	0.43
1:A:2674:GLY:HA2	1:A:2978:HIS:HE1	1.81	0.43
1:A:2769:GLU:O	1:A:2771:TYR:N	2.42	0.43
1:A:2852:TRP:O	1:A:2855:LYS:HG3	2.18	0.43
1:A:2899:ASN:O	1:A:2899:ASN:ND2	2.50	0.43
2:E:21:GLN:NE2	2:E:107:LEU:HB3	2.34	0.43
1:B:866:PRO:HD2	1:B:1009:ARG:CZ	2.49	0.43
1:B:2232:PRO:C	1:B:2234:MET:H	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2726:GLU:OE1	1:B:2726:GLU:N	2.48	0.43
1:B:4056:LYS:HG3	1:C:4660:PHE:CE1	2.54	0.43
1:B:4661:TYR:O	1:B:4665:ARG:HD3	2.19	0.43
1:C:35:LEU:HD13	1:C:49:LEU:HD13	1.99	0.43
1:C:62:LEU:O	1:C:66:THR:HG23	2.19	0.43
1:C:866:PRO:HD2	1:C:1009:ARG:CZ	2.49	0.43
1:C:1678:SER:HB2	1:C:1768:PHE:CE2	2.53	0.43
1:C:1736:ILE:HD11	1:C:1755:THR:HG23	2.01	0.43
1:C:2174:VAL:O	1:C:2178:VAL:HG23	2.18	0.43
1:C:2769:GLU:O	1:C:2771:TYR:N	2.42	0.43
1:C:2830:ASN:HD21	1:D:1551:ASN:HB2	1.83	0.43
1:C:3129:SER:O	1:C:3133:ILE:HG13	2.18	0.43
1:C:4045:LYS:HZ2	1:C:4077:THR:C	2.27	0.43
1:D:317:MET:CE	1:D:321:LYS:HG3	2.49	0.43
1:D:821:PRO:HB2	1:D:823:TYR:CD1	2.54	0.43
1:D:918:LEU:HD11	1:D:972:LEU:HD12	2.00	0.43
1:D:2436:ILE:HG22	1:D:2491:GLY:HA3	2.01	0.43
1:D:2723:LYS:N	1:D:2726:GLU:OE1	2.52	0.43
1:D:4690:LYS:HE2	1:D:4692:SER:HB2	2.00	0.43
1:A:912:LYS:O	1:A:914:GLN:HG3	2.18	0.43
1:A:918:LEU:HD11	1:A:972:LEU:HD12	2.00	0.43
1:A:1962:THR:O	1:A:1966:ARG:HG3	2.19	0.43
1:A:2436:ILE:HG22	1:A:2491:GLY:HA3	2.01	0.43
1:A:2486:HIS:O	1:A:2490:VAL:HG22	2.19	0.43
1:A:2943:PHE:CZ	1:A:2956:TYR:HB2	2.53	0.43
1:A:3045:VAL:O	1:A:3054:LYS:HE2	2.17	0.43
1:A:4480:PHE:HD2	1:A:4481:TRP:CE3	2.37	0.43
1:A:4719:PHE:CE2	1:D:4294:LEU:HD22	2.53	0.43
1:B:626:ARG:HG3	1:B:2138:GLU:OE2	2.19	0.43
1:B:1839:LEU:HA	1:B:1842:ILE:HG12	2.01	0.43
1:B:1991:GLU:HG2	1:B:1992:ILE:N	2.34	0.43
1:B:3128:VAL:O	1:B:3132:ARG:HG3	2.18	0.43
1:C:2279:MET:SD	1:C:2283:LYS:HD3	2.58	0.43
1:D:317:MET:HE1	1:D:321:LYS:O	2.18	0.43
1:D:866:PRO:HD2	1:D:1009:ARG:CZ	2.49	0.43
1:D:1839:LEU:HA	1:D:1842:ILE:HG12	2.01	0.43
1:D:2736:LYS:HB2	1:D:2736:LYS:HE2	1.89	0.43
1:D:3260:ARG:O	1:D:3260:ARG:HG2	2.19	0.43
1:A:880:ARG:O	1:A:884:LYS:NZ	2.39	0.42
1:A:1736:ILE:HD11	1:A:1755:THR:HG23	2.01	0.42
1:A:2629:ASN:OD1	1:A:2630:PHE:N	2.51	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2860:LEU:HA	1:A:2863:LYS:NZ	2.34	0.42
1:A:3128:VAL:O	1:A:3132:ARG:HG3	2.18	0.42
1:A:3171:LEU:HB2	1:A:3245:TYR:CE2	2.53	0.42
1:A:3179:ASN:HB2	1:A:3265:CYS:HB2	2.00	0.42
1:A:4197:ILE:HG12	1:A:4923:MET:HE3	2.01	0.42
1:A:4690:LYS:HE2	1:A:4692:SER:HB2	2.00	0.42
2:F:78:THR:OG1	2:F:80:ASP:OD1	2.32	0.42
1:B:1226:TYR:HD1	1:B:1229:ILE:HD11	1.83	0.42
1:B:1292:SER:O	1:B:1295:SER:OG	2.37	0.42
1:B:2429:LEU:HD21	1:B:2483:PHE:CZ	2.53	0.42
1:B:2736:LYS:HB2	1:B:2736:LYS:HE2	1.89	0.42
1:B:3207:ASN:OD1	1:B:3207:ASN:N	2.52	0.42
1:B:3260:ARG:HG2	1:B:3260:ARG:O	2.19	0.42
1:B:3290:ILE:C	1:B:3292:GLU:H	2.26	0.42
1:B:3661:VAL:HG23	1:B:3666:GLN:HG2	1.99	0.42
1:C:866:PRO:HD2	1:C:1009:ARG:HH12	1.84	0.42
1:C:915:HIS:ND1	1:C:916:PRO:HD2	2.34	0.42
1:C:1215:MET:HE2	1:C:1249:MET:HE1	2.01	0.42
1:C:2481:GLN:HE22	1:C:2485:LEU:HD11	1.84	0.42
1:C:3322:LEU:HA	1:C:3325:LYS:HE3	2.01	0.42
1:D:2075:ILE:HG22	1:D:2077:ASP:H	1.83	0.42
1:D:2747:TYR:HE1	1:D:2754:GLN:NE2	2.14	0.42
1:A:317:MET:CE	1:A:321:LYS:HG3	2.49	0.42
1:A:962:LYS:HD2	1:A:985:PHE:CE1	2.54	0.42
1:A:2232:PRO:C	1:A:2234:MET:H	2.27	0.42
1:A:2769:GLU:HG3	1:A:2770:ILE:N	2.33	0.42
1:A:3171:LEU:HB2	1:A:3245:TYR:HE2	1.84	0.42
1:A:3290:ILE:C	1:A:3292:GLU:H	2.26	0.42
1:A:3965:ILE:HD12	1:A:4086:ARG:HD2	2.01	0.42
2:E:54:GLN:OE1	2:E:54:GLN:N	2.53	0.42
2:G:54:GLN:OE1	2:G:54:GLN:N	2.53	0.42
2:H:21:GLN:NE2	2:H:107:LEU:HB3	2.34	0.42
1:B:21:VAL:HG13	1:B:217:ILE:HG13	2.01	0.42
1:B:897:LYS:HZ1	1:B:918:LEU:HB2	1.83	0.42
1:B:988:LEU:HB3	1:B:993:GLU:OE2	2.19	0.42
1:B:1105:PHE:HB2	1:B:1115:VAL:HG21	2.02	0.42
1:B:1215:MET:HE2	1:B:1249:MET:HE1	2.00	0.42
1:B:1732:GLU:O	1:B:1736:ILE:HG13	2.20	0.42
1:B:2486:HIS:O	1:B:2490:VAL:HG22	2.19	0.42
1:B:2928:GLN:C	1:B:2928:GLN:OE1	2.61	0.42
1:B:3063:ASN:O	1:B:3066:GLU:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3637:GLU:HG2	1:B:3694:ILE:HA	2.02	0.42
1:C:317:MET:CE	1:C:321:LYS:HG3	2.49	0.42
1:C:962:LYS:HD2	1:C:985:PHE:CE1	2.54	0.42
1:C:2429:LEU:HD21	1:C:2483:PHE:CZ	2.53	0.42
1:C:3008:PHE:HA	1:C:3036:LEU:HD13	2.01	0.42
1:C:3302:PHE:O	1:C:3305:PRO:HD2	2.19	0.42
1:C:4253:LEU:O	1:C:4257:ARG:HG3	2.20	0.42
1:D:668:ALA:HB2	1:D:1012:ILE:HD11	2.00	0.42
1:D:915:HIS:ND1	1:D:916:PRO:HD2	2.34	0.42
1:D:988:LEU:HB3	1:D:993:GLU:OE2	2.19	0.42
1:D:1428:TYR:OH	1:D:1444:GLY:O	2.37	0.42
1:D:3008:PHE:HA	1:D:3036:LEU:HD13	2.01	0.42
1:D:3063:ASN:O	1:D:3066:GLU:HG3	2.19	0.42
1:D:3261:ALA:C	1:D:3263:MET:H	2.27	0.42
1:A:608:HIS:HB2	1:A:1656:HIS:CD2	2.55	0.42
1:A:1114:ARG:NH1	1:A:1128:LEU:O	2.49	0.42
1:A:1215:MET:HE2	1:A:1249:MET:HE1	2.00	0.42
1:A:1732:GLU:O	1:A:1736:ILE:HG13	2.19	0.42
1:A:3260:ARG:O	1:A:3260:ARG:HG2	2.19	0.42
1:B:227:TYR:CG	1:B:352:SER:HB2	2.54	0.42
1:B:2860:LEU:HA	1:B:2863:LYS:NZ	2.35	0.42
1:B:3179:ASN:HB2	1:B:3265:CYS:HB2	2.00	0.42
1:B:3994:THR:O	1:B:3998:GLN:HG3	2.19	0.42
1:B:4253:LEU:O	1:B:4257:ARG:HG3	2.20	0.42
1:B:4480:PHE:HD2	1:B:4481:TRP:CE3	2.37	0.42
1:C:2436:ILE:HG22	1:C:2491:GLY:HA3	2.01	0.42
1:C:2830:ASN:HB3	1:D:1434:PRO:O	2.18	0.42
1:C:4197:ILE:HG12	1:C:4923:MET:HE3	2.01	0.42
1:C:4690:LYS:HE2	1:C:4692:SER:HB2	2.00	0.42
1:D:1491:GLY:HA2	1:D:1494:MET:HE2	2.01	0.42
1:D:2232:PRO:C	1:D:2234:MET:H	2.27	0.42
1:D:2689:MET:HE3	1:D:2785:TRP:HE3	1.83	0.42
1:D:3207:ASN:OD1	1:D:3207:ASN:N	2.52	0.42
1:D:3322:LEU:HA	1:D:3325:LYS:HE3	2.01	0.42
1:D:4030:ASP:OD1	1:D:4031:THR:N	2.52	0.42
1:D:4197:ILE:HG12	1:D:4923:MET:HE3	2.01	0.42
1:A:270:HIS:CE1	1:A:491:GLU:HG3	2.54	0.42
1:A:891:GLU:HG2	1:A:976:TYR:CZ	2.55	0.42
1:A:1105:PHE:HB2	1:A:1115:VAL:HG21	2.02	0.42
1:A:2732:TRP:O	1:A:2736:LYS:HG2	2.19	0.42
1:A:3994:THR:O	1:A:3998:GLN:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4203:ALA:HA	1:A:4206:ILE:HG12	2.01	0.42
2:F:21:GLN:NE2	2:F:107:LEU:HB3	2.34	0.42
1:B:1444:GLY:HA3	1:B:1487:MET:HA	2.00	0.42
1:B:2436:ILE:HG22	1:B:2491:GLY:HA3	2.01	0.42
1:B:2446:ALA:HB2	1:B:2452:VAL:HG23	2.02	0.42
1:B:3171:LEU:HB2	1:B:3245:TYR:CE2	2.53	0.42
1:B:3302:PHE:O	1:B:3305:PRO:HD2	2.19	0.42
1:C:270:HIS:CE1	1:C:491:GLU:HG3	2.54	0.42
1:C:2172:MET:O	1:C:2176:VAL:HG23	2.19	0.42
1:C:2232:PRO:C	1:C:2234:MET:H	2.27	0.42
1:C:3171:LEU:HB2	1:C:3245:TYR:HE2	1.84	0.42
1:C:3260:ARG:HG2	1:C:3260:ARG:O	2.19	0.42
1:C:4519:PHE:CD2	1:C:4568:MET:HE1	2.54	0.42
1:D:1292:SER:O	1:D:1295:SER:OG	2.37	0.42
1:D:2928:GLN:C	1:D:2928:GLN:OE1	2.61	0.42
1:D:3994:THR:O	1:D:3998:GLN:HG3	2.19	0.42
1:D:4105:LEU:HB3	1:D:4115:LEU:HD21	2.02	0.42
1:A:476:GLN:HB3	1:A:3678:GLU:OE2	2.20	0.42
1:A:1761:MET:HE1	1:A:1833:ILE:HD11	2.01	0.42
1:A:2222:LEU:HD23	1:A:2222:LEU:HA	1.74	0.42
1:A:3211:LEU:O	1:A:3215:MET:SD	2.76	0.42
1:B:918:LEU:HD11	1:B:972:LEU:HD12	2.00	0.42
1:B:962:LYS:HD2	1:B:985:PHE:CE1	2.54	0.42
1:B:1428:TYR:OH	1:B:1444:GLY:O	2.37	0.42
1:B:3279:ASN:O	1:B:3283:ILE:HG12	2.19	0.42
1:D:1991:GLU:HG2	1:D:1992:ILE:N	2.34	0.42
1:D:2000:HIS:O	1:D:2004:MET:HG2	2.19	0.42
1:A:472:HIS:O	1:A:476:GLN:HG2	2.19	0.42
1:A:626:ARG:NH2	1:A:1667:LEU:O	2.48	0.42
1:A:1292:SER:O	1:A:1295:SER:OG	2.37	0.42
1:A:4023:LEU:HD23	1:A:4023:LEU:HA	1.92	0.42
1:A:4519:PHE:CD2	1:A:4568:MET:HE1	2.54	0.42
2:H:54:GLN:OE1	2:H:54:GLN:N	2.53	0.42
1:B:608:HIS:HB2	1:B:1656:HIS:CD2	2.55	0.42
1:B:2090:ARG:HE	1:B:2090:ARG:HB3	1.62	0.42
1:B:4197:ILE:HG12	1:B:4923:MET:HE3	2.01	0.42
1:B:4203:ALA:HA	1:B:4206:ILE:HG12	2.01	0.42
1:C:2222:LEU:HD12	1:C:2261:ASP:HB2	2.02	0.42
1:C:2488:LEU:HA	1:C:2492:PHE:HB2	2.02	0.42
1:C:3043:ARG:HD3	1:C:3117:PHE:CE2	2.55	0.42
1:C:3965:ILE:HD12	1:C:4086:ARG:HD2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4480:PHE:HD2	1:C:4481:TRP:CE3	2.37	0.42
1:D:722:LEU:HD23	1:D:722:LEU:HA	1.87	0.42
1:D:2998:ASN:O	1:D:3002:GLU:OE1	2.37	0.42
1:D:3306:ILE:HG13	1:D:3307:ILE:N	2.33	0.42
1:D:4253:LEU:O	1:D:4257:ARG:HG3	2.20	0.42
1:A:626:ARG:HG3	1:A:2138:GLU:OE2	2.19	0.42
1:A:900:LEU:O	1:A:913:ARG:NH2	2.53	0.42
1:A:1088:PHE:CE1	1:A:1207:LEU:HD12	2.55	0.42
1:A:2222:LEU:HD12	1:A:2261:ASP:HB2	2.02	0.42
1:A:2446:ALA:HB2	1:A:2452:VAL:HG23	2.02	0.42
1:A:2465:LYS:O	1:A:2469:VAL:HG23	2.20	0.42
1:A:2757:MET:SD	1:A:2757:MET:N	2.93	0.42
1:A:3045:VAL:HG12	1:A:3046:MET:HE2	2.02	0.42
2:F:32:GLN:HG2	2:F:99:ILE:HD11	2.01	0.42
1:B:934:GLN:HA	1:B:937:LEU:HG	2.01	0.42
1:B:1491:GLY:HA2	1:B:1494:MET:HE2	2.01	0.42
1:B:1649:GLU:HG2	1:B:1650:LEU:N	2.35	0.42
1:B:2769:GLU:HG3	1:B:2770:ILE:N	2.33	0.42
1:B:2769:GLU:O	1:B:2771:TYR:N	2.42	0.42
1:B:3261:ALA:C	1:B:3263:MET:H	2.27	0.42
1:C:34:LYS:H	1:C:53:SER:HG	1.63	0.42
1:C:1491:GLY:HA2	1:C:1494:MET:HE2	2.01	0.42
1:C:1732:GLU:O	1:C:1736:ILE:HG13	2.20	0.42
1:C:2379:ASP:OD1	1:C:2380:ASP:N	2.53	0.42
1:C:2386:ASN:HA	1:C:2389:MET:HE3	2.01	0.42
1:C:4155:SER:O	1:C:4159:GLN:HG2	2.20	0.42
1:D:866:PRO:HD2	1:D:1009:ARG:HH12	1.84	0.42
1:D:1105:PHE:HB2	1:D:1115:VAL:HG21	2.02	0.42
1:D:1215:MET:HE2	1:D:1249:MET:HE1	2.00	0.42
1:D:1304:LEU:HD23	1:D:1304:LEU:HA	1.90	0.42
1:D:1761:MET:HE1	1:D:1833:ILE:HD11	2.01	0.42
1:D:2172:MET:O	1:D:2176:VAL:HG23	2.19	0.42
1:D:3045:VAL:HG12	1:D:3046:MET:HE2	2.02	0.42
1:D:3073:GLU:O	1:D:3076:LYS:HG3	2.19	0.42
1:D:4519:PHE:CD2	1:D:4568:MET:HE1	2.54	0.42
1:D:4831:ILE:CG1	1:D:4843:ARG:HH21	2.33	0.42
1:A:28:ILE:HD11	1:A:201:LEU:HD21	2.02	0.42
1:A:227:TYR:CG	1:A:352:SER:HB2	2.54	0.42
1:A:934:GLN:HA	1:A:937:LEU:HG	2.01	0.42
1:A:2455:ASP:OD2	1:A:2457:SER:OG	2.27	0.42
1:A:2747:TYR:HE1	1:A:2754:GLN:NE2	2.13	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2998:ASN:O	1:A:3002:GLU:OE1	2.37	0.42
1:A:3655:ASP:HB3	1:A:3660:ARG:NH1	2.35	0.42
1:A:3805:LEU:HD11	1:A:3887:ASP:HB3	2.00	0.42
1:A:4020:PHE:HD1	1:A:4023:LEU:HD12	1.84	0.42
2:E:32:GLN:HG2	2:E:99:ILE:HD11	2.01	0.42
2:F:54:GLN:N	2:F:54:GLN:OE1	2.53	0.42
1:B:2488:LEU:HA	1:B:2492:PHE:HB2	2.02	0.42
1:B:4155:SER:O	1:B:4159:GLN:HG2	2.20	0.42
1:B:4519:PHE:CD2	1:B:4568:MET:HE1	2.54	0.42
1:C:1105:PHE:HB2	1:C:1115:VAL:HG21	2.02	0.42
1:C:1991:GLU:HG2	1:C:1992:ILE:N	2.34	0.42
1:C:2757:MET:SD	1:C:2757:MET:N	2.93	0.42
1:C:2827:ASP:N	1:D:1501:ASN:HD22	2.18	0.42
1:C:2878:THR:O	1:C:2882:LYS:HG3	2.20	0.42
1:C:3261:ALA:C	1:C:3263:MET:H	2.27	0.42
1:C:3655:ASP:HB3	1:C:3660:ARG:NH1	2.34	0.42
1:C:4003:LEU:HB3	1:C:4118:PHE:CE2	2.55	0.42
1:C:4203:ALA:HA	1:C:4206:ILE:HG12	2.01	0.42
1:C:4590:TYR:OH	1:C:4718:SER:HB2	2.20	0.42
1:D:2481:GLN:HE22	1:D:2485:LEU:HD11	1.84	0.42
1:D:2659:GLN:OE1	1:D:2663:LYS:HE2	2.20	0.42
1:D:4020:PHE:HD1	1:D:4023:LEU:HD12	1.84	0.42
1:D:4155:SER:O	1:D:4159:GLN:HG2	2.20	0.42
1:D:4661:TYR:O	1:D:4665:ARG:HD3	2.19	0.42
1:A:866:PRO:HD2	1:A:1009:ARG:HH12	1.84	0.42
1:A:2488:LEU:HA	1:A:2492:PHE:HB2	2.02	0.42
1:A:2736:LYS:NZ	1:A:2754:GLN:HG2	2.35	0.42
1:A:3032:CYS:O	1:A:3035:ILE:HG22	2.18	0.42
1:A:4003:LEU:HB3	1:A:4118:PHE:CE2	2.55	0.42
1:A:4253:LEU:O	1:A:4257:ARG:HG3	2.20	0.42
2:E:28:THR:HG23	2:E:39:SER:HB2	2.02	0.42
2:F:28:THR:HG23	2:F:39:SER:HB2	2.02	0.42
2:G:28:THR:HG23	2:G:39:SER:HB2	2.02	0.42
2:H:28:THR:HG23	2:H:39:SER:HB2	2.02	0.42
2:H:88:HIS:HD2	2:H:89:PRO:HD2	1.85	0.42
1:B:1729:MET:HE2	1:B:1930:ASP:CB	2.45	0.42
1:B:2769:GLU:C	1:B:2771:TYR:H	2.25	0.42
1:B:3965:ILE:HD12	1:B:4086:ARG:HD2	2.01	0.42
1:C:1959:ALA:HA	1:C:1962:THR:HG22	2.02	0.42
1:C:3239:LEU:HB2	1:C:3240:PRO:HD3	2.01	0.42
1:C:3637:GLU:HG2	1:C:3694:ILE:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3712:LYS:NZ	1:C:3720:GLU:OE2	2.43	0.42
1:C:4193:CYS:HA	1:C:4919:LEU:HD12	2.02	0.42
1:C:4831:ILE:CG1	1:C:4843:ARG:HH21	2.33	0.42
1:D:270:HIS:CE1	1:D:491:GLU:HG3	2.54	0.42
1:D:953:SER:HB3	1:D:1063:ASN:HD21	1.85	0.42
1:D:1549:SER:OG	1:D:1551:ASN:O	2.37	0.42
1:D:4590:TYR:OH	1:D:4718:SER:HB2	2.20	0.42
1:A:456:LEU:HD23	1:A:456:LEU:HA	1.94	0.42
1:A:1491:GLY:HA2	1:A:1494:MET:HE2	2.01	0.42
1:A:3637:GLU:HG2	1:A:3694:ILE:HA	2.02	0.42
1:B:198:ASN:C	1:B:198:ASN:ND2	2.73	0.42
1:B:317:MET:CE	1:B:321:LYS:HG3	2.49	0.42
1:B:476:GLN:HB3	1:B:3678:GLU:OE2	2.20	0.42
1:B:1748:LEU:HB2	1:B:1751:ILE:HD12	2.02	0.42
1:B:2386:ASN:HA	1:B:2389:MET:HE3	2.01	0.42
1:B:3227:ARG:HA	1:B:3227:ARG:HD2	1.82	0.42
1:B:4003:LEU:HB3	1:B:4118:PHE:CE2	2.55	0.42
1:B:4590:TYR:OH	1:B:4718:SER:HB2	2.20	0.42
1:C:21:VAL:HG13	1:C:217:ILE:HG13	2.02	0.42
1:C:28:ILE:HD11	1:C:201:LEU:HD21	2.02	0.42
1:C:608:HIS:HB2	1:C:1656:HIS:CD2	2.55	0.42
1:C:1118:SER:HA	1:C:1134:ALA:HA	2.02	0.42
1:C:1433:PHE:CZ	1:C:1554:GLN:HB2	2.54	0.42
1:C:1604:LEU:HD23	1:C:1604:LEU:HA	1.95	0.42
1:C:4105:LEU:HB3	1:C:4115:LEU:HD21	2.02	0.42
1:C:4267:GLN:O	1:C:4271:VAL:HG12	2.20	0.42
1:D:28:ILE:HD11	1:D:201:LEU:HD21	2.02	0.42
1:D:476:GLN:HB3	1:D:3678:GLU:OE2	2.20	0.42
1:D:514:PHE:CD2	1:D:526:TRP:HB2	2.53	0.42
1:D:891:GLU:HG2	1:D:976:TYR:CZ	2.55	0.42
1:D:1088:PHE:CE1	1:D:1207:LEU:HD12	2.55	0.42
1:D:1649:GLU:HG2	1:D:1650:LEU:N	2.35	0.42
1:A:668:ALA:HB2	1:A:1012:ILE:HD11	2.00	0.41
1:A:866:PRO:HD2	1:A:1009:ARG:CZ	2.49	0.41
1:A:1428:TYR:OH	1:A:1444:GLY:O	2.37	0.41
1:A:1649:GLU:HG2	1:A:1650:LEU:N	2.35	0.41
1:A:1839:LEU:HA	1:A:1842:ILE:HG12	2.01	0.41
1:A:2659:GLN:OE1	1:A:2663:LYS:HE2	2.20	0.41
1:A:4160:TRP:CZ2	1:A:4169:LYS:HD3	2.55	0.41
1:B:1736:ILE:HD11	1:B:1755:THR:HG23	2.01	0.41
1:B:1959:ALA:HA	1:B:1962:THR:HG22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2629:ASN:OD1	1:B:2630:PHE:N	2.51	0.41
1:B:2757:MET:SD	1:B:2757:MET:N	2.93	0.41
1:B:2843:MET:O	1:B:2846:GLU:HG3	2.19	0.41
1:B:3655:ASP:HB3	1:B:3660:ARG:NH1	2.35	0.41
1:B:4193:CYS:HA	1:B:4919:LEU:HD12	2.02	0.41
1:C:900:LEU:O	1:C:913:ARG:NH2	2.53	0.41
1:C:918:LEU:HD11	1:C:972:LEU:HD12	2.00	0.41
1:C:2659:GLN:OE1	1:C:2663:LYS:HE2	2.20	0.41
1:C:3207:ASN:OD1	1:C:3207:ASN:N	2.52	0.41
1:C:3778:LEU:HD11	1:C:3782:LYS:HE3	2.02	0.41
1:D:608:HIS:HB2	1:D:1656:HIS:CD2	2.55	0.41
1:D:626:ARG:HG3	1:D:2138:GLU:OE2	2.19	0.41
1:D:934:GLN:HA	1:D:937:LEU:HG	2.01	0.41
1:D:2379:ASP:OD1	1:D:2380:ASP:N	2.53	0.41
1:D:2878:THR:O	1:D:2882:LYS:HG3	2.20	0.41
1:D:4003:LEU:HB3	1:D:4118:PHE:CE2	2.55	0.41
1:A:1959:ALA:HA	1:A:1962:THR:HG22	2.02	0.41
1:A:2379:ASP:OD1	1:A:2380:ASP:N	2.53	0.41
1:A:2386:ASN:HA	1:A:2389:MET:HE3	2.01	0.41
1:A:2769:GLU:C	1:A:2771:TYR:H	2.25	0.41
1:A:2791:ARG:HH22	1:A:2799:ALA:HB2	1.85	0.41
1:A:4105:LEU:HB3	1:A:4115:LEU:HD21	2.02	0.41
1:A:4155:SER:O	1:A:4159:GLN:HG2	2.20	0.41
1:A:4590:TYR:OH	1:A:4718:SER:HB2	2.20	0.41
1:A:4661:TYR:O	1:A:4665:ARG:HD3	2.19	0.41
1:A:4735:ASN:HB3	1:A:4738:PHE:HD2	1.86	0.41
1:B:28:ILE:HD11	1:B:201:LEU:HD21	2.02	0.41
1:B:2899:ASN:O	1:B:2899:ASN:ND2	2.50	0.41
1:B:3032:CYS:O	1:B:3035:ILE:HG22	2.18	0.41
1:B:3239:LEU:HB2	1:B:3240:PRO:HD3	2.01	0.41
1:B:4267:GLN:O	1:B:4271:VAL:HG12	2.20	0.41
1:C:476:GLN:HB3	1:C:3678:GLU:OE2	2.20	0.41
1:C:722:LEU:HD23	1:C:722:LEU:HA	1.87	0.41
1:C:934:GLN:HA	1:C:937:LEU:HG	2.01	0.41
1:C:988:LEU:HB2	1:C:1055:ARG:NE	2.27	0.41
1:C:1088:PHE:CE1	1:C:1207:LEU:HD12	2.55	0.41
1:C:1685:LEU:HD22	1:C:1706:LEU:HB2	2.03	0.41
1:C:2283:LYS:HB3	1:C:2283:LYS:HE2	1.95	0.41
1:C:3994:THR:O	1:C:3998:GLN:HG3	2.20	0.41
1:D:728:ASP:OD2	1:D:731:HIS:N	2.48	0.41
1:D:1029:ASN:HB3	1:D:1032:LEU:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2446:ALA:HB2	1:D:2452:VAL:HG23	2.02	0.41
1:D:2843:MET:O	1:D:2846:GLU:HG3	2.19	0.41
1:D:3184:TYR:C	1:D:3192:ARG:HH22	2.24	0.41
1:D:3239:LEU:HB2	1:D:3240:PRO:HD3	2.01	0.41
1:D:3655:ASP:HB3	1:D:3660:ARG:NH1	2.35	0.41
1:D:3965:ILE:HD12	1:D:4086:ARG:HD2	2.01	0.41
1:A:739:ARG:HH12	1:A:1480:ILE:HG12	1.86	0.41
1:A:1518:LEU:HB2	1:A:1531:TYR:HB2	2.03	0.41
1:A:2730:ASP:OD1	1:A:2821:TYR:OH	2.39	0.41
1:A:3288:LEU:HD13	1:A:3329:LYS:HE3	2.02	0.41
1:A:3322:LEU:HA	1:A:3325:LYS:HE3	2.01	0.41
1:A:4267:GLN:O	1:A:4271:VAL:HG12	2.20	0.41
1:A:4608:ARG:NH2	1:A:4644:TYR:OH	2.49	0.41
1:B:270:HIS:CE1	1:B:491:GLU:HG3	2.54	0.41
1:B:1088:PHE:CE1	1:B:1207:LEU:HD12	2.55	0.41
1:B:1685:LEU:HD22	1:B:1706:LEU:HB2	2.03	0.41
1:B:2413:LYS:HZ2	1:B:2415:GLU:HB3	1.86	0.41
1:B:2659:GLN:OE1	1:B:2663:LYS:HE2	2.20	0.41
1:B:2830:ASN:HD21	1:C:1551:ASN:HB2	1.85	0.41
1:B:4160:TRP:CZ2	1:B:4169:LYS:HD3	2.55	0.41
1:C:675:TYR:HB3	1:C:822:CYS:SG	2.61	0.41
1:C:839:GLU:OE2	1:C:1086:ARG:NH1	2.54	0.41
1:C:2446:ALA:HB2	1:C:2452:VAL:HG23	2.02	0.41
1:C:3063:ASN:O	1:C:3066:GLU:HG3	2.19	0.41
1:D:1732:GLU:O	1:D:1736:ILE:HG13	2.20	0.41
1:D:1959:ALA:HA	1:D:1962:THR:HG22	2.02	0.41
1:D:2465:LYS:O	1:D:2469:VAL:HG23	2.20	0.41
1:D:2730:ASP:OD1	1:D:2821:TYR:OH	2.39	0.41
1:D:4203:ALA:HA	1:D:4206:ILE:HG12	2.01	0.41
1:A:2658:GLU:OE1	1:A:2661:LEU:N	2.31	0.41
1:A:2878:THR:O	1:A:2882:LYS:HG3	2.20	0.41
1:A:4831:ILE:CG1	1:A:4843:ARG:HH21	2.33	0.41
1:B:681:HIS:O	1:B:799:LYS:N	2.54	0.41
1:B:891:GLU:HG2	1:B:976:TYR:CZ	2.55	0.41
1:B:900:LEU:O	1:B:913:ARG:NH2	2.53	0.41
1:B:1761:MET:HE1	1:B:1833:ILE:HD11	2.01	0.41
1:B:2481:GLN:HE22	1:B:2485:LEU:HD11	1.84	0.41
1:B:2730:ASP:OD1	1:B:2821:TYR:OH	2.39	0.41
1:B:3288:LEU:HD13	1:B:3329:LYS:HE3	2.02	0.41
1:B:4735:ASN:HB3	1:B:4738:PHE:CD2	2.56	0.41
1:B:4792:PHE:HB3	1:B:4843:ARG:NH2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:681:HIS:O	1:C:799:LYS:N	2.54	0.41
1:C:882:ARG:HH21	1:C:937:LEU:HB3	1.85	0.41
1:C:2859:GLU:O	1:C:2862:SER:OG	2.28	0.41
1:C:2860:LEU:HA	1:C:2863:LYS:NZ	2.34	0.41
1:D:21:VAL:HG13	1:D:217:ILE:HG13	2.02	0.41
1:D:344:LYS:HA	1:D:344:LYS:HD3	1.69	0.41
1:D:739:ARG:HH12	1:D:1480:ILE:HG12	1.86	0.41
1:D:1518:LEU:HB2	1:D:1531:TYR:HB2	2.03	0.41
1:D:1896:MET:O	1:D:1896:MET:HG2	2.20	0.41
1:D:2259:GLU:HB2	1:D:2260:PRO:HD3	2.02	0.41
1:D:2488:LEU:HA	1:D:2492:PHE:HB2	2.02	0.41
1:D:3861:GLN:HB3	1:D:3864:ASN:HD22	1.86	0.41
1:A:882:ARG:HH21	1:A:937:LEU:HB3	1.86	0.41
1:A:2259:GLU:HB2	1:A:2260:PRO:HD3	2.03	0.41
1:A:3712:LYS:NZ	1:A:3720:GLU:OE2	2.43	0.41
1:B:866:PRO:HD2	1:B:1009:ARG:HH12	1.84	0.41
1:B:1029:ASN:HB3	1:B:1032:LEU:HD12	2.02	0.41
1:B:1118:SER:HA	1:B:1134:ALA:HA	2.02	0.41
1:B:1594:VAL:O	1:B:1594:VAL:HG13	2.21	0.41
1:B:2259:GLU:HB2	1:B:2260:PRO:HD3	2.03	0.41
1:B:2377:GLU:OE1	1:B:2378:GLU:HG2	2.21	0.41
1:B:2736:LYS:NZ	1:B:2754:GLN:HG2	2.35	0.41
1:B:2822:SER:HG	1:B:2824:ARG:NH1	2.18	0.41
1:B:3622:GLN:HB3	1:B:3626:LYS:NZ	2.36	0.41
1:B:4735:ASN:HB3	1:B:4738:PHE:HD2	1.85	0.41
1:C:891:GLU:HG2	1:C:976:TYR:CZ	2.55	0.41
1:C:1284:LYS:HZ2	1:C:1286:THR:HG22	1.85	0.41
1:C:2000:HIS:O	1:C:2004:MET:HG2	2.19	0.41
1:C:2259:GLU:HB2	1:C:2260:PRO:HD3	2.03	0.41
1:C:2736:LYS:NZ	1:C:2754:GLN:HG2	2.35	0.41
1:C:2791:ARG:HH22	1:C:2799:ALA:HB2	1.86	0.41
1:D:293:GLN:HA	1:D:343:ARG:HH22	1.86	0.41
1:D:1118:SER:HA	1:D:1134:ALA:HA	2.02	0.41
1:D:1256:PRO:HG2	1:D:1453:TYR:HB2	2.03	0.41
1:D:1968:PRO:O	1:D:1972:GLN:HG3	2.21	0.41
1:D:2967:VAL:O	1:D:2970:LEU:HG	2.21	0.41
1:D:3920:LEU:O	1:D:3924:ILE:HG12	2.21	0.41
1:D:4608:ARG:NH2	1:D:4644:TYR:OH	2.49	0.41
1:A:681:HIS:O	1:A:799:LYS:N	2.54	0.41
1:A:2377:GLU:OE1	1:A:2378:GLU:HG2	2.21	0.41
1:A:2726:GLU:OE1	1:A:2726:GLU:N	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3043:ARG:HD3	1:A:3117:PHE:CE2	2.55	0.41
1:A:3920:LEU:O	1:A:3924:ILE:HG12	2.21	0.41
1:A:4193:CYS:HA	1:A:4919:LEU:HD12	2.02	0.41
1:A:4735:ASN:HB3	1:A:4738:PHE:CD2	2.56	0.41
2:H:57:ILE:HG13	2:H:60:PHE:HB2	2.03	0.41
1:B:293:GLN:HA	1:B:343:ARG:HH22	1.86	0.41
1:B:499:LEU:HD22	1:B:557:TRP:CZ3	2.56	0.41
1:B:678:MET:HE1	1:B:801:ARG:NH2	2.36	0.41
1:B:1986:CYS:HA	1:B:1987:PRO:HD3	1.91	0.41
1:B:2465:LYS:O	1:B:2469:VAL:HG23	2.20	0.41
1:B:2830:ASN:HB3	1:C:1434:PRO:O	2.20	0.41
1:B:2967:VAL:O	1:B:2970:LEU:HG	2.21	0.41
1:B:2998:ASN:O	1:B:3002:GLU:OE1	2.37	0.41
1:B:3322:LEU:HA	1:B:3325:LYS:HE3	2.01	0.41
1:C:1428:TYR:OH	1:C:1444:GLY:O	2.37	0.41
1:C:1463:ARG:HE	1:C:1463:ARG:HB3	1.75	0.41
1:C:1761:MET:HE1	1:C:1833:ILE:HD11	2.01	0.41
1:C:3861:GLN:HB3	1:C:3864:ASN:HD22	1.86	0.41
1:C:3920:LEU:O	1:C:3924:ILE:HG12	2.21	0.41
1:C:4020:PHE:HD1	1:C:4023:LEU:HD12	1.84	0.41
1:D:839:GLU:OE2	1:D:1086:ARG:NH1	2.54	0.41
1:D:1685:LEU:HD22	1:D:1706:LEU:HB2	2.02	0.41
1:D:2629:ASN:OD1	1:D:2630:PHE:N	2.51	0.41
1:D:2860:LEU:HA	1:D:2863:LYS:NZ	2.35	0.41
1:D:3637:GLU:HG2	1:D:3694:ILE:HA	2.01	0.41
1:D:3861:GLN:H	1:D:3867:THR:HG23	1.85	0.41
1:D:4735:ASN:HB3	1:D:4738:PHE:CD2	2.56	0.41
1:A:1427:TYR:HB2	1:A:1563:VAL:HG11	2.03	0.41
1:A:1829:LEU:HG	1:A:1912:TYR:CE2	2.56	0.41
1:A:1896:MET:HG2	1:A:1896:MET:O	2.20	0.41
1:A:2997:SER:OG	1:A:3000:GLU:HG2	2.21	0.41
1:A:3861:GLN:H	1:A:3867:THR:HG23	1.85	0.41
2:E:57:ILE:HG13	2:E:60:PHE:HB2	2.03	0.41
1:B:880:ARG:O	1:B:884:LYS:NZ	2.39	0.41
1:B:2878:THR:O	1:B:2882:LYS:HG3	2.20	0.41
1:B:3778:LEU:HD11	1:B:3782:LYS:HE3	2.02	0.41
1:B:3861:GLN:HB3	1:B:3864:ASN:HD22	1.85	0.41
1:B:4502:MET:SD	1:B:4585:PHE:HB3	2.61	0.41
1:C:292:GLY:C	1:C:343:ARG:HH12	2.29	0.41
1:C:678:MET:HE1	1:C:801:ARG:NH2	2.36	0.41
1:C:1518:LEU:HB2	1:C:1531:TYR:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1594:VAL:HG13	1:C:1594:VAL:O	2.20	0.41
1:C:2465:LYS:O	1:C:2469:VAL:HG23	2.20	0.41
1:C:3861:GLN:H	1:C:3867:THR:HG23	1.85	0.41
1:C:4735:ASN:HB3	1:C:4738:PHE:CD2	2.56	0.41
1:D:2386:ASN:HA	1:D:2389:MET:HE3	2.01	0.41
1:D:2726:GLU:OE1	1:D:2726:GLU:N	2.48	0.41
1:D:3043:ARG:HD3	1:D:3117:PHE:CE2	2.55	0.41
1:D:3105:LEU:O	1:D:3109:PHE:HB2	2.21	0.41
1:D:3778:LEU:HD11	1:D:3782:LYS:HE3	2.02	0.41
1:D:4502:MET:SD	1:D:4585:PHE:HB3	2.61	0.41
1:A:1256:PRO:HG2	1:A:1453:TYR:HB2	2.03	0.41
1:A:1685:LEU:HD22	1:A:1706:LEU:HB2	2.02	0.41
1:A:3207:ASN:OD1	1:A:3207:ASN:N	2.52	0.41
1:A:3239:LEU:HB2	1:A:3240:PRO:HD3	2.01	0.41
1:A:3306:ILE:HA	1:A:3309:LYS:HZ3	1.85	0.41
1:A:3861:GLN:HB3	1:A:3864:ASN:HD22	1.86	0.41
1:A:4694:LEU:HD11	1:D:4264:LEU:HD21	2.02	0.41
1:A:4698:LEU:HD12	1:D:4264:LEU:HD22	2.03	0.41
2:F:88:HIS:HD2	2:F:89:PRO:HD2	1.85	0.41
2:G:21:GLN:NE2	2:G:107:LEU:HB3	2.34	0.41
1:B:514:PHE:CD2	1:B:526:TRP:HB2	2.53	0.41
1:B:1256:PRO:HG2	1:B:1453:TYR:HB2	2.03	0.41
1:B:2222:LEU:HD12	1:B:2261:ASP:HB2	2.02	0.41
1:B:2222:LEU:HD23	1:B:2222:LEU:HA	1.74	0.41
1:B:2455:ASP:OD2	1:B:2457:SER:OG	2.27	0.41
1:B:2763:LEU:O	1:B:2768:LYS:NZ	2.33	0.41
1:B:3043:ARG:HD3	1:B:3117:PHE:CE2	2.55	0.41
1:B:4020:PHE:HD1	1:B:4023:LEU:HD12	1.84	0.41
1:B:4105:LEU:HB3	1:B:4115:LEU:HD21	2.02	0.41
1:C:989:THR:O	1:C:992:GLN:N	2.54	0.41
1:C:2658:GLU:OE1	1:C:2661:LEU:N	2.31	0.41
1:C:4502:MET:SD	1:C:4585:PHE:HB3	2.61	0.41
1:C:4792:PHE:HB3	1:C:4843:ARG:NH2	2.35	0.41
1:D:882:ARG:HH21	1:D:937:LEU:HB3	1.85	0.41
1:D:900:LEU:O	1:D:913:ARG:NH2	2.53	0.41
1:D:1594:VAL:O	1:D:1594:VAL:HG13	2.20	0.41
1:D:2222:LEU:HD12	1:D:2261:ASP:HB2	2.02	0.41
1:D:2413:LYS:HZ2	1:D:2415:GLU:HB3	1.84	0.41
1:D:2736:LYS:NZ	1:D:2754:GLN:HG2	2.35	0.41
1:D:4193:CYS:HA	1:D:4919:LEU:HD12	2.02	0.41
1:D:4735:ASN:HB3	1:D:4738:PHE:HD2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:499:LEU:HD22	1:A:557:TRP:CZ3	2.56	0.41
1:A:589:ILE:HD13	1:A:589:ILE:HA	1.91	0.41
1:A:678:MET:HE1	1:A:801:ARG:NH2	2.36	0.41
1:A:839:GLU:OE2	1:A:1086:ARG:NH1	2.54	0.41
1:A:953:SER:HB3	1:A:1063:ASN:HD21	1.85	0.41
1:A:1594:VAL:HG13	1:A:1594:VAL:O	2.20	0.41
1:A:1849:SER:HB3	1:A:2054:LYS:HG3	2.03	0.41
1:A:2447:LYS:NZ	1:A:2863:LYS:HB3	2.36	0.41
1:A:2481:GLN:HE22	1:A:2485:LEU:HD11	1.84	0.41
1:A:3117:PHE:CD2	1:A:3118:GLY:N	2.84	0.41
1:A:3261:ALA:C	1:A:3263:MET:H	2.27	0.41
1:A:3622:GLN:HB3	1:A:3626:LYS:NZ	2.36	0.41
1:A:4714:PHE:CD1	1:D:4294:LEU:HD13	2.56	0.41
2:G:57:ILE:HG13	2:G:60:PHE:HB2	2.03	0.41
2:G:88:HIS:HD2	2:G:89:PRO:HD2	1.85	0.41
2:H:78:THR:OG1	2:H:80:ASP:OD1	2.32	0.41
1:B:514:PHE:CE2	1:B:522:ALA:HB1	2.56	0.41
1:B:675:TYR:HB3	1:B:822:CYS:SG	2.61	0.41
1:B:739:ARG:HH12	1:B:1480:ILE:HG12	1.85	0.41
1:B:839:GLU:OE2	1:B:1086:ARG:NH1	2.53	0.41
1:B:1518:LEU:HB2	1:B:1531:TYR:HB2	2.03	0.41
1:B:1922:ILE:O	1:B:1926:VAL:HG23	2.21	0.41
1:B:2827:ASP:N	1:C:1501:ASN:HD22	2.19	0.41
1:B:3045:VAL:HG12	1:B:3046:MET:HE2	2.02	0.41
1:B:3227:ARG:NH2	1:B:3290:ILE:H	2.19	0.41
1:B:3259:GLU:C	1:B:3260:ARG:HD3	2.46	0.41
1:B:3712:LYS:NZ	1:B:3720:GLU:OE2	2.43	0.41
1:B:3726:TYR:CE2	1:B:4682:ALA:HA	2.56	0.41
1:B:3965:ILE:HG22	1:B:3969:LYS:NZ	2.36	0.41
1:C:293:GLN:HA	1:C:343:ARG:HH22	1.86	0.41
1:C:895:MET:HE3	1:C:978:PRO:O	2.21	0.41
1:C:1256:PRO:HG2	1:C:1453:TYR:HB2	2.03	0.41
1:C:1729:MET:HE2	1:C:1930:ASP:CB	2.45	0.41
1:C:1748:LEU:HB2	1:C:1751:ILE:HD12	2.02	0.41
1:C:1968:PRO:O	1:C:1972:GLN:HG3	2.21	0.41
1:C:1978:ASN:HB3	1:C:1983:LYS:HE2	2.03	0.41
1:C:2235:ARG:HA	1:C:2297:ARG:HH12	1.86	0.41
1:C:2377:GLU:OE1	1:C:2378:GLU:HG2	2.21	0.41
1:C:2689:MET:HE3	1:C:2785:TRP:HE3	1.83	0.41
1:C:3105:LEU:O	1:C:3109:PHE:HB2	2.21	0.41
1:C:3200:ASN:O	1:C:3204:VAL:HG23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3242:LEU:O	1:C:3246:MET:HG3	2.21	0.41
1:C:3306:ILE:HA	1:C:3309:LYS:NZ	2.36	0.41
1:D:514:PHE:CE2	1:D:522:ALA:HB1	2.56	0.41
1:D:626:ARG:NH2	1:D:1667:LEU:O	2.48	0.41
1:D:681:HIS:O	1:D:799:LYS:N	2.54	0.41
1:D:765:SER:HA	1:D:779:PHE:O	2.21	0.41
1:D:895:MET:HE3	1:D:978:PRO:O	2.21	0.41
1:D:1748:LEU:HB2	1:D:1751:ILE:HD12	2.02	0.41
1:D:1829:LEU:HG	1:D:1912:TYR:CE2	2.56	0.41
1:D:1849:SER:HB3	1:D:2054:LYS:HG3	2.03	0.41
1:D:1978:ASN:HB3	1:D:1983:LYS:HE2	2.03	0.41
1:D:2295:GLY:HA3	1:D:2391:PHE:HE2	1.86	0.41
1:D:2757:MET:SD	1:D:2757:MET:N	2.93	0.41
1:D:3242:LEU:O	1:D:3246:MET:HG3	2.21	0.41
1:D:3967:LEU:HD12	1:D:3967:LEU:HA	1.92	0.41
1:A:465:PRO:HA	1:A:466:PRO:HD3	1.96	0.41
1:A:514:PHE:CE2	1:A:522:ALA:HB1	2.56	0.41
1:A:675:TYR:HB3	1:A:822:CYS:SG	2.61	0.41
1:A:989:THR:O	1:A:992:GLN:N	2.54	0.41
1:A:1664:VAL:HG23	1:A:1676:LEU:HD11	2.03	0.41
1:A:2757:MET:HE2	1:A:2757:MET:HB2	1.98	0.41
1:A:3101:LEU:HD23	1:A:3104:MET:CE	2.51	0.41
1:A:3239:LEU:HA	1:A:3242:LEU:HG	2.03	0.41
1:A:4517:LEU:O	1:B:4809:MET:HG2	2.21	0.41
1:A:4792:PHE:HB3	1:A:4843:ARG:NH2	2.35	0.41
1:A:4898:PHE:O	1:A:4904:GLY:HA3	2.21	0.41
1:B:521:GLU:HG2	1:B:522:ALA:N	2.36	0.41
1:B:882:ARG:NH2	1:B:937:LEU:HD23	2.36	0.41
1:B:882:ARG:HH21	1:B:937:LEU:HB3	1.86	0.41
1:B:1664:VAL:HG23	1:B:1676:LEU:HD11	2.03	0.41
1:B:1896:MET:O	1:B:1896:MET:HG2	2.20	0.41
1:B:2062:ILE:HG21	1:B:2087:LEU:HG	2.03	0.41
1:B:2379:ASP:OD1	1:B:2380:ASP:N	2.53	0.41
1:B:3010:LYS:O	1:B:3014:LEU:HD23	2.21	0.41
1:B:3057:LEU:HD12	1:B:3058:ARG:HD3	2.03	0.41
1:B:3105:LEU:O	1:B:3109:PHE:HB2	2.21	0.41
1:B:3200:ASN:O	1:B:3204:VAL:HG23	2.21	0.41
1:B:3247:SER:HA	1:B:3309:LYS:HE3	2.02	0.41
1:B:3861:GLN:H	1:B:3867:THR:HG23	1.85	0.41
1:C:739:ARG:HH12	1:C:1480:ILE:HG12	1.85	0.41
1:C:953:SER:HB3	1:C:1063:ASN:HD21	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1699:ARG:O	1:C:1703:TYR:HD2	2.04	0.41
1:C:1829:LEU:HG	1:C:1912:TYR:CE2	2.56	0.41
1:C:1896:MET:HG2	1:C:1896:MET:O	2.20	0.41
1:C:1922:ILE:O	1:C:1926:VAL:HG23	2.21	0.41
1:C:4702:ASP:O	1:C:4706:GLN:HG2	2.21	0.41
1:D:499:LEU:HD22	1:D:557:TRP:CZ3	2.56	0.41
1:D:521:GLU:HG2	1:D:522:ALA:N	2.36	0.41
1:D:1129:GLY:O	1:D:1147:GLN:N	2.54	0.41
1:D:1608:VAL:HA	1:D:1618:LEU:O	2.21	0.41
1:D:3227:ARG:NH2	1:D:3290:ILE:H	2.19	0.41
1:D:3227:ARG:CZ	1:D:3287:ASN:OD1	2.69	0.41
1:D:3726:TYR:CE2	1:D:4682:ALA:HA	2.56	0.41
1:D:4267:GLN:O	1:D:4271:VAL:HG12	2.20	0.41
1:D:4702:ASP:O	1:D:4706:GLN:HG2	2.21	0.41
1:A:267:VAL:HA	1:A:270:HIS:CD2	2.57	0.40
1:A:1748:LEU:HB2	1:A:1751:ILE:HD12	2.02	0.40
1:A:4502:MET:SD	1:A:4585:PHE:HB3	2.61	0.40
1:A:4867:ILE:HG12	1:B:4864:GLY:HA2	2.03	0.40
1:A:4875:ASP:OD2	1:D:4874:ARG:NH2	2.54	0.40
1:B:1129:GLY:O	1:B:1147:GLN:N	2.54	0.40
1:B:1289:SER:O	1:B:1295:SER:OG	2.23	0.40
1:B:1427:TYR:HB2	1:B:1563:VAL:HG11	2.03	0.40
1:B:1968:PRO:O	1:B:1972:GLN:HG3	2.21	0.40
1:B:2235:ARG:HA	1:B:2297:ARG:HH12	1.86	0.40
1:B:3325:LYS:O	1:B:3329:LYS:HE2	2.21	0.40
1:B:4702:ASP:O	1:B:4706:GLN:HG2	2.21	0.40
1:B:4898:PHE:O	1:B:4904:GLY:HA3	2.21	0.40
1:C:544:ASN:HB3	1:C:547:ASN:HB2	2.03	0.40
1:C:877:HIS:HE1	1:C:950:VAL:HG21	1.87	0.40
1:C:882:ARG:NH2	1:C:937:LEU:HD23	2.36	0.40
1:C:1129:GLY:O	1:C:1147:GLN:N	2.55	0.40
1:C:1649:GLU:HG2	1:C:1650:LEU:N	2.35	0.40
1:C:2730:ASP:OD1	1:C:2821:TYR:OH	2.39	0.40
1:C:3187:LYS:NZ	1:C:3197:LEU:HD22	2.37	0.40
1:C:3227:ARG:CZ	1:C:3287:ASN:OD1	2.69	0.40
1:C:3986:LEU:HD23	1:C:3986:LEU:HA	1.94	0.40
1:C:4608:ARG:NH2	1:C:4644:TYR:OH	2.49	0.40
1:C:4735:ASN:HB3	1:C:4738:PHE:HD2	1.86	0.40
1:D:292:GLY:C	1:D:343:ARG:HH12	2.29	0.40
1:D:1699:ARG:O	1:D:1703:TYR:HD2	2.04	0.40
1:D:2967:VAL:O	1:D:2971:ILE:HG13	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3057:LEU:HD12	1:D:3058:ARG:HD3	2.03	0.40
1:D:3239:LEU:HA	1:D:3242:LEU:HG	2.03	0.40
1:A:21:VAL:HG13	1:A:217:ILE:HG13	2.02	0.40
1:A:882:ARG:NH2	1:A:937:LEU:HD23	2.36	0.40
1:A:1845:LEU:HD23	1:A:1845:LEU:HA	1.93	0.40
1:A:1968:PRO:O	1:A:1972:GLN:HG3	2.21	0.40
1:A:1978:ASN:HB3	1:A:1983:LYS:HE2	2.03	0.40
1:A:2235:ARG:HA	1:A:2297:ARG:HH12	1.86	0.40
1:A:2283:LYS:HB3	1:A:2283:LYS:HE2	1.95	0.40
1:A:2895:PHE:HA	1:A:2898:ILE:HG22	2.03	0.40
1:A:2967:VAL:O	1:A:2970:LEU:HG	2.21	0.40
1:A:3057:LEU:HD12	1:A:3058:ARG:HD3	2.03	0.40
1:A:3105:LEU:O	1:A:3109:PHE:HB2	2.21	0.40
1:A:3227:ARG:CZ	1:A:3287:ASN:OD1	2.69	0.40
1:A:3259:GLU:C	1:A:3260:ARG:HD3	2.46	0.40
1:A:3726:TYR:CE2	1:A:4682:ALA:HA	2.56	0.40
1:A:3967:LEU:HD12	1:A:3967:LEU:HA	1.92	0.40
1:B:20:VAL:HG12	1:B:216:PRO:HA	2.03	0.40
1:B:674:TYR:OH	1:B:676:GLU:OE2	2.36	0.40
1:B:719:GLY:HA3	1:B:733:TRP:HB3	2.04	0.40
1:B:895:MET:HE3	1:B:978:PRO:O	2.21	0.40
1:B:2413:LYS:HD3	1:B:2416:ALA:H	1.87	0.40
1:B:2997:SER:OG	1:B:3000:GLU:HG2	2.21	0.40
1:B:3069:GLU:O	1:B:3072:MET:HG3	2.21	0.40
1:B:3109:PHE:HD1	1:B:3162:PHE:HA	1.87	0.40
1:B:3117:PHE:CD2	1:B:3118:GLY:N	2.84	0.40
1:B:4622:SER:C	1:B:4624:ASP:H	2.30	0.40
1:C:521:GLU:HG2	1:C:522:ALA:N	2.36	0.40
1:C:2447:LYS:NZ	1:C:2863:LYS:HB3	2.36	0.40
1:C:2895:PHE:HA	1:C:2898:ILE:HG22	2.03	0.40
1:C:3010:LYS:O	1:C:3014:LEU:HD23	2.21	0.40
1:C:3045:VAL:HG12	1:C:3046:MET:HE2	2.02	0.40
1:C:3325:LYS:O	1:C:3329:LYS:HE2	2.21	0.40
1:C:3726:TYR:CE2	1:C:4682:ALA:HA	2.56	0.40
1:C:3965:ILE:HG22	1:C:3969:LYS:NZ	2.36	0.40
1:C:4160:TRP:CZ2	1:C:4169:LYS:HD3	2.55	0.40
1:D:574:VAL:O	1:D:578:VAL:HG23	2.22	0.40
1:D:675:TYR:HB3	1:D:822:CYS:SG	2.61	0.40
1:D:678:MET:HE1	1:D:801:ARG:NH2	2.36	0.40
1:D:989:THR:O	1:D:992:GLN:N	2.53	0.40
1:D:2447:LYS:NZ	1:D:2863:LYS:HB3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2895:PHE:HA	1:D:2898:ILE:HG22	2.03	0.40
1:A:237:LEU:HD23	1:A:244:CYS:HB3	2.04	0.40
1:A:1118:SER:HA	1:A:1134:ALA:HA	2.02	0.40
1:A:1471:ASP:OD1	1:A:1475:LYS:N	2.55	0.40
1:A:1608:VAL:HA	1:A:1618:LEU:O	2.21	0.40
1:A:2059:GLN:HG3	1:A:2091:GLN:HB3	2.03	0.40
1:A:2186:GLU:CD	1:A:2187:ILE:H	2.30	0.40
1:A:2295:GLY:HA3	1:A:2391:PHE:HE2	1.86	0.40
1:A:2657:TYR:HD1	1:A:2662:PHE:CD2	2.40	0.40
1:A:3187:LYS:NZ	1:A:3197:LEU:HD22	2.37	0.40
1:A:3242:LEU:O	1:A:3246:MET:HG3	2.21	0.40
1:A:4622:SER:C	1:A:4624:ASP:H	2.30	0.40
1:A:4747:ALA:HB1	1:A:4754:ARG:HH21	1.87	0.40
1:B:56:LYS:HA	1:B:324:VAL:HG23	2.04	0.40
1:B:2791:ARG:HH22	1:B:2799:ALA:HB2	1.85	0.40
1:B:2895:PHE:HA	1:B:2898:ILE:HG22	2.03	0.40
1:B:3009:CYS:O	1:B:3013:VAL:HG23	2.22	0.40
1:B:3227:ARG:CZ	1:B:3287:ASN:OD1	2.69	0.40
1:C:499:LEU:HD22	1:C:557:TRP:CZ3	2.56	0.40
1:C:1608:VAL:HA	1:C:1618:LEU:O	2.21	0.40
1:C:1849:SER:HB3	1:C:2054:LYS:HG3	2.03	0.40
1:C:2413:LYS:HD3	1:C:2416:ALA:H	1.87	0.40
1:C:2967:VAL:O	1:C:2971:ILE:HG13	2.21	0.40
1:C:3101:LEU:HD23	1:C:3104:MET:CE	2.51	0.40
1:C:3288:LEU:HD13	1:C:3329:LYS:HE3	2.02	0.40
1:D:267:VAL:HA	1:D:270:HIS:CD2	2.57	0.40
1:D:465:PRO:HA	1:D:466:PRO:HD3	1.96	0.40
1:D:538:ALA:O	1:D:542:ARG:HB2	2.22	0.40
1:D:966:LEU:HD23	1:D:966:LEU:HA	1.97	0.40
1:D:1471:ASP:OD1	1:D:1475:LYS:N	2.55	0.40
1:D:3622:GLN:HB3	1:D:3626:LYS:NZ	2.36	0.40
1:D:4160:TRP:CZ2	1:D:4169:LYS:HD3	2.55	0.40
1:A:538:ALA:O	1:A:542:ARG:HB2	2.22	0.40
1:A:765:SER:HA	1:A:779:PHE:O	2.21	0.40
1:A:1029:ASN:HB3	1:A:1032:LEU:HD12	2.02	0.40
1:A:1129:GLY:O	1:A:1147:GLN:N	2.54	0.40
1:A:3010:LYS:O	1:A:3014:LEU:HD23	2.21	0.40
1:A:3200:ASN:O	1:A:3204:VAL:HG23	2.21	0.40
1:A:3227:ARG:NH2	1:A:3290:ILE:H	2.19	0.40
1:A:3227:ARG:HH21	1:A:3290:ILE:C	2.27	0.40
1:A:3325:LYS:O	1:A:3329:LYS:HE2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3952:ALA:HB1	1:A:4012:MET:HE3	2.04	0.40
1:B:561:ARG:O	1:B:564:ARG:HG2	2.22	0.40
1:B:765:SER:HA	1:B:779:PHE:O	2.21	0.40
1:B:1471:ASP:OD1	1:B:1475:LYS:N	2.55	0.40
1:B:1937:GLN:HG2	1:B:3609:TYR:HA	2.04	0.40
1:B:4831:ILE:CG1	1:B:4843:ARG:HH21	2.33	0.40
1:C:765:SER:HA	1:C:779:PHE:O	2.21	0.40
1:C:1937:GLN:HG2	1:C:3609:TYR:HA	2.03	0.40
1:C:2140:LYS:NZ	1:C:2144:ARG:HH22	2.20	0.40
1:C:2967:VAL:O	1:C:2970:LEU:HG	2.21	0.40
1:C:3184:TYR:C	1:C:3192:ARG:HH22	2.24	0.40
1:C:3259:GLU:C	1:C:3260:ARG:HD3	2.46	0.40
1:C:4197:ILE:HG23	1:C:4923:MET:HE2	2.04	0.40
1:C:4895:ASN:OD1	1:C:4895:ASN:N	2.55	0.40
1:D:56:LYS:HA	1:D:324:VAL:HG23	2.04	0.40
1:D:2235:ARG:HA	1:D:2297:ARG:HH12	1.86	0.40
1:D:2791:ARG:HH22	1:D:2799:ALA:HB2	1.85	0.40
1:D:3171:LEU:HB2	1:D:3245:TYR:HE2	1.84	0.40
1:D:3249:TRP:CD1	1:D:3249:TRP:N	2.90	0.40
1:D:3306:ILE:HA	1:D:3309:LYS:NZ	2.36	0.40
1:A:433:LEU:HD23	1:A:433:LEU:HA	1.97	0.40
1:A:521:GLU:HG2	1:A:522:ALA:N	2.36	0.40
1:A:1699:ARG:O	1:A:1703:TYR:HD2	2.04	0.40
1:A:2591:ARG:HH22	1:A:2875:ASP:HB2	1.87	0.40
1:A:2728:SER:HA	1:A:2731:LYS:NZ	2.37	0.40
1:A:3778:LEU:HD11	1:A:3782:LYS:HE3	2.02	0.40
1:A:4806:CYS:HA	1:A:4812:CYS:HB2	2.03	0.40
2:E:88:HIS:HD2	2:E:89:PRO:HD2	1.85	0.40
1:B:1849:SER:HB3	1:B:2054:LYS:HG3	2.03	0.40
1:B:1978:ASN:HB3	1:B:1983:LYS:HE2	2.03	0.40
1:B:2059:GLN:HG3	1:B:2091:GLN:HB3	2.03	0.40
1:B:2593:VAL:HA	1:B:2644:LEU:HD13	2.04	0.40
1:B:2743:TYR:OH	1:B:2758:LYS:HB3	2.22	0.40
1:B:2967:VAL:O	1:B:2971:ILE:HG13	2.21	0.40
1:B:3123:LEU:O	1:B:3124:GLU:C	2.65	0.40
1:B:3126:VAL:O	1:B:3129:SER:OG	2.36	0.40
1:B:3920:LEU:O	1:B:3924:ILE:HG12	2.21	0.40
1:B:3952:ALA:HB1	1:B:4012:MET:HE3	2.04	0.40
1:B:4806:CYS:HA	1:B:4812:CYS:HB2	2.03	0.40
1:C:237:LEU:HD23	1:C:244:CYS:HB3	2.04	0.40
1:C:561:ARG:O	1:C:564:ARG:HG2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1427:TYR:HB2	1:C:1563:VAL:HG11	2.03	0.40
1:C:2889:ALA:HA	1:C:2892:ILE:HG22	2.04	0.40
1:C:3227:ARG:NH2	1:C:3290:ILE:H	2.19	0.40
1:C:3247:SER:HA	1:C:3309:LYS:HE3	2.02	0.40
1:C:3952:ALA:HB1	1:C:4012:MET:HE3	2.04	0.40
1:D:1440:ASN:HB3	1:D:1546:GLN:HB3	2.04	0.40
1:D:1922:ILE:O	1:D:1926:VAL:HG23	2.21	0.40
1:D:2377:GLU:OE1	1:D:2378:GLU:HG2	2.21	0.40
1:D:2997:SER:OG	1:D:3000:GLU:HG2	2.21	0.40
1:D:3187:LYS:NZ	1:D:3197:LEU:HD22	2.37	0.40
1:D:3288:LEU:HD13	1:D:3329:LYS:HE3	2.02	0.40
1:D:4792:PHE:HB3	1:D:4843:ARG:NH2	2.35	0.40
1:D:4898:PHE:O	1:D:4904:GLY:HA3	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

There are no protein backbone outliers to report in this entry.

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3550/4358 (82%)	3532 (100%)	18 (0%)	81	89
1	B	3708/4358 (85%)	3689 (100%)	19 (0%)	81	89
1	C	3708/4358 (85%)	3689 (100%)	19 (0%)	81	89
1	D	3708/4358 (85%)	3689 (100%)	19 (0%)	81	89
2	E	88/89 (99%)	87 (99%)	1 (1%)	65	82
2	F	88/89 (99%)	87 (99%)	1 (1%)	65	82

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	G	88/89 (99%)	87 (99%)	1 (1%)	65	82
2	H	88/89 (99%)	87 (99%)	1 (1%)	65	82
All	All	15026/17788 (84%)	14947 (100%)	79 (0%)	78	89

All (79) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	198	ASN
1	A	344	LYS
1	A	393	MET
1	A	441	LYS
1	A	913	ARG
1	A	1013	ARG
1	A	2456	MET
1	A	2844	MET
1	A	2886	ARG
1	A	2903	VAL
1	A	2925	PHE
1	A	2928	GLN
1	A	2929	LEU
1	A	3152	ARG
1	A	3215	MET
1	A	3972	MET
1	A	4256	MET
1	A	4754	ARG
2	E	4	GLU
2	F	4	GLU
2	G	4	GLU
2	H	4	GLU
1	B	198	ASN
1	B	344	LYS
1	B	393	MET
1	B	441	LYS
1	B	913	ARG
1	B	1013	ARG
1	B	1564	MET
1	B	2456	MET
1	B	2844	MET
1	B	2886	ARG
1	B	2903	VAL
1	B	2925	PHE

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Mol	Chain	Res	Type
1	B	2928	GLN
1	B	2929	LEU
1	B	3152	ARG
1	B	3215	MET
1	B	3972	MET
1	B	4256	MET
1	B	4754	ARG
1	C	198	ASN
1	C	344	LYS
1	C	393	MET
1	C	441	LYS
1	C	913	ARG
1	C	1013	ARG
1	C	1564	MET
1	C	2456	MET
1	C	2844	MET
1	C	2886	ARG
1	C	2903	VAL
1	C	2925	PHE
1	C	2928	GLN
1	C	2929	LEU
1	C	3152	ARG
1	C	3215	MET
1	C	3972	MET
1	C	4256	MET
1	C	4754	ARG
1	D	198	ASN
1	D	344	LYS
1	D	393	MET
1	D	441	LYS
1	D	913	ARG
1	D	1013	ARG
1	D	1564	MET
1	D	2456	MET
1	D	2844	MET
1	D	2886	ARG
1	D	2903	VAL
1	D	2925	PHE
1	D	2928	GLN
1	D	2929	LEU
1	D	3152	ARG
1	D	3215	MET

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Mol	Chain	Res	Type
1	D	3972	MET
1	D	4256	MET
1	D	4754	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (122) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	150	GLN
1	A	163	HIS
1	A	261	HIS
1	A	477	ASN
1	A	836	HIS
1	A	1014	GLN
1	A	1026	ASN
1	A	1046	ASN
1	A	1069	GLN
1	A	1126	GLN
1	A	1151	HIS
1	A	1691	ASN
1	A	1917	GLN
1	A	1970	GLN
1	A	2565	GLN
1	A	2654	GLN
1	A	2659	GLN
1	A	2729	HIS
1	A	2830	ASN
1	A	2937	HIS
1	A	2978	HIS
1	A	3256	ASN
1	A	3770	ASN
1	A	3775	GLN
1	A	3933	GLN
1	A	3975	GLN
1	A	4178	ASN
1	A	4251	ASN
1	A	4489	GLN
1	A	4879	GLN
2	E	66	GLN
2	F	66	GLN
2	G	66	GLN
2	H	66	GLN
1	B	150	GLN

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Mol	Chain	Res	Type
1	B	163	HIS
1	B	198	ASN
1	B	261	HIS
1	B	477	ASN
1	B	544	ASN
1	B	836	HIS
1	B	1046	ASN
1	B	1069	GLN
1	B	1151	HIS
1	B	1501	ASN
1	B	1593	HIS
1	B	1691	ASN
1	B	1917	GLN
1	B	1970	GLN
1	B	2565	GLN
1	B	2654	GLN
1	B	2659	GLN
1	B	2729	HIS
1	B	2830	ASN
1	B	2937	HIS
1	B	2978	HIS
1	B	3256	ASN
1	B	3770	ASN
1	B	3811	GLN
1	B	3975	GLN
1	B	4178	ASN
1	B	4251	ASN
1	B	4489	GLN
1	B	4766	GLN
1	B	4879	GLN
1	C	150	GLN
1	C	163	HIS
1	C	198	ASN
1	C	261	HIS
1	C	477	ASN
1	C	544	ASN
1	C	903	GLN
1	C	1046	ASN
1	C	1069	GLN
1	C	1501	ASN
1	C	1593	HIS
1	C	1691	ASN

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Mol	Chain	Res	Type
1	C	1970	GLN
1	C	2565	GLN
1	C	2654	GLN
1	C	2659	GLN
1	C	2729	HIS
1	C	2830	ASN
1	C	2937	HIS
1	C	2978	HIS
1	C	3256	ASN
1	C	3770	ASN
1	C	3975	GLN
1	C	4178	ASN
1	C	4251	ASN
1	C	4489	GLN
1	C	4766	GLN
1	C	4879	GLN
1	D	150	GLN
1	D	163	HIS
1	D	198	ASN
1	D	261	HIS
1	D	270	HIS
1	D	477	ASN
1	D	1046	ASN
1	D	1069	GLN
1	D	1126	GLN
1	D	1501	ASN
1	D	1593	HIS
1	D	1691	ASN
1	D	1970	GLN
1	D	2565	GLN
1	D	2659	GLN
1	D	2729	HIS
1	D	2830	ASN
1	D	2937	HIS
1	D	2978	HIS
1	D	3256	ASN
1	D	3770	ASN
1	D	3775	GLN
1	D	3869	ASN
1	D	3933	GLN
1	D	4178	ASN
1	D	4251	ASN

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Mol	Chain	Res	Type
1	D	4489	GLN
1	D	4766	GLN
1	D	4879	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 12 ligands modelled in this entry, 4 are monoatomic - leaving 8 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
4	ATP	A	5002	-	32,33,33	0.26	0	48,52,52	0.30	0
4	ATP	D	5002	-	32,33,33	0.26	0	48,52,52	0.30	0
4	ATP	A	5003	-	32,33,33	0.25	0	48,52,52	0.27	0
4	ATP	D	5003	-	32,33,33	0.26	0	48,52,52	0.27	0
4	ATP	B	5003	-	32,33,33	0.26	0	48,52,52	0.27	0
4	ATP	B	5002	-	32,33,33	0.26	0	48,52,52	0.30	0
4	ATP	C	5003	-	32,33,33	0.25	0	48,52,52	0.27	0
4	ATP	C	5002	-	32,33,33	0.27	0	48,52,52	0.30	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the

Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns.
'-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	ATP	A	5002	-	-	6/22/38/38	0/3/3/3
4	ATP	D	5002	-	-	6/22/38/38	0/3/3/3
4	ATP	A	5003	-	-	7/22/38/38	0/3/3/3
4	ATP	D	5003	-	-	7/22/38/38	0/3/3/3
4	ATP	B	5003	-	-	7/22/38/38	0/3/3/3
4	ATP	B	5002	-	-	6/22/38/38	0/3/3/3
4	ATP	C	5003	-	-	7/22/38/38	0/3/3/3
4	ATP	C	5002	-	-	6/22/38/38	0/3/3/3

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (52) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	5002	ATP	C5'-O5'-PA-O1A
4	A	5002	ATP	C5'-O5'-PA-O3A
4	A	5003	ATP	PB-O3B-PG-O3G
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	A	5003	ATP	O4'-C4'-C5'-O5'
4	B	5002	ATP	C5'-O5'-PA-O1A
4	B	5002	ATP	C5'-O5'-PA-O3A
4	B	5003	ATP	PB-O3B-PG-O3G
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	B	5003	ATP	O4'-C4'-C5'-O5'
4	C	5002	ATP	C5'-O5'-PA-O1A
4	C	5002	ATP	C5'-O5'-PA-O3A
4	C	5003	ATP	PB-O3B-PG-O3G
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	C	5003	ATP	O4'-C4'-C5'-O5'
4	D	5002	ATP	C5'-O5'-PA-O1A

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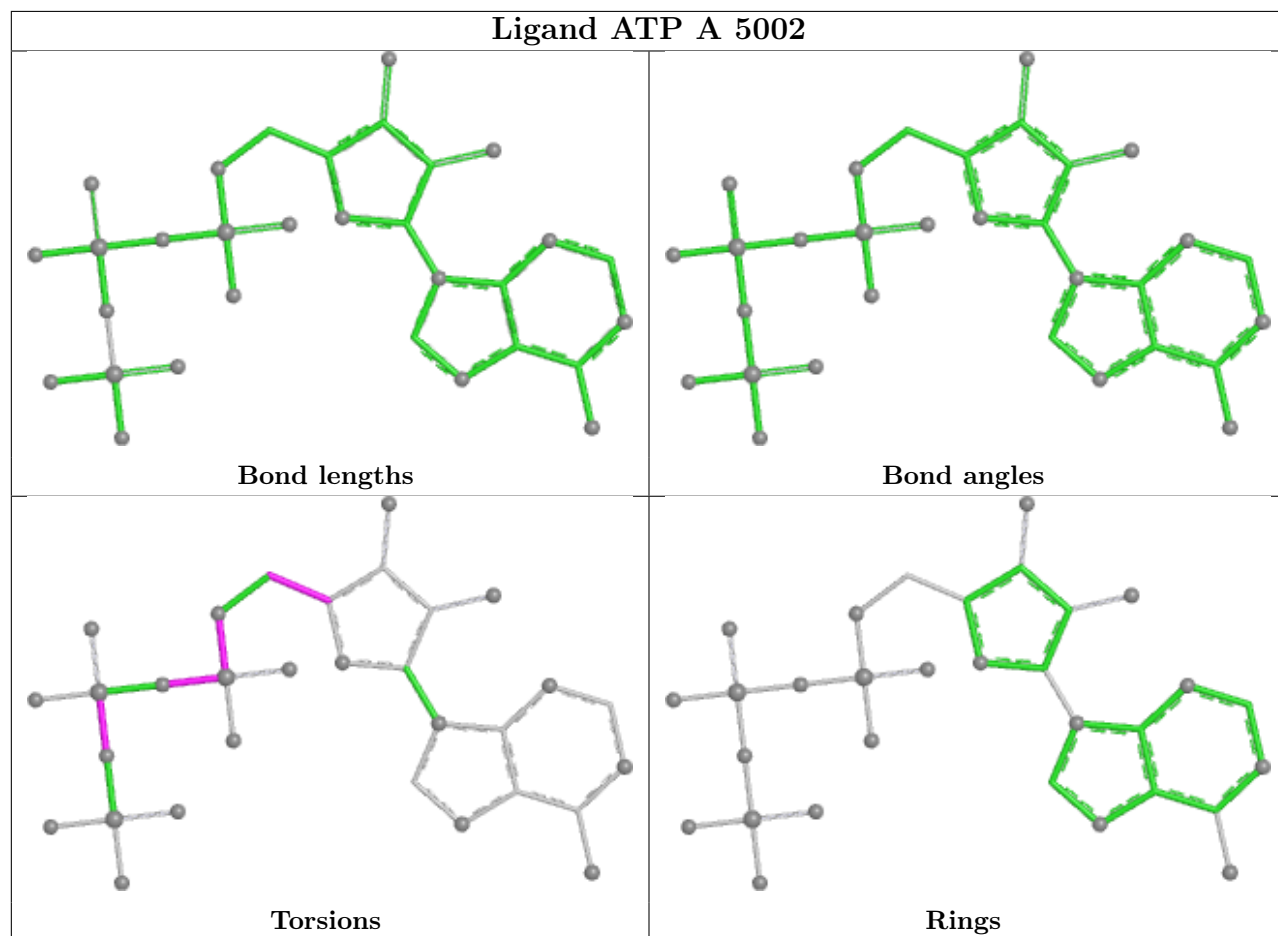
Mol	Chain	Res	Type	Atoms
4	D	5002	ATP	C5'-O5'-PA-O3A
4	D	5003	ATP	PB-O3B-PG-O3G
4	D	5003	ATP	C5'-O5'-PA-O1A
4	D	5003	ATP	C5'-O5'-PA-O2A
4	D	5003	ATP	C5'-O5'-PA-O3A
4	D	5003	ATP	O4'-C4'-C5'-O5'
4	A	5003	ATP	C3'-C4'-C5'-O5'
4	B	5003	ATP	C3'-C4'-C5'-O5'
4	C	5003	ATP	C3'-C4'-C5'-O5'
4	D	5003	ATP	C3'-C4'-C5'-O5'
4	A	5002	ATP	PG-O3B-PB-O3A
4	B	5002	ATP	PG-O3B-PB-O3A
4	C	5002	ATP	PG-O3B-PB-O3A
4	D	5002	ATP	PG-O3B-PB-O3A
4	A	5002	ATP	PB-O3A-PA-O5'
4	B	5002	ATP	PB-O3A-PA-O5'
4	C	5002	ATP	PB-O3A-PA-O5'
4	D	5002	ATP	PB-O3A-PA-O5'
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'
4	A	5002	ATP	C5'-O5'-PA-O2A
4	B	5002	ATP	C5'-O5'-PA-O2A
4	C	5002	ATP	C5'-O5'-PA-O2A
4	D	5002	ATP	C5'-O5'-PA-O2A
4	A	5003	ATP	PB-O3B-PG-O1G
4	B	5003	ATP	PB-O3B-PG-O1G
4	C	5003	ATP	PB-O3B-PG-O1G
4	D	5003	ATP	PB-O3B-PG-O1G

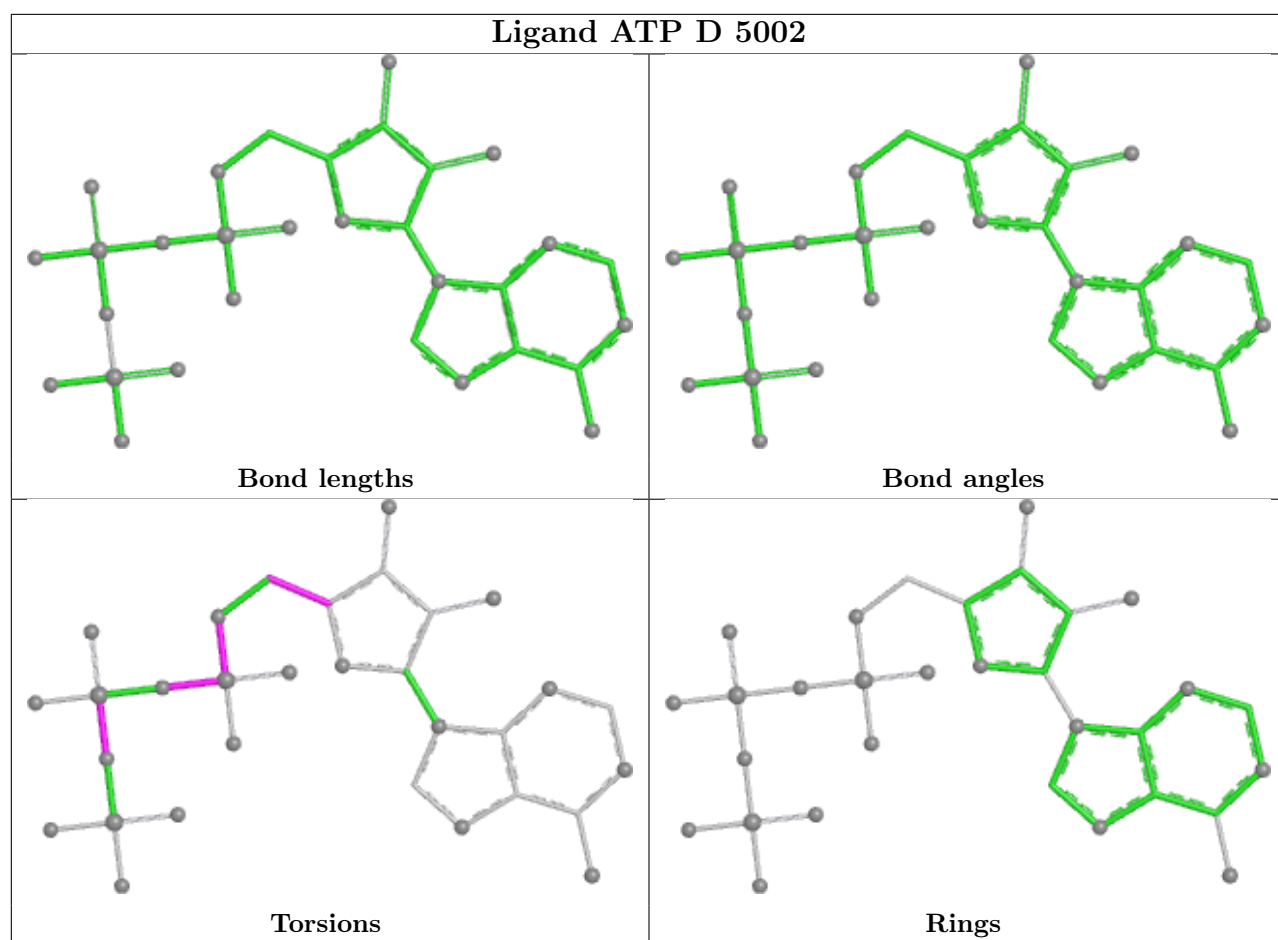
There are no ring outliers.

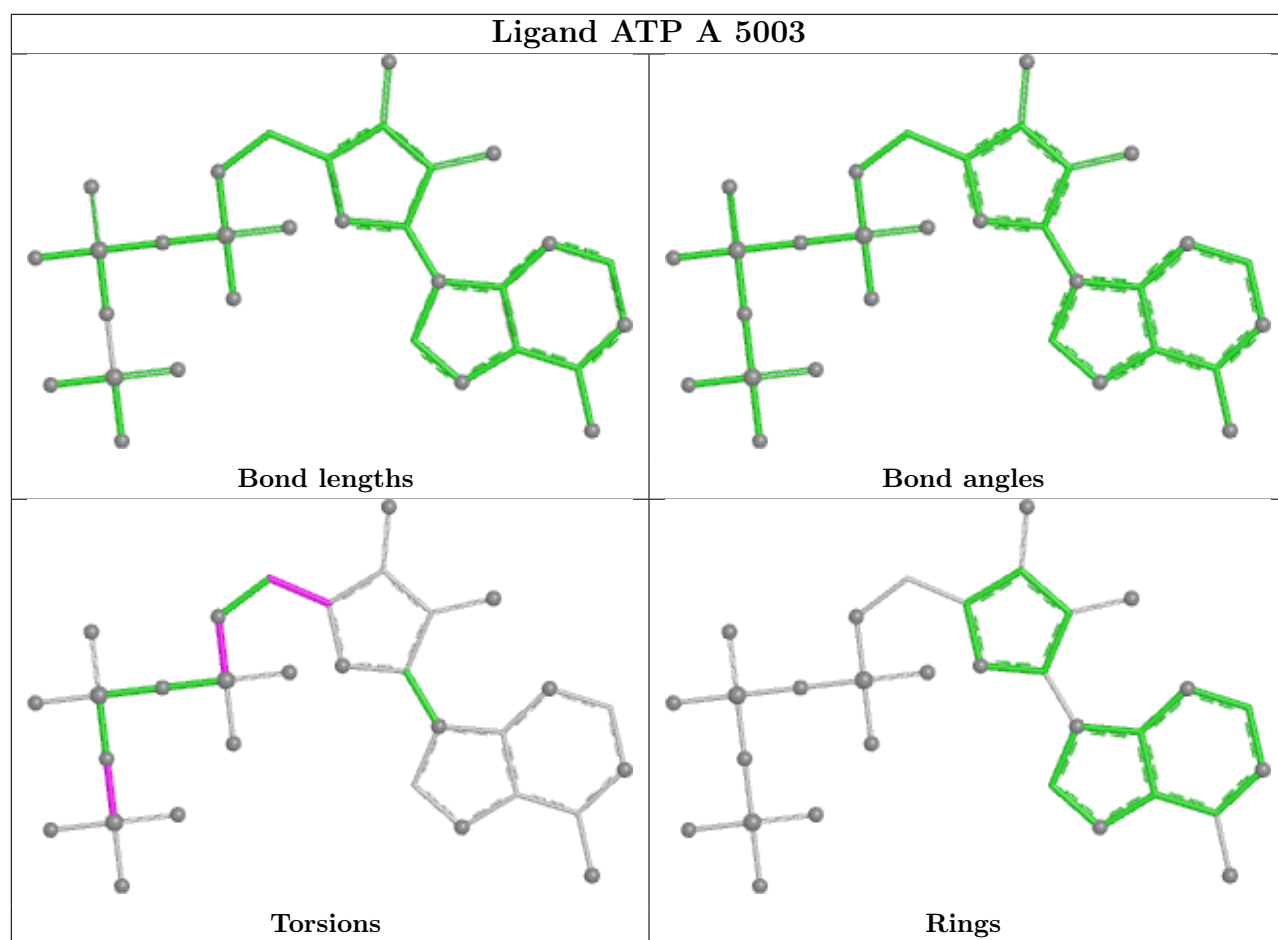
No monomer is involved in short contacts.

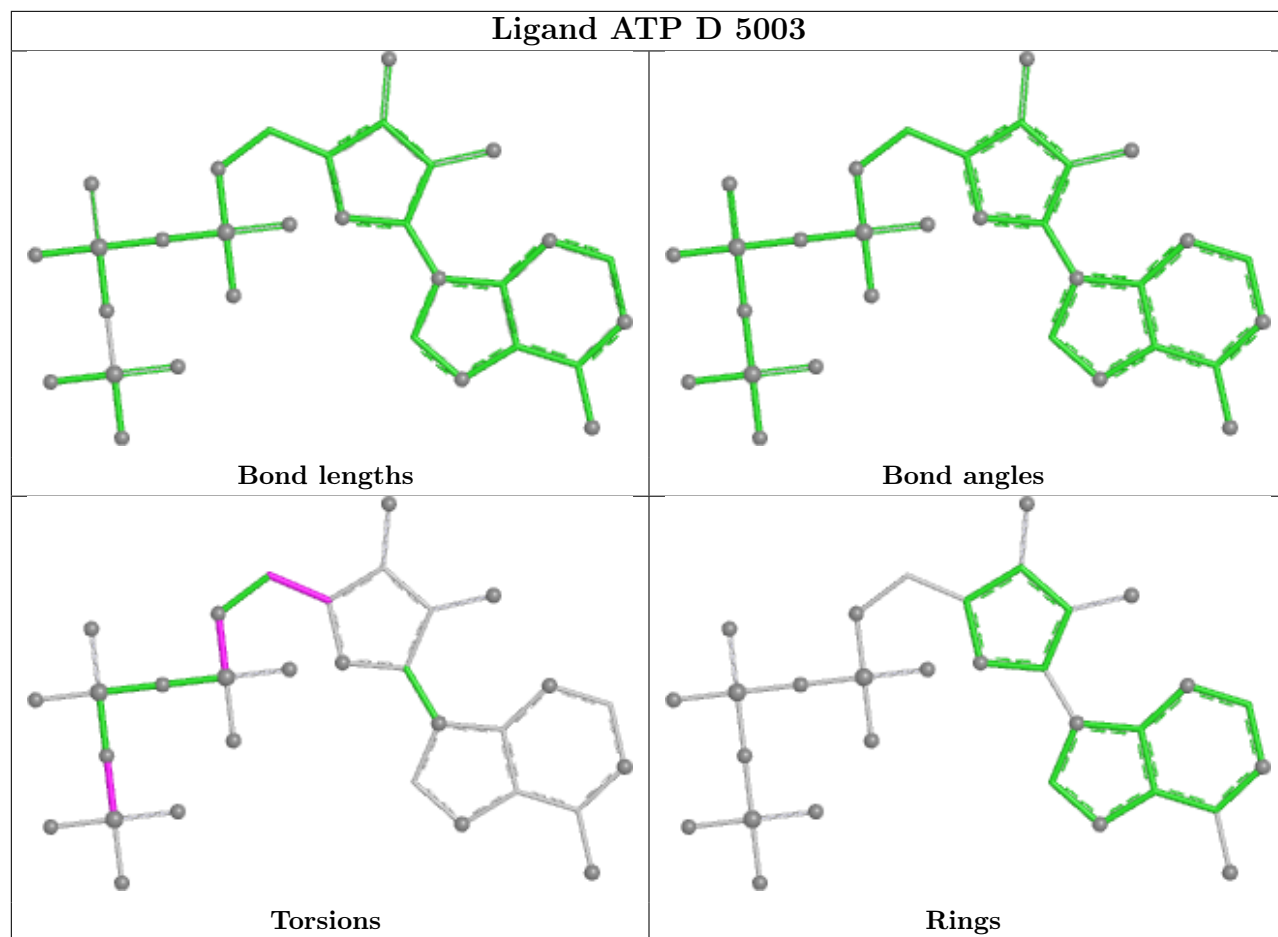
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

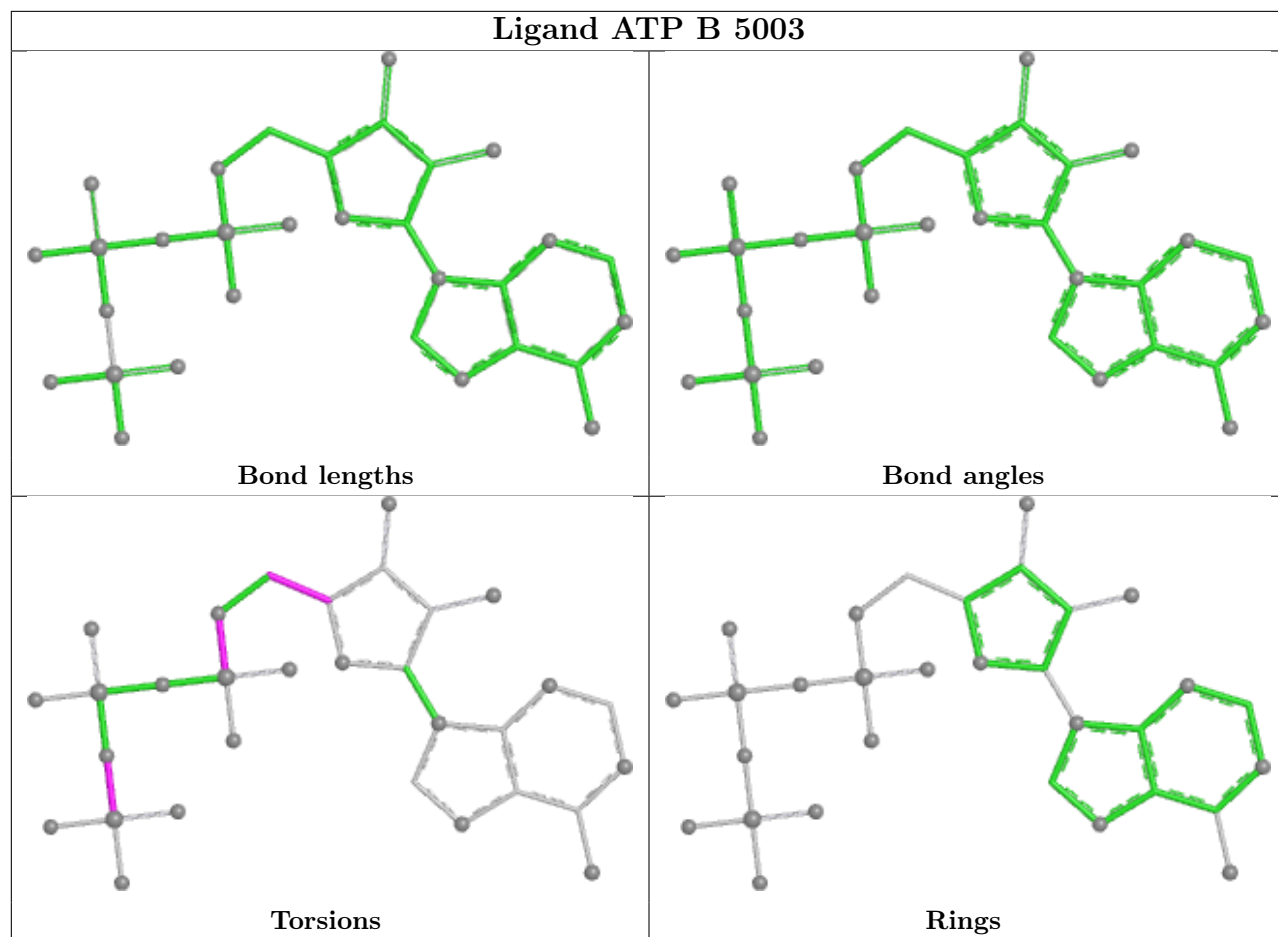
any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

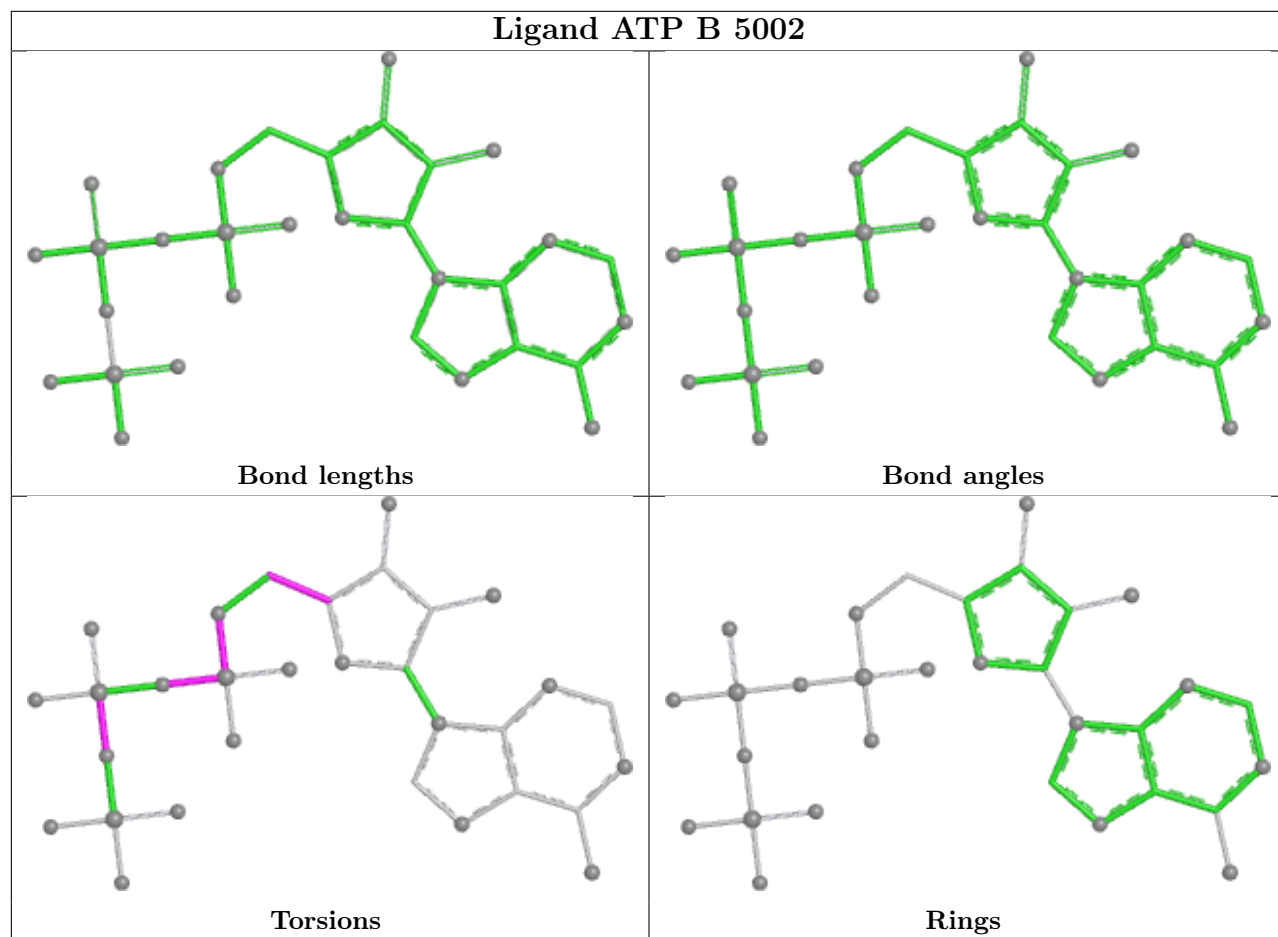


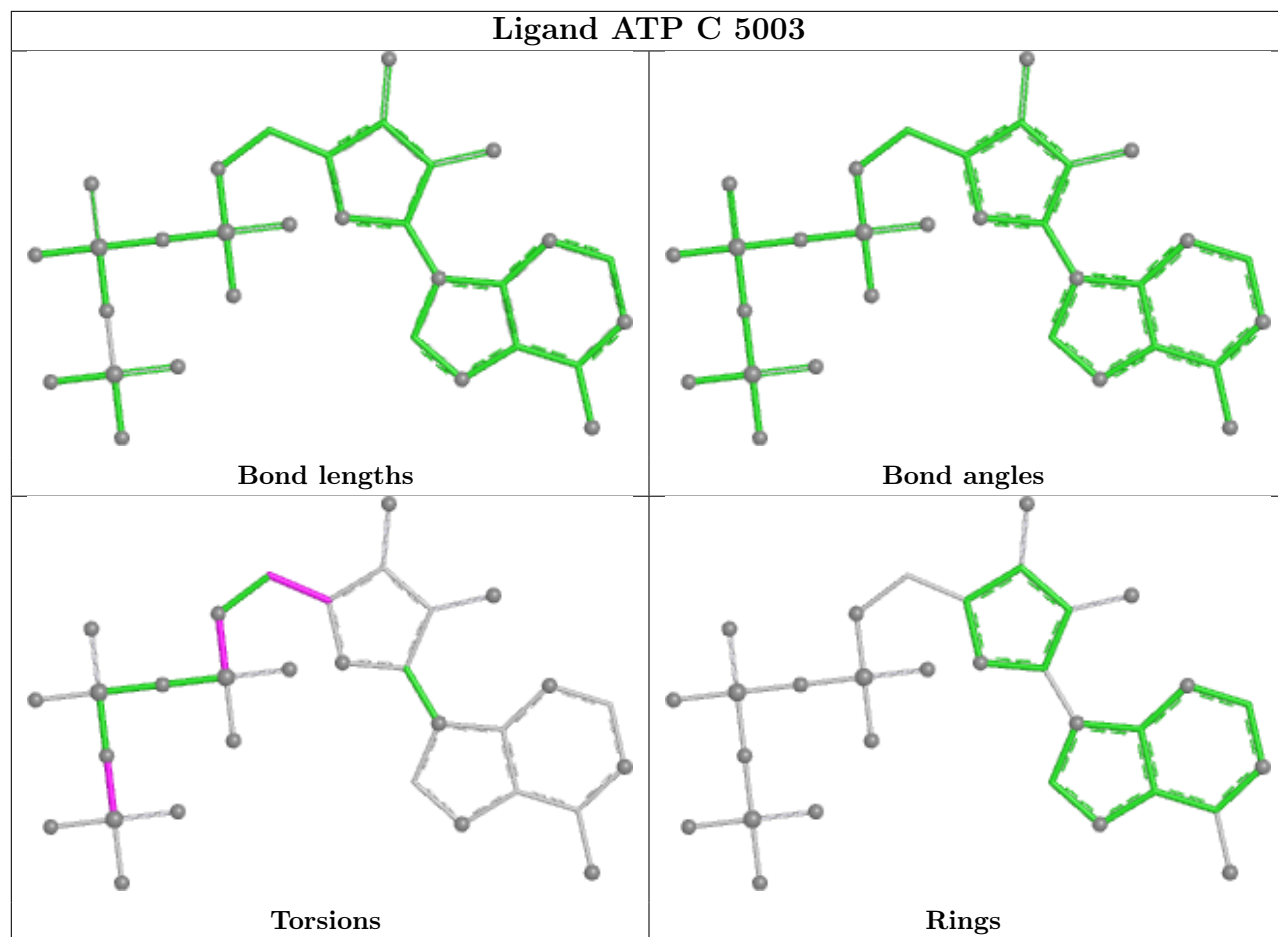


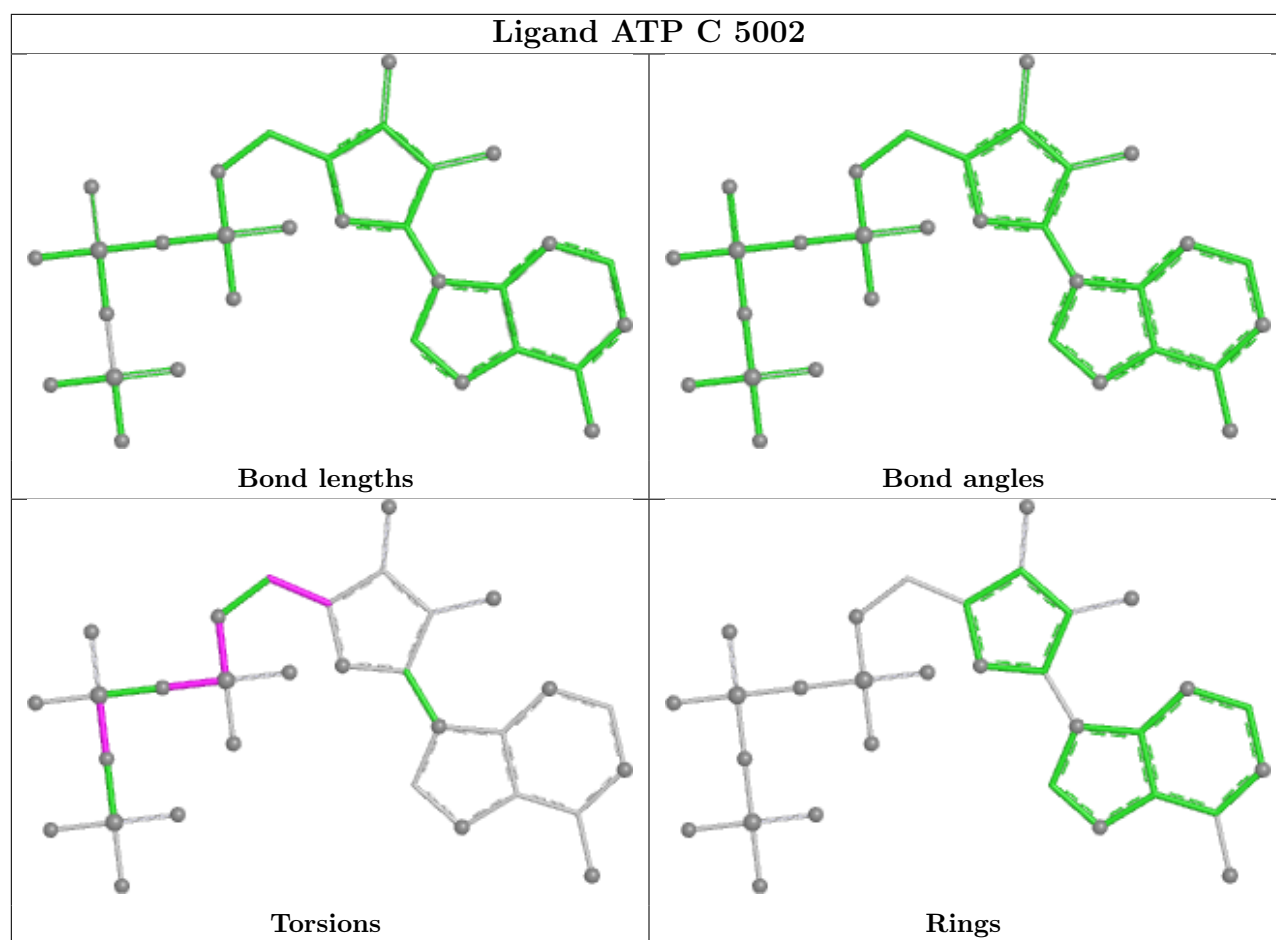












5.7 Other polymers [i](#)

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-42458. These allow visual inspection of the internal detail of the map and identification of artifacts.

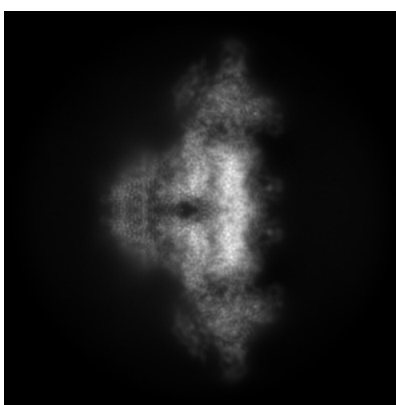
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

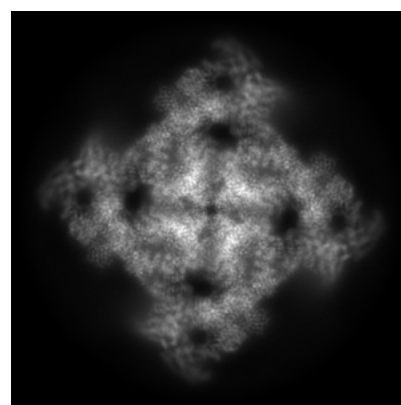
6.1.1 Primary map



X



Y

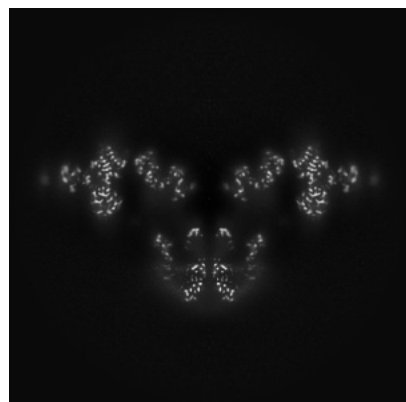


Z

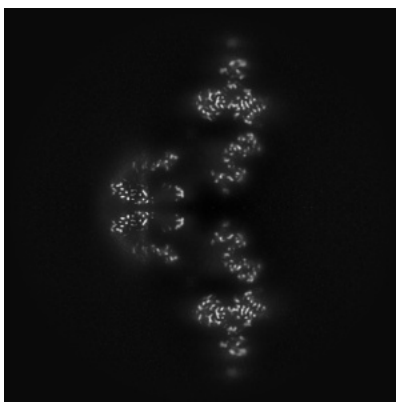
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

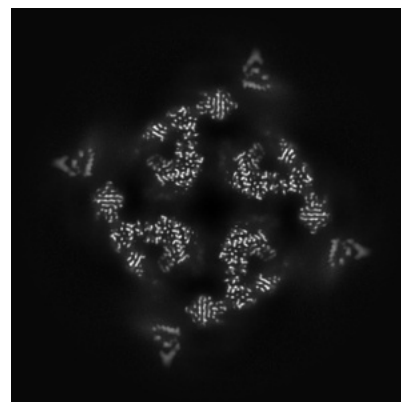
6.2.1 Primary map



X Index: 256



Y Index: 256

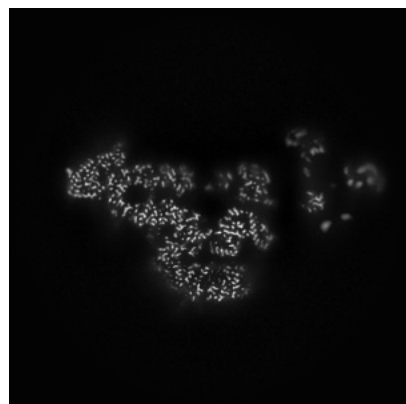


Z Index: 256

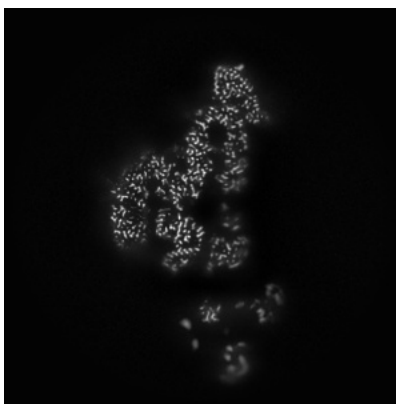
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

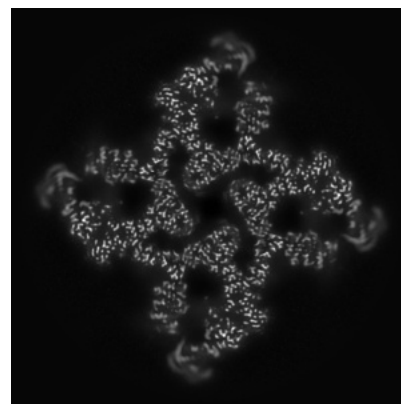
6.3.1 Primary map



X Index: 279



Y Index: 279

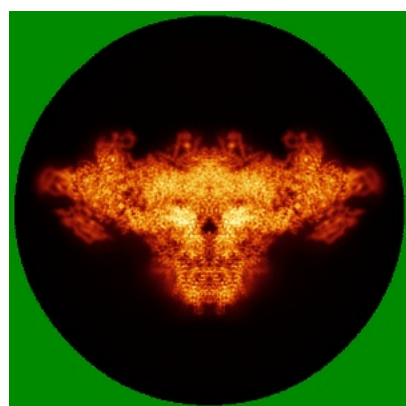


Z Index: 290

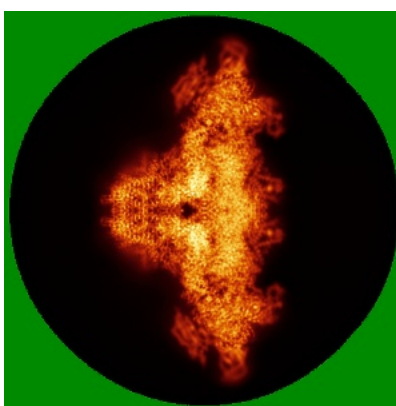
The images above show the largest variance slices of the map in three orthogonal directions.

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

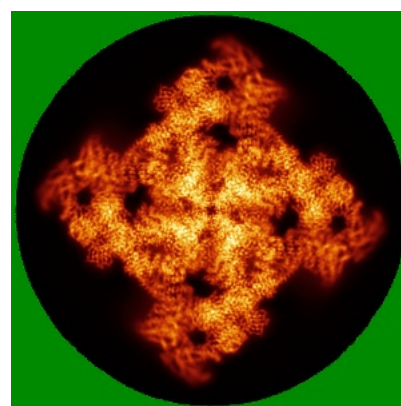
6.4.1 Primary map



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

This section was not generated.

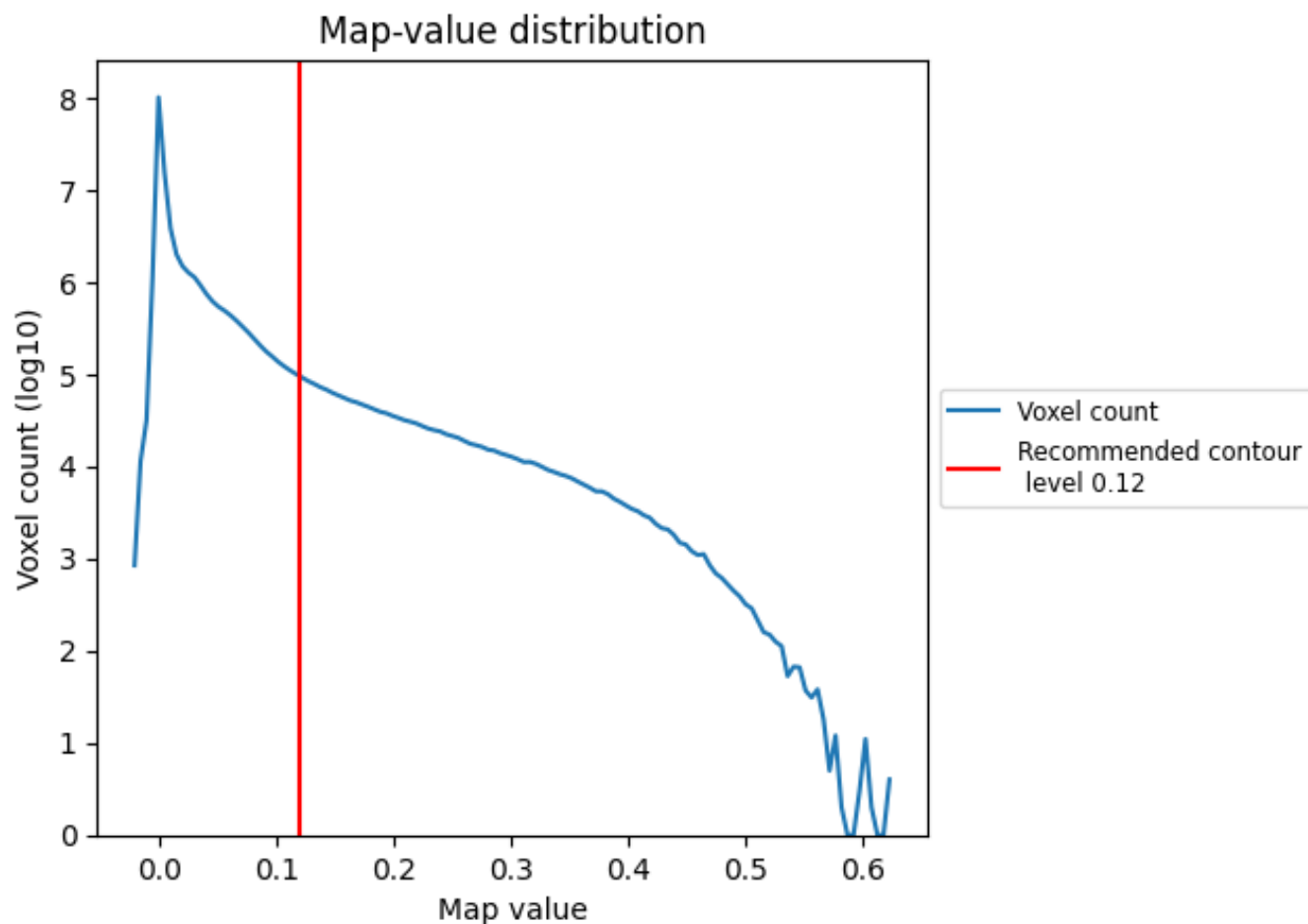
6.6 Mask visualisation

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

7 Map analysis [i](#)

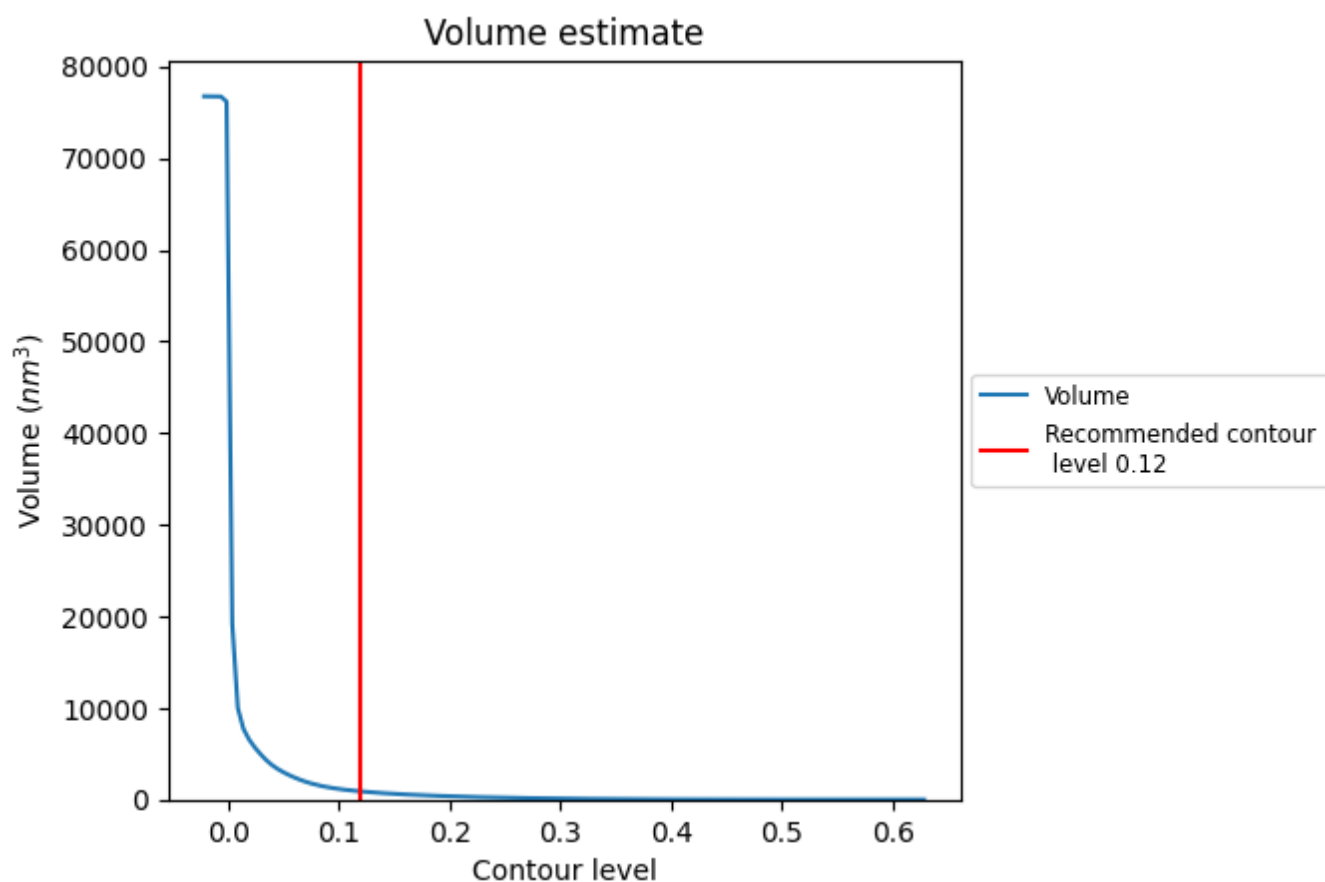
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

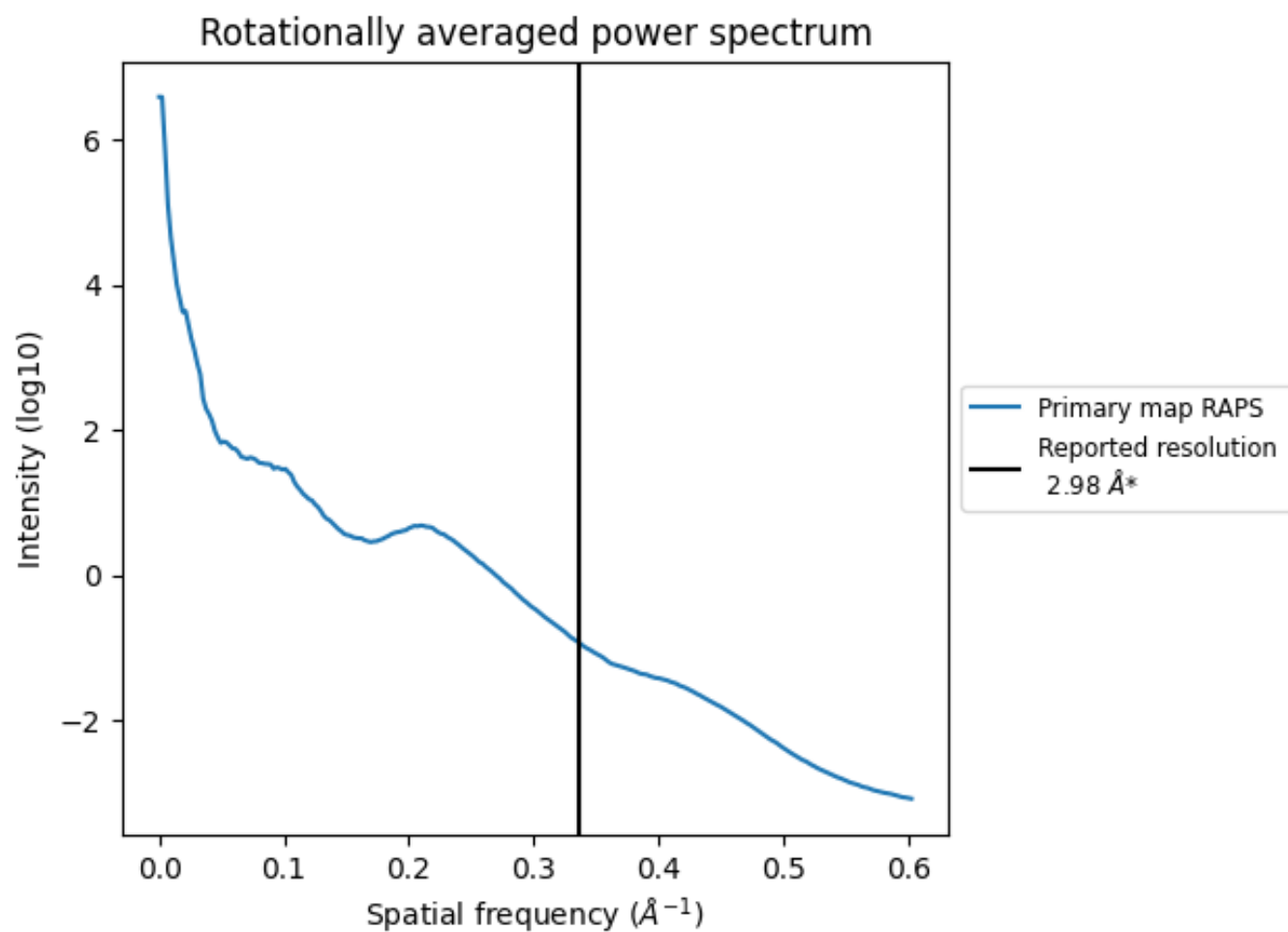
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 891 nm^3 ; this corresponds to an approximate mass of 805 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.336 Å⁻¹

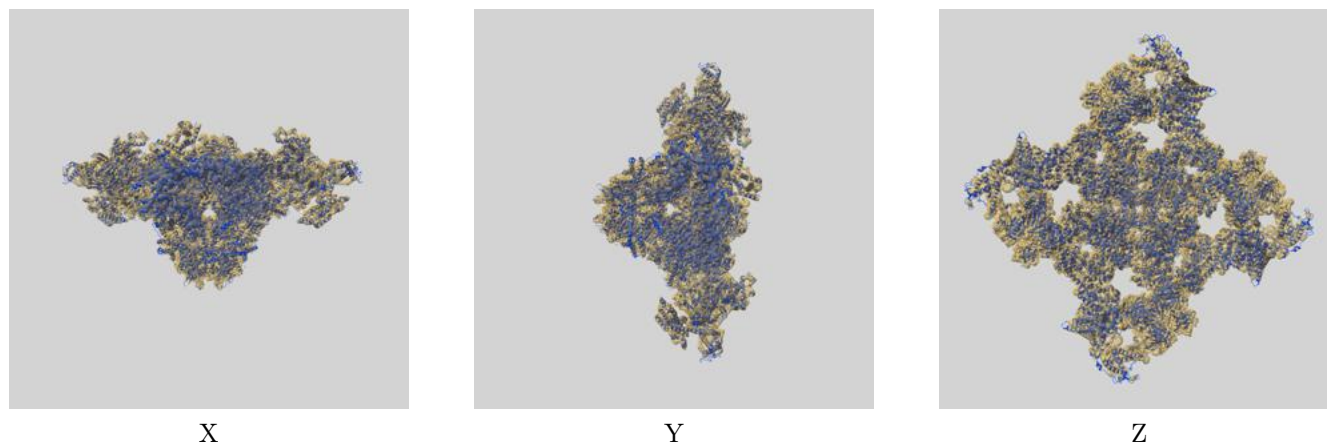
8 Fourier-Shell correlation ⓘ

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

9 Map-model fit [i](#)

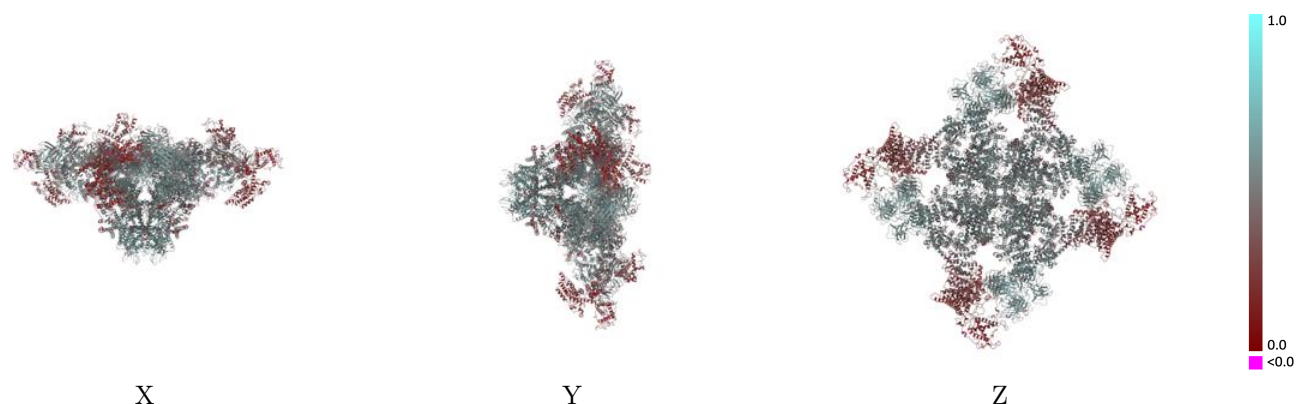
This section contains information regarding the fit between EMDB map EMD-42458 and PDB model 8UQ2. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay [i](#)



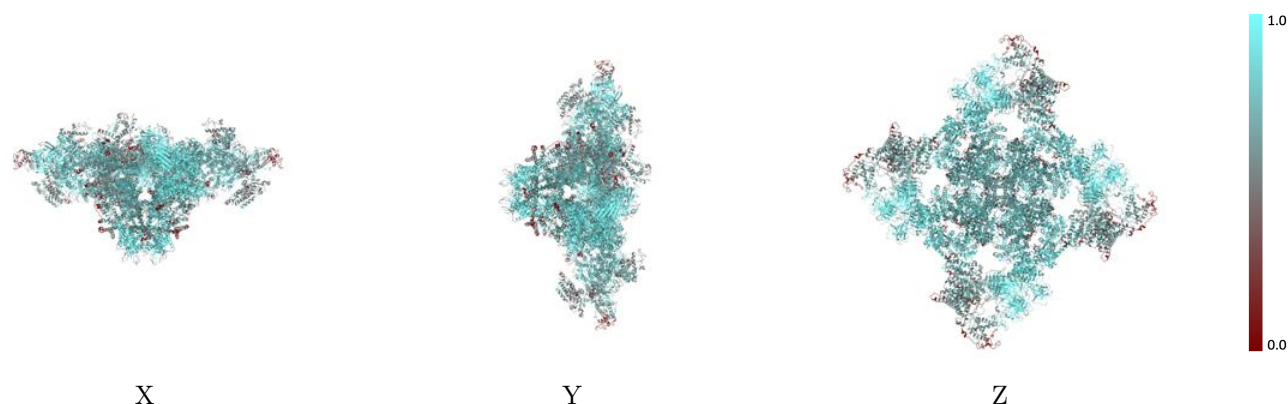
The images above show the 3D surface view of the map at the recommended contour level 0.12 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



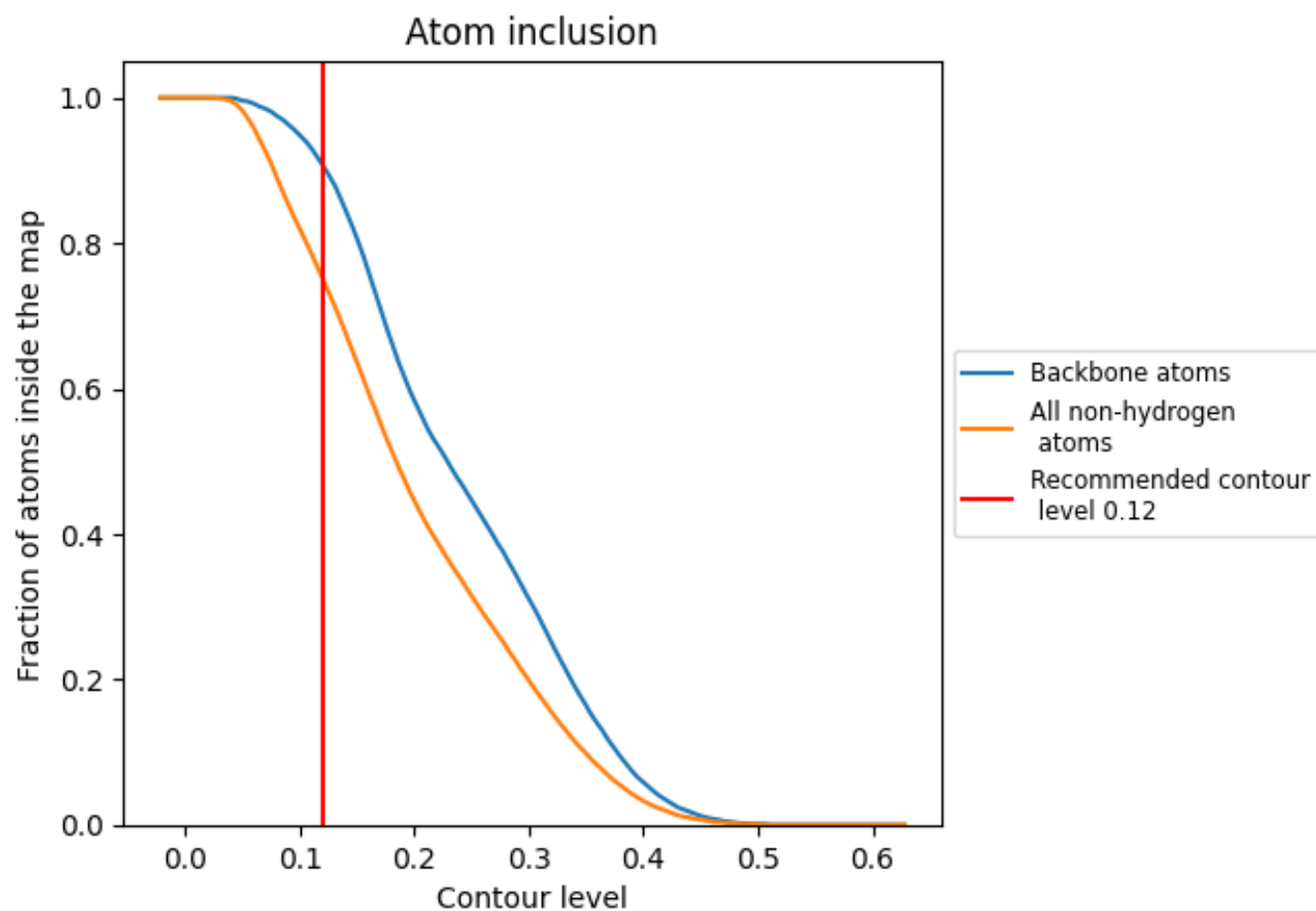
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.12).

9.4 Atom inclusion [i](#)



At the recommended contour level, 91% of all backbone atoms, 75% 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 (0.12) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7510	0.4430
A	0.7490	0.4400
B	0.7480	0.4410
C	0.7480	0.4410
D	0.7490	0.4410
E	0.8710	0.5380
F	0.8730	0.5370
G	0.8730	0.5370
H	0.8730	0.5370

1.0

0.0

<0.0